Thursday, December 10, 2009

REQUEST NUMBER: 10-881

LOS ALAMOS
NATIONAL LABORATORY

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

These Samples are on:
LANL Request Number:10-881
Per Agreement Number:126310011
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/10/2009
TURNAROUND/REPORT DUE: 1/9/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:150.1	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	

Thursday, December 10, 2009

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PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:150.1	1	CAPA-10-6901	WG	12/9/2009	
	EPA:160.1	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:245.2	1	CAPA-10-6347	WG	12/9/2009	
		1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6371	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:300.0	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:310.1	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:335.3	1	CAPA-10-6347	WG	12/9/2009	
		1	CAPA-10-6371	WG	12/9/2009	
		1	CAPA-10-6797	WG	12/9/2009	

Thursday, December 10, 2009

REQUEST NUMBER: 10-881

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:335.3	1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:350.1	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:353.2	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:365.4	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	SM:A2340B	1	CAPA-10-6347	WG	12/9/2009	
		1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6371	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	SW-846:6010B	1	CAPA-10-6347	WG	12/9/2009	
		1	CAPA-10-6349	WG	12/9/2009	

Thursday, December 10, 2009

REQUEST NUMBER: 10-881

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	CAPA-10-6371	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	SW-846:6020	1	CAPA-10-6347	WG	12/9/2009	
		1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6371	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	SW-846:6850	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	

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Thursday, December 10, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-881

REQUEST NUMBER: 10-881

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/9/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6347	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6347	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6349	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6349	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6349	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6371	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6371	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6372	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6372	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6372	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6797	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6797	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6798	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6798	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6798	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6800	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6800	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6801	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6801	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6801	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6901	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6901	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6901	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6901	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG

Relinquished By:		Date	Time	Received By:		Date	Time
		12-10-09	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6347 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1118	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-23		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH <2
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH >12
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH<2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH<2
2	NW 12/09/09	WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	

SAMPLE DESC:

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

pH	Temp °C	SC µS/cm	DO mg/L	Turb NTU	ORP mV	Q gpm
7.46	16.19	176	6.32	0.76	245.4	10

COLLECTED BY (PRINT) D. Woody, J Berryhill **REVIEWED BY (PRINT)** J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/09/09	(Printed Name) Alisa Martyn	12/09/09
(Signature) D. Woody	1530	(Signature)	1530

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6348 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/09	MEDIA:	WGR	
TIME COLLECTED (HH:MM)		1118	SUB-MEDIA:	UA	
PRS ID:	C-00-011	ok	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-23		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / (NA)		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 2	ON 12/09/09	WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH < 2

SAMPLE DESC: QC Sample of CAPA-10-6347

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D. Woody, J Berryhill **REVIEWED BY (PRINT)** J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/09/09	(Printed Name) Sherri Sherwood	12/09/09
(Signature) D. Woody	1530	(Signature) Sherri Sherwood	1530
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6349 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1118	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-23		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO (NA)		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH<2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH<2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC:

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

See CAPA-10-6347

COLLECTED BY (PRINT) D Wooly, J Berryhill

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Wooly	12/09/09	(Printed Name) Sherri Sherwood	12/09/09
(Signature) D. Wooly	1530	(Signature) Sherri Sherwood	1530
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6370 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1118	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-23		FIELD QC TYPE:	FB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
2	DW 12/09/09	WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of CAPA-10-6347

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D. Woody, J Berryhill **REVIEWED BY (PRINT)** J. Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/09/09	(Printed Name) Melissa Martin	12/09/09
(Signature) D. Woody	1530	(Signature)	1530
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6371 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1118	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-23		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO (NA)		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH < 2
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH > 12
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH < 2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH < 2
2 3	DW 12/09/04	WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	

SAMPLE DESC: QC Sample of CAPA-10-6347

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D. Wooly, J Berryhill **REVIEWED BY (PRINT)** J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Wooly	12/09/09 1530	(Printed Name) Sherri Sherwood	12/09/09 1530
(Signature) D. Wooly		(Signature) Sherri Sherwood	
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6372 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1118	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-23		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH < 2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH < 2

SAMPLE DESC: QC Sample of CAPA-10-6349

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, D. Woody

REVIEWED BY (PRINT) J. Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/09/09	(Printed Name) Sherri Sherwood	12/09/09
(Signature) D. Woody	1530	(Signature) Sherri Sherwood	1530
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6796 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/09	MEDIA:	WGR	OV
TIME COLLECTED (HH:MM)		1330	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-39		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	12/9/09	WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	

SAMPLE DESC: QC Sample of CAPA-10-6797

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D. Woody, J Berryhill **REVIEWED BY (PRINT)** J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/09/09 1530	(Printed Name) Sherri Sherwood	12/09/09 1530
(Signature) D. Woody		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6797 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1330	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-39		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / (NA)		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2 ~~3~~	1-29-09	WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
2 ~~3~~		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH <2
2 ~~3~~		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
2 ~~3~~		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH >12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	pH <2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2

SAMPLE DESC:

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH	Temp °C	SC µS/cm	D.O. mg/L	Turb NTU	ORP mV	Q gpm
7.73	21.61	145	4.92	6.02	78.6	2.75

COLLECTED BY (PRINT) J Berryhill, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/09/09	(Printed Name) Sherri Sherwood	12/09/09
(Signature) D Woody	1530	(Signature) Sherri Sherwood	1530
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6798 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1530	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	G-SI	
LOCATION ID:	R-39		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC:

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, D Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/09/09	(Printed Name) Sherri Sherwood	12/09/09
(Signature) D. Woody	1530	(Signature) Sherri Sherwood	1530
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6799 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1330	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GS1	
LOCATION ID:	R-39		FIELD QC TYPE:	FB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
1 ~~3~~	4PS 12/9/09	WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
1 ~~3~~		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
1 ~~3~~		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
1 ~~2~~		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of CAPA-10-6797

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, D Woody **REVIEWED BY (PRINT)** J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/09/09	(Printed Name) Sherri Sherwood	12/09/09
(Signature) D. Woody	1530	(Signature) Sherri Sherwood	1530
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6800 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1330	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:		
LOCATION ID:	R-39		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 ~~3~~	4/09	WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
1 ~~3~~		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH < 2
1 ~~3~~		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
1 ~~2~~		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
~~1 3~~ 2		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH >12
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH < 2
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	pH < 2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH < 2

SAMPLE DESC: QC Sample of CAPA-10-6797

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/09/09	(Printed Name) Sherri Sherwood	12/09/09
(Signature) D. Woody	1530	(Signature) Sherri Sherwood	1530
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6801 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1330	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-39		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2

SAMPLE DESC: QC Sample of CAPA-10-6798

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/09/09	(Printed Name) Sherri Sherwood	12/09/09
(Signature) D. Woody	1530	(Signature) Sherri Sherwood	1530
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6901 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/2009	MEDIA:	WGR	ok
TIME COLLECTED (HH:MM)		1015	SUB-MEDIA:	UA	
PRS ID:	C-00-011	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	R-39		FIELD QC TYPE:	PEB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
1		WSP-8082-PCB	1 LITER AMBER GLASS	Ice		
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)		
1		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice		
1		WSP-8290-D/F	1 LITER AMBER GLASS	Ice		
2		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice		
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide		pH >10
1		WSP-GrossA/B	1 LITER POLY	None		
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice		
1		WSP-LL-H-3	1 LITER POLY	None		
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid		pH<2
1		WSP-RAD	1 GAL POLY	Nitric Acid		pH<2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		pH<2
1		WSP-GENINORG	1 LITER POLY	Ice		
1		WSP-H-3	250 ML AMBER GLASS	Ice		
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		pH<2

SAMPLE DESC: QC Sample of CAPA-10-6797

SAMPLE COMMENTS: 4th full suite sample. PEB suites apply to entire watershed.

DI water from ~~TA-6~~ TA-59 12/9/09 ; resistence = 2.7 Mohm/cm

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) J. Romero

REVIEWED BY (PRINT) S. Schmeer

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) S. Schmeer (Signature)	12/9/09 15:45	(Printed Name) Alisa Martyn (Signature)	12/9/09 3:44
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-881 VALIDATION DATE: 2/12/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

None.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/12/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 2/12/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☒	☐	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☒	☐	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☒	☐	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 933094

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6349

Date Received: 11-DEC-09

GEL Job No (SDG): 10-881

GEL Sample ID: 242753002

Date Filtered: 15-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.469	ug/L		1	15-DEC-09 20:15	per1215066a
	Perchlorate Isotope Ratio			3.05			1	15-DEC-09 20:15	per1215066a
14797-73-0	Perchlorate-101	.05	.2	0.453	ug/L		1	15-DEC-09 20:15	per1215066a
	Perchlorate-O(18)			0.517	ug/L		1	15-DEC-09 20:15	per1215066a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

AMF 2/12/10

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 933094

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6372

Date Received: 11-DEC-09

GEL Job No (SDG): 10-881

GEL Sample ID: 242753004

Date Filtered: 15-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.478	ug/L		1	15-DEC-09 20:22	per1215067a
	Perchlorate Isotope Ratio			3.11			1	15-DEC-09 20:22	per1215067a
14797-73-0	Perchlorate-101	.05	.2	0.453	ug/L		1	15-DEC-09 20:22	per1215067a
	Perchlorate-O(18)			0.522	ug/L		1	15-DEC-09 20:22	per1215067a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 933094

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6798

Date Received: 11-DEC-09

GEL Job No (SDG): 10-881

GEL Sample ID: 242753006

Date Filtered: 15-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.342	ug/L		1	15-DEC-09 20:30	per1215068a
	Perchlorate Isotope Ratio			3.06			1	15-DEC-09 20:30	per1215068a
14797-73-0	Perchlorate-101	.05	.2	0.330	ug/L		1	15-DEC-09 20:30	per1215068a
	Perchlorate-O(18)			0.510	ug/L		1	15-DEC-09 20:30	per1215068a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 933094

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6801

Date Received: 11-DEC-09

GEL Job No (SDG): 10-881

GEL Sample ID: 242753008

Date Filtered: 15-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.335	ug/L		1	15-DEC-09 20:52	per1215071a
	Perchlorate Isotope Ratio			3.01			1	15-DEC-09 20:52	per1215071a
14797-73-0	Perchlorate-101	.05	.2	0.327	ug/L		1	15-DEC-09 20:52	per1215071a
	Perchlorate-O(18)			0.498	ug/L		1	15-DEC-09 20:52	per1215071a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 933094

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6901

Date Received: 11-DEC-09

GEL Job No (SDG): 10-881

GEL Sample ID: 242753009

Date Filtered: 15-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	15-DEC-09 21:00	per1215072a
	Perchlorate Isotope Ratio						1	15-DEC-09 21:00	per1215072a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	15-DEC-09 21:00	per1215072a
	Perchlorate-O(18)			0.469	ug/L		1	15-DEC-09 21:00	per1215072a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

AMF 2/12/10

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DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-881 VALIDATION DATE: 2/12/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. Sb was detected in the MB. The associated sample results were NDs and, thus, were not qualified.
2. Sb and Mo were detected in the ICB/CCBs. The associated Sb sample results and the Mo result for sample CAPA-10-6901 were NDs and, thus, were not qualified. All other associated sample results were detects >5X the greatest blank concentration and, thus, were not qualified.
3. SiO_2 was detected in PEB CAPA-10-6901, associated with samples -6797, -6798, -6800, and -6801. The associated SiO_2 sample results were detects >5X the PEB concentration and, thus, were not qualified.
4. Some results for the filtered samples were slightly > the corresponding results for the unfiltered samples. No sample data were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/12/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 2/12/10

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

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Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☐	☒	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☐	☒	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

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Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753001 **CLIENT ID:** CAPA-10-6347

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	122409W1-10
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	122009A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100102-3
7440-39-3	Barium	21.9	ug/L			P	1	1	OPTIMA3	122009A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	122009A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100102-3
7440-70-2	Calcium	16100	ug/L			P	50	1	OPTIMA3	122009A-1
7440-47-3	Chromium	3.87	ug/L	J		MS	2.5	1	ICPMS5	100102-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	122009A-1
7439-89-6	Iron	32.8	ug/L	J		P	30	1	OPTIMA3	122009A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7439-95-4	Magnesium	4020	ug/L			P	85	1	OPTIMA3	122009A-1
7439-96-5	Manganese	34.6	ug/L			P	2	1	OPTIMA3	122009A-1
7439-98-7	Molybdenum	1.61	ug/L			MS	0.1	1	ICPMS5	100102-3
7440-02-0	Nickel	0.981	ug/L	J		MS	0.5	1	ICPMS5	100102-3
7440-09-7	Potassium	1760	ug/L			P	50	1	OPTIMA3	122009A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100102-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100102-3
7440-23-5	Sodium	11400	ug/L			P	100	1	OPTIMA3	122009A-1
7440-24-6	Strontium	79.1	ug/L			P	1	1	OPTIMA3	122009A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100103-9
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	122909A-2
7440-61-1	Uranium	0.52	ug/L			MS	0.05	1	ICPMS5	100102-8

AMF
2/12/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753001 **CLIENT ID:** CAPA-10-6347

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	6.08	ug/L			P	1	1	OPTIMA3	122009A-1
7440-66-6	Zinc	3.3	ug/L	U		P	3.3	1	OPTIMA3	122009A-1
	Hardness as CaCO3	56.7	mg/L				0.35	1	CALC001	

AMF
2/12/10
EPA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753002 **CLIENT ID:** CAPA-10-6349

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	122409W1-10
7631-86-9	Silica	61.8	mg/L			P	0.053	1	OPTIMA3	122009A-1
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	122009A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100102-3
7440-39-3	Barium	20.6	ug/L			P	1	1	OPTIMA3	122009A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	122009A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100102-3
7440-70-2	Calcium	16200	ug/L			P	50	1	OPTIMA3	122009A-1
7440-47-3	Chromium	3.09	ug/L	J		MS	2.5	1	ICPMS5	100102-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	122009A-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA3	122009A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7439-95-4	Magnesium	4120	ug/L			P	85	1	OPTIMA3	122009A-1
7439-96-5	Manganese	2	ug/L	U		P	2	1	OPTIMA3	122009A-1
7439-98-7	Molybdenum	1.58	ug/L			MS	0.1	1	ICPMS5	100102-3
7440-02-0	Nickel	0.536	ug/L	J		MS	0.5	1	ICPMS5	100102-3
7440-09-7	Potassium	1780	ug/L			P	50	1	OPTIMA3	122009A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100102-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100102-3
7440-23-5	Sodium	10700	ug/L			P	100	1	OPTIMA3	122009A-1
7440-24-6	Strontium	77.6	ug/L			P	1	1	OPTIMA3	122009A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100103-9
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	122909A-2

AMF
2/12/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753002 **CLIENT ID:** CAPA-10-6349

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	0.492	ug/L			MS	0.05	1	ICPMS5	100102-8
7440-62-2	Vanadium	6.23	ug/L			P	1	1	OPTIMA3	122009A-1
7440-66-6	Zinc	3.3	ug/L	U		P	3.3	1	OPTIMA3	122009A-1
	Hardness as CaCO3	57.5	mg/L				0.35	1	CALC001	

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753003 **CLIENT ID:** CAPA-10-6371

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	122409W1-10
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	122009A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100102-3
7440-39-3	Barium	22.4	ug/L			P	1	1	OPTIMA3	122009A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	122009A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100102-3
7440-70-2	Calcium	16500	ug/L			P	50	1	OPTIMA3	122009A-1
7440-47-3	Chromium	4.21	ug/L	J		MS	2.5	1	ICPMS5	100102-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	122009A-1
7439-89-6	Iron	74.9	ug/L	J		P	30	1	OPTIMA3	122009A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7439-95-4	Magnesium	4130	ug/L			P	85	1	OPTIMA3	122009A-1
7439-96-5	Manganese	39.8	ug/L			P	2	1	OPTIMA3	122009A-1
7439-98-7	Molybdenum	1.55	ug/L			MS	0.1	1	ICPMS5	100102-3
7440-02-0	Nickel	1.24	ug/L	J		MS	0.5	1	ICPMS5	100102-3
7440-09-7	Potassium	1780	ug/L			P	50	1	OPTIMA3	122009A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100102-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100102-3
7440-23-5	Sodium	11800	ug/L			P	100	1	OPTIMA3	122009A-1
7440-24-6	Strontium	81.4	ug/L			P	1	1	OPTIMA3	122009A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100103-9
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	122909A-2
7440-61-1	Uranium	0.5	ug/L			MS	0.05	1	ICPMS5	100102-8

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753003 **CLIENT ID:** CAPA-10-6371

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	6.22	ug/L			P	1	1	OPTIMA3	122009A-1
7440-66-6	Zinc	3.3	ug/L	U		P	3.3	1	OPTIMA3	122009A-1
	Hardness as CaCO3	58.1	mg/L				0.35	1	CALC001	

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753004 **CLIENT ID:** CAPA-10-6372

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	122409W1-10
7631-86-9	Silica	61.3	mg/L			P	0.053	1	OPTIMA3	122009A-1
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	122009A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100102-3
7440-39-3	Barium	20.5	ug/L			P	1	1	OPTIMA3	122009A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	122009A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100102-3
7440-70-2	Calcium	15900	ug/L			P	50	1	OPTIMA3	122009A-1
7440-47-3	Chromium	2.88	ug/L	J		MS	2.5	1	ICPMS5	100102-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	122009A-1
7439-89-6	Iron	32.1	ug/L	J		P	30	1	OPTIMA3	122009A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7439-95-4	Magnesium	4100	ug/L			P	85	1	OPTIMA3	122009A-1
7439-96-5	Manganese	2	ug/L	U		P	2	1	OPTIMA3	122009A-1
7439-98-7	Molybdenum	1.58	ug/L			MS	0.1	1	ICPMS5	100102-3
7440-02-0	Nickel	0.583	ug/L	J		MS	0.5	1	ICPMS5	100102-3
7440-09-7	Potassium	1740	ug/L			P	50	1	OPTIMA3	122009A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100102-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100102-3
7440-23-5	Sodium	11300	ug/L			P	100	1	OPTIMA3	122009A-1
7440-24-6	Strontium	78.4	ug/L			P	1	1	OPTIMA3	122009A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100103-9
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	122909A-2

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753004 **CLIENT ID:** CAPA-10-6372

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	0.509	ug/L			MS	0.05	1	ICPMS5	100102-8
7440-62-2	Vanadium	6.2	ug/L			P	1	1	OPTIMA3	122009A-1
7440-66-6	Zinc	3.3	ug/L	U		P	3.3	1	OPTIMA3	122009A-1
	Hardness as CaCO3	56.5	mg/L				0.35	1	CALC001	

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753005 **CLIENT ID:** CAPA-10-6797

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	122409W1-10
7429-90-5	Aluminum	187	ug/L	J		P	68	1	OPTIMA3	122009A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100102-3
7440-39-3	Barium	17.9	ug/L			P	1	1	OPTIMA3	122009A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	122009A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100102-3
7440-70-2	Calcium	12600	ug/L			P	50	1	OPTIMA3	122009A-1
7440-47-3	Chromium	3.21	ug/L	J		MS	2.5	1	ICPMS5	100102-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	122009A-1
7439-89-6	Iron	158	ug/L			P	30	1	OPTIMA3	122009A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7439-95-4	Magnesium	3490	ug/L			P	85	1	OPTIMA3	122009A-1
7439-96-5	Manganese	9.82	ug/L	J		P	2	1	OPTIMA3	122009A-1
7439-98-7	Molybdenum	1.43	ug/L			MS	0.1	1	ICPMS5	100102-3
7440-02-0	Nickel	1.01	ug/L	J		MS	0.5	1	ICPMS5	100102-3
7440-09-7	Potassium	1400	ug/L			P	50	1	OPTIMA3	122009A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100102-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100102-3
7440-23-5	Sodium	10800	ug/L			P	100	1	OPTIMA3	122009A-1
7440-24-6	Strontium	55.7	ug/L			P	1	1	OPTIMA3	122009A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100103-9
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	122909A-2
7440-61-1	Uranium	0.451	ug/L			MS	0.05	1	ICPMS5	100102-8

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753005 **CLIENT ID:** CAPA-10-6797

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	5.33	ug/L			P	1	1	OPTIMA3	122009A-1
7440-66-6	Zinc	20.1	ug/L			P	3.3	1	OPTIMA3	122009A-1
	Hardness as CaCO3	45.8	mg/L				0.35	1	CALC001	

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753006 **CLIENT ID:** CAPA-10-6798

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	122409W1-10
7631-86-9	Silica	65.3	mg/L			P	0.053	1	OPTIMA3	122009A-1
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	122009A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100102-3
7440-39-3	Barium	15.7	ug/L			P	1	1	OPTIMA3	122009A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	122009A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100102-3
7440-70-2	Calcium	11700	ug/L			P	50	1	OPTIMA3	122009A-1
7440-47-3	Chromium	2.73	ug/L	J		MS	2.5	1	ICPMS5	100102-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	122009A-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA3	122009A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7439-95-4	Magnesium	3320	ug/L			P	85	1	OPTIMA3	122009A-1
7439-96-5	Manganese	2	ug/L	U		P	2	1	OPTIMA3	122009A-1
7439-98-7	Molybdenum	1.83	ug/L			MS	0.1	1	ICPMS5	100102-3
7440-02-0	Nickel	0.754	ug/L	J		MS	0.5	1	ICPMS5	100102-3
7440-09-7	Potassium	1310	ug/L			P	50	1	OPTIMA3	122009A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100102-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100102-3
7440-23-5	Sodium	10700	ug/L			P	100	1	OPTIMA3	122009A-1
7440-24-6	Strontium	52.5	ug/L			P	1	1	OPTIMA3	122009A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100103-9
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	122909A-2

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753006 **CLIENT ID:** CAPA-10-6798

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	0.408	ug/L			MS	0.05	1	ICPMS5	100102-8
7440-62-2	Vanadium	4.83	ug/L	J		P	1	1	OPTIMA3	122009A-1
7440-66-6	Zinc	3.53	ug/L	J		P	3.3	1	OPTIMA3	122009A-1
	Hardness as CaCO3	42.9	mg/L				0.35	1	CALC001	

AMF
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EPA

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753007 **CLIENT ID:** CAPA-10-6800

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	122409W1-10
7429-90-5	Aluminum	157	ug/L	J		P	68	1	OPTIMA3	122009A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100102-3
7440-39-3	Barium	17.6	ug/L			P	1	1	OPTIMA3	122009A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	122009A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100102-3
7440-70-2	Calcium	12400	ug/L			P	50	1	OPTIMA3	122009A-1
7440-47-3	Chromium	2.75	ug/L	J		MS	2.5	1	ICPMS5	100102-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	122009A-1
7439-89-6	Iron	127	ug/L			P	30	1	OPTIMA3	122009A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7439-95-4	Magnesium	3590	ug/L			P	85	1	OPTIMA3	122009A-1
7439-96-5	Manganese	6.94	ug/L	J		P	2	1	OPTIMA3	122009A-1
7439-98-7	Molybdenum	1.61	ug/L			MS	0.1	1	ICPMS5	100102-3
7440-02-0	Nickel	0.904	ug/L	J		MS	0.5	1	ICPMS5	100102-3
7440-09-7	Potassium	1400	ug/L			P	50	1	OPTIMA3	122009A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100102-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100102-3
7440-23-5	Sodium	10900	ug/L			P	100	1	OPTIMA3	122009A-1
7440-24-6	Strontium	55.2	ug/L			P	1	1	OPTIMA3	122009A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100103-9
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	122909A-2
7440-61-1	Uranium	0.458	ug/L			MS	0.05	1	ICPMS5	100102-8

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EPA

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753007 **CLIENT ID:** CAPA-10-6800

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	5.13	ug/L			P	1	1	OPTIMA3	122009A-1
7440-66-6	Zinc	15.4	ug/L			P	3.3	1	OPTIMA3	122009A-1
	Hardness as CaCO3	45.8	mg/L				0.35	1	CALC001	

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EPA

METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753008 **CLIENT ID:** CAPA-10-6801

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	122409W1-10
7631-86-9	Silica	67.6	mg/L			P	0.053	1	OPTIMA3	122009A-1
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	122009A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100102-3
7440-39-3	Barium	16.2	ug/L			P	1	1	OPTIMA3	122009A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	122009A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100102-3
7440-70-2	Calcium	12200	ug/L			P	50	1	OPTIMA3	122009A-1
7440-47-3	Chromium	2.54	ug/L	J		MS	2.5	1	ICPMS5	100102-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	122009A-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA3	122009A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7439-95-4	Magnesium	3460	ug/L			P	85	1	OPTIMA3	122009A-1
7439-96-5	Manganese	2	ug/L	U		P	2	1	OPTIMA3	122009A-1
7439-98-7	Molybdenum	1.82	ug/L			MS	0.1	1	ICPMS5	100102-3
7440-02-0	Nickel	0.751	ug/L	J		MS	0.5	1	ICPMS5	100102-3
7440-09-7	Potassium	1350	ug/L			P	50	1	OPTIMA3	122009A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100102-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100102-3
7440-23-5	Sodium	11400	ug/L			P	100	1	OPTIMA3	122009A-1
7440-24-6	Strontium	54.9	ug/L			P	1	1	OPTIMA3	122009A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100103-9
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	122909A-2

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2/12/10

EPA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753008 **CLIENT ID:** CAPA-10-6801

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	0.413	ug/L			MS	0.05	1	ICPMS5	100102-8
7440-62-2	Vanadium	4.95	ug/L	J		P	1	1	OPTIMA3	122009A-1
7440-66-6	Zinc	3.5	ug/L	J		P	3.3	1	OPTIMA3	122009A-1
	Hardness as CaCO3	44.8	mg/L				0.35	1	CALC001	

AMF
2/12/10
EPA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753009 **CLIENT ID:** CAPA-10-6901

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	122409W1-10
7631-86-9	Silica	6.47	mg/L			P	0.053	1	OPTIMA3	122009A-1
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	122009A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100102-3
7440-39-3	Barium	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	122009A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100102-3
7440-70-2	Calcium	50	ug/L	U		P	50	1	OPTIMA3	122009A-1
7440-47-3	Chromium	2.5	ug/L	U		MS	2.5	1	ICPMS5	100102-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	122009A-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA3	122009A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7439-95-4	Magnesium	85	ug/L	U		P	85	1	OPTIMA3	122009A-1
7439-96-5	Manganese	2	ug/L	U		P	2	1	OPTIMA3	122009A-1
7439-98-7	Molybdenum	0.1	ug/L	U		MS	0.1	1	ICPMS5	100102-3
7440-02-0	Nickel	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7440-09-7	Potassium	50	ug/L	U		P	50	1	OPTIMA3	122009A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100102-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100102-3
7440-23-5	Sodium	100	ug/L	U		P	100	1	OPTIMA3	122009A-1
7440-24-6	Strontium	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100103-9
7440-31-5	Tin	2.5	ug/L	U		P	2.5	1	OPTIMA3	122009A-1

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2/12/10
EPA

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753009 **CLIENT ID:** CAPA-10-6901

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	0.05	ug/L	U		MS	0.05	1	ICPMS5	100102-8
7440-62-2	Vanadium	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-66-6	Zinc	3.3	ug/L	U		P	3.3	1	OPTIMA3	122009A-1
	Hardness as CaCO3	0.35	mg/L	U			0.35	1	CALC001	

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DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-881 VALIDATION DATE: 2/12/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. Ammonia as nitrogen and Total P were detected in the MBs. The associated sample results were detects ≤5X the MB concentrations and, thus, were qualified U,I4.
2. Total P was detected in the ICB/CCBs. The associated sample results were detects ≤5X the greatest blank concentration and, thus, were qualified U,I4b.
3. Chloride (Cl^-) was detected in PEB CAPA-10-6901, associated with samples -6797, -6798, -6800, and -6801. The associated field sample results for Cl^- were detects >5X the PEB concentration and, thus, were not qualified.
4. The MS %R for ammonia as nitrogen was < the laboratory LAL but ≥10%. The associated sample results were qualified NDs and, thus, were qualified UJ,I6a.
5. The analysis of pH was performed >2X past the method specified HT. The associated sample results were qualified J-,I9a, based on professional judgment. The analysis of Cl^-, F^-, Br^-, and SO_4^- by ion chromatography (IC) was performed beyond the HT but within 2X the HT. All associated Br^- sample results and the F^- and SO_4^- results for sample -6901 were NDs and, thus, were qualified UJ,I9. All other associated sample results were detects and, thus, were qualified J-,I9.
6. It should be noted that all matrix QC analyses except those for specific conductance were performed on LANL samples from other RNs. No sample data were qualified. Some analyses included multiple matrix QC samples. For each batch, the QC sample most comparable to the matrix of this RN was selected for data validation purposes, and the extraneous QC samples were not evaluated.

DATA VALIDATION COVER SHEET

5120-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Reviewed by: Monica Dymerski **Level I** **Date:** 02/12/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 2/12/10

Form 5120-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☒	☐	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☒	☐	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☒	☐	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 8, 2010

Client SDG: 10-881

Client Sample ID:	CAPA-10-6347	Project:	ESHL01000
Sample ID:	242753001	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
EPA 335.4 Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/16/09	1008	932519	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	SXJ1	12/15/09	1230	932518

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

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2/12/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 8, 2010

Client SDG: 10-881

Client Sample ID: CAPA-10-6349
Sample ID: 242753002
Matrix: Ground Water
Collect Date: 09-DEC-09 12:00
Receive Date: 11-DEC-09
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Conductivity Analysis												
EPA120.1 Specific Conductivity "As Received"												
Conductivity		162		1.00	1.00	umhos/cm	1	TXT1	12/15/09	1539	932677	1
Electrode Analysis												
EPA 150.1 pH Federal "As Received"												
pH at Temp 17.5C	H	8.09	J-,I9a	0.010	0.100	SU	1	TXT1	12/14/09	1451	932671	2
Ion Chromatography												
EPA 300.0 Anions Liquid 28 day "As Received"												
Bromide	HU	ND	UJ,I9	0.066	0.200	mg/L	1	GXM	01/07/10	1620	933095	3
Chloride	H	3.58	J-,I9	0.066	0.200	mg/L	1					
Fluoride	H	0.302		0.033	0.100	mg/L	1					
Sulfate	H	5.40		0.100	0.400	mg/L	1					
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia L "As Received"												
Nitrogen, Ammonia	J	0.039	U,I4	0.016	0.050	mg/L	1	AXH3	12/15/09	1545	932507	4
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite		1.11		0.050	0.250	mg/L	5	AXH3	12/14/09	1144	931707	5
EPA 365.4 Phosphorus, Total in "As Received"												
Phosphorus, Total as P	J	0.045	U,I4	0.015	0.050	mg/L	1	AXH3	12/15/09	1020	932509	6
Solids Analysis												
EPA 160.1 Solids, Dissolved-F "As Received"												
Total Dissolved Solids		132		2.38	10.0	mg/L		SDS	12/14/09	1254	932499	7
Titration Analysis												
EPA 310.1 Total Alkalinity Federal "As Received"												
Alkalinity, Total as CaCO3		64.4		0.725	1.00	mg/L		LXA1	12/16/09	1602	933783	8
Carbonate alkalinity (CaCO3)	U	ND		0.725	1.00	mg/L						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	EXF1	12/15/09	1510	932506
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	AXH3	12/14/09	1121	932508

The following Analytical Methods were performed

Method	Description	Analyst Comments

AMF
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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 8, 2010

Client SDG: 10-881

Client Sample ID:	CAPA-10-6371	Project:	ESHL01000
Sample ID:	242753003	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
EPA 335.4 Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/16/09	1009	932519	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	SXJ1	12/15/09	1230	932518

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

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2/12/10

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Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 8, 2010

Client SDG: 10-881

Client Sample ID: CAPA-10-6372
Sample ID: 242753004
Matrix: Ground Water
Collect Date: 09-DEC-09 12:00
Receive Date: 11-DEC-09
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Conductivity Analysis												
EPA120.1 Specific Conductivity "As Received"												
Conductivity		161		1.00	1.00	umhos/cm	1	TXT1	12/15/09	1539	932677	1
Electrode Analysis												
EPA 150.1 pH Federal "As Received"												
pH at Temp 17.4C	H	8.09	J-,I9a	0.010	0.100	SU	1	TXT1	12/14/09	1453	932671	2
Ion Chromatography												
EPA 300.0 Anions Liquid 28 day "As Received"												
Bromide	HU	ND	UJ,I9	0.066	0.200	mg/L	1	GXM 3	01/07/10	1650	933095	3
Chloride	H	3.61	J-,I9	0.066	0.200	mg/L	1					
Fluoride	H	0.290		0.033	0.100	mg/L	1					
Sulfate	H	5.39		0.100	0.400	mg/L	1					
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia L "As Received"												
Nitrogen, Ammonia	J	0.027	U,I4	0.016	0.050	mg/L	1	AXH3	12/15/09	1546	932507	4
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite		1.11		0.050	0.250	mg/L	5	AXH3	12/14/09	1146	931707	5
EPA 365.4 Phosphorus, Total in "As Received"												
Phosphorus, Total as P		0.071	U,I4	0.015	0.050	mg/L	1	AXH3	12/15/09	1025	932509	6
Solids Analysis												
EPA 160.1 Solids, Dissolved-F "As Received"												
Total Dissolved Solids		138		2.38	10.0	mg/L		SDS	12/14/09	1254	932499	7
Titration Analysis												
EPA 310.1 Total Alkalinity Federal "As Received"												
Alkalinity, Total as CaCO3		64.9		0.725	1.00	mg/L		LXA1	12/16/09	1610	933783	8
Carbonate alkalinity (CaCO3)	U	ND		0.725	1.00	mg/L						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	EXF1	12/15/09	1510	932506
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	AXH3	12/14/09	1121	932508

The following Analytical Methods were performed

Method	Description	Analyst Comments

AMF
2/12/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 8, 2010

Client SDG: 10-881

Client Sample ID:	CAPA-10-6797	Project:	ESHL01000
Sample ID:	242753005	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
EPA 335.4 Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/16/09	1010	932519	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	SXJ1	12/15/09	1230	932518

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

AMF
2/12/10

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 8, 2010

Client SDG: 10-881

Client Sample ID: CAPA-10-6798
Sample ID: 242753006
Matrix: Ground Water
Collect Date: 09-DEC-09 12:00
Receive Date: 11-DEC-09
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Conductivity Analysis											
EPA120.1 Specific Conductivity "As Received"											
Conductivity		132		1.00	1.00	umhos/cm	1	TXT1 12/15/09	1540	932677	1
Electrode Analysis											
EPA 150.1 pH Federal "As Received"											
pH at Temp 17.6C	H	8.08	J-,I9a	0.010	0.100	SU	1	TXT1 12/14/09	1455	932671	2
Ion Chromatography											
EPA 300.0 Anions Liquid 28 day "As Received"											
Bromide	HU	ND	UJ,I9	0.066	0.200	mg/L	1	GXM 01/07/10	1720	933095	3
								3			
Chloride	H	2.22	J-,I9	0.066	0.200	mg/L	1				
Fluoride	H	0.232		0.033	0.100	mg/L	1				
Sulfate	H	3.23		0.100	0.400	mg/L	1				
Nutrient Analysis											
EPA 350.1 Nitrogen, Ammonia L "As Received"											
Nitrogen, Ammonia	J	0.046	U,I4	0.016	0.050	mg/L	1	AXH3 12/15/09	1546	932507	4
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"											
Nitrogen, Nitrate/Nitrite		0.585		0.050	0.250	mg/L	5	AXH3 12/14/09	1147	931707	5
EPA 365.4 Phosphorus, Total in "As Received"											
Phosphorus, Total as P		0.066	U,I4	0.015	0.050	mg/L	1	AXH3 12/15/09	1037	932509	6
Solids Analysis											
EPA 160.1 Solids, Dissolved-F "As Received"											
Total Dissolved Solids		112		2.38	10.0	mg/L		SDS 12/14/09	1254	932499	7
Titration Analysis											
EPA 310.1 Total Alkalinity Federal "As Received"											
Alkalinity, Total as CaCO3		58.4		0.725	1.00	mg/L		LXA1 12/16/09	1621	933783	8
Carbonate alkalinity (CaCO3)	U	ND		0.725	1.00	mg/L					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	EXF1	12/15/09	1510	932506
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	AXH3	12/14/09	1121	932508

The following Analytical Methods were performed

Method	Description	Analyst Comments

AMF
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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 8, 2010

Client SDG: 10-881

Client Sample ID:	CAPA-10-6800	Project:	ESHL01000
Sample ID:	242753007	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
EPA 335.4 Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/16/09	1011	932519	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	SXJ1	12/15/09	1230	932518

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

AMF
2/12/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 8, 2010

Client SDG: 10-881

Client Sample ID: CAPA-10-6801
Sample ID: 242753008
Matrix: Ground Water
Collect Date: 09-DEC-09 12:00
Receive Date: 11-DEC-09
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Conductivity Analysis												
EPA120.1 Specific Conductivity "As Received"												
Conductivity		132		1.00	1.00	umhos/cm	1	TXT1	12/15/09	1540	932677	1
Electrode Analysis												
EPA 150.1 pH Federal "As Received"												
pH at Temp 16.8C	H	8.10	J-,I9a	0.010	0.100	SU	1	TXT1	12/14/09	1457	932671	2
Ion Chromatography												
EPA 300.0 Anions Liquid 28 day "As Received"												
Bromide	HU	ND	UJ,I9	0.066	0.200	mg/L	1	GXM	01/07/10	1750	933095	3
Chloride	H	2.20	J-,I9	0.066	0.200	mg/L	1					
Fluoride	H	0.237		0.033	0.100	mg/L	1					
Sulfate	H	3.18		0.100	0.400	mg/L	1					
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia L "As Received"												
Nitrogen, Ammonia	J	0.024	U,I4	0.016	0.050	mg/L	1	AXH3	12/15/09	1547	932507	4
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite		0.580		0.050	0.250	mg/L	5	AXH3	12/14/09	1148	931707	5
EPA 365.4 Phosphorus, Total in "As Received"												
Phosphorus, Total as P		0.053	U,I4	0.015	0.050	mg/L	1	AXH3	12/15/09	1027	932509	6
Solids Analysis												
EPA 160.1 Solids, Dissolved-F "As Received"												
Total Dissolved Solids		115		2.38	10.0	mg/L		SDS	12/14/09	1254	932499	7
Titration Analysis												
EPA 310.1 Total Alkalinity Federal "As Received"												
Alkalinity, Total as CaCO3		57.4		0.725	1.00	mg/L		LXA1	12/16/09	1635	933783	8
Carbonate alkalinity (CaCO3)	U	ND		0.725	1.00	mg/L						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	EXF1	12/15/09	1510	932506
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	AXH3	12/14/09	1121	932508

The following Analytical Methods were performed

Method	Description	Analyst Comments

AMF
2/12/10

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 8, 2010

Client SDG: 10-881

Client Sample ID: CAPA-10-6901
Sample ID: 242753009
Matrix: Ground Water
Collect Date: 09-DEC-09 12:00
Receive Date: 11-DEC-09
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Conductivity Analysis												
EPA120.1 Specific Conductivity "As Received"												
Conductivity		1.23		1.00	1.00	umhos/cm	1	TXT1	12/15/09	1541	932677	1
Electrode Analysis												
EPA 150.1 pH Federal "As Received"												
pH at Temp 17.3C	H	5.86	J-,I9a	0.010	0.100	SU	1	TXT1	12/14/09	1458	932671	2
Flow Injection Analysis												
EPA 335.4 Cyanide, Total "As Received"												
Cyanide, Total	U	ND		1.66	5.00	ug/L	1	AXC2	12/16/09	1012	932519	3
Ion Chromatography												
EPA 300.0 Anions Liquid 28 day "As Received"												
Bromide	HU	ND	UJ,I9	0.066	0.200	mg/L	1	GXM 3	01/07/10	1820	933095	4
Chloride	HJ	0.107	J-,I9	0.066	0.200	mg/L	1					
Fluoride	HU	ND	UJ,I9	0.033	0.100	mg/L	1					
Sulfate	HU	ND	UJ,I9	0.100	0.400	mg/L	1					
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia L "As Received"												
Nitrogen, Ammonia	J	0.020	U,I4	0.016	0.050	mg/L	1	AXH3	12/15/09	1548	932507	5
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	U	ND		0.050	0.250	mg/L	5	AXH3	12/14/09	1149	931707	6
EPA 365.4 Phosphorus, Total in "As Received"												
Phosphorus, Total as P	J	0.049	U,I4	0.015	0.050	mg/L	1	AXH3	12/15/09	1027	932509	7
Solids Analysis												
EPA 160.1 Solids, Dissolved-F "As Received"												
Total Dissolved Solids	U	ND		2.38	10.0	mg/L		SDS	12/14/09	1254	932499	8
Titration Analysis												
EPA 310.1 Total Alkalinity Federal "As Received"												
Alkalinity, Total as CaCO3		1.50		0.725	1.00	mg/L		LXA1	12/16/09	1700	933783	9
Carbonate alkalinity (CaCO3)	U	ND		0.725	1.00	mg/L						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	SXJ1	12/15/09	1230	932518
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	EXF1	12/15/09	1510	932506
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	AXH3	12/14/09	1121	932508

AMF
2/12/10

Thursday, December 10, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-881

REQUEST NUMBER: 10-881

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 1/9/2010

TURNAROUND REQ'D: 30

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS: 042753'/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6347	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6347	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6349	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6349	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6349	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6371	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6371	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6372	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6372	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6372	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6797	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6797	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6798	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6798	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6798	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6800	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6800	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6801	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6801	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6801	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6901	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6901	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6901	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6901	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12-10-09	1400	Greg Tyler	[illegible]	12-11-09	0850
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Thursday, December 10, 2009

REQUEST NUMBER: 10-881

LOS ALAMOS
NATIONAL LABORATORY

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

These Samples are on:
LANL Request Number:10-881
Per Agreement Number:126310011
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/10/2009
TURNAROUND/REPORT DUE: 1/9/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:150.1	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	

Thursday, December 10, 2009

REQUEST NUMBER: 10-881

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:150.1	1	CAPA-10-6901	WG	12/9/2009	
	EPA:160.1	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:245.2	1	CAPA-10-6347	WG	12/9/2009	
		1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6371	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:300.0	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:310.1	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:335.3	1	CAPA-10-6347	WG	12/9/2009	
		1	CAPA-10-6371	WG	12/9/2009	
		1	CAPA-10-6797	WG	12/9/2009	

Thursday, December 10, 2009

REQUEST NUMBER: 10-881

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:335.3	1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:350.1	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:353.2	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:365.4	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	SM:A2340B	1	CAPA-10-6347	WG	12/9/2009	
		1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6371	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	SW-846:6010B	1	CAPA-10-6347	WG	12/9/2009	
		1	[illegible]	WG	[illegible]	

Thursday, December 10, 2009

REQUEST NUMBER: 10-881

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	CAPA-10-6371	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	SW-846:6020	1	CAPA-10-6347	WG	12/9/2009	
		1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6371	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	SW-846:8850	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	

Final Page of REQUEST NUMBER 10-881

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

December 19, 2009

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

Re: LANL-WQH Water Samples
Work Order: 242753
SDG: 10-881

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 11, 2009, and analyzed for General Chemistry, Metals and Perchlorates by LCMSMS. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-881
Enclosures

problem solved

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 242753
SDG # : 10-881

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- Sample Data Summary.....745
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- Instrument QC Data Summary.....766
- Alkalinity.....773
- Ammonia Nitrogen..... 776
- Cyanide, Total.....789
- Ion Chromatography..... 800

Nitrate Nitrite by Cadmium Reduction.....896
Solids, Total Dissolved.....904
Specific Conductivity.....906
Total Phosphorus.....908
pH.....917
Miscellaneous.....920

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 242753
SDG # : 10-881

December 19, 2009

Laboratory Identification:

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

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 11, 2009 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
242753001	CAPA-10-6347
242753002	CAPA-10-6349
242753003	CAPA-10-6371
242753004	CAPA-10-6372
242753005	CAPA-10-6797
242753006	CAPA-10-6798
242753007	CAPA-10-6800
242753008	CAPA-10-6801
242753009	CAPA-10-6901

Case Narrative

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

Data Package

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals and Perchlorates by LCMSMS.

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

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 19 December 2009

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

Chain of Custody and Supporting Documentation

Thursday, December 10, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-881

REQUEST NUMBER: 10-881

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/9/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 042753%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6347	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6347	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6349	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6349	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6349	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6371	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6371	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6372	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6372	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6372	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6797	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6797	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6798	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6798	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6798	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6800	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6800	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6801	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6801	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6801	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6901	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6901	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6901	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6901	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12-10-09	1400	Greg Tyler	[illegible]	12-11-09	0850
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Thursday, December 10, 2009

REQUEST NUMBER: 10-881

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-881

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/10/2009

TURNAROUND/REPORT DUE: 1/9/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:150.1	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	

Thursday, December 10, 2009

REQUEST NUMBER: 10-881

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:150.1	1	CAPA-10-6901	WG	12/9/2009	
	EPA:160.1	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:245.2	1	CAPA-10-6347	WG	12/9/2009	
		1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6371	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:300.0	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:310.1	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:335.3	1	CAPA-10-6347	WG	12/9/2009	
		1	CAPA-10-6371	WG	12/9/2009	
		1	CAPA-10-6797	WG	12/9/2009	

Thursday, December 10, 2009

REQUEST NUMBER: 10-881

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:335.3	1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:350.1	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:353.2	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:365.4	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	SM:A2340B	1	CAPA-10-6347	WG	12/9/2009	
		1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6371	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	SW-846:6010B	1	CAPA-10-6347	WG	12/9/2009	
		1	CAPA-10-6349	WG	12/9/2009	

Thursday, December 10, 2009

REQUEST NUMBER: 10-881

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:6010B	1	CAPA-10-6371	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	SW-846:6020	1	CAPA-10-6347	WG	12/9/2009	
		1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6371	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	SW-846:6850	1	CAPA-10-6349	WG	12/9/2009	
		1	CAPA-10-6372	WG	12/9/2009	
		1	CAPA-10-6798	WG	12/9/2009	
		1	CAPA-10-6801	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	

Final Page of REQUEST NUMBER 10-881

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-881**
Received By: Greg Tyler	**Date Received: 12/11/09**

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

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

Comments:
Fed Ex Tracking Numbers
7209 7849 1970 1C 7209 7849 1969 12C
7209 7849 2027 1C
7209 7849 1991 1C
7209 7849 2038 1C
7209 7849 2049 1C
7209 7849 2050 2C
7209 7849 2060 2C
7209 7849 1980 3C

PM (or PMA) review: Initials P. Wh. Date 12-15-09

N ID: SAFA (505)665-9968
NE VALDEZ
LAMOS NATL LAB.
BLDG 1237 DPU 03

LAMOS, NM 87545
ED STATES US

ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

ERIE DAVIS
NERAL ENGINEERING LAB
40 SAVAGE RD

ARLESTON SC 29407
3)566-8171
F: 6B010AMR1A015AGWM0

1c

FedEx Express

1 of 2
RK# 7209 7849 1970
201
MASTER

FRI - 11DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)566-8171
REF: 6B010AMR2A054196D0

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FedEx Express

1 of 2
TRK# 7209 7849 2027
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MASTER

FRI - 11DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 158148-434 NRIT V3 09-08

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)566-8171
REF: 6B010AMR1A015AGWM0

1c

FedEx Express

FRI - 11DEC A1
PRIORITY OVERNIGHT

7849 1991

29407
SC-US

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)566-8171
REF: 6B010AMR2A054196D0

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FedEx Express

2 of 2
MPS# 7209 7849 2038
0263
Mstr# 7209 7849 2027 0201

FRI - 11DEC A1
PRIORITY OVERNIGHT

29407
SC-US

XX CHSA

JOYLENE VALDEZ (505)665-9968
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AAREW01105800

1c

FedEx Express

TRK# 0201 7209 7849 2049

FRI - 11DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 34.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AWE6L11550000

2c

FedEx Express

TRK# 0201 7209 7849 2050

FRI - 11DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 35.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR8R0325BF00

2c

FedEx Express

TRK# 0201 7209 7849 2060

FRI - 11DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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

3c

FedEx Express

2 of 2
MPS# 0263 7209 7849 1980
Mstr# 7209 7849 1970 0201

FRI - 11DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 41.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A0352VA00

12c

FedEx Express

2 of 2
MPS# 0203 7209 7849 1969
Matr# 7209 7849 1958 0201

FRI - 11DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

DATA REVIEW QUALIFIER FLAG DEFINITION SHEET

Data Review Qualifier Definitions

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

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

LC/MS/MS PERCHLORATE ANALYSIS

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-881

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	933097
Prep Batch Number:	933094

Sample Analysis

Sample ID	**Client ID**
242753002	CAPA-10-6349
242753004	CAPA-10-6372
242753006	CAPA-10-6798
242753008	CAPA-10-6801
242753009	CAPA-10-6901
1201996195	Interference Check Sample (ICS)
1201996189	Method Blank (MB)
1201996190	Laboratory Control Sample (LCS)
1201996193	242753006(CAPA-10-6798) Matrix Spike (MS)
1201996194	242753006(CAPA-10-6798) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

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

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

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

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 242753006 (CAPA-10-6798) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

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Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

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

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

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

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Nonconformance (NCR) Documentation
Nonconformance reports (NCRs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

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Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

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

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: Herbert K Mauer **Date:** 12/31/04

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SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 933094

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6349

Date Received: 11-DEC-09

GEL Job No (SDG): 10-881

GEL Sample ID: 242753002

Date Filtered: 15-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.469	ug/L		1	15-DEC-09 20:15	per1215066a
	Perchlorate Isotope Ratio			3.05			1	15-DEC-09 20:15	per1215066a
14797-73-0	Perchlorate-101	.05	.2	0.453	ug/L		1	15-DEC-09 20:15	per1215066a
	Perchlorate-O(18)			0.517	ug/L		1	15-DEC-09 20:15	per1215066a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 933094

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6372

Date Received: 11-DEC-09

GEL Job No (SDG): 10-881

GEL Sample ID: 242753004

Date Filtered: 15-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.478	ug/L		1	15-DEC-09 20:22	per1215067a
	Perchlorate Isotope Ratio			3.11			1	15-DEC-09 20:22	per1215067a
14797-73-0	Perchlorate-101	.05	.2	0.453	ug/L		1	15-DEC-09 20:22	per1215067a
	Perchlorate-O(18)			0.522	ug/L		1	15-DEC-09 20:22	per1215067a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 933094

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6798

Date Received: 11-DEC-09

GEL Job No (SDG): 10-881

GEL Sample ID: 242753006

Date Filtered: 15-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.342	ug/L		1	15-DEC-09 20:30	per1215068a
	Perchlorate Isotope Ratio			3.06			1	15-DEC-09 20:30	per1215068a
14797-73-0	Perchlorate-101	.05	.2	0.330	ug/L		1	15-DEC-09 20:30	per1215068a
	Perchlorate-O(18)			0.510	ug/L		1	15-DEC-09 20:30	per1215068a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 933094

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6801

Date Received: 11-DEC-09

GEL Job No (SDG): 10-881

GEL Sample ID: 242753008

Date Filtered: 15-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.335	ug/L		1	15-DEC-09 20:52	per1215071a
	Perchlorate Isotope Ratio			3.01			1	15-DEC-09 20:52	per1215071a
14797-73-0	Perchlorate-101	.05	.2	0.327	ug/L		1	15-DEC-09 20:52	per1215071a
	Perchlorate-O(18)			0.498	ug/L		1	15-DEC-09 20:52	per1215071a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 933094

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6901

Date Received: 11-DEC-09

GEL Job No (SDG): 10-881

GEL Sample ID: 242753009

Date Filtered: 15-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	15-DEC-09 21:00	per1215072a
	Perchlorate Isotope Ratio						1	15-DEC-09 21:00	per1215072a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	15-DEC-09 21:00	per1215072a
	Perchlorate-O(18)			0.469	ug/L		1	15-DEC-09 21:00	per1215072a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–881

Extract Batch Code: 933094

Date Filtered: 15–DEC–09

Matrix: WATER

Sample ID: 1201996190

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.196	ug/L	98.1		85 – 115
Perchlorate Isotope Ratio		3.11				–
Perchlorate–101	0.200	.186	ug/L	93.1		85 – 115
Perchlorate–O(18)		.48	ug/L			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–881

Extract Batch Code: 933094

Date Filtered: 15–DEC–09

Matrix: GROUND WATER

Sample ID: 1201996195

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.2	ug/L	99.8		70 – 130
Perchlorate Isotope Ratio		3				
Perchlorate–101	0.200	.196	ug/L	98.1		70 – 130
Perchlorate–O(18)		.499	ug/L			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Page 30 of 922

Name: per1215053a
Date: 15-Dec-2009
Time: 18:36:38
ID: 1201996195
Vial: 2:1,C

| LANL | 933097 | LZQ | ICS | 1 |

ww 12-16-09

Perchlorate

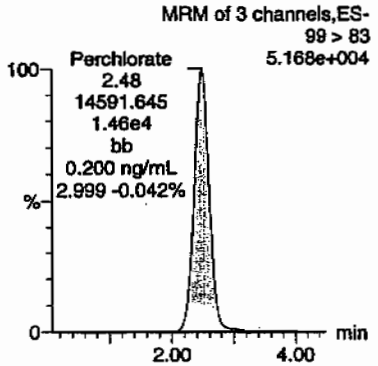

Perchlorate

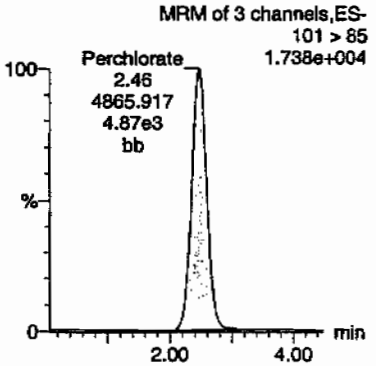

Perchlorate-101

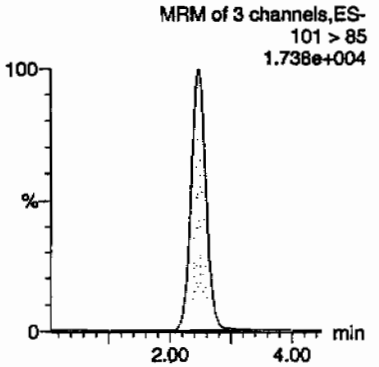

Perchlorate-O(18)

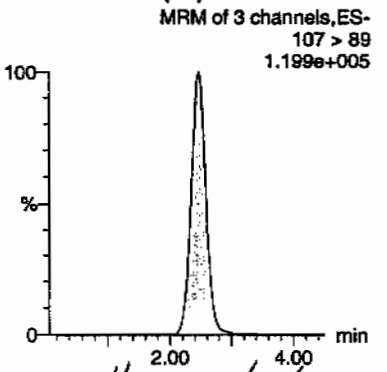

Hm 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1201996195	Perchlorate	99 > 83	2.48	14591.645	14591.645	bb			0.1997	99.84	-0.16	3210.0...	3.00
1201996195	Perchlorate-101	101 > 85	2.46	4865.917	4865.917	bb			0.1962	98.09	-1.91	767.302	
1201996195	Perchlorate-O(18)	107 > 89	2.46	33790.688	33790.688	bb			0.4990	99.80	-0.20	2057.6...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–881

Extract Batch Code: 933094

Date Extracted: 15–DEC–09

GEL MS/PS ID: 1201996193

Client ID: CAPA–10–6798

GEL MSD/PSD ID: 1201996194

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	0.200	0.342	ug/L	0.536	96.6	.539	98.1	.571	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		2.96		3		0		–
Perchlorate–101	0.200	0.330	ug/L	0.532	101	.529	99.6	.57	30	75 – 125
Perchlorate–O(18)	0	0.510	ug/L	0.508		.5		1.45		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–881

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	15–DEC–09	per1215001a	IPB001
Perchlorate–101	0.00	0	NA	15–DEC–09	per1215001a	IPB001
Perchlorate	0.00	0	NA	15–DEC–09	per1215002a	IPB001
Perchlorate–101	0.00	0	NA	15–DEC–09	per1215002a	IPB001

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per121509a.mdb 15 Dec 2009 13:08:19
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per121509a.cdb 16 Dec 2009 09:20:40

Name: per1215001a
Date: 15-Dec-2009
Time: 12:03:14
ID: IPB001
Vial: 1:1,A

aw 12-16-09

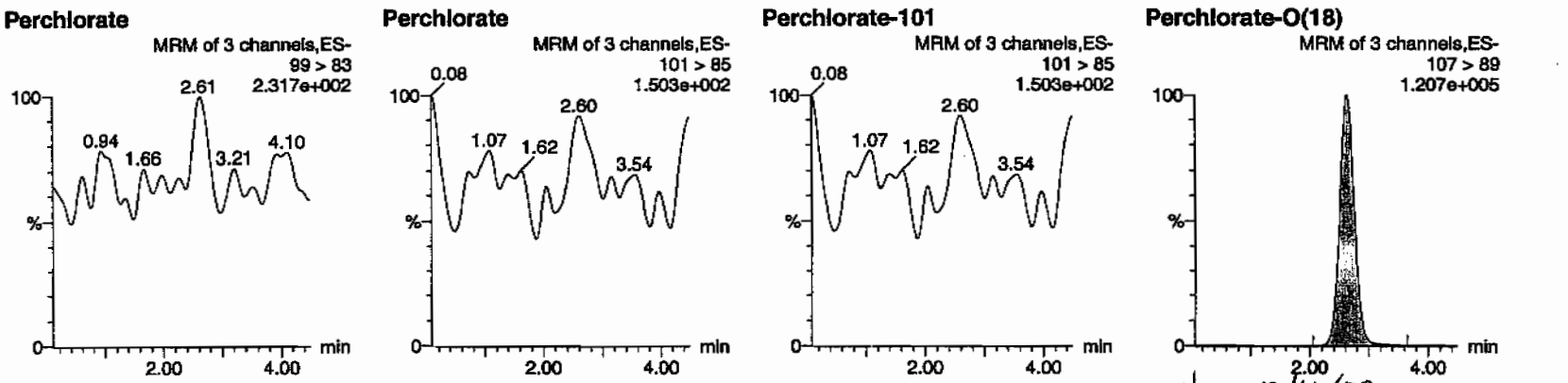

HMM 12/16/09

ID	Name	Trace	RT	%Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.64	34722.438	34722.438	bb			0.5128	102.55	2.55	8822.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215002a
Date: 15-Dec-2009
Time: 12:10:54
ID: IPB001
Vial: 1:1,A

12-16-09

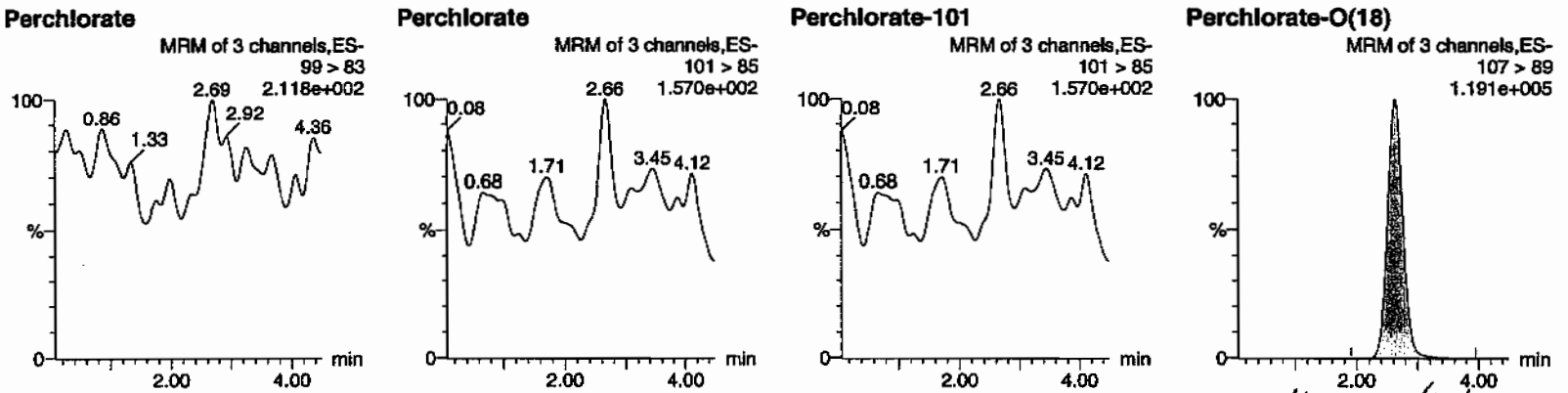

HMW 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	2.63	34356.570	34356.570	bb			0.5073	101.47	1.47	14062....	

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–881

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	15–DEC–09	per1215008a	IPB002
Perchlorate–101	0.00	0	NA	15–DEC–09	per1215008a	IPB002
Perchlorate	0.00	0	NA	15–DEC–09	per1215010a	IPB003
Perchlorate–101	0.00	0	NA	15–DEC–09	per1215010a	IPB003
Perchlorate	0.00	0	NA	15–DEC–09	per1215016a	IPB004
Perchlorate–101	0.00	0	NA	15–DEC–09	per1215016a	IPB004
Perchlorate	0.00	0	NA	15–DEC–09	per1215023a	IPB005
Perchlorate–101	0.00	0	NA	15–DEC–09	per1215023a	IPB005
Perchlorate	0.00	0	NA	15–DEC–09	per1215036a	IPB006
Perchlorate–101	0.00	0	NA	15–DEC–09	per1215036a	IPB006
Perchlorate	0.00	0	NA	15–DEC–09	per1215049a	IPB007
Perchlorate–101	0.00	0	NA	15–DEC–09	per1215049a	IPB007
Perchlorate	0.00	0	NA	15–DEC–09	per1215062a	IPB008

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-881

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate-101	0.00	0	NA	15-DEC-09	per1215062a	IPB008
Perchlorate	0.00	0	NA	15-DEC-09	per1215075a	IPB009
Perchlorate-101	0.00	0	NA	15-DEC-09	per1215075a	IPB009

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215008a
Date: 15-Dec-2009
Time: 12:56:28
ID: IPB002
Vial: 1:1,A

12-16-09

Perchlorate

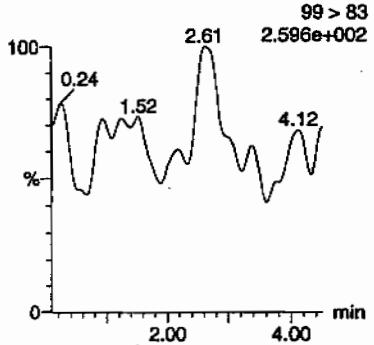

Perchlorate

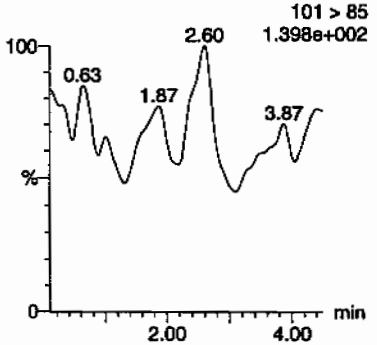

Perchlorate-101

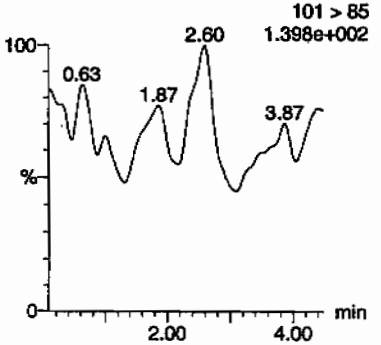

Perchlorate-O(18)

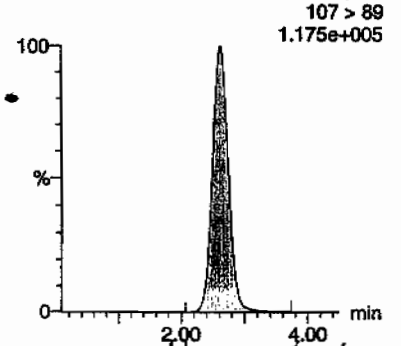

12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	2.63	33657.719	33657.719	bb			0.4970	99.41	-0.59	43205....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215010a
Date: 15-Dec-2009
Time: 13:11:33
ID: IPB003
Vial: 1:1,A

Gwj
12-16-09

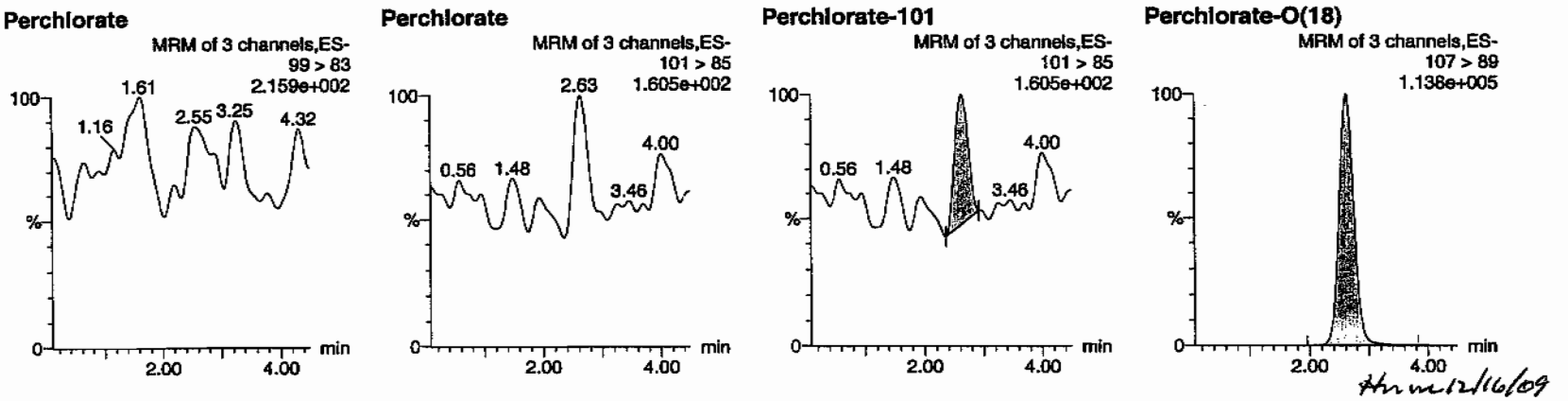

Hm 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85	2.63	22.347	22.347	bb			0.0009			13.192	
IPB003	Perchlorate-O(18)	107 > 89	2.63	32671.857	32671.857	bb			0.4825	96.49	-3.51	10943....	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215016a
Date: 15-Dec-2009
Time: 13:56:58
ID: IPB004
Vial: 1:1,A

12-16-09

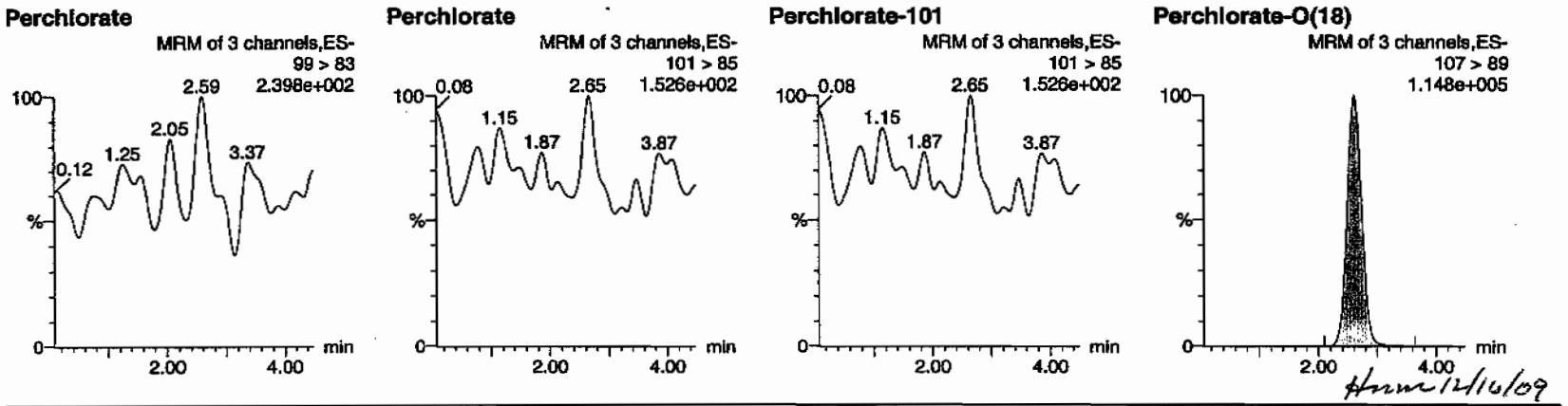

12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	2.61	32728.090	32728.090	bb			0.4833	96.66	-3.34	7338.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215023a
Date: 15-Dec-2009
Time: 14:49:45
ID: IPB005
Vial: 1:1,A

CMW 12-16-09

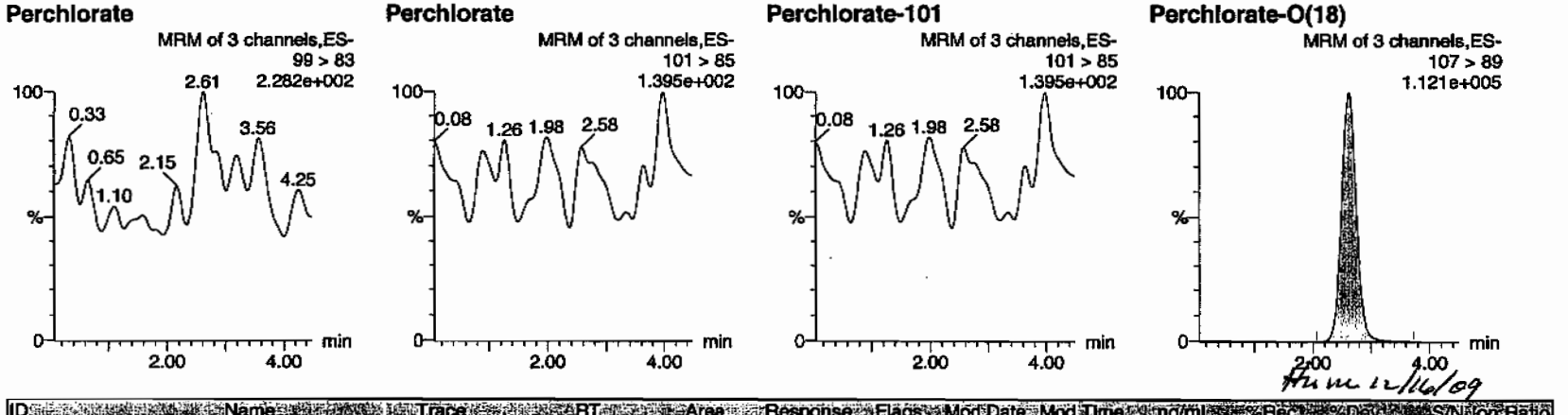

HM 12/16/09

ID	Name	Trace	ART	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83											0.00
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	2.61	32614.730	32614.730	bb			0.4816	96.33 ✓	-3.67	10587....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215036a
Date: 15-Dec-2009
Time: 16:27:54
ID: IPB006
Vial: 1:1,A

12-16-09

Perchlorate

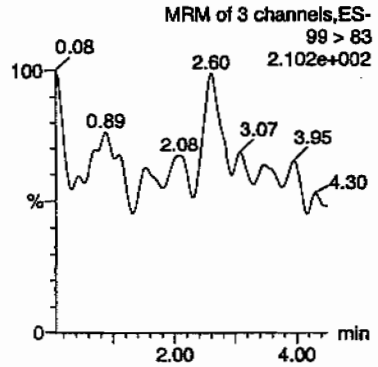

Perchlorate

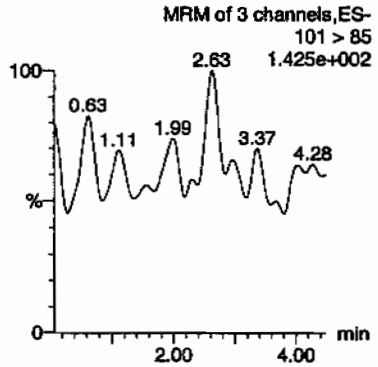

Perchlorate-101

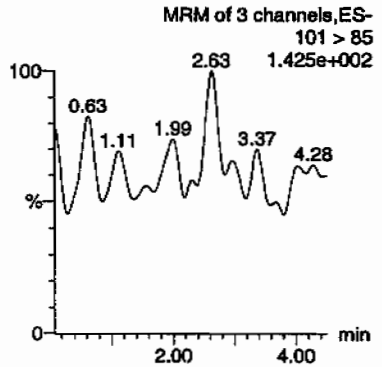

Perchlorate-O(18)

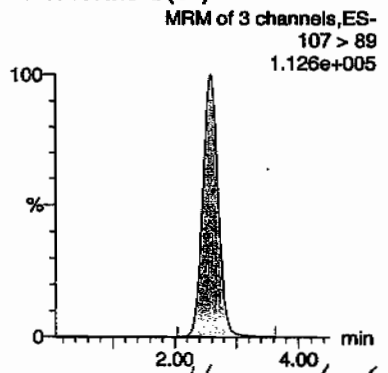

Hmm 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83											0.00
IPB006	Perchlorate-101	101 > 85											
IPB006	Perchlorate-O(18)	107 > 89	2.58	32326.670	32326.670	bb			0.4774	95.47	-4.53	2601.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215049a
Date: 15-Dec-2009
Time: 18:06:18
ID: IPB007
Vial: 1:1,A

12-16-09

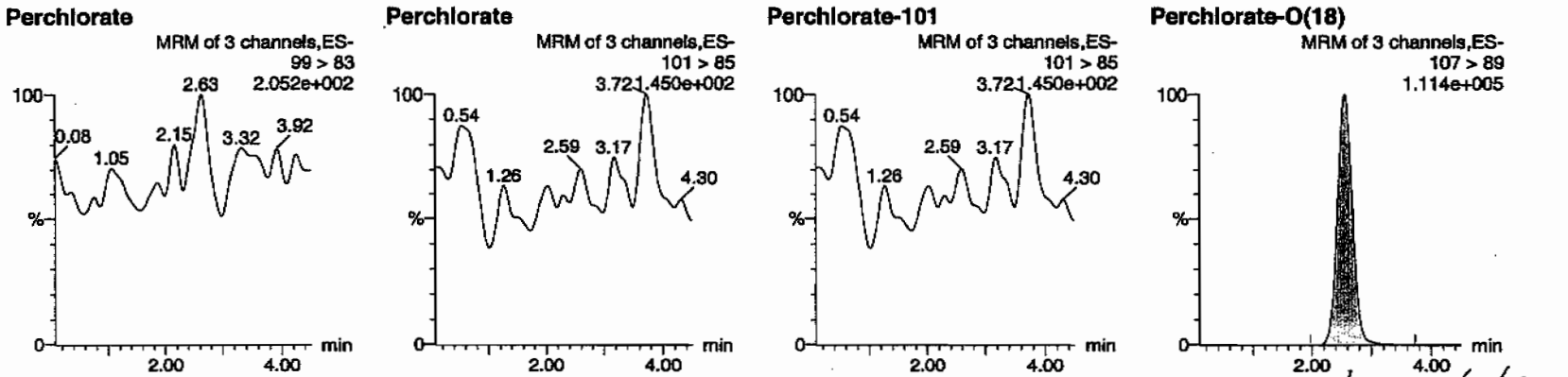

Hume 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83											0.00
IPB007	Perchlorate-101	101 > 85											
IPB007	Perchlorate-O(18)	107 > 89	2.56	32080.004	32080.004	bb			0.4737	94.75	-5.25	14699....	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Page 30 of 22

Name: per1215062a
Date: 15-Dec-2009
Time: 19:44:40
ID: IPB008
Vial: 1:1,A

CW 12-16-09

Perchlorate

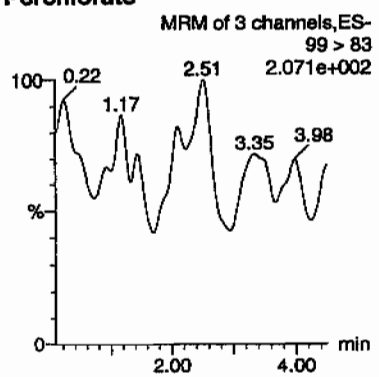

Perchlorate

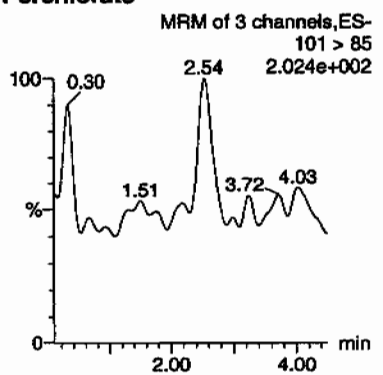

Perchlorate-101

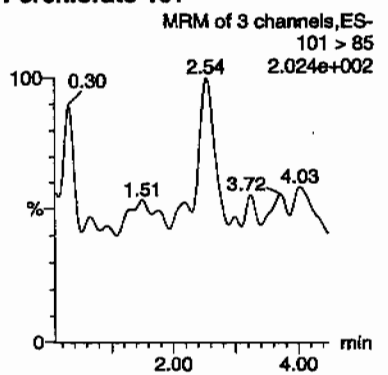

Perchlorate-O(18)

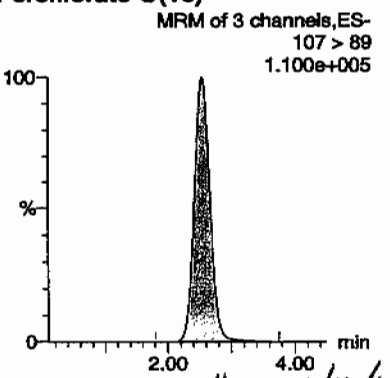

HW 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB008	Perchlorate	99 > 83											0.00
IPB008	Perchlorate-101	101 > 85											
IPB008	Perchlorate-O(18)	107 > 89	2.54	31528.705	31528.705	bb			0.4656	93.12	-6.88	11634....	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215075a
Date: 15-Dec-2009
Time: 21:23:06
ID: IPB009
Vial: 1:1,A

AW
12-16-09

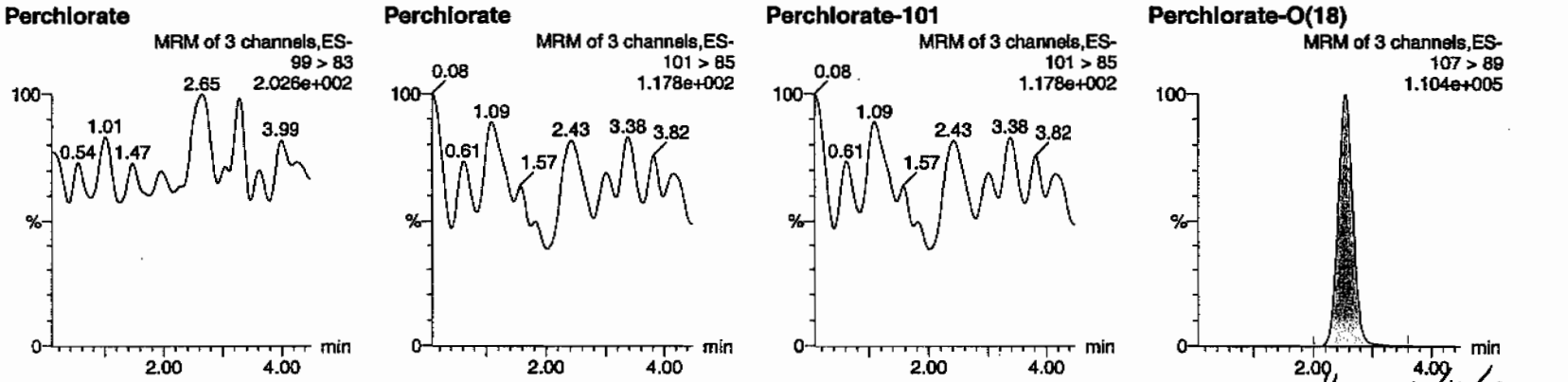

HMM 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB009	Perchlorate	99 > 83											0.00
IPB009	Perchlorate-101	101 > 85											
IPB009	Perchlorate-O(18)	107 > 89	2.54	31624.207	31624.207	bb			0.4670	93.40	-6.60	18819....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/RbI (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWW 01-09-08

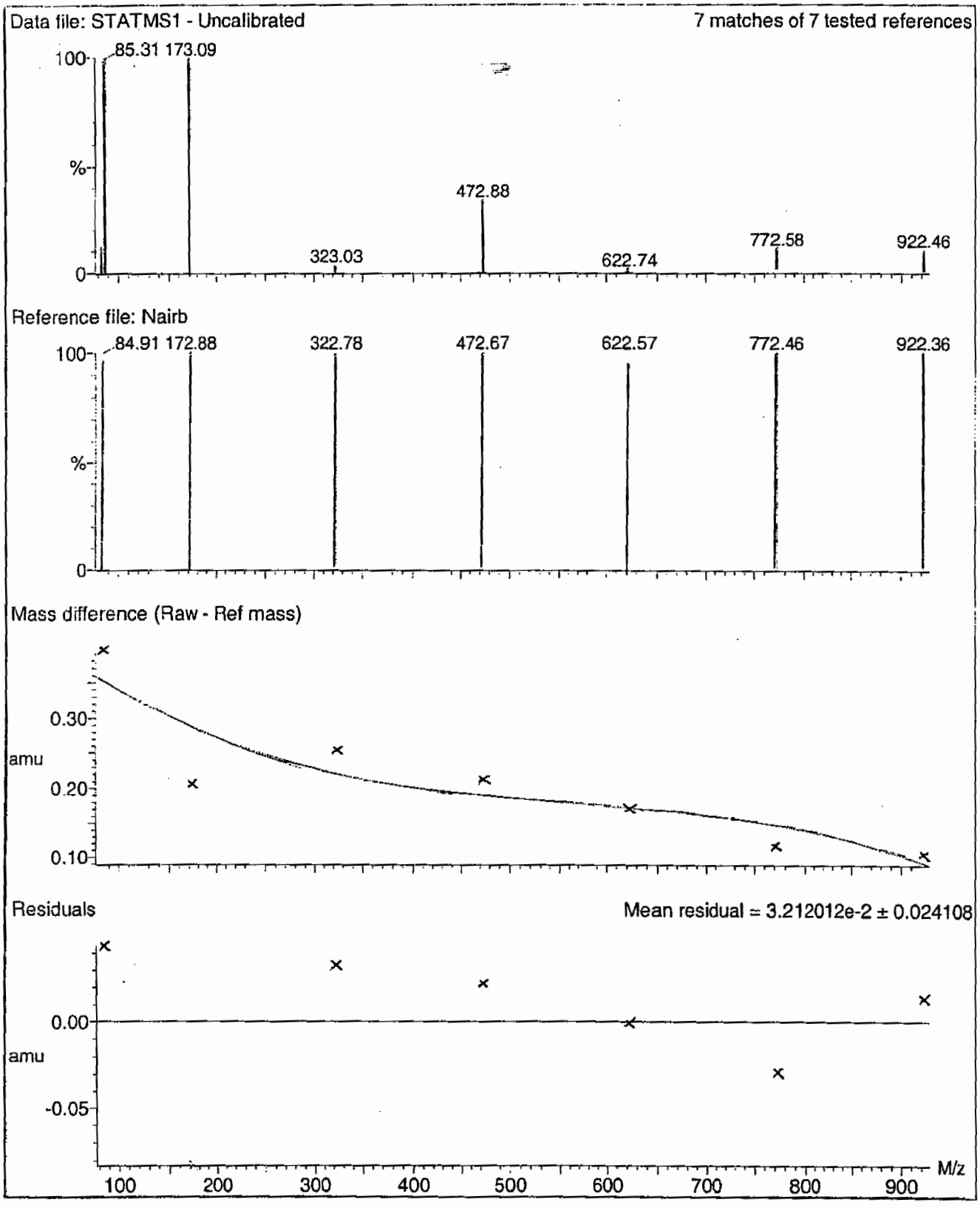

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Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

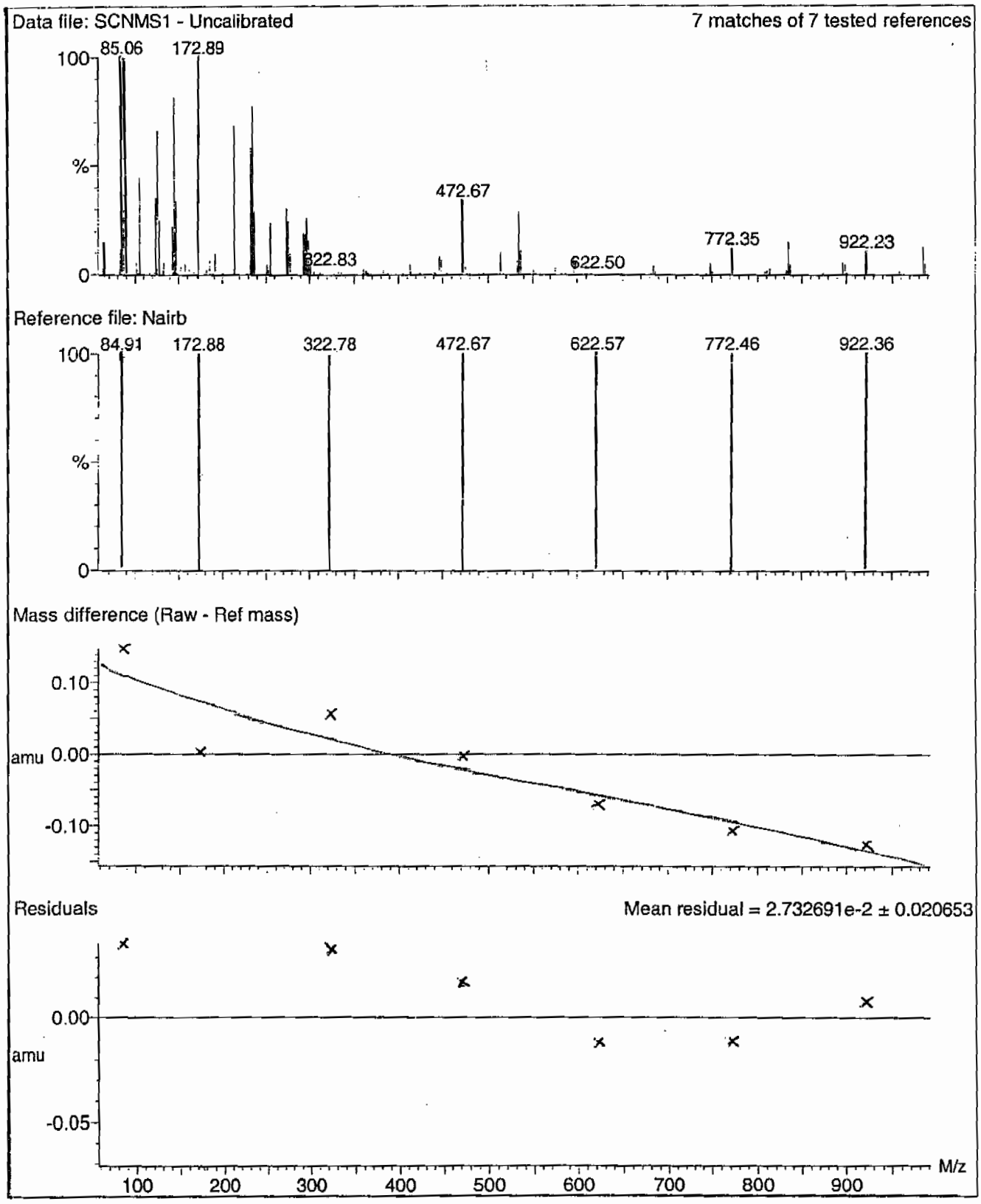

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

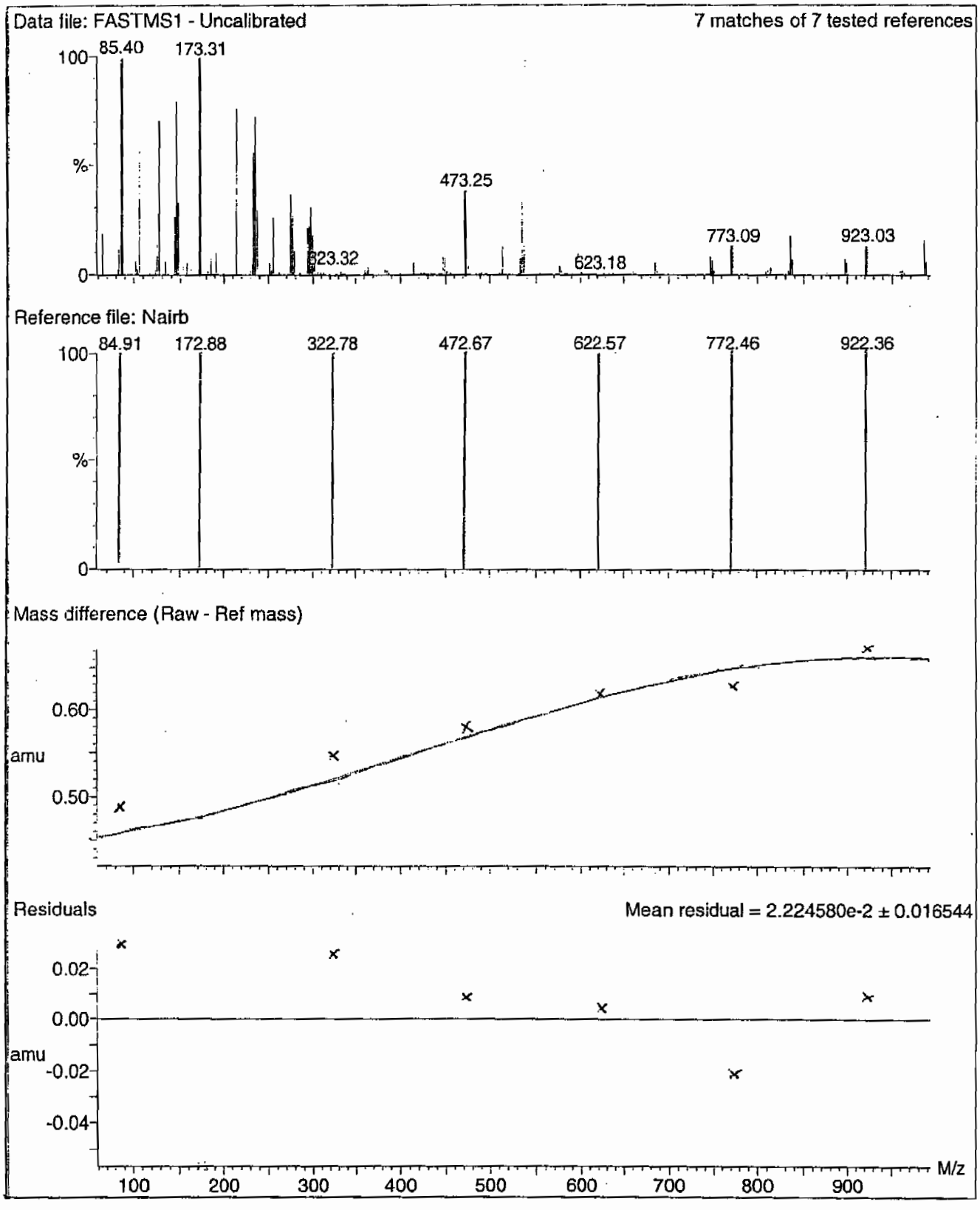

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Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

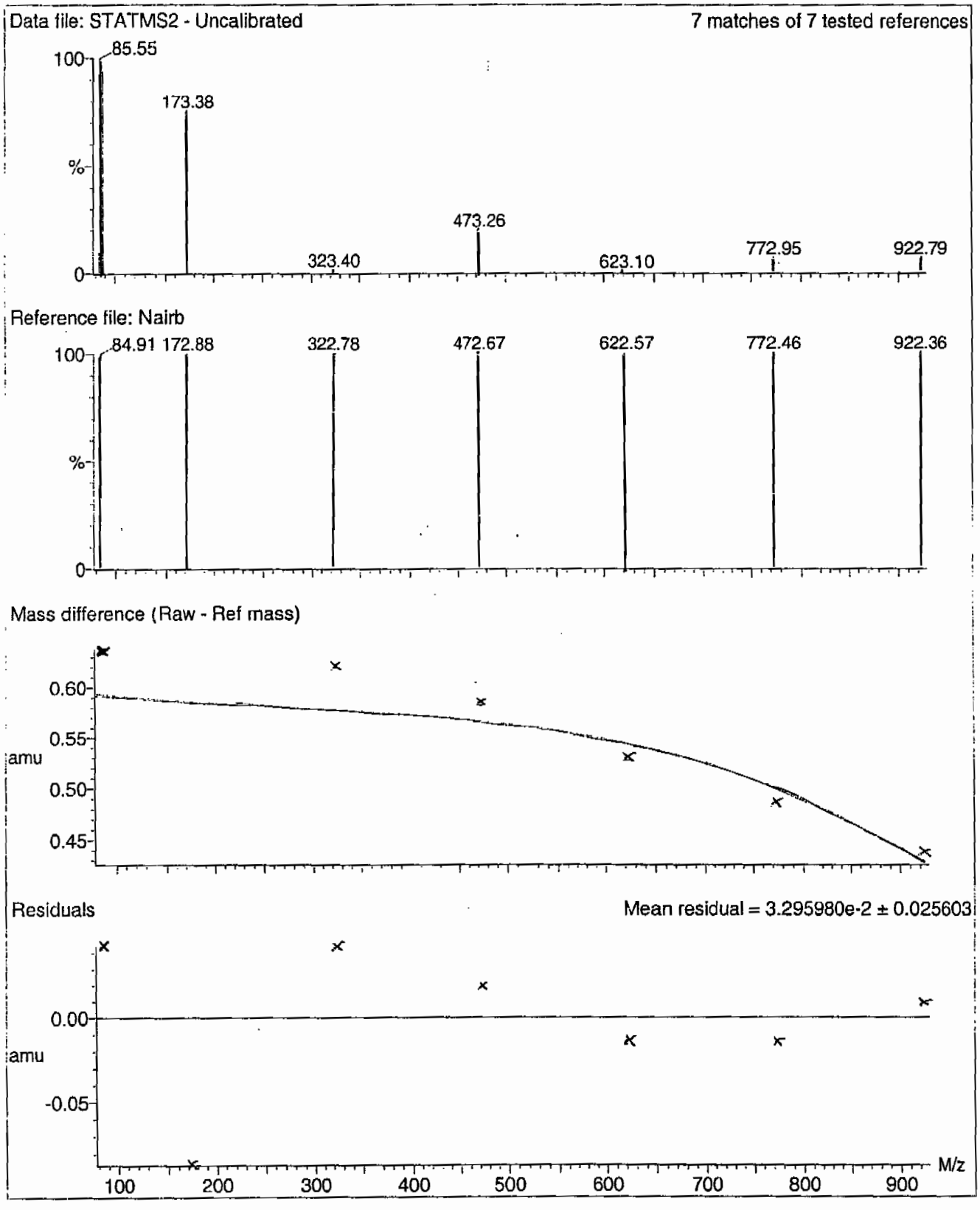

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GKL.

Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

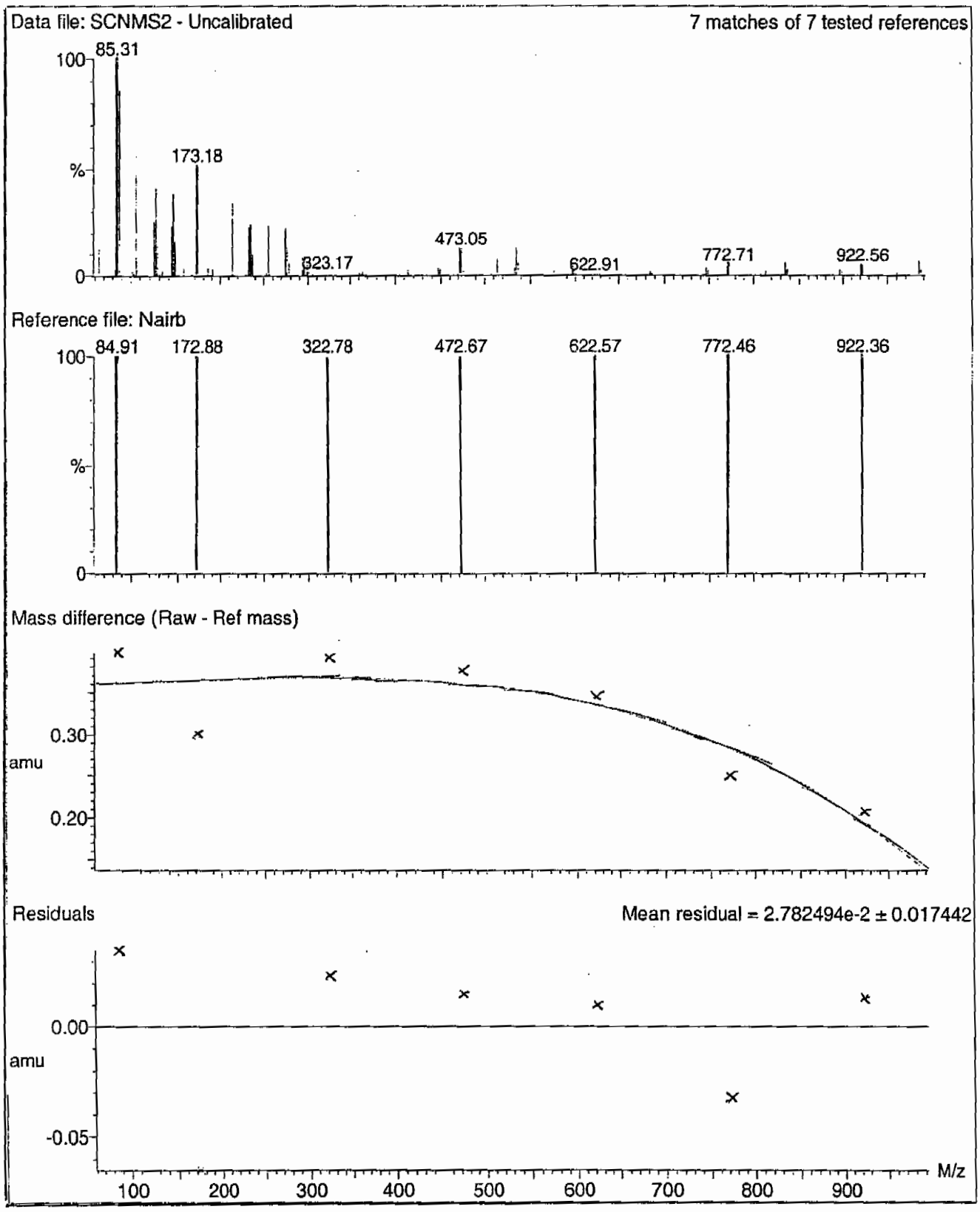

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

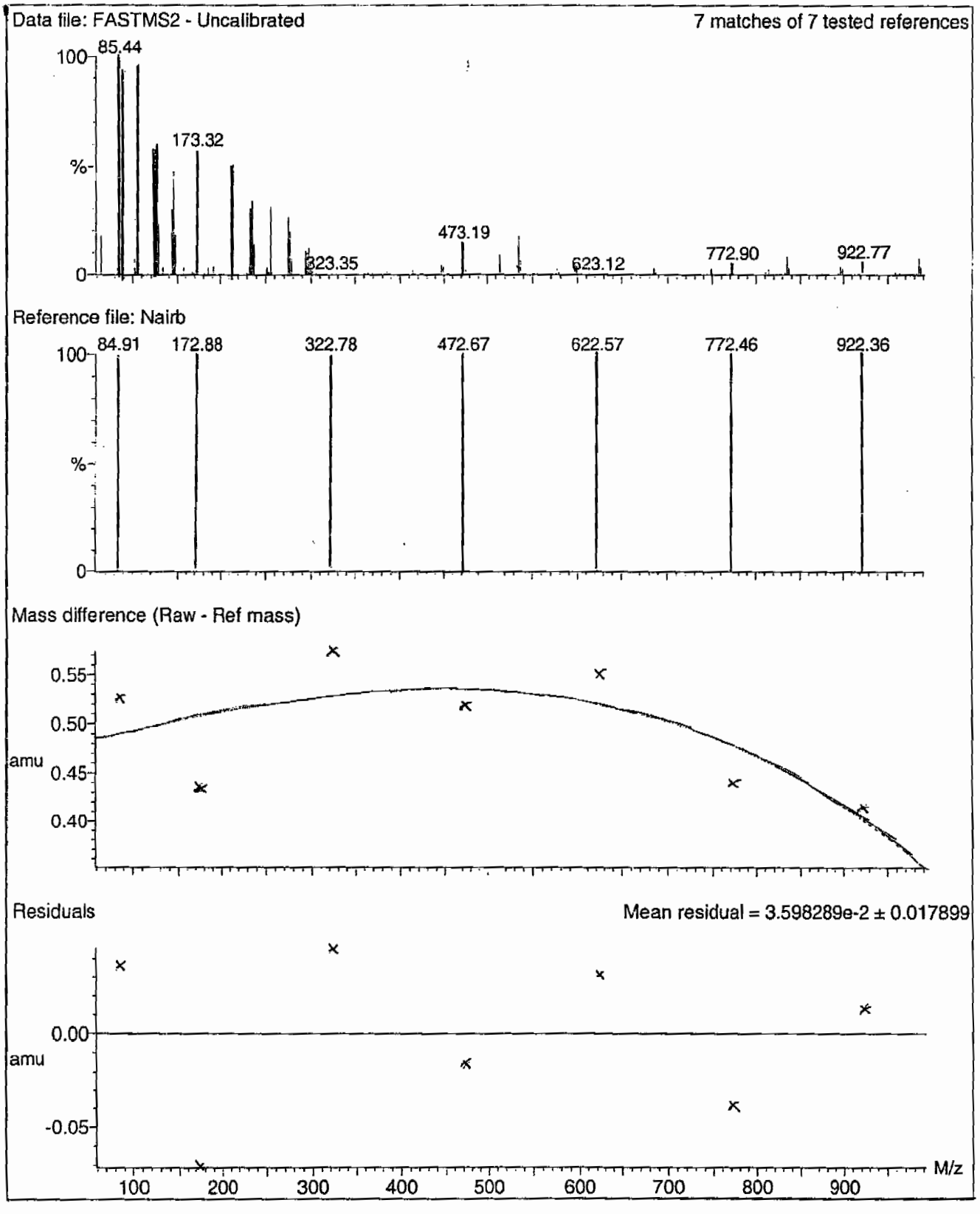

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File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Tuesday, December 15, 2009 08:41:45 Eastern Standard Time

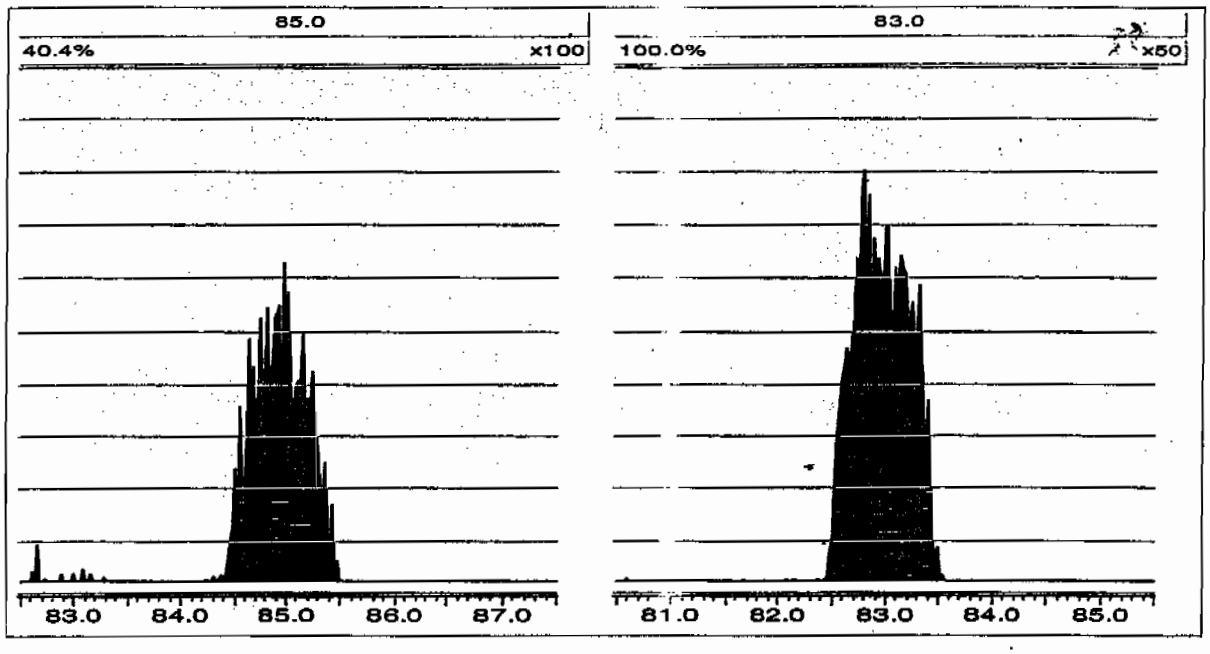

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–881

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per1215006a**	**15–DEC–09**	**33725.6**				
Lower Area Limit			**16862.8**				
Upper Area Limit			**67451.2**				
1201996189	per1215051a	15–DEC–09 18:21	31488	2.56	2.53875	.992	
1201996190	per1215052a	15–DEC–09 18:29	32537.1	2.55	2.56357	1.005	
1201996195	per1215053a	15–DEC–09 18:36	33790.7	2.46	2.47658	1.007	
242753002	per1215066a	15–DEC–09 20:15	34997.9	2.55	2.56353	1.005	
242753004	per1215067a	15–DEC–09 20:22	35373	2.54	2.5511	1.004	
242753006	per1215068a	15–DEC–09 20:30	34554.3	2.54	2.55112	1.004	
1201996193	per1215069a	15–DEC–09 20:37	34381.3	2.54	2.56355	1.009	
1201996194	per1215070a	15–DEC–09 20:45	33884.8	2.55	2.56355	1.005	

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Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–881

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per1215006a**	**15–DEC–09**	**33725.6**				
Lower Area Limit			**16862.8**				
Upper Area Limit			**67451.2**				
242753008	per1215071a	15–DEC–09 20:52	33715.1	2.55	2.56353	1.005	
242753009	per1215072a	15–DEC–09 21:00	31779.2	2.54			

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SAMPLE
DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 933094

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6349

Date Received: 11-DEC-09

GEL Job No (SDG): 10-881

GEL Sample ID: 242753002

Date Filtered: 15-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.469	ug/L		1	15-DEC-09 20:15	per1215066a
	Perchlorate Isotope Ratio			3.05			1	15-DEC-09 20:15	per1215066a
14797-73-0	Perchlorate-101	.05	.2	0.453	ug/L		1	15-DEC-09 20:15	per1215066a
	Perchlorate-O(18)			0.517	ug/L		1	15-DEC-09 20:15	per1215066a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215066a
Date: 15-Dec-2009
Time: 20:15:00
ID: 242753002
Vial: 2:3,A

|LANL|933017|L2Q|1|

(ww) 12-16-09

Perchlorate

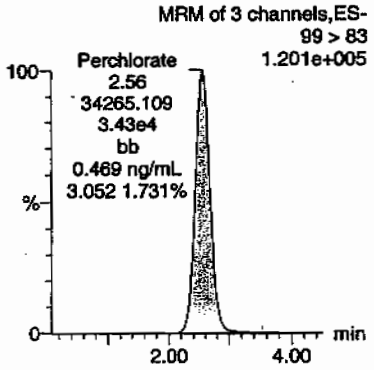

Perchlorate

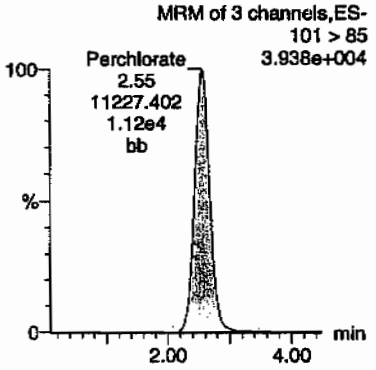

Perchlorate-101

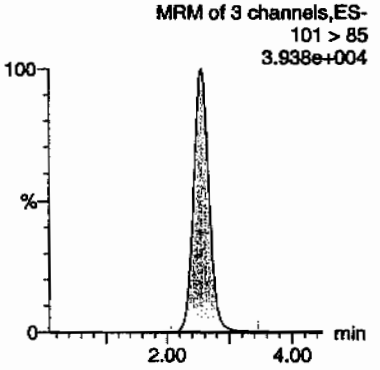

Perchlorate-O(18)

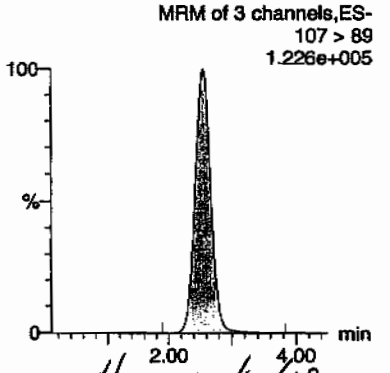

Hnm 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
242753002	Perchlorate	99 > 83	2.56	34265.109	34265.109	bb			0.4689			3782.3...	3.05
242753002	Perchlorate-101	101 > 85	2.55	11227.402	11227.402	bb			0.4526			1689.4...	
242753002	Perchlorate-O(18)	107 > 89	2.55	34997.938	34997.938	bb			0.5168	103.36	3.36	31370....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 933094

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6372

Date Received: 11-DEC-09

GEL Job No (SDG): 10-881

GEL Sample ID: 242753004

Date Filtered: 15-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.478	ug/L		1	15-DEC-09 20:22	per1215067a
	Perchlorate Isotope Ratio			3.11			1	15-DEC-09 20:22	per1215067a
14797-73-0	Perchlorate-101	.05	.2	0.453	ug/L		1	15-DEC-09 20:22	per1215067a
	Perchlorate-O(18)			0.522	ug/L		1	15-DEC-09 20:22	per1215067a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215067a
Date: 15-Dec-2009
Time: 20:22:33
ID: 242753004
Vial: 2:3,B

LANL | 933097 | 22 | 11

CW 12-16-09

Perchlorate

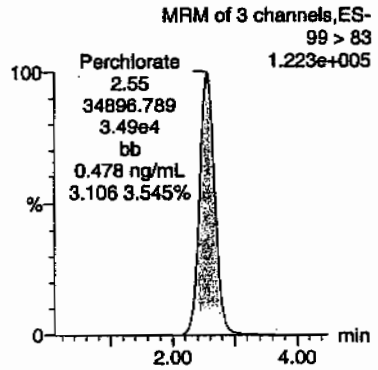

Perchlorate

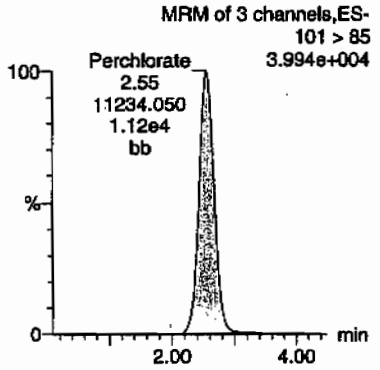

Perchlorate-101

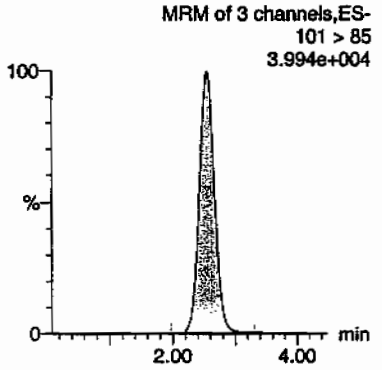

Perchlorate-O(18)

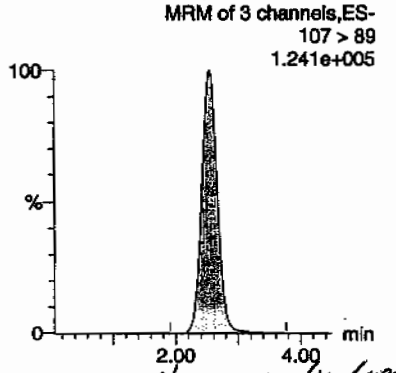

Hnm 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
242753004	Perchlorate	99 > 83	2.55	34896.789	34896.789	bb			0.4776			4232.7...	3.11
242753004	Perchlorate-101	101 > 85	2.55	11234.050	11234.050	bb			0.4529			5302.3...	
242753004	Perchlorate-O(18)	107 > 89	2.54	35372.961	35372.961	bb			0.5224	104.47	4.47	7159.5...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 933094

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6798

Date Received: 11-DEC-09

GEL Job No (SDG): 10-881

GEL Sample ID: 242753006

Date Filtered: 15-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.342	ug/L		1	15-DEC-09 20:30	per1215068a
	Perchlorate Isotope Ratio			3.06			1	15-DEC-09 20:30	per1215068a
14797-73-0	Perchlorate-101	.05	.2	0.330	ug/L		1	15-DEC-09 20:30	per1215068a
	Perchlorate-O(18)			0.510	ug/L		1	15-DEC-09 20:30	per1215068a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215068a
Date: 15-Dec-2009
Time: 20:30:05
ID: 242753006
Vial: 2:3,C

|LANL|933097|LZQ|1|

12-16-09

Perchlorate

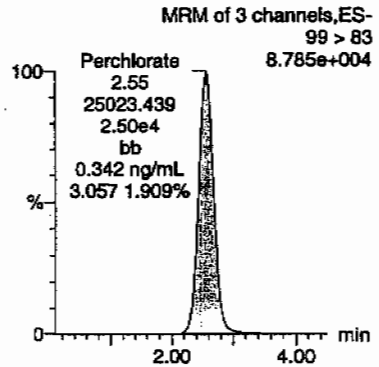

Perchlorate

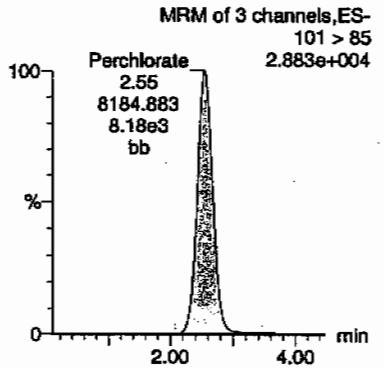

Perchlorate-101

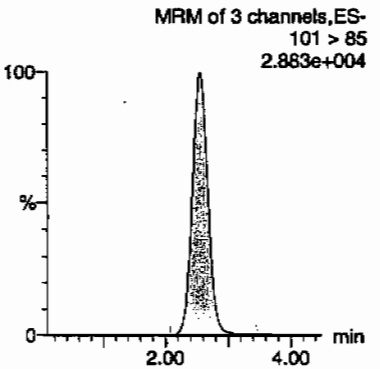

Perchlorate-O(18)

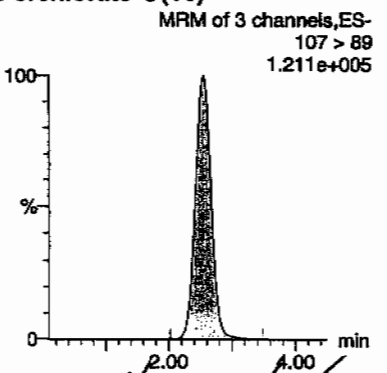

HMM 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
242753006	Perchlorate	99 > 83	2.55	25023.439	25023.439	bb			0.3425			4352.7...	3.06
242753006	Perchlorate-101	101 > 85	2.55	8184.883	8184.883	bb			0.3300			2497.4...	
242753006	Perchlorate-O(18)	107 > 89	2.54	34554.313	34554.313	bb			0.5103	102.05	2.05	4017.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 933094

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6801

Date Received: 11-DEC-09

GEL Job No (SDG): 10-881

GEL Sample ID: 242753008

Date Filtered: 15-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.335	ug/L		1	15-DEC-09 20:52	per1215071a
	Perchlorate Isotope Ratio			3.01			1	15-DEC-09 20:52	per1215071a
14797-73-0	Perchlorate-101	.05	.2	0.327	ug/L		1	15-DEC-09 20:52	per1215071a
	Perchlorate-O(18)			0.498	ug/L		1	15-DEC-09 20:52	per1215071a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215071a
Date: 15-Dec-2009
Time: 20:52:41
ID: 242753008
Vial: 2:3,F

|LANL|933097|LCQ|1|

12-16-09

Perchlorate

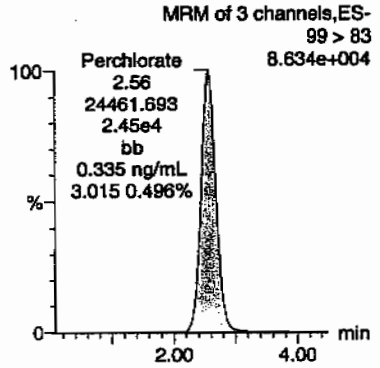

Perchlorate

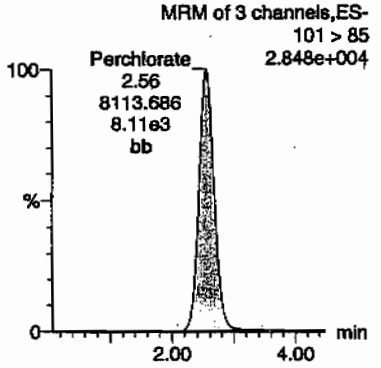

Perchlorate-101

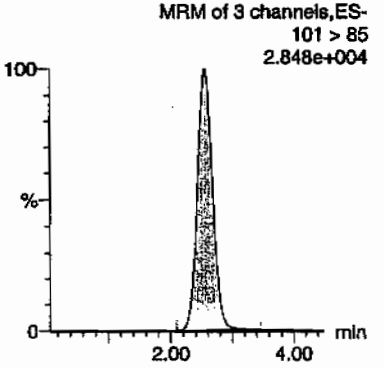

Perchlorate-O(18)

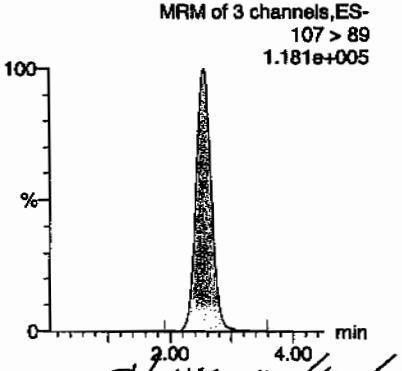

HMM 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	% Rec	%Dev	S/N	Ion Ratio
242753008	Perchlorate	99 > 83	2.56	24461.693	24461.693	bb			0.3348			3981.2...	3.01
242753008	Perchlorate-101	101 > 85	2.56	8113.686 ✓	8113.686	bb			0.3271			2928.3...	
242753008	Perchlorate-O(18)	107 > 89	2.55	33715.051	33715.051	bb			0.4979	99.58	-0.42	8357.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 933094

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6901

Date Received: 11-DEC-09

GEL Job No (SDG): 10-881

GEL Sample ID: 242753009

Date Filtered: 15-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	15-DEC-09 21:00	per1215072a
	Perchlorate Isotope Ratio						1	15-DEC-09 21:00	per1215072a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	15-DEC-09 21:00	per1215072a
	Perchlorate-O(18)			0.469	ug/L		1	15-DEC-09 21:00	per1215072a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215072a
Date: 15-Dec-2009
Time: 21:00:12
ID: 242753009
Vial: 2:4,A

|LANL| 933097 |LZQ|.1

CWO 12-16-09

Perchlorate

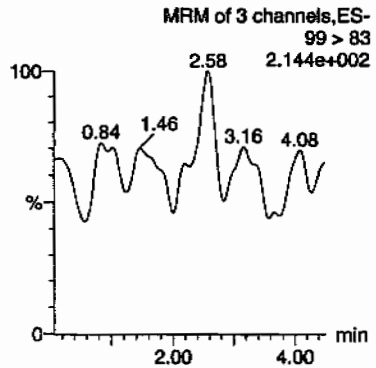

Perchlorate

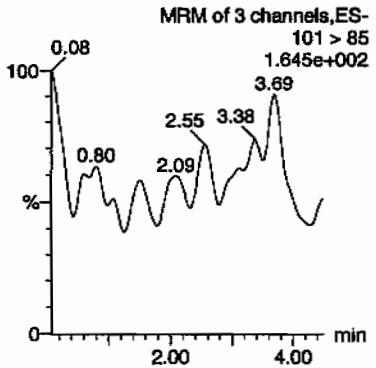

Perchlorate-101

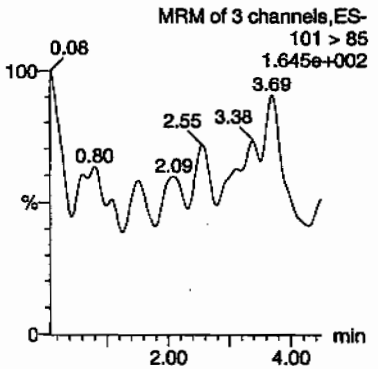

Perchlorate-O(18)

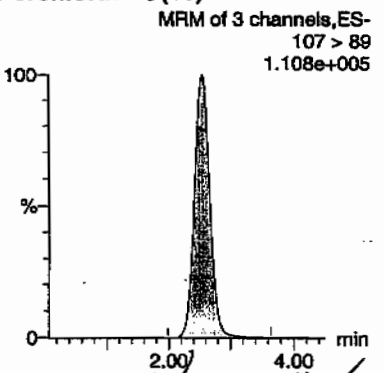

DMW 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
242753009	Perchlorate	99 > 83											0.00
242753009	Perchlorate-101	101 > 85											
242753009	Perchlorate-O(18)	107 > 89	2.54	31779.238	31779.238	bb			0.4693	93.86	-6.14	3179.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-881

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 15-DEC-09

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 73071.66

Response Type: External Standard

Curve Type: RF

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Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–881

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 15–DEC–09

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 24804.5

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per121509a.mdb 15 Dec 2009 13:08:19
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per121509a.cdb 16 Dec 2009 09:20:40

Compound name: Perchlorate
Response Factor: 73071.7
RRF SD: 899.936, % Relative SD: 1.23158
Response type: External Std, Area
Curve type: RF

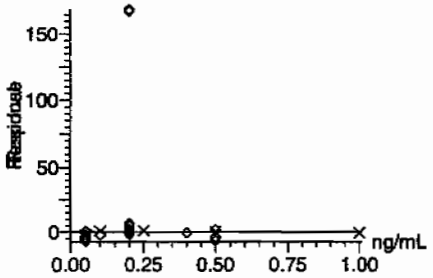

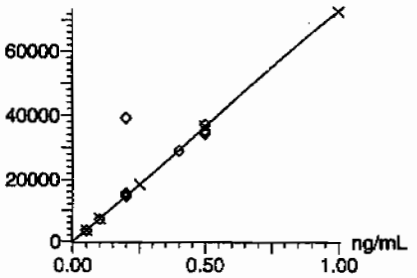

aw
12-16-09

Compound name: Perchlorate-101
Response Factor: 24804.5
RRF SD: 481.102, % Relative SD: 1.93957
Response type: External Std, Area
Curve type: RF

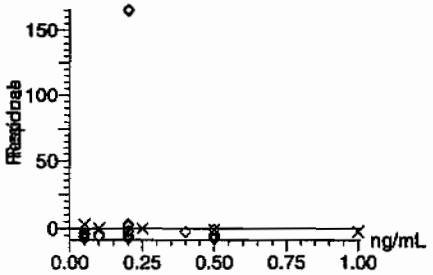

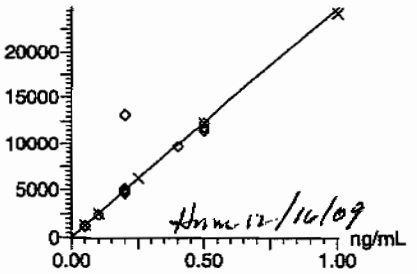

Hmm 12/16/09

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 67717.9
RRF SD: 913.455, % Relative SD: 1.34891
Response type: External Std, Area
Curve type: RF

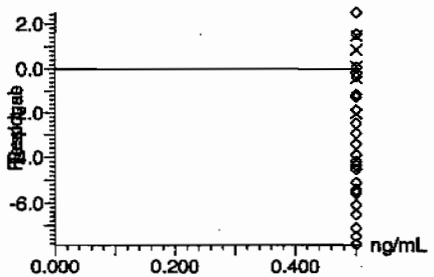

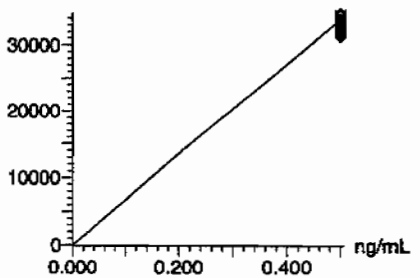

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215003a
Date: 15-Dec-2009
Time: 12:18:26
ID: WCL091204-01
Vial: 1:1,B

CWJ 12-16-09

Perchlorate

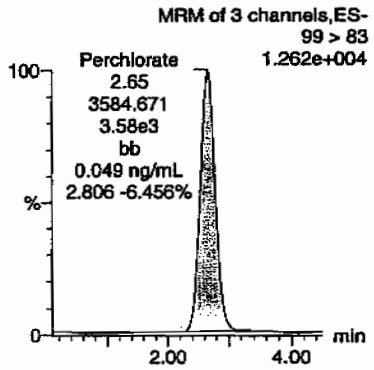

Perchlorate

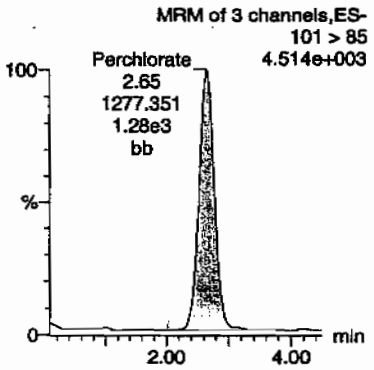

Perchlorate-101

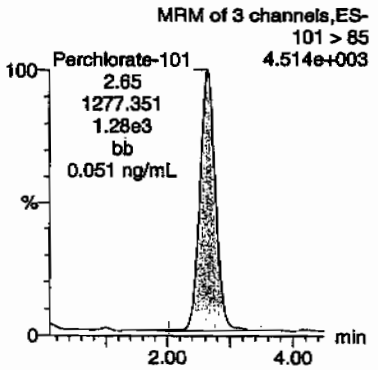

Perchlorate-O(18)

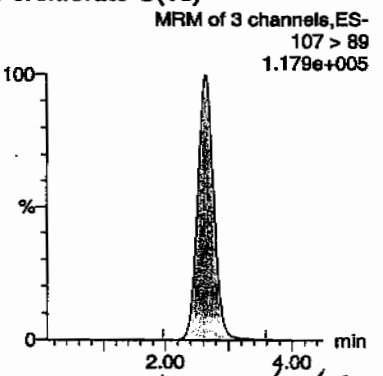

Hrm 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091204-01	Perchlorate	99 > 83	2.65	3584.671	3584.671	bb			0.0491	98.11	-1.89	1374.7...	2.81
WCL091204-01	Perchlorate-101	101 > 85	2.65	1277.351	1277.351	bb			0.0515	102.99	2.99	242.368	
WCL091204-01	Perchlorate-O(18)	107 > 89	2.64	33895.297	33895.297	bb			0.5005	100.11	0.11	12179....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215004a
Date: 15-Dec-2009
Time: 12:26:06
ID: WCL091204-02
Vial: 1:1,C

CWW 12-16-09

Perchlorate

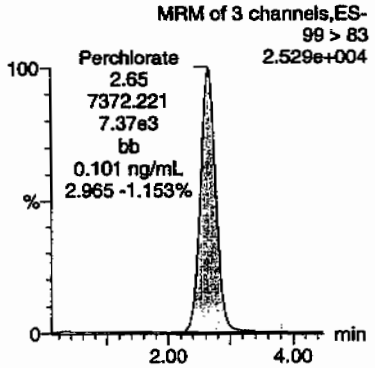

Perchlorate

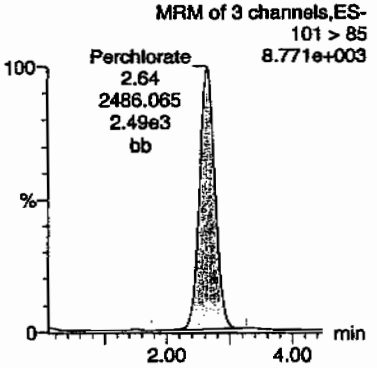

Perchlorate-101

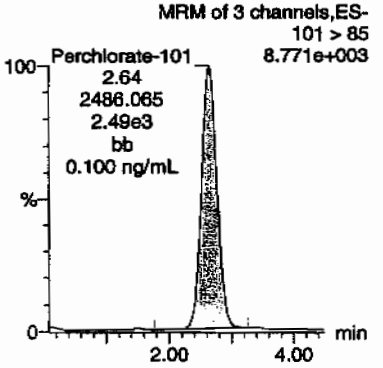

Perchlorate-O(18)

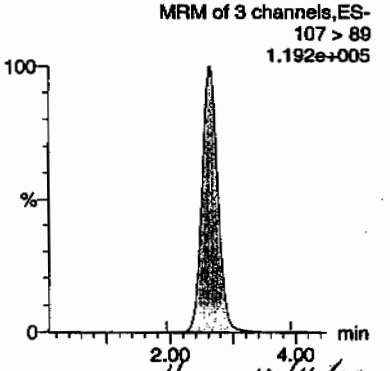

Hrnc 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091204-02	Perchlorate	99 > 83	2.65	7372.221	7372.221	bb			0.1009	100.89	0.89	2714.6...	2.97
WCL091204-02	Perchlorate-101	101 > 85	2.64	2486.065	2486.065	bb			0.1002	100.23	0.23	934.273	
WCL091204-02	Perchlorate-O(18)	107 > 89	2.63	34359.379	34359.379	bb			0.5074	101.48	1.48	3554.7...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215005a
Date: 15-Dec-2009
Time: 12:33:46
ID: WCL091204-03
Vial: 1:1,D

CWW 12-16-09

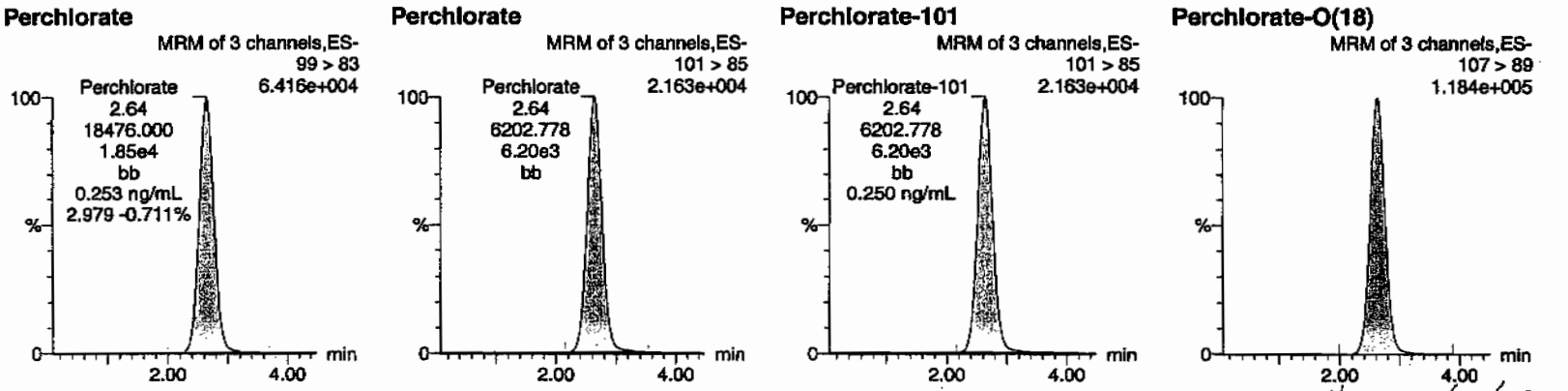

Hum 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091204-03	Perchlorate	99 > 83	2.64	18476.000	18476.000	bb			0.2528	101.14	1.14	2911.6...	2.98
WCL091204-03	Perchlorate-101	101 > 85	2.64	6202.778	6202.778	bb			0.2501	100.03	0.03	1802.4...	
WCL091204-03	Perchlorate-O(18)	107 > 89	2.63	34148.906	34148.906	bb			0.5043	100.86	0.86	6804.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215006a
Date: 15-Dec-2009
Time: 12:41:26
ID: WCL091204-04
Vial: 1:1,E

12-16-09

Perchlorate

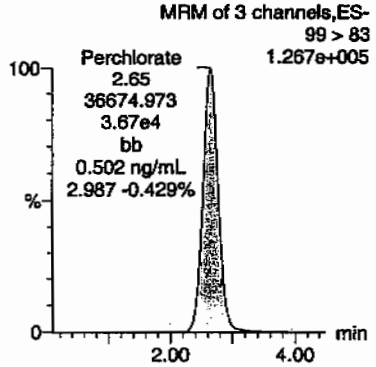

Perchlorate

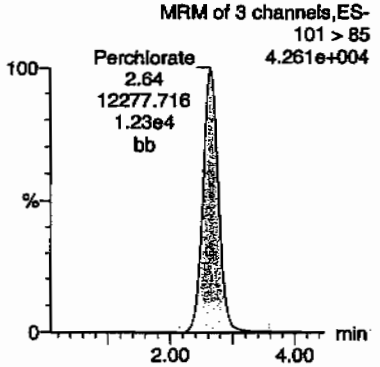

Perchlorate-101

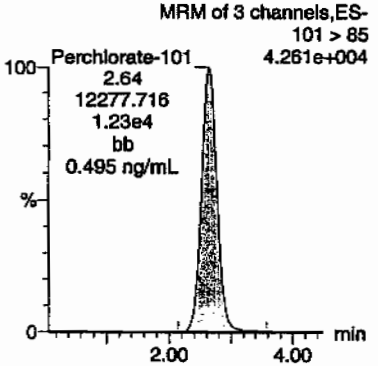

Perchlorate-O(18)

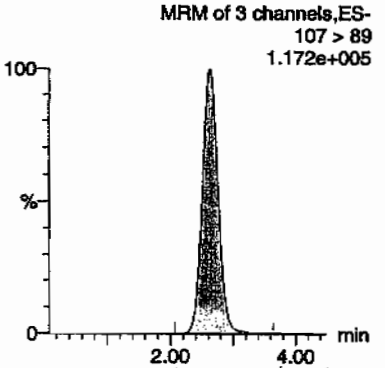

HMM 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091204-04	Perchlorate	99 > 83	2.65	36674.973	36674.973	bb			0.5019	100.38	0.38	14244....	2.99
WCL091204-04	Perchlorate-101	101 > 85	2.64	12277.716	12277.716	bb			0.4950	99.00	-1.00	2429.8...	
WCL091204-04	Perchlorate-O(18)	107 > 89	2.63	33725.574	33725.574	bb			0.4980	99.61	-0.39	10861....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215007a
Date: 15-Dec-2009
Time: 12:48:57
ID: WCL091204-05
Vial: 1:1,F

cwo 12-16-09

Perchlorate

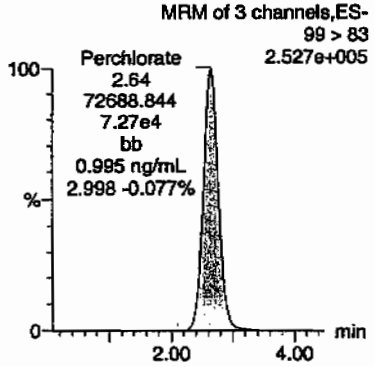

Perchlorate

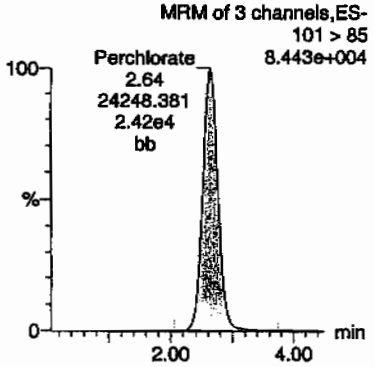

Perchlorate-101

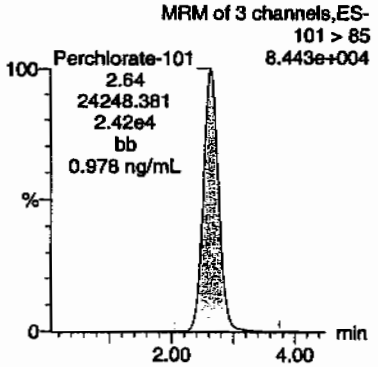

Perchlorate-O(18)

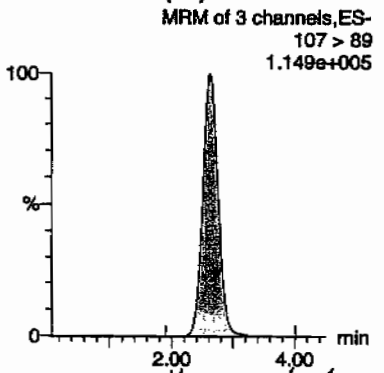

Hsm 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091204-05	Perchlorate	99 > 83	2.64	72688.844	72688.844	bb			0.9948	99.48	-0.52	9614.2...	3.00
WCL091204-05	Perchlorate-101	101 > 85	2.64	24248.381	24248.381	bb			0.9776	97.76	-2.24	5534.3...	
WCL091204-05	Perchlorate-O(18)	107 > 89	2.63	33165.563	33165.563	bb			0.4898	97.95	-2.05	9065.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–881

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.51	101.84	15–DEC–09 13:04	per1215009a
Perchlorate Isotope Ratio		3.02		15–DEC–09 13:04	per1215009a
Perchlorate–101	.5	.5	99.31	15–DEC–09 13:04	per1215009a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Page 7 of 922

Name: per1215009a
Date: 15-Dec-2009
Time: 13:04:00
ID: WCL091204-06ICV
Vial: 1:2,A

Pass
12-16-09

Perchlorate

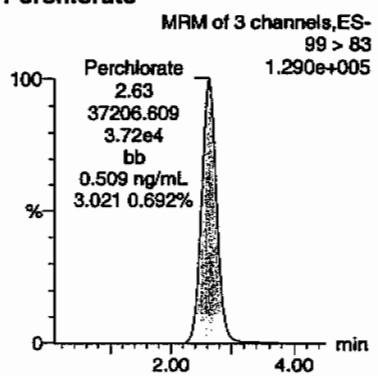

Perchlorate

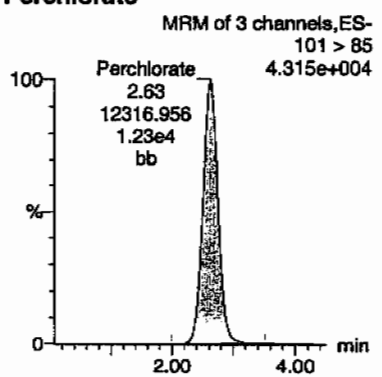

Perchlorate-101

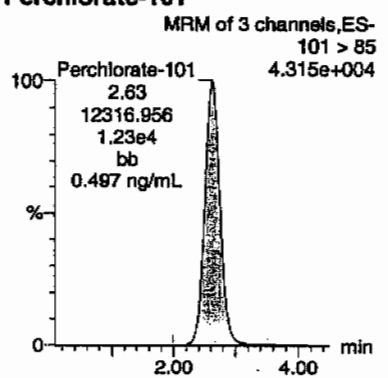

Perchlorate-O(18)

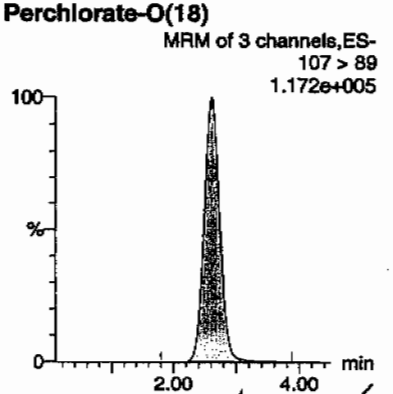

thru 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091204-06ICV	Perchlorate	99 > 83	2.63	37206.609	37206.609	bb			0.5092	101.84	1.84	6610.1...	3.02
WCL091204-06ICV	Perchlorate-101	101 > 85	2.63	12316.956	12316.956	bb			0.4966	99.31	-0.69	3318.0...	
WCL091204-06ICV	Perchlorate-O(18)	107 > 89	2.61	33471.102	33471.102	bb			0.4943	98.85	-1.15	1611.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–881

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.48	96.1	15–DEC–09 14:42	per1215022a
Perchlorate Isotope Ratio		2.96		15–DEC–09 14:42	per1215022a
Perchlorate–101	.5	.48	95.66	15–DEC–09 14:42	per1215022a
Perchlorate	.5	.48	96.19	15–DEC–09 16:20	per1215035a
Perchlorate Isotope Ratio		2.99		15–DEC–09 16:20	per1215035a
Perchlorate–101	.5	.47	94.89	15–DEC–09 16:20	per1215035a
Perchlorate	.5	.48	96.69	15–DEC–09 17:58	per1215048a
Perchlorate Isotope Ratio		3.09		15–DEC–09 17:58	per1215048a
Perchlorate–101	.5	.46	92.22	15–DEC–09 17:58	per1215048a
Perchlorate	.5	.47	93.79	15–DEC–09 19:36	per1215061a
Perchlorate Isotope Ratio		3		15–DEC–09 19:36	per1215061a
Perchlorate–101	.5	.46	92.14	15–DEC–09 19:36	per1215061a
Perchlorate	.5	.48	96.16	15–DEC–09 21:15	per1215074a

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–881

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		3.04		15–DEC–09 21:15	per1215074a
Perchlorate–101	.5	.47	93.3	15–DEC–09 21:15	per1215074a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215022a
Date: 15-Dec-2009
Time: 14:42:12
ID: WCL091204-06CCV
Vial: 1:2,A

Pass
12-16-09

Perchlorate

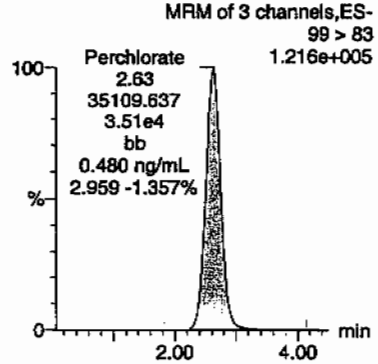

Perchlorate

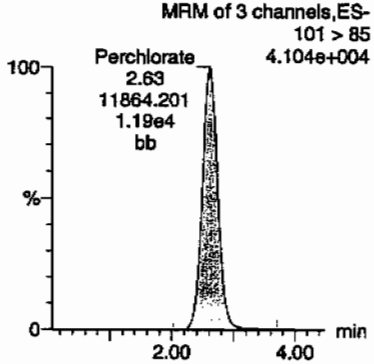

Perchlorate-101

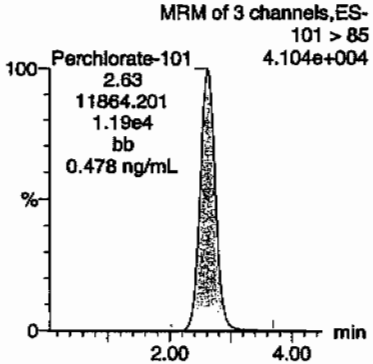

Perchlorate-O(18)

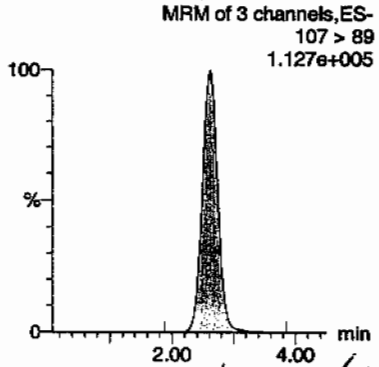

Hrm 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091204-06CCV	Perchlorate	99 > 83	2.63	35109.637	35109.637	bb			0.4805	96.10	-3.90	5051.9...	2.96
WCL091204-06CCV	Perchlorate-101	101 > 85	2.63	11864.201	11864.201	bb			0.4783	95.66	-4.34	1088.9...	
WCL091204-06CCV	Perchlorate-O(18)	107 > 89	2.61	32390.256	32390.256	bb			0.4783	95.66	-4.34	2940.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215035a
Date: 15-Dec-2009
Time: 16:20:21
ID: WCL091204-06CCV
Vial: 1:2,A

Pass
12-16-09

Perchlorate

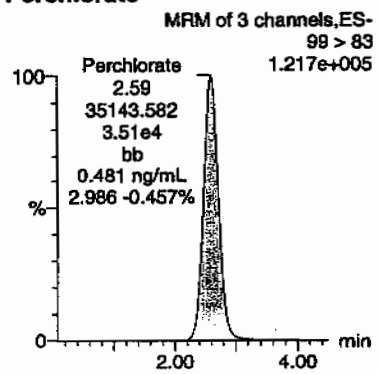

Perchlorate

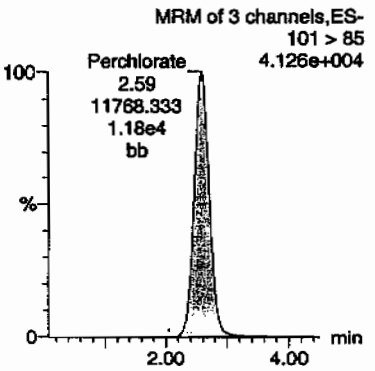

Perchlorate-101

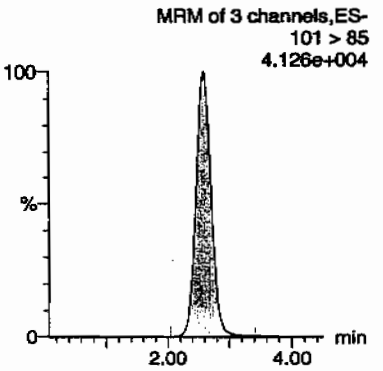

Perchlorate-O(18)

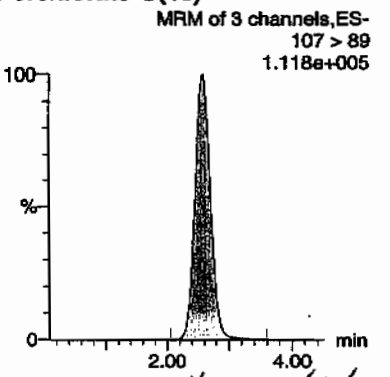

Hanc 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091204-06CCV	Perchlorate	99 > 83	2.59	35143.582	35143.582	bb			0.4809	96.19	-3.81	5495.4...	2.99
WCL091204-06CCV	Perchlorate-101	101 > 85	2.59	11768.333	11768.333	bb			0.4744	94.89	-5.11	5148.4...	
WCL091204-06CCV	Perchlorate-O(18)	107 > 89	2.58	32009.652	32009.652	bb			0.4727	94.54	-5.46	1450.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215048a
Date: 15-Dec-2009
Time: 17:58:45
ID: WCL091204-06CCV
Vial: 1:2,A

Pass
aw
12-16-09

Perchlorate

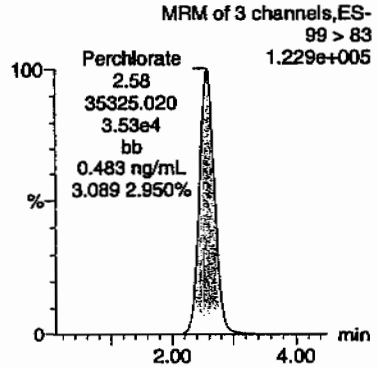

Perchlorate

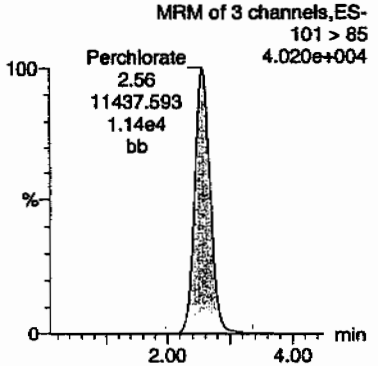

Perchlorate-101

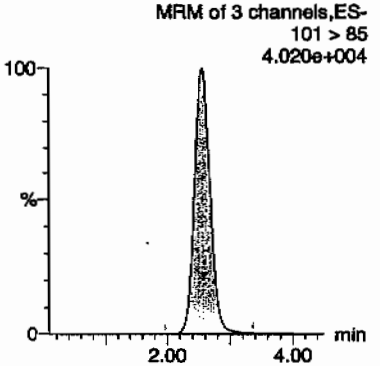

Perchlorate-O(18)

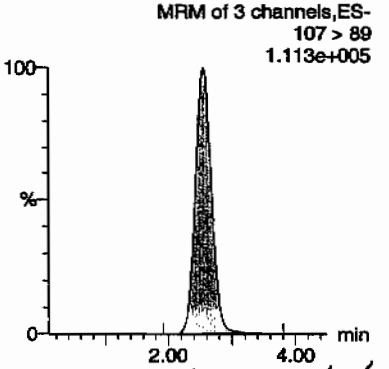

AW 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091204-06CCV	Perchlorate	99 > 83	2.58	35325.020	35325.020	bb			0.4834	96.69	-3.31	8110.8...	3.09
WCL091204-06CCV	Perchlorate-101	101 > 85	2.56	11437.593	11437.593	bb			0.4611	92.22	-7.78	3542.8...	
WCL091204-06CCV	Perchlorate-O(18)	107 > 89	2.55	31978.246	31978.246	bb			0.4722	94.45	-5.55	358.584	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215061a
Date: 15-Dec-2009
Time: 19:36:53
ID: WCL091204-06CCV
Vial: 1:2,A

Pass
aw
12-16-09

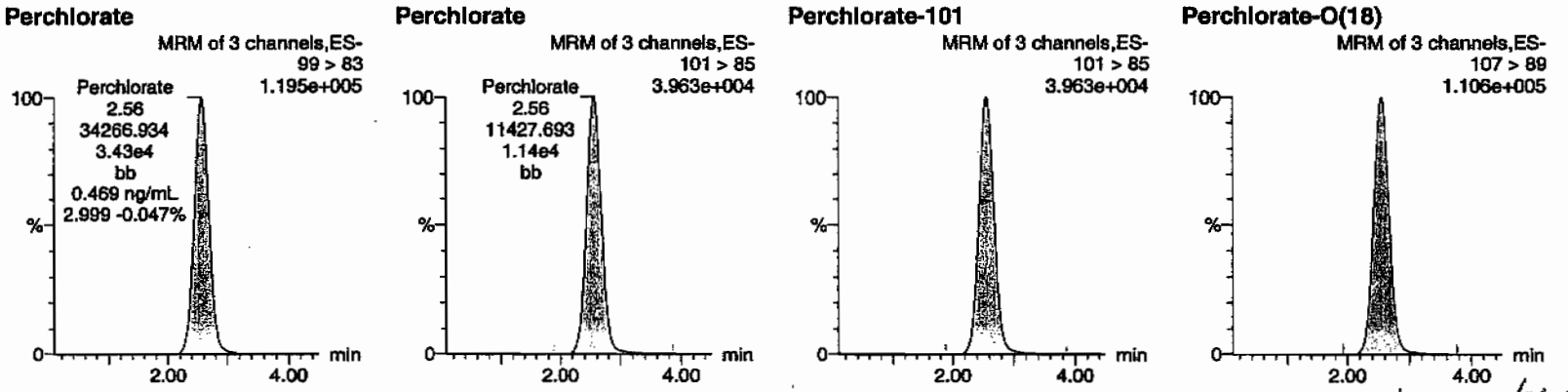

Hmm 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091204-06CCV	Perchlorate	99 > 83	2.56	34266.934	34266.934	bb			0.4689	93.79	-6.21	7349.5...	3.00
WCL091204-06CCV	Perchlorate-101	101 > 85	2.56	11427.693	11427.693	bb			0.4607	92.14	-7.86	3474.2...	
WCL091204-06CCV	Perchlorate-O(18)	107 > 89	2.55	31803.281	31803.281	bb			0.4696	93.93	-6.07	1613.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215074a
Date: 15-Dec-2009
Time: 21:15:20
ID: WCL091204-06CCV
Vial: 1:2,A

Pass
12-16-09

Perchlorate

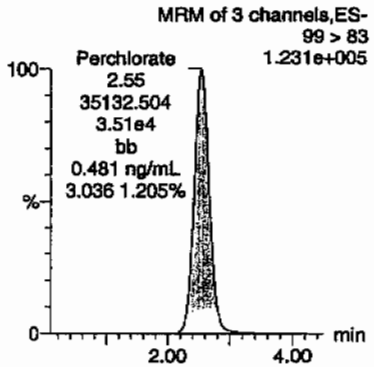

Perchlorate

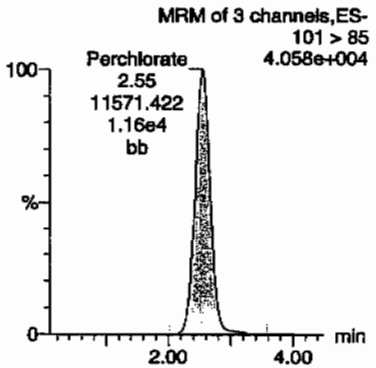

Perchlorate-101

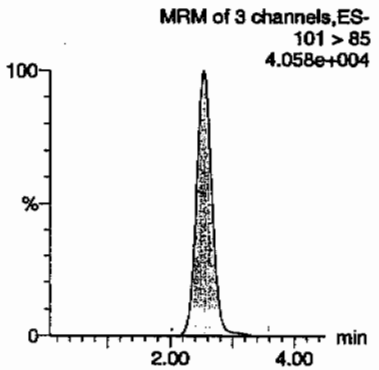

Perchlorate-O(18)

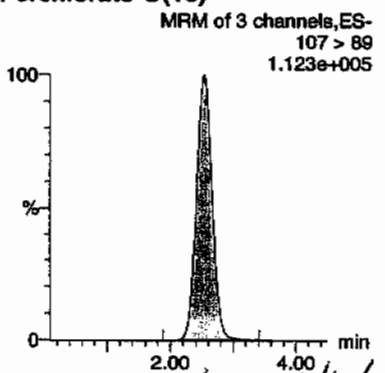

Hmm 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091204-06CCV	Perchlorate	99 > 83	2.55	35132.504	35132.504	bb			0.4808	96.16	-3.84	4156.6...	3.04
WCL091204-06CCV	Perchlorate-101	101 > 85	2.55	11571.422	11571.422	bb			0.4665	93.30	-6.70	2571.7...	
WCL091204-06CCV	Perchlorate-O(18)	107 > 89	2.54	32018.086	32018.086	bb			0.4728	94.56	-5.44	9935.1...	

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–881

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	100.61	15–DEC–09 13:19	per1215011a
Perchlorate Isotope Ratio		3.11		15–DEC–09 13:19	per1215011a
Perchlorate–101	.05	.05	95.38	15–DEC–09 13:19	per1215011a
Perchlorate	.05	.05	96.7	15–DEC–09 14:57	per1215024a
Perchlorate Isotope Ratio		2.94		15–DEC–09 14:57	per1215024a
Perchlorate–101	.05	.05	96.94	15–DEC–09 14:57	per1215024a
Perchlorate	.05	.05	98.31	15–DEC–09 16:35	per1215037a
Perchlorate Isotope Ratio		2.91		15–DEC–09 16:35	per1215037a
Perchlorate–101	.05	.05	99.64	15–DEC–09 16:35	per1215037a
Perchlorate	.05	.05	94.77	15–DEC–09 18:13	per1215050a
Perchlorate Isotope Ratio		2.97		15–DEC–09 18:13	per1215050a

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–881

Lab Code: GEL

Reporting Units: ug/L

Perchlorate–101	.05	.05	94.02	15–DEC–09 18:13	per1215050a
Perchlorate	.05	.05	96.07	15–DEC–09 19:52	per1215063a
Perchlorate Isotope Ratio		3		15–DEC–09 19:52	per1215063a
Perchlorate–101	.05	.05	94.23	15–DEC–09 19:52	per1215063a
Perchlorate	.05	.05	93.3	15–DEC–09 21:30	per1215076a
Perchlorate Isotope Ratio		2.97		15–DEC–09 21:30	per1215076a
Perchlorate–101	.05	.05	92.62	15–DEC–09 21:30	per1215076a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Page 8 of 19 22

Name: per1215011a
Date: 15-Dec-2009
Time: 13:19:13
ID: WCL091204-07CRI
Vial: 1:2,B

CWW 12-16-09

Perchlorate

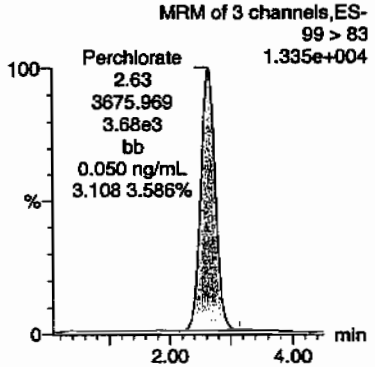

Perchlorate

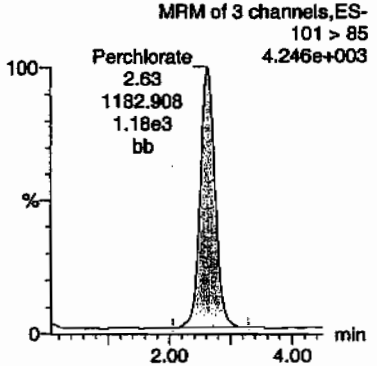

Perchlorate-101

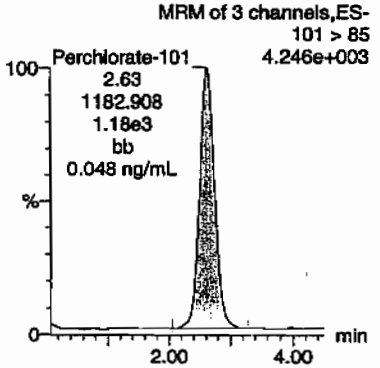

Perchlorate-O(18)

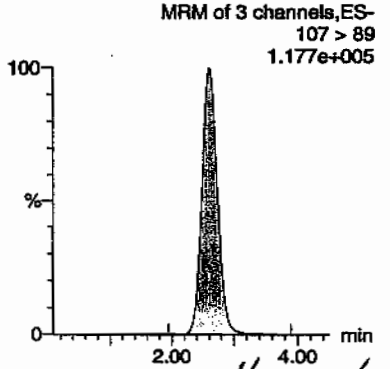

Hmm 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091204-07CRI	Perchlorate	99 > 83	2.63	3675.969	3675.969	bb			0.0503	100.61	0.61	990.927	3.11
WCL091204-07CRI	Perchlorate-101	101 > 85	2.63	1182.908	1182.908	bb			0.0477	95.38	-4.62	432.820	
WCL091204-07CRI	Perchlorate-O(18)	107 > 89	2.61	33745.609	33745.609	bb			0.4983	99.67	-0.33	1144.9...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215024a
Date: 15-Dec-2009
Time: 14:57:18
ID: WCL091204-07CRI
Vial: 1:2,B

Pass
12-16-09

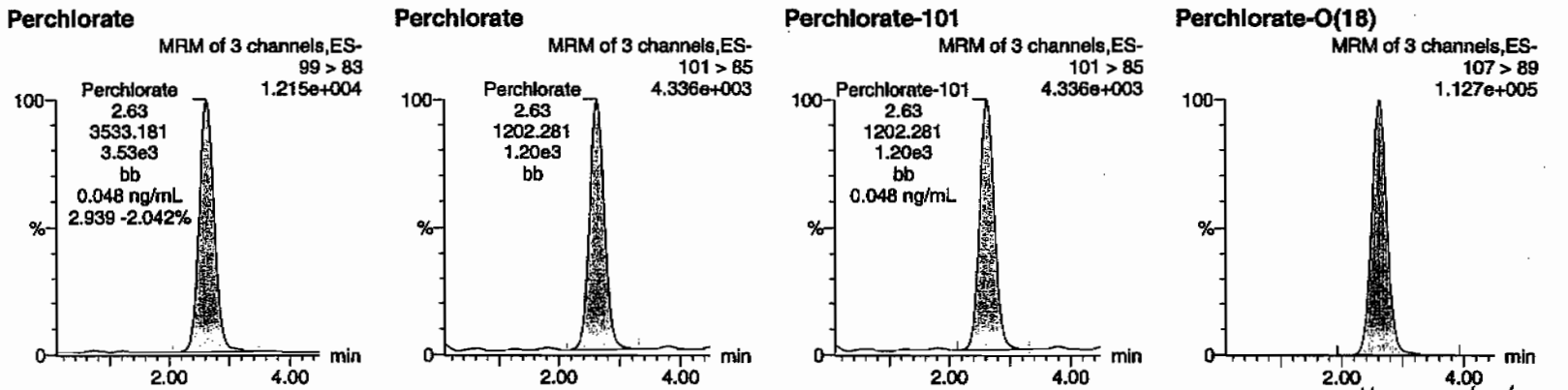

tmm 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091204-07CRI	Perchlorate	99 > 83	2.63	3533.181	3533.181	bb			0.0484	96.70	-3.30	340.468	2.94
WCL091204-07CRI	Perchlorate-101	101 > 85	2.63	1202.281	1202.281	bb			0.0485	96.94	-3.06	258.192	
WCL091204-07CRI	Perchlorate-O(18)	107 > 89	2.61	32702.543	32702.543	bb			0.4829	96.58	-3.42	10400....	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215037a
Date: 15-Dec-2009
Time: 16:35:27
ID: WCL091204-07CRI
Vial: 1:2,B

Pass
12-16-09

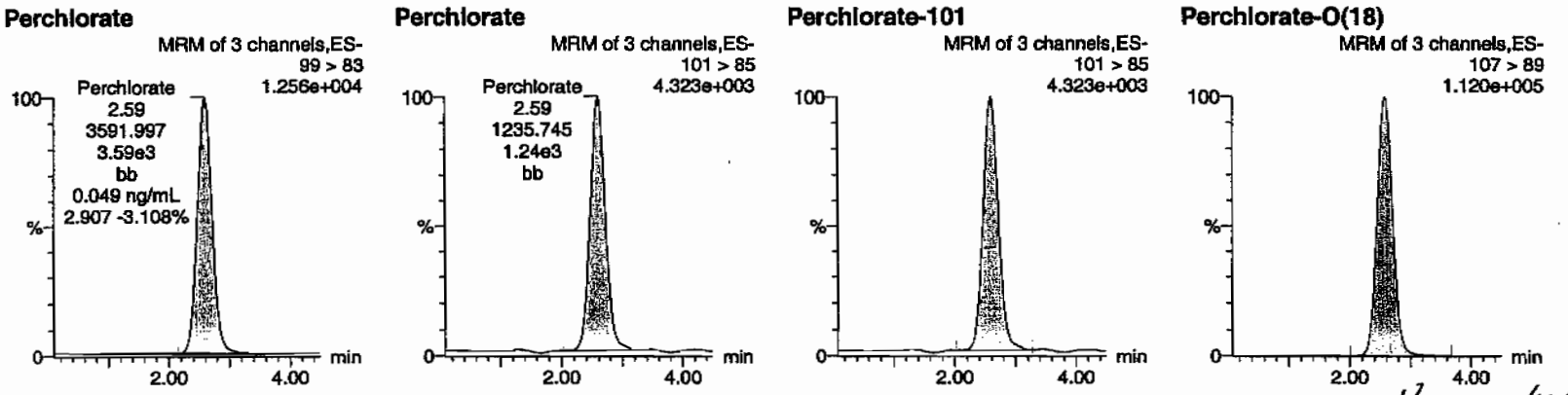

Hmm 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091204-07CRI	Perchlorate	99 > 83	2.59	3591.997	3591.997	bb			0.0492	98.31	-1.69	515.619	2.91
WCL091204-07CRI	Perchlorate-101	101 > 85	2.59	1235.745	1235.745	bb			0.0498	99.64	-0.36	579.303	
WCL091204-07CRI	Perchlorate-O(18)	107 > 89	2.58	32441.701	32441.701	bb			0.4791	95.81	-4.19	20117....	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215050a
Date: 15-Dec-2009
Time: 18:13:51
ID: WCL091204-07CRI
Vial: 1:2,B

CWW 12-16-09

Perchlorate

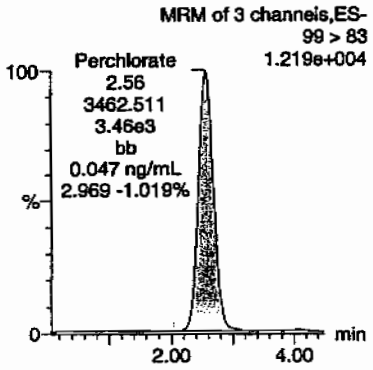

Perchlorate

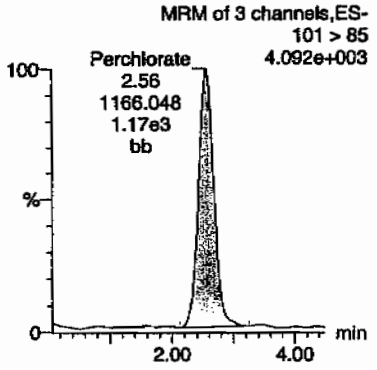

Perchlorate-101

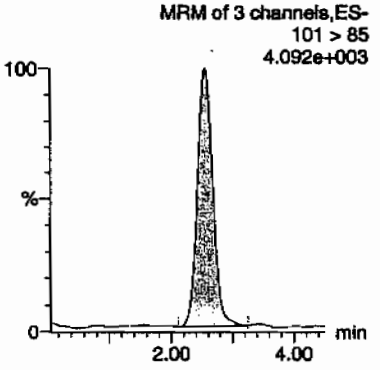

Perchlorate-O(18)

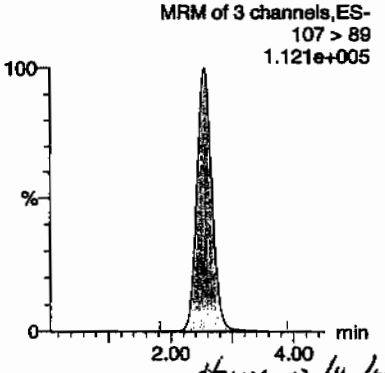

HWM 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091204-07CRI	Perchlorate	99 > 83	2.56	3462.511	3462.511	bb			0.0474	94.77	-5.23	328.812	2.97
WCL091204-07CRI	Perchlorate-101	101 > 85	2.56	1166.048	1166.048	bb			0.0470	94.02	-5.98	141.371	
WCL091204-07CRI	Perchlorate-O(18)	107 > 89	2.55	32131.385	32131.385	bb			0.4745	94.90	-5.10	1129.1...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Page 91 of 92

Name: per1215063a
Date: 15-Dec-2009
Time: 19:52:13
ID: WCL091204-07CRI
Vial: 1:2,B

CWW
12-16-9

Perchlorate

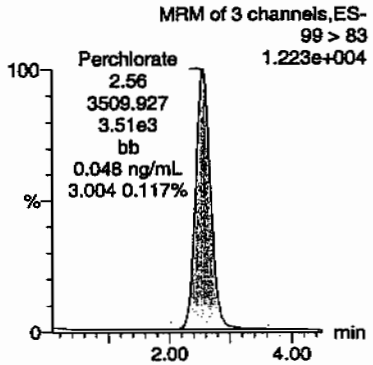

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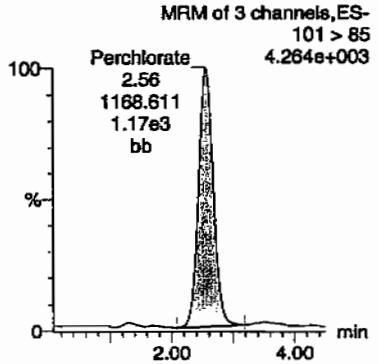

Perchlorate-101

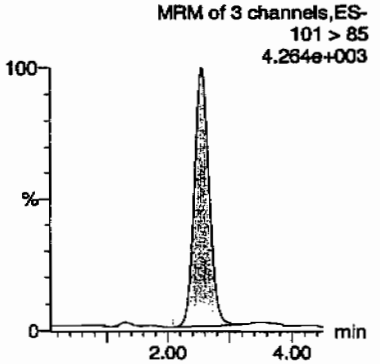

Perchlorate-O(18)

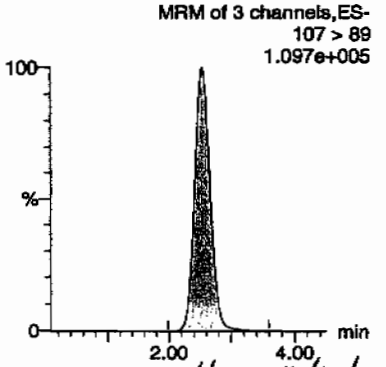

HNM 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091204-07CRI	Perchlorate	99 > 83	2.56	3509.927	3509.927	bb			0.0480	96.07	-3.93	282.083	3.00
WCL091204-07CRI	Perchlorate-101	101 > 85	2.56	1168.611	1168.611	bb			0.0471	94.23	-5.77	462.958	
WCL091204-07CRI	Perchlorate-O(18)	107 > 89	2.54	31455.691	31455.691	bb			0.4645	92.90	-7.10	5650.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215076a
Date: 15-Dec-2009
Time: 21:30:39
ID: WCL091204-07CRI
Vial: 1:2,B

Pass
ano
12-16-09

Perchlorate

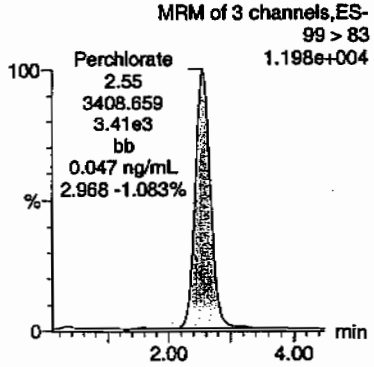

Perchlorate

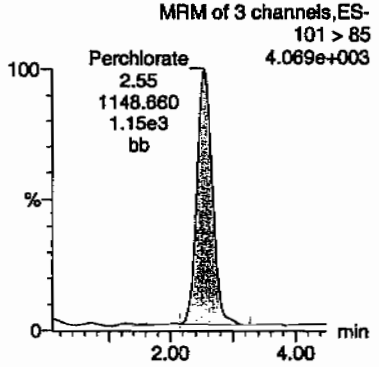

Perchlorate-101

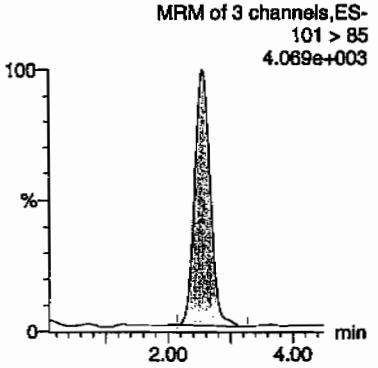

Perchlorate-O(18)

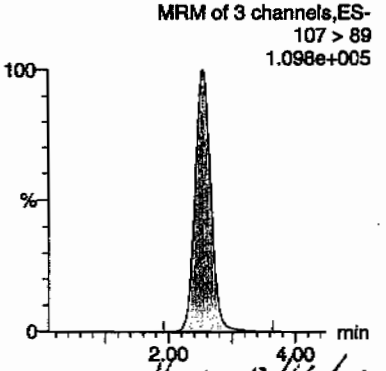

Hrm 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091204-07CRI	Perchlorate	99 > 83	2.55	3408.659	3408.659	bb			0.0466	93.30	-6.70	586.849	2.97
WCL091204-07CRI	Perchlorate-101	101 > 85	2.55	1148.660	1148.660	bb			0.0463	92.62	-7.38	272.819	
WCL091204-07CRI	Perchlorate-O(18)	107 > 89	2.54	31328.764	31328.764	bb			0.4626	92.53	-7.47	4507.7...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WATER

Extraction Batch ID: 933094

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
MB

Date Received: 15-DEC-09

GEL Job No (SDG): 10-881

GEL Sample ID: 1201996189

Date Filtered: 15-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	15-DEC-09 18:21	per1215051a
	Perchlorate Isotope Ratio						1	15-DEC-09 18:21	per1215051a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	15-DEC-09 18:21	per1215051a
	Perchlorate-O(18)			0.465	ug/L		1	15-DEC-09 18:21	per1215051a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215051a
Date: 15-Dec-2009
Time: 18:21:24
ID: 1201996189
Vial: 2:1,A

|LANL|933097|L22|MB|1|

GW 12-16-09

Perchlorate

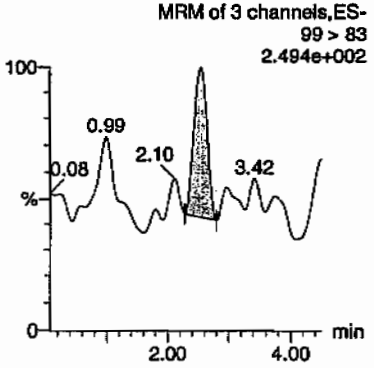

Perchlorate

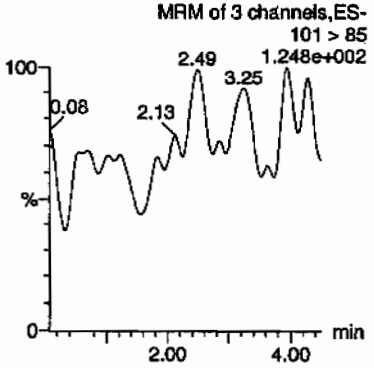

Perchlorate-101

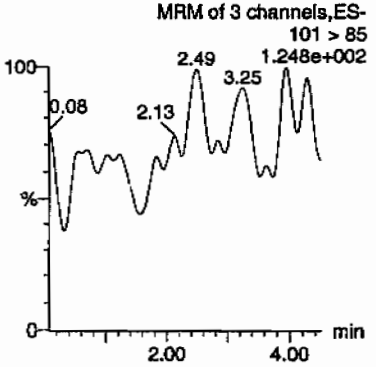

Perchlorate-O(18)

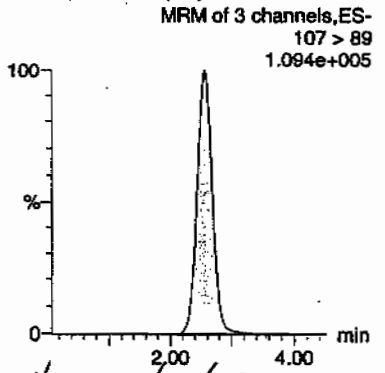

HJM 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1201996189	Perchlorate	99 > 83	2.54	35.789	35.789	bb			0.0005			5.872	0.00
1201996189	Perchlorate-101	101 > 85											
1201996189	Perchlorate-O(18)	107 > 89	2.56	31487.984	31487.984	bb			0.4650	93.00	-7.00	3040.5...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WATER

Extraction Batch ID: 933094

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
LCS

Date Received: 15-DEC-09

GEL Job No (SDG): 10-881

GEL Sample ID: 1201996190

Date Filtered: 15-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.196	ug/L	J	1	15-DEC-09 18:29	per1215052a
	Perchlorate Isotope Ratio			3.11			1	15-DEC-09 18:29	per1215052a
14797-73-0	Perchlorate-101	.05	.2	0.186	ug/L	J	1	15-DEC-09 18:29	per1215052a
	Perchlorate-O(18)			0.480	ug/L		1	15-DEC-09 18:29	per1215052a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215052a
Date: 15-Dec-2009
Time: 18:29:06
ID: 1201996190
Vial: 2:1,B

| LANL | 933097 | LZQ | LCS | 1 |

CWW 12-16-09

Perchlorate

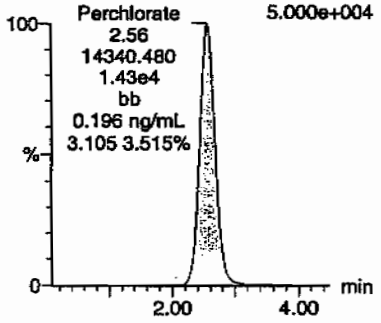

Perchlorate

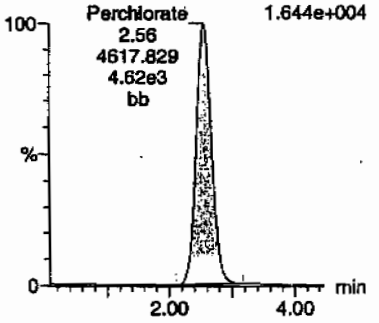

Perchlorate-101

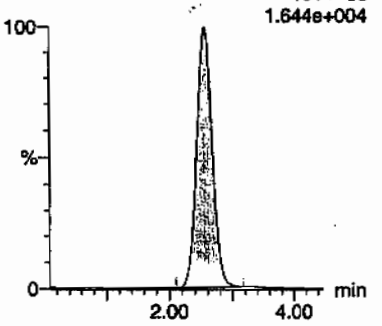

Perchlorate-O(18)

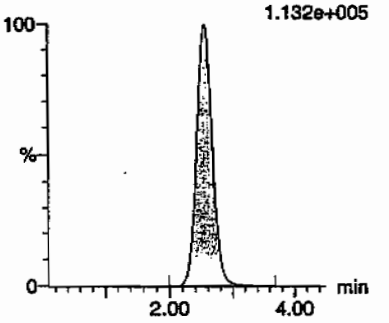

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1201996190	Perchlorate	99 > 83	2.56	14340.480	14340.480	bb			0.1963	98.13	-1.87	7785.8...	3.11
1201996190	Perchlorate-101	101 > 85	2.56	4617.829	4617.829	bb			0.1862	93.08	-6.92	1093.3...	
1201996190	Perchlorate-O(18)	107 > 89	2.55	32537.129	32537.129	bb			0.4805	96.10	-3.90	6462.4...	

$\frac{14340.480}{73071.7} = 0.19625$

HMM 12/16/09

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 933094

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6798MS

Date Received: 11-DEC-09

GEL Job No (SDG): 10-881

GEL Sample ID: 1201996193

Date Filtered: 15-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.536	ug/L		1	15-DEC-09 20:37	per1215069a
	Perchlorate Isotope Ratio			2.96			1	15-DEC-09 20:37	per1215069a
14797-73-0	Perchlorate-101	.05	.2	0.532	ug/L		1	15-DEC-09 20:37	per1215069a
	Perchlorate-O(18)			0.508	ug/L		1	15-DEC-09 20:37	per1215069a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Page 99 of 122

Name: per1215069a
Date: 15-Dec-2009
Time: 20:37:38
ID: 1201996193
Vial: 2:3,D

ILANL|933097|LCQ|MS|11

CWW 12-16-09

Perchlorate

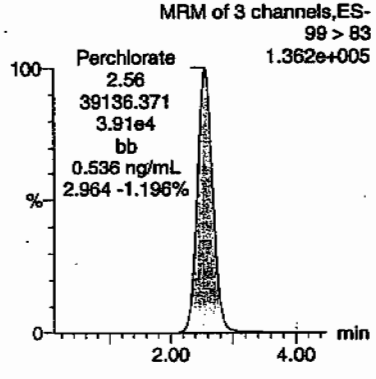

Perchlorate

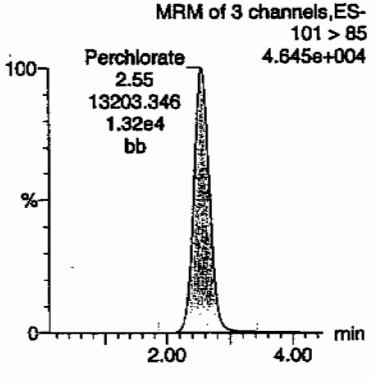

Perchlorate-101

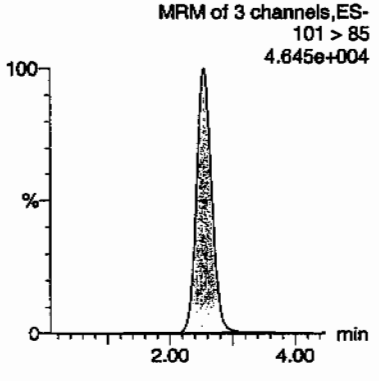

Perchlorate-O(18)

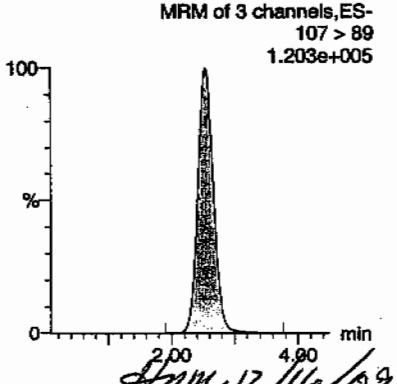

HMM 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1201996193	Perchlorate	99 > 83	2.56	39136.371	39136.371	bb			0.5356	267.79	167.79	8449.4...	2.96
1201996193	Perchlorate-101	101 > 85	2.55	13203.346	13203.346	bb			0.5323	266.15	166.15	3107.1...	
1201996193	Perchlorate-O(18)	107 > 89	2.54	34381:313	34381.313	bb			0.5077	101.54	1.54	4803.6...	

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 933094

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6798MSD

Date Received: 11-DEC-09

GEL Job No (SDG): 10-881

GEL Sample ID: 1201996194

Date Filtered: 15-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.539	ug/L		1	15-DEC-09 20:45	per1215070a
	Perchlorate Isotope Ratio			3			1	15-DEC-09 20:45	per1215070a
14797-73-0	Perchlorate-101	.05	.2	0.529	ug/L		1	15-DEC-09 20:45	per1215070a
	Perchlorate-O(18)			0.500	ug/L		1	15-DEC-09 20:45	per1215070a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charles Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per121509a.qld

Last Altered: Wednesday, December 16, 2009 9:20:41 AM Eastern Standard Time
Printed: Wednesday, December 16, 2009 9:34:59 AM Eastern Standard Time

Name: per1215070a
Date: 15-Dec-2009
Time: 20:45:09
ID: 1201996194
Vial: 2:3,E

|LANL|933097|LZQ|MSO|1|

CW 12-16-09

Perchlorate

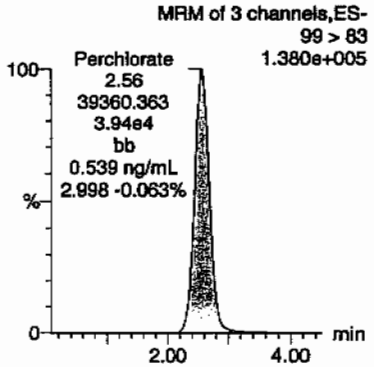

Perchlorate

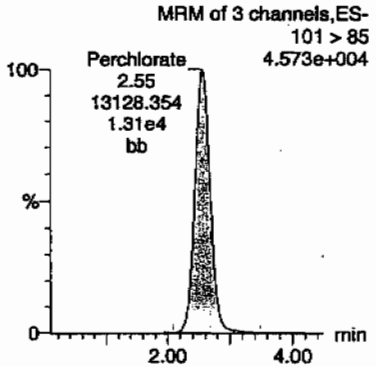

Perchlorate-101

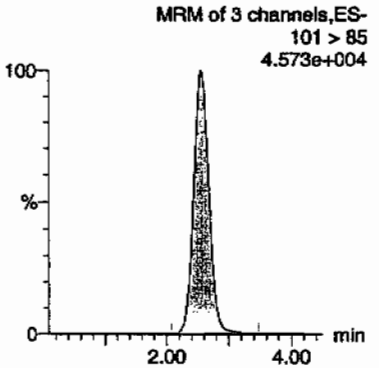

Perchlorate-O(18)

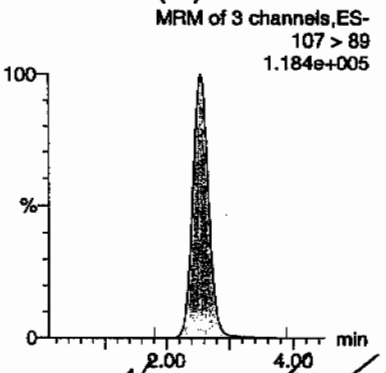

HMM 12/16/09

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1201996194	Perchlorate	99 > 83	2.56	39360.363	39360.363	bb			0.5387	269.33	169.33	1128.8...	3.00
1201996194	Perchlorate-101	101 > 85	2.55	13128.354	13128.354	bb			0.5293	264.64	164.64	7298.8...	
1201996194	Perchlorate-O(18)	107 > 89	2.55	33884.781	33884.781	bb			0.5004	100.08	0.08	2277.6...	

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 933094 **Verified by:** _____

Analyst: Jareth Shirley

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1201996189 MB	15-DEC-2009 12:38:16	10	10	1
1201996190 LCS	15-DEC-2009 12:38:16	10	10	1
242330001	15-DEC-2009 12:38:16	10	10	1
242436001	15-DEC-2009 12:38:16	10	10	1
1201996191 MS (242436001)	15-DEC-2009 12:38:16	10	10	1
1201996192 MSD (242436001)	15-DEC-2009 12:38:16	10	10	1
242651001	15-DEC-2009 12:38:16	10	10	1
242653001	15-DEC-2009 12:38:16	10	10	1
242667001	15-DEC-2009 12:38:16	10	10	1
242745001	15-DEC-2009 12:38:16	10	10	1
242749001	15-DEC-2009 12:38:16	10	10	1
242753002	15-DEC-2009 12:38:16	10	10	1
242753004	15-DEC-2009 12:38:16	10	10	1
242753006	15-DEC-2009 12:38:16	10	10	1
1201996193 MS (242753006)	15-DEC-2009 12:38:16	10	10	1
1201996194 MSD (242753006)	15-DEC-2009 12:38:16	10	10	1
242753008	15-DEC-2009 12:38:16	10	10	1
242753009	15-DEC-2009 12:38:16	10	10	1
242789003	15-DEC-2009 12:38:16	10	10	1
1201996195 ICS	15-DEC-2009 12:38:16	10	10	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1201996195	10 ug/L ICV/CCV Second Source	UCL091201-01.1	.2	mL
LCS	1201996190	10 ug/L ICV/CCV Second Source	UCL091201-01.1	.2	mL
MS	1201996191	10 ug/L ICV/CCV Second Source	UCL091201-01.1	.2	mL
MS	1201996193	10 ug/L ICV/CCV Second Source	UCL091201-01.1	.2	mL
MSD	1201996192	10 ug/L ICV/CCV Second Source	UCL091201-01.1	.2	mL
MSD	1201996194	10 ug/L ICV/CCV Second Source	UCL091201-01.1	.2	mL
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1133543	10	mL
RGNT	All	O2SI HPLC Grade Water	1233976	10	mL

Comments:

Desalting cartridges used: 090407-1-Ba & 090910-1-H

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS#2

Date: 12/15/09
Extr. Injection Volume: 20uL
Sequence Number: per121509a
Initial Calibration Date: 12/15/09

Method: EPA 6850-Modified
Int. Std.: UCL091019-03.2
Mobile Phase Lot#: 1233781, 1233976
Standard-Samp Reagent Lot#:: 1233976

Reviewed BY: [illegible]
Date: 12/16/09
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL091204-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per1215001a	IPB001	CWW	12/15/2009 12:03			1		USE	B
per1215002a	IPB001	CWW	12/15/2009 12:10			1		USE	B
per1215003a	WCLICAL-01	CWW	12/15/2009 12:18			1		USE	I
per1215004a	WCLICAL-02	CWW	12/15/2009 12:26			1		USE	I
per1215005a	WCLICAL-03	CWW	12/15/2009 12:33			1		USE	I
per1215006a	WCLICAL-04	CWW	12/15/2009 12:41			1		USE	I
per1215007a	WCLICAL-05	CWW	12/15/2009 12:48			1		USE	I
per1215008a	IPB002	CWW	12/15/2009 12:56			1		USE	B
per1215009a	WCLICV	CWW	12/15/2009 13:04			1		USE	C
per1215010a	IPB003	CWW	12/15/2009 13:11			1		USE	B
per1215011a	WCLCRI	CWW	12/15/2009 13:19			1		USE	C
per1215012a	MB-DOD	CWW	12/15/2009 13:26			1	GEL	USE	S
per1215013a	LCS-DOD	CWW	12/15/2009 13:34			1	GEL	USE	S
per1215014a	LOD-DOD	CWW	12/15/2009 13:41			1	GEL	USE	S
per1215015a	LOD-DOQ	CWW	12/15/2009 13:49			1	GEL	USE	S
per1215016a	IPB004	CWW	12/15/2009 13:56			1		USE	B
per1215017a	1201994412	CWW	12/15/2009 14:04	932380	09L162	1	EMAX	USE	S
per1215018a	1201994413	CWW	12/15/2009 14:12	932380	09L162	1	EMAX	USE	S
per1215019a	1201994416	CWW	12/15/2009 14:19	932380	09L162	1	EMAX	USE	S
per1215020a	242636001	CWW	12/15/2009 14:27	932380	09L162	1	EMAX	USE	S
per1215021a	242636002	CWW	12/15/2009 14:34	932380	09L162	1	EMAX	USE	S
per1215022a	WCLCCV	CWW	12/15/2009 14:42			1		USE	C
per1215023a	IPB005	CWW	12/15/2009 14:49			1		USE	B
per1215024a	WCLCRI	CWW	12/15/2009 14:57			1		USE	C
per1215025a	242636003	CWW	12/15/2009 15:04	932380	09L162	1	EMAX	DUSE-DL	S
per1215026a	242636004	CWW	12/15/2009 15:12	932380	09L162	1	EMAX	DUSE-RA	S
per1215027a	242636005	CWW	12/15/2009 15:19	932380	09L162	1	EMAX	USE	S
per1215028a	242636006	CWW	12/15/2009 15:27	932380	09L162	1	EMAX	USE	S
per1215029a	242636007	CWW	12/15/2009 15:35	932380	09L162	1	EMAX	USE	S

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per1215030a	242636008	CWW	12/15/2009 15:42	932380	09L162	1	EMAX	USE	S
per1215031a	242636009	CWW	12/15/2009 15:50	932380	09L162	1	EMAX	USE	S
per1215032a	242636010	CWW	12/15/2009 15:57	932380	09L162	1	EMAX	USE	S
per1215033a	242636011	CWW	12/15/2009 16:05	932380	09L162	1	EMAX	USE	S
per1215034a	242636012	CWW	12/15/2009 16:12	932380	09L162	1	EMAX	USE	S
per1215035a	WCLCCV	CWW	12/15/2009 16:20			1		USE	C
per1215036a	IPB006	CWW	12/15/2009 16:27			1		USE	B
per1215037a	WCLCRI	CWW	12/15/2009 16:35			1		USE	C
per1215038a	242636013	CWW	12/15/2009 16:43	932380	09L162	1	EMAX	USE	S
per1215039a	242636014	CWW	12/15/2009 16:50	932380	09L162	1	EMAX	USE	S
per1215040a	1201994414	CWW	12/15/2009 16:58	932380	09L162	1	EMAX	USE	S
per1215041a	1201994415	CWW	12/15/2009 17:05	932380	09L162	1	EMAX	USE	S
per1215042a	242636015	CWW	12/15/2009 17:13	932380	09L162	1	EMAX	USE	S
per1215043a	242636016	CWW	12/15/2009 17:20	932380	09L162	1	EMAX	USE	S
per1215044a	242636017	CWW	12/15/2009 17:28	932380	09L162	1	EMAX	USE	S
per1215045a	242636018	CWW	12/15/2009 17:36	932380	09L162	1	EMAX	USE	S
per1215046a	242636019	CWW	12/15/2009 17:43	932380	09L162	1	EMAX	USE	S
per1215047a	242636020	CWW	12/15/2009 17:51	932380	09L162	1	EMAX	USE	S
per1215048a	WCLCCV	CWW	12/15/2009 17:58			1		USE	C
per1215049a	IPB007	CWW	12/15/2009 18:06			1		USE	B
per1215050a	WCLCRI	CWW	12/15/2009 18:13			1		USE	C
per1215051a	1201996189	CWW	12/15/2009 18:21	933097	VARIOUS	1	LANL	USE	S
per1215052a	1201996190	CWW	12/15/2009 18:29	933097	VARIOUS	1	LANL	USE	S
per1215053a	1201996195	CWW	12/15/2009 18:36	933097	VARIOUS	1	LANL	USE	S
per1215054a	242330001	CWW	12/15/2009 18:44	933097	10-815-1	1	LANL	USE	S
per1215055a	242436001	CWW	12/15/2009 18:51	933097	10-826-1	1	LANL	USE	S
per1215056a	1201996191	CWW	12/15/2009 18:59	933097	10-826-1	1	LANL	USE	S
per1215057a	1201996192	CWW	12/15/2009 19:06	933097	10-826-1	1	LANL	USE	S
per1215058a	242651001	CWW	12/15/2009 19:14	933097	10-844	1	LANL	USE	S
per1215059a	242653001	CWW	12/15/2009 19:21	933097	10-851	1	LANL	USE	S
per1215060a	242667001	CWW	12/15/2009 19:29	933097	10-869	1	LANL	USE	S
per1215061a	WCLCCV	CWW	12/15/2009 19:36			1		USE	C
per1215062a	IPB008	CWW	12/15/2009 19:44			1		USE	B
per1215063a	WCLCRI	CWW	12/15/2009 19:52			1		USE	C
per1215064a	242745001	CWW	12/15/2009 19:59	933097	10-883-1	1	LANL	USE	S
per1215065a	242749001	CWW	12/15/2009 20:07	933097	10-885-1	1	LANL	USE	S
per1215066a	242753002	CWW	12/15/2009 20:15	933097	10-881	1	LANL	USE	S

per1215067a	242753004	CWW	12/15/2009 20:22	933097	10-881	1	LANL	USE	S
per1215068a	242753006	CWW	12/15/2009 20:30	933097	10-881	1	LANL	USE	S
per1215069a	1201996193	CWW	12/15/2009 20:37	933097	10-881	1	LANL	USE	S
per1215070a	1201996194	CWW	12/15/2009 20:45	933097	10-881	1	LANL	USE	S
per1215071a	242753008	CWW	12/15/2009 20:52	933097	10-881	1	LANL	USE	S
per1215072a	242753009	CWW	12/15/2009 21:00	933097	10-881	1	LANL	USE	S
per1215073a	242789003	CWW	12/15/2009 21:07	933097	10-895	1	LANL	USE	S
per1215074a	WCLCCV	CWW	12/15/2009 21:15			1		USE	C
per1215075a	IPB009	CWW	12/15/2009 21:23			1		USE	B
per1215076a	WCLCRI	CWW	12/15/2009 21:30			1		USE	C
per1215077a	242636003	CWW	12/15/2009 21:38	932380	09L162	2	EMAX	USE	S
per1215078a	242636004	CWW	12/15/2009 21:45	932380	09L162	1	EMAX	USE	S
per1215079a	WCLCCV	CWW	12/15/2009 21:53			1		USE	C
per1215080a	IPB010	CWW	12/15/2009 22:01			1		USE	B
per1215081a	WCLCRI	CWW	12/15/2009 22:08			1		USE	C

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-881

Sample Analysis

Sample ID	Client ID
242753001	CAPA-10-6347
242753002	CAPA-10-6349
242753003	CAPA-10-6371
242753004	CAPA-10-6372
242753005	CAPA-10-6797
242753006	CAPA-10-6798
242753007	CAPA-10-6800
242753008	CAPA-10-6801
242753009	CAPA-10-6901
1201994196	Method Blank (MB) **ICP**
1201994197	Laboratory Control Sample (LCS)
1201994200	242753001(CAPA-10-6347L) Serial Dilution (SD)
1201994198	242753001(CAPA-10-6347D) Sample Duplicate (DUP)
1201994199	242753001(CAPA-10-6347S) Matrix Spike (MS)
1201994283	Method Blank (MB) **ICP-MS**
1201994284	Laboratory Control Sample (LCS)
1201994287	242753002(CAPA-10-6349L) Serial Dilution (SD)
1201994285	242753002(CAPA-10-6349D) Sample Duplicate (DUP)
1201994286	242753002(CAPA-10-6349S) Matrix Spike (MS)
1202000201	Method Blank (MB) **CVAA**

1202000202	Laboratory Control Sample (LCS)
1202000205	242753001(CAPA-10-6347L) Serial Dilution (SD)
1202000203	242753001(CAPA-10-6347D) Sample Duplicate (DUP)
1202000204	242753001(CAPA-10-6347S) Matrix Spike (MS)

Method/Analysis Information

Analytical Batch:	932266, 932308, 934884 and 939525
Prep Batch :	932265, 932307 and 934882
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 20, GL-MA-E-010 REV# 23 and GL-GC-E-107 REV# 5
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 DOE-AL, EPA 245.1/245.2 and SM 2340 B
Prep Method :	SW846 3005A and EPA 245.1/245.2 Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Hardness as CaCO3 is calculated from Calcium and Magnesium results.

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

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

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 242753001 and 242753002.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

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

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instruments. Dilutions were required for samples 242753001, 242753002, 242753003, 242753004, 242753005, 242753006, 242753007 and 242753008 in order to minimize tin suppression due to matrix interferences.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance Documentation
Nonconformance reports (NCRs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Total Hardness by Calculation is determined using the results of Total Calcium (Ca) and Total Magnesium (Mg) determined by ICP or ICP-MS.

Hardness = 2.497 (Ca) + 4.118 (Mg)

Please refer to the Total Ca and Total Mg data to validate results appearing on the Hardness Summary sheet. Both results are in the Inorganic/metals section of the package. There is no Batch QC for calculated results, and thus no QC Summary for the Hardness by Calculation Batch. The MDLs and PQLs are calculated using the higher of the two calculated values of Ca or Mg.

Certification Statement

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

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: Kristen Parson **Date:** 1/8/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753001 **CLIENT ID:** CAPA-10-6347

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	122409W1-10
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	122009A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100102-3
7440-39-3	Barium	21.9	ug/L			P	1	1	OPTIMA3	122009A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	122009A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100102-3
7440-70-2	Calcium	16100	ug/L			P	50	1	OPTIMA3	122009A-1
7440-47-3	Chromium	3.87	ug/L	J		MS	2.5	1	ICPMS5	100102-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	122009A-1
7439-89-6	Iron	32.8	ug/L	J		P	30	1	OPTIMA3	122009A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7439-95-4	Magnesium	4020	ug/L			P	85	1	OPTIMA3	122009A-1
7439-96-5	Manganese	34.6	ug/L			P	2	1	OPTIMA3	122009A-1
7439-98-7	Molybdenum	1.61	ug/L			MS	0.1	1	ICPMS5	100102-3
7440-02-0	Nickel	0.981	ug/L	J		MS	0.5	1	ICPMS5	100102-3
7440-09-7	Potassium	1760	ug/L			P	50	1	OPTIMA3	122009A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100102-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100102-3
7440-23-5	Sodium	11400	ug/L			P	100	1	OPTIMA3	122009A-1
7440-24-6	Strontium	79.1	ug/L			P	1	1	OPTIMA3	122009A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100103-9
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	122909A-2
7440-61-1	Uranium	0.52	ug/L			MS	0.05	1	ICPMS5	100102-8

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753001 **CLIENT ID:** CAPA-10-6347

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	6.08	ug/L			P	1	1	OPTIMA3	122009A-1
7440-66-6	Zinc	3.3	ug/L	U		P	3.3	1	OPTIMA3	122009A-1
	Hardness as CaCO3	56.7	mg/L				0.35	1	CALC001	

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753002 **CLIENT ID:** CAPA-10-6349

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	122409W1-10
7631-86-9	Silica	61.8	mg/L			P	0.053	1	OPTIMA3	122009A-1
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	122009A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100102-3
7440-39-3	Barium	20.6	ug/L			P	1	1	OPTIMA3	122009A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	122009A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100102-3
7440-70-2	Calcium	16200	ug/L			P	50	1	OPTIMA3	122009A-1
7440-47-3	Chromium	3.09	ug/L	J		MS	2.5	1	ICPMS5	100102-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	122009A-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA3	122009A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7439-95-4	Magnesium	4120	ug/L			P	85	1	OPTIMA3	122009A-1
7439-96-5	Manganese	2	ug/L	U		P	2	1	OPTIMA3	122009A-1
7439-98-7	Molybdenum	1.58	ug/L			MS	0.1	1	ICPMS5	100102-3
7440-02-0	Nickel	0.536	ug/L	J		MS	0.5	1	ICPMS5	100102-3
7440-09-7	Potassium	1780	ug/L			P	50	1	OPTIMA3	122009A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100102-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100102-3
7440-23-5	Sodium	10700	ug/L			P	100	1	OPTIMA3	122009A-1
7440-24-6	Strontium	77.6	ug/L			P	1	1	OPTIMA3	122009A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100103-9
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	122909A-2

METALS
–1–
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10–881 **METHOD TYPE:** EPA

SAMPLE ID: 242753002 **CLIENT ID:** CAPA–10–6349

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11–DEC–09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440–61–1	Uranium	0.492	ug/L			MS	0.05	1	ICPMS5	100102–8
7440–62–2	Vanadium	6.23	ug/L			P	1	1	OPTIMA3	122009A–1
7440–66–6	Zinc	3.3	ug/L	U		P	3.3	1	OPTIMA3	122009A–1
	Hardness as CaCO3	57.5	mg/L				0.35	1	CALC001	

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753003 **CLIENT ID:** CAPA-10-6371

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	122409W1-10
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	122009A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100102-3
7440-39-3	Barium	22.4	ug/L			P	1	1	OPTIMA3	122009A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	122009A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100102-3
7440-70-2	Calcium	16500	ug/L			P	50	1	OPTIMA3	122009A-1
7440-47-3	Chromium	4.21	ug/L	J		MS	2.5	1	ICPMS5	100102-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	122009A-1
7439-89-6	Iron	74.9	ug/L	J		P	30	1	OPTIMA3	122009A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7439-95-4	Magnesium	4130	ug/L			P	85	1	OPTIMA3	122009A-1
7439-96-5	Manganese	39.8	ug/L			P	2	1	OPTIMA3	122009A-1
7439-98-7	Molybdenum	1.55	ug/L			MS	0.1	1	ICPMS5	100102-3
7440-02-0	Nickel	1.24	ug/L	J		MS	0.5	1	ICPMS5	100102-3
7440-09-7	Potassium	1780	ug/L			P	50	1	OPTIMA3	122009A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100102-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100102-3
7440-23-5	Sodium	11800	ug/L			P	100	1	OPTIMA3	122009A-1
7440-24-6	Strontium	81.4	ug/L			P	1	1	OPTIMA3	122009A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100103-9
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	122909A-2
7440-61-1	Uranium	0.5	ug/L			MS	0.05	1	ICPMS5	100102-8

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753003 **CLIENT ID:** CAPA-10-6371

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	6.22	ug/L			P	1	1	OPTIMA3	122009A-1
7440-66-6	Zinc	3.3	ug/L	U		P	3.3	1	OPTIMA3	122009A-1
	Hardness as CaCO3	58.1	mg/L				0.35	1	CALC001	

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753004 **CLIENT ID:** CAPA-10-6372

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	122409W1-10
7631-86-9	Silica	61.3	mg/L			P	0.053	1	OPTIMA3	122009A-1
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	122009A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100102-3
7440-39-3	Barium	20.5	ug/L			P	1	1	OPTIMA3	122009A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	122009A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100102-3
7440-70-2	Calcium	15900	ug/L			P	50	1	OPTIMA3	122009A-1
7440-47-3	Chromium	2.88	ug/L	J		MS	2.5	1	ICPMS5	100102-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	122009A-1
7439-89-6	Iron	32.1	ug/L	J		P	30	1	OPTIMA3	122009A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7439-95-4	Magnesium	4100	ug/L			P	85	1	OPTIMA3	122009A-1
7439-96-5	Manganese	2	ug/L	U		P	2	1	OPTIMA3	122009A-1
7439-98-7	Molybdenum	1.58	ug/L			MS	0.1	1	ICPMS5	100102-3
7440-02-0	Nickel	0.583	ug/L	J		MS	0.5	1	ICPMS5	100102-3
7440-09-7	Potassium	1740	ug/L			P	50	1	OPTIMA3	122009A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100102-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100102-3
7440-23-5	Sodium	11300	ug/L			P	100	1	OPTIMA3	122009A-1
7440-24-6	Strontium	78.4	ug/L			P	1	1	OPTIMA3	122009A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100103-9
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	122909A-2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753004 **CLIENT ID:** CAPA-10-6372

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	0.509	ug/L			MS	0.05	1	ICPMS5	100102-8
7440-62-2	Vanadium	6.2	ug/L			P	1	1	OPTIMA3	122009A-1
7440-66-6	Zinc	3.3	ug/L	U		P	3.3	1	OPTIMA3	122009A-1
	Hardness as CaCO3	56.5	mg/L				0.35	1	CALC001	

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753005 **CLIENT ID:** CAPA-10-6797

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	122409W1-10
7429-90-5	Aluminum	187	ug/L	J		P	68	1	OPTIMA3	122009A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100102-3
7440-39-3	Barium	17.9	ug/L			P	1	1	OPTIMA3	122009A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	122009A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100102-3
7440-70-2	Calcium	12600	ug/L			P	50	1	OPTIMA3	122009A-1
7440-47-3	Chromium	3.21	ug/L	J		MS	2.5	1	ICPMS5	100102-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	122009A-1
7439-89-6	Iron	158	ug/L			P	30	1	OPTIMA3	122009A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7439-95-4	Magnesium	3490	ug/L			P	85	1	OPTIMA3	122009A-1
7439-96-5	Manganese	9.82	ug/L	J		P	2	1	OPTIMA3	122009A-1
7439-98-7	Molybdenum	1.43	ug/L			MS	0.1	1	ICPMS5	100102-3
7440-02-0	Nickel	1.01	ug/L	J		MS	0.5	1	ICPMS5	100102-3
7440-09-7	Potassium	1400	ug/L			P	50	1	OPTIMA3	122009A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100102-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100102-3
7440-23-5	Sodium	10800	ug/L			P	100	1	OPTIMA3	122009A-1
7440-24-6	Strontium	55.7	ug/L			P	1	1	OPTIMA3	122009A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100103-9
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	122909A-2
7440-61-1	Uranium	0.451	ug/L			MS	0.05	1	ICPMS5	100102-8

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753005 **CLIENT ID:** CAPA-10-6797

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	5.33	ug/L			P	1	1	OPTIMA3	122009A-1
7440-66-6	Zinc	20.1	ug/L			P	3.3	1	OPTIMA3	122009A-1
	Hardness as CaCO3	45.8	mg/L				0.35	1	CALC001	

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753006 **CLIENT ID:** CAPA-10-6798

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	122409W1-10
7631-86-9	Silica	65.3	mg/L			P	0.053	1	OPTIMA3	122009A-1
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	122009A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100102-3
7440-39-3	Barium	15.7	ug/L			P	1	1	OPTIMA3	122009A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	122009A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100102-3
7440-70-2	Calcium	11700	ug/L			P	50	1	OPTIMA3	122009A-1
7440-47-3	Chromium	2.73	ug/L	J		MS	2.5	1	ICPMS5	100102-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	122009A-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA3	122009A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7439-95-4	Magnesium	3320	ug/L			P	85	1	OPTIMA3	122009A-1
7439-96-5	Manganese	2	ug/L	U		P	2	1	OPTIMA3	122009A-1
7439-98-7	Molybdenum	1.83	ug/L			MS	0.1	1	ICPMS5	100102-3
7440-02-0	Nickel	0.754	ug/L	J		MS	0.5	1	ICPMS5	100102-3
7440-09-7	Potassium	1310	ug/L			P	50	1	OPTIMA3	122009A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100102-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100102-3
7440-23-5	Sodium	10700	ug/L			P	100	1	OPTIMA3	122009A-1
7440-24-6	Strontium	52.5	ug/L			P	1	1	OPTIMA3	122009A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100103-9
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	122909A-2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753006 **CLIENT ID:** CAPA-10-6798

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	0.408	ug/L			MS	0.05	1	ICPMS5	100102-8
7440-62-2	Vanadium	4.83	ug/L	J		P	1	1	OPTIMA3	122009A-1
7440-66-6	Zinc	3.53	ug/L	J		P	3.3	1	OPTIMA3	122009A-1
	Hardness as CaCO3	42.9	mg/L				0.35	1	CALC001	

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753007 **CLIENT ID:** CAPA-10-6800

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	122409W1-10
7429-90-5	Aluminum	157	ug/L	J		P	68	1	OPTIMA3	122009A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100102-3
7440-39-3	Barium	17.6	ug/L			P	1	1	OPTIMA3	122009A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	122009A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100102-3
7440-70-2	Calcium	12400	ug/L			P	50	1	OPTIMA3	122009A-1
7440-47-3	Chromium	2.75	ug/L	J		MS	2.5	1	ICPMS5	100102-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	122009A-1
7439-89-6	Iron	127	ug/L			P	30	1	OPTIMA3	122009A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7439-95-4	Magnesium	3590	ug/L			P	85	1	OPTIMA3	122009A-1
7439-96-5	Manganese	6.94	ug/L	J		P	2	1	OPTIMA3	122009A-1
7439-98-7	Molybdenum	1.61	ug/L			MS	0.1	1	ICPMS5	100102-3
7440-02-0	Nickel	0.904	ug/L	J		MS	0.5	1	ICPMS5	100102-3
7440-09-7	Potassium	1400	ug/L			P	50	1	OPTIMA3	122009A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100102-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100102-3
7440-23-5	Sodium	10900	ug/L			P	100	1	OPTIMA3	122009A-1
7440-24-6	Strontium	55.2	ug/L			P	1	1	OPTIMA3	122009A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100103-9
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	122909A-2
7440-61-1	Uranium	0.458	ug/L			MS	0.05	1	ICPMS5	100102-8

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753007 **CLIENT ID:** CAPA-10-6800

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	5.13	ug/L			P	1	1	OPTIMA3	122009A-1
7440-66-6	Zinc	15.4	ug/L			P	3.3	1	OPTIMA3	122009A-1
	Hardness as CaCO3	45.8	mg/L				0.35	1	CALC001	

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753008 **CLIENT ID:** CAPA-10-6801

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	122409W1-10
7631-86-9	Silica	67.6	mg/L			P	0.053	1	OPTIMA3	122009A-1
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	122009A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100102-3
7440-39-3	Barium	16.2	ug/L			P	1	1	OPTIMA3	122009A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	122009A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100102-3
7440-70-2	Calcium	12200	ug/L			P	50	1	OPTIMA3	122009A-1
7440-47-3	Chromium	2.54	ug/L	J		MS	2.5	1	ICPMS5	100102-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	122009A-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA3	122009A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7439-95-4	Magnesium	3460	ug/L			P	85	1	OPTIMA3	122009A-1
7439-96-5	Manganese	2	ug/L	U		P	2	1	OPTIMA3	122009A-1
7439-98-7	Molybdenum	1.82	ug/L			MS	0.1	1	ICPMS5	100102-3
7440-02-0	Nickel	0.751	ug/L	J		MS	0.5	1	ICPMS5	100102-3
7440-09-7	Potassium	1350	ug/L			P	50	1	OPTIMA3	122009A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100102-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100102-3
7440-23-5	Sodium	11400	ug/L			P	100	1	OPTIMA3	122009A-1
7440-24-6	Strontium	54.9	ug/L			P	1	1	OPTIMA3	122009A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100103-9
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	122909A-2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753008 **CLIENT ID:** CAPA-10-6801

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	0.413	ug/L			MS	0.05	1	ICPMS5	100102-8
7440-62-2	Vanadium	4.95	ug/L	J		P	1	1	OPTIMA3	122009A-1
7440-66-6	Zinc	3.5	ug/L	J		P	3.3	1	OPTIMA3	122009A-1
	Hardness as CaCO3	44.8	mg/L				0.35	1	CALC001	

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753009 **CLIENT ID:** CAPA-10-6901

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	122409W1-10
7631-86-9	Silica	6.47	mg/L			P	0.053	1	OPTIMA3	122009A-1
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	122009A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100102-3
7440-39-3	Barium	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	122009A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100102-3
7440-70-2	Calcium	50	ug/L	U		P	50	1	OPTIMA3	122009A-1
7440-47-3	Chromium	2.5	ug/L	U		MS	2.5	1	ICPMS5	100102-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	122009A-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA3	122009A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7439-95-4	Magnesium	85	ug/L	U		P	85	1	OPTIMA3	122009A-1
7439-96-5	Manganese	2	ug/L	U		P	2	1	OPTIMA3	122009A-1
7439-98-7	Molybdenum	0.1	ug/L	U		MS	0.1	1	ICPMS5	100102-3
7440-02-0	Nickel	0.5	ug/L	U		MS	0.5	1	ICPMS5	100102-3
7440-09-7	Potassium	50	ug/L	U		P	50	1	OPTIMA3	122009A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100102-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100102-3
7440-23-5	Sodium	100	ug/L	U		P	100	1	OPTIMA3	122009A-1
7440-24-6	Strontium	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100103-9
7440-31-5	Tin	2.5	ug/L	U		P	2.5	1	OPTIMA3	122009A-1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-881 **METHOD TYPE:** EPA

SAMPLE ID: 242753009 **CLIENT ID:** CAPA-10-6901

CONTRACT: ESHL01000

MATRIX: G **DATE RECEIVED** 11-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	0.05	ug/L	U		MS	0.05	1	ICPMS5	100102-8
7440-62-2	Vanadium	1	ug/L	U		P	1	1	OPTIMA3	122009A-1
7440-66-6	Zinc	3.3	ug/L	U		P	3.3	1	OPTIMA3	122009A-1
	Hardness as CaCO3	0.35	mg/L	U			0.35	1	CALC001	

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–881

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Aluminum	4890	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Barium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Beryllium	260	ug/L	250	ug/L	103.8	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Boron	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Calcium	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Cobalt	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Copper	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Iron	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Magnesium	5300	ug/L	5000	ug/L	106	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Manganese	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Potassium	2490	ug/L	2500	ug/L	99.8	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Silica	10200	ug/L	10700	ug/L	95.4	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Sodium	2440	ug/L	2500	ug/L	97.7	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Strontium	524	ug/L	500	ug/L	104.9	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Tin	531	ug/L	500	ug/L	106.2	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Vanadium	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Zinc	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	20–DEC–09 08:59	122009A–1
	Mercury	5.15	ug/L	5	ug/L	103	90.0 – 110.0	AV	24–DEC–09 07:33	122409W1–10
	Tin	540	ug/L	500	ug/L	108.1	90.0 – 110.0	P	29–DEC–09 09:08	122909A–2
	Antimony	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	02–JAN–10 15:13	100102–3
	Arsenic	49.4	ug/L	50	ug/L	98.8	90.0 – 110.0	MS	02–JAN–10 15:13	100102–3
	Cadmium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	02–JAN–10 15:13	100102–3
	Chromium	52.4	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	02–JAN–10 15:13	100102–3
	Lead	53	ug/L	50	ug/L	106	90.0 – 110.0	MS	02–JAN–10 15:13	100102–3
	Molybdenum	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	02–JAN–10 15:13	100102–3
	Nickel	52.3	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	02–JAN–10 15:13	100102–3
	Selenium	51	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	02–JAN–10 15:13	100102–3
	Silver	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	02–JAN–10 15:13	100102–3
	Uranium	52.5	ug/L	50	ug/L	105	90.0 – 110.0	MS	03–JAN–10 08:14	100102–8
	Thallium	51.5	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	03–JAN–10 10:23	100103–9

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–881

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV01										
	Aluminum	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Barium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Beryllium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Boron	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Calcium	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Cobalt	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Iron	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Magnesium	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Potassium	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Silica	5240	ug/L	5350	ug/L	97.9	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Sodium	9800	ug/L	10000	ug/L	98	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Strontium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Tin	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Vanadium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Zinc	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	20–DEC–09 09:44	122009A–1
	Mercury	5.05	ug/L	5	ug/L	100.9	80.0 – 120.0	AV	24–DEC–09 07:39	122409W1–10
	Tin	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	29–DEC–09 09:52	122909A–2
	Antimony	49.1	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	02–JAN–10 15:44	100102–3
	Arsenic	48	ug/L	50	ug/L	96	90.0 – 110.0	MS	02–JAN–10 15:44	100102–3
	Cadmium	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	02–JAN–10 15:44	100102–3
	Chromium	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	02–JAN–10 15:44	100102–3
	Lead	52.2	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	02–JAN–10 15:44	100102–3
	Molybdenum	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	02–JAN–10 15:44	100102–3
	Nickel	51.8	ug/L	50	ug/L	103.6	90.0 – 110.0	MS	02–JAN–10 15:44	100102–3
	Selenium	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	02–JAN–10 15:44	100102–3
	Silver	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	02–JAN–10 15:44	100102–3
	Uranium	49	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	03–JAN–10 08:23	100102–8
	Thallium	47	ug/L	50	ug/L	94.1	90.0 – 110.0	MS	03–JAN–10 10:45	100103–9

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-881

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV02										
	Aluminum	4860	ug/L	5000	ug/L	97.2	90.0 – 110.0	P	20-DEC-09 10:04	122009A-1
	Barium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	20-DEC-09 10:04	122009A-1
	Beryllium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	20-DEC-09 10:04	122009A-1
	Boron	490	ug/L	500	ug/L	98	90.0 – 110.0	P	20-DEC-09 10:04	122009A-1
	Calcium	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	20-DEC-09 10:04	122009A-1
	Cobalt	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	20-DEC-09 10:04	122009A-1
	Copper	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	20-DEC-09 10:04	122009A-1
	Iron	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	20-DEC-09 10:04	122009A-1
	Magnesium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	20-DEC-09 10:04	122009A-1
	Manganese	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	20-DEC-09 10:04	122009A-1
	Potassium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	20-DEC-09 10:04	122009A-1
	Silica	5260	ug/L	5350	ug/L	98.4	90.0 – 110.0	P	20-DEC-09 10:04	122009A-1
	Sodium	9800	ug/L	10000	ug/L	98	90.0 – 110.0	P	20-DEC-09 10:04	122009A-1
	Strontium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	20-DEC-09 10:04	122009A-1
	Tin	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	20-DEC-09 10:04	122009A-1
	Vanadium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	20-DEC-09 10:04	122009A-1
	Zinc	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	20-DEC-09 10:04	122009A-1
	Mercury	5.07	ug/L	5	ug/L	101.5	80.0 – 120.0	AV	24-DEC-09 08:02	122409W1-10
	Tin	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	29-DEC-09 11:00	122909A-2
	Antimony	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	02-JAN-10 16:02	100102-3
	Arsenic	49.4	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	02-JAN-10 16:02	100102-3
	Cadmium	50.9	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	02-JAN-10 16:02	100102-3
	Chromium	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	02-JAN-10 16:02	100102-3
	Lead	53.7	ug/L	50	ug/L	107.4	90.0 – 110.0	MS	02-JAN-10 16:02	100102-3
	Molybdenum	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	02-JAN-10 16:02	100102-3
	Nickel	51.9	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	02-JAN-10 16:02	100102-3
	Selenium	52.3	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	02-JAN-10 16:02	100102-3
	Silver	51.3	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	02-JAN-10 16:02	100102-3
	Uranium	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	03-JAN-10 08:45	100102-8
	Thallium	48.1	ug/L	50	ug/L	96.2	90.0 – 110.0	MS	03-JAN-10 11:26	100103-9

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–881

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV03										
	Aluminum	4830	ug/L	5000	ug/L	96.7	90.0 – 110.0	P	20–DEC–09 11:15	122009A–1
	Barium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	20–DEC–09 11:15	122009A–1
	Beryllium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	20–DEC–09 11:15	122009A–1
	Boron	547	ug/L	500	ug/L	109.5	90.0 – 110.0	P	20–DEC–09 11:15	122009A–1
	Calcium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	20–DEC–09 11:15	122009A–1
	Cobalt	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	20–DEC–09 11:15	122009A–1
	Copper	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	20–DEC–09 11:15	122009A–1
	Iron	5150	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	20–DEC–09 11:15	122009A–1
	Magnesium	5220	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	20–DEC–09 11:15	122009A–1
	Manganese	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	20–DEC–09 11:15	122009A–1
	Potassium	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	20–DEC–09 11:15	122009A–1
	Silica	5220	ug/L	5350	ug/L	97.7	90.0 – 110.0	P	20–DEC–09 11:15	122009A–1
	Sodium	9970	ug/L	10000	ug/L	99.7	90.0 – 110.0	P	20–DEC–09 11:15	122009A–1
	Strontium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	20–DEC–09 11:15	122009A–1
	Tin	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	20–DEC–09 11:15	122009A–1
	Vanadium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	20–DEC–09 11:15	122009A–1
	Zinc	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	20–DEC–09 11:15	122009A–1
	Mercury	5.03	ug/L	5	ug/L	100.6	80.0 – 120.0	AV	24–DEC–09 08:25	122409W1–10
	Tin	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	29–DEC–09 12:19	122909A–2
	Antimony	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	02–JAN–10 16:57	100102–3
	Arsenic	47.9	ug/L	50	ug/L	95.8	90.0 – 110.0	MS	02–JAN–10 16:57	100102–3
	Cadmium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	02–JAN–10 16:57	100102–3
	Chromium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	02–JAN–10 16:57	100102–3
	Lead	52.4	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	02–JAN–10 16:57	100102–3
	Molybdenum	48.9	ug/L	50	ug/L	97.8	90.0 – 110.0	MS	02–JAN–10 16:57	100102–3
	Nickel	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	02–JAN–10 16:57	100102–3
	Selenium	49.7	ug/L	50	ug/L	99.4	90.0 – 110.0	MS	02–JAN–10 16:57	100102–3
	Silver	50.1	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	02–JAN–10 16:57	100102–3
	Uranium	49.8	ug/L	50	ug/L	99.6	90.0 – 110.0	MS	03–JAN–10 09:08	100102–8
	Thallium	47.8	ug/L	50	ug/L	95.6	90.0 – 110.0	MS	03–JAN–10 12:06	100103–9

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-881

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV04										
	Aluminum	4870	ug/L	5000	ug/L	97.4	90.0 - 110.0	P	20-DEC-09 12:12	122009A-1
	Barium	504	ug/L	500	ug/L	100.7	90.0 - 110.0	P	20-DEC-09 12:12	122009A-1
	Beryllium	505	ug/L	500	ug/L	101	90.0 - 110.0	P	20-DEC-09 12:12	122009A-1
	Boron	498	ug/L	500	ug/L	99.7	90.0 - 110.0	P	20-DEC-09 12:12	122009A-1
	Calcium	4920	ug/L	5000	ug/L	98.3	90.0 - 110.0	P	20-DEC-09 12:12	122009A-1
	Cobalt	506	ug/L	500	ug/L	101.1	90.0 - 110.0	P	20-DEC-09 12:12	122009A-1
	Copper	499	ug/L	500	ug/L	99.8	90.0 - 110.0	P	20-DEC-09 12:12	122009A-1
	Iron	5070	ug/L	5000	ug/L	101.3	90.0 - 110.0	P	20-DEC-09 12:12	122009A-1
	Magnesium	5090	ug/L	5000	ug/L	101.7	90.0 - 110.0	P	20-DEC-09 12:12	122009A-1
	Manganese	505	ug/L	500	ug/L	101	90.0 - 110.0	P	20-DEC-09 12:12	122009A-1
	Potassium	5000	ug/L	5000	ug/L	100	90.0 - 110.0	P	20-DEC-09 12:12	122009A-1
	Silica	5340	ug/L	5350	ug/L	99.8	90.0 - 110.0	P	20-DEC-09 12:12	122009A-1
	Sodium	9780	ug/L	10000	ug/L	97.8	90.0 - 110.0	P	20-DEC-09 12:12	122009A-1
	Strontium	494	ug/L	500	ug/L	98.8	90.0 - 110.0	P	20-DEC-09 12:12	122009A-1
	Tin	495	ug/L	500	ug/L	99	90.0 - 110.0	P	20-DEC-09 12:12	122009A-1
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 - 110.0	P	20-DEC-09 12:12	122009A-1
	Zinc	500	ug/L	500	ug/L	99.9	90.0 - 110.0	P	20-DEC-09 12:12	122009A-1
	Mercury	4.88	ug/L	5	ug/L	97.5	80.0 - 120.0	AV	24-DEC-09 08:48	122409W1-10
	Tin	492	ug/L	500	ug/L	98.5	90.0 - 110.0	P	29-DEC-09 13:35	122909A-2
	Antimony	50	ug/L	50	ug/L	100	90.0 - 110.0	MS	02-JAN-10 17:52	100102-3
	Arsenic	47.9	ug/L	50	ug/L	95.7	90.0 - 110.0	MS	02-JAN-10 17:52	100102-3
	Cadmium	51.1	ug/L	50	ug/L	102.2	90.0 - 110.0	MS	02-JAN-10 17:52	100102-3
	Chromium	50.9	ug/L	50	ug/L	101.8	90.0 - 110.0	MS	02-JAN-10 17:52	100102-3
	Lead	53	ug/L	50	ug/L	105.9	90.0 - 110.0	MS	02-JAN-10 17:52	100102-3
	Molybdenum	50.2	ug/L	50	ug/L	100.5	90.0 - 110.0	MS	02-JAN-10 17:52	100102-3
	Nickel	50.2	ug/L	50	ug/L	100.4	90.0 - 110.0	MS	02-JAN-10 17:52	100102-3
	Selenium	49.9	ug/L	50	ug/L	99.9	90.0 - 110.0	MS	02-JAN-10 17:52	100102-3
	Silver	49.8	ug/L	50	ug/L	99.5	90.0 - 110.0	MS	02-JAN-10 17:52	100102-3
CCV05										
	Aluminum	4910	ug/L	5000	ug/L	98.1	90.0 - 110.0	P	20-DEC-09 12:46	122009A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-881

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	20-DEC-09 12:46	122009A-1
	Beryllium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	20-DEC-09 12:46	122009A-1
	Boron	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	20-DEC-09 12:46	122009A-1
	Calcium	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	20-DEC-09 12:46	122009A-1
	Cobalt	495	ug/L	500	ug/L	99	90.0 – 110.0	P	20-DEC-09 12:46	122009A-1
	Copper	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	20-DEC-09 12:46	122009A-1
	Iron	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	20-DEC-09 12:46	122009A-1
	Magnesium	5240	ug/L	5000	ug/L	104.9	90.0 – 110.0	P	20-DEC-09 12:46	122009A-1
	Manganese	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	20-DEC-09 12:46	122009A-1
	Potassium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	20-DEC-09 12:46	122009A-1
	Silica	5320	ug/L	5350	ug/L	99.4	90.0 – 110.0	P	20-DEC-09 12:46	122009A-1
	Sodium	10300	ug/L	10000	ug/L	103.2	90.0 – 110.0	P	20-DEC-09 12:46	122009A-1
	Strontium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	20-DEC-09 12:46	122009A-1
	Tin	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	20-DEC-09 12:46	122009A-1
	Vanadium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	20-DEC-09 12:46	122009A-1
	Zinc	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	20-DEC-09 12:46	122009A-1
	Mercury	4.95	ug/L	5	ug/L	99	80.0 – 120.0	AV	24-DEC-09 09:11	122409W1-10
	Tin	505	ug/L	500	ug/L	101	90.0 – 110.0	P	29-DEC-09 14:00	122909A-2
CCV06										
	Aluminum	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	20-DEC-09 13:41	122009A-1
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	20-DEC-09 13:41	122009A-1
	Beryllium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	20-DEC-09 13:41	122009A-1
	Boron	490	ug/L	500	ug/L	98	90.0 – 110.0	P	20-DEC-09 13:41	122009A-1
	Calcium	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	20-DEC-09 13:41	122009A-1
	Cobalt	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	20-DEC-09 13:41	122009A-1
	Copper	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	20-DEC-09 13:41	122009A-1
	Iron	5100	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	20-DEC-09 13:41	122009A-1
	Magnesium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	20-DEC-09 13:41	122009A-1
	Manganese	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	20-DEC-09 13:41	122009A-1
	Potassium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	20-DEC-09 13:41	122009A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–881

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Silica	5360	ug/L	5350	ug/L	100.1	90.0 – 110.0	P	20–DEC–09 13:41	122009A–1
	Sodium	9740	ug/L	10000	ug/L	97.4	90.0 – 110.0	P	20–DEC–09 13:41	122009A–1
	Strontium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	20–DEC–09 13:41	122009A–1
	Tin	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	20–DEC–09 13:41	122009A–1
	Vanadium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	20–DEC–09 13:41	122009A–1
	Zinc	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	20–DEC–09 13:41	122009A–1
	Mercury	5.02	ug/L	5	ug/L	100.5	80.0 – 120.0	AV	24–DEC–09 09:35	122409W1–10
	Tin	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	29–DEC–09 15:15	122909A–2
CCV07										
	Aluminum	4820	ug/L	5000	ug/L	96.4	90.0 – 110.0	P	20–DEC–09 14:51	122009A–1
	Barium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	20–DEC–09 14:51	122009A–1
	Beryllium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	20–DEC–09 14:51	122009A–1
	Boron	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	20–DEC–09 14:51	122009A–1
	Calcium	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	20–DEC–09 14:51	122009A–1
	Cobalt	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	20–DEC–09 14:51	122009A–1
	Copper	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	20–DEC–09 14:51	122009A–1
	Iron	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	20–DEC–09 14:51	122009A–1
	Magnesium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	20–DEC–09 14:51	122009A–1
	Manganese	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	20–DEC–09 14:51	122009A–1
	Potassium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	20–DEC–09 14:51	122009A–1
	Silica	5330	ug/L	5350	ug/L	99.6	90.0 – 110.0	P	20–DEC–09 14:51	122009A–1
	Sodium	10200	ug/L	10000	ug/L	101.6	90.0 – 110.0	P	20–DEC–09 14:51	122009A–1
	Strontium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	20–DEC–09 14:51	122009A–1
	Tin	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	20–DEC–09 14:51	122009A–1
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	20–DEC–09 14:51	122009A–1
	Zinc	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	20–DEC–09 14:51	122009A–1
	Tin	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	29–DEC–09 16:24	122909A–2
CCV08										
	Aluminum	4750	ug/L	5000	ug/L	95	90.0 – 110.0	P	20–DEC–09 16:00	122009A–1
	Barium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	20–DEC–09 16:00	122009A–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-881

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Beryllium	506	ug/L	500	ug/L	101.3	90.0 - 110.0	P	20-DEC-09 16:00	122009A-1
	Boron	487	ug/L	500	ug/L	97.3	90.0 - 110.0	P	20-DEC-09 16:00	122009A-1
	Calcium	4930	ug/L	5000	ug/L	98.7	90.0 - 110.0	P	20-DEC-09 16:00	122009A-1
	Cobalt	497	ug/L	500	ug/L	99.3	90.0 - 110.0	P	20-DEC-09 16:00	122009A-1
	Copper	505	ug/L	500	ug/L	101	90.0 - 110.0	P	20-DEC-09 16:00	122009A-1
	Iron	5090	ug/L	5000	ug/L	101.8	90.0 - 110.0	P	20-DEC-09 16:00	122009A-1
	Magnesium	5180	ug/L	5000	ug/L	103.6	90.0 - 110.0	P	20-DEC-09 16:00	122009A-1
	Manganese	505	ug/L	500	ug/L	101	90.0 - 110.0	P	20-DEC-09 16:00	122009A-1
	Potassium	4870	ug/L	5000	ug/L	97.4	90.0 - 110.0	P	20-DEC-09 16:00	122009A-1
	Silica	5350	ug/L	5350	ug/L	100	90.0 - 110.0	P	20-DEC-09 16:00	122009A-1
	Sodium	10100	ug/L	10000	ug/L	100.7	90.0 - 110.0	P	20-DEC-09 16:00	122009A-1
	Strontium	491	ug/L	500	ug/L	98.2	90.0 - 110.0	P	20-DEC-09 16:00	122009A-1
	Tin	493	ug/L	500	ug/L	98.7	90.0 - 110.0	P	20-DEC-09 16:00	122009A-1
	Vanadium	508	ug/L	500	ug/L	101.6	90.0 - 110.0	P	20-DEC-09 16:00	122009A-1
	Zinc	500	ug/L	500	ug/L	100	90.0 - 110.0	P	20-DEC-09 16:00	122009A-1
	Tin	502	ug/L	500	ug/L	100.5	90.0 - 110.0	P	29-DEC-09 17:39	122909A-2
CCV09										
	Aluminum	4840	ug/L	5000	ug/L	96.9	90.0 - 110.0	P	20-DEC-09 17:16	122009A-1
	Barium	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	20-DEC-09 17:16	122009A-1
	Beryllium	503	ug/L	500	ug/L	100.7	90.0 - 110.0	P	20-DEC-09 17:16	122009A-1
	Boron	482	ug/L	500	ug/L	96.4	90.0 - 110.0	P	20-DEC-09 17:16	122009A-1
	Calcium	4930	ug/L	5000	ug/L	98.6	90.0 - 110.0	P	20-DEC-09 17:16	122009A-1
	Cobalt	503	ug/L	500	ug/L	100.7	90.0 - 110.0	P	20-DEC-09 17:16	122009A-1
	Copper	497	ug/L	500	ug/L	99.5	90.0 - 110.0	P	20-DEC-09 17:16	122009A-1
	Iron	5020	ug/L	5000	ug/L	100.4	90.0 - 110.0	P	20-DEC-09 17:16	122009A-1
	Magnesium	5240	ug/L	5000	ug/L	104.8	90.0 - 110.0	P	20-DEC-09 17:16	122009A-1
	Manganese	501	ug/L	500	ug/L	100.3	90.0 - 110.0	P	20-DEC-09 17:16	122009A-1
	Potassium	4930	ug/L	5000	ug/L	98.6	90.0 - 110.0	P	20-DEC-09 17:16	122009A-1
	Silica	5270	ug/L	5350	ug/L	98.6	90.0 - 110.0	P	20-DEC-09 17:16	122009A-1
	Sodium	9480	ug/L	10000	ug/L	94.8	90.0 - 110.0	P	20-DEC-09 17:16	122009A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–881

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Strontium	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	20–DEC–09 17:16	122009A–1
	Tin	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	20–DEC–09 17:16	122009A–1
	Vanadium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	20–DEC–09 17:16	122009A–1
	Zinc	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	20–DEC–09 17:16	122009A–1
CCV10										
	Aluminum	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	20–DEC–09 18:24	122009A–1
	Barium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	20–DEC–09 18:24	122009A–1
	Beryllium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	20–DEC–09 18:24	122009A–1
	Boron	480	ug/L	500	ug/L	96	90.0 – 110.0	P	20–DEC–09 18:24	122009A–1
	Calcium	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	20–DEC–09 18:24	122009A–1
	Cobalt	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	20–DEC–09 18:24	122009A–1
	Copper	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	20–DEC–09 18:24	122009A–1
	Iron	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	20–DEC–09 18:24	122009A–1
	Magnesium	5160	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	20–DEC–09 18:24	122009A–1
	Manganese	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	20–DEC–09 18:24	122009A–1
	Potassium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	20–DEC–09 18:24	122009A–1
	Silica	5350	ug/L	5350	ug/L	100.1	90.0 – 110.0	P	20–DEC–09 18:24	122009A–1
	Sodium	9910	ug/L	10000	ug/L	99.1	90.0 – 110.0	P	20–DEC–09 18:24	122009A–1
	Strontium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	20–DEC–09 18:24	122009A–1
	Tin	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	20–DEC–09 18:24	122009A–1
	Vanadium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	20–DEC–09 18:24	122009A–1
	Zinc	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	20–DEC–09 18:24	122009A–1
CCV11										
	Aluminum	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	20–DEC–09 19:40	122009A–1
	Barium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	20–DEC–09 19:40	122009A–1
	Beryllium	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	20–DEC–09 19:40	122009A–1
	Boron	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	20–DEC–09 19:40	122009A–1
	Calcium	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	20–DEC–09 19:40	122009A–1
	Cobalt	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	20–DEC–09 19:40	122009A–1
	Copper	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	20–DEC–09 19:40	122009A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–881

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	20–DEC–09 19:40	122009A–1
	Magnesium	5310	ug/L	5000	ug/L	106.2	90.0 – 110.0	P	20–DEC–09 19:40	122009A–1
	Manganese	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	20–DEC–09 19:40	122009A–1
	Potassium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	20–DEC–09 19:40	122009A–1
	Silica	5330	ug/L	5350	ug/L	99.6	90.0 – 110.0	P	20–DEC–09 19:40	122009A–1
	Sodium	10300	ug/L	10000	ug/L	103.1	90.0 – 110.0	P	20–DEC–09 19:40	122009A–1
	Strontium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	20–DEC–09 19:40	122009A–1
	Tin	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	20–DEC–09 19:40	122009A–1
	Vanadium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	20–DEC–09 19:40	122009A–1
	Zinc	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	20–DEC–09 19:40	122009A–1
CCV12										
	Aluminum	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	20–DEC–09 20:27	122009A–1
	Barium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	20–DEC–09 20:27	122009A–1
	Beryllium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	20–DEC–09 20:27	122009A–1
	Boron	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	20–DEC–09 20:27	122009A–1
	Calcium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	20–DEC–09 20:27	122009A–1
	Cobalt	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	20–DEC–09 20:27	122009A–1
	Copper	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	20–DEC–09 20:27	122009A–1
	Iron	5300	ug/L	5000	ug/L	106	90.0 – 110.0	P	20–DEC–09 20:27	122009A–1
	Magnesium	5380	ug/L	5000	ug/L	107.7	90.0 – 110.0	P	20–DEC–09 20:27	122009A–1
	Manganese	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	20–DEC–09 20:27	122009A–1
	Potassium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	20–DEC–09 20:27	122009A–1
	Silica	5450	ug/L	5350	ug/L	101.8	90.0 – 110.0	P	20–DEC–09 20:27	122009A–1
	Sodium	10400	ug/L	10000	ug/L	104.3	90.0 – 110.0	P	20–DEC–09 20:27	122009A–1
	Strontium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	20–DEC–09 20:27	122009A–1
	Tin	505	ug/L	500	ug/L	101	90.0 – 110.0	P	20–DEC–09 20:27	122009A–1
	Vanadium	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	20–DEC–09 20:27	122009A–1
	Zinc	505	ug/L	500	ug/L	101	90.0 – 110.0	P	20–DEC–09 20:27	122009A–1
CCV13										
	Aluminum	4960	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	20–DEC–09 21:29	122009A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–881

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	20–DEC–09 21:29	122009A–1
	Beryllium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	20–DEC–09 21:29	122009A–1
	Boron	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	20–DEC–09 21:29	122009A–1
	Calcium	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	20–DEC–09 21:29	122009A–1
	Cobalt	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	20–DEC–09 21:29	122009A–1
	Copper	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	20–DEC–09 21:29	122009A–1
	Iron	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	20–DEC–09 21:29	122009A–1
	Magnesium	5330	ug/L	5000	ug/L	106.6	90.0 – 110.0	P	20–DEC–09 21:29	122009A–1
	Manganese	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	20–DEC–09 21:29	122009A–1
	Potassium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	20–DEC–09 21:29	122009A–1
	Silica	5360	ug/L	5350	ug/L	100.2	90.0 – 110.0	P	20–DEC–09 21:29	122009A–1
	Sodium	10400	ug/L	10000	ug/L	103.5	90.0 – 110.0	P	20–DEC–09 21:29	122009A–1
	Strontium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	20–DEC–09 21:29	122009A–1
	Tin	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	20–DEC–09 21:29	122009A–1
	Vanadium	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	20–DEC–09 21:29	122009A–1
	Zinc	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	20–DEC–09 21:29	122009A–1
CCV14										
	Aluminum	4930	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	20–DEC–09 22:31	122009A–1
	Barium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	20–DEC–09 22:31	122009A–1
	Beryllium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	20–DEC–09 22:31	122009A–1
	Boron	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	20–DEC–09 22:31	122009A–1
	Calcium	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	20–DEC–09 22:31	122009A–1
	Cobalt	510	ug/L	500	ug/L	102	90.0 – 110.0	P	20–DEC–09 22:31	122009A–1
	Copper	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	20–DEC–09 22:31	122009A–1
	Iron	5210	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	20–DEC–09 22:31	122009A–1
	Magnesium	5240	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	20–DEC–09 22:31	122009A–1
	Manganese	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	20–DEC–09 22:31	122009A–1
	Potassium	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	20–DEC–09 22:31	122009A–1
	Silica	5340	ug/L	5350	ug/L	99.8	90.0 – 110.0	P	20–DEC–09 22:31	122009A–1
	Sodium	10200	ug/L	10000	ug/L	102.2	90.0 – 110.0	P	20–DEC–09 22:31	122009A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–881

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Strontium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	20–DEC–09 22:31	122009A–1
	Tin	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	20–DEC–09 22:31	122009A–1
	Vanadium	516	ug/L	500	ug/L	103.3	90.0 – 110.0	P	20–DEC–09 22:31	122009A–1
	Zinc	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	20–DEC–09 22:31	122009A–1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-881

Contract: ESHL01000 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.22	ug/L	.2	ug/L	110	70.0 – 130.0	AV	24-DEC-09 07:37	122409W1-10
	Lead	2.36	ug/L	2	ug/L	118	70.0 – 130.0	MS	02-JAN-10 15:25	100102-3
	Nickel	2.22	ug/L	2	ug/L	111.2	70.0 – 130.0	MS	02-JAN-10 15:25	100102-3
	Silver	1.04	ug/L	1	ug/L	103.6	70.0 – 130.0	MS	02-JAN-10 15:25	100102-3
	Cadmium	1.09	ug/L	1	ug/L	109	70.0 – 130.0	MS	02-JAN-10 15:25	100102-3
	Selenium	5.49	ug/L	5	ug/L	109.7	70.0 – 130.0	MS	02-JAN-10 15:25	100102-3
	Molybdenum	.543	ug/L	.5	ug/L	108.6	70.0 – 130.0	MS	02-JAN-10 15:25	100102-3
	Chromium	11.1	ug/L	10	ug/L	111.3	70.0 – 130.0	MS	02-JAN-10 15:25	100102-3
	Arsenic	5.35	ug/L	5	ug/L	107	70.0 – 130.0	MS	02-JAN-10 15:25	100102-3
	Antimony	3.17	ug/L	3	ug/L	105.5	70.0 – 130.0	MS	02-JAN-10 15:25	100102-3
	Uranium	.258	ug/L	.2	ug/L	129	70.0 – 130.0	MS	03-JAN-10 08:18	100102-8
	Thallium	1.15	ug/L	1	ug/L	114.6	70.0 – 130.0	MS	03-JAN-10 10:32	100103-9
PQL01										
	Calcium	209	ug/L	200	ug/L	104.4	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Manganese	10.7	ug/L	10	ug/L	106.5	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Zinc	10.1	ug/L	10	ug/L	101.1	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Vanadium	4.76	ug/L	5	ug/L	95.3	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Copper	10.5	ug/L	10	ug/L	105.4	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Cobalt	5.05	ug/L	5	ug/L	101.1	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Beryllium	5.09	ug/L	5	ug/L	101.9	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Barium	5.2	ug/L	5	ug/L	104	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Sodium	283	ug/L	300	ug/L	94.4	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Potassium	166	ug/L	150	ug/L	110.4	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Magnesium	342	ug/L	300	ug/L	114.1	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Tin	9.9	ug/L	10	ug/L	99	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Silica	217	ug/L	213	ug/L	102.1	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Aluminum	193	ug/L	200	ug/L	96.7	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Iron	112	ug/L	100	ug/L	111.5	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Strontium	5.07	ug/L	5	ug/L	101.3	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1
	Boron	42.3	ug/L	50	ug/L	84.7	70.0 – 130.0	P	20-DEC-09 09:13	122009A-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-881

Contract: ESHL01000 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
	Tin	10.6	ug/L	10	ug/L	106.2	70.0 – 130.0	P	29-DEC-09 09:21	122909A-2
PQL02										
	Silica	216	ug/L	213	ug/L	101.5	70.0 – 130.0	P	20-DEC-09 13:48	122009A-1
	Aluminum	186	ug/L	200	ug/L	93	70.0 – 130.0	P	20-DEC-09 13:48	122009A-1
	Magnesium	304	ug/L	300	ug/L	101.3	70.0 – 130.0	P	20-DEC-09 13:48	122009A-1
	Sodium	292	ug/L	300	ug/L	97.4	70.0 – 130.0	P	20-DEC-09 13:48	122009A-1
	Potassium	162	ug/L	150	ug/L	108.3	70.0 – 130.0	P	20-DEC-09 13:48	122009A-1
	Manganese	10.6	ug/L	10	ug/L	105.8	70.0 – 130.0	P	20-DEC-09 13:48	122009A-1
	Iron	92.3	ug/L	100	ug/L	92.3	70.0 – 130.0	P	20-DEC-09 13:48	122009A-1
	Barium	5.21	ug/L	5	ug/L	104.2	70.0 – 130.0	P	20-DEC-09 13:48	122009A-1
	Strontium	4.83	ug/L	5	ug/L	96.7	70.0 – 130.0	P	20-DEC-09 13:48	122009A-1
	Tin	10.9	ug/L	10	ug/L	109.3	70.0 – 130.0	P	20-DEC-09 13:48	122009A-1
	Boron	40.7	ug/L	50	ug/L	81.3	70.0 – 130.0	P	20-DEC-09 13:48	122009A-1
	Calcium	206	ug/L	200	ug/L	102.8	70.0 – 130.0	P	20-DEC-09 13:48	122009A-1
	Zinc	10.1	ug/L	10	ug/L	101.4	70.0 – 130.0	P	20-DEC-09 13:48	122009A-1
	Vanadium	5.08	ug/L	5	ug/L	101.6	70.0 – 130.0	P	20-DEC-09 13:48	122009A-1
	Copper	10.4	ug/L	10	ug/L	104.2	70.0 – 130.0	P	20-DEC-09 13:48	122009A-1
	Cobalt	5.16	ug/L	5	ug/L	103.3	70.0 – 130.0	P	20-DEC-09 13:48	122009A-1
	Beryllium	5.05	ug/L	5	ug/L	101.1	70.0 – 130.0	P	20-DEC-09 13:48	122009A-1
	Tin	10.4	ug/L	10	ug/L	103.6	70.0 – 130.0	P	29-DEC-09 12:26	122909A-2
PQL03										
	Silica	214	ug/L	213	ug/L	100.6	70.0 – 130.0	P	20-DEC-09 14:58	122009A-1
	Aluminum	181	ug/L	200	ug/L	90.7	70.0 – 130.0	P	20-DEC-09 14:58	122009A-1
	Magnesium	274	ug/L	300	ug/L	91.2	70.0 – 130.0	P	20-DEC-09 14:58	122009A-1
	Sodium	276	ug/L	300	ug/L	92.1	70.0 – 130.0	P	20-DEC-09 14:58	122009A-1
	Potassium	168	ug/L	150	ug/L	112.2	70.0 – 130.0	P	20-DEC-09 14:58	122009A-1
	Manganese	10.5	ug/L	10	ug/L	105	70.0 – 130.0	P	20-DEC-09 14:58	122009A-1
	Iron	90.8	ug/L	100	ug/L	90.8	70.0 – 130.0	P	20-DEC-09 14:58	122009A-1
	Barium	5.07	ug/L	5	ug/L	101.5	70.0 – 130.0	P	20-DEC-09 14:58	122009A-1
	Strontium	4.91	ug/L	5	ug/L	98.2	70.0 – 130.0	P	20-DEC-09 14:58	122009A-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-881

Contract: ESHL01000 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
	Tin	10.6	ug/L	10	ug/L	105.5	70.0 – 130.0	P	20-DEC-09 14:58	122009A-1
	Boron	40.6	ug/L	50	ug/L	81.1	70.0 – 130.0	P	20-DEC-09 14:58	122009A-1
	Calcium	200	ug/L	200	ug/L	99.8	70.0 – 130.0	P	20-DEC-09 14:58	122009A-1
	Zinc	9.92	ug/L	10	ug/L	99.2	70.0 – 130.0	P	20-DEC-09 14:58	122009A-1
	Vanadium	4.43	ug/L	5	ug/L	88.6	70.0 – 130.0	P	20-DEC-09 14:58	122009A-1
	Copper	10.3	ug/L	10	ug/L	103.3	70.0 – 130.0	P	20-DEC-09 14:58	122009A-1
	Cobalt	4.92	ug/L	5	ug/L	98.4	70.0 – 130.0	P	20-DEC-09 14:58	122009A-1
	Beryllium	5	ug/L	5	ug/L	100	70.0 – 130.0	P	20-DEC-09 14:58	122009A-1
PQL04										
	Iron	119	ug/L	100	ug/L	118.7	70.0 – 130.0	P	20-DEC-09 16:07	122009A-1
	Magnesium	380	ug/L	300	ug/L	126.5	70.0 – 130.0	P	20-DEC-09 16:07	122009A-1
	Manganese	10.4	ug/L	10	ug/L	104.3	70.0 – 130.0	P	20-DEC-09 16:07	122009A-1
	Potassium	163	ug/L	150	ug/L	109	70.0 – 130.0	P	20-DEC-09 16:07	122009A-1
	Sodium	272	ug/L	300	ug/L	90.6	70.0 – 130.0	P	20-DEC-09 16:07	122009A-1
	Barium	5.07	ug/L	5	ug/L	101.5	70.0 – 130.0	P	20-DEC-09 16:07	122009A-1
	Beryllium	5.02	ug/L	5	ug/L	100.5	70.0 – 130.0	P	20-DEC-09 16:07	122009A-1
	Cobalt	5.01	ug/L	5	ug/L	100.2	70.0 – 130.0	P	20-DEC-09 16:07	122009A-1
	Aluminum	186	ug/L	200	ug/L	93.2	70.0 – 130.0	P	20-DEC-09 16:07	122009A-1
	Silica	214	ug/L	213	ug/L	100.3	70.0 – 130.0	P	20-DEC-09 16:07	122009A-1
	Copper	10	ug/L	10	ug/L	100	70.0 – 130.0	P	20-DEC-09 16:07	122009A-1
	Vanadium	4.6	ug/L	5	ug/L	92	70.0 – 130.0	P	20-DEC-09 16:07	122009A-1
	Zinc	9.76	ug/L	10	ug/L	97.6	70.0 – 130.0	P	20-DEC-09 16:07	122009A-1
	Calcium	213	ug/L	200	ug/L	106.3	70.0 – 130.0	P	20-DEC-09 16:07	122009A-1
	Boron	35.8	ug/L	50	ug/L	71.7	70.0 – 130.0	P	20-DEC-09 16:07	122009A-1
	Tin	10.1	ug/L	10	ug/L	101.4	70.0 – 130.0	P	20-DEC-09 16:07	122009A-1
	Strontium	4.83	ug/L	5	ug/L	96.7	70.0 – 130.0	P	20-DEC-09 16:07	122009A-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–881

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	20–DEC–09 09:06	122009A–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 09:06	122009A–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 09:06	122009A–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	20–DEC–09 09:06	122009A–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	20–DEC–09 09:06	122009A–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 09:06	122009A–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	20–DEC–09 09:06	122009A–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	20–DEC–09 09:06	122009A–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	20–DEC–09 09:06	122009A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	20–DEC–09 09:06	122009A–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	20–DEC–09 09:06	122009A–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	20–DEC–09 09:06	122009A–1
	Sodium	100	+/–300	U	100	300	LIQ	P	20–DEC–09 09:06	122009A–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 09:06	122009A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	20–DEC–09 09:06	122009A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 09:06	122009A–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	20–DEC–09 09:06	122009A–1
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	24–DEC–09 07:35	122409W1–10
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–DEC–09 09:14	122909A–2
	Antimony	0.791	+/–3	J	0.5	3.0	LIQ	MS	02–JAN–10 15:19	100102–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	02–JAN–10 15:19	100102–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	02–JAN–10 15:19	100102–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	02–JAN–10 15:19	100102–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	02–JAN–10 15:19	100102–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	02–JAN–10 15:19	100102–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	02–JAN–10 15:19	100102–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	02–JAN–10 15:19	100102–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	02–JAN–10 15:19	100102–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	03–JAN–10 08:16	100102–8
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	03–JAN–10 10:27	100103–9

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–881

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB01										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	20–DEC–09 09:51	122009A–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 09:51	122009A–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 09:51	122009A–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	20–DEC–09 09:51	122009A–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	20–DEC–09 09:51	122009A–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 09:51	122009A–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	20–DEC–09 09:51	122009A–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	20–DEC–09 09:51	122009A–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	20–DEC–09 09:51	122009A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	20–DEC–09 09:51	122009A–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	20–DEC–09 09:51	122009A–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	20–DEC–09 09:51	122009A–1
	Sodium	100	+/–300	U	100	300	LIQ	P	20–DEC–09 09:51	122009A–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 09:51	122009A–1
	Tin	4.27	+/–10	J	2.5	10.0	LIQ	P	20–DEC–09 09:51	122009A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 09:51	122009A–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	20–DEC–09 09:51	122009A–1
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	24–DEC–09 07:41	122409W1–10
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–DEC–09 09:59	122909A–2
	Antimony	0.601	+/–3	J	0.5	3.0	LIQ	MS	02–JAN–10 15:50	100102–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	02–JAN–10 15:50	100102–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	02–JAN–10 15:50	100102–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	02–JAN–10 15:50	100102–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	02–JAN–10 15:50	100102–3
	Molybdenum	0.138	+/–.5	J	0.1	0.5	LIQ	MS	02–JAN–10 15:50	100102–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	02–JAN–10 15:50	100102–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	02–JAN–10 15:50	100102–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	02–JAN–10 15:50	100102–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	03–JAN–10 08:25	100102–8
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	03–JAN–10 10:50	100103–9

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–881

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB02										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	20–DEC–09 10:11	122009A–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 10:11	122009A–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 10:11	122009A–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	20–DEC–09 10:11	122009A–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	20–DEC–09 10:11	122009A–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 10:11	122009A–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	20–DEC–09 10:11	122009A–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	20–DEC–09 10:11	122009A–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	20–DEC–09 10:11	122009A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	20–DEC–09 10:11	122009A–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	20–DEC–09 10:11	122009A–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	20–DEC–09 10:11	122009A–1
	Sodium	100	+/–300	U	100	300	LIQ	P	20–DEC–09 10:11	122009A–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 10:11	122009A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	20–DEC–09 10:11	122009A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 10:11	122009A–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	20–DEC–09 10:11	122009A–1
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	24–DEC–09 08:04	122409W1–10
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–DEC–09 11:07	122909A–2
	Antimony	1.36	+/–3	J	0.5	3.0	LIQ	MS	02–JAN–10 16:08	100102–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	02–JAN–10 16:08	100102–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	02–JAN–10 16:08	100102–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	02–JAN–10 16:08	100102–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	02–JAN–10 16:08	100102–3
	Molybdenum	0.153	+/–.5	J	0.1	0.5	LIQ	MS	02–JAN–10 16:08	100102–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	02–JAN–10 16:08	100102–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	02–JAN–10 16:08	100102–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	02–JAN–10 16:08	100102–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	03–JAN–10 08:47	100102–8
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	03–JAN–10 11:30	100103–9

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-881

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB03										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	20-DEC-09 11:22	122009A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 11:22	122009A-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 11:22	122009A-1
	Boron	29.22	+/-50	J	15.0	50.0	LIQ	P	20-DEC-09 11:22	122009A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	20-DEC-09 11:22	122009A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 11:22	122009A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	20-DEC-09 11:22	122009A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	20-DEC-09 11:22	122009A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	20-DEC-09 11:22	122009A-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	20-DEC-09 11:22	122009A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	20-DEC-09 11:22	122009A-1
	Silica	53.0	+/-213	U	53.0	213	LIQ	P	20-DEC-09 11:22	122009A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	20-DEC-09 11:22	122009A-1
	Strontium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 11:22	122009A-1
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	20-DEC-09 11:22	122009A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 11:22	122009A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	20-DEC-09 11:22	122009A-1
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	24-DEC-09 08:27	122409W1-10
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	29-DEC-09 12:33	122909A-2
	Antimony	0.686	+/-3	J	0.5	3.0	LIQ	MS	02-JAN-10 17:03	100102-3
	Arsenic	1.5	+/-5	U	1.5	5.0	LIQ	MS	02-JAN-10 17:03	100102-3
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	02-JAN-10 17:03	100102-3
	Chromium	2.5	+/-10	U	2.5	10.0	LIQ	MS	02-JAN-10 17:03	100102-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	02-JAN-10 17:03	100102-3
	Molybdenum	0.1	+/-.5	U	0.1	0.5	LIQ	MS	02-JAN-10 17:03	100102-3
	Nickel	0.5	+/-2	U	0.5	2.0	LIQ	MS	02-JAN-10 17:03	100102-3
	Selenium	1.0	+/-5	U	1.0	5.0	LIQ	MS	02-JAN-10 17:03	100102-3
	Silver	0.2	+/-1	U	0.2	1.0	LIQ	MS	02-JAN-10 17:03	100102-3
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	03-JAN-10 09:10	100102-8
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	03-JAN-10 12:11	100103-9

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-881

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB04										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	20-DEC-09 12:19	122009A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 12:19	122009A-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 12:19	122009A-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	20-DEC-09 12:19	122009A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	20-DEC-09 12:19	122009A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 12:19	122009A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	20-DEC-09 12:19	122009A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	20-DEC-09 12:19	122009A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	20-DEC-09 12:19	122009A-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	20-DEC-09 12:19	122009A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	20-DEC-09 12:19	122009A-1
	Silica	53.0	+/-213	U	53.0	213	LIQ	P	20-DEC-09 12:19	122009A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	20-DEC-09 12:19	122009A-1
	Strontium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 12:19	122009A-1
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	20-DEC-09 12:19	122009A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 12:19	122009A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	20-DEC-09 12:19	122009A-1
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	24-DEC-09 08:50	122409W1-10
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	29-DEC-09 13:42	122909A-2
	Antimony	0.644	+/-3	J	0.5	3.0	LIQ	MS	02-JAN-10 17:58	100102-3
	Arsenic	1.5	+/-5	U	1.5	5.0	LIQ	MS	02-JAN-10 17:58	100102-3
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	02-JAN-10 17:58	100102-3
	Chromium	2.5	+/-10	U	2.5	10.0	LIQ	MS	02-JAN-10 17:58	100102-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	02-JAN-10 17:58	100102-3
	Molybdenum	0.1	+/-.5	U	0.1	0.5	LIQ	MS	02-JAN-10 17:58	100102-3
	Nickel	0.5	+/-2	U	0.5	2.0	LIQ	MS	02-JAN-10 17:58	100102-3
	Selenium	1.0	+/-5	U	1.0	5.0	LIQ	MS	02-JAN-10 17:58	100102-3
	Silver	0.2	+/-1	U	0.2	1.0	LIQ	MS	02-JAN-10 17:58	100102-3
CCB05										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	20-DEC-09 12:53	122009A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 12:53	122009A-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-881

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 12:53	122009A-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	20-DEC-09 12:53	122009A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	20-DEC-09 12:53	122009A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 12:53	122009A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	20-DEC-09 12:53	122009A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	20-DEC-09 12:53	122009A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	20-DEC-09 12:53	122009A-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	20-DEC-09 12:53	122009A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	20-DEC-09 12:53	122009A-1
	Silica	53.0	+/-213	U	53.0	213	LIQ	P	20-DEC-09 12:53	122009A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	20-DEC-09 12:53	122009A-1
	Strontium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 12:53	122009A-1
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	20-DEC-09 12:53	122009A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 12:53	122009A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	20-DEC-09 12:53	122009A-1
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	24-DEC-09 09:13	122409W1-10
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	29-DEC-09 14:07	122909A-2
CCB06										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	20-DEC-09 13:55	122009A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 13:55	122009A-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 13:55	122009A-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	20-DEC-09 13:55	122009A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	20-DEC-09 13:55	122009A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 13:55	122009A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	20-DEC-09 13:55	122009A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	20-DEC-09 13:55	122009A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	20-DEC-09 13:55	122009A-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	20-DEC-09 13:55	122009A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	20-DEC-09 13:55	122009A-1
	Silica	53.0	+/-213	U	53.0	213	LIQ	P	20-DEC-09 13:55	122009A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	20-DEC-09 13:55	122009A-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–881

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 13:55	122009A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	20–DEC–09 13:55	122009A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 13:55	122009A–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	20–DEC–09 13:55	122009A–1
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	24–DEC–09 09:36	122409W1–10
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–DEC–09 15:22	122909A–2
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	20–DEC–09 15:04	122009A–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 15:04	122009A–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 15:04	122009A–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	20–DEC–09 15:04	122009A–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	20–DEC–09 15:04	122009A–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 15:04	122009A–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	20–DEC–09 15:04	122009A–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	20–DEC–09 15:04	122009A–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	20–DEC–09 15:04	122009A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	20–DEC–09 15:04	122009A–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	20–DEC–09 15:04	122009A–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	20–DEC–09 15:04	122009A–1
	Sodium	100	+/–300	U	100	300	LIQ	P	20–DEC–09 15:04	122009A–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 15:04	122009A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	20–DEC–09 15:04	122009A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 15:04	122009A–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	20–DEC–09 15:04	122009A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–DEC–09 16:31	122909A–2
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	20–DEC–09 16:14	122009A–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 16:14	122009A–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 16:14	122009A–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	20–DEC–09 16:14	122009A–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	20–DEC–09 16:14	122009A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–881

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 16:14	122009A–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	20–DEC–09 16:14	122009A–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	20–DEC–09 16:14	122009A–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	20–DEC–09 16:14	122009A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	20–DEC–09 16:14	122009A–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	20–DEC–09 16:14	122009A–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	20–DEC–09 16:14	122009A–1
	Sodium	100	+/–300	U	100	300	LIQ	P	20–DEC–09 16:14	122009A–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 16:14	122009A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	20–DEC–09 16:14	122009A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 16:14	122009A–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	20–DEC–09 16:14	122009A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–DEC–09 17:46	122909A–2
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	20–DEC–09 17:23	122009A–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 17:23	122009A–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 17:23	122009A–1
	Boron	–15.01	+/–50	J	15.0	50.0	LIQ	P	20–DEC–09 17:23	122009A–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	20–DEC–09 17:23	122009A–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 17:23	122009A–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	20–DEC–09 17:23	122009A–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	20–DEC–09 17:23	122009A–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	20–DEC–09 17:23	122009A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	20–DEC–09 17:23	122009A–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	20–DEC–09 17:23	122009A–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	20–DEC–09 17:23	122009A–1
	Sodium	100	+/–300	U	100	300	LIQ	P	20–DEC–09 17:23	122009A–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 17:23	122009A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	20–DEC–09 17:23	122009A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 17:23	122009A–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	20–DEC–09 17:23	122009A–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-881

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB10										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	20-DEC-09 18:31	122009A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 18:31	122009A-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 18:31	122009A-1
	Boron	-17.28	+/-50	J	15.0	50.0	LIQ	P	20-DEC-09 18:31	122009A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	20-DEC-09 18:31	122009A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 18:31	122009A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	20-DEC-09 18:31	122009A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	20-DEC-09 18:31	122009A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	20-DEC-09 18:31	122009A-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	20-DEC-09 18:31	122009A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	20-DEC-09 18:31	122009A-1
	Silica	53.0	+/-213	U	53.0	213	LIQ	P	20-DEC-09 18:31	122009A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	20-DEC-09 18:31	122009A-1
	Strontium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 18:31	122009A-1
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	20-DEC-09 18:31	122009A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 18:31	122009A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	20-DEC-09 18:31	122009A-1
CCB11										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	20-DEC-09 19:47	122009A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 19:47	122009A-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 19:47	122009A-1
	Boron	-18.77	+/-50	J	15.0	50.0	LIQ	P	20-DEC-09 19:47	122009A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	20-DEC-09 19:47	122009A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 19:47	122009A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	20-DEC-09 19:47	122009A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	20-DEC-09 19:47	122009A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	20-DEC-09 19:47	122009A-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	20-DEC-09 19:47	122009A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	20-DEC-09 19:47	122009A-1
	Silica	53.0	+/-213	U	53.0	213	LIQ	P	20-DEC-09 19:47	122009A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	20-DEC-09 19:47	122009A-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-881

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Strontium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 19:47	122009A-1
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	20-DEC-09 19:47	122009A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 19:47	122009A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	20-DEC-09 19:47	122009A-1
CCB12										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	20-DEC-09 20:34	122009A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 20:34	122009A-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 20:34	122009A-1
	Boron	-18.96	+/-50	J	15.0	50.0	LIQ	P	20-DEC-09 20:34	122009A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	20-DEC-09 20:34	122009A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 20:34	122009A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	20-DEC-09 20:34	122009A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	20-DEC-09 20:34	122009A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	20-DEC-09 20:34	122009A-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	20-DEC-09 20:34	122009A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	20-DEC-09 20:34	122009A-1
	Silica	53.0	+/-213	U	53.0	213	LIQ	P	20-DEC-09 20:34	122009A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	20-DEC-09 20:34	122009A-1
	Strontium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 20:34	122009A-1
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	20-DEC-09 20:34	122009A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 20:34	122009A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	20-DEC-09 20:34	122009A-1
CCB13										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	20-DEC-09 21:36	122009A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 21:36	122009A-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 21:36	122009A-1
	Boron	-18.3	+/-50	J	15.0	50.0	LIQ	P	20-DEC-09 21:36	122009A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	20-DEC-09 21:36	122009A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	20-DEC-09 21:36	122009A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	20-DEC-09 21:36	122009A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	20-DEC-09 21:36	122009A-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–881

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	20–DEC–09 21:36	122009A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	20–DEC–09 21:36	122009A–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	20–DEC–09 21:36	122009A–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	20–DEC–09 21:36	122009A–1
	Sodium	100	+/–300	U	100	300	LIQ	P	20–DEC–09 21:36	122009A–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 21:36	122009A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	20–DEC–09 21:36	122009A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 21:36	122009A–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	20–DEC–09 21:36	122009A–1
CCB14										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	20–DEC–09 22:38	122009A–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 22:38	122009A–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 22:38	122009A–1
	Boron	–18.65	+/–50	J	15.0	50.0	LIQ	P	20–DEC–09 22:38	122009A–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	20–DEC–09 22:38	122009A–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 22:38	122009A–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	20–DEC–09 22:38	122009A–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	20–DEC–09 22:38	122009A–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	20–DEC–09 22:38	122009A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	20–DEC–09 22:38	122009A–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	20–DEC–09 22:38	122009A–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	20–DEC–09 22:38	122009A–1
	Sodium	100	+/–300	U	100	300	LIQ	P	20–DEC–09 22:38	122009A–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 22:38	122009A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	20–DEC–09 22:38	122009A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	20–DEC–09 22:38	122009A–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	20–DEC–09 22:38	122009A–1

METALS
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PREPARATION BLANK SUMMARY

SDG NO. 10–881

Contract: ESHL01000

Matrix: GROUND WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1201994196								
	Silica	0.053	mg/L	+/–0.213	U	P	0.053	0.213
	Sodium	100	ug/L	+/–300	U	P	100	300
	Strontium	1	ug/L	+/–5	U	P	1	5
	Tin	2.5	ug/L	+/–10	U	P	2.5	10
	Vanadium	1	ug/L	+/–5	U	P	1	5
	Barium	1	ug/L	+/–5	U	P	1	5
	Boron	–19.2	ug/L	+/–50	J	P	15	50
	Cobalt	1	ug/L	+/–5	U	P	1	5
	Iron	30	ug/L	+/–100	U	P	30	100
	Potassium	50	ug/L	+/–150	U	P	50	150
	Manganese	2	ug/L	+/–10	U	P	2	10
	Magnesium	85	ug/L	+/–300	U	P	85	300
	Copper	3	ug/L	+/–10	U	P	3	10
	Calcium	50	ug/L	+/–200	U	P	50	200
	Beryllium	1	ug/L	+/–5	U	P	1	5
	Aluminum	68	ug/L	+/–200	U	P	68	200
	Zinc	3.3	ug/L	+/–10	U	P	3.3	10
1201994283								
	Antimony	0.943	ug/L	+/–3	J	MS	0.5	3
	Arsenic	1.5	ug/L	+/–5	U	MS	1.5	5
	Cadmium	0.11	ug/L	+/–1	U	MS	0.11	1
	Chromium	2.5	ug/L	+/–10	U	MS	2.5	10
	Lead	0.5	ug/L	+/–2	U	MS	0.5	2
	Molybdenum	0.1	ug/L	+/–0.5	U	MS	0.1	0.5
	Nickel	0.5	ug/L	+/–2	U	MS	0.5	2
	Selenium	1	ug/L	+/–5	U	MS	1	5
	Silver	0.2	ug/L	+/–1	U	MS	0.2	1
	Thallium	0.3	ug/L	+/–1	U	MS	0.3	1
	Uranium	0.05	ug/L	+/–0.2	U	MS	0.05	0.2
1202000201								
	Mercury	0.066	ug/L	+/–0.2	U	AV	0.066	0.2

METALS
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Interference Check Sample

SDG No: 10–881

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	511000	ug/L	500000	ug/L	102	80.0 – 120.0	20–DEC–09 09:20	122009A–1
	Barium	–0.302	ug/L					20–DEC–09 09:20	122009A–1
	Beryllium	–0.448	ug/L					20–DEC–09 09:20	122009A–1
	Boron	–15.1	ug/L					20–DEC–09 09:20	122009A–1
	Calcium	474000	ug/L	500000	ug/L	94.9	80.0 – 120.0	20–DEC–09 09:20	122009A–1
	Cobalt	–1.37	ug/L					20–DEC–09 09:20	122009A–1
	Copper	1.51	ug/L					20–DEC–09 09:20	122009A–1
	Iron	188000	ug/L	200000	ug/L	93.8	80.0 – 120.0	20–DEC–09 09:20	122009A–1
	Magnesium	490000	ug/L	500000	ug/L	98.1	80.0 – 120.0	20–DEC–09 09:20	122009A–1
	Manganese	9.65	ug/L					20–DEC–09 09:20	122009A–1
	Potassium	–9.18	ug/L					20–DEC–09 09:20	122009A–1
	Silica	–8.62	ug/L					20–DEC–09 09:20	122009A–1
	Sodium	5.55	ug/L					20–DEC–09 09:20	122009A–1
	Strontium	–0.716	ug/L					20–DEC–09 09:20	122009A–1
	Tin	–12.7	ug/L					20–DEC–09 09:20	122009A–1
	Vanadium	–1.5	ug/L					20–DEC–09 09:20	122009A–1
	Zinc	–0.254	ug/L					20–DEC–09 09:20	122009A–1
ICSAB01									
	Aluminum	508000	ug/L	500000	ug/L	102	80.0 – 120.0	20–DEC–09 09:26	122009A–1
	Barium	493	ug/L	500	ug/L	98.6	80.0 – 120.0	20–DEC–09 09:26	122009A–1
	Beryllium	246	ug/L	250	ug/L	98.4	80.0 – 120.0	20–DEC–09 09:26	122009A–1
	Boron	511	ug/L	500	ug/L	102	80.0 – 120.0	20–DEC–09 09:26	122009A–1
	Calcium	472000	ug/L	500000	ug/L	94.3	80.0 – 120.0	20–DEC–09 09:26	122009A–1
	Cobalt	448	ug/L	500	ug/L	89.6	80.0 – 120.0	20–DEC–09 09:26	122009A–1
	Copper	552	ug/L	500	ug/L	110	80.0 – 120.0	20–DEC–09 09:26	122009A–1
	Iron	188000	ug/L	200000	ug/L	94.1	80.0 – 120.0	20–DEC–09 09:26	122009A–1
	Magnesium	489000	ug/L	500000	ug/L	97.8	80.0 – 120.0	20–DEC–09 09:26	122009A–1
	Manganese	491	ug/L	500	ug/L	98.3	80.0 – 120.0	20–DEC–09 09:26	122009A–1
	Potassium	5500	ug/L	5000	ug/L	110	80.0 – 120.0	20–DEC–09 09:26	122009A–1

METALS
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Interference Check Sample

SDG No: 10-881

Contract: ESHL01000 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Silica	11100	ug/L	10700	ug/L	104	80.0 - 120.0	20-DEC-09 09:26	122009A-1
	Sodium	5440	ug/L	5000	ug/L	109	80.0 - 120.0	20-DEC-09 09:26	122009A-1
	Strontium	503	ug/L	500	ug/L	101	80.0 - 120.0	20-DEC-09 09:26	122009A-1
	Tin	474	ug/L	500	ug/L	94.7	80.0 - 120.0	20-DEC-09 09:26	122009A-1
	Vanadium	510	ug/L	500	ug/L	102	80.0 - 120.0	20-DEC-09 09:26	122009A-1
	Zinc	485	ug/L	500	ug/L	97.1	80.0 - 120.0	20-DEC-09 09:26	122009A-1

METALS
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Interference Check Sample

SDG No: 10–881

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Tin	–12.9	ug/L					29–DEC–09 09:28	122909A–2
ICSAB01									
	Tin	490	ug/L	500	ug/L	98.1	80.0 – 120.0	29–DEC–09 09:34	122909A–2

METALS
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Interference Check Sample

SDG No: 10-881

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.241	ug/L					02-JAN-10 15:31	100102-3
	Arsenic	-0.126	ug/L					02-JAN-10 15:31	100102-3
	Cadmium	0.509	ug/L					02-JAN-10 15:31	100102-3
	Chromium	2.82	ug/L					02-JAN-10 15:31	100102-3
	Lead	0.195	ug/L					02-JAN-10 15:31	100102-3
	Molybdenum	1980	ug/L	2000	ug/L	99.2	80.0 - 120.0	02-JAN-10 15:31	100102-3
	Nickel	3.0	ug/L					02-JAN-10 15:31	100102-3
	Selenium	-1.15	ug/L					02-JAN-10 15:31	100102-3
	Silver	0.063	ug/L					02-JAN-10 15:31	100102-3
ICSAB01									
	Antimony	21.1	ug/L	20.1	ug/L	105	80.0 - 120.0	02-JAN-10 15:37	100102-3
	Arsenic	20.3	ug/L	20	ug/L	101	80.0 - 120.0	02-JAN-10 15:37	100102-3
	Cadmium	19.9	ug/L	20.4	ug/L	97.7	80.0 - 120.0	02-JAN-10 15:37	100102-3
	Chromium	23.2	ug/L	23.7	ug/L	97.8	80.0 - 120.0	02-JAN-10 15:37	100102-3
	Lead	21.6	ug/L	20.5	ug/L	105	80.0 - 120.0	02-JAN-10 15:37	100102-3
	Molybdenum	1980	ug/L	2000	ug/L	98.8	80.0 - 120.0	02-JAN-10 15:37	100102-3
	Nickel	21.7	ug/L	22.7	ug/L	95.6	80.0 - 120.0	02-JAN-10 15:37	100102-3
	Selenium	19.7	ug/L	20	ug/L	98.3	80.0 - 120.0	02-JAN-10 15:37	100102-3
	Silver	19.4	ug/L	20	ug/L	97	80.0 - 120.0	02-JAN-10 15:37	100102-3

METALS
–4–
Interference Check Sample

SDG No: 10–881

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	–0.007	ug/L					03–JAN–10 08:19	100102–8
ICSAB01									
	Uranium	23.4	ug/L	20	ug/L	117	80.0 – 120.0	03–JAN–10 08:21	100102–8

METALS
–4–
Interference Check Sample

SDG No: 10–881

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Thallium	–0.022	ug/L					03–JAN–10 10:36	100103–9
ICSAB01									
	Thallium	19.6	ug/L	20	ug/L	98.1	80.0 – 120.0	03–JAN–10 10:41	100103–9

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–881 **Client ID** CAPA–10–6347S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 242753001 **Spike ID:** 1201994199

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75–125	4880		68	U	5000	97.5		P
Barium	ug/L	75–125	523		21.9		500	100		P
Beryllium	ug/L	75–125	504		1	U	500	101		P
Boron	ug/L	75–125	484		15	U	500	96.9		P
Calcium	ug/L	75–125	21000		16100		5000	99.1		P
Cobalt	ug/L	75–125	472		1	U	500	94.4		P
Copper	ug/L	75–125	508		3	U	500	101		P
Iron	ug/L	75–125	5230		32.8	J	5000	104		P
Magnesium	ug/L	75–125	9300		4020		5000	106		P
Manganese	ug/L	75–125	532		34.6		500	99.4		P
Potassium	ug/L	75–125	6720		1760		5000	99.3		P
Silica	mg/L		71.4		63		10.7	78.6	N/A	P
Sodium	ug/L	75–125	16400		11400		5000	101		P
Strontium	ug/L	75–125	580		79.1		500	100		P
Tin	ug/L	75–125	510		12.5	U	500	102		P
Vanadium	ug/L	75–125	510		6.08		500	101		P
Zinc	ug/L	75–125	482		3.3	U	500	96		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–881 **Client ID** CAPA–10–6349S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 242753002 **Spike ID:** 1201994286

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75–125	212		0.5	U	200	106		MS
Arsenic	ug/L	75–125	76		1.5	U	80	94		MS
Cadmium	ug/L	75–125	10.5		0.11	U	10	105		MS
Chromium	ug/L	75–125	50.6		3.09	J	50	95		MS
Lead	ug/L	75–125	41.2		0.5	U	40	103		MS
Molybdenum	ug/L	75–125	51.2		1.58		50	99.3		MS
Nickel	ug/L	75–125	47.4		0.536	J	50	93.7		MS
Selenium	ug/L	75–125	20.5		1	U	20	99.1		MS
Silver	ug/L	75–125	49.5		0.2	U	50	99		MS
Thallium	ug/L	75–125	81.3		0.3	U	100	81.3		MS
Uranium	ug/L	75–125	49.5		0.492		50	98		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–881 **Client ID:** CAPA–10–6347S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 242753001 **Spike ID:** 1202000204

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75–125	1.99		0.066	U	2	99.6		AV

Metals
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Duplicate Sample Summary

SDG No.: 10–881

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAPA–10–6347D

Sample ID: 242753001 **Duplicate ID:** 1201994198 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		68	U	68	U			P
Barium	ug/L	+/–5	21.9		21.9		.105		P
Beryllium	ug/L		1	U	1	U			P
Boron	ug/L		15	U	15	U			P
Calcium	ug/L	+/–20%	16100		16000		.53		P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L		32.8	J	30	U	200		P
Magnesium	ug/L	+/–20%	4020		4120		2.49		P
Manganese	ug/L	+/–10	34.6		34.2		1.39		P
Potassium	ug/L	+/–20%	1760		1750		.565		P
Silica	mg/L	+/–20%	63		62.3		1.08		P
Sodium	ug/L	+/–20%	11400		11100		2.68		P
Strontium	ug/L	+/–20%	79.1		78.2		1.19		P
Tin	ug/L		12.5	U	12.5	U			P
Vanadium	ug/L	+/–5	6.08		6.27		3.05		P
Zinc	ug/L		3.3	U	3.3	U			P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–881

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAPA–10–6349D

Sample ID: 242753002 **Duplicate ID:** 1201994285 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		0.5	U	0.5	U			MS
Arsenic	ug/L		1.5	U	1.5	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Chromium	ug/L	+/–10	3.09	J	2.99	J	3.45		MS
Lead	ug/L		0.5	U	0.5	U			MS
Molybdenum	ug/L	+/–.5	1.58		1.62		2.75		MS
Nickel	ug/L	+/–2	0.536	J	0.533	J	.561		MS
Selenium	ug/L		1	U	1	U			MS
Silver	ug/L		0.2	U	0.2	U			MS
Thallium	ug/L		0.3	U	0.3	U			MS
Uranium	ug/L	+/–.2	0.492		0.492		0		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–881

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAPA–10–6347D

Sample ID: 242753001 **Duplicate ID:** 1202000203 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

METALS
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Laboratory Control Sample Summary

SDG NO. 10–881

Contract: ESHL01000

Aqueous LCS Source: OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201994197								
	Aluminum	ug/L	5000	4850		97	80–120	P
	Barium	ug/L	500	510		102	80–120	P
	Beryllium	ug/L	500	503		101	80–120	P
	Boron	ug/L	500	473		94.6	80–120	P
	Calcium	ug/L	5000	4890		97.8	80–120	P
	Cobalt	ug/L	500	487		97.3	80–120	P
	Copper	ug/L	500	503		101	80–120	P
	Iron	ug/L	5000	5150		103	80–120	P
	Magnesium	ug/L	5000	5140		103	80–120	P
	Manganese	ug/L	500	504		101	80–120	P
	Potassium	ug/L	5000	4900		98.1	80–120	P
	Silica	mg/L	10.7	10.6		98.7	80–120	P
	Sodium	ug/L	5000	5140		103	80–120	P
	Strontium	ug/L	500	501		100	80–120	P
	Tin	ug/L	500	511		102	80–120	P
	Vanadium	ug/L	500	507		101	80–120	P
	Zinc	ug/L	500	487		97.3	80–120	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-881

Contract: ESHL01000

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1201994284								
	Uranium	ug/L	50	49.7		99.3	80-120	MS
	Antimony	ug/L	50	53.7		107	80-120	MS
	Arsenic	ug/L	50	49.6		99.1	80-120	MS
	Cadmium	ug/L	50	49.9		99.8	80-120	MS
	Chromium	ug/L	50	50.5		101	80-120	MS
	Lead	ug/L	50	53		106	80-120	MS
	Molybdenum	ug/L	50	49.7		99.5	80-120	MS
	Nickel	ug/L	50	51.9		104	80-120	MS
	Selenium	ug/L	50	52.5		105	80-120	MS
	Silver	ug/L	50	51.7		103	80-120	MS
	Thallium	ug/L	50	43.2		86.5	80-120	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-881

Contract: ESHL01000

Aqueous LCS Source:GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202000202								
	Mercury	ug/L	2	1.97		98.5	85-115	AV

METALS
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Serial Dilution Sample Summary

SDG NO. 10–881 **Client ID** CAPA–10–6347L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 242753001 **Serial Dilution ID:** 1201994200

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	68	U	340	U				P
Barium	21.9		23.1	J	5.25			P
Beryllium	1	U	5	U				P
Boron	15	U	75	U				P
Calcium	16100		15700		2.8		10	P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	32.8	J	150	U	100			P
Magnesium	4020		4250		5.72			P
Manganese	34.6		34.5	J	.289			P
Potassium	1760		1690		4.26			P
Silica	63000		62500		.794		10	P
Sodium	11400		11000		3.51		10	P
Strontium	79.1		78		1.39		10	P
Tin	2.5	U	12.5	U				P
Vanadium	6.08		5.7	J	6.25			P
Zinc	3.3	U	16.5	U				P

METALS
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Serial Dilution Sample Summary

SDG NO. 10–881 **Client ID** CAPA–10–6349L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 242753002 **Serial Dilution ID:** 1201994287

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	.5	U	2.5	U				MS
Arsenic	1.5	U	7.5	U				MS
Cadmium	.11	U	.55	U				MS
Chromium	3.09	J	12.5	U	100			MS
Lead	.5	U	2.5	U				MS
Molybdenum	1.58		1.61	J	1.9			MS
Nickel	.536	J	2.5	U	100			MS
Selenium	1	U	5	U				MS
Silver	.2	U	1	U				MS
Thallium	.3	U	2	J				MS
Uranium	.492		.515	J	4.67			MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–881 **Client ID** CAPA–10–6347L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 242753001 **Serial Dilution ID:** 1202000205

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-881 **Method Type:** P

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 932265							
1201994196	MB for batch 932265	MB	G	18-DEC-09	50mL	50mL	
1201994197	LCS for batch 932265	LCS	G	18-DEC-09	50mL	50mL	
1201994199	CAPA-10-6347S	MS	G	18-DEC-09	50mL	50mL	
1201994198	CAPA-10-6347D	DUP	G	18-DEC-09	50mL	50mL	
242753001	CAPA-10-6347	SAMPLE	G	18-DEC-09	50mL	50mL	
242753002	CAPA-10-6349	SAMPLE	G	18-DEC-09	50mL	50mL	
242753003	CAPA-10-6371	SAMPLE	G	18-DEC-09	50mL	50mL	
242753004	CAPA-10-6372	SAMPLE	G	18-DEC-09	50mL	50mL	
242753005	CAPA-10-6797	SAMPLE	G	18-DEC-09	50mL	50mL	
242753006	CAPA-10-6798	SAMPLE	G	18-DEC-09	50mL	50mL	
242753007	CAPA-10-6800	SAMPLE	G	18-DEC-09	50mL	50mL	
242753008	CAPA-10-6801	SAMPLE	G	18-DEC-09	50mL	50mL	
242753009	CAPA-10-6901	SAMPLE	G	18-DEC-09	50mL	50mL	

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-881 **Method Type:** MS

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	932307						
1201994283	MB for batch 932307	MB	G	18-DEC-09	50mL	50mL	
1201994284	LCS for batch 932307	LCS	G	18-DEC-09	50mL	50mL	
1201994286	CAPA-10-6349S	MS	G	18-DEC-09	50mL	50mL	
1201994285	CAPA-10-6349D	DUP	G	18-DEC-09	50mL	50mL	
242753001	CAPA-10-6347	SAMPLE	G	18-DEC-09	50mL	50mL	
242753002	CAPA-10-6349	SAMPLE	G	18-DEC-09	50mL	50mL	
242753003	CAPA-10-6371	SAMPLE	G	18-DEC-09	50mL	50mL	
242753004	CAPA-10-6372	SAMPLE	G	18-DEC-09	50mL	50mL	
242753005	CAPA-10-6797	SAMPLE	G	18-DEC-09	50mL	50mL	
242753006	CAPA-10-6798	SAMPLE	G	18-DEC-09	50mL	50mL	
242753007	CAPA-10-6800	SAMPLE	G	18-DEC-09	50mL	50mL	
242753008	CAPA-10-6801	SAMPLE	G	18-DEC-09	50mL	50mL	
242753009	CAPA-10-6901	SAMPLE	G	18-DEC-09	50mL	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–881 **Method Type:** AV

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	934882						
1202000201	MB for batch 934882	MB	G	23–DEC–09	20mL	20mL	
1202000202	LCS for batch 934882	LCS	G	23–DEC–09	20mL	20mL	
1202000204	CAPA–10–6347S	MS	G	23–DEC–09	20mL	20mL	
1202000203	CAPA–10–6347D	DUP	G	23–DEC–09	20mL	20mL	
242753001	CAPA–10–6347	SAMPLE	G	23–DEC–09	20mL	20mL	
242753002	CAPA–10–6349	SAMPLE	G	23–DEC–09	20mL	20mL	
242753003	CAPA–10–6371	SAMPLE	G	23–DEC–09	20mL	20mL	
242753004	CAPA–10–6372	SAMPLE	G	23–DEC–09	20mL	20mL	
242753005	CAPA–10–6797	SAMPLE	G	23–DEC–09	20mL	20mL	
242753006	CAPA–10–6798	SAMPLE	G	23–DEC–09	20mL	20mL	
242753007	CAPA–10–6800	SAMPLE	G	23–DEC–09	20mL	20mL	
242753008	CAPA–10–6801	SAMPLE	G	23–DEC–09	20mL	20mL	
242753009	CAPA–10–6901	SAMPLE	G	23–DEC–09	20mL	20mL	

Metals
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Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 02-JAN-10
End Date: 03-JAN-10
Client Sdg: 10-881
Method MS
Data File: 100102-3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	14:55		X	X				X		X					X				X	X		X		X							
S10	1	15:01		X	X				X		X					X				X	X		X		X							
S100	1	15:07		X	X				X		X					X				X	X		X		X							
ICV01	1	15:13		X	X				X		X					X				X	X		X		X							
ICB01	1	15:19		X	X				X		X					X				X	X		X		X							
CRDL01	1	15:25		X	X				X		X					X				X	X		X		X							
ICSA01	1	15:31		X	X				X		X					X				X	X		X		X							
ICSAB01	1	15:37		X	X				X		X					X				X	X		X		X							
CCV01	1	15:44		X	X				X		X					X				X	X		X		X							
CCB01	1	15:50		X	X				X		X					X				X	X		X		X							
LR01	1	15:56		X	X				X		X					X				X	X		X		X							
CCV02	1	16:02		X	X				X		X					X				X	X		X		X							
CCB02	1	16:08		X	X				X		X					X				X	X		X		X							
1201994283	1	16:14		X	X				X		X					X				X	X		X		X							
1201994284	1	16:20		X	X				X		X					X				X	X		X		X							
242753001	1	16:26		X	X				X		X					X				X	X		X		X							
242753002	1	16:32		X	X				X		X					X				X	X		X		X							
1201994285	1	16:38		X	X				X		X					X				X	X		X		X							
1201994286	1	16:45		X	X				X		X					X				X	X		X		X							
1201994287	5	16:51		X	X				X		X					X				X	X		X		X							
CCV03	1	16:57		X	X				X		X					X				X	X		X		X							
CCB03	1	17:03		X	X				X		X					X				X	X		X		X							
242753003	1	17:09		X	X				X		X					X				X	X		X		X							
242753004	1	17:15		X	X				X		X					X				X	X		X		X							
242753005	1	17:21		X	X				X		X					X				X	X		X		X							
242753006	1	17:27		X	X				X		X					X				X	X		X		X							
242753007	1	17:34		X	X				X		X					X				X	X		X		X							
242753008	1	17:40		X	X				X		X					X				X	X		X		X							
242753009	1	17:46		X	X				X		X					X				X	X		X		X							
CCV04	1	17:52		X	X				X		X					X				X	X		X		X							
CCB04	1	17:58		X	X				X		X					X				X	X		X		X							

Metals
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Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 02–JAN–10 **End Date:** 03–JAN–10

Client Sdg: 10–881
Method MS
Data File: 100102–8

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	08:08																												X		
S10	1	08:10																												X		
S100	1	08:12																												X		
ICV01	1	08:14																												X		
ICB01	1	08:16																												X		
CRDL01	1	08:18																												X		
ICSA01	1	08:19																												X		
ICSAB01	1	08:21																												X		
CCV01	1	08:23																												X		
CCB01	1	08:25																												X		
1201994283	1	08:27																												X		
1201994284	1	08:29																												X		
242753001	1	08:31																												X		
ZZZZZZ	1	08:33																														
242753002	1	08:35																												X		
1201994285	1	08:37																												X		
1201994286	1	08:39																												X		
1201994287	5	08:41																												X		
ZZZZZZ	5	08:43																														
CCV02	1	08:45																												X		
CCB02	1	08:47																												X		
242753003	1	08:49																												X		
242753004	1	08:51																												X		
242753005	1	08:52																												X		
242753006	1	08:54																												X		
242753007	1	08:56																												X		
242753008	1	08:58																												X		
242753009	1	09:00																												X		
ZZZZZZ	1	09:02																														
ZZZZZZ	1	09:04																														
ZZZZZZ	5	09:06																														
CCV03	1	09:08																												X		
CCB03	1	09:10																												X		

Metals
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Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 03–JAN–10 **End Date:** 03–JAN–10

Client Sdg: 10–881
Method MS
Data File: 100103–9

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	10:09																										X				
S10	1	10:14																										X				
S100	1	10:18																										X				
ICV01	1	10:23																										X				
ICB01	1	10:27																										X				
CRDL01	1	10:32																										X				
ICSA01	1	10:36																										X				
ICSAB01	1	10:41																										X				
CCV01	1	10:45																										X				
CCB01	1	10:50																										X				
1201994283	1	10:54																										X				
1201994284	1	10:59																										X				
242753001	1	11:03																										X				
242753002	1	11:08																										X				
1201994285	1	11:12																										X				
1201994286	1	11:17																										X				
1201994287	5	11:21																										X				
CCV02	1	11:26																										X				
CCB02	1	11:30																										X				
242753003	1	11:35																										X				
242753004	1	11:39																										X				
242753005	1	11:44																										X				
242753006	1	11:48																										X				
242753007	1	11:53																										X				
242753008	1	11:57																										X				
242753009	1	12:02																										X				
CCV03	1	12:06																										X				
CCB03	1	12:11																										X				

Metals
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Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 20–DEC–09 **End Date:** 20–DEC–09

Client Sdg: 10–881
Method P
Data File: 122009A–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	08:27	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
S0.1	1	08:34				X	X	X				X	X					X				X		X			X		X		X	X
S0.5	1	08:40	X			X	X	X		X		X	X				X	X				X		X			X		X		X	X
SCAL	1	08:47	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
S10	1	08:54	X							X					X		X									X						
ICV01	1	08:59	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ICB01	1	09:06	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
PQL01	1	09:13	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ICSA01	1	09:20	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ICSAB01	1	09:26	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
LR01	1	09:31	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
LR02	1	09:37	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCV01	1	09:44	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB01	1	09:51	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
LR03	1	09:57	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCV02	1	10:04	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB02	1	10:11	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	5	10:27																														
ZZZZZZ	5	10:34																														
ZZZZZZ	5	10:41																														
ZZZZZZ	5	10:48																														
ZZZZZZ	5	10:55																														
ZZZZZZ	5	11:02																														
ZZZZZZ	5	11:08																														
CCV03	1	11:15	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB03	1	11:22	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	5	11:30																														
ZZZZZZ	5	11:37																														
ZZZZZZ	5	11:44																														
ZZZZZZ	25	11:51																														
ZZZZZZ	5	11:58																														
ZZZZZZ	5	12:05																														
CCV04	1	12:12	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB04	1	12:19	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCV05	1	12:46	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB05	1	12:53	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	13:00																														
ZZZZZZ	1	13:07																														
ZZZZZZ	1	13:14																														
ZZZZZZ	1	13:20																														

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																													
ZZZZZZ	1	13:27																													
ZZZZZZ	5	13:35																													
CCV06	1	13:41	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
PQL02	1	13:48	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB06	1	13:55	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	14:02																													
ZZZZZZ	1	14:09																													
ZZZZZZ	1	14:16																													
ZZZZZZ	1	14:23																													
ZZZZZZ	1	14:30																													
ZZZZZZ	1	14:37																													
ZZZZZZ	1	14:44																													
CCV07	1	14:51	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
PQL03	1	14:58	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB07	1	15:04	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	15:11																													
ZZZZZZ	1	15:18																													
ZZZZZZ	1	15:25																													
ZZZZZZ	1	15:32																													
ZZZZZZ	1	15:40																													
ZZZZZZ	1	15:46																													
ZZZZZZ	1	15:53																													
CCV08	1	16:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
PQL04	1	16:07	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB08	1	16:14	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	16:21																													
ZZZZZZ	1	16:28																													
ZZZZZZ	1	16:35																													
ZZZZZZ	1	16:42																													
ZZZZZZ	1	16:48																													
ZZZZZZ	1	16:55																													
ZZZZZZ	1	17:02																													
ZZZZZZ	5	17:09																													
CCV09	1	17:16	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB09	1	17:23	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	17:30																													
ZZZZZZ	5	17:36																													
ZZZZZZ	5	17:43																													
ZZZZZZ	5	17:50																													
ZZZZZZ	5	17:57																													

Metals
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Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
ZZZZZZ	5	18:04																														
ZZZZZZ	25	18:10																														
ZZZZZZ	5	18:17																														
CCV10	1	18:24	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB10	1	18:31	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	10	18:38																														
ZZZZZZ	10	18:45																														
ZZZZZZ	10	18:52																														
ZZZZZZ	10	18:58																														
ZZZZZZ	5	19:05																														
ZZZZZZ	5	19:12																														
ZZZZZZ	5	19:19																														
ZZZZZZ	25	19:26																														
ZZZZZZ	5	19:33																														
CCV11	1	19:40	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB11	1	19:47	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	5	19:53																														
ZZZZZZ	5	20:00																														
ZZZZZZ	5	20:07																														
ZZZZZZ	25	20:14																														
ZZZZZZ	5	20:20																														
CCV12	1	20:27	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB12	1	20:34	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
1201994196	1	20:41	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
1201994197	1	20:48	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
242753001	1	20:55	X			X	X	X		X		X	X		X		X	X				X				X	X				X	X
1201994198	1	21:02	X			X	X	X		X		X	X		X		X	X				X		X		X	X				X	X
1201994199	1	21:09	X			X	X	X		X		X	X		X		X	X				X		X		X	X				X	X
1201994200	5	21:15	X			X	X	X		X		X	X		X		X	X				X		X		X	X				X	X
242753002	1	21:22	X			X	X	X		X		X	X		X		X	X				X		X		X	X				X	X
CCV13	1	21:29	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB13	1	21:36	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
242753003	1	21:43	X			X	X	X		X		X	X		X		X	X				X				X	X				X	X
242753004	1	21:50	X			X	X	X		X		X	X		X		X	X				X		X		X	X				X	X
242753005	1	21:56	X			X	X	X		X		X	X		X		X	X				X				X	X				X	X
242753006	1	22:03	X			X	X	X		X		X	X		X		X	X				X		X		X	X				X	X
242753007	1	22:10	X			X	X	X		X		X	X		X		X	X				X				X	X				X	X
242753008	1	22:17	X			X	X	X		X		X	X		X		X	X				X		X		X	X				X	X
242753009	1	22:24	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCV14	1	22:31	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																															
CCB14	1	22:38	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X

Metals
-14-
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 29-DEC-09
End Date: 29-DEC-09
Client Sdg: 10-881
Method P
Data File: 122909A-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	08:35																											X			
S0.1	1	08:42																											X			
S0.5	1	08:48																											X			
SCAL	1	08:55																											X			
S10	1	09:02																														
ICV01	1	09:08																											X			
ICB01	1	09:14																											X			
PQL01	1	09:21																											X			
ICSA01	1	09:28																											X			
ICSAB01	1	09:34																											X			
LR01	1	09:40																											X			
LR02	1	09:46																											X			
CCV01	1	09:52																											X			
CCB01	1	09:59																											X			
ZZZZZZ	1	10:18																														
ZZZZZZ	1	10:25																														
ZZZZZZ	1	10:32																														
ZZZZZZ	1	10:39																														
ZZZZZZ	1	10:46																														
ZZZZZZ	5	10:53																														
CCV02	1	11:00																											X			
CCB02	1	11:07																											X			
ZZZZZZ	1	11:15																														
ZZZZZZ	1	11:22																														
ZZZZZZ	1	11:30																														
ZZZZZZ	1	11:37																														
ZZZZZZ	1	11:44																														
ZZZZZZ	1	11:51																														
ZZZZZZ	1	11:58																														
ZZZZZZ	1	12:05																														
ZZZZZZ	5	12:12																														
CCV03	1	12:19																											X			
PQL02	1	12:26																											X			
CCB03	1	12:33																											X			
ZZZZZZ	1	12:40																														
ZZZZZZ	1	12:47																														
ZZZZZZ	1	12:53																														
ZZZZZZ	1	13:00																														
ZZZZZZ	1	13:07																														
ZZZZZZ	1	13:14																														

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																														
ZZZZZZ	5	13:21																														
ZZZZZZ	1	13:28																														
CCV04	1	13:35																									X					
CCB04	1	13:42																									X					
CCV05	1	14:00																									X					
CCB05	1	14:07																									X					
ZZZZZZ	1	14:14																														
ZZZZZZ	1	14:21																														
ZZZZZZ	1	14:27																														
ZZZZZZ	1	14:34																														
ZZZZZZ	1	14:41																														
ZZZZZZ	1	14:48																														
ZZZZZZ	5	14:54																														
ZZZZZZ	1	15:01																														
ZZZZZZ	1	15:08																														
CCV06	1	15:15																									X					
CCB06	1	15:22																									X					
ZZZZZZ	1	15:29																														
ZZZZZZ	1	15:36																														
ZZZZZZ	1	15:43																														
ZZZZZZ	1	15:50																														
ZZZZZZ	1	15:57																														
ZZZZZZ	1	16:04																														
242753001	5	16:11																									X					
1201994198	5	16:18																									X					
CCV07	1	16:24																									X					
CCB07	1	16:31																									X					
1201994199	5	16:38																									X					
1201994200	25	16:45																									X					
242753002	5	16:52																									X					
242753003	5	16:58																									X					
242753004	5	17:05																									X					
242753005	5	17:12																									X					
242753006	5	17:19																									X					
242753007	5	17:26																									X					
242753008	5	17:32																									X					
CCV08	1	17:39																									X					
CCB08	1	17:46																									X					

Metals
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Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: HG3
Start Date: 24-DEC-09 **End Date:** 24-DEC-09

Client Sdg: 10-881
Method AV
Data File: 122409W1-10

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	07:22																	X													
S0.2	1	07:24																	X													
S0.5	1	07:26																	X													
S2.0	1	07:28																	X													
S5.0	1	07:29																	X													
S10.0	1	07:31																	X													
ICV01	1	07:33																	X													
ICB01	1	07:35																	X													
CRDL01	1	07:37																	X													
CCV01	1	07:39																	X													
CCB01	1	07:41																	X													
ZZZZZZ	1	07:43																														
ZZZZZZ	1	07:45																														
ZZZZZZ	1	07:47																														
ZZZZZZ	1	07:49																														
ZZZZZZ	1	07:51																														
ZZZZZZ	1	07:53																														
ZZZZZZ	5	07:54																														
ZZZZZZ	1	07:56																														
ZZZZZZ	1	07:58																														
ZZZZZZ	1	08:00																														
CCV02	1	08:02																	X													
CCB02	1	08:04																	X													
ZZZZZZ	1	08:06																														
ZZZZZZ	1	08:08																														
ZZZZZZ	1	08:10																														
ZZZZZZ	5	08:12																														
ZZZZZZ	1	08:14																														
ZZZZZZ	1	08:16																														
ZZZZZZ	1	08:18																														
ZZZZZZ	1	08:19																														
ZZZZZZ	1	08:21																														
ZZZZZZ	5	08:23																														
CCV03	1	08:25																	X													
CCB03	1	08:27																	X													
ZZZZZZ	1	08:29																														
ZZZZZZ	1	08:31																														
ZZZZZZ	1	08:33																														
ZZZZZZ	1	08:35																														
ZZZZZZ	1	08:37																														

Metals
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Analysis Run Log

Samp No.	D/F	Run Time																													
ZZZZZZ	1	08:39																													
ZZZZZZ	1	08:41																													
ZZZZZZ	1	08:43																													
ZZZZZZ	1	08:44																													
ZZZZZZ	1	08:46																													
CCV04	1	08:48															X														
CCB04	1	08:50															X														
ZZZZZZ	1	08:52																													
ZZZZZZ	5	08:54																													
ZZZZZZ	1	08:56																													
1202000201	1	08:58															X														
1202000202	1	09:00															X														
242753001	1	09:02															X														
1202000203	1	09:04															X														
1202000204	1	09:06															X														
1202000205	5	09:08															X														
242753002	1	09:10															X														
CCV05	1	09:11															X														
CCB05	1	09:13															X														
242753003	1	09:15															X														
242753004	1	09:17															X														
242753005	1	09:19															X														
242753006	1	09:21															X														
242753007	1	09:23															X														
242753008	1	09:25															X														
242753009	1	09:27															X														
ZZZZZZ	1	09:29																													
ZZZZZZ	1	09:31																													
ZZZZZZ	1	09:33																													
CCV06	1	09:35															X														
CCB06	1	09:36															X														

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-881

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01-FEB-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		10.0	30
	Antimony		0.5	3
	Arsenic		1.5	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.11	1
	Calcium		20.0	200
	Chromium		2.5	10
	Cobalt		0.1	1
	Copper		0.3	1
	Iron		10.0	100
	Lead		0.5	2
	Magnesium		5.0	15
	Manganese		1.0	5
	Molybdenum		0.1	.5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Strontium		2.0	10
	Thallium		0.3	1
	Tin		1.0	5
	Uranium		0.05	.2
	Vanadium		3.0	10
	Zinc		2.6	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–881

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
MERCURY				
LIQUID	Mercury		0.066	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–881

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	15.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Molybdenum	202.031	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silica		53.0	213
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Strontium	421.552	1.0	5
	Thallium	190.801	5.0	20
	Tin	189.927	2.5	10
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-881
Effective Dates: 01-NOV-09

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02738	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.44940	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.22121	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.33886	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.13648	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05571	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.19671	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02739	0.00000	0.00000	0.00000	0.00000
Tin	189.927	-0.00058	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
–11–
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10–881
Effective Dates: 01–NOV–09

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	24.5549	0.00000	0.00000
Arsenic	188.979	0.52529	0.00000	–0.67113	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.54031	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.38952	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	–31.5465	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.78023
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.63859	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	160.41
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.22870	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.35099	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.93161	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.39273	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.19810

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-881
Effective Dates: 01-NOV-09

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	42.8126
Antimony	206.836	-0.01635	0.00000	0.00000	0.00000	-22.2146
Arsenic	188.979	-0.21271	0.00000	0.00000	0.00000	1.34645
Barium	233.527	-0.03709	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.13266	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.09998	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01788	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01425	0.00000	0.00000	0.00000	-2.64232
Copper	324.752	-0.05101	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09069	0.00000	0.00000	0.00000	-2.44485
Magnesium	279.077	0.85543	0.00000	0.00000	0.00000	-20.2401
Manganese	257.61	-0.09972	0.00000	0.01862	0.00000	0.00000
Molybdenum	202.031	-0.07094	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80633	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.03176	0.00000	0.01823	12.4291	-3.60863
Selenium	196.026	-3.00009	0.00000	0.00000	0.00000	-3.17982
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.4444
Silver	328.068	-0.31825	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-5.85948	0.00000
Tin	189.927	-0.01337	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.12581	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.15211	0.00000	-0.02256	0.00000	-14.2921
Zinc	213.857	0.09548	0.00000	0.03423	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-881
Effective Dates: 01-NOV-09

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silicon
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.64279	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.44040	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicou	251.611	0.00000	0.00000	0.33191	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.38465	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL GEL Job No: 10-881

Contract: ESHL01000

Instrument: OPTIMA3 Effective Dates: 01-NOV-09

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Silver	Strontium	Sulfur	Thallium	Tin
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-17.4077
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	-13.8713
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	3.10491
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-881
Effective Dates: 01-NOV-09

Parmname	Wavelength	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	2.73145	0.00000	-2.31857	0.00000
Arsenic	188.979	-8.38419	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	-2.24883	0.00000
Beryllium	313.107	-1.96555	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.32181	-1.76281	0.00000
Cobalt	228.616	2.12623	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.85359	-3.92851	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-7.67419	0.00000	2.18873	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.44145	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	1.10141	-1.94183	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 10-881

Contract: ESHL01000 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Molybdenum	1000	1000	ug/L	01-NOV-09
Nickel	1000	1000	ug/L	01-NOV-09
Potassium	1	50000	ug/L	01-NOV-09
Selenium	1000	500	ug/L	01-NOV-09
Silver	1000	250	ug/L	01-NOV-09
Sodium	1	50000	ug/L	01-NOV-09
Strontium	1000	1000	ug/L	01-NOV-09
Thallium	1000	500	ug/L	01-NOV-09
Tin	1000	1000	ug/L	01-NOV-09
Uranium	1000	5000	ug/L	01-NOV-09
Vanadium	1000	100	ug/L	01-NOV-09
Zinc	1000	2500	ug/L	01-NOV-09
Aluminum	1	50000	ug/L	01-NOV-09
Antimony	1000	250	ug/L	01-NOV-09
Arsenic	1000	1000	ug/L	01-NOV-09
Barium	1000	1000	ug/L	01-NOV-09
Beryllium	1000	1000	ug/L	01-NOV-09
Boron	1000	200	ug/L	01-NOV-09
Cadmium	1000	1000	ug/L	01-NOV-09
Calcium	500	50000	ug/L	01-NOV-09
Chromium	1000	1000	ug/L	01-NOV-09
Cobalt	1000	1000	ug/L	01-NOV-09
Copper	1000	1000	ug/L	01-NOV-09
Iron	500	50000	ug/L	01-NOV-09
Lead	1000	5000	ug/L	01-NOV-09
Magnesium	1	50000	ug/L	01-NOV-09
Manganese	1000	1000	ug/L	01-NOV-09

METALS
–12–
Linear Ranges

SDG NO. 10–881

Contract: ESHL01000 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–NOV–09
Antimony	20	10000	ug/L	01–NOV–09
Arsenic	20	10000	ug/L	01–NOV–09
Barium	20	15000	ug/L	01–NOV–09
Beryllium	20	3000	ug/L	01–NOV–09
Boron	20	5000	ug/L	01–NOV–09
Cadmium	20	10000	ug/L	01–NOV–09
Calcium	20	500000	ug/L	01–NOV–09
Chromium	20	25000	ug/L	01–NOV–09
Cobalt	20	10000	ug/L	01–NOV–09
Copper	20	20000	ug/L	01–NOV–09
Iron	20	500000	ug/L	01–NOV–09
Lead	20	25000	ug/L	01–NOV–09
Magnesium	20	500000	ug/L	01–NOV–09
Manganese	20	10000	ug/L	01–NOV–09
Molybdenum	20	10000	ug/L	01–NOV–09
Nickel	20	10000	ug/L	01–NOV–09
Potassium	20	300000	ug/L	01–NOV–09
Selenium	20	10000	ug/L	01–NOV–09
Silica	20	107000	ug/L	01–NOV–09
Silver	20	1000	ug/L	01–NOV–09
Sodium	20	500000	ug/L	01–NOV–09
Strontium	20	10000	ug/L	01–NOV–09
Thallium	20	10000	ug/L	01–NOV–09
Tin	20	10000	ug/L	01–NOV–09
Uranium	20	15000	ug/L	01–NOV–09
Vanadium	20	10000	ug/L	01–NOV–09
Zinc	20	15000	ug/L	01–NOV–09

Raw Data

Calculation Data Logbook

Report run on: January 8, 2010 5:43 AM

Batch Id: 939525 **Sop:** GL-GC-E-107
Employee: Octavia Doster
Instrument: No instrument-calculation method

Samp Id	Sample Type	Parmname	Run Date	Calcium mg/L	Magnesium mg/L	Result	Units
242753001	SAMPLE	Hardness as CaCO3	08-JAN-2010 05:05	16.1	4.02	56.7	mg/L
242753002	SAMPLE	Hardness as CaCO3	08-JAN-2010 05:05	16.2	4.12	57.5	mg/L
242753003	SAMPLE	Hardness as CaCO3	08-JAN-2010 05:05	16.5	4.13	58.1	mg/L
242753004	SAMPLE	Hardness as CaCO3	08-JAN-2010 05:05	15.9	4.10	56.5	mg/L
242753005	SAMPLE	Hardness as CaCO3	08-JAN-2010 05:05	12.6	3.49	45.8	mg/L
242753006	SAMPLE	Hardness as CaCO3	08-JAN-2010 05:05	11.7	3.32	42.9	mg/L
242753007	SAMPLE	Hardness as CaCO3	08-JAN-2010 05:05	12.4	3.59	45.8	mg/L
242753008	SAMPLE	Hardness as CaCO3	08-JAN-2010 05:05	12.2	3.46	44.8	mg/L
242753009	SAMPLE	Hardness as CaCO3	08-JAN-2010 05:05	0.00	0.00	0.00	mg/L

Calculation: **(2.497 * Calcium) + (4.118 * Magnesium)**

Method: Hg_ReAlign
Result: 010710

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

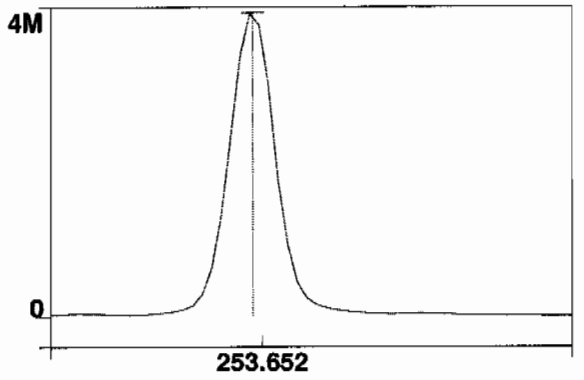

Intensity: 3436213.0 cps
Conc:

1

Reprocessing Begun
Logged In Analyst: Optima3 Technique: ICP Continuous

Results Data Set (original): 122009
Results Library (original): C:\pe\Optima3\Results\Results.mdb
Results Data Set (reprocessed): 122009A
Results Library (reprocessed): C:\pe\Optima3\Results\Results.mdb

Method Loaded
Method Name: General Eng.2AX Method Last Saved: 12/20/2009 10:20:40
IEC File: 101209.iec MSF File:
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 Autosampler Location: 8
Sample ID: S0 Date Collected: 12/20/2009 08:27:25
Analyst: Data Type: Reprocessed on 12/20/2009 10:23:17
Logged In Analyst (Original) : Optima3
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	906069.3	906069.3	100.74	%	08:30:35
1	Sc Radial	5636.8	5636.8	101	%	08:29:18
1	Y 371.029	747249.6	747249.6	100.59	%	08:30:35
1	Y RADIAL	5945.0	5945.0	101.4	%	08:29:18
1	Ag 328.068†	482.6	479.0	[0.00]	ug/L	08:30:35

1	Al 396.153Radial†	0.6	0.6	[0.00]	ug/L	08:29:18
1	As 188.979†	-27.2	-27.0	[0.00]	ug/L	08:30:55
1	B 249.677†	546.0	542.0	[0.00]	ug/L	08:30:35
1	Ba 233.527†	-14.5	-14.4	[0.00]	ug/L	08:30:55
1	Be 313.107†	-4640.3	-4606.2	[0.00]	ug/L	08:30:35
1	Ca 317.933Radial†	16.7	16.5	[0.00]	ug/L	08:29:38
1	Cd 226.502†	-237.4	-235.7	[0.00]	ug/L	08:30:55
1	Co 228.616†	-83.2	-82.6	[0.00]	ug/L	08:30:55
1	Cr 267.716†	91.6	90.9	[0.00]	ug/L	08:30:55
1	Cu 324.752†	6084.4	6039.8	[0.00]	ug/L	08:30:35
1	Fe 238.204 Radial†	10.7	10.6	[0.00]	ug/L	08:29:38
1	K 766.490 Radial†	2850.3	2825.4	[0.00]	ug/L	08:29:18
1	Mg 279.077 IEC†	1.6	1.5	[0.00]	ug/L	08:29:38
1	Mn 257.610†	482.1	478.5	[0.00]	ug/L	08:30:55
1	Mo 202.031†	18.7	18.6	[0.00]	ug/L	08:30:55
1	Na 589.592 Radial†	-1253.0	-1242.1	[0.00]	ug/L	08:29:18
1	Ni 231.604†	103.6	102.9	[0.00]	ug/L	08:30:55
1	P 214.914†	263.1	261.2	[0.00]	ug/L	08:30:55
1	Pb 220.353†	-81.1	-80.5	[0.00]	ug/L	08:30:55
1	S 181.975 Axial†	60.5	60.1	[0.00]	ug/L	08:30:55
1	Sb 206.836†	50.6	50.3	[0.00]	ug/L	08:30:55
1	Se 196.026†	-29.2	-29.0	[0.00]	ug/L	08:30:55
1	Si 251.611†	665.8	660.9	[0.00]	ug/L	08:30:55
1	Sn 189.927†	-2.3	-2.3	[0.00]	ug/L	08:30:55
1	Sr 421.552†	8.0	8.0	[0.00]	ug/L	08:29:18
1	Ti 334.940†	-1410.0	-1399.6	[0.00]	ug/L	08:30:35
1	Tl 190.801†	-51.2	-50.8	[0.00]	ug/L	08:30:55
1	U 409.014†	-2785.5	-2765.1	[0.00]	ug/L	08:30:35
1	V 292.402†	-1436.3	-1425.8	[0.00]	ug/L	08:30:35
1	Zn 213.857†	804.1	798.2	[0.00]	ug/L	08:30:55
1	SiO2†	632.1	627.5	[0.00]	ug/L	08:31:51
2	Sc 361.383	902659.9	902659.9	100.36	%	08:31:01
2	Sc Radial	5593.4	5593.4	100	%	08:29:43
2	Y 371.029	746227.4	746227.4	100.45	%	08:31:01
2	Y RADIAL	5858.0	5858.0	99.94	%	08:29:43
2	Ag 328.068†	345.4	344.2	[0.00]	ug/L	08:31:01
2	Al 396.153Radial†	-16.5	-16.5	[0.00]	ug/L	08:29:43
2	As 188.979†	-27.8	-27.7	[0.00]	ug/L	08:31:21
2	B 249.677†	433.1	431.6	[0.00]	ug/L	08:31:01
2	Ba 233.527†	-7.2	-7.2	[0.00]	ug/L	08:31:21
2	Be 313.107†	-4584.8	-4568.4	[0.00]	ug/L	08:31:01
2	Ca 317.933Radial†	19.8	19.8	[0.00]	ug/L	08:30:03
2	Cd 226.502†	-211.1	-210.4	[0.00]	ug/L	08:31:21
2	Co 228.616†	-82.9	-82.6	[0.00]	ug/L	08:31:21
2	Cr 267.716†	96.1	95.8	[0.00]	ug/L	08:31:21
2	Cu 324.752†	6094.1	6072.2	[0.00]	ug/L	08:31:01
2	Fe 238.204 Radial†	12.0	12.0	[0.00]	ug/L	08:30:03
2	K 766.490 Radial†	2817.8	2814.9	[0.00]	ug/L	08:29:43
2	Mg 279.077 IEC†	1.2	1.2	[0.00]	ug/L	08:30:03
2	Mn 257.610†	505.5	503.7	[0.00]	ug/L	08:31:21
2	Mo 202.031†	33.6	33.5	[0.00]	ug/L	08:31:21
2	Na 589.592 Radial†	-1265.8	-1264.5	[0.00]	ug/L	08:29:43
2	Ni 231.604†	113.4	113.0	[0.00]	ug/L	08:31:21
2	P 214.914†	248.3	247.4	[0.00]	ug/L	08:31:21
2	Pb 220.353†	-71.3	-71.1	[0.00]	ug/L	08:31:21
2	S 181.975 Axial†	60.6	60.4	[0.00]	ug/L	08:31:21
2	Sb 206.836†	38.1	38.0	[0.00]	ug/L	08:31:21
2	Se 196.026†	-28.4	-28.3	[0.00]	ug/L	08:31:21
2	Si 251.611†	653.3	651.0	[0.00]	ug/L	08:31:21
2	Sn 189.927†	5.6	5.5	[0.00]	ug/L	08:31:21
2	Sr 421.552†	-1.3	-1.3	[0.00]	ug/L	08:29:43
2	Ti 334.940†	-1478.9	-1473.6	[0.00]	ug/L	08:31:01
2	Tl 190.801†	-44.7	-44.5	[0.00]	ug/L	08:31:21
2	U 409.014†	-2712.0	-2702.3	[0.00]	ug/L	08:31:01
2	V 292.402†	-1477.6	-1472.3	[0.00]	ug/L	08:31:01
2	Zn 213.857†	824.2	821.2	[0.00]	ug/L	08:31:21
2	SiO2†	719.1	716.5	[0.00]	ug/L	08:31:56
3	Sc 361.383	889538.8	889538.8	98.901	%	08:31:26
3	Sc Radial	5532.4	5532.4	99.0	%	08:30:08
3	Y 371.029	735222.5	735222.5	98.967	%	08:31:26
3	Y RADIAL	5781.3	5781.3	98.63	%	08:30:08

3	Ag 328.068†	370.8	374.9	[0.00]	ug/L	08:31:26
3	Al 396.153Radial†	-23.7	-24.0	[0.00]	ug/L	08:30:08
3	As 188.979†	-27.3	-27.6	[0.00]	ug/L	08:31:46
3	B 249.677†	416.9	421.5	[0.00]	ug/L	08:31:26
3	Ba 233.527†	-4.2	-4.2	[0.00]	ug/L	08:31:46
3	Be 313.107†	-4560.0	-4610.7	[0.00]	ug/L	08:31:26
3	Ca 317.933Radial†	17.1	17.3	[0.00]	ug/L	08:30:29
3	Cd 226.502†	-228.7	-231.3	[0.00]	ug/L	08:31:46
3	Co 228.616†	-88.0	-88.9	[0.00]	ug/L	08:31:46
3	Cr 267.716†	109.6	110.9	[0.00]	ug/L	08:31:46
3	Cu 324.752†	6081.5	6149.0	[0.00]	ug/L	08:31:26
3	Fe 238.204 Radial†	11.0	11.1	[0.00]	ug/L	08:30:29
3	K 766.490 Radial†	2947.4	2976.8	[0.00]	ug/L	08:30:08
3	Mg 279.077 IEC†	4.0	4.1	[0.00]	ug/L	08:30:29
3	Mn 257.610†	486.9	492.3	[0.00]	ug/L	08:31:46
3	Mo 202.031†	24.3	24.6	[0.00]	ug/L	08:31:46
3	Na 589.592 Radial†	-1260.9	-1273.5	[0.00]	ug/L	08:30:08
3	Ni 231.604†	89.9	90.9	[0.00]	ug/L	08:31:46
3	P 214.914†	254.2	257.0	[0.00]	ug/L	08:31:46
3	Pb 220.353†	-81.0	-81.9	[0.00]	ug/L	08:31:46
3	S 181.975 Axial†	55.2	55.8	[0.00]	ug/L	08:31:46
3	Sb 206.836†	38.5	38.9	[0.00]	ug/L	08:31:46
3	Se 196.026†	-28.8	-29.1	[0.00]	ug/L	08:31:46
3	Si 251.611†	660.3	667.6	[0.00]	ug/L	08:31:46
3	Sn 189.927†	2.2	2.3	[0.00]	ug/L	08:31:46
3	Sr 421.552†	10.1	10.2	[0.00]	ug/L	08:30:08
3	Ti 334.940†	-1520.1	-1537.0	[0.00]	ug/L	08:31:26
3	Tl 190.801†	-41.6	-42.0	[0.00]	ug/L	08:31:46
3	U 409.014†	-2687.8	-2717.7	[0.00]	ug/L	08:31:26
3	V 292.402†	-1490.6	-1507.2	[0.00]	ug/L	08:31:26
3	Zn 213.857†	786.4	795.1	[0.00]	ug/L	08:31:46
3	SiO2†	703.0	710.9	[0.00]	ug/L	08:32:01

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	899422.7	8727.82	0.97%	100.00	%
Sc Radial	5587.5	52.42	0.94%	100	%
Y 371.029	742899.8	6668.39	0.90%	100.00	%
Y RADIAL	5861.4	81.86	1.40%	100.0	%
Ag 328.068†	399.4	70.68	17.70%	[0.00]	ug/L
Al 396.153Radial†	-13.3	12.59	94.64%	[0.00]	ug/L
As 188.979†	-27.5	0.39	1.43%	[0.00]	ug/L
B 249.677†	465.0	66.82	14.37%	[0.00]	ug/L
Ba 233.527†	-8.6	5.22	60.67%	[0.00]	ug/L
Be 313.107†	-4595.1	23.23	0.51%	[0.00]	ug/L
Ca 317.933Radial†	17.9	1.71	9.56%	[0.00]	ug/L
Cd 226.502†	-225.8	13.51	5.99%	[0.00]	ug/L
Co 228.616†	-84.7	3.64	4.30%	[0.00]	ug/L
Cr 267.716†	99.2	10.40	10.48%	[0.00]	ug/L
Cu 324.752†	6087.0	56.09	0.92%	[0.00]	ug/L
Fe 238.204 Radial†	11.2	0.71	6.32%	[0.00]	ug/L
K 766.490 Radial†	2872.4	90.59	3.15%	[0.00]	ug/L
Mg 279.077 IEC†	2.3	1.58	69.70%	[0.00]	ug/L
Mn 257.610†	491.5	12.61	2.57%	[0.00]	ug/L
Mo 202.031†	25.6	7.53	29.43%	[0.00]	ug/L
Na 589.592 Radial†	-1260.0	16.17	1.28%	[0.00]	ug/L
Ni 231.604†	102.3	11.04	10.80%	[0.00]	ug/L
P 214.914†	255.2	7.07	2.77%	[0.00]	ug/L
Pb 220.353†	-77.8	5.89	7.57%	[0.00]	ug/L
S 181.975 Axial†	58.8	2.56	4.35%	[0.00]	ug/L
Sb 206.836†	42.4	6.83	16.11%	[0.00]	ug/L
Se 196.026†	-28.8	0.48	1.65%	[0.00]	ug/L
Si 251.611†	659.8	8.38	1.27%	[0.00]	ug/L
Sn 189.927†	1.8	3.95	216.58%	[0.00]	ug/L
Sr 421.552†	5.6	6.11	108.82%	[0.00]	ug/L
Ti 334.940†	-1470.0	68.73	4.68%	[0.00]	ug/L
Tl 190.801†	-45.8	4.53	9.89%	[0.00]	ug/L
U 409.014†	-2728.3	32.73	1.20%	[0.00]	ug/L
V 292.402†	-1468.4	40.85	2.78%	[0.00]	ug/L

Zn 213.857†	804.8	14.29	1.78%	[0.00] ug/L
SiO2†	685.0	49.85	7.28%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 12/20/2009 08:34:12
Data Type: Reprocessed on 12/20/2009 10:23:19

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	877769.3	877769.3	97.593	%	08:36:37
1	Sc Radial	5490.8	5490.8	98.3	%	08:36:10
1	Y 371.029	737173.8	737173.8	99.229	%	08:36:37
1	Y RADIAL	5747.8	5747.8	98.06	%	08:36:10
1	Ag 328.068†	24005.1	24197.9	[100]	ug/L	08:36:37
1	As 188.979†	244.6	278.1	[100]	ug/L	08:36:57
1	B 249.677†	5149.5	4811.5	[100]	ug/L	08:36:37
1	Ba 233.527†	15106.7	15487.9	[100]	ug/L	08:36:37
1	Be 313.107†	295900.1	307794.6	[100]	ug/L	08:36:37
1	Cd 226.502†	10125.2	10600.8	[100]	ug/L	08:36:57
1	Co 228.616†	5766.6	5993.6	[100]	ug/L	08:36:57
1	Cr 267.716†	10155.6	10307.0	[100]	ug/L	08:36:37
1	Cu 324.752†	41764.3	36707.5	[100]	ug/L	08:36:37
1	K 766.490 Radial†	8468.9	5745.7	[1000]	ug/L	08:36:05
1	Mn 257.610†	105169.3	107272.2	[100]	ug/L	08:36:37
1	Mo 202.031†	1706.2	1722.8	[100]	ug/L	08:36:57
1	Ni 231.604†	4806.2	4822.5	[100]	ug/L	08:36:57
1	P 214.914†	1220.1	995.0	[500]	ug/L	08:36:57
1	Pb 220.353†	920.4	1020.9	[100]	ug/L	08:36:57
1	S 181.975 Axial†	213.7	160.2	[200]	ug/L	08:36:57
1	Sb 206.836†	364.5	331.1	[100]	ug/L	08:36:57
1	Se 196.026†	159.3	192.0	[100]	ug/L	08:36:57
1	Si 251.611†	18467.7	18263.4	[500]	ug/L	08:36:37
1	Sn 189.927†	672.5	687.2	[100]	ug/L	08:36:57
1	Sr 421.552†	16766.0	17055.7	[100]	ug/L	08:36:10
1	Ti 334.940†	67988.4	71135.6	[100]	ug/L	08:36:37
1	Tl 190.801†	344.8	399.1	[100]	ug/L	08:36:57
1	U 409.014†	1105.4	3861.0	[100]	ug/L	08:36:37
1	V 292.402†	14243.7	16063.6	[100]	ug/L	08:36:37
1	Zn 213.857†	13274.5	12797.1	[100]	ug/L	08:36:37
1	SiO2†	18484.1	18255.1	[1069.5]	ug/L	08:37:53
2	Sc 361.383	879935.8	879935.8	97.833	%	08:37:02
2	Sc Radial	5463.7	5463.7	97.8	%	08:36:20
2	Y 371.029	738936.2	738936.2	99.466	%	08:37:02
2	Y RADIAL	5750.6	5750.6	98.11	%	08:36:20
2	Ag 328.068†	24112.9	24247.5	[100]	ug/L	08:37:02
2	As 188.979†	258.7	291.9	[100]	ug/L	08:37:22
2	B 249.677†	5066.3	4713.4	[100]	ug/L	08:37:02
2	Ba 233.527†	15142.7	15486.6	[100]	ug/L	08:37:02
2	Be 313.107†	297303.9	308483.0	[100]	ug/L	08:37:02
2	Cd 226.502†	10168.5	10619.4	[100]	ug/L	08:37:22
2	Co 228.616†	5787.4	6000.3	[100]	ug/L	08:37:22
2	Cr 267.716†	10242.4	10370.0	[100]	ug/L	08:37:02
2	Cu 324.752†	42125.9	36971.8	[100]	ug/L	08:37:02
2	K 766.490 Radial†	8461.2	5780.7	[1000]	ug/L	08:36:15
2	Mn 257.610†	105746.0	107596.3	[100]	ug/L	08:37:02
2	Mo 202.031†	1719.2	1731.7	[100]	ug/L	08:37:22
2	Ni 231.604†	4823.3	4827.9	[100]	ug/L	08:37:22
2	P 214.914†	1216.7	988.5	[500]	ug/L	08:37:22
2	Pb 220.353†	916.0	1014.1	[100]	ug/L	08:37:22
2	S 181.975 Axial†	221.9	168.0	[200]	ug/L	08:37:22
2	Sb 206.836†	369.1	334.9	[100]	ug/L	08:37:22
2	Se 196.026†	157.7	190.0	[100]	ug/L	08:37:22
2	Si 251.611†	18501.8	18251.7	[500]	ug/L	08:37:02
2	Sn 189.927†	687.4	700.8	[100]	ug/L	08:37:22
2	Sr 421.552†	16654.4	17026.3	[100]	ug/L	08:36:20
2	Ti 334.940†	68249.0	71230.5	[100]	ug/L	08:37:02
2	Tl 190.801†	347.0	400.4	[100]	ug/L	08:37:22

2	U 409.014†	974.0	3723.9	[100]	ug/L	08:37:02
2	V 292.402†	14275.5	16060.0	[100]	ug/L	08:37:02
2	Zn 213.857†	13370.6	12861.9	[100]	ug/L	08:37:02
2	SiO2†	18649.8	18377.9	[1069.5]	ug/L	08:37:58
3	Sc 361.383	875878.1	875878.1	97.382	%	08:37:28
3	Sc Radial	5467.6	5467.6	97.9	%	08:36:30
3	Y 371.029	732896.1	732896.1	98.653	%	08:37:28
3	Y RADIAL	5731.2	5731.2	97.78	%	08:36:30
3	Ag 328.068†	23890.6	24133.4	[100]	ug/L	08:37:28
3	As 188.979†	245.4	279.5	[100]	ug/L	08:37:48
3	B 249.677†	5017.9	4687.8	[100]	ug/L	08:37:28
3	Ba 233.527†	15092.4	15506.7	[100]	ug/L	08:37:28
3	Be 313.107†	294136.5	306638.3	[100]	ug/L	08:37:28
3	Cd 226.502†	10054.7	10550.8	[100]	ug/L	08:37:48
3	Co 228.616†	5718.2	5956.6	[100]	ug/L	08:37:48
3	Cr 267.716†	10147.7	10321.3	[100]	ug/L	08:37:28
3	Cu 324.752†	41635.3	36667.5	[100]	ug/L	08:37:28
3	K 766.490 Radial†	8319.2	5629.2	[1000]	ug/L	08:36:25
3	Mn 257.610†	105115.1	107449.1	[100]	ug/L	08:37:28
3	Mo 202.031†	1695.9	1716.0	[100]	ug/L	08:37:48
3	Ni 231.604†	4744.5	4769.8	[100]	ug/L	08:37:48
3	P 214.914†	1208.5	985.8	[500]	ug/L	08:37:48
3	Pb 220.353†	897.8	999.8	[100]	ug/L	08:37:48
3	S 181.975 Axial†	219.7	166.9	[200]	ug/L	08:37:48
3	Sb 206.836†	367.9	335.4	[100]	ug/L	08:37:48
3	Se 196.026†	152.5	185.4	[100]	ug/L	08:37:48
3	Si 251.611†	18394.5	18229.1	[500]	ug/L	08:37:28
3	Sn 189.927†	681.5	698.0	[100]	ug/L	08:37:48
3	Sr 421.552†	16605.6	16964.1	[100]	ug/L	08:36:30
3	Ti 334.940†	67804.0	71096.7	[100]	ug/L	08:37:28
3	Tl 190.801†	348.1	403.3	[100]	ug/L	08:37:48
3	U 409.014†	1067.1	3824.1	[100]	ug/L	08:37:28
3	V 292.402†	14193.3	16043.3	[100]	ug/L	08:37:28
3	Zn 213.857†	13268.1	12819.9	[100]	ug/L	08:37:28
3	SiO2†	18508.1	18320.6	[1069.5]	ug/L	08:38:03

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	877861.1	2030.40	0.23%	97.603	%
Sc Radial	5474.0	14.66	0.27%	98.0	%
Y 371.029	736335.4	3106.12	0.42%	99.116	%
Y RADIAL	5743.2	10.49	0.18%	97.98	%
Ag 328.068†	24192.9	57.24	0.24%	[100]	ug/L
As 188.979†	283.1	7.59	2.68%	[100]	ug/L
B 249.677†	4737.6	65.31	1.38%	[100]	ug/L
Ba 233.527†	15493.8	11.25	0.07%	[100]	ug/L
Be 313.107†	307638.6	932.20	0.30%	[100]	ug/L
Cd 226.502†	10590.3	35.51	0.34%	[100]	ug/L
Co 228.616†	5983.5	23.51	0.39%	[100]	ug/L
Cr 267.716†	10332.8	33.06	0.32%	[100]	ug/L
Cu 324.752†	36782.3	165.33	0.45%	[100]	ug/L
K 766.490 Radial†	5718.5	79.30	1.39%	[1000]	ug/L
Mn 257.610†	107439.2	162.31	0.15%	[100]	ug/L
Mo 202.031†	1723.5	7.89	0.46%	[100]	ug/L
Ni 231.604†	4806.7	32.10	0.67%	[100]	ug/L
P 214.914†	989.8	4.70	0.47%	[500]	ug/L
Pb 220.353†	1011.6	10.80	1.07%	[100]	ug/L
S 181.975 Axial†	165.1	4.20	2.55%	[200]	ug/L
Sb 206.836†	333.8	2.33	0.70%	[100]	ug/L
Se 196.026†	189.1	3.39	1.79%	[100]	ug/L
Si 251.611†	18248.1	17.43	0.10%	[500]	ug/L
Sn 189.927†	695.4	7.16	1.03%	[100]	ug/L
Sr 421.552†	17015.4	46.78	0.27%	[100]	ug/L
Ti 334.940†	71154.3	68.84	0.10%	[100]	ug/L
Tl 190.801†	400.9	2.12	0.53%	[100]	ug/L
U 409.014†	3803.0	70.95	1.87%	[100]	ug/L
V 292.402†	16055.6	10.84	0.07%	[100]	ug/L
Zn 213.857†	12826.3	32.85	0.26%	[100]	ug/L
SiO2†	18317.9	61.45	0.34%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/20/2009 08:40:14
Data Type: Reprocessed on 12/20/2009 10:23:28

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	912534.1	912534.1	101.46	%	08:43:25
1	Sc Radial	5587.5	5587.5	100.0	%	08:42:06
1	Y 371.029	740931.5	740931.5	99.735	%	08:43:25
1	Y RADIAL	5785.2	5785.2	98.70	%	08:42:06
1	Ag 328.068†	116668.4	114592.7	[500]	ug/L	08:43:25
1	Al 396.153Radial†	6850.2	6863.6	[5000]	ug/L	08:42:06
1	As 188.979†	1363.0	1370.8	[500]	ug/L	08:43:46
1	B 249.677†	24695.1	23875.3	[500]	ug/L	08:43:25
1	Ba 233.527†	74756.6	73691.1	[500]	ug/L	08:43:25
1	Be 313.107†	1509306.4	1492215.5	[500]	ug/L	08:43:25
1	Ca 317.933Radial†	3531.4	3513.6	[5000]	ug/L	08:42:26
1	Cd 226.502†	52257.3	51732.2	[500]	ug/L	08:43:25
1	Co 228.616†	28354.2	28031.6	[500]	ug/L	08:43:46
1	Cr 267.716†	50394.2	49570.9	[500]	ug/L	08:43:25
1	Cu 324.752†	185120.7	176373.8	[500]	ug/L	08:43:25
1	K 766.490 Radial†	30656.6	27784.5	[5000]	ug/L	08:42:06
1	Mg 279.077 IEC†	171.8	169.5	[5000]	ug/L	08:42:26
1	Mn 257.610†	515189.4	507295.5	[500]	ug/L	08:43:25
1	Mo 202.031†	8318.2	8173.1	[500]	ug/L	08:43:46
1	Ni 231.604†	23057.2	22623.7	[500]	ug/L	08:43:46
1	P 214.914†	5089.9	4761.6	[2500]	ug/L	08:43:46
1	Pb 220.353†	4790.3	4799.3	[500]	ug/L	08:43:46
1	S 181.975 Axial†	867.6	796.4	[1000]	ug/L	08:43:46
1	Sb 206.836†	1692.8	1626.1	[500]	ug/L	08:43:46
1	Se 196.026†	896.4	912.3	[500]	ug/L	08:43:46
1	Si 251.611†	89976.6	88023.9	[2500]	ug/L	08:43:25
1	Sn 189.927†	3359.0	3308.9	[500]	ug/L	08:43:46
1	Sr 421.552†	87532.7	87527.9	[500]	ug/L	08:42:06
1	Ti 334.940†	344183.8	340708.6	[500]	ug/L	08:43:25
1	Tl 190.801†	1883.8	1902.6	[500]	ug/L	08:43:46
1	U 409.014†	14809.8	17325.3	[500]	ug/L	08:43:25
1	V 292.402†	78142.4	78488.1	[500]	ug/L	08:43:25
1	Zn 213.857†	62985.6	61275.7	[500]	ug/L	08:43:25
1	SiO2†	90301.7	88319.2	[5347.5]	ug/L	08:44:46
2	Sc 361.383	899552.0	899552.0	100.01	%	08:43:53
2	Sc Radial	5613.2	5613.2	100	%	08:42:32
2	Y 371.029	730040.6	730040.6	98.269	%	08:43:53
2	Y RADIAL	5836.6	5836.6	99.58	%	08:42:32
2	Ag 328.068†	115129.1	114713.1	[500]	ug/L	08:43:53
2	Al 396.153Radial†	6947.6	6929.1	[5000]	ug/L	08:42:32
2	As 188.979†	1364.7	1392.0	[500]	ug/L	08:44:13
2	B 249.677†	24249.8	23781.2	[500]	ug/L	08:43:53
2	Ba 233.527†	73706.6	73704.6	[500]	ug/L	08:43:53
2	Be 313.107†	1488193.9	1492575.0	[500]	ug/L	08:43:53
2	Ca 317.933Radial†	3491.6	3457.7	[5000]	ug/L	08:42:52
2	Cd 226.502†	51500.7	51719.0	[500]	ug/L	08:43:53
2	Co 228.616†	28442.7	28523.3	[500]	ug/L	08:44:13
2	Cr 267.716†	49692.5	49586.2	[500]	ug/L	08:43:53
2	Cu 324.752†	182290.2	176177.0	[500]	ug/L	08:43:53
2	K 766.490 Radial†	30970.1	27955.8	[5000]	ug/L	08:42:32
2	Mg 279.077 IEC†	168.7	165.6	[5000]	ug/L	08:42:52
2	Mn 257.610†	508812.7	508248.0	[500]	ug/L	08:43:53
2	Mo 202.031†	8368.6	8341.8	[500]	ug/L	08:44:13
2	Ni 231.604†	23178.8	23073.2	[500]	ug/L	08:44:13
2	P 214.914†	5123.2	4867.3	[2500]	ug/L	08:44:13
2	Pb 220.353†	4800.5	4877.6	[500]	ug/L	08:44:13
2	S 181.975 Axial†	875.0	816.2	[1000]	ug/L	08:44:13
2	Sb 206.836†	1703.0	1660.4	[500]	ug/L	08:44:13

2	Se 196.026†	896.4	925.0	[500]	ug/L	08:44:13
2	Si 251.611†	88987.1	88314.5	[2500]	ug/L	08:43:53
2	Sn 189.927†	3368.1	3365.8	[500]	ug/L	08:44:13
2	Sr 421.552†	88477.2	88066.1	[500]	ug/L	08:42:32
2	Ti 334.940†	339556.3	340977.5	[500]	ug/L	08:43:53
2	Tl 190.801†	1901.3	1946.8	[500]	ug/L	08:44:13
2	U 409.014†	14371.5	17097.8	[500]	ug/L	08:43:53
2	V 292.402†	76887.9	78345.3	[500]	ug/L	08:43:53
2	Zn 213.857†	62238.6	61424.8	[500]	ug/L	08:43:53
2	SiO2†	91435.1	90737.0	[5347.5]	ug/L	08:44:51
3	Sc 361.383	904172.0	904172.0	100.53	%	08:44:20
3	Sc Radial	5570.4	5570.4	99.7	%	08:42:57
3	Y 371.029	732689.3	732689.3	98.626	%	08:44:20
3	Y RADIAL	5769.3	5769.3	98.43	%	08:42:57
3	Ag 328.068†	115833.5	114825.7	[500]	ug/L	08:44:20
3	Al 396.153Radial†	6815.1	6849.4	[5000]	ug/L	08:42:57
3	As 188.979†	1365.0	1385.3	[500]	ug/L	08:44:40
3	B 249.677†	24540.7	23946.8	[500]	ug/L	08:44:20
3	Ba 233.527†	74230.6	73849.3	[500]	ug/L	08:44:20
3	Be 313.107†	1492313.7	1489070.2	[500]	ug/L	08:44:20
3	Ca 317.933Radial†	3495.6	3488.5	[5000]	ug/L	08:43:17
3	Cd 226.502†	51809.0	51762.6	[500]	ug/L	08:44:20
3	Co 228.616†	28466.6	28401.9	[500]	ug/L	08:44:40
3	Cr 267.716†	49993.5	49631.8	[500]	ug/L	08:44:20
3	Cu 324.752†	183547.0	176495.9	[500]	ug/L	08:44:20
3	K 766.490 Radial†	30591.2	27812.9	[5000]	ug/L	08:42:57
3	Mg 279.077 IEC†	169.6	167.9	[5000]	ug/L	08:43:17
3	Mn 257.610†	511707.6	508528.3	[500]	ug/L	08:44:20
3	Mo 202.031†	8348.9	8279.4	[500]	ug/L	08:44:40
3	Ni 231.604†	23178.1	22954.1	[500]	ug/L	08:44:40
3	P 214.914†	5116.2	4834.1	[2500]	ug/L	08:44:40
3	Pb 220.353†	4822.4	4874.9	[500]	ug/L	08:44:40
3	S 181.975 Axial†	874.2	810.8	[1000]	ug/L	08:44:40
3	Sb 206.836†	1698.8	1647.5	[500]	ug/L	08:44:40
3	Se 196.026†	893.1	917.2	[500]	ug/L	08:44:40
3	Si 251.611†	89412.0	88282.5	[2500]	ug/L	08:44:20
3	Sn 189.927†	3354.9	3335.4	[500]	ug/L	08:44:40
3	Sr 421.552†	87420.8	87684.1	[500]	ug/L	08:42:57
3	Ti 334.940†	341602.0	341277.7	[500]	ug/L	08:44:20
3	Tl 190.801†	1899.0	1934.8	[500]	ug/L	08:44:40
3	U 409.014†	14540.2	17192.2	[500]	ug/L	08:44:20
3	V 292.402†	77171.1	78234.2	[500]	ug/L	08:44:20
3	Zn 213.857†	62573.1	61439.6	[500]	ug/L	08:44:20
3	SiO2†	89675.9	88519.9	[5347.5]	ug/L	08:44:56

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	905419.4	6580.34	0.73%	100.67	%
Sc Radial	5590.4	21.58	0.39%	100	%
Y 371.029	734553.8	5679.80	0.77%	98.877	%
Y RADIAL	5797.0	35.16	0.61%	98.90	%
Ag 328.068†	114710.5	116.50	0.10%	[500]	ug/L
Al 396.153Radial†	6880.7	42.50	0.62%	[5000]	ug/L
As 188.979†	1382.7	10.81	0.78%	[500]	ug/L
B 249.677†	23867.8	83.02	0.35%	[500]	ug/L
Ba 233.527†	73748.3	87.69	0.12%	[500]	ug/L
Be 313.107†	1491286.9	1928.09	0.13%	[500]	ug/L
Ca 317.933Radial†	3486.6	27.99	0.80%	[5000]	ug/L
Cd 226.502†	51737.9	22.36	0.04%	[500]	ug/L
Co 228.616†	28318.9	256.16	0.90%	[500]	ug/L
Cr 267.716†	49596.3	31.64	0.06%	[500]	ug/L
Cu 324.752†	176348.9	160.91	0.09%	[500]	ug/L
K 766.490 Radial†	27851.1	91.80	0.33%	[5000]	ug/L
Mg 279.077 IEC†	167.7	1.95	1.16%	[5000]	ug/L
Mn 257.610†	508023.9	646.21	0.13%	[500]	ug/L
Mo 202.031†	8264.8	85.33	1.03%	[500]	ug/L
Ni 231.604†	22883.7	232.91	1.02%	[500]	ug/L
P 214.914†	4821.0	54.05	1.12%	[2500]	ug/L
Pb 220.353†	4850.6	44.46	0.92%	[500]	ug/L

S 181.975 Axial†	807.8	10.22	1.27%	[1000]	ug/L
Sb 206.836†	1644.7	17.33	1.05%	[500]	ug/L
Se 196.026†	918.2	6.43	0.70%	[500]	ug/L
Si 251.611†	88207.0	159.32	0.18%	[2500]	ug/L
Sn 189.927†	3336.7	28.46	0.85%	[500]	ug/L
Sr 421.552†	87759.4	276.87	0.32%	[500]	ug/L
Ti 334.940†	340987.9	284.71	0.08%	[500]	ug/L
Tl 190.801†	1928.1	22.89	1.19%	[500]	ug/L
U 409.014†	17205.1	114.31	0.66%	[500]	ug/L
V 292.402†	78355.8	127.28	0.16%	[500]	ug/L
Zn 213.857†	61380.0	90.64	0.15%	[500]	ug/L
SiO2†	89192.1	1341.74	1.50%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 12/20/2009 08:47:07
Data Type: Reprocessed on 12/20/2009 10:23:29

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	880648.0	880648.0	97.913	%	08:50:24
1	Sc Radial	5487.6	5487.6	98.2	%	08:49:20
1	Y 371.029	718642.7	718642.7	96.735	%	08:50:24
1	Y RADIAL	5675.6	5675.6	96.83	%	08:49:20
1	Ag 328.068†	230844.5	235366.5	[1000]	ug/L	08:50:24
1	Al 396.153Radial†	13325.9	13581.9	[10000]	ug/L	08:49:00
1	As 188.979†	2743.9	2829.9	[1000]	ug/L	08:50:44
1	B 249.677†	48618.7	49190.1	[1000]	ug/L	08:50:24
1	Ba 233.527†	145780.7	148897.2	[1000]	ug/L	08:50:24
1	Be 313.107†	2940715.5	3008004.0	[1000]	ug/L	08:50:18
1	Ca 317.933Radial†	6949.2	7057.9	[10000]	ug/L	08:49:20
1	Cd 226.502†	101685.5	104079.2	[1000]	ug/L	08:50:24
1	Co 228.616†	56440.1	57728.1	[1000]	ug/L	08:50:24
1	Cr 267.716†	98511.2	100512.2	[1000]	ug/L	08:50:24
1	Cu 324.752†	356921.3	358443.6	[1000]	ug/L	08:50:24
1	Fe 238.204 Radial†	1274.0	1286.0	[10000]	ug/L	08:49:20
1	K 766.490 Radial†	56919.1	55083.1	[10000]	ug/L	08:49:00
1	Mg 279.077 IEC†	334.7	338.6	[10000]	ug/L	08:49:20
1	Mn 257.610†	1000733.4	1021576.7	[1000]	ug/L	08:50:18
1	Mo 202.031†	16590.0	16918.2	[1000]	ug/L	08:50:44
1	Na 589.592 Radial†	34091.9	35972.6	[10000]	ug/L	08:49:00
1	Ni 231.604†	45589.0	46458.6	[1000]	ug/L	08:50:24
1	P 214.914†	9939.1	9895.8	[5000]	ug/L	08:50:44
1	Pb 220.353†	9529.8	9810.8	[1000]	ug/L	08:50:44
1	S 181.975 Axial†	1717.1	1695.0	[2000]	ug/L	08:50:44
1	Sb 206.836†	3392.6	3422.5	[1000]	ug/L	08:50:44
1	Se 196.026†	1826.3	1894.0	[1000]	ug/L	08:50:44
1	Si 251.611†	176910.4	180022.1	[5000]	ug/L	08:50:24
1	Sn 189.927†	6748.4	6890.5	[1000]	ug/L	08:50:44
1	Sr 421.552†	170395.4	173492.3	[1000]	ug/L	08:49:00
1	Ti 334.940†	678831.8	694774.0	[1000]	ug/L	08:50:18
1	Tl 190.801†	3817.6	3944.8	[1000]	ug/L	08:50:44
1	U 409.014†	33074.2	36507.7	[1000]	ug/L	08:50:24
1	V 292.402†	154930.1	159701.5	[1000]	ug/L	08:50:24
1	Zn 213.857†	122212.4	124013.0	[1000]	ug/L	08:50:24
1	SiO2†	176184.0	179255.1	[10695]	ug/L	08:51:53
2	Sc 361.383	881244.5	881244.5	97.979	%	08:50:55
2	Sc Radial	5407.7	5407.7	96.8	%	08:49:45
2	Y 371.029	719620.9	719620.9	96.866	%	08:50:55
2	Y RADIAL	5595.2	5595.2	95.46	%	08:49:45
2	Ag 328.068†	231229.0	235599.4	[1000]	ug/L	08:50:55
2	Al 396.153Radial†	13313.6	13769.5	[10000]	ug/L	08:49:25
2	As 188.979†	2738.8	2822.8	[1000]	ug/L	08:51:15
2	B 249.677†	48862.0	49404.9	[1000]	ug/L	08:50:55
2	Ba 233.527†	146377.3	149405.3	[1000]	ug/L	08:50:55
2	Be 313.107†	2957385.7	3022985.2	[1000]	ug/L	08:50:50
2	Ca 317.933Radial†	6880.5	7091.4	[10000]	ug/L	08:49:45
2	Cd 226.502†	101852.3	104179.1	[1000]	ug/L	08:50:55
2	Co 228.616†	56717.7	57972.4	[1000]	ug/L	08:50:55
2	Cr 267.716†	98520.8	100453.8	[1000]	ug/L	08:50:55
2	Cu 324.752†	357710.8	359002.5	[1000]	ug/L	08:50:55
2	Fe 238.204 Radial†	1265.9	1296.8	[10000]	ug/L	08:49:45
2	K 766.490 Radial†	57041.5	56065.7	[10000]	ug/L	08:49:25
2	Mg 279.077 IEC†	332.7	341.5	[10000]	ug/L	08:49:45
2	Mn 257.610†	1004918.5	1025156.3	[1000]	ug/L	08:50:50
2	Mo 202.031†	16571.8	16888.1	[1000]	ug/L	08:51:15
2	Na 589.592 Radial†	34193.1	36590.0	[10000]	ug/L	08:49:25
2	Ni 231.604†	45705.4	46545.9	[1000]	ug/L	08:50:55

2	P 214.914†	9924.3	9873.8	[5000]	ug/L	08:51:15
2	Pb 220.353†	9518.0	9792.2	[1000]	ug/L	08:51:15
2	S 181.975 Axial†	1705.0	1681.4	[2000]	ug/L	08:51:15
2	Sb 206.836†	3387.7	3415.2	[1000]	ug/L	08:51:15
2	Se 196.026†	1813.6	1879.9	[1000]	ug/L	08:51:15
2	Si 251.611†	177446.6	180447.1	[5000]	ug/L	08:50:55
2	Sn 189.927†	6739.2	6876.4	[1000]	ug/L	08:51:15
2	Sr 421.552†	170342.8	176000.8	[1000]	ug/L	08:49:25
2	Ti 334.940†	681470.2	696997.4	[1000]	ug/L	08:50:50
2	Tl 190.801†	3807.5	3931.8	[1000]	ug/L	08:51:15
2	U 409.014†	32918.2	36325.5	[1000]	ug/L	08:50:55
2	V 292.402†	155267.6	159938.9	[1000]	ug/L	08:50:55
2	Zn 213.857†	122424.2	124144.7	[1000]	ug/L	08:50:55
2	SiO2†	175722.4	178662.2	[10695]	ug/L	08:51:58
3	Sc 361.383	880397.3	880397.3	97.885	%	08:51:27
3	Sc Radial	5431.5	5431.5	97.2	%	08:50:10
3	Y 371.029	717466.1	717466.1	96.576	%	08:51:27
3	Y RADIAL	5618.1	5618.1	95.85	%	08:50:10
3	Ag 328.068†	231146.5	235742.2	[1000]	ug/L	08:51:27
3	Al 396.153Radial†	13385.7	13783.6	[10000]	ug/L	08:49:50
3	As 188.979†	2736.9	2823.5	[1000]	ug/L	08:51:47
3	B 249.677†	48884.3	49475.7	[1000]	ug/L	08:51:27
3	Ba 233.527†	146266.1	149435.5	[1000]	ug/L	08:51:27
3	Be 313.107†	2960773.7	3029351.3	[1000]	ug/L	08:51:22
3	Ca 317.933Radial†	6865.0	7044.4	[10000]	ug/L	08:50:10
3	Cd 226.502†	101986.7	104416.4	[1000]	ug/L	08:51:27
3	Co 228.616†	56692.6	58002.5	[1000]	ug/L	08:51:27
3	Cr 267.716†	98578.7	100609.8	[1000]	ug/L	08:51:27
3	Cu 324.752†	357778.6	359423.2	[1000]	ug/L	08:51:27
3	Fe 238.204 Radial†	1254.4	1279.2	[10000]	ug/L	08:50:10
3	K 766.490 Radial†	57128.9	55898.0	[10000]	ug/L	08:49:50
3	Mg 279.077 IEC†	335.1	342.5	[10000]	ug/L	08:50:10
3	Mn 257.610†	1008949.1	1030261.0	[1000]	ug/L	08:51:22
3	Mo 202.031†	16540.9	16872.8	[1000]	ug/L	08:51:47
3	Na 589.592 Radial†	34489.8	36740.8	[10000]	ug/L	08:49:50
3	Ni 231.604†	45736.8	46622.9	[1000]	ug/L	08:51:27
3	P 214.914†	9904.5	9863.3	[5000]	ug/L	08:51:47
3	Pb 220.353†	9476.9	9759.5	[1000]	ug/L	08:51:47
3	S 181.975 Axial†	1694.6	1672.5	[2000]	ug/L	08:51:47
3	Sb 206.836†	3376.2	3406.8	[1000]	ug/L	08:51:47
3	Se 196.026†	1809.6	1877.5	[1000]	ug/L	08:51:47
3	Si 251.611†	177517.2	180693.5	[5000]	ug/L	08:51:27
3	Sn 189.927†	6720.2	6863.6	[1000]	ug/L	08:51:47
3	Sr 421.552†	171392.6	176311.5	[1000]	ug/L	08:49:50
3	Ti 334.940†	683900.3	700149.4	[1000]	ug/L	08:51:22
3	Tl 190.801†	3796.1	3923.9	[1000]	ug/L	08:51:47
3	U 409.014†	32966.2	36406.9	[1000]	ug/L	08:51:27
3	V 292.402†	155223.2	160046.0	[1000]	ug/L	08:51:27
3	Zn 213.857†	122759.5	124607.5	[1000]	ug/L	08:51:27
3	SiO2†	175939.3	179056.4	[10695]	ug/L	08:52:03

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	880763.3	435.24	0.05%	97.925	%
Sc Radial	5442.3	41.02	0.75%	97.4	%
Y 371.029	718576.6	1078.92	0.15%	96.726	%
Y RADIAL	5629.7	41.42	0.74%	96.05	%
Ag 328.068†	235569.4	189.62	0.08%	[1000]	ug/L
Al 396.153Radial†	13711.7	112.61	0.82%	[10000]	ug/L
As 188.979†	2825.4	3.92	0.14%	[1000]	ug/L
B 249.677†	49356.9	148.70	0.30%	[1000]	ug/L
Ba 233.527†	149246.0	302.46	0.20%	[1000]	ug/L
Be 313.107†	3020113.5	10959.51	0.36%	[1000]	ug/L
Ca 317.933Radial†	7064.6	24.18	0.34%	[10000]	ug/L
Cd 226.502†	104224.9	173.25	0.17%	[1000]	ug/L
Co 228.616†	57901.0	150.48	0.26%	[1000]	ug/L
Cr 267.716†	100525.3	78.80	0.08%	[1000]	ug/L
Cu 324.752†	358956.4	491.42	0.14%	[1000]	ug/L
Fe 238.204 Radial†	1287.3	8.88	0.69%	[10000]	ug/L

K 766.490 Radial†	55682.3	525.61	0.94%	[10000]	ug/L
Mg 279.077 IEC†	340.8	2.03	0.59%	[10000]	ug/L
Mn 257.610†	1025664.7	4364.46	0.43%	[1000]	ug/L
Mo 202.031†	16893.0	23.09	0.14%	[1000]	ug/L
Na 589.592 Radial†	36434.5	407.02	1.12%	[10000]	ug/L
Ni 231.604†	46542.5	82.20	0.18%	[1000]	ug/L
P 214.914†	9877.7	16.57	0.17%	[5000]	ug/L
Pb 220.353†	9787.5	25.97	0.27%	[1000]	ug/L
S 181.975 Axial†	1683.0	11.32	0.67%	[2000]	ug/L
Sb 206.836†	3414.8	7.87	0.23%	[1000]	ug/L
Se 196.026†	1883.8	8.92	0.47%	[1000]	ug/L
Si 251.611†	180387.6	339.63	0.19%	[5000]	ug/L
Sn 189.927†	6876.8	13.46	0.20%	[1000]	ug/L
Sr 421.552†	175268.2	1545.78	0.88%	[1000]	ug/L
Ti 334.940†	697306.9	2701.08	0.39%	[1000]	ug/L
Tl 190.801†	3933.5	10.55	0.27%	[1000]	ug/L
U 409.014†	36413.4	91.25	0.25%	[1000]	ug/L
V 292.402†	159895.5	176.31	0.11%	[1000]	ug/L
Zn 213.857†	124255.0	312.23	0.25%	[1000]	ug/L
SiO2†	178991.2	301.78	0.17%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 12/20/2009 08:54:15
Data Type: Reprocessed on 12/20/2009 10:23:30

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	880730.7	880730.7	97.922	%	08:57:25
1	Sc Radial	5366.7	5366.7	96.0	%	08:56:28
1	Y 371.029	710397.7	710397.7	95.625	%	08:57:25
1	Y RADIAL	5565.2	5565.2	94.95	%	08:56:28
1	Al 396.153Radial†	68291.5	71115.3	[50000]	ug/L	08:56:08
1	Ca 317.933Radial†	34337.5	35732.8	[50000]	ug/L	08:56:08
1	Fe 238.204 Radial†	2430.9	2519.7	[20000]	ug/L	08:56:28
1	Mg 279.077 IEC†	1583.5	1646.4	[50000]	ug/L	08:56:28
1	Na 589.592 Radial†	69011.1	73111.2	[20000]	ug/L	08:56:08
2	Sc 361.383	874840.9	874840.9	97.267	%	08:57:31
2	Sc Radial	5313.4	5313.4	95.1	%	08:56:53
2	Y 371.029	706592.6	706592.6	95.113	%	08:57:31
2	Y RADIAL	5510.9	5510.9	94.02	%	08:56:53
2	Al 396.153Radial†	68122.5	71650.7	[50000]	ug/L	08:56:33
2	Ca 317.933Radial†	34297.9	36049.7	[50000]	ug/L	08:56:33
2	Fe 238.204 Radial†	2403.8	2516.6	[20000]	ug/L	08:56:53
2	Mg 279.077 IEC†	1579.9	1659.1	[50000]	ug/L	08:56:53
2	Na 589.592 Radial†	68815.1	73625.8	[20000]	ug/L	08:56:33
3	Sc 361.383	883372.1	883372.1	98.215	%	08:57:37
3	Sc Radial	5362.8	5362.8	96.0	%	08:57:18
3	Y 371.029	712569.7	712569.7	95.917	%	08:57:37
3	Y RADIAL	5554.9	5554.9	94.77	%	08:57:18
3	Al 396.153Radial†	68304.6	71180.1	[50000]	ug/L	08:56:58
3	Ca 317.933Radial†	34328.1	35748.7	[50000]	ug/L	08:56:58
3	Fe 238.204 Radial†	2420.7	2511.0	[20000]	ug/L	08:57:18
3	Mg 279.077 IEC†	1593.6	1658.1	[50000]	ug/L	08:57:18
3	Na 589.592 Radial†	68904.0	73051.3	[20000]	ug/L	08:56:58

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	879647.9	4367.44	0.50%	97.801	%
Sc Radial	5347.6	29.72	0.56%	95.7	%
Y 371.029	709853.3	3025.52	0.43%	95.552	%
Y RADIAL	5543.7	28.87	0.52%	94.58	%
Al 396.153Radial†	71315.4	292.23	0.41%	[50000]	ug/L
Ca 317.933Radial†	35843.7	178.52	0.50%	[50000]	ug/L
Fe 238.204 Radial†	2515.8	4.43	0.18%	[20000]	ug/L
Mg 279.077 IEC†	1654.6	7.08	0.43%	[50000]	ug/L
Na 589.592 Radial†	73262.8	315.84	0.43%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	234.4	0.00000	0.999941	
Al 396.153Radial	3	Lin Thru 0	0.0	1.424	0.00000	0.999967	
As 188.979	3	Lin Thru 0	0.0	2.814	0.00000	0.999964	
B 249.677	3	Lin Thru 0	0.0	49.02	0.00000	0.999909	
Ba 233.527	3	Lin Thru 0	0.0	148.9	0.00000	0.999983	
Be 313.107	3	Lin Thru 0	0.0	3013	0.00000	0.999986	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.7163	0.00000	0.999993	
Cd 226.502	3	Lin Thru 0	0.0	104.1	0.00000	0.999995	
Co 228.616	3	Lin Thru 0	0.0	57.67	0.00000	0.999956	
Cr 267.716	3	Lin Thru 0	0.0	100.3	0.00000	0.999982	
Cu 324.752	3	Lin Thru 0	0.0	357.8	0.00000	0.999973	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1264	0.00000	0.999957	

K 766.490 Radial	3	Lin Thru 0	0.0	5.570	0.00000	0.999997
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0331	0.00000	0.999983
Mn 257.610	3	Lin Thru 0	0.0	1024	0.00000	0.999983
Mo 202.031	3	Lin Thru 0	0.0	16.82	0.00000	0.999961
Na 589.592 Radia	2	Lin Thru 0	0.0	3.659	0.00000	0.999998
Ni 231.604	3	Lin Thru 0	0.0	46.40	0.00000	0.999973
P 214.914	3	Lin Thru 0	0.0	1.966	0.00000	0.999954
Pb 220.353	3	Lin Thru 0	0.0	9.773	0.00000	0.999989
S 181.975 Axial	3	Lin Thru 0	0.0	0.8347	0.00000	0.999870
Sb 206.836	3	Lin Thru 0	0.0	3.389	0.00000	0.999890
Se 196.026	3	Lin Thru 0	0.0	1.874	0.00000	0.999949
Si 251.611	3	Lin Thru 0	0.0	35.92	0.00000	0.999960
Sn 189.927	3	Lin Thru 0	0.0	6.837	0.00000	0.999929
Sr 421.552	3	Lin Thru 0	0.0	175.3	0.00000	0.999996
Ti 334.940	3	Lin Thru 0	0.0	694.4	0.00000	0.999959
Tl 190.801	3	Lin Thru 0	0.0	3.919	0.00000	0.999967
U 409.014	3	Lin Thru 0	0.0	36.03	0.00000	0.999742
V 292.402	3	Lin Thru 0	0.0	159.3	0.00000	0.999968
Zn 213.857	3	Lin Thru 0	0.0	124.0	0.00000	0.999984
SiO2	3	Lin Thru 0	0.0	16.73	0.00000	0.999997

Sequence No.: 6
Sample ID: ICV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 12/20/2009 08:59:48
Data Type: Reprocessed on 12/20/2009 10:23:31

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	905964.8	905964.8	100.73	%			09:02:59
1	Sc Radial	5563.5	5563.5	99.6	%			09:01:41
1	Y 371.029	739085.0	739085.0	99.487	%			09:02:59
1	Y RADIAL	5826.0	5826.0	99.39	%			09:01:41
1	Ag 328.068†	60902.2	60063.0	259.43	ug/L	259.43	ppb	09:02:59
1	Al 396.153Radial†	6953.3	6996.7	4891.6	ug/L	4891.6	ppb	09:01:41
1	As 188.979†	1295.6	1313.8	471.20	ug/L	471.20	ppb	09:03:19
1	B 249.677†	25689.8	25039.2	508.86	ug/L	508.86	ppb	09:02:59
1	Ba 233.527†	76016.0	75475.7	508.00	ug/L	508.00	ppb	09:02:59
1	Be 313.107†	779472.0	778438.3	259.32	ug/L	259.32	ppb	09:02:59
1	Ca 317.933Radial†	3505.9	3503.2	4890.7	ug/L	4890.7	ppb	09:02:01
1	Cd 226.502†	51717.1	51569.4	495.24	ug/L	495.24	ppb	09:02:59
1	Co 228.616†	28898.2	28774.3	499.31	ug/L	499.31	ppb	09:03:19
1	Cr 267.716†	49157.5	48703.4	486.48	ug/L	486.48	ppb	09:02:59
1	Cu 324.752†	188853.3	181402.6	507.27	ug/L	507.27	ppb	09:02:59
1	Fe 238.204 Radial†	650.2	641.8	5094.6	ug/L	5094.6	ppb	09:02:01
1	K 766.490 Radial†	16729.9	13929.8	2495.7	ug/L	2495.7	ppb	09:01:41
1	Mg 279.077 IEC†	178.1	176.6	5335.3	ug/L	5335.3	ppb	09:02:01
1	Mn 257.610†	525826.7	521538.1	509.65	ug/L	509.65	ppb	09:02:59
1	Mo 202.031†	9029.4	8938.6	531.80	ug/L	531.80	ppb	09:03:19
1	Na 589.592 Radial†	7608.9	8901.8	2432.7	ug/L	2432.7	ppb	09:01:41
1	Ni 231.604†	23278.1	23007.8	495.53	ug/L	495.53	ppb	09:03:19
1	P 214.914†	5168.6	4876.1	2403.5	ug/L	2403.5	ppb	09:03:19
1	Pb 220.353†	4812.7	4855.8	498.45	ug/L	498.45	ppb	09:03:19
1	S 181.975 Axial†	2107.6	2033.7	2435.5	ug/L	2435.5	ppb	09:03:19
1	Sb 206.836†	1724.2	1669.3	501.38	ug/L	501.38	ppb	09:03:19
1	Se 196.026†	4742.2	4736.7	2545.5	ug/L	2545.5	ppb	09:03:19
1	Si 251.611†	173611.1	171697.5	4767.8	ug/L	4767.8	ppb	09:02:59
1	Sn 189.927†	3642.3	3614.1	529.19	ug/L	529.19	ppb	09:03:19
1	Sr 421.552†	91609.2	91999.6	524.83	ug/L	524.83	ppb	09:01:41
1	Ti 334.940†	342983.1	341976.4	492.36	ug/L	492.36	ppb	09:02:59
1	Tl 190.801†	2003.9	2035.2	522.52	ug/L	522.52	ppb	09:03:19
1	U 409.014†	15050.0	17669.6	488.85	ug/L	488.85	ppb	09:02:59
1	V 292.402†	79383.5	80278.7	511.20	ug/L	511.20	ppb	09:02:59
1	Zn 213.857†	64267.5	62998.6	503.87	ug/L	503.87	ppb	09:02:59
1	SiO2†	172224.8	170296.2	10155	ug/L	10155	ppb	09:04:16
2	Sc 361.383	912691.6	912691.6	101.48	%			09:03:25
2	Sc Radial	5495.5	5495.5	98.4	%			09:02:06
2	Y 371.029	744312.0	744312.0	100.19	%			09:03:25
2	Y RADIAL	5758.3	5758.3	98.24	%			09:02:06
2	Ag 328.068†	61358.4	60067.0	259.47	ug/L	259.47	ppb	09:03:25
2	Al 396.153Radial†	6900.6	7029.4	4914.8	ug/L	4914.8	ppb	09:02:06
2	As 188.979†	1307.0	1315.4	471.81	ug/L	471.81	ppb	09:03:45
2	B 249.677†	25910.8	25069.0	509.46	ug/L	509.46	ppb	09:03:25
2	Ba 233.527†	76729.8	75622.9	508.99	ug/L	508.99	ppb	09:03:25
2	Be 313.107†	787525.2	780671.0	260.06	ug/L	260.06	ppb	09:03:25
2	Ca 317.933Radial†	3501.1	3541.9	4944.8	ug/L	4944.8	ppb	09:02:26
2	Cd 226.502†	52403.4	51867.3	498.10	ug/L	498.10	ppb	09:03:25
2	Co 228.616†	29029.8	28692.5	497.88	ug/L	497.88	ppb	09:03:45
2	Cr 267.716†	49566.6	48746.8	486.92	ug/L	486.92	ppb	09:03:25
2	Cu 324.752†	189885.1	181037.4	506.26	ug/L	506.26	ppb	09:03:25
2	Fe 238.204 Radial†	650.6	650.3	5161.6	ug/L	5161.6	ppb	09:02:26
2	K 766.490 Radial†	16560.2	13965.1	2502.0	ug/L	2502.0	ppb	09:02:06
2	Mg 279.077 IEC†	175.0	175.7	5309.5	ug/L	5309.5	ppb	09:02:26
2	Mn 257.610†	531010.5	522799.0	510.89	ug/L	510.89	ppb	09:03:25
2	Mo 202.031†	9030.7	8873.9	527.96	ug/L	527.96	ppb	09:03:45
2	Na 589.592 Radial†	7609.6	8997.0	2458.7	ug/L	2458.7	ppb	09:02:06
2	Ni 231.604†	23317.5	22876.3	492.70	ug/L	492.70	ppb	09:03:45

2	P 214.914†	5194.1	4863.4	2397.2	ug/L	2397.2 ppb	09:03:45
2	Pb 220.353†	4822.1	4829.9	495.79	ug/L	495.79 ppb	09:03:45
2	S 181.975 Axial†	2121.7	2032.1	2433.7	ug/L	2433.7 ppb	09:03:45
2	Sb 206.836†	1737.9	1670.2	501.59	ug/L	501.59 ppb	09:03:45
2	Se 196.026†	4787.7	4746.8	2551.2	ug/L	2551.2 ppb	09:03:45
2	Si 251.611†	175124.6	171918.8	4774.1	ug/L	4774.1 ppb	09:03:25
2	Sn 189.927†	3689.0	3633.6	532.03	ug/L	532.03 ppb	09:03:45
2	Sr 421.552†	90723.5	92236.8	526.19	ug/L	526.19 ppb	09:02:06
2	Ti 334.940†	345840.4	342282.6	492.80	ug/L	492.80 ppb	09:03:25
2	Tl 190.801†	2026.5	2042.8	524.49	ug/L	524.49 ppb	09:03:45
2	U 409.014†	15265.6	17772.0	491.69	ug/L	491.69 ppb	09:03:25
2	V 292.402†	80087.2	80391.3	511.85	ug/L	511.85 ppb	09:03:25
2	Zn 213.857†	64887.0	63138.8	505.02	ug/L	505.02 ppb	09:03:25
2	SiO2†	174065.9	170850.3	10188	ug/L	10188 ppb	09:04:21
3	Sc 361.383	908103.1	908103.1	100.97	%		09:03:51
3	Sc Radial	5524.7	5524.7	98.9	%		09:02:31
3	Y 371.029	739274.9	739274.9	99.512	%		09:03:51
3	Y RADIAL	5750.0	5750.0	98.10	%		09:02:31
3	Ag 328.068†	61119.6	60136.0	259.75	ug/L	259.75 ppb	09:03:51
3	Al 396.153Radial†	6879.0	6970.5	4873.2	ug/L	4873.2 ppb	09:02:31
3	As 188.979†	1297.7	1312.7	470.84	ug/L	470.84 ppb	09:04:11
3	B 249.677†	25781.4	25069.9	509.48	ug/L	509.48 ppb	09:03:51
3	Ba 233.527†	76445.3	75723.2	509.66	ug/L	509.66 ppb	09:03:51
3	Be 313.107†	781435.4	778560.9	259.36	ug/L	259.36 ppb	09:03:51
3	Ca 317.933Radial†	3500.9	3522.8	4918.2	ug/L	4918.2 ppb	09:02:51
3	Cd 226.502†	52030.0	51758.4	497.06	ug/L	497.06 ppb	09:03:51
3	Co 228.616†	29079.5	28886.2	501.25	ug/L	501.25 ppb	09:04:11
3	Cr 267.716†	49396.3	48824.9	487.69	ug/L	487.69 ppb	09:03:51
3	Cu 324.752†	188868.8	180976.4	506.09	ug/L	506.09 ppb	09:03:51
3	Fe 238.204 Radial†	649.9	646.1	5128.3	ug/L	5128.3 ppb	09:02:51
3	K 766.490 Radial†	16550.2	13866.0	2484.2	ug/L	2484.2 ppb	09:02:31
3	Mg 279.077 IEC†	174.0	173.7	5248.0	ug/L	5248.0 ppb	09:02:51
3	Mn 257.610†	528856.7	523309.9	511.39	ug/L	511.39 ppb	09:03:51
3	Mo 202.031†	9073.1	8960.8	533.12	ug/L	533.12 ppb	09:04:11
3	Na 589.592 Radial†	7567.3	8913.4	2435.9	ug/L	2435.9 ppb	09:02:31
3	Ni 231.604†	23384.8	23059.0	496.63	ug/L	496.63 ppb	09:04:11
3	P 214.914†	5179.7	4875.0	2403.2	ug/L	2403.2 ppb	09:04:11
3	Pb 220.353†	4835.1	4866.7	499.57	ug/L	499.57 ppb	09:04:11
3	S 181.975 Axial†	2121.7	2042.7	2446.4	ug/L	2446.4 ppb	09:04:11
3	Sb 206.836†	1731.9	1672.9	502.49	ug/L	502.49 ppb	09:04:11
3	Se 196.026†	4782.1	4765.2	2560.8	ug/L	2560.8 ppb	09:04:11
3	Si 251.611†	174450.1	172122.7	4779.6	ug/L	4779.6 ppb	09:03:51
3	Sn 189.927†	3669.3	3632.4	531.86	ug/L	531.86 ppb	09:04:11
3	Sr 421.552†	90458.5	91481.5	521.88	ug/L	521.88 ppb	09:02:31
3	Ti 334.940†	344259.8	342439.1	493.03	ug/L	493.03 ppb	09:03:51
3	Tl 190.801†	2029.0	2055.4	527.68	ug/L	527.68 ppb	09:04:11
3	U 409.014†	15043.4	17628.0	487.69	ug/L	487.69 ppb	09:03:51
3	V 292.402†	79682.1	80388.9	511.91	ug/L	511.91 ppb	09:03:51
3	Zn 213.857†	64522.6	63101.0	504.70	ug/L	504.70 ppb	09:03:51
3	SiO2†	174821.5	172465.5	10285	ug/L	10285 ppb	09:04:27

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	908919.9	101.06	%	0.382				0.38%
Sc Radial	5527.9	98.9	%	0.61				0.62%
Y 371.029	740890.6	99.730	%	0.3990				0.40%
Y RADIAL	5778.1	98.58	%	0.710				0.72%
Ag 328.068†	60088.7	259.55	ug/L	0.178	259.55	ppb	0.178	0.07%
QC value within limits for Ag 328.068 Recovery = 103.82%								
Al 396.153Radial†	6998.9	4893.2	ug/L	20.84	4893.2	ppb	20.84	0.43%
QC value within limits for Al 396.153Radial Recovery = 97.86%								
As 188.979†	1314.0	471.28	ug/L	0.491	471.28	ppb	0.491	0.10%
QC value within limits for As 188.979 Recovery = 94.26%								
B 249.677†	25059.4	509.27	ug/L	0.352	509.27	ppb	0.352	0.07%
QC value within limits for B 249.677 Recovery = 101.85%								
Ba 233.527†	75607.2	508.89	ug/L	0.837	508.89	ppb	0.837	0.16%
QC value within limits for Ba 233.527 Recovery = 101.78%								
Be 313.107†	779223.4	259.58	ug/L	0.417	259.58	ppb	0.417	0.16%
QC value within limits for Be 313.107 Recovery = 103.83%								

Ca 317.933Radial†	3522.6	4917.9 ug/L	27.04	4917.9 ppb	27.04	0.55%
QC value within limits for Ca 317.933Radial Recovery = 98.36%						
Cd 226.502†	51731.7	496.80 ug/L	1.444	496.80 ppb	1.444	0.29%
QC value within limits for Cd 226.502 Recovery = 99.36%						
Co 228.616†	28784.3	499.48 ug/L	1.693	499.48 ppb	1.693	0.34%
QC value within limits for Co 228.616 Recovery = 99.90%						
Cr 267.716†	48758.4	487.03 ug/L	0.615	487.03 ppb	0.615	0.13%
QC value within limits for Cr 267.716 Recovery = 97.41%						
Cu 324.752†	181138.8	506.54 ug/L	0.643	506.54 ppb	0.643	0.13%
QC value within limits for Cu 324.752 Recovery = 101.31%						
Fe 238.204 Radial†	646.1	5128.2 ug/L	33.49	5128.2 ppb	33.49	0.65%
QC value within limits for Fe 238.204 Radial Recovery = 102.56%						
K 766.490 Radial†	13920.3	2493.9 ug/L	9.01	2493.9 ppb	9.01	0.36%
QC value within limits for K 766.490 Radial Recovery = 99.76%						
Mg 279.077 IEC†	175.3	5297.6 ug/L	44.87	5297.6 ppb	44.87	0.85%
QC value within limits for Mg 279.077 IEC Recovery = 105.95%						
Mn 257.610†	522549.0	510.64 ug/L	0.894	510.64 ppb	0.894	0.17%
QC value within limits for Mn 257.610 Recovery = 102.13%						
Mo 202.031†	8924.4	530.96 ug/L	2.682	530.96 ppb	2.682	0.51%
QC value within limits for Mo 202.031 Recovery = 106.19%						
Na 589.592 Radial†	8937.4	2442.5 ug/L	14.20	2442.5 ppb	14.20	0.58%
QC value within limits for Na 589.592 Radial Recovery = 97.70%						
Ni 231.604†	22981.0	494.95 ug/L	2.030	494.95 ppb	2.030	0.41%
QC value within limits for Ni 231.604 Recovery = 98.99%						
P 214.914†	4871.5	2401.3 ug/L	3.54	2401.3 ppb	3.54	0.15%
QC value within limits for P 214.914 Recovery = 96.05%						
Pb 220.353†	4850.8	497.93 ug/L	1.942	497.93 ppb	1.942	0.39%
QC value within limits for Pb 220.353 Recovery = 99.59%						
S 181.975 Axial†	2036.2	2438.5 ug/L	6.86	2438.5 ppb	6.86	0.28%
QC value within limits for S 181.975 Axial Recovery = 97.54%						
Sb 206.836†	1670.8	501.82 ug/L	0.589	501.82 ppb	0.589	0.12%
QC value within limits for Sb 206.836 Recovery = 100.36%						
Se 196.026†	4749.6	2552.5 ug/L	7.73	2552.5 ppb	7.73	0.30%
QC value within limits for Se 196.026 Recovery = 102.10%						
Si 251.611†	171913.0	4773.8 ug/L	5.91	4773.8 ppb	5.91	0.12%
QC value within limits for Si 251.611 Recovery = 95.48%						
Sn 189.927†	3626.7	531.03 ug/L	1.597	531.03 ppb	1.597	0.30%
QC value within limits for Sn 189.927 Recovery = 106.21%						
Sr 421.552†	91906.0	524.30 ug/L	2.204	524.30 ppb	2.204	0.42%
QC value within limits for Sr 421.552 Recovery = 104.86%						
Ti 334.940†	342232.7	492.73 ug/L	0.340	492.73 ppb	0.340	0.07%
QC value within limits for Ti 334.940 Recovery = 98.55%						
Tl 190.801†	2044.4	524.90 ug/L	2.602	524.90 ppb	2.602	0.50%
QC value within limits for Tl 190.801 Recovery = 104.98%						
U 409.014†	17689.9	489.41 ug/L	2.055	489.41 ppb	2.055	0.42%
QC value within limits for U 409.014 Recovery = 97.88%						
V 292.402†	80352.9	511.65 ug/L	0.390	511.65 ppb	0.390	0.08%
QC value within limits for V 292.402 Recovery = 102.33%						
Zn 213.857†	63079.4	504.53 ug/L	0.591	504.53 ppb	0.591	0.12%
QC value within limits for Zn 213.857 Recovery = 100.91%						
SiO2†	171204.0	10209 ug/L	67.3	10209 ppb	67.3	0.66%
QC value within limits for SiO2 Recovery = 95.46%						

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: ICB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 12/20/2009 09:06:37
Data Type: Reprocessed on 12/20/2009 10:23:33
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	909741.1	909741.1	101.15	%			09:09:47
1	Sc Radial	5613.2	5613.2	100	%			09:08:30
1	Y 371.029	748636.7	748636.7	100.77	%			09:09:47
1	Y RADIAL	5870.2	5870.2	100.1	%			09:08:30
1	Ag 328.068†	502.2	97.1	0.4112	ug/L	0.4112	ppb	09:09:52
1	Al 396.153Radial†	-41.9	-28.4	-19.977	ug/L	-19.977	ppb	09:08:30
1	As 188.979†	-23.1	4.6	1.6332	ug/L	1.6332	ppb	09:10:12
1	B 249.677†	357.0	-112.0	-2.2868	ug/L	-2.2868	ppb	09:09:52
1	Ba 233.527†	-1.3	7.3	0.0478	ug/L	0.0478	ppb	09:10:12
1	Be 313.107†	-4458.7	186.9	0.0621	ug/L	0.0621	ppb	09:09:52
1	Ca 317.933Radial†	19.8	1.9	2.6307	ug/L	2.6307	ppb	09:08:50
1	Cd 226.502†	-222.7	5.5	0.0529	ug/L	0.0529	ppb	09:10:12
1	Co 228.616†	-72.6	13.0	0.2268	ug/L	0.2268	ppb	09:10:12
1	Cr 267.716†	86.7	-13.5	-0.1367	ug/L	-0.1367	ppb	09:10:12
1	Cu 324.752†	6177.7	20.6	0.0578	ug/L	0.0578	ppb	09:09:52
1	Fe 238.204 Radial†	12.0	0.7	5.6407	ug/L	5.6407	ppb	09:08:50
1	K 766.490 Radial†	2891.7	6.2	1.1116	ug/L	1.1116	ppb	09:08:30
1	Mg 279.077 IEC†	2.9	0.6	19.109	ug/L	19.109	ppb	09:08:50
1	Mn 257.610†	500.1	2.9	0.0030	ug/L	0.0030	ppb	09:10:12
1	Mo 202.031†	35.8	9.9	0.5864	ug/L	0.5864	ppb	09:10:12
1	Na 589.592 Radial†	-1328.4	-62.4	-17.040	ug/L	-17.040	ppb	09:08:30
1	Ni 231.604†	115.6	12.0	0.2592	ug/L	0.2592	ppb	09:10:12
1	P 214.914†	251.5	-6.5	-3.3441	ug/L	-3.3441	ppb	09:10:12
1	Pb 220.353†	-76.9	1.8	0.1773	ug/L	0.1773	ppb	09:10:12
1	S 181.975 Axial†	51.8	-7.6	-9.0691	ug/L	-9.0691	ppb	09:10:12
1	Sb 206.836†	46.0	3.1	0.9265	ug/L	0.9265	ppb	09:10:12
1	Se 196.026†	-34.0	-4.9	-2.5842	ug/L	-2.5842	ppb	09:10:12
1	Si 251.611†	692.6	24.9	0.6809	ug/L	0.6809	ppb	09:10:12
1	Sn 189.927†	4.4	2.6	0.3760	ug/L	0.3760	ppb	09:10:12
1	Sr 421.552†	-5.7	-11.3	-0.0643	ug/L	-0.0643	ppb	09:08:30
1	Ti 334.940†	-1453.8	32.8	0.0461	ug/L	0.0461	ppb	09:09:52
1	Tl 190.801†	-32.6	13.6	3.4706	ug/L	3.4706	ppb	09:10:12
1	U 409.014†	-2656.2	102.3	2.8386	ug/L	2.8386	ppb	09:09:47
1	V 292.402†	-1585.9	-99.5	-0.6110	ug/L	-0.6110	ppb	09:09:52
1	Zn 213.857†	788.8	-25.0	-0.2042	ug/L	-0.2042	ppb	09:10:12
1	SiO2†	722.4	29.3	1.7253	ug/L	1.7253	ppb	09:11:18
2	Sc 361.383	911833.9	911833.9	101.38	%			09:10:17
2	Sc Radial	5557.2	5557.2	99.5	%			09:08:55
2	Y 371.029	751406.7	751406.7	101.15	%			09:10:17
2	Y RADIAL	5830.7	5830.7	99.48	%			09:08:55
2	Ag 328.068†	382.3	-22.3	-0.0972	ug/L	-0.0972	ppb	09:10:22
2	Al 396.153Radial†	-43.6	-30.5	-21.450	ug/L	-21.450	ppb	09:08:55
2	As 188.979†	-25.0	2.8	0.9849	ug/L	0.9849	ppb	09:10:42
2	B 249.677†	254.6	-213.9	-4.3642	ug/L	-4.3642	ppb	09:10:22
2	Ba 233.527†	-1.1	7.6	0.0508	ug/L	0.0508	ppb	09:10:42
2	Be 313.107†	-4453.1	202.6	0.0673	ug/L	0.0673	ppb	09:10:22
2	Ca 317.933Radial†	17.3	-0.4	-0.6205	ug/L	-0.6205	ppb	09:09:15
2	Cd 226.502†	-219.8	9.0	0.0860	ug/L	0.0860	ppb	09:10:42
2	Co 228.616†	-75.3	10.4	0.1823	ug/L	0.1823	ppb	09:10:42
2	Cr 267.716†	107.4	6.7	0.0663	ug/L	0.0663	ppb	09:10:42
2	Cu 324.752†	6037.2	-132.0	-0.3688	ug/L	-0.3688	ppb	09:10:22
2	Fe 238.204 Radial†	11.4	0.3	2.0571	ug/L	2.0571	ppb	09:09:15
2	K 766.490 Radial†	2796.0	-61.1	-10.966	ug/L	-10.966	ppb	09:08:55
2	Mg 279.077 IEC†	0.7	-1.6	-48.211	ug/L	-48.211	ppb	09:09:15
2	Mn 257.610†	514.2	15.6	0.0164	ug/L	0.0164	ppb	09:10:42
2	Mo 202.031†	35.1	9.0	0.5372	ug/L	0.5372	ppb	09:10:42
2	Na 589.592 Radial†	-1303.5	-50.6	-13.841	ug/L	-13.841	ppb	09:08:55
2	Ni 231.604†	105.3	1.6	0.0354	ug/L	0.0354	ppb	09:10:42

2	P 214.914†	266.6	7.8	4.0143 ug/L	4.0143 ppb	09:10:42
2	Pb 220.353†	-92.7	-13.6	-1.3955 ug/L	-1.3955 ppb	09:10:42
2	S 181.975 Axial†	52.9	-6.6	-7.8931 ug/L	-7.8931 ppb	09:10:42
2	Sb 206.836†	42.7	-0.3	-0.0758 ug/L	-0.0758 ppb	09:10:42
2	Se 196.026†	-35.7	-6.4	-3.3968 ug/L	-3.3968 ppb	09:10:42
2	Si 251.611†	707.6	38.1	1.0551 ug/L	1.0551 ppb	09:10:42
2	Sn 189.927†	3.8	1.9	0.2765 ug/L	0.2765 ppb	09:10:42
2	Sr 421.552†	-11.0	-16.7	-0.0951 ug/L	-0.0951 ppb	09:08:55
2	Ti 334.940†	-1486.3	4.0	0.0042 ug/L	0.0042 ppb	09:10:22
2	Tl 190.801†	-45.0	1.4	0.3560 ug/L	0.3560 ppb	09:10:42
2	U 409.014†	-2646.0	118.4	3.2849 ug/L	3.2849 ppb	09:10:17
2	V 292.402†	-1489.8	-1.1	0.0056 ug/L	0.0056 ppb	09:10:22
2	Zn 213.857†	798.2	-17.5	-0.1390 ug/L	-0.1390 ppb	09:10:42
2	SiO2†	702.8	8.3	0.4805 ug/L	0.4805 ppb	09:11:23
3	Sc 361.383	922023.3	922023.3	102.51 %		09:10:47
3	Sc Radial	5547.4	5547.4	99.3 %		09:09:20
3	Y 371.029	758434.6	758434.6	102.09 %		09:10:47
3	Y RADIAL	5839.8	5839.8	99.63 %		09:09:20
3	Ag 328.068†	397.2	-12.0	-0.0483 ug/L	-0.0483 ppb	09:10:53
3	Al 396.153Radial†	-19.2	-6.0	-4.2143 ug/L	-4.2143 ppb	09:09:20
3	As 188.979†	-29.3	-1.2	-0.4042 ug/L	-0.4042 ppb	09:11:13
3	B 249.677†	185.3	-284.3	-5.8003 ug/L	-5.8003 ppb	09:10:53
3	Ba 233.527†	-3.6	5.1	0.0341 ug/L	0.0341 ppb	09:11:13
3	Be 313.107†	-4584.2	123.3	0.0412 ug/L	0.0412 ppb	09:10:53
3	Ca 317.933Radial†	14.2	-3.6	-5.0409 ug/L	-5.0409 ppb	09:09:40
3	Cd 226.502†	-226.1	5.2	0.0491 ug/L	0.0491 ppb	09:11:13
3	Co 228.616†	-84.7	2.1	0.0358 ug/L	0.0358 ppb	09:11:13
3	Cr 267.716†	94.9	-6.6	-0.0660 ug/L	-0.0660 ppb	09:11:13
3	Cu 324.752†	6140.1	-97.4	-0.2718 ug/L	-0.2718 ppb	09:10:53
3	Fe 238.204 Radial†	12.3	1.1	9.0835 ug/L	9.0835 ppb	09:09:40
3	K 766.490 Radial†	2876.2	24.7	4.4281 ug/L	4.4281 ppb	09:09:20
3	Mg 279.077 IEC†	2.6	0.3	9.0877 ug/L	9.0877 ppb	09:09:40
3	Mn 257.610†	517.0	12.8	0.0132 ug/L	0.0132 ppb	09:11:13
3	Mo 202.031†	23.4	-2.7	-0.1611 ug/L	-0.1611 ppb	09:11:13
3	Na 589.592 Radial†	-1230.7	20.4	5.5681 ug/L	5.5681 ppb	09:09:20
3	Ni 231.604†	117.6	12.5	0.2692 ug/L	0.2692 ppb	09:11:13
3	P 214.914†	250.0	-11.3	-5.6719 ug/L	-5.6719 ppb	09:11:13
3	Pb 220.353†	-84.7	-4.8	-0.4882 ug/L	-0.4882 ppb	09:11:13
3	S 181.975 Axial†	47.0	-12.9	-15.453 ug/L	-15.453 ppb	09:11:13
3	Sb 206.836†	48.3	4.7	1.4032 ug/L	1.4032 ppb	09:11:13
3	Se 196.026†	-24.6	4.8	2.5663 ug/L	2.5663 ppb	09:11:13
3	Si 251.611†	701.7	24.6	0.6833 ug/L	0.6833 ppb	09:11:13
3	Sn 189.927†	10.0	8.0	1.1636 ug/L	1.1636 ppb	09:11:13
3	Sr 421.552†	-2.5	-8.1	-0.0464 ug/L	-0.0464 ppb	09:09:20
3	Ti 334.940†	-1405.4	99.1	0.1429 ug/L	0.1429 ppb	09:10:53
3	Tl 190.801†	-48.0	-1.1	-0.2703 ug/L	-0.2703 ppb	09:11:13
3	U 409.014†	-2824.9	-27.3	-0.7601 ug/L	-0.7601 ppb	09:10:47
3	V 292.402†	-1548.2	-41.8	-0.2678 ug/L	-0.2678 ppb	09:10:53
3	Zn 213.857†	789.1	-35.1	-0.2854 ug/L	-0.2854 ppb	09:11:13
3	SiO2†	710.6	8.3	0.4886 ug/L	0.4886 ppb	09:11:28

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	914532.8	101.68	%	0.731				0.72%
Sc Radial	5572.6	99.7	%	0.64				0.64%
Y 371.029	752826.0	101.34	%	0.680				0.67%
Y RADIAL	5846.9	99.75	%	0.353				0.35%
Ag 328.068†	21.0	0.0886	ug/L	0.28045	0.0886	ppb	0.28045	316.58%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-21.6	-15.214	ug/L	9.5543	-15.214	ppb	9.5543	62.80%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.1	0.7379	ug/L	1.04091	0.7379	ppb	1.04091	141.06%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-203.4	-4.1504	ug/L	1.76646	-4.1504	ppb	1.76646	42.56%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.7	0.0442	ug/L	0.00892	0.0442	ppb	0.00892	20.18%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	171.0	0.0569	ug/L	0.01381	0.0569	ppb	0.01381	24.28%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          -0.7     -1.0102 ug/L       3.85065     -1.0102 ppb        3.85065 381.17%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 6.6      0.0626 ug/L       0.02030      0.0626 ppb        0.02030  32.41%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 8.5      0.1483 ug/L       0.09992      0.1483 ppb        0.09992  67.36%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -4.5     -0.0455 ug/L       0.10301     -0.0455 ppb        0.10301 226.54%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -69.6     -0.1942 ug/L       0.22360     -0.1942 ppb        0.22360 115.12%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.7      5.5938 ug/L       3.51344      5.5938 ppb        3.51344  62.81%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -10.1     -1.8089 ug/L       8.10215     -1.8089 ppb        8.10215 447.91%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.2     -6.6717 ug/L      36.32170     -6.6717 ppb       36.32170 544.42%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                10.4      0.0109 ug/L       0.00698      0.0109 ppb        0.00698  64.13%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.4      0.3208 ug/L       0.41813      0.3208 ppb        0.41813 130.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -30.9     -8.4376 ug/L      12.23433     -8.4376 ppb       12.23433 145.00%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 8.7      0.1879 ug/L       0.13219      0.1879 ppb        0.13219  70.34%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -3.3     -1.6673 ug/L       5.05616     -1.6673 ppb        5.05616 303.26%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.5     -0.5688 ug/L       0.78947     -0.5688 ppb        0.78947 138.79%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -9.0     -10.805 ug/L        4.0680     -10.805 ppb         4.0680  37.65%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.5      0.7513 ug/L       0.75490      0.7513 ppb        0.75490 100.48%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.2     -1.1382 ug/L       3.23384     -1.1382 ppb        3.23384 284.12%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                29.2      0.8064 ug/L       0.21539      0.8064 ppb        0.21539  26.71%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.1      0.6054 ug/L       0.48597      0.6054 ppb        0.48597  80.28%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -12.0     -0.0686 ug/L       0.02461     -0.0686 ppb        0.02461  35.88%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                45.3      0.0644 ug/L       0.07111      0.0644 ppb        0.07111 110.41%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 4.6      1.1854 ug/L       2.00362      1.1854 ppb        2.00362 169.02%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 64.4      1.7878 ug/L       2.21777      1.7878 ppb        2.21777 124.05%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -47.5     -0.2911 ug/L       0.30895     -0.2911 ppb        0.30895 106.14%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -25.9     -0.2096 ug/L       0.07333     -0.2096 ppb        0.07333  34.99%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      15.3      0.8981 ug/L       0.71633      0.8981 ppb        0.71633  79.76%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 12/20/2009 09:13:38
Data Type: Reprocessed on 12/20/2009 10:23:34

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	892200.5	892200.5	99.197	%			09:16:48
1	Sc Radial	5608.9	5608.9	100	%			09:15:31
1	Y 371.029	737792.9	737792.9	99.313	%			09:16:48
1	Y RADIAL	5891.4	5891.4	100.5	%			09:15:31
1	Ag 328.068†	1517.8	1130.7	4.8274	ug/L	4.8274	ppb	09:16:48
1	Al 396.153Radial†	257.9	270.3	189.39	ug/L	189.39	ppb	09:15:31
1	As 188.979†	43.2	71.1	25.281	ug/L	25.281	ppb	09:17:08
1	B 249.677†	2569.2	2124.9	43.323	ug/L	43.323	ppb	09:16:48
1	Ba 233.527†	751.5	766.2	5.1565	ug/L	5.1565	ppb	09:17:08
1	Be 313.107†	10605.0	15286.0	5.0835	ug/L	5.0835	ppb	09:16:48
1	Ca 317.933Radial†	168.9	150.4	209.97	ug/L	209.97	ppb	09:15:51
1	Cd 226.502†	276.8	504.8	4.8434	ug/L	4.8434	ppb	09:17:08
1	Co 228.616†	213.0	299.4	5.2068	ug/L	5.2068	ppb	09:17:08
1	Cr 267.716†	553.2	458.5	4.5656	ug/L	4.5656	ppb	09:16:48
1	Cu 324.752†	9809.6	3802.0	10.631	ug/L	10.631	ppb	09:16:48
1	Fe 238.204 Radial†	23.6	12.3	97.565	ug/L	97.565	ppb	09:15:51
1	K 766.490 Radial†	3831.0	944.1	169.29	ug/L	169.29	ppb	09:15:31
1	Mg 279.077 IEC†	13.7	11.4	342.84	ug/L	342.84	ppb	09:15:51
1	Mn 257.610†	11283.4	10883.2	10.630	ug/L	10.630	ppb	09:16:48
1	Mo 202.031†	191.9	167.8	9.9860	ug/L	9.9860	ppb	09:17:08
1	Na 589.592 Radial†	-257.5	1003.5	274.23	ug/L	274.23	ppb	09:15:31
1	Ni 231.604†	358.7	259.3	5.5853	ug/L	5.5853	ppb	09:17:08
1	P 214.914†	543.6	292.8	147.33	ug/L	147.33	ppb	09:17:08
1	Pb 220.353†	31.9	110.0	11.305	ug/L	11.305	ppb	09:17:08
1	S 181.975 Axial†	130.8	73.1	87.539	ug/L	87.539	ppb	09:17:08
1	Sb 206.836†	72.9	31.1	9.4609	ug/L	9.4609	ppb	09:17:08
1	Se 196.026†	27.4	56.4	30.464	ug/L	30.464	ppb	09:17:08
1	Si 251.611†	4253.2	3627.8	100.73	ug/L	100.73	ppb	09:16:48
1	Sn 189.927†	69.6	68.4	10.024	ug/L	10.024	ppb	09:17:08
1	Sr 421.552†	887.2	878.2	5.0084	ug/L	5.0084	ppb	09:15:31
1	Ti 334.940†	2156.8	3644.3	5.2350	ug/L	5.2350	ppb	09:16:48
1	Tl 190.801†	32.5	78.5	20.108	ug/L	20.108	ppb	09:17:08
1	U 409.014†	-875.5	1845.8	51.209	ug/L	51.209	ppb	09:16:48
1	V 292.402†	-746.5	715.9	4.7220	ug/L	4.7220	ppb	09:16:48
1	Zn 213.857†	2051.6	1263.3	10.124	ug/L	10.124	ppb	09:17:08
1	SiO2†	4305.7	3655.6	217.96	ug/L	217.96	ppb	09:18:05
2	Sc 361.383	894030.4	894030.4	99.400	%			09:17:14
2	Sc Radial	5563.1	5563.1	99.6	%			09:15:56
2	Y 371.029	740381.4	740381.4	99.661	%			09:17:14
2	Y RADIAL	5830.5	5830.5	99.47	%			09:15:56
2	Ag 328.068†	1538.1	1148.0	4.9073	ug/L	4.9073	ppb	09:17:14
2	Al 396.153Radial†	255.0	269.4	188.80	ug/L	188.80	ppb	09:15:56
2	As 188.979†	50.0	77.8	27.671	ug/L	27.671	ppb	09:17:34
2	B 249.677†	2538.0	2088.3	42.573	ug/L	42.573	ppb	09:17:14
2	Ba 233.527†	758.9	772.1	5.1962	ug/L	5.1962	ppb	09:17:34
2	Be 313.107†	10696.7	15356.3	5.1065	ug/L	5.1065	ppb	09:17:14
2	Ca 317.933Radial†	164.6	147.4	205.84	ug/L	205.84	ppb	09:16:16
2	Cd 226.502†	312.9	540.5	5.1850	ug/L	5.1850	ppb	09:17:34
2	Co 228.616†	206.9	292.9	5.0938	ug/L	5.0938	ppb	09:17:34
2	Cr 267.716†	621.4	526.0	5.2386	ug/L	5.2386	ppb	09:17:14
2	Cu 324.752†	9704.7	3676.2	10.281	ug/L	10.281	ppb	09:17:14
2	Fe 238.204 Radial†	25.6	14.5	114.57	ug/L	114.57	ppb	09:16:16
2	K 766.490 Radial†	3765.8	910.0	163.16	ug/L	163.16	ppb	09:15:56
2	Mg 279.077 IEC†	13.4	11.1	336.55	ug/L	336.55	ppb	09:16:16
2	Mn 257.610†	11318.3	10895.0	10.643	ug/L	10.643	ppb	09:17:14
2	Mo 202.031†	197.8	173.4	10.317	ug/L	10.317	ppb	09:17:34
2	Na 589.592 Radial†	-209.8	1049.2	286.74	ug/L	286.74	ppb	09:15:56
2	Ni 231.604†	352.1	252.0	5.4268	ug/L	5.4268	ppb	09:17:34

2	P 214.914†	533.2	281.3	141.51 ug/L	141.51 ppb	09:17:34
2	Pb 220.353†	15.9	93.8	9.6523 ug/L	9.6523 ppb	09:17:34
2	S 181.975 Axial†	135.7	77.8	93.185 ug/L	93.185 ppb	09:17:34
2	Sb 206.836†	68.8	26.8	8.1667 ug/L	8.1667 ppb	09:17:34
2	Se 196.026†	18.6	47.5	25.772 ug/L	25.772 ppb	09:17:34
2	Si 251.611†	4316.3	3682.5	102.25 ug/L	102.25 ppb	09:17:14
2	Sn 189.927†	66.8	65.4	9.5921 ug/L	9.5921 ppb	09:17:34
2	Sr 421.552†	895.9	894.2	5.0998 ug/L	5.0998 ppb	09:15:56
2	Ti 334.940†	2067.2	3549.7	5.0990 ug/L	5.0990 ppb	09:17:14
2	Tl 190.801†	35.2	81.2	20.802 ug/L	20.802 ppb	09:17:34
2	U 409.014†	-927.3	1795.4	49.808 ug/L	49.808 ppb	09:17:14
2	V 292.402†	-775.8	688.0	4.5462 ug/L	4.5462 ppb	09:17:14
2	Zn 213.857†	2051.6	1259.2	10.091 ug/L	10.091 ppb	09:17:34
2	SiO2†	4349.2	3690.4	220.04 ug/L	220.04 ppb	09:18:10
3	Sc 361.383	891429.0	891429.0	99.111 %		09:17:39
3	Sc Radial	5571.9	5571.9	99.7 %		09:16:21
3	Y 371.029	736861.1	736861.1	99.187 %		09:17:39
3	Y RADIAL	5863.7	5863.7	100.0 %		09:16:21
3	Ag 328.068†	1586.9	1201.7	5.1400 ug/L	5.1400 ppb	09:17:39
3	Al 396.153Radial†	273.7	287.8	201.69 ug/L	201.69 ppb	09:16:21
3	As 188.979†	53.2	81.1	28.852 ug/L	28.852 ppb	09:17:59
3	B 249.677†	2459.0	2016.1	41.099 ug/L	41.099 ppb	09:17:39
3	Ba 233.527†	763.0	778.4	5.2400 ug/L	5.2400 ppb	09:17:59
3	Be 313.107†	10620.1	15310.5	5.0911 ug/L	5.0911 ppb	09:17:39
3	Ca 317.933Radial†	168.3	150.9	210.72 ug/L	210.72 ppb	09:16:42
3	Cd 226.502†	290.2	518.6	4.9735 ug/L	4.9735 ppb	09:17:59
3	Co 228.616†	193.2	279.6	4.8634 ug/L	4.8634 ppb	09:17:59
3	Cr 267.716†	649.3	555.9	5.5380 ug/L	5.5380 ppb	09:17:39
3	Cu 324.752†	9830.8	3832.0	10.716 ug/L	10.716 ppb	09:17:39
3	Fe 238.204 Radial†	26.6	15.5	122.43 ug/L	122.43 ppb	09:16:42
3	K 766.490 Radial†	3778.9	917.1	164.43 ug/L	164.43 ppb	09:16:21
3	Mg 279.077 IEC†	13.7	11.5	347.16 ug/L	347.16 ppb	09:16:42
3	Mn 257.610†	11309.3	10919.2	10.668 ug/L	10.668 ppb	09:17:39
3	Mo 202.031†	193.7	169.9	10.108 ug/L	10.108 ppb	09:17:59
3	Na 589.592 Radial†	-203.5	1055.9	288.57 ug/L	288.57 ppb	09:16:21
3	Ni 231.604†	347.9	248.8	5.3581 ug/L	5.3581 ppb	09:17:59
3	P 214.914†	542.0	291.7	146.74 ug/L	146.74 ppb	09:17:59
3	Pb 220.353†	1.6	79.5	8.1823 ug/L	8.1823 ppb	09:17:59
3	S 181.975 Axial†	133.0	75.5	90.386 ug/L	90.386 ppb	09:17:59
3	Sb 206.836†	69.4	27.6	8.3956 ug/L	8.3956 ppb	09:17:59
3	Se 196.026†	26.5	55.5	30.075 ug/L	30.075 ppb	09:17:59
3	Si 251.611†	4279.8	3658.3	101.58 ug/L	101.58 ppb	09:17:39
3	Sn 189.927†	69.9	68.7	10.078 ug/L	10.078 ppb	09:17:59
3	Sr 421.552†	895.6	892.5	5.0901 ug/L	5.0901 ppb	09:16:21
3	Ti 334.940†	1971.4	3459.1	4.9681 ug/L	4.9681 ppb	09:17:39
3	Tl 190.801†	36.5	82.6	21.148 ug/L	21.148 ppb	09:17:59
3	U 409.014†	-885.9	1834.5	50.890 ug/L	50.890 ppb	09:17:39
3	V 292.402†	-697.5	764.7	5.0258 ug/L	5.0258 ppb	09:17:39
3	Zn 213.857†	2047.7	1261.2	10.106 ug/L	10.106 ppb	09:17:59
3	SiO2†	4240.5	3593.6	214.25 ug/L	214.25 ppb	09:18:15

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	892553.3	99.236	%	0.1486				0.15%
Sc Radial	5581.3	99.9	%	0.43				0.44%
Y 371.029	738345.1	99.387	%	0.2455				0.25%
Y RADIAL	5861.9	100.0	%	0.52				0.52%
Ag 328.068†	1160.2	4.9582	ug/L	0.16238	4.9582	ppb	0.16238	3.28%
QC value within limits for Ag 328.068 Recovery = 99.16%								
Al 396.153Radial†	275.8	193.30	ug/L	7.278	193.30	ppb	7.278	3.77%
QC value within limits for Al 396.153Radial Recovery = 96.65%								
As 188.979†	76.6	27.268	ug/L	1.8190	27.268	ppb	1.8190	6.67%
QC value within limits for As 188.979 Recovery = 90.89%								
B 249.677†	2076.4	42.332	ug/L	1.1313	42.332	ppb	1.1313	2.67%
QC value within limits for B 249.677 Recovery = 84.66%								
Ba 233.527†	772.2	5.1976	ug/L	0.04175	5.1976	ppb	0.04175	0.80%
QC value within limits for Ba 233.527 Recovery = 103.95%								
Be 313.107†	15317.6	5.0937	ug/L	0.01175	5.0937	ppb	0.01175	0.23%
QC value within limits for Be 313.107 Recovery = 101.87%								

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Ca 317.933Radial†        149.6      208.84 ug/L        2.629      208.84 ppb        2.629   1.26%
   QC value within limits for Ca 317.933Radial  Recovery = 104.42%
Cd 226.502†              521.3      5.0006 ug/L      0.17242      5.0006 ppb      0.17242   3.45%
   QC value within limits for Cd 226.502  Recovery = 100.01%
Co 228.616†              290.6      5.0547 ug/L      0.17504      5.0547 ppb      0.17504   3.46%
   QC value within limits for Co 228.616  Recovery = 101.09%
Cr 267.716†              513.5      5.1141 ug/L      0.49800      5.1141 ppb      0.49800   9.74%
   QC value within limits for Cr 267.716  Recovery = 102.28%
Cu 324.752†             3770.0      10.543 ug/L       0.2310      10.543 ppb       0.2310   2.19%
   QC value within limits for Cu 324.752  Recovery = 105.43%
Fe 238.204 Radial†        14.1      111.52 ug/L       12.711      111.52 ppb       12.711  11.40%
   QC value within limits for Fe 238.204 Radial  Recovery = 111.52%
K 766.490 Radial†        923.7      165.63 ug/L        3.233      165.63 ppb        3.233   1.95%
   QC value within limits for K 766.490 Radial  Recovery = 110.42%
Mg 279.077 IEC†           11.3      342.18 ug/L        5.334      342.18 ppb        5.334   1.56%
   QC value within limits for Mg 279.077 IEC  Recovery = 114.06%
Mn 257.610†            10899.1      10.647 ug/L       0.0190      10.647 ppb       0.0190   0.18%
   QC value within limits for Mn 257.610  Recovery = 106.47%
Mo 202.031†              170.4      10.137 ug/L       0.1674      10.137 ppb       0.1674   1.65%
   QC value within limits for Mo 202.031  Recovery = 101.37%
Na 589.592 Radial†      1036.2      283.18 ug/L        7.802      283.18 ppb        7.802   2.76%
   QC value within limits for Na 589.592 Radial  Recovery = 94.39%
Ni 231.604†              253.3      5.4567 ug/L      0.11647      5.4567 ppb      0.11647   2.13%
   QC value within limits for Ni 231.604  Recovery = 109.13%
P 214.914†               288.6      145.19 ug/L        3.204      145.19 ppb        3.204   2.21%
   QC value within limits for P 214.914  Recovery = 96.80%
Pb 220.353†               94.4      9.7131 ug/L      1.56202      9.7131 ppb      1.56202  16.08%
   QC value within limits for Pb 220.353  Recovery = 97.13%
S 181.975 Axial†          75.5      90.370 ug/L       2.8232      90.370 ppb       2.8232   3.12%
   QC value within limits for S 181.975 Axial  Recovery = 90.37%
Sb 206.836†               28.5      8.6744 ug/L      0.69067      8.6744 ppb      0.69067   7.96%
   QC value within limits for Sb 206.836  Recovery = 86.74%
Se 196.026†               53.1      28.771 ug/L       2.6040      28.771 ppb       2.6040   9.05%
   QC value within limits for Se 196.026  Recovery = 95.90%
Si 251.611†             3656.2      101.52 ug/L        0.763      101.52 ppb        0.763   0.75%
   QC value within limits for Si 251.611  Recovery = 101.52%
Sn 189.927†               67.5      9.8980 ug/L      0.26629      9.8980 ppb      0.26629   2.69%
   QC value within limits for Sn 189.927  Recovery = 98.98%
Sr 421.552†              888.3      5.0661 ug/L      0.05022      5.0661 ppb      0.05022   0.99%
   QC value within limits for Sr 421.552  Recovery = 101.32%
Ti 334.940†             3551.0      5.1007 ug/L      0.13344      5.1007 ppb      0.13344   2.62%
   QC value within limits for Ti 334.940  Recovery = 102.01%
Tl 190.801†               80.8      20.686 ug/L       0.5295      20.686 ppb       0.5295   2.56%
   QC value within limits for Tl 190.801  Recovery = 103.43%
U 409.014†              1825.2      50.636 ug/L       0.7343      50.636 ppb       0.7343   1.45%
   QC value within limits for U 409.014  Recovery = 101.27%
V 292.402†               722.8      4.7647 ug/L      0.24263      4.7647 ppb      0.24263   5.09%
   QC value within limits for V 292.402  Recovery = 95.29%
Zn 213.857†             1261.2      10.107 ug/L       0.0164      10.107 ppb       0.0164   0.16%
   QC value within limits for Zn 213.857  Recovery = 101.07%
SiO2†                   3646.5      217.42 ug/L        2.931      217.42 ppb        2.931   1.35%
   QC value within limits for SiO2  Recovery = 102.07%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: ICSA
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 12/20/2009 09:20:26
Data Type: Reprocessed on 12/20/2009 10:23:35

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	782892.7	782892.7	87.044	%			09:22:51
1	Sc Radial	4980.8	4980.8	89.1	%			09:22:24
1	Y 371.029	631140.9	631140.9	84.956	%			09:22:51
1	Y RADIAL	5237.3	5237.3	89.35	%			09:22:24
1	Ag 328.068†	-10579.3	-12553.4	2.4103	ug/L	2.4103	ppb	09:22:51
1	Al 396.153Radial†	654467.9	734198.7	515690	ug/L	515690	ppb	09:22:19
1	As 188.979†	-109.3	-98.1	-5.9554	ug/L	-5.9554	ppb	09:23:12
1	B 249.677†	747.8	394.0	-16.947	ug/L	-16.947	ppb	09:22:51
1	Ba 233.527†	-645.9	-733.5	-0.1414	ug/L	-0.1414	ppb	09:23:12
1	Be 313.107†	-5017.9	-1169.7	-0.4365	ug/L	-0.4365	ppb	09:22:51
1	Ca 317.933Radial†	305583.7	342787.5	478560	ug/L	478560	ppb	09:22:19
1	Cd 226.502†	1393.3	1826.5	-1.2775	ug/L	-1.2775	ppb	09:23:12
1	Co 228.616†	-17.2	64.9	-1.5564	ug/L	-1.5564	ppb	09:23:12
1	Cr 267.716†	-89.1	-201.5	1.3760	ug/L	1.3760	ppb	09:23:12
1	Cu 324.752†	2814.1	-2854.0	1.6297	ug/L	1.6297	ppb	09:22:51
1	Fe 238.204 Radial†	21225.5	23799.6	188320	ug/L	188320	ppb	09:22:24
1	K 766.490 Radial†	2378.0	-204.7	-20.966	ug/L	-20.966	ppb	09:22:19
1	Mg 279.077 IEC†	14589.5	16364.3	493730	ug/L	493730	ppb	09:22:24
1	Mn 257.610†	344.3	-96.0	9.4911	ug/L	9.4911	ppb	09:22:51
1	Mo 202.031†	-250.2	-313.1	-0.5566	ug/L	-0.5566	ppb	09:23:12
1	Na 589.592 Radial†	-1047.1	85.3	23.320	ug/L	23.320	ppb	09:22:24
1	Ni 231.604†	265.6	202.9	4.3725	ug/L	4.3725	ppb	09:23:12
1	P 214.914†	202.0	-23.1	11.479	ug/L	11.479	ppb	09:23:12
1	Pb 220.353†	-973.5	-1040.6	-6.2458	ug/L	-6.2458	ppb	09:23:12
1	S 181.975 Axial†	84.1	37.9	-56.080	ug/L	-56.080	ppb	09:23:12
1	Sb 206.836†	73.0	41.5	-0.2096	ug/L	-0.2096	ppb	09:23:12
1	Se 196.026†	-1129.3	-1268.6	6.9364	ug/L	6.9364	ppb	09:23:12
1	Si 251.611†	495.6	-90.5	-1.9751	ug/L	-1.9751	ppb	09:23:12
1	Sn 189.927†	-393.7	-454.1	-13.928	ug/L	-13.928	ppb	09:23:12
1	Sr 421.552†	585.5	651.2	-0.7207	ug/L	-0.7207	ppb	09:22:24
1	Ti 334.940†	-16130.9	-17061.8	0.3770	ug/L	0.3770	ppb	09:22:51
1	Tl 190.801†	-103.0	-72.6	-4.6192	ug/L	-4.6192	ppb	09:23:12
1	U 409.014†	-1316.6	1215.8	10.055	ug/L	10.055	ppb	09:22:51
1	V 292.402†	963.2	2575.0	-1.5109	ug/L	-1.5109	ppb	09:23:12
1	Zn 213.857†	3539.5	3261.6	-0.3783	ug/L	-0.3783	ppb	09:23:12
1	SiO2†	438.5	-181.2	-9.6529	ug/L	-9.6529	ppb	09:24:08
2	Sc 361.383	775026.0	775026.0	86.169	%			09:23:17
2	Sc Radial	4970.9	4970.9	89.0	%			09:22:34
2	Y 371.029	623830.9	623830.9	83.972	%			09:23:17
2	Y RADIAL	5189.5	5189.5	88.54	%			09:22:34
2	Ag 328.068†	-10570.9	-12666.9	1.8869	ug/L	1.8869	ppb	09:23:17
2	Al 396.153Radial†	650034.7	730686.4	513220	ug/L	513220	ppb	09:22:29
2	As 188.979†	-102.7	-91.8	-3.7441	ug/L	-3.7441	ppb	09:23:37
2	B 249.677†	834.9	503.9	-14.674	ug/L	-14.674	ppb	09:23:17
2	Ba 233.527†	-688.0	-789.8	-0.5251	ug/L	-0.5251	ppb	09:23:37
2	Be 313.107†	-5028.7	-1240.7	-0.4590	ug/L	-0.4590	ppb	09:23:17
2	Ca 317.933Radial†	303408.7	341029.5	476100	ug/L	476100	ppb	09:22:29
2	Cd 226.502†	1386.1	1834.4	-1.1778	ug/L	-1.1778	ppb	09:23:37
2	Co 228.616†	-20.2	61.2	-1.6199	ug/L	-1.6199	ppb	09:23:37
2	Cr 267.716†	-128.2	-248.0	0.9102	ug/L	0.9102	ppb	09:23:37
2	Cu 324.752†	2777.7	-2863.5	1.5910	ug/L	1.5910	ppb	09:23:17
2	Fe 238.204 Radial†	21155.8	23769.1	188080	ug/L	188080	ppb	09:22:34
2	K 766.490 Radial†	2585.7	34.1	21.893	ug/L	21.893	ppb	09:22:29
2	Mg 279.077 IEC†	14470.4	16263.2	490680	ug/L	490680	ppb	09:22:34
2	Mn 257.610†	521.5	113.6	9.7285	ug/L	9.7285	ppb	09:23:17
2	Mo 202.031†	-256.4	-323.1	-1.1752	ug/L	-1.1752	ppb	09:23:37
2	Na 589.592 Radial†	-1181.0	-67.6	-18.462	ug/L	-18.462	ppb	09:22:34
2	Ni 231.604†	261.7	201.4	4.3401	ug/L	4.3401	ppb	09:23:37

2	P 214.914†	216.0	-4.5	20.351 ug/L	20.351 ppb	09:23:37
2	Pb 220.353†	-956.9	-1032.7	-5.9756 ug/L	-5.9756 ppb	09:23:37
2	S 181.975 Axial†	93.4	49.6	-41.482 ug/L	-41.482 ppb	09:23:37
2	Sb 206.836†	72.4	41.6	-0.0753 ug/L	-0.0753 ppb	09:23:37
2	Se 196.026†	-1129.0	-1281.4	-1.1043 ug/L	-1.1043 ppb	09:23:37
2	Si 251.611†	458.5	-127.7	-3.0255 ug/L	-3.0255 ppb	09:23:37
2	Sn 189.927†	-373.0	-434.6	-11.345 ug/L	-11.345 ppb	09:23:37
2	Sr 421.552†	570.8	636.0	-0.7847 ug/L	-0.7847 ppb	09:22:34
2	Ti 334.940†	-15627.9	-16666.2	0.8212 ug/L	0.8212 ppb	09:23:17
2	Tl 190.801†	-106.7	-78.1	-6.0964 ug/L	-6.0964 ppb	09:23:37
2	U 409.014†	-1471.4	1020.7	4.6728 ug/L	4.6728 ppb	09:23:17
2	V 292.402†	993.0	2620.8	-1.2752 ug/L	-1.2752 ppb	09:23:37
2	Zn 213.857†	3497.0	3253.4	-0.3268 ug/L	-0.3268 ppb	09:23:37
2	SiO2†	435.6	-179.4	-9.5734 ug/L	-9.5734 ppb	09:24:13
3	Sc 361.383	782477.9	782477.9	86.998 %		09:23:42
3	Sc Radial	5073.6	5073.6	90.8 %		09:22:45
3	Y 371.029	629387.0	629387.0	84.720 %		09:23:42
3	Y RADIAL	5302.8	5302.8	90.47 %		09:22:45
3	Ag 328.068†	-10740.1	-12744.6	1.1614 ug/L	1.1614 ppb	09:23:42
3	Al 396.153Radial†	653182.9	719365.6	505270 ug/L	505270 ppb	09:22:40
3	As 188.979†	-107.0	-95.6	-5.3322 ug/L	-5.3322 ppb	09:24:02
3	B 249.677†	877.1	543.2	-13.676 ug/L	-13.676 ppb	09:23:42
3	Ba 233.527†	-652.5	-741.4	-0.2388 ug/L	-0.2388 ppb	09:24:02
3	Be 313.107†	-5051.3	-1211.1	-0.4492 ug/L	-0.4492 ppb	09:23:42
3	Ca 317.933Radial†	304742.2	335595.6	468520 ug/L	468520 ppb	09:22:40
3	Cd 226.502†	1417.2	1854.8	-0.8320 ug/L	-0.8320 ppb	09:24:02
3	Co 228.616†	12.9	99.5	-0.9319 ug/L	-0.9319 ppb	09:24:02
3	Cr 267.716†	-117.5	-234.2	1.0187 ug/L	1.0187 ppb	09:24:02
3	Cu 324.752†	2739.4	-2938.2	1.3057 ug/L	1.3057 ppb	09:23:42
3	Fe 238.204 Radial†	21421.0	23579.8	186580 ug/L	186580 ppb	09:22:45
3	K 766.490 Radial†	2385.7	-245.0	-28.470 ug/L	-28.470 ppb	09:22:40
3	Mg 279.077 IEC†	14645.9	16127.3	486580 ug/L	486580 ppb	09:22:45
3	Mn 257.610†	598.2	196.1	9.7360 ug/L	9.7360 ppb	09:23:42
3	Mo 202.031†	-242.7	-304.6	-0.2186 ug/L	-0.2186 ppb	09:24:02
3	Na 589.592 Radial†	-1104.9	43.2	11.803 ug/L	11.803 ppb	09:22:45
3	Ni 231.604†	258.8	195.3	4.2070 ug/L	4.2070 ppb	09:24:02
3	P 214.914†	214.1	-9.1	16.556 ug/L	16.556 ppb	09:24:02
3	Pb 220.353†	-971.4	-1038.7	-8.2504 ug/L	-8.2504 ppb	09:24:02
3	S 181.975 Axial†	87.3	41.6	-49.609 ug/L	-49.609 ppb	09:24:02
3	Sb 206.836†	104.8	78.0	10.878 ug/L	10.878 ppb	09:24:02
3	Se 196.026†	-1137.6	-1278.8	-5.8332 ug/L	-5.8332 ppb	09:24:02
3	Si 251.611†	445.6	-147.7	-3.5821 ug/L	-3.5821 ppb	09:24:02
3	Sn 189.927†	-379.7	-438.3	-12.686 ug/L	-12.686 ppb	09:24:02
3	Sr 421.552†	594.0	648.5	-0.6427 ug/L	-0.6427 ppb	09:22:45
3	Ti 334.940†	-15808.7	-16701.3	0.3738 ug/L	0.3738 ppb	09:23:42
3	Tl 190.801†	-100.0	-69.2	-4.0396 ug/L	-4.0396 ppb	09:24:02
3	U 409.014†	-1401.4	1117.5	7.5476 ug/L	7.5476 ppb	09:23:42
3	V 292.402†	920.5	2526.4	-1.7112 ug/L	-1.7112 ppb	09:24:02
3	Zn 213.857†	3536.1	3259.7	-0.0568 ug/L	-0.0568 ppb	09:24:02
3	SiO2†	482.6	-130.2	-6.6344 ug/L	-6.6344 ppb	09:24:18

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	780132.2	86.737	%	0.4922				0.57%
Sc Radial	5008.4	89.6	%	1.01				1.13%
Y 371.029	628119.6	84.550	%	0.5137				0.61%
Y RADIAL	5243.2	89.45	%	0.971				1.08%
Ag 328.068†	-12655.0	1.8195	ug/L	0.62713	1.8195	ppb	0.62713	34.47%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	728083.6	511390	ug/L	5444.5	511390	ppb	5444.5	1.06%
QC value within limits for Al 396.153Radial Recovery = 102.28%								
As 188.979†	-95.1	-5.0106	ug/L	1.14017	-5.0106	ppb	1.14017	22.76%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	480.4	-15.099	ug/L	1.6766	-15.099	ppb	1.6766	11.10%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-754.9	-0.3018	ug/L	0.19945	-0.3018	ppb	0.19945	66.09%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1207.2	-0.4482	ug/L	0.01126	-0.4482	ppb	0.01126	2.51%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†     339804.2      474390 ug/L        5234.2      474390 ppb        5234.2   1.10%
   QC value within limits for Ca 317.933Radial  Recovery = 94.88%
Cd 226.502†             1838.5     -1.0958 ug/L       0.23381     -1.0958 ppb       0.23381  21.34%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               75.2     -1.3694 ug/L       0.38020     -1.3694 ppb       0.38020  27.76%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -227.9      1.1016 ug/L       0.24370      1.1016 ppb       0.24370  22.12%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -2885.2      1.5088 ug/L       0.17694      1.5088 ppb       0.17694  11.73%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     23716.2      187660 ug/L         942.3      187660 ppb         942.3   0.50%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.83%
K 766.490 Radial†       -138.5     -9.1813 ug/L      27.17124     -9.1813 ppb      27.17124 295.94%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        16251.6      490330 ug/L        3588.3      490330 ppb        3588.3   0.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.07%
Mn 257.610†               71.2      9.6519 ug/L       0.13931      9.6519 ppb       0.13931   1.44%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -313.6     -0.6501 ug/L       0.48511     -0.6501 ppb       0.48511  74.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        20.3      5.5538 ug/L      21.58062      5.5538 ppb      21.58062 388.58%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              199.9      4.3065 ug/L       0.08767      4.3065 ppb       0.08767   2.04%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -12.3      16.129 ug/L        4.4512      16.129 ppb        4.4512  27.60%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -1037.3     -6.8239 ug/L       1.24270     -6.8239 ppb       1.24270  18.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          43.0     -49.057 ug/L        7.3147     -49.057 ppb        7.3147  14.91%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               53.7      3.5310 ug/L       6.36291      3.5310 ppb       6.36291 180.20%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -1276.3     -0.0004 ug/L       6.45601     -0.0004 ppb       6.45601 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -122.0     -2.8609 ug/L       0.81607     -2.8609 ppb       0.81607  28.53%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -442.3     -12.653 ug/L        1.2917     -12.653 ppb        1.2917  10.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              645.2     -0.7160 ug/L       0.07111     -0.7160 ppb       0.07111   9.93%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           -16809.8      0.5240 ug/L       0.25740      0.5240 ppb       0.25740  49.12%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -73.3     -4.9184 ug/L       1.06055     -4.9184 ppb       1.06055  21.56%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              1118.0      7.4252 ug/L       2.69318      7.4252 ppb       2.69318  36.27%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              2574.1     -1.4991 ug/L       0.21824     -1.4991 ppb       0.21824  14.56%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             3258.2     -0.2540 ug/L       0.17268     -0.2540 ppb       0.17268  68.00%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -163.6     -8.6202 ug/L       1.72024     -8.6202 ppb       1.72024  19.96%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 12/20/2009 09:26:29
Data Type: Reprocessed on 12/20/2009 10:23:36

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	790131.1	790131.1	87.849	%			09:28:54
1	Sc Radial	5040.4	5040.4	90.2	%			09:28:27
1	Y 371.029	634358.5	634358.5	85.390	%			09:28:54
1	Y RADIAL	5279.8	5279.8	90.08	%			09:28:27
1	Ag 328.068†	45321.8	51191.3	275.82	ug/L	275.82	ppb	09:28:54
1	Al 396.153Radial†	647277.1	717550.4	503970	ug/L	503970	ppb	09:28:22
1	As 188.979†	1101.4	1281.2	487.80	ug/L	487.80	ppb	09:28:59
1	B 249.677†	23635.1	26439.2	513.33	ug/L	513.33	ppb	09:28:54
1	Ba 233.527†	63730.6	72554.5	493.03	ug/L	493.03	ppb	09:28:54
1	Be 313.107†	644327.1	738046.1	245.89	ug/L	245.89	ppb	09:28:54
1	Ca 317.933Radial†	303360.1	336271.0	469460	ug/L	469460	ppb	09:28:22
1	Cd 226.502†	44249.2	50595.6	467.62	ug/L	467.62	ppb	09:28:59
1	Co 228.616†	22694.4	25918.3	447.03	ug/L	447.03	ppb	09:28:59
1	Cr 267.716†	41694.6	47362.7	476.39	ug/L	476.39	ppb	09:28:59
1	Cu 324.752†	175809.8	194040.9	551.91	ug/L	551.91	ppb	09:28:54
1	Fe 238.204 Radial†	21396.1	23707.4	187610	ug/L	187610	ppb	09:28:27
1	K 766.490 Radial†	30088.5	30482.2	5481.4	ug/L	5481.4	ppb	09:28:22
1	Mg 279.077 IEC†	14586.9	16168.0	487820	ug/L	487820	ppb	09:28:27
1	Mn 257.610†	433756.7	493262.8	491.26	ug/L	491.26	ppb	09:28:54
1	Mo 202.031†	6964.5	7902.3	487.69	ug/L	487.69	ppb	09:28:59
1	Na 589.592 Radial†	16775.9	19856.8	5426.6	ug/L	5426.6	ppb	09:28:27
1	Ni 231.604†	18678.5	21159.8	455.74	ug/L	455.74	ppb	09:28:59
1	P 214.914†	4595.7	4976.3	2469.2	ug/L	2469.2	ppb	09:28:59
1	Pb 220.353†	2989.5	3480.8	454.59	ug/L	454.59	ppb	09:28:59
1	S 181.975 Axial†	2030.3	2252.3	2599.4	ug/L	2599.4	ppb	09:28:59
1	Sb 206.836†	1605.6	1785.2	522.00	ug/L	522.00	ppb	09:28:59
1	Se 196.026†	3013.1	3458.7	2526.1	ug/L	2526.1	ppb	09:28:59
1	Si 251.611†	165534.5	187771.5	5215.7	ug/L	5215.7	ppb	09:28:54
1	Sn 189.927†	2513.2	2859.0	469.68	ug/L	469.68	ppb	09:28:59
1	Sr 421.552†	79580.5	88213.1	498.93	ug/L	498.93	ppb	09:28:22
1	Ti 334.940†	292746.1	334709.0	506.12	ug/L	506.12	ppb	09:28:54
1	Tl 190.801†	1477.9	1728.1	457.83	ug/L	457.83	ppb	09:28:59
1	U 409.014†	14061.8	18735.2	495.49	ug/L	495.49	ppb	09:28:54
1	V 292.402†	71565.9	82933.4	510.19	ug/L	510.19	ppb	09:28:54
1	Zn 213.857†	56769.6	63817.1	484.71	ug/L	484.71	ppb	09:28:59
1	SiO2†	164029.4	186033.1	11097	ug/L	11097	ppb	09:29:27
2	Sc 361.383	792237.8	792237.8	88.083	%			09:29:05
2	Sc Radial	5052.0	5052.0	90.4	%			09:28:37
2	Y 371.029	635763.5	635763.5	85.579	%			09:29:05
2	Y RADIAL	5263.5	5263.5	89.80	%			09:28:37
2	Ag 328.068†	45254.1	50977.3	275.09	ug/L	275.09	ppb	09:29:05
2	Al 396.153Radial†	645723.2	714180.6	501610	ug/L	501610	ppb	09:28:32
2	As 188.979†	1166.3	1351.6	512.87	ug/L	512.87	ppb	09:29:10
2	B 249.677†	23645.4	26379.4	512.07	ug/L	512.07	ppb	09:29:05
2	Ba 233.527†	63983.1	72648.2	493.66	ug/L	493.66	ppb	09:29:05
2	Be 313.107†	646850.3	738960.2	246.20	ug/L	246.20	ppb	09:29:05
2	Ca 317.933Radial†	301532.7	333476.1	465560	ug/L	465560	ppb	09:28:32
2	Cd 226.502†	44060.4	50247.2	464.23	ug/L	464.23	ppb	09:29:10
2	Co 228.616†	22632.6	25779.4	444.61	ug/L	444.61	ppb	09:29:10
2	Cr 267.716†	41609.8	47140.1	474.18	ug/L	474.18	ppb	09:29:10
2	Cu 324.752†	176569.8	194371.6	552.85	ug/L	552.85	ppb	09:29:05
2	Fe 238.204 Radial†	21491.9	23758.8	188010	ug/L	188010	ppb	09:28:37
2	K 766.490 Radial†	29898.6	30195.4	5430.0	ug/L	5430.0	ppb	09:28:32
2	Mg 279.077 IEC†	14641.7	16191.4	488520	ug/L	488520	ppb	09:28:37
2	Mn 257.610†	435239.3	493633.0	491.65	ug/L	491.65	ppb	09:29:05
2	Mo 202.031†	6913.0	7822.7	483.01	ug/L	483.01	ppb	09:29:10
2	Na 589.592 Radial†	16823.0	19866.1	5429.1	ug/L	5429.1	ppb	09:28:37
2	Ni 231.604†	18694.5	21121.5	454.91	ug/L	454.91	ppb	09:29:10

2	P 214.914†	4559.5	4921.2	2439.9 ug/L	2439.9 ppb	09:29:10
2	Pb 220.353†	2967.1	3446.3	450.49 ug/L	450.49 ppb	09:29:10
2	S 181.975 Axial†	2018.5	2232.9	2576.5 ug/L	2576.5 ppb	09:29:10
2	Sb 206.836†	1621.2	1798.1	525.82 ug/L	525.82 ppb	09:29:10
2	Se 196.026†	2992.0	3425.6	2509.3 ug/L	2509.3 ppb	09:29:10
2	Si 251.611†	166482.1	188346.2	5231.8 ug/L	5231.8 ppb	09:29:05
2	Sn 189.927†	2522.0	2861.4	469.64 ug/L	469.64 ppb	09:29:10
2	Sr 421.552†	79400.6	87811.1	496.67 ug/L	496.67 ppb	09:28:32
2	Ti 334.940†	293960.3	335201.3	506.63 ug/L	506.63 ppb	09:29:05
2	Tl 190.801†	1481.5	1727.7	457.67 ug/L	457.67 ppb	09:29:10
2	U 409.014†	14111.6	18749.1	495.83 ug/L	495.83 ppb	09:29:05
2	V 292.402†	71710.5	82880.9	509.75 ug/L	509.75 ppb	09:29:05
2	Zn 213.857†	56661.7	63522.8	482.29 ug/L	482.29 ppb	09:29:10
2	SiO2†	164377.7	185932.0	11091 ug/L	11091 ppb	09:29:32
3	Sc 361.383	784048.3	784048.3	87.172 %		09:29:16
3	Sc Radial	4900.9	4900.9	87.7 %		09:28:47
3	Y 371.029	629560.7	629560.7	84.744 %		09:29:16
3	Y RADIAL	5110.1	5110.1	87.18 %		09:28:47
3	Ag 328.068†	44659.8	50832.2	274.55 ug/L	274.55 ppb	09:29:16
3	Al 396.153Radial†	646272.2	736833.4	517520 ug/L	517520 ppb	09:28:42
3	As 188.979†	1156.5	1354.1	513.90 ug/L	513.90 ppb	09:29:21
3	B 249.677†	23248.5	26204.5	508.37 ug/L	508.37 ppb	09:29:16
3	Ba 233.527†	63128.4	72426.5	492.20 ug/L	492.20 ppb	09:29:16
3	Be 313.107†	638509.6	737062.8	245.57 ug/L	245.57 ppb	09:29:16
3	Ca 317.933Radial†	301531.1	343760.1	479920 ug/L	479920 ppb	09:28:42
3	Cd 226.502†	44154.1	50877.2	470.20 ug/L	470.20 ppb	09:29:21
3	Co 228.616†	22750.4	26182.9	451.62 ug/L	451.62 ppb	09:29:21
3	Cr 267.716†	41847.9	47906.7	481.84 ug/L	481.84 ppb	09:29:21
3	Cu 324.752†	174008.2	193526.8	550.53 ug/L	550.53 ppb	09:29:16
3	Fe 238.204 Radial†	20940.5	23863.3	188840 ug/L	188840 ppb	09:28:47
3	K 766.490 Radial†	29764.8	31062.8	5586.3 ug/L	5586.3 ppb	09:28:42
3	Mg 279.077 IEC†	14267.3	16264.0	490710 ug/L	490710 ppb	09:28:47
3	Mn 257.610†	429991.8	492774.5	490.85 ug/L	490.85 ppb	09:29:16
3	Mo 202.031†	6977.8	7979.0	492.37 ug/L	492.37 ppb	09:29:21
3	Na 589.592 Radial†	16426.7	19988.2	5462.5 ug/L	5462.5 ppb	09:28:47
3	Ni 231.604†	18696.2	21345.1	459.73 ug/L	459.73 ppb	09:29:21
3	P 214.914†	4545.4	4959.1	2464.4 ug/L	2464.4 ppb	09:29:21
3	Pb 220.353†	2970.1	3484.9	457.97 ug/L	457.97 ppb	09:29:21
3	S 181.975 Axial†	2015.6	2253.4	2598.0 ug/L	2598.0 ppb	09:29:21
3	Sb 206.836†	1627.9	1825.1	533.56 ug/L	533.56 ppb	09:29:21
3	Se 196.026†	3013.9	3486.2	2547.1 ug/L	2547.1 ppb	09:29:21
3	Si 251.611†	164070.2	187553.6	5209.5 ug/L	5209.5 ppb	09:29:16
3	Sn 189.927†	2556.9	2931.4	481.38 ug/L	481.38 ppb	09:29:21
3	Sr 421.552†	79570.5	90713.3	513.09 ug/L	513.09 ppb	09:28:42
3	Ti 334.940†	290558.2	334784.5	506.77 ug/L	506.77 ppb	09:29:16
3	Tl 190.801†	1498.9	1765.3	467.65 ug/L	467.65 ppb	09:29:21
3	U 409.014†	13825.1	18587.9	491.24 ug/L	491.24 ppb	09:29:16
3	V 292.402†	71052.1	82976.0	510.39 ug/L	510.39 ppb	09:29:16
3	Zn 213.857†	56848.2	64408.7	489.29 ug/L	489.29 ppb	09:29:21
3	SiO2†	163051.4	186359.8	11116 ug/L	11116 ppb	09:29:37

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	788805.7	87.701	%	0.4728				0.54%
Sc Radial	4997.8	89.4	%	1.51				1.68%
Y 371.029	633227.6	85.237	%	0.4378				0.51%
Y RADIAL	5217.8	89.02	%	1.597				1.79%
Ag 328.068†	51000.3	275.15	ug/L	0.636	275.15	ppb	0.636	0.23%
QC value within limits for Ag 328.068 Recovery = 110.06%								
Al 396.153Radial†	722854.8	507700	ug/L	8584.7	507700	ppb	8584.7	1.69%
QC value within limits for Al 396.153Radial Recovery = 101.54%								
As 188.979†	1329.0	504.86	ug/L	14.780	504.86	ppb	14.780	2.93%
QC value within limits for As 188.979 Recovery = 100.97%								
B 249.677†	26341.1	511.26	ug/L	2.579	511.26	ppb	2.579	0.50%
QC value within limits for B 249.677 Recovery = 102.25%								
Ba 233.527†	72543.1	492.96	ug/L	0.735	492.96	ppb	0.735	0.15%
QC value within limits for Ba 233.527 Recovery = 98.59%								
Be 313.107†	738023.0	245.89	ug/L	0.316	245.89	ppb	0.316	0.13%
QC value within limits for Be 313.107 Recovery = 98.35%								

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Ca 317.933Radial†     337835.8      471650 ug/L        7423.7      471650 ppb        7423.7   1.57%
   QC value within limits for Ca 317.933Radial  Recovery = 94.33%
Cd 226.502†            50573.3      467.35 ug/L         2.995      467.35 ppb         2.995   0.64%
   QC value within limits for Cd 226.502  Recovery = 93.47%
Co 228.616†            25960.2      447.75 ug/L         3.559      447.75 ppb         3.559   0.79%
   QC value within limits for Co 228.616  Recovery = 89.55%
Cr 267.716†            47469.8      477.47 ug/L         3.943      477.47 ppb         3.943   0.83%
   QC value within limits for Cr 267.716  Recovery = 95.49%
Cu 324.752†           193979.8      551.77 ug/L         1.166      551.77 ppb         1.166   0.21%
   QC value within limits for Cu 324.752  Recovery = 110.35%
Fe 238.204 Radial†     23776.5      188150 ug/L         628.5      188150 ppb         628.5   0.33%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.08%
K 766.490 Radial†      30580.1      5499.2 ug/L         79.70      5499.2 ppb         79.70   1.45%
   QC value within limits for K 766.490 Radial  Recovery = 109.98%
Mg 279.077 IEC†        16207.8      489020 ug/L        1509.9      489020 ppb        1509.9   0.31%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.80%
Mn 257.610†           493223.4      491.25 ug/L         0.398      491.25 ppb         0.398   0.08%
   QC value within limits for Mn 257.610  Recovery = 98.25%
Mo 202.031†             7901.3      487.69 ug/L         4.684      487.69 ppb         4.684   0.96%
   QC value within limits for Mo 202.031  Recovery = 97.54%
Na 589.592 Radial†     19903.7      5439.4 ug/L         20.04      5439.4 ppb         20.04   0.37%
   QC value within limits for Na 589.592 Radial  Recovery = 108.79%
Ni 231.604†            21208.8      456.79 ug/L         2.575      456.79 ppb         2.575   0.56%
   QC value within limits for Ni 231.604  Recovery = 91.36%
P 214.914†              4952.2      2457.9 ug/L         15.71      2457.9 ppb         15.71   0.64%
   QC value within limits for P 214.914  Recovery = 98.31%
Pb 220.353†             3470.7      454.35 ug/L         3.743      454.35 ppb         3.743   0.82%
   QC value within limits for Pb 220.353  Recovery = 90.87%
S 181.975 Axial†        2246.2      2591.3 ug/L         12.83      2591.3 ppb         12.83   0.50%
   QC value within limits for S 181.975 Axial  Recovery = 103.65%
Sb 206.836†             1802.8      527.13 ug/L         5.891      527.13 ppb         5.891   1.12%
   QC value within limits for Sb 206.836  Recovery = 105.43%
Se 196.026†             3456.8      2527.5 ug/L         18.94      2527.5 ppb         18.94   0.75%
   QC value within limits for Se 196.026  Recovery = 101.10%
Si 251.611†           187890.5      5219.0 ug/L         11.51      5219.0 ppb         11.51   0.22%
   QC value within limits for Si 251.611  Recovery = 104.38%
Sn 189.927†             2883.9      473.57 ug/L         6.766      473.57 ppb         6.766   1.43%
   QC value within limits for Sn 189.927  Recovery = 94.71%
Sr 421.552†            88912.5      502.90 ug/L         8.903      502.90 ppb         8.903   1.77%
   QC value within limits for Sr 421.552  Recovery = 100.58%
Ti 334.940†           334898.3      506.51 ug/L         0.343      506.51 ppb         0.343   0.07%
   QC value within limits for Ti 334.940  Recovery = 101.30%
Tl 190.801†             1740.4      461.05 ug/L         5.716      461.05 ppb         5.716   1.24%
   QC value within limits for Tl 190.801  Recovery = 92.21%
U 409.014†             18690.7      494.19 ug/L         2.560      494.19 ppb         2.560   0.52%
   QC value within limits for U 409.014  Recovery = 98.84%
V 292.402†             82930.1      510.11 ug/L         0.329      510.11 ppb         0.329   0.06%
   QC value within limits for V 292.402  Recovery = 102.02%
Zn 213.857†            63916.2      485.43 ug/L         3.555      485.43 ppb         3.555   0.73%
   QC value within limits for Zn 213.857  Recovery = 97.09%
SiO2†                 186108.3       11101 ug/L          13.1       11101 ppb          13.1   0.12%
   QC value within limits for SiO2  Recovery = 103.80%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 12/20/2009 09:31:48
Data Type: Reprocessed on 12/20/2009 10:23:37

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	769341.1	769341.1	85.537	%			09:34:14
1	Sc Radial	4860.0	4860.0	87.0	%			09:33:45
1	Y 371.029	620229.0	620229.0	83.488	%			09:34:14
1	Y RADIAL	5050.3	5050.3	86.16	%			09:33:45
1	Ag 328.068†	-25045.9	-29680.1	-1.5500	ug/L	-1.5500	ppb	09:34:14
1	Al 396.153Radial†	632428.8	727121.0	510720	ug/L	510720	ppb	09:33:40
1	As 188.979†	-228.8	-240.1	-18.618	ug/L	-18.618	ppb	09:34:34
1	B 249.677†	1967.7	1835.4	-19.918	ug/L	-19.918	ppb	09:34:14
1	Ba 233.527†	-1802.7	-2098.9	-3.1324	ug/L	-3.1324	ppb	09:34:34
1	Be 313.107†	-11553.5	-8911.9	-2.9808	ug/L	-2.9808	ppb	09:34:14
1	Ca 317.933Radial†	294605.3	338691.8	472840	ug/L	472840	ppb	09:33:40
1	Cd 226.502†	3652.2	4495.5	-0.0264	ug/L	-0.0264	ppb	09:34:34
1	Co 228.616†	205.0	324.3	-0.6204	ug/L	-0.6204	ppb	09:34:34
1	Cr 267.716†	0.3	-98.9	2.0459	ug/L	2.0459	ppb	09:34:34
1	Cu 324.752†	-343.3	-6488.4	3.9171	ug/L	3.9171	ppb	09:34:14
1	Fe 238.204 Radial†	47527.7	54631.7	432290	ug/L	432290	ppb	09:33:45
1	K 766.490 Radial†	2964.1	535.4	-101.63	ug/L	-101.63	ppb	09:33:40
1	Mg 279.077 IEC†	13667.6	15711.5	473820	ug/L	473820	ppb	09:33:45
1	Mn 257.610†	-27112.7	-32188.5	2.8514	ug/L	2.8514	ppb	09:34:14
1	Mo 202.031†	-535.9	-652.0	2.6796	ug/L	2.6796	ppb	09:34:14
1	Na 589.592 Radial†	1602651.5	1843839.6	503890	ug/L	503890	ppb	09:33:40
1	Ni 231.604†	299.0	247.2	5.3246	ug/L	5.3246	ppb	09:34:34
1	P 214.914†	643.1	496.6	78.999	ug/L	78.999	ppb	09:34:34
1	Pb 220.353†	-708.4	-750.3	2.2685	ug/L	2.2685	ppb	09:34:34
1	S 181.975 Axial†	107.4	66.9	-20.354	ug/L	-20.354	ppb	09:34:34
1	Sb 206.836†	77.8	48.5	5.4237	ug/L	5.4237	ppb	09:34:34
1	Se 196.026†	-2639.8	-3057.4	-181.83	ug/L	-181.83	ppb	09:34:34
1	Si 251.611†	-551.3	-1304.3	-35.444	ug/L	-35.444	ppb	09:34:34
1	Sn 189.927†	-413.8	-485.6	-15.869	ug/L	-15.869	ppb	09:34:34
1	Sr 421.552†	810.3	926.0	0.9002	ug/L	0.9002	ppb	09:33:45
1	Ti 334.940†	-8229.5	-8150.9	6.4129	ug/L	6.4129	ppb	09:34:14
1	Tl 190.801†	-111.6	-84.7	-7.9934	ug/L	-7.9934	ppb	09:34:34
1	U 409.014†	452369.6	531585.4	14700	ug/L	14700	ppb	09:34:14
1	V 292.402†	2578.9	4483.3	1.1986	ug/L	1.1986	ppb	09:34:14
1	Zn 213.857†	6505.2	6800.2	16.201	ug/L	16.201	ppb	09:34:34
1	SiO2†	-638.2	-1431.1	-83.676	ug/L	-83.676	ppb	09:35:31
2	Sc 361.383	771771.3	771771.3	85.807	%			09:34:39
2	Sc Radial	4927.7	4927.7	88.2	%			09:33:56
2	Y 371.029	622387.2	622387.2	83.778	%			09:34:39
2	Y RADIAL	5173.1	5173.1	88.26	%			09:33:56
2	Ag 328.068†	-25011.1	-29547.4	-0.1508	ug/L	-0.1508	ppb	09:34:39
2	Al 396.153Radial†	631299.7	715850.6	502800	ug/L	502800	ppb	09:33:51
2	As 188.979†	-239.6	-251.7	-22.446	ug/L	-22.446	ppb	09:34:59
2	B 249.677†	1945.6	1802.4	-20.865	ug/L	-20.865	ppb	09:34:39
2	Ba 233.527†	-1883.3	-2186.2	-3.6664	ug/L	-3.6664	ppb	09:34:59
2	Be 313.107†	-11696.9	-9036.5	-3.0237	ug/L	-3.0237	ppb	09:34:39
2	Ca 317.933Radial†	293157.3	332396.2	464050	ug/L	464050	ppb	09:33:51
2	Cd 226.502†	3613.1	4436.5	-0.7984	ug/L	-0.7984	ppb	09:34:59
2	Co 228.616†	215.0	335.3	-0.4633	ug/L	-0.4633	ppb	09:34:59
2	Cr 267.716†	-7.1	-107.5	2.0032	ug/L	2.0032	ppb	09:34:59
2	Cu 324.752†	-440.6	-6600.5	3.7086	ug/L	3.7086	ppb	09:34:39
2	Fe 238.204 Radial†	48418.8	54891.4	434350	ug/L	434350	ppb	09:33:56
2	K 766.490 Radial†	2831.2	338.0	-132.96	ug/L	-132.96	ppb	09:33:51
2	Mg 279.077 IEC†	13994.6	15866.4	478490	ug/L	478490	ppb	09:33:56
2	Mn 257.610†	-27272.3	-32274.7	2.8851	ug/L	2.8851	ppb	09:34:39
2	Mo 202.031†	-568.5	-688.0	0.7359	ug/L	0.7359	ppb	09:34:39
2	Na 589.592 Radial†	1593640.0	1808305.1	494180	ug/L	494180	ppb	09:33:51
2	Ni 231.604†	310.3	259.3	5.5855	ug/L	5.5855	ppb	09:34:59

2	P 214.914†	672.7	528.8	91.095	ug/L	91.095 ppb	09:34:59
2	Pb 220.353†	-666.0	-698.4	5.6361	ug/L	5.6361 ppb	09:34:59
2	S 181.975 Axial†	121.3	82.6	0.0822	ug/L	0.0822 ppb	09:34:59
2	Sb 206.836†	54.1	20.7	-2.5719	ug/L	-2.5719 ppb	09:34:59
2	Se 196.026†	-2638.6	-3046.2	-170.83	ug/L	-170.83 ppb	09:34:59
2	Si 251.611†	-581.2	-1337.2	-36.311	ug/L	-36.311 ppb	09:34:59
2	Sn 189.927†	-411.8	-481.7	-16.198	ug/L	-16.198 ppb	09:34:59
2	Sr 421.552†	802.0	903.8	0.8553	ug/L	0.8553 ppb	09:33:56
2	Ti 334.940†	-8734.4	-8709.0	5.1592	ug/L	5.1592 ppb	09:34:39
2	Tl 190.801†	-116.2	-89.7	-9.4799	ug/L	-9.4799 ppb	09:34:59
2	U 409.014†	453201.7	530889.8	14681	ug/L	14681 ppb	09:34:39
2	V 292.402†	2617.9	4519.3	1.1501	ug/L	1.1501 ppb	09:34:39
2	Zn 213.857†	6528.0	6802.8	15.954	ug/L	15.954 ppb	09:34:59
2	SiO2†	-624.1	-1412.3	-82.449	ug/L	-82.449 ppb	09:35:36
3	Sc 361.383	768499.4	768499.4	85.444	%		09:35:05
3	Sc Radial	4832.5	4832.5	86.5	%		09:34:06
3	Y 371.029	620371.6	620371.6	83.507	%		09:35:05
3	Y RADIAL	5082.1	5082.1	86.70	%		09:34:06
3	Ag 328.068†	-24822.0	-29450.1	1.0397	ug/L	1.0397 ppb	09:35:05
3	Al 396.153Radial†	634118.9	733203.5	514990	ug/L	514990 ppb	09:34:01
3	As 188.979†	-206.1	-213.7	-8.5120	ug/L	-8.5120 ppb	09:35:25
3	B 249.677†	1758.9	1593.5	-25.506	ug/L	-25.506 ppb	09:35:05
3	Ba 233.527†	-1854.9	-2162.3	-3.4351	ug/L	-3.4351 ppb	09:35:25
3	Be 313.107†	-11595.1	-8975.4	-3.0040	ug/L	-3.0040 ppb	09:35:05
3	Ca 317.933Radial†	294908.7	340965.8	476020	ug/L	476020 ppb	09:34:01
3	Cd 226.502†	3627.1	4470.8	-0.7547	ug/L	-0.7547 ppb	09:35:25
3	Co 228.616†	197.5	315.9	-0.8332	ug/L	-0.8332 ppb	09:35:25
3	Cr 267.716†	-10.4	-111.4	2.0132	ug/L	2.0132 ppb	09:35:25
3	Cu 324.752†	-453.5	-6617.8	3.8063	ug/L	3.8063 ppb	09:35:05
3	Fe 238.204 Radial†	47797.0	55253.3	437210	ug/L	437210 ppb	09:34:06
3	K 766.490 Radial†	2919.3	503.0	-109.47	ug/L	-109.47 ppb	09:34:01
3	Mg 279.077 IEC†	13828.8	15987.1	482130	ug/L	482130 ppb	09:34:06
3	Mn 257.610†	-27540.9	-32724.3	2.6639	ug/L	2.6639 ppb	09:35:05
3	Mo 202.031†	-526.5	-641.7	3.7626	ug/L	3.7626 ppb	09:35:05
3	Na 589.592 Radial†	1609931.6	1862718.8	509050	ug/L	509050 ppb	09:34:01
3	Ni 231.604†	325.9	279.2	6.0139	ug/L	6.0139 ppb	09:35:25
3	P 214.914†	661.8	519.3	88.017	ug/L	88.017 ppb	09:35:25
3	Pb 220.353†	-683.7	-722.3	5.6935	ug/L	5.6935 ppb	09:35:25
3	S 181.975 Axial†	121.4	83.3	-1.5016	ug/L	-1.5016 ppb	09:35:25
3	Sb 206.836†	74.1	44.3	4.0890	ug/L	4.0890 ppb	09:35:25
3	Se 196.026†	-2649.1	-3071.7	-173.24	ug/L	-173.24 ppb	09:35:25
3	Si 251.611†	-623.7	-1389.8	-37.818	ug/L	-37.818 ppb	09:35:25
3	Sn 189.927†	-441.2	-518.2	-20.239	ug/L	-20.239 ppb	09:35:25
3	Sr 421.552†	804.6	924.7	0.8635	ug/L	0.8635 ppb	09:34:06
3	Ti 334.940†	-8865.5	-8905.8	5.4981	ug/L	5.4981 ppb	09:35:05
3	Tl 190.801†	-130.9	-107.5	-13.693	ug/L	-13.693 ppb	09:35:25
3	U 409.014†	451403.0	531033.3	14684	ug/L	14684 ppb	09:35:05
3	V 292.402†	2513.6	4410.3	0.1596	ug/L	0.1596 ppb	09:35:05
3	Zn 213.857†	6520.9	6826.9	15.873	ug/L	15.873 ppb	09:35:25
3	SiO2†	-695.4	-1498.8	-87.711	ug/L	-87.711 ppb	09:35:41

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	769870.6	85.596	%	0.1889				0.22%
Sc Radial	4873.4	87.2	%	0.88				1.00%
Y 371.029	620995.9	83.591	%	0.1625				0.19%
Y RADIAL	5101.8	87.04	%	1.088				1.25%
Ag 328.068†	-29559.2	-0.2204	ug/L	1.29624	-0.2204	ppb	1.29624	588.20%
Al 396.153Radial†	725391.7	509500	ug/L	6184.2	509500	ppb	6184.2	1.21%
QC value within limits for Al 396.153Radial Recovery = 101.90%								
As 188.979†	-235.2	-16.526	ug/L	7.1990	-16.526	ppb	7.1990	43.56%
B 249.677†	1743.8	-22.096	ug/L	2.9902	-22.096	ppb	2.9902	13.53%
Ba 233.527†	-2149.2	-3.4113	ug/L	0.26780	-3.4113	ppb	0.26780	7.85%
Be 313.107†	-8974.6	-3.0028	ug/L	0.02148	-3.0028	ppb	0.02148	0.72%
Ca 317.933Radial†	337351.3	470970	ug/L	6197.6	470970	ppb	6197.6	1.32%
QC value within limits for Ca 317.933Radial Recovery = 94.19%								
Cd 226.502†	4467.6	-0.5265	ug/L	0.43367	-0.5265	ppb	0.43367	82.37%
Co 228.616†	325.2	-0.6390	ug/L	0.18561	-0.6390	ppb	0.18561	29.05%
Cr 267.716†	-105.9	2.0208	ug/L	0.02234	2.0208	ppb	0.02234	1.11%

Cu 324.752†	-6568.9	3.8107	ug/L	0.10429	3.8107	ppb	0.10429	2.74%
Fe 238.204 Radial†	54925.5	434620	ug/L	2470.3	434620	ppb	2470.3	0.57%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 86.92%								
K 766.490 Radial†	458.8	-114.69	ug/L	16.305	-114.69	ppb	16.305	14.22%
Mg 279.077 IEC†	15855.0	478150	ug/L	4166.7	478150	ppb	4166.7	0.87%
QC value within limits for Mg 279.077 IEC Recovery = 95.63%								
Mn 257.610†	-32395.8	2.8001	ug/L	0.11919	2.8001	ppb	0.11919	4.26%
Mo 202.031†	-660.6	2.3927	ug/L	1.53357	2.3927	ppb	1.53357	64.09%
Na 589.592 Radial†	1838287.8	502370	ug/L	7550.4	502370	ppb	7550.4	1.50%
QC value within limits for Na 589.592 Radial Recovery = 100.47%								
Ni 231.604†	261.9	5.6414	ug/L	0.34803	5.6414	ppb	0.34803	6.17%
P 214.914†	514.9	86.037	ug/L	6.2861	86.037	ppb	6.2861	7.31%
Pb 220.353†	-723.7	4.5327	ug/L	1.96110	4.5327	ppb	1.96110	43.27%
S 181.975 Axial†	77.6	-7.2579	ug/L	11.36942	-7.2579	ppb	11.36942	156.65%
Sb 206.836†	37.8	2.3136	ug/L	4.28323	2.3136	ppb	4.28323	185.13%
Se 196.026†	-3058.4	-175.30	ug/L	5.780	-175.30	ppb	5.780	3.30%
Si 251.611†	-1343.8	-36.524	ug/L	1.2012	-36.524	ppb	1.2012	3.29%
Sn 189.927†	-495.2	-17.435	ug/L	2.4340	-17.435	ppb	2.4340	13.96%
Sr 421.552†	918.2	0.8730	ug/L	0.02392	0.8730	ppb	0.02392	2.74%
Ti 334.940†	-8588.6	5.6901	ug/L	0.64851	5.6901	ppb	0.64851	11.40%
Tl 190.801†	-93.9	-10.389	ug/L	2.9564	-10.389	ppb	2.9564	28.46%
U 409.014†	531169.5	14688	ug/L	10.4	14688	ppb	10.4	0.07%
QC value within limits for U 409.014 Recovery = 97.92%								
V 292.402†	4471.0	0.8361	ug/L	0.58637	0.8361	ppb	0.58637	70.13%
Zn 213.857†	6810.0	16.009	ug/L	0.1708	16.009	ppb	0.1708	1.07%
SiO2†	-1447.4	-84.612	ug/L	2.7531	-84.612	ppb	2.7531	3.25%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 12/20/2009 09:37:50
Data Type: Reprocessed on 12/20/2009 10:23:39

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	876452.1	876452.1	97.446	%			09:41:25
1	Sc Radial	5415.2	5415.2	96.9	%			09:39:48
1	Y 371.029	703674.5	703674.5	94.720	%			09:41:25
1	Y RADIAL	5607.5	5607.5	95.67	%			09:39:48
1	Ag 328.068†	-8046.4	-8656.6	2.1638	ug/L	2.1638	ppb	09:41:30
1	Al 396.153Radial†	644.2	678.0	65.488	ug/L	65.488	ppb	09:39:48
1	As 188.979†	26953.0	27686.8	9922.8	ug/L	9922.8	ppb	09:41:30
1	B 249.677†	240043.6	245869.8	4992.6	ug/L	4992.6	ppb	09:41:25
1	Ba 233.527†	2038049.6	2091472.6	14064	ug/L	14064	ppb	09:41:25
1	Be 313.107†	8404037.0	8628889.8	2883.0	ug/L	2883.0	ppb	09:41:19
1	Ca 317.933Radial†	35.8	19.1	26.666	ug/L	26.666	ppb	09:40:08
1	Cd 226.502†	982874.9	1008860.4	9698.6	ug/L	9698.6	ppb	09:41:25
1	Co 228.616†	513129.1	526662.2	9134.6	ug/L	9134.6	ppb	09:41:30
1	Cr 267.716†	2336498.5	2397635.6	23926	ug/L	23926	ppb	09:41:25
1	Cu 324.752†	6994055.4	7171272.6	20044	ug/L	20044	ppb	09:41:19
1	Fe 238.204 Radial†	-22.6	-34.5	15.086	ug/L	15.086	ppb	09:40:08
1	K 766.490 Radial†	1607232.3	1655516.5	297150	ug/L	297150	ppb	09:39:43
1	Mg 279.077 IEC†	-2.5	-4.8	48.908	ug/L	48.908	ppb	09:40:08
1	Mn 257.610†	9322506.8	9566344.8	9340.8	ug/L	9340.8	ppb	09:41:19
1	Mo 202.031†	157293.4	161390.3	9593.1	ug/L	9593.1	ppb	09:41:30
1	Na 589.592 Radial†	-810.4	423.8	115.82	ug/L	115.82	ppb	09:39:48
1	Ni 231.604†	443313.4	454829.8	9796.4	ug/L	9796.4	ppb	09:41:25
1	P 214.914†	34996.5	35658.5	15063	ug/L	15063	ppb	09:41:30
1	Pb 220.353†	228333.4	234395.5	23992	ug/L	23992	ppb	09:41:30
1	S 181.975 Axial†	41782.3	42818.6	51300	ug/L	51300	ppb	09:41:30
1	Sb 206.836†	34385.6	35244.4	10200	ug/L	10200	ppb	09:41:30
1	Se 196.026†	18150.4	18654.9	9982.0	ug/L	9982.0	ppb	09:41:30
1	Si 251.611†	1665717.0	1708713.2	47268	ug/L	47268	ppb	09:41:25
1	Sn 189.927†	68430.1	70221.7	10271	ug/L	10271	ppb	09:41:30
1	Sr 421.552†	1638604.9	1690754.4	9646.2	ug/L	9646.2	ppb	09:39:43
1	Ti 334.940†	6599746.6	6774186.5	9747.4	ug/L	9747.4	ppb	09:41:19
1	Tl 190.801†	36206.2	37200.9	9553.0	ug/L	9553.0	ppb	09:41:30
1	U 409.014†	-1133.4	1565.3	-2.7024	ug/L	-2.7024	ppb	09:41:30
1	V 292.402†	1548153.7	1590197.0	10101	ug/L	10101	ppb	09:41:25
1	Zn 213.857†	1703841.4	1747691.8	14009	ug/L	14009	ppb	09:41:25
1	SiO2†	1672307.5	1715451.3	101900	ug/L	101900	ppb	09:42:18
2	Sc 361.383	871866.4	871866.4	96.936	%			09:41:45
2	Sc Radial	5471.9	5471.9	97.9	%			09:40:18
2	Y 371.029	700619.0	700619.0	94.309	%			09:41:45
2	Y RADIAL	5690.7	5690.7	97.09	%			09:40:18
2	Ag 328.068†	-7929.3	-8579.3	2.4916	ug/L	2.4916	ppb	09:41:50
2	Al 396.153Radial†	628.2	654.8	47.183	ug/L	47.183	ppb	09:40:18
2	As 188.979†	26972.2	27852.2	9982.5	ug/L	9982.5	ppb	09:41:50
2	B 249.677†	238641.6	245719.1	4989.4	ug/L	4989.4	ppb	09:41:45
2	Ba 233.527†	2026062.8	2090107.2	14055	ug/L	14055	ppb	09:41:45
2	Be 313.107†	8463161.9	8735243.9	2918.5	ug/L	2918.5	ppb	09:41:39
2	Ca 317.933Radial†	38.6	21.5	30.074	ug/L	30.074	ppb	09:40:38
2	Cd 226.502†	975230.1	1006279.0	9673.7	ug/L	9673.7	ppb	09:41:45
2	Co 228.616†	512353.9	528632.1	9168.7	ug/L	9168.7	ppb	09:41:50
2	Cr 267.716†	2321259.5	2394526.1	23895	ug/L	23895	ppb	09:41:45
2	Cu 324.752†	7057334.1	7274301.3	20331	ug/L	20331	ppb	09:41:39
2	Fe 238.204 Radial†	-21.6	-33.2	26.364	ug/L	26.364	ppb	09:40:38
2	K 766.490 Radial†	1609047.6	1640163.2	294390	ug/L	294390	ppb	09:40:13
2	Mg 279.077 IEC†	-5.5	-7.8	-41.468	ug/L	-41.468	ppb	09:40:38
2	Mn 257.610†	9368944.6	9664568.2	9436.7	ug/L	9436.7	ppb	09:41:39
2	Mo 202.031†	157240.7	162184.9	9640.3	ug/L	9640.3	ppb	09:41:50
2	Na 589.592 Radial†	-953.6	286.3	78.232	ug/L	78.232	ppb	09:40:18
2	Ni 231.604†	439827.6	453626.6	9770.4	ug/L	9770.4	ppb	09:41:45

2	P 214.914†	34738.5	35581.2	14979	ug/L	14979 ppb	09:41:50
2	Pb 220.353†	228419.6	235716.9	24127	ug/L	24127 ppb	09:41:50
2	S 181.975 Axial†	41878.7	43143.6	51690	ug/L	51690 ppb	09:41:50
2	Sb 206.836†	34342.1	35385.1	10244	ug/L	10244 ppb	09:41:50
2	Se 196.026†	18184.1	18787.6	10053	ug/L	10053 ppb	09:41:50
2	Si 251.611†	1654215.0	1705838.3	47188	ug/L	47188 ppb	09:41:45
2	Sn 189.927†	68389.1	70548.8	10319	ug/L	10319 ppb	09:41:50
2	Sr 421.552†	1643381.5	1678089.0	9573.9	ug/L	9573.9 ppb	09:40:13
2	Ti 334.940†	6645612.7	6857124.1	9866.8	ug/L	9866.8 ppb	09:41:39
2	Tl 190.801†	36305.4	37498.6	9630.3	ug/L	9630.3 ppb	09:41:50
2	U 409.014†	-1470.9	1211.0	-12.478	ug/L	-12.478 ppb	09:41:50
2	V 292.402†	1539505.3	1589631.3	10098	ug/L	10098 ppb	09:41:45
2	Zn 213.857†	1692031.0	1744704.5	13985	ug/L	13985 ppb	09:41:45
2	SiO2†	1683949.2	1736487.2	103160	ug/L	103160 ppb	09:42:25
3	Sc 361.383	878675.3	878675.3	97.693	%		09:42:05
3	Sc Radial	5384.2	5384.2	96.4	%		09:40:49
3	Y 371.029	706547.9	706547.9	95.107	%		09:42:05
3	Y RADIAL	5605.6	5605.6	95.63	%		09:40:49
3	Ag 328.068†	-7931.2	-8517.8	2.6994	ug/L	2.6994 ppb	09:42:10
3	Al 396.153Radial†	634.1	671.4	65.743	ug/L	65.743 ppb	09:40:49
3	As 188.979†	26620.2	27276.2	9776.3	ug/L	9776.3 ppb	09:42:10
3	B 249.677†	240656.2	245873.6	4992.9	ug/L	4992.9 ppb	09:42:05
3	Ba 233.527†	2037586.0	2085706.3	14026	ug/L	14026 ppb	09:42:05
3	Be 313.107†	8372944.8	8575242.6	2865.0	ug/L	2865.0 ppb	09:41:58
3	Ca 317.933Radial†	36.6	20.1	28.079	ug/L	28.079 ppb	09:41:09
3	Cd 226.502†	980322.0	1003695.2	9648.9	ug/L	9648.9 ppb	09:42:05
3	Co 228.616†	510063.0	522191.4	9057.0	ug/L	9057.0 ppb	09:42:10
3	Cr 267.716†	2334190.1	2389206.0	23842	ug/L	23842 ppb	09:42:05
3	Cu 324.752†	6953351.6	7111447.6	19876	ug/L	19876 ppb	09:41:58
3	Fe 238.204 Radial†	-21.7	-33.7	18.878	ug/L	18.878 ppb	09:41:09
3	K 766.490 Radial†	1569324.1	1625706.2	291800	ug/L	291800 ppb	09:40:44
3	Mg 279.077 IEC†	-2.9	-5.3	32.259	ug/L	32.259 ppb	09:41:09
3	Mn 257.610†	9264347.9	9482606.9	9259.0	ug/L	9259.0 ppb	09:41:58
3	Mo 202.031†	155815.6	159469.2	9478.9	ug/L	9478.9 ppb	09:42:10
3	Na 589.592 Radial†	-933.5	291.3	79.598	ug/L	79.598 ppb	09:40:49
3	Ni 231.604†	442236.6	452576.5	9747.9	ug/L	9747.9 ppb	09:42:05
3	P 214.914†	34355.4	34911.4	14708	ug/L	14708 ppb	09:42:10
3	Pb 220.353†	226811.5	232244.8	23772	ug/L	23772 ppb	09:42:10
3	S 181.975 Axial†	41227.8	42142.5	50490	ug/L	50490 ppb	09:42:10
3	Sb 206.836†	33999.6	34760.0	10055	ug/L	10055 ppb	09:42:10
3	Se 196.026†	17887.2	18338.4	9812.9	ug/L	9812.9 ppb	09:42:10
3	Si 251.611†	1668524.4	1707261.9	47232	ug/L	47232 ppb	09:42:05
3	Sn 189.927†	67767.2	69365.5	10145	ug/L	10145 ppb	09:42:10
3	Sr 421.552†	1595531.9	1655770.3	9446.6	ug/L	9446.6 ppb	09:40:44
3	Ti 334.940†	6563586.8	6720036.8	9669.4	ug/L	9669.4 ppb	09:41:58
3	Tl 190.801†	35983.4	36878.8	9470.2	ug/L	9470.2 ppb	09:42:10
3	U 409.014†	-1510.5	1182.2	-13.175	ug/L	-13.175 ppb	09:42:10
3	V 292.402†	1549399.8	1587452.8	10083	ug/L	10083 ppb	09:42:05
3	Zn 213.857†	1701395.2	1740763.8	13953	ug/L	13953 ppb	09:42:05
3	SiO2†	1669346.9	1708078.7	101470	ug/L	101470 ppb	09:42:32

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	875664.6	97.359	%	0.3860				0.40%
Sc Radial	5423.8	97.1	%	0.80				0.82%
Y 371.029	703613.8	94.712	%	0.3991				0.42%
Y RADIAL	5634.6	96.13	%	0.829				0.86%
Ag 328.068†	-8584.6	2.4516	ug/L	0.27002	2.4516	ppb	0.27002	11.01%
Al 396.153Radial†	668.0	59.471	ug/L	10.6428	59.471	ppb	10.6428	17.90%
As 188.979†	27605.1	9893.9	ug/L	106.10	9893.9	ppb	106.10	1.07%
QC value within limits for As 188.979 Recovery = 98.94%								
B 249.677†	245820.8	4991.6	ug/L	1.91	4991.6	ppb	1.91	0.04%
QC value within limits for B 249.677 Recovery = 99.83%								
Ba 233.527†	2089095.3	14048	ug/L	20.3	14048	ppb	20.3	0.14%
QC value within limits for Ba 233.527 Recovery = 93.66%								
Be 313.107†	8646458.8	2888.8	ug/L	27.22	2888.8	ppb	27.22	0.94%
QC value within limits for Be 313.107 Recovery = 96.29%								
Ca 317.933Radial†	20.3	28.273	ug/L	1.7123	28.273	ppb	1.7123	6.06%
Cd 226.502†	1006278.2	9673.7	ug/L	24.83	9673.7	ppb	24.83	0.26%

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   QC value within limits for Cd 226.502  Recovery = 96.74%
Co 228.616†          525828.6      9120.1 ug/L        57.25      9120.1 ppb        57.25   0.63%
   QC value within limits for Co 228.616  Recovery = 91.20%
Cr 267.716†         2393789.2       23888 ug/L         42.5       23888 ppb         42.5   0.18%
   QC value within limits for Cr 267.716  Recovery = 95.55%
Cu 324.752†         7185673.9       20084 ug/L        230.2       20084 ppb        230.2   1.15%
   QC value within limits for Cu 324.752  Recovery = 100.42%
Fe 238.204 Radial†       -33.8      20.109 ug/L       5.7393      20.109 ppb       5.7393  28.54%
K 766.490 Radial†   1640462.0      294450 ug/L       2676.2      294450 ppb       2676.2   0.91%
   QC value within limits for K 766.490 Radial  Recovery = 98.15%
Mg 279.077 IEC†          -6.0      13.233 ug/L      48.0985      13.233 ppb      48.0985 363.47%
Mn 257.610†         9571173.3      9345.5 ug/L        88.93      9345.5 ppb        88.93   0.95%
   QC value within limits for Mn 257.610  Recovery = 93.46%
Mo 202.031†          161014.8      9570.7 ug/L        82.99      9570.7 ppb        82.99   0.87%
   QC value within limits for Mo 202.031  Recovery = 95.71%
Na 589.592 Radial†       333.8      91.215 ug/L      21.3155      91.215 ppb      21.3155  23.37%
Ni 231.604†          453677.6      9771.5 ug/L        24.28      9771.5 ppb        24.28   0.25%
   QC value within limits for Ni 231.604  Recovery = 97.72%
P 214.914†            35383.7       14917 ug/L        185.3       14917 ppb        185.3   1.24%
   QC value within limits for P 214.914  Recovery = 99.45%
Pb 220.353†          234119.1       23964 ug/L        179.3       23964 ppb        179.3   0.75%
   QC value within limits for Pb 220.353  Recovery = 95.85%
S 181.975 Axial†      42701.6       51160 ug/L        611.8       51160 ppb        611.8   1.20%
   QC value within limits for S 181.975 Axial  Recovery = 102.32%
Sb 206.836†           35129.9       10166 ug/L         99.1       10166 ppb         99.1   0.97%
   QC value within limits for Sb 206.836  Recovery = 101.66%
Se 196.026†           18593.6      9949.3 ug/L       123.40      9949.3 ppb       123.40   1.24%
   QC value within limits for Se 196.026  Recovery = 99.49%
Si 251.611†         1707271.2       47229 ug/L         40.1       47229 ppb         40.1   0.08%
   QC value within limits for Si 251.611  Recovery = 94.46%
Sn 189.927†           70045.3       10245 ug/L         89.4       10245 ppb         89.4   0.87%
   QC value within limits for Sn 189.927  Recovery = 102.45%
Sr 421.552†         1674871.3      9555.6 ug/L       101.05      9555.6 ppb       101.05   1.06%
   QC value within limits for Sr 421.552  Recovery = 95.56%
Ti 334.940†         6783782.5      9761.2 ug/L        99.43      9761.2 ppb        99.43   1.02%
   QC value within limits for Ti 334.940  Recovery = 97.61%
Tl 190.801†           37192.8      9551.2 ug/L        80.07      9551.2 ppb        80.07   0.84%
   QC value within limits for Tl 190.801  Recovery = 95.51%
U 409.014†             1319.5     -9.4517 ug/L      5.85549     -9.4517 ppb      5.85549  61.95%
V 292.402†          1589093.7       10094 ug/L         10.1       10094 ppb         10.1   0.10%
   QC value within limits for V 292.402  Recovery = 100.94%
Zn 213.857†         1744386.7       13982 ug/L         27.8       13982 ppb         27.8   0.20%
   QC value within limits for Zn 213.857  Recovery = 93.22%
SiO2†               1720005.7      102170 ug/L        877.5      102170 ppb        877.5   0.86%
   QC value within limits for SiO2  Recovery = 95.49%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/20/2009 09:44:42
Data Type: Reprocessed on 12/20/2009 10:23:40

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	911610.1	911610.1	101.36	%			09:47:53
1	Sc Radial	5589.4	5589.4	100	%			09:46:34
1	Y 371.029	738495.6	738495.6	99.407	%			09:47:53
1	Y RADIAL	5782.0	5782.0	98.64	%			09:46:34
1	Ag 328.068†	116242.2	114288.8	490.72	ug/L	490.72	ppb	09:47:53
1	Al 396.153Radial†	6849.8	6860.8	4797.8	ug/L	4797.8	ppb	09:46:34
1	As 188.979†	1424.0	1432.4	513.40	ug/L	513.40	ppb	09:48:14
1	B 249.677†	25924.6	25113.0	510.39	ug/L	510.39	ppb	09:47:53
1	Ba 233.527†	74615.7	73626.8	495.56	ug/L	495.56	ppb	09:47:53
1	Be 313.107†	1504824.3	1489301.1	495.24	ug/L	495.24	ppb	09:47:53
1	Ca 317.933Radial†	3535.4	3516.3	4909.1	ug/L	4909.1	ppb	09:46:54
1	Cd 226.502†	52113.4	51642.4	495.94	ug/L	495.94	ppb	09:47:53
1	Co 228.616†	28553.2	28256.2	490.21	ug/L	490.21	ppb	09:48:14
1	Cr 267.716†	50279.6	49508.3	494.49	ug/L	494.49	ppb	09:47:53
1	Cu 324.752†	184722.2	176165.6	492.64	ug/L	492.64	ppb	09:47:53
1	Fe 238.204 Radial†	652.5	641.0	5087.8	ug/L	5087.8	ppb	09:46:54
1	K 766.490 Radial†	30797.7	27914.9	5003.3	ug/L	5003.3	ppb	09:46:34
1	Mg 279.077 IEC†	175.0	172.6	5216.3	ug/L	5216.3	ppb	09:46:54
1	Mn 257.610†	514710.5	507337.7	495.79	ug/L	495.79	ppb	09:47:53
1	Mo 202.031†	8408.7	8270.7	492.10	ug/L	492.10	ppb	09:48:14
1	Na 589.592 Radial†	34656.7	35904.9	9812.2	ug/L	9812.2	ppb	09:46:34
1	Ni 231.604†	23215.9	22803.3	491.13	ug/L	491.13	ppb	09:48:14
1	P 214.914†	5139.2	4815.3	2374.5	ug/L	2374.5	ppb	09:48:14
1	Pb 220.353†	4818.1	4831.5	495.86	ug/L	495.86	ppb	09:48:14
1	S 181.975 Axial†	880.2	809.7	969.11	ug/L	969.11	ppb	09:48:14
1	Sb 206.836†	1745.4	1679.6	502.72	ug/L	502.72	ppb	09:48:14
1	Se 196.026†	906.9	923.5	511.06	ug/L	511.06	ppb	09:48:14
1	Si 251.611†	90345.6	88477.9	2451.2	ug/L	2451.2	ppb	09:47:53
1	Sn 189.927†	3427.1	3379.5	494.87	ug/L	494.87	ppb	09:48:14
1	Sr 421.552†	86211.5	86176.7	491.61	ug/L	491.61	ppb	09:46:34
1	Ti 334.940†	343480.9	340358.9	490.04	ug/L	490.04	ppb	09:47:53
1	Tl 190.801†	1930.9	1950.8	500.98	ug/L	500.98	ppb	09:48:14
1	U 409.014†	14652.5	17184.9	475.39	ug/L	475.39	ppb	09:47:53
1	V 292.402†	77686.3	78116.2	497.03	ug/L	497.03	ppb	09:47:53
1	Zn 213.857†	63093.4	61445.0	491.39	ug/L	491.39	ppb	09:47:53
1	SiO2†	90305.3	88413.0	5259.7	ug/L	5259.7	ppb	09:49:14
2	Sc 361.383	912438.6	912438.6	101.45	%			09:48:21
2	Sc Radial	5534.1	5534.1	99.0	%			09:46:59
2	Y 371.029	739731.1	739731.1	99.573	%			09:48:21
2	Y RADIAL	5761.3	5761.3	98.29	%			09:46:59
2	Ag 328.068†	116558.1	114496.0	491.61	ug/L	491.61	ppb	09:48:21
2	Al 396.153Radial†	6792.7	6871.6	4805.5	ug/L	4805.5	ppb	09:46:59
2	As 188.979†	1408.9	1416.3	507.68	ug/L	507.68	ppb	09:48:41
2	B 249.677†	25923.7	25088.9	509.90	ug/L	509.90	ppb	09:48:21
2	Ba 233.527†	74544.5	73489.7	494.63	ug/L	494.63	ppb	09:48:21
2	Be 313.107†	1504609.5	1487741.3	494.72	ug/L	494.72	ppb	09:48:21
2	Ca 317.933Radial†	3502.6	3518.6	4912.2	ug/L	4912.2	ppb	09:47:20
2	Cd 226.502†	52135.8	51617.9	495.71	ug/L	495.71	ppb	09:48:21
2	Co 228.616†	28400.7	28080.3	487.16	ug/L	487.16	ppb	09:48:41
2	Cr 267.716†	50247.2	49431.2	493.72	ug/L	493.72	ppb	09:48:21
2	Cu 324.752†	185055.9	176329.1	493.09	ug/L	493.09	ppb	09:48:21
2	Fe 238.204 Radial†	646.6	641.7	5092.8	ug/L	5092.8	ppb	09:47:20
2	K 766.490 Radial†	30516.3	27938.5	5007.6	ug/L	5007.6	ppb	09:46:59
2	Mg 279.077 IEC†	170.5	169.9	5132.1	ug/L	5132.1	ppb	09:47:20
2	Mn 257.610†	514453.7	506623.5	495.09	ug/L	495.09	ppb	09:48:21
2	Mo 202.031†	8370.6	8225.6	489.42	ug/L	489.42	ppb	09:48:41
2	Na 589.592 Radial†	34140.9	35730.5	9764.6	ug/L	9764.6	ppb	09:46:59
2	Ni 231.604†	23121.2	22689.1	488.67	ug/L	488.67	ppb	09:48:41

2	P 214.914†	5109.0	4780.9	2356.8 ug/L	2356.8 ppb		09:48:41
2	Pb 220.353†	4815.0	4824.1	495.10 ug/L	495.10 ppb		09:48:41
2	S 181.975 Axial†	883.6	812.3	972.22 ug/L	972.22 ppb		09:48:41
2	Sb 206.836†	1732.0	1664.9	498.23 ug/L	498.23 ppb		09:48:41
2	Se 196.026†	895.9	911.9	504.87 ug/L	504.87 ppb		09:48:41
2	Si 251.611†	90251.9	88304.6	2446.4 ug/L	2446.4 ppb		09:48:21
2	Sn 189.927†	3390.6	3340.4	489.15 ug/L	489.15 ppb		09:48:41
2	Sr 421.552†	85286.8	86104.5	491.20 ug/L	491.20 ppb		09:46:59
2	Ti 334.940†	343539.0	340108.5	489.68 ug/L	489.68 ppb		09:48:21
2	Tl 190.801†	1927.4	1945.7	499.68 ug/L	499.68 ppb		09:48:41
2	U 409.014†	14508.3	17029.7	471.08 ug/L	471.08 ppb		09:48:21
2	V 292.402†	77661.2	78021.8	496.39 ug/L	496.39 ppb		09:48:21
2	Zn 213.857†	63023.3	61319.4	490.40 ug/L	490.40 ppb		09:48:21
2	SiO2†	90392.3	88417.9	5260.2 ug/L	5260.2 ppb		09:49:19
3	Sc 361.383	912856.7	912856.7	101.49 %			09:48:48
3	Sc Radial	5584.1	5584.1	99.9 %			09:47:25
3	Y 371.029	739901.0	739901.0	99.596 %			09:48:48
3	Y RADIAL	5842.7	5842.7	99.68 %			09:47:25
3	Ag 328.068†	116278.7	114168.1	490.21 ug/L	490.21 ppb		09:48:48
3	Al 396.153Radial†	6890.1	6907.6	4830.8 ug/L	4830.8 ppb		09:47:25
3	As 188.979†	1415.2	1421.9	509.65 ug/L	509.65 ppb		09:49:08
3	B 249.677†	25873.7	25027.9	508.66 ug/L	508.66 ppb		09:48:48
3	Ba 233.527†	74489.0	73401.4	494.04 ug/L	494.04 ppb		09:48:48
3	Be 313.107†	1507975.0	1490378.0	495.59 ug/L	495.59 ppb		09:48:48
3	Ca 317.933Radial†	3515.0	3499.3	4885.3 ug/L	4885.3 ppb		09:47:45
3	Cd 226.502†	52041.3	51501.2	494.59 ug/L	494.59 ppb		09:48:48
3	Co 228.616†	28467.2	28133.0	488.08 ug/L	488.08 ppb		09:49:08
3	Cr 267.716†	50212.1	49374.0	493.15 ug/L	493.15 ppb		09:48:48
3	Cu 324.752†	185167.3	176355.3	493.17 ug/L	493.17 ppb		09:48:48
3	Fe 238.204 Radial†	650.6	639.8	5078.1 ug/L	5078.1 ppb		09:47:45
3	K 766.490 Radial†	31075.7	28222.4	5058.5 ug/L	5058.5 ppb		09:47:25
3	Mg 279.077 IEC†	173.0	170.8	5161.1 ug/L	5161.1 ppb		09:47:45
3	Mn 257.610†	514063.7	506007.0	494.49 ug/L	494.49 ppb		09:48:48
3	Mo 202.031†	8404.1	8254.9	491.16 ug/L	491.16 ppb		09:49:08
3	Na 589.592 Radial†	34671.6	35952.9	9825.3 ug/L	9825.3 ppb		09:47:25
3	Ni 231.604†	23189.6	22746.1	489.90 ug/L	489.90 ppb		09:49:08
3	P 214.914†	5136.7	4805.9	2369.5 ug/L	2369.5 ppb		09:49:08
3	Pb 220.353†	4793.0	4800.2	492.66 ug/L	492.66 ppb		09:49:08
3	S 181.975 Axial†	883.7	812.0	971.84 ug/L	971.84 ppb		09:49:08
3	Sb 206.836†	1733.8	1665.9	498.61 ug/L	498.61 ppb		09:49:08
3	Se 196.026†	902.5	918.0	508.06 ug/L	508.06 ppb		09:49:08
3	Si 251.611†	90344.8	88355.4	2447.8 ug/L	2447.8 ppb		09:48:48
3	Sn 189.927†	3401.1	3349.2	490.44 ug/L	490.44 ppb		09:49:08
3	Sr 421.552†	86553.0	86600.5	494.03 ug/L	494.03 ppb		09:47:25
3	Ti 334.940†	343473.2	339888.6	489.36 ug/L	489.36 ppb		09:48:48
3	Tl 190.801†	1918.9	1936.5	497.31 ug/L	497.31 ppb		09:49:08
3	U 409.014†	14570.1	17084.0	472.59 ug/L	472.59 ppb		09:48:48
3	V 292.402†	77772.0	78095.9	496.89 ug/L	496.89 ppb		09:48:48
3	Zn 213.857†	62948.5	61217.3	489.57 ug/L	489.57 ppb		09:48:48
3	SiO2†	89374.7	87374.5	5197.7 ug/L	5197.7 ppb		09:49:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	912301.8	101.43	%	0.071				0.07%
Sc Radial	5569.2	99.7	%	0.55				0.55%
Y 371.029	739375.9	99.526	%	0.1033				0.10%
Y RADIAL	5795.3	98.87	%	0.721				0.73%
Ag 328.068†	114317.6	490.85	ug/L	0.710	490.85	ppb	0.710	0.14%
QC value within limits for Ag 328.068 Recovery = 98.17%								
Al 396.153Radial†	6880.0	4811.4	ug/L	17.23	4811.4	ppb	17.23	0.36%
QC value within limits for Al 396.153Radial Recovery = 96.23%								
As 188.979†	1423.5	510.24	ug/L	2.902	510.24	ppb	2.902	0.57%
QC value within limits for As 188.979 Recovery = 102.05%								
B 249.677†	25076.6	509.65	ug/L	0.891	509.65	ppb	0.891	0.17%
QC value within limits for B 249.677 Recovery = 101.93%								
Ba 233.527†	73506.0	494.74	ug/L	0.763	494.74	ppb	0.763	0.15%
QC value within limits for Ba 233.527 Recovery = 98.95%								
Be 313.107†	1489140.2	495.18	ug/L	0.440	495.18	ppb	0.440	0.09%
QC value within limits for Be 313.107 Recovery = 99.04%								

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Ca 317.933Radial†        3511.4      4902.2 ug/L        14.72      4902.2 ppb        14.72   0.30%
   QC value within limits for Ca 317.933Radial  Recovery = 98.04%
Cd 226.502†             51587.2      495.41 ug/L        0.724      495.41 ppb        0.724   0.15%
   QC value within limits for Cd 226.502  Recovery = 99.08%
Co 228.616†             28156.5      488.48 ug/L        1.568      488.48 ppb        1.568   0.32%
   QC value within limits for Co 228.616  Recovery = 97.70%
Cr 267.716†             49437.8      493.78 ug/L        0.672      493.78 ppb        0.672   0.14%
   QC value within limits for Cr 267.716  Recovery = 98.76%
Cu 324.752†            176283.3      492.97 ug/L        0.287      492.97 ppb        0.287   0.06%
   QC value within limits for Cu 324.752  Recovery = 98.59%
Fe 238.204 Radial†        640.8      5086.2 ug/L         7.49      5086.2 ppb         7.49   0.15%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.72%
K 766.490 Radial†       28025.2      5023.1 ug/L        30.73      5023.1 ppb        30.73   0.61%
   QC value within limits for K 766.490 Radial  Recovery = 100.46%
Mg 279.077 IEC†           171.1      5169.9 ug/L        42.80      5169.9 ppb        42.80   0.83%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.40%
Mn 257.610†            506656.1      495.12 ug/L        0.650      495.12 ppb        0.650   0.13%
   QC value within limits for Mn 257.610  Recovery = 99.02%
Mo 202.031†              8250.4      490.89 ug/L        1.359      490.89 ppb        1.359   0.28%
   QC value within limits for Mo 202.031  Recovery = 98.18%
Na 589.592 Radial†      35862.8      9800.7 ug/L        31.99      9800.7 ppb        31.99   0.33%
   QC value within limits for Na 589.592 Radial  Recovery = 98.01%
Ni 231.604†             22746.2      489.90 ug/L        1.229      489.90 ppb        1.229   0.25%
   QC value within limits for Ni 231.604  Recovery = 97.98%
P 214.914†               4800.7      2366.9 ug/L         9.11      2366.9 ppb         9.11   0.38%
   QC value within limits for P 214.914  Recovery = 94.68%
Pb 220.353†              4818.6      494.54 ug/L        1.669      494.54 ppb        1.669   0.34%
   QC value within limits for Pb 220.353  Recovery = 98.91%
S 181.975 Axial†          811.3      971.06 ug/L        1.694      971.06 ppb        1.694   0.17%
   QC value within limits for S 181.975 Axial  Recovery = 97.11%
Sb 206.836†              1670.2      499.85 ug/L        2.492      499.85 ppb        2.492   0.50%
   QC value within limits for Sb 206.836  Recovery = 99.97%
Se 196.026†               917.8      508.00 ug/L        3.098      508.00 ppb        3.098   0.61%
   QC value within limits for Se 196.026  Recovery = 101.60%
Si 251.611†             88379.3      2448.5 ug/L         2.45      2448.5 ppb         2.45   0.10%
   QC value within limits for Si 251.611  Recovery = 97.94%
Sn 189.927†              3356.4      491.49 ug/L        3.002      491.49 ppb        3.002   0.61%
   QC value within limits for Sn 189.927  Recovery = 98.30%
Sr 421.552†             86293.9      492.28 ug/L        1.529      492.28 ppb        1.529   0.31%
   QC value within limits for Sr 421.552  Recovery = 98.46%
Ti 334.940†            340118.6      489.69 ug/L        0.339      489.69 ppb        0.339   0.07%
   QC value within limits for Ti 334.940  Recovery = 97.94%
Tl 190.801†              1944.3      499.32 ug/L        1.859      499.32 ppb        1.859   0.37%
   QC value within limits for Tl 190.801  Recovery = 99.86%
U 409.014†              17099.5      473.02 ug/L        2.186      473.02 ppb        2.186   0.46%
   QC value within limits for U 409.014  Recovery = 94.60%
V 292.402†              78078.0      496.77 ug/L        0.336      496.77 ppb        0.336   0.07%
   QC value within limits for V 292.402  Recovery = 99.35%
Zn 213.857†             61327.2      490.45 ug/L        0.915      490.45 ppb        0.915   0.19%
   QC value within limits for Zn 213.857  Recovery = 98.09%
SiO2†                   88068.5      5239.2 ug/L        35.95      5239.2 ppb        35.95   0.69%
   QC value within limits for SiO2  Recovery = 97.97%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/20/2009 09:51:34
Data Type: Reprocessed on 12/20/2009 10:23:41

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	901297.4	901297.4	100.21	%			09:54:43
1	Sc Radial	5594.5	5594.5	100	%			09:53:26
1	Y 371.029	745622.5	745622.5	100.37	%			09:54:43
1	Y RADIAL	5831.0	5831.0	99.48	%			09:53:26
1	Ag 328.068†	426.0	25.8	0.1116	ug/L	0.1116	ppb	09:54:43
1	Al 396.153Radial†	-9.7	3.6	2.5000	ug/L	2.5000	ppb	09:53:26
1	As 188.979†	-5.9	21.6	7.6658	ug/L	7.6658	ppb	09:55:03
1	B 249.677†	852.4	385.6	7.8655	ug/L	7.8655	ppb	09:54:43
1	Ba 233.527†	-0.1	8.5	0.0562	ug/L	0.0562	ppb	09:55:03
1	Be 313.107†	-4564.4	40.2	0.0135	ug/L	0.0135	ppb	09:54:43
1	Ca 317.933Radial†	22.7	4.8	6.6790	ug/L	6.6790	ppb	09:53:46
1	Cd 226.502†	-200.5	25.7	0.2463	ug/L	0.2463	ppb	09:55:03
1	Co 228.616†	-69.9	15.0	0.2620	ug/L	0.2620	ppb	09:55:03
1	Cr 267.716†	76.2	-23.2	-0.2313	ug/L	-0.2313	ppb	09:54:43
1	Cu 324.752†	6221.9	121.9	0.3411	ug/L	0.3411	ppb	09:54:43
1	Fe 238.204 Radial†	12.2	0.9	7.4437	ug/L	7.4437	ppb	09:53:46
1	K 766.490 Radial†	3066.6	190.4	34.197	ug/L	34.197	ppb	09:53:26
1	Mg 279.077 IEC†	-0.3	-2.5	-76.009	ug/L	-76.009	ppb	09:53:46
1	Mn 257.610†	535.2	42.5	0.0437	ug/L	0.0437	ppb	09:55:03
1	Mo 202.031†	40.6	15.0	0.8907	ug/L	0.8907	ppb	09:55:03
1	Na 589.592 Radial†	-1282.2	-20.6	-5.6219	ug/L	-5.6219	ppb	09:53:26
1	Ni 231.604†	118.7	16.2	0.3493	ug/L	0.3493	ppb	09:55:03
1	P 214.914†	255.9	0.2	0.0894	ug/L	0.0894	ppb	09:55:03
1	Pb 220.353†	-75.0	3.0	0.3059	ug/L	0.3059	ppb	09:55:03
1	S 181.975 Axial†	58.5	-0.4	-0.4657	ug/L	-0.4657	ppb	09:55:03
1	Sb 206.836†	43.4	0.9	0.3785	ug/L	0.3785	ppb	09:55:03
1	Se 196.026†	-35.2	-6.3	-3.3429	ug/L	-3.3429	ppb	09:55:03
1	Si 251.611†	753.4	92.0	2.5185	ug/L	2.5185	ppb	09:55:03
1	Sn 189.927†	36.8	34.9	5.1040	ug/L	5.1040	ppb	09:55:03
1	Sr 421.552†	3.1	-2.6	-0.0147	ug/L	-0.0147	ppb	09:53:26
1	Ti 334.940†	-1407.1	65.9	0.0957	ug/L	0.0957	ppb	09:54:43
1	Tl 190.801†	-34.4	11.5	2.9358	ug/L	2.9358	ppb	09:55:03
1	U 409.014†	-2759.5	-25.4	-0.7059	ug/L	-0.7059	ppb	09:54:43
1	V 292.402†	-1527.3	-55.7	-0.3411	ug/L	-0.3411	ppb	09:54:43
1	Zn 213.857†	842.6	36.0	0.2897	ug/L	0.2897	ppb	09:55:03
1	SiO2†	757.9	71.4	4.1730	ug/L	4.1730	ppb	09:55:59
2	Sc 361.383	897860.5	897860.5	99.826	%			09:55:08
2	Sc Radial	5730.3	5730.3	103	%			09:53:51
2	Y 371.029	743726.1	743726.1	100.11	%			09:55:08
2	Y RADIAL	6026.6	6026.6	102.8	%			09:53:51
2	Ag 328.068†	354.7	-44.1	-0.1893	ug/L	-0.1893	ppb	09:55:08
2	Al 396.153Radial†	-6.0	7.5	5.2254	ug/L	5.2254	ppb	09:53:51
2	As 188.979†	-14.5	13.0	4.6098	ug/L	4.6098	ppb	09:55:28
2	B 249.677†	838.2	374.6	7.6410	ug/L	7.6410	ppb	09:55:08
2	Ba 233.527†	6.3	14.9	0.0993	ug/L	0.0993	ppb	09:55:28
2	Be 313.107†	-4478.2	109.1	0.0363	ug/L	0.0363	ppb	09:55:08
2	Ca 317.933Radial†	23.8	5.3	7.4470	ug/L	7.4470	ppb	09:54:11
2	Cd 226.502†	-215.4	10.0	0.0948	ug/L	0.0948	ppb	09:55:28
2	Co 228.616†	-86.3	-1.7	-0.0286	ug/L	-0.0286	ppb	09:55:28
2	Cr 267.716†	108.0	9.0	0.0881	ug/L	0.0881	ppb	09:55:08
2	Cu 324.752†	6201.3	125.0	0.3501	ug/L	0.3501	ppb	09:55:08
2	Fe 238.204 Radial†	13.1	1.6	12.385	ug/L	12.385	ppb	09:54:11
2	K 766.490 Radial†	3277.5	323.5	58.083	ug/L	58.083	ppb	09:53:51
2	Mg 279.077 IEC†	0.5	-1.8	-55.127	ug/L	-55.127	ppb	09:54:11
2	Mn 257.610†	526.2	35.6	0.0370	ug/L	0.0370	ppb	09:55:28
2	Mo 202.031†	35.4	9.9	0.5904	ug/L	0.5904	ppb	09:55:28
2	Na 589.592 Radial†	-1268.3	23.3	6.3769	ug/L	6.3769	ppb	09:53:51
2	Ni 231.604†	101.0	-1.0	-0.0224	ug/L	-0.0224	ppb	09:55:28

2	P 214.914†	252.8	-1.9	-0.9811	ug/L	-0.9811 ppb	09:55:28
2	Pb 220.353†	-67.9	9.8	1.0045	ug/L	1.0045 ppb	09:55:28
2	S 181.975 Axial†	54.5	-4.1	-4.9229	ug/L	-4.9229 ppb	09:55:28
2	Sb 206.836†	59.9	17.6	5.2710	ug/L	5.2710 ppb	09:55:28
2	Se 196.026†	-23.1	5.6	3.0514	ug/L	3.0514 ppb	09:55:28
2	Si 251.611†	762.5	104.0	2.8525	ug/L	2.8525 ppb	09:55:28
2	Sn 189.927†	28.5	26.7	3.9080	ug/L	3.9080 ppb	09:55:28
2	Sr 421.552†	1.8	-3.8	-0.0220	ug/L	-0.0220 ppb	09:53:51
2	Ti 334.940†	-1421.3	46.2	0.0654	ug/L	0.0654 ppb	09:55:08
2	Tl 190.801†	-28.0	17.8	4.5342	ug/L	4.5342 ppb	09:55:28
2	U 409.014†	-2597.4	126.5	3.5084	ug/L	3.5084 ppb	09:55:08
2	V 292.402†	-1558.1	-92.4	-0.5680	ug/L	-0.5680 ppb	09:55:08
2	Zn 213.857†	842.0	38.7	0.3128	ug/L	0.3128 ppb	09:55:28
2	SiO2†	767.7	84.0	4.9311	ug/L	4.9311 ppb	09:56:04
3	Sc 361.383	903037.4	903037.4	100.40	%		09:55:34
3	Sc Radial	5612.9	5612.9	100	%		09:54:16
3	Y 371.029	749045.0	749045.0	100.83	%		09:55:34
3	Y RADIAL	5918.8	5918.8	101.0	%		09:54:16
3	Ag 328.068†	417.3	16.2	0.0661	ug/L	0.0661 ppb	09:55:34
3	Al 396.153Radial†	-20.2	-6.8	-4.8072	ug/L	-4.8072 ppb	09:54:16
3	As 188.979†	-21.5	6.0	2.1442	ug/L	2.1442 ppb	09:55:54
3	B 249.677†	771.9	303.8	6.1986	ug/L	6.1986 ppb	09:55:34
3	Ba 233.527†	-1.7	6.9	0.0463	ug/L	0.0463 ppb	09:55:54
3	Be 313.107†	-4495.0	118.1	0.0391	ug/L	0.0391 ppb	09:55:34
3	Ca 317.933Radial†	18.0	0.0	0.0445	ug/L	0.0445 ppb	09:54:36
3	Cd 226.502†	-197.0	29.5	0.2841	ug/L	0.2841 ppb	09:55:54
3	Co 228.616†	-84.3	0.7	0.0151	ug/L	0.0151 ppb	09:55:54
3	Cr 267.716†	109.4	9.8	0.0971	ug/L	0.0971 ppb	09:55:34
3	Cu 324.752†	6238.6	126.6	0.3538	ug/L	0.3538 ppb	09:55:34
3	Fe 238.204 Radial†	10.8	-0.5	-3.6084	ug/L	-3.6084 ppb	09:54:36
3	K 766.490 Radial†	3206.7	319.9	57.426	ug/L	57.426 ppb	09:54:16
3	Mg 279.077 IEC†	-0.4	-2.7	-81.444	ug/L	-81.444 ppb	09:54:36
3	Mn 257.610†	556.2	62.5	0.0621	ug/L	0.0621 ppb	09:55:54
3	Mo 202.031†	40.2	14.4	0.8577	ug/L	0.8577 ppb	09:55:54
3	Na 589.592 Radial†	-1190.6	74.8	20.433	ug/L	20.433 ppb	09:54:16
3	Ni 231.604†	112.3	9.6	0.2074	ug/L	0.2074 ppb	09:55:54
3	P 214.914†	245.9	-10.3	-5.2213	ug/L	-5.2213 ppb	09:55:54
3	Pb 220.353†	-70.9	7.2	0.7381	ug/L	0.7381 ppb	09:55:54
3	S 181.975 Axial†	51.3	-7.7	-9.2271	ug/L	-9.2271 ppb	09:55:54
3	Sb 206.836†	44.2	1.6	0.5687	ug/L	0.5687 ppb	09:55:54
3	Se 196.026†	-29.3	-0.4	-0.2442	ug/L	-0.2442 ppb	09:55:54
3	Si 251.611†	736.7	73.9	2.0126	ug/L	2.0126 ppb	09:55:54
3	Sn 189.927†	27.9	25.9	3.7925	ug/L	3.7925 ppb	09:55:54
3	Sr 421.552†	-9.6	-15.2	-0.0867	ug/L	-0.0867 ppb	09:54:16
3	Ti 334.940†	-1519.1	-43.0	-0.0629	ug/L	-0.0629 ppb	09:55:34
3	Tl 190.801†	-35.1	10.9	2.7735	ug/L	2.7735 ppb	09:55:54
3	U 409.014†	-2667.6	71.4	1.9820	ug/L	1.9820 ppb	09:55:34
3	V 292.402†	-1483.3	-8.9	-0.0410	ug/L	-0.0410 ppb	09:55:34
3	Zn 213.857†	853.7	45.5	0.3678	ug/L	0.3678 ppb	09:55:54
3	SiO2†	788.9	100.7	5.9207	ug/L	5.9207 ppb	09:56:09

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	900731.7	100.15	%	0.293				0.29%
Sc Radial	5645.9	101	%	1.3				1.30%
Y 371.029	746131.2	100.43	%	0.363				0.36%
Y RADIAL	5925.4	101.1	%	1.67				1.65%
Ag 328.068†	-0.7	-0.0039	ug/L	0.16217	-0.0039	ppb	0.16217	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.4	0.9728	ug/L	5.18778	0.9728	ppb	5.18778	533.31%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	13.5	4.8066	ug/L	2.76606	4.8066	ppb	2.76606	57.55%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	354.7	7.2351	ug/L	0.90459	7.2351	ppb	0.90459	12.50%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.1	0.0673	ug/L	0.02819	0.0673	ppb	0.02819	41.91%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	89.1	0.0296	ug/L	0.01401	0.0296	ppb	0.01401	47.27%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          3.4      4.7235 ug/L       4.07030      4.7235 ppb        4.07030  86.17%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†               21.7      0.2084 ug/L       0.10019      0.2084 ppb        0.10019  48.08%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                4.7      0.0829 ug/L       0.15671      0.0829 ppb        0.15671 189.13%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -1.4     -0.0154 ug/L       0.18704     -0.0154 ppb        0.18704 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              124.5      0.3483 ug/L       0.00651      0.3483 ppb        0.00651   1.87%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.7      5.4067 ug/L       8.18879      5.4067 ppb        8.18879 151.46%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        277.9     49.902 ug/L      13.6049     49.902 ppb        13.6049  27.26%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -2.3    -70.860 ug/L      13.8933    -70.860 ppb        13.8933  19.61%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               46.9      0.0476 ug/L       0.01300      0.0476 ppb        0.01300  27.31%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               13.1      0.7796 ug/L       0.16469      0.7796 ppb        0.16469  21.12%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        25.8      7.0627 ug/L      13.04094      7.0627 ppb       13.04094 184.65%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                8.3      0.1781 ug/L       0.18753      0.1781 ppb        0.18753 105.30%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.0     -2.0377 ug/L       2.80858     -2.0377 ppb        2.80858 137.83%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                6.7      0.6828 ug/L       0.35256      0.6828 ppb        0.35256  51.64%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -4.1     -4.8719 ug/L       4.38095     -4.8719 ppb        4.38095  89.92%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                6.7      2.0727 ug/L       2.77141      2.0727 ppb        2.77141 133.71%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -0.4     -0.1786 ug/L       3.19766     -0.1786 ppb        3.19766 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               90.0      2.4612 ug/L       0.42286      2.4612 ppb        0.42286  17.18%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               29.2      4.2682 ug/L       0.72616      4.2682 ppb        0.72616  17.01%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -7.2     -0.0411 ug/L       0.03963     -0.0411 ppb        0.03963  96.39%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               23.1      0.0327 ug/L       0.08416      0.0327 ppb        0.08416 257.03%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               13.4      3.4145 ug/L       0.97308      3.4145 ppb        0.97308  28.50%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                57.5      1.5948 ug/L       2.13367      1.5948 ppb        2.13367 133.79%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -52.3     -0.3167 ug/L       0.26437     -0.3167 ppb        0.26437  83.48%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               40.0      0.3234 ug/L       0.04014      0.3234 ppb        0.04014  12.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     85.4      5.0083 ug/L       0.87639      5.0083 ppb        0.87639  17.50%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: LR1
Analyst: HSC
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 12/20/2009 09:57:38
Data Type: Reprocessed on 12/20/2009 10:23:42

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	887208.5	887208.5	98.642	%			10:00:49
1	Sc Radial	5505.9	5505.9	98.5	%			09:59:31
1	Y 371.029	723390.8	723390.8	97.374	%			10:00:49
1	Y RADIAL	5738.0	5738.0	97.89	%			09:59:31
1	Ag 328.068†	-27869.9	-28653.0	5.2422	ug/L	5.2422	ppb	10:00:49
1	Al 396.153Radial†	-46.7	-34.1	-22.772	ug/L	-22.772	ppb	09:59:31
1	As 188.979†	-242.9	-218.8	-18.927	ug/L	-18.927	ppb	10:01:09
1	B 249.677†	2588.0	2158.6	-6.5089	ug/L	-6.5089	ppb	10:00:49
1	Ba 233.527†	-2044.0	-2063.5	-4.1325	ug/L	-4.1325	ppb	10:01:09
1	Be 313.107†	-4413.0	121.3	0.0401	ug/L	0.0401	ppb	10:00:49
1	Ca 317.933Radial†	14.2	-3.4	-4.8162	ug/L	-4.8162	ppb	09:59:51
1	Cd 226.502†	3539.2	3813.7	-1.4408	ug/L	-1.4408	ppb	10:01:09
1	Co 228.616†	216.3	304.0	-0.2334	ug/L	-0.2334	ppb	10:01:09
1	Cr 267.716†	-609.9	-717.5	-0.2629	ug/L	-0.2629	ppb	10:01:09
1	Cu 324.752†	-2414.8	-8535.1	-4.4246	ug/L	-4.4246	ppb	10:00:49
1	Fe 238.204 Radial†	47445.3	48137.8	380910	ug/L	380910	ppb	09:59:31
1	K 766.490 Radial†	2873.6	43.9	20.394	ug/L	20.394	ppb	09:59:31
1	Mg 279.077 IEC†	13.5	11.4	18.889	ug/L	18.889	ppb	09:59:51
1	Mn 257.610†	-41963.9	-43033.1	-4.0398	ug/L	-4.0398	ppb	10:00:49
1	Mo 202.031†	-433.7	-465.2	8.8573	ug/L	8.8573	ppb	10:01:09
1	Na 589.592 Radial†	-1248.8	-7.3	-2.0044	ug/L	-2.0044	ppb	09:59:31
1	Ni 231.604†	247.5	148.7	3.2011	ug/L	3.2011	ppb	10:01:09
1	P 214.914†	813.5	569.5	-13.701	ug/L	-13.701	ppb	10:01:09
1	Pb 220.353†	222.5	303.3	-0.2821	ug/L	-0.2821	ppb	10:01:09
1	S 181.975 Axial†	69.7	11.9	14.317	ug/L	14.317	ppb	10:01:09
1	Sb 206.836†	21.6	-20.5	-0.1895	ug/L	-0.1895	ppb	10:01:09
1	Se 196.026†	-2367.9	-2371.7	-68.722	ug/L	-68.722	ppb	10:01:09
1	Si 251.611†	-727.3	-1397.1	-38.402	ug/L	-38.402	ppb	10:01:09
1	Sn 189.927†	-20.9	-23.0	1.7247	ug/L	1.7247	ppb	10:01:09
1	Sr 421.552†	45.5	40.5	0.2313	ug/L	0.2313	ppb	09:59:31
1	Ti 334.940†	-1507.6	-58.3	-0.1010	ug/L	-0.1010	ppb	10:01:09
1	Tl 190.801†	-44.6	0.5	-0.2574	ug/L	-0.2574	ppb	10:01:09
1	U 409.014†	-1137.9	1574.8	-4.2000	ug/L	-4.2000	ppb	10:00:49
1	V 292.402†	6983.9	8548.5	-4.5667	ug/L	-4.5667	ppb	10:01:09
1	Zn 213.857†	5126.6	4392.3	15.685	ug/L	15.685	ppb	10:01:09
1	SiO2†	-749.4	-1444.7	-85.303	ug/L	-85.303	ppb	10:02:07
2	Sc 361.383	891661.0	891661.0	99.137	%			10:01:16
2	Sc Radial	5474.1	5474.1	98.0	%			09:59:57
2	Y 371.029	727098.7	727098.7	97.873	%			10:01:16
2	Y RADIAL	5755.3	5755.3	98.19	%			09:59:57
2	Ag 328.068†	-27864.3	-28506.3	6.4863	ug/L	6.4863	ppb	10:01:16
2	Al 396.153Radial†	-46.1	-33.8	-22.550	ug/L	-22.550	ppb	09:59:57
2	As 188.979†	-246.3	-221.0	-19.418	ug/L	-19.418	ppb	10:01:36
2	B 249.677†	2549.6	2106.7	-7.8115	ug/L	-7.8115	ppb	10:01:16
2	Ba 233.527†	-2119.9	-2129.7	-4.5291	ug/L	-4.5291	ppb	10:01:36
2	Be 313.107†	-4433.5	123.0	0.0407	ug/L	0.0407	ppb	10:01:16
2	Ca 317.933Radial†	16.8	-0.7	-0.9324	ug/L	-0.9324	ppb	10:00:17
2	Cd 226.502†	3574.0	3830.9	-1.4609	ug/L	-1.4609	ppb	10:01:36
2	Co 228.616†	220.6	307.3	-0.2030	ug/L	-0.2030	ppb	10:01:36
2	Cr 267.716†	-601.0	-705.5	-0.1093	ug/L	-0.1093	ppb	10:01:36
2	Cu 324.752†	-2401.1	-8509.0	-4.2575	ug/L	-4.2575	ppb	10:01:16
2	Fe 238.204 Radial†	47400.5	48371.6	382760	ug/L	382760	ppb	09:59:57
2	K 766.490 Radial†	2734.4	-81.3	-2.0242	ug/L	-2.0242	ppb	09:59:57
2	Mg 279.077 IEC†	13.7	11.7	26.326	ug/L	26.326	ppb	10:00:17
2	Mn 257.610†	-42160.5	-43019.0	-3.8417	ug/L	-3.8417	ppb	10:01:16
2	Mo 202.031†	-431.0	-460.3	9.3280	ug/L	9.3280	ppb	10:01:36
2	Na 589.592 Radial†	-1237.1	-2.7	-0.7511	ug/L	-0.7511	ppb	09:59:57
2	Ni 231.604†	212.1	111.7	2.4031	ug/L	2.4031	ppb	10:01:36

2	P 214.914†	821.9	573.8	-12.999	ug/L	-12.999	ppb	10:01:36
2	Pb 220.353†	256.5	336.6	2.9692	ug/L	2.9692	ppb	10:01:36
2	S 181.975 Axial†	79.0	20.9	25.088	ug/L	25.088	ppb	10:01:36
2	Sb 206.836†	26.1	-16.1	1.1648	ug/L	1.1648	ppb	10:01:36
2	Se 196.026†	-2391.6	-2383.6	-69.230	ug/L	-69.230	ppb	10:01:36
2	Si 251.611†	-764.4	-1430.9	-39.343	ug/L	-39.343	ppb	10:01:36
2	Sn 189.927†	-11.7	-13.6	3.1284	ug/L	3.1284	ppb	10:01:36
2	Sr 421.552†	84.5	80.6	0.4600	ug/L	0.4600	ppb	09:59:57
2	Ti 334.940†	-1505.8	-48.9	-0.0884	ug/L	-0.0884	ppb	10:01:36
2	Tl 190.801†	-52.2	-6.9	-2.1553	ug/L	-2.1553	ppb	10:01:36
2	U 409.014†	-1056.1	1663.1	-1.9825	ug/L	-1.9825	ppb	10:01:16
2	V 292.402†	7100.9	8631.2	-4.3198	ug/L	-4.3198	ppb	10:01:36
2	Zn 213.857†	5189.9	4430.2	15.899	ug/L	15.899	ppb	10:01:36
2	SiO2†	-755.6	-1447.1	-85.453	ug/L	-85.453	ppb	10:02:12
3	Sc 361.383	898038.0	898038.0	99.846	%			10:01:42
3	Sc Radial	5390.4	5390.4	96.5	%			10:00:22
3	Y 371.029	731380.1	731380.1	98.449	%			10:01:42
3	Y RADIAL	5639.3	5639.3	96.21	%			10:00:22
3	Ag 328.068†	-28214.3	-28657.2	5.5898	ug/L	5.5898	ppb	10:01:42
3	Al 396.153Radial†	-73.0	-62.4	-42.652	ug/L	-42.652	ppb	10:00:22
3	As 188.979†	-247.1	-220.0	-19.187	ug/L	-19.187	ppb	10:02:02
3	B 249.677†	2631.1	2170.1	-6.4203	ug/L	-6.4203	ppb	10:01:42
3	Ba 233.527†	-2085.8	-2080.4	-4.2166	ug/L	-4.2166	ppb	10:02:02
3	Be 313.107†	-4449.3	139.0	0.0461	ug/L	0.0461	ppb	10:01:42
3	Ca 317.933Radial†	8.3	-9.3	-12.923	ug/L	-12.923	ppb	10:00:42
3	Cd 226.502†	3562.1	3793.3	-1.7467	ug/L	-1.7467	ppb	10:02:02
3	Co 228.616†	243.4	328.5	0.1779	ug/L	0.1779	ppb	10:02:02
3	Cr 267.716†	-630.3	-730.5	-0.3726	ug/L	-0.3726	ppb	10:02:02
3	Cu 324.752†	-2379.2	-8469.9	-4.1865	ug/L	-4.1865	ppb	10:01:42
3	Fe 238.204 Radial†	46583.8	48276.5	382000	ug/L	382000	ppb	10:00:22
3	K 766.490 Radial†	2893.7	127.2	35.379	ug/L	35.379	ppb	10:00:22
3	Mg 279.077 IEC†	12.9	11.1	7.2562	ug/L	7.2562	ppb	10:00:42
3	Mn 257.610†	-42210.1	-42766.7	-3.6701	ug/L	-3.6701	ppb	10:01:42
3	Mo 202.031†	-423.5	-449.7	9.8845	ug/L	9.8845	ppb	10:02:02
3	Na 589.592 Radial†	-1205.8	10.1	2.7689	ug/L	2.7689	ppb	10:00:22
3	Ni 231.604†	199.1	97.1	2.0894	ug/L	2.0894	ppb	10:02:02
3	P 214.914†	813.9	560.0	-19.520	ug/L	-19.520	ppb	10:02:02
3	Pb 220.353†	243.1	321.3	1.4662	ug/L	1.4662	ppb	10:02:02
3	S 181.975 Axial†	66.5	7.9	9.4391	ug/L	9.4391	ppb	10:02:02
3	Sb 206.836†	16.6	-25.8	-1.7531	ug/L	-1.7531	ppb	10:02:02
3	Se 196.026†	-2383.0	-2357.9	-57.894	ug/L	-57.894	ppb	10:02:02
3	Si 251.611†	-708.5	-1369.5	-37.645	ug/L	-37.645	ppb	10:02:02
3	Sn 189.927†	-36.6	-38.5	-0.5293	ug/L	-0.5293	ppb	10:02:02
3	Sr 421.552†	73.5	70.6	0.4030	ug/L	0.4030	ppb	10:00:22
3	Ti 334.940†	-1484.9	-17.2	-0.0443	ug/L	-0.0443	ppb	10:02:02
3	Tl 190.801†	-63.1	-17.4	-4.8281	ug/L	-4.8281	ppb	10:02:02
3	U 409.014†	-979.0	1747.8	0.4658	ug/L	0.4658	ppb	10:01:42
3	V 292.402†	7173.1	8652.5	-4.0579	ug/L	-4.0579	ppb	10:02:02
3	Zn 213.857†	5171.0	4374.1	15.488	ug/L	15.488	ppb	10:02:02
3	SiO2†	-764.4	-1450.5	-85.682	ug/L	-85.682	ppb	10:02:17

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	892302.5	99.208	%	0.6052				0.61%
Sc Radial	5456.8	97.7	%	1.07				1.09%
Y 371.029	727289.9	97.899	%	0.5382				0.55%
Y RADIAL	5710.9	97.43	%	1.068				1.10%
Ag 328.068†	-28605.5	5.7728	ug/L	0.64196	5.7728	ppb	0.64196	11.12%
Al 396.153Radial†	-43.4	-29.325	ug/L	11.5423	-29.325	ppb	11.5423	39.36%
As 188.979†	-219.9	-19.178	ug/L	0.2456	-19.178	ppb	0.2456	1.28%
B 249.677†	2145.1	-6.9136	ug/L	0.77887	-6.9136	ppb	0.77887	11.27%
Ba 233.527†	-2091.2	-4.2928	ug/L	0.20894	-4.2928	ppb	0.20894	4.87%
Be 313.107†	127.8	0.0423	ug/L	0.00329	0.0423	ppb	0.00329	7.78%
Ca 317.933Radial†	-4.5	-6.2240	ug/L	6.11821	-6.2240	ppb	6.11821	98.30%
Cd 226.502†	3812.6	-1.5495	ug/L	0.17111	-1.5495	ppb	0.17111	11.04%
Co 228.616†	313.3	-0.0861	ug/L	0.22921	-0.0861	ppb	0.22921	266.09%
Cr 267.716†	-717.8	-0.2483	ug/L	0.13229	-0.2483	ppb	0.13229	53.29%
Cu 324.752†	-8504.7	-4.2895	ug/L	0.12224	-4.2895	ppb	0.12224	2.85%
Fe 238.204 Radial†	48262.0	381890	ug/L	930.3	381890	ppb	930.3	0.24%

K 766.490 Radial†	29.9	17.916	ug/L	18.8241	17.916	ppb	18.8241 105.07%
Mg 279.077 IEC†	11.4	17.490	ug/L	9.6114	17.490	ppb	9.6114 54.95%
Mn 257.610†	-42939.6	-3.8505	ug/L	0.18503	-3.8505	ppb	0.18503 4.81%
Mo 202.031†	-458.4	9.3566	ug/L	0.51416	9.3566	ppb	0.51416 5.50%
Na 589.592 Radial†	0.0	0.0045	ug/L	2.47472	0.0045	ppb	2.47472 >999.9%
Ni 231.604†	119.2	2.5645	ug/L	0.57314	2.5645	ppb	0.57314 22.35%
P 214.914†	567.8	-15.407	ug/L	3.5792	-15.407	ppb	3.5792 23.23%
Pb 220.353†	320.4	1.3844	ug/L	1.62721	1.3844	ppb	1.62721 117.54%
S 181.975 Axial†	13.6	16.281	ug/L	8.0073	16.281	ppb	8.0073 49.18%
Sb 206.836†	-20.8	-0.2593	ug/L	1.46019	-0.2593	ppb	1.46019 563.18%
Se 196.026†	-2371.1	-65.282	ug/L	6.4031	-65.282	ppb	6.4031 9.81%
Si 251.611†	-1399.2	-38.464	ug/L	0.8506	-38.464	ppb	0.8506 2.21%
Sn 189.927†	-25.0	1.4413	ug/L	1.84526	1.4413	ppb	1.84526 128.03%
Sr 421.552†	63.9	0.3647	ug/L	0.11906	0.3647	ppb	0.11906 32.64%
Ti 334.940†	-41.5	-0.0779	ug/L	0.02981	-0.0779	ppb	0.02981 38.27%
Tl 190.801†	-7.9	-2.4136	ug/L	2.29626	-2.4136	ppb	2.29626 95.14%
U 409.014†	1661.9	-1.9055	ug/L	2.33382	-1.9055	ppb	2.33382 122.47%
V 292.402†	8610.7	-4.3148	ug/L	0.25447	-4.3148	ppb	0.25447 5.90%
Zn 213.857†	4398.9	15.690	ug/L	0.2054	15.690	ppb	0.2054 1.31%
SiO2†	-1447.4	-85.479	ug/L	0.1911	-85.479	ppb	0.1911 0.22%

Sequence No.: 16
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/20/2009 10:04:29
Data Type: Reprocessed on 12/20/2009 10:23:43

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	904964.3	904964.3	100.62	%			10:07:39
1	Sc Radial	5532.6	5532.6	99.0	%			10:06:21
1	Y 371.029	734085.0	734085.0	98.813	%			10:07:39
1	Y RADIAL	5789.8	5789.8	98.78	%			10:06:21
1	Ag 328.068†	116605.5	115492.0	495.85	ug/L	495.85	ppb	10:07:44
1	Al 396.153Radial†	6865.9	6947.4	4858.8	ug/L	4858.8	ppb	10:06:21
1	As 188.979†	1367.5	1386.6	497.18	ug/L	497.18	ppb	10:08:04
1	B 249.677†	24973.7	24355.8	494.92	ug/L	494.92	ppb	10:07:44
1	Ba 233.527†	74432.0	73984.8	497.97	ug/L	497.97	ppb	10:07:44
1	Be 313.107†	1508465.6	1503823.5	500.06	ug/L	500.06	ppb	10:07:39
1	Ca 317.933Radial†	3506.6	3523.5	4919.1	ug/L	4919.1	ppb	10:06:41
1	Cd 226.502†	52035.6	51942.8	498.84	ug/L	498.84	ppb	10:07:44
1	Co 228.616†	28870.5	28778.4	499.25	ug/L	499.25	ppb	10:07:44
1	Cr 267.716†	50308.0	49900.8	498.40	ug/L	498.40	ppb	10:07:44
1	Cu 324.752†	183297.8	176088.3	492.42	ug/L	492.42	ppb	10:07:44
1	Fe 238.204 Radial†	643.9	639.1	5072.7	ug/L	5072.7	ppb	10:06:41
1	K 766.490 Radial†	30397.4	27826.9	4987.5	ug/L	4987.5	ppb	10:06:21
1	Mg 279.077 IEC†	169.8	169.2	5111.9	ug/L	5111.9	ppb	10:06:41
1	Mn 257.610†	514103.5	510463.8	498.84	ug/L	498.84	ppb	10:07:39
1	Mo 202.031†	8276.6	8200.4	487.92	ug/L	487.92	ppb	10:08:04
1	Na 589.592 Radial†	34184.0	35783.5	9779.0	ug/L	9779.0	ppb	10:06:21
1	Ni 231.604†	23489.2	23243.1	500.60	ug/L	500.60	ppb	10:07:44
1	P 214.914†	5091.6	4805.2	2369.3	ug/L	2369.3	ppb	10:08:04
1	Pb 220.353†	4705.3	4754.4	487.97	ug/L	487.97	ppb	10:08:04
1	S 181.975 Axial†	877.3	813.2	973.33	ug/L	973.33	ppb	10:08:04
1	Sb 206.836†	1705.6	1652.8	494.51	ug/L	494.51	ppb	10:08:04
1	Se 196.026†	896.6	919.9	509.07	ug/L	509.07	ppb	10:08:04
1	Si 251.611†	89866.2	88656.1	2456.3	ug/L	2456.3	ppb	10:07:44
1	Sn 189.927†	3362.3	3339.9	489.08	ug/L	489.08	ppb	10:08:04
1	Sr 421.552†	85758.8	86604.7	494.06	ug/L	494.06	ppb	10:06:21
1	Ti 334.940†	343352.8	342720.3	493.42	ug/L	493.42	ppb	10:07:39
1	Tl 190.801†	1885.9	1920.2	493.14	ug/L	493.14	ppb	10:08:04
1	U 409.014†	15449.6	18083.4	500.32	ug/L	500.32	ppb	10:07:44
1	V 292.402†	77806.0	78798.0	501.30	ug/L	501.30	ppb	10:07:44
1	Zn 213.857†	62871.0	61681.2	493.24	ug/L	493.24	ppb	10:07:44
1	SiO2†	89629.0	88395.2	5258.9	ug/L	5258.9	ppb	10:09:12
2	Sc 361.383	902750.0	902750.0	100.37	%			10:08:10
2	Sc Radial	5569.1	5569.1	99.7	%			10:06:46
2	Y 371.029	733120.6	733120.6	98.684	%			10:08:10
2	Y RADIAL	5777.5	5777.5	98.57	%			10:06:46
2	Ag 328.068†	115809.2	114983.0	493.70	ug/L	493.70	ppb	10:08:15
2	Al 396.153Radial†	6924.3	6960.5	4867.7	ug/L	4867.7	ppb	10:06:46
2	As 188.979†	1395.7	1418.0	508.34	ug/L	508.34	ppb	10:08:35
2	B 249.677†	24683.4	24127.4	490.26	ug/L	490.26	ppb	10:08:15
2	Ba 233.527†	73977.8	73713.8	496.15	ug/L	496.15	ppb	10:08:15
2	Be 313.107†	1506220.2	1505263.7	500.54	ug/L	500.54	ppb	10:08:10
2	Ca 317.933Radial†	3542.6	3536.5	4937.2	ug/L	4937.2	ppb	10:07:07
2	Cd 226.502†	51655.1	51690.5	496.41	ug/L	496.41	ppb	10:08:15
2	Co 228.616†	28744.9	28723.7	498.32	ug/L	498.32	ppb	10:08:15
2	Cr 267.716†	50036.1	49752.5	496.92	ug/L	496.92	ppb	10:08:15
2	Cu 324.752†	182439.3	175679.9	491.28	ug/L	491.28	ppb	10:08:15
2	Fe 238.204 Radial†	654.2	645.2	5121.0	ug/L	5121.0	ppb	10:07:07
2	K 766.490 Radial†	30589.1	27817.8	4985.9	ug/L	4985.9	ppb	10:06:46
2	Mg 279.077 IEC†	173.8	172.1	5200.1	ug/L	5200.1	ppb	10:07:07
2	Mn 257.610†	513150.1	510767.3	499.14	ug/L	499.14	ppb	10:08:10
2	Mo 202.031†	8384.2	8327.8	495.49	ug/L	495.49	ppb	10:08:35
2	Na 589.592 Radial†	34397.6	35771.2	9775.7	ug/L	9775.7	ppb	10:06:46
2	Ni 231.604†	23308.8	23120.6	497.96	ug/L	497.96	ppb	10:08:15

2	P 214.914†	5163.7	4889.5	2412.4 ug/L	2412.4 ppb	10:08:35
2	Pb 220.353†	4777.6	4837.8	496.53 ug/L	496.53 ppb	10:08:35
2	S 181.975 Axial†	882.4	820.4	981.96 ug/L	981.96 ppb	10:08:35
2	Sb 206.836†	1724.9	1676.1	501.73 ug/L	501.73 ppb	10:08:35
2	Se 196.026†	913.6	939.0	519.43 ug/L	519.43 ppb	10:08:35
2	Si 251.611†	89535.8	88545.9	2453.0 ug/L	2453.0 ppb	10:08:15
2	Sn 189.927†	3407.6	3393.2	496.88 ug/L	496.88 ppb	10:08:35
2	Sr 421.552†	86344.9	86624.7	494.17 ug/L	494.17 ppb	10:06:46
2	Ti 334.940†	342456.3	342664.2	493.35 ug/L	493.35 ppb	10:08:10
2	Tl 190.801†	1917.7	1956.4	502.41 ug/L	502.41 ppb	10:08:35
2	U 409.014†	14980.8	17653.9	488.39 ug/L	488.39 ppb	10:08:15
2	V 292.402†	77452.3	78635.3	500.35 ug/L	500.35 ppb	10:08:15
2	Zn 213.857†	62629.4	61593.7	492.55 ug/L	492.55 ppb	10:08:15
2	SiO2†	90134.0	89116.8	5301.7 ug/L	5301.7 ppb	10:09:17
3	Sc 361.383	911182.2	911182.2	101.31 %		10:08:41
3	Sc Radial	5496.3	5496.3	98.4 %		10:07:12
3	Y 371.029	738611.2	738611.2	99.423 %		10:08:41
3	Y RADIAL	5695.1	5695.1	97.16 %		10:07:12
3	Ag 328.068†	115461.3	113571.8	487.66 ug/L	487.66 ppb	10:08:47
3	Al 396.153Radial†	6821.9	6948.4	4859.7 ug/L	4859.7 ppb	10:07:12
3	As 188.979†	1377.2	1386.9	497.29 ug/L	497.29 ppb	10:09:07
3	B 249.677†	24652.7	23869.5	485.00 ug/L	485.00 ppb	10:08:47
3	Ba 233.527†	73893.4	72948.4	491.00 ug/L	491.00 ppb	10:08:47
3	Be 313.107†	1521514.5	1506473.2	500.95 ug/L	500.95 ppb	10:08:41
3	Ca 317.933Radial†	3524.6	3565.2	4977.3 ug/L	4977.3 ppb	10:07:32
3	Cd 226.502†	51583.3	51143.3	491.14 ug/L	491.14 ppb	10:08:47
3	Co 228.616†	28780.1	28493.4	494.30 ug/L	494.30 ppb	10:08:47
3	Cr 267.716†	50011.7	49267.0	492.07 ug/L	492.07 ppb	10:08:47
3	Cu 324.752†	181862.4	173428.3	484.99 ug/L	484.99 ppb	10:08:47
3	Fe 238.204 Radial†	649.1	648.7	5148.5 ug/L	5148.5 ppb	10:07:32
3	K 766.490 Radial†	30446.0	28078.8	5032.7 ug/L	5032.7 ppb	10:07:12
3	Mg 279.077 IEC†	173.3	173.9	5253.7 ug/L	5253.7 ppb	10:07:32
3	Mn 257.610†	519429.5	512234.4	500.57 ug/L	500.57 ppb	10:08:41
3	Mo 202.031†	8304.0	8171.3	486.20 ug/L	486.20 ppb	10:09:07
3	Na 589.592 Radial†	34202.0	36029.6	9846.3 ug/L	9846.3 ppb	10:07:12
3	Ni 231.604†	23265.3	22862.8	492.41 ug/L	492.41 ppb	10:08:47
3	P 214.914†	5093.9	4773.0	2354.1 ug/L	2354.1 ppb	10:09:07
3	Pb 220.353†	4761.6	4778.0	490.38 ug/L	490.38 ppb	10:09:07
3	S 181.975 Axial†	871.7	801.7	959.60 ug/L	959.60 ppb	10:09:07
3	Sb 206.836†	1718.1	1653.5	494.82 ug/L	494.82 ppb	10:09:07
3	Se 196.026†	897.9	915.1	506.76 ug/L	506.76 ppb	10:09:07
3	Si 251.611†	89264.9	87453.0	2422.8 ug/L	2422.8 ppb	10:08:47
3	Sn 189.927†	3389.9	3344.3	489.73 ug/L	489.73 ppb	10:09:07
3	Sr 421.552†	85551.8	86965.9	496.12 ug/L	496.12 ppb	10:07:12
3	Ti 334.940†	346929.5	343922.1	495.17 ug/L	495.17 ppb	10:08:41
3	Tl 190.801†	1895.9	1917.2	492.46 ug/L	492.46 ppb	10:09:07
3	U 409.014†	15040.1	17574.4	486.19 ug/L	486.19 ppb	10:08:47
3	V 292.402†	77142.1	77615.0	493.81 ug/L	493.81 ppb	10:08:47
3	Zn 213.857†	62549.0	60936.9	487.29 ug/L	487.29 ppb	10:08:47
3	SiO2†	89697.3	87854.7	5226.6 ug/L	5226.6 ppb	10:09:22

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	906298.8	100.76	%	0.486				0.48%
Sc Radial	5532.7	99.0	%	0.65				0.66%
Y 371.029	735272.2	98.973	%	0.3946				0.40%
Y RADIAL	5754.1	98.17	%	0.878				0.89%
Ag 328.068†	114682.3	492.40	ug/L	4.243	492.40	ppb	4.243	0.86%
QC value within limits for Ag 328.068 Recovery = 98.48%								
Al 396.153Radial†	6952.1	4862.1	ug/L	4.92	4862.1	ppb	4.92	0.10%
QC value within limits for Al 396.153Radial Recovery = 97.24%								
As 188.979†	1397.2	500.94	ug/L	6.414	500.94	ppb	6.414	1.28%
QC value within limits for As 188.979 Recovery = 100.19%								
B 249.677†	24117.5	490.06	ug/L	4.961	490.06	ppb	4.961	1.01%
QC value within limits for B 249.677 Recovery = 98.01%								
Ba 233.527†	73549.0	495.04	ug/L	3.617	495.04	ppb	3.617	0.73%
QC value within limits for Ba 233.527 Recovery = 99.01%								
Be 313.107†	1505186.8	500.52	ug/L	0.442	500.52	ppb	0.442	0.09%
QC value within limits for Be 313.107 Recovery = 100.10%								

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Ca 317.933Radial†       3541.7      4944.5 ug/L        29.79      4944.5 ppb          29.79   0.60%
   QC value within limits for Ca 317.933Radial  Recovery = 98.89%
Cd 226.502†            51592.2      495.46 ug/L        3.933      495.46 ppb          3.933   0.79%
   QC value within limits for Cd 226.502  Recovery = 99.09%
Co 228.616†            28665.2      497.29 ug/L        2.632      497.29 ppb          2.632   0.53%
   QC value within limits for Co 228.616  Recovery = 99.46%
Cr 267.716†            49640.1      495.80 ug/L        3.310      495.80 ppb          3.310   0.67%
   QC value within limits for Cr 267.716  Recovery = 99.16%
Cu 324.752†           175065.5      489.56 ug/L        4.002      489.56 ppb          4.002   0.82%
   QC value within limits for Cu 324.752  Recovery = 97.91%
Fe 238.204 Radial†       644.3      5114.1 ug/L        38.37      5114.1 ppb          38.37   0.75%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.28%
K 766.490 Radial†      27907.9      5002.0 ug/L        26.56      5002.0 ppb          26.56   0.53%
   QC value within limits for K 766.490 Radial  Recovery = 100.04%
Mg 279.077 IEC†          171.7      5188.6 ug/L        71.59      5188.6 ppb          71.59   1.38%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.77%
Mn 257.610†           511155.1      499.52 ug/L        0.927      499.52 ppb          0.927   0.19%
   QC value within limits for Mn 257.610  Recovery = 99.90%
Mo 202.031†            8233.1      489.87 ug/L        4.947      489.87 ppb          4.947   1.01%
   QC value within limits for Mo 202.031  Recovery = 97.97%
Na 589.592 Radial†     35861.4      9800.3 ug/L        39.83      9800.3 ppb          39.83   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 98.00%
Ni 231.604†            23075.5      496.99 ug/L        4.183      496.99 ppb          4.183   0.84%
   QC value within limits for Ni 231.604  Recovery = 99.40%
P 214.914†              4822.6      2378.6 ug/L        30.28      2378.6 ppb          30.28   1.27%
   QC value within limits for P 214.914  Recovery = 95.14%
Pb 220.353†             4790.1      491.62 ug/L        4.413      491.62 ppb          4.413   0.90%
   QC value within limits for Pb 220.353  Recovery = 98.32%
S 181.975 Axial†         811.8      971.63 ug/L       11.277      971.63 ppb         11.277   1.16%
   QC value within limits for S 181.975 Axial  Recovery = 97.16%
Sb 206.836†             1660.8      497.02 ug/L        4.079      497.02 ppb          4.079   0.82%
   QC value within limits for Sb 206.836  Recovery = 99.40%
Se 196.026†              924.7      511.75 ug/L        6.743      511.75 ppb          6.743   1.32%
   QC value within limits for Se 196.026  Recovery = 102.35%
Si 251.611†            88218.3      2444.0 ug/L        18.47      2444.0 ppb          18.47   0.76%
   QC value within limits for Si 251.611  Recovery = 97.76%
Sn 189.927†             3359.1      491.89 ug/L        4.327      491.89 ppb          4.327   0.88%
   QC value within limits for Sn 189.927  Recovery = 98.38%
Sr 421.552†            86731.8      494.78 ug/L        1.158      494.78 ppb          1.158   0.23%
   QC value within limits for Sr 421.552  Recovery = 98.96%
Ti 334.940†           343102.2      493.98 ug/L        1.028      493.98 ppb          1.028   0.21%
   QC value within limits for Ti 334.940  Recovery = 98.80%
Tl 190.801†             1931.3      496.00 ug/L        5.557      496.00 ppb          5.557   1.12%
   QC value within limits for Tl 190.801  Recovery = 99.20%
U 409.014†             17770.6      491.63 ug/L        7.600      491.63 ppb          7.600   1.55%
   QC value within limits for U 409.014  Recovery = 98.33%
V 292.402†             78349.4      498.49 ug/L        4.079      498.49 ppb          4.079   0.82%
   QC value within limits for V 292.402  Recovery = 99.70%
Zn 213.857†            61403.9      491.03 ug/L        3.254      491.03 ppb          3.254   0.66%
   QC value within limits for Zn 213.857  Recovery = 98.21%
SiO2†                  88455.6      5262.4 ug/L        37.67      5262.4 ppb          37.67   0.72%
   QC value within limits for SiO2  Recovery = 98.41%
All analyte(s) passed QC.
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Sequence No.: 17
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/20/2009 10:11:33
Data Type: Reprocessed on 12/20/2009 10:23:44

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	920001.4	920001.4	102.29	%			10:14:42
1	Sc Radial	5661.7	5661.7	101	%			10:13:25
1	Y 371.029	756683.9	756683.9	101.86	%			10:14:42
1	Y RADIAL	5945.8	5945.8	101.4	%			10:13:25
1	Ag 328.068†	407.1	-1.4	-0.0142	ug/L	-0.0142	ppb	10:14:47
1	Al 396.153Radial†	-30.2	-16.5	-11.600	ug/L	-11.600	ppb	10:13:25
1	As 188.979†	-25.9	2.1	0.7503	ug/L	0.7503	ppb	10:15:07
1	B 249.677†	381.0	-92.5	-1.8851	ug/L	-1.8851	ppb	10:14:47
1	Ba 233.527†	1.7	10.3	0.0674	ug/L	0.0674	ppb	10:15:07
1	Be 313.107†	-4449.2	245.4	0.0813	ug/L	0.0813	ppb	10:14:47
1	Ca 317.933Radial†	16.9	-1.2	-1.6966	ug/L	-1.6966	ppb	10:13:45
1	Cd 226.502†	-224.4	6.4	0.0634	ug/L	0.0634	ppb	10:15:07
1	Co 228.616†	-88.4	-1.7	-0.0274	ug/L	-0.0274	ppb	10:15:07
1	Cr 267.716†	101.8	0.3	0.0020	ug/L	0.0020	ppb	10:15:07
1	Cu 324.752†	6131.0	-93.2	-0.2614	ug/L	-0.2614	ppb	10:14:47
1	Fe 238.204 Radial†	8.8	-2.5	-20.055	ug/L	-20.055	ppb	10:13:45
1	K 766.490 Radial†	2828.8	-80.6	-14.478	ug/L	-14.478	ppb	10:13:25
1	Mg 279.077 IEC†	3.6	1.3	39.757	ug/L	39.757	ppb	10:13:45
1	Mn 257.610†	524.8	21.5	0.0183	ug/L	0.0183	ppb	10:15:07
1	Mo 202.031†	33.4	7.1	0.4174	ug/L	0.4174	ppb	10:15:07
1	Na 589.592 Radial†	-1290.3	-13.4	-3.6628	ug/L	-3.6628	ppb	10:13:25
1	Ni 231.604†	118.3	13.4	0.2886	ug/L	0.2886	ppb	10:15:07
1	P 214.914†	250.3	-10.5	-5.2475	ug/L	-5.2475	ppb	10:15:07
1	Pb 220.353†	-62.6	16.6	1.7026	ug/L	1.7026	ppb	10:15:07
1	S 181.975 Axial†	54.4	-5.6	-6.7006	ug/L	-6.7006	ppb	10:15:07
1	Sb 206.836†	59.8	16.1	4.7714	ug/L	4.7714	ppb	10:15:07
1	Se 196.026†	-28.6	0.8	0.3832	ug/L	0.3832	ppb	10:15:07
1	Si 251.611†	708.9	33.2	0.9171	ug/L	0.9171	ppb	10:15:07
1	Sn 189.927†	13.0	10.9	1.5899	ug/L	1.5899	ppb	10:15:07
1	Sr 421.552†	-0.9	-6.5	-0.0373	ug/L	-0.0373	ppb	10:13:25
1	Ti 334.940†	-1537.1	-32.6	-0.0467	ug/L	-0.0467	ppb	10:14:47
1	Tl 190.801†	-42.8	3.9	0.9996	ug/L	0.9996	ppb	10:15:07
1	U 409.014†	-2823.3	-31.8	-0.8800	ug/L	-0.8800	ppb	10:14:42
1	V 292.402†	-1592.3	-88.3	-0.5460	ug/L	-0.5460	ppb	10:14:47
1	Zn 213.857†	826.0	2.7	0.0199	ug/L	0.0199	ppb	10:15:07
1	SiO2†	720.8	19.7	1.1632	ug/L	1.1632	ppb	10:16:13
2	Sc 361.383	918548.4	918548.4	102.13	%			10:15:12
2	Sc Radial	5547.3	5547.3	99.3	%			10:13:50
2	Y 371.029	755205.8	755205.8	101.66	%			10:15:12
2	Y RADIAL	5820.4	5820.4	99.30	%			10:13:50
2	Ag 328.068†	403.5	-4.3	-0.0203	ug/L	-0.0203	ppb	10:15:17
2	Al 396.153Radial†	-21.3	-8.2	-5.7127	ug/L	-5.7127	ppb	10:13:50
2	As 188.979†	-25.6	2.4	0.8569	ug/L	0.8569	ppb	10:15:37
2	B 249.677†	359.0	-113.5	-2.3171	ug/L	-2.3171	ppb	10:15:17
2	Ba 233.527†	19.1	27.3	0.1838	ug/L	0.1838	ppb	10:15:37
2	Be 313.107†	-4508.2	180.8	0.0602	ug/L	0.0602	ppb	10:15:17
2	Ca 317.933Radial†	14.4	-3.3	-4.6520	ug/L	-4.6520	ppb	10:14:10
2	Cd 226.502†	-203.4	26.6	0.2558	ug/L	0.2558	ppb	10:15:37
2	Co 228.616†	-74.2	12.1	0.2083	ug/L	0.2083	ppb	10:15:37
2	Cr 267.716†	76.6	-24.2	-0.2417	ug/L	-0.2417	ppb	10:15:37
2	Cu 324.752†	6146.2	-68.7	-0.1921	ug/L	-0.1921	ppb	10:15:17
2	Fe 238.204 Radial†	11.3	0.2	1.2461	ug/L	1.2461	ppb	10:14:10
2	K 766.490 Radial†	3034.1	183.7	32.994	ug/L	32.994	ppb	10:13:50
2	Mg 279.077 IEC†	5.4	3.1	94.991	ug/L	94.991	ppb	10:14:10
2	Mn 257.610†	526.1	23.6	0.0214	ug/L	0.0214	ppb	10:15:37
2	Mo 202.031†	21.1	-4.9	-0.2894	ug/L	-0.2894	ppb	10:15:37
2	Na 589.592 Radial†	-1355.1	-104.9	-28.671	ug/L	-28.671	ppb	10:13:50
2	Ni 231.604†	121.9	17.1	0.3678	ug/L	0.3678	ppb	10:15:37

2	P 214.914†	244.4	-15.8	-8.0011	ug/L	-8.0011 ppb	10:15:37
2	Pb 220.353†	-77.4	2.1	0.2090	ug/L	0.2090 ppb	10:15:37
2	S 181.975 Axial†	57.6	-2.3	-2.7781	ug/L	-2.7781 ppb	10:15:37
2	Sb 206.836†	46.4	3.0	0.9155	ug/L	0.9155 ppb	10:15:37
2	Se 196.026†	-34.4	-4.9	-2.6241	ug/L	-2.6241 ppb	10:15:37
2	Si 251.611†	721.8	46.9	1.2950	ug/L	1.2950 ppb	10:15:37
2	Sn 189.927†	15.3	13.2	1.9289	ug/L	1.9289 ppb	10:15:37
2	Sr 421.552†	26.4	20.9	0.1195	ug/L	0.1195 ppb	10:13:50
2	Ti 334.940†	-1420.8	78.8	0.1115	ug/L	0.1115 ppb	10:15:17
2	Tl 190.801†	-46.7	0.1	0.0199	ug/L	0.0199 ppb	10:15:37
2	U 409.014†	-2632.0	151.2	4.1963	ug/L	4.1963 ppb	10:15:12
2	V 292.402†	-1457.3	41.4	0.2660	ug/L	0.2660 ppb	10:15:17
2	Zn 213.857†	819.4	-2.5	-0.0258	ug/L	-0.0258 ppb	10:15:37
2	SiO2†	745.1	44.6	2.6381	ug/L	2.6381 ppb	10:16:18
3	Sc 361.383	913228.2	913228.2	101.53	%		10:15:43
3	Sc Radial	5644.1	5644.1	101	%		10:14:15
3	Y 371.029	750802.5	750802.5	101.06	%		10:15:43
3	Y RADIAL	5917.2	5917.2	101.0	%		10:14:15
3	Ag 328.068†	415.7	10.0	0.0446	ug/L	0.0446 ppb	10:15:48
3	Al 396.153Radial†	-27.9	-14.3	-10.094	ug/L	-10.094 ppb	10:14:15
3	As 188.979†	-38.3	-10.3	-3.6471	ug/L	-3.6471 ppb	10:16:08
3	B 249.677†	322.4	-147.5	-3.0122	ug/L	-3.0122 ppb	10:15:48
3	Ba 233.527†	11.0	19.5	0.1313	ug/L	0.1313 ppb	10:16:08
3	Be 313.107†	-4495.7	167.4	0.0557	ug/L	0.0557 ppb	10:15:48
3	Ca 317.933Radial†	21.1	3.0	4.2409	ug/L	4.2409 ppb	10:14:35
3	Cd 226.502†	-212.6	16.3	0.1548	ug/L	0.1548 ppb	10:16:08
3	Co 228.616†	-88.1	-2.0	-0.0341	ug/L	-0.0341 ppb	10:16:08
3	Cr 267.716†	103.0	2.3	0.0213	ug/L	0.0213 ppb	10:16:08
3	Cu 324.752†	6179.0	-1.5	-0.0031	ug/L	-0.0031 ppb	10:15:48
3	Fe 238.204 Radial†	13.9	2.6	20.431	ug/L	20.431 ppb	10:14:35
3	K 766.490 Radial†	2953.5	51.6	9.2546	ug/L	9.2546 ppb	10:14:15
3	Mg 279.077 IEC†	3.2	0.9	26.134	ug/L	26.134 ppb	10:14:35
3	Mn 257.610†	541.1	41.4	0.0420	ug/L	0.0420 ppb	10:16:08
3	Mo 202.031†	34.3	8.2	0.4907	ug/L	0.4907 ppb	10:16:08
3	Na 589.592 Radial†	-1270.0	2.8	0.7523	ug/L	0.7523 ppb	10:14:15
3	Ni 231.604†	90.5	-13.1	-0.2819	ug/L	-0.2819 ppb	10:16:08
3	P 214.914†	240.4	-18.4	-9.3738	ug/L	-9.3738 ppb	10:16:08
3	Pb 220.353†	-60.4	18.4	1.8764	ug/L	1.8764 ppb	10:16:08
3	S 181.975 Axial†	57.0	-2.6	-3.1604	ug/L	-3.1604 ppb	10:16:08
3	Sb 206.836†	34.3	-8.6	-2.5245	ug/L	-2.5245 ppb	10:16:08
3	Se 196.026†	-32.9	-3.6	-1.8708	ug/L	-1.8708 ppb	10:16:08
3	Si 251.611†	678.7	8.6	0.2236	ug/L	0.2236 ppb	10:16:08
3	Sn 189.927†	8.4	6.4	0.9405	ug/L	0.9405 ppb	10:16:08
3	Sr 421.552†	-15.7	-21.2	-0.1210	ug/L	-0.1210 ppb	10:14:15
3	Ti 334.940†	-1433.8	57.9	0.0810	ug/L	0.0810 ppb	10:15:48
3	Tl 190.801†	-49.3	-2.8	-0.7170	ug/L	-0.7170 ppb	10:16:08
3	U 409.014†	-2553.5	213.5	5.9229	ug/L	5.9229 ppb	10:15:43
3	V 292.402†	-1490.1	0.9	0.0215	ug/L	0.0215 ppb	10:15:48
3	Zn 213.857†	837.0	19.5	0.1574	ug/L	0.1574 ppb	10:16:08
3	SiO2†	723.7	27.8	1.6272	ug/L	1.6272 ppb	10:16:23

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	917259.3	101.98	%	0.396				0.39%
Sc Radial	5617.7	101	%	1.1				1.10%
Y 371.029	754230.7	101.53	%	0.412				0.41%
Y RADIAL	5894.5	100.6	%	1.12				1.11%
Ag 328.068†	1.5	0.0034	ug/L	0.03582	0.0034	ppb	0.03582	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-13.0	-9.1356	ug/L	3.05857	-9.1356	ppb	3.05857	33.48%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.9	-0.6800	ug/L	2.57016	-0.6800	ppb	2.57016	377.98%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-117.9	-2.4048	ug/L	0.56861	-2.4048	ppb	0.56861	23.64%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	19.0	0.1275	ug/L	0.05831	0.1275	ppb	0.05831	45.74%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	197.8	0.0658	ug/L	0.01368	0.0658	ppb	0.01368	20.81%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          -0.5     -0.7026 ug/L       4.52900     -0.7026 ppb        4.52900 644.62%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                16.4      0.1580 ug/L       0.09622      0.1580 ppb        0.09622  60.90%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 2.8      0.0489 ug/L       0.13808      0.0489 ppb        0.13808 282.17%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -7.2     -0.0728 ug/L       0.14658     -0.0728 ppb        0.14658 201.37%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -54.5     -0.1522 ug/L       0.13371     -0.1522 ppb        0.13371  87.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.1      0.5405 ug/L      20.25239      0.5405 ppb       20.25239 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          51.5      9.2568 ug/L      23.73610      9.2568 ppb       23.73610 256.42%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.8      53.627 ug/L       36.4639      53.627 ppb        36.4639  68.00%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                28.9      0.0272 ug/L       0.01290      0.0272 ppb        0.01290  47.37%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.5      0.2062 ug/L       0.43081      0.2062 ppb        0.43081 208.92%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -38.5     -10.527 ug/L       15.8676     -10.527 ppb        15.8676 150.73%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 5.8      0.1248 ug/L       0.35446      0.1248 ppb        0.35446 284.02%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -14.9     -7.5408 ug/L       2.10131     -7.5408 ppb        2.10131  27.87%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                12.4      1.2627 ug/L       0.91663      1.2627 ppb        0.91663  72.60%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.5     -4.2130 ug/L       2.16273     -4.2130 ppb        2.16273  51.33%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 3.5      1.0541 ug/L       3.64989      1.0541 ppb        3.64989 346.24%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.6     -1.3706 ug/L       1.56483     -1.3706 ppb        1.56483 114.17%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                29.6      0.8119 ug/L       0.54340      0.8119 ppb        0.54340  66.93%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                10.2      1.4864 ug/L       0.50226      1.4864 ppb        0.50226  33.79%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -2.3     -0.0130 ug/L       0.12209     -0.0130 ppb        0.12209 942.67%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                34.7      0.0486 ug/L       0.08392      0.0486 ppb        0.08392 172.75%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.4      0.1008 ug/L       0.86113      0.1008 ppb        0.86113 854.07%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                111.0      3.0797 ug/L       3.53625      3.0797 ppb        3.53625 114.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -15.3     -0.0862 ug/L       0.41659     -0.0862 ppb        0.41659 483.44%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 6.6      0.0505 ug/L       0.09535      0.0505 ppb        0.09535 188.87%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      30.7      1.8095 ug/L       0.75417      1.8095 ppb        0.75417  41.68%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/20/2009 11:15:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5570.5	5570.5	99.7	%			11:17:34
1	Y RADIAL	5811.2	5811.2	99.14	%			11:17:34
1	Al 396.153Radial†	6881.6	6915.9	4836.6	ug/L	4836.6	ppb	11:17:34
1	Ca 317.933Radial†	3572.8	3565.8	4978.2	ug/L	4978.2	ppb	11:17:54
1	Fe 238.204 Radial†	662.6	653.4	5185.6	ug/L	5185.6	ppb	11:17:54
1	K 766.490 Radial†	30419.9	27640.4	4953.9	ug/L	4953.9	ppb	11:17:34
1	Mg 279.077 IEC†	176.2	174.5	5270.9	ug/L	5270.9	ppb	11:17:54
1	Na 589.592 Radial†	35137.3	36504.6	9976.1	ug/L	9976.1	ppb	11:17:34
1	Sr 421.552†	86765.2	87024.4	496.45	ug/L	496.45	ppb	11:17:34
1	Sc 361.383	918317.6	918317.6	102.10	%			11:18:53
1	Y 371.029	744856.2	744856.2	100.26	%			11:18:53
1	Ag 328.068†	117606.8	114787.6	492.89	ug/L	492.89	ppb	11:18:53
1	As 188.979†	1384.2	1383.2	495.91	ug/L	495.91	ppb	11:19:13
1	B 249.677†	27964.5	26924.0	547.33	ug/L	547.33	ppb	11:18:53
1	Ba 233.527†	75319.8	73778.6	496.58	ug/L	496.58	ppb	11:18:53
1	Be 313.107†	1525414.7	1498623.5	498.33	ug/L	498.33	ppb	11:18:53
1	Cd 226.502†	52573.0	51717.0	496.65	ug/L	496.65	ppb	11:18:53
1	Co 228.616†	28667.0	28161.9	488.57	ug/L	488.57	ppb	11:19:13
1	Cr 267.716†	50688.2	49546.1	494.87	ug/L	494.87	ppb	11:18:53
1	Cu 324.752†	187103.6	177166.8	495.44	ug/L	495.44	ppb	11:18:53
1	Mn 257.610†	519149.9	507976.5	496.42	ug/L	496.42	ppb	11:18:53
1	Mo 202.031†	8438.5	8239.3	490.24	ug/L	490.24	ppb	11:19:13
1	Ni 231.604†	23368.1	22785.0	490.74	ug/L	490.74	ppb	11:19:13
1	P 214.914†	5174.5	4812.9	2372.6	ug/L	2372.6	ppb	11:19:13
1	Pb 220.353†	4843.1	4821.3	494.81	ug/L	494.81	ppb	11:19:13
1	S 181.975 Axial†	903.3	825.9	988.56	ug/L	988.56	ppb	11:19:13
1	Sb 206.836†	1722.1	1644.3	492.12	ug/L	492.12	ppb	11:19:13
1	Se 196.026†	900.4	910.7	504.52	ug/L	504.52	ppb	11:19:13
1	Si 251.611†	90984.1	88452.2	2450.6	ug/L	2450.6	ppb	11:18:53
1	Sn 189.927†	3403.8	3331.9	487.92	ug/L	487.92	ppb	11:19:13
1	Ti 334.940†	347099.6	341427.9	491.58	ug/L	491.58	ppb	11:18:53
1	Tl 190.801†	1922.6	1928.9	495.39	ug/L	495.39	ppb	11:19:13
1	U 409.014†	14818.0	17241.5	476.94	ug/L	476.94	ppb	11:18:53
1	V 292.402†	78427.4	78282.1	498.03	ug/L	498.03	ppb	11:18:53
1	Zn 213.857†	63556.6	61444.0	491.38	ug/L	491.38	ppb	11:18:53
1	SiO2†	90875.2	88320.5	5254.4	ug/L	5254.4	ppb	11:20:14
2	Sc Radial	5510.0	5510.0	98.6	%			11:17:59
2	Y RADIAL	5755.9	5755.9	98.20	%			11:17:59
2	Al 396.153Radial†	6799.9	6908.8	4831.6	ug/L	4831.6	ppb	11:17:59
2	Ca 317.933Radial†	3593.1	3625.8	5061.8	ug/L	5061.8	ppb	11:18:19
2	Fe 238.204 Radial†	661.4	659.5	5233.9	ug/L	5233.9	ppb	11:18:19
2	K 766.490 Radial†	30125.8	27677.0	4960.5	ug/L	4960.5	ppb	11:17:59
2	Mg 279.077 IEC†	175.7	175.9	5315.0	ug/L	5315.0	ppb	11:18:19
2	Na 589.592 Radial†	34755.3	36504.0	9976.0	ug/L	9976.0	ppb	11:17:59
2	Sr 421.552†	85926.8	87129.5	497.05	ug/L	497.05	ppb	11:17:59
2	Sc 361.383	917417.9	917417.9	102.00	%			11:19:21
2	Y 371.029	744435.3	744435.3	100.21	%			11:19:21
2	Ag 328.068†	117770.1	115060.7	494.07	ug/L	494.07	ppb	11:19:21
2	As 188.979†	1386.5	1386.8	497.22	ug/L	497.22	ppb	11:19:41
2	B 249.677†	28004.9	26990.6	548.67	ug/L	548.67	ppb	11:19:21
2	Ba 233.527†	75257.2	73789.6	496.66	ug/L	496.66	ppb	11:19:21
2	Be 313.107†	1525660.4	1500329.6	498.90	ug/L	498.90	ppb	11:19:21
2	Cd 226.502†	52539.4	51734.6	496.81	ug/L	496.81	ppb	11:19:21
2	Co 228.616†	28764.0	28284.5	490.70	ug/L	490.70	ppb	11:19:41
2	Cr 267.716†	50658.1	49565.2	495.06	ug/L	495.06	ppb	11:19:21
2	Cu 324.752†	187311.8	177550.6	496.52	ug/L	496.52	ppb	11:19:21
2	Mn 257.610†	519691.0	509005.7	497.43	ug/L	497.43	ppb	11:19:21
2	Mo 202.031†	8451.1	8259.8	491.46	ug/L	491.46	ppb	11:19:41
2	Ni 231.604†	23421.1	22859.4	492.34	ug/L	492.34	ppb	11:19:41

2	P 214.914†	5199.7	4842.6	2387.5 ug/L	2387.5 ppb	11:19:41
2	Pb 220.353†	4854.9	4837.5	496.46 ug/L	496.46 ppb	11:19:41
2	S 181.975 Axial†	892.4	816.2	976.90 ug/L	976.90 ppb	11:19:41
2	Sb 206.836†	1715.1	1639.0	490.64 ug/L	490.64 ppb	11:19:41
2	Se 196.026†	906.5	917.5	508.33 ug/L	508.33 ppb	11:19:41
2	Si 251.611†	91052.4	88606.5	2454.8 ug/L	2454.8 ppb	11:19:21
2	Sn 189.927†	3419.0	3350.1	490.59 ug/L	490.59 ppb	11:19:41
2	Ti 334.940†	346930.7	341595.6	491.82 ug/L	491.82 ppb	11:19:21
2	Tl 190.801†	1909.3	1917.6	492.51 ug/L	492.51 ppb	11:19:41
2	U 409.014†	14730.6	17170.1	474.95 ug/L	474.95 ppb	11:19:21
2	V 292.402†	78543.3	78471.1	499.23 ug/L	499.23 ppb	11:19:21
2	Zn 213.857†	63627.1	61574.2	492.41 ug/L	492.41 ppb	11:19:21
2	SiO2†	89970.7	87520.9	5206.5 ug/L	5206.5 ppb	11:20:19
3	Sc Radial	5637.4	5637.4	101 %		11:18:24
3	Y RADIAL	5887.7	5887.7	100.4 %		11:18:24
3	Al 396.153Radial†	6960.2	6911.9	4833.8 ug/L	4833.8 ppb	11:18:24
3	Ca 317.933Radial†	3533.3	3484.1	4864.1 ug/L	4864.1 ppb	11:18:44
3	Fe 238.204 Radial†	651.8	634.8	5038.8 ug/L	5038.8 ppb	11:18:44
3	K 766.490 Radial†	30783.6	27638.8	4953.6 ug/L	4953.6 ppb	11:18:24
3	Mg 279.077 IEC†	171.3	167.5	5062.1 ug/L	5062.1 ppb	11:18:44
3	Na 589.592 Radial†	35463.6	36409.8	9950.2 ug/L	9950.2 ppb	11:18:24
3	Sr 421.552†	87691.2	86909.5	495.79 ug/L	495.79 ppb	11:18:24
3	Sc 361.383	920144.4	920144.4	102.30 %		11:19:48
3	Y 371.029	744791.7	744791.7	100.25 %		11:19:48
3	Ag 328.068†	118287.0	115223.8	494.71 ug/L	494.71 ppb	11:19:48
3	As 188.979†	1400.4	1396.3	500.59 ug/L	500.59 ppb	11:20:08
3	B 249.677†	27947.7	26853.3	545.90 ug/L	545.90 ppb	11:19:48
3	Ba 233.527†	75748.4	74051.1	498.41 ug/L	498.41 ppb	11:19:48
3	Be 313.107†	1531193.5	1501306.0	499.23 ug/L	499.23 ppb	11:19:48
3	Cd 226.502†	53018.9	52050.7	499.87 ug/L	499.87 ppb	11:19:48
3	Co 228.616†	28755.3	28192.5	489.10 ug/L	489.10 ppb	11:20:08
3	Cr 267.716†	50958.0	49711.2	496.52 ug/L	496.52 ppb	11:19:48
3	Cu 324.752†	188415.5	178085.3	498.00 ug/L	498.00 ppb	11:19:48
3	Mn 257.610†	523066.5	510795.5	499.16 ug/L	499.16 ppb	11:19:48
3	Mo 202.031†	8451.7	8235.8	490.02 ug/L	490.02 ppb	11:20:08
3	Ni 231.604†	23401.0	22771.7	490.45 ug/L	490.45 ppb	11:20:08
3	P 214.914†	5203.5	4831.1	2381.6 ug/L	2381.6 ppb	11:20:08
3	Pb 220.353†	4845.0	4813.7	494.04 ug/L	494.04 ppb	11:20:08
3	S 181.975 Axial†	892.5	813.6	973.82 ug/L	973.82 ppb	11:20:08
3	Sb 206.836†	1712.9	1631.9	488.43 ug/L	488.43 ppb	11:20:08
3	Se 196.026†	920.9	929.0	513.82 ug/L	513.82 ppb	11:20:08
3	Si 251.611†	91766.3	89039.9	2466.9 ug/L	2466.9 ppb	11:19:48
3	Sn 189.927†	3414.5	3335.8	488.47 ug/L	488.47 ppb	11:20:08
3	Ti 334.940†	349010.8	342621.2	493.29 ug/L	493.29 ppb	11:19:48
3	Tl 190.801†	1914.6	1917.3	492.46 ug/L	492.46 ppb	11:20:08
3	U 409.014†	14707.2	17104.4	473.15 ug/L	473.15 ppb	11:19:48
3	V 292.402†	78992.8	78682.3	500.55 ug/L	500.55 ppb	11:19:48
3	Zn 213.857†	64102.0	61853.6	494.70 ug/L	494.70 ppb	11:19:48
3	SiO2†	90326.7	87607.6	5211.8 ug/L	5211.8 ppb	11:20:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	918626.6	102.14	%	0.154				0.15%
Sc Radial	5572.7	99.7	%	1.14				1.14%
Y 371.029	744694.4	100.24	%	0.031				0.03%
Y RADIAL	5818.3	99.26	%	1.129				1.14%
Ag 328.068†	115024.1	493.89	ug/L	0.927	493.89	ppb	0.927	0.19%
QC value within limits for Ag 328.068 Recovery = 98.78%								
Al 396.153Radial†	6912.2	4834.0	ug/L	2.51	4834.0	ppb	2.51	0.05%
QC value within limits for Al 396.153Radial Recovery = 96.68%								
As 188.979†	1388.8	497.91	ug/L	2.415	497.91	ppb	2.415	0.49%
QC value within limits for As 188.979 Recovery = 99.58%								
B 249.677†	26922.6	547.30	ug/L	1.385	547.30	ppb	1.385	0.25%
QC value within limits for B 249.677 Recovery = 109.46%								
Ba 233.527†	73873.1	497.22	ug/L	1.036	497.22	ppb	1.036	0.21%
QC value within limits for Ba 233.527 Recovery = 99.44%								
Be 313.107†	1500086.4	498.82	ug/L	0.452	498.82	ppb	0.452	0.09%
QC value within limits for Be 313.107 Recovery = 99.76%								
Ca 317.933Radial†	3558.6	4968.1	ug/L	99.25	4968.1	ppb	99.25	2.00%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.36%
Cd 226.502†            51834.1      497.78 ug/L        1.813      497.78 ppb          1.813   0.36%
   QC value within limits for Cd 226.502  Recovery = 99.56%
Co 228.616†            28212.9      489.45 ug/L        1.108      489.45 ppb          1.108   0.23%
   QC value within limits for Co 228.616  Recovery = 97.89%
Cr 267.716†            49607.5      495.48 ug/L        0.902      495.48 ppb          0.902   0.18%
   QC value within limits for Cr 267.716  Recovery = 99.10%
Cu 324.752†           177600.9      496.65 ug/L        1.285      496.65 ppb          1.285   0.26%
   QC value within limits for Cu 324.752  Recovery = 99.33%
Fe 238.204 Radial†       649.2      5152.8 ug/L       101.64      5152.8 ppb         101.64   1.97%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.06%
K 766.490 Radial†      27652.1      4956.0 ug/L         3.88      4956.0 ppb           3.88   0.08%
   QC value within limits for K 766.490 Radial  Recovery = 99.12%
Mg 279.077 IEC†          172.6      5216.0 ug/L       135.09      5216.0 ppb         135.09   2.59%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.32%
Mn 257.610†           509259.2      497.67 ug/L        1.387      497.67 ppb          1.387   0.28%
   QC value within limits for Mn 257.610  Recovery = 99.53%
Mo 202.031†             8245.0      490.58 ug/L        0.777      490.58 ppb          0.777   0.16%
   QC value within limits for Mo 202.031  Recovery = 98.12%
Na 589.592 Radial†     36472.8      9967.4 ug/L       14.92      9967.4 ppb          14.92   0.15%
   QC value within limits for Na 589.592 Radial  Recovery = 99.67%
Ni 231.604†            22805.4      491.17 ug/L        1.018      491.17 ppb          1.018   0.21%
   QC value within limits for Ni 231.604  Recovery = 98.23%
P 214.914†              4828.9      2380.6 ug/L         7.51      2380.6 ppb           7.51   0.32%
   QC value within limits for P 214.914  Recovery = 95.22%
Pb 220.353†             4824.2      495.10 ug/L        1.238      495.10 ppb          1.238   0.25%
   QC value within limits for Pb 220.353  Recovery = 99.02%
S 181.975 Axial†         818.6      979.76 ug/L        7.774      979.76 ppb          7.774   0.79%
   QC value within limits for S 181.975 Axial  Recovery = 97.98%
Sb 206.836†             1638.4      490.40 ug/L        1.854      490.40 ppb          1.854   0.38%
   QC value within limits for Sb 206.836  Recovery = 98.08%
Se 196.026†              919.1      508.89 ug/L        4.671      508.89 ppb          4.671   0.92%
   QC value within limits for Se 196.026  Recovery = 101.78%
Si 251.611†            88699.5      2457.4 ug/L         8.49      2457.4 ppb           8.49   0.35%
   QC value within limits for Si 251.611  Recovery = 98.30%
Sn 189.927†             3339.3      488.99 ug/L        1.408      488.99 ppb          1.408   0.29%
   QC value within limits for Sn 189.927  Recovery = 97.80%
Sr 421.552†            87021.1      496.43 ug/L        0.627      496.43 ppb          0.627   0.13%
   QC value within limits for Sr 421.552  Recovery = 99.29%
Ti 334.940†           341881.6      492.23 ug/L        0.926      492.23 ppb          0.926   0.19%
   QC value within limits for Ti 334.940  Recovery = 98.45%
Tl 190.801†             1921.2      493.46 ug/L        1.678      493.46 ppb          1.678   0.34%
   QC value within limits for Tl 190.801  Recovery = 98.69%
U 409.014†             17172.0      475.02 ug/L        1.896      475.02 ppb          1.896   0.40%
   QC value within limits for U 409.014  Recovery = 95.00%
V 292.402†             78478.5      499.27 ug/L        1.259      499.27 ppb          1.259   0.25%
   QC value within limits for V 292.402  Recovery = 99.85%
Zn 213.857†            61623.9      492.83 ug/L        1.697      492.83 ppb          1.697   0.34%
   QC value within limits for Zn 213.857  Recovery = 98.57%
SiO2†                  87816.3      5224.2 ug/L        26.25      5224.2 ppb          26.25   0.50%
   QC value within limits for SiO2  Recovery = 97.69%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/20/2009 11:22:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5650.3	5650.3	101	%			11:24:27
1	Y RADIAL	5949.1	5949.1	101.5	%			11:24:27
1	Al 396.153Radial†	-15.5	-2.0	-1.4658	ug/L	-1.4658	ppb	11:24:27
1	Ca 317.933Radial†	17.8	-0.3	-0.4224	ug/L	-0.4224	ppb	11:24:47
1	Fe 238.204 Radial†	12.4	1.0	8.2564	ug/L	8.2564	ppb	11:24:47
1	K 766.490 Radial†	3095.5	188.8	33.921	ug/L	33.921	ppb	11:24:27
1	Mg 279.077 IEC†	3.3	1.0	28.940	ug/L	28.940	ppb	11:24:47
1	Na 589.592 Radial†	-1458.3	-182.1	-49.755	ug/L	-49.755	ppb	11:24:27
1	Sr 421.552†	-22.5	-27.9	-0.1591	ug/L	-0.1591	ppb	11:24:27
1	Sc 361.383	889609.7	889609.7	98.909	%			11:25:43
1	Y 371.029	736233.4	736233.4	99.103	%			11:25:43
1	Ag 328.068†	345.6	-50.0	-0.2081	ug/L	-0.2081	ppb	11:25:43
1	As 188.979†	-31.8	-4.7	-1.6706	ug/L	-1.6706	ppb	11:26:03
1	B 249.677†	1929.2	1485.5	30.302	ug/L	30.302	ppb	11:25:43
1	Ba 233.527†	-1.6	7.0	0.0462	ug/L	0.0462	ppb	11:26:03
1	Be 313.107†	-4505.2	40.2	0.0132	ug/L	0.0132	ppb	11:25:43
1	Cd 226.502†	-220.0	3.3	0.0314	ug/L	0.0314	ppb	11:26:03
1	Co 228.616†	-69.4	14.5	0.2549	ug/L	0.2549	ppb	11:26:03
1	Cr 267.716†	95.4	-2.7	-0.0263	ug/L	-0.0263	ppb	11:26:03
1	Cu 324.752†	6111.9	92.3	0.2583	ug/L	0.2583	ppb	11:25:43
1	Mn 257.610†	543.1	57.6	0.0565	ug/L	0.0565	ppb	11:26:03
1	Mo 202.031†	42.3	17.2	1.0254	ug/L	1.0254	ppb	11:26:03
1	Ni 231.604†	131.6	30.8	0.6643	ug/L	0.6643	ppb	11:26:03
1	P 214.914†	243.5	-8.9	-4.5919	ug/L	-4.5919	ppb	11:26:03
1	Pb 220.353†	-81.7	-4.8	-0.4888	ug/L	-0.4888	ppb	11:26:03
1	S 181.975 Axial†	53.6	-4.6	-5.4701	ug/L	-5.4701	ppb	11:26:03
1	Sb 206.836†	46.3	4.4	1.3222	ug/L	1.3222	ppb	11:26:03
1	Se 196.026†	-28.3	0.2	0.1304	ug/L	0.1304	ppb	11:26:03
1	Si 251.611†	689.5	37.3	1.0077	ug/L	1.0077	ppb	11:26:03
1	Sn 189.927†	4.0	2.2	0.3256	ug/L	0.3256	ppb	11:26:03
1	Ti 334.940†	-1491.0	-37.4	-0.0518	ug/L	-0.0518	ppb	11:25:43
1	Tl 190.801†	-39.7	5.7	1.4499	ug/L	1.4499	ppb	11:26:03
1	U 409.014†	-2867.1	-170.4	-4.7309	ug/L	-4.7309	ppb	11:25:43
1	V 292.402†	-1522.3	-70.7	-0.4389	ug/L	-0.4389	ppb	11:25:43
1	Zn 213.857†	837.5	41.9	0.3316	ug/L	0.3316	ppb	11:26:03
1	SiO2†	725.0	48.0	2.8053	ug/L	2.8053	ppb	11:26:59
2	Sc Radial	5607.3	5607.3	100	%			11:24:52
2	Y RADIAL	5847.9	5847.9	99.77	%			11:24:52
2	Al 396.153Radial†	-35.3	-21.8	-15.344	ug/L	-15.344	ppb	11:24:52
2	Ca 317.933Radial†	22.0	4.0	5.6031	ug/L	5.6031	ppb	11:25:12
2	Fe 238.204 Radial†	12.7	1.5	11.829	ug/L	11.829	ppb	11:25:12
2	K 766.490 Radial†	3024.3	141.3	25.374	ug/L	25.374	ppb	11:24:52
2	Mg 279.077 IEC†	3.8	1.6	46.905	ug/L	46.905	ppb	11:25:12
2	Na 589.592 Radial†	-1349.0	-84.3	-23.028	ug/L	-23.028	ppb	11:24:52
2	Sr 421.552†	9.2	3.6	0.0202	ug/L	0.0202	ppb	11:24:52
2	Sc 361.383	890261.5	890261.5	98.981	%			11:26:09
2	Y 371.029	736919.4	736919.4	99.195	%			11:26:09
2	Ag 328.068†	297.7	-98.6	-0.4178	ug/L	-0.4178	ppb	11:26:09
2	As 188.979†	-16.4	10.9	3.8485	ug/L	3.8485	ppb	11:26:29
2	B 249.677†	1851.9	1405.9	28.680	ug/L	28.680	ppb	11:26:09
2	Ba 233.527†	-4.0	4.5	0.0286	ug/L	0.0286	ppb	11:26:29
2	Be 313.107†	-4525.2	23.3	0.0076	ug/L	0.0076	ppb	11:26:09
2	Cd 226.502†	-238.0	-14.7	-0.1421	ug/L	-0.1421	ppb	11:26:29
2	Co 228.616†	-76.8	7.1	0.1230	ug/L	0.1230	ppb	11:26:29
2	Cr 267.716†	106.5	8.4	0.0831	ug/L	0.0831	ppb	11:26:29
2	Cu 324.752†	6152.3	128.6	0.3600	ug/L	0.3600	ppb	11:26:09
2	Mn 257.610†	520.2	34.0	0.0335	ug/L	0.0335	ppb	11:26:29
2	Mo 202.031†	25.7	0.4	0.0233	ug/L	0.0233	ppb	11:26:29
2	Ni 231.604†	123.2	22.2	0.4783	ug/L	0.4783	ppb	11:26:29

2	P 214.914†	256.8	4.3	2.1196	ug/L	2.1196	ppb	11:26:29
2	Pb 220.353†	-69.7	7.4	0.7490	ug/L	0.7490	ppb	11:26:29
2	S 181.975 Axial†	54.9	-3.3	-3.9854	ug/L	-3.9854	ppb	11:26:29
2	Sb 206.836†	37.6	-4.4	-1.3202	ug/L	-1.3202	ppb	11:26:29
2	Se 196.026†	-27.3	1.2	0.6956	ug/L	0.6956	ppb	11:26:29
2	Si 251.611†	683.3	30.4	0.8401	ug/L	0.8401	ppb	11:26:29
2	Sn 189.927†	-1.2	-3.0	-0.4435	ug/L	-0.4435	ppb	11:26:29
2	Ti 334.940†	-1498.3	-43.7	-0.0614	ug/L	-0.0614	ppb	11:26:09
2	Tl 190.801†	-41.7	3.6	0.9240	ug/L	0.9240	ppb	11:26:29
2	U 409.014†	-2797.8	-98.3	-2.7287	ug/L	-2.7287	ppb	11:26:09
2	V 292.402†	-1592.6	-140.5	-0.8881	ug/L	-0.8881	ppb	11:26:09
2	Zn 213.857†	838.7	42.5	0.3371	ug/L	0.3371	ppb	11:26:29
2	SiO2†	689.2	11.3	0.6606	ug/L	0.6606	ppb	11:27:05
3	Sc Radial	5623.7	5623.7	101	%			11:25:17
3	Y RADIAL	5848.2	5848.2	99.77	%			11:25:17
3	Al 396.153Radial†	-29.9	-16.4	-11.525	ug/L	-11.525	ppb	11:25:17
3	Ca 317.933Radial†	24.8	6.8	9.4972	ug/L	9.4972	ppb	11:25:37
3	Fe 238.204 Radial†	10.2	-1.1	-8.3809	ug/L	-8.3809	ppb	11:25:37
3	K 766.490 Radial†	2937.1	45.8	8.2351	ug/L	8.2351	ppb	11:25:17
3	Mg 279.077 IEC†	0.1	-2.2	-66.850	ug/L	-66.850	ppb	11:25:37
3	Na 589.592 Radial†	-1321.8	-53.3	-14.562	ug/L	-14.562	ppb	11:25:17
3	Sr 421.552†	-27.5	-32.9	-0.1881	ug/L	-0.1881	ppb	11:25:17
3	Sc 361.383	900897.0	900897.0	100.16	%			11:26:34
3	Y 371.029	746183.9	746183.9	100.44	%			11:26:34
3	Ag 328.068†	408.8	8.7	0.0322	ug/L	0.0322	ppb	11:26:34
3	As 188.979†	-24.9	2.6	0.9242	ug/L	0.9242	ppb	11:26:54
3	B 249.677†	1874.4	1406.3	28.689	ug/L	28.689	ppb	11:26:34
3	Ba 233.527†	5.4	14.0	0.0920	ug/L	0.0920	ppb	11:26:54
3	Be 313.107†	-4522.4	80.1	0.0265	ug/L	0.0265	ppb	11:26:34
3	Cd 226.502†	-224.4	1.7	0.0175	ug/L	0.0175	ppb	11:26:54
3	Co 228.616†	-72.1	12.8	0.2225	ug/L	0.2225	ppb	11:26:54
3	Cr 267.716†	119.9	20.5	0.2036	ug/L	0.2036	ppb	11:26:54
3	Cu 324.752†	6144.7	47.6	0.1327	ug/L	0.1327	ppb	11:26:34
3	Mn 257.610†	513.7	21.3	0.0213	ug/L	0.0213	ppb	11:26:54
3	Mo 202.031†	30.8	5.2	0.3063	ug/L	0.3063	ppb	11:26:54
3	Ni 231.604†	127.2	24.7	0.5318	ug/L	0.5318	ppb	11:26:54
3	P 214.914†	251.0	-4.6	-2.3537	ug/L	-2.3537	ppb	11:26:54
3	Pb 220.353†	-79.1	-1.2	-0.1198	ug/L	-0.1198	ppb	11:26:54
3	S 181.975 Axial†	59.0	0.1	0.1643	ug/L	0.1643	ppb	11:26:54
3	Sb 206.836†	35.3	-7.2	-2.0985	ug/L	-2.0985	ppb	11:26:54
3	Se 196.026†	-20.3	8.5	4.4968	ug/L	4.4968	ppb	11:26:54
3	Si 251.611†	663.1	2.1	0.0490	ug/L	0.0490	ppb	11:26:54
3	Sn 189.927†	6.3	4.5	0.6613	ug/L	0.6613	ppb	11:26:54
3	Ti 334.940†	-1488.9	-16.4	-0.0225	ug/L	-0.0225	ppb	11:26:34
3	Tl 190.801†	-35.7	10.1	2.5848	ug/L	2.5848	ppb	11:26:54
3	U 409.014†	-2789.8	-56.9	-1.5784	ug/L	-1.5784	ppb	11:26:34
3	V 292.402†	-1613.5	-142.4	-0.8931	ug/L	-0.8931	ppb	11:26:34
3	Zn 213.857†	824.7	18.5	0.1488	ug/L	0.1488	ppb	11:26:54
3	SiO2†	676.7	-9.4	-0.5844	ug/L	-0.5844	ppb	11:27:10

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	893589.4	99.351	%	0.7046				0.71%
Sc Radial	5627.1	101	%	0.4				0.39%
Y 371.029	739778.9	99.580	%	0.7481				0.75%
Y RADIAL	5881.7	100.3	%	0.99				0.99%
Ag 328.068†	-46.6	-0.1979	ug/L	0.22515	-0.1979	ppb	0.22515	113.76%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-13.4	-9.4450	ug/L	7.16917	-9.4450	ppb	7.16917	75.90%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.0	1.0340	ug/L	2.76121	1.0340	ppb	2.76121	267.04%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1432.6	29.224	ug/L	0.9343	29.224	ppb	0.9343	3.20%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.5	0.0556	ug/L	0.03272	0.0556	ppb	0.03272	58.86%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	47.9	0.0158	ug/L	0.00971	0.0158	ppb	0.00971	61.48%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.5	4.8926	ug/L	4.99786	4.8926	ppb	4.99786	102.15%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -3.2     -0.0311 ug/L       0.09640     -0.0311 ppb        0.09640 310.38%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                11.5      0.2001 ug/L       0.06874      0.2001 ppb        0.06874  34.35%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.7      0.0868 ug/L       0.11498      0.0868 ppb        0.11498 132.49%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                89.5      0.2503 ug/L       0.11386      0.2503 ppb        0.11386  45.48%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.5      3.9015 ug/L      10.78579      3.9015 ppb       10.78579 276.46%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         125.3     22.510 ug/L       13.0803     22.510 ppb        13.0803  58.11%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.1      2.9983 ug/L      61.15358      2.9983 ppb       61.15358 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                37.6      0.0371 ug/L       0.01789      0.0371 ppb        0.01789  48.25%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 7.6      0.4517 ug/L       0.51663      0.4517 ppb        0.51663 114.38%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -106.5    -29.115 ug/L       18.3688    -29.115 ppb        18.3688  63.09%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                25.9      0.5581 ug/L       0.09580      0.5581 ppb        0.09580  17.16%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -3.1     -1.6087 ug/L       3.41723     -1.6087 ppb        3.41723 212.42%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.5      0.0468 ug/L       0.63550      0.0468 ppb        0.63550 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.6     -3.0971 ug/L       2.92035     -3.0971 ppb        2.92035  94.29%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -2.4     -0.6988 ug/L       1.79304     -0.6988 ppb        1.79304 256.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.3      1.7743 ug/L       2.37466      1.7743 ppb        2.37466 133.84%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                23.3      0.6323 ug/L       0.51199      0.6323 ppb        0.51199  80.98%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.2      0.1812 ug/L       0.56639      0.1812 ppb        0.56639 312.64%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -19.1     -0.1090 ug/L       0.11283     -0.1090 ppb        0.11283 103.53%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -32.5     -0.0452 ug/L       0.02027     -0.0452 ppb        0.02027  44.82%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 6.5      1.6529 ug/L       0.84879      1.6529 ppb        0.84879  51.35%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -108.5     -3.0126 ug/L       1.59535     -3.0126 ppb        1.59535  52.96%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -117.9     -0.7400 ug/L       0.26080     -0.7400 ppb        0.26080  35.24%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                34.3      0.2725 ug/L       0.10719      0.2725 ppb        0.10719  39.34%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      16.7      0.9605 ug/L       1.71463      0.9605 ppb        1.71463 178.52%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/20/2009 12:12:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5488.2	5488.2	98.2	%			12:13:53
1	Y RADIAL	5716.6	5716.6	97.53	%			12:13:53
1	Al 396.153Radial†	6845.3	6982.4	4883.2	ug/L	4883.2	ppb	12:13:53
1	Ca 317.933Radial†	3504.1	3549.7	4955.6	ug/L	4955.6	ppb	12:14:13
1	Fe 238.204 Radial†	644.9	645.3	5122.3	ug/L	5122.3	ppb	12:14:13
1	K 766.490 Radial†	30397.2	28074.8	5031.9	ug/L	5031.9	ppb	12:13:53
1	Mg 279.077 IEC†	169.7	170.5	5151.6	ug/L	5151.6	ppb	12:14:13
1	Na 589.592 Radial†	34145.2	36023.0	9844.5	ug/L	9844.5	ppb	12:13:53
1	Sr 421.552†	85537.3	87079.3	496.76	ug/L	496.76	ppb	12:13:53
1	Sc 361.383	896613.6	896613.6	99.688	%			12:15:10
1	Y 371.029	726723.0	726723.0	97.822	%			12:15:10
1	Ag 328.068†	116764.4	116730.9	501.18	ug/L	501.18	ppb	12:15:16
1	As 188.979†	1366.1	1397.9	501.23	ug/L	501.23	ppb	12:15:36
1	B 249.677†	24918.9	24532.0	498.49	ug/L	498.49	ppb	12:15:16
1	Ba 233.527†	74693.3	74935.9	504.37	ug/L	504.37	ppb	12:15:16
1	Be 313.107†	1513795.7	1523133.5	506.49	ug/L	506.49	ppb	12:15:10
1	Cd 226.502†	52236.6	52626.0	505.40	ug/L	505.40	ppb	12:15:16
1	Co 228.616†	29012.9	29188.5	506.37	ug/L	506.37	ppb	12:15:16
1	Cr 267.716†	50298.5	50356.9	502.96	ug/L	502.96	ppb	12:15:16
1	Cu 324.752†	183895.4	178384.5	498.84	ug/L	498.84	ppb	12:15:16
1	Mn 257.610†	516725.7	517853.1	506.06	ug/L	506.06	ppb	12:15:10
1	Mo 202.031†	8310.3	8310.7	494.48	ug/L	494.48	ppb	12:15:36
1	Ni 231.604†	23494.4	23465.8	505.40	ug/L	505.40	ppb	12:15:16
1	P 214.914†	5143.0	4903.9	2418.6	ug/L	2418.6	ppb	12:15:36
1	Pb 220.353†	4761.6	4854.3	498.21	ug/L	498.21	ppb	12:15:36
1	S 181.975 Axial†	868.9	812.9	972.91	ug/L	972.91	ppb	12:15:36
1	Sb 206.836†	1720.0	1683.0	503.59	ug/L	503.59	ppb	12:15:36
1	Se 196.026†	907.8	939.4	519.65	ug/L	519.65	ppb	12:15:36
1	Si 251.611†	90512.7	90136.4	2497.3	ug/L	2497.3	ppb	12:15:16
1	Sn 189.927†	3381.8	3390.6	496.50	ug/L	496.50	ppb	12:15:36
1	Ti 334.940†	344881.6	347432.1	500.21	ug/L	500.21	ppb	12:15:10
1	Tl 190.801†	1906.2	1958.0	502.84	ug/L	502.84	ppb	12:15:36
1	U 409.014†	14972.6	17747.9	490.99	ug/L	490.99	ppb	12:15:16
1	V 292.402†	77882.7	79595.1	506.36	ug/L	506.36	ppb	12:15:16
1	Zn 213.857†	63116.3	62509.2	499.88	ug/L	499.88	ppb	12:15:16
1	SiO2†	90787.1	90386.6	5377.6	ug/L	5377.6	ppb	12:16:44
2	Sc Radial	5622.1	5622.1	101	%			12:14:18
2	Y RADIAL	5842.4	5842.4	99.68	%			12:14:18
2	Al 396.153Radial†	6945.0	6915.5	4836.2	ug/L	4836.2	ppb	12:14:18
2	Ca 317.933Radial†	3507.6	3468.1	4841.7	ug/L	4841.7	ppb	12:14:38
2	Fe 238.204 Radial†	642.9	627.7	4983.3	ug/L	4983.3	ppb	12:14:38
2	K 766.490 Radial†	30715.1	27653.5	4956.3	ug/L	4956.3	ppb	12:14:18
2	Mg 279.077 IEC†	170.7	167.4	5058.1	ug/L	5058.1	ppb	12:14:38
2	Na 589.592 Radial†	34540.5	35587.8	9725.6	ug/L	9725.6	ppb	12:14:18
2	Sr 421.552†	86614.2	86075.1	491.03	ug/L	491.03	ppb	12:14:18
2	Sc 361.383	897509.2	897509.2	99.787	%			12:15:42
2	Y 371.029	725542.3	725542.3	97.664	%			12:15:42
2	Ag 328.068†	117509.0	117360.2	503.82	ug/L	503.82	ppb	12:15:47
2	As 188.979†	1367.2	1397.6	501.13	ug/L	501.13	ppb	12:16:07
2	B 249.677†	25014.1	24602.4	499.94	ug/L	499.94	ppb	12:15:47
2	Ba 233.527†	75138.8	75307.6	506.87	ug/L	506.87	ppb	12:15:47
2	Be 313.107†	1519932.4	1527768.0	508.03	ug/L	508.03	ppb	12:15:42
2	Cd 226.502†	52377.2	52714.7	506.27	ug/L	506.27	ppb	12:15:47
2	Co 228.616†	29188.0	29335.0	508.90	ug/L	508.90	ppb	12:15:47
2	Cr 267.716†	50659.6	50668.4	506.07	ug/L	506.07	ppb	12:15:47
2	Cu 324.752†	185156.5	179464.2	501.85	ug/L	501.85	ppb	12:15:47
2	Mn 257.610†	520550.8	521169.1	509.28	ug/L	509.28	ppb	12:15:42
2	Mo 202.031†	8315.7	8307.9	494.30	ug/L	494.30	ppb	12:16:07
2	Ni 231.604†	23628.7	23576.8	507.79	ug/L	507.79	ppb	12:15:47

2	P 214.914†	5146.0	4901.8	2417.1 ug/L	2417.1 ppb	12:16:07
2	Pb 220.353†	4767.7	4855.7	498.35 ug/L	498.35 ppb	12:16:07
2	S 181.975 Axial†	871.8	814.9	975.41 ug/L	975.41 ppb	12:16:07
2	Sb 206.836†	1725.2	1686.5	504.56 ug/L	504.56 ppb	12:16:07
2	Se 196.026†	916.4	947.2	523.36 ug/L	523.36 ppb	12:16:07
2	Si 251.611†	91108.4	90642.8	2511.4 ug/L	2511.4 ppb	12:15:47
2	Sn 189.927†	3397.8	3403.2	498.33 ug/L	498.33 ppb	12:16:07
2	Ti 334.940†	347145.3	349355.5	502.97 ug/L	502.97 ppb	12:15:42
2	Tl 190.801†	1902.8	1952.7	501.50 ug/L	501.50 ppb	12:16:07
2	U 409.014†	15344.4	18105.4	500.93 ug/L	500.93 ppb	12:15:47
2	V 292.402†	78368.8	80004.4	508.96 ug/L	508.96 ppb	12:15:47
2	Zn 213.857†	63567.6	62898.3	503.01 ug/L	503.01 ppb	12:15:47
2	SiO2†	91119.6	90628.9	5392.1 ug/L	5392.1 ppb	12:16:49
3	Sc Radial	5509.4	5509.4	98.6 %		12:14:43
3	Y RADIAL	5717.3	5717.3	97.54 %		12:14:43
3	Al 396.153Radial†	6889.0	7000.0	4895.8 ug/L	4895.8 ppb	12:14:43
3	Ca 317.933Radial†	3516.3	3548.3	4953.7 ug/L	4953.7 ppb	12:15:03
3	Fe 238.204 Radial†	643.3	641.3	5089.9 ug/L	5089.9 ppb	12:15:03
3	K 766.490 Radial†	30421.4	27980.4	5015.0 ug/L	5015.0 ppb	12:14:43
3	Mg 279.077 IEC†	167.1	167.2	5050.5 ug/L	5050.5 ppb	12:15:03
3	Na 589.592 Radial†	34021.2	35763.6	9773.6 ug/L	9773.6 ppb	12:14:43
3	Sr 421.552†	85351.0	86555.6	493.77 ug/L	493.77 ppb	12:14:43
3	Sc 361.383	914632.4	914632.4	101.69 %		12:16:13
3	Y 371.029	740544.5	740544.5	99.683 %		12:16:13
3	Ag 328.068†	118233.1	115867.6	497.46 ug/L	497.46 ppb	12:16:18
3	As 188.979†	1391.4	1395.7	500.41 ug/L	500.41 ppb	12:16:38
3	B 249.677†	25323.1	24437.0	496.57 ug/L	496.57 ppb	12:16:18
3	Ba 233.527†	75422.4	74176.8	499.26 ug/L	499.26 ppb	12:16:18
3	Be 313.107†	1524902.4	1504139.5	500.17 ug/L	500.17 ppb	12:16:13
3	Cd 226.502†	52715.3	52064.5	500.00 ug/L	500.00 ppb	12:16:18
3	Co 228.616†	29308.3	28905.7	501.45 ug/L	501.45 ppb	12:16:18
3	Cr 267.716†	50835.5	49891.0	498.31 ug/L	498.31 ppb	12:16:18
3	Cu 324.752†	186532.4	177343.5	495.93 ug/L	495.93 ppb	12:16:18
3	Mn 257.610†	520453.3	511307.0	499.67 ug/L	499.67 ppb	12:16:13
3	Mo 202.031†	8352.2	8187.7	487.17 ug/L	487.17 ppb	12:16:38
3	Ni 231.604†	23794.6	23296.6	501.75 ug/L	501.75 ppb	12:16:18
3	P 214.914†	5159.8	4818.8	2375.7 ug/L	2375.7 ppb	12:16:38
3	Pb 220.353†	4795.2	4793.3	491.95 ug/L	491.95 ppb	12:16:38
3	S 181.975 Axial†	888.6	815.1	975.56 ug/L	975.56 ppb	12:16:38
3	Sb 206.836†	1728.8	1657.7	495.96 ug/L	495.96 ppb	12:16:38
3	Se 196.026†	917.3	930.9	514.98 ug/L	514.98 ppb	12:16:38
3	Si 251.611†	91592.9	89410.0	2477.2 ug/L	2477.2 ppb	12:16:18
3	Sn 189.927†	3406.9	3348.4	490.33 ug/L	490.33 ppb	12:16:38
3	Ti 334.940†	347654.0	343342.8	494.32 ug/L	494.32 ppb	12:16:13
3	Tl 190.801†	1912.7	1926.7	494.80 ug/L	494.80 ppb	12:16:38
3	U 409.014†	15534.1	18004.1	498.12 ug/L	498.12 ppb	12:16:18
3	V 292.402†	78872.2	79029.1	502.73 ug/L	502.73 ppb	12:16:18
3	Zn 213.857†	63876.7	62009.6	495.88 ug/L	495.88 ppb	12:16:18
3	SiO2†	90502.7	88312.7	5254.0 ug/L	5254.0 ppb	12:16:54

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902918.4	100.39	%	1.129				1.12%
Sc Radial	5539.9	99.1	%	1.29				1.30%
Y 371.029	730936.6	98.390	%	1.1228				1.14%
Y RADIAL	5758.8	98.25	%	1.236				1.26%
Ag 328.068†	116652.9	500.82	ug/L	3.193	500.82	ppb	3.193	0.64%
QC value within limits for Ag 328.068 Recovery = 100.16%								
Al 396.153Radial†	6966.0	4871.7	ug/L	31.43	4871.7	ppb	31.43	0.65%
QC value within limits for Al 396.153Radial Recovery = 97.43%								
As 188.979†	1397.0	500.92	ug/L	0.450	500.92	ppb	0.450	0.09%
QC value within limits for As 188.979 Recovery = 100.18%								
B 249.677†	24523.8	498.33	ug/L	1.690	498.33	ppb	1.690	0.34%
QC value within limits for B 249.677 Recovery = 99.67%								
Ba 233.527†	74806.8	503.50	ug/L	3.876	503.50	ppb	3.876	0.77%
QC value within limits for Ba 233.527 Recovery = 100.70%								
Be 313.107†	1518347.0	504.89	ug/L	4.164	504.89	ppb	4.164	0.82%
QC value within limits for Be 313.107 Recovery = 100.98%								
Ca 317.933Radial†	3522.0	4917.0	ug/L	65.21	4917.0	ppb	65.21	1.33%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.34%
Cd 226.502†            52468.4      503.89 ug/L        3.392      503.89 ppb        3.392   0.67%
   QC value within limits for Cd 226.502  Recovery = 100.78%
Co 228.616†            29143.0      505.57 ug/L        3.786      505.57 ppb        3.786   0.75%
   QC value within limits for Co 228.616  Recovery = 101.11%
Cr 267.716†            50305.4      502.44 ug/L        3.906      502.44 ppb        3.906   0.78%
   QC value within limits for Cr 267.716  Recovery = 100.49%
Cu 324.752†           178397.4      498.87 ug/L        2.961      498.87 ppb        2.961   0.59%
   QC value within limits for Cu 324.752  Recovery = 99.77%
Fe 238.204 Radial†       638.1      5065.2 ug/L       72.73      5065.2 ppb        72.73   1.44%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.30%
K 766.490 Radial†      27902.9      5001.1 ug/L       39.70      5001.1 ppb        39.70   0.79%
   QC value within limits for K 766.490 Radial  Recovery = 100.02%
Mg 279.077 IEC†          168.4      5086.7 ug/L       56.31      5086.7 ppb        56.31   1.11%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.73%
Mn 257.610†           516776.4      505.00 ug/L        4.896      505.00 ppb        4.896   0.97%
   QC value within limits for Mn 257.610  Recovery = 101.00%
Mo 202.031†             8268.8      491.98 ug/L        4.171      491.98 ppb        4.171   0.85%
   QC value within limits for Mo 202.031  Recovery = 98.40%
Na 589.592 Radial†     35791.5      9781.2 ug/L       59.83      9781.2 ppb        59.83   0.61%
   QC value within limits for Na 589.592 Radial  Recovery = 97.81%
Ni 231.604†            23446.4      504.98 ug/L        3.038      504.98 ppb        3.038   0.60%
   QC value within limits for Ni 231.604  Recovery = 101.00%
P 214.914†              4874.9      2403.8 ug/L       24.36      2403.8 ppb        24.36   1.01%
   QC value within limits for P 214.914  Recovery = 96.15%
Pb 220.353†             4834.4      496.17 ug/L        3.653      496.17 ppb        3.653   0.74%
   QC value within limits for Pb 220.353  Recovery = 99.23%
S 181.975 Axial†         814.3      974.63 ug/L        1.487      974.63 ppb        1.487   0.15%
   QC value within limits for S 181.975 Axial  Recovery = 97.46%
Sb 206.836†             1675.7      501.37 ug/L        4.710      501.37 ppb        4.710   0.94%
   QC value within limits for Sb 206.836  Recovery = 100.27%
Se 196.026†              939.1      519.33 ug/L        4.198      519.33 ppb        4.198   0.81%
   QC value within limits for Se 196.026  Recovery = 103.87%
Si 251.611†            90063.0      2495.3 ug/L       17.18      2495.3 ppb        17.18   0.69%
   QC value within limits for Si 251.611  Recovery = 99.81%
Sn 189.927†             3380.7      495.05 ug/L        4.193      495.05 ppb        4.193   0.85%
   QC value within limits for Sn 189.927  Recovery = 99.01%
Sr 421.552†            86570.0      493.86 ug/L        2.865      493.86 ppb        2.865   0.58%
   QC value within limits for Sr 421.552  Recovery = 98.77%
Ti 334.940†           346710.1      499.17 ug/L        4.418      499.17 ppb        4.418   0.89%
   QC value within limits for Ti 334.940  Recovery = 99.83%
Tl 190.801†             1945.8      499.71 ug/L        4.308      499.71 ppb        4.308   0.86%
   QC value within limits for Tl 190.801  Recovery = 99.94%
U 409.014†             17952.5      496.68 ug/L        5.121      496.68 ppb        5.121   1.03%
   QC value within limits for U 409.014  Recovery = 99.34%
V 292.402†             79542.8      506.02 ug/L        3.132      506.02 ppb        3.132   0.62%
   QC value within limits for V 292.402  Recovery = 101.20%
Zn 213.857†            62472.4      499.59 ug/L        3.572      499.59 ppb        3.572   0.72%
   QC value within limits for Zn 213.857  Recovery = 99.92%
SiO2†                  89776.1      5341.2 ug/L       75.93      5341.2 ppb        75.93   1.42%
   QC value within limits for SiO2  Recovery = 99.88%
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/20/2009 12:19:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5709.4	5709.4	102	%			12:20:56
1	Y RADIAL	5957.0	5957.0	101.6	%			12:20:56
1	Al 396.153Radial†	-21.3	-7.6	-5.3377	ug/L	-5.3377	ppb	12:20:56
1	Ca 317.933Radial†	24.1	5.8	8.0319	ug/L	8.0319	ppb	12:21:16
1	Fe 238.204 Radial†	14.0	2.5	19.915	ug/L	19.915	ppb	12:21:16
1	K 766.490 Radial†	2887.5	-46.5	-8.3441	ug/L	-8.3441	ppb	12:20:56
1	Mg 279.077 IEC†	2.5	0.2	6.6401	ug/L	6.6401	ppb	12:21:16
1	Na 589.592 Radial†	-1334.1	-45.6	-12.455	ug/L	-12.455	ppb	12:20:56
1	Sr 421.552†	-2.1	-7.7	-0.0438	ug/L	-0.0438	ppb	12:20:56
1	Sc 361.383	897443.2	897443.2	99.780	%			12:22:13
1	Y 371.029	741811.7	741811.7	99.854	%			12:22:13
1	Ag 328.068†	310.4	-88.3	-0.3657	ug/L	-0.3657	ppb	12:22:13
1	As 188.979†	-25.9	1.5	0.5325	ug/L	0.5325	ppb	12:22:33
1	B 249.677†	456.5	-7.6	-0.1565	ug/L	-0.1565	ppb	12:22:13
1	Ba 233.527†	0.8	9.4	0.0630	ug/L	0.0630	ppb	12:22:33
1	Be 313.107†	-4558.1	26.9	0.0093	ug/L	0.0093	ppb	12:22:13
1	Cd 226.502†	-209.2	16.0	0.1525	ug/L	0.1525	ppb	12:22:33
1	Co 228.616†	-94.5	-10.0	-0.1738	ug/L	-0.1738	ppb	12:22:33
1	Cr 267.716†	94.8	-4.1	-0.0393	ug/L	-0.0393	ppb	12:22:33
1	Cu 324.752†	6153.2	79.8	0.2239	ug/L	0.2239	ppb	12:22:13
1	Mn 257.610†	530.4	40.1	0.0410	ug/L	0.0410	ppb	12:22:33
1	Mo 202.031†	26.5	1.0	0.0628	ug/L	0.0628	ppb	12:22:33
1	Ni 231.604†	124.8	22.8	0.4924	ug/L	0.4924	ppb	12:22:33
1	P 214.914†	264.0	9.4	4.7229	ug/L	4.7229	ppb	12:22:33
1	Pb 220.353†	-77.0	0.7	0.0681	ug/L	0.0681	ppb	12:22:33
1	S 181.975 Axial†	54.5	-4.1	-4.9437	ug/L	-4.9437	ppb	12:22:33
1	Sb 206.836†	42.3	-0.0	0.0073	ug/L	0.0073	ppb	12:22:33
1	Se 196.026†	-32.1	-3.4	-1.7301	ug/L	-1.7301	ppb	12:22:33
1	Si 251.611†	759.6	101.4	2.8225	ug/L	2.8225	ppb	12:22:33
1	Sn 189.927†	7.8	6.0	0.8734	ug/L	0.8734	ppb	12:22:33
1	Ti 334.940†	-1354.7	112.3	0.1651	ug/L	0.1651	ppb	12:22:13
1	Tl 190.801†	-36.4	9.3	2.3807	ug/L	2.3807	ppb	12:22:33
1	U 409.014†	-2959.4	-237.6	-6.5977	ug/L	-6.5977	ppb	12:22:13
1	V 292.402†	-1519.6	-54.5	-0.3573	ug/L	-0.3573	ppb	12:22:13
1	Zn 213.857†	830.4	27.4	0.2160	ug/L	0.2160	ppb	12:22:33
1	SiO2†	760.4	77.1	4.6080	ug/L	4.6080	ppb	12:23:29
2	Sc Radial	5628.4	5628.4	101	%			12:21:21
2	Y RADIAL	5904.7	5904.7	100.7	%			12:21:21
2	Al 396.153Radial†	-48.4	-34.7	-24.377	ug/L	-24.377	ppb	12:21:21
2	Ca 317.933Radial†	17.6	-0.4	-0.5676	ug/L	-0.5676	ppb	12:21:41
2	Fe 238.204 Radial†	12.6	1.3	10.537	ug/L	10.537	ppb	12:21:41
2	K 766.490 Radial†	2790.2	-102.4	-18.382	ug/L	-18.382	ppb	12:21:21
2	Mg 279.077 IEC†	1.5	-0.8	-24.541	ug/L	-24.541	ppb	12:21:41
2	Na 589.592 Radial†	-1346.6	-76.8	-20.981	ug/L	-20.981	ppb	12:21:21
2	Sr 421.552†	-26.9	-32.4	-0.1847	ug/L	-0.1847	ppb	12:21:21
2	Sc 361.383	899234.6	899234.6	99.979	%			12:22:38
2	Y 371.029	742609.9	742609.9	99.961	%			12:22:38
2	Ag 328.068†	288.8	-110.6	-0.4670	ug/L	-0.4670	ppb	12:22:38
2	As 188.979†	-25.9	1.6	0.5589	ug/L	0.5589	ppb	12:22:59
2	B 249.677†	402.9	-62.0	-1.2668	ug/L	-1.2668	ppb	12:22:38
2	Ba 233.527†	7.6	16.2	0.1086	ug/L	0.1086	ppb	12:22:59
2	Be 313.107†	-4481.9	112.3	0.0376	ug/L	0.0376	ppb	12:22:38
2	Cd 226.502†	-236.4	-10.7	-0.1035	ug/L	-0.1035	ppb	12:22:59
2	Co 228.616†	-83.7	1.0	0.0171	ug/L	0.0171	ppb	12:22:59
2	Cr 267.716†	98.5	-0.7	-0.0065	ug/L	-0.0065	ppb	12:22:59
2	Cu 324.752†	6111.3	25.5	0.0718	ug/L	0.0718	ppb	12:22:38
2	Mn 257.610†	521.7	30.2	0.0310	ug/L	0.0310	ppb	12:22:59
2	Mo 202.031†	24.8	-0.8	-0.0467	ug/L	-0.0467	ppb	12:22:59
2	Ni 231.604†	129.0	26.7	0.5761	ug/L	0.5761	ppb	12:22:59

2	P 214.914†	248.2	-6.9	-3.5370 ug/L	-3.5370 ppb	12:22:59
2	Pb 220.353†	-77.1	0.8	0.0705 ug/L	0.0705 ppb	12:22:59
2	S 181.975 Axial†	56.3	-2.4	-2.8624 ug/L	-2.8624 ppb	12:22:59
2	Sb 206.836†	24.2	-18.2	-5.3810 ug/L	-5.3810 ppb	12:22:59
2	Se 196.026†	-34.4	-5.7	-2.9919 ug/L	-2.9919 ppb	12:22:59
2	Si 251.611†	747.0	87.3	2.4373 ug/L	2.4373 ppb	12:22:59
2	Sn 189.927†	0.9	-1.0	-0.1391 ug/L	-0.1391 ppb	12:22:59
2	Ti 334.940†	-1354.5	115.3	0.1671 ug/L	0.1671 ppb	12:22:38
2	Tl 190.801†	-43.3	2.5	0.6444 ug/L	0.6444 ppb	12:22:59
2	U 409.014†	-2816.3	-88.6	-2.4599 ug/L	-2.4599 ppb	12:22:38
2	V 292.402†	-1506.1	-38.0	-0.2461 ug/L	-0.2461 ppb	12:22:38
2	Zn 213.857†	832.1	27.5	0.2179 ug/L	0.2179 ppb	12:22:59
2	SiO2†	721.3	36.5	2.1981 ug/L	2.1981 ppb	12:23:34
3	Sc Radial	5570.6	5570.6	99.7 %		12:21:46
3	Y RADIAL	5814.5	5814.5	99.20 %		12:21:46
3	Al 396.153Radial†	-20.6	-7.4	-5.2115 ug/L	-5.2115 ppb	12:21:46
3	Ca 317.933Radial†	25.1	7.3	10.141 ug/L	10.141 ppb	12:22:06
3	Fe 238.204 Radial†	10.9	-0.2	-1.8502 ug/L	-1.8502 ppb	12:22:06
3	K 766.490 Radial†	2926.4	62.9	11.299 ug/L	11.299 ppb	12:21:46
3	Mg 279.077 IEC†	1.7	-0.5	-15.553 ug/L	-15.553 ppb	12:22:06
3	Na 589.592 Radial†	-1348.2	-92.3	-25.229 ug/L	-25.229 ppb	12:21:46
3	Sr 421.552†	15.8	10.2	0.0582 ug/L	0.0582 ppb	12:21:46
3	Sc 361.383	883782.0	883782.0	98.261 %		12:23:04
3	Y 371.029	729222.6	729222.6	98.159 %		12:23:04
3	Ag 328.068†	410.3	18.2	0.0711 ug/L	0.0711 ppb	12:23:04
3	As 188.979†	-28.0	-1.0	-0.3717 ug/L	-0.3717 ppb	12:23:24
3	B 249.677†	456.4	-0.6	-0.0112 ug/L	-0.0112 ppb	12:23:04
3	Ba 233.527†	-7.0	1.5	0.0091 ug/L	0.0091 ppb	12:23:24
3	Be 313.107†	-4499.2	16.2	0.0054 ug/L	0.0054 ppb	12:23:04
3	Cd 226.502†	-232.4	-10.7	-0.1024 ug/L	-0.1024 ppb	12:23:24
3	Co 228.616†	-79.3	4.0	0.0704 ug/L	0.0704 ppb	12:23:24
3	Cr 267.716†	106.3	9.0	0.0876 ug/L	0.0876 ppb	12:23:24
3	Cu 324.752†	5999.7	18.8	0.0525 ug/L	0.0525 ppb	12:23:04
3	Mn 257.610†	531.1	49.0	0.0479 ug/L	0.0479 ppb	12:23:24
3	Mo 202.031†	29.6	4.6	0.2722 ug/L	0.2722 ppb	12:23:24
3	Ni 231.604†	122.9	22.8	0.4918 ug/L	0.4918 ppb	12:23:24
3	P 214.914†	250.9	0.1	0.0663 ug/L	0.0663 ppb	12:23:24
3	Pb 220.353†	-70.6	6.0	0.6116 ug/L	0.6116 ppb	12:23:24
3	S 181.975 Axial†	47.7	-10.3	-12.290 ug/L	-12.290 ppb	12:23:24
3	Sb 206.836†	39.4	-2.3	-0.6706 ug/L	-0.6706 ppb	12:23:24
3	Se 196.026†	-38.0	-9.9	-5.2776 ug/L	-5.2776 ppb	12:23:24
3	Si 251.611†	717.6	70.4	1.9523 ug/L	1.9523 ppb	12:23:24
3	Sn 189.927†	2.5	0.7	0.1095 ug/L	0.1095 ppb	12:23:24
3	Ti 334.940†	-1457.0	-12.7	-0.0198 ug/L	-0.0198 ppb	12:23:04
3	Tl 190.801†	-34.8	10.3	2.6409 ug/L	2.6409 ppb	12:23:24
3	U 409.014†	-2521.9	161.9	4.4924 ug/L	4.4924 ppb	12:23:04
3	V 292.402†	-1516.8	-75.2	-0.4596 ug/L	-0.4596 ppb	12:23:04
3	Zn 213.857†	832.3	42.2	0.3376 ug/L	0.3376 ppb	12:23:24
3	SiO2†	743.6	71.8	4.2737 ug/L	4.2737 ppb	12:23:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	893486.6	99.340	%	0.9397				0.95%
Sc Radial	5636.1	101	%	1.2				1.24%
Y 371.029	737881.4	99.324	%	1.0108				1.02%
Y RADIAL	5892.1	100.5	%	1.23				1.22%
Ag 328.068†	-60.2	-0.2539	ug/L	0.28593	-0.2539	ppb	0.28593	112.62%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-16.6	-11.642	ug/L	11.0291	-11.642	ppb	11.0291	94.73%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.7	0.2399	ug/L	0.52983	0.2399	ppb	0.52983	220.85%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-23.4	-0.4782	ug/L	0.68683	-0.4782	ppb	0.68683	143.64%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.1	0.0602	ug/L	0.04982	0.0602	ppb	0.04982	82.70%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	51.8	0.0174	ug/L	0.01759	0.0174	ppb	0.01759	101.12%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.2	5.8684	ug/L	5.67259	5.8684	ppb	5.67259	96.66%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -1.8     -0.0178 ug/L       0.14750     -0.0178 ppb        0.14750 828.48%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -1.7     -0.0288 ug/L       0.12836     -0.0288 ppb        0.12836 446.38%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 1.4      0.0140 ug/L       0.06584      0.0140 ppb        0.06584 471.94%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                41.4      0.1161 ug/L       0.09389      0.1161 ppb        0.09389  80.87%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.2      9.5339 ug/L      10.91739      9.5339 ppb       10.91739 114.51%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -28.7     -5.1423 ug/L      15.09700     -5.1423 ppb       15.09700 293.58%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.4     -11.151 ug/L       16.0496     -11.151 ppb        16.0496 143.93%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                39.8      0.0400 ug/L       0.00849      0.0400 ppb        0.00849  21.23%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.6      0.0961 ug/L       0.16204      0.0961 ppb        0.16204 168.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -71.6     -19.555 ug/L        6.5051     -19.555 ppb         6.5051  33.27%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                24.1      0.5201 ug/L       0.04851      0.5201 ppb        0.04851   9.33%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  0.9      0.4174 ug/L       4.14111      0.4174 ppb        4.14111 992.14%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 2.5      0.2501 ug/L       0.31311      0.2501 ppb        0.31311 125.20%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -5.6     -6.6986 ug/L       4.95252     -6.6986 ppb        4.95252  73.93%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -6.8     -2.0148 ug/L       2.93487     -2.0148 ppb        2.93487 145.67%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -6.3     -3.3332 ug/L       1.79818     -3.3332 ppb        1.79818  53.95%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                86.4      2.4040 ug/L       0.43606      2.4040 ppb        0.43606  18.14%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.9      0.2813 ug/L       0.52766      0.2813 ppb        0.52766 187.60%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -9.9     -0.0568 ug/L       0.12198     -0.0568 ppb        0.12198 214.92%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                71.6      0.1041 ug/L       0.10731      0.1041 ppb        0.10731 103.05%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 7.4      1.8887 ug/L       1.08542      1.8887 ppb        1.08542  57.47%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -54.8     -1.5217 ug/L       5.60424     -1.5217 ppb        5.60424 368.28%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -55.9     -0.3543 ug/L       0.10675     -0.3543 ppb        0.10675  30.13%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                32.3      0.2572 ug/L       0.06966      0.2572 ppb        0.06966  27.09%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      61.8      3.6933 ug/L       1.30559      3.6933 ppb        1.30559  35.35%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 12/20/2009 12:46:46 **Plasma On Time: 12/14/2009 06:02:42**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\122009A.sif
Batch ID:
Results Data Set: 122009A
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/20/2009 12:46:47**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5590.7	5590.7	100	%			12:48:39
1	Y RADIAL	5764.4	5764.4	98.34	%			12:48:39
1	Al 396.153Radial†	7003.3	7012.6	4904.2	ug/L	4904.2	ppb	12:48:39
1	Ca 317.933Radial†	3691.0	3671.0	5125.0	ug/L	5125.0	ppb	12:48:39
1	Fe 238.204 Radial†	650.7	639.1	5073.0	ug/L	5073.0	ppb	12:48:59
1	K 766.490 Radial†	31143.4	28253.4	5063.8	ug/L	5063.8	ppb	12:48:39
1	Mg 279.077 IEC†	172.2	169.9	5132.9	ug/L	5132.9	ppb	12:48:59
1	Na 589.592 Radial†	36784.8	38024.0	10391	ug/L	10391	ppb	12:48:39
1	Sr 421.552†	90023.8	89967.2	513.24	ug/L	513.24	ppb	12:48:39
1	Sc 361.383	905345.8	905345.8	100.66	%			12:49:58
1	Y 371.029	733408.1	733408.1	98.722	%			12:49:58
1	Ag 328.068†	116779.7	115616.3	496.40	ug/L	496.40	ppb	12:49:58
1	As 188.979†	1386.4	1404.8	503.63	ug/L	503.63	ppb	12:50:18
1	B 249.677†	24655.5	24029.1	488.26	ug/L	488.26	ppb	12:49:58
1	Ba 233.527†	74965.9	74484.1	501.32	ug/L	501.32	ppb	12:49:58
1	Be 313.107†	1511261.3	1505969.2	500.78	ug/L	500.78	ppb	12:49:58
1	Cd 226.502†	52156.6	52041.1	499.78	ug/L	499.78	ppb	12:49:58
1	Co 228.616†	28833.1	28729.2	498.42	ug/L	498.42	ppb	12:50:18
1	Cr 267.716†	50382.7	49953.9	498.94	ug/L	498.94	ppb	12:49:58
1	Cu 324.752†	185708.3	178406.3	498.90	ug/L	498.90	ppb	12:49:58
1	Mn 257.610†	517112.9	513238.3	501.55	ug/L	501.55	ppb	12:49:58
1	Mo 202.031†	8452.8	8371.9	498.11	ug/L	498.11	ppb	12:50:18
1	Ni 231.604†	23403.6	23148.2	498.56	ug/L	498.56	ppb	12:50:18
1	P 214.914†	5189.6	4900.5	2416.8	ug/L	2416.8	ppb	12:50:18
1	Pb 220.353†	4839.1	4885.3	501.39	ug/L	501.39	ppb	12:50:18
1	S 181.975 Axial†	888.8	824.2	986.55	ug/L	986.55	ppb	12:50:18
1	Sb 206.836†	1725.2	1671.6	500.33	ug/L	500.33	ppb	12:50:18
1	Se 196.026†	913.3	936.1	517.77	ug/L	517.77	ppb	12:50:18
1	Si 251.611†	90554.4	89302.1	2474.0	ug/L	2474.0	ppb	12:49:58
1	Sn 189.927†	3393.1	3369.0	493.36	ug/L	493.36	ppb	12:50:18
1	Ti 334.940†	345233.9	344445.3	495.93	ug/L	495.93	ppb	12:49:58
1	Tl 190.801†	1907.2	1940.5	498.37	ug/L	498.37	ppb	12:50:18
1	U 409.014†	14663.0	17295.4	478.45	ug/L	478.45	ppb	12:49:58
1	V 292.402†	78080.2	79037.8	502.90	ug/L	502.90	ppb	12:49:58
1	Zn 213.857†	63169.6	61951.4	495.43	ug/L	495.43	ppb	12:49:58
1	SiO2†	91572.7	90288.7	5371.6	ug/L	5371.6	ppb	12:51:19
2	Sc Radial	5430.7	5430.7	97.2	%			12:49:04
2	Y RADIAL	5642.4	5642.4	96.26	%			12:49:04
2	Al 396.153Radial†	6755.8	6964.2	4870.3	ug/L	4870.3	ppb	12:49:04
2	Ca 317.933Radial†	3591.1	3676.9	5133.3	ug/L	5133.3	ppb	12:49:04
2	Fe 238.204 Radial†	660.8	668.6	5306.5	ug/L	5306.5	ppb	12:49:24
2	K 766.490 Radial†	30115.7	28112.8	5038.6	ug/L	5038.6	ppb	12:49:04
2	Mg 279.077 IEC†	175.2	178.0	5376.9	ug/L	5376.9	ppb	12:49:24
2	Na 589.592 Radial†	35230.3	37507.5	10250	ug/L	10250	ppb	12:49:04
2	Sr 421.552†	86463.5	88954.3	507.46	ug/L	507.46	ppb	12:49:04
2	Sc 361.383	908219.6	908219.6	100.98	%			12:50:26
2	Y 371.029	734922.3	734922.3	98.926	%			12:50:26

2	Ag 328.068†	117110.1	115576.4	496.31 ug/L	496.31 ppb	12:50:26
2	As 188.979†	1372.6	1386.7	497.26 ug/L	497.26 ppb	12:50:46
2	B 249.677†	24821.7	24116.3	490.01 ug/L	490.01 ppb	12:50:26
2	Ba 233.527†	75122.2	74403.1	500.79 ug/L	500.79 ppb	12:50:26
2	Be 313.107†	1514187.4	1504116.3	500.17 ug/L	500.17 ppb	12:50:26
2	Cd 226.502†	52472.4	52190.0	501.18 ug/L	501.18 ppb	12:50:26
2	Co 228.616†	28724.6	28531.1	494.98 ug/L	494.98 ppb	12:50:46
2	Cr 267.716†	50540.1	49951.4	498.92 ug/L	498.92 ppb	12:50:26
2	Cu 324.752†	186124.2	178234.4	498.43 ug/L	498.43 ppb	12:50:26
2	Mn 257.610†	518759.8	513243.7	501.57 ug/L	501.57 ppb	12:50:26
2	Mo 202.031†	8441.1	8333.8	495.87 ug/L	495.87 ppb	12:50:46
2	Ni 231.604†	23381.0	23052.3	496.49 ug/L	496.49 ppb	12:50:46
2	P 214.914†	5166.1	4860.9	2396.5 ug/L	2396.5 ppb	12:50:46
2	Pb 220.353†	4858.4	4889.1	501.76 ug/L	501.76 ppb	12:50:46
2	S 181.975 Axial†	884.2	816.8	977.68 ug/L	977.68 ppb	12:50:46
2	Sb 206.836†	1721.4	1662.3	497.52 ug/L	497.52 ppb	12:50:46
2	Se 196.026†	911.8	931.7	516.16 ug/L	516.16 ppb	12:50:46
2	Si 251.611†	90783.1	89243.9	2472.5 ug/L	2472.5 ppb	12:50:26
2	Sn 189.927†	3391.1	3356.4	491.52 ug/L	491.52 ppb	12:50:46
2	Ti 334.940†	346415.8	344530.5	496.05 ug/L	496.05 ppb	12:50:26
2	Tl 190.801†	1914.6	1941.8	498.72 ug/L	498.72 ppb	12:50:46
2	U 409.014†	14653.1	17239.5	476.87 ug/L	476.87 ppb	12:50:26
2	V 292.402†	78282.7	78992.9	502.55 ug/L	502.55 ppb	12:50:26
2	Zn 213.857†	63370.0	61951.3	495.42 ug/L	495.42 ppb	12:50:26
2	SiO2†	90693.4	89130.0	5302.5 ug/L	5302.5 ppb	12:51:24
3	Sc Radial	5531.7	5531.7	99.0 %		12:49:29
3	Y RADIAL	5792.7	5792.7	98.83 %		12:49:29
3	Al 396.153Radial†	6987.6	7071.4	4945.8 ug/L	4945.8 ppb	12:49:29
3	Ca 317.933Radial†	3663.1	3682.2	5140.6 ug/L	5140.6 ppb	12:49:29
3	Fe 238.204 Radial†	658.8	654.2	5192.3 ug/L	5192.3 ppb	12:49:49
3	K 766.490 Radial†	30749.8	28187.8	5052.0 ug/L	5052.0 ppb	12:49:29
3	Mg 279.077 IEC†	173.2	172.7	5217.4 ug/L	5217.4 ppb	12:49:49
3	Na 589.592 Radial†	36163.3	37788.2	10327 ug/L	10327 ppb	12:49:29
3	Sr 421.552†	88928.4	89820.3	512.40 ug/L	512.40 ppb	12:49:29
3	Sc 361.383	914578.4	914578.4	101.69 %		12:50:53
3	Y 371.029	740794.0	740794.0	99.717 %		12:50:53
3	Ag 328.068†	118304.3	115944.5	497.83 ug/L	497.83 ppb	12:50:53
3	As 188.979†	1386.8	1391.3	498.87 ug/L	498.87 ppb	12:51:13
3	B 249.677†	25189.1	24306.6	493.92 ug/L	493.92 ppb	12:50:53
3	Ba 233.527†	75651.5	74406.5	500.81 ug/L	500.81 ppb	12:50:53
3	Be 313.107†	1529766.1	1509011.1	501.79 ug/L	501.79 ppb	12:50:53
3	Cd 226.502†	52728.1	52080.1	500.14 ug/L	500.14 ppb	12:50:53
3	Co 228.616†	28764.4	28372.4	492.22 ug/L	492.22 ppb	12:51:13
3	Cr 267.716†	50832.7	49891.1	498.31 ug/L	498.31 ppb	12:50:53
3	Cu 324.752†	188318.0	179110.3	500.87 ug/L	500.87 ppb	12:50:53
3	Mn 257.610†	522175.1	513030.5	501.36 ug/L	501.36 ppb	12:50:53
3	Mo 202.031†	8443.3	8277.8	492.53 ug/L	492.53 ppb	12:51:13
3	Ni 231.604†	23407.8	22917.6	493.59 ug/L	493.59 ppb	12:51:13
3	P 214.914†	5167.4	4826.6	2378.8 ug/L	2378.8 ppb	12:51:13
3	Pb 220.353†	4866.9	4864.1	499.21 ug/L	499.21 ppb	12:51:13
3	S 181.975 Axial†	887.0	813.5	973.67 ug/L	973.67 ppb	12:51:13
3	Sb 206.836†	1708.2	1637.5	490.13 ug/L	490.13 ppb	12:51:13
3	Se 196.026†	905.3	919.1	509.07 ug/L	509.07 ppb	12:51:13
3	Si 251.611†	91745.4	89565.2	2481.5 ug/L	2481.5 ppb	12:50:53
3	Sn 189.927†	3413.1	3354.8	491.28 ug/L	491.28 ppb	12:51:13
3	Ti 334.940†	349473.0	345151.8	496.94 ug/L	496.94 ppb	12:50:53
3	Tl 190.801†	1916.8	1930.9	495.95 ug/L	495.95 ppb	12:51:13
3	U 409.014†	15076.7	17555.2	485.64 ug/L	485.64 ppb	12:50:53
3	V 292.402†	78887.3	79048.5	502.89 ug/L	502.89 ppb	12:50:53
3	Zn 213.857†	63858.3	61995.2	495.80 ug/L	495.80 ppb	12:50:53
3	SiO2†	90926.9	88735.2	5279.0 ug/L	5279.0 ppb	12:51:29

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	909381.2	101.11	%	0.525				0.52%
Sc Radial	5517.7	98.8	%	1.45				1.47%
Y 371.029	736374.8	99.122	%	0.5251				0.53%
Y RADIAL	5733.2	97.81	%	1.362				1.39%
Ag 328.068†	115712.4	496.85	ug/L	0.856	496.85	ppb	0.856	0.17%

```
   QC value within limits for Ag 328.068  Recovery = 99.37%
Al 396.153Radial†       7016.1      4906.8 ug/L        37.80      4906.8 ppb        37.80   0.77%
   QC value within limits for Al 396.153Radial  Recovery = 98.14%
As 188.979†             1394.3      499.92 ug/L        3.312      499.92 ppb        3.312   0.66%
   QC value within limits for As 188.979  Recovery = 99.98%
B 249.677†             24150.7      490.73 ug/L        2.898      490.73 ppb        2.898   0.59%
   QC value within limits for B 249.677  Recovery = 98.15%
Ba 233.527†            74431.2      500.97 ug/L        0.305      500.97 ppb        0.305   0.06%
   QC value within limits for Ba 233.527  Recovery = 100.19%
Be 313.107†          1506365.5      500.91 ug/L        0.821      500.91 ppb        0.821   0.16%
   QC value within limits for Be 313.107  Recovery = 100.18%
Ca 317.933Radial†       3676.7      5133.0 ug/L         7.80      5133.0 ppb         7.80   0.15%
   QC value within limits for Ca 317.933Radial  Recovery = 102.66%
Cd 226.502†            52103.7      500.37 ug/L        0.730      500.37 ppb        0.730   0.15%
   QC value within limits for Cd 226.502  Recovery = 100.07%
Co 228.616†            28544.3      495.20 ug/L        3.109      495.20 ppb        3.109   0.63%
   QC value within limits for Co 228.616  Recovery = 99.04%
Cr 267.716†            49932.1      498.72 ug/L        0.355      498.72 ppb        0.355   0.07%
   QC value within limits for Cr 267.716  Recovery = 99.74%
Cu 324.752†           178583.7      499.40 ug/L        1.296      499.40 ppb        1.296   0.26%
   QC value within limits for Cu 324.752  Recovery = 99.88%
Fe 238.204 Radial†       654.0      5190.6 ug/L       116.73      5190.6 ppb       116.73   2.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.81%
K 766.490 Radial†      28184.7      5051.5 ug/L        12.60      5051.5 ppb        12.60   0.25%
   QC value within limits for K 766.490 Radial  Recovery = 101.03%
Mg 279.077 IEC†          173.5      5242.4 ug/L       123.91      5242.4 ppb       123.91   2.36%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.85%
Mn 257.610†           513170.8      501.49 ug/L        0.119      501.49 ppb        0.119   0.02%
   QC value within limits for Mn 257.610  Recovery = 100.30%
Mo 202.031†             8327.8      495.50 ug/L        2.809      495.50 ppb        2.809   0.57%
   QC value within limits for Mo 202.031  Recovery = 99.10%
Na 589.592 Radial†     37773.2       10323 ug/L         70.7       10323 ppb         70.7   0.68%
   QC value within limits for Na 589.592 Radial  Recovery = 103.23%
Ni 231.604†            23039.4      496.21 ug/L        2.494      496.21 ppb        2.494   0.50%
   QC value within limits for Ni 231.604  Recovery = 99.24%
P 214.914†              4862.7      2397.4 ug/L        19.02      2397.4 ppb        19.02   0.79%
   QC value within limits for P 214.914  Recovery = 95.89%
Pb 220.353†             4879.5      500.79 ug/L        1.378      500.79 ppb        1.378   0.28%
   QC value within limits for Pb 220.353  Recovery = 100.16%
S 181.975 Axial†         818.2      979.30 ug/L        6.591      979.30 ppb        6.591   0.67%
   QC value within limits for S 181.975 Axial  Recovery = 97.93%
Sb 206.836†             1657.1      495.99 ug/L        5.266      495.99 ppb        5.266   1.06%
   QC value within limits for Sb 206.836  Recovery = 99.20%
Se 196.026†              929.0      514.33 ug/L        4.626      514.33 ppb        4.626   0.90%
   QC value within limits for Se 196.026  Recovery = 102.87%
Si 251.611†            89370.4      2476.0 ug/L         4.81      2476.0 ppb         4.81   0.19%
   QC value within limits for Si 251.611  Recovery = 99.04%
Sn 189.927†             3360.1      492.05 ug/L        1.140      492.05 ppb        1.140   0.23%
   QC value within limits for Sn 189.927  Recovery = 98.41%
Sr 421.552†            89580.6      511.03 ug/L        3.123      511.03 ppb        3.123   0.61%
   QC value within limits for Sr 421.552  Recovery = 102.21%
Ti 334.940†           344709.2      496.31 ug/L        0.554      496.31 ppb        0.554   0.11%
   QC value within limits for Ti 334.940  Recovery = 99.26%
Tl 190.801†             1937.7      497.68 ug/L        1.508      497.68 ppb        1.508   0.30%
   QC value within limits for Tl 190.801  Recovery = 99.54%
U 409.014†             17363.4      480.32 ug/L        4.679      480.32 ppb        4.679   0.97%
   QC value within limits for U 409.014  Recovery = 96.06%
V 292.402†             79026.4      502.78 ug/L        0.196      502.78 ppb        0.196   0.04%
   QC value within limits for V 292.402  Recovery = 100.56%
Zn 213.857†            61966.0      495.55 ug/L        0.218      495.55 ppb        0.218   0.04%
   QC value within limits for Zn 213.857  Recovery = 99.11%
SiO2†                  89384.6      5317.7 ug/L        48.16      5317.7 ppb        48.16   0.91%
   QC value within limits for SiO2  Recovery = 99.44%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/20/2009 12:53:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5703.3	5703.3	102	%			12:55:31
1	Y RADIAL	5979.4	5979.4	102.0	%			12:55:31
1	Al 396.153Radial†	-22.3	-8.5	-6.0120	ug/L	-6.0120	ppb	12:55:31
1	Ca 317.933Radial†	22.6	4.2	5.9041	ug/L	5.9041	ppb	12:55:51
1	Fe 238.204 Radial†	12.1	0.7	5.2946	ug/L	5.2946	ppb	12:55:51
1	K 766.490 Radial†	2952.1	19.8	3.5490	ug/L	3.5490	ppb	12:55:31
1	Mg 279.077 IEC†	2.5	0.2	6.4782	ug/L	6.4782	ppb	12:55:51
1	Na 589.592 Radial†	-1221.6	63.2	17.280	ug/L	17.280	ppb	12:55:31
1	Sr 421.552†	34.5	28.2	0.1607	ug/L	0.1607	ppb	12:55:31
1	Sc 361.383	904309.2	904309.2	100.54	%			12:56:48
1	Y 371.029	747082.2	747082.2	100.56	%			12:56:48
1	Ag 328.068†	388.8	-12.7	-0.0526	ug/L	-0.0526	ppb	12:56:48
1	As 188.979†	-32.1	-4.5	-1.5839	ug/L	-1.5839	ppb	12:57:08
1	B 249.677†	47.9	-417.3	-8.5149	ug/L	-8.5149	ppb	12:56:48
1	Ba 233.527†	4.8	13.4	0.0901	ug/L	0.0901	ppb	12:57:08
1	Be 313.107†	-4509.1	110.3	0.0368	ug/L	0.0368	ppb	12:56:48
1	Cd 226.502†	-219.2	7.7	0.0738	ug/L	0.0738	ppb	12:57:08
1	Co 228.616†	-73.7	11.4	0.1991	ug/L	0.1991	ppb	12:57:08
1	Cr 267.716†	100.0	0.3	0.0033	ug/L	0.0033	ppb	12:57:08
1	Cu 324.752†	6137.0	16.8	0.0472	ug/L	0.0472	ppb	12:56:48
1	Mn 257.610†	526.4	32.0	0.0317	ug/L	0.0317	ppb	12:57:08
1	Mo 202.031†	30.9	5.2	0.3081	ug/L	0.3081	ppb	12:57:08
1	Ni 231.604†	109.6	6.8	0.1457	ug/L	0.1457	ppb	12:57:08
1	P 214.914†	251.7	-4.9	-2.4806	ug/L	-2.4806	ppb	12:57:08
1	Pb 220.353†	-76.6	1.7	0.1692	ug/L	0.1692	ppb	12:57:08
1	S 181.975 Axial†	50.7	-8.4	-10.034	ug/L	-10.034	ppb	12:57:08
1	Sb 206.836†	39.8	-2.8	-0.8031	ug/L	-0.8031	ppb	12:57:08
1	Se 196.026†	-30.8	-1.8	-0.9429	ug/L	-0.9429	ppb	12:57:08
1	Si 251.611†	693.0	29.4	0.8113	ug/L	0.8113	ppb	12:57:08
1	Sn 189.927†	5.4	3.6	0.5262	ug/L	0.5262	ppb	12:57:08
1	Ti 334.940†	-1412.6	65.1	0.0940	ug/L	0.0940	ppb	12:56:48
1	Tl 190.801†	-38.9	7.1	1.8043	ug/L	1.8043	ppb	12:57:08
1	U 409.014†	-2736.3	6.8	0.1894	ug/L	0.1894	ppb	12:56:48
1	V 292.402†	-1471.2	5.2	0.0367	ug/L	0.0367	ppb	12:56:48
1	Zn 213.857†	817.9	8.6	0.0680	ug/L	0.0680	ppb	12:57:08
1	SiO2†	680.2	-8.4	-0.5228	ug/L	-0.5228	ppb	12:58:04
2	Sc Radial	5604.5	5604.5	100	%			12:55:56
2	Y RADIAL	5859.0	5859.0	99.96	%			12:55:56
2	Al 396.153Radial†	-15.9	-2.5	-1.7810	ug/L	-1.7810	ppb	12:55:56
2	Ca 317.933Radial†	19.9	2.0	2.7722	ug/L	2.7722	ppb	12:56:16
2	Fe 238.204 Radial†	11.2	-0.0	-0.2966	ug/L	-0.2966	ppb	12:56:16
2	K 766.490 Radial†	2864.3	-16.7	-2.9887	ug/L	-2.9887	ppb	12:55:56
2	Mg 279.077 IEC†	0.2	-2.1	-62.884	ug/L	-62.884	ppb	12:56:16
2	Na 589.592 Radial†	-1345.2	-81.1	-22.173	ug/L	-22.173	ppb	12:55:56
2	Sr 421.552†	-4.1	-9.7	-0.0553	ug/L	-0.0553	ppb	12:55:56
2	Sc 361.383	891344.2	891344.2	99.102	%			12:57:14
2	Y 371.029	734216.5	734216.5	98.831	%			12:57:14
2	Ag 328.068†	477.6	82.5	0.3527	ug/L	0.3527	ppb	12:57:14
2	As 188.979†	-28.4	-1.2	-0.4349	ug/L	-0.4349	ppb	12:57:34
2	B 249.677†	25.2	-439.6	-8.9677	ug/L	-8.9677	ppb	12:57:14
2	Ba 233.527†	-3.4	5.2	0.0337	ug/L	0.0337	ppb	12:57:34
2	Be 313.107†	-4530.0	24.0	0.0079	ug/L	0.0079	ppb	12:57:14
2	Cd 226.502†	-206.4	17.5	0.1680	ug/L	0.1680	ppb	12:57:34
2	Co 228.616†	-82.2	1.8	0.0314	ug/L	0.0314	ppb	12:57:34
2	Cr 267.716†	110.7	12.5	0.1246	ug/L	0.1246	ppb	12:57:34
2	Cu 324.752†	5993.7	-39.0	-0.1090	ug/L	-0.1090	ppb	12:57:14
2	Mn 257.610†	527.8	41.0	0.0412	ug/L	0.0412	ppb	12:57:34
2	Mo 202.031†	29.5	4.2	0.2470	ug/L	0.2470	ppb	12:57:34
2	Ni 231.604†	116.7	15.5	0.3331	ug/L	0.3331	ppb	12:57:34

2	P 214.914†	258.2	5.3	2.7550	ug/L	2.7550	ppb	12:57:34
2	Pb 220.353†	-90.3	-13.3	-1.3560	ug/L	-1.3560	ppb	12:57:34
2	S 181.975 Axial†	54.2	-4.1	-4.8830	ug/L	-4.8830	ppb	12:57:34
2	Sb 206.836†	50.3	8.3	2.4846	ug/L	2.4846	ppb	12:57:34
2	Se 196.026†	-35.6	-7.2	-3.8183	ug/L	-3.8183	ppb	12:57:34
2	Si 251.611†	684.3	30.6	0.8437	ug/L	0.8437	ppb	12:57:34
2	Sn 189.927†	13.7	12.0	1.7562	ug/L	1.7562	ppb	12:57:34
2	Ti 334.940†	-1486.6	-30.0	-0.0416	ug/L	-0.0416	ppb	12:57:14
2	Tl 190.801†	-44.3	1.0	0.2663	ug/L	0.2663	ppb	12:57:34
2	U 409.014†	-2828.1	-125.4	-3.4804	ug/L	-3.4804	ppb	12:57:14
2	V 292.402†	-1542.9	-88.4	-0.5598	ug/L	-0.5598	ppb	12:57:14
2	Zn 213.857†	840.3	43.1	0.3480	ug/L	0.3480	ppb	12:57:34
2	SiO2†	701.8	23.2	1.3701	ug/L	1.3701	ppb	12:58:09
3	Sc Radial	5613.4	5613.4	100	%			12:56:21
3	Y RADIAL	5913.5	5913.5	100.9	%			12:56:21
3	Al 396.153Radial†	-11.3	2.0	1.4286	ug/L	1.4286	ppb	12:56:21
3	Ca 317.933Radial†	23.0	5.0	6.9552	ug/L	6.9552	ppb	12:56:41
3	Fe 238.204 Radial†	12.0	0.7	5.8567	ug/L	5.8567	ppb	12:56:41
3	K 766.490 Radial†	2878.7	-6.9	-1.2304	ug/L	-1.2304	ppb	12:56:21
3	Mg 279.077 IEC†	1.2	-1.0	-31.212	ug/L	-31.212	ppb	12:56:41
3	Na 589.592 Radial†	-1312.7	-46.6	-12.738	ug/L	-12.738	ppb	12:56:21
3	Sr 421.552†	7.9	2.2	0.0125	ug/L	0.0125	ppb	12:56:21
3	Sc 361.383	902918.5	902918.5	100.39	%			12:57:39
3	Y 371.029	745524.7	745524.7	100.35	%			12:57:39
3	Ag 328.068†	362.5	-38.3	-0.1633	ug/L	-0.1633	ppb	12:57:39
3	As 188.979†	-14.6	12.9	4.6003	ug/L	4.6003	ppb	12:57:59
3	B 249.677†	62.2	-403.1	-8.2239	ug/L	-8.2239	ppb	12:57:39
3	Ba 233.527†	14.2	22.7	0.1516	ug/L	0.1516	ppb	12:57:59
3	Be 313.107†	-4547.9	64.8	0.0216	ug/L	0.0216	ppb	12:57:39
3	Cd 226.502†	-233.6	-7.0	-0.0671	ug/L	-0.0671	ppb	12:57:59
3	Co 228.616†	-78.7	6.4	0.1096	ug/L	0.1096	ppb	12:57:59
3	Cr 267.716†	113.4	13.7	0.1363	ug/L	0.1363	ppb	12:57:59
3	Cu 324.752†	6088.8	-21.8	-0.0605	ug/L	-0.0605	ppb	12:57:39
3	Mn 257.610†	534.4	40.8	0.0410	ug/L	0.0410	ppb	12:57:59
3	Mo 202.031†	20.4	-5.3	-0.3139	ug/L	-0.3139	ppb	12:57:59
3	Ni 231.604†	121.5	18.8	0.4048	ug/L	0.4048	ppb	12:57:59
3	P 214.914†	241.2	-14.9	-7.5531	ug/L	-7.5531	ppb	12:57:59
3	Pb 220.353†	-75.8	2.3	0.2368	ug/L	0.2368	ppb	12:57:59
3	S 181.975 Axial†	52.9	-6.0	-7.2205	ug/L	-7.2205	ppb	12:57:59
3	Sb 206.836†	26.6	-15.9	-4.7069	ug/L	-4.7069	ppb	12:57:59
3	Se 196.026†	-29.3	-0.4	-0.1804	ug/L	-0.1804	ppb	12:57:59
3	Si 251.611†	693.8	31.3	0.8759	ug/L	0.8759	ppb	12:57:59
3	Sn 189.927†	2.3	0.5	0.0718	ug/L	0.0718	ppb	12:57:59
3	Ti 334.940†	-1431.8	43.8	0.0636	ug/L	0.0636	ppb	12:57:39
3	Tl 190.801†	-39.7	6.3	1.5968	ug/L	1.5968	ppb	12:57:59
3	U 409.014†	-2760.6	-21.6	-0.6005	ug/L	-0.6005	ppb	12:57:39
3	V 292.402†	-1564.7	-90.2	-0.5740	ug/L	-0.5740	ppb	12:57:39
3	Zn 213.857†	836.7	28.6	0.2289	ug/L	0.2289	ppb	12:57:59
3	SiO2†	693.5	5.8	0.3610	ug/L	0.3610	ppb	12:58:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899524.0	100.01	%	0.791				0.79%
Sc Radial	5640.4	101	%	1.0				0.97%
Y 371.029	742274.5	99.916	%	0.9452				0.95%
Y RADIAL	5917.3	101.0	%	1.03				1.02%
Ag 328.068†	10.5	0.0456	ug/L	0.27165	0.0456	ppb	0.27165	595.97%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.0	-2.1215	ug/L	3.73194	-2.1215	ppb	3.73194	175.91%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.4	0.8605	ug/L	3.28929	0.8605	ppb	3.28929	382.25%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-420.0	-8.5688	ug/L	0.37483	-8.5688	ppb	0.37483	4.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	13.8	0.0918	ug/L	0.05894	0.0918	ppb	0.05894	64.21%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	66.4	0.0221	ug/L	0.01446	0.0221	ppb	0.01446	65.39%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.7	5.2105	ug/L	2.17608	5.2105	ppb	2.17608	41.76%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 6.1      0.0582 ug/L       0.11831      0.0582 ppb        0.11831 203.22%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 6.5      0.1134 ug/L       0.08393      0.1134 ppb        0.08393  74.04%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.8      0.0881 ug/L       0.07361      0.0881 ppb        0.07361  83.59%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -14.7     -0.0408 ug/L       0.07995     -0.0408 ppb        0.07995 196.11%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.5      3.6182 ug/L       3.40199      3.6182 ppb        3.40199  94.02%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          -1.3     -0.2234 ug/L       3.38321     -0.2234 ppb        3.38321 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.0     -29.206 ug/L       34.7245     -29.206 ppb        34.7245 118.90%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                37.9      0.0379 ug/L       0.00546      0.0379 ppb        0.00546  14.38%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.3      0.0804 ug/L       0.34287      0.0804 ppb        0.34287 426.47%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -21.5     -5.8771 ug/L      20.60187     -5.8771 ppb       20.60187 350.54%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                13.7      0.2945 ug/L       0.13379      0.2945 ppb        0.13379  45.42%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.8     -2.4262 ug/L       5.15429     -2.4262 ppb        5.15429 212.44%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -3.1     -0.3166 ug/L       0.90070     -0.3166 ppb        0.90070 284.45%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -6.2     -7.3790 ug/L       2.57898     -7.3790 ppb        2.57898  34.95%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -3.5     -1.0085 ug/L       3.60015     -1.0085 ppb        3.60015 356.98%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.1     -1.6472 ug/L       1.91847     -1.6472 ppb        1.91847 116.47%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                30.4      0.8436 ug/L       0.03233      0.8436 ppb        0.03233   3.83%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.4      0.7848 ug/L       0.87148      0.7848 ppb        0.87148 111.05%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 6.9      0.0393 ug/L       0.11045      0.0393 ppb        0.11045 280.91%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                26.3      0.0387 ug/L       0.07116      0.0387 ppb        0.07116 183.99%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 4.8      1.2224 ug/L       0.83452      1.2224 ppb        0.83452  68.27%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -46.7     -1.2972 ug/L       1.93153     -1.2972 ppb        1.93153 148.90%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -57.8     -0.3657 ug/L       0.34857     -0.3657 ppb        0.34857  95.33%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                26.8      0.2150 ug/L       0.14050      0.2150 ppb        0.14050  65.36%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       6.9      0.4028 ug/L       0.94712      0.4028 ppb        0.94712 235.15%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/20/2009 13:41:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5506.5	5506.5	98.5	%			13:43:39
1	Y RADIAL	5690.3	5690.3	97.08	%			13:43:39
1	Al 396.153Radial†	6819.9	6933.6	4848.8	ug/L	4848.8	ppb	13:43:39
1	Ca 317.933Radial†	3525.0	3559.0	4968.7	ug/L	4968.7	ppb	13:43:59
1	Fe 238.204 Radial†	640.8	639.0	5072.2	ug/L	5072.2	ppb	13:43:59
1	K 766.490 Radial†	30183.9	27755.7	4974.7	ug/L	4974.7	ppb	13:43:39
1	Mg 279.077 IEC†	171.0	171.3	5174.7	ug/L	5174.7	ppb	13:43:59
1	Na 589.592 Radial†	33787.5	35544.7	9713.8	ug/L	9713.8	ppb	13:43:39
1	Sr 421.552†	85126.2	86373.2	492.73	ug/L	492.73	ppb	13:43:39
1	Sc 361.383	908034.3	908034.3	100.96	%			13:44:58
1	Y 371.029	735343.2	735343.2	98.983	%			13:44:58
1	Ag 328.068†	117696.4	116180.9	498.81	ug/L	498.81	ppb	13:44:58
1	As 188.979†	1383.2	1397.6	501.09	ug/L	501.09	ppb	13:45:18
1	B 249.677†	24822.7	24122.2	490.17	ug/L	490.17	ppb	13:44:58
1	Ba 233.527†	75219.6	74514.8	501.53	ug/L	501.53	ppb	13:44:58
1	Be 313.107†	1519054.6	1509243.3	501.87	ug/L	501.87	ppb	13:44:58
1	Cd 226.502†	52463.3	52191.5	501.22	ug/L	501.22	ppb	13:44:58
1	Co 228.616†	28734.7	28546.9	495.25	ug/L	495.25	ppb	13:45:18
1	Cr 267.716†	50516.4	49938.1	498.78	ug/L	498.78	ppb	13:44:58
1	Cu 324.752†	187420.1	179555.6	502.11	ug/L	502.11	ppb	13:44:58
1	Mn 257.610†	519526.4	514107.8	502.40	ug/L	502.40	ppb	13:44:58
1	Mo 202.031†	8442.9	8337.2	496.05	ug/L	496.05	ppb	13:45:18
1	Ni 231.604†	23355.6	23031.9	496.05	ug/L	496.05	ppb	13:45:18
1	P 214.914†	5177.8	4873.5	2402.6	ug/L	2402.6	ppb	13:45:18
1	Pb 220.353†	4830.5	4862.5	499.04	ug/L	499.04	ppb	13:45:18
1	S 181.975 Axial†	882.3	815.2	975.75	ug/L	975.75	ppb	13:45:18
1	Sb 206.836†	1716.6	1657.9	496.27	ug/L	496.27	ppb	13:45:18
1	Se 196.026†	909.1	929.3	514.10	ug/L	514.10	ppb	13:45:18
1	Si 251.611†	91199.0	89674.2	2484.4	ug/L	2484.4	ppb	13:44:58
1	Sn 189.927†	3407.9	3373.8	494.04	ug/L	494.04	ppb	13:45:18
1	Ti 334.940†	347236.9	345413.8	497.31	ug/L	497.31	ppb	13:44:58
1	Tl 190.801†	1907.8	1935.5	497.12	ug/L	497.12	ppb	13:45:18
1	U 409.014†	14823.2	17411.0	481.65	ug/L	481.65	ppb	13:44:58
1	V 292.402†	78438.4	79162.9	503.66	ug/L	503.66	ppb	13:44:58
1	Zn 213.857†	63489.4	62082.4	496.49	ug/L	496.49	ppb	13:44:58
1	SiO2†	91570.1	90016.7	5355.5	ug/L	5355.5	ppb	13:46:18
2	Sc Radial	5571.7	5571.7	99.7	%			13:44:04
2	Y RADIAL	5760.8	5760.8	98.28	%			13:44:04
2	Al 396.153Radial†	6913.3	6946.2	4857.7	ug/L	4857.7	ppb	13:44:04
2	Ca 317.933Radial†	3539.7	3531.8	4930.7	ug/L	4930.7	ppb	13:44:24
2	Fe 238.204 Radial†	647.0	637.6	5061.0	ug/L	5061.0	ppb	13:44:24
2	K 766.490 Radial†	30582.1	27796.4	4982.0	ug/L	4982.0	ppb	13:44:04
2	Mg 279.077 IEC†	172.5	170.7	5158.3	ug/L	5158.3	ppb	13:44:24
2	Na 589.592 Radial†	34220.0	35577.0	9722.6	ug/L	9722.6	ppb	13:44:04
2	Sr 421.552†	86333.9	86573.0	493.87	ug/L	493.87	ppb	13:44:04
2	Sc 361.383	902137.2	902137.2	100.30	%			13:45:25
2	Y 371.029	731754.9	731754.9	98.500	%			13:45:25
2	Ag 328.068†	117035.5	116284.0	499.24	ug/L	499.24	ppb	13:45:25
2	As 188.979†	1378.1	1401.4	502.46	ug/L	502.46	ppb	13:45:45
2	B 249.677†	24616.3	24077.2	489.25	ug/L	489.25	ppb	13:45:25
2	Ba 233.527†	74488.7	74273.2	499.91	ug/L	499.91	ppb	13:45:25
2	Be 313.107†	1507272.5	1507332.3	501.23	ug/L	501.23	ppb	13:45:25
2	Cd 226.502†	51943.4	52012.8	499.51	ug/L	499.51	ppb	13:45:25
2	Co 228.616†	28566.0	28564.7	495.56	ug/L	495.56	ppb	13:45:45
2	Cr 267.716†	50076.8	49826.9	497.67	ug/L	497.67	ppb	13:45:25
2	Cu 324.752†	186140.4	179493.3	501.94	ug/L	501.94	ppb	13:45:25
2	Mn 257.610†	514182.1	512143.4	500.48	ug/L	500.48	ppb	13:45:25
2	Mo 202.031†	8367.6	8316.9	494.84	ug/L	494.84	ppb	13:45:45
2	Ni 231.604†	23209.1	23037.0	496.16	ug/L	496.16	ppb	13:45:45

2	P 214.914†	5134.1	4863.5	2397.5 ug/L	2397.5 ppb	13:45:45
2	Pb 220.353†	4793.3	4856.7	498.45 ug/L	498.45 ppb	13:45:45
2	S 181.975 Axial†	878.7	817.3	978.26 ug/L	978.26 ppb	13:45:45
2	Sb 206.836†	1705.4	1657.8	496.23 ug/L	496.23 ppb	13:45:45
2	Se 196.026†	910.4	936.4	517.87 ug/L	517.87 ppb	13:45:45
2	Si 251.611†	90313.1	89381.5	2476.3 ug/L	2476.3 ppb	13:45:25
2	Sn 189.927†	3380.8	3368.8	493.31 ug/L	493.31 ppb	13:45:45
2	Ti 334.940†	344621.7	345054.8	496.80 ug/L	496.80 ppb	13:45:25
2	Tl 190.801†	1911.3	1951.3	501.14 ug/L	501.14 ppb	13:45:45
2	U 409.014†	14778.4	17462.3	483.08 ug/L	483.08 ppb	13:45:25
2	V 292.402†	77880.6	79114.7	503.35 ug/L	503.35 ppb	13:45:25
2	Zn 213.857†	62859.8	61865.8	494.75 ug/L	494.75 ppb	13:45:25
2	SiO2†	91403.6	90443.6	5381.1 ug/L	5381.1 ppb	13:46:23
3	Sc Radial	5460.8	5460.8	97.7 %		13:44:29
3	Y RADIAL	5685.4	5685.4	97.00 %		13:44:29
3	Al 396.153Radial†	6843.9	7016.0	4906.9 ug/L	4906.9 ppb	13:44:29
3	Ca 317.933Radial†	3513.7	3577.4	4994.3 ug/L	4994.3 ppb	13:44:49
3	Fe 238.204 Radial†	645.6	649.4	5153.9 ug/L	5153.9 ppb	13:44:49
3	K 766.490 Radial†	30146.0	27973.1	5013.7 ug/L	5013.7 ppb	13:44:29
3	Mg 279.077 IEC†	170.7	172.4	5207.5 ug/L	5207.5 ppb	13:44:49
3	Na 589.592 Radial†	33759.7	35803.0	9784.4 ug/L	9784.4 ppb	13:44:29
3	Sr 421.552†	84808.4	86770.6	495.00 ug/L	495.00 ppb	13:44:29
3	Sc 361.383	907046.4	907046.4	100.85 %		13:45:53
3	Y 371.029	734918.7	734918.7	98.926 %		13:45:53
3	Ag 328.068†	117704.9	116316.2	499.41 ug/L	499.41 ppb	13:45:53
3	As 188.979†	1362.2	1378.2	494.25 ug/L	494.25 ppb	13:46:13
3	B 249.677†	24820.8	24147.2	490.67 ug/L	490.67 ppb	13:45:53
3	Ba 233.527†	75236.9	74613.2	502.19 ug/L	502.19 ppb	13:45:53
3	Be 313.107†	1519580.1	1511403.2	502.59 ug/L	502.59 ppb	13:45:53
3	Cd 226.502†	52403.6	52188.9	501.19 ug/L	501.19 ppb	13:45:53
3	Co 228.616†	28519.6	28364.6	492.08 ug/L	492.08 ppb	13:46:13
3	Cr 267.716†	50400.9	49878.1	498.19 ug/L	498.19 ppb	13:45:53
3	Cu 324.752†	187485.3	179822.4	502.86 ug/L	502.86 ppb	13:45:53
3	Mn 257.610†	518895.5	514042.6	502.34 ug/L	502.34 ppb	13:45:53
3	Mo 202.031†	8352.9	8257.1	491.30 ug/L	491.30 ppb	13:46:13
3	Ni 231.604†	23139.9	22843.1	491.99 ug/L	491.99 ppb	13:46:13
3	P 214.914†	5123.5	4825.3	2377.8 ug/L	2377.8 ppb	13:46:13
3	Pb 220.353†	4799.6	4837.1	496.44 ug/L	496.44 ppb	13:46:13
3	S 181.975 Axial†	875.0	808.9	968.16 ug/L	968.16 ppb	13:46:13
3	Sb 206.836†	1709.0	1652.3	494.41 ug/L	494.41 ppb	13:46:13
3	Se 196.026†	900.0	921.2	510.06 ug/L	510.06 ppb	13:46:13
3	Si 251.611†	91165.9	89739.8	2486.4 ug/L	2486.4 ppb	13:45:53
3	Sn 189.927†	3364.3	3334.2	488.25 ug/L	488.25 ppb	13:46:13
3	Ti 334.940†	347563.3	346112.1	498.32 ug/L	498.32 ppb	13:45:53
3	Tl 190.801†	1918.8	1948.4	500.45 ug/L	500.45 ppb	13:46:13
3	U 409.014†	14757.5	17361.8	480.28 ug/L	480.28 ppb	13:45:53
3	V 292.402†	78322.2	79132.4	503.39 ug/L	503.39 ppb	13:45:53
3	Zn 213.857†	63505.5	62166.9	497.20 ug/L	497.20 ppb	13:45:53
3	SiO2†	91108.8	89658.1	5334.3 ug/L	5334.3 ppb	13:46:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	905739.3	100.70	%	0.351				0.35%
Sc Radial	5513.0	98.7	%	1.00				1.01%
Y 371.029	734005.6	98.803	%	0.2639				0.27%
Y RADIAL	5712.2	97.45	%	0.720				0.74%
Ag 328.068†	116260.4	499.16	ug/L	0.312	499.16	ppb	0.312	0.06%
QC value within limits for Ag 328.068 Recovery = 99.83%								
Al 396.153Radial†	6965.2	4871.1	ug/L	31.30	4871.1	ppb	31.30	0.64%
QC value within limits for Al 396.153Radial Recovery = 97.42%								
As 188.979†	1392.4	499.27	ug/L	4.399	499.27	ppb	4.399	0.88%
QC value within limits for As 188.979 Recovery = 99.85%								
B 249.677†	24115.5	490.03	ug/L	0.722	490.03	ppb	0.722	0.15%
QC value within limits for B 249.677 Recovery = 98.01%								
Ba 233.527†	74467.1	501.21	ug/L	1.176	501.21	ppb	1.176	0.23%
QC value within limits for Ba 233.527 Recovery = 100.24%								
Be 313.107†	1509326.3	501.90	ug/L	0.677	501.90	ppb	0.677	0.13%
QC value within limits for Be 313.107 Recovery = 100.38%								
Ca 317.933Radial†	3556.1	4964.6	ug/L	32.01	4964.6	ppb	32.01	0.64%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.29%
Cd 226.502†            52131.1      500.64 ug/L         0.980      500.64 ppb          0.980   0.20%
   QC value within limits for Cd 226.502  Recovery = 100.13%
Co 228.616†            28492.1      494.30 ug/L         1.928      494.30 ppb          1.928   0.39%
   QC value within limits for Co 228.616  Recovery = 98.86%
Cr 267.716†            49881.0      498.21 ug/L         0.556      498.21 ppb          0.556   0.11%
   QC value within limits for Cr 267.716  Recovery = 99.64%
Cu 324.752†           179623.8      502.30 ug/L         0.491      502.30 ppb          0.491   0.10%
   QC value within limits for Cu 324.752  Recovery = 100.46%
Fe 238.204 Radial†       642.0      5095.7 ug/L         50.70      5095.7 ppb          50.70   0.99%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.91%
K 766.490 Radial†      27841.8      4990.2 ug/L         20.72      4990.2 ppb          20.72   0.42%
   QC value within limits for K 766.490 Radial  Recovery = 99.80%
Mg 279.077 IEC†          171.4      5180.2 ug/L         25.03      5180.2 ppb          25.03   0.48%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.60%
Mn 257.610†           513431.3      501.74 ug/L         1.092      501.74 ppb          1.092   0.22%
   QC value within limits for Mn 257.610  Recovery = 100.35%
Mo 202.031†             8303.8      494.06 ug/L         2.470      494.06 ppb          2.470   0.50%
   QC value within limits for Mo 202.031  Recovery = 98.81%
Na 589.592 Radial†     35641.6      9740.3 ug/L         38.47      9740.3 ppb          38.47   0.39%
   QC value within limits for Na 589.592 Radial  Recovery = 97.40%
Ni 231.604†            22970.7      494.73 ug/L         2.380      494.73 ppb          2.380   0.48%
   QC value within limits for Ni 231.604  Recovery = 98.95%
P 214.914†              4854.1      2392.6 ug/L         13.09      2392.6 ppb          13.09   0.55%
   QC value within limits for P 214.914  Recovery = 95.70%
Pb 220.353†             4852.1      497.98 ug/L         1.365      497.98 ppb          1.365   0.27%
   QC value within limits for Pb 220.353  Recovery = 99.60%
S 181.975 Axial†         813.8      974.05 ug/L         5.259      974.05 ppb          5.259   0.54%
   QC value within limits for S 181.975 Axial  Recovery = 97.41%
Sb 206.836†             1656.0      495.64 ug/L         1.063      495.64 ppb          1.063   0.21%
   QC value within limits for Sb 206.836  Recovery = 99.13%
Se 196.026†              929.0      514.01 ug/L         3.906      514.01 ppb          3.906   0.76%
   QC value within limits for Se 196.026  Recovery = 102.80%
Si 251.611†            89598.5      2482.4 ug/L          5.33      2482.4 ppb           5.33   0.21%
   QC value within limits for Si 251.611  Recovery = 99.30%
Sn 189.927†             3358.9      491.87 ug/L         3.153      491.87 ppb          3.153   0.64%
   QC value within limits for Sn 189.927  Recovery = 98.37%
Sr 421.552†            86572.3      493.87 ug/L         1.133      493.87 ppb          1.133   0.23%
   QC value within limits for Sr 421.552  Recovery = 98.77%
Ti 334.940†           345526.9      497.48 ug/L         0.776      497.48 ppb          0.776   0.16%
   QC value within limits for Ti 334.940  Recovery = 99.50%
Tl 190.801†             1945.1      499.57 ug/L         2.146      499.57 ppb          2.146   0.43%
   QC value within limits for Tl 190.801  Recovery = 99.91%
U 409.014†             17411.7      481.67 ug/L         1.401      481.67 ppb          1.401   0.29%
   QC value within limits for U 409.014  Recovery = 96.33%
V 292.402†             79136.7      503.47 ug/L         0.171      503.47 ppb          0.171   0.03%
   QC value within limits for V 292.402  Recovery = 100.69%
Zn 213.857†            62038.4      496.15 ug/L         1.261      496.15 ppb          1.261   0.25%
   QC value within limits for Zn 213.857  Recovery = 99.23%
SiO2†                  90039.5      5356.9 ug/L         23.44      5356.9 ppb          23.44   0.44%
   QC value within limits for SiO2  Recovery = 100.18%
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 12/20/2009 13:48:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5790.3	5790.3	104	%			13:50:32
1	Y RADIAL	6089.0	6089.0	103.9	%			13:50:32
1	Al 396.153Radial†	234.2	239.3	167.64	ug/L	167.64	ppb	13:50:32
1	Ca 317.933Radial†	168.9	145.1	202.56	ug/L	202.56	ppb	13:50:52
1	Fe 238.204 Radial†	22.5	10.5	83.402	ug/L	83.402	ppb	13:50:52
1	K 766.490 Radial†	3802.0	796.5	142.77	ug/L	142.77	ppb	13:50:32
1	Mg 279.077 IEC†	11.0	8.3	251.20	ug/L	251.20	ppb	13:50:52
1	Na 589.592 Radial†	-183.4	1083.0	295.96	ug/L	295.96	ppb	13:50:32
1	Sr 421.552†	872.7	836.6	4.7709	ug/L	4.7709	ppb	13:50:32
1	Sc 361.383	891773.0	891773.0	99.149	%			13:51:49
1	Y 371.029	735652.0	735652.0	99.024	%			13:51:49
1	Ag 328.068†	1548.3	1162.2	4.9595	ug/L	4.9595	ppb	13:51:49
1	As 188.979†	50.0	77.9	27.709	ug/L	27.709	ppb	13:52:09
1	B 249.677†	2438.7	1994.5	40.664	ug/L	40.664	ppb	13:51:49
1	Ba 233.527†	740.4	755.4	5.0852	ug/L	5.0852	ppb	13:52:09
1	Be 313.107†	10669.2	15355.9	5.1063	ug/L	5.1063	ppb	13:51:49
1	Cd 226.502†	290.3	518.6	4.9773	ug/L	4.9773	ppb	13:52:09
1	Co 228.616†	220.2	306.8	5.3345	ug/L	5.3345	ppb	13:52:09
1	Cr 267.716†	617.8	523.9	5.2182	ug/L	5.2182	ppb	13:51:49
1	Cu 324.752†	9710.3	3706.6	10.364	ug/L	10.364	ppb	13:51:49
1	Mn 257.610†	11278.0	10883.3	10.630	ug/L	10.630	ppb	13:51:49
1	Mo 202.031†	186.2	162.2	9.6487	ug/L	9.6487	ppb	13:52:09
1	Ni 231.604†	357.1	257.9	5.5538	ug/L	5.5538	ppb	13:52:09
1	P 214.914†	535.6	285.0	143.44	ug/L	143.44	ppb	13:52:09
1	Pb 220.353†	7.4	85.3	8.7701	ug/L	8.7701	ppb	13:52:09
1	S 181.975 Axial†	139.4	81.9	98.054	ug/L	98.054	ppb	13:52:09
1	Sb 206.836†	82.1	40.4	12.193	ug/L	12.193	ppb	13:52:09
1	Se 196.026†	28.1	57.1	30.799	ug/L	30.799	ppb	13:52:09
1	Si 251.611†	4332.8	3710.1	103.03	ug/L	103.03	ppb	13:51:49
1	Sn 189.927†	78.6	77.4	11.350	ug/L	11.350	ppb	13:52:09
1	Ti 334.940†	2027.8	3515.2	5.0486	ug/L	5.0486	ppb	13:51:49
1	Tl 190.801†	32.5	78.6	20.125	ug/L	20.125	ppb	13:52:09
1	U 409.014†	-886.1	1834.7	50.901	ug/L	50.901	ppb	13:51:49
1	V 292.402†	-647.1	815.7	5.3437	ug/L	5.3437	ppb	13:51:49
1	Zn 213.857†	2054.0	1266.8	10.156	ug/L	10.156	ppb	13:52:09
1	SiO2†	4226.8	3578.1	213.35	ug/L	213.35	ppb	13:53:05
2	Sc Radial	5629.4	5629.4	101	%			13:50:57
2	Y RADIAL	5930.8	5930.8	101.2	%			13:50:57
2	Al 396.153Radial†	280.3	291.5	204.27	ug/L	204.27	ppb	13:50:57
2	Ca 317.933Radial†	163.3	144.2	201.30	ug/L	201.30	ppb	13:51:17
2	Fe 238.204 Radial†	22.3	10.9	86.320	ug/L	86.320	ppb	13:51:17
2	K 766.490 Radial†	3794.6	894.0	160.30	ug/L	160.30	ppb	13:50:57
2	Mg 279.077 IEC†	14.4	12.0	361.72	ug/L	361.72	ppb	13:51:17
2	Na 589.592 Radial†	-204.8	1056.7	288.79	ug/L	288.79	ppb	13:50:57
2	Sr 421.552†	841.1	829.2	4.7288	ug/L	4.7288	ppb	13:50:57
2	Sc 361.383	892579.5	892579.5	99.239	%			13:52:14
2	Y 371.029	738544.5	738544.5	99.414	%			13:52:14
2	Ag 328.068†	1511.9	1124.1	4.7914	ug/L	4.7914	ppb	13:52:14
2	As 188.979†	59.4	87.3	31.064	ug/L	31.064	ppb	13:52:34
2	B 249.677†	2411.8	1965.3	40.068	ug/L	40.068	ppb	13:52:14
2	Ba 233.527†	755.3	769.7	5.1803	ug/L	5.1803	ppb	13:52:34
2	Be 313.107†	10302.8	14976.9	4.9802	ug/L	4.9802	ppb	13:52:14
2	Cd 226.502†	289.3	517.3	4.9647	ug/L	4.9647	ppb	13:52:34
2	Co 228.616†	202.1	288.4	5.0166	ug/L	5.0166	ppb	13:52:34
2	Cr 267.716†	691.9	598.0	5.9550	ug/L	5.9550	ppb	13:52:14
2	Cu 324.752†	9670.6	3657.7	10.228	ug/L	10.228	ppb	13:52:14
2	Mn 257.610†	11066.6	10659.9	10.410	ug/L	10.410	ppb	13:52:14
2	Mo 202.031†	201.9	177.9	10.582	ug/L	10.582	ppb	13:52:34
2	Ni 231.604†	352.4	252.8	5.4459	ug/L	5.4459	ppb	13:52:34

2	P 214.914†	548.3	297.4	149.73 ug/L	149.73 ppb	13:52:34
2	Pb 220.353†	32.8	110.9	11.402 ug/L	11.402 ppb	13:52:34
2	S 181.975 Axial†	141.5	83.8	100.39 ug/L	100.39 ppb	13:52:34
2	Sb 206.836†	68.2	26.3	8.0145 ug/L	8.0145 ppb	13:52:34
2	Se 196.026†	12.8	41.7	22.566 ug/L	22.566 ppb	13:52:34
2	Si 251.611†	4250.4	3623.2	100.59 ug/L	100.59 ppb	13:52:14
2	Sn 189.927†	68.5	67.2	9.8485 ug/L	9.8485 ppb	13:52:34
2	Ti 334.940†	1927.8	3412.6	4.8981 ug/L	4.8981 ppb	13:52:14
2	Tl 190.801†	46.0	92.1	23.571 ug/L	23.571 ppb	13:52:34
2	U 409.014†	-681.6	2041.6	56.643 ug/L	56.643 ppb	13:52:14
2	V 292.402†	-721.6	741.3	4.9030 ug/L	4.9030 ppb	13:52:14
2	Zn 213.857†	2042.4	1253.2	10.044 ug/L	10.044 ppb	13:52:34
2	SiO2†	4253.6	3601.2	214.70 ug/L	214.70 ppb	13:53:10
3	Sc Radial	5493.8	5493.8	98.3 %		13:51:22
3	Y RADIAL	5759.5	5759.5	98.26 %		13:51:22
3	Al 396.153Radial†	247.7	265.2	185.83 ug/L	185.83 ppb	13:51:22
3	Ca 317.933Radial†	167.3	152.3	212.64 ug/L	212.64 ppb	13:51:42
3	Fe 238.204 Radial†	24.3	13.5	107.22 ug/L	107.22 ppb	13:51:42
3	K 766.490 Radial†	3835.0	1028.0	184.34 ug/L	184.34 ppb	13:51:22
3	Mg 279.077 IEC†	12.0	9.9	298.71 ug/L	298.71 ppb	13:51:42
3	Na 589.592 Radial†	-190.2	1066.5	291.46 ug/L	291.46 ppb	13:51:22
3	Sr 421.552†	867.3	876.5	4.9985 ug/L	4.9985 ppb	13:51:22
3	Sc 361.383	882599.0	882599.0	98.130 %		13:52:40
3	Y 371.029	728586.0	728586.0	98.073 %		13:52:40
3	Ag 328.068†	1658.6	1290.8	5.5120 ug/L	5.5120 ppb	13:52:40
3	As 188.979†	48.1	76.5	27.208 ug/L	27.208 ppb	13:53:00
3	B 249.677†	2442.1	2023.6	41.255 ug/L	41.255 ppb	13:52:40
3	Ba 233.527†	773.3	796.7	5.3621 ug/L	5.3621 ppb	13:53:00
3	Be 313.107†	10473.4	15268.2	5.0774 ug/L	5.0774 ppb	13:52:40
3	Cd 226.502†	276.5	507.5	4.8686 ug/L	4.8686 ppb	13:53:00
3	Co 228.616†	206.7	295.4	5.1364 ug/L	5.1364 ppb	13:53:00
3	Cr 267.716†	625.7	538.4	5.3618 ug/L	5.3618 ppb	13:52:40
3	Cu 324.752†	9718.6	3816.9	10.673 ug/L	10.673 ppb	13:52:40
3	Mn 257.610†	11213.5	10935.7	10.683 ug/L	10.683 ppb	13:52:40
3	Mo 202.031†	191.8	169.8	10.105 ug/L	10.105 ppb	13:53:00
3	Ni 231.604†	352.1	256.5	5.5249 ug/L	5.5249 ppb	13:53:00
3	P 214.914†	539.1	294.2	148.03 ug/L	148.03 ppb	13:53:00
3	Pb 220.353†	37.7	116.2	11.942 ug/L	11.942 ppb	13:53:00
3	S 181.975 Axial†	136.5	80.4	96.287 ug/L	96.287 ppb	13:53:00
3	Sb 206.836†	76.2	35.3	10.689 ug/L	10.689 ppb	13:53:00
3	Se 196.026†	38.8	68.4	36.873 ug/L	36.873 ppb	13:53:00
3	Si 251.611†	4293.5	3715.5	103.15 ug/L	103.15 ppb	13:52:40
3	Sn 189.927†	79.3	79.0	11.580 ug/L	11.580 ppb	13:53:00
3	Ti 334.940†	2080.8	3590.5	5.1562 ug/L	5.1562 ppb	13:52:40
3	Tl 190.801†	34.7	81.1	20.777 ug/L	20.777 ppb	13:53:00
3	U 409.014†	-765.4	1948.4	54.055 ug/L	54.055 ppb	13:52:40
3	V 292.402†	-697.3	757.8	4.9900 ug/L	4.9900 ppb	13:52:40
3	Zn 213.857†	2042.1	1276.2	10.229 ug/L	10.229 ppb	13:53:00
3	SiO2†	4303.0	3700.0	220.59 ug/L	220.59 ppb	13:53:15

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	888983.8	98.839	%	0.6164				0.62%
Sc Radial	5637.8	101	%	2.7				2.63%
Y 371.029	734260.8	98.837	%	0.6896				0.70%
Y RADIAL	5926.4	101.1	%	2.81				2.78%
Ag 328.068†	1192.3	5.0876	ug/L	0.37698	5.0876	ppb	0.37698	7.41%
QC value within limits for Ag 328.068 Recovery = 101.75%								
Al 396.153Radial†	265.3	185.91	ug/L	18.317	185.91	ppb	18.317	9.85%
QC value within limits for Al 396.153Radial Recovery = 92.96%								
As 188.979†	80.6	28.660	ug/L	2.0964	28.660	ppb	2.0964	7.31%
QC value within limits for As 188.979 Recovery = 95.53%								
B 249.677†	1994.5	40.662	ug/L	0.5933	40.662	ppb	0.5933	1.46%
QC value within limits for B 249.677 Recovery = 81.32%								
Ba 233.527†	773.9	5.2092	ug/L	0.14071	5.2092	ppb	0.14071	2.70%
QC value within limits for Ba 233.527 Recovery = 104.18%								
Be 313.107†	15200.3	5.0546	ug/L	0.06604	5.0546	ppb	0.06604	1.31%
QC value within limits for Be 313.107 Recovery = 101.09%								
Ca 317.933Radial†	147.2	205.50	ug/L	6.215	205.50	ppb	6.215	3.02%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.75%
Cd 226.502†              514.5      4.9369 ug/L       0.05947      4.9369 ppb        0.05947   1.20%
   QC value within limits for Cd 226.502  Recovery = 98.74%
Co 228.616†              296.8      5.1625 ug/L       0.16055      5.1625 ppb        0.16055   3.11%
   QC value within limits for Co 228.616  Recovery = 103.25%
Cr 267.716†              553.4      5.5117 ug/L       0.39060      5.5117 ppb        0.39060   7.09%
   QC value within limits for Cr 267.716  Recovery = 110.23%
Cu 324.752†             3727.1      10.422 ug/L        0.2284      10.422 ppb         0.2284   2.19%
   QC value within limits for Cu 324.752  Recovery = 104.22%
Fe 238.204 Radial†        11.6      92.313 ug/L       12.9903      92.313 ppb        12.9903  14.07%
   QC value within limits for Fe 238.204 Radial  Recovery = 92.31%
K 766.490 Radial†        906.2      162.47 ug/L        20.870      162.47 ppb         20.870  12.85%
   QC value within limits for K 766.490 Radial  Recovery = 108.31%
Mg 279.077 IEC†           10.1      303.87 ug/L        55.442      303.87 ppb         55.442  18.24%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.29%
Mn 257.610†            10826.3      10.575 ug/L        0.1446      10.575 ppb         0.1446   1.37%
   QC value within limits for Mn 257.610  Recovery = 105.75%
Mo 202.031†              170.0      10.112 ug/L        0.4665      10.112 ppb         0.4665   4.61%
   QC value within limits for Mo 202.031  Recovery = 101.12%
Na 589.592 Radial†      1068.7      292.07 ug/L         3.628      292.07 ppb          3.628   1.24%
   QC value within limits for Na 589.592 Radial  Recovery = 97.36%
Ni 231.604†              255.7      5.5082 ug/L       0.05588      5.5082 ppb        0.05588   1.01%
   QC value within limits for Ni 231.604  Recovery = 110.16%
P 214.914†               292.2      147.07 ug/L         3.251      147.07 ppb          3.251   2.21%
   QC value within limits for P 214.914  Recovery = 98.05%
Pb 220.353†              104.1      10.705 ug/L        1.6971      10.705 ppb         1.6971  15.85%
   QC value within limits for Pb 220.353  Recovery = 107.05%
S 181.975 Axial†          82.0      98.243 ug/L        2.0566      98.243 ppb         2.0566   2.09%
   QC value within limits for S 181.975 Axial  Recovery = 98.24%
Sb 206.836†               34.0      10.299 ug/L        2.1164      10.299 ppb         2.1164  20.55%
   QC value within limits for Sb 206.836  Recovery = 102.99%
Se 196.026†               55.7      30.079 ug/L        7.1811      30.079 ppb         7.1811  23.87%
   QC value within limits for Se 196.026  Recovery = 100.26%
Si 251.611†             3682.9      102.26 ug/L         1.445      102.26 ppb          1.445   1.41%
   QC value within limits for Si 251.611  Recovery = 102.26%
Sn 189.927†               74.5      10.926 ug/L        0.9403      10.926 ppb         0.9403   8.61%
   QC value within limits for Sn 189.927  Recovery = 109.26%
Sr 421.552†              847.4      4.8327 ug/L       0.14508      4.8327 ppb        0.14508   3.00%
   QC value within limits for Sr 421.552  Recovery = 96.65%
Ti 334.940†             3506.1      5.0343 ug/L       0.12966      5.0343 ppb        0.12966   2.58%
   QC value within limits for Ti 334.940  Recovery = 100.69%
Tl 190.801†               84.0      21.491 ug/L        1.8307      21.491 ppb         1.8307   8.52%
   QC value within limits for Tl 190.801  Recovery = 107.46%
U 409.014†              1941.5      53.866 ug/L        2.8753      53.866 ppb         2.8753   5.34%
   QC value within limits for U 409.014  Recovery = 107.73%
V 292.402†               771.6      5.0789 ug/L       0.23345      5.0789 ppb        0.23345   4.60%
   QC value within limits for V 292.402  Recovery = 101.58%
Zn 213.857†             1265.4      10.143 ug/L        0.0932      10.143 ppb         0.0932   0.92%
   QC value within limits for Zn 213.857  Recovery = 101.43%
SiO2†                   3626.4      216.21 ug/L         3.852      216.21 ppb          3.852   1.78%
   QC value within limits for SiO2  Recovery = 101.51%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/20/2009 13:55:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5634.8	5634.8	101	%			13:57:19
1	Y RADIAL	5887.0	5887.0	100.4	%			13:57:19
1	Al 396.153Radial†	6.5	19.8	13.868	ug/L	13.868	ppb	13:57:19
1	Ca 317.933Radial†	23.3	5.2	7.3049	ug/L	7.3049	ppb	13:57:39
1	Fe 238.204 Radial†	10.5	-0.8	-6.3125	ug/L	-6.3125	ppb	13:57:39
1	K 766.490 Radial†	2852.6	-43.7	-7.8488	ug/L	-7.8488	ppb	13:57:19
1	Mg 279.077 IEC†	3.9	1.6	48.164	ug/L	48.164	ppb	13:57:39
1	Na 589.592 Radial†	-1297.8	-26.9	-7.3412	ug/L	-7.3412	ppb	13:57:19
1	Sr 421.552†	23.3	17.5	0.0998	ug/L	0.0998	ppb	13:57:19
1	Sc 361.383	940210.2	940210.2	104.53	%			13:58:36
1	Y 371.029	771393.9	771393.9	103.84	%			13:58:36
1	Ag 328.068†	446.0	27.3	0.1075	ug/L	0.1075	ppb	13:58:41
1	As 188.979†	-27.6	1.0	0.3753	ug/L	0.3753	ppb	13:59:01
1	B 249.677†	-76.2	-537.9	-10.973	ug/L	-10.973	ppb	13:58:41
1	Ba 233.527†	-9.5	-0.5	-0.0030	ug/L	-0.0030	ppb	13:59:01
1	Be 313.107†	-4606.4	188.5	0.0627	ug/L	0.0627	ppb	13:58:41
1	Cd 226.502†	-236.6	-0.6	-0.0048	ug/L	-0.0048	ppb	13:59:01
1	Co 228.616†	-83.5	4.8	0.0842	ug/L	0.0842	ppb	13:59:01
1	Cr 267.716†	102.1	-1.5	-0.0179	ug/L	-0.0179	ppb	13:59:01
1	Cu 324.752†	6110.0	-242.1	-0.6769	ug/L	-0.6769	ppb	13:58:41
1	Mn 257.610†	519.3	5.2	0.0036	ug/L	0.0036	ppb	13:59:01
1	Mo 202.031†	29.3	2.5	0.1479	ug/L	0.1479	ppb	13:59:01
1	Ni 231.604†	100.2	-6.5	-0.1392	ug/L	-0.1392	ppb	13:59:01
1	P 214.914†	262.0	-4.6	-2.2022	ug/L	-2.2022	ppb	13:59:01
1	Pb 220.353†	-86.7	-5.1	-0.5215	ug/L	-0.5215	ppb	13:59:01
1	S 181.975 Axial†	49.8	-11.1	-13.272	ug/L	-13.272	ppb	13:59:01
1	Sb 206.836†	39.6	-4.5	-1.3208	ug/L	-1.3208	ppb	13:59:01
1	Se 196.026†	-28.8	1.2	0.6327	ug/L	0.6327	ppb	13:59:01
1	Si 251.611†	684.9	-4.7	-0.1327	ug/L	-0.1327	ppb	13:59:01
1	Sn 189.927†	5.9	3.8	0.5573	ug/L	0.5573	ppb	13:59:01
1	Ti 334.940†	-1489.3	45.3	0.0620	ug/L	0.0620	ppb	13:58:41
1	Tl 190.801†	-42.5	5.1	1.2983	ug/L	1.2983	ppb	13:59:01
1	U 409.014†	-2544.1	294.6	8.1788	ug/L	8.1788	ppb	13:58:36
1	V 292.402†	-1517.5	16.8	0.1255	ug/L	0.1255	ppb	13:58:41
1	Zn 213.857†	849.4	7.8	0.0629	ug/L	0.0629	ppb	13:59:01
1	SiO2†	733.3	16.5	0.9834	ug/L	0.9834	ppb	14:00:07
2	Sc Radial	5595.6	5595.6	100	%			13:57:44
2	Y RADIAL	5850.1	5850.1	99.81	%			13:57:44
2	Al 396.153Radial†	-37.0	-23.7	-16.622	ug/L	-16.622	ppb	13:57:44
2	Ca 317.933Radial†	24.7	6.8	9.4940	ug/L	9.4940	ppb	13:58:04
2	Fe 238.204 Radial†	13.0	1.8	13.929	ug/L	13.929	ppb	13:58:04
2	K 766.490 Radial†	2843.5	-33.0	-5.9290	ug/L	-5.9290	ppb	13:57:44
2	Mg 279.077 IEC†	4.7	2.4	73.761	ug/L	73.761	ppb	13:58:04
2	Na 589.592 Radial†	-1285.0	-23.2	-6.3339	ug/L	-6.3339	ppb	13:57:44
2	Sr 421.552†	-58.2	-63.7	-0.3636	ug/L	-0.3636	ppb	13:57:44
2	Sc 361.383	937317.0	937317.0	104.21	%			13:59:06
2	Y 371.029	770267.8	770267.8	103.68	%			13:59:06
2	Ag 328.068†	422.4	5.9	0.0276	ug/L	0.0276	ppb	13:59:11
2	As 188.979†	-23.3	5.1	1.8280	ug/L	1.8280	ppb	13:59:31
2	B 249.677†	73.1	-394.9	-8.0580	ug/L	-8.0580	ppb	13:59:11
2	Ba 233.527†	-15.2	-5.9	-0.0383	ug/L	-0.0383	ppb	13:59:31
2	Be 313.107†	-4647.5	135.5	0.0453	ug/L	0.0453	ppb	13:59:11
2	Cd 226.502†	-232.5	2.7	0.0243	ug/L	0.0243	ppb	13:59:31
2	Co 228.616†	-86.8	1.4	0.0236	ug/L	0.0236	ppb	13:59:31
2	Cr 267.716†	70.0	-32.0	-0.3198	ug/L	-0.3198	ppb	13:59:31
2	Cu 324.752†	6147.8	-187.8	-0.5241	ug/L	-0.5241	ppb	13:59:11
2	Mn 257.610†	572.8	58.1	0.0567	ug/L	0.0567	ppb	13:59:31
2	Mo 202.031†	25.1	-1.5	-0.0883	ug/L	-0.0883	ppb	13:59:31
2	Ni 231.604†	120.5	13.3	0.2873	ug/L	0.2873	ppb	13:59:31

2	P 214.914†	232.4	-32.1	-16.288 ug/L	-16.288 ppb	13:59:31
2	Pb 220.353†	-79.2	1.8	0.1801 ug/L	0.1801 ppb	13:59:31
2	S 181.975 Axial†	48.4	-12.3	-14.756 ug/L	-14.756 ppb	13:59:31
2	Sb 206.836†	41.3	-2.7	-0.8112 ug/L	-0.8112 ppb	13:59:31
2	Se 196.026†	-35.0	-4.8	-2.5403 ug/L	-2.5403 ppb	13:59:31
2	Si 251.611†	688.7	1.0	0.0318 ug/L	0.0318 ppb	13:59:31
2	Sn 189.927†	-1.3	-3.1	-0.4466 ug/L	-0.4466 ppb	13:59:31
2	Ti 334.940†	-1406.0	120.8	0.1724 ug/L	0.1724 ppb	13:59:11
2	Tl 190.801†	-48.8	-1.1	-0.2757 ug/L	-0.2757 ppb	13:59:31
2	U 409.014†	-2656.3	179.5	4.9802 ug/L	4.9802 ppb	13:59:06
2	V 292.402†	-1441.3	85.4	0.5441 ug/L	0.5441 ppb	13:59:11
2	Zn 213.857†	822.6	-15.5	-0.1292 ug/L	-0.1292 ppb	13:59:31
2	SiO2†	737.6	22.8	1.3738 ug/L	1.3738 ppb	14:00:12
3	Sc Radial	5714.6	5714.6	102 %		13:58:09
3	Y RADIAL	5989.0	5989.0	102.2 %		13:58:09
3	Al 396.153Radial†	6.9	20.1	14.105 ug/L	14.105 ppb	13:58:09
3	Ca 317.933Radial†	25.6	7.1	9.9790 ug/L	9.9790 ppb	13:58:29
3	Fe 238.204 Radial†	11.8	0.3	2.2382 ug/L	2.2382 ppb	13:58:29
3	K 766.490 Radial†	2966.1	27.7	4.9707 ug/L	4.9707 ppb	13:58:09
3	Mg 279.077 IEC†	2.5	0.2	5.0191 ug/L	5.0191 ppb	13:58:29
3	Na 589.592 Radial†	-1220.4	66.8	18.246 ug/L	18.246 ppb	13:58:09
3	Sr 421.552†	-8.7	-14.1	-0.0808 ug/L	-0.0808 ppb	13:58:09
3	Sc 361.383	936879.0	936879.0	104.16 %		13:59:36
3	Y 371.029	770623.2	770623.2	103.73 %		13:59:36
3	Ag 328.068†	435.6	18.8	0.0739 ug/L	0.0739 ppb	13:59:41
3	As 188.979†	-21.8	6.5	2.3144 ug/L	2.3144 ppb	14:00:01
3	B 249.677†	-23.0	-487.1	-9.9386 ug/L	-9.9386 ppb	13:59:41
3	Ba 233.527†	-2.6	6.1	0.0410 ug/L	0.0410 ppb	14:00:01
3	Be 313.107†	-4518.5	257.3	0.0856 ug/L	0.0856 ppb	13:59:41
3	Cd 226.502†	-223.1	11.6	0.1114 ug/L	0.1114 ppb	14:00:01
3	Co 228.616†	-65.9	21.5	0.3715 ug/L	0.3715 ppb	14:00:01
3	Cr 267.716†	96.7	-6.4	-0.0661 ug/L	-0.0661 ppb	14:00:01
3	Cu 324.752†	6160.5	-172.9	-0.4830 ug/L	-0.4830 ppb	13:59:41
3	Mn 257.610†	587.0	72.0	0.0704 ug/L	0.0704 ppb	14:00:01
3	Mo 202.031†	20.1	-6.3	-0.3742 ug/L	-0.3742 ppb	14:00:01
3	Ni 231.604†	132.3	24.7	0.5325 ug/L	0.5325 ppb	14:00:01
3	P 214.914†	242.5	-22.4	-11.288 ug/L	-11.288 ppb	14:00:01
3	Pb 220.353†	-86.7	-5.4	-0.5542 ug/L	-0.5542 ppb	14:00:01
3	S 181.975 Axial†	50.9	-9.9	-11.828 ug/L	-11.828 ppb	14:00:01
3	Sb 206.836†	37.4	-6.5	-1.9204 ug/L	-1.9204 ppb	14:00:01
3	Se 196.026†	-37.9	-7.6	-4.0438 ug/L	-4.0438 ppb	14:00:01
3	Si 251.611†	678.4	-8.6	-0.2358 ug/L	-0.2358 ppb	14:00:01
3	Sn 189.927†	5.8	3.7	0.5423 ug/L	0.5423 ppb	14:00:01
3	Ti 334.940†	-1441.6	86.1	0.1211 ug/L	0.1211 ppb	13:59:41
3	Tl 190.801†	-43.5	4.0	1.0246 ug/L	1.0246 ppb	14:00:01
3	U 409.014†	-2548.9	281.4	7.8098 ug/L	7.8098 ppb	13:59:36
3	V 292.402†	-1531.5	-1.8	-0.0019 ug/L	-0.0019 ppb	13:59:41
3	Zn 213.857†	839.6	1.2	0.0066 ug/L	0.0066 ppb	14:00:01
3	SiO2†	684.5	-27.9	-1.6586 ug/L	-1.6586 ppb	14:00:17

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	938135.4	104.30	%	0.201				0.19%
Sc Radial	5648.4	101	%	1.1				1.07%
Y 371.029	770761.6	103.75	%	0.077				0.07%
Y RADIAL	5908.7	100.8	%	1.23				1.22%
Ag 328.068†	17.3	0.0697	ug/L	0.04010	0.0697	ppb	0.04010	57.53%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.4	3.7835	ug/L	17.67220	3.7835	ppb	17.67220	467.08%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.2	1.5059	ug/L	1.00886	1.5059	ppb	1.00886	66.99%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-473.3	-9.6566	ug/L	1.47791	-9.6566	ppb	1.47791	15.30%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.1	-0.0001	ug/L	0.03972	-0.0001	ppb	0.03972	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	193.8	0.0645	ug/L	0.02022	0.0645	ppb	0.02022	31.33%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.4	8.9260	ug/L	1.42468	8.9260	ppb	1.42468	15.96%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 4.6      0.0436 ug/L       0.06048      0.0436 ppb        0.06048 138.71%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 9.2      0.1598 ug/L       0.18587      0.1598 ppb        0.18587 116.32%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -13.3     -0.1346 ug/L       0.16222     -0.1346 ppb        0.16222 120.53%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -200.9     -0.5613 ug/L       0.10219     -0.5613 ppb        0.10219  18.20%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.4      3.2848 ug/L      10.16110      3.2848 ppb       10.16110 309.34%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -16.3     -2.9357 ug/L       6.91408     -2.9357 ppb        6.91408 235.52%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.4      42.315 ug/L       34.7423      42.315 ppb        34.7423  82.10%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                45.1      0.0436 ug/L       0.03531      0.0436 ppb        0.03531  81.03%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -1.8     -0.1048 ug/L       0.26147     -0.1048 ppb        0.26147 249.39%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          5.6      1.5236 ug/L      14.49066      1.5236 ppb       14.49066 951.09%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                10.5      0.2269 ug/L       0.33989      0.2269 ppb        0.33989 149.81%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -19.7     -9.9263 ug/L       7.14116     -9.9263 ppb        7.14116  71.94%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.9     -0.2985 ug/L       0.41482     -0.2985 ppb        0.41482 138.97%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -11.1     -13.285 ug/L        1.4642     -13.285 ppb         1.4642  11.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -4.6     -1.3508 ug/L       0.55525     -1.3508 ppb        0.55525  41.11%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.7     -1.9838 ug/L       2.38736     -1.9838 ppb        2.38736 120.34%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                -4.1     -0.1122 ug/L       0.13494     -0.1122 ppb        0.13494 120.24%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.5      0.2177 ug/L       0.57532      0.2177 ppb        0.57532 264.32%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -20.1     -0.1149 ug/L       0.23356     -0.1149 ppb        0.23356 203.33%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                84.1      0.1185 ug/L       0.05525      0.1185 ppb        0.05525  46.61%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.7      0.6824 ug/L       0.84097      0.6824 ppb        0.84097 123.24%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                251.8      6.9896 ug/L       1.74995      6.9896 ppb        1.74995  25.04%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 33.5      0.2225 ug/L       0.28565      0.2225 ppb        0.28565 128.36%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -2.2     -0.0199 ug/L       0.09875     -0.0199 ppb        0.09875 495.92%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       3.8      0.2329 ug/L       1.64964      0.2329 ppb        1.64964 708.33%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/20/2009 14:51:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5541.1	5541.1	99.2	%			14:53:02
1	Y RADIAL	5724.8	5724.8	97.67	%			14:53:02
1	Al 396.153Radial†	6920.3	6991.6	4890.1	ug/L	4890.1	ppb	14:53:02
1	Ca 317.933Radial†	3458.8	3470.0	4844.3	ug/L	4844.3	ppb	14:53:22
1	Fe 238.204 Radial†	640.2	634.4	5035.4	ug/L	5035.4	ppb	14:53:22
1	K 766.490 Radial†	30602.4	27986.6	5015.9	ug/L	5015.9	ppb	14:53:02
1	Mg 279.077 IEC†	168.2	167.3	5056.2	ug/L	5056.2	ppb	14:53:22
1	Na 589.592 Radial†	36267.7	37831.8	10339	ug/L	10339	ppb	14:53:02
1	Sr 421.552†	88348.7	89083.8	508.20	ug/L	508.20	ppb	14:53:02
1	Sc 361.383	915498.9	915498.9	101.79	%			14:54:19
1	Y 371.029	742238.4	742238.4	99.911	%			14:54:19
1	Ag 328.068†	117548.6	115085.0	494.09	ug/L	494.09	ppb	14:54:24
1	As 188.979†	1375.1	1378.4	494.26	ug/L	494.26	ppb	14:54:44
1	B 249.677†	24632.2	23734.6	482.25	ug/L	482.25	ppb	14:54:24
1	Ba 233.527†	75165.7	73854.4	497.09	ug/L	497.09	ppb	14:54:24
1	Be 313.107†	1520736.6	1498627.5	498.34	ug/L	498.34	ppb	14:54:19
1	Cd 226.502†	52382.7	51688.6	496.40	ug/L	496.40	ppb	14:54:24
1	Co 228.616†	29235.8	28807.2	499.74	ug/L	499.74	ppb	14:54:24
1	Cr 267.716†	50627.1	49638.9	495.79	ug/L	495.79	ppb	14:54:24
1	Cu 324.752†	184773.4	175441.8	490.61	ug/L	490.61	ppb	14:54:24
1	Mn 257.610†	519695.4	510078.0	498.46	ug/L	498.46	ppb	14:54:19
1	Mo 202.031†	8315.6	8144.0	484.56	ug/L	484.56	ppb	14:54:44
1	Ni 231.604†	23611.4	23094.6	497.40	ug/L	497.40	ppb	14:54:24
1	P 214.914†	5133.0	4787.7	2360.7	ug/L	2360.7	ppb	14:54:44
1	Pb 220.353†	4756.5	4750.8	487.61	ug/L	487.61	ppb	14:54:44
1	S 181.975 Axial†	881.0	806.8	965.59	ug/L	965.59	ppb	14:54:44
1	Sb 206.836†	1717.0	1644.5	491.98	ug/L	491.98	ppb	14:54:44
1	Se 196.026†	912.7	925.5	511.92	ug/L	511.92	ppb	14:54:44
1	Si 251.611†	90935.2	88678.5	2456.9	ug/L	2456.9	ppb	14:54:24
1	Sn 189.927†	3374.4	3313.4	485.19	ug/L	485.19	ppb	14:54:44
1	Ti 334.940†	347163.2	342537.0	493.16	ug/L	493.16	ppb	14:54:19
1	Tl 190.801†	1920.2	1932.3	496.24	ug/L	496.24	ppb	14:54:44
1	U 409.014†	15527.7	17983.4	497.55	ug/L	497.55	ppb	14:54:24
1	V 292.402†	78393.8	78485.6	499.29	ug/L	499.29	ppb	14:54:24
1	Zn 213.857†	63420.7	61502.2	491.83	ug/L	491.83	ppb	14:54:24
1	SiO2†	91127.4	88842.2	5285.8	ug/L	5285.8	ppb	14:55:52
2	Sc Radial	5665.6	5665.6	101	%			14:53:27
2	Y RADIAL	5863.8	5863.8	100.0	%			14:53:27
2	Al 396.153Radial†	6904.5	6822.7	4771.1	ug/L	4771.1	ppb	14:53:27
2	Ca 317.933Radial†	3578.1	3510.9	4901.5	ug/L	4901.5	ppb	14:53:47
2	Fe 238.204 Radial†	665.1	644.8	5117.7	ug/L	5117.7	ppb	14:53:47
2	K 766.490 Radial†	30655.4	27360.6	4903.7	ug/L	4903.7	ppb	14:53:27
2	Mg 279.077 IEC†	173.3	168.6	5094.8	ug/L	5094.8	ppb	14:53:47
2	Na 589.592 Radial†	35887.9	36653.3	10017	ug/L	10017	ppb	14:53:27
2	Sr 421.552†	87464.2	86253.3	492.05	ug/L	492.05	ppb	14:53:27
2	Sc 361.383	904923.2	904923.2	100.61	%			14:54:50
2	Y 371.029	734246.3	734246.3	98.835	%			14:54:50
2	Ag 328.068†	117979.9	116863.4	501.73	ug/L	501.73	ppb	14:54:56
2	As 188.979†	1380.6	1399.6	501.80	ug/L	501.80	ppb	14:55:16
2	B 249.677†	24642.0	24027.2	488.20	ug/L	488.20	ppb	14:54:56
2	Ba 233.527†	74953.6	74506.6	501.48	ug/L	501.48	ppb	14:54:56
2	Be 313.107†	1501015.9	1496487.1	497.63	ug/L	497.63	ppb	14:54:50
2	Cd 226.502†	52256.6	52164.7	500.96	ug/L	500.96	ppb	14:54:56
2	Co 228.616†	29057.7	28965.8	502.51	ug/L	502.51	ppb	14:54:56
2	Cr 267.716†	50496.7	50090.5	500.30	ug/L	500.30	ppb	14:54:56
2	Cu 324.752†	185699.4	178483.6	499.12	ug/L	499.12	ppb	14:54:56
2	Mn 257.610†	512380.7	508774.7	497.19	ug/L	497.19	ppb	14:54:50
2	Mo 202.031†	8340.1	8263.8	491.69	ug/L	491.69	ppb	14:55:16
2	Ni 231.604†	23532.5	23287.2	501.55	ug/L	501.55	ppb	14:54:56

2	P 214.914†	5158.0	4871.5	2401.9 ug/L	2401.9 ppb	14:55:16
2	Pb 220.353†	4785.5	4834.2	496.12 ug/L	496.12 ppb	14:55:16
2	S 181.975 Axial†	888.2	824.0	986.33 ug/L	986.33 ppb	14:55:16
2	Sb 206.836†	1721.2	1668.4	499.17 ug/L	499.17 ppb	14:55:16
2	Se 196.026†	913.3	936.5	518.06 ug/L	518.06 ppb	14:55:16
2	Si 251.611†	90925.0	89712.4	2485.6 ug/L	2485.6 ppb	14:54:56
2	Sn 189.927†	3369.5	3347.2	490.15 ug/L	490.15 ppb	14:55:16
2	Ti 334.940†	342498.1	341886.3	492.22 ug/L	492.22 ppb	14:54:50
2	Tl 190.801†	1915.6	1949.7	500.63 ug/L	500.63 ppb	14:55:16
2	U 409.014†	15540.7	18174.6	502.84 ug/L	502.84 ppb	14:54:56
2	V 292.402†	78418.5	79410.3	505.19 ug/L	505.19 ppb	14:54:56
2	Zn 213.857†	63447.4	62256.9	497.87 ug/L	497.87 ppb	14:54:56
2	SiO2†	91663.9	90421.8	5380.0 ug/L	5380.0 ppb	14:55:57
3	Sc Radial	5642.5	5642.5	101 %		14:53:52
3	Y RADIAL	5853.9	5853.9	99.87 %		14:53:52
3	Al 396.153Radial†	6913.8	6859.7	4797.2 ug/L	4797.2 ppb	14:53:52
3	Ca 317.933Radial†	3532.2	3479.9	4858.2 ug/L	4858.2 ppb	14:54:12
3	Fe 238.204 Radial†	658.7	641.1	5088.7 ug/L	5088.7 ppb	14:54:12
3	K 766.490 Radial†	30680.2	27508.7	4930.2 ug/L	4930.2 ppb	14:53:52
3	Mg 279.077 IEC†	171.8	167.8	5070.8 ug/L	5070.8 ppb	14:54:12
3	Na 589.592 Radial†	36137.8	37045.5	10124 ug/L	10124 ppb	14:53:52
3	Sr 421.552†	87840.8	86978.7	496.19 ug/L	496.19 ppb	14:53:52
3	Sc 361.383	908250.6	908250.6	100.98 %		14:55:22
3	Y 371.029	736926.2	736926.2	99.196 %		14:55:22
3	Ag 328.068†	116997.1	115460.5	495.72 ug/L	495.72 ppb	14:55:27
3	As 188.979†	1365.9	1380.1	494.85 ug/L	494.85 ppb	14:55:47
3	B 249.677†	24449.7	23747.0	482.50 ug/L	482.50 ppb	14:55:27
3	Ba 233.527†	74665.9	73948.8	497.73 ug/L	497.73 ppb	14:55:27
3	Be 313.107†	1506872.4	1496821.2	497.74 ug/L	497.74 ppb	14:55:22
3	Cd 226.502†	52057.1	51776.9	497.24 ug/L	497.24 ppb	14:55:27
3	Co 228.616†	28977.1	28780.2	499.29 ug/L	499.29 ppb	14:55:27
3	Cr 267.716†	50351.6	49763.0	497.03 ug/L	497.03 ppb	14:55:27
3	Cu 324.752†	184055.8	176179.8	492.68 ug/L	492.68 ppb	14:55:27
3	Mn 257.610†	513885.6	508399.2	496.83 ug/L	496.83 ppb	14:55:22
3	Mo 202.031†	8328.9	8222.4	489.23 ug/L	489.23 ppb	14:55:47
3	Ni 231.604†	23479.4	23148.9	498.57 ug/L	498.57 ppb	14:55:27
3	P 214.914†	5132.0	4827.0	2380.3 ug/L	2380.3 ppb	14:55:47
3	Pb 220.353†	4776.7	4808.1	493.46 ug/L	493.46 ppb	14:55:47
3	S 181.975 Axial†	877.6	810.3	969.84 ug/L	969.84 ppb	14:55:47
3	Sb 206.836†	1723.6	1664.5	498.01 ug/L	498.01 ppb	14:55:47
3	Se 196.026†	901.7	921.7	510.10 ug/L	510.10 ppb	14:55:47
3	Si 251.611†	90241.9	88704.9	2457.6 ug/L	2457.6 ppb	14:55:27
3	Sn 189.927†	3367.4	3332.8	488.04 ug/L	488.04 ppb	14:55:47
3	Ti 334.940†	343177.1	341311.5	491.40 ug/L	491.40 ppb	14:55:22
3	Tl 190.801†	1903.1	1930.4	495.71 ug/L	495.71 ppb	14:55:47
3	U 409.014†	15312.9	17892.4	495.02 ug/L	495.02 ppb	14:55:27
3	V 292.402†	78011.3	78721.5	500.82 ug/L	500.82 ppb	14:55:27
3	Zn 213.857†	62996.1	61578.9	492.43 ug/L	492.43 ppb	14:55:27
3	SiO2†	90869.8	89301.6	5313.1 ug/L	5313.1 ppb	14:56:02

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	909557.6	101.13	%	0.601				0.59%
Sc Radial	5616.4	101	%	1.2				1.18%
Y 371.029	737803.6	99.314	%	0.5475				0.55%
Y RADIAL	5814.1	99.19	%	1.323				1.33%
Ag 328.068†	115803.0	497.18	ug/L	4.020	497.18	ppb	4.020	0.81%
QC value within limits for Ag 328.068 Recovery = 99.44%								
Al 396.153Radial†	6891.3	4819.4	ug/L	62.53	4819.4	ppb	62.53	1.30%
QC value within limits for Al 396.153Radial Recovery = 96.39%								
As 188.979†	1386.1	496.97	ug/L	4.194	496.97	ppb	4.194	0.84%
QC value within limits for As 188.979 Recovery = 99.39%								
B 249.677†	23836.3	484.32	ug/L	3.367	484.32	ppb	3.367	0.70%
QC value within limits for B 249.677 Recovery = 96.86%								
Ba 233.527†	74103.3	498.77	ug/L	2.374	498.77	ppb	2.374	0.48%
QC value within limits for Ba 233.527 Recovery = 99.75%								
Be 313.107†	1497311.9	497.90	ug/L	0.384	497.90	ppb	0.384	0.08%
QC value within limits for Be 313.107 Recovery = 99.58%								
Ca 317.933Radial†	3486.9	4868.0	ug/L	29.84	4868.0	ppb	29.84	0.61%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.36%
Cd 226.502†            51876.7      498.20 ug/L         2.431      498.20 ppb          2.431   0.49%
   QC value within limits for Cd 226.502  Recovery = 99.64%
Co 228.616†            28851.1      500.52 ug/L         1.745      500.52 ppb          1.745   0.35%
   QC value within limits for Co 228.616  Recovery = 100.10%
Cr 267.716†            49830.8      497.70 ug/L         2.332      497.70 ppb          2.332   0.47%
   QC value within limits for Cr 267.716  Recovery = 99.54%
Cu 324.752†           176701.8      494.14 ug/L         4.437      494.14 ppb          4.437   0.90%
   QC value within limits for Cu 324.752  Recovery = 98.83%
Fe 238.204 Radial†       640.1      5080.6 ug/L        41.72      5080.6 ppb          41.72   0.82%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.61%
K 766.490 Radial†      27618.6      4949.9 ug/L        58.65      4949.9 ppb          58.65   1.18%
   QC value within limits for K 766.490 Radial  Recovery = 99.00%
Mg 279.077 IEC†          167.9      5073.9 ug/L        19.52      5073.9 ppb          19.52   0.38%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.48%
Mn 257.610†           509084.0      497.49 ug/L         0.857      497.49 ppb          0.857   0.17%
   QC value within limits for Mn 257.610  Recovery = 99.50%
Mo 202.031†             8210.1      488.50 ug/L         3.621      488.50 ppb          3.621   0.74%
   QC value within limits for Mo 202.031  Recovery = 97.70%
Na 589.592 Radial†     37176.9       10160 ug/L       164.0        10160 ppb          164.0   1.61%
   QC value within limits for Na 589.592 Radial  Recovery = 101.60%
Ni 231.604†            23176.9      499.17 ug/L         2.139      499.17 ppb          2.139   0.43%
   QC value within limits for Ni 231.604  Recovery = 99.83%
P 214.914†              4828.7      2380.9 ug/L        20.62      2380.9 ppb          20.62   0.87%
   QC value within limits for P 214.914  Recovery = 95.24%
Pb 220.353†             4797.7      492.40 ug/L         4.353      492.40 ppb          4.353   0.88%
   QC value within limits for Pb 220.353  Recovery = 98.48%
S 181.975 Axial†         813.7      973.92 ug/L        10.952      973.92 ppb         10.952   1.12%
   QC value within limits for S 181.975 Axial  Recovery = 97.39%
Sb 206.836†             1659.1      496.39 ug/L         3.862      496.39 ppb          3.862   0.78%
   QC value within limits for Sb 206.836  Recovery = 99.28%
Se 196.026†              927.9      513.36 ug/L         4.170      513.36 ppb          4.170   0.81%
   QC value within limits for Se 196.026  Recovery = 102.67%
Si 251.611†            89031.9      2466.7 ug/L        16.37      2466.7 ppb          16.37   0.66%
   QC value within limits for Si 251.611  Recovery = 98.67%
Sn 189.927†             3331.1      487.79 ug/L         2.489      487.79 ppb          2.489   0.51%
   QC value within limits for Sn 189.927  Recovery = 97.56%
Sr 421.552†            87438.6      498.81 ug/L         8.388      498.81 ppb          8.388   1.68%
   QC value within limits for Sr 421.552  Recovery = 99.76%
Ti 334.940†           341911.6      492.26 ug/L         0.882      492.26 ppb          0.882   0.18%
   QC value within limits for Ti 334.940  Recovery = 98.45%
Tl 190.801†             1937.5      497.53 ug/L         2.701      497.53 ppb          2.701   0.54%
   QC value within limits for Tl 190.801  Recovery = 99.51%
U 409.014†             18016.8      498.47 ug/L         3.990      498.47 ppb          3.990   0.80%
   QC value within limits for U 409.014  Recovery = 99.69%
V 292.402†             78872.5      501.77 ug/L         3.064      501.77 ppb          3.064   0.61%
   QC value within limits for V 292.402  Recovery = 100.35%
Zn 213.857†            61779.3      494.04 ug/L         3.329      494.04 ppb          3.329   0.67%
   QC value within limits for Zn 213.857  Recovery = 98.81%
SiO2†                  89521.9      5326.3 ug/L        48.47      5326.3 ppb          48.47   0.91%
   QC value within limits for SiO2  Recovery = 99.60%
All analyte(s) passed QC.
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Sequence No.: 20
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 17
Date Collected: 12/20/2009 14:58:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5418.1	5418.1	97.0	%			15:00:04
1	Y RADIAL	5699.2	5699.2	97.23	%			15:00:04
1	Al 396.153Radial†	234.2	254.9	178.60	ug/L	178.60	ppb	15:00:04
1	Ca 317.933Radial†	156.8	143.9	200.83	ug/L	200.83	ppb	15:00:24
1	Fe 238.204 Radial†	23.3	12.8	101.66	ug/L	101.66	ppb	15:00:24
1	K 766.490 Radial†	3708.9	952.5	170.80	ug/L	170.80	ppb	15:00:04
1	Mg 279.077 IEC†	11.7	9.8	294.94	ug/L	294.94	ppb	15:00:24
1	Na 589.592 Radial†	-280.8	970.5	265.21	ug/L	265.21	ppb	15:00:04
1	Sr 421.552†	846.8	867.7	4.9483	ug/L	4.9483	ppb	15:00:04
1	Sc 361.383	897851.6	897851.6	99.825	%			15:01:21
1	Y 371.029	742768.3	742768.3	99.982	%			15:01:21
1	Ag 328.068†	1496.5	1099.7	4.6949	ug/L	4.6949	ppb	15:01:21
1	As 188.979†	49.7	77.2	27.474	ug/L	27.474	ppb	15:01:41
1	B 249.677†	2426.5	1965.8	40.075	ug/L	40.075	ppb	15:01:21
1	Ba 233.527†	740.7	750.6	5.0520	ug/L	5.0520	ppb	15:01:41
1	Be 313.107†	10375.7	14989.0	4.9844	ug/L	4.9844	ppb	15:01:21
1	Cd 226.502†	283.2	509.4	4.8874	ug/L	4.8874	ppb	15:01:41
1	Co 228.616†	200.7	285.8	4.9699	ug/L	4.9699	ppb	15:01:41
1	Cr 267.716†	572.6	474.4	4.7229	ug/L	4.7229	ppb	15:01:41
1	Cu 324.752†	9778.5	3708.5	10.370	ug/L	10.370	ppb	15:01:21
1	Mn 257.610†	11211.7	10739.8	10.491	ug/L	10.491	ppb	15:01:21
1	Mo 202.031†	188.5	163.2	9.7118	ug/L	9.7118	ppb	15:01:41
1	Ni 231.604†	342.1	240.4	5.1786	ug/L	5.1786	ppb	15:01:41
1	P 214.914†	547.4	293.2	147.60	ug/L	147.60	ppb	15:01:41
1	Pb 220.353†	14.1	91.9	9.4559	ug/L	9.4559	ppb	15:01:41
1	S 181.975 Axial†	139.4	80.8	96.829	ug/L	96.829	ppb	15:01:41
1	Sb 206.836†	82.5	40.2	12.144	ug/L	12.144	ppb	15:01:41
1	Se 196.026†	24.0	52.9	28.586	ug/L	28.586	ppb	15:01:41
1	Si 251.611†	4231.9	3579.5	99.384	ug/L	99.384	ppb	15:01:21
1	Sn 189.927†	74.8	73.1	10.720	ug/L	10.720	ppb	15:01:41
1	Ti 334.940†	1993.9	3467.4	4.9793	ug/L	4.9793	ppb	15:01:21
1	Tl 190.801†	39.0	84.8	21.712	ug/L	21.712	ppb	15:01:41
1	U 409.014†	-847.3	1879.6	52.148	ug/L	52.148	ppb	15:01:21
1	V 292.402†	-785.8	681.3	4.5015	ug/L	4.5015	ppb	15:01:21
1	Zn 213.857†	2027.3	1226.0	9.8272	ug/L	9.8272	ppb	15:01:41
1	SiO2†	4277.6	3600.1	214.65	ug/L	214.65	ppb	15:02:38
2	Sc Radial	5515.9	5515.9	98.7	%			15:00:30
2	Y RADIAL	5813.7	5813.7	99.19	%			15:00:30
2	Al 396.153Radial†	253.4	270.0	189.22	ug/L	189.22	ppb	15:00:30
2	Ca 317.933Radial†	158.4	142.6	199.14	ug/L	199.14	ppb	15:00:50
2	Fe 238.204 Radial†	20.6	9.7	76.546	ug/L	76.546	ppb	15:00:50
2	K 766.490 Radial†	3754.5	931.0	166.93	ug/L	166.93	ppb	15:00:30
2	Mg 279.077 IEC†	10.2	8.1	245.02	ug/L	245.02	ppb	15:00:50
2	Na 589.592 Radial†	-247.3	1009.5	275.89	ug/L	275.89	ppb	15:00:30
2	Sr 421.552†	836.9	842.2	4.8031	ug/L	4.8031	ppb	15:00:30
2	Sc 361.383	886407.1	886407.1	98.553	%			15:01:47
2	Y 371.029	732216.9	732216.9	98.562	%			15:01:47
2	Ag 328.068†	1631.8	1256.4	5.3504	ug/L	5.3504	ppb	15:01:47
2	As 188.979†	47.1	75.2	26.755	ug/L	26.755	ppb	15:02:07
2	B 249.677†	2406.9	1977.2	40.313	ug/L	40.313	ppb	15:01:47
2	Ba 233.527†	728.0	747.3	5.0289	ug/L	5.0289	ppb	15:02:07
2	Be 313.107†	10202.5	14947.4	4.9707	ug/L	4.9707	ppb	15:01:47
2	Cd 226.502†	291.6	521.6	5.0069	ug/L	5.0069	ppb	15:02:07
2	Co 228.616†	195.2	282.8	4.9202	ug/L	4.9202	ppb	15:02:07
2	Cr 267.716†	586.4	495.8	4.9345	ug/L	4.9345	ppb	15:02:07
2	Cu 324.752†	9635.8	3690.2	10.318	ug/L	10.318	ppb	15:01:47
2	Mn 257.610†	11009.7	10679.9	10.431	ug/L	10.431	ppb	15:01:47
2	Mo 202.031†	194.1	171.4	10.195	ug/L	10.195	ppb	15:02:07
2	Ni 231.604†	348.2	251.1	5.4082	ug/L	5.4082	ppb	15:02:07

2	P 214.914†	532.2	284.9	143.38 ug/L	143.38 ppb	15:02:07
2	Pb 220.353†	21.2	99.3	10.217 ug/L	10.217 ppb	15:02:07
2	S 181.975 Axial†	138.5	81.8	97.975 ug/L	97.975 ppb	15:02:07
2	Sb 206.836†	69.3	27.9	8.5349 ug/L	8.5349 ppb	15:02:07
2	Se 196.026†	30.9	60.1	32.379 ug/L	32.379 ppb	15:02:07
2	Si 251.611†	4208.4	3610.3	100.23 ug/L	100.23 ppb	15:01:47
2	Sn 189.927†	79.8	79.2	11.599 ug/L	11.599 ppb	15:02:07
2	Ti 334.940†	2011.5	3511.1	5.0397 ug/L	5.0397 ppb	15:01:47
2	Tl 190.801†	35.5	81.8	20.942 ug/L	20.942 ppb	15:02:07
2	U 409.014†	-639.7	2079.2	57.691 ug/L	57.691 ppb	15:01:47
2	V 292.402†	-767.9	689.3	4.5717 ug/L	4.5717 ppb	15:01:47
2	Zn 213.857†	2019.4	1244.2	9.9756 ug/L	9.9756 ppb	15:02:07
2	SiO2†	4218.4	3595.4	214.35 ug/L	214.35 ppb	15:02:43
3	Sc Radial	5552.0	5552.0	99.4 %		15:00:55
3	Y RADIAL	5823.4	5823.4	99.35 %		15:00:55
3	Al 396.153Radial†	236.7	251.5	176.26 ug/L	176.26 ppb	15:00:55
3	Ca 317.933Radial†	159.4	142.5	198.97 ug/L	198.97 ppb	15:01:15
3	Fe 238.204 Radial†	22.9	11.9	94.108 ug/L	94.108 ppb	15:01:15
3	K 766.490 Radial†	3779.7	931.5	167.02 ug/L	167.02 ppb	15:00:55
3	Mg 279.077 IEC†	11.5	9.3	281.05 ug/L	281.05 ppb	15:01:15
3	Na 589.592 Radial†	-205.9	1052.7	287.70 ug/L	287.70 ppb	15:00:55
3	Sr 421.552†	872.4	872.3	4.9749 ug/L	4.9749 ppb	15:00:55
3	Sc 361.383	891107.3	891107.3	99.075 %		15:02:12
3	Y 371.029	737447.4	737447.4	99.266 %		15:02:12
3	Ag 328.068†	1630.7	1246.6	5.3172 ug/L	5.3172 ppb	15:02:12
3	As 188.979†	49.2	77.1	27.418 ug/L	27.418 ppb	15:02:32
3	B 249.677†	2465.2	2023.2	41.249 ug/L	41.249 ppb	15:02:12
3	Ba 233.527†	748.2	763.8	5.1395 ug/L	5.1395 ppb	15:02:32
3	Be 313.107†	10497.1	15190.2	5.0511 ug/L	5.0511 ppb	15:02:12
3	Cd 226.502†	290.5	519.0	4.9797 ug/L	4.9797 ppb	15:02:32
3	Co 228.616†	193.5	280.1	4.8708 ug/L	4.8708 ppb	15:02:32
3	Cr 267.716†	589.2	495.5	4.9328 ug/L	4.9328 ppb	15:02:32
3	Cu 324.752†	9684.0	3687.3	10.311 ug/L	10.311 ppb	15:02:12
3	Mn 257.610†	11225.6	10838.8	10.587 ug/L	10.587 ppb	15:02:12
3	Mo 202.031†	187.7	163.9	9.7511 ug/L	9.7511 ppb	15:02:32
3	Ni 231.604†	347.1	248.0	5.3422 ug/L	5.3422 ppb	15:02:32
3	P 214.914†	544.4	294.3	148.16 ug/L	148.16 ppb	15:02:32
3	Pb 220.353†	21.1	99.1	10.189 ug/L	10.189 ppb	15:02:32
3	S 181.975 Axial†	125.8	68.2	81.668 ug/L	81.668 ppb	15:02:32
3	Sb 206.836†	74.8	33.1	10.012 ug/L	10.012 ppb	15:02:32
3	Se 196.026†	22.0	51.0	27.583 ug/L	27.583 ppb	15:02:32
3	Si 251.611†	4244.3	3624.1	100.63 ug/L	100.63 ppb	15:02:12
3	Sn 189.927†	64.8	63.6	9.3226 ug/L	9.3226 ppb	15:02:32
3	Ti 334.940†	1960.0	3448.3	4.9514 ug/L	4.9514 ppb	15:02:12
3	Tl 190.801†	52.9	99.2	25.375 ug/L	25.375 ppb	15:02:32
3	U 409.014†	-817.8	1903.0	52.796 ug/L	52.796 ppb	15:02:12
3	V 292.402†	-824.4	636.3	4.2217 ug/L	4.2217 ppb	15:02:12
3	Zn 213.857†	2026.5	1240.6	9.9444 ug/L	9.9444 ppb	15:02:32
3	SiO2†	4234.6	3589.1	214.01 ug/L	214.01 ppb	15:02:48

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	891788.7	99.151	%	0.6396				0.65%
Sc Radial	5495.3	98.4	%	1.24				1.26%
Y 371.029	737477.5	99.270	%	0.7102				0.72%
Y RADIAL	5778.8	98.59	%	1.179				1.20%
Ag 328.068†	1200.9	5.1208	ug/L	0.36924	5.1208	ppb	0.36924	7.21%
QC value within limits for Ag 328.068 Recovery = 102.42%								
Al 396.153Radial†	258.8	181.36	ug/L	6.910	181.36	ppb	6.910	3.81%
QC value within limits for Al 396.153Radial Recovery = 90.68%								
As 188.979†	76.5	27.215	ug/L	0.4001	27.215	ppb	0.4001	1.47%
QC value within limits for As 188.979 Recovery = 90.72%								
B 249.677†	1988.7	40.546	ug/L	0.6206	40.546	ppb	0.6206	1.53%
QC value within limits for B 249.677 Recovery = 81.09%								
Ba 233.527†	753.9	5.0734	ug/L	0.05835	5.0734	ppb	0.05835	1.15%
QC value within limits for Ba 233.527 Recovery = 101.47%								
Be 313.107†	15042.2	5.0021	ug/L	0.04302	5.0021	ppb	0.04302	0.86%
QC value within limits for Be 313.107 Recovery = 100.04%								
Ca 317.933Radial†	143.0	199.65	ug/L	1.031	199.65	ppb	1.031	0.52%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.82%
Cd 226.502†              516.7      4.9580 ug/L       0.06261      4.9580 ppb        0.06261   1.26%
   QC value within limits for Cd 226.502  Recovery = 99.16%
Co 228.616†              282.9      4.9203 ug/L       0.04950      4.9203 ppb        0.04950   1.01%
   QC value within limits for Co 228.616  Recovery = 98.41%
Cr 267.716†              488.6      4.8634 ug/L       0.12167      4.8634 ppb        0.12167   2.50%
   QC value within limits for Cr 267.716  Recovery = 97.27%
Cu 324.752†             3695.4      10.333 ug/L        0.0326      10.333 ppb         0.0326   0.32%
   QC value within limits for Cu 324.752  Recovery = 103.33%
Fe 238.204 Radial†        11.5      90.771 ug/L       12.8852      90.771 ppb        12.8852  14.20%
   QC value within limits for Fe 238.204 Radial  Recovery = 90.77%
K 766.490 Radial†        938.3      168.25 ug/L         2.208      168.25 ppb          2.208   1.31%
   QC value within limits for K 766.490 Radial  Recovery = 112.17%
Mg 279.077 IEC†           9.1       273.67 ug/L        25.762      273.67 ppb         25.762   9.41%
   QC value within limits for Mg 279.077 IEC  Recovery = 91.22%
Mn 257.610†            10752.8      10.503 ug/L        0.0788      10.503 ppb         0.0788   0.75%
   QC value within limits for Mn 257.610  Recovery = 105.03%
Mo 202.031†              166.2      9.8858 ug/L       0.26816      9.8858 ppb        0.26816   2.71%
   QC value within limits for Mo 202.031  Recovery = 98.86%
Na 589.592 Radial†      1010.9      276.27 ug/L        11.248      276.27 ppb         11.248   4.07%
   QC value within limits for Na 589.592 Radial  Recovery = 92.09%
Ni 231.604†              246.5      5.3097 ug/L       0.11822      5.3097 ppb        0.11822   2.23%
   QC value within limits for Ni 231.604  Recovery = 106.19%
P 214.914†               290.8      146.38 ug/L         2.612      146.38 ppb          2.612   1.78%
   QC value within limits for P 214.914  Recovery = 97.59%
Pb 220.353†               96.8      9.9542 ug/L       0.43177      9.9542 ppb        0.43177   4.34%
   QC value within limits for Pb 220.353  Recovery = 99.54%
S 181.975 Axial†          77.0      92.157 ug/L        9.1020      92.157 ppb         9.1020   9.88%
   QC value within limits for S 181.975 Axial  Recovery = 92.16%
Sb 206.836†               33.7      10.230 ug/L        1.8144      10.230 ppb         1.8144  17.74%
   QC value within limits for Sb 206.836  Recovery = 102.30%
Se 196.026†               54.7      29.516 ug/L        2.5299      29.516 ppb         2.5299   8.57%
   QC value within limits for Se 196.026  Recovery = 98.39%
Si 251.611†             3604.6      100.08 ug/L         0.637      100.08 ppb          0.637   0.64%
   QC value within limits for Si 251.611  Recovery = 100.08%
Sn 189.927†               72.0      10.547 ug/L        1.1479      10.547 ppb         1.1479  10.88%
   QC value within limits for Sn 189.927  Recovery = 105.47%
Sr 421.552†              860.7      4.9087 ug/L       0.09248      4.9087 ppb        0.09248   1.88%
   QC value within limits for Sr 421.552  Recovery = 98.17%
Ti 334.940†             3475.6      4.9901 ug/L       0.04511      4.9901 ppb        0.04511   0.90%
   QC value within limits for Ti 334.940  Recovery = 99.80%
Tl 190.801†               88.6      22.677 ug/L        2.3683      22.677 ppb         2.3683  10.44%
   QC value within limits for Tl 190.801  Recovery = 113.38%
U 409.014†              1953.9      54.212 ug/L        3.0308      54.212 ppb         3.0308   5.59%
   QC value within limits for U 409.014  Recovery = 108.42%
V 292.402†               669.0      4.4316 ug/L       0.18514      4.4316 ppb        0.18514   4.18%
   QC value within limits for V 292.402  Recovery = 88.63%
Zn 213.857†             1236.9      9.9158 ug/L       0.07825      9.9158 ppb        0.07825   0.79%
   QC value within limits for Zn 213.857  Recovery = 99.16%
SiO2†                   3594.9      214.33 ug/L         0.322      214.33 ppb          0.322   0.15%
   QC value within limits for SiO2  Recovery = 100.63%
All analyte(s) passed QC.
```

Sequence No.: 21
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/20/2009 15:04:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5480.0	5480.0	98.1	%			15:06:50
1	Y RADIAL	5752.1	5752.1	98.14	%			15:06:50
1	Al 396.153Radial†	-7.3	5.9	4.1390	ug/L	4.1390	ppb	15:06:50
1	Ca 317.933Radial†	21.0	3.6	5.0115	ug/L	5.0115	ppb	15:07:10
1	Fe 238.204 Radial†	11.4	0.4	3.0325	ug/L	3.0325	ppb	15:07:10
1	K 766.490 Radial†	2818.5	1.5	0.2624	ug/L	0.2624	ppb	15:06:50
1	Mg 279.077 IEC†	-0.5	-2.8	-84.302	ug/L	-84.302	ppb	15:07:10
1	Na 589.592 Radial†	-1239.4	-3.7	-1.0237	ug/L	-1.0237	ppb	15:06:50
1	Sr 421.552†	-3.1	-8.8	-0.0501	ug/L	-0.0501	ppb	15:06:50
1	Sc 361.383	887535.6	887535.6	98.678	%			15:08:07
1	Y 371.029	732370.2	732370.2	98.583	%			15:08:07
1	Ag 328.068†	374.4	-20.0	-0.0818	ug/L	-0.0818	ppb	15:08:07
1	As 188.979†	-39.3	-12.3	-4.3759	ug/L	-4.3759	ppb	15:08:27
1	B 249.677†	-69.0	-534.9	-10.913	ug/L	-10.913	ppb	15:08:07
1	Ba 233.527†	0.7	9.4	0.0619	ug/L	0.0619	ppb	15:08:27
1	Be 313.107†	-4439.5	96.1	0.0318	ug/L	0.0318	ppb	15:08:07
1	Cd 226.502†	-225.9	-3.2	-0.0303	ug/L	-0.0303	ppb	15:08:27
1	Co 228.616†	-86.3	-2.7	-0.0464	ug/L	-0.0464	ppb	15:08:27
1	Cr 267.716†	76.6	-21.5	-0.2138	ug/L	-0.2138	ppb	15:08:27
1	Cu 324.752†	6028.1	21.8	0.0610	ug/L	0.0610	ppb	15:08:07
1	Mn 257.610†	550.8	66.6	0.0669	ug/L	0.0669	ppb	15:08:27
1	Mo 202.031†	27.2	2.0	0.1199	ug/L	0.1199	ppb	15:08:27
1	Ni 231.604†	127.9	27.4	0.5901	ug/L	0.5901	ppb	15:08:27
1	P 214.914†	242.1	-9.9	-5.0060	ug/L	-5.0060	ppb	15:08:27
1	Pb 220.353†	-74.3	2.6	0.2633	ug/L	0.2633	ppb	15:08:27
1	S 181.975 Axial†	56.9	-1.1	-1.3677	ug/L	-1.3677	ppb	15:08:27
1	Sb 206.836†	42.2	0.3	0.1312	ug/L	0.1312	ppb	15:08:27
1	Se 196.026†	-32.4	-4.1	-2.1513	ug/L	-2.1513	ppb	15:08:27
1	Si 251.611†	663.7	12.7	0.3469	ug/L	0.3469	ppb	15:08:27
1	Sn 189.927†	11.2	9.6	1.4015	ug/L	1.4015	ppb	15:08:27
1	Ti 334.940†	-1468.5	-18.1	-0.0236	ug/L	-0.0236	ppb	15:08:07
1	Tl 190.801†	-40.6	4.7	1.1942	ug/L	1.1942	ppb	15:08:27
1	U 409.014†	-2863.3	-173.3	-4.8113	ug/L	-4.8113	ppb	15:08:07
1	V 292.402†	-1515.0	-66.9	-0.4300	ug/L	-0.4300	ppb	15:08:07
1	Zn 213.857†	847.3	53.8	0.4329	ug/L	0.4329	ppb	15:08:27
1	SiO2†	684.1	8.3	0.4838	ug/L	0.4838	ppb	15:09:23
2	Sc Radial	5551.4	5551.4	99.4	%			15:07:15
2	Y RADIAL	5811.9	5811.9	99.15	%			15:07:15
2	Al 396.153Radial†	-5.3	8.0	5.6061	ug/L	5.6061	ppb	15:07:15
2	Ca 317.933Radial†	19.9	2.2	3.0434	ug/L	3.0434	ppb	15:07:35
2	Fe 238.204 Radial†	10.7	-0.5	-3.8254	ug/L	-3.8254	ppb	15:07:35
2	K 766.490 Radial†	2948.0	94.8	17.017	ug/L	17.017	ppb	15:07:15
2	Mg 279.077 IEC†	3.0	0.7	22.494	ug/L	22.494	ppb	15:07:35
2	Na 589.592 Radial†	-1256.6	-4.7	-1.2930	ug/L	-1.2930	ppb	15:07:15
2	Sr 421.552†	-3.0	-8.6	-0.0492	ug/L	-0.0492	ppb	15:07:15
2	Sc 361.383	879441.5	879441.5	97.778	%			15:08:32
2	Y 371.029	725203.7	725203.7	97.618	%			15:08:32
2	Ag 328.068†	418.5	28.6	0.1205	ug/L	0.1205	ppb	15:08:32
2	As 188.979†	-27.5	-0.7	-0.2406	ug/L	-0.2406	ppb	15:08:52
2	B 249.677†	-84.1	-551.0	-11.240	ug/L	-11.240	ppb	15:08:32
2	Ba 233.527†	15.8	24.7	0.1645	ug/L	0.1645	ppb	15:08:52
2	Be 313.107†	-4549.6	-57.8	-0.0193	ug/L	-0.0193	ppb	15:08:32
2	Cd 226.502†	-238.9	-18.5	-0.1775	ug/L	-0.1775	ppb	15:08:52
2	Co 228.616†	-71.6	11.5	0.2006	ug/L	0.2006	ppb	15:08:52
2	Cr 267.716†	106.6	9.9	0.0983	ug/L	0.0983	ppb	15:08:52
2	Cu 324.752†	6032.9	82.9	0.2315	ug/L	0.2315	ppb	15:08:32
2	Mn 257.610†	564.9	86.2	0.0834	ug/L	0.0834	ppb	15:08:52
2	Mo 202.031†	33.7	8.9	0.5277	ug/L	0.5277	ppb	15:08:52
2	Ni 231.604†	101.0	1.0	0.0212	ug/L	0.0212	ppb	15:08:52

2	P 214.914†	254.8	5.4	2.7363	ug/L	2.7363 ppb	15:08:52
2	Pb 220.353†	-61.3	15.1	1.5519	ug/L	1.5519 ppb	15:08:52
2	S 181.975 Axial†	49.7	-7.9	-9.4366	ug/L	-9.4366 ppb	15:08:52
2	Sb 206.836†	31.0	-10.7	-3.1262	ug/L	-3.1262 ppb	15:08:52
2	Se 196.026†	-26.3	1.9	1.0154	ug/L	1.0154 ppb	15:08:52
2	Si 251.611†	652.9	7.9	0.2012	ug/L	0.2012 ppb	15:08:52
2	Sn 189.927†	7.8	6.2	0.9015	ug/L	0.9015 ppb	15:08:52
2	Ti 334.940†	-1467.6	-30.9	-0.0432	ug/L	-0.0432 ppb	15:08:32
2	Tl 190.801†	-43.2	1.6	0.4157	ug/L	0.4157 ppb	15:08:52
2	U 409.014†	-2763.0	-97.4	-2.7043	ug/L	-2.7043 ppb	15:08:32
2	V 292.402†	-1534.9	-101.3	-0.6328	ug/L	-0.6328 ppb	15:08:32
2	Zn 213.857†	840.0	54.3	0.4366	ug/L	0.4366 ppb	15:08:52
2	SiO2†	686.4	17.1	0.9806	ug/L	0.9806 ppb	15:09:28
3	Sc Radial	5633.0	5633.0	101	%		15:07:40
3	Y RADIAL	5917.0	5917.0	100.9	%		15:07:40
3	Al 396.153Radial†	-7.6	5.8	4.0661	ug/L	4.0661 ppb	15:07:40
3	Ca 317.933Radial†	26.2	8.1	11.282	ug/L	11.282 ppb	15:08:00
3	Fe 238.204 Radial†	12.0	0.7	5.5619	ug/L	5.5619 ppb	15:08:00
3	K 766.490 Radial†	2900.8	5.0	0.8903	ug/L	0.8903 ppb	15:07:40
3	Mg 279.077 IEC†	5.7	3.4	101.93	ug/L	101.93 ppb	15:08:00
3	Na 589.592 Radial†	-1301.4	-30.8	-8.4269	ug/L	-8.4269 ppb	15:07:40
3	Sr 421.552†	4.1	-1.5	-0.0089	ug/L	-0.0089 ppb	15:07:40
3	Sc 361.383	880525.3	880525.3	97.899	%		15:08:58
3	Y 371.029	727697.4	727697.4	97.954	%		15:08:58
3	Ag 328.068†	332.7	-59.5	-0.2522	ug/L	-0.2522 ppb	15:08:58
3	As 188.979†	-28.5	-1.7	-0.5898	ug/L	-0.5898 ppb	15:09:18
3	B 249.677†	-123.3	-590.9	-12.056	ug/L	-12.056 ppb	15:08:58
3	Ba 233.527†	9.0	17.8	0.1179	ug/L	0.1179 ppb	15:09:18
3	Be 313.107†	-4487.9	10.9	0.0039	ug/L	0.0039 ppb	15:08:58
3	Cd 226.502†	-229.7	-8.9	-0.0856	ug/L	-0.0856 ppb	15:09:18
3	Co 228.616†	-83.4	-0.5	-0.0085	ug/L	-0.0085 ppb	15:09:18
3	Cr 267.716†	110.5	13.7	0.1362	ug/L	0.1362 ppb	15:09:18
3	Cu 324.752†	6047.6	90.3	0.2527	ug/L	0.2527 ppb	15:08:58
3	Mn 257.610†	550.2	70.4	0.0674	ug/L	0.0674 ppb	15:09:18
3	Mo 202.031†	26.3	1.3	0.0756	ug/L	0.0756 ppb	15:09:18
3	Ni 231.604†	112.8	13.0	0.2800	ug/L	0.2800 ppb	15:09:18
3	P 214.914†	239.3	-10.7	-5.5048	ug/L	-5.5048 ppb	15:09:18
3	Pb 220.353†	-79.0	-2.8	-0.2889	ug/L	-0.2889 ppb	15:09:18
3	S 181.975 Axial†	50.2	-7.4	-8.9103	ug/L	-8.9103 ppb	15:09:18
3	Sb 206.836†	42.8	1.3	0.3846	ug/L	0.3846 ppb	15:09:18
3	Se 196.026†	-29.6	-1.5	-0.7689	ug/L	-0.7689 ppb	15:09:18
3	Si 251.611†	640.0	-6.1	-0.1702	ug/L	-0.1702 ppb	15:09:18
3	Sn 189.927†	0.9	-0.9	-0.1320	ug/L	-0.1320 ppb	15:09:18
3	Ti 334.940†	-1350.9	90.2	0.1319	ug/L	0.1319 ppb	15:08:58
3	Tl 190.801†	-41.4	3.5	0.8877	ug/L	0.8877 ppb	15:09:18
3	U 409.014†	-2792.5	-124.1	-3.4457	ug/L	-3.4457 ppb	15:08:58
3	V 292.402†	-1555.9	-120.9	-0.7634	ug/L	-0.7634 ppb	15:08:58
3	Zn 213.857†	828.8	41.8	0.3312	ug/L	0.3312 ppb	15:09:18
3	SiO2†	655.3	-15.6	-0.9339	ug/L	-0.9339 ppb	15:09:33

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	882500.8	98.119	%	0.4885				0.50%
Sc Radial	5554.8	99.4	%	1.37				1.38%
Y 371.029	728423.8	98.051	%	0.4897				0.50%
Y RADIAL	5827.0	99.41	%	1.424				1.43%
Ag 328.068†	-17.0	-0.0712	ug/L	0.18659	-0.0712	ppb	0.18659	262.12%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.6	4.6037	ug/L	0.86881	4.6037	ppb	0.86881	18.87%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.9	-1.7354	ug/L	2.29334	-1.7354	ppb	2.29334	132.15%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-559.0	-11.403	ug/L	0.5887	-11.403	ppb	0.5887	5.16%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	17.3	0.1148	ug/L	0.05139	0.1148	ppb	0.05139	44.77%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	16.4	0.0055	ug/L	0.02560	0.0055	ppb	0.02560	467.09%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.6	6.4456	ug/L	4.30239	6.4456	ppb	4.30239	66.75%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -10.2     -0.0978 ug/L       0.07435     -0.0978 ppb        0.07435  75.99%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                2.8      0.0486 ug/L       0.13304      0.0486 ppb        0.13304 273.92%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                0.7      0.0069 ug/L       0.19205      0.0069 ppb        0.19205 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               65.0      0.1818 ug/L       0.10509      0.1818 ppb        0.10509  57.82%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.2      1.5897 ug/L       4.85711      1.5897 ppb        4.85711 305.54%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         33.7      6.0567 ug/L       9.49740      6.0567 ppb        9.49740 156.81%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.4      13.373 ug/L       93.4489      13.373 ppb        93.4489 698.78%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               74.4      0.0726 ug/L       0.00935      0.0726 ppb        0.00935  12.88%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.1      0.2411 ug/L       0.24919      0.2411 ppb        0.24919 103.37%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -13.1     -3.5812 ug/L       4.19869     -3.5812 ppb        4.19869 117.24%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               13.8      0.2971 ug/L       0.28485      0.2971 ppb        0.28485  95.88%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -5.1     -2.5915 ug/L       4.62076     -2.5915 ppb        4.62076 178.31%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                5.0      0.5088 ug/L       0.94463      0.5088 ppb        0.94463 185.67%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -5.5     -6.5715 ug/L       4.51436     -6.5715 ppb        4.51436  68.70%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -3.0     -0.8702 ug/L       1.95792     -0.8702 ppb        1.95792 225.01%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -1.2     -0.6349 ug/L       1.58762     -0.6349 ppb        1.58762 250.05%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                4.8      0.1259 ug/L       0.26665      0.1259 ppb        0.26665 211.71%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                4.9      0.7237 ug/L       0.78209      0.7237 ppb        0.78209 108.07%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -6.3     -0.0361 ug/L       0.02355     -0.0361 ppb        0.02355  65.27%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               13.7      0.0217 ug/L       0.09598      0.0217 ppb        0.09598 442.47%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.3      0.8326 ug/L       0.39214      0.8326 ppb        0.39214  47.10%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -131.6     -3.6538 ug/L       1.06880     -3.6538 ppb        1.06880  29.25%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -96.4     -0.6088 ug/L       0.16801     -0.6088 ppb        0.16801  27.60%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               49.9      0.4002 ug/L       0.05981      0.4002 ppb        0.05981  14.95%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      3.3      0.1768 ug/L       0.99349      0.1768 ppb        0.99349 561.84%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 29
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/20/2009 16:00:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5687.8	5687.8	102	%			16:02:46
1	Y RADIAL	5951.2	5951.2	101.5	%			16:02:46
1	Al 396.153Radial†	6764.9	6659.0	4655.8	ug/L	4655.8	ppb	16:02:46
1	Ca 317.933Radial†	3549.4	3469.0	4843.0	ug/L	4843.0	ppb	16:02:46
1	Fe 238.204 Radial†	660.2	637.3	5058.9	ug/L	5058.9	ppb	16:03:06
1	K 766.490 Radial†	30109.9	26706.8	4786.3	ug/L	4786.3	ppb	16:02:46
1	Mg 279.077 IEC†	173.0	167.7	5068.0	ug/L	5068.0	ppb	16:03:06
1	Na 589.592 Radial†	35427.2	36062.7	9855.4	ug/L	9855.4	ppb	16:02:46
1	Sr 421.552†	85778.8	84261.2	480.69	ug/L	480.69	ppb	16:02:46
1	Sc 361.383	906237.6	906237.6	100.76	%			16:04:05
1	Y 371.029	735670.0	735670.0	99.027	%			16:04:05
1	Ag 328.068†	118176.3	116888.2	501.84	ug/L	501.84	ppb	16:04:05
1	As 188.979†	1382.8	1399.9	501.94	ug/L	501.94	ppb	16:04:25
1	B 249.677†	24513.6	23864.3	484.90	ug/L	484.90	ppb	16:04:05
1	Ba 233.527†	75327.4	74769.6	503.25	ug/L	503.25	ppb	16:04:05
1	Be 313.107†	1527069.8	1520181.2	505.50	ug/L	505.50	ppb	16:04:05
1	Cd 226.502†	52734.7	52563.9	504.80	ug/L	504.80	ppb	16:04:05
1	Co 228.616†	28780.9	28649.1	497.03	ug/L	497.03	ppb	16:04:25
1	Cr 267.716†	50860.4	50378.7	503.18	ug/L	503.18	ppb	16:04:05
1	Cu 324.752†	187486.8	179989.8	503.32	ug/L	503.32	ppb	16:04:05
1	Mn 257.610†	520216.2	515812.6	504.06	ug/L	504.06	ppb	16:04:05
1	Mo 202.031†	8487.4	8398.0	499.66	ug/L	499.66	ppb	16:04:25
1	Ni 231.604†	23447.2	23168.6	499.00	ug/L	499.00	ppb	16:04:25
1	P 214.914†	5171.9	4877.9	2404.5	ug/L	2404.5	ppb	16:04:25
1	Pb 220.353†	4867.2	4908.4	503.71	ug/L	503.71	ppb	16:04:25
1	S 181.975 Axial†	887.9	822.5	984.49	ug/L	984.49	ppb	16:04:25
1	Sb 206.836†	1711.2	1656.0	495.68	ug/L	495.68	ppb	16:04:25
1	Se 196.026†	927.0	948.8	524.46	ug/L	524.46	ppb	16:04:25
1	Si 251.611†	91137.8	89792.6	2487.7	ug/L	2487.7	ppb	16:04:05
1	Sn 189.927†	3403.1	3375.7	494.31	ug/L	494.31	ppb	16:04:25
1	Ti 334.940†	348247.5	347098.7	499.73	ug/L	499.73	ppb	16:04:05
1	Tl 190.801†	1922.4	1953.8	501.79	ug/L	501.79	ppb	16:04:25
1	U 409.014†	14913.9	17530.1	484.95	ug/L	484.95	ppb	16:04:05
1	V 292.402†	78826.8	79702.4	507.10	ug/L	507.10	ppb	16:04:05
1	Zn 213.857†	63727.6	62443.5	499.39	ug/L	499.39	ppb	16:04:05
1	SiO2†	91434.5	90061.9	5358.2	ug/L	5358.2	ppb	16:05:26
2	Sc Radial	5743.5	5743.5	103	%			16:03:11
2	Y RADIAL	5938.9	5938.9	101.3	%			16:03:11
2	Al 396.153Radial†	6934.7	6759.7	4726.6	ug/L	4726.6	ppb	16:03:11
2	Ca 317.933Radial†	3627.3	3511.0	4901.6	ug/L	4901.6	ppb	16:03:11
2	Fe 238.204 Radial†	657.3	628.3	4986.9	ug/L	4986.9	ppb	16:03:31
2	K 766.490 Radial†	30762.1	27054.3	4848.6	ug/L	4848.6	ppb	16:03:11
2	Mg 279.077 IEC†	177.4	170.3	5146.5	ug/L	5146.5	ppb	16:03:31
2	Na 589.592 Radial†	36582.3	36848.7	10070	ug/L	10070	ppb	16:03:11
2	Sr 421.552†	88275.3	85872.1	489.88	ug/L	489.88	ppb	16:03:11
2	Sc 361.383	907598.6	907598.6	100.91	%			16:04:33
2	Y 371.029	736577.5	736577.5	99.149	%			16:04:33
2	Ag 328.068†	118492.8	117026.0	502.40	ug/L	502.40	ppb	16:04:33
2	As 188.979†	1381.7	1396.7	500.81	ug/L	500.81	ppb	16:04:53
2	B 249.677†	24620.8	23933.9	486.34	ug/L	486.34	ppb	16:04:33
2	Ba 233.527†	75626.1	74953.4	504.48	ug/L	504.48	ppb	16:04:33
2	Be 313.107†	1531782.6	1522578.9	506.30	ug/L	506.30	ppb	16:04:33
2	Cd 226.502†	52621.3	52373.0	502.98	ug/L	502.98	ppb	16:04:33
2	Co 228.616†	28733.3	28559.1	495.46	ug/L	495.46	ppb	16:04:53
2	Cr 267.716†	50969.8	50411.5	503.51	ug/L	503.51	ppb	16:04:33
2	Cu 324.752†	188564.0	180778.3	505.52	ug/L	505.52	ppb	16:04:33
2	Mn 257.610†	521724.3	516532.9	504.76	ug/L	504.76	ppb	16:04:33
2	Mo 202.031†	8456.5	8354.8	497.09	ug/L	497.09	ppb	16:04:53
2	Ni 231.604†	23377.5	23064.6	496.76	ug/L	496.76	ppb	16:04:53

2	P 214.914†	5195.2	4893.2	2412.0 ug/L	2412.0 ppb	16:04:53
2	Pb 220.353†	4857.7	4891.8	502.02 ug/L	502.02 ppb	16:04:53
2	S 181.975 Axial†	874.9	808.3	967.48 ug/L	967.48 ppb	16:04:53
2	Sb 206.836†	1725.0	1667.1	498.83 ug/L	498.83 ppb	16:04:53
2	Se 196.026†	904.8	925.5	511.78 ug/L	511.78 ppb	16:04:53
2	Si 251.611†	91672.2	90186.5	2498.7 ug/L	2498.7 ppb	16:04:33
2	Sn 189.927†	3388.4	3356.0	491.43 ug/L	491.43 ppb	16:04:53
2	Ti 334.940†	349510.7	347832.2	500.79 ug/L	500.79 ppb	16:04:33
2	Tl 190.801†	1912.6	1941.1	498.58 ug/L	498.58 ppb	16:04:53
2	U 409.014†	14850.9	17445.5	482.61 ug/L	482.61 ppb	16:04:33
2	V 292.402†	79042.7	79799.1	507.68 ug/L	507.68 ppb	16:04:33
2	Zn 213.857†	63903.2	62522.7	500.04 ug/L	500.04 ppb	16:04:33
2	SiO2†	91505.1	89995.9	5354.3 ug/L	5354.3 ppb	16:05:31
3	Sc Radial	5498.5	5498.5	98.4 %		16:03:36
3	Y RADIAL	5710.7	5710.7	97.43 %		16:03:36
3	Al 396.153Radial†	6839.8	6963.8	4869.9 ug/L	4869.9 ppb	16:03:36
3	Ca 317.933Radial†	3583.7	3623.8	5059.2 ug/L	5059.2 ppb	16:03:36
3	Fe 238.204 Radial†	658.8	658.2	5224.1 ug/L	5224.1 ppb	16:03:56
3	K 766.490 Radial†	30172.1	27788.1	4980.2 ug/L	4980.2 ppb	16:03:36
3	Mg 279.077 IEC†	175.7	176.3	5325.2 ug/L	5325.2 ppb	16:03:56
3	Na 589.592 Radial†	35804.9	37644.4	10288 ug/L	10288 ppb	16:03:36
3	Sr 421.552†	86649.3	88046.1	502.28 ug/L	502.28 ppb	16:03:36
3	Sc 361.383	902791.9	902791.9	100.37 %		16:05:00
3	Y 371.029	733828.0	733828.0	98.779 %		16:05:00
3	Ag 328.068†	118120.2	117280.0	503.56 ug/L	503.56 ppb	16:05:00
3	As 188.979†	1382.7	1405.0	503.79 ug/L	503.79 ppb	16:05:20
3	B 249.677†	24594.4	24037.5	488.41 ug/L	488.41 ppb	16:05:00
3	Ba 233.527†	75146.7	74874.9	503.97 ug/L	503.97 ppb	16:05:00
3	Be 313.107†	1527265.2	1526160.6	507.49 ug/L	507.49 ppb	16:05:00
3	Cd 226.502†	52496.1	52525.9	504.42 ug/L	504.42 ppb	16:05:00
3	Co 228.616†	28693.6	28671.2	497.40 ug/L	497.40 ppb	16:05:20
3	Cr 267.716†	50774.0	50485.3	504.25 ug/L	504.25 ppb	16:05:00
3	Cu 324.752†	187980.9	181192.4	506.69 ug/L	506.69 ppb	16:05:00
3	Mn 257.610†	519759.8	517328.6	505.55 ug/L	505.55 ppb	16:05:00
3	Mo 202.031†	8444.5	8387.4	499.05 ug/L	499.05 ppb	16:05:20
3	Ni 231.604†	23321.6	23132.3	498.21 ug/L	498.21 ppb	16:05:20
3	P 214.914†	5169.9	4895.5	2412.9 ug/L	2412.9 ppb	16:05:20
3	Pb 220.353†	4840.7	4900.4	502.92 ug/L	502.92 ppb	16:05:20
3	S 181.975 Axial†	876.4	814.4	974.72 ug/L	974.72 ppb	16:05:20
3	Sb 206.836†	1724.4	1675.6	501.42 ug/L	501.42 ppb	16:05:20
3	Se 196.026†	919.0	944.4	522.66 ug/L	522.66 ppb	16:05:20
3	Si 251.611†	91305.8	90305.2	2502.0 ug/L	2502.0 ppb	16:05:00
3	Sn 189.927†	3387.5	3373.0	493.94 ug/L	493.94 ppb	16:05:20
3	Ti 334.940†	348287.1	348457.4	501.70 ug/L	501.70 ppb	16:05:00
3	Tl 190.801†	1910.4	1949.1	500.61 ug/L	500.61 ppb	16:05:20
3	U 409.014†	14988.0	17660.4	488.55 ug/L	488.55 ppb	16:05:00
3	V 292.402†	78820.3	79994.6	508.92 ug/L	508.92 ppb	16:05:00
3	Zn 213.857†	63619.3	62577.0	500.45 ug/L	500.45 ppb	16:05:00
3	SiO2†	90636.3	89613.1	5331.3 ug/L	5331.3 ppb	16:05:36

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	905542.7	100.68	%	0.275				0.27%
Sc Radial	5643.3	101	%	2.3				2.28%
Y 371.029	735358.5	98.985	%	0.1886				0.19%
Y RADIAL	5866.9	100.1	%	2.31				2.31%
Ag 328.068†	117064.7	502.60	ug/L	0.881	502.60	ppb	0.881	0.18%
QC value within limits for Ag 328.068 Recovery = 100.52%								
Al 396.153Radial†	6794.2	4750.8	ug/L	109.10	4750.8	ppb	109.10	2.30%
QC value within limits for Al 396.153Radial Recovery = 95.02%								
As 188.979†	1400.5	502.18	ug/L	1.504	502.18	ppb	1.504	0.30%
QC value within limits for As 188.979 Recovery = 100.44%								
B 249.677†	23945.3	486.55	ug/L	1.766	486.55	ppb	1.766	0.36%
QC value within limits for B 249.677 Recovery = 97.31%								
Ba 233.527†	74866.0	503.90	ug/L	0.620	503.90	ppb	0.620	0.12%
QC value within limits for Ba 233.527 Recovery = 100.78%								
Be 313.107†	1522973.6	506.43	ug/L	1.001	506.43	ppb	1.001	0.20%
QC value within limits for Be 313.107 Recovery = 101.29%								
Ca 317.933Radial†	3534.6	4934.6	ug/L	111.81	4934.6	ppb	111.81	2.27%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.69%
Cd 226.502†            52487.6      504.07 ug/L         0.964      504.07 ppb          0.964   0.19%
   QC value within limits for Cd 226.502  Recovery = 100.81%
Co 228.616†            28626.5      496.63 ug/L         1.031      496.63 ppb          1.031   0.21%
   QC value within limits for Co 228.616  Recovery = 99.33%
Cr 267.716†            50425.2      503.65 ug/L         0.547      503.65 ppb          0.547   0.11%
   QC value within limits for Cr 267.716  Recovery = 100.73%
Cu 324.752†           180653.5      505.18 ug/L         1.711      505.18 ppb          1.711   0.34%
   QC value within limits for Cu 324.752  Recovery = 101.04%
Fe 238.204 Radial†       641.3      5090.0 ug/L        121.60      5090.0 ppb         121.60   2.39%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.80%
K 766.490 Radial†      27183.0      4871.7 ug/L         99.01      4871.7 ppb          99.01   2.03%
   QC value within limits for K 766.490 Radial  Recovery = 97.43%
Mg 279.077 IEC†          171.4      5179.9 ug/L        131.82      5179.9 ppb         131.82   2.54%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.60%
Mn 257.610†           516558.0      504.79 ug/L         0.747      504.79 ppb          0.747   0.15%
   QC value within limits for Mn 257.610  Recovery = 100.96%
Mo 202.031†             8380.1      498.60 ug/L         1.346      498.60 ppb          1.346   0.27%
   QC value within limits for Mo 202.031  Recovery = 99.72%
Na 589.592 Radial†     36852.0       10071 ug/L         216.1       10071 ppb          216.1   2.15%
   QC value within limits for Na 589.592 Radial  Recovery = 100.71%
Ni 231.604†            23121.8      497.99 ug/L         1.137      497.99 ppb          1.137   0.23%
   QC value within limits for Ni 231.604  Recovery = 99.60%
P 214.914†              4888.9      2409.8 ug/L          4.59      2409.8 ppb           4.59   0.19%
   QC value within limits for P 214.914  Recovery = 96.39%
Pb 220.353†             4900.2      502.88 ug/L         0.847      502.88 ppb          0.847   0.17%
   QC value within limits for Pb 220.353  Recovery = 100.58%
S 181.975 Axial†         815.1      975.56 ug/L         8.532      975.56 ppb          8.532   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 97.56%
Sb 206.836†             1666.2      498.64 ug/L         2.878      498.64 ppb          2.878   0.58%
   QC value within limits for Sb 206.836  Recovery = 99.73%
Se 196.026†              939.6      519.63 ug/L         6.855      519.63 ppb          6.855   1.32%
   QC value within limits for Se 196.026  Recovery = 103.93%
Si 251.611†            90094.8      2496.1 ug/L          7.46      2496.1 ppb           7.46   0.30%
   QC value within limits for Si 251.611  Recovery = 99.85%
Sn 189.927†             3368.2      493.23 ug/L         1.563      493.23 ppb          1.563   0.32%
   QC value within limits for Sn 189.927  Recovery = 98.65%
Sr 421.552†            86059.8      490.95 ug/L        10.836      490.95 ppb         10.836   2.21%
   QC value within limits for Sr 421.552  Recovery = 98.19%
Ti 334.940†           347796.1      500.74 ug/L         0.984      500.74 ppb          0.984   0.20%
   QC value within limits for Ti 334.940  Recovery = 100.15%
Tl 190.801†             1948.0      500.33 ug/L         1.624      500.33 ppb          1.624   0.32%
   QC value within limits for Tl 190.801  Recovery = 100.07%
U 409.014†             17545.3      485.37 ug/L         2.989      485.37 ppb          2.989   0.62%
   QC value within limits for U 409.014  Recovery = 97.07%
V 292.402†             79832.1      507.90 ug/L         0.925      507.90 ppb          0.925   0.18%
   QC value within limits for V 292.402  Recovery = 101.58%
Zn 213.857†            62514.4      499.96 ug/L         0.535      499.96 ppb          0.535   0.11%
   QC value within limits for Zn 213.857  Recovery = 99.99%
SiO2†                  89890.3      5347.9 ug/L         14.57      5347.9 ppb          14.57   0.27%
   QC value within limits for SiO2  Recovery = 100.01%
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 18
Date Collected: 12/20/2009 16:07:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5579.7	5579.7	99.9	%			16:09:38
1	Y RADIAL	5828.5	5828.5	99.44	%			16:09:38
1	Al 396.153Radial†	241.2	254.8	178.55	ug/L	178.55	ppb	16:09:38
1	Ca 317.933Radial†	162.6	145.0	202.36	ug/L	202.36	ppb	16:09:58
1	Fe 238.204 Radial†	26.8	15.7	124.14	ug/L	124.14	ppb	16:09:58
1	K 766.490 Radial†	3749.3	882.2	158.18	ug/L	158.18	ppb	16:09:38
1	Mg 279.077 IEC†	14.2	11.9	360.29	ug/L	360.29	ppb	16:09:58
1	Na 589.592 Radial†	-222.8	1036.9	283.38	ug/L	283.38	ppb	16:09:38
1	Sr 421.552†	811.9	807.4	4.6044	ug/L	4.6044	ppb	16:09:38
1	Sc 361.383	904768.0	904768.0	100.59	%			16:10:55
1	Y 371.029	748672.7	748672.7	100.78	%			16:10:55
1	Ag 328.068†	1527.5	1119.1	4.7819	ug/L	4.7819	ppb	16:10:55
1	As 188.979†	58.6	85.7	30.485	ug/L	30.485	ppb	16:11:15
1	B 249.677†	2239.7	1761.5	35.904	ug/L	35.904	ppb	16:10:55
1	Ba 233.527†	750.8	754.9	5.0820	ug/L	5.0820	ppb	16:11:15
1	Be 313.107†	10679.7	15211.7	5.0585	ug/L	5.0585	ppb	16:10:55
1	Cd 226.502†	302.4	526.4	5.0479	ug/L	5.0479	ppb	16:11:15
1	Co 228.616†	214.6	298.0	5.1822	ug/L	5.1822	ppb	16:11:15
1	Cr 267.716†	578.4	475.8	4.7362	ug/L	4.7362	ppb	16:11:15
1	Cu 324.752†	9839.1	3693.9	10.331	ug/L	10.331	ppb	16:10:55
1	Mn 257.610†	11310.3	10752.0	10.504	ug/L	10.504	ppb	16:10:55
1	Mo 202.031†	193.2	166.4	9.9052	ug/L	9.9052	ppb	16:11:15
1	Ni 231.604†	348.7	244.4	5.2640	ug/L	5.2640	ppb	16:11:15
1	P 214.914†	536.9	278.6	140.11	ug/L	140.11	ppb	16:11:15
1	Pb 220.353†	12.2	90.0	9.2536	ug/L	9.2536	ppb	16:11:15
1	S 181.975 Axial†	135.1	75.5	90.463	ug/L	90.463	ppb	16:11:15
1	Sb 206.836†	76.7	33.8	10.253	ug/L	10.253	ppb	16:11:15
1	Se 196.026†	31.0	59.6	32.274	ug/L	32.274	ppb	16:11:15
1	Si 251.611†	4265.1	3580.1	99.404	ug/L	99.404	ppb	16:10:55
1	Sn 189.927†	68.6	66.4	9.7275	ug/L	9.7275	ppb	16:11:15
1	Ti 334.940†	2067.7	3525.6	5.0608	ug/L	5.0608	ppb	16:10:55
1	Tl 190.801†	33.2	78.8	20.183	ug/L	20.183	ppb	16:11:15
1	U 409.014†	-657.6	2074.7	57.559	ug/L	57.559	ppb	16:10:55
1	V 292.402†	-738.1	734.7	4.8478	ug/L	4.8478	ppb	16:10:55
1	Zn 213.857†	2023.4	1206.6	9.6669	ug/L	9.6669	ppb	16:11:15
1	SiO2†	4227.9	3517.9	209.75	ug/L	209.75	ppb	16:12:11
2	Sc Radial	5101.2	5101.2	91.3	%			16:10:03
2	Y RADIAL	5338.6	5338.6	91.08	%			16:10:03
2	Al 396.153Radial†	238.9	275.0	192.70	ug/L	192.70	ppb	16:10:03
2	Ca 317.933Radial†	166.3	164.3	229.39	ug/L	229.39	ppb	16:10:23
2	Fe 238.204 Radial†	25.0	16.1	127.71	ug/L	127.71	ppb	16:10:23
2	K 766.490 Radial†	3549.5	1015.5	182.12	ug/L	182.12	ppb	16:10:03
2	Mg 279.077 IEC†	15.5	14.7	445.14	ug/L	445.14	ppb	16:10:23
2	Na 589.592 Radial†	-362.5	862.9	235.82	ug/L	235.82	ppb	16:10:03
2	Sr 421.552†	791.7	861.6	4.9134	ug/L	4.9134	ppb	16:10:03
2	Sc 361.383	902543.6	902543.6	100.35	%			16:11:20
2	Y 371.029	748157.1	748157.1	100.71	%			16:11:20
2	Ag 328.068†	1653.0	1247.9	5.3341	ug/L	5.3341	ppb	16:11:20
2	As 188.979†	49.7	77.0	27.386	ug/L	27.386	ppb	16:11:40
2	B 249.677†	2251.3	1778.5	36.251	ug/L	36.251	ppb	16:11:20
2	Ba 233.527†	740.7	746.7	5.0260	ug/L	5.0260	ppb	16:11:40
2	Be 313.107†	10584.6	15143.1	5.0359	ug/L	5.0359	ppb	16:11:20
2	Cd 226.502†	286.8	511.6	4.9054	ug/L	4.9054	ppb	16:11:40
2	Co 228.616†	201.8	285.9	4.9718	ug/L	4.9718	ppb	16:11:40
2	Cr 267.716†	580.0	478.8	4.7674	ug/L	4.7674	ppb	16:11:40
2	Cu 324.752†	9633.6	3513.2	9.8259	ug/L	9.8259	ppb	16:11:20
2	Mn 257.610†	11197.8	10667.6	10.421	ug/L	10.421	ppb	16:11:20
2	Mo 202.031†	196.4	170.1	10.125	ug/L	10.125	ppb	16:11:40
2	Ni 231.604†	356.2	252.7	5.4428	ug/L	5.4428	ppb	16:11:40

2	P 214.914†	530.5	273.5	137.63 ug/L	137.63 ppb	16:11:40
2	Pb 220.353†	26.5	104.2	10.713 ug/L	10.713 ppb	16:11:40
2	S 181.975 Axial†	136.1	76.9	92.046 ug/L	92.046 ppb	16:11:40
2	Sb 206.836†	61.7	19.1	5.9050 ug/L	5.9050 ppb	16:11:40
2	Se 196.026†	23.7	52.4	28.425 ug/L	28.425 ppb	16:11:40
2	Si 251.611†	4266.1	3591.5	99.708 ug/L	99.708 ppb	16:11:20
2	Sn 189.927†	73.1	71.1	10.418 ug/L	10.418 ppb	16:11:40
2	Ti 334.940†	2116.4	3579.1	5.1412 ug/L	5.1412 ppb	16:11:20
2	Tl 190.801†	48.5	94.2	24.098 ug/L	24.098 ppb	16:11:40
2	U 409.014†	-806.1	1925.0	53.405 ug/L	53.405 ppb	16:11:20
2	V 292.402†	-799.9	671.3	4.4463 ug/L	4.4463 ppb	16:11:20
2	Zn 213.857†	2020.3	1208.4	9.6778 ug/L	9.6778 ppb	16:11:40
2	SiO2†	4327.9	3628.0	216.30 ug/L	216.30 ppb	16:12:16
3	Sc Radial	5613.3	5613.3	100 %		16:10:28
3	Y RADIAL	5870.6	5870.6	100.2 %		16:10:28
3	Al 396.153Radial†	255.9	268.0	187.80 ug/L	187.80 ppb	16:10:28
3	Ca 317.933Radial†	166.3	147.7	206.20 ug/L	206.20 ppb	16:10:48
3	Fe 238.204 Radial†	24.5	13.2	104.34 ug/L	104.34 ppb	16:10:48
3	K 766.490 Radial†	3727.1	837.7	150.17 ug/L	150.17 ppb	16:10:28
3	Mg 279.077 IEC†	13.4	11.0	333.42 ug/L	333.42 ppb	16:10:48
3	Na 589.592 Radial†	-176.5	1084.3	296.33 ug/L	296.33 ppb	16:10:28
3	Sr 421.552†	884.1	874.4	4.9866 ug/L	4.9866 ppb	16:10:28
3	Sc 361.383	901190.9	901190.9	100.20 %		16:11:46
3	Y 371.029	748028.0	748028.0	100.69 %		16:11:46
3	Ag 328.068†	1549.4	1147.0	4.8977 ug/L	4.8977 ppb	16:11:46
3	As 188.979†	50.5	77.8	27.696 ug/L	27.696 ppb	16:12:06
3	B 249.677†	2203.0	1733.7	35.341 ug/L	35.341 ppb	16:11:46
3	Ba 233.527†	753.1	760.2	5.1163 ug/L	5.1163 ppb	16:12:06
3	Be 313.107†	10387.1	14961.9	4.9754 ug/L	4.9754 ppb	16:11:46
3	Cd 226.502†	283.1	508.3	4.8759 ug/L	4.8759 ppb	16:12:06
3	Co 228.616†	195.5	279.9	4.8682 ug/L	4.8682 ppb	16:12:06
3	Cr 267.716†	573.8	473.5	4.7139 ug/L	4.7139 ppb	16:12:06
3	Cu 324.752†	9627.3	3521.4	9.8474 ug/L	9.8474 ppb	16:11:46
3	Mn 257.610†	11115.0	10601.7	10.356 ug/L	10.356 ppb	16:11:46
3	Mo 202.031†	194.3	168.3	10.015 ug/L	10.015 ppb	16:12:06
3	Ni 231.604†	331.1	228.2	4.9149 ug/L	4.9149 ppb	16:12:06
3	P 214.914†	537.2	281.0	141.47 ug/L	141.47 ppb	16:12:06
3	Pb 220.353†	16.2	94.0	9.6731 ug/L	9.6731 ppb	16:12:06
3	S 181.975 Axial†	131.6	72.6	86.968 ug/L	86.968 ppb	16:12:06
3	Sb 206.836†	77.3	34.7	10.529 ug/L	10.529 ppb	16:12:06
3	Se 196.026†	25.8	54.5	29.479 ug/L	29.479 ppb	16:12:06
3	Si 251.611†	4241.6	3573.4	99.217 ug/L	99.217 ppb	16:11:46
3	Sn 189.927†	72.0	70.1	10.272 ug/L	10.272 ppb	16:12:06
3	Ti 334.940†	1987.8	3453.9	4.9603 ug/L	4.9603 ppb	16:11:46
3	Tl 190.801†	41.8	87.6	22.411 ug/L	22.411 ppb	16:12:06
3	U 409.014†	-859.0	1871.0	51.909 ug/L	51.909 ppb	16:11:46
3	V 292.402†	-788.5	681.5	4.5069 ug/L	4.5069 ppb	16:11:46
3	Zn 213.857†	2046.4	1237.5	9.9210 ug/L	9.9210 ppb	16:12:06
3	SiO2†	4292.5	3599.1	214.60 ug/L	214.60 ppb	16:12:21

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902834.2	100.38	%	0.201				0.20%
Sc Radial	5431.4	97.2	%	5.13				5.27%
Y 371.029	748285.9	100.73	%	0.046				0.05%
Y RADIAL	5679.3	96.89	%	5.046				5.21%
Ag 328.068†	1171.4	5.0046	ug/L	0.29123	5.0046	ppb	0.29123	5.82%
QC value within limits for Ag 328.068 Recovery = 100.09%								
Al 396.153Radial†	265.9	186.35	ug/L	7.185	186.35	ppb	7.185	3.86%
QC value within limits for Al 396.153Radial Recovery = 93.18%								
As 188.979†	80.2	28.522	ug/L	1.7071	28.522	ppb	1.7071	5.99%
QC value within limits for As 188.979 Recovery = 95.07%								
B 249.677†	1757.9	35.832	ug/L	0.4591	35.832	ppb	0.4591	1.28%
QC value within limits for B 249.677 Recovery = 71.66%								
Ba 233.527†	753.9	5.0748	ug/L	0.04556	5.0748	ppb	0.04556	0.90%
QC value within limits for Ba 233.527 Recovery = 101.50%								
Be 313.107†	15105.5	5.0232	ug/L	0.04297	5.0232	ppb	0.04297	0.86%
QC value within limits for Be 313.107 Recovery = 100.46%								
Ca 317.933Radial†	152.3	212.65	ug/L	14.620	212.65	ppb	14.620	6.87%

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   QC value within limits for Ca 317.933Radial  Recovery = 106.33%
Cd 226.502†              515.4      4.9431 ug/L       0.09196      4.9431 ppb        0.09196   1.86%
   QC value within limits for Cd 226.502  Recovery = 98.86%
Co 228.616†              287.9      5.0074 ug/L       0.15999      5.0074 ppb        0.15999   3.20%
   QC value within limits for Co 228.616  Recovery = 100.15%
Cr 267.716†              476.0      4.7392 ug/L       0.02689      4.7392 ppb        0.02689   0.57%
   QC value within limits for Cr 267.716  Recovery = 94.78%
Cu 324.752†             3576.2      10.001 ug/L        0.2855      10.001 ppb         0.2855   2.85%
   QC value within limits for Cu 324.752  Recovery = 100.01%
Fe 238.204 Radial†        15.0      118.73 ug/L        12.588      118.73 ppb         12.588  10.60%
   QC value within limits for Fe 238.204 Radial  Recovery = 118.73%
K 766.490 Radial†        911.8      163.49 ug/L        16.623      163.49 ppb         16.623  10.17%
   QC value within limits for K 766.490 Radial  Recovery = 108.99%
Mg 279.077 IEC†           12.6      379.62 ug/L        58.315      379.62 ppb         58.315  15.36%
   QC value within limits for Mg 279.077 IEC  Recovery = 126.54%
Mn 257.610†            10673.7      10.427 ug/L        0.0743      10.427 ppb         0.0743   0.71%
   QC value within limits for Mn 257.610  Recovery = 104.27%
Mo 202.031†              168.3      10.015 ug/L        0.1098      10.015 ppb         0.1098   1.10%
   QC value within limits for Mo 202.031  Recovery = 100.15%
Na 589.592 Radial†       994.7      271.84 ug/L        31.861      271.84 ppb         31.861  11.72%
   QC value within limits for Na 589.592 Radial  Recovery = 90.61%
Ni 231.604†              241.8      5.2072 ug/L       0.26851      5.2072 ppb        0.26851   5.16%
   QC value within limits for Ni 231.604  Recovery = 104.14%
P 214.914†               277.7      139.74 ug/L         1.946      139.74 ppb          1.946   1.39%
   QC value within limits for P 214.914  Recovery = 93.16%
Pb 220.353†               96.1      9.8799 ug/L       0.75140      9.8799 ppb        0.75140   7.61%
   QC value within limits for Pb 220.353  Recovery = 98.80%
S 181.975 Axial†          75.0      89.826 ug/L        2.5981      89.826 ppb         2.5981   2.89%
   QC value within limits for S 181.975 Axial  Recovery = 89.83%
Sb 206.836†               29.2      8.8955 ug/L       2.59346      8.8955 ppb        2.59346  29.15%
   QC value within limits for Sb 206.836  Recovery = 88.95%
Se 196.026†               55.5      30.059 ug/L        1.9893      30.059 ppb         1.9893   6.62%
   QC value within limits for Se 196.026  Recovery = 100.20%
Si 251.611†             3581.7      99.443 ug/L        0.2482      99.443 ppb         0.2482   0.25%
   QC value within limits for Si 251.611  Recovery = 99.44%
Sn 189.927†               69.2      10.139 ug/L        0.3638      10.139 ppb         0.3638   3.59%
   QC value within limits for Sn 189.927  Recovery = 101.39%
Sr 421.552†              847.8      4.8348 ug/L       0.20286      4.8348 ppb        0.20286   4.20%
   QC value within limits for Sr 421.552  Recovery = 96.70%
Ti 334.940†             3519.5      5.0541 ug/L       0.09060      5.0541 ppb        0.09060   1.79%
   QC value within limits for Ti 334.940  Recovery = 101.08%
Tl 190.801†               86.8      22.231 ug/L        1.9637      22.231 ppb         1.9637   8.83%
   QC value within limits for Tl 190.801  Recovery = 111.15%
U 409.014†              1956.9      54.291 ug/L        2.9273      54.291 ppb         2.9273   5.39%
   QC value within limits for U 409.014  Recovery = 108.58%
V 292.402†               695.8      4.6003 ug/L       0.21645      4.6003 ppb        0.21645   4.71%
   QC value within limits for V 292.402  Recovery = 92.01%
Zn 213.857†             1217.5      9.7552 ug/L       0.14366      9.7552 ppb        0.14366   1.47%
   QC value within limits for Zn 213.857  Recovery = 97.55%
SiO2†                   3581.7      213.55 ug/L         3.400      213.55 ppb          3.400   1.59%
   QC value within limits for SiO2  Recovery = 100.26%
All analyte(s) passed QC.
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Sequence No.: 31
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/20/2009 16:14:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5506.3	5506.3	98.5	%			16:16:23
1	Y RADIAL	5766.3	5766.3	98.38	%			16:16:23
1	Al 396.153Radial†	-8.7	4.5	3.1748	ug/L	3.1748	ppb	16:16:23
1	Ca 317.933Radial†	26.8	9.3	13.036	ug/L	13.036	ppb	16:16:43
1	Fe 238.204 Radial†	10.3	-0.8	-6.3719	ug/L	-6.3719	ppb	16:16:43
1	K 766.490 Radial†	2904.1	74.6	13.394	ug/L	13.394	ppb	16:16:23
1	Mg 279.077 IEC†	4.3	2.1	63.611	ug/L	63.611	ppb	16:16:43
1	Na 589.592 Radial†	-1337.4	-97.2	-26.555	ug/L	-26.555	ppb	16:16:23
1	Sr 421.552†	15.5	10.2	0.0578	ug/L	0.0578	ppb	16:16:23
1	Sc 361.383	921117.8	921117.8	102.41	%			16:17:40
1	Y 371.029	756855.7	756855.7	101.88	%			16:17:40
1	Ag 328.068†	443.3	33.5	0.1352	ug/L	0.1352	ppb	16:17:45
1	As 188.979†	-21.2	6.8	2.4080	ug/L	2.4080	ppb	16:18:05
1	B 249.677†	-280.6	-739.0	-15.076	ug/L	-15.076	ppb	16:17:45
1	Ba 233.527†	-0.2	8.4	0.0558	ug/L	0.0558	ppb	16:18:05
1	Be 313.107†	-4544.5	157.6	0.0524	ug/L	0.0524	ppb	16:17:45
1	Cd 226.502†	-225.3	5.8	0.0562	ug/L	0.0562	ppb	16:18:05
1	Co 228.616†	-71.2	15.2	0.2638	ug/L	0.2638	ppb	16:18:05
1	Cr 267.716†	98.0	-3.5	-0.0371	ug/L	-0.0371	ppb	16:18:05
1	Cu 324.752†	6158.0	-74.0	-0.2072	ug/L	-0.2072	ppb	16:17:45
1	Mn 257.610†	570.1	65.2	0.0618	ug/L	0.0618	ppb	16:18:05
1	Mo 202.031†	24.6	-1.6	-0.0950	ug/L	-0.0950	ppb	16:18:05
1	Ni 231.604†	105.6	0.8	0.0173	ug/L	0.0173	ppb	16:18:05
1	P 214.914†	260.5	-0.8	-0.3333	ug/L	-0.3333	ppb	16:18:05
1	Pb 220.353†	-76.3	3.3	0.3374	ug/L	0.3374	ppb	16:18:05
1	S 181.975 Axial†	44.2	-15.6	-18.688	ug/L	-18.688	ppb	16:18:05
1	Sb 206.836†	34.3	-8.9	-2.6136	ug/L	-2.6136	ppb	16:18:05
1	Se 196.026†	-34.3	-4.7	-2.5263	ug/L	-2.5263	ppb	16:18:05
1	Si 251.611†	656.1	-19.2	-0.5430	ug/L	-0.5430	ppb	16:18:05
1	Sn 189.927†	12.7	10.6	1.5465	ug/L	1.5465	ppb	16:18:05
1	Ti 334.940†	-1462.4	42.1	0.0592	ug/L	0.0592	ppb	16:17:45
1	Tl 190.801†	-36.4	10.3	2.6268	ug/L	2.6268	ppb	16:18:05
1	U 409.014†	-2616.3	173.7	4.8225	ug/L	4.8225	ppb	16:17:40
1	V 292.402†	-1550.9	-45.9	-0.2778	ug/L	-0.2778	ppb	16:17:45
1	Zn 213.857†	843.8	19.1	0.1521	ug/L	0.1521	ppb	16:18:05
1	SiO2†	691.8	-9.4	-0.5815	ug/L	-0.5815	ppb	16:19:11
2	Sc Radial	5596.5	5596.5	100	%			16:16:48
2	Y RADIAL	5857.2	5857.2	99.93	%			16:16:48
2	Al 396.153Radial†	-21.3	-8.0	-5.6181	ug/L	-5.6181	ppb	16:16:48
2	Ca 317.933Radial†	23.5	5.6	7.8169	ug/L	7.8169	ppb	16:17:08
2	Fe 238.204 Radial†	11.0	-0.2	-1.7104	ug/L	-1.7104	ppb	16:17:08
2	K 766.490 Radial†	2994.9	117.7	21.150	ug/L	21.150	ppb	16:16:48
2	Mg 279.077 IEC†	4.2	1.9	58.220	ug/L	58.220	ppb	16:17:08
2	Na 589.592 Radial†	-1373.3	-111.1	-30.372	ug/L	-30.372	ppb	16:16:48
2	Sr 421.552†	-3.7	-9.3	-0.0534	ug/L	-0.0534	ppb	16:16:48
2	Sc 361.383	922673.2	922673.2	102.59	%			16:18:10
2	Y 371.029	757834.3	757834.3	102.01	%			16:18:10
2	Ag 328.068†	410.7	1.0	-0.0007	ug/L	-0.0007	ppb	16:18:15
2	As 188.979†	-30.2	-2.0	-0.7005	ug/L	-0.7005	ppb	16:18:35
2	B 249.677†	-249.6	-708.4	-14.450	ug/L	-14.450	ppb	16:18:15
2	Ba 233.527†	5.5	13.9	0.0935	ug/L	0.0935	ppb	16:18:35
2	Be 313.107†	-4545.9	163.7	0.0543	ug/L	0.0543	ppb	16:18:15
2	Cd 226.502†	-237.6	-5.8	-0.0556	ug/L	-0.0556	ppb	16:18:35
2	Co 228.616†	-84.7	2.1	0.0371	ug/L	0.0371	ppb	16:18:35
2	Cr 267.716†	89.9	-11.5	-0.1164	ug/L	-0.1164	ppb	16:18:35
2	Cu 324.752†	6135.1	-106.5	-0.2978	ug/L	-0.2978	ppb	16:18:15
2	Mn 257.610†	565.9	60.1	0.0575	ug/L	0.0575	ppb	16:18:35
2	Mo 202.031†	24.6	-1.6	-0.0931	ug/L	-0.0931	ppb	16:18:35
2	Ni 231.604†	112.2	7.1	0.1539	ug/L	0.1539	ppb	16:18:35

2	P 214.914†	262.1	0.3	0.1825	ug/L	0.1825 ppb	16:18:35
2	Pb 220.353†	-70.3	9.3	0.9517	ug/L	0.9517 ppb	16:18:35
2	S 181.975 Axial†	50.1	-9.9	-11.914	ug/L	-11.914 ppb	16:18:35
2	Sb 206.836†	40.9	-2.5	-0.7480	ug/L	-0.7480 ppb	16:18:35
2	Se 196.026†	-28.2	1.3	0.6978	ug/L	0.6978 ppb	16:18:35
2	Si 251.611†	655.8	-20.6	-0.5769	ug/L	-0.5769 ppb	16:18:35
2	Sn 189.927†	-2.8	-4.6	-0.6708	ug/L	-0.6708 ppb	16:18:35
2	Ti 334.940†	-1531.5	-22.8	-0.0346	ug/L	-0.0346 ppb	16:18:15
2	Tl 190.801†	-54.2	-7.1	-1.8090	ug/L	-1.8090 ppb	16:18:35
2	U 409.014†	-2614.1	180.2	5.0009	ug/L	5.0009 ppb	16:18:10
2	V 292.402†	-1505.0	1.3	0.0183	ug/L	0.0183 ppb	16:18:15
2	Zn 213.857†	834.3	8.4	0.0656	ug/L	0.0656 ppb	16:18:35
2	SiO2†	682.3	-19.9	-1.1966	ug/L	-1.1966 ppb	16:19:16
3	Sc Radial	5577.7	5577.7	99.8	%		16:17:13
3	Y RADIAL	5857.5	5857.5	99.93	%		16:17:13
3	Al 396.153Radial†	-28.0	-14.8	-10.347	ug/L	-10.347 ppb	16:17:13
3	Ca 317.933Radial†	23.1	5.3	7.4291	ug/L	7.4291 ppb	16:17:33
3	Fe 238.204 Radial†	10.7	-0.5	-4.2077	ug/L	-4.2077 ppb	16:17:33
3	K 766.490 Radial†	2923.5	56.3	10.116	ug/L	10.116 ppb	16:17:13
3	Mg 279.077 IEC†	4.1	1.8	55.048	ug/L	55.048 ppb	16:17:33
3	Na 589.592 Radial†	-1376.0	-118.4	-32.369	ug/L	-32.369 ppb	16:17:13
3	Sr 421.552†	12.3	6.7	0.0380	ug/L	0.0380 ppb	16:17:13
3	Sc 361.383	912594.0	912594.0	101.46	%		16:18:40
3	Y 371.029	751700.5	751700.5	101.18	%		16:18:40
3	Ag 328.068†	421.3	15.8	0.0587	ug/L	0.0587 ppb	16:18:45
3	As 188.979†	-29.0	-1.2	-0.3997	ug/L	-0.3997 ppb	16:19:05
3	B 249.677†	-289.0	-749.9	-15.297	ug/L	-15.297 ppb	16:18:45
3	Ba 233.527†	8.6	17.1	0.1142	ug/L	0.1142 ppb	16:19:05
3	Be 313.107†	-4466.4	193.1	0.0645	ug/L	0.0645 ppb	16:18:45
3	Cd 226.502†	-234.4	-5.3	-0.0499	ug/L	-0.0499 ppb	16:19:05
3	Co 228.616†	-78.9	7.0	0.1190	ug/L	0.1190 ppb	16:19:05
3	Cr 267.716†	122.9	21.9	0.2159	ug/L	0.2159 ppb	16:19:05
3	Cu 324.752†	6179.3	3.1	0.0084	ug/L	0.0084 ppb	16:18:45
3	Mn 257.610†	550.3	50.9	0.0482	ug/L	0.0482 ppb	16:19:05
3	Mo 202.031†	15.8	-10.0	-0.5920	ug/L	-0.5920 ppb	16:19:05
3	Ni 231.604†	132.7	28.5	0.6144	ug/L	0.6144 ppb	16:19:05
3	P 214.914†	257.2	-1.7	-0.8410	ug/L	-0.8410 ppb	16:19:05
3	Pb 220.353†	-68.3	10.5	1.0747	ug/L	1.0747 ppb	16:19:05
3	S 181.975 Axial†	54.6	-4.9	-5.8751	ug/L	-5.8751 ppb	16:19:05
3	Sb 206.836†	48.4	5.3	1.5636	ug/L	1.5636 ppb	16:19:05
3	Se 196.026†	-23.3	5.8	3.0813	ug/L	3.0813 ppb	16:19:05
3	Si 251.611†	650.4	-18.8	-0.5173	ug/L	-0.5173 ppb	16:19:05
3	Sn 189.927†	4.7	2.8	0.4058	ug/L	0.4058 ppb	16:19:05
3	Ti 334.940†	-1335.0	154.3	0.2192	ug/L	0.2192 ppb	16:18:45
3	Tl 190.801†	-42.1	4.3	1.0967	ug/L	1.0967 ppb	16:19:05
3	U 409.014†	-2492.0	272.3	7.5577	ug/L	7.5577 ppb	16:18:40
3	V 292.402†	-1526.2	-35.7	-0.2166	ug/L	-0.2166 ppb	16:18:45
3	Zn 213.857†	854.3	37.1	0.2935	ug/L	0.2935 ppb	16:19:05
3	SiO2†	684.3	-10.6	-0.6205	ug/L	-0.6205 ppb	16:19:21

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	918795.0	102.15	%	0.603				0.59%
Sc Radial	5560.2	99.5	%	0.85				0.86%
Y 371.029	755463.5	101.69	%	0.444				0.44%
Y RADIAL	5827.0	99.41	%	0.897				0.90%
Ag 328.068†	16.8	0.0644	ug/L	0.06810	0.0644	ppb	0.06810	105.73%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.1	-4.2634	ug/L	6.86192	-4.2634	ppb	6.86192	160.95%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.2	0.4359	ug/L	1.71446	0.4359	ppb	1.71446	393.29%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-732.4	-14.941	ug/L	0.4390	-14.941	ppb	0.4390	2.94%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	13.2	0.0878	ug/L	0.02962	0.0878	ppb	0.02962	33.72%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	171.5	0.0571	ug/L	0.00651	0.0571	ppb	0.00651	11.41%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.8	9.4272	ug/L	3.13095	9.4272	ppb	3.13095	33.21%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -1.8     -0.0164 ug/L       0.06295     -0.0164 ppb        0.06295 383.60%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 8.1      0.1400 ug/L       0.11482      0.1400 ppb        0.11482  82.04%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 2.3      0.0208 ug/L       0.17354      0.0208 ppb        0.17354 833.35%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -59.2     -0.1655 ug/L       0.15729     -0.1655 ppb        0.15729  95.01%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.5     -4.0967 ug/L       2.33272     -4.0967 ppb        2.33272  56.94%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          82.9      14.887 ug/L        5.6664      14.887 ppb         5.6664  38.06%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             2.0      58.960 ug/L        4.3295      58.960 ppb         4.3295   7.34%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                58.7      0.0558 ug/L       0.00694      0.0558 ppb        0.00694  12.43%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -4.4     -0.2600 ug/L       0.28748     -0.2600 ppb        0.28748 110.55%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -108.9     -29.765 ug/L        2.9540     -29.765 ppb         2.9540   9.92%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                12.2      0.2619 ug/L       0.31281      0.2619 ppb        0.31281 119.45%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.7     -0.3306 ug/L       0.51173     -0.3306 ppb        0.51173 154.79%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 7.7      0.7880 ug/L       0.39500      0.7880 ppb        0.39500  50.13%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -10.1     -12.159 ug/L        6.4102     -12.159 ppb         6.4102  52.72%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -2.0     -0.5993 ug/L       2.09254     -0.5993 ppb        2.09254 349.15%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.8      0.4176 ug/L       2.81430      0.4176 ppb        2.81430 673.93%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -19.5     -0.5457 ug/L       0.02986     -0.5457 ppb        0.02986   5.47%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.9      0.4271 ug/L       1.10881      0.4271 ppb        1.10881 259.59%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 2.5      0.0142 ug/L       0.05931      0.0142 ppb        0.05931 418.93%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                57.9      0.0813 ug/L       0.12836      0.0813 ppb        0.12836 157.96%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.5      0.6382 ug/L       2.25316      0.6382 ppb        2.25316 353.07%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                208.7      5.7937 ug/L       1.53028      5.7937 ppb        1.53028  26.41%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -26.8     -0.1587 ug/L       0.15634     -0.1587 ppb        0.15634  98.52%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                21.5      0.1704 ug/L       0.11506      0.1704 ppb        0.11506  67.52%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -13.3     -0.7995 ug/L       0.34441     -0.7995 ppb        0.34441  43.08%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 40
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/20/2009 17:16:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5493.4	5493.4	98.3	%			17:18:08
1	Y RADIAL	5728.4	5728.4	97.73	%			17:18:08
1	Al 396.153Radial†	6852.0	6982.8	4883.6	ug/L	4883.6	ppb	17:18:08
1	Ca 317.933Radial†	3521.9	3564.4	4976.2	ug/L	4976.2	ppb	17:18:28
1	Fe 238.204 Radial†	638.6	638.3	5066.6	ug/L	5066.6	ppb	17:18:28
1	K 766.490 Radial†	29891.0	27531.0	4934.4	ug/L	4934.4	ppb	17:18:08
1	Mg 279.077 IEC†	173.0	173.7	5248.7	ug/L	5248.7	ppb	17:18:28
1	Na 589.592 Radial†	33115.0	34942.7	9549.3	ug/L	9549.3	ppb	17:18:08
1	Sr 421.552†	83717.8	85147.3	485.74	ug/L	485.74	ppb	17:18:08
1	Sc 361.383	913463.7	913463.7	101.56	%			17:19:26
1	Y 371.029	741044.3	741044.3	99.750	%			17:19:26
1	Ag 328.068†	119040.0	116810.8	501.50	ug/L	501.50	ppb	17:19:31
1	As 188.979†	1386.4	1392.5	499.31	ug/L	499.31	ppb	17:19:51
1	B 249.677†	24585.8	23742.9	482.41	ug/L	482.41	ppb	17:19:31
1	Ba 233.527†	75765.8	74609.8	502.18	ug/L	502.18	ppb	17:19:31
1	Be 313.107†	1535883.8	1516870.5	504.40	ug/L	504.40	ppb	17:19:26
1	Cd 226.502†	52889.7	52302.5	502.30	ug/L	502.30	ppb	17:19:31
1	Co 228.616†	29401.1	29033.9	503.68	ug/L	503.68	ppb	17:19:31
1	Cr 267.716†	51193.1	50307.0	502.46	ug/L	502.46	ppb	17:19:31
1	Cu 324.752†	187150.9	178187.2	498.29	ug/L	498.29	ppb	17:19:31
1	Mn 257.610†	522894.4	514365.4	502.65	ug/L	502.65	ppb	17:19:26
1	Mo 202.031†	8386.5	8232.0	489.80	ug/L	489.80	ppb	17:19:51
1	Ni 231.604†	23923.3	23453.3	505.13	ug/L	505.13	ppb	17:19:31
1	P 214.914†	5166.2	4831.7	2381.8	ug/L	2381.8	ppb	17:19:51
1	Pb 220.353†	4794.9	4799.0	492.54	ug/L	492.54	ppb	17:19:51
1	S 181.975 Axial†	887.4	815.0	975.52	ug/L	975.52	ppb	17:19:51
1	Sb 206.836†	1729.8	1660.8	496.82	ug/L	496.82	ppb	17:19:51
1	Se 196.026†	904.7	919.5	508.88	ug/L	508.88	ppb	17:19:51
1	Si 251.611†	91753.4	89683.2	2484.8	ug/L	2484.8	ppb	17:19:31
1	Sn 189.927†	3397.7	3343.7	489.64	ug/L	489.64	ppb	17:19:51
1	Ti 334.940†	349759.2	345853.1	497.94	ug/L	497.94	ppb	17:19:26
1	Tl 190.801†	1916.7	1933.1	496.45	ug/L	496.45	ppb	17:19:51
1	U 409.014†	15509.3	17999.2	497.97	ug/L	497.97	ppb	17:19:31
1	V 292.402†	79688.0	79931.6	508.43	ug/L	508.43	ppb	17:19:31
1	Zn 213.857†	64163.2	62372.1	498.78	ug/L	498.78	ppb	17:19:31
1	SiO2†	91015.8	88931.8	5290.9	ug/L	5290.9	ppb	17:20:59
2	Sc Radial	5581.8	5581.8	99.9	%			17:18:33
2	Y RADIAL	5795.1	5795.1	98.87	%			17:18:33
2	Al 396.153Radial†	6922.5	6942.9	4855.4	ug/L	4855.4	ppb	17:18:33
2	Ca 317.933Radial†	3516.9	3502.6	4890.0	ug/L	4890.0	ppb	17:18:53
2	Fe 238.204 Radial†	638.5	627.9	4984.5	ug/L	4984.5	ppb	17:18:53
2	K 766.490 Radial†	30420.7	27579.5	4943.1	ug/L	4943.1	ppb	17:18:33
2	Mg 279.077 IEC†	174.8	172.7	5218.4	ug/L	5218.4	ppb	17:18:53
2	Na 589.592 Radial†	33441.4	34735.7	9492.7	ug/L	9492.7	ppb	17:18:33
2	Sr 421.552†	84506.8	84587.9	482.55	ug/L	482.55	ppb	17:18:33
2	Sc 361.383	906086.2	906086.2	100.74	%			17:19:57
2	Y 371.029	735728.1	735728.1	99.035	%			17:19:57
2	Ag 328.068†	119151.6	117875.9	506.03	ug/L	506.03	ppb	17:20:02
2	As 188.979†	1384.5	1401.8	502.61	ug/L	502.61	ppb	17:20:22
2	B 249.677†	24674.1	24027.6	488.21	ug/L	488.21	ppb	17:20:02
2	Ba 233.527†	75940.4	75390.5	507.43	ug/L	507.43	ppb	17:20:02
2	Be 313.107†	1533742.4	1527058.2	507.79	ug/L	507.79	ppb	17:19:57
2	Cd 226.502†	52986.2	52822.3	507.30	ug/L	507.30	ppb	17:20:02
2	Co 228.616†	29482.6	29350.5	509.18	ug/L	509.18	ppb	17:20:02
2	Cr 267.716†	51352.1	50875.3	508.14	ug/L	508.14	ppb	17:20:02
2	Cu 324.752†	187627.1	180160.3	503.80	ug/L	503.80	ppb	17:20:02
2	Mn 257.610†	521351.9	517026.3	505.24	ug/L	505.24	ppb	17:19:57
2	Mo 202.031†	8395.7	8308.4	494.33	ug/L	494.33	ppb	17:20:22
2	Ni 231.604†	23965.5	23687.0	510.16	ug/L	510.16	ppb	17:20:02

2	P 214.914†	5132.8	4839.8	2385.2 ug/L	2385.2 ppb	17:20:22
2	Pb 220.353†	4797.9	4840.5	496.79 ug/L	496.79 ppb	17:20:22
2	S 181.975 Axial†	878.5	813.3	973.45 ug/L	973.45 ppb	17:20:22
2	Sb 206.836†	1722.6	1667.5	498.87 ug/L	498.87 ppb	17:20:22
2	Se 196.026†	906.9	929.0	513.67 ug/L	513.67 ppb	17:20:22
2	Si 251.611†	92197.9	90860.1	2517.5 ug/L	2517.5 ppb	17:20:02
2	Sn 189.927†	3409.4	3382.5	495.30 ug/L	495.30 ppb	17:20:22
2	Ti 334.940†	348792.8	347697.7	500.59 ug/L	500.59 ppb	17:19:57
2	Tl 190.801†	1919.1	1950.7	500.96 ug/L	500.96 ppb	17:20:22
2	U 409.014†	15448.3	18063.0	499.75 ug/L	499.75 ppb	17:20:02
2	V 292.402†	79765.5	80647.4	513.00 ug/L	513.00 ppb	17:20:02
2	Zn 213.857†	64290.9	63013.2	503.91 ug/L	503.91 ppb	17:20:02
2	SiO2†	90816.8	89464.0	5322.5 ug/L	5322.5 ppb	17:21:04
3	Sc Radial	5485.8	5485.8	98.2 %		17:18:59
3	Y RADIAL	5708.6	5708.6	97.39 %		17:18:59
3	Al 396.153Radial†	6717.7	6855.6	4794.6 ug/L	4794.6 ppb	17:18:59
3	Ca 317.933Radial†	3476.8	3523.4	4918.9 ug/L	4918.9 ppb	17:19:19
3	Fe 238.204 Radial†	630.7	631.2	5010.4 ug/L	5010.4 ppb	17:19:19
3	K 766.490 Radial†	29691.1	27369.3	4905.5 ug/L	4905.5 ppb	17:18:59
3	Mg 279.077 IEC†	172.7	173.7	5247.0 ug/L	5247.0 ppb	17:19:19
3	Na 589.592 Radial†	32546.1	34409.7	9403.6 ug/L	9403.6 ppb	17:18:59
3	Sr 421.552†	82051.5	83567.5	476.73 ug/L	476.73 ppb	17:18:59
3	Sc 361.383	924276.1	924276.1	102.76 %		17:20:28
3	Y 371.029	750358.6	750358.6	101.00 %		17:20:28
3	Ag 328.068†	118537.8	114951.0	493.52 ug/L	493.52 ppb	17:20:33
3	As 188.979†	1379.0	1369.4	491.04 ug/L	491.04 ppb	17:20:54
3	B 249.677†	24523.3	23398.8	475.41 ug/L	475.41 ppb	17:20:33
3	Ba 233.527†	75777.7	73748.7	496.38 ug/L	496.38 ppb	17:20:33
3	Be 313.107†	1535147.7	1498463.3	498.28 ug/L	498.28 ppb	17:20:28
3	Cd 226.502†	52925.9	51728.5	496.78 ug/L	496.78 ppb	17:20:33
3	Co 228.616†	29386.6	28681.2	497.56 ug/L	497.56 ppb	17:20:33
3	Cr 267.716†	51063.7	49591.4	495.32 ug/L	495.32 ppb	17:20:33
3	Cu 324.752†	186447.5	175347.0	490.35 ug/L	490.35 ppb	17:20:33
3	Mn 257.610†	522471.0	507930.4	496.36 ug/L	496.36 ppb	17:20:28
3	Mo 202.031†	8366.7	8116.2	482.91 ug/L	482.91 ppb	17:20:54
3	Ni 231.604†	23885.2	23140.7	498.40 ug/L	498.40 ppb	17:20:33
3	P 214.914†	5127.6	4734.5	2333.6 ug/L	2333.6 ppb	17:20:54
3	Pb 220.353†	4771.1	4720.7	484.50 ug/L	484.50 ppb	17:20:54
3	S 181.975 Axial†	883.4	800.9	958.63 ug/L	958.63 ppb	17:20:54
3	Sb 206.836†	1725.7	1636.9	489.68 ug/L	489.68 ppb	17:20:54
3	Se 196.026†	911.6	915.9	506.70 ug/L	506.70 ppb	17:20:54
3	Si 251.611†	91614.9	88491.6	2451.8 ug/L	2451.8 ppb	17:20:33
3	Sn 189.927†	3391.7	3298.7	483.05 ug/L	483.05 ppb	17:20:54
3	Ti 334.940†	349205.3	341285.3	491.36 ug/L	491.36 ppb	17:20:28
3	Tl 190.801†	1911.1	1905.5	489.37 ug/L	489.37 ppb	17:20:54
3	U 409.014†	15464.8	17777.3	491.84 ug/L	491.84 ppb	17:20:33
3	V 292.402†	79337.2	78672.3	500.43 ug/L	500.43 ppb	17:20:33
3	Zn 213.857†	64100.7	61572.2	492.38 ug/L	492.38 ppb	17:20:33
3	SiO2†	90601.3	87480.1	5204.5 ug/L	5204.5 ppb	17:21:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	914608.7	101.69	%	1.017				1.00%
Sc Radial	5520.3	98.8	%	0.96				0.97%
Y 371.029	742377.0	99.930	%	0.9969				1.00%
Y RADIAL	5744.0	98.00	%	0.773				0.79%
Ag 328.068†	116545.9	500.35	ug/L	6.334	500.35	ppb	6.334	1.27%
QC value within limits for Ag 328.068 Recovery = 100.07%								
Al 396.153Radial†	6927.1	4844.5	ug/L	45.51	4844.5	ppb	45.51	0.94%
QC value within limits for Al 396.153Radial Recovery = 96.89%								
As 188.979†	1387.9	497.65	ug/L	5.961	497.65	ppb	5.961	1.20%
QC value within limits for As 188.979 Recovery = 99.53%								
B 249.677†	23723.1	482.01	ug/L	6.410	482.01	ppb	6.410	1.33%
QC value within limits for B 249.677 Recovery = 96.40%								
Ba 233.527†	74583.0	502.00	ug/L	5.528	502.00	ppb	5.528	1.10%
QC value within limits for Ba 233.527 Recovery = 100.40%								
Be 313.107†	1514130.6	503.49	ug/L	4.819	503.49	ppb	4.819	0.96%
QC value within limits for Be 313.107 Recovery = 100.70%								
Ca 317.933Radial†	3530.1	4928.4	ug/L	43.87	4928.4	ppb	43.87	0.89%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.57%
Cd 226.502†            52284.4      502.13 ug/L         5.261      502.13 ppb          5.261   1.05%
   QC value within limits for Cd 226.502  Recovery = 100.43%
Co 228.616†            29021.9      503.47 ug/L         5.812      503.47 ppb          5.812   1.15%
   QC value within limits for Co 228.616  Recovery = 100.69%
Cr 267.716†            50257.9      501.97 ug/L         6.425      501.97 ppb          6.425   1.28%
   QC value within limits for Cr 267.716  Recovery = 100.39%
Cu 324.752†           177898.1      497.48 ug/L         6.762      497.48 ppb          6.762   1.36%
   QC value within limits for Cu 324.752  Recovery = 99.50%
Fe 238.204 Radial†       632.5      5020.5 ug/L        41.99      5020.5 ppb          41.99   0.84%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.41%
K 766.490 Radial†      27493.3      4927.7 ug/L        19.70      4927.7 ppb          19.70   0.40%
   QC value within limits for K 766.490 Radial  Recovery = 98.55%
Mg 279.077 IEC†          173.4      5238.0 ug/L        17.01      5238.0 ppb          17.01   0.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.76%
Mn 257.610†           513107.4      501.41 ug/L         4.566      501.41 ppb          4.566   0.91%
   QC value within limits for Mn 257.610  Recovery = 100.28%
Mo 202.031†             8218.8      489.01 ug/L         5.752      489.01 ppb          5.752   1.18%
   QC value within limits for Mo 202.031  Recovery = 97.80%
Na 589.592 Radial†     34696.0      9481.9 ug/L        73.43      9481.9 ppb          73.43   0.77%
   QC value within limits for Na 589.592 Radial  Recovery = 94.82%
Ni 231.604†            23427.0      504.56 ug/L         5.903      504.56 ppb          5.903   1.17%
   QC value within limits for Ni 231.604  Recovery = 100.91%
P 214.914†              4802.0      2366.9 ug/L        28.87      2366.9 ppb          28.87   1.22%
   QC value within limits for P 214.914  Recovery = 94.68%
Pb 220.353†             4786.7      491.28 ug/L         6.242      491.28 ppb          6.242   1.27%
   QC value within limits for Pb 220.353  Recovery = 98.26%
S 181.975 Axial†         809.8      969.20 ug/L         9.210      969.20 ppb          9.210   0.95%
   QC value within limits for S 181.975 Axial  Recovery = 96.92%
Sb 206.836†             1655.1      495.12 ug/L         4.823      495.12 ppb          4.823   0.97%
   QC value within limits for Sb 206.836  Recovery = 99.02%
Se 196.026†              921.5      509.75 ug/L         3.564      509.75 ppb          3.564   0.70%
   QC value within limits for Se 196.026  Recovery = 101.95%
Si 251.611†            89678.3      2484.7 ug/L        32.84      2484.7 ppb          32.84   1.32%
   QC value within limits for Si 251.611  Recovery = 99.39%
Sn 189.927†             3341.6      489.33 ug/L         6.131      489.33 ppb          6.131   1.25%
   QC value within limits for Sn 189.927  Recovery = 97.87%
Sr 421.552†            84434.2      481.67 ug/L         4.570      481.67 ppb          4.570   0.95%
   QC value within limits for Sr 421.552  Recovery = 96.33%
Ti 334.940†           344945.4      496.63 ug/L         4.750      496.63 ppb          4.750   0.96%
   QC value within limits for Ti 334.940  Recovery = 99.33%
Tl 190.801†             1929.8      495.59 ug/L         5.843      495.59 ppb          5.843   1.18%
   QC value within limits for Tl 190.801  Recovery = 99.12%
U 409.014†             17946.5      496.52 ug/L         4.151      496.52 ppb          4.151   0.84%
   QC value within limits for U 409.014  Recovery = 99.30%
V 292.402†             79750.4      507.29 ug/L         6.361      507.29 ppb          6.361   1.25%
   QC value within limits for V 292.402  Recovery = 101.46%
Zn 213.857†            62319.2      498.36 ug/L         5.778      498.36 ppb          5.778   1.16%
   QC value within limits for Zn 213.857  Recovery = 99.67%
SiO2†                  88625.3      5272.7 ug/L        61.11      5272.7 ppb          61.11   1.16%
   QC value within limits for SiO2  Recovery = 98.60%
All analyte(s) passed QC.
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Sequence No.: 44
Sample ID: 242651002|932260|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 52
Date Collected: 12/20/2009 17:43:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242651002|932260|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5449.2	5449.2	97.5	%			17:45:37
1	Y RADIAL	5678.2	5678.2	96.87	%			17:45:37
1	Al 396.153Radial†	-26.7	-14.1	-9.9024	ug/L	-9.9024	ppb	17:45:37
1	Ca 317.933Radial†	2389.8	2432.6	3396.1	ug/L	3396.1	ppb	17:45:57
1	Fe 238.204 Radial†	9.2	-1.8	-13.986	ug/L	-13.986	ppb	17:45:57
1	K 766.490 Radial†	4802.6	2052.2	367.06	ug/L	367.06	ppb	17:45:37
1	Mg 279.077 IEC†	32.2	30.7	927.65	ug/L	927.65	ppb	17:45:57
1	Na 589.592 Radial†	6868.2	8302.5	2268.9	ug/L	2268.9	ppb	17:45:37
1	Sr 421.552†	2724.3	2787.8	15.874	ug/L	15.874	ppb	17:45:37
1	Sc 361.383	892786.0	892786.0	99.262	%			17:46:53
1	Y 371.029	735823.4	735823.4	99.047	%			17:46:53
1	Ag 328.068†	454.5	58.5	0.1985	ug/L	0.1985	ppb	17:46:53
1	As 188.979†	-33.3	-6.1	-2.1577	ug/L	-2.1577	ppb	17:47:14
1	B 249.677†	-343.9	-811.5	-16.553	ug/L	-16.553	ppb	17:47:14
1	Ba 233.527†	1315.9	1334.2	8.9587	ug/L	8.9587	ppb	17:47:14
1	Be 313.107†	-4487.6	74.1	0.0239	ug/L	0.0239	ppb	17:46:53
1	Cd 226.502†	-221.9	2.2	0.0234	ug/L	0.0234	ppb	17:47:14
1	Co 228.616†	-86.1	-2.0	-0.0288	ug/L	-0.0288	ppb	17:47:14
1	Cr 267.716†	125.7	27.4	0.2745	ug/L	0.2745	ppb	17:47:14
1	Cu 324.752†	6062.3	20.4	0.0562	ug/L	0.0562	ppb	17:46:53
1	Mn 257.610†	1014.3	530.3	0.4992	ug/L	0.4992	ppb	17:47:14
1	Mo 202.031†	30.7	5.3	0.3144	ug/L	0.3144	ppb	17:47:14
1	Ni 231.604†	145.9	44.8	0.9648	ug/L	0.9648	ppb	17:47:14
1	P 214.914†	259.5	6.3	3.1108	ug/L	3.1108	ppb	17:47:14
1	Pb 220.353†	-81.1	-3.8	-0.3926	ug/L	-0.3926	ppb	17:47:14
1	S 181.975 Axial†	360.3	304.2	364.47	ug/L	364.47	ppb	17:47:14
1	Sb 206.836†	27.2	-15.0	-4.5198	ug/L	-4.5198	ppb	17:47:14
1	Se 196.026†	-23.8	4.8	2.5312	ug/L	2.5312	ppb	17:47:14
1	Si 251.611†	226623.7	227648.5	6337.0	ug/L	6337.0	ppb	17:46:53
1	Sn 189.927†	-31.7	-33.8	-4.5913	ug/L	-4.5913	ppb	17:47:14
1	Ti 334.940†	-1688.4	-230.9	-0.1546	ug/L	-0.1546	ppb	17:46:53
1	Tl 190.801†	-52.8	-7.4	-1.8834	ug/L	-1.8834	ppb	17:47:14
1	U 409.014†	-2771.3	-63.5	-1.7624	ug/L	-1.7624	ppb	17:46:53
1	V 292.402†	-1380.6	77.5	0.5111	ug/L	0.5111	ppb	17:47:14
1	Zn 213.857†	1630.7	838.0	6.7214	ug/L	6.7214	ppb	17:47:14
1	SiO2†	224979.9	225967.3	13508	ug/L	13508	ppb	17:48:10
2	Sc Radial	5678.7	5678.7	102	%			17:46:02
2	Y RADIAL	5899.9	5899.9	100.7	%			17:46:02
2	Al 396.153Radial†	-12.2	1.3	0.9152	ug/L	0.9152	ppb	17:46:02
2	Ca 317.933Radial†	2361.4	2305.6	3218.8	ug/L	3218.8	ppb	17:46:22
2	Fe 238.204 Radial†	11.5	0.1	0.6009	ug/L	0.6009	ppb	17:46:22
2	K 766.490 Radial†	4928.9	1977.4	353.67	ug/L	353.67	ppb	17:46:02
2	Mg 279.077 IEC†	32.8	30.0	904.19	ug/L	904.19	ppb	17:46:22
2	Na 589.592 Radial†	7037.1	8184.2	2236.6	ug/L	2236.6	ppb	17:46:02
2	Sr 421.552†	2805.3	2754.7	15.686	ug/L	15.686	ppb	17:46:02
2	Sc 361.383	892385.9	892385.9	99.218	%			17:47:19
2	Y 371.029	736938.5	736938.5	99.198	%			17:47:19
2	Ag 328.068†	411.6	15.5	0.0210	ug/L	0.0210	ppb	17:47:19
2	As 188.979†	-29.3	-2.0	-0.7149	ug/L	-0.7149	ppb	17:47:39
2	B 249.677†	-342.4	-810.1	-16.527	ug/L	-16.527	ppb	17:47:39
2	Ba 233.527†	1335.4	1354.5	9.0954	ug/L	9.0954	ppb	17:47:39
2	Be 313.107†	-4522.2	37.2	0.0112	ug/L	0.0112	ppb	17:47:19
2	Cd 226.502†	-233.9	-10.0	-0.0962	ug/L	-0.0962	ppb	17:47:39
2	Co 228.616†	-92.2	-8.2	-0.1362	ug/L	-0.1362	ppb	17:47:39
2	Cr 267.716†	126.0	27.8	0.2784	ug/L	0.2784	ppb	17:47:39
2	Cu 324.752†	6164.5	126.1	0.3524	ug/L	0.3524	ppb	17:47:19
2	Mn 257.610†	1025.1	541.7	0.5121	ug/L	0.5121	ppb	17:47:39
2	Mo 202.031†	33.8	8.5	0.5027	ug/L	0.5027	ppb	17:47:39
2	Ni 231.604†	117.5	16.2	0.3492	ug/L	0.3492	ppb	17:47:39

2	P 214.914†	263.1	10.0	4.9303	ug/L	4.9303 ppb	17:47:39
2	Pb 220.353†	-98.0	-21.0	-2.1446	ug/L	-2.1446 ppb	17:47:39
2	S 181.975 Axial†	372.4	316.5	379.24	ug/L	379.24 ppb	17:47:39
2	Sb 206.836†	37.3	-4.8	-1.5235	ug/L	-1.5235 ppb	17:47:39
2	Se 196.026†	-21.6	7.1	3.7690	ug/L	3.7690 ppb	17:47:39
2	Si 251.611†	227021.2	228151.5	6351.0	ug/L	6351.0 ppb	17:47:19
2	Sn 189.927†	-37.8	-39.9	-5.5072	ug/L	-5.5072 ppb	17:47:39
2	Ti 334.940†	-1852.0	-396.5	-0.4033	ug/L	-0.4033 ppb	17:47:19
2	Tl 190.801†	-50.4	-5.0	-1.2834	ug/L	-1.2834 ppb	17:47:39
2	U 409.014†	-2703.5	3.5	0.0970	ug/L	0.0970 ppb	17:47:19
2	V 292.402†	-1378.3	79.2	0.5257	ug/L	0.5257 ppb	17:47:39
2	Zn 213.857†	1624.1	832.1	6.6771	ug/L	6.6771 ppb	17:47:39
2	SiO2†	227575.7	228685.3	13671	ug/L	13671 ppb	17:48:15
3	Sc Radial	5473.7	5473.7	98.0	%		17:46:27
3	Y RADIAL	5729.6	5729.6	97.75	%		17:46:27
3	Al 396.153Radial†	-26.9	-14.1	-9.9065	ug/L	-9.9065 ppb	17:46:27
3	Ca 317.933Radial†	2375.4	2406.9	3360.3	ug/L	3360.3 ppb	17:46:47
3	Fe 238.204 Radial†	11.2	0.2	1.6278	ug/L	1.6278 ppb	17:46:47
3	K 766.490 Radial†	4860.1	2088.7	373.61	ug/L	373.61 ppb	17:46:27
3	Mg 279.077 IEC†	34.5	32.9	993.88	ug/L	993.88 ppb	17:46:47
3	Na 589.592 Radial†	6974.3	8379.3	2289.9	ug/L	2289.9 ppb	17:46:27
3	Sr 421.552†	2750.5	2802.1	15.955	ug/L	15.955 ppb	17:46:27
3	Sc 361.383	886891.6	886891.6	98.607	%		17:47:44
3	Y 371.029	731734.1	731734.1	98.497	%		17:47:44
3	Ag 328.068†	465.2	72.4	0.2662	ug/L	0.2662 ppb	17:47:44
3	As 188.979†	-27.6	-0.6	-0.1984	ug/L	-0.1984 ppb	17:48:04
3	B 249.677†	-362.7	-832.8	-16.990	ug/L	-16.990 ppb	17:48:04
3	Ba 233.527†	1322.3	1349.6	9.0622	ug/L	9.0622 ppb	17:48:04
3	Be 313.107†	-4546.5	-15.6	-0.0061	ug/L	-0.0061 ppb	17:47:44
3	Cd 226.502†	-224.3	-1.7	-0.0164	ug/L	-0.0164 ppb	17:48:04
3	Co 228.616†	-77.8	5.8	0.1048	ug/L	0.1048 ppb	17:48:04
3	Cr 267.716†	113.8	16.3	0.1647	ug/L	0.1647 ppb	17:48:04
3	Cu 324.752†	6101.9	101.1	0.2827	ug/L	0.2827 ppb	17:47:44
3	Mn 257.610†	1005.3	528.0	0.4972	ug/L	0.4972 ppb	17:48:04
3	Mo 202.031†	17.0	-8.3	-0.4938	ug/L	-0.4938 ppb	17:48:04
3	Ni 231.604†	120.3	19.8	0.4264	ug/L	0.4264 ppb	17:48:04
3	P 214.914†	248.6	-3.1	-1.7169	ug/L	-1.7169 ppb	17:48:04
3	Pb 220.353†	-62.9	14.1	1.4371	ug/L	1.4371 ppb	17:48:04
3	S 181.975 Axial†	362.7	309.0	370.25	ug/L	370.25 ppb	17:48:04
3	Sb 206.836†	32.1	-9.9	-3.0406	ug/L	-3.0406 ppb	17:48:04
3	Se 196.026†	-38.6	-10.3	-5.4968	ug/L	-5.4968 ppb	17:48:04
3	Si 251.611†	224744.0	227259.6	6326.2	ug/L	6326.2 ppb	17:47:44
3	Sn 189.927†	-43.9	-46.3	-6.4251	ug/L	-6.4251 ppb	17:48:04
3	Ti 334.940†	-1766.2	-321.1	-0.2851	ug/L	-0.2851 ppb	17:47:44
3	Tl 190.801†	-49.6	-4.5	-1.1553	ug/L	-1.1553 ppb	17:48:04
3	U 409.014†	-2862.8	-174.9	-4.8562	ug/L	-4.8562 ppb	17:47:44
3	V 292.402†	-1369.4	79.7	0.5063	ug/L	0.5063 ppb	17:48:04
3	Zn 213.857†	1639.3	857.7	6.8801	ug/L	6.8801 ppb	17:48:04
3	SiO2†	226924.8	229446.1	13716	ug/L	13716 ppb	17:48:20

Mean Data: 242651002|932260|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	890687.8	99.029	%	0.3662				0.37%
Sc Radial	5533.9	99.0	%	2.25				2.28%
Y 371.029	734832.0	98.914	%	0.3688				0.37%
Y RADIAL	5769.3	98.43	%	1.980				2.01%
Ag 328.068†	48.8	0.1619	ug/L	0.12659	0.1619	ppb	0.12659	78.19%
Al 396.153Radial†	-9.0	-6.2979	ug/L	6.24676	-6.2979	ppb	6.24676	99.19%
As 188.979†	-2.9	-1.0237	ug/L	1.01552	-1.0237	ppb	1.01552	99.20%
B 249.677†	-818.2	-16.690	ug/L	0.2605	-16.690	ppb	0.2605	1.56%
Ba 233.527†	1346.1	9.0388	ug/L	0.07129	9.0388	ppb	0.07129	0.79%
Be 313.107†	31.9	0.0097	ug/L	0.01507	0.0097	ppb	0.01507	155.54%
Ca 317.933Radial†	2381.7	3325.1	ug/L	93.74	3325.1	ppb	93.74	2.82%
Cd 226.502†	-3.2	-0.0297	ug/L	0.06089	-0.0297	ppb	0.06089	205.02%
Co 228.616†	-1.5	-0.0201	ug/L	0.12077	-0.0201	ppb	0.12077	601.94%
Cr 267.716†	23.8	0.2392	ug/L	0.06455	0.2392	ppb	0.06455	26.98%
Cu 324.752†	82.5	0.2305	ug/L	0.15489	0.2305	ppb	0.15489	67.21%
Fe 238.204 Radial†	-0.5	-3.9192	ug/L	8.73346	-3.9192	ppb	8.73346	222.84%
K 766.490 Radial†	2039.4	364.78	ug/L	10.161	364.78	ppb	10.161	2.79%

Mg 279.077 IEC†	31.2	941.91	ug/L	46.515	941.91	ppb	46.515	4.94%
Mn 257.610†	533.3	0.5028	ug/L	0.00810	0.5028	ppb	0.00810	1.61%
Mo 202.031†	1.8	0.1078	ug/L	0.52944	0.1078	ppb	0.52944	491.29%
Na 589.592 Radial†	8288.7	2265.2	ug/L	26.86	2265.2	ppb	26.86	1.19%
Ni 231.604†	26.9	0.5801	ug/L	0.33540	0.5801	ppb	0.33540	57.81%
P 214.914†	4.4	2.1081	ug/L	3.43520	2.1081	ppb	3.43520	162.95%
Pb 220.353†	-3.6	-0.3667	ug/L	1.79099	-0.3667	ppb	1.79099	488.42%
S 181.975 Axial†	309.9	371.32	ug/L	7.440	371.32	ppb	7.440	2.00%
Sb 206.836†	-9.9	-3.0280	ug/L	1.49819	-3.0280	ppb	1.49819	49.48%
Se 196.026†	0.5	0.2678	ug/L	5.03049	0.2678	ppb	5.03049	>999.9%
Si 251.611†	227686.5	6338.1	ug/L	12.44	6338.1	ppb	12.44	0.20%
Sn 189.927†	-40.0	-5.5079	ug/L	0.91694	-5.5079	ppb	0.91694	16.65%
Sr 421.552†	2781.5	15.838	ug/L	0.1380	15.838	ppb	0.1380	0.87%
Ti 334.940†	-316.2	-0.2810	ug/L	0.12437	-0.2810	ppb	0.12437	44.26%
Tl 190.801†	-5.6	-1.4407	ug/L	0.38867	-1.4407	ppb	0.38867	26.98%
U 409.014†	-78.3	-2.1739	ug/L	2.50210	-2.1739	ppb	2.50210	115.10%
V 292.402†	78.8	0.5144	ug/L	0.01012	0.5144	ppb	0.01012	1.97%
Zn 213.857†	842.6	6.7595	ug/L	0.10670	6.7595	ppb	0.10670	1.58%
SiO2†	228032.9	13632	ug/L	109.3	13632	ppb	109.3	0.80%

Sequence No.: 50
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/20/2009 18:24:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5491.5	5491.5	98.3	%			18:26:33
1	Y RADIAL	5699.3	5699.3	97.23	%			18:26:33
1	Al 396.153Radial†	6994.6	7130.1	4986.9	ug/L	4986.9	ppb	18:26:33
1	Ca 317.933Radial†	3519.7	3563.4	4974.8	ug/L	4974.8	ppb	18:26:53
1	Fe 238.204 Radial†	645.8	645.8	5125.9	ug/L	5125.9	ppb	18:26:53
1	K 766.490 Radial†	30616.3	28279.0	5068.5	ug/L	5068.5	ppb	18:26:33
1	Mg 279.077 IEC†	171.6	172.4	5207.7	ug/L	5207.7	ppb	18:26:53
1	Na 589.592 Radial†	34734.7	36601.8	10003	ug/L	10003	ppb	18:26:33
1	Sr 421.552†	86252.3	87754.0	500.61	ug/L	500.61	ppb	18:26:33
1	Sc 361.383	913223.0	913223.0	101.53	%			18:27:52
1	Y 371.029	741479.3	741479.3	99.809	%			18:27:52
1	Ag 328.068†	118445.7	116256.5	499.16	ug/L	499.16	ppb	18:27:52
1	As 188.979†	1384.1	1390.6	498.63	ug/L	498.63	ppb	18:28:12
1	B 249.677†	24288.4	23456.3	476.59	ug/L	476.59	ppb	18:27:52
1	Ba 233.527†	75555.6	74422.4	500.92	ug/L	500.92	ppb	18:27:52
1	Be 313.107†	1533645.3	1515064.5	503.80	ug/L	503.80	ppb	18:27:52
1	Cd 226.502†	52810.1	52237.9	501.66	ug/L	501.66	ppb	18:27:52
1	Co 228.616†	28668.5	28320.0	491.31	ug/L	491.31	ppb	18:28:12
1	Cr 267.716†	51087.5	50216.3	501.56	ug/L	501.56	ppb	18:27:52
1	Cu 324.752†	187655.2	178732.4	499.81	ug/L	499.81	ppb	18:27:52
1	Mn 257.610†	521720.9	513345.3	501.66	ug/L	501.66	ppb	18:27:52
1	Mo 202.031†	8459.6	8306.2	494.21	ug/L	494.21	ppb	18:28:12
1	Ni 231.604†	23467.7	23010.9	495.60	ug/L	495.60	ppb	18:28:12
1	P 214.914†	5178.5	4845.0	2388.4	ug/L	2388.4	ppb	18:28:12
1	Pb 220.353†	4858.1	4862.6	499.07	ug/L	499.07	ppb	18:28:12
1	S 181.975 Axial†	879.2	807.1	966.05	ug/L	966.05	ppb	18:28:12
1	Sb 206.836†	1731.0	1662.5	497.50	ug/L	497.50	ppb	18:28:12
1	Se 196.026†	906.2	921.3	510.04	ug/L	510.04	ppb	18:28:12
1	Si 251.611†	91402.8	89361.7	2475.8	ug/L	2475.8	ppb	18:27:52
1	Sn 189.927†	3423.6	3370.0	493.49	ug/L	493.49	ppb	18:28:12
1	Ti 334.940†	347967.2	344178.9	495.54	ug/L	495.54	ppb	18:27:52
1	Tl 190.801†	1915.6	1932.5	496.35	ug/L	496.35	ppb	18:28:12
1	U 409.014†	14789.6	17294.4	478.41	ug/L	478.41	ppb	18:27:52
1	V 292.402†	79040.8	79314.8	504.58	ug/L	504.58	ppb	18:27:52
1	Zn 213.857†	63926.2	62155.3	497.08	ug/L	497.08	ppb	18:27:52
1	SiO2†	91232.7	89169.1	5304.8	ug/L	5304.8	ppb	18:29:13
2	Sc Radial	5530.6	5530.6	99.0	%			18:26:58
2	Y RADIAL	5750.9	5750.9	98.11	%			18:26:58
2	Al 396.153Radial†	6906.5	6990.9	4889.1	ug/L	4889.1	ppb	18:26:58
2	Ca 317.933Radial†	3519.7	3538.1	4939.5	ug/L	4939.5	ppb	18:27:18
2	Fe 238.204 Radial†	639.6	635.0	5039.8	ug/L	5039.8	ppb	18:27:18
2	K 766.490 Radial†	30218.9	27657.6	4957.0	ug/L	4957.0	ppb	18:26:58
2	Mg 279.077 IEC†	172.4	171.9	5192.9	ug/L	5192.9	ppb	18:27:18
2	Na 589.592 Radial†	34580.1	36196.0	9891.8	ug/L	9891.8	ppb	18:26:58
2	Sr 421.552†	85880.0	86758.3	494.93	ug/L	494.93	ppb	18:26:58
2	Sc 361.383	911677.5	911677.5	101.36	%			18:28:20
2	Y 371.029	739229.6	739229.6	99.506	%			18:28:20
2	Ag 328.068†	118864.9	116867.7	501.74	ug/L	501.74	ppb	18:28:20
2	As 188.979†	1381.2	1390.1	498.44	ug/L	498.44	ppb	18:28:40
2	B 249.677†	24500.1	23705.7	481.68	ug/L	481.68	ppb	18:28:20
2	Ba 233.527†	76007.1	74994.0	504.76	ug/L	504.76	ppb	18:28:20
2	Be 313.107†	1540028.4	1523922.4	506.74	ug/L	506.74	ppb	18:28:20
2	Cd 226.502†	53132.7	52644.3	505.58	ug/L	505.58	ppb	18:28:20
2	Co 228.616†	28748.7	28447.0	493.51	ug/L	493.51	ppb	18:28:40
2	Cr 267.716†	51284.3	50495.7	504.35	ug/L	504.35	ppb	18:28:20
2	Cu 324.752†	188394.2	179774.7	502.72	ug/L	502.72	ppb	18:28:20
2	Mn 257.610†	524091.6	516555.2	504.78	ug/L	504.78	ppb	18:28:20
2	Mo 202.031†	8468.3	8328.9	495.55	ug/L	495.55	ppb	18:28:40
2	Ni 231.604†	23480.5	23062.6	496.72	ug/L	496.72	ppb	18:28:40

2	P 214.914†	5178.1	4853.3	2392.2 ug/L	2392.2 ppb	18:28:40
2	Pb 220.353†	4854.5	4867.1	499.52 ug/L	499.52 ppb	18:28:40
2	S 181.975 Axial†	881.8	811.2	970.93 ug/L	970.93 ppb	18:28:40
2	Sb 206.836†	1708.0	1642.6	491.58 ug/L	491.58 ppb	18:28:40
2	Se 196.026†	900.1	916.8	507.34 ug/L	507.34 ppb	18:28:40
2	Si 251.611†	91889.4	89994.4	2493.4 ug/L	2493.4 ppb	18:28:20
2	Sn 189.927†	3407.9	3360.2	492.06 ug/L	492.06 ppb	18:28:40
2	Ti 334.940†	349783.6	346551.8	498.95 ug/L	498.95 ppb	18:28:20
2	Tl 190.801†	1920.6	1940.6	498.45 ug/L	498.45 ppb	18:28:40
2	U 409.014†	14874.3	17402.7	481.42 ug/L	481.42 ppb	18:28:20
2	V 292.402†	79350.1	79751.9	507.36 ug/L	507.36 ppb	18:28:20
2	Zn 213.857†	64268.1	62599.3	500.66 ug/L	500.66 ppb	18:28:20
2	SiO2†	91667.6	89750.5	5339.6 ug/L	5339.6 ppb	18:29:18
3	Sc Radial	5565.5	5565.5	99.6 %		18:27:23
3	Y RADIAL	5761.3	5761.3	98.29 %		18:27:23
3	Al 396.153Radial†	6976.4	7017.4	4907.3 ug/L	4907.3 ppb	18:27:23
3	Ca 317.933Radial†	3524.8	3520.9	4915.5 ug/L	4915.5 ppb	18:27:43
3	Fe 238.204 Radial†	650.1	641.5	5091.6 ug/L	5091.6 ppb	18:27:43
3	K 766.490 Radial†	30365.5	27613.5	4949.1 ug/L	4949.1 ppb	18:27:23
3	Mg 279.077 IEC†	169.4	167.8	5070.6 ug/L	5070.6 ppb	18:27:43
3	Na 589.592 Radial†	34573.2	35970.3	9830.1 ug/L	9830.1 ppb	18:27:23
3	Sr 421.552†	86090.8	86426.5	493.04 ug/L	493.04 ppb	18:27:23
3	Sc 361.383	900276.1	900276.1	100.09 %		18:28:47
3	Y 371.029	730902.2	730902.2	98.385 %		18:28:47
3	Ag 328.068†	118122.2	117610.8	504.95 ug/L	504.95 ppb	18:28:47
3	As 188.979†	1396.6	1422.7	510.08 ug/L	510.08 ppb	18:29:07
3	B 249.677†	24168.5	23680.5	481.13 ug/L	481.13 ppb	18:28:47
3	Ba 233.527†	75408.5	75345.6	507.13 ug/L	507.13 ppb	18:28:47
3	Be 313.107†	1531232.5	1534376.1	510.22 ug/L	510.22 ppb	18:28:47
3	Cd 226.502†	52717.9	52893.7	507.97 ug/L	507.97 ppb	18:28:47
3	Co 228.616†	28929.4	28986.7	502.89 ug/L	502.89 ppb	18:29:07
3	Cr 267.716†	50973.6	50826.1	507.65 ug/L	507.65 ppb	18:28:47
3	Cu 324.752†	187464.1	181199.3	506.71 ug/L	506.71 ppb	18:28:47
3	Mn 257.610†	520208.4	519223.7	507.40 ug/L	507.40 ppb	18:28:47
3	Mo 202.031†	8526.2	8492.6	505.29 ug/L	505.29 ppb	18:29:07
3	Ni 231.604†	23611.8	23487.2	505.86 ug/L	505.86 ppb	18:29:07
3	P 214.914†	5211.9	4951.8	2441.8 ug/L	2441.8 ppb	18:29:07
3	Pb 220.353†	4878.8	4952.0	508.23 ug/L	508.23 ppb	18:29:07
3	S 181.975 Axial†	883.3	823.8	985.96 ug/L	985.96 ppb	18:29:07
3	Sb 206.836†	1737.5	1693.4	506.91 ug/L	506.91 ppb	18:29:07
3	Se 196.026†	919.2	947.2	523.74 ug/L	523.74 ppb	18:29:07
3	Si 251.611†	91219.8	90473.5	2506.5 ug/L	2506.5 ppb	18:28:47
3	Sn 189.927†	3444.0	3438.9	503.56 ug/L	503.56 ppb	18:29:07
3	Ti 334.940†	347505.5	348646.2	501.96 ug/L	501.96 ppb	18:28:47
3	Tl 190.801†	1952.6	1996.5	512.70 ug/L	512.70 ppb	18:29:07
3	U 409.014†	14748.5	17462.9	483.08 ug/L	483.08 ppb	18:28:47
3	V 292.402†	79014.6	80408.1	511.60 ug/L	511.60 ppb	18:28:47
3	Zn 213.857†	63766.6	62901.4	503.03 ug/L	503.03 ppb	18:28:47
3	SiO2†	91763.1	90991.1	5413.4 ug/L	5413.4 ppb	18:29:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	908392.2	101.00	%	0.786				0.78%
Sc Radial	5529.2	99.0	%	0.66				0.67%
Y 371.029	737203.7	99.233	%	0.7500				0.76%
Y RADIAL	5737.2	97.88	%	0.567				0.58%
Ag 328.068†	116911.7	501.95	ug/L	2.901	501.95	ppb	2.901	0.58%
QC value within limits for Ag 328.068 Recovery = 100.39%								
Al 396.153Radial†	7046.1	4927.8	ug/L	52.04	4927.8	ppb	52.04	1.06%
QC value within limits for Al 396.153Radial Recovery = 98.56%								
As 188.979†	1401.1	502.38	ug/L	6.666	502.38	ppb	6.666	1.33%
QC value within limits for As 188.979 Recovery = 100.48%								
B 249.677†	23614.2	479.80	ug/L	2.797	479.80	ppb	2.797	0.58%
QC value within limits for B 249.677 Recovery = 95.96%								
Ba 233.527†	74920.7	504.27	ug/L	3.135	504.27	ppb	3.135	0.62%
QC value within limits for Ba 233.527 Recovery = 100.85%								
Be 313.107†	1524454.4	506.92	ug/L	3.215	506.92	ppb	3.215	0.63%
QC value within limits for Be 313.107 Recovery = 101.38%								
Ca 317.933Radial†	3540.8	4943.2	ug/L	29.82	4943.2	ppb	29.82	0.60%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.86%
Cd 226.502†            52591.9      505.07 ug/L         3.186      505.07 ppb          3.186   0.63%
   QC value within limits for Cd 226.502  Recovery = 101.01%
Co 228.616†            28584.6      495.91 ug/L         6.148      495.91 ppb          6.148   1.24%
   QC value within limits for Co 228.616  Recovery = 99.18%
Cr 267.716†            50512.7      504.52 ug/L         3.049      504.52 ppb          3.049   0.60%
   QC value within limits for Cr 267.716  Recovery = 100.90%
Cu 324.752†           179902.2      503.08 ug/L         3.461      503.08 ppb          3.461   0.69%
   QC value within limits for Cu 324.752  Recovery = 100.62%
Fe 238.204 Radial†       640.7      5085.8 ug/L        43.33      5085.8 ppb          43.33   0.85%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.72%
K 766.490 Radial†      27850.0      4991.6 ug/L        66.79      4991.6 ppb          66.79   1.34%
   QC value within limits for K 766.490 Radial  Recovery = 99.83%
Mg 279.077 IEC†          170.7      5157.1 ug/L        75.26      5157.1 ppb          75.26   1.46%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.14%
Mn 257.610†           516374.7      504.61 ug/L         2.873      504.61 ppb          2.873   0.57%
   QC value within limits for Mn 257.610  Recovery = 100.92%
Mo 202.031†             8375.9      498.35 ug/L         6.045      498.35 ppb          6.045   1.21%
   QC value within limits for Mo 202.031  Recovery = 99.67%
Na 589.592 Radial†     36256.0      9908.2 ug/L        87.44      9908.2 ppb          87.44   0.88%
   QC value within limits for Na 589.592 Radial  Recovery = 99.08%
Ni 231.604†            23186.9      499.39 ug/L         5.628      499.39 ppb          5.628   1.13%
   QC value within limits for Ni 231.604  Recovery = 99.88%
P 214.914†              4883.4      2407.5 ug/L        29.77      2407.5 ppb          29.77   1.24%
   QC value within limits for P 214.914  Recovery = 96.30%
Pb 220.353†             4893.9      502.27 ug/L         5.160      502.27 ppb          5.160   1.03%
   QC value within limits for Pb 220.353  Recovery = 100.45%
S 181.975 Axial†         814.0      974.31 ug/L        10.379      974.31 ppb         10.379   1.07%
   QC value within limits for S 181.975 Axial  Recovery = 97.43%
Sb 206.836†             1666.2      498.67 ug/L         7.730      498.67 ppb          7.730   1.55%
   QC value within limits for Sb 206.836  Recovery = 99.73%
Se 196.026†              928.4      513.71 ug/L         8.796      513.71 ppb          8.796   1.71%
   QC value within limits for Se 196.026  Recovery = 102.74%
Si 251.611†            89943.2      2491.9 ug/L        15.44      2491.9 ppb          15.44   0.62%
   QC value within limits for Si 251.611  Recovery = 99.68%
Sn 189.927†             3389.7      496.37 ug/L         6.272      496.37 ppb          6.272   1.26%
   QC value within limits for Sn 189.927  Recovery = 99.27%
Sr 421.552†            86979.6      496.19 ug/L         3.941      496.19 ppb          3.941   0.79%
   QC value within limits for Sr 421.552  Recovery = 99.24%
Ti 334.940†           346459.0      498.82 ug/L         3.215      498.82 ppb          3.215   0.64%
   QC value within limits for Ti 334.940  Recovery = 99.76%
Tl 190.801†             1956.5      502.50 ug/L         8.898      502.50 ppb          8.898   1.77%
   QC value within limits for Tl 190.801  Recovery = 100.50%
U 409.014†             17386.7      480.97 ug/L         2.367      480.97 ppb          2.367   0.49%
   QC value within limits for U 409.014  Recovery = 96.19%
V 292.402†             79824.9      507.85 ug/L         3.538      507.85 ppb          3.538   0.70%
   QC value within limits for V 292.402  Recovery = 101.57%
Zn 213.857†            62552.0      500.26 ug/L         2.995      500.26 ppb          2.995   0.60%
   QC value within limits for Zn 213.857  Recovery = 100.05%
SiO2†                  89970.2      5352.6 ug/L        55.41      5352.6 ppb          55.41   1.04%
   QC value within limits for SiO2  Recovery = 100.10%
All analyte(s) passed QC.
```

Sequence No.: 51
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/20/2009 18:31:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5793.9	5793.9	104	%			18:33:24
1	Y RADIAL	6061.9	6061.9	103.4	%			18:33:24
1	Al 396.153Radial†	-15.9	-2.1	-1.4236	ug/L	-1.4236	ppb	18:33:24
1	Ca 317.933Radial†	18.3	-0.3	-0.3691	ug/L	-0.3691	ppb	18:33:44
1	Fe 238.204 Radial†	10.1	-1.5	-11.933	ug/L	-11.933	ppb	18:33:44
1	K 766.490 Radial†	2938.3	-38.8	-6.9463	ug/L	-6.9463	ppb	18:33:24
1	Mg 279.077 IEC†	-0.1	-2.4	-71.712	ug/L	-71.712	ppb	18:33:44
1	Na 589.592 Radial†	-1436.5	-125.4	-34.257	ug/L	-34.257	ppb	18:33:24
1	Sr 421.552†	-2.0	-7.5	-0.0431	ug/L	-0.0431	ppb	18:33:24
1	Sc 361.383	911494.1	911494.1	101.34	%			18:34:41
1	Y 371.029	750236.6	750236.6	100.99	%			18:34:41
1	Ag 328.068†	437.8	32.6	0.1315	ug/L	0.1315	ppb	18:34:46
1	As 188.979†	-26.2	1.6	0.5625	ug/L	0.5625	ppb	18:35:06
1	B 249.677†	-376.4	-836.4	-17.061	ug/L	-17.061	ppb	18:35:06
1	Ba 233.527†	6.9	15.4	0.1021	ug/L	0.1021	ppb	18:35:06
1	Be 313.107†	-4418.0	235.6	0.0778	ug/L	0.0778	ppb	18:34:46
1	Cd 226.502†	-233.5	-4.6	-0.0431	ug/L	-0.0431	ppb	18:35:06
1	Co 228.616†	-84.0	1.8	0.0307	ug/L	0.0307	ppb	18:35:06
1	Cr 267.716†	103.4	2.9	0.0267	ug/L	0.0267	ppb	18:35:06
1	Cu 324.752†	6101.8	-66.0	-0.1850	ug/L	-0.1850	ppb	18:34:46
1	Mn 257.610†	513.0	14.7	0.0145	ug/L	0.0145	ppb	18:35:06
1	Mo 202.031†	17.1	-8.7	-0.5207	ug/L	-0.5207	ppb	18:35:06
1	Ni 231.604†	113.6	9.8	0.2114	ug/L	0.2114	ppb	18:35:06
1	P 214.914†	242.4	-16.0	-8.0791	ug/L	-8.0791	ppb	18:35:06
1	Pb 220.353†	-65.3	13.4	1.3674	ug/L	1.3674	ppb	18:35:06
1	S 181.975 Axial†	53.0	-6.5	-7.7821	ug/L	-7.7821	ppb	18:35:06
1	Sb 206.836†	36.4	-6.4	-1.9160	ug/L	-1.9160	ppb	18:35:06
1	Se 196.026†	-28.4	0.7	0.3520	ug/L	0.3520	ppb	18:35:06
1	Si 251.611†	694.9	25.8	0.7309	ug/L	0.7309	ppb	18:35:06
1	Sn 189.927†	0.2	-1.6	-0.2343	ug/L	-0.2343	ppb	18:35:06
1	Ti 334.940†	-1625.5	-133.9	-0.1939	ug/L	-0.1939	ppb	18:34:46
1	Tl 190.801†	-46.8	-0.3	-0.0898	ug/L	-0.0898	ppb	18:35:06
1	U 409.014†	-2682.3	81.5	2.2646	ug/L	2.2646	ppb	18:34:41
1	V 292.402†	-1558.6	-69.5	-0.4391	ug/L	-0.4391	ppb	18:34:46
1	Zn 213.857†	786.9	-28.4	-0.2268	ug/L	-0.2268	ppb	18:35:06
1	SiO2†	709.7	15.4	0.9448	ug/L	0.9448	ppb	18:36:12
2	Sc Radial	5630.9	5630.9	101	%			18:33:49
2	Y RADIAL	5875.4	5875.4	100.2	%			18:33:49
2	Al 396.153Radial†	-5.5	7.8	5.4808	ug/L	5.4808	ppb	18:33:49
2	Ca 317.933Radial†	19.0	1.0	1.4259	ug/L	1.4259	ppb	18:34:09
2	Fe 238.204 Radial†	11.0	-0.3	-2.6681	ug/L	-2.6681	ppb	18:34:09
2	K 766.490 Radial†	2771.0	-122.7	-22.014	ug/L	-22.014	ppb	18:33:49
2	Mg 279.077 IEC†	0.3	-2.0	-59.131	ug/L	-59.131	ppb	18:34:09
2	Na 589.592 Radial†	-1393.3	-122.6	-33.507	ug/L	-33.507	ppb	18:33:49
2	Sr 421.552†	-4.6	-10.2	-0.0581	ug/L	-0.0581	ppb	18:33:49
2	Sc 361.383	907826.7	907826.7	100.93	%			18:35:11
2	Y 371.029	746737.2	746737.2	100.52	%			18:35:11
2	Ag 328.068†	420.7	17.4	0.0677	ug/L	0.0677	ppb	18:35:16
2	As 188.979†	-25.0	2.7	0.9753	ug/L	0.9753	ppb	18:35:36
2	B 249.677†	-388.2	-849.7	-17.333	ug/L	-17.333	ppb	18:35:36
2	Ba 233.527†	-4.2	4.5	0.0290	ug/L	0.0290	ppb	18:35:36
2	Be 313.107†	-4468.2	168.3	0.0559	ug/L	0.0559	ppb	18:35:16
2	Cd 226.502†	-221.8	6.0	0.0585	ug/L	0.0585	ppb	18:35:36
2	Co 228.616†	-70.6	14.8	0.2567	ug/L	0.2567	ppb	18:35:36
2	Cr 267.716†	102.0	1.9	0.0167	ug/L	0.0167	ppb	18:35:36
2	Cu 324.752†	6136.7	-7.1	-0.0201	ug/L	-0.0201	ppb	18:35:16
2	Mn 257.610†	509.9	13.6	0.0141	ug/L	0.0141	ppb	18:35:36
2	Mo 202.031†	25.1	-0.7	-0.0405	ug/L	-0.0405	ppb	18:35:36
2	Ni 231.604†	127.3	23.8	0.5132	ug/L	0.5132	ppb	18:35:36

2	P 214.914†	228.5	-28.8	-14.633	ug/L	-14.633 ppb	18:35:36
2	Pb 220.353†	-80.1	-1.5	-0.1557	ug/L	-0.1557 ppb	18:35:36
2	S 181.975 Axial†	48.0	-11.2	-13.363	ug/L	-13.363 ppb	18:35:36
2	Sb 206.836†	31.4	-11.3	-3.3209	ug/L	-3.3209 ppb	18:35:36
2	Se 196.026†	-33.5	-4.4	-2.3651	ug/L	-2.3651 ppb	18:35:36
2	Si 251.611†	697.1	30.8	0.8646	ug/L	0.8646 ppb	18:35:36
2	Sn 189.927†	3.2	1.4	0.1979	ug/L	0.1979 ppb	18:35:36
2	Ti 334.940†	-1460.0	23.6	0.0320	ug/L	0.0320 ppb	18:35:16
2	Tl 190.801†	-37.0	9.1	2.3308	ug/L	2.3308 ppb	18:35:36
2	U 409.014†	-2585.1	167.2	4.6405	ug/L	4.6405 ppb	18:35:11
2	V 292.402†	-1551.6	-68.8	-0.4246	ug/L	-0.4246 ppb	18:35:16
2	Zn 213.857†	806.3	-6.0	-0.0494	ug/L	-0.0494 ppb	18:35:36
2	SiO2†	699.5	8.1	0.4989	ug/L	0.4989 ppb	18:36:17
3	Sc Radial	5512.2	5512.2	98.7	%		18:34:14
3	Y RADIAL	5798.6	5798.6	98.93	%		18:34:14
3	Al 396.153Radial†	-28.0	-15.1	-10.636	ug/L	-10.636 ppb	18:34:14
3	Ca 317.933Radial†	18.3	0.7	0.9686	ug/L	0.9686 ppb	18:34:34
3	Fe 238.204 Radial†	9.6	-1.5	-11.763	ug/L	-11.763 ppb	18:34:34
3	K 766.490 Radial†	2927.7	95.4	17.147	ug/L	17.147 ppb	18:34:14
3	Mg 279.077 IEC†	5.3	3.1	92.244	ug/L	92.244 ppb	18:34:34
3	Na 589.592 Radial†	-1433.7	-193.3	-52.815	ug/L	-52.815 ppb	18:34:14
3	Sr 421.552†	-29.0	-35.0	-0.1996	ug/L	-0.1996 ppb	18:34:14
3	Sc 361.383	909104.4	909104.4	101.08	%		18:35:41
3	Y 371.029	748421.3	748421.3	100.74	%		18:35:41
3	Ag 328.068†	435.2	31.2	0.1282	ug/L	0.1282 ppb	18:35:46
3	As 188.979†	-38.3	-10.4	-3.6855	ug/L	-3.6855 ppb	18:36:06
3	B 249.677†	-394.2	-855.0	-17.441	ug/L	-17.441 ppb	18:36:06
3	Ba 233.527†	-7.3	1.4	0.0082	ug/L	0.0082 ppb	18:36:06
3	Be 313.107†	-4511.5	131.6	0.0438	ug/L	0.0438 ppb	18:35:46
3	Cd 226.502†	-228.9	-0.7	-0.0053	ug/L	-0.0053 ppb	18:36:06
3	Co 228.616†	-70.4	15.0	0.2644	ug/L	0.2644 ppb	18:36:06
3	Cr 267.716†	104.1	3.9	0.0378	ug/L	0.0378 ppb	18:36:06
3	Cu 324.752†	6122.7	-29.5	-0.0832	ug/L	-0.0832 ppb	18:35:46
3	Mn 257.610†	492.4	-4.4	-0.0072	ug/L	-0.0072 ppb	18:36:06
3	Mo 202.031†	48.1	22.1	1.3096	ug/L	1.3096 ppb	18:36:06
3	Ni 231.604†	127.8	24.2	0.5211	ug/L	0.5211 ppb	18:36:06
3	P 214.914†	239.7	-18.0	-9.1062	ug/L	-9.1062 ppb	18:36:06
3	Pb 220.353†	-82.5	-3.8	-0.3840	ug/L	-0.3840 ppb	18:36:06
3	S 181.975 Axial†	50.9	-8.4	-10.088	ug/L	-10.088 ppb	18:36:06
3	Sb 206.836†	46.8	3.9	1.1903	ug/L	1.1903 ppb	18:36:06
3	Se 196.026†	-26.4	2.7	1.4051	ug/L	1.4051 ppb	18:36:06
3	Si 251.611†	683.9	16.8	0.4352	ug/L	0.4352 ppb	18:36:06
3	Sn 189.927†	11.2	9.3	1.3567	ug/L	1.3567 ppb	18:36:06
3	Ti 334.940†	-1437.9	47.5	0.0688	ug/L	0.0688 ppb	18:35:46
3	Tl 190.801†	-44.5	1.7	0.4437	ug/L	0.4437 ppb	18:36:06
3	U 409.014†	-2785.0	-27.0	-0.7482	ug/L	-0.7482 ppb	18:35:41
3	V 292.402†	-1547.8	-62.9	-0.3736	ug/L	-0.3736 ppb	18:35:46
3	Zn 213.857†	798.3	-15.1	-0.1272	ug/L	-0.1272 ppb	18:36:06
3	SiO2†	709.3	16.7	0.9294	ug/L	0.9294 ppb	18:36:22

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	909475.0	101.12	%	0.207				0.20%
Sc Radial	5645.7	101	%	2.5				2.51%
Y 371.029	748465.0	100.75	%	0.236				0.23%
Y RADIAL	5912.0	100.9	%	2.31				2.29%
Ag 328.068†	27.1	0.1091	ug/L	0.03594	0.1091	ppb	0.03594	32.93%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.1	-2.1930	ug/L	8.08595	-2.1930	ppb	8.08595	368.72%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.0	-0.7159	ug/L	2.58001	-0.7159	ppb	2.58001	360.40%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-847.0	-17.279	ug/L	0.1957	-17.279	ppb	0.1957	1.13%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.1	0.0465	ug/L	0.04931	0.0465	ppb	0.04931	106.14%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	178.5	0.0592	ug/L	0.01723	0.0592	ppb	0.01723	29.12%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.5	0.6751	ug/L	0.93281	0.6751	ppb	0.93281	138.17%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 0.2      0.0034 ug/L       0.05131      0.0034 ppb        0.05131 >999.9%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                10.6      0.1839 ug/L       0.13276      0.1839 ppb        0.13276  72.18%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 2.9      0.0271 ug/L       0.01055      0.0271 ppb        0.01055  38.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -34.2     -0.0961 ug/L       0.08325     -0.0961 ppb        0.08325  86.63%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.1     -8.7881 ug/L       5.30072     -8.7881 ppb        5.30072  60.32%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -22.0     -3.9377 ug/L      19.75290     -3.9377 ppb       19.75290 501.64%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.4     -12.866 ug/L       91.2451     -12.866 ppb        91.2451 709.17%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 8.0      0.0071 ug/L       0.01241      0.0071 ppb        0.01241 173.96%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.2      0.2495 ug/L       0.94899      0.2495 ppb        0.94899 380.36%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -147.1     -40.193 ug/L       10.9375     -40.193 ppb        10.9375  27.21%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                19.3      0.4152 ug/L       0.17659      0.4152 ppb        0.17659  42.53%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -20.9     -10.606 ug/L        3.5250     -10.606 ppb         3.5250  33.24%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 2.7      0.2759 ug/L       0.95215      0.2759 ppb        0.95215 345.13%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -8.7     -10.411 ug/L        2.8045     -10.411 ppb         2.8045  26.94%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -4.6     -1.3489 ug/L       2.30845     -1.3489 ppb        2.30845 171.14%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.3     -0.2027 ug/L       1.94534     -0.2027 ppb        1.94534 959.91%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                24.5      0.6769 ug/L       0.21971      0.6769 ppb        0.21971  32.46%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.0      0.4401 ug/L       0.82272      0.4401 ppb        0.82272 186.93%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -17.6     -0.1003 ug/L       0.08637     -0.1003 ppb        0.08637  86.14%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -20.9     -0.0310 ug/L       0.14221     -0.0310 ppb        0.14221 458.48%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.5      0.8949 ug/L       1.27180      0.8949 ppb        1.27180 142.11%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 73.9      2.0523 ug/L       2.70062      2.0523 ppb        2.70062 131.59%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -67.1     -0.4124 ug/L       0.03439     -0.4124 ppb        0.03439   8.34%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -16.5     -0.1345 ug/L       0.08893     -0.1345 ppb        0.08893  66.13%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      13.4      0.7910 ug/L       0.25314      0.7910 ppb        0.25314  32.00%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 61
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/20/2009 19:40:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5641.7	5641.7	101	%			19:41:53
1	Y RADIAL	5844.5	5844.5	99.71	%			19:41:53
1	Al 396.153Radial†	6960.1	6906.5	4830.0	ug/L	4830.0	ppb	19:41:53
1	Ca 317.933Radial†	3631.2	3578.5	4995.8	ug/L	4995.8	ppb	19:41:53
1	Fe 238.204 Radial†	661.8	644.2	5113.3	ug/L	5113.3	ppb	19:42:13
1	K 766.490 Radial†	30554.7	27388.8	4908.6	ug/L	4908.6	ppb	19:41:53
1	Mg 279.077 IEC†	172.1	168.2	5080.5	ug/L	5080.5	ppb	19:42:13
1	Na 589.592 Radial†	36137.0	37049.8	10125	ug/L	10125	ppb	19:41:53
1	Sr 421.552†	87496.5	86650.4	494.32	ug/L	494.32	ppb	19:41:53
1	Sc 361.383	920213.7	920213.7	102.31	%			19:43:10
1	Y 371.029	746679.8	746679.8	100.51	%			19:43:10
1	Ag 328.068†	118798.4	115714.9	496.82	ug/L	496.82	ppb	19:43:15
1	As 188.979†	1395.9	1391.8	499.08	ug/L	499.08	ppb	19:43:35
1	B 249.677†	24314.1	23299.7	473.37	ug/L	473.37	ppb	19:43:15
1	Ba 233.527†	75650.2	73949.6	497.74	ug/L	497.74	ppb	19:43:15
1	Be 313.107†	1560188.9	1529533.6	508.61	ug/L	508.61	ppb	19:43:10
1	Cd 226.502†	53003.2	52031.5	499.69	ug/L	499.69	ppb	19:43:15
1	Co 228.616†	29315.6	28738.0	498.54	ug/L	498.54	ppb	19:43:15
1	Cr 267.716†	51368.6	50108.8	500.48	ug/L	500.48	ppb	19:43:15
1	Cu 324.752†	186164.3	175871.2	491.82	ug/L	491.82	ppb	19:43:15
1	Mn 257.610†	529246.4	516797.3	505.03	ug/L	505.03	ppb	19:43:10
1	Mo 202.031†	8454.8	8238.2	490.17	ug/L	490.17	ppb	19:43:35
1	Ni 231.604†	24029.6	23384.5	503.65	ug/L	503.65	ppb	19:43:15
1	P 214.914†	5219.7	4846.6	2390.5	ug/L	2390.5	ppb	19:43:35
1	Pb 220.353†	4823.0	4791.8	491.80	ug/L	491.80	ppb	19:43:35
1	S 181.975 Axial†	893.6	814.6	975.03	ug/L	975.03	ppb	19:43:35
1	Sb 206.836†	1745.3	1663.5	497.75	ug/L	497.75	ppb	19:43:35
1	Se 196.026†	918.6	926.6	512.78	ug/L	512.78	ppb	19:43:35
1	Si 251.611†	91534.4	88806.5	2460.4	ug/L	2460.4	ppb	19:43:15
1	Sn 189.927†	3460.0	3380.0	494.96	ug/L	494.96	ppb	19:43:35
1	Ti 334.940†	352776.2	346275.7	498.55	ug/L	498.55	ppb	19:43:10
1	Tl 190.801†	1938.9	1940.9	498.50	ug/L	498.50	ppb	19:43:35
1	U 409.014†	15440.3	17819.8	492.99	ug/L	492.99	ppb	19:43:15
1	V 292.402†	79438.1	79111.7	503.27	ug/L	503.27	ppb	19:43:15
1	Zn 213.857†	64131.8	61878.0	494.81	ug/L	494.81	ppb	19:43:15
1	SiO2†	91870.6	89109.9	5301.6	ug/L	5301.6	ppb	19:44:43
2	Sc Radial	5381.5	5381.5	96.3	%			19:42:18
2	Y RADIAL	5614.0	5614.0	95.78	%			19:42:18
2	Al 396.153Radial†	6900.0	7177.3	5020.0	ug/L	5020.0	ppb	19:42:18
2	Ca 317.933Radial†	3618.5	3739.1	5220.0	ug/L	5220.0	ppb	19:42:18
2	Fe 238.204 Radial†	660.0	674.0	5349.1	ug/L	5349.1	ppb	19:42:38
2	K 766.490 Radial†	30179.2	28461.9	5101.1	ug/L	5101.1	ppb	19:42:18
2	Mg 279.077 IEC†	175.9	180.3	5448.3	ug/L	5448.3	ppb	19:42:38
2	Na 589.592 Radial†	35855.1	38487.5	10518	ug/L	10518	ppb	19:42:18
2	Sr 421.552†	86527.5	89833.6	512.47	ug/L	512.47	ppb	19:42:18
2	Sc 361.383	915853.8	915853.8	101.83	%			19:43:41
2	Y 371.029	743315.5	743315.5	100.06	%			19:43:41
2	Ag 328.068†	118005.3	115488.8	495.93	ug/L	495.93	ppb	19:43:47
2	As 188.979†	1414.8	1416.9	508.04	ug/L	508.04	ppb	19:44:07
2	B 249.677†	24227.6	23327.9	473.91	ug/L	473.91	ppb	19:43:47
2	Ba 233.527†	75426.1	74081.5	498.63	ug/L	498.63	ppb	19:43:47
2	Be 313.107†	1556526.2	1533196.1	509.83	ug/L	509.83	ppb	19:43:41
2	Cd 226.502†	52879.4	52156.4	500.86	ug/L	500.86	ppb	19:43:47
2	Co 228.616†	29282.0	28841.4	500.34	ug/L	500.34	ppb	19:43:47
2	Cr 267.716†	51230.4	50212.1	501.52	ug/L	501.52	ppb	19:43:47
2	Cu 324.752†	184911.2	175506.7	490.81	ug/L	490.81	ppb	19:43:47
2	Mn 257.610†	528659.6	518683.6	506.89	ug/L	506.89	ppb	19:43:41
2	Mo 202.031†	8499.0	8321.0	495.11	ug/L	495.11	ppb	19:44:07
2	Ni 231.604†	23864.9	23334.5	502.57	ug/L	502.57	ppb	19:43:47

2	P 214.914†	5239.1	4889.9	2412.6 ug/L	2412.6 ppb	19:44:07
2	Pb 220.353†	4888.8	4878.9	500.74 ug/L	500.74 ppb	19:44:07
2	S 181.975 Axial†	895.1	820.3	981.84 ug/L	981.84 ppb	19:44:07
2	Sb 206.836†	1757.0	1683.1	503.67 ug/L	503.67 ppb	19:44:07
2	Se 196.026†	925.1	937.3	519.27 ug/L	519.27 ppb	19:44:07
2	Si 251.611†	91080.1	88786.2	2459.7 ug/L	2459.7 ppb	19:43:47
2	Sn 189.927†	3460.0	3396.1	497.34 ug/L	497.34 ppb	19:44:07
2	Ti 334.940†	352528.3	347673.7	500.58 ug/L	500.58 ppb	19:43:41
2	Tl 190.801†	1951.8	1962.6	504.06 ug/L	504.06 ppb	19:44:07
2	U 409.014†	15426.9	17878.5	494.59 ug/L	494.59 ppb	19:43:47
2	V 292.402†	79071.5	79121.4	503.37 ug/L	503.37 ppb	19:43:47
2	Zn 213.857†	63909.9	61958.4	495.44 ug/L	495.44 ppb	19:43:47
2	SiO2†	91731.9	89401.2	5318.6 ug/L	5318.6 ppb	19:44:48
3	Sc Radial	5500.0	5500.0	98.4 %		19:42:43
3	Y RADIAL	5681.0	5681.0	96.92 %		19:42:43
3	Al 396.153Radial†	6868.7	6991.3	4889.3 ug/L	4889.3 ppb	19:42:43
3	Ca 317.933Radial†	3612.1	3651.7	5098.0 ug/L	5098.0 ppb	19:42:43
3	Fe 238.204 Radial†	665.8	665.2	5279.8 ug/L	5279.8 ppb	19:43:03
3	K 766.490 Radial†	30133.7	27740.7	4971.7 ug/L	4971.7 ppb	19:42:43
3	Mg 279.077 IEC†	178.1	178.7	5398.7 ug/L	5398.7 ppb	19:43:03
3	Na 589.592 Radial†	35762.6	37591.6	10273 ug/L	10273 ppb	19:42:43
3	Sr 421.552†	86640.5	88013.4	502.09 ug/L	502.09 ppb	19:42:43
3	Sc 361.383	905765.0	905765.0	100.71 %		19:44:13
3	Y 371.029	734701.6	734701.6	98.896 %		19:44:13
3	Ag 328.068†	118922.1	117690.0	505.34 ug/L	505.34 ppb	19:44:18
3	As 188.979†	1400.1	1417.7	508.32 ug/L	508.32 ppb	19:44:38
3	B 249.677†	24441.0	23804.9	483.63 ug/L	483.63 ppb	19:44:18
3	Ba 233.527†	75981.0	75457.5	507.89 ug/L	507.89 ppb	19:44:18
3	Be 313.107†	1537614.5	1531443.0	509.24 ug/L	509.24 ppb	19:44:13
3	Cd 226.502†	53247.2	53100.1	509.94 ug/L	509.94 ppb	19:44:18
3	Co 228.616†	29433.0	29311.7	508.51 ug/L	508.51 ppb	19:44:18
3	Cr 267.716†	51423.6	50964.3	509.03 ug/L	509.03 ppb	19:44:18
3	Cu 324.752†	186619.4	179225.7	501.20 ug/L	501.20 ppb	19:44:18
3	Mn 257.610†	523038.2	518884.3	507.08 ug/L	507.08 ppb	19:44:13
3	Mo 202.031†	8454.0	8369.2	497.97 ug/L	497.97 ppb	19:44:38
3	Ni 231.604†	23997.3	23727.0	511.02 ug/L	511.02 ppb	19:44:18
3	P 214.914†	5181.7	4890.3	2411.2 ug/L	2411.2 ppb	19:44:38
3	Pb 220.353†	4827.6	4871.6	499.97 ug/L	499.97 ppb	19:44:38
3	S 181.975 Axial†	895.6	830.6	994.13 ug/L	994.13 ppb	19:44:38
3	Sb 206.836†	1762.2	1707.5	510.83 ug/L	510.83 ppb	19:44:38
3	Se 196.026†	923.2	945.5	523.41 ug/L	523.41 ppb	19:44:38
3	Si 251.611†	91932.5	90628.9	2511.0 ug/L	2511.0 ppb	19:44:18
3	Sn 189.927†	3450.5	3424.5	501.48 ug/L	501.48 ppb	19:44:38
3	Ti 334.940†	348508.4	347538.1	500.37 ug/L	500.37 ppb	19:44:13
3	Tl 190.801†	1946.2	1978.3	508.01 ug/L	508.01 ppb	19:44:38
3	U 409.014†	15366.9	17987.7	497.61 ug/L	497.61 ppb	19:44:18
3	V 292.402†	79731.2	80641.3	512.97 ug/L	512.97 ppb	19:44:18
3	Zn 213.857†	64408.3	63152.5	505.01 ug/L	505.01 ppb	19:44:18
3	SiO2†	91461.3	90135.9	5362.5 ug/L	5362.5 ppb	19:44:53

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	913944.1	101.61	%	0.824				0.81%
Sc Radial	5507.8	98.6	%	2.33				2.36%
Y 371.029	741565.6	99.820	%	0.8316				0.83%
Y RADIAL	5713.1	97.47	%	2.023				2.08%
Ag 328.068†	116297.9	499.37	ug/L	5.192	499.37	ppb	5.192	1.04%
QC value within limits for Ag 328.068 Recovery = 99.87%								
Al 396.153Radial†	7025.1	4913.1	ug/L	97.23	4913.1	ppb	97.23	1.98%
QC value within limits for Al 396.153Radial Recovery = 98.26%								
As 188.979†	1408.8	505.15	ug/L	5.256	505.15	ppb	5.256	1.04%
QC value within limits for As 188.979 Recovery = 101.03%								
B 249.677†	23477.5	476.97	ug/L	5.773	476.97	ppb	5.773	1.21%
QC value within limits for B 249.677 Recovery = 95.39%								
Ba 233.527†	74496.2	501.42	ug/L	5.620	501.42	ppb	5.620	1.12%
QC value within limits for Ba 233.527 Recovery = 100.28%								
Be 313.107†	1531390.9	509.23	ug/L	0.610	509.23	ppb	0.610	0.12%
QC value within limits for Be 313.107 Recovery = 101.85%								
Ca 317.933Radial†	3656.4	5104.6	ug/L	112.27	5104.6	ppb	112.27	2.20%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.09%
Cd 226.502†            52429.3      503.50 ug/L        5.612      503.50 ppb         5.612   1.11%
   QC value within limits for Cd 226.502  Recovery = 100.70%
Co 228.616†            28963.7      502.47 ug/L        5.310      502.47 ppb         5.310   1.06%
   QC value within limits for Co 228.616  Recovery = 100.49%
Cr 267.716†            50428.4      503.68 ug/L        4.666      503.68 ppb         4.666   0.93%
   QC value within limits for Cr 267.716  Recovery = 100.74%
Cu 324.752†           176867.9      494.61 ug/L        5.731      494.61 ppb         5.731   1.16%
   QC value within limits for Cu 324.752  Recovery = 98.92%
Fe 238.204 Radial†       661.1      5247.4 ug/L       121.20      5247.4 ppb        121.20   2.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.95%
K 766.490 Radial†      27863.8      4993.8 ug/L        98.12      4993.8 ppb         98.12   1.96%
   QC value within limits for K 766.490 Radial  Recovery = 99.88%
Mg 279.077 IEC†          175.7      5309.2 ug/L       199.54      5309.2 ppb        199.54   3.76%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.18%
Mn 257.610†           518121.7      506.33 ug/L        1.132      506.33 ppb         1.132   0.22%
   QC value within limits for Mn 257.610  Recovery = 101.27%
Mo 202.031†             8309.5      494.42 ug/L        3.947      494.42 ppb         3.947   0.80%
   QC value within limits for Mo 202.031  Recovery = 98.88%
Na 589.592 Radial†     37709.6       10305 ug/L        198.4       10305 ppb         198.4   1.93%
   QC value within limits for Na 589.592 Radial  Recovery = 103.05%
Ni 231.604†            23482.0      505.75 ug/L        4.601      505.75 ppb         4.601   0.91%
   QC value within limits for Ni 231.604  Recovery = 101.15%
P 214.914†              4875.6      2404.8 ug/L        12.38      2404.8 ppb         12.38   0.51%
   QC value within limits for P 214.914  Recovery = 96.19%
Pb 220.353†             4847.4      497.50 ug/L        4.956      497.50 ppb         4.956   1.00%
   QC value within limits for Pb 220.353  Recovery = 99.50%
S 181.975 Axial†         821.8      983.66 ug/L        9.680      983.66 ppb         9.680   0.98%
   QC value within limits for S 181.975 Axial  Recovery = 98.37%
Sb 206.836†             1684.7      504.08 ug/L        6.550      504.08 ppb         6.550   1.30%
   QC value within limits for Sb 206.836  Recovery = 100.82%
Se 196.026†              936.5      518.49 ug/L        5.357      518.49 ppb         5.357   1.03%
   QC value within limits for Se 196.026  Recovery = 103.70%
Si 251.611†            89407.2      2477.0 ug/L        29.40      2477.0 ppb         29.40   1.19%
   QC value within limits for Si 251.611  Recovery = 99.08%
Sn 189.927†             3400.2      497.92 ug/L        3.300      497.92 ppb         3.300   0.66%
   QC value within limits for Sn 189.927  Recovery = 99.58%
Sr 421.552†            88165.8      502.96 ug/L        9.111      502.96 ppb         9.111   1.81%
   QC value within limits for Sr 421.552  Recovery = 100.59%
Ti 334.940†           347162.5      499.83 ug/L        1.114      499.83 ppb         1.114   0.22%
   QC value within limits for Ti 334.940  Recovery = 99.97%
Tl 190.801†             1960.6      503.52 ug/L        4.778      503.52 ppb         4.778   0.95%
   QC value within limits for Tl 190.801  Recovery = 100.70%
U 409.014†             17895.3      495.07 ug/L        2.347      495.07 ppb         2.347   0.47%
   QC value within limits for U 409.014  Recovery = 99.01%
V 292.402†             79624.8      506.54 ug/L        5.571      506.54 ppb         5.571   1.10%
   QC value within limits for V 292.402  Recovery = 101.31%
Zn 213.857†            62329.6      498.42 ug/L        5.716      498.42 ppb         5.716   1.15%
   QC value within limits for Zn 213.857  Recovery = 99.68%
SiO2†                  89549.0      5327.6 ug/L        31.44      5327.6 ppb         31.44   0.59%
   QC value within limits for SiO2  Recovery = 99.63%
All analyte(s) passed QC.
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Sequence No.: 62
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/20/2009 19:47:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5436.1	5436.1	97.3	%			19:48:55
1	Y RADIAL	5719.1	5719.1	97.57	%			19:48:55
1	Al 396.153Radial†	-16.1	-3.2	-2.2605	ug/L	-2.2605	ppb	19:48:55
1	Ca 317.933Radial†	16.6	-0.8	-1.1853	ug/L	-1.1853	ppb	19:49:15
1	Fe 238.204 Radial†	12.4	1.5	12.127	ug/L	12.127	ppb	19:49:15
1	K 766.490 Radial†	2950.8	160.7	28.887	ug/L	28.887	ppb	19:48:55
1	Mg 279.077 IEC†	4.1	2.0	59.081	ug/L	59.081	ppb	19:49:15
1	Na 589.592 Radial†	-1530.1	-312.7	-85.462	ug/L	-85.462	ppb	19:48:55
1	Sr 421.552†	-0.7	-6.3	-0.0359	ug/L	-0.0359	ppb	19:48:55
1	Sc 361.383	889496.4	889496.4	98.896	%			19:50:12
1	Y 371.029	739447.7	739447.7	99.535	%			19:50:12
1	Ag 328.068†	427.9	33.3	0.1477	ug/L	0.1477	ppb	19:50:12
1	As 188.979†	-27.5	-0.4	-0.1263	ug/L	-0.1263	ppb	19:50:32
1	B 249.677†	-439.1	-909.0	-18.545	ug/L	-18.545	ppb	19:50:32
1	Ba 233.527†	-4.2	4.4	0.0282	ug/L	0.0282	ppb	19:50:32
1	Be 313.107†	-4472.0	73.2	0.0242	ug/L	0.0242	ppb	19:50:12
1	Cd 226.502†	-235.0	-11.9	-0.1150	ug/L	-0.1150	ppb	19:50:32
1	Co 228.616†	-86.7	-2.9	-0.0504	ug/L	-0.0504	ppb	19:50:32
1	Cr 267.716†	95.4	-2.7	-0.0266	ug/L	-0.0266	ppb	19:50:32
1	Cu 324.752†	6132.3	113.7	0.3185	ug/L	0.3185	ppb	19:50:12
1	Mn 257.610†	507.2	21.4	0.0210	ug/L	0.0210	ppb	19:50:32
1	Mo 202.031†	27.9	2.6	0.1581	ug/L	0.1581	ppb	19:50:32
1	Ni 231.604†	125.1	24.2	0.5222	ug/L	0.5222	ppb	19:50:32
1	P 214.914†	241.9	-10.6	-5.4481	ug/L	-5.4481	ppb	19:50:32
1	Pb 220.353†	-89.7	-12.8	-1.3153	ug/L	-1.3153	ppb	19:50:32
1	S 181.975 Axial†	49.6	-8.6	-10.330	ug/L	-10.330	ppb	19:50:32
1	Sb 206.836†	42.3	0.4	0.1289	ug/L	0.1289	ppb	19:50:32
1	Se 196.026†	-27.5	1.0	0.5789	ug/L	0.5789	ppb	19:50:32
1	Si 251.611†	678.7	26.4	0.7213	ug/L	0.7213	ppb	19:50:32
1	Sn 189.927†	3.8	2.0	0.2899	ug/L	0.2899	ppb	19:50:32
1	Ti 334.940†	-1472.3	-18.7	-0.0248	ug/L	-0.0248	ppb	19:50:12
1	Tl 190.801†	-36.1	9.3	2.3758	ug/L	2.3758	ppb	19:50:32
1	U 409.014†	-2874.3	-178.0	-4.9423	ug/L	-4.9423	ppb	19:50:12
1	V 292.402†	-1561.7	-110.7	-0.7029	ug/L	-0.7029	ppb	19:50:12
1	Zn 213.857†	795.3	-0.7	-0.0120	ug/L	-0.0120	ppb	19:50:32
1	SiO2†	679.6	2.2	0.1026	ug/L	0.1026	ppb	19:51:28
2	Sc Radial	5669.4	5669.4	101	%			19:49:20
2	Y RADIAL	5923.4	5923.4	101.1	%			19:49:20
2	Al 396.153Radial†	-12.5	0.9	0.6621	ug/L	0.6621	ppb	19:49:20
2	Ca 317.933Radial†	23.2	5.0	6.9957	ug/L	6.9957	ppb	19:49:40
2	Fe 238.204 Radial†	11.9	0.6	4.3663	ug/L	4.3663	ppb	19:49:40
2	K 766.490 Radial†	2868.1	-45.7	-8.1692	ug/L	-8.1692	ppb	19:49:20
2	Mg 279.077 IEC†	5.7	3.4	102.30	ug/L	102.30	ppb	19:49:40
2	Na 589.592 Radial†	-1538.2	-256.0	-69.957	ug/L	-69.957	ppb	19:49:20
2	Sr 421.552†	46.9	40.6	0.2315	ug/L	0.2315	ppb	19:49:20
2	Sc 361.383	896760.9	896760.9	99.704	%			19:50:37
2	Y 371.029	744393.1	744393.1	100.20	%			19:50:37
2	Ag 328.068†	336.2	-62.2	-0.2649	ug/L	-0.2649	ppb	19:50:37
2	As 188.979†	-22.7	4.7	1.6914	ug/L	1.6914	ppb	19:50:57
2	B 249.677†	-452.4	-918.8	-18.745	ug/L	-18.745	ppb	19:50:57
2	Ba 233.527†	5.4	14.0	0.0926	ug/L	0.0926	ppb	19:50:57
2	Be 313.107†	-4429.3	152.7	0.0507	ug/L	0.0507	ppb	19:50:37
2	Cd 226.502†	-248.5	-23.5	-0.2255	ug/L	-0.2255	ppb	19:50:57
2	Co 228.616†	-69.5	15.0	0.2605	ug/L	0.2605	ppb	19:50:57
2	Cr 267.716†	113.0	14.1	0.1404	ug/L	0.1404	ppb	19:50:57
2	Cu 324.752†	6177.8	109.1	0.3051	ug/L	0.3051	ppb	19:50:37
2	Mn 257.610†	509.5	19.5	0.0176	ug/L	0.0176	ppb	19:50:57
2	Mo 202.031†	26.6	1.1	0.0642	ug/L	0.0642	ppb	19:50:57
2	Ni 231.604†	128.8	26.9	0.5802	ug/L	0.5802	ppb	19:50:57

2	P 214.914†	252.9	-1.5	-0.8014 ug/L	-0.8014 ppb	19:50:57
2	Pb 220.353†	-78.6	-1.0	-0.1000 ug/L	-0.1000 ppb	19:50:57
2	S 181.975 Axial†	55.9	-2.7	-3.2345 ug/L	-3.2345 ppb	19:50:57
2	Sb 206.836†	47.9	5.7	1.6891 ug/L	1.6891 ppb	19:50:57
2	Se 196.026†	-19.6	9.1	4.8644 ug/L	4.8644 ppb	19:50:57
2	Si 251.611†	693.3	35.6	0.9875 ug/L	0.9875 ppb	19:50:57
2	Sn 189.927†	10.2	8.4	1.2291 ug/L	1.2291 ppb	19:50:57
2	Ti 334.940†	-1443.7	22.0	0.0329 ug/L	0.0329 ppb	19:50:37
2	Tl 190.801†	-31.4	14.3	3.6600 ug/L	3.6600 ppb	19:50:57
2	U 409.014†	-2791.5	-71.4	-1.9832 ug/L	-1.9832 ppb	19:50:37
2	V 292.402†	-1574.1	-110.4	-0.6943 ug/L	-0.6943 ppb	19:50:37
2	Zn 213.857†	820.6	18.2	0.1394 ug/L	0.1394 ppb	19:50:57
2	SiO2†	715.9	33.1	1.9712 ug/L	1.9712 ppb	19:51:33
3	Sc Radial	5596.5	5596.5	100 %		19:49:45
3	Y RADIAL	5874.7	5874.7	100.2 %		19:49:45
3	Al 396.153Radial†	-19.7	-6.4	-4.4694 ug/L	-4.4694 ppb	19:49:45
3	Ca 317.933Radial†	19.2	1.3	1.8227 ug/L	1.8227 ppb	19:50:05
3	Fe 238.204 Radial†	10.1	-1.1	-8.9610 ug/L	-8.9610 ppb	19:50:05
3	K 766.490 Radial†	2799.5	-77.4	-13.876 ug/L	-13.876 ppb	19:49:45
3	Mg 279.077 IEC†	1.3	-0.9	-28.652 ug/L	-28.652 ppb	19:50:05
3	Na 589.592 Radial†	-1459.3	-196.9	-53.823 ug/L	-53.823 ppb	19:49:45
3	Sr 421.552†	10.0	4.3	0.0246 ug/L	0.0246 ppb	19:49:45
3	Sc 361.383	891449.1	891449.1	99.113 %		19:51:02
3	Y 371.029	739140.5	739140.5	99.494 %		19:51:02
3	Ag 328.068†	385.1	-10.8	-0.0466 ug/L	-0.0466 ppb	19:51:02
3	As 188.979†	-28.4	-1.2	-0.4324 ug/L	-0.4324 ppb	19:51:22
3	B 249.677†	-462.5	-931.6	-19.005 ug/L	-19.005 ppb	19:51:22
3	Ba 233.527†	2.9	11.5	0.0762 ug/L	0.0762 ppb	19:51:22
3	Be 313.107†	-4443.9	111.5	0.0369 ug/L	0.0369 ppb	19:51:02
3	Cd 226.502†	-230.9	-7.3	-0.0683 ug/L	-0.0683 ppb	19:51:22
3	Co 228.616†	-82.9	1.1	0.0185 ug/L	0.0185 ppb	19:51:22
3	Cr 267.716†	79.3	-19.2	-0.1904 ug/L	-0.1904 ppb	19:51:22
3	Cu 324.752†	6021.7	-11.5	-0.0325 ug/L	-0.0325 ppb	19:51:02
3	Mn 257.610†	528.5	41.7	0.0404 ug/L	0.0404 ppb	19:51:22
3	Mo 202.031†	20.4	-5.0	-0.2951 ug/L	-0.2951 ppb	19:51:22
3	Ni 231.604†	134.1	33.0	0.7112 ug/L	0.7112 ppb	19:51:22
3	P 214.914†	244.9	-8.1	-4.0740 ug/L	-4.0740 ppb	19:51:22
3	Pb 220.353†	-76.6	0.5	0.0514 ug/L	0.0514 ppb	19:51:22
3	S 181.975 Axial†	47.9	-10.4	-12.450 ug/L	-12.450 ppb	19:51:22
3	Sb 206.836†	38.9	-3.2	-0.9176 ug/L	-0.9176 ppb	19:51:22
3	Se 196.026†	-39.1	-10.7	-5.7270 ug/L	-5.7270 ppb	19:51:22
3	Si 251.611†	709.7	56.2	1.5692 ug/L	1.5692 ppb	19:51:22
3	Sn 189.927†	12.4	10.7	1.5688 ug/L	1.5688 ppb	19:51:22
3	Ti 334.940†	-1504.4	-47.8	-0.0665 ug/L	-0.0665 ppb	19:51:02
3	Tl 190.801†	-41.1	4.3	1.0965 ug/L	1.0965 ppb	19:51:22
3	U 409.014†	-2883.8	-181.2	-5.0279 ug/L	-5.0279 ppb	19:51:02
3	V 292.402†	-1526.8	-72.0	-0.4652 ug/L	-0.4652 ppb	19:51:02
3	Zn 213.857†	818.3	20.8	0.1649 ug/L	0.1649 ppb	19:51:22
3	SiO2†	734.9	56.5	3.3873 ug/L	3.3873 ppb	19:51:38

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	892568.8	99.238	%	0.4180				0.42%
Sc Radial	5567.3	99.6	%	2.14				2.14%
Y 371.029	740993.8	99.743	%	0.3968				0.40%
Y RADIAL	5839.0	99.62	%	1.821				1.83%
Ag 328.068†	-13.2	-0.0546	ug/L	0.20643	-0.0546	ppb	0.20643	378.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.9	-2.0226	ug/L	2.57403	-2.0226	ppb	2.57403	127.26%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.0	0.3776	ug/L	1.14805	0.3776	ppb	1.14805	304.08%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-919.8	-18.765	ug/L	0.2303	-18.765	ppb	0.2303	1.23%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.0	0.0657	ug/L	0.03344	0.0657	ppb	0.03344	50.91%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	112.5	0.0373	ug/L	0.01325	0.0373	ppb	0.01325	35.53%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.8	2.5444	ug/L	4.13794	2.5444	ppb	4.13794	162.63%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -14.2     -0.1363 ug/L       0.08073     -0.1363 ppb        0.08073  59.24%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                4.4      0.0762 ug/L       0.16327      0.0762 ppb        0.16327 214.30%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -2.6     -0.0255 ug/L       0.16539     -0.0255 ppb        0.16539 647.92%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               70.4      0.1970 ug/L       0.19888      0.1970 ppb        0.19888 100.94%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.3      2.5109 ug/L      10.66588      2.5109 ppb       10.66588 424.79%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         12.5      2.2805 ug/L      23.21778      2.2805 ppb       23.21778 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.5     44.244 ug/L       66.7261     44.244 ppb        66.7261 150.81%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               27.5      0.0263 ug/L       0.01228      0.0263 ppb        0.01228  46.67%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -0.4     -0.0243 ug/L       0.23918     -0.0243 ppb        0.23918 984.69%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -255.2     -69.747 ug/L       15.8205     -69.747 ppb        15.8205  22.68%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               28.1      0.6045 ug/L       0.09683      0.6045 ppb        0.09683  16.02%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -6.7     -3.4412 ug/L       2.38709     -3.4412 ppb        2.38709  69.37%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -4.4     -0.4546 ug/L       0.74922     -0.4546 ppb        0.74922 164.80%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -7.2     -8.6714 ug/L       4.82629     -8.6714 ppb        4.82629  55.66%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                1.0      0.3001 ug/L       1.31177      0.3001 ppb        1.31177 437.07%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -0.2     -0.0946 ug/L       5.32771     -0.0946 ppb        5.32771 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               39.4      1.0926 ug/L       0.43364      1.0926 ppb        0.43364  39.69%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                7.0      1.0293 ug/L       0.66245      1.0293 ppb        0.66245  64.36%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               12.9      0.0734 ug/L       0.14019      0.0734 ppb        0.14019 190.95%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -14.8     -0.0195 ug/L       0.04991     -0.0195 ppb        0.04991 256.57%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                9.3      2.3774 ug/L       1.28177      2.3774 ppb        1.28177  53.91%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -143.5     -3.9845 ug/L       1.73365     -3.9845 ppb        1.73365  43.51%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -97.7     -0.6208 ug/L       0.13481     -0.6208 ppb        0.13481  21.72%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               12.8      0.0974 ug/L       0.09560      0.0974 ppb        0.09560  98.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     30.6      1.8203 ug/L       1.64752      1.8203 ppb        1.64752  90.51%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 68
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/20/2009 20:27:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5498.7	5498.7	98.4	%			20:29:38
1	Y RADIAL	5703.1	5703.1	97.30	%			20:29:38
1	Al 396.153Radial†	6866.3	6990.6	4888.4	ug/L	4888.4	ppb	20:29:38
1	Ca 317.933Radial†	3465.2	3503.3	4890.9	ug/L	4890.9	ppb	20:29:58
1	Fe 238.204 Radial†	646.1	645.3	5122.0	ug/L	5122.0	ppb	20:29:58
1	K 766.490 Radial†	30048.6	27661.9	4957.6	ug/L	4957.6	ppb	20:29:38
1	Mg 279.077 IEC†	170.4	170.9	5163.6	ug/L	5163.6	ppb	20:29:58
1	Na 589.592 Radial†	35925.9	37766.6	10321	ug/L	10321	ppb	20:29:38
1	Sr 421.552†	86614.8	88009.1	502.07	ug/L	502.07	ppb	20:29:38
1	Sc 361.383	897591.6	897591.6	99.796	%			20:30:57
1	Y 371.029	728758.5	728758.5	98.096	%			20:30:57
1	Ag 328.068†	118075.6	117917.1	506.27	ug/L	506.27	ppb	20:30:57
1	As 188.979†	1397.5	1427.8	511.88	ug/L	511.88	ppb	20:31:18
1	B 249.677†	24198.5	23782.8	483.21	ug/L	483.21	ppb	20:30:57
1	Ba 233.527†	75511.2	75673.8	509.34	ug/L	509.34	ppb	20:30:57
1	Be 313.107†	1532992.3	1540714.8	512.33	ug/L	512.33	ppb	20:30:57
1	Cd 226.502†	52906.7	53240.4	511.30	ug/L	511.30	ppb	20:30:57
1	Co 228.616†	28947.6	29091.4	504.71	ug/L	504.71	ppb	20:31:18
1	Cr 267.716†	51130.5	51135.6	510.74	ug/L	510.74	ppb	20:30:57
1	Cu 324.752†	187280.6	181575.6	507.76	ug/L	507.76	ppb	20:30:57
1	Mn 257.610†	520929.0	521500.2	509.62	ug/L	509.62	ppb	20:30:57
1	Mo 202.031†	8542.3	8534.1	507.76	ug/L	507.76	ppb	20:31:18
1	Ni 231.604†	23712.5	23658.7	509.55	ug/L	509.55	ppb	20:31:18
1	P 214.914†	5208.0	4963.5	2447.6	ug/L	2447.6	ppb	20:31:18
1	Pb 220.353†	4902.9	4990.7	512.19	ug/L	512.19	ppb	20:31:18
1	S 181.975 Axial†	893.5	836.6	1001.3	ug/L	1001.3	ppb	20:31:18
1	Sb 206.836†	1740.7	1701.8	509.44	ug/L	509.44	ppb	20:31:18
1	Se 196.026†	915.2	945.8	523.13	ug/L	523.13	ppb	20:31:18
1	Si 251.611†	91316.4	90842.9	2516.7	ug/L	2516.7	ppb	20:30:57
1	Sn 189.927†	3461.4	3466.6	507.61	ug/L	507.61	ppb	20:31:18
1	Ti 334.940†	347002.8	349180.7	502.73	ug/L	502.73	ppb	20:30:57
1	Tl 190.801†	1939.8	1989.5	510.93	ug/L	510.93	ppb	20:31:18
1	U 409.014†	14767.7	17526.2	484.82	ug/L	484.82	ppb	20:30:57
1	V 292.402†	79062.4	80692.1	513.42	ug/L	513.42	ppb	20:30:57
1	Zn 213.857†	63892.8	63218.3	505.56	ug/L	505.56	ppb	20:30:57
1	SiO2†	92047.3	91550.1	5446.6	ug/L	5446.6	ppb	20:32:18
2	Sc Radial	5380.5	5380.5	96.3	%			20:30:03
2	Y RADIAL	5572.5	5572.5	95.07	%			20:30:03
2	Al 396.153Radial†	6859.5	7136.7	4991.1	ug/L	4991.1	ppb	20:30:03
2	Ca 317.933Radial†	3571.6	3691.2	5153.2	ug/L	5153.2	ppb	20:30:24
2	Fe 238.204 Radial†	668.2	682.7	5418.1	ug/L	5418.1	ppb	20:30:24
2	K 766.490 Radial†	30101.9	28387.5	5087.7	ug/L	5087.7	ppb	20:30:03
2	Mg 279.077 IEC†	181.0	185.6	5608.6	ug/L	5608.6	ppb	20:30:24
2	Na 589.592 Radial†	35760.6	38396.3	10493	ug/L	10493	ppb	20:30:03
2	Sr 421.552†	86637.0	89964.3	513.22	ug/L	513.22	ppb	20:30:03
2	Sc 361.383	899914.8	899914.8	100.05	%			20:31:25
2	Y 371.029	731023.6	731023.6	98.401	%			20:31:25
2	Ag 328.068†	118170.4	117706.4	505.47	ug/L	505.47	ppb	20:31:25
2	As 188.979†	1383.5	1410.2	505.66	ug/L	505.66	ppb	20:31:45
2	B 249.677†	24258.5	23780.2	483.13	ug/L	483.13	ppb	20:31:25
2	Ba 233.527†	75746.6	75713.8	509.61	ug/L	509.61	ppb	20:31:25
2	Be 313.107†	1535306.2	1539061.6	511.78	ug/L	511.78	ppb	20:31:25
2	Cd 226.502†	53003.3	53200.0	510.88	ug/L	510.88	ppb	20:31:25
2	Co 228.616†	28788.3	28857.3	500.64	ug/L	500.64	ppb	20:31:45
2	Cr 267.716†	51178.7	51051.5	509.91	ug/L	509.91	ppb	20:31:25
2	Cu 324.752†	187262.7	181073.2	506.37	ug/L	506.37	ppb	20:31:25
2	Mn 257.610†	521735.5	520958.6	509.11	ug/L	509.11	ppb	20:31:25
2	Mo 202.031†	8508.7	8478.4	504.48	ug/L	504.48	ppb	20:31:45
2	Ni 231.604†	23588.5	23473.4	505.56	ug/L	505.56	ppb	20:31:45

2	P 214.914†	5193.2	4935.2	2433.1 ug/L	2433.1 ppb	20:31:45
2	Pb 220.353†	4904.3	4979.4	511.03 ug/L	511.03 ppb	20:31:45
2	S 181.975 Axial†	887.9	828.7	991.83 ug/L	991.83 ppb	20:31:45
2	Sb 206.836†	1737.8	1694.4	507.14 ug/L	507.14 ppb	20:31:45
2	Se 196.026†	908.9	937.2	519.46 ug/L	519.46 ppb	20:31:45
2	Si 251.611†	91430.2	90720.4	2513.4 ug/L	2513.4 ppb	20:31:25
2	Sn 189.927†	3441.3	3437.6	503.40 ug/L	503.40 ppb	20:31:45
2	Ti 334.940†	347431.4	348711.4	502.07 ug/L	502.07 ppb	20:31:25
2	Tl 190.801†	1938.2	1982.9	509.25 ug/L	509.25 ppb	20:31:45
2	U 409.014†	14598.5	17318.8	479.03 ug/L	479.03 ppb	20:31:25
2	V 292.402†	79100.3	80525.5	512.28 ug/L	512.28 ppb	20:31:25
2	Zn 213.857†	64082.6	63242.7	505.75 ug/L	505.75 ppb	20:31:25
2	SiO2†	92481.6	91746.0	5458.4 ug/L	5458.4 ppb	20:32:23
3	Sc Radial	5401.5	5401.5	96.7 %		20:30:29
3	Y RADIAL	5607.0	5607.0	95.66 %		20:30:29
3	Al 396.153Radial†	6890.9	7141.5	4994.5 ug/L	4994.5 ppb	20:30:29
3	Ca 317.933Radial†	3523.4	3626.9	5063.4 ug/L	5063.4 ppb	20:30:49
3	Fe 238.204 Radial†	663.5	675.1	5357.9 ug/L	5357.9 ppb	20:30:49
3	K 766.490 Radial†	30139.2	28304.9	5072.9 ug/L	5072.9 ppb	20:30:29
3	Mg 279.077 IEC†	174.4	178.1	5381.5 ug/L	5381.5 ppb	20:30:49
3	Na 589.592 Radial†	35843.0	38337.4	10477 ug/L	10477 ppb	20:30:29
3	Sr 421.552†	86713.4	89694.1	511.68 ug/L	511.68 ppb	20:30:29
3	Sc 361.383	901274.2	901274.2	100.21 %		20:31:52
3	Y 371.029	732693.4	732693.4	98.626 %		20:31:52
3	Ag 328.068†	118486.5	117843.7	506.03 ug/L	506.03 ppb	20:31:52
3	As 188.979†	1401.9	1426.5	511.45 ug/L	511.45 ppb	20:32:12
3	B 249.677†	24275.6	23760.7	482.74 ug/L	482.74 ppb	20:31:52
3	Ba 233.527†	75597.4	75450.7	507.84 ug/L	507.84 ppb	20:31:52
3	Be 313.107†	1539377.4	1540810.2	512.36 ug/L	512.36 ppb	20:31:52
3	Cd 226.502†	52911.4	53028.4	509.24 ug/L	509.24 ppb	20:31:52
3	Co 228.616†	28798.3	28823.8	500.06 ug/L	500.06 ppb	20:32:12
3	Cr 267.716†	51296.8	51092.2	510.31 ug/L	510.31 ppb	20:31:52
3	Cu 324.752†	187781.0	181308.2	507.02 ug/L	507.02 ppb	20:31:52
3	Mn 257.610†	521604.4	520041.4	508.21 ug/L	508.21 ppb	20:31:52
3	Mo 202.031†	8514.5	8471.4	504.05 ug/L	504.05 ppb	20:32:12
3	Ni 231.604†	23609.4	23458.7	505.25 ug/L	505.25 ppb	20:32:12
3	P 214.914†	5224.0	4958.1	2444.7 ug/L	2444.7 ppb	20:32:12
3	Pb 220.353†	4895.8	4963.5	509.41 ug/L	509.41 ppb	20:32:12
3	S 181.975 Axial†	882.5	821.9	983.74 ug/L	983.74 ppb	20:32:12
3	Sb 206.836†	1734.7	1688.7	505.44 ug/L	505.44 ppb	20:32:12
3	Se 196.026†	909.0	935.9	518.59 ug/L	518.59 ppb	20:32:12
3	Si 251.611†	91405.7	90558.1	2508.9 ug/L	2508.9 ppb	20:31:52
3	Sn 189.927†	3447.7	3438.8	503.56 ug/L	503.56 ppb	20:32:12
3	Ti 334.940†	348037.5	348792.6	502.18 ug/L	502.18 ppb	20:31:52
3	Tl 190.801†	1936.3	1978.1	508.03 ug/L	508.03 ppb	20:32:12
3	U 409.014†	14809.8	17507.7	484.28 ug/L	484.28 ppb	20:31:52
3	V 292.402†	79271.2	80576.8	512.61 ug/L	512.61 ppb	20:31:52
3	Zn 213.857†	63979.4	63043.1	504.16 ug/L	504.16 ppb	20:31:52
3	SiO2†	92311.2	91436.6	5439.9 ug/L	5439.9 ppb	20:32:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899593.5	100.02	%	0.207				0.21%
Sc Radial	5426.9	97.1	%	1.13				1.16%
Y 371.029	730825.2	98.375	%	0.2658				0.27%
Y RADIAL	5627.5	96.01	%	1.155				1.20%
Ag 328.068†	117822.4	505.92	ug/L	0.412	505.92	ppb	0.412	0.08%
QC value within limits for Ag 328.068 Recovery = 101.18%								
Al 396.153Radial†	7089.6	4958.0	ug/L	60.33	4958.0	ppb	60.33	1.22%
QC value within limits for Al 396.153Radial Recovery = 99.16%								
As 188.979†	1421.5	509.66	ug/L	3.474	509.66	ppb	3.474	0.68%
QC value within limits for As 188.979 Recovery = 101.93%								
B 249.677†	23774.6	483.03	ug/L	0.252	483.03	ppb	0.252	0.05%
QC value within limits for B 249.677 Recovery = 96.61%								
Ba 233.527†	75612.7	508.93	ug/L	0.951	508.93	ppb	0.951	0.19%
QC value within limits for Ba 233.527 Recovery = 101.79%								
Be 313.107†	1540195.5	512.15	ug/L	0.327	512.15	ppb	0.327	0.06%
QC value within limits for Be 313.107 Recovery = 102.43%								
Ca 317.933Radial†	3607.1	5035.8	ug/L	133.29	5035.8	ppb	133.29	2.65%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.72%
Cd 226.502†            53156.3      510.48 ug/L         1.090      510.48 ppb          1.090   0.21%
   QC value within limits for Cd 226.502  Recovery = 102.10%
Co 228.616†            28924.2      501.80 ug/L         2.534      501.80 ppb          2.534   0.51%
   QC value within limits for Co 228.616  Recovery = 100.36%
Cr 267.716†            51093.1      510.32 ug/L         0.417      510.32 ppb          0.417   0.08%
   QC value within limits for Cr 267.716  Recovery = 102.06%
Cu 324.752†           181319.0      507.05 ug/L         0.695      507.05 ppb          0.695   0.14%
   QC value within limits for Cu 324.752  Recovery = 101.41%
Fe 238.204 Radial†       667.7      5299.3 ug/L        156.51      5299.3 ppb         156.51   2.95%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.99%
K 766.490 Radial†      28118.1      5039.4 ug/L         71.28      5039.4 ppb          71.28   1.41%
   QC value within limits for K 766.490 Radial  Recovery = 100.79%
Mg 279.077 IEC†          178.2      5384.5 ug/L        222.51      5384.5 ppb         222.51   4.13%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.69%
Mn 257.610†           520833.4      508.98 ug/L         0.711      508.98 ppb          0.711   0.14%
   QC value within limits for Mn 257.610  Recovery = 101.80%
Mo 202.031†             8494.7      505.43 ug/L         2.029      505.43 ppb          2.029   0.40%
   QC value within limits for Mo 202.031  Recovery = 101.09%
Na 589.592 Radial†     38166.7       10430 ug/L          95.0       10430 ppb           95.0   0.91%
   QC value within limits for Na 589.592 Radial  Recovery = 104.30%
Ni 231.604†            23530.2      506.79 ug/L         2.401      506.79 ppb          2.401   0.47%
   QC value within limits for Ni 231.604  Recovery = 101.36%
P 214.914†              4952.3      2441.8 ug/L          7.65      2441.8 ppb           7.65   0.31%
   QC value within limits for P 214.914  Recovery = 97.67%
Pb 220.353†             4977.9      510.88 ug/L         1.399      510.88 ppb          1.399   0.27%
   QC value within limits for Pb 220.353  Recovery = 102.18%
S 181.975 Axial†         829.0      992.29 ug/L         8.792      992.29 ppb          8.792   0.89%
   QC value within limits for S 181.975 Axial  Recovery = 99.23%
Sb 206.836†             1695.0      507.34 ug/L         2.011      507.34 ppb          2.011   0.40%
   QC value within limits for Sb 206.836  Recovery = 101.47%
Se 196.026†              939.6      520.39 ug/L         2.408      520.39 ppb          2.408   0.46%
   QC value within limits for Se 196.026  Recovery = 104.08%
Si 251.611†            90707.1      2513.0 ug/L          3.96      2513.0 ppb           3.96   0.16%
   QC value within limits for Si 251.611  Recovery = 100.52%
Sn 189.927†             3447.7      504.86 ug/L         2.385      504.86 ppb          2.385   0.47%
   QC value within limits for Sn 189.927  Recovery = 100.97%
Sr 421.552†            89222.5      508.99 ug/L         6.043      508.99 ppb          6.043   1.19%
   QC value within limits for Sr 421.552  Recovery = 101.80%
Ti 334.940†           348894.9      502.33 ug/L         0.353      502.33 ppb          0.353   0.07%
   QC value within limits for Ti 334.940  Recovery = 100.47%
Tl 190.801†             1983.5      509.40 ug/L         1.455      509.40 ppb          1.455   0.29%
   QC value within limits for Tl 190.801  Recovery = 101.88%
U 409.014†             17450.9      482.71 ug/L         3.198      482.71 ppb          3.198   0.66%
   QC value within limits for U 409.014  Recovery = 96.54%
V 292.402†             80598.1      512.77 ug/L         0.586      512.77 ppb          0.586   0.11%
   QC value within limits for V 292.402  Recovery = 102.55%
Zn 213.857†            63168.0      505.16 ug/L         0.872      505.16 ppb          0.872   0.17%
   QC value within limits for Zn 213.857  Recovery = 101.03%
SiO2†                  91577.6      5448.3 ug/L          9.35      5448.3 ppb           9.35   0.17%
   QC value within limits for SiO2  Recovery = 101.89%
All analyte(s) passed QC.
```

Sequence No.: 69
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/20/2009 20:34:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5680.3	5680.3	102	%			20:36:29
1	Y RADIAL	5947.2	5947.2	101.5	%			20:36:29
1	Al 396.153Radial†	-21.6	-8.0	-5.6271	ug/L	-5.6271	ppb	20:36:29
1	Ca 317.933Radial†	20.5	2.3	3.2731	ug/L	3.2731	ppb	20:36:49
1	Fe 238.204 Radial†	12.6	1.2	9.3674	ug/L	9.3674	ppb	20:36:49
1	K 766.490 Radial†	2868.7	-50.5	-9.0424	ug/L	-9.0424	ppb	20:36:29
1	Mg 279.077 IEC†	2.6	0.3	10.159	ug/L	10.159	ppb	20:36:49
1	Na 589.592 Radial†	-1484.6	-200.4	-54.758	ug/L	-54.758	ppb	20:36:29
1	Sr 421.552†	-0.3	-5.9	-0.0336	ug/L	-0.0336	ppb	20:36:29
1	Sc 361.383	885920.0	885920.0	98.499	%			20:37:46
1	Y 371.029	734560.8	734560.8	98.877	%			20:37:46
1	Ag 328.068†	447.6	55.0	0.2443	ug/L	0.2443	ppb	20:37:46
1	As 188.979†	-41.2	-14.4	-5.1140	ug/L	-5.1140	ppb	20:38:06
1	B 249.677†	-480.2	-952.5	-19.433	ug/L	-19.433	ppb	20:38:06
1	Ba 233.527†	15.9	24.7	0.1644	ug/L	0.1644	ppb	20:38:06
1	Be 313.107†	-4364.1	164.4	0.0542	ug/L	0.0542	ppb	20:37:46
1	Cd 226.502†	-221.6	0.7	0.0065	ug/L	0.0065	ppb	20:38:06
1	Co 228.616†	-72.2	11.4	0.1999	ug/L	0.1999	ppb	20:38:06
1	Cr 267.716†	58.7	-39.6	-0.3924	ug/L	-0.3924	ppb	20:37:46
1	Cu 324.752†	6181.8	189.0	0.5289	ug/L	0.5289	ppb	20:37:46
1	Mn 257.610†	509.2	25.4	0.0256	ug/L	0.0256	ppb	20:38:06
1	Mo 202.031†	31.0	5.9	0.3528	ug/L	0.3528	ppb	20:38:06
1	Ni 231.604†	123.2	22.8	0.4911	ug/L	0.4911	ppb	20:38:06
1	P 214.914†	240.2	-11.3	-5.8502	ug/L	-5.8502	ppb	20:38:06
1	Pb 220.353†	-76.3	0.3	0.0334	ug/L	0.0334	ppb	20:38:06
1	S 181.975 Axial†	55.3	-2.6	-3.1612	ug/L	-3.1612	ppb	20:38:06
1	Sb 206.836†	25.8	-16.2	-4.7605	ug/L	-4.7605	ppb	20:38:06
1	Se 196.026†	-27.8	0.6	0.3428	ug/L	0.3428	ppb	20:38:06
1	Si 251.611†	682.0	32.5	0.9001	ug/L	0.9001	ppb	20:38:06
1	Sn 189.927†	5.4	3.7	0.5356	ug/L	0.5356	ppb	20:38:06
1	Ti 334.940†	-1569.6	-123.5	-0.1723	ug/L	-0.1723	ppb	20:37:46
1	Tl 190.801†	-33.1	12.2	3.1190	ug/L	3.1190	ppb	20:38:06
1	U 409.014†	-3100.9	-419.8	-11.654	ug/L	-11.654	ppb	20:37:46
1	V 292.402†	-1583.5	-139.2	-0.8924	ug/L	-0.8924	ppb	20:37:46
1	Zn 213.857†	787.2	-5.6	-0.0500	ug/L	-0.0500	ppb	20:38:06
1	SiO2†	733.3	59.5	3.5471	ug/L	3.5471	ppb	20:39:02
2	Sc Radial	5565.5	5565.5	99.6	%			20:36:54
2	Y RADIAL	5884.4	5884.4	100.4	%			20:36:54
2	Al 396.153Radial†	-17.2	-4.0	-2.7912	ug/L	-2.7912	ppb	20:36:54
2	Ca 317.933Radial†	21.9	4.2	5.8128	ug/L	5.8128	ppb	20:37:14
2	Fe 238.204 Radial†	10.7	-0.5	-3.7804	ug/L	-3.7804	ppb	20:37:14
2	K 766.490 Radial†	2916.8	56.0	10.084	ug/L	10.084	ppb	20:36:54
2	Mg 279.077 IEC†	2.2	-0.0	-0.9803	ug/L	-0.9803	ppb	20:37:14
2	Na 589.592 Radial†	-1512.9	-258.9	-70.745	ug/L	-70.745	ppb	20:36:54
2	Sr 421.552†	4.5	-1.1	-0.0063	ug/L	-0.0063	ppb	20:36:54
2	Sc 361.383	904192.8	904192.8	100.53	%			20:38:11
2	Y 371.029	751605.7	751605.7	101.17	%			20:38:11
2	Ag 328.068†	446.0	44.3	0.1898	ug/L	0.1898	ppb	20:38:11
2	As 188.979†	-21.1	6.5	2.3242	ug/L	2.3242	ppb	20:38:31
2	B 249.677†	-456.3	-918.9	-18.745	ug/L	-18.745	ppb	20:38:31
2	Ba 233.527†	-4.0	4.6	0.0301	ug/L	0.0301	ppb	20:38:31
2	Be 313.107†	-4384.0	234.3	0.0778	ug/L	0.0778	ppb	20:38:11
2	Cd 226.502†	-241.2	-14.2	-0.1357	ug/L	-0.1357	ppb	20:38:31
2	Co 228.616†	-82.8	2.3	0.0397	ug/L	0.0397	ppb	20:38:31
2	Cr 267.716†	131.5	31.6	0.3157	ug/L	0.3157	ppb	20:38:11
2	Cu 324.752†	6179.3	59.7	0.1667	ug/L	0.1667	ppb	20:38:11
2	Mn 257.610†	517.3	23.0	0.0221	ug/L	0.0221	ppb	20:38:31
2	Mo 202.031†	20.8	-4.9	-0.2918	ug/L	-0.2918	ppb	20:38:31
2	Ni 231.604†	127.2	24.3	0.5232	ug/L	0.5232	ppb	20:38:31

2	P 214.914†	247.4	-9.1	-4.6269	ug/L	-4.6269 ppb	20:38:31
2	Pb 220.353†	-76.7	1.5	0.1510	ug/L	0.1510 ppb	20:38:31
2	S 181.975 Axial†	50.8	-8.2	-9.8487	ug/L	-9.8487 ppb	20:38:31
2	Sb 206.836†	33.5	-9.0	-2.6511	ug/L	-2.6511 ppb	20:38:31
2	Se 196.026†	-17.9	11.0	5.8323	ug/L	5.8323 ppb	20:38:31
2	Si 251.611†	685.4	22.0	0.6077	ug/L	0.6077 ppb	20:38:31
2	Sn 189.927†	13.8	11.9	1.7416	ug/L	1.7416 ppb	20:38:31
2	Ti 334.940†	-1455.1	22.6	0.0348	ug/L	0.0348 ppb	20:38:11
2	Tl 190.801†	-44.7	1.3	0.3400	ug/L	0.3400 ppb	20:38:31
2	U 409.014†	-2904.9	-161.2	-4.4755	ug/L	-4.4755 ppb	20:38:11
2	V 292.402†	-1539.7	-63.1	-0.4088	ug/L	-0.4088 ppb	20:38:11
2	Zn 213.857†	808.1	-1.0	-0.0114	ug/L	-0.0114 ppb	20:38:31
2	SiO2†	730.8	42.0	2.5005	ug/L	2.5005 ppb	20:39:07
3	Sc Radial	5549.9	5549.9	99.3	%		20:37:19
3	Y RADIAL	5814.9	5814.9	99.21	%		20:37:19
3	Al 396.153Radial†	-5.5	7.8	5.4868	ug/L	5.4868 ppb	20:37:19
3	Ca 317.933Radial†	24.8	7.1	9.9806	ug/L	9.9806 ppb	20:37:39
3	Fe 238.204 Radial†	11.5	0.4	3.0857	ug/L	3.0857 ppb	20:37:39
3	K 766.490 Radial†	2963.0	110.7	19.916	ug/L	19.916 ppb	20:37:19
3	Mg 279.077 IEC†	0.1	-2.2	-66.066	ug/L	-66.066 ppb	20:37:39
3	Na 589.592 Radial†	-1551.4	-301.9	-82.513	ug/L	-82.513 ppb	20:37:19
3	Sr 421.552†	14.8	9.2	0.0526	ug/L	0.0526 ppb	20:37:19
3	Sc 361.383	890809.0	890809.0	99.042	%		20:38:37
3	Y 371.029	739520.7	739520.7	99.545	%		20:38:37
3	Ag 328.068†	389.9	-5.7	-0.0240	ug/L	-0.0240 ppb	20:38:37
3	As 188.979†	-27.8	-0.6	-0.2108	ug/L	-0.2108 ppb	20:38:57
3	B 249.677†	-447.2	-916.5	-18.698	ug/L	-18.698 ppb	20:38:57
3	Ba 233.527†	8.8	17.5	0.1158	ug/L	0.1158 ppb	20:38:57
3	Be 313.107†	-4407.2	145.3	0.0482	ug/L	0.0482 ppb	20:38:37
3	Cd 226.502†	-209.4	14.4	0.1380	ug/L	0.1380 ppb	20:38:57
3	Co 228.616†	-79.0	4.9	0.0845	ug/L	0.0845 ppb	20:38:57
3	Cr 267.716†	109.9	11.8	0.1169	ug/L	0.1169 ppb	20:38:37
3	Cu 324.752†	6100.7	72.7	0.2033	ug/L	0.2033 ppb	20:38:37
3	Mn 257.610†	503.2	16.5	0.0177	ug/L	0.0177 ppb	20:38:57
3	Mo 202.031†	19.5	-5.9	-0.3492	ug/L	-0.3492 ppb	20:38:57
3	Ni 231.604†	118.1	17.0	0.3657	ug/L	0.3657 ppb	20:38:57
3	P 214.914†	233.9	-19.0	-9.6737	ug/L	-9.6737 ppb	20:38:57
3	Pb 220.353†	-61.0	16.2	1.6619	ug/L	1.6619 ppb	20:38:57
3	S 181.975 Axial†	47.3	-11.0	-13.131	ug/L	-13.131 ppb	20:38:57
3	Sb 206.836†	43.9	1.9	0.5520	ug/L	0.5520 ppb	20:38:57
3	Se 196.026†	-26.7	1.8	0.9903	ug/L	0.9903 ppb	20:38:57
3	Si 251.611†	705.1	52.1	1.4480	ug/L	1.4480 ppb	20:38:57
3	Sn 189.927†	5.8	4.1	0.5951	ug/L	0.5951 ppb	20:38:57
3	Ti 334.940†	-1452.4	3.6	0.0070	ug/L	0.0070 ppb	20:38:37
3	Tl 190.801†	-39.9	5.5	1.4018	ug/L	1.4018 ppb	20:38:57
3	U 409.014†	-2808.0	-106.8	-2.9652	ug/L	-2.9652 ppb	20:38:37
3	V 292.402†	-1570.2	-116.9	-0.7468	ug/L	-0.7468 ppb	20:38:37
3	Zn 213.857†	817.7	20.8	0.1670	ug/L	0.1670 ppb	20:38:57
3	SiO2†	728.6	50.7	3.0258	ug/L	3.0258 ppb	20:39:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	893640.6	99.357	%	1.0518				1.06%
Sc Radial	5598.5	100	%	1.3				1.27%
Y 371.029	741895.7	99.865	%	1.1801				1.18%
Y RADIAL	5882.2	100.4	%	1.13				1.13%
Ag 328.068†	31.2	0.1367	ug/L	0.14180	0.1367	ppb	0.14180	103.71%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.4	-0.9772	ug/L	5.77474	-0.9772	ppb	5.77474	590.96%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.8	-1.0002	ug/L	3.78141	-1.0002	ppb	3.78141	378.08%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-929.3	-18.959	ug/L	0.4113	-18.959	ppb	0.4113	2.17%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	15.6	0.1034	ug/L	0.06801	0.1034	ppb	0.06801	65.74%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	181.3	0.0601	ug/L	0.01564	0.0601	ppb	0.01564	26.03%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.6	6.3555	ug/L	3.38654	6.3555	ppb	3.38654	53.28%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                0.3      0.0029 ug/L       0.13690      0.0029 ppb        0.13690 >999.9%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                6.2      0.1081 ug/L       0.08265      0.1081 ppb        0.08265  76.49%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                1.2      0.0134 ug/L       0.36521      0.0134 ppb        0.36521 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              107.1      0.2996 ug/L       0.19937      0.2996 ppb        0.19937  66.54%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.4      2.8909 ug/L       6.57608      2.8909 ppb        6.57608 227.47%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         38.7      6.9859 ug/L      14.72574      6.9859 ppb       14.72574 210.79%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.6    -18.962 ug/L       41.1717     -18.962 ppb        41.1717 217.12%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               21.7      0.0218 ug/L       0.00397      0.0218 ppb        0.00397  18.20%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -1.6     -0.0961 ug/L       0.38980     -0.0961 ppb        0.38980 405.74%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -253.7     -69.339 ug/L       13.9311     -69.339 ppb        13.9311  20.09%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               21.3      0.4600 ug/L       0.08325      0.4600 ppb        0.08325  18.10%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -13.1     -6.7169 ug/L       2.63268     -6.7169 ppb        2.63268  39.19%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                6.0      0.6154 ug/L       0.90821      0.6154 ppb        0.90821 147.57%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -7.3     -8.7137 ug/L       5.08103     -8.7137 ppb        5.08103  58.31%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -7.8     -2.2865 ug/L       2.67495     -2.2865 ppb        2.67495 116.99%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                4.5      2.3885 ug/L       2.99994      2.3885 ppb        2.99994 125.60%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               35.5      0.9853 ug/L       0.42662      0.9853 ppb        0.42662  43.30%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                6.5      0.9574 ug/L       0.67977      0.9574 ppb        0.67977  71.00%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                0.8      0.0043 ug/L       0.04406      0.0043 ppb        0.04406 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -32.4     -0.0435 ug/L       0.11241     -0.0435 ppb        0.11241 258.18%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                6.3      1.6203 ug/L       1.40233      1.6203 ppb        1.40233  86.55%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -229.3     -6.3648 ug/L       4.64206     -6.3648 ppb        4.64206  72.93%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -106.4     -0.6827 ug/L       0.24814     -0.6827 ppb        0.24814  36.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                4.7      0.0352 ug/L       0.11576      0.0352 ppb        0.11576 328.66%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     50.7      3.0245 ug/L       0.52329      3.0245 ppb        0.52329  17.30%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 70
Sample ID: 1201994196|932266|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 72
Date Collected: 12/20/2009 20:41:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994196|932266|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5695.6	5695.6	102	%			20:43:14
1	Y RADIAL	5932.3	5932.3	101.2	%			20:43:14
1	Al 396.153Radial†	-16.6	-3.0	-2.0982	ug/L	-2.0982	ppb	20:43:14
1	Ca 317.933Radial†	24.1	5.8	8.0917	ug/L	8.0917	ppb	20:43:34
1	Fe 238.204 Radial†	11.8	0.4	3.1663	ug/L	3.1663	ppb	20:43:34
1	K 766.490 Radial†	2818.7	-107.2	-19.235	ug/L	-19.235	ppb	20:43:14
1	Mg 279.077 IEC†	2.5	0.2	6.9853	ug/L	6.9853	ppb	20:43:34
1	Na 589.592 Radial†	-1365.0	-79.1	-21.604	ug/L	-21.604	ppb	20:43:14
1	Sr 421.552†	11.4	5.5	0.0315	ug/L	0.0315	ppb	20:43:14
1	Sc 361.383	934535.3	934535.3	103.90	%			20:44:31
1	Y 371.029	769025.8	769025.8	103.52	%			20:44:31
1	Ag 328.068†	424.8	9.5	0.0437	ug/L	0.0437	ppb	20:44:36
1	As 188.979†	-40.5	-11.5	-4.0776	ug/L	-4.0776	ppb	20:44:56
1	B 249.677†	-495.6	-942.1	-19.219	ug/L	-19.219	ppb	20:44:56
1	Ba 233.527†	56.9	63.4	0.4260	ug/L	0.4260	ppb	20:44:56
1	Be 313.107†	-4442.4	319.6	0.1068	ug/L	0.1068	ppb	20:44:36
1	Cd 226.502†	-208.5	25.1	0.2412	ug/L	0.2412	ppb	20:44:56
1	Co 228.616†	-79.9	7.8	0.1363	ug/L	0.1363	ppb	20:44:56
1	Cr 267.716†	103.4	0.3	0.0041	ug/L	0.0041	ppb	20:44:56
1	Cu 324.752†	6167.0	-151.7	-0.4240	ug/L	-0.4240	ppb	20:44:36
1	Mn 257.610†	664.4	147.9	0.1446	ug/L	0.1446	ppb	20:44:56
1	Mo 202.031†	36.6	9.7	0.5770	ug/L	0.5770	ppb	20:44:56
1	Ni 231.604†	120.8	14.0	0.3008	ug/L	0.3008	ppb	20:44:56
1	P 214.914†	265.2	0.1	0.1017	ug/L	0.1017	ppb	20:44:56
1	Pb 220.353†	-84.1	-3.1	-0.3134	ug/L	-0.3134	ppb	20:44:56
1	S 181.975 Axial†	56.3	-4.6	-5.5173	ug/L	-5.5173	ppb	20:44:56
1	Sb 206.836†	41.6	-2.4	-0.6791	ug/L	-0.6791	ppb	20:44:56
1	Se 196.026†	-27.5	2.3	1.2495	ug/L	1.2495	ppb	20:44:56
1	Si 251.611†	942.3	247.0	6.8728	ug/L	6.8728	ppb	20:44:56
1	Sn 189.927†	3.3	1.3	0.1979	ug/L	0.1979	ppb	20:44:56
1	Ti 334.940†	-1259.2	258.1	0.3728	ug/L	0.3728	ppb	20:44:36
1	Tl 190.801†	-35.4	11.8	3.0032	ug/L	3.0032	ppb	20:44:56
1	U 409.014†	-2889.6	-52.7	-1.4633	ug/L	-1.4633	ppb	20:44:31
1	V 292.402†	-1484.8	39.4	0.2524	ug/L	0.2524	ppb	20:44:36
1	Zn 213.857†	1091.2	245.4	1.9771	ug/L	1.9771	ppb	20:44:56
1	SiO2†	977.7	256.0	15.297	ug/L	15.297	ppb	20:46:02
2	Sc Radial	5717.8	5717.8	102	%			20:43:39
2	Y RADIAL	5981.6	5981.6	102.0	%			20:43:39
2	Al 396.153Radial†	-3.3	10.1	7.0829	ug/L	7.0829	ppb	20:43:39
2	Ca 317.933Radial†	22.8	4.4	6.1744	ug/L	6.1744	ppb	20:43:59
2	Fe 238.204 Radial†	14.5	3.0	23.738	ug/L	23.738	ppb	20:43:59
2	K 766.490 Radial†	2855.2	-82.2	-14.732	ug/L	-14.732	ppb	20:43:39
2	Mg 279.077 IEC†	0.2	-2.1	-63.966	ug/L	-63.966	ppb	20:43:59
2	Na 589.592 Radial†	-1478.7	-185.0	-50.556	ug/L	-50.556	ppb	20:43:39
2	Sr 421.552†	-26.4	-31.4	-0.1791	ug/L	-0.1791	ppb	20:43:39
2	Sc 361.383	915800.4	915800.4	101.82	%			20:45:01
2	Y 371.029	753127.4	753127.4	101.38	%			20:45:01
2	Ag 328.068†	454.4	46.9	0.1997	ug/L	0.1997	ppb	20:45:06
2	As 188.979†	-15.5	12.3	4.3773	ug/L	4.3773	ppb	20:45:27
2	B 249.677†	-501.1	-957.2	-19.530	ug/L	-19.530	ppb	20:45:27
2	Ba 233.527†	42.9	50.7	0.3405	ug/L	0.3405	ppb	20:45:27
2	Be 313.107†	-4540.0	136.3	0.0457	ug/L	0.0457	ppb	20:45:06
2	Cd 226.502†	-225.2	4.6	0.0420	ug/L	0.0420	ppb	20:45:27
2	Co 228.616†	-79.9	6.3	0.1088	ug/L	0.1088	ppb	20:45:27
2	Cr 267.716†	110.2	9.0	0.0872	ug/L	0.0872	ppb	20:45:27
2	Cu 324.752†	6225.2	26.9	0.0763	ug/L	0.0763	ppb	20:45:06
2	Mn 257.610†	671.6	168.0	0.1676	ug/L	0.1676	ppb	20:45:27
2	Mo 202.031†	31.0	4.9	0.2925	ug/L	0.2925	ppb	20:45:27
2	Ni 231.604†	144.3	39.4	0.8493	ug/L	0.8493	ppb	20:45:27

2	P 214.914†	249.7	-10.0	-5.0795	ug/L	-5.0795 ppb	20:45:27
2	Pb 220.353†	-76.0	3.2	0.3233	ug/L	0.3233 ppb	20:45:27
2	S 181.975 Axial†	57.7	-2.1	-2.5498	ug/L	-2.5498 ppb	20:45:27
2	Sb 206.836†	41.5	-1.6	-0.4498	ug/L	-0.4498 ppb	20:45:27
2	Se 196.026†	-32.2	-2.9	-1.4524	ug/L	-1.4524 ppb	20:45:27
2	Si 251.611†	977.7	300.4	8.3578	ug/L	8.3578 ppb	20:45:27
2	Sn 189.927†	10.7	8.6	1.2650	ug/L	1.2650 ppb	20:45:27
2	Ti 334.940†	-1327.3	166.5	0.2362	ug/L	0.2362 ppb	20:45:06
2	Tl 190.801†	-42.8	3.7	0.9545	ug/L	0.9545 ppb	20:45:27
2	U 409.014†	-2460.3	312.1	8.6586	ug/L	8.6586 ppb	20:45:01
2	V 292.402†	-1536.2	-40.3	-0.2373	ug/L	-0.2373 ppb	20:45:06
2	Zn 213.857†	1093.9	269.5	2.1693	ug/L	2.1693 ppb	20:45:27
2	SiO2†	986.6	284.0	16.970	ug/L	16.970 ppb	20:46:07
3	Sc Radial	5587.0	5587.0	100.0	%		20:44:05
3	Y RADIAL	5851.6	5851.6	99.83	%		20:44:05
3	Al 396.153Radial†	-17.8	-4.5	-3.1335	ug/L	-3.1335 ppb	20:44:05
3	Ca 317.933Radial†	25.5	7.7	10.727	ug/L	10.727 ppb	20:44:25
3	Fe 238.204 Radial†	12.7	1.5	12.169	ug/L	12.169 ppb	20:44:25
3	K 766.490 Radial†	2934.3	62.2	11.191	ug/L	11.191 ppb	20:44:05
3	Mg 279.077 IEC†	3.0	0.8	22.633	ug/L	22.633 ppb	20:44:25
3	Na 589.592 Radial†	-1441.4	-181.5	-49.612	ug/L	-49.612 ppb	20:44:05
3	Sr 421.552†	7.4	1.8	0.0099	ug/L	0.0099 ppb	20:44:05
3	Sc 361.383	914768.0	914768.0	101.71	%		20:45:32
3	Y 371.029	753014.9	753014.9	101.36	%		20:45:32
3	Ag 328.068†	400.5	-5.6	-0.0190	ug/L	-0.0190 ppb	20:45:37
3	As 188.979†	-41.3	-13.2	-4.6637	ug/L	-4.6637 ppb	20:45:57
3	B 249.677†	-472.4	-929.5	-18.964	ug/L	-18.964 ppb	20:45:57
3	Ba 233.527†	39.7	47.6	0.3198	ug/L	0.3198 ppb	20:45:57
3	Be 313.107†	-4526.8	144.2	0.0483	ug/L	0.0483 ppb	20:45:37
3	Cd 226.502†	-218.8	10.6	0.1009	ug/L	0.1009 ppb	20:45:57
3	Co 228.616†	-86.4	-0.2	-0.0034	ug/L	-0.0034 ppb	20:45:57
3	Cr 267.716†	108.5	7.5	0.0750	ug/L	0.0750 ppb	20:45:57
3	Cu 324.752†	6247.3	55.5	0.1558	ug/L	0.1558 ppb	20:45:37
3	Mn 257.610†	672.1	169.3	0.1661	ug/L	0.1661 ppb	20:45:57
3	Mo 202.031†	27.8	1.8	0.1080	ug/L	0.1080 ppb	20:45:57
3	Ni 231.604†	117.2	13.0	0.2798	ug/L	0.2798 ppb	20:45:57
3	P 214.914†	255.8	-3.7	-1.9005	ug/L	-1.9005 ppb	20:45:57
3	Pb 220.353†	-75.2	3.9	0.3980	ug/L	0.3980 ppb	20:45:57
3	S 181.975 Axial†	55.5	-4.2	-5.0402	ug/L	-5.0402 ppb	20:45:57
3	Sb 206.836†	37.7	-5.3	-1.5620	ug/L	-1.5620 ppb	20:45:57
3	Se 196.026†	-27.8	1.5	0.8247	ug/L	0.8247 ppb	20:45:57
3	Si 251.611†	973.2	297.0	8.2607	ug/L	8.2607 ppb	20:45:57
3	Sn 189.927†	6.3	4.4	0.6453	ug/L	0.6453 ppb	20:45:57
3	Ti 334.940†	-1348.6	144.1	0.2087	ug/L	0.2087 ppb	20:45:37
3	Tl 190.801†	-41.3	5.1	1.3133	ug/L	1.3133 ppb	20:45:57
3	U 409.014†	-2830.1	-54.3	-1.5082	ug/L	-1.5082 ppb	20:45:32
3	V 292.402†	-1507.4	-13.7	-0.0888	ug/L	-0.0888 ppb	20:45:37
3	Zn 213.857†	1087.9	264.8	2.1321	ug/L	2.1321 ppb	20:45:57
3	SiO2†	1011.8	309.8	18.506	ug/L	18.506 ppb	20:46:12

Mean Data: 1201994196|932266|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	921701.2	102.48	%	1.237				1.21%
Sc Radial	5666.8	101	%	1.3				1.23%
Y 371.029	758389.4	102.09	%	1.240				1.21%
Y RADIAL	5921.8	101.0	%	1.12				1.11%
Ag 328.068†	16.9	0.0748	ug/L	0.11260	0.0748	ppb	0.11260	150.59%
Al 396.153Radial†	0.9	0.6170	ug/L	5.62345	0.6170	ppb	5.62345	911.36%
As 188.979†	-4.1	-1.4547	ug/L	5.05916	-1.4547	ppb	5.05916	347.79%
B 249.677†	-942.9	-19.237	ug/L	0.2834	-19.237	ppb	0.2834	1.47%
Ba 233.527†	53.9	0.3621	ug/L	0.05631	0.3621	ppb	0.05631	15.55%
Be 313.107†	200.0	0.0669	ug/L	0.03456	0.0669	ppb	0.03456	51.64%
Ca 317.933Radial†	6.0	8.3312	ug/L	2.28595	8.3312	ppb	2.28595	27.44%
Cd 226.502†	13.4	0.1280	ug/L	0.10235	0.1280	ppb	0.10235	79.95%
Co 228.616†	4.6	0.0806	ug/L	0.07399	0.0806	ppb	0.07399	91.81%
Cr 267.716†	5.6	0.0554	ug/L	0.04484	0.0554	ppb	0.04484	80.88%
Cu 324.752†	-23.1	-0.0640	ug/L	0.31430	-0.0640	ppb	0.31430	491.41%
Fe 238.204 Radial†	1.6	13.024	ug/L	10.3123	13.024	ppb	10.3123	79.18%
K 766.490 Radial†	-42.4	-7.5918	ug/L	16.42186	-7.5918	ppb	16.42186	216.31%

Mg 279.077 IEC†	-0.4	-11.449	ug/L	46.1487	-11.449	ppb	46.1487	403.08%
Mn 257.610†	161.7	0.1594	ug/L	0.01288	0.1594	ppb	0.01288	8.08%
Mo 202.031†	5.5	0.3259	ug/L	0.23627	0.3259	ppb	0.23627	72.50%
Na 589.592 Radial†	-148.5	-40.591	ug/L	16.4494	-40.591	ppb	16.4494	40.52%
Ni 231.604†	22.1	0.4766	ug/L	0.32292	0.4766	ppb	0.32292	67.75%
P 214.914†	-4.5	-2.2927	ug/L	2.61279	-2.2927	ppb	2.61279	113.96%
Pb 220.353†	1.3	0.1360	ug/L	0.39093	0.1360	ppb	0.39093	287.54%
S 181.975 Axial†	-3.6	-4.3691	ug/L	1.59350	-4.3691	ppb	1.59350	36.47%
Sb 206.836†	-3.1	-0.8969	ug/L	0.58724	-0.8969	ppb	0.58724	65.47%
Se 196.026†	0.3	0.2073	ug/L	1.45294	0.2073	ppb	1.45294	701.05%
Si 251.611†	281.5	7.8305	ug/L	0.83077	7.8305	ppb	0.83077	10.61%
Sn 189.927†	4.8	0.7027	ug/L	0.53586	0.7027	ppb	0.53586	76.25%
Sr 421.552†	-8.0	-0.0459	ug/L	0.11590	-0.0459	ppb	0.11590	252.48%
Ti 334.940†	189.6	0.2726	ug/L	0.08792	0.2726	ppb	0.08792	32.26%
Tl 190.801†	6.9	1.7570	ug/L	1.09404	1.7570	ppb	1.09404	62.27%
U 409.014†	68.4	1.8957	ug/L	5.85685	1.8957	ppb	5.85685	308.95%
V 292.402†	-4.8	-0.0246	ug/L	0.25108	-0.0246	ppb	0.25108	>999.9%
Zn 213.857†	259.9	2.0928	ug/L	0.10193	2.0928	ppb	0.10193	4.87%
SiO2†	283.3	16.924	ug/L	1.6049	16.924	ppb	1.6049	9.48%

Sequence No.: 71
Sample ID: 1201994197|932266|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 73
Date Collected: 12/20/2009 20:48:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994197|932266|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5636.1	5636.1	101	%			20:50:17
1	Y RADIAL	5855.5	5855.5	99.90	%			20:50:17
1	Al 396.153Radial†	6922.5	6876.1	4809.2	ug/L	4809.2	ppb	20:50:17
1	Ca 317.933Radial†	3520.6	3472.4	4847.7	ug/L	4847.7	ppb	20:50:37
1	Fe 238.204 Radial†	659.6	642.7	5100.9	ug/L	5100.9	ppb	20:50:37
1	K 766.490 Radial†	30327.2	27193.5	4875.8	ug/L	4875.8	ppb	20:50:17
1	Mg 279.077 IEC†	171.1	167.3	5055.8	ug/L	5055.8	ppb	20:50:37
1	Na 589.592 Radial†	17607.5	18715.7	5114.7	ug/L	5114.7	ppb	20:50:17
1	Sr 421.552†	87875.0	87112.1	496.95	ug/L	496.95	ppb	20:50:17
1	Sc 361.383	930896.2	930896.2	103.50	%			20:51:36
1	Y 371.029	756959.7	756959.7	101.89	%			20:51:36
1	Ag 328.068†	118687.0	114274.8	490.67	ug/L	490.67	ppb	20:51:36
1	As 188.979†	1367.5	1348.7	483.72	ug/L	483.72	ppb	20:51:56
1	B 249.677†	24228.3	22944.1	466.18	ug/L	466.18	ppb	20:51:36
1	Ba 233.527†	77316.7	74711.3	502.85	ug/L	502.85	ppb	20:51:36
1	Be 313.107†	1543885.3	1496281.8	497.56	ug/L	497.56	ppb	20:51:36
1	Cd 226.502†	52612.2	51059.1	490.33	ug/L	490.33	ppb	20:51:36
1	Co 228.616†	28235.7	27365.8	474.74	ug/L	474.74	ppb	20:51:56
1	Cr 267.716†	50948.6	49126.8	490.68	ug/L	490.68	ppb	20:51:36
1	Cu 324.752†	190645.0	178112.3	498.08	ug/L	498.08	ppb	20:51:36
1	Mn 257.610†	526502.7	508210.2	496.64	ug/L	496.64	ppb	20:51:36
1	Mo 202.031†	8334.6	8027.2	477.63	ug/L	477.63	ppb	20:51:56
1	Ni 231.604†	23413.0	22519.2	485.02	ug/L	485.02	ppb	20:51:56
1	P 214.914†	1353.1	1052.2	459.73	ug/L	459.73	ppb	20:51:56
1	Pb 220.353†	4853.9	4767.6	489.28	ug/L	489.28	ppb	20:51:56
1	S 181.975 Axial†	4230.4	4028.6	4825.6	ug/L	4825.6	ppb	20:51:56
1	Sb 206.836†	1748.0	1646.5	492.78	ug/L	492.78	ppb	20:51:56
1	Se 196.026†	882.0	880.9	488.34	ug/L	488.34	ppb	20:51:56
1	Si 251.611†	181152.1	174367.5	4842.4	ug/L	4842.4	ppb	20:51:36
1	Sn 189.927†	3525.6	3404.6	498.53	ug/L	498.53	ppb	20:51:56
1	Ti 334.940†	352101.4	341667.0	491.91	ug/L	491.91	ppb	20:51:36
1	Tl 190.801†	1926.1	1906.7	489.82	ug/L	489.82	ppb	20:51:56
1	U 409.014†	15709.3	17906.6	495.42	ug/L	495.42	ppb	20:51:36
1	V 292.402†	79906.0	78672.8	500.35	ug/L	500.35	ppb	20:51:36
1	Zn 213.857†	62930.0	59997.5	479.76	ug/L	479.76	ppb	20:51:36
1	SiO2†	180149.0	173373.2	10339	ug/L	10339	ppb	20:52:57
2	Sc Radial	5647.3	5647.3	101	%			20:50:42
2	Y RADIAL	5841.4	5841.4	99.66	%			20:50:42
2	Al 396.153Radial†	6973.1	6912.6	4834.0	ug/L	4834.0	ppb	20:50:42
2	Ca 317.933Radial†	3536.9	3481.6	4860.6	ug/L	4860.6	ppb	20:51:02
2	Fe 238.204 Radial†	662.0	643.8	5109.9	ug/L	5109.9	ppb	20:51:02
2	K 766.490 Radial†	30387.7	27193.6	4875.7	ug/L	4875.7	ppb	20:50:42
2	Mg 279.077 IEC†	172.3	168.2	5081.6	ug/L	5081.6	ppb	20:51:02
2	Na 589.592 Radial†	17641.6	18714.9	5114.5	ug/L	5114.5	ppb	20:50:42
2	Sr 421.552†	88527.1	87584.1	499.64	ug/L	499.64	ppb	20:50:42
2	Sc 361.383	893881.1	893881.1	99.384	%			20:52:04
2	Y 371.029	726452.7	726452.7	97.786	%			20:52:04
2	Ag 328.068†	116998.4	117324.4	503.72	ug/L	503.72	ppb	20:52:04
2	As 188.979†	1371.2	1407.2	504.58	ug/L	504.58	ppb	20:52:24
2	B 249.677†	23903.7	23586.9	479.24	ug/L	479.24	ppb	20:52:04
2	Ba 233.527†	76506.4	76989.3	518.17	ug/L	518.17	ppb	20:52:04
2	Be 313.107†	1520455.5	1534476.6	510.26	ug/L	510.26	ppb	20:52:04
2	Cd 226.502†	52077.5	52626.1	505.40	ug/L	505.40	ppb	20:52:04
2	Co 228.616†	28306.4	28566.6	495.58	ug/L	495.58	ppb	20:52:24
2	Cr 267.716†	50482.5	50696.3	506.35	ug/L	506.35	ppb	20:52:04
2	Cu 324.752†	187392.0	182466.7	510.25	ug/L	510.25	ppb	20:52:04
2	Mn 257.610†	520588.8	523324.7	511.40	ug/L	511.40	ppb	20:52:04
2	Mo 202.031†	8331.9	8358.0	497.29	ug/L	497.29	ppb	20:52:24
2	Ni 231.604†	23437.8	23480.9	505.73	ug/L	505.73	ppb	20:52:24

2	P 214.914†	1378.9	1132.3	498.79 ug/L	498.79 ppb	20:52:24
2	Pb 220.353†	4890.1	4998.2	512.92 ug/L	512.92 ppb	20:52:24
2	S 181.975 Axial†	4226.0	4193.5	5023.2 ug/L	5023.2 ppb	20:52:24
2	Sb 206.836†	1764.1	1732.7	518.62 ug/L	518.62 ppb	20:52:24
2	Se 196.026†	878.8	913.0	505.55 ug/L	505.55 ppb	20:52:24
2	Si 251.611†	178666.1	179113.9	4974.1 ug/L	4974.1 ppb	20:52:04
2	Sn 189.927†	3528.1	3548.1	519.53 ug/L	519.53 ppb	20:52:24
2	Ti 334.940†	347324.5	350947.8	505.26 ug/L	505.26 ppb	20:52:04
2	Tl 190.801†	1914.2	1971.9	506.49 ug/L	506.49 ppb	20:52:24
2	U 409.014†	15640.8	18466.1	510.92 ug/L	510.92 ppb	20:52:04
2	V 292.402†	78841.9	80799.1	513.99 ug/L	513.99 ppb	20:52:04
2	Zn 213.857†	62199.5	61780.3	493.99 ug/L	493.99 ppb	20:52:04
2	SiO2†	179793.4	180223.1	10748 ug/L	10748 ppb	20:53:02
3	Sc Radial	5558.4	5558.4	99.5 %		20:51:08
3	Y RADIAL	5775.3	5775.3	98.53 %		20:51:08
3	Al 396.153Radial†	6962.2	7012.1	4904.1 ug/L	4904.1 ppb	20:51:08
3	Ca 317.933Radial†	3555.2	3556.0	4964.5 ug/L	4964.5 ppb	20:51:28
3	Fe 238.204 Radial†	667.0	659.3	5232.7 ug/L	5232.7 ppb	20:51:28
3	K 766.490 Radial†	30388.5	27675.6	4962.3 ug/L	4962.3 ppb	20:51:08
3	Mg 279.077 IEC†	176.0	174.6	5276.0 ug/L	5276.0 ppb	20:51:28
3	Na 589.592 Radial†	17630.0	18982.5	5187.6 ug/L	5187.6 ppb	20:51:08
3	Sr 421.552†	88409.5	88867.7	506.97 ug/L	506.97 ppb	20:51:08
3	Sc 361.383	905506.3	905506.3	100.68 %		20:52:31
3	Y 371.029	735995.9	735995.9	99.071 %		20:52:31
3	Ag 328.068†	116557.9	115375.5	495.42 ug/L	495.42 ppb	20:52:31
3	As 188.979†	1382.8	1401.0	502.34 ug/L	502.34 ppb	20:52:51
3	B 249.677†	23918.0	23292.3	473.23 ug/L	473.23 ppb	20:52:31
3	Ba 233.527†	76304.6	75800.5	510.17 ug/L	510.17 ppb	20:52:31
3	Be 313.107†	1515356.9	1509771.1	502.04 ug/L	502.04 ppb	20:52:31
3	Cd 226.502†	51930.4	51807.3	497.52 ug/L	497.52 ppb	20:52:31
3	Co 228.616†	28312.4	28207.0	489.35 ug/L	489.35 ppb	20:52:51
3	Cr 267.716†	50334.2	49896.8	498.37 ug/L	498.37 ppb	20:52:31
3	Cu 324.752†	186545.9	179205.6	501.14 ug/L	501.14 ppb	20:52:31
3	Mn 257.610†	518777.2	514800.3	503.09 ug/L	503.09 ppb	20:52:31
3	Mo 202.031†	8347.1	8265.4	491.80 ug/L	491.80 ppb	20:52:51
3	Ni 231.604†	23462.3	23202.4	499.73 ug/L	499.73 ppb	20:52:51
3	P 214.914†	1361.2	1096.9	482.13 ug/L	482.13 ppb	20:52:51
3	Pb 220.353†	4876.1	4921.2	505.04 ug/L	505.04 ppb	20:52:51
3	S 181.975 Axial†	4233.0	4145.8	4966.1 ug/L	4966.1 ppb	20:52:51
3	Sb 206.836†	1742.3	1688.2	505.51 ug/L	505.51 ppb	20:52:51
3	Se 196.026†	862.1	885.1	491.04 ug/L	491.04 ppb	20:52:51
3	Si 251.611†	177992.8	176137.1	4891.3 ug/L	4891.3 ppb	20:52:31
3	Sn 189.927†	3552.0	3526.3	516.35 ug/L	516.35 ppb	20:52:51
3	Ti 334.940†	346119.1	345263.7	497.09 ug/L	497.09 ppb	20:52:31
3	Tl 190.801†	1930.9	1963.7	504.34 ug/L	504.34 ppb	20:52:51
3	U 409.014†	15351.7	17976.9	497.34 ug/L	497.34 ppb	20:52:31
3	V 292.402†	78615.0	79555.2	506.08 ug/L	506.08 ppb	20:52:31
3	Zn 213.857†	61998.9	60777.5	485.94 ug/L	485.94 ppb	20:52:31
3	SiO2†	179652.4	177760.4	10601 ug/L	10601 ppb	20:53:07

Mean Data: 1201994197|932266|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	910094.5	101.19	%	2.105				2.08%
Sc Radial	5613.9	100	%	0.9				0.86%
Y 371.029	739802.8	99.583	%	2.1006				2.11%
Y RADIAL	5824.1	99.36	%	0.730				0.74%
Ag 328.068†	115658.2	496.60	ug/L	6.605	496.60	ppb	6.605	1.33%
Al 396.153Radial†	6933.6	4849.1	ug/L	49.21	4849.1	ppb	49.21	1.01%
As 188.979†	1385.6	496.88	ug/L	11.451	496.88	ppb	11.451	2.30%
B 249.677†	23274.4	472.88	ug/L	6.536	472.88	ppb	6.536	1.38%
Ba 233.527†	75833.7	510.40	ug/L	7.665	510.40	ppb	7.665	1.50%
Be 313.107†	1513509.8	503.29	ug/L	6.442	503.29	ppb	6.442	1.28%
Ca 317.933Radial†	3503.3	4890.9	ug/L	64.04	4890.9	ppb	64.04	1.31%
Cd 226.502†	51830.8	497.75	ug/L	7.536	497.75	ppb	7.536	1.51%
Co 228.616†	28046.4	486.56	ug/L	10.701	486.56	ppb	10.701	2.20%
Cr 267.716†	49906.7	498.47	ug/L	7.835	498.47	ppb	7.835	1.57%
Cu 324.752†	179928.2	503.16	ug/L	6.331	503.16	ppb	6.331	1.26%
Fe 238.204 Radial†	648.6	5147.8	ug/L	73.63	5147.8	ppb	73.63	1.43%
K 766.490 Radial†	27354.2	4904.6	ug/L	49.97	4904.6	ppb	49.97	1.02%

Mg 279.077 IEC†	170.1	5137.8 ug/L	120.40	5137.8 ppb	120.40	2.34%
Mn 257.610†	515445.0	503.71 ug/L	7.399	503.71 ppb	7.399	1.47%
Mo 202.031†	8216.9	488.91 ug/L	10.145	488.91 ppb	10.145	2.07%
Na 589.592 Radial†	18804.4	5138.9 ug/L	42.16	5138.9 ppb	42.16	0.82%
Ni 231.604†	23067.5	496.82 ug/L	10.658	496.82 ppb	10.658	2.15%
P 214.914†	1093.8	480.22 ug/L	19.601	480.22 ppb	19.601	4.08%
Pb 220.353†	4895.7	502.41 ug/L	12.037	502.41 ppb	12.037	2.40%
S 181.975 Axial†	4122.6	4938.3 ug/L	101.65	4938.3 ppb	101.65	2.06%
Sb 206.836†	1689.1	505.64 ug/L	12.923	505.64 ppb	12.923	2.56%
Se 196.026†	893.0	494.98 ug/L	9.257	494.98 ppb	9.257	1.87%
Si 251.611†	176539.5	4902.6 ug/L	66.58	4902.6 ppb	66.58	1.36%
Sn 189.927†	3493.0	511.47 ug/L	11.316	511.47 ppb	11.316	2.21%
Sr 421.552†	87854.6	501.19 ug/L	5.183	501.19 ppb	5.183	1.03%
Ti 334.940†	345959.5	498.09 ug/L	6.733	498.09 ppb	6.733	1.35%
Tl 190.801†	1947.4	500.22 ug/L	9.071	500.22 ppb	9.071	1.81%
U 409.014†	18116.5	501.23 ug/L	8.449	501.23 ppb	8.449	1.69%
V 292.402†	79675.7	506.81 ug/L	6.849	506.81 ppb	6.849	1.35%
Zn 213.857†	60851.8	486.56 ug/L	7.135	486.56 ppb	7.135	1.47%
SiO2†	177118.9	10563 ug/L	207.0	10563 ppb	207.0	1.96%

Sequence No.: 72
Sample ID: 242753001|932266|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 74
Date Collected: 12/20/2009 20:55:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242753001|932266|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5512.4	5512.4	98.7	%			20:57:13
1	Y RADIAL	5720.5	5720.5	97.60	%			20:57:13
1	Al 396.153Radial†	22.1	35.7	25.029	ug/L	25.029	ppb	20:57:13
1	Ca 317.933Radial†	11372.1	11509.3	16068	ug/L	16068	ppb	20:57:13
1	Fe 238.204 Radial†	14.0	3.0	23.353	ug/L	23.353	ppb	20:57:33
1	K 766.490 Radial†	12561.9	9860.8	1763.2	ug/L	1763.2	ppb	20:57:13
1	Mg 279.077 IEC†	134.6	134.2	4049.5	ug/L	4049.5	ppb	20:57:33
1	Na 589.592 Radial†	39799.5	41602.2	11369	ug/L	11369	ppb	20:57:13
1	Sr 421.552†	13694.9	13876.0	79.017	ug/L	79.017	ppb	20:57:13
1	Sc 361.383	909172.4	909172.4	101.08	%			20:58:30
1	Y 371.029	741381.6	741381.6	99.796	%			20:58:30
1	Ag 328.068†	414.6	10.7	-0.1612	ug/L	-0.1612	ppb	20:58:30
1	As 188.979†	-38.8	-10.9	-3.8770	ug/L	-3.8770	ppb	20:58:50
1	B 249.677†	166.6	-300.3	-6.1282	ug/L	-6.1282	ppb	20:58:50
1	Ba 233.527†	3289.9	3263.2	21.923	ug/L	21.923	ppb	20:58:50
1	Be 313.107†	-4445.5	197.3	0.0618	ug/L	0.0618	ppb	20:58:30
1	Cd 226.502†	-220.5	7.6	0.0708	ug/L	0.0708	ppb	20:58:50
1	Co 228.616†	-87.8	-2.2	-0.0234	ug/L	-0.0234	ppb	20:58:50
1	Cr 267.716†	405.6	302.0	3.0216	ug/L	3.0216	ppb	20:58:50
1	Cu 324.752†	6707.8	548.8	1.5352	ug/L	1.5352	ppb	20:58:30
1	Mn 257.610†	36297.4	35416.6	34.509	ug/L	34.509	ppb	20:58:30
1	Mo 202.031†	39.2	13.3	0.7900	ug/L	0.7900	ppb	20:58:50
1	Ni 231.604†	119.8	16.2	0.3496	ug/L	0.3496	ppb	20:58:50
1	P 214.914†	303.5	45.1	22.376	ug/L	22.376	ppb	20:58:50
1	Pb 220.353†	-73.6	5.0	0.5190	ug/L	0.5190	ppb	20:58:50
1	S 181.975 Axial†	1545.7	1470.3	1761.6	ug/L	1761.6	ppb	20:58:50
1	Sb 206.836†	47.7	4.8	1.0042	ug/L	1.0042	ppb	20:58:50
1	Se 196.026†	-23.4	5.6	3.0643	ug/L	3.0643	ppb	20:58:50
1	Si 251.611†	1041366.6	1029539.4	28659	ug/L	28659	ppb	20:58:30
1	Sn 189.927†	-146.9	-147.1	-19.852	ug/L	-19.852	ppb	20:58:50
1	Ti 334.940†	-2796.0	-1296.0	-1.0305	ug/L	-1.0305	ppb	20:58:30
1	Tl 190.801†	-42.7	3.5	1.0740	ug/L	1.0740	ppb	20:58:50
1	U 409.014†	-2657.3	99.6	2.7552	ug/L	2.7552	ppb	20:58:30
1	V 292.402†	-544.4	929.8	5.9434	ug/L	5.9434	ppb	20:58:50
1	Zn 213.857†	1096.6	280.0	2.1145	ug/L	2.1145	ppb	20:58:50
1	SiO2†	1057467.6	1045442.7	62496	ug/L	62496	ppb	20:59:48
2	Sc Radial	5513.2	5513.2	98.7	%			20:57:38
2	Y RADIAL	5743.7	5743.7	97.99	%			20:57:38
2	Al 396.153Radial†	-28.0	-15.1	-10.657	ug/L	-10.657	ppb	20:57:38
2	Ca 317.933Radial†	11375.7	11511.2	16070	ug/L	16070	ppb	20:57:38
2	Fe 238.204 Radial†	15.7	4.7	36.943	ug/L	36.943	ppb	20:57:58
2	K 766.490 Radial†	12516.6	9812.9	1754.6	ug/L	1754.6	ppb	20:57:38
2	Mg 279.077 IEC†	132.2	131.7	3975.8	ug/L	3975.8	ppb	20:57:58
2	Na 589.592 Radial†	39776.0	41572.0	11361	ug/L	11361	ppb	20:57:38
2	Sr 421.552†	13723.1	13902.4	79.168	ug/L	79.168	ppb	20:57:38
2	Sc 361.383	905475.1	905475.1	100.67	%			20:58:56
2	Y 371.029	736945.2	736945.2	99.198	%			20:58:56
2	Ag 328.068†	485.3	82.7	0.1542	ug/L	0.1542	ppb	20:58:56
2	As 188.979†	-31.8	-4.1	-1.4646	ug/L	-1.4646	ppb	20:59:16
2	B 249.677†	182.2	-284.0	-5.7984	ug/L	-5.7984	ppb	20:59:16
2	Ba 233.527†	3275.2	3262.0	21.915	ug/L	21.915	ppb	20:59:16
2	Be 313.107†	-4479.2	145.9	0.0447	ug/L	0.0447	ppb	20:58:56
2	Cd 226.502†	-206.6	20.6	0.1939	ug/L	0.1939	ppb	20:59:16
2	Co 228.616†	-92.0	-6.7	-0.1007	ug/L	-0.1007	ppb	20:59:16
2	Cr 267.716†	413.9	312.0	3.1224	ug/L	3.1224	ppb	20:59:16
2	Cu 324.752†	6601.0	469.9	1.3152	ug/L	1.3152	ppb	20:58:56
2	Mn 257.610†	36333.2	35598.8	34.689	ug/L	34.689	ppb	20:58:56
2	Mo 202.031†	44.2	18.4	1.0947	ug/L	1.0947	ppb	20:59:16
2	Ni 231.604†	96.9	-6.0	-0.1284	ug/L	-0.1284	ppb	20:59:16

2	P 214.914†	298.7	41.5	20.605 ug/L	20.605 ppb	20:59:16
2	Pb 220.353†	-94.3	-15.9	-1.6294 ug/L	-1.6294 ppb	20:59:16
2	S 181.975 Axial†	1543.2	1474.1	1766.1 ug/L	1766.1 ppb	20:59:16
2	Sb 206.836†	42.4	-0.2	-0.4425 ug/L	-0.4425 ppb	20:59:16
2	Se 196.026†	-33.2	-4.2	-2.1243 ug/L	-2.1243 ppb	20:59:16
2	Si 251.611†	1041949.6	1034325.1	28792 ug/L	28792 ppb	20:58:56
2	Sn 189.927†	-132.4	-133.3	-17.834 ug/L	-17.834 ppb	20:59:16
2	Ti 334.940†	-2799.6	-1310.9	-1.0504 ug/L	-1.0504 ppb	20:58:56
2	Tl 190.801†	-40.2	5.9	1.6713 ug/L	1.6713 ppb	20:59:16
2	U 409.014†	-2766.5	-19.7	-0.5569 ug/L	-0.5569 ppb	20:58:56
2	V 292.402†	-492.1	979.6	6.2500 ug/L	6.2500 ppb	20:59:16
2	Zn 213.857†	1108.5	296.3	2.2507 ug/L	2.2507 ppb	20:59:16
2	SiO2†	1069670.7	1061835.8	63476 ug/L	63476 ppb	20:59:54
3	Sc Radial	5611.0	5611.0	100 %		20:58:03
3	Y RADIAL	5811.3	5811.3	99.14 %		20:58:03
3	Al 396.153Radial†	11.3	24.6	17.199 ug/L	17.199 ppb	20:58:03
3	Ca 317.933Radial†	11593.8	11527.4	16093 ug/L	16093 ppb	20:58:03
3	Fe 238.204 Radial†	16.1	4.8	38.037 ug/L	38.037 ppb	20:58:23
3	K 766.490 Radial†	12753.1	9827.4	1757.2 ug/L	1757.2 ppb	20:58:03
3	Mg 279.077 IEC†	136.1	133.3	4021.7 ug/L	4021.7 ppb	20:58:23
3	Na 589.592 Radial†	40399.4	41490.5	11339 ug/L	11339 ppb	20:58:03
3	Sr 421.552†	13955.7	13891.7	79.106 ug/L	79.106 ppb	20:58:03
3	Sc 361.383	906942.9	906942.9	100.84 %		20:59:22
3	Y 371.029	737527.1	737527.1	99.277 %		20:59:22
3	Ag 328.068†	394.3	-8.4	-0.2311 ug/L	-0.2311 ppb	20:59:22
3	As 188.979†	-29.8	-2.1	-0.7596 ug/L	-0.7596 ppb	20:59:42
3	B 249.677†	188.6	-278.0	-5.6772 ug/L	-5.6772 ppb	20:59:42
3	Ba 233.527†	3284.7	3266.0	21.942 ug/L	21.942 ppb	20:59:42
3	Be 313.107†	-4514.5	118.1	0.0355 ug/L	0.0355 ppb	20:59:22
3	Cd 226.502†	-221.9	5.7	0.0516 ug/L	0.0516 ppb	20:59:42
3	Co 228.616†	-78.2	7.1	0.1396 ug/L	0.1396 ppb	20:59:42
3	Cr 267.716†	420.2	317.5	3.1789 ug/L	3.1789 ppb	20:59:42
3	Cu 324.752†	6658.8	516.6	1.4457 ug/L	1.4457 ppb	20:59:22
3	Mn 257.610†	36439.2	35645.5	34.734 ug/L	34.734 ppb	20:59:22
3	Mo 202.031†	51.0	25.0	1.4893 ug/L	1.4893 ppb	20:59:42
3	Ni 231.604†	115.2	12.0	0.2591 ug/L	0.2591 ppb	20:59:42
3	P 214.914†	291.7	34.1	16.765 ug/L	16.765 ppb	20:59:42
3	Pb 220.353†	-76.8	1.6	0.1698 ug/L	0.1698 ppb	20:59:42
3	S 181.975 Axial†	1552.9	1481.2	1774.6 ug/L	1774.6 ppb	20:59:42
3	Sb 206.836†	30.2	-12.4	-4.0924 ug/L	-4.0924 ppb	20:59:42
3	Se 196.026†	-23.3	5.6	3.1388 ug/L	3.1388 ppb	20:59:42
3	Si 251.611†	1044341.2	1035021.8	28812 ug/L	28812 ppb	20:59:22
3	Sn 189.927†	-156.2	-156.7	-21.250 ug/L	-21.250 ppb	20:59:42
3	Ti 334.940†	-2793.1	-1299.9	-1.0316 ug/L	-1.0316 ppb	20:59:22
3	Tl 190.801†	-41.9	4.2	1.2464 ug/L	1.2464 ppb	20:59:42
3	U 409.014†	-2927.6	-175.0	-4.8671 ug/L	-4.8671 ppb	20:59:22
3	V 292.402†	-523.4	949.3	6.0581 ug/L	6.0581 ppb	20:59:42
3	Zn 213.857†	1098.6	284.7	2.1528 ug/L	2.1528 ppb	20:59:42
3	SiO2†	1064227.4	1054718.1	63051 ug/L	63051 ppb	21:00:00

Mean Data: 242753001|932266|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	907196.8	100.86	%	0.207				0.21%
Sc Radial	5545.5	99.2	%	1.01				1.02%
Y 371.029	738618.0	99.424	%	0.3245				0.33%
Y RADIAL	5758.5	98.24	%	0.805				0.82%
Ag 328.068†	28.3	-0.0794	ug/L	0.20528	-0.0794	ppb	0.20528	258.58%
Al 396.153Radial†	15.1	10.524	ug/L	18.7565	10.524	ppb	18.7565	178.23%
As 188.979†	-5.7	-2.0337	ug/L	1.63481	-2.0337	ppb	1.63481	80.38%
B 249.677†	-287.4	-5.8679	ug/L	0.23340	-5.8679	ppb	0.23340	3.98%
Ba 233.527†	3263.7	21.927	ug/L	0.0139	21.927	ppb	0.0139	0.06%
Be 313.107†	153.8	0.0473	ug/L	0.01335	0.0473	ppb	0.01335	28.20%
Ca 317.933Radial†	11516.0	16077	ug/L	13.9	16077	ppb	13.9	0.09%
Cd 226.502†	11.3	0.1054	ug/L	0.07720	0.1054	ppb	0.07720	73.24%
Co 228.616†	-0.6	0.0052	ug/L	0.12264	0.0052	ppb	0.12264	>999.9%
Cr 267.716†	310.5	3.1076	ug/L	0.07968	3.1076	ppb	0.07968	2.56%
Cu 324.752†	511.8	1.4320	ug/L	0.11061	1.4320	ppb	0.11061	7.72%
Fe 238.204 Radial†	4.1	32.778	ug/L	8.1803	32.778	ppb	8.1803	24.96%
K 766.490 Radial†	9833.7	1758.3	ug/L	4.41	1758.3	ppb	4.41	0.25%

Mg 279.077 IEC†	133.1	4015.7	ug/L	37.22	4015.7	ppb	37.22	0.93%
Mn 257.610†	35553.6	34.644	ug/L	0.1194	34.644	ppb	0.1194	0.34%
Mo 202.031†	18.9	1.1247	ug/L	0.35063	1.1247	ppb	0.35063	31.18%
Na 589.592 Radial†	41554.9	11356	ug/L	15.8	11356	ppb	15.8	0.14%
Ni 231.604†	7.4	0.1601	ug/L	0.25391	0.1601	ppb	0.25391	158.61%
P 214.914†	40.2	19.915	ug/L	2.8682	19.915	ppb	2.8682	14.40%
Pb 220.353†	-3.1	-0.3135	ug/L	1.15286	-0.3135	ppb	1.15286	367.70%
S 181.975 Axial†	1475.2	1767.5	ug/L	6.63	1767.5	ppb	6.63	0.37%
Sb 206.836†	-2.6	-1.1769	ug/L	2.62647	-1.1769	ppb	2.62647	223.17%
Se 196.026†	2.3	1.3596	ug/L	3.01737	1.3596	ppb	3.01737	221.93%
Si 251.611†	1032962.1	28754	ug/L	83.1	28754	ppb	83.1	0.29%
Sn 189.927†	-145.7	-19.645	ug/L	1.7175	-19.645	ppb	1.7175	8.74%
Sr 421.552†	13890.1	79.097	ug/L	0.0757	79.097	ppb	0.0757	0.10%
Ti 334.940†	-1302.2	-1.0375	ug/L	0.01120	-1.0375	ppb	0.01120	1.08%
Tl 190.801†	4.5	1.3305	ug/L	0.30739	1.3305	ppb	0.30739	23.10%
U 409.014†	-31.7	-0.8896	ug/L	3.82199	-0.8896	ppb	3.82199	429.63%
V 292.402†	952.9	6.0838	ug/L	0.15491	6.0838	ppb	0.15491	2.55%
Zn 213.857†	287.0	2.1727	ug/L	0.07026	2.1727	ppb	0.07026	3.23%
SiO2†	1053998.8	63008	ug/L	491.4	63008	ppb	491.4	0.78%

Sequence No.: 73
Sample ID: 1201994198|932266|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 75
Date Collected: 12/20/2009 21:02:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994198|932266|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5495.2	5495.2	98.3	%			21:04:04
1	Y RADIAL	5680.3	5680.3	96.91	%			21:04:04
1	Al 396.153Radial†	-15.0	-2.0	-1.4469	ug/L	-1.4469	ppb	21:04:04
1	Ca 317.933Radial†	11249.1	11420.2	15943	ug/L	15943	ppb	21:04:04
1	Fe 238.204 Radial†	12.8	1.8	14.592	ug/L	14.592	ppb	21:04:24
1	K 766.490 Radial†	12474.3	9811.5	1754.5	ug/L	1754.5	ppb	21:04:04
1	Mg 279.077 IEC†	134.7	134.7	4066.2	ug/L	4066.2	ppb	21:04:24
1	Na 589.592 Radial†	38578.2	40486.3	11064	ug/L	11064	ppb	21:04:04
1	Sr 421.552†	13513.7	13735.1	78.214	ug/L	78.214	ppb	21:04:04
1	Sc 361.383	906595.0	906595.0	100.80	%			21:05:21
1	Y 371.029	739485.5	739485.5	99.540	%			21:05:21
1	Ag 328.068†	465.6	62.5	0.0600	ug/L	0.0600	ppb	21:05:21
1	As 188.979†	-30.5	-2.8	-1.0021	ug/L	-1.0021	ppb	21:05:41
1	B 249.677†	100.7	-365.1	-7.4501	ug/L	-7.4501	ppb	21:05:41
1	Ba 233.527†	3283.5	3266.2	21.943	ug/L	21.943	ppb	21:05:41
1	Be 313.107†	-4496.3	134.3	0.0411	ug/L	0.0411	ppb	21:05:21
1	Cd 226.502†	-208.4	19.0	0.1814	ug/L	0.1814	ppb	21:05:41
1	Co 228.616†	-94.9	-9.4	-0.1480	ug/L	-0.1480	ppb	21:05:41
1	Cr 267.716†	421.7	319.2	3.1928	ug/L	3.1928	ppb	21:05:41
1	Cu 324.752†	6526.2	387.5	1.0839	ug/L	1.0839	ppb	21:05:21
1	Mn 257.610†	35828.0	35053.0	34.152	ug/L	34.152	ppb	21:05:21
1	Mo 202.031†	44.7	18.7	1.1148	ug/L	1.1148	ppb	21:05:41
1	Ni 231.604†	130.6	27.3	0.5876	ug/L	0.5876	ppb	21:05:41
1	P 214.914†	282.3	24.9	12.173	ug/L	12.173	ppb	21:05:41
1	Pb 220.353†	-82.3	-3.8	-0.3936	ug/L	-0.3936	ppb	21:05:41
1	S 181.975 Axial†	1561.7	1490.6	1785.8	ug/L	1785.8	ppb	21:05:41
1	Sb 206.836†	32.0	-10.7	-3.5381	ug/L	-3.5381	ppb	21:05:41
1	Se 196.026†	-24.7	4.3	2.3532	ug/L	2.3532	ppb	21:05:41
1	Si 251.611†	1039603.1	1030718.7	28692	ug/L	28692	ppb	21:05:21
1	Sn 189.927†	-140.5	-141.3	-19.005	ug/L	-19.005	ppb	21:05:41
1	Ti 334.940†	-2729.0	-1237.3	-0.9525	ug/L	-0.9525	ppb	21:05:21
1	Tl 190.801†	-34.0	12.0	3.2416	ug/L	3.2416	ppb	21:05:41
1	U 409.014†	-2656.4	92.9	2.5710	ug/L	2.5710	ppb	21:05:21
1	V 292.402†	-488.8	983.5	6.2862	ug/L	6.2862	ppb	21:05:41
1	Zn 213.857†	1102.0	288.4	2.1811	ug/L	2.1811	ppb	21:05:41
1	SiO2†	1058635.5	1049575.3	62743	ug/L	62743	ppb	21:06:38
2	Sc Radial	5628.3	5628.3	101	%			21:04:29
2	Y RADIAL	5851.5	5851.5	99.83	%			21:04:29
2	Al 396.153Radial†	6.4	19.6	13.741	ug/L	13.741	ppb	21:04:29
2	Ca 317.933Radial†	11562.1	11460.3	16000	ug/L	16000	ppb	21:04:29
2	Fe 238.204 Radial†	15.3	4.0	31.745	ug/L	31.745	ppb	21:04:49
2	K 766.490 Radial†	12731.1	9766.3	1746.3	ug/L	1746.3	ppb	21:04:29
2	Mg 279.077 IEC†	139.6	136.3	4113.0	ug/L	4113.0	ppb	21:04:49
2	Na 589.592 Radial†	39583.6	40556.4	11083	ug/L	11083	ppb	21:04:29
2	Sr 421.552†	13864.6	13758.4	78.347	ug/L	78.347	ppb	21:04:29
2	Sc 361.383	910750.3	910750.3	101.26	%			21:05:46
2	Y 371.029	740850.1	740850.1	99.724	%			21:05:46
2	Ag 328.068†	343.5	-60.1	-0.4589	ug/L	-0.4589	ppb	21:05:46
2	As 188.979†	-30.2	-2.4	-0.8445	ug/L	-0.8445	ppb	21:06:06
2	B 249.677†	96.0	-370.2	-7.5563	ug/L	-7.5563	ppb	21:06:06
2	Ba 233.527†	3291.1	3258.7	21.893	ug/L	21.893	ppb	21:06:06
2	Be 313.107†	-4513.3	138.0	0.0421	ug/L	0.0421	ppb	21:05:46
2	Cd 226.502†	-214.2	14.3	0.1341	ug/L	0.1341	ppb	21:06:06
2	Co 228.616†	-107.5	-21.4	-0.3574	ug/L	-0.3574	ppb	21:06:06
2	Cr 267.716†	415.2	310.8	3.1099	ug/L	3.1099	ppb	21:06:06
2	Cu 324.752†	6572.0	403.2	1.1287	ug/L	1.1287	ppb	21:05:46
2	Mn 257.610†	36026.6	35087.0	34.186	ug/L	34.186	ppb	21:05:46
2	Mo 202.031†	39.6	13.5	0.8071	ug/L	0.8071	ppb	21:06:06
2	Ni 231.604†	118.6	14.9	0.3208	ug/L	0.3208	ppb	21:06:06

2	P 214.914†	275.0	16.4	7.8460	ug/L	7.8460 ppb	21:06:06
2	Pb 220.353†	-63.8	14.8	1.5151	ug/L	1.5151 ppb	21:06:06
2	S 181.975 Axial†	1551.4	1473.4	1765.2	ug/L	1765.2 ppb	21:06:06
2	Sb 206.836†	38.9	-4.0	-1.6196	ug/L	-1.6196 ppb	21:06:06
2	Se 196.026†	-31.4	-2.2	-1.0656	ug/L	-1.0656 ppb	21:06:06
2	Si 251.611†	1047946.5	1034252.6	28790	ug/L	28790 ppb	21:05:46
2	Sn 189.927†	-155.2	-155.1	-21.022	ug/L	-21.022 ppb	21:06:06
2	Ti 334.940†	-2815.5	-1310.4	-1.0551	ug/L	-1.0551 ppb	21:05:46
2	Tl 190.801†	-51.3	-4.8	-1.0591	ug/L	-1.0591 ppb	21:06:06
2	U 409.014†	-2649.8	111.5	3.0850	ug/L	3.0850 ppb	21:05:46
2	V 292.402†	-500.7	974.0	6.2215	ug/L	6.2215 ppb	21:06:06
2	Zn 213.857†	1100.7	282.1	2.1297	ug/L	2.1297 ppb	21:06:06
2	SiO2†	1054180.9	1040384.3	62194	ug/L	62194 ppb	21:06:44
3	Sc Radial	5606.1	5606.1	100	%		21:04:54
3	Y RADIAL	5840.7	5840.7	99.65	%		21:04:54
3	Al 396.153Radial†	21.0	34.2	24.030	ug/L	24.030 ppb	21:04:54
3	Ca 317.933Radial†	11539.7	11483.6	16032	ug/L	16032 ppb	21:04:54
3	Fe 238.204 Radial†	14.2	3.0	23.639	ug/L	23.639 ppb	21:05:14
3	K 766.490 Radial†	12669.4	9755.1	1744.4	ug/L	1744.4 ppb	21:04:54
3	Mg 279.077 IEC†	140.9	138.2	4171.1	ug/L	4171.1 ppb	21:05:14
3	Na 589.592 Radial†	39191.6	40322.0	11019	ug/L	11019 ppb	21:04:54
3	Sr 421.552†	13736.3	13685.2	77.929	ug/L	77.929 ppb	21:04:54
3	Sc 361.383	909333.7	909333.7	101.10	%		21:06:12
3	Y 371.029	740014.9	740014.9	99.612	%		21:06:12
3	Ag 328.068†	398.5	-5.2	-0.2279	ug/L	-0.2279 ppb	21:06:12
3	As 188.979†	-29.0	-1.2	-0.4357	ug/L	-0.4357 ppb	21:06:32
3	B 249.677†	104.8	-361.4	-7.3762	ug/L	-7.3762 ppb	21:06:32
3	Ba 233.527†	3283.4	3256.2	21.877	ug/L	21.877 ppb	21:06:32
3	Be 313.107†	-4479.6	164.3	0.0511	ug/L	0.0511 ppb	21:06:12
3	Cd 226.502†	-214.3	13.8	0.1301	ug/L	0.1301 ppb	21:06:32
3	Co 228.616†	-81.4	4.2	0.0854	ug/L	0.0854 ppb	21:06:32
3	Cr 267.716†	444.4	340.4	3.4049	ug/L	3.4049 ppb	21:06:32
3	Cu 324.752†	6635.1	475.8	1.3311	ug/L	1.3311 ppb	21:06:12
3	Mn 257.610†	35946.0	35062.7	34.161	ug/L	34.161 ppb	21:06:12
3	Mo 202.031†	33.6	7.6	0.4552	ug/L	0.4552 ppb	21:06:32
3	Ni 231.604†	106.8	3.3	0.0719	ug/L	0.0719 ppb	21:06:32
3	P 214.914†	286.6	28.3	13.889	ug/L	13.889 ppb	21:06:32
3	Pb 220.353†	-78.4	0.3	0.0340	ug/L	0.0340 ppb	21:06:32
3	S 181.975 Axial†	1556.1	1480.4	1773.6	ug/L	1773.6 ppb	21:06:32
3	Sb 206.836†	46.0	3.1	0.4856	ug/L	0.4856 ppb	21:06:32
3	Se 196.026†	-42.2	-12.9	-6.8264	ug/L	-6.8264 ppb	21:06:32
3	Si 251.611†	1043676.8	1031641.7	28717	ug/L	28717 ppb	21:06:12
3	Sn 189.927†	-143.4	-143.6	-19.345	ug/L	-19.345 ppb	21:06:32
3	Ti 334.940†	-2707.8	-1208.2	-0.9065	ug/L	-0.9065 ppb	21:06:12
3	Tl 190.801†	-50.5	-4.2	-0.8941	ug/L	-0.8941 ppb	21:06:32
3	U 409.014†	-2629.5	127.5	3.5302	ug/L	3.5302 ppb	21:06:12
3	V 292.402†	-485.5	988.2	6.3090	ug/L	6.3090 ppb	21:06:32
3	Zn 213.857†	1106.3	289.4	2.1880	ug/L	2.1880 ppb	21:06:32
3	SiO2†	1050354.5	1038221.5	62064	ug/L	62064 ppb	21:06:50

Mean Data: 1201994198|932266|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	908893.0	101.05	%	0.235				0.23%
Sc Radial	5576.5	99.8	%	1.28				1.28%
Y 371.029	740116.8	99.625	%	0.0926				0.09%
Y RADIAL	5790.8	98.79	%	1.636				1.66%
Ag 328.068†	-0.9	-0.2089	ug/L	0.26000	-0.2089	ppb	0.26000	124.46%
Al 396.153Radial†	17.3	12.108	ug/L	12.8168	12.108	ppb	12.8168	105.85%
As 188.979†	-2.1	-0.7608	ug/L	0.29236	-0.7608	ppb	0.29236	38.43%
B 249.677†	-365.6	-7.4609	ug/L	0.09053	-7.4609	ppb	0.09053	1.21%
Ba 233.527†	3260.4	21.904	ug/L	0.0346	21.904	ppb	0.0346	0.16%
Be 313.107†	145.5	0.0448	ug/L	0.00552	0.0448	ppb	0.00552	12.34%
Ca 317.933Radial†	11454.7	15992	ug/L	44.8	15992	ppb	44.8	0.28%
Cd 226.502†	15.7	0.1485	ug/L	0.02852	0.1485	ppb	0.02852	19.21%
Co 228.616†	-8.9	-0.1400	ug/L	0.22153	-0.1400	ppb	0.22153	158.22%
Cr 267.716†	323.5	3.2358	ug/L	0.15213	3.2358	ppb	0.15213	4.70%
Cu 324.752†	422.2	1.1812	ug/L	0.13168	1.1812	ppb	0.13168	11.15%
Fe 238.204 Radial†	2.9	23.325	ug/L	8.5810	23.325	ppb	8.5810	36.79%
K 766.490 Radial†	9777.7	1748.4	ug/L	5.36	1748.4	ppb	5.36	0.31%

Mg 279.077 IEC†	136.4	4116.8	ug/L	52.55	4116.8	ppb	52.55	1.28%
Mn 257.610†	35067.6	34.167	ug/L	0.0177	34.167	ppb	0.0177	0.05%
Mo 202.031†	13.3	0.7924	ug/L	0.33003	0.7924	ppb	0.33003	41.65%
Na 589.592 Radial†	40454.9	11056	ug/L	32.9	11056	ppb	32.9	0.30%
Ni 231.604†	15.2	0.3268	ug/L	0.25788	0.3268	ppb	0.25788	78.91%
P 214.914†	23.2	11.303	ug/L	3.1140	11.303	ppb	3.1140	27.55%
Pb 220.353†	3.7	0.3852	ug/L	1.00161	0.3852	ppb	1.00161	260.03%
S 181.975 Axial†	1481.4	1774.9	ug/L	10.36	1774.9	ppb	10.36	0.58%
Sb 206.836†	-3.9	-1.5574	ug/L	2.01258	-1.5574	ppb	2.01258	129.23%
Se 196.026†	-3.6	-1.8463	ug/L	4.63935	-1.8463	ppb	4.63935	251.28%
Si 251.611†	1032204.3	28733	ug/L	51.0	28733	ppb	51.0	0.18%
Sn 189.927†	-146.7	-19.791	ug/L	1.0800	-19.791	ppb	1.0800	5.46%
Sr 421.552†	13726.2	78.163	ug/L	0.2135	78.163	ppb	0.2135	0.27%
Ti 334.940†	-1252.0	-0.9714	ug/L	0.07608	-0.9714	ppb	0.07608	7.83%
Tl 190.801†	1.0	0.4295	ug/L	2.43678	0.4295	ppb	2.43678	567.37%
U 409.014†	110.7	3.0621	ug/L	0.48003	3.0621	ppb	0.48003	15.68%
V 292.402†	981.9	6.2722	ug/L	0.04541	6.2722	ppb	0.04541	0.72%
Zn 213.857†	286.7	2.1662	ug/L	0.03187	2.1662	ppb	0.03187	1.47%
SiO2†	1042727.1	62334	ug/L	360.4	62334	ppb	360.4	0.58%

Sequence No.: 74
Sample ID: 1201994199|932266|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 76
Date Collected: 12/20/2009 21:09:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994199|932266|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5481.8	5481.8	98.1	%			21:11:15
1	Y RADIAL	5641.5	5641.5	96.25	%			21:11:15
1	Al 396.153Radial†	6813.6	6958.3	4866.8	ug/L	4866.8	ppb	21:10:55
1	Ca 317.933Radial†	14709.6	14975.4	20907	ug/L	20907	ppb	21:10:55
1	Fe 238.204 Radial†	654.5	655.9	5204.5	ug/L	5204.5	ppb	21:11:15
1	K 766.490 Radial†	39456.4	37345.0	6691.3	ug/L	6691.3	ppb	21:10:55
1	Mg 279.077 IEC†	305.3	308.9	9327.9	ug/L	9327.9	ppb	21:11:15
1	Na 589.592 Radial†	57396.8	59763.7	16332	ug/L	16332	ppb	21:10:55
1	Sr 421.552†	99438.2	101350.2	578.03	ug/L	578.03	ppb	21:10:55
1	Sc 361.383	922341.6	922341.6	102.55	%			21:12:14
1	Y 371.029	746358.4	746358.4	100.47	%			21:12:14
1	Ag 328.068†	117339.9	114024.7	489.44	ug/L	489.44	ppb	21:12:14
1	As 188.979†	1378.3	1371.5	491.81	ug/L	491.81	ppb	21:12:34
1	B 249.677†	24781.2	23700.3	481.61	ug/L	481.61	ppb	21:12:14
1	Ba 233.527†	79365.4	77401.9	520.93	ug/L	520.93	ppb	21:12:14
1	Be 313.107†	1543003.5	1509257.0	501.86	ug/L	501.86	ppb	21:12:14
1	Cd 226.502†	51856.2	50793.4	487.77	ug/L	487.77	ppb	21:12:14
1	Co 228.616†	27655.8	27053.3	469.33	ug/L	469.33	ppb	21:12:34
1	Cr 267.716†	50715.4	49356.0	492.99	ug/L	492.99	ppb	21:12:14
1	Cu 324.752†	191881.5	181026.5	506.23	ug/L	506.23	ppb	21:12:14
1	Mn 257.610†	556108.0	541797.9	529.37	ug/L	529.37	ppb	21:12:14
1	Mo 202.031†	8300.9	8069.0	480.12	ug/L	480.12	ppb	21:12:34
1	Ni 231.604†	22771.8	22103.7	476.07	ug/L	476.07	ppb	21:12:34
1	P 214.914†	1386.2	1096.6	480.77	ug/L	480.77	ppb	21:12:34
1	Pb 220.353†	4743.4	4703.3	482.71	ug/L	482.71	ppb	21:12:34
1	S 181.975 Axial†	5706.3	5505.7	6595.4	ug/L	6595.4	ppb	21:12:34
1	Sb 206.836†	1739.8	1654.2	494.86	ug/L	494.86	ppb	21:12:34
1	Se 196.026†	856.7	864.2	479.75	ug/L	479.75	ppb	21:12:34
1	Si 251.611†	1233242.9	1201938.6	33447	ug/L	33447	ppb	21:12:14
1	Sn 189.927†	3409.2	3322.7	488.23	ug/L	488.23	ppb	21:12:34
1	Ti 334.940†	348184.3	341002.4	491.79	ug/L	491.79	ppb	21:12:14
1	Tl 190.801†	1877.4	1876.6	482.32	ug/L	482.32	ppb	21:12:34
1	U 409.014†	15136.5	17488.7	483.81	ug/L	483.81	ppb	21:12:14
1	V 292.402†	80332.0	79804.3	507.55	ug/L	507.55	ppb	21:12:14
1	Zn 213.857†	62359.5	60005.1	479.71	ug/L	479.71	ppb	21:12:14
1	SiO2†	1225730.0	1194587.3	71387	ug/L	71387	ppb	21:13:35
2	Sc Radial	5445.8	5445.8	97.5	%			21:11:40
2	Y RADIAL	5598.8	5598.8	95.52	%			21:11:40
2	Al 396.153Radial†	6902.8	7095.8	4963.3	ug/L	4963.3	ppb	21:11:20
2	Ca 317.933Radial†	14941.3	15312.3	21377	ug/L	21377	ppb	21:11:20
2	Fe 238.204 Radial†	656.8	662.7	5258.7	ug/L	5258.7	ppb	21:11:40
2	K 766.490 Radial†	39942.3	38109.3	6828.3	ug/L	6828.3	ppb	21:11:20
2	Mg 279.077 IEC†	298.0	303.5	9164.3	ug/L	9164.3	ppb	21:11:40
2	Na 589.592 Radial†	58234.2	61009.6	16673	ug/L	16673	ppb	21:11:20
2	Sr 421.552†	100804.8	103422.4	589.85	ug/L	589.85	ppb	21:11:20
2	Sc 361.383	916111.7	916111.7	101.86	%			21:12:41
2	Y 371.029	741094.7	741094.7	99.757	%			21:12:41
2	Ag 328.068†	117318.9	114782.3	492.69	ug/L	492.69	ppb	21:12:41
2	As 188.979†	1392.2	1394.3	499.95	ug/L	499.95	ppb	21:13:01
2	B 249.677†	24806.4	23889.5	485.45	ug/L	485.45	ppb	21:12:41
2	Ba 233.527†	79266.0	77830.6	523.81	ug/L	523.81	ppb	21:12:41
2	Be 313.107†	1540975.8	1517498.5	504.60	ug/L	504.60	ppb	21:12:41
2	Cd 226.502†	51772.3	51054.9	490.27	ug/L	490.27	ppb	21:12:41
2	Co 228.616†	27682.4	27262.8	472.97	ug/L	472.97	ppb	21:13:01
2	Cr 267.716†	50639.9	49618.2	495.61	ug/L	495.61	ppb	21:12:41
2	Cu 324.752†	191207.4	181637.1	507.94	ug/L	507.94	ppb	21:12:41
2	Mn 257.610†	555874.4	545256.4	532.75	ug/L	532.75	ppb	21:12:41
2	Mo 202.031†	8299.9	8123.1	483.34	ug/L	483.34	ppb	21:13:01
2	Ni 231.604†	22766.5	22249.5	479.21	ug/L	479.21	ppb	21:13:01

2	P 214.914†	1381.1	1100.7	482.66 ug/L	482.66 ppb	21:13:01
2	Pb 220.353†	4743.3	4734.7	485.94 ug/L	485.94 ppb	21:13:01
2	S 181.975 Axial†	5700.1	5537.5	6633.5 ug/L	6633.5 ppb	21:13:01
2	Sb 206.836†	1752.7	1678.4	502.09 ug/L	502.09 ppb	21:13:01
2	Se 196.026†	860.5	873.6	484.99 ug/L	484.99 ppb	21:13:01
2	Si 251.611†	1231315.9	1208224.9	33621 ug/L	33621 ppb	21:12:41
2	Sn 189.927†	3421.0	3356.9	493.28 ug/L	493.28 ppb	21:13:01
2	Ti 334.940†	347850.3	342983.5	494.67 ug/L	494.67 ppb	21:12:41
2	Tl 190.801†	1892.7	1904.0	489.33 ug/L	489.33 ppb	21:13:01
2	U 409.014†	15165.1	17617.2	487.36 ug/L	487.36 ppb	21:12:41
2	V 292.402†	80260.7	80267.0	510.49 ug/L	510.49 ppb	21:12:41
2	Zn 213.857†	62371.6	60430.6	483.13 ug/L	483.13 ppb	21:12:41
2	SiO2†	1211572.8	1188816.3	71042 ug/L	71042 ppb	21:13:41
3	Sc Radial	5448.7	5448.7	97.5 %		21:12:05
3	Y RADIAL	5619.0	5619.0	95.86 %		21:12:05
3	Al 396.153Radial†	6709.6	6893.8	4821.4 ug/L	4821.4 ppb	21:11:45
3	Ca 317.933Radial†	14551.8	14904.7	20808 ug/L	20808 ppb	21:11:45
3	Fe 238.204 Radial†	653.9	659.4	5232.5 ug/L	5232.5 ppb	21:12:05
3	K 766.490 Radial†	38989.1	37110.2	6649.1 ug/L	6649.1 ppb	21:11:45
3	Mg 279.077 IEC†	306.5	312.0	9422.1 ug/L	9422.1 ppb	21:12:05
3	Na 589.592 Radial†	56545.2	59246.0	16191 ug/L	16191 ppb	21:11:45
3	Sr 421.552†	98020.5	100512.6	573.26 ug/L	573.26 ppb	21:11:45
3	Sc 361.383	917517.7	917517.7	102.01 %		21:13:09
3	Y 371.029	741487.6	741487.6	99.810 %		21:13:09
3	Ag 328.068†	117701.0	114980.4	493.54 ug/L	493.54 ppb	21:13:09
3	As 188.979†	1375.4	1375.7	493.33 ug/L	493.33 ppb	21:13:29
3	B 249.677†	24863.6	23908.3	485.83 ug/L	485.83 ppb	21:13:09
3	Ba 233.527†	79468.1	77909.4	524.35 ug/L	524.35 ppb	21:13:09
3	Be 313.107†	1543212.4	1517372.7	504.56 ug/L	504.56 ppb	21:13:09
3	Cd 226.502†	51846.8	51050.1	490.23 ug/L	490.23 ppb	21:13:09
3	Co 228.616†	27783.2	27320.0	473.96 ug/L	473.96 ppb	21:13:29
3	Cr 267.716†	50777.4	49676.8	496.19 ug/L	496.19 ppb	21:13:09
3	Cu 324.752†	192323.8	182443.8	510.19 ug/L	510.19 ppb	21:13:09
3	Mn 257.610†	556944.6	545469.1	532.96 ug/L	532.96 ppb	21:13:09
3	Mo 202.031†	8322.3	8132.6	483.91 ug/L	483.91 ppb	21:13:29
3	Ni 231.604†	22847.0	22294.2	480.17 ug/L	480.17 ppb	21:13:29
3	P 214.914†	1388.6	1106.0	484.98 ug/L	484.98 ppb	21:13:29
3	Pb 220.353†	4759.8	4743.7	486.84 ug/L	486.84 ppb	21:13:29
3	S 181.975 Axial†	5736.2	5564.3	6665.6 ug/L	6665.6 ppb	21:13:29
3	Sb 206.836†	1761.9	1684.8	504.01 ug/L	504.01 ppb	21:13:29
3	Se 196.026†	865.3	877.0	486.69 ug/L	486.69 ppb	21:13:29
3	Si 251.611†	1235787.2	1210755.5	33692 ug/L	33692 ppb	21:13:09
3	Sn 189.927†	3438.8	3369.2	495.01 ug/L	495.01 ppb	21:13:29
3	Ti 334.940†	348727.4	343319.9	495.12 ug/L	495.12 ppb	21:13:09
3	Tl 190.801†	1894.9	1903.3	489.15 ug/L	489.15 ppb	21:13:29
3	U 409.014†	15130.1	17560.1	485.78 ug/L	485.78 ppb	21:13:09
3	V 292.402†	80514.3	80394.9	511.31 ug/L	511.31 ppb	21:13:09
3	Zn 213.857†	62520.0	60482.1	483.53 ug/L	483.53 ppb	21:13:09
3	SiO2†	1227260.8	1202372.2	71852 ug/L	71852 ppb	21:13:47

Mean Data: 1201994199|932266|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	918657.0	102.14	%	0.363				0.36%
Sc Radial	5458.8	97.7	%	0.36				0.37%
Y 371.029	742980.3	100.01	%	0.395				0.39%
Y RADIAL	5619.8	95.88	%	0.364				0.38%
Ag 328.068†	114595.8	491.89	ug/L	2.164	491.89	ppb	2.164	0.44%
Al 396.153Radial†	6982.6	4883.8	ug/L	72.44	4883.8	ppb	72.44	1.48%
As 188.979†	1380.5	495.03	ug/L	4.329	495.03	ppb	4.329	0.87%
B 249.677†	23832.7	484.30	ug/L	2.337	484.30	ppb	2.337	0.48%
Ba 233.527†	77714.0	523.03	ug/L	1.839	523.03	ppb	1.839	0.35%
Be 313.107†	1514709.4	503.68	ug/L	1.571	503.68	ppb	1.571	0.31%
Ca 317.933Radial†	15064.1	21031	ug/L	304.0	21031	ppb	304.0	1.45%
Cd 226.502†	50966.1	489.42	ug/L	1.436	489.42	ppb	1.436	0.29%
Co 228.616†	27212.1	472.09	ug/L	2.436	472.09	ppb	2.436	0.52%
Cr 267.716†	49550.3	494.93	ug/L	1.707	494.93	ppb	1.707	0.34%
Cu 324.752†	181702.5	508.12	ug/L	1.988	508.12	ppb	1.988	0.39%
Fe 238.204 Radial†	659.3	5231.9	ug/L	27.09	5231.9	ppb	27.09	0.52%
K 766.490 Radial†	37521.5	6722.9	ug/L	93.66	6722.9	ppb	93.66	1.39%

Mg 279.077 IEC†	308.1	9304.8	ug/L	130.45	9304.8	ppb	130.45	1.40%
Mn 257.610†	544174.5	531.69	ug/L	2.015	531.69	ppb	2.015	0.38%
Mo 202.031†	8108.3	482.46	ug/L	2.041	482.46	ppb	2.041	0.42%
Na 589.592 Radial†	60006.4	16399	ug/L	247.7	16399	ppb	247.7	1.51%
Ni 231.604†	22215.8	478.48	ug/L	2.145	478.48	ppb	2.145	0.45%
P 214.914†	1101.1	482.80	ug/L	2.113	482.80	ppb	2.113	0.44%
Pb 220.353†	4727.3	485.16	ug/L	2.172	485.16	ppb	2.172	0.45%
S 181.975 Axial†	5535.9	6631.5	ug/L	35.14	6631.5	ppb	35.14	0.53%
Sb 206.836†	1672.5	500.32	ug/L	4.823	500.32	ppb	4.823	0.96%
Se 196.026†	871.6	483.81	ug/L	3.615	483.81	ppb	3.615	0.75%
Si 251.611†	1206973.0	33587	ug/L	126.3	33587	ppb	126.3	0.38%
Sn 189.927†	3349.6	492.17	ug/L	3.526	492.17	ppb	3.526	0.72%
Sr 421.552†	101761.7	580.38	ug/L	8.543	580.38	ppb	8.543	1.47%
Ti 334.940†	342435.3	493.86	ug/L	1.806	493.86	ppb	1.806	0.37%
Tl 190.801†	1894.6	486.93	ug/L	3.999	486.93	ppb	3.999	0.82%
U 409.014†	17555.3	485.65	ug/L	1.780	485.65	ppb	1.780	0.37%
V 292.402†	80155.4	509.78	ug/L	1.977	509.78	ppb	1.977	0.39%
Zn 213.857†	60305.9	482.12	ug/L	2.095	482.12	ppb	2.095	0.43%
SiO2†	1195258.6	71427	ug/L	406.7	71427	ppb	406.7	0.57%

Sequence No.: 75
Sample ID: 1201994200|932266|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 77
Date Collected: 12/20/2009 21:15:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994200|932266|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5709.8	5709.8	102	%			21:17:51
1	Y RADIAL	5940.8	5940.8	101.4	%			21:17:51
1	Al 396.153Radial†	-42.2	-28.0	-19.655	ug/L	-19.655	ppb	21:17:51
1	Ca 317.933Radial†	2302.8	2235.6	3121.1	ug/L	3121.1	ppb	21:18:11
1	Fe 238.204 Radial†	13.6	2.1	16.797	ug/L	16.797	ppb	21:18:11
1	K 766.490 Radial†	4761.6	1787.3	319.49	ug/L	319.49	ppb	21:17:51
1	Mg 279.077 IEC†	30.9	27.9	843.07	ug/L	843.07	ppb	21:18:11
1	Na 589.592 Radial†	6829.3	7943.0	2170.7	ug/L	2170.7	ppb	21:17:51
1	Sr 421.552†	2763.6	2698.8	15.368	ug/L	15.368	ppb	21:17:51
1	Sc 361.383	904115.1	904115.1	100.52	%			21:19:07
1	Y 371.029	749423.1	749423.1	100.88	%			21:19:07
1	Ag 328.068†	433.7	32.0	0.1072	ug/L	0.1072	ppb	21:19:07
1	As 188.979†	-33.9	-6.3	-2.2218	ug/L	-2.2218	ppb	21:19:27
1	B 249.677†	-308.1	-771.5	-15.741	ug/L	-15.741	ppb	21:19:27
1	Ba 233.527†	675.0	680.1	4.5698	ug/L	4.5698	ppb	21:19:27
1	Be 313.107†	-4440.2	177.9	0.0585	ug/L	0.0585	ppb	21:19:07
1	Cd 226.502†	-212.2	14.7	0.1395	ug/L	0.1395	ppb	21:19:27
1	Co 228.616†	-86.2	-1.1	-0.0179	ug/L	-0.0179	ppb	21:19:27
1	Cr 267.716†	179.7	79.6	0.7986	ug/L	0.7986	ppb	21:19:27
1	Cu 324.752†	6288.3	168.6	0.4721	ug/L	0.4721	ppb	21:19:07
1	Mn 257.610†	7561.3	7030.6	6.8508	ug/L	6.8508	ppb	21:19:27
1	Mo 202.031†	16.9	-8.7	-0.5161	ug/L	-0.5161	ppb	21:19:27
1	Ni 231.604†	131.4	28.4	0.6124	ug/L	0.6124	ppb	21:19:27
1	P 214.914†	255.4	-1.1	-0.7066	ug/L	-0.7066	ppb	21:19:27
1	Pb 220.353†	-83.2	-4.9	-0.5130	ug/L	-0.5130	ppb	21:19:27
1	S 181.975 Axial†	350.2	289.6	346.96	ug/L	346.96	ppb	21:19:27
1	Sb 206.836†	37.2	-5.4	-1.7163	ug/L	-1.7163	ppb	21:19:27
1	Se 196.026†	-34.0	-5.0	-2.6162	ug/L	-2.6162	ppb	21:19:27
1	Si 251.611†	212594.7	210831.5	5868.9	ug/L	5868.9	ppb	21:19:07
1	Sn 189.927†	-35.2	-36.9	-5.0705	ug/L	-5.0705	ppb	21:19:27
1	Ti 334.940†	-1653.0	-174.4	-0.0859	ug/L	-0.0859	ppb	21:19:07
1	Tl 190.801†	-41.1	4.9	1.2877	ug/L	1.2877	ppb	21:19:27
1	U 409.014†	-2969.7	-225.9	-6.2739	ug/L	-6.2739	ppb	21:19:07
1	V 292.402†	-1263.8	211.2	1.3231	ug/L	1.3231	ppb	21:19:27
1	Zn 213.857†	886.7	77.3	0.5892	ug/L	0.5892	ppb	21:19:27
1	SiO2†	211338.2	209556.4	12527	ug/L	12527	ppb	21:20:24
2	Sc Radial	5698.1	5698.1	102	%			21:18:16
2	Y RADIAL	5922.5	5922.5	101.0	%			21:18:16
2	Al 396.153Radial†	2.4	15.6	10.938	ug/L	10.938	ppb	21:18:16
2	Ca 317.933Radial†	2304.9	2242.3	3130.5	ug/L	3130.5	ppb	21:18:36
2	Fe 238.204 Radial†	12.2	0.7	5.8363	ug/L	5.8363	ppb	21:18:36
2	K 766.490 Radial†	4966.1	1997.3	357.18	ug/L	357.18	ppb	21:18:16
2	Mg 279.077 IEC†	33.4	30.5	919.80	ug/L	919.80	ppb	21:18:36
2	Na 589.592 Radial†	7026.0	8149.6	2227.2	ug/L	2227.2	ppb	21:18:16
2	Sr 421.552†	2781.6	2722.0	15.501	ug/L	15.501	ppb	21:18:16
2	Sc 361.383	895756.9	895756.9	99.592	%			21:19:33
2	Y 371.029	740799.8	740799.8	99.717	%			21:19:33
2	Ag 328.068†	385.2	-12.6	-0.0876	ug/L	-0.0876	ppb	21:19:33
2	As 188.979†	-20.9	6.5	2.3151	ug/L	2.3151	ppb	21:19:53
2	B 249.677†	-370.7	-837.2	-17.079	ug/L	-17.079	ppb	21:19:53
2	Ba 233.527†	687.5	698.9	4.6947	ug/L	4.6947	ppb	21:19:53
2	Be 313.107†	-4352.2	225.1	0.0739	ug/L	0.0739	ppb	21:19:33
2	Cd 226.502†	-200.6	24.3	0.2335	ug/L	0.2335	ppb	21:19:53
2	Co 228.616†	-99.7	-15.4	-0.2627	ug/L	-0.2627	ppb	21:19:53
2	Cr 267.716†	188.5	90.1	0.9024	ug/L	0.9024	ppb	21:19:53
2	Cu 324.752†	6253.4	192.0	0.5369	ug/L	0.5369	ppb	21:19:33
2	Mn 257.610†	7627.9	7167.6	6.9821	ug/L	6.9821	ppb	21:19:53
2	Mo 202.031†	33.8	8.4	0.4990	ug/L	0.4990	ppb	21:19:53
2	Ni 231.604†	122.3	20.6	0.4435	ug/L	0.4435	ppb	21:19:53

2	P 214.914†	262.3	8.2	3.9817 ug/L	3.9817 ppb	21:19:53
2	Pb 220.353†	-76.0	1.5	0.1603 ug/L	0.1603 ppb	21:19:53
2	S 181.975 Axial†	353.8	296.5	355.21 ug/L	355.21 ppb	21:19:53
2	Sb 206.836†	35.7	-6.6	-2.0621 ug/L	-2.0621 ppb	21:19:53
2	Se 196.026†	-25.1	3.6	1.9462 ug/L	1.9462 ppb	21:19:53
2	Si 251.611†	209724.9	209923.3	5843.6 ug/L	5843.6 ppb	21:19:33
2	Sn 189.927†	-43.6	-45.6	-6.3432 ug/L	-6.3432 ppb	21:19:53
2	Ti 334.940†	-1736.3	-273.4	-0.2273 ug/L	-0.2273 ppb	21:19:33
2	Tl 190.801†	-46.5	-0.9	-0.1946 ug/L	-0.1946 ppb	21:19:53
2	U 409.014†	-2991.8	-275.7	-7.6544 ug/L	-7.6544 ppb	21:19:33
2	V 292.402†	-1317.6	145.4	0.9253 ug/L	0.9253 ppb	21:19:53
2	Zn 213.857†	875.4	74.2	0.5630 ug/L	0.5630 ppb	21:19:53
2	SiO2†	209693.3	209866.4	12546 ug/L	12546 ppb	21:20:29
3	Sc Radial	5699.9	5699.9	102 %		21:18:41
3	Y RADIAL	5933.5	5933.5	101.2 %		21:18:41
3	Al 396.153Radial†	-18.3	-4.6	-3.2660 ug/L	-3.2660 ppb	21:18:41
3	Ca 317.933Radial†	2307.9	2244.5	3133.5 ug/L	3133.5 ppb	21:19:01
3	Fe 238.204 Radial†	11.6	0.1	1.0254 ug/L	1.0254 ppb	21:19:01
3	K 766.490 Radial†	4838.4	1870.6	334.44 ug/L	334.44 ppb	21:18:41
3	Mg 279.077 IEC†	28.9	26.1	787.64 ug/L	787.64 ppb	21:19:01
3	Na 589.592 Radial†	6969.2	8091.8	2211.4 ug/L	2211.4 ppb	21:18:41
3	Sr 421.552†	2832.7	2771.2	15.781 ug/L	15.781 ppb	21:18:41
3	Sc 361.383	907632.7	907632.7	100.91 %		21:19:58
3	Y 371.029	750353.0	750353.0	101.00 %		21:19:58
3	Ag 328.068†	450.9	47.5	0.1662 ug/L	0.1662 ppb	21:19:58
3	As 188.979†	-23.8	3.9	1.3829 ug/L	1.3829 ppb	21:20:18
3	B 249.677†	-357.0	-818.8	-16.704 ug/L	-16.704 ppb	21:20:18
3	Ba 233.527†	676.1	678.5	4.5583 ug/L	4.5583 ppb	21:20:18
3	Be 313.107†	-4486.7	149.0	0.0487 ug/L	0.0487 ppb	21:19:58
3	Cd 226.502†	-222.1	5.6	0.0545 ug/L	0.0545 ppb	21:20:18
3	Co 228.616†	-83.4	2.1	0.0404 ug/L	0.0404 ppb	21:20:18
3	Cr 267.716†	147.2	46.7	0.4691 ug/L	0.4691 ppb	21:20:18
3	Cu 324.752†	6201.5	58.4	0.1632 ug/L	0.1632 ppb	21:19:58
3	Mn 257.610†	7609.3	7049.0	6.8682 ug/L	6.8682 ppb	21:20:18
3	Mo 202.031†	33.4	7.6	0.4505 ug/L	0.4505 ppb	21:20:18
3	Ni 231.604†	128.9	25.5	0.5499 ug/L	0.5499 ppb	21:20:18
3	P 214.914†	260.6	3.1	1.4585 ug/L	1.4585 ppb	21:20:18
3	Pb 220.353†	-83.4	-4.8	-0.4909 ug/L	-0.4909 ppb	21:20:18
3	S 181.975 Axial†	354.3	292.3	350.23 ug/L	350.23 ppb	21:20:18
3	Sb 206.836†	40.3	-2.4	-0.7970 ug/L	-0.7970 ppb	21:20:18
3	Se 196.026†	-30.5	-1.4	-0.7492 ug/L	-0.7492 ppb	21:20:18
3	Si 251.611†	213442.9	210852.4	5869.4 ug/L	5869.4 ppb	21:19:58
3	Sn 189.927†	-32.3	-33.8	-4.6247 ug/L	-4.6247 ppb	21:20:18
3	Ti 334.940†	-1745.6	-259.8	-0.2084 ug/L	-0.2084 ppb	21:19:58
3	Tl 190.801†	-43.5	2.7	0.7199 ug/L	0.7199 ppb	21:20:18
3	U 409.014†	-2958.0	-202.9	-5.6326 ug/L	-5.6326 ppb	21:19:58
3	V 292.402†	-1297.7	182.4	1.1589 ug/L	1.1589 ppb	21:20:18
3	Zn 213.857†	884.6	71.8	0.5480 ug/L	0.5480 ppb	21:20:18
3	SiO2†	209795.4	207212.7	12387 ug/L	12387 ppb	21:20:34

Mean Data: 1201994200|932266|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902501.6	100.34	%	0.678				0.68%
Sc Radial	5702.6	102	%	0.1				0.11%
Y 371.029	746858.6	100.53	%	0.709				0.71%
Y RADIAL	5932.2	101.2	%	0.16				0.16%
Ag 328.068†	22.3	0.0619	ug/L	0.13280	0.0619	ppb	0.13280	214.41%
Al 396.153Radial†	-5.7	-3.9944	ug/L	15.30952	-3.9944	ppb	15.30952	383.27%
As 188.979†	1.4	0.4920	ug/L	2.39605	0.4920	ppb	2.39605	486.96%
B 249.677†	-809.2	-16.508	ug/L	0.6900	-16.508	ppb	0.6900	4.18%
Ba 233.527†	685.9	4.6076	ug/L	0.07566	4.6076	ppb	0.07566	1.64%
Be 313.107†	184.0	0.0604	ug/L	0.01270	0.0604	ppb	0.01270	21.03%
Ca 317.933Radial†	2240.8	3128.4	ug/L	6.46	3128.4	ppb	6.46	0.21%
Cd 226.502†	14.9	0.1425	ug/L	0.08953	0.1425	ppb	0.08953	62.83%
Co 228.616†	-4.8	-0.0801	ug/L	0.16085	-0.0801	ppb	0.16085	200.93%
Cr 267.716†	72.1	0.7234	ug/L	0.22623	0.7234	ppb	0.22623	31.27%
Cu 324.752†	139.7	0.3907	ug/L	0.19968	0.3907	ppb	0.19968	51.10%
Fe 238.204 Radial†	1.0	7.8861	ug/L	8.08291	7.8861	ppb	8.08291	102.50%
K 766.490 Radial†	1885.1	337.04	ug/L	18.980	337.04	ppb	18.980	5.63%

Mg 279.077 IEC†	28.2	850.17	ug/L	66.364	850.17	ppb	66.364	7.81%
Mn 257.610†	7082.4	6.9004	ug/L	0.07132	6.9004	ppb	0.07132	1.03%
Mo 202.031†	2.4	0.1445	ug/L	0.57257	0.1445	ppb	0.57257	396.27%
Na 589.592 Radial†	8061.5	2203.1	ug/L	29.12	2203.1	ppb	29.12	1.32%
Ni 231.604†	24.8	0.5353	ug/L	0.08542	0.5353	ppb	0.08542	15.96%
P 214.914†	3.4	1.5778	ug/L	2.34642	1.5778	ppb	2.34642	148.71%
Pb 220.353†	-2.7	-0.2812	ug/L	0.38252	-0.2812	ppb	0.38252	136.04%
S 181.975 Axial†	292.8	350.80	ug/L	4.157	350.80	ppb	4.157	1.18%
Sb 206.836†	-4.8	-1.5251	ug/L	0.65381	-1.5251	ppb	0.65381	42.87%
Se 196.026†	-0.9	-0.4731	ug/L	2.29372	-0.4731	ppb	2.29372	484.87%
Si 251.611†	210535.7	5860.6	ug/L	14.78	5860.6	ppb	14.78	0.25%
Sn 189.927†	-38.8	-5.3461	ug/L	0.89180	-5.3461	ppb	0.89180	16.68%
Sr 421.552†	2730.7	15.550	ug/L	0.2109	15.550	ppb	0.2109	1.36%
Ti 334.940†	-235.9	-0.1739	ug/L	0.07678	-0.1739	ppb	0.07678	44.16%
Tl 190.801†	2.2	0.6043	ug/L	0.74789	0.6043	ppb	0.74789	123.75%
U 409.014†	-234.8	-6.5203	ug/L	1.03318	-6.5203	ppb	1.03318	15.85%
V 292.402†	179.7	1.1357	ug/L	0.19991	1.1357	ppb	0.19991	17.60%
Zn 213.857†	74.4	0.5668	ug/L	0.02086	0.5668	ppb	0.02086	3.68%
SiO2†	208878.5	12487	ug/L	86.7	12487	ppb	86.7	0.69%

Sequence No.: 76
Sample ID: 242753002|932266|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 78
Date Collected: 12/20/2009 21:22:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242753002|932266|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5406.6	5406.6	96.8	%			21:24:39
1	Y RADIAL	5606.6	5606.6	95.65	%			21:24:39
1	Al 396.153Radial†	21.5	35.5	24.917	ug/L	24.917	ppb	21:24:39
1	Ca 317.933Radial†	11579.4	11949.0	16682	ug/L	16682	ppb	21:24:39
1	Fe 238.204 Radial†	12.8	2.1	16.240	ug/L	16.240	ppb	21:24:59
1	K 766.490 Radial†	12745.4	10299.5	1842.4	ug/L	1842.4	ppb	21:24:39
1	Mg 279.077 IEC†	136.1	138.4	4177.8	ug/L	4177.8	ppb	21:24:59
1	Na 589.592 Radial†	37734.1	40256.6	11001	ug/L	11001	ppb	21:24:39
1	Sr 421.552†	13560.9	14009.0	79.770	ug/L	79.770	ppb	21:24:39
1	Sc 361.383	920517.1	920517.1	102.35	%			21:25:56
1	Y 371.029	750039.9	750039.9	100.96	%			21:25:56
1	Ag 328.068†	338.6	-68.5	-0.5046	ug/L	-0.5046	ppb	21:25:56
1	As 188.979†	-29.0	-0.9	-0.3226	ug/L	-0.3226	ppb	21:26:16
1	B 249.677†	123.5	-344.4	-7.0269	ug/L	-7.0269	ppb	21:26:16
1	Ba 233.527†	3101.3	3038.8	20.417	ug/L	20.417	ppb	21:26:16
1	Be 313.107†	-4497.7	200.5	0.0632	ug/L	0.0632	ppb	21:25:56
1	Cd 226.502†	-213.6	17.0	0.1616	ug/L	0.1616	ppb	21:26:16
1	Co 228.616†	-91.9	-5.1	-0.0734	ug/L	-0.0734	ppb	21:26:16
1	Cr 267.716†	343.8	236.8	2.3730	ug/L	2.3730	ppb	21:26:16
1	Cu 324.752†	6238.1	8.1	0.0235	ug/L	0.0235	ppb	21:25:56
1	Mn 257.610†	1236.4	716.5	0.6235	ug/L	0.6235	ppb	21:26:16
1	Mo 202.031†	44.3	17.7	1.0558	ug/L	1.0558	ppb	21:26:16
1	Ni 231.604†	88.7	-15.6	-0.3362	ug/L	-0.3362	ppb	21:26:16
1	P 214.914†	297.6	35.6	17.797	ug/L	17.797	ppb	21:26:16
1	Pb 220.353†	-82.7	-3.0	-0.2986	ug/L	-0.2986	ppb	21:26:16
1	S 181.975 Axial†	1540.5	1446.4	1732.9	ug/L	1732.9	ppb	21:26:16
1	Sb 206.836†	22.9	-20.0	-6.3055	ug/L	-6.3055	ppb	21:26:16
1	Se 196.026†	-26.6	2.8	1.5500	ug/L	1.5500	ppb	21:26:16
1	Si 251.611†	1044359.5	1019767.2	28387	ug/L	28387	ppb	21:25:56
1	Sn 189.927†	-149.8	-148.1	-19.936	ug/L	-19.936	ppb	21:26:16
1	Ti 334.940†	-2718.5	-1186.2	-0.8376	ug/L	-0.8376	ppb	21:25:56
1	Tl 190.801†	-42.2	4.6	1.1494	ug/L	1.1494	ppb	21:26:16
1	U 409.014†	-2904.0	-109.1	-3.0346	ug/L	-3.0346	ppb	21:25:56
1	V 292.402†	-501.2	978.7	6.2471	ug/L	6.2471	ppb	21:26:16
1	Zn 213.857†	1062.2	233.0	1.7375	ug/L	1.7375	ppb	21:26:16
1	SiO2†	1062971.1	1037927.3	62047	ug/L	62047	ppb	21:27:13
2	Sc Radial	5472.8	5472.8	97.9	%			21:25:04
2	Y RADIAL	5664.2	5664.2	96.63	%			21:25:04
2	Al 396.153Radial†	-12.5	0.5	0.3189	ug/L	0.3189	ppb	21:25:04
2	Ca 317.933Radial†	11252.1	11470.1	16013	ug/L	16013	ppb	21:25:04
2	Fe 238.204 Radial†	15.6	4.7	37.244	ug/L	37.244	ppb	21:25:24
2	K 766.490 Radial†	12480.0	9869.3	1765.4	ug/L	1765.4	ppb	21:25:04
2	Mg 279.077 IEC†	138.1	138.7	4186.1	ug/L	4186.1	ppb	21:25:24
2	Na 589.592 Radial†	36827.5	38859.4	10620	ug/L	10620	ppb	21:25:04
2	Sr 421.552†	13200.3	13471.4	76.709	ug/L	76.709	ppb	21:25:04
2	Sc 361.383	917115.7	917115.7	101.97	%			21:26:21
2	Y 371.029	746613.5	746613.5	100.50	%			21:26:21
2	Ag 328.068†	444.0	36.0	-0.0475	ug/L	-0.0475	ppb	21:26:21
2	As 188.979†	-30.0	-1.9	-0.6971	ug/L	-0.6971	ppb	21:26:41
2	B 249.677†	75.3	-391.2	-7.9851	ug/L	-7.9851	ppb	21:26:41
2	Ba 233.527†	3126.2	3074.5	20.656	ug/L	20.656	ppb	21:26:41
2	Be 313.107†	-4438.4	242.3	0.0765	ug/L	0.0765	ppb	21:26:21
2	Cd 226.502†	-200.6	29.0	0.2752	ug/L	0.2752	ppb	21:26:41
2	Co 228.616†	-96.8	-10.2	-0.1627	ug/L	-0.1627	ppb	21:26:41
2	Cr 267.716†	359.7	253.6	2.5392	ug/L	2.5392	ppb	21:26:41
2	Cu 324.752†	6190.7	-15.7	-0.0421	ug/L	-0.0421	ppb	21:26:21
2	Mn 257.610†	1277.7	761.6	0.6694	ug/L	0.6694	ppb	21:26:41
2	Mo 202.031†	42.0	15.6	0.9295	ug/L	0.9295	ppb	21:26:41
2	Ni 231.604†	104.6	0.3	0.0062	ug/L	0.0062	ppb	21:26:41

2	P 214.914†	289.3	28.6	14.226	ug/L	14.226 ppb	21:26:41
2	Pb 220.353†	-81.7	-2.3	-0.2404	ug/L	-0.2404 ppb	21:26:41
2	S 181.975 Axial†	1552.1	1463.4	1753.3	ug/L	1753.3 ppb	21:26:41
2	Sb 206.836†	24.2	-18.7	-5.8891	ug/L	-5.8891 ppb	21:26:41
2	Se 196.026†	-29.3	0.1	0.1493	ug/L	0.1493 ppb	21:26:41
2	Si 251.611†	1049917.5	1029002.6	28644	ug/L	28644 ppb	21:26:21
2	Sn 189.927†	-143.7	-142.7	-19.216	ug/L	-19.216 ppb	21:26:41
2	Ti 334.940†	-2901.3	-1375.3	-1.1475	ug/L	-1.1475 ppb	21:26:21
2	Tl 190.801†	-48.8	-2.0	-0.5401	ug/L	-0.5401 ppb	21:26:41
2	U 409.014†	-2677.1	102.9	2.8458	ug/L	2.8458 ppb	21:26:21
2	V 292.402†	-532.4	946.3	6.0502	ug/L	6.0502 ppb	21:26:41
2	Zn 213.857†	1077.7	252.1	1.8877	ug/L	1.8877 ppb	21:26:41
2	SiO2†	1051932.6	1030953.7	61630	ug/L	61630 ppb	21:27:19
3	Sc Radial	5583.5	5583.5	99.9	%		21:25:29
3	Y RADIAL	5808.4	5808.4	99.10	%		21:25:29
3	Al 396.153Radial†	-18.1	-4.8	-3.4242	ug/L	-3.4242 ppb	21:25:29
3	Ca 317.933Radial†	11450.0	11440.4	15972	ug/L	15972 ppb	21:25:29
3	Fe 238.204 Radial†	14.2	3.0	23.925	ug/L	23.925 ppb	21:25:49
3	K 766.490 Radial†	12622.3	9759.0	1745.7	ug/L	1745.7 ppb	21:25:29
3	Mg 279.077 IEC†	134.4	132.3	3992.1	ug/L	3992.1 ppb	21:25:49
3	Na 589.592 Radial†	37473.7	38760.9	10593	ug/L	10593 ppb	21:25:29
3	Sr 421.552†	13417.3	13421.4	76.424	ug/L	76.424 ppb	21:25:29
3	Sc 361.383	917022.7	917022.7	101.96	%		21:26:47
3	Y 371.029	745876.5	745876.5	100.40	%		21:26:47
3	Ag 328.068†	417.1	9.7	-0.1566	ug/L	-0.1566 ppb	21:26:47
3	As 188.979†	-29.6	-1.6	-0.5601	ug/L	-0.5601 ppb	21:27:07
3	B 249.677†	112.8	-354.4	-7.2319	ug/L	-7.2319 ppb	21:27:07
3	Ba 233.527†	3145.6	3093.8	20.787	ug/L	20.787 ppb	21:27:07
3	Be 313.107†	-4547.4	135.0	0.0411	ug/L	0.0411 ppb	21:26:47
3	Cd 226.502†	-197.1	32.4	0.3085	ug/L	0.3085 ppb	21:27:07
3	Co 228.616†	-96.8	-10.2	-0.1612	ug/L	-0.1612 ppb	21:27:07
3	Cr 267.716†	352.0	246.1	2.4668	ug/L	2.4668 ppb	21:27:07
3	Cu 324.752†	6173.7	-31.8	-0.0877	ug/L	-0.0877 ppb	21:26:47
3	Mn 257.610†	1228.1	713.0	0.6243	ug/L	0.6243 ppb	21:27:07
3	Mo 202.031†	45.5	19.1	1.1375	ug/L	1.1375 ppb	21:27:07
3	Ni 231.604†	82.6	-21.3	-0.4585	ug/L	-0.4585 ppb	21:27:07
3	P 214.914†	279.5	19.0	9.3463	ug/L	9.3463 ppb	21:27:07
3	Pb 220.353†	-74.5	4.8	0.4884	ug/L	0.4884 ppb	21:27:07
3	S 181.975 Axial†	1558.3	1469.7	1760.8	ug/L	1760.8 ppb	21:27:07
3	Sb 206.836†	43.4	0.2	-0.3415	ug/L	-0.3415 ppb	21:27:07
3	Se 196.026†	-40.3	-10.7	-5.6389	ug/L	-5.6389 ppb	21:27:07
3	Si 251.611†	1047086.3	1026330.1	28570	ug/L	28570 ppb	21:26:47
3	Sn 189.927†	-151.4	-150.4	-20.333	ug/L	-20.333 ppb	21:27:07
3	Ti 334.940†	-2848.1	-1323.4	-1.0719	ug/L	-1.0719 ppb	21:26:47
3	Tl 190.801†	-41.9	4.7	1.1772	ug/L	1.1772 ppb	21:27:07
3	U 409.014†	-2925.5	-141.0	-3.9211	ug/L	-3.9211 ppb	21:26:47
3	V 292.402†	-474.9	1002.6	6.3914	ug/L	6.3914 ppb	21:27:07
3	Zn 213.857†	1056.8	231.6	1.7333	ug/L	1.7333 ppb	21:27:07
3	SiO2†	1054356.4	1033435.6	61778	ug/L	61778 ppb	21:27:25

Mean Data: 242753002|932266|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	918218.5	102.09	%	0.221				0.22%
Sc Radial	5487.6	98.2	%	1.60				1.63%
Y 371.029	747510.0	100.62	%	0.299				0.30%
Y RADIAL	5693.1	97.13	%	1.774				1.83%
Ag 328.068†	-7.6	-0.2363	ug/L	0.23874	-0.2363	ppb	0.23874	101.05%
Al 396.153Radial†	10.4	7.2706	ug/L	15.39649	7.2706	ppb	15.39649	211.76%
As 188.979†	-1.5	-0.5266	ug/L	0.18946	-0.5266	ppb	0.18946	35.98%
B 249.677†	-363.3	-7.4146	ug/L	0.50453	-7.4146	ppb	0.50453	6.80%
Ba 233.527†	3069.0	20.620	ug/L	0.1876	20.620	ppb	0.1876	0.91%
Be 313.107†	192.6	0.0603	ug/L	0.01791	0.0603	ppb	0.01791	29.73%
Ca 317.933Radial†	11619.8	16222	ug/L	398.5	16222	ppb	398.5	2.46%
Cd 226.502†	26.1	0.2485	ug/L	0.07704	0.2485	ppb	0.07704	31.01%
Co 228.616†	-8.5	-0.1324	ug/L	0.05115	-0.1324	ppb	0.05115	38.63%
Cr 267.716†	245.5	2.4597	ug/L	0.08334	2.4597	ppb	0.08334	3.39%
Cu 324.752†	-13.1	-0.0354	ug/L	0.05592	-0.0354	ppb	0.05592	157.94%
Fe 238.204 Radial†	3.3	25.803	ug/L	10.6272	25.803	ppb	10.6272	41.19%
K 766.490 Radial†	9975.9	1784.5	ug/L	51.13	1784.5	ppb	51.13	2.87%

Mg 279.077 IEC†	136.5	4118.6	ug/L	109.68	4118.6	ppb	109.68	2.66%
Mn 257.610†	730.4	0.6391	ug/L	0.02629	0.6391	ppb	0.02629	4.11%
Mo 202.031†	17.5	1.0409	ug/L	0.10484	1.0409	ppb	0.10484	10.07%
Na 589.592 Radial†	39292.3	10738	ug/L	228.6	10738	ppb	228.6	2.13%
Ni 231.604†	-12.2	-0.2628	ug/L	0.24091	-0.2628	ppb	0.24091	91.66%
P 214.914†	27.7	13.790	ug/L	4.2423	13.790	ppb	4.2423	30.76%
Pb 220.353†	-0.2	-0.0169	ug/L	0.43856	-0.0169	ppb	0.43856	>999.9%
S 181.975 Axial†	1459.8	1749.0	ug/L	14.43	1749.0	ppb	14.43	0.82%
Sb 206.836†	-12.8	-4.1787	ug/L	3.32960	-4.1787	ppb	3.32960	79.68%
Se 196.026†	-2.6	-1.3132	ug/L	3.81107	-1.3132	ppb	3.81107	290.21%
Si 251.611†	1025033.3	28534	ug/L	132.3	28534	ppb	132.3	0.46%
Sn 189.927†	-147.1	-19.828	ug/L	0.5664	-19.828	ppb	0.5664	2.86%
Sr 421.552†	13633.9	77.635	ug/L	1.8552	77.635	ppb	1.8552	2.39%
Ti 334.940†	-1295.0	-1.0190	ug/L	0.16158	-1.0190	ppb	0.16158	15.86%
Tl 190.801†	2.4	0.5955	ug/L	0.98357	0.5955	ppb	0.98357	165.18%
U 409.014†	-49.1	-1.3700	ug/L	3.67779	-1.3700	ppb	3.67779	268.46%
V 292.402†	975.9	6.2296	ug/L	0.17124	6.2296	ppb	0.17124	2.75%
Zn 213.857†	238.9	1.7862	ug/L	0.08794	1.7862	ppb	0.08794	4.92%
SiO2†	1034105.5	61818	ug/L	211.3	61818	ppb	211.3	0.34%

Sequence No.: 77
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/20/2009 21:29:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5512.8	5512.8	98.7	%			21:31:27
1	Y RADIAL	5751.4	5751.4	98.12	%			21:31:27
1	Al 396.153Radial†	6984.2	7092.2	4960.1	ug/L	4960.1	ppb	21:31:27
1	Ca 317.933Radial†	3552.3	3582.6	5001.6	ug/L	5001.6	ppb	21:31:47
1	Fe 238.204 Radial†	661.2	658.9	5229.4	ug/L	5229.4	ppb	21:31:47
1	K 766.490 Radial†	30668.4	28211.9	5056.3	ug/L	5056.3	ppb	21:31:27
1	Mg 279.077 IEC†	174.7	174.8	5280.6	ug/L	5280.6	ppb	21:31:47
1	Na 589.592 Radial†	36305.8	38058.1	10401	ug/L	10401	ppb	21:31:27
1	Sr 421.552†	87771.4	88956.0	507.47	ug/L	507.47	ppb	21:31:27
1	Sc 361.383	916728.8	916728.8	101.92	%			21:32:46
1	Y 371.029	744089.6	744089.6	100.16	%			21:32:46
1	Ag 328.068†	120110.6	117443.7	504.27	ug/L	504.27	ppb	21:32:46
1	As 188.979†	1398.7	1399.8	501.94	ug/L	501.94	ppb	21:33:06
1	B 249.677†	24672.9	23742.1	482.39	ug/L	482.39	ppb	21:32:46
1	Ba 233.527†	76568.3	75131.5	505.69	ug/L	505.69	ppb	21:32:46
1	Be 313.107†	1557566.3	1532757.5	509.68	ug/L	509.68	ppb	21:32:46
1	Cd 226.502†	53614.5	52828.1	507.33	ug/L	507.33	ppb	21:32:46
1	Co 228.616†	28976.4	28514.1	494.68	ug/L	494.68	ppb	21:33:06
1	Cr 267.716†	51770.9	50694.4	506.34	ug/L	506.34	ppb	21:32:46
1	Cu 324.752†	190578.4	180893.6	505.86	ug/L	505.86	ppb	21:32:46
1	Mn 257.610†	528708.3	518235.8	506.44	ug/L	506.44	ppb	21:32:46
1	Mo 202.031†	8548.1	8361.2	497.49	ug/L	497.49	ppb	21:33:06
1	Ni 231.604†	23728.6	23178.3	499.21	ug/L	499.21	ppb	21:33:06
1	P 214.914†	5242.3	4888.2	2409.4	ug/L	2409.4	ppb	21:33:06
1	Pb 220.353†	4902.5	4887.7	501.64	ug/L	501.64	ppb	21:33:06
1	S 181.975 Axial†	896.6	821.0	982.61	ug/L	982.61	ppb	21:33:06
1	Sb 206.836†	1735.1	1659.9	496.76	ug/L	496.76	ppb	21:33:06
1	Se 196.026†	922.0	933.4	516.83	ug/L	516.83	ppb	21:33:06
1	Si 251.611†	92770.3	90359.2	2503.5	ug/L	2503.5	ppb	21:32:46
1	Sn 189.927†	3458.5	3391.4	496.62	ug/L	496.62	ppb	21:33:06
1	Ti 334.940†	353010.9	347816.8	500.77	ug/L	500.77	ppb	21:32:46
1	Tl 190.801†	1960.3	1969.1	505.73	ug/L	505.73	ppb	21:33:06
1	U 409.014†	14955.4	17401.4	481.35	ug/L	481.35	ppb	21:32:46
1	V 292.402†	80203.3	80157.6	509.90	ug/L	509.90	ppb	21:32:46
1	Zn 213.857†	64933.3	62902.7	503.07	ug/L	503.07	ppb	21:32:46
1	SiO2†	92134.2	89709.9	5337.0	ug/L	5337.0	ppb	21:34:07
2	Sc Radial	5451.5	5451.5	97.6	%			21:31:52
2	Y RADIAL	5636.9	5636.9	96.17	%			21:31:52
2	Al 396.153Radial†	6888.7	7074.0	4947.3	ug/L	4947.3	ppb	21:31:52
2	Ca 317.933Radial†	3581.8	3653.3	5100.3	ug/L	5100.3	ppb	21:32:12
2	Fe 238.204 Radial†	666.1	671.5	5328.9	ug/L	5328.9	ppb	21:32:12
2	K 766.490 Radial†	30171.3	28051.9	5027.6	ug/L	5027.6	ppb	21:31:52
2	Mg 279.077 IEC†	178.9	181.1	5469.9	ug/L	5469.9	ppb	21:32:12
2	Na 589.592 Radial†	35658.5	37808.5	10332	ug/L	10332	ppb	21:31:52
2	Sr 421.552†	86500.0	88653.2	505.74	ug/L	505.74	ppb	21:31:52
2	Sc 361.383	913658.8	913658.8	101.58	%			21:33:14
2	Y 371.029	742416.6	742416.6	99.935	%			21:33:14
2	Ag 328.068†	119523.2	117261.4	503.53	ug/L	503.53	ppb	21:33:14
2	As 188.979†	1408.5	1414.0	506.99	ug/L	506.99	ppb	21:33:34
2	B 249.677†	24471.9	23625.6	480.00	ug/L	480.00	ppb	21:33:14
2	Ba 233.527†	76358.5	75177.4	506.00	ug/L	506.00	ppb	21:33:14
2	Be 313.107†	1549668.3	1530117.4	508.80	ug/L	508.80	ppb	21:33:14
2	Cd 226.502†	53291.7	52687.1	505.96	ug/L	505.96	ppb	21:33:14
2	Co 228.616†	28953.9	28587.5	495.95	ug/L	495.95	ppb	21:33:34
2	Cr 267.716†	51577.6	50674.8	506.14	ug/L	506.14	ppb	21:33:14
2	Cu 324.752†	189740.6	180697.2	505.32	ug/L	505.32	ppb	21:33:14
2	Mn 257.610†	525739.9	517056.6	505.30	ug/L	505.30	ppb	21:33:14
2	Mo 202.031†	8540.4	8381.7	498.72	ug/L	498.72	ppb	21:33:34
2	Ni 231.604†	23691.3	23219.9	500.10	ug/L	500.10	ppb	21:33:34

2	P 214.914†	5225.4	4888.8	2409.7 ug/L	2409.7 ppb	21:33:34
2	Pb 220.353†	4916.5	4917.8	504.70 ug/L	504.70 ppb	21:33:34
2	S 181.975 Axial†	893.9	821.3	982.97 ug/L	982.97 ppb	21:33:34
2	Sb 206.836†	1741.6	1672.1	500.41 ug/L	500.41 ppb	21:33:34
2	Se 196.026†	927.6	941.9	521.68 ug/L	521.68 ppb	21:33:34
2	Si 251.611†	92240.9	90143.8	2497.4 ug/L	2497.4 ppb	21:33:14
2	Sn 189.927†	3455.8	3400.1	497.91 ug/L	497.91 ppb	21:33:34
2	Ti 334.940†	351217.5	347215.1	499.91 ug/L	499.91 ppb	21:33:14
2	Tl 190.801†	1937.2	1952.8	501.55 ug/L	501.55 ppb	21:33:34
2	U 409.014†	14912.4	17408.3	481.53 ug/L	481.53 ppb	21:33:14
2	V 292.402†	79983.5	80205.7	510.21 ug/L	510.21 ppb	21:33:14
2	Zn 213.857†	64527.6	62717.4	501.56 ug/L	501.56 ppb	21:33:14
2	SiO2†	92461.4	90335.8	5374.4 ug/L	5374.4 ppb	21:34:12
3	Sc Radial	5590.6	5590.6	100 %		21:32:17
3	Y RADIAL	5826.9	5826.9	99.41 %		21:32:17
3	Al 396.153Radial†	7087.1	7096.5	4962.8 ug/L	4962.8 ppb	21:32:17
3	Ca 317.933Radial†	3535.7	3515.9	4908.4 ug/L	4908.4 ppb	21:32:37
3	Fe 238.204 Radial†	654.4	642.9	5102.6 ug/L	5102.6 ppb	21:32:37
3	K 766.490 Radial†	30916.6	28027.0	5023.1 ug/L	5023.1 ppb	21:32:17
3	Mg 279.077 IEC†	175.7	173.3	5237.4 ug/L	5237.4 ppb	21:32:37
3	Na 589.592 Radial†	36531.6	37771.3	10322 ug/L	10322 ppb	21:32:17
3	Sr 421.552†	88917.5	88862.4	506.94 ug/L	506.94 ppb	21:32:17
3	Sc 361.383	907560.6	907560.6	100.90 %		21:33:41
3	Y 371.029	737133.2	737133.2	99.224 %		21:33:41
3	Ag 328.068†	118954.0	117488.0	504.43 ug/L	504.43 ppb	21:33:41
3	As 188.979†	1409.3	1424.1	510.55 ug/L	510.55 ppb	21:34:01
3	B 249.677†	24372.5	23688.9	481.30 ug/L	481.30 ppb	21:33:41
3	Ba 233.527†	76198.7	75524.1	508.33 ug/L	508.33 ppb	21:33:41
3	Be 313.107†	1543529.6	1534284.2	510.19 ug/L	510.19 ppb	21:33:41
3	Cd 226.502†	53295.3	53043.2	509.41 ug/L	509.41 ppb	21:33:41
3	Co 228.616†	29147.2	28970.6	502.62 ug/L	502.62 ppb	21:34:01
3	Cr 267.716†	51509.7	50948.7	508.87 ug/L	508.87 ppb	21:33:41
3	Cu 324.752†	188477.8	180700.7	505.31 ug/L	505.31 ppb	21:33:41
3	Mn 257.610†	524951.4	519752.8	507.91 ug/L	507.91 ppb	21:33:41
3	Mo 202.031†	8605.8	8503.1	505.91 ug/L	505.91 ppb	21:34:01
3	Ni 231.604†	23832.4	23516.4	506.49 ug/L	506.49 ppb	21:34:01
3	P 214.914†	5261.4	4959.1	2445.7 ug/L	2445.7 ppb	21:34:01
3	Pb 220.353†	4934.6	4968.2	509.90 ug/L	509.90 ppb	21:34:01
3	S 181.975 Axial†	898.7	831.9	995.68 ug/L	995.68 ppb	21:34:01
3	Sb 206.836†	1744.2	1686.2	504.77 ug/L	504.77 ppb	21:34:01
3	Se 196.026†	927.2	947.6	524.04 ug/L	524.04 ppb	21:34:01
3	Si 251.611†	92006.7	90521.8	2507.8 ug/L	2507.8 ppb	21:33:41
3	Sn 189.927†	3478.0	3445.0	504.45 ug/L	504.45 ppb	21:34:01
3	Ti 334.940†	349916.9	348249.3	501.39 ug/L	501.39 ppb	21:33:41
3	Tl 190.801†	1958.9	1987.1	510.31 ug/L	510.31 ppb	21:34:01
3	U 409.014†	14679.3	17276.1	477.89 ug/L	477.89 ppb	21:33:41
3	V 292.402†	79633.1	80387.4	511.47 ug/L	511.47 ppb	21:33:41
3	Zn 213.857†	64358.0	62976.0	503.63 ug/L	503.63 ppb	21:33:41
3	SiO2†	91877.8	90368.9	5376.1 ug/L	5376.1 ppb	21:34:17

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	912649.4	101.47	%	0.519				0.51%
Sc Radial	5518.3	98.8	%	1.25				1.26%
Y 371.029	741213.1	99.773	%	0.4888				0.49%
Y RADIAL	5738.4	97.90	%	1.632				1.67%
Ag 328.068†	117397.7	504.08	ug/L	0.482	504.08	ppb	0.482	0.10%
QC value within limits for Ag 328.068 Recovery = 100.82%								
Al 396.153Radial†	7087.5	4956.7	ug/L	8.29	4956.7	ppb	8.29	0.17%
QC value within limits for Al 396.153Radial Recovery = 99.13%								
As 188.979†	1412.6	506.49	ug/L	4.323	506.49	ppb	4.323	0.85%
QC value within limits for As 188.979 Recovery = 101.30%								
B 249.677†	23685.5	481.23	ug/L	1.198	481.23	ppb	1.198	0.25%
QC value within limits for B 249.677 Recovery = 96.25%								
Ba 233.527†	75277.6	506.67	ug/L	1.440	506.67	ppb	1.440	0.28%
QC value within limits for Ba 233.527 Recovery = 101.33%								
Be 313.107†	1532386.3	509.56	ug/L	0.701	509.56	ppb	0.701	0.14%
QC value within limits for Be 313.107 Recovery = 101.91%								
Ca 317.933Radial†	3583.9	5003.5	ug/L	95.96	5003.5	ppb	95.96	1.92%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.07%
Cd 226.502†            52852.8      507.57 ug/L         1.736      507.57 ppb          1.736   0.34%
   QC value within limits for Cd 226.502  Recovery = 101.51%
Co 228.616†            28690.7      497.75 ug/L         4.263      497.75 ppb          4.263   0.86%
   QC value within limits for Co 228.616  Recovery = 99.55%
Cr 267.716†            50772.6      507.12 ug/L         1.524      507.12 ppb          1.524   0.30%
   QC value within limits for Cr 267.716  Recovery = 101.42%
Cu 324.752†           180763.8      505.50 ug/L         0.314      505.50 ppb          0.314   0.06%
   QC value within limits for Cu 324.752  Recovery = 101.10%
Fe 238.204 Radial†       657.7      5220.3 ug/L        113.42      5220.3 ppb         113.42   2.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.41%
K 766.490 Radial†      28096.9      5035.7 ug/L         17.98      5035.7 ppb          17.98   0.36%
   QC value within limits for K 766.490 Radial  Recovery = 100.71%
Mg 279.077 IEC†          176.4      5329.3 ug/L        123.67      5329.3 ppb         123.67   2.32%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.59%
Mn 257.610†           518348.4      506.55 ug/L         1.311      506.55 ppb          1.311   0.26%
   QC value within limits for Mn 257.610  Recovery = 101.31%
Mo 202.031†             8415.3      500.71 ug/L         4.549      500.71 ppb          4.549   0.91%
   QC value within limits for Mo 202.031  Recovery = 100.14%
Na 589.592 Radial†     37879.3       10352 ug/L          42.6       10352 ppb           42.6   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 103.52%
Ni 231.604†            23304.9      501.93 ug/L         3.971      501.93 ppb          3.971   0.79%
   QC value within limits for Ni 231.604  Recovery = 100.39%
P 214.914†              4912.0      2421.6 ug/L         20.89      2421.6 ppb          20.89   0.86%
   QC value within limits for P 214.914  Recovery = 96.86%
Pb 220.353†             4924.6      505.41 ug/L         4.177      505.41 ppb          4.177   0.83%
   QC value within limits for Pb 220.353  Recovery = 101.08%
S 181.975 Axial†         824.7      987.08 ug/L         7.444      987.08 ppb          7.444   0.75%
   QC value within limits for S 181.975 Axial  Recovery = 98.71%
Sb 206.836†             1672.7      500.65 ug/L         4.009      500.65 ppb          4.009   0.80%
   QC value within limits for Sb 206.836  Recovery = 100.13%
Se 196.026†              941.0      520.85 ug/L         3.676      520.85 ppb          3.676   0.71%
   QC value within limits for Se 196.026  Recovery = 104.17%
Si 251.611†            90341.6      2502.9 ug/L          5.21      2502.9 ppb           5.21   0.21%
   QC value within limits for Si 251.611  Recovery = 100.12%
Sn 189.927†             3412.2      499.66 ug/L         4.199      499.66 ppb          4.199   0.84%
   QC value within limits for Sn 189.927  Recovery = 99.93%
Sr 421.552†            88823.9      506.72 ug/L         0.885      506.72 ppb          0.885   0.17%
   QC value within limits for Sr 421.552  Recovery = 101.34%
Ti 334.940†           347760.4      500.69 ug/L         0.743      500.69 ppb          0.743   0.15%
   QC value within limits for Ti 334.940  Recovery = 100.14%
Tl 190.801†             1969.7      505.86 ug/L         4.379      505.86 ppb          4.379   0.87%
   QC value within limits for Tl 190.801  Recovery = 101.17%
U 409.014†             17361.9      480.26 ug/L         2.056      480.26 ppb          2.056   0.43%
   QC value within limits for U 409.014  Recovery = 96.05%
V 292.402†             80250.2      510.53 ug/L         0.834      510.53 ppb          0.834   0.16%
   QC value within limits for V 292.402  Recovery = 102.11%
Zn 213.857†            62865.4      502.75 ug/L         1.069      502.75 ppb          1.069   0.21%
   QC value within limits for Zn 213.857  Recovery = 100.55%
SiO2†                  90138.2      5362.5 ug/L         22.08      5362.5 ppb          22.08   0.41%
   QC value within limits for SiO2  Recovery = 100.28%
All analyte(s) passed QC.
```

Sequence No.: 78
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/20/2009 21:36:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5645.3	5645.3	101	%			21:38:18
1	Y RADIAL	5943.7	5943.7	101.4	%			21:38:18
1	Al 396.153Radial†	-28.8	-15.2	-10.650	ug/L	-10.650	ppb	21:38:18
1	Ca 317.933Radial†	22.0	4.0	5.5247	ug/L	5.5247	ppb	21:38:38
1	Fe 238.204 Radial†	10.5	-0.9	-6.8157	ug/L	-6.8157	ppb	21:38:38
1	K 766.490 Radial†	2892.9	-9.0	-1.6039	ug/L	-1.6039	ppb	21:38:18
1	Mg 279.077 IEC†	2.8	0.5	14.268	ug/L	14.268	ppb	21:38:38
1	Na 589.592 Radial†	-1460.4	-185.4	-50.670	ug/L	-50.670	ppb	21:38:18
1	Sr 421.552†	-0.8	-6.4	-0.0364	ug/L	-0.0364	ppb	21:38:18
1	Sc 361.383	903623.4	903623.4	100.47	%			21:39:35
1	Y 371.029	752241.0	752241.0	101.26	%			21:39:35
1	Ag 328.068†	491.9	90.3	0.3856	ug/L	0.3856	ppb	21:39:35
1	As 188.979†	-25.7	1.8	0.6604	ug/L	0.6604	ppb	21:39:55
1	B 249.677†	-437.0	-900.0	-18.359	ug/L	-18.359	ppb	21:39:55
1	Ba 233.527†	21.1	29.6	0.1975	ug/L	0.1975	ppb	21:39:55
1	Be 313.107†	-4496.6	119.4	0.0394	ug/L	0.0394	ppb	21:39:35
1	Cd 226.502†	-224.6	2.2	0.0224	ug/L	0.0224	ppb	21:39:55
1	Co 228.616†	-76.7	8.4	0.1463	ug/L	0.1463	ppb	21:39:55
1	Cr 267.716†	99.5	-0.1	-0.0004	ug/L	-0.0004	ppb	21:39:55
1	Cu 324.752†	6143.4	27.8	0.0773	ug/L	0.0773	ppb	21:39:35
1	Mn 257.610†	515.0	21.1	0.0196	ug/L	0.0196	ppb	21:39:55
1	Mo 202.031†	26.8	1.1	0.0667	ug/L	0.0667	ppb	21:39:55
1	Ni 231.604†	115.3	12.5	0.2688	ug/L	0.2688	ppb	21:39:55
1	P 214.914†	240.6	-15.7	-7.9952	ug/L	-7.9952	ppb	21:39:55
1	Pb 220.353†	-75.3	2.8	0.2890	ug/L	0.2890	ppb	21:39:55
1	S 181.975 Axial†	50.2	-8.8	-10.482	ug/L	-10.482	ppb	21:39:55
1	Sb 206.836†	41.8	-0.8	-0.2168	ug/L	-0.2168	ppb	21:39:55
1	Se 196.026†	-43.4	-14.4	-7.6884	ug/L	-7.6884	ppb	21:39:55
1	Si 251.611†	679.4	16.4	0.4530	ug/L	0.4530	ppb	21:39:55
1	Sn 189.927†	9.4	7.5	1.1006	ug/L	1.1006	ppb	21:39:55
1	Ti 334.940†	-1548.9	-71.7	-0.1005	ug/L	-0.1005	ppb	21:39:35
1	Tl 190.801†	-40.9	5.1	1.2890	ug/L	1.2890	ppb	21:39:55
1	U 409.014†	-2939.3	-197.3	-5.4759	ug/L	-5.4759	ppb	21:39:35
1	V 292.402†	-1548.1	-72.5	-0.4632	ug/L	-0.4632	ppb	21:39:35
1	Zn 213.857†	812.3	3.7	0.0278	ug/L	0.0278	ppb	21:39:55
1	SiO2†	716.4	28.1	1.6706	ug/L	1.6706	ppb	21:40:51
2	Sc Radial	5590.7	5590.7	100	%			21:38:43
2	Y RADIAL	5870.4	5870.4	100.2	%			21:38:43
2	Al 396.153Radial†	-17.1	-3.8	-2.7138	ug/L	-2.7138	ppb	21:38:43
2	Ca 317.933Radial†	17.6	-0.2	-0.3387	ug/L	-0.3387	ppb	21:39:03
2	Fe 238.204 Radial†	13.0	1.8	14.233	ug/L	14.233	ppb	21:39:03
2	K 766.490 Radial†	2848.3	-25.6	-4.5768	ug/L	-4.5768	ppb	21:38:43
2	Mg 279.077 IEC†	4.5	2.2	66.213	ug/L	66.213	ppb	21:39:03
2	Na 589.592 Radial†	-1486.0	-225.1	-61.529	ug/L	-61.529	ppb	21:38:43
2	Sr 421.552†	18.1	12.5	0.0712	ug/L	0.0712	ppb	21:38:43
2	Sc 361.383	892706.2	892706.2	99.253	%			21:40:00
2	Y 371.029	741679.2	741679.2	99.836	%			21:40:00
2	Ag 328.068†	389.4	-7.0	-0.0247	ug/L	-0.0247	ppb	21:40:00
2	As 188.979†	-33.4	-6.2	-2.1794	ug/L	-2.1794	ppb	21:40:20
2	B 249.677†	-434.5	-902.8	-18.418	ug/L	-18.418	ppb	21:40:20
2	Ba 233.527†	14.1	22.8	0.1506	ug/L	0.1506	ppb	21:40:20
2	Be 313.107†	-4421.2	140.6	0.0466	ug/L	0.0466	ppb	21:40:00
2	Cd 226.502†	-209.9	14.3	0.1360	ug/L	0.1360	ppb	21:40:20
2	Co 228.616†	-94.0	-10.0	-0.1719	ug/L	-0.1719	ppb	21:40:20
2	Cr 267.716†	96.6	-1.8	-0.0182	ug/L	-0.0182	ppb	21:40:20
2	Cu 324.752†	6156.1	115.4	0.3234	ug/L	0.3234	ppb	21:40:00
2	Mn 257.610†	534.8	47.3	0.0463	ug/L	0.0463	ppb	21:40:20
2	Mo 202.031†	31.6	6.2	0.3723	ug/L	0.3723	ppb	21:40:20
2	Ni 231.604†	114.3	12.9	0.2790	ug/L	0.2790	ppb	21:40:20

2	P 214.914†	232.9	-20.5	-10.474	ug/L	-10.474 ppb	21:40:20
2	Pb 220.353†	-80.9	-3.7	-0.3798	ug/L	-0.3798 ppb	21:40:20
2	S 181.975 Axial†	54.6	-3.8	-4.5401	ug/L	-4.5401 ppb	21:40:20
2	Sb 206.836†	35.0	-7.1	-2.0994	ug/L	-2.0994 ppb	21:40:20
2	Se 196.026†	-29.6	-1.1	-0.5309	ug/L	-0.5309 ppb	21:40:20
2	Si 251.611†	706.8	52.3	1.4504	ug/L	1.4504 ppb	21:40:20
2	Sn 189.927†	1.7	-0.1	-0.0134	ug/L	-0.0134 ppb	21:40:20
2	Ti 334.940†	-1467.5	-8.4	-0.0095	ug/L	-0.0095 ppb	21:40:00
2	Tl 190.801†	-33.7	11.8	3.0208	ug/L	3.0208 ppb	21:40:20
2	U 409.014†	-2928.0	-221.7	-6.1539	ug/L	-6.1539 ppb	21:40:00
2	V 292.402†	-1648.3	-192.3	-1.2145	ug/L	-1.2145 ppb	21:40:00
2	Zn 213.857†	803.9	5.1	0.0362	ug/L	0.0362 ppb	21:40:20
2	SiO2†	742.6	63.2	3.7688	ug/L	3.7688 ppb	21:40:56
3	Sc Radial	5672.7	5672.7	102	%		21:39:08
3	Y RADIAL	5908.8	5908.8	100.8	%		21:39:08
3	Al 396.153Radial†	-30.6	-16.9	-11.870	ug/L	-11.870 ppb	21:39:08
3	Ca 317.933Radial†	16.1	-2.0	-2.8238	ug/L	-2.8238 ppb	21:39:28
3	Fe 238.204 Radial†	11.5	0.1	0.9697	ug/L	0.9697 ppb	21:39:28
3	K 766.490 Radial†	2903.9	-12.1	-2.1402	ug/L	-2.1402 ppb	21:39:08
3	Mg 279.077 IEC†	2.0	-0.3	-8.6734	ug/L	-8.6734 ppb	21:39:28
3	Na 589.592 Radial†	-1545.6	-262.4	-71.700	ug/L	-71.700 ppb	21:39:08
3	Sr 421.552†	19.2	13.3	0.0760	ug/L	0.0760 ppb	21:39:08
3	Sc 361.383	901447.5	901447.5	100.23	%		21:40:26
3	Y 371.029	747942.3	747942.3	100.68	%		21:40:26
3	Ag 328.068†	350.1	-50.1	-0.2143	ug/L	-0.2143 ppb	21:40:26
3	As 188.979†	-29.4	-1.8	-0.6449	ug/L	-0.6449 ppb	21:40:46
3	B 249.677†	-424.0	-888.1	-18.118	ug/L	-18.118 ppb	21:40:46
3	Ba 233.527†	8.7	17.2	0.1139	ug/L	0.1139 ppb	21:40:46
3	Be 313.107†	-4469.5	135.7	0.0449	ug/L	0.0449 ppb	21:40:26
3	Cd 226.502†	-230.4	-4.1	-0.0396	ug/L	-0.0396 ppb	21:40:46
3	Co 228.616†	-84.1	0.8	0.0141	ug/L	0.0141 ppb	21:40:46
3	Cr 267.716†	102.4	3.0	0.0296	ug/L	0.0296 ppb	21:40:46
3	Cu 324.752†	6040.4	-60.2	-0.1682	ug/L	-0.1682 ppb	21:40:26
3	Mn 257.610†	524.4	31.7	0.0312	ug/L	0.0312 ppb	21:40:46
3	Mo 202.031†	28.5	2.9	0.1704	ug/L	0.1704 ppb	21:40:46
3	Ni 231.604†	122.0	19.5	0.4205	ug/L	0.4205 ppb	21:40:46
3	P 214.914†	237.5	-18.2	-9.2245	ug/L	-9.2245 ppb	21:40:46
3	Pb 220.353†	-82.1	-4.1	-0.4241	ug/L	-0.4241 ppb	21:40:46
3	S 181.975 Axial†	53.7	-5.2	-6.2217	ug/L	-6.2217 ppb	21:40:46
3	Sb 206.836†	37.9	-4.5	-1.3298	ug/L	-1.3298 ppb	21:40:46
3	Se 196.026†	-33.5	-4.6	-2.4460	ug/L	-2.4460 ppb	21:40:46
3	Si 251.611†	696.6	35.2	0.9768	ug/L	0.9768 ppb	21:40:46
3	Sn 189.927†	4.9	3.1	0.4492	ug/L	0.4492 ppb	21:40:46
3	Ti 334.940†	-1510.8	-37.3	-0.0527	ug/L	-0.0527 ppb	21:40:26
3	Tl 190.801†	-26.8	19.1	4.8662	ug/L	4.8662 ppb	21:40:46
3	U 409.014†	-2830.6	-95.9	-2.6619	ug/L	-2.6619 ppb	21:40:26
3	V 292.402†	-1608.7	-136.7	-0.8612	ug/L	-0.8612 ppb	21:40:26
3	Zn 213.857†	819.6	13.0	0.1022	ug/L	0.1022 ppb	21:40:46
3	SiO2†	700.1	13.5	0.7998	ug/L	0.7998 ppb	21:41:01

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899259.1	99.982	%	0.6424				0.64%
Sc Radial	5636.2	101	%	0.7				0.74%
Y 371.029	747287.5	100.59	%	0.715				0.71%
Y RADIAL	5907.6	100.8	%	0.63				0.62%
Ag 328.068†	11.1	0.0489	ug/L	0.30665	0.0489	ppb	0.30665	627.70%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-12.0	-8.4112	ug/L	4.97167	-8.4112	ppb	4.97167	59.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.1	-0.7213	ug/L	1.42145	-0.7213	ppb	1.42145	197.07%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-897.0	-18.298	ug/L	0.1589	-18.298	ppb	0.1589	0.87%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	23.2	0.1540	ug/L	0.04190	0.1540	ppb	0.04190	27.21%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	131.9	0.0437	ug/L	0.00376	0.0437	ppb	0.00376	8.61%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.6	0.7874	ug/L	4.28668	0.7874	ppb	4.28668	544.40%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                4.1      0.0396 ug/L       0.08904      0.0396 ppb        0.08904 224.72%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -0.3     -0.0038 ug/L       0.15985     -0.0038 ppb        0.15985 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                0.4      0.0037 ug/L       0.02419      0.0037 ppb        0.02419 659.60%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               27.7      0.0775 ug/L       0.24579      0.0775 ppb        0.24579 317.15%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.4      2.7957 ug/L      10.64257      2.7957 ppb       10.64257 380.67%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -15.6     -2.7736 ug/L       1.58444     -2.7736 ppb        1.58444  57.13%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.8      23.936 ug/L      38.3681      23.936 ppb        38.3681 160.29%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               33.3      0.0324 ug/L       0.01340      0.0324 ppb        0.01340  41.38%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                3.4      0.2031 ug/L       0.15541      0.2031 ppb        0.15541  76.51%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -224.3     -61.299 ug/L      10.5170     -61.299 ppb        10.5170  17.16%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               15.0      0.3228 ug/L       0.08476      0.3228 ppb        0.08476  26.26%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -18.1     -9.2312 ug/L       1.23946     -9.2312 ppb        1.23946  13.43%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -1.7     -0.1716 ug/L       0.39953     -0.1716 ppb        0.39953 232.77%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -5.9     -7.0814 ug/L       3.06304     -7.0814 ppb        3.06304  43.25%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -4.2     -1.2153 ug/L       0.94649     -1.2153 ppb        0.94649  77.88%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -6.7     -3.5551 ug/L       3.70542     -3.5551 ppb        3.70542 104.23%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               34.6      0.9601 ug/L       0.49889      0.9601 ppb        0.49889  51.96%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.5      0.5121 ug/L       0.55970      0.5121 ppb        0.55970 109.29%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                6.5      0.0369 ug/L       0.06354      0.0369 ppb        0.06354 172.08%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -39.2     -0.0542 ug/L       0.04555     -0.0542 ppb        0.04555  83.98%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               12.0      3.0587 ug/L       1.78892      3.0587 ppb        1.78892  58.49%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -171.6     -4.7639 ug/L       1.85170     -4.7639 ppb        1.85170  38.87%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -133.8     -0.8463 ug/L       0.37589     -0.8463 ppb        0.37589  44.42%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                7.3      0.0554 ug/L       0.04075      0.0554 ppb        0.04075  73.51%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     34.9      2.0798 ug/L       1.52620      2.0798 ppb        1.52620  73.38%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 79
Sample ID: 242753003|932266|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 79
Date Collected: 12/20/2009 21:43:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242753003|932266|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5703.3	5703.3	102	%			21:45:04
1	Y RADIAL	5899.7	5899.7	100.7	%			21:45:04
1	Al 396.153Radial†	15.5	28.5	19.984	ug/L	19.984	ppb	21:45:04
1	Ca 317.933Radial†	12004.0	11742.4	16393	ug/L	16393	ppb	21:45:04
1	Fe 238.204 Radial†	22.7	11.1	87.568	ug/L	87.568	ppb	21:45:24
1	K 766.490 Radial†	13038.7	9901.5	1770.2	ug/L	1770.2	ppb	21:45:04
1	Mg 279.077 IEC†	141.5	136.4	4115.9	ug/L	4115.9	ppb	21:45:24
1	Na 589.592 Radial†	42598.6	42993.6	11749	ug/L	11749	ppb	21:45:04
1	Sr 421.552†	14481.9	14182.2	80.761	ug/L	80.761	ppb	21:45:04
1	Sc 361.383	914530.1	914530.1	101.68	%			21:46:21
1	Y 371.029	744016.2	744016.2	100.15	%			21:46:21
1	Ag 328.068†	469.3	62.2	0.0782	ug/L	0.0782	ppb	21:46:21
1	As 188.979†	-28.2	-0.3	-0.1077	ug/L	-0.1077	ppb	21:46:41
1	B 249.677†	126.8	-340.3	-6.9533	ug/L	-6.9533	ppb	21:46:41
1	Ba 233.527†	3348.3	3301.6	22.182	ug/L	22.182	ppb	21:46:41
1	Be 313.107†	-4517.8	151.9	0.0471	ug/L	0.0471	ppb	21:46:21
1	Cd 226.502†	-223.7	5.8	0.0473	ug/L	0.0473	ppb	21:46:41
1	Co 228.616†	-94.7	-8.5	-0.1324	ug/L	-0.1324	ppb	21:46:41
1	Cr 267.716†	485.2	378.0	3.7818	ug/L	3.7818	ppb	21:46:41
1	Cu 324.752†	6737.2	538.8	1.5105	ug/L	1.5105	ppb	21:46:21
1	Mn 257.610†	42058.8	40872.5	39.841	ug/L	39.841	ppb	21:46:21
1	Mo 202.031†	47.4	21.1	1.2602	ug/L	1.2602	ppb	21:46:41
1	Ni 231.604†	144.2	39.6	0.8530	ug/L	0.8530	ppb	21:46:41
1	P 214.914†	287.8	27.9	13.593	ug/L	13.593	ppb	21:46:41
1	Pb 220.353†	-66.9	12.1	1.2346	ug/L	1.2346	ppb	21:46:41
1	S 181.975 Axial†	1601.8	1516.5	1816.9	ug/L	1816.9	ppb	21:46:41
1	Sb 206.836†	39.1	-4.0	-1.6008	ug/L	-1.6008	ppb	21:46:41
1	Se 196.026†	-26.8	2.5	1.5987	ug/L	1.5987	ppb	21:46:41
1	Si 251.611†	1078624.4	1060146.4	29511	ug/L	29511	ppb	21:46:21
1	Sn 189.927†	-150.4	-149.7	-20.194	ug/L	-20.194	ppb	21:46:41
1	Ti 334.940†	-2684.0	-1169.6	-0.8306	ug/L	-0.8306	ppb	21:46:21
1	Tl 190.801†	-48.9	-2.3	-0.3686	ug/L	-0.3686	ppb	21:46:41
1	U 409.014†	-2781.9	-7.6	-0.2297	ug/L	-0.2297	ppb	21:46:21
1	V 292.402†	-519.7	957.3	6.1078	ug/L	6.1078	ppb	21:46:41
1	Zn 213.857†	1150.2	326.4	2.4794	ug/L	2.4794	ppb	21:46:41
1	SiO2†	1080120.1	1061592.3	63461	ug/L	63461	ppb	21:47:38
2	Sc Radial	5671.6	5671.6	102	%			21:45:29
2	Y RADIAL	5874.7	5874.7	100.2	%			21:45:29
2	Al 396.153Radial†	-4.4	9.0	6.2600	ug/L	6.2600	ppb	21:45:29
2	Ca 317.933Radial†	11975.2	11779.8	16446	ug/L	16446	ppb	21:45:29
2	Fe 238.204 Radial†	19.7	8.2	65.093	ug/L	65.093	ppb	21:45:49
2	K 766.490 Radial†	13020.7	9955.4	1779.8	ug/L	1779.8	ppb	21:45:29
2	Mg 279.077 IEC†	137.4	133.1	4018.2	ug/L	4018.2	ppb	21:45:49
2	Na 589.592 Radial†	42553.2	43182.5	11801	ug/L	11801	ppb	21:45:29
2	Sr 421.552†	14560.9	14339.5	81.658	ug/L	81.658	ppb	21:45:29
2	Sc 361.383	906907.6	906907.6	100.83	%			21:46:46
2	Y 371.029	738885.2	738885.2	99.460	%			21:46:46
2	Ag 328.068†	436.4	33.4	-0.0530	ug/L	-0.0530	ppb	21:46:46
2	As 188.979†	-39.2	-11.4	-4.0453	ug/L	-4.0453	ppb	21:47:07
2	B 249.677†	164.2	-302.2	-6.1725	ug/L	-6.1725	ppb	21:47:07
2	Ba 233.527†	3375.5	3356.3	22.549	ug/L	22.549	ppb	21:47:07
2	Be 313.107†	-4483.6	148.5	0.0457	ug/L	0.0457	ppb	21:46:46
2	Cd 226.502†	-202.0	25.4	0.2379	ug/L	0.2379	ppb	21:47:07
2	Co 228.616†	-104.5	-18.9	-0.3137	ug/L	-0.3137	ppb	21:47:07
2	Cr 267.716†	503.9	400.6	4.0066	ug/L	4.0066	ppb	21:47:07
2	Cu 324.752†	6676.1	533.9	1.4957	ug/L	1.4957	ppb	21:46:46
2	Mn 257.610†	41609.7	40774.8	39.745	ug/L	39.745	ppb	21:46:46
2	Mo 202.031†	42.3	16.4	0.9816	ug/L	0.9816	ppb	21:47:07
2	Ni 231.604†	118.9	15.7	0.3378	ug/L	0.3378	ppb	21:47:07

2	P 214.914†	271.6	14.2	6.6487 ug/L	6.6487 ppb	21:47:07
2	Pb 220.353†	-52.4	25.8	2.6397 ug/L	2.6397 ppb	21:47:07
2	S 181.975 Axial†	1604.9	1532.9	1836.5 ug/L	1836.5 ppb	21:47:07
2	Sb 206.836†	36.0	-6.7	-2.4020 ug/L	-2.4020 ppb	21:47:07
2	Se 196.026†	-23.2	5.8	3.2959 ug/L	3.2959 ppb	21:47:07
2	Si 251.611†	1063490.0	1054052.9	29341 ug/L	29341 ppb	21:46:46
2	Sn 189.927†	-142.7	-143.4	-19.261 ug/L	-19.261 ppb	21:47:07
2	Ti 334.940†	-2753.9	-1261.1	-0.9602 ug/L	-0.9602 ppb	21:46:46
2	Tl 190.801†	-42.9	3.2	1.0224 ug/L	1.0224 ppb	21:47:07
2	U 409.014†	-2710.1	40.6	1.1101 ug/L	1.1101 ppb	21:46:46
2	V 292.402†	-475.2	997.1	6.3580 ug/L	6.3580 ppb	21:47:07
2	Zn 213.857†	1120.1	306.0	2.3229 ug/L	2.3229 ppb	21:47:07
2	SiO2†	1081355.4	1071745.7	64068 ug/L	64068 ppb	21:47:44
3	Sc Radial	5532.3	5532.3	99.0 %		21:45:54
3	Y RADIAL	5736.5	5736.5	97.87 %		21:45:54
3	Al 396.153Radial†	5.9	19.3	13.502 ug/L	13.502 ppb	21:45:54
3	Ca 317.933Radial†	11740.3	11839.6	16529 ug/L	16529 ppb	21:45:54
3	Fe 238.204 Radial†	20.1	9.1	71.909 ug/L	71.909 ppb	21:46:14
3	K 766.490 Radial†	12821.9	10077.5	1801.7 ug/L	1801.7 ppb	21:45:54
3	Mg 279.077 IEC†	141.5	140.6	4244.2 ug/L	4244.2 ppb	21:46:14
3	Na 589.592 Radial†	41855.3	43533.2	11897 ug/L	11897 ppb	21:45:54
3	Sr 421.552†	14220.0	14356.3	81.753 ug/L	81.753 ppb	21:45:54
3	Sc 361.383	908582.7	908582.7	101.02 %		21:47:12
3	Y 371.029	740022.8	740022.8	99.613 %		21:47:12
3	Ag 328.068†	376.8	-26.4	-0.3068 ug/L	-0.3068 ppb	21:47:12
3	As 188.979†	-30.1	-2.3	-0.8138 ug/L	-0.8138 ppb	21:47:32
3	B 249.677†	147.9	-318.6	-6.5088 ug/L	-6.5088 ppb	21:47:32
3	Ba 233.527†	3355.3	3330.0	22.373 ug/L	22.373 ppb	21:47:32
3	Be 313.107†	-4432.0	207.8	0.0655 ug/L	0.0655 ppb	21:47:12
3	Cd 226.502†	-205.6	22.2	0.2069 ug/L	0.2069 ppb	21:47:32
3	Co 228.616†	-90.5	-4.9	-0.0702 ug/L	-0.0702 ppb	21:47:32
3	Cr 267.716†	506.5	402.2	4.0231 ug/L	4.0231 ppb	21:47:32
3	Cu 324.752†	6681.8	527.4	1.4779 ug/L	1.4779 ppb	21:47:12
3	Mn 257.610†	41719.7	40807.5	39.774 ug/L	39.774 ppb	21:47:12
3	Mo 202.031†	46.9	20.9	1.2472 ug/L	1.2472 ppb	21:47:32
3	Ni 231.604†	141.8	38.1	0.8220 ug/L	0.8220 ppb	21:47:32
3	P 214.914†	288.7	30.6	14.984 ug/L	14.984 ppb	21:47:32
3	Pb 220.353†	-88.0	-9.3	-0.9518 ug/L	-0.9518 ppb	21:47:32
3	S 181.975 Axial†	1601.2	1526.3	1828.6 ug/L	1828.6 ppb	21:47:32
3	Sb 206.836†	37.5	-5.3	-1.9796 ug/L	-1.9796 ppb	21:47:32
3	Se 196.026†	-29.1	-0.0	0.2119 ug/L	0.2119 ppb	21:47:32
3	Si 251.611†	1066524.0	1055111.7	29371 ug/L	29371 ppb	21:47:12
3	Sn 189.927†	-146.3	-146.6	-19.729 ug/L	-19.729 ppb	21:47:32
3	Ti 334.940†	-2709.8	-1212.4	-0.8852 ug/L	-0.8852 ppb	21:47:12
3	Tl 190.801†	-53.1	-6.8	-1.5193 ug/L	-1.5193 ppb	21:47:32
3	U 409.014†	-2759.4	-3.2	-0.1059 ug/L	-0.1059 ppb	21:47:12
3	V 292.402†	-503.1	970.4	6.1955 ug/L	6.1955 ppb	21:47:32
3	Zn 213.857†	1132.1	315.8	2.3912 ug/L	2.3912 ppb	21:47:32
3	SiO2†	1082071.1	1070477.0	63993 ug/L	63993 ppb	21:47:50

Mean Data: 242753003|932266|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	910006.8	101.18	%	0.445				0.44%
Sc Radial	5635.7	101	%	1.6				1.61%
Y 371.029	740974.7	99.741	%	0.3627				0.36%
Y RADIAL	5836.9	99.58	%	1.499				1.51%
Ag 328.068†	23.1	-0.0939	ug/L	0.19574	-0.0939	ppb	0.19574	208.53%
Al 396.153Radial†	18.9	13.249	ug/L	6.8656	13.249	ppb	6.8656	51.82%
As 188.979†	-4.7	-1.6556	ug/L	2.09945	-1.6556	ppb	2.09945	126.81%
B 249.677†	-320.4	-6.5448	ug/L	0.39165	-6.5448	ppb	0.39165	5.98%
Ba 233.527†	3329.3	22.368	ug/L	0.1835	22.368	ppb	0.1835	0.82%
Be 313.107†	169.4	0.0528	ug/L	0.01106	0.0528	ppb	0.01106	20.96%
Ca 317.933Radial†	11787.3	16456	ug/L	68.5	16456	ppb	68.5	0.42%
Cd 226.502†	17.8	0.1640	ug/L	0.10227	0.1640	ppb	0.10227	62.34%
Co 228.616†	-10.7	-0.1721	ug/L	0.12651	-0.1721	ppb	0.12651	73.50%
Cr 267.716†	393.6	3.9372	ug/L	0.13480	3.9372	ppb	0.13480	3.42%
Cu 324.752†	533.4	1.4947	ug/L	0.01636	1.4947	ppb	0.01636	1.09%
Fe 238.204 Radial†	9.5	74.856	ug/L	11.5238	74.856	ppb	11.5238	15.39%
K 766.490 Radial†	9978.1	1783.9	ug/L	16.15	1783.9	ppb	16.15	0.91%

Mg 279.077 IEC†	136.7	4126.1	ug/L	113.35	4126.1	ppb	113.35	2.75%
Mn 257.610†	40818.3	39.787	ug/L	0.0492	39.787	ppb	0.0492	0.12%
Mo 202.031†	19.4	1.1630	ug/L	0.15727	1.1630	ppb	0.15727	13.52%
Na 589.592 Radial†	43236.5	11816	ug/L	74.8	11816	ppb	74.8	0.63%
Ni 231.604†	31.1	0.6709	ug/L	0.28891	0.6709	ppb	0.28891	43.06%
P 214.914†	24.3	11.742	ug/L	4.4653	11.742	ppb	4.4653	38.03%
Pb 220.353†	9.5	0.9742	ug/L	1.80987	0.9742	ppb	1.80987	185.78%
S 181.975 Axial†	1525.2	1827.4	ug/L	9.86	1827.4	ppb	9.86	0.54%
Sb 206.836†	-5.3	-1.9942	ug/L	0.40077	-1.9942	ppb	0.40077	20.10%
Se 196.026†	2.7	1.7022	ug/L	1.54463	1.7022	ppb	1.54463	90.74%
Si 251.611†	1056437.0	29408	ug/L	90.6	29408	ppb	90.6	0.31%
Sn 189.927†	-146.6	-19.728	ug/L	0.4664	-19.728	ppb	0.4664	2.36%
Sr 421.552†	14292.7	81.391	ug/L	0.5473	81.391	ppb	0.5473	0.67%
Ti 334.940†	-1214.4	-0.8920	ug/L	0.06510	-0.8920	ppb	0.06510	7.30%
Tl 190.801†	-1.9	-0.2885	ug/L	1.27272	-0.2885	ppb	1.27272	441.15%
U 409.014†	9.9	0.2581	ug/L	0.74038	0.2581	ppb	0.74038	286.81%
V 292.402†	974.9	6.2204	ug/L	0.12697	6.2204	ppb	0.12697	2.04%
Zn 213.857†	316.1	2.3979	ug/L	0.07848	2.3979	ppb	0.07848	3.27%
SiO2†	1067938.3	63841	ug/L	330.7	63841	ppb	330.7	0.52%

Sequence No.: 80
Sample ID: 242753004|932266|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 80
Date Collected: 12/20/2009 21:50:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242753004|932266|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5638.2	5638.2	101	%			21:51:55
1	Y RADIAL	5879.7	5879.7	100.3	%			21:51:55
1	Al 396.153Radial†	-19.8	-6.3	-4.4795	ug/L	-4.4795	ppb	21:51:55
1	Ca 317.933Radial†	11482.8	11361.8	15862	ug/L	15862	ppb	21:51:55
1	Fe 238.204 Radial†	16.2	4.9	38.716	ug/L	38.716	ppb	21:52:15
1	K 766.490 Radial†	12591.9	9606.4	1718.0	ug/L	1718.0	ppb	21:51:55
1	Mg 279.077 IEC†	138.6	135.1	4077.5	ug/L	4077.5	ppb	21:52:15
1	Na 589.592 Radial†	40434.1	41330.8	11295	ug/L	11295	ppb	21:51:55
1	Sr 421.552†	13936.1	13805.3	78.616	ug/L	78.616	ppb	21:51:55
1	Sc 361.383	923036.1	923036.1	102.63	%			21:53:12
1	Y 371.029	750011.2	750011.2	100.96	%			21:53:12
1	Ag 328.068†	493.0	81.0	0.1451	ug/L	0.1451	ppb	21:53:12
1	As 188.979†	-34.9	-6.5	-2.3269	ug/L	-2.3269	ppb	21:53:32
1	B 249.677†	78.6	-388.5	-7.9298	ug/L	-7.9298	ppb	21:53:32
1	Ba 233.527†	3128.9	3057.4	20.542	ug/L	20.542	ppb	21:53:32
1	Be 313.107†	-4574.6	137.6	0.0423	ug/L	0.0423	ppb	21:53:12
1	Cd 226.502†	-206.7	24.4	0.2301	ug/L	0.2301	ppb	21:53:32
1	Co 228.616†	-85.9	1.0	0.0329	ug/L	0.0329	ppb	21:53:32
1	Cr 267.716†	361.2	252.8	2.5300	ug/L	2.5300	ppb	21:53:32
1	Cu 324.752†	6180.9	-64.2	-0.1776	ug/L	-0.1776	ppb	21:53:12
1	Mn 257.610†	1161.5	640.3	0.5532	ug/L	0.5532	ppb	21:53:32
1	Mo 202.031†	50.5	23.6	1.4075	ug/L	1.4075	ppb	21:53:32
1	Ni 231.604†	88.1	-16.4	-0.3534	ug/L	-0.3534	ppb	21:53:32
1	P 214.914†	286.0	23.5	11.692	ug/L	11.692	ppb	21:53:32
1	Pb 220.353†	-95.2	-15.0	-1.5319	ug/L	-1.5319	ppb	21:53:32
1	S 181.975 Axial†	1537.5	1439.4	1724.5	ug/L	1724.5	ppb	21:53:32
1	Sb 206.836†	26.0	-17.1	-5.3890	ug/L	-5.3890	ppb	21:53:32
1	Se 196.026†	-24.0	5.4	2.9939	ug/L	2.9939	ppb	21:53:32
1	Si 251.611†	1050435.3	1022902.8	28474	ug/L	28474	ppb	21:53:12
1	Sn 189.927†	-137.4	-135.7	-18.197	ug/L	-18.197	ppb	21:53:32
1	Ti 334.940†	-2734.5	-1194.5	-0.8962	ug/L	-0.8962	ppb	21:53:12
1	Tl 190.801†	-48.1	-1.1	-0.3033	ug/L	-0.3033	ppb	21:53:32
1	U 409.014†	-2589.6	205.0	5.6791	ug/L	5.6791	ppb	21:53:12
1	V 292.402†	-507.5	973.9	6.2330	ug/L	6.2330	ppb	21:53:32
1	Zn 213.857†	1074.3	242.0	1.8129	ug/L	1.8129	ppb	21:53:32
1	SiO2†	1045443.8	1018013.9	60856	ug/L	60856	ppb	21:54:29
2	Sc Radial	5661.3	5661.3	101	%			21:52:20
2	Y RADIAL	5881.0	5881.0	100.3	%			21:52:20
2	Al 396.153Radial†	-19.5	-6.0	-4.2328	ug/L	-4.2328	ppb	21:52:20
2	Ca 317.933Radial†	11545.8	11377.5	15884	ug/L	15884	ppb	21:52:20
2	Fe 238.204 Radial†	15.7	4.3	33.995	ug/L	33.995	ppb	21:52:40
2	K 766.490 Radial†	12859.3	9819.5	1756.2	ug/L	1756.2	ppb	21:52:20
2	Mg 279.077 IEC†	136.9	132.9	4010.7	ug/L	4010.7	ppb	21:52:40
2	Na 589.592 Radial†	40354.8	41089.2	11229	ug/L	11229	ppb	21:52:20
2	Sr 421.552†	13873.8	13687.5	77.943	ug/L	77.943	ppb	21:52:20
2	Sc 361.383	921529.1	921529.1	102.46	%			21:53:37
2	Y 371.029	749835.7	749835.7	100.93	%			21:53:37
2	Ag 328.068†	420.6	11.1	-0.1531	ug/L	-0.1531	ppb	21:53:37
2	As 188.979†	-23.5	4.5	1.6016	ug/L	1.6016	ppb	21:53:57
2	B 249.677†	78.7	-388.2	-7.9242	ug/L	-7.9242	ppb	21:53:57
2	Ba 233.527†	3126.0	3059.7	20.557	ug/L	20.557	ppb	21:53:57
2	Be 313.107†	-4483.6	219.0	0.0693	ug/L	0.0693	ppb	21:53:37
2	Cd 226.502†	-211.5	19.3	0.1823	ug/L	0.1823	ppb	21:53:57
2	Co 228.616†	-95.6	-8.6	-0.1360	ug/L	-0.1360	ppb	21:53:57
2	Cr 267.716†	329.8	222.7	2.2307	ug/L	2.2307	ppb	21:53:57
2	Cu 324.752†	6277.9	40.3	0.1144	ug/L	0.1144	ppb	21:53:37
2	Mn 257.610†	1172.4	652.8	0.5661	ug/L	0.5661	ppb	21:53:57
2	Mo 202.031†	35.5	9.1	0.5437	ug/L	0.5437	ppb	21:53:57
2	Ni 231.604†	93.5	-11.0	-0.2362	ug/L	-0.2362	ppb	21:53:57

2	P 214.914†	280.4	18.5	9.0932	ug/L	9.0932 ppb	21:53:57
2	Pb 220.353†	-72.1	7.5	0.7648	ug/L	0.7648 ppb	21:53:57
2	S 181.975 Axial†	1543.5	1447.7	1734.4	ug/L	1734.4 ppb	21:53:57
2	Sb 206.836†	31.5	-11.6	-3.8147	ug/L	-3.8147 ppb	21:53:57
2	Se 196.026†	-30.9	-1.4	-0.6259	ug/L	-0.6259 ppb	21:53:57
2	Si 251.611†	1048390.2	1022580.7	28465	ug/L	28465 ppb	21:53:37
2	Sn 189.927†	-142.1	-140.6	-18.909	ug/L	-18.909 ppb	21:53:57
2	Ti 334.940†	-2741.9	-1206.1	-0.9110	ug/L	-0.9110 ppb	21:53:37
2	Tl 190.801†	-61.4	-14.2	-3.6389	ug/L	-3.6389 ppb	21:53:57
2	U 409.014†	-2644.6	147.2	4.0772	ug/L	4.0772 ppb	21:53:37
2	V 292.402†	-501.0	979.4	6.2515	ug/L	6.2515 ppb	21:53:57
2	Zn 213.857†	1085.9	255.1	1.9194	ug/L	1.9194 ppb	21:53:57
2	SiO2†	1051370.0	1025463.8	61302	ug/L	61302 ppb	21:54:35
3	Sc Radial	5526.7	5526.7	98.9	%		21:52:45
3	Y RADIAL	5734.1	5734.1	97.83	%		21:52:45
3	Al 396.153Radial†	-14.7	-1.5	-1.1194	ug/L	-1.1194 ppb	21:52:45
3	Ca 317.933Radial†	11300.4	11407.0	15925	ug/L	15925 ppb	21:52:45
3	Fe 238.204 Radial†	14.0	3.0	23.646	ug/L	23.646 ppb	21:53:05
3	K 766.490 Radial†	12497.5	9762.7	1746.0	ug/L	1746.0 ppb	21:52:45
3	Mg 279.077 IEC†	140.0	139.3	4203.2	ug/L	4203.2 ppb	21:53:05
3	Na 589.592 Radial†	39802.3	41500.4	11341	ug/L	11341 ppb	21:52:45
3	Sr 421.552†	13639.3	13783.8	78.492	ug/L	78.492 ppb	21:52:45
3	Sc 361.383	922251.0	922251.0	102.54	%		21:54:03
3	Y 371.029	751145.8	751145.8	101.11	%		21:54:03
3	Ag 328.068†	427.7	17.8	-0.1248	ug/L	-0.1248 ppb	21:54:03
3	As 188.979†	-22.5	5.5	1.9575	ug/L	1.9575 ppb	21:54:23
3	B 249.677†	59.3	-407.2	-8.3094	ug/L	-8.3094 ppb	21:54:23
3	Ba 233.527†	3119.4	3050.8	20.497	ug/L	20.497 ppb	21:54:23
3	Be 313.107†	-4510.7	196.1	0.0617	ug/L	0.0617 ppb	21:54:03
3	Cd 226.502†	-198.9	31.8	0.3029	ug/L	0.3029 ppb	21:54:23
3	Co 228.616†	-82.6	4.2	0.0875	ug/L	0.0875 ppb	21:54:23
3	Cr 267.716†	348.3	240.5	2.4100	ug/L	2.4100 ppb	21:54:23
3	Cu 324.752†	6281.5	39.0	0.1101	ug/L	0.1101 ppb	21:54:03
3	Mn 257.610†	1175.1	654.5	0.5631	ug/L	0.5631 ppb	21:54:23
3	Mo 202.031†	47.2	20.4	1.2159	ug/L	1.2159 ppb	21:54:23
3	Ni 231.604†	86.4	-18.0	-0.3875	ug/L	-0.3875 ppb	21:54:23
3	P 214.914†	282.8	20.7	10.182	ug/L	10.182 ppb	21:54:23
3	Pb 220.353†	-72.9	6.7	0.6855	ug/L	0.6855 ppb	21:54:23
3	S 181.975 Axial†	1536.7	1439.9	1725.1	ug/L	1725.1 ppb	21:54:23
3	Sb 206.836†	40.3	-3.1	-1.2750	ug/L	-1.2750 ppb	21:54:23
3	Se 196.026†	-30.4	-0.8	-0.3720	ug/L	-0.3720 ppb	21:54:23
3	Si 251.611†	1051727.1	1025034.1	28534	ug/L	28534 ppb	21:54:03
3	Sn 189.927†	-142.4	-140.7	-18.930	ug/L	-18.930 ppb	21:54:23
3	Ti 334.940†	-2731.0	-1193.4	-0.8881	ug/L	-0.8881 ppb	21:54:03
3	Tl 190.801†	-53.3	-6.1	-1.5921	ug/L	-1.5921 ppb	21:54:23
3	U 409.014†	-2850.5	-51.6	-1.4407	ug/L	-1.4407 ppb	21:54:03
3	V 292.402†	-524.3	957.1	6.1162	ug/L	6.1162 ppb	21:54:23
3	Zn 213.857†	1070.2	238.9	1.7836	ug/L	1.7836 ppb	21:54:23
3	SiO2†	1060893.9	1033948.8	61809	ug/L	61809 ppb	21:54:41

Mean Data: 242753004|932266|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	922272.1	102.54	%	0.084				0.08%
Sc Radial	5608.7	100	%	1.3				1.28%
Y 371.029	750330.9	101.00	%	0.096				0.09%
Y RADIAL	5831.6	99.49	%	1.441				1.45%
Ag 328.068†	36.6	-0.0442	ug/L	0.16463	-0.0442	ppb	0.16463	372.06%
Al 396.153Radial†	-4.6	-3.2772	ug/L	1.87280	-3.2772	ppb	1.87280	57.15%
As 188.979†	1.2	0.4107	ug/L	2.37757	0.4107	ppb	2.37757	578.86%
B 249.677†	-394.6	-8.0545	ug/L	0.22082	-8.0545	ppb	0.22082	2.74%
Ba 233.527†	3055.9	20.532	ug/L	0.0313	20.532	ppb	0.0313	0.15%
Be 313.107†	184.2	0.0577	ug/L	0.01393	0.0577	ppb	0.01393	24.11%
Ca 317.933Radial†	11382.1	15890	ug/L	32.0	15890	ppb	32.0	0.20%
Cd 226.502†	25.2	0.2384	ug/L	0.06070	0.2384	ppb	0.06070	25.46%
Co 228.616†	-1.1	-0.0052	ug/L	0.11651	-0.0052	ppb	0.11651	>999.9%
Cr 267.716†	238.7	2.3902	ug/L	0.15066	2.3902	ppb	0.15066	6.30%
Cu 324.752†	5.0	0.0156	ug/L	0.16735	0.0156	ppb	0.16735	>999.9%
Fe 238.204 Radial†	4.1	32.119	ug/L	7.7078	32.119	ppb	7.7078	24.00%
K 766.490 Radial†	9729.5	1740.1	ug/L	19.81	1740.1	ppb	19.81	1.14%

Mg 279.077 IEC†	135.8	4097.1	ug/L	97.75	4097.1	ppb	97.75	2.39%
Mn 257.610†	649.2	0.5608	ug/L	0.00678	0.5608	ppb	0.00678	1.21%
Mo 202.031†	17.7	1.0557	ug/L	0.45363	1.0557	ppb	0.45363	42.97%
Na 589.592 Radial†	41306.8	11288	ug/L	56.5	11288	ppb	56.5	0.50%
Ni 231.604†	-15.1	-0.3257	ug/L	0.07939	-0.3257	ppb	0.07939	24.38%
P 214.914†	20.9	10.322	ug/L	1.3049	10.322	ppb	1.3049	12.64%
Pb 220.353†	-0.3	-0.0272	ug/L	1.30371	-0.0272	ppb	1.30371	>999.9%
S 181.975 Axial†	1442.3	1728.0	ug/L	5.56	1728.0	ppb	5.56	0.32%
Sb 206.836†	-10.6	-3.4929	ug/L	2.07578	-3.4929	ppb	2.07578	59.43%
Se 196.026†	1.1	0.6653	ug/L	2.02058	0.6653	ppb	2.02058	303.71%
Si 251.611†	1023505.9	28491	ug/L	37.1	28491	ppb	37.1	0.13%
Sn 189.927†	-139.0	-18.679	ug/L	0.4172	-18.679	ppb	0.4172	2.23%
Sr 421.552†	13758.9	78.350	ug/L	0.3579	78.350	ppb	0.3579	0.46%
Ti 334.940†	-1198.0	-0.8984	ug/L	0.01159	-0.8984	ppb	0.01159	1.29%
Tl 190.801†	-7.1	-1.8448	ug/L	1.68209	-1.8448	ppb	1.68209	91.18%
U 409.014†	100.2	2.7719	ug/L	3.73508	2.7719	ppb	3.73508	134.75%
V 292.402†	970.2	6.2003	ug/L	0.07337	6.2003	ppb	0.07337	1.18%
Zn 213.857†	245.3	1.8386	ug/L	0.07144	1.8386	ppb	0.07144	3.89%
SiO2†	1025808.8	61322	ug/L	476.6	61322	ppb	476.6	0.78%

Sequence No.: 81
Sample ID: 242753005|932266|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 81
Date Collected: 12/20/2009 21:56:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242753005|932266|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5651.9	5651.9	101	%			21:58:44
1	Y RADIAL	5894.5	5894.5	100.6	%			21:58:44
1	Al 396.153Radial†	257.4	267.8	188.07	ug/L	188.07	ppb	21:58:44
1	Ca 317.933Radial†	9147.9	9025.8	12601	ug/L	12601	ppb	21:58:44
1	Fe 238.204 Radial†	31.1	19.5	154.28	ug/L	154.28	ppb	21:59:04
1	K 766.490 Radial†	10891.4	7894.9	1411.2	ug/L	1411.2	ppb	21:58:44
1	Mg 279.077 IEC†	119.0	115.4	3482.4	ug/L	3482.4	ppb	21:59:04
1	Na 589.592 Radial†	38650.5	39470.1	10787	ug/L	10787	ppb	21:58:44
1	Sr 421.552†	9924.7	9806.0	55.829	ug/L	55.829	ppb	21:58:44
1	Sc 361.383	917870.3	917870.3	102.05	%			22:00:02
1	Y 371.029	747505.2	747505.2	100.62	%			22:00:02
1	Ag 328.068†	425.7	17.7	-0.0354	ug/L	-0.0354	ppb	22:00:02
1	As 188.979†	-28.9	-0.8	-0.2379	ug/L	-0.2379	ppb	22:00:22
1	B 249.677†	-16.8	-481.5	-9.8431	ug/L	-9.8431	ppb	22:00:22
1	Ba 233.527†	2714.0	2668.0	17.928	ug/L	17.928	ppb	22:00:22
1	Be 313.107†	-4461.6	223.2	0.0806	ug/L	0.0806	ppb	22:00:02
1	Cd 226.502†	-210.9	19.1	0.1686	ug/L	0.1686	ppb	22:00:22
1	Co 228.616†	-69.6	16.5	0.2855	ug/L	0.2855	ppb	22:00:22
1	Cr 267.716†	452.9	344.6	3.4492	ug/L	3.4492	ppb	22:00:22
1	Cu 324.752†	6426.2	210.0	0.5949	ug/L	0.5949	ppb	22:00:02
1	Mn 257.610†	10865.5	10155.6	9.8667	ug/L	9.8667	ppb	22:00:02
1	Mo 202.031†	40.4	14.0	0.8454	ug/L	0.8454	ppb	22:00:22
1	Ni 231.604†	128.9	24.0	0.5180	ug/L	0.5180	ppb	22:00:22
1	P 214.914†	387.9	124.9	63.146	ug/L	63.146	ppb	22:00:22
1	Pb 220.353†	-84.1	-4.6	-0.4416	ug/L	-0.4416	ppb	22:00:22
1	S 181.975 Axial†	875.8	799.5	957.80	ug/L	957.80	ppb	22:00:22
1	Sb 206.836†	25.7	-17.2	-5.4463	ug/L	-5.4463	ppb	22:00:22
1	Se 196.026†	-31.3	-1.8	-0.4654	ug/L	-0.4654	ppb	22:00:22
1	Si 251.611†	1170106.3	1145929.2	31899	ug/L	31899	ppb	22:00:02
1	Sn 189.927†	-115.4	-114.9	-15.499	ug/L	-15.499	ppb	22:00:22
1	Ti 334.940†	839.6	2292.8	3.9588	ug/L	3.9588	ppb	22:00:02
1	Tl 190.801†	-50.1	-3.3	-0.7781	ug/L	-0.7781	ppb	22:00:22
1	U 409.014†	-2854.8	-69.0	-1.9420	ug/L	-1.9420	ppb	22:00:02
1	V 292.402†	-656.8	824.9	5.2374	ug/L	5.2374	ppb	22:00:22
1	Zn 213.857†	3375.8	2503.1	20.056	ug/L	20.056	ppb	22:00:22
1	SiO2†	1173689.1	1149414.9	68712	ug/L	68712	ppb	22:01:19
2	Sc Radial	5632.9	5632.9	101	%			21:59:10
2	Y RADIAL	5833.5	5833.5	99.52	%			21:59:10
2	Al 396.153Radial†	253.0	264.3	185.58	ug/L	185.58	ppb	21:59:10
2	Ca 317.933Radial†	9033.0	8942.4	12484	ug/L	12484	ppb	21:59:10
2	Fe 238.204 Radial†	32.9	21.4	169.53	ug/L	169.53	ppb	21:59:30
2	K 766.490 Radial†	10795.2	7835.9	1400.6	ug/L	1400.6	ppb	21:59:10
2	Mg 279.077 IEC†	119.4	116.1	3504.6	ug/L	3504.6	ppb	21:59:30
2	Na 589.592 Radial†	38246.6	39198.6	10712	ug/L	10712	ppb	21:59:10
2	Sr 421.552†	9866.9	9781.8	55.692	ug/L	55.692	ppb	21:59:10
2	Sc 361.383	915519.8	915519.8	101.79	%			22:00:27
2	Y 371.029	745797.1	745797.1	100.39	%			22:00:27
2	Ag 328.068†	411.1	4.5	-0.0875	ug/L	-0.0875	ppb	22:00:27
2	As 188.979†	-30.8	-2.8	-0.9259	ug/L	-0.9259	ppb	22:00:47
2	B 249.677†	5.4	-459.7	-9.4020	ug/L	-9.4020	ppb	22:00:47
2	Ba 233.527†	2724.0	2684.7	18.041	ug/L	18.041	ppb	22:00:47
2	Be 313.107†	-4479.2	194.7	0.0710	ug/L	0.0710	ppb	22:00:27
2	Cd 226.502†	-209.6	19.9	0.1740	ug/L	0.1740	ppb	22:00:47
2	Co 228.616†	-70.9	15.0	0.2603	ug/L	0.2603	ppb	22:00:47
2	Cr 267.716†	432.6	325.8	3.2608	ug/L	3.2608	ppb	22:00:47
2	Cu 324.752†	6228.3	31.8	0.0975	ug/L	0.0975	ppb	22:00:27
2	Mn 257.610†	10745.1	10064.7	9.7791	ug/L	9.7791	ppb	22:00:27
2	Mo 202.031†	38.6	12.4	0.7527	ug/L	0.7527	ppb	22:00:47
2	Ni 231.604†	114.2	9.9	0.2132	ug/L	0.2132	ppb	22:00:47

2	P 214.914†	395.1	133.0	67.311	ug/L	67.311 ppb	22:00:47
2	Pb 220.353†	-70.1	8.9	0.9451	ug/L	0.9451 ppb	22:00:47
2	S 181.975 Axial†	887.6	813.2	974.28	ug/L	974.28 ppb	22:00:47
2	Sb 206.836†	34.3	-8.7	-2.9253	ug/L	-2.9253 ppb	22:00:47
2	Se 196.026†	-23.3	5.9	3.7120	ug/L	3.7120 ppb	22:00:47
2	Si 251.611†	1164094.5	1142966.9	31817	ug/L	31817 ppb	22:00:27
2	Sn 189.927†	-117.5	-117.3	-15.858	ug/L	-15.858 ppb	22:00:47
2	Ti 334.940†	812.2	2268.0	3.9156	ug/L	3.9156 ppb	22:00:27
2	Tl 190.801†	-41.1	5.4	1.4634	ug/L	1.4634 ppb	22:00:47
2	U 409.014†	-2727.4	48.9	1.3301	ug/L	1.3301 ppb	22:00:27
2	V 292.402†	-631.3	848.2	5.3871	ug/L	5.3871 ppb	22:00:47
2	Zn 213.857†	3391.8	2527.3	20.253	ug/L	20.253 ppb	22:00:47
2	SiO2†	1171828.9	1150540.2	68779	ug/L	68779 ppb	22:01:25
3	Sc Radial	5571.9	5571.9	99.7	%		21:59:35
3	Y RADIAL	5752.3	5752.3	98.14	%		21:59:35
3	Al 396.153Radial†	252.7	266.7	187.32	ug/L	187.32 ppb	21:59:35
3	Ca 317.933Radial†	9027.5	9035.0	12614	ug/L	12614 ppb	21:59:35
3	Fe 238.204 Radial†	30.2	19.1	150.76	ug/L	150.76 ppb	21:59:55
3	K 766.490 Radial†	10667.2	7824.8	1398.6	ug/L	1398.6 ppb	21:59:35
3	Mg 279.077 IEC†	117.7	115.7	3493.1	ug/L	3493.1 ppb	21:59:55
3	Na 589.592 Radial†	38050.3	39417.2	10772	ug/L	10772 ppb	21:59:35
3	Sr 421.552†	9736.0	9757.7	55.553	ug/L	55.553 ppb	21:59:35
3	Sc 361.383	927803.6	927803.6	103.16	%		22:00:53
3	Y 371.029	755755.4	755755.4	101.73	%		22:00:53
3	Ag 328.068†	395.5	-16.0	-0.1839	ug/L	-0.1839 ppb	22:00:53
3	As 188.979†	-27.3	1.0	0.4120	ug/L	0.4120 ppb	22:01:13
3	B 249.677†	-17.8	-482.3	-9.8595	ug/L	-9.8595 ppb	22:01:13
3	Ba 233.527†	2730.6	2655.7	17.846	ug/L	17.846 ppb	22:01:13
3	Be 313.107†	-4433.6	297.1	0.1057	ug/L	0.1057 ppb	22:00:53
3	Cd 226.502†	-200.8	31.1	0.2839	ug/L	0.2839 ppb	22:01:13
3	Co 228.616†	-60.3	26.3	0.4538	ug/L	0.4538 ppb	22:01:13
3	Cr 267.716†	432.4	320.0	3.2019	ug/L	3.2019 ppb	22:01:13
3	Cu 324.752†	6393.3	110.7	0.3171	ug/L	0.3171 ppb	22:00:53
3	Mn 257.610†	10931.9	10106.0	9.8178	ug/L	9.8178 ppb	22:00:53
3	Mo 202.031†	29.3	2.8	0.1834	ug/L	0.1834 ppb	22:01:13
3	Ni 231.604†	122.8	16.8	0.3609	ug/L	0.3609 ppb	22:01:13
3	P 214.914†	387.5	120.5	60.905	ug/L	60.905 ppb	22:01:13
3	Pb 220.353†	-82.2	-1.8	-0.1565	ug/L	-0.1565 ppb	22:01:13
3	S 181.975 Axial†	868.9	783.6	938.78	ug/L	938.78 ppb	22:01:13
3	Sb 206.836†	39.7	-3.9	-1.5526	ug/L	-1.5526 ppb	22:01:13
3	Se 196.026†	-32.2	-2.4	-0.7623	ug/L	-0.7623 ppb	22:01:13
3	Si 251.611†	1180510.2	1143739.3	31838	ug/L	31838 ppb	22:00:53
3	Sn 189.927†	-132.8	-130.6	-17.790	ug/L	-17.790 ppb	22:01:13
3	Ti 334.940†	1054.2	2492.0	4.2446	ug/L	4.2446 ppb	22:00:53
3	Tl 190.801†	-54.4	-7.0	-1.7039	ug/L	-1.7039 ppb	22:01:13
3	U 409.014†	-2725.2	86.5	2.3751	ug/L	2.3751 ppb	22:00:53
3	V 292.402†	-645.1	843.1	5.3513	ug/L	5.3513 ppb	22:01:13
3	Zn 213.857†	3385.7	2477.3	19.850	ug/L	19.850 ppb	22:01:13
3	SiO2†	1175379.9	1138740.8	68074	ug/L	68074 ppb	22:01:31

Mean Data: 242753005|932266|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	920397.9	102.33	%	0.725				0.71%
Sc Radial	5618.9	101	%	0.7				0.74%
Y 371.029	749685.9	100.91	%	0.717				0.71%
Y RADIAL	5826.7	99.41	%	1.217				1.22%
Ag 328.068†	2.1	-0.1023	ug/L	0.07535	-0.1023	ppb	0.07535	73.66%
Al 396.153Radial†	266.3	186.99	ug/L	1.280	186.99	ppb	1.280	0.68%
As 188.979†	-0.9	-0.2506	ug/L	0.66906	-0.2506	ppb	0.66906	267.01%
B 249.677†	-474.5	-9.7015	ug/L	0.25954	-9.7015	ppb	0.25954	2.68%
Ba 233.527†	2669.5	17.939	ug/L	0.0982	17.939	ppb	0.0982	0.55%
Be 313.107†	238.3	0.0857	ug/L	0.01789	0.0857	ppb	0.01789	20.86%
Ca 317.933Radial†	9001.1	12566	ug/L	71.2	12566	ppb	71.2	0.57%
Cd 226.502†	23.4	0.2088	ug/L	0.06505	0.2088	ppb	0.06505	31.15%
Co 228.616†	19.3	0.3332	ug/L	0.10522	0.3332	ppb	0.10522	31.58%
Cr 267.716†	330.1	3.3040	ug/L	0.12914	3.3040	ppb	0.12914	3.91%
Cu 324.752†	117.5	0.3365	ug/L	0.24931	0.3365	ppb	0.24931	74.09%
Fe 238.204 Radial†	20.0	158.19	ug/L	9.980	158.19	ppb	9.980	6.31%
K 766.490 Radial†	7851.9	1403.5	ug/L	6.76	1403.5	ppb	6.76	0.48%

Mg 279.077 IEC†	115.8	3493.4	ug/L	11.08	3493.4	ppb	11.08	0.32%
Mn 257.610†	10108.8	9.8212	ug/L	0.04394	9.8212	ppb	0.04394	0.45%
Mo 202.031†	9.7	0.5939	ug/L	0.35844	0.5939	ppb	0.35844	60.36%
Na 589.592 Radial†	39362.0	10757	ug/L	39.3	10757	ppb	39.3	0.37%
Ni 231.604†	16.9	0.3640	ug/L	0.15246	0.3640	ppb	0.15246	41.88%
P 214.914†	126.1	63.788	ug/L	3.2509	63.788	ppb	3.2509	5.10%
Pb 220.353†	0.8	0.1157	ug/L	0.73232	0.1157	ppb	0.73232	633.04%
S 181.975 Axial†	798.8	956.95	ug/L	17.764	956.95	ppb	17.764	1.86%
Sb 206.836†	-9.9	-3.3081	ug/L	1.97490	-3.3081	ppb	1.97490	59.70%
Se 196.026†	0.6	0.8281	ug/L	2.50197	0.8281	ppb	2.50197	302.14%
Si 251.611†	1144211.8	31851	ug/L	42.8	31851	ppb	42.8	0.13%
Sn 189.927†	-120.9	-16.382	ug/L	1.2321	-16.382	ppb	1.2321	7.52%
Sr 421.552†	9781.8	55.691	ug/L	0.1379	55.691	ppb	0.1379	0.25%
Ti 334.940†	2350.9	4.0397	ug/L	0.17875	4.0397	ppb	0.17875	4.42%
Tl 190.801†	-1.6	-0.3395	ug/L	1.62858	-0.3395	ppb	1.62858	479.65%
U 409.014†	22.1	0.5877	ug/L	2.25226	0.5877	ppb	2.25226	383.22%
V 292.402†	838.7	5.3253	ug/L	0.07818	5.3253	ppb	0.07818	1.47%
Zn 213.857†	2502.6	20.053	ug/L	0.2015	20.053	ppb	0.2015	1.00%
SiO2†	1146232.0	68522	ug/L	389.3	68522	ppb	389.3	0.57%

Sequence No.: 82
Sample ID: 242753006|932266|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 82
Date Collected: 12/20/2009 22:03:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242753006|932266|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5750.5	5750.5	103	%			22:05:34
1	Y RADIAL	5986.4	5986.4	102.1	%			22:05:34
1	Al 396.153Radial†	11.8	24.8	17.348	ug/L	17.348	ppb	22:05:34
1	Ca 317.933Radial†	8530.6	8271.1	11547	ug/L	11547	ppb	22:05:34
1	Fe 238.204 Radial†	12.0	0.4	3.1964	ug/L	3.1964	ppb	22:05:54
1	K 766.490 Radial†	10299.6	7135.4	1275.1	ug/L	1275.1	ppb	22:05:34
1	Mg 279.077 IEC†	114.3	108.8	3283.1	ug/L	3283.1	ppb	22:05:54
1	Na 589.592 Radial†	38405.7	38577.4	10543	ug/L	10543	ppb	22:05:34
1	Sr 421.552†	9370.8	9099.7	51.809	ug/L	51.809	ppb	22:05:34
1	Sc 361.383	918131.9	918131.9	102.08	%			22:06:51
1	Y 371.029	747027.7	747027.7	100.56	%			22:06:51
1	Ag 328.068†	457.7	49.0	0.0577	ug/L	0.0577	ppb	22:06:51
1	As 188.979†	-36.2	-8.0	-2.8483	ug/L	-2.8483	ppb	22:07:12
1	B 249.677†	-11.9	-476.7	-9.7248	ug/L	-9.7248	ppb	22:07:12
1	Ba 233.527†	2381.5	2341.6	15.732	ug/L	15.732	ppb	22:07:12
1	Be 313.107†	-4510.6	176.4	0.0566	ug/L	0.0566	ppb	22:06:51
1	Cd 226.502†	-219.0	11.2	0.1069	ug/L	0.1069	ppb	22:07:12
1	Co 228.616†	-72.0	14.2	0.2575	ug/L	0.2575	ppb	22:07:12
1	Cr 267.716†	380.5	273.6	2.7356	ug/L	2.7356	ppb	22:07:12
1	Cu 324.752†	6165.2	-47.5	-0.1326	ug/L	-0.1326	ppb	22:06:51
1	Mn 257.610†	2435.3	1894.1	1.7887	ug/L	1.7887	ppb	22:07:12
1	Mo 202.031†	48.7	22.2	1.3191	ug/L	1.3191	ppb	22:07:12
1	Ni 231.604†	95.1	-9.1	-0.1965	ug/L	-0.1965	ppb	22:07:12
1	P 214.914†	289.4	28.3	14.195	ug/L	14.195	ppb	22:07:12
1	Pb 220.353†	-99.1	-19.3	-1.9657	ug/L	-1.9657	ppb	22:07:12
1	S 181.975 Axial†	889.2	812.3	973.21	ug/L	973.21	ppb	22:07:12
1	Sb 206.836†	33.2	-9.9	-3.2435	ug/L	-3.2435	ppb	22:07:12
1	Se 196.026†	-20.5	8.7	4.6425	ug/L	4.6425	ppb	22:07:12
1	Si 251.611†	1104673.3	1081503.0	30106	ug/L	30106	ppb	22:06:51
1	Sn 189.927†	-119.3	-118.7	-16.158	ug/L	-16.158	ppb	22:07:12
1	Ti 334.940†	-2195.1	-680.3	-0.3794	ug/L	-0.3794	ppb	22:06:51
1	Tl 190.801†	-40.0	6.6	1.6761	ug/L	1.6761	ppb	22:07:12
1	U 409.014†	-2694.4	88.8	2.4595	ug/L	2.4595	ppb	22:06:51
1	V 292.402†	-713.2	769.8	4.9305	ug/L	4.9305	ppb	22:07:12
1	Zn 213.857†	1283.9	452.9	3.5414	ug/L	3.5414	ppb	22:07:12
1	SiO2†	1109074.2	1085789.0	64908	ug/L	64908	ppb	22:08:09
2	Sc Radial	5716.7	5716.7	102	%			22:05:59
2	Y RADIAL	5926.4	5926.4	101.1	%			22:05:59
2	Al 396.153Radial†	1.3	14.6	10.170	ug/L	10.170	ppb	22:05:59
2	Ca 317.933Radial†	8703.0	8488.4	11851	ug/L	11851	ppb	22:05:59
2	Fe 238.204 Radial†	13.4	1.9	15.161	ug/L	15.161	ppb	22:06:19
2	K 766.490 Radial†	10524.1	7413.9	1325.0	ug/L	1325.0	ppb	22:05:59
2	Mg 279.077 IEC†	116.1	111.2	3356.9	ug/L	3356.9	ppb	22:06:19
2	Na 589.592 Radial†	38950.0	39329.5	10748	ug/L	10748	ppb	22:05:59
2	Sr 421.552†	9493.6	9273.4	52.797	ug/L	52.797	ppb	22:05:59
2	Sc 361.383	915296.0	915296.0	101.76	%			22:07:17
2	Y 371.029	745083.9	745083.9	100.29	%			22:07:17
2	Ag 328.068†	427.0	20.2	-0.0647	ug/L	-0.0647	ppb	22:07:17
2	As 188.979†	-32.0	-4.0	-1.4182	ug/L	-1.4182	ppb	22:07:37
2	B 249.677†	-41.7	-506.0	-10.324	ug/L	-10.324	ppb	22:07:37
2	Ba 233.527†	2377.1	2344.5	15.751	ug/L	15.751	ppb	22:07:37
2	Be 313.107†	-4487.3	185.6	0.0595	ug/L	0.0595	ppb	22:07:17
2	Cd 226.502†	-214.0	15.5	0.1471	ug/L	0.1471	ppb	22:07:37
2	Co 228.616†	-71.7	14.3	0.2588	ug/L	0.2588	ppb	22:07:37
2	Cr 267.716†	385.8	279.9	2.7991	ug/L	2.7991	ppb	22:07:37
2	Cu 324.752†	6078.4	-114.0	-0.3179	ug/L	-0.3179	ppb	22:07:17
2	Mn 257.610†	2439.5	1905.7	1.7998	ug/L	1.7998	ppb	22:07:37
2	Mo 202.031†	49.5	23.1	1.3729	ug/L	1.3729	ppb	22:07:37
2	Ni 231.604†	99.0	-5.0	-0.1074	ug/L	-0.1074	ppb	22:07:37

2	P 214.914†	289.0	28.8	14.473 ug/L	14.473 ppb	22:07:37
2	Pb 220.353†	-91.2	-11.8	-1.2033 ug/L	-1.2033 ppb	22:07:37
2	S 181.975 Axial†	881.8	807.8	967.81 ug/L	967.81 ppb	22:07:37
2	Sb 206.836†	32.3	-10.6	-3.4384 ug/L	-3.4384 ppb	22:07:37
2	Se 196.026†	-29.0	0.2	0.1861 ug/L	0.1861 ppb	22:07:37
2	Si 251.611†	1102200.7	1082426.1	30131 ug/L	30131 ppb	22:07:17
2	Sn 189.927†	-110.3	-110.2	-14.888 ug/L	-14.888 ppb	22:07:37
2	Ti 334.940†	-2237.8	-729.0	-0.4328 ug/L	-0.4328 ppb	22:07:17
2	Tl 190.801†	-45.6	1.0	0.2522 ug/L	0.2522 ppb	22:07:37
2	U 409.014†	-2761.7	14.5	0.3955 ug/L	0.3955 ppb	22:07:17
2	V 292.402†	-756.2	725.4	4.6481 ug/L	4.6481 ppb	22:07:37
2	Zn 213.857†	1279.8	452.8	3.5371 ug/L	3.5371 ppb	22:07:37
2	SiO2†	1120865.3	1100741.9	65802 ug/L	65802 ppb	22:08:15
3	Sc Radial	5664.3	5664.3	101 %		22:06:25
3	Y RADIAL	5882.5	5882.5	100.4 %		22:06:25
3	Al 396.153Radial†	-1.3	12.0	8.3998 ug/L	8.3998 ppb	22:06:25
3	Ca 317.933Radial†	8570.7	8436.6	11778 ug/L	11778 ppb	22:06:25
3	Fe 238.204 Radial†	14.0	2.6	20.690 ug/L	20.690 ppb	22:06:45
3	K 766.490 Radial†	10435.7	7421.8	1326.4 ug/L	1326.4 ppb	22:06:25
3	Mg 279.077 IEC†	113.6	109.8	3313.4 ug/L	3313.4 ppb	22:06:45
3	Na 589.592 Radial†	38751.0	39485.5	10791 ug/L	10791 ppb	22:06:25
3	Sr 421.552†	9398.3	9265.3	52.752 ug/L	52.752 ppb	22:06:25
3	Sc 361.383	923020.3	923020.3	102.62 %		22:07:43
3	Y 371.029	752789.6	752789.6	101.33 %		22:07:43
3	Ag 328.068†	412.8	2.9	-0.1342 ug/L	-0.1342 ppb	22:07:43
3	As 188.979†	-25.9	2.2	0.7939 ug/L	0.7939 ppb	22:08:03
3	B 249.677†	-43.0	-507.0	-10.345 ug/L	-10.345 ppb	22:08:03
3	Ba 233.527†	2379.8	2327.5	15.638 ug/L	15.638 ppb	22:08:03
3	Be 313.107†	-4540.5	170.7	0.0545 ug/L	0.0545 ppb	22:07:43
3	Cd 226.502†	-190.0	40.6	0.3881 ug/L	0.3881 ppb	22:08:03
3	Co 228.616†	-80.0	6.8	0.1292 ug/L	0.1292 ppb	22:08:03
3	Cr 267.716†	365.9	257.3	2.5750 ug/L	2.5750 ppb	22:08:03
3	Cu 324.752†	6178.6	-66.4	-0.1846 ug/L	-0.1846 ppb	22:07:43
3	Mn 257.610†	2459.0	1904.6	1.8001 ug/L	1.8001 ppb	22:08:03
3	Mo 202.031†	47.2	20.4	1.2165 ug/L	1.2165 ppb	22:08:03
3	Ni 231.604†	121.2	15.8	0.3404 ug/L	0.3404 ppb	22:08:03
3	P 214.914†	299.3	36.4	18.322 ug/L	18.322 ppb	22:08:03
3	Pb 220.353†	-89.4	-9.3	-0.9455 ug/L	-0.9455 ppb	22:08:03
3	S 181.975 Axial†	898.7	816.9	978.76 ug/L	978.76 ppb	22:08:03
3	Sb 206.836†	42.4	-1.0	-0.6206 ug/L	-0.6206 ppb	22:08:03
3	Se 196.026†	-32.0	-2.3	-1.1827 ug/L	-1.1827 ppb	22:08:03
3	Si 251.611†	1108643.8	1079640.7	30054 ug/L	30054 ppb	22:07:43
3	Sn 189.927†	-115.1	-114.0	-15.450 ug/L	-15.450 ppb	22:08:03
3	Ti 334.940†	-2291.0	-762.4	-0.4844 ug/L	-0.4844 ppb	22:07:43
3	Tl 190.801†	-45.2	1.7	0.4337 ug/L	0.4337 ppb	22:08:03
3	U 409.014†	-2811.2	-11.0	-0.3124 ug/L	-0.3124 ppb	22:07:43
3	V 292.402†	-718.6	768.2	4.9118 ug/L	4.9118 ppb	22:08:03
3	Zn 213.857†	1286.3	448.6	3.5014 ug/L	3.5014 ppb	22:08:03
3	SiO2†	1117366.0	1088114.8	65047 ug/L	65047 ppb	22:08:21

Mean Data: 242753006|932266|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	918816.1	102.16	%	0.434				0.43%
Sc Radial	5710.5	102	%	0.8				0.76%
Y 371.029	748300.4	100.73	%	0.539				0.54%
Y RADIAL	5931.8	101.2	%	0.89				0.88%
Ag 328.068†	24.0	-0.0471	ug/L	0.09713	-0.0471	ppb	0.09713	206.38%
Al 396.153Radial†	17.1	11.972	ug/L	4.7384	11.972	ppb	4.7384	39.58%
As 188.979†	-3.3	-1.1575	ug/L	1.83505	-1.1575	ppb	1.83505	158.53%
B 249.677†	-496.5	-10.131	ug/L	0.3524	-10.131	ppb	0.3524	3.48%
Ba 233.527†	2337.9	15.707	ug/L	0.0606	15.707	ppb	0.0606	0.39%
Be 313.107†	177.6	0.0569	ug/L	0.00254	0.0569	ppb	0.00254	4.47%
Ca 317.933Radial†	8398.7	11725	ug/L	158.5	11725	ppb	158.5	1.35%
Cd 226.502†	22.4	0.2140	ug/L	0.15204	0.2140	ppb	0.15204	71.04%
Co 228.616†	11.7	0.2152	ug/L	0.07450	0.2152	ppb	0.07450	34.62%
Cr 267.716†	270.3	2.7033	ug/L	0.11549	2.7033	ppb	0.11549	4.27%
Cu 324.752†	-76.0	-0.2117	ug/L	0.09560	-0.2117	ppb	0.09560	45.16%
Fe 238.204 Radial†	1.6	13.016	ug/L	8.9419	13.016	ppb	8.9419	68.70%
K 766.490 Radial†	7323.7	1308.8	ug/L	29.21	1308.8	ppb	29.21	2.23%

Mg 279.077 IEC†	109.9	3317.8	ug/L	37.10	3317.8	ppb	37.10	1.12%
Mn 257.610†	1901.5	1.7962	ug/L	0.00651	1.7962	ppb	0.00651	0.36%
Mo 202.031†	21.9	1.3029	ug/L	0.07946	1.3029	ppb	0.07946	6.10%
Na 589.592 Radial†	39130.8	10694	ug/L	132.7	10694	ppb	132.7	1.24%
Ni 231.604†	0.6	0.0122	ug/L	0.28770	0.0122	ppb	0.28770	>999.9%
P 214.914†	31.2	15.663	ug/L	2.3067	15.663	ppb	2.3067	14.73%
Pb 220.353†	-13.5	-1.3715	ug/L	0.53047	-1.3715	ppb	0.53047	38.68%
S 181.975 Axial†	812.3	973.26	ug/L	5.475	973.26	ppb	5.475	0.56%
Sb 206.836†	-7.2	-2.4342	ug/L	1.57358	-2.4342	ppb	1.57358	64.65%
Se 196.026†	2.2	1.2153	ug/L	3.04589	1.2153	ppb	3.04589	250.63%
Si 251.611†	1081189.9	30097	ug/L	39.5	30097	ppb	39.5	0.13%
Sn 189.927†	-114.3	-15.499	ug/L	0.6362	-15.499	ppb	0.6362	4.10%
Sr 421.552†	9212.8	52.452	ug/L	0.5579	52.452	ppb	0.5579	1.06%
Ti 334.940†	-723.9	-0.4322	ug/L	0.05246	-0.4322	ppb	0.05246	12.14%
Tl 190.801†	3.1	0.7873	ug/L	0.77500	0.7873	ppb	0.77500	98.43%
U 409.014†	30.8	0.8475	ug/L	1.44016	0.8475	ppb	1.44016	169.93%
V 292.402†	754.4	4.8301	ug/L	0.15791	4.8301	ppb	0.15791	3.27%
Zn 213.857†	451.4	3.5266	ug/L	0.02196	3.5266	ppb	0.02196	0.62%
SiO2†	1091548.6	65253	ug/L	481.0	65253	ppb	481.0	0.74%

Sequence No.: 83
Sample ID: 242753007|932266|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 83
Date Collected: 12/20/2009 22:10:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242753007|932266|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5608.7	5608.7	100	%			22:12:25
1	Y RADIAL	5854.6	5854.6	99.88	%			22:12:25
1	Al 396.153Radial†	226.5	238.9	167.78	ug/L	167.78	ppb	22:12:25
1	Ca 317.933Radial†	8956.7	8905.1	12432	ug/L	12432	ppb	22:12:25
1	Fe 238.204 Radial†	25.9	14.6	115.28	ug/L	115.28	ppb	22:12:45
1	K 766.490 Radial†	10673.5	7760.9	1387.1	ug/L	1387.1	ppb	22:12:25
1	Mg 279.077 IEC†	126.0	123.2	3719.2	ug/L	3719.2	ppb	22:12:45
1	Na 589.592 Radial†	38668.3	39782.5	10872	ug/L	10872	ppb	22:12:25
1	Sr 421.552†	9707.9	9665.7	55.030	ug/L	55.030	ppb	22:12:25
1	Sc 361.383	904049.4	904049.4	100.51	%			22:13:42
1	Y 371.029	736455.0	736455.0	99.132	%			22:13:42
1	Ag 328.068†	556.1	153.9	0.5366	ug/L	0.5366	ppb	22:13:42
1	As 188.979†	-20.1	7.4	2.6847	ug/L	2.6847	ppb	22:14:02
1	B 249.677†	-24.1	-489.0	-9.9913	ug/L	-9.9913	ppb	22:14:02
1	Ba 233.527†	2638.3	2633.4	17.695	ug/L	17.695	ppb	22:14:02
1	Be 313.107†	-4367.1	250.4	0.0876	ug/L	0.0876	ppb	22:13:42
1	Cd 226.502†	-209.9	16.9	0.1510	ug/L	0.1510	ppb	22:14:02
1	Co 228.616†	-87.3	-2.1	-0.0350	ug/L	-0.0350	ppb	22:14:02
1	Cr 267.716†	424.3	323.0	3.2328	ug/L	3.2328	ppb	22:14:02
1	Cu 324.752†	6189.8	71.1	0.2046	ug/L	0.2046	ppb	22:13:42
1	Mn 257.610†	7770.0	7238.7	7.0103	ug/L	7.0103	ppb	22:14:02
1	Mo 202.031†	38.3	12.5	0.7570	ug/L	0.7570	ppb	22:14:02
1	Ni 231.604†	94.4	-8.3	-0.1798	ug/L	-0.1798	ppb	22:14:02
1	P 214.914†	358.6	101.6	51.362	ug/L	51.362	ppb	22:14:02
1	Pb 220.353†	-71.8	6.4	0.6863	ug/L	0.6863	ppb	22:14:02
1	S 181.975 Axial†	881.5	818.2	980.28	ug/L	980.28	ppb	22:14:02
1	Sb 206.836†	38.1	-4.5	-1.6940	ug/L	-1.6940	ppb	22:14:02
1	Se 196.026†	-30.4	-1.4	-0.3589	ug/L	-0.3589	ppb	22:14:02
1	Si 251.611†	1137852.7	1131369.5	31494	ug/L	31494	ppb	22:13:42
1	Sn 189.927†	-119.5	-120.7	-16.359	ug/L	-16.359	ppb	22:14:02
1	Ti 334.940†	112.6	1582.1	2.9281	ug/L	2.9281	ppb	22:13:42
1	Tl 190.801†	-45.7	0.3	0.1387	ug/L	0.1387	ppb	22:14:02
1	U 409.014†	-2925.4	-182.1	-5.0738	ug/L	-5.0738	ppb	22:13:42
1	V 292.402†	-682.0	789.9	5.0229	ug/L	5.0229	ppb	22:14:02
1	Zn 213.857†	2771.4	1952.4	15.614	ug/L	15.614	ppb	22:14:02
1	SiO2†	1167203.2	1160544.7	69377	ug/L	69377	ppb	22:14:59
2	Sc Radial	5562.6	5562.6	99.6	%			22:12:50
2	Y RADIAL	5786.1	5786.1	98.71	%			22:12:50
2	Al 396.153Radial†	188.4	202.5	142.18	ug/L	142.18	ppb	22:12:50
2	Ca 317.933Radial†	8832.9	8854.6	12362	ug/L	12362	ppb	22:12:50
2	Fe 238.204 Radial†	26.5	15.4	121.73	ug/L	121.73	ppb	22:13:10
2	K 766.490 Radial†	10755.3	7931.1	1417.7	ug/L	1417.7	ppb	22:12:50
2	Mg 279.077 IEC†	119.9	118.2	3567.2	ug/L	3567.2	ppb	22:13:10
2	Na 589.592 Radial†	38231.7	39663.1	10839	ug/L	10839	ppb	22:12:50
2	Sr 421.552†	9650.6	9688.3	55.159	ug/L	55.159	ppb	22:12:50
2	Sc 361.383	917915.3	917915.3	102.06	%			22:14:07
2	Y 371.029	747632.4	747632.4	100.64	%			22:14:07
2	Ag 328.068†	407.7	0.1	-0.1216	ug/L	-0.1216	ppb	22:14:07
2	As 188.979†	-36.1	-7.9	-2.7548	ug/L	-2.7548	ppb	22:14:28
2	B 249.677†	-44.4	-508.6	-10.391	ug/L	-10.391	ppb	22:14:28
2	Ba 233.527†	2633.8	2589.3	17.399	ug/L	17.399	ppb	22:14:28
2	Be 313.107†	-4501.0	184.8	0.0660	ug/L	0.0660	ppb	22:14:07
2	Cd 226.502†	-205.3	24.6	0.2245	ug/L	0.2245	ppb	22:14:28
2	Co 228.616†	-78.1	8.2	0.1463	ug/L	0.1463	ppb	22:14:28
2	Cr 267.716†	410.8	303.4	3.0356	ug/L	3.0356	ppb	22:14:28
2	Cu 324.752†	6244.8	32.0	0.0957	ug/L	0.0957	ppb	22:14:07
2	Mn 257.610†	7733.2	7085.9	6.8645	ug/L	6.8645	ppb	22:14:28
2	Mo 202.031†	48.5	21.9	1.3139	ug/L	1.3139	ppb	22:14:28
2	Ni 231.604†	110.3	5.8	0.1245	ug/L	0.1245	ppb	22:14:28

2	P 214.914†	351.4	89.1	45.024 ug/L	45.024 ppb	22:14:28
2	Pb 220.353†	-65.3	13.8	1.4386 ug/L	1.4386 ppb	22:14:28
2	S 181.975 Axial†	895.1	818.3	980.41 ug/L	980.41 ppb	22:14:28
2	Sb 206.836†	48.1	4.7	1.0504 ug/L	1.0504 ppb	22:14:28
2	Se 196.026†	-32.1	-2.7	-1.0307 ug/L	-1.0307 ppb	22:14:28
2	Si 251.611†	1155164.4	1131232.3	31490 ug/L	31490 ppb	22:14:07
2	Sn 189.927†	-115.1	-114.6	-15.472 ug/L	-15.472 ppb	22:14:28
2	Ti 334.940†	177.6	1644.1	3.0107 ug/L	3.0107 ppb	22:14:07
2	Tl 190.801†	-42.6	4.0	1.0816 ug/L	1.0816 ppb	22:14:28
2	U 409.014†	-2714.6	68.4	1.8784 ug/L	1.8784 ppb	22:14:07
2	V 292.402†	-666.8	815.1	5.1982 ug/L	5.1982 ppb	22:14:28
2	Zn 213.857†	2774.1	1913.4	15.302 ug/L	15.302 ppb	22:14:28
2	SiO2†	1166897.8	1142704.2	68311 ug/L	68311 ppb	22:15:05
3	Sc Radial	5603.5	5603.5	100 %		22:13:15
3	Y RADIAL	5814.6	5814.6	99.20 %		22:13:15
3	Al 396.153Radial†	217.8	230.4	161.82 ug/L	161.82 ppb	22:13:15
3	Ca 317.933Radial†	8947.2	8903.9	12431 ug/L	12431 ppb	22:13:15
3	Fe 238.204 Radial†	29.4	18.1	143.26 ug/L	143.26 ppb	22:13:35
3	K 766.490 Radial†	10737.7	7834.8	1400.4 ug/L	1400.4 ppb	22:13:15
3	Mg 279.077 IEC†	117.7	115.1	3474.5 ug/L	3474.5 ppb	22:13:35
3	Na 589.592 Radial†	38689.8	39839.8	10888 ug/L	10888 ppb	22:13:15
3	Sr 421.552†	9746.7	9713.3	55.302 ug/L	55.302 ppb	22:13:15
3	Sc 361.383	910356.2	910356.2	101.22 %		22:14:33
3	Y 371.029	742442.8	742442.8	99.938 %		22:14:33
3	Ag 328.068†	341.6	-61.8	-0.3763 ug/L	-0.3763 ppb	22:14:33
3	As 188.979†	-31.7	-3.9	-1.3270 ug/L	-1.3270 ppb	22:14:53
3	B 249.677†	-45.2	-509.7	-10.417 ug/L	-10.417 ppb	22:14:53
3	Ba 233.527†	2652.1	2628.8	17.665 ug/L	17.665 ppb	22:14:53
3	Be 313.107†	-4422.4	225.8	0.0798 ug/L	0.0798 ppb	22:14:33
3	Cd 226.502†	-203.7	24.5	0.2213 ug/L	0.2213 ppb	22:14:53
3	Co 228.616†	-77.6	8.0	0.1411 ug/L	0.1411 ppb	22:14:53
3	Cr 267.716†	422.7	318.5	3.1879 ug/L	3.1879 ppb	22:14:53
3	Cu 324.752†	6234.8	72.9	0.2110 ug/L	0.2110 ppb	22:14:33
3	Mn 257.610†	7734.8	7150.3	6.9314 ug/L	6.9314 ppb	22:14:53
3	Mo 202.031†	41.1	15.1	0.9087 ug/L	0.9087 ppb	22:14:53
3	Ni 231.604†	112.5	8.9	0.1924 ug/L	0.1924 ppb	22:14:53
3	P 214.914†	356.6	97.1	49.069 ug/L	49.069 ppb	22:14:53
3	Pb 220.353†	-100.4	-21.3	-2.1570 ug/L	-2.1570 ppb	22:14:53
3	S 181.975 Axial†	876.0	806.7	966.47 ug/L	966.47 ppb	22:14:53
3	Sb 206.836†	30.4	-12.4	-4.0124 ug/L	-4.0124 ppb	22:14:53
3	Se 196.026†	-30.8	-1.7	-0.4108 ug/L	-0.4108 ppb	22:14:53
3	Si 251.611†	1147136.8	1132699.7	31531 ug/L	31531 ppb	22:14:33
3	Sn 189.927†	-117.1	-117.5	-15.895 ug/L	-15.895 ppb	22:14:53
3	Ti 334.940†	262.8	1729.7	3.1392 ug/L	3.1392 ppb	22:14:33
3	Tl 190.801†	-54.5	-8.1	-2.0048 ug/L	-2.0048 ppb	22:14:53
3	U 409.014†	-2833.3	-70.9	-1.9917 ug/L	-1.9917 ppb	22:14:33
3	V 292.402†	-660.8	815.6	5.1824 ug/L	5.1824 ppb	22:14:53
3	Zn 213.857†	2765.6	1927.5	15.418 ug/L	15.418 ppb	22:14:53
3	SiO2†	1173644.7	1158864.1	69277 ug/L	69277 ppb	22:15:11

Mean Data: 242753007|932266|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	910773.6	101.26	%	0.772				0.76%
Sc Radial	5591.6	100	%	0.5				0.45%
Y 371.029	742176.7	99.903	%	0.7529				0.75%
Y RADIAL	5818.4	99.27	%	0.587				0.59%
Ag 328.068†	30.7	0.0129	ug/L	0.47107	0.0129	ppb	0.47107	>999.9%
Al 396.153Radial†	224.0	157.26	ug/L	13.396	157.26	ppb	13.396	8.52%
As 188.979†	-1.4	-0.4657	ug/L	2.82020	-0.4657	ppb	2.82020	605.60%
B 249.677†	-502.4	-10.266	ug/L	0.2385	-10.266	ppb	0.2385	2.32%
Ba 233.527†	2617.2	17.586	ug/L	0.1627	17.586	ppb	0.1627	0.93%
Be 313.107†	220.3	0.0778	ug/L	0.01094	0.0778	ppb	0.01094	14.07%
Ca 317.933Radial†	8887.9	12408	ug/L	40.2	12408	ppb	40.2	0.32%
Cd 226.502†	22.0	0.1990	ug/L	0.04154	0.1990	ppb	0.04154	20.88%
Co 228.616†	4.7	0.0842	ug/L	0.10321	0.0842	ppb	0.10321	122.65%
Cr 267.716†	314.9	3.1521	ug/L	0.10336	3.1521	ppb	0.10336	3.28%
Cu 324.752†	58.7	0.1704	ug/L	0.06481	0.1704	ppb	0.06481	38.03%
Fe 238.204 Radial†	16.0	126.76	ug/L	14.648	126.76	ppb	14.648	11.56%
K 766.490 Radial†	7842.3	1401.8	ug/L	15.34	1401.8	ppb	15.34	1.09%

Mg 279.077 IEC†	118.9	3587.0	ug/L	123.51	3587.0	ppb	123.51	3.44%
Mn 257.610†	7158.3	6.9354	ug/L	0.07295	6.9354	ppb	0.07295	1.05%
Mo 202.031†	16.5	0.9932	ug/L	0.28789	0.9932	ppb	0.28789	28.99%
Na 589.592 Radial†	39761.8	10866	ug/L	24.6	10866	ppb	24.6	0.23%
Ni 231.604†	2.1	0.0457	ug/L	0.19819	0.0457	ppb	0.19819	433.54%
P 214.914†	95.9	48.485	ug/L	3.2094	48.485	ppb	3.2094	6.62%
Pb 220.353†	-0.4	-0.0107	ug/L	1.89645	-0.0107	ppb	1.89645	>999.9%
S 181.975 Axial†	814.4	975.72	ug/L	8.008	975.72	ppb	8.008	0.82%
Sb 206.836†	-4.1	-1.5520	ug/L	2.53437	-1.5520	ppb	2.53437	163.29%
Se 196.026†	-1.9	-0.6001	ug/L	0.37378	-0.6001	ppb	0.37378	62.29%
Si 251.611†	1131767.1	31505	ug/L	22.6	31505	ppb	22.6	0.07%
Sn 189.927†	-117.6	-15.909	ug/L	0.4435	-15.909	ppb	0.4435	2.79%
Sr 421.552†	9689.1	55.164	ug/L	0.1358	55.164	ppb	0.1358	0.25%
Ti 334.940†	1652.0	3.0260	ug/L	0.10639	3.0260	ppb	0.10639	3.52%
Tl 190.801†	-1.2	-0.2615	ug/L	1.58164	-0.2615	ppb	1.58164	604.80%
U 409.014†	-61.5	-1.7291	ug/L	3.48355	-1.7291	ppb	3.48355	201.47%
V 292.402†	806.9	5.1345	ug/L	0.09698	5.1345	ppb	0.09698	1.89%
Zn 213.857†	1931.1	15.445	ug/L	0.1574	15.445	ppb	0.1574	1.02%
SiO2†	1154037.7	68988	ug/L	588.9	68988	ppb	588.9	0.85%

Sequence No.: 84
Sample ID: 242753008|932266|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 84
Date Collected: 12/20/2009 22:17:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242753008|932266|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5710.0	5710.0	102	%			22:19:16
1	Y RADIAL	5905.3	5905.3	100.7	%			22:19:16
1	Al 396.153Radial†	-0.7	12.6	8.8075	ug/L	8.8075	ppb	22:19:16
1	Ca 317.933Radial†	8915.6	8706.5	12155	ug/L	12155	ppb	22:19:16
1	Fe 238.204 Radial†	13.0	1.5	11.620	ug/L	11.620	ppb	22:19:36
1	K 766.490 Radial†	10466.0	7369.1	1316.7	ug/L	1316.7	ppb	22:19:16
1	Mg 279.077 IEC†	116.9	112.1	3384.4	ug/L	3384.4	ppb	22:19:36
1	Na 589.592 Radial†	41181.6	41558.1	11357	ug/L	11357	ppb	22:19:16
1	Sr 421.552†	9806.4	9590.4	54.603	ug/L	54.603	ppb	22:19:16
1	Sc 361.383	923538.8	923538.8	102.68	%			22:20:33
1	Y 371.029	751007.6	751007.6	101.09	%			22:20:33
1	Ag 328.068†	390.3	-19.3	-0.2379	ug/L	-0.2379	ppb	22:20:33
1	As 188.979†	-21.6	6.4	2.2664	ug/L	2.2664	ppb	22:20:53
1	B 249.677†	-68.6	-531.8	-10.851	ug/L	-10.851	ppb	22:20:53
1	Ba 233.527†	2447.6	2392.3	16.073	ug/L	16.073	ppb	22:20:53
1	Be 313.107†	-4544.3	169.5	0.0539	ug/L	0.0539	ppb	22:20:33
1	Cd 226.502†	-229.6	2.2	0.0193	ug/L	0.0193	ppb	22:20:53
1	Co 228.616†	-100.4	-13.0	-0.2133	ug/L	-0.2133	ppb	22:20:53
1	Cr 267.716†	382.4	273.2	2.7329	ug/L	2.7329	ppb	22:20:53
1	Cu 324.752†	6154.4	-93.4	-0.2603	ug/L	-0.2603	ppb	22:20:33
1	Mn 257.610†	2224.8	1675.2	1.5739	ug/L	1.5739	ppb	22:20:53
1	Mo 202.031†	53.5	26.6	1.5798	ug/L	1.5798	ppb	22:20:53
1	Ni 231.604†	80.3	-24.1	-0.5187	ug/L	-0.5187	ppb	22:20:53
1	P 214.914†	305.2	42.0	21.173	ug/L	21.173	ppb	22:20:53
1	Pb 220.353†	-104.0	-23.5	-2.3965	ug/L	-2.3965	ppb	22:20:53
1	S 181.975 Axial†	923.4	840.5	1007.0	ug/L	1007.0	ppb	22:20:53
1	Sb 206.836†	27.0	-16.1	-5.0697	ug/L	-5.0697	ppb	22:20:53
1	Se 196.026†	-32.4	-2.7	-1.4216	ug/L	-1.4216	ppb	22:20:53
1	Si 251.611†	1141530.5	1111062.1	30928	ug/L	30928	ppb	22:20:33
1	Sn 189.927†	-118.9	-117.7	-15.947	ug/L	-15.947	ppb	22:20:53
1	Ti 334.940†	-2364.1	-832.4	-0.5664	ug/L	-0.5664	ppb	22:20:33
1	Tl 190.801†	-48.2	-1.1	-0.2951	ug/L	-0.2951	ppb	22:20:53
1	U 409.014†	-2736.2	63.6	1.7591	ug/L	1.7591	ppb	22:20:33
1	V 292.402†	-671.1	814.8	5.2168	ug/L	5.2168	ppb	22:20:53
1	Zn 213.857†	1283.5	445.1	3.4772	ug/L	3.4772	ppb	22:20:53
1	SiO2†	1156393.4	1125511.8	67283	ug/L	67283	ppb	22:21:50
2	Sc Radial	5604.1	5604.1	100	%			22:19:41
2	Y RADIAL	5879.7	5879.7	100.3	%			22:19:41
2	Al 396.153Radial†	-5.4	7.9	5.5145	ug/L	5.5145	ppb	22:19:41
2	Ca 317.933Radial†	8851.5	8807.5	12296	ug/L	12296	ppb	22:19:41
2	Fe 238.204 Radial†	13.8	2.6	20.374	ug/L	20.374	ppb	22:20:01
2	K 766.490 Radial†	10530.8	7627.3	1363.0	ug/L	1363.0	ppb	22:19:41
2	Mg 279.077 IEC†	118.7	116.1	3504.6	ug/L	3504.6	ppb	22:20:01
2	Na 589.592 Radial†	40467.9	41608.3	11371	ug/L	11371	ppb	22:19:41
2	Sr 421.552†	9696.2	9661.9	55.010	ug/L	55.010	ppb	22:19:41
2	Sc 361.383	918009.6	918009.6	102.07	%			22:20:59
2	Y 371.029	747561.1	747561.1	100.63	%			22:20:59
2	Ag 328.068†	442.9	34.6	-0.0093	ug/L	-0.0093	ppb	22:20:59
2	As 188.979†	-16.2	11.6	4.1218	ug/L	4.1218	ppb	22:21:19
2	B 249.677†	-20.8	-485.4	-9.9044	ug/L	-9.9044	ppb	22:21:19
2	Ba 233.527†	2439.7	2398.9	16.118	ug/L	16.118	ppb	22:21:19
2	Be 313.107†	-4472.4	213.3	0.0682	ug/L	0.0682	ppb	22:20:59
2	Cd 226.502†	-224.2	6.1	0.0566	ug/L	0.0566	ppb	22:21:19
2	Co 228.616†	-81.6	4.7	0.0938	ug/L	0.0938	ppb	22:21:19
2	Cr 267.716†	386.3	279.3	2.7935	ug/L	2.7935	ppb	22:21:19
2	Cu 324.752†	6132.7	-78.5	-0.2184	ug/L	-0.2184	ppb	22:20:59
2	Mn 257.610†	2247.7	1710.7	1.6071	ug/L	1.6071	ppb	22:21:19
2	Mo 202.031†	45.1	18.6	1.1079	ug/L	1.1079	ppb	22:21:19
2	Ni 231.604†	103.2	-1.1	-0.0246	ug/L	-0.0246	ppb	22:21:19

2	P 214.914†	295.5	34.3	17.235	ug/L	17.235	ppb	22:21:19
2	Pb 220.353†	-77.0	2.3	0.2428	ug/L	0.2428	ppb	22:21:19
2	S 181.975 Axial†	917.7	840.3	1006.8	ug/L	1006.8	ppb	22:21:19
2	Sb 206.836†	42.5	-0.7	-0.5503	ug/L	-0.5503	ppb	22:21:19
2	Se 196.026†	-25.1	4.2	2.2841	ug/L	2.2841	ppb	22:21:19
2	Si 251.611†	1135195.2	1111551.1	30942	ug/L	30942	ppb	22:20:59
2	Sn 189.927†	-119.7	-119.1	-16.144	ug/L	-16.144	ppb	22:21:19
2	Ti 334.940†	-2431.8	-912.6	-0.6752	ug/L	-0.6752	ppb	22:20:59
2	Tl 190.801†	-45.8	0.9	0.2233	ug/L	0.2233	ppb	22:21:19
2	U 409.014†	-2665.1	117.2	3.2462	ug/L	3.2462	ppb	22:20:59
2	V 292.402†	-699.0	783.6	5.0181	ug/L	5.0181	ppb	22:21:19
2	Zn 213.857†	1277.6	446.9	3.4838	ug/L	3.4838	ppb	22:21:19
2	SiO2†	1162653.3	1138428.1	68055	ug/L	68055	ppb	22:21:56
3	Sc Radial	5614.1	5614.1	100	%			22:20:06
3	Y RADIAL	5860.5	5860.5	99.98	%			22:20:06
3	Al 396.153Radial†	8.2	21.5	15.062	ug/L	15.062	ppb	22:20:06
3	Ca 317.933Radial†	8856.9	8797.1	12281	ug/L	12281	ppb	22:20:06
3	Fe 238.204 Radial†	15.2	3.9	30.875	ug/L	30.875	ppb	22:20:26
3	K 766.490 Radial†	10554.3	7632.0	1363.8	ug/L	1363.8	ppb	22:20:06
3	Mg 279.077 IEC†	118.8	115.9	3498.9	ug/L	3498.9	ppb	22:20:26
3	Na 589.592 Radial†	40762.7	41829.8	11431	ug/L	11431	ppb	22:20:06
3	Sr 421.552†	9733.0	9681.3	55.120	ug/L	55.120	ppb	22:20:06
3	Sc 361.383	912658.9	912658.9	101.47	%			22:21:24
3	Y 371.029	743531.7	743531.7	100.09	%			22:21:24
3	Ag 328.068†	385.7	-19.2	-0.2359	ug/L	-0.2359	ppb	22:21:24
3	As 188.979†	-32.4	-4.5	-1.5888	ug/L	-1.5888	ppb	22:21:44
3	B 249.677†	-22.3	-487.1	-9.9398	ug/L	-9.9398	ppb	22:21:44
3	Ba 233.527†	2469.6	2442.4	16.409	ug/L	16.409	ppb	22:21:44
3	Be 313.107†	-4444.0	215.5	0.0693	ug/L	0.0693	ppb	22:21:24
3	Cd 226.502†	-213.2	15.7	0.1474	ug/L	0.1474	ppb	22:21:44
3	Co 228.616†	-90.3	-4.2	-0.0629	ug/L	-0.0629	ppb	22:21:44
3	Cr 267.716†	357.4	253.0	2.5309	ug/L	2.5309	ppb	22:21:44
3	Cu 324.752†	6084.0	-91.3	-0.2535	ug/L	-0.2535	ppb	22:21:24
3	Mn 257.610†	2232.1	1708.2	1.6059	ug/L	1.6059	ppb	22:21:44
3	Mo 202.031†	40.5	14.3	0.8542	ug/L	0.8542	ppb	22:21:44
3	Ni 231.604†	87.2	-16.3	-0.3519	ug/L	-0.3519	ppb	22:21:44
3	P 214.914†	286.4	27.1	13.550	ug/L	13.550	ppb	22:21:44
3	Pb 220.353†	-63.9	14.8	1.5185	ug/L	1.5185	ppb	22:21:44
3	S 181.975 Axial†	928.4	856.1	1025.7	ug/L	1025.7	ppb	22:21:44
3	Sb 206.836†	32.6	-10.2	-3.3707	ug/L	-3.3707	ppb	22:21:44
3	Se 196.026†	-28.3	0.9	0.5716	ug/L	0.5716	ppb	22:21:44
3	Si 251.611†	1125704.8	1108718.9	30863	ug/L	30863	ppb	22:21:24
3	Sn 189.927†	-125.8	-125.8	-17.130	ug/L	-17.130	ppb	22:21:44
3	Ti 334.940†	-2278.9	-775.8	-0.4786	ug/L	-0.4786	ppb	22:21:24
3	Tl 190.801†	-50.7	-4.2	-1.0860	ug/L	-1.0860	ppb	22:21:44
3	U 409.014†	-2685.1	82.2	2.2728	ug/L	2.2728	ppb	22:21:24
3	V 292.402†	-761.1	718.4	4.6015	ug/L	4.6015	ppb	22:21:44
3	Zn 213.857†	1275.3	452.0	3.5264	ug/L	3.5264	ppb	22:21:44
3	SiO2†	1144445.1	1127162.3	67382	ug/L	67382	ppb	22:22:02

Mean Data: 242753008|932266|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	918069.1	102.07	%	0.605				0.59%
Sc Radial	5642.7	101	%	1.0				1.04%
Y 371.029	747366.8	100.60	%	0.504				0.50%
Y RADIAL	5881.8	100.3	%	0.38				0.38%
Ag 328.068†	-1.3	-0.1610	ug/L	0.13146	-0.1610	ppb	0.13146	81.63%
Al 396.153Radial†	14.0	9.7947	ug/L	4.84977	9.7947	ppb	4.84977	49.51%
As 188.979†	4.5	1.5998	ug/L	2.91308	1.5998	ppb	2.91308	182.09%
B 249.677†	-501.4	-10.232	ug/L	0.5364	-10.232	ppb	0.5364	5.24%
Ba 233.527†	2411.2	16.200	ug/L	0.1822	16.200	ppb	0.1822	1.12%
Be 313.107†	199.4	0.0638	ug/L	0.00861	0.0638	ppb	0.00861	13.50%
Ca 317.933Radial†	8770.4	12244	ug/L	77.6	12244	ppb	77.6	0.63%
Cd 226.502†	8.0	0.0744	ug/L	0.06590	0.0744	ppb	0.06590	88.52%
Co 228.616†	-4.2	-0.0608	ug/L	0.15358	-0.0608	ppb	0.15358	252.56%
Cr 267.716†	268.5	2.6858	ug/L	0.13752	2.6858	ppb	0.13752	5.12%
Cu 324.752†	-87.7	-0.2441	ug/L	0.02248	-0.2441	ppb	0.02248	9.21%
Fe 238.204 Radial†	2.6	20.956	ug/L	9.6406	20.956	ppb	9.6406	46.00%
K 766.490 Radial†	7542.8	1347.8	ug/L	26.99	1347.8	ppb	26.99	2.00%

Mg 279.077 IEC†	114.7	3462.6	ug/L	67.76	3462.6	ppb	67.76	1.96%
Mn 257.610†	1698.0	1.5956	ug/L	0.01885	1.5956	ppb	0.01885	1.18%
Mo 202.031†	19.8	1.1806	ug/L	0.36827	1.1806	ppb	0.36827	31.19%
Na 589.592 Radial†	41665.4	11386	ug/L	39.5	11386	ppb	39.5	0.35%
Ni 231.604†	-13.8	-0.2984	ug/L	0.25134	-0.2984	ppb	0.25134	84.22%
P 214.914†	34.5	17.319	ug/L	3.8119	17.319	ppb	3.8119	22.01%
Pb 220.353†	-2.1	-0.2117	ug/L	1.99673	-0.2117	ppb	1.99673	943.02%
S 181.975 Axial†	845.7	1013.2	ug/L	10.86	1013.2	ppb	10.86	1.07%
Sb 206.836†	-9.0	-2.9969	ug/L	2.28278	-2.9969	ppb	2.28278	76.17%
Se 196.026†	0.8	0.4780	ug/L	1.85462	0.4780	ppb	1.85462	388.00%
Si 251.611†	1110444.0	30911	ug/L	42.1	30911	ppb	42.1	0.14%
Sn 189.927†	-120.9	-16.407	ug/L	0.6335	-16.407	ppb	0.6335	3.86%
Sr 421.552†	9644.5	54.911	ug/L	0.2726	54.911	ppb	0.2726	0.50%
Ti 334.940†	-840.2	-0.5734	ug/L	0.09851	-0.5734	ppb	0.09851	17.18%
Tl 190.801†	-1.5	-0.3859	ug/L	0.65932	-0.3859	ppb	0.65932	170.84%
U 409.014†	87.7	2.4260	ug/L	0.75529	2.4260	ppb	0.75529	31.13%
V 292.402†	772.2	4.9455	ug/L	0.31403	4.9455	ppb	0.31403	6.35%
Zn 213.857†	448.0	3.4958	ug/L	0.02671	3.4958	ppb	0.02671	0.76%
SiO2†	1130367.4	67573	ug/L	420.2	67573	ppb	420.2	0.62%

Sequence No.: 85
Sample ID: 242753009|932266|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 85
Date Collected: 12/20/2009 22:24:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242753009|932266|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5898.5	5898.5	106	%			22:26:07
1	Y RADIAL	6123.4	6123.4	104.5	%			22:26:07
1	Al 396.153Radial†	-8.4	5.3	3.7521	ug/L	3.7521	ppb	22:26:07
1	Ca 317.933Radial†	27.3	8.0	11.158	ug/L	11.158	ppb	22:26:27
1	Fe 238.204 Radial†	12.2	0.4	3.0416	ug/L	3.0416	ppb	22:26:27
1	K 766.490 Radial†	2812.5	-208.1	-37.357	ug/L	-37.357	ppb	22:26:07
1	Mg 279.077 IEC†	2.3	-0.1	-3.0401	ug/L	-3.0401	ppb	22:26:27
1	Na 589.592 Radial†	-1433.9	-98.3	-26.873	ug/L	-26.873	ppb	22:26:07
1	Sr 421.552†	33.8	26.4	0.1505	ug/L	0.1505	ppb	22:26:07
1	Sc 361.383	927580.0	927580.0	103.13	%			22:27:24
1	Y 371.029	761703.8	761703.8	102.53	%			22:27:24
1	Ag 328.068†	392.9	-18.4	-0.0836	ug/L	-0.0836	ppb	22:27:29
1	As 188.979†	-25.4	2.8	1.0022	ug/L	1.0022	ppb	22:27:49
1	B 249.677†	-380.8	-834.3	-17.020	ug/L	-17.020	ppb	22:27:49
1	Ba 233.527†	0.0	8.6	0.0571	ug/L	0.0571	ppb	22:27:49
1	Be 313.107†	-4507.0	224.9	0.0751	ug/L	0.0751	ppb	22:27:29
1	Cd 226.502†	-233.3	-0.5	-0.0047	ug/L	-0.0047	ppb	22:27:49
1	Co 228.616†	-76.7	10.4	0.1788	ug/L	0.1788	ppb	22:27:49
1	Cr 267.716†	118.8	16.0	0.1574	ug/L	0.1574	ppb	22:27:49
1	Cu 324.752†	6279.0	1.4	0.0041	ug/L	0.0041	ppb	22:27:29
1	Mn 257.610†	597.4	87.8	0.0861	ug/L	0.0861	ppb	22:27:49
1	Mo 202.031†	22.1	-4.1	-0.2438	ug/L	-0.2438	ppb	22:27:49
1	Ni 231.604†	123.2	17.2	0.3712	ug/L	0.3712	ppb	22:27:49
1	P 214.914†	252.6	-10.3	-5.2197	ug/L	-5.2197	ppb	22:27:49
1	Pb 220.353†	-88.3	-7.8	-0.7978	ug/L	-0.7978	ppb	22:27:49
1	S 181.975 Axial†	50.1	-10.2	-12.238	ug/L	-12.238	ppb	22:27:49
1	Sb 206.836†	26.8	-16.4	-4.8648	ug/L	-4.8648	ppb	22:27:49
1	Se 196.026†	-29.2	0.5	0.2750	ug/L	0.2750	ppb	22:27:49
1	Si 251.611†	111214.9	107179.1	2983.6	ug/L	2983.6	ppb	22:27:29
1	Sn 189.927†	1.4	-0.5	-0.0700	ug/L	-0.0700	ppb	22:27:49
1	Ti 334.940†	-1340.2	170.5	0.2439	ug/L	0.2439	ppb	22:27:29
1	Tl 190.801†	-43.1	4.0	1.0110	ug/L	1.0110	ppb	22:27:49
1	U 409.014†	-2624.2	183.8	5.1007	ug/L	5.1007	ppb	22:27:24
1	V 292.402†	-1585.5	-68.9	-0.4270	ug/L	-0.4270	ppb	22:27:29
1	Zn 213.857†	936.8	103.5	0.8325	ug/L	0.8325	ppb	22:27:49
1	SiO2†	111545.9	107474.9	6425.0	ug/L	6425.0	ppb	22:28:55
2	Sc Radial	5746.1	5746.1	103	%			22:26:32
2	Y RADIAL	6015.3	6015.3	102.6	%			22:26:32
2	Al 396.153Radial†	-37.0	-22.7	-15.933	ug/L	-15.933	ppb	22:26:32
2	Ca 317.933Radial†	24.7	6.2	8.6305	ug/L	8.6305	ppb	22:26:52
2	Fe 238.204 Radial†	11.5	-0.0	-0.2218	ug/L	-0.2218	ppb	22:26:52
2	K 766.490 Radial†	2807.2	-142.6	-25.588	ug/L	-25.588	ppb	22:26:32
2	Mg 279.077 IEC†	2.4	0.1	1.7339	ug/L	1.7339	ppb	22:26:52
2	Na 589.592 Radial†	-1516.8	-215.0	-58.746	ug/L	-58.746	ppb	22:26:32
2	Sr 421.552†	-31.3	-36.1	-0.2059	ug/L	-0.2059	ppb	22:26:32
2	Sc 361.383	929799.9	929799.9	103.38	%			22:27:54
2	Y 371.029	763159.5	763159.5	102.73	%			22:27:54
2	Ag 328.068†	423.9	10.7	0.0382	ug/L	0.0382	ppb	22:27:59
2	As 188.979†	-31.7	-3.2	-1.1423	ug/L	-1.1423	ppb	22:28:19
2	B 249.677†	-328.8	-783.1	-15.976	ug/L	-15.976	ppb	22:28:19
2	Ba 233.527†	10.7	18.9	0.1267	ug/L	0.1267	ppb	22:28:19
2	Be 313.107†	-4505.1	237.1	0.0793	ug/L	0.0793	ppb	22:27:59
2	Cd 226.502†	-237.8	-4.2	-0.0405	ug/L	-0.0405	ppb	22:28:19
2	Co 228.616†	-85.6	1.9	0.0333	ug/L	0.0333	ppb	22:28:19
2	Cr 267.716†	118.3	15.3	0.1498	ug/L	0.1498	ppb	22:28:19
2	Cu 324.752†	6165.2	-123.3	-0.3445	ug/L	-0.3445	ppb	22:27:59
2	Mn 257.610†	563.0	53.1	0.0518	ug/L	0.0518	ppb	22:28:19
2	Mo 202.031†	27.3	0.8	0.0480	ug/L	0.0480	ppb	22:28:19
2	Ni 231.604†	124.0	17.7	0.3813	ug/L	0.3813	ppb	22:28:19

2	P 214.914†	257.9	-5.7	-2.8438 ug/L	-2.8438 ppb	22:28:19
2	Pb 220.353†	-88.2	-7.5	-0.7670 ug/L	-0.7670 ppb	22:28:19
2	S 181.975 Axial†	43.0	-17.2	-20.552 ug/L	-20.552 ppb	22:28:19
2	Sb 206.836†	28.4	-14.9	-4.4077 ug/L	-4.4077 ppb	22:28:19
2	Se 196.026†	-33.4	-3.5	-1.8777 ug/L	-1.8777 ppb	22:28:19
2	Si 251.611†	110852.4	106571.0	2966.6 ug/L	2966.6 ppb	22:27:59
2	Sn 189.927†	1.8	-0.1	-0.0107 ug/L	-0.0107 ppb	22:28:19
2	Ti 334.940†	-1313.2	199.7	0.2846 ug/L	0.2846 ppb	22:27:59
2	Tl 190.801†	-49.1	-1.7	-0.4253 ug/L	-0.4253 ppb	22:28:19
2	U 409.014†	-2530.3	280.7	7.7911 ug/L	7.7911 ppb	22:27:54
2	V 292.402†	-1539.4	-20.7	-0.1143 ug/L	-0.1143 ppb	22:27:59
2	Zn 213.857†	936.5	101.1	0.8130 ug/L	0.8130 ppb	22:28:19
2	SiO2†	114312.9	109893.2	6569.5 ug/L	6569.5 ppb	22:29:00
3	Sc Radial	5710.6	5710.6	102 %		22:26:57
3	Y RADIAL	5956.8	5956.8	101.6 %		22:26:57
3	Al 396.153Radial†	-4.7	8.7	6.0996 ug/L	6.0996 ppb	22:26:57
3	Ca 317.933Radial†	28.1	9.6	13.436 ug/L	13.436 ppb	22:27:17
3	Fe 238.204 Radial†	12.4	0.9	6.9921 ug/L	6.9921 ppb	22:27:17
3	K 766.490 Radial†	2847.1	-86.6	-15.532 ug/L	-15.532 ppb	22:26:57
3	Mg 279.077 IEC†	2.4	0.1	2.6074 ug/L	2.6074 ppb	22:27:17
3	Na 589.592 Radial†	-1496.6	-204.3	-55.829 ug/L	-55.829 ppb	22:26:57
3	Sr 421.552†	-8.9	-14.3	-0.0819 ug/L	-0.0819 ppb	22:26:57
3	Sc 361.383	935679.9	935679.9	104.03 %		22:28:25
3	Y 371.029	769316.4	769316.4	103.56 %		22:28:25
3	Ag 328.068†	455.6	38.5	0.1602 ug/L	0.1602 ppb	22:28:30
3	As 188.979†	-30.7	-2.0	-0.7157 ug/L	-0.7157 ppb	22:28:50
3	B 249.677†	-371.6	-822.3	-16.776 ug/L	-16.776 ppb	22:28:50
3	Ba 233.527†	4.9	13.3	0.0886 ug/L	0.0886 ppb	22:28:50
3	Be 313.107†	-4487.9	281.1	0.0938 ug/L	0.0938 ppb	22:28:30
3	Cd 226.502†	-236.3	-1.4	-0.0134 ug/L	-0.0134 ppb	22:28:50
3	Co 228.616†	-79.8	8.0	0.1370 ug/L	0.1370 ppb	22:28:50
3	Cr 267.716†	101.0	-2.1	-0.0229 ug/L	-0.0229 ppb	22:28:50
3	Cu 324.752†	6226.9	-101.4	-0.2830 ug/L	-0.2830 ppb	22:28:30
3	Mn 257.610†	577.2	63.3	0.0624 ug/L	0.0624 ppb	22:28:50
3	Mo 202.031†	21.6	-4.8	-0.2870 ug/L	-0.2870 ppb	22:28:50
3	Ni 231.604†	128.9	21.6	0.4665 ug/L	0.4665 ppb	22:28:50
3	P 214.914†	258.6	-6.6	-3.3243 ug/L	-3.3243 ppb	22:28:50
3	Pb 220.353†	-83.3	-2.2	-0.2283 ug/L	-0.2283 ppb	22:28:50
3	S 181.975 Axial†	47.6	-13.0	-15.577 ug/L	-15.577 ppb	22:28:50
3	Sb 206.836†	36.6	-7.2	-2.1553 ug/L	-2.1553 ppb	22:28:50
3	Se 196.026†	-33.1	-3.0	-1.5994 ug/L	-1.5994 ppb	22:28:50
3	Si 251.611†	111735.6	106746.0	2971.5 ug/L	2971.5 ppb	22:28:30
3	Sn 189.927†	-3.7	-5.3	-0.7807 ug/L	-0.7807 ppb	22:28:50
3	Ti 334.940†	-1355.6	166.9	0.2388 ug/L	0.2388 ppb	22:28:30
3	Tl 190.801†	-42.1	5.4	1.3720 ug/L	1.3720 ppb	22:28:50
3	U 409.014†	-2639.9	190.7	5.2933 ug/L	5.2933 ppb	22:28:25
3	V 292.402†	-1603.5	-73.0	-0.4532 ug/L	-0.4532 ppb	22:28:30
3	Zn 213.857†	923.4	82.7	0.6642 ug/L	0.6642 ppb	22:28:50
3	SiO2†	112520.2	107475.1	6425.0 ug/L	6425.0 ppb	22:29:05

Mean Data: 242753009|932266|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	931019.9	103.51	%	0.465				0.45%
Sc Radial	5785.1	104	%	1.8				1.73%
Y 371.029	764726.6	102.94	%	0.544				0.53%
Y RADIAL	6031.8	102.9	%	1.44				1.40%
Ag 328.068†	10.3	0.0383	ug/L	0.12190	0.0383	ppb	0.12190	318.49%
Al 396.153Radial†	-2.9	-2.0272	ug/L	12.10016	-2.0272	ppb	12.10016	596.88%
As 188.979†	-0.8	-0.2853	ug/L	1.13520	-0.2853	ppb	1.13520	397.92%
B 249.677†	-813.2	-16.591	ug/L	0.5464	-16.591	ppb	0.5464	3.29%
Ba 233.527†	13.6	0.0908	ug/L	0.03486	0.0908	ppb	0.03486	38.39%
Be 313.107†	247.7	0.0827	ug/L	0.00978	0.0827	ppb	0.00978	11.82%
Ca 317.933Radial†	7.9	11.075	ug/L	2.4037	11.075	ppb	2.4037	21.70%
Cd 226.502†	-2.0	-0.0195	ug/L	0.01868	-0.0195	ppb	0.01868	95.56%
Co 228.616†	6.8	0.1164	ug/L	0.07492	0.1164	ppb	0.07492	64.37%
Cr 267.716†	9.8	0.0948	ug/L	0.10197	0.0948	ppb	0.10197	107.59%
Cu 324.752†	-74.4	-0.2078	ug/L	0.18606	-0.2078	ppb	0.18606	89.53%
Fe 238.204 Radial†	0.4	3.2706	ug/L	3.61239	3.2706	ppb	3.61239	110.45%
K 766.490 Radial†	-145.8	-26.159	ug/L	10.9238	-26.159	ppb	10.9238	41.76%

Mg 279.077 IEC†	0.0	0.4337	ug/L	3.03997	0.4337	ppb	3.03997 700.94%
Mn 257.610†	68.1	0.0668	ug/L	0.01755	0.0668	ppb	0.01755 26.28%
Mo 202.031†	-2.7	-0.1609	ug/L	0.18222	-0.1609	ppb	0.18222 113.22%
Na 589.592 Radial†	-172.5	-47.150	ug/L	17.6204	-47.150	ppb	17.6204 37.37%
Ni 231.604†	18.9	0.4063	ug/L	0.05232	0.4063	ppb	0.05232 12.88%
P 214.914†	-7.5	-3.7959	ug/L	1.25625	-3.7959	ppb	1.25625 33.09%
Pb 220.353†	-5.8	-0.5977	ug/L	0.32027	-0.5977	ppb	0.32027 53.59%
S 181.975 Axial†	-13.5	-16.122	ug/L	4.1838	-16.122	ppb	4.1838 25.95%
Sb 206.836†	-12.9	-3.8093	ug/L	1.45049	-3.8093	ppb	1.45049 38.08%
Se 196.026†	-2.0	-1.0674	ug/L	1.17081	-1.0674	ppb	1.17081 109.69%
Si 251.611†	106832.0	2973.9	ug/L	8.72	2973.9	ppb	8.72 0.29%
Sn 189.927†	-2.0	-0.2871	ug/L	0.42849	-0.2871	ppb	0.42849 149.24%
Sr 421.552†	-8.0	-0.0458	ug/L	0.18089	-0.0458	ppb	0.18089 395.23%
Ti 334.940†	179.1	0.2557	ug/L	0.02509	0.2557	ppb	0.02509 9.81%
Tl 190.801†	2.5	0.6526	ug/L	0.95074	0.6526	ppb	0.95074 145.69%
U 409.014†	218.4	6.0617	ug/L	1.50078	6.0617	ppb	1.50078 24.76%
V 292.402†	-54.2	-0.3315	ug/L	0.18853	-0.3315	ppb	0.18853 56.87%
Zn 213.857†	95.8	0.7699	ug/L	0.09203	0.7699	ppb	0.09203 11.95%
SiO2†	108281.1	6473.1	ug/L	83.46	6473.1	ppb	83.46 1.29%

Sequence No.: 86
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/20/2009 22:31:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5511.2	5511.2	98.6	%			22:33:09
1	Y RADIAL	5735.8	5735.8	97.86	%			22:33:09
1	Al 396.153Radial†	6941.7	7051.1	4931.1	ug/L	4931.1	ppb	22:33:09
1	Ca 317.933Radial†	3560.9	3592.4	5015.2	ug/L	5015.2	ppb	22:33:29
1	Fe 238.204 Radial†	658.5	656.4	5210.1	ug/L	5210.1	ppb	22:33:29
1	K 766.490 Radial†	30479.7	28029.3	5023.6	ug/L	5023.6	ppb	22:33:09
1	Mg 279.077 IEC†	172.1	172.2	5203.8	ug/L	5203.8	ppb	22:33:29
1	Na 589.592 Radial†	35653.5	37407.2	10223	ug/L	10223	ppb	22:33:09
1	Sr 421.552†	86956.8	88155.2	502.90	ug/L	502.90	ppb	22:33:09
1	Sc 361.383	907931.5	907931.5	100.95	%			22:34:27
1	Y 371.029	738321.3	738321.3	99.384	%			22:34:27
1	Ag 328.068†	120970.7	119437.6	512.79	ug/L	512.79	ppb	22:34:32
1	As 188.979†	1418.2	1432.4	513.50	ug/L	513.50	ppb	22:34:52
1	B 249.677†	24811.9	24114.3	489.94	ug/L	489.94	ppb	22:34:32
1	Ba 233.527†	76835.3	76123.8	512.37	ug/L	512.37	ppb	22:34:32
1	Be 313.107†	1537126.6	1527316.4	507.87	ug/L	507.87	ppb	22:34:27
1	Cd 226.502†	53702.6	53425.1	513.07	ug/L	513.07	ppb	22:34:32
1	Co 228.616†	29722.8	29529.0	512.29	ug/L	512.29	ppb	22:34:32
1	Cr 267.716†	52196.9	51608.5	515.46	ug/L	515.46	ppb	22:34:32
1	Cu 324.752†	190336.7	182465.9	510.25	ug/L	510.25	ppb	22:34:32
1	Mn 257.610†	521624.1	516244.1	504.50	ug/L	504.50	ppb	22:34:27
1	Mo 202.031†	8530.9	8425.4	501.31	ug/L	501.31	ppb	22:34:52
1	Ni 231.604†	24321.4	23991.2	516.72	ug/L	516.72	ppb	22:34:32
1	P 214.914†	5245.4	4941.0	2435.6	ug/L	2435.6	ppb	22:34:52
1	Pb 220.353†	4887.7	4919.8	504.92	ug/L	504.92	ppb	22:34:52
1	S 181.975 Axial†	895.3	828.2	991.29	ug/L	991.29	ppb	22:34:52
1	Sb 206.836†	1765.5	1706.5	510.54	ug/L	510.54	ppb	22:34:52
1	Se 196.026†	923.1	943.2	521.98	ug/L	521.98	ppb	22:34:52
1	Si 251.611†	93273.4	91739.4	2541.8	ug/L	2541.8	ppb	22:34:32
1	Sn 189.927†	3481.4	3447.0	504.75	ug/L	504.75	ppb	22:34:52
1	Ti 334.940†	347658.7	345870.6	497.96	ug/L	497.96	ppb	22:34:27
1	Tl 190.801†	1948.7	1976.2	507.41	ug/L	507.41	ppb	22:34:52
1	U 409.014†	15541.6	18124.3	501.40	ug/L	501.40	ppb	22:34:32
1	V 292.402†	80822.1	81533.1	518.63	ug/L	518.63	ppb	22:34:32
1	Zn 213.857†	65232.0	63815.8	510.33	ug/L	510.33	ppb	22:34:32
1	SiO2†	92339.0	90788.6	5401.3	ug/L	5401.3	ppb	22:36:00
2	Sc Radial	5454.6	5454.6	97.6	%			22:33:34
2	Y RADIAL	5672.6	5672.6	96.78	%			22:33:34
2	Al 396.153Radial†	6866.7	7047.4	4928.6	ug/L	4928.6	ppb	22:33:34
2	Ca 317.933Radial†	3557.7	3626.6	5063.0	ug/L	5063.0	ppb	22:33:54
2	Fe 238.204 Radial†	660.7	665.6	5282.7	ug/L	5282.7	ppb	22:33:54
2	K 766.490 Radial†	30152.6	28015.3	5021.1	ug/L	5021.1	ppb	22:33:34
2	Mg 279.077 IEC†	173.1	175.0	5288.0	ug/L	5288.0	ppb	22:33:54
2	Na 589.592 Radial†	35053.0	37167.5	10157	ug/L	10157	ppb	22:33:34
2	Sr 421.552†	85523.6	87602.8	499.75	ug/L	499.75	ppb	22:33:34
2	Sc 361.383	909082.6	909082.6	101.07	%			22:34:58
2	Y 371.029	738746.3	738746.3	99.441	%			22:34:58
2	Ag 328.068†	119732.8	118061.2	506.93	ug/L	506.93	ppb	22:35:03
2	As 188.979†	1407.3	1419.8	509.05	ug/L	509.05	ppb	22:35:23
2	B 249.677†	24519.7	23794.1	483.42	ug/L	483.42	ppb	22:35:03
2	Ba 233.527†	76024.8	75225.6	506.33	ug/L	506.33	ppb	22:35:03
2	Be 313.107†	1540174.6	1528403.7	508.23	ug/L	508.23	ppb	22:34:58
2	Cd 226.502†	53186.4	52847.0	507.51	ug/L	507.51	ppb	22:35:03
2	Co 228.616†	29414.1	29186.3	506.34	ug/L	506.34	ppb	22:35:03
2	Cr 267.716†	51672.3	51024.0	509.63	ug/L	509.63	ppb	22:35:03
2	Cu 324.752†	188057.4	179972.1	503.29	ug/L	503.29	ppb	22:35:03
2	Mn 257.610†	522329.0	516287.2	504.54	ug/L	504.54	ppb	22:34:58
2	Mo 202.031†	8525.0	8408.8	500.33	ug/L	500.33	ppb	22:35:23
2	Ni 231.604†	23992.2	23635.0	509.04	ug/L	509.04	ppb	22:35:03

2	P 214.914†	5217.2	4906.6	2419.2 ug/L	2419.2 ppb	22:35:23
2	Pb 220.353†	4861.4	4887.6	501.62 ug/L	501.62 ppb	22:35:23
2	S 181.975 Axial†	890.8	822.5	984.50 ug/L	984.50 ppb	22:35:23
2	Sb 206.836†	1754.1	1693.1	506.64 ug/L	506.64 ppb	22:35:23
2	Se 196.026†	920.0	939.0	519.97 ug/L	519.97 ppb	22:35:23
2	Si 251.611†	92107.1	90468.5	2506.4 ug/L	2506.4 ppb	22:35:03
2	Sn 189.927†	3470.7	3432.0	502.57 ug/L	502.57 ppb	22:35:23
2	Ti 334.940†	348308.4	346077.3	498.26 ug/L	498.26 ppb	22:34:58
2	Tl 190.801†	1966.2	1991.1	511.26 ug/L	511.26 ppb	22:35:23
2	U 409.014†	15436.8	18001.1	497.99 ug/L	497.99 ppb	22:35:03
2	V 292.402†	80145.2	80762.0	513.76 ug/L	513.76 ppb	22:35:03
2	Zn 213.857†	64446.9	62957.2	503.45 ug/L	503.45 ppb	22:35:03
2	SiO2†	91536.4	89878.7	5347.0 ug/L	5347.0 ppb	22:36:05
3	Sc Radial	5593.1	5593.1	100 %		22:33:59
3	Y RADIAL	5798.4	5798.4	98.92 %		22:33:59
3	Al 396.153Radial†	7054.0	7060.3	4937.8 ug/L	4937.8 ppb	22:33:59
3	Ca 317.933Radial†	3578.0	3556.6	4965.2 ug/L	4965.2 ppb	22:34:19
3	Fe 238.204 Radial†	657.9	646.1	5128.3 ug/L	5128.3 ppb	22:34:19
3	K 766.490 Radial†	30838.0	27934.9	5006.6 ug/L	5006.6 ppb	22:33:59
3	Mg 279.077 IEC†	175.7	173.3	5234.7 ug/L	5234.7 ppb	22:34:19
3	Na 589.592 Radial†	36344.1	37567.8	10267 ug/L	10267 ppb	22:33:59
3	Sr 421.552†	88195.9	88102.3	502.60 ug/L	502.60 ppb	22:33:59
3	Sc 361.383	917378.1	917378.1	102.00 %		22:35:29
3	Y 371.029	745784.1	745784.1	100.39 %		22:35:29
3	Ag 328.068†	121469.7	118692.8	509.58 ug/L	509.58 ppb	22:35:34
3	As 188.979†	1415.2	1415.0	507.31 ug/L	507.31 ppb	22:35:54
3	B 249.677†	25006.7	24052.3	488.69 ug/L	488.69 ppb	22:35:34
3	Ba 233.527†	77316.5	75811.8	510.27 ug/L	510.27 ppb	22:35:34
3	Be 313.107†	1555757.2	1529902.1	508.73 ug/L	508.73 ppb	22:35:29
3	Cd 226.502†	54086.5	53253.6	511.43 ug/L	511.43 ppb	22:35:34
3	Co 228.616†	29990.8	29488.5	511.57 ug/L	511.57 ppb	22:35:34
3	Cr 267.716†	52423.0	51297.8	512.36 ug/L	512.36 ppb	22:35:34
3	Cu 324.752†	191362.7	181530.2	507.63 ug/L	507.63 ppb	22:35:34
3	Mn 257.610†	526783.4	515981.4	504.23 ug/L	504.23 ppb	22:35:29
3	Mo 202.031†	8508.4	8316.3	494.81 ug/L	494.81 ppb	22:35:54
3	Ni 231.604†	24401.7	23821.8	513.07 ug/L	513.07 ppb	22:35:34
3	P 214.914†	5192.8	4836.0	2382.6 ug/L	2382.6 ppb	22:35:54
3	Pb 220.353†	4851.9	4834.8	496.22 ug/L	496.22 ppb	22:35:54
3	S 181.975 Axial†	890.3	814.1	974.42 ug/L	974.42 ppb	22:35:54
3	Sb 206.836†	1753.4	1676.7	501.55 ug/L	501.55 ppb	22:35:54
3	Se 196.026†	928.7	939.3	519.62 ug/L	519.62 ppb	22:35:54
3	Si 251.611†	93886.3	91388.9	2532.2 ug/L	2532.2 ppb	22:35:34
3	Sn 189.927†	3471.3	3401.5	498.10 ug/L	498.10 ppb	22:35:54
3	Ti 334.940†	351647.3	346234.7	498.48 ug/L	498.48 ppb	22:35:29
3	Tl 190.801†	1945.4	1953.1	501.53 ug/L	501.53 ppb	22:35:54
3	U 409.014†	15784.1	18203.6	503.62 ug/L	503.62 ppb	22:35:34
3	V 292.402†	81295.3	81172.6	516.29 ug/L	516.29 ppb	22:35:34
3	Zn 213.857†	65673.9	63583.7	508.48 ug/L	508.48 ppb	22:35:34
3	SiO2†	91149.2	88680.2	5275.6 ug/L	5275.6 ppb	22:36:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	911464.1	101.34	%	0.573				0.57%
Sc Radial	5519.6	98.8	%	1.25				1.26%
Y 371.029	740950.6	99.738	%	0.5642				0.57%
Y RADIAL	5735.6	97.85	%	1.073				1.10%
Ag 328.068†	118730.5	509.76	ug/L	2.937	509.76	ppb	2.937	0.58%
QC value within limits for Ag 328.068 Recovery = 101.95%								
Al 396.153Radial†	7052.9	4932.5	ug/L	4.79	4932.5	ppb	4.79	0.10%
QC value within limits for Al 396.153Radial Recovery = 98.65%								
As 188.979†	1422.4	509.95	ug/L	3.193	509.95	ppb	3.193	0.63%
QC value within limits for As 188.979 Recovery = 101.99%								
B 249.677†	23986.9	487.35	ug/L	3.463	487.35	ppb	3.463	0.71%
QC value within limits for B 249.677 Recovery = 97.47%								
Ba 233.527†	75720.4	509.66	ug/L	3.066	509.66	ppb	3.066	0.60%
QC value within limits for Ba 233.527 Recovery = 101.93%								
Be 313.107†	1528540.8	508.28	ug/L	0.431	508.28	ppb	0.431	0.08%
QC value within limits for Be 313.107 Recovery = 101.66%								
Ca 317.933Radial†	3591.8	5014.5	ug/L	48.89	5014.5	ppb	48.89	0.97%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.29%
Cd 226.502†            53175.2      510.67 ug/L         2.860      510.67 ppb          2.860   0.56%
   QC value within limits for Cd 226.502  Recovery = 102.13%
Co 228.616†            29401.3      510.07 ug/L         3.247      510.07 ppb          3.247   0.64%
   QC value within limits for Co 228.616  Recovery = 102.01%
Cr 267.716†            51310.1      512.48 ug/L         2.919      512.48 ppb          2.919   0.57%
   QC value within limits for Cr 267.716  Recovery = 102.50%
Cu 324.752†           181322.7      507.06 ug/L         3.519      507.06 ppb          3.519   0.69%
   QC value within limits for Cu 324.752  Recovery = 101.41%
Fe 238.204 Radial†       656.0      5207.0 ug/L         77.26      5207.0 ppb          77.26   1.48%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.14%
K 766.490 Radial†      27993.2      5017.1 ug/L          9.18      5017.1 ppb           9.18   0.18%
   QC value within limits for K 766.490 Radial  Recovery = 100.34%
Mg 279.077 IEC†          173.5      5242.1 ug/L         42.57      5242.1 ppb          42.57   0.81%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.84%
Mn 257.610†           516170.9      504.42 ug/L         0.169      504.42 ppb          0.169   0.03%
   QC value within limits for Mn 257.610  Recovery = 100.88%
Mo 202.031†             8383.5      498.82 ug/L         3.501      498.82 ppb          3.501   0.70%
   QC value within limits for Mo 202.031  Recovery = 99.76%
Na 589.592 Radial†     37380.8       10216 ug/L          55.1       10216 ppb           55.1   0.54%
   QC value within limits for Na 589.592 Radial  Recovery = 102.16%
Ni 231.604†            23816.0      512.94 ug/L         3.838      512.94 ppb          3.838   0.75%
   QC value within limits for Ni 231.604  Recovery = 102.59%
P 214.914†              4894.5      2412.5 ug/L         27.13      2412.5 ppb          27.13   1.12%
   QC value within limits for P 214.914  Recovery = 96.50%
Pb 220.353†             4880.7      500.92 ug/L         4.392      500.92 ppb          4.392   0.88%
   QC value within limits for Pb 220.353  Recovery = 100.18%
S 181.975 Axial†         821.6      983.40 ug/L         8.487      983.40 ppb          8.487   0.86%
   QC value within limits for S 181.975 Axial  Recovery = 98.34%
Sb 206.836†             1692.1      506.25 ug/L         4.508      506.25 ppb          4.508   0.89%
   QC value within limits for Sb 206.836  Recovery = 101.25%
Se 196.026†              940.5      520.53 ug/L         1.275      520.53 ppb          1.275   0.25%
   QC value within limits for Se 196.026  Recovery = 104.11%
Si 251.611†            91198.9      2526.8 ug/L         18.28      2526.8 ppb          18.28   0.72%
   QC value within limits for Si 251.611  Recovery = 101.07%
Sn 189.927†             3426.8      501.81 ug/L         3.393      501.81 ppb          3.393   0.68%
   QC value within limits for Sn 189.927  Recovery = 100.36%
Sr 421.552†            87953.4      501.75 ug/L         1.739      501.75 ppb          1.739   0.35%
   QC value within limits for Sr 421.552  Recovery = 100.35%
Ti 334.940†           346060.9      498.24 ug/L         0.262      498.24 ppb          0.262   0.05%
   QC value within limits for Ti 334.940  Recovery = 99.65%
Tl 190.801†             1973.5      506.73 ug/L         4.899      506.73 ppb          4.899   0.97%
   QC value within limits for Tl 190.801  Recovery = 101.35%
U 409.014†             18109.6      501.00 ug/L         2.838      501.00 ppb          2.838   0.57%
   QC value within limits for U 409.014  Recovery = 100.20%
V 292.402†             81155.9      516.23 ug/L         2.435      516.23 ppb          2.435   0.47%
   QC value within limits for V 292.402  Recovery = 103.25%
Zn 213.857†            63452.2      507.42 ug/L         3.558      507.42 ppb          3.558   0.70%
   QC value within limits for Zn 213.857  Recovery = 101.48%
SiO2†                  89782.5      5341.3 ug/L         63.06      5341.3 ppb          63.06   1.18%
   QC value within limits for SiO2  Recovery = 99.88%
All analyte(s) passed QC.
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Sequence No.: 87
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/20/2009 22:38:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5587.9	5587.9	100	%			22:40:11
1	Y RADIAL	5865.6	5865.6	100.1	%			22:40:11
1	Al 396.153Radial†	-0.6	12.7	8.8899	ug/L	8.8899	ppb	22:40:11
1	Ca 317.933Radial†	24.7	6.8	9.5466	ug/L	9.5466	ppb	22:40:31
1	Fe 238.204 Radial†	9.2	-2.0	-16.042	ug/L	-16.042	ppb	22:40:31
1	K 766.490 Radial†	2763.7	-108.8	-19.502	ug/L	-19.502	ppb	22:40:11
1	Mg 279.077 IEC†	1.9	-0.4	-11.159	ug/L	-11.159	ppb	22:40:31
1	Na 589.592 Radial†	-1536.8	-276.7	-75.623	ug/L	-75.623	ppb	22:40:11
1	Sr 421.552†	7.1	1.5	0.0084	ug/L	0.0084	ppb	22:40:11
1	Sc 361.383	923549.1	923549.1	102.68	%			22:41:28
1	Y 371.029	760987.2	760987.2	102.43	%			22:41:28
1	Ag 328.068†	440.6	29.7	0.1211	ug/L	0.1211	ppb	22:41:33
1	As 188.979†	-34.2	-5.9	-2.0742	ug/L	-2.0742	ppb	22:41:53
1	B 249.677†	-424.2	-878.2	-17.913	ug/L	-17.913	ppb	22:41:53
1	Ba 233.527†	-13.8	-4.8	-0.0327	ug/L	-0.0327	ppb	22:41:53
1	Be 313.107†	-4392.9	317.0	0.1051	ug/L	0.1051	ppb	22:41:33
1	Cd 226.502†	-222.7	8.8	0.0866	ug/L	0.0866	ppb	22:41:53
1	Co 228.616†	-76.7	10.0	0.1742	ug/L	0.1742	ppb	22:41:53
1	Cr 267.716†	147.4	44.3	0.4416	ug/L	0.4416	ppb	22:41:33
1	Cu 324.752†	6205.2	-43.9	-0.1235	ug/L	-0.1235	ppb	22:41:33
1	Mn 257.610†	533.7	28.2	0.0262	ug/L	0.0262	ppb	22:41:53
1	Mo 202.031†	26.5	0.2	0.0111	ug/L	0.0111	ppb	22:41:53
1	Ni 231.604†	104.1	-0.9	-0.0190	ug/L	-0.0190	ppb	22:41:53
1	P 214.914†	230.3	-30.9	-15.670	ug/L	-15.670	ppb	22:41:53
1	Pb 220.353†	-85.9	-5.8	-0.5944	ug/L	-0.5944	ppb	22:41:53
1	S 181.975 Axial†	43.4	-16.4	-19.707	ug/L	-19.707	ppb	22:41:53
1	Sb 206.836†	51.8	8.1	2.3722	ug/L	2.3722	ppb	22:41:53
1	Se 196.026†	-28.8	0.8	0.3624	ug/L	0.3624	ppb	22:41:53
1	Si 251.611†	697.2	19.1	0.5392	ug/L	0.5392	ppb	22:41:53
1	Sn 189.927†	-0.3	-2.2	-0.3143	ug/L	-0.3143	ppb	22:41:53
1	Ti 334.940†	-1535.9	-25.7	-0.0367	ug/L	-0.0367	ppb	22:41:33
1	Tl 190.801†	-38.6	8.2	2.1016	ug/L	2.1016	ppb	22:41:53
1	U 409.014†	-2802.2	-0.6	-0.0160	ug/L	-0.0160	ppb	22:41:28
1	V 292.402†	-1517.7	-9.7	-0.0585	ug/L	-0.0585	ppb	22:41:33
1	Zn 213.857†	832.6	6.1	0.0503	ug/L	0.0503	ppb	22:41:53
1	SiO2†	689.2	-13.8	-0.8095	ug/L	-0.8095	ppb	22:42:59
2	Sc Radial	5603.7	5603.7	100	%			22:40:36
2	Y RADIAL	5830.5	5830.5	99.47	%			22:40:36
2	Al 396.153Radial†	-10.7	2.6	1.8117	ug/L	1.8117	ppb	22:40:36
2	Ca 317.933Radial†	18.7	0.8	1.0675	ug/L	1.0675	ppb	22:40:56
2	Fe 238.204 Radial†	10.2	-1.0	-8.1897	ug/L	-8.1897	ppb	22:40:56
2	K 766.490 Radial†	2943.1	62.2	11.220	ug/L	11.220	ppb	22:40:36
2	Mg 279.077 IEC†	2.0	-0.3	-8.3121	ug/L	-8.3121	ppb	22:40:56
2	Na 589.592 Radial†	-1649.0	-384.2	-105.01	ug/L	-105.01	ppb	22:40:36
2	Sr 421.552†	23.3	17.7	0.1007	ug/L	0.1007	ppb	22:40:36
2	Sc 361.383	919971.2	919971.2	102.28	%			22:41:58
2	Y 371.029	757925.9	757925.9	102.02	%			22:41:58
2	Ag 328.068†	379.2	-28.7	-0.1308	ug/L	-0.1308	ppb	22:42:03
2	As 188.979†	-26.5	1.5	0.5526	ug/L	0.5526	ppb	22:42:23
2	B 249.677†	-458.3	-913.0	-18.625	ug/L	-18.625	ppb	22:42:23
2	Ba 233.527†	10.2	18.6	0.1237	ug/L	0.1237	ppb	22:42:23
2	Be 313.107†	-4415.8	277.9	0.0921	ug/L	0.0921	ppb	22:42:03
2	Cd 226.502†	-224.2	6.6	0.0645	ug/L	0.0645	ppb	22:42:23
2	Co 228.616†	-81.2	5.3	0.0938	ug/L	0.0938	ppb	22:42:23
2	Cr 267.716†	116.4	14.6	0.1435	ug/L	0.1435	ppb	22:42:03
2	Cu 324.752†	6160.0	-64.6	-0.1811	ug/L	-0.1811	ppb	22:42:03
2	Mn 257.610†	534.6	31.1	0.0297	ug/L	0.0297	ppb	22:42:23
2	Mo 202.031†	31.3	5.1	0.3008	ug/L	0.3008	ppb	22:42:23
2	Ni 231.604†	123.1	18.1	0.3892	ug/L	0.3892	ppb	22:42:23

2	P 214.914†	235.7	-24.8	-12.529	ug/L	-12.529 ppb	22:42:23
2	Pb 220.353†	-103.6	-23.4	-2.3949	ug/L	-2.3949 ppb	22:42:23
2	S 181.975 Axial†	50.3	-9.6	-11.519	ug/L	-11.519 ppb	22:42:23
2	Sb 206.836†	58.9	15.2	4.5198	ug/L	4.5198 ppb	22:42:23
2	Se 196.026†	-30.2	-0.7	-0.4122	ug/L	-0.4122 ppb	22:42:23
2	Si 251.611†	707.7	32.0	0.8747	ug/L	0.8747 ppb	22:42:23
2	Sn 189.927†	17.5	15.3	2.2404	ug/L	2.2404 ppb	22:42:23
2	Ti 334.940†	-1557.6	-52.8	-0.0781	ug/L	-0.0781 ppb	22:42:03
2	Tl 190.801†	-31.2	15.3	3.8995	ug/L	3.8995 ppb	22:42:23
2	U 409.014†	-2616.2	170.6	4.7347	ug/L	4.7347 ppb	22:41:58
2	V 292.402†	-1569.7	-66.2	-0.4012	ug/L	-0.4012 ppb	22:42:03
2	Zn 213.857†	815.8	-7.3	-0.0603	ug/L	-0.0603 ppb	22:42:23
2	SiO2†	725.4	24.2	1.4132	ug/L	1.4132 ppb	22:43:04
3	Sc Radial	5513.5	5513.5	98.7	%		22:41:01
3	Y RADIAL	5808.9	5808.9	99.10	%		22:41:01
3	Al 396.153Radial†	-15.3	-2.2	-1.5389	ug/L	-1.5389 ppb	22:41:01
3	Ca 317.933Radial†	20.5	2.9	4.0842	ug/L	4.0842 ppb	22:41:21
3	Fe 238.204 Radial†	12.7	1.7	13.462	ug/L	13.462 ppb	22:41:21
3	K 766.490 Radial†	2974.7	142.2	25.572	ug/L	25.572 ppb	22:41:01
3	Mg 279.077 IEC†	0.6	-1.6	-48.901	ug/L	-48.901 ppb	22:41:21
3	Na 589.592 Radial†	-1511.1	-271.4	-74.160	ug/L	-74.160 ppb	22:41:01
3	Sr 421.552†	25.0	19.7	0.1122	ug/L	0.1122 ppb	22:41:01
3	Sc 361.383	917327.5	917327.5	101.99	%		22:42:28
3	Y 371.029	755713.7	755713.7	101.72	%		22:42:28
3	Ag 328.068†	456.7	48.4	0.2092	ug/L	0.2092 ppb	22:42:33
3	As 188.979†	-33.2	-5.1	-1.7961	ug/L	-1.7961 ppb	22:42:53
3	B 249.677†	-496.3	-951.6	-19.415	ug/L	-19.415 ppb	22:42:53
3	Ba 233.527†	0.4	9.0	0.0605	ug/L	0.0605 ppb	22:42:53
3	Be 313.107†	-4501.3	181.7	0.0606	ug/L	0.0606 ppb	22:42:33
3	Cd 226.502†	-210.0	19.8	0.1894	ug/L	0.1894 ppb	22:42:53
3	Co 228.616†	-81.1	5.3	0.0917	ug/L	0.0917 ppb	22:42:53
3	Cr 267.716†	135.5	33.7	0.3354	ug/L	0.3354 ppb	22:42:33
3	Cu 324.752†	6214.2	5.8	0.0170	ug/L	0.0170 ppb	22:42:33
3	Mn 257.610†	519.7	18.1	0.0199	ug/L	0.0199 ppb	22:42:53
3	Mo 202.031†	33.9	7.6	0.4558	ug/L	0.4558 ppb	22:42:53
3	Ni 231.604†	126.5	21.7	0.4683	ug/L	0.4683 ppb	22:42:53
3	P 214.914†	239.0	-20.8	-10.588	ug/L	-10.588 ppb	22:42:53
3	Pb 220.353†	-65.4	13.7	1.4057	ug/L	1.4057 ppb	22:42:53
3	S 181.975 Axial†	52.1	-7.7	-9.1875	ug/L	-9.1875 ppb	22:42:53
3	Sb 206.836†	48.0	4.6	1.3688	ug/L	1.3688 ppb	22:42:53
3	Se 196.026†	-33.3	-3.8	-1.9982	ug/L	-1.9982 ppb	22:42:53
3	Si 251.611†	705.1	31.4	0.8591	ug/L	0.8591 ppb	22:42:53
3	Sn 189.927†	1.7	-0.1	-0.0166	ug/L	-0.0166 ppb	22:42:53
3	Ti 334.940†	-1402.3	95.1	0.1364	ug/L	0.1364 ppb	22:42:33
3	Tl 190.801†	-30.2	16.2	4.1311	ug/L	4.1311 ppb	22:42:53
3	U 409.014†	-2724.3	57.2	1.5857	ug/L	1.5857 ppb	22:42:28
3	V 292.402†	-1506.6	-8.8	-0.0490	ug/L	-0.0490 ppb	22:42:33
3	Zn 213.857†	816.8	-3.9	-0.0338	ug/L	-0.0338 ppb	22:42:53
3	SiO2†	691.9	-6.6	-0.4300	ug/L	-0.4300 ppb	22:43:09

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	920282.6	102.32	%	0.347				0.34%
Sc Radial	5568.4	99.7	%	0.86				0.86%
Y 371.029	758208.9	102.06	%	0.356				0.35%
Y RADIAL	5835.0	99.55	%	0.488				0.49%
Ag 328.068†	16.5	0.0665	ug/L	0.17644	0.0665	ppb	0.17644	265.27%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.4	3.0542	ug/L	5.32428	3.0542	ppb	5.32428	174.32%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.1	-1.1059	ug/L	1.44302	-1.1059	ppb	1.44302	130.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-914.3	-18.651	ug/L	0.7511	-18.651	ppb	0.7511	4.03%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.6	0.0505	ug/L	0.07869	0.0505	ppb	0.07869	155.93%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	258.9	0.0859	ug/L	0.02290	0.0859	ppb	0.02290	26.65%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.5	4.8995	ug/L	4.29794	4.8995	ppb	4.29794	87.72%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              11.8      0.1135 ug/L       0.06664      0.1135 ppb        0.06664  58.71%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               6.9      0.1199 ug/L       0.04703      0.1199 ppb        0.04703  39.22%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              30.9      0.3068 ug/L       0.15110      0.3068 ppb        0.15110  49.25%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -34.2     -0.0958 ug/L       0.10190     -0.0958 ppb        0.10190 106.33%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.5     -3.5900 ug/L      15.28060     -3.5900 ppb       15.28060 425.64%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        31.9      5.7632 ug/L      23.02734      5.7632 ppb       23.02734 399.56%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.8     -22.791 ug/L       22.6569     -22.791 ppb        22.6569  99.41%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              25.8      0.0253 ug/L       0.00496      0.0253 ppb        0.00496  19.63%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               4.3      0.2559 ug/L       0.22575      0.2559 ppb        0.22575  88.22%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†     -310.8     -84.931 ug/L       17.4040     -84.931 ppb        17.4040  20.49%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              13.0      0.2795 ug/L       0.26154      0.2795 ppb        0.26154  93.58%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -25.5     -12.929 ug/L        2.5647     -12.929 ppb         2.5647  19.84%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -5.2     -0.5278 ug/L       1.90116     -0.5278 ppb        1.90116 360.18%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -11.2     -13.471 ug/L        5.5250     -13.471 ppb         5.5250  41.01%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               9.3      2.7536 ug/L       1.60976      2.7536 ppb        1.60976  58.46%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.3     -0.6827 ug/L       1.20330     -0.6827 ppb        1.20330 176.27%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              27.5      0.7577 ug/L       0.18937      0.7577 ppb        0.18937  24.99%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.3      0.6365 ug/L       1.39696      0.6365 ppb        1.39696 219.48%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              12.9      0.0738 ug/L       0.05688      0.0738 ppb        0.05688  77.10%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               5.5      0.0072 ug/L       0.11378      0.0072 ppb        0.11378 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              13.2      3.3774 ug/L       1.11093      3.3774 ppb        1.11093  32.89%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               75.7      2.1015 ug/L       2.41700      2.1015 ppb        2.41700 115.02%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -28.2     -0.1696 ug/L       0.20067     -0.1696 ppb        0.20067 118.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -1.7     -0.0146 ug/L       0.05777     -0.0146 ppb        0.05777 395.21%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     1.3      0.0579 ug/L       1.18897      0.0579 ppb        1.18897 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Reprocessing Begun
Logged In Analyst: Optima3 **Technique: ICP Continuous**

Results Data Set (original): 122909
Results Library (original): C:\pe\Optima3\Results\Results.mdb
Results Data Set (reprocessed): 122909A
Results Library (reprocessed): C:\pe\Optima3\Results\Results.mdb

==========

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 12/29/2009 10:08:09**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 12/29/2009 08:35:23**
Analyst: **Data Type: Reprocessed on 12/29/2009 10:09:24**
Logged In Analyst (Original) : Optima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	928875.4	928875.4	98.948	%	08:38:33
1	Sc Radial	4976.6	4976.6	101	%	08:37:16
1	Y 371.029	810124.9	810124.9	99.023	%	08:38:33
1	Y RADIAL	5325.9	5325.9	100.4	%	08:37:16
1	Ag 328.068†	478.0	483.0	[0.00]	ug/L	08:38:38

1	Al 396.153Radial†	-27.1	-27.0	[0.00]	ug/L	08:37:16
1	As 188.979†	-42.5	-42.9	[0.00]	ug/L	08:38:58
1	B 249.677†	-461.7	-466.6	[0.00]	ug/L	08:38:38
1	Ba 233.527†	18.9	19.1	[0.00]	ug/L	08:38:58
1	Be 313.107†	-4701.2	-4751.2	[0.00]	ug/L	08:38:38
1	Ca 317.933Radial†	20.9	20.7	[0.00]	ug/L	08:37:36
1	Cd 226.502†	-251.6	-254.2	[0.00]	ug/L	08:38:58
1	Co 228.616†	-94.4	-95.4	[0.00]	ug/L	08:38:58
1	Cr 267.716†	150.9	152.5	[0.00]	ug/L	08:38:38
1	Cu 324.752†	8454.6	8544.4	[0.00]	ug/L	08:38:38
1	Fe 238.204 Radial†	12.3	12.2	[0.00]	ug/L	08:37:36
1	K 766.490 Radial†	3320.2	3299.6	[0.00]	ug/L	08:37:16
1	Mg 279.077 IEC†	2.2	2.2	[0.00]	ug/L	08:37:36
1	Mn 257.610†	626.3	632.9	[0.00]	ug/L	08:38:38
1	Mo 202.031†	30.0	30.3	[0.00]	ug/L	08:38:58
1	Na 589.592 Radial†	-1796.2	-1785.0	[0.00]	ug/L	08:37:16
1	Ni 231.604†	140.2	141.7	[0.00]	ug/L	08:38:58
1	P 214.914†	269.9	272.7	[0.00]	ug/L	08:38:58
1	Pb 220.353†	-73.0	-73.8	[0.00]	ug/L	08:38:58
1	S 181.975 Axial†	65.9	66.6	[0.00]	ug/L	08:38:58
1	Sb 206.836†	40.8	41.2	[0.00]	ug/L	08:38:58
1	Se 196.026†	-36.6	-36.9	[0.00]	ug/L	08:38:58
1	Si 251.611†	736.2	744.0	[0.00]	ug/L	08:38:58
1	Sn 189.927†	3.8	3.9	[0.00]	ug/L	08:38:58
1	Sr 421.552†	21.2	21.1	[0.00]	ug/L	08:37:16
1	Ti 334.940†	-1706.2	-1724.3	[0.00]	ug/L	08:38:38
1	Tl 190.801†	-57.1	-57.7	[0.00]	ug/L	08:38:58
1	U 409.014†	-2956.4	-2987.8	[0.00]	ug/L	08:38:33
1	V 292.402†	-1792.4	-1811.4	[0.00]	ug/L	08:38:38
1	Zn 213.857†	917.0	926.8	[0.00]	ug/L	08:38:58
1	SiO2†	795.2	803.7	[0.00]	ug/L	08:40:04
2	Sc 361.383	946946.0	946946.0	100.87	%	08:39:03
2	Sc Radial	4832.6	4832.6	97.7	%	08:37:41
2	Y 371.029	825185.2	825185.2	100.86	%	08:39:03
2	Y RADIAL	5182.3	5182.3	97.69	%	08:37:41
2	Ag 328.068†	462.7	458.7	[0.00]	ug/L	08:39:08
2	Al 396.153Radial†	-13.8	-14.1	[0.00]	ug/L	08:37:41
2	As 188.979†	-27.8	-27.6	[0.00]	ug/L	08:39:28
2	B 249.677†	-337.4	-334.4	[0.00]	ug/L	08:39:08
2	Ba 233.527†	31.9	31.6	[0.00]	ug/L	08:39:28
2	Be 313.107†	-4695.3	-4654.7	[0.00]	ug/L	08:39:08
2	Ca 317.933Radial†	18.0	18.5	[0.00]	ug/L	08:38:01
2	Cd 226.502†	-265.9	-263.6	[0.00]	ug/L	08:39:28
2	Co 228.616†	-96.9	-96.0	[0.00]	ug/L	08:39:28
2	Cr 267.716†	132.7	131.5	[0.00]	ug/L	08:39:08
2	Cu 324.752†	8466.0	8392.8	[0.00]	ug/L	08:39:08
2	Fe 238.204 Radial†	13.6	14.0	[0.00]	ug/L	08:38:01
2	K 766.490 Radial†	3321.8	3399.5	[0.00]	ug/L	08:37:41
2	Mg 279.077 IEC†	5.0	5.1	[0.00]	ug/L	08:38:01
2	Mn 257.610†	654.8	649.1	[0.00]	ug/L	08:39:08
2	Mo 202.031†	28.2	27.9	[0.00]	ug/L	08:39:28
2	Na 589.592 Radial†	-1794.7	-1836.7	[0.00]	ug/L	08:37:41
2	Ni 231.604†	130.8	129.6	[0.00]	ug/L	08:39:28
2	P 214.914†	277.1	274.7	[0.00]	ug/L	08:39:28
2	Pb 220.353†	-91.2	-90.4	[0.00]	ug/L	08:39:28
2	S 181.975 Axial†	54.7	54.3	[0.00]	ug/L	08:39:28
2	Sb 206.836†	42.8	42.5	[0.00]	ug/L	08:39:28
2	Se 196.026†	-29.4	-29.2	[0.00]	ug/L	08:39:28
2	Si 251.611†	742.3	735.8	[0.00]	ug/L	08:39:28
2	Sn 189.927†	-0.5	-0.5	[0.00]	ug/L	08:39:28
2	Sr 421.552†	15.8	16.1	[0.00]	ug/L	08:37:41
2	Ti 334.940†	-1691.3	-1676.7	[0.00]	ug/L	08:39:08
2	Tl 190.801†	-42.0	-41.6	[0.00]	ug/L	08:39:28
2	U 409.014†	-2884.2	-2859.2	[0.00]	ug/L	08:39:03
2	V 292.402†	-1831.9	-1816.1	[0.00]	ug/L	08:39:08
2	Zn 213.857†	917.5	909.6	[0.00]	ug/L	08:39:28
2	SiO2†	743.3	736.9	[0.00]	ug/L	08:40:09
3	Sc 361.383	940434.2	940434.2	100.18	%	08:39:33
3	Sc Radial	5027.7	5027.7	102	%	08:38:06
3	Y 371.029	819038.7	819038.7	100.11	%	08:39:33
3	Y RADIAL	5406.5	5406.5	101.9	%	08:38:06

3	Ag 328.068†	455.9	455.1	[0.00]	ug/L	08:39:38
3	Al 396.153Radial†	-23.3	-22.9	[0.00]	ug/L	08:38:06
3	As 188.979†	-34.0	-34.0	[0.00]	ug/L	08:39:58
3	B 249.677†	-387.8	-387.1	[0.00]	ug/L	08:39:38
3	Ba 233.527†	9.6	9.6	[0.00]	ug/L	08:39:58
3	Be 313.107†	-4706.6	-4698.2	[0.00]	ug/L	08:39:38
3	Ca 317.933Radial†	25.6	25.1	[0.00]	ug/L	08:38:26
3	Cd 226.502†	-252.6	-252.1	[0.00]	ug/L	08:39:58
3	Co 228.616†	-91.4	-91.2	[0.00]	ug/L	08:39:58
3	Cr 267.716†	117.4	117.2	[0.00]	ug/L	08:39:38
3	Cu 324.752†	8527.7	8512.4	[0.00]	ug/L	08:39:38
3	Fe 238.204 Radial†	13.9	13.7	[0.00]	ug/L	08:38:26
3	K 766.490 Radial†	3355.9	3301.1	[0.00]	ug/L	08:38:06
3	Mg 279.077 IEC†	0.8	0.8	[0.00]	ug/L	08:38:26
3	Mn 257.610†	628.8	627.7	[0.00]	ug/L	08:39:38
3	Mo 202.031†	18.2	18.2	[0.00]	ug/L	08:39:58
3	Na 589.592 Radial†	-1800.0	-1770.6	[0.00]	ug/L	08:38:06
3	Ni 231.604†	145.6	145.4	[0.00]	ug/L	08:39:58
3	P 214.914†	266.6	266.1	[0.00]	ug/L	08:39:58
3	Pb 220.353†	-89.8	-89.7	[0.00]	ug/L	08:39:58
3	S 181.975 Axial†	64.3	64.1	[0.00]	ug/L	08:39:58
3	Sb 206.836†	52.2	52.1	[0.00]	ug/L	08:39:58
3	Se 196.026†	-32.0	-31.9	[0.00]	ug/L	08:39:58
3	Si 251.611†	739.6	738.3	[0.00]	ug/L	08:39:58
3	Sn 189.927†	6.8	6.8	[0.00]	ug/L	08:39:58
3	Sr 421.552†	-4.2	-4.2	[0.00]	ug/L	08:38:06
3	Ti 334.940†	-1716.4	-1713.3	[0.00]	ug/L	08:39:38
3	Tl 190.801†	-49.1	-49.0	[0.00]	ug/L	08:39:58
3	U 409.014†	-2914.2	-2909.0	[0.00]	ug/L	08:39:33
3	V 292.402†	-1806.0	-1802.7	[0.00]	ug/L	08:39:38
3	Zn 213.857†	909.3	907.7	[0.00]	ug/L	08:39:58
3	SiO2†	734.9	733.6	[0.00]	ug/L	08:40:14

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	938751.9	9151.98	0.97%	100.00	%
Sc Radial	4945.6	101.17	2.05%	100	%
Y 371.029	818116.3	7572.39	0.93%	100.000	%
Y RADIAL	5304.9	113.53	2.14%	100.0	%
Ag 328.068†	465.6	15.22	3.27%	[0.00]	ug/L
Al 396.153Radial†	-21.3	6.57	30.81%	[0.00]	ug/L
As 188.979†	-34.8	7.70	22.09%	[0.00]	ug/L
B 249.677†	-396.1	66.55	16.80%	[0.00]	ug/L
Ba 233.527†	20.1	11.07	55.09%	[0.00]	ug/L
Be 313.107†	-4701.4	48.33	1.03%	[0.00]	ug/L
Ca 317.933Radial†	21.4	3.40	15.85%	[0.00]	ug/L
Cd 226.502†	-256.7	6.11	2.38%	[0.00]	ug/L
Co 228.616†	-94.2	2.60	2.76%	[0.00]	ug/L
Cr 267.716†	133.7	17.79	13.30%	[0.00]	ug/L
Cu 324.752†	8483.2	79.96	0.94%	[0.00]	ug/L
Fe 238.204 Radial†	13.3	0.93	7.02%	[0.00]	ug/L
K 766.490 Radial†	3333.4	57.24	1.72%	[0.00]	ug/L
Mg 279.077 IEC†	2.7	2.19	80.97%	[0.00]	ug/L
Mn 257.610†	636.6	11.19	1.76%	[0.00]	ug/L
Mo 202.031†	25.5	6.42	25.20%	[0.00]	ug/L
Na 589.592 Radial†	-1797.4	34.75	1.93%	[0.00]	ug/L
Ni 231.604†	138.9	8.23	5.92%	[0.00]	ug/L
P 214.914†	271.2	4.47	1.65%	[0.00]	ug/L
Pb 220.353†	-84.6	9.40	11.11%	[0.00]	ug/L
S 181.975 Axial†	61.7	6.54	10.61%	[0.00]	ug/L
Sb 206.836†	45.2	5.95	13.14%	[0.00]	ug/L
Se 196.026†	-32.7	3.95	12.08%	[0.00]	ug/L
Si 251.611†	739.4	4.18	0.57%	[0.00]	ug/L
Sn 189.927†	3.4	3.70	108.73%	[0.00]	ug/L
Sr 421.552†	11.0	13.37	121.39%	[0.00]	ug/L
Ti 334.940†	-1704.8	24.92	1.46%	[0.00]	ug/L
Tl 190.801†	-49.5	8.04	16.27%	[0.00]	ug/L
U 409.014†	-2918.7	64.82	2.22%	[0.00]	ug/L
V 292.402†	-1810.1	6.77	0.37%	[0.00]	ug/L

Zn 213.857†	914.7	10.52	1.15%	[0.00] ug/L
SiO2†	758.0	39.55	5.22%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 12/29/2009 08:42:24
Data Type: Reprocessed on 12/29/2009 10:09:26

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	942358.1	942358.1	100.38	%	08:44:49
1	Sc Radial	4985.1	4985.1	101	%	08:44:22
1	Y 371.029	817049.9	817049.9	99.870	%	08:44:49
1	Y RADIAL	5349.2	5349.2	100.8	%	08:44:22
1	Ag 328.068†	24570.7	24011.1	[100]	ug/L	08:44:49
1	As 188.979†	276.8	310.6	[100]	ug/L	08:45:09
1	B 249.677†	4497.7	4876.6	[100]	ug/L	08:44:49
1	Ba 233.527†	14764.1	14687.5	[100]	ug/L	08:44:49
1	Be 313.107†	309107.9	312626.4	[100]	ug/L	08:44:49
1	Cd 226.502†	10615.0	10831.1	[100]	ug/L	08:45:09
1	Co 228.616†	5562.1	5635.0	[100]	ug/L	08:45:09
1	Cr 267.716†	10710.5	10535.8	[100]	ug/L	08:44:49
1	Cu 324.752†	43022.5	34374.6	[100]	ug/L	08:44:49
1	K 766.490 Radial†	8577.9	5176.6	[1000]	ug/L	08:44:17
1	Mn 257.610†	102888.9	101858.5	[100]	ug/L	08:44:49
1	Mo 202.031†	1739.6	1707.5	[100]	ug/L	08:45:09
1	Ni 231.604†	4956.6	4798.7	[100]	ug/L	08:45:09
1	P 214.914†	1364.8	1088.4	[500]	ug/L	08:45:09
1	Pb 220.353†	934.3	1015.4	[100]	ug/L	08:45:09
1	S 181.975 Axial†	234.2	171.7	[200]	ug/L	08:45:09
1	Sb 206.836†	382.4	335.7	[100]	ug/L	08:45:09
1	Se 196.026†	172.4	204.4	[100]	ug/L	08:45:09
1	Si 251.611†	19281.8	18468.6	[500]	ug/L	08:44:49
1	Sn 189.927†	717.7	711.5	[100]	ug/L	08:45:09
1	Sr 421.552†	15105.0	14974.4	[100]	ug/L	08:44:22
1	Ti 334.940†	66154.5	67606.1	[100]	ug/L	08:44:49
1	Tl 190.801†	329.0	377.2	[100]	ug/L	08:45:09
1	U 409.014†	870.9	3786.2	[100]	ug/L	08:44:49
1	V 292.402†	14962.3	16715.1	[100]	ug/L	08:44:49
1	Zn 213.857†	13732.6	12765.4	[100]	ug/L	08:44:49
1	SiO2†	19350.5	18518.5	[1069.5]	ug/L	08:46:07
2	Sc 361.383	932073.1	932073.1	99.289	%	08:45:15
2	Sc Radial	4916.4	4916.4	99.4	%	08:44:32
2	Y 371.029	810206.3	810206.3	99.033	%	08:45:15
2	Y RADIAL	5235.4	5235.4	98.69	%	08:44:32
2	Ag 328.068†	24203.5	23911.3	[100]	ug/L	08:45:15
2	As 188.979†	268.9	305.7	[100]	ug/L	08:45:35
2	B 249.677†	4390.4	4817.9	[100]	ug/L	08:45:15
2	Ba 233.527†	14542.0	14626.1	[100]	ug/L	08:45:15
2	Be 313.107†	305516.1	312406.7	[100]	ug/L	08:45:15
2	Cd 226.502†	10585.3	10917.8	[100]	ug/L	08:45:35
2	Co 228.616†	5575.7	5709.8	[100]	ug/L	08:45:35
2	Cr 267.716†	10683.1	10625.9	[100]	ug/L	08:45:15
2	Cu 324.752†	42621.4	34443.6	[100]	ug/L	08:45:15
2	K 766.490 Radial†	8484.5	5201.6	[1000]	ug/L	08:44:27
2	Mn 257.610†	101621.4	101713.0	[100]	ug/L	08:45:15
2	Mo 202.031†	1725.1	1712.0	[100]	ug/L	08:45:35
2	Ni 231.604†	4945.7	4842.2	[100]	ug/L	08:45:35
2	P 214.914†	1372.2	1110.9	[500]	ug/L	08:45:35
2	Pb 220.353†	938.9	1030.3	[100]	ug/L	08:45:35
2	S 181.975 Axial†	244.9	185.0	[200]	ug/L	08:45:35
2	Sb 206.836†	380.2	337.7	[100]	ug/L	08:45:35
2	Se 196.026†	163.6	197.5	[100]	ug/L	08:45:35
2	Si 251.611†	19056.7	18453.9	[500]	ug/L	08:45:15
2	Sn 189.927†	698.5	700.1	[100]	ug/L	08:45:35
2	Sr 421.552†	14866.4	14943.8	[100]	ug/L	08:44:32
2	Ti 334.940†	65372.0	67545.2	[100]	ug/L	08:45:15
2	Tl 190.801†	325.7	377.5	[100]	ug/L	08:45:35

2	U 409.014†	500.7	3422.9	[100]	ug/L	08:45:15
2	V 292.402†	14769.9	16685.8	[100]	ug/L	08:45:15
2	Zn 213.857†	13572.1	12754.7	[100]	ug/L	08:45:15
2	SiO2†	19347.3	18727.9	[1069.5]	ug/L	08:46:12
3	Sc 361.383	949057.5	949057.5	101.10	%	08:45:41
3	Sc Radial	4883.5	4883.5	98.7	%	08:44:42
3	Y 371.029	824233.1	824233.1	100.75	%	08:45:41
3	Y RADIAL	5221.4	5221.4	98.43	%	08:44:42
3	Ag 328.068†	24688.0	23954.3	[100]	ug/L	08:45:41
3	As 188.979†	271.5	303.4	[100]	ug/L	08:46:01
3	B 249.677†	4533.6	4880.4	[100]	ug/L	08:45:41
3	Ba 233.527†	14829.7	14648.6	[100]	ug/L	08:45:41
3	Be 313.107†	311267.6	312589.0	[100]	ug/L	08:45:41
3	Cd 226.502†	10614.7	10756.1	[100]	ug/L	08:46:01
3	Co 228.616†	5563.6	5597.4	[100]	ug/L	08:46:01
3	Cr 267.716†	10772.6	10521.9	[100]	ug/L	08:45:41
3	Cu 324.752†	43347.8	34393.9	[100]	ug/L	08:45:41
3	K 766.490 Radial†	8536.0	5311.3	[1000]	ug/L	08:44:37
3	Mn 257.610†	103649.0	101887.0	[100]	ug/L	08:45:41
3	Mo 202.031†	1727.2	1683.0	[100]	ug/L	08:46:01
3	Ni 231.604†	4983.6	4790.6	[100]	ug/L	08:46:01
3	P 214.914†	1359.2	1073.3	[500]	ug/L	08:46:01
3	Pb 220.353†	923.2	997.8	[100]	ug/L	08:46:01
3	S 181.975 Axial†	235.4	171.1	[200]	ug/L	08:46:01
3	Sb 206.836†	395.4	345.9	[100]	ug/L	08:46:01
3	Se 196.026†	163.4	194.3	[100]	ug/L	08:46:01
3	Si 251.611†	19398.0	18448.0	[500]	ug/L	08:45:41
3	Sn 189.927†	700.7	689.7	[100]	ug/L	08:46:01
3	Sr 421.552†	14721.8	14898.3	[100]	ug/L	08:44:42
3	Ti 334.940†	66448.8	67432.0	[100]	ug/L	08:45:41
3	Tl 190.801†	334.9	380.7	[100]	ug/L	08:46:01
3	U 409.014†	741.5	3652.2	[100]	ug/L	08:45:41
3	V 292.402†	15044.5	16691.2	[100]	ug/L	08:45:41
3	Zn 213.857†	13733.7	12669.9	[100]	ug/L	08:45:41
3	SiO2†	19280.4	18313.0	[1069.5]	ug/L	08:46:17

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	941162.9	8555.06	0.91%	100.26	%
Sc Radial	4928.3	51.86	1.05%	99.6	%
Y 371.029	817163.1	7014.06	0.86%	99.883	%
Y RADIAL	5268.7	70.12	1.33%	99.32	%
Ag 328.068†	23958.9	50.03	0.21%	[100]	ug/L
As 188.979†	306.5	3.69	1.20%	[100]	ug/L
B 249.677†	4858.3	35.03	0.72%	[100]	ug/L
Ba 233.527†	14654.0	31.07	0.21%	[100]	ug/L
Be 313.107†	312540.7	117.55	0.04%	[100]	ug/L
Cd 226.502†	10835.0	80.91	0.75%	[100]	ug/L
Co 228.616†	5647.4	57.21	1.01%	[100]	ug/L
Cr 267.716†	10561.2	56.45	0.53%	[100]	ug/L
Cu 324.752†	34404.0	35.61	0.10%	[100]	ug/L
K 766.490 Radial†	5229.8	71.65	1.37%	[1000]	ug/L
Mn 257.610†	101819.5	93.32	0.09%	[100]	ug/L
Mo 202.031†	1700.8	15.61	0.92%	[100]	ug/L
Ni 231.604†	4810.5	27.75	0.58%	[100]	ug/L
P 214.914†	1090.9	18.92	1.73%	[500]	ug/L
Pb 220.353†	1014.5	16.27	1.60%	[100]	ug/L
S 181.975 Axial†	175.9	7.85	4.46%	[200]	ug/L
Sb 206.836†	339.8	5.41	1.59%	[100]	ug/L
Se 196.026†	198.7	5.16	2.60%	[100]	ug/L
Si 251.611†	18456.8	10.62	0.06%	[500]	ug/L
Sn 189.927†	700.5	10.90	1.56%	[100]	ug/L
Sr 421.552†	14938.8	38.32	0.26%	[100]	ug/L
Ti 334.940†	67527.8	88.36	0.13%	[100]	ug/L
Tl 190.801†	378.5	1.94	0.51%	[100]	ug/L
U 409.014†	3620.4	183.70	5.07%	[100]	ug/L
V 292.402†	16697.4	15.61	0.09%	[100]	ug/L
Zn 213.857†	12730.0	52.32	0.41%	[100]	ug/L
SiO2†	18519.8	207.46	1.12%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/29/2009 08:48:27
Data Type: Reprocessed on 12/29/2009 10:09:27

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	926662.7	926662.7	98.712	%	08:51:39
1	Sc Radial	4792.0	4792.0	96.9	%	08:50:20
1	Y 371.029	797940.6	797940.6	97.534	%	08:51:39
1	Y RADIAL	5079.3	5079.3	95.75	%	08:50:20
1	Ag 328.068†	118639.9	119722.1	[500]	ug/L	08:51:39
1	Al 396.153Radial†	6150.9	6369.5	[5000]	ug/L	08:50:20
1	As 188.979†	1469.9	1523.9	[500]	ug/L	08:51:59
1	B 249.677†	24484.9	25200.4	[500]	ug/L	08:51:39
1	Ba 233.527†	72489.6	73415.2	[500]	ug/L	08:51:39
1	Be 313.107†	1557126.5	1582141.9	[500]	ug/L	08:51:39
1	Ca 317.933Radial†	3166.9	3247.0	[5000]	ug/L	08:50:40
1	Cd 226.502†	54741.5	55712.3	[500]	ug/L	08:51:39
1	Co 228.616†	27723.4	28179.3	[500]	ug/L	08:51:59
1	Cr 267.716†	52512.3	53063.7	[500]	ug/L	08:51:39
1	Cu 324.752†	180585.6	174458.3	[500]	ug/L	08:51:39
1	K 766.490 Radial†	28325.6	25900.5	[5000]	ug/L	08:50:20
1	Mg 279.077 IEC†	162.5	165.0	[5000]	ug/L	08:50:40
1	Mn 257.610†	500900.6	506798.7	[500]	ug/L	08:51:39
1	Mo 202.031†	8441.2	8525.8	[500]	ug/L	08:51:59
1	Ni 231.604†	23849.1	24021.4	[500]	ug/L	08:51:59
1	P 214.914†	5731.8	5535.4	[2500]	ug/L	08:51:59
1	Pb 220.353†	4923.4	5072.3	[500]	ug/L	08:51:59
1	S 181.975 Axial†	964.7	915.6	[1000]	ug/L	08:51:59
1	Sb 206.836†	1776.8	1754.7	[500]	ug/L	08:51:59
1	Se 196.026†	1005.1	1050.9	[500]	ug/L	08:51:59
1	Si 251.611†	92946.7	93419.9	[2500]	ug/L	08:51:39
1	Sn 189.927†	3518.0	3560.5	[500]	ug/L	08:51:59
1	Sr 421.552†	72258.4	74564.5	[500]	ug/L	08:50:20
1	Ti 334.940†	333562.5	339618.9	[500]	ug/L	08:51:39
1	Tl 190.801†	1856.5	1930.2	[500]	ug/L	08:51:59
1	U 409.014†	13953.2	17053.9	[500]	ug/L	08:51:39
1	V 292.402†	81375.8	84247.5	[500]	ug/L	08:51:39
1	Zn 213.857†	64128.1	64050.0	[500]	ug/L	08:51:39
1	SiO2†	92321.9	92768.2	[5347.5]	ug/L	08:52:59
2	Sc 361.383	934890.0	934890.0	99.589	%	08:52:06
2	Sc Radial	4841.7	4841.7	97.9	%	08:50:45
2	Y 371.029	803643.8	803643.8	98.231	%	08:52:06
2	Y RADIAL	5152.1	5152.1	97.12	%	08:50:45
2	Ag 328.068†	119822.6	119852.0	[500]	ug/L	08:52:06
2	Al 396.153Radial†	6206.7	6361.2	[5000]	ug/L	08:50:45
2	As 188.979†	1459.9	1500.8	[500]	ug/L	08:52:26
2	B 249.677†	24854.5	25353.3	[500]	ug/L	08:52:06
2	Ba 233.527†	73189.5	73471.8	[500]	ug/L	08:52:06
2	Be 313.107†	1569973.0	1581159.7	[500]	ug/L	08:52:06
2	Ca 317.933Radial†	3143.1	3189.1	[5000]	ug/L	08:51:05
2	Cd 226.502†	55144.4	55628.8	[500]	ug/L	08:52:06
2	Co 228.616†	27509.5	27717.3	[500]	ug/L	08:52:26
2	Cr 267.716†	52953.1	53038.1	[500]	ug/L	08:52:06
2	Cu 324.752†	182559.0	174829.9	[500]	ug/L	08:52:06
2	K 766.490 Radial†	28602.8	25883.4	[5000]	ug/L	08:50:45
2	Mg 279.077 IEC†	163.6	164.4	[5000]	ug/L	08:51:05
2	Mn 257.610†	505346.3	506797.2	[500]	ug/L	08:52:06
2	Mo 202.031†	8407.1	8416.4	[500]	ug/L	08:52:26
2	Ni 231.604†	23738.2	23697.4	[500]	ug/L	08:52:26
2	P 214.914†	5687.5	5439.8	[2500]	ug/L	08:52:26
2	Pb 220.353†	4914.2	5019.1	[500]	ug/L	08:52:26
2	S 181.975 Axial†	955.0	897.2	[1000]	ug/L	08:52:26
2	Sb 206.836†	1751.1	1713.1	[500]	ug/L	08:52:26

2	Se 196.026†	1005.8	1042.6	[500]	ug/L	08:52:26
2	Si 251.611†	93802.0	93450.1	[2500]	ug/L	08:52:06
2	Sn 189.927†	3452.9	3463.8	[500]	ug/L	08:52:26
2	Sr 421.552†	73282.4	74844.4	[500]	ug/L	08:50:45
2	Ti 334.940†	337098.5	340195.8	[500]	ug/L	08:52:06
2	Tl 190.801†	1832.8	1889.8	[500]	ug/L	08:52:26
2	U 409.014†	14297.5	17275.2	[500]	ug/L	08:52:06
2	V 292.402†	82274.6	84424.5	[500]	ug/L	08:52:06
2	Zn 213.857†	64743.1	64095.9	[500]	ug/L	08:52:06
2	SiO2†	93176.7	92803.6	[5347.5]	ug/L	08:53:04
3	Sc 361.383	919928.3	919928.3	97.995	%	08:52:34
3	Sc Radial	4925.8	4925.8	99.6	%	08:51:10
3	Y 371.029	791909.2	791909.2	96.797	%	08:52:34
3	Y RADIAL	5229.3	5229.3	98.58	%	08:51:10
3	Ag 328.068†	117537.2	119476.7	[500]	ug/L	08:52:34
3	Al 396.153Radial†	6383.2	6430.3	[5000]	ug/L	08:51:10
3	As 188.979†	1458.7	1523.4	[500]	ug/L	08:52:54
3	B 249.677†	24283.1	25176.0	[500]	ug/L	08:52:34
3	Ba 233.527†	71900.9	73352.0	[500]	ug/L	08:52:34
3	Be 313.107†	1543394.1	1579676.3	[500]	ug/L	08:52:34
3	Ca 317.933Radial†	3145.5	3136.7	[5000]	ug/L	08:51:30
3	Cd 226.502†	54125.4	55489.6	[500]	ug/L	08:52:34
3	Co 228.616†	27502.5	28159.5	[500]	ug/L	08:52:54
3	Cr 267.716†	52023.6	52954.4	[500]	ug/L	08:52:34
3	Cu 324.752†	178998.5	174177.9	[500]	ug/L	08:52:34
3	K 766.490 Radial†	29153.4	25937.6	[5000]	ug/L	08:51:10
3	Mg 279.077 IEC†	163.1	161.1	[5000]	ug/L	08:51:30
3	Mn 257.610†	496712.9	506240.0	[500]	ug/L	08:52:34
3	Mo 202.031†	8419.3	8566.1	[500]	ug/L	08:52:54
3	Ni 231.604†	23703.0	24049.1	[500]	ug/L	08:52:54
3	P 214.914†	5686.2	5531.4	[2500]	ug/L	08:52:54
3	Pb 220.353†	4890.9	5075.6	[500]	ug/L	08:52:54
3	S 181.975 Axial†	955.7	913.6	[1000]	ug/L	08:52:54
3	Sb 206.836†	1751.0	1741.6	[500]	ug/L	08:52:54
3	Se 196.026†	1015.6	1069.0	[500]	ug/L	08:52:54
3	Si 251.611†	92031.3	93175.1	[2500]	ug/L	08:52:34
3	Sn 189.927†	3461.2	3528.7	[500]	ug/L	08:52:54
3	Sr 421.552†	74661.6	74951.6	[500]	ug/L	08:51:10
3	Ti 334.940†	331045.3	339523.9	[500]	ug/L	08:52:34
3	Tl 190.801†	1847.2	1934.5	[500]	ug/L	08:52:54
3	U 409.014†	14101.8	17309.0	[500]	ug/L	08:52:34
3	V 292.402†	80737.2	84199.3	[500]	ug/L	08:52:34
3	Zn 213.857†	63332.1	63713.3	[500]	ug/L	08:52:34
3	SiO2†	92507.3	93642.2	[5347.5]	ug/L	08:53:09

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	927160.4	7493.22	0.81%	98.765	%
Sc Radial	4853.1	67.63	1.39%	98.1	%
Y 371.029	797831.2	5868.09	0.74%	97.521	%
Y RADIAL	5153.6	75.02	1.46%	97.15	%
Ag 328.068†	119683.6	190.61	0.16%	[500]	ug/L
Al 396.153Radial†	6387.0	37.70	0.59%	[5000]	ug/L
As 188.979†	1516.0	13.19	0.87%	[500]	ug/L
B 249.677†	25243.2	96.07	0.38%	[500]	ug/L
Ba 233.527†	73413.0	59.90	0.08%	[500]	ug/L
Be 313.107†	1580992.6	1241.27	0.08%	[500]	ug/L
Ca 317.933Radial†	3190.9	55.15	1.73%	[5000]	ug/L
Cd 226.502†	55610.2	112.54	0.20%	[500]	ug/L
Co 228.616†	28018.7	261.18	0.93%	[500]	ug/L
Cr 267.716†	53018.7	57.16	0.11%	[500]	ug/L
Cu 324.752†	174488.7	327.05	0.19%	[500]	ug/L
K 766.490 Radial†	25907.2	27.70	0.11%	[5000]	ug/L
Mg 279.077 IEC†	163.5	2.11	1.29%	[5000]	ug/L
Mn 257.610†	506612.0	322.15	0.06%	[500]	ug/L
Mo 202.031†	8502.8	77.47	0.91%	[500]	ug/L
Ni 231.604†	23922.6	195.55	0.82%	[500]	ug/L
P 214.914†	5502.2	54.07	0.98%	[2500]	ug/L
Pb 220.353†	5055.7	31.69	0.63%	[500]	ug/L

S 181.975 Axial†	908.8	10.08	1.11%	[1000]	ug/L
Sb 206.836†	1736.5	21.30	1.23%	[500]	ug/L
Se 196.026†	1054.2	13.52	1.28%	[500]	ug/L
Si 251.611†	93348.4	150.81	0.16%	[2500]	ug/L
Sn 189.927†	3517.6	49.31	1.40%	[500]	ug/L
Sr 421.552†	74786.8	199.89	0.27%	[500]	ug/L
Ti 334.940†	339779.5	363.58	0.11%	[500]	ug/L
Tl 190.801†	1918.2	24.62	1.28%	[500]	ug/L
U 409.014†	17212.7	138.56	0.81%	[500]	ug/L
V 292.402†	84290.4	118.62	0.14%	[500]	ug/L
Zn 213.857†	63953.0	208.91	0.33%	[500]	ug/L
SiO2†	93071.3	494.67	0.53%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 12/29/2009 08:55:20
Data Type: Reprocessed on 12/29/2009 10:09:28

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	918155.4	918155.4	97.806	%	08:58:31
1	Sc Radial	4792.5	4792.5	96.9	%	08:57:33
1	Y 371.029	773056.9	773056.9	94.492	%	08:58:37
1	Y RADIAL	5038.7	5038.7	94.98	%	08:57:33
1	Ag 328.068†	236840.1	241687.4	[1000]	ug/L	08:58:37
1	Al 396.153Radial†	12178.9	12589.4	[10000]	ug/L	08:57:13
1	As 188.979†	2958.9	3060.1	[1000]	ug/L	08:58:57
1	B 249.677†	49754.0	51266.2	[1000]	ug/L	08:58:37
1	Ba 233.527†	143766.2	146971.2	[1000]	ug/L	08:58:37
1	Be 313.107†	3074906.4	3148585.5	[1000]	ug/L	08:58:31
1	Ca 317.933Radial†	6281.8	6461.1	[10000]	ug/L	08:57:33
1	Cd 226.502†	108162.6	110845.6	[1000]	ug/L	08:58:37
1	Co 228.616†	55645.5	56987.9	[1000]	ug/L	08:58:37
1	Cr 267.716†	104136.3	106338.6	[1000]	ug/L	08:58:37
1	Cu 324.752†	350815.4	350201.8	[1000]	ug/L	08:58:37
1	Fe 238.204 Radial†	1140.2	1163.3	[10000]	ug/L	08:57:33
1	K 766.490 Radial†	52985.7	51345.6	[10000]	ug/L	08:57:13
1	Mg 279.077 IEC†	321.0	328.6	[10000]	ug/L	08:57:33
1	Mn 257.610†	985560.2	1007032.2	[1000]	ug/L	08:58:31
1	Mo 202.031†	16705.3	17054.6	[1000]	ug/L	08:58:57
1	Na 589.592 Radial†	31058.4	33848.3	[10000]	ug/L	08:57:13
1	Ni 231.604†	47397.0	48321.3	[1000]	ug/L	08:58:37
1	P 214.914†	11115.1	11093.2	[5000]	ug/L	08:58:57
1	Pb 220.353†	9810.3	10115.0	[1000]	ug/L	08:58:57
1	S 181.975 Axial†	1861.8	1841.9	[2000]	ug/L	08:58:57
1	Sb 206.836†	3497.6	3530.8	[1000]	ug/L	08:58:57
1	Se 196.026†	2046.7	2125.2	[1000]	ug/L	08:58:57
1	Si 251.611†	184660.8	188063.8	[5000]	ug/L	08:58:37
1	Sn 189.927†	6954.7	7107.3	[1000]	ug/L	08:58:57
1	Sr 421.552†	144280.5	148880.3	[1000]	ug/L	08:57:13
1	Ti 334.940†	664769.5	681386.7	[1000]	ug/L	08:58:31
1	Tl 190.801†	3712.4	3845.1	[1000]	ug/L	08:58:57
1	U 409.014†	32836.2	36491.5	[1000]	ug/L	08:58:37
1	V 292.402†	164301.4	169797.1	[1000]	ug/L	08:58:37
1	Zn 213.857†	125827.3	127735.2	[1000]	ug/L	08:58:37
1	SiO2†	183307.6	186661.6	[10695]	ug/L	09:00:07
2	Sc 361.383	919168.3	919168.3	97.914	%	08:59:03
2	Sc Radial	4827.4	4827.4	97.6	%	08:57:58
2	Y 371.029	781394.9	781394.9	95.511	%	08:59:09
2	Y RADIAL	5094.9	5094.9	96.04	%	08:57:58
2	Ag 328.068†	239167.3	243797.4	[1000]	ug/L	08:59:09
2	Al 396.153Radial†	12709.7	13042.3	[10000]	ug/L	08:57:38
2	As 188.979†	2953.3	3051.1	[1000]	ug/L	08:59:29
2	B 249.677†	50345.5	51814.3	[1000]	ug/L	08:59:09
2	Ba 233.527†	144782.2	147846.8	[1000]	ug/L	08:59:09
2	Be 313.107†	3069627.1	3139729.3	[1000]	ug/L	08:59:03
2	Ca 317.933Radial†	6297.0	6429.8	[10000]	ug/L	08:57:58
2	Cd 226.502†	108843.5	111419.1	[1000]	ug/L	08:59:09
2	Co 228.616†	56007.3	57294.8	[1000]	ug/L	08:59:09
2	Cr 267.716†	104813.0	106912.4	[1000]	ug/L	08:59:09
2	Cu 324.752†	354408.1	353475.8	[1000]	ug/L	08:59:09
2	Fe 238.204 Radial†	1142.0	1156.7	[10000]	ug/L	08:57:58
2	K 766.490 Radial†	55315.1	53336.7	[10000]	ug/L	08:57:38
2	Mg 279.077 IEC†	320.1	325.2	[10000]	ug/L	08:57:58
2	Mn 257.610†	986480.9	1006862.1	[1000]	ug/L	08:59:03
2	Mo 202.031†	16636.8	16965.8	[1000]	ug/L	08:59:29
2	Na 589.592 Radial†	32576.9	35172.4	[10000]	ug/L	08:57:38
2	Ni 231.604†	47820.2	48700.2	[1000]	ug/L	08:59:09

2	P 214.914†	11053.3	11017.6	[5000]	ug/L	08:59:29
2	Pb 220.353†	9760.4	10053.0	[1000]	ug/L	08:59:29
2	S 181.975 Axial†	1840.4	1818.0	[2000]	ug/L	08:59:29
2	Sb 206.836†	3451.6	3479.9	[1000]	ug/L	08:59:29
2	Se 196.026†	2025.9	2101.8	[1000]	ug/L	08:59:29
2	Si 251.611†	186072.7	189297.8	[5000]	ug/L	08:59:09
2	Sn 189.927†	6901.8	7045.5	[1000]	ug/L	08:59:29
2	Sr 421.552†	150847.3	154531.6	[1000]	ug/L	08:57:38
2	Ti 334.940†	665534.0	681418.5	[1000]	ug/L	08:59:03
2	Tl 190.801†	3675.7	3803.5	[1000]	ug/L	08:59:29
2	U 409.014†	33151.8	36776.8	[1000]	ug/L	08:59:09
2	V 292.402†	165695.3	171035.6	[1000]	ug/L	08:59:09
2	Zn 213.857†	126925.2	128714.8	[1000]	ug/L	08:59:09
2	SiO2†	181990.6	185110.0	[10695]	ug/L	09:00:12
3	Sc 361.383	920164.2	920164.2	98.020	%	08:59:35
3	Sc Radial	4830.8	4830.8	97.7	%	08:58:23
3	Y 371.029	777296.1	777296.1	95.010	%	08:59:41
3	Y RADIAL	5102.6	5102.6	96.19	%	08:58:23
3	Ag 328.068†	237320.5	241648.9	[1000]	ug/L	08:59:41
3	Al 396.153Radial†	12778.6	13103.6	[10000]	ug/L	08:58:03
3	As 188.979†	2928.1	3022.1	[1000]	ug/L	09:00:01
3	B 249.677†	49907.6	51311.8	[1000]	ug/L	08:59:41
3	Ba 233.527†	143838.6	146724.1	[1000]	ug/L	08:59:41
3	Be 313.107†	3078907.9	3145804.4	[1000]	ug/L	08:59:35
3	Ca 317.933Radial†	6355.1	6484.7	[10000]	ug/L	08:58:23
3	Cd 226.502†	108187.1	110629.1	[1000]	ug/L	08:59:41
3	Co 228.616†	55714.1	56933.8	[1000]	ug/L	08:59:41
3	Cr 267.716†	104397.5	106372.6	[1000]	ug/L	08:59:41
3	Cu 324.752†	351234.5	349846.3	[1000]	ug/L	08:59:41
3	Fe 238.204 Radial†	1148.5	1162.5	[10000]	ug/L	08:58:23
3	K 766.490 Radial†	55436.3	53420.7	[10000]	ug/L	08:58:03
3	Mg 279.077 IEC†	322.0	326.9	[10000]	ug/L	08:58:23
3	Mn 257.610†	986330.4	1005618.1	[1000]	ug/L	08:59:35
3	Mo 202.031†	16625.0	16935.4	[1000]	ug/L	09:00:01
3	Na 589.592 Radial†	32743.0	35318.8	[10000]	ug/L	08:58:03
3	Ni 231.604†	47425.4	48244.5	[1000]	ug/L	08:59:41
3	P 214.914†	11037.6	10989.4	[5000]	ug/L	09:00:01
3	Pb 220.353†	9746.7	10028.2	[1000]	ug/L	09:00:01
3	S 181.975 Axial†	1831.4	1806.7	[2000]	ug/L	09:00:01
3	Sb 206.836†	3454.3	3478.8	[1000]	ug/L	09:00:01
3	Se 196.026†	2029.7	2103.3	[1000]	ug/L	09:00:01
3	Si 251.611†	184582.1	187571.3	[5000]	ug/L	08:59:41
3	Sn 189.927†	6920.5	7056.9	[1000]	ug/L	09:00:01
3	Sr 421.552†	151966.2	155567.6	[1000]	ug/L	08:58:03
3	Ti 334.940†	665567.9	680717.4	[1000]	ug/L	08:59:35
3	Tl 190.801†	3667.6	3791.1	[1000]	ug/L	09:00:01
3	U 409.014†	32804.2	36385.5	[1000]	ug/L	08:59:41
3	V 292.402†	164755.9	169894.1	[1000]	ug/L	08:59:41
3	Zn 213.857†	125920.9	127549.8	[1000]	ug/L	08:59:41
3	SiO2†	185464.6	188453.0	[10695]	ug/L	09:00:17

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	919162.6	1004.44	0.11%	97.913	%
Sc Radial	4816.9	21.21	0.44%	97.4	%
Y 371.029	777249.3	4169.17	0.54%	95.005	%
Y RADIAL	5078.7	34.85	0.69%	95.74	%
Ag 328.068†	242377.9	1229.45	0.51%	[1000]	ug/L
Al 396.153Radial†	12911.8	280.88	2.18%	[10000]	ug/L
As 188.979†	3044.4	19.85	0.65%	[1000]	ug/L
B 249.677†	51464.1	304.13	0.59%	[1000]	ug/L
Ba 233.527†	147180.7	589.95	0.40%	[1000]	ug/L
Be 313.107†	3144706.4	4529.04	0.14%	[1000]	ug/L
Ca 317.933Radial†	6458.5	27.57	0.43%	[10000]	ug/L
Cd 226.502†	110964.6	408.21	0.37%	[1000]	ug/L
Co 228.616†	57072.2	194.69	0.34%	[1000]	ug/L
Cr 267.716†	106541.2	321.93	0.30%	[1000]	ug/L
Cu 324.752†	351174.7	2000.79	0.57%	[1000]	ug/L
Fe 238.204 Radial†	1160.8	3.64	0.31%	[10000]	ug/L

K 766.490 Radial†	52701.0	1174.56	2.23%	[10000]	ug/L
Mg 279.077 IEC†	326.9	1.67	0.51%	[10000]	ug/L
Mn 257.610†	1006504.1	772.06	0.08%	[1000]	ug/L
Mo 202.031†	16985.2	61.91	0.36%	[1000]	ug/L
Na 589.592 Radial†	34779.8	810.03	2.33%	[10000]	ug/L
Ni 231.604†	48422.0	243.94	0.50%	[1000]	ug/L
P 214.914†	11033.4	53.68	0.49%	[5000]	ug/L
Pb 220.353†	10065.4	44.70	0.44%	[1000]	ug/L
S 181.975 Axial†	1822.2	17.96	0.99%	[2000]	ug/L
Sb 206.836†	3496.5	29.71	0.85%	[1000]	ug/L
Se 196.026†	2110.1	13.13	0.62%	[1000]	ug/L
Si 251.611†	188311.0	889.37	0.47%	[5000]	ug/L
Sn 189.927†	7069.9	32.91	0.47%	[1000]	ug/L
Sr 421.552†	152993.2	3599.32	2.35%	[1000]	ug/L
Ti 334.940†	681174.2	395.95	0.06%	[1000]	ug/L
Tl 190.801†	3813.2	28.29	0.74%	[1000]	ug/L
U 409.014†	36551.3	202.34	0.55%	[1000]	ug/L
V 292.402†	170242.3	688.76	0.40%	[1000]	ug/L
Zn 213.857†	128000.0	625.98	0.49%	[1000]	ug/L
SiO2†	186741.5	1672.93	0.90%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 12/29/2009 09:02:28
Data Type: Reprocessed on 12/29/2009 10:09:29
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	908101.3	908101.3	96.735	%	09:05:39
1	Sc Radial	4814.3	4814.3	97.3	%	09:04:42
1	Y 371.029	777198.0	777198.0	94.998	%	09:05:39
1	Y RADIAL	5124.0	5124.0	96.59	%	09:04:42
1	Al 396.153Radial†	61339.2	63033.9	[50000]	ug/L	09:04:22
1	Ca 317.933Radial†	30688.4	31504.1	[50000]	ug/L	09:04:22
1	Fe 238.204 Radial†	2215.7	2262.9	[20000]	ug/L	09:04:42
1	Mg 279.077 IEC†	1516.8	1555.5	[50000]	ug/L	09:04:42
1	Na 589.592 Radial†	66358.3	69966.0	[20000]	ug/L	09:04:22
2	Sc 361.383	898632.4	898632.4	95.726	%	09:05:45
2	Sc Radial	4818.2	4818.2	97.4	%	09:05:07
2	Y 371.029	769935.7	769935.7	94.111	%	09:05:45
2	Y RADIAL	5101.4	5101.4	96.16	%	09:05:07
2	Al 396.153Radial†	61840.8	63497.2	[50000]	ug/L	09:04:47
2	Ca 317.933Radial†	30905.7	31701.4	[50000]	ug/L	09:04:47
2	Fe 238.204 Radial†	2219.8	2265.2	[20000]	ug/L	09:05:07
2	Mg 279.077 IEC†	1524.0	1561.5	[50000]	ug/L	09:05:07
2	Na 589.592 Radial†	66582.6	70140.4	[20000]	ug/L	09:04:47
3	Sc 361.383	898592.9	898592.9	95.722	%	09:05:50
3	Sc Radial	4765.2	4765.2	96.4	%	09:05:32
3	Y 371.029	769208.1	769208.1	94.022	%	09:05:50
3	Y RADIAL	5057.5	5057.5	95.34	%	09:05:32
3	Al 396.153Radial†	62629.6	65022.7	[50000]	ug/L	09:05:12
3	Ca 317.933Radial†	31299.9	32463.8	[50000]	ug/L	09:05:12
3	Fe 238.204 Radial†	2201.0	2271.1	[20000]	ug/L	09:05:32
3	Mg 279.077 IEC†	1508.7	1563.1	[50000]	ug/L	09:05:32
3	Na 589.592 Radial†	67708.8	72070.5	[20000]	ug/L	09:05:12

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	901775.5	5478.31	0.61%	96.061	%
Sc Radial	4799.2	29.57	0.62%	97.0	%
Y 371.029	772113.9	4417.93	0.57%	94.377	%
Y RADIAL	5094.3	33.81	0.66%	96.03	%
Al 396.153Radial†	63851.3	1040.64	1.63%	[50000]	ug/L
Ca 317.933Radial†	31889.8	506.83	1.59%	[50000]	ug/L
Fe 238.204 Radial†	2266.4	4.23	0.19%	[20000]	ug/L
Mg 279.077 IEC†	1560.0	4.03	0.26%	[50000]	ug/L
Na 589.592 Radial†	70725.6	1167.90	1.65%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	241.8	0.00000	0.999987	
Al 396.153Radial	3	Lin Thru 0	0.0	1.278	0.00000	0.999998	
As 188.979	3	Lin Thru 0	0.0	3.042	0.00000	0.999998	
B 249.677	3	Lin Thru 0	0.0	51.25	0.00000	0.999960	
Ba 233.527	3	Lin Thru 0	0.0	147.1	0.00000	0.999999	
Be 313.107	3	Lin Thru 0	0.0	3148	0.00000	0.999997	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.6381	0.00000	0.999997	
Cd 226.502	3	Lin Thru 0	0.0	111.0	0.00000	0.999997	
Co 228.616	3	Lin Thru 0	0.0	56.86	0.00000	0.999974	
Cr 267.716	3	Lin Thru 0	0.0	106.4	0.00000	0.999998	
Cu 324.752	3	Lin Thru 0	0.0	350.7	0.00000	0.999995	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1139	0.00000	0.999953	

K 766.490 Radial	3	Lin Thru 0	0.0	5.252	0.00000	0.999977
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0313	0.00000	0.999948
Mn 257.610	3	Lin Thru 0	0.0	1008	0.00000	0.999996
Mo 202.031	3	Lin Thru 0	0.0	16.99	0.00000	1.000000
Na 589.592 Radia	2	Lin Thru 0	0.0	3.525	0.00000	0.999978
Ni 231.604	3	Lin Thru 0	0.0	48.31	0.00000	0.999989
P 214.914	3	Lin Thru 0	0.0	2.205	0.00000	0.999999
Pb 220.353	3	Lin Thru 0	0.0	10.08	0.00000	0.999998
S 181.975 Axial	3	Lin Thru 0	0.0	0.9104	0.00000	0.999995
Sb 206.836	3	Lin Thru 0	0.0	3.491	0.00000	0.999994
Se 196.026	3	Lin Thru 0	0.0	2.109	0.00000	0.999987
Si 251.611	3	Lin Thru 0	0.0	37.59	0.00000	0.999993
Sn 189.927	3	Lin Thru 0	0.0	7.063	0.00000	0.999998
Sr 421.552	3	Lin Thru 0	0.0	152.3	0.00000	0.999959
Ti 334.940	3	Lin Thru 0	0.0	680.8	0.00000	0.999999
Tl 190.801	3	Lin Thru 0	0.0	3.818	0.00000	0.999997
U 409.014	3	Lin Thru 0	0.0	36.13	0.00000	0.999725
V 292.402	3	Lin Thru 0	0.0	169.9	0.00000	0.999991
Zn 213.857	3	Lin Thru 0	0.0	128.0	0.00000	1.000000
SiO2	3	Lin Thru 0	0.0	17.45	0.00000	0.999999

Sequence No.: 6
Sample ID: ICV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 12/29/2009 09:08:02
Data Type: Reprocessed on 12/29/2009 10:09:30

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	933660.0	933660.0	99.458	%			09:11:12
1	Sc Radial	4836.4	4836.4	97.8	%			09:09:54
1	Y 371.029	805849.4	805849.4	98.501	%			09:11:12
1	Y RADIAL	5182.0	5182.0	97.68	%			09:09:54
1	Ag 328.068†	62663.6	62539.8	261.93	ug/L	261.93	ppb	09:11:12
1	Al 396.153Radial†	6420.5	6586.9	5132.5	ug/L	5132.5	ppb	09:09:54
1	As 188.979†	1429.4	1472.0	488.20	ug/L	488.20	ppb	09:11:32
1	B 249.677†	25942.4	26480.0	514.75	ug/L	514.75	ppb	09:11:12
1	Ba 233.527†	74219.3	74603.9	508.42	ug/L	508.42	ppb	09:11:12
1	Be 313.107†	817275.7	826434.2	263.51	ug/L	263.51	ppb	09:11:12
1	Ca 317.933Radial†	3214.1	3265.3	5117.1	ug/L	5117.1	ppb	09:10:14
1	Cd 226.502†	55073.0	55630.0	501.00	ug/L	501.00	ppb	09:11:12
1	Co 228.616†	28269.2	28517.6	501.86	ug/L	501.86	ppb	09:11:32
1	Cr 267.716†	51649.8	51797.8	487.50	ug/L	487.50	ppb	09:11:12
1	Cu 324.752†	184125.4	176646.4	503.99	ug/L	503.99	ppb	09:11:12
1	Fe 238.204 Radial†	591.6	591.7	5212.0	ug/L	5212.0	ppb	09:10:14
1	K 766.490 Radial†	16072.1	13101.8	2489.2	ug/L	2489.2	ppb	09:09:54
1	Mg 279.077 IEC†	174.0	175.3	5610.8	ug/L	5610.8	ppb	09:10:14
1	Mn 257.610†	518694.2	520886.4	517.20	ug/L	517.20	ppb	09:11:12
1	Mo 202.031†	9201.5	9226.2	543.55	ug/L	543.55	ppb	09:11:32
1	Na 589.592 Radial†	6738.3	8687.9	2464.9	ug/L	2464.9	ppb	09:09:54
1	Ni 231.604†	24253.3	24246.7	501.63	ug/L	501.63	ppb	09:11:32
1	P 214.914†	5861.0	5621.8	2473.5	ug/L	2473.5	ppb	09:11:32
1	Pb 220.353†	4969.7	5081.4	506.02	ug/L	506.02	ppb	09:11:32
1	S 181.975 Axial†	2359.9	2311.1	2537.5	ug/L	2537.5	ppb	09:11:32
1	Sb 206.836†	1791.1	1755.6	512.20	ug/L	512.20	ppb	09:11:32
1	Se 196.026†	5489.9	5552.5	2651.8	ug/L	2651.8	ppb	09:11:32
1	Si 251.611†	183606.6	183868.5	4879.1	ug/L	4879.1	ppb	09:11:12
1	Sn 189.927†	3812.9	3830.3	542.95	ug/L	542.95	ppb	09:11:32
1	Sr 421.552†	79373.1	81155.3	532.87	ug/L	532.87	ppb	09:09:54
1	Ti 334.940†	336655.6	340196.4	499.58	ug/L	499.58	ppb	09:11:12
1	Tl 190.801†	1975.3	2035.5	536.45	ug/L	536.45	ppb	09:11:32
1	U 409.014†	14676.8	17675.5	487.67	ug/L	487.67	ppb	09:11:12
1	V 292.402†	84003.3	86271.5	515.12	ug/L	515.12	ppb	09:11:12
1	Zn 213.857†	66882.1	66332.2	514.05	ug/L	514.05	ppb	09:11:12
1	SiO2†	183793.8	184038.1	10522	ug/L	10522	ppb	09:12:30
2	Sc 361.383	945841.3	945841.3	100.76	%			09:11:38
2	Sc Radial	5009.2	5009.2	101	%			09:10:20
2	Y 371.029	815520.7	815520.7	99.683	%			09:11:38
2	Y RADIAL	5358.6	5358.6	101.0	%			09:10:20
2	Ag 328.068†	63297.2	62357.2	261.12	ug/L	261.12	ppb	09:11:38
2	Al 396.153Radial†	6375.8	6316.2	4920.9	ug/L	4920.9	ppb	09:10:20
2	As 188.979†	1415.8	1440.1	477.68	ug/L	477.68	ppb	09:11:58
2	B 249.677†	26421.4	26619.4	517.50	ug/L	517.50	ppb	09:11:38
2	Ba 233.527†	75251.3	74667.2	508.85	ug/L	508.85	ppb	09:11:38
2	Be 313.107†	828062.0	826556.7	263.55	ug/L	263.55	ppb	09:11:38
2	Ca 317.933Radial†	3209.1	3147.0	4931.7	ug/L	4931.7	ppb	09:10:40
2	Cd 226.502†	55861.8	55699.8	501.64	ug/L	501.64	ppb	09:11:38
2	Co 228.616†	28367.6	28249.2	497.13	ug/L	497.13	ppb	09:11:58
2	Cr 267.716†	52312.2	51786.4	487.39	ug/L	487.39	ppb	09:11:38
2	Cu 324.752†	186391.2	176510.9	503.59	ug/L	503.59	ppb	09:11:38
2	Fe 238.204 Radial†	595.2	574.4	5059.9	ug/L	5059.9	ppb	09:10:40
2	K 766.490 Radial†	16175.2	12636.7	2400.7	ug/L	2400.7	ppb	09:10:20
2	Mg 279.077 IEC†	173.2	168.3	5388.3	ug/L	5388.3	ppb	09:10:40
2	Mn 257.610†	525853.1	521275.1	517.58	ug/L	517.58	ppb	09:11:38
2	Mo 202.031†	9253.4	9158.5	539.56	ug/L	539.56	ppb	09:11:58
2	Na 589.592 Radial†	6682.9	8395.6	2382.0	ug/L	2382.0	ppb	09:10:20
2	Ni 231.604†	24355.5	24034.0	497.23	ug/L	497.23	ppb	09:11:58

2	P 214.914†	5876.6	5561.4	2446.1	ug/L	2446.1	ppb	09:11:58
2	Pb 220.353†	5003.7	5050.8	502.94	ug/L	502.94	ppb	09:11:58
2	S 181.975 Axial†	2371.0	2291.5	2516.1	ug/L	2516.1	ppb	09:11:58
2	Sb 206.836†	1803.2	1744.4	508.86	ug/L	508.86	ppb	09:11:58
2	Se 196.026†	5500.1	5491.6	2622.4	ug/L	2622.4	ppb	09:11:58
2	Si 251.611†	185914.5	183781.6	4876.9	ug/L	4876.9	ppb	09:11:38
2	Sn 189.927†	3841.6	3809.4	539.97	ug/L	539.97	ppb	09:11:58
2	Sr 421.552†	79145.0	78129.9	513.00	ug/L	513.00	ppb	09:10:20
2	Ti 334.940†	341485.6	340630.8	500.20	ug/L	500.20	ppb	09:11:38
2	Tl 190.801†	1990.9	2025.4	533.85	ug/L	533.85	ppb	09:11:58
2	U 409.014†	15137.1	17942.3	495.07	ug/L	495.07	ppb	09:11:38
2	V 292.402†	85261.8	86432.8	516.05	ug/L	516.05	ppb	09:11:38
2	Zn 213.857†	67655.8	66234.0	513.33	ug/L	513.33	ppb	09:11:38
2	SiO2†	182840.8	180712.3	10331	ug/L	10331	ppb	09:12:35
3	Sc 361.383	948205.7	948205.7	101.01	%			09:12:04
3	Sc Radial	5027.6	5027.6	102	%			09:10:45
3	Y 371.029	818011.2	818011.2	99.987	%			09:12:04
3	Y RADIAL	5376.4	5376.4	101.3	%			09:10:45
3	Ag 328.068†	63151.8	62056.5	259.88	ug/L	259.88	ppb	09:12:04
3	Al 396.153Radial†	6497.4	6412.7	4996.4	ug/L	4996.4	ppb	09:10:45
3	As 188.979†	1419.5	1440.1	477.69	ug/L	477.69	ppb	09:12:24
3	B 249.677†	26386.2	26519.2	515.54	ug/L	515.54	ppb	09:12:04
3	Ba 233.527†	75068.7	74300.1	506.35	ug/L	506.35	ppb	09:12:04
3	Be 313.107†	828495.0	824936.0	263.03	ug/L	263.03	ppb	09:12:04
3	Ca 317.933Radial†	3215.5	3141.6	4923.3	ug/L	4923.3	ppb	09:11:05
3	Cd 226.502†	55687.0	55388.5	498.83	ug/L	498.83	ppb	09:12:04
3	Co 228.616†	28425.1	28235.9	496.90	ug/L	496.90	ppb	09:12:24
3	Cr 267.716†	52274.3	51619.3	485.82	ug/L	485.82	ppb	09:12:04
3	Cu 324.752†	186639.6	176295.5	502.98	ug/L	502.98	ppb	09:12:04
3	Fe 238.204 Radial†	599.4	576.4	5077.4	ug/L	5077.4	ppb	09:11:05
3	K 766.490 Radial†	16219.2	12621.4	2397.8	ug/L	2397.8	ppb	09:10:45
3	Mg 279.077 IEC†	175.0	169.5	5426.0	ug/L	5426.0	ppb	09:11:05
3	Mn 257.610†	525129.5	519257.3	515.58	ug/L	515.58	ppb	09:12:04
3	Mo 202.031†	9275.2	9157.2	539.48	ug/L	539.48	ppb	09:12:24
3	Na 589.592 Radial†	6864.1	8549.6	2425.7	ug/L	2425.7	ppb	09:10:45
3	Ni 231.604†	24375.7	23993.8	496.40	ug/L	496.40	ppb	09:12:24
3	P 214.914†	5864.6	5534.9	2434.2	ug/L	2434.2	ppb	09:12:24
3	Pb 220.353†	4984.5	5019.5	499.84	ug/L	499.84	ppb	09:12:24
3	S 181.975 Axial†	2396.7	2311.1	2537.6	ug/L	2537.6	ppb	09:12:24
3	Sb 206.836†	1809.5	1746.3	509.39	ug/L	509.39	ppb	09:12:24
3	Se 196.026†	5500.7	5478.5	2616.2	ug/L	2616.2	ppb	09:12:24
3	Si 251.611†	185939.7	183346.5	4865.4	ug/L	4865.4	ppb	09:12:04
3	Sn 189.927†	3838.1	3796.4	538.12	ug/L	538.12	ppb	09:12:24
3	Sr 421.552†	80129.0	78811.3	517.48	ug/L	517.48	ppb	09:10:45
3	Ti 334.940†	341379.0	339680.1	498.81	ug/L	498.81	ppb	09:12:04
3	Tl 190.801†	1995.7	2025.3	533.79	ug/L	533.79	ppb	09:12:24
3	U 409.014†	14812.7	17583.7	485.15	ug/L	485.15	ppb	09:12:04
3	V 292.402†	85096.8	86058.4	513.82	ug/L	513.82	ppb	09:12:04
3	Zn 213.857†	67596.5	66007.9	511.56	ug/L	511.56	ppb	09:12:04
3	SiO2†	182723.8	180143.9	10299	ug/L	10299	ppb	09:12:40

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	942569.0	100.41	%	0.831				0.83%
Sc Radial	4957.7	100	%	2.1				2.13%
Y 371.029	813127.1	99.390	%	0.7853				0.79%
Y RADIAL	5305.7	100.0	%	2.03				2.03%
Ag 328.068†	62317.8	260.98	ug/L	1.029	260.98	ppb	1.029	0.39%
QC value within limits for Ag 328.068 Recovery = 104.39%								
Al 396.153Radial†	6438.6	5016.6	ug/L	107.28	5016.6	ppb	107.28	2.14%
QC value within limits for Al 396.153Radial Recovery = 100.33%								
As 188.979†	1450.7	481.19	ug/L	6.073	481.19	ppb	6.073	1.26%
QC value within limits for As 188.979 Recovery = 96.24%								
B 249.677†	26539.5	515.93	ug/L	1.416	515.93	ppb	1.416	0.27%
QC value within limits for B 249.677 Recovery = 103.19%								
Ba 233.527†	74523.7	507.87	ug/L	1.337	507.87	ppb	1.337	0.26%
QC value within limits for Ba 233.527 Recovery = 101.57%								
Be 313.107†	825975.7	263.36	ug/L	0.288	263.36	ppb	0.288	0.11%
QC value within limits for Be 313.107 Recovery = 105.35%								

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Ca 317.933Radial†       3184.6      4990.7 ug/L        109.56      4990.7 ppb        109.56   2.20%
   QC value within limits for Ca 317.933Radial  Recovery = 99.81%
Cd 226.502†            55572.8      500.49 ug/L         1.471      500.49 ppb         1.471   0.29%
   QC value within limits for Cd 226.502  Recovery = 100.10%
Co 228.616†            28334.2      498.63 ug/L         2.800      498.63 ppb         2.800   0.56%
   QC value within limits for Co 228.616  Recovery = 99.73%
Cr 267.716†            51734.5      486.90 ug/L         0.940      486.90 ppb         0.940   0.19%
   QC value within limits for Cr 267.716  Recovery = 97.38%
Cu 324.752†           176484.3      503.52 ug/L         0.508      503.52 ppb         0.508   0.10%
   QC value within limits for Cu 324.752  Recovery = 100.70%
Fe 238.204 Radial†       580.8      5116.4 ug/L        83.25      5116.4 ppb        83.25   1.63%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.33%
K 766.490 Radial†      12786.6      2429.2 ug/L        51.99      2429.2 ppb        51.99   2.14%
   QC value within limits for K 766.490 Radial  Recovery = 97.17%
Mg 279.077 IEC†          171.0      5475.0 ug/L       119.10      5475.0 ppb       119.10   2.18%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.50%
Mn 257.610†           520472.9      516.78 ug/L         1.064      516.78 ppb         1.064   0.21%
   QC value within limits for Mn 257.610  Recovery = 103.36%
Mo 202.031†             9180.7      540.86 ug/L         2.330      540.86 ppb         2.330   0.43%
   QC value within limits for Mo 202.031  Recovery = 108.17%
Na 589.592 Radial†      8544.4      2424.2 ug/L        41.50      2424.2 ppb        41.50   1.71%
   QC value within limits for Na 589.592 Radial  Recovery = 96.97%
Ni 231.604†            24091.5      498.42 ug/L         2.811      498.42 ppb         2.811   0.56%
   QC value within limits for Ni 231.604  Recovery = 99.68%
P 214.914†              5572.7      2451.3 ug/L        20.12      2451.3 ppb        20.12   0.82%
   QC value within limits for P 214.914  Recovery = 98.05%
Pb 220.353†             5050.6      502.93 ug/L         3.089      502.93 ppb         3.089   0.61%
   QC value within limits for Pb 220.353  Recovery = 100.59%
S 181.975 Axial†        2304.6      2530.4 ug/L        12.40      2530.4 ppb        12.40   0.49%
   QC value within limits for S 181.975 Axial  Recovery = 101.22%
Sb 206.836†             1748.8      510.15 ug/L         1.793      510.15 ppb         1.793   0.35%
   QC value within limits for Sb 206.836  Recovery = 102.03%
Se 196.026†             5507.5      2630.1 ug/L        19.00      2630.1 ppb        19.00   0.72%
   QC value within limits for Se 196.026  Recovery = 105.21%
Si 251.611†           183665.5      4873.8 ug/L         7.40      4873.8 ppb         7.40   0.15%
   QC value within limits for Si 251.611  Recovery = 97.48%
Sn 189.927†             3812.0      540.35 ug/L         2.436      540.35 ppb         2.436   0.45%
   QC value within limits for Sn 189.927  Recovery = 108.07%
Sr 421.552†            79365.5      521.11 ug/L        10.420      521.11 ppb        10.420   2.00%
   QC value within limits for Sr 421.552  Recovery = 104.22%
Ti 334.940†           340169.1      499.53 ug/L         0.697      499.53 ppb         0.697   0.14%
   QC value within limits for Ti 334.940  Recovery = 99.91%
Tl 190.801†             2028.7      534.70 ug/L         1.523      534.70 ppb         1.523   0.28%
   QC value within limits for Tl 190.801  Recovery = 106.94%
U 409.014†             17733.8      489.30 ug/L         5.159      489.30 ppb         5.159   1.05%
   QC value within limits for U 409.014  Recovery = 97.86%
V 292.402†             86254.2      515.00 ug/L         1.117      515.00 ppb         1.117   0.22%
   QC value within limits for V 292.402  Recovery = 103.00%
Zn 213.857†            66191.3      512.98 ug/L         1.279      512.98 ppb         1.279   0.25%
   QC value within limits for Zn 213.857  Recovery = 102.60%
SiO2†                 181631.5       10384 ug/L         120.4       10384 ppb         120.4   1.16%
   QC value within limits for SiO2  Recovery = 97.09%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 12/29/2009 09:14:51
Data Type: Reprocessed on 12/29/2009 10:09:31

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	950820.2	950820.2	101.29	%			09:18:01
1	Sc Radial	5034.7	5034.7	102	%			09:16:44
1	Y 371.029	829204.5	829204.5	101.36	%			09:18:01
1	Y RADIAL	5397.3	5397.3	101.7	%			09:16:44
1	Ag 328.068†	660.9	186.9	0.7791	ug/L	0.7791	ppb	09:18:06
1	Al 396.153Radial†	-18.0	3.7	2.8560	ug/L	2.8560	ppb	09:16:44
1	As 188.979†	-31.5	3.8	1.2342	ug/L	1.2342	ppb	09:18:26
1	B 249.677†	-324.7	75.5	1.4717	ug/L	1.4717	ppb	09:18:06
1	Ba 233.527†	21.6	1.3	0.0101	ug/L	0.0101	ppb	09:18:26
1	Be 313.107†	-4608.3	151.5	0.0481	ug/L	0.0481	ppb	09:18:06
1	Ca 317.933Radial†	15.3	-6.5	-10.117	ug/L	-10.117	ppb	09:17:04
1	Cd 226.502†	-267.2	-7.2	-0.0649	ug/L	-0.0649	ppb	09:18:26
1	Co 228.616†	-73.5	21.6	0.3806	ug/L	0.3806	ppb	09:18:26
1	Cr 267.716†	84.0	-50.8	-0.4752	ug/L	-0.4752	ppb	09:18:06
1	Cu 324.752†	8455.9	-134.6	-0.3840	ug/L	-0.3840	ppb	09:18:06
1	Fe 238.204 Radial†	13.4	-0.1	-0.7044	ug/L	-0.7044	ppb	09:17:04
1	K 766.490 Radial†	3463.0	68.3	13.029	ug/L	13.029	ppb	09:16:44
1	Mg 279.077 IEC†	4.1	1.3	41.397	ug/L	41.397	ppb	09:17:04
1	Mn 257.610†	552.6	-91.0	-0.0911	ug/L	-0.0911	ppb	09:18:06
1	Mo 202.031†	28.2	2.3	0.1372	ug/L	0.1372	ppb	09:18:26
1	Na 589.592 Radial†	-1936.6	-104.9	-29.759	ug/L	-29.759	ppb	09:16:44
1	Ni 231.604†	117.3	-23.1	-0.4779	ug/L	-0.4779	ppb	09:18:26
1	P 214.914†	259.4	-15.1	-6.7785	ug/L	-6.7785	ppb	09:18:26
1	Pb 220.353†	-97.9	-12.0	-1.1913	ug/L	-1.1913	ppb	09:18:26
1	S 181.975 Axial†	60.4	-2.0	-2.2216	ug/L	-2.2216	ppb	09:18:26
1	Sb 206.836†	57.6	11.7	3.3552	ug/L	3.3552	ppb	09:18:26
1	Se 196.026†	-36.6	-3.4	-1.6249	ug/L	-1.6249	ppb	09:18:26
1	Si 251.611†	765.1	16.0	0.4191	ug/L	0.4191	ppb	09:18:26
1	Sn 189.927†	3.6	0.2	0.0265	ug/L	0.0265	ppb	09:18:26
1	Sr 421.552†	-4.1	-15.1	-0.0988	ug/L	-0.0988	ppb	09:16:44
1	Ti 334.940†	-1732.1	-5.3	-0.0065	ug/L	-0.0065	ppb	09:18:06
1	Tl 190.801†	-47.4	2.7	0.7035	ug/L	0.7035	ppb	09:18:26
1	U 409.014†	-3095.5	-137.5	-3.8053	ug/L	-3.8053	ppb	09:18:01
1	V 292.402†	-1710.6	121.2	0.7089	ug/L	0.7089	ppb	09:18:06
1	Zn 213.857†	959.3	32.4	0.2556	ug/L	0.2556	ppb	09:18:26
1	SiO2†	786.0	18.0	1.0139	ug/L	1.0139	ppb	09:19:32
2	Sc 361.383	959976.9	959976.9	102.26	%			09:18:31
2	Sc Radial	5037.8	5037.8	102	%			09:17:09
2	Y 371.029	835244.5	835244.5	102.09	%			09:18:31
2	Y RADIAL	5353.4	5353.4	100.9	%			09:17:09
2	Ag 328.068†	592.4	113.7	0.4663	ug/L	0.4663	ppb	09:18:36
2	Al 396.153Radial†	-16.1	5.5	4.2572	ug/L	4.2572	ppb	09:17:09
2	As 188.979†	-37.6	-1.9	-0.6258	ug/L	-0.6258	ppb	09:18:57
2	B 249.677†	-279.9	122.3	2.3895	ug/L	2.3895	ppb	09:18:36
2	Ba 233.527†	8.1	-12.2	-0.0822	ug/L	-0.0822	ppb	09:18:57
2	Be 313.107†	-4633.2	170.6	0.0543	ug/L	0.0543	ppb	09:18:36
2	Ca 317.933Radial†	24.0	2.1	3.3379	ug/L	3.3379	ppb	09:17:29
2	Cd 226.502†	-254.9	7.4	0.0683	ug/L	0.0683	ppb	09:18:57
2	Co 228.616†	-106.8	-10.3	-0.1787	ug/L	-0.1787	ppb	09:18:57
2	Cr 267.716†	113.2	-23.0	-0.2164	ug/L	-0.2164	ppb	09:18:36
2	Cu 324.752†	8301.1	-365.7	-1.0435	ug/L	-1.0435	ppb	09:18:36
2	Fe 238.204 Radial†	12.0	-1.5	-12.780	ug/L	-12.780	ppb	09:17:29
2	K 766.490 Radial†	3355.6	-39.1	-7.4415	ug/L	-7.4415	ppb	09:17:09
2	Mg 279.077 IEC†	1.7	-1.1	-33.693	ug/L	-33.693	ppb	09:17:29
2	Mn 257.610†	546.2	-102.5	-0.1023	ug/L	-0.1023	ppb	09:18:36
2	Mo 202.031†	37.1	10.9	0.6380	ug/L	0.6380	ppb	09:18:57
2	Na 589.592 Radial†	-1897.9	-65.7	-18.648	ug/L	-18.648	ppb	09:17:09
2	Ni 231.604†	143.6	1.5	0.0319	ug/L	0.0319	ppb	09:18:57

2	P 214.914†	269.0	-8.1	-3.4829 ug/L	-3.4829 ppb		09:18:57
2	Pb 220.353†	-91.7	-5.1	-0.4998 ug/L	-0.4998 ppb		09:18:57
2	S 181.975 Axial†	69.6	6.4	6.9954 ug/L	6.9954 ppb		09:18:57
2	Sb 206.836†	34.4	-11.6	-3.2963 ug/L	-3.2963 ppb		09:18:57
2	Se 196.026†	-29.2	4.1	1.9204 ug/L	1.9204 ppb		09:18:57
2	Si 251.611†	775.8	19.3	0.5033 ug/L	0.5033 ppb		09:18:57
2	Sn 189.927†	6.7	3.1	0.4452 ug/L	0.4452 ppb		09:18:57
2	Sr 421.552†	-7.3	-18.2	-0.1196 ug/L	-0.1196 ppb		09:17:09
2	Ti 334.940†	-1699.5	42.9	0.0626 ug/L	0.0626 ppb		09:18:36
2	Tl 190.801†	-48.6	1.9	0.5087 ug/L	0.5087 ppb		09:18:57
2	U 409.014†	-2936.3	47.3	1.3122 ug/L	1.3122 ppb		09:18:31
2	V 292.402†	-1789.3	60.4	0.3682 ug/L	0.3682 ppb		09:18:36
2	Zn 213.857†	938.4	2.9	0.0258 ug/L	0.0258 ppb		09:18:57
2	SiO2†	812.7	36.7	2.0797 ug/L	2.0797 ppb		09:19:37
3	Sc 361.383	962140.2	962140.2	102.49 %			09:19:02
3	Sc Radial	5118.2	5118.2	103 %			09:17:34
3	Y 371.029	837315.9	837315.9	102.35 %			09:19:02
3	Y RADIAL	5459.5	5459.5	102.9 %			09:17:34
3	Ag 328.068†	598.5	118.4	0.4889 ug/L	0.4889 ppb		09:19:07
3	Al 396.153Radial†	1.3	22.5	17.633 ug/L	17.633 ppb		09:17:34
3	As 188.979†	-41.8	-6.0	-1.9708 ug/L	-1.9708 ppb		09:19:27
3	B 249.677†	-305.7	97.8	1.9096 ug/L	1.9096 ppb		09:19:07
3	Ba 233.527†	6.1	-14.1	-0.0958 ug/L	-0.0958 ppb		09:19:27
3	Be 313.107†	-4685.7	129.6	0.0413 ug/L	0.0413 ppb		09:19:07
3	Ca 317.933Radial†	16.7	-5.3	-8.3790 ug/L	-8.3790 ppb		09:17:54
3	Cd 226.502†	-252.4	10.4	0.0941 ug/L	0.0941 ppb		09:19:27
3	Co 228.616†	-80.4	15.7	0.2767 ug/L	0.2767 ppb		09:19:27
3	Cr 267.716†	165.7	28.0	0.2632 ug/L	0.2632 ppb		09:19:07
3	Cu 324.752†	8417.1	-270.7	-0.7724 ug/L	-0.7724 ppb		09:19:07
3	Fe 238.204 Radial†	12.9	-0.8	-7.3165 ug/L	-7.3165 ppb		09:17:54
3	K 766.490 Radial†	3269.7	-173.9	-33.095 ug/L	-33.095 ppb		09:17:34
3	Mg 279.077 IEC†	3.8	1.0	30.839 ug/L	30.839 ppb		09:17:54
3	Mn 257.610†	611.6	-39.9	-0.0408 ug/L	-0.0408 ppb		09:19:07
3	Mo 202.031†	26.9	0.8	0.0465 ug/L	0.0465 ppb		09:19:27
3	Na 589.592 Radial†	-1943.3	-80.3	-22.788 ug/L	-22.788 ppb		09:17:34
3	Ni 231.604†	146.8	4.3	0.0887 ug/L	0.0887 ppb		09:19:27
3	P 214.914†	275.8	-2.1	-0.8036 ug/L	-0.8036 ppb		09:19:27
3	Pb 220.353†	-71.5	14.9	1.4814 ug/L	1.4814 ppb		09:19:27
3	S 181.975 Axial†	63.3	0.1	0.1413 ug/L	0.1413 ppb		09:19:27
3	Sb 206.836†	46.5	0.1	0.0620 ug/L	0.0620 ppb		09:19:27
3	Se 196.026†	-33.4	0.1	0.0281 ug/L	0.0281 ppb		09:19:27
3	Si 251.611†	756.2	-1.5	-0.0363 ug/L	-0.0363 ppb		09:19:27
3	Sn 189.927†	16.0	12.2	1.7247 ug/L	1.7247 ppb		09:19:27
3	Sr 421.552†	22.2	10.4	0.0684 ug/L	0.0684 ppb		09:17:34
3	Ti 334.940†	-1685.9	59.9	0.0881 ug/L	0.0881 ppb		09:19:07
3	Tl 190.801†	-46.0	4.6	1.2091 ug/L	1.2091 ppb		09:19:27
3	U 409.014†	-3045.0	-52.3	-1.4478 ug/L	-1.4478 ppb		09:19:02
3	V 292.402†	-1834.7	19.9	0.1168 ug/L	0.1168 ppb		09:19:07
3	Zn 213.857†	957.4	19.4	0.1514 ug/L	0.1514 ppb		09:19:27
3	SiO2†	759.7	-16.8	-0.9495 ug/L	-0.9495 ppb		09:19:42

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	957645.8	102.01	%	0.640				0.63%
Sc Radial	5063.6	102	%	1.0				0.93%
Y 371.029	833921.6	101.93	%	0.515				0.51%
Y RADIAL	5403.4	101.9	%	1.01				0.99%
Ag 328.068†	139.7	0.5781	ug/L	0.17446	0.5781	ppb	0.17446	30.18%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.6	8.2488	ug/L	8.15719	8.2488	ppb	8.15719	98.89%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.4	-0.4541	ug/L	1.60937	-0.4541	ppb	1.60937	354.41%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	98.6	1.9236	ug/L	0.45906	1.9236	ppb	0.45906	23.86%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-8.3	-0.0559	ug/L	0.05763	-0.0559	ppb	0.05763	103.02%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	150.6	0.0479	ug/L	0.00649	0.0479	ppb	0.00649	13.54%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          -3.2     -5.0528 ug/L       7.31837     -5.0528 ppb        7.31837 144.84%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 3.5      0.0325 ug/L       0.08532      0.0325 ppb        0.08532 262.63%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 9.0      0.1595 ug/L       0.29750      0.1595 ppb        0.29750 186.49%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -15.3     -0.1428 ug/L       0.37466     -0.1428 ppb        0.37466 262.31%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -257.0     -0.7333 ug/L       0.33147     -0.7333 ppb        0.33147  45.20%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.8     -6.9336 ug/L       6.04683     -6.9336 ppb        6.04683  87.21%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -48.2     -9.1692 ug/L      23.11023     -9.1692 ppb       23.11023 252.04%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.4      12.848 ug/L       40.6495      12.848 ppb        40.6495 316.39%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -77.8     -0.0781 ug/L       0.03274     -0.0781 ppb        0.03274  41.93%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.7      0.2739 ug/L       0.31855      0.2739 ppb        0.31855 116.31%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -83.6     -23.732 ug/L        5.6151     -23.732 ppb         5.6151  23.66%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -5.7     -0.1191 ug/L       0.31203     -0.1191 ppb        0.31203 261.97%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -8.4     -3.6883 ug/L       2.99274     -3.6883 ppb        2.99274  81.14%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -0.7     -0.0699 ug/L       1.38723     -0.0699 ppb        1.38723 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.5      1.6384 ug/L       4.78742      1.6384 ppb        4.78742 292.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.1      0.0403 ug/L       3.32576      0.0403 ppb        3.32576 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.3      0.1078 ug/L       1.77399      0.1078 ppb        1.77399 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                11.3      0.2954 ug/L       0.29029      0.2954 ppb        0.29029  98.28%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.2      0.7321 ug/L       0.88472      0.7321 ppb        0.88472 120.84%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -7.6     -0.0500 ug/L       0.10305     -0.0500 ppb        0.10305 206.11%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                32.5      0.0481 ug/L       0.04894      0.0481 ppb        0.04894 101.77%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.1      0.8071 ug/L       0.36149      0.8071 ppb        0.36149  44.79%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -47.5     -1.3136 ug/L       2.56140     -1.3136 ppb        2.56140 194.99%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 67.2      0.3980 ug/L       0.29719      0.3980 ppb        0.29719  74.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                18.3      0.1443 ug/L       0.11507      0.1443 ppb        0.11507  79.75%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      12.6      0.7147 ug/L       1.53662      0.7147 ppb        1.53662 215.00%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 12/29/2009 09:21:53
Data Type: Reprocessed on 12/29/2009 10:09:32
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	946055.4	946055.4	100.78	%			09:25:03
1	Sc Radial	5014.1	5014.1	101	%			09:23:46
1	Y 371.029	824277.8	824277.8	100.75	%			09:25:03
1	Y RADIAL	5353.5	5353.5	100.9	%			09:23:46
1	Ag 328.068†	1693.4	1214.7	5.0323	ug/L	5.0323	ppb	09:25:03
1	Al 396.153Radial†	264.8	282.5	220.70	ug/L	220.70	ppb	09:23:46
1	As 188.979†	46.6	81.1	26.682	ug/L	26.682	ppb	09:25:24
1	B 249.677†	2036.2	2416.5	47.128	ug/L	47.128	ppb	09:25:24
1	Ba 233.527†	759.3	733.4	4.9995	ug/L	4.9995	ppb	09:25:24
1	Be 313.107†	11059.3	15675.3	4.9890	ug/L	4.9890	ppb	09:25:03
1	Ca 317.933Radial†	157.2	133.6	209.37	ug/L	209.37	ppb	09:24:06
1	Cd 226.502†	294.2	548.5	4.9349	ug/L	4.9349	ppb	09:25:24
1	Co 228.616†	196.5	289.2	5.1023	ug/L	5.1023	ppb	09:25:24
1	Cr 267.716†	654.4	515.6	4.8383	ug/L	4.8383	ppb	09:25:24
1	Cu 324.752†	11869.2	3294.4	9.3995	ug/L	9.3995	ppb	09:25:03
1	Fe 238.204 Radial†	25.5	11.9	104.81	ug/L	104.81	ppb	09:24:06
1	K 766.490 Radial†	4137.8	747.9	142.19	ug/L	142.19	ppb	09:23:46
1	Mg 279.077 IEC†	11.2	8.3	265.63	ug/L	265.63	ppb	09:24:06
1	Mn 257.610†	10953.4	10232.3	10.157	ug/L	10.157	ppb	09:25:03
1	Mo 202.031†	202.3	175.3	10.327	ug/L	10.327	ppb	09:25:24
1	Na 589.592 Radial†	-815.6	993.0	281.73	ug/L	281.73	ppb	09:23:46
1	Ni 231.604†	388.0	246.1	5.0919	ug/L	5.0919	ppb	09:25:24
1	P 214.914†	597.1	321.3	144.32	ug/L	144.32	ppb	09:25:24
1	Pb 220.353†	18.2	102.7	10.250	ug/L	10.250	ppb	09:25:24
1	S 181.975 Axial†	149.3	86.5	94.950	ug/L	94.950	ppb	09:25:24
1	Sb 206.836†	74.6	28.8	8.5285	ug/L	8.5285	ppb	09:25:24
1	Se 196.026†	25.3	57.8	27.805	ug/L	27.805	ppb	09:25:24
1	Si 251.611†	4472.6	3698.7	98.129	ug/L	98.129	ppb	09:25:24
1	Sn 189.927†	80.4	76.4	10.842	ug/L	10.842	ppb	09:25:24
1	Sr 421.552†	771.1	749.6	4.9202	ug/L	4.9202	ppb	09:23:46
1	Ti 334.940†	1610.5	3302.8	4.8376	ug/L	4.8376	ppb	09:25:03
1	Tl 190.801†	43.1	92.2	24.224	ug/L	24.224	ppb	09:25:24
1	U 409.014†	-1047.9	1878.9	51.986	ug/L	51.986	ppb	09:25:03
1	V 292.402†	-939.8	877.6	5.3969	ug/L	5.3969	ppb	09:25:24
1	Zn 213.857†	2199.6	1267.9	9.8492	ug/L	9.8492	ppb	09:25:24
1	SiO2†	4554.4	3761.2	214.99	ug/L	214.99	ppb	09:26:20
2	Sc 361.383	952100.6	952100.6	101.42	%			09:25:29
2	Sc Radial	5002.6	5002.6	101	%			09:24:11
2	Y 371.029	828812.9	828812.9	101.31	%			09:25:29
2	Y RADIAL	5367.6	5367.6	101.2	%			09:24:11
2	Ag 328.068†	1736.1	1246.1	5.1602	ug/L	5.1602	ppb	09:25:29
2	Al 396.153Radial†	244.0	262.5	205.04	ug/L	205.04	ppb	09:24:11
2	As 188.979†	48.0	82.2	27.039	ug/L	27.039	ppb	09:25:49
2	B 249.677†	2084.8	2451.7	47.815	ug/L	47.815	ppb	09:25:49
2	Ba 233.527†	773.1	742.2	5.0589	ug/L	5.0589	ppb	09:25:49
2	Be 313.107†	11102.5	15648.2	4.9805	ug/L	4.9805	ppb	09:25:29
2	Ca 317.933Radial†	150.0	126.9	198.79	ug/L	198.79	ppb	09:24:31
2	Cd 226.502†	298.0	550.5	4.9537	ug/L	4.9537	ppb	09:25:49
2	Co 228.616†	194.0	285.5	5.0360	ug/L	5.0360	ppb	09:25:49
2	Cr 267.716†	650.8	508.0	4.7671	ug/L	4.7671	ppb	09:25:49
2	Cu 324.752†	11849.4	3200.1	9.1301	ug/L	9.1301	ppb	09:25:29
2	Fe 238.204 Radial†	24.3	10.7	94.506	ug/L	94.506	ppb	09:24:31
2	K 766.490 Radial†	4025.9	646.7	122.92	ug/L	122.92	ppb	09:24:11
2	Mg 279.077 IEC†	13.5	10.7	341.69	ug/L	341.69	ppb	09:24:31
2	Mn 257.610†	11058.4	10266.7	10.189	ug/L	10.189	ppb	09:25:29
2	Mo 202.031†	196.3	168.1	9.9044	ug/L	9.9044	ppb	09:25:49
2	Na 589.592 Radial†	-900.8	906.9	257.30	ug/L	257.30	ppb	09:24:11
2	Ni 231.604†	391.6	247.3	5.1154	ug/L	5.1154	ppb	09:25:49

2	P 214.914†	601.4	321.8	144.58 ug/L	144.58 ppb	09:25:49
2	Pb 220.353†	11.9	96.3	9.6150 ug/L	9.6150 ppb	09:25:49
2	S 181.975 Axial†	167.1	103.1	113.18 ug/L	113.18 ppb	09:25:49
2	Sb 206.836†	70.7	24.4	7.2809 ug/L	7.2809 ppb	09:25:49
2	Se 196.026†	34.4	66.6	31.923 ug/L	31.923 ppb	09:25:49
2	Si 251.611†	4450.0	3648.2	96.802 ug/L	96.802 ppb	09:25:49
2	Sn 189.927†	78.6	74.0	10.507 ug/L	10.507 ppb	09:25:49
2	Sr 421.552†	710.0	690.9	4.5349 ug/L	4.5349 ppb	09:24:11
2	Ti 334.940†	1663.2	3344.7	4.8997 ug/L	4.8997 ppb	09:25:29
2	Tl 190.801†	30.2	79.3	20.830 ug/L	20.830 ppb	09:25:49
2	U 409.014†	-1152.7	1782.1	49.308 ug/L	49.308 ppb	09:25:29
2	V 292.402†	-994.2	829.8	5.1075 ug/L	5.1075 ppb	09:25:49
2	Zn 213.857†	2196.6	1251.1	9.7161 ug/L	9.7161 ppb	09:25:49
2	SiO2†	4468.9	3648.2	208.55 ug/L	208.55 ppb	09:26:25
3	Sc 361.383	962008.2	962008.2	102.48 %		09:25:55
3	Sc Radial	5035.8	5035.8	102 %		09:24:37
3	Y 371.029	836452.5	836452.5	102.24 %		09:25:55
3	Y RADIAL	5364.4	5364.4	101.1 %		09:24:37
3	Ag 328.068†	1627.4	1122.5	4.6414 ug/L	4.6414 ppb	09:25:55
3	Al 396.153Radial†	265.9	282.5	220.71 ug/L	220.71 ppb	09:24:37
3	As 188.979†	52.5	86.1	28.315 ug/L	28.315 ppb	09:26:15
3	B 249.677†	2039.7	2386.5	46.545 ug/L	46.545 ppb	09:26:15
3	Ba 233.527†	727.5	689.8	4.7030 ug/L	4.7030 ppb	09:26:15
3	Be 313.107†	11127.0	15559.4	4.9526 ug/L	4.9526 ppb	09:25:55
3	Ca 317.933Radial†	149.4	125.3	196.34 ug/L	196.34 ppb	09:24:57
3	Cd 226.502†	301.5	550.8	4.9574 ug/L	4.9574 ppb	09:26:15
3	Co 228.616†	198.4	287.8	5.0753 ug/L	5.0753 ppb	09:26:15
3	Cr 267.716†	629.5	480.5	4.5078 ug/L	4.5078 ppb	09:26:15
3	Cu 324.752†	12089.0	3313.6	9.4531 ug/L	9.4531 ppb	09:25:55
3	Fe 238.204 Radial†	23.0	9.3	81.703 ug/L	81.703 ppb	09:24:57
3	K 766.490 Radial†	3982.4	577.7	109.78 ug/L	109.78 ppb	09:24:37
3	Mg 279.077 IEC†	12.4	9.5	302.42 ug/L	302.42 ppb	09:24:57
3	Mn 257.610†	11094.6	10189.8	10.112 ug/L	10.112 ppb	09:25:55
3	Mo 202.031†	193.2	163.1	9.6068 ug/L	9.6068 ppb	09:26:15
3	Na 589.592 Radial†	-828.1	984.1	279.21 ug/L	279.21 ppb	09:24:37
3	Ni 231.604†	367.0	219.2	4.5350 ug/L	4.5350 ppb	09:26:15
3	P 214.914†	603.1	317.3	142.52 ug/L	142.52 ppb	09:26:15
3	Pb 220.353†	6.7	91.1	9.1029 ug/L	9.1029 ppb	09:26:15
3	S 181.975 Axial†	148.7	83.4	91.604 ug/L	91.604 ppb	09:26:15
3	Sb 206.836†	83.7	36.4	10.710 ug/L	10.710 ppb	09:26:15
3	Se 196.026†	21.8	54.0	25.920 ug/L	25.920 ppb	09:26:15
3	Si 251.611†	4454.6	3607.5	95.727 ug/L	95.727 ppb	09:26:15
3	Sn 189.927†	79.5	74.2	10.524 ug/L	10.524 ppb	09:26:15
3	Sr 421.552†	781.0	756.0	4.9625 ug/L	4.9625 ppb	09:24:37
3	Ti 334.940†	1781.9	3443.6	5.0428 ug/L	5.0428 ppb	09:25:55
3	Tl 190.801†	28.3	77.1	20.263 ug/L	20.263 ppb	09:26:15
3	U 409.014†	-982.8	1959.6	54.224 ug/L	54.224 ppb	09:25:55
3	V 292.402†	-950.4	882.6	5.4249 ug/L	5.4249 ppb	09:26:15
3	Zn 213.857†	2196.2	1228.5	9.5443 ug/L	9.5443 ppb	09:26:15
3	SiO2†	4579.0	3710.3	212.13 ug/L	212.13 ppb	09:26:30

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	953388.1	101.56	%	0.858				0.84%
Sc Radial	5017.5	101	%	0.3				0.34%
Y 371.029	829847.7	101.43	%	0.752				0.74%
Y RADIAL	5361.8	101.1	%	0.14				0.14%
Ag 328.068†	1194.4	4.9446	ug/L	0.27031	4.9446	ppb	0.27031	5.47%
QC value within limits for Ag 328.068 Recovery = 98.89%								
Al 396.153Radial†	275.8	215.48	ug/L	9.041	215.48	ppb	9.041	4.20%
QC value within limits for Al 396.153Radial Recovery = 107.74%								
As 188.979†	83.1	27.345	ug/L	0.8586	27.345	ppb	0.8586	3.14%
QC value within limits for As 188.979 Recovery = 91.15%								
B 249.677†	2418.2	47.162	ug/L	0.6357	47.162	ppb	0.6357	1.35%
QC value within limits for B 249.677 Recovery = 94.32%								
Ba 233.527†	721.8	4.9205	ug/L	0.19064	4.9205	ppb	0.19064	3.87%
QC value within limits for Ba 233.527 Recovery = 98.41%								
Be 313.107†	15627.6	4.9740	ug/L	0.01906	4.9740	ppb	0.01906	0.38%
QC value within limits for Be 313.107 Recovery = 99.48%								

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Ca 317.933Radial†        128.6      201.50 ug/L        6.924      201.50 ppb        6.924   3.44%
   QC value within limits for Ca 317.933Radial  Recovery = 100.75%
Cd 226.502†              550.0      4.9486 ug/L      0.01206      4.9486 ppb      0.01206   0.24%
   QC value within limits for Cd 226.502  Recovery = 98.97%
Co 228.616†              287.5      5.0712 ug/L      0.03334      5.0712 ppb      0.03334   0.66%
   QC value within limits for Co 228.616  Recovery = 101.42%
Cr 267.716†              501.4      4.7044 ug/L      0.17392      4.7044 ppb      0.17392   3.70%
   QC value within limits for Cr 267.716  Recovery = 94.09%
Cu 324.752†             3269.3      9.3276 ug/L      0.17309      9.3276 ppb      0.17309   1.86%
   QC value within limits for Cu 324.752  Recovery = 93.28%
Fe 238.204 Radial†        10.6      93.672 ug/L      11.5749      93.672 ppb      11.5749  12.36%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.67%
K 766.490 Radial†        657.4      124.97 ug/L       16.301      124.97 ppb       16.301  13.04%
   QC value within limits for K 766.490 Radial  Recovery = 83.31%
Mg 279.077 IEC†            9.5      303.25 ug/L       38.036      303.25 ppb       38.036  12.54%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.08%
Mn 257.610†            10229.6      10.153 ug/L       0.0387      10.153 ppb       0.0387   0.38%
   QC value within limits for Mn 257.610  Recovery = 101.53%
Mo 202.031†              168.8      9.9460 ug/L      0.36181      9.9460 ppb      0.36181   3.64%
   QC value within limits for Mo 202.031  Recovery = 99.46%
Na 589.592 Radial†       961.3      272.75 ug/L       13.439      272.75 ppb       13.439   4.93%
   QC value within limits for Na 589.592 Radial  Recovery = 90.92%
Ni 231.604†              237.5      4.9141 ug/L      0.32851      4.9141 ppb      0.32851   6.69%
   QC value within limits for Ni 231.604  Recovery = 98.28%
P 214.914†               320.1      143.80 ug/L        1.120      143.80 ppb        1.120   0.78%
   QC value within limits for P 214.914  Recovery = 95.87%
Pb 220.353†               96.7      9.6561 ug/L      0.57476      9.6561 ppb      0.57476   5.95%
   QC value within limits for Pb 220.353  Recovery = 96.56%
S 181.975 Axial†          91.0      99.911 ug/L      11.6114      99.911 ppb      11.6114  11.62%
   QC value within limits for S 181.975 Axial  Recovery = 99.91%
Sb 206.836†               29.9      8.8398 ug/L      1.73561      8.8398 ppb      1.73561  19.63%
   QC value within limits for Sb 206.836  Recovery = 88.40%
Se 196.026†               59.4      28.549 ug/L       3.0699      28.549 ppb       3.0699  10.75%
   QC value within limits for Se 196.026  Recovery = 95.16%
Si 251.611†             3651.5      96.886 ug/L       1.2028      96.886 ppb       1.2028   1.24%
   QC value within limits for Si 251.611  Recovery = 96.89%
Sn 189.927†               74.9      10.624 ug/L       0.1884      10.624 ppb       0.1884   1.77%
   QC value within limits for Sn 189.927  Recovery = 106.24%
Sr 421.552†              732.2      4.8059 ug/L      0.23563      4.8059 ppb      0.23563   4.90%
   QC value within limits for Sr 421.552  Recovery = 96.12%
Ti 334.940†             3363.7      4.9267 ug/L      0.10521      4.9267 ppb      0.10521   2.14%
   QC value within limits for Ti 334.940  Recovery = 98.53%
Tl 190.801†               82.9      21.772 ug/L       2.1419      21.772 ppb       2.1419   9.84%
   QC value within limits for Tl 190.801  Recovery = 108.86%
U 409.014†              1873.5      51.839 ug/L       2.4616      51.839 ppb       2.4616   4.75%
   QC value within limits for U 409.014  Recovery = 103.68%
V 292.402†               863.3      5.3098 ug/L      0.17570      5.3098 ppb      0.17570   3.31%
   QC value within limits for V 292.402  Recovery = 106.20%
Zn 213.857†             1249.2      9.7032 ug/L      0.15283      9.7032 ppb      0.15283   1.58%
   QC value within limits for Zn 213.857  Recovery = 97.03%
SiO2†                   3706.6      211.89 ug/L        3.228      211.89 ppb        3.228   1.52%
   QC value within limits for SiO2  Recovery = 99.48%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: ICSA
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 12/29/2009 09:28:42
Data Type: Reprocessed on 12/29/2009 10:09:33
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	799914.7	799914.7	85.210	%			09:31:08
1	Sc Radial	4512.0	4512.0	91.2	%			09:30:41
1	Y 371.029	679741.6	679741.6	83.086	%			09:31:08
1	Y RADIAL	4837.9	4837.9	91.20	%			09:30:41
1	Ag 328.068†	-10939.4	-13303.7	0.8441	ug/L	0.8441	ppb	09:31:08
1	Al 396.153Radial†	598089.6	655583.6	513150	ug/L	513150	ppb	09:30:36
1	As 188.979†	-99.8	-82.3	1.8080	ug/L	1.8080	ppb	09:31:28
1	B 249.677†	206.0	637.8	-12.491	ug/L	-12.491	ppb	09:31:08
1	Ba 233.527†	-775.5	-930.1	-1.5520	ug/L	-1.5520	ppb	09:31:28
1	Be 313.107†	-5046.1	-1220.6	-0.4285	ug/L	-0.4285	ppb	09:31:08
1	Ca 317.933Radial†	278078.6	304778.7	477630	ug/L	477630	ppb	09:30:36
1	Cd 226.502†	1386.7	1884.0	-1.8152	ug/L	-1.8152	ppb	09:31:28
1	Co 228.616†	-39.5	47.9	-1.8438	ug/L	-1.8438	ppb	09:31:28
1	Cr 267.716†	-63.8	-208.7	1.4234	ug/L	1.4234	ppb	09:31:28
1	Cu 324.752†	4547.7	-3146.2	0.6165	ug/L	0.6165	ppb	09:31:08
1	Fe 238.204 Radial†	19539.2	21403.5	187960	ug/L	187960	ppb	09:30:41
1	K 766.490 Radial†	2661.7	-415.9	-63.603	ug/L	-63.603	ppb	09:30:36
1	Mg 279.077 IEC†	14042.6	15389.3	491950	ug/L	491950	ppb	09:30:41
1	Mn 257.610†	-320.4	-1012.6	8.5773	ug/L	8.5773	ppb	09:31:08
1	Mo 202.031†	-246.1	-314.3	-0.4824	ug/L	-0.4824	ppb	09:31:28
1	Na 589.592 Radial†	-1636.4	3.8	1.0699	ug/L	1.0699	ppb	09:30:41
1	Ni 231.604†	272.7	181.1	3.7494	ug/L	3.7494	ppb	09:31:28
1	P 214.914†	239.4	9.8	27.284	ug/L	27.284	ppb	09:31:28
1	Pb 220.353†	-1051.3	-1149.1	-14.366	ug/L	-14.366	ppb	09:31:28
1	S 181.975 Axial†	86.3	39.6	-57.407	ug/L	-57.407	ppb	09:31:28
1	Sb 206.836†	81.5	50.5	2.0324	ug/L	2.0324	ppb	09:31:28
1	Se 196.026†	-1255.3	-1440.5	-12.253	ug/L	-12.253	ppb	09:31:28
1	Si 251.611†	480.6	-175.4	-4.1067	ug/L	-4.1067	ppb	09:31:28
1	Sn 189.927†	-402.5	-475.8	-14.984	ug/L	-14.984	ppb	09:31:28
1	Sr 421.552†	534.6	575.0	-0.6514	ug/L	-0.6514	ppb	09:30:41
1	Ti 334.940†	-13474.9	-14108.8	4.1865	ug/L	4.1865	ppb	09:31:08
1	Tl 190.801†	-109.0	-78.5	-6.7051	ug/L	-6.7051	ppb	09:31:28
1	U 409.014†	-2166.0	376.7	-13.217	ug/L	-13.217	ppb	09:31:08
1	V 292.402†	593.6	2506.7	-2.9570	ug/L	-2.9570	ppb	09:31:28
1	Zn 213.857†	3664.3	3385.6	-0.1436	ug/L	-0.1436	ppb	09:31:28
1	SiO2†	539.4	-125.0	-5.9477	ug/L	-5.9477	ppb	09:32:24
2	Sc 361.383	816755.7	816755.7	87.004	%			09:31:33
2	Sc Radial	4487.8	4487.8	90.7	%			09:30:51
2	Y 371.029	694523.7	694523.7	84.893	%			09:31:33
2	Y RADIAL	4790.9	4790.9	90.31	%			09:30:51
2	Ag 328.068†	-11139.1	-13268.5	1.2550	ug/L	1.2550	ppb	09:31:33
2	Al 396.153Radial†	600891.6	662207.4	518340	ug/L	518340	ppb	09:30:46
2	As 188.979†	-110.2	-91.8	-1.1563	ug/L	-1.1563	ppb	09:31:53
2	B 249.677†	41.1	443.3	-16.420	ug/L	-16.420	ppb	09:31:33
2	Ba 233.527†	-731.8	-861.3	-1.0585	ug/L	-1.0585	ppb	09:31:53
2	Be 313.107†	-5069.7	-1125.6	-0.4000	ug/L	-0.4000	ppb	09:31:33
2	Ca 317.933Radial†	279120.7	307571.2	482010	ug/L	482010	ppb	09:30:46
2	Cd 226.502†	1411.9	1879.4	-1.9558	ug/L	-1.9558	ppb	09:31:53
2	Co 228.616†	-24.8	65.7	-1.5431	ug/L	-1.5431	ppb	09:31:53
2	Cr 267.716†	-11.1	-146.4	2.0244	ug/L	2.0244	ppb	09:31:53
2	Cu 324.752†	4506.0	-3304.1	0.2171	ug/L	0.2171	ppb	09:31:33
2	Fe 238.204 Radial†	19537.4	21517.1	188960	ug/L	188960	ppb	09:30:51
2	K 766.490 Radial†	2884.2	-155.0	-13.717	ug/L	-13.717	ppb	09:30:46
2	Mg 279.077 IEC†	14048.0	15478.2	494800	ug/L	494800	ppb	09:30:51
2	Mn 257.610†	-409.4	-1107.1	8.5300	ug/L	8.5300	ppb	09:31:33
2	Mo 202.031†	-255.5	-319.2	-0.6733	ug/L	-0.6733	ppb	09:31:53
2	Na 589.592 Radial†	-1637.6	-7.3	-2.0593	ug/L	-2.0593	ppb	09:30:51
2	Ni 231.604†	290.5	195.0	4.0359	ug/L	4.0359	ppb	09:31:53

2	P 214.914†	226.5	-10.8	19.006 ug/L	19.006 ppb	09:31:53
2	Pb 220.353†	-1057.6	-1131.0	-11.484 ug/L	-11.484 ppb	09:31:53
2	S 181.975 Axial†	96.2	48.9	-48.282 ug/L	-48.282 ppb	09:31:53
2	Sb 206.836†	70.9	36.2	-2.1312 ug/L	-2.1312 ppb	09:31:53
2	Se 196.026†	-1244.2	-1397.4	12.168 ug/L	12.168 ppb	09:31:53
2	Si 251.611†	556.0	-100.3	-2.1321 ug/L	-2.1321 ppb	09:31:53
2	Sn 189.927†	-389.5	-451.0	-11.011 ug/L	-11.011 ppb	09:31:53
2	Sr 421.552†	492.7	531.9	-0.9750 ug/L	-0.9750 ppb	09:30:51
2	Ti 334.940†	-14274.2	-14701.5	3.5419 ug/L	3.5419 ppb	09:31:33
2	Tl 190.801†	-99.3	-64.7	-2.9542 ug/L	-2.9542 ppb	09:31:53
2	U 409.014†	-2058.5	552.7	-8.4719 ug/L	-8.4719 ppb	09:31:33
2	V 292.402†	615.1	2517.0	-2.9774 ug/L	-2.9774 ppb	09:31:53
2	Zn 213.857†	3683.6	3319.1	-0.8135 ug/L	-0.8135 ppb	09:31:53
2	SiO2†	550.3	-125.6	-6.0315 ug/L	-6.0315 ppb	09:32:29
3	Sc 361.383	806522.1	806522.1	85.914 %		09:31:59
3	Sc Radial	4518.4	4518.4	91.4 %		09:31:01
3	Y 371.029	687058.5	687058.5	83.981 %		09:31:59
3	Y RADIAL	4814.3	4814.3	90.75 %		09:31:01
3	Ag 328.068†	-10916.3	-13171.6	1.4476 ug/L	1.4476 ppb	09:31:59
3	Al 396.153Radial†	606315.9	663662.0	519470 ug/L	519470 ppb	09:30:56
3	As 188.979†	-112.4	-96.0	-2.6215 ug/L	-2.6215 ppb	09:32:19
3	B 249.677†	199.7	628.5	-12.732 ug/L	-12.732 ppb	09:31:59
3	Ba 233.527†	-768.9	-915.1	-1.4378 ug/L	-1.4378 ppb	09:32:19
3	Be 313.107†	-5041.8	-1167.1	-0.4135 ug/L	-0.4135 ppb	09:31:59
3	Ca 317.933Radial†	281965.4	308602.6	483620 ug/L	483620 ppb	09:30:56
3	Cd 226.502†	1409.8	1897.6	-1.7363 ug/L	-1.7363 ppb	09:32:19
3	Co 228.616†	-31.9	57.1	-1.6871 ug/L	-1.6871 ppb	09:32:19
3	Cr 267.716†	11.7	-120.1	2.2628 ug/L	2.2628 ppb	09:32:19
3	Cu 324.752†	4390.5	-3372.8	-0.0074 ug/L	-0.0074 ppb	09:31:59
3	Fe 238.204 Radial†	19612.3	21453.3	188400 ug/L	188400 ppb	09:31:01
3	K 766.490 Radial†	2907.3	-151.2	-13.009 ug/L	-13.009 ppb	09:30:56
3	Mg 279.077 IEC†	14115.3	15447.1	493800 ug/L	493800 ppb	09:31:01
3	Mn 257.610†	-578.0	-1309.4	8.2921 ug/L	8.2921 ppb	09:31:59
3	Mo 202.031†	-258.4	-326.2	-1.1431 ug/L	-1.1431 ppb	09:32:19
3	Na 589.592 Radial†	-1638.1	4.5	1.2716 ug/L	1.2716 ppb	09:31:01
3	Ni 231.604†	285.7	193.7	4.0085 ug/L	4.0085 ppb	09:32:19
3	P 214.914†	250.6	20.5	34.021 ug/L	34.021 ppb	09:32:19
3	Pb 220.353†	-1137.5	-1239.4	-21.942 ug/L	-21.942 ppb	09:32:19
3	S 181.975 Axial†	103.6	58.9	-37.505 ug/L	-37.505 ppb	09:32:19
3	Sb 206.836†	73.0	39.7	-1.2179 ug/L	-1.2179 ppb	09:32:19
3	Se 196.026†	-1247.7	-1419.6	0.0872 ug/L	0.0872 ppb	09:32:19
3	Si 251.611†	567.5	-78.9	-1.5493 ug/L	-1.5493 ppb	09:32:19
3	Sn 189.927†	-396.0	-464.4	-12.737 ug/L	-12.737 ppb	09:32:19
3	Sr 421.552†	490.7	526.1	-1.0282 ug/L	-1.0282 ppb	09:31:01
3	Ti 334.940†	-14186.6	-14807.7	3.4710 ug/L	3.4710 ppb	09:31:59
3	Tl 190.801†	-91.2	-56.7	-0.8449 ug/L	-0.8449 ppb	09:32:19
3	U 409.014†	-2096.3	478.7	-10.449 ug/L	-10.449 ppb	09:31:59
3	V 292.402†	642.7	2558.2	-2.6824 ug/L	-2.6824 ppb	09:32:19
3	Zn 213.857†	3695.2	3386.4	-0.2243 ug/L	-0.2243 ppb	09:32:19
3	SiO2†	541.0	-128.4	-6.1633 ug/L	-6.1633 ppb	09:32:34

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	807730.8	86.043	%	0.9039				1.05%
Sc Radial	4506.1	91.1	%	0.33				0.36%
Y 371.029	687107.9	83.987	%	0.9034				1.08%
Y RADIAL	4814.4	90.75	%	0.443				0.49%
Ag 328.068†	-13247.9	1.1822	ug/L	0.30826	1.1822	ppb	0.30826	26.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	660484.3	516990	ug/L	3370.5	516990	ppb	3370.5	0.65%
QC value within limits for Al 396.153Radial Recovery = 103.40%								
As 188.979†	-90.1	-0.6566	ug/L	2.25663	-0.6566	ppb	2.25663	343.70%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	569.9	-13.881	ug/L	2.2024	-13.881	ppb	2.2024	15.87%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-902.2	-1.3494	ug/L	0.25838	-1.3494	ppb	0.25838	19.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1171.1	-0.4140	ug/L	0.01424	-0.4140	ppb	0.01424	3.44%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†     306984.2      481090 ug/L        3100.4      481090 ppb        3100.4   0.64%
   QC value within limits for Ca 317.933Radial  Recovery = 96.22%
Cd 226.502†             1887.0     -1.8358 ug/L       0.11120     -1.8358 ppb       0.11120   6.06%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               56.9     -1.6914 ug/L       0.15039     -1.6914 ppb       0.15039   8.89%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -158.4      1.9035 ug/L       0.43255      1.9035 ppb       0.43255  22.72%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -3274.4      0.2754 ug/L       0.31602      0.2754 ppb       0.31602 114.75%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     21458.0      188440 ug/L         499.9      188440 ppb         499.9   0.27%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.22%
K 766.490 Radial†       -240.7     -30.110 ug/L       29.0079     -30.110 ppb       29.0079  96.34%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        15438.2      493520 ug/L        1442.3      493520 ppb        1442.3   0.29%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.70%
Mn 257.610†            -1143.0      8.4665 ug/L       0.15289      8.4665 ppb       0.15289   1.81%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -319.9     -0.7662 ug/L       0.34001     -0.7662 ppb       0.34001  44.37%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        0.3      0.0941 ug/L       1.86762      0.0941 ppb       1.86762 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               189.9      3.9313 ug/L       0.15809      3.9313 ppb       0.15809   4.02%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  6.5      26.770 ug/L        7.5203      26.770 ppb        7.5203  28.09%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -1173.2     -15.931 ug/L        5.4018     -15.931 ppb        5.4018  33.91%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          49.1     -47.731 ug/L        9.9621     -47.731 ppb        9.9621  20.87%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               42.1     -0.4389 ug/L       2.18837     -0.4389 ppb       2.18837 498.62%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -1419.1      0.0008 ug/L      12.21110      0.0008 ppb      12.21110 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -118.2     -2.5960 ug/L       1.34029     -2.5960 ppb       1.34029  51.63%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -463.7     -12.911 ug/L        1.9919     -12.911 ppb        1.9919  15.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              544.3     -0.8849 ug/L       0.20395     -0.8849 ppb       0.20395  23.05%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           -14539.4      3.7331 ug/L       0.39424      3.7331 ppb       0.39424  10.56%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -66.6     -3.5014 ug/L       2.96815     -3.5014 ppb       2.96815  84.77%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               469.4     -10.713 ug/L        2.3833     -10.713 ppb        2.3833  22.25%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              2527.3     -2.8723 ug/L       0.16475     -2.8723 ppb       0.16475   5.74%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             3363.7     -0.3938 ug/L       0.36569     -0.3938 ppb       0.36569  92.86%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -126.3     -6.0475 ug/L       0.10871     -6.0475 ppb       0.10871   1.80%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 12/29/2009 09:34:46
Data Type: Reprocessed on 12/29/2009 10:09:34

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	815341.1	815341.1	86.854	%			09:37:11
1	Sc Radial	4459.1	4459.1	90.2	%			09:36:43
1	Y 371.029	692769.4	692769.4	84.679	%			09:37:11
1	Y RADIAL	4797.8	4797.8	90.44	%			09:36:43
1	Ag 328.068†	46518.5	53094.0	278.57	ug/L	278.57	ppb	09:37:11
1	Al 396.153Radial†	613808.8	680808.2	532870	ug/L	532870	ppb	09:36:38
1	As 188.979†	1246.8	1470.3	516.76	ug/L	516.76	ppb	09:37:16
1	B 249.677†	23384.0	27319.5	506.27	ug/L	506.27	ppb	09:37:11
1	Ba 233.527†	63289.2	72848.6	501.25	ug/L	501.25	ppb	09:37:11
1	Be 313.107†	673971.2	780685.5	248.97	ug/L	248.97	ppb	09:37:11
1	Ca 317.933Radial†	285757.4	316917.5	496650	ug/L	496650	ppb	09:36:38
1	Cd 226.502†	46392.4	53671.1	464.50	ug/L	464.50	ppb	09:37:16
1	Co 228.616†	22628.0	26147.2	457.32	ug/L	457.32	ppb	09:37:16
1	Cr 267.716†	43358.6	49787.7	471.98	ug/L	471.98	ppb	09:37:16
1	Cu 324.752†	178500.8	197035.6	571.73	ug/L	571.73	ppb	09:37:11
1	Fe 238.204 Radial†	19868.9	22023.7	193420	ug/L	193420	ppb	09:36:43
1	K 766.490 Radial†	29210.9	29065.0	5543.3	ug/L	5543.3	ppb	09:36:38
1	Mg 279.077 IEC†	14205.5	15752.8	503580	ug/L	503580	ppb	09:36:43
1	Mn 257.610†	432285.5	497080.1	503.08	ug/L	503.08	ppb	09:37:11
1	Mo 202.031†	7028.7	8067.1	493.37	ug/L	493.37	ppb	09:37:16
1	Na 589.592 Radial†	15893.6	19425.3	5511.3	ug/L	5511.3	ppb	09:36:43
1	Ni 231.604†	19257.9	22034.0	455.85	ug/L	455.85	ppb	09:37:16
1	P 214.914†	5158.5	5668.2	2510.7	ug/L	2510.7	ppb	09:37:16
1	Pb 220.353†	3023.6	3565.9	458.36	ug/L	458.36	ppb	09:37:16
1	S 181.975 Axial†	2176.4	2444.2	2579.9	ug/L	2579.9	ppb	09:37:16
1	Sb 206.836†	1664.5	1871.2	530.97	ug/L	530.97	ppb	09:37:16
1	Se 196.026†	3563.9	4136.0	2654.0	ug/L	2654.0	ppb	09:37:16
1	Si 251.611†	175840.6	201716.6	5354.5	ug/L	5354.5	ppb	09:37:11
1	Sn 189.927†	2639.6	3035.8	484.29	ug/L	484.29	ppb	09:37:16
1	Sr 421.552†	71235.1	78997.1	514.14	ug/L	514.14	ppb	09:36:38
1	Ti 334.940†	291945.3	337839.2	521.74	ug/L	521.74	ppb	09:37:11
1	Tl 190.801†	1516.4	1795.4	488.04	ug/L	488.04	ppb	09:37:16
1	U 409.014†	13930.9	18958.2	499.53	ug/L	499.53	ppb	09:37:11
1	V 292.402†	74906.0	88053.9	507.33	ug/L	507.33	ppb	09:37:11
1	Zn 213.857†	58242.8	66143.9	486.00	ug/L	486.00	ppb	09:37:16
1	SiO2†	177166.2	203224.2	11622	ug/L	11622	ppb	09:37:43
2	Sc 361.383	809756.6	809756.6	86.259	%			09:37:22
2	Sc Radial	4487.4	4487.4	90.7	%			09:36:54
2	Y 371.029	688162.3	688162.3	84.115	%			09:37:22
2	Y RADIAL	4789.3	4789.3	90.28	%			09:36:54
2	Ag 328.068†	46238.7	53138.9	278.43	ug/L	278.43	ppb	09:37:22
2	Al 396.153Radial†	606704.8	668684.3	523380	ug/L	523380	ppb	09:36:48
2	As 188.979†	1263.6	1499.7	526.20	ug/L	526.20	ppb	09:37:27
2	B 249.677†	23216.0	27310.4	506.24	ug/L	506.24	ppb	09:37:22
2	Ba 233.527†	62820.8	72808.2	500.95	ug/L	500.95	ppb	09:37:22
2	Be 313.107†	668893.4	780150.4	248.80	ug/L	248.80	ppb	09:37:22
2	Ca 317.933Radial†	282605.7	311444.7	488080	ug/L	488080	ppb	09:36:48
2	Cd 226.502†	47305.8	55098.4	477.51	ug/L	477.51	ppb	09:37:27
2	Co 228.616†	23131.3	26910.3	470.79	ug/L	470.79	ppb	09:37:27
2	Cr 267.716†	44244.2	51158.6	484.84	ug/L	484.84	ppb	09:37:27
2	Cu 324.752†	177096.9	196825.5	571.06	ug/L	571.06	ppb	09:37:22
2	Fe 238.204 Radial†	19855.0	21869.4	192070	ug/L	192070	ppb	09:36:54
2	K 766.490 Radial†	28988.5	28615.5	5457.4	ug/L	5457.4	ppb	09:36:48
2	Mg 279.077 IEC†	14242.5	15694.3	501710	ug/L	501710	ppb	09:36:54
2	Mn 257.610†	429614.4	497416.0	503.31	ug/L	503.31	ppb	09:37:22
2	Mo 202.031†	7218.1	8342.5	509.45	ug/L	509.45	ppb	09:37:27
2	Na 589.592 Radial†	15931.5	19355.9	5491.6	ug/L	5491.6	ppb	09:36:54
2	Ni 231.604†	19746.9	22753.7	470.74	ug/L	470.74	ppb	09:37:27

2	P 214.914†	5266.3	5834.0	2584.1	ug/L	2584.1 ppb	09:37:27
2	Pb 220.353†	3148.2	3734.3	473.10	ug/L	473.10 ppb	09:37:27
2	S 181.975 Axial†	2276.9	2578.0	2728.8	ug/L	2728.8 ppb	09:37:27
2	Sb 206.836†	1728.7	1958.8	556.61	ug/L	556.61 ppb	09:37:27
2	Se 196.026†	3692.0	4312.8	2732.0	ug/L	2732.0 ppb	09:37:27
2	Si 251.611†	174686.9	201775.3	5355.7	ug/L	5355.7 ppb	09:37:22
2	Sn 189.927†	2715.4	3144.5	498.77	ug/L	498.77 ppb	09:37:27
2	Sr 421.552†	70353.6	77527.3	504.57	ug/L	504.57 ppb	09:36:48
2	Ti 334.940†	290151.8	338078.2	521.64	ug/L	521.64 ppb	09:37:22
2	Tl 190.801†	1576.2	1876.7	509.02	ug/L	509.02 ppb	09:37:27
2	U 409.014†	13791.4	18907.1	498.26	ug/L	498.26 ppb	09:37:22
2	V 292.402†	74501.9	88180.2	508.46	ug/L	508.46 ppb	09:37:22
2	Zn 213.857†	59743.0	68345.4	503.24	ug/L	503.24 ppb	09:37:27
2	SiO2†	176659.2	204043.3	11669	ug/L	11669 ppb	09:37:49
3	Sc 361.383	825581.3	825581.3	87.945	%		09:37:33
3	Sc Radial	4451.6	4451.6	90.0	%		09:37:04
3	Y 371.029	701090.6	701090.6	85.696	%		09:37:33
3	Y RADIAL	4747.7	4747.7	89.50	%		09:37:04
3	Ag 328.068†	47275.7	53290.6	278.51	ug/L	278.51 ppb	09:37:33
3	Al 396.153Radial†	608347.7	675879.7	529020	ug/L	529020 ppb	09:36:59
3	As 188.979†	1206.0	1406.2	495.25	ug/L	495.25 ppb	09:37:38
3	B 249.677†	23861.0	27527.9	510.70	ug/L	510.70 ppb	09:37:33
3	Ba 233.527†	64044.1	72803.2	500.88	ug/L	500.88 ppb	09:37:33
3	Be 313.107†	683019.6	781349.2	249.18	ug/L	249.18 ppb	09:37:33
3	Ca 317.933Radial†	283517.9	314959.5	493580	ug/L	493580 ppb	09:36:59
3	Cd 226.502†	46576.6	53218.0	460.70	ug/L	460.70 ppb	09:37:38
3	Co 228.616†	22846.6	26072.6	456.04	ug/L	456.04 ppb	09:37:38
3	Cr 267.716†	43771.9	49638.4	470.53	ug/L	470.53 ppb	09:37:38
3	Cu 324.752†	181151.0	197499.9	572.91	ug/L	572.91 ppb	09:37:33
3	Fe 238.204 Radial†	19554.0	21710.7	190670	ug/L	190670 ppb	09:37:04
3	K 766.490 Radial†	28947.8	28826.9	5497.8	ug/L	5497.8 ppb	09:36:59
3	Mg 279.077 IEC†	14020.7	15573.9	497870	ug/L	497870 ppb	09:37:04
3	Mn 257.610†	438594.4	498080.3	503.90	ug/L	503.90 ppb	09:37:33
3	Mo 202.031†	7086.4	8032.4	491.06	ug/L	491.06 ppb	09:37:38
3	Na 589.592 Radial†	15595.3	19123.4	5425.7	ug/L	5425.7 ppb	09:37:04
3	Ni 231.604†	19417.2	21940.0	453.90	ug/L	453.90 ppb	09:37:38
3	P 214.914†	5255.2	5704.4	2527.9	ug/L	2527.9 ppb	09:37:38
3	Pb 220.353†	3098.9	3608.3	461.93	ug/L	461.93 ppb	09:37:38
3	S 181.975 Axial†	2236.2	2481.0	2621.1	ug/L	2621.1 ppb	09:37:38
3	Sb 206.836†	1710.6	1899.9	539.29	ug/L	539.29 ppb	09:37:38
3	Se 196.026†	3615.1	4143.3	2648.2	ug/L	2648.2 ppb	09:37:38
3	Si 251.611†	178394.4	202109.2	5364.9	ug/L	5364.9 ppb	09:37:33
3	Sn 189.927†	2697.7	3064.1	487.94	ug/L	487.94 ppb	09:37:38
3	Sr 421.552†	70424.3	78228.5	509.12	ug/L	509.12 ppb	09:36:59
3	Ti 334.940†	295639.3	337870.3	521.63	ug/L	521.63 ppb	09:37:33
3	Tl 190.801†	1558.7	1821.9	494.89	ug/L	494.89 ppb	09:37:38
3	U 409.014†	13974.5	18808.8	495.75	ug/L	495.75 ppb	09:37:33
3	V 292.402†	75913.5	88129.8	508.03	ug/L	508.03 ppb	09:37:33
3	Zn 213.857†	58884.4	66041.6	485.55	ug/L	485.55 ppb	09:37:38
3	SiO2†	178443.9	202147.0	11561	ug/L	11561 ppb	09:37:54

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	816893.0	87.019	%	0.8549				0.98%
Sc Radial	4466.0	90.3	%	0.38				0.42%
Y 371.029	694007.4	84.830	%	0.8009				0.94%
Y RADIAL	4778.3	90.07	%	0.505				0.56%
Ag 328.068†	53174.5	278.51	ug/L	0.069	278.51	ppb	0.069	0.02%
QC value within limits for Ag 328.068 Recovery = 111.40%								
Al 396.153Radial†	675124.1	528420	ug/L	4772.9	528420	ppb	4772.9	0.90%
QC value within limits for Al 396.153Radial Recovery = 105.68%								
As 188.979†	1458.8	512.73	ug/L	15.864	512.73	ppb	15.864	3.09%
QC value within limits for As 188.979 Recovery = 102.55%								
B 249.677†	27385.9	507.73	ug/L	2.570	507.73	ppb	2.570	0.51%
QC value within limits for B 249.677 Recovery = 101.55%								
Ba 233.527†	72820.0	501.03	ug/L	0.200	501.03	ppb	0.200	0.04%
QC value within limits for Ba 233.527 Recovery = 100.21%								
Be 313.107†	780728.4	248.98	ug/L	0.190	248.98	ppb	0.190	0.08%
QC value within limits for Be 313.107 Recovery = 99.59%								

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Ca 317.933Radial†     314440.5      492770 ug/L        4345.8      492770 ppb         4345.8   0.88%
   QC value within limits for Ca 317.933Radial  Recovery = 98.55%
Cd 226.502†            53995.8      467.57 ug/L         8.816      467.57 ppb          8.816   1.89%
   QC value within limits for Cd 226.502  Recovery = 93.51%
Co 228.616†            26376.7      461.38 ug/L         8.174      461.38 ppb          8.174   1.77%
   QC value within limits for Co 228.616  Recovery = 92.28%
Cr 267.716†            50194.9      475.79 ug/L         7.876      475.79 ppb          7.876   1.66%
   QC value within limits for Cr 267.716  Recovery = 95.16%
Cu 324.752†           197120.3      571.90 ug/L         0.938      571.90 ppb          0.938   0.16%
   QC value within limits for Cu 324.752  Recovery = 114.38%
Fe 238.204 Radial†     21867.9      192050 ug/L        1374.2      192050 ppb         1374.2   0.72%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.03%
K 766.490 Radial†      28835.8      5499.5 ug/L         42.97      5499.5 ppb          42.97   0.78%
   QC value within limits for K 766.490 Radial  Recovery = 109.99%
Mg 279.077 IEC†        15673.7      501050 ug/L        2915.5      501050 ppb         2915.5   0.58%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.21%
Mn 257.610†           497525.4      503.43 ug/L         0.425      503.43 ppb          0.425   0.08%
   QC value within limits for Mn 257.610  Recovery = 100.69%
Mo 202.031†             8147.3      497.96 ug/L        10.017      497.96 ppb         10.017   2.01%
   QC value within limits for Mo 202.031  Recovery = 99.59%
Na 589.592 Radial†     19301.5      5476.2 ug/L         44.86      5476.2 ppb          44.86   0.82%
   QC value within limits for Na 589.592 Radial  Recovery = 109.52%
Ni 231.604†            22242.5      460.16 ug/L         9.210      460.16 ppb          9.210   2.00%
   QC value within limits for Ni 231.604  Recovery = 92.03%
P 214.914†              5735.5      2540.9 ug/L         38.38      2540.9 ppb          38.38   1.51%
   QC value within limits for P 214.914  Recovery = 101.63%
Pb 220.353†             3636.2      464.46 ug/L         7.689      464.46 ppb          7.689   1.66%
   QC value within limits for Pb 220.353  Recovery = 92.89%
S 181.975 Axial†        2501.1      2643.3 ug/L         76.85      2643.3 ppb          76.85   2.91%
   QC value within limits for S 181.975 Axial  Recovery = 105.73%
Sb 206.836†             1910.0      542.29 ug/L        13.081      542.29 ppb         13.081   2.41%
   QC value within limits for Sb 206.836  Recovery = 108.46%
Se 196.026†             4197.4      2678.1 ug/L         46.82      2678.1 ppb          46.82   1.75%
   QC value within limits for Se 196.026  Recovery = 107.12%
Si 251.611†           201867.1      5358.4 ug/L          5.72      5358.4 ppb           5.72   0.11%
   QC value within limits for Si 251.611  Recovery = 107.17%
Sn 189.927†             3081.5      490.33 ug/L         7.532      490.33 ppb          7.532   1.54%
   QC value within limits for Sn 189.927  Recovery = 98.07%
Sr 421.552†            78251.0      509.27 ug/L         4.788      509.27 ppb          4.788   0.94%
   QC value within limits for Sr 421.552  Recovery = 101.85%
Ti 334.940†           337929.2      521.67 ug/L         0.062      521.67 ppb          0.062   0.01%
   QC value within limits for Ti 334.940  Recovery = 104.33%
Tl 190.801†             1831.3      497.32 ug/L        10.697      497.32 ppb         10.697   2.15%
   QC value within limits for Tl 190.801  Recovery = 99.46%
U 409.014†             18891.3      497.85 ug/L         1.927      497.85 ppb          1.927   0.39%
   QC value within limits for U 409.014  Recovery = 99.57%
V 292.402†             88121.3      507.94 ug/L         0.571      507.94 ppb          0.571   0.11%
   QC value within limits for V 292.402  Recovery = 101.59%
Zn 213.857†            66843.6      491.59 ug/L        10.088      491.59 ppb         10.088   2.05%
   QC value within limits for Zn 213.857  Recovery = 98.32%
SiO2†                 203138.2       11617 ug/L          54.2       11617 ppb          54.2   0.47%
   QC value within limits for SiO2  Recovery = 108.62%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 12/29/2009 09:40:04
Data Type: Reprocessed on 12/29/2009 10:09:35

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	786308.2	786308.2	83.761	%			09:42:30
1	Sc Radial	4424.0	4424.0	89.5	%			09:42:01
1	Y 371.029	668997.2	668997.2	81.773	%			09:42:30
1	Y RADIAL	4753.7	4753.7	89.61	%			09:42:01
1	Ag 328.068†	-26033.2	-31545.9	3.6163	ug/L	3.6163	ppb	09:42:30
1	Al 396.153Radial†	573766.3	641433.8	502080	ug/L	502080	ppb	09:41:56
1	As 188.979†	-240.6	-252.4	-12.101	ug/L	-12.101	ppb	09:42:50
1	B 249.677†	1102.0	1711.8	-27.600	ug/L	-27.600	ppb	09:42:30
1	Ba 233.527†	-2059.3	-2478.6	-5.2061	ug/L	-5.2061	ppb	09:42:50
1	Be 313.107†	-11736.4	-9310.4	-3.0029	ug/L	-3.0029	ppb	09:42:30
1	Ca 317.933Radial†	270119.4	301944.7	473190	ug/L	473190	ppb	09:41:56
1	Cd 226.502†	3632.1	4593.0	-4.5797	ug/L	-4.5797	ppb	09:42:50
1	Co 228.616†	177.6	306.2	-1.2306	ug/L	-1.2306	ppb	09:42:50
1	Cr 267.716†	70.7	-49.3	3.0059	ug/L	3.0059	ppb	09:42:50
1	Cu 324.752†	626.0	-7735.8	1.3930	ug/L	1.3930	ppb	09:42:30
1	Fe 238.204 Radial†	46842.3	52351.7	459740	ug/L	459740	ppb	09:42:01
1	K 766.490 Radial†	2975.4	-7.2	-213.15	ug/L	-213.15	ppb	09:41:56
1	Mg 279.077 IEC†	13821.1	15447.9	493590	ug/L	493590	ppb	09:42:01
1	Mn 257.610†	-29010.8	-35271.8	1.6557	ug/L	1.6557	ppb	09:42:30
1	Mo 202.031†	-540.9	-671.3	4.5572	ug/L	4.5572	ppb	09:42:30
1	Na 589.592 Radial†	1682683.6	1882866.7	534200	ug/L	534200	ppb	09:41:56
1	Ni 231.604†	318.8	241.7	5.0011	ug/L	5.0011	ppb	09:42:50
1	P 214.914†	664.0	521.5	38.418	ug/L	38.418	ppb	09:42:50
1	Pb 220.353†	-787.4	-855.4	-10.046	ug/L	-10.046	ppb	09:42:50
1	S 181.975 Axial†	126.3	89.1	-0.8995	ug/L	-0.8995	ppb	09:42:50
1	Sb 206.836†	51.2	15.9	-3.7160	ug/L	-3.7160	ppb	09:42:50
1	Se 196.026†	-2906.2	-3437.0	-116.52	ug/L	-116.52	ppb	09:42:50
1	Si 251.611†	-563.6	-1412.3	-36.646	ug/L	-36.646	ppb	09:42:50
1	Sn 189.927†	-440.1	-528.8	-19.330	ug/L	-19.330	ppb	09:42:50
1	Sr 421.552†	762.2	841.1	1.1370	ug/L	1.1370	ppb	09:42:01
1	Ti 334.940†	-14568.1	-15687.6	-4.9379	ug/L	-4.9379	ppb	09:42:30
1	Tl 190.801†	-103.4	-74.0	-6.1076	ug/L	-6.1076	ppb	09:42:50
1	U 409.014†	448444.0	538303.7	14843	ug/L	14843	ppb	09:42:30
1	V 292.402†	1949.6	4137.7	-6.0395	ug/L	-6.0395	ppb	09:42:30
1	Zn 213.857†	6726.1	7115.5	14.863	ug/L	14.863	ppb	09:42:50
1	SiO2†	-464.8	-1313.0	-73.248	ug/L	-73.248	ppb	09:43:47
2	Sc 361.383	786735.5	786735.5	83.807	%			09:42:55
2	Sc Radial	4322.5	4322.5	87.4	%			09:42:12
2	Y 371.029	669133.9	669133.9	81.790	%			09:42:55
2	Y RADIAL	4650.4	4650.4	87.66	%			09:42:12
2	Ag 328.068†	-26013.1	-31505.1	3.6645	ug/L	3.6645	ppb	09:42:55
2	Al 396.153Radial†	572717.4	655297.5	512930	ug/L	512930	ppb	09:42:07
2	As 188.979†	-233.6	-243.9	-9.2794	ug/L	-9.2794	ppb	09:43:16
2	B 249.677†	1096.7	1704.7	-27.770	ug/L	-27.770	ppb	09:42:55
2	Ba 233.527†	-2117.1	-2546.3	-5.6600	ug/L	-5.6600	ppb	09:43:16
2	Be 313.107†	-11628.9	-9174.6	-2.9594	ug/L	-2.9594	ppb	09:42:55
2	Ca 317.933Radial†	270116.7	309033.3	484300	ug/L	484300	ppb	09:42:07
2	Cd 226.502†	3648.0	4609.5	-4.4534	ug/L	-4.4534	ppb	09:43:16
2	Co 228.616†	199.6	332.4	-0.7703	ug/L	-0.7703	ppb	09:43:16
2	Cr 267.716†	58.3	-64.2	2.8568	ug/L	2.8568	ppb	09:43:16
2	Cu 324.752†	703.7	-7643.5	1.6679	ug/L	1.6679	ppb	09:42:55
2	Fe 238.204 Radial†	45790.5	52378.0	459970	ug/L	459970	ppb	09:42:12
2	K 766.490 Radial†	2926.9	15.5	-213.48	ug/L	-213.48	ppb	09:42:07
2	Mg 279.077 IEC†	13503.5	15447.3	493580	ug/L	493580	ppb	09:42:12
2	Mn 257.610†	-29294.1	-35591.0	1.3624	ug/L	1.3624	ppb	09:42:55
2	Mo 202.031†	-519.1	-644.8	6.1343	ug/L	6.1343	ppb	09:42:55
2	Na 589.592 Radial†	1678741.1	1922533.4	545460	ug/L	545460	ppb	09:42:07
2	Ni 231.604†	335.9	261.9	5.4173	ug/L	5.4173	ppb	09:43:16

2	P 214.914†	683.7	544.7	52.325	ug/L	52.325 ppb	09:43:16
2	Pb 220.353†	-763.4	-826.2	-4.7350	ug/L	-4.7350 ppb	09:43:16
2	S 181.975 Axial†	128.7	91.9	0.0496	ug/L	0.0496 ppb	09:43:16
2	Sb 206.836†	86.4	57.9	8.0047	ug/L	8.0047 ppb	09:43:16
2	Se 196.026†	-2957.4	-3496.2	-142.04	ug/L	-142.04 ppb	09:43:16
2	Si 251.611†	-630.4	-1491.6	-38.777	ug/L	-38.777 ppb	09:43:16
2	Sn 189.927†	-455.7	-547.2	-20.769	ug/L	-20.769 ppb	09:43:16
2	Sr 421.552†	709.3	800.5	0.7678	ug/L	0.7678 ppb	09:42:12
2	Ti 334.940†	-14477.7	-15570.4	-4.2046	ug/L	-4.2046 ppb	09:42:55
2	Tl 190.801†	-98.3	-67.8	-4.1760	ug/L	-4.1760 ppb	09:43:16
2	U 409.014†	449955.1	539816.0	14884	ug/L	14884 ppb	09:42:55
2	V 292.402†	1967.8	4158.1	-5.8513	ug/L	-5.8513 ppb	09:42:55
2	Zn 213.857†	6767.4	7160.4	15.199	ug/L	15.199 ppb	09:43:16
2	SiO2†	-719.0	-1616.0	-90.656	ug/L	-90.656 ppb	09:43:52
3	Sc 361.383	791943.6	791943.6	84.361	%		09:43:21
3	Sc Radial	4368.4	4368.4	88.3	%		09:42:22
3	Y 371.029	672698.8	672698.8	82.225	%		09:43:21
3	Y RADIAL	4699.7	4699.7	88.59	%		09:42:22
3	Ag 328.068†	-26284.2	-31622.3	2.8674	ug/L	2.8674 ppb	09:43:21
3	Al 396.153Radial†	570473.2	645876.3	505550	ug/L	505550 ppb	09:42:17
3	As 188.979†	-222.7	-229.1	-4.6064	ug/L	-4.6064 ppb	09:43:41
3	B 249.677†	963.2	1537.8	-30.859	ug/L	-30.859 ppb	09:43:21
3	Ba 233.527†	-2087.8	-2494.9	-5.3433	ug/L	-5.3433 ppb	09:43:41
3	Be 313.107†	-11828.1	-9319.5	-3.0052	ug/L	-3.0052 ppb	09:43:21
3	Ca 317.933Radial†	268589.8	304059.5	476500	ug/L	476500 ppb	09:42:17
3	Cd 226.502†	3636.3	4567.0	-4.7098	ug/L	-4.7098 ppb	09:43:41
3	Co 228.616†	202.5	334.3	-0.7286	ug/L	-0.7286 ppb	09:43:41
3	Cr 267.716†	35.7	-91.4	2.5776	ug/L	2.5776 ppb	09:43:41
3	Cu 324.752†	788.4	-7548.7	1.8737	ug/L	1.8737 ppb	09:43:21
3	Fe 238.204 Radial†	46148.9	52233.7	458710	ug/L	458710 ppb	09:42:22
3	K 766.490 Radial†	2933.4	-12.4	-214.33	ug/L	-214.33 ppb	09:42:17
3	Mg 279.077 IEC†	13565.4	15355.2	490630	ug/L	490630 ppb	09:42:22
3	Mn 257.610†	-29332.8	-35407.0	1.4734	ug/L	1.4734 ppb	09:43:21
3	Mo 202.031†	-577.0	-709.5	2.2096	ug/L	2.2096 ppb	09:43:21
3	Na 589.592 Radial†	1663808.9	1885460.4	534940	ug/L	534940 ppb	09:42:17
3	Ni 231.604†	326.8	248.5	5.1397	ug/L	5.1397 ppb	09:43:41
3	P 214.914†	683.5	539.1	48.294	ug/L	48.294 ppb	09:43:41
3	Pb 220.353†	-799.3	-862.8	-9.9236	ug/L	-9.9236 ppb	09:43:41
3	S 181.975 Axial†	130.4	92.9	2.5575	ug/L	2.5575 ppb	09:43:41
3	Sb 206.836†	79.2	48.6	5.4979	ug/L	5.4979 ppb	09:43:41
3	Se 196.026†	-2911.9	-3419.1	-110.66	ug/L	-110.66 ppb	09:43:41
3	Si 251.611†	-549.8	-1391.1	-36.044	ug/L	-36.044 ppb	09:43:41
3	Sn 189.927†	-444.1	-529.9	-19.144	ug/L	-19.144 ppb	09:43:41
3	Sr 421.552†	763.9	853.8	1.1899	ug/L	1.1899 ppb	09:42:22
3	Ti 334.940†	-14517.8	-15504.3	-4.5151	ug/L	-4.5151 ppb	09:43:21
3	Tl 190.801†	-130.7	-105.5	-14.247	ug/L	-14.247 ppb	09:43:41
3	U 409.014†	453013.3	539910.3	14887	ug/L	14887 ppb	09:43:21
3	V 292.402†	1966.1	4140.6	-5.8775	ug/L	-5.8775 ppb	09:43:21
3	Zn 213.857†	6692.6	7018.6	14.260	ug/L	14.260 ppb	09:43:41
3	SiO2†	-567.8	-1431.0	-79.928	ug/L	-79.928 ppb	09:43:57

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	788329.1	83.976	%	0.3342				0.40%
Sc Radial	4371.7	88.4	%	1.03				1.16%
Y 371.029	670276.6	81.929	%	0.2565				0.31%
Y RADIAL	4701.3	88.62	%	0.974				1.10%
Ag 328.068†	-31557.8	3.3827	ug/L	0.44694	3.3827	ppb	0.44694	13.21%
Al 396.153Radial†	647535.8	506850	ug/L	5541.1	506850	ppb	5541.1	1.09%
QC value within limits for Al 396.153Radial Recovery = 101.37%								
As 188.979†	-241.8	-8.6624	ug/L	3.78537	-8.6624	ppb	3.78537	43.70%
B 249.677†	1651.4	-28.743	ug/L	1.8343	-28.743	ppb	1.8343	6.38%
Ba 233.527†	-2506.6	-5.4031	ug/L	0.23280	-5.4031	ppb	0.23280	4.31%
Be 313.107†	-9268.2	-2.9892	ug/L	0.02581	-2.9892	ppb	0.02581	0.86%
Ca 317.933Radial†	305012.5	478000	ug/L	5703.0	478000	ppb	5703.0	1.19%
QC value within limits for Ca 317.933Radial Recovery = 95.60%								
Cd 226.502†	4589.8	-4.5810	ug/L	0.12821	-4.5810	ppb	0.12821	2.80%
Co 228.616†	324.3	-0.9098	ug/L	0.27856	-0.9098	ppb	0.27856	30.62%
Cr 267.716†	-68.3	2.8134	ug/L	0.21741	2.8134	ppb	0.21741	7.73%

Cu 324.752†	-7642.7	1.6448	ug/L	0.24119	1.6448	ppb	0.24119	14.66%
Fe 238.204 Radial†	52321.1	459470	ug/L	675.1	459470	ppb	675.1	0.15%
QC value within limits for Fe 238.204 Radial Recovery = 91.89%								
K 766.490 Radial†	-1.4	-213.65	ug/L	0.608	-213.65	ppb	0.608	0.28%
Mg 279.077 IEC†	15416.8	492600	ug/L	1706.1	492600	ppb	1706.1	0.35%
QC value within limits for Mg 279.077 IEC Recovery = 98.52%								
Mn 257.610†	-35423.3	1.4971	ug/L	0.14808	1.4971	ppb	0.14808	9.89%
Mo 202.031†	-675.2	4.3003	ug/L	1.97492	4.3003	ppb	1.97492	45.92%
Na 589.592 Radial†	1896953.5	538200	ug/L	6295.9	538200	ppb	6295.9	1.17%
QC value within limits for Na 589.592 Radial Recovery = 107.64%								
Ni 231.604†	250.7	5.1861	ug/L	0.21194	5.1861	ppb	0.21194	4.09%
P 214.914†	535.1	46.346	ug/L	7.1555	46.346	ppb	7.1555	15.44%
Pb 220.353†	-848.1	-8.2349	ug/L	3.03159	-8.2349	ppb	3.03159	36.81%
S 181.975 Axial†	91.3	0.5692	ug/L	1.78612	0.5692	ppb	1.78612	313.81%
Sb 206.836†	40.8	3.2622	ug/L	6.17189	3.2622	ppb	6.17189	189.20%
Se 196.026†	-3450.8	-123.07	ug/L	16.685	-123.07	ppb	16.685	13.56%
Si 251.611†	-1431.7	-37.156	ug/L	1.4364	-37.156	ppb	1.4364	3.87%
Sn 189.927†	-535.3	-19.747	ug/L	0.8893	-19.747	ppb	0.8893	4.50%
Sr 421.552†	831.8	1.0315	ug/L	0.22996	1.0315	ppb	0.22996	22.29%
Ti 334.940†	-15587.4	-4.5525	ug/L	0.36806	-4.5525	ppb	0.36806	8.08%
Tl 190.801†	-82.4	-8.1768	ug/L	5.34473	-8.1768	ppb	5.34473	65.36%
U 409.014†	539343.3	14871	ug/L	25.0	14871	ppb	25.0	0.17%
QC value within limits for U 409.014 Recovery = 99.14%								
V 292.402†	4145.5	-5.9228	ug/L	0.10194	-5.9228	ppb	0.10194	1.72%
Zn 213.857†	7098.1	14.774	ug/L	0.4762	14.774	ppb	0.4762	3.22%
SiO2†	-1453.3	-81.277	ug/L	8.7822	-81.277	ppb	8.7822	10.81%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 12/29/2009 09:46:06
Data Type: Reprocessed on 12/29/2009 10:09:36

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	889057.4	889057.4	94.706	%			09:49:42
1	Sc Radial	4806.7	4806.7	97.2	%			09:48:04
1	Y 371.029	756704.3	756704.3	92.493	%			09:49:42
1	Y RADIAL	5128.8	5128.8	96.68	%			09:48:04
1	Ag 328.068†	-7871.0	-8776.6	3.0941	ug/L	3.0941	ppb	09:49:47
1	Al 396.153Radial†	603.8	642.6	79.729	ug/L	79.729	ppb	09:48:04
1	As 188.979†	29086.5	30747.1	10192	ug/L	10192	ppb	09:49:47
1	B 249.677†	245299.9	259407.1	5038.1	ug/L	5038.1	ppb	09:49:42
1	Ba 233.527†	2011788.6	2124218.7	14463	ug/L	14463	ppb	09:49:42
1	Be 313.107†	8807541.9	9304546.4	2975.5	ug/L	2975.5	ppb	09:49:35
1	Ca 317.933Radial†	33.2	12.7	19.952	ug/L	19.952	ppb	09:48:24
1	Cd 226.502†	1026306.8	1083929.5	9772.0	ug/L	9772.0	ppb	09:49:42
1	Co 228.616†	505081.3	533407.4	9382.5	ug/L	9382.5	ppb	09:49:47
1	Cr 267.716†	2433990.7	2569906.4	24163	ug/L	24163	ppb	09:49:42
1	Cu 324.752†	6971125.8	7352298.1	20966	ug/L	20966	ppb	09:49:35
1	Fe 238.204 Radial†	-22.5	-36.4	-23.955	ug/L	-23.955	ppb	09:48:24
1	K 766.490 Radial†	1517363.3	1557876.8	296530	ug/L	296530	ppb	09:47:59
1	Mg 279.077 IEC†	-6.0	-8.9	-84.535	ug/L	-84.535	ppb	09:48:24
1	Mn 257.610†	9317040.7	9837185.9	9759.8	ug/L	9759.8	ppb	09:49:35
1	Mo 202.031†	159094.8	167962.1	9886.2	ug/L	9886.2	ppb	09:49:47
1	Na 589.592 Radial†	-1546.8	206.0	58.432	ug/L	58.432	ppb	09:48:04
1	Ni 231.604†	454719.0	479996.9	9930.8	ug/L	9930.8	ppb	09:49:42
1	P 214.914†	37419.3	39239.6	14578	ug/L	14578	ppb	09:49:47
1	Pb 220.353†	236823.4	250145.4	24836	ug/L	24836	ppb	09:49:47
1	S 181.975 Axial†	45280.6	47749.9	52450	ug/L	52450	ppb	09:49:47
1	Sb 206.836†	35327.5	37256.9	10479	ug/L	10479	ppb	09:49:47
1	Se 196.026†	20770.7	21964.4	10446	ug/L	10446	ppb	09:49:47
1	Si 251.611†	1728261.9	1824124.8	48220	ug/L	48220	ppb	09:49:42
1	Sn 189.927†	71009.7	74975.5	10616	ug/L	10616	ppb	09:49:47
1	Sr 421.552†	1427120.5	1468348.6	9642.0	ug/L	9642.0	ppb	09:47:59
1	Ti 334.940†	6498591.3	6863539.0	10073	ug/L	10073	ppb	09:49:35
1	Tl 190.801†	36348.6	38429.8	10130	ug/L	10130	ppb	09:49:47
1	U 409.014†	-2092.3	709.4	-26.962	ug/L	-26.962	ppb	09:49:42
1	V 292.402†	1616894.8	1709082.2	10181	ug/L	10181	ppb	09:49:42
1	Zn 213.857†	1735195.8	1831271.0	14221	ug/L	14221	ppb	09:49:42
1	SiO2†	1718238.3	1813522.3	103270	ug/L	103270	ppb	09:50:34
2	Sc 361.383	910196.7	910196.7	96.958	%			09:50:02
2	Sc Radial	4771.3	4771.3	96.5	%			09:48:35
2	Y 371.029	775089.2	775089.2	94.741	%			09:50:02
2	Y RADIAL	5056.1	5056.1	95.31	%			09:48:35
2	Ag 328.068†	-7898.8	-8612.2	2.9590	ug/L	2.9590	ppb	09:50:07
2	Al 396.153Radial†	613.6	657.3	104.25	ug/L	104.25	ppb	09:48:35
2	As 188.979†	28827.8	29767.0	9867.8	ug/L	9867.8	ppb	09:50:07
2	B 249.677†	247008.5	255153.8	4955.8	ug/L	4955.8	ppb	09:50:02
2	Ba 233.527†	2018796.5	2082111.1	14176	ug/L	14176	ppb	09:50:02
2	Be 313.107†	8817151.0	9098468.5	2909.6	ug/L	2909.6	ppb	09:49:55
2	Ca 317.933Radial†	35.5	15.4	24.113	ug/L	24.113	ppb	09:48:55
2	Cd 226.502†	1032332.0	1064975.5	9601.1	ug/L	9601.1	ppb	09:50:02
2	Co 228.616†	502163.2	518011.5	9111.5	ug/L	9111.5	ppb	09:50:07
2	Cr 267.716†	2440790.7	2517230.7	23668	ug/L	23668	ppb	09:50:02
2	Cu 324.752†	6955643.0	7165375.7	20433	ug/L	20433	ppb	09:49:55
2	Fe 238.204 Radial†	-22.7	-36.8	-35.465	ug/L	-35.465	ppb	09:48:55
2	K 766.490 Radial†	1485359.6	1536281.7	292420	ug/L	292420	ppb	09:48:30
2	Mg 279.077 IEC†	-5.6	-8.5	-77.754	ug/L	-77.754	ppb	09:48:55
2	Mn 257.610†	9318870.5	9610590.3	9534.9	ug/L	9534.9	ppb	09:49:55
2	Mo 202.031†	157886.8	162814.7	9583.2	ug/L	9583.2	ppb	09:50:07
2	Na 589.592 Radial†	-1414.7	331.0	93.917	ug/L	93.917	ppb	09:48:35
2	Ni 231.604†	456683.6	470872.1	9742.1	ug/L	9742.1	ppb	09:50:02

2	P 214.914†	37135.4	38029.3	14110	ug/L	14110	ppb	09:50:07
2	Pb 220.353†	235220.6	242684.7	24095	ug/L	24095	ppb	09:50:07
2	S 181.975 Axial†	44892.3	46239.0	50790	ug/L	50790	ppb	09:50:07
2	Sb 206.836†	35000.9	36053.7	10135	ug/L	10135	ppb	09:50:07
2	Se 196.026†	20577.3	21255.6	10109	ug/L	10109	ppb	09:50:07
2	Si 251.611†	1735687.1	1789400.6	47304	ug/L	47304	ppb	09:50:02
2	Sn 189.927†	70438.0	72644.4	10286	ug/L	10286	ppb	09:50:07
2	Sr 421.552†	1389089.8	1439817.9	9454.7	ug/L	9454.7	ppb	09:48:30
2	Ti 334.940†	6494960.7	6700428.7	9833.6	ug/L	9833.6	ppb	09:49:55
2	Tl 190.801†	36002.2	37181.2	9801.6	ug/L	9801.6	ppb	09:50:07
2	U 409.014†	-2004.8	851.0	-22.088	ug/L	-22.088	ppb	09:50:02
2	V 292.402†	1621344.2	1674019.9	9970.7	ug/L	9970.7	ppb	09:50:02
2	Zn 213.857†	1741694.1	1795420.8	13943	ug/L	13943	ppb	09:50:02
2	SiO2†	1721268.2	1774510.7	101050	ug/L	101050	ppb	09:50:42
3	Sc 361.383	888989.9	888989.9	94.699	%			09:50:22
3	Sc Radial	4771.8	4771.8	96.5	%			09:49:05
3	Y 371.029	755683.0	755683.0	92.369	%			09:50:22
3	Y RADIAL	5031.3	5031.3	94.84	%			09:49:05
3	Ag 328.068†	-7993.7	-8906.7	2.7183	ug/L	2.7183	ppb	09:50:27
3	Al 396.153Radial†	582.1	624.6	67.766	ug/L	67.766	ppb	09:49:05
3	As 188.979†	28885.2	30536.9	10123	ug/L	10123	ppb	09:50:27
3	B 249.677†	246561.1	260758.6	5064.5	ug/L	5064.5	ppb	09:50:22
3	Ba 233.527†	2022725.5	2135929.1	14542	ug/L	14542	ppb	09:50:22
3	Be 313.107†	8786881.5	9283435.8	2968.8	ug/L	2968.8	ppb	09:50:15
3	Ca 317.933Radial†	32.6	12.3	19.336	ug/L	19.336	ppb	09:49:25
3	Cd 226.502†	1034458.8	1092620.1	9850.4	ug/L	9850.4	ppb	09:50:22
3	Co 228.616†	504390.1	532718.0	9370.3	ug/L	9370.3	ppb	09:50:27
3	Cr 267.716†	2446207.7	2583002.5	24286	ug/L	24286	ppb	09:50:22
3	Cu 324.752†	6933360.8	7312978.2	20854	ug/L	20854	ppb	09:50:15
3	Fe 238.204 Radial†	-20.1	-34.1	-4.1334	ug/L	-4.1334	ppb	09:49:25
3	K 766.490 Radial†	1525031.5	1577239.3	300220	ug/L	300220	ppb	09:49:00
3	Mg 279.077 IEC†	-5.9	-8.8	-81.803	ug/L	-81.803	ppb	09:49:25
3	Mn 257.610†	9295443.4	9815126.9	9737.9	ug/L	9737.9	ppb	09:50:15
3	Mo 202.031†	158297.4	167132.8	9837.4	ug/L	9837.4	ppb	09:50:27
3	Na 589.592 Radial†	-1484.3	259.1	73.519	ug/L	73.519	ppb	09:49:05
3	Ni 231.604†	457633.2	483110.7	9995.3	ug/L	9995.3	ppb	09:50:22
3	P 214.914†	37319.2	39137.0	14548	ug/L	14548	ppb	09:50:27
3	Pb 220.353†	235524.8	248793.1	24702	ug/L	24702	ppb	09:50:27
3	S 181.975 Axial†	44972.4	47428.1	52096	ug/L	52096	ppb	09:50:27
3	Sb 206.836†	35068.8	36986.6	10397	ug/L	10397	ppb	09:50:27
3	Se 196.026†	20618.3	21805.0	10371	ug/L	10371	ppb	09:50:27
3	Si 251.611†	1736285.5	1832736.1	48449	ug/L	48449	ppb	09:50:22
3	Sn 189.927†	70612.5	74561.7	10557	ug/L	10557	ppb	09:50:27
3	Sr 421.552†	1432849.3	1485022.2	9751.5	ug/L	9751.5	ppb	09:49:00
3	Ti 334.940†	6477718.7	6842019.2	10041	ug/L	10041	ppb	09:50:15
3	Tl 190.801†	36026.4	38092.5	10041	ug/L	10041	ppb	09:50:27
3	U 409.014†	-2162.0	635.7	-29.245	ug/L	-29.245	ppb	09:50:22
3	V 292.402†	1623074.2	1715737.2	10219	ug/L	10219	ppb	09:50:22
3	Zn 213.857†	1744567.8	1841306.8	14299	ug/L	14299	ppb	09:50:22
3	SiO2†	1741748.9	1838486.7	104700	ug/L	104700	ppb	09:50:49

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	896081.4	95.455	%	1.3022				1.36%
Sc Radial	4783.3	96.7	%	0.41				0.42%
Y 371.029	762492.2	93.201	%	1.3349				1.43%
Y RADIAL	5072.1	95.61	%	0.955				1.00%
Ag 328.068†	-8765.2	2.9238	ug/L	0.19036	2.9238	ppb	0.19036	6.51%
Al 396.153Radial†	641.5	83.914	ug/L	18.5968	83.914	ppb	18.5968	22.16%
As 188.979†	30350.4	10061	ug/L	170.7	10061	ppb	170.7	1.70%
QC value within limits for As 188.979 Recovery = 100.61%								
B 249.677†	258439.9	5019.5	ug/L	56.70	5019.5	ppb	56.70	1.13%
QC value within limits for B 249.677 Recovery = 100.39%								
Ba 233.527†	2114086.3	14394	ug/L	192.7	14394	ppb	192.7	1.34%
QC value within limits for Ba 233.527 Recovery = 95.96%								
Be 313.107†	9228816.9	2951.3	ug/L	36.27	2951.3	ppb	36.27	1.23%
QC value within limits for Be 313.107 Recovery = 98.38%								
Ca 317.933Radial†	13.5	21.134	ug/L	2.5985	21.134	ppb	2.5985	12.30%
Cd 226.502†	1080508.4	9741.2	ug/L	127.44	9741.2	ppb	127.44	1.31%

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   QC value within limits for Cd 226.502  Recovery = 97.41%
Co 228.616†          528045.7      9288.1 ug/L       153.05      9288.1 ppb        153.05   1.65%
   QC value within limits for Co 228.616  Recovery = 92.88%
Cr 267.716†         2556713.2       24039 ug/L        327.3       24039 ppb         327.3   1.36%
   QC value within limits for Cr 267.716  Recovery = 96.16%
Cu 324.752†         7276884.0       20751 ug/L        281.0       20751 ppb         281.0   1.35%
   QC value within limits for Cu 324.752  Recovery = 103.75%
Fe 238.204 Radial†      -35.8     -21.184 ug/L      15.8484     -21.184 ppb       15.8484  74.81%
K 766.490 Radial†   1557132.6      296390 ug/L       3900.2      296390 ppb        3900.2   1.32%
   QC value within limits for K 766.490 Radial  Recovery = 98.80%
Mg 279.077 IEC†          -8.7     -81.364 ug/L       3.4118     -81.364 ppb        3.4118   4.19%
Mn 257.610†         9754301.1      9677.5 ug/L       123.96      9677.5 ppb        123.96   1.28%
   QC value within limits for Mn 257.610  Recovery = 96.78%
Mo 202.031†          165969.8      9769.0 ug/L       162.67      9769.0 ppb        162.67   1.67%
   QC value within limits for Mo 202.031  Recovery = 97.69%
Na 589.592 Radial†      265.4      75.290 ug/L      17.8085      75.290 ppb       17.8085  23.65%
Ni 231.604†          477993.2      9889.4 ug/L       131.58      9889.4 ppb        131.58   1.33%
   QC value within limits for Ni 231.604  Recovery = 98.89%
P 214.914†            38802.0       14412 ug/L        262.1       14412 ppb         262.1   1.82%
   QC value within limits for P 214.914  Recovery = 96.08%
Pb 220.353†          247207.7       24544 ug/L        394.7       24544 ppb         394.7   1.61%
   QC value within limits for Pb 220.353  Recovery = 98.18%
S 181.975 Axial†      47139.0       51779 ug/L        874.2       51779 ppb         874.2   1.69%
   QC value within limits for S 181.975 Axial  Recovery = 103.56%
Sb 206.836†           36765.7       10337 ug/L        180.1       10337 ppb         180.1   1.74%
   QC value within limits for Sb 206.836  Recovery = 103.37%
Se 196.026†           21675.0       10309 ug/L        176.9       10309 ppb         176.9   1.72%
   QC value within limits for Se 196.026  Recovery = 103.09%
Si 251.611†         1815420.5       47991 ug/L        605.9       47991 ppb         605.9   1.26%
   QC value within limits for Si 251.611  Recovery = 95.98%
Sn 189.927†           74060.5       10486 ug/L        176.1       10486 ppb         176.1   1.68%
   QC value within limits for Sn 189.927  Recovery = 104.86%
Sr 421.552†         1464396.2      9616.1 ug/L       150.11      9616.1 ppb        150.11   1.56%
   QC value within limits for Sr 421.552  Recovery = 96.16%
Ti 334.940†         6801995.6      9982.6 ug/L       130.05      9982.6 ppb        130.05   1.30%
   QC value within limits for Ti 334.940  Recovery = 99.83%
Tl 190.801†           37901.2      9990.9 ug/L       169.86      9990.9 ppb        169.86   1.70%
   QC value within limits for Tl 190.801  Recovery = 99.91%
U 409.014†              732.0     -26.098 ug/L       3.6558     -26.098 ppb        3.6558  14.01%
V 292.402†          1699613.1       10124 ug/L        133.9       10124 ppb         133.9   1.32%
   QC value within limits for V 292.402  Recovery = 101.24%
Zn 213.857†         1822666.2       14154 ug/L        187.3       14154 ppb         187.3   1.32%
   QC value within limits for Zn 213.857  Recovery = 94.36%
SiO2†               1808839.9      103010 ug/L       1838.8      103010 ppb        1838.8   1.79%
   QC value within limits for SiO2  Recovery = 96.27%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/29/2009 09:52:59
Data Type: Reprocessed on 12/29/2009 10:09:37
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	912660.2	912660.2	97.221	%			09:56:10
1	Sc Radial	4904.0	4904.0	99.2	%			09:54:51
1	Y 371.029	786104.6	786104.6	96.087	%			09:56:10
1	Y RADIAL	5211.1	5211.1	98.23	%			09:54:51
1	Ag 328.068†	117981.4	120888.8	503.25	ug/L	503.25	ppb	09:56:10
1	Al 396.153Radial†	6260.4	6334.8	4936.5	ug/L	4936.5	ppb	09:54:51
1	As 188.979†	1581.2	1661.3	550.48	ug/L	550.48	ppb	09:56:30
1	B 249.677†	25810.8	26944.7	523.81	ug/L	523.81	ppb	09:56:10
1	Ba 233.527†	72078.9	74119.4	505.11	ug/L	505.11	ppb	09:56:10
1	Be 313.107†	1549676.0	1598680.4	508.83	ug/L	508.83	ppb	09:56:10
1	Ca 317.933Radial†	3199.1	3204.8	5022.4	ug/L	5022.4	ppb	09:55:11
1	Cd 226.502†	54550.2	56366.4	507.64	ug/L	507.64	ppb	09:56:10
1	Co 228.616†	27902.9	28794.8	506.64	ug/L	506.64	ppb	09:56:30
1	Cr 267.716†	52373.7	53737.3	505.71	ug/L	505.71	ppb	09:56:10
1	Cu 324.752†	179490.8	176139.0	502.54	ug/L	502.54	ppb	09:56:10
1	Fe 238.204 Radial†	592.8	584.5	5149.1	ug/L	5149.1	ppb	09:55:11
1	K 766.490 Radial†	29921.8	26842.5	5102.0	ug/L	5102.0	ppb	09:54:51
1	Mg 279.077 IEC†	170.5	169.2	5417.2	ug/L	5417.2	ppb	09:55:11
1	Mn 257.610†	498176.2	511781.8	508.17	ug/L	508.17	ppb	09:56:10
1	Mo 202.031†	8523.2	8741.4	515.01	ug/L	515.01	ppb	09:56:30
1	Na 589.592 Radial†	33346.3	35426.8	10051	ug/L	10051	ppb	09:54:51
1	Ni 231.604†	24046.6	24595.2	508.84	ug/L	508.84	ppb	09:56:30
1	P 214.914†	5779.7	5673.8	2496.8	ug/L	2496.8	ppb	09:56:30
1	Pb 220.353†	5012.6	5240.6	521.71	ug/L	521.71	ppb	09:56:30
1	S 181.975 Axial†	975.6	941.9	1033.6	ug/L	1033.6	ppb	09:56:30
1	Sb 206.836†	1814.6	1821.2	529.36	ug/L	529.36	ppb	09:56:30
1	Se 196.026†	1014.7	1076.4	528.86	ug/L	528.86	ppb	09:56:30
1	Si 251.611†	92522.8	94428.5	2499.7	ug/L	2499.7	ppb	09:56:10
1	Sn 189.927†	3518.4	3615.6	512.53	ug/L	512.53	ppb	09:56:30
1	Sr 421.552†	75230.9	75858.7	498.09	ug/L	498.09	ppb	09:54:51
1	Ti 334.940†	331865.3	343057.6	503.77	ug/L	503.77	ppb	09:56:10
1	Tl 190.801†	1873.1	1976.1	520.86	ug/L	520.86	ppb	09:56:30
1	U 409.014†	13926.6	17243.4	475.68	ug/L	475.68	ppb	09:56:10
1	V 292.402†	81105.9	85234.7	508.58	ug/L	508.58	ppb	09:56:10
1	Zn 213.857†	64186.7	65107.0	504.44	ug/L	504.44	ppb	09:56:10
1	SiO2†	93184.3	95090.3	5423.1	ug/L	5423.1	ppb	09:57:30
2	Sc 361.383	911521.3	911521.3	97.099	%			09:56:37
2	Sc Radial	4824.5	4824.5	97.6	%			09:55:16
2	Y 371.029	785640.5	785640.5	96.030	%			09:56:37
2	Y RADIAL	5135.4	5135.4	96.80	%			09:55:16
2	Ag 328.068†	117829.1	120883.5	503.22	ug/L	503.22	ppb	09:56:37
2	Al 396.153Radial†	6187.0	6363.7	4959.1	ug/L	4959.1	ppb	09:55:16
2	As 188.979†	1551.6	1632.7	541.10	ug/L	541.10	ppb	09:56:57
2	B 249.677†	25743.0	26908.1	523.10	ug/L	523.10	ppb	09:56:37
2	Ba 233.527†	71815.4	73940.7	503.89	ug/L	503.89	ppb	09:56:37
2	Be 313.107†	1547913.3	1598856.6	508.89	ug/L	508.89	ppb	09:56:37
2	Ca 317.933Radial†	3153.1	3210.9	5031.9	ug/L	5031.9	ppb	09:55:36
2	Cd 226.502†	54144.2	56018.4	504.51	ug/L	504.51	ppb	09:56:37
2	Co 228.616†	27761.5	28685.1	504.71	ug/L	504.71	ppb	09:56:57
2	Cr 267.716†	52197.8	53623.4	504.64	ug/L	504.64	ppb	09:56:37
2	Cu 324.752†	179063.5	175929.6	501.94	ug/L	501.94	ppb	09:56:37
2	Fe 238.204 Radial†	583.0	584.4	5147.9	ug/L	5147.9	ppb	09:55:36
2	K 766.490 Radial†	29795.6	27210.3	5172.1	ug/L	5172.1	ppb	09:55:16
2	Mg 279.077 IEC†	162.4	163.7	5241.9	ug/L	5241.9	ppb	09:55:36
2	Mn 257.610†	496462.0	510656.6	507.05	ug/L	507.05	ppb	09:56:37
2	Mo 202.031†	8511.7	8740.5	514.96	ug/L	514.96	ppb	09:56:57
2	Na 589.592 Radial†	33038.6	35665.5	10119	ug/L	10119	ppb	09:55:16
2	Ni 231.604†	23893.9	24468.8	506.23	ug/L	506.23	ppb	09:56:57

2	P 214.914†	5730.3	5630.3	2477.2 ug/L	2477.2 ppb	09:56:57
2	Pb 220.353†	4966.8	5199.8	517.67 ug/L	517.67 ppb	09:56:57
2	S 181.975 Axial†	960.1	927.1	1017.4 ug/L	1017.4 ppb	09:56:57
2	Sb 206.836†	1785.6	1793.8	521.52 ug/L	521.52 ppb	09:56:57
2	Se 196.026†	1023.1	1086.4	533.58 ug/L	533.58 ppb	09:56:57
2	Si 251.611†	92388.1	94408.7	2499.1 ug/L	2499.1 ppb	09:56:37
2	Sn 189.927†	3514.0	3615.5	512.53 ug/L	512.53 ppb	09:56:57
2	Sr 421.552†	74716.1	76580.9	502.83 ug/L	502.83 ppb	09:55:16
2	Ti 334.940†	331286.8	342888.4	503.52 ug/L	503.52 ppb	09:56:37
2	Tl 190.801†	1862.0	1967.1	518.51 ug/L	518.51 ppb	09:56:57
2	U 409.014†	13994.9	17331.7	478.13 ug/L	478.13 ppb	09:56:37
2	V 292.402†	80888.8	85115.3	507.88 ug/L	507.88 ppb	09:56:37
2	Zn 213.857†	63821.8	64813.7	502.17 ug/L	502.17 ppb	09:56:37
2	SiO2†	94998.1	97078.0	5537.0 ug/L	5537.0 ppb	09:57:35
3	Sc 361.383	920206.5	920206.5	98.024 %		09:57:05
3	Sc Radial	4738.7	4738.7	95.8 %		09:55:41
3	Y 371.029	793701.9	793701.9	97.016 %		09:57:05
3	Y RADIAL	5017.5	5017.5	94.58 %		09:55:41
3	Ag 328.068†	119861.2	121811.2	507.11 ug/L	507.11 ppb	09:57:05
3	Al 396.153Radial†	6128.1	6417.0	5001.1 ug/L	5001.1 ppb	09:55:41
3	As 188.979†	1555.2	1621.4	537.43 ug/L	537.43 ppb	09:57:25
3	B 249.677†	26096.3	27018.3	525.25 ug/L	525.25 ppb	09:57:05
3	Ba 233.527†	73164.5	74619.0	508.52 ug/L	508.52 ppb	09:57:05
3	Be 313.107†	1577463.0	1613955.7	513.69 ug/L	513.69 ppb	09:57:05
3	Ca 317.933Radial†	3172.4	3289.5	5155.0 ug/L	5155.0 ppb	09:56:01
3	Cd 226.502†	55253.5	56623.7	509.95 ug/L	509.95 ppb	09:57:05
3	Co 228.616†	27665.0	28316.7	498.21 ug/L	498.21 ppb	09:57:25
3	Cr 267.716†	53050.9	53986.3	508.06 ug/L	508.06 ppb	09:57:05
3	Cu 324.752†	182556.5	177752.4	507.14 ug/L	507.14 ppb	09:57:05
3	Fe 238.204 Radial†	584.8	597.1	5259.0 ug/L	5259.0 ppb	09:56:01
3	K 766.490 Radial†	29459.1	27412.3	5210.4 ug/L	5210.4 ppb	09:55:41
3	Mg 279.077 IEC†	169.1	173.8	5562.0 ug/L	5562.0 ppb	09:56:01
3	Mn 257.610†	505629.3	515182.9	511.55 ug/L	511.55 ppb	09:57:05
3	Mo 202.031†	8490.5	8636.1	508.83 ug/L	508.83 ppb	09:57:25
3	Na 589.592 Radial†	32514.3	35731.7	10138 ug/L	10138 ppb	09:55:41
3	Ni 231.604†	23872.4	24214.6	500.97 ug/L	500.97 ppb	09:57:25
3	P 214.914†	5722.7	5566.9	2447.5 ug/L	2447.5 ppb	09:57:25
3	Pb 220.353†	4963.9	5148.5	512.56 ug/L	512.56 ppb	09:57:25
3	S 181.975 Axial†	959.8	917.4	1006.7 ug/L	1006.7 ppb	09:57:25
3	Sb 206.836†	1786.6	1777.4	516.49 ug/L	516.49 ppb	09:57:25
3	Se 196.026†	1019.0	1072.2	527.22 ug/L	527.22 ppb	09:57:25
3	Si 251.611†	94026.1	95181.7	2519.8 ug/L	2519.8 ppb	09:57:05
3	Sn 189.927†	3500.2	3567.3	505.71 ug/L	505.71 ppb	09:57:25
3	Sr 421.552†	73490.4	76688.8	503.54 ug/L	503.54 ppb	09:55:41
3	Ti 334.940†	337463.4	345969.2	508.05 ug/L	508.05 ppb	09:57:05
3	Tl 190.801†	1850.3	1937.0	510.72 ug/L	510.72 ppb	09:57:25
3	U 409.014†	14161.3	17365.4	479.04 ug/L	479.04 ppb	09:57:05
3	V 292.402†	82416.4	85887.4	512.32 ug/L	512.32 ppb	09:57:05
3	Zn 213.857†	65108.8	65506.3	507.59 ug/L	507.59 ppb	09:57:05
3	SiO2†	93913.8	95048.5	5420.9 ug/L	5420.9 ppb	09:57:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	914796.0	97.448	%	0.5028				0.52%
Sc Radial	4822.4	97.5	%	1.67				1.71%
Y 371.029	788482.3	96.378	%	0.5532				0.57%
Y RADIAL	5121.3	96.54	%	1.839				1.90%
Ag 328.068†	121194.5	504.52	ug/L	2.238	504.52	ppb	2.238	0.44%
QC value within limits for Ag 328.068 Recovery = 100.90%								
Al 396.153Radial†	6371.8	4965.5	ug/L	32.77	4965.5	ppb	32.77	0.66%
QC value within limits for Al 396.153Radial Recovery = 99.31%								
As 188.979†	1638.5	543.00	ug/L	6.730	543.00	ppb	6.730	1.24%
QC value within limits for As 188.979 Recovery = 108.60%								
B 249.677†	26957.1	524.06	ug/L	1.096	524.06	ppb	1.096	0.21%
QC value within limits for B 249.677 Recovery = 104.81%								
Ba 233.527†	74226.4	505.84	ug/L	2.397	505.84	ppb	2.397	0.47%
QC value within limits for Ba 233.527 Recovery = 101.17%								
Be 313.107†	1603830.9	510.47	ug/L	2.791	510.47	ppb	2.791	0.55%
QC value within limits for Be 313.107 Recovery = 102.09%								

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Ca 317.933Radial†       3235.0      5069.8 ug/L        74.01      5069.8 ppb        74.01   1.46%
   QC value within limits for Ca 317.933Radial  Recovery = 101.40%
Cd 226.502†            56336.2      507.37 ug/L        2.730      507.37 ppb        2.730   0.54%
   QC value within limits for Cd 226.502  Recovery = 101.47%
Co 228.616†            28598.9      503.19 ug/L        4.419      503.19 ppb        4.419   0.88%
   QC value within limits for Co 228.616  Recovery = 100.64%
Cr 267.716†            53782.4      506.14 ug/L        1.749      506.14 ppb        1.749   0.35%
   QC value within limits for Cr 267.716  Recovery = 101.23%
Cu 324.752†           176607.0      503.87 ug/L        2.848      503.87 ppb        2.848   0.57%
   QC value within limits for Cu 324.752  Recovery = 100.77%
Fe 238.204 Radial†       588.7      5185.3 ug/L        63.78      5185.3 ppb        63.78   1.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.71%
K 766.490 Radial†      27155.0      5161.5 ug/L        54.95      5161.5 ppb        54.95   1.06%
   QC value within limits for K 766.490 Radial  Recovery = 103.23%
Mg 279.077 IEC†          168.9      5407.0 ug/L       160.30      5407.0 ppb       160.30   2.96%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.14%
Mn 257.610†           512540.4      508.92 ug/L        2.341      508.92 ppb        2.341   0.46%
   QC value within limits for Mn 257.610  Recovery = 101.78%
Mo 202.031†             8706.0      512.93 ug/L        3.556      512.93 ppb        3.556   0.69%
   QC value within limits for Mo 202.031  Recovery = 102.59%
Na 589.592 Radial†     35608.0       10103 ug/L         45.5       10103 ppb         45.5   0.45%
   QC value within limits for Na 589.592 Radial  Recovery = 101.03%
Ni 231.604†            24426.2      505.34 ug/L        4.010      505.34 ppb        4.010   0.79%
   QC value within limits for Ni 231.604  Recovery = 101.07%
P 214.914†              5623.7      2473.8 ug/L        24.86      2473.8 ppb        24.86   1.00%
   QC value within limits for P 214.914  Recovery = 98.95%
Pb 220.353†             5196.3      517.31 ug/L        4.585      517.31 ppb        4.585   0.89%
   QC value within limits for Pb 220.353  Recovery = 103.46%
S 181.975 Axial†         928.8      1019.2 ug/L        13.53      1019.2 ppb        13.53   1.33%
   QC value within limits for S 181.975 Axial  Recovery = 101.92%
Sb 206.836†             1797.4      522.45 ug/L        6.486      522.45 ppb        6.486   1.24%
   QC value within limits for Sb 206.836  Recovery = 104.49%
Se 196.026†             1078.3      529.89 ug/L        3.304      529.89 ppb        3.304   0.62%
   QC value within limits for Se 196.026  Recovery = 105.98%
Si 251.611†            94673.0      2506.2 ug/L        11.78      2506.2 ppb        11.78   0.47%
   QC value within limits for Si 251.611  Recovery = 100.25%
Sn 189.927†             3599.5      510.26 ug/L        3.936      510.26 ppb        3.936   0.77%
   QC value within limits for Sn 189.927  Recovery = 102.05%
Sr 421.552†            76376.1      501.48 ug/L        2.963      501.48 ppb        2.963   0.59%
   QC value within limits for Sr 421.552  Recovery = 100.30%
Ti 334.940†           343971.7      505.12 ug/L        2.547      505.12 ppb        2.547   0.50%
   QC value within limits for Ti 334.940  Recovery = 101.02%
Tl 190.801†             1960.1      516.70 ug/L        5.308      516.70 ppb        5.308   1.03%
   QC value within limits for Tl 190.801  Recovery = 103.34%
U 409.014†             17313.5      477.62 ug/L        1.737      477.62 ppb        1.737   0.36%
   QC value within limits for U 409.014  Recovery = 95.52%
V 292.402†             85412.5      509.60 ug/L        2.389      509.60 ppb        2.389   0.47%
   QC value within limits for V 292.402  Recovery = 101.92%
Zn 213.857†            65142.4      504.74 ug/L        2.723      504.74 ppb        2.723   0.54%
   QC value within limits for Zn 213.857  Recovery = 100.95%
SiO2†                  95739.0      5460.3 ug/L        66.39      5460.3 ppb        66.39   1.22%
   QC value within limits for SiO2  Recovery = 102.11%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/29/2009 09:59:50
Data Type: Reprocessed on 12/29/2009 10:09:38

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	934777.5	934777.5	99.577	%			10:03:00
1	Sc Radial	4770.1	4770.1	96.5	%			10:01:43
1	Y 371.029	814406.0	814406.0	99.546	%			10:03:00
1	Y RADIAL	5110.1	5110.1	96.33	%			10:01:43
1	Ag 328.068†	487.3	23.7	0.0911	ug/L	0.0911	ppb	10:03:05
1	Al 396.153Radial†	-5.6	15.5	12.050	ug/L	12.050	ppb	10:01:43
1	As 188.979†	10.2	45.0	14.795	ug/L	14.795	ppb	10:03:25
1	B 249.677†	396.0	793.7	15.489	ug/L	15.489	ppb	10:03:05
1	Ba 233.527†	13.6	-6.5	-0.0453	ug/L	-0.0453	ppb	10:03:25
1	Be 313.107†	-4630.4	51.2	0.0163	ug/L	0.0163	ppb	10:03:05
1	Ca 317.933Radial†	17.7	-3.1	-4.8943	ug/L	-4.8943	ppb	10:02:03
1	Cd 226.502†	-209.4	46.3	0.4186	ug/L	0.4186	ppb	10:03:25
1	Co 228.616†	-92.7	1.1	0.0230	ug/L	0.0230	ppb	10:03:25
1	Cr 267.716†	129.7	-3.5	-0.0347	ug/L	-0.0347	ppb	10:03:05
1	Cu 324.752†	8612.0	165.4	0.4712	ug/L	0.4712	ppb	10:03:05
1	Fe 238.204 Radial†	11.7	-1.1	-9.9066	ug/L	-9.9066	ppb	10:02:03
1	K 766.490 Radial†	3721.6	525.1	100.01	ug/L	100.01	ppb	10:01:43
1	Mg 279.077 IEC†	0.4	-2.3	-74.130	ug/L	-74.130	ppb	10:02:03
1	Mn 257.610†	567.2	-67.0	-0.0661	ug/L	-0.0661	ppb	10:03:05
1	Mo 202.031†	46.7	21.4	1.2596	ug/L	1.2596	ppb	10:03:25
1	Na 589.592 Radial†	-1828.3	-98.2	-27.853	ug/L	-27.853	ppb	10:01:43
1	Ni 231.604†	159.6	21.4	0.4421	ug/L	0.4421	ppb	10:03:25
1	P 214.914†	250.7	-19.4	-8.8082	ug/L	-8.8082	ppb	10:03:25
1	Pb 220.353†	-72.6	11.8	1.1737	ug/L	1.1737	ppb	10:03:25
1	S 181.975 Axial†	67.3	5.9	6.5091	ug/L	6.5091	ppb	10:03:25
1	Sb 206.836†	63.3	18.4	5.3389	ug/L	5.3389	ppb	10:03:25
1	Se 196.026†	-19.6	13.0	6.1245	ug/L	6.1245	ppb	10:03:25
1	Si 251.611†	868.3	132.6	3.4636	ug/L	3.4636	ppb	10:03:25
1	Sn 189.927†	24.5	21.2	2.9987	ug/L	2.9987	ppb	10:03:25
1	Sr 421.552†	-24.8	-36.7	-0.2409	ug/L	-0.2409	ppb	10:01:43
1	Ti 334.940†	-1688.1	9.5	0.0128	ug/L	0.0128	ppb	10:03:05
1	Tl 190.801†	-54.1	-4.9	-1.2709	ug/L	-1.2709	ppb	10:03:25
1	U 409.014†	-2829.4	77.2	2.1387	ug/L	2.1387	ppb	10:03:00
1	V 292.402†	-1888.2	-86.2	-0.4854	ug/L	-0.4854	ppb	10:03:05
1	Zn 213.857†	1107.0	197.1	1.5396	ug/L	1.5396	ppb	10:03:25
1	SiO2†	909.9	155.7	8.7836	ug/L	8.7836	ppb	10:04:31
2	Sc 361.383	940786.7	940786.7	100.22	%			10:03:30
2	Sc Radial	4752.8	4752.8	96.1	%			10:02:08
2	Y 371.029	819555.6	819555.6	100.18	%			10:03:30
2	Y RADIAL	5106.8	5106.8	96.27	%			10:02:08
2	Ag 328.068†	482.1	15.5	0.0533	ug/L	0.0533	ppb	10:03:35
2	Al 396.153Radial†	-19.4	1.2	0.8738	ug/L	0.8738	ppb	10:02:08
2	As 188.979†	2.7	37.5	12.323	ug/L	12.323	ppb	10:03:55
2	B 249.677†	372.1	767.3	14.977	ug/L	14.977	ppb	10:03:35
2	Ba 233.527†	18.1	-2.0	-0.0140	ug/L	-0.0140	ppb	10:03:55
2	Be 313.107†	-4670.7	40.8	0.0129	ug/L	0.0129	ppb	10:03:35
2	Ca 317.933Radial†	20.2	-0.4	-0.6763	ug/L	-0.6763	ppb	10:02:28
2	Cd 226.502†	-210.3	46.9	0.4252	ug/L	0.4252	ppb	10:03:55
2	Co 228.616†	-87.0	7.4	0.1325	ug/L	0.1325	ppb	10:03:55
2	Cr 267.716†	129.1	-4.9	-0.0464	ug/L	-0.0464	ppb	10:03:35
2	Cu 324.752†	8486.6	-14.9	-0.0443	ug/L	-0.0443	ppb	10:03:35
2	Fe 238.204 Radial†	9.0	-3.9	-33.881	ug/L	-33.881	ppb	10:02:28
2	K 766.490 Radial†	3720.5	538.1	102.45	ug/L	102.45	ppb	10:02:08
2	Mg 279.077 IEC†	3.3	0.8	24.091	ug/L	24.091	ppb	10:02:28
2	Mn 257.610†	562.0	-75.8	-0.0790	ug/L	-0.0790	ppb	10:03:35
2	Mo 202.031†	36.8	11.2	0.6577	ug/L	0.6577	ppb	10:03:55
2	Na 589.592 Radial†	-1800.0	-75.6	-21.442	ug/L	-21.442	ppb	10:02:08
2	Ni 231.604†	119.6	-19.6	-0.4053	ug/L	-0.4053	ppb	10:03:55

2	P 214.914†	271.9	0.2	0.1437 ug/L	0.1437 ppb	10:03:55
2	Pb 220.353†	-96.8	-11.9	-1.1811 ug/L	-1.1811 ppb	10:03:55
2	S 181.975 Axial†	59.0	-2.8	-3.0556 ug/L	-3.0556 ppb	10:03:55
2	Sb 206.836†	47.4	2.0	0.6434 ug/L	0.6434 ppb	10:03:55
2	Se 196.026†	-44.4	-11.6	-5.6034 ug/L	-5.6034 ppb	10:03:55
2	Si 251.611†	853.5	112.3	2.9342 ug/L	2.9342 ppb	10:03:55
2	Sn 189.927†	20.9	17.4	2.4682 ug/L	2.4682 ppb	10:03:55
2	Sr 421.552†	-16.3	-28.0	-0.1839 ug/L	-0.1839 ppb	10:02:08
2	Ti 334.940†	-1720.6	-12.1	-0.0181 ug/L	-0.0181 ppb	10:03:35
2	Tl 190.801†	-46.4	3.2	0.8244 ug/L	0.8244 ppb	10:03:55
2	U 409.014†	-2907.0	17.9	0.5005 ug/L	0.5005 ppb	10:03:30
2	V 292.402†	-1767.5	46.4	0.2894 ug/L	0.2894 ppb	10:03:35
2	Zn 213.857†	1085.5	168.5	1.3199 ug/L	1.3199 ppb	10:03:55
2	SiO2†	887.8	127.8	7.2086 ug/L	7.2086 ppb	10:04:36
3	Sc 361.383	952728.4	952728.4	101.49 %		10:04:01
3	Sc Radial	4910.4	4910.4	99.3 %		10:02:33
3	Y 371.029	830696.4	830696.4	101.54 %		10:04:01
3	Y RADIAL	5268.7	5268.7	99.32 %		10:02:33
3	Ag 328.068†	630.6	155.7	0.6314 ug/L	0.6314 ppb	10:04:06
3	Al 396.153Radial†	-17.5	3.7	2.9140 ug/L	2.9140 ppb	10:02:33
3	As 188.979†	-5.6	29.3	9.6238 ug/L	9.6238 ppb	10:04:26
3	B 249.677†	316.6	708.0	13.821 ug/L	13.821 ppb	10:04:06
3	Ba 233.527†	22.0	1.6	0.0087 ug/L	0.0087 ppb	10:04:26
3	Be 313.107†	-4651.8	117.8	0.0378 ug/L	0.0378 ppb	10:04:06
3	Ca 317.933Radial†	25.2	4.0	6.2057 ug/L	6.2057 ppb	10:02:53
3	Cd 226.502†	-204.8	54.9	0.4975 ug/L	0.4975 ppb	10:04:26
3	Co 228.616†	-116.4	-20.5	-0.3595 ug/L	-0.3595 ppb	10:04:26
3	Cr 267.716†	98.6	-36.6	-0.3447 ug/L	-0.3447 ppb	10:04:06
3	Cu 324.752†	8574.2	-34.7	-0.1008 ug/L	-0.1008 ppb	10:04:06
3	Fe 238.204 Radial†	9.4	-3.8	-33.759 ug/L	-33.759 ppb	10:02:53
3	K 766.490 Radial†	3668.4	361.4	68.809 ug/L	68.809 ppb	10:02:33
3	Mg 279.077 IEC†	0.7	-2.0	-65.480 ug/L	-65.480 ppb	10:02:53
3	Mn 257.610†	611.6	-34.0	-0.0359 ug/L	-0.0359 ppb	10:04:06
3	Mo 202.031†	29.7	3.8	0.2229 ug/L	0.2229 ppb	10:04:26
3	Na 589.592 Radial†	-1762.9	21.9	6.2160 ug/L	6.2160 ppb	10:02:33
3	Ni 231.604†	127.4	-13.3	-0.2761 ug/L	-0.2761 ppb	10:04:26
3	P 214.914†	269.8	-5.4	-2.3633 ug/L	-2.3633 ppb	10:04:26
3	Pb 220.353†	-69.0	16.7	1.6573 ug/L	1.6573 ppb	10:04:26
3	S 181.975 Axial†	73.6	10.8	11.895 ug/L	11.895 ppb	10:04:26
3	Sb 206.836†	54.1	8.0	2.3419 ug/L	2.3419 ppb	10:04:26
3	Se 196.026†	-30.5	2.6	1.1157 ug/L	1.1157 ppb	10:04:26
3	Si 251.611†	864.8	112.8	2.9676 ug/L	2.9676 ppb	10:04:26
3	Sn 189.927†	16.3	12.7	1.7970 ug/L	1.7970 ppb	10:04:26
3	Sr 421.552†	17.8	7.0	0.0456 ug/L	0.0456 ppb	10:02:33
3	Ti 334.940†	-1590.5	137.7	0.2029 ug/L	0.2029 ppb	10:04:06
3	Tl 190.801†	-51.7	-1.4	-0.3738 ug/L	-0.3738 ppb	10:04:26
3	U 409.014†	-2983.9	-21.4	-0.5884 ug/L	-0.5884 ppb	10:04:01
3	V 292.402†	-1916.2	-78.0	-0.4534 ug/L	-0.4534 ppb	10:04:06
3	Zn 213.857†	1085.1	154.5	1.2130 ug/L	1.2130 ppb	10:04:26
3	SiO2†	942.7	170.8	9.7173 ug/L	9.7173 ppb	10:04:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	942764.2	100.43	%	0.973				0.97%
Sc Radial	4811.1	97.3	%	1.75				1.80%
Y 371.029	821552.7	100.42	%	1.018				1.01%
Y RADIAL	5161.8	97.30	%	1.744				1.79%
Ag 328.068†	65.0	0.2586	ug/L	0.32336	0.2586	ppb	0.32336	125.04%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.8	5.2794	ug/L	5.95188	5.2794	ppb	5.95188	112.74%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	37.3	12.247	ug/L	2.5866	12.247	ppb	2.5866	21.12%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	756.4	14.763	ug/L	0.8544	14.763	ppb	0.8544	5.79%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.3	-0.0169	ug/L	0.02712	-0.0169	ppb	0.02712	160.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	69.9	0.0223	ug/L	0.01350	0.0223	ppb	0.01350	60.42%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          0.1      0.2117 ug/L       5.60305      0.2117 ppb        5.60305 >999.9%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†               49.3      0.4471 ug/L       0.04378      0.4471 ppb        0.04378   9.79%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -4.0     -0.0680 ug/L       0.25828     -0.0680 ppb        0.25828 379.81%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -15.0     -0.1420 ug/L       0.17572     -0.1420 ppb        0.17572 123.78%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               38.6      0.1087 ug/L       0.31522      0.1087 ppb        0.31522 290.01%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -2.9     -25.849 ug/L       13.8065     -25.849 ppb        13.8065  53.41%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        474.9      90.423 ug/L       18.7585      90.423 ppb        18.7585  20.75%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.2     -38.506 ug/L       54.3833     -38.506 ppb        54.3833 141.23%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -58.9     -0.0603 ug/L       0.02213     -0.0603 ppb        0.02213  36.69%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               12.2      0.7134 ug/L       0.52059      0.7134 ppb        0.52059  72.98%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -50.6     -14.360 ug/L       18.1050     -14.360 ppb        18.1050 126.08%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -3.9     -0.0798 ug/L       0.45657     -0.0798 ppb        0.45657 572.28%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -8.2     -3.6759 ug/L       4.61805     -3.6759 ppb        4.61805 125.63%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                5.5      0.5500 ug/L       1.51856      0.5500 ppb        1.51856 276.11%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           4.7      5.1160 ug/L       7.57178      5.1160 ppb        7.57178 148.00%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                9.5      2.7747 ug/L       2.37751      2.7747 ppb        2.37751  85.68%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                1.3      0.5456 ug/L       5.88468      0.5456 ppb        5.88468 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              119.2      3.1218 ug/L       0.29646      3.1218 ppb        0.29646   9.50%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               17.1      2.4213 ug/L       0.60226      2.4213 ppb        0.60226  24.87%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -19.2     -0.1264 ug/L       0.15167     -0.1264 ppb        0.15167 120.00%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               45.0      0.0659 ug/L       0.11966      0.0659 ppb        0.11966 181.65%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -1.0     -0.2734 ug/L       1.05122     -0.2734 ppb        1.05122 384.44%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                24.6      0.6836 ug/L       1.37272      0.6836 ppb        1.37272 200.81%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -39.3     -0.2165 ug/L       0.43840     -0.2165 ppb        0.43840 202.53%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              173.3      1.3575 ug/L       0.16647      1.3575 ppb        0.16647  12.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    151.5      8.5698 ug/L       1.26794      8.5698 ppb        1.26794  14.80%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/29/2009 11:00:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4959.1	4959.1	100	%			11:02:02
1	Y RADIAL	5265.3	5265.3	99.25	%			11:02:02
1	Al 396.153Radial†	6658.2	6661.4	5192.3	ug/L	5192.3	ppb	11:02:02
1	Ca 317.933Radial†	3301.2	3270.8	5125.8	ug/L	5125.8	ppb	11:02:22
1	Fe 238.204 Radial†	608.2	593.3	5225.8	ug/L	5225.8	ppb	11:02:22
1	K 766.490 Radial†	30797.1	27379.9	5204.3	ug/L	5204.3	ppb	11:02:02
1	Mg 279.077 IEC†	168.1	164.9	5280.4	ug/L	5280.4	ppb	11:02:22
1	Na 589.592 Radial†	34800.8	36503.5	10357	ug/L	10357	ppb	11:02:02
1	Sr 421.552†	79494.6	79267.3	520.47	ug/L	520.47	ppb	11:02:02
1	Sc 361.383	947803.0	947803.0	100.96	%			11:03:21
1	Y 371.029	817954.7	817954.7	99.980	%			11:03:21
1	Ag 328.068†	121622.1	119995.0	499.56	ug/L	499.56	ppb	11:03:21
1	As 188.979†	1523.4	1543.7	511.83	ug/L	511.83	ppb	11:03:41
1	B 249.677†	25889.9	26038.7	506.14	ug/L	506.14	ppb	11:03:21
1	Ba 233.527†	74159.6	73431.3	500.43	ug/L	500.43	ppb	11:03:21
1	Be 313.107†	1599586.8	1589012.7	505.76	ug/L	505.76	ppb	11:03:21
1	Cd 226.502†	55734.0	55458.4	499.45	ug/L	499.45	ppb	11:03:21
1	Co 228.616†	28554.3	28375.8	499.27	ug/L	499.27	ppb	11:03:41
1	Cr 267.716†	53875.3	53227.0	500.91	ug/L	500.91	ppb	11:03:21
1	Cu 324.752†	185104.2	174853.3	498.88	ug/L	498.88	ppb	11:03:21
1	Mn 257.610†	512068.7	506542.1	502.98	ug/L	502.98	ppb	11:03:21
1	Mo 202.031†	8763.5	8654.3	509.89	ug/L	509.89	ppb	11:03:41
1	Ni 231.604†	24590.5	24216.8	501.01	ug/L	501.01	ppb	11:03:41
1	P 214.914†	5927.3	5599.6	2463.7	ug/L	2463.7	ppb	11:03:41
1	Pb 220.353†	5116.4	5152.1	512.97	ug/L	512.97	ppb	11:03:41
1	S 181.975 Axial†	1003.0	931.8	1022.5	ug/L	1022.5	ppb	11:03:41
1	Sb 206.836†	1833.0	1770.3	514.62	ug/L	514.62	ppb	11:03:41
1	Se 196.026†	1043.5	1066.2	524.28	ug/L	524.28	ppb	11:03:41
1	Si 251.611†	95349.2	93699.3	2480.3	ug/L	2480.3	ppb	11:03:21
1	Sn 189.927†	3590.9	3553.2	503.71	ug/L	503.71	ppb	11:03:41
1	Ti 334.940†	342232.1	340668.7	500.27	ug/L	500.27	ppb	11:03:21
1	Tl 190.801†	1918.3	1949.5	513.88	ug/L	513.88	ppb	11:03:41
1	U 409.014†	14706.0	17484.3	482.35	ug/L	482.35	ppb	11:03:21
1	V 292.402†	83810.4	84820.1	506.07	ug/L	506.07	ppb	11:03:21
1	Zn 213.857†	65596.1	64055.0	496.28	ug/L	496.28	ppb	11:03:21
1	SiO2†	95442.2	93772.7	5347.8	ug/L	5347.8	ppb	11:04:41
2	Sc Radial	5092.7	5092.7	103	%			11:02:27
2	Y RADIAL	5393.5	5393.5	101.7	%			11:02:27
2	Al 396.153Radial†	6498.7	6332.4	4935.0	ug/L	4935.0	ppb	11:02:27
2	Ca 317.933Radial†	3285.0	3168.7	4965.7	ug/L	4965.7	ppb	11:02:47
2	Fe 238.204 Radial†	601.5	570.9	5029.2	ug/L	5029.2	ppb	11:02:47
2	K 766.490 Radial†	30462.5	26249.7	4989.2	ug/L	4989.2	ppb	11:02:27
2	Mg 279.077 IEC†	167.0	159.5	5105.4	ug/L	5105.4	ppb	11:02:47
2	Na 589.592 Radial†	34164.9	34976.0	9923.3	ug/L	9923.3	ppb	11:02:27
2	Sr 421.552†	77846.6	75588.1	496.31	ug/L	496.31	ppb	11:02:27
2	Sc 361.383	957987.0	957987.0	102.05	%			11:03:48
2	Y 371.029	824608.1	824608.1	100.79	%			11:03:48
2	Ag 328.068†	123263.6	120323.0	500.85	ug/L	500.85	ppb	11:03:48
2	As 188.979†	1530.8	1534.9	508.91	ug/L	508.91	ppb	11:04:09
2	B 249.677†	26452.6	26317.5	511.62	ug/L	511.62	ppb	11:03:48
2	Ba 233.527†	75174.9	73645.4	501.88	ug/L	501.88	ppb	11:03:48
2	Be 313.107†	1617540.9	1589764.2	506.00	ug/L	506.00	ppb	11:03:48
2	Cd 226.502†	56398.4	55522.6	500.05	ug/L	500.05	ppb	11:03:48
2	Co 228.616†	28626.0	28145.4	495.20	ug/L	495.20	ppb	11:04:09
2	Cr 267.716†	54342.2	53117.3	499.88	ug/L	499.88	ppb	11:03:48
2	Cu 324.752†	188276.6	176013.1	502.17	ug/L	502.17	ppb	11:03:48
2	Mn 257.610†	519248.6	508186.2	504.59	ug/L	504.59	ppb	11:03:48
2	Mo 202.031†	8789.4	8587.5	505.94	ug/L	505.94	ppb	11:04:09
2	Ni 231.604†	24613.8	23980.7	496.13	ug/L	496.13	ppb	11:04:09

2	P 214.914†	5933.4	5543.1	2437.6 ug/L	2437.6 ppb	11:04:09
2	Pb 220.353†	5130.0	5111.6	508.90 ug/L	508.90 ppb	11:04:09
2	S 181.975 Axial†	1009.8	927.9	1018.2 ug/L	1018.2 ppb	11:04:09
2	Sb 206.836†	1826.0	1744.1	507.03 ug/L	507.03 ppb	11:04:09
2	Se 196.026†	1046.6	1058.3	519.88 ug/L	519.88 ppb	11:04:09
2	Si 251.611†	96841.8	94158.0	2492.7 ug/L	2492.7 ppb	11:03:48
2	Sn 189.927†	3619.8	3543.7	502.34 ug/L	502.34 ppb	11:04:09
2	Ti 334.940†	346918.1	341657.2	501.71 ug/L	501.71 ppb	11:03:48
2	Tl 190.801†	1911.2	1922.3	506.79 ug/L	506.79 ppb	11:04:09
2	U 409.014†	14855.3	17475.7	482.14 ug/L	482.14 ppb	11:03:48
2	V 292.402†	84615.2	84726.3	505.49 ug/L	505.49 ppb	11:03:48
2	Zn 213.857†	66370.8	64123.5	496.85 ug/L	496.85 ppb	11:03:48
2	SiO2†	95925.5	93241.4	5317.6 ug/L	5317.6 ppb	11:04:47
3	Sc Radial	4988.2	4988.2	101 %		11:02:52
3	Y RADIAL	5314.4	5314.4	100.2 %		11:02:52
3	Al 396.153Radial†	6445.2	6411.4	4997.0 ug/L	4997.0 ppb	11:02:52
3	Ca 317.933Radial†	3262.4	3213.1	5035.3 ug/L	5035.3 ppb	11:03:12
3	Fe 238.204 Radial†	593.4	575.1	5065.8 ug/L	5065.8 ppb	11:03:12
3	K 766.490 Radial†	30121.6	26531.0	5042.8 ug/L	5042.8 ppb	11:02:52
3	Mg 279.077 IEC†	168.0	163.8	5244.3 ug/L	5244.3 ppb	11:03:12
3	Na 589.592 Radial†	33455.7	34967.5	9920.9 ug/L	9920.9 ppb	11:02:52
3	Sr 421.552†	76779.7	76113.0	499.76 ug/L	499.76 ppb	11:02:52
3	Sc 361.383	955495.6	955495.6	101.78 %		11:04:16
3	Y 371.029	822555.2	822555.2	100.54 %		11:04:16
3	Ag 328.068†	123052.0	120430.1	501.30 ug/L	501.30 ppb	11:04:16
3	As 188.979†	1514.4	1522.7	504.92 ug/L	504.92 ppb	11:04:36
3	B 249.677†	26265.2	26201.0	509.35 ug/L	509.35 ppb	11:04:16
3	Ba 233.527†	74869.8	73537.7	501.15 ug/L	501.15 ppb	11:04:16
3	Be 313.107†	1610374.2	1586856.1	505.07 ug/L	505.07 ppb	11:04:16
3	Cd 226.502†	56199.8	55471.6	499.58 ug/L	499.58 ppb	11:04:16
3	Co 228.616†	28290.5	27889.0	490.68 ug/L	490.68 ppb	11:04:36
3	Cr 267.716†	54264.6	53179.9	500.46 ug/L	500.46 ppb	11:04:16
3	Cu 324.752†	187772.8	175999.1	502.13 ug/L	502.13 ppb	11:04:16
3	Mn 257.610†	517578.2	507871.8	504.28 ug/L	504.28 ppb	11:04:16
3	Mo 202.031†	8688.9	8511.2	501.45 ug/L	501.45 ppb	11:04:36
3	Ni 231.604†	24375.0	23809.0	492.57 ug/L	492.57 ppb	11:04:36
3	P 214.914†	5863.0	5489.1	2413.0 ug/L	2413.0 ppb	11:04:36
3	Pb 220.353†	5076.2	5071.8	504.95 ug/L	504.95 ppb	11:04:36
3	S 181.975 Axial†	1006.6	927.3	1017.6 ug/L	1017.6 ppb	11:04:36
3	Sb 206.836†	1803.7	1726.9	501.89 ug/L	501.89 ppb	11:04:36
3	Se 196.026†	1023.6	1038.3	510.50 ug/L	510.50 ppb	11:04:36
3	Si 251.611†	96433.1	94003.9	2488.7 ug/L	2488.7 ppb	11:04:16
3	Sn 189.927†	3571.6	3505.6	496.97 ug/L	496.97 ppb	11:04:36
3	Ti 334.940†	345912.6	341555.8	501.57 ug/L	501.57 ppb	11:04:16
3	Tl 190.801†	1909.5	1925.5	507.67 ug/L	507.67 ppb	11:04:36
3	U 409.014†	14921.0	17578.2	484.97 ug/L	484.97 ppb	11:04:16
3	V 292.402†	84334.5	84666.8	505.08 ug/L	505.08 ppb	11:04:16
3	Zn 213.857†	66222.0	64146.8	497.05 ug/L	497.05 ppb	11:04:16
3	SiO2†	95998.0	93557.8	5335.9 ug/L	5335.9 ppb	11:04:52

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	953761.9	101.60	%	0.566				0.56%
Sc Radial	5013.3	101	%	1.4				1.40%
Y 371.029	821706.0	100.44	%	0.416				0.41%
Y RADIAL	5324.4	100.4	%	1.22				1.22%
Ag 328.068†	120249.4	500.57	ug/L	0.904	500.57	ppb	0.904	0.18%
QC value within limits for Ag 328.068 Recovery = 100.11%								
Al 396.153Radial†	6468.4	5041.4	ug/L	134.31	5041.4	ppb	134.31	2.66%
QC value within limits for Al 396.153Radial Recovery = 100.83%								
As 188.979†	1533.8	508.55	ug/L	3.470	508.55	ppb	3.470	0.68%
QC value within limits for As 188.979 Recovery = 101.71%								
B 249.677†	26185.7	509.04	ug/L	2.752	509.04	ppb	2.752	0.54%
QC value within limits for B 249.677 Recovery = 101.81%								
Ba 233.527†	73538.1	501.15	ug/L	0.725	501.15	ppb	0.725	0.14%
QC value within limits for Ba 233.527 Recovery = 100.23%								
Be 313.107†	1588544.3	505.61	ug/L	0.479	505.61	ppb	0.479	0.09%
QC value within limits for Be 313.107 Recovery = 101.12%								
Ca 317.933Radial†	3217.5	5042.3	ug/L	80.27	5042.3	ppb	80.27	1.59%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.85%
Cd 226.502†            55484.2      499.69 ug/L         0.313      499.69 ppb          0.313   0.06%
   QC value within limits for Cd 226.502  Recovery = 99.94%
Co 228.616†            28136.7      495.05 ug/L         4.294      495.05 ppb          4.294   0.87%
   QC value within limits for Co 228.616  Recovery = 99.01%
Cr 267.716†            53174.8      500.42 ug/L         0.519      500.42 ppb          0.519   0.10%
   QC value within limits for Cr 267.716  Recovery = 100.08%
Cu 324.752†           175621.8      501.06 ug/L         1.893      501.06 ppb          1.893   0.38%
   QC value within limits for Cu 324.752  Recovery = 100.21%
Fe 238.204 Radial†       579.8      5106.9 ug/L        104.56      5106.9 ppb         104.56   2.05%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.14%
K 766.490 Radial†      26720.2      5078.8 ug/L        111.96      5078.8 ppb         111.96   2.20%
   QC value within limits for K 766.490 Radial  Recovery = 101.58%
Mg 279.077 IEC†          162.7      5210.0 ug/L         92.39      5210.0 ppb          92.39   1.77%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.20%
Mn 257.610†           507533.4      503.95 ug/L         0.857      503.95 ppb          0.857   0.17%
   QC value within limits for Mn 257.610  Recovery = 100.79%
Mo 202.031†             8584.3      505.76 ug/L         4.223      505.76 ppb          4.223   0.83%
   QC value within limits for Mo 202.031  Recovery = 101.15%
Na 589.592 Radial†     35482.3       10067 ug/L         250.9       10067 ppb          250.9   2.49%
   QC value within limits for Na 589.592 Radial  Recovery = 100.67%
Ni 231.604†            24002.2      496.57 ug/L         4.236      496.57 ppb          4.236   0.85%
   QC value within limits for Ni 231.604  Recovery = 99.31%
P 214.914†              5543.9      2438.1 ug/L         25.33      2438.1 ppb          25.33   1.04%
   QC value within limits for P 214.914  Recovery = 97.52%
Pb 220.353†             5111.9      508.94 ug/L         4.012      508.94 ppb          4.012   0.79%
   QC value within limits for Pb 220.353  Recovery = 101.79%
S 181.975 Axial†         929.0      1019.4 ug/L          2.66      1019.4 ppb           2.66   0.26%
   QC value within limits for S 181.975 Axial  Recovery = 101.94%
Sb 206.836†             1747.1      507.85 ug/L         6.402      507.85 ppb          6.402   1.26%
   QC value within limits for Sb 206.836  Recovery = 101.57%
Se 196.026†             1054.3      518.22 ug/L         7.037      518.22 ppb          7.037   1.36%
   QC value within limits for Se 196.026  Recovery = 103.64%
Si 251.611†            93953.7      2487.2 ug/L          6.30      2487.2 ppb           6.30   0.25%
   QC value within limits for Si 251.611  Recovery = 99.49%
Sn 189.927†             3534.2      501.01 ug/L         3.564      501.01 ppb          3.564   0.71%
   QC value within limits for Sn 189.927  Recovery = 100.20%
Sr 421.552†            76989.5      505.51 ug/L        13.067      505.51 ppb         13.067   2.58%
   QC value within limits for Sr 421.552  Recovery = 101.10%
Ti 334.940†           341293.9      501.18 ug/L         0.795      501.18 ppb          0.795   0.16%
   QC value within limits for Ti 334.940  Recovery = 100.24%
Tl 190.801†             1932.4      509.45 ug/L         3.866      509.45 ppb          3.866   0.76%
   QC value within limits for Tl 190.801  Recovery = 101.89%
U 409.014†             17512.7      483.15 ug/L         1.577      483.15 ppb          1.577   0.33%
   QC value within limits for U 409.014  Recovery = 96.63%
V 292.402†             84737.7      505.55 ug/L         0.500      505.55 ppb          0.500   0.10%
   QC value within limits for V 292.402  Recovery = 101.11%
Zn 213.857†            64108.4      496.73 ug/L         0.404      496.73 ppb          0.404   0.08%
   QC value within limits for Zn 213.857  Recovery = 99.35%
SiO2†                  93524.0      5333.8 ug/L         15.18      5333.8 ppb          15.18   0.28%
   QC value within limits for SiO2  Recovery = 99.74%
All analyte(s) passed QC.
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Sequence No.: 8
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/29/2009 11:07:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5129.0	5129.0	104	%			11:08:55
1	Y RADIAL	5490.5	5490.5	103.5	%			11:08:55
1	Al 396.153Radial†	-9.4	12.2	9.5291	ug/L	9.5291	ppb	11:08:55
1	Ca 317.933Radial†	26.2	3.9	6.0487	ug/L	6.0487	ppb	11:09:15
1	Fe 238.204 Radial†	12.2	-1.5	-13.334	ug/L	-13.334	ppb	11:09:15
1	K 766.490 Radial†	3458.0	1.0	0.1713	ug/L	0.1713	ppb	11:08:55
1	Mg 279.077 IEC†	1.9	-0.9	-29.281	ug/L	-29.281	ppb	11:09:15
1	Na 589.592 Radial†	-1736.5	123.0	34.908	ug/L	34.908	ppb	11:08:55
1	Sr 421.552†	2.0	-9.1	-0.0597	ug/L	-0.0597	ppb	11:08:55
1	Sc 361.383	933812.7	933812.7	99.474	%			11:10:11
1	Y 371.029	815864.0	815864.0	99.725	%			11:10:11
1	Ag 328.068†	586.9	124.4	0.5102	ug/L	0.5102	ppb	11:10:17
1	As 188.979†	-31.6	3.1	1.0017	ug/L	1.0017	ppb	11:10:37
1	B 249.677†	153.4	550.3	10.740	ug/L	10.740	ppb	11:10:17
1	Ba 233.527†	17.1	-2.9	-0.0204	ug/L	-0.0204	ppb	11:10:37
1	Be 313.107†	-4576.0	101.2	0.0321	ug/L	0.0321	ppb	11:10:17
1	Cd 226.502†	-250.0	5.3	0.0494	ug/L	0.0494	ppb	11:10:37
1	Co 228.616†	-83.7	10.1	0.1799	ug/L	0.1799	ppb	11:10:37
1	Cr 267.716†	101.4	-31.8	-0.2985	ug/L	-0.2985	ppb	11:10:17
1	Cu 324.752†	8443.2	4.6	0.0124	ug/L	0.0124	ppb	11:10:17
1	Mn 257.610†	629.2	-4.0	-0.0048	ug/L	-0.0048	ppb	11:10:17
1	Mo 202.031†	35.4	10.1	0.5956	ug/L	0.5956	ppb	11:10:37
1	Ni 231.604†	150.4	12.3	0.2543	ug/L	0.2543	ppb	11:10:37
1	P 214.914†	270.8	1.0	0.4789	ug/L	0.4789	ppb	11:10:37
1	Pb 220.353†	-92.8	-8.6	-0.8521	ug/L	-0.8521	ppb	11:10:37
1	S 181.975 Axial†	71.4	10.1	11.083	ug/L	11.083	ppb	11:10:37
1	Sb 206.836†	46.0	1.0	0.3033	ug/L	0.3033	ppb	11:10:37
1	Se 196.026†	-39.0	-6.5	-3.1312	ug/L	-3.1312	ppb	11:10:37
1	Si 251.611†	799.1	64.0	1.6909	ug/L	1.6909	ppb	11:10:37
1	Sn 189.927†	5.2	1.8	0.2546	ug/L	0.2546	ppb	11:10:37
1	Ti 334.940†	-1700.5	-4.7	-0.0062	ug/L	-0.0062	ppb	11:10:17
1	Tl 190.801†	-50.2	-1.0	-0.2609	ug/L	-0.2609	ppb	11:10:37
1	U 409.014†	-2930.0	-26.8	-0.7406	ug/L	-0.7406	ppb	11:10:11
1	V 292.402†	-1814.8	-14.3	-0.0756	ug/L	-0.0756	ppb	11:10:17
1	Zn 213.857†	969.4	59.9	0.4678	ug/L	0.4678	ppb	11:10:37
1	SiO2†	893.4	140.1	8.0048	ug/L	8.0048	ppb	11:11:43
2	Sc Radial	5014.9	5014.9	101	%			11:09:20
2	Y RADIAL	5403.8	5403.8	101.9	%			11:09:20
2	Al 396.153Radial†	-17.9	3.7	2.8615	ug/L	2.8615	ppb	11:09:20
2	Ca 317.933Radial†	15.6	-6.1	-9.5691	ug/L	-9.5691	ppb	11:09:40
2	Fe 238.204 Radial†	9.3	-4.1	-35.934	ug/L	-35.934	ppb	11:09:40
2	K 766.490 Radial†	3503.1	121.4	23.106	ug/L	23.106	ppb	11:09:20
2	Mg 279.077 IEC†	1.6	-1.1	-36.695	ug/L	-36.695	ppb	11:09:40
2	Na 589.592 Radial†	-1781.3	40.7	11.547	ug/L	11.547	ppb	11:09:20
2	Sr 421.552†	-24.5	-35.2	-0.2311	ug/L	-0.2311	ppb	11:09:20
2	Sc 361.383	969188.3	969188.3	103.24	%			11:10:42
2	Y 371.029	845350.8	845350.8	103.33	%			11:10:42
2	Ag 328.068†	619.8	134.7	0.5432	ug/L	0.5432	ppb	11:10:47
2	As 188.979†	-31.7	4.1	1.3487	ug/L	1.3487	ppb	11:11:07
2	B 249.677†	35.5	430.4	8.4039	ug/L	8.4039	ppb	11:10:47
2	Ba 233.527†	15.5	-5.1	-0.0339	ug/L	-0.0339	ppb	11:11:07
2	Be 313.107†	-4733.9	116.1	0.0370	ug/L	0.0370	ppb	11:10:47
2	Cd 226.502†	-264.9	0.0	0.0038	ug/L	0.0038	ppb	11:11:07
2	Co 228.616†	-98.2	-0.8	-0.0140	ug/L	-0.0140	ppb	11:11:07
2	Cr 267.716†	85.1	-51.4	-0.4837	ug/L	-0.4837	ppb	11:10:47
2	Cu 324.752†	8684.0	-71.9	-0.2069	ug/L	-0.2069	ppb	11:10:47
2	Mn 257.610†	628.2	-28.1	-0.0308	ug/L	-0.0308	ppb	11:10:47
2	Mo 202.031†	29.0	2.6	0.1488	ug/L	0.1488	ppb	11:11:07
2	Ni 231.604†	131.1	-11.9	-0.2460	ug/L	-0.2460	ppb	11:11:07

2	P 214.914†	261.7	-17.7	-7.9473	ug/L	-7.9473	ppb	11:11:07
2	Pb 220.353†	-96.0	-8.4	-0.8283	ug/L	-0.8283	ppb	11:11:07
2	S 181.975 Axial†	74.4	10.4	11.454	ug/L	11.454	ppb	11:11:07
2	Sb 206.836†	54.8	7.9	2.2665	ug/L	2.2665	ppb	11:11:07
2	Se 196.026†	-37.1	-3.2	-1.6407	ug/L	-1.6407	ppb	11:11:07
2	Si 251.611†	810.9	46.1	1.2161	ug/L	1.2161	ppb	11:11:07
2	Sn 189.927†	2.4	-1.1	-0.1574	ug/L	-0.1574	ppb	11:11:07
2	Ti 334.940†	-1698.3	59.8	0.0850	ug/L	0.0850	ppb	11:10:47
2	Tl 190.801†	-54.9	-3.7	-0.9649	ug/L	-0.9649	ppb	11:11:07
2	U 409.014†	-2800.8	205.8	5.7030	ug/L	5.7030	ppb	11:10:42
2	V 292.402†	-1747.8	117.2	0.7076	ug/L	0.7076	ppb	11:10:47
2	Zn 213.857†	979.6	34.2	0.2719	ug/L	0.2719	ppb	11:11:07
2	SiO2†	834.0	49.8	2.8325	ug/L	2.8325	ppb	11:11:48
3	Sc Radial	5011.6	5011.6	101	%			11:09:45
3	Y RADIAL	5369.0	5369.0	101.2	%			11:09:45
3	Al 396.153Radial†	-41.6	-19.8	-15.471	ug/L	-15.471	ppb	11:09:45
3	Ca 317.933Radial†	22.7	0.9	1.4880	ug/L	1.4880	ppb	11:10:05
3	Fe 238.204 Radial†	10.6	-2.8	-24.548	ug/L	-24.548	ppb	11:10:05
3	K 766.490 Radial†	3450.2	71.4	13.571	ug/L	13.571	ppb	11:09:45
3	Mg 279.077 IEC†	2.4	-0.4	-12.136	ug/L	-12.136	ppb	11:10:05
3	Na 589.592 Radial†	-1678.5	141.0	40.018	ug/L	40.018	ppb	11:09:45
3	Sr 421.552†	0.2	-10.8	-0.0710	ug/L	-0.0710	ppb	11:09:45
3	Sc 361.383	969874.6	969874.6	103.32	%			11:11:12
3	Y 371.029	845501.1	845501.1	103.35	%			11:11:12
3	Ag 328.068†	548.0	64.8	0.2596	ug/L	0.2596	ppb	11:11:17
3	As 188.979†	-27.2	8.5	2.7895	ug/L	2.7895	ppb	11:11:37
3	B 249.677†	79.3	472.8	9.2293	ug/L	9.2293	ppb	11:11:17
3	Ba 233.527†	19.1	-1.6	-0.0106	ug/L	-0.0106	ppb	11:11:37
3	Be 313.107†	-4588.6	260.0	0.0828	ug/L	0.0828	ppb	11:11:17
3	Cd 226.502†	-254.5	10.3	0.0949	ug/L	0.0949	ppb	11:11:37
3	Co 228.616†	-79.4	17.3	0.3052	ug/L	0.3052	ppb	11:11:37
3	Cr 267.716†	96.5	-40.3	-0.3795	ug/L	-0.3795	ppb	11:11:17
3	Cu 324.752†	8297.6	-451.9	-1.2899	ug/L	-1.2899	ppb	11:11:17
3	Mn 257.610†	644.1	-13.1	-0.0153	ug/L	-0.0153	ppb	11:11:17
3	Mo 202.031†	25.8	-0.5	-0.0309	ug/L	-0.0309	ppb	11:11:37
3	Ni 231.604†	119.4	-23.3	-0.4830	ug/L	-0.4830	ppb	11:11:37
3	P 214.914†	269.5	-10.3	-4.4282	ug/L	-4.4282	ppb	11:11:37
3	Pb 220.353†	-68.1	18.7	1.8588	ug/L	1.8588	ppb	11:11:37
3	S 181.975 Axial†	72.4	8.4	9.2627	ug/L	9.2627	ppb	11:11:37
3	Sb 206.836†	43.4	-3.3	-0.9008	ug/L	-0.9008	ppb	11:11:37
3	Se 196.026†	-29.8	3.8	1.7444	ug/L	1.7444	ppb	11:11:37
3	Si 251.611†	812.8	47.4	1.2513	ug/L	1.2513	ppb	11:11:37
3	Sn 189.927†	14.6	10.8	1.5245	ug/L	1.5245	ppb	11:11:37
3	Ti 334.940†	-1704.8	54.7	0.0797	ug/L	0.0797	ppb	11:11:17
3	Tl 190.801†	-52.7	-1.6	-0.4184	ug/L	-0.4184	ppb	11:11:37
3	U 409.014†	-2945.8	67.4	1.8692	ug/L	1.8692	ppb	11:11:12
3	V 292.402†	-1813.3	54.9	0.3301	ug/L	0.3301	ppb	11:11:17
3	Zn 213.857†	973.8	27.8	0.2238	ug/L	0.2238	ppb	11:11:37
3	SiO2†	879.4	93.2	5.3204	ug/L	5.3204	ppb	11:11:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	957625.2	102.01	%	2.197				2.15%
Sc Radial	5051.8	102	%	1.4				1.32%
Y 371.029	835572.0	102.13	%	2.086				2.04%
Y RADIAL	5421.1	102.2	%	1.18				1.15%
Ag 328.068†	108.0	0.4377	ug/L	0.15506	0.4377	ppb	0.15506	35.43%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.3	-1.0267	ug/L	12.94548	-1.0267	ppb	12.94548	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.2	1.7133	ug/L	0.94805	1.7133	ppb	0.94805	55.33%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	484.5	9.4576	ug/L	1.18452	9.4576	ppb	1.18452	12.52%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.2	-0.0217	ug/L	0.01173	-0.0217	ppb	0.01173	54.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	159.1	0.0506	ug/L	0.02792	0.0506	ppb	0.02792	55.13%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.4	-0.6774	ug/L	8.03097	-0.6774	ppb	8.03097	>999.9%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                5.2      0.0494 ug/L       0.04555      0.0494 ppb        0.04555  92.27%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                8.9      0.1571 ug/L       0.16083      0.1571 ppb        0.16083 102.41%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -41.2     -0.3873 ug/L       0.09283     -0.3873 ppb        0.09283  23.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -173.1     -0.4948 ug/L       0.69730     -0.4948 ppb        0.69730 140.93%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -2.8     -24.605 ug/L       11.3000     -24.605 ppb        11.3000  45.92%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         64.6      12.283 ug/L       11.5215      12.283 ppb        11.5215  93.80%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.8     -26.037 ug/L       12.5967     -26.037 ppb        12.5967  48.38%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -15.1     -0.0169 ug/L       0.01309     -0.0169 ppb        0.01309  77.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.1      0.2378 ug/L       0.32261      0.2378 ppb        0.32261 135.64%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       101.6      28.824 ug/L       15.1792      28.824 ppb        15.1792  52.66%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -7.6     -0.1583 ug/L       0.37641     -0.1583 ppb        0.37641 237.85%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -9.0     -3.9655 ug/L       4.23210     -3.9655 ppb        4.23210 106.72%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                0.6      0.0595 ug/L       1.55835      0.0595 ppb        1.55835 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           9.6      10.600 ug/L        1.1729      10.600 ppb         1.1729  11.07%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                1.9      0.5563 ug/L       1.59873      0.5563 ppb        1.59873 287.37%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.0     -1.0091 ug/L       2.49841     -1.0091 ppb        2.49841 247.58%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               52.5      1.3861 ug/L       0.26454      1.3861 ppb        0.26454  19.08%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.8      0.5406 ug/L       0.87668      0.5406 ppb        0.87668 162.17%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -18.4     -0.1206 ug/L       0.09584     -0.1206 ppb        0.09584  79.47%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               36.6      0.0529 ug/L       0.05120      0.0529 ppb        0.05120  96.86%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -2.1     -0.5481 ug/L       0.36948     -0.5481 ppb        0.36948  67.42%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                82.1      2.2772 ug/L       3.24112      2.2772 ppb        3.24112 142.33%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                52.6      0.3207 ug/L       0.39167      0.3207 ppb        0.39167 122.13%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               40.6      0.3212 ug/L       0.12921      0.3212 ppb        0.12921  40.23%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     94.4      5.3859 ug/L       2.58676      5.3859 ppb        2.58676  48.03%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/29/2009 12:19:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5412.6	5412.6	109	%			12:21:24
1	Y RADIAL	5717.0	5717.0	107.8	%			12:21:24
1	Al 396.153Radial†	6070.2	5567.8	4336.4	ug/L	4336.4	ppb	12:21:24
1	Ca 317.933Radial†	3213.5	2914.8	4568.0	ug/L	4568.0	ppb	12:21:44
1	Fe 238.204 Radial†	601.3	536.1	4723.6	ug/L	4723.6	ppb	12:21:44
1	K 766.490 Radial†	29232.0	23376.6	4442.3	ug/L	4442.3	ppb	12:21:24
1	Mg 279.077 IEC†	167.4	150.3	4812.4	ug/L	4812.4	ppb	12:21:44
1	Na 589.592 Radial†	34928.8	33712.7	9564.9	ug/L	9564.9	ppb	12:21:24
1	Sr 421.552†	75792.2	69242.2	454.64	ug/L	454.64	ppb	12:21:24
1	Sc 361.383	938755.0	938755.0	100.00	%			12:22:43
1	Y 371.029	808946.9	808946.9	98.879	%			12:22:43
1	Ag 328.068†	122004.6	121538.6	505.80	ug/L	505.80	ppb	12:22:43
1	As 188.979†	1504.1	1539.0	510.26	ug/L	510.26	ppb	12:23:03
1	B 249.677†	25005.1	25401.0	493.77	ug/L	493.77	ppb	12:22:43
1	Ba 233.527†	74358.7	74338.3	506.60	ug/L	506.60	ppb	12:22:43
1	Be 313.107†	1597263.4	1601959.5	509.88	ug/L	509.88	ppb	12:22:43
1	Cd 226.502†	55795.5	56051.9	504.85	ug/L	504.85	ppb	12:22:43
1	Co 228.616†	28140.3	28234.4	496.77	ug/L	496.77	ppb	12:23:03
1	Cr 267.716†	53929.7	53795.8	506.26	ug/L	506.26	ppb	12:22:43
1	Cu 324.752†	185916.9	177433.1	506.21	ug/L	506.21	ppb	12:22:43
1	Mn 257.610†	513732.9	513094.6	509.44	ug/L	509.44	ppb	12:22:43
1	Mo 202.031†	8647.6	8622.1	507.95	ug/L	507.95	ppb	12:23:03
1	Ni 231.604†	24260.2	24121.3	499.04	ug/L	499.04	ppb	12:23:03
1	P 214.914†	5827.0	5555.8	2442.8	ug/L	2442.8	ppb	12:23:03
1	Pb 220.353†	5057.7	5142.3	511.83	ug/L	511.83	ppb	12:23:03
1	S 181.975 Axial†	990.9	929.2	1019.8	ug/L	1019.8	ppb	12:23:03
1	Sb 206.836†	1796.9	1751.6	509.12	ug/L	509.12	ppb	12:23:03
1	Se 196.026†	1021.8	1054.5	517.04	ug/L	517.04	ppb	12:23:03
1	Si 251.611†	95557.8	94818.1	2510.4	ug/L	2510.4	ppb	12:22:43
1	Sn 189.927†	3557.8	3554.3	503.81	ug/L	503.81	ppb	12:23:03
1	Ti 334.940†	343636.3	345339.9	507.10	ug/L	507.10	ppb	12:22:43
1	Tl 190.801†	1876.7	1926.1	507.83	ug/L	507.83	ppb	12:23:03
1	U 409.014†	14571.1	17489.8	482.55	ug/L	482.55	ppb	12:22:43
1	V 292.402†	83960.2	85770.0	511.69	ug/L	511.69	ppb	12:22:43
1	Zn 213.857†	65744.6	64829.7	502.37	ug/L	502.37	ppb	12:22:43
1	SiO2†	93181.3	92423.0	5271.1	ug/L	5271.1	ppb	12:24:04
2	Sc Radial	5004.6	5004.6	101	%			12:21:49
2	Y RADIAL	5313.3	5313.3	100.2	%			12:21:49
2	Al 396.153Radial†	6287.7	6234.9	4858.8	ug/L	4858.8	ppb	12:21:49
2	Ca 317.933Radial†	3339.3	3278.5	5137.8	ug/L	5137.8	ppb	12:22:09
2	Fe 238.204 Radial†	628.9	608.2	5356.5	ug/L	5356.5	ppb	12:22:09
2	K 766.490 Radial†	29958.7	26272.2	4993.1	ug/L	4993.1	ppb	12:21:49
2	Mg 279.077 IEC†	173.0	168.2	5384.8	ug/L	5384.8	ppb	12:22:09
2	Na 589.592 Radial†	36101.2	37473.1	10632	ug/L	10632	ppb	12:21:49
2	Sr 421.552†	78420.9	77485.6	508.77	ug/L	508.77	ppb	12:21:49
2	Sc 361.383	939561.4	939561.4	100.09	%			12:23:11
2	Y 371.029	810106.4	810106.4	99.021	%			12:23:11
2	Ag 328.068†	122645.6	122074.4	508.23	ug/L	508.23	ppb	12:23:11
2	As 188.979†	1489.0	1522.5	504.99	ug/L	504.99	ppb	12:23:31
2	B 249.677†	25226.4	25600.8	497.60	ug/L	497.60	ppb	12:23:11
2	Ba 233.527†	74888.3	74803.7	509.78	ug/L	509.78	ppb	12:23:11
2	Be 313.107†	1610488.1	1613801.9	513.65	ug/L	513.65	ppb	12:23:11
2	Cd 226.502†	56282.6	56490.7	508.73	ug/L	508.73	ppb	12:23:11
2	Co 228.616†	27905.7	27975.8	492.19	ug/L	492.19	ppb	12:23:31
2	Cr 267.716†	54285.9	54105.3	509.18	ug/L	509.18	ppb	12:23:11
2	Cu 324.752†	186873.0	178228.8	508.51	ug/L	508.51	ppb	12:23:11
2	Mn 257.610†	517117.0	516034.9	512.41	ug/L	512.41	ppb	12:23:11
2	Mo 202.031†	8566.6	8533.8	502.81	ug/L	502.81	ppb	12:23:31
2	Ni 231.604†	24053.7	23894.1	494.34	ug/L	494.34	ppb	12:23:31

2	P 214.914†	5753.4	5477.2	2406.4 ug/L	2406.4 ppb	12:23:31
2	Pb 220.353†	4986.2	5066.5	504.36 ug/L	504.36 ppb	12:23:31
2	S 181.975 Axial†	975.3	912.8	1001.7 ug/L	1001.7 ppb	12:23:31
2	Sb 206.836†	1775.7	1728.9	502.33 ug/L	502.33 ppb	12:23:31
2	Se 196.026†	1004.0	1035.8	510.21 ug/L	510.21 ppb	12:23:31
2	Si 251.611†	96106.0	95283.8	2522.7 ug/L	2522.7 ppb	12:23:11
2	Sn 189.927†	3523.1	3516.6	498.54 ug/L	498.54 ppb	12:23:31
2	Ti 334.940†	345770.8	347177.7	509.82 ug/L	509.82 ppb	12:23:11
2	Tl 190.801†	1856.0	1903.9	502.07 ug/L	502.07 ppb	12:23:31
2	U 409.014†	14839.0	17744.9	489.53 ug/L	489.53 ppb	12:23:11
2	V 292.402†	84414.5	86151.8	513.79 ug/L	513.79 ppb	12:23:11
2	Zn 213.857†	66254.5	65282.7	505.89 ug/L	505.89 ppb	12:23:11
2	SiO2†	94336.5	93497.2	5332.4 ug/L	5332.4 ppb	12:24:09
3	Sc Radial	4911.5	4911.5	99.3 %		12:22:14
3	Y RADIAL	5224.7	5224.7	98.49 %		12:22:14
3	Al 396.153Radial†	6302.9	6368.1	4962.9 ug/L	4962.9 ppb	12:22:14
3	Ca 317.933Radial†	3232.5	3233.5	5067.4 ug/L	5067.4 ppb	12:22:34
3	Fe 238.204 Radial†	610.9	601.9	5301.3 ug/L	5301.3 ppb	12:22:34
3	K 766.490 Radial†	29653.6	26526.4	5041.5 ug/L	5041.5 ppb	12:22:14
3	Mg 279.077 IEC†	164.7	163.2	5223.7 ug/L	5223.7 ppb	12:22:34
3	Na 589.592 Radial†	35740.6	37786.5	10721 ug/L	10721 ppb	12:22:14
3	Sr 421.552†	77809.9	78339.9	514.38 ug/L	514.38 ppb	12:22:14
3	Sc 361.383	934403.2	934403.2	99.537 %		12:23:38
3	Y 371.029	805224.2	805224.2	98.424 %		12:23:38
3	Ag 328.068†	121755.6	121856.6	507.31 ug/L	507.31 ppb	12:23:38
3	As 188.979†	1488.5	1530.3	507.52 ug/L	507.52 ppb	12:23:58
3	B 249.677†	25031.5	25544.1	496.48 ug/L	496.48 ppb	12:23:38
3	Ba 233.527†	74330.1	74655.9	508.77 ug/L	508.77 ppb	12:23:38
3	Be 313.107†	1595423.3	1607549.7	511.66 ug/L	511.66 ppb	12:23:38
3	Cd 226.502†	55895.3	56412.1	508.03 ug/L	508.03 ppb	12:23:38
3	Co 228.616†	28043.0	28267.7	497.34 ug/L	497.34 ppb	12:23:58
3	Cr 267.716†	53921.7	54038.9	508.55 ug/L	508.55 ppb	12:23:38
3	Cu 324.752†	185235.2	177614.1	506.75 ug/L	506.75 ppb	12:23:38
3	Mn 257.610†	513620.2	515374.0	511.75 ug/L	511.75 ppb	12:23:38
3	Mo 202.031†	8581.0	8595.4	506.43 ug/L	506.43 ppb	12:23:58
3	Ni 231.604†	24134.7	24108.1	498.76 ug/L	498.76 ppb	12:23:58
3	P 214.914†	5788.6	5544.3	2437.2 ug/L	2437.2 ppb	12:23:58
3	Pb 220.353†	5005.0	5112.9	509.00 ug/L	509.00 ppb	12:23:58
3	S 181.975 Axial†	974.4	917.2	1006.5 ug/L	1006.5 ppb	12:23:58
3	Sb 206.836†	1792.3	1755.4	510.07 ug/L	510.07 ppb	12:23:58
3	Se 196.026†	1023.4	1060.8	521.91 ug/L	521.91 ppb	12:23:58
3	Si 251.611†	95350.6	95055.0	2516.5 ug/L	2516.5 ppb	12:23:38
3	Sn 189.927†	3536.8	3549.9	503.24 ug/L	503.24 ppb	12:23:58
3	Ti 334.940†	343188.0	346489.9	508.81 ug/L	508.81 ppb	12:23:38
3	Tl 190.801†	1870.5	1928.6	508.53 ug/L	508.53 ppb	12:23:58
3	U 409.014†	14537.1	17523.4	483.41 ug/L	483.41 ppb	12:23:38
3	V 292.402†	83786.5	85986.5	512.87 ug/L	512.87 ppb	12:23:38
3	Zn 213.857†	65812.5	65204.1	505.26 ug/L	505.26 ppb	12:23:38
3	SiO2†	93769.1	93447.4	5329.4 ug/L	5329.4 ppb	12:24:14

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	937573.2	99.874	%	0.2956				0.30%
Sc Radial	5109.6	103	%	5.4				5.22%
Y 371.029	808092.5	98.775	%	0.3118				0.32%
Y RADIAL	5418.3	102.1	%	4.95				4.84%
Ag 328.068†	121823.2	507.11	ug/L	1.223	507.11	ppb	1.223	0.24%
QC value within limits for Ag 328.068 Recovery = 101.42%								
Al 396.153Radial†	6056.9	4719.3	ug/L	335.71	4719.3	ppb	335.71	7.11%
QC value within limits for Al 396.153Radial Recovery = 94.39%								
As 188.979†	1530.6	507.59	ug/L	2.639	507.59	ppb	2.639	0.52%
QC value within limits for As 188.979 Recovery = 101.52%								
B 249.677†	25515.3	495.95	ug/L	1.968	495.95	ppb	1.968	0.40%
QC value within limits for B 249.677 Recovery = 99.19%								
Ba 233.527†	74599.3	508.38	ug/L	1.628	508.38	ppb	1.628	0.32%
QC value within limits for Ba 233.527 Recovery = 101.68%								
Be 313.107†	1607770.4	511.73	ug/L	1.885	511.73	ppb	1.885	0.37%
QC value within limits for Be 313.107 Recovery = 102.35%								
Ca 317.933Radial†	3142.3	4924.4	ug/L	310.67	4924.4	ppb	310.67	6.31%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.49%
Cd 226.502†            56318.3      507.21 ug/L         2.072      507.21 ppb          2.072   0.41%
   QC value within limits for Cd 226.502  Recovery = 101.44%
Co 228.616†            28159.3      495.43 ug/L         2.821      495.43 ppb          2.821   0.57%
   QC value within limits for Co 228.616  Recovery = 99.09%
Cr 267.716†            53980.0      508.00 ug/L         1.538      508.00 ppb          1.538   0.30%
   QC value within limits for Cr 267.716  Recovery = 101.60%
Cu 324.752†           177758.7      507.15 ug/L         1.202      507.15 ppb          1.202   0.24%
   QC value within limits for Cu 324.752  Recovery = 101.43%
Fe 238.204 Radial†       582.1      5127.2 ug/L        350.55      5127.2 ppb         350.55   6.84%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.54%
K 766.490 Radial†      25391.7      4825.6 ug/L        332.86      4825.6 ppb         332.86   6.90%
   QC value within limits for K 766.490 Radial  Recovery = 96.51%
Mg 279.077 IEC†          160.6      5140.3 ug/L        295.19      5140.3 ppb         295.19   5.74%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.81%
Mn 257.610†           514834.5      511.20 ug/L         1.560      511.20 ppb          1.560   0.31%
   QC value within limits for Mn 257.610  Recovery = 102.24%
Mo 202.031†             8583.8      505.73 ug/L         2.641      505.73 ppb          2.641   0.52%
   QC value within limits for Mo 202.031  Recovery = 101.15%
Na 589.592 Radial†     36324.1       10306 ug/L         643.2       10306 ppb          643.2   6.24%
   QC value within limits for Na 589.592 Radial  Recovery = 103.06%
Ni 231.604†            24041.1      497.38 ug/L         2.639      497.38 ppb          2.639   0.53%
   QC value within limits for Ni 231.604  Recovery = 99.48%
P 214.914†              5525.8      2428.8 ug/L        19.61      2428.8 ppb         19.61   0.81%
   QC value within limits for P 214.914  Recovery = 97.15%
Pb 220.353†             5107.2      508.40 ug/L         3.774      508.40 ppb          3.774   0.74%
   QC value within limits for Pb 220.353  Recovery = 101.68%
S 181.975 Axial†         919.8      1009.4 ug/L         9.40      1009.4 ppb          9.40   0.93%
   QC value within limits for S 181.975 Axial  Recovery = 100.94%
Sb 206.836†             1745.3      507.18 ug/L         4.222      507.18 ppb          4.222   0.83%
   QC value within limits for Sb 206.836  Recovery = 101.44%
Se 196.026†             1050.4      516.38 ug/L         5.880      516.38 ppb          5.880   1.14%
   QC value within limits for Se 196.026  Recovery = 103.28%
Si 251.611†            95052.3      2516.5 ug/L         6.16      2516.5 ppb          6.16   0.24%
   QC value within limits for Si 251.611  Recovery = 100.66%
Sn 189.927†             3540.3      501.86 ug/L         2.893      501.86 ppb          2.893   0.58%
   QC value within limits for Sn 189.927  Recovery = 100.37%
Sr 421.552†            75022.5      492.60 ug/L        32.989      492.60 ppb         32.989   6.70%
   QC value within limits for Sr 421.552  Recovery = 98.52%
Ti 334.940†           346335.8      508.58 ug/L         1.378      508.58 ppb          1.378   0.27%
   QC value within limits for Ti 334.940  Recovery = 101.72%
Tl 190.801†             1919.5      506.14 ug/L         3.542      506.14 ppb          3.542   0.70%
   QC value within limits for Tl 190.801  Recovery = 101.23%
U 409.014†             17586.0      485.16 ug/L         3.806      485.16 ppb          3.806   0.78%
   QC value within limits for U 409.014  Recovery = 97.03%
V 292.402†             85969.4      512.78 ug/L         1.052      512.78 ppb          1.052   0.21%
   QC value within limits for V 292.402  Recovery = 102.56%
Zn 213.857†            65105.5      504.51 ug/L         1.874      504.51 ppb          1.874   0.37%
   QC value within limits for Zn 213.857  Recovery = 100.90%
SiO2†                  93122.5      5311.0 ug/L        34.59      5311.0 ppb         34.59   0.65%
   QC value within limits for SiO2  Recovery = 99.32%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 12/29/2009 12:26:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4943.4	4943.4	100.0	%			12:28:17
1	Y RADIAL	5310.1	5310.1	100.1	%			12:28:17
1	Al 396.153Radial†	258.2	279.6	218.38	ug/L	218.38	ppb	12:28:17
1	Ca 317.933Radial†	151.3	130.0	203.65	ug/L	203.65	ppb	12:28:37
1	Fe 238.204 Radial†	25.3	12.0	105.81	ug/L	105.81	ppb	12:28:37
1	K 766.490 Radial†	4215.5	884.0	168.09	ug/L	168.09	ppb	12:28:17
1	Mg 279.077 IEC†	13.5	10.8	345.00	ug/L	345.00	ppb	12:28:37
1	Na 589.592 Radial†	-670.0	1127.2	319.80	ug/L	319.80	ppb	12:28:17
1	Sr 421.552†	752.7	742.0	4.8707	ug/L	4.8707	ppb	12:28:17
1	Sc 361.383	927584.8	927584.8	98.810	%			12:29:35
1	Y 371.029	810278.9	810278.9	99.042	%			12:29:35
1	Ag 328.068†	1777.0	1332.8	5.5186	ug/L	5.5186	ppb	12:29:35
1	As 188.979†	57.6	93.1	30.631	ug/L	30.631	ppb	12:29:55
1	B 249.677†	2032.9	2453.4	47.847	ug/L	47.847	ppb	12:29:55
1	Ba 233.527†	798.5	788.0	5.3707	ug/L	5.3707	ppb	12:29:55
1	Be 313.107†	10794.0	15625.3	4.9733	ug/L	4.9733	ppb	12:29:35
1	Cd 226.502†	298.1	558.3	5.0227	ug/L	5.0227	ppb	12:29:55
1	Co 228.616†	190.1	286.6	5.0578	ug/L	5.0578	ppb	12:29:55
1	Cr 267.716†	622.2	495.9	4.6528	ug/L	4.6528	ppb	12:29:55
1	Cu 324.752†	11580.7	3236.9	9.2357	ug/L	9.2357	ppb	12:29:35
1	Mn 257.610†	10791.3	10284.6	10.208	ug/L	10.208	ppb	12:29:35
1	Mo 202.031†	207.8	184.9	10.891	ug/L	10.891	ppb	12:29:55
1	Ni 231.604†	384.5	250.2	5.1772	ug/L	5.1772	ppb	12:29:55
1	P 214.914†	589.5	325.4	146.22	ug/L	146.22	ppb	12:29:55
1	Pb 220.353†	19.5	104.4	10.420	ug/L	10.420	ppb	12:29:55
1	S 181.975 Axial†	158.2	98.4	108.02	ug/L	108.02	ppb	12:29:55
1	Sb 206.836†	82.2	38.0	11.193	ug/L	11.193	ppb	12:29:55
1	Se 196.026†	25.6	58.6	28.185	ug/L	28.185	ppb	12:29:55
1	Si 251.611†	4428.9	3742.8	99.284	ug/L	99.284	ppb	12:29:55
1	Sn 189.927†	81.1	78.6	11.156	ug/L	11.156	ppb	12:29:55
1	Ti 334.940†	1617.0	3341.2	4.8927	ug/L	4.8927	ppb	12:29:35
1	Tl 190.801†	14.0	63.6	16.732	ug/L	16.732	ppb	12:29:55
1	U 409.014†	-936.0	1971.4	54.546	ug/L	54.546	ppb	12:29:35
1	V 292.402†	-938.5	860.3	5.3099	ug/L	5.3099	ppb	12:29:55
1	Zn 213.857†	2307.6	1420.7	11.040	ug/L	11.040	ppb	12:29:55
1	SiO2†	4585.6	3882.7	221.92	ug/L	221.92	ppb	12:30:51
2	Sc Radial	4960.0	4960.0	100	%			12:28:43
2	Y RADIAL	5302.9	5302.9	99.96	%			12:28:43
2	Al 396.153Radial†	235.1	255.7	199.72	ug/L	199.72	ppb	12:28:43
2	Ca 317.933Radial†	150.3	128.4	201.18	ug/L	201.18	ppb	12:29:03
2	Fe 238.204 Radial†	23.2	9.9	87.091	ug/L	87.091	ppb	12:29:03
2	K 766.490 Radial†	4288.3	942.5	179.21	ug/L	179.21	ppb	12:28:43
2	Mg 279.077 IEC†	11.4	8.6	276.08	ug/L	276.08	ppb	12:29:03
2	Na 589.592 Radial†	-635.4	1163.9	330.22	ug/L	330.22	ppb	12:28:43
2	Sr 421.552†	788.8	775.5	5.0905	ug/L	5.0905	ppb	12:28:43
2	Sc 361.383	949750.2	949750.2	101.17	%			12:30:00
2	Y 371.029	829823.7	829823.7	101.43	%			12:30:00
2	Ag 328.068†	1757.6	1271.7	5.2587	ug/L	5.2587	ppb	12:30:00
2	As 188.979†	54.6	88.8	29.202	ug/L	29.202	ppb	12:30:20
2	B 249.677†	2014.2	2386.9	46.553	ug/L	46.553	ppb	12:30:20
2	Ba 233.527†	782.2	753.0	5.1329	ug/L	5.1329	ppb	12:30:20
2	Be 313.107†	11097.6	15670.4	4.9878	ug/L	4.9878	ppb	12:30:00
2	Cd 226.502†	308.4	561.5	5.0530	ug/L	5.0530	ppb	12:30:20
2	Co 228.616†	180.0	272.1	4.8008	ug/L	4.8008	ppb	12:30:20
2	Cr 267.716†	648.6	507.3	4.7593	ug/L	4.7593	ppb	12:30:20
2	Cu 324.752†	11823.3	3203.2	9.1386	ug/L	9.1386	ppb	12:30:00
2	Mn 257.610†	10994.2	10230.3	10.153	ug/L	10.153	ppb	12:30:00
2	Mo 202.031†	198.6	170.8	10.062	ug/L	10.062	ppb	12:30:20
2	Ni 231.604†	368.5	225.4	4.6621	ug/L	4.6621	ppb	12:30:20

2	P 214.914†	582.2	304.3	136.65 ug/L	136.65 ppb	12:30:20
2	Pb 220.353†	17.2	101.6	10.143 ug/L	10.143 ppb	12:30:20
2	S 181.975 Axial†	163.5	99.9	109.72 ug/L	109.72 ppb	12:30:20
2	Sb 206.836†	86.7	40.4	11.841 ug/L	11.841 ppb	12:30:20
2	Se 196.026†	29.0	61.3	29.401 ug/L	29.401 ppb	12:30:20
2	Si 251.611†	4430.1	3639.4	96.550 ug/L	96.550 ppb	12:30:20
2	Sn 189.927†	68.8	64.6	9.1660 ug/L	9.1660 ppb	12:30:20
2	Ti 334.940†	1739.2	3423.8	5.0130 ug/L	5.0130 ppb	12:30:00
2	Tl 190.801†	32.3	81.4	21.379 ug/L	21.379 ppb	12:30:20
2	U 409.014†	-898.4	2030.7	56.190 ug/L	56.190 ppb	12:30:00
2	V 292.402†	-934.4	886.5	5.4564 ug/L	5.4564 ppb	12:30:20
2	Zn 213.857†	2306.9	1365.5	10.616 ug/L	10.616 ppb	12:30:20
2	SiO2†	4571.5	3760.5	214.95 ug/L	214.95 ppb	12:30:56
3	Sc Radial	4908.7	4908.7	99.3 %		12:29:08
3	Y RADIAL	5222.4	5222.4	98.44 %		12:29:08
3	Al 396.153Radial†	221.4	244.4	190.83 ug/L	190.83 ppb	12:29:08
3	Ca 317.933Radial†	145.6	125.3	196.33 ug/L	196.33 ppb	12:29:28
3	Fe 238.204 Radial†	25.9	12.9	113.02 ug/L	113.02 ppb	12:29:28
3	K 766.490 Radial†	4131.6	829.3	157.66 ug/L	157.66 ppb	12:29:08
3	Mg 279.077 IEC†	13.4	10.8	346.85 ug/L	346.85 ppb	12:29:28
3	Na 589.592 Radial†	-584.3	1208.8	342.95 ug/L	342.95 ppb	12:29:08
3	Sr 421.552†	779.2	774.1	5.0813 ug/L	5.0813 ppb	12:29:08
3	Sc 361.383	955995.9	955995.9	101.84 %		12:30:26
3	Y 371.029	834648.7	834648.7	102.02 %		12:30:26
3	Ag 328.068†	1857.7	1358.5	5.6265 ug/L	5.6265 ppb	12:30:26
3	As 188.979†	54.9	88.8	29.206 ug/L	29.206 ppb	12:30:46
3	B 249.677†	2043.5	2402.7	46.856 ug/L	46.856 ppb	12:30:46
3	Ba 233.527†	792.3	758.0	5.1674 ug/L	5.1674 ppb	12:30:46
3	Be 313.107†	11174.5	15674.3	4.9890 ug/L	4.9890 ppb	12:30:26
3	Cd 226.502†	318.0	568.9	5.1177 ug/L	5.1177 ppb	12:30:46
3	Co 228.616†	200.3	290.9	5.1318 ug/L	5.1318 ppb	12:30:46
3	Cr 267.716†	637.5	492.3	4.6185 ug/L	4.6185 ppb	12:30:46
3	Cu 324.752†	11891.1	3193.4	9.1120 ug/L	9.1120 ppb	12:30:26
3	Mn 257.610†	11115.4	10278.3	10.202 ug/L	10.202 ppb	12:30:26
3	Mo 202.031†	206.1	176.9	10.425 ug/L	10.425 ppb	12:30:46
3	Ni 231.604†	398.7	252.6	5.2262 ug/L	5.2262 ppb	12:30:46
3	P 214.914†	602.4	320.3	143.92 ug/L	143.92 ppb	12:30:46
3	Pb 220.353†	20.5	104.8	10.452 ug/L	10.452 ppb	12:30:46
3	S 181.975 Axial†	167.4	102.7	112.79 ug/L	112.79 ppb	12:30:46
3	Sb 206.836†	73.9	27.3	8.1288 ug/L	8.1288 ppb	12:30:46
3	Se 196.026†	22.9	55.1	26.550 ug/L	26.550 ppb	12:30:46
3	Si 251.611†	4442.5	3623.0	96.109 ug/L	96.109 ppb	12:30:46
3	Sn 189.927†	80.7	75.9	10.763 ug/L	10.763 ppb	12:30:46
3	Ti 334.940†	1754.9	3428.0	5.0185 ug/L	5.0185 ppb	12:30:26
3	Tl 190.801†	25.4	74.4	19.545 ug/L	19.545 ppb	12:30:46
3	U 409.014†	-863.2	2071.0	57.304 ug/L	57.304 ppb	12:30:26
3	V 292.402†	-911.4	915.1	5.6303 ug/L	5.6303 ppb	12:30:46
3	Zn 213.857†	2311.0	1354.6	10.523 ug/L	10.523 ppb	12:30:46
3	SiO2†	4519.5	3680.0	210.32 ug/L	210.32 ppb	12:31:01

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	944443.6	100.61	%	1.590				1.58%
Sc Radial	4937.4	99.8	%	0.53				0.53%
Y 371.029	824917.1	100.83	%	1.577				1.56%
Y RADIAL	5278.4	99.50	%	0.918				0.92%
Ag 328.068†	1321.0	5.4680	ug/L	0.18906	5.4680	ppb	0.18906	3.46%
QC value within limits for Ag 328.068 Recovery = 109.36%								
Al 396.153Radial†	259.9	202.98	ug/L	14.060	202.98	ppb	14.060	6.93%
QC value within limits for Al 396.153Radial Recovery = 101.49%								
As 188.979†	90.2	29.680	ug/L	0.8241	29.680	ppb	0.8241	2.78%
QC value within limits for As 188.979 Recovery = 98.93%								
B 249.677†	2414.3	47.086	ug/L	0.6767	47.086	ppb	0.6767	1.44%
QC value within limits for B 249.677 Recovery = 94.17%								
Ba 233.527†	766.3	5.2237	ug/L	0.12853	5.2237	ppb	0.12853	2.46%
QC value within limits for Ba 233.527 Recovery = 104.47%								
Be 313.107†	15656.7	4.9834	ug/L	0.00878	4.9834	ppb	0.00878	0.18%
QC value within limits for Be 313.107 Recovery = 99.67%								
Ca 317.933Radial†	127.9	200.39	ug/L	3.726	200.39	ppb	3.726	1.86%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.19%
Cd 226.502†              562.9      5.0645 ug/L       0.04854      5.0645 ppb        0.04854   0.96%
   QC value within limits for Cd 226.502  Recovery = 101.29%
Co 228.616†              283.2      4.9968 ug/L       0.17375      4.9968 ppb        0.17375   3.48%
   QC value within limits for Co 228.616  Recovery = 99.94%
Cr 267.716†              498.5      4.6769 ug/L       0.07345      4.6769 ppb        0.07345   1.57%
   QC value within limits for Cr 267.716  Recovery = 93.54%
Cu 324.752†             3211.2      9.1621 ug/L       0.06513      9.1621 ppb        0.06513   0.71%
   QC value within limits for Cu 324.752  Recovery = 91.62%
Fe 238.204 Radial†        11.6      101.98 ug/L        13.386      101.98 ppb         13.386  13.13%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.98%
K 766.490 Radial†        885.3      168.32 ug/L        10.778      168.32 ppb         10.778   6.40%
   QC value within limits for K 766.490 Radial  Recovery = 112.21%
Mg 279.077 IEC†           10.1      322.64 ug/L        40.335      322.64 ppb         40.335  12.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.55%
Mn 257.610†            10264.4      10.188 ug/L        0.0299      10.188 ppb         0.0299   0.29%
   QC value within limits for Mn 257.610  Recovery = 101.88%
Mo 202.031†              177.5      10.459 ug/L        0.4152      10.459 ppb         0.4152   3.97%
   QC value within limits for Mo 202.031  Recovery = 104.59%
Na 589.592 Radial†      1166.6      330.99 ug/L        11.594      330.99 ppb         11.594   3.50%
   QC value within limits for Na 589.592 Radial  Recovery = 110.33%
Ni 231.604†              242.7      5.0218 ug/L       0.31248      5.0218 ppb        0.31248   6.22%
   QC value within limits for Ni 231.604  Recovery = 100.44%
P 214.914†               316.7      142.27 ug/L         4.995      142.27 ppb          4.995   3.51%
   QC value within limits for P 214.914  Recovery = 94.84%
Pb 220.353†              103.6      10.338 ug/L        0.1698      10.338 ppb         0.1698   1.64%
   QC value within limits for Pb 220.353  Recovery = 103.38%
S 181.975 Axial†         100.3      110.18 ug/L         2.419      110.18 ppb          2.419   2.20%
   QC value within limits for S 181.975 Axial  Recovery = 110.18%
Sb 206.836†               35.2      10.387 ug/L        1.9828      10.387 ppb         1.9828  19.09%
   QC value within limits for Sb 206.836  Recovery = 103.87%
Se 196.026†               58.3      28.045 ug/L        1.4309      28.045 ppb         1.4309   5.10%
   QC value within limits for Se 196.026  Recovery = 93.48%
Si 251.611†             3668.4      97.314 ug/L        1.7196      97.314 ppb         1.7196   1.77%
   QC value within limits for Si 251.611  Recovery = 97.31%
Sn 189.927†               73.0      10.362 ug/L        1.0541      10.362 ppb         1.0541  10.17%
   QC value within limits for Sn 189.927  Recovery = 103.62%
Sr 421.552†              763.9      5.0142 ug/L       0.12435      5.0142 ppb        0.12435   2.48%
   QC value within limits for Sr 421.552  Recovery = 100.28%
Ti 334.940†             3397.7      4.9747 ug/L       0.07113      4.9747 ppb        0.07113   1.43%
   QC value within limits for Ti 334.940  Recovery = 99.49%
Tl 190.801†               73.1      19.219 ug/L        2.3403      19.219 ppb         2.3403  12.18%
   QC value within limits for Tl 190.801  Recovery = 96.09%
U 409.014†              2024.4      56.013 ug/L        1.3875      56.013 ppb         1.3875   2.48%
   QC value within limits for U 409.014  Recovery = 112.03%
V 292.402†               887.3      5.4655 ug/L       0.16040      5.4655 ppb        0.16040   2.93%
   QC value within limits for V 292.402  Recovery = 109.31%
Zn 213.857†             1380.3      10.726 ug/L        0.2755      10.726 ppb         0.2755   2.57%
   QC value within limits for Zn 213.857  Recovery = 107.26%
SiO2†                   3774.4      215.73 ug/L         5.836      215.73 ppb          5.836   2.71%
   QC value within limits for SiO2  Recovery = 101.28%
All analyte(s) passed QC.
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Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/29/2009 12:33:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4907.6	4907.6	99.2	%			12:35:05
1	Y RADIAL	5263.8	5263.8	99.23	%			12:35:05
1	Al 396.153Radial†	-9.5	11.7	9.1679	ug/L	9.1679	ppb	12:35:05
1	Ca 317.933Radial†	18.7	-2.6	-4.0684	ug/L	-4.0684	ppb	12:35:25
1	Fe 238.204 Radial†	11.9	-1.3	-11.167	ug/L	-11.167	ppb	12:35:25
1	K 766.490 Radial†	3480.3	173.9	33.095	ug/L	33.095	ppb	12:35:05
1	Mg 279.077 IEC†	2.5	-0.2	-6.1930	ug/L	-6.1930	ppb	12:35:25
1	Na 589.592 Radial†	-1666.6	117.9	33.450	ug/L	33.450	ppb	12:35:05
1	Sr 421.552†	11.8	0.9	0.0059	ug/L	0.0059	ppb	12:35:05
1	Sc 361.383	941652.2	941652.2	100.31	%			12:36:22
1	Y 371.029	820772.0	820772.0	100.32	%			12:36:22
1	Ag 328.068†	524.3	57.1	0.2274	ug/L	0.2274	ppb	12:36:27
1	As 188.979†	-41.0	-6.1	-1.9966	ug/L	-1.9966	ppb	12:36:47
1	B 249.677†	-549.0	-151.2	-2.9500	ug/L	-2.9500	ppb	12:36:27
1	Ba 233.527†	54.1	33.9	0.2295	ug/L	0.2295	ppb	12:36:47
1	Be 313.107†	-4618.8	96.8	0.0308	ug/L	0.0308	ppb	12:36:27
1	Cd 226.502†	-269.1	-11.6	-0.1037	ug/L	-0.1037	ppb	12:36:47
1	Co 228.616†	-82.1	12.4	0.2180	ug/L	0.2180	ppb	12:36:47
1	Cr 267.716†	133.6	-0.5	-0.0071	ug/L	-0.0071	ppb	12:36:27
1	Cu 324.752†	8123.7	-384.6	-1.0972	ug/L	-1.0972	ppb	12:36:27
1	Mn 257.610†	609.8	-28.7	-0.0295	ug/L	-0.0295	ppb	12:36:27
1	Mo 202.031†	25.2	-0.3	-0.0214	ug/L	-0.0214	ppb	12:36:47
1	Ni 231.604†	140.4	1.1	0.0219	ug/L	0.0219	ppb	12:36:47
1	P 214.914†	276.0	4.0	1.9835	ug/L	1.9835	ppb	12:36:47
1	Pb 220.353†	-67.9	16.9	1.6810	ug/L	1.6810	ppb	12:36:47
1	S 181.975 Axial†	76.7	14.8	16.251	ug/L	16.251	ppb	12:36:47
1	Sb 206.836†	39.7	-5.7	-1.6448	ug/L	-1.6448	ppb	12:36:47
1	Se 196.026†	-36.9	-4.1	-1.9613	ug/L	-1.9613	ppb	12:36:47
1	Si 251.611†	728.9	-12.7	-0.3471	ug/L	-0.3471	ppb	12:36:47
1	Sn 189.927†	-1.7	-5.1	-0.7160	ug/L	-0.7160	ppb	12:36:47
1	Ti 334.940†	-1707.3	2.8	0.0016	ug/L	0.0016	ppb	12:36:27
1	Tl 190.801†	-44.5	5.0	1.3201	ug/L	1.3201	ppb	12:36:47
1	U 409.014†	-2740.8	186.3	5.1589	ug/L	5.1589	ppb	12:36:22
1	V 292.402†	-1853.9	-38.1	-0.2129	ug/L	-0.2129	ppb	12:36:27
1	Zn 213.857†	1001.3	83.6	0.6549	ug/L	0.6549	ppb	12:36:47
1	SiO2†	711.1	-49.2	-2.8363	ug/L	-2.8363	ppb	12:37:53
2	Sc Radial	4907.9	4907.9	99.2	%			12:35:30
2	Y RADIAL	5235.0	5235.0	98.68	%			12:35:30
2	Al 396.153Radial†	-11.0	10.3	8.0290	ug/L	8.0290	ppb	12:35:30
2	Ca 317.933Radial†	18.9	-2.4	-3.7001	ug/L	-3.7001	ppb	12:35:50
2	Fe 238.204 Radial†	13.8	0.7	5.9185	ug/L	5.9185	ppb	12:35:50
2	K 766.490 Radial†	3483.2	176.6	33.618	ug/L	33.618	ppb	12:35:30
2	Mg 279.077 IEC†	2.8	0.1	3.9333	ug/L	3.9333	ppb	12:35:50
2	Na 589.592 Radial†	-1655.8	128.9	36.567	ug/L	36.567	ppb	12:35:30
2	Sr 421.552†	10.1	-0.8	-0.0054	ug/L	-0.0054	ppb	12:35:30
2	Sc 361.383	934099.8	934099.8	99.504	%			12:36:52
2	Y 371.029	815991.5	815991.5	99.740	%			12:36:52
2	Ag 328.068†	620.1	157.6	0.6505	ug/L	0.6505	ppb	12:36:57
2	As 188.979†	-37.6	-2.9	-0.9607	ug/L	-0.9607	ppb	12:37:17
2	B 249.677†	-529.5	-136.1	-2.6564	ug/L	-2.6564	ppb	12:36:57
2	Ba 233.527†	48.4	28.5	0.1940	ug/L	0.1940	ppb	12:37:17
2	Be 313.107†	-4608.9	69.5	0.0223	ug/L	0.0223	ppb	12:36:57
2	Cd 226.502†	-235.9	19.5	0.1756	ug/L	0.1756	ppb	12:37:17
2	Co 228.616†	-95.6	-1.8	-0.0317	ug/L	-0.0317	ppb	12:37:17
2	Cr 267.716†	135.3	2.2	0.0195	ug/L	0.0195	ppb	12:36:57
2	Cu 324.752†	8423.7	-17.6	-0.0499	ug/L	-0.0499	ppb	12:36:57
2	Mn 257.610†	653.9	20.5	0.0209	ug/L	0.0209	ppb	12:36:57
2	Mo 202.031†	29.2	3.9	0.2310	ug/L	0.2310	ppb	12:37:17
2	Ni 231.604†	152.1	13.9	0.2880	ug/L	0.2880	ppb	12:37:17

2	P 214.914†	273.5	3.7	1.6767 ug/L	1.6767 ppb	12:37:17
2	Pb 220.353†	-78.8	5.4	0.5414 ug/L	0.5414 ppb	12:37:17
2	S 181.975 Axial†	74.7	13.4	14.724 ug/L	14.724 ppb	12:37:17
2	Sb 206.836†	46.0	1.0	0.2890 ug/L	0.2890 ppb	12:37:17
2	Se 196.026†	-33.3	-0.7	-0.3335 ug/L	-0.3335 ppb	12:37:17
2	Si 251.611†	768.8	33.2	0.8698 ug/L	0.8698 ppb	12:37:17
2	Sn 189.927†	1.5	-1.9	-0.2754 ug/L	-0.2754 ppb	12:37:17
2	Ti 334.940†	-1616.5	80.2	0.1158 ug/L	0.1158 ppb	12:36:57
2	Tl 190.801†	-51.9	-2.7	-0.7104 ug/L	-0.7104 ppb	12:37:17
2	U 409.014†	-2755.7	149.3	4.1313 ug/L	4.1313 ppb	12:36:52
2	V 292.402†	-1798.0	3.2	0.0289 ug/L	0.0289 ppb	12:36:57
2	Zn 213.857†	1018.1	108.5	0.8453 ug/L	0.8453 ppb	12:37:17
2	SiO2†	787.8	33.7	1.8985 ug/L	1.8985 ppb	12:37:58
3	Sc Radial	4855.6	4855.6	98.2 %		12:35:55
3	Y RADIAL	5214.0	5214.0	98.29 %		12:35:55
3	Al 396.153Radial†	-8.9	12.2	9.5526 ug/L	9.5526 ppb	12:35:55
3	Ca 317.933Radial†	20.4	-0.6	-1.0115 ug/L	-1.0115 ppb	12:36:15
3	Fe 238.204 Radial†	11.3	-1.7	-15.136 ug/L	-15.136 ppb	12:36:15
3	K 766.490 Radial†	3348.9	77.5	14.749 ug/L	14.749 ppb	12:35:55
3	Mg 279.077 IEC†	4.9	2.3	73.446 ug/L	73.446 ppb	12:36:15
3	Na 589.592 Radial†	-1634.2	133.0	37.725 ug/L	37.725 ppb	12:35:55
3	Sr 421.552†	37.2	26.9	0.1766 ug/L	0.1766 ppb	12:35:55
3	Sc 361.383	926869.1	926869.1	98.734 %		12:37:23
3	Y 371.029	809959.4	809959.4	99.003 %		12:37:23
3	Ag 328.068†	551.5	92.9	0.3835 ug/L	0.3835 ppb	12:37:28
3	As 188.979†	-40.9	-6.6	-2.1652 ug/L	-2.1652 ppb	12:37:48
3	B 249.677†	-593.9	-205.4	-4.0073 ug/L	-4.0073 ppb	12:37:28
3	Ba 233.527†	46.0	26.5	0.1797 ug/L	0.1797 ppb	12:37:48
3	Be 313.107†	-4535.9	107.3	0.0341 ug/L	0.0341 ppb	12:37:28
3	Cd 226.502†	-257.3	-4.0	-0.0345 ug/L	-0.0345 ppb	12:37:48
3	Co 228.616†	-80.2	13.0	0.2291 ug/L	0.2291 ppb	12:37:48
3	Cr 267.716†	72.8	-60.0	-0.5621 ug/L	-0.5621 ppb	12:37:28
3	Cu 324.752†	8359.4	-16.6	-0.0481 ug/L	-0.0481 ppb	12:37:28
3	Mn 257.610†	633.2	4.8	0.0018 ug/L	0.0018 ppb	12:37:28
3	Mo 202.031†	30.2	5.1	0.2977 ug/L	0.2977 ppb	12:37:48
3	Ni 231.604†	132.7	-4.5	-0.0938 ug/L	-0.0938 ppb	12:37:48
3	P 214.914†	257.0	-10.9	-4.9139 ug/L	-4.9139 ppb	12:37:48
3	Pb 220.353†	-77.2	6.5	0.6449 ug/L	0.6449 ppb	12:37:48
3	S 181.975 Axial†	68.1	7.3	7.9913 ug/L	7.9913 ppb	12:37:48
3	Sb 206.836†	41.7	-3.0	-0.8242 ug/L	-0.8242 ppb	12:37:48
3	Se 196.026†	-27.8	4.5	2.0945 ug/L	2.0945 ppb	12:37:48
3	Si 251.611†	734.2	4.3	0.1010 ug/L	0.1010 ppb	12:37:48
3	Sn 189.927†	8.9	5.6	0.7966 ug/L	0.7966 ppb	12:37:48
3	Ti 334.940†	-1682.1	1.1	0.0040 ug/L	0.0040 ppb	12:37:28
3	Tl 190.801†	-35.6	13.4	3.4975 ug/L	3.4975 ppb	12:37:48
3	U 409.014†	-3061.7	-182.3	-5.0439 ug/L	-5.0439 ppb	12:37:23
3	V 292.402†	-1792.1	-5.0	-0.0311 ug/L	-0.0311 ppb	12:37:28
3	Zn 213.857†	1010.7	109.0	0.8508 ug/L	0.8508 ppb	12:37:48
3	SiO2†	748.3	-0.1	-0.0336 ug/L	-0.0336 ppb	12:38:03

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	934207.0	99.516	%	0.7874				0.79%
Sc Radial	4890.4	98.9	%	0.61				0.62%
Y 371.029	815574.3	99.689	%	0.6623				0.66%
Y RADIAL	5237.6	98.73	%	0.472				0.48%
Ag 328.068†	102.6	0.4205	ug/L	0.21398	0.4205	ppb	0.21398	50.89%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	11.4	8.9165	ug/L	0.79230	8.9165	ppb	0.79230	8.89%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-5.2	-1.7075	ug/L	0.65223	-1.7075	ppb	0.65223	38.20%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-164.3	-3.2046	ug/L	0.71051	-3.2046	ppb	0.71051	22.17%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	29.6	0.2010	ug/L	0.02566	0.2010	ppb	0.02566	12.76%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	91.2	0.0290	ug/L	0.00608	0.0290	ppb	0.00608	20.92%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.9	-2.9267	ug/L	1.66878	-2.9267	ppb	1.66878	57.02%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                1.3      0.0125 ug/L       0.14548      0.0125 ppb        0.14548 >999.9%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                7.8      0.1385 ug/L       0.14749      0.1385 ppb        0.14749 106.51%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -19.4     -0.1832 ug/L       0.32835     -0.1832 ppb        0.32835 179.19%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -139.6     -0.3984 ug/L       0.60520     -0.3984 ppb        0.60520 151.91%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.8     -6.7948 ug/L      11.18747     -6.7948 ppb       11.18747 164.65%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        142.7      27.154 ug/L       10.7460      27.154 ppb        10.7460  39.57%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.7      23.729 ug/L       43.3530      23.729 ppb        43.3530 182.70%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -1.1     -0.0022 ug/L       0.02544     -0.0022 ppb        0.02544 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                2.9      0.1691 ug/L       0.16828      0.1691 ppb        0.16828  99.52%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       126.6      35.914 ug/L        2.2110      35.914 ppb         2.2110   6.16%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                3.5      0.0721 ug/L       0.19577      0.0721 ppb        0.19577 271.66%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -1.1     -0.4179 ug/L       3.89665     -0.4179 ppb        3.89665 932.43%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                9.6      0.9558 ug/L       0.63019      0.9558 ppb        0.63019  65.93%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          11.8      12.989 ug/L        4.3948      12.989 ppb         4.3948  33.84%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.6     -0.7266 ug/L       0.97058     -0.7266 ppb        0.97058 133.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -0.1     -0.0668 ug/L       2.04097     -0.0668 ppb        2.04097 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                8.3      0.2079 ug/L       0.61545      0.2079 ppb        0.61545 296.03%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.5     -0.0649 ug/L       0.77793     -0.0649 ppb        0.77793 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                9.0      0.0590 ug/L       0.10199      0.0590 ppb        0.10199 172.75%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               28.0      0.0405 ug/L       0.06527      0.0405 ppb        0.06527 161.24%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                5.2      1.3691 ug/L       2.10434      1.3691 ppb        2.10434 153.71%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                51.1      1.4154 ug/L       5.61749      1.4154 ppb        5.61749 396.88%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -13.3     -0.0717 ug/L       0.12593     -0.0717 ppb        0.12593 175.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              100.3      0.7837 ug/L       0.11156      0.7837 ppb        0.11156  14.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -5.2     -0.3238 ug/L       2.38072     -0.3238 ppb        2.38072 735.19%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/29/2009 13:35:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4691.4	4691.4	94.9	%			13:37:37
1	Y RADIAL	4985.1	4985.1	93.97	%			13:37:37
1	Al 396.153Radial†	6086.9	6438.1	5018.2	ug/L	5018.2	ppb	13:37:37
1	Ca 317.933Radial†	3164.8	3314.9	5194.9	ug/L	5194.9	ppb	13:37:57
1	Fe 238.204 Radial†	595.5	614.5	5411.6	ug/L	5411.6	ppb	13:37:57
1	K 766.490 Radial†	28471.8	26681.3	5071.4	ug/L	5071.4	ppb	13:37:37
1	Mg 279.077 IEC†	162.3	168.4	5391.3	ug/L	5391.3	ppb	13:37:57
1	Na 589.592 Radial†	33071.2	36660.8	10401	ug/L	10401	ppb	13:37:37
1	Sr 421.552†	73951.1	77947.5	511.80	ug/L	511.80	ppb	13:37:37
1	Sc 361.383	949169.3	949169.3	101.11	%			13:38:56
1	Y 371.029	819132.0	819132.0	100.12	%			13:38:56
1	Ag 328.068†	118661.6	116893.7	486.75	ug/L	486.75	ppb	13:38:56
1	As 188.979†	1477.8	1496.4	496.23	ug/L	496.23	ppb	13:39:16
1	B 249.677†	24125.3	24256.5	471.38	ug/L	471.38	ppb	13:38:56
1	Ba 233.527†	72213.6	71400.9	486.60	ug/L	486.60	ppb	13:38:56
1	Be 313.107†	1552325.4	1539989.6	490.16	ug/L	490.16	ppb	13:38:56
1	Cd 226.502†	54361.7	54021.7	486.48	ug/L	486.48	ppb	13:38:56
1	Co 228.616†	27761.0	27550.5	484.74	ug/L	484.74	ppb	13:39:16
1	Cr 267.716†	52461.5	51752.0	487.04	ug/L	487.04	ppb	13:38:56
1	Cu 324.752†	179759.7	169303.6	483.06	ug/L	483.06	ppb	13:38:56
1	Mn 257.610†	498963.0	492850.2	489.41	ug/L	489.41	ppb	13:38:56
1	Mo 202.031†	8515.9	8396.9	494.76	ug/L	494.76	ppb	13:39:16
1	Ni 231.604†	23969.5	23567.6	487.58	ug/L	487.58	ppb	13:39:16
1	P 214.914†	5761.2	5426.7	2387.5	ug/L	2387.5	ppb	13:39:16
1	Pb 220.353†	4942.8	4973.2	495.13	ug/L	495.13	ppb	13:39:16
1	S 181.975 Axial†	957.0	884.8	970.88	ug/L	970.88	ppb	13:39:16
1	Sb 206.836†	1741.8	1677.4	487.82	ug/L	487.82	ppb	13:39:16
1	Se 196.026†	1005.3	1027.0	506.19	ug/L	506.19	ppb	13:39:16
1	Si 251.611†	92619.3	90863.4	2405.3	ug/L	2405.3	ppb	13:38:56
1	Sn 189.927†	3505.3	3463.4	491.00	ug/L	491.00	ppb	13:39:16
1	Ti 334.940†	333488.3	331533.0	486.86	ug/L	486.86	ppb	13:38:56
1	Tl 190.801†	1845.1	1874.3	494.10	ug/L	494.10	ppb	13:39:16
1	U 409.014†	14214.8	16977.5	468.32	ug/L	468.32	ppb	13:38:56
1	V 292.402†	81589.5	82504.1	492.19	ug/L	492.19	ppb	13:38:56
1	Zn 213.857†	63725.5	62111.4	481.18	ug/L	481.18	ppb	13:38:56
1	SiO2†	92911.4	91133.6	5197.3	ug/L	5197.3	ppb	13:40:16
2	Sc Radial	4754.8	4754.8	96.1	%			13:38:02
2	Y RADIAL	5038.6	5038.6	94.98	%			13:38:02
2	Al 396.153Radial†	6104.9	6371.2	4965.6	ug/L	4965.6	ppb	13:38:02
2	Ca 317.933Radial†	3165.0	3270.5	5125.4	ug/L	5125.4	ppb	13:38:22
2	Fe 238.204 Radial†	586.1	596.4	5252.5	ug/L	5252.5	ppb	13:38:22
2	K 766.490 Radial†	28542.4	26354.4	5009.0	ug/L	5009.0	ppb	13:38:02
2	Mg 279.077 IEC†	165.7	169.7	5432.0	ug/L	5432.0	ppb	13:38:22
2	Na 589.592 Radial†	33088.8	36214.1	10275	ug/L	10275	ppb	13:38:02
2	Sr 421.552†	74108.7	77071.7	506.05	ug/L	506.05	ppb	13:38:02
2	Sc 361.383	923469.1	923469.1	98.372	%			13:39:23
2	Y 371.029	797301.7	797301.7	97.456	%			13:39:23
2	Ag 328.068†	118772.7	120272.7	500.72	ug/L	500.72	ppb	13:39:23
2	As 188.979†	1446.9	1505.7	499.36	ug/L	499.36	ppb	13:39:43
2	B 249.677†	24190.2	24986.6	485.63	ug/L	485.63	ppb	13:39:23
2	Ba 233.527†	72259.1	73434.9	500.45	ug/L	500.45	ppb	13:39:23
2	Be 313.107†	1553153.6	1583558.6	504.02	ug/L	504.02	ppb	13:39:23
2	Cd 226.502†	54484.2	55642.5	501.10	ug/L	501.10	ppb	13:39:23
2	Co 228.616†	27281.3	27827.0	489.59	ug/L	489.59	ppb	13:39:43
2	Cr 267.716†	52570.3	53306.6	501.66	ug/L	501.66	ppb	13:39:23
2	Cu 324.752†	180020.5	174516.5	497.92	ug/L	497.92	ppb	13:39:23
2	Mn 257.610†	499362.5	506990.0	503.42	ug/L	503.42	ppb	13:39:23
2	Mo 202.031†	8367.2	8480.2	499.65	ug/L	499.65	ppb	13:39:43
2	Ni 231.604†	23600.6	23852.2	493.47	ug/L	493.47	ppb	13:39:43

2	P 214.914†	5648.3	5470.6	2405.1	ug/L	2405.1 ppb	13:39:43
2	Pb 220.353†	4887.8	5053.3	503.09	ug/L	503.09 ppb	13:39:43
2	S 181.975 Axial†	948.9	902.9	990.82	ug/L	990.82 ppb	13:39:43
2	Sb 206.836†	1724.0	1707.3	496.23	ug/L	496.23 ppb	13:39:43
2	Se 196.026†	983.7	1032.6	508.38	ug/L	508.38 ppb	13:39:43
2	Si 251.611†	92914.1	93712.4	2481.0	ug/L	2481.0 ppb	13:39:23
2	Sn 189.927†	3450.9	3504.6	496.83	ug/L	496.83 ppb	13:39:43
2	Ti 334.940†	333742.8	340970.8	500.71	ug/L	500.71 ppb	13:39:23
2	Tl 190.801†	1815.8	1895.3	499.75	ug/L	499.75 ppb	13:39:43
2	U 409.014†	14245.0	17399.5	480.00	ug/L	480.00 ppb	13:39:23
2	V 292.402†	81578.5	84738.6	505.44	ug/L	505.44 ppb	13:39:23
2	Zn 213.857†	63875.4	64017.8	496.03	ug/L	496.03 ppb	13:39:23
2	SiO2†	92653.9	93429.3	5328.7	ug/L	5328.7 ppb	13:40:21
3	Sc Radial	4758.7	4758.7	96.2	%		13:38:27
3	Y RADIAL	5080.8	5080.8	95.78	%		13:38:27
3	Al 396.153Radial†	6239.8	6506.2	5071.5	ug/L	5071.5 ppb	13:38:27
3	Ca 317.933Radial†	3159.3	3261.9	5111.9	ug/L	5111.9 ppb	13:38:47
3	Fe 238.204 Radial†	591.8	601.8	5299.8	ug/L	5299.8 ppb	13:38:47
3	K 766.490 Radial†	29025.7	26832.2	5100.1	ug/L	5100.1 ppb	13:38:27
3	Mg 279.077 IEC†	161.6	165.2	5288.5	ug/L	5288.5 ppb	13:38:47
3	Na 589.592 Radial†	33437.8	36548.3	10369	ug/L	10369 ppb	13:38:27
3	Sr 421.552†	75551.8	78507.8	515.48	ug/L	515.48 ppb	13:38:27
3	Sc 361.383	944102.7	944102.7	100.57	%		13:39:51
3	Y 371.029	814744.7	814744.7	99.588	%		13:39:51
3	Ag 328.068†	119607.3	118463.8	493.22	ug/L	493.22 ppb	13:39:51
3	As 188.979†	1464.0	1490.6	494.34	ug/L	494.34 ppb	13:40:11
3	B 249.677†	24500.1	24757.3	481.16	ug/L	481.16 ppb	13:39:51
3	Ba 233.527†	72681.0	72249.0	492.37	ug/L	492.37 ppb	13:39:51
3	Be 313.107†	1564264.8	1560100.6	496.56	ug/L	496.56 ppb	13:39:51
3	Cd 226.502†	54632.4	54579.4	491.52	ug/L	491.52 ppb	13:39:51
3	Co 228.616†	27604.0	27541.8	484.57	ug/L	484.57 ppb	13:40:11
3	Cr 267.716†	52903.5	52470.0	493.79	ug/L	493.79 ppb	13:39:51
3	Cu 324.752†	181422.7	171911.2	490.49	ug/L	490.49 ppb	13:39:51
3	Mn 257.610†	501896.1	498415.0	494.92	ug/L	494.92 ppb	13:39:51
3	Mo 202.031†	8470.3	8396.8	494.74	ug/L	494.74 ppb	13:40:11
3	Ni 231.604†	23845.2	23571.1	487.66	ug/L	487.66 ppb	13:40:11
3	P 214.914†	5704.4	5400.9	2374.6	ug/L	2374.6 ppb	13:40:11
3	Pb 220.353†	4936.8	4993.5	497.16	ug/L	497.16 ppb	13:40:11
3	S 181.975 Axial†	955.7	888.6	975.04	ug/L	975.04 ppb	13:40:11
3	Sb 206.836†	1746.8	1691.7	491.71	ug/L	491.71 ppb	13:40:11
3	Se 196.026†	1003.4	1030.4	507.49	ug/L	507.49 ppb	13:40:11
3	Si 251.611†	93407.0	92138.3	2439.2	ug/L	2439.2 ppb	13:39:51
3	Sn 189.927†	3475.6	3452.5	489.45	ug/L	489.45 ppb	13:40:11
3	Ti 334.940†	335903.1	335704.1	492.98	ug/L	492.98 ppb	13:39:51
3	Tl 190.801†	1835.9	1875.0	494.36	ug/L	494.36 ppb	13:40:11
3	U 409.014†	14350.4	17187.7	474.14	ug/L	474.14 ppb	13:39:51
3	V 292.402†	82013.4	83358.7	497.24	ug/L	497.24 ppb	13:39:51
3	Zn 213.857†	64271.1	62992.2	488.06	ug/L	488.06 ppb	13:39:51
3	SiO2†	94119.1	92827.7	5294.4	ug/L	5294.4 ppb	13:40:27

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	938913.7	100.02	%	1.450				1.45%
Sc Radial	4735.0	95.7	%	0.76				0.80%
Y 371.029	810392.8	99.056	%	1.4115				1.42%
Y RADIAL	5034.8	94.91	%	0.904				0.95%
Ag 328.068†	118543.4	493.56	ug/L	6.989	493.56	ppb	6.989	1.42%
QC value within limits for Ag 328.068 Recovery = 98.71%								
Al 396.153Radial†	6438.5	5018.4	ug/L	52.95	5018.4	ppb	52.95	1.06%
QC value within limits for Al 396.153Radial Recovery = 100.37%								
As 188.979†	1497.6	496.64	ug/L	2.533	496.64	ppb	2.533	0.51%
QC value within limits for As 188.979 Recovery = 99.33%								
B 249.677†	24666.8	479.39	ug/L	7.291	479.39	ppb	7.291	1.52%
QC value within limits for B 249.677 Recovery = 95.88%								
Ba 233.527†	72361.6	493.14	ug/L	6.958	493.14	ppb	6.958	1.41%
QC value within limits for Ba 233.527 Recovery = 98.63%								
Be 313.107†	1561216.3	496.91	ug/L	6.941	496.91	ppb	6.941	1.40%
QC value within limits for Be 313.107 Recovery = 99.38%								
Ca 317.933Radial†	3282.5	5144.1	ug/L	44.53	5144.1	ppb	44.53	0.87%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.88%
Cd 226.502†            54747.9      493.03 ug/L         7.428      493.03 ppb          7.428   1.51%
   QC value within limits for Cd 226.502  Recovery = 98.61%
Co 228.616†            27639.8      486.30 ug/L         2.848      486.30 ppb          2.848   0.59%
   QC value within limits for Co 228.616  Recovery = 97.26%
Cr 267.716†            52509.5      494.16 ug/L         7.318      494.16 ppb          7.318   1.48%
   QC value within limits for Cr 267.716  Recovery = 98.83%
Cu 324.752†           171910.4      490.49 ug/L         7.429      490.49 ppb          7.429   1.51%
   QC value within limits for Cu 324.752  Recovery = 98.10%
Fe 238.204 Radial†       604.2      5321.3 ug/L        81.71      5321.3 ppb         81.71   1.54%
   QC value within limits for Fe 238.204 Radial  Recovery = 106.43%
K 766.490 Radial†      26622.7      5060.1 ug/L        46.54      5060.1 ppb         46.54   0.92%
   QC value within limits for K 766.490 Radial  Recovery = 101.20%
Mg 279.077 IEC†          167.8      5370.6 ug/L        73.95      5370.6 ppb         73.95   1.38%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.41%
Mn 257.610†           499418.4      495.92 ug/L         7.059      495.92 ppb          7.059   1.42%
   QC value within limits for Mn 257.610  Recovery = 99.18%
Mo 202.031†             8424.7      496.38 ug/L         2.827      496.38 ppb          2.827   0.57%
   QC value within limits for Mo 202.031  Recovery = 99.28%
Na 589.592 Radial†     36474.4       10348 ug/L         65.9       10348 ppb          65.9   0.64%
   QC value within limits for Na 589.592 Radial  Recovery = 103.48%
Ni 231.604†            23663.7      489.57 ug/L         3.380      489.57 ppb          3.380   0.69%
   QC value within limits for Ni 231.604  Recovery = 97.91%
P 214.914†              5432.7      2389.1 ug/L        15.32      2389.1 ppb         15.32   0.64%
   QC value within limits for P 214.914  Recovery = 95.56%
Pb 220.353†             5006.7      498.46 ug/L         4.135      498.46 ppb          4.135   0.83%
   QC value within limits for Pb 220.353  Recovery = 99.69%
S 181.975 Axial†         892.1      978.91 ug/L        10.520      978.91 ppb         10.520   1.07%
   QC value within limits for S 181.975 Axial  Recovery = 97.89%
Sb 206.836†             1692.2      491.92 ug/L         4.208      491.92 ppb          4.208   0.86%
   QC value within limits for Sb 206.836  Recovery = 98.38%
Se 196.026†             1030.0      507.35 ug/L         1.105      507.35 ppb          1.105   0.22%
   QC value within limits for Se 196.026  Recovery = 101.47%
Si 251.611†            92238.0      2441.8 ug/L        37.92      2441.8 ppb         37.92   1.55%
   QC value within limits for Si 251.611  Recovery = 97.67%
Sn 189.927†             3473.5      492.43 ug/L         3.889      492.43 ppb          3.889   0.79%
   QC value within limits for Sn 189.927  Recovery = 98.49%
Sr 421.552†            77842.3      511.11 ug/L         4.753      511.11 ppb          4.753   0.93%
   QC value within limits for Sr 421.552  Recovery = 102.22%
Ti 334.940†           336069.3      493.52 ug/L         6.940      493.52 ppb          6.940   1.41%
   QC value within limits for Ti 334.940  Recovery = 98.70%
Tl 190.801†             1881.5      496.07 ug/L         3.188      496.07 ppb          3.188   0.64%
   QC value within limits for Tl 190.801  Recovery = 99.21%
U 409.014†             17188.2      474.16 ug/L         5.836      474.16 ppb          5.836   1.23%
   QC value within limits for U 409.014  Recovery = 94.83%
V 292.402†             83533.8      498.29 ug/L         6.687      498.29 ppb          6.687   1.34%
   QC value within limits for V 292.402  Recovery = 99.66%
Zn 213.857†            63040.4      488.42 ug/L         7.431      488.42 ppb          7.431   1.52%
   QC value within limits for Zn 213.857  Recovery = 97.68%
SiO2†                  92463.5      5273.4 ug/L        68.15      5273.4 ppb         68.15   1.29%
   QC value within limits for SiO2  Recovery = 98.61%
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/29/2009 13:42:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4889.0	4889.0	98.9	%			13:44:29
1	Y RADIAL	5204.8	5204.8	98.11	%			13:44:29
1	Al 396.153Radial†	1.7	23.0	18.009	ug/L	18.009	ppb	13:44:29
1	Ca 317.933Radial†	16.7	-4.5	-7.0596	ug/L	-7.0596	ppb	13:44:49
1	Fe 238.204 Radial†	11.5	-1.6	-14.328	ug/L	-14.328	ppb	13:44:49
1	K 766.490 Radial†	3322.5	27.6	5.2589	ug/L	5.2589	ppb	13:44:29
1	Mg 279.077 IEC†	3.3	0.6	19.135	ug/L	19.135	ppb	13:44:49
1	Na 589.592 Radial†	-1777.8	-1.0	-0.2766	ug/L	-0.2766	ppb	13:44:29
1	Sr 421.552†	-2.5	-13.5	-0.0886	ug/L	-0.0886	ppb	13:44:29
1	Sc 361.383	901426.9	901426.9	96.024	%			13:45:46
1	Y 371.029	785575.6	785575.6	96.022	%			13:45:46
1	Ag 328.068†	603.9	163.3	0.6785	ug/L	0.6785	ppb	13:45:46
1	As 188.979†	-46.8	-13.9	-4.5664	ug/L	-4.5664	ppb	13:46:06
1	B 249.677†	-393.0	-13.2	-0.2556	ug/L	-0.2556	ppb	13:45:46
1	Ba 233.527†	10.2	-9.4	-0.0651	ug/L	-0.0651	ppb	13:46:06
1	Be 313.107†	-4447.1	70.2	0.0223	ug/L	0.0223	ppb	13:45:46
1	Cd 226.502†	-254.9	-8.8	-0.0777	ug/L	-0.0777	ppb	13:46:06
1	Co 228.616†	-89.1	1.5	0.0272	ug/L	0.0272	ppb	13:46:06
1	Cr 267.716†	156.8	29.6	0.2803	ug/L	0.2803	ppb	13:45:46
1	Cu 324.752†	8123.7	-23.1	-0.0667	ug/L	-0.0667	ppb	13:45:46
1	Mn 257.610†	620.2	9.3	0.0074	ug/L	0.0074	ppb	13:45:46
1	Mo 202.031†	34.4	10.3	0.6073	ug/L	0.6073	ppb	13:46:06
1	Ni 231.604†	119.3	-14.6	-0.3029	ug/L	-0.3029	ppb	13:46:06
1	P 214.914†	262.5	2.2	1.0241	ug/L	1.0241	ppb	13:46:06
1	Pb 220.353†	-100.5	-20.0	-1.9829	ug/L	-1.9829	ppb	13:46:06
1	S 181.975 Axial†	68.1	9.3	10.201	ug/L	10.201	ppb	13:46:06
1	Sb 206.836†	54.9	11.9	3.4124	ug/L	3.4124	ppb	13:46:06
1	Se 196.026†	-45.4	-14.6	-6.9483	ug/L	-6.9483	ppb	13:46:06
1	Si 251.611†	763.2	55.4	1.4609	ug/L	1.4609	ppb	13:46:06
1	Sn 189.927†	2.3	-1.0	-0.1468	ug/L	-0.1468	ppb	13:46:06
1	Ti 334.940†	-1637.4	-0.4	0.0034	ug/L	0.0034	ppb	13:45:46
1	Tl 190.801†	-51.5	-4.2	-1.0897	ug/L	-1.0897	ppb	13:46:06
1	U 409.014†	-3152.1	-363.9	-10.073	ug/L	-10.073	ppb	13:45:46
1	V 292.402†	-1783.5	-47.3	-0.2866	ug/L	-0.2866	ppb	13:45:46
1	Zn 213.857†	953.7	78.5	0.6156	ug/L	0.6156	ppb	13:46:06
1	SiO2†	826.0	102.1	5.8277	ug/L	5.8277	ppb	13:47:02
2	Sc Radial	4774.3	4774.3	96.5	%			13:44:54
2	Y RADIAL	5100.6	5100.6	96.15	%			13:44:54
2	Al 396.153Radial†	-24.5	-4.1	-3.2450	ug/L	-3.2450	ppb	13:44:54
2	Ca 317.933Radial†	20.3	-0.4	-0.6190	ug/L	-0.6190	ppb	13:45:14
2	Fe 238.204 Radial†	12.0	-0.8	-7.0130	ug/L	-7.0130	ppb	13:45:14
2	K 766.490 Radial†	3287.8	72.4	13.791	ug/L	13.791	ppb	13:44:54
2	Mg 279.077 IEC†	3.6	1.0	33.242	ug/L	33.242	ppb	13:45:14
2	Na 589.592 Radial†	-1789.8	-56.6	-16.061	ug/L	-16.061	ppb	13:44:54
2	Sr 421.552†	-3.9	-15.0	-0.0987	ug/L	-0.0987	ppb	13:44:54
2	Sc 361.383	895248.3	895248.3	95.366	%			13:46:11
2	Y 371.029	779857.7	779857.7	95.324	%			13:46:11
2	Ag 328.068†	487.5	45.6	0.1974	ug/L	0.1974	ppb	13:46:11
2	As 188.979†	-33.2	0.0	0.0107	ug/L	0.0107	ppb	13:46:31
2	B 249.677†	-518.1	-147.2	-2.8715	ug/L	-2.8715	ppb	13:46:11
2	Ba 233.527†	22.9	3.9	0.0257	ug/L	0.0257	ppb	13:46:31
2	Be 313.107†	-4479.5	4.1	0.0008	ug/L	0.0008	ppb	13:46:11
2	Cd 226.502†	-238.4	6.7	0.0611	ug/L	0.0611	ppb	13:46:31
2	Co 228.616†	-94.1	-4.5	-0.0767	ug/L	-0.0767	ppb	13:46:31
2	Cr 267.716†	137.0	9.9	0.0968	ug/L	0.0968	ppb	13:46:11
2	Cu 324.752†	8149.0	61.7	0.1757	ug/L	0.1757	ppb	13:46:11
2	Mn 257.610†	579.0	-29.5	-0.0306	ug/L	-0.0306	ppb	13:46:11
2	Mo 202.031†	35.4	11.6	0.6826	ug/L	0.6826	ppb	13:46:31
2	Ni 231.604†	140.4	8.3	0.1726	ug/L	0.1726	ppb	13:46:31

2	P 214.914†	269.4	11.3	5.0979	ug/L	5.0979 ppb	13:46:31
2	Pb 220.353†	-75.9	5.0	0.4987	ug/L	0.4987 ppb	13:46:31
2	S 181.975 Axial†	66.9	8.5	9.3249	ug/L	9.3249 ppb	13:46:31
2	Sb 206.836†	40.5	-2.7	-0.7703	ug/L	-0.7703 ppb	13:46:31
2	Se 196.026†	-27.0	4.4	2.0474	ug/L	2.0474 ppb	13:46:31
2	Si 251.611†	760.2	57.7	1.5200	ug/L	1.5200 ppb	13:46:31
2	Sn 189.927†	1.7	-1.6	-0.2326	ug/L	-0.2326 ppb	13:46:31
2	Ti 334.940†	-1789.8	-172.0	-0.2462	ug/L	-0.2462 ppb	13:46:11
2	Tl 190.801†	-45.8	1.4	0.3632	ug/L	0.3632 ppb	13:46:31
2	U 409.014†	-3288.4	-529.5	-14.656	ug/L	-14.656 ppb	13:46:11
2	V 292.402†	-1786.1	-62.8	-0.3864	ug/L	-0.3864 ppb	13:46:11
2	Zn 213.857†	956.8	88.6	0.6904	ug/L	0.6904 ppb	13:46:31
2	SiO2†	800.1	81.0	4.6075	ug/L	4.6075 ppb	13:47:07
3	Sc Radial	4830.9	4830.9	97.7	%		13:45:19
3	Y RADIAL	5177.9	5177.9	97.61	%		13:45:19
3	Al 396.153Radial†	2.9	24.3	19.007	ug/L	19.007 ppb	13:45:19
3	Ca 317.933Radial†	18.3	-2.7	-4.2332	ug/L	-4.2332 ppb	13:45:39
3	Fe 238.204 Radial†	14.0	1.1	9.6928	ug/L	9.6928 ppb	13:45:39
3	K 766.490 Radial†	3198.7	-58.8	-11.176	ug/L	-11.176 ppb	13:45:19
3	Mg 279.077 IEC†	3.8	1.2	38.650	ug/L	38.650 ppb	13:45:39
3	Na 589.592 Radial†	-1814.2	-59.9	-16.987	ug/L	-16.987 ppb	13:45:19
3	Sr 421.552†	-10.2	-21.5	-0.1410	ug/L	-0.1410 ppb	13:45:19
3	Sc 361.383	889315.3	889315.3	94.734	%		13:46:37
3	Y 371.029	775948.9	775948.9	94.846	%		13:46:37
3	Ag 328.068†	449.0	8.4	0.0454	ug/L	0.0454 ppb	13:46:37
3	As 188.979†	-32.8	0.2	0.0643	ug/L	0.0643 ppb	13:46:57
3	B 249.677†	-432.3	-60.2	-1.1772	ug/L	-1.1772 ppb	13:46:37
3	Ba 233.527†	16.6	-2.6	-0.0182	ug/L	-0.0182 ppb	13:46:57
3	Be 313.107†	-4603.1	-157.6	-0.0502	ug/L	-0.0502 ppb	13:46:37
3	Cd 226.502†	-252.1	-9.5	-0.0865	ug/L	-0.0865 ppb	13:46:57
3	Co 228.616†	-77.1	12.9	0.2280	ug/L	0.2280 ppb	13:46:57
3	Cr 267.716†	103.1	-24.9	-0.2313	ug/L	-0.2313 ppb	13:46:37
3	Cu 324.752†	8070.3	35.7	0.1024	ug/L	0.1024 ppb	13:46:37
3	Mn 257.610†	640.7	39.7	0.0396	ug/L	0.0396 ppb	13:46:37
3	Mo 202.031†	31.7	8.0	0.4718	ug/L	0.4718 ppb	13:46:57
3	Ni 231.604†	133.1	1.6	0.0329	ug/L	0.0329 ppb	13:46:57
3	P 214.914†	268.6	12.3	5.5708	ug/L	5.5708 ppb	13:46:57
3	Pb 220.353†	-81.1	-0.9	-0.0893	ug/L	-0.0893 ppb	13:46:57
3	S 181.975 Axial†	56.5	-2.1	-2.2657	ug/L	-2.2657 ppb	13:46:57
3	Sb 206.836†	58.7	16.7	4.7984	ug/L	4.7984 ppb	13:46:57
3	Se 196.026†	-37.6	-7.0	-3.2963	ug/L	-3.2963 ppb	13:46:57
3	Si 251.611†	733.7	35.1	0.9313	ug/L	0.9313 ppb	13:46:57
3	Sn 189.927†	0.4	-2.9	-0.4166	ug/L	-0.4166 ppb	13:46:57
3	Ti 334.940†	-1666.2	-54.1	-0.0750	ug/L	-0.0750 ppb	13:46:37
3	Tl 190.801†	-45.1	1.8	0.4811	ug/L	0.4811 ppb	13:46:57
3	U 409.014†	-3116.1	-370.7	-10.261	ug/L	-10.261 ppb	13:46:37
3	V 292.402†	-1766.0	-54.1	-0.3320	ug/L	-0.3320 ppb	13:46:37
3	Zn 213.857†	934.6	71.9	0.5596	ug/L	0.5596 ppb	13:46:57
3	SiO2†	798.2	84.6	4.8398	ug/L	4.8398 ppb	13:47:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	895330.2	95.375	%	0.6451				0.68%
Sc Radial	4831.4	97.7	%	1.16				1.19%
Y 371.029	780460.7	95.397	%	0.5918				0.62%
Y RADIAL	5161.1	97.29	%	1.020				1.05%
Ag 328.068†	72.4	0.3071	ug/L	0.33047	0.3071	ppb	0.33047	107.61%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	14.4	11.257	ug/L	12.5688	11.257	ppb	12.5688	111.66%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.5	-1.4971	ug/L	2.65816	-1.4971	ppb	2.65816	177.55%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-73.5	-1.4348	ug/L	1.32679	-1.4348	ppb	1.32679	92.47%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.7	-0.0192	ug/L	0.04541	-0.0192	ppb	0.04541	236.79%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-27.8	-0.0090	ug/L	0.03724	-0.0090	ppb	0.03724	412.07%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.5	-3.9706	ug/L	3.22832	-3.9706	ppb	3.22832	81.31%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -3.9     -0.0343 ug/L       0.08279     -0.0343 ppb        0.08279 241.04%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.3      0.0595 ug/L       0.15493      0.0595 ppb        0.15493 260.33%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 4.8      0.0486 ug/L       0.25921      0.0486 ppb        0.25921 533.34%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                24.8      0.0705 ug/L       0.12434      0.0705 ppb        0.12434 176.49%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.4     -3.8827 ug/L      12.31248     -3.8827 ppb       12.31248 317.11%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          13.7      2.6244 ug/L      12.69038      2.6244 ppb       12.69038 483.56%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.9      30.343 ug/L       10.0753      30.343 ppb        10.0753  33.21%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 6.5      0.0055 ug/L       0.03514      0.0055 ppb        0.03514 638.53%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                10.0      0.5872 ug/L       0.10679      0.5872 ppb        0.10679  18.19%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -39.2     -11.108 ug/L        9.3919     -11.108 ppb         9.3919  84.55%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -1.6     -0.0325 ug/L       0.24442     -0.0325 ppb        0.24442 752.97%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  8.6      3.8976 ug/L       2.49975      3.8976 ppb        2.49975  64.14%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.3     -0.5245 ug/L       1.29678     -0.5245 ppb        1.29678 247.24%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            5.2      5.7535 ug/L       6.95860      5.7535 ppb        6.95860 120.95%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 8.6      2.4802 ug/L       2.89906      2.4802 ppb        2.89906 116.89%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -5.7     -2.7324 ug/L       4.52429     -2.7324 ppb        4.52429 165.58%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                49.4      1.3041 ug/L       0.32419      1.3041 ppb        0.32419  24.86%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -1.9     -0.2653 ug/L       0.13783     -0.2653 ppb        0.13783  51.95%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -16.7     -0.1094 ug/L       0.02777     -0.1094 ppb        0.02777  25.37%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -75.5     -0.1059 ug/L       0.12763     -0.1059 ppb        0.12763 120.47%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.3     -0.0818 ug/L       0.87488     -0.0818 ppb        0.87488 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -421.4     -11.663 ug/L        2.5933     -11.663 ppb         2.5933  22.24%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -54.7     -0.3350 ug/L       0.04992     -0.3350 ppb        0.04992  14.90%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                79.7      0.6219 ug/L       0.06565      0.6219 ppb        0.06565  10.56%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      89.2      5.0917 ug/L       0.64796      5.0917 ppb        0.64796  12.73%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 12/29/2009 14:00:38 **Plasma On Time: 12/28/2009 05:59:12**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\122909A.sif
Batch ID:
Results Data Set: 122909A
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/29/2009 14:00:39**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4806.4	4806.4	97.2	%			14:02:31
1	Y RADIAL	5099.1	5099.1	96.12	%			14:02:31
1	Al 396.153Radial†	6066.8	6263.9	4880.9	ug/L	4880.9	ppb	14:02:31
1	Ca 317.933Radial†	3163.7	3233.8	5067.9	ug/L	5067.9	ppb	14:02:51
1	Fe 238.204 Radial†	586.7	590.4	5200.8	ug/L	5200.8	ppb	14:02:51
1	K 766.490 Radial†	28464.0	25955.1	4933.1	ug/L	4933.1	ppb	14:02:31
1	Mg 279.077 IEC†	164.5	166.5	5331.9	ug/L	5331.9	ppb	14:02:51
1	Na 589.592 Radial†	32495.9	35234.6	9996.7	ug/L	9996.7	ppb	14:02:31
1	Sr 421.552†	73462.5	75579.4	496.25	ug/L	496.25	ppb	14:02:31
1	Sc 361.383	915587.6	915587.6	97.532	%			14:03:50
1	Y 371.029	789464.7	789464.7	96.498	%			14:03:50
1	Ag 328.068†	119507.4	122065.3	508.14	ug/L	508.14	ppb	14:03:50
1	As 188.979†	1472.2	1544.3	512.09	ug/L	512.09	ppb	14:04:10
1	B 249.677†	24317.5	25328.8	492.28	ug/L	492.28	ppb	14:03:50
1	Ba 233.527†	72980.7	74807.1	509.80	ug/L	509.80	ppb	14:03:50
1	Be 313.107†	1562737.2	1606975.7	511.48	ug/L	511.48	ppb	14:03:50
1	Cd 226.502†	54907.0	56552.8	509.32	ug/L	509.32	ppb	14:03:50
1	Co 228.616†	27900.4	28700.5	504.97	ug/L	504.97	ppb	14:04:10
1	Cr 267.716†	53027.7	54235.5	510.40	ug/L	510.40	ppb	14:03:50
1	Cu 324.752†	181040.2	177137.2	505.39	ug/L	505.39	ppb	14:03:50
1	Mn 257.610†	503298.8	515395.7	511.76	ug/L	511.76	ppb	14:03:50
1	Mo 202.031†	8559.3	8750.4	515.55	ug/L	515.55	ppb	14:04:10
1	Ni 231.604†	24020.8	24489.6	506.66	ug/L	506.66	ppb	14:04:10
1	P 214.914†	5790.2	5665.6	2492.6	ug/L	2492.6	ppb	14:04:10
1	Pb 220.353†	4979.8	5190.4	516.71	ug/L	516.71	ppb	14:04:10
1	S 181.975 Axial†	969.3	932.1	1022.9	ug/L	1022.9	ppb	14:04:10
1	Sb 206.836†	1784.2	1784.1	518.58	ug/L	518.58	ppb	14:04:10
1	Se 196.026†	1019.4	1077.8	529.70	ug/L	529.70	ppb	14:04:10
1	Si 251.611†	93464.6	95089.9	2517.3	ug/L	2517.3	ppb	14:03:50
1	Sn 189.927†	3515.8	3601.4	510.53	ug/L	510.53	ppb	14:04:10
1	Ti 334.940†	335929.1	346132.9	508.28	ug/L	508.28	ppb	14:03:50
1	Tl 190.801†	1864.7	1961.4	517.05	ug/L	517.05	ppb	14:04:10
1	U 409.014†	14435.5	17719.4	488.84	ug/L	488.84	ppb	14:03:50
1	V 292.402†	82119.9	86007.5	513.15	ug/L	513.15	ppb	14:03:50
1	Zn 213.857†	64274.6	64986.1	503.51	ug/L	503.51	ppb	14:03:50
1	SiO2†	92378.4	93957.5	5358.3	ug/L	5358.3	ppb	14:05:11
2	Sc Radial	4887.0	4887.0	98.8	%			14:02:56
2	Y RADIAL	5233.5	5233.5	98.66	%			14:02:56
2	Al 396.153Radial†	6083.0	6177.3	4813.6	ug/L	4813.6	ppb	14:02:56
2	Ca 317.933Radial†	3130.6	3146.7	4931.3	ug/L	4931.3	ppb	14:03:16
2	Fe 238.204 Radial†	580.6	574.3	5058.7	ug/L	5058.7	ppb	14:03:16
2	K 766.490 Radial†	28582.4	25592.0	4864.0	ug/L	4864.0	ppb	14:02:56
2	Mg 279.077 IEC†	160.9	160.2	5127.2	ug/L	5127.2	ppb	14:03:16
2	Na 589.592 Radial†	32647.6	34836.8	9883.8	ug/L	9883.8	ppb	14:02:56
2	Sr 421.552†	73806.5	74681.2	490.36	ug/L	490.36	ppb	14:02:56
2	Sc 361.383	923322.1	923322.1	98.356	%			14:04:18
2	Y 371.029	797121.1	797121.1	97.434	%			14:04:18

2	Ag 328.068†	119103.1	120627.8	502.14 ug/L	502.14 ppb	14:04:18
2	As 188.979†	1465.7	1525.0	505.69 ug/L	505.69 ppb	14:04:38
2	B 249.677†	24218.9	25019.7	486.29 ug/L	486.29 ppb	14:04:18
2	Ba 233.527†	72725.7	73920.9	503.76 ug/L	503.76 ppb	14:04:18
2	Be 313.107†	1564741.3	1595591.2	507.85 ug/L	507.85 ppb	14:04:18
2	Cd 226.502†	54820.9	55993.7	504.29 ug/L	504.29 ppb	14:04:18
2	Co 228.616†	27645.4	28201.6	496.19 ug/L	496.19 ppb	14:04:38
2	Cr 267.716†	52939.7	53690.6	505.27 ug/L	505.27 ppb	14:04:18
2	Cu 324.752†	180554.3	175088.4	499.54 ug/L	499.54 ppb	14:04:18
2	Mn 257.610†	502352.0	510110.3	506.50 ug/L	506.50 ppb	14:04:18
2	Mo 202.031†	8474.8	8590.9	506.15 ug/L	506.15 ppb	14:04:38
2	Ni 231.604†	23858.8	24118.6	498.98 ug/L	498.98 ppb	14:04:38
2	P 214.914†	5732.2	5556.8	2444.2 ug/L	2444.2 ppb	14:04:38
2	Pb 220.353†	4931.5	5098.5	507.57 ug/L	507.57 ppb	14:04:38
2	S 181.975 Axial†	954.9	909.2	997.73 ug/L	997.73 ppb	14:04:38
2	Sb 206.836†	1751.7	1735.8	504.51 ug/L	504.51 ppb	14:04:38
2	Se 196.026†	996.0	1045.3	513.79 ug/L	513.79 ppb	14:04:38
2	Si 251.611†	93068.8	93884.7	2485.5 ug/L	2485.5 ppb	14:04:18
2	Sn 189.927†	3480.3	3535.1	501.13 ug/L	501.13 ppb	14:04:38
2	Ti 334.940†	335492.3	342803.6	503.39 ug/L	503.39 ppb	14:04:18
2	Tl 190.801†	1837.5	1917.7	505.59 ug/L	505.59 ppb	14:04:38
2	U 409.014†	14184.2	17339.9	478.36 ug/L	478.36 ppb	14:04:18
2	V 292.402†	82187.9	85371.4	509.27 ug/L	509.27 ppb	14:04:18
2	Zn 213.857†	64213.4	64371.8	498.78 ug/L	498.78 ppb	14:04:18
2	SiO2†	94149.9	94965.3	5416.5 ug/L	5416.5 ppb	14:05:16
3	Sc Radial	4630.2	4630.2	93.6 %		14:03:22
3	Y RADIAL	4920.2	4920.2	92.75 %		14:03:22
3	Al 396.153Radial†	6092.4	6528.8	5088.6 ug/L	5088.6 ppb	14:03:22
3	Ca 317.933Radial†	3116.8	3307.7	5183.6 ug/L	5183.6 ppb	14:03:42
3	Fe 238.204 Radial†	581.1	607.4	5349.9 ug/L	5349.9 ppb	14:03:42
3	K 766.490 Radial†	28565.4	27178.2	5165.8 ug/L	5165.8 ppb	14:03:22
3	Mg 279.077 IEC†	161.6	170.0	5440.5 ug/L	5440.5 ppb	14:03:42
3	Na 589.592 Radial†	32713.1	36739.3	10424 ug/L	10424 ppb	14:03:22
3	Sr 421.552†	73662.7	78670.5	516.55 ug/L	516.55 ppb	14:03:22
3	Sc 361.383	919965.5	919965.5	97.999 %		14:04:45
3	Y 371.029	794183.7	794183.7	97.075 %		14:04:45
3	Ag 328.068†	119239.2	121208.6	504.64 ug/L	504.64 ppb	14:04:45
3	As 188.979†	1467.2	1532.0	508.07 ug/L	508.07 ppb	14:05:05
3	B 249.677†	24217.1	25107.7	487.96 ug/L	487.96 ppb	14:04:45
3	Ba 233.527†	72707.4	74172.1	505.48 ug/L	505.48 ppb	14:04:45
3	Be 313.107†	1564726.2	1601380.4	509.69 ug/L	509.69 ppb	14:04:45
3	Cd 226.502†	54842.4	56219.0	506.29 ug/L	506.29 ppb	14:04:45
3	Co 228.616†	27652.2	28311.1	498.11 ug/L	498.11 ppb	14:05:05
3	Cr 267.716†	52962.2	53910.0	507.34 ug/L	507.34 ppb	14:04:45
3	Cu 324.752†	180608.9	175813.8	501.62 ug/L	501.62 ppb	14:04:45
3	Mn 257.610†	502209.8	511828.7	508.23 ug/L	508.23 ppb	14:04:45
3	Mo 202.031†	8470.6	8618.1	507.77 ug/L	507.77 ppb	14:05:05
3	Ni 231.604†	23848.5	24196.6	500.59 ug/L	500.59 ppb	14:05:05
3	P 214.914†	5719.8	5565.4	2447.6 ug/L	2447.6 ppb	14:05:05
3	Pb 220.353†	4934.1	5119.4	509.69 ug/L	509.69 ppb	14:05:05
3	S 181.975 Axial†	951.4	909.1	997.58 ug/L	997.58 ppb	14:05:05
3	Sb 206.836†	1760.9	1751.6	509.07 ug/L	509.07 ppb	14:05:05
3	Se 196.026†	997.1	1050.1	517.02 ug/L	517.02 ppb	14:05:05
3	Si 251.611†	93210.9	94375.0	2498.4 ug/L	2498.4 ppb	14:04:45
3	Sn 189.927†	3485.6	3553.4	503.75 ug/L	503.75 ppb	14:05:05
3	Ti 334.940†	335446.5	344001.3	505.16 ug/L	505.16 ppb	14:04:45
3	Tl 190.801†	1839.6	1926.7	507.96 ug/L	507.96 ppb	14:05:05
3	U 409.014†	14377.0	17589.3	485.23 ug/L	485.23 ppb	14:04:45
3	V 292.402†	82300.3	85791.0	511.74 ug/L	511.74 ppb	14:04:45
3	Zn 213.857†	64095.3	64489.5	499.66 ug/L	499.66 ppb	14:04:45
3	SiO2†	93250.5	94396.7	5383.6 ug/L	5383.6 ppb	14:05:21

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	919625.1	97.963	%	0.4132				0.42%
Sc Radial	4774.5	96.5	%	2.66				2.75%
Y 371.029	793589.8	97.002	%	0.4721				0.49%
Y RADIAL	5084.3	95.84	%	2.964				3.09%
Ag 328.068†	121300.6	504.97	ug/L	3.012	504.97	ppb	3.012	0.60%

```
   QC value within limits for Ag 328.068  Recovery = 100.99%
Al 396.153Radial†       6323.4      4927.7 ug/L        143.38      4927.7 ppb         143.38   2.91%
   QC value within limits for Al 396.153Radial  Recovery = 98.55%
As 188.979†             1533.8      508.62 ug/L         3.234      508.62 ppb          3.234   0.64%
   QC value within limits for As 188.979  Recovery = 101.72%
B 249.677†             25152.1      488.84 ug/L         3.091      488.84 ppb          3.091   0.63%
   QC value within limits for B 249.677  Recovery = 97.77%
Ba 233.527†            74300.0      506.35 ug/L         3.110      506.35 ppb          3.110   0.61%
   QC value within limits for Ba 233.527  Recovery = 101.27%
Be 313.107†          1601315.8      509.67 ug/L         1.813      509.67 ppb          1.813   0.36%
   QC value within limits for Be 313.107  Recovery = 101.93%
Ca 317.933Radial†       3229.4      5060.9 ug/L        126.26      5060.9 ppb         126.26   2.49%
   QC value within limits for Ca 317.933Radial  Recovery = 101.22%
Cd 226.502†            56255.1      506.63 ug/L         2.531      506.63 ppb          2.531   0.50%
   QC value within limits for Cd 226.502  Recovery = 101.33%
Co 228.616†            28404.4      499.76 ug/L         4.619      499.76 ppb          4.619   0.92%
   QC value within limits for Co 228.616  Recovery = 99.95%
Cr 267.716†            53945.4      507.67 ug/L         2.579      507.67 ppb          2.579   0.51%
   QC value within limits for Cr 267.716  Recovery = 101.53%
Cu 324.752†           176013.2      502.18 ug/L         2.965      502.18 ppb          2.965   0.59%
   QC value within limits for Cu 324.752  Recovery = 100.44%
Fe 238.204 Radial†       590.7      5203.2 ug/L        145.61      5203.2 ppb         145.61   2.80%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.06%
K 766.490 Radial†      26241.8      4987.6 ug/L        158.11      4987.6 ppb         158.11   3.17%
   QC value within limits for K 766.490 Radial  Recovery = 99.75%
Mg 279.077 IEC†          165.6      5299.9 ug/L        159.07      5299.9 ppb         159.07   3.00%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.00%
Mn 257.610†           512444.9      508.83 ug/L         2.678      508.83 ppb          2.678   0.53%
   QC value within limits for Mn 257.610  Recovery = 101.77%
Mo 202.031†             8653.1      509.82 ug/L         5.025      509.82 ppb          5.025   0.99%
   QC value within limits for Mo 202.031  Recovery = 101.96%
Na 589.592 Radial†     35603.6       10101 ug/L         284.7       10101 ppb          284.7   2.82%
   QC value within limits for Na 589.592 Radial  Recovery = 101.01%
Ni 231.604†            24268.3      502.08 ug/L         4.047      502.08 ppb          4.047   0.81%
   QC value within limits for Ni 231.604  Recovery = 100.42%
P 214.914†              5595.9      2461.4 ug/L        27.00      2461.4 ppb         27.00   1.10%
   QC value within limits for P 214.914  Recovery = 98.46%
Pb 220.353†             5136.1      511.32 ug/L         4.784      511.32 ppb          4.784   0.94%
   QC value within limits for Pb 220.353  Recovery = 102.26%
S 181.975 Axial†         916.8      1006.1 ug/L        14.59      1006.1 ppb         14.59   1.45%
   QC value within limits for S 181.975 Axial  Recovery = 100.61%
Sb 206.836†             1757.1      510.72 ug/L         7.182      510.72 ppb          7.182   1.41%
   QC value within limits for Sb 206.836  Recovery = 102.14%
Se 196.026†             1057.8      520.17 ug/L         8.409      520.17 ppb          8.409   1.62%
   QC value within limits for Se 196.026  Recovery = 104.03%
Si 251.611†            94449.8      2500.4 ug/L        16.02      2500.4 ppb         16.02   0.64%
   QC value within limits for Si 251.611  Recovery = 100.02%
Sn 189.927†             3563.3      505.13 ug/L         4.850      505.13 ppb          4.850   0.96%
   QC value within limits for Sn 189.927  Recovery = 101.03%
Sr 421.552†            76310.4      501.05 ug/L        13.741      501.05 ppb         13.741   2.74%
   QC value within limits for Sr 421.552  Recovery = 100.21%
Ti 334.940†           344312.6      505.61 ug/L         2.476      505.61 ppb          2.476   0.49%
   QC value within limits for Ti 334.940  Recovery = 101.12%
Tl 190.801†             1935.2      510.20 ug/L         6.050      510.20 ppb          6.050   1.19%
   QC value within limits for Tl 190.801  Recovery = 102.04%
U 409.014†             17549.5      484.14 ug/L         5.322      484.14 ppb          5.322   1.10%
   QC value within limits for U 409.014  Recovery = 96.83%
V 292.402†             85723.3      511.39 ug/L         1.961      511.39 ppb          1.961   0.38%
   QC value within limits for V 292.402  Recovery = 102.28%
Zn 213.857†            64615.8      500.65 ug/L         2.515      500.65 ppb          2.515   0.50%
   QC value within limits for Zn 213.857  Recovery = 100.13%
SiO2†                  94439.8      5386.2 ug/L        29.19      5386.2 ppb         29.19   0.54%
   QC value within limits for SiO2  Recovery = 100.72%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/29/2009 14:07:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4958.1	4958.1	100	%			14:09:23
1	Y RADIAL	5312.7	5312.7	100.1	%			14:09:23
1	Al 396.153Radial†	-25.4	-4.0	-3.1663	ug/L	-3.1663	ppb	14:09:23
1	Ca 317.933Radial†	21.4	-0.1	-0.0971	ug/L	-0.0971	ppb	14:09:43
1	Fe 238.204 Radial†	14.9	1.6	14.227	ug/L	14.227	ppb	14:09:43
1	K 766.490 Radial†	3380.7	38.9	7.4090	ug/L	7.4090	ppb	14:09:23
1	Mg 279.077 IEC†	3.3	0.6	19.311	ug/L	19.311	ppb	14:09:43
1	Na 589.592 Radial†	-1844.6	-42.5	-12.057	ug/L	-12.057	ppb	14:09:23
1	Sr 421.552†	16.6	5.5	0.0361	ug/L	0.0361	ppb	14:09:23
1	Sc 361.383	935193.0	935193.0	99.621	%			14:10:40
1	Y 371.029	816468.3	816468.3	99.799	%			14:10:40
1	Ag 328.068†	507.0	43.3	0.1852	ug/L	0.1852	ppb	14:10:45
1	As 188.979†	-39.2	-4.5	-1.4702	ug/L	-1.4702	ppb	14:11:05
1	B 249.677†	-491.4	-97.2	-1.8976	ug/L	-1.8976	ppb	14:10:45
1	Ba 233.527†	15.7	-4.3	-0.0277	ug/L	-0.0277	ppb	14:11:05
1	Be 313.107†	-4502.5	181.8	0.0577	ug/L	0.0577	ppb	14:10:45
1	Cd 226.502†	-255.5	0.2	0.0003	ug/L	0.0003	ppb	14:11:05
1	Co 228.616†	-104.4	-10.6	-0.1847	ug/L	-0.1847	ppb	14:11:05
1	Cr 267.716†	180.9	47.9	0.4508	ug/L	0.4508	ppb	14:10:45
1	Cu 324.752†	8001.7	-451.1	-1.2855	ug/L	-1.2855	ppb	14:10:45
1	Mn 257.610†	615.1	-19.2	-0.0180	ug/L	-0.0180	ppb	14:10:45
1	Mo 202.031†	34.2	8.9	0.5225	ug/L	0.5225	ppb	14:11:05
1	Ni 231.604†	131.2	-7.2	-0.1498	ug/L	-0.1498	ppb	14:11:05
1	P 214.914†	259.5	-10.7	-4.6359	ug/L	-4.6359	ppb	14:11:05
1	Pb 220.353†	-85.6	-1.3	-0.1269	ug/L	-0.1269	ppb	14:11:05
1	S 181.975 Axial†	62.2	0.7	0.8204	ug/L	0.8204	ppb	14:11:05
1	Sb 206.836†	64.9	19.9	5.6989	ug/L	5.6989	ppb	14:11:05
1	Se 196.026†	-42.3	-9.8	-4.6035	ug/L	-4.6035	ppb	14:11:05
1	Si 251.611†	745.6	9.1	0.2290	ug/L	0.2290	ppb	14:11:05
1	Sn 189.927†	4.3	0.9	0.1292	ug/L	0.1292	ppb	14:11:05
1	Ti 334.940†	-1727.7	-29.4	-0.0438	ug/L	-0.0438	ppb	14:10:45
1	Tl 190.801†	-53.1	-3.8	-1.0028	ug/L	-1.0028	ppb	14:11:05
1	U 409.014†	-2879.1	28.6	0.7882	ug/L	0.7882	ppb	14:10:40
1	V 292.402†	-1716.3	87.2	0.5206	ug/L	0.5206	ppb	14:10:45
1	Zn 213.857†	917.8	6.7	0.0531	ug/L	0.0531	ppb	14:11:05
1	SiO2†	781.4	26.4	1.4850	ug/L	1.4850	ppb	14:12:11
2	Sc Radial	4941.9	4941.9	99.9	%			14:09:48
2	Y RADIAL	5278.5	5278.5	99.50	%			14:09:48
2	Al 396.153Radial†	-8.1	13.2	10.306	ug/L	10.306	ppb	14:09:48
2	Ca 317.933Radial†	19.7	-1.7	-2.6562	ug/L	-2.6562	ppb	14:10:08
2	Fe 238.204 Radial†	13.1	-0.2	-1.3381	ug/L	-1.3381	ppb	14:10:08
2	K 766.490 Radial†	3433.1	102.3	19.491	ug/L	19.491	ppb	14:09:48
2	Mg 279.077 IEC†	4.6	1.9	59.211	ug/L	59.211	ppb	14:10:08
2	Na 589.592 Radial†	-1899.8	-103.8	-29.445	ug/L	-29.445	ppb	14:09:48
2	Sr 421.552†	-16.4	-27.5	-0.1803	ug/L	-0.1803	ppb	14:09:48
2	Sc 361.383	915209.5	915209.5	97.492	%			14:11:10
2	Y 371.029	799534.1	799534.1	97.729	%			14:11:10
2	Ag 328.068†	567.5	116.4	0.4792	ug/L	0.4792	ppb	14:11:15
2	As 188.979†	-34.7	-0.8	-0.2493	ug/L	-0.2493	ppb	14:11:36
2	B 249.677†	-518.1	-135.4	-2.6421	ug/L	-2.6421	ppb	14:11:15
2	Ba 233.527†	2.6	-17.5	-0.1197	ug/L	-0.1197	ppb	14:11:36
2	Be 313.107†	-4503.1	82.4	0.0259	ug/L	0.0259	ppb	14:11:15
2	Cd 226.502†	-260.0	-10.0	-0.0899	ug/L	-0.0899	ppb	14:11:36
2	Co 228.616†	-82.2	9.9	0.1747	ug/L	0.1747	ppb	14:11:36
2	Cr 267.716†	135.7	5.5	0.0503	ug/L	0.0503	ppb	14:11:15
2	Cu 324.752†	8135.1	-138.9	-0.3961	ug/L	-0.3961	ppb	14:11:15
2	Mn 257.610†	635.5	15.3	0.0139	ug/L	0.0139	ppb	14:11:15
2	Mo 202.031†	29.8	5.1	0.2996	ug/L	0.2996	ppb	14:11:36
2	Ni 231.604†	142.6	7.4	0.1525	ug/L	0.1525	ppb	14:11:36

2	P 214.914†	281.6	17.7	8.0954	ug/L	8.0954 ppb	14:11:36
2	Pb 220.353†	-105.5	-23.6	-2.3413	ug/L	-2.3413 ppb	14:11:36
2	S 181.975 Axial†	67.5	7.6	8.3254	ug/L	8.3254 ppb	14:11:36
2	Sb 206.836†	53.7	9.9	2.8550	ug/L	2.8550 ppb	14:11:36
2	Se 196.026†	-29.2	2.7	1.2945	ug/L	1.2945 ppb	14:11:36
2	Si 251.611†	721.3	0.5	-0.0029	ug/L	-0.0029 ppb	14:11:36
2	Sn 189.927†	11.6	8.5	1.1982	ug/L	1.1982 ppb	14:11:36
2	Ti 334.940†	-1741.2	-81.2	-0.1196	ug/L	-0.1196 ppb	14:11:15
2	Tl 190.801†	-46.8	1.4	0.3687	ug/L	0.3687 ppb	14:11:36
2	U 409.014†	-2834.6	11.2	0.3100	ug/L	0.3100 ppb	14:11:10
2	V 292.402†	-1840.6	-77.9	-0.4520	ug/L	-0.4520 ppb	14:11:15
2	Zn 213.857†	904.4	13.0	0.0992	ug/L	0.0992 ppb	14:11:36
2	SiO2†	791.8	54.1	3.0681	ug/L	3.0681 ppb	14:12:16
3	Sc Radial	4720.7	4720.7	95.5	%		14:10:13
3	Y RADIAL	5037.5	5037.5	94.96	%		14:10:13
3	Al 396.153Radial†	6.3	27.9	21.835	ug/L	21.835 ppb	14:10:13
3	Ca 317.933Radial†	20.4	-0.1	-0.1967	ug/L	-0.1967 ppb	14:10:33
3	Fe 238.204 Radial†	10.8	-2.0	-17.354	ug/L	-17.354 ppb	14:10:33
3	K 766.490 Radial†	3289.1	112.5	21.430	ug/L	21.430 ppb	14:10:13
3	Mg 279.077 IEC†	-1.7	-4.5	-142.32	ug/L	-142.32 ppb	14:10:33
3	Na 589.592 Radial†	-1783.4	-71.0	-20.141	ug/L	-20.141 ppb	14:10:13
3	Sr 421.552†	44.7	35.8	0.2352	ug/L	0.2352 ppb	14:10:13
3	Sc 361.383	925513.7	925513.7	98.590	%		14:11:41
3	Y 371.029	809017.7	809017.7	98.888	%		14:11:41
3	Ag 328.068†	446.2	-13.0	-0.0595	ug/L	-0.0595 ppb	14:11:46
3	As 188.979†	-42.1	-7.9	-2.6017	ug/L	-2.6017 ppb	14:12:06
3	B 249.677†	-558.6	-170.5	-3.3249	ug/L	-3.3249 ppb	14:11:46
3	Ba 233.527†	22.0	2.3	0.0142	ug/L	0.0142 ppb	14:12:06
3	Be 313.107†	-4409.8	228.4	0.0722	ug/L	0.0722 ppb	14:11:46
3	Cd 226.502†	-263.4	-10.5	-0.0933	ug/L	-0.0933 ppb	14:12:06
3	Co 228.616†	-89.0	3.9	0.0714	ug/L	0.0714 ppb	14:12:06
3	Cr 267.716†	84.4	-48.2	-0.4530	ug/L	-0.4530 ppb	14:11:46
3	Cu 324.752†	8047.7	-320.4	-0.9144	ug/L	-0.9144 ppb	14:11:46
3	Mn 257.610†	604.5	-23.4	-0.0223	ug/L	-0.0223 ppb	14:11:46
3	Mo 202.031†	33.6	8.7	0.5080	ug/L	0.5080 ppb	14:12:06
3	Ni 231.604†	139.3	2.4	0.0499	ug/L	0.0499 ppb	14:12:06
3	P 214.914†	265.5	-1.9	-0.6708	ug/L	-0.6708 ppb	14:12:06
3	Pb 220.353†	-70.7	12.9	1.2889	ug/L	1.2889 ppb	14:12:06
3	S 181.975 Axial†	59.8	-1.0	-1.0944	ug/L	-1.0944 ppb	14:12:06
3	Sb 206.836†	50.6	6.0	1.7690	ug/L	1.7690 ppb	14:12:06
3	Se 196.026†	-43.0	-11.0	-5.2458	ug/L	-5.2458 ppb	14:12:06
3	Si 251.611†	731.1	2.1	0.0376	ug/L	0.0376 ppb	14:12:06
3	Sn 189.927†	10.4	7.2	1.0122	ug/L	1.0122 ppb	14:12:06
3	Ti 334.940†	-1793.9	-114.7	-0.1677	ug/L	-0.1677 ppb	14:11:46
3	Tl 190.801†	-47.0	1.8	0.4619	ug/L	0.4619 ppb	14:12:06
3	U 409.014†	-2930.1	-53.3	-1.4722	ug/L	-1.4722 ppb	14:11:41
3	V 292.402†	-1836.9	-53.1	-0.3082	ug/L	-0.3082 ppb	14:11:46
3	Zn 213.857†	933.3	32.0	0.2566	ug/L	0.2566 ppb	14:12:06
3	SiO2†	725.6	-22.0	-1.3057	ug/L	-1.3057 ppb	14:12:21

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	925305.4	98.568	%	1.0645				1.08%
Sc Radial	4873.5	98.5	%	2.68				2.72%
Y 371.029	808340.0	98.805	%	1.0374				1.05%
Y RADIAL	5209.6	98.20	%	2.828				2.88%
Ag 328.068†	48.9	0.2016	ug/L	0.26973	0.2016	ppb	0.26973	133.78%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.4	9.6582	ug/L	12.51305	9.6582	ppb	12.51305	129.56%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.4	-1.4404	ug/L	1.17647	-1.4404	ppb	1.17647	81.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-134.4	-2.6215	ug/L	0.71385	-2.6215	ppb	0.71385	27.23%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.5	-0.0444	ug/L	0.06853	-0.0444	ppb	0.06853	154.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	164.2	0.0519	ug/L	0.02366	0.0519	ppb	0.02366	45.56%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.6	-0.9833	ug/L	1.44959	-0.9833	ppb	1.44959	147.41%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -6.8     -0.0609 ug/L      0.05305     -0.0609 ppb       0.05305  87.05%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               1.1      0.0205 ug/L      0.18505      0.0205 ppb       0.18505 904.59%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               1.7      0.0160 ug/L      0.45290      0.0160 ppb       0.45290 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -303.4     -0.8653 ug/L      0.44674     -0.8653 ppb       0.44674  51.63%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.2     -1.4884 ug/L     15.79102     -1.4884 ppb      15.79102 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        84.5      16.110 ug/L       7.5972      16.110 ppb        7.5972  47.16%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.7     -21.267 ug/L     106.7200     -21.267 ppb     106.7200 501.80%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -9.1     -0.0088 ug/L      0.01979     -0.0088 ppb       0.01979 224.97%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               7.5      0.4434 ug/L      0.12474      0.4434 ppb       0.12474  28.14%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -72.4     -20.547 ug/L       8.7012     -20.547 ppb        8.7012  42.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.8      0.0175 ug/L      0.15374      0.0175 ppb       0.15374 877.54%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                1.7      0.9295 ug/L      6.51479      0.9295 ppb       6.51479 700.85%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -4.0     -0.3931 ug/L      1.82966     -0.3931 ppb       1.82966 465.44%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.4      2.6838 ug/L      4.97869      2.6838 ppb       4.97869 185.51%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              11.9      3.4410 ug/L      2.02940      3.4410 ppb       2.02940  58.98%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -6.0     -2.8516 ug/L      3.60495     -2.8516 ppb       3.60495 126.42%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               3.9      0.0879 ug/L      0.12385      0.0879 ppb       0.12385 140.92%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               5.5      0.7799 ug/L      0.57110      0.7799 ppb       0.57110  73.23%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               4.6      0.0303 ug/L      0.20782      0.0303 ppb       0.20782 684.78%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -75.1     -0.1104 ug/L      0.06251     -0.1104 ppb       0.06251  56.63%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.2     -0.0574 ug/L      0.82005     -0.0574 ppb       0.82005 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -4.5     -0.1247 ug/L      1.19129     -0.1247 ppb       1.19129 955.69%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -14.6     -0.0799 ug/L      0.52498     -0.0799 ppb       0.52498 657.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              17.2      0.1363 ug/L      0.10667      0.1363 ppb       0.10667  78.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    19.5      1.0825 ug/L      2.21453      1.0825 ppb       2.21453 204.58%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/29/2009 15:15:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4852.0	4852.0	98.1	%			15:17:11
1	Y RADIAL	5147.3	5147.3	97.03	%			15:17:11
1	Al 396.153Radial†	6138.4	6278.1	4892.6	ug/L	4892.6	ppb	15:17:11
1	Ca 317.933Radial†	3144.3	3183.5	4989.0	ug/L	4989.0	ppb	15:17:31
1	Fe 238.204 Radial†	586.8	584.9	5151.8	ug/L	5151.8	ppb	15:17:31
1	K 766.490 Radial†	28909.8	26134.1	4967.2	ug/L	4967.2	ppb	15:17:11
1	Mg 279.077 IEC†	163.9	164.3	5261.0	ug/L	5261.0	ppb	15:17:31
1	Na 589.592 Radial†	33016.0	35450.3	10058	ug/L	10058	ppb	15:17:11
1	Sr 421.552†	74276.4	75698.1	497.03	ug/L	497.03	ppb	15:17:11
1	Sc 361.383	926977.1	926977.1	98.746	%			15:18:30
1	Y 371.029	800425.8	800425.8	97.838	%			15:18:30
1	Ag 328.068†	119019.9	120066.1	499.83	ug/L	499.83	ppb	15:18:30
1	As 188.979†	1464.0	1517.4	503.20	ug/L	503.20	ppb	15:18:50
1	B 249.677†	24154.6	24857.5	483.12	ug/L	483.12	ppb	15:18:30
1	Ba 233.527†	72336.8	73235.5	499.09	ug/L	499.09	ppb	15:18:30
1	Be 313.107†	1560871.3	1585399.4	504.61	ug/L	504.61	ppb	15:18:30
1	Cd 226.502†	54453.8	55402.1	498.95	ug/L	498.95	ppb	15:18:30
1	Co 228.616†	27602.6	28047.4	493.48	ug/L	493.48	ppb	15:18:50
1	Cr 267.716†	52752.5	53288.8	501.49	ug/L	501.49	ppb	15:18:30
1	Cu 324.752†	180379.4	174187.4	496.97	ug/L	496.97	ppb	15:18:30
1	Mn 257.610†	500279.2	505997.3	502.43	ug/L	502.43	ppb	15:18:30
1	Mo 202.031†	8465.5	8547.6	503.60	ug/L	503.60	ppb	15:18:50
1	Ni 231.604†	23827.9	23991.6	496.35	ug/L	496.35	ppb	15:18:50
1	P 214.914†	5747.0	5548.8	2440.8	ug/L	2440.8	ppb	15:18:50
1	Pb 220.353†	4935.4	5082.8	506.01	ug/L	506.01	ppb	15:18:50
1	S 181.975 Axial†	959.3	909.8	998.36	ug/L	998.36	ppb	15:18:50
1	Sb 206.836†	1749.0	1725.9	501.69	ug/L	501.69	ppb	15:18:50
1	Se 196.026†	1015.7	1061.3	521.66	ug/L	521.66	ppb	15:18:50
1	Si 251.611†	93081.3	93524.3	2475.9	ug/L	2475.9	ppb	15:18:30
1	Sn 189.927†	3479.0	3519.8	498.97	ug/L	498.97	ppb	15:18:50
1	Ti 334.940†	334174.8	340124.4	499.46	ug/L	499.46	ppb	15:18:30
1	Tl 190.801†	1855.0	1928.0	508.28	ug/L	508.28	ppb	15:18:50
1	U 409.014†	14176.3	17275.0	476.57	ug/L	476.57	ppb	15:18:30
1	V 292.402†	81815.0	84664.3	505.07	ug/L	505.07	ppb	15:18:30
1	Zn 213.857†	63960.4	63858.2	494.77	ug/L	494.77	ppb	15:18:30
1	SiO2†	93268.1	93694.8	5343.8	ug/L	5343.8	ppb	15:19:51
2	Sc Radial	4424.8	4424.8	89.5	%			15:17:36
2	Y RADIAL	4680.9	4680.9	88.24	%			15:17:36
2	Al 396.153Radial†	6188.5	6938.2	5409.1	ug/L	5409.1	ppb	15:17:36
2	Ca 317.933Radial†	3139.1	3487.1	5464.8	ug/L	5464.8	ppb	15:17:56
2	Fe 238.204 Radial†	581.9	637.2	5611.1	ug/L	5611.1	ppb	15:17:56
2	K 766.490 Radial†	29139.9	29236.3	5557.5	ug/L	5557.5	ppb	15:17:36
2	Mg 279.077 IEC†	162.5	178.9	5725.3	ug/L	5725.3	ppb	15:17:56
2	Na 589.592 Radial†	33152.6	38852.1	11023	ug/L	11023	ppb	15:17:36
2	Sr 421.552†	74869.5	83670.7	549.38	ug/L	549.38	ppb	15:17:36
2	Sc 361.383	915776.7	915776.7	97.553	%			15:18:58
2	Y 371.029	790842.9	790842.9	96.666	%			15:18:58
2	Ag 328.068†	117806.1	120296.0	500.93	ug/L	500.93	ppb	15:18:58
2	As 188.979†	1441.9	1512.9	501.79	ug/L	501.79	ppb	15:19:18
2	B 249.677†	23891.7	24887.2	483.63	ug/L	483.63	ppb	15:18:58
2	Ba 233.527†	71641.5	73418.7	500.35	ug/L	500.35	ppb	15:18:58
2	Be 313.107†	1545046.4	1588510.2	505.60	ug/L	505.60	ppb	15:18:58
2	Cd 226.502†	54024.5	55636.5	501.02	ug/L	501.02	ppb	15:18:58
2	Co 228.616†	27462.7	28245.9	496.97	ug/L	496.97	ppb	15:19:18
2	Cr 267.716†	52219.9	53396.2	502.51	ug/L	502.51	ppb	15:18:58
2	Cu 324.752†	178319.1	174309.6	497.34	ug/L	497.34	ppb	15:18:58
2	Mn 257.610†	495103.4	506888.0	503.35	ug/L	503.35	ppb	15:18:58
2	Mo 202.031†	8414.9	8600.5	506.76	ug/L	506.76	ppb	15:19:18
2	Ni 231.604†	23731.9	24188.4	500.43	ug/L	500.43	ppb	15:19:18

2	P 214.914†	5718.3	5590.6	2459.6 ug/L	2459.6 ppb	15:19:18
2	Pb 220.353†	4920.1	5128.1	510.60 ug/L	510.60 ppb	15:19:18
2	S 181.975 Axial†	959.7	922.1	1011.8 ug/L	1011.8 ppb	15:19:18
2	Sb 206.836†	1731.2	1729.4	502.76 ug/L	502.76 ppb	15:19:18
2	Se 196.026†	1018.7	1077.0	530.61 ug/L	530.61 ppb	15:19:18
2	Si 251.611†	92143.5	93715.8	2480.7 ug/L	2480.7 ppb	15:18:58
2	Sn 189.927†	3458.0	3541.3	502.07 ug/L	502.07 ppb	15:19:18
2	Ti 334.940†	330737.2	340739.6	500.39 ug/L	500.39 ppb	15:18:58
2	Tl 190.801†	1823.3	1918.5	505.80 ug/L	505.80 ppb	15:19:18
2	U 409.014†	14078.2	17350.1	478.58 ug/L	478.58 ppb	15:18:58
2	V 292.402†	81038.3	84881.5	506.33 ug/L	506.33 ppb	15:18:58
2	Zn 213.857†	63324.7	63998.8	495.81 ug/L	495.81 ppb	15:18:58
2	SiO2†	93245.7	94827.0	5408.1 ug/L	5408.1 ppb	15:19:56
3	Sc Radial	4871.2	4871.2	98.5 %		15:18:01
3	Y RADIAL	5153.5	5153.5	97.15 %		15:18:01
3	Al 396.153Radial†	6136.0	6251.1	4871.7 ug/L	4871.7 ppb	15:18:01
3	Ca 317.933Radial†	3105.0	3131.0	4906.7 ug/L	4906.7 ppb	15:18:21
3	Fe 238.204 Radial†	577.0	572.5	5043.3 ug/L	5043.3 ppb	15:18:21
3	K 766.490 Radial†	28983.9	26093.4	4959.4 ug/L	4959.4 ppb	15:18:01
3	Mg 279.077 IEC†	160.3	160.1	5124.9 ug/L	5124.9 ppb	15:18:21
3	Na 589.592 Radial†	33216.7	35521.7	10078 ug/L	10078 ppb	15:18:01
3	Sr 421.552†	74383.9	75509.5	495.79 ug/L	495.79 ppb	15:18:01
3	Sc 361.383	929222.1	929222.1	98.985 %		15:19:25
3	Y 371.029	800420.4	800420.4	97.837 %		15:19:25
3	Ag 328.068†	119477.0	120236.7	500.50 ug/L	500.50 ppb	15:19:25
3	As 188.979†	1460.9	1510.7	500.99 ug/L	500.99 ppb	15:19:45
3	B 249.677†	24408.4	25054.8	486.99 ug/L	486.99 ppb	15:19:25
3	Ba 233.527†	72824.1	73550.8	501.24 ug/L	501.24 ppb	15:19:25
3	Be 313.107†	1563460.8	1584196.6	504.23 ug/L	504.23 ppb	15:19:25
3	Cd 226.502†	54858.3	55677.6	501.44 ug/L	501.44 ppb	15:19:25
3	Co 228.616†	27377.1	27752.1	488.27 ug/L	488.27 ppb	15:19:45
3	Cr 267.716†	52843.9	53252.2	501.15 ug/L	501.15 ppb	15:19:25
3	Cu 324.752†	181320.9	174697.3	498.42 ug/L	498.42 ppb	15:19:25
3	Mn 257.610†	503022.7	507544.9	503.96 ug/L	503.96 ppb	15:19:25
3	Mo 202.031†	8390.5	8451.1	497.91 ug/L	497.91 ppb	15:19:45
3	Ni 231.604†	23636.7	23740.2	491.15 ug/L	491.15 ppb	15:19:45
3	P 214.914†	5677.8	5464.9	2402.6 ug/L	2402.6 ppb	15:19:45
3	Pb 220.353†	4883.9	5018.6	499.63 ug/L	499.63 ppb	15:19:45
3	S 181.975 Axial†	960.5	908.7	997.17 ug/L	997.17 ppb	15:19:45
3	Sb 206.836†	1707.9	1680.1	488.36 ug/L	488.36 ppb	15:19:45
3	Se 196.026†	993.5	1036.3	509.46 ug/L	509.46 ppb	15:19:45
3	Si 251.611†	93713.0	93934.7	2486.9 ug/L	2486.9 ppb	15:19:25
3	Sn 189.927†	3452.2	3484.2	493.92 ug/L	493.92 ppb	15:19:45
3	Ti 334.940†	335843.7	340992.8	500.73 ug/L	500.73 ppb	15:19:25
3	Tl 190.801†	1833.8	1902.1	501.52 ug/L	501.52 ppb	15:19:45
3	U 409.014†	14379.1	17445.2	481.29 ug/L	481.29 ppb	15:19:25
3	V 292.402†	82173.7	84826.5	505.96 ug/L	505.96 ppb	15:19:25
3	Zn 213.857†	64431.9	64178.0	497.31 ug/L	497.31 ppb	15:19:25
3	SiO2†	93475.3	93676.0	5342.9 ug/L	5342.9 ppb	15:20:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	923991.9	98.428	%	0.7673				0.78%
Sc Radial	4716.0	95.4	%	5.10				5.35%
Y 371.029	797229.7	97.447	%	0.6761				0.69%
Y RADIAL	4993.9	94.14	%	5.111				5.43%
Ag 328.068†	120199.6	500.42	ug/L	0.555	500.42	ppb	0.555	0.11%
QC value within limits for Ag 328.068 Recovery = 100.08%								
Al 396.153Radial†	6489.2	5057.8	ug/L	304.45	5057.8	ppb	304.45	6.02%
QC value within limits for Al 396.153Radial Recovery = 101.16%								
As 188.979†	1513.7	501.99	ug/L	1.117	501.99	ppb	1.117	0.22%
QC value within limits for As 188.979 Recovery = 100.40%								
B 249.677†	24933.2	484.58	ug/L	2.107	484.58	ppb	2.107	0.43%
QC value within limits for B 249.677 Recovery = 96.92%								
Ba 233.527†	73401.7	500.23	ug/L	1.077	500.23	ppb	1.077	0.22%
QC value within limits for Ba 233.527 Recovery = 100.05%								
Be 313.107†	1586035.4	504.81	ug/L	0.707	504.81	ppb	0.707	0.14%
QC value within limits for Be 313.107 Recovery = 100.96%								
Ca 317.933Radial†	3267.2	5120.2	ug/L	301.30	5120.2	ppb	301.30	5.88%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.40%
Cd 226.502†          55572.1      500.47 ug/L        1.332      500.47 ppb        1.332   0.27%
   QC value within limits for Cd 226.502  Recovery = 100.09%
Co 228.616†          28015.2      492.90 ug/L        4.378      492.90 ppb        4.378   0.89%
   QC value within limits for Co 228.616  Recovery = 98.58%
Cr 267.716†          53312.4      501.72 ug/L        0.710      501.72 ppb        0.710   0.14%
   QC value within limits for Cr 267.716  Recovery = 100.34%
Cu 324.752†         174398.1      497.58 ug/L        0.752      497.58 ppb        0.752   0.15%
   QC value within limits for Cu 324.752  Recovery = 99.52%
Fe 238.204 Radial†     598.2      5268.7 ug/L       301.44      5268.7 ppb       301.44   5.72%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.37%
K 766.490 Radial†    27154.6      5161.4 ug/L       343.06      5161.4 ppb       343.06   6.65%
   QC value within limits for K 766.490 Radial  Recovery = 103.23%
Mg 279.077 IEC†        167.8      5370.4 ug/L       314.79      5370.4 ppb       314.79   5.86%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.41%
Mn 257.610†         506810.1      503.25 ug/L        0.769      503.25 ppb        0.769   0.15%
   QC value within limits for Mn 257.610  Recovery = 100.65%
Mo 202.031†          8533.1       502.76 ug/L        4.486      502.76 ppb        4.486   0.89%
   QC value within limits for Mo 202.031  Recovery = 100.55%
Na 589.592 Radial†   36608.0       10386 ug/L        551.5       10386 ppb        551.5   5.31%
   QC value within limits for Na 589.592 Radial  Recovery = 103.86%
Ni 231.604†          23973.4      495.98 ug/L        4.648      495.98 ppb        4.648   0.94%
   QC value within limits for Ni 231.604  Recovery = 99.20%
P 214.914†            5534.8      2434.3 ug/L       29.05      2434.3 ppb       29.05   1.19%
   QC value within limits for P 214.914  Recovery = 97.37%
Pb 220.353†           5076.5      505.41 ug/L        5.506      505.41 ppb        5.506   1.09%
   QC value within limits for Pb 220.353  Recovery = 101.08%
S 181.975 Axial†       913.5      1002.5 ug/L        8.14      1002.5 ppb        8.14   0.81%
   QC value within limits for S 181.975 Axial  Recovery = 100.25%
Sb 206.836†           1711.8      497.61 ug/L        8.021      497.61 ppb        8.021   1.61%
   QC value within limits for Sb 206.836  Recovery = 99.52%
Se 196.026†           1058.2      520.58 ug/L       10.616      520.58 ppb       10.616   2.04%
   QC value within limits for Se 196.026  Recovery = 104.12%
Si 251.611†          93725.0      2481.2 ug/L        5.53      2481.2 ppb        5.53   0.22%
   QC value within limits for Si 251.611  Recovery = 99.25%
Sn 189.927†           3515.1      498.32 ug/L        4.112      498.32 ppb        4.112   0.83%
   QC value within limits for Sn 189.927  Recovery = 99.66%
Sr 421.552†          78292.8      514.07 ug/L       30.587      514.07 ppb       30.587   5.95%
   QC value within limits for Sr 421.552  Recovery = 102.81%
Ti 334.940†         340618.9      500.20 ug/L        0.657      500.20 ppb        0.657   0.13%
   QC value within limits for Ti 334.940  Recovery = 100.04%
Tl 190.801†           1916.2      505.20 ug/L        3.415      505.20 ppb        3.415   0.68%
   QC value within limits for Tl 190.801  Recovery = 101.04%
U 409.014†           17356.8      478.81 ug/L        2.370      478.81 ppb        2.370   0.50%
   QC value within limits for U 409.014  Recovery = 95.76%
V 292.402†           84790.8      505.79 ug/L        0.651      505.79 ppb        0.651   0.13%
   QC value within limits for V 292.402  Recovery = 101.16%
Zn 213.857†          64011.6      495.97 ug/L        1.278      495.97 ppb        1.278   0.26%
   QC value within limits for Zn 213.857  Recovery = 99.19%
SiO2†                94065.9      5364.9 ug/L       37.37      5364.9 ppb       37.37   0.70%
   QC value within limits for SiO2  Recovery = 100.33%
All analyte(s) passed QC.
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Sequence No.: 13
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/29/2009 15:22:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4573.0	4573.0	92.5	%			15:24:03
1	Y RADIAL	4905.8	4905.8	92.48	%			15:24:03
1	Al 396.153Radial†	4.0	25.7	20.088	ug/L	20.088	ppb	15:24:03
1	Ca 317.933Radial†	20.7	1.0	1.5358	ug/L	1.5358	ppb	15:24:23
1	Fe 238.204 Radial†	13.3	1.1	9.3440	ug/L	9.3440	ppb	15:24:23
1	K 766.490 Radial†	3287.1	221.6	42.205	ug/L	42.205	ppb	15:24:03
1	Mg 279.077 IEC†	4.4	2.0	65.283	ug/L	65.283	ppb	15:24:23
1	Na 589.592 Radial†	-1797.9	-147.0	-41.703	ug/L	-41.703	ppb	15:24:03
1	Sr 421.552†	24.3	15.3	0.1002	ug/L	0.1002	ppb	15:24:03
1	Sc 361.383	939223.0	939223.0	100.05	%			15:25:20
1	Y 371.029	821255.3	821255.3	100.38	%			15:25:20
1	Ag 328.068†	529.9	64.0	0.2657	ug/L	0.2657	ppb	15:25:25
1	As 188.979†	-29.8	5.1	1.6723	ug/L	1.6723	ppb	15:25:45
1	B 249.677†	-489.8	-93.5	-1.8261	ug/L	-1.8261	ppb	15:25:25
1	Ba 233.527†	15.7	-4.4	-0.0300	ug/L	-0.0300	ppb	15:25:45
1	Be 313.107†	-4470.8	232.8	0.0738	ug/L	0.0738	ppb	15:25:25
1	Cd 226.502†	-246.6	10.2	0.0909	ug/L	0.0909	ppb	15:25:45
1	Co 228.616†	-95.4	-1.2	-0.0201	ug/L	-0.0201	ppb	15:25:45
1	Cr 267.716†	146.8	13.0	0.1216	ug/L	0.1216	ppb	15:25:25
1	Cu 324.752†	8166.5	-320.8	-0.9142	ug/L	-0.9142	ppb	15:25:25
1	Mn 257.610†	583.6	-53.3	-0.0532	ug/L	-0.0532	ppb	15:25:25
1	Mo 202.031†	27.2	1.7	0.1025	ug/L	0.1025	ppb	15:25:45
1	Ni 231.604†	138.1	-0.9	-0.0180	ug/L	-0.0180	ppb	15:25:45
1	P 214.914†	258.7	-12.6	-5.5385	ug/L	-5.5385	ppb	15:25:45
1	Pb 220.353†	-70.2	14.5	1.4399	ug/L	1.4399	ppb	15:25:45
1	S 181.975 Axial†	65.6	3.9	4.2595	ug/L	4.2595	ppb	15:25:45
1	Sb 206.836†	31.5	-13.8	-3.9206	ug/L	-3.9206	ppb	15:25:45
1	Se 196.026†	-33.0	-0.3	-0.1320	ug/L	-0.1320	ppb	15:25:45
1	Si 251.611†	801.5	61.7	1.6206	ug/L	1.6206	ppb	15:25:45
1	Sn 189.927†	14.9	11.5	1.6332	ug/L	1.6332	ppb	15:25:45
1	Ti 334.940†	-1744.5	-38.8	-0.0578	ug/L	-0.0578	ppb	15:25:25
1	Tl 190.801†	-53.4	-4.0	-1.0352	ug/L	-1.0352	ppb	15:25:45
1	U 409.014†	-2850.0	70.1	1.9395	ug/L	1.9395	ppb	15:25:20
1	V 292.402†	-1830.9	-19.9	-0.1121	ug/L	-0.1121	ppb	15:25:25
1	Zn 213.857†	928.6	13.5	0.1037	ug/L	0.1037	ppb	15:25:45
1	SiO2†	834.3	75.8	4.2994	ug/L	4.2994	ppb	15:26:51
2	Sc Radial	4766.2	4766.2	96.4	%			15:24:28
2	Y RADIAL	5084.2	5084.2	95.84	%			15:24:28
2	Al 396.153Radial†	-24.6	-4.2	-3.3155	ug/L	-3.3155	ppb	15:24:28
2	Ca 317.933Radial†	15.8	-5.0	-7.8553	ug/L	-7.8553	ppb	15:24:48
2	Fe 238.204 Radial†	13.4	0.7	5.9902	ug/L	5.9902	ppb	15:24:48
2	K 766.490 Radial†	3376.8	170.5	32.482	ug/L	32.482	ppb	15:24:28
2	Mg 279.077 IEC†	2.5	-0.1	-4.5462	ug/L	-4.5462	ppb	15:24:48
2	Na 589.592 Radial†	-1862.8	-135.5	-38.449	ug/L	-38.449	ppb	15:24:28
2	Sr 421.552†	18.2	7.9	0.0520	ug/L	0.0520	ppb	15:24:28
2	Sc 361.383	924465.1	924465.1	98.478	%			15:25:50
2	Y 371.029	808707.9	808707.9	98.850	%			15:25:50
2	Ag 328.068†	584.5	128.0	0.5341	ug/L	0.5341	ppb	15:25:55
2	As 188.979†	-43.5	-9.4	-3.0802	ug/L	-3.0802	ppb	15:26:15
2	B 249.677†	-500.2	-111.9	-2.1840	ug/L	-2.1840	ppb	15:25:55
2	Ba 233.527†	-4.0	-24.1	-0.1635	ug/L	-0.1635	ppb	15:26:15
2	Be 313.107†	-4527.5	103.9	0.0327	ug/L	0.0327	ppb	15:25:55
2	Cd 226.502†	-252.2	0.6	0.0049	ug/L	0.0049	ppb	15:26:15
2	Co 228.616†	-89.9	3.0	0.0538	ug/L	0.0538	ppb	15:26:15
2	Cr 267.716†	83.5	-48.9	-0.4584	ug/L	-0.4584	ppb	15:25:55
2	Cu 324.752†	8170.4	-186.5	-0.5315	ug/L	-0.5315	ppb	15:25:55
2	Mn 257.610†	643.7	17.1	0.0176	ug/L	0.0176	ppb	15:25:55
2	Mo 202.031†	31.1	6.1	0.3585	ug/L	0.3585	ppb	15:26:15
2	Ni 231.604†	145.3	8.6	0.1786	ug/L	0.1786	ppb	15:26:15

2	P 214.914†	267.0	-0.0	0.0768 ug/L	0.0768 ppb	15:26:15
2	Pb 220.353†	-81.8	1.6	0.1573 ug/L	0.1573 ppb	15:26:15
2	S 181.975 Axial†	56.2	-4.6	-5.0438 ug/L	-5.0438 ppb	15:26:15
2	Sb 206.836†	44.8	0.3	0.1082 ug/L	0.1082 ppb	15:26:15
2	Se 196.026†	-44.4	-12.4	-5.8530 ug/L	-5.8530 ppb	15:26:15
2	Si 251.611†	909.1	183.8	4.8697 ug/L	4.8697 ppb	15:26:15
2	Sn 189.927†	7.5	4.2	0.5984 ug/L	0.5984 ppb	15:26:15
2	Ti 334.940†	-1778.3	-101.0	-0.1474 ug/L	-0.1474 ppb	15:25:55
2	Tl 190.801†	-44.3	4.5	1.1670 ug/L	1.1670 ppb	15:26:15
2	U 409.014†	-2970.7	-98.0	-2.7119 ug/L	-2.7119 ppb	15:25:50
2	V 292.402†	-1768.2	14.6	0.0850 ug/L	0.0850 ppb	15:25:55
2	Zn 213.857†	938.8	38.6	0.3012 ug/L	0.3012 ppb	15:26:15
2	SiO2†	817.7	72.3	4.1001 ug/L	4.1001 ppb	15:26:56
3	Sc Radial	4446.4	4446.4	89.9 %		15:24:53
3	Y RADIAL	4741.2	4741.2	89.37 %		15:24:53
3	Al 396.153Radial†	-21.3	-2.3	-1.8273 ug/L	-1.8273 ppb	15:24:53
3	Ca 317.933Radial†	21.3	2.3	3.5977 ug/L	3.5977 ppb	15:25:13
3	Fe 238.204 Radial†	13.3	1.5	13.443 ug/L	13.443 ppb	15:25:13
3	K 766.490 Radial†	3422.1	472.9	90.080 ug/L	90.080 ppb	15:24:53
3	Mg 279.077 IEC†	2.5	0.1	3.4537 ug/L	3.4537 ppb	15:25:13
3	Na 589.592 Radial†	-1869.5	-282.0	-80.003 ug/L	-80.003 ppb	15:24:53
3	Sr 421.552†	-24.1	-37.8	-0.2481 ug/L	-0.2481 ppb	15:24:53
3	Sc 361.383	927029.5	927029.5	98.751 %		15:26:20
3	Y 371.029	809552.7	809552.7	98.953 %		15:26:20
3	Ag 328.068†	545.4	86.7	0.3651 ug/L	0.3651 ppb	15:26:25
3	As 188.979†	-25.3	9.2	3.0379 ug/L	3.0379 ppb	15:26:45
3	B 249.677†	-561.3	-172.3	-3.3637 ug/L	-3.3637 ppb	15:26:25
3	Ba 233.527†	5.6	-14.5	-0.0986 ug/L	-0.0986 ppb	15:26:45
3	Be 313.107†	-4516.2	128.0	0.0405 ug/L	0.0405 ppb	15:26:25
3	Cd 226.502†	-252.7	0.8	0.0057 ug/L	0.0057 ppb	15:26:45
3	Co 228.616†	-93.4	-0.3	-0.0067 ug/L	-0.0067 ppb	15:26:45
3	Cr 267.716†	146.9	15.0	0.1417 ug/L	0.1417 ppb	15:26:25
3	Cu 324.752†	8103.4	-277.3	-0.7901 ug/L	-0.7901 ppb	15:26:25
3	Mn 257.610†	671.3	43.2	0.0441 ug/L	0.0441 ppb	15:26:25
3	Mo 202.031†	21.8	-3.4	-0.1986 ug/L	-0.1986 ppb	15:26:45
3	Ni 231.604†	153.6	16.7	0.3454 ug/L	0.3454 ppb	15:26:45
3	P 214.914†	268.0	0.2	0.2034 ug/L	0.2034 ppb	15:26:45
3	Pb 220.353†	-102.7	-19.3	-1.9203 ug/L	-1.9203 ppb	15:26:45
3	S 181.975 Axial†	55.7	-5.3	-5.7931 ug/L	-5.7931 ppb	15:26:45
3	Sb 206.836†	49.5	4.9	1.4013 ug/L	1.4013 ppb	15:26:45
3	Se 196.026†	-42.3	-10.1	-4.7575 ug/L	-4.7575 ppb	15:26:45
3	Si 251.611†	830.3	101.4	2.6708 ug/L	2.6708 ppb	15:26:45
3	Sn 189.927†	5.6	2.3	0.3283 ug/L	0.3283 ppb	15:26:45
3	Ti 334.940†	-1732.5	-49.6	-0.0710 ug/L	-0.0710 ppb	15:26:25
3	Tl 190.801†	-38.2	10.7	2.8120 ug/L	2.8120 ppb	15:26:45
3	U 409.014†	-3026.2	-145.8	-4.0383 ug/L	-4.0383 ppb	15:26:20
3	V 292.402†	-1839.7	-52.9	-0.3239 ug/L	-0.3239 ppb	15:26:25
3	Zn 213.857†	934.3	31.4	0.2432 ug/L	0.2432 ppb	15:26:45
3	SiO2†	878.2	131.3	7.4627 ug/L	7.4627 ppb	15:27:01

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	930239.2	99.093	%	0.8400				0.85%
Sc Radial	4595.2	92.9	%	3.26				3.51%
Y 371.029	813172.0	99.396	%	0.8572				0.86%
Y RADIAL	4910.4	92.56	%	3.235				3.49%
Ag 328.068†	92.9	0.3883	ug/L	0.13570	0.3883	ppb	0.13570	34.95%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.4	4.9817	ug/L	13.10352	4.9817	ppb	13.10352	263.03%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.6	0.5433	ug/L	3.21151	0.5433	ppb	3.21151	591.10%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-125.9	-2.4579	ug/L	0.80456	-2.4579	ppb	0.80456	32.73%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-14.3	-0.0974	ug/L	0.06677	-0.0974	ppb	0.06677	68.57%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	154.9	0.0490	ug/L	0.02184	0.0490	ppb	0.02184	44.56%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.6	-0.9073	ug/L	6.10486	-0.9073	ppb	6.10486	672.88%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                3.8      0.0338 ug/L       0.04941      0.0338 ppb        0.04941 146.16%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                0.5      0.0090 ug/L       0.03933      0.0090 ppb        0.03933 436.93%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -7.0     -0.0650 ug/L       0.34085     -0.0650 ppb        0.34085 524.05%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -261.5     -0.7453 ug/L       0.19526     -0.7453 ppb        0.19526  26.20%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.1      9.5924 ug/L       3.73255      9.5924 ppb        3.73255  38.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        288.3     54.922 ug/L       30.8331     54.922 ppb        30.8331  56.14%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.7     21.397 ug/L       38.2167     21.397 ppb        38.2167 178.61%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                2.3      0.0029 ug/L       0.05029      0.0029 ppb        0.05029 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.5      0.0875 ug/L       0.27883      0.0875 ppb        0.27883 318.68%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -188.2    -53.385 ug/L       23.1090    -53.385 ppb        23.1090  43.29%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                8.1      0.1687 ug/L       0.18193      0.1687 ppb        0.18193 107.86%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.1     -1.7528 ug/L       3.27917     -1.7528 ppb        3.27917 187.09%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -1.1     -0.1077 ug/L       1.69568     -0.1077 ppb        1.69568 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.0     -2.1925 ug/L       5.60011     -2.1925 ppb        5.60011 255.43%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.9     -0.8037 ug/L       2.77568     -0.8037 ppb        2.77568 345.37%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -7.6     -3.5808 ug/L       3.03654     -3.5808 ppb        3.03654  84.80%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              115.6      3.0537 ug/L       1.65805      3.0537 ppb        1.65805  54.30%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                6.0      0.8533 ug/L       0.68875      0.8533 ppb        0.68875  80.71%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -4.9     -0.0320 ug/L       0.18870     -0.0320 ppb        0.18870 590.47%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -63.1     -0.0921 ug/L       0.04835     -0.0921 ppb        0.04835  52.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.7      0.9813 ug/L       1.93029      0.9813 ppb        1.93029 196.72%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -57.9     -1.6036 ug/L       3.13926     -1.6036 ppb        3.13926 195.76%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -19.4     -0.1170 ug/L       0.20452     -0.1170 ppb        0.20452 174.82%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               27.8      0.2160 ug/L       0.10153      0.2160 ppb        0.10153  47.00%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     93.1      5.2874 ug/L       1.88651      5.2874 ppb        1.88651  35.68%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 20
Sample ID: 242753001|932266|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 34
Date Collected: 12/29/2009 16:11:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242753001|932266|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4806.7	4806.7	97.2	%			16:13:10
1	Y RADIAL	5127.3	5127.3	96.65	%			16:13:10
1	Al 396.153Radial†	0.7	22.0	17.190	ug/L	17.190	ppb	16:13:10
1	Ca 317.933Radial†	2017.8	2054.6	3219.9	ug/L	3219.9	ppb	16:13:30
1	Fe 238.204 Radial†	14.7	1.8	16.164	ug/L	16.164	ppb	16:13:30
1	K 766.490 Radial†	4981.6	1792.2	339.84	ug/L	339.84	ppb	16:13:10
1	Mg 279.077 IEC†	28.7	26.8	857.05	ug/L	857.05	ppb	16:13:30
1	Na 589.592 Radial†	5596.3	7555.5	2143.6	ug/L	2143.6	ppb	16:13:10
1	Sr 421.552†	2316.5	2372.5	15.549	ug/L	15.549	ppb	16:13:10
1	Sc 361.383	928495.2	928495.2	98.907	%			16:14:28
1	Y 371.029	807598.8	807598.8	98.714	%			16:14:28
1	Ag 328.068†	446.8	-13.9	-0.0908	ug/L	-0.0908	ppb	16:14:28
1	As 188.979†	-36.6	-2.1	-0.7010	ug/L	-0.7010	ppb	16:14:48
1	B 249.677†	-633.9	-244.9	-4.7795	ug/L	-4.7795	ppb	16:14:48
1	Ba 233.527†	650.6	637.7	4.3388	ug/L	4.3388	ppb	16:14:48
1	Be 313.107†	-4529.6	121.7	0.0382	ug/L	0.0382	ppb	16:14:28
1	Cd 226.502†	-279.5	-25.9	-0.2352	ug/L	-0.2352	ppb	16:14:48
1	Co 228.616†	-106.5	-13.5	-0.2326	ug/L	-0.2326	ppb	16:14:48
1	Cr 267.716†	174.2	42.4	0.4022	ug/L	0.4022	ppb	16:14:48
1	Cu 324.752†	8387.8	-2.8	-0.0071	ug/L	-0.0071	ppb	16:14:28
1	Mn 257.610†	7406.4	6851.6	6.7834	ug/L	6.7834	ppb	16:14:48
1	Mo 202.031†	38.4	13.4	0.7905	ug/L	0.7905	ppb	16:14:48
1	Ni 231.604†	138.9	1.6	0.0323	ug/L	0.0323	ppb	16:14:48
1	P 214.914†	275.4	7.3	3.2064	ug/L	3.2064	ppb	16:14:48
1	Pb 220.353†	-84.0	-0.3	-0.0265	ug/L	-0.0265	ppb	16:14:48
1	S 181.975 Axial†	387.2	329.8	362.27	ug/L	362.27	ppb	16:14:48
1	Sb 206.836†	40.8	-4.0	-1.2228	ug/L	-1.2228	ppb	16:14:48
1	Se 196.026†	-42.9	-10.7	-5.0015	ug/L	-5.0015	ppb	16:14:48
1	Si 251.611†	211411.1	213007.1	5666.1	ug/L	5666.1	ppb	16:14:28
1	Sn 189.927†	-35.3	-39.0	-5.1946	ug/L	-5.1946	ppb	16:14:48
1	Ti 334.940†	-1836.7	-152.2	-0.0548	ug/L	-0.0548	ppb	16:14:28
1	Tl 190.801†	-55.3	-6.5	-1.6663	ug/L	-1.6663	ppb	16:14:48
1	U 409.014†	-2970.9	-85.1	-2.3573	ug/L	-2.3573	ppb	16:14:28
1	V 292.402†	-1518.2	275.1	1.6429	ug/L	1.6429	ppb	16:14:48
1	Zn 213.857†	1060.9	157.9	1.2036	ug/L	1.2036	ppb	16:14:48
1	SiO2†	214314.9	215924.3	12375	ug/L	12375	ppb	16:15:44
2	Sc Radial	4870.7	4870.7	98.5	%			16:13:36
2	Y RADIAL	5181.1	5181.1	97.67	%			16:13:36
2	Al 396.153Radial†	-2.7	18.6	14.571	ug/L	14.571	ppb	16:13:36
2	Ca 317.933Radial†	2015.3	2024.8	3173.2	ug/L	3173.2	ppb	16:13:56
2	Fe 238.204 Radial†	14.7	1.7	14.555	ug/L	14.555	ppb	16:13:56
2	K 766.490 Radial†	5060.9	1805.4	342.33	ug/L	342.33	ppb	16:13:36
2	Mg 279.077 IEC†	29.5	27.2	870.84	ug/L	870.84	ppb	16:13:56
2	Na 589.592 Radial†	5906.0	7794.2	2211.4	ug/L	2211.4	ppb	16:13:36
2	Sr 421.552†	2366.4	2391.8	15.677	ug/L	15.677	ppb	16:13:36
2	Sc 361.383	932943.6	932943.6	99.381	%			16:14:53
2	Y 371.029	810830.7	810830.7	99.109	%			16:14:53
2	Ag 328.068†	523.9	61.5	0.2189	ug/L	0.2189	ppb	16:14:53
2	As 188.979†	-36.6	-2.0	-0.6573	ug/L	-0.6573	ppb	16:15:13
2	B 249.677†	-652.7	-260.7	-5.0892	ug/L	-5.0892	ppb	16:15:13
2	Ba 233.527†	630.6	614.4	4.1817	ug/L	4.1817	ppb	16:15:13
2	Be 313.107†	-4505.6	167.7	0.0524	ug/L	0.0524	ppb	16:14:53
2	Cd 226.502†	-256.1	-1.0	-0.0105	ug/L	-0.0105	ppb	16:15:13
2	Co 228.616†	-95.7	-2.1	-0.0336	ug/L	-0.0336	ppb	16:15:13
2	Cr 267.716†	187.3	54.7	0.5169	ug/L	0.5169	ppb	16:15:13
2	Cu 324.752†	8450.3	19.7	0.0569	ug/L	0.0569	ppb	16:14:53
2	Mn 257.610†	7399.2	6808.6	6.7403	ug/L	6.7403	ppb	16:15:13
2	Mo 202.031†	27.0	1.7	0.1005	ug/L	0.1005	ppb	16:15:13
2	Ni 231.604†	141.0	3.0	0.0615	ug/L	0.0615	ppb	16:15:13

2	P 214.914†	284.5	15.1	6.7673	ug/L	6.7673 ppb	16:15:13
2	Pb 220.353†	-92.2	-8.1	-0.8016	ug/L	-0.8016 ppb	16:15:13
2	S 181.975 Axial†	378.8	319.5	350.90	ug/L	350.90 ppb	16:15:13
2	Sb 206.836†	40.0	-5.0	-1.5043	ug/L	-1.5043 ppb	16:15:13
2	Se 196.026†	-29.7	2.7	1.3504	ug/L	1.3504 ppb	16:15:13
2	Si 251.611†	212890.9	213476.9	5678.7	ug/L	5678.7 ppb	16:14:53
2	Sn 189.927†	-24.6	-28.2	-3.6637	ug/L	-3.6637 ppb	16:15:13
2	Ti 334.940†	-2011.5	-319.2	-0.3046	ug/L	-0.3046 ppb	16:14:53
2	Tl 190.801†	-49.3	-0.1	0.0046	ug/L	0.0046 ppb	16:15:13
2	U 409.014†	-2820.6	80.5	2.2247	ug/L	2.2247 ppb	16:14:53
2	V 292.402†	-1456.8	344.2	2.0497	ug/L	2.0497 ppb	16:15:13
2	Zn 213.857†	1053.5	145.4	1.1049	ug/L	1.1049 ppb	16:15:13
2	SiO2†	211883.8	212444.9	12175	ug/L	12175 ppb	16:15:50
3	Sc Radial	4887.2	4887.2	98.8	%		16:14:01
3	Y RADIAL	5174.6	5174.6	97.54	%		16:14:01
3	Al 396.153Radial†	33.5	55.3	43.221	ug/L	43.221 ppb	16:14:01
3	Ca 317.933Radial†	1987.9	1990.2	3119.0	ug/L	3119.0 ppb	16:14:21
3	Fe 238.204 Radial†	14.2	1.1	9.4069	ug/L	9.4069 ppb	16:14:21
3	K 766.490 Radial†	5006.4	1732.9	328.58	ug/L	328.58 ppb	16:14:01
3	Mg 279.077 IEC†	28.2	25.8	826.40	ug/L	826.40 ppb	16:14:21
3	Na 589.592 Radial†	5640.4	7505.3	2129.4	ug/L	2129.4 ppb	16:14:01
3	Sr 421.552†	2279.6	2295.8	15.047	ug/L	15.047 ppb	16:14:01
3	Sc 361.383	940662.8	940662.8	100.20	%		16:15:19
3	Y 371.029	816416.6	816416.6	99.792	%		16:15:19
3	Ag 328.068†	476.3	9.7	0.0027	ug/L	0.0027 ppb	16:15:19
3	As 188.979†	-30.8	4.1	1.3573	ug/L	1.3573 ppb	16:15:39
3	B 249.677†	-643.1	-245.8	-4.7975	ug/L	-4.7975 ppb	16:15:39
3	Ba 233.527†	640.1	618.7	4.2101	ug/L	4.2101 ppb	16:15:39
3	Be 313.107†	-4623.5	87.2	0.0270	ug/L	0.0270 ppb	16:15:19
3	Cd 226.502†	-242.9	14.3	0.1278	ug/L	0.1278 ppb	16:15:39
3	Co 228.616†	-81.3	13.1	0.2343	ug/L	0.2343 ppb	16:15:39
3	Cr 267.716†	175.2	41.1	0.3890	ug/L	0.3890 ppb	16:15:39
3	Cu 324.752†	8491.7	-8.7	-0.0244	ug/L	-0.0244 ppb	16:15:19
3	Mn 257.610†	7339.1	6687.6	6.6205	ug/L	6.6205 ppb	16:15:39
3	Mo 202.031†	39.0	13.4	0.7903	ug/L	0.7903 ppb	16:15:39
3	Ni 231.604†	147.4	8.2	0.1698	ug/L	0.1698 ppb	16:15:39
3	P 214.914†	290.6	18.8	8.4540	ug/L	8.4540 ppb	16:15:39
3	Pb 220.353†	-77.4	7.3	0.7391	ug/L	0.7391 ppb	16:15:39
3	S 181.975 Axial†	374.0	311.5	342.19	ug/L	342.19 ppb	16:15:39
3	Sb 206.836†	48.3	3.0	0.7691	ug/L	0.7691 ppb	16:15:39
3	Se 196.026†	-46.1	-13.3	-6.2844	ug/L	-6.2844 ppb	16:15:39
3	Si 251.611†	214131.5	212957.1	5664.8	ug/L	5664.8 ppb	16:15:19
3	Sn 189.927†	-36.7	-40.0	-5.3416	ug/L	-5.3416 ppb	16:15:39
3	Ti 334.940†	-1949.1	-240.3	-0.1913	ug/L	-0.1913 ppb	16:15:19
3	Tl 190.801†	-55.8	-6.2	-1.5907	ug/L	-1.5907 ppb	16:15:39
3	U 409.014†	-2851.9	72.6	2.0075	ug/L	2.0075 ppb	16:15:19
3	V 292.402†	-1518.6	294.6	1.7665	ug/L	1.7665 ppb	16:15:39
3	Zn 213.857†	1063.1	146.3	1.1132	ug/L	1.1132 ppb	16:15:39
3	SiO2†	212353.0	211163.6	12102	ug/L	12102 ppb	16:15:55

Mean Data: 242753001|932266|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	934033.9	99.497	%	0.6558				0.66%
Sc Radial	4854.9	98.2	%	0.86				0.88%
Y 371.029	811615.3	99.205	%	0.5453				0.55%
Y RADIAL	5161.0	97.29	%	0.553				0.57%
Ag 328.068†	19.1	0.0436	ug/L	0.15886	0.0436	ppb	0.15886	364.24%
Al 396.153Radial†	32.0	24.994	ug/L	15.8395	24.994	ppb	15.8395	63.37%
As 188.979†	-0.0	-0.0003	ug/L	1.17597	-0.0003	ppb	1.17597	>999.9%
B 249.677†	-250.4	-4.8887	ug/L	0.17386	-4.8887	ppb	0.17386	3.56%
Ba 233.527†	623.6	4.2435	ug/L	0.08374	4.2435	ppb	0.08374	1.97%
Be 313.107†	125.5	0.0392	ug/L	0.01269	0.0392	ppb	0.01269	32.39%
Ca 317.933Radial†	2023.2	3170.7	ug/L	50.49	3170.7	ppb	50.49	1.59%
Cd 226.502†	-4.2	-0.0393	ug/L	0.18320	-0.0393	ppb	0.18320	466.01%
Co 228.616†	-0.8	-0.0107	ug/L	0.23429	-0.0107	ppb	0.23429	>999.9%
Cr 267.716†	46.1	0.4360	ug/L	0.07034	0.4360	ppb	0.07034	16.13%
Cu 324.752†	2.7	0.0085	ug/L	0.04279	0.0085	ppb	0.04279	505.91%
Fe 238.204 Radial†	1.5	13.375	ug/L	3.5295	13.375	ppb	3.5295	26.39%
K 766.490 Radial†	1776.8	336.92	ug/L	7.326	336.92	ppb	7.326	2.17%

Mg 279.077 IEC†	26.6	851.43	ug/L	22.748	851.43	ppb	22.748	2.67%
Mn 257.610†	6782.6	6.7147	ug/L	0.08438	6.7147	ppb	0.08438	1.26%
Mo 202.031†	9.5	0.5604	ug/L	0.39832	0.5604	ppb	0.39832	71.07%
Na 589.592 Radial†	7618.3	2161.5	ug/L	43.80	2161.5	ppb	43.80	2.03%
Ni 231.604†	4.2	0.0879	ug/L	0.07245	0.0879	ppb	0.07245	82.44%
P 214.914†	13.7	6.1426	ug/L	2.67897	6.1426	ppb	2.67897	43.61%
Pb 220.353†	-0.4	-0.0297	ug/L	0.77035	-0.0297	ppb	0.77035	>999.9%
S 181.975 Axial†	320.3	351.79	ug/L	10.069	351.79	ppb	10.069	2.86%
Sb 206.836†	-2.0	-0.6526	ug/L	1.23928	-0.6526	ppb	1.23928	189.89%
Se 196.026†	-7.1	-3.3118	ug/L	4.08826	-3.3118	ppb	4.08826	123.44%
Si 251.611†	213147.0	5669.9	ug/L	7.63	5669.9	ppb	7.63	0.13%
Sn 189.927†	-35.8	-4.7333	ug/L	0.92919	-4.7333	ppb	0.92919	19.63%
Sr 421.552†	2353.4	15.424	ug/L	0.3330	15.424	ppb	0.3330	2.16%
Ti 334.940†	-237.3	-0.1835	ug/L	0.12507	-0.1835	ppb	0.12507	68.14%
Tl 190.801†	-4.3	-1.0841	ug/L	0.94359	-1.0841	ppb	0.94359	87.04%
U 409.014†	22.7	0.6250	ug/L	2.58503	0.6250	ppb	2.58503	413.63%
V 292.402†	304.6	1.8197	ug/L	0.20855	1.8197	ppb	0.20855	11.46%
Zn 213.857†	149.9	1.1406	ug/L	0.05476	1.1406	ppb	0.05476	4.80%
SiO2†	213177.6	12217	ug/L	141.2	12217	ppb	141.2	1.16%

Sequence No.: 21
Sample ID: 1201994198|932266|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 35
Date Collected: 12/29/2009 16:18:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994198|932266|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4968.2	4968.2	100	%			16:19:58
1	Y RADIAL	5290.4	5290.4	99.73	%			16:19:58
1	Al 396.153Radial†	-32.4	-10.9	-8.5797	ug/L	-8.5797	ppb	16:19:58
1	Ca 317.933Radial†	2030.2	1999.6	3133.6	ug/L	3133.6	ppb	16:20:18
1	Fe 238.204 Radial†	15.4	2.0	17.871	ug/L	17.871	ppb	16:20:18
1	K 766.490 Radial†	5203.2	1846.2	350.13	ug/L	350.13	ppb	16:19:58
1	Mg 279.077 IEC†	26.2	23.4	748.92	ug/L	748.92	ppb	16:20:18
1	Na 589.592 Radial†	5795.1	7566.3	2146.7	ug/L	2146.7	ppb	16:19:58
1	Sr 421.552†	2306.8	2285.3	14.977	ug/L	14.977	ppb	16:19:58
1	Sc 361.383	888134.6	888134.6	94.608	%			16:21:15
1	Y 371.029	803070.6	803070.6	98.161	%			16:21:15
1	Ag 328.068†	495.5	58.1	0.2208	ug/L	0.2208	ppb	16:21:15
1	As 188.979†	-27.7	5.5	1.8245	ug/L	1.8245	ppb	16:21:35
1	B 249.677†	-642.8	-283.4	-5.5312	ug/L	-5.5312	ppb	16:21:35
1	Ba 233.527†	643.4	660.0	4.4898	ug/L	4.4898	ppb	16:21:35
1	Be 313.107†	-4559.0	-117.4	-0.0382	ug/L	-0.0382	ppb	16:21:15
1	Cd 226.502†	-258.9	-17.0	-0.1551	ug/L	-0.1551	ppb	16:21:35
1	Co 228.616†	-99.9	-11.3	-0.1961	ug/L	-0.1961	ppb	16:21:35
1	Cr 267.716†	175.1	51.3	0.4906	ug/L	0.4906	ppb	16:21:35
1	Cu 324.752†	8286.1	275.2	0.7856	ug/L	0.7856	ppb	16:21:15
1	Mn 257.610†	7239.5	7015.5	6.9482	ug/L	6.9482	ppb	16:21:35
1	Mo 202.031†	27.6	3.7	0.2195	ug/L	0.2195	ppb	16:21:35
1	Ni 231.604†	136.3	5.1	0.1066	ug/L	0.1066	ppb	16:21:35
1	P 214.914†	270.4	14.6	6.3881	ug/L	6.3881	ppb	16:21:35
1	Pb 220.353†	-67.9	12.9	1.2768	ug/L	1.2768	ppb	16:21:35
1	S 181.975 Axial†	369.4	328.7	361.09	ug/L	361.09	ppb	16:21:35
1	Sb 206.836†	51.6	9.3	2.5360	ug/L	2.5360	ppb	16:21:35
1	Se 196.026†	-40.0	-9.6	-4.5213	ug/L	-4.5213	ppb	16:21:35
1	Si 251.611†	218894.6	230630.6	6135.0	ug/L	6135.0	ppb	16:21:15
1	Sn 189.927†	-42.3	-48.2	-6.4943	ug/L	-6.4943	ppb	16:21:35
1	Ti 334.940†	-1903.4	-307.1	-0.2798	ug/L	-0.2798	ppb	16:21:15
1	Tl 190.801†	-60.4	-14.4	-3.7445	ug/L	-3.7445	ppb	16:21:35
1	U 409.014†	-3382.2	-656.3	-18.171	ug/L	-18.171	ppb	16:21:15
1	V 292.402†	-1518.4	205.2	1.1899	ug/L	1.1899	ppb	16:21:35
1	Zn 213.857†	992.5	134.4	1.0218	ug/L	1.0218	ppb	16:21:35
1	SiO2†	217628.9	229274.1	13140	ug/L	13140	ppb	16:22:32
2	Sc Radial	4852.8	4852.8	98.1	%			16:20:23
2	Y RADIAL	5108.7	5108.7	96.30	%			16:20:23
2	Al 396.153Radial†	-4.7	16.5	12.888	ug/L	12.888	ppb	16:20:23
2	Ca 317.933Radial†	2018.7	2035.8	3190.4	ug/L	3190.4	ppb	16:20:43
2	Fe 238.204 Radial†	15.9	3.0	26.188	ug/L	26.188	ppb	16:20:43
2	K 766.490 Radial†	5154.3	1919.5	364.09	ug/L	364.09	ppb	16:20:23
2	Mg 279.077 IEC†	29.3	27.2	868.92	ug/L	868.92	ppb	16:20:43
2	Na 589.592 Radial†	5602.5	7507.0	2129.9	ug/L	2129.9	ppb	16:20:23
2	Sr 421.552†	2265.4	2297.7	15.059	ug/L	15.059	ppb	16:20:23
2	Sc 361.383	884483.5	884483.5	94.219	%			16:21:41
2	Y 371.029	798202.4	798202.4	97.566	%			16:21:41
2	Ag 328.068†	540.3	107.9	0.4222	ug/L	0.4222	ppb	16:21:41
2	As 188.979†	-30.0	3.0	0.9738	ug/L	0.9738	ppb	16:22:01
2	B 249.677†	-609.3	-250.6	-4.8934	ug/L	-4.8934	ppb	16:22:01
2	Ba 233.527†	654.9	675.0	4.5918	ug/L	4.5918	ppb	16:22:01
2	Be 313.107†	-4653.9	-238.1	-0.0768	ug/L	-0.0768	ppb	16:21:41
2	Cd 226.502†	-241.3	0.6	0.0027	ug/L	0.0027	ppb	16:22:01
2	Co 228.616†	-99.2	-11.1	-0.1899	ug/L	-0.1899	ppb	16:22:01
2	Cr 267.716†	194.1	72.3	0.6852	ug/L	0.6852	ppb	16:22:01
2	Cu 324.752†	8333.3	361.4	1.0319	ug/L	1.0319	ppb	16:21:41
2	Mn 257.610†	7266.3	7075.6	7.0064	ug/L	7.0064	ppb	16:22:01
2	Mo 202.031†	39.6	16.5	0.9757	ug/L	0.9757	ppb	16:22:01
2	Ni 231.604†	135.4	4.8	0.1002	ug/L	0.1002	ppb	16:22:01

2	P 214.914†	284.7	31.0	13.796 ug/L	13.796 ppb	16:22:01
2	Pb 220.353†	-109.9	-32.0	-3.1727 ug/L	-3.1727 ppb	16:22:01
2	S 181.975 Axial†	385.5	347.5	381.71 ug/L	381.71 ppb	16:22:01
2	Sb 206.836†	40.4	-2.4	-0.7608 ug/L	-0.7608 ppb	16:22:01
2	Se 196.026†	-36.9	-6.4	-2.9676 ug/L	-2.9676 ppb	16:22:01
2	Si 251.611†	216388.0	228925.3	6089.6 ug/L	6089.6 ppb	16:21:41
2	Sn 189.927†	-28.1	-33.2	-4.3714 ug/L	-4.3714 ppb	16:22:01
2	Ti 334.940†	-1982.2	-399.1	-0.4149 ug/L	-0.4149 ppb	16:21:41
2	Tl 190.801†	-58.1	-12.2	-3.1608 ug/L	-3.1608 ppb	16:22:01
2	U 409.014†	-3141.7	-415.8	-11.514 ug/L	-11.514 ppb	16:21:41
2	V 292.402†	-1535.0	180.9	1.0724 ug/L	1.0724 ppb	16:22:01
2	Zn 213.857†	995.2	141.5	1.0730 ug/L	1.0730 ppb	16:22:01
2	SiO2†	214638.3	227049.6	13012 ug/L	13012 ppb	16:22:37
3	Sc Radial	4888.8	4888.8	98.9 %		16:20:49
3	Y RADIAL	5175.9	5175.9	97.57 %		16:20:49
3	Al 396.153Radial†	-14.2	6.9	5.3878 ug/L	5.3878 ppb	16:20:49
3	Ca 317.933Radial†	2031.1	2033.3	3186.5 ug/L	3186.5 ppb	16:21:09
3	Fe 238.204 Radial†	11.2	-1.9	-16.992 ug/L	-16.992 ppb	16:21:09
3	K 766.490 Radial†	5182.4	1909.3	362.14 ug/L	362.14 ppb	16:20:49
3	Mg 279.077 IEC†	28.0	25.7	820.72 ug/L	820.72 ppb	16:21:09
3	Na 589.592 Radial†	5625.9	7488.7	2124.7 ug/L	2124.7 ppb	16:20:49
3	Sr 421.552†	2320.8	2336.8	15.315 ug/L	15.315 ppb	16:20:49
3	Sc 361.383	866224.1	866224.1	92.274 %		16:22:06
3	Y 371.029	774312.8	774312.8	94.646 %		16:22:06
3	Ag 328.068†	487.9	63.2	0.2310 ug/L	0.2310 ppb	16:22:06
3	As 188.979†	-35.2	-3.3	-1.0853 ug/L	-1.0853 ppb	16:22:26
3	B 249.677†	-656.0	-314.9	-6.1417 ug/L	-6.1417 ppb	16:22:26
3	Ba 233.527†	632.0	664.8	4.5211 ug/L	4.5211 ppb	16:22:26
3	Be 313.107†	-4410.9	-78.9	-0.0263 ug/L	-0.0263 ppb	16:22:06
3	Cd 226.502†	-253.1	-17.6	-0.1570 ug/L	-0.1570 ppb	16:22:26
3	Co 228.616†	-100.2	-14.3	-0.2473 ug/L	-0.2473 ppb	16:22:26
3	Cr 267.716†	181.4	62.9	0.5993 ug/L	0.5993 ppb	16:22:26
3	Cu 324.752†	8037.0	226.7	0.6456 ug/L	0.6456 ppb	16:22:06
3	Mn 257.610†	7223.8	7192.0	7.1185 ug/L	7.1185 ppb	16:22:26
3	Mo 202.031†	31.2	8.3	0.4892 ug/L	0.4892 ppb	16:22:26
3	Ni 231.604†	129.7	1.7	0.0350 ug/L	0.0350 ppb	16:22:26
3	P 214.914†	271.8	23.4	10.430 ug/L	10.430 ppb	16:22:26
3	Pb 220.353†	-78.3	-0.2	-0.0154 ug/L	-0.0154 ppb	16:22:26
3	S 181.975 Axial†	379.1	349.1	383.48 ug/L	383.48 ppb	16:22:26
3	Sb 206.836†	39.3	-2.7	-0.8622 ug/L	-0.8622 ppb	16:22:26
3	Se 196.026†	-24.1	6.5	3.0329 ug/L	3.0329 ppb	16:22:26
3	Si 251.611†	208995.2	225754.7	6005.3 ug/L	6005.3 ppb	16:22:06
3	Sn 189.927†	-33.9	-40.1	-5.3541 ug/L	-5.3541 ppb	16:22:26
3	Ti 334.940†	-1984.0	-445.3	-0.4789 ug/L	-0.4789 ppb	16:22:06
3	Tl 190.801†	-54.7	-9.8	-2.5267 ug/L	-2.5267 ppb	16:22:26
3	U 409.014†	-3384.2	-748.9	-20.730 ug/L	-20.730 ppb	16:22:06
3	V 292.402†	-1494.7	190.2	1.1077 ug/L	1.1077 ppb	16:22:26
3	Zn 213.857†	1012.5	182.6	1.3985 ug/L	1.3985 ppb	16:22:26
3	SiO2†	219317.4	236922.5	13578 ug/L	13578 ppb	16:22:42

Mean Data: 1201994198|932266|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	879614.1	93.700	%	1.2505				1.33%
Sc Radial	4903.3	99.1	%	1.19				1.20%
Y 371.029	791862.0	96.791	%	1.8814				1.94%
Y RADIAL	5191.7	97.87	%	1.732				1.77%
Ag 328.068†	76.4	0.2913	ug/L	0.11345	0.2913	ppb	0.11345	38.95%
Al 396.153Radial†	4.2	3.2322	ug/L	10.89515	3.2322	ppb	10.89515	337.08%
As 188.979†	1.7	0.5710	ug/L	1.49614	0.5710	ppb	1.49614	262.02%
B 249.677†	-283.0	-5.5221	ug/L	0.62419	-5.5221	ppb	0.62419	11.30%
Ba 233.527†	666.6	4.5342	ug/L	0.05228	4.5342	ppb	0.05228	1.15%
Be 313.107†	-144.8	-0.0471	ug/L	0.02637	-0.0471	ppb	0.02637	55.98%
Ca 317.933Radial†	2022.9	3170.2	ug/L	31.74	3170.2	ppb	31.74	1.00%
Cd 226.502†	-11.4	-0.1031	ug/L	0.09168	-0.1031	ppb	0.09168	88.89%
Co 228.616†	-12.3	-0.2111	ug/L	0.03149	-0.2111	ppb	0.03149	14.92%
Cr 267.716†	62.2	0.5917	ug/L	0.09752	0.5917	ppb	0.09752	16.48%
Cu 324.752†	287.8	0.8210	ug/L	0.19558	0.8210	ppb	0.19558	23.82%
Fe 238.204 Radial†	1.0	9.0224	ug/L	22.90952	9.0224	ppb	22.90952	253.92%
K 766.490 Radial†	1891.7	358.79	ug/L	7.557	358.79	ppb	7.557	2.11%

Mg 279.077 IEC†	25.4	812.85	ug/L	60.386	812.85	ppb	60.386	7.43%
Mn 257.610†	7094.4	7.0243	ug/L	0.08656	7.0243	ppb	0.08656	1.23%
Mo 202.031†	9.5	0.5614	ug/L	0.38325	0.5614	ppb	0.38325	68.26%
Na 589.592 Radial†	7520.7	2133.7	ug/L	11.50	2133.7	ppb	11.50	0.54%
Ni 231.604†	3.9	0.0806	ug/L	0.03963	0.0806	ppb	0.03963	49.18%
P 214.914†	23.0	10.205	ug/L	3.7089	10.205	ppb	3.7089	36.35%
Pb 220.353†	-6.4	-0.6371	ug/L	2.28900	-0.6371	ppb	2.28900	359.27%
S 181.975 Axial†	341.8	375.43	ug/L	12.447	375.43	ppb	12.447	3.32%
Sb 206.836†	1.4	0.3043	ug/L	1.93332	0.3043	ppb	1.93332	635.31%
Se 196.026†	-3.2	-1.4853	ug/L	3.98928	-1.4853	ppb	3.98928	268.58%
Si 251.611†	228436.9	6076.6	ug/L	65.83	6076.6	ppb	65.83	1.08%
Sn 189.927†	-40.5	-5.4066	ug/L	1.06244	-5.4066	ppb	1.06244	19.65%
Sr 421.552†	2306.6	15.117	ug/L	0.1763	15.117	ppb	0.1763	1.17%
Ti 334.940†	-383.8	-0.3912	ug/L	0.10163	-0.3912	ppb	0.10163	25.98%
Tl 190.801†	-12.1	-3.1440	ug/L	0.60907	-3.1440	ppb	0.60907	19.37%
U 409.014†	-607.0	-16.805	ug/L	4.7575	-16.805	ppb	4.7575	28.31%
V 292.402†	192.1	1.1234	ug/L	0.06028	1.1234	ppb	0.06028	5.37%
Zn 213.857†	152.8	1.1644	ug/L	0.20432	1.1644	ppb	0.20432	17.55%
SiO2†	231082.1	13244	ug/L	296.8	13244	ppb	296.8	2.24%

Sequence No.: 22
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/29/2009 16:24:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4734.0	4734.0	95.7	%			16:26:45
1	Y RADIAL	5031.2	5031.2	94.84	%			16:26:45
1	Al 396.153Radial†	6157.6	6454.3	5030.1	ug/L	5030.1	ppb	16:26:45
1	Ca 317.933Radial†	3139.5	3258.4	5106.3	ug/L	5106.3	ppb	16:27:05
1	Fe 238.204 Radial†	570.4	582.6	5132.2	ug/L	5132.2	ppb	16:27:05
1	K 766.490 Radial†	28762.7	26715.5	5078.0	ug/L	5078.0	ppb	16:26:45
1	Mg 279.077 IEC†	164.1	168.7	5401.2	ug/L	5401.2	ppb	16:27:05
1	Na 589.592 Radial†	30764.1	33937.1	9628.6	ug/L	9628.6	ppb	16:26:45
1	Sr 421.552†	72056.0	75266.9	494.20	ug/L	494.20	ppb	16:26:45
1	Sc 361.383	916343.0	916343.0	97.613	%			16:28:04
1	Y 371.029	790423.9	790423.9	96.615	%			16:28:04
1	Ag 328.068†	118456.3	120887.5	503.24	ug/L	503.24	ppb	16:28:04
1	As 188.979†	1482.3	1553.4	515.03	ug/L	515.03	ppb	16:28:24
1	B 249.677†	23873.5	24853.4	483.02	ug/L	483.02	ppb	16:28:04
1	Ba 233.527†	72317.9	74066.4	504.75	ug/L	504.75	ppb	16:28:04
1	Be 313.107†	1557140.2	1599920.9	509.23	ug/L	509.23	ppb	16:28:04
1	Cd 226.502†	54496.8	56086.2	505.12	ug/L	505.12	ppb	16:28:04
1	Co 228.616†	27729.9	28502.3	501.49	ug/L	501.49	ppb	16:28:24
1	Cr 267.716†	52519.6	53670.3	505.08	ug/L	505.08	ppb	16:28:04
1	Cu 324.752†	179454.5	175359.8	500.31	ug/L	500.31	ppb	16:28:04
1	Mn 257.610†	499435.8	511012.8	507.40	ug/L	507.40	ppb	16:28:04
1	Mo 202.031†	8492.4	8674.6	511.08	ug/L	511.08	ppb	16:28:24
1	Ni 231.604†	23943.2	24389.8	504.59	ug/L	504.59	ppb	16:28:24
1	P 214.914†	5756.3	5625.9	2475.4	ug/L	2475.4	ppb	16:28:24
1	Pb 220.353†	4974.3	5180.6	515.77	ug/L	515.77	ppb	16:28:24
1	S 181.975 Axial†	941.7	903.1	991.00	ug/L	991.00	ppb	16:28:24
1	Sb 206.836†	1752.3	1749.9	508.75	ug/L	508.75	ppb	16:28:24
1	Se 196.026†	1016.6	1074.1	527.74	ug/L	527.74	ppb	16:28:24
1	Si 251.611†	92824.2	94354.8	2497.8	ug/L	2497.8	ppb	16:28:04
1	Sn 189.927†	3488.6	3570.5	506.16	ug/L	506.16	ppb	16:28:24
1	Ti 334.940†	332861.4	342706.2	503.26	ug/L	503.26	ppb	16:28:04
1	Tl 190.801†	1842.7	1937.2	510.70	ug/L	510.70	ppb	16:28:24
1	U 409.014†	13904.0	17162.6	473.45	ug/L	473.45	ppb	16:28:04
1	V 292.402†	81688.7	85496.5	510.07	ug/L	510.07	ppb	16:28:04
1	Zn 213.857†	63951.7	64600.9	500.52	ug/L	500.52	ppb	16:28:04
1	SiO2†	93451.5	94978.8	5416.9	ug/L	5416.9	ppb	16:29:25
2	Sc Radial	4681.3	4681.3	94.7	%			16:27:10
2	Y RADIAL	4991.5	4991.5	94.09	%			16:27:10
2	Al 396.153Radial†	6118.6	6485.4	5054.7	ug/L	5054.7	ppb	16:27:10
2	Ca 317.933Radial†	3123.5	3278.5	5137.8	ug/L	5137.8	ppb	16:27:30
2	Fe 238.204 Radial†	573.3	592.4	5217.9	ug/L	5217.9	ppb	16:27:30
2	K 766.490 Radial†	28609.7	26891.9	5111.6	ug/L	5111.6	ppb	16:27:10
2	Mg 279.077 IEC†	164.2	170.8	5467.2	ug/L	5467.2	ppb	16:27:30
2	Na 589.592 Radial†	30557.7	34080.7	9669.3	ug/L	9669.3	ppb	16:27:10
2	Sr 421.552†	71416.1	75437.9	495.32	ug/L	495.32	ppb	16:27:10
2	Sc 361.383	920715.6	920715.6	98.079	%			16:28:32
2	Y 371.029	794365.7	794365.7	97.097	%			16:28:32
2	Ag 328.068†	118962.6	120827.4	503.02	ug/L	503.02	ppb	16:28:32
2	As 188.979†	1481.3	1545.1	512.33	ug/L	512.33	ppb	16:28:52
2	B 249.677†	24015.8	24882.3	483.58	ug/L	483.58	ppb	16:28:32
2	Ba 233.527†	72640.1	74043.0	504.59	ug/L	504.59	ppb	16:28:32
2	Be 313.107†	1566156.7	1601538.0	509.74	ug/L	509.74	ppb	16:28:32
2	Cd 226.502†	54750.2	56079.3	505.05	ug/L	505.05	ppb	16:28:32
2	Co 228.616†	27575.2	28209.6	496.33	ug/L	496.33	ppb	16:28:52
2	Cr 267.716†	52869.9	53771.8	506.04	ug/L	506.04	ppb	16:28:32
2	Cu 324.752†	180378.3	175428.6	500.52	ug/L	500.52	ppb	16:28:32
2	Mn 257.610†	501714.3	510906.0	507.30	ug/L	507.30	ppb	16:28:32
2	Mo 202.031†	8468.4	8608.8	507.21	ug/L	507.21	ppb	16:28:52
2	Ni 231.604†	23841.5	24169.7	500.04	ug/L	500.04	ppb	16:28:52

2	P 214.914†	5735.7	5576.9	2453.1 ug/L	2453.1 ppb	16:28:52
2	Pb 220.353†	4937.8	5119.1	509.66 ug/L	509.66 ppb	16:28:52
2	S 181.975 Axial†	962.1	919.3	1008.7 ug/L	1008.7 ppb	16:28:52
2	Sb 206.836†	1731.4	1720.1	500.05 ug/L	500.05 ppb	16:28:52
2	Se 196.026†	997.4	1049.6	516.38 ug/L	516.38 ppb	16:28:52
2	Si 251.611†	93139.9	94225.1	2494.4 ug/L	2494.4 ppb	16:28:32
2	Sn 189.927†	3485.6	3550.5	503.34 ug/L	503.34 ppb	16:28:52
2	Ti 334.940†	334672.6	342933.4	503.60 ug/L	503.60 ppb	16:28:32
2	Tl 190.801†	1850.4	1936.1	510.44 ug/L	510.44 ppb	16:28:52
2	U 409.014†	13935.5	17127.2	472.46 ug/L	472.46 ppb	16:28:32
2	V 292.402†	81944.2	85359.5	509.19 ug/L	509.19 ppb	16:28:32
2	Zn 213.857†	64301.3	64646.2	500.89 ug/L	500.89 ppb	16:28:32
2	SiO2†	93527.0	94601.1	5395.4 ug/L	5395.4 ppb	16:29:30
3	Sc Radial	4663.2	4663.2	94.3 %		16:27:35
3	Y RADIAL	4971.6	4971.6	93.72 %		16:27:35
3	Al 396.153Radial†	6086.0	6475.9	5047.0 ug/L	5047.0 ppb	16:27:35
3	Ca 317.933Radial†	3100.9	3267.3	5120.3 ug/L	5120.3 ppb	16:27:55
3	Fe 238.204 Radial†	567.7	588.8	5186.5 ug/L	5186.5 ppb	16:27:55
3	K 766.490 Radial†	28594.4	26992.9	5130.8 ug/L	5130.8 ppb	16:27:35
3	Mg 279.077 IEC†	159.4	166.3	5324.1 ug/L	5324.1 ppb	16:27:55
3	Na 589.592 Radial†	30379.8	34017.2	9651.3 ug/L	9651.3 ppb	16:27:35
3	Sr 421.552†	71003.3	75292.6	494.37 ug/L	494.37 ppb	16:27:35
3	Sc 361.383	910527.0	910527.0	96.993 %		16:28:59
3	Y 371.029	785247.4	785247.4	95.982 %		16:28:59
3	Ag 328.068†	117910.6	121100.1	504.14 ug/L	504.14 ppb	16:28:59
3	As 188.979†	1459.4	1539.5	510.47 ug/L	510.47 ppb	16:29:19
3	B 249.677†	23897.5	25034.3	486.54 ug/L	486.54 ppb	16:28:59
3	Ba 233.527†	72095.8	74310.6	506.42 ug/L	506.42 ppb	16:28:59
3	Be 313.107†	1550715.5	1603486.6	510.36 ug/L	510.36 ppb	16:28:59
3	Cd 226.502†	54400.8	56343.8	507.44 ug/L	507.44 ppb	16:28:59
3	Co 228.616†	27656.4	28607.9	503.35 ug/L	503.35 ppb	16:29:19
3	Cr 267.716†	52452.3	53944.5	507.66 ug/L	507.66 ppb	16:28:59
3	Cu 324.752†	178271.6	175314.5	500.19 ug/L	500.19 ppb	16:28:59
3	Mn 257.610†	497497.7	512282.8	508.67 ug/L	508.67 ppb	16:28:59
3	Mo 202.031†	8470.6	8707.7	513.03 ug/L	513.03 ppb	16:29:19
3	Ni 231.604†	23900.7	24502.7	506.93 ug/L	506.93 ppb	16:29:19
3	P 214.914†	5730.1	5636.5	2480.3 ug/L	2480.3 ppb	16:29:19
3	Pb 220.353†	4967.4	5206.0	518.29 ug/L	518.29 ppb	16:29:19
3	S 181.975 Axial†	951.6	919.5	1009.0 ug/L	1009.0 ppb	16:29:19
3	Sb 206.836†	1745.1	1754.0	509.95 ug/L	509.95 ppb	16:29:19
3	Se 196.026†	1002.8	1066.6	524.35 ug/L	524.35 ppb	16:29:19
3	Si 251.611†	92266.7	94387.4	2498.6 ug/L	2498.6 ppb	16:28:59
3	Sn 189.927†	3484.1	3588.7	508.74 ug/L	508.74 ppb	16:29:19
3	Ti 334.940†	331541.4	343523.5	504.46 ug/L	504.46 ppb	16:28:59
3	Tl 190.801†	1855.3	1962.2	517.25 ug/L	517.25 ppb	16:29:19
3	U 409.014†	13917.3	17267.4	476.34 ug/L	476.34 ppb	16:28:59
3	V 292.402†	81247.6	85576.2	510.56 ug/L	510.56 ppb	16:28:59
3	Zn 213.857†	63722.5	64783.1	501.93 ug/L	501.93 ppb	16:28:59
3	SiO2†	93224.5	95356.3	5438.4 ug/L	5438.4 ppb	16:29:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	915861.9	97.562	%	0.5445				0.56%
Sc Radial	4692.8	94.9	%	0.74				0.78%
Y 371.029	790012.3	96.565	%	0.5590				0.58%
Y RADIAL	4998.1	94.22	%	0.572				0.61%
Ag 328.068†	120938.3	503.47	ug/L	0.593	503.47	ppb	0.593	0.12%
QC value within limits for Ag 328.068 Recovery = 100.69%								
Al 396.153Radial†	6471.9	5044.0	ug/L	12.56	5044.0	ppb	12.56	0.25%
QC value within limits for Al 396.153Radial Recovery = 100.88%								
As 188.979†	1546.0	512.61	ug/L	2.292	512.61	ppb	2.292	0.45%
QC value within limits for As 188.979 Recovery = 102.52%								
B 249.677†	24923.3	484.38	ug/L	1.890	484.38	ppb	1.890	0.39%
QC value within limits for B 249.677 Recovery = 96.88%								
Ba 233.527†	74140.0	505.25	ug/L	1.009	505.25	ppb	1.009	0.20%
QC value within limits for Ba 233.527 Recovery = 101.05%								
Be 313.107†	1601648.5	509.78	ug/L	0.568	509.78	ppb	0.568	0.11%
QC value within limits for Be 313.107 Recovery = 101.96%								
Ca 317.933Radial†	3268.0	5121.5	ug/L	15.77	5121.5	ppb	15.77	0.31%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.43%
Cd 226.502†            56169.8      505.87 ug/L         1.359      505.87 ppb          1.359   0.27%
   QC value within limits for Cd 226.502  Recovery = 101.17%
Co 228.616†            28439.9      500.39 ug/L         3.636      500.39 ppb          3.636   0.73%
   QC value within limits for Co 228.616  Recovery = 100.08%
Cr 267.716†            53795.5      506.26 ug/L         1.303      506.26 ppb          1.303   0.26%
   QC value within limits for Cr 267.716  Recovery = 101.25%
Cu 324.752†           175367.6      500.34 ug/L         0.165      500.34 ppb          0.165   0.03%
   QC value within limits for Cu 324.752  Recovery = 100.07%
Fe 238.204 Radial†       587.9      5178.9 ug/L         43.34      5178.9 ppb          43.34   0.84%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.58%
K 766.490 Radial†      26866.8      5106.8 ug/L         26.72      5106.8 ppb          26.72   0.52%
   QC value within limits for K 766.490 Radial  Recovery = 102.14%
Mg 279.077 IEC†          168.6      5397.5 ug/L         71.65      5397.5 ppb          71.65   1.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.95%
Mn 257.610†           511400.5      507.79 ug/L         0.762      507.79 ppb          0.762   0.15%
   QC value within limits for Mn 257.610  Recovery = 101.56%
Mo 202.031†             8663.7      510.44 ug/L         2.960      510.44 ppb          2.960   0.58%
   QC value within limits for Mo 202.031  Recovery = 102.09%
Na 589.592 Radial†     34011.7      9649.7 ug/L         20.40      9649.7 ppb          20.40   0.21%
   QC value within limits for Na 589.592 Radial  Recovery = 96.50%
Ni 231.604†            24354.1      503.85 ug/L         3.504      503.85 ppb          3.504   0.70%
   QC value within limits for Ni 231.604  Recovery = 100.77%
P 214.914†              5613.1      2469.6 ug/L         14.49      2469.6 ppb          14.49   0.59%
   QC value within limits for P 214.914  Recovery = 98.78%
Pb 220.353†             5168.6      514.57 ug/L         4.441      514.57 ppb          4.441   0.86%
   QC value within limits for Pb 220.353  Recovery = 102.91%
S 181.975 Axial†         913.9      1002.9 ug/L         10.31      1002.9 ppb          10.31   1.03%
   QC value within limits for S 181.975 Axial  Recovery = 100.29%
Sb 206.836†             1741.3      506.25 ug/L         5.404      506.25 ppb          5.404   1.07%
   QC value within limits for Sb 206.836  Recovery = 101.25%
Se 196.026†             1063.5      522.82 ug/L         5.831      522.82 ppb          5.831   1.12%
   QC value within limits for Se 196.026  Recovery = 104.56%
Si 251.611†            94322.4      2496.9 ug/L          2.23      2496.9 ppb           2.23   0.09%
   QC value within limits for Si 251.611  Recovery = 99.88%
Sn 189.927†             3569.9      506.08 ug/L         2.702      506.08 ppb          2.702   0.53%
   QC value within limits for Sn 189.927  Recovery = 101.22%
Sr 421.552†            75332.4      494.63 ug/L         0.605      494.63 ppb          0.605   0.12%
   QC value within limits for Sr 421.552  Recovery = 98.93%
Ti 334.940†           343054.4      503.77 ug/L         0.619      503.77 ppb          0.619   0.12%
   QC value within limits for Ti 334.940  Recovery = 100.75%
Tl 190.801†             1945.2      512.80 ug/L         3.860      512.80 ppb          3.860   0.75%
   QC value within limits for Tl 190.801  Recovery = 102.56%
U 409.014†             17185.7      474.08 ug/L         2.016      474.08 ppb          2.016   0.43%
   QC value within limits for U 409.014  Recovery = 94.82%
V 292.402†             85477.4      509.94 ug/L         0.692      509.94 ppb          0.692   0.14%
   QC value within limits for V 292.402  Recovery = 101.99%
Zn 213.857†            64676.8      501.11 ug/L         0.729      501.11 ppb          0.729   0.15%
   QC value within limits for Zn 213.857  Recovery = 100.22%
SiO2†                  94978.7      5416.9 ug/L         21.51      5416.9 ppb          21.51   0.40%
   QC value within limits for SiO2  Recovery = 101.30%
All analyte(s) passed QC.
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Sequence No.: 23
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/29/2009 16:31:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4840.9	4840.9	97.9	%			16:33:37
1	Y RADIAL	5194.3	5194.3	97.92	%			16:33:37
1	Al 396.153Radial†	6.8	28.3	22.104	ug/L	22.104	ppb	16:33:37
1	Ca 317.933Radial†	19.5	-1.5	-2.3282	ug/L	-2.3282	ppb	16:33:57
1	Fe 238.204 Radial†	13.7	0.7	6.4791	ug/L	6.4791	ppb	16:33:57
1	K 766.490 Radial†	3290.6	28.4	5.4231	ug/L	5.4231	ppb	16:33:37
1	Mg 279.077 IEC†	5.8	3.2	103.19	ug/L	103.19	ppb	16:33:57
1	Na 589.592 Radial†	-1911.6	-155.5	-44.126	ug/L	-44.126	ppb	16:33:37
1	Sr 421.552†	8.1	-2.7	-0.0179	ug/L	-0.0179	ppb	16:33:37
1	Sc 361.383	884770.2	884770.2	94.250	%			16:34:54
1	Y 371.029	771708.6	771708.6	94.328	%			16:34:54
1	Ag 328.068†	477.3	40.8	0.1838	ug/L	0.1838	ppb	16:34:54
1	As 188.979†	-38.1	-5.6	-1.8455	ug/L	-1.8455	ppb	16:35:14
1	B 249.677†	-540.3	-177.2	-3.4582	ug/L	-3.4582	ppb	16:34:54
1	Ba 233.527†	13.7	-5.5	-0.0395	ug/L	-0.0395	ppb	16:35:14
1	Be 313.107†	-4335.3	101.6	0.0323	ug/L	0.0323	ppb	16:34:54
1	Cd 226.502†	-232.5	9.9	0.0889	ug/L	0.0889	ppb	16:35:14
1	Co 228.616†	-87.0	1.9	0.0341	ug/L	0.0341	ppb	16:35:14
1	Cr 267.716†	167.6	44.1	0.4194	ug/L	0.4194	ppb	16:34:54
1	Cu 324.752†	7968.0	-29.1	-0.0826	ug/L	-0.0826	ppb	16:34:54
1	Mn 257.610†	666.7	70.7	0.0689	ug/L	0.0689	ppb	16:34:54
1	Mo 202.031†	33.0	9.5	0.5604	ug/L	0.5604	ppb	16:35:14
1	Ni 231.604†	129.9	-1.1	-0.0222	ug/L	-0.0222	ppb	16:35:14
1	P 214.914†	260.4	5.1	2.3194	ug/L	2.3194	ppb	16:35:14
1	Pb 220.353†	-117.7	-40.2	-3.9847	ug/L	-3.9847	ppb	16:35:14
1	S 181.975 Axial†	62.5	4.7	5.1338	ug/L	5.1338	ppb	16:35:14
1	Sb 206.836†	42.7	0.0	0.0013	ug/L	0.0013	ppb	16:35:14
1	Se 196.026†	-33.1	-2.4	-1.1205	ug/L	-1.1205	ppb	16:35:14
1	Si 251.611†	752.1	58.6	1.5495	ug/L	1.5495	ppb	16:35:14
1	Sn 189.927†	-0.1	-3.5	-0.4952	ug/L	-0.4952	ppb	16:35:14
1	Ti 334.940†	-1604.3	2.7	0.0120	ug/L	0.0120	ppb	16:34:54
1	Tl 190.801†	-50.5	-4.1	-1.0722	ug/L	-1.0722	ppb	16:35:14
1	U 409.014†	-3395.8	-684.3	-18.943	ug/L	-18.943	ppb	16:34:54
1	V 292.402†	-1849.0	-151.8	-0.9209	ug/L	-0.9209	ppb	16:34:54
1	Zn 213.857†	926.6	68.5	0.5313	ug/L	0.5313	ppb	16:35:14
1	SiO2†	851.5	145.4	8.3101	ug/L	8.3101	ppb	16:36:10
2	Sc Radial	4717.9	4717.9	95.4	%			16:34:02
2	Y RADIAL	5007.4	5007.4	94.39	%			16:34:02
2	Al 396.153Radial†	4.6	26.1	20.417	ug/L	20.417	ppb	16:34:02
2	Ca 317.933Radial†	18.1	-2.5	-3.9428	ug/L	-3.9428	ppb	16:34:22
2	Fe 238.204 Radial†	12.0	-0.7	-6.4531	ug/L	-6.4531	ppb	16:34:22
2	K 766.490 Radial†	3373.4	202.8	38.638	ug/L	38.638	ppb	16:34:02
2	Mg 279.077 IEC†	4.5	2.0	65.499	ug/L	65.499	ppb	16:34:22
2	Na 589.592 Radial†	-1814.6	-104.7	-29.717	ug/L	-29.717	ppb	16:34:02
2	Sr 421.552†	-31.3	-43.8	-0.2874	ug/L	-0.2874	ppb	16:34:02
2	Sc 361.383	885815.8	885815.8	94.361	%			16:35:19
2	Y 371.029	773447.9	773447.9	94.540	%			16:35:19
2	Ag 328.068†	492.9	56.8	0.2419	ug/L	0.2419	ppb	16:35:19
2	As 188.979†	-34.0	-1.2	-0.3796	ug/L	-0.3796	ppb	16:35:39
2	B 249.677†	-635.8	-277.7	-5.4192	ug/L	-5.4192	ppb	16:35:19
2	Ba 233.527†	19.9	1.1	0.0057	ug/L	0.0057	ppb	16:35:39
2	Be 313.107†	-4408.4	29.5	0.0090	ug/L	0.0090	ppb	16:35:19
2	Cd 226.502†	-242.5	-0.3	-0.0025	ug/L	-0.0025	ppb	16:35:39
2	Co 228.616†	-82.4	6.9	0.1231	ug/L	0.1231	ppb	16:35:39
2	Cr 267.716†	134.8	9.2	0.0893	ug/L	0.0893	ppb	16:35:19
2	Cu 324.752†	8013.9	9.6	0.0272	ug/L	0.0272	ppb	16:35:19
2	Mn 257.610†	649.2	51.4	0.0491	ug/L	0.0491	ppb	16:35:19
2	Mo 202.031†	34.3	10.9	0.6428	ug/L	0.6428	ppb	16:35:39
2	Ni 231.604†	111.3	-21.0	-0.4341	ug/L	-0.4341	ppb	16:35:39

2	P 214.914†	266.7	11.5	5.2309	ug/L	5.2309	ppb	16:35:39
2	Pb 220.353†	-89.4	-10.1	-0.9930	ug/L	-0.9930	ppb	16:35:39
2	S 181.975 Axial†	66.5	8.8	9.6122	ug/L	9.6122	ppb	16:35:39
2	Sb 206.836†	36.7	-6.4	-1.8028	ug/L	-1.8028	ppb	16:35:39
2	Se 196.026†	-33.3	-2.6	-1.2325	ug/L	-1.2325	ppb	16:35:39
2	Si 251.611†	776.8	83.8	2.2044	ug/L	2.2044	ppb	16:35:39
2	Sn 189.927†	7.0	4.1	0.5754	ug/L	0.5754	ppb	16:35:39
2	Ti 334.940†	-1738.5	-137.7	-0.1965	ug/L	-0.1965	ppb	16:35:19
2	Tl 190.801†	-48.2	-1.6	-0.4147	ug/L	-0.4147	ppb	16:35:39
2	U 409.014†	-3211.5	-484.8	-13.418	ug/L	-13.418	ppb	16:35:19
2	V 292.402†	-1800.8	-98.3	-0.5928	ug/L	-0.5928	ppb	16:35:19
2	Zn 213.857†	927.8	68.6	0.5370	ug/L	0.5370	ppb	16:35:39
2	SiO2†	825.5	116.8	6.6345	ug/L	6.6345	ppb	16:36:15
3	Sc Radial	4719.0	4719.0	95.4	%			16:34:27
3	Y RADIAL	5042.2	5042.2	95.05	%			16:34:27
3	Al 396.153Radial†	4.7	26.2	20.479	ug/L	20.479	ppb	16:34:27
3	Ca 317.933Radial†	23.4	3.1	4.8994	ug/L	4.8994	ppb	16:34:47
3	Fe 238.204 Radial†	10.6	-2.2	-19.026	ug/L	-19.026	ppb	16:34:47
3	K 766.490 Radial†	3288.9	113.5	21.630	ug/L	21.630	ppb	16:34:27
3	Mg 279.077 IEC†	2.1	-0.5	-17.436	ug/L	-17.436	ppb	16:34:47
3	Na 589.592 Radial†	-1845.0	-136.2	-38.638	ug/L	-38.638	ppb	16:34:27
3	Sr 421.552†	-8.7	-20.2	-0.1326	ug/L	-0.1326	ppb	16:34:27
3	Sc 361.383	894349.5	894349.5	95.270	%			16:35:45
3	Y 371.029	780567.4	780567.4	95.410	%			16:35:45
3	Ag 328.068†	484.6	43.0	0.1842	ug/L	0.1842	ppb	16:35:45
3	As 188.979†	-31.3	2.0	0.6470	ug/L	0.6470	ppb	16:36:05
3	B 249.677†	-580.1	-212.8	-4.1496	ug/L	-4.1496	ppb	16:35:45
3	Ba 233.527†	9.1	-10.5	-0.0734	ug/L	-0.0734	ppb	16:36:05
3	Be 313.107†	-4505.5	-27.9	-0.0092	ug/L	-0.0092	ppb	16:35:45
3	Cd 226.502†	-251.5	-7.4	-0.0644	ug/L	-0.0644	ppb	16:36:05
3	Co 228.616†	-95.3	-5.8	-0.1002	ug/L	-0.1002	ppb	16:36:05
3	Cr 267.716†	113.5	-14.6	-0.1334	ug/L	-0.1334	ppb	16:35:45
3	Cu 324.752†	8184.7	107.9	0.3067	ug/L	0.3067	ppb	16:35:45
3	Mn 257.610†	612.5	6.3	0.0047	ug/L	0.0047	ppb	16:35:45
3	Mo 202.031†	31.9	8.0	0.4711	ug/L	0.4711	ppb	16:36:05
3	Ni 231.604†	141.0	9.1	0.1892	ug/L	0.1892	ppb	16:36:05
3	P 214.914†	261.4	3.2	1.4237	ug/L	1.4237	ppb	16:36:05
3	Pb 220.353†	-90.7	-10.6	-1.0475	ug/L	-1.0475	ppb	16:36:05
3	S 181.975 Axial†	62.8	4.2	4.6629	ug/L	4.6629	ppb	16:36:05
3	Sb 206.836†	18.4	-26.0	-7.4313	ug/L	-7.4313	ppb	16:36:05
3	Se 196.026†	-27.0	4.3	1.9991	ug/L	1.9991	ppb	16:36:05
3	Si 251.611†	758.1	56.3	1.4832	ug/L	1.4832	ppb	16:36:05
3	Sn 189.927†	1.2	-2.2	-0.3094	ug/L	-0.3094	ppb	16:36:05
3	Ti 334.940†	-1729.5	-110.6	-0.1544	ug/L	-0.1544	ppb	16:35:45
3	Tl 190.801†	-56.1	-9.4	-2.4631	ug/L	-2.4631	ppb	16:36:05
3	U 409.014†	-3389.5	-639.1	-17.687	ug/L	-17.687	ppb	16:35:45
3	V 292.402†	-1824.1	-104.6	-0.6408	ug/L	-0.6408	ppb	16:35:45
3	Zn 213.857†	925.1	56.3	0.4399	ug/L	0.4399	ppb	16:36:05
3	SiO2†	801.6	83.4	4.7464	ug/L	4.7464	ppb	16:36:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	888311.8	94.627	%	0.5598				0.59%
Sc Radial	4759.3	96.2	%	1.43				1.49%
Y 371.029	775241.3	94.759	%	0.5737				0.61%
Y RADIAL	5081.3	95.79	%	1.874				1.96%
Ag 328.068†	46.9	0.2033	ug/L	0.03342	0.2033	ppb	0.03342	16.44%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	26.9	21.000	ug/L	0.9562	21.000	ppb	0.9562	4.55%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.6	-0.5260	ug/L	1.25267	-0.5260	ppb	1.25267	238.14%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-222.6	-4.3423	ug/L	0.99460	-4.3423	ppb	0.99460	22.90%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.0	-0.0357	ug/L	0.03967	-0.0357	ppb	0.03967	111.07%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	34.4	0.0107	ug/L	0.02078	0.0107	ppb	0.02078	194.41%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.3	-0.4572	ug/L	4.70869	-0.4572	ppb	4.70869	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                0.7      0.0073 ug/L       0.07716      0.0073 ppb        0.07716 >999.9%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                1.0      0.0190 ug/L       0.11238      0.0190 ppb        0.11238 591.67%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               12.9      0.1251 ug/L       0.27810      0.1251 ppb        0.27810 222.32%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               29.5      0.0837 ug/L       0.20072      0.0837 ppb        0.20072 239.66%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.7     -6.3334 ug/L      12.75297     -6.3334 ppb       12.75297 201.36%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        114.9      21.897 ug/L       16.6091      21.897 ppb        16.6091  75.85%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.6      50.418 ug/L       61.7123      50.418 ppb        61.7123 122.40%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               42.8      0.0409 ug/L       0.03288      0.0409 ppb        0.03288  80.36%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                9.5      0.5581 ug/L       0.08585      0.5581 ppb        0.08585  15.38%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -132.2     -37.493 ug/L        7.2720     -37.493 ppb         7.2720  19.40%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -4.3     -0.0890 ug/L       0.31699     -0.0890 ppb        0.31699 356.05%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 6.6      2.9913 ug/L       1.99052      2.9913 ppb        1.99052  66.54%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -20.3     -2.0084 ug/L       1.71175     -2.0084 ppb        1.71175  85.23%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           5.9      6.4696 ug/L       2.73167      6.4696 ppb        2.73167  42.22%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -10.8     -3.0776 ug/L       3.87680     -3.0776 ppb        3.87680 125.97%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -0.2     -0.1180 ug/L       1.83429     -0.1180 ppb        1.83429 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               66.3      1.7457 ug/L       0.39861      1.7457 ppb        0.39861  22.83%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.5     -0.0764 ug/L       0.57209     -0.0764 ppb        0.57209 748.48%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -22.2     -0.1459 ug/L       0.13526     -0.1459 ppb        0.13526  92.67%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -81.9     -0.1130 ug/L       0.11024     -0.1130 ppb        0.11024  97.59%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -5.0     -1.3167 ug/L       1.04583     -1.3167 ppb        1.04583  79.43%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -602.7     -16.683 ug/L        2.8961     -16.683 ppb         2.8961  17.36%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -118.2     -0.7182 ug/L       0.17718     -0.7182 ppb        0.17718  24.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               64.5      0.5027 ug/L       0.05445      0.5027 ppb        0.05445  10.83%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    115.2      6.5637 ug/L       1.78291      6.5637 ppb        1.78291  27.16%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 24
Sample ID: 1201994199|932266|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 36
Date Collected: 12/29/2009 16:38:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994199|932266|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4870.2	4870.2	98.5	%			16:40:25
1	Y RADIAL	5180.0	5180.0	97.65	%			16:40:25
1	Al 396.153Radial†	1208.9	1248.9	973.24	ug/L	973.24	ppb	16:40:25
1	Ca 317.933Radial†	2620.9	2640.0	4137.2	ug/L	4137.2	ppb	16:40:45
1	Fe 238.204 Radial†	125.6	114.2	1006.4	ug/L	1006.4	ppb	16:40:45
1	K 766.490 Radial†	10169.6	6993.7	1328.9	ug/L	1328.9	ppb	16:40:25
1	Mg 279.077 IEC†	60.8	59.0	1887.6	ug/L	1887.6	ppb	16:40:45
1	Na 589.592 Radial†	8903.5	10838.8	3075.2	ug/L	3075.2	ppb	16:40:25
1	Sr 421.552†	16570.0	16815.5	110.38	ug/L	110.38	ppb	16:40:25
1	Sc 361.383	897768.1	897768.1	95.634	%			16:41:42
1	Y 371.029	777822.6	777822.6	95.075	%			16:41:42
1	Ag 328.068†	24088.9	24722.9	102.86	ug/L	102.86	ppb	16:41:42
1	As 188.979†	247.2	293.4	97.327	ug/L	97.327	ppb	16:42:02
1	B 249.677†	4266.6	4857.4	94.396	ug/L	94.396	ppb	16:41:42
1	Ba 233.527†	15317.6	15996.8	109.00	ug/L	109.00	ppb	16:41:42
1	Be 313.107†	306871.8	325582.1	103.63	ug/L	103.63	ppb	16:41:42
1	Cd 226.502†	10433.4	11166.3	100.57	ug/L	100.57	ppb	16:42:02
1	Co 228.616†	5364.5	5703.6	100.35	ug/L	100.35	ppb	16:42:02
1	Cr 267.716†	10520.1	10866.6	102.27	ug/L	102.27	ppb	16:41:42
1	Cu 324.752†	42529.0	35987.2	102.67	ug/L	102.67	ppb	16:41:42
1	Mn 257.610†	108142.1	112442.3	111.62	ug/L	111.62	ppb	16:41:42
1	Mo 202.031†	1668.2	1718.9	101.27	ug/L	101.27	ppb	16:42:02
1	Ni 231.604†	4826.0	4907.4	101.53	ug/L	101.53	ppb	16:42:02
1	P 214.914†	509.2	261.3	102.97	ug/L	102.97	ppb	16:42:02
1	Pb 220.353†	922.1	1048.8	104.40	ug/L	104.40	ppb	16:42:02
1	S 181.975 Axial†	1286.3	1283.3	1409.5	ug/L	1409.5	ppb	16:42:02
1	Sb 206.836†	382.3	354.5	103.01	ug/L	103.01	ppb	16:42:02
1	Se 196.026†	177.0	217.7	106.86	ug/L	106.86	ppb	16:42:02
1	Si 251.611†	250612.5	261313.8	6948.8	ug/L	6948.8	ppb	16:41:42
1	Sn 189.927†	693.9	722.2	102.70	ug/L	102.70	ppb	16:42:02
1	Ti 334.940†	64595.6	69249.2	101.85	ug/L	101.85	ppb	16:41:42
1	Tl 190.801†	321.4	385.5	101.69	ug/L	101.69	ppb	16:42:02
1	U 409.014†	612.1	3558.7	98.182	ug/L	98.182	ppb	16:41:42
1	V 292.402†	14976.4	17470.1	104.21	ug/L	104.21	ppb	16:41:42
1	Zn 213.857†	13473.8	13174.3	102.06	ug/L	102.06	ppb	16:41:42
1	SiO2†	254173.1	265018.3	15183	ug/L	15183	ppb	16:42:58
2	Sc Radial	4845.2	4845.2	98.0	%			16:40:50
2	Y RADIAL	5115.0	5115.0	96.42	%			16:40:50
2	Al 396.153Radial†	1215.8	1262.3	983.65	ug/L	983.65	ppb	16:40:50
2	Ca 317.933Radial†	2659.9	2693.6	4221.2	ug/L	4221.2	ppb	16:41:10
2	Fe 238.204 Radial†	126.8	116.1	1023.0	ug/L	1023.0	ppb	16:41:10
2	K 766.490 Radial†	10189.0	7066.7	1342.8	ug/L	1342.8	ppb	16:40:50
2	Mg 279.077 IEC†	60.4	58.9	1885.9	ug/L	1885.9	ppb	16:41:10
2	Na 589.592 Radial†	8840.4	10821.0	3070.1	ug/L	3070.1	ppb	16:40:50
2	Sr 421.552†	16622.7	16956.1	111.30	ug/L	111.30	ppb	16:40:50
2	Sc 361.383	891906.7	891906.7	95.010	%			16:42:07
2	Y 371.029	774076.6	774076.6	94.617	%			16:42:07
2	Ag 328.068†	23890.0	24679.1	102.69	ug/L	102.69	ppb	16:42:07
2	As 188.979†	267.2	316.0	104.78	ug/L	104.78	ppb	16:42:27
2	B 249.677†	4313.6	4936.2	95.929	ug/L	95.929	ppb	16:42:07
2	Ba 233.527†	15184.8	15962.3	108.76	ug/L	108.76	ppb	16:42:07
2	Be 313.107†	305060.7	325784.6	103.69	ug/L	103.69	ppb	16:42:07
2	Cd 226.502†	10474.6	11281.4	101.60	ug/L	101.60	ppb	16:42:27
2	Co 228.616†	5388.8	5766.0	101.45	ug/L	101.45	ppb	16:42:27
2	Cr 267.716†	10440.3	10854.9	102.16	ug/L	102.16	ppb	16:42:07
2	Cu 324.752†	42223.9	35958.4	102.59	ug/L	102.59	ppb	16:42:07
2	Mn 257.610†	107321.9	112322.2	111.51	ug/L	111.51	ppb	16:42:07
2	Mo 202.031†	1678.1	1740.8	102.56	ug/L	102.56	ppb	16:42:27
2	Ni 231.604†	4865.0	4981.6	103.06	ug/L	103.06	ppb	16:42:27

2	P 214.914†	501.9	257.0	101.02 ug/L	101.02 ppb	16:42:27
2	Pb 220.353†	913.9	1046.6	104.18 ug/L	104.18 ppb	16:42:27
2	S 181.975 Axial†	1290.9	1297.0	1424.5 ug/L	1424.5 ppb	16:42:27
2	Sb 206.836†	387.0	362.1	105.21 ug/L	105.21 ppb	16:42:27
2	Se 196.026†	178.3	220.3	108.15 ug/L	108.15 ppb	16:42:27
2	Si 251.611†	248485.1	260796.8	6935.0 ug/L	6935.0 ppb	16:42:07
2	Sn 189.927†	682.8	715.2	101.72 ug/L	101.72 ppb	16:42:27
2	Ti 334.940†	64091.6	69162.7	101.73 ug/L	101.73 ppb	16:42:07
2	Tl 190.801†	316.6	382.7	100.95 ug/L	100.95 ppb	16:42:27
2	U 409.014†	279.3	3212.7	88.602 ug/L	88.602 ppb	16:42:07
2	V 292.402†	14773.8	17359.9	103.56 ug/L	103.56 ppb	16:42:07
2	Zn 213.857†	13371.5	13159.1	101.93 ug/L	101.93 ppb	16:42:07
2	SiO2†	255942.2	268626.9	15390 ug/L	15390 ppb	16:43:04
3	Sc Radial	4871.8	4871.8	98.5 %		16:41:15
3	Y RADIAL	5183.0	5183.0	97.70 %		16:41:15
3	Al 396.153Radial†	1209.8	1249.4	973.71 ug/L	973.71 ppb	16:41:15
3	Ca 317.933Radial†	2636.9	2655.4	4161.4 ug/L	4161.4 ppb	16:41:35
3	Fe 238.204 Radial†	124.8	113.4	999.26 ug/L	999.26 ppb	16:41:35
3	K 766.490 Radial†	10301.1	7123.9	1353.6 ug/L	1353.6 ppb	16:41:15
3	Mg 279.077 IEC†	61.5	59.7	1911.5 ug/L	1911.5 ppb	16:41:35
3	Na 589.592 Radial†	9019.4	10953.5	3107.7 ug/L	3107.7 ppb	16:41:15
3	Sr 421.552†	16741.0	16983.8	111.49 ug/L	111.49 ppb	16:41:15
3	Sc 361.383	909021.9	909021.9	96.833 %		16:42:33
3	Y 371.029	787945.6	787945.6	96.312 %		16:42:33
3	Ag 328.068†	24455.4	24789.7	103.13 ug/L	103.13 ppb	16:42:33
3	As 188.979†	259.8	303.1	100.54 ug/L	100.54 ppb	16:42:53
3	B 249.677†	4344.2	4882.3	94.885 ug/L	94.885 ppb	16:42:33
3	Ba 233.527†	15601.3	16091.5	109.64 ug/L	109.64 ppb	16:42:33
3	Be 313.107†	312966.1	327903.1	104.36 ug/L	104.36 ppb	16:42:33
3	Cd 226.502†	10475.9	11075.1	99.746 ug/L	99.746 ppb	16:42:53
3	Co 228.616†	5393.1	5663.7	99.644 ug/L	99.644 ppb	16:42:53
3	Cr 267.716†	10672.1	10887.4	102.46 ug/L	102.46 ppb	16:42:33
3	Cu 324.752†	43228.4	36159.0	103.16 ug/L	103.16 ppb	16:42:33
3	Mn 257.610†	110021.2	112982.9	112.16 ug/L	112.16 ppb	16:42:33
3	Mo 202.031†	1658.8	1687.6	99.429 ug/L	99.429 ppb	16:42:53
3	Ni 231.604†	4848.4	4868.1	100.71 ug/L	100.71 ppb	16:42:53
3	P 214.914†	520.7	266.6	105.27 ug/L	105.27 ppb	16:42:53
3	Pb 220.353†	923.9	1038.7	103.40 ug/L	103.40 ppb	16:42:53
3	S 181.975 Axial†	1282.7	1262.9	1387.1 ug/L	1387.1 ppb	16:42:53
3	Sb 206.836†	408.7	376.9	109.36 ug/L	109.36 ppb	16:42:53
3	Se 196.026†	167.4	205.5	101.04 ug/L	101.04 ppb	16:42:53
3	Si 251.611†	255356.5	262968.7	6992.8 ug/L	6992.8 ppb	16:42:33
3	Sn 189.927†	695.6	715.0	101.68 ug/L	101.68 ppb	16:42:53
3	Ti 334.940†	65903.1	69763.2	102.61 ug/L	102.61 ppb	16:42:33
3	Tl 190.801†	324.7	384.8	101.53 ug/L	101.53 ppb	16:42:53
3	U 409.014†	569.9	3507.2	96.757 ug/L	96.757 ppb	16:42:33
3	V 292.402†	15199.1	17506.2	104.39 ug/L	104.39 ppb	16:42:33
3	Zn 213.857†	13702.6	13236.0	102.54 ug/L	102.54 ppb	16:42:33
3	SiO2†	249718.3	257127.4	14731 ug/L	14731 ppb	16:43:09

Mean Data: 1201994199|932266|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899565.6	95.826	%	0.9266				0.97%
Sc Radial	4862.4	98.3	%	0.30				0.31%
Y 371.029	779948.3	95.335	%	0.8770				0.92%
Y RADIAL	5159.3	97.26	%	0.724				0.74%
Ag 328.068†	24730.6	102.89	ug/L	0.225	102.89	ppb	0.225	0.22%
Al 396.153Radial†	1253.5	976.87	ug/L	5.880	976.87	ppb	5.880	0.60%
As 188.979†	304.2	100.88	ug/L	3.737	100.88	ppb	3.737	3.70%
B 249.677†	4892.0	95.070	ug/L	0.7830	95.070	ppb	0.7830	0.82%
Ba 233.527†	16016.8	109.14	ug/L	0.455	109.14	ppb	0.455	0.42%
Be 313.107†	326423.3	103.89	ug/L	0.409	103.89	ppb	0.409	0.39%
Ca 317.933Radial†	2663.0	4173.3	ug/L	43.23	4173.3	ppb	43.23	1.04%
Cd 226.502†	11174.3	100.64	ug/L	0.931	100.64	ppb	0.931	0.92%
Co 228.616†	5711.1	100.48	ug/L	0.912	100.48	ppb	0.912	0.91%
Cr 267.716†	10869.6	102.29	ug/L	0.154	102.29	ppb	0.154	0.15%
Cu 324.752†	36034.8	102.81	ug/L	0.309	102.81	ppb	0.309	0.30%
Fe 238.204 Radial†	114.6	1009.6	ug/L	12.19	1009.6	ppb	12.19	1.21%
K 766.490 Radial†	7061.4	1341.8	ug/L	12.41	1341.8	ppb	12.41	0.93%

Mg 279.077 IEC†	59.2	1895.0	ug/L	14.31	1895.0	ppb	14.31	0.76%
Mn 257.610†	112582.5	111.76	ug/L	0.348	111.76	ppb	0.348	0.31%
Mo 202.031†	1715.8	101.09	ug/L	1.575	101.09	ppb	1.575	1.56%
Na 589.592 Radial†	10871.1	3084.3	ug/L	20.41	3084.3	ppb	20.41	0.66%
Ni 231.604†	4919.0	101.77	ug/L	1.193	101.77	ppb	1.193	1.17%
P 214.914†	261.6	103.08	ug/L	2.126	103.08	ppb	2.126	2.06%
Pb 220.353†	1044.7	103.99	ug/L	0.528	103.99	ppb	0.528	0.51%
S 181.975 Axial†	1281.1	1407.0	ug/L	18.83	1407.0	ppb	18.83	1.34%
Sb 206.836†	364.5	105.86	ug/L	3.221	105.86	ppb	3.221	3.04%
Se 196.026†	214.5	105.35	ug/L	3.790	105.35	ppb	3.790	3.60%
Si 251.611†	261693.1	6958.8	ug/L	30.21	6958.8	ppb	30.21	0.43%
Sn 189.927†	717.5	102.03	ug/L	0.575	102.03	ppb	0.575	0.56%
Sr 421.552†	16918.5	111.06	ug/L	0.592	111.06	ppb	0.592	0.53%
Ti 334.940†	69391.7	102.07	ug/L	0.475	102.07	ppb	0.475	0.47%
Tl 190.801†	384.3	101.39	ug/L	0.391	101.39	ppb	0.391	0.39%
U 409.014†	3426.2	94.514	ug/L	5.1686	94.514	ppb	5.1686	5.47%
V 292.402†	17445.4	104.05	ug/L	0.439	104.05	ppb	0.439	0.42%
Zn 213.857†	13189.8	102.17	ug/L	0.325	102.17	ppb	0.325	0.32%
SiO2†	263590.9	15101	ug/L	337.0	15101	ppb	337.0	2.23%

Sequence No.: 25
Sample ID: 1201994200|932266|25
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 12/29/2009 16:45:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1201994200|932266|25

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4915.3	4915.3	99.4	%			16:47:13
1	Y RADIAL	5231.8	5231.8	98.62	%			16:47:13
1	Al 396.153Radial†	-16.2	5.0	3.9290	ug/L	3.9290	ppb	16:47:13
1	Ca 317.933Radial†	429.3	410.5	643.39	ug/L	643.39	ppb	16:47:33
1	Fe 238.204 Radial†	13.4	0.3	2.2798	ug/L	2.2798	ppb	16:47:33
1	K 766.490 Radial†	3583.9	272.7	51.659	ug/L	51.659	ppb	16:47:13
1	Mg 279.077 IEC†	6.0	3.3	105.31	ug/L	105.31	ppb	16:47:33
1	Na 589.592 Radial†	-381.2	1413.9	401.15	ug/L	401.15	ppb	16:47:13
1	Sr 421.552†	490.2	482.2	3.1607	ug/L	3.1607	ppb	16:47:13
1	Sc 361.383	937220.8	937220.8	99.837	%			16:48:30
1	Y 371.029	815041.1	815041.1	99.624	%			16:48:30
1	Ag 328.068†	548.2	83.5	0.3411	ug/L	0.3411	ppb	16:48:30
1	As 188.979†	-38.5	-3.7	-1.2145	ug/L	-1.2145	ppb	16:48:50
1	B 249.677†	-675.0	-280.1	-5.4658	ug/L	-5.4658	ppb	16:48:50
1	Ba 233.527†	157.7	137.9	0.9387	ug/L	0.9387	ppb	16:48:50
1	Be 313.107†	-4507.1	186.8	0.0590	ug/L	0.0590	ppb	16:48:30
1	Cd 226.502†	-262.7	-6.5	-0.0586	ug/L	-0.0586	ppb	16:48:50
1	Co 228.616†	-81.2	12.9	0.2269	ug/L	0.2269	ppb	16:48:50
1	Cr 267.716†	126.3	-7.2	-0.0656	ug/L	-0.0656	ppb	16:48:50
1	Cu 324.752†	8146.3	-323.6	-0.9225	ug/L	-0.9225	ppb	16:48:30
1	Mn 257.610†	2013.6	1380.3	1.3677	ug/L	1.3677	ppb	16:48:50
1	Mo 202.031†	26.2	0.8	0.0460	ug/L	0.0460	ppb	16:48:50
1	Ni 231.604†	130.6	-8.1	-0.1679	ug/L	-0.1679	ppb	16:48:50
1	P 214.914†	270.5	-0.2	0.0182	ug/L	0.0182	ppb	16:48:50
1	Pb 220.353†	-86.5	-2.0	-0.1954	ug/L	-0.1954	ppb	16:48:50
1	S 181.975 Axial†	133.0	71.6	78.638	ug/L	78.638	ppb	16:48:50
1	Sb 206.836†	33.3	-11.9	-3.4190	ug/L	-3.4190	ppb	16:48:50
1	Se 196.026†	-45.7	-13.2	-6.2290	ug/L	-6.2290	ppb	16:48:50
1	Si 251.611†	43665.6	42997.6	1143.8	ug/L	1143.8	ppb	16:48:30
1	Sn 189.927†	-7.8	-11.2	-1.5243	ug/L	-1.5243	ppb	16:48:50
1	Ti 334.940†	-1826.9	-125.1	-0.1491	ug/L	-0.1491	ppb	16:48:30
1	Tl 190.801†	-54.4	-5.0	-1.3054	ug/L	-1.3054	ppb	16:48:50
1	U 409.014†	-2994.6	-80.8	-2.2379	ug/L	-2.2379	ppb	16:48:30
1	V 292.402†	-1702.1	105.2	0.6178	ug/L	0.6178	ppb	16:48:50
1	Zn 213.857†	946.3	33.1	0.2575	ug/L	0.2575	ppb	16:48:50
1	SiO2†	44081.2	43395.2	2487.0	ug/L	2487.0	ppb	16:49:47
2	Sc Radial	5004.6	5004.6	101	%			16:47:38
2	Y RADIAL	5360.4	5360.4	101.0	%			16:47:38
2	Al 396.153Radial†	7.2	28.4	22.268	ug/L	22.268	ppb	16:47:38
2	Ca 317.933Radial†	440.0	413.4	647.80	ug/L	647.80	ppb	16:47:58
2	Fe 238.204 Radial†	10.6	-2.8	-24.522	ug/L	-24.522	ppb	16:47:58
2	K 766.490 Radial†	3656.3	279.8	53.032	ug/L	53.032	ppb	16:47:38
2	Mg 279.077 IEC†	8.7	5.9	189.48	ug/L	189.48	ppb	16:47:58
2	Na 589.592 Radial†	-502.5	1300.8	369.07	ug/L	369.07	ppb	16:47:38
2	Sr 421.552†	500.4	483.5	3.1687	ug/L	3.1687	ppb	16:47:38
2	Sc 361.383	937008.3	937008.3	99.814	%			16:48:56
2	Y 371.029	815000.2	815000.2	99.619	%			16:48:56
2	Ag 328.068†	590.0	125.4	0.5059	ug/L	0.5059	ppb	16:48:56
2	As 188.979†	-38.1	-3.4	-1.1031	ug/L	-1.1031	ppb	16:49:16
2	B 249.677†	-697.0	-302.3	-5.8951	ug/L	-5.8951	ppb	16:49:16
2	Ba 233.527†	129.6	109.8	0.7466	ug/L	0.7466	ppb	16:49:16
2	Be 313.107†	-4580.6	112.2	0.0354	ug/L	0.0354	ppb	16:48:56
2	Cd 226.502†	-244.8	11.4	0.1055	ug/L	0.1055	ppb	16:49:16
2	Co 228.616†	-86.6	7.5	0.1321	ug/L	0.1321	ppb	16:49:16
2	Cr 267.716†	139.1	5.6	0.0543	ug/L	0.0543	ppb	16:49:16
2	Cu 324.752†	8146.3	-321.7	-0.9187	ug/L	-0.9187	ppb	16:48:56
2	Mn 257.610†	2004.6	1371.8	1.3550	ug/L	1.3550	ppb	16:49:16
2	Mo 202.031†	24.1	-1.3	-0.0780	ug/L	-0.0780	ppb	16:49:16
2	Ni 231.604†	140.7	2.0	0.0420	ug/L	0.0420	ppb	16:49:16

2	P 214.914†	261.8	-8.9	-3.8806 ug/L	-3.8806 ppb	16:49:16
2	Pb 220.353†	-97.3	-12.9	-1.2699 ug/L	-1.2699 ppb	16:49:16
2	S 181.975 Axial†	128.9	67.5	74.125 ug/L	74.125 ppb	16:49:16
2	Sb 206.836†	31.7	-13.5	-3.9082 ug/L	-3.9082 ppb	16:49:16
2	Se 196.026†	-36.7	-4.1	-2.0091 ug/L	-2.0091 ppb	16:49:16
2	Si 251.611†	44243.9	43586.8	1159.5 ug/L	1159.5 ppb	16:48:56
2	Sn 189.927†	-13.1	-16.6	-2.2777 ug/L	-2.2777 ppb	16:49:16
2	Ti 334.940†	-1775.5	-74.0	-0.0734 ug/L	-0.0734 ppb	16:48:56
2	Tl 190.801†	-41.2	8.2	2.1445 ug/L	2.1445 ppb	16:49:16
2	U 409.014†	-3038.2	-125.2	-3.4614 ug/L	-3.4614 ppb	16:48:56
2	V 292.402†	-1733.7	73.2	0.4310 ug/L	0.4310 ppb	16:49:16
2	Zn 213.857†	921.7	8.8	0.0643 ug/L	0.0643 ppb	16:49:16
2	SiO2†	44411.8	43736.5	2506.6 ug/L	2506.6 ppb	16:49:52
3	Sc Radial	4807.5	4807.5	97.2 %		16:48:03
3	Y RADIAL	5091.6	5091.6	95.98 %		16:48:03
3	Al 396.153Radial†	7.7	29.2	22.881 ug/L	22.881 ppb	16:48:03
3	Ca 317.933Radial†	434.1	425.1	666.16 ug/L	666.16 ppb	16:48:23
3	Fe 238.204 Radial†	13.5	0.7	5.7275 ug/L	5.7275 ppb	16:48:23
3	K 766.490 Radial†	3708.1	481.3	91.378 ug/L	91.378 ppb	16:48:03
3	Mg 279.077 IEC†	5.1	2.5	80.175 ug/L	80.175 ppb	16:48:23
3	Na 589.592 Radial†	-420.5	1364.9	387.24 ug/L	387.24 ppb	16:48:03
3	Sr 421.552†	503.8	507.3	3.3251 ug/L	3.3251 ppb	16:48:03
3	Sc 361.383	927716.2	927716.2	98.824 %		16:49:22
3	Y 371.029	808572.4	808572.4	98.833 %		16:49:22
3	Ag 328.068†	526.7	67.3	0.2753 ug/L	0.2753 ppb	16:49:22
3	As 188.979†	-33.0	1.4	0.4791 ug/L	0.4791 ppb	16:49:42
3	B 249.677†	-701.0	-313.2	-6.1127 ug/L	-6.1127 ppb	16:49:42
3	Ba 233.527†	146.0	127.7	0.8689 ug/L	0.8689 ppb	16:49:42
3	Be 313.107†	-4457.3	191.0	0.0606 ug/L	0.0606 ppb	16:49:22
3	Cd 226.502†	-263.5	-10.0	-0.0909 ug/L	-0.0909 ppb	16:49:42
3	Co 228.616†	-95.1	-2.0	-0.0339 ug/L	-0.0339 ppb	16:49:42
3	Cr 267.716†	130.4	-1.8	-0.0149 ug/L	-0.0149 ppb	16:49:42
3	Cu 324.752†	8186.9	-199.0	-0.5670 ug/L	-0.5670 ppb	16:49:22
3	Mn 257.610†	1983.5	1370.5	1.3588 ug/L	1.3588 ppb	16:49:42
3	Mo 202.031†	26.9	1.8	0.1037 ug/L	0.1037 ppb	16:49:42
3	Ni 231.604†	121.9	-15.6	-0.3220 ug/L	-0.3220 ppb	16:49:42
3	P 214.914†	272.6	4.7	2.2071 ug/L	2.2071 ppb	16:49:42
3	Pb 220.353†	-88.4	-4.8	-0.4703 ug/L	-0.4703 ppb	16:49:42
3	S 181.975 Axial†	125.9	65.7	72.190 ug/L	72.190 ppb	16:49:42
3	Sb 206.836†	40.2	-4.6	-1.3156 ug/L	-1.3156 ppb	16:49:42
3	Se 196.026†	-33.6	-1.3	-0.6085 ug/L	-0.6085 ppb	16:49:42
3	Si 251.611†	43887.2	43669.9	1161.6 ug/L	1161.6 ppb	16:49:22
3	Sn 189.927†	3.6	0.3	0.1064 ug/L	0.1064 ppb	16:49:42
3	Ti 334.940†	-1698.7	-14.2	0.0155 ug/L	0.0155 ppb	16:49:22
3	Tl 190.801†	-45.1	3.9	1.0181 ug/L	1.0181 ppb	16:49:42
3	U 409.014†	-3005.4	-122.5	-3.3925 ug/L	-3.3925 ppb	16:49:22
3	V 292.402†	-1713.5	76.2	0.4444 ug/L	0.4444 ppb	16:49:42
3	Zn 213.857†	931.5	27.9	0.2177 ug/L	0.2177 ppb	16:49:42
3	SiO2†	44127.9	43894.8	2515.6 ug/L	2515.6 ppb	16:49:57

Mean Data: 1201994200|932266|25

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	933981.8	99.492	%	0.5781				0.58%
Sc Radial	4909.1	99.3	%	2.00				2.01%
Y 371.029	812871.2	99.359	%	0.4551				0.46%
Y RADIAL	5227.9	98.55	%	2.534				2.57%
Ag 328.068†	92.1	0.3741	ug/L	0.11877	0.3741	ppb	0.11877	31.75%
Al 396.153Radial†	20.9	16.360	ug/L	10.7695	16.360	ppb	10.7695	65.83%
As 188.979†	-1.9	-0.6128	ug/L	0.94728	-0.6128	ppb	0.94728	154.57%
B 249.677†	-298.5	-5.8245	ug/L	0.32917	-5.8245	ppb	0.32917	5.65%
Ba 233.527†	125.1	0.8514	ug/L	0.09722	0.8514	ppb	0.09722	11.42%
Be 313.107†	163.4	0.0517	ug/L	0.01411	0.0517	ppb	0.01411	27.29%
Ca 317.933Radial†	416.3	652.45	ug/L	12.076	652.45	ppb	12.076	1.85%
Cd 226.502†	-1.7	-0.0146	ug/L	0.10531	-0.0146	ppb	0.10531	719.58%
Co 228.616†	6.1	0.1084	ug/L	0.13202	0.1084	ppb	0.13202	121.82%
Cr 267.716†	-1.1	-0.0088	ug/L	0.06018	-0.0088	ppb	0.06018	687.00%
Cu 324.752†	-281.4	-0.8028	ug/L	0.20416	-0.8028	ppb	0.20416	25.43%
Fe 238.204 Radial†	-0.6	-5.5049	ug/L	16.55926	-5.5049	ppb	16.55926	300.81%
K 766.490 Radial†	344.6	65.356	ug/L	22.5459	65.356	ppb	22.5459	34.50%

Mg 279.077 IEC†	3.9	124.99	ug/L	57.250	124.99	ppb	57.250	45.80%
Mn 257.610†	1374.2	1.3605	ug/L	0.00654	1.3605	ppb	0.00654	0.48%
Mo 202.031†	0.4	0.0239	ug/L	0.09286	0.0239	ppb	0.09286	388.40%
Na 589.592 Radial†	1359.9	385.82	ug/L	16.086	385.82	ppb	16.086	4.17%
Ni 231.604†	-7.2	-0.1493	ug/L	0.18270	-0.1493	ppb	0.18270	122.37%
P 214.914†	-1.5	-0.5518	ug/L	3.08361	-0.5518	ppb	3.08361	558.85%
Pb 220.353†	-6.5	-0.6452	ug/L	0.55819	-0.6452	ppb	0.55819	86.51%
S 181.975 Axial†	68.3	74.984	ug/L	3.3089	74.984	ppb	3.3089	4.41%
Sb 206.836†	-10.0	-2.8810	ug/L	1.37751	-2.8810	ppb	1.37751	47.81%
Se 196.026†	-6.2	-2.9489	ug/L	2.92574	-2.9489	ppb	2.92574	99.22%
Si 251.611†	43418.1	1155.0	ug/L	9.74	1155.0	ppb	9.74	0.84%
Sn 189.927†	-9.2	-1.2319	ug/L	1.21867	-1.2319	ppb	1.21867	98.93%
Sr 421.552†	491.0	3.2182	ug/L	0.09265	3.2182	ppb	0.09265	2.88%
Ti 334.940†	-71.1	-0.0690	ug/L	0.08237	-0.0690	ppb	0.08237	119.32%
Tl 190.801†	2.3	0.6191	ug/L	1.75920	0.6191	ppb	1.75920	284.17%
U 409.014†	-109.5	-3.0306	ug/L	0.68735	-3.0306	ppb	0.68735	22.68%
V 292.402†	84.9	0.4977	ug/L	0.10419	0.4977	ppb	0.10419	20.93%
Zn 213.857†	23.3	0.1798	ug/L	0.10202	0.1798	ppb	0.10202	56.73%
SiO2†	43675.5	2503.1	ug/L	14.62	2503.1	ppb	14.62	0.58%

Sequence No.: 26
Sample ID: 242753002|932266|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 38
Date Collected: 12/29/2009 16:52:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242753002|932266|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4802.0	4802.0	97.1	%			16:54:01
1	Y RADIAL	5086.6	5086.6	95.88	%			16:54:01
1	Al 396.153Radial†	5.5	26.9	21.062	ug/L	21.062	ppb	16:54:01
1	Ca 317.933Radial†	2101.5	2142.9	3358.3	ug/L	3358.3	ppb	16:54:21
1	Fe 238.204 Radial†	14.5	1.7	14.628	ug/L	14.628	ppb	16:54:21
1	K 766.490 Radial†	5201.0	2023.2	383.88	ug/L	383.88	ppb	16:54:01
1	Mg 279.077 IEC†	30.9	29.1	931.46	ug/L	931.46	ppb	16:54:21
1	Na 589.592 Radial†	5705.4	7673.5	2177.1	ug/L	2177.1	ppb	16:54:01
1	Sr 421.552†	2346.3	2405.5	15.765	ug/L	15.765	ppb	16:54:01
1	Sc 361.383	883546.3	883546.3	94.119	%			16:55:18
1	Y 371.029	767137.2	767137.2	93.769	%			16:55:18
1	Ag 328.068†	421.4	-17.8	-0.1012	ug/L	-0.1012	ppb	16:55:18
1	As 188.979†	-34.7	-2.0	-0.6658	ug/L	-0.6658	ppb	16:55:38
1	B 249.677†	-623.6	-266.5	-5.2010	ug/L	-5.2010	ppb	16:55:38
1	Ba 233.527†	622.9	641.8	4.3659	ug/L	4.3659	ppb	16:55:38
1	Be 313.107†	-4501.4	-81.3	-0.0271	ug/L	-0.0271	ppb	16:55:18
1	Cd 226.502†	-256.4	-15.8	-0.1436	ug/L	-0.1436	ppb	16:55:38
1	Co 228.616†	-105.1	-17.5	-0.3026	ug/L	-0.3026	ppb	16:55:38
1	Cr 267.716†	155.4	31.4	0.3017	ug/L	0.3017	ppb	16:55:38
1	Cu 324.752†	8143.3	168.9	0.4824	ug/L	0.4824	ppb	16:55:18
1	Mn 257.610†	745.1	155.1	0.1380	ug/L	0.1380	ppb	16:55:38
1	Mo 202.031†	35.2	11.9	0.7039	ug/L	0.7039	ppb	16:55:38
1	Ni 231.604†	128.1	-2.8	-0.0585	ug/L	-0.0585	ppb	16:55:38
1	P 214.914†	262.8	8.1	3.5031	ug/L	3.5031	ppb	16:55:38
1	Pb 220.353†	-90.7	-11.8	-1.1631	ug/L	-1.1631	ppb	16:55:38
1	S 181.975 Axial†	391.2	353.9	388.77	ug/L	388.77	ppb	16:55:38
1	Sb 206.836†	42.8	0.2	-0.0340	ug/L	-0.0340	ppb	16:55:38
1	Se 196.026†	-46.7	-16.9	-7.9820	ug/L	-7.9820	ppb	16:55:38
1	Si 251.611†	220421.3	233454.2	6210.1	ug/L	6210.1	ppb	16:55:18
1	Sn 189.927†	-36.1	-41.7	-5.5576	ug/L	-5.5576	ppb	16:55:38
1	Ti 334.940†	-2021.2	-442.7	-0.4691	ug/L	-0.4691	ppb	16:55:18
1	Tl 190.801†	-49.8	-3.4	-0.9024	ug/L	-0.9024	ppb	16:55:38
1	U 409.014†	-3216.9	-499.3	-13.822	ug/L	-13.822	ppb	16:55:18
1	V 292.402†	-1495.6	221.1	1.3038	ug/L	1.3038	ppb	16:55:38
1	Zn 213.857†	1003.7	151.7	1.1526	ug/L	1.1526	ppb	16:55:38
1	SiO2†	222062.3	235179.1	13478	ug/L	13478	ppb	16:56:34
2	Sc Radial	4948.1	4948.1	100	%			16:54:26
2	Y RADIAL	5245.1	5245.1	98.87	%			16:54:26
2	Al 396.153Radial†	-14.2	7.1	5.5183	ug/L	5.5183	ppb	16:54:26
2	Ca 317.933Radial†	2097.7	2075.2	3252.2	ug/L	3252.2	ppb	16:54:46
2	Fe 238.204 Radial†	12.7	-0.6	-5.3246	ug/L	-5.3246	ppb	16:54:46
2	K 766.490 Radial†	5181.9	1845.9	350.13	ug/L	350.13	ppb	16:54:26
2	Mg 279.077 IEC†	28.8	26.0	832.75	ug/L	832.75	ppb	16:54:46
2	Na 589.592 Radial†	5935.7	7730.2	2193.2	ug/L	2193.2	ppb	16:54:26
2	Sr 421.552†	2440.0	2427.7	15.912	ug/L	15.912	ppb	16:54:26
2	Sc 361.383	920711.9	920711.9	98.078	%			16:55:43
2	Y 371.029	797825.8	797825.8	97.520	%			16:55:43
2	Ag 328.068†	511.6	56.0	0.1920	ug/L	0.1920	ppb	16:55:43
2	As 188.979†	-30.5	3.7	1.2178	ug/L	1.2178	ppb	16:56:03
2	B 249.677†	-590.9	-206.4	-4.0268	ug/L	-4.0268	ppb	16:56:03
2	Ba 233.527†	624.2	616.4	4.1938	ug/L	4.1938	ppb	16:56:03
2	Be 313.107†	-4618.6	-7.7	-0.0032	ug/L	-0.0032	ppb	16:55:43
2	Cd 226.502†	-260.7	-9.2	-0.0820	ug/L	-0.0820	ppb	16:56:03
2	Co 228.616†	-97.7	-5.4	-0.0903	ug/L	-0.0903	ppb	16:56:03
2	Cr 267.716†	159.7	29.1	0.2771	ug/L	0.2771	ppb	16:56:03
2	Cu 324.752†	8398.1	79.4	0.2262	ug/L	0.2262	ppb	16:55:43
2	Mn 257.610†	727.1	104.7	0.0879	ug/L	0.0879	ppb	16:56:03
2	Mo 202.031†	34.9	10.1	0.5942	ug/L	0.5942	ppb	16:56:03
2	Ni 231.604†	148.8	12.8	0.2651	ug/L	0.2651	ppb	16:56:03

2	P 214.914†	264.6	-1.4	-0.7345 ug/L	-0.7345 ppb	16:56:03
2	Pb 220.353†	-87.0	-4.1	-0.3994 ug/L	-0.3994 ppb	16:56:03
2	S 181.975 Axial†	398.5	344.6	378.54 ug/L	378.54 ppb	16:56:03
2	Sb 206.836†	27.0	-17.7	-5.1792 ug/L	-5.1792 ppb	16:56:03
2	Se 196.026†	-40.9	-9.0	-4.2814 ug/L	-4.2814 ppb	16:56:03
2	Si 251.611†	226336.8	230032.1	6119.0 ug/L	6119.0 ppb	16:55:43
2	Sn 189.927†	-40.7	-44.9	-6.0136 ug/L	-6.0136 ppb	16:56:03
2	Ti 334.940†	-1917.8	-250.6	-0.1970 ug/L	-0.1970 ppb	16:55:43
2	Tl 190.801†	-43.5	5.1	1.3396 ug/L	1.3396 ppb	16:56:03
2	U 409.014†	-2989.1	-129.0	-3.5712 ug/L	-3.5712 ppb	16:55:43
2	V 292.402†	-1484.3	296.6	1.7676 ug/L	1.7676 ppb	16:56:03
2	Zn 213.857†	987.8	92.5	0.6926 ug/L	0.6926 ppb	16:56:03
2	SiO2†	219654.5	223200.2	12792 ug/L	12792 ppb	16:56:39
3	Sc Radial	4850.6	4850.6	98.1 %		16:54:51
3	Y RADIAL	5163.6	5163.6	97.34 %		16:54:51
3	Al 396.153Radial†	-3.1	18.1	14.157 ug/L	14.157 ppb	16:54:51
3	Ca 317.933Radial†	2124.6	2144.8	3361.2 ug/L	3361.2 ppb	16:55:11
3	Fe 238.204 Radial†	11.5	-1.6	-13.655 ug/L	-13.655 ppb	16:55:11
3	K 766.490 Radial†	5155.7	1923.3	364.84 ug/L	364.84 ppb	16:54:51
3	Mg 279.077 IEC†	30.8	28.7	916.60 ug/L	916.60 ppb	16:55:11
3	Na 589.592 Radial†	5929.5	7843.1	2225.2 ug/L	2225.2 ppb	16:54:51
3	Sr 421.552†	2404.4	2440.5	15.994 ug/L	15.994 ppb	16:54:51
3	Sc 361.383	908775.5	908775.5	96.807 %		16:56:08
3	Y 371.029	789331.7	789331.7	96.482 %		16:56:08
3	Ag 328.068†	471.7	21.7	0.0525 ug/L	0.0525 ppb	16:56:08
3	As 188.979†	-30.6	3.2	1.0537 ug/L	1.0537 ppb	16:56:28
3	B 249.677†	-605.9	-229.8	-4.4819 ug/L	-4.4819 ppb	16:56:28
3	Ba 233.527†	631.0	631.8	4.2975 ug/L	4.2975 ppb	16:56:28
3	Be 313.107†	-4528.4	23.6	0.0063 ug/L	0.0063 ppb	16:56:08
3	Cd 226.502†	-249.6	-1.2	-0.0092 ug/L	-0.0092 ppb	16:56:28
3	Co 228.616†	-92.0	-0.8	-0.0088 ug/L	-0.0088 ppb	16:56:28
3	Cr 267.716†	162.0	33.6	0.3221 ug/L	0.3221 ppb	16:56:28
3	Cu 324.752†	8219.4	7.3	0.0202 ug/L	0.0202 ppb	16:56:08
3	Mn 257.610†	737.9	125.6	0.1062 ug/L	0.1062 ppb	16:56:28
3	Mo 202.031†	40.2	16.1	0.9456 ug/L	0.9456 ppb	16:56:28
3	Ni 231.604†	138.1	3.7	0.0771 ug/L	0.0771 ppb	16:56:28
3	P 214.914†	280.5	18.6	8.3632 ug/L	8.3632 ppb	16:56:28
3	Pb 220.353†	-99.5	-18.2	-1.8002 ug/L	-1.8002 ppb	16:56:28
3	S 181.975 Axial†	382.2	333.1	365.87 ug/L	365.87 ppb	16:56:28
3	Sb 206.836†	48.6	5.0	1.3361 ug/L	1.3361 ppb	16:56:28
3	Se 196.026†	-35.2	-3.7	-1.7951 ug/L	-1.7951 ppb	16:56:28
3	Si 251.611†	219615.3	226120.1	6015.0 ug/L	6015.0 ppb	16:56:08
3	Sn 189.927†	-40.5	-45.3	-6.0592 ug/L	-6.0592 ppb	16:56:28
3	Ti 334.940†	-2068.0	-431.5	-0.4528 ug/L	-0.4528 ppb	16:56:08
3	Tl 190.801†	-51.2	-3.4	-0.8960 ug/L	-0.8960 ppb	16:56:28
3	U 409.014†	-3277.3	-466.7	-12.918 ug/L	-12.918 ppb	16:56:08
3	V 292.402†	-1511.9	248.3	1.4733 ug/L	1.4733 ppb	16:56:28
3	Zn 213.857†	981.0	98.7	0.7402 ug/L	0.7402 ppb	16:56:28
3	SiO2†	223928.1	230556.5	13213 ug/L	13213 ppb	16:56:44

Mean Data: 242753002|932266|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	904344.6	96.335	%	2.0213				2.10%
Sc Radial	4866.9	98.4	%	1.51				1.53%
Y 371.029	784764.9	95.923	%	1.9369				2.02%
Y RADIAL	5165.1	97.36	%	1.494				1.53%
Ag 328.068†	19.9	0.0478	ug/L	0.14665	0.0478	ppb	0.14665	306.84%
Al 396.153Radial†	17.4	13.579	ug/L	7.7877	13.579	ppb	7.7877	57.35%
As 188.979†	1.6	0.5352	ug/L	1.04334	0.5352	ppb	1.04334	194.94%
B 249.677†	-234.2	-4.5699	ug/L	0.59203	-4.5699	ppb	0.59203	12.95%
Ba 233.527†	630.0	4.2857	ug/L	0.08666	4.2857	ppb	0.08666	2.02%
Be 313.107†	-21.8	-0.0080	ug/L	0.01720	-0.0080	ppb	0.01720	214.84%
Ca 317.933Radial†	2121.0	3323.9	ug/L	62.13	3323.9	ppb	62.13	1.87%
Cd 226.502†	-8.7	-0.0782	ug/L	0.06728	-0.0782	ppb	0.06728	85.99%
Co 228.616†	-7.9	-0.1339	ug/L	0.15167	-0.1339	ppb	0.15167	113.29%
Cr 267.716†	31.3	0.3003	ug/L	0.02255	0.3003	ppb	0.02255	7.51%
Cu 324.752†	85.2	0.2429	ug/L	0.23155	0.2429	ppb	0.23155	95.33%
Fe 238.204 Radial†	-0.2	-1.4507	ug/L	14.53405	-1.4507	ppb	14.53405	>999.9%
K 766.490 Radial†	1930.8	366.28	ug/L	16.923	366.28	ppb	16.923	4.62%

Mg 279.077 IEC†	27.9	893.61	ug/L	53.219	893.61	ppb	53.219	5.96%
Mn 257.610†	128.5	0.1107	ug/L	0.02535	0.1107	ppb	0.02535	22.90%
Mo 202.031†	12.7	0.7479	ug/L	0.17982	0.7479	ppb	0.17982	24.04%
Na 589.592 Radial†	7748.9	2198.5	ug/L	24.51	2198.5	ppb	24.51	1.11%
Ni 231.604†	4.6	0.0946	ug/L	0.16254	0.0946	ppb	0.16254	171.88%
P 214.914†	8.4	3.7106	ug/L	4.55240	3.7106	ppb	4.55240	122.69%
Pb 220.353†	-11.3	-1.1209	ug/L	0.70137	-1.1209	ppb	0.70137	62.57%
S 181.975 Axial†	343.9	377.73	ug/L	11.470	377.73	ppb	11.470	3.04%
Sb 206.836†	-4.2	-1.2923	ug/L	3.43510	-1.2923	ppb	3.43510	265.80%
Se 196.026†	-9.9	-4.6862	ug/L	3.11329	-4.6862	ppb	3.11329	66.44%
Si 251.611†	229868.8	6114.7	ug/L	97.62	6114.7	ppb	97.62	1.60%
Sn 189.927†	-43.9	-5.8768	ug/L	0.27734	-5.8768	ppb	0.27734	4.72%
Sr 421.552†	2424.6	15.890	ug/L	0.1163	15.890	ppb	0.1163	0.73%
Ti 334.940†	-374.9	-0.3730	ug/L	0.15259	-0.3730	ppb	0.15259	40.91%
Tl 190.801†	-0.6	-0.1529	ug/L	1.29258	-0.1529	ppb	1.29258	845.30%
U 409.014†	-365.0	-10.104	ug/L	5.6753	-10.104	ppb	5.6753	56.17%
V 292.402†	255.3	1.5149	ug/L	0.23466	1.5149	ppb	0.23466	15.49%
Zn 213.857†	114.3	0.8618	ug/L	0.25297	0.8618	ppb	0.25297	29.35%
SiO2†	229645.3	13161	ug/L	346.2	13161	ppb	346.2	2.63%

Sequence No.: 27
Sample ID: 242753003|932266|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 39
Date Collected: 12/29/2009 16:58:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242753003|932266|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4962.7	4962.7	100	%			17:00:47
1	Y RADIAL	5283.3	5283.3	99.59	%			17:00:47
1	Al 396.153Radial†	81.3	102.4	80.132	ug/L	80.132	ppb	17:00:47
1	Ca 317.933Radial†	2142.2	2113.4	3311.9	ug/L	3311.9	ppb	17:01:07
1	Fe 238.204 Radial†	15.8	2.5	21.941	ug/L	21.941	ppb	17:01:07
1	K 766.490 Radial†	5337.6	1985.9	376.69	ug/L	376.69	ppb	17:00:47
1	Mg 279.077 IEC†	30.3	27.5	878.67	ug/L	878.67	ppb	17:01:07
1	Na 589.592 Radial†	5873.3	7650.6	2170.6	ug/L	2170.6	ppb	17:00:47
1	Sr 421.552†	2439.5	2420.1	15.861	ug/L	15.861	ppb	17:00:47
1	Sc 361.383	903585.8	903585.8	96.254	%			17:02:04
1	Y 371.029	782741.9	782741.9	95.676	%			17:02:04
1	Ag 328.068†	451.0	2.9	-0.0098	ug/L	-0.0098	ppb	17:02:04
1	As 188.979†	-25.9	8.0	2.6164	ug/L	2.6164	ppb	17:02:24
1	B 249.677†	-606.4	-233.9	-4.5674	ug/L	-4.5674	ppb	17:02:24
1	Ba 233.527†	689.9	696.7	4.7399	ug/L	4.7399	ppb	17:02:24
1	Be 313.107†	-4537.7	-13.0	-0.0052	ug/L	-0.0052	ppb	17:02:04
1	Cd 226.502†	-263.5	-17.1	-0.1558	ug/L	-0.1558	ppb	17:02:24
1	Co 228.616†	-103.3	-13.1	-0.2279	ug/L	-0.2279	ppb	17:02:24
1	Cr 267.716†	197.7	71.7	0.6816	ug/L	0.6816	ppb	17:02:24
1	Cu 324.752†	8261.1	99.4	0.2847	ug/L	0.2847	ppb	17:02:04
1	Mn 257.610†	8949.8	8661.6	8.5792	ug/L	8.5792	ppb	17:02:04
1	Mo 202.031†	24.8	0.3	0.0189	ug/L	0.0189	ppb	17:02:24
1	Ni 231.604†	150.6	17.6	0.3638	ug/L	0.3638	ppb	17:02:24
1	P 214.914†	268.3	7.5	3.2961	ug/L	3.2961	ppb	17:02:24
1	Pb 220.353†	-84.6	-3.3	-0.3100	ug/L	-0.3100	ppb	17:02:24
1	S 181.975 Axial†	405.5	359.6	394.97	ug/L	394.97	ppb	17:02:24
1	Sb 206.836†	40.1	-3.6	-1.1476	ug/L	-1.1476	ppb	17:02:24
1	Se 196.026†	-40.5	-9.4	-4.3542	ug/L	-4.3542	ppb	17:02:24
1	Si 251.611†	227479.4	235593.1	6267.0	ug/L	6267.0	ppb	17:02:04
1	Sn 189.927†	-35.6	-40.3	-5.3680	ug/L	-5.3680	ppb	17:02:24
1	Ti 334.940†	-1994.3	-367.1	-0.3597	ug/L	-0.3597	ppb	17:02:04
1	Tl 190.801†	-57.8	-10.6	-2.7214	ug/L	-2.7214	ppb	17:02:24
1	U 409.014†	-3363.1	-575.3	-15.929	ug/L	-15.929	ppb	17:02:04
1	V 292.402†	-1504.3	247.2	1.4412	ug/L	1.4412	ppb	17:02:24
1	Zn 213.857†	1171.8	302.7	2.3314	ug/L	2.3314	ppb	17:02:24
1	SiO2†	226380.2	234432.5	13436	ug/L	13436	ppb	17:03:21
2	Sc Radial	5046.0	5046.0	102	%			17:01:13
2	Y RADIAL	5364.1	5364.1	101.1	%			17:01:13
2	Al 396.153Radial†	33.5	54.2	42.406	ug/L	42.406	ppb	17:01:13
2	Ca 317.933Radial†	2146.5	2082.4	3263.4	ug/L	3263.4	ppb	17:01:33
2	Fe 238.204 Radial†	16.2	2.6	23.120	ug/L	23.120	ppb	17:01:33
2	K 766.490 Radial†	5095.9	1661.1	314.85	ug/L	314.85	ppb	17:01:13
2	Mg 279.077 IEC†	30.1	26.8	857.21	ug/L	857.21	ppb	17:01:33
2	Na 589.592 Radial†	5950.4	7629.5	2164.6	ug/L	2164.6	ppb	17:01:13
2	Sr 421.552†	2456.0	2396.1	15.704	ug/L	15.704	ppb	17:01:13
2	Sc 361.383	915069.2	915069.2	97.477	%			17:02:30
2	Y 371.029	792611.1	792611.1	96.882	%			17:02:30
2	Ag 328.068†	525.5	73.5	0.2794	ug/L	0.2794	ppb	17:02:30
2	As 188.979†	-28.1	6.0	1.9791	ug/L	1.9791	ppb	17:02:50
2	B 249.677†	-617.8	-237.7	-4.6402	ug/L	-4.6402	ppb	17:02:50
2	Ba 233.527†	675.0	672.4	4.5743	ug/L	4.5743	ppb	17:02:50
2	Be 313.107†	-4492.0	93.1	0.0287	ug/L	0.0287	ppb	17:02:30
2	Cd 226.502†	-260.6	-10.7	-0.0985	ug/L	-0.0985	ppb	17:02:50
2	Co 228.616†	-111.0	-19.7	-0.3432	ug/L	-0.3432	ppb	17:02:50
2	Cr 267.716†	228.2	100.4	0.9499	ug/L	0.9499	ppb	17:02:50
2	Cu 324.752†	8501.3	238.1	0.6800	ug/L	0.6800	ppb	17:02:30
2	Mn 257.610†	9087.1	8685.7	8.6037	ug/L	8.6037	ppb	17:02:30
2	Mo 202.031†	27.5	2.8	0.1642	ug/L	0.1642	ppb	17:02:50
2	Ni 231.604†	155.0	20.1	0.4165	ug/L	0.4165	ppb	17:02:50

2	P 214.914†	281.0	17.1	7.5787 ug/L	7.5787 ppb	17:02:50
2	Pb 220.353†	-97.0	-14.9	-1.4666 ug/L	-1.4666 ppb	17:02:50
2	S 181.975 Axial†	402.3	351.0	385.56 ug/L	385.56 ppb	17:02:50
2	Sb 206.836†	51.7	7.8	2.1357 ug/L	2.1357 ppb	17:02:50
2	Se 196.026†	-29.3	2.6	1.3208 ug/L	1.3208 ppb	17:02:50
2	Si 251.611†	231560.1	236813.6	6299.5 ug/L	6299.5 ppb	17:02:30
2	Sn 189.927†	-32.7	-36.9	-4.8888 ug/L	-4.8888 ppb	17:02:50
2	Ti 334.940†	-1963.2	-309.2	-0.2791 ug/L	-0.2791 ppb	17:02:30
2	Tl 190.801†	-52.2	-4.1	-1.0149 ug/L	-1.0149 ppb	17:02:50
2	U 409.014†	-3257.8	-423.5	-11.727 ug/L	-11.727 ppb	17:02:30
2	V 292.402†	-1530.1	240.3	1.4102 ug/L	1.4102 ppb	17:02:50
2	Zn 213.857†	1175.7	291.5	2.2434 ug/L	2.2434 ppb	17:02:50
2	SiO2†	229286.4	234462.4	13437 ug/L	13437 ppb	17:03:26
3	Sc Radial	4945.7	4945.7	100 %		17:01:38
3	Y RADIAL	5277.8	5277.8	99.49 %		17:01:38
3	Al 396.153Radial†	90.3	111.6	87.393 ug/L	87.393 ppb	17:01:38
3	Ca 317.933Radial†	2169.2	2147.8	3365.8 ug/L	3365.8 ppb	17:01:58
3	Fe 238.204 Radial†	14.9	1.6	13.985 ug/L	13.985 ppb	17:01:58
3	K 766.490 Radial†	5106.0	1772.6	336.07 ug/L	336.07 ppb	17:01:38
3	Mg 279.077 IEC†	25.4	22.7	724.54 ug/L	724.54 ppb	17:01:58
3	Na 589.592 Radial†	5799.5	7596.8	2155.4 ug/L	2155.4 ppb	17:01:38
3	Sr 421.552†	2390.9	2379.8	15.596 ug/L	15.596 ppb	17:01:38
3	Sc 361.383	903092.2	903092.2	96.201 %		17:02:55
3	Y 371.029	784767.4	784767.4	95.924 %		17:02:55
3	Ag 328.068†	420.8	-28.2	-0.1449 ug/L	-0.1449 ppb	17:02:55
3	As 188.979†	-37.3	-3.9	-1.2810 ug/L	-1.2810 ppb	17:03:15
3	B 249.677†	-582.9	-209.8	-4.0958 ug/L	-4.0958 ppb	17:03:15
3	Ba 233.527†	699.7	707.3	4.8116 ug/L	4.8116 ppb	17:03:15
3	Be 313.107†	-4533.5	-11.1	-0.0046 ug/L	-0.0046 ppb	17:02:55
3	Cd 226.502†	-249.3	-2.5	-0.0234 ug/L	-0.0234 ppb	17:03:15
3	Co 228.616†	-98.6	-8.3	-0.1432 ug/L	-0.1432 ppb	17:03:15
3	Cr 267.716†	204.5	78.8	0.7473 ug/L	0.7473 ppb	17:03:15
3	Cu 324.752†	8285.4	129.4	0.3697 ug/L	0.3697 ppb	17:02:55
3	Mn 257.610†	8948.1	8664.8	8.5846 ug/L	8.5846 ppb	17:02:55
3	Mo 202.031†	22.2	-2.3	-0.1362 ug/L	-0.1362 ppb	17:03:15
3	Ni 231.604†	161.8	29.3	0.6063 ug/L	0.6063 ppb	17:03:15
3	P 214.914†	275.4	15.1	6.7335 ug/L	6.7335 ppb	17:03:15
3	Pb 220.353†	-98.2	-17.5	-1.7183 ug/L	-1.7183 ppb	17:03:15
3	S 181.975 Axial†	411.8	366.4	402.40 ug/L	402.40 ppb	17:03:15
3	Sb 206.836†	37.0	-6.7	-2.0375 ug/L	-2.0375 ppb	17:03:15
3	Se 196.026†	-33.2	-1.9	-0.8238 ug/L	-0.8238 ppb	17:03:15
3	Si 251.611†	226948.5	235170.4	6255.7 ug/L	6255.7 ppb	17:02:55
3	Sn 189.927†	-31.0	-35.6	-4.6897 ug/L	-4.6897 ppb	17:03:15
3	Ti 334.940†	-1987.8	-361.5	-0.3503 ug/L	-0.3503 ppb	17:02:55
3	Tl 190.801†	-46.3	1.3	0.3988 ug/L	0.3988 ppb	17:03:15
3	U 409.014†	-3228.2	-437.0	-12.098 ug/L	-12.098 ppb	17:02:55
3	V 292.402†	-1499.5	251.3	1.4685 ug/L	1.4685 ppb	17:03:15
3	Zn 213.857†	1176.1	307.9	2.3758 ug/L	2.3758 ppb	17:03:15
3	SiO2†	226914.8	235116.7	13475 ug/L	13475 ppb	17:03:31

Mean Data: 242753003|932266|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	907249.1	96.644	%	0.7219				0.75%
Sc Radial	4984.8	101	%	1.1				1.08%
Y 371.029	786706.8	96.161	%	0.6371				0.66%
Y RADIAL	5308.4	100.1	%	0.91				0.91%
Ag 328.068†	16.1	0.0415	ug/L	0.21676	0.0415	ppb	0.21676	521.95%
Al 396.153Radial†	89.4	69.977	ug/L	24.1516	69.977	ppb	24.1516	34.51%
As 188.979†	3.4	1.1048	ug/L	2.09063	1.1048	ppb	2.09063	189.23%
B 249.677†	-227.2	-4.4345	ug/L	0.29551	-4.4345	ppb	0.29551	6.66%
Ba 233.527†	692.1	4.7086	ug/L	0.12168	4.7086	ppb	0.12168	2.58%
Be 313.107†	23.0	0.0063	ug/L	0.01939	0.0063	ppb	0.01939	307.11%
Ca 317.933Radial†	2114.5	3313.7	ug/L	51.24	3313.7	ppb	51.24	1.55%
Cd 226.502†	-10.1	-0.0926	ug/L	0.06638	-0.0926	ppb	0.06638	71.71%
Co 228.616†	-13.7	-0.2381	ug/L	0.10043	-0.2381	ppb	0.10043	42.18%
Cr 267.716†	83.6	0.7929	ug/L	0.13982	0.7929	ppb	0.13982	17.63%
Cu 324.752†	155.6	0.4448	ug/L	0.20809	0.4448	ppb	0.20809	46.78%
Fe 238.204 Radial†	2.2	19.682	ug/L	4.9689	19.682	ppb	4.9689	25.25%
K 766.490 Radial†	1806.5	342.54	ug/L	31.420	342.54	ppb	31.420	9.17%

Mg 279.077 IEC†	25.6	820.14	ug/L	83.484	820.14	ppb	83.484 10.18%
Mn 257.610†	8670.7	8.5892	ug/L	0.01284	8.5892	ppb	0.01284 0.15%
Mo 202.031†	0.2	0.0156	ug/L	0.15025	0.0156	ppb	0.15025 960.66%
Na 589.592 Radial†	7625.6	2163.5	ug/L	7.68	2163.5	ppb	7.68 0.36%
Ni 231.604†	22.3	0.4622	ug/L	0.12755	0.4622	ppb	0.12755 27.60%
P 214.914†	13.2	5.8694	ug/L	2.26831	5.8694	ppb	2.26831 38.65%
Pb 220.353†	-11.9	-1.1650	ug/L	0.75103	-1.1650	ppb	0.75103 64.47%
S 181.975 Axial†	359.0	394.31	ug/L	8.438	394.31	ppb	8.438 2.14%
Sb 206.836†	-0.8	-0.3498	ug/L	2.19799	-0.3498	ppb	2.19799 628.36%
Se 196.026†	-2.9	-1.2857	ug/L	2.86557	-1.2857	ppb	2.86557 222.87%
Si 251.611†	235859.0	6274.1	ug/L	22.70	6274.1	ppb	22.70 0.36%
Sn 189.927†	-37.6	-4.9822	ug/L	0.34862	-4.9822	ppb	0.34862 7.00%
Sr 421.552†	2398.7	15.720	ug/L	0.1333	15.720	ppb	0.1333 0.85%
Ti 334.940†	-345.9	-0.3297	ug/L	0.04408	-0.3297	ppb	0.04408 13.37%
Tl 190.801†	-4.4	-1.1125	ug/L	1.56241	-1.1125	ppb	1.56241 140.44%
U 409.014†	-478.6	-13.251	ug/L	2.3265	-13.251	ppb	2.3265 17.56%
V 292.402†	246.3	1.4400	ug/L	0.02921	1.4400	ppb	0.02921 2.03%
Zn 213.857†	300.7	2.3169	ug/L	0.06738	2.3169	ppb	0.06738 2.91%
SiO2†	234670.6	13449	ug/L	22.2	13449	ppb	22.2 0.16%

Sequence No.: 28
Sample ID: 242753004|932266|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 40
Date Collected: 12/29/2009 17:05:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242753004|932266|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4813.4	4813.4	97.3	%			17:07:34
1	Y RADIAL	5134.1	5134.1	96.78	%			17:07:34
1	Al 396.153Radial†	-15.0	5.9	4.6421	ug/L	4.6421	ppb	17:07:34
1	Ca 317.933Radial†	2073.0	2108.5	3304.3	ug/L	3304.3	ppb	17:07:54
1	Fe 238.204 Radial†	11.4	-1.6	-13.893	ug/L	-13.893	ppb	17:07:54
1	K 766.490 Radial†	5063.1	1868.8	354.48	ug/L	354.48	ppb	17:07:34
1	Mg 279.077 IEC†	28.8	26.9	859.29	ug/L	859.29	ppb	17:07:54
1	Na 589.592 Radial†	5772.1	7728.2	2192.6	ug/L	2192.6	ppb	17:07:34
1	Sr 421.552†	2325.3	2378.2	15.586	ug/L	15.586	ppb	17:07:34
1	Sc 361.383	934342.9	934342.9	99.530	%			17:08:51
1	Y 371.029	810624.8	810624.8	99.084	%			17:08:51
1	Ag 328.068†	426.4	-37.2	-0.1972	ug/L	-0.1972	ppb	17:08:51
1	As 188.979†	-41.9	-7.3	-2.3894	ug/L	-2.3894	ppb	17:09:12
1	B 249.677†	-629.2	-236.1	-4.6063	ug/L	-4.6063	ppb	17:09:12
1	Ba 233.527†	629.5	612.4	4.1664	ug/L	4.1664	ppb	17:09:12
1	Be 313.107†	-4547.6	132.3	0.0411	ug/L	0.0411	ppb	17:08:51
1	Cd 226.502†	-255.1	0.4	0.0048	ug/L	0.0048	ppb	17:09:12
1	Co 228.616†	-84.8	9.1	0.1619	ug/L	0.1619	ppb	17:09:12
1	Cr 267.716†	166.7	33.8	0.3212	ug/L	0.3212	ppb	17:09:12
1	Cu 324.752†	8244.1	-200.2	-0.5715	ug/L	-0.5715	ppb	17:08:51
1	Mn 257.610†	1162.4	531.3	0.5097	ug/L	0.5097	ppb	17:09:12
1	Mo 202.031†	22.1	-3.3	-0.1956	ug/L	-0.1956	ppb	17:09:12
1	Ni 231.604†	147.7	9.5	0.1965	ug/L	0.1965	ppb	17:09:12
1	P 214.914†	273.8	3.9	1.7959	ug/L	1.7959	ppb	17:09:12
1	Pb 220.353†	-69.1	15.2	1.5148	ug/L	1.5148	ppb	17:09:12
1	S 181.975 Axial†	380.6	320.7	352.30	ug/L	352.30	ppb	17:09:12
1	Sb 206.836†	38.5	-6.5	-1.9757	ug/L	-1.9757	ppb	17:09:12
1	Se 196.026†	-44.0	-11.5	-5.4973	ug/L	-5.4973	ppb	17:09:12
1	Si 251.611†	216156.1	216436.7	5757.4	ug/L	5757.4	ppb	17:08:51
1	Sn 189.927†	-34.4	-38.0	-5.0347	ug/L	-5.0347	ppb	17:09:12
1	Ti 334.940†	-2006.2	-310.9	-0.2828	ug/L	-0.2828	ppb	17:08:51
1	Tl 190.801†	-49.1	0.2	0.0375	ug/L	0.0375	ppb	17:09:12
1	U 409.014†	-3033.0	-128.7	-3.5611	ug/L	-3.5611	ppb	17:08:51
1	V 292.402†	-1507.9	295.0	1.7488	ug/L	1.7488	ppb	17:09:12
1	Zn 213.857†	1016.1	106.2	0.8007	ug/L	0.8007	ppb	17:09:12
1	SiO2†	215160.8	215418.1	12346	ug/L	12346	ppb	17:10:08
2	Sc Radial	4890.8	4890.8	98.9	%			17:07:59
2	Y RADIAL	5172.4	5172.4	97.50	%			17:07:59
2	Al 396.153Radial†	16.9	38.4	30.011	ug/L	30.011	ppb	17:07:59
2	Ca 317.933Radial†	2048.1	2049.6	3212.0	ug/L	3212.0	ppb	17:08:19
2	Fe 238.204 Radial†	11.4	-1.7	-15.351	ug/L	-15.351	ppb	17:08:19
2	K 766.490 Radial†	5198.5	1923.4	364.91	ug/L	364.91	ppb	17:07:59
2	Mg 279.077 IEC†	28.8	26.4	844.77	ug/L	844.77	ppb	17:08:19
2	Na 589.592 Radial†	5683.7	7544.9	2140.6	ug/L	2140.6	ppb	17:07:59
2	Sr 421.552†	2317.8	2332.7	15.288	ug/L	15.288	ppb	17:07:59
2	Sc 361.383	933268.0	933268.0	99.416	%			17:09:17
2	Y 371.029	809572.2	809572.2	98.956	%			17:09:17
2	Ag 328.068†	502.9	40.2	0.1236	ug/L	0.1236	ppb	17:09:17
2	As 188.979†	-43.0	-8.4	-2.7798	ug/L	-2.7798	ppb	17:09:37
2	B 249.677†	-637.2	-244.9	-4.7764	ug/L	-4.7764	ppb	17:09:37
2	Ba 233.527†	640.1	623.8	4.2434	ug/L	4.2434	ppb	17:09:37
2	Be 313.107†	-4551.4	123.2	0.0382	ug/L	0.0382	ppb	17:09:17
2	Cd 226.502†	-262.1	-7.0	-0.0618	ug/L	-0.0618	ppb	17:09:37
2	Co 228.616†	-100.9	-7.3	-0.1229	ug/L	-0.1229	ppb	17:09:37
2	Cr 267.716†	149.7	16.8	0.1619	ug/L	0.1619	ppb	17:09:37
2	Cu 324.752†	8173.7	-261.5	-0.7466	ug/L	-0.7466	ppb	17:09:17
2	Mn 257.610†	1189.0	559.4	0.5377	ug/L	0.5377	ppb	17:09:37
2	Mo 202.031†	36.7	11.5	0.6730	ug/L	0.6730	ppb	17:09:37
2	Ni 231.604†	141.2	3.1	0.0642	ug/L	0.0642	ppb	17:09:37

2	P 214.914†	276.8	7.2	3.3555 ug/L	3.3555 ppb	17:09:37
2	Pb 220.353†	-101.9	-17.9	-1.7687 ug/L	-1.7687 ppb	17:09:37
2	S 181.975 Axial†	377.9	318.5	349.82 ug/L	349.82 ppb	17:09:37
2	Sb 206.836†	39.2	-5.8	-1.7236 ug/L	-1.7236 ppb	17:09:37
2	Se 196.026†	-43.8	-11.4	-5.4508 ug/L	-5.4508 ppb	17:09:37
2	Si 251.611†	216074.6	216604.8	5761.8 ug/L	5761.8 ppb	17:09:17
2	Sn 189.927†	-29.3	-32.9	-4.3193 ug/L	-4.3193 ppb	17:09:37
2	Ti 334.940†	-2000.1	-307.1	-0.2815 ug/L	-0.2815 ppb	17:09:17
2	Tl 190.801†	-51.0	-1.8	-0.4805 ug/L	-0.4805 ppb	17:09:37
2	U 409.014†	-3064.3	-163.6	-4.5274 ug/L	-4.5274 ppb	17:09:17
2	V 292.402†	-1558.1	242.8	1.4519 ug/L	1.4519 ppb	17:09:37
2	Zn 213.857†	991.7	82.9	0.6198 ug/L	0.6198 ppb	17:09:37
2	SiO2†	210168.5	210645.4	12072 ug/L	12072 ppb	17:10:14
3	Sc Radial	4843.1	4843.1	97.9 %		17:08:25
3	Y RADIAL	5149.4	5149.4	97.07 %		17:08:25
3	Al 396.153Radial†	-7.0	14.2	11.110 ug/L	11.110 ppb	17:08:25
3	Ca 317.933Radial†	2074.3	2096.8	3286.0 ug/L	3286.0 ppb	17:08:45
3	Fe 238.204 Radial†	13.2	0.2	1.8314 ug/L	1.8314 ppb	17:08:45
3	K 766.490 Radial†	5023.2	1796.2	340.67 ug/L	340.67 ppb	17:08:25
3	Mg 279.077 IEC†	30.0	27.9	893.56 ug/L	893.56 ppb	17:08:45
3	Na 589.592 Radial†	5624.1	7540.7	2139.4 ug/L	2139.4 ppb	17:08:25
3	Sr 421.552†	2328.6	2366.9	15.512 ug/L	15.512 ppb	17:08:25
3	Sc 361.383	934653.2	934653.2	99.563 %		17:09:43
3	Y 371.029	810055.4	810055.4	99.015 %		17:09:43
3	Ag 328.068†	535.3	72.0	0.2562 ug/L	0.2562 ppb	17:09:43
3	As 188.979†	-41.3	-6.7	-2.1958 ug/L	-2.1958 ppb	17:10:03
3	B 249.677†	-642.1	-248.8	-4.8555 ug/L	-4.8555 ppb	17:10:03
3	Ba 233.527†	634.9	617.6	4.2020 ug/L	4.2020 ppb	17:10:03
3	Be 313.107†	-4598.4	82.8	0.0256 ug/L	0.0256 ppb	17:09:43
3	Cd 226.502†	-248.6	7.0	0.0630 ug/L	0.0630 ppb	17:10:03
3	Co 228.616†	-89.4	4.4	0.0798 ug/L	0.0798 ppb	17:10:03
3	Cr 267.716†	182.8	49.9	0.4713 ug/L	0.4713 ppb	17:10:03
3	Cu 324.752†	8296.7	-150.1	-0.4280 ug/L	-0.4280 ppb	17:09:43
3	Mn 257.610†	1168.4	537.0	0.5163 ug/L	0.5163 ppb	17:10:03
3	Mo 202.031†	23.3	-2.1	-0.1230 ug/L	-0.1230 ppb	17:10:03
3	Ni 231.604†	146.2	8.0	0.1654 ug/L	0.1654 ppb	17:10:03
3	P 214.914†	263.6	-6.5	-2.9497 ug/L	-2.9497 ppb	17:10:03
3	Pb 220.353†	-100.5	-16.3	-1.6120 ug/L	-1.6120 ppb	17:10:03
3	S 181.975 Axial†	387.3	327.3	359.49 ug/L	359.49 ppb	17:10:03
3	Sb 206.836†	35.1	-9.9	-2.9690 ug/L	-2.9690 ppb	17:10:03
3	Se 196.026†	-37.5	-4.9	-2.3393 ug/L	-2.3393 ppb	17:10:03
3	Si 251.611†	215756.9	215963.6	5744.8 ug/L	5744.8 ppb	17:09:43
3	Sn 189.927†	-42.4	-46.0	-6.1736 ug/L	-6.1736 ppb	17:10:03
3	Ti 334.940†	-1952.1	-255.9	-0.2052 ug/L	-0.2052 ppb	17:09:43
3	Tl 190.801†	-53.2	-4.0	-1.0552 ug/L	-1.0552 ppb	17:10:03
3	U 409.014†	-2860.3	45.8	1.2676 ug/L	1.2676 ppb	17:09:43
3	V 292.402†	-1506.4	297.1	1.7694 ug/L	1.7694 ppb	17:10:03
3	Zn 213.857†	1001.4	91.1	0.6808 ug/L	0.6808 ppb	17:10:03
3	SiO2†	218556.5	218756.9	12537 ug/L	12537 ppb	17:10:19

Mean Data: 242753004|932266|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	934088.0	99.503	%	0.0774				0.08%
Sc Radial	4849.1	98.0	%	0.79				0.81%
Y 371.029	810084.1	99.018	%	0.0644				0.07%
Y RADIAL	5152.0	97.12	%	0.363				0.37%
Ag 328.068†	25.0	0.0609	ug/L	0.23313	0.0609	ppb	0.23313	382.91%
Al 396.153Radial†	19.5	15.254	ug/L	13.1823	15.254	ppb	13.1823	86.42%
As 188.979†	-7.5	-2.4550	ug/L	0.29748	-2.4550	ppb	0.29748	12.12%
B 249.677†	-243.3	-4.7461	ug/L	0.12737	-4.7461	ppb	0.12737	2.68%
Ba 233.527†	617.9	4.2040	ug/L	0.03854	4.2040	ppb	0.03854	0.92%
Be 313.107†	112.7	0.0350	ug/L	0.00828	0.0350	ppb	0.00828	23.68%
Ca 317.933Radial†	2085.0	3267.5	ug/L	48.87	3267.5	ppb	48.87	1.50%
Cd 226.502†	0.1	0.0020	ug/L	0.06244	0.0020	ppb	0.06244	>999.9%
Co 228.616†	2.1	0.0396	ug/L	0.14656	0.0396	ppb	0.14656	370.31%
Cr 267.716†	33.5	0.3181	ug/L	0.15471	0.3181	ppb	0.15471	48.63%
Cu 324.752†	-203.9	-0.5820	ug/L	0.15955	-0.5820	ppb	0.15955	27.41%
Fe 238.204 Radial†	-1.0	-9.1375	ug/L	9.52723	-9.1375	ppb	9.52723	104.27%
K 766.490 Radial†	1862.8	353.35	ug/L	12.156	353.35	ppb	12.156	3.44%

Mg 279.077 IEC†	27.1	865.87	ug/L	25.054	865.87	ppb	25.054	2.89%
Mn 257.610†	542.5	0.5212	ug/L	0.01464	0.5212	ppb	0.01464	2.81%
Mo 202.031†	2.0	0.1181	ug/L	0.48192	0.1181	ppb	0.48192	407.92%
Na 589.592 Radial†	7604.6	2157.6	ug/L	30.37	2157.6	ppb	30.37	1.41%
Ni 231.604†	6.9	0.1420	ug/L	0.06918	0.1420	ppb	0.06918	48.70%
P 214.914†	1.6	0.7339	ug/L	3.28404	0.7339	ppb	3.28404	447.47%
Pb 220.353†	-6.3	-0.6220	ug/L	1.85217	-0.6220	ppb	1.85217	297.78%
S 181.975 Axial†	322.2	353.87	ug/L	5.023	353.87	ppb	5.023	1.42%
Sb 206.836†	-7.4	-2.2228	ug/L	0.65846	-2.2228	ppb	0.65846	29.62%
Se 196.026†	-9.3	-4.4291	ug/L	1.80998	-4.4291	ppb	1.80998	40.87%
Si 251.611†	216335.1	5754.7	ug/L	8.83	5754.7	ppb	8.83	0.15%
Sn 189.927†	-38.9	-5.1759	ug/L	0.93519	-5.1759	ppb	0.93519	18.07%
Sr 421.552†	2359.3	15.462	ug/L	0.1550	15.462	ppb	0.1550	1.00%
Ti 334.940†	-291.3	-0.2565	ug/L	0.04447	-0.2565	ppb	0.04447	17.34%
Tl 190.801†	-1.9	-0.4994	ug/L	0.54662	-0.4994	ppb	0.54662	109.46%
U 409.014†	-82.2	-2.2736	ug/L	3.10465	-2.2736	ppb	3.10465	136.55%
V 292.402†	278.3	1.6567	ug/L	0.17768	1.6567	ppb	0.17768	10.73%
Zn 213.857†	93.4	0.7004	ug/L	0.09202	0.7004	ppb	0.09202	13.14%
SiO2†	214940.1	12318	ug/L	233.7	12318	ppb	233.7	1.90%

Sequence No.: 29
Sample ID: 242753005|932266|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 41
Date Collected: 12/29/2009 17:12:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242753005|932266|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4788.3	4788.3	96.8	%			17:14:21
1	Y RADIAL	5111.5	5111.5	96.35	%			17:14:21
1	Al 396.153Radial†	48.4	71.4	55.849	ug/L	55.849	ppb	17:14:21
1	Ca 317.933Radial†	1620.7	1652.5	2589.8	ug/L	2589.8	ppb	17:14:41
1	Fe 238.204 Radial†	15.1	2.3	20.261	ug/L	20.261	ppb	17:14:41
1	K 766.490 Radial†	4823.3	1648.4	312.60	ug/L	312.60	ppb	17:14:21
1	Mg 279.077 IEC†	24.5	22.6	722.34	ug/L	722.34	ppb	17:14:41
1	Na 589.592 Radial†	5527.3	7506.3	2129.7	ug/L	2129.7	ppb	17:14:21
1	Sr 421.552†	1692.1	1736.7	11.380	ug/L	11.380	ppb	17:14:21
1	Sc 361.383	933914.3	933914.3	99.485	%			17:15:38
1	Y 371.029	811063.8	811063.8	99.138	%			17:15:38
1	Ag 328.068†	455.2	-8.0	-0.0522	ug/L	-0.0522	ppb	17:15:38
1	As 188.979†	-36.5	-1.9	-0.6136	ug/L	-0.6136	ppb	17:15:59
1	B 249.677†	-685.1	-292.6	-5.7117	ug/L	-5.7117	ppb	17:15:59
1	Ba 233.527†	564.5	547.4	3.7247	ug/L	3.7247	ppb	17:15:59
1	Be 313.107†	-4548.5	129.3	0.0422	ug/L	0.0422	ppb	17:15:38
1	Cd 226.502†	-253.7	1.6	0.0135	ug/L	0.0135	ppb	17:15:59
1	Co 228.616†	-93.7	0.0	0.0006	ug/L	0.0006	ppb	17:15:59
1	Cr 267.716†	215.2	82.5	0.7808	ug/L	0.7808	ppb	17:15:59
1	Cu 324.752†	8254.5	-185.9	-0.5291	ug/L	-0.5291	ppb	17:15:38
1	Mn 257.610†	2587.3	1964.1	1.9372	ug/L	1.9372	ppb	17:15:59
1	Mo 202.031†	26.9	1.6	0.0968	ug/L	0.0968	ppb	17:15:59
1	Ni 231.604†	200.3	62.4	1.2923	ug/L	1.2923	ppb	17:15:59
1	P 214.914†	293.5	23.8	10.811	ug/L	10.811	ppb	17:15:59
1	Pb 220.353†	-87.7	-3.5	-0.3346	ug/L	-0.3346	ppb	17:15:59
1	S 181.975 Axial†	244.7	184.3	202.39	ug/L	202.39	ppb	17:15:59
1	Sb 206.836†	47.3	2.3	0.5539	ug/L	0.5539	ppb	17:15:59
1	Se 196.026†	-29.8	2.7	1.3697	ug/L	1.3697	ppb	17:15:59
1	Si 251.611†	246594.5	247132.5	6573.9	ug/L	6573.9	ppb	17:15:38
1	Sn 189.927†	-29.4	-33.0	-4.3992	ug/L	-4.3992	ppb	17:15:59
1	Ti 334.940†	-1311.5	386.5	0.7057	ug/L	0.7057	ppb	17:15:38
1	Tl 190.801†	-61.5	-12.4	-3.2224	ug/L	-3.2224	ppb	17:15:59
1	U 409.014†	-3170.3	-268.1	-7.4238	ug/L	-7.4238	ppb	17:15:38
1	V 292.402†	-1554.1	248.0	1.4588	ug/L	1.4588	ppb	17:15:59
1	Zn 213.857†	1463.1	556.0	4.3109	ug/L	4.3109	ppb	17:15:59
1	SiO2†	246881.5	247402.3	14179	ug/L	14179	ppb	17:16:55
2	Sc Radial	4961.6	4961.6	100	%			17:14:46
2	Y RADIAL	5279.5	5279.5	99.52	%			17:14:46
2	Al 396.153Radial†	35.6	56.8	44.440	ug/L	44.440	ppb	17:14:46
2	Ca 317.933Radial†	1646.6	1619.8	2538.5	ug/L	2538.5	ppb	17:15:06
2	Fe 238.204 Radial†	17.0	3.7	32.238	ug/L	32.238	ppb	17:15:06
2	K 766.490 Radial†	4735.0	1386.5	262.77	ug/L	262.77	ppb	17:14:46
2	Mg 279.077 IEC†	27.1	24.3	776.10	ug/L	776.10	ppb	17:15:06
2	Na 589.592 Radial†	5476.8	7256.7	2058.9	ug/L	2058.9	ppb	17:14:46
2	Sr 421.552†	1680.3	1663.9	10.903	ug/L	10.903	ppb	17:14:46
2	Sc 361.383	933875.5	933875.5	99.481	%			17:16:04
2	Y 371.029	810248.6	810248.6	99.038	%			17:16:04
2	Ag 328.068†	487.2	24.2	0.0795	ug/L	0.0795	ppb	17:16:04
2	As 188.979†	-40.3	-5.7	-1.8480	ug/L	-1.8480	ppb	17:16:24
2	B 249.677†	-683.1	-290.6	-5.6755	ug/L	-5.6755	ppb	17:16:24
2	Ba 233.527†	544.8	527.6	3.5907	ug/L	3.5907	ppb	17:16:24
2	Be 313.107†	-4554.8	122.7	0.0400	ug/L	0.0400	ppb	17:16:04
2	Cd 226.502†	-259.5	-4.2	-0.0398	ug/L	-0.0398	ppb	17:16:24
2	Co 228.616†	-86.1	7.7	0.1356	ug/L	0.1356	ppb	17:16:24
2	Cr 267.716†	194.4	61.7	0.5827	ug/L	0.5827	ppb	17:16:24
2	Cu 324.752†	8238.2	-202.0	-0.5743	ug/L	-0.5743	ppb	17:16:04
2	Mn 257.610†	2608.0	1985.1	1.9582	ug/L	1.9582	ppb	17:16:24
2	Mo 202.031†	28.6	3.3	0.1993	ug/L	0.1993	ppb	17:16:24
2	Ni 231.604†	204.4	66.6	1.3790	ug/L	1.3790	ppb	17:16:24

2	P 214.914†	288.7	19.0	8.6627 ug/L	8.6627 ppb	17:16:24
2	Pb 220.353†	-88.8	-4.6	-0.4492 ug/L	-0.4492 ppb	17:16:24
2	S 181.975 Axial†	246.8	186.4	204.77 ug/L	204.77 ppb	17:16:24
2	Sb 206.836†	39.5	-5.5	-1.6546 ug/L	-1.6546 ppb	17:16:24
2	Se 196.026†	-30.8	1.7	0.9178 ug/L	0.9178 ppb	17:16:24
2	Si 251.611†	247122.3	247673.3	6588.3 ug/L	6588.3 ppb	17:16:04
2	Sn 189.927†	-23.7	-27.2	-3.5921 ug/L	-3.5921 ppb	17:16:24
2	Ti 334.940†	-1339.2	358.6	0.6588 ug/L	0.6588 ppb	17:16:04
2	Tl 190.801†	-44.3	4.9	1.3005 ug/L	1.3005 ppb	17:16:24
2	U 409.014†	-2891.4	12.2	0.3318 ug/L	0.3318 ppb	17:16:04
2	V 292.402†	-1531.3	270.8	1.6093 ug/L	1.6093 ppb	17:16:24
2	Zn 213.857†	1452.0	544.9	4.2215 ug/L	4.2215 ppb	17:16:24
2	SiO2†	245498.3	246022.2	14100 ug/L	14100 ppb	17:17:01
3	Sc Radial	4918.6	4918.6	99.5 %		17:15:12
3	Y RADIAL	5246.2	5246.2	98.89 %		17:15:12
3	Al 396.153Radial†	40.6	62.1	48.591 ug/L	48.591 ppb	17:15:12
3	Ca 317.933Radial†	1658.6	1646.3	2579.9 ug/L	2579.9 ppb	17:15:32
3	Fe 238.204 Radial†	13.2	0.0	0.2035 ug/L	0.2035 ppb	17:15:32
3	K 766.490 Radial†	4725.9	1418.6	268.87 ug/L	268.87 ppb	17:15:12
3	Mg 279.077 IEC†	28.9	26.3	841.26 ug/L	841.26 ppb	17:15:32
3	Na 589.592 Radial†	5445.4	7272.8	2063.4 ug/L	2063.4 ppb	17:15:12
3	Sr 421.552†	1680.9	1679.1	11.002 ug/L	11.002 ppb	17:15:12
3	Sc 361.383	939468.1	939468.1	100.08 %		17:16:30
3	Y 371.029	815266.3	815266.3	99.652 %		17:16:30
3	Ag 328.068†	385.3	-80.6	-0.3615 ug/L	-0.3615 ppb	17:16:30
3	As 188.979†	-40.0	-5.1	-1.6820 ug/L	-1.6820 ppb	17:16:50
3	B 249.677†	-665.9	-269.3	-5.2558 ug/L	-5.2558 ppb	17:16:50
3	Ba 233.527†	536.0	515.5	3.5078 ug/L	3.5078 ppb	17:16:50
3	Be 313.107†	-4514.4	190.4	0.0616 ug/L	0.0616 ppb	17:16:30
3	Cd 226.502†	-262.7	-5.9	-0.0523 ug/L	-0.0523 ppb	17:16:50
3	Co 228.616†	-94.6	-0.3	-0.0035 ug/L	-0.0035 ppb	17:16:50
3	Cr 267.716†	216.2	82.3	0.7771 ug/L	0.7771 ppb	17:16:50
3	Cu 324.752†	8286.7	-202.8	-0.5783 ug/L	-0.5783 ppb	17:16:30
3	Mn 257.610†	2599.8	1961.2	1.9301 ug/L	1.9301 ppb	17:16:50
3	Mo 202.031†	32.3	6.8	0.3992 ug/L	0.3992 ppb	17:16:50
3	Ni 231.604†	193.2	54.2	1.1218 ug/L	1.1218 ppb	17:16:50
3	P 214.914†	304.0	32.6	14.815 ug/L	14.815 ppb	17:16:50
3	Pb 220.353†	-104.1	-19.4	-1.9086 ug/L	-1.9086 ppb	17:16:50
3	S 181.975 Axial†	242.0	180.1	197.85 ug/L	197.85 ppb	17:16:50
3	Sb 206.836†	45.0	-0.3	-0.1787 ug/L	-0.1787 ppb	17:16:50
3	Se 196.026†	-47.4	-14.7	-6.9758 ug/L	-6.9758 ppb	17:16:50
3	Si 251.611†	248072.2	247143.7	6574.3 ug/L	6574.3 ppb	17:16:30
3	Sn 189.927†	-33.2	-36.6	-4.9112 ug/L	-4.9112 ppb	17:16:50
3	Ti 334.940†	-1314.5	391.3	0.7107 ug/L	0.7107 ppb	17:16:30
3	Tl 190.801†	-46.2	3.3	0.8663 ug/L	0.8663 ppb	17:16:50
3	U 409.014†	-3059.3	-138.4	-3.8312 ug/L	-3.8312 ppb	17:16:30
3	V 292.402†	-1529.2	282.0	1.6763 ug/L	1.6763 ppb	17:16:50
3	Zn 213.857†	1465.6	549.8	4.2607 ug/L	4.2607 ppb	17:16:50
3	SiO2†	248788.0	247840.3	14204 ug/L	14204 ppb	17:17:06

Mean Data: 242753005|932266|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	935752.6	99.681	%	0.3428				0.34%
Sc Radial	4889.5	98.9	%	1.82				1.84%
Y 371.029	812192.9	99.276	%	0.3291				0.33%
Y RADIAL	5212.4	98.26	%	1.677				1.71%
Ag 328.068†	-21.5	-0.1114	ug/L	0.22637	-0.1114	ppb	0.22637	203.24%
Al 396.153Radial†	63.4	49.627	ug/L	5.7743	49.627	ppb	5.7743	11.64%
As 188.979†	-4.2	-1.3812	ug/L	0.66990	-1.3812	ppb	0.66990	48.50%
B 249.677†	-284.2	-5.5477	ug/L	0.25340	-5.5477	ppb	0.25340	4.57%
Ba 233.527†	530.1	3.6077	ug/L	0.10944	3.6077	ppb	0.10944	3.03%
Be 313.107†	147.5	0.0479	ug/L	0.01190	0.0479	ppb	0.01190	24.82%
Ca 317.933Radial†	1639.5	2569.4	ug/L	27.19	2569.4	ppb	27.19	1.06%
Cd 226.502†	-2.8	-0.0262	ug/L	0.03495	-0.0262	ppb	0.03495	133.33%
Co 228.616†	2.5	0.0442	ug/L	0.07915	0.0442	ppb	0.07915	179.00%
Cr 267.716†	75.5	0.7135	ug/L	0.11332	0.7135	ppb	0.11332	15.88%
Cu 324.752†	-196.9	-0.5606	ug/L	0.02734	-0.5606	ppb	0.02734	4.88%
Fe 238.204 Radial†	2.0	17.568	ug/L	16.1862	17.568	ppb	16.1862	92.14%
K 766.490 Radial†	1484.5	281.41	ug/L	27.180	281.41	ppb	27.180	9.66%

Mg 279.077 IEC†	24.4	779.90	ug/L	59.548	779.90	ppb	59.548	7.64%
Mn 257.610†	1970.1	1.9419	ug/L	0.01460	1.9419	ppb	0.01460	0.75%
Mo 202.031†	3.9	0.2318	ug/L	0.15384	0.2318	ppb	0.15384	66.38%
Na 589.592 Radial†	7345.2	2084.0	ug/L	39.63	2084.0	ppb	39.63	1.90%
Ni 231.604†	61.1	1.2644	ug/L	0.13086	1.2644	ppb	0.13086	10.35%
P 214.914†	25.1	11.430	ug/L	3.1223	11.430	ppb	3.1223	27.32%
Pb 220.353†	-9.2	-0.8975	ug/L	0.87752	-0.8975	ppb	0.87752	97.77%
S 181.975 Axial†	183.6	201.67	ug/L	3.515	201.67	ppb	3.515	1.74%
Sb 206.836†	-1.2	-0.4265	ug/L	1.12488	-0.4265	ppb	1.12488	263.77%
Se 196.026†	-3.4	-1.5628	ug/L	4.69327	-1.5628	ppb	4.69327	300.32%
Si 251.611†	247316.5	6578.8	ug/L	8.23	6578.8	ppb	8.23	0.13%
Sn 189.927†	-32.3	-4.3008	ug/L	0.66500	-4.3008	ppb	0.66500	15.46%
Sr 421.552†	1693.2	11.095	ug/L	0.2518	11.095	ppb	0.2518	2.27%
Ti 334.940†	378.8	0.6918	ug/L	0.02862	0.6918	ppb	0.02862	4.14%
Tl 190.801†	-1.4	-0.3519	ug/L	2.49545	-0.3519	ppb	2.49545	709.23%
U 409.014†	-131.4	-3.6411	ug/L	3.88130	-3.6411	ppb	3.88130	106.60%
V 292.402†	266.9	1.5815	ug/L	0.11139	1.5815	ppb	0.11139	7.04%
Zn 213.857†	550.2	4.2644	ug/L	0.04482	4.2644	ppb	0.04482	1.05%
SiO2†	247088.3	14161	ug/L	54.4	14161	ppb	54.4	0.38%

Sequence No.: 30
Sample ID: 242753006|932266|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 42
Date Collected: 12/29/2009 17:19:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242753006|932266|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4874.7	4874.7	98.6	%			17:21:08
1	Y RADIAL	5181.9	5181.9	97.68	%			17:21:08
1	Al 396.153Radial†	33.9	55.7	43.597	ug/L	43.597	ppb	17:21:08
1	Ca 317.933Radial†	1527.2	1528.0	2394.6	ug/L	2394.6	ppb	17:21:28
1	Fe 238.204 Radial†	11.8	-1.3	-11.798	ug/L	-11.798	ppb	17:21:28
1	K 766.490 Radial†	4646.7	1380.9	261.76	ug/L	261.76	ppb	17:21:08
1	Mg 279.077 IEC†	25.3	22.9	732.72	ug/L	732.72	ppb	17:21:28
1	Na 589.592 Radial†	5218.8	7092.2	2012.2	ug/L	2012.2	ppb	17:21:08
1	Sr 421.552†	1553.0	1564.5	10.251	ug/L	10.251	ppb	17:21:08
1	Sc 361.383	933870.4	933870.4	99.480	%			17:22:25
1	Y 371.029	810987.8	810987.8	99.129	%			17:22:25
1	Ag 328.068†	408.4	-55.1	-0.2624	ug/L	-0.2624	ppb	17:22:25
1	As 188.979†	-33.8	0.9	0.2867	ug/L	0.2867	ppb	17:22:46
1	B 249.677†	-700.3	-307.9	-6.0074	ug/L	-6.0074	ppb	17:22:46
1	Ba 233.527†	489.6	472.1	3.2122	ug/L	3.2122	ppb	17:22:46
1	Be 313.107†	-4545.0	132.6	0.0414	ug/L	0.0414	ppb	17:22:25
1	Cd 226.502†	-268.2	-12.9	-0.1157	ug/L	-0.1157	ppb	17:22:46
1	Co 228.616†	-75.4	18.5	0.3272	ug/L	0.3272	ppb	17:22:46
1	Cr 267.716†	177.6	44.8	0.4228	ug/L	0.4228	ppb	17:22:46
1	Cu 324.752†	8268.8	-171.2	-0.4888	ug/L	-0.4888	ppb	17:22:25
1	Mn 257.610†	968.1	336.5	0.3191	ug/L	0.3191	ppb	17:22:46
1	Mo 202.031†	26.2	0.9	0.0526	ug/L	0.0526	ppb	17:22:46
1	Ni 231.604†	116.8	-21.5	-0.4449	ug/L	-0.4449	ppb	17:22:46
1	P 214.914†	278.8	9.0	4.1302	ug/L	4.1302	ppb	17:22:46
1	Pb 220.353†	-91.5	-7.4	-0.7234	ug/L	-0.7234	ppb	17:22:46
1	S 181.975 Axial†	241.9	181.5	199.39	ug/L	199.39	ppb	17:22:46
1	Sb 206.836†	46.8	1.8	0.4139	ug/L	0.4139	ppb	17:22:46
1	Se 196.026†	-30.8	1.7	0.7587	ug/L	0.7587	ppb	17:22:46
1	Si 251.611†	226743.5	227189.3	6043.5	ug/L	6043.5	ppb	17:22:25
1	Sn 189.927†	-32.4	-36.0	-4.8424	ug/L	-4.8424	ppb	17:22:46
1	Ti 334.940†	-1935.0	-240.3	-0.2289	ug/L	-0.2289	ppb	17:22:25
1	Tl 190.801†	-56.8	-7.6	-2.0081	ug/L	-2.0081	ppb	17:22:46
1	U 409.014†	-2849.8	53.9	1.4936	ug/L	1.4936	ppb	17:22:25
1	V 292.402†	-1552.8	249.2	1.4889	ug/L	1.4889	ppb	17:22:46
1	Zn 213.857†	1007.3	97.9	0.7442	ug/L	0.7442	ppb	17:22:46
1	SiO2†	230973.0	231422.3	13263	ug/L	13263	ppb	17:23:42
2	Sc Radial	4809.0	4809.0	97.2	%			17:21:33
2	Y RADIAL	5112.6	5112.6	96.38	%			17:21:33
2	Al 396.153Radial†	0.4	21.7	16.958	ug/L	16.958	ppb	17:21:33
2	Ca 317.933Radial†	1538.5	1560.8	2446.0	ug/L	2446.0	ppb	17:21:53
2	Fe 238.204 Radial†	11.2	-1.8	-15.754	ug/L	-15.754	ppb	17:21:53
2	K 766.490 Radial†	4524.6	1319.9	250.14	ug/L	250.14	ppb	17:21:33
2	Mg 279.077 IEC†	25.6	23.7	756.37	ug/L	756.37	ppb	17:21:53
2	Na 589.592 Radial†	5070.4	7012.0	1989.4	ug/L	1989.4	ppb	17:21:33
2	Sr 421.552†	1521.2	1553.5	10.178	ug/L	10.178	ppb	17:21:33
2	Sc 361.383	952243.5	952243.5	101.44	%			17:22:51
2	Y 371.029	825184.4	825184.4	100.86	%			17:22:51
2	Ag 328.068†	392.3	-78.9	-0.3588	ug/L	-0.3588	ppb	17:22:51
2	As 188.979†	-28.7	6.5	2.1318	ug/L	2.1318	ppb	17:23:11
2	B 249.677†	-632.4	-227.3	-4.4339	ug/L	-4.4339	ppb	17:23:11
2	Ba 233.527†	473.9	447.1	3.0422	ug/L	3.0422	ppb	17:23:11
2	Be 313.107†	-4493.8	271.2	0.0856	ug/L	0.0856	ppb	17:22:51
2	Cd 226.502†	-246.4	13.7	0.1252	ug/L	0.1252	ppb	17:23:11
2	Co 228.616†	-100.9	-5.2	-0.0886	ug/L	-0.0886	ppb	17:23:11
2	Cr 267.716†	151.6	15.7	0.1509	ug/L	0.1509	ppb	17:23:11
2	Cu 324.752†	8162.0	-436.8	-1.2464	ug/L	-1.2464	ppb	17:22:51
2	Mn 257.610†	987.2	336.7	0.3183	ug/L	0.3183	ppb	17:23:11
2	Mo 202.031†	34.4	8.5	0.4975	ug/L	0.4975	ppb	17:23:11
2	Ni 231.604†	135.8	-5.0	-0.1036	ug/L	-0.1036	ppb	17:23:11

2	P 214.914†	280.4	5.2	2.5238	ug/L	2.5238 ppb	17:23:11
2	Pb 220.353†	-75.5	10.2	1.0166	ug/L	1.0166 ppb	17:23:11
2	S 181.975 Axial†	245.6	180.4	198.19	ug/L	198.19 ppb	17:23:11
2	Sb 206.836†	34.1	-11.6	-3.3987	ug/L	-3.3987 ppb	17:23:11
2	Se 196.026†	-26.5	6.6	3.0670	ug/L	3.0670 ppb	17:23:11
2	Si 251.611†	231570.1	227549.7	6053.0	ug/L	6053.0 ppb	17:22:51
2	Sn 189.927†	-28.8	-31.8	-4.2429	ug/L	-4.2429 ppb	17:23:11
2	Ti 334.940†	-1914.8	-182.9	-0.1397	ug/L	-0.1397 ppb	17:22:51
2	Tl 190.801†	-59.0	-8.7	-2.2905	ug/L	-2.2905 ppb	17:23:11
2	U 409.014†	-3079.8	-117.5	-3.2514	ug/L	-3.2514 ppb	17:22:51
2	V 292.402†	-1575.8	256.6	1.5309	ug/L	1.5309 ppb	17:23:11
2	Zn 213.857†	1012.3	83.3	0.6281	ug/L	0.6281 ppb	17:23:11
2	SiO2†	229084.5	225080.7	12900	ug/L	12900 ppb	17:23:48
3	Sc Radial	4875.6	4875.6	98.6	%		17:21:59
3	Y RADIAL	5200.5	5200.5	98.03	%		17:21:59
3	Al 396.153Radial†	1.8	23.1	18.088	ug/L	18.088 ppb	17:21:59
3	Ca 317.933Radial†	1519.5	1519.9	2381.9	ug/L	2381.9 ppb	17:22:19
3	Fe 238.204 Radial†	12.9	-0.1	-1.3003	ug/L	-1.3003 ppb	17:22:19
3	K 766.490 Radial†	4693.3	1427.3	270.63	ug/L	270.63 ppb	17:21:59
3	Mg 279.077 IEC†	22.6	20.2	647.49	ug/L	647.49 ppb	17:22:19
3	Na 589.592 Radial†	5006.4	6875.7	1950.8	ug/L	1950.8 ppb	17:21:59
3	Sr 421.552†	1550.3	1561.6	10.232	ug/L	10.232 ppb	17:21:59
3	Sc 361.383	950051.2	950051.2	101.20	%		17:23:17
3	Y 371.029	823510.7	823510.7	100.66	%		17:23:17
3	Ag 328.068†	463.6	-7.5	-0.0601	ug/L	-0.0601 ppb	17:23:17
3	As 188.979†	-31.2	4.0	1.3140	ug/L	1.3140 ppb	17:23:37
3	B 249.677†	-672.0	-268.0	-5.2282	ug/L	-5.2282 ppb	17:23:37
3	Ba 233.527†	475.4	449.6	3.0600	ug/L	3.0600 ppb	17:23:37
3	Be 313.107†	-4680.9	76.1	0.0238	ug/L	0.0238 ppb	17:23:17
3	Cd 226.502†	-253.5	6.1	0.0551	ug/L	0.0551 ppb	17:23:37
3	Co 228.616†	-103.7	-8.3	-0.1422	ug/L	-0.1422 ppb	17:23:37
3	Cr 267.716†	149.3	13.7	0.1319	ug/L	0.1319 ppb	17:23:37
3	Cu 324.752†	8277.5	-304.1	-0.8673	ug/L	-0.8673 ppb	17:23:17
3	Mn 257.610†	997.6	349.1	0.3342	ug/L	0.3342 ppb	17:23:37
3	Mo 202.031†	36.1	10.2	0.6006	ug/L	0.6006 ppb	17:23:37
3	Ni 231.604†	130.2	-10.3	-0.2127	ug/L	-0.2127 ppb	17:23:37
3	P 214.914†	274.4	-0.1	0.0545	ug/L	0.0545 ppb	17:23:37
3	Pb 220.353†	-107.0	-21.1	-2.0842	ug/L	-2.0842 ppb	17:23:37
3	S 181.975 Axial†	241.2	176.7	194.09	ug/L	194.09 ppb	17:23:37
3	Sb 206.836†	48.2	2.4	0.6023	ug/L	0.6023 ppb	17:23:37
3	Se 196.026†	-28.1	4.9	2.3352	ug/L	2.3352 ppb	17:23:37
3	Si 251.611†	230888.6	227403.1	6049.1	ug/L	6049.1 ppb	17:23:17
3	Sn 189.927†	-31.5	-34.5	-4.6354	ug/L	-4.6354 ppb	17:23:37
3	Ti 334.940†	-1841.7	-115.0	-0.0447	ug/L	-0.0447 ppb	17:23:17
3	Tl 190.801†	-53.0	-3.0	-0.7764	ug/L	-0.7764 ppb	17:23:37
3	U 409.014†	-2961.5	-7.6	-0.2106	ug/L	-0.2106 ppb	17:23:17
3	V 292.402†	-1564.7	264.0	1.5773	ug/L	1.5773 ppb	17:23:37
3	Zn 213.857†	1002.6	76.0	0.5745	ug/L	0.5745 ppb	17:23:37
3	SiO2†	229286.0	225801.0	12941	ug/L	12941 ppb	17:23:53

Mean Data: 242753006|932266|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	945388.4	100.71	%	1.069				1.06%
Sc Radial	4853.1	98.1	%	0.77				0.79%
Y 371.029	819894.3	100.22	%	0.948				0.95%
Y RADIAL	5165.0	97.36	%	0.872				0.90%
Ag 328.068†	-47.2	-0.2271	ug/L	0.15239	-0.2271	ppb	0.15239	67.11%
Al 396.153Radial†	33.5	26.214	ug/L	15.0643	26.214	ppb	15.0643	57.47%
As 188.979†	3.8	1.2442	ug/L	0.92454	1.2442	ppb	0.92454	74.31%
B 249.677†	-267.7	-5.2231	ug/L	0.78675	-5.2231	ppb	0.78675	15.06%
Ba 233.527†	456.3	3.1048	ug/L	0.09345	3.1048	ppb	0.09345	3.01%
Be 313.107†	160.0	0.0503	ug/L	0.03183	0.0503	ppb	0.03183	63.28%
Ca 317.933Radial†	1536.2	2407.5	ug/L	33.96	2407.5	ppb	33.96	1.41%
Cd 226.502†	2.3	0.0215	ug/L	0.12389	0.0215	ppb	0.12389	575.07%
Co 228.616†	1.7	0.0321	ug/L	0.25690	0.0321	ppb	0.25690	799.35%
Cr 267.716†	24.7	0.2352	ug/L	0.16277	0.2352	ppb	0.16277	69.21%
Cu 324.752†	-304.1	-0.8675	ug/L	0.37879	-0.8675	ppb	0.37879	43.66%
Fe 238.204 Radial†	-1.1	-9.6174	ug/L	7.46948	-9.6174	ppb	7.46948	77.67%
K 766.490 Radial†	1376.0	260.84	ug/L	10.273	260.84	ppb	10.273	3.94%

Mg 279.077 IEC†	22.3	712.19	ug/L	57.271	712.19	ppb	57.271	8.04%
Mn 257.610†	340.8	0.3239	ug/L	0.00896	0.3239	ppb	0.00896	2.77%
Mo 202.031†	6.5	0.3836	ug/L	0.29119	0.3836	ppb	0.29119	75.92%
Na 589.592 Radial†	6993.3	1984.1	ug/L	31.05	1984.1	ppb	31.05	1.57%
Ni 231.604†	-12.3	-0.2538	ug/L	0.17432	-0.2538	ppb	0.17432	68.70%
P 214.914†	4.7	2.2362	ug/L	2.05302	2.2362	ppb	2.05302	91.81%
Pb 220.353†	-6.1	-0.5970	ug/L	1.55423	-0.5970	ppb	1.55423	260.33%
S 181.975 Axial†	179.6	197.22	ug/L	2.776	197.22	ppb	2.776	1.41%
Sb 206.836†	-2.5	-0.7942	ug/L	2.25756	-0.7942	ppb	2.25756	284.26%
Se 196.026†	4.4	2.0537	ug/L	1.17963	2.0537	ppb	1.17963	57.44%
Si 251.611†	227380.7	6048.5	ug/L	4.82	6048.5	ppb	4.82	0.08%
Sn 189.927†	-34.1	-4.5736	ug/L	0.30449	-4.5736	ppb	0.30449	6.66%
Sr 421.552†	1559.9	10.221	ug/L	0.0379	10.221	ppb	0.0379	0.37%
Ti 334.940†	-179.4	-0.1377	ug/L	0.09212	-0.1377	ppb	0.09212	66.88%
Tl 190.801†	-6.4	-1.6917	ug/L	0.80510	-1.6917	ppb	0.80510	47.59%
U 409.014†	-23.7	-0.6561	ug/L	2.40368	-0.6561	ppb	2.40368	366.35%
V 292.402†	256.6	1.5324	ug/L	0.04417	1.5324	ppb	0.04417	2.88%
Zn 213.857†	85.8	0.6489	ug/L	0.08674	0.6489	ppb	0.08674	13.37%
SiO2†	227434.7	13035	ug/L	199.0	13035	ppb	199.0	1.53%

Sequence No.: 31
Sample ID: 242753007|932266|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 43
Date Collected: 12/29/2009 17:26:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242753007|932266|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4822.0	4822.0	97.5	%			17:27:56
1	Y RADIAL	5128.0	5128.0	96.67	%			17:27:56
1	Al 396.153Radial†	39.1	61.5	48.069	ug/L	48.069	ppb	17:27:56
1	Ca 317.933Radial†	1586.7	1605.9	2516.6	ug/L	2516.6	ppb	17:28:16
1	Fe 238.204 Radial†	15.2	2.3	20.596	ug/L	20.596	ppb	17:28:16
1	K 766.490 Radial†	4701.6	1488.7	282.23	ug/L	282.23	ppb	17:27:56
1	Mg 279.077 IEC†	26.4	24.4	780.74	ug/L	780.74	ppb	17:28:16
1	Na 589.592 Radial†	5411.1	7347.2	2084.5	ug/L	2084.5	ppb	17:27:56
1	Sr 421.552†	1649.3	1680.6	11.013	ug/L	11.013	ppb	17:27:56
1	Sc 361.383	935031.8	935031.8	99.604	%			17:29:13
1	Y 371.029	811881.7	811881.7	99.238	%			17:29:13
1	Ag 328.068†	542.4	79.0	0.2994	ug/L	0.2994	ppb	17:29:13
1	As 188.979†	-35.0	-0.3	-0.0893	ug/L	-0.0893	ppb	17:29:33
1	B 249.677†	-668.1	-274.7	-5.3634	ug/L	-5.3634	ppb	17:29:33
1	Ba 233.527†	517.4	499.4	3.3971	ug/L	3.3971	ppb	17:29:33
1	Be 313.107†	-4575.7	107.5	0.0351	ug/L	0.0351	ppb	17:29:13
1	Cd 226.502†	-258.5	-2.9	-0.0278	ug/L	-0.0278	ppb	17:29:33
1	Co 228.616†	-83.3	10.6	0.1898	ug/L	0.1898	ppb	17:29:33
1	Cr 267.716†	155.3	22.2	0.2099	ug/L	0.2099	ppb	17:29:33
1	Cu 324.752†	8305.6	-144.6	-0.4113	ug/L	-0.4113	ppb	17:29:13
1	Mn 257.610†	2008.5	1379.9	1.3565	ug/L	1.3565	ppb	17:29:33
1	Mo 202.031†	42.1	16.8	0.9927	ug/L	0.9927	ppb	17:29:33
1	Ni 231.604†	143.6	5.3	0.1100	ug/L	0.1100	ppb	17:29:33
1	P 214.914†	276.5	6.4	2.9099	ug/L	2.9099	ppb	17:29:33
1	Pb 220.353†	-97.7	-13.4	-1.3220	ug/L	-1.3220	ppb	17:29:33
1	S 181.975 Axial†	243.2	182.5	200.45	ug/L	200.45	ppb	17:29:33
1	Sb 206.836†	45.6	0.5	0.0939	ug/L	0.0939	ppb	17:29:33
1	Se 196.026†	-44.5	-12.1	-5.6410	ug/L	-5.6410	ppb	17:29:33
1	Si 251.611†	238531.0	238740.6	6350.7	ug/L	6350.7	ppb	17:29:13
1	Sn 189.927†	-25.1	-28.6	-3.7917	ug/L	-3.7917	ppb	17:29:33
1	Ti 334.940†	-1382.1	317.2	0.5966	ug/L	0.5966	ppb	17:29:13
1	Tl 190.801†	-46.1	3.2	0.8465	ug/L	0.8465	ppb	17:29:33
1	U 409.014†	-2869.2	38.1	1.0508	ug/L	1.0508	ppb	17:29:13
1	V 292.402†	-1652.8	150.6	0.9168	ug/L	0.9168	ppb	17:29:13
1	Zn 213.857†	1300.8	391.3	3.0298	ug/L	3.0298	ppb	17:29:33
1	SiO2†	240035.6	240232.6	13768	ug/L	13768	ppb	17:30:30
2	Sc Radial	4860.4	4860.4	98.3	%			17:28:21
2	Y RADIAL	5146.6	5146.6	97.02	%			17:28:21
2	Al 396.153Radial†	16.3	37.9	29.643	ug/L	29.643	ppb	17:28:21
2	Ca 317.933Radial†	1591.8	1598.2	2504.6	ug/L	2504.6	ppb	17:28:41
2	Fe 238.204 Radial†	14.4	1.4	12.361	ug/L	12.361	ppb	17:28:41
2	K 766.490 Radial†	4726.7	1476.2	279.87	ug/L	279.87	ppb	17:28:21
2	Mg 279.077 IEC†	23.6	21.3	682.32	ug/L	682.32	ppb	17:28:41
2	Na 589.592 Radial†	5351.3	7242.6	2054.9	ug/L	2054.9	ppb	17:28:21
2	Sr 421.552†	1643.6	1661.4	10.887	ug/L	10.887	ppb	17:28:21
2	Sc 361.383	938301.4	938301.4	99.952	%			17:29:39
2	Y 371.029	814424.1	814424.1	99.549	%			17:29:39
2	Ag 328.068†	518.6	53.2	0.1913	ug/L	0.1913	ppb	17:29:39
2	As 188.979†	-38.7	-3.9	-1.2632	ug/L	-1.2632	ppb	17:29:59
2	B 249.677†	-696.8	-301.1	-5.8760	ug/L	-5.8760	ppb	17:29:59
2	Ba 233.527†	512.1	492.3	3.3498	ug/L	3.3498	ppb	17:29:59
2	Be 313.107†	-4546.0	153.2	0.0497	ug/L	0.0497	ppb	17:29:39
2	Cd 226.502†	-258.5	-2.0	-0.0193	ug/L	-0.0193	ppb	17:29:59
2	Co 228.616†	-103.6	-9.5	-0.1653	ug/L	-0.1653	ppb	17:29:59
2	Cr 267.716†	156.8	23.1	0.2194	ug/L	0.2194	ppb	17:29:59
2	Cu 324.752†	8336.8	-142.4	-0.4055	ug/L	-0.4055	ppb	17:29:39
2	Mn 257.610†	2009.2	1373.6	1.3513	ug/L	1.3513	ppb	17:29:59
2	Mo 202.031†	32.1	6.6	0.3922	ug/L	0.3922	ppb	17:29:59
2	Ni 231.604†	123.7	-15.1	-0.3133	ug/L	-0.3133	ppb	17:29:59

2	P 214.914†	291.8	20.7	9.4020	ug/L	9.4020 ppb	17:29:59
2	Pb 220.353†	-82.9	1.7	0.1740	ug/L	0.1740 ppb	17:29:59
2	S 181.975 Axial†	245.5	184.0	202.08	ug/L	202.08 ppb	17:29:59
2	Sb 206.836†	46.6	1.4	0.3342	ug/L	0.3342 ppb	17:29:59
2	Se 196.026†	-34.5	-1.8	-0.8304	ug/L	-0.8304 ppb	17:29:59
2	Si 251.611†	239626.6	239002.2	6357.7	ug/L	6357.7 ppb	17:29:39
2	Sn 189.927†	-28.3	-31.7	-4.2279	ug/L	-4.2279 ppb	17:29:59
2	Ti 334.940†	-1337.2	366.9	0.6685	ug/L	0.6685 ppb	17:29:39
2	Tl 190.801†	-52.0	-2.5	-0.6510	ug/L	-0.6510 ppb	17:29:59
2	U 409.014†	-2836.7	80.6	2.2281	ug/L	2.2281 ppb	17:29:39
2	V 292.402†	-1571.9	237.4	1.4200	ug/L	1.4200 ppb	17:29:39
2	Zn 213.857†	1302.1	388.1	3.0110	ug/L	3.0110 ppb	17:29:59
2	SiO2†	239764.9	239122.0	13704	ug/L	13704 ppb	17:30:35
3	Sc Radial	4818.7	4818.7	97.4	%		17:28:46
3	Y RADIAL	5101.6	5101.6	96.17	%		17:28:46
3	Al 396.153Radial†	57.5	80.3	62.865	ug/L	62.865 ppb	17:28:46
3	Ca 317.933Radial†	1604.6	1625.5	2547.3	ug/L	2547.3 ppb	17:29:06
3	Fe 238.204 Radial†	17.9	5.1	44.538	ug/L	44.538 ppb	17:29:06
3	K 766.490 Radial†	4689.7	1479.9	280.57	ug/L	280.57 ppb	17:28:46
3	Mg 279.077 IEC†	21.8	19.7	628.93	ug/L	628.93 ppb	17:29:06
3	Na 589.592 Radial†	5301.1	7238.3	2053.6	ug/L	2053.6 ppb	17:28:46
3	Sr 421.552†	1597.1	1628.1	10.668	ug/L	10.668 ppb	17:28:46
3	Sc 361.383	940631.4	940631.4	100.20	%		17:30:04
3	Y 371.029	815091.4	815091.4	99.630	%		17:30:04
3	Ag 328.068†	466.8	0.2	-0.0159	ug/L	-0.0159 ppb	17:30:04
3	As 188.979†	-43.3	-8.4	-2.7320	ug/L	-2.7320 ppb	17:30:24
3	B 249.677†	-742.7	-345.1	-6.7414	ug/L	-6.7414 ppb	17:30:24
3	Ba 233.527†	522.4	501.3	3.4125	ug/L	3.4125 ppb	17:30:24
3	Be 313.107†	-4623.3	87.3	0.0286	ug/L	0.0286 ppb	17:30:04
3	Cd 226.502†	-268.8	-11.6	-0.1091	ug/L	-0.1091 ppb	17:30:24
3	Co 228.616†	-80.0	14.4	0.2545	ug/L	0.2545 ppb	17:30:24
3	Cr 267.716†	144.8	10.8	0.1045	ug/L	0.1045 ppb	17:30:24
3	Cu 324.752†	8318.6	-181.3	-0.5146	ug/L	-0.5146 ppb	17:30:04
3	Mn 257.610†	2016.8	1376.2	1.3581	ug/L	1.3581 ppb	17:30:24
3	Mo 202.031†	34.2	8.7	0.5144	ug/L	0.5144 ppb	17:30:24
3	Ni 231.604†	151.8	12.6	0.2613	ug/L	0.2613 ppb	17:30:24
3	P 214.914†	293.5	21.7	9.8441	ug/L	9.8441 ppb	17:30:24
3	Pb 220.353†	-91.1	-6.3	-0.6106	ug/L	-0.6106 ppb	17:30:24
3	S 181.975 Axial†	236.3	174.2	191.29	ug/L	191.29 ppb	17:30:24
3	Sb 206.836†	40.3	-5.0	-1.4951	ug/L	-1.4951 ppb	17:30:24
3	Se 196.026†	-31.2	1.5	0.8839	ug/L	0.8839 ppb	17:30:24
3	Si 251.611†	240147.4	238928.1	6355.7	ug/L	6355.7 ppb	17:30:04
3	Sn 189.927†	-30.1	-33.4	-4.4707	ug/L	-4.4707 ppb	17:30:24
3	Ti 334.940†	-1410.6	297.0	0.5687	ug/L	0.5687 ppb	17:30:04
3	Tl 190.801†	-49.4	0.1	0.0402	ug/L	0.0402 ppb	17:30:24
3	U 409.014†	-2889.9	34.5	0.9494	ug/L	0.9494 ppb	17:30:04
3	V 292.402†	-1532.2	281.0	1.6699	ug/L	1.6699 ppb	17:30:04
3	Zn 213.857†	1301.0	383.7	2.9732	ug/L	2.9732 ppb	17:30:24
3	SiO2†	236889.3	235657.9	13506	ug/L	13506 ppb	17:30:40

Mean Data: 242753007|932266|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	937988.2	99.919	%	0.2996				0.30%
Sc Radial	4833.7	97.7	%	0.47				0.48%
Y 371.029	813799.1	99.472	%	0.2070				0.21%
Y RADIAL	5125.4	96.62	%	0.426				0.44%
Ag 328.068†	44.2	0.1583	ug/L	0.16017	0.1583	ppb	0.16017	101.22%
Al 396.153Radial†	59.9	46.859	ug/L	16.6436	46.859	ppb	16.6436	35.52%
As 188.979†	-4.2	-1.3615	ug/L	1.32411	-1.3615	ppb	1.32411	97.25%
B 249.677†	-307.0	-5.9936	ug/L	0.69651	-5.9936	ppb	0.69651	11.62%
Ba 233.527†	497.6	3.3865	ug/L	0.03270	3.3865	ppb	0.03270	0.97%
Be 313.107†	116.0	0.0378	ug/L	0.01082	0.0378	ppb	0.01082	28.64%
Ca 317.933Radial†	1609.9	2522.9	ug/L	22.00	2522.9	ppb	22.00	0.87%
Cd 226.502†	-5.5	-0.0521	ug/L	0.04955	-0.0521	ppb	0.04955	95.16%
Co 228.616†	5.2	0.0930	ug/L	0.22599	0.0930	ppb	0.22599	243.03%
Cr 267.716†	18.7	0.1779	ug/L	0.06377	0.1779	ppb	0.06377	35.84%
Cu 324.752†	-156.1	-0.4438	ug/L	0.06141	-0.4438	ppb	0.06141	13.84%
Fe 238.204 Radial†	2.9	25.832	ug/L	16.7151	25.832	ppb	16.7151	64.71%
K 766.490 Radial†	1481.6	280.89	ug/L	1.214	280.89	ppb	1.214	0.43%

Mg 279.077 IEC†	21.8	697.33	ug/L	77.009	697.33	ppb	77.009	11.04%
Mn 257.610†	1376.5	1.3553	ug/L	0.00357	1.3553	ppb	0.00357	0.26%
Mo 202.031†	10.7	0.6331	ug/L	0.31734	0.6331	ppb	0.31734	50.13%
Na 589.592 Radial†	7276.0	2064.3	ug/L	17.50	2064.3	ppb	17.50	0.85%
Ni 231.604†	0.9	0.0193	ug/L	0.29786	0.0193	ppb	0.29786	>999.9%
P 214.914†	16.3	7.3853	ug/L	3.88215	7.3853	ppb	3.88215	52.57%
Pb 220.353†	-6.0	-0.5862	ug/L	0.74833	-0.5862	ppb	0.74833	127.66%
S 181.975 Axial†	180.2	197.94	ug/L	5.818	197.94	ppb	5.818	2.94%
Sb 206.836†	-1.0	-0.3557	ug/L	0.99411	-0.3557	ppb	0.99411	279.51%
Se 196.026†	-4.1	-1.8625	ug/L	3.38271	-1.8625	ppb	3.38271	181.62%
Si 251.611†	238890.3	6354.7	ug/L	3.59	6354.7	ppb	3.59	0.06%
Sn 189.927†	-31.3	-4.1634	ug/L	0.34406	-4.1634	ppb	0.34406	8.26%
Sr 421.552†	1656.7	10.856	ug/L	0.1745	10.856	ppb	0.1745	1.61%
Ti 334.940†	327.0	0.6113	ug/L	0.05149	0.6113	ppb	0.05149	8.42%
Tl 190.801†	0.3	0.0785	ug/L	0.74949	0.0785	ppb	0.74949	954.19%
U 409.014†	51.0	1.4094	ug/L	0.71082	1.4094	ppb	0.71082	50.43%
V 292.402†	223.0	1.3356	ug/L	0.38357	1.3356	ppb	0.38357	28.72%
Zn 213.857†	387.7	3.0047	ug/L	0.02880	3.0047	ppb	0.02880	0.96%
SiO2†	238337.5	13659	ug/L	136.7	13659	ppb	136.7	1.00%

Sequence No.: 32
Sample ID: 242753008|932266|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 44
Date Collected: 12/29/2009 17:32:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 242753008|932266|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4863.7	4863.7	98.3	%			17:34:44
1	Y RADIAL	5195.4	5195.4	97.94	%			17:34:44
1	Al 396.153Radial†	-5.6	15.6	12.252	ug/L	12.252	ppb	17:34:44
1	Ca 317.933Radial†	1590.3	1595.6	2500.5	ug/L	2500.5	ppb	17:35:04
1	Fe 238.204 Radial†	14.7	1.6	14.457	ug/L	14.457	ppb	17:35:04
1	K 766.490 Radial†	4771.9	1518.9	287.99	ug/L	287.99	ppb	17:34:44
1	Mg 279.077 IEC†	24.0	21.7	692.98	ug/L	692.98	ppb	17:35:04
1	Na 589.592 Radial†	5450.6	7339.8	2082.4	ug/L	2082.4	ppb	17:34:44
1	Sr 421.552†	1592.8	1608.6	10.540	ug/L	10.540	ppb	17:34:44
1	Sc 361.383	944176.0	944176.0	100.58	%			17:36:01
1	Y 371.029	818680.9	818680.9	100.07	%			17:36:01
1	Ag 328.068†	439.3	-28.8	-0.1466	ug/L	-0.1466	ppb	17:36:01
1	As 188.979†	-29.2	5.8	1.8986	ug/L	1.8986	ppb	17:36:21
1	B 249.677†	-697.9	-297.8	-5.8131	ug/L	-5.8131	ppb	17:36:21
1	Ba 233.527†	485.7	462.9	3.1500	ug/L	3.1500	ppb	17:36:21
1	Be 313.107†	-4590.0	137.8	0.0433	ug/L	0.0433	ppb	17:36:01
1	Cd 226.502†	-264.4	-6.3	-0.0579	ug/L	-0.0579	ppb	17:36:21
1	Co 228.616†	-99.0	-4.2	-0.0721	ug/L	-0.0721	ppb	17:36:21
1	Cr 267.716†	179.1	44.3	0.4187	ug/L	0.4187	ppb	17:36:21
1	Cu 324.752†	8133.7	-396.3	-1.1293	ug/L	-1.1293	ppb	17:36:01
1	Mn 257.610†	908.7	266.9	0.2533	ug/L	0.2533	ppb	17:36:21
1	Mo 202.031†	24.0	-1.6	-0.0905	ug/L	-0.0905	ppb	17:36:21
1	Ni 231.604†	133.0	-6.6	-0.1372	ug/L	-0.1372	ppb	17:36:21
1	P 214.914†	274.0	1.2	0.6692	ug/L	0.6692	ppb	17:36:21
1	Pb 220.353†	-100.0	-14.8	-1.4649	ug/L	-1.4649	ppb	17:36:21
1	S 181.975 Axial†	242.3	179.2	196.88	ug/L	196.88	ppb	17:36:21
1	Sb 206.836†	38.9	-6.5	-1.9479	ug/L	-1.9479	ppb	17:36:21
1	Se 196.026†	-35.3	-2.4	-1.0802	ug/L	-1.0802	ppb	17:36:21
1	Si 251.611†	234394.9	232309.0	6179.6	ug/L	6179.6	ppb	17:36:01
1	Sn 189.927†	-24.2	-27.5	-3.6345	ug/L	-3.6345	ppb	17:36:21
1	Ti 334.940†	-1870.8	-155.2	-0.0984	ug/L	-0.0984	ppb	17:36:01
1	Tl 190.801†	-52.1	-2.3	-0.6106	ug/L	-0.6106	ppb	17:36:21
1	U 409.014†	-2881.6	53.6	1.4804	ug/L	1.4804	ppb	17:36:01
1	V 292.402†	-1578.7	240.4	1.4303	ug/L	1.4303	ppb	17:36:21
1	Zn 213.857†	980.9	60.6	0.4510	ug/L	0.4510	ppb	17:36:21
1	SiO2†	234152.0	232048.8	13299	ug/L	13299	ppb	17:37:18
2	Sc Radial	4948.4	4948.4	100	%			17:35:09
2	Y RADIAL	5279.9	5279.9	99.53	%			17:35:09
2	Al 396.153Radial†	-3.9	17.4	13.601	ug/L	13.601	ppb	17:35:09
2	Ca 317.933Radial†	1593.8	1571.5	2462.7	ug/L	2462.7	ppb	17:35:29
2	Fe 238.204 Radial†	13.3	-0.0	0.0069	ug/L	0.0069	ppb	17:35:29
2	K 766.490 Radial†	4685.0	1348.9	255.66	ug/L	255.66	ppb	17:35:09
2	Mg 279.077 IEC†	22.8	20.0	641.00	ug/L	641.00	ppb	17:35:29
2	Na 589.592 Radial†	5396.0	7190.4	2040.1	ug/L	2040.1	ppb	17:35:09
2	Sr 421.552†	1621.8	1609.9	10.549	ug/L	10.549	ppb	17:35:09
2	Sc 361.383	953203.0	953203.0	101.54	%			17:36:27
2	Y 371.029	827467.8	827467.8	101.14	%			17:36:27
2	Ag 328.068†	464.4	-8.2	-0.0629	ug/L	-0.0629	ppb	17:36:27
2	As 188.979†	-26.3	9.0	2.9484	ug/L	2.9484	ppb	17:36:47
2	B 249.677†	-701.8	-295.1	-5.7584	ug/L	-5.7584	ppb	17:36:47
2	Ba 233.527†	502.1	474.4	3.2280	ug/L	3.2280	ppb	17:36:47
2	Be 313.107†	-4541.6	228.6	0.0721	ug/L	0.0721	ppb	17:36:27
2	Cd 226.502†	-251.2	9.3	0.0840	ug/L	0.0840	ppb	17:36:47
2	Co 228.616†	-82.4	13.1	0.2326	ug/L	0.2326	ppb	17:36:47
2	Cr 267.716†	183.4	46.9	0.4433	ug/L	0.4433	ppb	17:36:47
2	Cu 324.752†	8324.5	-284.9	-0.8125	ug/L	-0.8125	ppb	17:36:27
2	Mn 257.610†	897.7	247.5	0.2336	ug/L	0.2336	ppb	17:36:47
2	Mo 202.031†	31.2	5.2	0.3088	ug/L	0.3088	ppb	17:36:47
2	Ni 231.604†	156.7	15.5	0.3199	ug/L	0.3199	ppb	17:36:47

2	P 214.914†	276.5	1.2	0.6062	ug/L	0.6062 ppb	17:36:47
2	Pb 220.353†	-81.6	4.2	0.4245	ug/L	0.4245 ppb	17:36:47
2	S 181.975 Axial†	254.1	188.6	207.15	ug/L	207.15 ppb	17:36:47
2	Sb 206.836†	52.0	5.9	1.6224	ug/L	1.6224 ppb	17:36:47
2	Se 196.026†	-29.8	3.3	1.5808	ug/L	1.5808 ppb	17:36:47
2	Si 251.611†	237131.4	232797.0	6192.6	ug/L	6192.6 ppb	17:36:27
2	Sn 189.927†	-27.7	-30.6	-4.0829	ug/L	-4.0829 ppb	17:36:47
2	Ti 334.940†	-1915.3	-181.5	-0.1374	ug/L	-0.1374 ppb	17:36:27
2	Tl 190.801†	-38.2	11.9	3.1073	ug/L	3.1073 ppb	17:36:47
2	U 409.014†	-3038.2	-73.5	-2.0354	ug/L	-2.0354 ppb	17:36:27
2	V 292.402†	-1597.1	237.2	1.4113	ug/L	1.4113 ppb	17:36:47
2	Zn 213.857†	998.7	68.9	0.5155	ug/L	0.5155 ppb	17:36:47
2	SiO2†	235284.0	230958.9	13237	ug/L	13237 ppb	17:37:23
3	Sc Radial	4960.1	4960.1	100	%		17:35:34
3	Y RADIAL	5240.6	5240.6	98.79	%		17:35:34
3	Al 396.153Radial†	-41.4	-20.0	-15.685	ug/L	-15.685 ppb	17:35:34
3	Ca 317.933Radial†	1582.6	1556.5	2439.2	ug/L	2439.2 ppb	17:35:54
3	Fe 238.204 Radial†	12.3	-1.0	-8.6453	ug/L	-8.6453 ppb	17:35:54
3	K 766.490 Radial†	4596.2	1249.5	236.70	ug/L	236.70 ppb	17:35:34
3	Mg 279.077 IEC†	25.3	22.5	719.52	ug/L	719.52 ppb	17:35:54
3	Na 589.592 Radial†	5528.7	7310.0	2074.0	ug/L	2074.0 ppb	17:35:34
3	Sr 421.552†	1571.1	1555.5	10.192	ug/L	10.192 ppb	17:35:34
3	Sc 361.383	951729.3	951729.3	101.38	%		17:36:52
3	Y 371.029	825376.2	825376.2	100.89	%		17:36:52
3	Ag 328.068†	556.2	83.0	0.3066	ug/L	0.3066 ppb	17:36:52
3	As 188.979†	-28.9	6.3	2.0718	ug/L	2.0718 ppb	17:37:12
3	B 249.677†	-685.9	-280.5	-5.4725	ug/L	-5.4725 ppb	17:37:12
3	Ba 233.527†	491.8	465.0	3.1648	ug/L	3.1648 ppb	17:37:12
3	Be 313.107†	-4582.1	181.7	0.0574	ug/L	0.0574 ppb	17:36:52
3	Cd 226.502†	-268.2	-7.9	-0.0706	ug/L	-0.0706 ppb	17:37:12
3	Co 228.616†	-93.4	2.1	0.0402	ug/L	0.0402 ppb	17:37:12
3	Cr 267.716†	170.1	34.1	0.3213	ug/L	0.3213 ppb	17:37:12
3	Cu 324.752†	8218.6	-376.7	-1.0745	ug/L	-1.0745 ppb	17:36:52
3	Mn 257.610†	913.5	264.4	0.2481	ug/L	0.2481 ppb	17:37:12
3	Mo 202.031†	35.4	9.5	0.5585	ug/L	0.5585 ppb	17:37:12
3	Ni 231.604†	135.5	-5.3	-0.1087	ug/L	-0.1087 ppb	17:37:12
3	P 214.914†	271.5	-3.4	-1.4066	ug/L	-1.4066 ppb	17:37:12
3	Pb 220.353†	-80.6	5.1	0.5072	ug/L	0.5072 ppb	17:37:12
3	S 181.975 Axial†	261.1	195.9	215.20	ug/L	215.20 ppb	17:37:12
3	Sb 206.836†	37.1	-8.7	-2.5524	ug/L	-2.5524 ppb	17:37:12
3	Se 196.026†	-50.5	-17.1	-8.1343	ug/L	-8.1343 ppb	17:37:12
3	Si 251.611†	236747.0	232779.4	6192.2	ug/L	6192.2 ppb	17:36:52
3	Sn 189.927†	-26.9	-29.9	-3.9841	ug/L	-3.9841 ppb	17:37:12
3	Ti 334.940†	-1838.3	-108.4	-0.0348	ug/L	-0.0348 ppb	17:36:52
3	Tl 190.801†	-46.8	3.2	0.8454	ug/L	0.8454 ppb	17:37:12
3	U 409.014†	-2733.7	222.2	6.1517	ug/L	6.1517 ppb	17:36:52
3	V 292.402†	-1531.9	299.1	1.7980	ug/L	1.7980 ppb	17:37:12
3	Zn 213.857†	1008.1	79.7	0.6004	ug/L	0.6004 ppb	17:37:12
3	SiO2†	233964.1	230015.8	13182	ug/L	13182 ppb	17:37:28

Mean Data: 242753008|932266|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	949702.7	101.17	%	0.516				0.51%
Sc Radial	4924.1	99.6	%	1.06				1.07%
Y 371.029	823841.6	100.70	%	0.561				0.56%
Y RADIAL	5238.6	98.75	%	0.797				0.81%
Ag 328.068†	15.3	0.0323	ug/L	0.24115	0.0323	ppb	0.24115	745.97%
Al 396.153Radial†	4.3	3.3895	ug/L	16.53237	3.3895	ppb	16.53237	487.76%
As 188.979†	7.0	2.3063	ug/L	0.56278	2.3063	ppb	0.56278	24.40%
B 249.677†	-291.1	-5.6813	ug/L	0.18293	-5.6813	ppb	0.18293	3.22%
Ba 233.527†	467.4	3.1809	ug/L	0.04144	3.1809	ppb	0.04144	1.30%
Be 313.107†	182.7	0.0576	ug/L	0.01439	0.0576	ppb	0.01439	24.98%
Ca 317.933Radial†	1574.5	2467.5	ug/L	30.92	2467.5	ppb	30.92	1.25%
Cd 226.502†	-1.6	-0.0148	ug/L	0.08584	-0.0148	ppb	0.08584	579.58%
Co 228.616†	3.7	0.0669	ug/L	0.15409	0.0669	ppb	0.15409	230.25%
Cr 267.716†	41.8	0.3944	ug/L	0.06455	0.3944	ppb	0.06455	16.37%
Cu 324.752†	-352.6	-1.0054	ug/L	0.16931	-1.0054	ppb	0.16931	16.84%
Fe 238.204 Radial†	0.2	1.9394	ug/L	11.67162	1.9394	ppb	11.67162	601.81%
K 766.490 Radial†	1372.4	260.12	ug/L	25.935	260.12	ppb	25.935	9.97%

Mg 279.077 IEC†	21.4	684.50	ug/L	39.940	684.50	ppb	39.940	5.83%
Mn 257.610†	259.6	0.2450	ug/L	0.01020	0.2450	ppb	0.01020	4.16%
Mo 202.031†	4.4	0.2589	ug/L	0.32734	0.2589	ppb	0.32734	126.42%
Na 589.592 Radial†	7280.1	2065.5	ug/L	22.44	2065.5	ppb	22.44	1.09%
Ni 231.604†	1.2	0.0246	ug/L	0.25612	0.0246	ppb	0.25612	>999.9%
P 214.914†	-0.3	-0.0437	ug/L	1.18073	-0.0437	ppb	1.18073	>999.9%
Pb 220.353†	-1.8	-0.1777	ug/L	1.11550	-0.1777	ppb	1.11550	627.64%
S 181.975 Axial†	187.9	206.41	ug/L	9.180	206.41	ppb	9.180	4.45%
Sb 206.836†	-3.1	-0.9593	ug/L	2.25619	-0.9593	ppb	2.25619	235.19%
Se 196.026†	-5.4	-2.5446	ug/L	5.02037	-2.5446	ppb	5.02037	197.30%
Si 251.611†	232628.5	6188.1	ug/L	7.37	6188.1	ppb	7.37	0.12%
Sn 189.927†	-29.4	-3.9005	ug/L	0.23560	-3.9005	ppb	0.23560	6.04%
Sr 421.552†	1591.3	10.427	ug/L	0.2037	10.427	ppb	0.2037	1.95%
Ti 334.940†	-148.4	-0.0902	ug/L	0.05176	-0.0902	ppb	0.05176	57.38%
Tl 190.801†	4.3	1.1140	ug/L	1.87344	1.1140	ppb	1.87344	168.17%
U 409.014†	67.4	1.8656	ug/L	4.10715	1.8656	ppb	4.10715	220.15%
V 292.402†	258.9	1.5465	ug/L	0.21802	1.5465	ppb	0.21802	14.10%
Zn 213.857†	69.7	0.5223	ug/L	0.07493	0.5223	ppb	0.07493	14.35%
SiO2†	231007.9	13239	ug/L	58.3	13239	ppb	58.3	0.44%

Sequence No.: 33
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/29/2009 17:39:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5166.8	5166.8	104	%			17:41:31
1	Y RADIAL	5507.4	5507.4	103.8	%			17:41:31
1	Al 396.153Radial†	6026.5	5789.9	4510.3	ug/L	4510.3	ppb	17:41:31
1	Ca 317.933Radial†	3148.8	2992.6	4689.9	ug/L	4689.9	ppb	17:41:51
1	Fe 238.204 Radial†	574.5	536.6	4728.2	ug/L	4728.2	ppb	17:41:51
1	K 766.490 Radial†	28265.0	23721.9	4508.4	ug/L	4508.4	ppb	17:41:31
1	Mg 279.077 IEC†	163.6	153.9	4927.6	ug/L	4927.6	ppb	17:41:51
1	Na 589.592 Radial†	30106.6	30615.5	8686.2	ug/L	8686.2	ppb	17:41:31
1	Sr 421.552†	70431.0	67405.6	442.58	ug/L	442.58	ppb	17:41:31
1	Sc 361.383	922650.5	922650.5	98.285	%			17:42:50
1	Y 371.029	793428.9	793428.9	96.982	%			17:42:50
1	Ag 328.068†	119194.9	120809.4	502.78	ug/L	502.78	ppb	17:42:50
1	As 188.979†	1465.7	1526.1	506.00	ug/L	506.00	ppb	17:43:10
1	B 249.677†	24097.9	24914.5	484.27	ug/L	484.27	ppb	17:42:50
1	Ba 233.527†	72843.2	74094.3	504.93	ug/L	504.93	ppb	17:42:50
1	Be 313.107†	1567033.3	1599081.3	508.96	ug/L	508.96	ppb	17:42:50
1	Cd 226.502†	54868.0	56082.2	505.12	ug/L	505.12	ppb	17:42:50
1	Co 228.616†	27681.7	28259.0	497.20	ug/L	497.20	ppb	17:43:10
1	Cr 267.716†	52758.9	53545.9	503.90	ug/L	503.90	ppb	17:42:50
1	Cu 324.752†	181051.7	175728.1	501.34	ug/L	501.34	ppb	17:42:50
1	Mn 257.610†	503633.7	511786.1	508.14	ug/L	508.14	ppb	17:42:50
1	Mo 202.031†	8479.8	8602.3	506.78	ug/L	506.78	ppb	17:43:10
1	Ni 231.604†	23853.5	24130.9	499.23	ug/L	499.23	ppb	17:43:10
1	P 214.914†	5746.0	5575.1	2452.3	ug/L	2452.3	ppb	17:43:10
1	Pb 220.353†	4958.8	5130.0	510.65	ug/L	510.65	ppb	17:43:10
1	S 181.975 Axial†	956.1	911.1	999.85	ug/L	999.85	ppb	17:43:10
1	Sb 206.836†	1756.1	1741.5	506.23	ug/L	506.23	ppb	17:43:10
1	Se 196.026†	1004.1	1054.3	516.99	ug/L	516.99	ppb	17:43:10
1	Si 251.611†	93432.1	94323.2	2497.2	ug/L	2497.2	ppb	17:42:50
1	Sn 189.927†	3488.0	3545.4	502.56	ug/L	502.56	ppb	17:43:10
1	Ti 334.940†	335209.2	342763.8	503.32	ug/L	503.32	ppb	17:42:50
1	Tl 190.801†	1841.1	1922.7	506.92	ug/L	506.92	ppb	17:43:10
1	U 409.014†	14200.6	17367.1	479.16	ug/L	479.16	ppb	17:42:50
1	V 292.402†	81924.9	85164.7	508.11	ug/L	508.11	ppb	17:42:50
1	Zn 213.857†	64286.9	64494.1	499.75	ug/L	499.75	ppb	17:42:50
1	SiO2†	93313.6	94184.0	5372.0	ug/L	5372.0	ppb	17:44:11
2	Sc Radial	4759.9	4759.9	96.2	%			17:41:56
2	Y RADIAL	5058.4	5058.4	95.35	%			17:41:56
2	Al 396.153Radial†	6157.9	6419.4	5003.1	ug/L	5003.1	ppb	17:41:56
2	Ca 317.933Radial†	3170.9	3273.1	5129.4	ug/L	5129.4	ppb	17:42:16
2	Fe 238.204 Radial†	579.8	589.1	5189.2	ug/L	5189.2	ppb	17:42:16
2	K 766.490 Radial†	28883.8	26677.2	5070.8	ug/L	5070.8	ppb	17:41:56
2	Mg 279.077 IEC†	163.5	167.1	5350.3	ug/L	5350.3	ppb	17:42:16
2	Na 589.592 Radial†	30557.7	33547.1	9517.9	ug/L	9517.9	ppb	17:41:56
2	Sr 421.552†	71659.1	74443.4	488.79	ug/L	488.79	ppb	17:41:56
2	Sc 361.383	922037.1	922037.1	98.219	%			17:43:18
2	Y 371.029	795323.4	795323.4	97.214	%			17:43:18
2	Ag 328.068†	119462.2	121162.2	504.38	ug/L	504.38	ppb	17:43:18
2	As 188.979†	1470.0	1531.5	507.86	ug/L	507.86	ppb	17:43:38
2	B 249.677†	24203.8	25038.6	486.64	ug/L	486.64	ppb	17:43:18
2	Ba 233.527†	72825.4	74125.5	505.15	ug/L	505.15	ppb	17:43:18
2	Be 313.107†	1571715.4	1604909.1	510.81	ug/L	510.81	ppb	17:43:18
2	Cd 226.502†	54755.1	56004.4	504.37	ug/L	504.37	ppb	17:43:18
2	Co 228.616†	27580.0	28174.2	495.70	ug/L	495.70	ppb	17:43:38
2	Cr 267.716†	52963.6	53790.0	506.21	ug/L	506.21	ppb	17:43:18
2	Cu 324.752†	181913.9	176728.4	504.22	ug/L	504.22	ppb	17:43:18
2	Mn 257.610†	503178.7	511663.8	508.05	ug/L	508.05	ppb	17:43:18
2	Mo 202.031†	8432.9	8560.3	504.35	ug/L	504.35	ppb	17:43:38
2	Ni 231.604†	23821.0	24113.9	498.88	ug/L	498.88	ppb	17:43:38

2	P 214.914†	5712.0	5544.3	2437.7 ug/L	2437.7 ppb	17:43:38
2	Pb 220.353†	4909.3	5082.9	506.05 ug/L	506.05 ppb	17:43:38
2	S 181.975 Axial†	954.5	910.2	998.75 ug/L	998.75 ppb	17:43:38
2	Sb 206.836†	1751.4	1737.9	505.08 ug/L	505.08 ppb	17:43:38
2	Se 196.026†	1008.3	1059.2	520.82 ug/L	520.82 ppb	17:43:38
2	Si 251.611†	93464.5	94419.4	2499.6 ug/L	2499.6 ppb	17:43:18
2	Sn 189.927†	3486.6	3546.4	502.75 ug/L	502.75 ppb	17:43:38
2	Ti 334.940†	335763.9	343555.5	504.51 ug/L	504.51 ppb	17:43:18
2	Tl 190.801†	1848.6	1931.6	509.27 ug/L	509.27 ppb	17:43:38
2	U 409.014†	14301.1	17479.0	482.20 ug/L	482.20 ppb	17:43:18
2	V 292.402†	81995.7	85292.2	508.77 ug/L	508.77 ppb	17:43:18
2	Zn 213.857†	64354.8	64606.7	500.59 ug/L	500.59 ppb	17:43:18
2	SiO2†	92432.2	93349.8	5323.9 ug/L	5323.9 ppb	17:44:16
3	Sc Radial	4727.5	4727.5	95.6 %		17:42:21
3	Y RADIAL	5008.9	5008.9	94.42 %		17:42:21
3	Al 396.153Radial†	6181.6	6488.1	5056.9 ug/L	5056.9 ppb	17:42:21
3	Ca 317.933Radial†	3148.3	3272.1	5127.8 ug/L	5127.8 ppb	17:42:41
3	Fe 238.204 Radial†	574.4	587.7	5176.3 ug/L	5176.3 ppb	17:42:41
3	K 766.490 Radial†	28883.6	26882.7	5109.9 ug/L	5109.9 ppb	17:42:21
3	Mg 279.077 IEC†	159.6	164.2	5257.9 ug/L	5257.9 ppb	17:42:41
3	Na 589.592 Radial†	30654.1	33865.6	9608.3 ug/L	9608.3 ppb	17:42:21
3	Sr 421.552†	72122.2	75438.2	495.32 ug/L	495.32 ppb	17:42:21
3	Sc 361.383	920652.4	920652.4	98.072 %		17:43:45
3	Y 371.029	793201.7	793201.7	96.955 %		17:43:45
3	Ag 328.068†	119345.4	121226.1	504.64 ug/L	504.64 ppb	17:43:45
3	As 188.979†	1465.1	1528.8	506.97 ug/L	506.97 ppb	17:44:05
3	B 249.677†	24244.2	25116.9	488.17 ug/L	488.17 ppb	17:43:45
3	Ba 233.527†	72755.1	74165.3	505.42 ug/L	505.42 ppb	17:43:45
3	Be 313.107†	1566471.5	1601968.8	509.88 ug/L	509.88 ppb	17:43:45
3	Cd 226.502†	54793.6	56127.5	505.48 ug/L	505.48 ppb	17:43:45
3	Co 228.616†	27470.6	28104.9	494.48 ug/L	494.48 ppb	17:44:05
3	Cr 267.716†	52881.8	53787.7	506.18 ug/L	506.18 ppb	17:43:45
3	Cu 324.752†	181697.6	176786.4	504.38 ug/L	504.38 ppb	17:43:45
3	Mn 257.610†	503096.2	512350.2	508.74 ug/L	508.74 ppb	17:43:45
3	Mo 202.031†	8417.6	8557.6	504.20 ug/L	504.20 ppb	17:44:05
3	Ni 231.604†	23705.6	24032.8	497.21 ug/L	497.21 ppb	17:44:05
3	P 214.914†	5698.2	5539.1	2435.3 ug/L	2435.3 ppb	17:44:05
3	Pb 220.353†	4889.1	5069.8	504.75 ug/L	504.75 ppb	17:44:05
3	S 181.975 Axial†	954.5	911.5	1000.3 ug/L	1000.3 ppb	17:44:05
3	Sb 206.836†	1748.3	1737.4	504.91 ug/L	504.91 ppb	17:44:05
3	Se 196.026†	989.4	1041.5	512.38 ug/L	512.38 ppb	17:44:05
3	Si 251.611†	93553.4	94653.2	2505.9 ug/L	2505.9 ppb	17:43:45
3	Sn 189.927†	3474.4	3539.3	501.75 ug/L	501.75 ppb	17:44:05
3	Ti 334.940†	335625.7	343928.7	505.05 ug/L	505.05 ppb	17:43:45
3	Tl 190.801†	1823.3	1908.6	503.25 ug/L	503.25 ppb	17:44:05
3	U 409.014†	14270.0	17469.2	481.93 ug/L	481.93 ppb	17:43:45
3	V 292.402†	81867.4	85286.9	508.74 ug/L	508.74 ppb	17:43:45
3	Zn 213.857†	64300.9	64650.3	500.95 ug/L	500.95 ppb	17:43:45
3	SiO2†	92717.4	93782.2	5348.6 ug/L	5348.6 ppb	17:44:21

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	921780.0	98.192	%	0.1090				0.11%
Sc Radial	4884.7	98.8	%	4.95				5.01%
Y 371.029	793984.7	97.050	%	0.1424				0.15%
Y RADIAL	5191.6	97.86	%	5.177				5.29%
Ag 328.068†	121065.9	503.93	ug/L	1.012	503.93	ppb	1.012	0.20%
QC value within limits for Ag 328.068 Recovery = 100.79%								
Al 396.153Radial†	6232.5	4856.8	ug/L	301.26	4856.8	ppb	301.26	6.20%
QC value within limits for Al 396.153Radial Recovery = 97.14%								
As 188.979†	1528.8	506.94	ug/L	0.929	506.94	ppb	0.929	0.18%
QC value within limits for As 188.979 Recovery = 101.39%								
B 249.677†	25023.3	486.36	ug/L	1.964	486.36	ppb	1.964	0.40%
QC value within limits for B 249.677 Recovery = 97.27%								
Ba 233.527†	74128.4	505.17	ug/L	0.248	505.17	ppb	0.248	0.05%
QC value within limits for Ba 233.527 Recovery = 101.03%								
Be 313.107†	1601986.4	509.88	ug/L	0.927	509.88	ppb	0.927	0.18%
QC value within limits for Be 313.107 Recovery = 101.98%								
Ca 317.933Radial†	3179.3	4982.4	ug/L	253.31	4982.4	ppb	253.31	5.08%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.65%
Cd 226.502†            56071.4      504.99 ug/L         0.566      504.99 ppb          0.566   0.11%
   QC value within limits for Cd 226.502  Recovery = 101.00%
Co 228.616†            28179.4      495.79 ug/L         1.367      495.79 ppb          1.367   0.28%
   QC value within limits for Co 228.616  Recovery = 99.16%
Cr 267.716†            53707.9      505.43 ug/L         1.323      505.43 ppb          1.323   0.26%
   QC value within limits for Cr 267.716  Recovery = 101.09%
Cu 324.752†           176414.3      503.32 ug/L         1.710      503.32 ppb          1.710   0.34%
   QC value within limits for Cu 324.752  Recovery = 100.66%
Fe 238.204 Radial†       571.1      5031.3 ug/L        262.52      5031.3 ppb         262.52   5.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.63%
K 766.490 Radial†      25760.6      4896.4 ug/L        336.51      4896.4 ppb         336.51   6.87%
   QC value within limits for K 766.490 Radial  Recovery = 97.93%
Mg 279.077 IEC†          161.8      5178.6 ug/L        222.21      5178.6 ppb         222.21   4.29%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.57%
Mn 257.610†           511933.4      508.31 ug/L         0.372      508.31 ppb          0.372   0.07%
   QC value within limits for Mn 257.610  Recovery = 101.66%
Mo 202.031†             8573.4      505.11 ug/L         1.450      505.11 ppb          1.450   0.29%
   QC value within limits for Mo 202.031  Recovery = 101.02%
Na 589.592 Radial†     32676.1      9270.8 ug/L        508.32      9270.8 ppb         508.32   5.48%
   QC value within limits for Na 589.592 Radial  Recovery = 92.71%
Ni 231.604†            24092.5      498.44 ug/L         1.085      498.44 ppb          1.085   0.22%
   QC value within limits for Ni 231.604  Recovery = 99.69%
P 214.914†              5552.8      2441.8 ug/L          9.21      2441.8 ppb           9.21   0.38%
   QC value within limits for P 214.914  Recovery = 97.67%
Pb 220.353†             5094.2      507.15 ug/L         3.101      507.15 ppb          3.101   0.61%
   QC value within limits for Pb 220.353  Recovery = 101.43%
S 181.975 Axial†         910.9      999.62 ug/L         0.784      999.62 ppb          0.784   0.08%
   QC value within limits for S 181.975 Axial  Recovery = 99.96%
Sb 206.836†             1738.9      505.41 ug/L         0.722      505.41 ppb          0.722   0.14%
   QC value within limits for Sb 206.836  Recovery = 101.08%
Se 196.026†             1051.7      516.73 ug/L         4.229      516.73 ppb          4.229   0.82%
   QC value within limits for Se 196.026  Recovery = 103.35%
Si 251.611†            94465.3      2500.9 ug/L          4.45      2500.9 ppb           4.45   0.18%
   QC value within limits for Si 251.611  Recovery = 100.04%
Sn 189.927†             3543.7      502.35 ug/L         0.531      502.35 ppb          0.531   0.11%
   QC value within limits for Sn 189.927  Recovery = 100.47%
Sr 421.552†            72429.1      475.57 ug/L        28.751      475.57 ppb         28.751   6.05%
   QC value within limits for Sr 421.552  Recovery = 95.11%
Ti 334.940†           343416.0      504.29 ug/L         0.885      504.29 ppb          0.885   0.18%
   QC value within limits for Ti 334.940  Recovery = 100.86%
Tl 190.801†             1921.0      506.48 ug/L         3.033      506.48 ppb          3.033   0.60%
   QC value within limits for Tl 190.801  Recovery = 101.30%
U 409.014†             17438.4      481.10 ug/L         1.680      481.10 ppb          1.680   0.35%
   QC value within limits for U 409.014  Recovery = 96.22%
V 292.402†             85247.9      508.54 ug/L         0.371      508.54 ppb          0.371   0.07%
   QC value within limits for V 292.402  Recovery = 101.71%
Zn 213.857†            64583.7      500.43 ug/L         0.614      500.43 ppb          0.614   0.12%
   QC value within limits for Zn 213.857  Recovery = 100.09%
SiO2†                  93772.0      5348.2 ug/L        24.07      5348.2 ppb         24.07   0.45%
   QC value within limits for SiO2  Recovery = 100.01%
All analyte(s) passed QC.
```

Sequence No.: 34
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/29/2009 17:46:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4854.6	4854.6	98.2	%			17:48:22
1	Y RADIAL	5183.5	5183.5	97.71	%			17:48:22
1	Al 396.153Radial†	-15.6	5.4	4.1637	ug/L	4.1637	ppb	17:48:22
1	Ca 317.933Radial†	15.9	-5.3	-8.2608	ug/L	-8.2608	ppb	17:48:42
1	Fe 238.204 Radial†	11.5	-1.5	-13.297	ug/L	-13.297	ppb	17:48:42
1	K 766.490 Radial†	3261.3	-10.9	-2.0442	ug/L	-2.0442	ppb	17:48:22
1	Mg 279.077 IEC†	2.1	-0.6	-18.200	ug/L	-18.200	ppb	17:48:42
1	Na 589.592 Radial†	-2003.5	-243.7	-69.140	ug/L	-69.140	ppb	17:48:22
1	Sr 421.552†	-7.5	-18.6	-0.1223	ug/L	-0.1223	ppb	17:48:22
1	Sc 361.383	930074.0	930074.0	99.076	%			17:49:39
1	Y 371.029	810071.9	810071.9	99.017	%			17:49:39
1	Ag 328.068†	518.0	57.3	0.2331	ug/L	0.2331	ppb	17:49:44
1	As 188.979†	-41.5	-7.0	-2.3077	ug/L	-2.3077	ppb	17:50:04
1	B 249.677†	-639.5	-249.4	-4.8659	ug/L	-4.8659	ppb	17:49:44
1	Ba 233.527†	10.4	-9.6	-0.0668	ug/L	-0.0668	ppb	17:50:04
1	Be 313.107†	-4655.9	2.0	0.0006	ug/L	0.0006	ppb	17:49:44
1	Cd 226.502†	-256.5	-2.2	-0.0185	ug/L	-0.0185	ppb	17:50:04
1	Co 228.616†	-88.3	5.1	0.0921	ug/L	0.0921	ppb	17:50:04
1	Cr 267.716†	86.9	-46.0	-0.4324	ug/L	-0.4324	ppb	17:49:44
1	Cu 324.752†	8309.3	-96.3	-0.2754	ug/L	-0.2754	ppb	17:49:44
1	Mn 257.610†	558.4	-72.9	-0.0733	ug/L	-0.0733	ppb	17:49:44
1	Mo 202.031†	42.4	17.3	1.0188	ug/L	1.0188	ppb	17:50:04
1	Ni 231.604†	155.1	17.7	0.3662	ug/L	0.3662	ppb	17:50:04
1	P 214.914†	266.0	-2.7	-1.1774	ug/L	-1.1774	ppb	17:50:04
1	Pb 220.353†	-108.4	-24.8	-2.4559	ug/L	-2.4559	ppb	17:50:04
1	S 181.975 Axial†	53.8	-7.4	-8.1438	ug/L	-8.1438	ppb	17:50:04
1	Sb 206.836†	38.8	-6.1	-1.7015	ug/L	-1.7015	ppb	17:50:04
1	Se 196.026†	-34.6	-2.3	-1.1216	ug/L	-1.1216	ppb	17:50:04
1	Si 251.611†	738.6	6.1	0.1450	ug/L	0.1450	ppb	17:50:04
1	Sn 189.927†	3.8	0.4	0.0565	ug/L	0.0565	ppb	17:50:04
1	Ti 334.940†	-1714.8	-26.1	-0.0374	ug/L	-0.0374	ppb	17:49:44
1	Tl 190.801†	-57.9	-8.9	-2.3430	ug/L	-2.3430	ppb	17:50:04
1	U 409.014†	-2984.4	-93.5	-2.5869	ug/L	-2.5869	ppb	17:49:39
1	V 292.402†	-1865.8	-73.1	-0.4190	ug/L	-0.4190	ppb	17:49:44
1	Zn 213.857†	871.8	-34.7	-0.2718	ug/L	-0.2718	ppb	17:50:04
1	SiO2†	778.7	27.9	1.5635	ug/L	1.5635	ppb	17:51:10
2	Sc Radial	4771.4	4771.4	96.5	%			17:48:47
2	Y RADIAL	5122.7	5122.7	96.57	%			17:48:47
2	Al 396.153Radial†	15.4	37.3	29.224	ug/L	29.224	ppb	17:48:47
2	Ca 317.933Radial†	18.5	-2.3	-3.5575	ug/L	-3.5575	ppb	17:49:07
2	Fe 238.204 Radial†	15.4	2.7	23.547	ug/L	23.547	ppb	17:49:07
2	K 766.490 Radial†	3355.9	145.1	27.656	ug/L	27.656	ppb	17:48:47
2	Mg 279.077 IEC†	2.0	-0.6	-20.029	ug/L	-20.029	ppb	17:49:07
2	Na 589.592 Radial†	-1896.7	-168.5	-47.802	ug/L	-47.802	ppb	17:48:47
2	Sr 421.552†	0.5	-10.5	-0.0690	ug/L	-0.0690	ppb	17:48:47
2	Sc 361.383	928899.1	928899.1	98.950	%			17:50:09
2	Y 371.029	811421.4	811421.4	99.182	%			17:50:09
2	Ag 328.068†	475.8	15.2	0.0699	ug/L	0.0699	ppb	17:50:14
2	As 188.979†	-39.2	-4.7	-1.5536	ug/L	-1.5536	ppb	17:50:34
2	B 249.677†	-614.2	-224.7	-4.3878	ug/L	-4.3878	ppb	17:50:14
2	Ba 233.527†	8.3	-11.7	-0.0793	ug/L	-0.0793	ppb	17:50:34
2	Be 313.107†	-4595.8	56.8	0.0179	ug/L	0.0179	ppb	17:50:14
2	Cd 226.502†	-257.8	-3.9	-0.0373	ug/L	-0.0373	ppb	17:50:34
2	Co 228.616†	-87.2	6.1	0.1048	ug/L	0.1048	ppb	17:50:34
2	Cr 267.716†	117.8	-14.7	-0.1378	ug/L	-0.1378	ppb	17:50:14
2	Cu 324.752†	8392.9	-1.3	-0.0024	ug/L	-0.0024	ppb	17:50:14
2	Mn 257.610†	610.8	-19.3	-0.0164	ug/L	-0.0164	ppb	17:50:14
2	Mo 202.031†	11.4	-13.9	-0.8178	ug/L	-0.8178	ppb	17:50:34
2	Ni 231.604†	149.8	12.5	0.2584	ug/L	0.2584	ppb	17:50:34

2	P 214.914†	260.2	-8.3	-3.7477 ug/L	-3.7477 ppb	17:50:34
2	Pb 220.353†	-103.0	-19.4	-1.9271 ug/L	-1.9271 ppb	17:50:34
2	S 181.975 Axial†	58.9	-2.2	-2.3900 ug/L	-2.3900 ppb	17:50:34
2	Sb 206.836†	36.5	-8.3	-2.3908 ug/L	-2.3908 ppb	17:50:34
2	Se 196.026†	-30.8	1.5	0.7883 ug/L	0.7883 ppb	17:50:34
2	Si 251.611†	734.9	3.3	0.0904 ug/L	0.0904 ppb	17:50:34
2	Sn 189.927†	6.9	3.5	0.5001 ug/L	0.5001 ppb	17:50:34
2	Ti 334.940†	-1720.7	-34.2	-0.0505 ug/L	-0.0505 ppb	17:50:14
2	Tl 190.801†	-37.3	11.8	3.0790 ug/L	3.0790 ppb	17:50:34
2	U 409.014†	-2875.5	12.7	0.3484 ug/L	0.3484 ppb	17:50:09
2	V 292.402†	-1821.2	-30.5	-0.1942 ug/L	-0.1942 ppb	17:50:14
2	Zn 213.857†	870.3	-35.2	-0.2771 ug/L	-0.2771 ppb	17:50:34
2	SiO2†	743.6	-6.5	-0.3651 ug/L	-0.3651 ppb	17:51:15
3	Sc Radial	4791.1	4791.1	96.9 %		17:49:12
3	Y RADIAL	5123.6	5123.6	96.58 %		17:49:12
3	Al 396.153Radial†	-34.9	-14.7	-11.580 ug/L	-11.580 ppb	17:49:12
3	Ca 317.933Radial†	9.9	-11.3	-17.643 ug/L	-17.643 ppb	17:49:32
3	Fe 238.204 Radial†	11.9	-1.0	-8.7472 ug/L	-8.7472 ppb	17:49:32
3	K 766.490 Radial†	3394.3	170.4	32.479 ug/L	32.479 ppb	17:49:12
3	Mg 279.077 IEC†	0.8	-1.9	-60.981 ug/L	-60.981 ppb	17:49:32
3	Na 589.592 Radial†	-1989.2	-255.9	-72.603 ug/L	-72.603 ppb	17:49:12
3	Sr 421.552†	0.7	-10.3	-0.0676 ug/L	-0.0676 ppb	17:49:12
3	Sc 361.383	920116.9	920116.9	98.015 %		17:50:39
3	Y 371.029	803784.7	803784.7	98.248 %		17:50:39
3	Ag 328.068†	416.4	-40.8	-0.1681 ug/L	-0.1681 ppb	17:50:44
3	As 188.979†	-39.0	-5.0	-1.6339 ug/L	-1.6339 ppb	17:51:05
3	B 249.677†	-730.1	-348.8	-6.8060 ug/L	-6.8060 ppb	17:50:44
3	Ba 233.527†	-5.9	-26.1	-0.1781 ug/L	-0.1781 ppb	17:51:05
3	Be 313.107†	-4527.9	81.8	0.0258 ug/L	0.0258 ppb	17:50:44
3	Cd 226.502†	-248.6	3.0	0.0283 ug/L	0.0283 ppb	17:51:05
3	Co 228.616†	-88.0	4.4	0.0810 ug/L	0.0810 ppb	17:51:05
3	Cr 267.716†	148.2	17.5	0.1655 ug/L	0.1655 ppb	17:50:44
3	Cu 324.752†	8157.1	-160.9	-0.4593 ug/L	-0.4593 ppb	17:50:44
3	Mn 257.610†	536.8	-88.9	-0.0879 ug/L	-0.0879 ppb	17:50:44
3	Mo 202.031†	41.8	17.2	1.0100 ug/L	1.0100 ppb	17:51:05
3	Ni 231.604†	148.4	12.5	0.2586 ug/L	0.2586 ppb	17:51:05
3	P 214.914†	275.2	9.6	4.4281 ug/L	4.4281 ppb	17:51:05
3	Pb 220.353†	-83.5	-0.6	-0.0537 ug/L	-0.0537 ppb	17:51:05
3	S 181.975 Axial†	63.7	3.4	3.6933 ug/L	3.6933 ppb	17:51:05
3	Sb 206.836†	45.1	0.8	0.2367 ug/L	0.2367 ppb	17:51:05
3	Se 196.026†	-41.0	-9.2	-4.3687 ug/L	-4.3687 ppb	17:51:05
3	Si 251.611†	728.9	4.3	0.0859 ug/L	0.0859 ppb	17:51:05
3	Sn 189.927†	3.6	0.3	0.0429 ug/L	0.0429 ppb	17:51:05
3	Ti 334.940†	-1737.3	-67.7	-0.0981 ug/L	-0.0981 ppb	17:50:44
3	Tl 190.801†	-54.9	-6.6	-1.7253 ug/L	-1.7253 ppb	17:51:05
3	U 409.014†	-3039.9	-182.8	-5.0601 ug/L	-5.0601 ppb	17:50:39
3	V 292.402†	-1823.4	-50.2	-0.2910 ug/L	-0.2910 ppb	17:50:44
3	Zn 213.857†	873.9	-23.1	-0.1790 ug/L	-0.1790 ppb	17:51:05
3	SiO2†	713.0	-30.6	-1.8180 ug/L	-1.8180 ppb	17:51:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	926363.4	98.680	%	0.5796				0.59%
Sc Radial	4805.7	97.2	%	0.88				0.90%
Y 371.029	808426.0	98.816	%	0.4982				0.50%
Y RADIAL	5143.3	96.95	%	0.657				0.68%
Ag 328.068†	10.6	0.0449	ug/L	0.20176	0.0449	ppb	0.20176	449.05%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.3	7.2692	ug/L	20.57853	7.2692	ppb	20.57853	283.09%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-5.6	-1.8317	ug/L	0.41416	-1.8317	ppb	0.41416	22.61%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-274.3	-5.3532	ug/L	1.28066	-5.3532	ppb	1.28066	23.92%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-15.8	-0.1081	ug/L	0.06097	-0.1081	ppb	0.06097	56.41%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	46.9	0.0148	ug/L	0.01291	0.0148	ppb	0.01291	87.45%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-6.3	-9.8204	ug/L	7.17114	-9.8204	ppb	7.17114	73.02%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -1.0     -0.0092 ug/L       0.03383     -0.0092 ppb        0.03383 368.74%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               5.2      0.0926 ug/L       0.01188      0.0926 ppb        0.01188  12.83%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -14.4     -0.1349 ug/L       0.29895     -0.1349 ppb        0.29895 221.60%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -86.2     -0.2457 ug/L       0.22989     -0.2457 ppb        0.22989  93.56%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.1      0.5006 ug/L      20.08765      0.5006 ppb       20.08765 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       101.5      19.364 ug/L       18.6961      19.364 ppb        18.6961  96.55%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.0     -33.070 ug/L       24.1891     -33.070 ppb        24.1891  73.15%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -60.4     -0.0592 ug/L       0.03776     -0.0592 ppb        0.03776  63.75%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               6.9      0.4037 ug/L       1.05782      0.4037 ppb        1.05782 262.05%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -222.7     -63.182 ug/L       13.4315     -63.182 ppb        13.4315  21.26%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              14.2      0.2944 ug/L       0.06220      0.2944 ppb        0.06220  21.13%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -0.5     -0.1657 ug/L       4.18074     -0.1657 ppb        4.18074 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -14.9     -1.4789 ug/L       1.26231     -1.4789 ppb        1.26231  85.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.1     -2.2802 ug/L       5.91929     -2.2802 ppb        5.91929 259.60%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -4.5     -1,2852 ug/L       1.36230     -1.2852 ppb        1.36230 106.00%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.3     -1.5673 ug/L       2.60724     -1.5673 ppb        2.60724 166.35%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               4.6      0.1071 ug/L       0.03291      0.1071 ppb        0.03291  30.73%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.4      0.1998 ug/L       0.26015      0.1998 ppb        0.26015 130.19%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -13.2     -0.0863 ug/L       0.03119     -0.0863 ppb        0.03119  36.13%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -42.6     -0.0620 ug/L       0.03197     -0.0620 ppb        0.03197  51.56%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -1.3     -0.3298 ug/L       2.96816     -0.3298 ppb        2.96816 900.08%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -87.9     -2.4329 ug/L       2.70753     -2.4329 ppb        2.70753 111.29%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -51.3     -0.3014 ug/L       0.11275     -0.3014 ppb        0.11275  37.41%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -31.0     -0.2426 ug/L       0.05517     -0.2426 ppb        0.05517  22.74%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -3.1     -0.2065 ug/L       1.69635     -0.2065 ppb        1.69635 821.36%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Saturday, January 02, 2010 10:01:38
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1640
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35
Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2774.7	2774.670	53.164	1.9
	Mg	24.0	33555.0	33554.967	439.026	1.3
	Co	58.9	66371.0	66371.028	492.122	0.7
	Rh	102.9	121090.9	121090.869	1031.789	0.9
	In	114.9	177125.2	177125.168	1566.392	0.9
	Pb	208.0	225591.2	225591.211	2462.552	1.1
⌈>	Ba	137.9	169302.1	169302.105	1085.335	0.6
⌊	Ba++	69.0	2528.2	0.015	0.000	1.3
⌈>	Ce	139.9	202158.4	202158.363	1080.855	0.5
⌊	CeO	155.9	5290.9	0.026	0.001	2.1
	Bkgd	220.0	14.8	14.800	2.992	20.2

Current Optimization File Data

Current Value	Description
0.85	Nebulizer Gas Flow
7.00	Lens Voltage
1450.00	ICP RF Power
-1687.50	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	6.5	4167.9
Co	59	17	7.5	62005.9
In	115	17	8.8	166525.6

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	602	2065	0.553
Be	9.0	9.0	2053	2070	0.584
Mg	24.0	24.0	5699	2070	0.614
Mg	25.0	25.0	5927	2070	0.592
Mg	26.0	26.0	6198	2070	0.593
Co	58.9	58.9	14192	2105	0.575
Rh	102.9	102.9	24886	2165	0.573
In	114.9	114.9	27800	2185	0.576
Ce	139.9	139.9	33872	2200	0.598
Pb	206.0	206.0	49948	2270	0.621
Pb	207.0	207.0	50171	2235	0.629
Pb	208.0	208.0	50451	2260	0.671
U	238.1	238.1	57737	2275	0.676

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, January 02, 2010 14:55:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\Blank.001

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		45	
	Be	9		ug/L		16	
	B	11		ug/L		335	
	Na	23		ug/L		12339	
	Mg	24		ug/L		3000	
	Al	27		ug/L		3667	
	P	31		ug/L		4540	
	K	39		ug/L		443114	
	Ca	43		ug/L		168	
>	Sc	45		ug/L		1544770	
	Ti	47		ug/L		380	
	V	51		ug/L		-708	
	Cr	52		ug/L		-1107	
	Cr	53		ug/L		57038	
	Mn	55		ug/L		1074	
	Fe	57		ug/L		4213	
	Co	59		ug/L		153	
	Ni	60		ug/L		114	
	Cu	63		ug/L		493	
	Cu	65		ug/L		110	
	Zn	66		ug/L		178	
	Zn	67		ug/L		6773	
	Zn	68		ug/L		754	
>	Ge	74		ug/L		322284	
	As	75		ug/L		-63	
	Se	77		ug/L		2899	
	Se	82		ug/L		-23	
	Kr	83		ug/L		85	
	Sr	88		ug/L		147	
	Y	89		ug/L		64	
	Mo	98		ug/L		53	
	Ag	107		ug/L		45	
	Cd	111		ug/L		10	
	Cd	114		ug/L		29	
>	In	115		ug/L		225555	
	Sn	120		ug/L		284	
	Sb	121		ug/L		272	
	Sb	123		ug/L		227	
	Ba	135		ug/L		56	
	Ba	137		ug/L		73	
	Ho	165		ug/L		31	
>	Lu	175		ug/L		503141	
	Tl	205		ug/L		376	
	Pb	208		ug/L		297	
	Bi	209		ug/L		212	
	Th	232		ug/L		690	
	U	238		ug/L		220	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Be	9	Simple Linear	
B	11	Simple Linear	
Na	23	Simple Linear	
Mg	24	Simple Linear	
Al	27	Simple Linear	
P	31	Simple Linear	
K	39	Simple Linear	
Ca	43	Simple Linear	
Sc	45	Simple Linear	
Ti	47	Simple Linear	
V	51	Simple Linear	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Mn	55	Simple Linear	
Fe	57	Simple Linear	
Co	59	Simple Linear	
Ni	60	Simple Linear	
Cu	63	Simple Linear	
Cu	65	Simple Linear	
Zn	66	Simple Linear	
Zn	67	Simple Linear	
Zn	68	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Sr	88	Simple Linear	
Y	89	Simple Linear	
Mo	98	Simple Linear	
Ag	107	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sn	120	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Ba	135	Simple Linear	
Ba	137	Simple Linear	
Ho	165	Simple Linear	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	
Pb	208	Simple Linear	
Bi	209	Simple Linear	
Th	232	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Li	7					
|	Be	9					
|	B	11					
|	Na	23					
|	Mg	24					
|	Al	27					
|	P	31					
|	K	39					
|	Ca	43					
|>	Sc	45					
|	Ti	47					
|	V	51					
|	Cr	52					
|	Cr	53					
|	Mn	55					
|	Fe	57					
|	Co	59					
|	Ni	60					
|	Cu	63					
⌊	Cu	65					
⌈	Zn	66					
|	Zn	67					
|	Zn	68					
|>	Ge	74					
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Sr	88					
|	Y	89					
|	Mo	98					
|	Ag	107					
|	Cd	111					
|	Cd	114					
|>	In	115					
|	Sn	120					
|	Sb	121					
⌊	Sb	123					
⌈	Ba	135					
|	Ba	137					
|	Ho	165					
|>	Lu	175					
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, January 02, 2010 15:01:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\Standard 1.002

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	5.079	12899	0.008
	Be	9	10.000	ug/L	3.244	3697	0.002
	B	11	20.000	ug/L	3.061	7436	0.005
	Na	23	1000.000	ug/L	3.131	3890149	2.504
	Mg	24	1000.000	ug/L	4.758	2666253	1.719
	Al	27	1000.000	ug/L	10.124	3889741	2.509
	P	31	1000.000	ug/L	0.575	202095	0.128
	K	39	1000.000	ug/L	7.559	5207940	3.076
	Ca	43	1000.000	ug/L	3.978	11268	0.007
>	Sc	45		ug/L		1548912	1548911.891
	Ti	47	10.000	ug/L	2.551	5162	0.003
	V	51	10.000	ug/L	2.834	53984	0.035
	Cr	52	10.000	ug/L	2.260	41999	0.028
	Cr	53		ug/L		64358	0.005
	Mn	55	10.000	ug/L	2.520	76751	0.049
	Fe	57	1000.000	ug/L	0.472	159392	0.100
	Co	59	10.000	ug/L	1.018	56992	0.037
	Ni	60	10.000	ug/L	0.949	12286	0.008
	Cu	63		ug/L		29201	0.019
	Cu	65	10.000	ug/L	2.776	14001	0.009
	Zn	66	10.000	ug/L	1.423	10144	0.031
	Zn	67		ug/L		8457	0.005
	Zn	68		ug/L		7543	0.021
>	Ge	74		ug/L		321537	321536.789
	As	75	10.000	ug/L	2.797	9277	0.029
	Se	77		ug/L		3832	0.003
	Se	82	10.000	ug/L	5.468	957	0.003
	Kr	83		ug/L		82	-0.000
	Sr	88	10.000	ug/L	1.126	115875	0.509
	Y	89		ug/L		80	0.000
	Mo	98	10.000	ug/L	2.221	26825	0.118
	Ag	107	10.000	ug/L	0.550	49501	0.218
	Cd	111	10.000	ug/L	2.514	12761	0.056
	Cd	114		ug/L		30680	0.135
>	In	115		ug/L		227353	227353.466
	Sn	120	10.000	ug/L	2.155	55793	0.244
	Sb	121	10.000	ug/L	6.254	44009	0.192
	Sb	123		ug/L		35165	0.154
	Ba	135		ug/L		13608	0.026
	Ba	137	10.000	ug/L	2.127	23848	0.046
	Ho	165		ug/L		28	-0.000
>	Lu	175		ug/L		513859	513859.242
	Tl	205	10.000	ug/L	2.382	249480	0.485
	Pb	208	10.000	ug/L	1.237	377440	0.734
	Bi	209		ug/L		183	-0.000
	Th	232	10.000	ug/L	3.692	492443	0.957
	U	238	10.000	ug/L	2.104	527022	1.025

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, January 02, 2010 15:07:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\Standard 2.003

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.897**	**ug/L**	4.010	120890	0.075
	Be	9	**99.946**	**ug/L**	4.350	36224	0.023
	B	11	**199.968**	**ug/L**	2.284	72857	0.045
	Na	23	**10000.089**	**ug/L**	10.833	40232399	25.058
	Mg	24	**9999.819**	**ug/L**	7.875	27570684	17.163
	Al	27	**9993.198**	**ug/L**	8.226	37796654	23.477
	P	31	**9988.952**	**ug/L**	1.681	1849141	1.147
	K	39	**9994.106**	**ug/L**	3.044	47168097	29.036
	Ca	43	**9996.242**	**ug/L**	1.254	111228	0.069
>	Sc	45		**ug/L**		1608130	1608129.676
	Ti	47	**100.015**	**ug/L**	1.295	50770	0.031
	V	51	**99.982**	**ug/L**	2.059	556771	0.347
	Cr	52	**99.958**	**ug/L**	2.001	427985	0.267
	Cr	53		**ug/L**		112748	0.033
	Mn	55	**99.940**	**ug/L**	3.050	741279	0.461
	Fe	57	**9988.166**	**ug/L**	3.642	1442218	0.895
	Co	59	**99.948**	**ug/L**	2.571	560406	0.349
	Ni	60	**99.960**	**ug/L**	2.401	121525	0.076
	Cu	63		**ug/L**		286248	0.178
	Cu	65	**99.958**	**ug/L**	1.074	138482	0.086
	Zn	66	**99.964**	**ug/L**	2.395	99811	0.299
	Zn	67		**ug/L**		21925	0.045
	Zn	68		**ug/L**		68721	0.204
>	Ge	74		**ug/L**		333328	333328.360
	As	75	**99.973**	**ug/L**	0.932	94159	0.283
	Se	77		**ug/L**		11206	0.025
	Se	82	**99.951**	**ug/L**	2.181	9648	0.029
	Kr	83		**ug/L**		133	0.000
	Sr	88	**99.957**	**ug/L**	1.656	1096396	4.878
	Y	89		**ug/L**		161	0.000
	Mo	98	**100.019**	**ug/L**	2.319	270031	1.201
	Ag	107	**99.987**	**ug/L**	0.394	482455	2.146
	Cd	111	**99.997**	**ug/L**	3.338	125679	0.559
	Cd	114		**ug/L**		299698	1.333
>	In	115		**ug/L**		224772	224771.991
	Sn	120	**99.989**	**ug/L**	1.086	543265	2.416
	Sb	121	**100.052**	**ug/L**	5.020	456392	2.030
	Sb	123		**ug/L**		360723	1.604
	Ba	135		**ug/L**		135516	0.270
	Ba	137	**100.022**	**ug/L**	1.135	237491	0.473
	Ho	165		**ug/L**		38	0.000
>	Lu	175		**ug/L**		501665	501665.248
	Tl	205	**99.794**	**ug/L**	1.102	2013031	4.012
	Pb	208	**99.903**	**ug/L**	0.764	3353912	6.685
	Bi	209		**ug/L**		448	0.000
	Th	232	**99.815**	**ug/L**	0.837	4043881	8.060
	U	238	**99.850**	**ug/L**	2.523	4466669	8.904

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
Sc	45					
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
Ge	74					
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
In	115					
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
Lu	175					
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, January 02, 2010 15:13:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 1.004

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.284**	ug/L	4.426	60682	0.037
	Be	9	**50.605**	ug/L	2.572	18664	0.011
	B	11	**102.938**	ug/L	4.433	38299	0.023
	Na	23	**4957.979**	ug/L	14.180	20310838	12.424
	Mg	24	**5226.650**	ug/L	2.400	14664390	8.971
	Al	27	**4969.130**	ug/L	1.684	19083847	11.674
	P	31	**5265.437**	ug/L	1.760	993122	0.605
	K	39	**4930.722**	ug/L	4.466	23877626	14.325
	Ca	43	**4997.472**	ug/L	0.909	56594	0.035
>	Sc	45		ug/L		1634420	1634419.726
	Ti	47	**49.992**	ug/L	1.731	25998	0.016
	V	51	**50.315**	ug/L	2.957	284453	0.175
	Cr	52	**52.355**	ug/L	1.534	227315	0.140
	Cr	53		ug/L		92234	0.020
	Mn	55	**52.366**	ug/L	0.688	395517	0.241
	Fe	57	**5331.186**	ug/L	0.977	784941	0.478
	Co	59	**50.915**	ug/L	2.327	290301	0.178
	Ni	60	**52.269**	ug/L	1.249	64671	0.039
	Cu	63		ug/L		149848	0.091
	Cu	65	**51.127**	ug/L	1.382	72057	0.044
	Zn	66	**52.910**	ug/L	0.858	53485	0.158
	Zn	67		ug/L		15077	0.024
	Zn	68		ug/L		37131	0.108
>	Ge	74		ug/L		336764	336763.893
	As	75	**49.406**	ug/L	2.508	46979	0.140
	Se	77		ug/L		8059	0.015
	Se	82	**50.968**	ug/L	2.580	4961	0.015
	Kr	83		ug/L		122	0.000
	Sr	88	**52.863**	ug/L	0.802	590740	2.580
	Y	89		ug/L		87	0.000
	Mo	98	**49.893**	ug/L	1.271	137225	0.599
	Ag	107	**51.003**	ug/L	1.921	250636	1.095
	Cd	111	**50.997**	ug/L	0.852	65294	0.285
	Cd	114		ug/L		156720	0.684
>	In	115		ug/L		228947	228946.731
	Sn	120	**51.875**	ug/L	1.115	287220	1.253
	Sb	121	**51.080**	ug/L	5.574	237376	1.036
	Sb	123		ug/L		188142	0.821
	Ba	135		ug/L		70280	0.139
	Ba	137	**50.964**	ug/L	2.402	121526	0.241
	Ho	165		ug/L		49	0.000
>	Lu	175		ug/L		503707	503706.750
	Tl	205	**54.790**	ug/L	2.120	1109703	2.203
	Pb	208	**52.998**	ug/L	1.271	1786514	3.546
	Bi	209		ug/L		489	0.001
	Th	232	**51.144**	ug/L	0.783	2080901	4.130
	U	238	**52.145**	ug/L	1.393	2342338	4.650

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	98.567				
	Be	9	101.210				
	B	11	102.938				
	Na	23	99.160				
	Mg	24	104.533				
	Al	27	98.399				
	P	31	105.309				
	K	39	98.614				
	Ca	43	99.949				
>	Sc	45		105.8			
	Ti	47	99.983				
	V	51	100.630				
	Cr	52	104.710				
	Cr	53					
	Mn	55	104.732				
	Fe	57	106.624				
	Co	59	101.831				
	Ni	60	104.539				
	Cu	63					
	Cu	65	102.254				
	Zn	66	105.820				
	Zn	67					
	Zn	68					
>	Ge	74		104.5			
	As	75	98.811				
	Se	77					
	Se	82	101.936				
	Kr	83					
	Sr	88	105.727				
	Y	89					
	Mo	98	99.786				
	Ag	107	102.006				
	Cd	111	101.993				
	Cd	114					
>	In	115		101.5			
	Sn	120	103.750				
	Sb	121	102.161				
	Sb	123					
	Ba	135					
	Ba	137	101.928				
	Ho	165					
>	Lu	175		100.1			
	Tl	205	109.580				
	Pb	208	105.995				
	Bi	209					
	Th	232	102.287				
	U	238	104.291				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, January 02, 2010 15:19:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 2.005

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.026**	ug/L	10.745	80	0.000
	Be	9	**-0.008**	ug/L	173.078	14	-0.000
	B	11	**2.530**	ug/L	19.253	1284	0.001
	Na	23	**1.449**	ug/L	115.292	19014	0.004
	Mg	24	**0.529**	ug/L	200.411	4668	0.001
	Al	27	**0.725**	ug/L	105.793	6668	0.002
	P	31	**0.207**	ug/L	1121.093	4829	0.000
	K	39	**-1.973**	ug/L	214.325	457900	-0.006
	Ca	43	**1.289**	ug/L	227.807	192	0.000
>	Sc	45		ug/L		1628915	1628915.141
	Ti	47	**-0.107**	ug/L	53.172	346	-0.000
	V	51	**0.316**	ug/L	55.946	1048	0.001
	Cr	52	**0.406**	ug/L	3.698	599	0.001
	Cr	53		ug/L		67216	0.004
	Mn	55	**-0.011**	ug/L	50.204	1053	-0.000
	Fe	57	**4.553**	ug/L	17.654	5106	0.000
	Co	59	**0.006**	ug/L	49.910	196	0.000
	Ni	60	**-0.000**	ug/L	1331.044	120	-0.000
	Cu	63		ug/L		431	-0.000
	Cu	65	**0.004**	ug/L	229.973	122	0.000
	Zn	66	**0.006**	ug/L	323.110	193	0.000
	Zn	67		ug/L		7134	0.000
	Zn	68		ug/L		757	-0.000
>	Ge	74		ug/L		339356	339355.945
	As	75	**-0.058**	ug/L	259.094	-121	-0.000
	Se	77		ug/L		4019	0.003
	Se	82	**0.093**	ug/L	48.105	-15	0.000
	Kr	83		ug/L		98	0.000
	Sr	88	**0.008**	ug/L	87.920	240	0.000
	Y	89		ug/L		56	-0.000
	Mo	98	**0.046**	ug/L	35.473	185	0.001
	Ag	107	**0.008**	ug/L	87.297	87	0.000
	Cd	111	**0.012**	ug/L	35.976	26	0.000
	Cd	114		ug/L		54	0.000
>	In	115		ug/L		233522	233521.686
	Sn	120	**0.149**	ug/L	19.060	1136	0.004
	Sb	121	**0.791**	ug/L	19.859	4033	0.016
	Sb	123		ug/L		3275	0.013
	Ba	135		ug/L		62	0.000
	Ba	137	**0.005**	ug/L	108.951	88	0.000
	Ho	165		ug/L		32	0.000
>	Lu	175		ug/L		516528	516528.328
	Tl	205	**0.044**	ug/L	30.588	1301	0.002
	Pb	208	**0.007**	ug/L	71.468	539	0.000
	Bi	209		ug/L		194	-0.000
	Th	232	**0.060**	ug/L	22.573	3214	0.005
	U	238	**0.011**	ug/L	46.886	746	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		105.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		105.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, January 02, 2010 15:25:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 3.006

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.313**	**ug/L**	3.232	12837	0.008
	Be	9	**0.499**	**ug/L**	9.459	202	0.000
	B	11	**16.355**	**ug/L**	5.022	6428	0.004
	Na	23	**246.088**	**ug/L**	4.926	1028463	0.617
	Mg	24	**15.628**	**ug/L**	22.802	47414	0.027
	Al	27	**35.513**	**ug/L**	9.605	141368	0.083
	P	31	**59.087**	**ug/L**	5.122	16005	0.007
	K	39	**314.105**	**ug/L**	8.576	1973794	0.913
	Ca	43	**213.545**	**ug/L**	1.937	2608	0.001
>	Sc	45		**ug/L**		1646634	1646633.897
	Ti	47	**8.840**	**ug/L**	5.901	4961	0.003
	V	51	**11.238**	**ug/L**	4.221	63387	0.039
	Cr	52	**11.125**	**ug/L**	2.694	47717	0.030
	Cr	53		**ug/L**		73743	0.008
	Mn	55	**5.817**	**ug/L**	3.193	45263	0.027
	Fe	57	**121.225**	**ug/L**	4.909	22359	0.011
	Co	59	**1.088**	**ug/L**	3.575	6405	0.004
	Ni	60	**2.224**	**ug/L**	3.653	2887	0.002
	Cu	63		**ug/L**		3799	0.002
	Cu	65	**1.124**	**ug/L**	5.833	1709	0.001
	Zn	66	**10.829**	**ug/L**	1.650	11170	0.032
	Zn	67		**ug/L**		9062	0.006
	Zn	68		**ug/L**		8322	0.022
>	Ge	74		**ug/L**		339077	339077.151
	As	75	**5.350**	**ug/L**	3.117	5062	0.015
	Se	77		**ug/L**		4389	0.004
	Se	82	**5.487**	**ug/L**	2.275	516	0.002
	Kr	83		**ug/L**		99	0.000
	Sr	88	**11.402**	**ug/L**	0.864	129630	0.556
	Y	89		**ug/L**		51	-0.000
	Mo	98	**0.543**	**ug/L**	0.417	1571	0.007
	Ag	107	**1.036**	**ug/L**	0.809	5222	0.022
	Cd	111	**1.090**	**ug/L**	3.346	1429	0.006
	Cd	114		**ug/L**		3426	0.015
>	In	115		**ug/L**		232708	232707.855
	Sn	120	**5.447**	**ug/L**	3.429	30905	0.132
	Sb	121	**3.165**	**ug/L**	6.167	15221	0.064
	Sb	123		**ug/L**		12073	0.051
	Ba	135		**ug/L**		3011	0.006
	Ba	137	**2.132**	**ug/L**	3.714	5217	0.010
	Ho	165		**ug/L**		32	0.000
>	Lu	175		**ug/L**		510052	510052.074
	Tl	205	**1.279**	**ug/L**	2.863	26608	0.051
	Pb	208	**2.360**	**ug/L**	2.282	80836	0.158
	Bi	209		**ug/L**		164	-0.000
	Th	232	**1.322**	**ug/L**	3.547	55115	0.107
	U	238	**0.269**	**ug/L**	1.477	12476	0.024

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	103.126				
	Be	9	99.714				
	B	11	109.034				
	Na	23	98.435				
	Mg	24	104.183				
	Al	27	118.377				
	P	31	118.174				
	K	39	104.702				
	Ca	43	106.772				
>	Sc	45		106.6			
	Ti	47	88.404				
	V	51	112.383				
	Cr	52	111.251				
	Cr	53					
	Mn	55	116.340				
	Fe	57	121.225				
	Co	59	108.784				
	Ni	60	111.190				
	Cu	63					
	Cu	65	112.362				
	Zn	66	108.294				
	Zn	67					
	Zn	68					
>	Ge	74		105.2			
	As	75	106.994				
	Se	77					
	Se	82	109.748				
	Kr	83					
	Sr	88	114.021				
	Y	89					
	Mo	98	108.546				
	Ag	107	103.607				
	Cd	111	108.992				
	Cd	114					
>	In	115		103.2			
	Sn	120	108.936				
	Sb	121	105.500				
	Sb	123					
	Ba	135					
	Ba	137	106.589				
	Ho	165					
>	Lu	175		101.4			
	Tl	205	127.946				
	Pb	208	118.008				
	Bi	209					
	Th	232	132.159				
	U	238	134.713				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Th	232	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, January 02, 2010 15:31:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 4.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.174**	**ug/L**	2.383	242	0.000
	Be	9	**0.064**	**ug/L**	16.773	37	0.000
	B	11	**1.193**	**ug/L**	9.314	733	0.000
	Na	23	**96184.181**	**ug/L**	7.816	363438283	241.017
	Mg	24	**104506.986**	**ug/L**	2.209	270490764	179.371
	Al	27	**103528.356**	**ug/L**	5.477	366686910	243.219
	P	31	**101033.716**	**ug/L**	2.090	17500666	11.604
	K	39	**97151.309**	**ug/L**	2.532	426078620	282.251
	Ca	43	**94223.157**	**ug/L**	2.141	981484	0.651
>	Sc	45		**ug/L**		1507924	1507924.256
	Ti	47	**1428.661**	**ug/L**	0.774	675208	0.448
	V	51	**0.792**	**ug/L**	62.497	3445	0.003
	Cr	52	**2.821**	**ug/L**	1.983	10278	0.008
	Cr	53		**ug/L**		52114	-0.002
	Mn	55	**5.928**	**ug/L**	0.798	42237	0.027
	Fe	57	**103220.658**	**ug/L**	2.403	13946112	9.246
	Co	59	**0.311**	**ug/L**	4.782	1787	0.001
	Ni	60	**2.995**	**ug/L**	4.116	3523	0.002
	Cu	63		**ug/L**		6451	0.004
	Cu	65	**2.895**	**ug/L**	1.098	3866	0.002
	Zn	66	**3.428**	**ug/L**	3.420	3317	0.010
	Zn	67		**ug/L**		5996	-0.001
	Zn	68		**ug/L**		1270	0.002
>	Ge	74		**ug/L**		307015	307014.711
	As	75	**-0.126**	**ug/L**	361.829	-170	-0.000
	Se	77		**ug/L**		5341	0.008
	Se	82	**-1.146**	**ug/L**	23.778	-124	-0.000
	Kr	83		**ug/L**		246	0.001
	Sr	88	**1.260**	**ug/L**	3.903	12589	0.061
	Y	89		**ug/L**		374	0.002
	Mo	98	**1984.763**	**ug/L**	3.590	4828933	23.837
	Ag	107	**0.063**	**ug/L**	16.126	315	0.001
	Cd	111	**0.509**	**ug/L**	27.054	588	0.003
	Cd	114		**ug/L**		7435	0.037
>	In	115		**ug/L**		202686	202686.470
	Sn	120	**0.156**	**ug/L**	5.031	1018	0.004
	Sb	121	**0.241**	**ug/L**	24.882	1234	0.005
	Sb	123		**ug/L**		972	0.004
	Ba	135		**ug/L**		847	0.002
	Ba	137	**0.688**	**ug/L**	2.234	1494	0.003
	Ho	165		**ug/L**		1027	0.002
>	Lu	175		**ug/L**		439313	439312.940
	Tl	205	**0.022**	**ug/L**	4.050	725	0.001
	Pb	208	**0.195**	**ug/L**	0.708	5986	0.013
	Bi	209		**ug/L**		1269	0.002
	Th	232	**0.055**	**ug/L**	31.918	2543	0.004
	U	238	**-0.001**	**ug/L**	29.379	164	-0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	96.184				
	Mg	24	104.507				
	Al	27	103.528				
	P	31	101.034				
	K	39	97.151				
	Ca	43	94.223				
>	Sc	45		97.6			
	Ti	47	71.433				
	V	51					
	Cr	52	76.244				
	Cr	53					
	Mn	55	102.203				
	Fe	57	103.221				
	Co	59	124.591				
	Ni	60	110.935				
	Cu	63					
	Cu	65	99.826				
	Zn	66	95.217				
	Zn	67					
	Zn	68					
>	Ge	74		95.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	105.019				
	Y	89					
	Mo	98	99.238				
	Ag	107					
	Cd	111	127.358				
	Cd	114					
>	In	115		89.9			
	Sn	120					
	Sb	121	240.716				
	Sb	123					
	Ba	135					
	Ba	137	102.698				
	Ho	165					
>	Lu	175		87.3			
	Tl	205					
	Pb	208	97.388				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Ti	47	ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, January 02, 2010 15:37:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 5.008

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**19.259**	**ug/L**	5.491	21692	0.014
	Be	9	**18.742**	**ug/L**	1.940	6323	0.004
	B	11	**18.895**	**ug/L**	3.276	6685	0.004
	Na	23	**97097.835**	**ug/L**	3.612	363101610	243.306
	Mg	24	**103771.661**	**ug/L**	7.260	265833554	178.109
	Al	27	**101178.426**	**ug/L**	2.472	354813615	237.698
	P	31	**101636.206**	**ug/L**	2.559	17426121	11.673
	K	39	**97470.947**	**ug/L**	3.286	423142846	283.179
	Ca	43	**93085.255**	**ug/L**	1.125	959922	0.643
>	Sc	45		**ug/L**		1492716	1492715.664
	Ti	47	**1434.733**	**ug/L**	1.448	671216	0.449
	V	51	**21.309**	**ug/L**	1.749	109635	0.074
	Cr	52	**23.177**	**ug/L**	2.288	91300	0.062
	Cr	53		**ug/L**		60265	0.003
	Mn	55	**26.241**	**ug/L**	2.101	181505	0.121
	Fe	57	**103297.821**	**ug/L**	1.749	13814272	9.253
	Co	59	**19.878**	**ug/L**	1.422	103605	0.069
	Ni	60	**21.700**	**ug/L**	3.056	24581	0.016
	Cu	63		**ug/L**		54586	0.036
	Cu	65	**21.394**	**ug/L**	1.354	27599	0.018
	Zn	66	**21.728**	**ug/L**	1.060	20027	0.065
	Zn	67		**ug/L**		8812	0.008
	Zn	68		**ug/L**		13028	0.040
>	Ge	74		**ug/L**		305552	305552.140
	As	75	**20.251**	**ug/L**	5.864	17443	0.057
	Se	77		**ug/L**		6302	0.012
	Se	82	**19.659**	**ug/L**	0.529	1723	0.006
	Kr	83		**ug/L**		216	0.000
	Sr	88	**22.949**	**ug/L**	1.790	228102	1.120
	Y	89		**ug/L**		384	0.002
	Mo	98	**1975.673**	**ug/L**	2.482	4830191	23.728
	Ag	107	**19.396**	**ug/L**	0.833	84801	0.416
	Cd	111	**19.927**	**ug/L**	1.556	22694	0.111
	Cd	114		**ug/L**		59797	0.294
>	In	115		**ug/L**		203591	203590.903
	Sn	120	**20.416**	**ug/L**	1.173	100677	0.493
	Sb	121	**21.137**	**ug/L**	2.712	87529	0.429
	Sb	123		**ug/L**		69149	0.339
	Ba	135		**ug/L**		24332	0.055
	Ba	137	**20.281**	**ug/L**	1.699	42225	0.096
	Ho	165		**ug/L**		1015	0.002
>	Lu	175		**ug/L**		439392	439391.971
	Tl	205	**23.085**	**ug/L**	1.176	408067	0.928
	Pb	208	**21.601**	**ug/L**	0.692	635346	1.445
	Bi	209		**ug/L**		1714	0.003
	Th	232	**25.050**	**ug/L**	0.814	889342	2.023
	U	238	**25.007**	**ug/L**	0.382	980030	2.230

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	96.293				
	Be	9	93.710				
	B	11	94.474				
	Na	23	97.098				
	Mg	24	103.772				
	Al	27	101.178				
	P	31	101.636				
	K	39	97.471				
	Ca	43	93.085				
>	Sc	45		96.6			
	Ti	47	71.737				
	V	51	106.547				
	Cr	52	97.794				
	Cr	53					
	Mn	55	101.708				
	Fe	57	103.298				
	Co	59	98.162				
	Ni	60	95.595				
	Cu	63					
	Cu	65	93.422				
	Zn	66	92.068				
	Zn	67					
	Zn	68					
>	Ge	74		94.8			
	As	75	101.253				
	Se	77					
	Se	82	98.297				
	Kr	83					
	Sr	88	108.248				
	Y	89					
	Mo	98	98.784				
	Ag	107	96.978				
	Cd	111	97.681				
	Cd	114					
>	In	115		90.3			
	Sn	120	102.082				
	Sb	121	105.160				
	Sb	123					
	Ba	135					
	Ba	137	98.117				
	Ho	165					
>	Lu	175		87.3			
	Tl	205	115.423				
	Pb	208	106.934				
	Bi	209					
	Th	232	125.252				
	U	238	125.035				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Ti	47	ICSAB is out of limits
QC Std 5	Th	232	ICSAB is out of limits
QC Std 5	U	238	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, January 02, 2010 15:44:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 6.009

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**46.390**	**ug/L**	3.752	56912	0.035
	Be	9	**48.138**	**ug/L**	0.955	17690	0.011
	B	11	**95.574**	**ug/L**	3.390	35459	0.022
	Na	23	**4970.861**	**ug/L**	6.173	20287166	12.456
	Mg	24	**5109.949**	**ug/L**	5.232	14280171	8.770
	Al	27	**4740.206**	**ug/L**	2.957	18143878	11.136
	P	31	**5280.172**	**ug/L**	3.345	992103	0.606
	K	39	**5083.163**	**ug/L**	15.024	24489245	14.768
	Ca	43	**4952.773**	**ug/L**	3.507	55874	0.034
>	Sc	45		**ug/L**		1628586	1628586.386
	Ti	47	**51.933**	**ug/L**	1.609	26893	0.016
	V	51	**50.429**	**ug/L**	4.647	284022	0.175
	Cr	52	**51.106**	**ug/L**	1.917	221050	0.136
	Cr	53		**ug/L**		91698	0.019
	Mn	55	**51.620**	**ug/L**	1.841	388466	0.238
	Fe	57	**5307.014**	**ug/L**	2.758	778444	0.475
	Co	59	**51.040**	**ug/L**	1.718	289967	0.178
	Ni	60	**51.822**	**ug/L**	2.377	63879	0.039
	Cu	63		**ug/L**		148853	0.091
	Cu	65	**50.864**	**ug/L**	0.764	71430	0.044
	Zn	66	**52.092**	**ug/L**	3.046	52801	0.156
	Zn	67		**ug/L**		15041	0.024
	Zn	68		**ug/L**		36883	0.107
>	Ge	74		**ug/L**		337771	337771.375
	As	75	**48.006**	**ug/L**	2.009	45779	0.136
	Se	77		**ug/L**		8016	0.015
	Se	82	**49.759**	**ug/L**	2.758	4856	0.014
	Kr	83		**ug/L**		103	0.000
	Sr	88	**50.815**	**ug/L**	0.511	574629	2.480
	Y	89		**ug/L**		85	0.000
	Mo	98	**50.400**	**ug/L**	1.341	140292	0.605
	Ag	107	**49.913**	**ug/L**	0.658	248259	1.071
	Cd	111	**49.273**	**ug/L**	1.262	63845	0.276
	Cd	114		**ug/L**		156096	0.674
>	In	115		**ug/L**		231681	231681.132
	Sn	120	**51.027**	**ug/L**	1.323	285910	1.233
	Sb	121	**49.057**	**ug/L**	2.935	230839	0.995
	Sb	123		**ug/L**		183062	0.789
	Ba	135		**ug/L**		68681	0.134
	Ba	137	**49.754**	**ug/L**	3.267	120962	0.235
	Ho	165		**ug/L**		51	0.000
>	Lu	175		**ug/L**		513660	513659.903
	Tl	205	**53.631**	**ug/L**	1.057	1107710	2.156
	Pb	208	**52.160**	**ug/L**	1.740	1792831	3.490
	Bi	209		**ug/L**		460	0.000
	Th	232	**50.984**	**ug/L**	1.867	2114912	4.117
	U	238	**52.341**	**ug/L**	3.556	2396902	4.668

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	92.779				
	Be	9	96.276				
	B	11	95.574				
	Na	23	99.417				
	Mg	24	102.199				
	Al	27	93.865				
	P	31	105.603				
	K	39	101.663				
	Ca	43	99.055				
>	Sc	45		105.4			
	Ti	47	103.867				
	V	51	100.858				
	Cr	52	102.211				
	Cr	53					
	Mn	55	103.240				
	Fe	57	106.140				
	Co	59	102.081				
	Ni	60	103.645				
	Cu	63					
	Cu	65	101.728				
	Zn	66	104.184				
	Zn	67					
	Zn	68					
>	Ge	74		104.8			
	As	75	96.011				
	Se	77					
	Se	82	99.519				
	Kr	83					
	Sr	88	101.630				
	Y	89					
	Mo	98	100.800				
	Ag	107	99.826				
	Cd	111	98.547				
	Cd	114					
>	In	115		102.7			
	Sn	120	102.053				
	Sb	121	98.115				
	Sb	123					
	Ba	135					
	Ba	137	99.507				
	Ho	165					
>	Lu	175		102.1			
	Tl	205	107.262				
	Pb	208	104.319				
	Bi	209					
	Th	232	101.968				
	U	238	104.681				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, January 02, 2010 15:50:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 7.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.027**	**ug/L**	25.543	82	0.000
	Be	9	**0.004**	**ug/L**	504.741	18	0.000
	B	11	**1.721**	**ug/L**	28.425	997	0.000
	Na	23	**5.802**	**ug/L**	12.071	37048	0.015
	Mg	24	**2.068**	**ug/L**	32.083	9003	0.004
	Al	27	**2.607**	**ug/L**	32.079	14007	0.006
	P	31	**1.141**	**ug/L**	103.812	5045	0.000
	K	39	**7.525**	**ug/L**	86.681	506844	0.022
	Ca	43	**2.740**	**ug/L**	55.266	210	0.000
>	Sc	45		**ug/L**		1643134	1643134.231
	Ti	47	**0.107**	**ug/L**	21.828	459	0.000
	V	51	**0.078**	**ug/L**	686.952	-344	0.000
	Cr	52	**0.134**	**ug/L**	72.775	-596	0.000
	Cr	53		**ug/L**		68886	0.005
	Mn	55	**-0.021**	**ug/L**	26.910	981	-0.000
	Fe	57	**4.663**	**ug/L**	29.903	5165	0.000
	Co	59	**0.005**	**ug/L**	18.068	191	0.000
	Ni	60	**-0.020**	**ug/L**	58.725	97	-0.000
	Cu	63		**ug/L**		473	-0.000
	Cu	65	**0.022**	**ug/L**	22.864	149	0.000
	Zn	66	**0.011**	**ug/L**	103.269	198	0.000
	Zn	67		**ug/L**		7060	-0.000
	Zn	68		**ug/L**		753	-0.000
>	Ge	74		**ug/L**		337057	337057.446
	As	75	**-0.053**	**ug/L**	755.668	-117	-0.000
	Se	77		**ug/L**		4513	0.004
	Se	82	**0.156**	**ug/L**	124.829	-8	0.000
	Kr	83		**ug/L**		85	-0.000
	Sr	88	**0.009**	**ug/L**	9.832	249	0.000
	Y	89		**ug/L**		63	-0.000
	Mo	98	**0.138**	**ug/L**	9.221	440	0.002
	Ag	107	**0.009**	**ug/L**	9.162	90	0.000
	Cd	111	**0.017**	**ug/L**	52.609	33	0.000
	Cd	114		**ug/L**		59	0.000
>	In	115		**ug/L**		232561	232561.426
	Sn	120	**0.123**	**ug/L**	12.907	982	0.003
	Sb	121	**0.601**	**ug/L**	19.807	3122	0.012
	Sb	123		**ug/L**		2452	0.010
	Ba	135		**ug/L**		60	0.000
	Ba	137	**0.009**	**ug/L**	37.716	96	0.000
	Ho	165		**ug/L**		33	0.000
>	Lu	175		**ug/L**		508675	508675.461
	Tl	205	**0.057**	**ug/L**	17.186	1556	0.002
	Pb	208	**0.008**	**ug/L**	23.874	577	0.001
	Bi	209		**ug/L**		217	0.000
	Th	232	**0.071**	**ug/L**	16.704	3600	0.006
	U	238	**0.013**	**ug/L**	8.692	821	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		106.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		104.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.1			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Saturday, January 02, 2010 15:56:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 10.011

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**865.865**	ug/L	5.993	986283	0.652
	Be	9	**901.023**	ug/L	4.591	307384	0.203
	B	11	**0.885**	ug/L	14.025	630	0.000
	Na	23	**51271.551**	ug/L	14.080	194260203	128.476
	Mg	24	**51020.756**	ug/L	6.899	132451056	87.570
	Al	27	**52870.289**	ug/L	3.196	187993828	124.208
	P	31	**25832.992**	ug/L	3.508	4494254	2.967
	K	39	**51587.435**	ug/L	5.016	227228883	149.875
	Ca	43	**47814.214**	ug/L	4.882	499826	0.330
>	Sc	45		ug/L		1514345	1514344.604
	Ti	47	**44.442**	ug/L	4.489	21436	0.014
	V	51	**923.492**	ug/L	3.014	4847402	3.203
	Cr	52	**924.302**	ug/L	2.605	3734845	2.468
	Cr	53		ug/L		528290	0.312
	Mn	55	**917.921**	ug/L	3.215	6402107	4.230
	Fe	57	**53097.104**	ug/L	2.505	7203382	4.756
	Co	59	**880.518**	ug/L	1.955	4647749	3.070
	Ni	60	**875.489**	ug/L	4.227	1001091	0.662
	Cu	63		ug/L		2391389	1.579
	Cu	65	**856.797**	ug/L	2.939	1116545	0.738
	Zn	66	**2011.785**	ug/L	1.143	1867980	6.018
	Zn	67		ug/L		326526	1.031
	Zn	68		ug/L		1363774	4.391
>	Ge	74		ug/L		310389	310388.518
	As	75	**894.026**	ug/L	0.384	784668	2.528
	Se	77		ug/L		35852	0.107
	Se	82	**473.395**	ug/L	0.889	42647	0.137
	Kr	83		ug/L		308	0.001
	Sr	88	**1004.928**	ug/L	1.767	9763280	49.037
	Y	89		ug/L		397	0.002
	Mo	98	**1056.404**	ug/L	1.004	2526402	12.688
	Ag	107	**235.057**	ug/L	2.089	1004560	5.045
	Cd	111	**924.277**	ug/L	2.485	1028996	5.169
	Cd	114		ug/L		2670438	13.413
>	In	115		ug/L		199136	199135.894
	Sn	120	**986.874**	ug/L	1.920	4747441	23.844
	Sb	121	**239.825**	ug/L	2.686	968840	4.865
	Sb	123		ug/L		782334	3.928
	Ba	135		ug/L		1140504	2.532
	Ba	137	**869.406**	ug/L	0.637	1853216	4.114
	Ho	165		ug/L		365	0.001
>	Lu	175		ug/L		450486	450485.806
	Tl	205	**497.473**	ug/L	2.281	9007663	19.999
	Pb	208	**5002.133**	ug/L	1.973	150763172	334.724
	Bi	209		ug/L		4090	0.009
	Th	232	**2695.366**	ug/L	3.398	98014953	217.639
	U	238	**5578.047**	ug/L	2.883	224029211	497.428

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	86.586				
	Be	9	90.102				
	B	11					
	Na	23	102.543				
	Mg	24	102.042				
	Al	27	105.741				
	P	31	103.332				
	K	39	103.175				
	Ca	43	95.628				
>	Sc	45		98.0			
	Ti	47					
	V	51	92.349				
	Cr	52	92.430				
	Cr	53					
	Mn	55	91.792				
	Fe	57	106.194				
	Co	59	88.052				
	Ni	60	87.549				
	Cu	63					
	Cu	65	85.680				
	Zn	66	80.471				
	Zn	67					
	Zn	68					
>	Ge	74		96.3			
	As	75	89.403				
	Se	77					
	Se	82	94.679				
	Kr	83					
	Sr	88	100.493				
	Y	89					
	Mo	98	105.640				
	Ag	107	94.023				
	Cd	111	92.428				
	Cd	114					
>	In	115		88.3			
	Sn	120	98.687				
	Sb	121	95.930				
	Sb	123					
	Ba	135					
	Ba	137	86.941				
	Ho	165					
>	Lu	175		89.5			
	Tl	205	99.495				
	Pb	208	100.043				
	Bi	209					
	Th	232	107.815				
	U	238	111.561				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Li	7	LRS is out of limits (+/- 10%)
QC Std 10	Co	59	LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	Cu	65	LRS is out of limits (+/- 10%)
QC Std 10	Zn	66	LRS is out of limits (+/- 10%)
QC Std 10	As	75	LRS is out of limits (+/- 10%)
QC Std 10	Ba	137	LRS is out of limits (+/- 10%)

QC Std 10	U	238LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Saturday, January 02, 2010 16:02:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 11.012

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**44.276**	**ug/L**	6.140	53297	0.033
	Be	9	**46.765**	**ug/L**	1.684	16870	0.011
	B	11	**92.546**	**ug/L**	1.003	33718	0.021
	Na	23	**5007.945**	**ug/L**	2.641	20074115	12.549
	Mg	24	**5080.550**	**ug/L**	3.541	13939612	8.720
	Al	27	**5263.511**	**ug/L**	4.156	19770272	12.366
	P	31	**5400.199**	**ug/L**	1.365	996080	0.620
	K	39	**5051.386**	**ug/L**	7.422	23905149	14.676
	Ca	43	**5009.597**	**ug/L**	3.104	55497	0.035
>	Sc	45		**ug/L**		1598688	1598687.758
	Ti	47	**51.361**	**ug/L**	0.900	26116	0.016
	V	51	**51.080**	**ug/L**	1.981	282451	0.177
	Cr	52	**51.909**	**ug/L**	1.696	220415	0.139
	Cr	53		**ug/L**		89053	0.019
	Mn	55	**52.242**	**ug/L**	1.067	385923	0.241
	Fe	57	**5305.431**	**ug/L**	1.567	764012	0.475
	Co	59	**50.930**	**ug/L**	1.785	284018	0.178
	Ni	60	**51.939**	**ug/L**	1.164	62852	0.039
	Cu	63		**ug/L**		148136	0.092
	Cu	65	**51.561**	**ug/L**	2.100	71081	0.044
	Zn	66	**52.111**	**ug/L**	0.368	51849	0.156
	Zn	67		**ug/L**		15312	0.025
	Zn	68		**ug/L**		36964	0.109
>	Ge	74		**ug/L**		331438	331438.347
	As	75	**49.365**	**ug/L**	1.892	46204	0.140
	Se	77		**ug/L**		7052	0.012
	Se	82	**52.248**	**ug/L**	3.093	5005	0.015
	Kr	83		**ug/L**		118	0.000
	Sr	88	**52.556**	**ug/L**	0.805	584990	2.565
	Y	89		**ug/L**		83	0.000
	Mo	98	**50.358**	**ug/L**	2.089	137964	0.605
	Ag	107	**51.278**	**ug/L**	1.506	251052	1.101
	Cd	111	**50.862**	**ug/L**	1.567	64868	0.284
	Cd	114		**ug/L**		154659	0.678
>	In	115		**ug/L**		228065	228064.868
	Sn	120	**53.277**	**ug/L**	2.202	293813	1.287
	Sb	121	**52.404**	**ug/L**	1.727	242739	1.063
	Sb	123		**ug/L**		191032	0.837
	Ba	135		**ug/L**		68375	0.136
	Ba	137	**50.233**	**ug/L**	2.065	119077	0.238
	Ho	165		**ug/L**		57	0.000
>	Lu	175		**ug/L**		500756	500755.801
	Tl	205	**55.361**	**ug/L**	1.860	1114633	2.226
	Pb	208	**53.708**	**ug/L**	2.040	1799762	3.594
	Bi	209		**ug/L**		485	0.001
	Th	232	**54.709**	**ug/L**	2.572	2212242	4.418
	U	238	**55.154**	**ug/L**	2.950	2462479	4.918

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	88.552				
	Be	9	93.530				
	B	11	92.546				
	Na	23	100.159				
	Mg	24	101.611				
	Al	27	104.228				
	P	31	108.004				
	K	39	101.028				
	Ca	43	100.192				
>	Sc	45		103.5			
	Ti	47	102.721				
	V	51	102.160				
	Cr	52	103.817				
	Cr	53					
	Mn	55	104.484				
	Fe	57	106.109				
	Co	59	101.859				
	Ni	60	103.878				
	Cu	63					
	Cu	65	103.121				
	Zn	66	104.223				
	Zn	67					
	Zn	68					
>	Ge	74		102.8			
	As	75	98.730				
	Se	77					
	Se	82	104.496				
	Kr	83					
	Sr	88	105.111				
	Y	89					
	Mo	98	100.716				
	Ag	107	102.556				
	Cd	111	101.724				
	Cd	114					
>	In	115		101.1			
	Sn	120	106.555				
	Sb	121	104.809				
	Sb	123					
	Ba	135					
	Ba	137	100.466				
	Ho	165					
>	Lu	175		99.5			
	Tl	205	110.723				
	Pb	208	107.416				
	Bi	209					
	Th	232	109.418				
	U	238	110.308				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Li	7	CCV is out of limits (+/- 10%)
QC Std 11	Tl	205	CCV is out of limits (+/- 10%)
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Saturday, January 02, 2010 16:08:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 12.013

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.107**	**ug/L**	9.314	177	0.000
	Be	9	**0.013**	**ug/L**	156.126	21	0.000
	B	11	**1.657**	**ug/L**	21.806	950	0.000
	Na	23	**2.960**	**ug/L**	18.138	24688	0.007
	Mg	24	**0.434**	**ug/L**	118.270	4334	0.001
	Al	27	**1.812**	**ug/L**	26.543	10671	0.004
	P	31	**0.210**	**ug/L**	519.615	4753	0.000
	K	39	**6.810**	**ug/L**	85.633	492368	0.020
	Ca	43	**0.904**	**ug/L**	132.495	185	0.000
>	Sc	45		**ug/L**		1604971	1604970.815
	Ti	47	**-0.095**	**ug/L**	39.508	346	-0.000
	V	51	**0.292**	**ug/L**	169.531	876	0.001
	Cr	52	**0.083**	**ug/L**	20.183	-794	0.000
	Cr	53		**ug/L**		63724	0.003
	Mn	55	**-0.004**	**ug/L**	59.705	1087	-0.000
	Fe	57	**0.166**	**ug/L**	978.696	4397	0.000
	Co	59	**0.039**	**ug/L**	10.961	375	0.000
	Ni	60	**0.030**	**ug/L**	77.701	155	0.000
	Cu	63		**ug/L**		593	0.000
	Cu	65	**0.047**	**ug/L**	27.311	179	0.000
	Zn	66	**0.034**	**ug/L**	15.429	219	0.000
	Zn	67		**ug/L**		7286	0.001
	Zn	68		**ug/L**		882	0.000
>	Ge	74		**ug/L**		334996	334995.905
	As	75	**0.132**	**ug/L**	97.360	60	0.000
	Se	77		**ug/L**		3756	0.002
	Se	82	**-0.052**	**ug/L**	430.026	-29	-0.000
	Kr	83		**ug/L**		102	0.000
	Sr	88	**0.019**	**ug/L**	12.578	355	0.001
	Y	89		**ug/L**		66	0.000
	Mo	98	**0.153**	**ug/L**	6.540	471	0.002
	Ag	107	**0.014**	**ug/L**	10.967	114	0.000
	Cd	111	**0.029**	**ug/L**	52.599	48	0.000
	Cd	114		**ug/L**		88	0.000
>	In	115		**ug/L**		227948	227947.922
	Sn	120	**0.672**	**ug/L**	5.368	3989	0.016
	Sb	121	**1.360**	**ug/L**	13.228	6564	0.028
	Sb	123		**ug/L**		5168	0.022
	Ba	135		**ug/L**		85	0.000
	Ba	137	**0.030**	**ug/L**	28.988	145	0.000
	Ho	165		**ug/L**		29	-0.000
>	Lu	175		**ug/L**		504385	504385.415
	Tl	205	**0.078**	**ug/L**	9.989	1950	0.003
	Pb	208	**0.083**	**ug/L**	26.038	3117	0.006
	Bi	209		**ug/L**		224	0.000
	Th	232	**0.159**	**ug/L**	7.399	7156	0.013
	U	238	**0.117**	**ug/L**	20.443	5471	0.010

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		103.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994283
Sample Date/Time: Saturday, January 02, 2010 16:14:34
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\1201994283.014

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.142**	ug/L	20.055	221	0.000
	Be	9	**0.002**	ug/L	706.999	17	0.000
	B	11	**0.912**	ug/L	11.014	683	0.000
	Na	23	**9.529**	ug/L	6.158	51426	0.024
	Mg	24	**0.560**	ug/L	202.984	4668	0.001
	Al	27	**2.259**	ug/L	39.145	12339	0.005
	P	31	**0.427**	ug/L	506.358	4817	0.000
	K	39	**18.617**	ug/L	10.558	550409	0.054
	Ca	43	**11.066**	ug/L	21.530	299	0.000
>	Sc	45		ug/L		1614547	1614547.030
	Ti	47	**0.241**	ug/L	43.586	518	0.000
	V	51	**-1.459**	ug/L	89.091	-9014	-0.005
	Cr	52	**-0.467**	ug/L	33.578	-3159	-0.001
	Cr	53		ug/L		156948	0.060
	Mn	55	**0.135**	ug/L	14.456	2128	0.001
	Fe	57	**8.830**	ug/L	21.260	5676	0.001
	Co	59	**0.036**	ug/L	14.619	360	0.000
	Ni	60	**0.131**	ug/L	12.547	278	0.000
	Cu	63		ug/L		932	0.000
	Cu	65	**0.163**	ug/L	14.599	341	0.000
	Zn	66	**1.648**	ug/L	6.523	1790	0.005
	Zn	67		ug/L		29664	0.070
	Zn	68		ug/L		3044	0.007
>	Ge	74		ug/L		326794	326794.380
	As	75	**0.123**	ug/L	256.964	51	0.000
	Se	77		ug/L		10679	0.024
	Se	82	**0.082**	ug/L	144.511	-15	0.000
	Kr	83		ug/L		101	0.000
	Sr	88	**0.035**	ug/L	6.045	537	0.002
	Y	89		ug/L		79	0.000
	Mo	98	**0.081**	ug/L	7.343	271	0.001
	Ag	107	**0.005**	ug/L	4.529	70	0.000
	Cd	111	**0.008**	ug/L	114.399	20	0.000
	Cd	114		ug/L		14	-0.000
>	In	115		ug/L		225564	225564.176
	Sn	120	**1.781**	ug/L	29.325	9999	0.043
	Sb	121	**0.943**	ug/L	23.201	4588	0.019
	Sb	123		ug/L		3637	0.015
	Ba	135		ug/L		488	0.001
	Ba	137	**0.335**	ug/L	1.800	859	0.002
	Ho	165		ug/L		28	-0.000
>	Lu	175		ug/L		497154	497154.345
	Tl	205	**0.018**	ug/L	4.292	735	0.001
	Pb	208	**0.023**	ug/L	22.430	1049	0.002
	Bi	209		ug/L		203	-0.000
	Th	232	**0.148**	ug/L	15.923	6621	0.012
	U	238	**0.031**	ug/L	12.471	1575	0.003

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		104.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994284
Sample Date/Time: Saturday, January 02, 2010 16:20:40
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\1201994284.015

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**44.203**	ug/L	3.098	53138	0.033
	Be	9	**50.843**	ug/L	2.424	18308	0.011
	B	11	**103.991**	ug/L	3.077	37775	0.023
	Na	23	**1976.834**	ug/L	4.798	7917071	4.954
	Mg	24	**2114.308**	ug/L	4.373	5795316	3.629
	Al	27	**2078.782**	ug/L	5.479	7801125	4.884
	P	31	**2230.277**	ug/L	2.282	413440	0.256
	K	39	**2132.601**	ug/L	6.968	10339428	6.196
	Ca	43	**2006.214**	ug/L	1.959	22288	0.014
>	Sc	45		ug/L		1596222	1596222.424
	Ti	47	**45.234**	ug/L	2.249	23004	0.014
	V	51	**47.919**	ug/L	3.246	264459	0.166
	Cr	52	**50.476**	ug/L	2.561	213945	0.135
	Cr	53		ug/L		189879	0.082
	Mn	55	**52.221**	ug/L	3.045	385042	0.241
	Fe	57	**2197.567**	ug/L	2.235	318478	0.197
	Co	59	**51.111**	ug/L	2.953	284534	0.178
	Ni	60	**51.919**	ug/L	2.487	62715	0.039
	Cu	63		ug/L		146269	0.091
	Cu	65	**51.916**	ug/L	0.979	71451	0.045
	Zn	66	**51.590**	ug/L	2.389	51127	0.154
	Zn	67		ug/L		39865	0.100
	Zn	68		ug/L		36901	0.109
>	Ge	74		ug/L		330205	330204.510
	As	75	**49.556**	ug/L	1.067	46205	0.140
	Se	77		ug/L		14611	0.035
	Se	82	**52.471**	ug/L	3.889	5006	0.015
	Kr	83		ug/L		136	0.000
	Sr	88	**51.323**	ug/L	3.487	557473	2.504
	Y	89		ug/L		94	0.000
	Mo	98	**49.739**	ug/L	2.002	133005	0.597
	Ag	107	**51.690**	ug/L	3.050	246948	1.110
	Cd	111	**49.911**	ug/L	2.180	62132	0.279
	Cd	114		ug/L		151208	0.679
>	In	115		ug/L		222619	222619.275
	Sn	120	**51.260**	ug/L	2.623	275899	1.238
	Sb	121	**53.728**	ug/L	2.348	242841	1.090
	Sb	123		ug/L		192681	0.865
	Ba	135		ug/L		65478	0.131
	Ba	137	**48.959**	ug/L	2.463	115660	0.232
	Ho	165		ug/L		66	0.000
>	Lu	175		ug/L		499115	499115.117
	Tl	205	**51.652**	ug/L	1.034	1036698	2.076
	Pb	208	**52.974**	ug/L	2.280	1769033	3.545
	Bi	209		ug/L		1382403	2.769
	Th	232	**50.764**	ug/L	0.679	2046377	4.099
	U	238	**53.112**	ug/L	1.548	2363725	4.736

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242753001
Sample Date/Time: Saturday, January 02, 2010 16:26:46
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\242753001.016

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**21.416**	ug/L	2.003	26068	0.016
	Be	9	**0.000**	ug/L	42013.935	17	0.000
	B	11	**15.939**	ug/L	1.568	6150	0.004
	Na	23	**10719.296**	ug/L	11.034	43262454	26.860
	Mg	24	**3896.420**	ug/L	6.075	10781441	6.688
	Al	27	**3.935**	ug/L	24.681	18679	0.009
	P	31	**21.925**	ug/L	12.483	8796	0.003
	K	39	**1886.412**	ug/L	4.010	9311907	5.481
	Ca	43	**15758.088**	ug/L	1.594	175759	0.109
>	Sc	45		ug/L		1613637	1613637.359
	Ti	47	**4.575**	ug/L	3.519	2708	0.001
	V	51	**4.592**	ug/L	14.650	24903	0.016
	Cr	52	**3.873**	ug/L	6.497	15555	0.010
	Cr	53		ug/L		168467	0.068
	Mn	55	**34.556**	ug/L	2.364	257958	0.159
	Fe	57	**85.280**	ug/L	2.392	16722	0.008
	Co	59	**0.111**	ug/L	7.351	785	0.000
	Ni	60	**0.981**	ug/L	0.994	1315	0.001
	Cu	63		ug/L		7193	0.004
	Cu	65	**2.098**	ug/L	1.292	3029	0.002
	Zn	66	**2.030**	ug/L	4.863	2146	0.006
	Zn	67		ug/L		32461	0.079
	Zn	68		ug/L		3594	0.009
>	Ge	74		ug/L		324255	324254.796
	As	75	**0.272**	ug/L	463.968	178	0.001
	Se	77		ug/L		13463	0.033
	Se	82	**0.809**	ug/L	15.384	53	0.000
	Kr	83		ug/L		101	0.000
	Sr	88	**82.571**	ug/L	0.772	891913	4.029
	Y	89		ug/L		209	0.001
	Mo	98	**1.607**	ug/L	4.525	4323	0.019
	Ag	107	**0.006**	ug/L	16.944	72	0.000
	Cd	111	**0.023**	ug/L	19.118	39	0.000
	Cd	114		ug/L		72	0.000
>	In	115		ug/L		221323	221322.764
	Sn	120	**0.309**	ug/L	5.528	1933	0.007
	Sb	121	**0.299**	ug/L	12.339	1611	0.006
	Sb	123		ug/L		1339	0.005
	Ba	135		ug/L		29352	0.058
	Ba	137	**21.713**	ug/L	3.473	51687	0.103
	Ho	165		ug/L		43	0.000
>	Lu	175		ug/L		502648	502648.008
	Tl	205	**0.519**	ug/L	17.588	10898	0.021
	Pb	208	**0.459**	ug/L	2.725	15720	0.031
	Bi	209		ug/L		179	-0.000
	Th	232	**0.082**	ug/L	21.778	4051	0.007
	U	238	**0.530**	ug/L	2.400	23968	0.047

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		104.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242753002
Sample Date/Time: Saturday, January 02, 2010 16:32:52
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\242753002.017

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**22.020**	ug/L	5.117	26240	0.017
	Be	9	**-0.013**	ug/L	44.348	12	-0.000
	B	11	**14.473**	ug/L	1.917	5502	0.003
	Na	23	**10669.637**	ug/L	11.015	42252436	26.736
	Mg	24	**3849.635**	ug/L	3.963	10443794	6.607
	Al	27	**0.966**	ug/L	16.253	7335	0.002
	P	31	**18.702**	ug/L	4.366	8038	0.002
	K	39	**1729.154**	ug/L	4.789	8391420	5.024
	Ca	43	**15427.886**	ug/L	1.098	168551	0.107
>	Sc	45		ug/L		1580076	1580076.148
	Ti	47	**4.279**	ug/L	0.791	2506	0.001
	V	51	**3.985**	ug/L	54.366	21094	0.014
	Cr	52	**3.094**	ug/L	5.165	11923	0.008
	Cr	53		ug/L		157324	0.063
	Mn	55	**0.722**	ug/L	2.006	6354	0.003
	Fe	57	**80.647**	ug/L	2.112	15724	0.007
	Co	59	**0.156**	ug/L	0.733	1013	0.001
	Ni	60	**0.536**	ug/L	0.875	756	0.000
	Cu	63		ug/L		3336	0.002
	Cu	65	**0.851**	ug/L	5.328	1270	0.001
	Zn	66	**1.493**	ug/L	6.288	1566	0.004
	Zn	67		ug/L		32093	0.082
	Zn	68		ug/L		3124	0.008
>	Ge	74		ug/L		312417	312417.076
	As	75	**0.766**	ug/L	22.983	617	0.002
	Se	77		ug/L		12089	0.030
	Se	82	**0.625**	ug/L	19.579	35	0.000
	Kr	83		ug/L		110	0.000
	Sr	88	**80.910**	ug/L	0.179	855018	3.948
	Y	89		ug/L		98	0.000
	Mo	98	**1.577**	ug/L	1.048	4153	0.019
	Ag	107	**0.001**	ug/L	161.384	47	0.000
	Cd	111	**0.001**	ug/L	617.055	11	0.000
	Cd	114		ug/L		39	0.000
>	In	115		ug/L		216531	216530.559
	Sn	120	**0.236**	ug/L	6.613	1508	0.006
	Sb	121	**0.158**	ug/L	5.157	954	0.003
	Sb	123		ug/L		823	0.003
	Ba	135		ug/L		26338	0.053
	Ba	137	**19.592**	ug/L	0.409	46435	0.093
	Ho	165		ug/L		29	-0.000
>	Lu	175		ug/L		500094	500094.226
	Tl	205	**0.184**	ug/L	6.116	4076	0.007
	Pb	208	**0.059**	ug/L	1.416	2283	0.004
	Bi	209		ug/L		115	-0.000
	Th	232	**0.029**	ug/L	9.151	1837	0.002
	U	238	**0.496**	ug/L	0.570	22351	0.044

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994285
Sample Date/Time: Saturday, January 02, 2010 16:38:59
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 932308|1|ba|
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\1201994285.018

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**22.451**	**ug/L**	1.189	26111	0.017
	Be	9	**-0.000**	**ug/L**	12771.166	16	-0.000
	B	11	**14.670**	**ug/L**	2.409	5438	0.003
	Na	23	**11673.247**	**ug/L**	1.245	45114155	29.251
	Mg	24	**4021.623**	**ug/L**	2.585	10647547	6.903
	Al	27	**2.121**	**ug/L**	30.696	11338	0.005
	P	31	**17.713**	**ug/L**	8.146	7666	0.002
	K	39	**1771.359**	**ug/L**	4.150	8376129	5.146
	Ca	43	**15394.669**	**ug/L**	3.313	164087	0.106
>	Sc	45		**ug/L**		1542095	1542094.864
	Ti	47	**4.301**	**ug/L**	4.085	2456	0.001
	V	51	**4.041**	**ug/L**	15.265	20864	0.014
	Cr	52	**2.989**	**ug/L**	5.829	11209	0.008
	Cr	53		**ug/L**		154731	0.063
	Mn	55	**0.737**	**ug/L**	4.992	6308	0.003
	Fe	57	**80.844**	**ug/L**	2.699	15376	0.007
	Co	59	**0.153**	**ug/L**	3.532	975	0.001
	Ni	60	**0.533**	**ug/L**	7.440	735	0.000
	Cu	63		**ug/L**		3328	0.002
	Cu	65	**0.845**	**ug/L**	3.375	1231	0.001
	Zn	66	**1.363**	**ug/L**	2.442	1409	0.004
	Zn	67		**ug/L**		31751	0.083
	Zn	68		**ug/L**		3000	0.008
>	Ge	74		**ug/L**		304465	304464.960
	As	75	**-0.360**	**ug/L**	57.263	-370	-0.001
	Se	77		**ug/L**		11498	0.029
	Se	82	**0.689**	**ug/L**	29.758	39	0.000
	Kr	83		**ug/L**		100	0.000
	Sr	88	**81.674**	**ug/L**	1.196	840657	3.985
	Y	89		**ug/L**		105	0.000
	Mo	98	**1.621**	**ug/L**	1.650	4155	0.019
	Ag	107	**0.002**	**ug/L**	51.682	52	0.000
	Cd	111	**-0.000**	**ug/L**	2730.549	10	-0.000
	Cd	114		**ug/L**		28	0.000
>	In	115		**ug/L**		210894	210893.682
	Sn	120	**0.268**	**ug/L**	1.950	1633	0.006
	Sb	121	**0.118**	**ug/L**	1.461	760	0.002
	Sb	123		**ug/L**		591	0.002
	Ba	135		**ug/L**		26692	0.054
	Ba	137	**19.844**	**ug/L**	3.120	46703	0.094
	Ho	165		**ug/L**		36	0.000
>	Lu	175		**ug/L**		496703	496702.543
	Tl	205	**0.110**	**ug/L**	2.264	2567	0.004
	Pb	208	**0.060**	**ug/L**	1.930	2298	0.004
	Bi	209		**ug/L**		104	-0.000
	Th	232	**0.016**	**ug/L**	13.900	1304	0.001
	U	238	**0.490**	**ug/L**	2.046	21909	0.044

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994286
Sample Date/Time: Saturday, January 02, 2010 16:45:07
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\1201994286.019

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**73.831**	ug/L	3.120	83689	0.056
	Be	9	**54.777**	ug/L	1.108	18602	0.012
	B	11	**122.297**	ug/L	3.240	41844	0.028
	Na	23	**12404.092**	ug/L	7.870	46797519	31.082
	Mg	24	**5768.782**	ug/L	1.872	14903072	9.901
	Al	27	**1979.096**	ug/L	6.463	7000297	4.649
	P	31	**2046.575**	ug/L	1.529	358146	0.235
	K	39	**3737.924**	ug/L	3.060	16773665	10.860
	Ca	43	**17544.109**	ug/L	1.897	182523	0.121
>	Sc	45		ug/L		1504955	1504955.000
	Ti	47	**46.869**	ug/L	0.635	22466	0.015
	V	51	**50.111**	ug/L	2.609	260870	0.174
	Cr	52	**50.601**	ug/L	1.380	202264	0.135
	Cr	53		ug/L		178366	0.082
	Mn	55	**50.654**	ug/L	0.456	352306	0.233
	Fe	57	**2139.412**	ug/L	2.235	292501	0.192
	Co	59	**47.356**	ug/L	1.455	248643	0.165
	Ni	60	**47.362**	ug/L	1.174	53967	0.036
	Cu	63		ug/L		129727	0.086
	Cu	65	**47.645**	ug/L	1.788	61844	0.041
	Zn	66	**51.073**	ug/L	1.723	45829	0.153
	Zn	67		ug/L		40507	0.115
	Zn	68		ug/L		33642	0.110
>	Ge	74		ug/L		298932	298931.739
	As	75	**75.953**	ug/L	4.000	64131	0.215
	Se	77		ug/L		12806	0.034
	Se	82	**20.454**	ug/L	1.187	1754	0.006
	Kr	83		ug/L		114	0.000
	Sr	88	**131.022**	ug/L	5.714	1289429	6.393
	Y	89		ug/L		127	0.000
	Mo	98	**51.236**	ug/L	5.170	124161	0.615
	Ag	107	**49.482**	ug/L	5.798	214230	1.062
	Cd	111	**10.467**	ug/L	4.729	11817	0.059
	Cd	114		ug/L		27420	0.136
>	In	115		ug/L		202021	202021.203
	Sn	120	**52.270**	ug/L	6.218	254940	1.263
	Sb	121	**211.988**	ug/L	4.556	867776	4.300
	Sb	123		ug/L		703648	3.486
	Ba	135		ug/L		87964	0.185
	Ba	137	**67.590**	ug/L	4.838	152251	0.320
	Ho	165		ug/L		262	0.000
>	Lu	175		ug/L		476285	476285.367
	Tl	205	**91.854**	ug/L	5.648	1756983	3.693
	Pb	208	**41.231**	ug/L	3.099	1313505	2.759
	Bi	209		ug/L		552	0.001
	Th	232	**49.993**	ug/L	4.239	1921561	4.037
	U	238	**50.441**	ug/L	3.649	2141099	4.498

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		92.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		89.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		94.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994287
Sample Date/Time: Saturday, January 02, 2010 16:51:14
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 932308|5|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\1201994287.020

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**4.731**	ug/L	2.156	5369	0.004
	Be	9	**-0.014**	ug/L	27.899	11	-0.000
	B	11	**4.515**	ug/L	6.436	1848	0.001
	Na	23	**2202.947**	ug/L	3.789	8261635	5.520
	Mg	24	**756.083**	ug/L	13.932	1944136	1.298
	Al	27	**0.987**	ug/L	33.318	7002	0.002
	P	31	**5.803**	ug/L	32.832	5390	0.001
	K	39	**376.864**	ug/L	9.673	2063811	1.095
	Ca	43	**3154.441**	ug/L	1.554	32736	0.022
>	Sc	45		ug/L		1495314	1495313.771
	Ti	47	**0.918**	ug/L	7.716	797	0.000
	V	51	**1.029**	ug/L	21.079	4653	0.004
	Cr	52	**0.820**	ug/L	7.466	2199	0.002
	Cr	53		ug/L		83388	0.019
	Mn	55	**0.128**	ug/L	9.287	1919	0.001
	Fe	57	**12.096**	ug/L	14.320	5695	0.001
	Co	59	**0.028**	ug/L	12.237	294	0.000
	Ni	60	**0.056**	ug/L	18.739	173	0.000
	Cu	63		ug/L		787	0.000
	Cu	65	**0.123**	ug/L	3.363	265	0.000
	Zn	66	**0.301**	ug/L	7.967	437	0.001
	Zn	67		ug/L		10881	0.015
	Zn	68		ug/L		1191	0.002
>	Ge	74		ug/L		300829	300828.566
	As	75	**0.107**	ug/L	406.445	34	0.000
	Se	77		ug/L		5440	0.009
	Se	82	**-0.030**	ug/L	441.099	-24	-0.000
	Kr	83		ug/L		86	0.000
	Sr	88	**16.456**	ug/L	0.789	172684	0.803
	Y	89		ug/L		68	0.000
	Mo	98	**0.322**	ug/L	9.062	882	0.004
	Ag	107	**-0.002**	ug/L	92.962	35	-0.000
	Cd	111	**0.003**	ug/L	89.778	13	0.000
	Cd	114		ug/L		21	-0.000
>	In	115		ug/L		214880	214880.045
	Sn	120	**0.062**	ug/L	19.651	594	0.002
	Sb	121	**0.274**	ug/L	18.671	1453	0.006
	Sb	123		ug/L		1189	0.005
	Ba	135		ug/L		5216	0.010
	Ba	137	**3.869**	ug/L	0.738	9136	0.018
	Ho	165		ug/L		24	-0.000
>	Lu	175		ug/L		495183	495182.565
	Tl	205	**1.143**	ug/L	19.097	23149	0.046
	Pb	208	**0.011**	ug/L	10.985	659	0.001
	Bi	209		ug/L		167	-0.000
	Th	232	**0.028**	ug/L	28.342	1797	0.002
	U	238	**0.102**	ug/L	1.837	4739	0.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		93.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Saturday, January 02, 2010 16:57:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 8.021

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**52.793**	ug/L	3.409	60340	0.040
	Be	9	**53.695**	ug/L	2.361	18382	0.012
	B	11	**103.737**	ug/L	0.982	35830	0.023
	Na	23	**5451.384**	ug/L	13.613	20731679	13.660
	Mg	24	**5282.809**	ug/L	2.312	13759145	9.067
	Al	27	**5038.161**	ug/L	4.780	17958358	11.836
	P	31	**5257.749**	ug/L	0.215	920575	0.604
	K	39	**5119.544**	ug/L	4.473	22999952	14.874
	Ca	43	**5050.621**	ug/L	1.195	53091	0.035
>	Sc	45		ug/L		1517135	1517135.291
	Ti	47	**50.073**	ug/L	2.578	24170	0.016
	V	51	**49.876**	ug/L	3.131	261740	0.173
	Cr	52	**50.505**	ug/L	1.031	203518	0.135
	Cr	53		ug/L		88015	0.021
	Mn	55	**52.532**	ug/L	0.254	368297	0.242
	Fe	57	**5320.211**	ug/L	0.869	727127	0.477
	Co	59	**50.491**	ug/L	2.290	267237	0.176
	Ni	60	**51.221**	ug/L	0.210	58828	0.039
	Cu	63		ug/L		135664	0.089
	Cu	65	**49.541**	ug/L	0.663	64819	0.043
	Zn	66	**51.706**	ug/L	3.104	48547	0.155
	Zn	67		ug/L		14575	0.026
	Zn	68		ug/L		34291	0.107
>	Ge	74		ug/L		312894	312894.284
	As	75	**47.921**	ug/L	3.760	42322	0.136
	Se	77		ug/L		7344	0.014
	Se	82	**49.688**	ug/L	0.374	4493	0.014
	Kr	83		ug/L		105	0.000
	Sr	88	**52.976**	ug/L	0.209	557403	2.585
	Y	89		ug/L		83	0.000
	Mo	98	**48.897**	ug/L	1.699	126647	0.587
	Ag	107	**50.132**	ug/L	1.735	232010	1.076
	Cd	111	**50.814**	ug/L	0.416	61266	0.284
	Cd	114		ug/L		147966	0.686
>	In	115		ug/L		215573	215572.900
	Sn	120	**52.180**	ug/L	0.552	272051	1.261
	Sb	121	**49.878**	ug/L	5.534	218394	1.012
	Sb	123		ug/L		173475	0.804
	Ba	135		ug/L		66177	0.133
	Ba	137	**48.789**	ug/L	1.072	115085	0.231
	Ho	165		ug/L		56	0.000
>	Lu	175		ug/L		498208	498208.470
	Tl	205	**54.379**	ug/L	1.395	1089471	2.186
	Pb	208	**52.353**	ug/L	0.649	1745628	3.503
	Bi	209		ug/L		447	0.000
	Th	232	**51.056**	ug/L	0.192	2054552	4.123
	U	238	**52.614**	ug/L	0.469	2337765	4.692

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	105.586				
	Be	9	107.390				
	B	11	103.737				
	Na	23	109.028				
	Mg	24	105.656				
	Al	27	99.766				
	P	31	105.155				
	K	39	102.391				
	Ca	43	101.012				
>	Sc	45		98.2			
	Ti	47	100.147				
	V	51	99.752				
	Cr	52	101.010				
	Cr	53					
	Mn	55	105.064				
	Fe	57	106.404				
	Co	59	100.983				
	Ni	60	102.442				
	Cu	63					
	Cu	65	99.083				
	Zn	66	103.412				
	Zn	67					
	Zn	68					
>	Ge	74		97.1			
	As	75	95.843				
	Se	77					
	Se	82	99.376				
	Kr	83					
	Sr	88	105.952				
	Y	89					
	Mo	98	97.794				
	Ag	107	100.265				
	Cd	111	101.628				
	Cd	114					
>	In	115		95.6			
	Sn	120	104.361				
	Sb	121	99.755				
	Sb	123					
	Ba	135					
	Ba	137	97.577				
	Ho	165					
>	Lu	175		99.0			
	Tl	205	108.758				
	Pb	208	104.706				
	Bi	209					
	Th	232	102.111				
	U	238	105.228				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Saturday, January 02, 2010 17:03:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 9.022

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.030**	**ug/L**	22.350	78	0.000
	Be	9	**0.010**	**ug/L**	99.601	19	0.000
	B	11	**2.013**	**ug/L**	16.644	1005	0.000
	Na	23	**2.684**	**ug/L**	45.052	22017	0.007
	Mg	24	**0.166**	**ug/L**	140.790	3334	0.000
	Al	27	**0.506**	**ug/L**	87.004	5334	0.001
	P	31	**-0.862**	**ug/L**	49.664	4255	-0.000
	K	39	**-0.203**	**ug/L**	3023.952	429037	-0.001
	Ca	43	**0.630**	**ug/L**	322.472	169	0.000
>	Sc	45		**ug/L**		1498050	1498050.183
	Ti	47	**-0.103**	**ug/L**	15.460	320	-0.000
	V	51	**0.051**	**ug/L**	186.548	-419	0.000
	Cr	52	**0.475**	**ug/L**	4.366	825	0.001
	Cr	53		**ug/L**		61146	0.004
	Mn	55	**-0.014**	**ug/L**	14.142	942	-0.000
	Fe	57	**0.319**	**ug/L**	394.486	4128	0.000
	Co	59	**0.009**	**ug/L**	62.505	194	0.000
	Ni	60	**-0.014**	**ug/L**	41.930	94	-0.000
	Cu	63		**ug/L**		401	-0.000
	Cu	65	**0.010**	**ug/L**	25.809	119	0.000
	Zn	66	**0.002**	**ug/L**	587.706	170	0.000
	Zn	67		**ug/L**		6759	0.001
	Zn	68		**ug/L**		746	0.000
>	Ge	74		**ug/L**		305409	305408.670
	As	75	**-0.014**	**ug/L**	1748.489	-69	-0.000
	Se	77		**ug/L**		3792	0.003
	Se	82	**0.160**	**ug/L**	59.744	-7	0.000
	Kr	83		**ug/L**		82	0.000
	Sr	88	**0.012**	**ug/L**	41.246	266	0.001
	Y	89		**ug/L**		51	-0.000
	Mo	98	**0.054**	**ug/L**	9.371	191	0.001
	Ag	107	**0.010**	**ug/L**	18.431	90	0.000
	Cd	111	**0.019**	**ug/L**	56.647	33	0.000
	Cd	114		**ug/L**		56	0.000
>	In	115		**ug/L**		214850	214849.540
	Sn	120	**0.128**	**ug/L**	12.069	933	0.003
	Sb	121	**0.686**	**ug/L**	13.902	3249	0.014
	Sb	123		**ug/L**		2638	0.011
	Ba	135		**ug/L**		166	0.000
	Ba	137	**0.002**	**ug/L**	293.714	77	0.000
	Ho	165		**ug/L**		30	-0.000
>	Lu	175		**ug/L**		498274	498273.976
	Tl	205	**0.313**	**ug/L**	10.292	6641	0.013
	Pb	208	**0.011**	**ug/L**	31.333	679	0.001
	Bi	209		**ug/L**		211	0.000
	Th	232	**0.071**	**ug/L**	15.076	3540	0.006
	U	238	**0.018**	**ug/L**	26.109	1026	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242753003
Sample Date/Time: Saturday, January 02, 2010 17:09:36
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\242753003.023

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**23.615**	ug/L	4.302	26495	0.018
	Be	9	**-0.005**	ug/L	248.425	14	-0.000
	B	11	**14.835**	ug/L	2.137	5301	0.003
	Na	23	**10609.372**	ug/L	3.104	39559053	26.585
	Mg	24	**3834.816**	ug/L	0.640	9794695	6.582
	Al	27	**6.923**	ug/L	27.261	27694	0.016
	P	31	**21.081**	ug/L	6.034	7973	0.002
	K	39	**1749.218**	ug/L	3.013	7987751	5.082
	Ca	43	**15697.955**	ug/L	2.730	161443	0.108
>	Sc	45		ug/L		1487670	1487670.214
	Ti	47	**4.544**	ug/L	4.840	2484	0.001
	V	51	**4.522**	ug/L	53.576	22640	0.016
	Cr	52	**4.212**	ug/L	2.016	15666	0.011
	Cr	53		ug/L		142536	0.059
	Mn	55	**40.015**	ug/L	2.348	275305	0.184
	Fe	57	**136.669**	ug/L	1.760	22268	0.012
	Co	59	**0.092**	ug/L	5.961	625	0.000
	Ni	60	**1.239**	ug/L	1.593	1503	0.001
	Cu	63		ug/L		6143	0.004
	Cu	65	**1.998**	ug/L	0.851	2665	0.002
	Zn	66	**1.951**	ug/L	4.820	1859	0.006
	Zn	67		ug/L		27291	0.073
	Zn	68		ug/L		3046	0.008
>	Ge	74		ug/L		290960	290960.076
	As	75	**0.257**	ug/L	352.386	157	0.001
	Se	77		ug/L		10749	0.028
	Se	82	**0.797**	ug/L	5.960	47	0.000
	Kr	83		ug/L		96	0.000
	Sr	88	**82.490**	ug/L	1.814	836398	4.025
	Y	89		ug/L		210	0.001
	Mo	98	**1.550**	ug/L	3.136	3916	0.019
	Ag	107	**0.002**	ug/L	75.719	52	0.000
	Cd	111	**0.021**	ug/L	17.841	35	0.000
	Cd	114		ug/L		65	0.000
>	In	115		ug/L		207786	207786.300
	Sn	120	**0.263**	ug/L	11.231	1583	0.006
	Sb	121	**0.355**	ug/L	20.690	1749	0.007
	Sb	123		ug/L		1397	0.006
	Ba	135		ug/L		27155	0.056
	Ba	137	**20.940**	ug/L	1.342	48021	0.099
	Ho	165		ug/L		47	0.000
>	Lu	175		ug/L		483976	483976.461
	Tl	205	**0.165**	ug/L	1.522	3572	0.007
	Pb	208	**0.490**	ug/L	1.139	16143	0.033
	Bi	209		ug/L		106	-0.000
	Th	232	**0.055**	ug/L	29.941	2803	0.004
	U	238	**0.500**	ug/L	0.407	21804	0.045

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242753004
Sample Date/Time: Saturday, January 02, 2010 17:15:41
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\242753004.024

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**23.146**	ug/L	6.183	26053	0.017
	Be	9	**-0.009**	ug/L	85.749	12	-0.000
	B	11	**15.022**	ug/L	3.916	5383	0.003
	Na	23	**10440.703**	ug/L	8.675	39054044	26.162
	Mg	24	**3826.220**	ug/L	1.305	9809249	6.567
	Al	27	**2.030**	ug/L	35.356	10671	0.005
	P	31	**20.183**	ug/L	15.897	7845	0.002
	K	39	**1751.124**	ug/L	2.095	8024448	5.087
	Ca	43	**15913.017**	ug/L	2.216	164263	0.110
>	Sc	45		ug/L		1493309	1493309.088
	Ti	47	**4.414**	ug/L	4.066	2433	0.001
	V	51	**3.764**	ug/L	11.967	18829	0.013
	Cr	52	**2.875**	ug/L	3.749	10396	0.008
	Cr	53		ug/L		146139	0.061
	Mn	55	**0.632**	ug/L	2.205	5389	0.003
	Fe	57	**78.509**	ug/L	5.013	14575	0.007
	Co	59	**0.073**	ug/L	5.455	526	0.000
	Ni	60	**0.583**	ug/L	0.811	768	0.000
	Cu	63		ug/L		16438	0.011
	Cu	65	**5.791**	ug/L	0.411	7552	0.005
	Zn	66	**6.373**	ug/L	3.601	5725	0.019
	Zn	67		ug/L		31248	0.086
	Zn	68		ug/L		5802	0.018
>	Ge	74		ug/L		291911	291911.217
	As	75	**0.636**	ug/L	57.925	471	0.002
	Se	77		ug/L		10785	0.028
	Se	82	**0.890**	ug/L	4.063	55	0.000
	Kr	83		ug/L		93	0.000
	Sr	88	**83.136**	ug/L	0.925	846408	4.057
	Y	89		ug/L		105	0.000
	Mo	98	**1.578**	ug/L	1.619	4003	0.019
	Ag	107	**-0.000**	ug/L	68.382	40	-0.000
	Cd	111	**0.008**	ug/L	60.273	19	0.000
	Cd	114		ug/L		35	0.000
>	In	115		ug/L		208623	208622.617
	Sn	120	**0.189**	ug/L	5.290	1215	0.005
	Sb	121	**0.143**	ug/L	8.909	859	0.003
	Sb	123		ug/L		728	0.002
	Ba	135		ug/L		26043	0.053
	Ba	137	**19.302**	ug/L	2.578	45013	0.091
	Ho	165		ug/L		26	-0.000
>	Lu	175		ug/L		492068	492068.422
	Tl	205	**0.111**	ug/L	3.098	2561	0.004
	Pb	208	**0.247**	ug/L	0.726	8440	0.017
	Bi	209		ug/L		84	-0.000
	Th	232	**0.016**	ug/L	13.631	1297	0.001
	U	238	**0.482**	ug/L	0.872	21356	0.043

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		97.8			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242753005
Sample Date/Time: Saturday, January 02, 2010 17:21:48
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\242753005.025

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**25.688**	ug/L	1.724	28727	0.019
	Be	9	**0.039**	ug/L	50.391	28	0.000
	B	11	**13.526**	ug/L	2.782	4847	0.003
	Na	23	**9598.761**	ug/L	3.030	35687316	24.052
	Mg	24	**3309.207**	ug/L	2.307	8429550	5.680
	Al	27	**115.280**	ug/L	15.900	405788	0.271
	P	31	**72.353**	ug/L	1.513	16687	0.008
	K	39	**1464.845**	ug/L	8.474	6733931	4.256
	Ca	43	**12272.776**	ug/L	1.130	125913	0.085
>	Sc	45		ug/L		1483346	1483345.900
	Ti	47	**7.075**	ug/L	6.577	3650	0.002
	V	51	**3.296**	ug/L	49.755	16347	0.011
	Cr	52	**3.208**	ug/L	0.457	11645	0.009
	Cr	53		ug/L		140626	0.058
	Mn	55	**9.525**	ug/L	3.601	66121	0.044
	Fe	57	**171.464**	ug/L	0.902	26827	0.015
	Co	59	**0.538**	ug/L	1.957	2927	0.002
	Ni	60	**1.008**	ug/L	4.103	1240	0.001
	Cu	63		ug/L		4261	0.003
	Cu	65	**1.257**	ug/L	5.826	1710	0.001
	Zn	66	**19.469**	ug/L	1.332	17134	0.058
	Zn	67		ug/L		32476	0.090
	Zn	68		ug/L		13543	0.044
>	Ge	74		ug/L		291438	291438.347
	As	75	**0.910**	ug/L	54.277	692	0.003
	Se	77		ug/L		9776	0.025
	Se	82	**0.442**	ug/L	17.393	17	0.000
	Kr	83		ug/L		98	0.000
	Sr	88	**58.929**	ug/L	1.496	593660	2.876
	Y	89		ug/L		2467	0.012
	Mo	98	**1.430**	ug/L	3.313	3593	0.017
	Ag	107	**-0.000**	ug/L	441.073	40	-0.000
	Cd	111	**0.012**	ug/L	48.367	24	0.000
	Cd	114		ug/L		35	0.000
>	In	115		ug/L		206422	206422.189
	Sn	120	**0.173**	ug/L	4.520	1120	0.004
	Sb	121	**0.103**	ug/L	4.570	681	0.002
	Sb	123		ug/L		587	0.002
	Ba	135		ug/L		21614	0.045
	Ba	137	**16.582**	ug/L	1.355	37832	0.078
	Ho	165		ug/L		253	0.000
>	Lu	175		ug/L		481295	481295.291
	Tl	205	**0.078**	ug/L	0.571	1864	0.003
	Pb	208	**0.214**	ug/L	2.491	7188	0.014
	Bi	209		ug/L		170	-0.000
	Th	232	**0.156**	ug/L	2.945	6715	0.013
	U	238	**0.454**	ug/L	3.244	19713	0.041

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		90.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		95.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242753006
Sample Date/Time: Saturday, January 02, 2010 17:27:55
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\242753006.026

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**24.605**	ug/L	3.136	27417	0.019
	Be	9	**-0.006**	ug/L	59.635	13	-0.000
	B	11	**13.456**	ug/L	0.556	4807	0.003
	Na	23	**11452.386**	ug/L	12.562	42420772	28.697
	Mg	24	**3200.239**	ug/L	6.175	8118099	5.493
	Al	27	**12.077**	ug/L	13.234	45406	0.028
	P	31	**24.779**	ug/L	10.043	8549	0.003
	K	39	**1343.592**	ug/L	1.541	6192648	3.903
	Ca	43	**11876.989**	ug/L	2.957	121391	0.082
>	Sc	45		ug/L		1477826	1477825.883
	Ti	47	**4.571**	ug/L	5.333	2479	0.001
	V	51	**2.901**	ug/L	22.281	14190	0.010
	Cr	52	**2.733**	ug/L	5.086	9725	0.007
	Cr	53		ug/L		139627	0.058
	Mn	55	**1.978**	ug/L	2.830	14493	0.009
	Fe	57	**58.280**	ug/L	0.366	11745	0.005
	Co	59	**0.327**	ug/L	2.992	1832	0.001
	Ni	60	**0.754**	ug/L	3.037	951	0.001
	Cu	63		ug/L		2552	0.001
	Cu	65	**0.635**	ug/L	4.063	914	0.001
	Zn	66	**3.413**	ug/L	2.293	3166	0.010
	Zn	67		ug/L		31625	0.086
	Zn	68		ug/L		4027	0.011
>	Ge	74		ug/L		294236	294236.045
	As	75	**-0.092**	ug/L	600.219	-133	-0.000
	Se	77		ug/L		9224	0.022
	Se	82	**0.562**	ug/L	49.231	27	0.000
	Kr	83		ug/L		99	0.000
	Sr	88	**57.647**	ug/L	2.056	571347	2.813
	Y	89		ug/L		171	0.001
	Mo	98	**1.832**	ug/L	1.166	4516	0.022
	Ag	107	**-0.002**	ug/L	51.283	33	-0.000
	Cd	111	**0.000**	ug/L	4782.165	10	0.000
	Cd	114		ug/L		27	0.000
>	In	115		ug/L		203088	203087.820
	Sn	120	**0.183**	ug/L	5.176	1155	0.004
	Sb	121	**0.111**	ug/L	5.369	700	0.002
	Sb	123		ug/L		587	0.002
	Ba	135		ug/L		19772	0.041
	Ba	137	**15.140**	ug/L	2.140	34625	0.072
	Ho	165		ug/L		46	0.000
>	Lu	175		ug/L		482462	482461.905
	Tl	205	**0.066**	ug/L	4.694	1637	0.003
	Pb	208	**0.028**	ug/L	0.709	1180	0.002
	Bi	209		ug/L		124	-0.000
	Th	232	**0.018**	ug/L	7.768	1359	0.001
	U	238	**0.410**	ug/L	2.996	17827	0.037

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		95.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		95.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242753007
Sample Date/Time: Saturday, January 02, 2010 17:34:03
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\242753007.027

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**24.839**	ug/L	5.935	28253	0.019
	Be	9	**0.009**	ug/L	176.090	19	0.000
	B	11	**13.900**	ug/L	2.807	5059	0.003
	Na	23	**9795.352**	ug/L	5.950	37034007	24.545
	Mg	24	**3421.862**	ug/L	8.731	8860342	5.873
	Al	27	**78.763**	ug/L	10.695	282445	0.185
	P	31	**54.780**	ug/L	4.141	13927	0.006
	K	39	**1367.245**	ug/L	4.821	6425063	3.972
	Ca	43	**12262.561**	ug/L	0.701	128015	0.085
>	Sc	45		ug/L		1509397	1509396.610
	Ti	47	**6.340**	ug/L	1.859	3368	0.002
	V	51	**3.970**	ug/L	16.435	20043	0.014
	Cr	52	**2.751**	ug/L	2.595	10002	0.007
	Cr	53		ug/L		137688	0.054
	Mn	55	**6.721**	ug/L	2.686	47777	0.031
	Fe	57	**132.686**	ug/L	4.469	22052	0.012
	Co	59	**0.336**	ug/L	3.177	1918	0.001
	Ni	60	**0.904**	ug/L	2.130	1142	0.001
	Cu	63		ug/L		3376	0.002
	Cu	65	**0.973**	ug/L	5.075	1372	0.001
	Zn	66	**15.625**	ug/L	2.607	13878	0.047
	Zn	67		ug/L		33304	0.092
	Zn	68		ug/L		11604	0.037
>	Ge	74		ug/L		293537	293536.520
	As	75	**0.309**	ug/L	200.765	204	0.001
	Se	77		ug/L		8941	0.021
	Se	82	**0.411**	ug/L	37.740	14	0.000
	Kr	83		ug/L		99	0.000
	Sr	88	**60.499**	ug/L	0.156	599127	2.952
	Y	89		ug/L		2027	0.010
	Mo	98	**1.610**	ug/L	0.927	3970	0.019
	Ag	107	**-0.001**	ug/L	239.797	38	-0.000
	Cd	111	**0.006**	ug/L	48.627	16	0.000
	Cd	114		ug/L		37	0.000
>	In	115		ug/L		202903	202902.738
	Sn	120	**0.190**	ug/L	4.014	1186	0.005
	Sb	121	**0.084**	ug/L	1.293	590	0.002
	Sb	123		ug/L		507	0.001
	Ba	135		ug/L		21358	0.045
	Ba	137	**16.646**	ug/L	2.198	37777	0.079
	Ho	165		ug/L		222	0.000
>	Lu	175		ug/L		478863	478863.002
	Tl	205	**0.050**	ug/L	5.381	1316	0.002
	Pb	208	**0.155**	ug/L	2.928	5245	0.010
	Bi	209		ug/L		207	0.000
	Th	232	**0.153**	ug/L	4.860	6556	0.012
	U	238	**0.461**	ug/L	2.356	19880	0.041

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		95.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242753008
Sample Date/Time: Saturday, January 02, 2010 17:40:11
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\242753008.028

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**25.220**	ug/L	6.035	28362	0.019
	Be	9	**0.006**	ug/L	426.289	17	0.000
	B	11	**13.892**	ug/L	2.779	4999	0.003
	Na	23	**10715.975**	ug/L	6.147	40064063	26.852
	Mg	24	**3626.747**	ug/L	8.339	9285313	6.225
	Al	27	**8.892**	ug/L	4.233	34709	0.021
	P	31	**23.154**	ug/L	9.120	8350	0.003
	K	39	**1332.231**	ug/L	3.686	6201822	3.870
	Ca	43	**11968.736**	ug/L	1.400	123476	0.083
>	Sc	45		ug/L		1491719	1491718.983
	Ti	47	**4.801**	ug/L	1.696	2610	0.002
	V	51	**2.493**	ug/L	47.683	12211	0.009
	Cr	52	**2.536**	ug/L	5.657	9031	0.007
	Cr	53		ug/L		139753	0.057
	Mn	55	**1.656**	ug/L	0.557	12417	0.008
	Fe	57	**53.640**	ug/L	2.081	11236	0.005
	Co	59	**0.152**	ug/L	3.156	937	0.001
	Ni	60	**0.751**	ug/L	3.882	956	0.001
	Cu	63		ug/L		2682	0.001
	Cu	65	**0.669**	ug/L	0.987	966	0.001
	Zn	66	**3.226**	ug/L	1.522	2990	0.010
	Zn	67		ug/L		33114	0.092
	Zn	68		ug/L		4023	0.011
>	Ge	74		ug/L		293120	293120.313
	As	75	**0.114**	ug/L	849.641	35	0.000
	Se	77		ug/L		8866	0.021
	Se	82	**0.577**	ug/L	25.582	28	0.000
	Kr	83		ug/L		102	0.000
	Sr	88	**59.003**	ug/L	1.232	591319	2.879
	Y	89		ug/L		164	0.001
	Mo	98	**1.819**	ug/L	0.423	4534	0.022
	Ag	107	**-0.002**	ug/L	4.032	32	-0.000
	Cd	111	**0.002**	ug/L	74.913	12	0.000
	Cd	114		ug/L		26	0.000
>	In	115		ug/L		205339	205338.876
	Sn	120	**0.165**	ug/L	0.551	1079	0.004
	Sb	121	**0.096**	ug/L	4.420	649	0.002
	Sb	123		ug/L		558	0.002
	Ba	135		ug/L		20028	0.042
	Ba	137	**15.532**	ug/L	2.413	35186	0.073
	Ho	165		ug/L		39	0.000
>	Lu	175		ug/L		477867	477867.132
	Tl	205	**0.044**	ug/L	3.598	1200	0.002
	Pb	208	**0.020**	ug/L	1.568	931	0.001
	Bi	209		ug/L		109	-0.000
	Th	232	**0.007**	ug/L	16.463	921	0.001
	U	238	**0.425**	ug/L	2.076	18336	0.038

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		95.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242753009
Sample Date/Time: Saturday, January 02, 2010 17:46:18
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\242753009.029

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.059**	ug/L	3.262	108	0.000
	Be	9	**-0.009**	ug/L	180.658	12	-0.000
	B	11	**6.046**	ug/L	3.904	2317	0.001
	Na	23	**6.991**	ug/L	13.719	37382	0.018
	Mg	24	**0.062**	ug/L	653.140	3000	0.000
	Al	27	**1.589**	ug/L	91.673	9003	0.004
	P	31	**-0.084**	ug/L	904.118	4293	-0.000
	K	39	**-3.824**	ug/L	109.923	403969	-0.011
	Ca	43	**17.063**	ug/L	8.015	332	0.000
>	Sc	45		ug/L		1465707	1465707.273
	Ti	47	**0.487**	ug/L	3.599	584	0.000
	V	51	**-0.895**	ug/L	285.616	-5312	-0.003
	Cr	52	**-0.147**	ug/L	83.872	-1632	-0.000
	Cr	53		ug/L		138339	0.057
	Mn	55	**0.116**	ug/L	8.317	1801	0.001
	Fe	57	**12.732**	ug/L	11.834	5667	0.001
	Co	59	**0.003**	ug/L	59.648	160	0.000
	Ni	60	**0.077**	ug/L	12.047	193	0.000
	Cu	63		ug/L		1279	0.001
	Cu	65	**0.344**	ug/L	3.080	539	0.000
	Zn	66	**1.136**	ug/L	2.997	1166	0.003
	Zn	67		ug/L		32080	0.088
	Zn	68		ug/L		2483	0.006
>	Ge	74		ug/L		295348	295348.114
	As	75	**-0.867**	ug/L	51.956	-782	-0.002
	Se	77		ug/L		8128	0.019
	Se	82	**-0.093**	ug/L	95.297	-29	-0.000
	Kr	83		ug/L		97	0.000
	Sr	88	**0.056**	ug/L	1.376	702	0.003
	Y	89		ug/L		75	0.000
	Mo	98	**0.000**	ug/L	634.532	48	0.000
	Ag	107	**0.011**	ug/L	13.797	91	0.000
	Cd	111	**-0.004**	ug/L	91.984	5	-0.000
	Cd	114		ug/L		21	-0.000
>	In	115		ug/L		206382	206382.260
	Sn	120	**0.172**	ug/L	7.171	1117	0.004
	Sb	121	**-0.010**	ug/L	39.991	207	-0.000
	Sb	123		ug/L		181	-0.000
	Ba	135		ug/L		124	0.000
	Ba	137	**0.048**	ug/L	21.772	180	0.000
	Ho	165		ug/L		29	-0.000
>	Lu	175		ug/L		486238	486238.057
	Tl	205	**0.034**	ug/L	1.686	1032	0.001
	Pb	208	**0.026**	ug/L	2.077	1131	0.002
	Bi	209		ug/L		86	-0.000
	Th	232	**-0.005**	ug/L	13.052	461	-0.000
	U	238	**-0.003**	ug/L	2.503	97	-0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		94.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		91.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Saturday, January 02, 2010 17:52:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 8.030

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.580**	ug/L	4.321	56019	0.037
	Be	9	**52.674**	ug/L	1.466	17823	0.012
	B	11	**101.394**	ug/L	1.400	34621	0.023
	Na	23	**4850.193**	ug/L	9.671	18222415	12.154
	Mg	24	**5127.880**	ug/L	4.315	13197369	8.801
	Al	27	**5141.052**	ug/L	3.845	18109866	12.078
	P	31	**5251.557**	ug/L	2.558	908684	0.603
	K	39	**4921.043**	ug/L	4.203	21877630	14.297
	Ca	43	**4983.397**	ug/L	2.683	51770	0.034
>	Sc	45		ug/L		1499610	1499609.630
	Ti	47	**49.395**	ug/L	1.129	23574	0.015
	V	51	**49.619**	ug/L	1.178	257394	0.172
	Cr	52	**50.910**	ug/L	2.009	202758	0.136
	Cr	53		ug/L		84841	0.020
	Mn	55	**52.162**	ug/L	1.851	361425	0.240
	Fe	57	**5207.091**	ug/L	2.134	703444	0.466
	Co	59	**49.921**	ug/L	2.370	261128	0.174
	Ni	60	**50.209**	ug/L	3.408	56986	0.038
	Cu	63		ug/L		132513	0.088
	Cu	65	**49.370**	ug/L	0.354	63850	0.043
	Zn	66	**52.356**	ug/L	3.219	48084	0.157
	Zn	67		ug/L		15421	0.029
	Zn	68		ug/L		34012	0.109
>	Ge	74		ug/L		306051	306051.005
	As	75	**47.846**	ug/L	1.780	41342	0.135
	Se	77		ug/L		6180	0.011
	Se	82	**49.927**	ug/L	2.163	4415	0.014
	Kr	83		ug/L		126	0.000
	Sr	88	**53.070**	ug/L	1.703	543367	2.590
	Y	89		ug/L		87	0.000
	Mo	98	**50.229**	ug/L	3.364	126574	0.603
	Ag	107	**49.764**	ug/L	2.451	224098	1.068
	Cd	111	**51.101**	ug/L	1.597	59957	0.286
	Cd	114		ug/L		143142	0.682
>	In	115		ug/L		209813	209813.258
	Sn	120	**51.739**	ug/L	3.069	262450	1.250
	Sb	121	**50.004**	ug/L	8.193	212883	1.014
	Sb	123		ug/L		167987	0.800
	Ba	135		ug/L		64082	0.132
	Ba	137	**49.210**	ug/L	1.708	113261	0.233
	Ho	165		ug/L		50	0.000
>	Lu	175		ug/L		486117	486116.626
	Tl	205	**55.070**	ug/L	0.602	1076533	2.214
	Pb	208	**52.947**	ug/L	1.455	1722565	3.543
	Bi	209		ug/L		425	0.000
	Th	232	**51.285**	ug/L	0.627	2013665	4.141
	U	238	**51.779**	ug/L	1.305	2244797	4.617

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	0.9999
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	0.9999
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	99.161				
	Be	9	105.347				
	B	11	101.394				
	Na	23	97.004				
	Mg	24	102.558				
	Al	27	101.803				
	P	31	105.031				
	K	39	98.421				
	Ca	43	99.668				
>	Sc	45		97.1			
	Ti	47	98.790				
	V	51	99.238				
	Cr	52	101.820				
	Cr	53					
	Mn	55	104.324				
	Fe	57	104.142				
	Co	59	99.841				
	Ni	60	100.418				
	Cu	63					
	Cu	65	98.740				
	Zn	66	104.713				
	Zn	67					
	Zn	68					
>	Ge	74		95.0			
	As	75	95.692				
	Se	77					
	Se	82	99.854				
	Kr	83					
	Sr	88	106.139				
	Y	89					
	Mo	98	100.458				
	Ag	107	99.529				
	Cd	111	102.202				
	Cd	114					
>	In	115		93.0			
	Sn	120	103.478				
	Sb	121	100.008				
	Sb	123					
	Ba	135					
	Ba	137	98.421				
	Ho	165					
>	Lu	175		96.6			
	Tl	205	110.140				
	Pb	208	105.894				
	Bi	209					
	Th	232	102.569				
	U	238	103.559				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Tl	205	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Saturday, January 02, 2010 17:58:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 9.031

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.023**	ug/L	13.866	69	0.000
	Be	9	**0.010**	ug/L	172.530	19	0.000
	B	11	**1.849**	ug/L	28.555	938	0.000
	Na	23	**2.943**	ug/L	68.301	22686	0.007
	Mg	24	**0.047**	ug/L	1440.191	3000	0.000
	Al	27	**0.813**	ug/L	22.411	6335	0.002
	P	31	**0.115**	ug/L	905.020	4369	0.000
	K	39	**-4.534**	ug/L	128.379	405013	-0.013
	Ca	43	**0.122**	ug/L	1073.961	162	0.000
>	Sc	45		ug/L		1479345	1479344.513
	Ti	47	**-0.087**	ug/L	124.751	323	-0.000
	V	51	**-0.038**	ug/L	1321.282	-851	-0.000
	Cr	52	**0.138**	ug/L	13.064	-517	0.000
	Cr	53		ug/L		55963	0.001
	Mn	55	**-0.016**	ug/L	16.687	920	-0.000
	Fe	57	**-0.163**	ug/L	361.060	4013	-0.000
	Co	59	**0.007**	ug/L	80.547	180	0.000
	Ni	60	**-0.015**	ug/L	33.696	92	-0.000
	Cu	63		ug/L		366	-0.000
	Cu	65	**0.008**	ug/L	93.634	116	0.000
	Zn	66	**0.004**	ug/L	51.866	171	0.000
	Zn	67		ug/L		7005	0.002
	Zn	68		ug/L		742	0.000
>	Ge	74		ug/L		304208	304208.187
	As	75	**-0.069**	ug/L	377.608	-117	-0.000
	Se	77		ug/L		2747	0.000
	Se	82	**-0.060**	ug/L	92.636	-27	-0.000
	Kr	83		ug/L		86	0.000
	Sr	88	**0.010**	ug/L	17.442	242	0.001
	Y	89		ug/L		57	-0.000
	Mo	98	**0.045**	ug/L	25.138	162	0.001
	Ag	107	**0.007**	ug/L	13.617	74	0.000
	Cd	111	**0.012**	ug/L	51.885	23	0.000
	Cd	114		ug/L		49	0.000
>	In	115		ug/L		209153	209153.333
	Sn	120	**0.133**	ug/L	2.707	936	0.003
	Sb	121	**0.644**	ug/L	18.464	2989	0.013
	Sb	123		ug/L		2301	0.010
	Ba	135		ug/L		42	-0.000
	Ba	137	**-0.001**	ug/L	295.105	69	-0.000
	Ho	165		ug/L		29	-0.000
>	Lu	175		ug/L		493146	493146.291
	Tl	205	**0.087**	ug/L	10.978	2089	0.003
	Pb	208	**0.011**	ug/L	6.374	643	0.001
	Bi	209		ug/L		201	-0.000
	Th	232	**0.067**	ug/L	17.488	3329	0.005
	U	238	**0.015**	ug/L	9.828	877	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9999
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		95.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, January 03, 2010 08:08:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\Blank.181

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		11	
>	Sc	45		ug/L		1307786	
	Ba	135		ug/L		84	
	Ba	137		ug/L		130	
>	Lu	175		ug/L		422257	
	Tl	205		ug/L		1988	
	U	238		ug/L		565	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Linear Thru Zero	
Ba	135	Simple Linear	
Ba	137	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ba	135					
	Ba	137					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, January 03, 2010 08:10:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\Standard 1.182

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	10.000	ug/L	1.663	2492	0.002
|>	Sc	45		ug/L		1318129	1318128.634
⌈	Ba	135		ug/L		15382	0.036
|	Ba	137	10.000	ug/L	1.883	26321	0.061
|>	Lu	175		ug/L		429660	429659.633
|	Tl	205	10.000	ug/L	2.098	228534	0.527
⌊	U	238	10.000	ug/L	3.840	506827	1.179

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45					
⌈	Ba	135					
|	Ba	137					
|>	Lu	175					
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, January 03, 2010 08:12:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\Standard 2.183

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	99.968	ug/L	1.613	23247	0.018
>	Sc	45		ug/L		1274253	1274253.022
	Ba	135		ug/L		144210	0.342
	Ba	137	99.954	ug/L	0.224	245393	0.583
>	Lu	175		ug/L		420984	420984.360
	Tl	205	99.805	ug/L	1.719	1856312	4.405
	U	238	99.831	ug/L	1.813	4236434	10.063

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ba	135					
	Ba	137					
>	Lu	175					
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, January 03, 2010 08:14:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 1.184

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.940**	**ug/L**	2.663	11875	0.009
>	Sc	45		**ug/L**		1303108	1303108.324
	Ba	135		**ug/L**		73056	0.172
	Ba	137	**50.796**	**ug/L**	1.669	125572	0.296
>	Lu	175		**ug/L**		423796	423796.067
	Tl	205	**53.321**	**ug/L**	2.632	999049	2.354
	U	238	**52.500**	**ug/L**	1.565	2242811	5.292

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	99.879				
>	Sc	45		99.6			
	Ba	135					
	Ba	137	101.591				
>	Lu	175		100.4			
	Tl	205	106.643				
	U	238	105.000				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, January 03, 2010 08:16:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 2.185

Concentration Results

Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Be	9	0.019	ug/L	143.154	15	0.000
Sc	45		ug/L		1306700	1306700.371
Ba	135		ug/L		87	0.000
Ba	137	0.006	ug/L	98.169	146	0.000
Lu	175		ug/L		426143	426142.559
Tl	205	0.116	ug/L	4.385	4186	0.005
U	238	0.023	ug/L	3.444	1541	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Be	9					
Sc	45		99.9			
Ba	135					
Ba	137					
Lu	175		100.9			
Tl	205					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, January 03, 2010 08:18:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 3.186

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.461**	**ug/L**	2.827	123	0.000
>	Sc	45		**ug/L**		1330867	1330866.625
	Ba	135		**ug/L**		3220	0.007
	Ba	137	**2.119**	**ug/L**	2.826	5429	0.012
>	Lu	175		**ug/L**		428933	428932.509
	Tl	205	**1.221**	**ug/L**	1.792	25142	0.054
	U	238	**0.258**	**ug/L**	4.669	11728	0.026

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	92.102				
>	Sc	45		101.8			
	Ba	135					
	Ba	137	105.971				
>	Lu	175		101.6			
	Tl	205	122.143				
	U	238	129.038				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, January 03, 2010 08:19:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 4.187

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.070	ug/L	35.362	26	0.000
>	Sc	45		ug/L		1242846	1242845.871
	Ba	135		ug/L		960	0.003
	Ba	137	0.694	ug/L	1.161	1535	0.004
>	Lu	175		ug/L		352811	352810.673
	Tl	205	0.008	ug/L	86.604	1777	0.000
	U	238	-0.007	ug/L	12.441	237	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		95.0			
	Ba	135					
	Ba	137	103.537				
>	Lu	175		83.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, January 03, 2010 08:21:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 5.188

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	18.573	ug/L	1.188	4496	0.003
>	Sc	45		ug/L		1323875	1323875.256
	Ba	135		ug/L		25842	0.072
	Ba	137	21.049	ug/L	1.233	43894	0.123
>	Lu	175		ug/L		356886	356885.890
	Tl	205	21.325	ug/L	1.238	337624	0.941
	U	238	23.417	ug/L	0.730	842881	2.360

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	92.864				
>	Sc	45		101.2			
	Ba	135					
	Ba	137	101.834				
>	Lu	175		84.5			
	Tl	205	106.623				
	U	238	117.086				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, January 03, 2010 08:23:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 6.189

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**44.043**	**ug/L**	1.377	11822	0.008
>	Sc	45		**ug/L**		1470297	1470296.751
	Ba	135		**ug/L**		70007	0.165
	Ba	137	**48.807**	**ug/L**	1.803	120470	0.284
>	Lu	175		**ug/L**		423049	423048.698
	Tl	205	**49.127**	**ug/L**	1.425	919389	2.168
	U	238	**49.036**	**ug/L**	0.560	2091609	4.943

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	88.087				
>	Sc	45		112.4			
	Ba	135					
	Ba	137	97.613				
>	Lu	175		100.2			
	Tl	205	98.255				
	U	238	98.072				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, January 03, 2010 08:25:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 7.190

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.001**	**ug/L**	895.235	12	0.000
|>	Sc	45		**ug/L**		1433082	1433081.884
⌈	Ba	135		**ug/L**		85	-0.000
|	Ba	137	**0.003**	**ug/L**	153.464	140	0.000
|>	Lu	175		**ug/L**		431980	431980.342
|	Tl	205	**0.346**	**ug/L**	3.382	8623	0.015
⌊	U	238	**0.019**	**ug/L**	4.700	1403	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		109.6			
⌈	Ba	135					
|	Ba	137					
|>	Lu	175		102.3			
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994283
Sample Date/Time: Sunday, January 03, 2010 08:27:50
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\1201994283.191

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.010**	**ug/L**	78.899	15	0.000
>	Sc	45		**ug/L**		1424746	1424745.756
	Ba	135		**ug/L**		548	0.001
	Ba	137	**0.332**	**ug/L**	4.567	923	0.002
>	Lu	175		**ug/L**		411699	411699.262
	Tl	205	**0.057**	**ug/L**	9.169	2981	0.003
	U	238	**-0.001**	**ug/L**	175.360	523	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		108.9			
	Ba	135					
	Ba	137					
>	Lu	175		97.5			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994284
Sample Date/Time: Sunday, January 03, 2010 08:29:44
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\1201994284.192

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.294**	**ug/L**	3.577	12867	0.009
>	Sc	45		**ug/L**		1401288	1401287.765
	Ba	135		**ug/L**		66804	0.160
	Ba	137	**47.466**	**ug/L**	0.749	115479	0.277
>	Lu	175		**ug/L**		416954	416954.423
	Tl	205	**45.952**	**ug/L**	2.386	847552	2.028
	U	238	**49.654**	**ug/L**	2.624	2087106	5.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		107.1			
	Ba	135					
	Ba	137					
>	Lu	175		98.7			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242753001
Sample Date/Time: Sunday, January 03, 2010 08:31:38
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\242753001.193

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**-0.002**	**ug/L**	639.944	12	-0.000
|>	Sc	45		**ug/L**		1491000	1491000.179
⌈	Ba	135		**ug/L**		29833	0.072
|	Ba	137	**21.077**	**ug/L**	1.185	50821	0.123
|>	Lu	175		**ug/L**		412669	412668.868
|	Tl	205	**1.202**	**ug/L**	5.190	23832	0.053
⌊	U	238	**0.525**	**ug/L**	0.762	22381	0.053

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		114.0			
⌈	Ba	135					
|	Ba	137					
|>	Lu	175		97.7			
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242753002
Sample Date/Time: Sunday, January 03, 2010 08:35:36
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\242753002.195

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.002	ug/L	453.550	12	-0.000
>	Sc	45		ug/L		1549438	1549438.498
	Ba	135		ug/L		27461	0.064
	Ba	137	19.004	ug/L	1.029	47383	0.111
>	Lu	175		ug/L		426583	426582.576
	Tl	205	0.187	ug/L	7.760	5530	0.008
	U	238	0.492	ug/L	2.452	21715	0.050

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		118.5			
	Ba	135					
	Ba	137					
>	Lu	175		101.0			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994285
Sample Date/Time: Sunday, January 03, 2010 08:37:31
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\1201994285.196

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.007	ug/L	103.024	11	-0.000
>	Sc	45		ug/L		1525529	1525529.350
	Ba	135		ug/L		28028	0.066
	Ba	137	19.121	ug/L	2.480	47643	0.111
>	Lu	175		ug/L		426409	426409.223
	Tl	205	0.117	ug/L	6.544	4211	0.005
	U	238	0.492	ug/L	1.582	21720	0.050

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		116.6			
	Ba	135					
	Ba	137					
>	Lu	175		101.0			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994286
Sample Date/Time: Sunday, January 03, 2010 08:39:27
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 932308|1|ba|
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\1201994286.197

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.445**	**ug/L**	1.705	14026	0.009
>	Sc	45		**ug/L**		1553649	1553649.444
	Ba	135		**ug/L**		93697	0.219
	Ba	137	**64.590**	**ug/L**	0.507	160892	0.376
>	Lu	175		**ug/L**		427017	427017.416
	Tl	205	**86.144**	**ug/L**	3.237	1625584	3.802
	U	238	**49.486**	**ug/L**	0.791	2130545	4.988

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		118.8			
	Ba	135					
	Ba	137					
>	Lu	175		101.1			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994287
Sample Date/Time: Sunday, January 03, 2010 08:41:21
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 932308|5|baj
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\1201994287.198

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.004**	**ug/L**	411.575	13	0.000
>	Sc	45		**ug/L**		1466464	1466463.673
	Ba	135		**ug/L**		5578	0.013
	Ba	137	**3.802**	**ug/L**	1.034	9669	0.022
>	Lu	175		**ug/L**		430317	430316.870
	Tl	205	**2.260**	**ug/L**	3.835	44945	0.100
	U	238	**0.103**	**ug/L**	4.779	5055	0.010

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		112.1			
	Ba	135					
	Ba	137					
>	Lu	175		101.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, January 03, 2010 08:45:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 8.200

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**45.056**	**ug/L**	1.144	11636	0.008
|>	Sc	45		**ug/L**		1414651	1414650.750
⌈	Ba	135		**ug/L**		66846	0.157
|	Ba	137	**46.804**	**ug/L**	1.175	115891	0.273
|>	Lu	175		**ug/L**		424378	424377.925
|	Tl	205	**50.010**	**ug/L**	1.279	938840	2.207
⌊	U	238	**49.501**	**ug/L**	1.377	2117861	4.990

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9	90.111				
|>	Sc	45		108.2			
⌈	Ba	135					
|	Ba	137	93.608				
|>	Lu	175		100.5			
|	Tl	205	100.019				
⌊	U	238	99.002				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, January 03, 2010 08:47:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 9.201

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.002	ug/L	241.682	11	-0.000
>	Sc	45		ug/L		1419373	1419373.067
	Ba	135		ug/L		70	-0.000
	Ba	137	-0.009	ug/L	43.494	109	-0.000
>	Lu	175		ug/L		425763	425763.069
	Tl	205	0.643	ug/L	1.497	14088	0.028
	U	238	0.020	ug/L	6.278	1421	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		108.5			
	Ba	135					
	Ba	137					
>	Lu	175		100.8			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242753003
Sample Date/Time: Sunday, January 03, 2010 08:49:06
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\242753003.202

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.006	ug/L	68.942	11	-0.000
>	Sc	45		ug/L		1547889	1547888.581
	Ba	135		ug/L		29559	0.069
	Ba	137	20.495	ug/L	1.521	50872	0.119
>	Lu	175		ug/L		424766	424766.292
	Tl	205	0.280	ug/L	2.031	7248	0.012
	U	238	0.500	ug/L	1.667	21959	0.050

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		118.4			
	Ba	135					
	Ba	137					
>	Lu	175		100.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242753004
Sample Date/Time: Sunday, January 03, 2010 08:51:00
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\242753004.203

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.008	ug/L	217.827	11	-0.000
>	Sc	45		ug/L		1575948	1575948.204
	Ba	135		ug/L		27711	0.066
	Ba	137	19.504	ug/L	0.748	47849	0.114
>	Lu	175		ug/L		419781	419781.084
	Tl	205	0.177	ug/L	5.718	5257	0.008
	U	238	0.509	ug/L	2.585	22113	0.051

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		120.5			
	Ba	135					
	Ba	137					
>	Lu	175		99.4			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 242753005
Sample Date/Time: Sunday, January 03, 2010 08:52:55
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\242753005.204

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.020**	**ug/L**	28.757	19	0.000
>	Sc	45		**ug/L**		1551873	1551873.452
	Ba	135		**ug/L**		22990	0.054
	Ba	137	**16.130**	**ug/L**	1.666	40183	0.094
>	Lu	175		**ug/L**		426098	426097.852
	Tl	205	**0.117**	**ug/L**	11.953	4209	0.005
	U	238	**0.451**	**ug/L**	2.912	19947	0.045

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		118.7			
	Ba	135					
	Ba	137					
>	Lu	175		100.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242753006
Sample Date/Time: Sunday, January 03, 2010 08:54:50
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\242753006.205

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	-0.012	ug/L	116.237	10	-0.000
⌊>	Sc	45		ug/L		1569145	1569145.470
⌈	Ba	135		ug/L		21416	0.050
|	Ba	137	14.792	ug/L	1.611	36915	0.086
|>	Lu	175		ug/L		426703	426703.339
|	Tl	205	0.081	ug/L	10.179	3542	0.004
⌊	U	238	0.408	ug/L	2.347	18133	0.041

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		120.0			
⌈	Ba	135					
|	Ba	137					
|>	Lu	175		101.1			
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242753007
Sample Date/Time: Sunday, January 03, 2010 08:56:46
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\242753007.206

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.023**	**ug/L**	66.479	20	0.000
>	Sc	45		**ug/L**		1559857	1559856.938
	Ba	135		**ug/L**		23306	0.055
	Ba	137	**16.072**	**ug/L**	1.875	40029	0.094
>	Lu	175		**ug/L**		425989	425989.202
	Tl	205	**0.064**	**ug/L**	11.491	3212	0.003
	U	238	**0.458**	**ug/L**	2.349	20225	0.046

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		119.3			
	Ba	135					
	Ba	137					
>	Lu	175		100.9			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242753008
Sample Date/Time: Sunday, January 03, 2010 08:58:42
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\242753008.207

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.021	ug/L	34.009	7	-0.000
>	Sc	45		ug/L		1588350	1588350.188
	Ba	135		ug/L		21835	0.051
	Ba	137	14.918	ug/L	0.849	37252	0.087
>	Lu	175		ug/L		426923	426923.293
	Tl	205	0.042	ug/L	14.508	2800	0.002
	U	238	0.413	ug/L	0.757	18347	0.042

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		121.5			
	Ba	135					
	Ba	137					
>	Lu	175		101.1			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sc 45 Int Std for sam	Sc	45	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 242753009
Sample Date/Time: Sunday, January 03, 2010 09:00:38
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\242753009.208

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	-0.018	ug/L	24.558	8	-0.000
⌊>	Sc	45		ug/L		1507428	1507428.312
⌈	Ba	135		ug/L		171	0.000
|	Ba	137	0.047	ug/L	9.455	251	0.000
|>	Lu	175		ug/L		432487	432487.053
|	Tl	205	0.020	ug/L	25.766	2411	0.001
⌊	U	238	-0.011	ug/L	2.285	98	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		115.3			
⌈	Ba	135					
|	Ba	137					
|>	Lu	175		102.4			
|	Tl	205					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, January 03, 2010 09:08:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 6.212

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**44.382**	**ug/L**	2.403	11474	0.008
|>	Sc	45		**ug/L**		1415783	1415783.153
⌈	Ba	135		**ug/L**		66599	0.157
|	Ba	137	**46.035**	**ug/L**	1.694	114125	0.268
|>	Lu	175		**ug/L**		424861	424861.068
|	Tl	205	**49.840**	**ug/L**	3.580	936318	2.200
⌊	U	238	**49.775**	**ug/L**	2.861	2131579	5.017

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9	88.764				
|>	Sc	45		108.3			
⌈	Ba	135					
|	Ba	137	92.071				
|>	Lu	175		100.6			
|	Tl	205	99.680				
⌊	U	238	99.550				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, January 03, 2010 09:10:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be ba tl and u.mth
Dataset File: C:\elandata\Dataset\100102\QC Std 7.213

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.021**	**ug/L**	67.742	17	0.000
>	Sc	45		**ug/L**		1425770	1425770.241
	Ba	135		**ug/L**		60	-0.000
	Ba	137	**-0.006**	**ug/L**	67.278	117	-0.000
>	Lu	175		**ug/L**		429130	429130.362
	Tl	205	**0.505**	**ug/L**	4.281	11580	0.022
	U	238	**0.021**	**ug/L**	2.846	1491	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		109.0			
	Ba	135					
	Ba	137					
>	Lu	175		101.6			
	Tl	205					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Sunday, January 03, 2010 10:01:28
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1642
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2277.6	2277.582	27.167	1.2
	Mg	24.0	25882.0	25882.038	684.700	2.6
	Co	58.9	67090.4	67090.409	1185.498	1.8
	Rh	102.9	129859.6	129859.613	1481.371	1.1
	In	114.9	177226.2	177226.233	1806.265	1.0
	Pb	208.0	209929.6	209929.637	898.413	0.4
⌈>	Ba	137.9	183368.6	183368.590	2019.019	1.1
⌊	Ba++	69.0	3992.4	0.022	0.000	1.1
⌈>	Ce	139.9	218285.6	218285.608	2351.704	1.1
⌊	CeO	155.9	5809.3	0.027	0.001	2.5
	Bkgd	220.0	15.1	15.100	1.294	8.6

Current Optimization File Data

Current Value	Description
0.85	Nebulizer Gas Flow
7.00	Lens Voltage
1450.00	ICP RF Power
-1687.50	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	6.5	4167.9
Co	59	17	7.5	62005.9
In	115	17	8.8	166525.6

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	604	2065	0.571
Be	9.0	9.0	2056	2070	0.601
Mg	24.0	24.0	5697	2070	0.646
Mg	25.0	25.0	5925	2070	0.581
Mg	26.0	25.9	6185	2070	0.622
Co	58.9	58.9	14190	2105	0.614
Rh	102.9	102.9	24879	2165	0.599
In	114.9	114.9	27793	2185	0.606
Ce	139.9	139.9	33877	2200	0.615
Pb	206.0	206.0	49948	2270	0.658
Pb	207.0	207.0	50171	2235	0.670
Pb	208.0	208.0	50451	2260	0.708
U	238.1	238.0	57730	2275	0.727

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, January 03, 2010 10:09:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\Blank.001

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		438103	
⌊	Tl	205		ug/L		2344	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Simple Linear	
Tl	205	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, January 03, 2010 10:14:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\Standard 1.002

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		434769	434769.323
	Tl	205	10.000	ug/L	0.530	240246	0.547

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, January 03, 2010 10:18:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\Standard 2.003

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		419553	419552.544
	Tl	205	99.813	ug/L	1.858	1932904	4.603

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, January 03, 2010 10:23:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\QC Std 1.004

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		424961	424961.312
⌊	Tl	205	51.461	ug/L	0.154	1010779	2.373

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		97.0			
⌊	Tl	205	102.922				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, January 03, 2010 10:27:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\QC Std 2.005

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		430997	430997.056
	Tl	205	0.011	ug/L	22.632	2525	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		98.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, January 03, 2010 10:32:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\QC Std 3.006

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		431636	431636.104
⌊	Tl	205	1.146	ug/L	1.383	25118	0.053

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		98.5			
⌊	Tl	205	114.591				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, January 03, 2010 10:36:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\QC Std 4.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		361704	361703.670
⌊	Tl	205	-0.022	ug/L	26.705	1575	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		82.6			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, January 03, 2010 10:41:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\QC Std 5.008

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		362520	362519.736
	Tl	205	19.611	ug/L	0.513	329780	0.904

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		82.7			
	Tl	205	98.057				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, January 03, 2010 10:45:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\QC Std 6.009

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		437356	437355.838
	Tl	205	47.044	ug/L	1.948	950928	2.169

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		99.8			
	Tl	205	94.089				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, January 03, 2010 10:50:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\QC Std 7.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		431683	431682.913
⌊	Tl	205	0.049	ug/L	5.291	3288	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		98.5			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994283
Sample Date/Time: Sunday, January 03, 2010 10:54:37
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 932308|1|ba|
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\1201994283.011

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		421680	421679.614
	Tl	205	-0.028	ug/L	16.250	1704	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		96.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994284
Sample Date/Time: Sunday, January 03, 2010 10:59:06
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\1201994284.012

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		423731	423730.859
	Tl	205	43.247	ug/L	1.686	847255	1.994

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		96.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242753001
Sample Date/Time: Sunday, January 03, 2010 11:03:34
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\242753001.013

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		427910	427909.958
⌊	Tl	205	**0.226**	**ug/L**	2.313	6743	0.010

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		97.7			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242753002
Sample Date/Time: Sunday, January 03, 2010 11:08:03
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\242753002.014

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		434471	434471.029
⌊	Tl	205	0.044	ug/L	17.444	3211	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		99.2			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994285
Sample Date/Time: Sunday, January 03, 2010 11:12:33
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\1201994285.015

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		447081	447080.655
	Tl	205	-0.013	ug/L	21.692	2132	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		102.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994286
Sample Date/Time: Sunday, January 03, 2010 11:17:04
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\1201994286.016

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		432823	432822.931
⌊	Tl	205	81.312	ug/L	1.227	1625329	3.750

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		98.8			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1201994287
Sample Date/Time: Sunday, January 03, 2010 11:21:33
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 932308|5|ba|
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\1201994287.017

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		445618	445618.017
⌊	Tl	205	0.400	ug/L	2.451	10611	0.018

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		101.7			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, January 03, 2010 11:26:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\QC Std 6.018

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		433609	433608.681
⌊	Tl	205	48.074	ug/L	1.305	963502	2.217

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		99.0			
⌊	Tl	205	96.149				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, January 03, 2010 11:30:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\QC Std 7.019

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		453125	453125.204
	Tl	205	0.115	ug/L	8.998	4826	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
>	Lu	175		103.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242753003
Sample Date/Time: Sunday, January 03, 2010 11:35:03
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\242753003.020

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		445097	445097.485
⌊	Tl	205	0.025	ug/L	20.927	2885	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		101.6			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242753004
Sample Date/Time: Sunday, January 03, 2010 11:39:32
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\242753004.021

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		445099	445098.585
⌊	Tl	205	-0.017	ug/L	24.359	2035	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		101.6			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242753005
Sample Date/Time: Sunday, January 03, 2010 11:44:01
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|ba|
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\242753005.022

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		457174	457173.737
	Tl	205	-0.039	ug/L	12.158	1625	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		104.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242753006
Sample Date/Time: Sunday, January 03, 2010 11:48:31
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|ba|
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\242753006.023

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		455341	455341.498
⌊	Tl	205	-0.045	ug/L	5.441	1485	-0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		103.9			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242753007
Sample Date/Time: Sunday, January 03, 2010 11:53:01
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\242753007.024

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		463417	463417.408
	Tl	205	-0.058	ug/L	4.871	1245	-0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		105.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242753008
Sample Date/Time: Sunday, January 03, 2010 11:57:32
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\242753008.025

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		458527	458527.446
⌊	Tl	205	-0.059	ug/L	3.276	1200	-0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		104.7			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 242753009
Sample Date/Time: Sunday, January 03, 2010 12:02:02
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 932308|1|ba|
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\242753009.026

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		453477	453476.924
⌊	Tl	205	-0.069	ug/L	3.273	986	-0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		103.5			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, January 03, 2010 12:06:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\QC Std 6.027

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		447160	447159.587
⌊	Tl	205	47.800	ug/L	0.895	988054	2.204

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		102.1			
⌊	Tl	205	95.600				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, January 03, 2010 12:11:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100103\QC Std 7.028

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		456156	456155.982
⌊	Tl	205	0.004	ug/L	130.042	2516	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		104.1			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\122409W1.sif
Batch ID:
Results Data Set: 122409W1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: WATER **Method Last Saved: 12/23/2009 07:13:05**
Method Description: 7470A, 245.2, ILM04 ANALYST ETL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 12/24/2009 07:20:40**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0002	0.0004	0.0002	07:21:43	Yes
2		[0.00]	0.0002	0.0001	0.0002	07:22:18	Yes
Mean:		[0.00]	0.0002				
SD:		0.00	0.0000				
%RSD:		0.00	13.00				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 12/24/2009 07:22:36**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0020	0.0096	0.0022	07:23:37	Yes
2		[0.2]	0.0020	0.0097	0.0022	07:24:12	Yes
Mean:		[0.2]	0.0020				
SD:		0.0	0.0000				
%RSD:		0.0	0.48				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01011 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 12/24/2009 07:24:31**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0050	0.0236	0.0052	07:25:32	Yes
2		[0.5]	0.0050	0.0236	0.0052	07:26:07	Yes
Mean:		[0.5]	0.0050				
SD:		0.0	0.0000				
%RSD:		0.0	0.02				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999999 Slope: 0.01009 Intercept: 0.00000

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 12/24/2009 07:26:26**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0203	0.0932	0.0205	07:27:28	Yes
2		[2.0]	0.0201	0.0916	0.0203	07:28:02	Yes
Mean:		[2.0]	0.0202				
SD:		0.0	0.0002				
%RSD:		0.0	0.84				

Standard number 3 applied. [2.0]
Correlation Coef.: 1.000000 Slope: 0.01011 Intercept: -0.00000

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 12/24/2009 07:28:22**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0503	0.2305	0.0505	07:29:24	Yes
2		[5.0]	0.0497	0.2274	0.0499	07:29:59	Yes
Mean:		[5.0]	0.0500				
SD:		0.0	0.0004				
%RSD:		0.0	0.76				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999991 Slope: 0.01000 Intercept: 0.00005

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 12/24/2009 07:30:19**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1009	0.4641	0.1011	07:31:19	Yes
2		[10.0]	0.1000	0.4602	0.1002	07:31:54	Yes
Mean:		[10.0]	0.1005				
SD:		0.0	0.0006				
%RSD:		0.0	0.59				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999996 Slope: 0.01004 Intercept: 0.00001

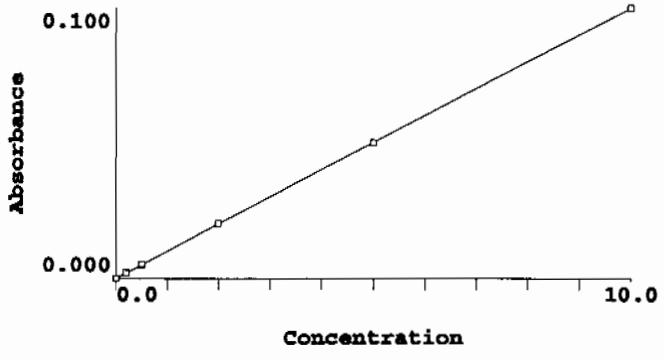

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.001	0.00	13.0
S0.2	0.0020	0.2	0.200	0.00	0.5
S0.5	0.0050	0.5	0.501	0.00	0.0
S2.0	0.0202	2.0	2.012	0.00	0.8

S5.0	0.0500	5.0	4.981	0.00	0.8
S10.0	0.1005	10.0	10.007	0.00	0.6

Correlation Coef.: 0.999996 Slope: 0.01004 Intercept: 0.00001

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 12/24/2009 07:32:13**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.157	5.157	0.0518	0.2378	0.0520	07:33:14	Yes
2	5.143	5.143	0.0516	0.2375	0.0518	07:33:49	Yes
Mean:	5.150	5.150	0.0517				
SD:	0.010	0.010	0.0001				
%RSD:	0.192	0.192	0.19				

QC value within limits for Hg 253.7 Recovery = 103.01%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 12/24/2009 07:34:08**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.010	0.010	0.0001	0.0018	0.0003	07:35:10	Yes
2	0.009	0.009	0.0001	0.0020	0.0003	07:35:45	Yes
Mean:	0.010	0.010	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	2.313	2.313	2.00				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 12/24/2009 07:36:04**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.217	0.217	0.0022	0.0122	0.0024	07:37:06	Yes
2	0.222	0.222	0.0022	0.0124	0.0024	07:37:41	Yes
Mean:	0.220	0.220	0.0022				
SD:	0.003	0.003	0.0000				
%RSD:	1.383	1.383	1.37				

QC value within limits for Hg 253.7 Recovery = 109.75%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/24/2009 07:38:01**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.057	5.057	0.0508	0.2320	0.0510	07:39:01	Yes
2	5.033	5.033	0.0505	0.2306	0.0507	07:39:36	Yes
Mean:	5.045	5.045	0.0507				
SD:	0.017	0.017	0.0002				
%RSD:	0.337	0.337	0.34				

QC value within limits for Hg 253.7 Recovery = 100.90%
All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 12/24/2009 07:39:55
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	-0.0000	0.0004	0.0002	07:40:56	Yes
2	-0.001	-0.001	0.0000	0.0003	0.0002	07:41:30	Yes
Mean:	-0.002	-0.002	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	20.83	20.83	185.80				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12
Sample ID: 1202001626|936217|1
Analyst: ETL
Autosampler Location: 12
Date Collected: 12/24/2009 07:41:50
Data Type: Original

Replicate Data: 1202001626|936217|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.005	-0.005	-0.0000	-0.0000	0.0002	07:42:51	Yes
2	-0.007	-0.007	-0.0001	-0.0003	0.0001	07:43:26	Yes
Mean:	-0.006	-0.006	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	28.85	28.85	38.22				

Sequence No.: 13
Sample ID: 1202003230|936217|1
Analyst: ETL
Autosampler Location: 13
Date Collected: 12/24/2009 07:43:46
Data Type: Original

Replicate Data: 1202003230|936217|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.006	-0.006	-0.0000	0.0001	0.0001	07:44:48	Yes
2	-0.005	-0.005	-0.0000	0.0002	0.0002	07:45:23	Yes
Mean:	-0.005	-0.005	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	17.00	17.00	23.52				

Sequence No.: 14
Sample ID: 1202003231|936217|1
Analyst: ETL
Autosampler Location: 14
Date Collected: 12/24/2009 07:45:43
Data Type: Original

Replicate Data: 1202003231|936217|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.042	2.042	0.0205	0.0951	0.0207	07:46:44	Yes
2	2.055	2.055	0.0206	0.0956	0.0208	07:47:18	Yes
Mean:	2.049	2.049	0.0206				
SD:	0.009	0.009	0.0001				
%RSD:	0.449	0.449	0.45				

Sequence No.: 15
Sample ID: 243259001|936217|1
Analyst: ETL
Autosampler Location: 15
Date Collected: 12/24/2009 07:47:37
Data Type: Original

Replicate Data: 243259001|936217|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 243259003|936217|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0000	0.0007	0.0002	07:58:11	Yes
2	0.000	0.000	0.0000	0.0008	0.0002	07:58:45	Yes
Mean:	0.000	0.000	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	149.8	149.8	26.02				

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 1202000254|934913|1 **Date Collected: 12/24/2009 07:59:05**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000254|934913|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	0.0000	0.0010	0.0002	08:00:06	Yes
2	-0.001	-0.001	0.0000	0.0010	0.0002	08:00:41	Yes
Mean:	0.000	0.000	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	>999.9%	>999.9%	73.42				

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/24/2009 08:01:00**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.088	5.088	0.0511	0.2353	0.0513	08:02:01	Yes
2	5.060	5.060	0.0508	0.2338	0.0510	08:02:35	Yes
Mean:	5.074	5.074	0.0509				
SD:	0.020	0.020	0.0002				
%RSD:	0.390	0.390	0.39				

QC value within limits for Hg 253.7 Recovery = 101.48%
All analyte(s) passed QC.

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/24/2009 08:02:54**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0000	0.0010	0.0002	08:03:55	Yes
2	0.001	0.001	0.0000	0.0011	0.0002	08:04:30	Yes
Mean:	0.002	0.002	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	35.05	35.05	19.42				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 1202000256|934913|1 **Date Collected: 12/24/2009 08:04:50**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000256|934913|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.060	2.060	0.0207	0.0957	0.0209	08:05:51	Yes
2	2.046	2.046	0.0205	0.0946	0.0207	08:06:26	Yes

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.082	2.082	0.0209	0.0972	0.0211	08:15:31	Yes
2	2.067	2.067	0.0208	0.0963	0.0209	08:16:06	Yes
Mean:	2.075	2.075	0.0208				
SD:	0.011	0.011	0.0001				
%RSD:	0.527	0.527	0.53				

==========

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 242789001|934892|1 **Date Collected: 12/24/2009 08:16:25**
Analyst: ETL **Data Type: Original**

Replicate Data: 242789001|934892|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.003	0.003	0.0000	0.0010	0.0002	08:17:26	Yes
2	0.003	0.003	0.0000	0.0009	0.0002	08:18:01	Yes
Mean:	0.003	0.003	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	11.19	11.19	7.40				

==========

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 1202000221|934892|1 **Date Collected: 12/24/2009 08:18:20**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000221|934892|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0001	0.0012	0.0002	08:19:21	Yes
2	0.006	0.006	0.0001	0.0012	0.0003	08:19:57	Yes
Mean:	0.005	0.005	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	17.45	17.45	13.55				

==========

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 1202000222|934892|1 **Date Collected: 12/24/2009 08:20:16**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000222|934892|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.021	2.021	0.0203	0.0940	0.0205	08:21:16	Yes
2	2.016	2.016	0.0202	0.0936	0.0204	08:21:51	Yes
Mean:	2.018	2.018	0.0203				
SD:	0.004	0.004	0.0000				
%RSD:	0.196	0.196	0.20				

==========

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 1202000223|934892|5 **Date Collected: 12/24/2009 08:22:10**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000223|934892|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	0.0000	0.0007	0.0002	08:23:11	Yes
2	-0.016	-0.016	-0.0001	-0.0001	0.0000	08:23:46	Yes
Mean:	-0.008	-0.008	-0.0001				
SD:	0.012	0.012	0.0001				
%RSD:	154.9	154.9	192.46				

==========

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/24/2009 08:24:05**

Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.028	5.028	0.0505	0.2339	0.0507	08:25:05	Yes
2	5.033	5.033	0.0505	0.2337	0.0507	08:25:40	Yes
Mean:	5.031	5.031	0.0505				
SD:	0.003	0.003	0.0000				
%RSD:	0.060	0.060	0.06				

QC value within limits for Hg 253.7 Recovery = 100.61%
All analyte(s) passed QC.

Sequence No.: 35 Autosampler Location: 8
Sample ID: CCB Date Collected: 12/24/2009 08:25:59
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0000	0.0008	0.0002	08:27:00	Yes
2	0.001	0.001	0.0000	0.0007	0.0002	08:27:35	Yes
Mean:	0.001	0.001	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	43.47	43.47	19.13				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 Autosampler Location: 32
Sample ID: 242789002|934892|1 Date Collected: 12/24/2009 08:27:54
Analyst: ETL Data Type: Original

Replicate Data: 242789002|934892|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	0.0000	0.0009	0.0002	08:28:55	Yes
2	0.004	0.004	0.0001	0.0011	0.0002	08:29:30	Yes
Mean:	0.002	0.002	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	94.84	94.84	55.90				

Sequence No.: 37 Autosampler Location: 33
Sample ID: 242789003|934892|1 Date Collected: 12/24/2009 08:29:49
Analyst: ETL Data Type: Original

Replicate Data: 242789003|934892|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.001	0.001	0.0000	0.0011	0.0002	08:30:51	Yes
2	0.000	0.000	0.0000	0.0007	0.0002	08:31:25	Yes
Mean:	0.000	0.000	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	404.6	404.6	61.87				

Sequence No.: 38 Autosampler Location: 34
Sample ID: 1202000191|934876|1 Date Collected: 12/24/2009 08:31:45
Analyst: ETL Data Type: Original

Replicate Data: 1202000191|934876|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.005	0.005	0.0001	0.0013	0.0003	08:32:46	Yes

Replicate Data: 242653002|934876|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0000	0.0009	0.0002	08:42:28	Yes
2	0.001	0.001	0.0000	0.0011	0.0002	08:43:02	Yes
Mean:	0.001	0.001	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	67.74	67.74	21.18				

==========

Sequence No.: 44 Autosampler Location: 40
Sample ID: 242667001|934876|1 Date Collected: 12/24/2009 08:43:22
Analyst: ETL Data Type: Original

Replicate Data: 242667001|934876|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	-0.0000	0.0009	0.0002	08:44:23	Yes
2	-0.001	-0.001	0.0000	0.0008	0.0002	08:44:58	Yes
Mean:	-0.002	-0.002	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	36.84	36.84	724.83				

==========

Sequence No.: 45 Autosampler Location: 41
Sample ID: 1202000193|934876|1 Date Collected: 12/24/2009 08:45:17
Analyst: ETL Data Type: Original

Replicate Data: 1202000193|934876|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.002	0.002	0.0000	0.0011	0.0002	08:46:18	Yes
2	0.000	0.000	0.0000	0.0009	0.0002	08:46:53	Yes
Mean:	0.001	0.001	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	129.3	129.3	54.02				

==========

Sequence No.: 46 Autosampler Location: 7
Sample ID: CCV Date Collected: 12/24/2009 08:47:12
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.870	4.870	0.0489	0.2275	0.0491	08:48:13	Yes
2	4.883	4.883	0.0490	0.2274	0.0492	08:48:48	Yes
Mean:	4.877	4.877	0.0490				
SD:	0.010	0.010	0.0001				
%RSD:	0.196	0.196	0.20				

QC value within limits for Hg 253.7 Recovery = 97.53%
All analyte(s) passed QC.

==========

Sequence No.: 47 Autosampler Location: 8
Sample ID: CCB Date Collected: 12/24/2009 08:49:07
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	-0.0000	0.0007	0.0002	08:50:08	Yes
2	-0.003	-0.003	-0.0000	0.0006	0.0002	08:50:42	Yes
Mean:	-0.002	-0.002	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	33.07	33.07	102.38				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 48 Autosampler Location: 42
Sample ID: 1202000194|934876|1 Date Collected: 12/24/2009 08:51:02
Analyst: ETL Data Type: Original

Replicate Data: 1202000194|934876|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.961	1.961	0.0197	0.0921	0.0199	08:52:03	Yes
2	1.947	1.947	0.0196	0.0915	0.0197	08:52:38	Yes
Mean:	1.954	1.954	0.0196				
SD:	0.011	0.011	0.0001				
%RSD:	0.539	0.539	0.54				

Sequence No.: 49 Autosampler Location: 43
Sample ID: 1202000195|934876|5 Date Collected: 12/24/2009 08:52:57
Analyst: ETL Data Type: Original

Replicate Data: 1202000195|934876|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.000	0.000	0.0000	0.0007	0.0002	08:53:58	Yes
2	0.001	0.001	0.0000	0.0010	0.0002	08:54:33	Yes
Mean:	0.000	0.000	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	437.3	437.3	56.52				

Sequence No.: 50 Autosampler Location: 44
Sample ID: 242667002|934876|1 Date Collected: 12/24/2009 08:54:52
Analyst: ETL Data Type: Original

Replicate Data: 242667002|934876|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	-0.0000	0.0006	0.0002	08:55:53	Yes
2	-0.001	-0.001	0.0000	0.0011	0.0002	08:56:28	Yes
Mean:	-0.003	-0.003	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	70.39	70.39	169.62				

Sequence No.: 51 Autosampler Location: 45
Sample ID: 1202000201|934884|1 Date Collected: 12/24/2009 08:56:47
Analyst: ETL Data Type: Original

Replicate Data: 1202000201|934884|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	0.0000	0.0010	0.0002	08:57:48	Yes
2	-0.003	-0.003	-0.0000	0.0006	0.0002	08:58:23	Yes
Mean:	-0.002	-0.002	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	60.25	60.25	160.17				

Sequence No.: 52 Autosampler Location: 46
Sample ID: 1202000202|934884|1 Date Collected: 12/24/2009 08:58:43
Analyst: ETL Data Type: Original

Replicate Data: 1202000202|934884|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	1.971	1.971	0.0198	0.0931	0.0200	08:59:44	Yes
2	1.969	1.969	0.0198	0.0927	0.0200	09:00:19	Yes
Mean:	1.970	1.970	0.0198				
SD:	0.001	0.001	0.0000				
%RSD:	0.040	0.040	0.04				

Sequence No.: 53 **Autosampler Location: 47**
Sample ID: 242753001|934884|1 **Date Collected: 12/24/2009 09:00:39**
Analyst: ETL **Data Type: Original**

Replicate Data: 242753001|934884|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.005	-0.005	-0.0000	0.0004	0.0002	09:01:40	Yes
2	-0.004	-0.004	-0.0000	0.0005	0.0002	09:02:15	Yes
Mean:	-0.004	-0.004	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	17.42	17.42	27.03				

Sequence No.: 54 **Autosampler Location: 48**
Sample ID: 1202000203|934884|1 **Date Collected: 12/24/2009 09:02:35**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000203|934884|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.005	-0.005	-0.0000	0.0004	0.0002	09:03:36	Yes
2	-0.002	-0.002	-0.0000	0.0009	0.0002	09:04:11	Yes
Mean:	-0.003	-0.003	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	71.07	71.07	136.92				

Sequence No.: 55 **Autosampler Location: 49**
Sample ID: 1202000204|934884|1 **Date Collected: 12/24/2009 09:04:31**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000204|934884|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.001	2.001	0.0201	0.0942	0.0203	09:05:33	Yes
2	1.983	1.983	0.0199	0.0933	0.0201	09:06:08	Yes
Mean:	1.992	1.992	0.0200				
SD:	0.013	0.013	0.0001				
%RSD:	0.630	0.630	0.63				

Sequence No.: 56 **Autosampler Location: 50**
Sample ID: 1202000205|934884|5 **Date Collected: 12/24/2009 09:06:28**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000205|934884|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	0.0000	0.0008	0.0002	09:07:29	Yes
2	-0.002	-0.002	-0.0000	0.0008	0.0002	09:08:04	Yes
Mean:	-0.002	-0.002	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	34.34	34.34	160.83				

Sequence No.: 57 **Autosampler Location: 51**
Sample ID: 242753002|934884|1 **Date Collected: 12/24/2009 09:08:24**
Analyst: ETL **Data Type: Original**

Replicate Data: 242753002|934884|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	0.0000	0.0008	0.0002	09:09:25	Yes
2	-0.003	-0.003	-0.0000	0.0006	0.0002	09:10:00	Yes
Mean:	-0.002	-0.002	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	71.93	71.93	235.96				

Sequence No.: 58 Autosampler Location: 7
Sample ID: CCV Date Collected: 12/24/2009 09:10:19
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.967	4.967	0.0499	0.2311	0.0501	09:11:20	Yes
2	4.930	4.930	0.0495	0.2291	0.0497	09:11:55	Yes
Mean:	4.948	4.948	0.0497				
SD:	0.026	0.026	0.0003				
%RSD:	0.535	0.535	0.54				

QC value within limits for Hg 253.7 Recovery = 98.97%
All analyte(s) passed QC.

Sequence No.: 59 Autosampler Location: 8
Sample ID: CCB Date Collected: 12/24/2009 09:12:13
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	-0.0000	0.0006	0.0002	09:13:14	Yes
2	-0.002	-0.002	-0.0000	0.0008	0.0002	09:13:49	Yes
Mean:	-0.002	-0.002	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	11.96	11.96	32.18				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 60 Autosampler Location: 52
Sample ID: 242753003|934884|1 Date Collected: 12/24/2009 09:14:08
Analyst: ETL Data Type: Original

Replicate Data: 242753003|934884|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	0.0000	0.0008	0.0002	09:15:09	Yes
2	-0.001	-0.001	0.0000	0.0009	0.0002	09:15:45	Yes
Mean:	-0.001	-0.001	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	18.43	18.43	75.07				

Sequence No.: 61 Autosampler Location: 53
Sample ID: 242753004|934884|1 Date Collected: 12/24/2009 09:16:04
Analyst: ETL Data Type: Original

Replicate Data: 242753004|934884|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	-0.0000	0.0008	0.0002	09:17:05	Yes
2	-0.002	-0.002	-0.0000	0.0007	0.0002	09:17:40	Yes
Mean:	-0.002	-0.002	-0.0000				

SD:	0.000	0.000	0.0000
%RSD:	17.86	17.86	74.52

==========

Sequence No.: 62 Autosampler Location: 54
Sample ID: 242753005|934884|1 Date Collected: 12/24/2009 09:18:00
Analyst: ETL Data Type: Original

Replicate Data: 242753005|934884|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	-0.0000	0.0007	0.0002	09:19:01	Yes
2	0.000	0.000	0.0000	0.0012	0.0002	09:19:36	Yes
Mean:	-0.002	-0.002	-0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	163.3	163.3	>999.9%				

==========

Sequence No.: 63 Autosampler Location: 55
Sample ID: 242753006|934884|1 Date Collected: 12/24/2009 09:19:55
Analyst: ETL Data Type: Original

Replicate Data: 242753006|934884|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	-0.0000	0.0007	0.0002	09:20:56	Yes
2	-0.003	-0.003	-0.0000	0.0008	0.0002	09:21:31	Yes
Mean:	-0.003	-0.003	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	23.60	23.60	45.56				

==========

Sequence No.: 64 Autosampler Location: 56
Sample ID: 242753007|934884|1 Date Collected: 12/24/2009 09:21:51
Analyst: ETL Data Type: Original

Replicate Data: 242753007|934884|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	-0.0000	0.0007	0.0002	09:22:52	Yes
2	-0.004	-0.004	-0.0000	0.0007	0.0002	09:23:27	Yes
Mean:	-0.004	-0.004	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	1.951	1.951	3.07				

==========

Sequence No.: 65 Autosampler Location: 57
Sample ID: 242753008|934884|1 Date Collected: 12/24/2009 09:23:46
Analyst: ETL Data Type: Original

Replicate Data: 242753008|934884|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	-0.0000	0.0006	0.0002	09:24:47	Yes
2	-0.001	-0.001	0.0000	0.0011	0.0002	09:25:22	Yes
Mean:	-0.002	-0.002	-0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	110.3	110.3	289.32				

==========

Sequence No.: 66 Autosampler Location: 58
Sample ID: 242753009|934884|1 Date Collected: 12/24/2009 09:25:42
Analyst: ETL Data Type: Original

Replicate Data: 242753009|934884|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.004	0.004	0.0001	0.0009	0.0002	09:26:43	Yes
2	0.006	0.006	0.0001	0.0013	0.0003	09:27:18	Yes
Mean:	0.005	0.005	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	23.32	23.32	17.94				

==========

Sequence No.: 67 **Autosampler Location: 59**
Sample ID: 1202000196|934879|1 **Date Collected: 12/24/2009 09:27:38**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000196|934879|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	0.0000	0.0007	0.0002	09:28:40	Yes
2	0.001	0.001	0.0000	0.0011	0.0002	09:29:14	Yes
Mean:	0.000	0.000	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	598.5	598.5	75.83				

==========

Sequence No.: 68 **Autosampler Location: 60**
Sample ID: 1202000197|934879|1 **Date Collected: 12/24/2009 09:29:34**
Analyst: ETL **Data Type: Original**

Replicate Data: 1202000197|934879|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.970	1.970	0.0198	0.0919	0.0200	09:30:36	Yes
2	1.967	1.967	0.0198	0.0918	0.0199	09:31:11	Yes
Mean:	1.968	1.968	0.0198				
SD:	0.002	0.002	0.0000				
%RSD:	0.096	0.096	0.10				

==========

Sequence No.: 69 **Autosampler Location: 61**
Sample ID: 242734001|934879|1 **Date Collected: 12/24/2009 09:31:31**
Analyst: ETL **Data Type: Original**

Replicate Data: 242734001|934879|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.004	0.004	0.0001	0.0013	0.0002	09:32:33	Yes
2	0.000	0.000	0.0000	0.0009	0.0002	09:33:07	Yes
Mean:	0.002	0.002	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	154.9	154.9	84.22				

==========

Sequence No.: 70 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/24/2009 09:33:28**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.042	5.042	0.0506	0.2301	0.0508	09:34:28	Yes
2	5.006	5.006	0.0503	0.2293	0.0504	09:35:03	Yes
Mean:	5.024	5.024	0.0504				
SD:	0.026	0.026	0.0003				
%RSD:	0.514	0.514	0.51				

QC value within limits for Hg 253.7 Recovery = 100.48%
All analyte(s) passed QC.

==========

Sequence No.: 71 **Autosampler Location: 8**

Sample ID: CCB
Analyst:
Date Collected: 12/24/2009 09:35:22
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.001	-0.001	0.0000	0.0009	0.0002	09:36:23	Yes
2	-0.001	-0.001	0.0000	0.0007	0.0002	09:36:58	Yes
Mean:	-0.001	-0.001	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	41.28	41.28	54.04				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 72
Sample ID: 1202000198|934879|1
Analyst: ETL
Autosampler Location: 62
Date Collected: 12/24/2009 09:37:17
Data Type: Original

Replicate Data: 1202000198|934879|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	-0.0000	0.0007	0.0002	09:38:18	Yes
2	0.000	0.000	0.0000	0.0008	0.0002	09:38:53	Yes
Mean:	-0.001	-0.001	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	114.5	114.5	>999.9%				

Sequence No.: 73
Sample ID: 1202000199|934879|1
Analyst: ETL
Autosampler Location: 63
Date Collected: 12/24/2009 09:39:13
Data Type: Original

Replicate Data: 1202000199|934879|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.022	2.022	0.0203	0.0931	0.0205	09:40:14	Yes
2	2.023	2.023	0.0203	0.0927	0.0205	09:40:49	Yes
Mean:	2.023	2.023	0.0203				
SD:	0.001	0.001	0.0000				
%RSD:	0.029	0.029	0.03				

Sequence No.: 74
Sample ID: 1202000200|934879|5
Analyst: ETL
Autosampler Location: 64
Date Collected: 12/24/2009 09:41:08
Data Type: Original

Replicate Data: 1202000200|934879|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	-0.0000	0.0005	0.0002	09:42:10	Yes
2	-0.003	-0.003	-0.0000	0.0007	0.0002	09:42:44	Yes
Mean:	-0.003	-0.003	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	14.97	14.97	27.16				

Sequence No.: 75
Sample ID: 242734002|934879|1
Analyst: ETL
Autosampler Location: 65
Date Collected: 12/24/2009 09:43:04
Data Type: Original

Replicate Data: 242734002|934879|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.005	-0.005	-0.0000	0.0005	0.0002	09:44:05	Yes
2	0.000	0.000	0.0000	0.0010	0.0002	09:44:40	Yes

Miscellaneous

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 932265

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201994197	UI091124-01	.25	mL
LCS	1201994197	UI091124-06	.25	mL
MS	1201994199	UI091124-01	.25	mL
MS	1201994199	UI091124-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201994196		SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
LCS	1201994197		SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	242753001		SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
DUP	1201994198	242753001	SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
MS	1201994199	242753001	SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
SDILT	1201994200	242753001	SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	242753002		SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	242753003		SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	242753004		SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	242753005		SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	242753006		SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	242753007		SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	242753008		SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	242753009		SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER

Reagent/Solvent Lot ID	Amount	Description
1215803	2.5 mL	HYDROCHLORIC ACID
1230937	1 mL	Nitric Acid CONC.

Comments

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 932307

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201994284	UI091124-A00	.5	mL
LCS	1201994284	UI091124-B	.5	mL
MS	1201994286	UI090828-A	.5	mL
MS	1201994286	UI090828-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201994283		SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
LCS	1201994284		SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	242753001		SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	242753002		SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
DUP	1201994285	242753002	SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
MS	1201994286	242753002	SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
SDILT	1201994287	242753002	SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	242753003		SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	242753004		SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	242753005		SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	242753006		SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	242753007		SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	242753008		SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	242753009		SW846 3005A	18-DEC-2009 12:30	<2	50 mL	50 mL	1	GROUND WATER

Reagent/Solvent Lot ID	Amount	Description
1215803	2.5 mL	HYDROCHLORIC ACID
1230937	1 mL	Nitric Acid CONC.

Comments:

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 934882

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202000202	WHG091223-13	.2	mL
MS	1202000204	WHG091223-13	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202000201		EPA 245.1/245.2 Prep	23-DEC-2009 11:20	<2	20 mL	20 mL	1	GROUND WATER
LCS	1202000202		EPA 245.1/245.2 Prep	23-DEC-2009 11:20	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	242753001		EPA 245.1/245.2 Prep	23-DEC-2009 11:20	<2	20 mL	20 mL	1	GROUND WATER
DUP	1202000203	242753001	EPA 245.1/245.2 Prep	23-DEC-2009 11:20	<2	20 mL	20 mL	1	GROUND WATER
MS	1202000204	242753001	EPA 245.1/245.2 Prep	23-DEC-2009 11:20	<2	20 mL	20 mL	1	GROUND WATER
SDILT	1202000205	242753001	EPA 245.1/245.2 Prep	23-DEC-2009 11:20	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	242753002		EPA 245.1/245.2 Prep	23-DEC-2009 11:20	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	242753003		EPA 245.1/245.2 Prep	23-DEC-2009 11:20	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	242753004		EPA 245.1/245.2 Prep	23-DEC-2009 11:20	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	242753005		EPA 245.1/245.2 Prep	23-DEC-2009 11:20	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	242753006		EPA 245.1/245.2 Prep	23-DEC-2009 11:20	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	242753007		EPA 245.1/245.2 Prep	23-DEC-2009 11:20	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	242753008		EPA 245.1/245.2 Prep	23-DEC-2009 11:20	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	242753009		EPA 245.1/245.2 Prep	23-DEC-2009 11:20	<2	20 mL	20 mL	1	GROUND WATER

Reagent/Solvent Lot ID	Amount	Description
1176183	1 mL	Sulfuric Acid, Concentrated
1240182-1	.5 mL	NITRIC ACID
1234385-C	1.5 mL	5% Potassium Persulfate
1244904-C	3 mL	5% KMnO4 solution
1206350-C	1 mL	Hg reducing agent
WHG091223-06	500 uL	Mercury Working 2nd Source 5.0/ICV
WHG091223-01	20 uL	Mercury Working 1st Source CAL 0.2/CRA
WHG091223-02	50 mL	Mercury Working 1st Source CAL 0.5
WHG091223-05	1 mL	Mercury Working 1st Source CAL 10.0
WHG091223-03	200 uL	Mercury Working 1st Source CAL 2.0
WHG091223-04	500 uL	Mercury Working 1st Source CAL 5.0/CCV

Comments: Digestion Start Date: 23-DEC-09 11:20
Digestion End Date: 23-DEC-09 13:20

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL Sta **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: O2SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090828-A **Opened:** 28-AUG-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 28-AUG-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE liquid Spike Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L

Analyte	Concentration	Analyte	Concentration
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI090828-B **Opened:** 28-AUG-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 28-AUG-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE

Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

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Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091124-01 **Opened:** 24-NOV-09 **Lot Number :** 1017642
Name: METALSPIKE-1 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Standard Logbook

Serial ID: UI091124-06 **Opened:** 24-NOV-09 **Lot Number :** 1017643
Name: METALSPIKE-2 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI091124-A00 **Opened:** 24-NOV-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 24-NOV-09 **Lot Number :** 1017644
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091124-B **Opened:** 24-NOV-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 24-NOV-09 **Lot Number :** 1017644
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091130-48 **Opened:** 11-DEC-09 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 01-DEC-09 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 01-JAN-10 **Lot Number :** 1018045
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI091211-40 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L

Analyte	Concentration	Analyte	Concentration
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI091211-41 **Opened:** 11-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 09-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 11-DEC-10 **Lot Number :** 1017958
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI091212-11 **Opened:** 12-DEC-09 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 12-DEC-09 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1015303
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L

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Analyte	Concentration	Analyte	Concentration
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI091228-40 **Opened:** 28-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 21-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-DEC-10 **Lot Number :** 1018160
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI091228-41 **Opened:** 28-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 21-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-DEC-10 **Lot Number :** 1018160
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L

Analyte	Concentration	Analyte	Concentration
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UMS090303-01. **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG091222-01 **Opened:** 22-DEC-09 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 22-DEC-09 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 23-DEC-09 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG091222-02 **Opened:** 22-DEC-09 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 23-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG091223-01 **Opened:** 23-DEC-09 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 23-DEC-09 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 24-DEC-09 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG091223-02 **Opened:** 23-DEC-09 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 24-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

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Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG091222-07 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG091222-08 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG091222-09 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG091222-10 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG091222-11 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-01	Mercury	200 ug/L	1500 uL	30 mL	10 ug/L

Serial ID: WHG091222-12 **Opened:** 22-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 22-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 28-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091222-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG091223-01 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG091223-02 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG091223-03 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG091223-04 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG091223-05 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG091223-06 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG091223-07 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG091223-08 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG091223-09 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG091223-10 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG091223-11 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-01	Mercury	200 ug/L	1500 uL	30 mL	10 ug/L

Serial ID: WHG091223-12 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG091223-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG091223-13 **Opened:** 23-DEC-09 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 23-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 29-DEC-09
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI091220-42 **Opened:** 20-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 21-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI091220-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091220-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091220-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091220-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091220-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI091220-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091220-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI091220-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI091220-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091220-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI091220-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091220-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI091220-43 **Opened:** 20-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 21-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI091220-44 **Opened:** 20-DEC-09 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 21-DEC-09 **Solvent :** 3%HCL and 1 %HNO3-1242318
Employee: Helen Carnello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI091220-45 **Opened:** 20-DEC-09 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 21-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1242318
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Standard Logbook

Serial ID: WI091220-46 **Opened:** 20-DEC-09 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 21-DEC-09 **Solvent :** 3%HCL AND 1%HNO3-1242318
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Standard Logbook

Serial ID: WI091220-47 **Opened:** 20-DEC-09 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 21-DEC-09 **Solvent :** 3%HCL &1%HNO3-1242318
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI091229-42 **Opened:** 29-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 30-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1247358
Employee: Helen Camello
Supplier: GEL

Standard Logbook

Description: TRACE ICP 0.1 PPM CALIBRATION STD.

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI091229-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091229-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091229-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091229-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091229-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI091229-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091229-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI091229-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI091229-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091229-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI091229-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI091229-43 **Opened:** 29-DEC-09 **Balance Id :** 216

Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667

Type: Working **Expires:** 30-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1247358

Employee: Helen Camello

Supplier: GEL

Description: TRACE ICP 0.5/CCV CALIBRATION STD.

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI091229-44 **Opened:** 29-DEC-09 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 30-DEC-09 **Solvent :** 3%HCL and 1 %HNO3-1247358
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI091229-45 **Opened:** 29-DEC-09 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 30-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1247358
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Standard Logbook

Serial ID: WI091229-46 **Opened:** 29-DEC-09 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 30-DEC-09 **Solvent :** 3%HCL AND 1%HNO3-1247358
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Standard Logbook

Serial ID: WI091229-47 **Opened:** 29-DEC-09 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 30-DEC-09 **Solvent :** 3%HCL &1%HNO3-1247358
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100102-04 **Opened:** 02-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 02-JAN-10 **Balance Id :** 4025216
Type: Working **Expires:** 03-JAN-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1247304
Supplier: GEL

Standard Logbook

Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100102-04A **Opened:** 02-JAN-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 02-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 03-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100102-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100102-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100102-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100102-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100102-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100102-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100102-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100102-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100102-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100102-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100102-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100102-05 **Opened:** 02-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 02-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 03-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100102-06 **Opened:** 02-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 02-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 03-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100102-07 **Opened:** 02-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 02-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 03-JAN-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1247304
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100102-08 **Opened:** 02-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 02-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 03-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS100102-70 **Opened:** 02-JAN-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 02-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 03-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100103-04 **Opened:** 03-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 03-JAN-10 **Balance Id :** 4025216
Type: Working **Expires:** 04-JAN-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1247304
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Serial ID: WMS100103-04A **Opened:** 03-JAN-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 03-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 04-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100103-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100103-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100103-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100103-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100103-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100103-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100103-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100103-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100103-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100103-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Serial ID: WMS100103-05 **Opened:** 03-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 03-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 04-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100103-06 **Opened:** 03-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 03-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 04-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100103-07 **Opened:** 03-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 03-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 04-JAN-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1247304
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100103-08 **Opened:** 03-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 03-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 04-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1164796-A **Opened:** 06-AUG-09 **Lot Number :** 49149927
Name: B-NH2OH.HCl-MER **Received:** 06-AUG-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Standard Logbook

Serial ID: 1206350-C **Opened:** 22-OCT-09 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 22-OCT-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1164796-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1215803 **Opened:** 06-NOV-09 **Lot Number :** H39037
Name: I-HCL **Received:** 06-NOV-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Anthony Green
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Serial ID: 1230937 **Opened:** 18-NOV-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 18-NOV-09
Type: Reagent/Solvent **Expires:** 18-NOV-10
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1234385-C **Opened:** 25-NOV-09 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 25-NOV-09
Type: Reagent/Solvent **Expires:** 25-MAY-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1238345 **Opened:** 04-DEC-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 04-DEC-09
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1240182-1 **Opened:** 09-DEC-09 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 09-DEC-09 **Lot Number :** H34040
Type: Reagent/Solvent **Expires:** 09-DEC-10
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1242318 **Opened:** 14-DEC-09 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 01-DEC-09 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 20-DEC-09 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1244904-C **Opened:** 18-DEC-09 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 18-DEC-09
Type: Reagent/Solvent **Expires:** 18-JUN-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1244970 **Opened:** 18-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 18-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 18-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER

Standard Logbook

Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1247304 **Opened:** 28-DEC-09 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 28-DEC-09
Type: Reagent/Solvent **Expires:** 04-JAN-10
Employee: Elizabeth Janssen
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-881

Method/Analysis Information

Product: **Specific Conductivity**

Analytical Batch: 932677 **Method:** EPA 120.1

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 120.1:

Sample ID	Client ID
242753002	CAPA-10-6349
242753004	CAPA-10-6372
242753006	CAPA-10-6798
242753008	CAPA-10-6801
242753009	CAPA-10-6901
1201995203	242753002(CAPA-10-6349) Sample Duplicate (DUP)
1201995204	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-009 REV# 9.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Conductivity analysis was performed on a Orion 160 Conductivity Meter.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following sample was selected for QC analysis: 242753002 (CAPA-10-6349).

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

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

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

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

Method/Analysis Information

Product: pH

Analytical Batch: 932671 **Method:** EPA 150.1

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 150.1:

Sample ID	Client ID
242753002	CAPA-10-6349
242753004	CAPA-10-6372
242753006	CAPA-10-6798
242753008	CAPA-10-6801
242753009	CAPA-10-6901
1201995200	242789003(CAPA-10-6759) Sample Duplicate (DUP)
1201995202	Laboratory Control Sample (LCS)
1201995482	242651001(CAPA-10-6376) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-008 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Electrode analysis was performed on a PerpHect pH Meter Orion 370.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 242651001 (CAPA-10-6376) and 242789003 (CAPA-10-6759).

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
The following samples from this sample group were received by the lab outside of the method specified holding time: 1201995200 (CAPA-10-6759), 1201995482 (CAPA-10-6376), 242753002 (CAPA-10-6349), 242753004 (CAPA-10-6372), 242753006 (CAPA-10-6798), 242753008 (CAPA-10-6801) and 242753009 (CAPA-10-6901).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

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

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	932519	**Method:**	EPA 335.4
Prep Batch :	932518	**Method:**	EPA 335.4

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 335.4:

Sample ID	Client ID
242753001	CAPA-10-6347
242753003	CAPA-10-6371
242753005	CAPA-10-6797
242753007	CAPA-10-6800
242753009	CAPA-10-6901
1201994725	Method Blank (MB)
1201994726	242437003(CAPA-10-6381) Sample Duplicate (DUP)
1201994728	242790001(NPDES03A185-10-8666) Sample Duplicate (DUP)
1201994729	242437003(CAPA-10-6381) Matrix Spike (MS)
1201994731	242790001(NPDES03A185-10-8666) Matrix Spike (MS)
1201994732	242437003(CAPA-10-6381) Matrix Spike Duplicate (MSD)
1201994734	242790001(NPDES03A185-10-8666) Matrix Spike Duplicate (MSD)
1201994735	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within

acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

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

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 242437003 (CAPA-10-6381) and 242790001 (NPDES03A185-10-8666).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1201994726 (CAPA-10-6381) and 1201994728 (NPDES03A185-10-8666).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

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

Sample Re-analysis
The following sample was re-analyzed due to instrument failure: 1201994735 (LCS).

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

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

Method/Analysis Information

Product: **Ion Chromatography**

Analytical Batch: 933095 **Method:** EPA 300.0

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
242753002	CAPA-10-6349
242753004	CAPA-10-6372
242753006	CAPA-10-6798
242753008	CAPA-10-6801
242753009	CAPA-10-6901
1201996185	Method Blank (MB)
1201996186	Laboratory Control Sample (LCS)
1201996187	242651001(CAPA-10-6376) Sample Duplicate (DUP)
1201996188	242651001(CAPA-10-6376) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-086 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Ion Chromatography analysis was performed on a Dionex ICS-3000 Ion Chromatograph.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

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

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 242651001 (CAPA-10-6376).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recovery for this sample set was within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
The following samples were analyzed out of holding due to instrument calibration issues and resultant limited capacity. 242753002 (CAPA-10-6349), 242753004 (CAPA-10-6372), 242753006 (CAPA-10-6798), 242753008 (CAPA-10-6801) and 242753009 (CAPA-10-6901).

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

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
The following NCR was generated for this SDG: 778503 242753002 (CAPA-10-6349), 242753004 (CAPA-10-6372), 242753006 (CAPA-10-6798), 242753008 (CAPA-10-6801) and 242753009 (CAPA-10-6901).

Manual Integrations
The following samples from this sample group had to be manually integrated due to errors in the instrument software peak integration: 1201996187 (CAPA-10-6376), 1201996188 (CAPA-10-6376), 242753002 (CAPA-10-6349), 242753004 (CAPA-10-6372), 242753006 (CAPA-10-6798) and 242753008 (CAPA-10-6801).

Additional Comments
Additional comments were not required for this SDG.

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

Method/Analysis Information

Product:	**Ammonia Nitrogen**		
Analytical Batch:	932507	**Method:**	EPA 350.1
Prep Batch :	932506	**Method:**	EPA 350.2 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 350.1:

Sample ID	Client ID
242753002	CAPA-10-6349
242753004	CAPA-10-6372
242753006	CAPA-10-6798
242753008	CAPA-10-6801
242753009	CAPA-10-6901
1201994689	Method Blank (MB)
1201994690	242651001(CAPA-10-6376) Sample Duplicate (DUP)
1201994691	242653001(CAPA-10-6812) Sample Duplicate (DUP)
1201994692	242651001(CAPA-10-6376) Matrix Spike (MS)
1201994693	242653001(CAPA-10-6812) Matrix Spike (MS)
1201994694	242651001(CAPA-10-6376) Matrix Spike Duplicate (MSD)
1201994695	242653001(CAPA-10-6812) Matrix Spike Duplicate (MSD)
1201994696	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-106 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

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

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 242651001 (CAPA-10-6376) and 242653001 (CAPA-10-6812).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the established acceptance limits due to matrix interference: 1201994693 (CAPA-10-6812). The spike recovery falls outside of the GEL acceptance limits but within the client specified limits. 1201994692 (CAPA-10-6376).

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the established acceptance limits due to matrix interference: 1201994695 (CAPA-10-6812). The spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits. 1201994694 (CAPA-10-6376).

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1201994691 (CAPA-10-6812).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

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

Sample Re-analysis
The following samples were re-analyzed to verify the results: 1201994690 (CAPA-10-6376), 1201994692 (CAPA-10-6376) and 1201994694 (CAPA-10-6376).

Miscellaneous Information

Nonconformance (NCR) Documentation
The following NCR was generated for this SDG: 770601 1201994692 (CAPA-10-6376), 1201994693 (CAPA-10-6812), 1201994694 (CAPA-10-6376) and 1201994695 (CAPA-10-6812).

Additional Comments
Additional comments were not required for this SDG.

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

Method/Analysis Information

Product: **Nitrate Nitrite by Cadmium Reduction**

Analytical Batch: 931707 **Method:** EPA 353.2

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 353.2:

Sample ID	Client ID
242753002	CAPA-10-6349
242753004	CAPA-10-6372
242753006	CAPA-10-6798
242753008	CAPA-10-6801
242753009	CAPA-10-6901
1201992998	Method Blank (MB)
1201992999	242437002(CAPA-10-6380) Sample Duplicate (DUP)
1201993002	242437002(CAPA-10-6380) Post Spike (PS)
1201993005	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-128 REV# 5.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8500 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 242437002 (CAPA-10-6380).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recovery for this sample set was within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following samples in this sample group were diluted due to matrix interference: 1201992999 (CAPA-10-6380), 1201993002 (CAPA-10-6380), 242753002 (CAPA-10-6349), 242753004 (CAPA-10-6372), 242753006 (CAPA-10-6798), 242753008 (CAPA-10-6801) and 242753009 (CAPA-10-6901).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated

electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Total Phosphorus**		
Analytical Batch:	932509	**Method:**	EPA 365.4
Prep Batch :	932508	**Method:**	EPA 365.4 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 365.4:

Sample ID	Client ID
242753002	CAPA-10-6349
242753004	CAPA-10-6372
242753006	CAPA-10-6798
242753008	CAPA-10-6801
242753009	CAPA-10-6901
1201994697	Method Blank (MB)
1201994698	242651001(CAPA-10-6376) Sample Duplicate (DUP)
1201994699	242651001(CAPA-10-6376) Matrix Spike (MS)
1201994700	242651001(CAPA-10-6376) Matrix Spike Duplicate (MSD)
1201994701	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-103 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

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

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 242651001 (CAPA-10-6376).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recovery for this sample set was within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovery for this sample set was within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

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

Sample Re-analysis
The following sample was re-analyzed due to instrument failure: 242753006 (CAPA-10-6798). The following samples were re-analyzed due to CCB failure: 1201994697 (MB), 1201994698 (CAPA-10-6376), 1201994699 (CAPA-10-6376), 1201994700 (CAPA-10-6376), 1201994701 (LCS) and 242753002 (CAPA-10-6349).

Miscellaneous Information

Nonconformance (NCR) Documentation

An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

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

Method/Analysis Information

Product: **Solids, Total Dissolved**

Analytical Batch: 932499 **Method:** EPA 160.1

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 160.1:

Sample ID	Client ID
242753002	CAPA-10-6349
242753004	CAPA-10-6372
242753006	CAPA-10-6798
242753008	CAPA-10-6801
242753009	CAPA-10-6901
1201994664	Method Blank (MB)
1201994665	242453002(50FWC-09-2840) Sample Duplicate (DUP)
1201994666	242651001(CAPA-10-6376) Sample Duplicate (DUP)
1201994667	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-001 REV# 10.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Solids analysis was performed on a Sartorius Balance BAL216. Solids lab

Initial Calibration

All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 242453002 (50FWC-09-2840) and 242651001 (CAPA-10-6376).

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Sample Aliquot
A sufficient amount of sample was provided by the client for analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

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

Method/Analysis Information

Product: **Alkalinity**

Analytical Batch: 933783 **Method:** EPA 310.1

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 310.1:

Sample ID	Client ID
242753002	CAPA-10-6349
242753004	CAPA-10-6372
242753006	CAPA-10-6798
242753008	CAPA-10-6801
242753009	CAPA-10-6901
1201997877	Method Blank (MB)
1201997878	242936002(CAWA-10-5480) Sample Duplicate (DUP)
1201997879	242934002(CAPA-10-6752) Sample Duplicate (DUP)
1201997880	242936002(CAWA-10-5480) Matrix Spike (MS)
1201997881	242934002(CAPA-10-6752) Matrix Spike (MS)
1201997882	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-033 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Titration analysis was performed on a manually operated buret.

Initial Standardization

The titrant was properly standardized

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 242934002 (CAPA-10-6752) and 242936002 (CAWA-10-5480).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

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

Certification Statement

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

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: Tom Lewis, Jr. **Date:** 08Jan10

Sample Data Summary

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

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

Client SDG: 10-881 GEL Work Order: 242753

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 8, 2010

Client SDG: 10-881

Client Sample ID:	CAPA-10-6347	Project:	ESHL01000
Sample ID:	242753001	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
EPA 335.4 Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/16/09	1008	932519	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	SXJ1	12/15/09	1230	932518

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 8, 2010

Client SDG: 10-881

Client Sample ID:	CAPA-10-6349	Project:	ESHL01000
Sample ID:	242753002	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Conductivity Analysis											
EPA120.1 Specific Conductivity "As Received"											
Conductivity		162	1.00	1.00	umhos/cm	1	TXT1	12/15/09	1539	932677	1
Electrode Analysis											
EPA 150.1 pH Federal "As Received"											
pH at Temp 17.5C	H	8.09	0.010	0.100	SU	1	TXT1	12/14/09	1451	932671	2
Ion Chromatography											
EPA 300.0 Anions Liquid 28 day "As Received"											
Bromide	HU	ND	0.066	0.200	mg/L	1	GXM 3	01/07/10	1620	933095	3
Chloride	H	3.58	0.066	0.200	mg/L	1					
Fluoride	H	0.302	0.033	0.100	mg/L	1					
Sulfate	H	5.40	0.100	0.400	mg/L	1					
Nutrient Analysis											
EPA 350.1 Nitrogen, Ammonia L "As Received"											
Nitrogen, Ammonia	J	0.039	0.016	0.050	mg/L	1	AXH3	12/15/09	1545	932507	4
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"											
Nitrogen, Nitrate/Nitrite		1.11	0.050	0.250	mg/L	5	AXH3	12/14/09	1144	931707	5
EPA 365.4 Phosphorus, Total in "As Received"											
Phosphorus, Total as P	J	0.045	0.015	0.050	mg/L	1	AXH3	12/15/09	1020	932509	6
Solids Analysis											
EPA 160.1 Solids, Dissolved-F "As Received"											
Total Dissolved Solids		132	2.38	10.0	mg/L		SDS	12/14/09	1254	932499	7
Titration Analysis											
EPA 310.1 Total Alkalinity Federal "As Received"											
Alkalinity, Total as CaCO3		64.4	0.725	1.00	mg/L		LXA1	12/16/09	1602	933783	8
Carbonate alkalinity (CaCO3)	U	ND	0.725	1.00	mg/L						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	EXF1	12/15/09	1510	932506
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	AXH3	12/14/09	1121	932508

The following Analytical Methods were performed

Method	Description	Analyst Comments

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 8, 2010

Client SDG: 10-881

Client Sample ID: CAPA-10-6349
Sample ID: 242753002

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 120.1	
2	EPA 150.1	
3	EPA 300.0	
4	EPA 350.1	
5	EPA 353.2	
6	EPA 365.4	
7	EPA 160.1	
8	EPA 310.1	

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Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 8, 2010

Client SDG: 10-881

Client Sample ID:	CAPA-10-6371	Project:	ESHL01000
Sample ID:	242753003	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
EPA 335.4 Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/16/09	1009	932519	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	SXJ1	12/15/09	1230	932518

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

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Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 8, 2010

Client SDG: 10-881

Client Sample ID: CAPA-10-6372
Sample ID: 242753004
Matrix: Ground Water
Collect Date: 09-DEC-09 12:00
Receive Date: 11-DEC-09
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Conductivity Analysis										
EPA120.1 Specific Conductivity "As Received"										
Conductivity		161	1.00	1.00	umhos/cm	1	TXT1 12/15/09	1539	932677	1
Electrode Analysis										
EPA 150.1 pH Federal "As Received"										
pH at Temp 17.4C	H	8.09	0.010	0.100	SU	1	TXT1 12/14/09	1453	932671	2
Ion Chromatography										
EPA 300.0 Anions Liquid 28 day "As Received"										
Bromide	HU	ND	0.066	0.200	mg/L	1	GXM 01/07/10 3	1650	933095	3
Chloride	H	3.61	0.066	0.200	mg/L	1				
Fluoride	H	0.290	0.033	0.100	mg/L	1				
Sulfate	H	5.39	0.100	0.400	mg/L	1				
Nutrient Analysis										
EPA 350.1 Nitrogen, Ammonia L "As Received"										
Nitrogen, Ammonia	J	0.027	0.016	0.050	mg/L	1	AXH3 12/15/09	1546	932507	4
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"										
Nitrogen, Nitrate/Nitrite		1.11	0.050	0.250	mg/L	5	AXH3 12/14/09	1146	931707	5
EPA 365.4 Phosphorus, Total in "As Received"										
Phosphorus, Total as P		0.071	0.015	0.050	mg/L	1	AXH3 12/15/09	1025	932509	6
Solids Analysis										
EPA 160.1 Solids, Dissolved-F "As Received"										
Total Dissolved Solids		138	2.38	10.0	mg/L		SDS 12/14/09	1254	932499	7
Titration Analysis										
EPA 310.1 Total Alkalinity Federal "As Received"										
Alkalinity, Total as CaCO3		64.9	0.725	1.00	mg/L		LXA1 12/16/09	1610	933783	8
Carbonate alkalinity (CaCO3)	U	ND	0.725	1.00	mg/L					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	EXF1	12/15/09	1510	932506
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	AXH3	12/14/09	1121	932508

The following Analytical Methods were performed

Method	Description	Analyst Comments

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Project: **LANL-WQH Water Samples**

Report Date: January 8, 2010

Client SDG: 10-881

Client Sample ID: CAPA-10-6372
Sample ID: 242753004

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 120.1	
2	EPA 150.1	
3	EPA 300.0	
4	EPA 350.1	
5	EPA 353.2	
6	EPA 365.4	
7	EPA 160.1	
8	EPA 310.1	

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Project: **LANL-WQH Water Samples**

Report Date: January 8, 2010

Client SDG: 10-881

Client Sample ID:	CAPA-10-6797	Project:	ESHL01000
Sample ID:	242753005	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
EPA 335.4 Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/16/09	1010	932519	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	SXJ1	12/15/09	1230	932518

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

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Project: **LANL-WQH Water Samples**

Report Date: January 8, 2010

Client SDG: 10-881

Client Sample ID: CAPA-10-6798
Sample ID: 242753006
Matrix: Ground Water
Collect Date: 09-DEC-09 12:00
Receive Date: 11-DEC-09
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Conductivity Analysis										
EPA120.1 Specific Conductivity "As Received"										
Conductivity		132	1.00	1.00	umhos/cm	1	TXT1 12/15/09	1540	932677	1
Electrode Analysis										
EPA 150.1 pH Federal "As Received"										
pH at Temp 17.6C	H	8.08	0.010	0.100	SU	1	TXT1 12/14/09	1455	932671	2
Ion Chromatography										
EPA 300.0 Anions Liquid 28 day "As Received"										
Bromide	HU	ND	0.066	0.200	mg/L	1	GXM 01/07/10 3	1720	933095	3
Chloride	H	2.22	0.066	0.200	mg/L	1				
Fluoride	H	0.232	0.033	0.100	mg/L	1				
Sulfate	H	3.23	0.100	0.400	mg/L	1				
Nutrient Analysis										
EPA 350.1 Nitrogen, Ammonia L "As Received"										
Nitrogen, Ammonia	J	0.046	0.016	0.050	mg/L	1	AXH3 12/15/09	1546	932507	4
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"										
Nitrogen, Nitrate/Nitrite		0.585	0.050	0.250	mg/L	5	AXH3 12/14/09	1147	931707	5
EPA 365.4 Phosphorus, Total in "As Received"										
Phosphorus, Total as P		0.066	0.015	0.050	mg/L	1	AXH3 12/15/09	1037	932509	6
Solids Analysis										
EPA 160.1 Solids, Dissolved-F "As Received"										
Total Dissolved Solids		112	2.38	10.0	mg/L		SDS 12/14/09	1254	932499	7
Titration Analysis										
EPA 310.1 Total Alkalinity Federal "As Received"										
Alkalinity, Total as CaCO3		58.4	0.725	1.00	mg/L		LXA1 12/16/09	1621	933783	8
Carbonate alkalinity (CaCO3)	U	ND	0.725	1.00	mg/L					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	EXF1	12/15/09	1510	932506
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	AXH3	12/14/09	1121	932508

The following Analytical Methods were performed

Method	Description	Analyst Comments

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Project: **LANL-WQH Water Samples**

Report Date: January 8, 2010

Client SDG: 10-881

Client Sample ID: CAPA-10-6798
Sample ID: 242753006

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 120.1	
2	EPA 150.1	
3	EPA 300.0	
4	EPA 350.1	
5	EPA 353.2	
6	EPA 365.4	
7	EPA 160.1	
8	EPA 310.1	

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Project: **LANL-WQH Water Samples**

Report Date: January 8, 2010

Client SDG: 10-881

Client Sample ID:	CAPA-10-6800	Project:	ESHL01000
Sample ID:	242753007	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
EPA 335.4 Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/16/09	1011	932519	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	SXJ1	12/15/09	1230	932518

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

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Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 8, 2010

Client SDG: 10-881

Client Sample ID:	CAPA-10-6801	Project:	ESHL01000
Sample ID:	242753008	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Conductivity Analysis										
EPA120.1 Specific Conductivity "As Received"										
Conductivity		132	1.00	1.00	umhos/cm	1	TXT1 12/15/09	1540	932677	1
Electrode Analysis										
EPA 150.1 pH Federal "As Received"										
pH at Temp 16.8C	H	8.10	0.010	0.100	SU	1	TXT1 12/14/09	1457	932671	2
Ion Chromatography										
EPA 300.0 Anions Liquid 28 day "As Received"										
Bromide	HU	ND	0.066	0.200	mg/L	1	GXM 01/07/10 3	1750	933095	3
Chloride	H	2.20	0.066	0.200	mg/L	1				
Fluoride	H	0.237	0.033	0.100	mg/L	1				
Sulfate	H	3.18	0.100	0.400	mg/L	1				
Nutrient Analysis										
EPA 350.1 Nitrogen, Ammonia L "As Received"										
Nitrogen, Ammonia	J	0.024	0.016	0.050	mg/L	1	AXH3 12/15/09	1547	932507	4
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"										
Nitrogen, Nitrate/Nitrite		0.580	0.050	0.250	mg/L	5	AXH3 12/14/09	1148	931707	5
EPA 365.4 Phosphorus, Total in "As Received"										
Phosphorus, Total as P		0.053	0.015	0.050	mg/L	1	AXH3 12/15/09	1027	932509	6
Solids Analysis										
EPA 160.1 Solids, Dissolved-F "As Received"										
Total Dissolved Solids		115	2.38	10.0	mg/L		SDS 12/14/09	1254	932499	7
Titration Analysis										
EPA 310.1 Total Alkalinity Federal "As Received"										
Alkalinity, Total as CaCO3		57.4	0.725	1.00	mg/L		LXA1 12/16/09	1635	933783	8
Carbonate alkalinity (CaCO3)	U	ND	0.725	1.00	mg/L					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	EXF1	12/15/09	1510	932506
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	AXH3	12/14/09	1121	932508

The following Analytical Methods were performed

Method	Description	Analyst Comments

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Project: **LANL-WQH Water Samples**

Report Date: January 8, 2010

Client SDG: 10-881

Client Sample ID: CAPA-10-6801
Sample ID: 242753008

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 120.1	
2	EPA 150.1	
3	EPA 300.0	
4	EPA 350.1	
5	EPA 353.2	
6	EPA 365.4	
7	EPA 160.1	
8	EPA 310.1	

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Project: **LANL-WQH Water Samples**

Report Date: January 8, 2010

Client SDG: 10-881

Client Sample ID:	CAPA-10-6901	Project:	ESHL01000
Sample ID:	242753009	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	09-DEC-09 12:00		
Receive Date:	11-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Conductivity Analysis										
EPA120.1 Specific Conductivity "As Received"										
Conductivity		1.23	1.00	1.00	umhos/cm	1	TXT1 12/15/09	1541	932677	1
Electrode Analysis										
EPA 150.1 pH Federal "As Received"										
pH at Temp 17.3C	H	5.86	0.010	0.100	SU	1	TXT1 12/14/09	1458	932671	2
Flow Injection Analysis										
EPA 335.4 Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/16/09	1012	932519	3
Ion Chromatography										
EPA 300.0 Anions Liquid 28 day "As Received"										
Bromide	HU	ND	0.066	0.200	mg/L	1	GXM 01/07/10 3	1820	933095	4
Chloride	HJ	0.107	0.066	0.200	mg/L	1				
Fluoride	HU	ND	0.033	0.100	mg/L	1				
Sulfate	HU	ND	0.100	0.400	mg/L	1				
Nutrient Analysis										
EPA 350.1 Nitrogen, Ammonia L "As Received"										
Nitrogen, Ammonia	J	0.020	0.016	0.050	mg/L	1	AXH3 12/15/09	1548	932507	5
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"										
Nitrogen, Nitrate/Nitrite	U	ND	0.050	0.250	mg/L	5	AXH3 12/14/09	1149	931707	6
EPA 365.4 Phosphorus, Total in "As Received"										
Phosphorus, Total as P	J	0.049	0.015	0.050	mg/L	1	AXH3 12/15/09	1027	932509	7
Solids Analysis										
EPA 160.1 Solids, Dissolved-F "As Received"										
Total Dissolved Solids	U	ND	2.38	10.0	mg/L		SDS 12/14/09	1254	932499	8
Titration Analysis										
EPA 310.1 Total Alkalinity Federal "As Received"										
Alkalinity, Total as CaCO3		1.50	0.725	1.00	mg/L		LXA1 12/16/09	1700	933783	9
Carbonate alkalinity (CaCO3)	U	ND	0.725	1.00	mg/L					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	SXJ1	12/15/09	1230	932518
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	EXF1	12/15/09	1510	932506
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	AXH3	12/14/09	1121	932508

Certificate of Analysis

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Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 8, 2010

Client SDG: 10-881

Client Sample ID: CAPA-10-6901
Sample ID: 242753009

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 120.1	
2	EPA 150.1	
3	EPA 335.4	
4	EPA 300.0	
5	EPA 350.1	
6	EPA 353.2	
7	EPA 365.4	
8	EPA 160.1	
9	EPA 310.1	

Quality Control Summary

QC Summary

Report Date: January 8, 2010
Page 1 of 4

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Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 242753

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Conductivity Analysis											
Batch 932677											
QC1201995203 242753002 DUP											
Conductivity			162		162	umhos/cm	0.124		(0%-10%)	TXT1	12/15/09 15:39
QC1201995204 LCS											
Conductivity	1410				1400	umhos/cm		99.1	(95%-105%)		12/15/09 15:38
Electrode Analysis											
Batch 932671											
QC1201995200 242789003 DUP											
pH		H	6.34	H	6.36	SU	0.315		(0%-10%)	TXT1	12/14/09 15:06
QC1201995482 242651001 DUP											
pH		H	7.43	H	7.46	SU	0.403		(0%-10%)		12/14/09 14:42
QC1201995202 LCS											
pH	7.00				6.99	SU		99.9	(95%-105%)		12/14/09 14:39
Flow Injection Analysis											
Batch 932519											
QC1201994726 242437003 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A			AXC2	12/16/09 09:54
QC1201994728 242790001 DUP											
Cyanide, Total		J	4.24	U	ND	ug/L	200 ^				12/16/09 10:19
QC1201994735 LCS											
Cyanide, Total	50.0				50.0	ug/L		100	(90%-110%)		12/16/09 10:00
QC1201994725 MB											
Cyanide, Total				U	ND	ug/L					12/16/09 09:47
QC1201994729 242437003 MS											
Cyanide, Total	100	U	ND		105	ug/L		105	(60%-127%)		12/16/09 09:55
QC1201994731 242790001 MS											
Cyanide, Total	100	J	4.24		107	ug/L		103	(60%-127%)		12/16/09 10:20
QC1201994732 242437003 MSD											
Cyanide, Total	100	U	ND		106	ug/L	0.948	106	(0%-20%)		12/16/09 09:56
QC1201994734 242790001 MSD											
Cyanide, Total	100	J	4.24		108	ug/L	0.930	104	(0%-20%)		12/16/09 10:21
Ion Chromatography											
Batch 933095											
QC1201996187 242651001 DUP											
Bromide		HU	ND	HU	ND	mg/L	N/A			GXM3	01/07/10 13:21
Chloride		H	2.99	H	3.00	mg/L	0.0467		(0%-20%)		
Fluoride		H	0.247	H	0.246	mg/L	0.365 ^		(+/-0.100)		
Sulfate		H	5.34	H	5.33	mg/L	0.330		(0%-20%)		
QC1201996186 LCS											
Bromide	2.50				2.54	mg/L		102	(90%-110%)		01/07/10 12:21
Chloride	10.0				9.08	mg/L		90.8	(90%-110%)		
Fluoride	5.00				4.63	mg/L		92.5	(90%-110%)		

QC Summary

Workorder: 242753

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Ion Chromatography											
Batch 933095											
Sulfate	20.0				18.5	mg/L		92.6	(90%-110%)		
QC1201996185 MB											
Bromide				U	ND	mg/L				GXM3	01/07/10 11:52
Chloride				U	ND	mg/L					
Fluoride				U	ND	mg/L					
Sulfate				U	ND	mg/L					
QC1201996188 242651001 PS											
Bromide	2.50	HU	ND	H	2.54	mg/L		101	(90%-110%)		01/07/10 13:51
Chloride	10.0	H	2.99	H	13.3	mg/L		103	(90%-110%)		
Fluoride	5.00	H	0.247	H	5.15	mg/L		98	(90%-110%)		
Sulfate	20.0	H	5.34	H	25.4	mg/L		100	(90%-110%)		
Nutrient Analysis											
Batch 931707											
QC1201992999 242437002 DUP											
Nitrogen, Nitrate/Nitrite			0.326		0.318	mg/L	2.64 ^		(+/-0.250)	AXH3	12/14/09 11:18
QC1201993005 LCS											
Nitrogen, Nitrate/Nitrite	1.00				0.920	mg/L		92	(90%-110%)		12/14/09 11:15
QC1201992998 MB											
Nitrogen, Nitrate/Nitrite				U	ND	mg/L					12/14/09 11:13
QC1201993002 242437002 PS											
Nitrogen, Nitrate/Nitrite	1.00		0.0652		1.01	mg/L		94.5	(90%-110%)		12/14/09 11:19
Batch 932507											
QC1201994690 242651001 DUP											
Nitrogen, Ammonia		J	0.027	J	0.024	mg/L	11.8 ^		(+/-0.050)	AXH3	12/15/09 15:31
QC1201994691 242653001 DUP											
Nitrogen, Ammonia		J	0.041	J	0.026	mg/L	44.8 ^		(+/-0.050)		12/15/09 15:24
QC1201994696 LCS											
Nitrogen, Ammonia	1.00				0.959	mg/L		95.9	(90%-110%)		12/15/09 15:19
QC1201994689 MB											
Nitrogen, Ammonia				J	0.043	mg/L					12/15/09 15:18
QC1201994692 242651001 MS											
Nitrogen, Ammonia	1.00	J	0.027		0.845	mg/L		81.8*	(90%-110%)		12/15/09 15:32
QC1201994693 242653001 MS											
Nitrogen, Ammonia	1.00	J	0.041		0.729	mg/L		68.8*	(90%-110%)		12/15/09 15:25
QC1201994694 242651001 MSD											
Nitrogen, Ammonia	1.00	J	0.027		0.854	mg/L	1.06	82.7*	(0%-15%)		12/15/09 15:33
QC1201994695 242653001 MSD											
Nitrogen, Ammonia	1.00	J	0.041		0.768	mg/L	5.21	72.7*	(0%-15%)		12/15/09 15:26
Batch 932509											
QC1201994698 242651001 DUP											
Phosphorus, Total as P			0.074		0.062	mg/L	17.6 ^		(+/-0.050)	AXH3	12/15/09 10:15
QC1201994701 LCS											
Phosphorus, Total as P	1.00				0.988	mg/L		98.8	(90%-118%)		12/15/09 10:13
QC1201994697 MB											
Phosphorus, Total as P				J	0.046	mg/L					12/15/09 10:13
QC1201994699 242651001 MS											
					0.922						

QC Summary

Workorder: 242753

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Nutrient Analysis											
Batch 932509											
Phosphorus, Total as P	1.00		0.074			mg/L		84.8	(71%-131%)		12/15/09 10:16
QC1201994700 242651001 MSD											
Phosphorus, Total as P	1.00		0.074		0.936	mg/L	1.51	86.2	(0%-18%)	AXH3	12/15/09 10:17
Solids Analysis											
Batch 932499											
QC1201994665 242453002 DUP											
Total Dissolved Solids		H	118	H	117	mg/L	0.851		(0%-10%)	SDS	12/14/09 12:54
QC1201994666 242651001 DUP											
Total Dissolved Solids			141		143	mg/L	1.41		(0%-10%)		12/14/09 12:54
QC1201994667 LCS											
Total Dissolved Solids	300				298	mg/L		99.3	(95%-105%)		12/14/09 12:54
QC1201994664 MB											
Total Dissolved Solids				U	ND	mg/L					12/14/09 12:54
Titration Analysis											
Batch 933783											
QC1201997878 242936002 DUP											
Alkalinity, Total as CaCO3			50.4		50.9	mg/L	0.985		(0%-20%)	LXA1	12/16/09 17:58
Carbonate alkalinity (CaCO3)		U	ND		0.00	mg/L	200		(+/-1.00)		
QC1201997879 242934002 DUP											
Alkalinity, Total as CaCO3			57.9		57.4	mg/L	0.866		(0%-20%)		12/16/09 17:47
Carbonate alkalinity (CaCO3)		U	ND		0.00	mg/L	200		(+/-1.00)		
QC1201997882 LCS											
Alkalinity, Total as CaCO3	50.0				49.9	mg/L		99.8	(90%-110%)		12/16/09 15:40
QC1201997877 MB											
Alkalinity, Total as CaCO3				J	0.998	mg/L					12/16/09 15:38
Carbonate alkalinity (CaCO3)				U	ND	mg/L					
QC1201997880 242936002 MS											
Alkalinity, Total as CaCO3	50.0		50.4		99.3	mg/L		97.8	(80%-120%)		12/16/09 18:02
QC1201997881 242934002 MS											
Alkalinity, Total as CaCO3	50.0		57.9		107	mg/L		98.8	(80%-120%)		12/16/09 17:48

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value

QC Summary

Workorder: 242753

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

H	Analytical holding time was exceeded
J	Value is estimated
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 08-JAN-2010 16:00

GEL Laboratories LLC
Contract: ESHL01000
SDG #: 10-881

Flow Injection Analysis
Method: EPA 335.4 Concentration Units:ug/L
Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**16-DEC-2009 09:10:10**	**OM_12-16-2009_08-59-38**	**142**	**150**	**95**	**(90%-110%)**	**Yes**
CCV	16-DEC-2009 09:36:53	OM_12-16-2009_08-59-38	102	100	102	(90%-110%)	Yes
CCV	16-DEC-2009 09:49:15	OM_12-16-2009_08-59-38	102	100	102	(90%-110%)	Yes
CCV	16-DEC-2009 10:01:46	OM_12-16-2009_08-59-38	103	100	103	(90%-110%)	Yes
CCV	16-DEC-2009 10:14:15	OM_12-16-2009_08-59-38	103	100	103	(90%-110%)	Yes
CCV	16-DEC-2009 10:26:42	OM_12-16-2009_08-59-38	103	100	103	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**16-DEC-2009 09:12:00**	**OM_12-16-2009_08-59-38**	**-1.32**	**5**	**Yes**
CCB	16-DEC-2009 09:38:43	OM_12-16-2009_08-59-38	-1.32	5	Yes
CCB	16-DEC-2009 09:51:06	OM_12-16-2009_08-59-38	-0.768	5	Yes
CCB	16-DEC-2009 10:03:36	OM_12-16-2009_08-59-38	-1.35	5	Yes
CCB	16-DEC-2009 10:16:05	OM_12-16-2009_08-59-38	-0.844	5	Yes
CCB	16-DEC-2009 10:28:33	OM_12-16-2009_08-59-38	-0.609	5	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 08-JAN-2010 16:00

GEL Laboratories LLC
Contract: ESHL01000
SDG #: 10-881

Ion Chromatography
Method: EPA 300.0 Concentration Units:mg/L
Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Bromide

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**07-JAN-2010 10:52:00**	**100107**	**2.5467**	**2.5**	**102**	**(90%-110%)**	**Yes**
CCV	07-JAN-2010 15:21:00	100107	3.8756	3.75	103	(90%-110%)	Yes
CCV	07-JAN-2010 19:50:00	100107	2.5712	2.5	103	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**07-JAN-2010 11:22:00**	**100107**	**0**	**0.2**	**Yes**
CCB	07-JAN-2010 15:51:00	100107	0	0.2	Yes
CCB	07-JAN-2010 20:19:00	100107	0	0.2	Yes

Parmname: Chloride

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**07-JAN-2010 10:52:00**	**100107**	**9.8812**	**10**	**99**	**(90%-110%)**	**Yes**
CCV	07-JAN-2010 15:21:00	100107	15.0912	15	101	(90%-110%)	Yes
CCV	07-JAN-2010 19:50:00	100107	9.1421	10	91	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**07-JAN-2010 11:22:00**	**100107**	**0**	**0.2**	**Yes**
CCB	07-JAN-2010 15:51:00	100107	0	0.2	Yes
CCB	07-JAN-2010 20:19:00	100107	0	0.2	Yes

Parmname: Fluoride

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**07-JAN-2010 10:52:00**	**100107**	**5.0196**	**5**	**100**	**(90%-110%)**	**Yes**
CCV	07-JAN-2010 15:21:00	100107	7.5451	7.5	101	(90%-110%)	Yes
CCV	07-JAN-2010 19:50:00	100107	4.6895	5	94	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**07-JAN-2010 11:22:00**	**100107**	**0**	**0.1**	**Yes**
CCB	07-JAN-2010 15:51:00	100107	0	0.1	Yes
CCB	07-JAN-2010 20:19:00	100107	0	0.1	Yes

Parmname: Sulfate

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**07-JAN-2010 10:52:00**	**100107**	**20.0185**	**20**	**100**	**(90%-110%)**	**Yes**
CCV	07-JAN-2010 15:21:00	100107	30.0848	30	100	(90%-110%)	Yes
CCV	07-JAN-2010 19:50:00	100107	18.5636	20	93	(90%-110%)	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 08-JAN-2010 16:00

GEL Laboratories LLC

Contract: **ESHL01000**

SDG #: **10-881**

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Sulfate

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**07-JAN-2010 11:22:00**	**100107**	**0**	**0.4**	**Yes**
CCB	07-JAN-2010 15:51:00	100107	0	0.4	Yes
CCB	07-JAN-2010 20:19:00	100107	0	0.4	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 08-JAN-2010 16:00

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-881

Nutrient Analysis

Method: EPA 350.1 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Nitrogen, Ammonia

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**15-DEC-2009 14:19:20**	**OM_12-15-2009_14-12-28**	**0.947**	**1**	**95**	**(90%-110%)**	**Yes**
CCV	15-DEC-2009 15:15:07	OM_12-15-2009_15-13-35	0.987	1	99	(90%-110%)	Yes
CCV	15-DEC-2009 15:27:07	OM_12-15-2009_15-13-35	0.994	1	99	(90%-110%)	Yes
CCV	15-DEC-2009 15:38:58	OM_12-15-2009_15-13-35	0.992	1	99	(90%-110%)	Yes
CCV	15-DEC-2009 15:50:57	OM_12-15-2009_15-13-35	0.991	1	99	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**15-DEC-2009 14:21:10**	**OM_12-15-2009_14-12-28**	**-0.011**	**0.05**	**Yes**
CCB	15-DEC-2009 15:16:58	OM_12-15-2009_15-13-35	-0.006	0.05	Yes
CCB	15-DEC-2009 15:28:57	OM_12-15-2009_15-13-35	-0.005	0.05	Yes
CCB	15-DEC-2009 15:40:48	OM_12-15-2009_15-13-35	-0.006	0.05	Yes
CCB	15-DEC-2009 15:52:48	OM_12-15-2009_15-13-35	-0.005	0.05	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 08-JAN-2010 16:00

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-881

Nutrient Analysis

Method: EPA 353.2 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8500 Series

Parmname: Nitrogen, Nitrate/Nitrite

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**14-DEC-2009 10:09:18**	**OM_12-14-2009_09-59-49**	**0.944**	**1**	**94**	**(90%-110%)**	**Yes**
CCV	14-DEC-2009 11:04:15	OM_12-14-2009_09-59-49	0.965	1	97	(90%-110%)	Yes
CCV	14-DEC-2009 11:21:04	OM_12-14-2009_09-59-49	0.948	1	95	(90%-110%)	Yes
CCV	14-DEC-2009 11:37:50	OM_12-14-2009_09-59-49	0.941	1	94	(90%-110%)	Yes
CCV	14-DEC-2009 11:54:35	OM_12-14-2009_09-59-49	0.936	1	94	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**14-DEC-2009 10:11:40**	**OM_12-14-2009_09-59-49**	**-0.00328**	**0.05**	**Yes**
CCB	14-DEC-2009 11:06:37	OM_12-14-2009_09-59-49	-0.00126	0.05	Yes
CCB	14-DEC-2009 11:23:26	OM_12-14-2009_09-59-49	-0.0028	0.05	Yes
CCB	14-DEC-2009 11:40:12	OM_12-14-2009_09-59-49	-0.00297	0.05	Yes
CCB	14-DEC-2009 11:56:56	OM_12-14-2009_09-59-49	-0.00347	0.05	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 08-JAN-2010 16:00

GEL Laboratories LLC

Contract: **ESHL01000**

SDG #: **10-881**

Nutrient Analysis

Method: EPA 365.4 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Phosphorus, Total as P

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**15-DEC-2009 09:50:23**	**OM_12-15-2009_09-42-32**	**0.984**	**1**	**98**	**(90%-110%)**	**Yes**
CCV	15-DEC-2009 10:08:51	OM_12-15-2009_10-08-07	0.983	1	98	(90%-110%)	Yes
CCV	15-DEC-2009 10:21:19	OM_12-15-2009_10-08-07	0.995	1	100	(90%-110%)	Yes
CCV	15-DEC-2009 10:33:41	OM_12-15-2009_10-08-07	0.967	1	97	(90%-110%)	Yes
CCV	15-DEC-2009 10:46:11	OM_12-15-2009_10-08-07	0.983	1	98	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**15-DEC-2009 09:52:28**	**OM_12-15-2009_09-42-32**	**0.027**	**0.05**	**Yes**
CCB	15-DEC-2009 10:10:56	OM_12-15-2009_10-08-07	0.026	0.05	Yes
CCB	15-DEC-2009 10:23:24	OM_12-15-2009_10-08-07	0.027	0.05	Yes
CCB	15-DEC-2009 10:35:45	OM_12-15-2009_10-08-07	0.025	0.05	Yes
CCB	15-DEC-2009 10:48:16	OM_12-15-2009_10-08-07	0.025	0.05	Yes

Alkalinity

Alkalinity LogBook

Analyst: LXA1
Batch: 933783
Lab SOP: GL-GC-E-033 REV# 6
SOP Description: Alkalinity: Total, Bicarbonate, Carbonate, Hydroxide, and Phenolphthalein
Run Date: 16-DEC-2009

Type	Sample Id	Lot Id	Nc(mg/L)	Recovery(%)
LCS	1201997882	IMM090901-ALK	50	99.8
MS	1201997880	IMM090901-ALK	50	97.804
MS	1201997881	IMM090901-ALK	50	98.802

Type	Sample Id	Rpd(%)	Parmname
DUP	1201997878	.985	Alkalinity, Total as CaCO3
DUP	1201997878	0	Carbonate alkalinity (CaCO3)
DUP	1201997879	.866	Alkalinity, Total as CaCO3
DUP	1201997879	0	Carbonate alkalinity (CaCO3)

Type	Sample id	Parent Sample Id	Time	Ph	Aliquot	Units	Normality H2SO4	H2SO4 Ph 8.3 (mL)	H2SO4 Ph 4.5(mL)	Alkalinity	Bicarbonate	CO2 Dissolved	CO2 Free	CO2 Total	Carbonate	Hydroxide	Phenol phthalein	Units
MB	1201997877		15:38	7.36	100	mL	0.01996	0	0.1	0.99800	0.99800				0.0000	0.0000		mg/L
LCS	1201997882		15:40	9.23	100	mL	0.01996	0	5	49.900								mg/L
SAMPLE	242651001		15:41	7.57	100	mL	0.01996	0	6.75	67.365					0.0000			mg/L
SAMPLE	242653001		15:54	8.13	100	mL	0.01996	0	7.3	72.854					0.0000			mg/L
SAMPLE	242667001		15:58	8.08	100	mL	0.01996	0	5.65	56.387					0.0000			mg/L
SAMPLE	242753002		16:02	8.11	100	mL	0.01996	0	6.45	64.371					0.0000			mg/L
SAMPLE	242753004		16:10	8.11	100	mL	0.01996	0	6.5	64.870					0.0000			mg/L
SAMPLE	242753006		16:21	8.06	100	mL	0.01996	0	5.85	58.383					0.0000			mg/L
SAMPLE	242753008		16:35	8.14	100	mL	0.01996	0	5.75	57.385					0.0000			mg/L
SAMPLE	242753009		17:00	5.64	100	mL	0.01996	0	0.15	1.4970					0.0000			mg/L
SAMPLE	242789003		17:02	6.63	100	mL	0.01996	0	5.45	54.391					0.0000			mg/L
SAMPLE	242894001		17:08	12.82	10	mL	0.01996	25.25	26.8	2674.6	0.0000				309.38	2365.3		mg/L
SAMPLE	242894002		17:24	12.71	10	mL	0.01996	22.1	24.1	2405.2	0.0000				399.20	2006.0		mg/L
SAMPLE	242934002		17:38	7.09	100	mL	0.01996	0	5.8	57.884					0.0000			mg/L
DUP	1201997879	242934002	17:47	7.1	100	mL	0.01996	0	5.75	57.385	57.385				0.0000	0.0000		mg/L
MS	1201997881	242934002	17:48	8.81	100	mL	0.01996	0	10.75	107.29								mg/L
SAMPLE	242936002		17:51	7.43	100	mL	0.01996	0	5.05	50.399					0.0000			mg/L
DUP	1201997878	242936002	17:58	7.43	100	mL	0.01996	0	5.1	50.898	50.898				0.0000	0.0000		mg/L
MS	1201997880	242936002	18:02	8.96	100	mL	0.01996	0	9.95	99.301								mg/L

Run Date: 16-DEC-09 10:42
Instrument: PHX370
Analyst: LXA1

Standard	Observed	Theoretical		%Recovery
UPH091216-a	10.02	10	SU	100.2
091216-a	11.98	12	SU	99.833
UPH091216-02c-	2.03	2	SU	101.5
IMM091216-PH1	4.01	4	SU	100.25
IMM091216-PH-	7.02	7	SU	100.29
IMM091216-a	7.03	7	SU	100.43

Comments:

Run Date: 11-DEC-2009 23:56

GEL Laboratories LLC

Page#_____

Alkalinity LogBook

Instrument: TIT001
Analyst: LXA1

Na2CO3 Std. ID	Na2CO3, 0.05 N g Na2C03/L	H2SO4 N (approx.)	NA2CO3 titrated	H2SO4 to pH 3.7	Actual Normality	Normality Average
1071836	2.5035	.02	15	35.4	.01987	.01996
	2.5035	.02	15	35.45	.01999	
	2.5035	.02	15	35.65	.02002	

Normality of H2SO4 solution
A x B / 53.00 x C
where:
A = grams of Na2CO3
B = volume (mL) of the Na2CO3 solution
C = Total volume of the 0.02 N H2SO4 acid titrant used to reach a pH of 3.7

Total Alkalinity (mg/L)
Vt x N x 50000 / Vs
Where:
Vt = volume (mL) of H2SO4 used to reach the pH 4.5 endpoint
N = normality of the H2SO4 titrant
Vs = volume (mL) of sample used

Phenolphthalein alkalinity (mg/L)
Vt x N x 50000 / Vs
Where:
Vt = volume (mL) of H2SO4 used to reach the pH 8.3 endpoint
N = normality of the H2SO4 titrant
Vs = volume (mL) of sample used

Bicarbonate Alkalinity
Relationship Table SM2320B

Carbonate Alkalinity
Relationship Table SM2320B

Hydroxide Alkalinity
Relationship Table SM2320B

Free Carbon Dioxide
mg CO2/L = 2.0 x B x 10 (6-pH)
Where B = Bicarbonate Alkalinity

Total Carbon Dioxide
mg total CO2/L = A + 0.44(2B + C)
Where:
A = mg Free CO2/L
B = Bicarbonate Alkalinity
C = Carbonate Alkalinity

Relationship Table SM2320B

P = 0	then H = 0,	C = 0,	B = T
P < 1/2 T	then H = 0,	C = 2P,	B = T - 2P
P = 1/2 T	then H = 0,	C = 2P,	B = 0
P > 1/2 T	then H = 2P - T,	C = 2(T - P),	B = 0
P = T	then H = T,	C = 0,	B = 0

Ammonia Nitrogen

Prep LogBook

Analyst: EXF1 Verified by:_____

Batch: 932506

Lab SOP: GL-GC-E-072 REV# 11

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201994696	UTR1169166-01	.25	mL
MS	1201994692	UTR1169166-01	.25	mL
MS	1201994693	UTR1169166-01	.25	mL
MSD	1201994694	UTR1169166-01	.25	mL
MSD	1201994695	UTR1169166-01	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201994689		EPA 350.2 Prep	15-DEC-2009 15:09	9.5	25 mL	25 mL	1	GROUND WATER
LCS	1201994696		EPA 350.2 Prep	15-DEC-2009 15:09	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	242651001		EPA 350.2 Prep	15-DEC-2009 15:09	9.5	25 mL	25 mL	1	GROUND WATER
DUP	1201994690	242651001	EPA 350.2 Prep	15-DEC-2009 15:09	9.5	25 mL	25 mL	1	GROUND WATER
MS	1201994692	242651001	EPA 350.2 Prep	15-DEC-2009 15:09	9.5	25 mL	25 mL	1	GROUND WATER
MSD	1201994694	242651001	EPA 350.2 Prep	15-DEC-2009 15:09	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	242653001		EPA 350.2 Prep	15-DEC-2009 15:09	9.5	25 mL	25 mL	1	GROUND WATER
DUP	1201994691	242653001	EPA 350.2 Prep	15-DEC-2009 15:09	9.5	25 mL	25 mL	1	GROUND WATER
MS	1201994693	242653001	EPA 350.2 Prep	15-DEC-2009 15:09	9.5	25 mL	25 mL	1	GROUND WATER
MSD	1201994695	242653001	EPA 350.2 Prep	15-DEC-2009 15:09	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	242667001		EPA 350.2 Prep	15-DEC-2009 15:09	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	242720001		EPA 350.2 Prep	15-DEC-2009 15:09	9.5	25 mL	25 mL	1	WASTE WATER
SAMPLE	242721001		EPA 350.2 Prep	15-DEC-2009 15:09	9.5	25 mL	25 mL	1	WASTE WATER
SAMPLE	242721002		EPA 350.2 Prep	15-DEC-2009 15:10	9.5	25 mL	25 mL	1	WASTE WATER
SAMPLE	242721003		EPA 350.2 Prep	15-DEC-2009 15:10	9.5	25 mL	25 mL	1	WASTE WATER
SAMPLE	242721005		EPA 350.2 Prep	15-DEC-2009 15:10	9.5	25 mL	25 mL	1	WASTE WATER
SAMPLE	242721006		EPA 350.2 Prep	15-DEC-2009 15:10	9.5	5 mL	25 mL	5	WASTE WATER
SAMPLE	242721007		EPA 350.2 Prep	15-DEC-2009 15:10	9.5	10 mL	25 mL	2.5	WASTE WATER
SAMPLE	242721008		EPA 350.2 Prep	15-DEC-2009 15:10	9.5	10 mL	25 mL	2.5	WASTE WATER
SAMPLE	242753002		EPA 350.2 Prep	15-DEC-2009 15:10	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	242753004		EPA 350.2 Prep	15-DEC-2009 15:10	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	242753006		EPA 350.2 Prep	15-DEC-2009 15:10	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	242753008		EPA 350.2 Prep	15-DEC-2009 15:10	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	242753009		EPA 350.2 Prep	15-DEC-2009 15:10	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	242813001		EPA 350.2 Prep	15-DEC-2009 15:10	9.5	25 mL	25 mL	1	WATER
SAMPLE	242813002		EPA 350.2 Prep	15-DEC-2009 15:10	9.5	25 mL	25 mL	1	WATER
SAMPLE	242838001		EPA 350.2 Prep	15-DEC-2009 15:10	9.5	25 mL	25 mL	1	SURFACE WATER
SAMPLE	242838002		EPA 350.2 Prep	15-DEC-2009 15:10	9.5	25 mL	25 mL	1	SURFACE WATER

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description
1184204-C	1 mL	50% NaOH Solution
1184214-C	1.25 mL	Borate Buffer

Comments: Samples 242721006, 242721007, and 242721008 were diluted due to high concentrations of ammonia.

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
2.0 ppm Std.		1	axh3	12/15/2009 14:13:14	OM_12-15-2009_14-12-28
1.0 ppm Std.		1	axh3	12/15/2009 14:14:03	OM_12-15-2009_14-12-28
0.5 ppm Std		1	axh3	12/15/2009 14:14:54	OM_12-15-2009_14-12-28
0.1 ppm Std		1	axh3	12/15/2009 14:15:44	OM_12-15-2009_14-12-28
0.05 ppm Std		1	axh3	12/15/2009 14:16:36	OM_12-15-2009_14-12-28
ICAL-00		1	axh3	12/15/2009 14:17:29	OM_12-15-2009_14-12-28
ICV		1	axh3	12/15/2009 14:19:20	OM_12-15-2009_14-12-28
ICB		1	axh3	12/15/2009 14:21:10	OM_12-15-2009_14-12-28
1201995499	932817	1	axh3	12/15/2009 14:22:59	OM_12-15-2009_14-12-28
1201995506	932817	1	axh3	12/15/2009 14:23:50	OM_12-15-2009_14-12-28
241779001	932817	1	axh3	12/15/2009 14:24:41	OM_12-15-2009_14-12-28
241779002	932817	1	axh3	12/15/2009 14:25:32	OM_12-15-2009_14-12-28
1201981913	932817	1	axh3	12/15/2009 14:26:22	OM_12-15-2009_14-12-28
1201981915	932817	1	axh3	12/15/2009 14:27:12	OM_12-15-2009_14-12-28
1201981917	932817	1	axh3	12/15/2009 14:28:02	OM_12-15-2009_14-12-28
241779003	932817	1	axh3	12/15/2009 14:28:51	OM_12-15-2009_14-12-28
241779004	932817	1	axh3	12/15/2009 14:29:40	OM_12-15-2009_14-12-28
241796001	932817	1	axh3	12/15/2009 14:30:29	OM_12-15-2009_14-12-28
CCV		1	axh3	12/15/2009 14:31:18	OM_12-15-2009_14-12-28
CCB		1	axh3	12/15/2009 14:33:08	OM_12-15-2009_14-12-28
241850001	932817	1	axh3	12/15/2009 14:34:56	OM_12-15-2009_14-12-28
1201982086	932817	1	axh3	12/15/2009 14:35:44	OM_12-15-2009_14-12-28
1201982087	932817	1	axh3	12/15/2009 14:36:32	OM_12-15-2009_14-12-28
1201982088	932817	1	axh3	12/15/2009 14:37:20	OM_12-15-2009_14-12-28
241850001	932817	5	axh3	12/15/2009 14:38:07	OM_12-15-2009_14-12-28
1201982086	932817	5	axh3	12/15/2009 14:38:56	OM_12-15-2009_14-12-28
1201982087	932817	5	axh3	12/15/2009 14:39:44	OM_12-15-2009_14-12-28
1201982088	932817	5	axh3	12/15/2009 14:40:32	OM_12-15-2009_14-12-28
CCV		1	axh3	12/15/2009 14:42:20	OM_12-15-2009_14-12-28
CCB		1	axh3	12/15/2009 14:44:11	OM_12-15-2009_14-12-28

Author: axh3 Date : 12/15/2009

Original Run Filename: OM_12-15-2009_14-12-28.OMN created 12/15/2009 14:12:28
Original Run Author's Signature: [axh3]
Current Run Filename: OM_12-15-2009_14-12-28.OMN last modified 12/15/2009 14:45:14
Current Run Author's Signature: [axh3]
Description: Ammonia EPA Method 350.1 GEL SOP: GL-GC-E-106
Detection Wavelength: 630nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 NH3 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR091215-03	1	S10	2.000	16.779	12/15/2009@14:13:14			2.0 ppm Std.
WTR091215-04	1	S11	1.000	8.436	12/15/2009@14:14:03			1.0 ppm Std.
WTR091215-05	1	S12	0.500	4.442	12/15/2009@14:14:54			0.5 ppm Std
WTR091215-06	1	S13	0.100	0.951	12/15/2009@14:15:44			0.1 ppm Std
WTR091215-07	1	S14	0.050	0.449	12/15/2009@14:16:36			0.05 ppm Std
WTR091215-10 0.0 ppm	1	S15	0.000	0.022	12/15/2009@14:17:29			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99991 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR091215-08 ICV	1	S16	0.947	8.014	12/15/2009@14:19:20			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	0.947 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.947 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR091215-10 ICB	1	S15	-0.011	0.000	12/15/2009@14:21:10			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.011 < 0.050					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.011 > -0.050					
		Message	ICB Passed					
		Action	Continue					
1201995499|932817|MB	1	1	0.027	0.317	12/15/2009@14:22:59			
1201995506||LCS	1	2	0.944	7.984	12/15/2009@14:23:50			
241779001	1	3	0.032	0.361	12/15/2009@14:24:41			
241779002	1	4	0.010	0.175	12/15/2009@14:25:32			
1201981913||DUP	1	5	0.014	0.210	12/15/2009@14:26:22			
1201981915||MS	1	6	1.227	10.352	12/15/2009@14:27:12			
1201981917||MSD	1	7	1.293	10.900	12/15/2009@14:28:02			
241779003	1	8	0.023	0.287	12/15/2009@14:28:51			
241779004	1	9	0.216	1.903	12/15/2009@14:29:40			
241796001	1	10	0.862	7.296	12/15/2009@14:30:29			
WTR091215-04 CCV	1	S11	0.996	8.423	12/15/2009@14:31:18			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	0.996 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.996 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091215-10 CCB	1	S15	-0.004	0.061	12/15/2009@14:33:08			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.004 < 0.049					

		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.004 > -0.050					
		Message	CCB Passed					
		Action	Continue					
241850001	1	11	2.555	21.450	12/15/2009@14:34:56			
1201982086||DUP	1	12	2.638	22.144	12/15/2009@14:35:44			
1201982087||MS	1	13	3.832	32.130	12/15/2009@14:36:32			
1201982088||MSD	1	14	3.131	26.268	12/15/2009@14:37:20			
241850001	1	11	0.597	5.083	12/15/2009@14:38:07		5.00	
1201982086||DUP	1	12	0.538	4.590	12/15/2009@14:38:56		5.00	
1201982087||MS	1	13	0.836	7.079	12/15/2009@14:39:44		5.00	
1201982088||MSD	1	14	0.837	7.089	12/15/2009@14:40:32		5.00	
WTR091215-04 CCV	1	S11	0.990	8.367	12/15/2009@14:42:20			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.990 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.990 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091215-10 CCB	1	S15	-0.006	0.046	12/15/2009@14:44:11			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.006 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.006 > -0.050					
		Message	CCB Passed					
		Action	Continue					

Channel 1 (NH3) : Current View

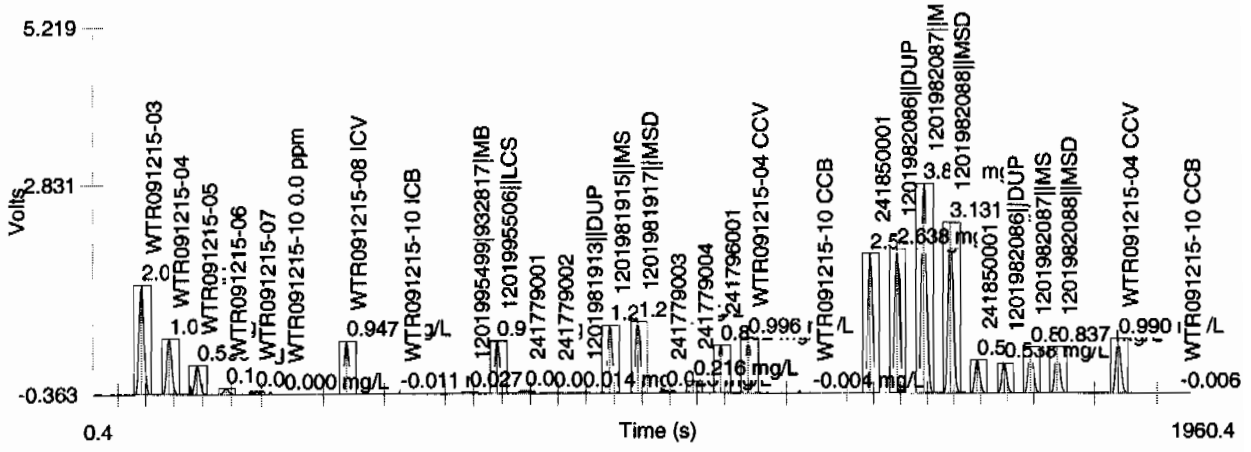

Author: axh3 Date : 12/15/2009

Table 1: NH3

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	2.000	1	16.779	1.678	0.2	12/15/2009	14:14:17
2	1.000	1	8.436	0.849	0.2	12/15/2009	14:15:06
3	0.500	1	4.442	0.441	-3.9	12/15/2009	14:15:56
4	0.100	1	0.951	0.094	-2.1	12/15/2009	14:16:47
5	0.050	1	0.449	0.043	12.4	12/15/2009	14:17:39
6	0.000	1	0.022	0.003		12/15/2009	14:18:32

Figure 1: NH3

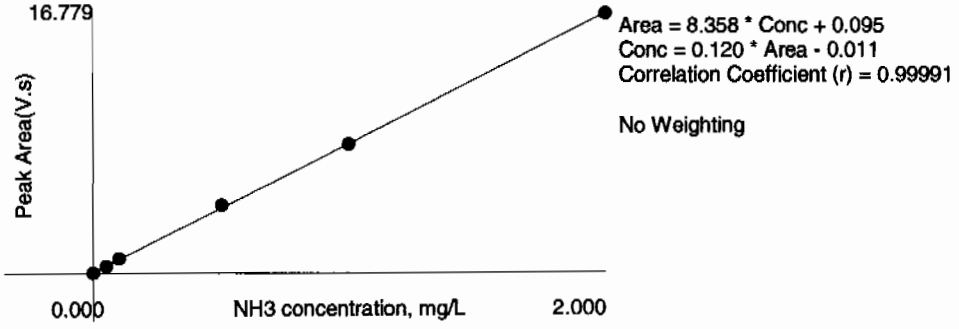

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axh3	12/15/2009 15:15:07	OM_12-15-2009_15-13-35
CCB		1	axh3	12/15/2009 15:16:58	OM_12-15-2009_15-13-35
1201994689	932507	1	axh3	12/15/2009 15:18:48	OM_12-15-2009_15-13-35
1201994696	932507	1	axh3	12/15/2009 15:19:39	OM_12-15-2009_15-13-35
242651001*	932507	1	axh3	12/15/2009 15:20:30	OM_12-15-2009_15-13-35
1201994690*	932507	1	axh3	12/15/2009 15:21:20	OM_12-15-2009_15-13-35
1201994692*	932507	1	axh3	12/15/2009 15:22:11	OM_12-15-2009_15-13-35
1201994694*	932507	1	axh3	12/15/2009 15:23:01	OM_12-15-2009_15-13-35
242653001	932507	1	axh3	12/15/2009 15:23:50	OM_12-15-2009_15-13-35
1201994691	932507	1	axh3	12/15/2009 15:24:39	OM_12-15-2009_15-13-35
1201994693	932507	1	axh3	12/15/2009 15:25:29	OM_12-15-2009_15-13-35
1201994695	932507	1	axh3	12/15/2009 15:26:17	OM_12-15-2009_15-13-35
CCV		1	axh3	12/15/2009 15:27:07	OM_12-15-2009_15-13-35
CCB		1	axh3	12/15/2009 15:28:57	OM_12-15-2009_15-13-35
242651001	932507	1	axh3	12/15/2009 15:30:46	OM_12-15-2009_15-13-35
1201994690	932507	1	axh3	12/15/2009 15:31:37	OM_12-15-2009_15-13-35
1201994692	932507	1	axh3	12/15/2009 15:32:28	OM_12-15-2009_15-13-35
1201994694	932507	1	axh3	12/15/2009 15:33:18	OM_12-15-2009_15-13-35
242667001	932507	1	axh3	12/15/2009 15:34:07	OM_12-15-2009_15-13-35
242720001	932507	1	axh3	12/15/2009 15:34:55	OM_12-15-2009_15-13-35
242721001	932507	1	axh3	12/15/2009 15:35:43	OM_12-15-2009_15-13-35
242721002	932507	1	axh3	12/15/2009 15:36:31	OM_12-15-2009_15-13-35
242721003	932507	1	axh3	12/15/2009 15:37:18	OM_12-15-2009_15-13-35
242721005	932507	1	axh3	12/15/2009 15:38:07	OM_12-15-2009_15-13-35
CCV		1	axh3	12/15/2009 15:38:58	OM_12-15-2009_15-13-35
CCB		1	axh3	12/15/2009 15:40:48	OM_12-15-2009_15-13-35
242721006	932507	1	axh3	12/15/2009 15:42:37	OM_12-15-2009_15-13-35
242721007	932507	1	axh3	12/15/2009 15:43:29	OM_12-15-2009_15-13-35
242721008	932507	1	axh3	12/15/2009 15:44:20	OM_12-15-2009_15-13-35
242753002	932507	1	axh3	12/15/2009 15:45:10	OM_12-15-2009_15-13-35
242753004	932507	1	axh3	12/15/2009 15:46:00	OM_12-15-2009_15-13-35
242753006	932507	1	axh3	12/15/2009 15:46:51	OM_12-15-2009_15-13-35
242753008	932507	1	axh3	12/15/2009 15:47:40	OM_12-15-2009_15-13-35
242753009	932507	1	axh3	12/15/2009 15:48:30	OM_12-15-2009_15-13-35
242813001	932507	1	axh3	12/15/2009 15:49:19	OM_12-15-2009_15-13-35
242813002	932507	1	axh3	12/15/2009 15:50:08	OM_12-15-2009_15-13-35
CCV		1	axh3	12/15/2009 15:50:57	OM_12-15-2009_15-13-35
CCB		1	axh3	12/15/2009 15:52:48	OM_12-15-2009_15-13-35
242838001	932507	1	axh3	12/15/2009 15:54:36	OM_12-15-2009_15-13-35
242838002	932507	1	axh3	12/15/2009 15:55:24	OM_12-15-2009_15-13-35
242721006	932507	25	axh3	12/15/2009 15:56:14	OM_12-15-2009_15-13-35
242721007	932507	10	axh3	12/15/2009 15:57:06	OM_12-15-2009_15-13-35
242721008	932507	5	axh3	12/15/2009 15:57:56	OM_12-15-2009_15-13-35
1201996291	933133	1	axh3	12/15/2009 15:58:45	OM_12-15-2009_15-13-35
1201996295	933133	1	axh3	12/15/2009 15:59:33	OM_12-15-2009_15-13-35
242789003	933133	1	axh3	12/15/2009 16:00:24	OM_12-15-2009_15-13-35
1201996292	933133	1	axh3	12/15/2009 16:01:15	OM_12-15-2009_15-13-35
1201996293	933133	1	axh3	12/15/2009 16:02:07	OM_12-15-2009_15-13-35
CCV		1	axh3	12/15/2009 16:02:57	OM_12-15-2009_15-13-35
CCB		1	axh3	12/15/2009 16:04:48	OM_12-15-2009_15-13-35
1201996294	933133	1	axh3	12/15/2009 16:06:37	OM_12-15-2009_15-13-35
242818001	933133	1	axh3	12/15/2009 16:07:28	OM_12-15-2009_15-13-35
242818002	933133	1	axh3	12/15/2009 16:08:19	OM_12-15-2009_15-13-35
242818003	933133	1	axh3	12/15/2009 16:09:09	OM_12-15-2009_15-13-35
242818004	933133	1	axh3	12/15/2009 16:09:59	OM_12-15-2009_15-13-35
242924001	933133	1	axh3	12/15/2009 16:10:49	OM_12-15-2009_15-13-35
242924001*	933133	1	axh3	12/15/2009 16:14:37	OM_12-15-2009_15-13-35
242924001	933133	10	axh3	12/15/2009 16:16:26	OM_12-15-2009_15-13-35

CCV	1	axh3	12/15/2009	16:18:14 OM_12-15-2009_15-13-35
CCB	1	axh3	12/15/2009	16:20:04 OM_12-15-2009_15-13-35

Author: axh3 Date : 12/15/2009

Original Run Filename: OM_12-15-2009_15-13-35.OMN created 12/15/2009 15:13:35
Original Run Author's Signature: [axh3]
Current Run Filename: OM_12-15-2009_15-13-35.OMN last modified 12/15/2009 16:21:10
Current Run Author's Signature: [axh3]
Description: Ammonia EPA Method 350.1 GEL SOP: GL-GC-E-106
Detection Wavelength: 630nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 NH3 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR091215-04 CCV	1	S11	0.987	8.347	12/15/2009@15:15:07			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.987 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.987 > 0.895					
		Message	CCV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR091215-10 CCB	1	S15	-0.006	0.047	12/15/2009@15:16:58			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.006 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.006 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1201994689|932507|MB	1	1	0.043	0.456	12/15/2009@15:18:48			
1201994696||LCS	1	2	0.959	8.107	12/15/2009@15:19:39			
242651001	1	3	0.029	0.340	12/15/2009@15:20:30			
1201994690||DUP	1	4	0.020	0.264	12/15/2009@15:21:20			
1201994692||MS	1	5	0.681	5.791	12/15/2009@15:22:11			
1201994694||MSD	1	6	0.849	7.195	12/15/2009@15:23:01			
242653001	1	7	0.041	0.438	12/15/2009@15:23:50			
1201994691||DUP	1	8	0.026	0.315	12/15/2009@15:24:39			
1201994693||MS	1	9	0.729	6.186	12/15/2009@15:25:29			
1201994695||MSD	1	10	0.768	6.518	12/15/2009@15:26:17			
WTR091215-04 CCV	1	S11	0.994	8.404	12/15/2009@15:27:07			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.994 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.994 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091215-10 CCB	1	S15	-0.005	0.049	12/15/2009@15:28:57			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.005 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.005 > -0.050					
		Message	CCB Passed					
		Action	Continue					
242651001	1	3	0.027	0.317	12/15/2009@15:30:46			
1201994690||DUP	1	4	0.024	0.298	12/15/2009@15:31:37			
1201994692||MS	1	5	0.845	7.156	12/15/2009@15:32:28			
1201994694||MSD	1	6	0.854	7.237	12/15/2009@15:33:18			

242667001	1	11	0.028	0.331	12/15/2009@15:34:07			
242720001	1	12	0.657	5.587	12/15/2009@15:34:55			
242721001	1	13	0.180	1.601	12/15/2009@15:35:43			
242721002	1	14	1.603	13.493	12/15/2009@15:36:31			
242721003	1	15	0.850	7.199	12/15/2009@15:37:18			
242721005	1	16	0.443	3.798	12/15/2009@15:38:07			
WTR091215-04 CCV	1	S11	0.992	8.387	12/15/2009@15:38:58			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.992 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.992 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091215-10 CCB	1	S15	-0.006	0.045	12/15/2009@15:40:48			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.006 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.006 > -0.050					
		Message	CCB Passed					
		Action	Continue					
242721006	1	17	17.117	143.189	12/15/2009@15:42:37			
242721007	1	18	6.205	51.963	12/15/2009@15:43:29			
242721008	1	19	2.133	17.921	12/15/2009@15:44:20			
242753002	1	20	0.039	0.422	12/15/2009@15:45:10			
242753004	1	21	0.027	0.322	12/15/2009@15:46:00			
242753006	1	22	0.046	0.479	12/15/2009@15:46:51			
242753008	1	23	0.024	0.293	12/15/2009@15:47:40			
242753009	1	24	0.020	0.259	12/15/2009@15:48:30			
242813001	1	25	0.013	0.200	12/15/2009@15:49:19			
242813002	1	26	0.035	0.384	12/15/2009@15:50:08			
WTR091215-04 CCV	1	S11	0.991	8.379	12/15/2009@15:50:57			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.991 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.991 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091215-10 CCB	1	S15	-0.005	0.053	12/15/2009@15:52:48			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.005 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.005 > -0.050					
		Message	CCB Passed					
		Action	Continue					
242838001	1	27	0.081	0.770	12/15/2009@15:54:36			
242838002	1	28	0.091	0.852	12/15/2009@15:55:24			
242721006	1	17	1.310	11.044	12/15/2009@15:56:14		25.00	
242721007	1	18	0.680	5.780	12/15/2009@15:57:06		10.00	
242721008	1	19	0.394	3.391	12/15/2009@15:57:56		5.00	
1201996291|933133|MB	1	29	0.021	0.272	12/15/2009@15:58:45			
1201996295||LCS	1	30	0.956	8.083	12/15/2009@15:59:33			
242789003	1	31	0.040	0.427	12/15/2009@16:00:24			
1201996292||DUP	1	32	0.035	0.383	12/15/2009@16:01:15			
1201996293||MS	1	33	0.783	6.643	12/15/2009@16:02:07			
WTR091215-04 CCV	1	S11	0.997	8.429	12/15/2009@16:02:57			CCV
		Known Conc:	1.000					

DQM Test: > + Concentration Limit								
Result:			0.997 < 1.104					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.997 > 0.895					
Message			CCV Passed					
Action			Continue					
WTR091215-10 CCB	1	S15	0.012	0.192	12/15/2009@16:04:48			CCB
Known Conc:			0.000					
DQM Test: > + Concentration Limit								
Result:			0.012 < 0.049					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.012 > -0.050					
Message			CCB Passed					
Action			Continue					
1201996294||MSD	1	34	0.683	5.806	12/15/2009@16:06:37			
242818001	1	35	1.234	10.407	12/15/2009@16:07:28			
242818002	1	36	0.641	5.453	12/15/2009@16:08:19			
242818003	1	37	0.373	3.209	12/15/2009@16:09:09			
242818004	1	38	0.408	3.506	12/15/2009@16:09:59			
242924001	1	39	6.859	57.435	12/15/2009@16:10:49			
242924001	1	39	1.803	15.170	12/15/2009@16:14:37	10.00		
242924001	1	39	0.608	5.180	12/15/2009@16:16:26		10.00	
WTR091215-04 CCV	1	S11	0.984	8.324	12/15/2009@16:18:14			CCV
Known Conc:			1.000					
DQM Test: > + Concentration Limit								
Result:			0.984 < 1.104					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.984 > 0.895					
Message			CCV Passed					
Action			Continue					
WTR091215-10 CCB	1	S15	-0.004	0.057	12/15/2009@16:20:04			CCB
Known Conc:			0.000					
DQM Test: > + Concentration Limit								
Result:			-0.004 < 0.049					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.004 > -0.050					
Message			CCB Passed					
Action			Continue					

Author: axh3 Date : 12/15/2009

Channel 1 (NH3) : Current View

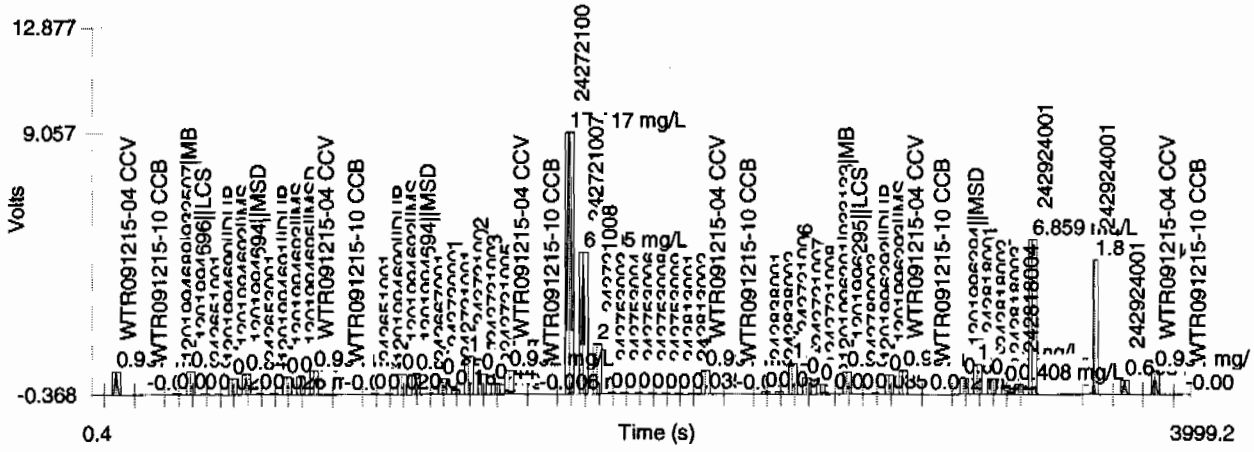

Table 1: NH3

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	2.000	1	16.779	1.678	0.2	12/15/2009	14:14:17
2	1.000	1	8.436	0.849	0.2	12/15/2009	14:15:06
3	0.500	1	4.442	0.441	-3.9	12/15/2009	14:15:56
4	0.100	1	0.951	0.094	-2.1	12/15/2009	14:16:47
5	0.050	1	0.449	0.043	12.4	12/15/2009	14:17:39
6	0.000	1	0.022	0.003		12/15/2009	14:18:32

Figure 1: NH3

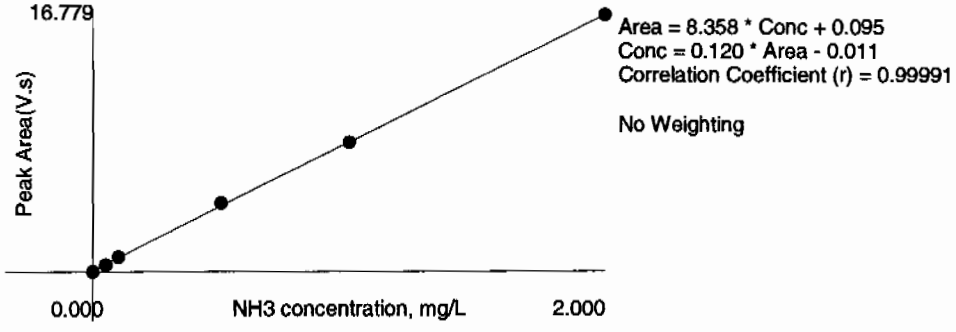

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **932518.0** Verified by: _____

Analyst: Stephanie Jackson

Method: SW846 9010C Distillation SW846 9010B Prep EPA 335.3

EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1201994735	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.0125	mL
MS	1201994729	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MS	1201994730	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MS	1201994731	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MSD	1201994732	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MSD	1201994733	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MSD	1201994734	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1201994725 MB	15-DEC-2009 12:30:00	Ground Water	25	25	1	>12
1201994735 LCS	15-DEC-2009 12:30:00	Ground Water	25	25	1	>12
242249001	15-DEC-2009 12:30:00	Misc Liquid	5	25	5	>12
242437003	15-DEC-2009 12:30:00	Ground Water	25	25	1	>12
1201994726 DUP (242437003)	15-DEC-2009 12:30:00	Ground Water	25	25	1	>12
1201994729 MS (242437003)	15-DEC-2009 12:30:00	Ground Water	25	25	1	>12
1201994732 MSD (242437003)	15-DEC-2009 12:30:00	Ground Water	25	25	1	>12
242651002	15-DEC-2009 12:30:00	Ground Water	25	25	1	>12
242653002	15-DEC-2009 12:30:00	Ground Water	25	25	1	>12
242667002	15-DEC-2009 12:30:00	Ground Water	25	25	1	>12
242716001	15-DEC-2009 12:30:00	Water	25	25	1	>12
1201994727 DUP (242716001)	15-DEC-2009 12:30:00	Water	25	25	1	>12
1201994730 MS (242716001)	15-DEC-2009 12:30:00	Water	25	25	1	>12
1201994733 MSD (242716001)	15-DEC-2009 12:30:00	Water	25	25	1	>12
242745001	15-DEC-2009 12:30:00	Water	25	25	1	>12
242753001	15-DEC-2009 12:30:00	Ground Water	25	25	1	>12

Prep Logbook

Batch ID: **932518.0** Verified by: _____

Analyst: Stephanie Jackson

Method: SW846 9010C Distillation SW846 9010B Prep EPA 335.3

EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1201994735	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.0125	mL
MS	1201994729	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MS	1201994730	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MS	1201994731	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MSD	1201994732	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MSD	1201994733	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL
MSD	1201994734	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1184831-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
242753003	15-DEC-2009 12:30:00	Ground Water	25	25	1	>12
242753005	15-DEC-2009 12:30:00	Ground Water	25	25	1	>12
242753007	15-DEC-2009 12:30:00	Ground Water	25	25	1	>12
242753009	15-DEC-2009 12:30:00	Ground Water	25	25	1	>12
242789002	15-DEC-2009 12:30:00	Ground Water	25	25	1	>12
242790001	15-DEC-2009 12:30:00	Waste Water	25	25	1	>12
1201994728 DUP (242790001)	15-DEC-2009 12:30:00	Waste Water	25	25	1	>12
1201994731 MS (242790001)	15-DEC-2009 12:30:00	Waste Water	25	25	1	>12
1201994734 MSD (242790001)	15-DEC-2009 12:30:00	Waste Water	25	25	1	>12
242818001	15-DEC-2009 12:30:00	Storm Water	25	25	1	>12
242818003	15-DEC-2009 12:30:00	Storm Water	25	25	1	>12
242828001	15-DEC-2009 12:30:00	Storm Water	25	25	1	>12
242828003	15-DEC-2009 12:30:00	Storm Water	25	25	1	>12
242838001	15-DEC-2009 12:30:00	Surface Water	25	25	1	>12
242838002	15-DEC-2009 12:30:00	Surface Water	25	25	1	>12

Reagent/Solvent Lot ID	Description	Amount
091211-C	0.25N Sodium Hydroxide Solution	25 mL
1176724-C	0.8N H3NO3S	1.25 mL

Comments:

sample 242249001 prepped @ 5mL due to violent reaction to reagents

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	12/16/2009 9:03:01	OM_12-16-2009_08-59-38
150 ppb		1	axc2	12/16/2009 9:03:53	OM_12-16-2009_08-59-38
100 ppb		1	axc2	12/16/2009 9:04:45	OM_12-16-2009_08-59-38
50 ppb		1	axc2	12/16/2009 9:05:38	OM_12-16-2009_08-59-38
10 ppb		1	axc2	12/16/2009 9:06:31	OM_12-16-2009_08-59-38
CRDL 5.0 ppb		1	axc2	12/16/2009 9:07:25	OM_12-16-2009_08-59-38
ICAL-00		1	axc2	12/16/2009 9:08:19	OM_12-16-2009_08-59-38
ICV		1	axc2	12/16/2009 9:10:10	OM_12-16-2009_08-59-38
ICB		1	axc2	12/16/2009 9:12:00	OM_12-16-2009_08-59-38
CRDL		1	axc2	12/16/2009 9:13:50	OM_12-16-2009_08-59-38
1201989952	930415	1	axc2	12/16/2009 9:15:41	OM_12-16-2009_08-59-38
1201989956	930415	1	axc2	12/16/2009 9:16:34	OM_12-16-2009_08-59-38
242225002	930415	1	axc2	12/16/2009 9:17:27	OM_12-16-2009_08-59-38
242225003	930415	1	axc2	12/16/2009 9:18:20	OM_12-16-2009_08-59-38
242225004	930415	1	axc2	12/16/2009 9:19:13	OM_12-16-2009_08-59-38
242225005	930415	1	axc2	12/16/2009 9:20:06	OM_12-16-2009_08-59-38
242225006	930415	1	axc2	12/16/2009 9:20:59	OM_12-16-2009_08-59-38
242225007	930415	1	axc2	12/16/2009 9:21:51	OM_12-16-2009_08-59-38
242225008	930415	1	axc2	12/16/2009 9:22:43	OM_12-16-2009_08-59-38
242225009	930415	1	axc2	12/16/2009 9:23:36	OM_12-16-2009_08-59-38
CCV		1	axc2	12/16/2009 9:24:29	OM_12-16-2009_08-59-38
CCB		1	axc2	12/16/2009 9:26:18	OM_12-16-2009_08-59-38
1201989953	930415	1	axc2	12/16/2009 9:28:07	OM_12-16-2009_08-59-38
1201989954	930415	1	axc2	12/16/2009 9:28:59	OM_12-16-2009_08-59-38
1201989955	930415	1	axc2	12/16/2009 9:29:50	OM_12-16-2009_08-59-38
242225010	930415	1	axc2	12/16/2009 9:30:42	OM_12-16-2009_08-59-38
242225011	930415	1	axc2	12/16/2009 9:31:34	OM_12-16-2009_08-59-38
242427001	930415	1	axc2	12/16/2009 9:32:27	OM_12-16-2009_08-59-38
1201990918	930415	1	axc2	12/16/2009 9:33:21	OM_12-16-2009_08-59-38
1201990919	930415	1	axc2	12/16/2009 9:34:15	OM_12-16-2009_08-59-38
1201990920	930415	1	axc2	12/16/2009 9:35:08	OM_12-16-2009_08-59-38
242427003	930415	1	axc2	12/16/2009 9:36:01	OM_12-16-2009_08-59-38
CCV		1	axc2	12/16/2009 9:36:53	OM_12-16-2009_08-59-38
CCB		1	axc2	12/16/2009 9:38:43	OM_12-16-2009_08-59-38
242428003	930415	1	axc2	12/16/2009 9:40:32	OM_12-16-2009_08-59-38
242481001	930415	1	axc2	12/16/2009 9:41:25	OM_12-16-2009_08-59-38
242487001	930415	1	axc2	12/16/2009 9:42:18	OM_12-16-2009_08-59-38
242524001	930415	1	axc2	12/16/2009 9:43:11	OM_12-16-2009_08-59-38
242585001	930415	1	axc2	12/16/2009 9:44:03	OM_12-16-2009_08-59-38
242585002	930415	1	axc2	12/16/2009 9:44:55	OM_12-16-2009_08-59-38
242585003	930415	1	axc2	12/16/2009 9:45:48	OM_12-16-2009_08-59-38
242597001	930415	1	axc2	12/16/2009 9:46:40	OM_12-16-2009_08-59-38
1201994725	932519	1	axc2	12/16/2009 9:47:32	OM_12-16-2009_08-59-38
1201994735*	932519	1	axc2	12/16/2009 9:48:23	OM_12-16-2009_08-59-38
CCV		1	axc2	12/16/2009 9:49:15	OM_12-16-2009_08-59-38
CCB		1	axc2	12/16/2009 9:51:06	OM_12-16-2009_08-59-38
242249001	932519	1	axc2	12/16/2009 9:52:55	OM_12-16-2009_08-59-38
242437003	932519	1	axc2	12/16/2009 9:53:49	OM_12-16-2009_08-59-38
1201994726	932519	1	axc2	12/16/2009 9:54:42	OM_12-16-2009_08-59-38
1201994729	932519	1	axc2	12/16/2009 9:55:37	OM_12-16-2009_08-59-38
1201994732	932519	1	axc2	12/16/2009 9:56:29	OM_12-16-2009_08-59-38
242651002	932519	1	axc2	12/16/2009 9:57:22	OM_12-16-2009_08-59-38
242653002	932519	1	axc2	12/16/2009 9:58:16	OM_12-16-2009_08-59-38
242667002	932519	1	axc2	12/16/2009 9:59:09	OM_12-16-2009_08-59-38
1201994735	932519	1	axc2	12/16/2009 10:00:00	OM_12-16-2009_08-59-38
242716001	932519	1	axc2	12/16/2009 10:00:53	OM_12-16-2009_08-59-38
CCV		1	axc2	12/16/2009 10:01:46	OM_12-16-2009_08-59-38
CCB		1	axc2	12/16/2009 10:03:36	OM_12-16-2009_08-59-38

1201994727	932519	1	axc2	12/16/2009	10:05:25	OM_12-16-2009_08-59-38
1201994730	932519	1	axc2	12/16/2009	10:06:18	OM_12-16-2009_08-59-38
1201994733*	932519	1	axc2	12/16/2009	10:07:10	OM_12-16-2009_08-59-38
242745001	932519	1	axc2	12/16/2009	10:08:02	OM_12-16-2009_08-59-38
242753001	932519	1	axc2	12/16/2009	10:08:55	OM_12-16-2009_08-59-38
242753003	932519	1	axc2	12/16/2009	10:09:47	OM_12-16-2009_08-59-38
242753005	932519	1	axc2	12/16/2009	10:10:41	OM_12-16-2009_08-59-38
242753007	932519	1	axc2	12/16/2009	10:11:35	OM_12-16-2009_08-59-38
242753009	932519	1	axc2	12/16/2009	10:12:28	OM_12-16-2009_08-59-38
242789002	932519	1	axc2	12/16/2009	10:13:22	OM_12-16-2009_08-59-38
CCV		1	axc2	12/16/2009	10:14:15	OM_12-16-2009_08-59-38
CCB		1	axc2	12/16/2009	10:16:05	OM_12-16-2009_08-59-38
1201994733	932519	1	axc2	12/16/2009	10:17:53	OM_12-16-2009_08-59-38
242790001	932519	1	axc2	12/16/2009	10:18:47	OM_12-16-2009_08-59-38
1201994728	932519	1	axc2	12/16/2009	10:19:40	OM_12-16-2009_08-59-38
1201994731	932519	1	axc2	12/16/2009	10:20:34	OM_12-16-2009_08-59-38
1201994734	932519	1	axc2	12/16/2009	10:21:27	OM_12-16-2009_08-59-38
242818001	932519	1	axc2	12/16/2009	10:22:20	OM_12-16-2009_08-59-38
242818003	932519	1	axc2	12/16/2009	10:23:12	OM_12-16-2009_08-59-38
242828001	932519	1	axc2	12/16/2009	10:24:05	OM_12-16-2009_08-59-38
242828003	932519	1	axc2	12/16/2009	10:24:58	OM_12-16-2009_08-59-38
242838001	932519	1	axc2	12/16/2009	10:25:50	OM_12-16-2009_08-59-38
CCV		1	axc2	12/16/2009	10:26:42	OM_12-16-2009_08-59-38
CCB		1	axc2	12/16/2009	10:28:33	OM_12-16-2009_08-59-38
242838002	932519	1	axc2	12/16/2009	10:30:22	OM_12-16-2009_08-59-38
1201996315	933141	1	axc2	12/16/2009	10:31:14	OM_12-16-2009_08-59-38
1201996316	933141	1	axc2	12/16/2009	10:32:08	OM_12-16-2009_08-59-38
1201996317	933141	1	axc2	12/16/2009	10:33:02	OM_12-16-2009_08-59-38
242249001	933141	1	axc2	12/16/2009	10:33:56	OM_12-16-2009_08-59-38
CCV		1	axc2	12/16/2009	10:34:49	OM_12-16-2009_08-59-38
CCB		1	axc2	12/16/2009	10:36:39	OM_12-16-2009_08-59-38

Author: axc2 Date : 12/16/2009

Original Run Filename: OM_12-16-2009_08-59-38.OMN created 12/16/2009 08:59:38
Original Run Author's Signature: [axc2]
Current Run Filename: OM_12-16-2009_08-59-38.OMN last modified 12/16/2009 10:37:45
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN091216-01	1	S1	200	8.29	12/16/2009@09:03:01			200 ppb
WCN091216-02	1	S2	150	6.22	12/16/2009@09:03:53			150 ppb
WCN091216-03	1	S3	100	3.98	12/16/2009@09:04:45			100 ppb
WCN091216-04	1	S4	50.0	2.16	12/16/2009@09:05:38			50 ppb
WCN091216-05	1	S5	10.0	0.527	12/16/2009@09:06:31			10 ppb
WCN091216-06	1	S6	5.00	0.279	12/16/2009@09:07:25			CRDL 5.0 ppb
WCN091216-08	1	S7	0.00	0.0158	12/16/2009@09:08:19			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99967 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN091216-07	1	S8	142	5.88	12/16/2009@09:10:10			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-5.1 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-5.1 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN091216-08	1	S7	-1.32	0.00	12/16/2009@09:12:00			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.32 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.32 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN091216-06	1	S6	5.79	0.291	12/16/2009@09:13:50			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.79 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.79 > 2.50					
		Message	Pass					
		Action	None					
1201989952|930415|MB	1	1	-0.911	0.0169	12/16/2009@09:15:41			
1201989956||LCS	1	2	50.4	2.12	12/16/2009@09:16:34			
242225002	1	3	-0.547	0.0318	12/16/2009@09:17:27			
242225003	1	4	-1.32	1.15e-4	12/16/2009@09:18:20			
242225004	1	5	-0.190	0.0465	12/16/2009@09:19:13			
242225005	1	6	-0.679	0.0264	12/16/2009@09:20:06			
242225006	1	7	4.94	0.256	12/16/2009@09:20:59			
242225007	1	8	4.14	0.224	12/16/2009@09:21:51			
242225008	1	9	-0.596	0.0298	12/16/2009@09:22:43			
242225009	1	10	-0.630	0.0284	12/16/2009@09:23:36			
WCN091216-03	1	S3	101	4.20	12/16/2009@09:24:29			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	1.3 < 10.0					

		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	1.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091216-08	1	S7	-1.41	-0.00362	12/16/2009@09:26:18			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.41 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.41 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1201989953||DUP	1	11	-0.0976	0.0502	12/16/2009@09:28:07			
1201989954||MS	1	12	104	4.31	12/16/2009@09:28:59			
1201989955||MSD	1	13	107	4.45	12/16/2009@09:29:50			
242225010	1	14	-1.35	-0.00120	12/16/2009@09:30:42			
242225011	1	15	-1.39	-0.00274	12/16/2009@09:31:34			
242427001	1	16	0.538	0.0763	12/16/2009@09:32:27			
1201990918||DUP	1	17	1.42	0.112	12/16/2009@09:33:21			
1201990919||MS	1	18	102	4.24	12/16/2009@09:34:15			
1201990920||MSD	1	19	105	4.34	12/16/2009@09:35:08			
242427003	1	20	0.175	0.0614	12/16/2009@09:36:01			
WCN091216-03	1	S3	102	4.24	12/16/2009@09:36:53			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	2.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	2.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091216-08	1	S7	-1.32	1.59e-4	12/16/2009@09:38:43			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.32 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.32 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242428003	1	21	-0.491	0.0341	12/16/2009@09:40:32			
242481001	1	22	2.77	0.168	12/16/2009@09:41:25			
242487001	1	23	3.12	0.182	12/16/2009@09:42:18			
242524001	1	24	12.8	0.579	12/16/2009@09:43:11			
242585001	1	25	1.75	0.126	12/16/2009@09:44:03			
242585002	1	26	0.285	0.0659	12/16/2009@09:44:55			
242585003	1	27	1.57	0.119	12/16/2009@09:45:48			
242597001	1	28	-2.19	-0.0356	12/16/2009@09:46:40			
1201994725|932519|MB	1	29	-1.32	2.86e-4	12/16/2009@09:47:32			
1201994735||LCS	1	30	32.9	1.40	12/16/2009@09:48:23			
WCN091216-03	1	S3	102	4.23	12/16/2009@09:49:15			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	1.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	1.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091216-08	1	S7	-0.768	0.0228	12/16/2009@09:51:06			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-0.768 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.768 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242249001	1	31	3.82	0.211	12/16/2009@09:52:55			
242437003	1	32	-0.774	0.0225	12/16/2009@09:53:49			
1201994726||DUP	1	33	-1.14	0.00767	12/16/2009@09:54:42			
1201994729||MS	1	34	105	4.37	12/16/2009@09:55:37			
1201994732||MSD	1	35	106	4.38	12/16/2009@09:56:29			
242651002	1	36	-0.656	0.0273	12/16/2009@09:57:22			
242653002	1	37	-0.785	0.0221	12/16/2009@09:58:16			
242667002	1	38	-0.726	0.0245	12/16/2009@09:59:09			
1201994735||LCS	1	30	50.0	2.10	12/16/2009@10:00:00			
242716001	1	39	-0.742	0.0239	12/16/2009@10:00:53			
WCN091216-03	1	S3	103	4.26	12/16/2009@10:01:46			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091216-08	1	S7	-1.35	-9.85e-4	12/16/2009@10:03:36			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.35 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.35 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1201994727||DUP	1	40	-1.08	0.00999	12/16/2009@10:05:25			
1201994730||MS	1	41	93.5	3.88	12/16/2009@10:06:18			
1201994733||MSD	1	42	65.5	2.74	12/16/2009@10:07:10			
242745001	1	43	-1.43	-0.00427	12/16/2009@10:08:02			
242753001	1	44	-0.916	0.0167	12/16/2009@10:08:55			
242753003	1	45	-0.802	0.0214	12/16/2009@10:09:47			
242753005	1	46	-0.781	0.0222	12/16/2009@10:10:41			
242753007	1	47	0.0561	0.0565	12/16/2009@10:11:35			
242753009	1	48	-0.877	0.0183	12/16/2009@10:12:28			
242789002	1	49	-0.970	0.0145	12/16/2009@10:13:22			
WCN091216-03	1	S3	103	4.27	12/16/2009@10:14:15			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091216-08	1	S7	-0.844	0.0196	12/16/2009@10:16:05			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.844 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.844 > -5.00					
		Message	CCB Passed					
		Action	Continue					

1201994733||MSD	1	42	80.8	3.36	12/16/2009@10:17:53			
242790001	1	50	4.24	0.228	12/16/2009@10:18:47			
1201994728||DUP	1	51	1.41	0.112	12/16/2009@10:19:40			
1201994731||MS	1	52	107	4.43	12/16/2009@10:20:34			
1201994734||MSD	1	53	108	4.47	12/16/2009@10:21:27			
242818001	1	54	-0.204	0.0459	12/16/2009@10:22:20			
242818003	1	55	-0.636	0.0282	12/16/2009@10:23:12			
242828001	1	56	-0.327	0.0408	12/16/2009@10:24:05			
242828003	1	57	0.247	0.0643	12/16/2009@10:24:58			
242838001	1	58	-0.583	0.0303	12/16/2009@10:25:50			
WCN091216-03	1	S3	103	4.26	12/16/2009@10:26:42			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091216-08	1	S7	-0.609	0.0293	12/16/2009@10:28:33			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.609 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.609 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242838002	1	59	-0.481	0.0345	12/16/2009@10:30:22			
1201996315|933141|MB	1	60	-0.758	0.0232	12/16/2009@10:31:14			
1201996316||LCS	1	61	-0.887	0.0179	12/16/2009@10:32:08			
1201996317||LCSD	1	62	-0.706	0.0253	12/16/2009@10:33:02			
242249001	1	63	29.4	1.26	12/16/2009@10:33:56			
WCN091216-03	1	S3	103	4.26	12/16/2009@10:34:49			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091216-08	1	S7	0.110	0.0587	12/16/2009@10:36:39			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.110 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.110 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_12-16-2009_08-59-38.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A

Author: axc2

Date : 12/16/2009

Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

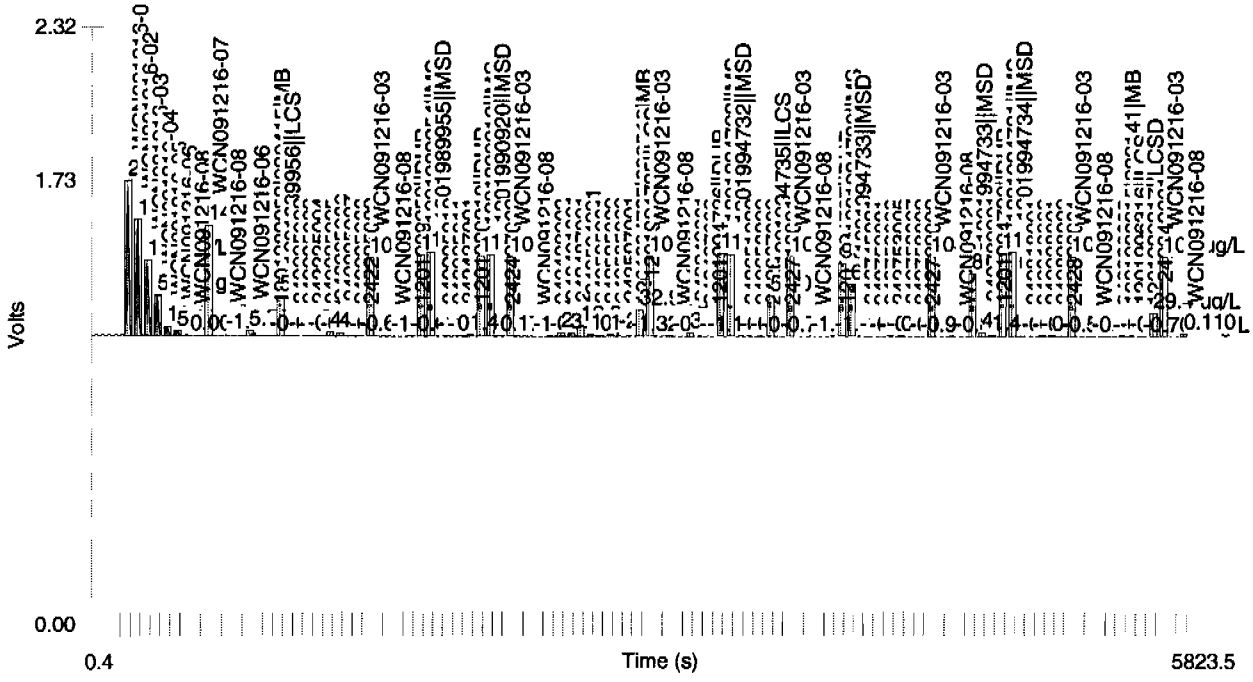

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.29	0.608	-0.6	12/16/2009	09:04:04
2	150	1	6.22	0.455	-0.4	12/16/2009	09:04:56
3	100	1	3.98	0.294	4.1	12/16/2009	09:05:48
4	50.0	1	2.16	0.158	-2.8	12/16/2009	09:06:41
5	10.0	1	0.527	0.0375	-13.2	12/16/2009	09:07:34
6	5.00	1	0.279	0.0189	-7.1	12/16/2009	09:08:28
7	0.00	1	0.0158	0.00177		12/16/2009	09:09:22

Author: axc2 Date : 12/16/2009

Figure 1: TCYANIDE

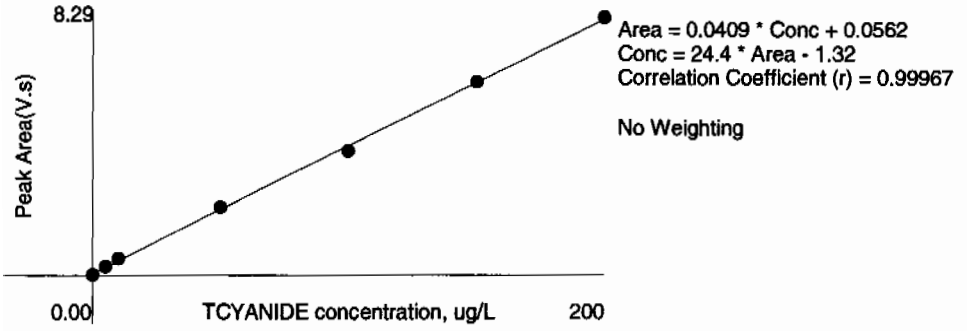

Ion Chromatography

This is runlog for Sequence 100107.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	12/02/09 18:35		1	100107	GXM3
ICAL-06	12/02/09 19:04		1	100107	GXM3
ICAL-05	12/02/09 19:34		1	100107	GXM3
ICAL-04	12/02/09 20:04		1	100107	GXM3
ICAL-03	12/02/09 20:34		1	100107	GXM3
ICAL-02	12/02/09 21:04		1	100107	GXM3
ICAL-01	12/02/09 21:33		1	100107	GXM3
ICAL-07	12/02/09 18:35		1	100107	GXM3
ICAL-06	12/02/09 19:04		1	100107	GXM3
ICAL-05	12/02/09 19:34		1	100107	GXM3
ICAL-04	12/02/09 20:04		1	100107	GXM3
ICAL-03	12/02/09 20:34		1	100107	GXM3
ICAL-02	12/02/09 21:04		1	100107	GXM3
ICAL-01	12/02/09 21:33		1	100107	GXM3

8 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

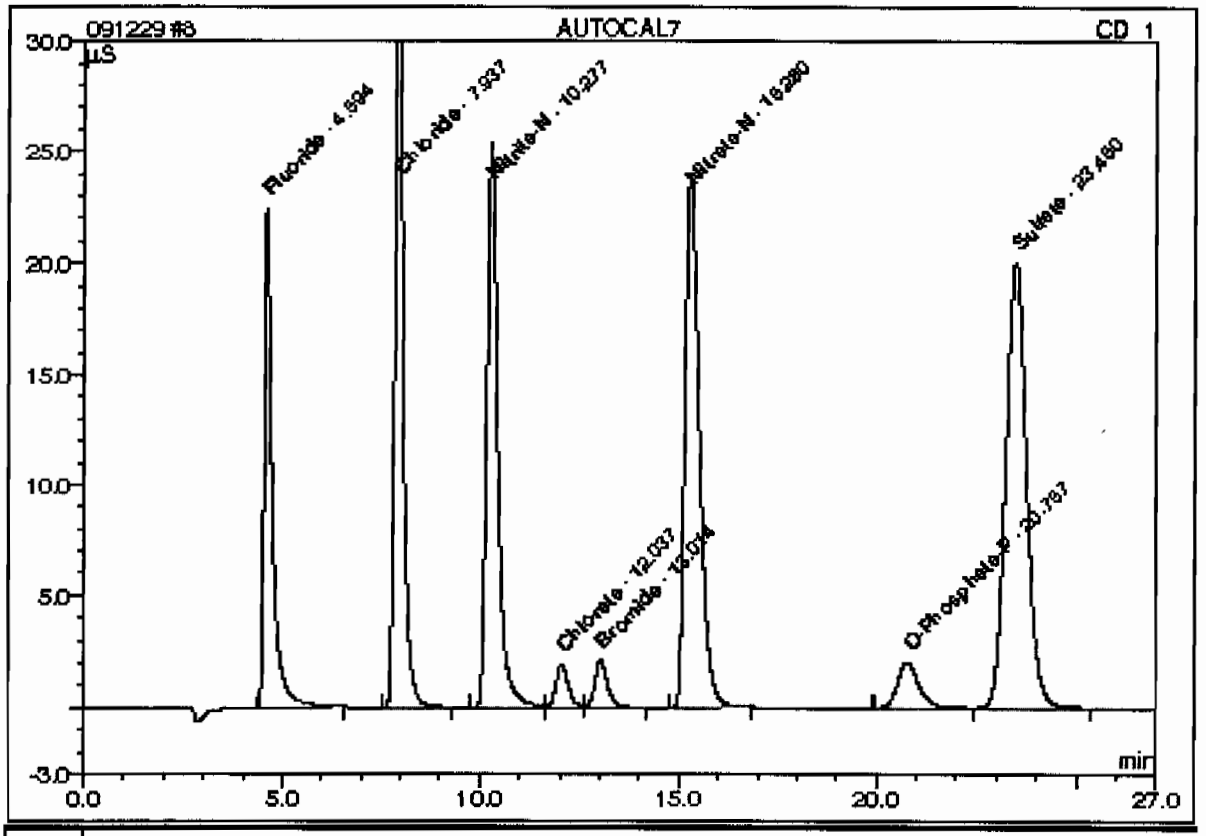

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	10.0000	10.1577		5.35634	11.49
2	7.94	Chloride	20.0000	20.4728		8.55118	18.34
3	10.28	Nitrite-N	10.0000	10.1488		7.97425	17.10
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromide	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2042		10.06854	21.59
7	20.76	O-Phosphate-P	5.0000	5.0829		1.26723	2.72
8	23.46	Sulfate	40.0000	40.7635		11.96232	25.65
Total:				106.9098	0.000	46.636	100.00

1 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

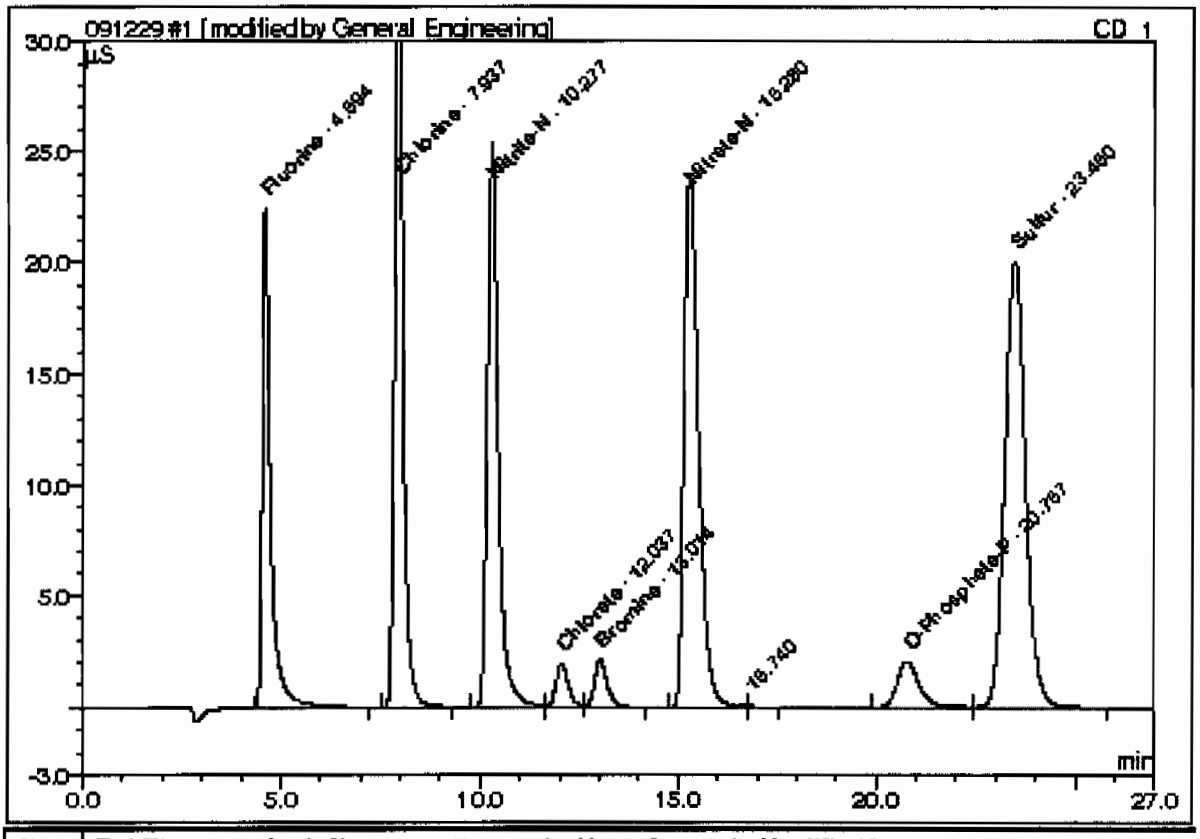

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluorine	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chlorine	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromine	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfur	13.3332	13.5815	*	11.96208	25.60
Total:				79.7299	0.000	46.723	99.98

1 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB86;300;9056

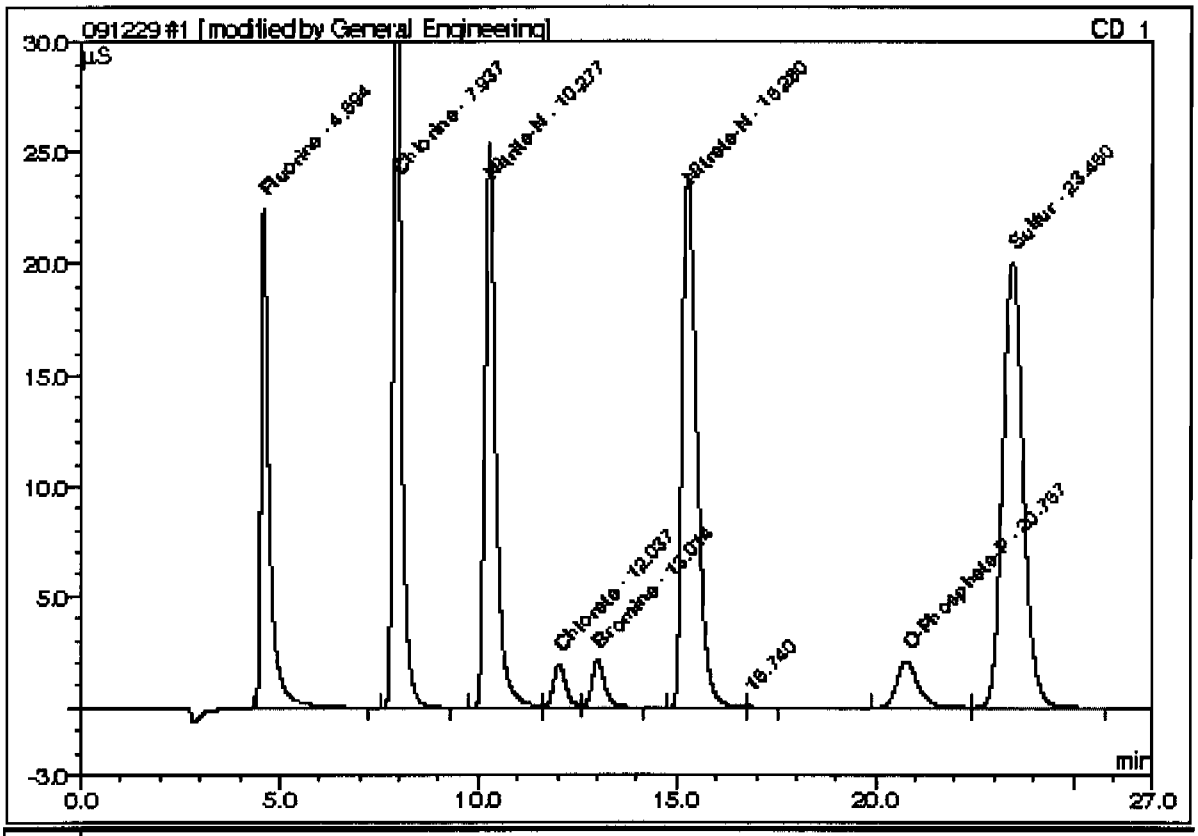

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluorine	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chlorine	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromine	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfur	13.3332	13.5815	*	11.96208	25.60
Total:				79.7299	0.000	46.723	99.98

1 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

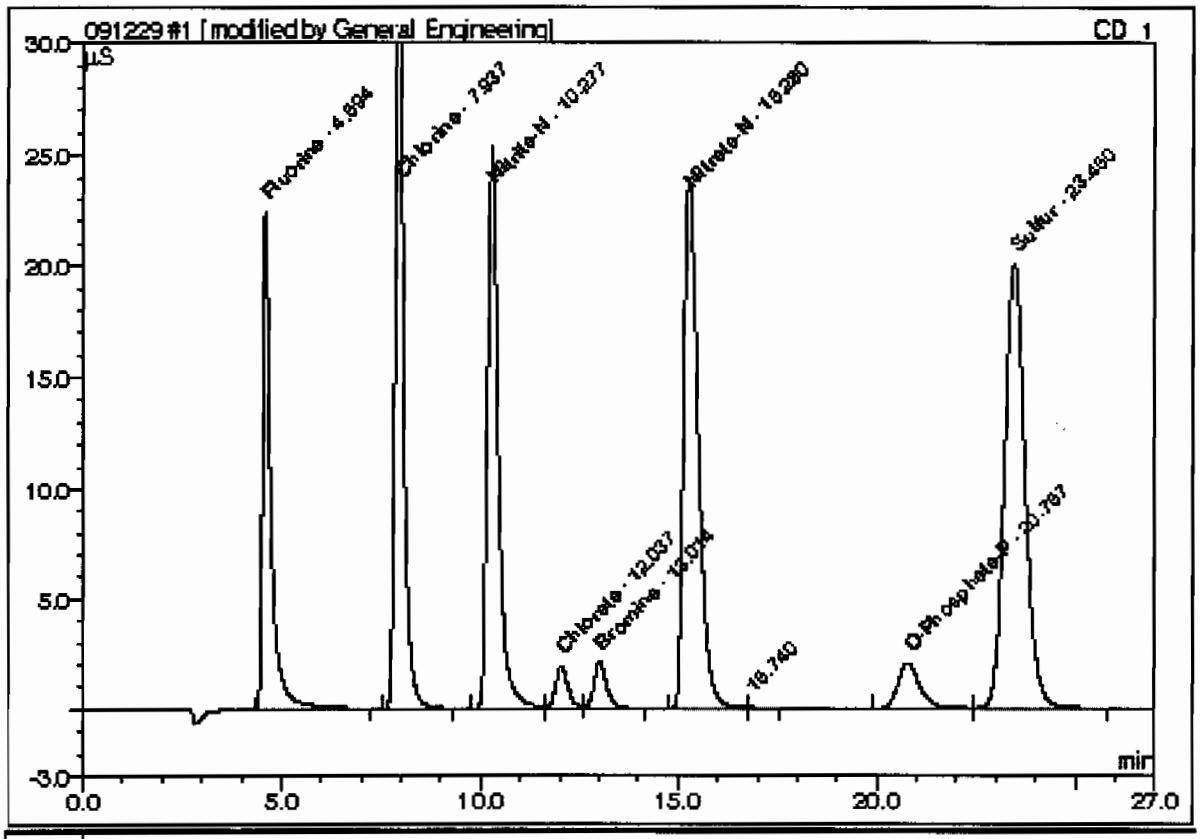

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluorine	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chlorine	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromine	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfur	13.3332	13.5815	*	11.96208	25.60
Total:				79.7299	0.000	46.723	99.98

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

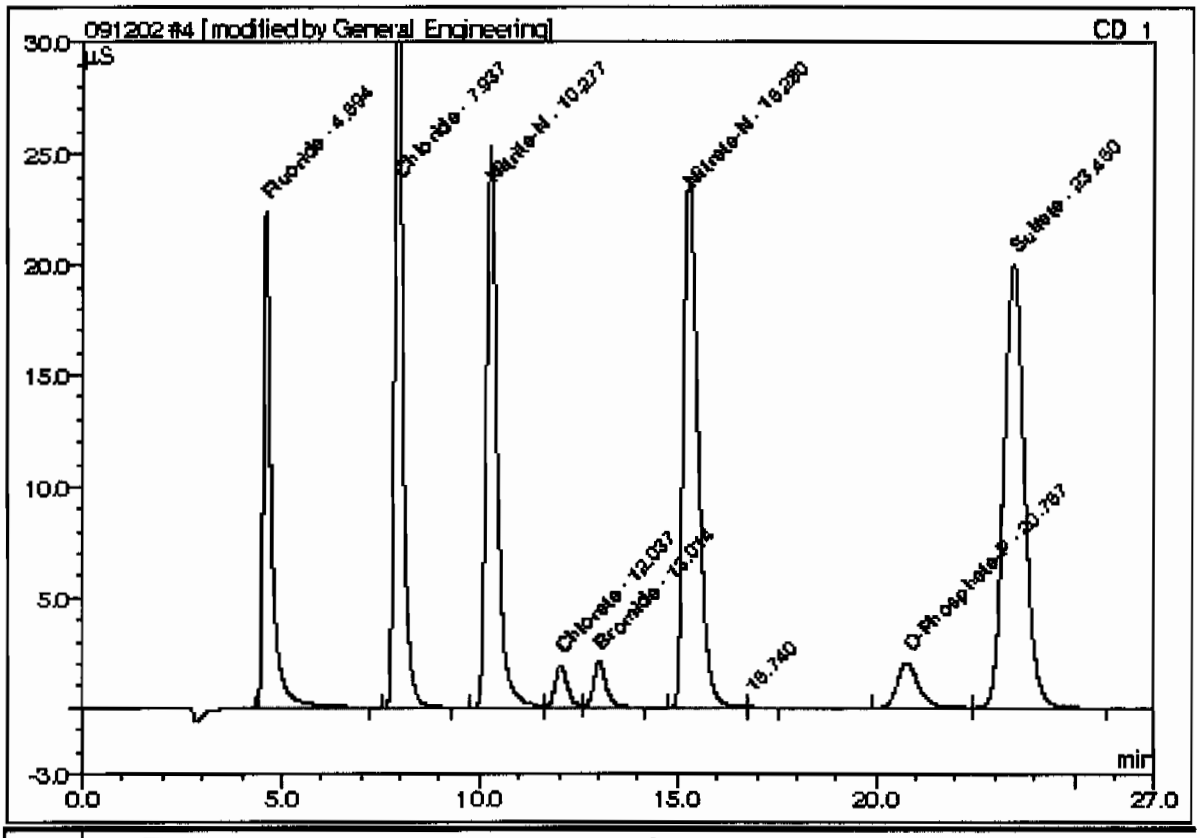

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chloride	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromide	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfate	40.0000	40.7450	*	11.96208	25.60
Total:				106.8933	0.000	46.723	99.98

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

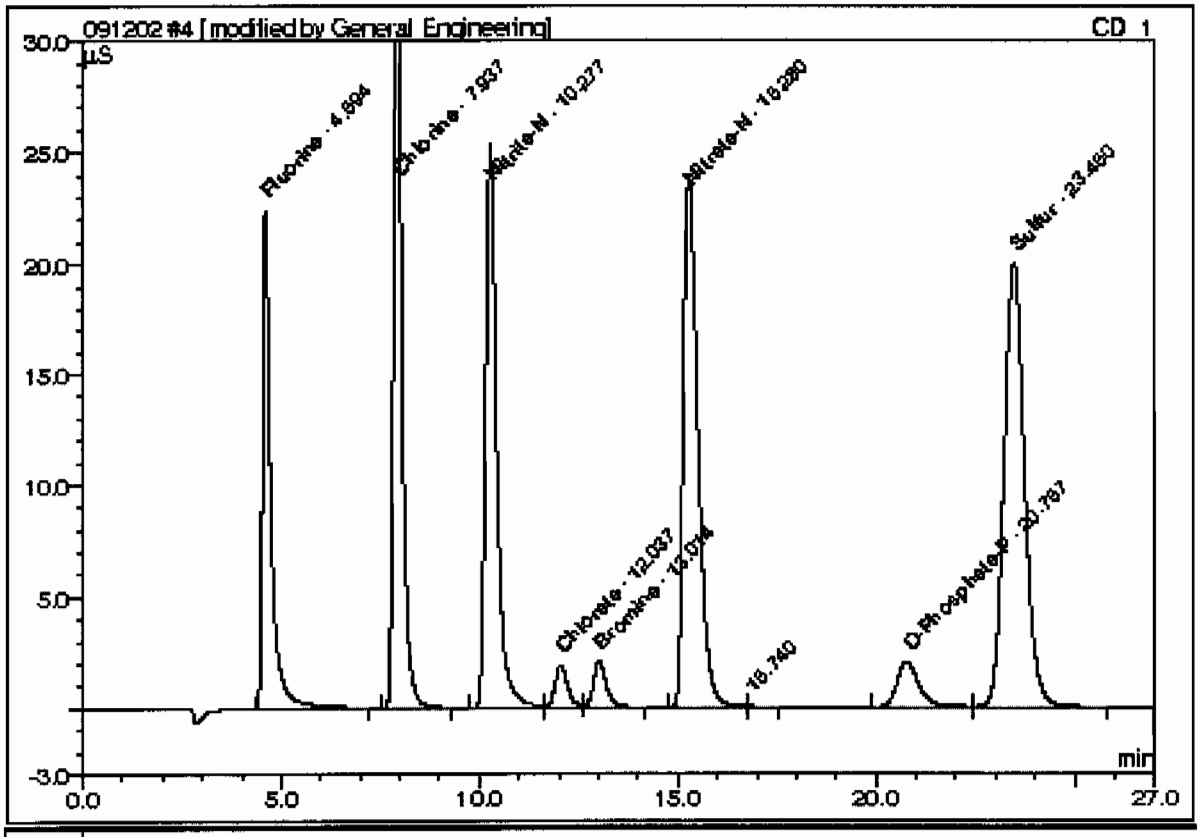

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluorine	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chlorine	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromine	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfur	13.3332	13.5815	*	11.96208	25.60
Total:				79.7299	0.000	46.723	99.98

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

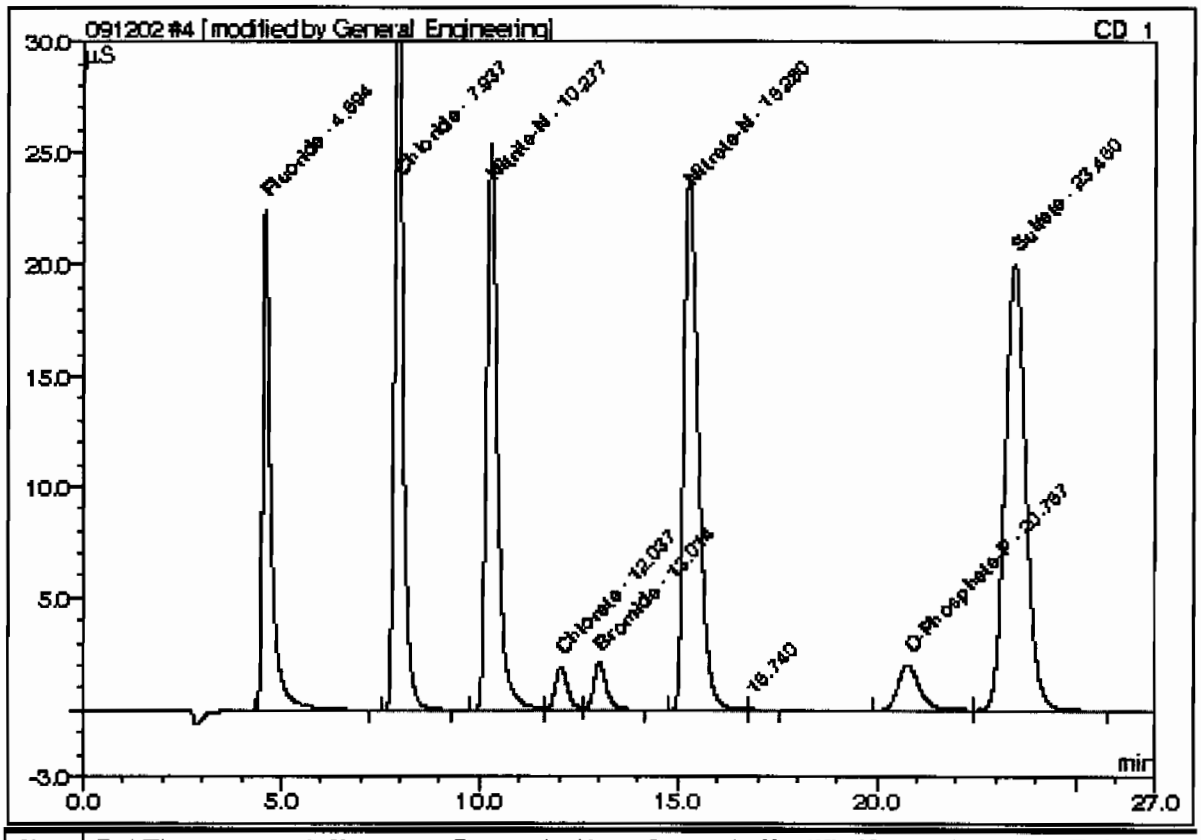

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chloride	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromide	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfate	40.0000	40.7450	*	11.96208	25.60
Total:				106.8933	0.000	46.723	99.98

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

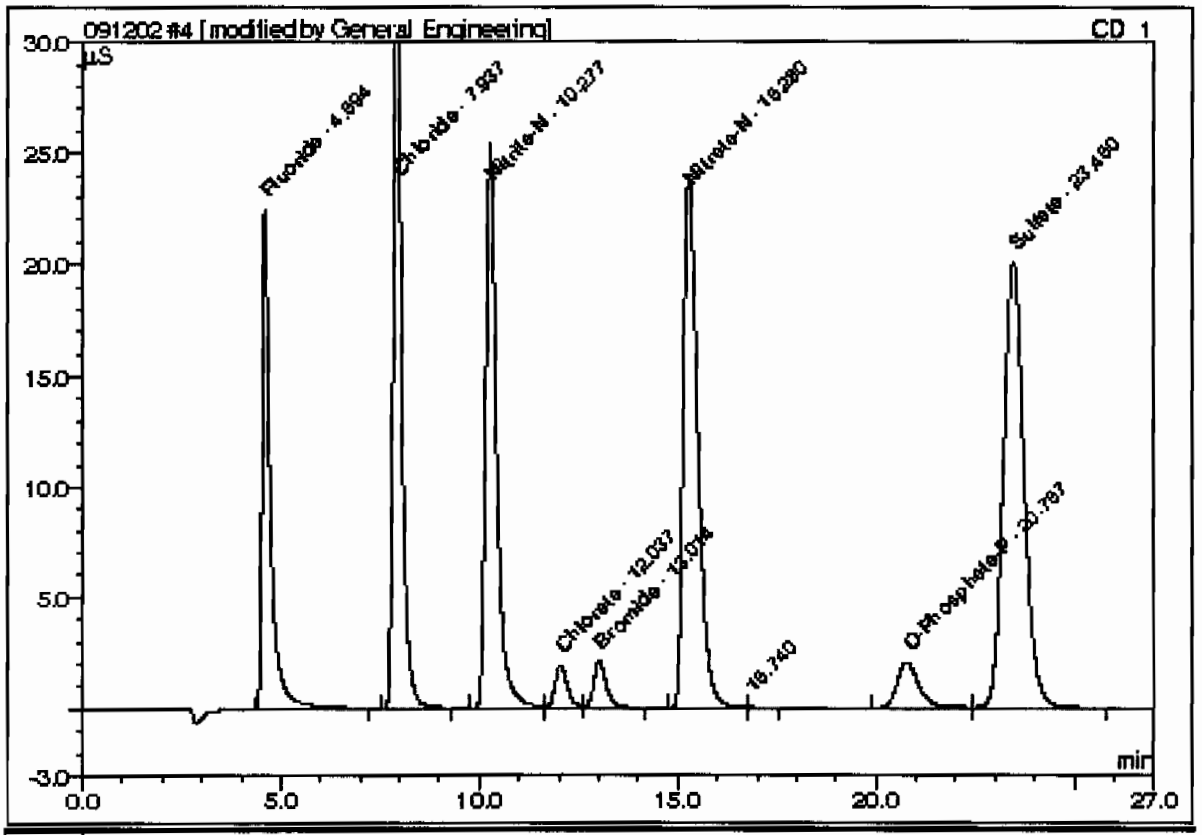

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chloride	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromide	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfate	40.0000	40.7450	*	11.96208	25.60
Total:				106.8933	0.000	46.723	99.98

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

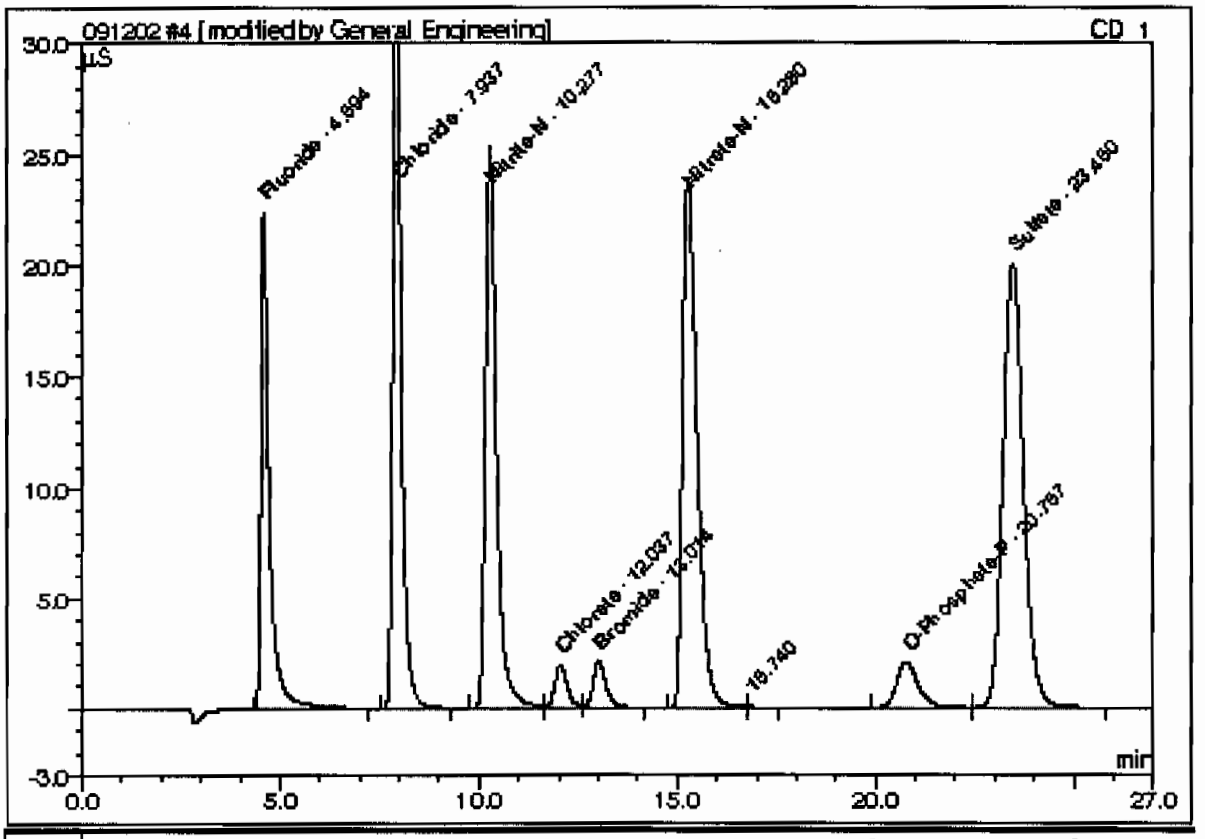

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chloride	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromide	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfate	40.0000	40.7450	*	11.96208	25.60
Total:				106.8933	0.000	46.723	99.98

9 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

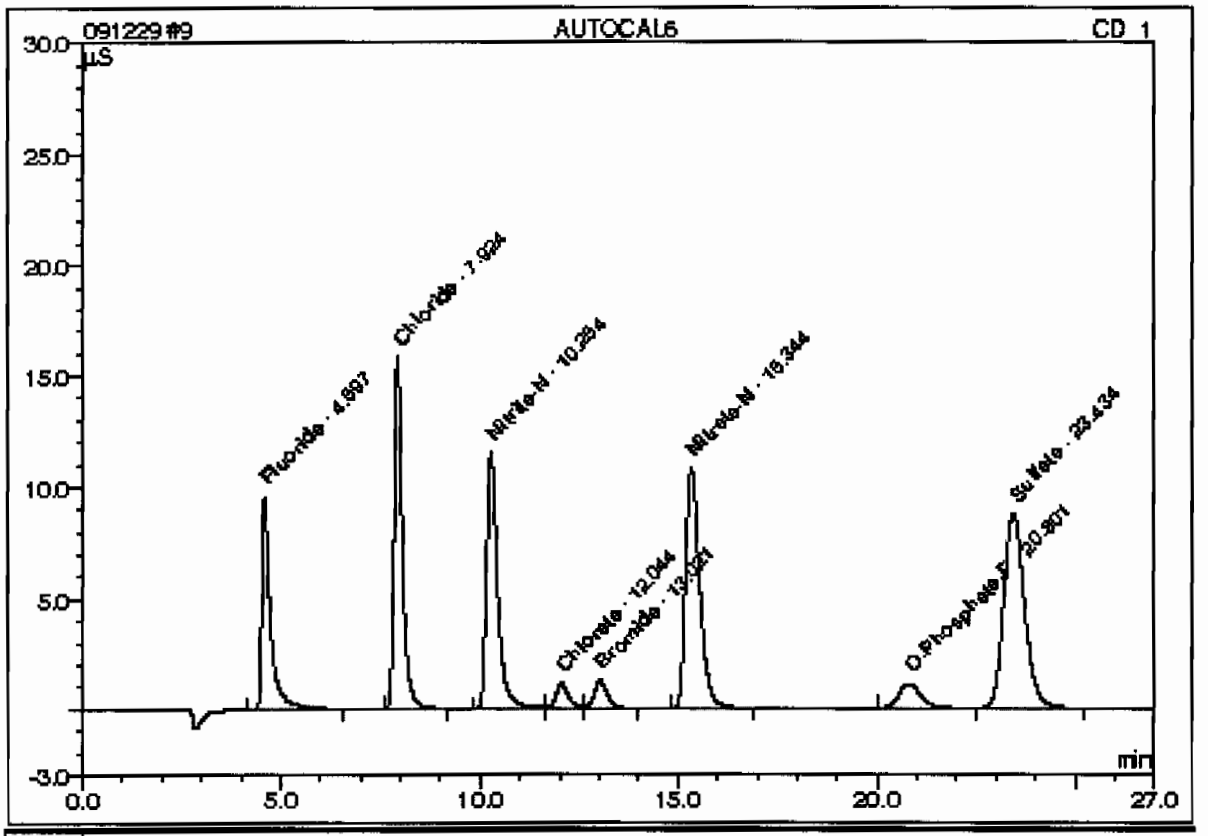

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	5.0000	4.6845		2.45967	11.55
2	7.92	Chloride	10.0000	9.0643		3.76891	17.70
3	10.26	Nitrite-N	5.0000	4.7100		3.66436	17.21
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromide	3.0000	2.9614		0.44868	2.11
6	15.34	Nitrate-N	5.0000	4.5981		4.48040	21.04
7	20.80	O-Phosphate-P	3.0000	2.8969		0.69988	3.29
8	23.43	Sulfate	20.0000	18.4844		5.36918	25.21
Total:				50.3622	0.000	21.294	100.00

2 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

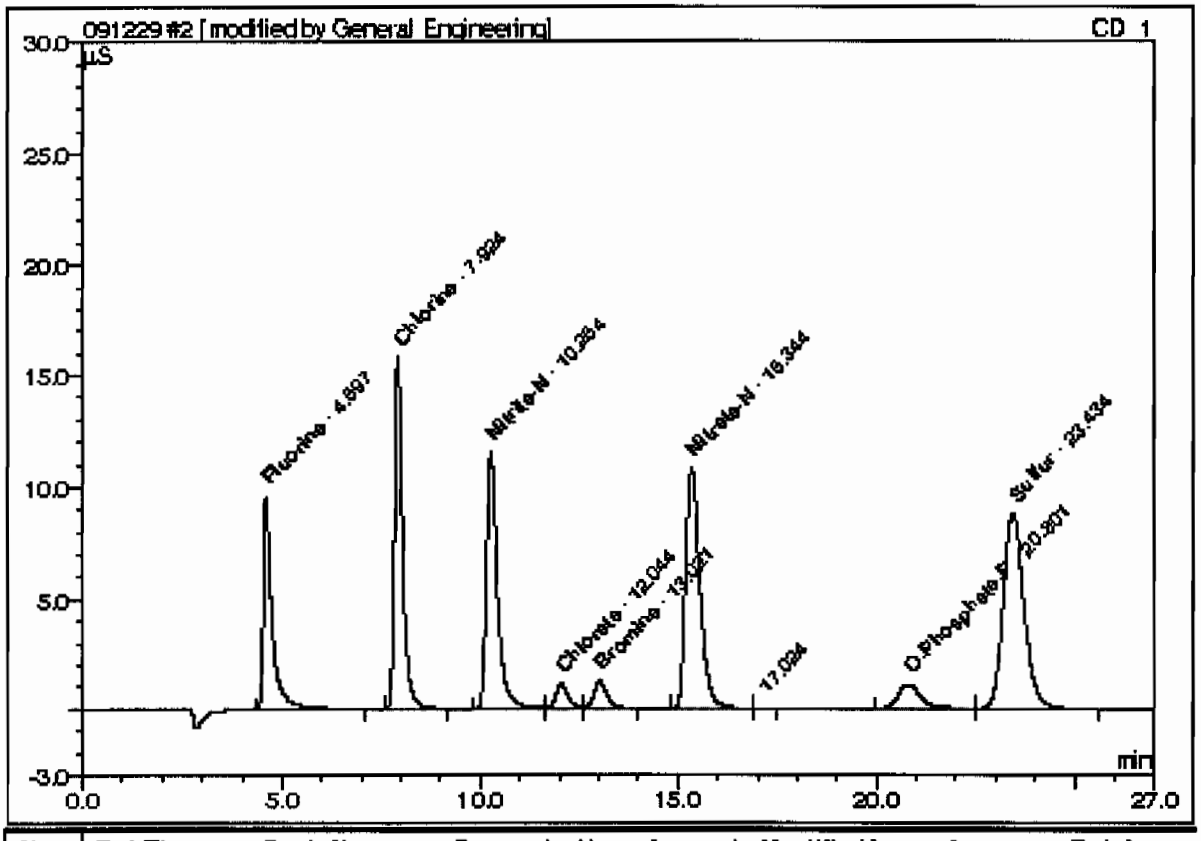

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluorine	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chlorine	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromine	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfur	6.6666	6.1723	*	5.38507	25.22
Total:				38.0531	0.000	21.349	99.99

2 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

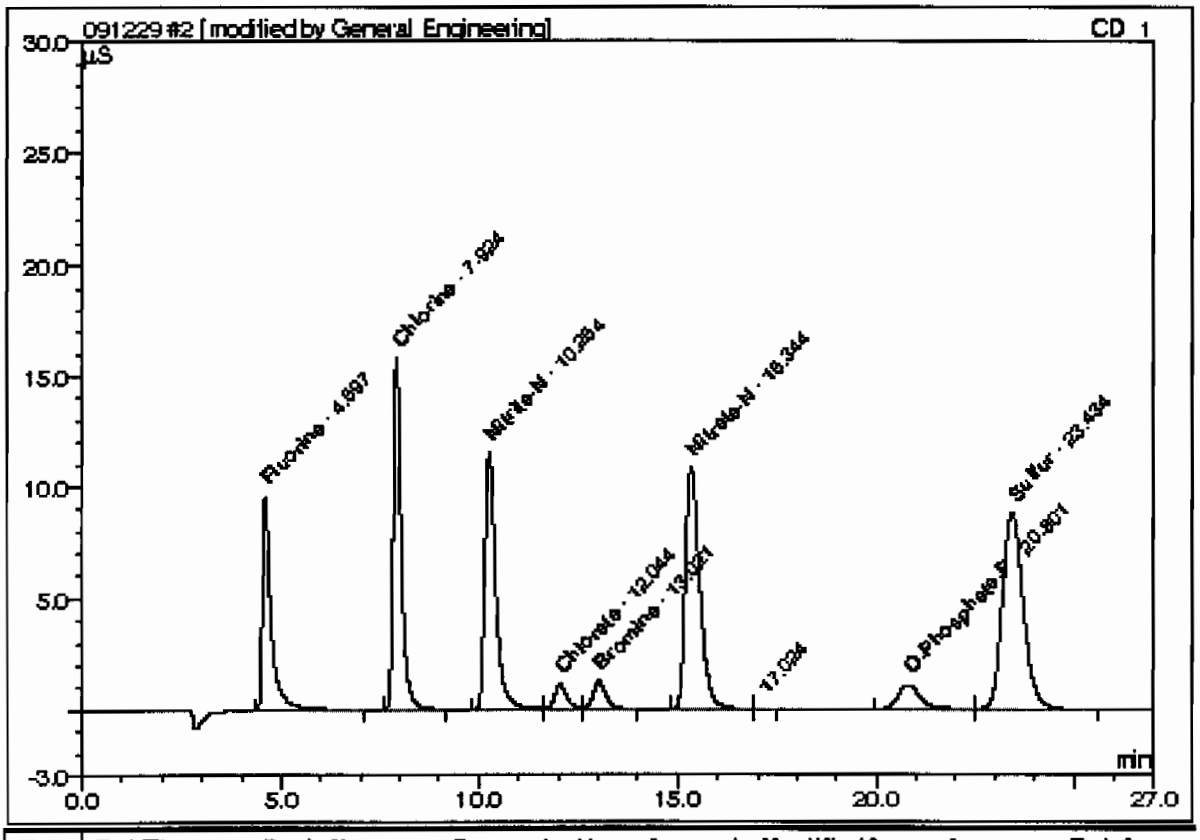

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluorine	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chlorine	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromine	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfur	6.6666	6.1723	*	5.38507	25.22
Total:				38.0531	0.000	21.349	99.99

2 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

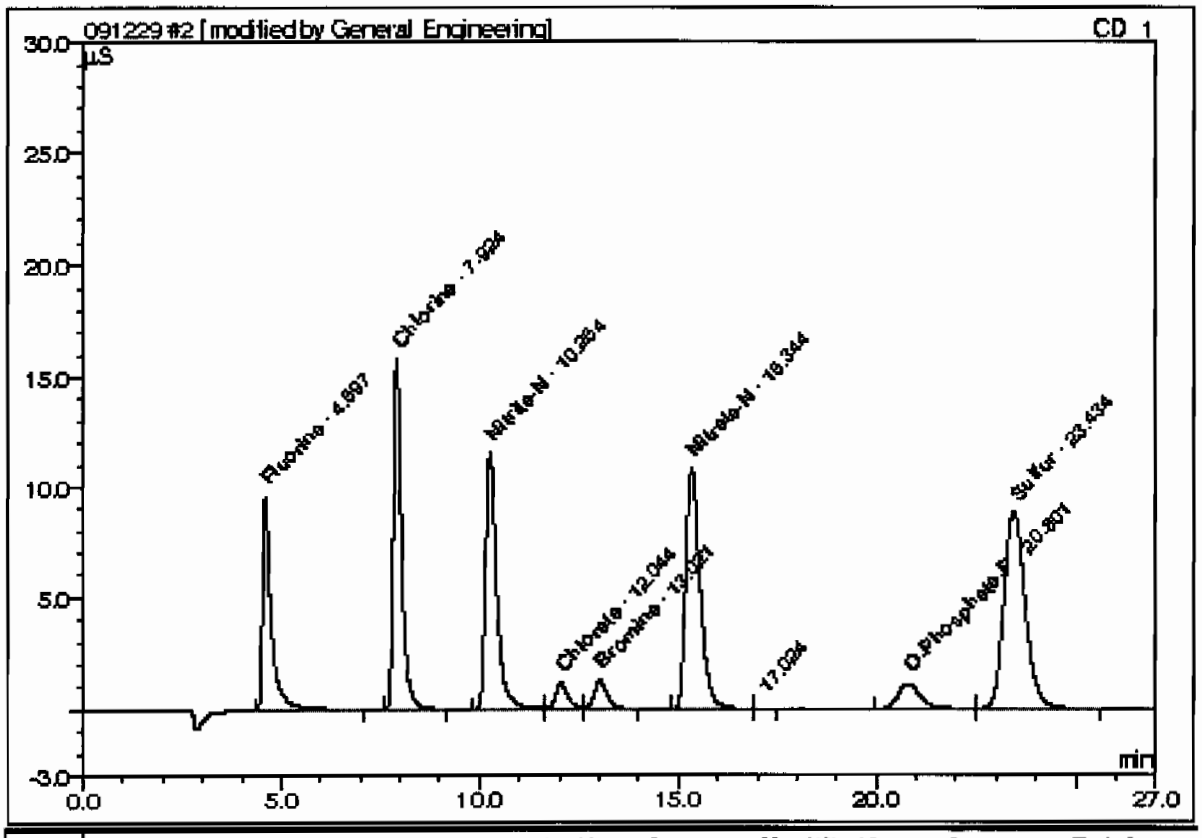

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluorine	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chlorine	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromine	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfur	6.6666	6.1723	*	5.38507	25.22
Total:				38.0531	0.000	21.349	99.99

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

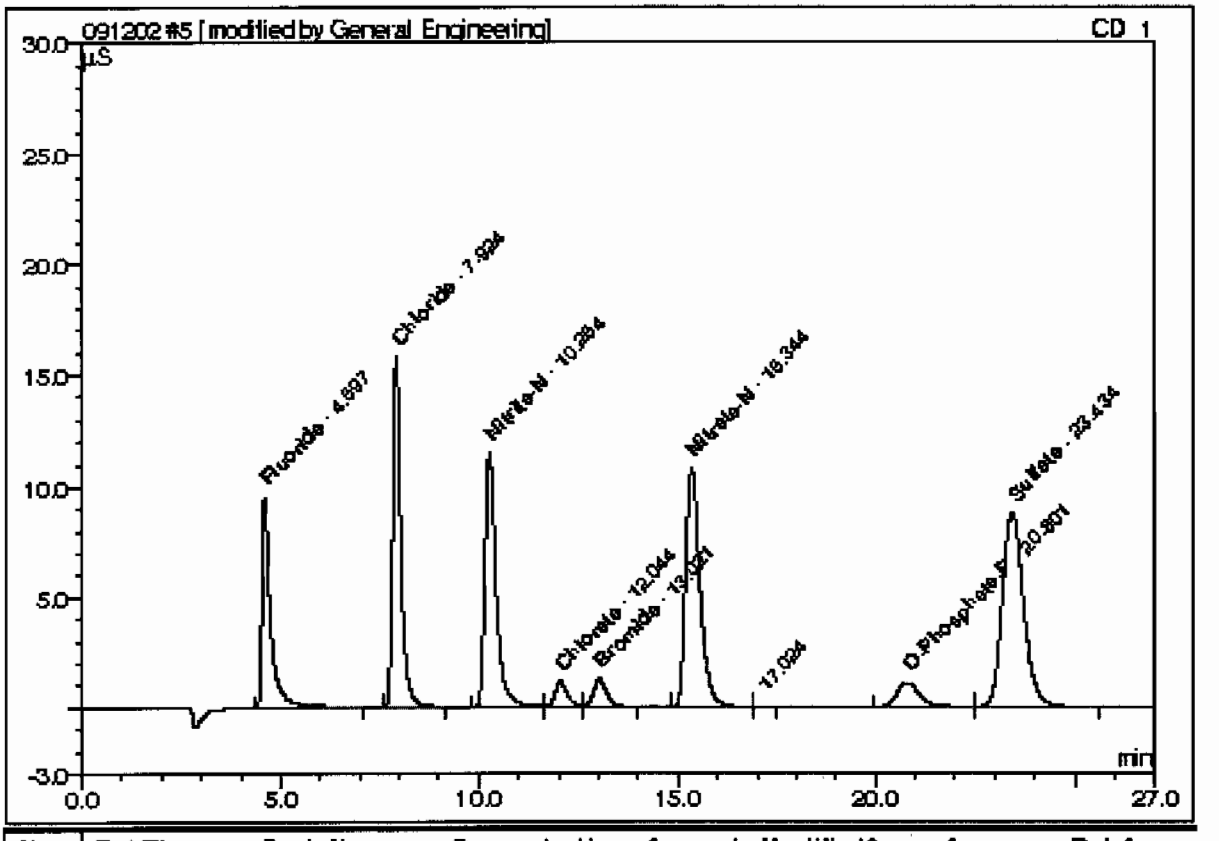

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chloride	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromide	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfate	20.0000	18.5172	*	5.38507	25.22
Total:				50.3979	0.000	21.349	99.99

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

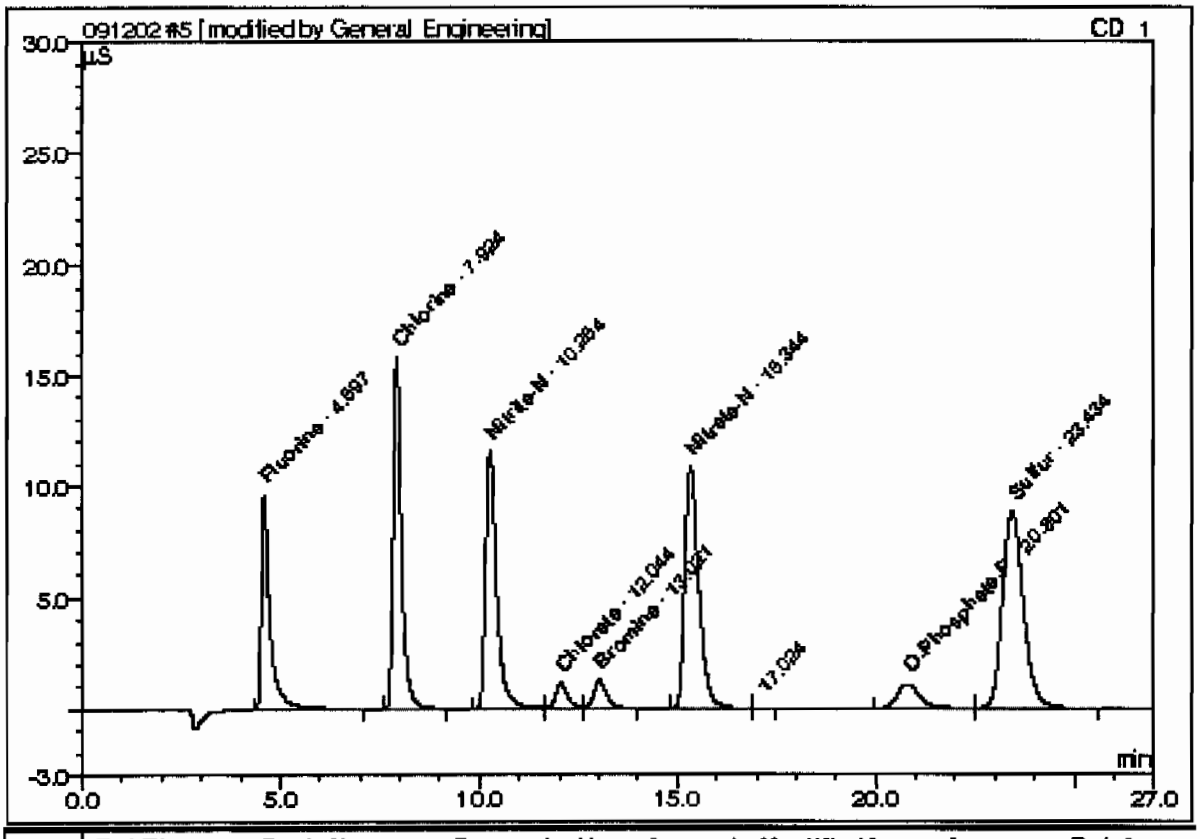

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluorine	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chlorine	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromine	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfur	6.6666	6.1723	*	5.38507	25.22
Total:				38.0531	0.000	21.349	99.99

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

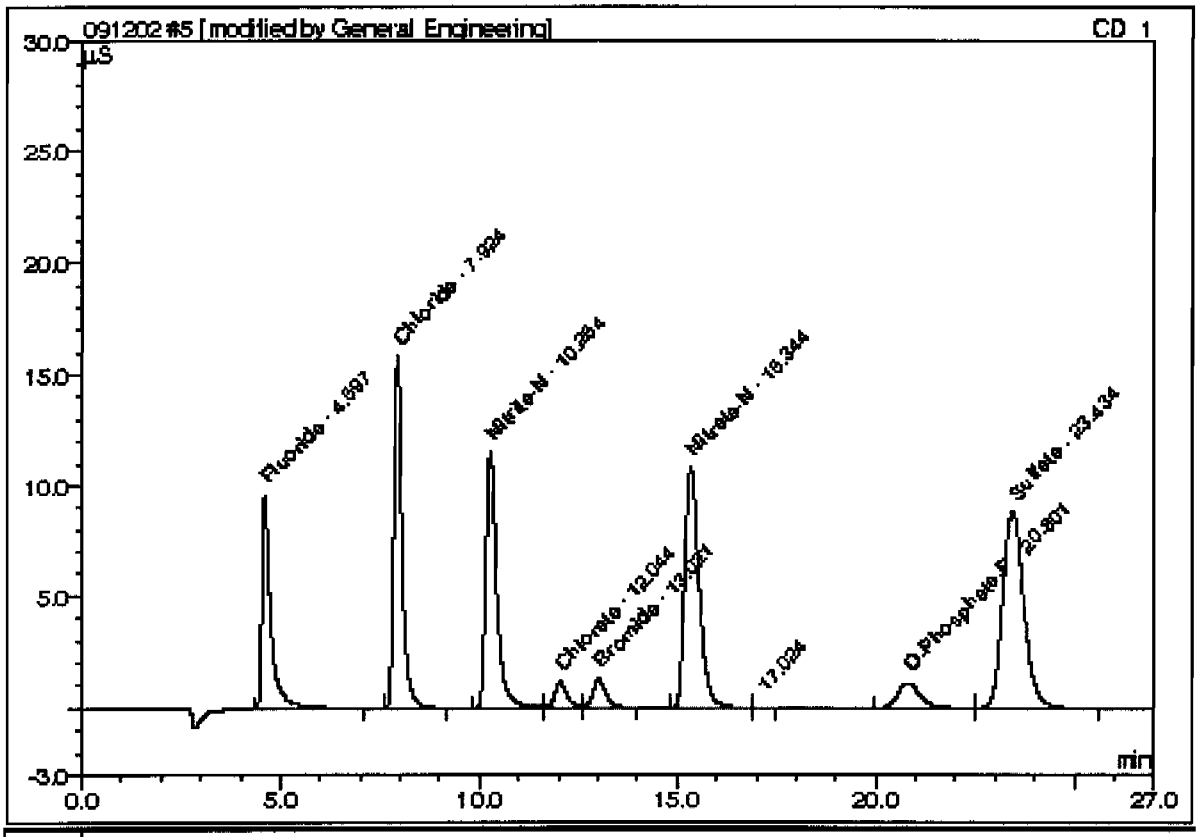

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chloride	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromide	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfate	20.0000	18.5172	*	5.38507	25.22
Total:				50.3979	0.000	21.349	99.99

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

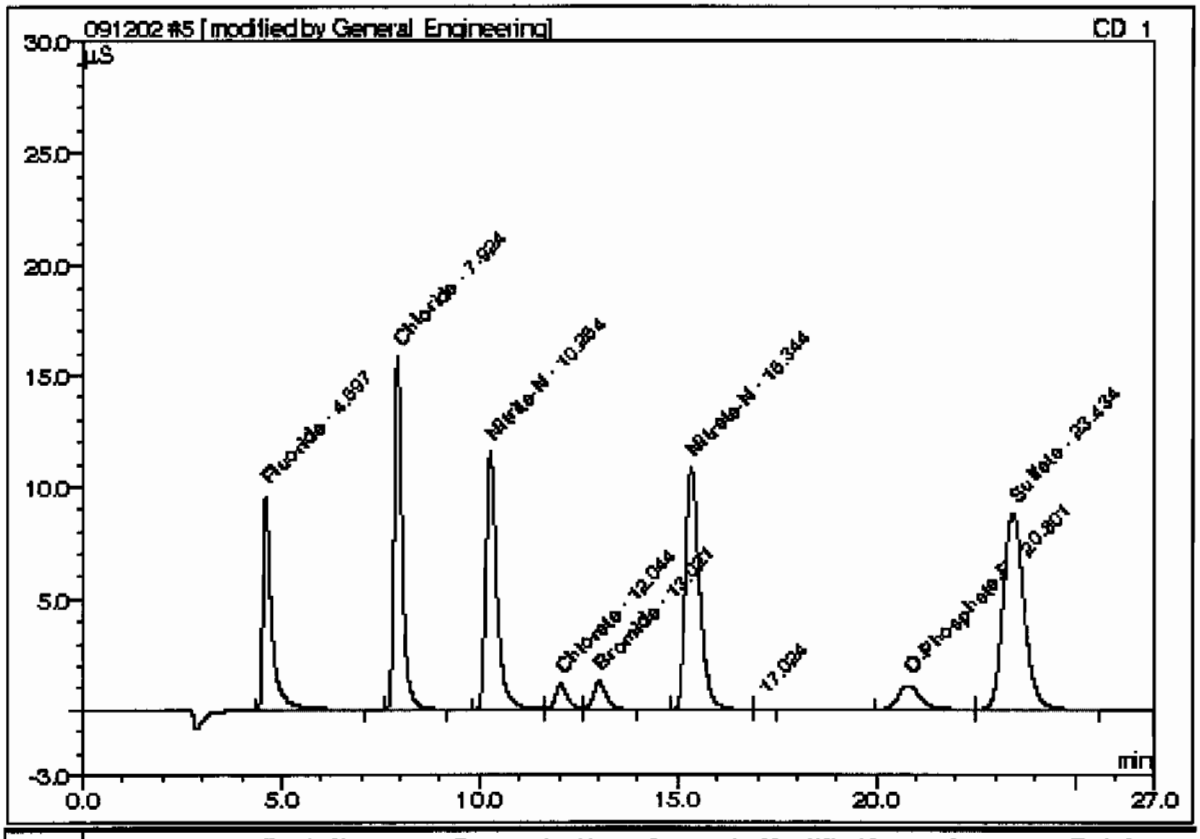

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chloride	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromide	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfate	20.0000	18.5172	*	5.38507	25.22
Total:				50.3979	0.000	21.349	99.99

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

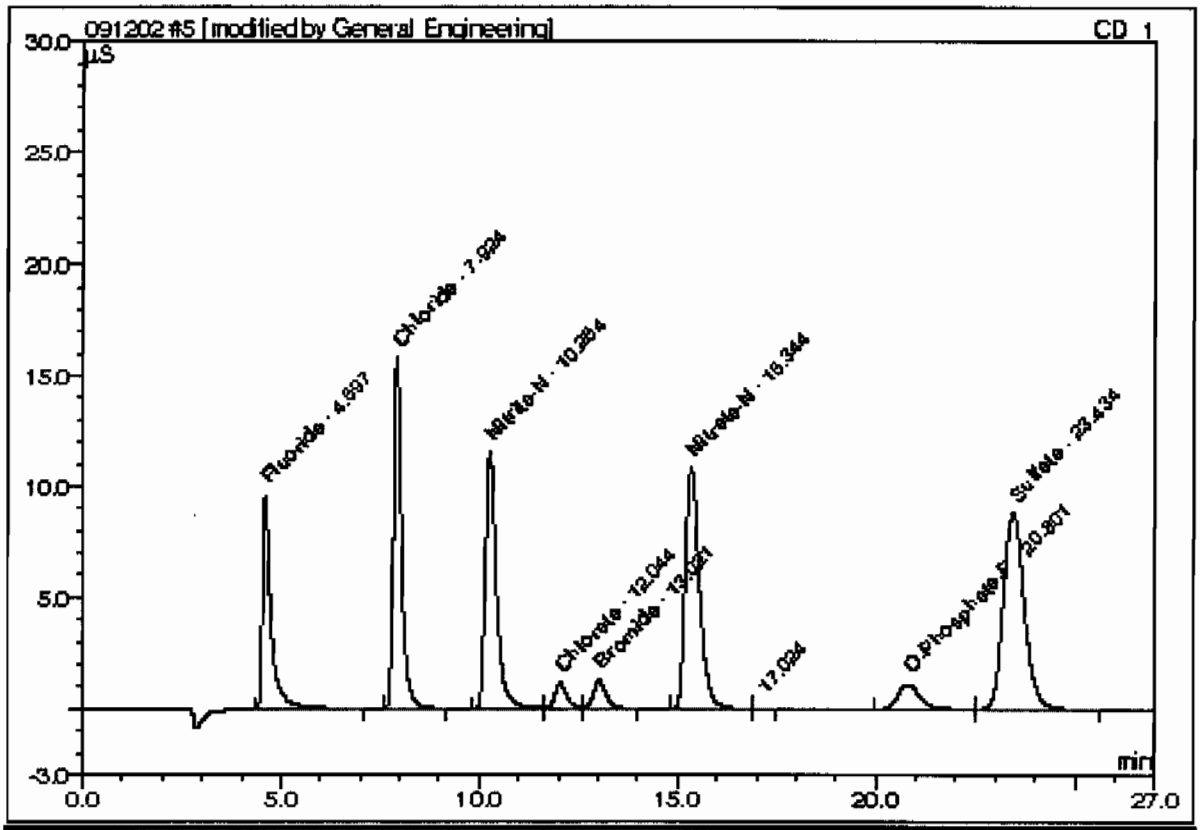

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chloride	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromide	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfate	20.0000	18.5172	*	5.38507	25.22
Total:				50.3979	0.000	21.349	99.99

10 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

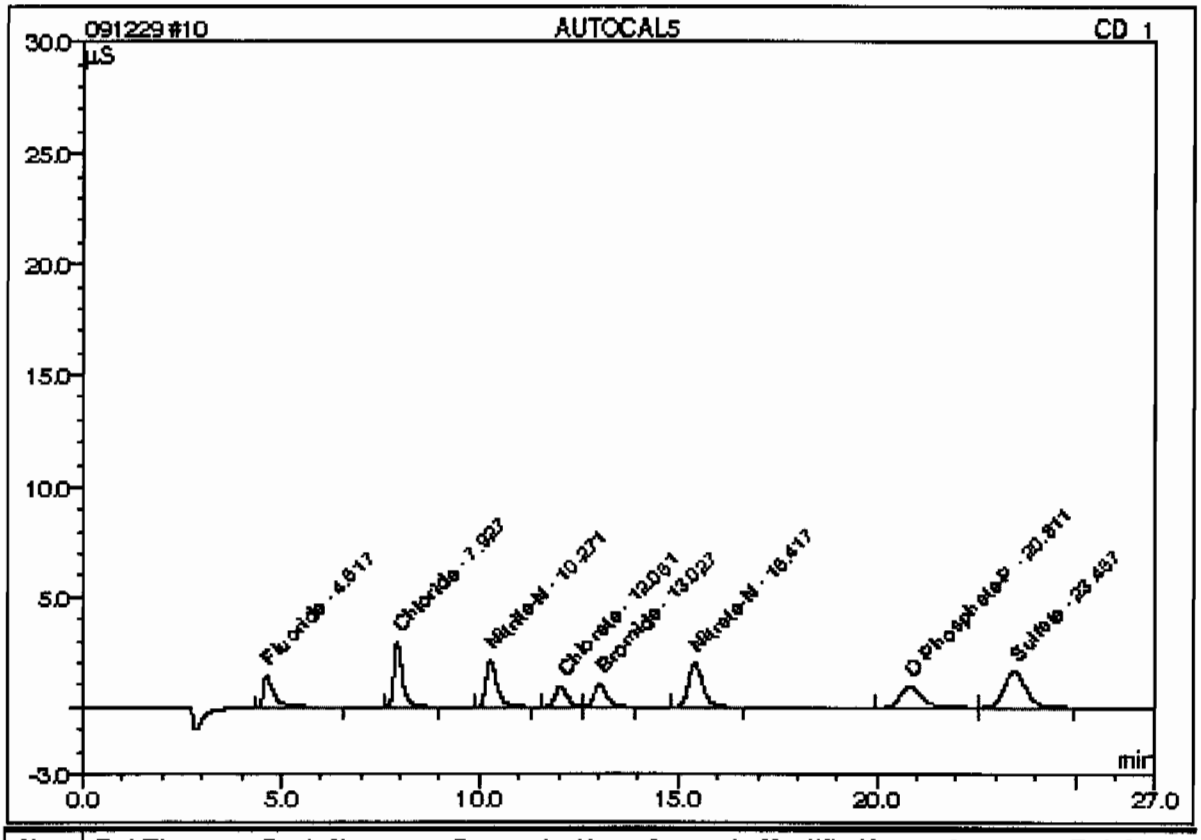

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	1.0000	0.9708		0.49415	9.72
2	7.93	Chloride	2.0000	1.8340		0.73808	14.51
3	10.27	Nitrite-N	1.0000	0.9410		0.67762	13.32
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.55
5	13.03	Bromide	2.5000	2.4949		0.37733	7.42
6	15.42	Nitrate-N	1.0000	0.9364		0.83040	16.33
7	20.81	O-Phosphate-P	2.5000	2.5263		0.60370	11.87
8	23.46	Sulfate	4.0000	3.8252		1.03106	20.27
Total:				15.9820	0.000	5.086	100.00

3 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

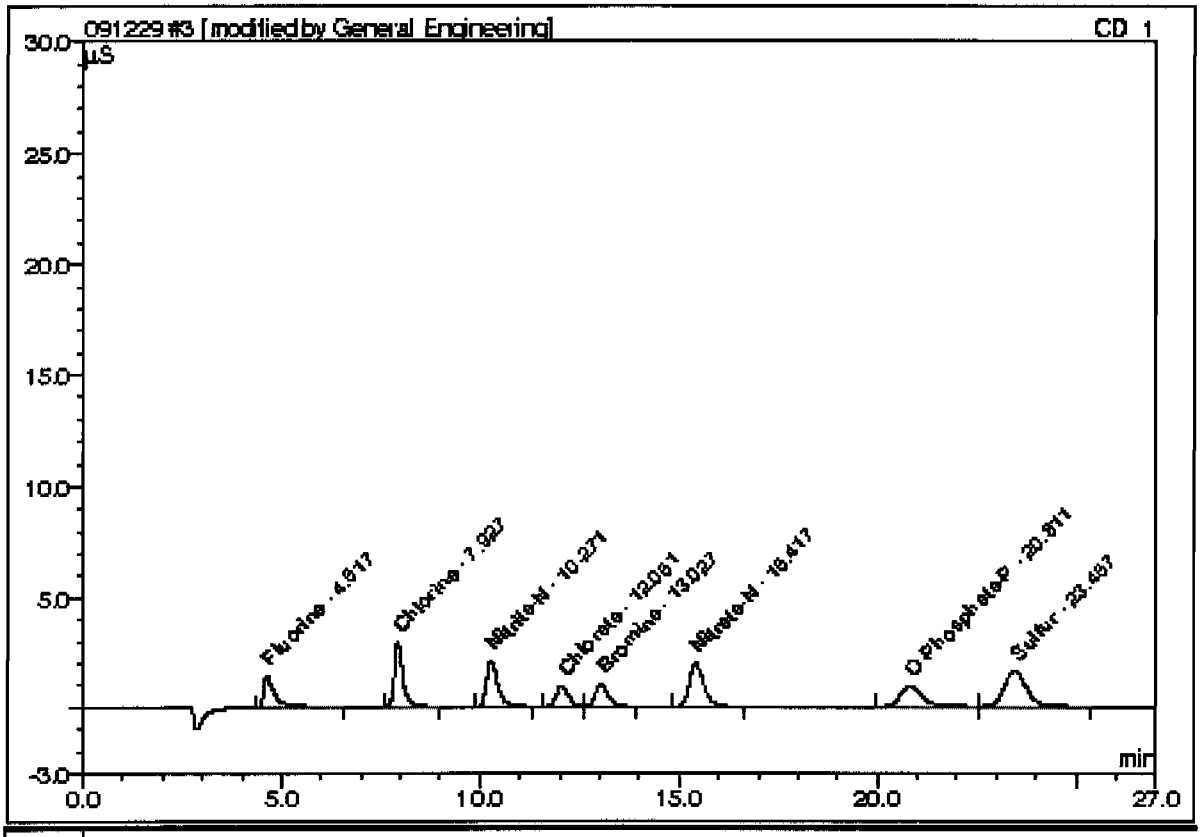

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluorine	1.0000	0.9675		0.49415	9.68
2	7.93	Chlorine	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromine	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	*	0.60894	11.93
8	23.46	Sulfur	1.3332	1.2847	*	1.04645	20.49
Total:				13.4224	0.000	5.106	100.00

3 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

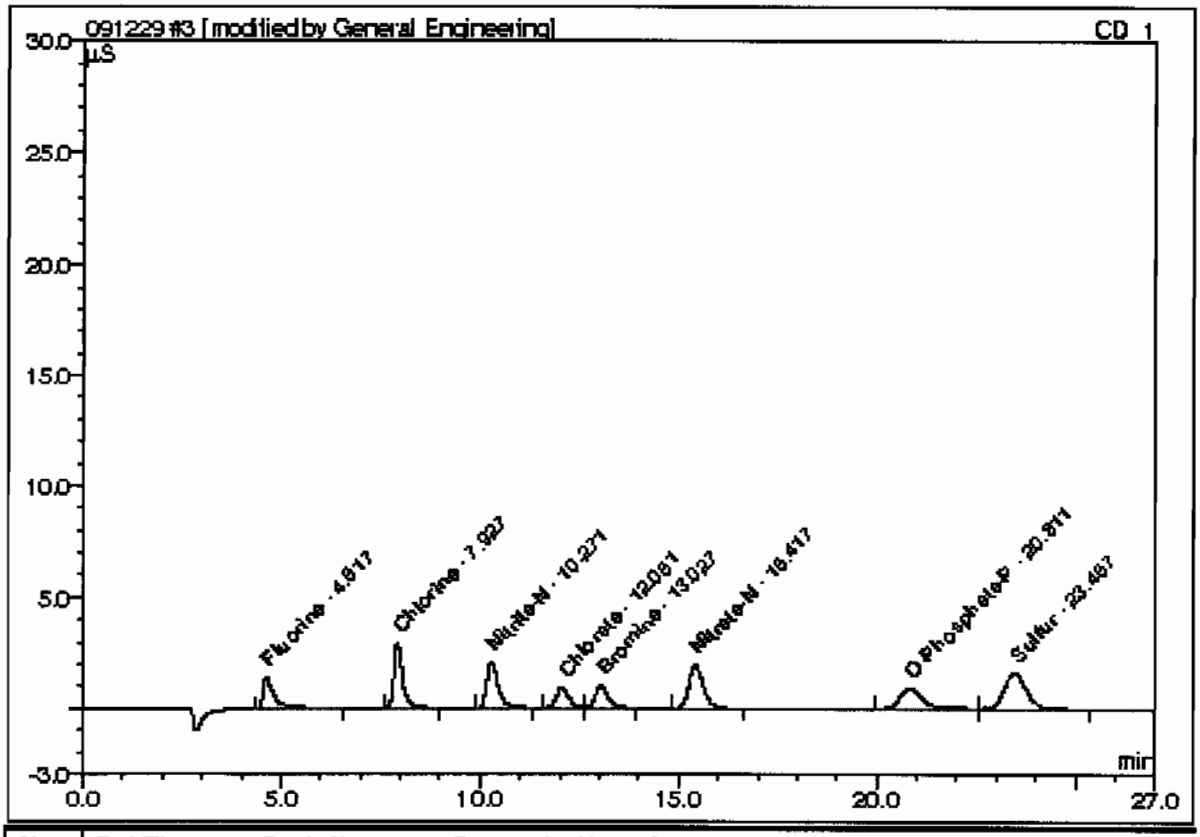

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluorine	1.0000	0.9675		0.49415	9.68
2	7.93	Chlorine	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromine	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129		0.60894	11.93
8	23.46	Sulfur	1.3332	1.2847		1.04645	20.49
Total:				13.4224	0.000	5.106	100.00

3 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

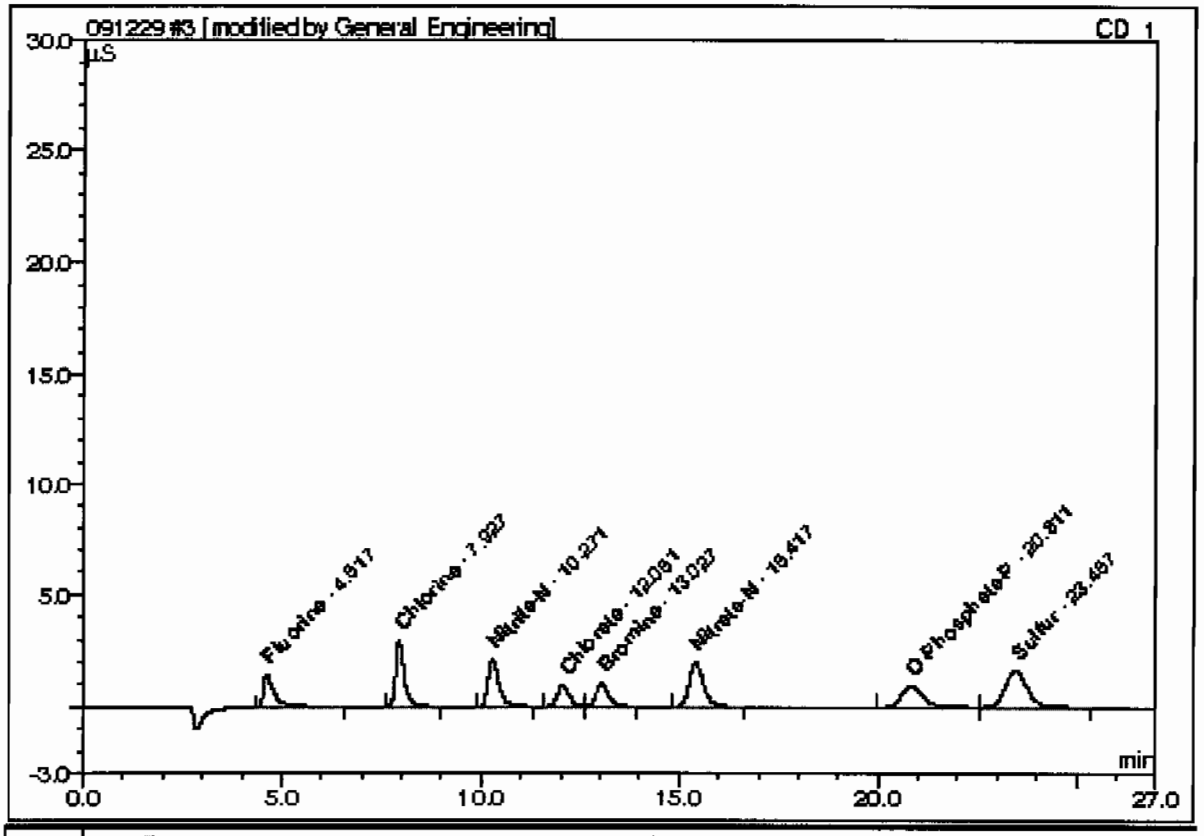

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluorine	1.0000	0.9675		0.49415	9.68
2	7.93	Chlorine	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromine	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129		0.60894	11.93
8	23.46	Sulfur	1.3332	1.2847		1.04645	20.49
Total:				13.4224	0.000	5.106	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

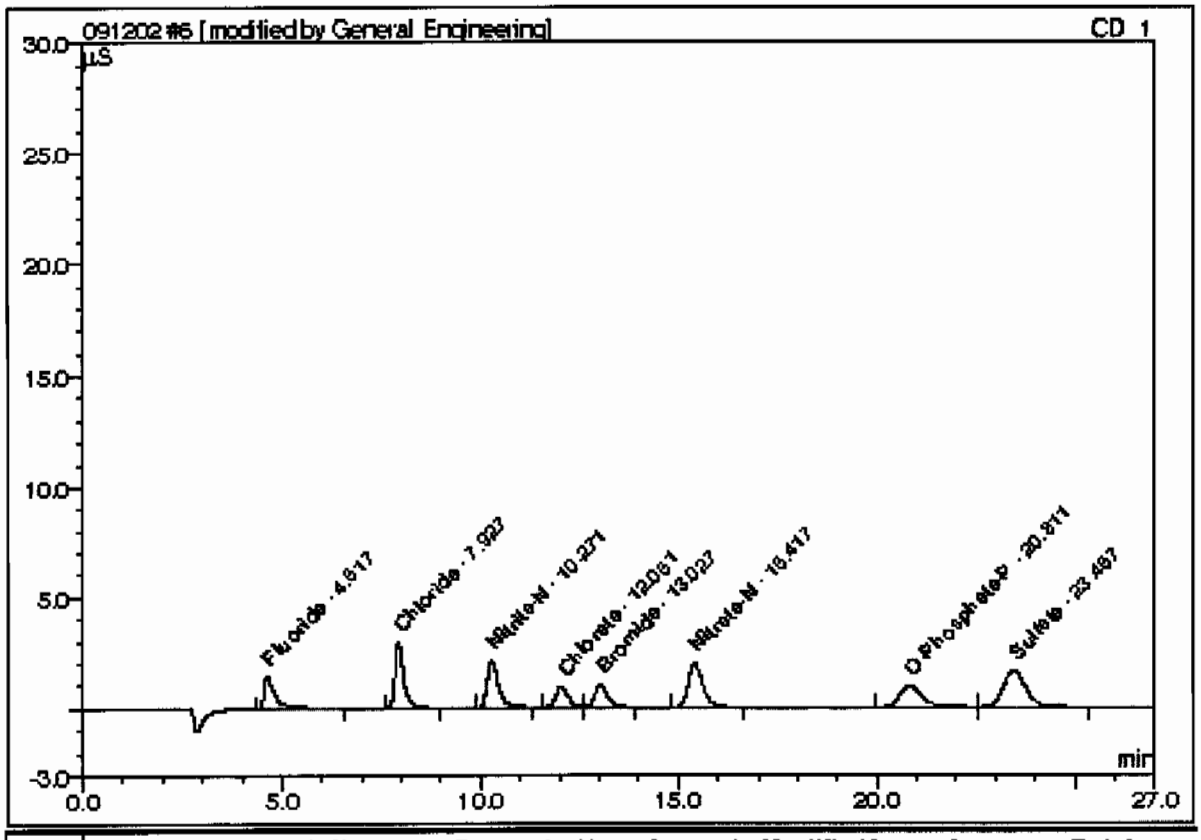

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	1.0000	0.9675		0.49415	9.68
2	7.93	Chloride	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromide	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	*	0.60894	11.93
8	23.46	Sulfate	4.0000	3.8543	*	1.04645	20.49
Total:				15.9920	0.000	5.106	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

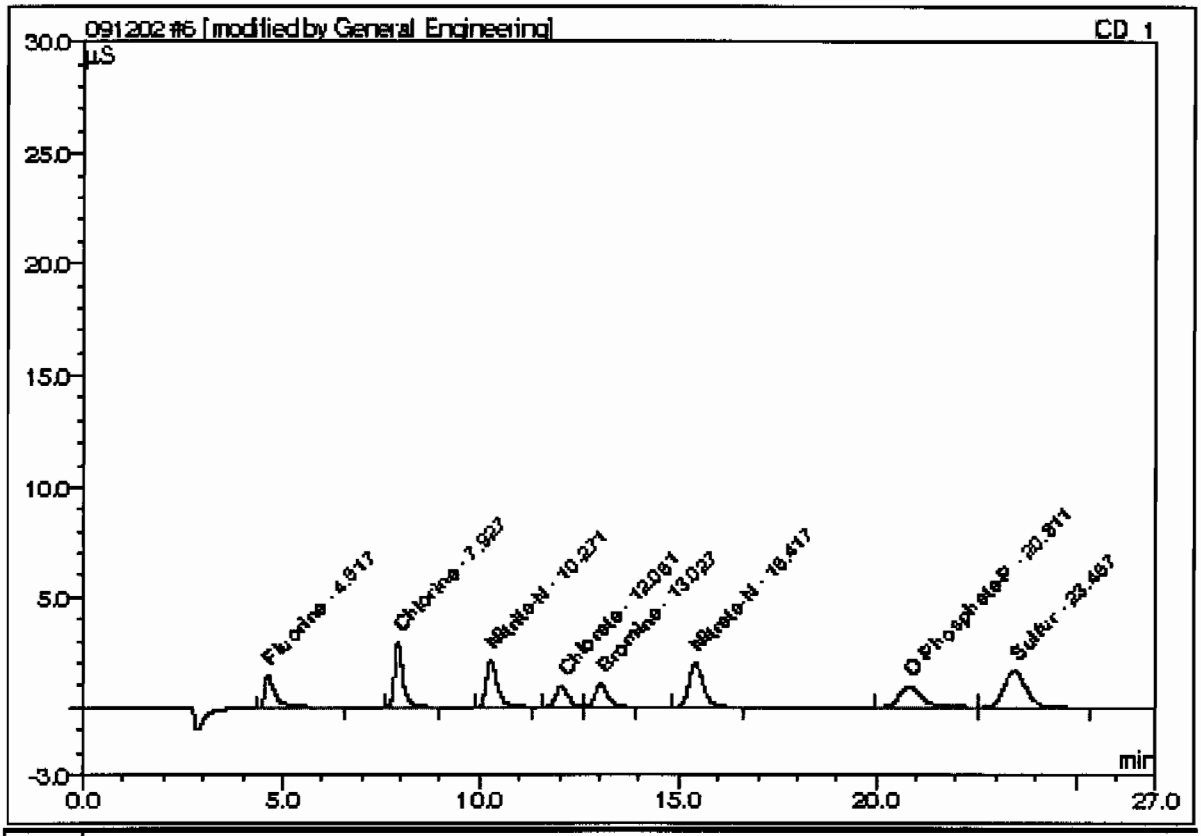

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluorine	1.0000	0.9675		0.49415	9.68
2	7.93	Chlorine	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromine	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	*	0.60894	11.93
8	23.46	Sulfur	1.3332	1.2847	*	1.04645	20.49
Total:				13.4224	0.000	5.106	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

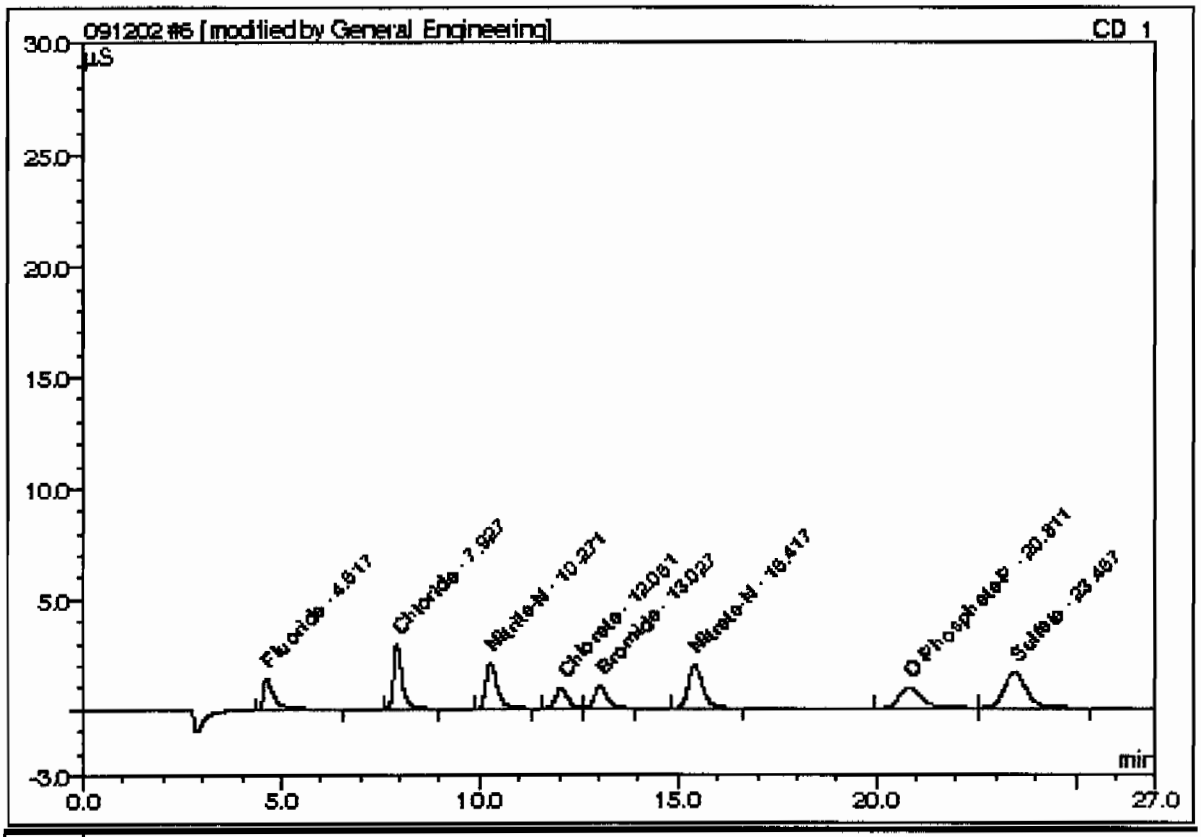

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
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3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromide	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129		0.60894	11.93
8	23.46	Sulfate	4.0000	3.8543		1.04645	20.49
Total:				15.9920	0.000	5.106	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

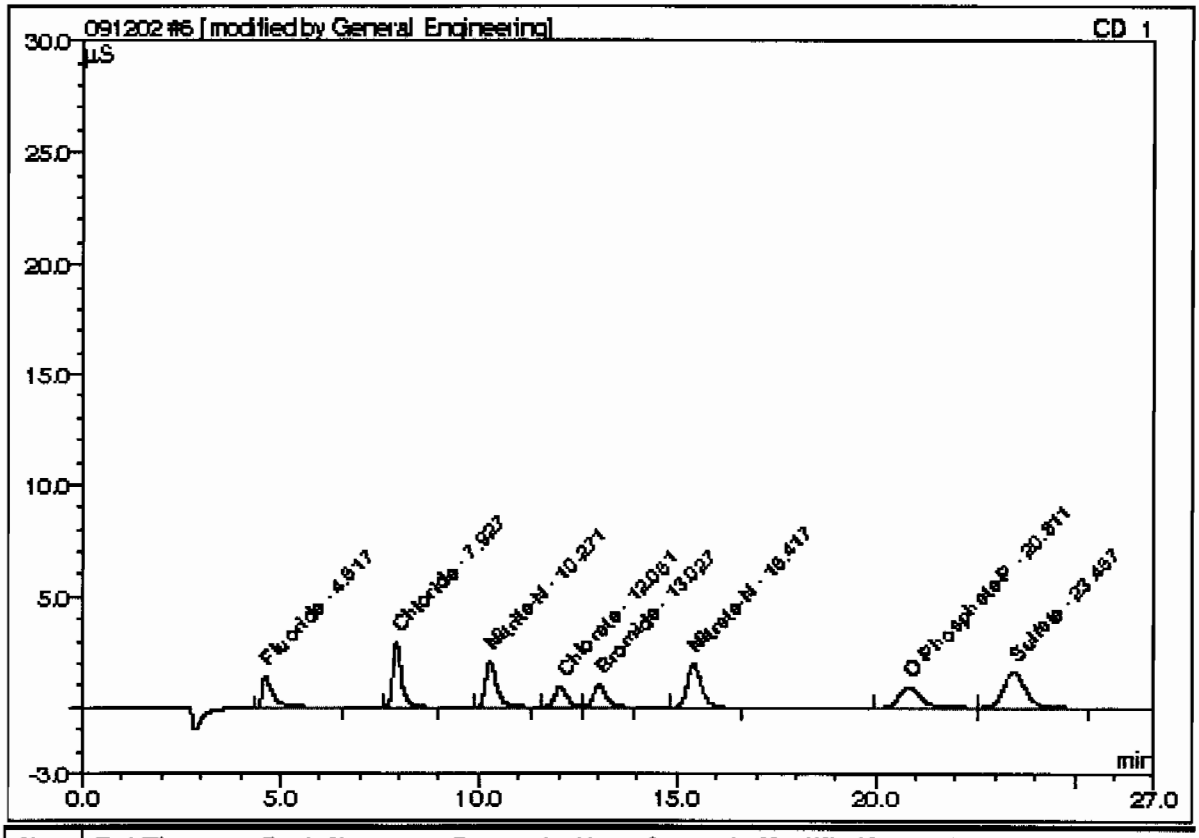

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	1.0000	0.9675		0.49415	9.68
2	7.93	Chloride	2.0000	1.8340		0.73808	14.45
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5	13.03	Bromide	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	*	0.60894	11.93
8	23.46	Sulfate	4.0000	3.8543	*	1.04645	20.49
Total:				15.9920	0.000	5.106	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

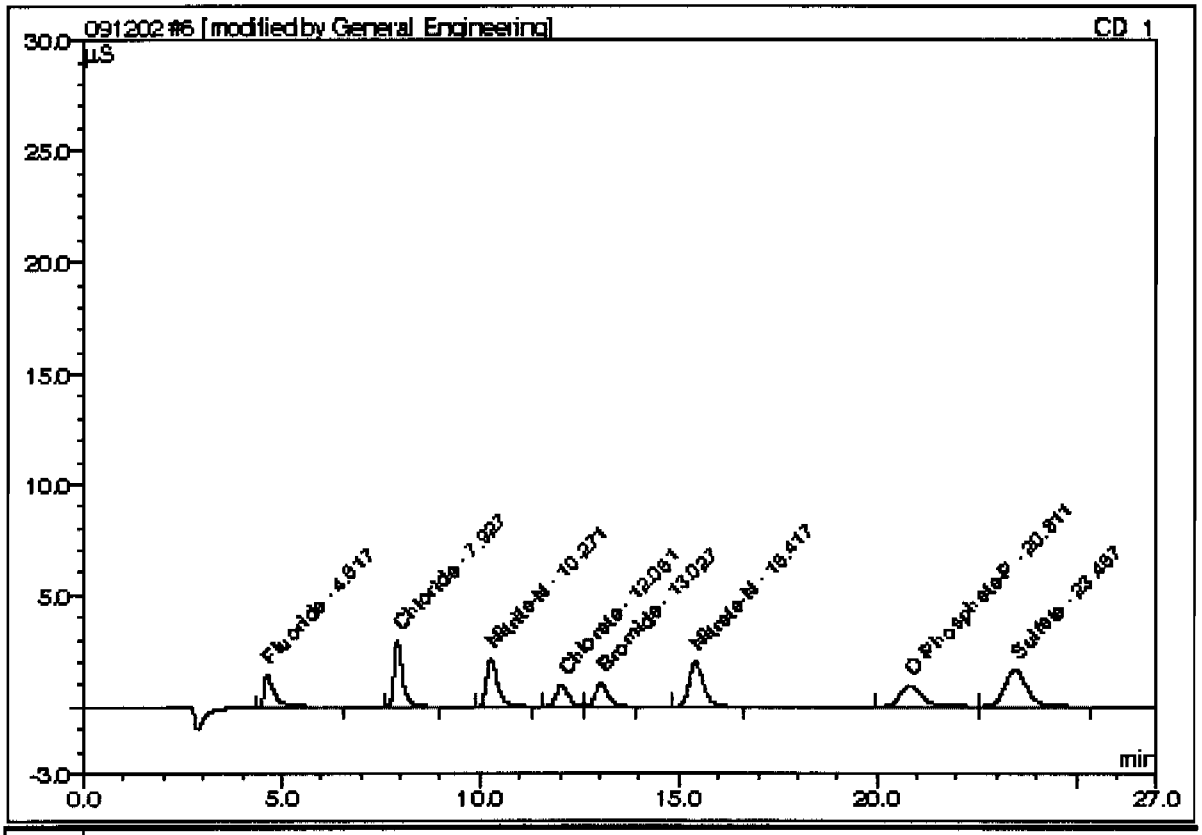

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	1.0000	0.9675		0.49415	9.68
2	7.93	Chloride	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromide	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	*	0.60894	11.93
8	23.46	Sulfate	4.0000	3.8543	*	1.04645	20.49
Total:				15.9920	0.000	5.106	100.00

11 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

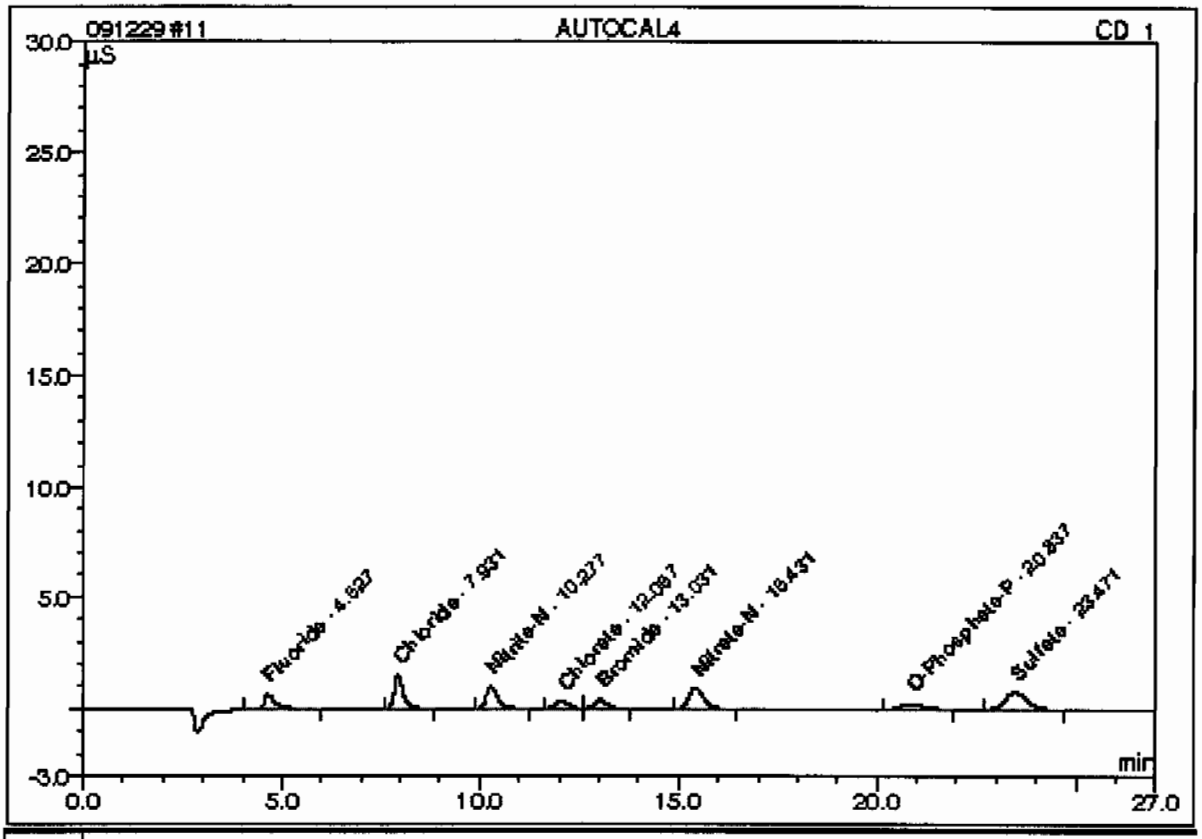

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	0.5000	0.4981		0.24398	10.42
2	7.93	Chloride	1.0000	1.0142		0.39444	16.84
3	10.28	Nitrite-N	0.5000	0.5083		0.33470	14.29
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.49
5	13.03	Bromide	1.0000	0.9854		0.14645	6.25
6	15.43	Nitrate-N	0.5000	0.5157		0.41101	17.55
7	20.84	O-Phosphate-P	1.0000	0.8683		0.17338	7.40
8	23.47	Sulfate	2.0000	2.0626		0.50944	21.75
Total:				7.4221	0.000	2.342	100.00

4 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

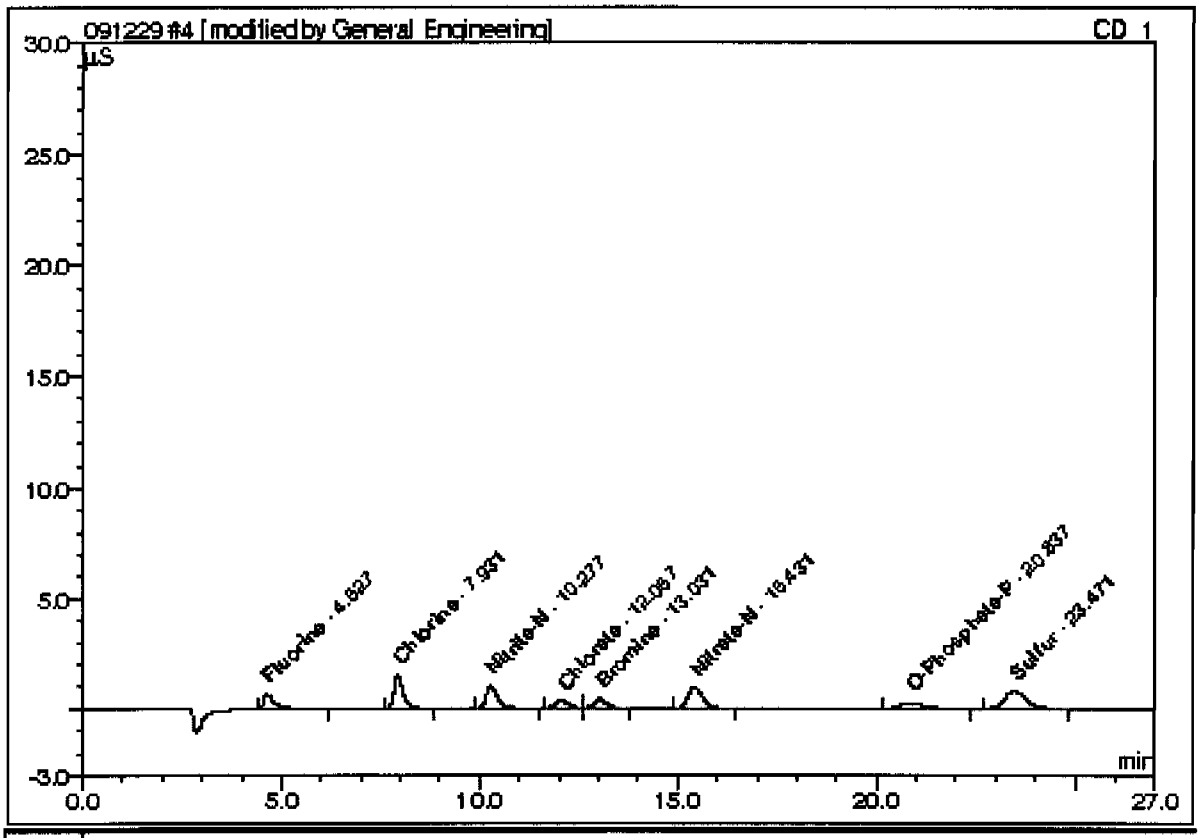

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluorine	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chlorine	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromine	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfur	0.6666	0.6819	*	0.51134	21.72
Total:				6.0576	0.000	2.355	100.00

4 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

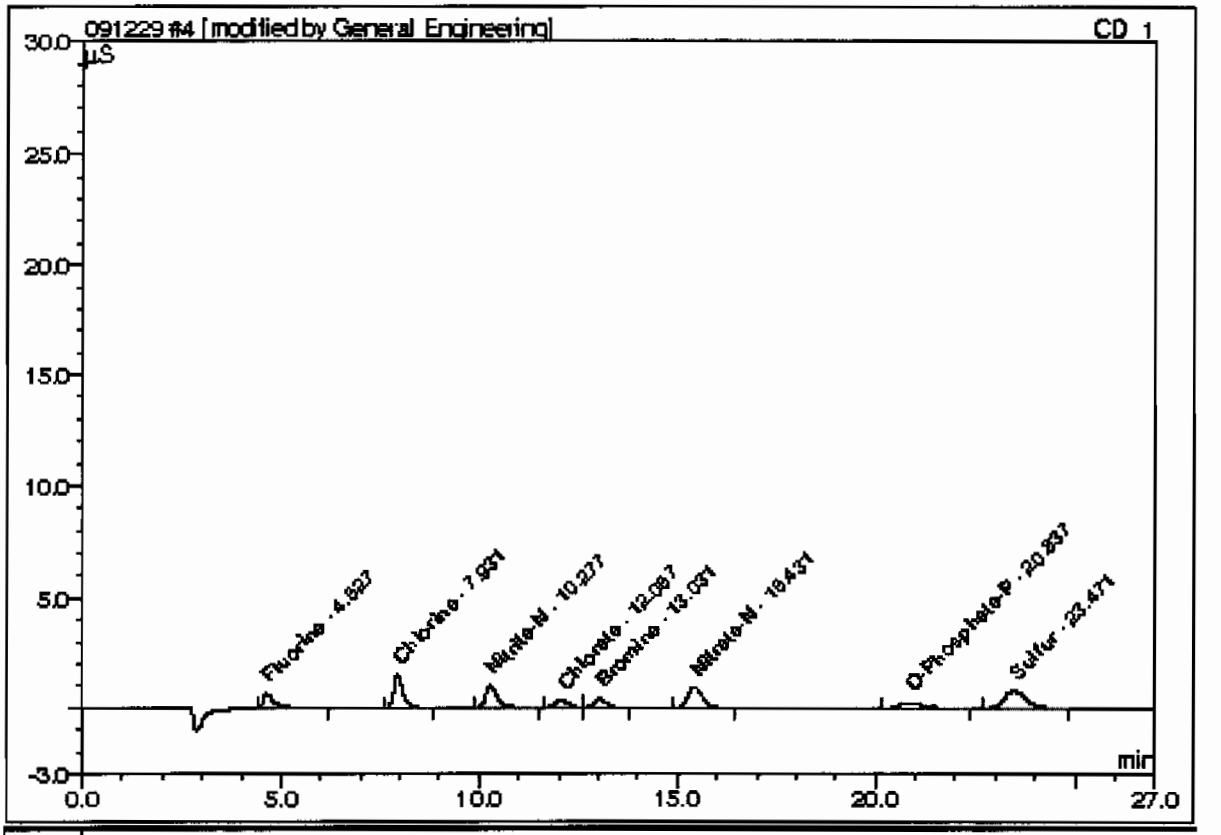

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluorine	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chlorine	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromine	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfur	0.6666	0.6819	*	0.51134	21.72
Total:				6.0576	0.000	2.355	100.00

4 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

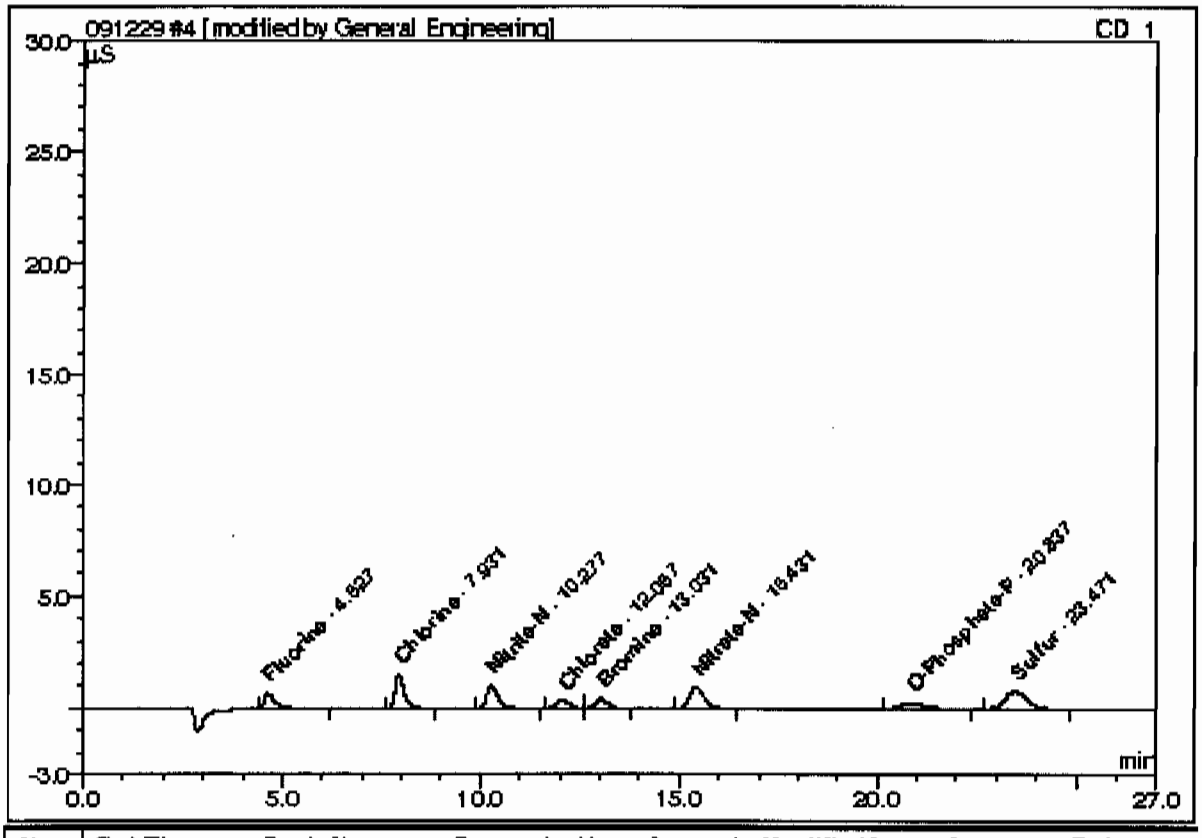

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluorine	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chlorine	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromine	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfur	0.6666	0.6819	*	0.51134	21.72
Total:				6.0576	0.000	2.355	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

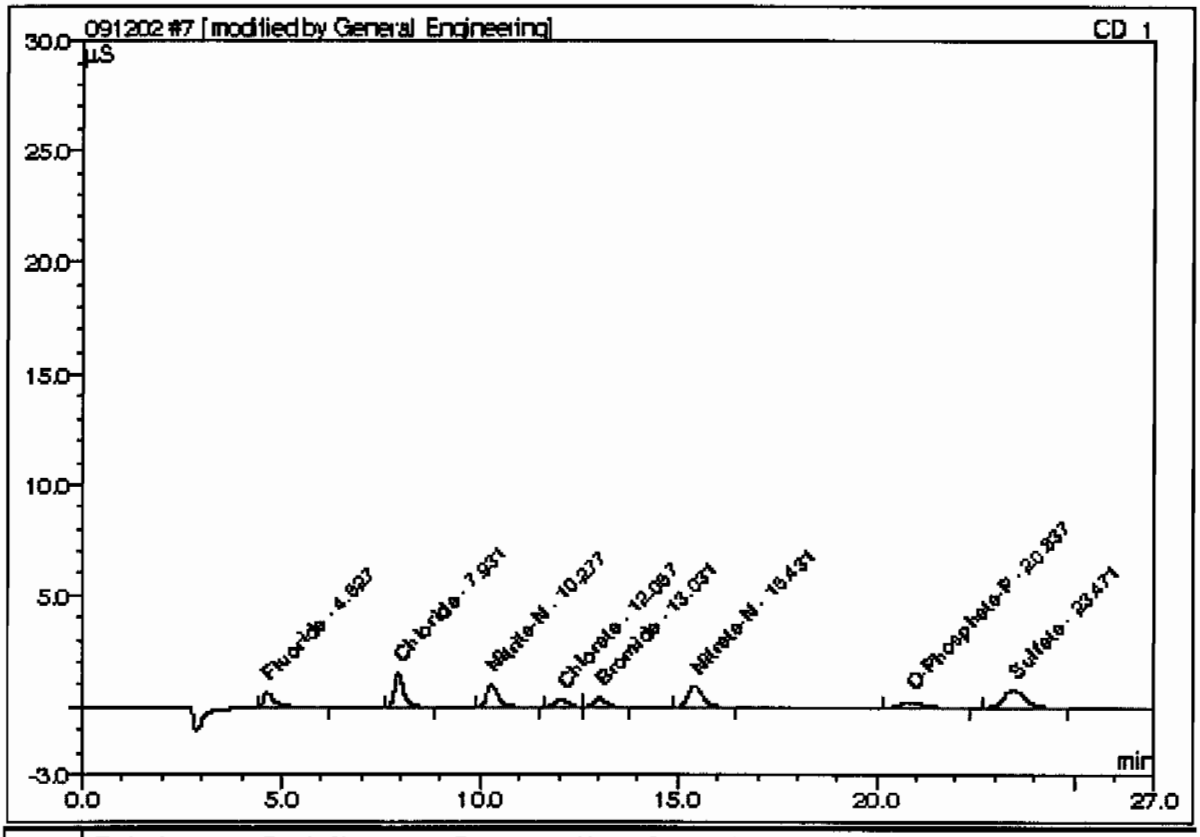

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chloride	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromide	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfate	2.0000	2.0458	*	0.51134	21.72
Total:				7.4215	0.000	2.355	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

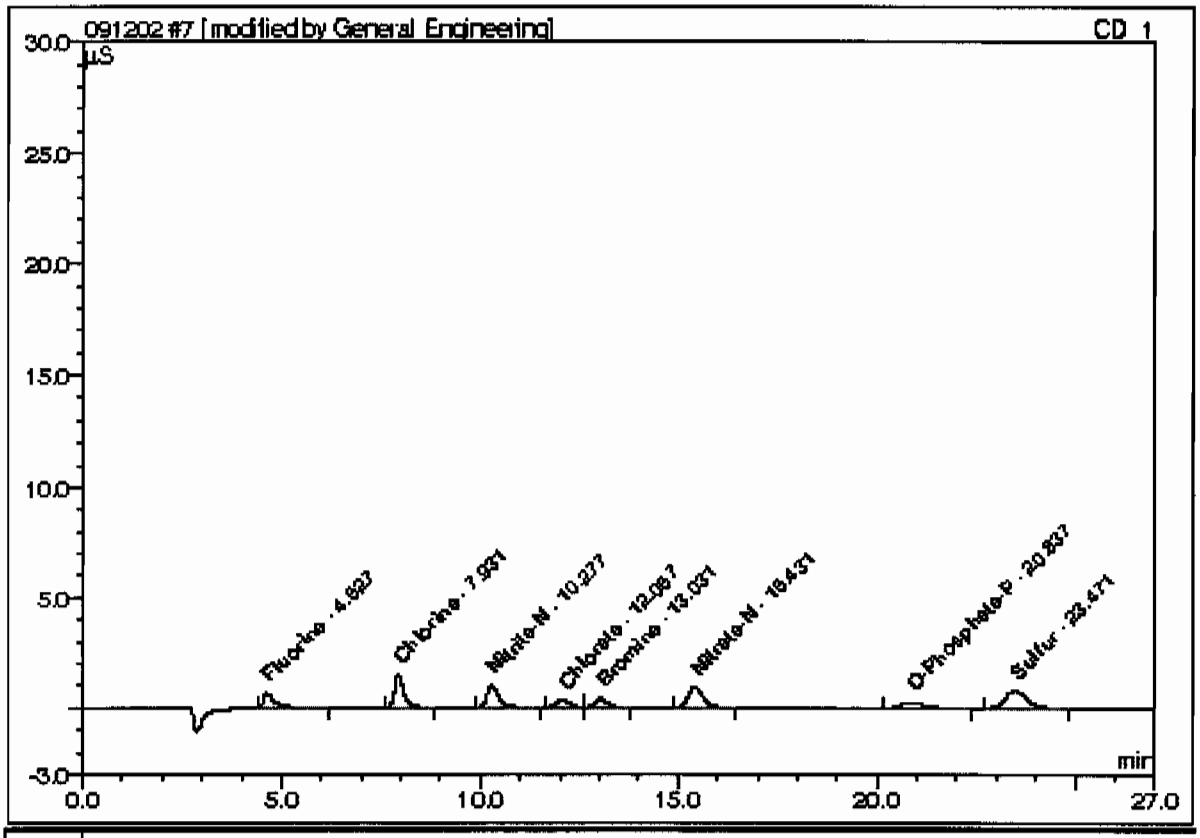

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluorine	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chlorine	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromine	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfur	0.6666	0.6819	*	0.51134	21.72
Total:				6.0576	0.000	2.355	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

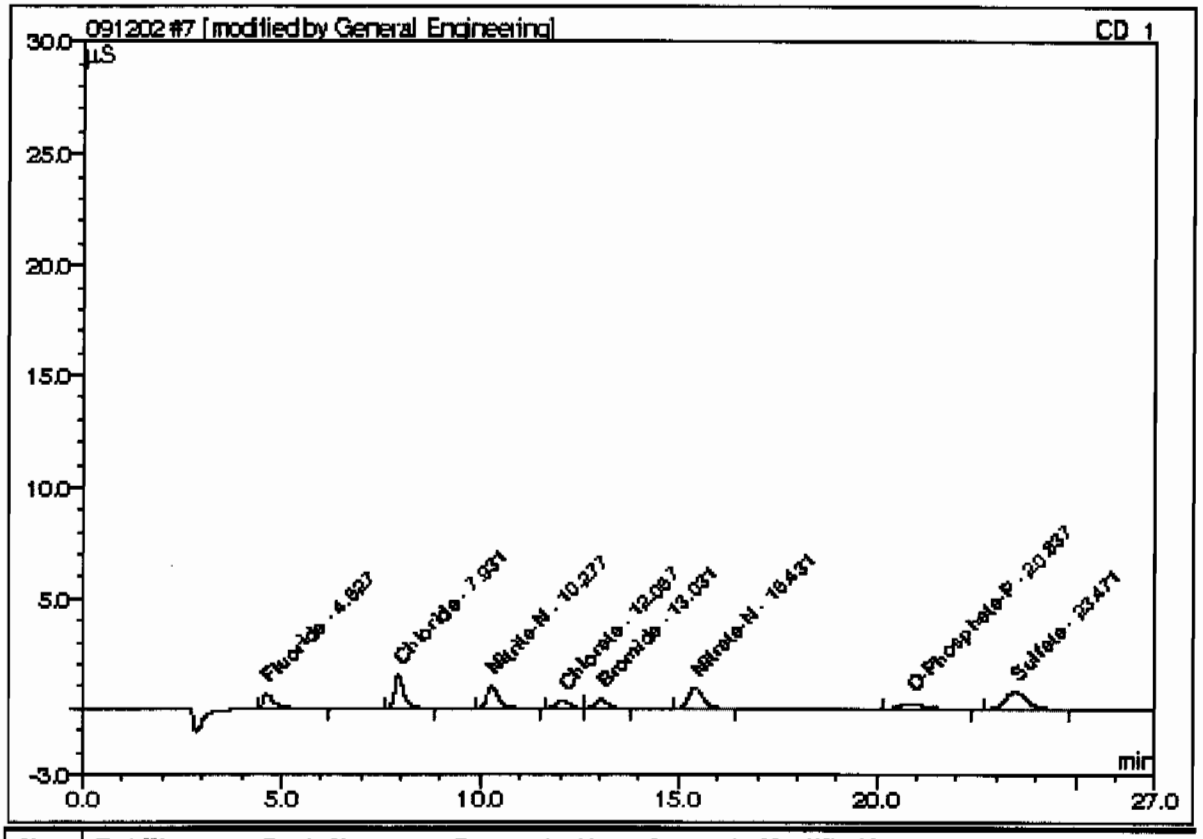

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chloride	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromide	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfate	2.0000	2.0458	*	0.51134	21.72
Total:				7.4215	0.000	2.355	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

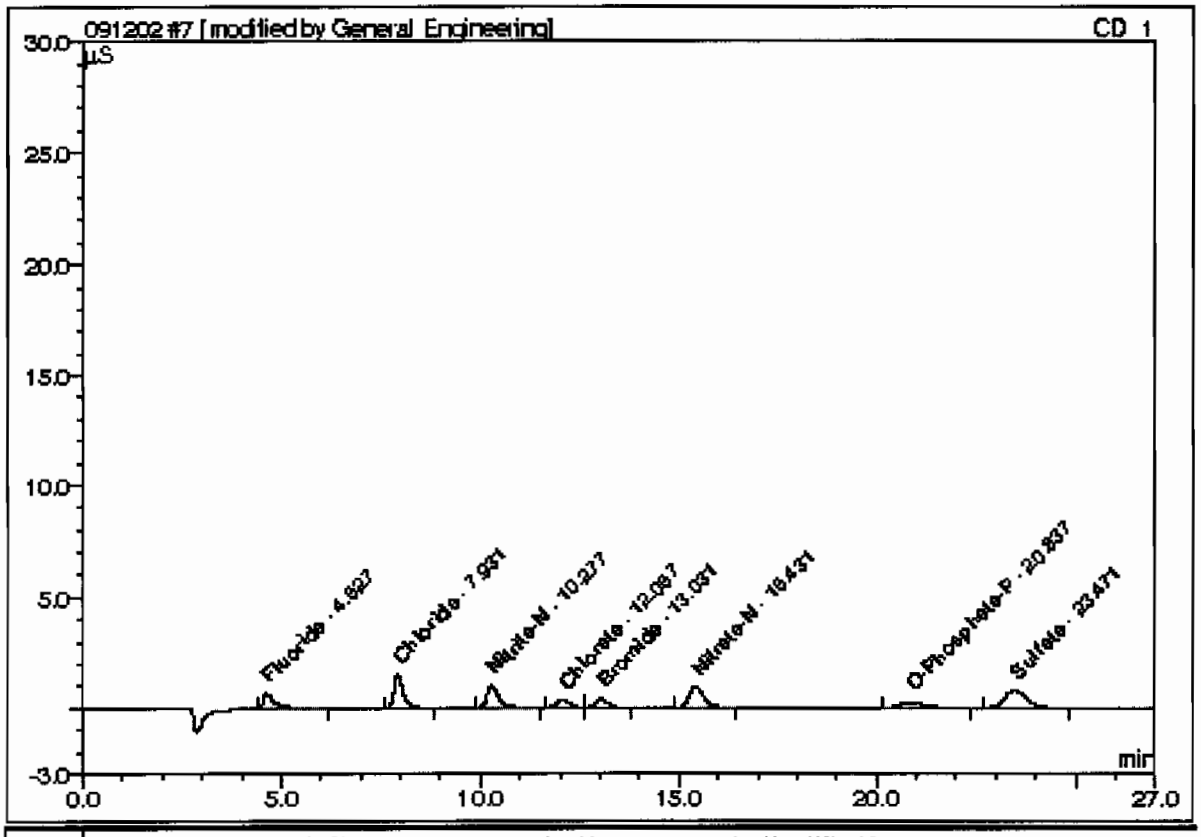

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chloride	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromide	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfate	2.0000	2.0458	*	0.51134	21.72
Total:				7.4215	0.000	2.355	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCED86;300;9056

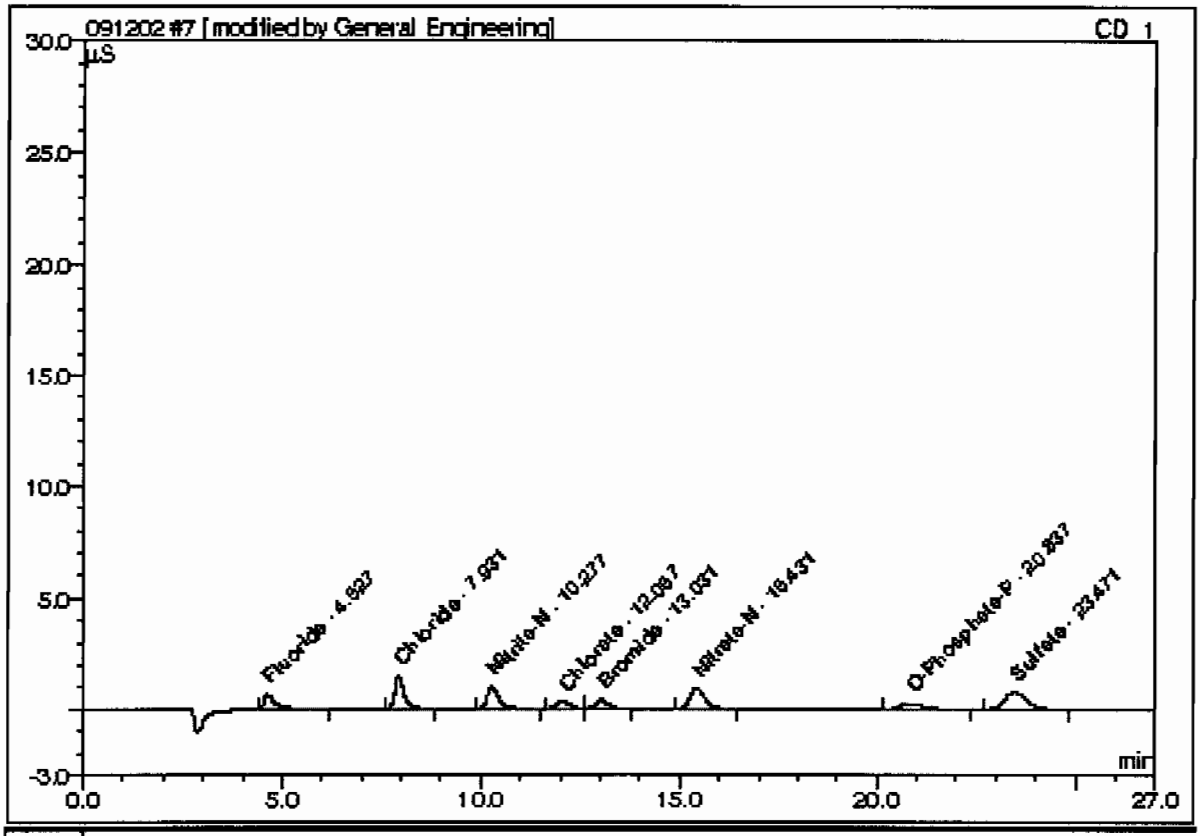

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chloride	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromide	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfate	2.0000	2.0458	*	0.51134	21.72
Total:				7.4215	0.000	2.355	100.00

12 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

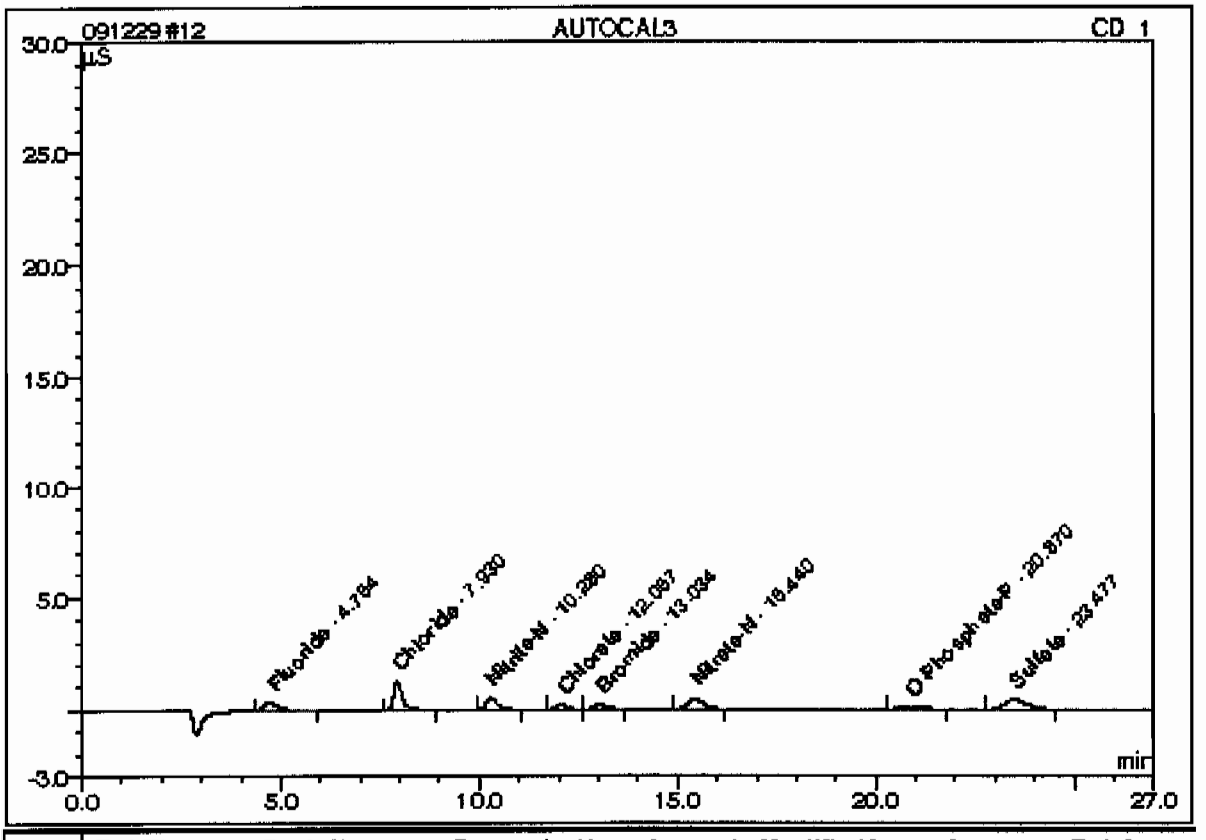

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluoride	0.2500	0.3529		0.16713	12.64
2	7.93	Chloride	0.5000	0.8672		0.33283	25.17
3	10.28	Nitrite-N	0.2500	0.2920		0.16336	12.35
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.79
5	13.03	Bromide	0.5000	0.4916		0.07093	5.36
6	15.44	Nitrate-N	0.2500	0.3094		0.20536	15.53
7	20.87	O-Phosphate-P	0.5000	0.4202		0.05708	4.32
8	23.48	Sulfate	1.0000	1.2280		0.26247	19.85
Total:				4.4590	0.000	1.322	100.00

5 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

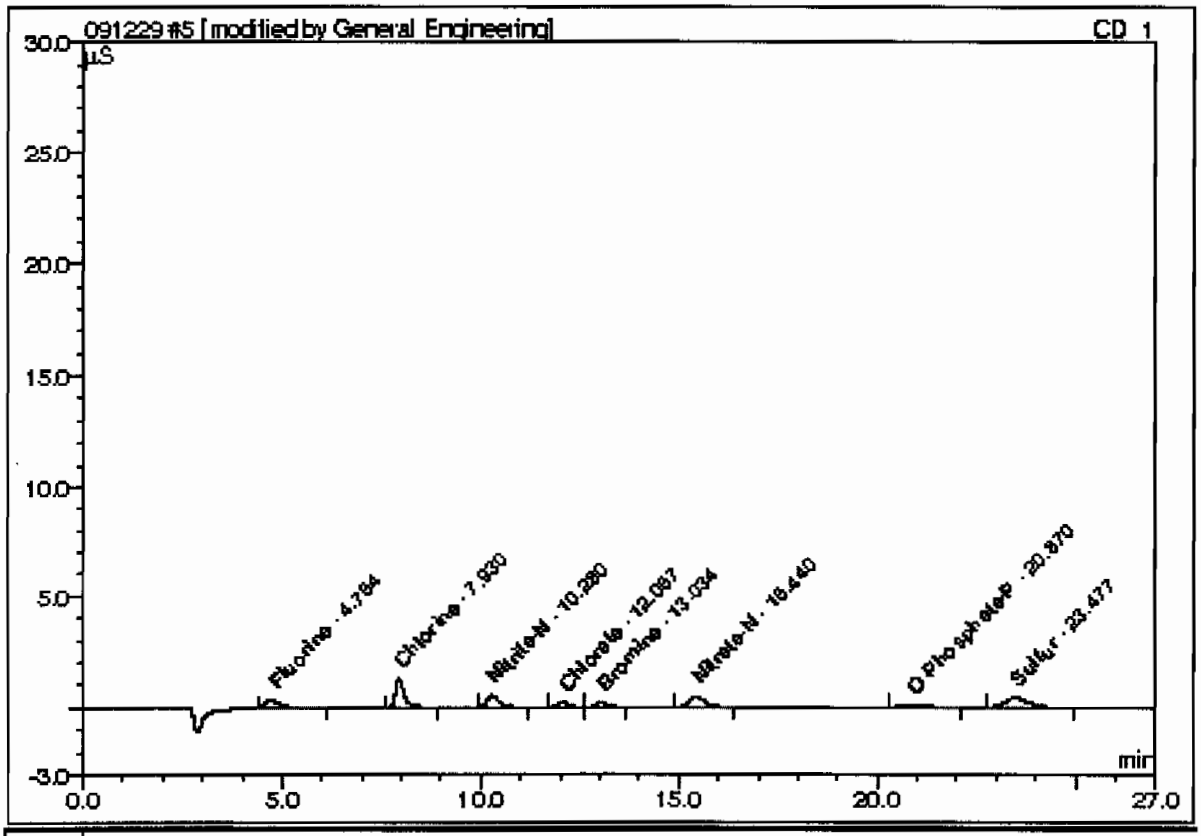

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluorine	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chlorine	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromine	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfur	0.3333	0.4118	*	0.27160	20.29
Total:				3.6484	0.000	1.338	100.00

5 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

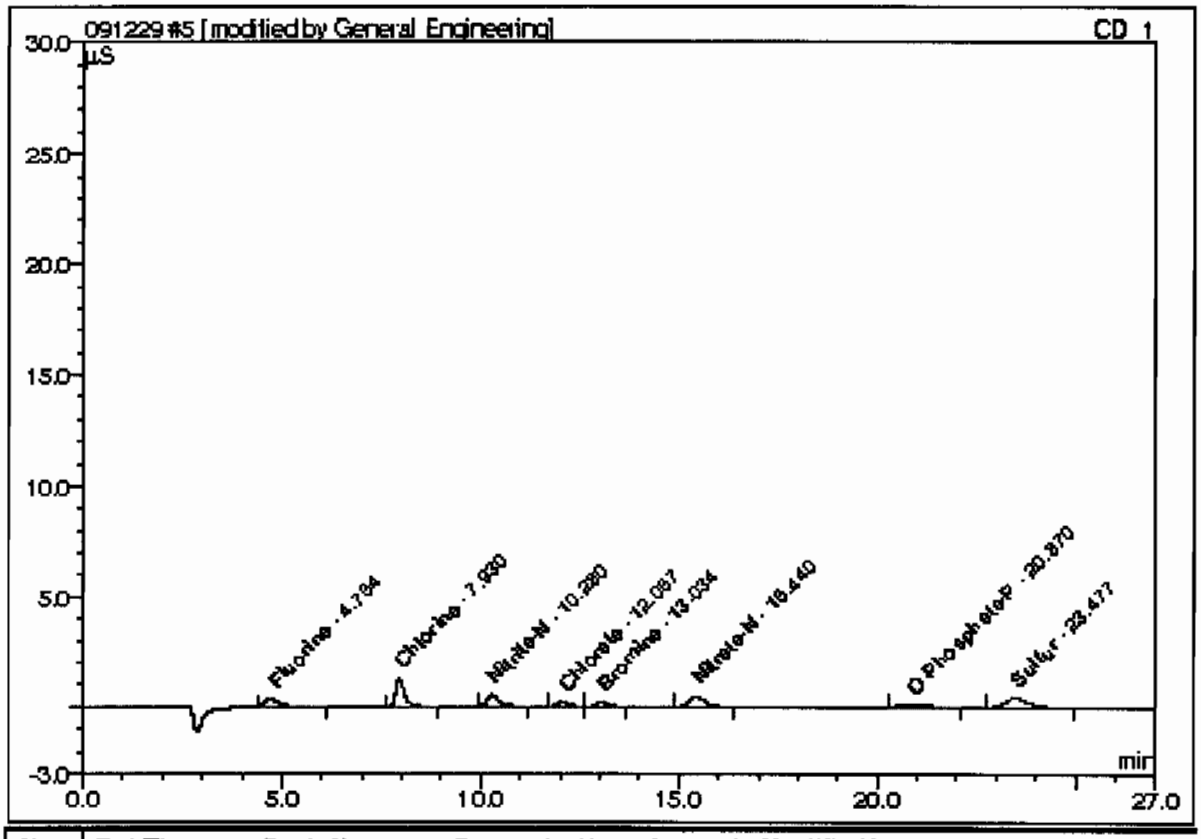

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluorine	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chlorine	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromine	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfur	0.3333	0.4118	*	0.27160	20.29
Total:				3.6484	0.000	1.338	100.00

5 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC B086;300;9056

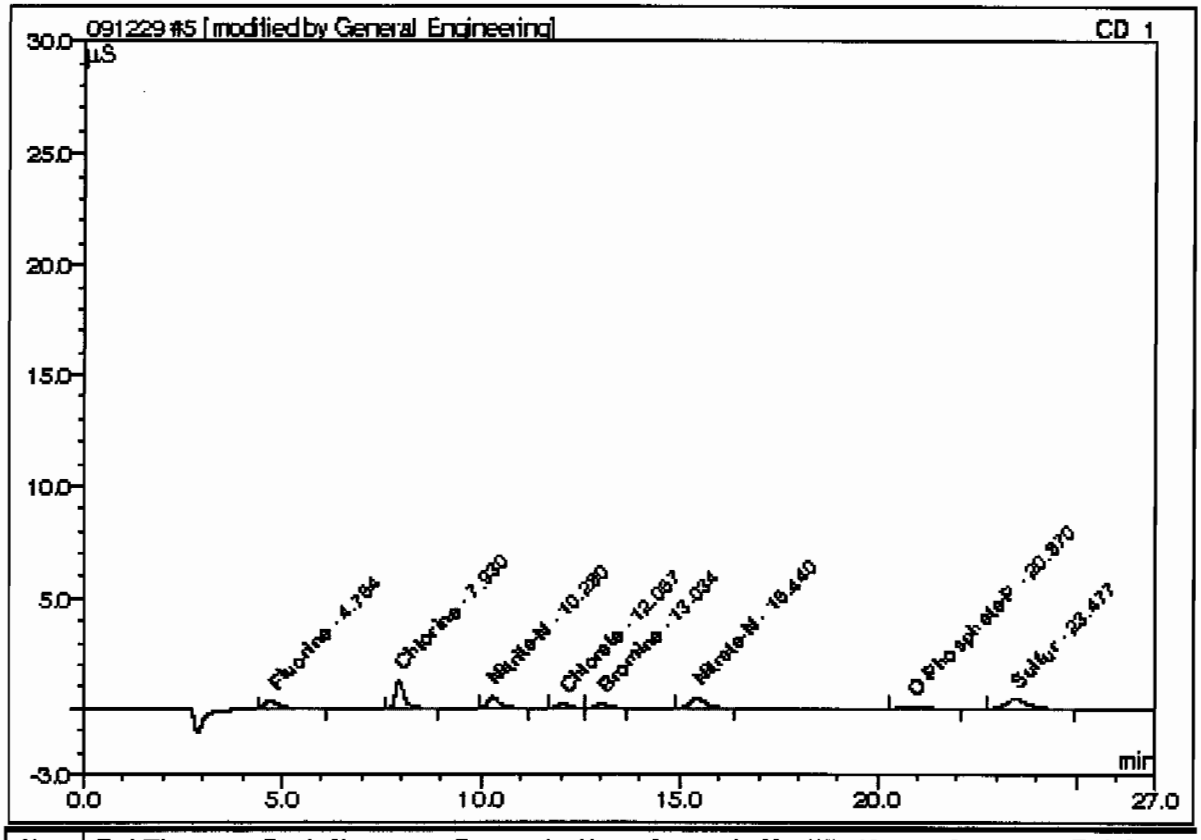

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluorine	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chlorine	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromine	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfur	0.3333	0.4118	*	0.27160	20.29
Total:				3.6484	0.000	1.338	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

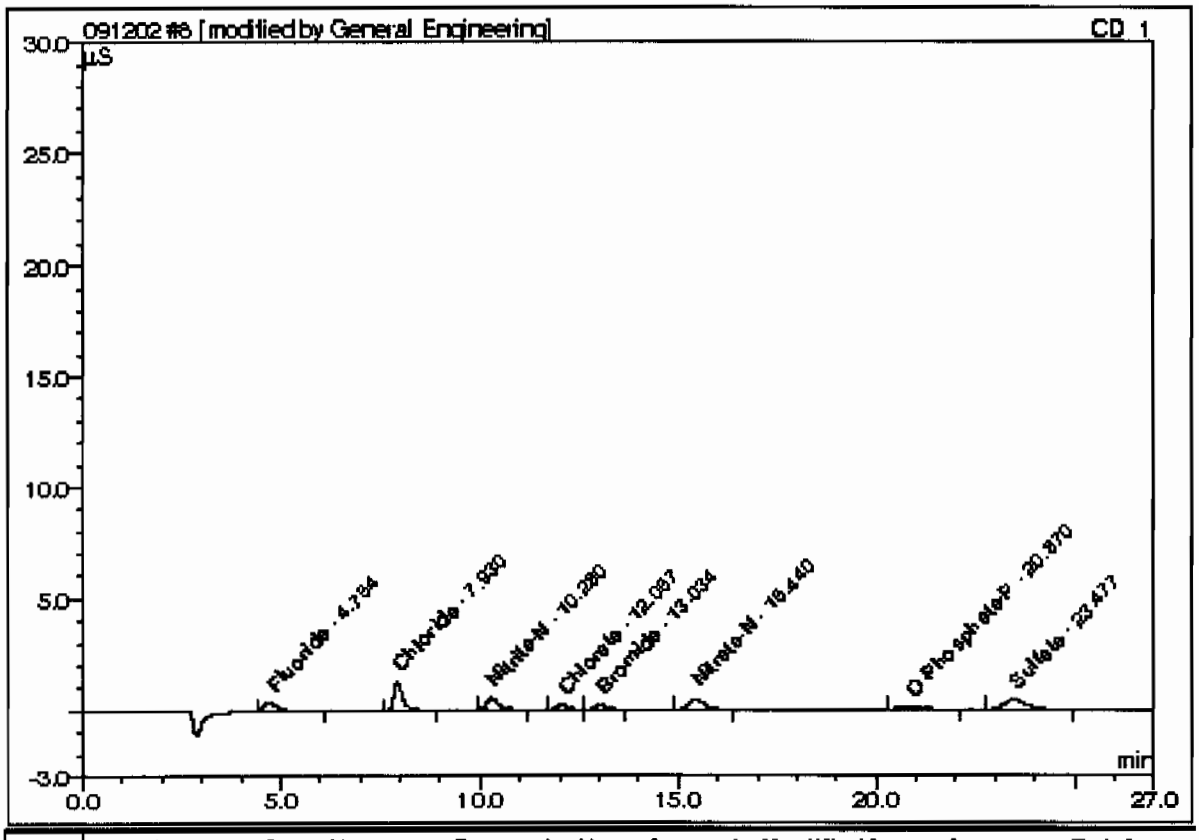

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluoride	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chloride	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromide	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfate	1.0000	1.2356	*	0.27160	20.29
Total:				4.4722	0.000	1.338	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

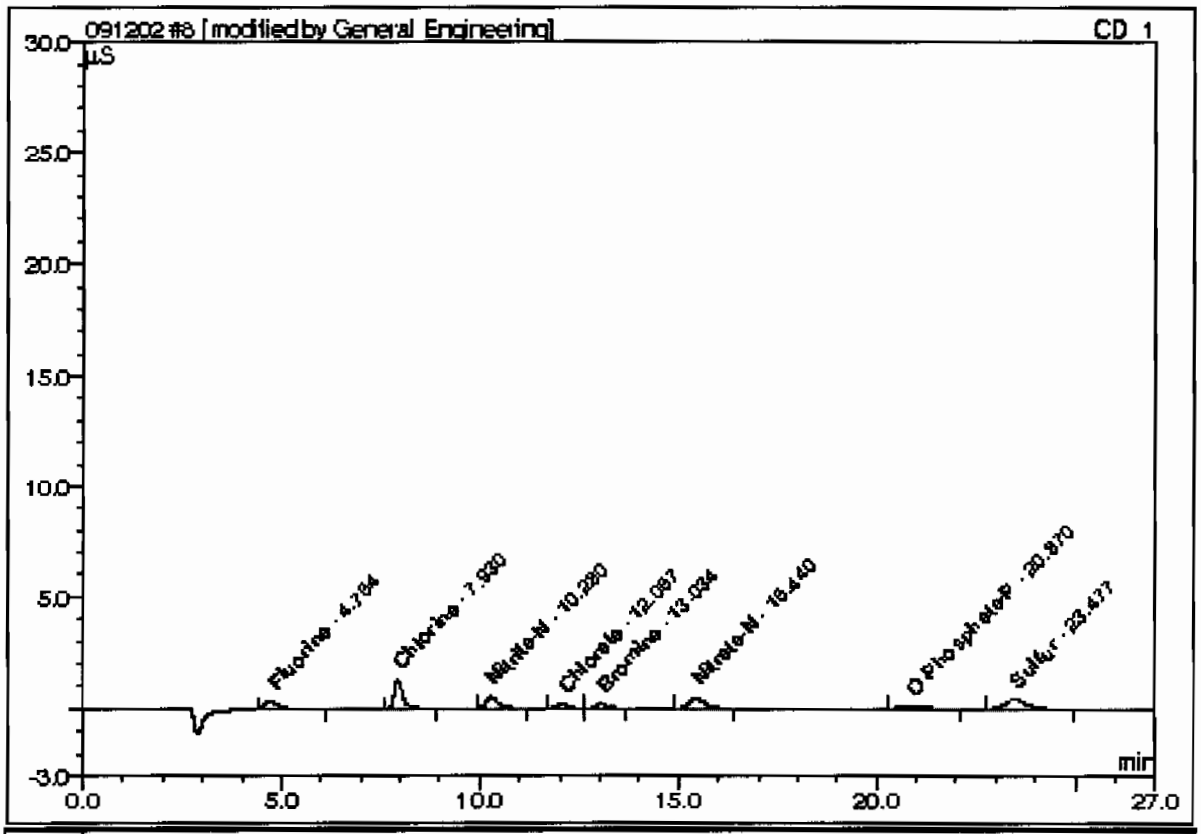

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluorine	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chlorine	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromine	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfur	0.3333	0.4118	*	0.27160	20.29
Total:				3.6484	0.000	1.338	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

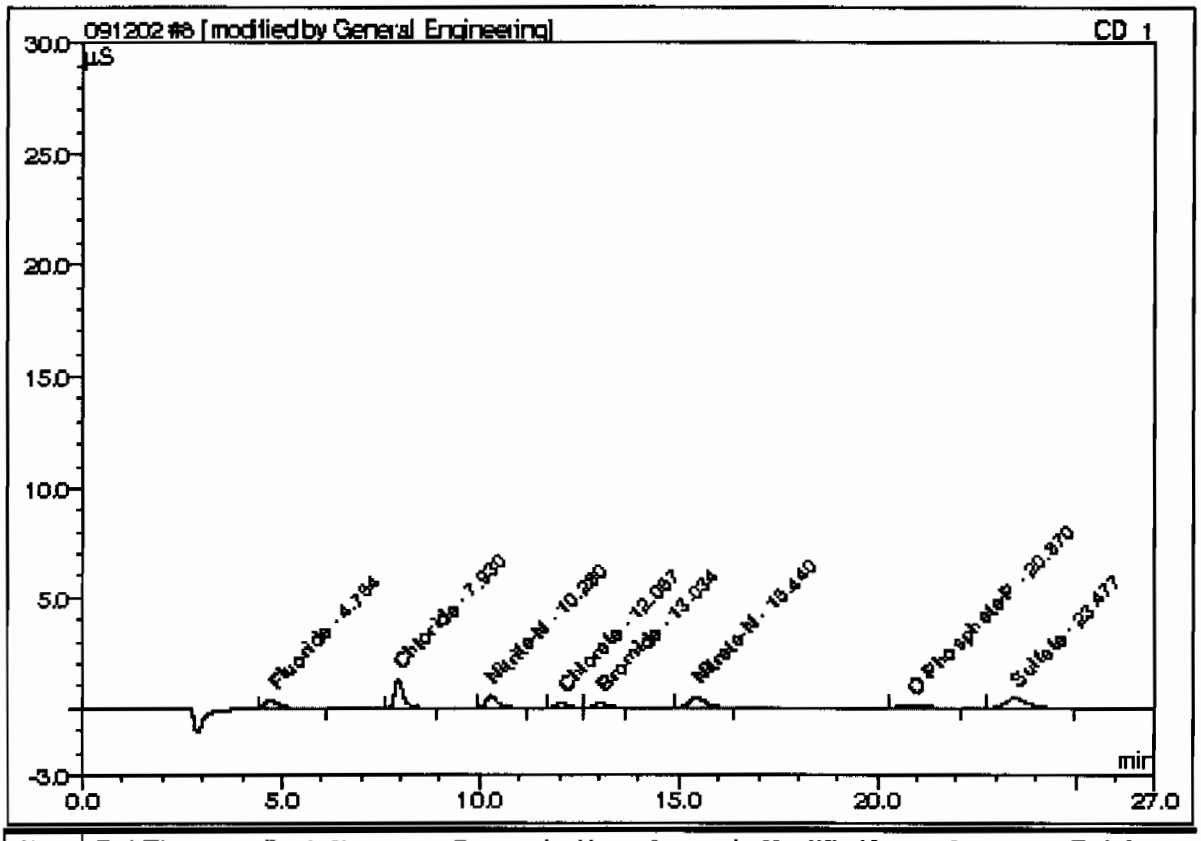

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluoride	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chloride	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromide	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfate	1.0000	1.2356	*	0.27160	20.29
Total:				4.4722	0.000	1.338	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

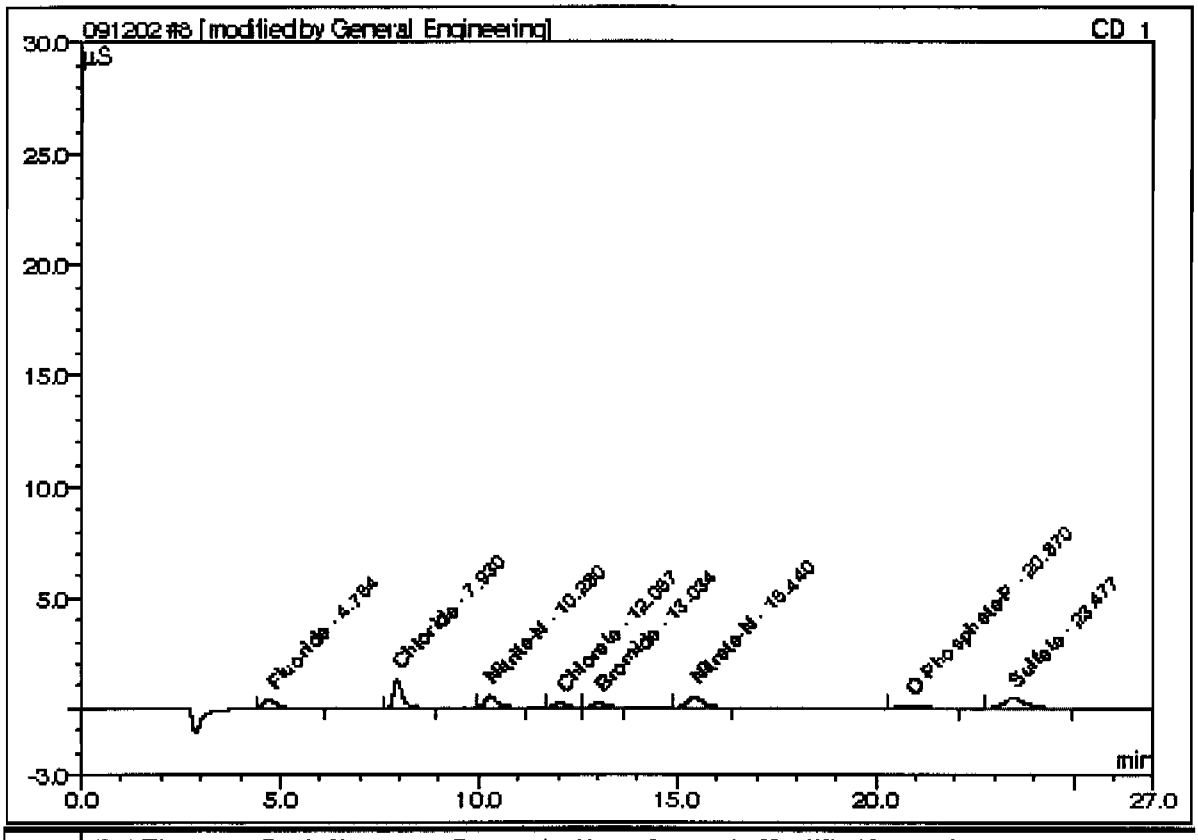

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluoride	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chloride	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromide	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfate	1.0000	1.2356	*	0.27160	20.29
Total:				4.4722	0.000	1.338	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

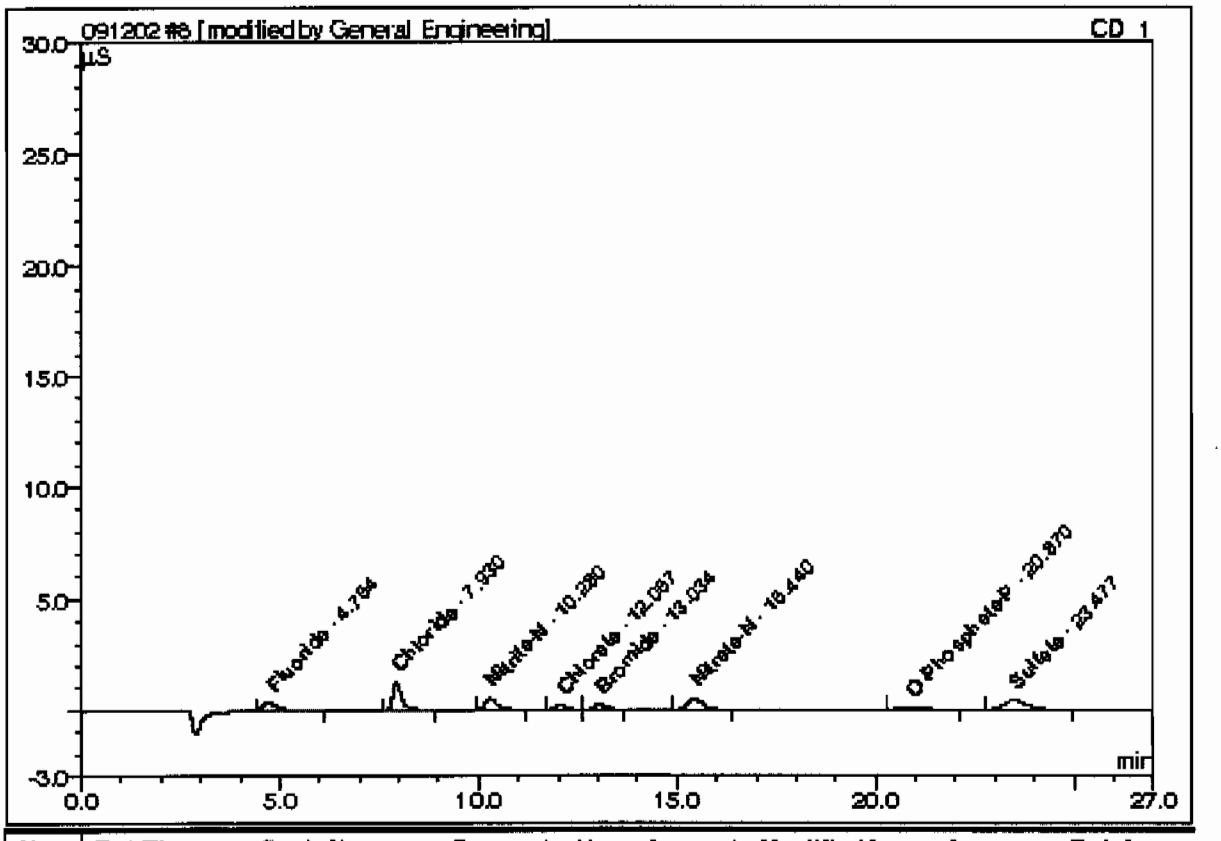

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluoride	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chloride	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromide	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfate	1.0000	1.2356	*	0.27160	20.29
Total:				4.4722	0.000	1.338	100.00

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

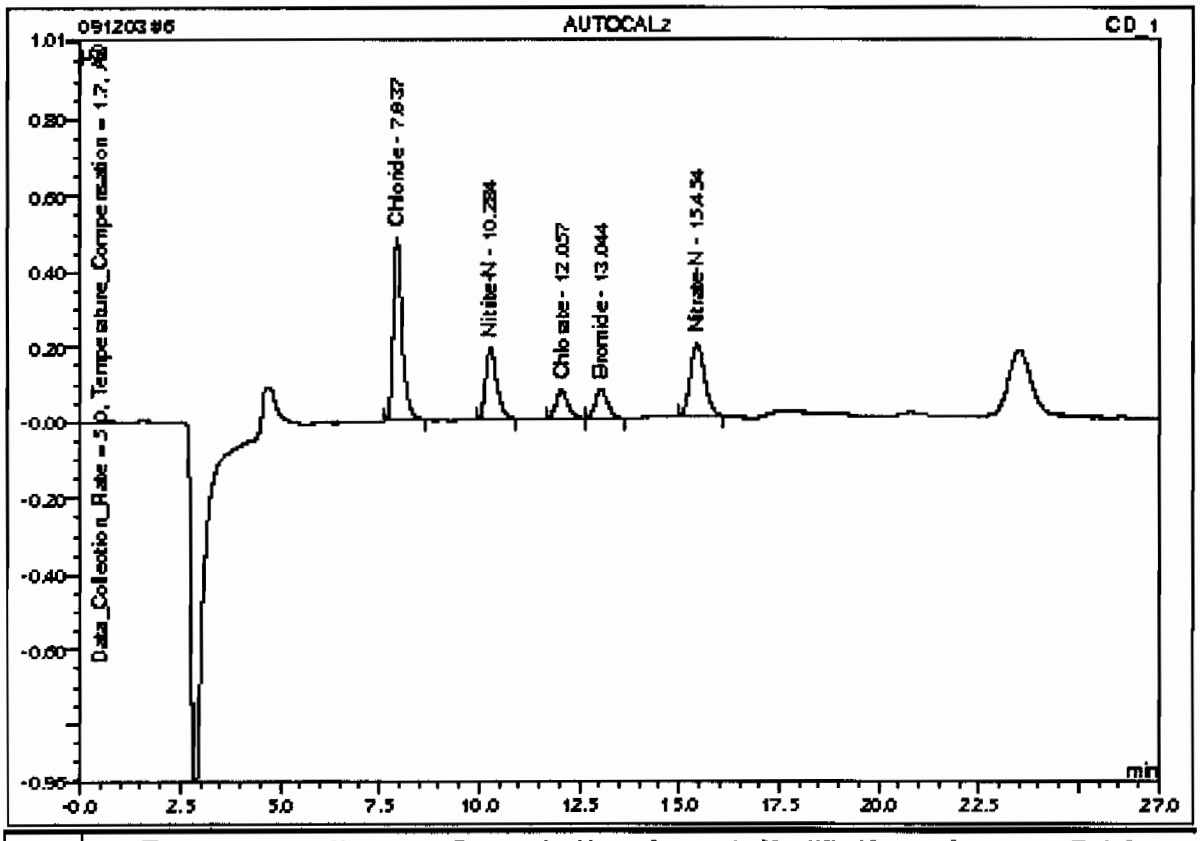

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	0.1000	n.a.	n.a.	n.a.	n.a.
1	7.94	Chloride	0.2000	0.3743		0.12619	39.29
2	10.28	Nitrite-N	0.1000	0.1640		0.06188	19.26
3	12.06	Chlorate	0.2000	0.2270		0.02599	8.09
4	13.04	Bromide	0.2000	0.2098		0.02783	8.66
5	15.45	Nitrate-N	0.1000	0.1829		0.07931	24.69
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.4000	n.a.	n.a.	n.a.	n.a.
Total:				1.1579	0.000	0.321	100.00

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

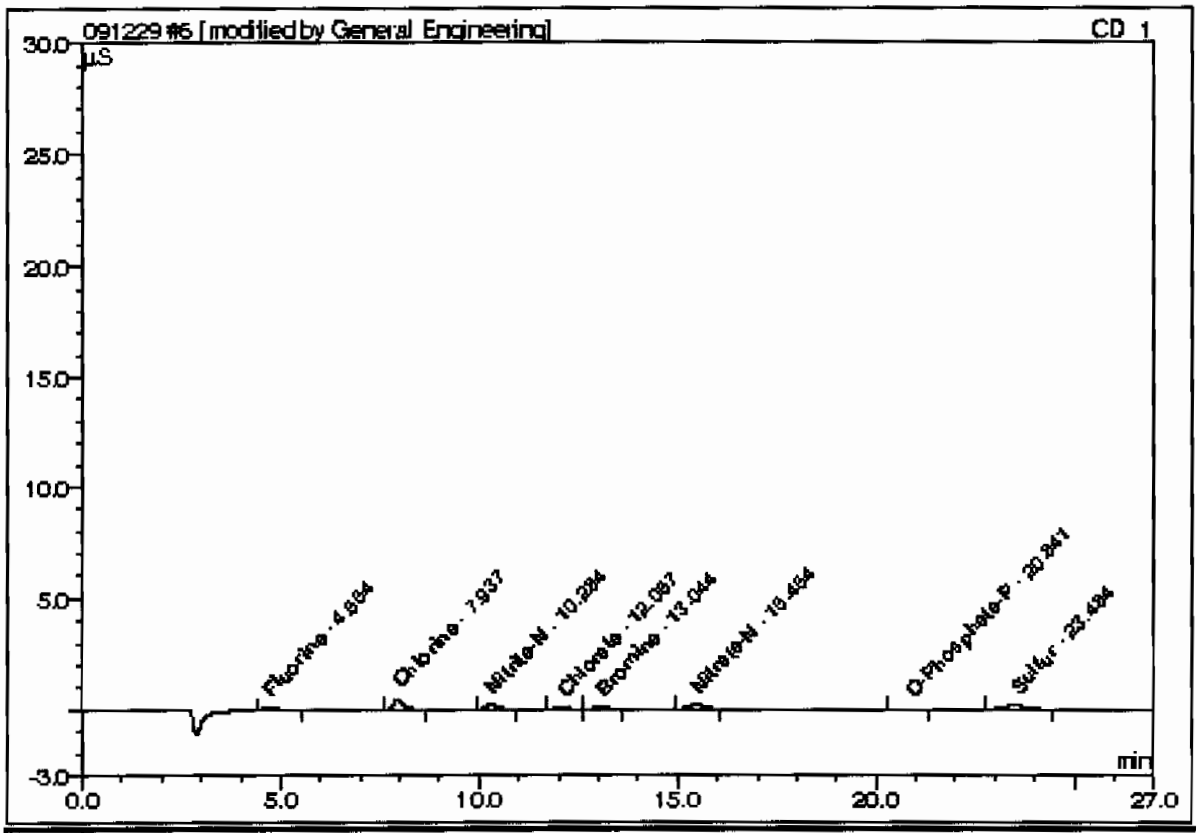

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chlorine	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromine	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfur	0.1333	0.2281	*	0.10850	22.16
Total:				1.7389	0.000	0.490	100.00

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

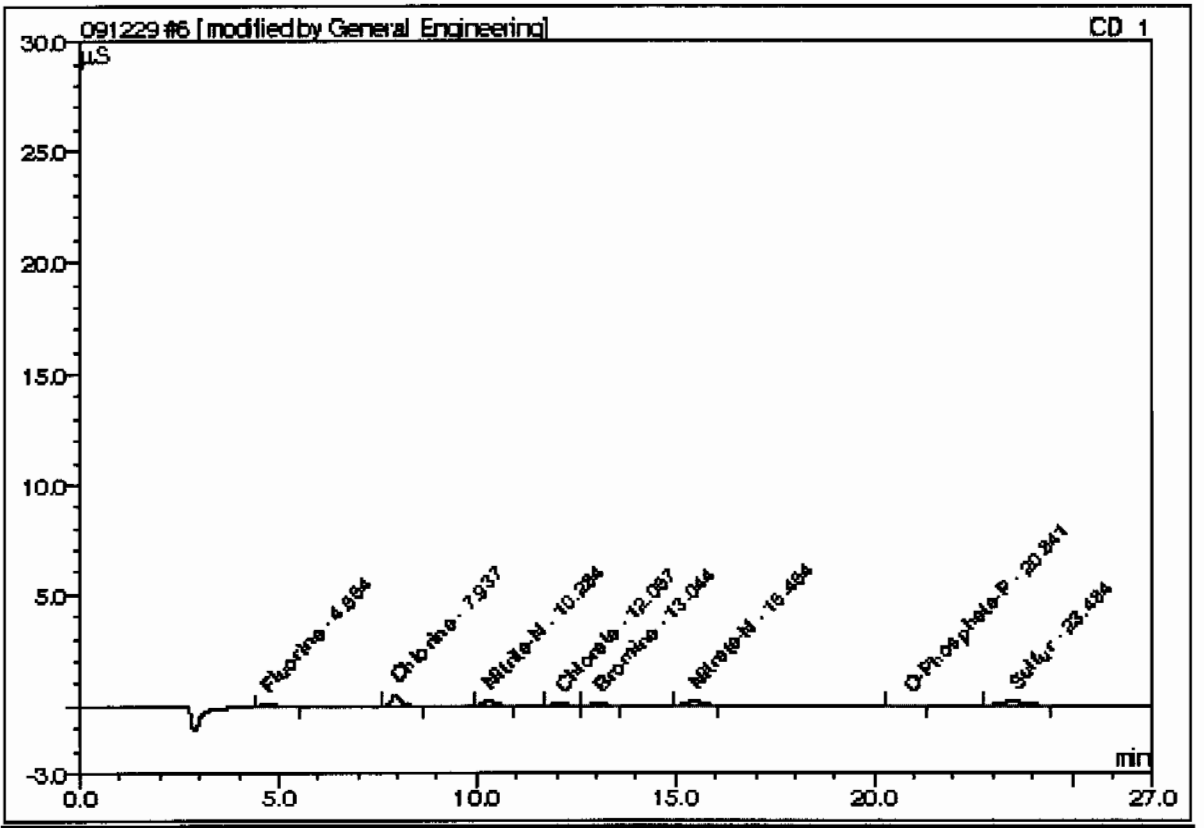

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chlorine	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromine	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfur	0.1333	0.2281	*	0.10850	22.16
Total:				1.7389	0.000	0.490	100.00

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

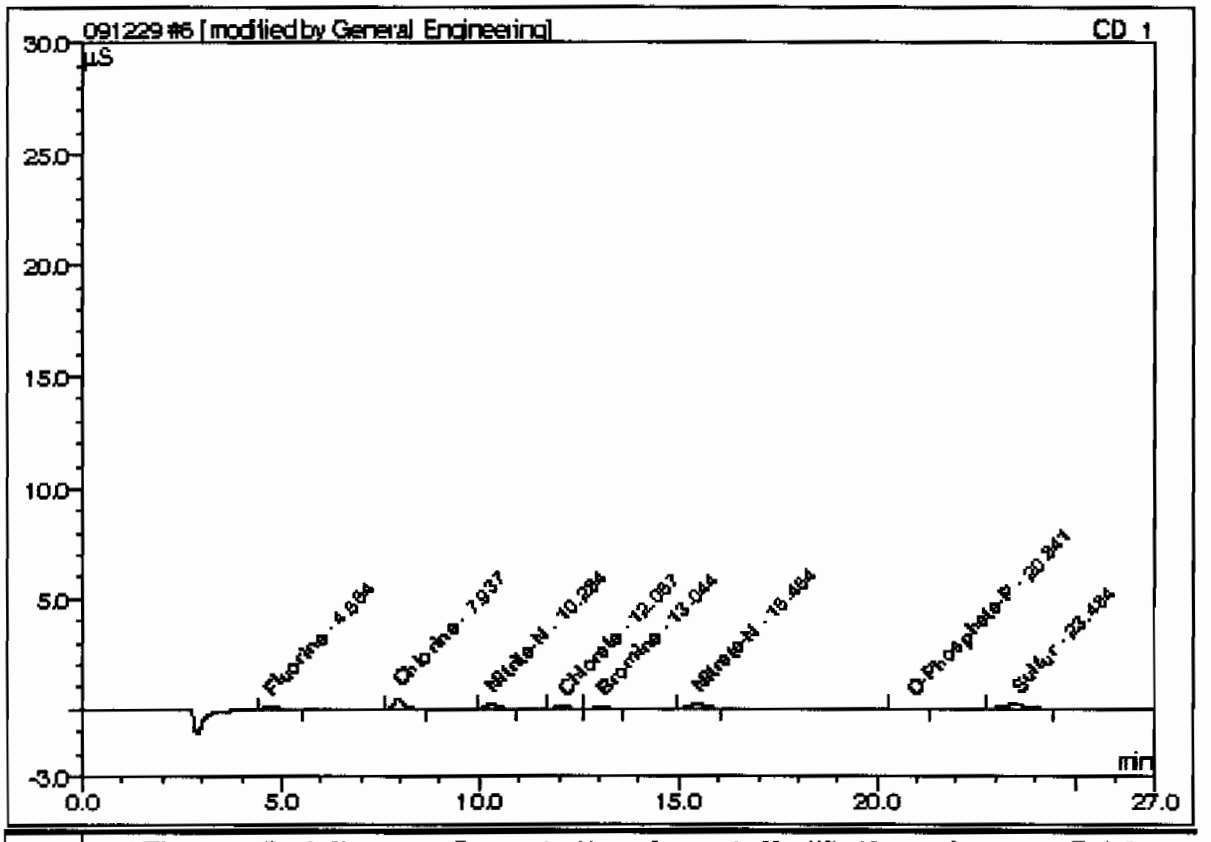

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chlorine	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromine	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfur	0.1333	0.2281	*	0.10850	22.16
Total:				1.7389	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

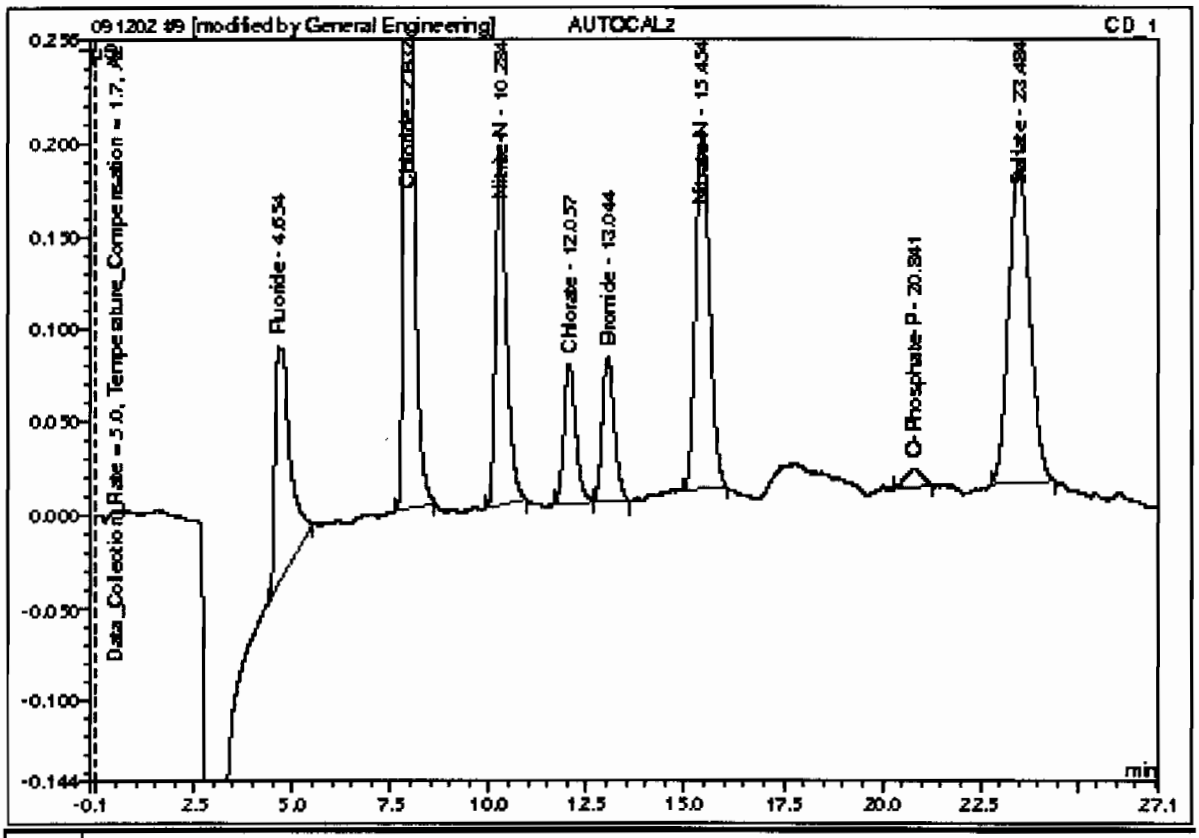

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

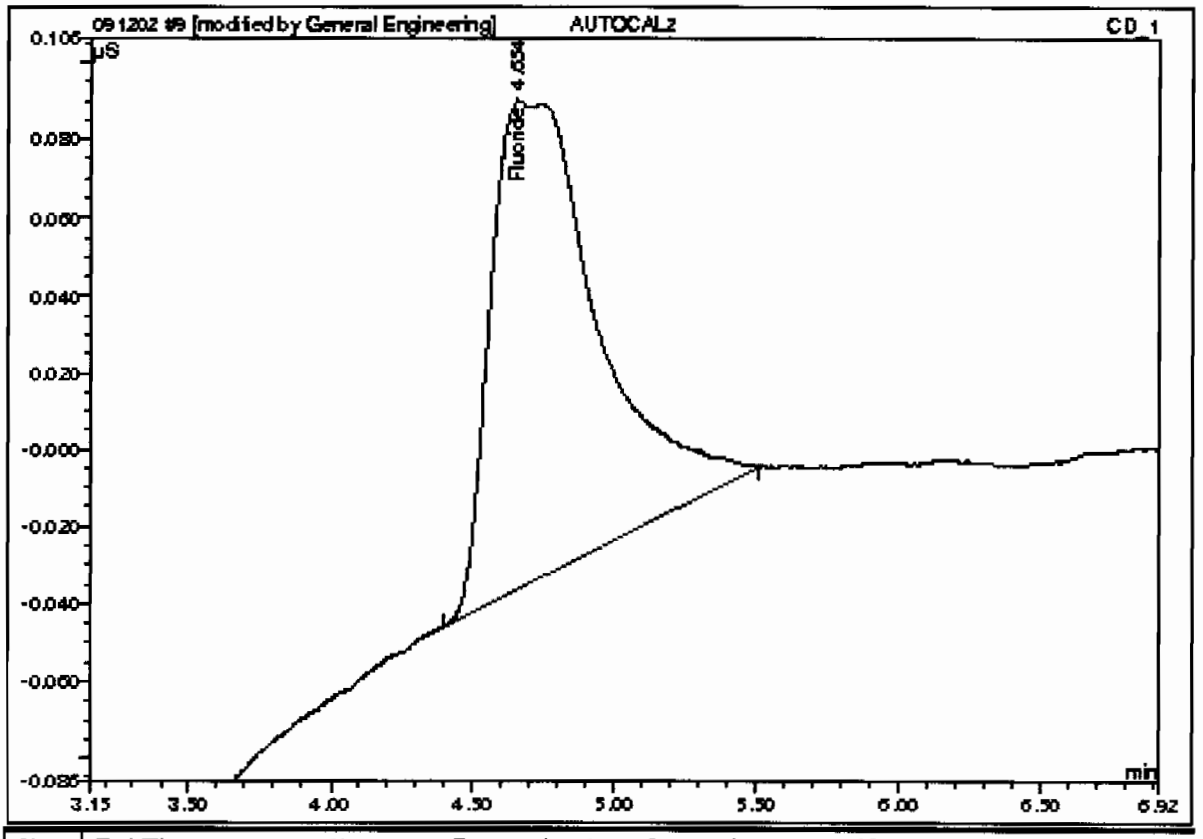

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

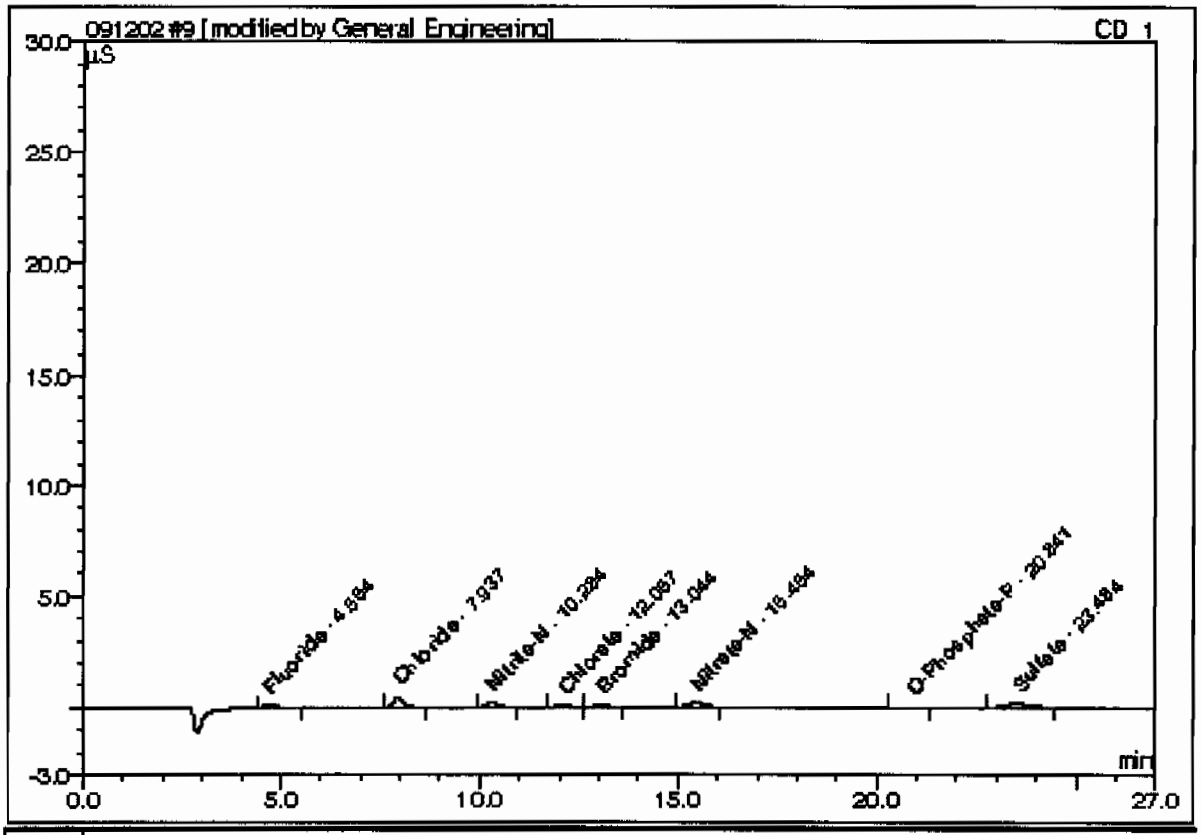

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

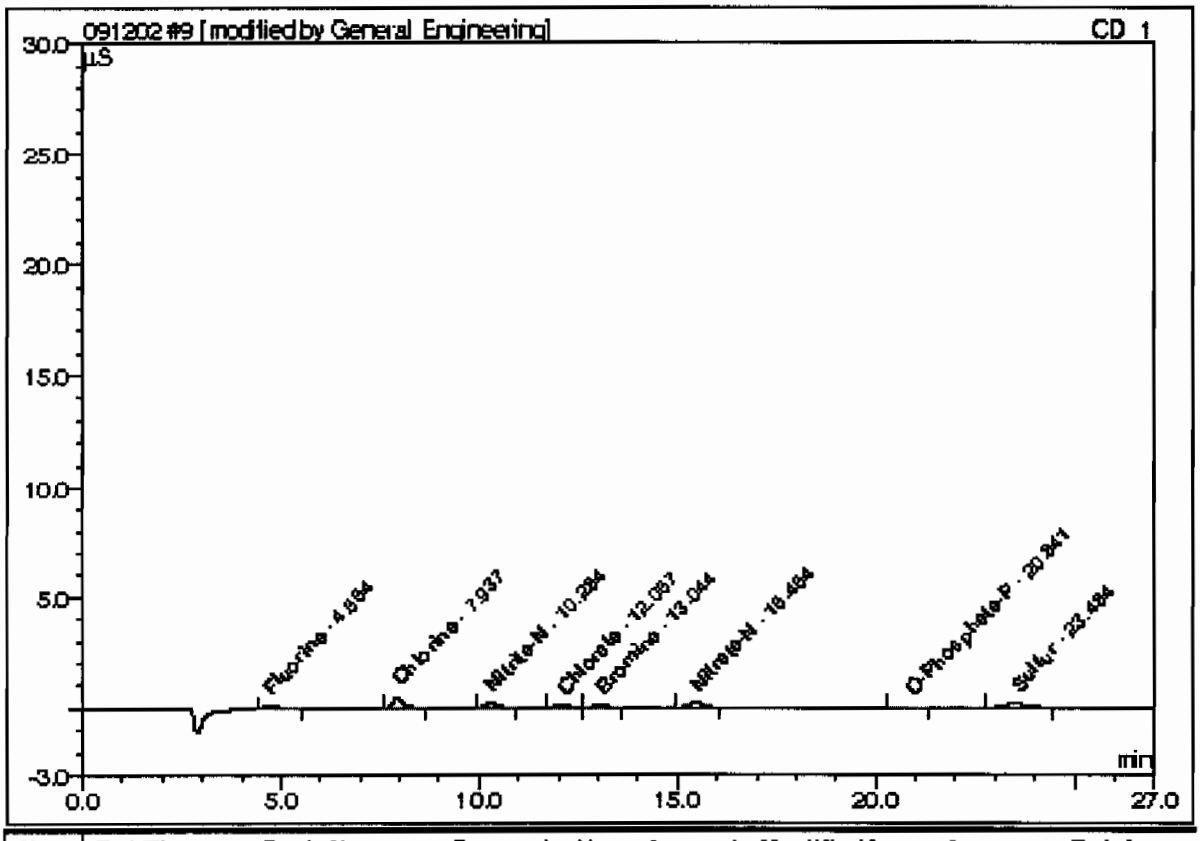

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chlorine	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromine	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfur	0.1333	0.2281	*	0.10850	22.16
Total:				1.7389	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

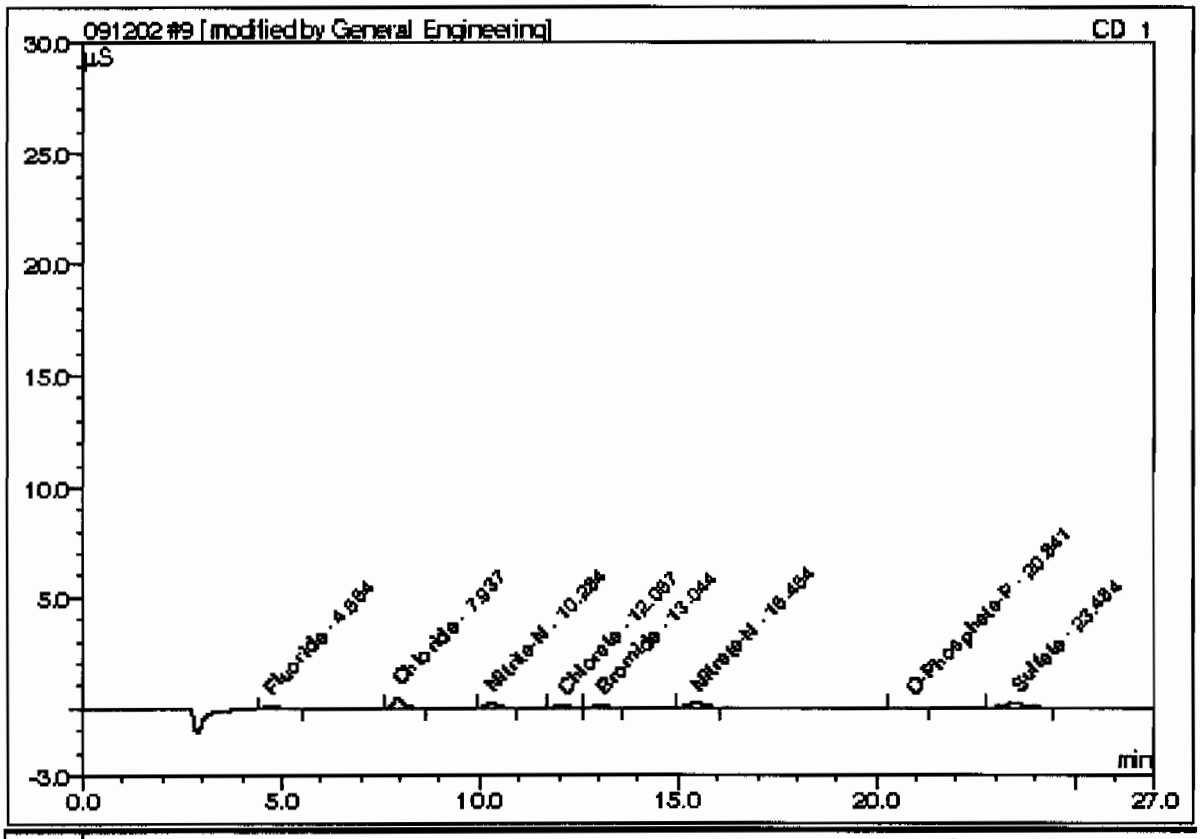

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

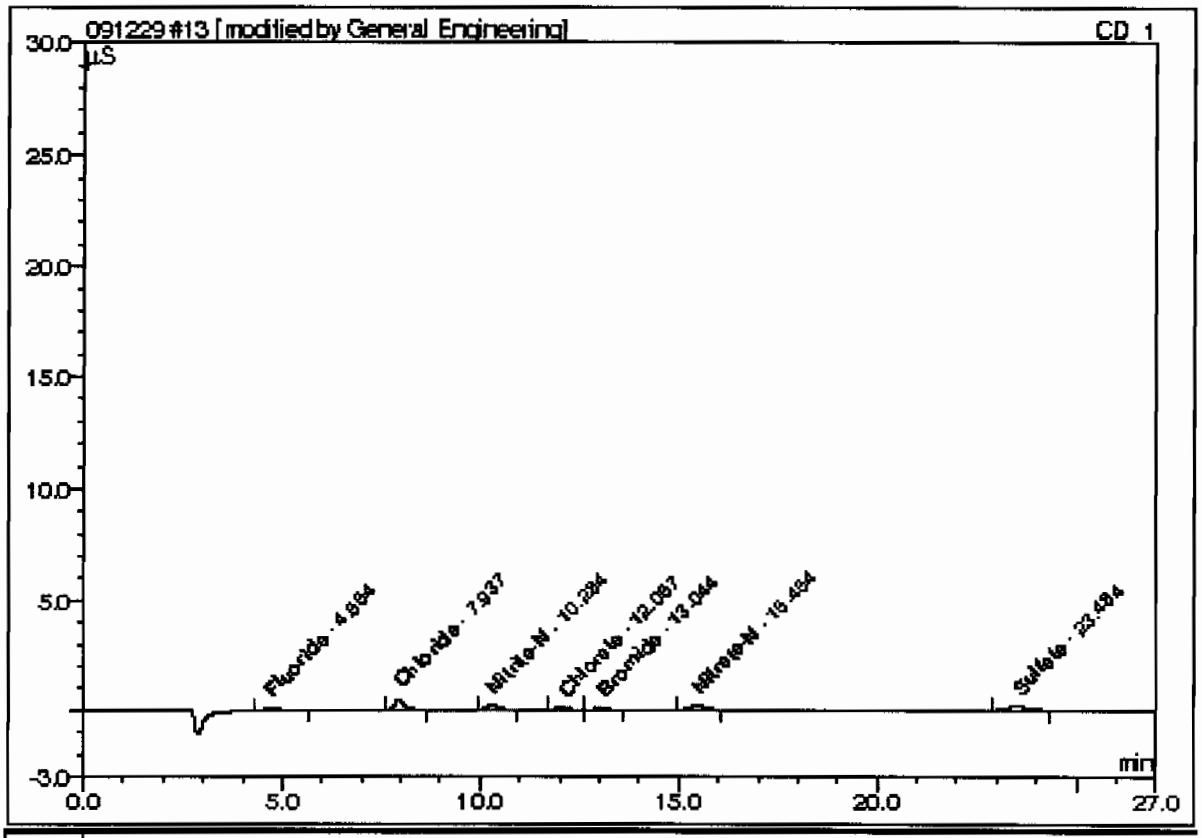

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1490	*	0.05925	12.21
2	7.94	Chloride	0.2000	0.3743		0.12619	26.01
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	12.75
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.36
5	13.04	Bromide	0.2000	0.2098		0.02783	5.73
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	16.34
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
7	23.48	Sulfate	0.4000	0.6952	*	0.10479	21.60
Total:				2.0022	0.000	0.485	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

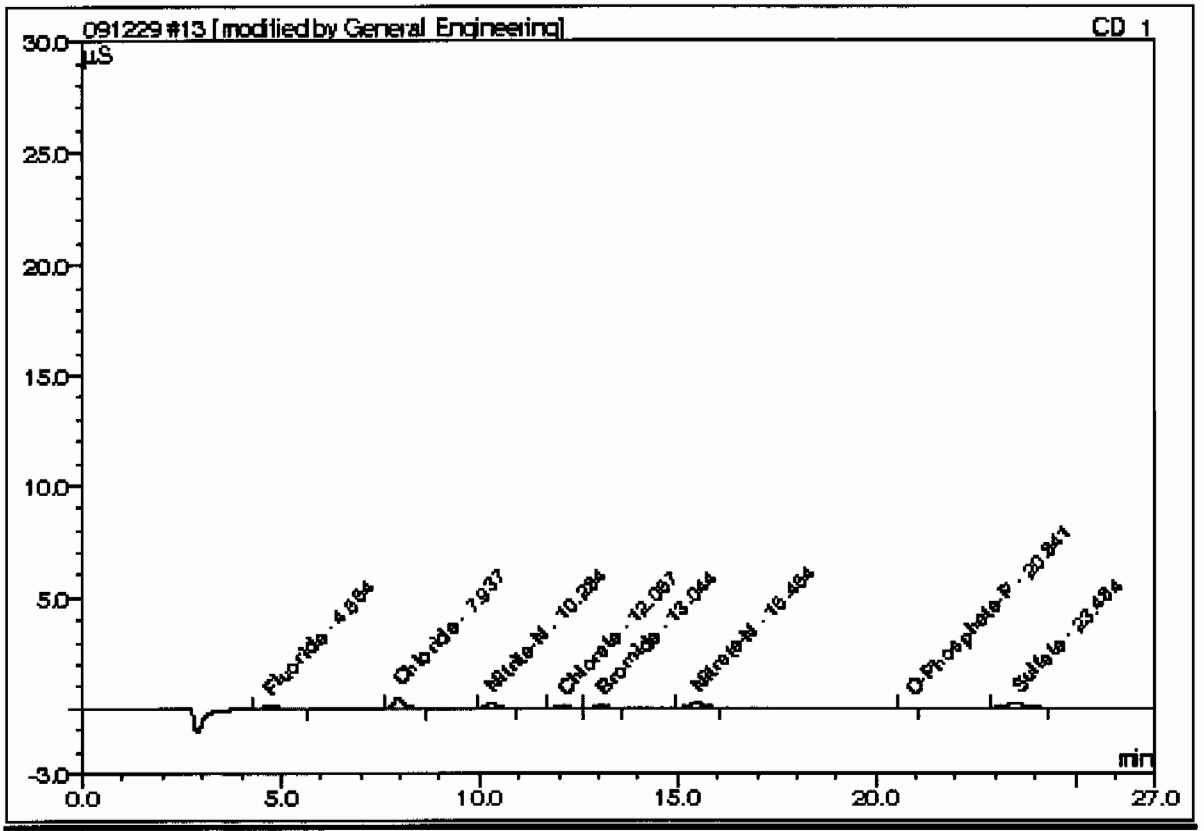

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1490	*	0.05925	12.18
2	7.94	Chloride	0.2000	0.3743		0.12619	25.93
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	12.72
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.34
5	13.04	Bromide	0.2000	0.2098		0.02783	5.72
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	16.30
7	20.84	O-Phosphate-P	0.2000	0.2053	*	0.00133	0.27
8	23.48	Sulfate	0.4000	0.6952	*	0.10479	21.54
Total:				2.2075	0.000	0.487	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091221b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

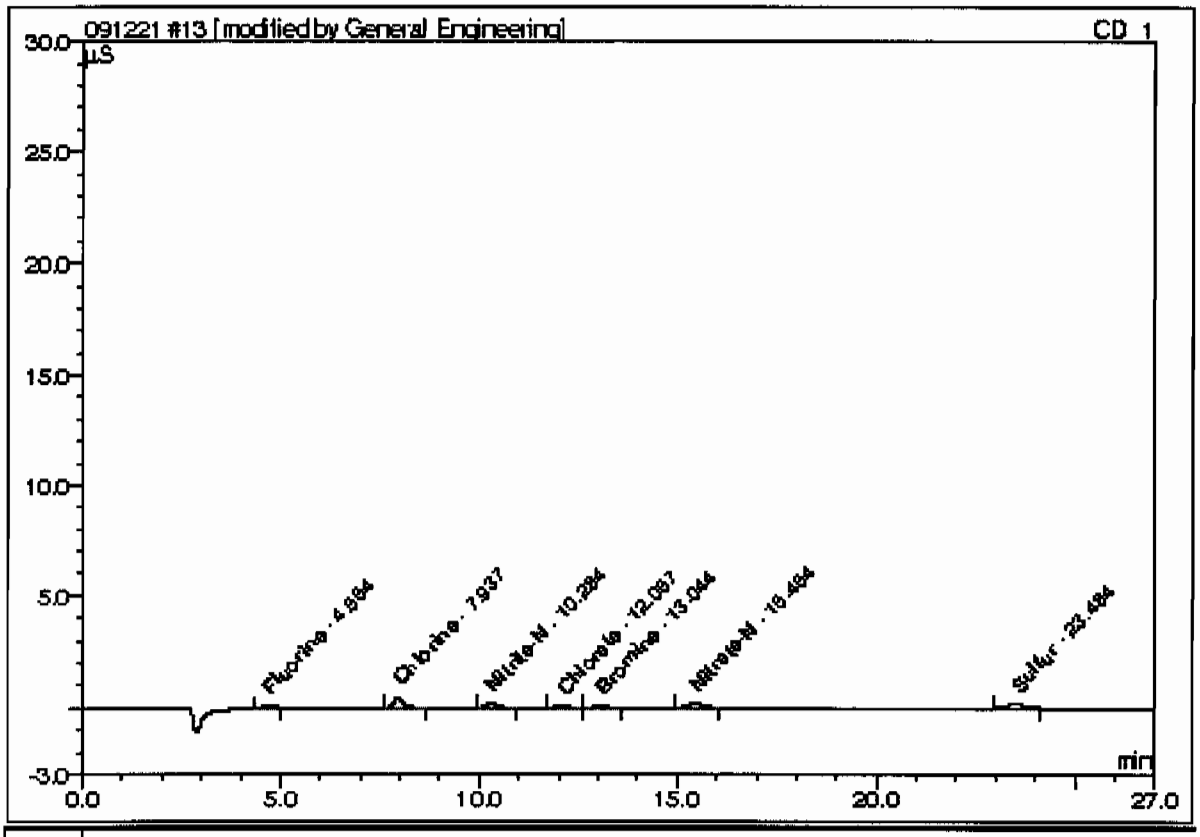

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1094	*	0.03286	7.37
2	7.94	Chlorine	0.2000	0.3743		0.12619	28.31
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.88
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.83
5	13.04	Bromine	0.2000	0.2098		0.02783	6.24
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.79
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
7	23.48	Sulfur	0.1333	0.5100	*	0.09173	20.58
Total:				1.7773	0.000	0.446	100.00

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

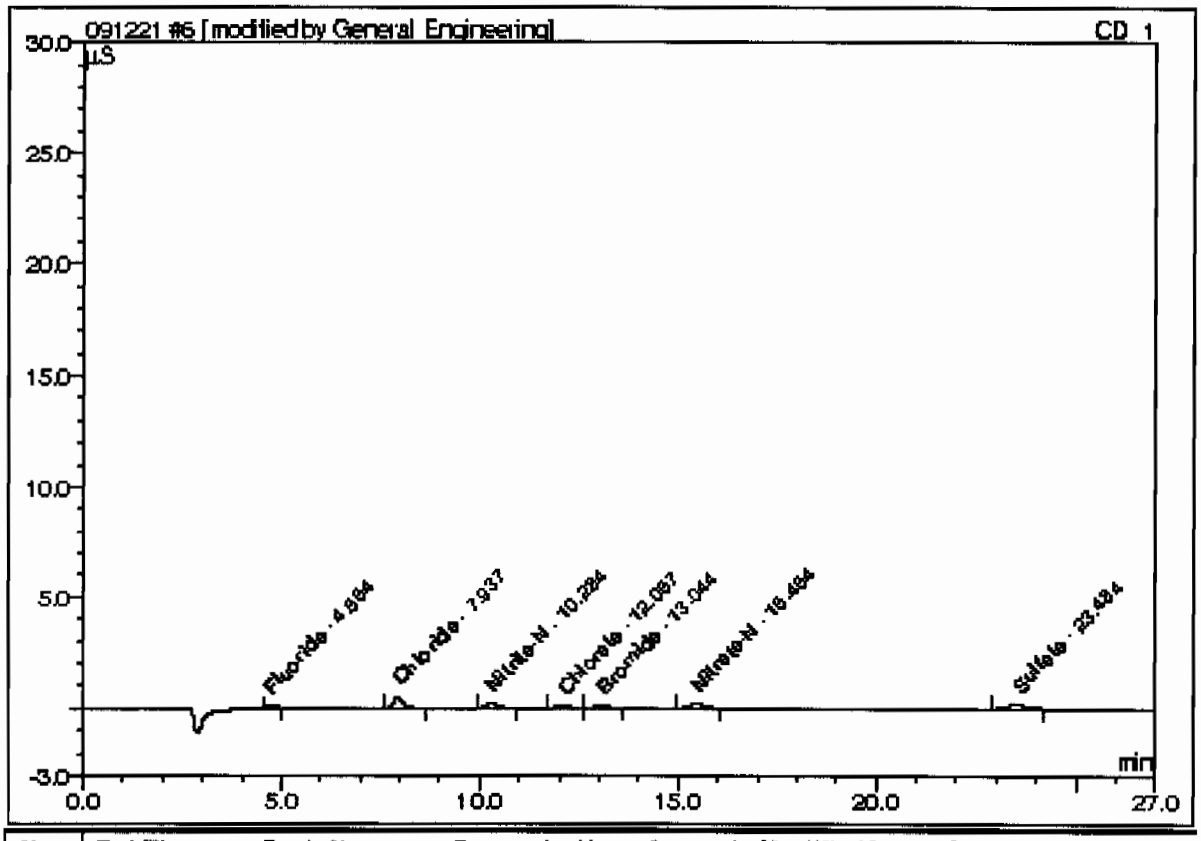

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.0989	*	0.02588	5.82
2	7.94	Chloride	0.2000	0.3743		0.12619	28.38
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.91
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.85
5	13.04	Bromide	0.2000	0.2098		0.02783	6.26
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.83
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
7	23.48	Sulfate	0.4000	0.6760	*	0.09764	21.96
Total:				1.9328	0.000	0.445	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

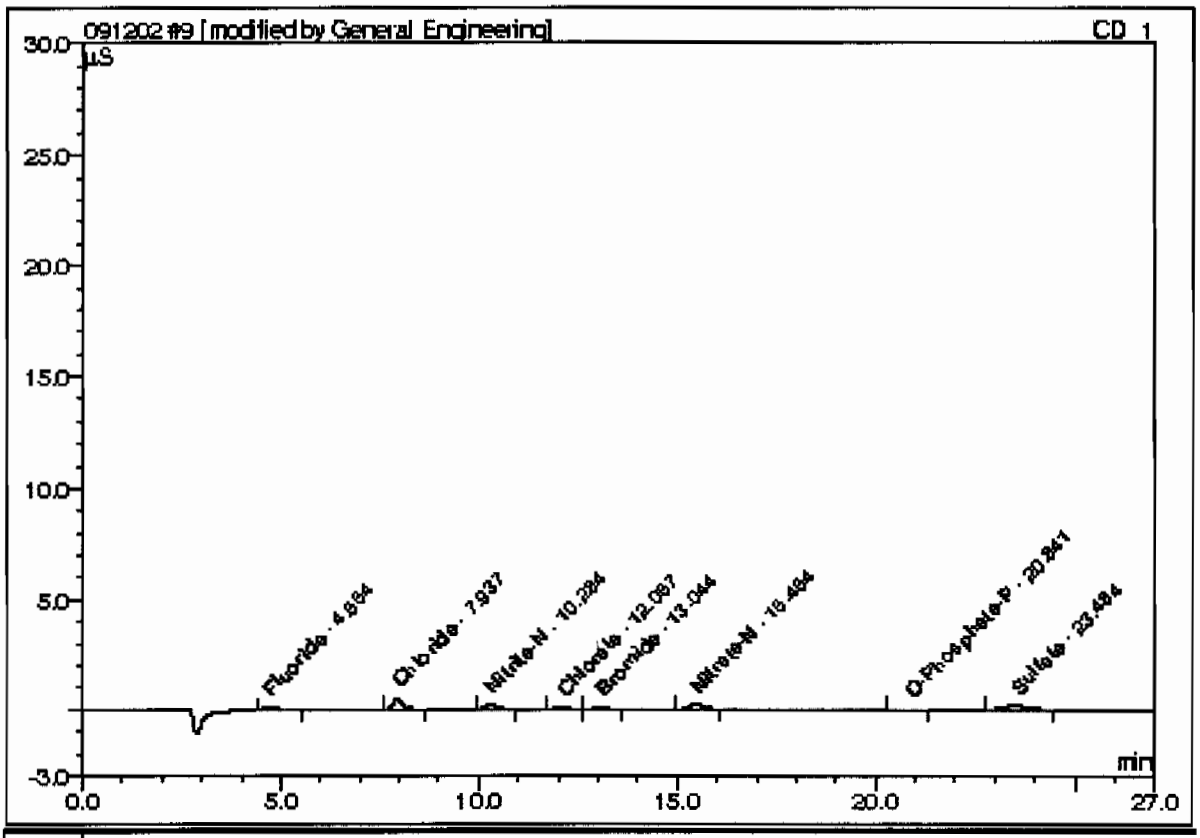

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

74 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

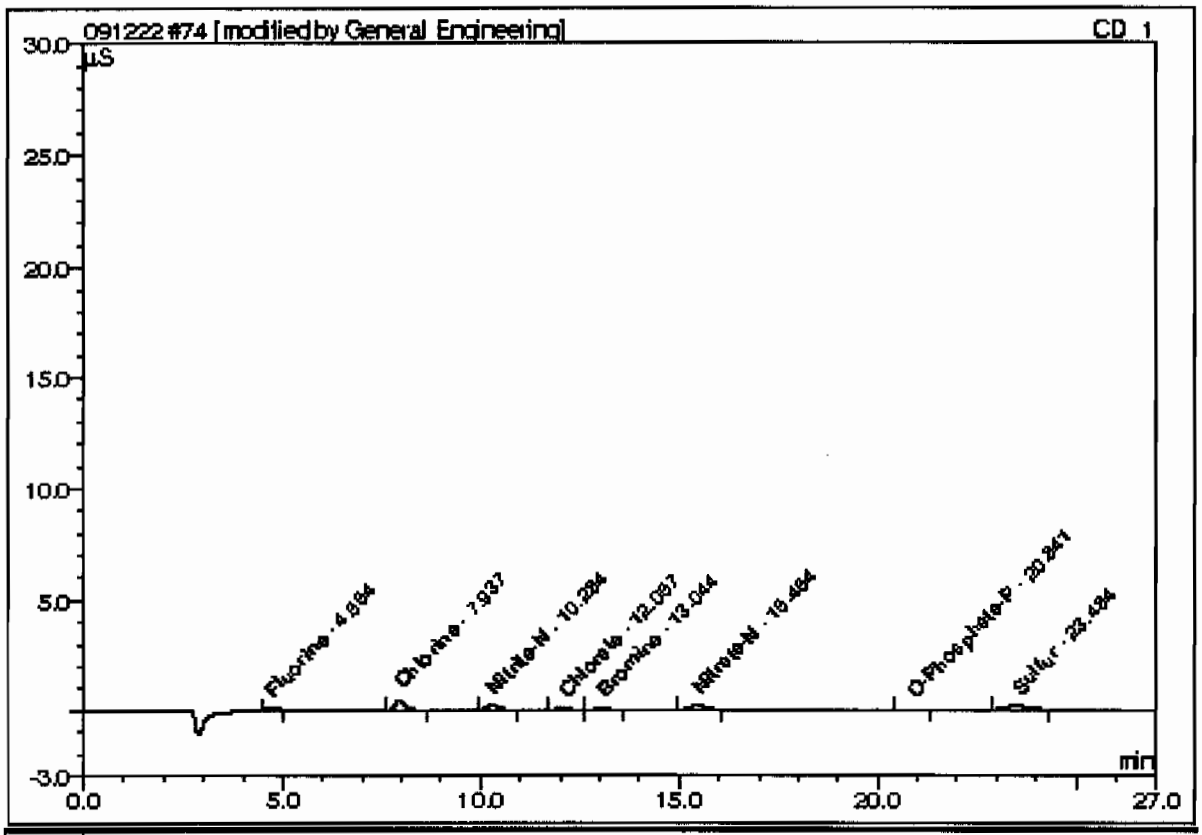

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1034	*	0.02890	6.30
2	7.94	Chlorine	0.2000	0.3743		0.12619	27.50
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.48
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.66
5	13.04	Bromine	0.2000	0.2098		0.02783	6.06
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.28
7	20.84	O-Phosphate-P	0.2000	0.2135	*	0.00418	0.91
8	23.48	Sulfur	0.1333	0.6513	*	0.10462	22.80
Total:				2.1262	0.000	0.459	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

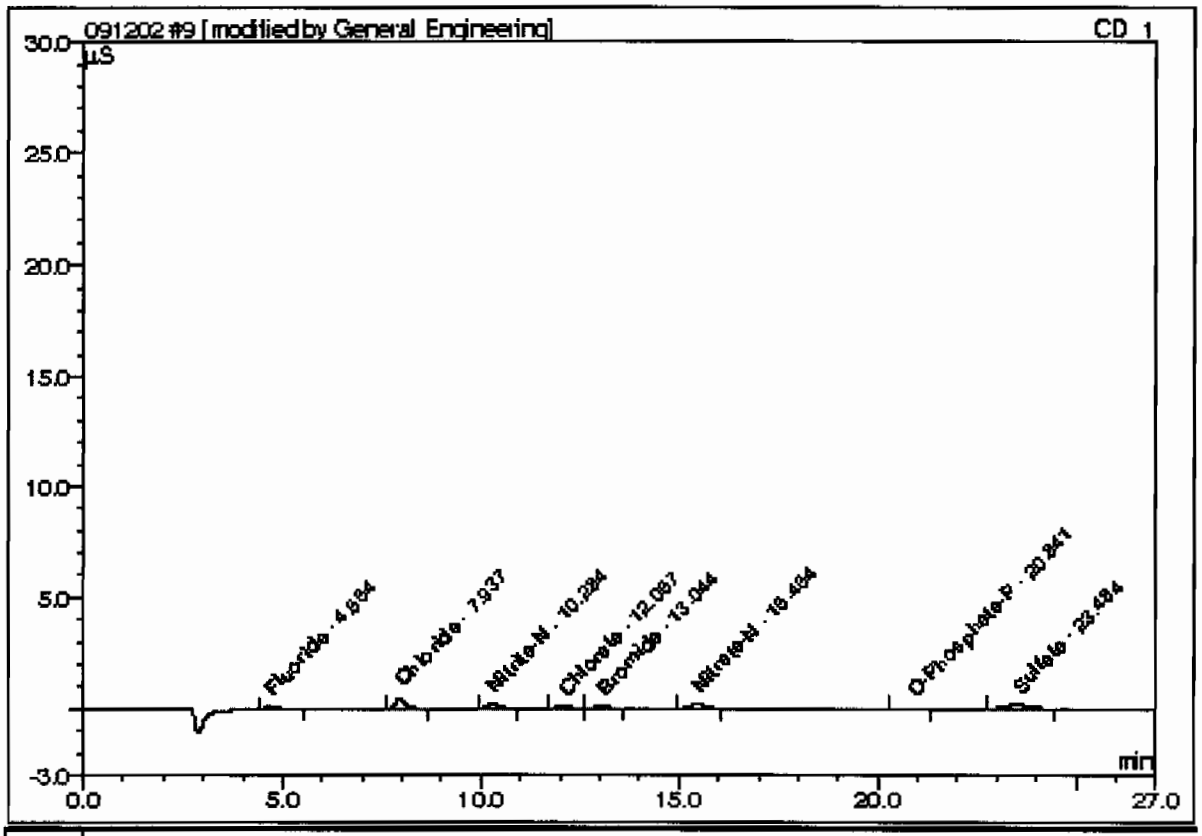

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB86;300;9056

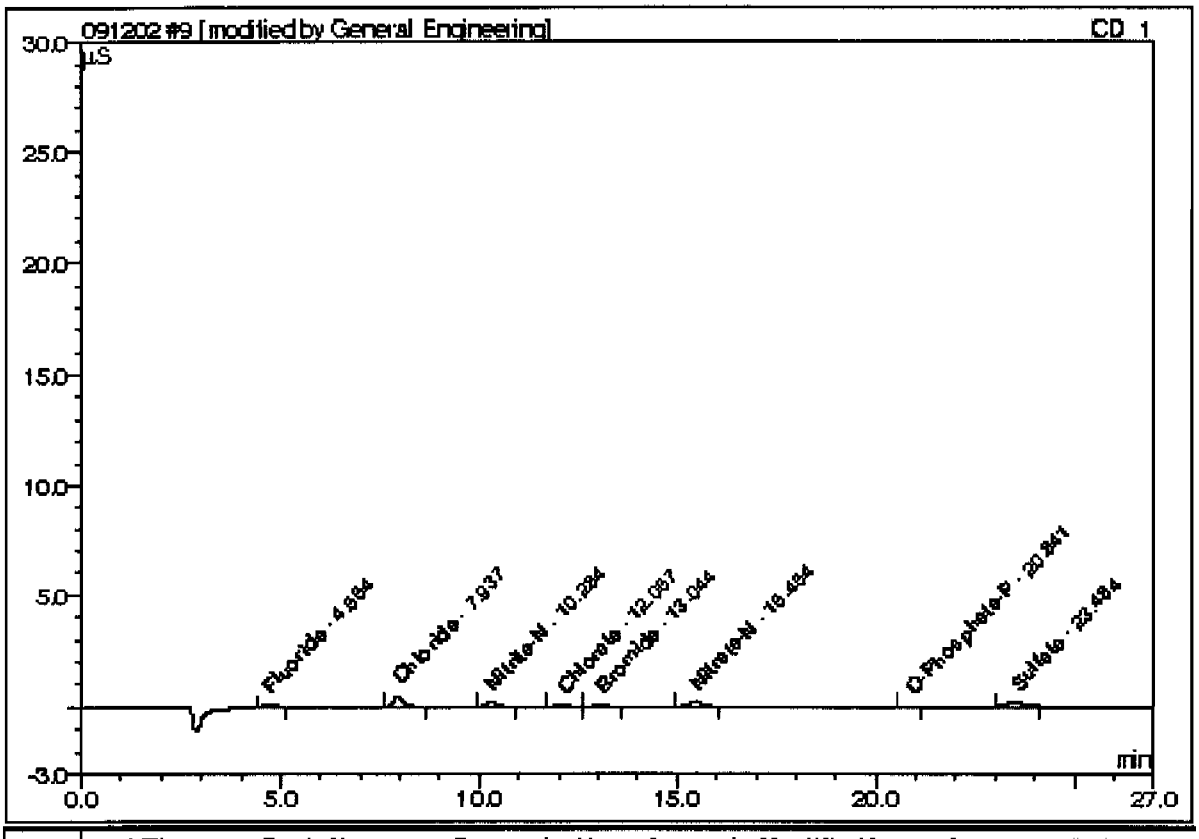

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1231	*	0.04201	9.23
2	7.94	Chloride	0.2000	0.3743		0.12619	27.73
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.60
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.71
5	13.04	Bromide	0.2000	0.2098		0.02783	6.12
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.43
7	20.84	O-Phosphate-P	0.2000	0.2070	*	0.00191	0.42
8	23.48	Sulfate	0.4000	0.6551	*	0.08988	19.75
Total:				2.1431	0.000	0.455	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	*Analyst:*	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

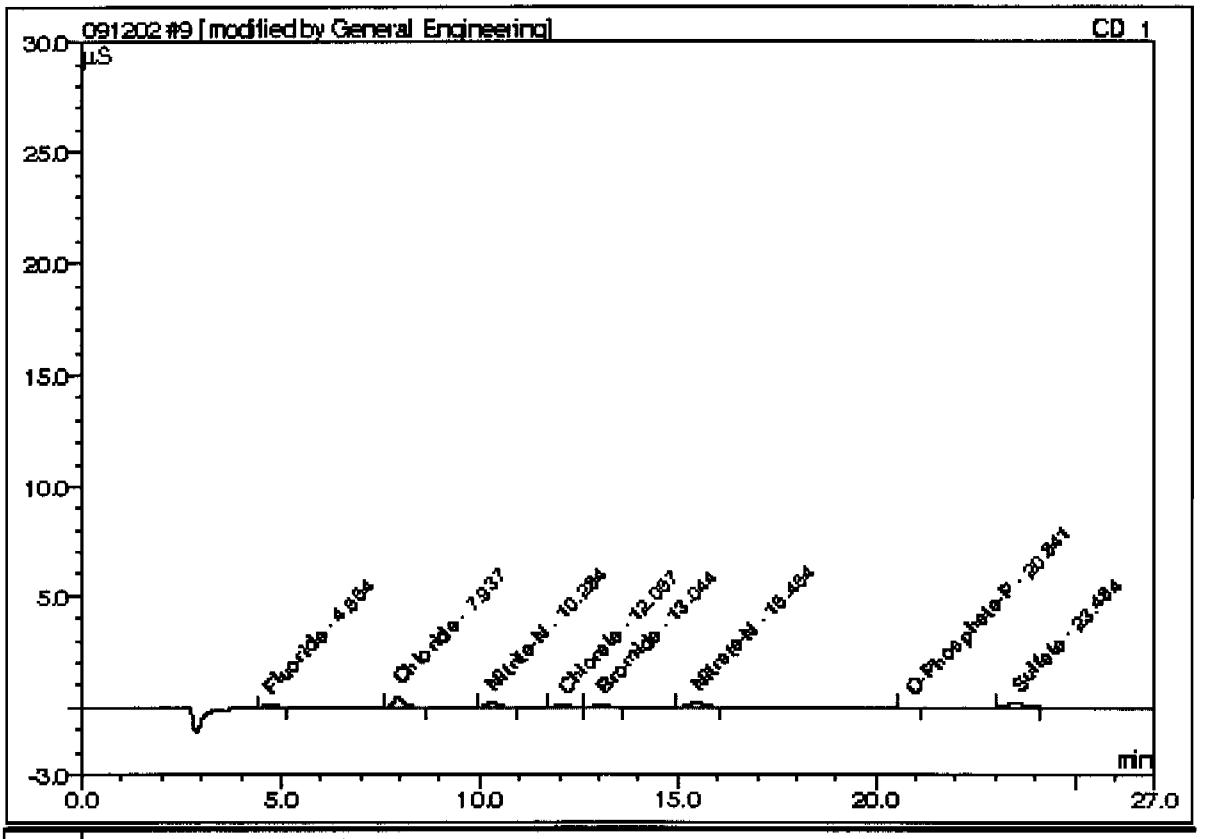

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1251	*	0.04330	9.49
2	7.94	Chloride	0.2000	0.3743		0.12619	27.66
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.56
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.70
5	13.04	Bromide	0.2000	0.2098		0.02783	6.10
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.38
7	20.84	O-Phosphate-P	0.2000	0.2070	*	0.00191	0.42
8	23.48	Sulfate	0.4000	0.6551	*	0.08988	19.70
Total:				2.1451	0.000	0.456	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

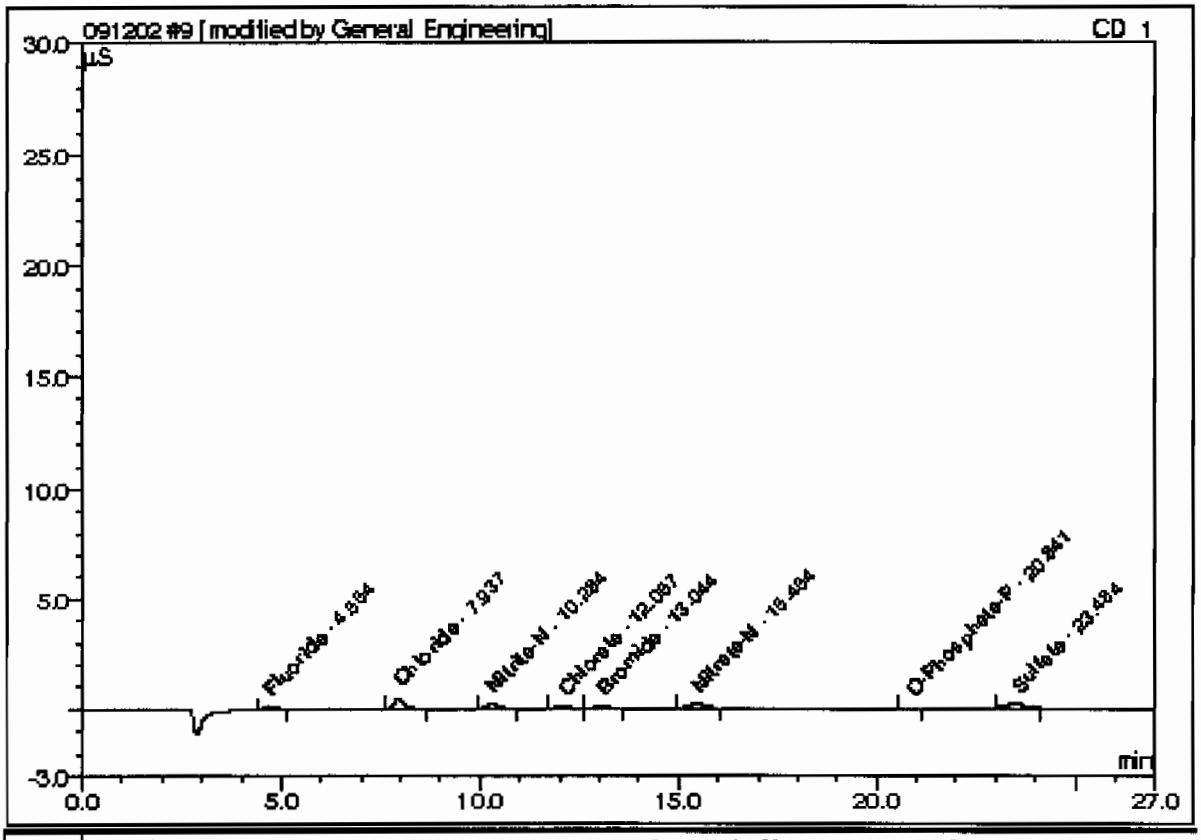

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1251	*	0.04330	9.49
2	7.94	Chloride	0.2000	0.3743		0.12619	27.66
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.56
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.70
5	13.04	Bromide	0.2000	0.2098		0.02783	6.10
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.38
7	20.84	O-Phosphate-P	0.2000	0.2070	*	0.00191	0.42
8	23.48	Sulfate	0.4000	0.6551	*	0.08988	19.70
Total:				2.1451	0.000	0.456	100.00

7 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:33	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

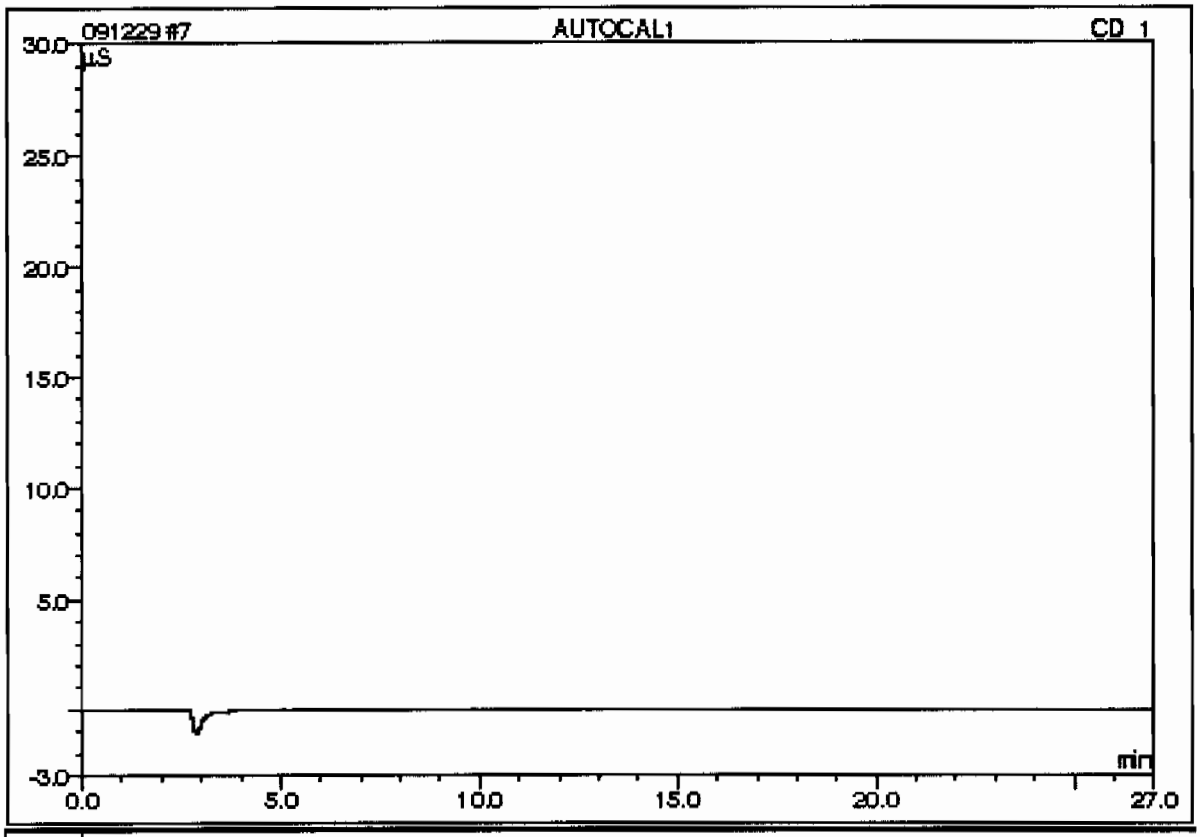

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluorine	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorine	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromine	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfur	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

7 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:33	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002593;GLGCE086;300;9056

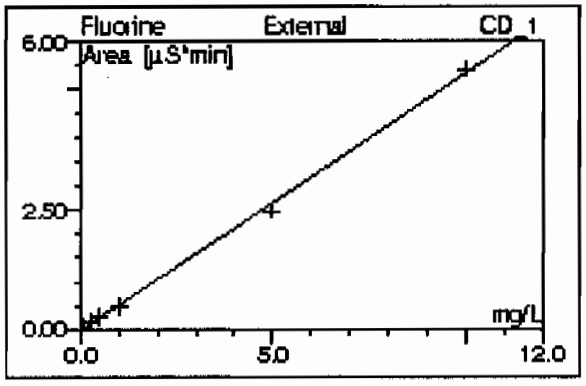

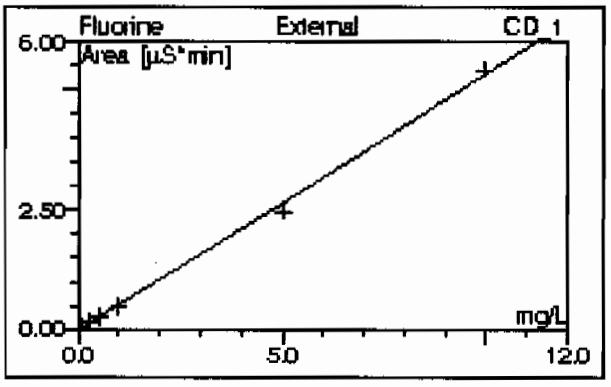

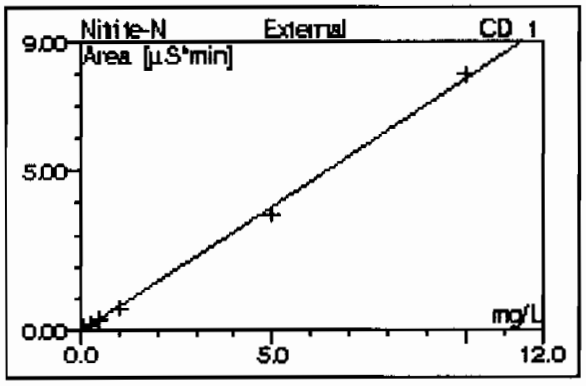

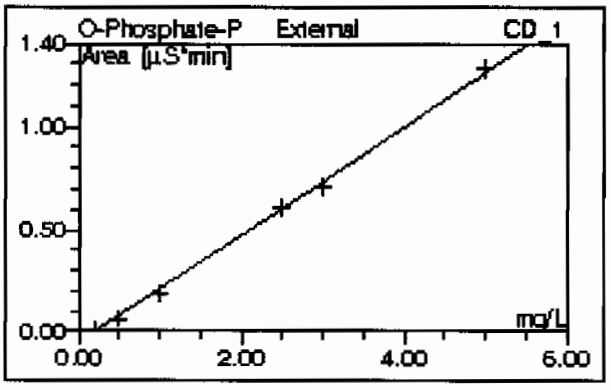

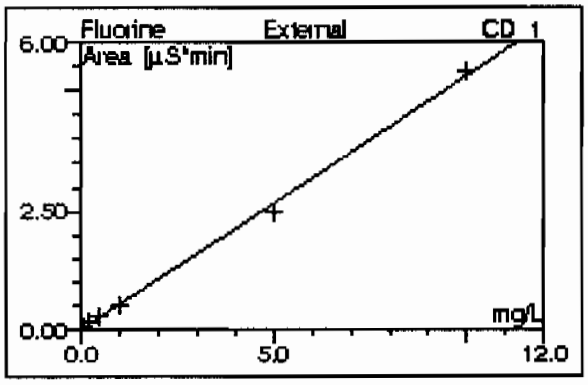

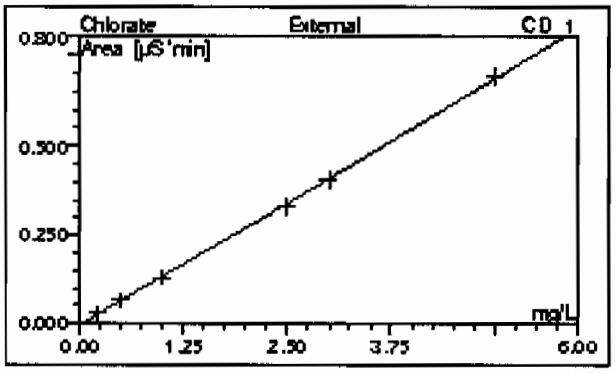

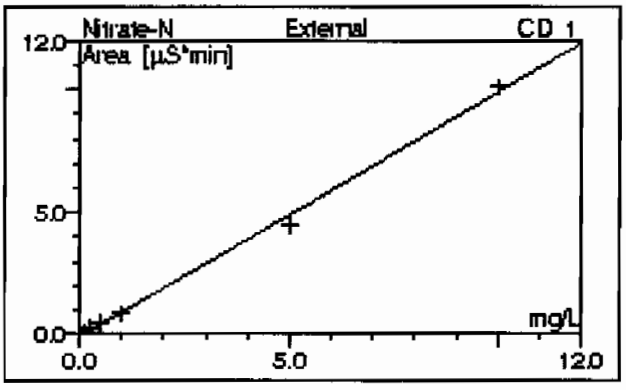

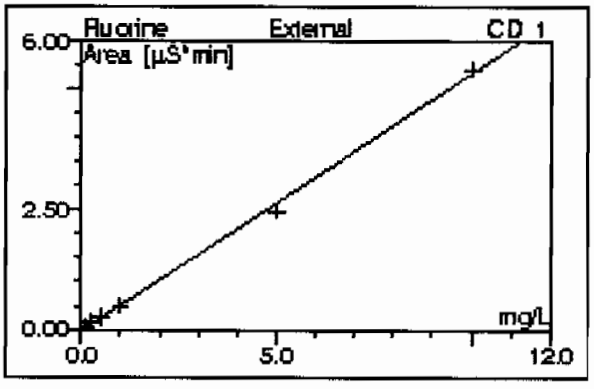

No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluorine	0LOff	99.8273	-0.0229	0.5344	0.0000
n.a.	n.a.	Chlorine	0LOff	99.5938	-0.0307	0.4192	0.0000
n.a.	n.a.	Nitrite-N	0LOff	99.8541	-0.0670	0.7923	0.0000
n.a.	n.a.	Chlorate	0LOff	99.9539	-0.0053	0.1380	0.0000
n.a.	n.a.	Bromine	0LOff	99.9837	-0.0043	0.1529	0.0000
n.a.	n.a.	Nitrate-N	0LOff	99.7226	-0.1037	0.9989	0.0000
n.a.	n.a.	O-Phosphate-P	0LOff	99.7900	-0.0496	0.2621	0.0000
n.a.	n.a.	Sulfur	0LOff	99.7713	-0.0940	0.8877	0.0000
Average:				99.8121	-0.0472	0.5232	0.0000

11 WIC091202-02ICV

Sample Name:	WIC091202-02ICV	*Injection Volume:*	50.0
Vial Number:	11	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 22:03	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

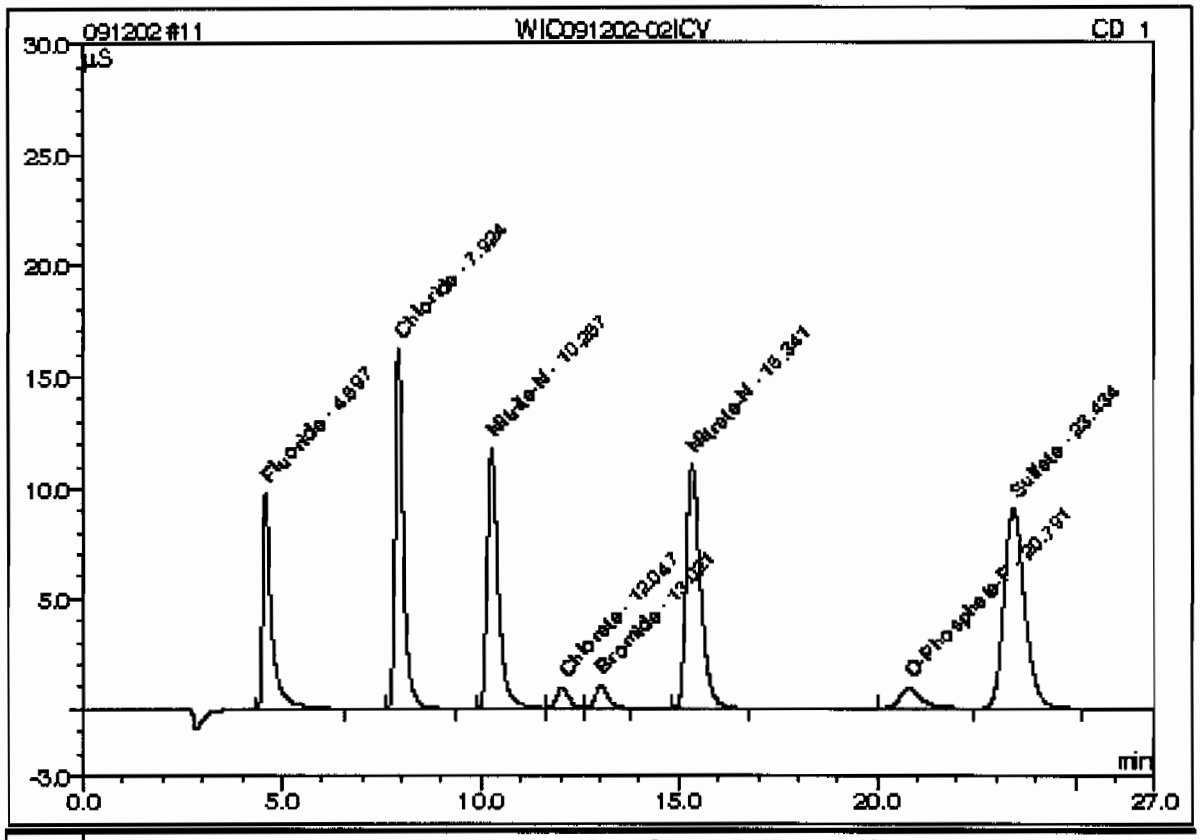

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	n.a.	4.7161		2.49838	11.68
2	7.92	Chloride	n.a.	9.2590		3.85054	18.00
3	10.27	Nitrite-N	n.a.	4.7805		3.72071	17.39
4	12.05	Chlorate	n.a.	2.4809		0.33694	1.57
5	13.02	Bromide	n.a.	2.4367		0.36874	1.72
6	15.34	Nitrate-N	n.a.	4.6791		4.57041	21.36
7	20.79	O-Phosphate-P	n.a.	2.4024		0.57999	2.71
8	23.43	Sulfate	n.a.	18.7982		5.46821	25.56
Total:				49.5569	0.000	21.394	100.00

12 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	12	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 22:33	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

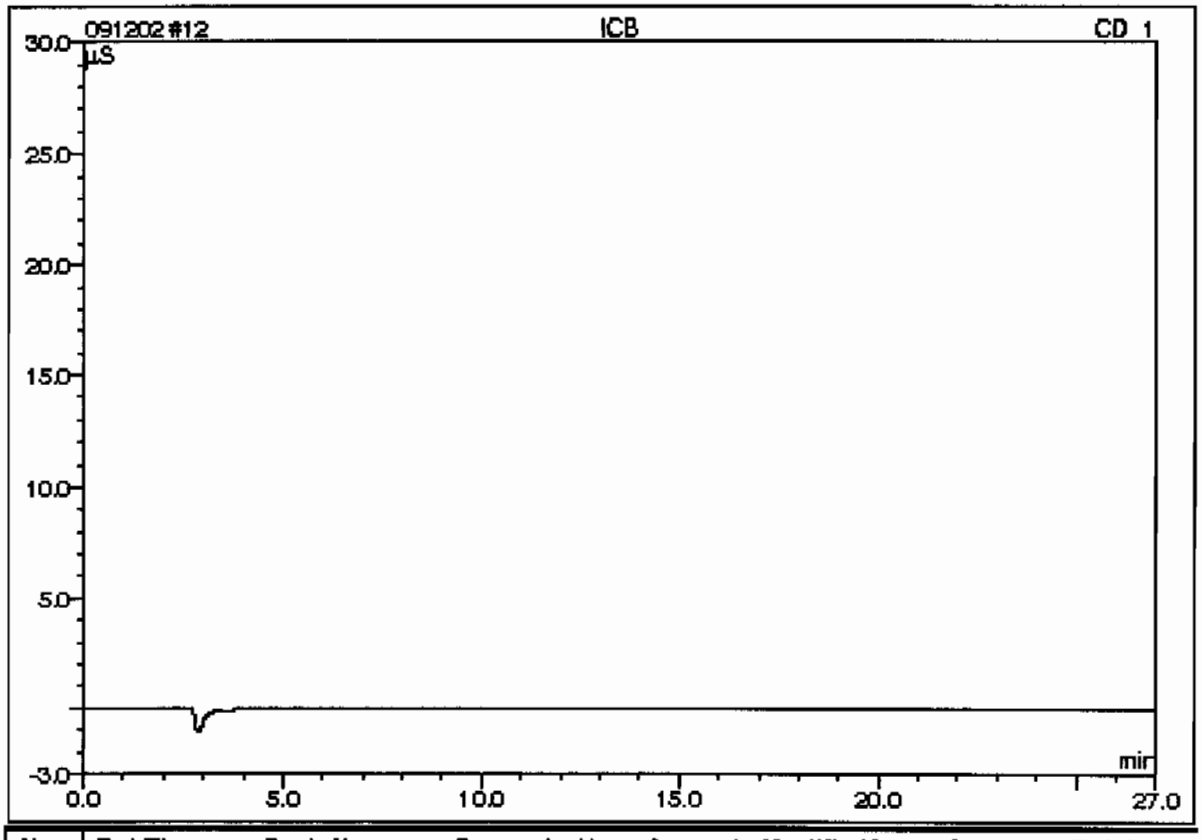

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100107.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	01/07/10 09:53		1	100107	GXM3
BLK	01/07/10 10:22		1	100107	GXM3
ICV	01/07/10 10:52		1	100107	GXM3
ICB	01/07/10 11:22		1	100107	GXM3
1201996185	01/07/10 11:52	933095	1	100107	GXM3
1201996186	01/07/10 12:21	933095	1	100107	GXM3
242651001	01/07/10 12:51	933095	1	100107	GXM3
1201996187	01/07/10 13:21	933095	1	100107	GXM3
1201996188	01/07/10 13:51	933095	1	100107	GXM3
242653001	01/07/10 14:21	933095	1	100107	GXM3
242667001	01/07/10 14:51	933095	1	100107	GXM3
CVH	01/07/10 15:21		1	100107	GXM3
CCB	01/07/10 15:51		1	100107	GXM3
242753002	01/07/10 16:20	933095	1	100107	GXM3
242753004	01/07/10 16:50	933095	1	100107	GXM3
242753006	01/07/10 17:20	933095	1	100107	GXM3
242753008	01/07/10 17:50	933095	1	100107	GXM3
242753009	01/07/10 18:20	933095	1	100107	GXM3
242789003	01/07/10 18:50	933095	1	100107	GXM3
243819001	01/07/10 19:20	933095	1	100107	GXM3
CCV	01/07/10 19:50		1	100107	GXM3
CCB	01/07/10 20:19		1	100107	GXM3
1202002243	01/07/10 20:49	935755	1	100107	GXM3
1202002250	01/07/10 21:19	935755	1	100107	GXM3
243243001	01/07/10 21:49	935755	1	100107	GXM3
1202002244	01/07/10 22:19	935755	1	100107	GXM3
1202002246	01/07/10 22:49	935755	1	100107	GXM3
1202002248	01/07/10 23:19	935755	1	100107	GXM3

17 WIC100107-02ICV

Sample Name:	WIC100107-02ICV	*Injection Volume:*	50.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 10:52	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407;GLGCB086;300;9056

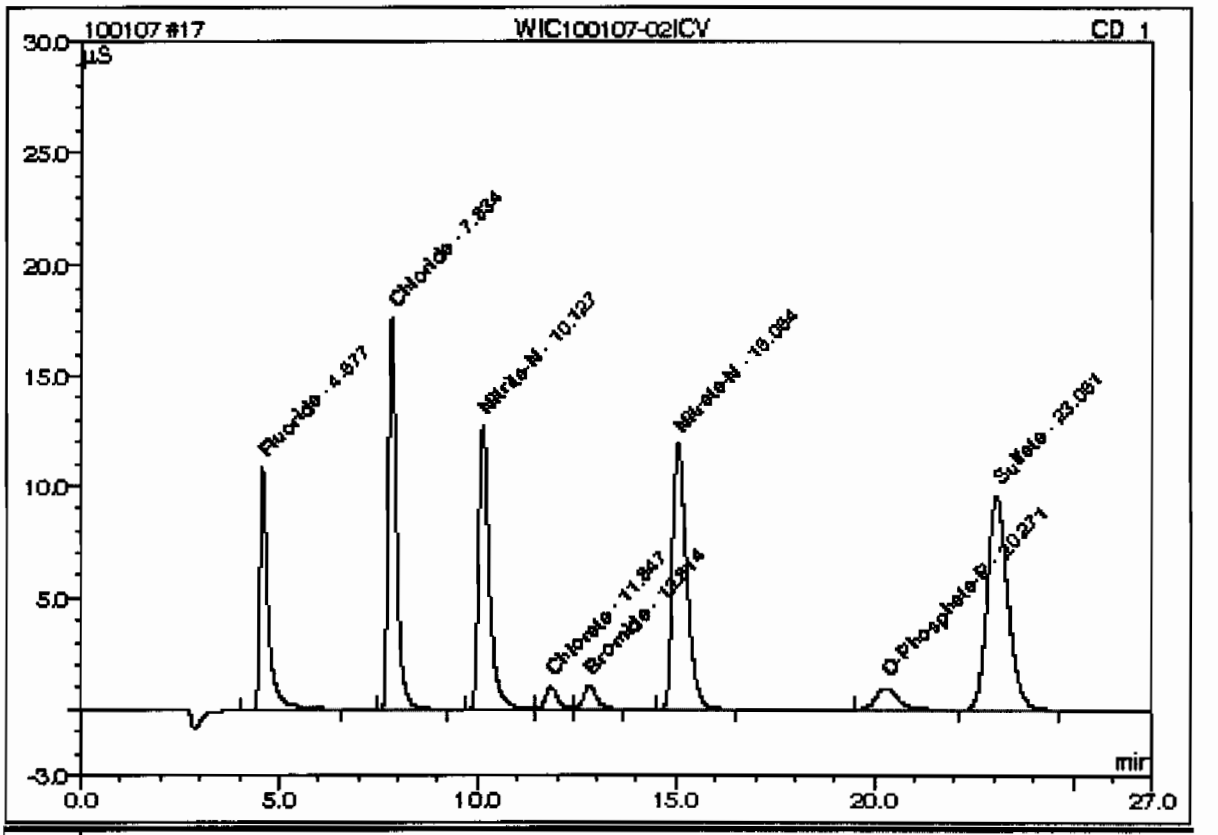

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.58	Fluoride	n.a.	5.0196		2.63702	11.55
2	7.83	Chloride	n.a.	9.8812		4.11136	18.01
3	10.13	Nitrite-N	n.a.	5.0999		3.97334	17.40
4	11.85	Chlorate	n.a.	2.5919		0.35226	1.54
5	12.81	Bromide	n.a.	2.5467		0.38526	1.69
6	15.05	Nitrate-N	n.a.	5.0338		4.91472	21.53
7	20.27	O-Phosphate-P	n.a.	2.6388		0.63289	2.77
8	23.06	Sulfate	n.a.	20.0185		5.82320	25.51
Total:				52.8306	0.000	22.830	100.00

18 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 11:22	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

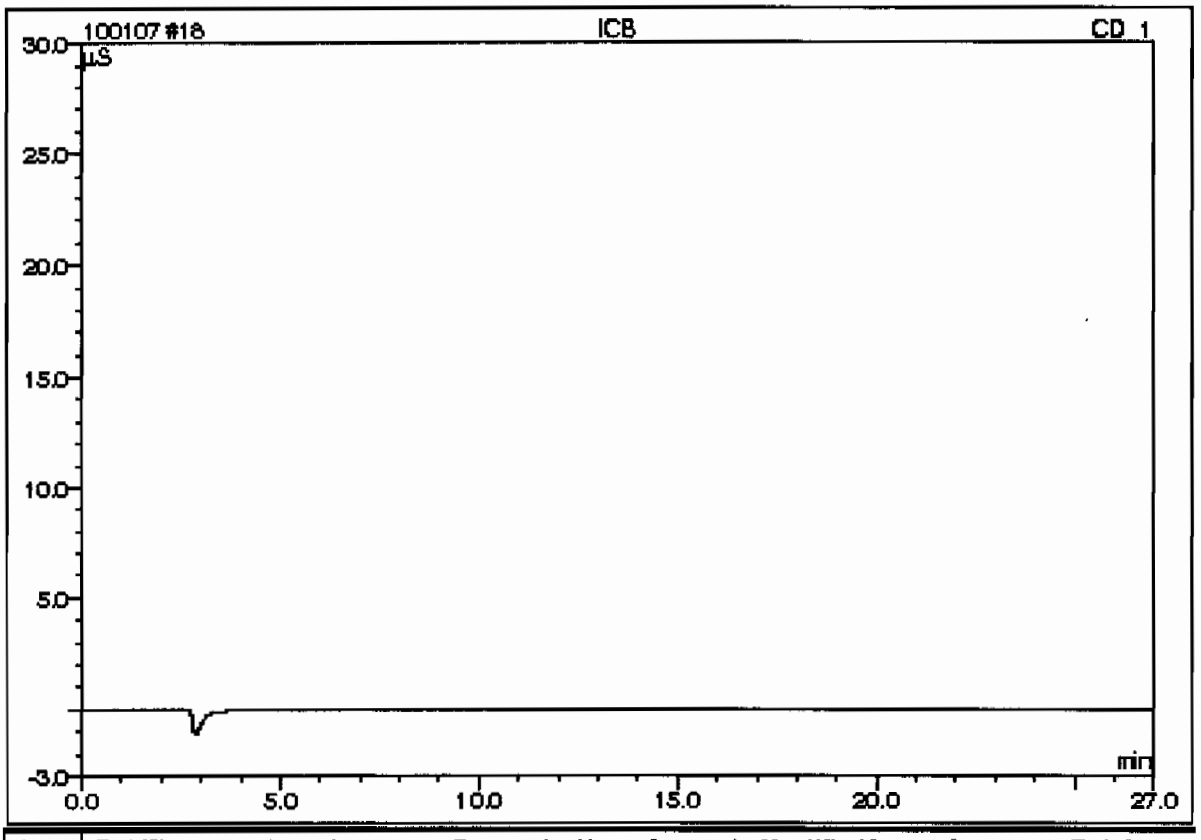

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

19 1201996185/933095/1/1/MB

Sample Name:	1201996185/933095/1/1/MB	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 11:52	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

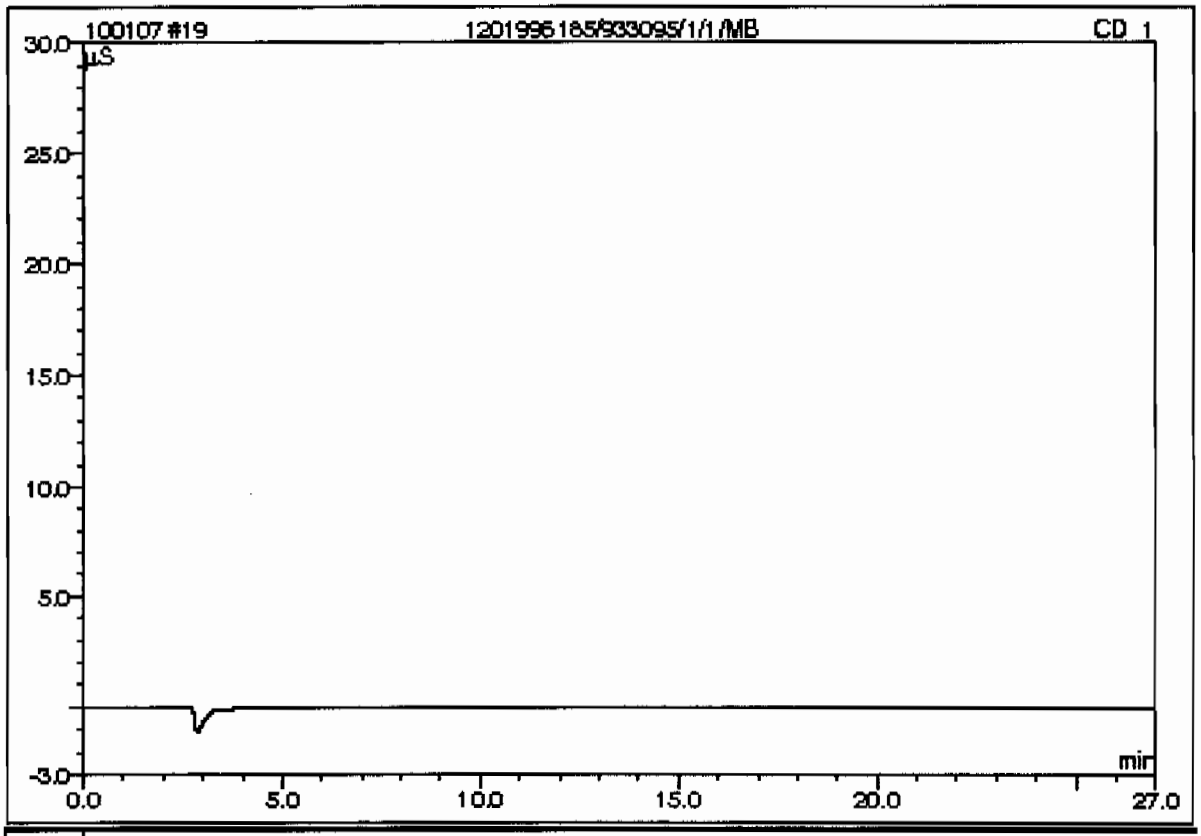

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

20 1201996186/933095/1/1/LCS

Sample Name:	1201996186/933095/1/1/LCS	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 12:21	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

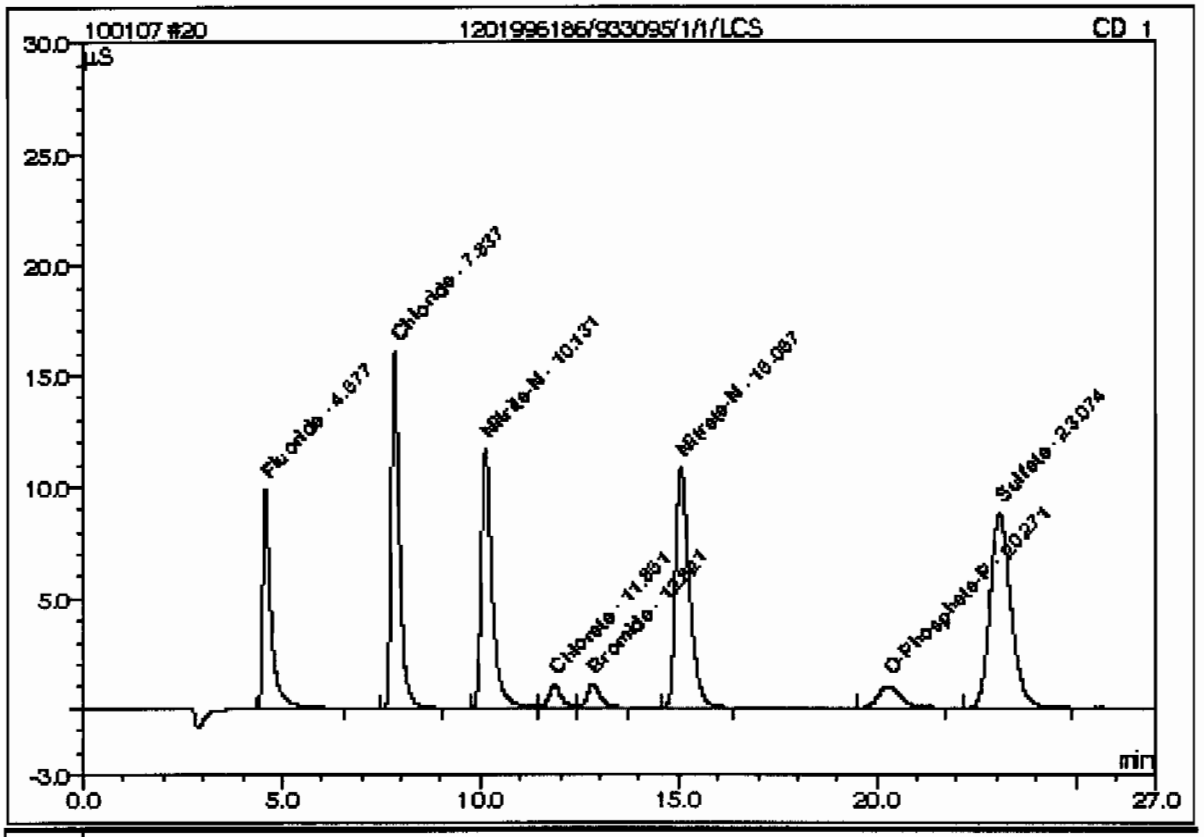

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.58	Fluoride	n.a.	4.6274		2.42943	11.54
2	7.84	Chloride	n.a.	9.0792		3.77516	17.93
3	10.13	Nitrite-N	n.a.	4.6875		3.64648	17.32
4	11.85	Chlorate	n.a.	2.5580		0.34758	1.65
5	12.82	Bromide	n.a.	2.5378		0.38389	1.82
6	15.07	Nitrate-N	n.a.	4.5912		4.47351	21.24
7	20.27	O-Phosphate-P	n.a.	2.5963		0.62188	2.95
8	23.07	Sulfate	n.a.	18.5214		5.38014	25.55
Total:				49.1988	0.000	21.058	100.00

21 242651001/933095/1/1/

Sample Name:	242651001/933095/1/1/	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 12:51	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

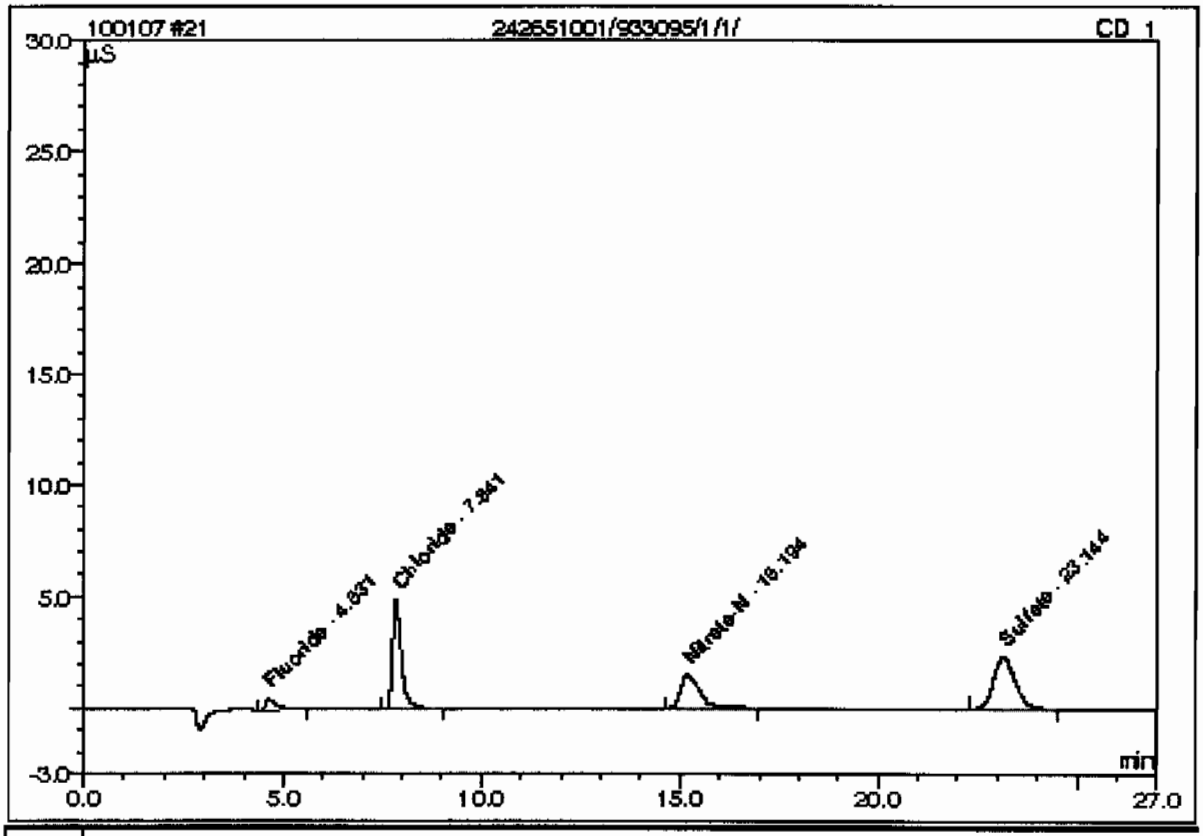

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	n.a.	0.3730		0.17779	4.75
2	7.84	Chloride	n.a.	2.9947		1.22464	32.72
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	15.19	Nitrate-N	n.a.	0.9661		0.86000	22.98
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.14	Sulfate	n.a.	5.3442		1.48058	39.56
Total:				9.6780	0.000	3.743	100.00

21 242651001/933095/1/1/

Sample Name:	242651001/933095/1/1/	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 12:51	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC B086;300;9056

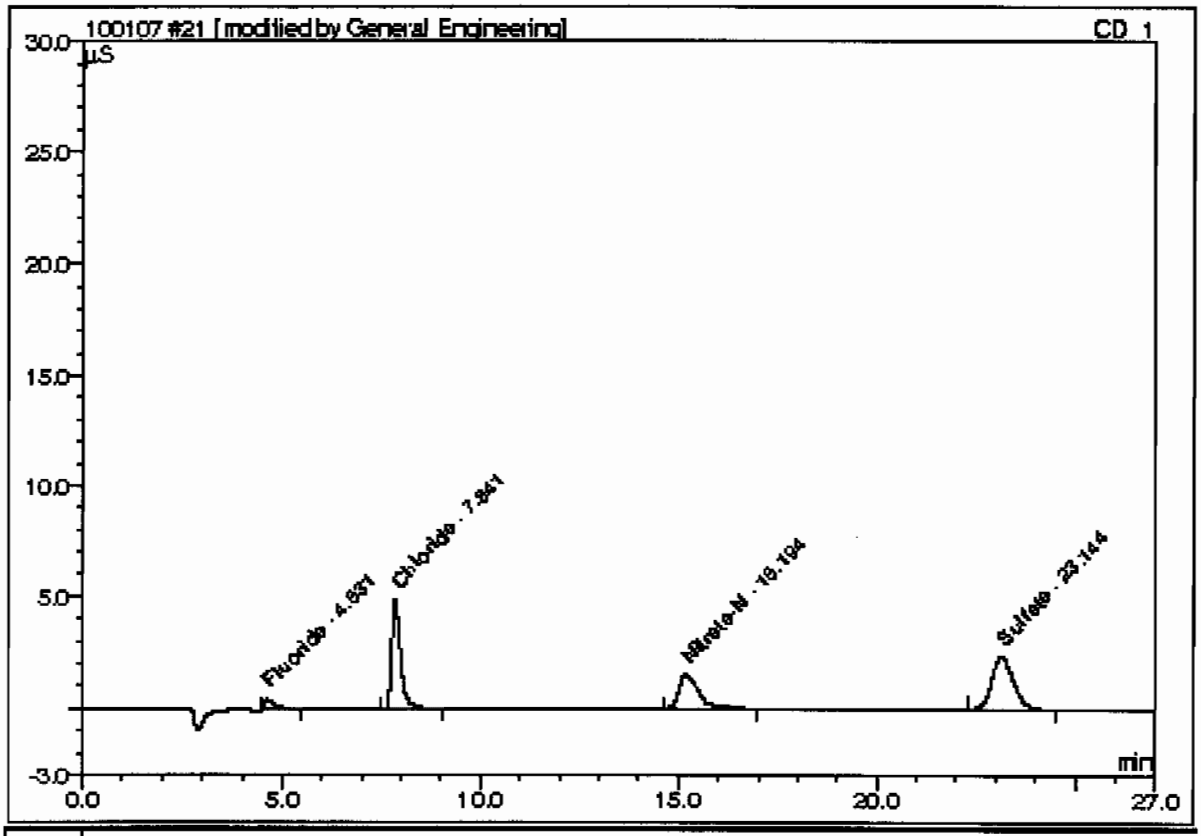

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	n.a.	0.2468	*	0.11100	3.02
2	7.84	Chloride	n.a.	2.9947		1.22464	33.31
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	15.19	Nitrate-N	n.a.	0.9661		0.86000	23.39
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.14	Sulfate	n.a.	5.3442		1.48058	40.27
Total:				9.5518	0.000	3.676	100.00

22 1201996187/933095/1/1/DUP

Sample Name:	1201996187/933095/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 13:21	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

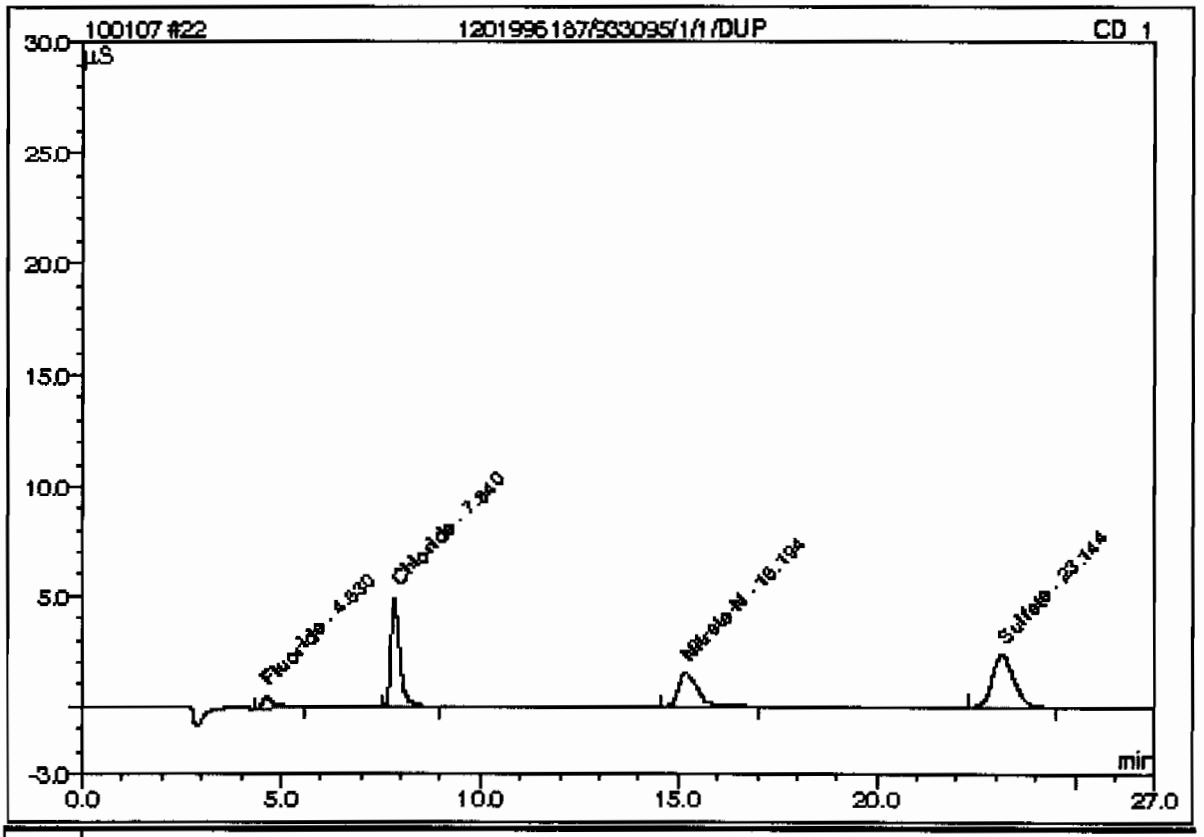

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	n.a.	0.3734		0.17800	4.75
2	7.84	Chloride	n.a.	2.9961		1.22523	32.69
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	15.19	Nitrate-N	n.a.	0.9750		0.86891	23.19
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.14	Sulfate	n.a.	5.3266		1.47537	39.37
Total:				9.6712	0.000	3.748	100.00

22 1201996187/933095/1/1/DUP

Sample Name:	1201996187/933095/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 13:21	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

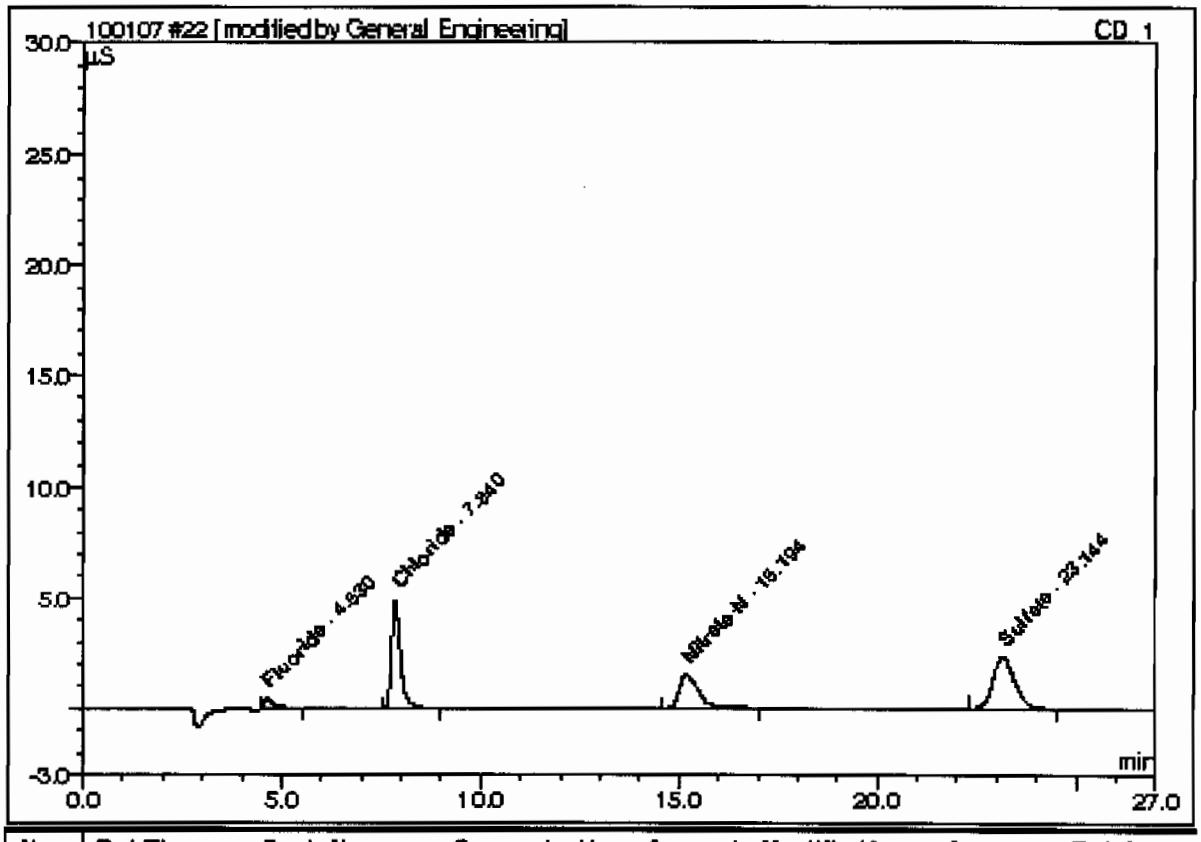

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	n.a.	0.2459		0.11054	3.00
2	7.84	Chloride	n.a.	2.9961		1.22523	33.29
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	15.19	Nitrate-N	n.a.	0.9750		0.86891	23.61
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.14	Sulfate	n.a.	5.3266		1.47537	40.09
Total:				9.5437	0.000	3.680	100.00

23 1201996188/933095/1/1/PS

Sample Name:	1201996188/933095/1/1/PS	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 13:51	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

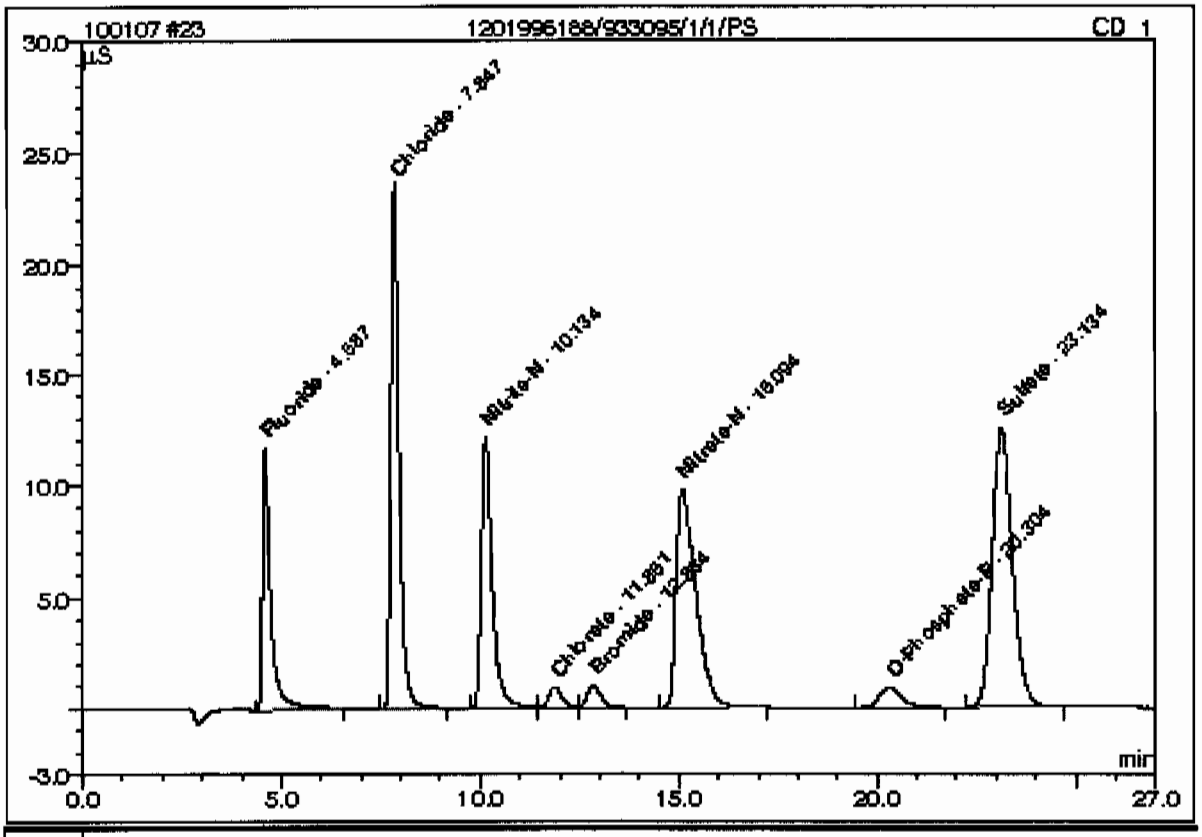

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	n.a.	5.3951		2.83572	10.66
2	7.85	Chloride	n.a.	13.2824		5.53707	20.82
3	10.13	Nitrite-N	n.a.	4.9327		3.84079	14.44
4	11.86	Chlorate	n.a.	2.4817		0.33705	1.27
5	12.83	Bromide	n.a.	2.5366		0.38372	1.44
6	15.09	Nitrate-N	n.a.	5.7666		5.64510	21.23
7	20.30	O-Phosphate-P	n.a.	2.4739		0.59011	2.22
8	23.13	Sulfate	n.a.	25.4227		7.42247	27.91
Total:				62.2917	0.000	26.592	100.00

23 1201996188/933095/1/1/PS

Sample Name:	1201996188/933095/1/1/PS	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 13:51	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

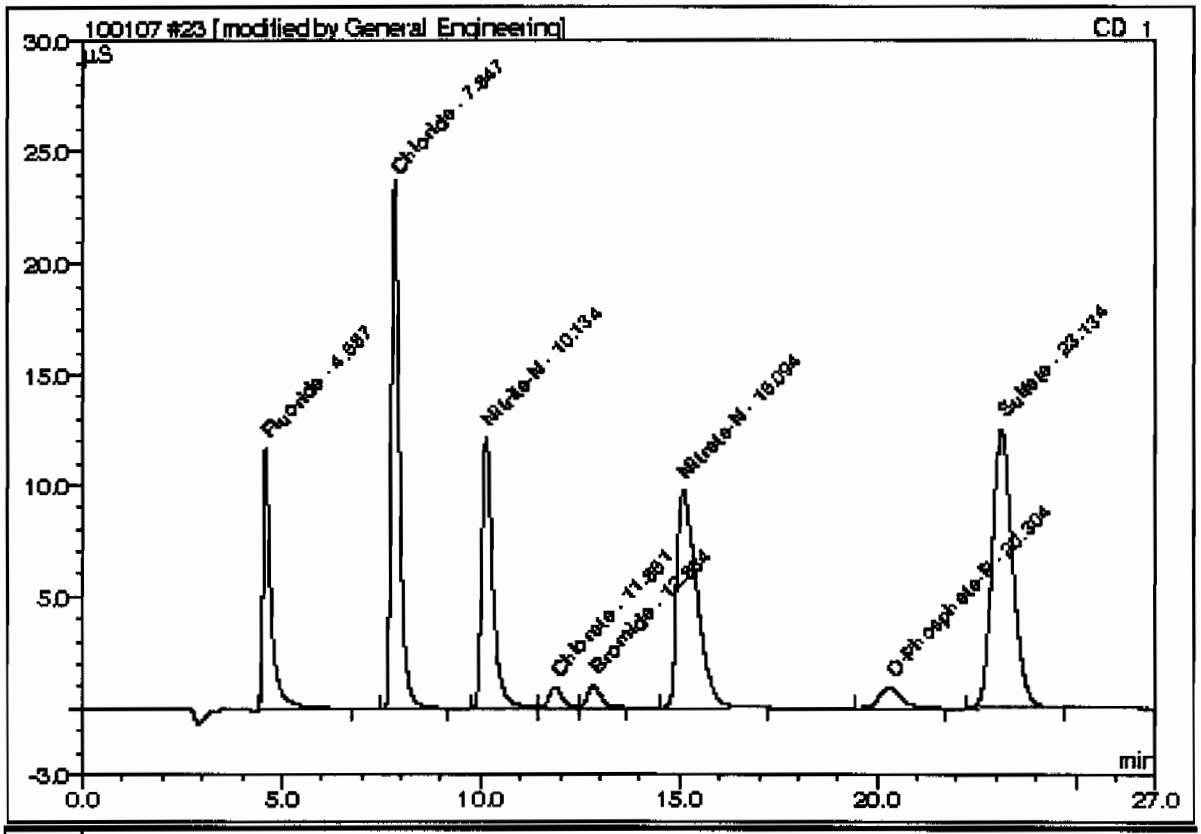

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	n.a.	5.1460		2.70391	10.22
2	7.85	Chloride	n.a.	13.2824		5.53707	20.93
3	10.13	Nitrite-N	n.a.	4.9327		3.84079	14.52
4	11.86	Chlorate	n.a.	2.4817		0.33705	1.27
5	12.83	Bromide	n.a.	2.5366		0.38372	1.45
6	15.09	Nitrate-N	n.a.	5.7666		5.64510	21.33
7	20.30	O-Phosphate-P	n.a.	2.4739		0.59011	2.23
8	23.13	Sulfate	n.a.	25.4227		7.42247	28.05
Total:				62.0426	0.000	26.460	100.00

26 WIC100107-02CVH

Sample Name:	WIC100107-02CVH	*Injection Volume:*	50.0
Vial Number:	12	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 15:21	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

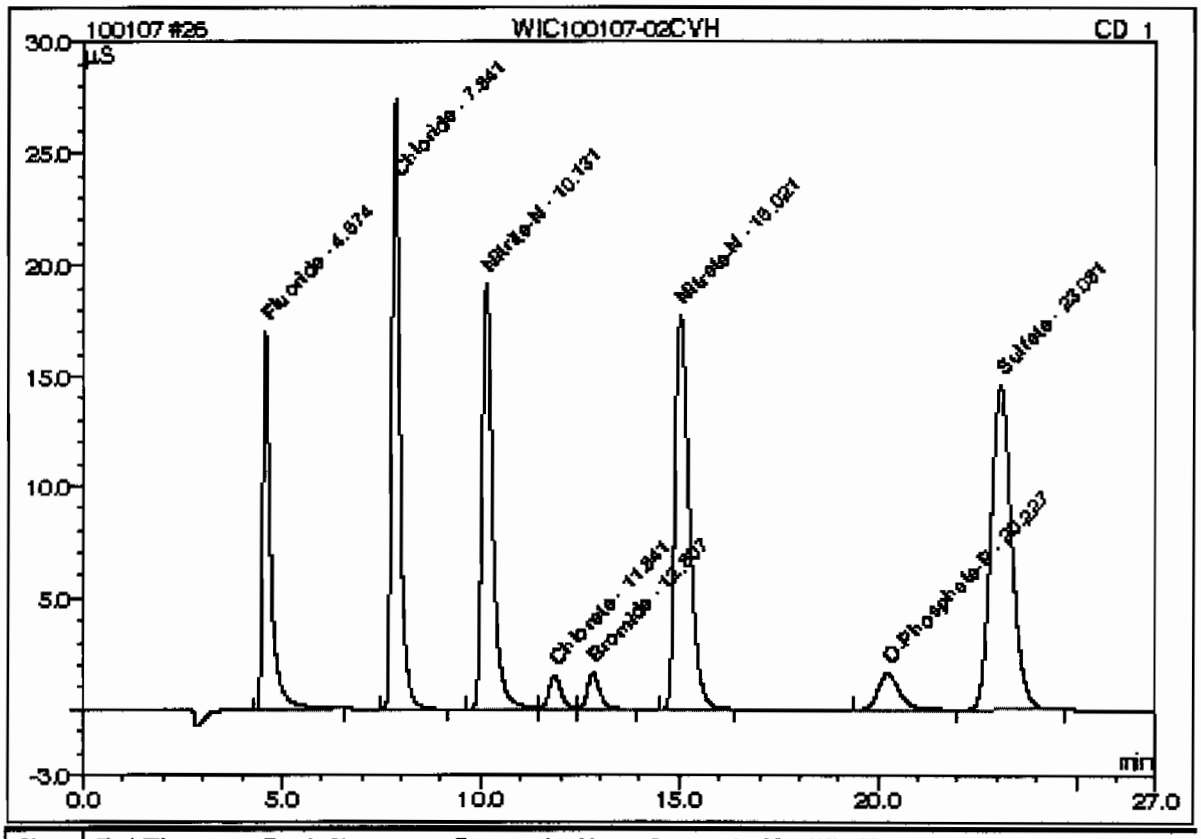

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.57	Fluoride	n.a.	7.5451		3.97360	11.50
2	7.84	Chloride	n.a.	15.0912		6.29530	18.22
3	10.13	Nitrite-N	n.a.	7.5885		5.94539	17.20
4	11.84	Chlorate	n.a.	3.9365		0.53777	1.56
5	12.81	Bromide	n.a.	3.8756		0.58850	1.70
6	15.02	Nitrate-N	n.a.	7.5312		7.40409	21.42
7	20.23	O-Phosphate-P	n.a.	4.0999		1.01212	2.93
8	23.08	Sulfate	n.a.	30.0848		8.80214	25.47
Total:				79.7528	0.000	34.559	100.00

27 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	13	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 15:51	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

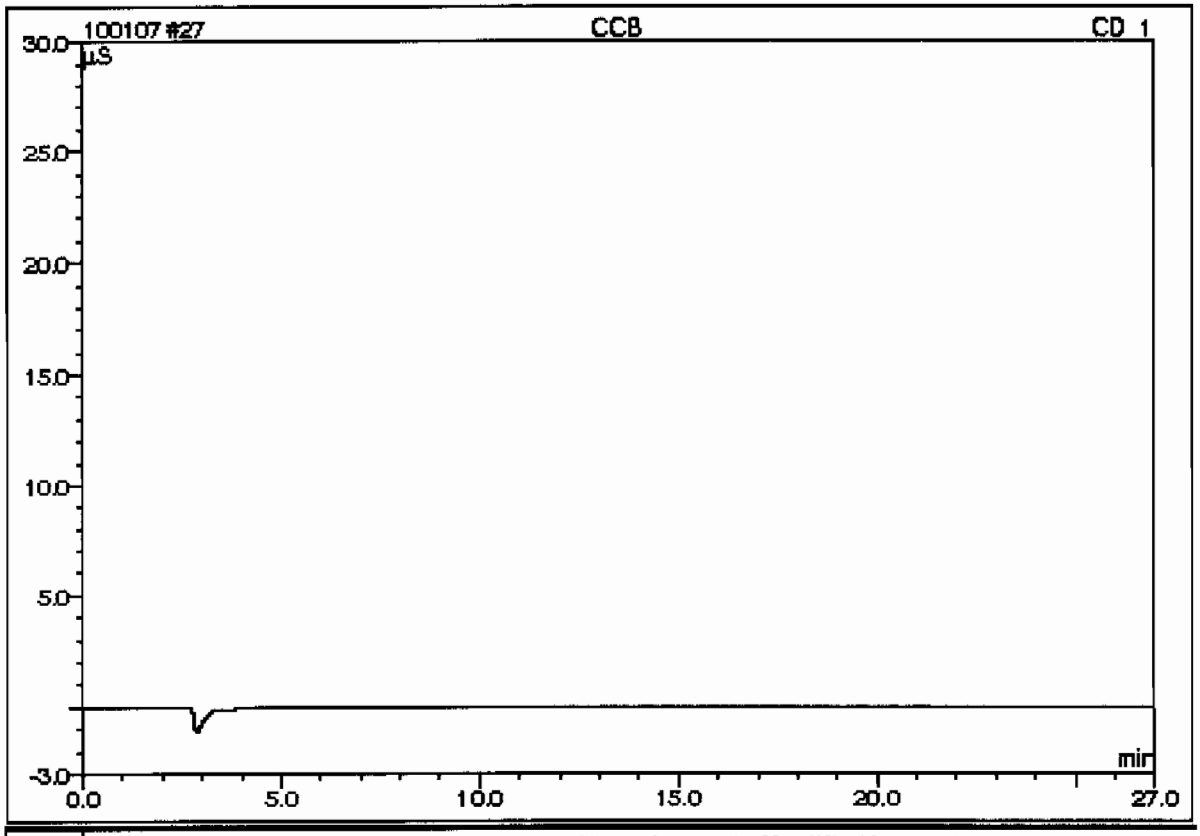

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

28 242753002/933095/1/1/

Sample Name:	242753002/933095/1/1/	*Injection Volume:*	50.0
Vial Number:	14	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 16:20	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

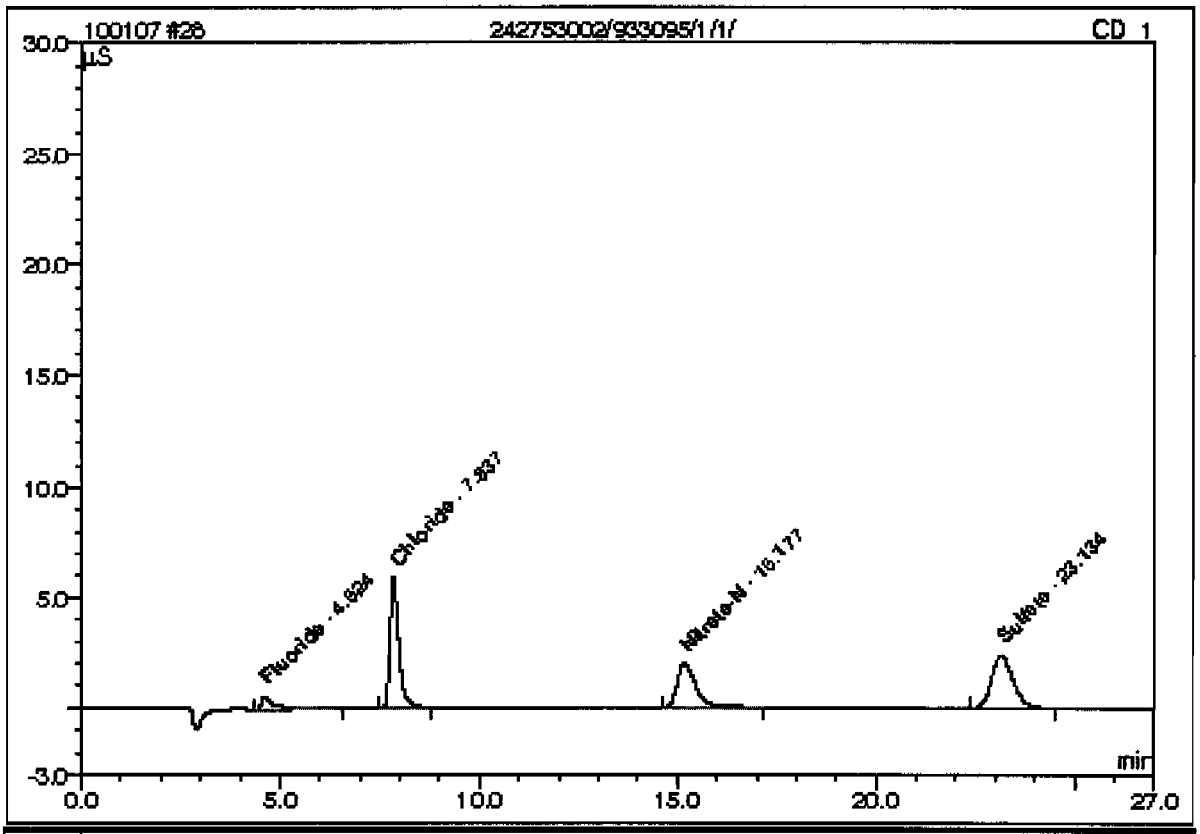

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	n.a.	0.5611		0.27733	6.43
2	7.84	Chloride	n.a.	3.5814		1.47058	34.10
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	15.18	Nitrate-N	n.a.	1.1743		1.06755	24.75
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.13	Sulfate	n.a.	5.4000		1.49710	34.72
Total:				10.7168	0.000	4.313	100.00

28 242753002/933095/1/1/

Sample Name:	242753002/933095/1/1/	*Injection Volume:*	50.0
Vial Number:	14	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 16:20	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

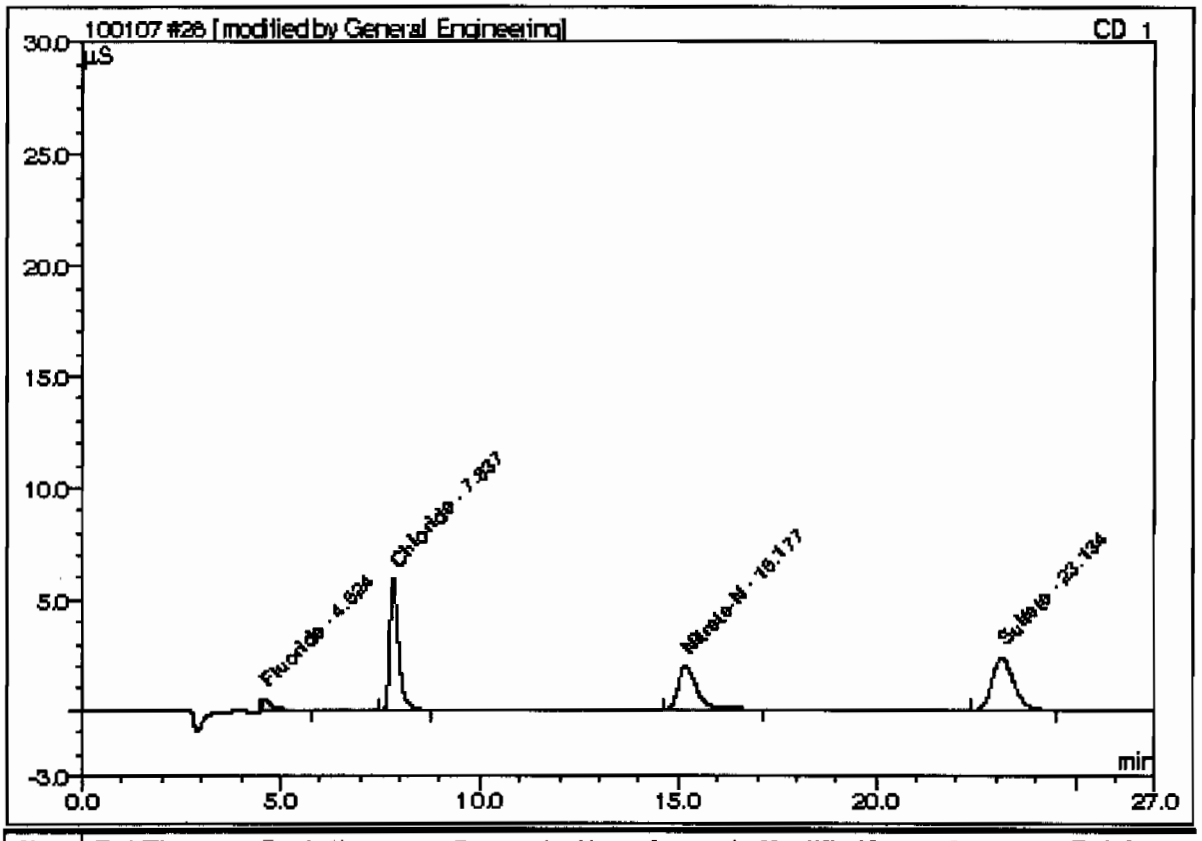

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	n.a.	0.3022	*	0.14033	3.36
2	7.84	Chloride	n.a.	3.5814		1.47058	35.22
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	15.18	Nitrate-N	n.a.	1.1743		1.06755	25.57
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.13	Sulfate	n.a.	5.4000		1.49710	35.85
Total:				10.4580	0.000	4.176	100.00

29 242753004/933095/1/1/

Sample Name:	242753004/933095/1/1/	*Injection Volume:*	50.0
Vial Number:	15	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 16:50	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

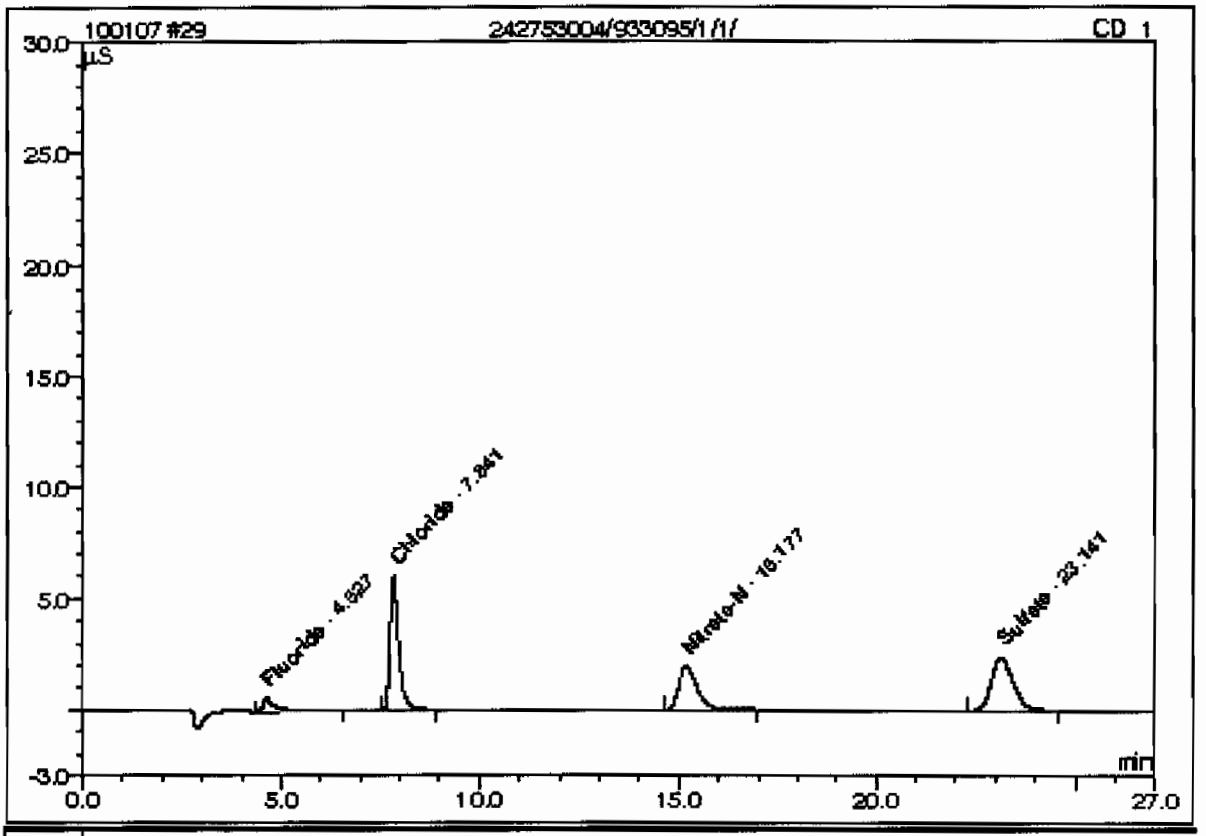

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	n.a.	0.5479		0.27037	6.27
2	7.84	Chloride	n.a.	3.6140		1.48422	34.44
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	15.18	Nitrate-N	n.a.	1.1666		1.05991	24.60
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.14	Sulfate	n.a.	5.3926		1.49491	34.69
Total:				10.7212	0.000	4.309	100.00

29 242753004/933095/1/1/

Sample Name:	242753004/933095/1/1/	*Injection Volume:*	50.0
Vial Number:	15	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 16:50	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

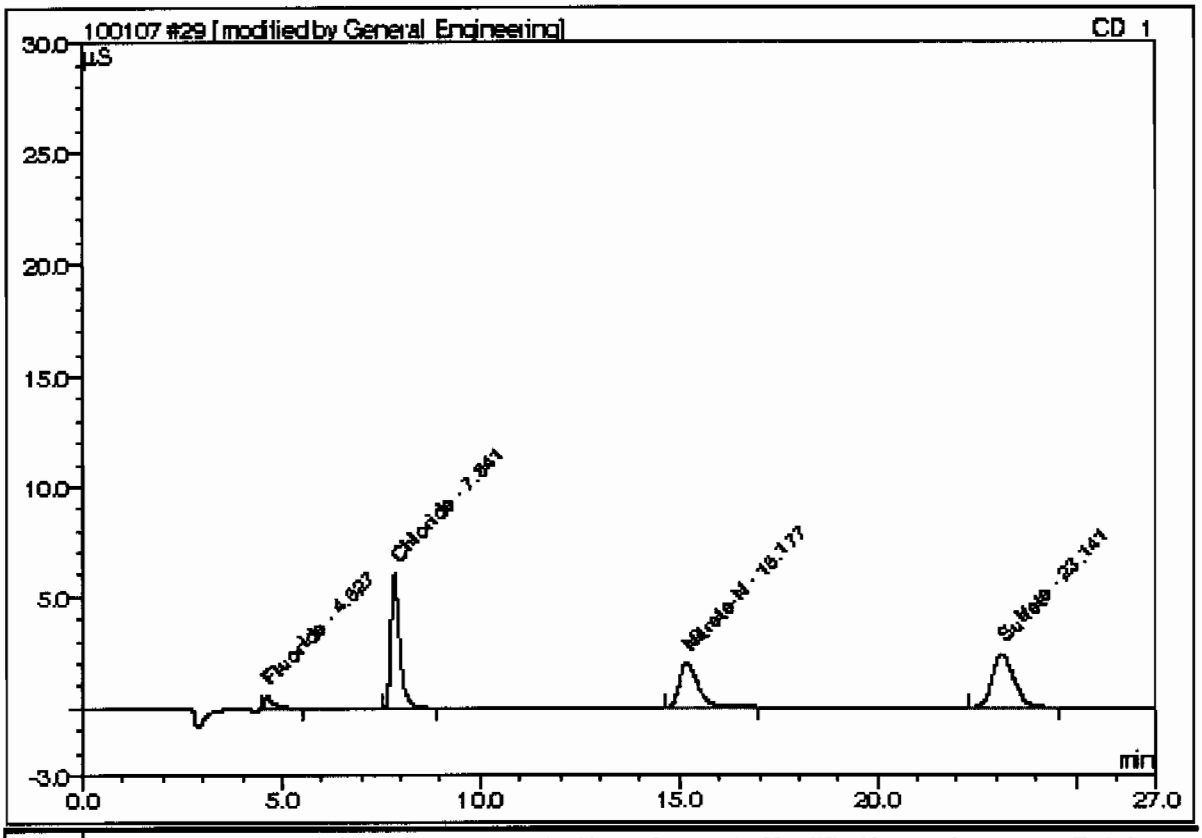

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	n.a.	0.2897		0.13371	3.20
2	7.84	Chloride	n.a.	3.6140		1.48422	35.57
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	15.18	Nitrate-N	n.a.	1.1666		1.05991	25.40
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.14	Sulfate	n.a.	5.3926		1.49491	35.83
Total:				10.4629	0.000	4.173	100.00

30 242753006/933095/1/1/

Sample Name:	242753006/933095/1/1/	*Injection Volume:*	50.0
Vial Number:	16	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 17:20	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

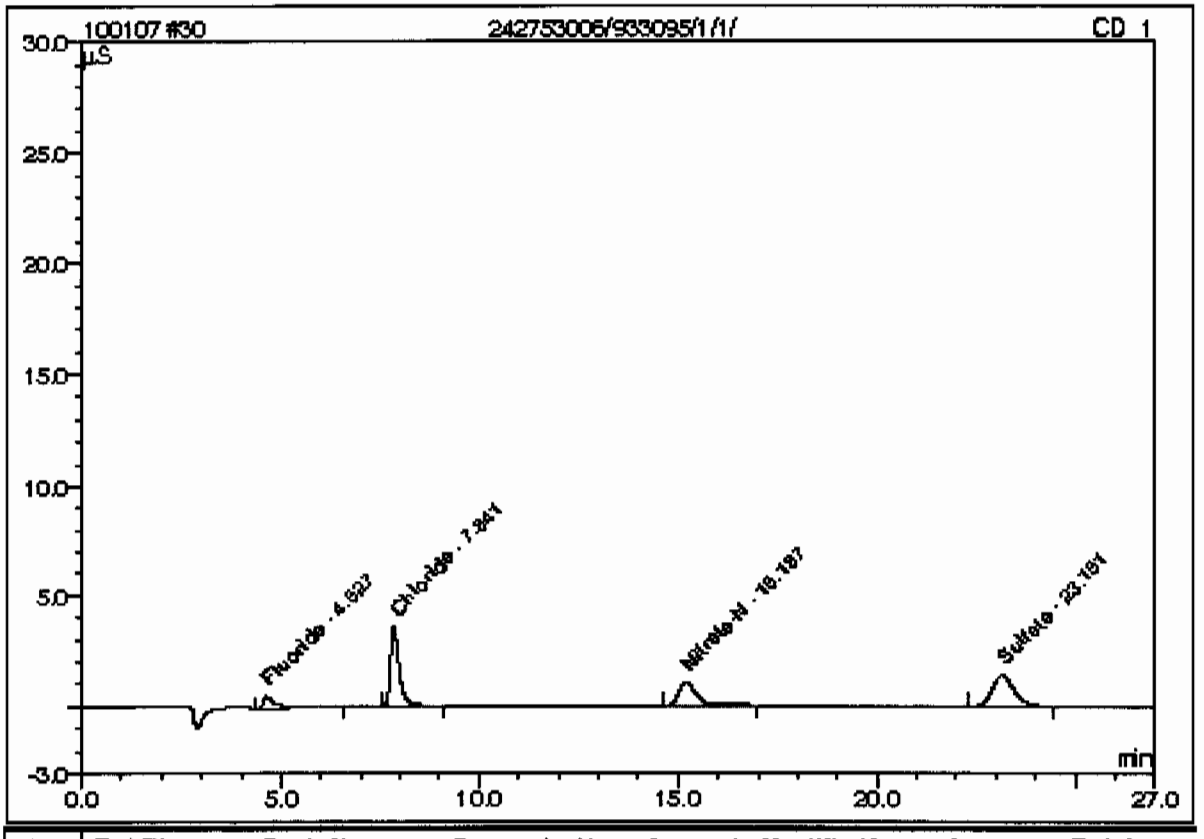

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	n.a.	0.5003		0.24518	9.57
2	7.84	Chloride	n.a.	2.2219		0.90067	35.17
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	15.19	Nitrate-N	n.a.	0.6645		0.55938	21.85
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.15	Sulfate	n.a.	3.2317		0.85541	33.41
Total:				6.6184	0.000	2.561	100.00

30 242753006/933095/1/1/

Sample Name:	242753006/933095/1/1/	*Injection Volume:*	50.0
Vial Number:	16	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 17:20	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

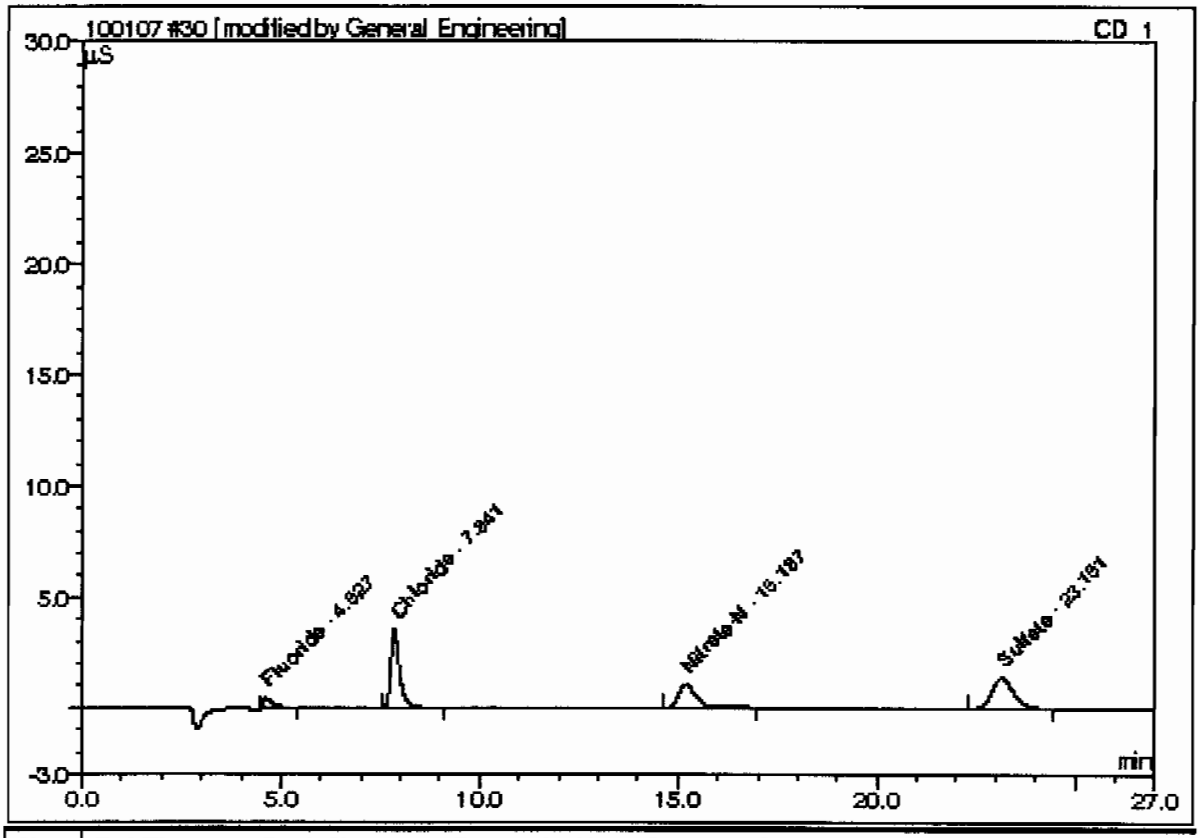

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	n.a.	0.2315		0.10292	4.26
2	7.84	Chloride	n.a.	2.2219		0.90067	37.24
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	15.19	Nitrate-N	n.a.	0.6645		0.55938	23.13
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.15	Sulfate	n.a.	3.2317		0.85541	35.37
Total:				6.3496	0.000	2.418	100.00

31 242753008/933095/1/1/

Sample Name:	242753008/933095/1/1/	*Injection Volume:*	50.0
Vial Number:	17	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 17:50	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC B086;300;9056

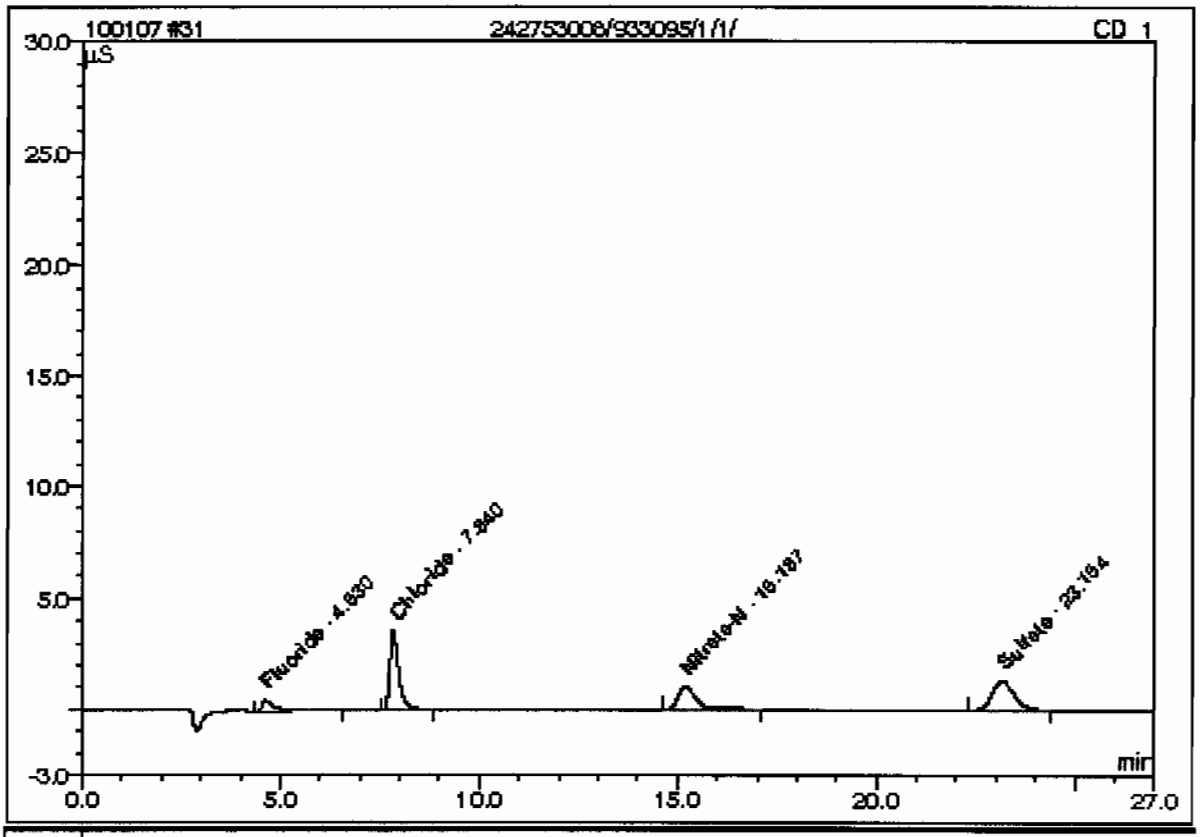

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	n.a.	0.5098		0.25019	9.81
2	7.84	Chloride	n.a.	2.1995		0.89128	34.95
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	15.19	Nitrate-N	n.a.	0.6739		0.56870	22.30
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.15	Sulfate	n.a.	3.1794		0.83995	32.94
Total:				6.5625	0.000	2.550	100.00

31 242753008/933095/1/1/

Sample Name:	242753008/933095/1/1/	*Injection Volume:*	50.0
Vial Number:	17	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 17:50	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

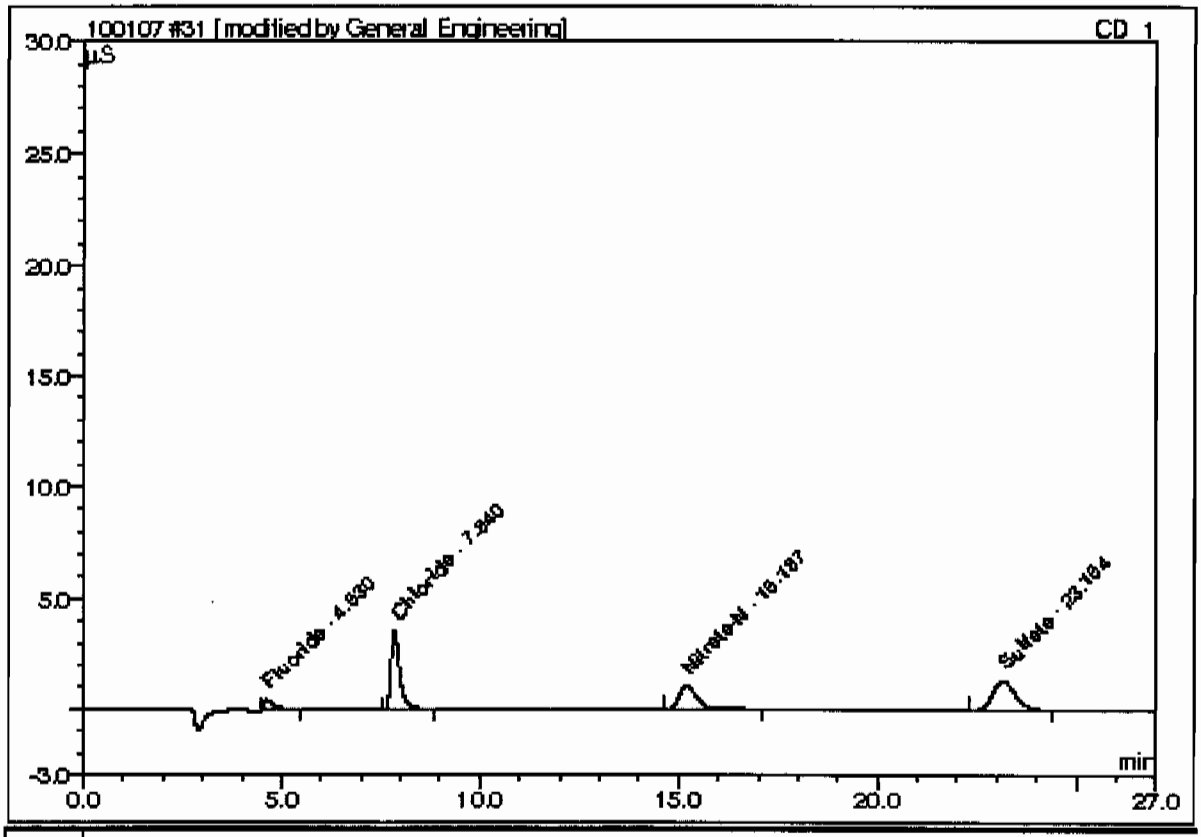

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	n.a.	0.2372		0.10590	4.40
2	7.84	Chloride	n.a.	2.1995		0.89128	37.05
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	15.19	Nitrate-N	n.a.	0.6739		0.56870	23.64
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.15	Sulfate	n.a.	3.1794		0.83995	34.91
Total:				6.2899	0.000	2.406	100.00

32 242753009/933095/1/1/

Sample Name:	242753009/933095/1/1/	*Injection Volume:*	50.0
Vial Number:	18	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 18:20	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

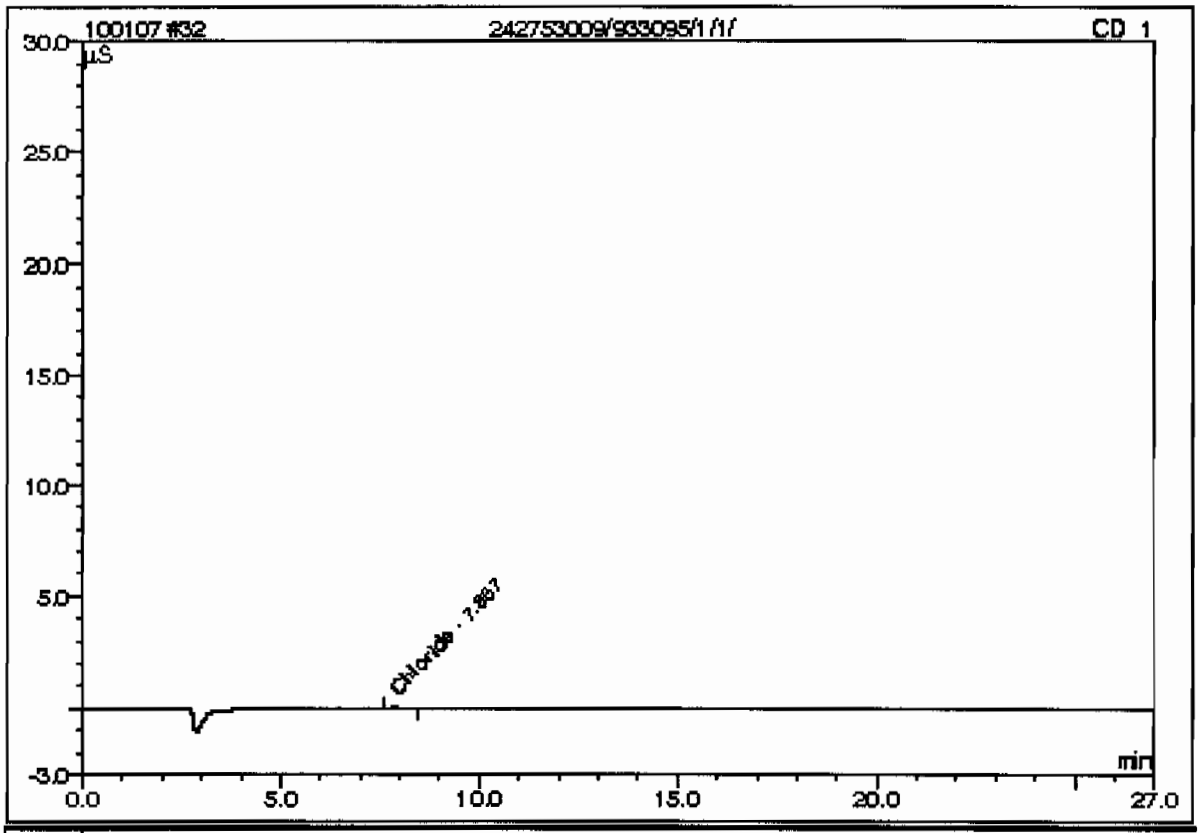

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.87	Chloride	n.a.	0.1070		0.01416	100.00
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.1070	0.000	0.014	100.00

35 WIC100107-02CCV

Sample Name:	WIC100107-02CCV	*Injection Volume:*	50.0
Vial Number:	21	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 19:50	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

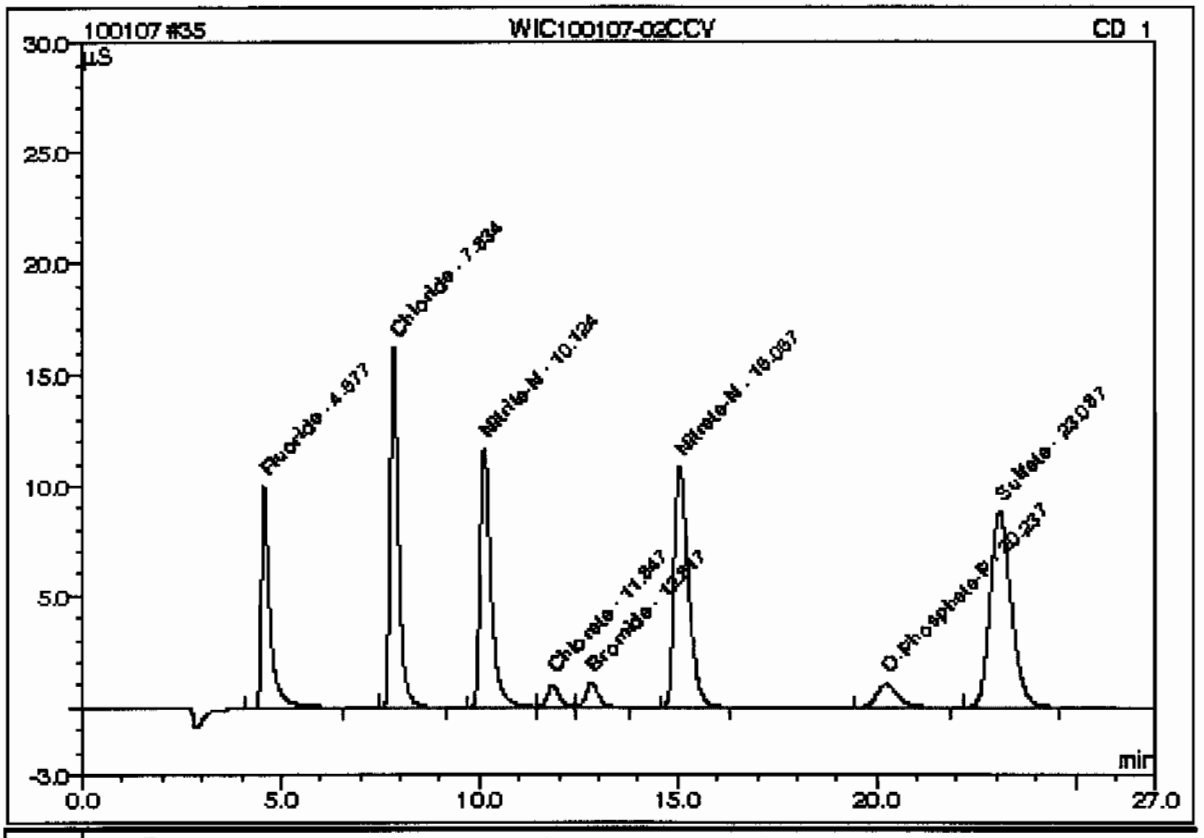

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.58	Fluoride	n.a.	4.6895		2.46228	11.61
2	7.83	Chloride	n.a.	9.1421		3.80153	17.92
3	10.12	Nitrite-N	n.a.	4.7116		3.66560	17.28
4	11.85	Chlorate	n.a.	2.5592		0.34774	1.64
5	12.82	Bromide	n.a.	2.5712		0.38900	1.83
6	15.06	Nitrate-N	n.a.	4.6191		4.50131	21.22
7	20.24	O-Phosphate-P	n.a.	2.7028		0.64952	3.06
8	23.09	Sulfate	n.a.	18.5636		5.39263	25.43
Total:				49.5591	0.000	21.210	100.00

36 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	22	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 20:19	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB86;300;9056

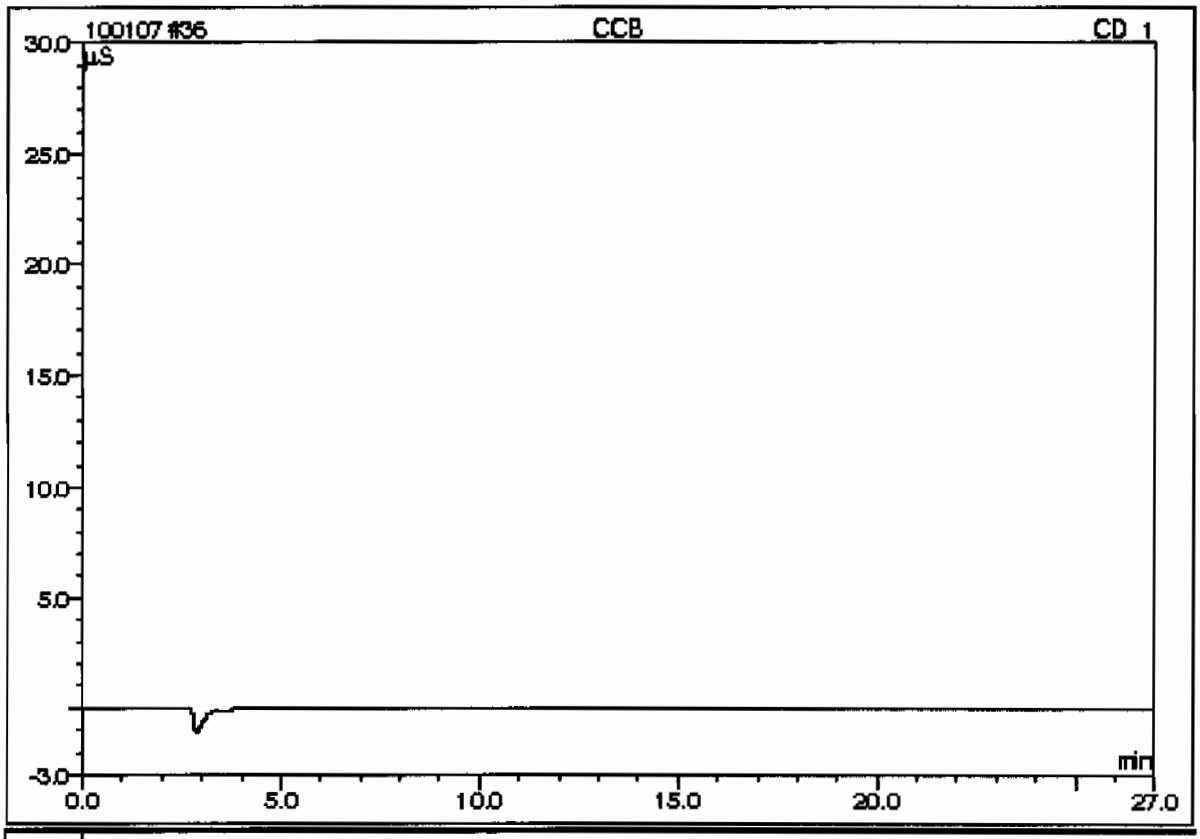

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

Nitrate Nitrite by Cadmium Reduction

This is runlog lachat3

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
1.5 PPM		1	axh3	12/14/2009 10:00:51	OM_12-14-2009_09-59-49
1.0 PPM		1	axh3	12/14/2009 10:02:03	OM_12-14-2009_09-59-49
0.5 ppm		1	axh3	12/14/2009 10:03:16	OM_12-14-2009_09-59-49
0.1 ppm		1	axh3	12/14/2009 10:04:29	OM_12-14-2009_09-59-49
0.05 ppm		1	axh3	12/14/2009 10:05:42	OM_12-14-2009_09-59-49
ICAL-00		1	axh3	12/14/2009 10:06:56	OM_12-14-2009_09-59-49
1.0 ppm ICV		1	axh3	12/14/2009 10:09:18	OM_12-14-2009_09-59-49
ICB		1	axh3	12/14/2009 10:11:40	OM_12-14-2009_09-59-49
Nitrate 1.0 ppm		1	axh3	12/14/2009 10:14:00	OM_12-14-2009_09-59-49
Nitrite 1.0 ppm		1	axh3	12/14/2009 10:16:19	OM_12-14-2009_09-59-49
1201991430	931057	1	axh3	12/14/2009 10:18:40	OM_12-14-2009_09-59-49
1201991441	931057	1	axh3	12/14/2009 10:19:53	OM_12-14-2009_09-59-49
242310001	931057	5	axh3	12/14/2009 10:21:07	OM_12-14-2009_09-59-49
1201991431	931057	5	axh3	12/14/2009 10:22:20	OM_12-14-2009_09-59-49
1201991436	931057	5	axh3	12/14/2009 10:23:32	OM_12-14-2009_09-59-49
242427004	931057	5	axh3	12/14/2009 10:24:45	OM_12-14-2009_09-59-49
242428002	931057	5	axh3	12/14/2009 10:25:57	OM_12-14-2009_09-59-49
1201991432	931057	5	axh3	12/14/2009 10:27:10	OM_12-14-2009_09-59-49
1201991437	931057	5	axh3	12/14/2009 10:28:22	OM_12-14-2009_09-59-49
242436001	931057	5	axh3	12/14/2009 10:29:34	OM_12-14-2009_09-59-49
1.0 ppm CCV		1	axh3	12/14/2009 10:30:46	OM_12-14-2009_09-59-49
CCB		1	axh3	12/14/2009 10:33:08	OM_12-14-2009_09-59-49
242453001	931057	25	axh3	12/14/2009 10:35:28	OM_12-14-2009_09-59-49
1201991434	931057	25	axh3	12/14/2009 10:36:39	OM_12-14-2009_09-59-49
1201991439	931057	25	axh3	12/14/2009 10:37:52	OM_12-14-2009_09-59-49
242453002	931057	25	axh3	12/14/2009 10:39:03	OM_12-14-2009_09-59-49
242454002	931057	25	axh3	12/14/2009 10:40:15	OM_12-14-2009_09-59-49
1201991433	931057	25	axh3	12/14/2009 10:41:28	OM_12-14-2009_09-59-49
1201991438	931057	25	axh3	12/14/2009 10:42:41	OM_12-14-2009_09-59-49
242454006	931057	5	axh3	12/14/2009 10:43:54	OM_12-14-2009_09-59-49
242454010	931057	25	axh3	12/14/2009 10:45:07	OM_12-14-2009_09-59-49
242454013	931057	25	axh3	12/14/2009 10:46:20	OM_12-14-2009_09-59-49
1.0 ppm CCV		1	axh3	12/14/2009 10:47:32	OM_12-14-2009_09-59-49
CCB		1	axh3	12/14/2009 10:49:54	OM_12-14-2009_09-59-49
242475001	931057	5	axh3	12/14/2009 10:52:14	OM_12-14-2009_09-59-49
1201991435	931057	5	axh3	12/14/2009 10:53:27	OM_12-14-2009_09-59-49
1201991440	931057	5	axh3	12/14/2009 10:54:39	OM_12-14-2009_09-59-49
242585001	931057	5	axh3	12/14/2009 10:55:51	OM_12-14-2009_09-59-49
242585002	931057	5	axh3	12/14/2009 10:57:03	OM_12-14-2009_09-59-49
242585003	931057	5	axh3	12/14/2009 10:58:16	OM_12-14-2009_09-59-49
242586001	931057	5	axh3	12/14/2009 10:59:28	OM_12-14-2009_09-59-49
1201993006	931057	5	axh3	12/14/2009 11:00:40	OM_12-14-2009_09-59-49
1201993007	931057	5	axh3	12/14/2009 11:01:51	OM_12-14-2009_09-59-49
242586002	931057	5	axh3	12/14/2009 11:03:03	OM_12-14-2009_09-59-49
1.0 ppm CCV		1	axh3	12/14/2009 11:04:15	OM_12-14-2009_09-59-49
CCB		1	axh3	12/14/2009 11:06:37	OM_12-14-2009_09-59-49
242586003	931057	5	axh3	12/14/2009 11:08:58	OM_12-14-2009_09-59-49
242586004	931057	5	axh3	12/14/2009 11:10:11	OM_12-14-2009_09-59-49
242586005	931057	10	axh3	12/14/2009 11:11:24	OM_12-14-2009_09-59-49
242586008	931057	25	axh3	12/14/2009 11:12:37	OM_12-14-2009_09-59-49
1201992998	931707	1	axh3	12/14/2009 11:13:50	OM_12-14-2009_09-59-49
1201993005	931707	1	axh3	12/14/2009 11:15:02	OM_12-14-2009_09-59-49
242427002	931707	5	axh3	12/14/2009 11:16:15	OM_12-14-2009_09-59-49
242437002	931707	5	axh3	12/14/2009 11:17:27	OM_12-14-2009_09-59-49
1201992999	931707	5	axh3	12/14/2009 11:18:39	OM_12-14-2009_09-59-49
1201993002	931707	5	axh3	12/14/2009 11:19:52	OM_12-14-2009_09-59-49
1.0 ppm CCV		1	axh3	12/14/2009 11:21:04	OM_12-14-2009_09-59-49
CCB		1	axh3	12/14/2009 11:23:26	OM_12-14-2009_09-59-49

242617001	931707	10	axh3	12/14/2009	11:25:45	OM_12-14-2009_09-59-49
242617002	931707	50	axh3	12/14/2009	11:26:58	OM_12-14-2009_09-59-49
242617003	931707	10	axh3	12/14/2009	11:28:10	OM_12-14-2009_09-59-49
242651001	931707	5	axh3	12/14/2009	11:29:21	OM_12-14-2009_09-59-49
242653001	931707	5	axh3	12/14/2009	11:30:33	OM_12-14-2009_09-59-49
242667001	931707	5	axh3	12/14/2009	11:31:46	OM_12-14-2009_09-59-49
242688001	931707	5	axh3	12/14/2009	11:32:59	OM_12-14-2009_09-59-49
1201993001	931707	5	axh3	12/14/2009	11:34:12	OM_12-14-2009_09-59-49
1201993004	931707	5	axh3	12/14/2009	11:35:25	OM_12-14-2009_09-59-49
242688002	931707	5	axh3	12/14/2009	11:36:38	OM_12-14-2009_09-59-49
1.0 ppm CCV		1	axh3	12/14/2009	11:37:50	OM_12-14-2009_09-59-49
CCB		1	axh3	12/14/2009	11:40:12	OM_12-14-2009_09-59-49
242721001	931707	25	axh3	12/14/2009	11:42:32	OM_12-14-2009_09-59-49
242721002	931707	25	axh3	12/14/2009	11:43:45	OM_12-14-2009_09-59-49
242753002	931707	5	axh3	12/14/2009	11:44:58	OM_12-14-2009_09-59-49
242753004	931707	5	axh3	12/14/2009	11:46:10	OM_12-14-2009_09-59-49
242753006	931707	5	axh3	12/14/2009	11:47:22	OM_12-14-2009_09-59-49
242753008	931707	5	axh3	12/14/2009	11:48:34	OM_12-14-2009_09-59-49
242753009	931707	5	axh3	12/14/2009	11:49:46	OM_12-14-2009_09-59-49
242776003	931707	5	axh3	12/14/2009	11:50:58	OM_12-14-2009_09-59-49
242776004	931707	5	axh3	12/14/2009	11:52:10	OM_12-14-2009_09-59-49
242789003	931707	5	axh3	12/14/2009	11:53:22	OM_12-14-2009_09-59-49
1.0 ppm CCV		1	axh3	12/14/2009	11:54:35	OM_12-14-2009_09-59-49
CCB		1	axh3	12/14/2009	11:56:56	OM_12-14-2009_09-59-49
1201994683	932505	1	axh3	12/14/2009	11:59:17	OM_12-14-2009_09-59-49
1201994688	932505	1	axh3	12/14/2009	12:00:30	OM_12-14-2009_09-59-49
242716003	932505	5	axh3	12/14/2009	12:01:43	OM_12-14-2009_09-59-49
1201994685	932505	5	axh3	12/14/2009	12:02:56	OM_12-14-2009_09-59-49
1201994687	932505	5	axh3	12/14/2009	12:04:08	OM_12-14-2009_09-59-49
242745001	932505	5	axh3	12/14/2009	12:05:21	OM_12-14-2009_09-59-49
242749001	932505	5	axh3	12/14/2009	12:06:34	OM_12-14-2009_09-59-49
1201994684	932505	5	axh3	12/14/2009	12:07:46	OM_12-14-2009_09-59-49
1201994686	932505	5	axh3	12/14/2009	12:08:59	OM_12-14-2009_09-59-49
1.0 ppm CCV		1	axh3	12/14/2009	12:11:18	OM_12-14-2009_09-59-49
CCB		1	axh3	12/14/2009	12:13:40	OM_12-14-2009_09-59-49

Author: lachat

Date : 12/14/2009

Original Run Filename: OM_12-14-2009_09-59-49.OMN created 12/14/2009 09:59:49
Original Run Author's Signature: [lachat]
Current Run Filename: OM_12-14-2009_09-59-49.OMN last modified 12/14/2009 12:15:00
Current Run Author's Signature: [lachat]
Description: EPA 353.2
Cadmium Colum 9056CAJ
LCS nominal 1.0 mg/L

Sample	Rep.	Cup No.	Channel 1 NO3 + NO2 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR091214-26	1	S9	1.50	17.7	12/14/2009@10:00:51			1.5 PPM
WTR091214-25	1	S10	1.00	12.1	12/14/2009@10:02:03			1.0 PPM
WTR091214-24	1	S11	0.500	6.10	12/14/2009@10:03:16			0.5 ppm
WTR091214-23	1	S12	0.100	1.15	12/14/2009@10:04:29			0.1 ppm
WTR091214-21	1	S13	0.0500	0.616	12/14/2009@10:05:42			0.05 ppm
0.0ppm	1	S15	0.00	-0.0435	12/14/2009@10:06:56			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99985 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR091214-27 ICV	1	S16	0.944	11.2	12/14/2009@10:09:18			1.0 ppm ICV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.944 < 1.10					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.944 > 0.894					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
ICB	1	S15	-0.00328	-0.00949	12/14/2009@10:11:40			ICB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00328 < 0.0500					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00328 > -0.0500					
		Message	ICB Passed					
		Action	Continue					
WTR091214-22	1	S1	0.905	10.8	12/14/2009@10:14:00			Nitrate 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.905 < 1.10					
		Message	Nitrate Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.905 > 0.894					
		Message	Nitrate Standard Passed					
		Action	Continue					
WTR091214-28	1	S2	0.919	10.9	12/14/2009@10:16:19			Nitrite 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.919 < 1.10					
		Message	Nitrite Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.919 > 0.894					
		Message	Nitrite Standard Passed					
		Action	Continue					
1201991430|931057|MB	1	1	0.00655	0.107	12/14/2009@10:18:40			
1201991441||LCS	1	2	0.933	11.1	12/14/2009@10:19:53			
242310001	1	3	0.00611	0.102	12/14/2009@10:21:07		5.00	
1201991431||DUP	1	4	0.00677	0.110	12/14/2009@10:22:20		5.00	
1201991436||PS	1	5	0.940	11.2	12/14/2009@10:23:32		5.00	

242427004	1	6	0.00819	0.127	12/14/2009@10:24:45		5.00	
242428002	1	7	0.0654	0.807	12/14/2009@10:25:57		5.00	
1201991432||DUP	1	8	0.0613	0.758	12/14/2009@10:27:10		5.00	
1201991437||PS	1	9	1.01	12.0	12/14/2009@10:28:22		5.00	
242436001	1	10	0.00272	0.0616	12/14/2009@10:29:34		5.00	
WTR091214-25 CCV	1	S10	0.955	11.4	12/14/2009@10:30:46			1.0 ppm CCV
		Known Conc:	1.00					
			DQM Test: > + Concentration Limit					
		Result:	0.955 < 1.10					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.955 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00354	-0.0126	12/14/2009@10:33:08			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.00354 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.00354 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
242453001	1	11	0.269	3.23	12/14/2009@10:35:28		25.00	
1201991434||DUP	1	12	0.268	3.21	12/14/2009@10:36:39		25.00	
1201991439||PS	1	13	1.20	14.2	12/14/2009@10:37:52		25.00	
242453002	1	14	0.295	3.53	12/14/2009@10:39:03		25.00	
242454002	1	15	0.361	4.31	12/14/2009@10:40:15		25.00	
1201991433||DUP	1	16	0.371	4.43	12/14/2009@10:41:28		25.00	
1201991438||PS	1	17	1.29	15.3	12/14/2009@10:42:41		25.00	
242454006	1	18	0.00503	0.0892	12/14/2009@10:43:54		5.00	
242454010	1	19	0.410	4.89	12/14/2009@10:45:07		25.00	
242454013	1	20	0.409	4.89	12/14/2009@10:46:20		25.00	
WTR091214-25 CCV	1	S10	0.946	11.3	12/14/2009@10:47:32			1.0 ppm CCV
		Known Conc:	1.00					
			DQM Test: > + Concentration Limit					
		Result:	0.946 < 1.10					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.946 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00307	-0.00709	12/14/2009@10:49:54			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.00307 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.00307 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
242475001	1	21	0.0186	0.251	12/14/2009@10:52:14		5.00	
1201991435||DUP	1	22	0.0198	0.265	12/14/2009@10:53:27		5.00	
1201991440||PS	1	23	0.950	11.3	12/14/2009@10:54:39		5.00	
242585001	1	24	0.00800	0.124	12/14/2009@10:55:51		5.00	
242585002	1	25	-0.0257	-0.275	12/14/2009@10:57:03		5.00	
242585003	1	26	-0.0256	-0.275	12/14/2009@10:58:16		5.00	
242586001	1	27	0.0123	0.175	12/14/2009@10:59:28		5.00	
1201993006||DUP	1	28	0.0144	0.200	12/14/2009@11:00:40		5.00	
1201993007||PS	1	29	0.974	11.6	12/14/2009@11:01:51		5.00	
242586002	1	30	0.00121	0.0438	12/14/2009@11:03:03		5.00	
WTR091214-25 CCV	1	S10	0.965	11.5	12/14/2009@11:04:15			1.0 ppm CCV
		Known Conc:	1.00					
			DQM Test: > + Concentration Limit					

		Result:	0.965 < 1.10					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.965 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00126	0.0144	12/14/2009@11:06:37			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.00126 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.00126 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
242586003	1	31	0.00242	0.0582	12/14/2009@11:08:58		5.00	
242586004	1	32	0.167	2.01	12/14/2009@11:10:11		5.00	
242586005	1	33	0.286	3.42	12/14/2009@11:11:24		10.00	
242586008	1	34	0.388	4.63	12/14/2009@11:12:37		25.00	
1201992998|931707|MB	1	35	0.00415	0.0786	12/14/2009@11:13:50			
1201993005||LCS	1	36	0.920	11.0	12/14/2009@11:15:02			
242427002	1	37	0.00881	0.134	12/14/2009@11:16:15		5.00	
242437002	1	38	0.0652	0.804	12/14/2009@11:17:27		5.00	
1201992999||DUP	1	39	0.0635	0.783	12/14/2009@11:18:39		5.00	
1201993002||PS	1	40	1.01	12.0	12/14/2009@11:19:52		5.00	
WTR091214-25 CCV	1	S10	0.948	11.3	12/14/2009@11:21:04			1.0 ppm CCV
		Known Conc:	1.00					
			DQM Test: > + Concentration Limit					
		Result:	0.948 < 1.10					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.948 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00280	-0.00385	12/14/2009@11:23:26			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.00280 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.00280 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
242617001	1	41	0.286	3.42	12/14/2009@11:25:45		10.00	
242617002	1	42	0.541	6.45	12/14/2009@11:26:58		50.00	
242617003	1	43	0.194	2.34	12/14/2009@11:28:10		10.00	
242651001	1	44	0.184	2.21	12/14/2009@11:29:21		5.00	
242653001	1	45	0.0997	1.21	12/14/2009@11:30:33		5.00	
242667001	1	46	0.124	1.50	12/14/2009@11:31:46		5.00	
242688001	1	47	0.00546	0.0942	12/14/2009@11:32:59		5.00	
1201993001||DUP	1	48	0.00533	0.0927	12/14/2009@11:34:12		5.00	
1201993004||PS	1	49	0.935	11.1	12/14/2009@11:35:25		5.00	
242688002	1	50	0.00103	0.0416	12/14/2009@11:36:38		5.00	
WTR091214-25 CCV	1	S10	0.941	11.2	12/14/2009@11:37:50			1.0 ppm CCV
		Known Conc:	1.00					
			DQM Test: > + Concentration Limit					
		Result:	0.941 < 1.10					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.941 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00297	-0.00584	12/14/2009@11:40:12			CCB

		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00297 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00297 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
242721001	1	51	0.463	5.53	12/14/2009@11:42:32		25.00	
242721002	1	52	0.489	5.83	12/14/2009@11:43:45		25.00	
242753002	1	53	0.221	2.65	12/14/2009@11:44:58		5.00	
242753004	1	54	0.221	2.65	12/14/2009@11:46:10		5.00	
242753006	1	55	0.117	1.41	12/14/2009@11:47:22		5.00	
242753008	1	56	0.116	1.41	12/14/2009@11:48:34		5.00	
242753009	1	57	0.00222	0.0558	12/14/2009@11:49:46		5.00	
242776003	1	58	0.0534	0.663	12/14/2009@11:50:58		5.00	
242776004	1	59	0.269	3.23	12/14/2009@11:52:10		5.00	
242789003	1	60	0.0445	0.558	12/14/2009@11:53:22		5.00	
WTR091214-25 CCV	1	S10	0.936	11.1	12/14/2009@11:54:35			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.936 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.936 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00347	-0.0118	12/14/2009@11:56:56			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00347 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00347 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1201994683|932505|MB	1	61	0.00384	0.0750	12/14/2009@11:59:17			
1201994688||LCS	1	62	0.907	10.8	12/14/2009@12:00:30			
242716003	1	63	0.148	1.78	12/14/2009@12:01:43		5.00	
1201994685||DUP	1	64	0.149	1.79	12/14/2009@12:02:56		5.00	
1201994687||PS	1	65	1.09	13.0	12/14/2009@12:04:08		5.00	
242745001	1	66	0.00251	0.0592	12/14/2009@12:05:21		5.00	
242749001	1	67	0.00742	0.118	12/14/2009@12:06:34		5.00	
1201994684||DUP	1	68	0.00367	0.0730	12/14/2009@12:07:46		5.00	
1201994686||PS	1	69	0.939	11.2	12/14/2009@12:08:59		5.00	
WTR091214-25 CCV	1	S10	0.933	11.1	12/14/2009@12:11:18			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.933 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.933 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00336	-0.0105	12/14/2009@12:13:40			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00336 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00336 > -0.0500					
		Message	CCB Passed					
		Action	Continue					

Channel 1 (NO3 + NO2) : Current View

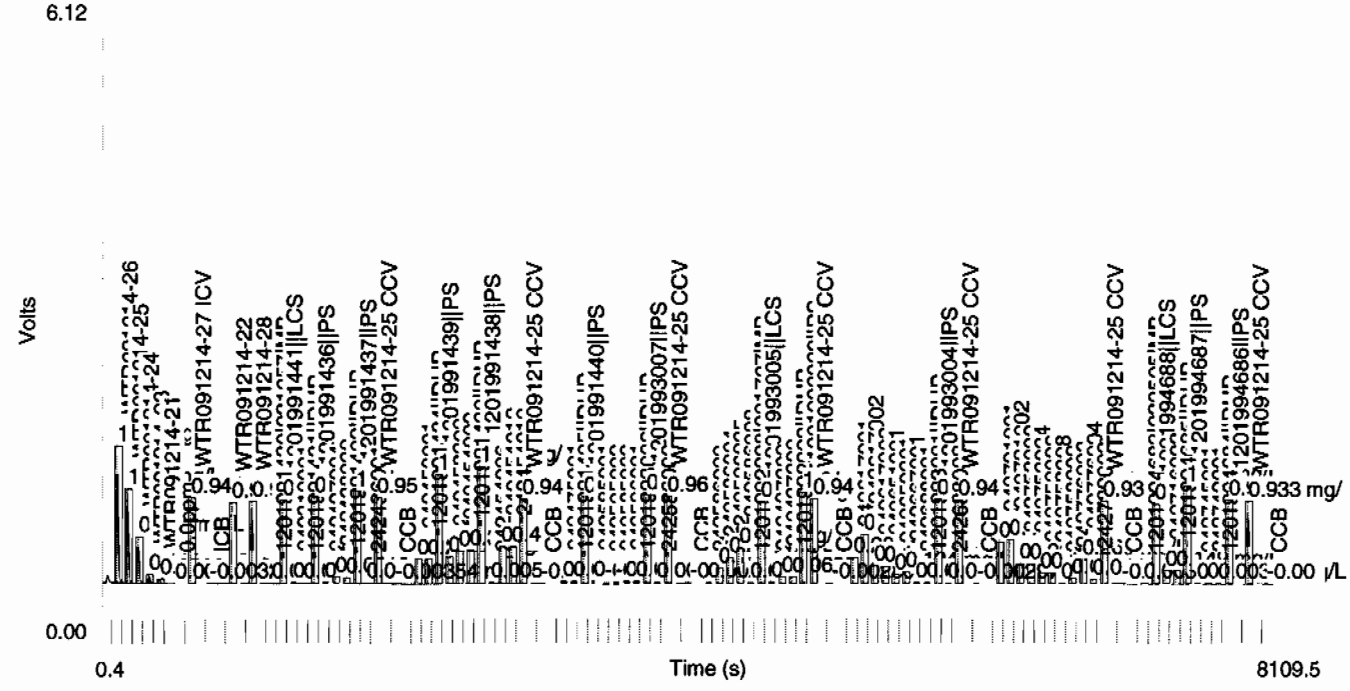

Table 1: NO3 + NO2

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	1.50	1	17.7	1.36	0.9	12/14/2009	10:02:10
2	1.00	1	12.1	0.937	-1.4	12/14/2009	10:03:23
3	0.500	1	6.10	0.465	-2.3	12/14/2009	10:04:35
4	0.100	1	1.15	0.0860	5.5	12/14/2009	10:05:49
5	0.0500	1	0.616	0.0455	1.5	12/14/2009	10:07:02
6	0.00	1	-0.0435	-8.83e-4		12/14/2009	10:08:16

Figure 1: NO3 + NO2

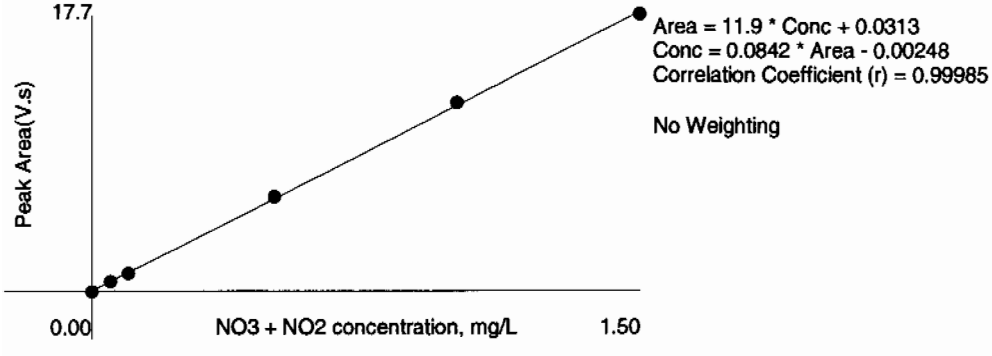

Solids, Total Dissolved

Batch: 932499.0
Analyst:SDS

TDS/TS/VS LogBook

Procedure Code BALDSEP_L
Procedure Description EPA 160.1 Solids, Dissolved
Lab Sop GL-GC-E-001

Sample Type	Sample Id	Lot Id	Nc(mg/L)	Recovery(%)
LCS	1201994667	WTD1230904-01	300	99.333

Sample Type	Sample Id	Rpd(%)
DUP	1201994665	.85106382978723
DUP	1201994666	1.4084507042254

Sample Id	Sample Type	Original Hsn	Instrument	Run Date	Crucible ID	Aliquot (L)	Crucible Wt(g)	Final Wt Event 1	Final Wt Event 2	Final Wt Event 3	Final Wt Event 4	Result	Units
1201994664	MB		BAL216	14-DEC-2009 12:54	P4	0.1	54.7511	54.7512	54.7512			1	mg/L
1201994667	LCS		BAL216	14-DEC-2009 12:54	WAS	0.1	46.8372	46.8671	46.867			298	mg/L
242453002	SAMPLE		BAL216	14-DEC-2009 12:54	ASH	0.1	54.7601	54.7714	54.7719			118	mg/L
1201994665	DUP	242453002	BAL216	14-DEC-2009 12:54	GAS	0.1	55.623	55.6349	55.6347			117	mg/L
242651001	SAMPLE		BAL216	14-DEC-2009 12:54	JC	0.1	53.6993	53.7129	53.7134			141	mg/L
1201994666	DUP	242651001	BAL216	14-DEC-2009 12:54	RUN	0.1	48.7418	48.7562	48.7561			143	mg/L
242653001	SAMPLE		BAL216	14-DEC-2009 12:54	OXY	0.1	48.7873	48.8015	48.8012			139	mg/L
242667001	SAMPLE		BAL216	14-DEC-2009 12:54	NUT	0.1	55.645	55.6568	55.6572			122	mg/L
242753002	SAMPLE		BAL216	14-DEC-2009 12:54	JEN	0.1	53.3974	53.4101	53.4106			132	mg/L
242753004	SAMPLE		BAL216	14-DEC-2009 12:54	SKY	0.1	47.5967	47.61	47.6105			138	mg/L
242753006	SAMPLE		BAL216	14-DEC-2009 12:54	FOX	0.1	64.4891	64.5004	64.5003			112	mg/L
242753008	SAMPLE		BAL216	14-DEC-2009 12:54	PIK	0.1	56.336	56.3474	56.3475			115	mg/L
242753009	SAMPLE		BAL216	14-DEC-2009 12:54	AKA	0.1	57.5361	57.5355	57.536			-1	mg/L
242789003	SAMPLE		BAL216	14-DEC-2009 12:54	NEW	0.1	56.2317	56.247	56.2465			148	mg/L

Comments: **All Weights are in Grams**
A) Result = (Final - Crucible)/Aliquot * 1000
B) Prep Factor = 0.5 / Aliquot

Date: 14-DEC-09 14:45:32
Date: 15-DEC-09 07:25:32
Temperature: 104 C
Temperature: 180 C

Note: Aliquot is used for the determination of the effective MDL and PQL in LIMS

Specific Conductivity

Analytical Logbook

Conductivity and Salinity

Batch ID: 932677.0
Analyst: Travis Tola
Method: EPA 120.1
Lab SOP: GL-GC-E-009 REV# 9
Instrument: Orion 160 Conductivity Meter

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
CCV	240	Conductivity LCS	WCO091117-06	25	mL
LCS	1201995204	Conductivity LCS	WCO091117-06	25	mL

Sample ID	Run Date	Dilution	Temperature (C)	Conductivity Result (umhos/cm)
1201995204 LCS	15-DEC-2009 15:38:53	1	23.7	1400
242753002	15-DEC-2009 15:39:08	1	22.2	161.9
1201995203 DUP (242753002)	15-DEC-2009 15:39:30	1	22.3	161.7
242753004	15-DEC-2009 15:39:49	1	22.2	160.5
242753006	15-DEC-2009 15:40:05	1	22.2	132.2
CCV	15-DEC-2009 15:40:21	1	24.2	1397
242753008	15-DEC-2009 15:40:53	1	22.2	132.1
242753009	15-DEC-2009 15:41:17	1	22	1.23
242789003	15-DEC-2009 15:41:36	1	22.1	217
242813001	15-DEC-2009 15:41:57	1	22.2	1.35
242813002	15-DEC-2009 15:42:16	1	22.3	1.79
CCV	15-DEC-2009 15:42:32	1	23.6	1384

Calibration Information:

Run Date: 15-DEC-09 14:24
Instrument: CON160
Analyst: TXT1

Standard	Observed	Theoretical		%Recovery
WCO091215-07	14.53	14.5	umhos/cm	100.21
WD091215-01	1306	1413	umhos/cm	92.427
WCO091215-04	1729	1900	umhos/cm	91
WCO091215-08	22600	24800	umhos/cm	91.129
WCO091215-01	235	250	umhos/cm	94
WCO091215-02	689	750	umhos/cm	91.867

Comments:

Total Phosphorus

Prep LogBook

Analyst: AXH3 Verified by:_____

Batch: 932508

Lab SOP: GL-GC-E-071 REV# 10

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201994701	UTR1169166-01	.2	mL
MS	1201994699	UTR1169166-01	.2	mL
MSD	1201994700	UTR1169166-01	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201994697		EPA 365.4 Prep	14-DEC-2009 11:21	<2	20 mL	20 mL	1	GROUND WATER
LCS	1201994701		EPA 365.4 Prep	14-DEC-2009 11:21	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	242651001		EPA 365.4 Prep	14-DEC-2009 11:21	<2	20 mL	20 mL	1	GROUND WATER
DUP	1201994698	242651001	EPA 365.4 Prep	14-DEC-2009 11:21	<2	20 mL	20 mL	1	GROUND WATER
MS	1201994699	242651001	EPA 365.4 Prep	14-DEC-2009 11:21	<2	20 mL	20 mL	1	GROUND WATER
MSD	1201994700	242651001	EPA 365.4 Prep	14-DEC-2009 11:21	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	242653001		EPA 365.4 Prep	14-DEC-2009 11:21	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	242667001		EPA 365.4 Prep	14-DEC-2009 11:21	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	242721007		EPA 365.4 Prep	14-DEC-2009 11:21	<2	20 mL	20 mL	1	WASTE WATER
SAMPLE	242753002		EPA 365.4 Prep	14-DEC-2009 11:21	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	242753004		EPA 365.4 Prep	14-DEC-2009 11:21	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	242753006		EPA 365.4 Prep	14-DEC-2009 11:21	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	242753008		EPA 365.4 Prep	14-DEC-2009 11:21	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	242753009		EPA 365.4 Prep	14-DEC-2009 11:21	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	242789003		EPA 365.4 Prep	14-DEC-2009 11:21	<2	20 mL	20 mL	1	GROUND WATER

Reagent/Solvent Lot ID	Amount	Description
1238215-C	4 mL	TKN/PO4 Digestion Solution

Comments

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
3.0 ppm Std.		1	axh3	12/15/2009 9:44:07	OM_12-15-2009_09-42-32
1.0 ppm Std.		1	axh3	12/15/2009 9:44:55	OM_12-15-2009_09-42-32
0.5 ppm Std		1	axh3	12/15/2009 9:45:45	OM_12-15-2009_09-42-32
0.1 ppm Std		1	axh3	12/15/2009 9:46:35	OM_12-15-2009_09-42-32
0.05 ppm Std		1	axh3	12/15/2009 9:47:26	OM_12-15-2009_09-42-32
ICAL-00		1	axh3	12/15/2009 9:48:18	OM_12-15-2009_09-42-32
ICV		1	axh3	12/15/2009 9:50:23	OM_12-15-2009_09-42-32
ICB		1	axh3	12/15/2009 9:52:28	OM_12-15-2009_09-42-32
1201994697*	932509	1	axh3	12/15/2009 9:54:32	OM_12-15-2009_09-42-32
1201994701*	932509	1	axh3	12/15/2009 9:55:23	OM_12-15-2009_09-42-32
242651001*	932509	1	axh3	12/15/2009 9:56:14	OM_12-15-2009_09-42-32
1201994698*	932509	1	axh3	12/15/2009 9:57:04	OM_12-15-2009_09-42-32
1201994699*	932509	1	axh3	12/15/2009 9:57:55	OM_12-15-2009_09-42-32
1201994700*	932509	1	axh3	12/15/2009 9:58:45	OM_12-15-2009_09-42-32
242653001*	932509	1	axh3	12/15/2009 9:59:34	OM_12-15-2009_09-42-32
242667001*	932509	1	axh3	12/15/2009 10:00:23	OM_12-15-2009_09-42-32
242721007*	932509	1	axh3	12/15/2009 10:01:12	OM_12-15-2009_09-42-32
242753002*	932509	1	axh3	12/15/2009 10:02:01	OM_12-15-2009_09-42-32
CCV		1	axh3	12/15/2009 10:02:50	OM_12-15-2009_09-42-32
CCB		1	axh3	12/15/2009 10:04:54	OM_12-15-2009_09-42-32

Author: axh3 Date : 12/15/2009

Original Run Filename: OM_12-15-2009_09-42-32.OMN created 12/15/2009 9:42:32
Original Run Author's Signature: [axh3]
Current Run Filename: OM_12-15-2009_09-42-32.OMN last modified 12/15/2009 10:06:18
Current Run Author's Signature: [axh3]
Description: Total Phosphorous EPA Method 365.4 GEL SOP: GL-GC-E-103
Detection Wavelength: 880nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TLPOS Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR091215-13	1	S2	3.000	15.373	12/15/2009@9:44:07			3.0 ppm Std.
WTR091215-14	1	S3	1.000	5.054	12/15/2009@9:44:55			1.0 ppm Std.
WTR091215-15	1	S4	0.500	2.330	12/15/2009@9:45:45			0.5 ppm Std
WTR091215-16	1	S5	0.100	0.471	12/15/2009@9:46:35			0.1 ppm Std
WTR091215-17	1	S6	0.050	0.203	12/15/2009@9:47:26			0.05 ppm Std
WTR091215-19 0.0	1	S7	0.000	0.000	12/15/2009@9:48:18			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99990 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR091215-18 ICV	1	S8	0.984	4.979	12/15/2009@9:50:23			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	0.984 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.984 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR091215-19 ICB	1	S7	0.027	0.058	12/15/2009@9:52:28			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	0.027 < 0.050					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.027 > -0.050					
		Message	ICB Passed					
		Action	Continue					
1201994697|932509|MB	1	1	0.048	0.165	12/15/2009@9:54:32			
1201994701||LCS	1	2	0.670	3.364	12/15/2009@9:55:23			
242651001	1	3	0.076	0.308	12/15/2009@9:56:14			
1201994698||DUP	1	4	0.063	0.245	12/15/2009@9:57:04			
1201994699||MS	1	5	0.460	2.284	12/15/2009@9:57:55			
1201994700||MSD	1	6	0.936	4.731	12/15/2009@9:58:45			
242653001	1	7	0.127	0.574	12/15/2009@9:59:34			
242667001	1	8	0.055	0.201	12/15/2009@10:00:23			
242721007	1	9	3.043	15.570	12/15/2009@10:01:12			
242753002	1	10	0.047	0.160	12/15/2009@10:02:01			
WTR091215-14 CCV	1	S3	0.988	4.999	12/15/2009@10:02:50			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	0.988 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.988 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091215-19 CCB	1	S7	0.115	0.511	12/15/2009@10:04:54			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								

Author: axh3 Date : 12/15/2009

Result:	0.115 > 0.050					
Message	CCB Failed					
Action	Stop Run					
DQM Test: < - Concentration Limit						
Result:	0.115 > -0.050					
Message	CCB Passed					
Action	Continue					

Channel 1 (TLPOS) : Current View

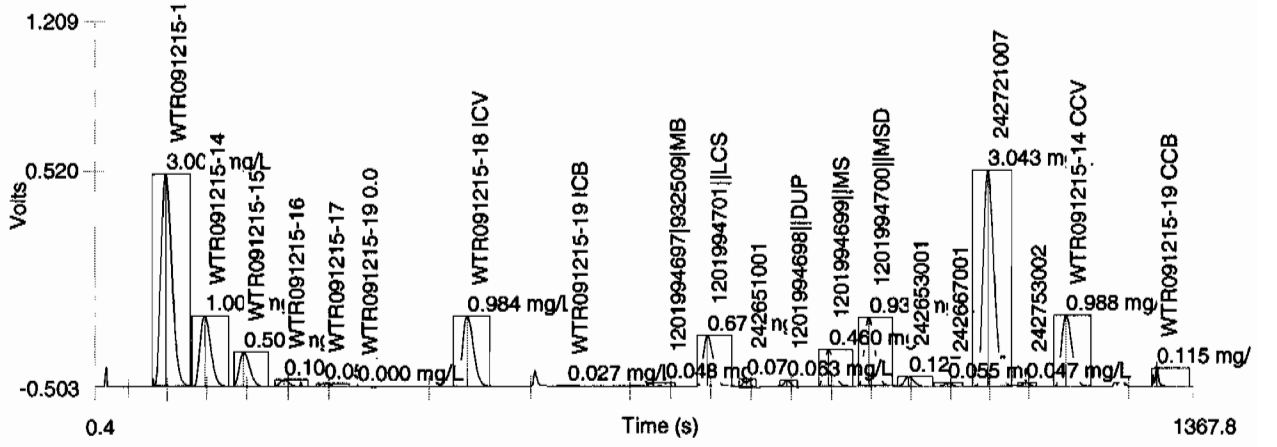

Table 1: TLPOS

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	3.000	1	15.373	0.993	-0.2	12/15/2009	9:45:28
2	1.000	1	5.054	0.332	0.2	12/15/2009	9:46:16
3	0.500	1	2.330	0.159	6.5	12/15/2009	9:47:05
4	0.100	1	0.471	0.031	-8.3	12/15/2009	9:47:55
5	0.050	1	0.203	0.015	-14.2	12/15/2009	9:48:46
6	0.000	1	0.000	-0.004		12/15/2009	9:49:38

Figure 1: TLPOS

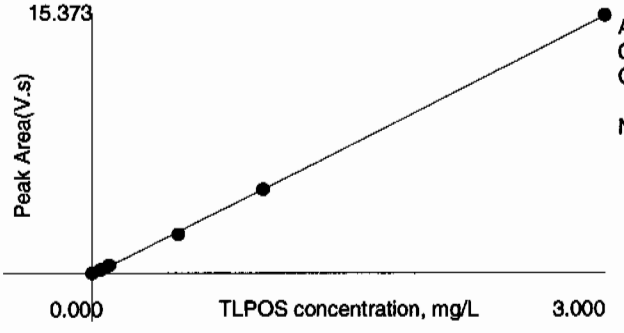

Area = 5.141 * Conc - 0.079
Conc = 0.194 * Area + 0.016
Correlation Coefficient (r) = 0.99990

No Weighting

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axh3	12/15/2009 10:08:51	OM_12-15-2009_10-08-07
CCB		1	axh3	12/15/2009 10:10:56	OM_12-15-2009_10-08-07
1201994697	932509	1	axh3	12/15/2009 10:13:00	OM_12-15-2009_10-08-07
1201994701	932509	1	axh3	12/15/2009 10:13:51	OM_12-15-2009_10-08-07
242651001	932509	1	axh3	12/15/2009 10:14:41	OM_12-15-2009_10-08-07
1201994698	932509	1	axh3	12/15/2009 10:15:33	OM_12-15-2009_10-08-07
1201994699	932509	1	axh3	12/15/2009 10:16:23	OM_12-15-2009_10-08-07
1201994700	932509	1	axh3	12/15/2009 10:17:13	OM_12-15-2009_10-08-07
242653001	932509	1	axh3	12/15/2009 10:18:02	OM_12-15-2009_10-08-07
242667001	932509	1	axh3	12/15/2009 10:18:52	OM_12-15-2009_10-08-07
242721007	932509	5	axh3	12/15/2009 10:19:41	OM_12-15-2009_10-08-07
242753002	932509	1	axh3	12/15/2009 10:20:30	OM_12-15-2009_10-08-07
CCV		1	axh3	12/15/2009 10:21:19	OM_12-15-2009_10-08-07
CCB		1	axh3	12/15/2009 10:23:24	OM_12-15-2009_10-08-07
242753004	932509	1	axh3	12/15/2009 10:25:26	OM_12-15-2009_10-08-07
242753006*	932509	1	axh3	12/15/2009 10:26:14	OM_12-15-2009_10-08-07
242753008	932509	1	axh3	12/15/2009 10:27:02	OM_12-15-2009_10-08-07
242753009	932509	1	axh3	12/15/2009 10:27:49	OM_12-15-2009_10-08-07
242789003	932509	1	axh3	12/15/2009 10:28:37	OM_12-15-2009_10-08-07
1201993013*	931711	1	axh3	12/15/2009 10:29:26	OM_12-15-2009_10-08-07
1201993017*	931711	1	axh3	12/15/2009 10:30:17	OM_12-15-2009_10-08-07
242597001*	931711	1	axh3	12/15/2009 10:31:09	OM_12-15-2009_10-08-07
242597002*	931711	1	axh3	12/15/2009 10:31:59	OM_12-15-2009_10-08-07
242673001*	931711	1	axh3	12/15/2009 10:32:50	OM_12-15-2009_10-08-07
CCV		1	axh3	12/15/2009 10:33:41	OM_12-15-2009_10-08-07
CCB		1	axh3	12/15/2009 10:35:45	OM_12-15-2009_10-08-07
242753006	932509	1	axh3	12/15/2009 10:37:48	OM_12-15-2009_10-08-07
1201993013	931711	1	axh3	12/15/2009 10:38:38	OM_12-15-2009_10-08-07
1201993017	931711	1	axh3	12/15/2009 10:39:29	OM_12-15-2009_10-08-07
242597001	931711	1	axh3	12/15/2009 10:40:20	OM_12-15-2009_10-08-07
242597002	931711	1	axh3	12/15/2009 10:41:11	OM_12-15-2009_10-08-07
242673001	931711	1	axh3	12/15/2009 10:42:02	OM_12-15-2009_10-08-07
1201993014	931711	1	axh3	12/15/2009 10:42:52	OM_12-15-2009_10-08-07
1201993015	931711	1	axh3	12/15/2009 10:43:42	OM_12-15-2009_10-08-07
1201993016	931711	1	axh3	12/15/2009 10:44:33	OM_12-15-2009_10-08-07
242673002*	931711	1	axh3	12/15/2009 10:45:22	OM_12-15-2009_10-08-07
CCV		1	axh3	12/15/2009 10:46:11	OM_12-15-2009_10-08-07
CCB		1	axh3	12/15/2009 10:48:16	OM_12-15-2009_10-08-07
242673002	931711	1	axh3	12/15/2009 10:50:19	OM_12-15-2009_10-08-07
242673003	931711	1	axh3	12/15/2009 10:51:08	OM_12-15-2009_10-08-07
CCV		1	axh3	12/15/2009 10:53:11	OM_12-15-2009_10-08-07
CCB		1	axh3	12/15/2009 10:55:17	OM_12-15-2009_10-08-07

Author: axh3 Date : 12/15/2009

Original Run Filename: OM_12-15-2009_10-08-07.OMN created 12/15/2009 10:08:07
Original Run Author's Signature: [axh3]
Current Run Filename: OM_12-15-2009_10-08-07.OMN last modified 12/15/2009 10:56:39
Current Run Author's Signature: [axh3]
Description: Total Phosphorous EPA Method 365.4 GEL SOP: GL-GC-E-103
Detection Wavelength: 880nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TLPOS Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR091215-14 CCV	1	S3	0.983	4.974	12/15/2009@10:08:51			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.983 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.983 > 0.895					
		Message	CCV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR091215-19 CCB	1	S7	0.026	0.054	12/15/2009@10:10:56			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.026 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.026 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1201994697|932509|MB	1	1	0.046	0.158	12/15/2009@10:13:00			
1201994701||LCS	1	2	0.988	5.001	12/15/2009@10:13:51			
242651001	1	3	0.074	0.300	12/15/2009@10:14:41			
1201994698||DUP	1	4	0.062	0.238	12/15/2009@10:15:33			
1201994699||MS	1	5	0.922	4.662	12/15/2009@10:16:23			
1201994700||MSD	1	6	0.936	4.734	12/15/2009@10:17:13			
242653001	1	7	0.127	0.571	12/15/2009@10:18:02			
242667001	1	8	0.058	0.218	12/15/2009@10:18:52			
242721007	1	9	0.580	2.903	12/15/2009@10:19:41		5.00	
242753002	1	10	0.045	0.153	12/15/2009@10:20:30			
WTR091215-14 CCV	1	S3	0.995	5.035	12/15/2009@10:21:19			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.995 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.995 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091215-19 CCB	1	S7	0.027	0.057	12/15/2009@10:23:24			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.027 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.027 > -0.050					
		Message	CCB Passed					
		Action	Continue					
242753004	1	11	0.071	0.286	12/15/2009@10:25:26			
242753006	1	12	0.201	0.951	12/15/2009@10:26:14			
242753008	1	13	0.053	0.193	12/15/2009@10:27:02			

242753009	1	14	0.049	0.172	12/15/2009@10:27:49			
242789003	1	15	0.074	0.301	12/15/2009@10:28:37			
1201993013|931711|MB	1	16	0.045	0.152	12/15/2009@10:29:26			
1201993017||LCS	1	17	0.037	0.112	12/15/2009@10:30:17			
242597001	1	18	0.101	0.439	12/15/2009@10:31:09			
242597002	1	19	0.103	0.450	12/15/2009@10:31:59			
242673001	1	20	0.051	0.184	12/15/2009@10:32:50			
WTR091215-14 CCV	1	S3	0.967	4.894	12/15/2009@10:33:41			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.967 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.967 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091215-19 CCB	1	S7	0.025	0.050	12/15/2009@10:35:45			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.025 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.025 > -0.050					
		Message	CCB Passed					
		Action	Continue					
242753006|932509|	1	12	0.066	0.259	12/15/2009@10:37:48			
1201993013|931711|MB	1	16	0.041	0.129	12/15/2009@10:38:38			
1201993017||LCS	1	17	0.991	5.017	12/15/2009@10:39:29			
242597001	1	18	0.108	0.477	12/15/2009@10:40:20			
242597002	1	19	0.168	0.782	12/15/2009@10:41:11			
242673001	1	20	0.055	0.202	12/15/2009@10:42:02			
1201993014||DUP	1	21	0.043	0.143	12/15/2009@10:42:52			
1201993015||MS	1	22	1.012	5.123	12/15/2009@10:43:42			
1201993016||MSD	1	23	1.044	5.287	12/15/2009@10:44:33			
242673002	1	24	0.098	0.424	12/15/2009@10:45:22			
WTR091215-14 CCV	1	S3	0.983	4.976	12/15/2009@10:46:11			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.983 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.983 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091215-19 CCB	1	S7	0.025	0.050	12/15/2009@10:48:16			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.025 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.025 > -0.050					
		Message	CCB Passed					
		Action	Continue					
242673002	1	24	0.062	0.236	12/15/2009@10:50:19			
242673003	1	25	0.208	0.987	12/15/2009@10:51:08			
WTR091215-14 CCV	1	S3	0.984	4.982	12/15/2009@10:53:11			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.984 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.984 > 0.895					
		Message	CCV Passed					

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		Action	Continue					
WTR091215-19 CCB	1	S7	0.026	0.054	12/15/2009@10:55:17			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	0.026 < 0.050					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.026 > -0.050					
		Message	CCB Passed					
		Action	Continue					

Channel 1 (TLPOS) : Current View

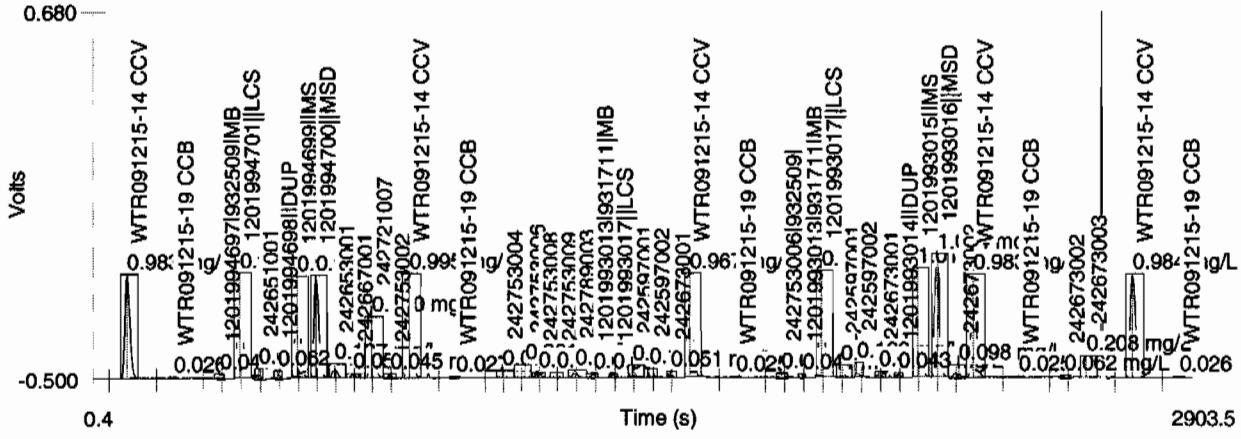

Table 1: TLPOS

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	3.000	1	15.373	0.993	-0.2	12/15/2009	9:45:28
2	1.000	1	5.054	0.332	0.2	12/15/2009	9:46:16
3	0.500	1	2.330	0.159	6.5	12/15/2009	9:47:05
4	0.100	1	0.471	0.031	-8.3	12/15/2009	9:47:55
5	0.050	1	0.203	0.015	-14.2	12/15/2009	9:48:46
6	0.000	1	0.000	-0.004		12/15/2009	9:49:38

Figure 1: TLPOS

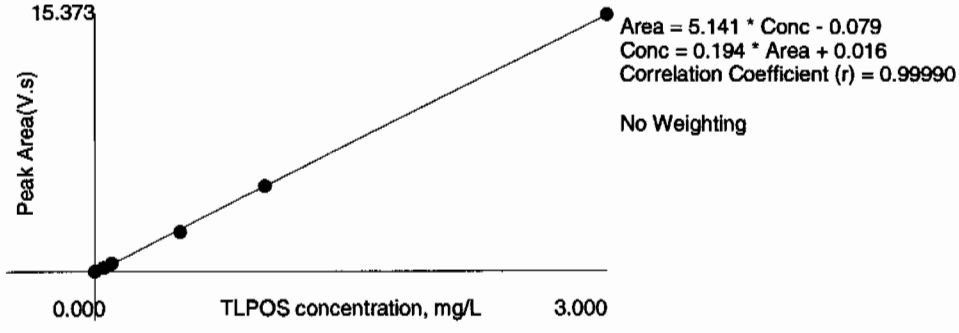

pH

pH / Corrosivity LogBook

Analyst: TXT1
Batch: 932671
Lab SOP: GL-GC-E-008 REV# 17
Description: pH
Method: EPA 150.1

Type	Sample Id	Serial Number	Description
CCV	240	IMM091029-PH	PH 7 BUFFER FOR PH
LCS	1201995202	IMM090728-01	LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parmname	Initial Wt()	Final Vol()	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
1201995202 LCS		Ground Water			14-DEC-09 14:39	pH			6.99	18.4'C	7	99.857	
1201995202 LCS		Ground Water			14-DEC-09 14:39	pH 2			6.99	18.4'C	7	99.857	
242651001		Ground Water			14-DEC-09 14:40	pH			7.43	16.6'C			
242651001		Ground Water			14-DEC-09 14:40	pH 2			7.45	16.7'C			
1201995482 DUP	242651001	Ground Water			14-DEC-09 14:42	pH			7.46	16.5'C			.403
1201995482 DUP	242651001	Ground Water			14-DEC-09 14:42	pH 2			7.46	16.6'C			.134
242653001		Ground Water			14-DEC-09 14:44	pH			8.13	16.9'C			
242653001		Ground Water			14-DEC-09 14:44	pH 2			8.14	17.0'C			
242667001		Ground Water			14-DEC-09 14:47	pH			8.1	16.8'C			
242667001		Ground Water			14-DEC-09 14:47	pH 2			8.1	16.9'C			
CCV					14-DEC-09 14:49	pH			7.02	18.8'C	7	100.286	
CCV					14-DEC-09 14:49	pH 2			7.02	18.8'C	7	100.286	
242753002		Ground Water			14-DEC-09 14:51	pH			8.09	17.5'C			
242753002		Ground Water			14-DEC-09 14:51	pH 2			8.09	17.5'C			
242753004		Ground Water			14-DEC-09 14:53	pH			8.09	17.4'C			
242753004		Ground Water			14-DEC-09 14:53	pH 2			8.1	17.4'C			
242753006		Ground Water			14-DEC-09 14:55	pH			8.08	17.6'C			
242753006		Ground Water			14-DEC-09 14:55	pH 2			8.09	17.6'C			
242753008		Ground Water			14-DEC-09 14:57	pH			8.1	16.8'C			
242753008		Ground Water			14-DEC-09 14:57	pH 2			8.1	16.9'C			
242753009		Ground Water			14-DEC-09 14:58	pH			5.86	17.3'C			
242753009		Ground Water			14-DEC-09 14:58	pH 2			5.85	17.4'C			

pH / Corrosivity LogBook

Analyst: TXT1
Batch: 932671
Lab SOP: GL-GC-E-008 REV# 17
Description: pH
Method: SM 4500-H B

Type	Sample Id	Serial Number	Description
CCV	240	IMM091029-PH	PH 7 BUFFER FOR PH
LCS	1201995202	IMM090728-01	LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parmname	Initial Wt()	Final Vol()	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
CCV					14-DEC-09 15:01	pH			7.02	18.5'C	7	100.286	
CCV					14-DEC-09 15:01	pH 2			7.01	18.5'C	7	100.143	
242789003		Ground Water			14-DEC-09 15:03	pH			6.34	17.3'C			
242789003		Ground Water			14-DEC-09 15:03	pH 2			6.35	17.4'C			
1201995200 DUP	242789003	Ground Water			14-DEC-09 15:06	pH			6.36	17.2'C			.315
1201995200 DUP	242789003	Ground Water			14-DEC-09 15:06	pH 2			6.37	17.2'C			.314
242799004		Surface Water			14-DEC-09 15:07	pH			6.65	10.4'C			
242799004		Surface Water			14-DEC-09 15:07	pH 2			6.65	10.8'C			
242813001		Water			14-DEC-09 15:10	pH			7.29	17.0'C			
242813001		Water			14-DEC-09 15:10	pH 2			7.26	17.0'C			
242813002		Water			14-DEC-09 15:13	pH			7.07	16.9'C			
242813002		Water			14-DEC-09 15:13	pH 2			7.02	17.0'C			
CCV					14-DEC-09 15:19	pH			7.02	18.4'C	7	100.286	
CCV					14-DEC-09 15:19	pH 2			7.01	18.4'C	7	100.143	
242819007		Surface Water			14-DEC-09 15:20	pH			6.6	16.4'C			
242819007		Surface Water			14-DEC-09 15:20	pH 2			6.6	16.4'C			
CCV					14-DEC-09 15:21	pH			7.02	18.5'C	7	100.286	
CCV					14-DEC-09 15:21	pH 2			7.01	18.5'C	7	100.143	

Calibration Information:
Run Date: 14-DEC-09 12:51
Instrument: PHX370
Analyst: TXT1

	Standard	Observed	Theoretical		C	%Recovery
12:51	IMM091214-PH1	4.01	4	SU	20	100.25
12:51	IMM091214-PH-	7.01	7	SU	20	100.14
12:51	UPH091214-a	10.02	10	SU	20	100.2
12:51	UPH091214-02c-	2.03	2	SU	20	101.5
12:51	091214-a	12	12	SU	20	100
12:51	IMM091214-a	7.02	7	SU	20	100.29

Comments:

GEL Laboratories LLC

Page#_____

Miscellaneous

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
15-DEC-09	Federal	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 350.1	Liquid	ESHL, GELC, INPA, PSCT,
Batch ID:	**Sample Numbers:**		
932507	See Below		

Potentially affected work order(s)(SDG): 242651(10-844),242653(10-851),242667(10-869),242720,242721,242753(10-881),242813,242838

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS/MSD: QC 1201994693MS, QC 1201994695MSD 2. Failed Recovery for MS/MSD: QC 1201994692MS, QC 1201994694MSD,	1. The MS recovery falls outside of the established acceptance limits. The MSD verifies the recovery failure with a passing RPD; therefore, the failure is attributed to matrix interference. 2. The spike and spike duplicate recoveries fall outside of the GEL acceptance limits but within the client specified limits.

Originator's Name:

Aubrey Kingsbury 15-DEC-09

Data Validator/Group Leader:

Julia Hamilton 17-DEC-09

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
08-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
IC	EPA 300.0	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
933095	See Below		

Potentially affected work order(s)(SDG): 242651(10-844),242653(10-851),242667(10-869),242753(10-881),242789(10-895),243819(10-1116)

Application Issues:

Sample Analyzed out of Holding

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Sample Analyzed out of Holding: 242651 001 242653 001 242667 001 242753 002,004,006,008,009 242789 003 QC 1201996187DUP,1201996188PS	1. Samples were analyzed out of holding due to instrument calibration issues and resultant limited capacity.

Originator's Name:

Greg Milton 08-JAN-10

Data Validator/Group Leader:

Julia Hamilton 08-JAN-10

Monday, February 22, 2010

REQUEST NUMBER: 10-2001

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2001

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/22/2010

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-13094	WG	2/21/2010	
	EPA:150.1	1	CAPA-10-13094	WG	2/21/2010	
	EPA:160.1	1	CAPA-10-13094	WG	2/21/2010	
	EPA:245.2	1	CAPA-10-13094	WG	2/21/2010	
		1	CAPA-10-13095	WG	2/21/2010	
	EPA:300.0	1	CAPA-10-13094	WG	2/21/2010	
	EPA:310.1	1	CAPA-10-13094	WG	2/21/2010	
	EPA:335.3	1	CAPA-10-13095	WG	2/21/2010	
	EPA:350.1	1	CAPA-10-13094	WG	2/21/2010	

Monday, February 22, 2010

REQUEST NUMBER: 10-2001

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:353.2	1	CAPA-10-13094	WG	2/21/2010	
	EPA:365.4	1	CAPA-10-13094	WG	2/21/2010	
	EPA:900	1	CAPA-10-13095	WG	2/21/2010	
	EPA:901.1	1	CAPA-10-13095	WG	2/21/2010	
	EPA:905.0	1	CAPA-10-13095	WG	2/21/2010	
	HASL-300:AM-241	1	CAPA-10-13095	WG	2/21/2010	
	HASL-300:ISOPU	1	CAPA-10-13095	WG	2/21/2010	
	HASL-300:ISOU	1	CAPA-10-13095	WG	2/21/2010	
	SM:A2340B	1	CAPA-10-13094	WG	2/21/2010	
		1	CAPA-10-13095	WG	2/21/2010	
	SW-846:6010B	1	CAPA-10-13094	WG	2/21/2010	
		1	CAPA-10-13095	WG	2/21/2010	
	SW-846:6020	1	CAPA-10-13094	WG	2/21/2010	
		1	CAPA-10-13095	WG	2/21/2010	
	SW-846:6850	1	CAPA-10-13094	WG	2/21/2010	

Final Page of REQUEST NUMBER 10-2001

Monday, February 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2001

REQUEST NUMBER: 10-2001

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-13094	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-13094	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13094	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-13095	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-13095	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-13095	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13095	1	POLY	WSP-RAD	Nitric Acid	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	2/22/10	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2635 **EVENT NAME:** R-54 Characterization Sampling

SAMPLE ID: CAPA-10-13094 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/21/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0603	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-54		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
TOP DEPTH:	915		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	925		SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice		
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	pH<2	
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice		
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	pH<2	

SAMPLE DESC:

SAMPLE COMMENTS: Collect sample from lower screen. Depths are from the proposed well design and may change once fact sheet is released.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D. Wooly, M Green

REVIEWED BY (PRINT) M Green

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Hal Wershow	2/22/10	(Printed Name) Sherri Sherwood	2/22/10
(Signature) Hal Wershow	0915	(Signature) Sherri Sherwood	0915
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2635 **EVENT NAME:** R-54 Characterization Sampling

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Woody, M Green

REVIEWED BY (PRINT) M Green

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Hal Werskow (Signature) Hal Werskow	2/22/10 0915	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	2/22/10 0915
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2635 **EVENT NAME:** R-54 Characterization Sampling

SAMPLE ID: CAPA-10-13095 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/21/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0603	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-54		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
TOP DEPTH:	915		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	925		SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
3		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)		pH < 2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice		
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice		
3		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice		
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide		pH > 12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice		
1		WSP-GrossA/B	1 LITER POLY	None		
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice		
1		WSP-LL-H-3	1 LITER POLY	None		
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid		pH<2
1		WSP-RAD	1 GAL POLY	Nitric Acid		pH<2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		pH<2
3		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice		

SAMPLE DESC:

SAMPLE COMMENTS: Collect sample from lower screen. Depths are from the proposed well design and may change once fact sheet is released.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2635 **EVENT NAME:** R-54 Characterization Sampling

SAMPLE ID: CAPA-10-13096 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/21/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0603	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	NA	
LOCATION ID:	R-54		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
TOP DEPTH:	915		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	925		SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2

SAMPLE DESC: QC Sample of CAPA-10-13095

SAMPLE COMMENTS: Collect sample from lower screen. Depths are from the proposed well design and may change once fact sheet is released.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D. Woody, M Green

REVIEWED BY (PRINT) M Green

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Hal Wershow (Signature) Hal	2/22/10 0915	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	2/22/10 0915
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2001 VALIDATION DATE: 4/30/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN and that the raw data for the parent sample was not included in the data package. No sample results were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 05/03/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 4/30/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☒	☐	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☒	☐	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-13094

Date Received: 23-FEB-10

GEL Job No (SDG): 10-2001

GEL Sample ID: 247817001

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.274	ug/L		1	14-MAR-10 21:44	per0314046a
	Perchlorate Isotope Ratio			3.09			1	14-MAR-10 21:44	per0314046a
14797-73-0	Perchlorate-101	.05	.2	0.274	ug/L		1	14-MAR-10 21:44	per0314046a
	Perchlorate-O(18)			0.476	ug/L		1	14-MAR-10 21:44	per0314046a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

AMF 4/30/10

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DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2001 VALIDATION DATE: 4/30/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. Target analyte Tl was detected in the ICB/CCBs. The Tl result for sample CAPA-10-13094 was a detect ≤5X the greatest blank concentration and, thus, was qualified U,I4b. The Tl result for sample -13095 was an ND and, thus, was not qualified.

2. It should be noted that the ICP-AES and ICP-MS matrix QC analyses were performed on LANL samples from other RNs and that the raw data for the parent samples were not included in the data package. No sample results were qualified.

3. Some results for the filtered sample were slightly > the corresponding results for the unfiltered sample. No sample data were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 05/03/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 4/30/10

DATA VALIDATION COVER SHEET	
5118-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943
Form 5118-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☐	☒	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☐	☒	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2 Metals Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1942

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2001 **METHOD TYPE:** EPA

SAMPLE ID: 247817001 **CLIENT ID:** CAPA-10-13094

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 23-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	030210W3-5
7631-86-9	Silica	72.3	mg/L			P	0.053	1	OPTIMA3	032210-1
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	032210-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100415-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100415-3
7440-39-3	Barium	19.9	ug/L			P	1	1	OPTIMA3	032210-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	032210-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	032210-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100415-3
7440-70-2	Calcium	10700	ug/L			P	50	1	OPTIMA3	032210-1
7440-47-3	Chromium	2.5	ug/L	U		MS	2.5	1	ICPMS5	100415-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	032210-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	032210-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA3	032210-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100415-3
7439-95-4	Magnesium	3020	ug/L			P	85	1	OPTIMA3	032210-1
7439-96-5	Manganese	6.95	ug/L	J		P	2	1	OPTIMA3	032210-1
7439-98-7	Molybdenum	1.02	ug/L			MS	0.1	1	ICPMS5	100415-3
7440-02-0	Nickel	0.5	ug/L	U		MS	0.5	1	ICPMS5	100415-3
7440-09-7	Potassium	1570	ug/L			P	50	1	OPTIMA3	032210-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100415-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100415-3
7440-23-5	Sodium	10200	ug/L			P	100	1	OPTIMA3	032210-1
7440-24-6	Strontium	51.4	ug/L			P	1	1	OPTIMA3	032210-1
7440-28-0	Thallium U,I4b	0.614	ug/L	J		MS	0.3	1	ICPMS5	100415-3
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	032410-2

AMF
4/30/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2001 **METHOD TYPE:** EPA

SAMPLE ID: 247817001 **CLIENT ID:** CAPA-10-13094

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 23-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	0.394	ug/L			MS	0.05	1	ICPMS5	100416-4
7440-62-2	Vanadium	5.66	ug/L			P	1	1	OPTIMA3	032210-1
7440-66-6	Zinc	3.3	ug/L	U		P	3.3	1	OPTIMA3	032410-2
	Hardness as CaCO3	39.3	mg/L				0.35	1	CALC001	

AMF
4/30/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2001 **METHOD TYPE:** EPA

SAMPLE ID: 247817002 **CLIENT ID:** CAPA-10-13095

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 23-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	030210W3-5
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	032210-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100415-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100415-3
7440-39-3	Barium	19.4	ug/L			P	1	1	OPTIMA3	032210-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	032210-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	032210-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100415-3
7440-70-2	Calcium	10500	ug/L			P	50	1	OPTIMA3	032210-1
7440-47-3	Chromium	2.79	ug/L	J		MS	2.5	1	ICPMS5	100415-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	032210-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	032210-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA3	032210-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100415-3
7439-95-4	Magnesium	3060	ug/L			P	85	1	OPTIMA3	032210-1
7439-96-5	Manganese	6.37	ug/L	J		P	2	1	OPTIMA3	032210-1
7439-98-7	Molybdenum	0.991	ug/L			MS	0.1	1	ICPMS5	100415-3
7440-02-0	Nickel	0.5	ug/L	U		MS	0.5	1	ICPMS5	100415-3
7440-09-7	Potassium	1540	ug/L			P	50	1	OPTIMA3	032210-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100415-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100415-3
7440-23-5	Sodium	9970	ug/L			P	100	1	OPTIMA3	032210-1
7440-24-6	Strontium	50.2	ug/L			P	1	1	OPTIMA3	032210-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100415-3
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	032410-2
7440-61-1	Uranium	0.354	ug/L			MS	0.05	1	ICPMS5	100416-4

AMF
4/30/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2001 **METHOD TYPE:** EPA

SAMPLE ID: 247817002 **CLIENT ID:** CAPA-10-13095

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 23-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	5.64	ug/L			P	1	1	OPTIMA3	032210-1
7440-66-6	Zinc	3.38	ug/L	J		P	3.3	1	OPTIMA3	032410-2
	Hardness as CaCO3	38.7	mg/L				0.35	I	CALC001	

AMF
4/30/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2001 VALIDATION DATE: 4/30/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. Ammonia as nitrogen and Total P were detected in the MBs. The associated sample results were detects ≤5X the MB concentrations and, thus, were qualified U,I4.
2. Total P was detected in the ICB/CCBs. The associated sample result was a detect ≤5X the greatest blank concentration and, thus, was qualified U,I4b.
3. The MS %R for ammonia as nitrogen was < the laboratory LAL but ≥10%. The associated sample result was qualified ND and, thus, was qualified UJ,I6a.
4. The duplicate RPD for TDS was >20% and the parent sample and duplicate results were ≥5X the PQL. The associated sample result was a detect and, thus, was qualified J,I10a.
5. The analysis of pH was performed >2X past the method specified HT. The associated sample results were qualified J-,I9a, based on professional judgment.
6. It should be noted that the matrix QC analyses for ion chromatography were performed on a LANL sample from another RN. Some analyses included multiple matrix QC samples. For each batch, the QC sample most comparable to the matrix of this RN was selected for data validation purposes, and the extraneous QC samples were not evaluated.

Reviewed by: Monica Dymerski **Level I** **Date:** 05/03/10

DATA VALIDATION COVER SHEET

5120-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

VALIDATOR'S SIGNATURE: Allison Felix DATE: 4/30/10

Form 5120-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☒	☐	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☒	☐	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 23, 2010

Client SDG: 10-2001

Client Sample ID: CAPA-10-13094
Sample ID: 247817001
Matrix: Ground Water
Collect Date: 21-FEB-10 12:00
Receive Date: 23-FEB-10
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Conductivity Analysis												
EPA120.1 Specific Conductivity "As Received"												
Conductivity		122		1.00	1.00	umhos/cm	1	TXT1	03/03/10	1625	960274	1
Electrode Analysis												
EPA 150.1 pH "As Received"												
pH at Temp 12.1C	H	7.92	J-,I9a	0.010	0.100	SU	1	LXA1	02/25/10	1156	957681	2
Ion Chromatography												
EPA 300.0 Anions Liquid 28 day "As Received"												
Bromide	U	ND		0.066	0.200	mg/L	1	GXM 3	03/10/10	2110	963224	3
Chloride		1.82		0.066	0.200	mg/L	1					
Fluoride		0.225		0.033	0.100	mg/L	1					
Sulfate		1.93		0.100	0.400	mg/L	1	GXM 3	03/17/10	1740	963224	4
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia L "As Received"												
Nitrogen, Ammonia	J	0.038	U,I4	0.016	0.050	mg/L	1	AXH3	02/25/10	1534	957556	5
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite		0.390		0.050	0.250	mg/L	5	AXH3	02/25/10	1445	957559	6
EPA 365.4 Phosphorus, Total in "As Received"												
Phosphorus, Total as P		0.060	U,I4	0.015	0.050	mg/L	1	AXH3	03/05/10	0945	958139	7
Solids Analysis												
EPA 160.1 Solids, Dissolved-F "As Received"												
Total Dissolved Solids		123	J,I10a	2.38	10.0	mg/L		SDS	02/26/10	1123	958112	8
Titration Analysis												
EPA 310.1 Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		53.8		0.725	1.00	mg/L		LXA1	02/24/10	1108	957056	9
Carbonate alkalinity (CaCO3)	U	ND		0.725	1.00	mg/L						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	SXJ1	02/25/10	1300	957555
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	SXJ1	03/02/10	1030	958136

The following Analytical Methods were performed

Method	Description	Analyst Comments

AMF
4/30/10

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 23, 2010

Client SDG: 10-2001

Client Sample ID:	CAPA-10-13095	Project:	ESHL01000
Sample ID:	247817002	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	21-FEB-10 12:00		
Receive Date:	23-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
EPA 335.4 Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/02/10	1557	956940	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	03/02/10	1321	956939

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

AMF
4/30/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2001 VALIDATION DATE: 4/30/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. It should be noted that all matrix QC analyses were performed on LANL samples from other RNs. No sample results were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 05/03/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 4/30/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☐	☒	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☒	☐	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☒	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: March 11, 2010

Client Sample ID:	CAPA-10-13095	Project:	ESHL01000
Sample ID:	247817002	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	21-FEB-10		
Receive Date:	23-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
Alphaspec Am241 Liquid "As Received"												
Americium-241	U	-0.00326	0.0325	+/-0.00407	0.050	pCi/L		HAKB	03/08/10	2120	957019	1
Alphaspec Pu, Liquid "As Received"												
Plutonium-238	U	0.00	0.0492	+/-0.00302	0.050	pCi/L		HAKB	03/09/10	0801	957023	2
Plutonium-239/240	U	0.00603	0.0344	+/-0.00428	0.050	pCi/L						
Alphaspec U, Liquid "As Received"												
Uranium-234		0.224	0.0896	+/-0.0398	1.00	pCi/L		HAKB	03/08/10	0705	957025	3
Uranium-235/236	U	-0.00354	0.0712	+/-0.00787	1.00	pCi/L						
Uranium-238		0.111	0.0639	+/-0.027	0.500	pCi/L						
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Liquid "As Received"												
Americium-241	U	0.196	5.81	+/-1.94	25.0	pCi/L		KXG3	03/04/10	2219	956976	4
Cesium-137	U	-0.548	3.83	+/-1.41	8.00	pCi/L						
Cobalt-60	U	-0.0707	3.64	+/-1.09	8.00	pCi/L						
Gross Gamma	U	15.4	21.4	+/-5.25	120	pCi/L						
Neptunium-237	U	-0.787	16.0	+/-5.55	10.0	pCi/L						
Potassium-40	U	-11.1	39.5	+/-13.0	10.0	pCi/L						
Sodium-22	U	0.618	3.80	+/-1.14	10.0	pCi/L						
Rad Gas Flow Proportional Counting												
GFPC, Gross A/B, liquid "As Received"												
Beta	U	1.78	2.39	+/-0.762	3.00	pCi/L		DXF3	03/05/10	0917	959739	5
Alpha	U	0.0727	1.84	+/-0.364	3.00	pCi/L		DXF3	03/06/10	0400	959739	6
GFPC, Sr90, liquid "As Received"												
Strontium-90	U	0.105	0.469	+/-0.135	0.500	pCi/L		JXR1	03/04/10	1515	959738	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	EPA 901.1

AMF
4/30/10

Monday, February 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2001

REQUEST NUMBER: 10-2001

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 247817

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-13094	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-13094	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13094	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-13095	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-13095	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-13095	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13095	1	POLY	WSP-RAD	Nitric Acid	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	2/22/10	1400	Mercedes Simmons	Mercedes Simmons	2/23/10	0850
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

Monday, February 22, 2010

REQUEST NUMBER: 10-2001

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2001

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/22/2010

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-13094	WG	2/21/2010	
	EPA:150.1	1	CAPA-10-13094	WG	2/21/2010	
	EPA:160.1	1	CAPA-10-13094	WG	2/21/2010	
	EPA:245.2	1	CAPA-10-13094	WG	2/21/2010	
		1	CAPA-10-13095	WG	2/21/2010	
	EPA:300.0	1	CAPA-10-13094	WG	2/21/2010	
	EPA:310.1	1	CAPA-10-13094	WG	2/21/2010	
	EPA:335.3	1	CAPA-10-13095	WG	2/21/2010	
	EPA:350.1	1	CAPA-10-13094	WG	2/21/2010	

Monday, February 22, 2010

REQUEST NUMBER: 10-2001

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:353.2	1	CAPA-10-13094	WG	2/21/2010	
	EPA:365.4	1	CAPA-10-13094	WG	2/21/2010	
	EPA:900	1	CAPA-10-13095	WG	2/21/2010	
	EPA:901.1	1	CAPA-10-13095	WG	2/21/2010	
	EPA:905.0	1	CAPA-10-13095	WG	2/21/2010	
	HASL-300:AM-241	1	CAPA-10-13095	WG	2/21/2010	
	HASL-300:ISOPU	1	CAPA-10-13095	WG	2/21/2010	
	HASL-300:ISOU	1	CAPA-10-13095	WG	2/21/2010	
	SM:A2340B	1	CAPA-10-13094	WG	2/21/2010	
		1	CAPA-10-13095	WG	2/21/2010	
	SW-846:6010B	1	CAPA-10-13094	WG	2/21/2010	
		1	CAPA-10-13095	WG	2/21/2010	
	SW-846:6020	1	CAPA-10-13094	WG	2/21/2010	
		1	CAPA-10-13095	WG	2/21/2010	
	SW-846:6850	1	CAPA-10-13094	WG	2/21/2010	

Final Page of REQUEST NUMBER 10-2001

GEL Laboratories LLC

a member of The GEL Group Inc

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

March 02, 2010

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

Re: LANL-WQH Water Samples
Work Order: 247817
SDG: 10-2001

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 23, 2010, and analyzed for General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2001
Enclosures

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 247817
SDG # : 10-2001

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Total Phosphorus.....799
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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 247817
SDG # : 10-2001

March 02, 2010

Laboratory Identification:

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

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 23, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. The Gross A/B container was preserved prior to analysis. The containers for radiochemistry were received at 7,11,12C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
247817001	CAPA-10-13094
247817002	CAPA-10-13095

Case Narrative

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

Data Package

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry.

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

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 02 March 2010

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

Chain of Custody and Supporting Documentation

Monday, February 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2001

REQUEST NUMBER: 10-2001

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 247817

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-13094	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-13094	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13094	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-13095	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-13095	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-13095	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13095	1	POLY	WSP-RAD	Nitric Acid	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	2/22/10	1400	Mercedes Simmons	Mercedes Simmons	2/23/10	0850
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

Monday, February 22, 2010

REQUEST NUMBER: 10-2001

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2001

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/22/2010

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-13094	WG	2/21/2010	
	EPA:150.1	1	CAPA-10-13094	WG	2/21/2010	
	EPA:160.1	1	CAPA-10-13094	WG	2/21/2010	
	EPA:245.2	1	CAPA-10-13094	WG	2/21/2010	
		1	CAPA-10-13095	WG	2/21/2010	
	EPA:300.0	1	CAPA-10-13094	WG	2/21/2010	
	EPA:310.1	1	CAPA-10-13094	WG	2/21/2010	
	EPA:335.3	1	CAPA-10-13095	WG	2/21/2010	
	EPA:350.1	1	CAPA-10-13094	WG	2/21/2010	

Monday, February 22, 2010

REQUEST NUMBER: 10-2001

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:353.2	1	CAPA-10-13094	WG	2/21/2010	
	EPA:365.4	1	CAPA-10-13094	WG	2/21/2010	
	EPA:900	1	CAPA-10-13095	WG	2/21/2010	
	EPA:901.1	1	CAPA-10-13095	WG	2/21/2010	
	EPA:905.0	1	CAPA-10-13095	WG	2/21/2010	
	HASL-300:AM-241	1	CAPA-10-13095	WG	2/21/2010	
	HASL-300:ISOPU	1	CAPA-10-13095	WG	2/21/2010	
	HASL-300:ISOU	1	CAPA-10-13095	WG	2/21/2010	
	SM:A2340B	1	CAPA-10-13094	WG	2/21/2010	
		1	CAPA-10-13095	WG	2/21/2010	
	SW-846:6010B	1	CAPA-10-13094	WG	2/21/2010	
		1	CAPA-10-13095	WG	2/21/2010	
	SW-846:6020	1	CAPA-10-13094	WG	2/21/2010	
		1	CAPA-10-13095	WG	2/21/2010	
	SW-846:6850	1	CAPA-10-13094	WG	2/21/2010	

Final Page of REQUEST NUMBER 10-2001

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-2001**
Received By: Greg Tyler	**Date Received: 2/23/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **0, 2-4C** **7,11,12C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?			X	Sample ID's, containers affected and observed pH: **CAPA-10-13095** **Gross A/B** If Preservation added, Lot#: **H25025**
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers:
7209 7850 1530 0C 7209 7850 1584 3C
7209 7850 1595 2C 7209 7850 1621 4C
7209 7850 1632 2C 7209 7850 1600 7C
7209 7850 1529 2C 7209 7850 1507 11C
7209 7850 1610 2C 7209 7850 1492 12C
7209 7850 1518 3C
7209 7850 1562 3C
7209 7850 1573 3C

PM (or PMA) review: Initials _____ Date 2/24/10

Subject: Sample Receipt for 2/23/10
From: Dionne Francis <Dionne.Francis@gel.com>
Date: Wed, 24 Feb 2010 12:32:34 -0500
To: "Keith R. Greene" <kgreene@lanl.gov>, Joylene Valdez <joylenev@lanl.gov>, Valerie Davis <vsd@gel.com>

Good Morning Keith,

RN 10-1993: the Metals container for sample WST41-10-13490 was preserved prior to analysis.

RN 10-2001 and 2006: the Gross A/B containers were preserved prior to analysis.

RN 10-1983: the lab did not receive a NO3NO2 container for sample RE15-10-8330. Please advise.

RN 10-2007: the lab rec'd (1) 40ml vial 8260B container for sample GW29-10-1378 instead of (2) as indicated on the COC.

Thanks,
Dionne

--
Dionne Francis
Project Manager Assistant
GEL Laboratories, LLC
2040 Savage Road
Charleston, SC (USA) 29407
Direct: 843.769.7376 Ext. 4432
Main: 843.556.8171
Fax: 843.766.1178
E-mail: daf@gel.com
Web: www.gel.com

Let the Bible fill the memory, rule the heart, and guide the feet.

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 65.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

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

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FedEx Express

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MPS# 0263 7209 7850 1530
Mstr# 7209 7850 1529 0201

TUE - 23FEB A1
PRIORITY OVERNIGHT

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CHS

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

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TUE - 23FEB A1
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
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UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

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IGIN ID: SAFA (505) 665-996
YLENE VALDEZ
S ALAMOS NATL LAB
00 BLDG 1237 DPU 03

S ALAMOS, NM 87545
ITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

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TO VALERIE DAVIS
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(843) 556-0171
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YLENE VALDEZ
S ALAMOS NATL LAB
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ALERIE DAVIS
ENERAL ENGINEERING LAB
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(843) 556-0171
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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-0171
REF: 6B010AMR3A0532VA00

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TUE - 23FEB A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7850 1573

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2450

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Part # 150149-434 NAT V3.00-09

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ALAMOS, NM 87545
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CAD: 0014176/CAFE2450

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 66.0 LB MAN
CAD: 0014176/CAFE2450

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ORIGIN ID: SAFA (505) 665-9969
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 09

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

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2040 SAVAGE RD

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TUE - 23FEB A1
PRIORITY OVERNIGHT

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Part # 156148-434 NRIT V3 09-09

DATA REVIEW QUALIFIER FLAG DEFINITION SHEET

Data Review Qualifier Definitions

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

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LC/MS/MS PERCHLORATE ANALYSIS

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-2001

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	959038
Prep Batch Number:	959037

Sample Analysis

Sample ID	Client ID
247817001	CAPA-10-13094
1202056709	Interference Check Sample (ICS)
1202056703	Method Blank (MB)
1202056704	Laboratory Control Sample (LCS)
1202056707	248044001(CAPA-10-12770) Matrix Spike (MS)
1202056708	248044001(CAPA-10-12770) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

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

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

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

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 248044001 (CAPA-10-12770) from SDG 10-2058 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

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Technical Information

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

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

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

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The sample in this SDG was not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

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System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

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

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: Herbert K Mauer **Date:** 03/17/10

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SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-13094

Date Received: 23-FEB-10

GEL Job No (SDG): 10-2001

GEL Sample ID: 247817001

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.274	ug/L		1	14-MAR-10 21:44	per0314046a
	Perchlorate Isotope Ratio			3.09			1	14-MAR-10 21:44	per0314046a
14797-73-0	Perchlorate-101	.05	.2	0.274	ug/L		1	14-MAR-10 21:44	per0314046a
	Perchlorate-O(18)			0.476	ug/L		1	14-MAR-10 21:44	per0314046a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2001

Extract Batch Code: 959037

Date Filtered: 06–MAR–10

Matrix: GROUND WATER

Sample ID: 1202056704

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.2	ug/L	99.9		85 – 115
Perchlorate Isotope Ratio		3.13				–
Perchlorate–101	0.200	.197	ug/L	98.5		85 – 115
Perchlorate–O(18)		.464	ug/L			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2001

Extract Batch Code: 959037

Date Filtered: 06–MAR–10

Matrix: GROUND WATER

Sample ID: 1202056709

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.205	ug/L	102		70 – 130
Perchlorate Isotope Ratio		2.88				
Perchlorate–101	0.200	.22	ug/L	110		70 – 130
Perchlorate–O(18)		.488	ug/L			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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ntify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

t Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

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e: 14-Mar-2010
e: 21:28:45
1202056709
: 2:1,C

|LANL|959038|LZQ|IC5|1|

WS 03-15-10

chlorate

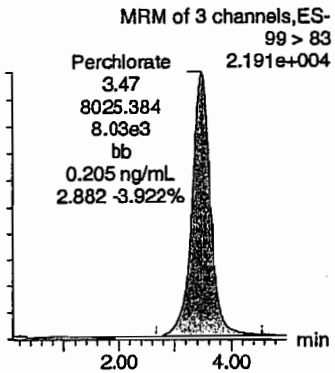

Perchlorate

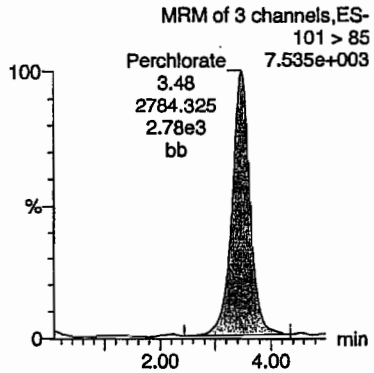

Perchlorate-101

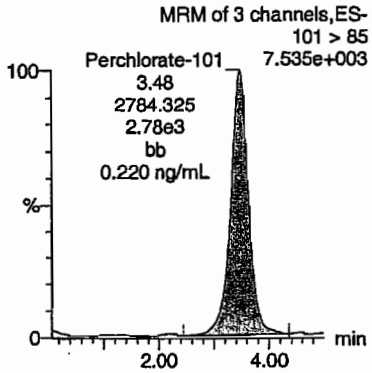

Perchlorate-O(18)

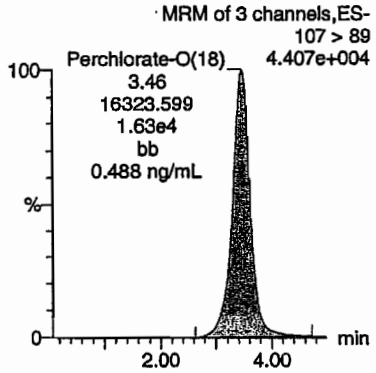

	Name	Trace	RT	Area	Response	Flags	ModDate	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
056709	Perchlorate	99 > 83	3.47	8025.384	8025.384	bb			0.2050	102.48	2.48	895.049	2.88
056709	Perchlorate-101	101 > 85	3.48	2784.325	2784.325	bb			0.2196	109.80	9.80	474.575	
056709	Perchlorate-O(18)	107 > 89	3.46	16323.599	16323.599	bb			0.4878	97.56	-2.44	3776.4...	

MAT 3/16/10

$$\frac{8025.384}{2784.325} = 2.8823$$

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Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–2001

Extract Batch Code: 959037

Date Extracted: 06–MAR–10

GEL MS/PS ID: 1202056707

Client ID: CAPA–10–12770

GEL MSD/PSD ID: 1202056708

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	0.200	0.302	ug/L	0.484	90.9	.496	97.2	2.58	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		2.88		3.04		0		–
Perchlorate–101	0.200	0.310	ug/L	0.519	105	.504	97	2.99	30	75 – 125
Perchlorate–O(18)	0	0.505	ug/L	0.471		.476		1.08		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2001

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	14-MAR-10	per0314001a	IPB001
Perchlorate-101	0.00	0	NA	14-MAR-10	per0314001a	IPB001
Perchlorate	0.00	0	NA	14-MAR-10	per0314002a	IPB001
Perchlorate-101	0.00	0	NA	14-MAR-10	per0314002a	IPB001

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ıtify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

ıet: C:\MassLynx\Perchlorate.PRO\per031410a.qld

Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ed: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

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14-Mar-2010
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CW
03-15-10

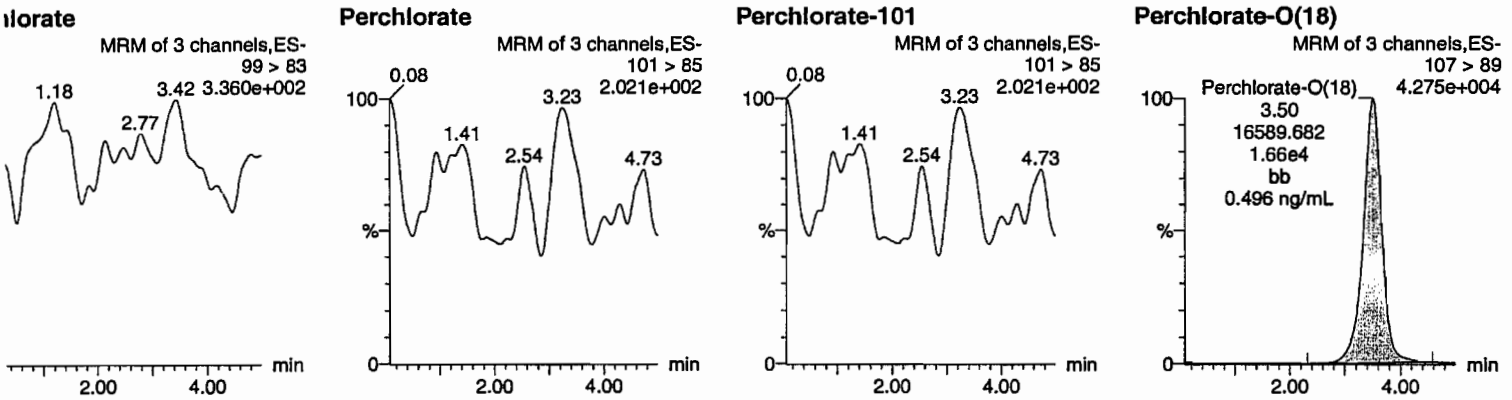

Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
Perchlorate	99 > 83											0.00
Perchlorate-101	101 > 85											
Perchlorate-O(18)	107 > 89	3.50	16589.682	16589.682	bb			0.4958	99.15	-0.85	1780.0...	

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ıtify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

set: C:\MassLynx\Perchlorate.PRO\per031410a.qld

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ed: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

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3/3 03-15-10

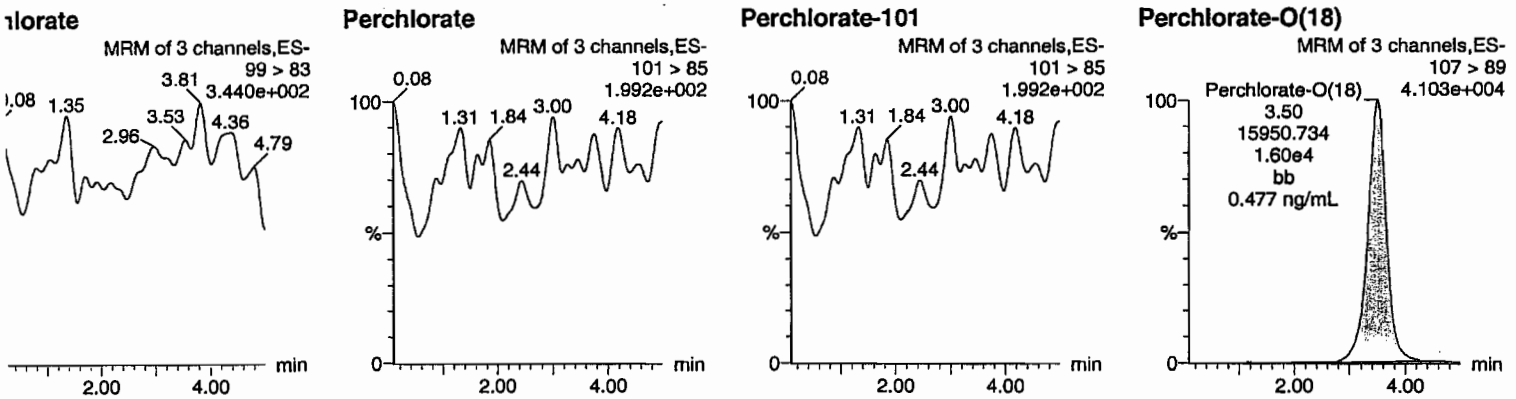

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1	Perchlorate	99 > 83											0.00
1	Perchlorate-101	101 > 85											
1	Perchlorate-O(18)	107 > 89	3.50	15950.734	15950.734	bb			0.4767	95.34	-4.66	1555.8...	

MAT 3/16/10

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2001

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	14–MAR–10	per0314008a	IPB002
Perchlorate–101	0.00	0	NA	14–MAR–10	per0314008a	IPB002
Perchlorate	0.00	0	NA	14–MAR–10	per0314010a	IPB003
Perchlorate–101	0.00	0	NA	14–MAR–10	per0314010a	IPB003
Perchlorate	0.00	0	NA	14–MAR–10	per0314023a	IPB004
Perchlorate–101	0.00	0	NA	14–MAR–10	per0314023a	IPB004
Perchlorate	0.00	0	NA	14–MAR–10	per0314036a	IPB005
Perchlorate–101	0.00	0	NA	14–MAR–10	per0314036a	IPB005
Perchlorate	0.00	0	NA	14–MAR–10	per0314041a	IPB006
Perchlorate–101	0.00	0	NA	14–MAR–10	per0314041a	IPB006
Perchlorate	0.00	0	NA	14–MAR–10	per0314049a	IPB007
Perchlorate–101	0.00	0	NA	14–MAR–10	per0314049a	IPB007

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GEL Group, LLC Analyst: Charlers W. Wilson

ɜet: C:\MassLynx\Perchlorate.PRO\per031410a.qld

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ɜd: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

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14-Mar-2010
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3/22
03-15-10

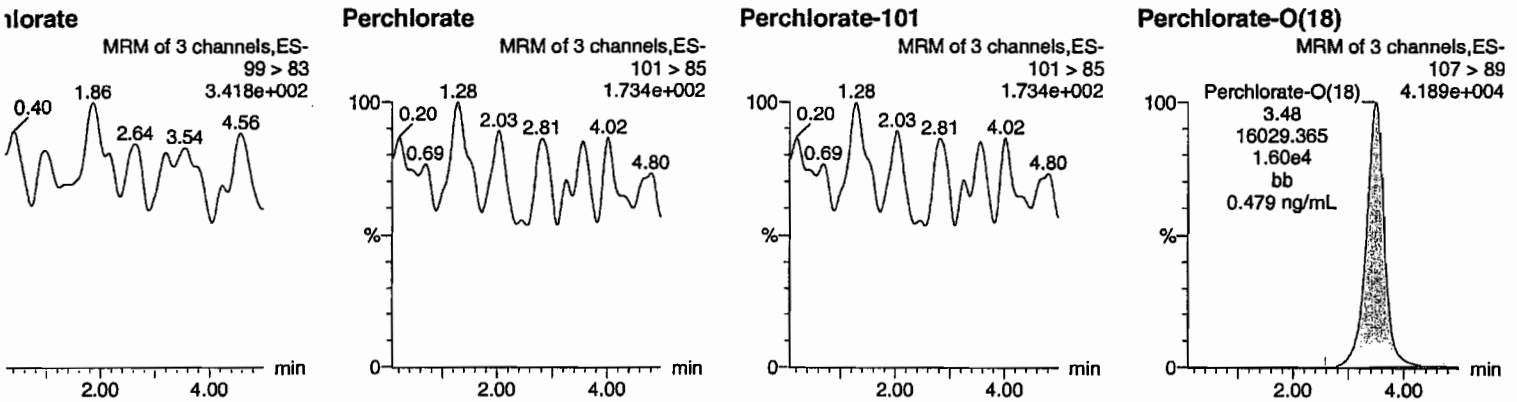

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2	Perchlorate	99 > 83											0.00
2	Perchlorate-101	101 > 85											
2	Perchlorate-O(18)	107 > 89	3.48	16029.365	16029.365	bb			0.4790	95.81	-4.19	1104.5...	

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set: C:\MassLynx\Perchlorate.PRO\per031410a.qld

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CWJ 03-15-10

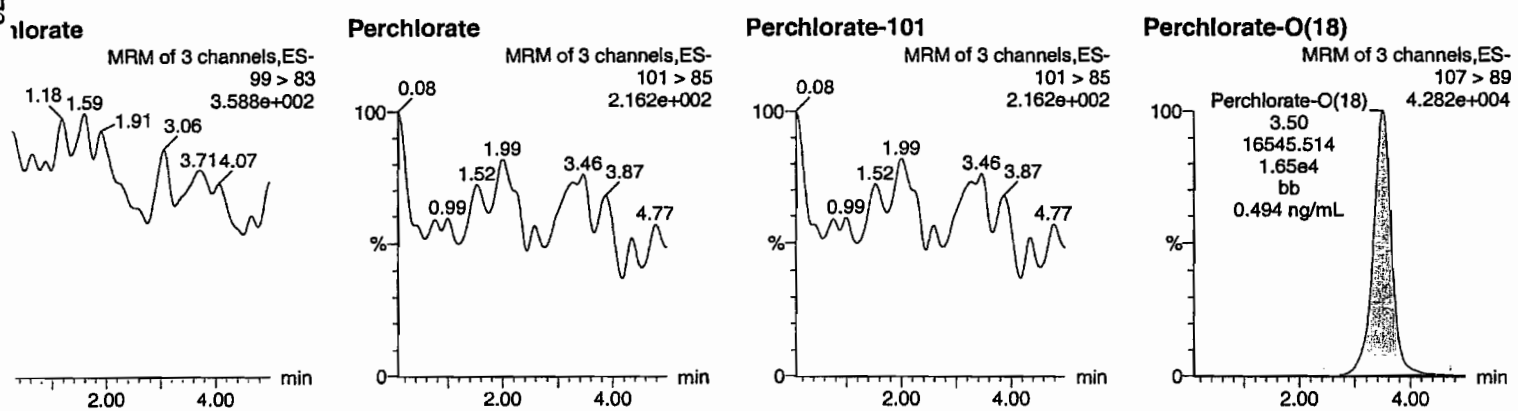

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
	Perchlorate	99 > 83											0.00
	Perchlorate-101	101 > 85											
	Perchlorate-O(18)	107 > 89	3.50	16545.514	16545.514	bb			0.4945	98.89	-1.11	1258.9...	

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03-15-10

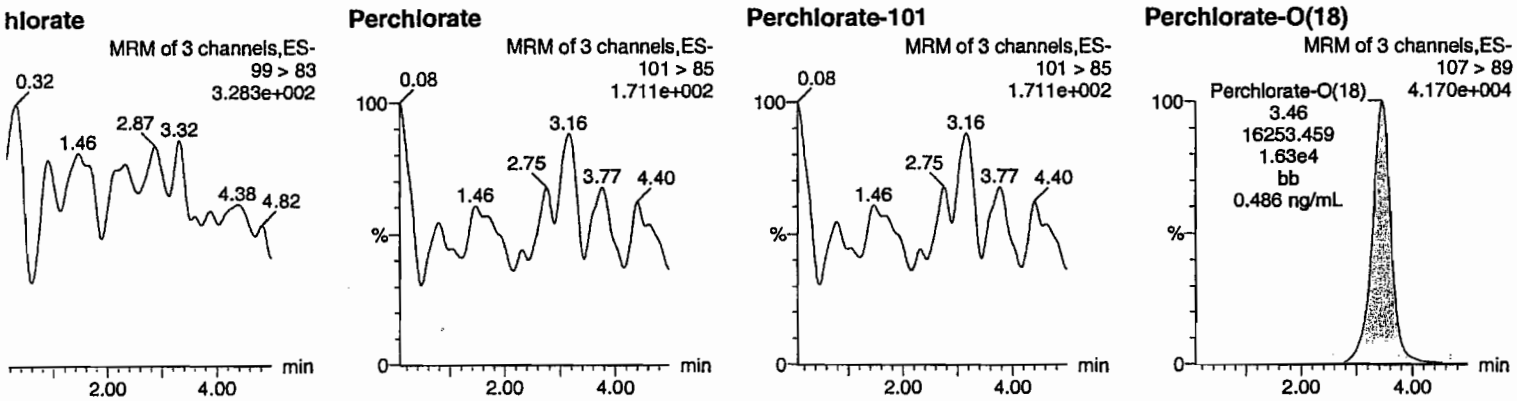

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4	Perchlorate	99 > 83											0.00
4	Perchlorate-101	101 > 85											
4	Perchlorate-O(18)	107 > 89	3.46	16253.459	16253.459	bb			0.4857	97.14	-2.86	1623.8...	

MAT 3/16/10

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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33
03-15-10

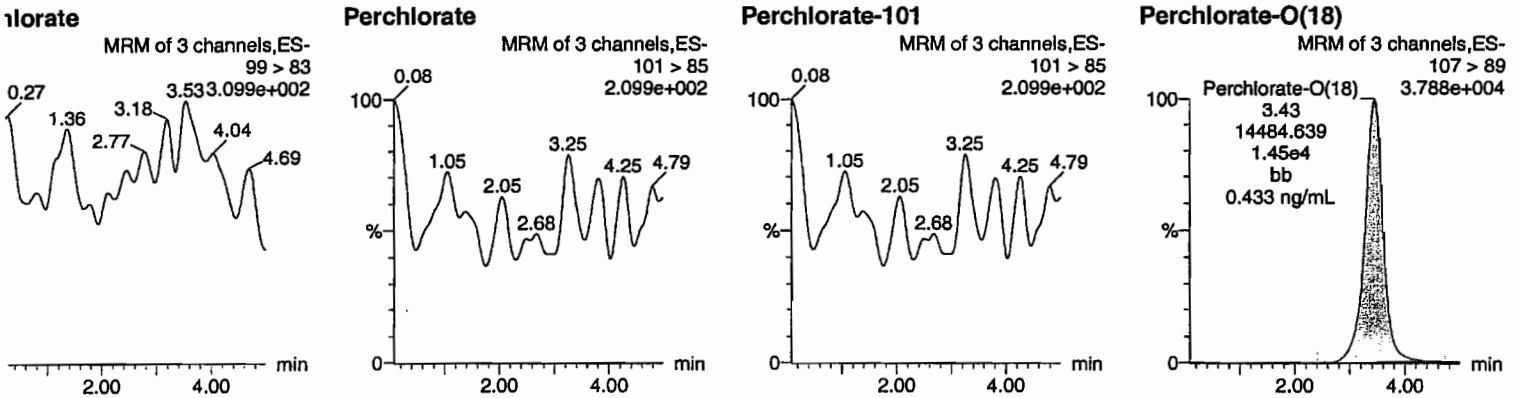

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5	Perchlorate	99 > 83											0.00
5	Perchlorate-101	101 > 85											
5	Perchlorate-O(18)	107 > 89	3.43	14484.639	14484.639	bb			0.4329	86.57	-13.43	330.725	

MAP
3/16/10

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03-15-10

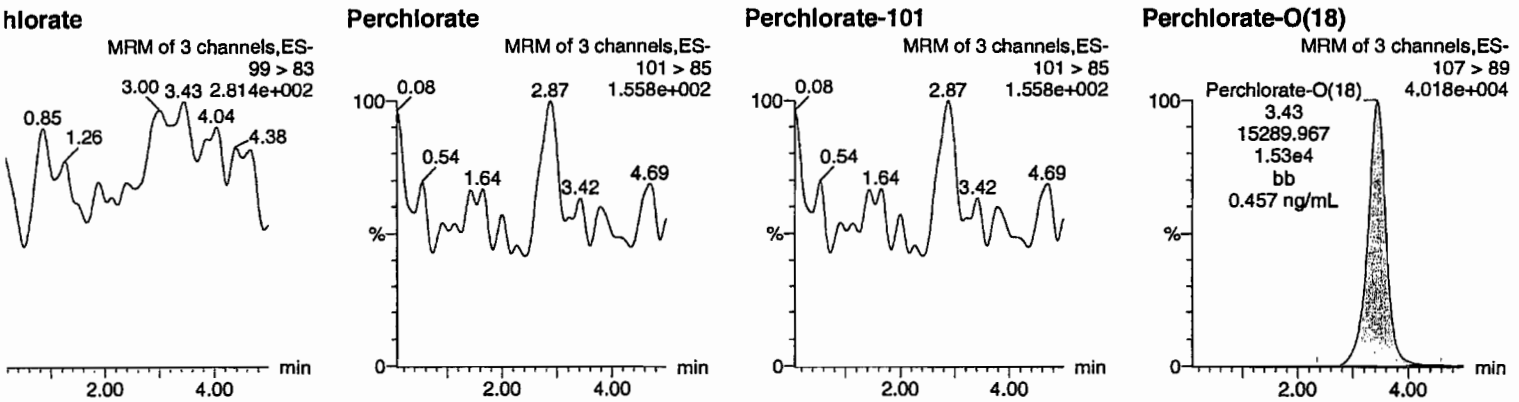

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6	Perchlorate-101	101 > 85											
6	Perchlorate-O(18)	107 > 89	3.43	15289.967	15289.967	bb			0.4569	91.39	-8.61	4719.0...	

MMP 3/16/10

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ıtify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

set: C:\MassLynx\Perchlorate.PRO\per031410a.qld

Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
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CWJ 03-15-10

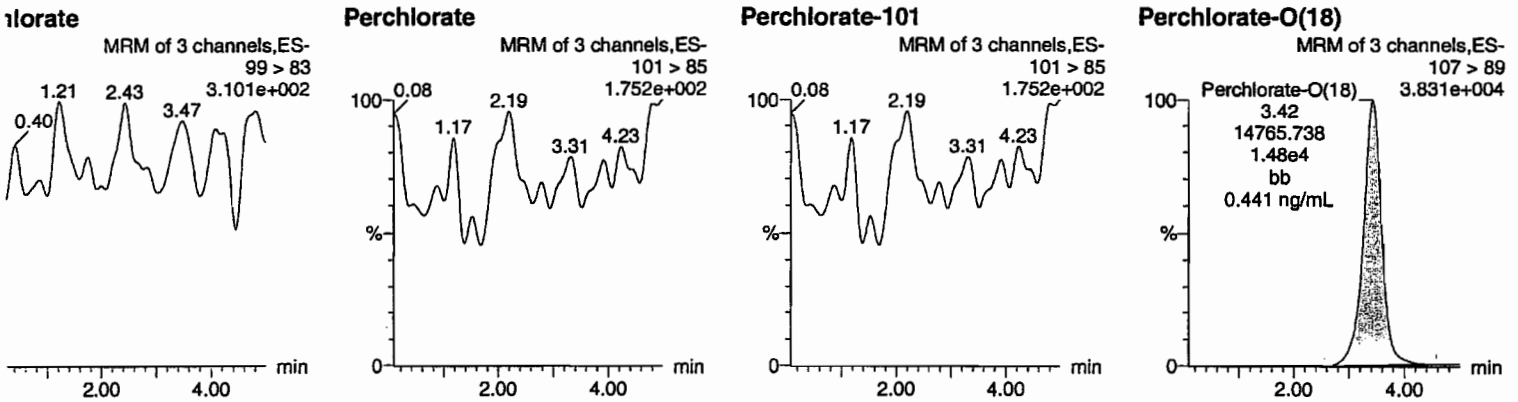

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7	Perchlorate	99 > 83											0.00
7	Perchlorate-101	101 > 85											
7	Perchlorate-O(18)	107 > 89	3.42	14765.738	14765.738	bb			0.4413	88.25	-11.75	2275.0...	

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/RbI (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: **Tue Jan 08 12:19:12 2008**

PEAKS HIGHLIGHTED BY CWW 01-09-08

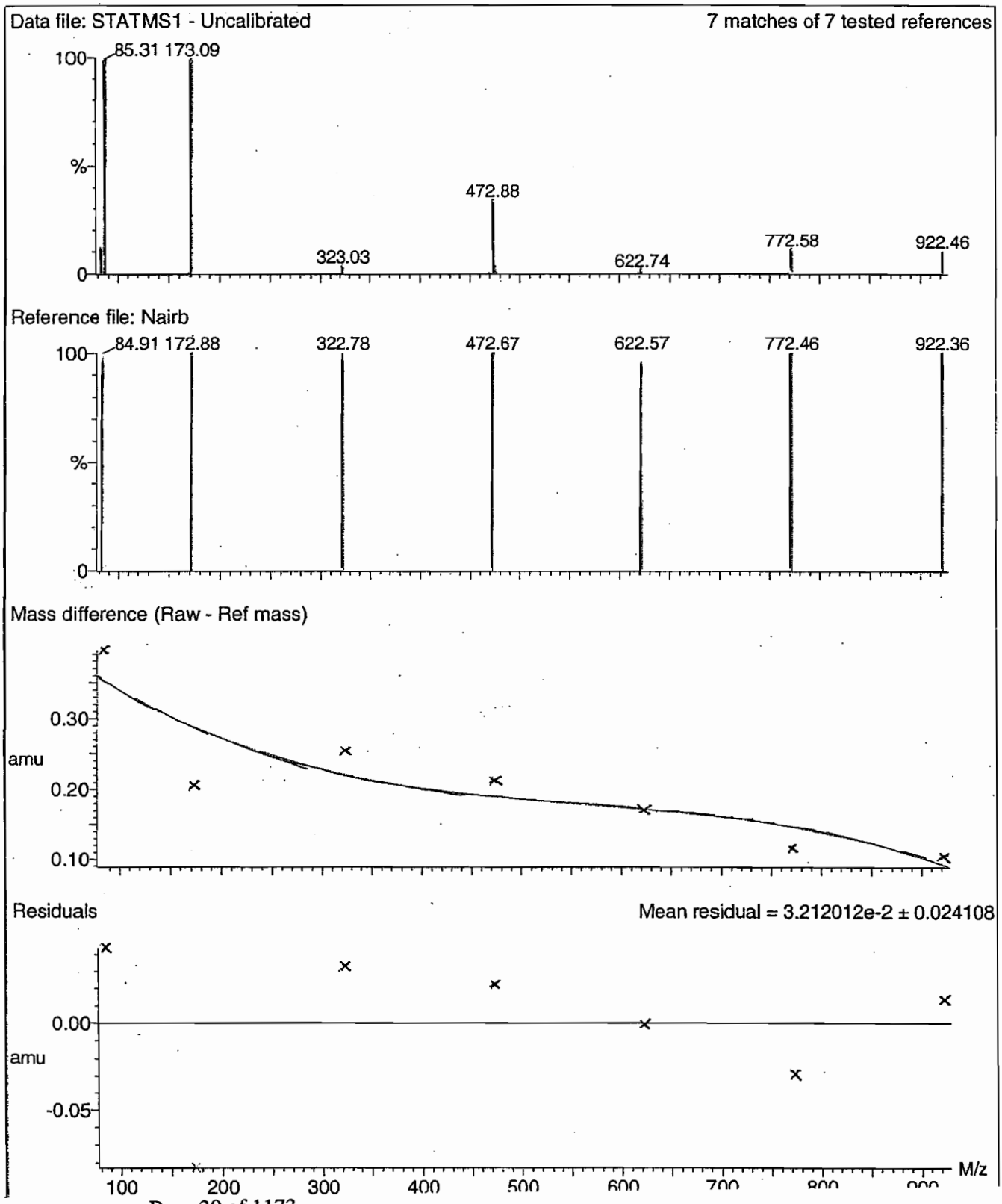

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Calibration Report - MS1 Scanning

Printed: **Tue Jan 08 12:20:09 2008**

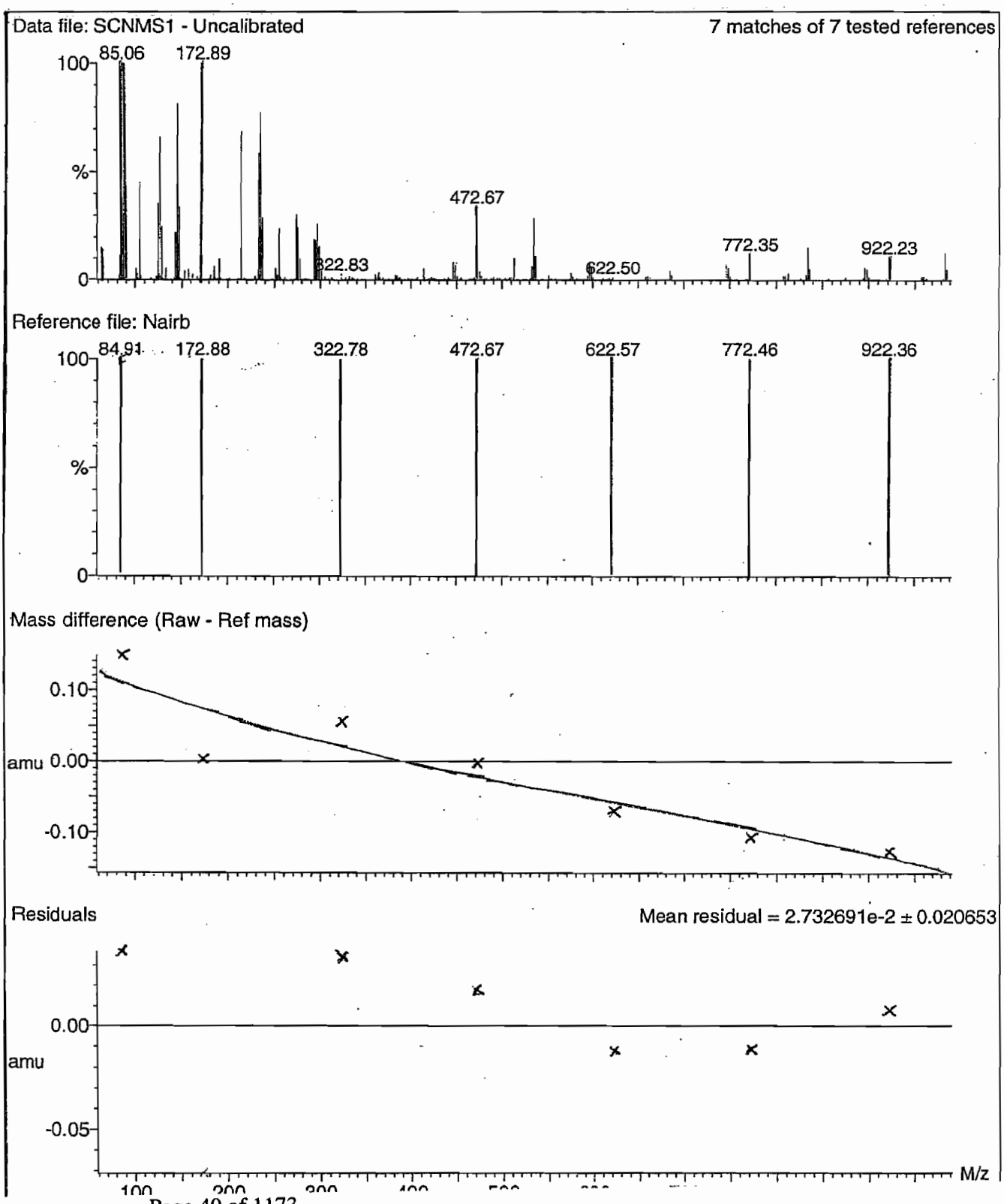

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Calibration Report - MS1 Scan Speed Compensation

Printed: **Tue Jan 08 12:21:04 2008**

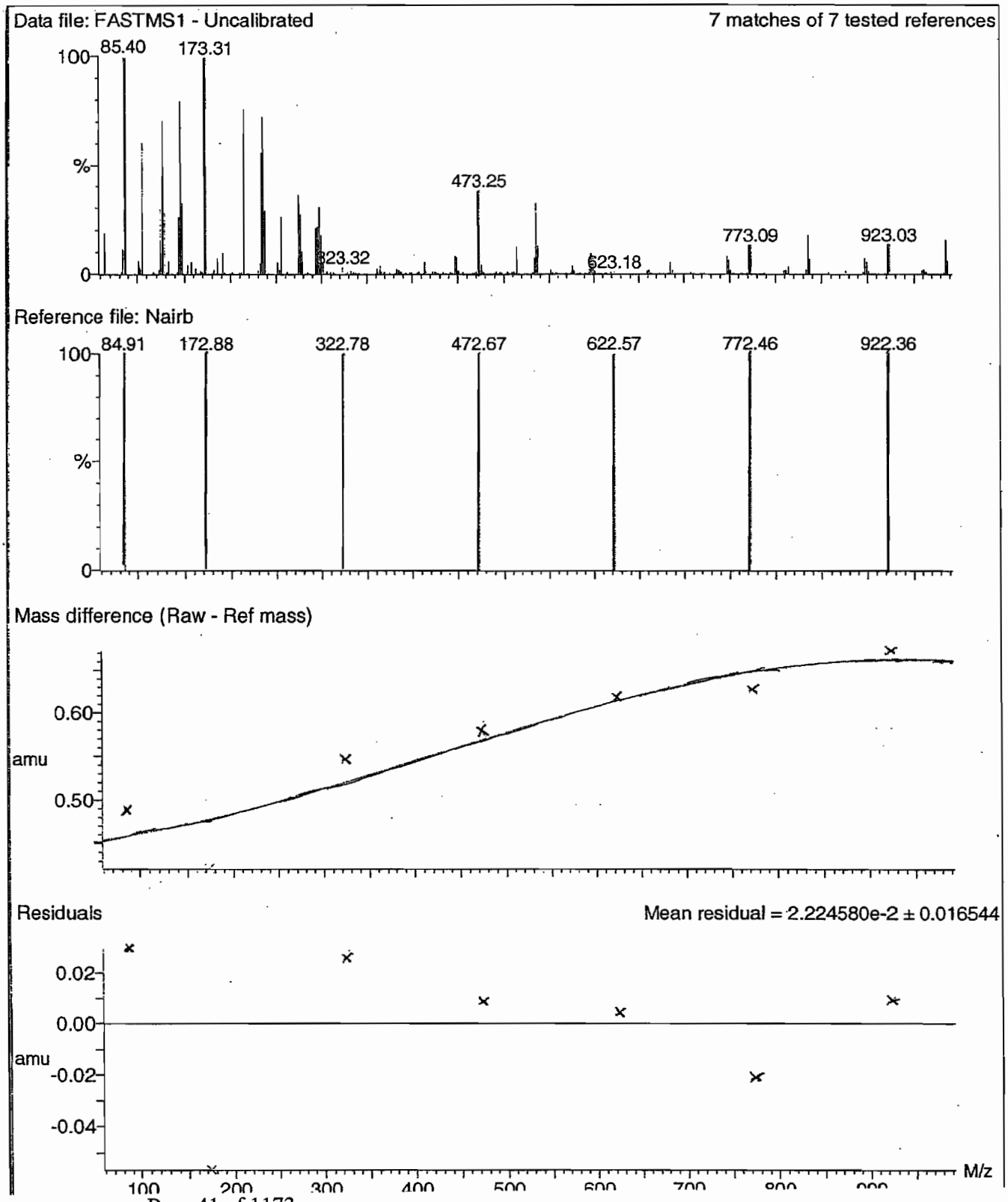

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Calibration Report - MS2 Scan Speed Compensation

Printed: **Tue Jan 08 12:23:51 2008**

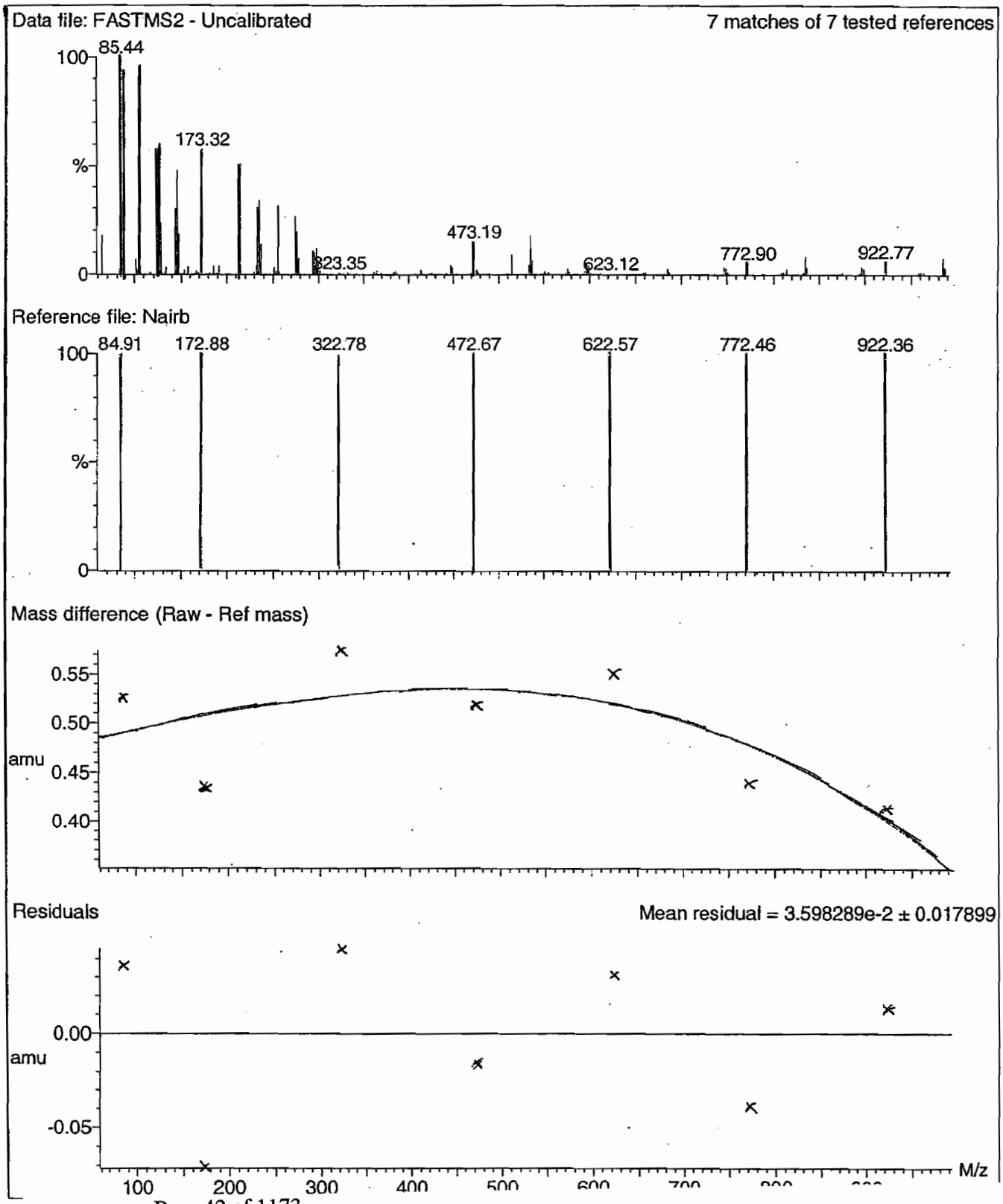

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: **Tue Jan 08 12:22:56 2008**

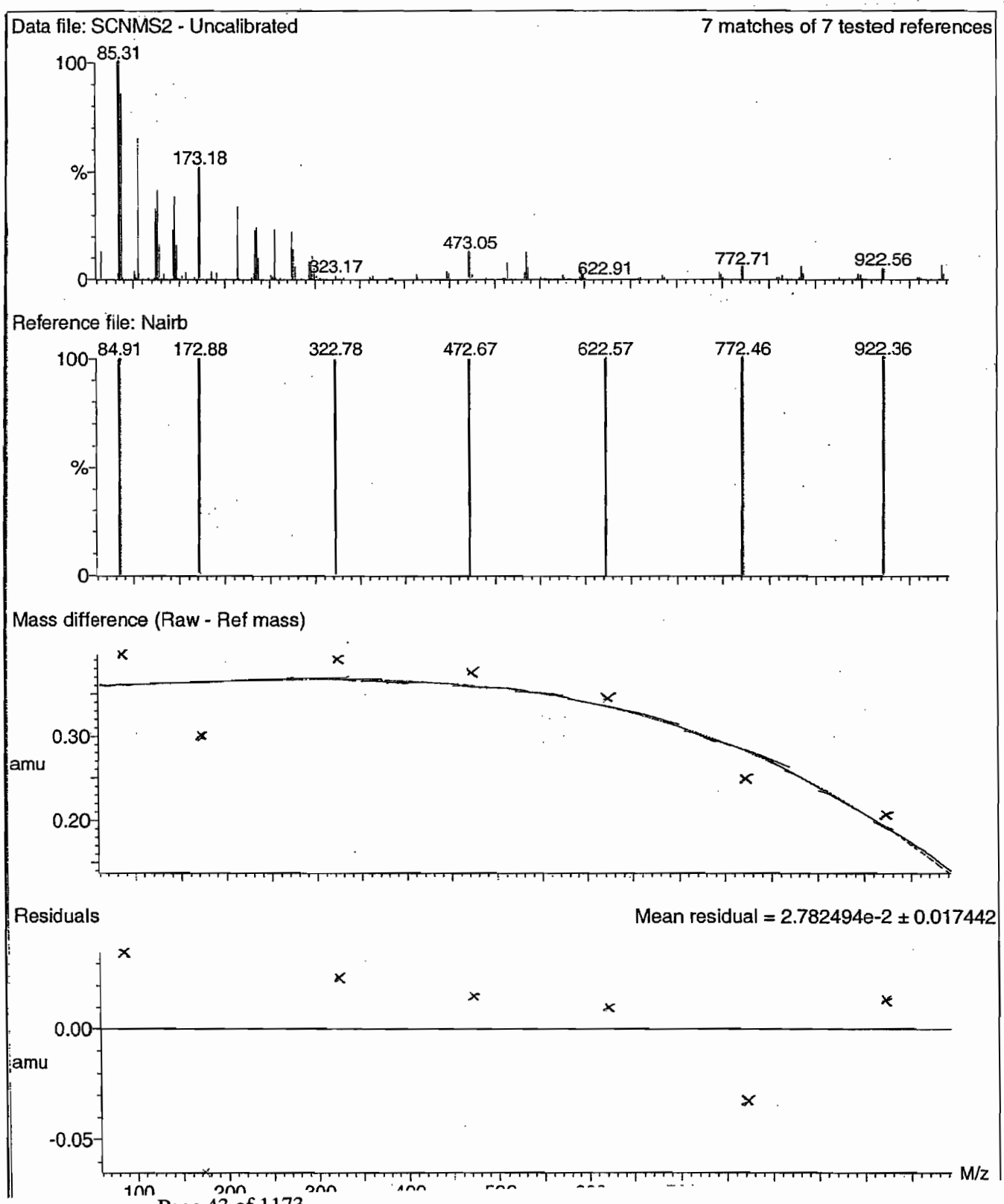

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Calibration Report - MS2 Static

Printed: **Tue Jan 08 12:21:59 2008**

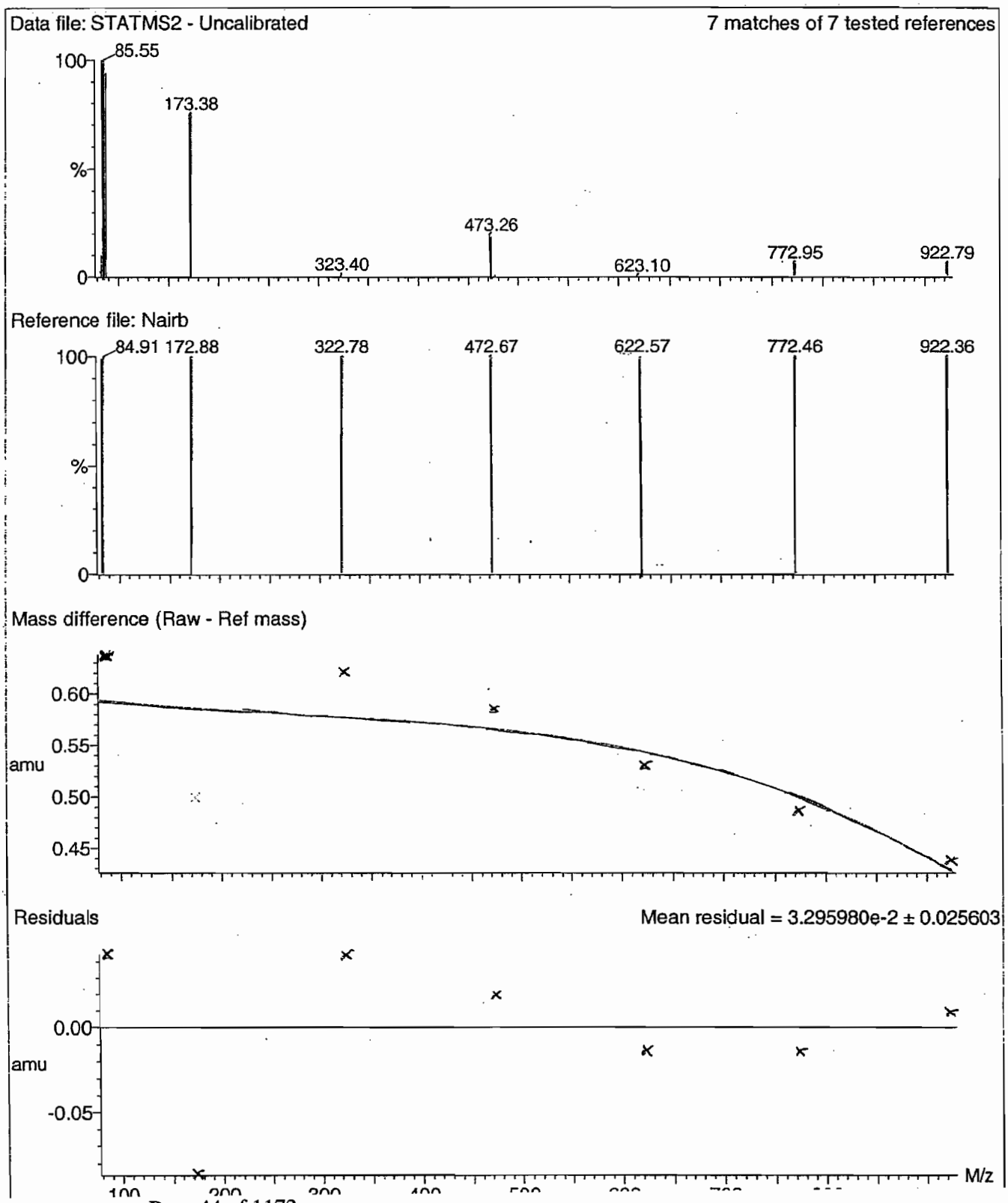

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File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Sunday, March 14, 2010 11:36:48 Eastern Standard Time

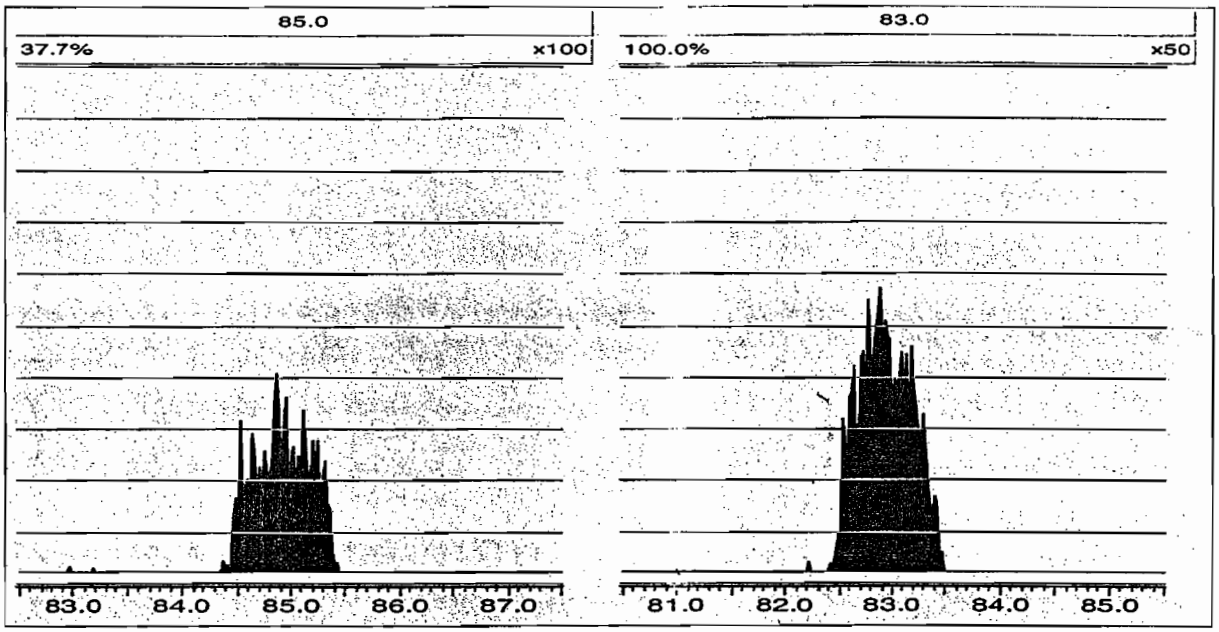

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2001

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0314006a**	**14–MAR–10**	**17326**				
Lower Area Limit			**8663**				
Upper Area Limit			**34652**				
1202056703	per0314042a	14–MAR–10 21:12	14003.5	3.43			
1202056704	per0314043a	14–MAR–10 21:20	15542.5	3.42	3.44547	1.007	
1202056709	per0314044a	14–MAR–10 21:28	16323.6	3.46	3.47045	1.003	
247817001	per0314046a	14–MAR–10 21:44	15929.6	3.43	3.4455	1.005	

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SAMPLE DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-13094

Date Received: 23-FEB-10

GEL Job No (SDG): 10-2001

GEL Sample ID: 247817001

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.274	ug/L		1	14-MAR-10 21:44	per0314046a
	Perchlorate Isotope Ratio			3.09			1	14-MAR-10 21:44	per0314046a
14797-73-0	Perchlorate-101	.05	.2	0.274	ug/L		1	14-MAR-10 21:44	per0314046a
	Perchlorate-O(18)			0.476	ug/L		1	14-MAR-10 21:44	per0314046a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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ntify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

t Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ne: per0314046a
e: 14-Mar-2010
e: 21:44:55
247817001
: 2:1,E

|LANL|959038|LZ2|1|

CWO 03-15-10

chlorate

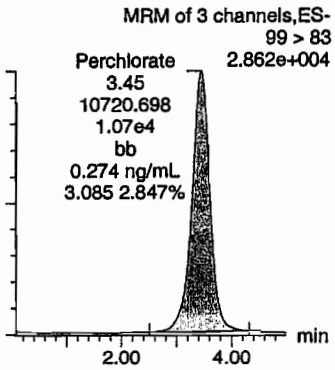

Perchlorate

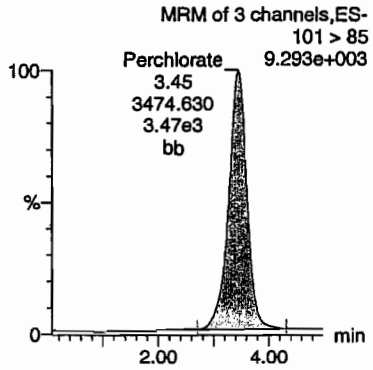

Perchlorate-101

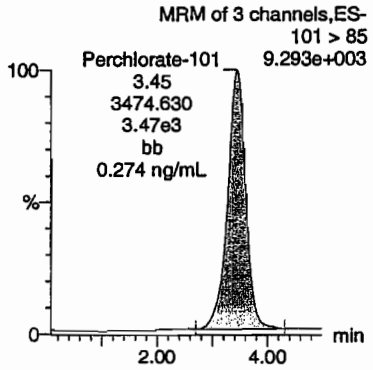

Perchlorate-O(18)

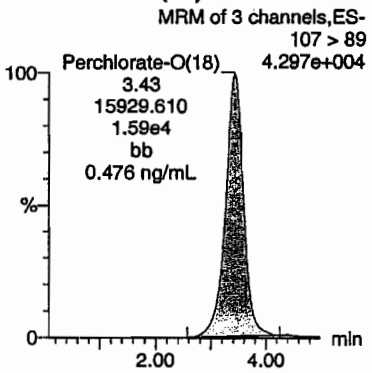

	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
317001	Perchlorate	99 > 83	3.45	10720.698	10720.698	bb			0.2738			664.102	3.09
317001	Perchlorate-101	101 > 85	3.45	3474.630	3474.630	bb			0.2740			661.998	
317001	Perchlorate-O(18)	107 > 89	3.43	15929.610	15929.610	bb			0.4760	95.21	-4.79	7331.3...	

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$$\frac{10720.698}{39154.1} = 0.2738$$

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STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2001

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 14–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 39154.12

Response Type: External Standard

Curve Type: RF

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Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2001

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 14–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 12679.04

Response Type: External Standard

Curve Type: RF

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ıntify Calibration Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

: Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

hod: C:\MassLynx\Perchlorate.PRO\MethDB\per031410a.mdb 15 Mar 2010 08:54:46
bration: C:\MassLynx\Perchlorate.PRO\CurveDB\per031410a.cdb 15 Mar 2010 08:56:54

ıpound name: Perchlorate
ponse Factor: 39154.1
: SD: 1960.58, % Relative SD: 5.00734
ponse type: External Std, Area
/e type: RF

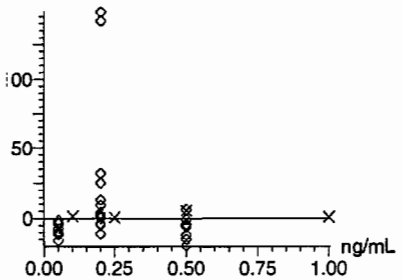

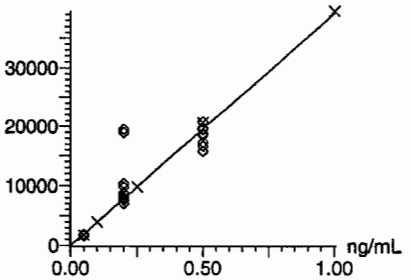

ıpound name: Perchlorate-101
ɔonse Factor: 12679
SD: 1159.92, % Relative SD: 9.14836
ɔonse type: External Std, Area
'e type: RF

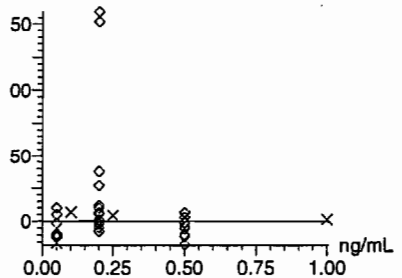

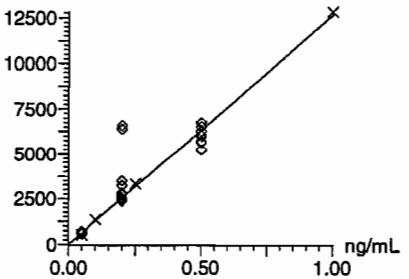

333
03-15-10

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ntify Calibration Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
:ed: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ıpound name: Perchlorate-O(18)
ɔonse Factor: 33462.4
SD: 678.465, % Relative SD: 2.02755
ɔonse type: External Std, Area
'e type: RF

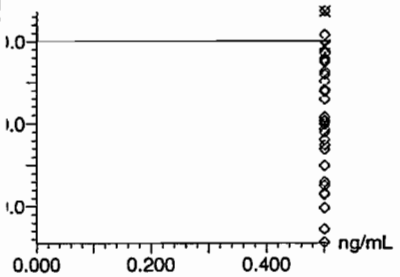

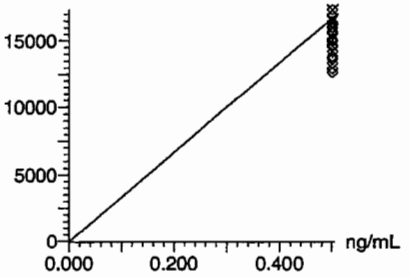

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Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2001

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.53	105.94	14–MAR–10 16:45	per0314009a
Perchlorate Isotope Ratio		3.07		14–MAR–10 16:45	per0314009a
Perchlorate–101	.5	.53	106.4	14–MAR–10 16:45	per0314009a

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antify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

taset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

st Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
nted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

me: per0314009a
te: 14-Mar-2010
ne: 16:45:39
WCL100309-06ICV
l: 1:2,A

Pass
03-15-10

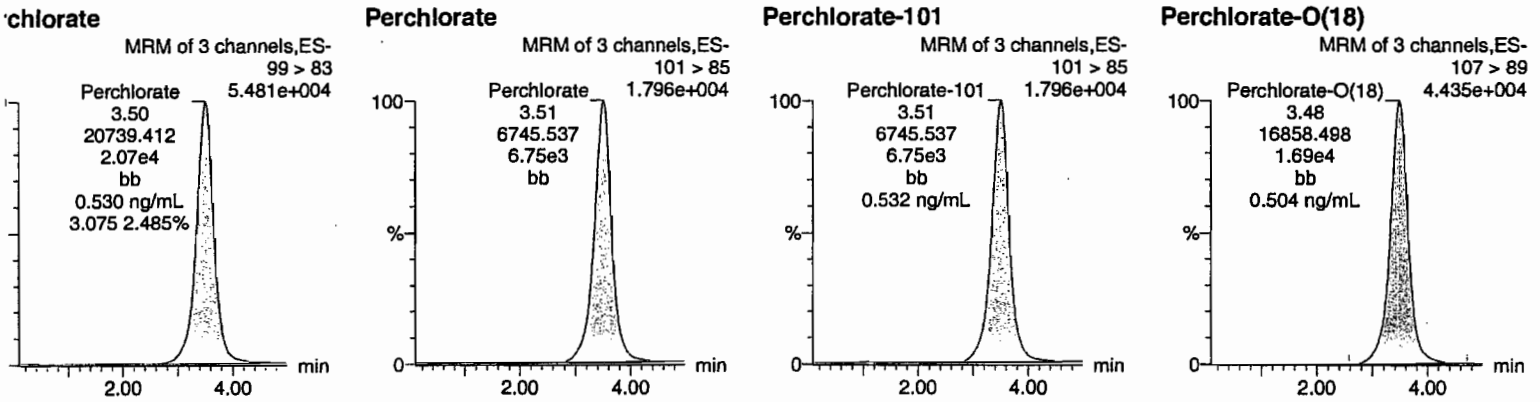

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
_100309-06ICV	Perchlorate	99 > 83	3.50	20739.412	20739.412	bb			0.5297	105.94	5.94	4083.9...	3.07
_100309-06ICV	Perchlorate-101	101 > 85	3.51	6745.537	6745.537	bb			0.5320	106.40	6.40	253.341	
_100309-06ICV	Perchlorate-O(18)	107 > 89	3.48	16858.498	16858.498	bb			0.5038	100.76	0.76	7322.5...	

$\frac{20739.412}{39154.1} = 0.5297$

MOT
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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-2001

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	99.52	14-MAR-10 18:30	per0314022a
Perchlorate Isotope Ratio		3.12		14-MAR-10 18:30	per0314022a
Perchlorate-101	.5	.49	98.56	14-MAR-10 18:30	per0314022a
Perchlorate	.5	.5	99.03	14-MAR-10 20:15	per0314035a
Perchlorate Isotope Ratio		2.97		14-MAR-10 20:15	per0314035a
Perchlorate-101	.5	.52	103.01	14-MAR-10 20:15	per0314035a
Perchlorate	.5	.5	99.09	14-MAR-10 22:01	per0314048a
Perchlorate Isotope Ratio		3.18		14-MAR-10 22:01	per0314048a
Perchlorate-101	.5	.48	96.26	14-MAR-10 22:01	per0314048a

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ıntify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

t Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ne: per0314022a
e: 14-Mar-2010
e: 18:30:11
WCL100309-06CCV
: 1:2,A

Pass
03-15-10

chlorate

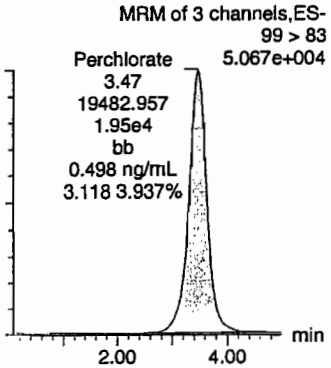

Perchlorate

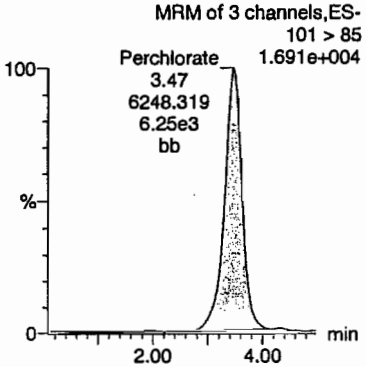

Perchlorate-101

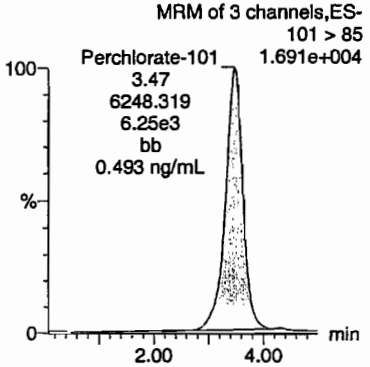

Perchlorate-O(18)

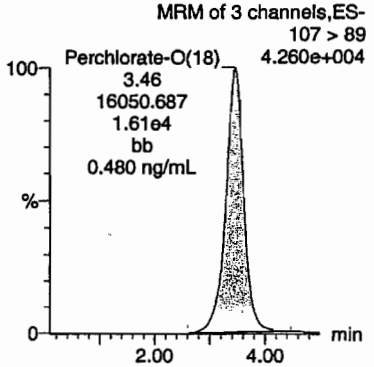

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
.100309-06CCV	Perchlorate	99 > 83	3.47	19482.957	19482.957	bb			0.4976	99.52	-0.48	1472.0...	3.12
.100309-06CCV	Perchlorate-101	101 > 85	3.47	6248.319	6248.319	bb			0.4928	98.56	-1.44	709.723	
.100309-06CCV	Perchlorate-O(18)	107 > 89	3.46	16050.687	16050.687	bb			0.4797	95.93	-4.07	2122.7...	

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ıantify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

.taset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

st Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
nted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

me: per0314035a
te: 14-Mar-2010
ne: 20:15:24
WCL100309-06CCV
ıl: 1:2,A

Pass
aw
03-15-10

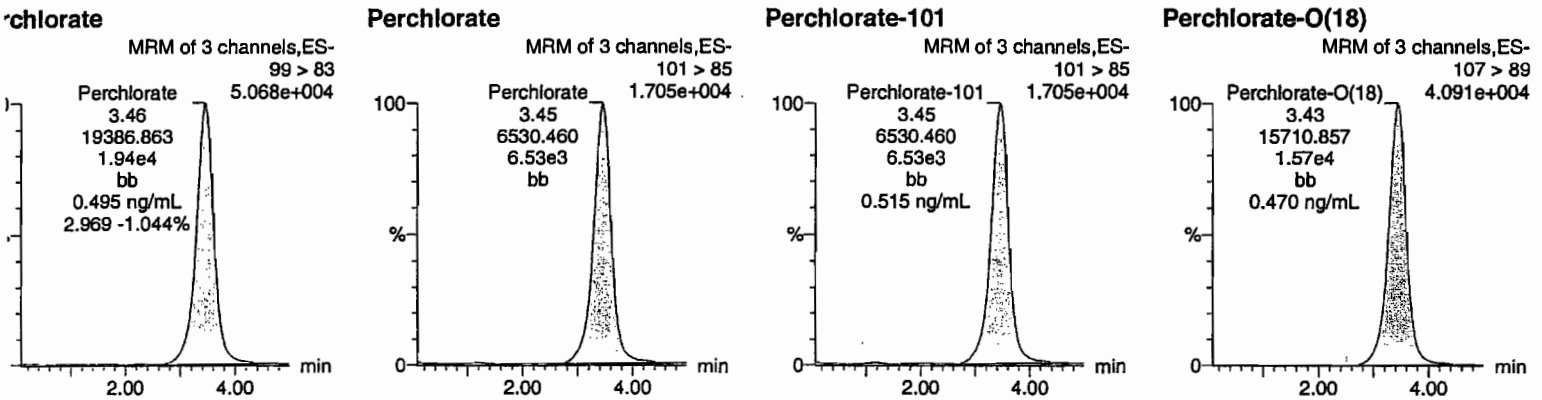

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
_100309-06CCV	Perchlorate	99 > 83	3.46	19386.863	19386.863	bb			0.4951	99.03	-0.97	5888.7...	2.97
_100309-06CCV	Perchlorate-101	101 > 85	3.45	6530.460	6530.460	bb			0.5151	103.01	3.01	2522.5...	
_100309-06CCV	Perchlorate-O(18)	107 > 89	3.43	15710.857	15710.857	bb			0.4695	93.90	-6.10	4011.6...	

MMT
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antify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

taset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

t Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ne: per0314048a
e: 14-Mar-2010
ne: 22:01:03
WCL100309-06CCV
l: 1:2,A

Perc
03-15-10

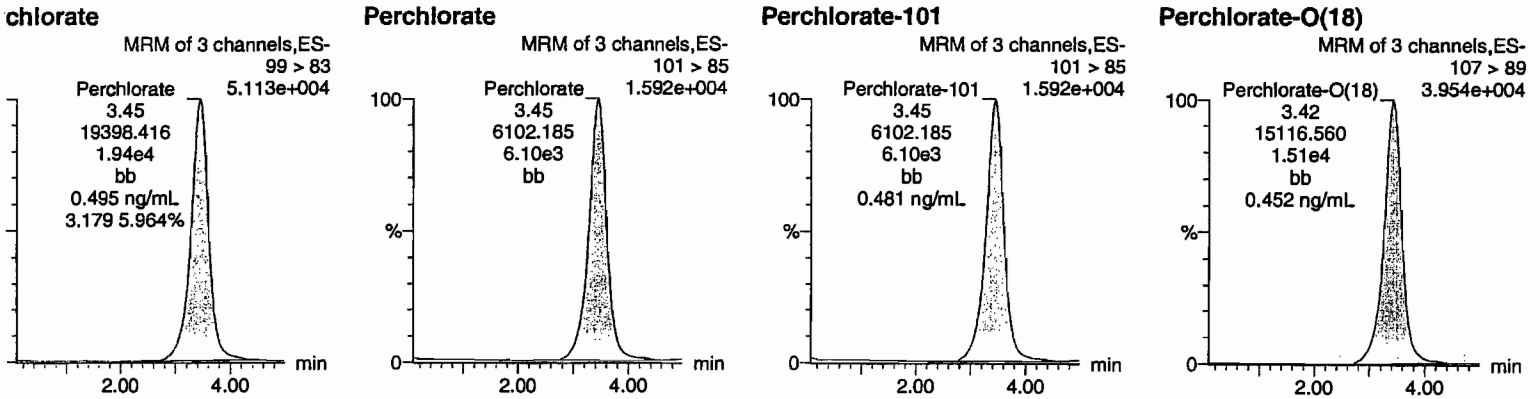

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
_100309-06CCV	Perchlorate	99 > 83	3.45	19398.416	19398.416	bb			0.4954	99.09	-0.91	1156.9...	3.18
_100309-06CCV	Perchlorate-101	101 > 85	3.45	6102.185	6102.185	bb			0.4813	96.26	-3.74	549.321	
_100309-06CCV	Perchlorate-O(18)	107 > 89	3.42	15116.560	15116.560	bb			0.4517	90.35	-9.65	2164.6...	

MATT 3/16/10

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2001

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	97.03	14–MAR–10 17:01	per0314011a
Perchlorate Isotope Ratio		2.72		14–MAR–10 17:01	per0314011a
Perchlorate–101	.05	.06	110.09	14–MAR–10 17:01	per0314011a
Perchlorate	.05	.05	98.74	14–MAR–10 18:46	per0314024a
Perchlorate Isotope Ratio		2.77		14–MAR–10 18:46	per0314024a
Perchlorate–101	.05	.06	110.06	14–MAR–10 18:46	per0314024a
Perchlorate	.05	.05	93.02	14–MAR–10 20:32	per0314037a
Perchlorate Isotope Ratio		2.73		14–MAR–10 20:32	per0314037a
Perchlorate–101	.05	.05	105.06	14–MAR–10 20:32	per0314037a
Perchlorate	.05	.05	98.54	14–MAR–10 22:17	per0314050a
Perchlorate Isotope Ratio		3.35		14–MAR–10 22:17	per0314050a

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2001

Lab Code: GEL

Reporting Units: ug/L

Perchlorate–101	.05	.05	90.8	14–MAR–10 22:17	per0314050a

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antify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

:aset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

:t Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
nted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ne: per0314011a
:e: 14-Mar-2010
ne: 17:01:44
WCL100309-07CRI
l: 1:2,B

Perp
03-15-10

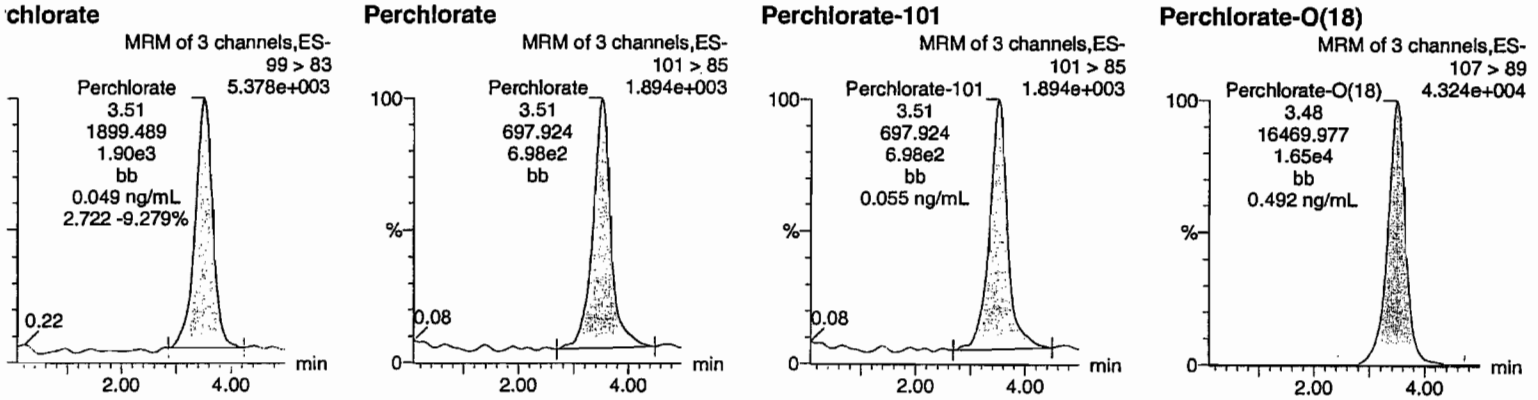

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
L100309-07CRI	Perchlorate	99 > 83	3.51	1899.489	1899.489	bb			0.0485	97.03	-2.97	100.911	2.72
L100309-07CRI	Perchlorate-101	101 > 85	3.51	697.924	697.924	bb			0.0550	110.09	10.09	108.979	
L100309-07CRI	Perchlorate-O(18)	107 > 89	3.48	16469.977	16469.977	bb			0.4922	98.44	-1.56	5729.9...	

MMT
3/16/10

$$\frac{1899.489}{39154.1} = 0.0485$$

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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ıantify Sample Report MassLynx 4.0 SP4
ə GEL Group, LLC Analyst: Charlers W. Wilson

taset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

ɜt Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
nted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

me: per0314024a
te: 14-Mar-2010
ne: 18:46:16
WCL100309-07CRI
l: 1:2,B

PJS
03-15-10

rchlorate

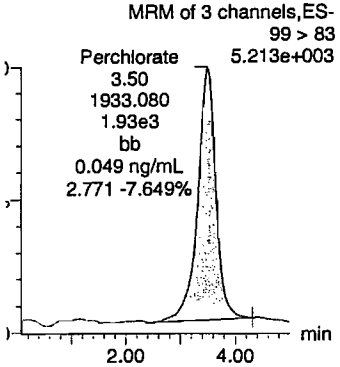

Perchlorate

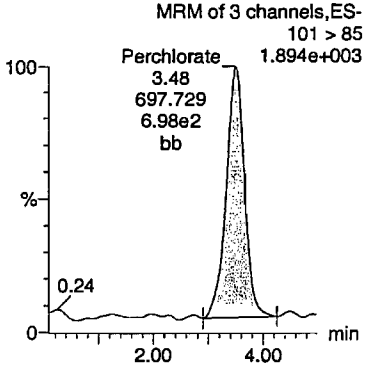

Perchlorate-101

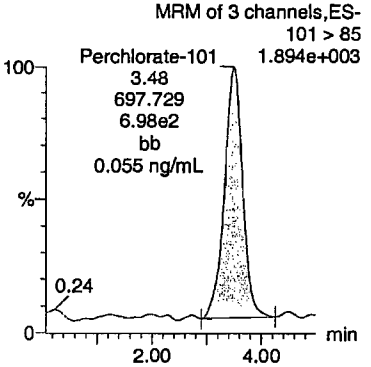

Perchlorate-O(18)

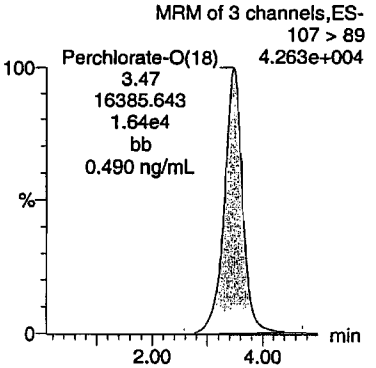

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
L100309-07CRI	Perchlorate	99 > 83	3.50	1933.080	1933.080	bb			0.0494	98.74	-1.26	118.141	2.77
L100309-07CRI	Perchlorate-101	101 > 85	3.48	697.729	697.729	bb			0.0550	110.06	10.06	138.112	
L100309-07CRI	Perchlorate-O(18)	107 > 89	3.47	16385.643	16385.643	bb			0.4897	97.93	-2.07	1621.0...	

MAT
3/16/10

_ SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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ıantify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

ıtaset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

st Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
nted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ıme: per0314037a
ıte: 14-Mar-2010
ne: 20:32:00
: WCL100309-07CRI
ıl: 1:2,B

Perp
03-15-10

rchlorate

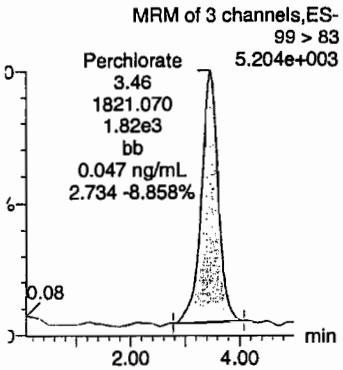

Perchlorate

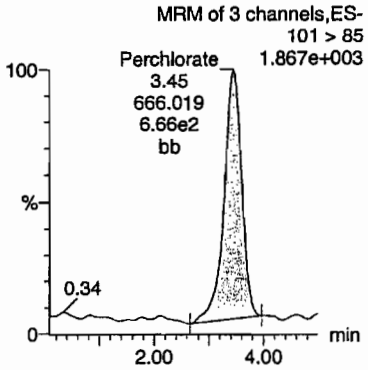

Perchlorate-101

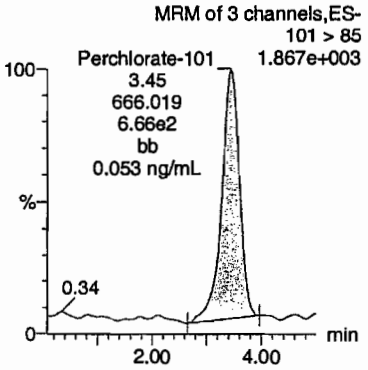

Perchlorate-O(18)

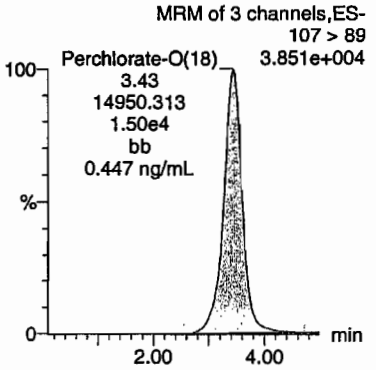

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
:L100309-07CRI	Perchlorate	99 > 83	3.46	1821.070	1821.070	bb			0.0465	93.02	-6.98	81.504	2.73
:L100309-07CRI	Perchlorate-101	101 > 85	3.45	666.019	666.019	bb			0.0525	105.06	5.06	97.852	
:L100309-07CRI	Perchlorate-O(18)	107 > 89	3.43	14950.313	14950.313	bb			0.4468	89.36	-10.64	701.016	

MAT
3/16/10

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Sample Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Charlers W. Wilson

ıtaset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

.st Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
inted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ıme: per0314050a
ıte: 14-Mar-2010
me: 22:17:38
: WCL100309-07CRI
al: 1:2,B

Perc
03-15-10

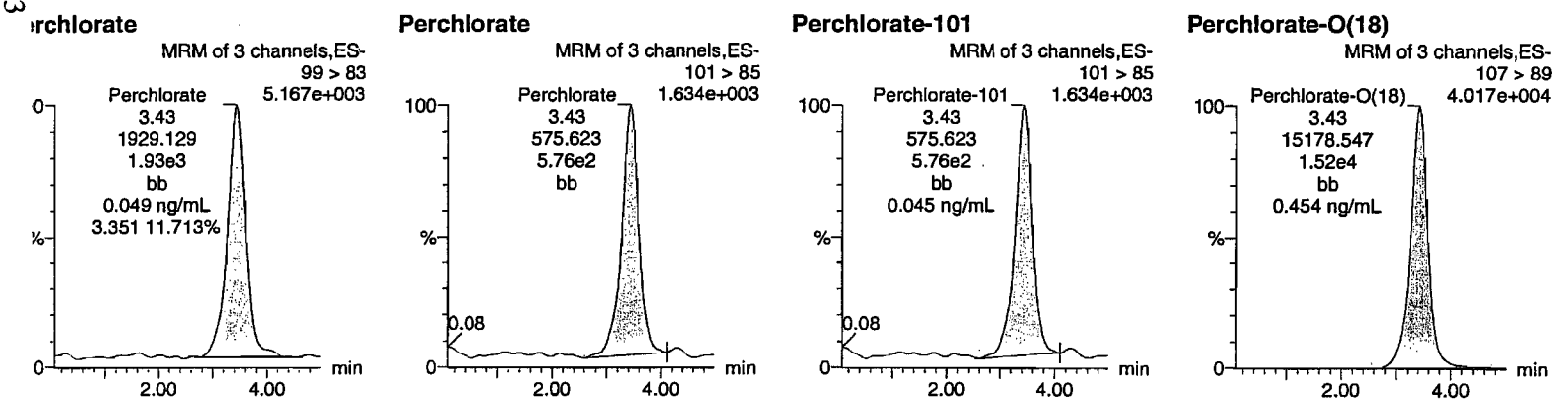

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100309-07CRI	Perchlorate	99 > 83	3.43	1929.129	1929.129	bb			0.0493	98.54	-1.46	139.995	3.35
CL100309-07CRI	Perchlorate-101	101 > 85	3.43	575.623	575.623	bb			0.0454	90.80	-9.20	79.878	
CL100309-07CRI	Perchlorate-O(18)	107 > 89	3.43	15178.547	15178.547	bb			0.4536	90.72	-9.28	3402.8...	

MM 3/16/10

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
MB

Date Received: 06–MAR–10

GEL Job No (SDG): 10–2001

GEL Sample ID: 1202056703

Date Filtered: 06–MAR–10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797–73–0	Perchlorate	.05	.2	0.050	ug/L	U	1	14–MAR–10 21:12	per0314042a
	Perchlorate Isotope Ratio						1	14–MAR–10 21:12	per0314042a
14797–73–0	Perchlorate–101	.05	.2	0.050	ug/L	U	1	14–MAR–10 21:12	per0314042a
	Perchlorate–O(18)			0.418	ug/L		1	14–MAR–10 21:12	per0314042a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

Last Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
Printed: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

Name: per0314042a
Date: 14-Mar-2010
Time: 21:12:22
ID: 1202056703
Vial: 2:1,A

LANL | 959038 | LCQ | MB | 1 |

CWJ 03-15-10

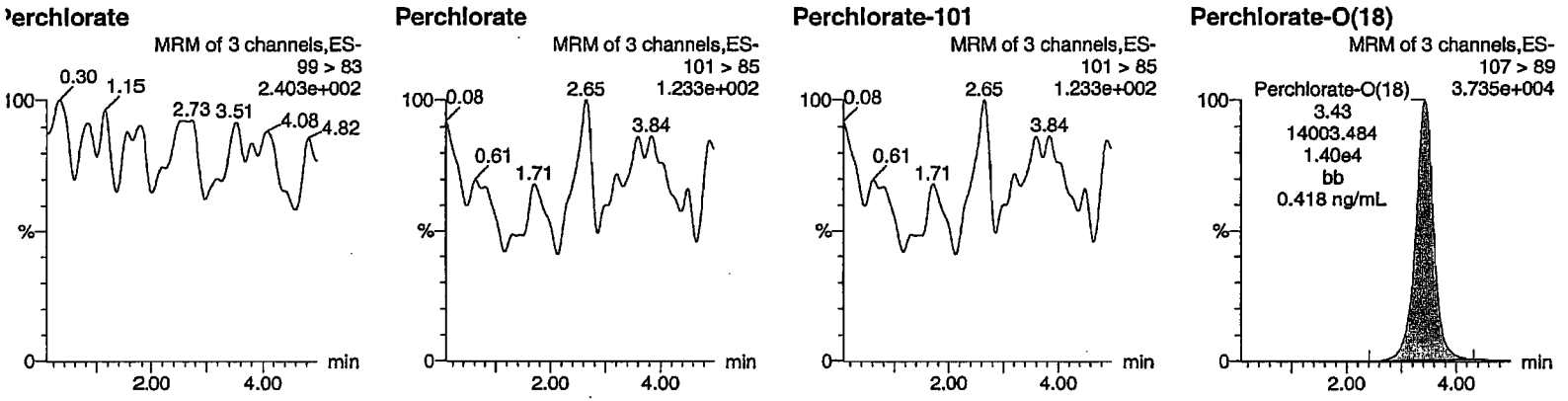

	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202056703	Perchlorate	99 > 83											0.00
202056703	Perchlorate-101	101 > 85											
202056703	Perchlorate-O(18)	107 > 89	3.43	14003.484	14003.484	bb			0.4185	83.70	-16.30	1297.1...	

MATT 3/16/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.

LCS

Date Received: 06–MAR–10

GEL Job No (SDG): 10–2001

GEL Sample ID: 1202056704

Date Filtered: 06–MAR–10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797–73–0	Perchlorate	.05	.2	0.200	ug/L	J	1	14–MAR–10 21:20	per0314043a
	Perchlorate Isotope Ratio			3.13			1	14–MAR–10 21:20	per0314043a
14797–73–0	Perchlorate–101	.05	.2	0.197	ug/L	J	1	14–MAR–10 21:20	per0314043a
	Perchlorate–O(18)			0.464	ug/L		1	14–MAR–10 21:20	per0314043a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

Last Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
Printed: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

Name: per0314043a
Date: 14-Mar-2010
Time: 21:20:36
ID: 1202056704
Vial: 2:1,B

|LAN| 959038 |LZQ |LCS |1|

ano 03-15-10

Perchlorate

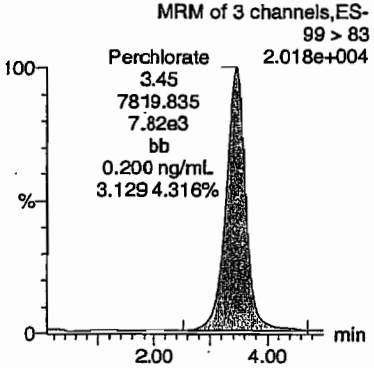

Perchlorate

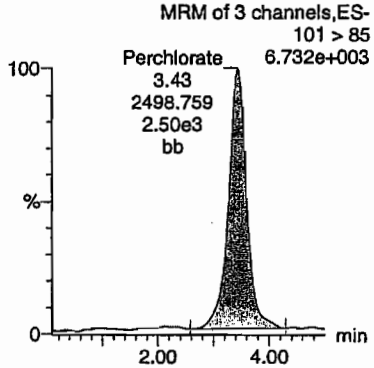

Perchlorate-101

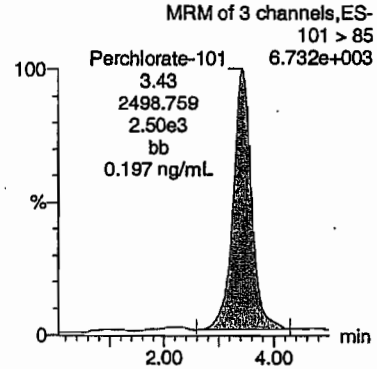

Perchlorate-O(18)

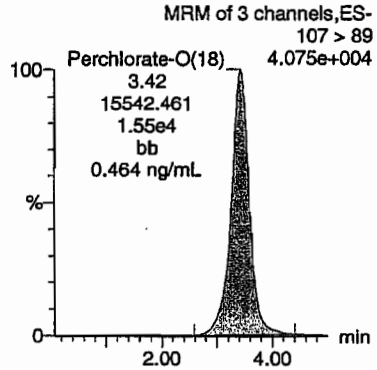

ID	Name	Trace	RT	Area	Response	Flags	ModDate	ModTime	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202056704	Perchlorate	99 > 83	3.45	7819.835	7819.835	bb			0.1997	99.86	-0.14	519.894	3.13
202056704	Perchlorate-101	101 > 85	3.43	2498.759	2498.759	bb			0.1971	98.54	-1.46	412.227	
202056704	Perchlorate-O(18)	107 > 89	3.42	15542.461	15542.461	bb			0.4645	92.90	-7.10	1036.5...	

MM 3/16/10

$$\frac{7819.835}{39154.1} = 0.1997$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 959037 **Verified by:** _____

Analyst: Jareth Shirley

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202056703 MB	06-MAR-2010 16:48:00	10	10	1
1202056704 LCS	06-MAR-2010 16:48:00	10	10	1
247431002	06-MAR-2010 16:48:00	10	10	1
247817001	06-MAR-2010 16:48:00	10	10	1
247829001	06-MAR-2010 16:48:00	10	10	1
248023001	06-MAR-2010 16:48:00	10	10	1
248024002	06-MAR-2010 16:48:00	10	10	1
248024004	06-MAR-2010 16:48:00	10	10	1
248044001	06-MAR-2010 16:48:00	10	10	1
1202056707 MS (248044001)	06-MAR-2010 16:48:00	10	10	1
1202056708 MSD (248044001)	06-MAR-2010 16:48:00	10	10	1
248044003	06-MAR-2010 16:48:00	10	10	1
248044005	06-MAR-2010 16:48:00	10	10	1
248044006	06-MAR-2010 16:48:00	10	10	1
248164001	06-MAR-2010 16:48:00	10	10	1
248164003	06-MAR-2010 16:48:00	10	10	1
1202056709 ICS	06-MAR-2010 16:48:00	10	10	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202056709	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
LCS	1202056704	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
MS	1202056707	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
MSD	1202056708	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1262643	10	mL
RGNT	All	O2SI HPLC Grade Water	1271949	10	mL

Comments:

Desalting cartridges used: 100217-1-H & 100204-1-Ba

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS#2

Date: 03/14/10
Extr. Injection Volume: 20uL
Sequence Number: per031410a
Initial Calibration Date: 03/14/10

Method: EPA 6850-Modified
Int. Std.: UCL100210-01
Mobile Phase Lot#: 1278668, 1271949
Standard-Samp Reagent Lot#:: 1271949

Reviewed BY: MAT
Date: 3/16/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100309-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0314001a	IPB001	CWW	3/14/2010 15:41			1		USE	B
per0314002a	IPB001	CWW	3/14/2010 15:49			1		USE	B
per0314003a	WCLICAL-01	CWW	3/14/2010 15:57			1		USE	I
per0314004a	WCLICAL-02	CWW	3/14/2010 16:05			1		USE	I
per0314005a	WCLICAL-03	CWW	3/14/2010 16:13			1		USE	I
per0314006a	WCLICAL-04	CWW	3/14/2010 16:21			1		USE	I
per0314007a	WCLICAL-05	CWW	3/14/2010 16:29			1		USE	I
per0314008a	IPB002	CWW	3/14/2010 16:37			1		USE	B
per0314009a	WCLICV	CWW	3/14/2010 16:45			1		USE	C
per0314010a	IPB003	CWW	3/14/2010 16:53			1		USE	B
per0314011a	WCLCRI	CWW	3/14/2010 17:01			1		USE	C
per0314012a	1202054222	CWW	3/14/2010 17:09	957943	VARIOUS	1	LANL	USE	S
per0314013a	1202054223	CWW	3/14/2010 17:17	957943	VARIOUS	1	LANL	USE	S
per0314014a	1202054226	CWW	3/14/2010 17:25	957943	VARIOUS	1	LANL	USE	S
per0314015a	247539001	CWW	3/14/2010 17:33	957943	10-1960	1	LANL	USE	S
per0314016a	247539002	CWW	3/14/2010 17:41	957943	10-1960	1	LANL	USE	S
per0314017a	1202054224	CWW	3/14/2010 17:49	957943	10-1960	1	LANL	USE	S
per0314018a	1202054225	CWW	3/14/2010 17:58	957943	10-1960	1	LANL	USE	S
per0314019a	247539003	CWW	3/14/2010 18:06	957943	10-1960	1	LANL	USE	S
per0314020a	247539004	CWW	3/14/2010 18:14	957943	10-1960	1	LANL	USE	S
per0314021a	247539005	CWW	3/14/2010 18:22	957943	10-1960	1	LANL	USE	S
per0314022a	WCLCCV	CWW	3/14/2010 18:30			1		USE	C
per0314023a	IPB004	CWW	3/14/2010 18:38			1		USE	B
per0314024a	WCLCRI	CWW	3/14/2010 18:46			1		USE	C
per0314025a	247539006	CWW	3/14/2010 18:54	957943	10-1960	1	LANL	USE	S
per0314026a	247539007	CWW	3/14/2010 19:02	957943	10-1960	1	LANL	USE	S
per0314027a	247539008	CWW	3/14/2010 19:10	957943	10-1960	1	LANL	USE	S
per0314028a	247539009	CWW	3/14/2010 19:18	957943	10-1960	1	LANL	USE	S
per0314029a	247539010	CWW	3/14/2010 19:26	957943	10-1960	1	LANL	USE	S

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per0314030a	247539011	CWW	3/14/2010 19:34	957943	10-1960	1	LANL	USE	S
per0314031a	247790002	CWW	3/14/2010 19:42	957943	10-1981	1	LANL	USE	S
per0314032a	247790003	CWW	3/14/2010 19:51	957943	10-1981	1	LANL	USE	S
per0314033a	247794001	CWW	3/14/2010 19:59	957943	10-1983-1	1	LANL	USE	S
per0314034a	247794002	CWW	3/14/2010 20:07	957943	10-1983-1	1	LANL	USE	S
per0314035a	WCLCCV	CWW	3/14/2010 20:15			1		USE	C
per0314036a	IPB005	CWW	3/14/2010 20:23			1		USE	B
per0314037a	WCLCRI	CWW	3/14/2010 20:32			1		USE	C
per0314038a	247794003	CWW	3/14/2010 20:40	957943	10-1983-1	1	LANL	USE	S
per0314039a	247794004	CWW	3/14/2010 20:48	957943	10-1983-1	1	LANL	USE	S
per0314040a	247794005	CWW	3/14/2010 20:56	957943	10-1983-1	1	LANL	USE	S
per0314041a	IPB006	CWW	3/14/2010 21:04			1		USE	B
per0314042a	1202056703	CWW	3/14/2010 21:12	959038	VARIOUS	1	LANL	USE	S
per0314043a	1202056704	CWW	3/14/2010 21:20	959038	VARIOUS	1	LANL	USE	S
per0314044a	1202056709	CWW	3/14/2010 21:28	959038	VARIOUS	1	LANL	USE	S
per0314045a	247431002	CWW	3/14/2010 21:36	959038	10-1927	1	LANL	USE	S
per0314046a	247817001	CWW	3/14/2010 21:44	959038	10-2001	1	LANL	USE	S
per0314047a	247829001	CWW	3/14/2010 21:53	959038	10-2006	1	LANL	USE	S
per0314048a	WCLCCV	CWW	3/14/2010 22:01			1		USE	C
per0314049a	IPB007	CWW	3/14/2010 22:09			1		USE	B
per0314050a	WCLCRI	CWW	3/14/2010 22:17			1		USE	C
per0314051a	248023001	CWW	3/14/2010 22:25	959038	10-2040	1	LANL	USE	S
per0314052a	248024002	CWW	3/14/2010 22:34	959038	10-2046	1	LANL	USE	S
per0314053a	248024004	CWW	3/14/2010 22:42	959038	10-2046	1	LANL	USE	S
per0314054a	248044001	CWW	3/14/2010 22:50	959038	10-2058	1	LANL	USE	S
per0314055a	1202056707	CWW	3/14/2010 22:58	959038	10-2058	1	LANL	USE	S
per0314056a	1202056708	CWW	3/14/2010 23:06	959038	10-2058	1	LANL	USE	S
per0314057a	248044003	CWW	3/14/2010 23:14	959038	10-2058	1	LANL	USE	S
per0314058a	248044005	CWW	3/14/2010 23:22	959038	10-2058	1	LANL	USE	S
per0314059a	248044006	CWW	3/14/2010 23:30	959038	10-2058	1	LANL	USE	S
per0314060a	248164001	CWW	3/14/2010 23:38	959038	10-2111	1	LANL	USE	S
per0314061a	WCLCCV	CWW	3/14/2010 23:46			1		USE	C
per0314062a	IPB008	CWW	3/14/2010 23:54			1		USE	B
per0314063a	WCLCRI	CWW	3/15/2010 0:02			1		USE	C
per0314064a	248164003	CWW	3/15/2010 0:10	959038	10-2111	1	LANL	USE	S
per0314065a	IPB009	CWW	3/15/2010 0:19			1		USE	B
per0314066a	1202056594	CWW	3/15/2010 0:27	958963	VARIOUS	1	LANL	USE	S

per0314067a	1202056595	CWW	3/15/2010 0:35	958963	VARIOUS	1	LANL	USE	S
per0314068a	1202056598	CWW	3/15/2010 0:43	958963	VARIOUS	1	LANL	USE	S
per0314069a	248041001	CWW	3/15/2010 0:51	958963	10-2069-1	1	LANL	USE	S
per0314070a	248041002	CWW	3/15/2010 0:59	958963	10-2069-1	1	LANL	USE	S
per0314071a	248041003	CWW	3/15/2010 1:07	958963	10-2069-1	1	LANL	USE	S
per0314072a	248041004	CWW	3/15/2010 1:15	958963	10-2069-1	1	LANL	USE	S
per0314073a	248041005	CWW	3/15/2010 1:24	958963	10-2069-1	1	LANL	USE	S
per0314074a	WCLCCV	CWW	3/15/2010 1:32			1		USE	C
per0314075a	IPB010	CWW	3/15/2010 1:40			1		USE	B
per0314076a	WCLCRI	CWW	3/15/2010 1:48			1		USE	C
per0314077a	248054001	CWW	3/15/2010 1:56	958963	10-2081-1	1	LANL	USE	S
per0314078a	248054002	CWW	3/15/2010 2:04	958963	10-2081-1	1	LANL	USE	S
per0314079a	248054003	CWW	3/15/2010 2:12	958963	10-2081-1	1	LANL	USE	S
per0314080a	248054004	CWW	3/15/2010 2:21	958963	10-2081-1	1	LANL	USE	S
per0314081a	248068001	CWW	3/15/2010 2:29	958963	10-2088	1	LANL	USE	S
per0314082a	248068002	CWW	3/15/2010 2:37	958963	10-2088	1	LANL	USE	S
per0314083a	248110001	CWW	3/15/2010 2:45	958963	10-2090-1	1	LANL	USE	S
per0314084a	1202056596	CWW	3/15/2010 2:53	958963	10-2090-1	1	LANL	USE	S
per0314085a	1202056597	CWW	3/15/2010 3:01	958963	10-2090-1	1	LANL	USE	S
per0314086a	248110002	CWW	3/15/2010 3:09	958963	10-2090-1	1	LANL	USE	S
per0314087a	WCLCCV	CWW	3/15/2010 3:17			1		USE	C
per0314088a	IPB011	CWW	3/15/2010 3:25			1		USE	B
per0314089a	WCLCRI	CWW	3/15/2010 3:34			1		USE	C
per0314090a	248110003	CWW	3/15/2010 3:42	958963	10-2090-1	1	LANL	USE	S
per0314091a	248110004	CWW	3/15/2010 3:50	958963	10-2090-1	1	LANL	USE	S
per0314092a	248110005	CWW	3/15/2010 3:58	958963	10-2090-1	1	LANL	USE	S
per0314093a	248110006	CWW	3/15/2010 4:06	958963	10-2090-1	1	LANL	USE	S
per0314094a	248110007	CWW	3/15/2010 4:14	958963	10-2090-1	1	LANL	USE	S
per0314095a	248110008	CWW	3/15/2010 4:22	958963	10-2090-1	1	LANL	USE	S
per0314096a	WCLCCV	CWW	3/15/2010 4:30			1		USE	C
per0314097a	IPB012	CWW	3/15/2010 4:39			1		USE	B
per0314098a	WCLCRI	CWW	3/15/2010 4:47			1		USE	C
per0314099a	1202056604	CWW	3/15/2010 4:55	958968	VARIOUS	1	LANL	DUSE_RA	S
per0314100a	1202056605	CWW	3/15/2010 5:03	958968	VARIOUS	1	LANL	DUSE_RA	S
per0314101a	1202056613	CWW	3/15/2010 5:11	958968	VARIOUS	1	LANL	DUSE_RA	S
per0314102a	248058001	CWW	3/15/2010 5:19	958968	10-2083	1	LANL	DUSE_RA	S
per0314103a	248058002	CWW	3/15/2010 5:27	958968	10-2083	1	LANL	DUSE_RA	S

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per0314104a	248058003	CWW	3/15/2010 5:35	958968	10-2083	1	LANL	DUSE_RA	S
per0314105a	248058004	CWW	3/15/2010 5:43	958968	10-2083	1	LANL	DUSE_RA	S
per0314106a	WCLCCV	CWW	3/15/2010 5:52			1		DUSE	C
per0314107a	IPB013	CWW	3/15/2010 6:00			1		DUSE	B
per0314108a	WCLCRI	CWW	3/15/2010 6:08			1		DUSE	C
per0314109a	248058005	CWW	3/15/2010 6:16	958968	10-2093	1	LANL	DUSE-RA	S
per0314110a	248058006	CWW	3/15/2010 6:24	958968	10-2093	1	LANL	DUSE-RA	S
per0314111a	248058007	CWW	3/15/2010 6:32	958968	10-2093	1	LANL	DUSE-RA	S
per0314112a	248058008	CWW	3/15/2010 6:40	958968	10-2093	1	LANL	DUSE-RA	S
per0314113a	248065001	CWW	3/15/2010 6:49	958968	10-2086	1	LANL	DUSE-RA	S
per0314114a	1202056606	CWW	3/15/2010 6:57	958968	10-2086	1	LANL	DUSE-RA	S
per0314115a	1202056607	CWW	3/15/2010 7:05	958968	10-2086	1	LANL	DUSE-RA	S
per0314116a	WCLCCV	CWW	3/15/2010 7:13			1		DUSE	C
per0314117a	IPB014	CWW	3/15/2010 7:21			1		DUSE	B
per0314118a	WCLCRI	CWW	3/15/2010 7:29			1		DUSE	C

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

Last Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
Printed: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

Name: per0314055a
Date: 14-Mar-2010
Time: 22:58:06
ID: 1202056707
Vial: 2:2,E

|LANL|954033|L222|MS|1|

WW
03-15-10

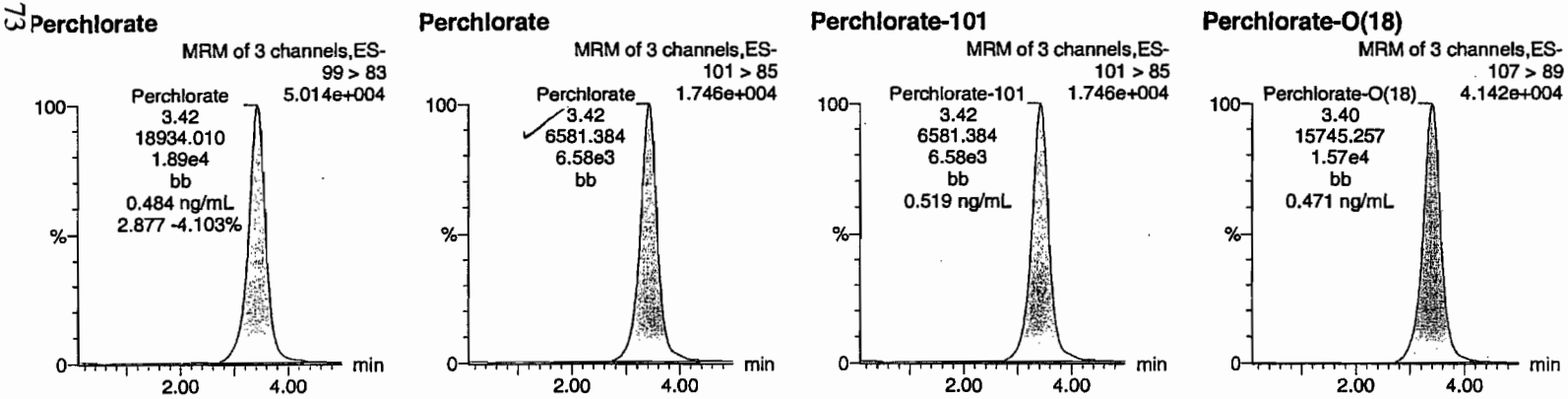

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202056707	Perchlorate	99 > 83	3.42	18934.010	18934.010	bb			0.4836	241.79	141.79	2481.1...	2.88
202056707	Perchlorate-101	101 > 85	3.42	6581.384	6581.384	bb			0.5191	259.54	159.54	2177.8...	
202056707	Perchlorate-O(18)	107 > 89	3.40	15745.257	15745.257	bb			0.4705	94.11	-5.89	2191.4...	

MM 3/16/10

$$\frac{18934.010}{6581.384} = 2.8769$$

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

Last Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
Printed: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

Name: per0314056a
Date: 14-Mar-2010
Time: 23:06:07
ID: 1202056708
Vial: 2:2,F

|LANL|959038|LZQ|MJD|1|

GW 03-15-10

Perchlorate

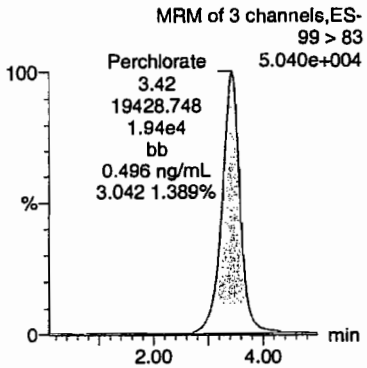

Perchlorate

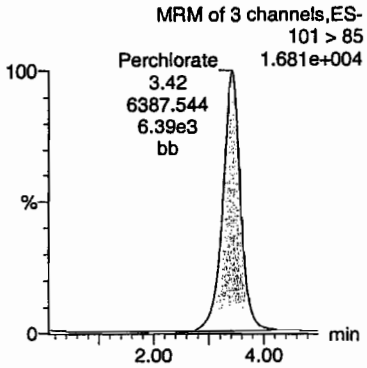

Perchlorate-101

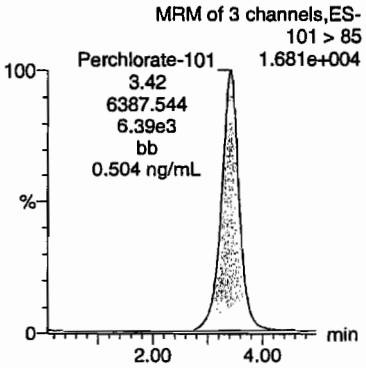

Perchlorate-O(18)

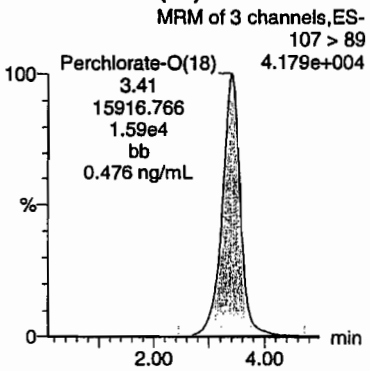

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202056708	Perchlorate	99 > 83	3.42	19428.748	19428.748	bb			0.4962	248.11	148.11	2325.4...	3.04
202056708	Perchlorate-101	101 > 85	3.42	6387.544	6387.544	bb			0.5038	251.89	151.89	1673.1...	
202056708	Perchlorate-O(18)	107 > 89	3.41	15916.766	15916.766	bb			0.4757	95.13	-4.87	3074.5...	

MJD 3/16/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2001

Sample Analysis

Sample ID	**Client ID**
247817001	CAPA-10-13094
247817002	CAPA-10-13095
1202053148	Method Blank (MB) **ICP**
1202053149	Laboratory Control Sample (LCS)
1202053152	247829001(CAPA-10-13497L) Serial Dilution (SD)
1202053150	247829001(CAPA-10-13497D) Sample Duplicate (DUP)
1202053151	247829001(CAPA-10-13497S) Matrix Spike (MS)
1202053155	Method Blank (MB) **ICP-MS**
1202053156	Laboratory Control Sample (LCS)
1202053159	247829001(CAPA-10-13497L) Serial Dilution (SD)
1202053157	247829001(CAPA-10-13497D) Sample Duplicate (DUP)
1202053158	247829001(CAPA-10-13497S) Matrix Spike (MS)
1202055833	Method Blank (MB) **CVAA**
1202055834	Laboratory Control Sample (LCS)
1202055837	247817001(CAPA-10-13094L) Serial Dilution (SD)
1202055835	247817001(CAPA-10-13094D) Sample Duplicate (DUP)
1202055836	247817001(CAPA-10-13094S) Matrix Spike (MS)

Method/Analysis Information

Analytical Batch: 957527, 957529, 958581 and 969065

Prep Batch :	957526, 957528 and 958580
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21, GL-MA-E-010 REV# 23 and GL-GC-E-107 REV# 5
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 DOE-AL, EPA 245.1/245.2 and SM 2340 B
Prep Method :	SW846 3005A and EPA 245.1/245.2 Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Hardness as CaCO3 is calculated from Calcium and Magnesium results.

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

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

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 247829001 (CAPA-10-13497) and 247817001 (CAPA-10-13094).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exception of aluminum, as indicated by the "*" qualifier.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

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

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instruments. Dilutions were required for this SDG in order to minimize suppression due to matrix interferences.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: 809288. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
Total Hardness by Calculation is determined using the results of Total Calcium (Ca) and Total Magnesium (Mg) determined by ICP or ICP-MS.

Hardness = 2.497 (Ca) + 4.118 (Mg)

Please refer to the Total Ca and Total Mg data to validate results appearing on the Hardness Summary sheet. Both results are in the Inorganic/metals section of the package. There is no Batch QC for calculated results, and thus no QC Summary for the Hardness by Calculation Batch. The MDLs and PQLs are calculated using the higher of the two calculated values of Ca or Mg.

Certification Statement

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

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: Kristen Parson **Date:** 4/20/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2001 **METHOD TYPE:** EPA

SAMPLE ID: 247817001 **CLIENT ID:** CAPA-10-13094

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 23-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	030210W3-5
7631-86-9	Silica	72.3	mg/L			P	0.053	1	OPTIMA3	032210-1
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	032210-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100415-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100415-3
7440-39-3	Barium	19.9	ug/L			P	1	1	OPTIMA3	032210-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	032210-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	032210-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100415-3
7440-70-2	Calcium	10700	ug/L			P	50	1	OPTIMA3	032210-1
7440-47-3	Chromium	2.5	ug/L	U		MS	2.5	1	ICPMS5	100415-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	032210-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	032210-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA3	032210-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100415-3
7439-95-4	Magnesium	3020	ug/L			P	85	1	OPTIMA3	032210-1
7439-96-5	Manganese	6.95	ug/L	J		P	2	1	OPTIMA3	032210-1
7439-98-7	Molybdenum	1.02	ug/L			MS	0.1	1	ICPMS5	100415-3
7440-02-0	Nickel	0.5	ug/L	U		MS	0.5	1	ICPMS5	100415-3
7440-09-7	Potassium	1570	ug/L			P	50	1	OPTIMA3	032210-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100415-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100415-3
7440-23-5	Sodium	10200	ug/L			P	100	1	OPTIMA3	032210-1
7440-24-6	Strontium	51.4	ug/L			P	1	1	OPTIMA3	032210-1
7440-28-0	Thallium	0.614	ug/L	J		MS	0.3	1	ICPMS5	100415-3
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	032410-2

METALS
–1–
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10–2001 **METHOD TYPE:** EPA

SAMPLE ID: 247817001 **CLIENT ID:** CAPA–10–13094

CONTRACT: ESHL01000

MATRIX: G **DATE RECEIVED** 23–FEB–10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440–61–1	Uranium	0.394	ug/L			MS	0.05	1	ICPMS5	100416–4
7440–62–2	Vanadium	5.66	ug/L			P	1	1	OPTIMA3	032210–1
7440–66–6	Zinc	3.3	ug/L	U		P	3.3	1	OPTIMA3	032410–2
	Hardness as CaCO3	39.3	mg/L				0.35	1	CALC001	

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2001 **METHOD TYPE:** EPA

SAMPLE ID: 247817002 **CLIENT ID:** CAPA-10-13095

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 23-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	030210W3-5
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	032210-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100415-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100415-3
7440-39-3	Barium	19.4	ug/L			P	1	1	OPTIMA3	032210-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	032210-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	032210-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100415-3
7440-70-2	Calcium	10500	ug/L			P	50	1	OPTIMA3	032210-1
7440-47-3	Chromium	2.79	ug/L	J		MS	2.5	1	ICPMS5	100415-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	032210-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	032210-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA3	032210-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100415-3
7439-95-4	Magnesium	3060	ug/L			P	85	1	OPTIMA3	032210-1
7439-96-5	Manganese	6.37	ug/L	J		P	2	1	OPTIMA3	032210-1
7439-98-7	Molybdenum	0.991	ug/L			MS	0.1	1	ICPMS5	100415-3
7440-02-0	Nickel	0.5	ug/L	U		MS	0.5	1	ICPMS5	100415-3
7440-09-7	Potassium	1540	ug/L			P	50	1	OPTIMA3	032210-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100415-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100415-3
7440-23-5	Sodium	9970	ug/L			P	100	1	OPTIMA3	032210-1
7440-24-6	Strontium	50.2	ug/L			P	1	1	OPTIMA3	032210-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100415-3
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	032410-2
7440-61-1	Uranium	0.354	ug/L			MS	0.05	1	ICPMS5	100416-4

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2001 **METHOD TYPE:** EPA

SAMPLE ID: 247817002 **CLIENT ID:** CAPA-10-13095

CONTRACT: ESHL01000

MATRIX: G **DATE RECEIVED** 23-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	5.64	ug/L			P	1	1	OPTIMA3	032210-1
7440-66-6	Zinc	3.38	ug/L	J		P	3.3	1	OPTIMA3	032410-2
	Hardness as CaCO3	38.7	mg/L				0.35	1	CALC001	

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2001

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.2	ug/L	5	ug/L	104	90.0 – 110.0	AV	02–MAR–10 08:39	030210W3–5
	Aluminum	5010	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	22–MAR–10 07:34	032210–1
	Barium	519	ug/L	500	ug/L	103.9	90.0 – 110.0	P	22–MAR–10 07:34	032210–1
	Beryllium	269	ug/L	250	ug/L	107.4	90.0 – 110.0	P	22–MAR–10 07:34	032210–1
	Boron	527	ug/L	500	ug/L	105.4	90.0 – 110.0	P	22–MAR–10 07:34	032210–1
	Calcium	5010	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	22–MAR–10 07:34	032210–1
	Cobalt	523	ug/L	500	ug/L	104.5	90.0 – 110.0	P	22–MAR–10 07:34	032210–1
	Copper	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	22–MAR–10 07:34	032210–1
	Iron	5170	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	22–MAR–10 07:34	032210–1
	Magnesium	5410	ug/L	5000	ug/L	108.2	90.0 – 110.0	P	22–MAR–10 07:34	032210–1
	Manganese	525	ug/L	500	ug/L	105	90.0 – 110.0	P	22–MAR–10 07:34	032210–1
	Potassium	2510	ug/L	2500	ug/L	100.5	90.0 – 110.0	P	22–MAR–10 07:34	032210–1
	Silica	10500	ug/L	10700	ug/L	97.9	90.0 – 110.0	P	22–MAR–10 07:34	032210–1
	Sodium	2540	ug/L	2500	ug/L	101.8	90.0 – 110.0	P	22–MAR–10 07:34	032210–1
	Strontium	533	ug/L	500	ug/L	106.6	90.0 – 110.0	P	22–MAR–10 07:34	032210–1
	Tin	543	ug/L	500	ug/L	108.7	90.0 – 110.0	P	22–MAR–10 07:34	032210–1
	Vanadium	529	ug/L	500	ug/L	105.8	90.0 – 110.0	P	22–MAR–10 07:34	032210–1
	Tin	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	24–MAR–10 06:23	032410–2
	Zinc	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	24–MAR–10 06:23	032410–2
	Antimony	54.5	ug/L	50	ug/L	108.9	90.0 – 110.0	MS	15–APR–10 22:21	100415–3
	Arsenic	50.6	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	15–APR–10 22:21	100415–3
	Cadmium	50.8	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	15–APR–10 22:21	100415–3
	Chromium	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	15–APR–10 22:21	100415–3
	Lead	52	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	15–APR–10 22:21	100415–3
	Molybdenum	50.1	ug/L	50	ug/L	100.1	90.0 – 110.0	MS	15–APR–10 22:21	100415–3
	Nickel	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	15–APR–10 22:21	100415–3
	Selenium	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	15–APR–10 22:21	100415–3
	Silver	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	15–APR–10 22:21	100415–3
	Thallium	51.9	ug/L	50	ug/L	103.7	90.0 – 110.0	MS	15–APR–10 22:21	100415–3
	Uranium	51.4	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	17–APR–10 02:46	100416–4

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2001

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV01										
	Mercury	5.16	ug/L	5	ug/L	103.1	80.0 – 120.0	AV	02–MAR–10 08:45	030210W3–5
	Aluminum	4860	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	22–MAR–10 08:22	032210–1
	Barium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	22–MAR–10 08:22	032210–1
	Beryllium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	22–MAR–10 08:22	032210–1
	Boron	530	ug/L	500	ug/L	106	90.0 – 110.0	P	22–MAR–10 08:22	032210–1
	Calcium	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	22–MAR–10 08:22	032210–1
	Cobalt	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	22–MAR–10 08:22	032210–1
	Copper	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	22–MAR–10 08:22	032210–1
	Iron	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	22–MAR–10 08:22	032210–1
	Magnesium	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	22–MAR–10 08:22	032210–1
	Manganese	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	22–MAR–10 08:22	032210–1
	Potassium	5290	ug/L	5000	ug/L	105.8	90.0 – 110.0	P	22–MAR–10 08:22	032210–1
	Silica	5320	ug/L	5350	ug/L	99.4	90.0 – 110.0	P	22–MAR–10 08:22	032210–1
	Sodium	10300	ug/L	10000	ug/L	103.4	90.0 – 110.0	P	22–MAR–10 08:22	032210–1
	Strontium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	22–MAR–10 08:22	032210–1
	Tin	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	22–MAR–10 08:22	032210–1
	Vanadium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	22–MAR–10 08:22	032210–1
	Tin	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	24–MAR–10 07:11	032410–2
	Zinc	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	24–MAR–10 07:11	032410–2
	Antimony	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	15–APR–10 22:44	100415–3
	Arsenic	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	15–APR–10 22:44	100415–3
	Cadmium	48.5	ug/L	50	ug/L	97	90.0 – 110.0	MS	15–APR–10 22:44	100415–3
	Chromium	49.1	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	15–APR–10 22:44	100415–3
	Lead	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	15–APR–10 22:44	100415–3
	Molybdenum	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	15–APR–10 22:44	100415–3
	Nickel	49	ug/L	50	ug/L	98	90.0 – 110.0	MS	15–APR–10 22:44	100415–3
	Selenium	48.7	ug/L	50	ug/L	97.5	90.0 – 110.0	MS	15–APR–10 22:44	100415–3
	Silver	50	ug/L	50	ug/L	100	90.0 – 110.0	MS	15–APR–10 22:44	100415–3
	Thallium	49.7	ug/L	50	ug/L	99.4	90.0 – 110.0	MS	15–APR–10 22:44	100415–3
	Uranium	52.5	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	17–APR–10 02:54	100416–4

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2001

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV02										
	Mercury	5.13	ug/L	5	ug/L	102.6	80.0 – 120.0	AV	02–MAR–10 09:08	030210W3–5
	Aluminum	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Barium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Beryllium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Boron	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Calcium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Cobalt	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Copper	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Iron	5160	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Magnesium	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Manganese	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Potassium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Silica	5320	ug/L	5350	ug/L	99.5	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Sodium	10200	ug/L	10000	ug/L	102.3	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Strontium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Tin	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Vanadium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Tin	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	24–MAR–10 07:34	032410–2
	Zinc	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	24–MAR–10 07:34	032410–2
	Antimony	53.8	ug/L	50	ug/L	107.7	90.0 – 110.0	MS	15–APR–10 22:58	100415–3
	Arsenic	51.5	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	15–APR–10 22:58	100415–3
	Cadmium	50.2	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	15–APR–10 22:58	100415–3
	Chromium	51.4	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	15–APR–10 22:58	100415–3
	Lead	52.7	ug/L	50	ug/L	105.4	90.0 – 110.0	MS	15–APR–10 22:58	100415–3
	Molybdenum	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	15–APR–10 22:58	100415–3
	Nickel	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	15–APR–10 22:58	100415–3
	Selenium	50.1	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	15–APR–10 22:58	100415–3
	Silver	51.4	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	15–APR–10 22:58	100415–3
	Thallium	53	ug/L	50	ug/L	106	90.0 – 110.0	MS	15–APR–10 22:58	100415–3
	Uranium	53.5	ug/L	50	ug/L	107	90.0 – 110.0	MS	17–APR–10 03:09	100416–4

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2001

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV03										
	Mercury	5.06	ug/L	5	ug/L	101.1	80.0 – 120.0	AV	02–MAR–10 09:31	030210W3–5
	Aluminum	4880	ug/L	5000	ug/L	97.6	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Barium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Beryllium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Boron	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Calcium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Cobalt	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Copper	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Magnesium	5190	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Manganese	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Potassium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Silica	5370	ug/L	5350	ug/L	100.3	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Sodium	9980	ug/L	10000	ug/L	99.8	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Strontium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Tin	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Vanadium	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Tin	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	24–MAR–10 08:41	032410–2
	Zinc	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	24–MAR–10 08:41	032410–2
	Antimony	51.6	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	15–APR–10 23:39	100415–3
	Arsenic	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	15–APR–10 23:39	100415–3
	Cadmium	48.6	ug/L	50	ug/L	97.2	90.0 – 110.0	MS	15–APR–10 23:39	100415–3
	Chromium	49	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	15–APR–10 23:39	100415–3
	Lead	50	ug/L	50	ug/L	100.1	90.0 – 110.0	MS	15–APR–10 23:39	100415–3
	Molybdenum	47.9	ug/L	50	ug/L	95.8	90.0 – 110.0	MS	15–APR–10 23:39	100415–3
	Nickel	48.8	ug/L	50	ug/L	97.6	90.0 – 110.0	MS	15–APR–10 23:39	100415–3
	Selenium	48.2	ug/L	50	ug/L	96.4	90.0 – 110.0	MS	15–APR–10 23:39	100415–3
	Silver	49.7	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	15–APR–10 23:39	100415–3
	Thallium	50.1	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	15–APR–10 23:39	100415–3
	Uranium	53.4	ug/L	50	ug/L	106.8	90.0 – 110.0	MS	17–APR–10 03:28	100416–4

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2001

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV04										
	Mercury	5.02	ug/L	5	ug/L	100.3	80.0 – 120.0	AV	02–MAR–10 09:54	030210W3–5
	Aluminum	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	22–MAR–10 11:07	032210–1
	Barium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	22–MAR–10 11:07	032210–1
	Beryllium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	22–MAR–10 11:07	032210–1
	Boron	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	22–MAR–10 11:07	032210–1
	Calcium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	22–MAR–10 11:07	032210–1
	Cobalt	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	22–MAR–10 11:07	032210–1
	Copper	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	22–MAR–10 11:07	032210–1
	Iron	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	22–MAR–10 11:07	032210–1
	Magnesium	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	22–MAR–10 11:07	032210–1
	Manganese	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	22–MAR–10 11:07	032210–1
	Potassium	5030	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	22–MAR–10 11:07	032210–1
	Silica	5310	ug/L	5350	ug/L	99.3	90.0 – 110.0	P	22–MAR–10 11:07	032210–1
	Sodium	10000	ug/L	10000	ug/L	100	90.0 – 110.0	P	22–MAR–10 11:07	032210–1
	Strontium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	22–MAR–10 11:07	032210–1
	Tin	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	22–MAR–10 11:07	032210–1
	Vanadium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	22–MAR–10 11:07	032210–1
	Tin	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	24–MAR–10 10:04	032410–2
	Zinc	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	24–MAR–10 10:04	032410–2
	Antimony	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	16–APR–10 00:16	100415–3
	Arsenic	49.2	ug/L	50	ug/L	98.4	90.0 – 110.0	MS	16–APR–10 00:16	100415–3
	Cadmium	48.6	ug/L	50	ug/L	97.2	90.0 – 110.0	MS	16–APR–10 00:16	100415–3
	Chromium	49.4	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	16–APR–10 00:16	100415–3
	Lead	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	16–APR–10 00:16	100415–3
	Molybdenum	48.2	ug/L	50	ug/L	96.3	90.0 – 110.0	MS	16–APR–10 00:16	100415–3
	Nickel	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	16–APR–10 00:16	100415–3
	Selenium	48.3	ug/L	50	ug/L	96.5	90.0 – 110.0	MS	16–APR–10 00:16	100415–3
	Silver	49.5	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	16–APR–10 00:16	100415–3
	Thallium	49.5	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	16–APR–10 00:16	100415–3

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–2001

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV05										
	Mercury	5	ug/L	5	ug/L	99.9	80.0 – 120.0	AV	02–MAR–10 10:17	030210W3–5
	Aluminum	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Barium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Beryllium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Boron	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Calcium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Cobalt	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Copper	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Iron	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Magnesium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Manganese	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Potassium	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Silica	5400	ug/L	5350	ug/L	100.9	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Sodium	9730	ug/L	10000	ug/L	97.3	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Strontium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Tin	500	ug/L	500	ug/L	100	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Vanadium	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Tin	485	ug/L	500	ug/L	97	90.0 – 110.0	P	24–MAR–10 10:59	032410–2
	Zinc	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	24–MAR–10 10:59	032410–2
	Antimony	53.3	ug/L	50	ug/L	106.5	90.0 – 110.0	MS	16–APR–10 00:57	100415–3
	Arsenic	51.1	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	16–APR–10 00:57	100415–3
	Cadmium	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	16–APR–10 00:57	100415–3
	Chromium	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	16–APR–10 00:57	100415–3
	Lead	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	16–APR–10 00:57	100415–3
	Molybdenum	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	16–APR–10 00:57	100415–3
	Nickel	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	16–APR–10 00:57	100415–3
	Selenium	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	16–APR–10 00:57	100415–3
	Silver	51	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	16–APR–10 00:57	100415–3
	Thallium	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	16–APR–10 00:57	100415–3

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–2001

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV06										
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	22–MAR–10 13:04	032210–1
	Barium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	22–MAR–10 13:04	032210–1
	Beryllium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	22–MAR–10 13:04	032210–1
	Boron	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	22–MAR–10 13:04	032210–1
	Calcium	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	22–MAR–10 13:04	032210–1
	Cobalt	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	22–MAR–10 13:04	032210–1
	Copper	500	ug/L	500	ug/L	100	90.0 – 110.0	P	22–MAR–10 13:04	032210–1
	Iron	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	22–MAR–10 13:04	032210–1
	Magnesium	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	22–MAR–10 13:04	032210–1
	Manganese	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	22–MAR–10 13:04	032210–1
	Potassium	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	22–MAR–10 13:04	032210–1
	Silica	5350	ug/L	5350	ug/L	100.1	90.0 – 110.0	P	22–MAR–10 13:04	032210–1
	Sodium	9970	ug/L	10000	ug/L	99.7	90.0 – 110.0	P	22–MAR–10 13:04	032210–1
	Strontium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	22–MAR–10 13:04	032210–1
	Tin	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	22–MAR–10 13:04	032210–1
	Vanadium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	22–MAR–10 13:04	032210–1
	Tin	485	ug/L	500	ug/L	97	90.0 – 110.0	P	24–MAR–10 12:10	032410–2
	Zinc	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	24–MAR–10 12:10	032410–2
	Antimony	51.3	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	16–APR–10 01:48	100415–3
	Arsenic	48.5	ug/L	50	ug/L	97.1	90.0 – 110.0	MS	16–APR–10 01:48	100415–3
	Cadmium	47.3	ug/L	50	ug/L	94.6	90.0 – 110.0	MS	16–APR–10 01:48	100415–3
	Chromium	48.6	ug/L	50	ug/L	97.1	90.0 – 110.0	MS	16–APR–10 01:48	100415–3
	Lead	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	16–APR–10 01:48	100415–3
	Molybdenum	48.1	ug/L	50	ug/L	96.1	90.0 – 110.0	MS	16–APR–10 01:48	100415–3
	Nickel	48.2	ug/L	50	ug/L	96.5	90.0 – 110.0	MS	16–APR–10 01:48	100415–3
	Selenium	48.7	ug/L	50	ug/L	97.5	90.0 – 110.0	MS	16–APR–10 01:48	100415–3
	Silver	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	16–APR–10 01:48	100415–3
	Thallium	49.9	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	16–APR–10 01:48	100415–3
CCV07										
	Aluminum	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	22–MAR–10 14:07	032210–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2001

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Beryllium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Boron	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Calcium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Cobalt	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Copper	500	ug/L	500	ug/L	100	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Iron	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Magnesium	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Potassium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Silica	5370	ug/L	5350	ug/L	100.4	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Sodium	10000	ug/L	10000	ug/L	100.1	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Strontium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Tin	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Vanadium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Tin	485	ug/L	500	ug/L	97	90.0 – 110.0	P	24–MAR–10 13:20	032410–2
	Zinc	485	ug/L	500	ug/L	97	90.0 – 110.0	P	24–MAR–10 13:20	032410–2
	Antimony	51.1	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	16–APR–10 02:39	100415–3
	Arsenic	48.3	ug/L	50	ug/L	96.6	90.0 – 110.0	MS	16–APR–10 02:39	100415–3
	Cadmium	47.3	ug/L	50	ug/L	94.6	90.0 – 110.0	MS	16–APR–10 02:39	100415–3
	Chromium	48.6	ug/L	50	ug/L	97.2	90.0 – 110.0	MS	16–APR–10 02:39	100415–3
	Lead	50.1	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	16–APR–10 02:39	100415–3
	Molybdenum	47.3	ug/L	50	ug/L	94.7	90.0 – 110.0	MS	16–APR–10 02:39	100415–3
	Nickel	48.5	ug/L	50	ug/L	96.9	90.0 – 110.0	MS	16–APR–10 02:39	100415–3
	Selenium	48.9	ug/L	50	ug/L	97.7	90.0 – 110.0	MS	16–APR–10 02:39	100415–3
	Silver	49	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	16–APR–10 02:39	100415–3
	Thallium	48.1	ug/L	50	ug/L	96.2	90.0 – 110.0	MS	16–APR–10 02:39	100415–3
CCV08										
	Aluminum	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Barium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	22–MAR–10 15:03	032210–1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–2001

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Beryllium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Boron	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Calcium	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Cobalt	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Copper	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Iron	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Magnesium	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Potassium	5200	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Silica	5390	ug/L	5350	ug/L	100.8	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Sodium	9910	ug/L	10000	ug/L	99.2	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Strontium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Tin	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
CCV09										
	Aluminum	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Barium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Beryllium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Boron	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Calcium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Cobalt	517	ug/L	500	ug/L	103.3	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Copper	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Magnesium	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Manganese	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Potassium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Silica	5460	ug/L	5350	ug/L	102.1	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Sodium	9770	ug/L	10000	ug/L	97.7	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Strontium	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Tin	500	ug/L	500	ug/L	100	90.0 – 110.0	P	22–MAR–10 16:05	032210–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2001

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
CCV10										
	Aluminum	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Barium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Beryllium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Boron	505	ug/L	500	ug/L	101	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Calcium	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Cobalt	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Copper	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Iron	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Magnesium	5160	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Potassium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Silica	5460	ug/L	5350	ug/L	102	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Sodium	10100	ug/L	10000	ug/L	100.6	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Strontium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Tin	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Vanadium	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
CCV11										
	Aluminum	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Barium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Beryllium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Boron	505	ug/L	500	ug/L	101	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Calcium	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Cobalt	518	ug/L	500	ug/L	103.6	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Copper	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Iron	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Magnesium	5280	ug/L	5000	ug/L	105.6	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Manganese	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Potassium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	22–MAR–10 18:39	032210–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2001

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Silica	5430	ug/L	5350	ug/L	101.5	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Sodium	10200	ug/L	10000	ug/L	101.6	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Strontium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Tin	500	ug/L	500	ug/L	100	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Vanadium	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
CCV12										
	Aluminum	4910	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Barium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Beryllium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Boron	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Calcium	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Cobalt	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Copper	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Iron	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Magnesium	5220	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Manganese	500	ug/L	500	ug/L	100	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Potassium	5130	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Silica	5420	ug/L	5350	ug/L	101.2	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Sodium	9830	ug/L	10000	ug/L	98.3	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Strontium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Tin	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Vanadium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
CCV13										
	Aluminum	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Barium	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Beryllium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Boron	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Calcium	4940	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Cobalt	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	22–MAR–10 20:46	032210–1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–2001

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	4930	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Manganese	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Potassium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Silica	5310	ug/L	5350	ug/L	99.3	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Sodium	9460	ug/L	10000	ug/L	94.6	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Strontium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Tin	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
CCV14										
	Aluminum	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Barium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Beryllium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Boron	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Calcium	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Cobalt	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Copper	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Iron	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Magnesium	5170	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Manganese	500	ug/L	500	ug/L	100	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Potassium	5120	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Silica	5350	ug/L	5350	ug/L	100.1	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Sodium	9610	ug/L	10000	ug/L	96.1	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Strontium	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Tin	490	ug/L	500	ug/L	98	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Vanadium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
CCV15										
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Barium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Beryllium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	22–MAR–10 22:54	032210–1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–2001

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Boron	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Calcium	4990	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Cobalt	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Copper	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Iron	4940	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Magnesium	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Manganese	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Potassium	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Silica	5440	ug/L	5350	ug/L	101.6	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Sodium	9290	ug/L	10000	ug/L	92.9	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Strontium	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Tin	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Vanadium	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
CCV16										
	Aluminum	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Beryllium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Boron	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Calcium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Copper	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Iron	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Magnesium	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Manganese	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Potassium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Silica	5400	ug/L	5350	ug/L	100.9	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Sodium	9470	ug/L	10000	ug/L	94.8	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Strontium	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Tin	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Vanadium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	23–MAR–10 00:04	032210–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2001

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV17										
	Aluminum	4880	ug/L	5000	ug/L	97.6	90.0 – 110.0	P	23–MAR–10 01:15	032210–1
	Barium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	23–MAR–10 01:15	032210–1
	Beryllium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	23–MAR–10 01:15	032210–1
	Boron	500	ug/L	500	ug/L	100	90.0 – 110.0	P	23–MAR–10 01:15	032210–1
	Calcium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	23–MAR–10 01:15	032210–1
	Cobalt	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	23–MAR–10 01:15	032210–1
	Copper	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	23–MAR–10 01:15	032210–1
	Iron	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	23–MAR–10 01:15	032210–1
	Magnesium	5210	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	23–MAR–10 01:15	032210–1
	Manganese	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	23–MAR–10 01:15	032210–1
	Potassium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	23–MAR–10 01:15	032210–1
	Silica	5410	ug/L	5350	ug/L	101.2	90.0 – 110.0	P	23–MAR–10 01:15	032210–1
	Sodium	9740	ug/L	10000	ug/L	97.4	90.0 – 110.0	P	23–MAR–10 01:15	032210–1
	Strontium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	23–MAR–10 01:15	032210–1
	Tin	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	23–MAR–10 01:15	032210–1
	Vanadium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	23–MAR–10 01:15	032210–1
CCV18										
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	23–MAR–10 02:25	032210–1
	Barium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	23–MAR–10 02:25	032210–1
	Beryllium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	23–MAR–10 02:25	032210–1
	Boron	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	23–MAR–10 02:25	032210–1
	Calcium	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	23–MAR–10 02:25	032210–1
	Cobalt	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	23–MAR–10 02:25	032210–1
	Copper	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	23–MAR–10 02:25	032210–1
	Iron	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	23–MAR–10 02:25	032210–1
	Magnesium	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	23–MAR–10 02:25	032210–1
	Manganese	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	23–MAR–10 02:25	032210–1
	Potassium	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	23–MAR–10 02:25	032210–1
	Silica	5390	ug/L	5350	ug/L	100.7	90.0 – 110.0	P	23–MAR–10 02:25	032210–1
	Sodium	9140	ug/L	10000	ug/L	91.4	90.0 – 110.0	P	23–MAR–10 02:25	032210–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2001

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Strontium	474	ug/L	500	ug/L	94.7	90.0 – 110.0	P	23–MAR–10 02:25	032210–1
	Tin	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	23–MAR–10 02:25	032210–1
	Vanadium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	23–MAR–10 02:25	032210–1
CCV19										
	Aluminum	5160	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Barium	529	ug/L	500	ug/L	105.8	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Beryllium	536	ug/L	500	ug/L	107.2	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Boron	521	ug/L	500	ug/L	104.2	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Calcium	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Cobalt	537	ug/L	500	ug/L	107.3	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Copper	523	ug/L	500	ug/L	104.6	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Iron	5210	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Magnesium	5510	ug/L	5000	ug/L	110.2	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Manganese	530	ug/L	500	ug/L	105.9	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Potassium	5400	ug/L	5000	ug/L	108.1	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Silica	5620	ug/L	5350	ug/L	105.1	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Sodium	9730	ug/L	10000	ug/L	97.3	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Strontium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Tin	523	ug/L	500	ug/L	104.5	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Vanadium	534	ug/L	500	ug/L	106.9	90.0 – 110.0	P	23–MAR–10 03:43	032210–1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–2001

Contract: ESHL01000 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.24	ug/L	.2	ug/L	120	70.0 – 130.0	AV	02–MAR–10 08:43	030210W3–5
	Lead	2.37	ug/L	2	ug/L	118.4	70.0 – 130.0	MS	15–APR–10 22:30	100415–3
	Nickel	2.35	ug/L	2	ug/L	117.5	70.0 – 130.0	MS	15–APR–10 22:30	100415–3
	Silver	1.06	ug/L	1	ug/L	105.9	70.0 – 130.0	MS	15–APR–10 22:30	100415–3
	Thallium	1.22	ug/L	1	ug/L	121.8	70.0 – 130.0	MS	15–APR–10 22:30	100415–3
	Arsenic	6.51	ug/L	5	ug/L	130.3	70.0 – 130.0	MS	15–APR–10 22:30	100415–3
	Chromium	11.6	ug/L	10	ug/L	115.6	70.0 – 130.0	MS	15–APR–10 22:30	100415–3
	Molybdenum	.538	ug/L	.5	ug/L	107.6	70.0 – 130.0	MS	15–APR–10 22:30	100415–3
	Selenium	6.04	ug/L	5	ug/L	120.7	70.0 – 130.0	MS	15–APR–10 22:30	100415–3
	Cadmium	1.14	ug/L	1	ug/L	113.5	70.0 – 130.0	MS	15–APR–10 22:30	100415–3
	Antimony	3.2	ug/L	3	ug/L	106.5	70.0 – 130.0	MS	15–APR–10 22:30	100415–3
	Uranium	.21	ug/L	.2	ug/L	105	70.0 – 130.0	MS	17–APR–10 02:49	100416–4
PQL01										
	Silica	215	ug/L	213	ug/L	100.9	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Magnesium	390	ug/L	300	ug/L	130	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Potassium	127	ug/L	150	ug/L	84.9	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Barium	5.19	ug/L	5	ug/L	103.9	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Cobalt	5.37	ug/L	5	ug/L	107.4	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Strontium	4.73	ug/L	5	ug/L	94.5	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Tin	11.1	ug/L	10	ug/L	111.1	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Boron	56.6	ug/L	50	ug/L	113.1	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Calcium	208	ug/L	200	ug/L	104.2	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Vanadium	5.87	ug/L	5	ug/L	117.5	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Copper	10.2	ug/L	10	ug/L	101.5	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Beryllium	5.04	ug/L	5	ug/L	100.8	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Sodium	298	ug/L	300	ug/L	99.4	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Manganese	10.4	ug/L	10	ug/L	104.1	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Iron	123	ug/L	100	ug/L	123.1	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Aluminum	203	ug/L	200	ug/L	101.3	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Zinc	9.8	ug/L	10	ug/L	98	70.0 – 130.0	P	24–MAR–10 06:38	032410–2

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–2001

Contract: ESHL01000 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
	Tin	9.79	ug/L	10	ug/L	97.9	70.0 – 130.0	P	24–MAR–10 06:38	032410–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2001

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 08:41	030210W3–5
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 07:40	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 07:40	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 07:40	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 07:40	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 07:40	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 07:40	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 07:40	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 07:40	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 07:40	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 07:40	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 07:40	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 07:40	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 07:40	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 07:40	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 07:40	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 07:40	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	24–MAR–10 06:30	032410–2
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	24–MAR–10 06:30	032410–2
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	15–APR–10 22:26	100415–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	15–APR–10 22:26	100415–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	15–APR–10 22:26	100415–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	15–APR–10 22:26	100415–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	15–APR–10 22:26	100415–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	15–APR–10 22:26	100415–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	15–APR–10 22:26	100415–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	15–APR–10 22:26	100415–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	15–APR–10 22:26	100415–3
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	15–APR–10 22:26	100415–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	17–APR–10 02:47	100416–4

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2001

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 08:47	030210W3–5
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 08:29	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 08:29	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 08:29	032210–1
	Boron	25.48	+/–50	J	15.0	50.0	LIQ	P	22–MAR–10 08:29	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 08:29	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 08:29	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 08:29	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 08:29	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 08:29	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 08:29	032210–1
	Potassium	94.5	+/–150	J	50.0	150	LIQ	P	22–MAR–10 08:29	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 08:29	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 08:29	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 08:29	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 08:29	032210–1
	Vanadium	1.27	+/–5	J	1.0	5.0	LIQ	P	22–MAR–10 08:29	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	24–MAR–10 07:18	032410–2
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	24–MAR–10 07:18	032410–2
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	15–APR–10 22:49	100415–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	15–APR–10 22:49	100415–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	15–APR–10 22:49	100415–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	15–APR–10 22:49	100415–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	15–APR–10 22:49	100415–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	15–APR–10 22:49	100415–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	15–APR–10 22:49	100415–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	15–APR–10 22:49	100415–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	15–APR–10 22:49	100415–3
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	15–APR–10 22:49	100415–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	17–APR–10 02:56	100416–4

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2001

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB02										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 09:10	030210W3–5
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 08:58	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 08:58	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 08:58	032210–1
	Boron	15.69	+/–50	J	15.0	50.0	LIQ	P	22–MAR–10 08:58	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 08:58	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 08:58	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 08:58	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 08:58	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 08:58	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 08:58	032210–1
	Potassium	65.45	+/–150	J	50.0	150	LIQ	P	22–MAR–10 08:58	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 08:58	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 08:58	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 08:58	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 08:58	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 08:58	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	24–MAR–10 07:41	032410–2
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	24–MAR–10 07:41	032410–2
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	15–APR–10 23:03	100415–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	15–APR–10 23:03	100415–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	15–APR–10 23:03	100415–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	15–APR–10 23:03	100415–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	15–APR–10 23:03	100415–3
	Molybdenum	0.117	+/–.5	J	0.1	0.5	LIQ	MS	15–APR–10 23:03	100415–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	15–APR–10 23:03	100415–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	15–APR–10 23:03	100415–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	15–APR–10 23:03	100415–3
	Thallium	0.373	+/–1	J	0.3	1.0	LIQ	MS	15–APR–10 23:03	100415–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	17–APR–10 03:11	100416–4

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2001

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB03										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 09:33	030210W3–5
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 09:55	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 09:55	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 09:55	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 09:55	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 09:55	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 09:55	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 09:55	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 09:55	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 09:55	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 09:55	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 09:55	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 09:55	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 09:55	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 09:55	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 09:55	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 09:55	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	24–MAR–10 08:48	032410–2
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	24–MAR–10 08:48	032410–2
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	15–APR–10 23:44	100415–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	15–APR–10 23:44	100415–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	15–APR–10 23:44	100415–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	15–APR–10 23:44	100415–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	15–APR–10 23:44	100415–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	15–APR–10 23:44	100415–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	15–APR–10 23:44	100415–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	15–APR–10 23:44	100415–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	15–APR–10 23:44	100415–3
	Thallium	0.51	+/–1	J	0.3	1.0	LIQ	MS	15–APR–10 23:44	100415–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	17–APR–10 03:29	100416–4

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2001

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB04										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 09:56	030210W3–5
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 11:14	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 11:14	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 11:14	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 11:14	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 11:14	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 11:14	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 11:14	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 11:14	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 11:14	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 11:14	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 11:14	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 11:14	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 11:14	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 11:14	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 11:14	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 11:14	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	24–MAR–10 10:11	032410–2
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	24–MAR–10 10:11	032410–2
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	16–APR–10 00:21	100415–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	16–APR–10 00:21	100415–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	16–APR–10 00:21	100415–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	16–APR–10 00:21	100415–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	16–APR–10 00:21	100415–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	16–APR–10 00:21	100415–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	16–APR–10 00:21	100415–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	16–APR–10 00:21	100415–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	16–APR–10 00:21	100415–3
	Thallium	0.72	+/–1	J	0.3	1.0	LIQ	MS	16–APR–10 00:21	100415–3
CCB05										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 10:19	030210W3–5

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2001

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 12:09	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 12:09	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 12:09	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 12:09	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 12:09	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 12:09	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 12:09	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 12:09	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 12:09	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 12:09	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 12:09	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 12:09	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 12:09	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 12:09	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 12:09	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 12:09	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	24–MAR–10 11:06	032410–2
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	24–MAR–10 11:06	032410–2
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	16–APR–10 01:02	100415–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	16–APR–10 01:02	100415–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	16–APR–10 01:02	100415–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	16–APR–10 01:02	100415–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	16–APR–10 01:02	100415–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	16–APR–10 01:02	100415–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	16–APR–10 01:02	100415–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	16–APR–10 01:02	100415–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	16–APR–10 01:02	100415–3
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	16–APR–10 01:02	100415–3
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 13:11	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 13:11	032210–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2001

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 13:11	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 13:11	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 13:11	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 13:11	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 13:11	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 13:11	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 13:11	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 13:11	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 13:11	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 13:11	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 13:11	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 13:11	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 13:11	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 13:11	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	24–MAR–10 12:17	032410–2
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	24–MAR–10 12:17	032410–2
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	16–APR–10 01:53	100415–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	16–APR–10 01:53	100415–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	16–APR–10 01:53	100415–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	16–APR–10 01:53	100415–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	16–APR–10 01:53	100415–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	16–APR–10 01:53	100415–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	16–APR–10 01:53	100415–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	16–APR–10 01:53	100415–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	16–APR–10 01:53	100415–3
	Thallium	0.365	+/–1	J	0.3	1.0	LIQ	MS	16–APR–10 01:53	100415–3
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 14:14	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 14:14	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 14:14	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 14:14	032210–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2001

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 14:14	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 14:14	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 14:14	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 14:14	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 14:14	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 14:14	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 14:14	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 14:14	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 14:14	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 14:14	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 14:14	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 14:14	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	24–MAR–10 13:27	032410–2
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	24–MAR–10 13:27	032410–2
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	16–APR–10 02:43	100415–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	16–APR–10 02:43	100415–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	16–APR–10 02:43	100415–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	16–APR–10 02:43	100415–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	16–APR–10 02:43	100415–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	16–APR–10 02:43	100415–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	16–APR–10 02:43	100415–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	16–APR–10 02:43	100415–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	16–APR–10 02:43	100415–3
	Thallium	0.564	+/–1	J	0.3	1.0	LIQ	MS	16–APR–10 02:43	100415–3
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 15:10	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 15:10	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 15:10	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 15:10	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 15:10	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 15:10	032210–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2001

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 15:10	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 15:10	032210–1
	Magnesium	95.25	+/–300	J	85.0	300	LIQ	P	22–MAR–10 15:10	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 15:10	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 15:10	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 15:10	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 15:10	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 15:10	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 15:10	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 15:10	032210–1
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 16:12	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 16:12	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 16:12	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 16:12	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 16:12	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 16:12	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 16:12	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 16:12	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 16:12	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 16:12	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 16:12	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 16:12	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 16:12	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 16:12	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 16:12	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 16:12	032210–1
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 17:22	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 17:22	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 17:22	032210–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2001

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 17:22	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 17:22	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 17:22	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 17:22	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 17:22	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 17:22	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 17:22	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 17:22	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 17:22	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 17:22	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 17:22	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 17:22	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 17:22	032210–1
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 18:46	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 18:46	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 18:46	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 18:46	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 18:46	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 18:46	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 18:46	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 18:46	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 18:46	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 18:46	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 18:46	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 18:46	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 18:46	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 18:46	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 18:46	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 18:46	032210–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2001

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB12										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 19:50	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 19:50	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 19:50	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 19:50	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 19:50	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 19:50	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 19:50	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 19:50	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 19:50	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 19:50	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 19:50	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 19:50	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 19:50	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 19:50	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 19:50	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 19:50	032210–1
CCB13										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 20:53	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 20:53	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 20:53	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 20:53	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 20:53	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 20:53	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 20:53	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 20:53	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 20:53	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 20:53	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 20:53	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 20:53	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 20:53	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 20:53	032210–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2001

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 20:53	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 20:53	032210–1
CCB14										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 21:57	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 21:57	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 21:57	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 21:57	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 21:57	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 21:57	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 21:57	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 21:57	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 21:57	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 21:57	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 21:57	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 21:57	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 21:57	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 21:57	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 21:57	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 21:57	032210–1
CCB15										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 23:01	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 23:01	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 23:01	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 23:01	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 23:01	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 23:01	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 23:01	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 23:01	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 23:01	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 23:01	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 23:01	032210–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2001

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 23:01	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 23:01	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 23:01	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 23:01	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 23:01	032210–1
CCB16										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	23–MAR–10 00:12	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 00:12	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 00:12	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	23–MAR–10 00:12	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	23–MAR–10 00:12	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 00:12	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	23–MAR–10 00:12	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	23–MAR–10 00:12	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	23–MAR–10 00:12	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	23–MAR–10 00:12	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	23–MAR–10 00:12	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	23–MAR–10 00:12	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	23–MAR–10 00:12	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 00:12	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	23–MAR–10 00:12	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 00:12	032210–1
CCB17										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	23–MAR–10 01:22	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 01:22	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 01:22	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	23–MAR–10 01:22	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	23–MAR–10 01:22	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 01:22	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	23–MAR–10 01:22	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	23–MAR–10 01:22	032210–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2001

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	23–MAR–10 01:22	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	23–MAR–10 01:22	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	23–MAR–10 01:22	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	23–MAR–10 01:22	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	23–MAR–10 01:22	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 01:22	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	23–MAR–10 01:22	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 01:22	032210–1
CCB18										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	23–MAR–10 02:32	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 02:32	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 02:32	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	23–MAR–10 02:32	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	23–MAR–10 02:32	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 02:32	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	23–MAR–10 02:32	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	23–MAR–10 02:32	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	23–MAR–10 02:32	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	23–MAR–10 02:32	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	23–MAR–10 02:32	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	23–MAR–10 02:32	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	23–MAR–10 02:32	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 02:32	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	23–MAR–10 02:32	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 02:32	032210–1
CCB19										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	23–MAR–10 03:50	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 03:50	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 03:50	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	23–MAR–10 03:50	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	23–MAR–10 03:50	032210–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2001

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 03:50	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	23–MAR–10 03:50	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	23–MAR–10 03:50	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	23–MAR–10 03:50	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	23–MAR–10 03:50	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	23–MAR–10 03:50	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	23–MAR–10 03:50	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	23–MAR–10 03:50	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 03:50	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	23–MAR–10 03:50	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 03:50	032210–1

METALS
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PREPARATION BLANK SUMMARY

SDG NO. 10–2001

Contract: ESHL01000

Matrix: GROUND WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202053148								
	Iron	30	ug/L	+/–100	U	P	30	100
	Magnesium	85	ug/L	+/–300	U	P	85	300
	Manganese	2	ug/L	+/–10	U	P	2	10
	Potassium	50	ug/L	+/–150	U	P	50	150
	Silica	0.053	mg/L	+/–0.213	U	P	0.053	0.213
	Sodium	100	ug/L	+/–300	U	P	100	300
	Strontium	1	ug/L	+/–5	U	P	1	5
	Tin	2.5	ug/L	+/–10	U	P	2.5	10
	Vanadium	1	ug/L	+/–5	U	P	1	5
	Copper	3	ug/L	+/–10	U	P	3	10
	Cobalt	1	ug/L	+/–5	U	P	1	5
	Calcium	50	ug/L	+/–200	U	P	50	200
	Boron	15	ug/L	+/–50	U	P	15	50
	Beryllium	1	ug/L	+/–5	U	P	1	5
	Barium	1	ug/L	+/–5	U	P	1	5
	Aluminum	68	ug/L	+/–200	U	P	68	200
	Zinc	3.3	ug/L	+/–10	U	P	3.3	10
1202053155								
	Antimony	0.5	ug/L	+/–3	U	MS	0.5	3
	Arsenic	1.5	ug/L	+/–5	U	MS	1.5	5
	Cadmium	0.11	ug/L	+/–1	U	MS	0.11	1
	Chromium	2.5	ug/L	+/–10	U	MS	2.5	10
	Lead	0.5	ug/L	+/–2	U	MS	0.5	2
	Molybdenum	0.1	ug/L	+/–0.5	U	MS	0.1	0.5
	Nickel	0.5	ug/L	+/–2	U	MS	0.5	2
	Selenium	1	ug/L	+/–5	U	MS	1	5
	Silver	0.2	ug/L	+/–1	U	MS	0.2	1
	Thallium	0.3	ug/L	+/–1	U	MS	0.3	1
	Uranium	0.05	ug/L	+/–0.2	U	MS	0.05	0.2
1202055833								
	Mercury	0.066	ug/L	+/–0.2	U	AV	0.066	0.2

METALS
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Interference Check Sample

SDG No: 10–2001

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	506000	ug/L	500000	ug/L	101	80.0 – 120.0	22–MAR–10 07:55	032210–1
	Barium	0.517	ug/L					22–MAR–10 07:55	032210–1
	Beryllium	–0.385	ug/L					22–MAR–10 07:55	032210–1
	Boron	–1.71	ug/L					22–MAR–10 07:55	032210–1
	Calcium	470000	ug/L	500000	ug/L	94	80.0 – 120.0	22–MAR–10 07:55	032210–1
	Cobalt	–1.17	ug/L					22–MAR–10 07:55	032210–1
	Copper	3.07	ug/L					22–MAR–10 07:55	032210–1
	Iron	185000	ug/L	200000	ug/L	92.6	80.0 – 120.0	22–MAR–10 07:55	032210–1
	Magnesium	487000	ug/L	500000	ug/L	97.4	80.0 – 120.0	22–MAR–10 07:55	032210–1
	Manganese	–1.99	ug/L					22–MAR–10 07:55	032210–1
	Potassium	–178.0	ug/L					22–MAR–10 07:55	032210–1
	Silica	–0.41	ug/L					22–MAR–10 07:55	032210–1
	Sodium	11.1	ug/L					22–MAR–10 07:55	032210–1
	Strontium	0.235	ug/L					22–MAR–10 07:55	032210–1
	Tin	–12.0	ug/L					22–MAR–10 07:55	032210–1
	Vanadium	–1.08	ug/L					22–MAR–10 07:55	032210–1
ICSAB01									
	Aluminum	522000	ug/L	500000	ug/L	104	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Barium	492	ug/L	500	ug/L	98.5	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Beryllium	247	ug/L	250	ug/L	98.6	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Boron	520	ug/L	500	ug/L	104	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Calcium	483000	ug/L	500000	ug/L	96.7	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Cobalt	444	ug/L	500	ug/L	88.8	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Copper	556	ug/L	500	ug/L	111	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Iron	188000	ug/L	200000	ug/L	94	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Magnesium	493000	ug/L	500000	ug/L	98.6	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Manganese	476	ug/L	500	ug/L	95.2	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Potassium	5410	ug/L	5000	ug/L	108	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Silica	11000	ug/L	10700	ug/L	103	80.0 – 120.0	22–MAR–10 08:01	032210–1

METALS
–4–
Interference Check Sample

SDG No: 10–2001

Contract: ESHL01000 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Sodium	5660	ug/L	5000	ug/L	113	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Strontium	518	ug/L	500	ug/L	104	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Tin	480	ug/L	500	ug/L	95.9	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Vanadium	512	ug/L	500	ug/L	102	80.0 – 120.0	22–MAR–10 08:01	032210–1

METALS
–4–
Interference Check Sample

SDG No: 10–2001

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Tin	–6.45	ug/L					24–MAR–10 06:45	032410–2
	Zinc	0.176	ug/L					24–MAR–10 06:45	032410–2
ICSAB01									
	Tin	472	ug/L	500	ug/L	94.5	80.0 – 120.0	24–MAR–10 06:51	032410–2
	Zinc	480	ug/L	500	ug/L	96	80.0 – 120.0	24–MAR–10 06:51	032410–2

METALS
–4–
Interference Check Sample

SDG No: 10–2001

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.138	ug/L					15–APR–10 22:35	100415–3
	Arsenic	0.082	ug/L					15–APR–10 22:35	100415–3
	Cadmium	0.423	ug/L					15–APR–10 22:35	100415–3
	Chromium	2.36	ug/L					15–APR–10 22:35	100415–3
	Lead	0.201	ug/L					15–APR–10 22:35	100415–3
	Molybdenum	1960	ug/L	2000	ug/L	98.1	80.0 – 120.0	15–APR–10 22:35	100415–3
	Nickel	2.87	ug/L					15–APR–10 22:35	100415–3
	Selenium	–1.5	ug/L					15–APR–10 22:35	100415–3
	Silver	0.116	ug/L					15–APR–10 22:35	100415–3
	Thallium	–0.004	ug/L					15–APR–10 22:35	100415–3
ICSAB01									
	Antimony	20.3	ug/L	20	ug/L	102	80.0 – 120.0	15–APR–10 22:40	100415–3
	Arsenic	19.6	ug/L	20	ug/L	97.9	80.0 – 120.0	15–APR–10 22:40	100415–3
	Cadmium	18.8	ug/L	20.44	ug/L	92	80.0 – 120.0	15–APR–10 22:40	100415–3
	Chromium	21.6	ug/L	23.3	ug/L	92.8	80.0 – 120.0	15–APR–10 22:40	100415–3
	Lead	19.2	ug/L	20.19	ug/L	95.3	80.0 – 120.0	15–APR–10 22:40	100415–3
	Molybdenum	2020	ug/L	2000	ug/L	101	80.0 – 120.0	15–APR–10 22:40	100415–3
	Nickel	20.6	ug/L	23.31	ug/L	88.2	80.0 – 120.0	15–APR–10 22:40	100415–3
	Selenium	17.5	ug/L	20	ug/L	87.5	80.0 – 120.0	15–APR–10 22:40	100415–3
	Silver	18.8	ug/L	20	ug/L	94.2	80.0 – 120.0	15–APR–10 22:40	100415–3
	Thallium	18.4	ug/L	20	ug/L	92.1	80.0 – 120.0	15–APR–10 22:40	100415–3

METALS
–4–
Interference Check Sample

SDG No: 10–2001

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	–0.014	ug/L					17–APR–10 02:51	100416–4
ICSAB01									
	Uranium	22.7	ug/L	20	ug/L	114	80.0 – 120.0	17–APR–10 02:52	100416–4

METALS
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Matrix Spike Summary

SDG NO. 10–2001 **Client ID** CAPA–10–13497S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 247829001 **Spike ID:** 1202053151

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75–125	5110		283		5000	96.5		P
Barium	ug/L	75–125	520		24.2		500	99.1		P
Beryllium	ug/L	75–125	498		1	U	500	99.6		P
Boron	ug/L	75–125	499		15	U	500	96.9		P
Calcium	ug/L	75–125	15200		11000		5000	84.6		P
Cobalt	ug/L	75–125	487		1	U	500	97.2		P
Copper	ug/L	75–125	503		3	U	500	101		P
Iron	ug/L	75–125	5010		271		5000	94.7		P
Magnesium	ug/L	75–125	7930		3150		5000	95.6		P
Manganese	ug/L	75–125	499		12.2		500	97.3		P
Potassium	ug/L	75–125	6550		1740		5000	96.2		P
Silica	mg/L		82.7		72.3		10.7	97.4	N/A	P
Sodium	ug/L	75–125	17900		14000		5000	77.5		P
Strontium	ug/L	75–125	508		52.5		500	91.1		P
Tin	ug/L	75–125	458		12.5	U	500	91.5		P
Vanadium	ug/L	75–125	507		6.53		500	100		P
Zinc	ug/L	75–125	466		3.93	J	500	92.5		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2001 **Client ID** CAPA–10–13497S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 247829001 **Spike ID:** 1202053158

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75–125	191		0.5	U	200	95.6		MS
Arsenic	ug/L	75–125	74.4		1.5	U	80	93		MS
Cadmium	ug/L	75–125	9.83		0.11	U	10	98.3		MS
Chromium	ug/L	75–125	47.1		3.25	J	50	87.7		MS
Lead	ug/L	75–125	38.6		0.5	U	40	96.2		MS
Molybdenum	ug/L	75–125	47.2		1.03		50	92.3		MS
Nickel	ug/L	75–125	44.4		0.554	J	50	87.6		MS
Selenium	ug/L	75–125	18.6		1	U	20	92.8		MS
Silver	ug/L	75–125	48.3		0.2	U	50	96.6		MS
Thallium	ug/L	75–125	82.7		0.3	U	100	82.6		MS
Uranium	ug/L	75–125	52.2		0.551		50	103		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2001 **Client ID** CAPA–10–13094S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 247817001 **Spike ID:** 1202055836

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75–125	2.16		0.066	U	2	106		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2001

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAPA–10–13497D

Sample ID: 247829001 **Duplicate ID:** 1202053150 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	+/–200	283		530		60.7	*	P
Barium	ug/L	+/–5	24.2		24.2		.00413		P
Beryllium	ug/L		1	U	1	U			P
Boron	ug/L		15	U	15	U			P
Calcium	ug/L	+/–20%	11000		11100		1.04		P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L	+/–100	271		258		5.05		P
Magnesium	ug/L	+/–20%	3150		3160		.314		P
Manganese	ug/L	+/–10	12.2		12.4		1.2		P
Potassium	ug/L	+/–20%	1740		1770		1.62		P
Silica	mg/L	+/–20%	72.3		72.9		.835		P
Sodium	ug/L	+/–20%	14000		14100		.264		P
Strontium	ug/L	+/–20%	52.5		52.9		.781		P
Tin	ug/L		12.5	U	12.5	U			P
Vanadium	ug/L	+/–5	6.53		6.24		4.53		P
Zinc	ug/L	+/–10	3.93	J	6.43	J	48.2		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2001

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAPA–10–13497D

Sample ID: 247829001 **Duplicate ID:** 1202053157 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		0.5	U	0.5	U			MS
Arsenic	ug/L		1.5	U	1.5	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Chromium	ug/L	+/–10	3.25	J	3.45	J	5.76		MS
Lead	ug/L		0.5	U	0.5	U			MS
Molybdenum	ug/L	+/–.5	1.03		1.08		4.82		MS
Nickel	ug/L	+/–2	0.554	J	0.518	J	6.72		MS
Selenium	ug/L		1	U	1	U			MS
Silver	ug/L		0.2	U	0.2	U			MS
Thallium	ug/L		0.3	U	0.3	U			MS
Uranium	ug/L	+/–.2	0.551		0.545		1.09		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2001

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAPA–10–13094D

Sample ID: 247817001 **Duplicate ID:** 1202055835 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2001

Contract: ESHL01000

Aqueous LCS Source: OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202053149								
	Aluminum	ug/L	5000	4760		95.1	80–120	P
	Barium	ug/L	500	492		98.3	80–120	P
	Beryllium	ug/L	500	492		98.4	80–120	P
	Boron	ug/L	500	478		95.6	80–120	P
	Calcium	ug/L	5000	4780		95.6	80–120	P
	Cobalt	ug/L	500	482		96.3	80–120	P
	Copper	ug/L	500	488		97.5	80–120	P
	Iron	ug/L	5000	4750		95	80–120	P
	Magnesium	ug/L	5000	4960		99.3	80–120	P
	Manganese	ug/L	500	486		97.2	80–120	P
	Potassium	ug/L	5000	4960		99.3	80–120	P
	Silica	mg/L	10.7	10.1		94.3	80–120	P
	Sodium	ug/L	5000	4670		93.4	80–120	P
	Strontium	ug/L	500	470		94	80–120	P
	Tin	ug/L	500	489		97.8	80–120	P
	Vanadium	ug/L	500	494		98.9	80–120	P
	Zinc	ug/L	500	464		92.8	80–120	P

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-2001

Contract: ESHL01000

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202053156								
	Antimony	ug/L	50	50.8		102	80-120	MS
	Arsenic	ug/L	50	47.1		94.3	80-120	MS
	Cadmium	ug/L	50	48.2		96.3	80-120	MS
	Chromium	ug/L	50	48.4		96.7	80-120	MS
	Lead	ug/L	50	49.2		98.3	80-120	MS
	Molybdenum	ug/L	50	48.3		96.6	80-120	MS
	Nickel	ug/L	50	48		95.9	80-120	MS
	Selenium	ug/L	50	47		94	80-120	MS
	Silver	ug/L	50	49.3		98.7	80-120	MS
	Thallium	ug/L	50	43.7		87.4	80-120	MS
	Uranium	ug/L	50	53.3		107	80-120	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2001

Contract: ESHL01000

Aqueous LCS Source: GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202055834								
	Mercury	ug/L	2	2.18		109	85–115	AV

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2001 **Client ID** CAPA–10–13497L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 247829001 **Serial Dilution ID:** 1202053152

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	283		340	U	100			P
Barium	24.2		25.3		4.55			P
Beryllium	1	U	5	U				P
Boron	15	U	75	U				P
Calcium	11000		10800		2.27		10	P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	271		251	J	7.56			P
Magnesium	3150		3160		.317			P
Manganese	12.2		12.1	J	.82			P
Potassium	1740		1790		2.87			P
Silica	72300		73500		1.66		10	P
Sodium	14000		13300		5		10	P
Strontium	52.5		50		4.76		10	P
Tin	2.5	U	12.5	U				P
Vanadium	6.53		6.1	J	6.58			P
Zinc	3.93	J	16.5	U	100			P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2001 **Client ID:** CAPA–10–13497L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 247829001 **Serial Dilution ID:** 1202053159

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	.5	U	2.5	U				MS
Arsenic	1.5	U	7.5	U				MS
Cadmium	.11	U	.55	U				MS
Chromium	3.25	J	12.5	U	100			MS
Lead	.5	U	2.5	U				MS
Molybdenum	1.03		1.02	J	.971			MS
Nickel	.554	J	2.5	U	100			MS
Selenium	1	U	5	U				MS
Silver	.2	U	1	U				MS
Thallium	.3	U	5.3					MS
Uranium	.551		.535	J	2.9			MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2001 **Client ID** CAPA–10–13094L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 247817001 **Serial Dilution ID:** 1202055837

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2001 **Method Type:** P

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	957526						
1202053148	MB for batch 957526	MB	G	01–MAR–10	50mL	50mL	
1202053149	LCS for batch 957526	LCS	G	01–MAR–10	50mL	50mL	
1202053151	CAPA–10–13497S	MS	G	01–MAR–10	50mL	50mL	
1202053150	CAPA–10–13497D	DUP	G	01–MAR–10	50mL	50mL	
247817001	CAPA–10–13094	SAMPLE	G	01–MAR–10	50mL	50mL	
247817002	CAPA–10–13095	SAMPLE	G	01–MAR–10	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2001 **Method Type**: MS

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	957528						
1202053155	MB for batch 957528	MB	G	02-MAR-10	50mL	50mL	
1202053156	LCS for batch 957528	LCS	G	02-MAR-10	50mL	50mL	
1202053158	CAPA-10-13497S	MS	G	02-MAR-10	50mL	50mL	
1202053157	CAPA-10-13497D	DUP	G	02-MAR-10	50mL	50mL	
247817001	CAPA-10-13094	SAMPLE	G	02-MAR-10	50mL	50mL	
247817002	CAPA-10-13095	SAMPLE	G	02-MAR-10	50mL	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2001 **Method Type:** AV

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	958580						
1202055833	MB for batch 958580	MB	G	01–MAR–10	20mL	20mL	
1202055834	LCS for batch 958580	LCS	G	01–MAR–10	20mL	20mL	
1202055836	CAPA–10–13094S	MS	G	01–MAR–10	20mL	20mL	
1202055835	CAPA–10–13094D	DUP	G	01–MAR–10	20mL	20mL	
247817001	CAPA–10–13094	SAMPLE	G	01–MAR–10	20mL	20mL	
247817002	CAPA–10–13095	SAMPLE	G	01–MAR–10	20mL	20mL	

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 15–APR–10 **End Date:** 16–APR–10

Client Sdg: 10–2001
Method MS
Data File: 100415–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	22:07:00		X	X				X		X					X				X	X		X		X			X				
S10	1	22:12:00		X	X				X		X					X				X	X		X		X			X				
S100	1	22:17:00		X	X				X		X					X				X	X		X		X			X				
ICV01	1	22:21:00		X	X				X		X					X				X	X		X		X			X				
ICB01	1	22:26:00		X	X				X		X					X				X	X		X		X			X				
CRDL01	1	22:30:00		X	X				X		X					X				X	X		X		X			X				
ICSA01	1	22:35:00		X	X				X		X					X				X	X		X		X			X				
ICSAB01	1	22:40:00		X	X				X		X					X				X	X		X		X			X				
CCV01	1	22:44:00		X	X				X		X					X				X	X		X		X			X				
CCB01	1	22:49:00		X	X				X		X					X				X	X		X		X			X				
LR01	1	22:53:00		X	X				X		X					X				X	X		X		X			X				
CCV02	1	22:58:00		X	X				X		X					X				X	X		X		X			X				
CCB02	1	23:03:00		X	X				X		X					X				X	X		X		X			X				
ZZZZZZ	1	23:07:00																														
ZZZZZZ	1	23:12:00																														
ZZZZZZ	1	23:16:00																														
ZZZZZZ	1	23:21:00																														
ZZZZZZ	1	23:25:00																														
ZZZZZZ	5	23:30:00																														
ZZZZZZ	1	23:35:00																														
CCV03	1	23:39:00		X	X				X		X					X				X	X		X		X			X				
CCB03	1	23:44:00		X	X				X		X					X				X	X		X		X			X				
ZZZZZZ	1	23:48:00																														
ZZZZZZ	1	23:53:00																														
ZZZZZZ	1	23:58:00																														
ZZZZZZ	1	00:02:00																														
ZZZZZZ	1	00:07:00																														
ZZZZZZ	5	00:11:00																														
CCV04	1	00:16:00		X	X				X		X					X				X	X		X		X			X				
CCB04	1	00:21:00		X	X				X		X					X				X	X		X		X			X				
ZZZZZZ	1	00:25:00																														
ZZZZZZ	1	00:30:00																														
ZZZZZZ	1	00:34:00																														
ZZZZZZ	1	00:39:00																														
ZZZZZZ	1	00:44:00																														
ZZZZZZ	5	00:48:00																														
ZZZZZZ	1	00:53:00																														
CCV05	1	00:57:00		X	X				X		X					X				X	X		X		X			X				
CCB05	1	01:02:00		X	X				X		X					X				X	X		X		X			X				
ZZZZZZ	1	01:07:00																														

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																												
ZZZZZZ	1	01:11:00																												
ZZZZZZ	1	01:16:00																												
ZZZZZZ	1	01:20:00																												
ZZZZZZ	1	01:25:00																												
ZZZZZZ	5	01:30:00																												
ZZZZZZ	1	01:34:00																												
ZZZZZZ	1	01:39:00																												
ZZZZZZ	1	01:43:00																												
CCV06	1	01:48:00		X	X				X		X					X				X	X		X		X			X			
CCB06	1	01:53:00		X	X				X		X					X				X	X		X		X			X			
1202053155	1	01:57:00		X	X				X		X					X				X	X		X		X			X			
1202053156	1	02:02:00		X	X				X		X					X				X	X		X		X			X			
247817001	1	02:06:00		X	X				X		X					X				X	X		X		X			X			
247817002	1	02:11:00		X	X				X		X					X				X	X		X		X			X			
ZZZZZZ	1	02:16:00																												
1202053157	1	02:20:00		X	X				X		X					X				X	X		X		X			X			
1202053158	1	02:25:00		X	X				X		X					X				X	X		X		X			X			
1202053159	5	02:29:00		X	X				X		X					X				X	X		X		X			X			
ZZZZZZ	1	02:34:00																												
CCV07	1	02:39:00		X	X				X		X					X				X	X		X		X			X			
CCB07	1	02:43:00		X	X				X		X					X				X	X		X		X			X			

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 17–APR–10 **End Date:** 17–APR–10

Client Sdg: 10–2001
Method MS
Data File: 100416–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	02:41:00																												X		
S10	1	02:42:00																												X		
S100	1	02:44:00																												X		
ICV01	1	02:46:00																												X		
ICB01	1	02:47:00																												X		
CRDL01	1	02:49:00																												X		
ICSA01	1	02:51:00																												X		
ICSAB01	1	02:52:00																												X		
CCV01	1	02:54:00																												X		
CCB01	1	02:56:00																												X		
ZZZZZZ	1	02:57:00																														
ZZZZZZ	1	02:59:00																														
ZZZZZZ	1	03:01:00																														
ZZZZZZ	1	03:02:00																														
ZZZZZZ	1	03:04:00																														
ZZZZZZ	5	03:06:00																														
ZZZZZZ	1	03:07:00																														
CCV02	1	03:09:00																												X		
CCB02	1	03:11:00																												X		
1202053155	1	03:12:00																												X		
1202053156	1	03:14:00																												X		
247817001	1	03:16:00																												X		
247817002	1	03:17:00																												X		
ZZZZZZ	1	03:19:00																														
1202053157	1	03:21:00																												X		
1202053158	1	03:23:00																												X		
1202053159	5	03:24:00																												X		
ZZZZZZ	1	03:26:00																														
CCV03	1	03:28:00																												X		
CCB03	1	03:29:00																												X		

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 22–MAR–10 **End Date:** 23–MAR–10

Client Sdg: 10–2001
Method P
Data File: 032210–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	07:00:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
S0.1	1	07:08:00				X	X	X				X	X					X				X		X			X		X		X	
S0.5	1	07:14:00	X			X	X	X		X		X	X				X	X				X		X			X		X		X	
SCAL	1	07:21:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
S10	1	07:28:00	X							X					X		X									X						
ICV01	1	07:34:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ICB01	1	07:40:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
PQL01	1	07:48:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ICSA01	1	07:55:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ICSAB01	1	08:01:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
LR01	1	08:08:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
LR02	1	08:15:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCV01	1	08:22:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB01	1	08:29:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
LR03	1	08:44:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCV02	1	08:51:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB02	1	08:58:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	09:06:00																														
ZZZZZZ	1	09:13:00																														
ZZZZZZ	1	09:20:00																														
ZZZZZZ	1	09:27:00																														
ZZZZZZ	1	09:34:00																														
ZZZZZZ	5	09:41:00																														
CCV03	1	09:48:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB03	1	09:55:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	10:03:00																														
ZZZZZZ	1	10:10:00																														
ZZZZZZ	1	10:17:00																														
ZZZZZZ	1	10:24:00																														
ZZZZZZ	1	10:31:00																														
ZZZZZZ	1	10:38:00																														
ZZZZZZ	1	10:45:00																														
ZZZZZZ	1	10:53:00																														
ZZZZZZ	1	11:00:00																														
CCV04	1	11:07:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB04	1	11:14:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	20	11:21:00																														
ZZZZZZ	20	11:28:00																														
ZZZZZZ	20	11:35:00																														
ZZZZZZ	20	11:42:00																														

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																														
ZZZZZZ	100	11:49:00																														
ZZZZZZ	20	11:56:00																														
CCV05	1	12:02:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB05	1	12:09:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	12:22:00																														
ZZZZZZ	1	12:29:00																														
ZZZZZZ	1	12:36:00																														
ZZZZZZ	1	12:43:00																														
ZZZZZZ	1	12:50:00																														
ZZZZZZ	5	12:57:00																														
CCV06	1	13:04:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB06	1	13:11:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	13:18:00																														
ZZZZZZ	1	13:25:00																														
ZZZZZZ	1	13:32:00																														
ZZZZZZ	1	13:39:00																														
ZZZZZZ	1	13:46:00																														
ZZZZZZ	1	13:53:00																														
ZZZZZZ	1	14:00:00																														
CCV07	1	14:07:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB07	1	14:14:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	14:21:00																														
ZZZZZZ	1	14:28:00																														
ZZZZZZ	1	14:35:00																														
ZZZZZZ	1	14:42:00																														
ZZZZZZ	1	14:49:00																														
ZZZZZZ	5	14:56:00																														
CCV08	1	15:03:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB08	1	15:10:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	15:15:00																														
ZZZZZZ	1	15:23:00																														
ZZZZZZ	1	15:30:00																														
ZZZZZZ	1	15:37:00																														
ZZZZZZ	1	15:44:00																														
ZZZZZZ	1	15:51:00																														
ZZZZZZ	5	15:58:00																														
CCV09	1	16:05:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB09	1	16:12:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	16:19:00																														
ZZZZZZ	1	16:26:00																														

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
ZZZZZZ	1	16:33:00																														
ZZZZZZ	1	16:40:00																														
ZZZZZZ	1	16:47:00																														
ZZZZZZ	1	16:54:00																														
ZZZZZZ	1	17:01:00																														
ZZZZZZ	1	17:08:00																														
CCV10	1	17:15:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB10	1	17:22:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	17:30:00																														
ZZZZZZ	1	17:37:00																														
ZZZZZZ	1	17:44:00																														
ZZZZZZ	1	17:51:00																														
ZZZZZZ	1	17:57:00																														
ZZZZZZ	1	18:04:00																														
ZZZZZZ	1	18:11:00																														
ZZZZZZ	1	18:18:00																														
ZZZZZZ	5	18:25:00																														
ZZZZZZ	1	18:32:00																														
CCV11	1	18:39:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB11	1	18:46:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	18:54:00																														
ZZZZZZ	1	19:01:00																														
ZZZZZZ	1	19:08:00																														
ZZZZZZ	1	19:15:00																														
ZZZZZZ	1	19:22:00																														
ZZZZZZ	1	19:29:00																														
ZZZZZZ	5	19:36:00																														
CCV12	1	19:43:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB12	1	19:50:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	19:57:00																														
ZZZZZZ	1	20:04:00																														
ZZZZZZ	1	20:11:00																														
ZZZZZZ	1	20:18:00																														
ZZZZZZ	1	20:25:00																														
ZZZZZZ	1	20:32:00																														
ZZZZZZ	1	20:39:00																														
CCV13	1	20:46:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB13	1	20:53:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	21:01:00																														
ZZZZZZ	1	21:08:00																														

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																													
ZZZZZZ	1	21:15:00																													
ZZZZZZ	1	21:22:00																													
ZZZZZZ	1	21:29:00																													
ZZZZZZ	1	21:36:00																													
ZZZZZZ	1	21:43:00																													
CCV14	1	21:50:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB14	1	21:57:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	22:05:00																													
ZZZZZZ	1	22:12:00																													
ZZZZZZ	1	22:19:00																													
ZZZZZZ	1	22:26:00																													
ZZZZZZ	1	22:33:00																													
ZZZZZZ	1	22:40:00																													
ZZZZZZ	5	22:47:00																													
CCV15	1	22:54:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB15	1	23:01:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	23:08:00																													
ZZZZZZ	1	23:15:00																													
ZZZZZZ	1	23:22:00																													
ZZZZZZ	1	23:29:00																													
ZZZZZZ	1	23:36:00																													
ZZZZZZ	1	23:43:00																													
ZZZZZZ	1	23:50:00																													
ZZZZZZ	1	23:57:00																													
CCV16	1	00:04:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB16	1	00:12:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	00:19:00																													
ZZZZZZ	1	00:26:00																													
ZZZZZZ	1	00:33:00																													
ZZZZZZ	1	00:40:00																													
ZZZZZZ	1	00:47:00																													
ZZZZZZ	1	00:54:00																													
ZZZZZZ	5	01:01:00																													
ZZZZZZ	1	01:08:00																													
CCV17	1	01:15:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB17	1	01:22:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	01:28:00																													
ZZZZZZ	1	01:35:00																													
ZZZZZZ	1	01:42:00																													
ZZZZZZ	1	01:50:00																													

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
ZZZZZZ	1	01:57:00																														
ZZZZZZ	1	02:04:00																														
ZZZZZZ	1	02:11:00																														
ZZZZZZ	1	02:18:00																														
CCV18	1	02:25:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB18	1	02:32:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
1202053148	1	02:39:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
1202053149	1	02:46:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
247817001	1	02:53:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X				X	
247817002	1	03:00:00	X			X	X	X		X		X	X		X		X	X				X				X	X				X	
ZZZZZZ	1	03:07:00																														
1202053150	1	03:15:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X				X	
1202053151	1	03:22:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X				X	
1202053152	5	03:29:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X				X	
ZZZZZZ	1	03:36:00																														
CCV19	1	03:43:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB19	1	03:50:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	

Metals
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Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 24–MAR–10 **End Date:** 24–MAR–10

Client Sdg: 10–2001
Method P
Data File: 032410–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	05:49:00																											X			X
S0.1	1	05:57:00																											X			X
S0.5	1	06:03:00																											X			X
SCAL	1	06:10:00																											X			X
S10	1	06:17:00																														
ICV01	1	06:23:00																											X			X
ICB01	1	06:30:00																											X			X
PQL01	1	06:38:00																											X			X
ICSA01	1	06:45:00																											X			X
ICSAB01	1	06:51:00																											X			X
LR01	1	06:58:00																											X			X
LR02	1	07:05:00																											X			X
CCV01	1	07:11:00																											X			X
CCB01	1	07:18:00																											X			X
LR03	1	07:27:00																											X			X
CCV02	1	07:34:00																											X			X
CCB02	1	07:41:00																											X			X
ZZZZZZ	1	07:48:00																														
ZZZZZZ	1	07:56:00																														
ZZZZZZ	1	08:03:00																														
ZZZZZZ	1	08:10:00																														
ZZZZZZ	1	08:18:00																														
ZZZZZZ	1	08:26:00																														
ZZZZZZ	1	08:33:00																														
CCV03	1	08:41:00																											X			X
CCB03	1	08:48:00																											X			X
ZZZZZZ	1	09:08:00																														
ZZZZZZ	1	09:15:00																														
ZZZZZZ	1	09:22:00																														
ZZZZZZ	1	09:29:00																														
ZZZZZZ	1	09:36:00																														
ZZZZZZ	5	09:43:00																														
ZZZZZZ	10	09:50:00																														
ZZZZZZ	10	09:57:00																														
CCV04	1	10:04:00																											X			X
CCB04	1	10:11:00																											X			X
ZZZZZZ	20	10:18:00																														
ZZZZZZ	20	10:26:00																														
ZZZZZZ	20	10:33:00																														
ZZZZZZ	100	10:39:00																														

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																														
ZZZZZZ	1	10:46:00																														
ZZZZZZ	1	10:53:00																														
CCV05	1	10:59:00																										X			X
CCB05	1	11:06:00																										X			X
1202053148	1	11:13:00																													X
1202053149	1	11:20:00																													X
247817001	1	11:27:00																													X
247817002	1	11:34:00																													X
ZZZZZZ	1	11:41:00																													
1202053150	1	11:48:00																													X
1202053151	1	11:55:00																													X
1202053152	5	12:03:00																													X
CCV06	1	12:10:00																										X			X
CCB06	1	12:17:00																										X			X
ZZZZZZ	1	12:24:00																													
247817001	5	12:31:00																										X			
247817002	5	12:38:00																										X			
ZZZZZZ	5	12:45:00																													
1202053150	5	12:52:00																										X			
1202053151	5	12:59:00																										X			
1202053152	25	13:06:00																										X			
ZZZZZZ	5	13:13:00																													
CCV07	1	13:20:00																										X			X
CCB07	1	13:27:00																										X			X

Metals
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Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: HG3
Start Date: 02–MAR–10 **End Date:** 02–MAR–10

Client Sdg: 10–2001
Method AV
Data File: 030210W3–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	08:28:00																	X													
S0.2	1	08:30:00																	X													
S0.5	1	08:31:00																	X													
S2.0	1	08:33:00																	X													
S5.0	1	08:35:00																	X													
S10.0	1	08:37:00																	X													
ICV01	1	08:39:00																	X													
ICB01	1	08:41:00																	X													
CRDL01	1	08:43:00																	X													
CCV01	1	08:45:00																	X													
CCB01	1	08:47:00																	X													
ZZZZZZ	1	08:49:00																														
ZZZZZZ	1	08:51:00																														
ZZZZZZ	1	08:53:00																														
ZZZZZZ	1	08:55:00																														
ZZZZZZ	1	08:57:00																														
ZZZZZZ	5	08:58:00																														
ZZZZZZ	1	09:00:00																														
ZZZZZZ	1	09:02:00																														
ZZZZZZ	1	09:04:00																														
ZZZZZZ	1	09:06:00																														
CCV02	1	09:08:00																	X													
CCB02	1	09:10:00																	X													
ZZZZZZ	1	09:12:00																														
ZZZZZZ	1	09:14:00																														
ZZZZZZ	1	09:16:00																														
ZZZZZZ	1	09:18:00																														
ZZZZZZ	1	09:20:00																														
ZZZZZZ	1	09:21:00																														
ZZZZZZ	1	09:23:00																														
ZZZZZZ	1	09:25:00																														
ZZZZZZ	5	09:27:00																														
ZZZZZZ	1	09:29:00																														
CCV03	1	09:31:00																	X													
CCB03	1	09:33:00																	X													
ZZZZZZ	1	09:35:00																														
ZZZZZZ	1	09:37:00																														
ZZZZZZ	1	09:39:00																														
ZZZZZZ	1	09:41:00																														
ZZZZZZ	1	09:43:00																														

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																													
ZZZZZZ	1	09:45:00																													
ZZZZZZ	1	09:47:00																													
ZZZZZZ	1	09:48:00																													
1202055833	1	09:50:00															X														
1202055834	1	09:52:00															X														
CCV04	1	09:54:00															X														
CCB04	1	09:56:00															X														
247817001	1	09:58:00															X														
1202055835	1	10:00:00															X														
1202055836	1	10:02:00															X														
1202055837	5	10:04:00															X														
247817002	1	10:06:00															X														
ZZZZZZ	1	10:08:00																													
ZZZZZZ	1	10:10:00																													
ZZZZZZ	1	10:12:00																													
ZZZZZZ	1	10:13:00																													
ZZZZZZ	1	10:15:00																													
CCV05	1	10:17:00															X														
CCB05	1	10:19:00															X														

Standards

METALS
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Instrument Detection Limits

SDG NO. 10–2001

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01–FEB–09
Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01–MAR–10

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		10.0	30
	Antimony		0.5	3
	Arsenic		1.5	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.11	1
	Calcium		20.0	200
	Chromium		2.5	10
	Cobalt		0.1	1
	Iron		10.0	100
	Lead		0.5	2
	Magnesium		5.0	15
	Manganese		1.0	5
	Molybdenum		0.1	.5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Strontium		2.0	10
	Thallium		0.3	1
	Tin		1.0	5
	Uranium		0.05	.2
	Vanadium		3.0	10
LIQUID	Copper		0.14	1
	Zinc		2.0	10

METALS
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Instrument Detection Limits

SDG NO. 10-2001

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
MERCURY				
LIQUID	Mercury		0.066	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2001

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	15.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Molybdenum	202.031	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silica		53.0	213
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Strontium	421.552	1.0	5
	Thallium	190.801	5.0	20
	Tin	189.927	2.5	10
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2001
Effective Dates: 01-FEB-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02697	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.48147	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.21356	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05186	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.18741	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2001
Effective Dates: 01-FEB-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.85580	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.44491	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-29.9151	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.57616
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.60374	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	198.62
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	4.37985	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.36147	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	2.23785	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.36818	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.35273

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2001
Effective Dates: 01-FEB-10

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	48.4946
Antimony	206.836	-0.02515	0.00000	0.00000	0.00000	-20.5057
Arsenic	188.979	-0.23424	0.00000	0.00000	0.00000	2.41902
Barium	233.527	-0.03042	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.16240	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.10329	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01944	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01444	0.00000	0.00000	0.00000	-2.33100
Copper	324.752	-0.05293	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09554	0.00000	0.00000	0.00000	-2.48774
Magnesium	279.077	1.04597	0.00000	0.00000	0.00000	-10.4683
Manganese	257.61	-0.09877	0.00000	0.04089	0.00000	0.00000
Molybdenum	202.031	-0.07763	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80543	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.39429	1.18725
Selenium	196.026	-3.27508	0.00000	0.00000	0.00000	-3.07287
Silica	251.611	0.00000	0.00000	0.00000	0.00000	27.2377
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	12.3082
Silver	328.068	-0.32385	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-4.77918	0.00000
Tin	189.927	-0.01682	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.08168	0.00000	0.00000
Uranium	409.014	0.11400	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.14564	0.00000	-0.01931	0.00000	-14.1293
Zinc	213.857	0.09701	0.00000	0.00000	0.00000	0.00000

METALS
–11–
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10–2001
Effective Dates: 01–FEB–10

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silica
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	–0.84443	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	–0.63547	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.37026	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2001
Effective Dates: 01-FEB-10

Parmname	Wavelength	Silicon	Silver	Strontium	Sulfur	Thallium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2001
Effective Dates: 01-FEB-10

Parmname	Wavelength	Tin	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-15.4932	3.30431	0.00000	-2.81282	0.00000
Arsenic	188.979	0.00000	-8.66313	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-2.20293	0.00000
Beryllium	313.107	0.00000	-2.27027	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	-0.19473	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.39645	-1.41250	0.00000
Cobalt	228.616	0.00000	2.09497	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.55360	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-9.37529	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.81635	-4.04400	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-8.29801	0.00000	1.88584	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.43915	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	1.05947	-1.91382	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
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Linear Ranges

SDG NO. 10–2001

Contract: ESHL01000 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Boron	1000	200	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Molybdenum	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Strontium	1000	1000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Tin	1000	1000	ug/L	01–FEB–10
Uranium	1000	5000	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
-12-
Linear Ranges

SDG NO. 10-2001

Contract: ESHL01000 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01-FEB-10
Antimony	20	10000	ug/L	01-FEB-10
Arsenic	20	10000	ug/L	01-FEB-10
Barium	20	15000	ug/L	01-FEB-10
Beryllium	20	3000	ug/L	01-FEB-10
Boron	20	5000	ug/L	01-FEB-10
Cadmium	20	10000	ug/L	01-FEB-10
Calcium	20	500000	ug/L	01-FEB-10
Chromium	20	25000	ug/L	01-FEB-10
Cobalt	20	10000	ug/L	01-FEB-10
Copper	20	20000	ug/L	01-FEB-10
Iron	20	500000	ug/L	01-FEB-10
Lead	20	25000	ug/L	01-FEB-10
Magnesium	20	500000	ug/L	01-FEB-10
Manganese	20	10000	ug/L	01-FEB-10
Molybdenum	20	10000	ug/L	01-FEB-10
Nickel	20	10000	ug/L	01-FEB-10
Potassium	20	300000	ug/L	01-FEB-10
Selenium	20	10000	ug/L	01-FEB-10
Silica	20	107000	ug/L	01-FEB-10
Silver	20	1000	ug/L	01-FEB-10
Sodium	20	500000	ug/L	01-FEB-10
Strontium	20	10000	ug/L	01-FEB-10
Thallium	20	10000	ug/L	01-FEB-10
Tin	20	10000	ug/L	01-FEB-10
Uranium	20	15000	ug/L	01-FEB-10
Vanadium	20	10000	ug/L	01-FEB-10
Zinc	20	15000	ug/L	01-FEB-10

Raw Data

Calculation Data Logbook

Report run on: April 20, 2010 12:46 PM

Batch Id: 969065 **Sop:** GL-GC-E-107
Employee: Octavia Doster
Instrument: No instrument-calculation method

Samp Id	Sample Type	Parmname	Run Date	Calcium mg/L	Magnesium mg/L	Result	Units
247817001	SAMPLE	Hardness as CaCO3	25-MAR-2010 07:30	10.7	3.02	39.3	mg/L
247817002	SAMPLE	Hardness as CaCO3	25-MAR-2010 07:30	10.5	3.06	38.7	mg/L
247829001	SAMPLE	Hardness as CaCO3	25-MAR-2010 07:30	11.0	3.15	40.4	mg/L
247829002	SAMPLE	Hardness as CaCO3	25-MAR-2010 07:30	10.6	2.98	38.7	mg/L

Calculation: **(2.497 * Calcium) + (4.118 * Magnesium)**

Method: Hg_ReAlign
Result: 042010

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

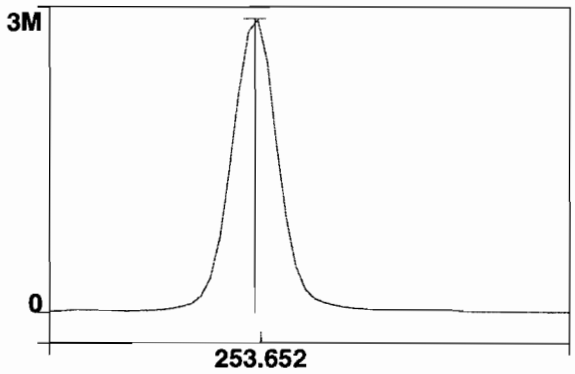

Intensity: 2883138.1 cps
Conc:

1

==========
3/22/2010 06:24:50 Hg ReAlign... Actual peak offset (nm): -0.008
Drift (nm): -0.000 Slit adjustment: -2
==========

==========
Analysis Begun

Start Time: 3/22/2010 07:00:55 **Plasma On Time: 3/22/2010 06:16:18**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\032210.sif
Batch ID:
Results Data Set: 032210
Results Library: C:\pe\Optima3\Results\Results.mdb

==========
Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 3/19/2010 08:52:02**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========
Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 3/22/2010 07:00:56**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

	Net	Corrected	Calib.	Analysis

Repl#	Analyte	Intensity	Intensity	Conc.	Units	Time
1	Sc Radial	4595.5	4595.5	101	%	07:02:49
1	Y RADIAL	4960.0	4960.0	100.9	%	07:02:49
1	Al 396.153Radial†	-79.2	-78.5	[0.00]	ug/L	07:03:09
1	Ca 317.933Radial†	16.9	16.7	[0.00]	ug/L	07:03:09
1	Fe 238.204 Radial†	5.4	5.4	[0.00]	ug/L	07:03:09
1	K 766.490 Radial†	2414.8	2391.9	[0.00]	ug/L	07:02:49
1	Mg 279.077 IEC†	1.8	1.8	[0.00]	ug/L	07:03:09
1	Na 589.592 Radial†	-718.1	-711.3	[0.00]	ug/L	07:02:49
1	Sr 421.552†	58.2	57.7	[0.00]	ug/L	07:02:49
1	Sc 361.383	858218.7	858218.7	101.53	%	07:04:05
1	Y 371.029	723729.9	723729.9	101.51	%	07:04:05
1	Ag 328.068†	165.7	163.2	[0.00]	ug/L	07:04:05
1	As 188.979†	-24.1	-23.8	[0.00]	ug/L	07:04:25
1	B 249.677†	-443.8	-437.2	[0.00]	ug/L	07:04:25
1	Ba 233.527†	13.3	13.1	[0.00]	ug/L	07:04:25
1	Be 313.107†	-4433.5	-4366.8	[0.00]	ug/L	07:04:05
1	Cd 226.502†	-143.5	-141.3	[0.00]	ug/L	07:04:25
1	Co 228.616†	-46.8	-46.0	[0.00]	ug/L	07:04:25
1	Cr 267.716†	70.7	69.6	[0.00]	ug/L	07:04:25
1	Cu 324.752†	5530.0	5446.8	[0.00]	ug/L	07:04:05
1	Mn 257.610†	374.2	368.5	[0.00]	ug/L	07:04:25
1	Mo 202.031†	13.2	13.0	[0.00]	ug/L	07:04:25
1	Ni 231.604†	87.4	86.1	[0.00]	ug/L	07:04:25
1	P 214.914†	201.5	198.5	[0.00]	ug/L	07:04:25
1	Pb 220.353†	-43.7	-43.0	[0.00]	ug/L	07:04:25
1	S 181.975 Axial†	27.4	27.0	[0.00]	ug/L	07:04:25
1	Sb 206.836†	24.7	24.3	[0.00]	ug/L	07:04:25
1	Se 196.026†	-22.1	-21.7	[0.00]	ug/L	07:04:25
1	Si 251.611†	513.0	505.3	[0.00]	ug/L	07:04:25
1	Sn 189.927†	5.9	5.8	[0.00]	ug/L	07:04:25
1	Ti 334.940†	-979.8	-965.1	[0.00]	ug/L	07:04:05
1	Tl 190.801†	-25.4	-25.0	[0.00]	ug/L	07:04:25
1	U 409.014†	-1936.8	-1907.7	[0.00]	ug/L	07:04:05
1	V 292.402†	-1328.4	-1308.4	[0.00]	ug/L	07:04:05
1	Zn 213.857†	610.0	600.8	[0.00]	ug/L	07:04:25
1	SiO2†	535.7	527.6	[0.00]	ug/L	07:05:36
2	Sc Radial	4529.6	4529.6	99.5	%	07:03:14
2	Y RADIAL	4879.7	4879.7	99.24	%	07:03:14
2	Al 396.153Radial†	-61.7	-62.0	[0.00]	ug/L	07:03:34
2	Ca 317.933Radial†	21.7	21.8	[0.00]	ug/L	07:03:34
2	Fe 238.204 Radial†	7.3	7.3	[0.00]	ug/L	07:03:34
2	K 766.490 Radial†	2545.1	2557.6	[0.00]	ug/L	07:03:14
2	Mg 279.077 IEC†	-1.0	-1.0	[0.00]	ug/L	07:03:34
2	Na 589.592 Radial†	-645.9	-649.1	[0.00]	ug/L	07:03:14
2	Sr 421.552†	17.7	17.8	[0.00]	ug/L	07:03:14
2	Sc 361.383	833972.0	833972.0	98.659	%	07:04:31
2	Y 371.029	703797.5	703797.5	98.717	%	07:04:31
2	Ag 328.068†	133.7	135.5	[0.00]	ug/L	07:04:31
2	As 188.979†	-22.7	-23.0	[0.00]	ug/L	07:04:51
2	B 249.677†	-453.9	-460.1	[0.00]	ug/L	07:04:51
2	Ba 233.527†	3.7	3.7	[0.00]	ug/L	07:04:51
2	Be 313.107†	-4461.2	-4521.8	[0.00]	ug/L	07:04:31
2	Cd 226.502†	-150.1	-152.1	[0.00]	ug/L	07:04:51
2	Co 228.616†	-59.3	-60.1	[0.00]	ug/L	07:04:51
2	Cr 267.716†	65.6	66.5	[0.00]	ug/L	07:04:51
2	Cu 324.752†	5490.2	5564.8	[0.00]	ug/L	07:04:31
2	Mn 257.610†	401.9	407.3	[0.00]	ug/L	07:04:51
2	Mo 202.031†	18.6	18.8	[0.00]	ug/L	07:04:51
2	Ni 231.604†	62.9	63.8	[0.00]	ug/L	07:04:51
2	P 214.914†	196.9	199.6	[0.00]	ug/L	07:04:51
2	Pb 220.353†	-59.4	-60.2	[0.00]	ug/L	07:04:51
2	S 181.975 Axial†	33.8	34.3	[0.00]	ug/L	07:04:51
2	Sb 206.836†	26.6	27.0	[0.00]	ug/L	07:04:51
2	Se 196.026†	-20.7	-21.0	[0.00]	ug/L	07:04:51
2	Si 251.611†	513.8	520.8	[0.00]	ug/L	07:04:51
2	Sn 189.927†	3.8	3.9	[0.00]	ug/L	07:04:51
2	Ti 334.940†	-1088.0	-1102.8	[0.00]	ug/L	07:04:31
2	Tl 190.801†	-32.3	-32.7	[0.00]	ug/L	07:04:51
2	U 409.014†	-1905.2	-1931.0	[0.00]	ug/L	07:04:31
2	V 292.402†	-1399.8	-1418.9	[0.00]	ug/L	07:04:31

2	Zn 213.857†	599.9	608.1	[0.00] ug/L	07:04:51
2	SiO2†	540.0	547.4	[0.00] ug/L	07:05:56
3	Sc Radial	4530.8	4530.8	99.5 %	07:03:39
3	Y RADIAL	4911.1	4911.1	99.88 %	07:03:39
3	Al 396.153Radial†	-78.7	-79.0	[0.00] ug/L	07:03:59
3	Ca 317.933Radial†	16.5	16.5	[0.00] ug/L	07:03:59
3	Fe 238.204 Radial†	7.2	7.2	[0.00] ug/L	07:03:59
3	K 766.490 Radial†	2569.8	2581.8	[0.00] ug/L	07:03:39
3	Mg 279.077 IEC†	0.4	0.4	[0.00] ug/L	07:03:59
3	Na 589.592 Radial†	-789.2	-792.9	[0.00] ug/L	07:03:39
3	Sr 421.552†	36.7	36.9	[0.00] ug/L	07:03:39
3	Sc 361.383	843726.4	843726.4	99.813 %	07:04:56
3	Y 371.029	711310.8	711310.8	99.771 %	07:04:56
3	Ag 328.068†	171.1	171.4	[0.00] ug/L	07:04:56
3	As 188.979†	-19.4	-19.5	[0.00] ug/L	07:05:16
3	B 249.677†	-444.2	-445.1	[0.00] ug/L	07:05:16
3	Ba 233.527†	19.1	19.1	[0.00] ug/L	07:05:16
3	Be 313.107†	-4475.0	-4483.4	[0.00] ug/L	07:04:56
3	Cd 226.502†	-151.7	-152.0	[0.00] ug/L	07:05:16
3	Co 228.616†	-54.6	-54.7	[0.00] ug/L	07:05:16
3	Cr 267.716†	74.3	74.4	[0.00] ug/L	07:05:16
3	Cu 324.752†	5556.0	5566.4	[0.00] ug/L	07:04:56
3	Mn 257.610†	382.3	383.0	[0.00] ug/L	07:05:16
3	Mo 202.031†	6.9	6.9	[0.00] ug/L	07:05:16
3	Ni 231.604†	67.9	68.0	[0.00] ug/L	07:05:16
3	P 214.914†	203.5	203.9	[0.00] ug/L	07:05:16
3	Pb 220.353†	-43.4	-43.5	[0.00] ug/L	07:05:16
3	S 181.975 Axial†	28.4	28.4	[0.00] ug/L	07:05:16
3	Sb 206.836†	25.0	25.0	[0.00] ug/L	07:05:16
3	Se 196.026†	-23.8	-23.8	[0.00] ug/L	07:05:16
3	Si 251.611†	529.4	530.4	[0.00] ug/L	07:05:16
3	Sn 189.927†	1.5	1.5	[0.00] ug/L	07:05:16
3	Ti 334.940†	-1066.8	-1068.8	[0.00] ug/L	07:04:56
3	Tl 190.801†	-29.5	-29.6	[0.00] ug/L	07:05:16
3	U 409.014†	-1987.1	-1990.8	[0.00] ug/L	07:04:56
3	V 292.402†	-1322.3	-1324.8	[0.00] ug/L	07:04:56
3	Zn 213.857†	602.9	604.0	[0.00] ug/L	07:05:16
3	SiO2†	533.0	534.0	[0.00] ug/L	07:06:16

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	845305.7	12200.22	1.44%	100.00	%
Sc Radial	4552.0	37.71	0.83%	100	%
Y 371.029	712946.0	10066.31	1.41%	100.00	%
Y RADIAL	4916.9	40.49	0.82%	100.0	%
Ag 328.068†	156.7	18.82	12.01%	[0.00]	ug/L
Al 396.153Radial†	-73.2	9.67	13.22%	[0.00]	ug/L
As 188.979†	-22.1	2.29	10.39%	[0.00]	ug/L
B 249.677†	-447.4	11.64	2.60%	[0.00]	ug/L
Ba 233.527†	12.0	7.77	64.96%	[0.00]	ug/L
Be 313.107†	-4457.3	80.70	1.81%	[0.00]	ug/L
Ca 317.933Radial†	18.4	2.98	16.22%	[0.00]	ug/L
Cd 226.502†	-148.5	6.18	4.16%	[0.00]	ug/L
Co 228.616†	-53.6	7.09	13.23%	[0.00]	ug/L
Cr 267.716†	70.2	4.00	5.71%	[0.00]	ug/L
Cu 324.752†	5526.0	68.60	1.24%	[0.00]	ug/L
Fe 238.204 Radial†	6.6	1.08	16.34%	[0.00]	ug/L
K 766.490 Radial†	2510.5	103.35	4.12%	[0.00]	ug/L
Mg 279.077 IEC†	0.4	1.43	355.77%	[0.00]	ug/L
Mn 257.610†	386.3	19.61	5.08%	[0.00]	ug/L
Mo 202.031†	12.9	5.98	46.37%	[0.00]	ug/L
Na 589.592 Radial†	-717.8	72.11	10.05%	[0.00]	ug/L
Ni 231.604†	72.6	11.84	16.30%	[0.00]	ug/L
P 214.914†	200.7	2.85	1.42%	[0.00]	ug/L
Pb 220.353†	-48.9	9.81	20.05%	[0.00]	ug/L
S 181.975 Axial†	29.9	3.88	12.96%	[0.00]	ug/L
Sb 206.836†	25.4	1.38	5.43%	[0.00]	ug/L
Se 196.026†	-22.2	1.48	6.67%	[0.00]	ug/L
Si 251.611†	518.8	12.67	2.44%	[0.00]	ug/L

Sn 189.927†	3.7	2.17	58.48%	[0.00] ug/L
Sr 421.552†	37.5	19.97	53.33%	[0.00] ug/L
Ti 334.940†	-1045.5	71.74	6.86%	[0.00] ug/L
Tl 190.801†	-29.1	3.88	13.34%	[0.00] ug/L
U 409.014†	-1943.2	42.86	2.21%	[0.00] ug/L
V 292.402†	-1350.7	59.60	4.41%	[0.00] ug/L
Zn 213.857†	604.3	3.65	0.60%	[0.00] ug/L
SiO2†	536.3	10.07	1.88%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 3/22/2010 07:08:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4583.1	4583.1	101	%	07:10:25
1	Y RADIAL	4932.9	4932.9	100.3	%	07:10:25
1	K 766.490 Radial†	7773.4	5210.2	[1000]	ug/L	07:10:20
1	Sr 421.552†	12841.7	12717.1	[100]	ug/L	07:10:25
1	Sc 361.383	851944.0	851944.0	100.79	%	07:10:52
1	Y 371.029	715790.9	715790.9	100.40	%	07:10:52
1	Ag 328.068†	20076.2	19763.1	[100]	ug/L	07:10:52
1	As 188.979†	154.6	175.5	[100]	ug/L	07:11:12
1	B 249.677†	3059.8	3483.4	[100]	ug/L	07:10:52
1	Ba 233.527†	10937.9	10840.7	[100]	ug/L	07:10:52
1	Be 313.107†	234804.5	237432.3	[100]	ug/L	07:10:52
1	Cd 226.502†	6655.0	6751.7	[100]	ug/L	07:11:12
1	Co 228.616†	3845.5	3869.1	[100]	ug/L	07:11:12
1	Cr 267.716†	7687.5	7557.4	[100]	ug/L	07:10:52
1	Cu 324.752†	36507.3	30696.8	[100]	ug/L	07:10:52
1	Mn 257.610†	78808.4	77808.1	[100]	ug/L	07:10:52
1	Mo 202.031†	1135.6	1113.9	[100]	ug/L	07:11:12
1	Ni 231.604†	3236.0	3138.2	[100]	ug/L	07:11:12
1	P 214.914†	855.0	647.6	[500]	ug/L	07:11:12
1	Pb 220.353†	601.5	645.7	[100]	ug/L	07:11:12
1	S 181.975 Axial†	147.0	116.0	[200]	ug/L	07:11:12
1	Sb 206.836†	267.1	239.6	[100]	ug/L	07:11:12
1	Se 196.026†	104.3	125.6	[100]	ug/L	07:11:12
1	Si 251.611†	13831.0	13204.4	[500]	ug/L	07:10:52
1	Sn 189.927†	436.2	429.1	[100]	ug/L	07:11:12
1	Ti 334.940†	58104.1	58696.9	[100]	ug/L	07:10:52
1	Tl 190.801†	231.8	259.1	[100]	ug/L	07:11:12
1	U 409.014†	1672.5	3602.7	[100]	ug/L	07:10:52
1	V 292.402†	11455.0	12716.4	[100]	ug/L	07:10:52
1	Zn 213.857†	9057.1	8382.2	[100]	ug/L	07:10:52
1	SiO2†	13566.3	12924.2	[1069.5]	ug/L	07:12:08
2	Sc Radial	4638.2	4638.2	102	%	07:10:35
2	Y RADIAL	4975.9	4975.9	101.2	%	07:10:35
2	K 766.490 Radial†	7814.6	5159.0	[1000]	ug/L	07:10:30
2	Sr 421.552†	13024.0	12744.6	[100]	ug/L	07:10:35
2	Sc 361.383	850300.0	850300.0	100.59	%	07:11:17
2	Y 371.029	714976.6	714976.6	100.28	%	07:11:17
2	Ag 328.068†	20183.1	19907.8	[100]	ug/L	07:11:17
2	As 188.979†	158.9	180.1	[100]	ug/L	07:11:37
2	B 249.677†	3045.7	3475.2	[100]	ug/L	07:11:17
2	Ba 233.527†	10945.8	10869.6	[100]	ug/L	07:11:17
2	Be 313.107†	234652.0	237731.1	[100]	ug/L	07:11:17
2	Cd 226.502†	6690.1	6799.3	[100]	ug/L	07:11:37
2	Co 228.616†	3865.5	3896.4	[100]	ug/L	07:11:37
2	Cr 267.716†	7678.1	7562.8	[100]	ug/L	07:11:17
2	Cu 324.752†	36427.7	30687.7	[100]	ug/L	07:11:17
2	Mn 257.610†	79000.1	78149.8	[100]	ug/L	07:11:17
2	Mo 202.031†	1134.5	1115.0	[100]	ug/L	07:11:37
2	Ni 231.604†	3259.4	3167.7	[100]	ug/L	07:11:37
2	P 214.914†	850.3	644.6	[500]	ug/L	07:11:37
2	Pb 220.353†	597.6	642.9	[100]	ug/L	07:11:37
2	S 181.975 Axial†	148.9	118.1	[200]	ug/L	07:11:37
2	Sb 206.836†	260.9	233.9	[100]	ug/L	07:11:37
2	Se 196.026†	104.2	125.8	[100]	ug/L	07:11:37
2	Si 251.611†	13893.7	13293.2	[500]	ug/L	07:11:17
2	Sn 189.927†	447.0	440.6	[100]	ug/L	07:11:37
2	Ti 334.940†	58117.9	58822.0	[100]	ug/L	07:11:17
2	Tl 190.801†	221.0	248.8	[100]	ug/L	07:11:37
2	U 409.014†	1821.7	3754.1	[100]	ug/L	07:11:17

2	V 292.402†	11368.6	12652.5	[100]	ug/L	07:11:17
2	Zn 213.857†	9069.4	8411.8	[100]	ug/L	07:11:17
2	SiO2†	13629.0	13012.6	[1069.5]	ug/L	07:12:13
3	Sc Radial	4555.9	4555.9	100	%	07:10:45
3	Y RADIAL	4886.6	4886.6	99.38	%	07:10:45
3	K 766.490 Radial†	7641.3	5124.4	[1000]	ug/L	07:10:40
3	Sr 421.552†	12778.1	12729.8	[100]	ug/L	07:10:45
3	Sc 361.383	829319.2	829319.2	98.109	%	07:11:43
3	Y 371.029	697614.6	697614.6	97.850	%	07:11:43
3	Ag 328.068†	19653.8	19875.9	[100]	ug/L	07:11:43
3	As 188.979†	154.5	179.6	[100]	ug/L	07:12:03
3	B 249.677†	2977.5	3482.3	[100]	ug/L	07:11:43
3	Ba 233.527†	10665.2	10858.8	[100]	ug/L	07:11:43
3	Be 313.107†	228434.5	237295.3	[100]	ug/L	07:11:43
3	Cd 226.502†	6667.5	6944.5	[100]	ug/L	07:12:03
3	Co 228.616†	3895.0	4023.7	[100]	ug/L	07:12:03
3	Cr 267.716†	7495.7	7570.0	[100]	ug/L	07:11:43
3	Cu 324.752†	35659.0	30820.4	[100]	ug/L	07:11:43
3	Mn 257.610†	76909.5	78005.8	[100]	ug/L	07:11:43
3	Mo 202.031†	1133.9	1142.8	[100]	ug/L	07:12:03
3	Ni 231.604†	3262.2	3252.4	[100]	ug/L	07:12:03
3	P 214.914†	869.5	685.6	[500]	ug/L	07:12:03
3	Pb 220.353†	613.2	673.9	[100]	ug/L	07:12:03
3	S 181.975 Axial†	144.0	116.9	[200]	ug/L	07:12:03
3	Sb 206.836†	261.1	240.7	[100]	ug/L	07:12:03
3	Se 196.026†	110.1	134.4	[100]	ug/L	07:12:03
3	Si 251.611†	13503.1	13244.5	[500]	ug/L	07:11:43
3	Sn 189.927†	445.1	450.0	[100]	ug/L	07:12:03
3	Ti 334.940†	56479.8	58614.1	[100]	ug/L	07:11:43
3	Tl 190.801†	222.2	255.6	[100]	ug/L	07:12:03
3	U 409.014†	1679.3	3654.8	[100]	ug/L	07:11:43
3	V 292.402†	11054.1	12617.9	[100]	ug/L	07:11:43
3	Zn 213.857†	8825.7	8391.5	[100]	ug/L	07:11:43
3	SiO2†	13798.4	13528.1	[1069.5]	ug/L	07:12:18

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	843854.4	12614.64	1.49%	99.828	%
Sc Radial	4592.4	41.92	0.91%	101	%
Y 371.029	709460.7	10267.06	1.45%	99.511	%
Y RADIAL	4931.8	44.64	0.91%	100.3	%
Ag 328.068†	19848.9	76.07	0.38%	[100]	ug/L
As 188.979†	178.4	2.49	1.40%	[100]	ug/L
B 249.677†	3480.3	4.46	0.13%	[100]	ug/L
Ba 233.527†	10856.4	14.57	0.13%	[100]	ug/L
Be 313.107†	237486.2	222.83	0.09%	[100]	ug/L
Cd 226.502†	6831.8	100.43	1.47%	[100]	ug/L
Co 228.616†	3929.7	82.52	2.10%	[100]	ug/L
Cr 267.716†	7563.4	6.32	0.08%	[100]	ug/L
Cu 324.752†	30735.0	74.12	0.24%	[100]	ug/L
K 766.490 Radial†	5164.5	43.17	0.84%	[1000]	ug/L
Mn 257.610†	77987.9	171.57	0.22%	[100]	ug/L
Mo 202.031†	1123.9	16.40	1.46%	[100]	ug/L
Ni 231.604†	3186.1	59.32	1.86%	[100]	ug/L
P 214.914†	659.3	22.85	3.47%	[500]	ug/L
Pb 220.353†	654.2	17.14	2.62%	[100]	ug/L
S 181.975 Axial†	117.0	1.08	0.92%	[200]	ug/L
Sb 206.836†	238.1	3.63	1.52%	[100]	ug/L
Se 196.026†	128.6	5.02	3.90%	[100]	ug/L
Si 251.611†	13247.4	44.49	0.34%	[500]	ug/L
Sn 189.927†	439.9	10.47	2.38%	[100]	ug/L
Sr 421.552†	12730.5	13.76	0.11%	[100]	ug/L
Ti 334.940†	58711.0	104.69	0.18%	[100]	ug/L
Tl 190.801†	254.5	5.26	2.07%	[100]	ug/L
U 409.014†	3670.5	76.95	2.10%	[100]	ug/L
V 292.402†	12662.3	50.00	0.39%	[100]	ug/L
Zn 213.857†	8395.2	15.14	0.18%	[100]	ug/L
SiO2†	13155.0	326.14	2.48%	[1069.5]	ug/L

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Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/22/2010 07:14:29**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4541.4	4541.4	99.8	%	07:16:22
1	Y RADIAL	4869.4	4869.4	99.03	%	07:16:22
1	Al 396.153Radial†	4886.4	4971.0	[5000]	ug/L	07:16:22
1	Ca 317.933Radial†	2676.4	2664.3	[5000]	ug/L	07:16:42
1	K 766.490 Radial†	28686.5	26243.0	[5000]	ug/L	07:16:22
1	Mg 279.077 IEC†	128.3	128.2	[5000]	ug/L	07:16:42
1	Sr 421.552†	63104.6	63214.4	[500]	ug/L	07:16:22
1	Sc 361.383	853249.6	853249.6	100.94	%	07:17:39
1	Y 371.029	710125.8	710125.8	99.604	%	07:17:39
1	Ag 328.068†	95511.6	94465.7	[500]	ug/L	07:17:44
1	As 188.979†	881.6	895.5	[500]	ug/L	07:18:04
1	B 249.677†	16967.5	17257.0	[500]	ug/L	07:17:44
1	Ba 233.527†	52263.8	51765.3	[500]	ug/L	07:17:44
1	Be 313.107†	1184596.8	1178025.4	[500]	ug/L	07:17:39
1	Cd 226.502†	33823.5	33657.0	[500]	ug/L	07:17:44
1	Co 228.616†	19155.5	19030.7	[500]	ug/L	07:17:44
1	Cr 267.716†	36671.9	36260.3	[500]	ug/L	07:17:44
1	Cu 324.752†	154365.2	147402.0	[500]	ug/L	07:17:44
1	Mn 257.610†	379724.3	375802.8	[500]	ug/L	07:17:39
1	Mo 202.031†	5549.3	5484.7	[500]	ug/L	07:18:04
1	Ni 231.604†	15694.2	15475.4	[500]	ug/L	07:17:44
1	P 214.914†	3506.2	3272.9	[2500]	ug/L	07:18:04
1	Pb 220.353†	3184.1	3203.3	[500]	ug/L	07:18:04
1	S 181.975 Axial†	583.5	548.2	[1000]	ug/L	07:18:04
1	Sb 206.836†	1207.2	1170.5	[500]	ug/L	07:18:04
1	Se 196.026†	585.6	602.3	[500]	ug/L	07:18:04
1	Si 251.611†	65963.8	64830.9	[2500]	ug/L	07:17:44
1	Sn 189.927†	2167.5	2143.6	[500]	ug/L	07:18:04
1	Ti 334.940†	276108.0	274582.9	[500]	ug/L	07:17:44
1	Tl 190.801†	1249.4	1266.9	[500]	ug/L	07:18:04
1	U 409.014†	15152.4	16954.5	[500]	ug/L	07:17:44
1	V 292.402†	60591.9	61378.5	[500]	ug/L	07:17:44
1	Zn 213.857†	41106.7	40119.7	[500]	ug/L	07:17:44
1	SiO2†	65961.7	64811.3	[5347.5]	ug/L	07:19:12
2	Sc Radial	4494.6	4494.6	98.7	%	07:16:47
2	Y RADIAL	4817.5	4817.5	97.98	%	07:16:47
2	Al 396.153Radial†	4853.0	4988.2	[5000]	ug/L	07:16:47
2	Ca 317.933Radial†	2651.9	2667.4	[5000]	ug/L	07:17:07
2	K 766.490 Radial†	28517.2	26370.8	[5000]	ug/L	07:16:47
2	Mg 279.077 IEC†	126.3	127.5	[5000]	ug/L	07:17:07
2	Sr 421.552†	62647.6	63409.9	[500]	ug/L	07:16:47
2	Sc 361.383	848336.1	848336.1	100.36	%	07:18:10
2	Y 371.029	704167.7	704167.7	98.769	%	07:18:10
2	Ag 328.068†	97043.1	96539.8	[500]	ug/L	07:18:15
2	As 188.979†	879.6	898.6	[500]	ug/L	07:18:35
2	B 249.677†	17289.1	17674.8	[500]	ug/L	07:18:15
2	Ba 233.527†	53042.9	52841.4	[500]	ug/L	07:18:15
2	Be 313.107†	1178156.6	1178405.3	[500]	ug/L	07:18:10
2	Cd 226.502†	34367.1	34392.8	[500]	ug/L	07:18:15
2	Co 228.616†	19445.5	19429.6	[500]	ug/L	07:18:15
2	Cr 267.716†	37138.5	36935.7	[500]	ug/L	07:18:15
2	Cu 324.752†	156880.9	150794.5	[500]	ug/L	07:18:15
2	Mn 257.610†	379152.1	377411.4	[500]	ug/L	07:18:10
2	Mo 202.031†	5553.9	5521.2	[500]	ug/L	07:18:35
2	Ni 231.604†	15943.3	15813.8	[500]	ug/L	07:18:15
2	P 214.914†	3533.4	3320.2	[2500]	ug/L	07:18:35
2	Pb 220.353†	3175.3	3212.9	[500]	ug/L	07:18:35
2	S 181.975 Axial†	579.7	547.7	[1000]	ug/L	07:18:35
2	Sb 206.836†	1191.9	1162.2	[500]	ug/L	07:18:35

2	Se 196.026†	574.2	594.3	[500]	ug/L	07:18:35
2	Si 251.611†	67157.3	66398.5	[2500]	ug/L	07:18:15
2	Sn 189.927†	2163.1	2151.7	[500]	ug/L	07:18:35
2	Ti 334.940†	280375.0	280419.0	[500]	ug/L	07:18:15
2	Tl 190.801†	1236.0	1260.7	[500]	ug/L	07:18:35
2	U 409.014†	15497.4	17385.3	[500]	ug/L	07:18:15
2	V 292.402†	61458.9	62590.1	[500]	ug/L	07:18:15
2	Zn 213.857†	41729.1	40975.7	[500]	ug/L	07:18:15
2	SiO2†	67524.7	66747.2	[5347.5]	ug/L	07:19:17
3	Sc Radial	4573.1	4573.1	100	%	07:17:12
3	Y RADIAL	4888.3	4888.3	99.42	%	07:17:12
3	Al 396.153Radial†	4927.1	4977.5	[5000]	ug/L	07:17:12
3	Ca 317.933Radial†	2676.4	2645.6	[5000]	ug/L	07:17:32
3	K 766.490 Radial†	28966.9	26322.5	[5000]	ug/L	07:17:12
3	Mg 279.077 IEC†	127.0	126.0	[5000]	ug/L	07:17:32
3	Sr 421.552†	63660.3	63328.5	[500]	ug/L	07:17:12
3	Sc 361.383	857933.3	857933.3	101.49	%	07:18:41
3	Y 371.029	712532.5	712532.5	99.942	%	07:18:41
3	Ag 328.068†	96199.2	94626.6	[500]	ug/L	07:18:46
3	As 188.979†	862.6	871.9	[500]	ug/L	07:19:06
3	B 249.677†	17149.4	17344.4	[500]	ug/L	07:18:46
3	Ba 233.527†	52633.4	51846.7	[500]	ug/L	07:18:46
3	Be 313.107†	1190675.9	1177608.1	[500]	ug/L	07:18:41
3	Cd 226.502†	34012.6	33660.5	[500]	ug/L	07:18:46
3	Co 228.616†	19255.8	19026.0	[500]	ug/L	07:18:46
3	Cr 267.716†	36899.3	36286.0	[500]	ug/L	07:18:46
3	Cu 324.752†	155186.9	147376.7	[500]	ug/L	07:18:46
3	Mn 257.610†	382342.5	376328.6	[500]	ug/L	07:18:41
3	Mo 202.031†	5470.4	5377.0	[500]	ug/L	07:19:06
3	Ni 231.604†	15755.8	15451.3	[500]	ug/L	07:18:46
3	P 214.914†	3473.4	3221.6	[2500]	ug/L	07:19:06
3	Pb 220.353†	3130.2	3133.1	[500]	ug/L	07:19:06
3	S 181.975 Axial†	570.0	531.7	[1000]	ug/L	07:19:06
3	Sb 206.836†	1177.4	1134.6	[500]	ug/L	07:19:06
3	Se 196.026†	576.9	590.6	[500]	ug/L	07:19:06
3	Si 251.611†	66472.8	64975.6	[2500]	ug/L	07:18:46
3	Sn 189.927†	2142.9	2107.6	[500]	ug/L	07:19:06
3	Ti 334.940†	277919.8	274874.7	[500]	ug/L	07:18:46
3	Tl 190.801†	1234.4	1245.3	[500]	ug/L	07:19:06
3	U 409.014†	15343.3	17060.6	[500]	ug/L	07:18:46
3	V 292.402†	61040.2	61492.5	[500]	ug/L	07:18:46
3	Zn 213.857†	41317.3	40104.9	[500]	ug/L	07:18:46
3	SiO2†	67977.7	66440.9	[5347.5]	ug/L	07:19:22

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	853173.0	4799.05	0.56%	100.93	%
Sc Radial	4536.4	39.50	0.87%	99.7	%
Y 371.029	708942.0	4306.26	0.61%	99.438	%
Y RADIAL	4858.4	36.66	0.75%	98.81	%
Ag 328.068†	95210.7	1153.83	1.21%	[500]	ug/L
Al 396.153Radial†	4978.9	8.67	0.17%	[5000]	ug/L
As 188.979†	888.7	14.57	1.64%	[500]	ug/L
B 249.677†	17425.4	220.35	1.26%	[500]	ug/L
Ba 233.527†	52151.2	599.18	1.15%	[500]	ug/L
Be 313.107†	1178012.9	398.78	0.03%	[500]	ug/L
Ca 317.933Radial†	2659.1	11.78	0.44%	[5000]	ug/L
Cd 226.502†	33903.4	423.83	1.25%	[500]	ug/L
Co 228.616†	19162.1	231.67	1.21%	[500]	ug/L
Cr 267.716†	36494.0	382.72	1.05%	[500]	ug/L
Cu 324.752†	148524.4	1966.00	1.32%	[500]	ug/L
K 766.490 Radial†	26312.1	64.56	0.25%	[5000]	ug/L
Mg 279.077 IEC†	127.2	1.09	0.85%	[5000]	ug/L
Mn 257.610†	376514.3	820.24	0.22%	[500]	ug/L
Mo 202.031†	5461.0	74.96	1.37%	[500]	ug/L
Ni 231.604†	15580.2	202.67	1.30%	[500]	ug/L
P 214.914†	3271.6	49.31	1.51%	[2500]	ug/L
Pb 220.353†	3183.1	43.59	1.37%	[500]	ug/L
S 181.975 Axial†	542.5	9.35	1.72%	[1000]	ug/L

Sb 206.836†	1155.8	18.81	1.63%	[500]	ug/L
Se 196.026†	595.7	6.00	1.01%	[500]	ug/L
Si 251.611†	65401.7	866.34	1.32%	[2500]	ug/L
Sn 189.927†	2134.3	23.47	1.10%	[500]	ug/L
Sr 421.552†	63317.6	98.24	0.16%	[500]	ug/L
Ti 334.940†	276625.5	3288.47	1.19%	[500]	ug/L
Tl 190.801†	1257.6	11.12	0.88%	[500]	ug/L
U 409.014†	17133.4	224.44	1.31%	[500]	ug/L
V 292.402†	61820.4	669.03	1.08%	[500]	ug/L
Zn 213.857†	40400.1	498.57	1.23%	[500]	ug/L
SiO2†	65999.8	1040.61	1.58%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 3/22/2010 07:21:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4523.6	4523.6	99.4	%	07:23:26
1	Y RADIAL	4820.1	4820.1	98.03	%	07:23:26
1	Al 396.153Radial†	9767.9	9902.3	[10000]	ug/L	07:23:26
1	Ca 317.933Radial†	5350.4	5365.6	[10000]	ug/L	07:23:26
1	Fe 238.204 Radial†	896.6	895.6	[10000]	ug/L	07:23:46
1	K 766.490 Radial†	54599.7	52431.7	[10000]	ug/L	07:23:26
1	Mg 279.077 IEC†	249.9	251.0	[10000]	ug/L	07:23:46
1	Na 589.592 Radial†	28386.1	29281.9	[10000]	ug/L	07:23:26
1	Sr 421.552†	127051.3	127810.8	[1000]	ug/L	07:23:26
1	Sc 361.383	837928.6	837928.6	99.127	%	07:24:45
1	Y 371.029	694463.0	694463.0	97.408	%	07:24:45
1	Ag 328.068†	193314.1	194859.4	[1000]	ug/L	07:24:45
1	As 188.979†	1748.3	1785.7	[1000]	ug/L	07:25:05
1	B 249.677†	34727.7	35480.8	[1000]	ug/L	07:24:45
1	Ba 233.527†	104501.8	105409.9	[1000]	ug/L	07:24:45
1	Be 313.107†	2314265.1	2339097.2	[1000]	ug/L	07:24:45
1	Cd 226.502†	67444.5	68186.8	[1000]	ug/L	07:24:45
1	Co 228.616†	37759.6	38145.7	[1000]	ug/L	07:25:05
1	Cr 267.716†	73036.6	73609.4	[1000]	ug/L	07:24:45
1	Cu 324.752†	305972.3	303140.1	[1000]	ug/L	07:24:45
1	Mn 257.610†	745345.1	751520.9	[1000]	ug/L	07:24:45
1	Mo 202.031†	11167.3	11252.7	[1000]	ug/L	07:25:05
1	Ni 231.604†	30929.0	31128.7	[1000]	ug/L	07:25:05
1	P 214.914†	6806.1	6665.4	[5000]	ug/L	07:25:05
1	Pb 220.353†	6337.8	6442.5	[1000]	ug/L	07:25:05
1	S 181.975 Axial†	1135.2	1115.3	[2000]	ug/L	07:25:05
1	Sb 206.836†	2379.7	2375.2	[1000]	ug/L	07:25:05
1	Se 196.026†	1179.9	1212.4	[1000]	ug/L	07:25:05
1	Si 251.611†	130281.6	130909.7	[5000]	ug/L	07:24:45
1	Sn 189.927†	4352.0	4386.6	[1000]	ug/L	07:25:05
1	Ti 334.940†	574063.4	580163.0	[1000]	ug/L	07:24:45
1	Tl 190.801†	2502.7	2553.9	[1000]	ug/L	07:25:05
1	U 409.014†	31350.0	33569.2	[1000]	ug/L	07:24:45
1	V 292.402†	122520.0	124949.3	[1000]	ug/L	07:24:45
1	Zn 213.857†	81068.2	81177.7	[1000]	ug/L	07:24:45
1	SiO2†	131924.0	132549.1	[10695]	ug/L	07:26:05
2	Sc Radial	4500.9	4500.9	98.9	%	07:23:51
2	Y RADIAL	4813.1	4813.1	97.89	%	07:23:51
2	Al 396.153Radial†	9788.3	9972.7	[10000]	ug/L	07:23:51
2	Ca 317.933Radial†	5390.8	5433.7	[10000]	ug/L	07:23:51
2	Fe 238.204 Radial†	889.2	892.7	[10000]	ug/L	07:24:11
2	K 766.490 Radial†	54666.4	52776.9	[10000]	ug/L	07:23:51
2	Mg 279.077 IEC†	246.1	248.5	[10000]	ug/L	07:24:11
2	Na 589.592 Radial†	28247.3	29286.0	[10000]	ug/L	07:23:51
2	Sr 421.552†	126964.2	128369.0	[1000]	ug/L	07:23:51
2	Sc 361.383	848423.3	848423.3	100.37	%	07:25:13
2	Y 371.029	703613.6	703613.6	98.691	%	07:25:13
2	Ag 328.068†	195882.9	195006.4	[1000]	ug/L	07:25:13
2	As 188.979†	1759.6	1775.2	[1000]	ug/L	07:25:33
2	B 249.677†	35298.2	35616.0	[1000]	ug/L	07:25:13
2	Ba 233.527†	105922.4	105521.2	[1000]	ug/L	07:25:13
2	Be 313.107†	2346076.2	2341912.7	[1000]	ug/L	07:25:13
2	Cd 226.502†	68307.9	68205.4	[1000]	ug/L	07:25:13
2	Co 228.616†	37822.1	37736.7	[1000]	ug/L	07:25:33
2	Cr 267.716†	74186.3	73843.5	[1000]	ug/L	07:25:13
2	Cu 324.752†	309856.5	303191.9	[1000]	ug/L	07:25:13
2	Mn 257.610†	755549.1	752386.5	[1000]	ug/L	07:25:13
2	Mo 202.031†	11152.1	11098.2	[1000]	ug/L	07:25:33
2	Ni 231.604†	30898.8	30712.6	[1000]	ug/L	07:25:33

2	P 214.914†	6804.1	6578.5	[5000]	ug/L	07:25:33
2	Pb 220.353†	6330.1	6355.7	[1000]	ug/L	07:25:33
2	S 181.975 Axial†	1137.9	1103.8	[2000]	ug/L	07:25:33
2	Sb 206.836†	2381.5	2347.3	[1000]	ug/L	07:25:33
2	Se 196.026†	1171.2	1189.1	[1000]	ug/L	07:25:33
2	Si 251.611†	132142.9	131138.5	[5000]	ug/L	07:25:13
2	Sn 189.927†	4362.5	4342.7	[1000]	ug/L	07:25:33
2	Ti 334.940†	581607.0	580515.3	[1000]	ug/L	07:25:13
2	Tl 190.801†	2509.6	2529.5	[1000]	ug/L	07:25:33
2	U 409.014†	31742.0	33568.5	[1000]	ug/L	07:25:13
2	V 292.402†	124388.0	125281.6	[1000]	ug/L	07:25:13
2	Zn 213.857†	82314.1	81407.3	[1000]	ug/L	07:25:13
2	SiO2†	132339.6	131317.0	[10695]	ug/L	07:26:11
3	Sc Radial	4525.4	4525.4	99.4	%	07:24:16
3	Y RADIAL	4822.2	4822.2	98.07	%	07:24:16
3	Al 396.153Radial†	9803.5	9934.3	[10000]	ug/L	07:24:16
3	Ca 317.933Radial†	5346.5	5359.6	[10000]	ug/L	07:24:16
3	Fe 238.204 Radial†	899.1	897.8	[10000]	ug/L	07:24:36
3	K 766.490 Radial†	54626.1	52436.6	[10000]	ug/L	07:24:16
3	Mg 279.077 IEC†	250.6	251.7	[10000]	ug/L	07:24:36
3	Na 589.592 Radial†	27995.6	28877.9	[10000]	ug/L	07:24:16
3	Sr 421.552†	126776.3	127483.9	[1000]	ug/L	07:24:16
3	Sc 361.383	844361.3	844361.3	99.888	%	07:25:40
3	Y 371.029	700642.3	700642.3	98.274	%	07:25:40
3	Ag 328.068†	194694.5	194755.6	[1000]	ug/L	07:25:40
3	As 188.979†	1736.3	1760.4	[1000]	ug/L	07:26:00
3	B 249.677†	34955.6	35442.1	[1000]	ug/L	07:25:40
3	Ba 233.527†	105125.2	105230.8	[1000]	ug/L	07:25:40
3	Be 313.107†	2328001.6	2335062.8	[1000]	ug/L	07:25:40
3	Cd 226.502†	67767.9	67992.1	[1000]	ug/L	07:25:40
3	Co 228.616†	37677.5	37773.3	[1000]	ug/L	07:26:00
3	Cr 267.716†	73534.1	73546.2	[1000]	ug/L	07:25:40
3	Cu 324.752†	307820.0	302638.3	[1000]	ug/L	07:25:40
3	Mn 257.610†	750095.6	750548.3	[1000]	ug/L	07:25:40
3	Mo 202.031†	11126.4	11126.0	[1000]	ug/L	07:26:00
3	Ni 231.604†	30865.0	30826.9	[1000]	ug/L	07:26:00
3	P 214.914†	6780.5	6587.4	[5000]	ug/L	07:26:00
3	Pb 220.353†	6338.7	6394.7	[1000]	ug/L	07:26:00
3	S 181.975 Axial†	1132.8	1104.2	[2000]	ug/L	07:26:00
3	Sb 206.836†	2367.5	2344.7	[1000]	ug/L	07:26:00
3	Se 196.026†	1180.8	1204.3	[1000]	ug/L	07:26:00
3	Si 251.611†	131136.3	130764.1	[5000]	ug/L	07:25:40
3	Sn 189.927†	4337.9	4339.0	[1000]	ug/L	07:26:00
3	Ti 334.940†	578119.3	579811.5	[1000]	ug/L	07:25:40
3	Tl 190.801†	2500.3	2532.2	[1000]	ug/L	07:26:00
3	U 409.014†	31839.0	33817.8	[1000]	ug/L	07:25:40
3	V 292.402†	123654.5	125143.5	[1000]	ug/L	07:25:40
3	Zn 213.857†	81519.6	81006.5	[1000]	ug/L	07:25:40
3	SiO2†	131535.6	131146.4	[10695]	ug/L	07:26:16

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	843571.0	5291.79	0.63%	99.795	%
Sc Radial	4516.6	13.68	0.30%	99.2	%
Y 371.029	699573.0	4668.10	0.67%	98.124	%
Y RADIAL	4818.5	4.74	0.10%	98.00	%
Ag 328.068†	194873.8	126.03	0.06%	[1000]	ug/L
Al 396.153Radial†	9936.4	35.21	0.35%	[10000]	ug/L
As 188.979†	1773.8	12.75	0.72%	[1000]	ug/L
B 249.677†	35513.0	91.26	0.26%	[1000]	ug/L
Ba 233.527†	105387.3	146.49	0.14%	[1000]	ug/L
Be 313.107†	2338690.9	3442.96	0.15%	[1000]	ug/L
Ca 317.933Radial†	5386.3	41.18	0.76%	[10000]	ug/L
Cd 226.502†	68128.1	118.12	0.17%	[1000]	ug/L
Co 228.616†	37885.2	226.30	0.60%	[1000]	ug/L
Cr 267.716†	73666.4	156.65	0.21%	[1000]	ug/L
Cu 324.752†	302990.1	305.77	0.10%	[1000]	ug/L
Fe 238.204 Radial†	895.4	2.56	0.29%	[10000]	ug/L
K 766.490 Radial†	52548.4	197.92	0.38%	[10000]	ug/L

Mg 279.077 IEC†	250.4	1.66	0.66%	[10000] ug/L
Mn 257.610†	751485.2	919.65	0.12%	[1000] ug/L
Mo 202.031†	11159.0	82.39	0.74%	[1000] ug/L
Na 589.592 Radial†	29148.6	234.44	0.80%	[10000] ug/L
Ni 231.604†	30889.4	214.97	0.70%	[1000] ug/L
P 214.914†	6610.4	47.81	0.72%	[5000] ug/L
Pb 220.353†	6397.7	43.47	0.68%	[1000] ug/L
S 181.975 Axial†	1107.8	6.53	0.59%	[2000] ug/L
Sb 206.836†	2355.7	16.94	0.72%	[1000] ug/L
Se 196.026†	1201.9	11.87	0.99%	[1000] ug/L
Si 251.611†	130937.4	188.72	0.14%	[5000] ug/L
Sn 189.927†	4356.1	26.48	0.61%	[1000] ug/L
Sr 421.552†	127887.9	447.60	0.35%	[1000] ug/L
Ti 334.940†	580163.3	351.94	0.06%	[1000] ug/L
Tl 190.801†	2538.5	13.36	0.53%	[1000] ug/L
U 409.014†	33651.8	143.73	0.43%	[1000] ug/L
V 292.402†	125124.8	166.92	0.13%	[1000] ug/L
Zn 213.857†	81197.2	201.13	0.25%	[1000] ug/L
SiO2†	131670.8	765.36	0.58%	[10695] ug/L

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Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/22/2010 07:28:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4386.9	4386.9	96.4	%	07:30:40
1	Y RADIAL	4680.0	4680.0	95.18	%	07:30:40
1	Al 396.153Radial†	49485.8	51421.7	[50000]	ug/L	07:30:20
1	Ca 317.933Radial†	25905.8	26862.6	[50000]	ug/L	07:30:20
1	Fe 238.204 Radial†	1681.3	1738.0	[20000]	ug/L	07:30:40
1	Mg 279.077 IEC†	1162.8	1206.1	[50000]	ug/L	07:30:40
1	Na 589.592 Radial†	55380.6	58183.1	[20000]	ug/L	07:30:20
1	Sc 361.383	830639.6	830639.6	98.265	%	07:31:37
1	Y 371.029	687317.0	687317.0	96.405	%	07:31:37
2	Sc Radial	4387.5	4387.5	96.4	%	07:31:05
2	Y RADIAL	4702.4	4702.4	95.64	%	07:31:05
2	Al 396.153Radial†	48037.9	49911.9	[50000]	ug/L	07:30:45
2	Ca 317.933Radial†	25301.2	26231.3	[50000]	ug/L	07:30:45
2	Fe 238.204 Radial†	1674.9	1731.0	[20000]	ug/L	07:31:05
2	Mg 279.077 IEC†	1161.0	1204.2	[50000]	ug/L	07:31:05
2	Na 589.592 Radial†	53607.9	56335.3	[20000]	ug/L	07:30:45
2	Sc 361.383	828236.8	828236.8	97.981	%	07:31:43
2	Y 371.029	684614.2	684614.2	96.026	%	07:31:43
3	Sc Radial	4440.2	4440.2	97.5	%	07:31:30
3	Y RADIAL	4734.4	4734.4	96.29	%	07:31:30
3	Al 396.153Radial†	49093.1	50402.3	[50000]	ug/L	07:31:10
3	Ca 317.933Radial†	25713.8	26342.8	[50000]	ug/L	07:31:10
3	Fe 238.204 Radial†	1686.5	1722.4	[20000]	ug/L	07:31:30
3	Mg 279.077 IEC†	1165.9	1194.9	[50000]	ug/L	07:31:30
3	Na 589.592 Radial†	54465.9	56555.0	[20000]	ug/L	07:31:10
3	Sc 361.383	828944.0	828944.0	98.064	%	07:31:48
3	Y 371.029	685463.2	685463.2	96.145	%	07:31:48

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	829273.5	1234.81	0.15%	98.103	%
Sc Radial	4404.9	30.61	0.69%	96.8	%
Y 371.029	685798.1	1382.16	0.20%	96.192	%
Y RADIAL	4705.6	27.31	0.58%	95.70	%
Al 396.153Radial†	50578.6	770.21	1.52%	[50000]	ug/L
Ca 317.933Radial†	26478.9	336.91	1.27%	[50000]	ug/L
Fe 238.204 Radial†	1730.4	7.82	0.45%	[20000]	ug/L
Mg 279.077 IEC†	1201.7	6.00	0.50%	[50000]	ug/L
Na 589.592 Radial†	57024.5	1009.39	1.77%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	194.0	0.00000	0.999956	
Al 396.153Radial	3	Lin Thru 0	0.0	1.011	0.00000	0.999993	
As 188.979	3	Lin Thru 0	0.0	1.775	0.00000	1.000000	
B 249.677	3	Lin Thru 0	0.0	35.38	0.00000	0.999971	
Ba 233.527	3	Lin Thru 0	0.0	105.2	0.00000	0.999987	
Be 313.107	3	Lin Thru 0	0.0	2342	0.00000	0.999995	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5299	0.00000	0.999995	
Cd 226.502	3	Lin Thru 0	0.0	68.07	0.00000	0.999998	
Co 228.616	3	Lin Thru 0	0.0	37.98	0.00000	0.999985	
Cr 267.716	3	Lin Thru 0	0.0	73.55	0.00000	0.999990	
Cu 324.752	3	Lin Thru 0	0.0	301.8	0.00000	0.999968	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0871	0.00000	0.999904	
K 766.490 Radial	3	Lin Thru 0	0.0	5.256	0.00000	0.999999	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0241	0.00000	0.999953
Mn 257.610	3	Lin Thru 0	0.0	752.0	0.00000	0.999994
Mo 202.031	3	Lin Thru 0	0.0	11.11	0.00000	0.999963
Na 589.592 Radia	2	Lin Thru 0	0.0	2.864	0.00000	0.999961
Ni 231.604	3	Lin Thru 0	0.0	30.95	0.00000	0.999990
P 214.914	3	Lin Thru 0	0.0	1.319	0.00000	0.999992
Pb 220.353	3	Lin Thru 0	0.0	6.393	0.00000	0.999996
S 181.975 Axial	3	Lin Thru 0	0.0	0.5519	0.00000	0.999952
Sb 206.836	3	Lin Thru 0	0.0	2.347	0.00000	0.999971
Se 196.026	3	Lin Thru 0	0.0	1.201	0.00000	0.999974
Si 251.611	3	Lin Thru 0	0.0	26.18	0.00000	0.999999
Sn 189.927	3	Lin Thru 0	0.0	4.339	0.00000	0.999967
Sr 421.552	3	Lin Thru 0	0.0	127.6	0.00000	0.999992
Ti 334.940	3	Lin Thru 0	0.0	574.9	0.00000	0.999824
Tl 190.801	3	Lin Thru 0	0.0	2.534	0.00000	0.999993
U 409.014	3	Lin Thru 0	0.0	33.80	0.00000	0.999944
V 292.402	3	Lin Thru 0	0.0	124.8	0.00000	0.999988
Zn 213.857	3	Lin Thru 0	0.0	81.14	0.00000	0.999993
SiO2	3	Lin Thru 0	0.0	12.32	0.00000	0.999999

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/22/2010 07:34:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4636.1	4636.1	102	%			07:35:52
1	Y RADIAL	4948.2	4948.2	100.6	%			07:35:52
1	Al 396.153Radial†	5096.3	5077.0	4996.5	ug/L	4996.5	ppb	07:35:52
1	Ca 317.933Radial†	2719.5	2651.8	5004.0	ug/L	5004.0	ppb	07:36:12
1	Fe 238.204 Radial†	463.8	448.8	5166.6	ug/L	5166.6	ppb	07:36:12
1	K 766.490 Radial†	15903.2	13104.2	2489.8	ug/L	2489.8	ppb	07:35:52
1	Mg 279.077 IEC†	134.4	131.6	5462.6	ug/L	5462.6	ppb	07:36:12
1	Na 589.592 Radial†	6744.0	7339.4	2562.7	ug/L	2562.7	ppb	07:35:52
1	Sr 421.552†	69268.5	67974.5	532.53	ug/L	532.53	ppb	07:35:52
1	Sc 361.383	853000.0	853000.0	100.91	%			07:37:10
1	Y 371.029	712184.7	712184.7	99.893	%			07:37:10
1	Ag 328.068†	51887.2	51262.5	267.43	ug/L	267.43	ppb	07:37:10
1	As 188.979†	842.1	856.5	486.98	ug/L	486.98	ppb	07:37:30
1	B 249.677†	18387.1	18668.7	525.39	ug/L	525.39	ppb	07:37:10
1	Ba 233.527†	54995.1	54487.1	519.26	ug/L	519.26	ppb	07:37:10
1	Be 313.107†	626907.9	625710.4	268.28	ug/L	268.28	ppb	07:37:10
1	Cd 226.502†	34645.6	34481.5	506.49	ug/L	506.49	ppb	07:37:10
1	Co 228.616†	19995.0	19868.2	523.24	ug/L	523.24	ppb	07:37:10
1	Cr 267.716†	36901.1	36498.1	497.33	ug/L	497.33	ppb	07:37:10
1	Cu 324.752†	163063.2	156066.3	517.03	ug/L	517.03	ppb	07:37:10
1	Mn 257.610†	398416.6	394436.5	524.79	ug/L	524.79	ppb	07:37:10
1	Mo 202.031†	6157.3	6088.9	548.39	ug/L	548.39	ppb	07:37:30
1	Ni 231.604†	16338.4	16118.4	520.46	ug/L	520.46	ppb	07:37:10
1	P 214.914†	3592.6	3359.6	2445.8	ug/L	2445.8	ppb	07:37:30
1	Pb 220.353†	3206.4	3226.4	506.23	ug/L	506.23	ppb	07:37:30
1	S 181.975 Axial†	1461.4	1418.4	2569.1	ug/L	2569.1	ppb	07:37:30
1	Sb 206.836†	1246.3	1209.6	535.10	ug/L	535.10	ppb	07:37:30
1	Se 196.026†	3117.2	3111.2	2609.6	ug/L	2609.6	ppb	07:37:30
1	Si 251.611†	129969.5	128278.3	4892.3	ug/L	4892.3	ppb	07:37:10
1	Sn 189.927†	2397.6	2372.2	547.31	ug/L	547.31	ppb	07:37:30
1	Ti 334.940†	294987.7	293372.4	510.14	ug/L	510.14	ppb	07:37:10
1	Tl 190.801†	1351.8	1368.7	543.60	ug/L	543.60	ppb	07:37:30
1	U 409.014†	15567.1	17369.8	512.23	ug/L	512.23	ppb	07:37:10
1	V 292.402†	64353.1	65123.3	529.00	ug/L	529.00	ppb	07:37:10
1	Zn 213.857†	43541.2	42544.1	519.54	ug/L	519.54	ppb	07:37:10
1	SiO2†	132281.6	130552.0	10584	ug/L	10584	ppb	07:38:28
2	Sc Radial	4601.9	4601.9	101	%			07:36:18
2	Y RADIAL	4920.4	4920.4	100.1	%			07:36:18
2	Al 396.153Radial†	5043.7	5062.2	4982.0	ug/L	4982.0	ppb	07:36:18
2	Ca 317.933Radial†	2694.6	2647.0	4994.9	ug/L	4994.9	ppb	07:36:38
2	Fe 238.204 Radial†	459.7	448.1	5158.5	ug/L	5158.5	ppb	07:36:38
2	K 766.490 Radial†	15952.1	13268.8	2521.2	ug/L	2521.2	ppb	07:36:18
2	Mg 279.077 IEC†	131.1	129.3	5368.7	ug/L	5368.7	ppb	07:36:38
2	Na 589.592 Radial†	6580.8	7227.3	2523.5	ug/L	2523.5	ppb	07:36:18
2	Sr 421.552†	68682.0	67900.3	531.95	ug/L	531.95	ppb	07:36:18
2	Sc 361.383	850343.8	850343.8	100.60	%			07:37:36
2	Y 371.029	709816.6	709816.6	99.561	%			07:37:36
2	Ag 328.068†	51703.7	51240.7	267.32	ug/L	267.32	ppb	07:37:36
2	As 188.979†	828.9	846.0	481.07	ug/L	481.07	ppb	07:37:56
2	B 249.677†	18450.4	18788.5	528.78	ug/L	528.78	ppb	07:37:36
2	Ba 233.527†	54861.9	54524.9	519.62	ug/L	519.62	ppb	07:37:36
2	Be 313.107†	625164.7	625918.1	268.37	ug/L	268.37	ppb	07:37:36
2	Cd 226.502†	34634.5	34577.8	507.90	ug/L	507.90	ppb	07:37:36
2	Co 228.616†	19935.0	19870.5	523.29	ug/L	523.29	ppb	07:37:36
2	Cr 267.716†	36839.3	36550.9	498.05	ug/L	498.05	ppb	07:37:36
2	Cu 324.752†	162151.3	155664.6	515.70	ug/L	515.70	ppb	07:37:36
2	Mn 257.610†	397810.9	395067.6	525.63	ug/L	525.63	ppb	07:37:36
2	Mo 202.031†	6102.3	6053.2	545.18	ug/L	545.18	ppb	07:37:56
2	Ni 231.604†	16312.5	16143.2	521.26	ug/L	521.26	ppb	07:37:36

2	P 214.914†	3562.0	3340.2	2431.4 ug/L	2431.4 ppb	07:37:56
2	Pb 220.353†	3191.8	3221.8	505.50 ug/L	505.50 ppb	07:37:56
2	S 181.975 Axial†	1429.0	1390.7	2519.0 ug/L	2519.0 ppb	07:37:56
2	Sb 206.836†	1247.8	1215.0	537.27 ug/L	537.27 ppb	07:37:56
2	Se 196.026†	3089.7	3093.5	2594.9 ug/L	2594.9 ppb	07:37:56
2	Si 251.611†	129465.4	128179.6	4888.5 ug/L	4888.5 ppb	07:37:36
2	Sn 189.927†	2378.4	2360.6	544.62 ug/L	544.62 ppb	07:37:56
2	Ti 334.940†	294024.9	293328.4	510.07 ug/L	510.07 ppb	07:37:36
2	Tl 190.801†	1353.3	1374.3	545.84 ug/L	545.84 ppb	07:37:56
2	U 409.014†	15295.1	17147.7	505.66 ug/L	505.66 ppb	07:37:36
2	V 292.402†	64046.6	65017.9	528.10 ug/L	528.10 ppb	07:37:36
2	Zn 213.857†	43469.3	42607.4	520.32 ug/L	520.32 ppb	07:37:36
2	SiO2†	130761.0	129450.0	10495 ug/L	10495 ppb	07:38:33
3	Sc Radial	4573.4	4573.4	100 %		07:36:43
3	Y RADIAL	4923.4	4923.4	100.1 %		07:36:43
3	Al 396.153Radial†	5072.8	5122.2	5041.7 ug/L	5041.7 ppb	07:36:43
3	Ca 317.933Radial†	2692.4	2661.4	5022.1 ug/L	5022.1 ppb	07:37:03
3	Fe 238.204 Radial†	460.1	451.4	5196.1 ug/L	5196.1 ppb	07:37:03
3	K 766.490 Radial†	15864.2	13279.6	2523.2 ug/L	2523.2 ppb	07:36:43
3	Mg 279.077 IEC†	131.1	130.1	5401.1 ug/L	5401.1 ppb	07:37:03
3	Na 589.592 Radial†	6609.1	7296.0	2547.5 ug/L	2547.5 ppb	07:36:43
3	Sr 421.552†	68535.7	68177.9	534.13 ug/L	534.13 ppb	07:36:43
3	Sc 361.383	864231.6	864231.6	102.24 %		07:38:02
3	Y 371.029	722475.9	722475.9	101.34 %		07:38:02
3	Ag 328.068†	52505.0	51198.5	267.11 ug/L	267.11 ppb	07:38:02
3	As 188.979†	843.0	846.7	481.44 ug/L	481.44 ppb	07:38:22
3	B 249.677†	18688.4	18726.6	527.03 ug/L	527.03 ppb	07:38:02
3	Ba 233.527†	55726.9	54494.6	519.33 ug/L	519.33 ppb	07:38:02
3	Be 313.107†	637246.6	627748.8	269.15 ug/L	269.15 ppb	07:38:02
3	Cd 226.502†	35139.8	34518.7	507.03 ug/L	507.03 ppb	07:38:02
3	Co 228.616†	20185.8	19797.4	521.35 ug/L	521.35 ppb	07:38:02
3	Cr 267.716†	37424.1	36534.4	497.83 ug/L	497.83 ppb	07:38:02
3	Cu 324.752†	164479.7	155351.7	514.66 ug/L	514.66 ppb	07:38:02
3	Mn 257.610†	403976.0	394743.0	525.20 ug/L	525.20 ppb	07:38:02
3	Mo 202.031†	6128.4	5981.3	538.71 ug/L	538.71 ppb	07:38:22
3	Ni 231.604†	16609.8	16173.4	522.24 ug/L	522.24 ppb	07:38:02
3	P 214.914†	3549.1	3270.7	2378.8 ug/L	2378.8 ppb	07:38:22
3	Pb 220.353†	3196.6	3175.5	498.25 ug/L	498.25 ppb	07:38:22
3	S 181.975 Axial†	1430.3	1369.1	2479.8 ug/L	2479.8 ppb	07:38:22
3	Sb 206.836†	1241.8	1189.1	526.03 ug/L	526.03 ppb	07:38:22
3	Se 196.026†	3090.8	3045.3	2554.8 ug/L	2554.8 ppb	07:38:22
3	Si 251.611†	131307.9	127913.6	4878.4 ug/L	4878.4 ppb	07:38:02
3	Sn 189.927†	2390.2	2334.1	538.53 ug/L	538.53 ppb	07:38:22
3	Ti 334.940†	298630.7	293136.5	509.74 ug/L	509.74 ppb	07:38:02
3	Tl 190.801†	1341.8	1341.5	532.90 ug/L	532.90 ppb	07:38:22
3	U 409.014†	15703.7	17302.9	510.25 ug/L	510.25 ppb	07:38:02
3	V 292.402†	65354.3	65273.8	530.06 ug/L	530.06 ppb	07:38:02
3	Zn 213.857†	44089.1	42519.2	519.22 ug/L	519.22 ppb	07:38:02
3	SiO2†	130839.3	127437.7	10331 ug/L	10331 ppb	07:38:38

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	855858.5	101.25	%	0.872				0.86%
Sc Radial	4603.8	101	%	0.7				0.68%
Y 371.029	714825.7	100.26	%	0.944				0.94%
Y RADIAL	4930.7	100.3	%	0.31				0.31%
Ag 328.068†	51233.9	267.29	ug/L	0.159	267.29	ppb	0.159	0.06%
QC value within limits for Ag 328.068 Recovery = 106.91%								
Al 396.153Radial†	5087.1	5006.7	ug/L	31.16	5006.7	ppb	31.16	0.62%
QC value within limits for Al 396.153Radial Recovery = 100.13%								
As 188.979†	849.7	483.16	ug/L	3.311	483.16	ppb	3.311	0.69%
QC value within limits for As 188.979 Recovery = 96.63%								
B 249.677†	18727.9	527.07	ug/L	1.694	527.07	ppb	1.694	0.32%
QC value within limits for B 249.677 Recovery = 105.41%								
Ba 233.527†	54502.2	519.40	ug/L	0.189	519.40	ppb	0.189	0.04%
QC value within limits for Ba 233.527 Recovery = 103.88%								
Be 313.107†	626459.1	268.60	ug/L	0.478	268.60	ppb	0.478	0.18%
QC value within limits for Be 313.107 Recovery = 107.44%								
Ca 317.933Radial†	2653.4	5007.0	ug/L	13.84	5007.0	ppb	13.84	0.28%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.14%
Cd 226.502†            34526.0      507.14 ug/L         0.714      507.14 ppb          0.714   0.14%
   QC value within limits for Cd 226.502  Recovery = 101.43%
Co 228.616†            19845.4      522.63 ug/L         1.105      522.63 ppb          1.105   0.21%
   QC value within limits for Co 228.616  Recovery = 104.53%
Cr 267.716†            36527.8      497.74 ug/L         0.368      497.74 ppb          0.368   0.07%
   QC value within limits for Cr 267.716  Recovery = 99.55%
Cu 324.752†           155694.2      515.80 ug/L         1.185      515.80 ppb          1.185   0.23%
   QC value within limits for Cu 324.752  Recovery = 103.16%
Fe 238.204 Radial†       449.4      5173.7 ug/L         19.81      5173.7 ppb          19.81   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.47%
K 766.490 Radial†      13217.5      2511.4 ug/L         18.71      2511.4 ppb          18.71   0.75%
   QC value within limits for K 766.490 Radial  Recovery = 100.46%
Mg 279.077 IEC†          130.3      5410.8 ug/L         47.68      5410.8 ppb          47.68   0.88%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.22%
Mn 257.610†           394749.0      525.21 ug/L         0.421      525.21 ppb          0.421   0.08%
   QC value within limits for Mn 257.610  Recovery = 105.04%
Mo 202.031†             6041.1      544.09 ug/L         4.930      544.09 ppb          4.930   0.91%
   QC value within limits for Mo 202.031  Recovery = 108.82%
Na 589.592 Radial†      7287.5      2544.6 ug/L         19.74      2544.6 ppb          19.74   0.78%
   QC value within limits for Na 589.592 Radial  Recovery = 101.78%
Ni 231.604†            16145.0      521.32 ug/L         0.891      521.32 ppb          0.891   0.17%
   QC value within limits for Ni 231.604  Recovery = 104.26%
P 214.914†              3323.5      2418.7 ug/L         35.26      2418.7 ppb          35.26   1.46%
   QC value within limits for P 214.914  Recovery = 96.75%
Pb 220.353†             3207.9      503.32 ug/L         4.408      503.32 ppb          4.408   0.88%
   QC value within limits for Pb 220.353  Recovery = 100.66%
S 181.975 Axial†        1392.7      2522.6 ug/L         44.76      2522.6 ppb          44.76   1.77%
   QC value within limits for S 181.975 Axial  Recovery = 100.90%
Sb 206.836†             1204.6      532.80 ug/L         5.963      532.80 ppb          5.963   1.12%
   QC value within limits for Sb 206.836  Recovery = 106.56%
Se 196.026†             3083.3      2586.4 ug/L         28.39      2586.4 ppb          28.39   1.10%
   QC value within limits for Se 196.026  Recovery = 103.46%
Si 251.611†           128123.8      4886.4 ug/L          7.14      4886.4 ppb           7.14   0.15%
   QC value within limits for Si 251.611  Recovery = 97.73%
Sn 189.927†             2355.7      543.48 ug/L         4.499      543.48 ppb          4.499   0.83%
   QC value within limits for Sn 189.927  Recovery = 108.70%
Sr 421.552†            68017.5      532.87 ug/L         1.126      532.87 ppb          1.126   0.21%
   QC value within limits for Sr 421.552  Recovery = 106.57%
Ti 334.940†           293279.1      509.98 ug/L         0.215      509.98 ppb          0.215   0.04%
   QC value within limits for Ti 334.940  Recovery = 102.00%
Tl 190.801†             1361.5      540.78 ug/L         6.916      540.78 ppb          6.916   1.28%
   QC value within limits for Tl 190.801  Recovery = 108.16%
U 409.014†             17273.5      509.38 ug/L         3.372      509.38 ppb          3.372   0.66%
   QC value within limits for U 409.014  Recovery = 101.88%
V 292.402†             65138.3      529.05 ug/L         0.982      529.05 ppb          0.982   0.19%
   QC value within limits for V 292.402  Recovery = 105.81%
Zn 213.857†            42556.9      519.69 ug/L         0.565      519.69 ppb          0.565   0.11%
   QC value within limits for Zn 213.857  Recovery = 103.94%
SiO2†                 129146.6       10470 ug/L         128.1       10470 ppb          128.1   1.22%
   QC value within limits for SiO2  Recovery = 97.90%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 3/22/2010 07:40:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4615.1	4615.1	101	%			07:42:42
1	Y RADIAL	4953.8	4953.8	100.8	%			07:42:42
1	Al 396.153Radial†	-75.5	-1.3	-1.3073	ug/L	-1.3073	ppb	07:43:02
1	Ca 317.933Radial†	22.2	3.5	6.6558	ug/L	6.6558	ppb	07:43:02
1	Fe 238.204 Radial†	11.5	4.7	53.507	ug/L	53.507	ppb	07:43:02
1	K 766.490 Radial†	2436.2	-107.5	-20.453	ug/L	-20.453	ppb	07:42:42
1	Mg 279.077 IEC†	4.1	3.7	151.59	ug/L	151.59	ppb	07:43:02
1	Na 589.592 Radial†	-753.8	-25.7	-8.9798	ug/L	-8.9798	ppb	07:42:42
1	Sr 421.552†	34.9	-3.1	-0.0241	ug/L	-0.0241	ppb	07:42:42
1	Sc 361.383	845450.6	845450.6	100.02	%			07:43:59
1	Y 371.029	713368.7	713368.7	100.06	%			07:43:59
1	Ag 328.068†	173.3	16.6	0.1044	ug/L	0.1044	ppb	07:43:59
1	As 188.979†	-23.9	-1.8	-0.9924	ug/L	-0.9924	ppb	07:44:19
1	B 249.677†	-52.6	394.8	11.152	ug/L	11.152	ppb	07:44:19
1	Ba 233.527†	20.3	8.3	0.0813	ug/L	0.0813	ppb	07:44:19
1	Be 313.107†	-4325.6	132.5	0.0563	ug/L	0.0563	ppb	07:43:59
1	Cd 226.502†	-161.5	-13.0	-0.1970	ug/L	-0.1970	ppb	07:44:19
1	Co 228.616†	-56.3	-2.6	-0.0677	ug/L	-0.0677	ppb	07:44:19
1	Cr 267.716†	77.7	7.5	0.1092	ug/L	0.1092	ppb	07:44:19
1	Cu 324.752†	5490.7	-36.2	-0.1166	ug/L	-0.1166	ppb	07:43:59
1	Mn 257.610†	437.9	51.5	0.0676	ug/L	0.0676	ppb	07:44:19
1	Mo 202.031†	23.8	10.9	0.9815	ug/L	0.9815	ppb	07:44:19
1	Ni 231.604†	90.1	17.5	0.5643	ug/L	0.5643	ppb	07:44:19
1	P 214.914†	196.7	-4.0	-3.0302	ug/L	-3.0302	ppb	07:44:19
1	Pb 220.353†	-43.0	5.9	0.9164	ug/L	0.9164	ppb	07:44:19
1	S 181.975 Axial†	32.9	3.0	5.4652	ug/L	5.4652	ppb	07:44:19
1	Sb 206.836†	28.6	3.1	1.3910	ug/L	1.3910	ppb	07:44:19
1	Se 196.026†	-25.4	-3.2	-2.5011	ug/L	-2.5011	ppb	07:44:19
1	Si 251.611†	547.3	28.4	1.0736	ug/L	1.0736	ppb	07:44:19
1	Sn 189.927†	12.5	8.8	2.0148	ug/L	2.0148	ppb	07:44:19
1	Ti 334.940†	-1113.8	-68.1	-0.1295	ug/L	-0.1295	ppb	07:43:59
1	Tl 190.801†	-37.8	-8.7	-3.4446	ug/L	-3.4446	ppb	07:44:19
1	U 409.014†	-1980.2	-36.7	-1.0929	ug/L	-1.0929	ppb	07:43:59
1	V 292.402†	-1304.2	46.8	0.3815	ug/L	0.3815	ppb	07:43:59
1	Zn 213.857†	626.2	21.8	0.2566	ug/L	0.2566	ppb	07:44:19
1	SiO2†	575.1	38.7	3.1159	ug/L	3.1159	ppb	07:45:30
2	Sc Radial	4575.7	4575.7	101	%			07:43:07
2	Y RADIAL	4918.4	4918.4	100.0	%			07:43:07
2	Al 396.153Radial†	-78.8	-5.3	-5.1930	ug/L	-5.1930	ppb	07:43:27
2	Ca 317.933Radial†	18.8	0.3	0.6508	ug/L	0.6508	ppb	07:43:27
2	Fe 238.204 Radial†	8.2	1.5	17.559	ug/L	17.559	ppb	07:43:27
2	K 766.490 Radial†	2401.5	-121.4	-23.098	ug/L	-23.098	ppb	07:43:07
2	Mg 279.077 IEC†	-0.5	-0.9	-37.747	ug/L	-37.747	ppb	07:43:27
2	Na 589.592 Radial†	-728.9	-7.4	-2.5732	ug/L	-2.5732	ppb	07:43:07
2	Sr 421.552†	58.6	20.9	0.1634	ug/L	0.1634	ppb	07:43:07
2	Sc 361.383	850024.8	850024.8	100.56	%			07:44:24
2	Y 371.029	717782.7	717782.7	100.68	%			07:44:24
2	Ag 328.068†	161.5	4.0	0.0237	ug/L	0.0237	ppb	07:44:24
2	As 188.979†	-19.9	2.3	1.3175	ug/L	1.3175	ppb	07:44:44
2	B 249.677†	-18.8	428.8	12.116	ug/L	12.116	ppb	07:44:44
2	Ba 233.527†	17.9	5.8	0.0576	ug/L	0.0576	ppb	07:44:44
2	Be 313.107†	-4374.0	107.6	0.0461	ug/L	0.0461	ppb	07:44:24
2	Cd 226.502†	-143.5	5.8	0.0848	ug/L	0.0848	ppb	07:44:44
2	Co 228.616†	-43.7	10.1	0.2663	ug/L	0.2663	ppb	07:44:44
2	Cr 267.716†	61.0	-9.6	-0.1296	ug/L	-0.1296	ppb	07:44:44
2	Cu 324.752†	5548.1	-8.8	-0.0316	ug/L	-0.0316	ppb	07:44:24
2	Mn 257.610†	504.8	115.7	0.1572	ug/L	0.1572	ppb	07:44:44
2	Mo 202.031†	11.5	-1.5	-0.1311	ug/L	-0.1311	ppb	07:44:44
2	Ni 231.604†	83.9	10.8	0.3491	ug/L	0.3491	ppb	07:44:44

2	P 214.914†	183.5	-18.2	-13.800 ug/L	-13.800 ppb	07:44:44
2	Pb 220.353†	-51.8	-2.6	-0.4171 ug/L	-0.4171 ppb	07:44:44
2	S 181.975 Axial†	29.0	-1.1	-1.9182 ug/L	-1.9182 ppb	07:44:44
2	Sb 206.836†	27.7	2.1	0.8978 ug/L	0.8978 ppb	07:44:44
2	Se 196.026†	-12.3	10.0	8.3634 ug/L	8.3634 ppb	07:44:44
2	Si 251.611†	557.6	35.7	1.3637 ug/L	1.3637 ppb	07:44:44
2	Sn 189.927†	7.3	3.6	0.8263 ug/L	0.8263 ppb	07:44:44
2	Ti 334.940†	-1015.7	35.5	0.0621 ug/L	0.0621 ppb	07:44:24
2	Tl 190.801†	-31.8	-2.5	-0.9809 ug/L	-0.9809 ppb	07:44:44
2	U 409.014†	-1735.6	217.2	6.4251 ug/L	6.4251 ppb	07:44:24
2	V 292.402†	-1261.2	96.5	0.7802 ug/L	0.7802 ppb	07:44:24
2	Zn 213.857†	652.9	45.0	0.5492 ug/L	0.5492 ppb	07:44:44
2	SiO2†	581.6	42.0	3.4137 ug/L	3.4137 ppb	07:45:50
3	Sc Radial	4555.0	4555.0	100 %		07:43:32
3	Y RADIAL	4912.6	4912.6	99.91 %		07:43:32
3	Al 396.153Radial†	-67.7	5.5	5.4157 ug/L	5.4157 ppb	07:43:52
3	Ca 317.933Radial†	22.5	4.1	7.7487 ug/L	7.7487 ppb	07:43:52
3	Fe 238.204 Radial†	8.1	1.5	16.800 ug/L	16.800 ppb	07:43:52
3	K 766.490 Radial†	2409.5	-102.6	-19.512 ug/L	-19.512 ppb	07:43:32
3	Mg 279.077 IEC†	1.5	1.1	44.170 ug/L	44.170 ppb	07:43:52
3	Na 589.592 Radial†	-762.9	-44.6	-15.574 ug/L	-15.574 ppb	07:43:32
3	Sr 421.552†	57.6	20.2	0.1578 ug/L	0.1578 ppb	07:43:32
3	Sc 361.383	854137.6	854137.6	101.04 %		07:44:49
3	Y 371.029	721804.6	721804.6	101.24 %		07:44:49
3	Ag 328.068†	147.3	-10.9	-0.0507 ug/L	-0.0507 ppb	07:44:49
3	As 188.979†	-26.3	-3.9	-2.2209 ug/L	-2.2209 ppb	07:45:09
3	B 249.677†	-43.2	404.7	11.436 ug/L	11.436 ppb	07:45:09
3	Ba 233.527†	11.8	-0.3	-0.0009 ug/L	-0.0009 ppb	07:45:09
3	Be 313.107†	-4398.5	104.3	0.0449 ug/L	0.0449 ppb	07:44:49
3	Cd 226.502†	-146.3	3.7	0.0525 ug/L	0.0525 ppb	07:45:09
3	Co 228.616†	-40.4	13.6	0.3599 ug/L	0.3599 ppb	07:45:09
3	Cr 267.716†	59.3	-11.5	-0.1550 ug/L	-0.1550 ppb	07:45:09
3	Cu 324.752†	5659.8	75.3	0.2489 ug/L	0.2489 ppb	07:44:49
3	Mn 257.610†	538.7	146.8	0.1951 ug/L	0.1951 ppb	07:45:09
3	Mo 202.031†	20.4	7.3	0.6553 ug/L	0.6553 ppb	07:45:09
3	Ni 231.604†	73.6	0.2	0.0076 ug/L	0.0076 ppb	07:45:09
3	P 214.914†	191.8	-10.8	-8.2300 ug/L	-8.2300 ppb	07:45:09
3	Pb 220.353†	-39.7	9.7	1.5110 ug/L	1.5110 ppb	07:45:09
3	S 181.975 Axial†	21.8	-8.3	-15.058 ug/L	-15.058 ppb	07:45:09
3	Sb 206.836†	35.1	9.3	4.0012 ug/L	4.0012 ppb	07:45:09
3	Se 196.026†	-17.8	4.6	3.8690 ug/L	3.8690 ppb	07:45:09
3	Si 251.611†	570.6	45.9	1.7452 ug/L	1.7452 ppb	07:45:09
3	Sn 189.927†	12.0	8.2	1.8864 ug/L	1.8864 ppb	07:45:09
3	Ti 334.940†	-964.6	91.0	0.1545 ug/L	0.1545 ppb	07:44:49
3	Tl 190.801†	-30.9	-1.5	-0.5993 ug/L	-0.5993 ppb	07:45:09
3	U 409.014†	-1868.2	94.3	2.7883 ug/L	2.7883 ppb	07:44:49
3	V 292.402†	-1282.1	81.9	0.6686 ug/L	0.6686 ppb	07:44:49
3	Zn 213.857†	652.4	41.4	0.5068 ug/L	0.5068 ppb	07:45:09
3	SiO2†	567.6	25.4	2.0421 ug/L	2.0421 ppb	07:46:10

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	849871.0	100.54	%	0.514				0.51%
Sc Radial	4581.9	101	%	0.7				0.67%
Y 371.029	717652.0	100.66	%	0.592				0.59%
Y RADIAL	4928.3	100.2	%	0.45				0.45%
Ag 328.068†	3.2	0.0258	ug/L	0.07755	0.0258	ppb	0.07755	300.48%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.3	-0.3615	ug/L	5.36724	-0.3615	ppb	5.36724	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.1	-0.6320	ug/L	1.79653	-0.6320	ppb	1.79653	284.28%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	409.4	11.568	ug/L	0.4956	11.568	ppb	0.4956	4.28%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.6	0.0460	ug/L	0.04231	0.0460	ppb	0.04231	91.97%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	114.8	0.0491	ug/L	0.00626	0.0491	ppb	0.00626	12.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.7	5.0184	ug/L	3.82175	5.0184	ppb	3.82175	76.15%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -1.2     -0.0199 ug/L       0.15423     -0.0199 ppb        0.15423 773.55%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 7.0      0.1862 ug/L       0.22476      0.1862 ppb        0.22476 120.74%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -4.5     -0.0585 ug/L       0.14579     -0.0585 ppb        0.14579 249.32%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                10.1      0.0336 ug/L       0.19123      0.0336 ppb        0.19123 569.96%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.6      29.289 ug/L       20.9770      29.289 ppb        20.9770  71.62%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -110.5     -21.021 ug/L        1.8591     -21.021 ppb         1.8591   8.84%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.3      52.670 ug/L       94.9533      52.670 ppb        94.9533 180.28%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               104.7      0.1399 ug/L       0.06546      0.1399 ppb        0.06546  46.77%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.6      0.5019 ug/L       0.57199      0.5019 ppb        0.57199 113.96%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -25.9     -9.0422 ug/L       6.50042     -9.0422 ppb        6.50042  71.89%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 9.5      0.3070 ug/L       0.28075      0.3070 ppb        0.28075  91.45%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -11.0     -8.3535 ug/L       5.38609     -8.3535 ppb        5.38609  64.48%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 4.3      0.6701 ug/L       0.98735      0.6701 ppb        0.98735 147.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.1     -3.8370 ug/L      10.39536     -3.8370 ppb       10.39536 270.92%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.8      2.0967 ug/L       1.66769      2.0967 ppb        1.66769  79.54%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.8      3.2437 ug/L       5.45919      3.2437 ppb        5.45919 168.30%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                36.7      1.3942 ug/L       0.33686      1.3942 ppb        0.33686  24.16%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.8      1.5758 ug/L       0.65227      1.5758 ppb        0.65227  41.39%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                12.6      0.0990 ug/L       0.10670      0.0990 ppb        0.10670 107.74%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                19.5      0.0290 ug/L       0.14483      0.0290 ppb        0.14483 498.65%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -4.2     -1.6749 ug/L       1.54442     -1.6749 ppb        1.54442  92.21%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 91.6      2.7069 ug/L       3.75967      2.7069 ppb        3.75967 138.89%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 75.0      0.6101 ug/L       0.20568      0.6101 ppb        0.20568  33.71%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                36.0      0.4375 ug/L       0.15809      0.4375 ppb        0.15809  36.13%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      35.4      2.8572 ug/L       0.72148      2.8572 ppb        0.72148  25.25%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 3/22/2010 07:48:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4647.0	4647.0	102	%			07:50:15
1	Y RADIAL	5007.9	5007.9	101.9	%			07:50:15
1	Al 396.153Radial†	133.8	204.2	201.56	ug/L	201.56	ppb	07:50:35
1	Ca 317.933Radial†	129.9	108.8	205.40	ug/L	205.40	ppb	07:50:35
1	Fe 238.204 Radial†	17.7	10.7	122.90	ug/L	122.90	ppb	07:50:35
1	K 766.490 Radial†	3224.0	647.6	123.03	ug/L	123.03	ppb	07:50:15
1	Mg 279.077 IEC†	9.6	9.0	374.20	ug/L	374.20	ppb	07:50:35
1	Na 589.592 Radial†	101.2	816.8	285.21	ug/L	285.21	ppb	07:50:15
1	Sr 421.552†	657.3	606.4	4.7494	ug/L	4.7494	ppb	07:50:15
1	Sc 361.383	854408.6	854408.6	101.08	%			07:51:31
1	Y 371.029	721763.1	721763.1	101.24	%			07:51:31
1	Ag 328.068†	1079.2	911.1	4.7063	ug/L	4.7063	ppb	07:51:31
1	As 188.979†	22.3	44.2	24.948	ug/L	24.948	ppb	07:51:51
1	B 249.677†	1613.6	2043.8	57.739	ug/L	57.739	ppb	07:51:31
1	Ba 233.527†	566.0	548.0	5.2247	ug/L	5.2247	ppb	07:51:51
1	Be 313.107†	7305.5	11685.0	5.0001	ug/L	5.0001	ppb	07:51:31
1	Cd 226.502†	189.4	335.9	4.9365	ug/L	4.9365	ppb	07:51:51
1	Co 228.616†	152.2	204.2	5.3868	ug/L	5.3868	ppb	07:51:51
1	Cr 267.716†	435.2	360.3	4.8975	ug/L	4.8975	ppb	07:51:51
1	Cu 324.752†	8654.8	3036.5	10.035	ug/L	10.035	ppb	07:51:31
1	Mn 257.610†	8280.5	7806.0	10.377	ug/L	10.377	ppb	07:51:31
1	Mo 202.031†	125.0	110.8	9.9831	ug/L	9.9831	ppb	07:51:51
1	Ni 231.604†	247.5	172.3	5.5626	ug/L	5.5626	ppb	07:51:51
1	P 214.914†	392.9	188.1	140.60	ug/L	140.60	ppb	07:51:51
1	Pb 220.353†	9.3	58.1	9.1332	ug/L	9.1332	ppb	07:51:51
1	S 181.975 Axial†	88.0	57.2	103.62	ug/L	103.62	ppb	07:51:51
1	Sb 206.836†	49.3	23.3	10.322	ug/L	10.322	ppb	07:51:51
1	Se 196.026†	22.9	44.8	37.776	ug/L	37.776	ppb	07:51:51
1	Si 251.611†	3106.9	2555.0	97.453	ug/L	97.453	ppb	07:51:51
1	Sn 189.927†	55.9	51.6	11.928	ug/L	11.928	ppb	07:51:51
1	Ti 334.940†	1930.5	2955.5	5.1114	ug/L	5.1114	ppb	07:51:31
1	Tl 190.801†	22.0	50.8	20.118	ug/L	20.118	ppb	07:51:51
1	U 409.014†	-25.8	1917.7	56.714	ug/L	56.714	ppb	07:51:31
1	V 292.402†	-686.2	671.8	5.6130	ug/L	5.6130	ppb	07:51:31
1	Zn 213.857†	1532.6	912.0	11.172	ug/L	11.172	ppb	07:51:51
1	SiO2†	3215.4	2644.8	214.45	ug/L	214.45	ppb	07:52:48
2	Sc Radial	4614.4	4614.4	101	%			07:50:40
2	Y RADIAL	4976.1	4976.1	101.2	%			07:50:40
2	Al 396.153Radial†	133.8	205.1	202.50	ug/L	202.50	ppb	07:51:00
2	Ca 317.933Radial†	128.2	108.1	203.94	ug/L	203.94	ppb	07:51:00
2	Fe 238.204 Radial†	18.2	11.3	130.28	ug/L	130.28	ppb	07:51:00
2	K 766.490 Radial†	3154.0	600.9	114.13	ug/L	114.13	ppb	07:50:40
2	Mg 279.077 IEC†	8.1	7.6	313.88	ug/L	313.88	ppb	07:51:00
2	Na 589.592 Radial†	176.8	892.1	311.50	ug/L	311.50	ppb	07:50:40
2	Sr 421.552†	641.0	594.9	4.6597	ug/L	4.6597	ppb	07:50:40
2	Sc 361.383	859116.4	859116.4	101.63	%			07:51:57
2	Y 371.029	725809.8	725809.8	101.80	%			07:51:57
2	Ag 328.068†	1202.8	1026.7	5.3060	ug/L	5.3060	ppb	07:51:57
2	As 188.979†	25.0	46.7	26.382	ug/L	26.382	ppb	07:52:17
2	B 249.677†	1560.1	1982.4	56.003	ug/L	56.003	ppb	07:51:57
2	Ba 233.527†	558.9	537.9	5.1305	ug/L	5.1305	ppb	07:52:17
2	Be 313.107†	7455.8	11793.3	5.0460	ug/L	5.0460	ppb	07:51:57
2	Cd 226.502†	187.3	332.7	4.8901	ug/L	4.8901	ppb	07:52:17
2	Co 228.616†	142.1	193.4	5.1025	ug/L	5.1025	ppb	07:52:17
2	Cr 267.716†	459.6	382.1	5.1937	ug/L	5.1937	ppb	07:52:17
2	Cu 324.752†	8787.9	3120.6	10.313	ug/L	10.313	ppb	07:51:57
2	Mn 257.610†	8334.3	7814.0	10.391	ug/L	10.391	ppb	07:51:57
2	Mo 202.031†	119.3	104.5	9.4156	ug/L	9.4156	ppb	07:52:17
2	Ni 231.604†	256.0	179.2	5.7876	ug/L	5.7876	ppb	07:52:17

2	P 214.914†	381.2	174.4	130.20 ug/L	130.20 ppb	07:52:17
2	Pb 220.353†	26.1	74.6	11.719 ug/L	11.719 ppb	07:52:17
2	S 181.975 Axial†	89.5	58.2	105.35 ug/L	105.35 ppb	07:52:17
2	Sb 206.836†	55.1	28.8	12.615 ug/L	12.615 ppb	07:52:17
2	Se 196.026†	21.7	43.6	36.751 ug/L	36.751 ppb	07:52:17
2	Si 251.611†	3103.9	2535.1	96.702 ug/L	96.702 ppb	07:52:17
2	Sn 189.927†	48.0	43.5	10.051 ug/L	10.051 ppb	07:52:17
2	Ti 334.940†	1845.0	2860.9	4.9508 ug/L	4.9508 ppb	07:51:57
2	Tl 190.801†	17.9	46.7	18.478 ug/L	18.478 ppb	07:52:17
2	U 409.014†	25.5	1968.2	58.209 ug/L	58.209 ppb	07:51:57
2	V 292.402†	-618.0	742.6	6.1728 ug/L	6.1728 ppb	07:51:57
2	Zn 213.857†	1538.5	909.5	11.139 ug/L	11.139 ppb	07:52:17
2	SiO2†	3203.2	2615.4	212.07 ug/L	212.07 ppb	07:52:53
3	Sc Radial	4490.2	4490.2	98.6 %		07:51:05
3	Y RADIAL	4879.3	4879.3	99.24 %		07:51:05
3	Al 396.153Radial†	131.3	206.2	203.57 ug/L	203.57 ppb	07:51:25
3	Ca 317.933Radial†	131.0	114.5	215.99 ug/L	215.99 ppb	07:51:25
3	Fe 238.204 Radial†	16.5	10.1	116.15 ug/L	116.15 ppb	07:51:25
3	K 766.490 Radial†	3228.7	762.7	144.92 ug/L	144.92 ppb	07:51:05
3	Mg 279.077 IEC†	11.9	11.6	482.22 ug/L	482.22 ppb	07:51:25
3	Na 589.592 Radial†	134.6	854.3	298.28 ug/L	298.28 ppb	07:51:05
3	Sr 421.552†	637.5	608.8	4.7685 ug/L	4.7685 ppb	07:51:05
3	Sc 361.383	853009.6	853009.6	100.91 %		07:52:22
3	Y 371.029	719565.2	719565.2	100.93 %		07:52:22
3	Ag 328.068†	1183.9	1016.5	5.2481 ug/L	5.2481 ppb	07:52:22
3	As 188.979†	32.3	54.1	30.554 ug/L	30.554 ppb	07:52:42
3	B 249.677†	1547.6	1981.1	55.966 ug/L	55.966 ppb	07:52:22
3	Ba 233.527†	565.3	548.2	5.2270 ug/L	5.2270 ppb	07:52:42
3	Be 313.107†	7466.1	11856.0	5.0729 ug/L	5.0729 ppb	07:52:22
3	Cd 226.502†	205.1	351.7	5.1699 ug/L	5.1699 ppb	07:52:42
3	Co 228.616†	160.6	212.8	5.6130 ug/L	5.6130 ppb	07:52:42
3	Cr 267.716†	446.7	372.5	5.0626 ug/L	5.0626 ppb	07:52:42
3	Cu 324.752†	8661.0	3056.8	10.101 ug/L	10.101 ppb	07:52:22
3	Mn 257.610†	8329.0	7867.5	10.454 ug/L	10.454 ppb	07:52:22
3	Mo 202.031†	121.9	107.9	9.7210 ug/L	9.7210 ppb	07:52:42
3	Ni 231.604†	262.1	187.2	6.0433 ug/L	6.0433 ppb	07:52:42
3	P 214.914†	402.1	197.8	147.99 ug/L	147.99 ppb	07:52:42
3	Pb 220.353†	20.2	68.9	10.833 ug/L	10.833 ppb	07:52:42
3	S 181.975 Axial†	87.6	56.9	103.15 ug/L	103.15 ppb	07:52:42
3	Sb 206.836†	50.9	25.0	11.034 ug/L	11.034 ppb	07:52:42
3	Se 196.026†	18.0	40.0	33.736 ug/L	33.736 ppb	07:52:42
3	Si 251.611†	3119.3	2572.3	98.117 ug/L	98.117 ppb	07:52:42
3	Sn 189.927†	53.3	49.1	11.353 ug/L	11.353 ppb	07:52:42
3	Ti 334.940†	1864.0	2892.7	4.9944 ug/L	4.9944 ppb	07:52:22
3	Tl 190.801†	24.0	52.9	20.934 ug/L	20.934 ppb	07:52:42
3	U 409.014†	-8.0	1935.3	57.236 ug/L	57.236 ppb	07:52:22
3	V 292.402†	-656.8	699.8	5.8376 ug/L	5.8376 ppb	07:52:22
3	Zn 213.857†	1555.9	937.6	11.486 ug/L	11.486 ppb	07:52:42
3	SiO2†	3257.0	2691.2	218.22 ug/L	218.22 ppb	07:52:58

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	855511.5	101.21	%	0.378				0.37%
Sc Radial	4583.9	101	%	1.8				1.81%
Y 371.029	722379.4	101.32	%	0.444				0.44%
Y RADIAL	4954.5	100.8	%	1.36				1.35%
Ag 328.068†	984.8	5.0868	ug/L	0.33077	5.0868	ppb	0.33077	6.50%
QC value within limits for Ag 328.068 Recovery = 101.74%								
Al 396.153Radial†	205.2	202.54	ug/L	1.008	202.54	ppb	1.008	0.50%
QC value within limits for Al 396.153Radial Recovery = 101.27%								
As 188.979†	48.3	27.295	ug/L	2.9125	27.295	ppb	2.9125	10.67%
QC value within limits for As 188.979 Recovery = 90.98%								
B 249.677†	2002.5	56.570	ug/L	1.0130	56.570	ppb	1.0130	1.79%
QC value within limits for B 249.677 Recovery = 113.14%								
Ba 233.527†	544.7	5.1941	ug/L	0.05504	5.1941	ppb	0.05504	1.06%
QC value within limits for Ba 233.527 Recovery = 103.88%								
Be 313.107†	11778.1	5.0396	ug/L	0.03680	5.0396	ppb	0.03680	0.73%
QC value within limits for Be 313.107 Recovery = 100.79%								
Ca 317.933Radial†	110.5	208.44	ug/L	6.576	208.44	ppb	6.576	3.15%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.22%
Cd 226.502†              340.1      4.9989 ug/L       0.14995      4.9989 ppb        0.14995   3.00%
   QC value within limits for Cd 226.502  Recovery = 99.98%
Co 228.616†              203.5      5.3675 ug/L       0.25582      5.3675 ppb        0.25582   4.77%
   QC value within limits for Co 228.616  Recovery = 107.35%
Cr 267.716†              371.6      5.0513 ug/L       0.14844      5.0513 ppb        0.14844   2.94%
   QC value within limits for Cr 267.716  Recovery = 101.03%
Cu 324.752†             3071.3      10.150 ug/L        0.1452      10.150 ppb         0.1452   1.43%
   QC value within limits for Cu 324.752  Recovery = 101.50%
Fe 238.204 Radial†        10.7      123.11 ug/L         7.069      123.11 ppb          7.069   5.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 123.11%
K 766.490 Radial†        670.4      127.36 ug/L        15.846      127.36 ppb         15.846  12.44%
   QC value within limits for K 766.490 Radial  Recovery = 84.91%
Mg 279.077 IEC†            9.4      390.10 ug/L        85.287      390.10 ppb         85.287  21.86%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 130.03%
Mn 257.610†             7829.2      10.407 ug/L        0.0409      10.407 ppb         0.0409   0.39%
   QC value within limits for Mn 257.610  Recovery = 104.07%
Mo 202.031†              107.7      9.7066 ug/L       0.28399      9.7066 ppb        0.28399   2.93%
   QC value within limits for Mo 202.031  Recovery = 97.07%
Na 589.592 Radial†       854.4      298.33 ug/L        13.145      298.33 ppb         13.145   4.41%
   QC value within limits for Na 589.592 Radial  Recovery = 99.44%
Ni 231.604†              179.5      5.7979 ug/L       0.24055      5.7979 ppb        0.24055   4.15%
   QC value within limits for Ni 231.604  Recovery = 115.96%
P 214.914†               186.8      139.60 ug/L         8.937      139.60 ppb          8.937   6.40%
   QC value within limits for P 214.914  Recovery = 93.07%
Pb 220.353†               67.2      10.562 ug/L        1.3139      10.562 ppb         1.3139  12.44%
   QC value within limits for Pb 220.353  Recovery = 105.62%
S 181.975 Axial†          57.4      104.04 ug/L         1.161      104.04 ppb          1.161   1.12%
   QC value within limits for S 181.975 Axial  Recovery = 104.04%
Sb 206.836†               25.7      11.324 ug/L        1.1736      11.324 ppb         1.1736  10.36%
   QC value within limits for Sb 206.836  Recovery = 113.24%
Se 196.026†               42.8      36.088 ug/L        2.0999      36.088 ppb         2.0999   5.82%
   QC value within limits for Se 196.026  Recovery = 120.29%
Si 251.611†             2554.1      97.424 ug/L        0.7079      97.424 ppb         0.7079   0.73%
   QC value within limits for Si 251.611  Recovery = 97.42%
Sn 189.927†               48.1      11.110 ug/L        0.9616      11.110 ppb         0.9616   8.66%
   QC value within limits for Sn 189.927  Recovery = 111.10%
Sr 421.552†              603.4      4.7259 ug/L       0.05812      4.7259 ppb        0.05812   1.23%
   QC value within limits for Sr 421.552  Recovery = 94.52%
Ti 334.940†             2903.0      5.0188 ug/L       0.08304      5.0188 ppb        0.08304   1.65%
   QC value within limits for Ti 334.940  Recovery = 100.38%
Tl 190.801†               50.1      19.843 ug/L        1.2507      19.843 ppb         1.2507   6.30%
   QC value within limits for Tl 190.801  Recovery = 99.22%
U 409.014†              1940.4      57.386 ug/L        0.7586      57.386 ppb         0.7586   1.32%
   QC value within limits for U 409.014  Recovery = 114.77%
V 292.402†               704.8      5.8745 ug/L       0.28171      5.8745 ppb        0.28171   4.80%
   QC value within limits for V 292.402  Recovery = 117.49%
Zn 213.857†              919.7      11.265 ug/L        0.1915      11.265 ppb         0.1915   1.70%
   QC value within limits for Zn 213.857  Recovery = 112.65%
SiO2†                   2650.5      214.92 ug/L         3.101      214.92 ppb          3.101   1.44%
   QC value within limits for SiO2  Recovery = 100.90%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 3/22/2010 07:55:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4162.6	4162.6	91.4	%			07:57:22
1	Y RADIAL	4458.5	4458.5	90.68	%			07:57:22
1	Al 396.153Radial†	470749.0	514860.4	509390	ug/L	509390	ppb	07:57:02
1	Ca 317.933Radial†	228889.3	250283.3	472280	ug/L	472280	ppb	07:57:02
1	Fe 238.204 Radial†	14759.0	16133.0	185170	ug/L	185170	ppb	07:57:22
1	K 766.490 Radial†	2154.4	-154.5	-187.37	ug/L	-187.37	ppb	07:57:02
1	Mg 279.077 IEC†	10734.3	11738.0	487140	ug/L	487140	ppb	07:57:22
1	Na 589.592 Radial†	-641.3	16.4	5.7372	ug/L	5.7372	ppb	07:57:22
1	Sr 421.552†	462.6	468.4	0.1435	ug/L	0.1435	ppb	07:57:22
1	Sc 361.383	744053.2	744053.2	88.022	%			07:58:20
1	Y 371.029	613797.8	613797.8	86.093	%			07:58:20
1	Ag 328.068†	-8719.5	-10062.8	-0.9918	ug/L	-0.9918	ppb	07:58:20
1	As 188.979†	-63.1	-49.7	15.239	ug/L	15.239	ppb	07:58:40
1	B 249.677†	491.6	1005.9	-1.6400	ug/L	-1.6400	ppb	07:58:20
1	Ba 233.527†	-471.2	-547.3	0.4667	ug/L	0.4667	ppb	07:58:40
1	Be 313.107†	-4691.6	-872.7	-0.4250	ug/L	-0.4250	ppb	07:58:20
1	Cd 226.502†	1068.6	1362.5	0.9016	ug/L	0.9016	ppb	07:58:40
1	Co 228.616†	9.2	64.1	-0.9782	ug/L	-0.9782	ppb	07:58:40
1	Cr 267.716†	-1249.5	-1489.7	-0.6312	ug/L	-0.6312	ppb	07:58:40
1	Cu 324.752†	3042.8	-2069.1	2.9221	ug/L	2.9221	ppb	07:58:40
1	Mn 257.610†	78.3	-297.3	-2.0322	ug/L	-2.0322	ppb	07:58:20
1	Mo 202.031†	-180.1	-217.6	0.4163	ug/L	0.4163	ppb	07:58:40
1	Ni 231.604†	160.2	109.4	3.5326	ug/L	3.5326	ppb	07:58:40
1	P 214.914†	173.2	-3.9	-24.548	ug/L	-24.548	ppb	07:58:40
1	Pb 220.353†	-597.6	-630.0	-5.6374	ug/L	-5.6374	ppb	07:58:40
1	S 181.975 Axial†	26.4	0.1	-95.362	ug/L	-95.362	ppb	07:58:40
1	Sb 206.836†	60.0	42.7	0.7839	ug/L	0.7839	ppb	07:58:40
1	Se 196.026†	-706.2	-780.2	44.708	ug/L	44.708	ppb	07:58:40
1	Si 251.611†	463.2	7.4	0.5232	ug/L	0.5232	ppb	07:58:40
1	Sn 189.927†	-323.0	-370.7	-12.164	ug/L	-12.164	ppb	07:58:40
1	Ti 334.940†	-12603.6	-13273.2	0.4406	ug/L	0.4406	ppb	07:58:20
1	Tl 190.801†	-82.6	-64.7	-25.776	ug/L	-25.776	ppb	07:58:40
1	U 409.014†	-407.6	1480.1	22.727	ug/L	22.727	ppb	07:58:20
1	V 292.402†	593.4	2024.9	-1.4987	ug/L	-1.4987	ppb	07:58:40
1	Zn 213.857†	2557.8	2301.6	0.6416	ug/L	0.6416	ppb	07:58:40
1	SiO2†	534.5	70.8	6.2845	ug/L	6.2845	ppb	07:59:36
2	Sc Radial	4127.6	4127.6	90.7	%			07:57:48
2	Y RADIAL	4431.9	4431.9	90.13	%			07:57:48
2	Al 396.153Radial†	465468.1	513401.8	507950	ug/L	507950	ppb	07:57:28
2	Ca 317.933Radial†	226486.8	249756.3	471290	ug/L	471290	ppb	07:57:28
2	Fe 238.204 Radial†	14694.0	16198.2	185920	ug/L	185920	ppb	07:57:48
2	K 766.490 Radial†	2129.0	-162.5	-188.56	ug/L	-188.56	ppb	07:57:28
2	Mg 279.077 IEC†	10681.5	11779.4	488850	ug/L	488850	ppb	07:57:48
2	Na 589.592 Radial†	-605.4	50.2	17.515	ug/L	17.515	ppb	07:57:48
2	Sr 421.552†	473.3	484.6	0.2774	ug/L	0.2774	ppb	07:57:48
2	Sc 361.383	744334.2	744334.2	88.055	%			07:58:45
2	Y 371.029	613994.5	613994.5	86.121	%			07:58:45
2	Ag 328.068†	-8603.2	-9926.9	-0.0437	ug/L	-0.0437	ppb	07:58:45
2	As 188.979†	-56.2	-41.7	19.897	ug/L	19.897	ppb	07:59:05
2	B 249.677†	494.2	1008.7	-1.6826	ug/L	-1.6826	ppb	07:58:45
2	Ba 233.527†	-475.8	-552.3	0.4424	ug/L	0.4424	ppb	07:59:05
2	Be 313.107†	-4591.7	-757.3	-0.3773	ug/L	-0.3773	ppb	07:58:45
2	Cd 226.502†	1070.9	1364.6	0.8553	ug/L	0.8553	ppb	07:59:05
2	Co 228.616†	1.7	55.6	-1.2153	ug/L	-1.2153	ppb	07:59:05
2	Cr 267.716†	-1241.5	-1480.1	-0.4196	ug/L	-0.4196	ppb	07:59:05
2	Cu 324.752†	3126.8	-1975.0	3.2749	ug/L	3.2749	ppb	07:59:05
2	Mn 257.610†	121.2	-248.6	-1.9638	ug/L	-1.9638	ppb	07:58:45
2	Mo 202.031†	-196.2	-235.7	-1.1716	ug/L	-1.1716	ppb	07:59:05
2	Ni 231.604†	178.9	130.5	4.2168	ug/L	4.2168	ppb	07:59:05

2	P 214.914†	143.5	-37.7	-51.183 ug/L	-51.183 ppb	07:59:05
2	Pb 220.353†	-631.3	-668.1	-12.029 ug/L	-12.029 ppb	07:59:05
2	S 181.975 Axial†	36.6	11.6	-74.139 ug/L	-74.139 ppb	07:59:05
2	Sb 206.836†	59.0	41.6	0.3434 ug/L	0.3434 ppb	07:59:05
2	Se 196.026†	-707.5	-781.3	45.439 ug/L	45.439 ppb	07:59:05
2	Si 251.611†	479.0	25.1	1.2198 ug/L	1.2198 ppb	07:59:05
2	Sn 189.927†	-314.2	-360.5	-10.033 ug/L	-10.033 ppb	07:59:05
2	Ti 334.940†	-12954.9	-13666.7	-0.5166 ug/L	-0.5166 ppb	07:58:45
2	Tl 190.801†	-74.7	-55.8	-22.244 ug/L	-22.244 ppb	07:59:05
2	U 409.014†	-484.8	1392.6	20.055 ug/L	20.055 ppb	07:58:45
2	V 292.402†	622.2	2057.3	-1.3416 ug/L	-1.3416 ppb	07:59:05
2	Zn 213.857†	2591.7	2339.0	0.9857 ug/L	0.9857 ppb	07:59:05
2	SiO2†	437.1	-39.9	-2.6654 ug/L	-2.6654 ppb	07:59:41
3	Sc Radial	4140.8	4140.8	91.0 %		07:58:13
3	Y RADIAL	4422.8	4422.8	89.95 %		07:58:13
3	Al 396.153Radial†	460902.5	506750.6	501370 ug/L	501370 ppb	07:57:53
3	Ca 317.933Radial†	224967.0	247291.5	466640 ug/L	466640 ppb	07:57:53
3	Fe 238.204 Radial†	14614.7	16059.5	184330 ug/L	184330 ppb	07:58:13
3	K 766.490 Radial†	2270.2	-14.8	-158.89 ug/L	-158.89 ppb	07:57:53
3	Mg 279.077 IEC†	10630.2	11685.6	484960 ug/L	484960 ppb	07:58:13
3	Na 589.592 Radial†	-626.6	28.9	10.085 ug/L	10.085 ppb	07:58:13
3	Sr 421.552†	471.7	481.1	0.2851 ug/L	0.2851 ppb	07:58:13
3	Sc 361.383	738904.1	738904.1	87.413 %		07:59:10
3	Y 371.029	609891.2	609891.2	85.545 %		07:59:10
3	Ag 328.068†	-8644.4	-10045.9	-1.0828 ug/L	-1.0828 ppb	07:59:10
3	As 188.979†	-69.8	-57.8	10.478 ug/L	10.478 ppb	07:59:31
3	B 249.677†	478.8	995.2	-1.8066 ug/L	-1.8066 ppb	07:59:10
3	Ba 233.527†	-449.8	-526.5	0.6409 ug/L	0.6409 ppb	07:59:31
3	Be 313.107†	-4508.7	-700.7	-0.3512 ug/L	-0.3512 ppb	07:59:10
3	Cd 226.502†	1057.7	1358.5	0.9297 ug/L	0.9297 ppb	07:59:31
3	Co 228.616†	-2.4	50.8	-1.3159 ug/L	-1.3159 ppb	07:59:31
3	Cr 267.716†	-1270.5	-1523.7	-1.1799 ug/L	-1.1799 ppb	07:59:31
3	Cu 324.752†	3057.2	-2028.6	3.0130 ug/L	3.0130 ppb	07:59:31
3	Mn 257.610†	103.1	-268.3	-1.9879 ug/L	-1.9879 ppb	07:59:10
3	Mo 202.031†	-183.2	-222.5	-0.1586 ug/L	-0.1586 ppb	07:59:31
3	Ni 231.604†	162.3	113.1	3.6527 ug/L	3.6527 ppb	07:59:31
3	P 214.914†	124.8	-57.9	-66.803 ug/L	-66.803 ppb	07:59:31
3	Pb 220.353†	-609.8	-648.7	-10.297 ug/L	-10.297 ppb	07:59:31
3	S 181.975 Axial†	46.9	23.8	-50.911 ug/L	-50.911 ppb	07:59:31
3	Sb 206.836†	43.1	23.9	-7.0249 ug/L	-7.0249 ppb	07:59:31
3	Se 196.026†	-712.7	-793.2	28.860 ug/L	28.860 ppb	07:59:31
3	Si 251.611†	460.1	7.5	0.5327 ug/L	0.5327 ppb	07:59:31
3	Sn 189.927†	-323.0	-373.2	-13.698 ug/L	-13.698 ppb	07:59:31
3	Ti 334.940†	-12449.4	-13196.5	-0.0043 ug/L	-0.0043 ppb	07:59:10
3	Tl 190.801†	-86.6	-69.9	-27.824 ug/L	-27.824 ppb	07:59:31
3	U 409.014†	-474.7	1400.1	20.459 ug/L	20.459 ppb	07:59:10
3	V 292.402†	701.3	2152.9	-0.4027 ug/L	-0.4027 ppb	07:59:31
3	Zn 213.857†	2559.7	2323.9	1.0421 ug/L	1.0421 ppb	07:59:31
3	SiO2†	410.7	-66.5	-4.8502 ug/L	-4.8502 ppb	07:59:46

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	742430.5	87.830	%	0.3617				0.41%
Sc Radial	4143.6	91.0	%	0.39				0.43%
Y 371.029	612561.2	85.920	%	0.3246				0.38%
Y RADIAL	4437.7	90.25	%	0.378				0.42%
Ag 328.068†	-10011.8	-0.7061	ug/L	0.57543	-0.7061	ppb	0.57543	81.50%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	511670.9	506240	ug/L	4277.2	506240	ppb	4277.2	0.84%
QC value within limits for Al 396.153Radial Recovery = 101.25%								
As 188.979†	-49.7	15.205	ug/L	4.7097	15.205	ppb	4.7097	30.97%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1003.3	-1.7097	ug/L	0.08655	-1.7097	ppb	0.08655	5.06%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-542.1	0.5167	ug/L	0.10827	0.5167	ppb	0.10827	20.96%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-776.9	-0.3845	ug/L	0.03741	-0.3845	ppb	0.03741	9.73%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	249110.4	470070	ug/L	3013.8	470070	ppb	3013.8	0.64%

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   QC value within limits for Ca 317.933Radial  Recovery = 94.01%
Cd 226.502†            1361.9      0.8955 ug/L       0.03756      0.8955 ppb        0.03756   4.19%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              56.8     -1.1698 ug/L       0.17341     -1.1698 ppb        0.17341  14.82%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†           -1497.8     -0.7436 ug/L       0.39245     -0.7436 ppb        0.39245  52.78%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -2024.2      3.0700 ug/L       0.18316      3.0700 ppb        0.18316   5.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    16130.3      185140 ug/L         796.4      185140 ppb          796.4   0.43%
   QC value within limits for Fe 238.204 Radial  Recovery = 92.57%
K 766.490 Radial†      -110.6     -178.27 ug/L        16.796     -178.27 ppb         16.796   9.42%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       11734.4      486980 ug/L        1951.8      486980 ppb         1951.8   0.40%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.40%
Mn 257.610†            -271.4     -1.9946 ug/L       0.03471     -1.9946 ppb        0.03471   1.74%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -225.2     -0.3046 ug/L       0.80395     -0.3046 ppb        0.80395 263.89%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       31.8      11.113 ug/L        5.9560      11.113 ppb         5.9560  53.60%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             117.7      3.8007 ug/L       0.36534      3.8007 ppb        0.36534   9.61%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -33.2     -47.511 ug/L       21.3653     -47.511 ppb        21.3653  44.97%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -649.0     -9.3212 ug/L       3.30571     -9.3212 ppb        3.30571  35.46%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         11.8     -73.471 ug/L       22.2328     -73.471 ppb        22.2328  30.26%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              36.0     -1.9659 ug/L       4.38677     -1.9659 ppb        4.38677 223.15%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -784.9      39.669 ug/L        9.3682      39.669 ppb         9.3682  23.62%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              13.3      0.7586 ug/L       0.39942      0.7586 ppb        0.39942  52.65%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -368.2     -11.965 ug/L        1.8404     -11.965 ppb         1.8404  15.38%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             478.0      0.2353 ug/L       0.07960      0.2353 ppb        0.07960  33.83%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -13378.8     -0.0268 ug/L       0.47898     -0.0268 ppb        0.47898 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -63.5     -25.281 ug/L        2.8231     -25.281 ppb         2.8231  11.17%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             1424.3      21.081 ug/L        1.4405      21.081 ppb         1.4405   6.83%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             2078.4     -1.0810 ug/L       0.59264     -1.0810 ppb        0.59264  54.82%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2321.5      0.8898 ug/L       0.21681      0.8898 ppb        0.21681  24.37%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -11.9     -0.4104 ug/L       5.89997     -0.4104 ppb        5.89997 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 3/22/2010 08:01:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4095.5	4095.5	90.0	%			08:04:10
1	Y RADIAL	4399.6	4399.6	89.48	%			08:04:10
1	Al 396.153Radial†	478690.4	532113.3	526440	ug/L	526440	ppb	08:03:50
1	Ca 317.933Radial†	232462.9	258352.3	487510	ug/L	487510	ppb	08:03:50
1	Fe 238.204 Radial†	14747.2	16384.1	188070	ug/L	188070	ppb	08:04:10
1	K 766.490 Radial†	28793.3	29491.8	5445.4	ug/L	5445.4	ppb	08:03:50
1	Mg 279.077 IEC†	10694.1	11885.5	493260	ug/L	493260	ppb	08:04:10
1	Na 589.592 Radial†	14053.1	16337.1	5704.4	ug/L	5704.4	ppb	08:03:50
1	Sr 421.552†	60562.3	67274.5	523.45	ug/L	523.45	ppb	08:03:50
1	Sc 361.383	748853.0	748853.0	88.590	%			08:05:08
1	Y 371.029	617027.2	617027.2	86.546	%			08:05:08
1	Ag 328.068†	38471.5	43270.0	276.23	ug/L	276.23	ppb	08:05:08
1	As 188.979†	711.6	825.3	512.23	ug/L	512.23	ppb	08:05:29
1	B 249.677†	16946.0	19576.1	521.57	ug/L	521.57	ppb	08:05:08
1	Ba 233.527†	45242.4	51057.7	492.23	ug/L	492.23	ppb	08:05:08
1	Be 313.107†	505600.1	575179.0	246.65	ug/L	246.65	ppb	08:05:08
1	Cd 226.502†	28684.6	32527.7	458.85	ug/L	458.85	ppb	08:05:29
1	Co 228.616†	14902.5	16875.6	441.66	ug/L	441.66	ppb	08:05:29
1	Cr 267.716†	30454.0	34306.3	486.90	ug/L	486.90	ppb	08:05:08
1	Cu 324.752†	151524.0	165514.3	558.00	ug/L	558.00	ppb	08:05:08
1	Mn 257.610†	318727.3	359393.2	476.30	ug/L	476.30	ppb	08:05:08
1	Mo 202.031†	4574.9	5151.3	483.95	ug/L	483.95	ppb	08:05:29
1	Ni 231.604†	12389.5	13912.6	449.24	ug/L	449.24	ppb	08:05:29
1	P 214.914†	3058.7	3252.0	2339.5	ug/L	2339.5	ppb	08:05:29
1	Pb 220.353†	1998.8	2305.1	457.98	ug/L	457.98	ppb	08:05:29
1	S 181.975 Axial†	1302.8	1440.6	2511.8	ug/L	2511.8	ppb	08:05:29
1	Sb 206.836†	1164.6	1289.2	549.00	ug/L	549.00	ppb	08:05:29
1	Se 196.026†	1901.1	2168.1	2515.7	ug/L	2515.7	ppb	08:05:29
1	Si 251.611†	122062.6	137265.5	5236.5	ug/L	5236.5	ppb	08:05:08
1	Sn 189.927†	1567.9	1766.1	482.84	ug/L	482.84	ppb	08:05:29
1	Ti 334.940†	246917.0	279765.6	511.33	ug/L	511.33	ppb	08:05:08
1	Tl 190.801†	929.6	1078.4	428.98	ug/L	428.98	ppb	08:05:29
1	U 409.014†	14366.0	18159.6	514.81	ug/L	514.81	ppb	08:05:08
1	V 292.402†	56710.7	65365.7	512.62	ug/L	512.62	ppb	08:05:08
1	Zn 213.857†	38311.1	42641.3	493.78	ug/L	493.78	ppb	08:05:08
1	SiO2†	120509.9	135495.3	10988	ug/L	10988	ppb	08:06:26
2	Sc Radial	4115.2	4115.2	90.4	%			08:04:36
2	Y RADIAL	4416.9	4416.9	89.83	%			08:04:36
2	Al 396.153Radial†	468505.0	518306.7	512780	ug/L	512780	ppb	08:04:16
2	Ca 317.933Radial†	227675.1	251822.8	475190	ug/L	475190	ppb	08:04:16
2	Fe 238.204 Radial†	14854.6	16424.7	188530	ug/L	188530	ppb	08:04:36
2	K 766.490 Radial†	28322.1	28817.9	5321.4	ug/L	5321.4	ppb	08:04:16
2	Mg 279.077 IEC†	10778.8	11922.5	494800	ug/L	494800	ppb	08:04:36
2	Na 589.592 Radial†	13729.1	15904.1	5553.2	ug/L	5553.2	ppb	08:04:16
2	Sr 421.552†	59019.8	65246.9	507.65	ug/L	507.65	ppb	08:04:16
2	Sc 361.383	750801.9	750801.9	88.820	%			08:05:34
2	Y 371.029	619138.5	619138.5	86.842	%			08:05:34
2	Ag 328.068†	38446.4	43129.0	275.80	ug/L	275.80	ppb	08:05:34
2	As 188.979†	743.9	859.6	531.64	ug/L	531.64	ppb	08:05:55
2	B 249.677†	16817.6	19381.8	515.99	ug/L	515.99	ppb	08:05:34
2	Ba 233.527†	45300.6	50990.7	491.60	ug/L	491.60	ppb	08:05:34
2	Be 313.107†	506410.2	574609.6	246.41	ug/L	246.41	ppb	08:05:34
2	Cd 226.502†	28915.6	32703.7	461.39	ug/L	461.39	ppb	08:05:55
2	Co 228.616†	15044.4	16991.7	444.71	ug/L	444.71	ppb	08:05:55
2	Cr 267.716†	30362.7	34114.2	484.34	ug/L	484.34	ppb	08:05:34
2	Cu 324.752†	151200.5	164706.2	555.34	ug/L	555.34	ppb	08:05:34
2	Mn 257.610†	318829.8	358574.8	475.20	ug/L	475.20	ppb	08:05:34
2	Mo 202.031†	4614.1	5182.0	486.61	ug/L	486.61	ppb	08:05:55
2	Ni 231.604†	12496.4	13996.7	451.95	ug/L	451.95	ppb	08:05:55

2	P 214.914†	3077.5	3264.2	2345.4 ug/L	2345.4 ppb	08:05:55
2	Pb 220.353†	1991.4	2291.0	452.52 ug/L	452.52 ppb	08:05:55
2	S 181.975 Axial†	1325.7	1462.7	2554.2 ug/L	2554.2 ppb	08:05:55
2	Sb 206.836†	1157.5	1277.8	544.48 ug/L	544.48 ppb	08:05:55
2	Se 196.026†	1935.8	2201.7	2540.7 ug/L	2540.7 ppb	08:05:55
2	Si 251.611†	122090.0	136938.7	5224.0 ug/L	5224.0 ppb	08:05:34
2	Sn 189.927†	1550.8	1742.3	475.13 ug/L	475.13 ppb	08:05:55
2	Ti 334.940†	247482.0	279678.2	509.40 ug/L	509.40 ppb	08:05:34
2	Tl 190.801†	949.8	1098.5	436.87 ug/L	436.87 ppb	08:05:55
2	U 409.014†	14400.6	18156.4	514.67 ug/L	514.67 ppb	08:05:34
2	V 292.402†	56684.0	65169.5	511.05 ug/L	511.05 ppb	08:05:34
2	Zn 213.857†	38358.6	42582.6	492.97 ug/L	492.97 ppb	08:05:34
2	SiO2†	121728.7	136514.4	11070 ug/L	11070 ppb	08:06:31
3	Sc Radial	4116.4	4116.4	90.4 %		08:05:01
3	Y RADIAL	4412.0	4412.0	89.73 %		08:05:01
3	Al 396.153Radial†	481416.1	532434.2	526750 ug/L	526750 ppb	08:04:41
3	Ca 317.933Radial†	233610.7	258313.8	487440 ug/L	487440 ppb	08:04:41
3	Fe 238.204 Radial†	14752.4	16306.9	187180 ug/L	187180 ppb	08:05:01
3	K 766.490 Radial†	28996.7	29554.8	5457.4 ug/L	5457.4 ppb	08:04:41
3	Mg 279.077 IEC†	10700.4	11832.3	491060 ug/L	491060 ppb	08:05:01
3	Na 589.592 Radial†	14182.4	16400.9	5726.7 ug/L	5726.7 ppb	08:04:41
3	Sr 421.552†	60829.0	67228.7	523.09 ug/L	523.09 ppb	08:04:41
3	Sc 361.383	753182.4	753182.4	89.102 %		08:06:00
3	Y 371.029	619761.5	619761.5	86.930 %		08:06:00
3	Ag 328.068†	38478.0	43027.6	274.71 ug/L	274.71 ppb	08:06:00
3	As 188.979†	734.1	846.0	523.65 ug/L	523.65 ppb	08:06:21
3	B 249.677†	17020.9	19550.2	520.96 ug/L	520.96 ppb	08:06:00
3	Ba 233.527†	45591.5	51155.9	493.13 ug/L	493.13 ppb	08:06:00
3	Be 313.107†	508561.6	575222.2	246.67 ug/L	246.67 ppb	08:06:00
3	Cd 226.502†	29103.2	32811.4	463.11 ug/L	463.11 ppb	08:06:21
3	Co 228.616†	15144.0	17049.9	446.27 ug/L	446.27 ppb	08:06:21
3	Cr 267.716†	30577.6	34247.4	486.01 ug/L	486.01 ppb	08:06:00
3	Cu 324.752†	151828.0	164872.4	555.83 ug/L	555.83 ppb	08:06:00
3	Mn 257.610†	320908.7	359773.5	476.81 ug/L	476.81 ppb	08:06:00
3	Mo 202.031†	4644.2	5199.3	488.20 ug/L	488.20 ppb	08:06:21
3	Ni 231.604†	12588.8	14056.0	453.87 ug/L	453.87 ppb	08:06:21
3	P 214.914†	3107.9	3287.4	2367.5 ug/L	2367.5 ppb	08:06:21
3	Pb 220.353†	2005.8	2300.0	457.38 ug/L	457.38 ppb	08:06:21
3	S 181.975 Axial†	1340.4	1474.4	2572.9 ug/L	2572.9 ppb	08:06:21
3	Sb 206.836†	1191.9	1312.2	558.89 ug/L	558.89 ppb	08:06:21
3	Se 196.026†	1950.0	2210.6	2548.7 ug/L	2548.7 ppb	08:06:21
3	Si 251.611†	122809.6	137311.8	5238.2 ug/L	5238.2 ppb	08:06:00
3	Sn 189.927†	1568.5	1756.7	480.70 ug/L	480.70 ppb	08:06:21
3	Ti 334.940†	248682.4	280144.8	512.16 ug/L	512.16 ppb	08:06:00
3	Tl 190.801†	974.2	1122.5	446.34 ug/L	446.34 ppb	08:06:21
3	U 409.014†	14267.6	17955.9	508.89 ug/L	508.89 ppb	08:06:00
3	V 292.402†	57101.7	65436.6	513.32 ug/L	513.32 ppb	08:06:00
3	Zn 213.857†	38551.6	42662.7	494.15 ug/L	494.15 ppb	08:06:00
3	SiO2†	121702.3	136051.6	11033 ug/L	11033 ppb	08:06:36

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	750945.8	88.837	%	0.2565				0.29%
Sc Radial	4109.0	90.3	%	0.26				0.28%
Y 371.029	618642.4	86.773	%	0.2010				0.23%
Y RADIAL	4409.5	89.68	%	0.181				0.20%
Ag 328.068†	43142.2	275.58	ug/L	0.782	275.58	ppb	0.782	0.28%
QC value within limits for Ag 328.068 Recovery = 110.23%								
Al 396.153Radial†	527618.1	521990	ug/L	7979.8	521990	ppb	7979.8	1.53%
QC value within limits for Al 396.153Radial Recovery = 104.40%								
As 188.979†	843.6	522.50	ug/L	9.756	522.50	ppb	9.756	1.87%
QC value within limits for As 188.979 Recovery = 104.50%								
B 249.677†	19502.7	519.51	ug/L	3.061	519.51	ppb	3.061	0.59%
QC value within limits for B 249.677 Recovery = 103.90%								
Ba 233.527†	51068.1	492.32	ug/L	0.771	492.32	ppb	0.771	0.16%
QC value within limits for Ba 233.527 Recovery = 98.46%								
Be 313.107†	575003.6	246.58	ug/L	0.147	246.58	ppb	0.147	0.06%
QC value within limits for Be 313.107 Recovery = 98.63%								
Ca 317.933Radial†	256162.9	483380	ug/L	7092.7	483380	ppb	7092.7	1.47%

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   QC value within limits for Ca 317.933Radial  Recovery = 96.68%
Cd 226.502†            32680.9      461.12 ug/L         2.144      461.12 ppb          2.144   0.46%
   QC value within limits for Cd 226.502  Recovery = 92.22%
Co 228.616†            16972.4      444.21 ug/L         2.346      444.21 ppb          2.346   0.53%
   QC value within limits for Co 228.616  Recovery = 88.84%
Cr 267.716†            34222.6      485.75 ug/L         1.302      485.75 ppb          1.302   0.27%
   QC value within limits for Cr 267.716  Recovery = 97.15%
Cu 324.752†           165030.9      556.39 ug/L         1.413      556.39 ppb          1.413   0.25%
   QC value within limits for Cu 324.752  Recovery = 111.28%
Fe 238.204 Radial†     16371.9      187930 ug/L         686.7      187930 ppb          686.7   0.37%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.96%
K 766.490 Radial†      29288.2      5408.1 ug/L         75.32      5408.1 ppb          75.32   1.39%
   QC value within limits for K 766.490 Radial  Recovery = 108.16%
Mg 279.077 IEC†        11880.1      493040 ug/L        1881.2      493040 ppb         1881.2   0.38%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.61%
Mn 257.610†           359247.2      476.10 ug/L         0.825      476.10 ppb          0.825   0.17%
   QC value within limits for Mn 257.610  Recovery = 95.22%
Mo 202.031†             5177.5      486.25 ug/L         2.148      486.25 ppb          2.148   0.44%
   QC value within limits for Mo 202.031  Recovery = 97.25%
Na 589.592 Radial†     16214.1      5661.4 ug/L         94.38      5661.4 ppb          94.38   1.67%
   QC value within limits for Na 589.592 Radial  Recovery = 113.23%
Ni 231.604†            13988.4      451.69 ug/L         2.326      451.69 ppb          2.326   0.51%
   QC value within limits for Ni 231.604  Recovery = 90.34%
P 214.914†              3267.8      2350.8 ug/L         14.78      2350.8 ppb          14.78   0.63%
   QC value within limits for P 214.914  Recovery = 94.03%
Pb 220.353†             2298.7      455.96 ug/L         2.997      455.96 ppb          2.997   0.66%
   QC value within limits for Pb 220.353  Recovery = 91.19%
S 181.975 Axial†        1459.2      2546.3 ug/L         31.32      2546.3 ppb          31.32   1.23%
   QC value within limits for S 181.975 Axial  Recovery = 101.85%
Sb 206.836†             1293.1      550.79 ug/L         7.368      550.79 ppb          7.368   1.34%
   QC value within limits for Sb 206.836  Recovery = 110.16%
Se 196.026†             2193.5      2535.0 ug/L         17.20      2535.0 ppb          17.20   0.68%
   QC value within limits for Se 196.026  Recovery = 101.40%
Si 251.611†           137172.0      5232.9 ug/L          7.77      5232.9 ppb           7.77   0.15%
   QC value within limits for Si 251.611  Recovery = 104.66%
Sn 189.927†             1755.0      479.56 ug/L         3.983      479.56 ppb          3.983   0.83%
   QC value within limits for Sn 189.927  Recovery = 95.91%
Sr 421.552†            66583.4      518.06 ug/L         9.017      518.06 ppb          9.017   1.74%
   QC value within limits for Sr 421.552  Recovery = 103.61%
Ti 334.940†           279862.8      510.96 ug/L         1.417      510.96 ppb          1.417   0.28%
   QC value within limits for Ti 334.940  Recovery = 102.19%
Tl 190.801†             1099.8      437.39 ug/L         8.695      437.39 ppb          8.695   1.99%
   QC value within limits for Tl 190.801  Recovery = 87.48%
U 409.014†             18090.6      512.79 ug/L         3.380      512.79 ppb          3.380   0.66%
   QC value within limits for U 409.014  Recovery = 102.56%
V 292.402†             65324.0      512.33 ug/L         1.164      512.33 ppb          1.164   0.23%
   QC value within limits for V 292.402  Recovery = 102.47%
Zn 213.857†            42628.8      493.63 ug/L         0.602      493.63 ppb          0.602   0.12%
   QC value within limits for Zn 213.857  Recovery = 98.73%
SiO2†                 136020.4       11030 ug/L          41.4       11030 ppb           41.4   0.38%
   QC value within limits for SiO2  Recovery = 103.13%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 3/22/2010 08:08:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4032.5	4032.5	88.6	%			08:10:59
1	Y RADIAL	4330.3	4330.3	88.07	%			08:10:59
1	Al 396.153Radial†	455115.3	513813.8	508360	ug/L	508360	ppb	08:10:39
1	Ca 317.933Radial†	222639.0	251299.8	474200	ug/L	474200	ppb	08:10:39
1	Fe 238.204 Radial†	33157.4	37421.9	429520	ug/L	429520	ppb	08:10:59
1	K 766.490 Radial†	2624.1	451.7	-274.15	ug/L	-274.15	ppb	08:10:39
1	Mg 279.077 IEC†	10392.5	11730.8	486580	ug/L	486580	ppb	08:10:59
1	Na 589.592 Radial†	1310121.8	1479602.0	516630	ug/L	516630	ppb	08:10:39
1	Sr 421.552†	1409.1	1553.2	8.6282	ug/L	8.6282	ppb	08:10:59
1	Sc 361.383	724624.5	724624.5	85.723	%			08:11:57
1	Y 371.029	598410.6	598410.6	83.935	%			08:11:57
1	Ag 328.068†	-19981.1	-23465.4	-6.6067	ug/L	-6.6067	ppb	08:11:57
1	As 188.979†	-149.5	-152.3	14.724	ug/L	14.724	ppb	08:12:17
1	B 249.677†	1129.9	1765.5	-19.870	ug/L	-19.870	ppb	08:11:57
1	Ba 233.527†	-1333.8	-1567.9	-1.7800	ug/L	-1.7800	ppb	08:12:17
1	Be 313.107†	-10325.3	-7587.5	-3.2886	ug/L	-3.2886	ppb	08:11:57
1	Cd 226.502†	2703.4	3302.0	7.0477	ug/L	7.0477	ppb	08:12:17
1	Co 228.616†	222.4	313.0	1.9891	ug/L	1.9891	ppb	08:12:17
1	Cr 267.716†	-1104.2	-1358.3	21.174	ug/L	21.174	ppb	08:12:17
1	Cu 324.752†	803.5	-4588.7	-0.7058	ug/L	-0.7058	ppb	08:11:57
1	Mn 257.610†	-18761.2	-22272.1	-7.1075	ug/L	-7.1075	ppb	08:11:57
1	Mo 202.031†	-378.5	-454.5	-1.9140	ug/L	-1.9140	ppb	08:12:17
1	Ni 231.604†	222.5	187.0	6.0362	ug/L	6.0362	ppb	08:12:17
1	P 214.914†	476.3	355.0	52.001	ug/L	52.001	ppb	08:12:17
1	Pb 220.353†	-437.4	-461.3	-14.263	ug/L	-14.263	ppb	08:12:17
1	S 181.975 Axial†	58.9	38.8	-24.899	ug/L	-24.899	ppb	08:12:17
1	Sb 206.836†	40.9	22.3	-11.087	ug/L	-11.087	ppb	08:12:17
1	Se 196.026†	-1691.9	-1951.5	-228.83	ug/L	-228.83	ppb	08:12:17
1	Si 251.611†	-405.4	-991.7	-37.369	ug/L	-37.369	ppb	08:12:17
1	Sn 189.927†	-335.8	-395.4	-31.537	ug/L	-31.537	ppb	08:12:17
1	Ti 334.940†	-11615.1	-12503.9	-4.4559	ug/L	-4.4559	ppb	08:11:57
1	Tl 190.801†	-86.7	-72.1	-28.847	ug/L	-28.847	ppb	08:12:17
1	U 409.014†	429485.4	502956.3	14832	ug/L	14832	ppb	08:11:57
1	V 292.402†	1588.7	3203.9	0.4450	ug/L	0.4450	ppb	08:12:17
1	Zn 213.857†	4624.0	4789.8	-5.2650	ug/L	-5.2650	ppb	08:12:17
1	SiO2†	-497.1	-1116.2	-89.505	ug/L	-89.505	ppb	08:13:14
2	Sc Radial	4050.1	4050.1	89.0	%			08:11:25
2	Y RADIAL	4351.3	4351.3	88.50	%			08:11:25
2	Al 396.153Radial†	462295.7	519658.7	514140	ug/L	514140	ppb	08:11:05
2	Ca 317.933Radial†	224647.9	252469.0	476410	ug/L	476410	ppb	08:11:05
2	Fe 238.204 Radial†	33314.8	37436.7	429690	ug/L	429690	ppb	08:11:25
2	K 766.490 Radial†	2665.4	485.3	-269.69	ug/L	-269.69	ppb	08:11:05
2	Mg 279.077 IEC†	10454.0	11749.1	487340	ug/L	487340	ppb	08:11:25
2	Na 589.592 Radial†	1323598.2	1488342.4	519680	ug/L	519680	ppb	08:11:05
2	Sr 421.552†	1416.5	1554.6	8.6225	ug/L	8.6225	ppb	08:11:25
2	Sc 361.383	723369.3	723369.3	85.575	%			08:12:23
2	Y 371.029	597439.4	597439.4	83.799	%			08:12:23
2	Ag 328.068†	-19678.5	-23152.3	-4.9275	ug/L	-4.9275	ppb	08:12:23
2	As 188.979†	-134.8	-135.5	24.227	ug/L	24.227	ppb	08:12:43
2	B 249.677†	1257.4	1916.8	-15.617	ug/L	-15.617	ppb	08:12:23
2	Ba 233.527†	-1288.6	-1517.7	-1.2992	ug/L	-1.2992	ppb	08:12:43
2	Be 313.107†	-10307.5	-7587.6	-3.2894	ug/L	-3.2894	ppb	08:12:23
2	Cd 226.502†	2688.5	3290.2	6.8460	ug/L	6.8460	ppb	08:12:43
2	Co 228.616†	205.4	293.6	1.4754	ug/L	1.4754	ppb	08:12:43
2	Cr 267.716†	-1074.5	-1325.8	21.656	ug/L	21.656	ppb	08:12:43
2	Cu 324.752†	818.4	-4569.6	-0.6026	ug/L	-0.6026	ppb	08:12:23
2	Mn 257.610†	-18764.0	-22313.3	-7.1766	ug/L	-7.1766	ppb	08:12:23
2	Mo 202.031†	-382.1	-459.4	-2.3170	ug/L	-2.3170	ppb	08:12:43
2	Ni 231.604†	250.8	220.4	7.1171	ug/L	7.1171	ppb	08:12:43

2	P 214.914†	456.0	332.2	36.050	ug/L	36.050 ppb	08:12:43
2	Pb 220.353†	-429.2	-452.7	-11.624	ug/L	-11.624 ppb	08:12:43
2	S 181.975 Axial†	57.2	36.9	-29.417	ug/L	-29.417 ppb	08:12:43
2	Sb 206.836†	50.3	33.4	-6.5566	ug/L	-6.5566 ppb	08:12:43
2	Se 196.026†	-1682.8	-1944.3	-220.58	ug/L	-220.58 ppb	08:12:43
2	Si 251.611†	-401.0	-987.4	-37.199	ug/L	-37.199 ppb	08:12:43
2	Sn 189.927†	-338.2	-398.9	-31.962	ug/L	-31.962 ppb	08:12:43
2	Ti 334.940†	-11774.3	-12713.5	-4.5623	ug/L	-4.5623 ppb	08:12:23
2	Tl 190.801†	-80.4	-64.9	-26.008	ug/L	-26.008 ppb	08:12:43
2	U 409.014†	427120.2	501061.8	14776	ug/L	14776 ppb	08:12:23
2	V 292.402†	1507.5	3112.4	-0.4118	ug/L	-0.4118 ppb	08:12:43
2	Zn 213.857†	4574.9	4741.8	-5.8884	ug/L	-5.8884 ppb	08:12:43
2	SiO2†	-382.3	-983.1	-78.688	ug/L	-78.688 ppb	08:13:19
3	Sc Radial	4032.3	4032.3	88.6	%		08:11:50
3	Y RADIAL	4344.1	4344.1	88.35	%		08:11:50
3	Al 396.153Radial†	458746.3	517944.4	512440	ug/L	512440 ppb	08:11:30
3	Ca 317.933Radial†	223331.9	252097.4	475710	ug/L	475710 ppb	08:11:30
3	Fe 238.204 Radial†	33207.0	37480.2	430190	ug/L	430190 ppb	08:11:50
3	K 766.490 Radial†	2716.7	556.3	-255.65	ug/L	-255.65 ppb	08:11:30
3	Mg 279.077 IEC†	10405.3	11745.9	487210	ug/L	487210 ppb	08:11:50
3	Na 589.592 Radial†	1315942.7	1486264.3	518960	ug/L	518960 ppb	08:11:30
3	Sr 421.552†	1408.5	1552.6	8.6119	ug/L	8.6119 ppb	08:11:50
3	Sc 361.383	724887.8	724887.8	85.755	%		08:12:49
3	Y 371.029	598776.7	598776.7	83.986	%		08:12:49
3	Ag 328.068†	-19710.4	-23141.4	-4.7095	ug/L	-4.7095 ppb	08:12:49
3	As 188.979†	-143.7	-145.5	18.707	ug/L	18.707 ppb	08:13:09
3	B 249.677†	1239.1	1892.4	-16.387	ug/L	-16.387 ppb	08:12:49
3	Ba 233.527†	-1324.2	-1556.2	-1.6494	ug/L	-1.6494 ppb	08:13:09
3	Be 313.107†	-10269.8	-7518.5	-3.2601	ug/L	-3.2601 ppb	08:12:49
3	Cd 226.502†	2667.4	3259.0	6.3349	ug/L	6.3349 ppb	08:13:09
3	Co 228.616†	184.7	269.0	0.8166	ug/L	0.8166 ppb	08:13:09
3	Cr 267.716†	-1052.8	-1297.9	22.086	ug/L	22.086 ppb	08:13:09
3	Cu 324.752†	823.9	-4565.3	-0.5635	ug/L	-0.5635 ppb	08:12:49
3	Mn 257.610†	-18753.6	-22255.2	-7.0447	ug/L	-7.0447 ppb	08:12:49
3	Mo 202.031†	-396.5	-475.3	-3.7133	ug/L	-3.7133 ppb	08:13:09
3	Ni 231.604†	204.0	165.3	5.3359	ug/L	5.3359 ppb	08:13:09
3	P 214.914†	477.1	355.7	52.988	ug/L	52.988 ppb	08:13:09
3	Pb 220.353†	-434.0	-457.2	-12.791	ug/L	-12.791 ppb	08:13:09
3	S 181.975 Axial†	58.6	38.5	-26.354	ug/L	-26.354 ppb	08:13:09
3	Sb 206.836†	44.5	26.4	-9.5027	ug/L	-9.5027 ppb	08:13:09
3	Se 196.026†	-1685.8	-1943.6	-219.09	ug/L	-219.09 ppb	08:13:09
3	Si 251.611†	-353.7	-931.2	-35.038	ug/L	-35.038 ppb	08:13:09
3	Sn 189.927†	-339.7	-399.9	-32.341	ug/L	-32.341 ppb	08:13:09
3	Ti 334.940†	-11825.1	-12743.9	-4.7000	ug/L	-4.7000 ppb	08:12:49
3	Tl 190.801†	-80.6	-64.9	-26.021	ug/L	-26.021 ppb	08:13:09
3	U 409.014†	428112.1	501173.0	14779	ug/L	14779 ppb	08:12:49
3	V 292.402†	1516.8	3119.4	-0.4444	ug/L	-0.4444 ppb	08:13:09
3	Zn 213.857†	4606.6	4767.6	-5.6346	ug/L	-5.6346 ppb	08:13:09
3	SiO2†	-461.8	-1074.8	-86.095	ug/L	-86.095 ppb	08:13:24

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	724293.9	85.684	%	0.0960				0.11%
Sc Radial	4038.3	88.7	%	0.22				0.25%
Y 371.029	598208.9	83.907	%	0.0969				0.12%
Y RADIAL	4341.9	88.31	%	0.217				0.25%
Ag 328.068†	-23253.0	-5.4146	ug/L	1.03816	-5.4146	ppb	1.03816	19.17%
Al 396.153Radial†	517139.0	511650	ug/L	2972.6	511650	ppb	2972.6	0.58%
QC value within limits for Al 396.153Radial Recovery = 102.33%								
As 188.979†	-144.4	19.219	ug/L	4.7720	19.219	ppb	4.7720	24.83%
B 249.677†	1858.2	-17.292	ug/L	2.2659	-17.292	ppb	2.2659	13.10%
Ba 233.527†	-1547.3	-1.5762	ug/L	0.24862	-1.5762	ppb	0.24862	15.77%
Be 313.107†	-7564.6	-3.2793	ug/L	0.01672	-3.2793	ppb	0.01672	0.51%
Ca 317.933Radial†	251955.4	475440	ug/L	1127.3	475440	ppb	1127.3	0.24%
QC value within limits for Ca 317.933Radial Recovery = 95.09%								
Cd 226.502†	3283.7	6.7429	ug/L	0.36745	6.7429	ppb	0.36745	5.45%
Co 228.616†	291.9	1.4270	ug/L	0.58774	1.4270	ppb	0.58774	41.19%
Cr 267.716†	-1327.3	21.639	ug/L	0.4563	21.639	ppb	0.4563	2.11%
Cu 324.752†	-4574.6	-0.6240	ug/L	0.07349	-0.6240	ppb	0.07349	11.78%

Fe 238.204 Radial†	37446.3	429800	ug/L	347.9	429800	ppb	347.9	0.08%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 85.96%								
K 766.490 Radial†	497.8	-266.50	ug/L	9.659	-266.50	ppb	9.659	3.62%
Mg 279.077 IEC†	11741.9	487040	ug/L	406.8	487040	ppb	406.8	0.08%
QC value within limits for Mg 279.077 IEC Recovery = 97.41%								
Mn 257.610†	-22280.2	-7.1096	ug/L	0.06599	-7.1096	ppb	0.06599	0.93%
Mo 202.031†	-463.1	-2.6481	ug/L	0.94423	-2.6481	ppb	0.94423	35.66%
Na 589.592 Radial†	1484736.2	518420	ug/L	1594.4	518420	ppb	1594.4	0.31%
QC value within limits for Na 589.592 Radial Recovery = 103.68%								
Ni 231.604†	190.9	6.1631	ug/L	0.89739	6.1631	ppb	0.89739	14.56%
P 214.914†	347.6	47.013	ug/L	9.5069	47.013	ppb	9.5069	20.22%
Pb 220.353†	-457.1	-12.893	ug/L	1.3223	-12.893	ppb	1.3223	10.26%
S 181.975 Axial†	38.1	-26.890	ug/L	2.3064	-26.890	ppb	2.3064	8.58%
Sb 206.836†	27.4	-9.0488	ug/L	2.29916	-9.0488	ppb	2.29916	25.41%
Se 196.026†	-1946.5	-222.83	ug/L	5.248	-222.83	ppb	5.248	2.35%
Si 251.611†	-970.1	-36.535	ug/L	1.2997	-36.535	ppb	1.2997	3.56%
Sn 189.927†	-398.1	-31.946	ug/L	0.4023	-31.946	ppb	0.4023	1.26%
Sr 421.552†	1553.4	8.6209	ug/L	0.00823	8.6209	ppb	0.00823	0.10%
Ti 334.940†	-12653.8	-4.5727	ug/L	0.12240	-4.5727	ppb	0.12240	2.68%
Tl 190.801†	-67.3	-26.959	ug/L	1.6357	-26.959	ppb	1.6357	6.07%
U 409.014†	501730.4	14796	ug/L	31.5	14796	ppb	31.5	0.21%
QC value within limits for U 409.014 Recovery = 98.64%								
V 292.402†	3145.2	-0.1371	ug/L	0.50434	-0.1371	ppb	0.50434	367.94%
Zn 213.857†	4766.4	-5.5960	ug/L	0.31348	-5.5960	ppb	0.31348	5.60%
SiO2†	-1058.0	-84.763	ug/L	5.5300	-84.763	ppb	5.5300	6.52%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 3/22/2010 08:15:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4635.1	4635.1	102	%			08:17:32
1	Y RADIAL	4924.5	4924.5	100.2	%			08:17:32
1	Al 396.153Radial†	379.8	446.1	-24.373	ug/L	-24.373	ppb	08:17:32
1	Ca 317.933Radial†	30.4	11.5	21.773	ug/L	21.773	ppb	08:17:52
1	Fe 238.204 Radial†	-15.1	-21.5	33.458	ug/L	33.458	ppb	08:17:52
1	K 766.490 Radial†	1581932.8	1551055.1	295110	ug/L	295110	ppb	08:17:27
1	Mg 279.077 IEC†	-5.0	-5.3	-118.20	ug/L	-118.20	ppb	08:17:52
1	Na 589.592 Radial†	-154.4	566.2	197.69	ug/L	197.69	ppb	08:17:32
1	Sr 421.552†	1265429.5	1242700.2	9736.4	ug/L	9736.4	ppb	08:17:27
1	Sc 361.383	856560.6	856560.6	101.33	%			08:19:09
1	Y 371.029	704197.6	704197.6	98.773	%			08:19:09
1	Ag 328.068†	-6565.6	-6636.0	6.3088	ug/L	6.3088	ppb	08:19:15
1	As 188.979†	17482.6	17274.9	9795.9	ug/L	9795.9	ppb	08:19:15
1	B 249.677†	179738.0	177823.7	5000.0	ug/L	5000.0	ppb	08:19:09
1	Ba 233.527†	1497512.4	1477823.7	14070	ug/L	14070	ppb	08:19:09
1	Be 313.107†	6755010.6	6670709.7	2869.9	ug/L	2869.9	ppb	08:19:03
1	Cd 226.502†	666695.9	658084.2	9674.5	ug/L	9674.5	ppb	08:19:09
1	Co 228.616†	359846.8	355172.1	9348.7	ug/L	9348.7	ppb	08:19:15
1	Cr 267.716†	1794616.0	1770965.3	24093	ug/L	24093	ppb	08:19:09
1	Cu 324.752†	6143712.4	6057460.4	20068	ug/L	20068	ppb	08:19:03
1	Mn 257.610†	7087508.2	6993994.8	9300.3	ug/L	9300.3	ppb	08:19:03
1	Mo 202.031†	108161.6	106727.5	9604.2	ug/L	9604.2	ppb	08:19:15
1	Ni 231.604†	302674.4	298624.8	9642.7	ug/L	9642.7	ppb	08:19:15
1	P 214.914†	23847.8	23333.8	13793	ug/L	13793	ppb	08:19:15
1	Pb 220.353†	153716.2	151745.3	23750	ug/L	23750	ppb	08:19:15
1	S 181.975 Axial†	28513.4	28108.8	50932	ug/L	50932	ppb	08:19:15
1	Sb 206.836†	24581.9	24233.4	10680	ug/L	10680	ppb	08:19:15
1	Se 196.026†	11971.5	11836.4	9888.3	ug/L	9888.3	ppb	08:19:15
1	Si 251.611†	1249026.4	1232095.9	46936	ug/L	46936	ppb	08:19:09
1	Sn 189.927†	43695.9	43118.0	9937.1	ug/L	9937.1	ppb	08:19:15
1	Ti 334.940†	5675132.6	5601609.1	9735.3	ug/L	9735.3	ppb	08:19:03
1	Tl 190.801†	24366.4	24075.3	9566.5	ug/L	9566.5	ppb	08:19:15
1	U 409.014†	-635.5	1316.0	-14.921	ug/L	-14.921	ppb	08:19:15
1	V 292.402†	1269304.0	1253976.6	10161	ug/L	10161	ppb	08:19:09
1	Zn 213.857†	1151918.8	1136178.7	13914	ug/L	13914	ppb	08:19:09
1	SiO2†	1257411.5	1240353.2	100440	ug/L	100440	ppb	08:20:00
2	Sc Radial	4640.2	4640.2	102	%			08:18:03
2	Y RADIAL	4926.9	4926.9	100.2	%			08:18:03
2	Al 396.153Radial†	398.4	464.0	-8.9142	ug/L	-8.9142	ppb	08:18:03
2	Ca 317.933Radial†	38.6	19.5	36.850	ug/L	36.850	ppb	08:18:23
2	Fe 238.204 Radial†	-15.3	-21.7	32.216	ug/L	32.216	ppb	08:18:23
2	K 766.490 Radial†	1563355.8	1531124.2	291320	ug/L	291320	ppb	08:17:57
2	Mg 279.077 IEC†	-2.1	-2.5	-1.3356	ug/L	-1.3356	ppb	08:18:23
2	Na 589.592 Radial†	-152.5	568.1	198.37	ug/L	198.37	ppb	08:18:03
2	Sr 421.552†	1244722.1	1221021.1	9566.5	ug/L	9566.5	ppb	08:17:57
2	Sc 361.383	860084.3	860084.3	101.75	%			08:19:29
2	Y 371.029	708436.6	708436.6	99.367	%			08:19:29
2	Ag 328.068†	-6715.0	-6756.3	5.7365	ug/L	5.7365	ppb	08:19:34
2	As 188.979†	17688.7	17406.8	9870.3	ug/L	9870.3	ppb	08:19:34
2	B 249.677†	181294.7	178627.0	5022.6	ug/L	5022.6	ppb	08:19:29
2	Ba 233.527†	1500564.6	1474768.8	14041	ug/L	14041	ppb	08:19:29
2	Be 313.107†	6798878.2	6686512.3	2876.7	ug/L	2876.7	ppb	08:19:23
2	Cd 226.502†	669160.9	657811.4	9670.5	ug/L	9670.5	ppb	08:19:29
2	Co 228.616†	363020.8	356836.7	9392.6	ug/L	9392.6	ppb	08:19:34
2	Cr 267.716†	1801707.2	1770678.8	24090	ug/L	24090	ppb	08:19:29
2	Cu 324.752†	6182153.5	6070401.2	20111	ug/L	20111	ppb	08:19:23
2	Mn 257.610†	7130764.7	7007852.5	9318.7	ug/L	9318.7	ppb	08:19:23
2	Mo 202.031†	109134.1	107246.0	9650.8	ug/L	9650.8	ppb	08:19:34
2	Ni 231.604†	305514.5	300192.3	9693.3	ug/L	9693.3	ppb	08:19:34

2	P 214.914†	24110.7	23495.7	13908	ug/L	13908	ppb	08:19:34
2	Pb 220.353†	155086.2	152470.3	23864	ug/L	23864	ppb	08:19:34
2	S 181.975 Axial†	28763.3	28239.2	51169	ug/L	51169	ppb	08:19:34
2	Sb 206.836†	24916.6	24463.0	10779	ug/L	10779	ppb	08:19:34
2	Se 196.026†	12088.0	11902.5	9943.4	ug/L	9943.4	ppb	08:19:34
2	Si 251.611†	1256833.1	1234718.5	47036	ug/L	47036	ppb	08:19:29
2	Sn 189.927†	44120.6	43358.7	9992.6	ug/L	9992.6	ppb	08:19:34
2	Ti 334.940†	5713318.0	5616193.2	9760.6	ug/L	9760.6	ppb	08:19:23
2	Tl 190.801†	24558.6	24165.7	9602.3	ug/L	9602.3	ppb	08:19:34
2	U 409.014†	-738.3	1217.6	-17.824	ug/L	-17.824	ppb	08:19:34
2	V 292.402†	1275984.2	1255410.0	10173	ug/L	10173	ppb	08:19:29
2	Zn 213.857†	1156623.5	1136145.3	13913	ug/L	13913	ppb	08:19:29
2	SiO2†	1254702.6	1232607.0	99807	ug/L	99807	ppb	08:20:06
3	Sc Radial	4592.3	4592.3	101	%			08:18:33
3	Y RADIAL	4868.3	4868.3	99.01	%			08:18:33
3	Al 396.153Radial†	380.1	449.9	-22.990	ug/L	-22.990	ppb	08:18:33
3	Ca 317.933Radial†	36.2	17.5	33.052	ug/L	33.052	ppb	08:18:53
3	Fe 238.204 Radial†	-15.9	-22.4	24.489	ug/L	24.489	ppb	08:18:53
3	K 766.490 Radial†	1574721.4	1558399.6	296500	ug/L	296500	ppb	08:18:28
3	Mg 279.077 IEC†	-4.5	-4.9	-101.80	ug/L	-101.80	ppb	08:18:53
3	Na 589.592 Radial†	-133.0	585.9	204.59	ug/L	204.59	ppb	08:18:33
3	Sr 421.552†	1257025.3	1245963.0	9761.9	ug/L	9761.9	ppb	08:18:28
3	Sc 361.383	862892.5	862892.5	102.08	%			08:19:49
3	Y 371.029	709889.1	709889.1	99.571	%			08:19:49
3	Ag 328.068†	-6745.4	-6764.6	5.6729	ug/L	5.6729	ppb	08:19:54
3	As 188.979†	17795.5	17454.9	9897.5	ug/L	9897.5	ppb	08:19:54
3	B 249.677†	182013.0	178750.8	5026.0	ug/L	5026.0	ppb	08:19:49
3	Ba 233.527†	1505388.3	1474694.7	14041	ug/L	14041	ppb	08:19:49
3	Be 313.107†	6830963.9	6696198.1	2880.9	ug/L	2880.9	ppb	08:19:42
3	Cd 226.502†	671253.3	657720.9	9669.2	ug/L	9669.2	ppb	08:19:49
3	Co 228.616†	365294.4	357902.9	9420.6	ug/L	9420.6	ppb	08:19:54
3	Cr 267.716†	1807193.6	1770290.6	24084	ug/L	24084	ppb	08:19:49
3	Cu 324.752†	6229338.7	6096851.4	20199	ug/L	20199	ppb	08:19:42
3	Mn 257.610†	7161259.4	7014918.2	9328.1	ug/L	9328.1	ppb	08:19:42
3	Mo 202.031†	109517.4	107272.4	9653.2	ug/L	9653.2	ppb	08:19:54
3	Ni 231.604†	306985.0	300655.7	9708.3	ug/L	9708.3	ppb	08:19:54
3	P 214.914†	24300.0	23604.1	13972	ug/L	13972	ppb	08:19:54
3	Pb 220.353†	155850.3	152722.8	23903	ug/L	23903	ppb	08:19:54
3	S 181.975 Axial†	28985.8	28365.1	51397	ug/L	51397	ppb	08:19:54
3	Sb 206.836†	25014.1	24478.8	10786	ug/L	10786	ppb	08:19:54
3	Se 196.026†	12128.2	11903.1	9944.0	ug/L	9944.0	ppb	08:19:54
3	Si 251.611†	1263813.0	1237536.2	47143	ug/L	47143	ppb	08:19:49
3	Sn 189.927†	44349.5	43441.9	10012	ug/L	10012	ppb	08:19:54
3	Ti 334.940†	5741429.6	5625458.1	9776.8	ug/L	9776.8	ppb	08:19:42
3	Tl 190.801†	24619.9	24147.3	9595.0	ug/L	9595.0	ppb	08:19:54
3	U 409.014†	-681.2	1275.9	-16.086	ug/L	-16.086	ppb	08:19:54
3	V 292.402†	1279612.5	1254883.2	10169	ug/L	10169	ppb	08:19:49
3	Zn 213.857†	1160389.7	1136135.3	13913	ug/L	13913	ppb	08:19:49
3	SiO2†	1266697.7	1240344.6	100440	ug/L	100440	ppb	08:20:12

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	859845.8	101.72	%	0.375				0.37%
Sc Radial	4622.5	102	%	0.6				0.57%
Y 371.029	707507.8	99.237	%	0.4148				0.42%
Y RADIAL	4906.6	99.79	%	0.675				0.68%
Ag 328.068†	-6719.0	5.9061	ug/L	0.35022	5.9061	ppb	0.35022	5.93%
Al 396.153Radial†	453.4	-18.759	ug/L	8.5540	-18.759	ppb	8.5540	45.60%
As 188.979†	17378.9	9854.6	ug/L	52.61	9854.6	ppb	52.61	0.53%
QC value within limits for As 188.979 Recovery = 98.55%								
B 249.677†	178400.5	5016.2	ug/L	14.13	5016.2	ppb	14.13	0.28%
QC value within limits for B 249.677 Recovery = 100.32%								
Ba 233.527†	1475762.4	14051	ug/L	17.0	14051	ppb	17.0	0.12%
QC value within limits for Ba 233.527 Recovery = 93.67%								
Be 313.107†	6684473.4	2875.8	ug/L	5.54	2875.8	ppb	5.54	0.19%
QC value within limits for Be 313.107 Recovery = 95.86%								
Ca 317.933Radial†	16.2	30.558	ug/L	7.8414	30.558	ppb	7.8414	25.66%
Cd 226.502†	657872.2	9671.4	ug/L	2.76	9671.4	ppb	2.76	0.03%
QC value within limits for Cd 226.502 Recovery = 96.71%								

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Co 228.616†          356637.3      9387.3 ug/L        36.24      9387.3 ppb        36.24   0.39%
   QC value within limits for Co 228.616  Recovery = 93.87%
Cr 267.716†         1770644.9       24089 ug/L          4.6       24089 ppb          4.6   0.02%
   QC value within limits for Cr 267.716  Recovery = 96.36%
Cu 324.752†         6074904.4       20126 ug/L         66.5       20126 ppb         66.5   0.33%
   QC value within limits for Cu 324.752  Recovery = 100.63%
Fe 238.204 Radial†       -21.9      30.054 ug/L       4.8594      30.054 ppb       4.8594  16.17%
K 766.490 Radial†    1546859.6      294310 ug/L       2685.4      294310 ppb       2685.4   0.91%
   QC value within limits for K 766.490 Radial  Recovery = 98.10%
Mg 279.077 IEC†          -4.2     -73.781 ug/L      63.2733     -73.781 ppb      63.2733  85.76%
Mn 257.610†         7005588.5      9315.7 ug/L        14.15      9315.7 ppb        14.15   0.15%
   QC value within limits for Mn 257.610  Recovery = 93.16%
Mo 202.031†          107081.9      9636.1 ug/L        27.65      9636.1 ppb        27.65   0.29%
   QC value within limits for Mo 202.031  Recovery = 96.36%
Na 589.592 Radial†       573.4      200.22 ug/L        3.806      200.22 ppb        3.806   1.90%
Ni 231.604†          299824.2      9681.4 ug/L        34.37      9681.4 ppb        34.37   0.35%
   QC value within limits for Ni 231.604  Recovery = 96.81%
P 214.914†            23477.9       13891 ug/L         90.9       13891 ppb         90.9   0.65%
   QC value within limits for P 214.914  Recovery = 92.61%
Pb 220.353†          152312.8       23839 ug/L         79.4       23839 ppb         79.4   0.33%
   QC value within limits for Pb 220.353  Recovery = 95.36%
S 181.975 Axial†      28237.7       51166 ug/L        232.2       51166 ppb        232.2   0.45%
   QC value within limits for S 181.975 Axial  Recovery = 102.33%
Sb 206.836†           24391.8       10748 ug/L         59.7       10748 ppb         59.7   0.55%
   QC value within limits for Sb 206.836  Recovery = 107.48%
Se 196.026†           11880.7      9925.2 ug/L        32.00      9925.2 ppb        32.00   0.32%
   QC value within limits for Se 196.026  Recovery = 99.25%
Si 251.611†         1234783.5       47038 ug/L        103.6       47038 ppb        103.6   0.22%
   QC value within limits for Si 251.611  Recovery = 94.08%
Sn 189.927†           43306.2      9980.5 ug/L        38.77      9980.5 ppb        38.77   0.39%
   QC value within limits for Sn 189.927  Recovery = 99.80%
Sr 421.552†         1236561.4      9688.3 ug/L       106.22      9688.3 ppb       106.22   1.10%
   QC value within limits for Sr 421.552  Recovery = 96.88%
Ti 334.940†         5614420.1      9757.6 ug/L        20.92      9757.6 ppb        20.92   0.21%
   QC value within limits for Ti 334.940  Recovery = 97.58%
Tl 190.801†           24129.4      9587.9 ug/L        18.92      9587.9 ppb        18.92   0.20%
   QC value within limits for Tl 190.801  Recovery = 95.88%
U 409.014†             1269.8     -16.277 ug/L       1.4605     -16.277 ppb       1.4605   8.97%
V 292.402†          1254756.6       10168 ug/L          6.2       10168 ppb          6.2   0.06%
   QC value within limits for V 292.402  Recovery = 101.68%
Zn 213.857†         1136153.1       13913 ug/L          0.6       13913 ppb          0.6   0.00%
   QC value within limits for Zn 213.857  Recovery = 92.76%
SiO2†               1237768.3      100230 ug/L        363.2      100230 ppb        363.2   0.36%
   QC value within limits for SiO2  Recovery = 93.67%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/22/2010 08:22:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4747.5	4747.5	104	%			08:24:15
1	Y RADIAL	5121.1	5121.1	104.2	%			08:24:15
1	Al 396.153Radial†	5108.7	4971.4	4894.9	ug/L	4894.9	ppb	08:24:15
1	Ca 317.933Radial†	2809.2	2675.1	5048.0	ug/L	5048.0	ppb	08:24:35
1	Fe 238.204 Radial†	475.9	449.6	5175.7	ug/L	5175.7	ppb	08:24:35
1	K 766.490 Radial†	31853.0	28030.5	5326.9	ug/L	5326.9	ppb	08:24:15
1	Mg 279.077 IEC†	131.3	125.5	5208.8	ug/L	5208.8	ppb	08:24:35
1	Na 589.592 Radial†	30292.1	29762.1	10392	ug/L	10392	ppb	08:24:15
1	Sr 421.552†	67044.4	64245.3	503.32	ug/L	503.32	ppb	08:24:15
1	Sc 361.383	891260.6	891260.6	105.44	%			08:25:32
1	Y 371.029	740418.8	740418.8	103.85	%			08:25:32
1	Ag 328.068†	100495.9	95157.5	493.57	ug/L	493.57	ppb	08:25:37
1	As 188.979†	939.2	912.9	518.62	ug/L	518.62	ppb	08:25:58
1	B 249.677†	19316.7	18768.1	528.26	ug/L	528.26	ppb	08:25:37
1	Ba 233.527†	54795.0	51957.7	495.16	ug/L	495.16	ppb	08:25:37
1	Be 313.107†	1230452.6	1171465.7	501.20	ug/L	501.20	ppb	08:25:32
1	Cd 226.502†	35337.2	33663.6	494.46	ug/L	494.46	ppb	08:25:37
1	Co 228.616†	20001.8	19024.1	500.93	ug/L	500.93	ppb	08:25:37
1	Cr 267.716†	38491.7	36436.8	496.46	ug/L	496.46	ppb	08:25:37
1	Cu 324.752†	163121.7	149184.9	494.23	ug/L	494.23	ppb	08:25:37
1	Mn 257.610†	393882.1	373186.6	496.54	ug/L	496.54	ppb	08:25:32
1	Mo 202.031†	5749.2	5439.8	489.98	ug/L	489.98	ppb	08:25:58
1	Ni 231.604†	16443.2	15522.8	501.23	ug/L	501.23	ppb	08:25:37
1	P 214.914†	3604.6	3218.1	2342.5	ug/L	2342.5	ppb	08:25:58
1	Pb 220.353†	3272.4	3152.5	494.52	ug/L	494.52	ppb	08:25:58
1	S 181.975 Axial†	601.4	540.5	978.36	ug/L	978.36	ppb	08:25:58
1	Sb 206.836†	1278.1	1186.7	523.25	ug/L	523.25	ppb	08:25:58
1	Se 196.026†	599.6	590.8	510.06	ug/L	510.06	ppb	08:25:58
1	Si 251.611†	69589.1	65482.1	2494.8	ug/L	2494.8	ppb	08:25:37
1	Sn 189.927†	2239.5	2120.3	489.25	ug/L	489.25	ppb	08:25:58
1	Ti 334.940†	290934.6	276979.1	481.65	ug/L	481.65	ppb	08:25:37
1	Tl 190.801†	1308.2	1269.9	504.38	ug/L	504.38	ppb	08:25:58
1	U 409.014†	16132.0	17243.4	508.49	ug/L	508.49	ppb	08:25:37
1	V 292.402†	63886.2	61942.8	502.72	ug/L	502.72	ppb	08:25:37
1	Zn 213.857†	43057.7	40233.3	491.21	ug/L	491.21	ppb	08:25:37
1	SiO2†	69958.1	65814.6	5329.9	ug/L	5329.9	ppb	08:27:05
2	Sc Radial	4753.2	4753.2	104	%			08:24:40
2	Y RADIAL	5078.2	5078.2	103.3	%			08:24:40
2	Al 396.153Radial†	5054.6	4913.8	4837.7	ug/L	4837.7	ppb	08:24:40
2	Ca 317.933Radial†	2794.3	2657.6	5014.8	ug/L	5014.8	ppb	08:25:00
2	Fe 238.204 Radial†	476.4	449.6	5175.4	ug/L	5175.4	ppb	08:25:00
2	K 766.490 Radial†	31647.5	27797.2	5282.5	ug/L	5282.5	ppb	08:24:40
2	Mg 279.077 IEC†	131.1	125.2	5197.2	ug/L	5197.2	ppb	08:25:00
2	Na 589.592 Radial†	30073.3	29517.8	10307	ug/L	10307	ppb	08:24:40
2	Sr 421.552†	66682.5	63821.9	500.00	ug/L	500.00	ppb	08:24:40
2	Sc 361.383	885860.8	885860.8	104.80	%			08:26:03
2	Y 371.029	737014.9	737014.9	103.38	%			08:26:03
2	Ag 328.068†	101305.2	96510.7	500.58	ug/L	500.58	ppb	08:26:09
2	As 188.979†	936.2	915.5	520.14	ug/L	520.14	ppb	08:26:29
2	B 249.677†	19412.0	18970.7	533.98	ug/L	533.98	ppb	08:26:09
2	Ba 233.527†	55136.8	52600.6	501.29	ug/L	501.29	ppb	08:26:09
2	Be 313.107†	1225146.4	1173516.0	502.09	ug/L	502.09	ppb	08:26:03
2	Cd 226.502†	35647.9	34164.4	501.82	ug/L	501.82	ppb	08:26:09
2	Co 228.616†	20121.6	19254.1	506.97	ug/L	506.97	ppb	08:26:09
2	Cr 267.716†	38832.4	36984.4	503.92	ug/L	503.92	ppb	08:26:09
2	Cu 324.752†	164723.5	151656.4	502.42	ug/L	502.42	ppb	08:26:09
2	Mn 257.610†	391205.3	372909.4	496.18	ug/L	496.18	ppb	08:26:03
2	Mo 202.031†	5740.2	5464.5	492.20	ug/L	492.20	ppb	08:26:29
2	Ni 231.604†	16611.5	15778.4	509.48	ug/L	509.48	ppb	08:26:09

2	P 214.914†	3624.8	3258.2	2371.3 ug/L	2371.3 ppb	08:26:29
2	Pb 220.353†	3277.5	3176.4	498.24 ug/L	498.24 ppb	08:26:29
2	S 181.975 Axial†	600.4	543.0	983.01 ug/L	983.01 ppb	08:26:29
2	Sb 206.836†	1265.2	1181.8	521.21 ug/L	521.21 ppb	08:26:29
2	Se 196.026†	603.7	598.3	516.22 ug/L	516.22 ppb	08:26:29
2	Si 251.611†	70087.0	66359.6	2528.2 ug/L	2528.2 ppb	08:26:09
2	Sn 189.927†	2230.7	2124.8	490.29 ug/L	490.29 ppb	08:26:29
2	Ti 334.940†	293333.7	280950.3	488.55 ug/L	488.55 ppb	08:26:09
2	Tl 190.801†	1297.4	1267.1	503.29 ug/L	503.29 ppb	08:26:29
2	U 409.014†	16059.0	17267.0	509.17 ug/L	509.17 ppb	08:26:09
2	V 292.402†	64510.0	62907.4	510.47 ug/L	510.47 ppb	08:26:09
2	Zn 213.857†	43461.7	40867.7	498.97 ug/L	498.97 ppb	08:26:09
2	SiO2†	69081.5	65382.6	5294.7 ug/L	5294.7 ppb	08:27:10
3	Sc Radial	4791.3	4791.3	105 %		08:25:05
3	Y RADIAL	5104.4	5104.4	103.8 %		08:25:05
3	Al 396.153Radial†	5113.8	4931.6	4855.7 ug/L	4855.7 ppb	08:25:05
3	Ca 317.933Radial†	2790.9	2633.1	4968.7 ug/L	4968.7 ppb	08:25:25
3	Fe 238.204 Radial†	473.6	443.3	5102.9 ug/L	5102.9 ppb	08:25:25
3	K 766.490 Radial†	31796.8	27698.4	5263.8 ug/L	5263.8 ppb	08:25:05
3	Mg 279.077 IEC†	132.0	125.0	5188.7 ug/L	5188.7 ppb	08:25:25
3	Na 589.592 Radial†	30347.6	29549.8	10318 ug/L	10318 ppb	08:25:05
3	Sr 421.552†	67277.0	63879.7	500.45 ug/L	500.45 ppb	08:25:05
3	Sc 361.383	890698.8	890698.8	105.37 %		08:26:34
3	Y 371.029	740624.5	740624.5	103.88 %		08:26:34
3	Ag 328.068†	100448.2	95172.4	493.64 ug/L	493.64 ppb	08:26:40
3	As 188.979†	925.8	900.7	511.77 ug/L	511.77 ppb	08:27:00
3	B 249.677†	19305.3	18768.9	528.29 ug/L	528.29 ppb	08:26:40
3	Ba 233.527†	55013.4	52197.7	497.44 ug/L	497.44 ppb	08:26:40
3	Be 313.107†	1229823.3	1171604.6	501.26 ug/L	501.26 ppb	08:26:34
3	Cd 226.502†	35518.8	33857.1	497.31 ug/L	497.31 ppb	08:26:40
3	Co 228.616†	20063.1	19094.2	502.76 ug/L	502.76 ppb	08:26:40
3	Cr 267.716†	38650.2	36610.3	498.82 ug/L	498.82 ppb	08:26:40
3	Cu 324.752†	162766.4	148945.2	493.44 ug/L	493.44 ppb	08:26:40
3	Mn 257.610†	393623.2	373176.5	496.52 ug/L	496.52 ppb	08:26:34
3	Mo 202.031†	5690.0	5387.1	485.23 ug/L	485.23 ppb	08:27:00
3	Ni 231.604†	16474.4	15562.2	502.50 ug/L	502.50 ppb	08:26:40
3	P 214.914†	3600.0	3215.8	2341.0 ug/L	2341.0 ppb	08:27:00
3	Pb 220.353†	3264.6	3147.1	493.66 ug/L	493.66 ppb	08:27:00
3	S 181.975 Axial†	594.1	533.9	966.53 ug/L	966.53 ppb	08:27:00
3	Sb 206.836†	1262.2	1172.5	517.04 ug/L	517.04 ppb	08:27:00
3	Se 196.026†	604.9	596.2	514.29 ug/L	514.29 ppb	08:27:00
3	Si 251.611†	69716.6	65644.8	2501.0 ug/L	2501.0 ppb	08:26:40
3	Sn 189.927†	2227.5	2110.3	486.93 ug/L	486.93 ppb	08:27:00
3	Ti 334.940†	291119.4	277328.5	482.25 ug/L	482.25 ppb	08:26:40
3	Tl 190.801†	1282.4	1246.1	495.01 ug/L	495.01 ppb	08:27:00
3	U 409.014†	15952.0	17082.2	503.73 ug/L	503.73 ppb	08:26:40
3	V 292.402†	64006.5	62095.2	503.87 ug/L	503.87 ppb	08:26:40
3	Zn 213.857†	43242.3	40434.2	493.69 ug/L	493.69 ppb	08:26:40
3	SiO2†	69936.9	65836.3	5331.8 ug/L	5331.8 ppb	08:27:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	889273.4	105.20	%	0.351				0.33%
Sc Radial	4764.0	105	%	0.5				0.50%
Y 371.029	739352.7	103.70	%	0.284				0.27%
Y RADIAL	5101.2	103.7	%	0.44				0.42%
Ag 328.068†	95613.5	495.93	ug/L	4.026	495.93	ppb	4.026	0.81%
QC value within limits for Ag 328.068 Recovery = 99.19%								
Al 396.153Radial†	4938.9	4862.8	ug/L	29.23	4862.8	ppb	29.23	0.60%
QC value within limits for Al 396.153Radial Recovery = 97.26%								
As 188.979†	909.7	516.85	ug/L	4.458	516.85	ppb	4.458	0.86%
QC value within limits for As 188.979 Recovery = 103.37%								
B 249.677†	18835.9	530.18	ug/L	3.289	530.18	ppb	3.289	0.62%
QC value within limits for B 249.677 Recovery = 106.04%								
Ba 233.527†	52252.0	497.96	ug/L	3.097	497.96	ppb	3.097	0.62%
QC value within limits for Ba 233.527 Recovery = 99.59%								
Be 313.107†	1172195.4	501.52	ug/L	0.498	501.52	ppb	0.498	0.10%
QC value within limits for Be 313.107 Recovery = 100.30%								
Ca 317.933Radial†	2655.3	5010.5	ug/L	39.81	5010.5	ppb	39.81	0.79%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.21%
Cd 226.502†            33895.0      497.86 ug/L         3.712      497.86 ppb          3.712   0.75%
   QC value within limits for Cd 226.502  Recovery = 99.57%
Co 228.616†            19124.1      503.55 ug/L         3.099      503.55 ppb          3.099   0.62%
   QC value within limits for Co 228.616  Recovery = 100.71%
Cr 267.716†            36677.2      499.73 ug/L         3.812      499.73 ppb          3.812   0.76%
   QC value within limits for Cr 267.716  Recovery = 99.95%
Cu 324.752†           149928.8      496.70 ug/L         4.973      496.70 ppb          4.973   1.00%
   QC value within limits for Cu 324.752  Recovery = 99.34%
Fe 238.204 Radial†       447.5      5151.3 ug/L         41.92      5151.3 ppb          41.92   0.81%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.03%
K 766.490 Radial†      27842.0      5291.1 ug/L         32.42      5291.1 ppb          32.42   0.61%
   QC value within limits for K 766.490 Radial  Recovery = 105.82%
Mg 279.077 IEC†          125.2      5198.2 ug/L         10.09      5198.2 ppb          10.09   0.19%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.96%
Mn 257.610†           373090.8      496.42 ug/L         0.207      496.42 ppb          0.207   0.04%
   QC value within limits for Mn 257.610  Recovery = 99.28%
Mo 202.031†             5430.5      489.14 ug/L         3.560      489.14 ppb          3.560   0.73%
   QC value within limits for Mo 202.031  Recovery = 97.83%
Na 589.592 Radial†     29609.9       10339 ug/L          46.4       10339 ppb           46.4   0.45%
   QC value within limits for Na 589.592 Radial  Recovery = 103.39%
Ni 231.604†            15621.1      504.40 ug/L         4.445      504.40 ppb          4.445   0.88%
   QC value within limits for Ni 231.604  Recovery = 100.88%
P 214.914†              3230.7      2351.6 ug/L         17.05      2351.6 ppb          17.05   0.73%
   QC value within limits for P 214.914  Recovery = 94.06%
Pb 220.353†             3158.7      495.47 ug/L         2.434      495.47 ppb          2.434   0.49%
   QC value within limits for Pb 220.353  Recovery = 99.09%
S 181.975 Axial†         539.1      975.97 ug/L         8.498      975.97 ppb          8.498   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 97.60%
Sb 206.836†             1180.3      520.50 ug/L         3.165      520.50 ppb          3.165   0.61%
   QC value within limits for Sb 206.836  Recovery = 104.10%
Se 196.026†              595.1      513.52 ug/L         3.151      513.52 ppb          3.151   0.61%
   QC value within limits for Se 196.026  Recovery = 102.70%
Si 251.611†            65828.8      2508.0 ug/L         17.80      2508.0 ppb          17.80   0.71%
   QC value within limits for Si 251.611  Recovery = 100.32%
Sn 189.927†             2118.5      488.82 ug/L         1.718      488.82 ppb          1.718   0.35%
   QC value within limits for Sn 189.927  Recovery = 97.76%
Sr 421.552†            63982.3      501.25 ug/L         1.799      501.25 ppb          1.799   0.36%
   QC value within limits for Sr 421.552  Recovery = 100.25%
Ti 334.940†           278419.3      484.15 ug/L         3.823      484.15 ppb          3.823   0.79%
   QC value within limits for Ti 334.940  Recovery = 96.83%
Tl 190.801†             1261.0      500.89 ug/L         5.124      500.89 ppb          5.124   1.02%
   QC value within limits for Tl 190.801  Recovery = 100.18%
U 409.014†             17197.5      507.13 ug/L         2.967      507.13 ppb          2.967   0.59%
   QC value within limits for U 409.014  Recovery = 101.43%
V 292.402†             62315.1      505.69 ug/L         4.181      505.69 ppb          4.181   0.83%
   QC value within limits for V 292.402  Recovery = 101.14%
Zn 213.857†            40511.7      494.62 ug/L         3.960      494.62 ppb          3.960   0.80%
   QC value within limits for Zn 213.857  Recovery = 98.92%
SiO2†                  65677.8      5318.8 ug/L         20.85      5318.8 ppb          20.85   0.39%
   QC value within limits for SiO2  Recovery = 99.46%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/22/2010 08:29:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4889.9	4889.9	107	%			08:31:20
1	Y RADIAL	5254.6	5254.6	106.9	%			08:31:20
1	Al 396.153Radial†	-79.7	-1.0	-1.0125	ug/L	-1.0125	ppb	08:31:40
1	Ca 317.933Radial†	26.3	6.1	11.498	ug/L	11.498	ppb	08:31:40
1	Fe 238.204 Radial†	7.3	0.1	1.3819	ug/L	1.3819	ppb	08:31:40
1	K 766.490 Radial†	3250.7	515.6	98.081	ug/L	98.081	ppb	08:31:20
1	Mg 279.077 IEC†	0.1	-0.3	-12.366	ug/L	-12.366	ppb	08:31:40
1	Na 589.592 Radial†	-586.3	172.0	60.044	ug/L	60.044	ppb	08:31:20
1	Sr 421.552†	35.8	-4.1	-0.0323	ug/L	-0.0323	ppb	08:31:20
1	Sc 361.383	900897.2	900897.2	106.58	%			08:32:37
1	Y 371.029	760094.2	760094.2	106.61	%			08:32:37
1	Ag 328.068†	170.2	3.0	0.0178	ug/L	0.0178	ppb	08:32:42
1	As 188.979†	-5.4	17.0	9.5962	ug/L	9.5962	ppb	08:33:02
1	B 249.677†	501.9	918.4	25.959	ug/L	25.959	ppb	08:33:02
1	Ba 233.527†	30.6	16.8	0.1622	ug/L	0.1622	ppb	08:33:02
1	Be 313.107†	-4300.5	422.2	0.1808	ug/L	0.1808	ppb	08:32:42
1	Cd 226.502†	-152.0	5.8	0.0860	ug/L	0.0860	ppb	08:33:02
1	Co 228.616†	-36.3	19.6	0.5149	ug/L	0.5149	ppb	08:33:02
1	Cr 267.716†	90.9	15.1	0.2061	ug/L	0.2061	ppb	08:33:02
1	Cu 324.752†	5757.5	-123.8	-0.4121	ug/L	-0.4121	ppb	08:32:42
1	Mn 257.610†	440.8	27.3	0.0369	ug/L	0.0369	ppb	08:33:02
1	Mo 202.031†	16.1	2.2	0.1993	ug/L	0.1993	ppb	08:33:02
1	Ni 231.604†	86.1	8.2	0.2634	ug/L	0.2634	ppb	08:33:02
1	P 214.914†	185.4	-26.7	-20.128	ug/L	-20.128	ppb	08:33:02
1	Pb 220.353†	-38.7	12.6	1.9684	ug/L	1.9684	ppb	08:33:02
1	S 181.975 Axial†	32.6	0.7	1.2593	ug/L	1.2593	ppb	08:33:02
1	Sb 206.836†	42.3	14.3	6.1083	ug/L	6.1083	ppb	08:33:02
1	Se 196.026†	-18.9	4.5	3.7231	ug/L	3.7231	ppb	08:33:02
1	Si 251.611†	652.8	93.7	3.5742	ug/L	3.5742	ppb	08:33:02
1	Sn 189.927†	10.0	5.7	1.3094	ug/L	1.3094	ppb	08:33:02
1	Ti 334.940†	-981.2	124.9	0.2183	ug/L	0.2183	ppb	08:32:42
1	Tl 190.801†	-25.7	5.0	1.9811	ug/L	1.9811	ppb	08:33:02
1	U 409.014†	-1943.0	120.0	3.5511	ug/L	3.5511	ppb	08:32:37
1	V 292.402†	-1280.2	149.5	1.2067	ug/L	1.2067	ppb	08:32:42
1	Zn 213.857†	710.3	62.2	0.7654	ug/L	0.7654	ppb	08:33:02
1	SiO2†	648.5	72.1	5.8498	ug/L	5.8498	ppb	08:34:23
2	Sc Radial	4914.6	4914.6	108	%			08:31:45
2	Y RADIAL	5282.1	5282.1	107.4	%			08:31:45
2	Al 396.153Radial†	-73.6	5.0	4.9510	ug/L	4.9510	ppb	08:32:05
2	Ca 317.933Radial†	24.9	4.7	8.9107	ug/L	8.9107	ppb	08:32:05
2	Fe 238.204 Radial†	8.4	1.1	13.134	ug/L	13.134	ppb	08:32:05
2	K 766.490 Radial†	3236.5	487.2	92.669	ug/L	92.669	ppb	08:31:45
2	Mg 279.077 IEC†	2.8	2.2	89.747	ug/L	89.747	ppb	08:32:05
2	Na 589.592 Radial†	-542.1	215.7	75.304	ug/L	75.304	ppb	08:31:45
2	Sr 421.552†	39.8	-0.6	-0.0049	ug/L	-0.0049	ppb	08:31:45
2	Sc 361.383	887340.0	887340.0	104.97	%			08:33:07
2	Y 371.029	747973.6	747973.6	104.91	%			08:33:07
2	Ag 328.068†	146.4	-17.2	-0.0843	ug/L	-0.0843	ppb	08:33:12
2	As 188.979†	-5.5	16.9	9.5029	ug/L	9.5029	ppb	08:33:32
2	B 249.677†	467.7	892.9	25.238	ug/L	25.238	ppb	08:33:32
2	Ba 233.527†	17.9	5.1	0.0516	ug/L	0.0516	ppb	08:33:32
2	Be 313.107†	-4256.2	402.7	0.1724	ug/L	0.1724	ppb	08:33:12
2	Cd 226.502†	-134.9	20.0	0.2930	ug/L	0.2930	ppb	08:33:32
2	Co 228.616†	-32.4	22.8	0.5978	ug/L	0.5978	ppb	08:33:32
2	Cr 267.716†	94.0	19.3	0.2639	ug/L	0.2639	ppb	08:33:32
2	Cu 324.752†	5729.1	-68.3	-0.2291	ug/L	-0.2291	ppb	08:33:12
2	Mn 257.610†	438.0	31.0	0.0388	ug/L	0.0388	ppb	08:33:32
2	Mo 202.031†	9.5	-3.8	-0.3433	ug/L	-0.3433	ppb	08:33:32
2	Ni 231.604†	75.5	-0.7	-0.0242	ug/L	-0.0242	ppb	08:33:32

2	P 214.914†	182.6	-26.7	-20.210 ug/L	-20.210 ppb	08:33:32
2	Pb 220.353†	-52.9	-1.4	-0.2275 ug/L	-0.2275 ppb	08:33:32
2	S 181.975 Axial†	35.8	4.2	7.5670 ug/L	7.5670 ppb	08:33:32
2	Sb 206.836†	37.2	10.0	4.2782 ug/L	4.2782 ppb	08:33:32
2	Se 196.026†	-15.8	7.1	5.9337 ug/L	5.9337 ppb	08:33:32
2	Si 251.611†	638.1	89.1	3.4065 ug/L	3.4065 ppb	08:33:32
2	Sn 189.927†	10.2	6.0	1.3841 ug/L	1.3841 ppb	08:33:32
2	Ti 334.940†	-986.8	105.5	0.1746 ug/L	0.1746 ppb	08:33:12
2	Tl 190.801†	-21.1	9.0	3.5410 ug/L	3.5410 ppb	08:33:32
2	U 409.014†	-1825.5	204.2	6.0389 ug/L	6.0389 ppb	08:33:07
2	V 292.402†	-1244.6	165.1	1.3283 ug/L	1.3283 ppb	08:33:12
2	Zn 213.857†	713.3	75.3	0.9259 ug/L	0.9259 ppb	08:33:32
2	SiO2†	646.3	79.3	6.4474 ug/L	6.4474 ppb	08:34:43
3	Sc Radial	4827.2	4827.2	106 %		08:32:10
3	Y RADIAL	5183.8	5183.8	105.4 %		08:32:10
3	Al 396.153Radial†	-61.9	14.8	14.570 ug/L	14.570 ppb	08:32:30
3	Ca 317.933Radial†	22.1	2.5	4.7350 ug/L	4.7350 ppb	08:32:30
3	Fe 238.204 Radial†	8.4	1.3	14.908 ug/L	14.908 ppb	08:32:30
3	K 766.490 Radial†	3179.3	487.6	92.740 ug/L	92.740 ppb	08:32:10
3	Mg 279.077 IEC†	1.5	1.0	40.899 ug/L	40.899 ppb	08:32:30
3	Na 589.592 Radial†	-533.1	215.1	75.093 ug/L	75.093 ppb	08:32:10
3	Sr 421.552†	36.8	-2.7	-0.0216 ug/L	-0.0216 ppb	08:32:10
3	Sc 361.383	883333.6	883333.6	104.50 %		08:33:37
3	Y 371.029	744262.8	744262.8	104.39 %		08:33:37
3	Ag 328.068†	232.2	65.5	0.3445 ug/L	0.3445 ppb	08:33:42
3	As 188.979†	-9.6	12.9	7.2768 ug/L	7.2768 ppb	08:34:02
3	B 249.677†	465.7	893.1	25.242 ug/L	25.242 ppb	08:34:02
3	Ba 233.527†	2.8	-9.3	-0.0848 ug/L	-0.0848 ppb	08:34:02
3	Be 313.107†	-4291.8	350.3	0.1501 ug/L	0.1501 ppb	08:33:42
3	Cd 226.502†	-138.9	15.6	0.2283 ug/L	0.2283 ppb	08:34:02
3	Co 228.616†	-44.2	11.3	0.2996 ug/L	0.2996 ppb	08:34:02
3	Cr 267.716†	82.1	8.3	0.1155 ug/L	0.1155 ppb	08:34:02
3	Cu 324.752†	5757.1	-16.8	-0.0567 ug/L	-0.0567 ppb	08:33:42
3	Mn 257.610†	414.5	10.4	0.0136 ug/L	0.0136 ppb	08:34:02
3	Mo 202.031†	23.6	9.7	0.8761 ug/L	0.8761 ppb	08:34:02
3	Ni 231.604†	98.4	21.5	0.6960 ug/L	0.6960 ppb	08:34:02
3	P 214.914†	189.1	-19.7	-14.923 ug/L	-14.923 ppb	08:34:02
3	Pb 220.353†	-54.1	-2.9	-0.4506 ug/L	-0.4506 ppb	08:34:02
3	S 181.975 Axial†	31.4	0.1	0.2563 ug/L	0.2563 ppb	08:34:02
3	Sb 206.836†	47.3	19.8	8.4591 ug/L	8.4591 ppb	08:34:02
3	Se 196.026†	-15.5	7.3	6.1613 ug/L	6.1613 ppb	08:34:02
3	Si 251.611†	630.4	84.4	3.2143 ug/L	3.2143 ppb	08:34:02
3	Sn 189.927†	5.5	1.5	0.3466 ug/L	0.3466 ppb	08:34:02
3	Ti 334.940†	-950.6	135.8	0.2320 ug/L	0.2320 ppb	08:33:42
3	Tl 190.801†	-26.3	4.0	1.5581 ug/L	1.5581 ppb	08:34:02
3	U 409.014†	-1910.5	114.9	3.3972 ug/L	3.3972 ppb	08:33:37
3	V 292.402†	-1249.2	155.3	1.2610 ug/L	1.2610 ppb	08:33:42
3	Zn 213.857†	718.0	82.8	1.0137 ug/L	1.0137 ppb	08:34:02
3	SiO2†	656.1	91.5	7.4072 ug/L	7.4072 ppb	08:35:03

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	890523.6	105.35	%	1.089				1.03%
Sc Radial	4877.3	107	%	1.0				0.92%
Y 371.029	750776.9	105.31	%	1.161				1.10%
Y RADIAL	5240.2	106.6	%	1.03				0.97%
Ag 328.068†	17.1	0.0927	ug/L	0.22401	0.0927	ppb	0.22401	241.68%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.2	6.1694	ug/L	7.86221	6.1694	ppb	7.86221	127.44%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	15.6	8.7920	ug/L	1.31303	8.7920	ppb	1.31303	14.93%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	901.5	25.479	ug/L	0.4154	25.479	ppb	0.4154	1.63%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.2	0.0430	ug/L	0.12373	0.0430	ppb	0.12373	287.74%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	391.8	0.1677	ug/L	0.01585	0.1677	ppb	0.01585	9.45%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.4	8.3813	ug/L	3.41248	8.3813	ppb	3.41248	40.72%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              13.8      0.2024 ug/L       0.10585      0.2024 ppb        0.10585  52.29%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              17.9      0.4708 ug/L       0.15393      0.4708 ppb        0.15393  32.70%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.3      0.1952 ug/L       0.07484      0.1952 ppb        0.07484  38.35%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -69.7     -0.2326 ug/L       0.17772     -0.2326 ppb        0.17772  76.39%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.9      9.8078 ug/L       7.35075      9.8078 ppb        7.35075  74.95%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       496.8      94.497 ug/L        3.1042      94.497 ppb         3.1042   3.29%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.9      39.427 ug/L       51.0726      39.427 ppb        51.0726 129.54%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              22.9      0.0298 ug/L       0.01403      0.0298 ppb        0.01403  47.08%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               2.7      0.2440 ug/L       0.61089      0.2440 ppb        0.61089 250.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      200.9      70.147 ug/L        8.7502      70.147 ppb         8.7502  12.47%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               9.7      0.3117 ug/L       0.36253      0.3117 ppb        0.36253 116.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -24.4     -18.420 ug/L        3.0286     -18.420 ppb         3.0286  16.44%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               2.7      0.4301 ug/L       1.33688      0.4301 ppb        1.33688 310.83%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.7      3.0275 ug/L       3.96317      3.0275 ppb        3.96317 130.90%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              14.7      6.2819 ug/L       2.09585      6.2819 ppb        2.09585  33.36%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               6.3      5.2727 ug/L       1.34682      5.2727 ppb        1.34682  25.54%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              89.1      3.3983 ug/L       0.18011      3.3983 ppb        0.18011   5.30%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.4      1.0134 ug/L       0.57865      1.0134 ppb        0.57865  57.10%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -2.5     -0.0196 ug/L       0.01382     -0.0196 ppb        0.01382  70.46%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             122.1      0.2083 ug/L       0.02996      0.2083 ppb        0.02996  14.38%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               6.0      2.3601 ug/L       1.04436      2.3601 ppb        1.04436  44.25%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              146.4      4.3291 ug/L       1.48277      4.3291 ppb        1.48277  34.25%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              156.6      1.2653 ug/L       0.06093      1.2653 ppb        0.06093   4.82%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              73.4      0.9017 ug/L       0.12594      0.9017 ppb        0.12594  13.97%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    81.0      6.5681 ug/L       0.78568      6.5681 ppb        0.78568  11.96%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 3/22/2010 08:44:40 **Plasma On Time: 3/22/2010 06:16:18**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\032210.sif
Batch ID:
Results Data Set: 032210
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 3/22/2010 07:06:18**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 37**
Sample ID: LR1 **Date Collected: 3/22/2010 08:44:41**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4603.0	4603.0	101	%			08:46:35
1	Y RADIAL	4938.6	4938.6	100.4	%			08:46:35
1	Al 396.153Radial†	-87.6	-13.5	-12.079	ug/L	-12.079	ppb	08:46:55

1	Ca 317.933Radial†	32.5	13.8	25.985 ug/L	25.985 ppb	08:46:55
1	Fe 238.204 Radial†	33791.1	33409.9	383470 ug/L	383470 ppb	08:46:35
1	K 766.490 Radial†	2399.0	-138.0	-26.226 ug/L	-26.226 ppb	08:46:35
1	Mg 279.077 IEC†	8.5	8.0	-68.321 ug/L	-68.321 ppb	08:46:55
1	Na 589.592 Radial†	-716.3	9.4	3.2783 ug/L	3.2783 ppb	08:46:35
1	Sr 421.552†	96.7	58.1	0.4553 ug/L	0.4553 ppb	08:46:35
1	Sc 361.383	848131.6	848131.6	100.33 %		08:47:52
1	Y 371.029	711754.5	711754.5	99.833 %		08:47:52
1	Ag 328.068†	-23026.1	-23106.0	-0.3413 ug/L	-0.3413 ppb	08:47:52
1	As 188.979†	-173.7	-151.0	4.8018 ug/L	4.8018 ppb	08:48:12
1	B 249.677†	1778.5	2220.1	0.4304 ug/L	0.4304 ppb	08:47:52
1	Ba 233.527†	-1623.2	-1629.8	-3.7095 ug/L	-3.7095 ppb	08:47:52
1	Be 313.107†	-4305.1	166.6	0.0711 ug/L	0.0711 ppb	08:47:52
1	Cd 226.502†	2608.1	2747.9	0.7757 ug/L	0.7757 ppb	08:47:52
1	Co 228.616†	635.6	687.1	12.488 ug/L	12.488 ppb	08:48:12
1	Cr 267.716†	-460.0	-528.6	33.490 ug/L	33.490 ppb	08:48:12
1	Cu 324.752†	-1495.7	-7016.7	-2.9831 ug/L	-2.9831 ppb	08:47:52
1	Mn 257.610†	-32278.7	-32557.5	-5.4330 ug/L	-5.4330 ppb	08:47:52
1	Mo 202.031†	-275.0	-287.0	3.9446 ug/L	3.9446 ppb	08:47:52
1	Ni 231.604†	212.7	139.3	4.4913 ug/L	4.4913 ppb	08:48:12
1	P 214.914†	606.3	403.7	1.6326 ug/L	1.6326 ppb	08:48:12
1	Pb 220.353†	195.2	243.4	-16.539 ug/L	-16.539 ppb	08:48:12
1	S 181.975 Axial†	39.4	9.4	16.976 ug/L	16.976 ppb	08:48:12
1	Sb 206.836†	12.4	-13.0	-10.305 ug/L	-10.305 ppb	08:48:12
1	Se 196.026†	-1614.3	-1586.8	-219.31 ug/L	-219.31 ppb	08:48:12
1	Si 251.611†	-425.9	-943.3	-35.709 ug/L	-35.709 ppb	08:47:52
1	Sn 189.927†	-24.2	-27.9	-28.435 ug/L	-28.435 ppb	08:48:12
1	Ti 334.940†	-1044.2	4.8	-0.0400 ug/L	-0.0400 ppb	08:47:52
1	Tl 190.801†	-33.7	-4.5	-2.1645 ug/L	-2.1645 ppb	08:48:12
1	U 409.014†	152.6	2095.2	18.293 ug/L	18.293 ppb	08:47:52
1	V 292.402†	5240.3	6573.6	-3.4320 ug/L	-3.4320 ppb	08:47:52
1	Zn 213.857†	3654.1	3037.6	-19.948 ug/L	-19.948 ppb	08:48:12
1	SiO2†	-411.3	-946.3	-76.120 ug/L	-76.120 ppb	08:49:09
2	Sc Radial	4678.8	4678.8	103 %		08:47:00
2	Y RADIAL	5042.0	5042.0	102.5 %		08:47:00
2	Al 396.153Radial†	-94.4	-18.7	-17.209 ug/L	-17.209 ppb	08:47:20
2	Ca 317.933Radial†	32.5	13.2	24.937 ug/L	24.937 ppb	08:47:20
2	Fe 238.204 Radial†	34292.1	33356.1	382860 ug/L	382860 ppb	08:47:00
2	K 766.490 Radial†	2439.1	-137.4	-26.111 ug/L	-26.111 ppb	08:47:00
2	Mg 279.077 IEC†	9.9	9.2	-17.979 ug/L	-17.979 ppb	08:47:20
2	Na 589.592 Radial†	-693.7	42.8	14.957 ug/L	14.957 ppb	08:47:00
2	Sr 421.552†	68.3	29.0	0.2273 ug/L	0.2273 ppb	08:47:00
2	Sc 361.383	854298.5	854298.5	101.06 %		08:48:18
2	Y 371.029	716738.7	716738.7	100.53 %		08:48:18
2	Ag 328.068†	-23171.3	-23084.1	-0.4218 ug/L	-0.4218 ppb	08:48:18
2	As 188.979†	-164.2	-140.4	10.626 ug/L	10.626 ppb	08:48:38
2	B 249.677†	1861.4	2289.2	2.4866 ug/L	2.4866 ppb	08:48:18
2	Ba 233.527†	-1649.7	-1644.3	-3.8663 ug/L	-3.8663 ppb	08:48:18
2	Be 313.107†	-4199.9	301.7	0.1286 ug/L	0.1286 ppb	08:48:18
2	Cd 226.502†	2646.0	2766.7	1.1146 ug/L	1.1146 ppb	08:48:18
2	Co 228.616†	630.5	677.4	12.240 ug/L	12.240 ppb	08:48:38
2	Cr 267.716†	-513.6	-578.3	32.747 ug/L	32.747 ppb	08:48:38
2	Cu 324.752†	-1572.0	-7081.5	-3.2316 ug/L	-3.2316 ppb	08:48:18
2	Mn 257.610†	-32656.7	-32699.2	-5.6846 ug/L	-5.6846 ppb	08:48:18
2	Mo 202.031†	-283.3	-293.2	3.3383 ug/L	3.3383 ppb	08:48:18
2	Ni 231.604†	150.1	75.9	2.4406 ug/L	2.4406 ppb	08:48:38
2	P 214.914†	615.4	408.3	5.6760 ug/L	5.6760 ppb	08:48:38
2	Pb 220.353†	165.3	212.5	-21.295 ug/L	-21.295 ppb	08:48:38
2	S 181.975 Axial†	31.9	1.7	2.9937 ug/L	2.9937 ppb	08:48:38
2	Sb 206.836†	23.5	-2.2	-5.6622 ug/L	-5.6622 ppb	08:48:38
2	Se 196.026†	-1626.5	-1587.2	-221.43 ug/L	-221.43 ppb	08:48:38
2	Si 251.611†	-328.2	-843.6	-31.891 ug/L	-31.891 ppb	08:48:18
2	Sn 189.927†	-17.7	-21.2	-26.870 ug/L	-26.870 ppb	08:48:38
2	Ti 334.940†	-1105.5	-48.4	-0.1374 ug/L	-0.1374 ppb	08:48:18
2	Tl 190.801†	-19.3	10.0	3.5520 ug/L	3.5520 ppb	08:48:38
2	U 409.014†	230.4	2171.2	20.611 ug/L	20.611 ppb	08:48:18
2	V 292.402†	5255.6	6551.0	-3.5253 ug/L	-3.5253 ppb	08:48:18
2	Zn 213.857†	3660.6	3017.7	-20.087 ug/L	-20.087 ppb	08:48:38
2	SiO2†	-437.0	-968.7	-77.926 ug/L	-77.926 ppb	08:49:14
3	Sc Radial	4590.7	4590.7	101 %		08:47:25
3	Y RADIAL	4963.0	4963.0	100.9 %		08:47:25

3	Al 396.153Radial†	-83.9	-10.0	-8.6588	ug/L	-8.6588 ppb	08:47:45
3	Ca 317.933Radial†	26.0	7.4	13.974	ug/L	13.974 ppb	08:47:45
3	Fe 238.204 Radial†	33980.1	33687.3	386660	ug/L	386660 ppb	08:47:25
3	K 766.490 Radial†	2487.6	-43.8	-8.2979	ug/L	-8.2979 ppb	08:47:25
3	Mg 279.077 IEC†	6.7	6.2	-145.86	ug/L	-145.86 ppb	08:47:45
3	Na 589.592 Radial†	-690.8	32.8	11.457	ug/L	11.457 ppb	08:47:25
3	Sr 421.552†	80.7	42.6	0.3337	ug/L	0.3337 ppb	08:47:25
3	Sc 361.383	852490.4	852490.4	100.85	%		08:48:44
3	Y 371.029	715235.2	715235.2	100.32	%		08:48:44
3	Ag 328.068†	-23113.8	-23075.7	0.8031	ug/L	0.8031 ppb	08:48:44
3	As 188.979†	-157.3	-133.9	15.192	ug/L	15.192 ppb	08:49:04
3	B 249.677†	1798.9	2231.1	0.2276	ug/L	0.2276 ppb	08:48:44
3	Ba 233.527†	-1800.4	-1797.2	-5.2024	ug/L	-5.2024 ppb	08:48:44
3	Be 313.107†	-4230.7	262.3	0.1115	ug/L	0.1115 ppb	08:48:44
3	Cd 226.502†	2630.6	2756.9	0.5784	ug/L	0.5784 ppb	08:48:44
3	Co 228.616†	623.9	672.3	12.049	ug/L	12.049 ppb	08:49:04
3	Cr 267.716†	-458.9	-525.2	33.874	ug/L	33.874 ppb	08:49:04
3	Cu 324.752†	-1559.7	-7072.5	-2.9991	ug/L	-2.9991 ppb	08:48:44
3	Mn 257.610†	-32386.9	-32500.2	-5.0394	ug/L	-5.0394 ppb	08:48:44
3	Mo 202.031†	-279.8	-290.3	3.8922	ug/L	3.8922 ppb	08:48:44
3	Ni 231.604†	155.9	82.0	2.6386	ug/L	2.6386 ppb	08:49:04
3	P 214.914†	601.9	396.2	-6.5173	ug/L	-6.5173 ppb	08:49:04
3	Pb 220.353†	158.9	206.5	-22.767	ug/L	-22.767 ppb	08:49:04
3	S 181.975 Axial†	39.0	8.8	15.883	ug/L	15.883 ppb	08:49:04
3	Sb 206.836†	8.3	-17.2	-12.078	ug/L	-12.078 ppb	08:49:04
3	Se 196.026†	-1612.8	-1577.0	-202.04	ug/L	-202.04 ppb	08:49:04
3	Si 251.611†	-432.0	-947.2	-35.853	ug/L	-35.853 ppb	08:48:44
3	Sn 189.927†	-16.3	-19.9	-26.780	ug/L	-26.780 ppb	08:49:04
3	Ti 334.940†	-1161.1	-105.8	-0.2277	ug/L	-0.2277 ppb	08:48:44
3	Tl 190.801†	-36.3	-6.9	-3.1046	ug/L	-3.1046 ppb	08:49:04
3	U 409.014†	136.6	2078.6	17.437	ug/L	17.437 ppb	08:48:44
3	V 292.402†	5360.4	6665.9	-3.1622	ug/L	-3.1622 ppb	08:48:44
3	Zn 213.857†	3667.6	3032.4	-20.476	ug/L	-20.476 ppb	08:49:04
3	SiO2†	-469.0	-1001.4	-80.585	ug/L	-80.585 ppb	08:49:19

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	851640.2	100.75	%	0.375				0.37%
Sc Radial	4624.2	102	%	1.0				1.03%
Y 371.029	714576.2	100.23	%	0.359				0.36%
Y RADIAL	4981.2	101.3	%	1.10				1.09%
Ag 328.068†	-23088.6	0.0133	ug/L	0.68515	0.0133	ppb	0.68515	>999.9%
Al 396.153Radial†	-14.1	-12.649	ug/L	4.3033	-12.649	ppb	4.3033	34.02%
As 188.979†	-141.8	10.206	ug/L	5.2077	10.206	ppb	5.2077	51.02%
B 249.677†	2246.8	1.0482	ug/L	1.24978	1.0482	ppb	1.24978	119.23%
Ba 233.527†	-1690.4	-4.2594	ug/L	0.82037	-4.2594	ppb	0.82037	19.26%
Be 313.107†	243.5	0.1038	ug/L	0.02951	0.1038	ppb	0.02951	28.44%
Ca 317.933Radial†	11.5	21.632	ug/L	6.6528	21.632	ppb	6.6528	30.75%
Cd 226.502†	2757.1	0.8229	ug/L	0.27120	0.8229	ppb	0.27120	32.96%
Co 228.616†	678.9	12.259	ug/L	0.2201	12.259	ppb	0.2201	1.80%
Cr 267.716†	-544.1	33.370	ug/L	0.5731	33.370	ppb	0.5731	1.72%
Cu 324.752†	-7056.9	-3.0713	ug/L	0.13907	-3.0713	ppb	0.13907	4.53%
Fe 238.204 Radial†	33484.4	384330	ug/L	2039.8	384330	ppb	2039.8	0.53%
K 766.490 Radial†	-106.4	-20.212	ug/L	10.3177	-20.212	ppb	10.3177	51.05%
Mg 279.077 IEC†	7.8	-77.387	ug/L	64.4216	-77.387	ppb	64.4216	83.25%
Mn 257.610†	-32585.6	-5.3857	ug/L	0.32518	-5.3857	ppb	0.32518	6.04%
Mo 202.031†	-290.2	3.7250	ug/L	0.33593	3.7250	ppb	0.33593	9.02%
Na 589.592 Radial†	28.3	9.8973	ug/L	5.99333	9.8973	ppb	5.99333	60.56%
Ni 231.604†	99.1	3.1902	ug/L	1.13117	3.1902	ppb	1.13117	35.46%
P 214.914†	402.7	0.2638	ug/L	6.21081	0.2638	ppb	6.21081	>999.9%
Pb 220.353†	220.8	-20.200	ug/L	3.2548	-20.200	ppb	3.2548	16.11%
S 181.975 Axial†	6.6	11.951	ug/L	7.7762	11.951	ppb	7.7762	65.07%
Sb 206.836†	-10.8	-9.3486	ug/L	3.31334	-9.3486	ppb	3.31334	35.44%
Se 196.026†	-1583.6	-214.26	ug/L	10.638	-214.26	ppb	10.638	4.96%
Si 251.611†	-911.4	-34.484	ug/L	2.2469	-34.484	ppb	2.2469	6.52%
Sn 189.927†	-23.0	-27.362	ug/L	0.9309	-27.362	ppb	0.9309	3.40%
Sr 421.552†	43.3	0.3388	ug/L	0.11408	0.3388	ppb	0.11408	33.68%
Ti 334.940†	-49.8	-0.1351	ug/L	0.09387	-0.1351	ppb	0.09387	69.51%
Tl 190.801†	-0.5	-0.5724	ug/L	3.60261	-0.5724	ppb	3.60261	629.42%

U 409.014†	2115.0	18.780	ug/L	1.6423	18.780	ppb	1.6423	8.75%
V 292.402†	6596.8	-3.3732	ug/L	0.18855	-3.3732	ppb	0.18855	5.59%
Zn 213.857†	3029.2	-20.170	ug/L	0.2737	-20.170	ppb	0.2737	1.36%
SiO2†	-972.1	-78.211	ug/L	2.2460	-78.211	ppb	2.2460	2.87%

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/22/2010 08:51:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4703.6	4703.6	103	%			08:53:24
1	Y RADIAL	5037.2	5037.2	102.4	%			08:53:24
1	Al 396.153Radial†	5018.4	4929.8	4853.7	ug/L	4853.7	ppb	08:53:24
1	Ca 317.933Radial†	2742.3	2635.6	4973.3	ug/L	4973.3	ppb	08:53:44
1	Fe 238.204 Radial†	468.9	447.1	5147.2	ug/L	5147.2	ppb	08:53:44
1	K 766.490 Radial†	29898.6	26424.7	5021.5	ug/L	5021.5	ppb	08:53:24
1	Mg 279.077 IEC†	133.4	128.7	5343.2	ug/L	5343.2	ppb	08:53:44
1	Na 589.592 Radial†	29443.2	29212.2	10200	ug/L	10200	ppb	08:53:24
1	Sr 421.552†	65496.6	63348.6	496.29	ug/L	496.29	ppb	08:53:24
1	Sc 361.383	874160.3	874160.3	103.41	%			08:54:41
1	Y 371.029	726896.7	726896.7	101.96	%			08:54:41
1	Ag 328.068†	99035.8	95610.2	495.91	ug/L	495.91	ppb	08:54:46
1	As 188.979†	901.2	893.5	507.72	ug/L	507.72	ppb	08:55:06
1	B 249.677†	18065.7	17916.8	504.19	ug/L	504.19	ppb	08:54:46
1	Ba 233.527†	54380.1	52573.1	501.01	ug/L	501.01	ppb	08:54:46
1	Be 313.107†	1215066.4	1179416.4	504.60	ug/L	504.60	ppb	08:54:41
1	Cd 226.502†	35163.3	34151.1	501.63	ug/L	501.63	ppb	08:54:46
1	Co 228.616†	19880.9	19278.3	507.61	ug/L	507.61	ppb	08:54:46
1	Cr 267.716†	38222.1	36890.3	502.63	ug/L	502.63	ppb	08:54:46
1	Cu 324.752†	159702.9	148905.4	493.30	ug/L	493.30	ppb	08:54:46
1	Mn 257.610†	388292.9	375089.7	499.07	ug/L	499.07	ppb	08:54:41
1	Mo 202.031†	5635.7	5436.8	489.70	ug/L	489.70	ppb	08:55:06
1	Ni 231.604†	16341.7	15729.7	507.91	ug/L	507.91	ppb	08:54:46
1	P 214.914†	3550.4	3232.5	2353.7	ug/L	2353.7	ppb	08:55:06
1	Pb 220.353†	3237.8	3179.8	498.78	ug/L	498.78	ppb	08:55:06
1	S 181.975 Axial†	580.7	531.7	962.46	ug/L	962.46	ppb	08:55:06
1	Sb 206.836†	1213.8	1148.3	506.85	ug/L	506.85	ppb	08:55:06
1	Se 196.026†	598.6	601.0	518.44	ug/L	518.44	ppb	08:55:06
1	Si 251.611†	68356.2	65581.1	2498.5	ug/L	2498.5	ppb	08:54:46
1	Sn 189.927†	2186.6	2110.7	487.02	ug/L	487.02	ppb	08:55:06
1	Ti 334.940†	286564.3	278150.8	483.67	ug/L	483.67	ppb	08:54:46
1	Tl 190.801†	1269.2	1256.4	499.06	ug/L	499.06	ppb	08:55:06
1	U 409.014†	15864.7	17284.2	509.69	ug/L	509.69	ppb	08:54:46
1	V 292.402†	63149.5	62415.8	506.51	ug/L	506.51	ppb	08:54:46
1	Zn 213.857†	42662.5	40650.0	496.31	ug/L	496.31	ppb	08:54:46
1	SiO2†	68438.7	65643.4	5316.0	ug/L	5316.0	ppb	08:56:14
2	Sc Radial	4579.0	4579.0	101	%			08:53:49
2	Y RADIAL	4892.1	4892.1	99.49	%			08:53:49
2	Al 396.153Radial†	4879.4	4923.8	4847.9	ug/L	4847.9	ppb	08:53:49
2	Ca 317.933Radial†	2740.1	2705.6	5105.5	ug/L	5105.5	ppb	08:54:09
2	Fe 238.204 Radial†	463.2	453.9	5224.4	ug/L	5224.4	ppb	08:54:09
2	K 766.490 Radial†	29243.3	26560.4	5047.2	ug/L	5047.2	ppb	08:53:49
2	Mg 279.077 IEC†	126.3	125.1	5195.2	ug/L	5195.2	ppb	08:54:09
2	Na 589.592 Radial†	28700.6	29249.1	10213	ug/L	10213	ppb	08:53:49
2	Sr 421.552†	63855.1	63441.1	497.01	ug/L	497.01	ppb	08:53:49
2	Sc 361.383	876457.9	876457.9	103.69	%			08:55:12
2	Y 371.029	730362.1	730362.1	102.44	%			08:55:12
2	Ag 328.068†	98626.2	94964.0	492.59	ug/L	492.59	ppb	08:55:17
2	As 188.979†	897.9	888.1	504.66	ug/L	504.66	ppb	08:55:37
2	B 249.677†	18117.2	17920.7	504.30	ug/L	504.30	ppb	08:55:17
2	Ba 233.527†	53984.4	52053.6	496.07	ug/L	496.07	ppb	08:55:17
2	Be 313.107†	1218887.0	1180021.1	504.85	ug/L	504.85	ppb	08:55:12
2	Cd 226.502†	34837.9	33748.1	495.70	ug/L	495.70	ppb	08:55:17
2	Co 228.616†	19685.4	19039.3	501.33	ug/L	501.33	ppb	08:55:17
2	Cr 267.716†	37922.3	36504.2	497.39	ug/L	497.39	ppb	08:55:17
2	Cu 324.752†	159110.8	147929.4	490.08	ug/L	490.08	ppb	08:55:17
2	Mn 257.610†	388340.0	374150.8	497.83	ug/L	497.83	ppb	08:55:12
2	Mo 202.031†	5630.8	5417.8	488.00	ug/L	488.00	ppb	08:55:37
2	Ni 231.604†	16196.3	15548.0	502.04	ug/L	502.04	ppb	08:55:17

2	P 214.914†	3553.1	3226.1	2349.4 ug/L	2349.4 ppb	08:55:37
2	Pb 220.353†	3223.7	3158.0	495.35 ug/L	495.35 ppb	08:55:37
2	S 181.975 Axial†	588.1	537.3	972.72 ug/L	972.72 ppb	08:55:37
2	Sb 206.836†	1206.2	1137.9	502.34 ug/L	502.34 ppb	08:55:37
2	Se 196.026†	593.9	594.9	513.58 ug/L	513.58 ppb	08:55:37
2	Si 251.611†	67921.6	64988.6	2475.9 ug/L	2475.9 ppb	08:55:17
2	Sn 189.927†	2187.6	2106.1	485.99 ug/L	485.99 ppb	08:55:37
2	Ti 334.940†	284832.2	275753.9	479.53 ug/L	479.53 ppb	08:55:17
2	Tl 190.801†	1264.2	1248.3	495.88 ug/L	495.88 ppb	08:55:37
2	U 409.014†	15735.6	17119.5	504.82 ug/L	504.82 ppb	08:55:17
2	V 292.402†	62632.9	61757.4	501.19 ug/L	501.19 ppb	08:55:17
2	Zn 213.857†	42299.1	40191.3	490.69 ug/L	490.69 ppb	08:55:17
2	SiO2†	68128.4	65170.5	5277.6 ug/L	5277.6 ppb	08:56:19
3	Sc Radial	4733.4	4733.4	104 %		08:54:14
3	Y RADIAL	5068.0	5068.0	103.1 %		08:54:14
3	Al 396.153Radial†	5040.5	4920.5	4844.3 ug/L	4844.3 ppb	08:54:14
3	Ca 317.933Radial†	2732.2	2609.1	4923.3 ug/L	4923.3 ppb	08:54:34
3	Fe 238.204 Radial†	467.5	442.9	5099.3 ug/L	5099.3 ppb	08:54:34
3	K 766.490 Radial†	30274.1	26603.3	5055.4 ug/L	5055.4 ppb	08:54:14
3	Mg 279.077 IEC†	128.0	122.7	5094.1 ug/L	5094.1 ppb	08:54:34
3	Na 589.592 Radial†	29848.1	29421.8	10273 ug/L	10273 ppb	08:54:14
3	Sr 421.552†	66167.3	63593.8	498.21 ug/L	498.21 ppb	08:54:14
3	Sc 361.383	869832.0	869832.0	102.90 %		08:55:43
3	Y 371.029	724240.6	724240.6	101.58 %		08:55:43
3	Ag 328.068†	100045.1	97067.5	503.43 ug/L	503.43 ppb	08:55:48
3	As 188.979†	898.8	895.5	508.91 ug/L	508.91 ppb	08:56:08
3	B 249.677†	18449.5	18376.7	517.18 ug/L	517.18 ppb	08:55:48
3	Ba 233.527†	54805.4	53248.1	507.45 ug/L	507.45 ppb	08:55:48
3	Be 313.107†	1208151.4	1178543.0	504.25 ug/L	504.25 ppb	08:55:43
3	Cd 226.502†	35369.2	34520.4	507.06 ug/L	507.06 ppb	08:55:48
3	Co 228.616†	20006.0	19495.6	513.33 ug/L	513.33 ppb	08:55:48
3	Cr 267.716†	38440.4	37286.3	508.02 ug/L	508.02 ppb	08:55:48
3	Cu 324.752†	161960.9	151868.1	503.12 ug/L	503.12 ppb	08:55:48
3	Mn 257.610†	385607.7	374348.6	498.09 ug/L	498.09 ppb	08:55:43
3	Mo 202.031†	5646.0	5473.9	493.04 ug/L	493.04 ppb	08:56:08
3	Ni 231.604†	16468.9	15932.0	514.44 ug/L	514.44 ppb	08:55:48
3	P 214.914†	3553.3	3252.4	2366.9 ug/L	2366.9 ppb	08:56:08
3	Pb 220.353†	3218.3	3176.4	498.25 ug/L	498.25 ppb	08:56:08
3	S 181.975 Axial†	586.0	539.6	976.81 ug/L	976.81 ppb	08:56:08
3	Sb 206.836†	1200.2	1140.9	503.88 ug/L	503.88 ppb	08:56:08
3	Se 196.026†	589.6	595.1	513.38 ug/L	513.38 ppb	08:56:08
3	Si 251.611†	69208.3	66738.1	2542.7 ug/L	2542.7 ppb	08:55:48
3	Sn 189.927†	2209.7	2143.6	494.61 ug/L	494.61 ppb	08:56:08
3	Ti 334.940†	289955.7	282825.4	491.81 ug/L	491.81 ppb	08:55:48
3	Tl 190.801†	1270.9	1264.1	502.13 ug/L	502.13 ppb	08:56:08
3	U 409.014†	15894.5	17389.5	512.80 ug/L	512.80 ppb	08:55:48
3	V 292.402†	63747.8	63301.0	513.64 ug/L	513.64 ppb	08:55:48
3	Zn 213.857†	43067.4	41248.8	503.64 ug/L	503.64 ppb	08:55:48
3	SiO2†	68797.9	66321.7	5371.0 ug/L	5371.0 ppb	08:56:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	873483.4	103.33	%	0.398				0.39%
Sc Radial	4672.0	103	%	1.8				1.75%
Y 371.029	727166.5	101.99	%	0.431				0.42%
Y RADIAL	4999.1	101.7	%	1.91				1.88%
Ag 328.068†	95880.6	497.31	ug/L	5.558	497.31	ppb	5.558	1.12%
QC value within limits for Ag 328.068 Recovery = 99.46%								
Al 396.153Radial†	4924.7	4848.6	ug/L	4.74	4848.6	ppb	4.74	0.10%
QC value within limits for Al 396.153Radial Recovery = 96.97%								
As 188.979†	892.4	507.10	ug/L	2.194	507.10	ppb	2.194	0.43%
QC value within limits for As 188.979 Recovery = 101.42%								
B 249.677†	18071.4	508.55	ug/L	7.468	508.55	ppb	7.468	1.47%
QC value within limits for B 249.677 Recovery = 101.71%								
Ba 233.527†	52624.9	501.51	ug/L	5.705	501.51	ppb	5.705	1.14%
QC value within limits for Ba 233.527 Recovery = 100.30%								
Be 313.107†	1179326.8	504.57	ug/L	0.303	504.57	ppb	0.303	0.06%
QC value within limits for Be 313.107 Recovery = 100.91%								
Ca 317.933Radial†	2650.1	5000.7	ug/L	94.12	5000.7	ppb	94.12	1.88%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.01%
Cd 226.502†            34139.9      501.46 ug/L         5.686      501.46 ppb          5.686   1.13%
   QC value within limits for Cd 226.502  Recovery = 100.29%
Co 228.616†            19271.1      507.42 ug/L         6.002      507.42 ppb          6.002   1.18%
   QC value within limits for Co 228.616  Recovery = 101.48%
Cr 267.716†            36893.6      502.68 ug/L         5.318      502.68 ppb          5.318   1.06%
   QC value within limits for Cr 267.716  Recovery = 100.54%
Cu 324.752†           149567.6      495.50 ug/L         6.790      495.50 ppb          6.790   1.37%
   QC value within limits for Cu 324.752  Recovery = 99.10%
Fe 238.204 Radial†       448.0      5157.0 ug/L         63.11      5157.0 ppb          63.11   1.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.14%
K 766.490 Radial†      26529.5      5041.4 ug/L         17.72      5041.4 ppb          17.72   0.35%
   QC value within limits for K 766.490 Radial  Recovery = 100.83%
Mg 279.077 IEC†          125.5      5210.8 ug/L        125.28      5210.8 ppb         125.28   2.40%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.22%
Mn 257.610†           374529.7      498.33 ug/L         0.652      498.33 ppb          0.652   0.13%
   QC value within limits for Mn 257.610  Recovery = 99.67%
Mo 202.031†             5442.8      490.25 ug/L         2.565      490.25 ppb          2.565   0.52%
   QC value within limits for Mo 202.031  Recovery = 98.05%
Na 589.592 Radial†     29294.4       10229 ug/L          39.1       10229 ppb           39.1   0.38%
   QC value within limits for Na 589.592 Radial  Recovery = 102.29%
Ni 231.604†            15736.5      508.13 ug/L         6.203      508.13 ppb          6.203   1.22%
   QC value within limits for Ni 231.604  Recovery = 101.63%
P 214.914†              3237.0      2356.7 ug/L          9.13      2356.7 ppb           9.13   0.39%
   QC value within limits for P 214.914  Recovery = 94.27%
Pb 220.353†             3171.4      497.46 ug/L         1.848      497.46 ppb          1.848   0.37%
   QC value within limits for Pb 220.353  Recovery = 99.49%
S 181.975 Axial†         536.2      970.66 ug/L         7.389      970.66 ppb          7.389   0.76%
   QC value within limits for S 181.975 Axial  Recovery = 97.07%
Sb 206.836†             1142.4      504.36 ug/L         2.290      504.36 ppb          2.290   0.45%
   QC value within limits for Sb 206.836  Recovery = 100.87%
Se 196.026†              597.0      515.13 ug/L         2.866      515.13 ppb          2.866   0.56%
   QC value within limits for Se 196.026  Recovery = 103.03%
Si 251.611†            65769.2      2505.7 ug/L         33.95      2505.7 ppb          33.95   1.35%
   QC value within limits for Si 251.611  Recovery = 100.23%
Sn 189.927†             2120.1      489.21 ug/L         4.708      489.21 ppb          4.708   0.96%
   QC value within limits for Sn 189.927  Recovery = 97.84%
Sr 421.552†            63461.1      497.17 ug/L         0.971      497.17 ppb          0.971   0.20%
   QC value within limits for Sr 421.552  Recovery = 99.43%
Ti 334.940†           278910.0      485.00 ug/L         6.247      485.00 ppb          6.247   1.29%
   QC value within limits for Ti 334.940  Recovery = 97.00%
Tl 190.801†             1256.3      499.02 ug/L         3.125      499.02 ppb          3.125   0.63%
   QC value within limits for Tl 190.801  Recovery = 99.80%
U 409.014†             17264.4      509.10 ug/L         4.022      509.10 ppb          4.022   0.79%
   QC value within limits for U 409.014  Recovery = 101.82%
V 292.402†             62491.4      507.11 ug/L         6.247      507.11 ppb          6.247   1.23%
   QC value within limits for V 292.402  Recovery = 101.42%
Zn 213.857†            40696.7      496.88 ug/L         6.496      496.88 ppb          6.496   1.31%
   QC value within limits for Zn 213.857  Recovery = 99.38%
SiO2†                  65711.9      5321.5 ug/L         46.91      5321.5 ppb          46.91   0.88%
   QC value within limits for SiO2  Recovery = 99.51%
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/22/2010 08:58:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4428.7	4428.7	97.3	%			09:00:48
1	Y RADIAL	5076.2	5076.2	103.2	%			09:00:27
1	Al 396.153Radial†	-77.1	-6.1	-6.0658	ug/L	-6.0658	ppb	09:00:48
1	Ca 317.933Radial†	29.1	11.5	21.693	ug/L	21.693	ppb	09:00:48
1	Fe 238.204 Radial†	8.7	2.3	26.248	ug/L	26.248	ppb	09:00:48
1	K 766.490 Radial†	2748.9	315.0	59.917	ug/L	59.917	ppb	09:00:27
1	Mg 279.077 IEC†	0.3	-0.1	-2.5761	ug/L	-2.5761	ppb	09:00:48
1	Na 589.592 Radial†	-688.2	10.4	3.6278	ug/L	3.6278	ppb	09:00:27
1	Sr 421.552†	49.4	13.3	0.1042	ug/L	0.1042	ppb	09:00:27
1	Sc 361.383	866849.0	866849.0	102.55	%			09:01:44
1	Y 371.029	732257.7	732257.7	102.71	%			09:01:44
1	Ag 328.068†	182.1	20.9	0.1155	ug/L	0.1155	ppb	09:01:44
1	As 188.979†	-17.9	4.7	2.6313	ug/L	2.6313	ppb	09:02:04
1	B 249.677†	111.6	556.3	15.719	ug/L	15.719	ppb	09:02:04
1	Ba 233.527†	18.3	5.9	0.0575	ug/L	0.0575	ppb	09:02:04
1	Be 313.107†	-4322.3	242.5	0.1036	ug/L	0.1036	ppb	09:01:44
1	Cd 226.502†	-161.0	-8.5	-0.1282	ug/L	-0.1282	ppb	09:02:04
1	Co 228.616†	-40.3	14.3	0.3779	ug/L	0.3779	ppb	09:02:04
1	Cr 267.716†	64.0	-7.8	-0.1029	ug/L	-0.1029	ppb	09:02:04
1	Cu 324.752†	5552.9	-111.1	-0.3672	ug/L	-0.3672	ppb	09:01:44
1	Mn 257.610†	418.7	22.0	0.0320	ug/L	0.0320	ppb	09:02:04
1	Mo 202.031†	16.6	3.3	0.3001	ug/L	0.3001	ppb	09:02:04
1	Ni 231.604†	73.5	-1.0	-0.0318	ug/L	-0.0318	ppb	09:02:04
1	P 214.914†	173.8	-31.2	-23.596	ug/L	-23.596	ppb	09:02:04
1	Pb 220.353†	-45.2	4.9	0.7585	ug/L	0.7585	ppb	09:02:04
1	S 181.975 Axial†	33.4	2.6	4.7732	ug/L	4.7732	ppb	09:02:04
1	Sb 206.836†	31.5	5.3	2.2823	ug/L	2.2823	ppb	09:02:04
1	Se 196.026†	-18.7	3.9	3.3276	ug/L	3.3276	ppb	09:02:04
1	Si 251.611†	568.0	35.1	1.3361	ug/L	1.3361	ppb	09:02:04
1	Sn 189.927†	13.5	9.4	2.1737	ug/L	2.1737	ppb	09:02:04
1	Ti 334.940†	-1037.4	33.9	0.0618	ug/L	0.0618	ppb	09:01:44
1	Tl 190.801†	-25.8	3.9	1.5374	ug/L	1.5374	ppb	09:02:04
1	U 409.014†	-1965.0	27.0	0.7972	ug/L	0.7972	ppb	09:01:44
1	V 292.402†	-1368.4	16.3	0.1327	ug/L	0.1327	ppb	09:01:44
1	Zn 213.857†	694.3	72.7	0.8933	ug/L	0.8933	ppb	09:02:04
1	SiO2†	569.8	19.3	1.5624	ug/L	1.5624	ppb	09:03:15
2	Sc Radial	4443.7	4443.7	97.6	%			09:01:13
2	Y RADIAL	4924.7	4924.7	100.2	%			09:00:53
2	Al 396.153Radial†	-81.1	-9.9	-9.7495	ug/L	-9.7495	ppb	09:01:13
2	Ca 317.933Radial†	26.3	8.6	16.205	ug/L	16.205	ppb	09:01:13
2	Fe 238.204 Radial†	9.7	3.3	38.379	ug/L	38.379	ppb	09:01:13
2	K 766.490 Radial†	2815.4	373.6	71.075	ug/L	71.075	ppb	09:00:53
2	Mg 279.077 IEC†	0.4	0.0	1.7465	ug/L	1.7465	ppb	09:01:13
2	Na 589.592 Radial†	-685.4	15.7	5.4826	ug/L	5.4826	ppb	09:00:53
2	Sr 421.552†	-13.3	-51.0	-0.4000	ug/L	-0.4000	ppb	09:00:53
2	Sc 361.383	853683.8	853683.8	100.99	%			09:02:10
2	Y 371.029	721975.1	721975.1	101.27	%			09:02:10
2	Ag 328.068†	186.7	28.2	0.1557	ug/L	0.1557	ppb	09:02:10
2	As 188.979†	-17.3	4.9	2.7861	ug/L	2.7861	ppb	09:02:30
2	B 249.677†	123.2	569.4	16.088	ug/L	16.088	ppb	09:02:30
2	Ba 233.527†	27.3	15.1	0.1452	ug/L	0.1452	ppb	09:02:30
2	Be 313.107†	-4262.2	236.9	0.1010	ug/L	0.1010	ppb	09:02:10
2	Cd 226.502†	-145.1	4.8	0.0667	ug/L	0.0667	ppb	09:02:30
2	Co 228.616†	-44.0	10.0	0.2632	ug/L	0.2632	ppb	09:02:30
2	Cr 267.716†	86.1	15.1	0.2079	ug/L	0.2079	ppb	09:02:30
2	Cu 324.752†	5616.1	34.9	0.1156	ug/L	0.1156	ppb	09:02:10
2	Mn 257.610†	422.6	32.2	0.0465	ug/L	0.0465	ppb	09:02:30
2	Mo 202.031†	8.7	-4.3	-0.3824	ug/L	-0.3824	ppb	09:02:30
2	Ni 231.604†	75.2	1.8	0.0584	ug/L	0.0584	ppb	09:02:30

2	P 214.914†	190.1	-12.4	-9.4654	ug/L	-9.4654	ppb	09:02:30
2	Pb 220.353†	-50.4	-1.0	-0.1619	ug/L	-0.1619	ppb	09:02:30
2	S 181.975 Axial†	31.9	1.7	3.0089	ug/L	3.0089	ppb	09:02:30
2	Sb 206.836†	33.8	8.0	3.4272	ug/L	3.4272	ppb	09:02:30
2	Se 196.026†	-18.9	3.5	3.0087	ug/L	3.0087	ppb	09:02:30
2	Si 251.611†	554.7	30.4	1.1673	ug/L	1.1673	ppb	09:02:30
2	Sn 189.927†	12.2	8.4	1.9265	ug/L	1.9265	ppb	09:02:30
2	Ti 334.940†	-1093.8	-37.5	-0.0650	ug/L	-0.0650	ppb	09:02:10
2	Tl 190.801†	-19.1	10.2	4.0159	ug/L	4.0159	ppb	09:02:30
2	U 409.014†	-1828.5	132.6	3.9180	ug/L	3.9180	ppb	09:02:10
2	V 292.402†	-1308.0	55.6	0.4416	ug/L	0.4416	ppb	09:02:10
2	Zn 213.857†	684.2	73.2	0.8958	ug/L	0.8958	ppb	09:02:30
2	SiO2†	576.4	34.4	2.8003	ug/L	2.8003	ppb	09:03:35
3	Sc Radial	4427.1	4427.1	97.3	%			09:01:38
3	Y RADIAL	5013.4	5013.4	102.0	%			09:01:18
3	Al 396.153Radial†	-73.7	-2.6	-2.5842	ug/L	-2.5842	ppb	09:01:38
3	Ca 317.933Radial†	26.7	9.1	17.098	ug/L	17.098	ppb	09:01:38
3	Fe 238.204 Radial†	7.9	1.5	17.411	ug/L	17.411	ppb	09:01:38
3	K 766.490 Radial†	2775.6	343.4	65.344	ug/L	65.344	ppb	09:01:18
3	Mg 279.077 IEC†	2.4	2.0	83.707	ug/L	83.707	ppb	09:01:38
3	Na 589.592 Radial†	-699.8	-1.8	-0.6143	ug/L	-0.6143	ppb	09:01:18
3	Sr 421.552†	33.3	-3.2	-0.0250	ug/L	-0.0250	ppb	09:01:18
3	Sc 361.383	864838.4	864838.4	102.31	%			09:02:35
3	Y 371.029	731262.7	731262.7	102.57	%			09:02:35
3	Ag 328.068†	198.3	37.1	0.1955	ug/L	0.1955	ppb	09:02:35
3	As 188.979†	-16.2	6.3	3.5395	ug/L	3.5395	ppb	09:02:55
3	B 249.677†	95.2	540.5	15.275	ug/L	15.275	ppb	09:02:55
3	Ba 233.527†	17.8	5.5	0.0539	ug/L	0.0539	ppb	09:02:55
3	Be 313.107†	-4292.5	261.8	0.1117	ug/L	0.1117	ppb	09:02:35
3	Cd 226.502†	-171.8	-19.4	-0.2861	ug/L	-0.2861	ppb	09:02:55
3	Co 228.616†	-45.5	9.2	0.2394	ug/L	0.2394	ppb	09:02:55
3	Cr 267.716†	90.4	18.1	0.2477	ug/L	0.2477	ppb	09:02:55
3	Cu 324.752†	5653.8	0.1	-0.0010	ug/L	-0.0010	ppb	09:02:35
3	Mn 257.610†	418.9	23.2	0.0291	ug/L	0.0291	ppb	09:02:55
3	Mo 202.031†	4.7	-8.4	-0.7507	ug/L	-0.7507	ppb	09:02:55
3	Ni 231.604†	78.2	3.8	0.1217	ug/L	0.1217	ppb	09:02:55
3	P 214.914†	180.1	-24.6	-18.661	ug/L	-18.661	ppb	09:02:55
3	Pb 220.353†	-60.7	-10.4	-1.6338	ug/L	-1.6338	ppb	09:02:55
3	S 181.975 Axial†	32.4	1.8	3.2802	ug/L	3.2802	ppb	09:02:55
3	Sb 206.836†	32.5	6.3	2.7013	ug/L	2.7013	ppb	09:02:55
3	Se 196.026†	-24.1	-1.4	-1.1215	ug/L	-1.1215	ppb	09:02:55
3	Si 251.611†	573.8	42.1	1.6154	ug/L	1.6154	ppb	09:02:55
3	Sn 189.927†	9.5	5.6	1.2918	ug/L	1.2918	ppb	09:02:55
3	Ti 334.940†	-1089.8	-19.7	-0.0406	ug/L	-0.0406	ppb	09:02:35
3	Tl 190.801†	-26.9	2.8	1.0897	ug/L	1.0897	ppb	09:02:55
3	U 409.014†	-1854.5	130.5	3.8588	ug/L	3.8588	ppb	09:02:35
3	V 292.402†	-1312.1	68.3	0.5425	ug/L	0.5425	ppb	09:02:35
3	Zn 213.857†	690.1	70.2	0.8618	ug/L	0.8618	ppb	09:02:55
3	SiO2†	590.7	41.0	3.3495	ug/L	3.3495	ppb	09:03:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	861790.4	101.95	%	0.839				0.82%
Sc Radial	4433.2	97.4	%	0.20				0.21%
Y 371.029	728498.5	102.18	%	0.795				0.78%
Y RADIAL	5004.8	101.8	%	1.55				1.52%
Ag 328.068†	28.7	0.1556	ug/L	0.03998	0.1556	ppb	0.03998	25.70%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.2	-6.1332	ug/L	3.58311	-6.1332	ppb	3.58311	58.42%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.3	2.9856	ug/L	0.48588	2.9856	ppb	0.48588	16.27%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	555.4	15.694	ug/L	0.4072	15.694	ppb	0.4072	2.59%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.8	0.0855	ug/L	0.05175	0.0855	ppb	0.05175	60.51%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	247.1	0.1054	ug/L	0.00556	0.1054	ppb	0.00556	5.27%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.7	18.332	ug/L	2.9448	18.332	ppb	2.9448	16.06%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -7.7     -0.1159 ug/L       0.17670     -0.1159 ppb        0.17670 152.52%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                11.2      0.2935 ug/L       0.07410      0.2935 ppb        0.07410  25.25%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.5      0.1176 ug/L       0.19200      0.1176 ppb        0.19200 163.32%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -25.4     -0.0842 ug/L       0.25192     -0.0842 ppb        0.25192 299.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.4      27.346 ug/L       10.5274      27.346 ppb        10.5274  38.50%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         344.0      65.445 ug/L        5.5795      65.445 ppb         5.5795   8.53%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.7      27.626 ug/L       48.6158      27.626 ppb        48.6158 175.98%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                25.8      0.0359 ug/L       0.00932      0.0359 ppb        0.00932  25.99%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -3.1     -0.2777 ug/L       0.53319     -0.2777 ppb        0.53319 192.02%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          8.1      2.8320 ug/L       3.12537      2.8320 ppb        3.12537 110.36%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 1.5      0.0494 ug/L       0.07713      0.0494 ppb        0.07713 156.03%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -22.8     -17.241 ug/L        7.1716     -17.241 ppb         7.1716  41.60%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.2     -0.3457 ug/L       1.20671     -0.3457 ppb        1.20671 349.01%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.0      3.6874 ug/L       0.95006      3.6874 ppb        0.95006  25.76%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 6.5      2.8036 ug/L       0.57924      2.8036 ppb        0.57924  20.66%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.0      1.7383 ug/L       2.48176      1.7383 ppb        2.48176 142.77%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                35.9      1.3729 ug/L       0.22634      1.3729 ppb        0.22634  16.49%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.8      1.7973 ug/L       0.45492      1.7973 ppb        0.45492  25.31%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -13.6     -0.1069 ug/L       0.26187     -0.1069 ppb        0.26187 244.93%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                -7.8     -0.0146 ug/L       0.06731     -0.0146 ppb        0.06731 461.45%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.6      2.2143 ug/L       1.57621      2.2143 ppb        1.57621  71.18%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 96.7      2.8580 ug/L       1.78495      2.8580 ppb        1.78495  62.45%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 46.7      0.3723 ug/L       0.21350      0.3723 ppb        0.21350  57.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                72.0      0.8837 ug/L       0.01896      0.8837 ppb        0.01896   2.15%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      31.6      2.5707 ug/L       0.91542      2.5707 ppb        0.91542  35.61%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/22/2010 09:48:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4679.3	4679.3	103	%			09:50:11
1	Y RADIAL	5019.7	5019.7	102.1	%			09:50:11
1	Al 396.153Radial†	5003.9	4940.9	4864.4	ug/L	4864.4	ppb	09:50:11
1	Ca 317.933Radial†	2738.6	2645.8	4992.5	ug/L	4992.5	ppb	09:50:31
1	Fe 238.204 Radial†	455.8	436.7	5028.0	ug/L	5028.0	ppb	09:50:31
1	K 766.490 Radial†	29862.7	26539.7	5043.4	ug/L	5043.4	ppb	09:50:11
1	Mg 279.077 IEC†	129.9	126.0	5229.9	ug/L	5229.9	ppb	09:50:31
1	Na 589.592 Radial†	28692.7	28629.7	9996.6	ug/L	9996.6	ppb	09:50:11
1	Sr 421.552†	64969.6	63164.3	494.85	ug/L	494.85	ppb	09:50:11
1	Sc 361.383	878277.5	878277.5	103.90	%			09:51:28
1	Y 371.029	730043.0	730043.0	102.40	%			09:51:28
1	Ag 328.068†	99352.6	95466.1	495.13	ug/L	495.13	ppb	09:51:33
1	As 188.979†	895.8	884.2	502.45	ug/L	502.45	ppb	09:51:54
1	B 249.677†	17903.6	17678.9	497.48	ug/L	497.48	ppb	09:51:33
1	Ba 233.527†	54502.9	52444.9	499.79	ug/L	499.79	ppb	09:51:33
1	Be 313.107†	1220180.0	1178830.0	504.35	ug/L	504.35	ppb	09:51:28
1	Cd 226.502†	35255.9	34080.8	500.61	ug/L	500.61	ppb	09:51:33
1	Co 228.616†	19926.5	19232.1	506.41	ug/L	506.41	ppb	09:51:33
1	Cr 267.716†	38247.7	36741.6	500.60	ug/L	500.60	ppb	09:51:33
1	Cu 324.752†	160590.1	149035.3	493.73	ug/L	493.73	ppb	09:51:33
1	Mn 257.610†	390500.5	375454.3	499.54	ug/L	499.54	ppb	09:51:28
1	Mo 202.031†	5730.0	5501.9	495.56	ug/L	495.56	ppb	09:51:54
1	Ni 231.604†	16353.2	15666.6	505.87	ug/L	505.87	ppb	09:51:33
1	P 214.914†	3597.4	3261.7	2375.9	ug/L	2375.9	ppb	09:51:54
1	Pb 220.353†	3282.9	3208.6	503.31	ug/L	503.31	ppb	09:51:54
1	S 181.975 Axial†	599.0	546.6	989.50	ug/L	989.50	ppb	09:51:54
1	Sb 206.836†	1245.1	1172.9	517.56	ug/L	517.56	ppb	09:51:54
1	Se 196.026†	596.6	596.3	514.22	ug/L	514.22	ppb	09:51:54
1	Si 251.611†	68643.0	65547.3	2497.2	ug/L	2497.2	ppb	09:51:33
1	Sn 189.927†	2227.4	2140.1	493.82	ug/L	493.82	ppb	09:51:54
1	Ti 334.940†	287838.2	278077.9	483.56	ug/L	483.56	ppb	09:51:33
1	Tl 190.801†	1308.5	1288.5	511.72	ug/L	511.72	ppb	09:51:54
1	U 409.014†	15689.8	17044.0	502.60	ug/L	502.60	ppb	09:51:33
1	V 292.402†	63212.4	62190.0	504.78	ug/L	504.78	ppb	09:51:33
1	Zn 213.857†	42771.7	40561.6	495.25	ug/L	495.25	ppb	09:51:33
1	SiO2†	69412.0	66269.8	5366.7	ug/L	5366.7	ppb	09:53:01
2	Sc Radial	4787.8	4787.8	105	%			09:50:36
2	Y RADIAL	5121.0	5121.0	104.1	%			09:50:36
2	Al 396.153Radial†	5092.5	4914.9	4838.7	ug/L	4838.7	ppb	09:50:36
2	Ca 317.933Radial†	2767.0	2612.3	4929.5	ug/L	4929.5	ppb	09:50:56
2	Fe 238.204 Radial†	460.8	431.5	4967.7	ug/L	4967.7	ppb	09:50:56
2	K 766.490 Radial†	30314.1	26310.7	4999.9	ug/L	4999.9	ppb	09:50:36
2	Mg 279.077 IEC†	128.0	121.3	5035.2	ug/L	5035.2	ppb	09:50:56
2	Na 589.592 Radial†	29170.4	28451.5	9934.3	ug/L	9934.3	ppb	09:50:36
2	Sr 421.552†	65960.7	62674.6	491.01	ug/L	491.01	ppb	09:50:36
2	Sc 361.383	877567.1	877567.1	103.82	%			09:51:59
2	Y 371.029	729746.0	729746.0	102.36	%			09:51:59
2	Ag 328.068†	101015.4	97145.1	503.79	ug/L	503.79	ppb	09:52:05
2	As 188.979†	906.1	894.9	508.53	ug/L	508.53	ppb	09:52:25
2	B 249.677†	18255.9	18032.2	507.46	ug/L	507.46	ppb	09:52:05
2	Ba 233.527†	55290.0	53245.5	507.42	ug/L	507.42	ppb	09:52:05
2	Be 313.107†	1219445.7	1179073.3	504.47	ug/L	504.47	ppb	09:51:59
2	Cd 226.502†	35749.5	34583.7	508.01	ug/L	508.01	ppb	09:52:05
2	Co 228.616†	20202.5	19513.5	513.80	ug/L	513.80	ppb	09:52:05
2	Cr 267.716†	38831.9	37334.2	508.66	ug/L	508.66	ppb	09:52:05
2	Cu 324.752†	163683.7	152140.3	504.01	ug/L	504.01	ppb	09:52:05
2	Mn 257.610†	389542.6	374835.8	498.72	ug/L	498.72	ppb	09:51:59
2	Mo 202.031†	5713.1	5490.1	494.49	ug/L	494.49	ppb	09:52:25
2	Ni 231.604†	16583.8	15901.5	513.46	ug/L	513.46	ppb	09:52:05

2	P 214.914†	3617.5	3283.8	2390.7 ug/L	2390.7 ppb	09:52:25
2	Pb 220.353†	3273.6	3202.2	502.30 ug/L	502.30 ppb	09:52:25
2	S 181.975 Axial†	594.9	543.1	983.25 ug/L	983.25 ppb	09:52:25
2	Sb 206.836†	1235.7	1164.8	514.12 ug/L	514.12 ppb	09:52:25
2	Se 196.026†	599.2	599.4	516.55 ug/L	516.55 ppb	09:52:25
2	Si 251.611†	69804.0	66719.0	2541.9 ug/L	2541.9 ppb	09:52:05
2	Sn 189.927†	2238.1	2152.1	496.57 ug/L	496.57 ppb	09:52:25
2	Ti 334.940†	292497.1	282789.8	491.75 ug/L	491.75 ppb	09:52:05
2	Tl 190.801†	1287.4	1269.1	504.11 ug/L	504.11 ppb	09:52:25
2	U 409.014†	16109.5	17460.4	514.91 ug/L	514.91 ppb	09:52:05
2	V 292.402†	64291.2	63278.4	513.50 ug/L	513.50 ppb	09:52:05
2	Zn 213.857†	43455.5	41253.7	503.73 ug/L	503.73 ppb	09:52:05
2	SiO2†	69541.8	66448.9	5381.2 ug/L	5381.2 ppb	09:53:06
3	Sc Radial	4636.1	4636.1	102 %		09:51:01
3	Y RADIAL	4958.9	4958.9	100.9 %		09:51:01
3	Al 396.153Radial†	5024.3	5006.3	4929.4 ug/L	4929.4 ppb	09:51:01
3	Ca 317.933Radial†	2741.4	2673.3	5044.5 ug/L	5044.5 ppb	09:51:21
3	Fe 238.204 Radial†	460.6	445.6	5129.4 ug/L	5129.4 ppb	09:51:21
3	K 766.490 Radial†	29792.0	26741.2	5081.7 ug/L	5081.7 ppb	09:51:01
3	Mg 279.077 IEC†	130.9	128.1	5318.9 ug/L	5318.9 ppb	09:51:21
3	Na 589.592 Radial†	28469.4	28670.8	10011 ug/L	10011 ppb	09:51:01
3	Sr 421.552†	64627.0	63417.4	496.83 ug/L	496.83 ppb	09:51:01
3	Sc 361.383	886474.5	886474.5	104.87 %		09:52:30
3	Y 371.029	736938.9	736938.9	103.37 %		09:52:30
3	Ag 328.068†	98958.5	94206.0	488.64 ug/L	488.64 ppb	09:52:36
3	As 188.979†	912.6	892.3	506.98 ug/L	506.98 ppb	09:52:56
3	B 249.677†	17743.0	17366.5	488.66 ug/L	488.66 ppb	09:52:36
3	Ba 233.527†	54279.6	51746.9	493.14 ug/L	493.14 ppb	09:52:36
3	Be 313.107†	1229385.5	1176748.9	503.45 ug/L	503.45 ppb	09:52:30
3	Cd 226.502†	35079.7	33599.1	493.51 ug/L	493.51 ppb	09:52:36
3	Co 228.616†	19811.9	18945.5	498.87 ug/L	498.87 ppb	09:52:36
3	Cr 267.716†	38114.6	36274.3	494.25 ug/L	494.25 ppb	09:52:36
3	Cu 324.752†	159627.1	146687.9	485.96 ug/L	485.96 ppb	09:52:36
3	Mn 257.610†	393385.3	374729.8	498.59 ug/L	498.59 ppb	09:52:30
3	Mo 202.031†	5721.1	5442.5	490.22 ug/L	490.22 ppb	09:52:56
3	Ni 231.604†	16328.6	15497.7	500.42 ug/L	500.42 ppb	09:52:36
3	P 214.914†	3597.7	3229.9	2353.2 ug/L	2353.2 ppb	09:52:56
3	Pb 220.353†	3273.8	3170.7	497.37 ug/L	497.37 ppb	09:52:56
3	S 181.975 Axial†	596.8	539.2	976.03 ug/L	976.03 ppb	09:52:56
3	Sb 206.836†	1236.5	1153.7	509.15 ug/L	509.15 ppb	09:52:56
3	Se 196.026†	589.6	584.4	504.56 ug/L	504.56 ppb	09:52:56
3	Si 251.611†	68356.8	64663.4	2463.5 ug/L	2463.5 ppb	09:52:36
3	Sn 189.927†	2221.6	2114.7	487.96 ug/L	487.96 ppb	09:52:56
3	Ti 334.940†	285830.6	273601.8	475.77 ug/L	475.77 ppb	09:52:36
3	Tl 190.801†	1298.5	1267.3	503.34 ug/L	503.34 ppb	09:52:56
3	U 409.014†	15613.5	16831.6	496.32 ug/L	496.32 ppb	09:52:36
3	V 292.402†	62939.0	61366.8	498.10 ug/L	498.10 ppb	09:52:36
3	Zn 213.857†	42585.2	40003.2	488.40 ug/L	488.40 ppb	09:52:36
3	SiO2†	69925.3	66141.6	5356.4 ug/L	5356.4 ppb	09:53:11

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	880773.0	104.20	%	0.586				0.56%
Sc Radial	4701.1	103	%	1.7				1.66%
Y 371.029	732242.6	102.71	%	0.571				0.56%
Y RADIAL	5033.2	102.4	%	1.66				1.63%
Ag 328.068†	95605.8	495.86	ug/L	7.599	495.86	ppb	7.599	1.53%
QC value within limits for Ag 328.068 Recovery = 99.17%								
Al 396.153Radial†	4954.0	4877.5	ug/L	46.75	4877.5	ppb	46.75	0.96%
QC value within limits for Al 396.153Radial Recovery = 97.55%								
As 188.979†	890.5	505.98	ug/L	3.160	505.98	ppb	3.160	0.62%
QC value within limits for As 188.979 Recovery = 101.20%								
B 249.677†	17692.5	497.87	ug/L	9.407	497.87	ppb	9.407	1.89%
QC value within limits for B 249.677 Recovery = 99.57%								
Ba 233.527†	52479.1	500.12	ug/L	7.143	500.12	ppb	7.143	1.43%
QC value within limits for Ba 233.527 Recovery = 100.02%								
Be 313.107†	1178217.4	504.09	ug/L	0.562	504.09	ppb	0.562	0.11%
QC value within limits for Be 313.107 Recovery = 100.82%								
Ca 317.933Radial†	2643.8	4988.8	ug/L	57.59	4988.8	ppb	57.59	1.15%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.78%
Cd 226.502†            34087.9      500.71 ug/L         7.248      500.71 ppb          7.248   1.45%
   QC value within limits for Cd 226.502  Recovery = 100.14%
Co 228.616†            19230.3      506.36 ug/L         7.467      506.36 ppb          7.467   1.47%
   QC value within limits for Co 228.616  Recovery = 101.27%
Cr 267.716†            36783.4      501.17 ug/L         7.221      501.17 ppb          7.221   1.44%
   QC value within limits for Cr 267.716  Recovery = 100.23%
Cu 324.752†           149287.8      494.57 ug/L         9.051      494.57 ppb          9.051   1.83%
   QC value within limits for Cu 324.752  Recovery = 98.91%
Fe 238.204 Radial†       437.9      5041.7 ug/L        81.74      5041.7 ppb          81.74   1.62%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.83%
K 766.490 Radial†      26530.5      5041.7 ug/L        40.96      5041.7 ppb          40.96   0.81%
   QC value within limits for K 766.490 Radial  Recovery = 100.83%
Mg 279.077 IEC†          125.1      5194.7 ug/L       145.11      5194.7 ppb         145.11   2.79%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.89%
Mn 257.610†           375006.6      498.95 ug/L         0.518      498.95 ppb          0.518   0.10%
   QC value within limits for Mn 257.610  Recovery = 99.79%
Mo 202.031†             5478.2      493.42 ug/L         2.825      493.42 ppb          2.825   0.57%
   QC value within limits for Mo 202.031  Recovery = 98.68%
Na 589.592 Radial†     28584.0      9980.6 ug/L        40.71      9980.6 ppb          40.71   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 99.81%
Ni 231.604†            15688.6      506.58 ug/L         6.548      506.58 ppb          6.548   1.29%
   QC value within limits for Ni 231.604  Recovery = 101.32%
P 214.914†              3258.5      2373.2 ug/L        18.87      2373.2 ppb          18.87   0.80%
   QC value within limits for P 214.914  Recovery = 94.93%
Pb 220.353†             3193.8      500.99 ug/L         3.179      500.99 ppb          3.179   0.63%
   QC value within limits for Pb 220.353  Recovery = 100.20%
S 181.975 Axial†         543.0      982.93 ug/L         6.740      982.93 ppb          6.740   0.69%
   QC value within limits for S 181.975 Axial  Recovery = 98.29%
Sb 206.836†             1163.8      513.61 ug/L         4.229      513.61 ppb          4.229   0.82%
   QC value within limits for Sb 206.836  Recovery = 102.72%
Se 196.026†              593.4      511.78 ug/L         6.358      511.78 ppb          6.358   1.24%
   QC value within limits for Se 196.026  Recovery = 102.36%
Si 251.611†            65643.2      2500.9 ug/L        39.36      2500.9 ppb          39.36   1.57%
   QC value within limits for Si 251.611  Recovery = 100.03%
Sn 189.927†             2135.6      492.78 ug/L         4.397      492.78 ppb          4.397   0.89%
   QC value within limits for Sn 189.927  Recovery = 98.56%
Sr 421.552†            63085.4      494.23 ug/L         2.958      494.23 ppb          2.958   0.60%
   QC value within limits for Sr 421.552  Recovery = 98.85%
Ti 334.940†           278156.5      483.69 ug/L         7.989      483.69 ppb          7.989   1.65%
   QC value within limits for Ti 334.940  Recovery = 96.74%
Tl 190.801†             1275.0      506.39 ug/L         4.634      506.39 ppb          4.634   0.92%
   QC value within limits for Tl 190.801  Recovery = 101.28%
U 409.014†             17112.0      504.61 ug/L         9.458      504.61 ppb          9.458   1.87%
   QC value within limits for U 409.014  Recovery = 100.92%
V 292.402†             62278.4      505.46 ug/L         7.725      505.46 ppb          7.725   1.53%
   QC value within limits for V 292.402  Recovery = 101.09%
Zn 213.857†            40606.2      495.79 ug/L         7.678      495.79 ppb          7.678   1.55%
   QC value within limits for Zn 213.857  Recovery = 99.16%
SiO2†                  66286.8      5368.1 ug/L        12.48      5368.1 ppb          12.48   0.23%
   QC value within limits for SiO2  Recovery = 100.39%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/22/2010 09:55:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4469.0	4469.0	98.2	%			09:57:34
1	Y RADIAL	5093.3	5093.3	103.6	%			09:57:14
1	Al 396.153Radial†	-83.0	-11.4	-11.252	ug/L	-11.252	ppb	09:57:34
1	Ca 317.933Radial†	26.9	9.0	17.041	ug/L	17.041	ppb	09:57:34
1	Fe 238.204 Radial†	6.7	0.1	1.6154	ug/L	1.6154	ppb	09:57:34
1	K 766.490 Radial†	2570.9	108.2	20.597	ug/L	20.597	ppb	09:57:14
1	Mg 279.077 IEC†	3.0	2.6	108.50	ug/L	108.50	ppb	09:57:34
1	Na 589.592 Radial†	-759.7	-56.0	-19.569	ug/L	-19.569	ppb	09:57:14
1	Sr 421.552†	29.0	-8.0	-0.0625	ug/L	-0.0625	ppb	09:57:14
1	Sc 361.383	890347.7	890347.7	105.33	%			09:58:31
1	Y 371.029	749577.4	749577.4	105.14	%			09:58:31
1	Ag 328.068†	148.5	-15.7	-0.0805	ug/L	-0.0805	ppb	09:58:36
1	As 188.979†	-19.8	3.3	1.8469	ug/L	1.8469	ppb	09:58:56
1	B 249.677†	-152.5	302.7	8.5549	ug/L	8.5549	ppb	09:58:56
1	Ba 233.527†	24.6	11.4	0.1102	ug/L	0.1102	ppb	09:58:56
1	Be 313.107†	-4284.5	389.6	0.1666	ug/L	0.1666	ppb	09:58:36
1	Cd 226.502†	-177.2	-19.8	-0.2905	ug/L	-0.2905	ppb	09:58:56
1	Co 228.616†	-42.9	12.9	0.3381	ug/L	0.3381	ppb	09:58:56
1	Cr 267.716†	85.0	10.5	0.1431	ug/L	0.1431	ppb	09:58:56
1	Cu 324.752†	5665.3	-147.3	-0.4897	ug/L	-0.4897	ppb	09:58:36
1	Mn 257.610†	415.1	7.8	0.0061	ug/L	0.0061	ppb	09:58:56
1	Mo 202.031†	13.8	0.2	0.0172	ug/L	0.0172	ppb	09:58:56
1	Ni 231.604†	81.6	4.8	0.1562	ug/L	0.1562	ppb	09:58:56
1	P 214.914†	189.3	-20.9	-15.772	ug/L	-15.772	ppb	09:58:56
1	Pb 220.353†	-49.7	1.7	0.2662	ug/L	0.2662	ppb	09:58:56
1	S 181.975 Axial†	29.7	-1.7	-3.0949	ug/L	-3.0949	ppb	09:58:56
1	Sb 206.836†	24.0	-2.6	-1.0981	ug/L	-1.0981	ppb	09:58:56
1	Se 196.026†	-10.9	11.8	9.8506	ug/L	9.8506	ppb	09:58:56
1	Si 251.611†	547.6	1.1	0.0411	ug/L	0.0411	ppb	09:58:56
1	Sn 189.927†	9.9	5.7	1.3207	ug/L	1.3207	ppb	09:58:56
1	Ti 334.940†	-1025.7	71.7	0.1168	ug/L	0.1168	ppb	09:58:36
1	Tl 190.801†	-32.0	-1.3	-0.5028	ug/L	-0.5028	ppb	09:58:56
1	U 409.014†	-1940.1	101.2	2.9948	ug/L	2.9948	ppb	09:58:31
1	V 292.402†	-1331.8	86.3	0.6986	ug/L	0.6986	ppb	09:58:36
1	Zn 213.857†	673.3	34.9	0.4295	ug/L	0.4295	ppb	09:58:56
1	SiO2†	569.7	4.6	0.3713	ug/L	0.3713	ppb	10:00:17
2	Sc Radial	4471.6	4471.6	98.2	%			09:57:59
2	Y RADIAL	5070.1	5070.1	103.1	%			09:57:39
2	Al 396.153Radial†	-77.6	-5.8	-5.7529	ug/L	-5.7529	ppb	09:57:59
2	Ca 317.933Radial†	20.3	2.3	4.3762	ug/L	4.3762	ppb	09:57:59
2	Fe 238.204 Radial†	7.3	0.8	8.9063	ug/L	8.9063	ppb	09:57:59
2	K 766.490 Radial†	2622.3	159.0	30.264	ug/L	30.264	ppb	09:57:39
2	Mg 279.077 IEC†	2.3	1.9	80.863	ug/L	80.863	ppb	09:57:59
2	Na 589.592 Radial†	-744.7	-40.3	-14.066	ug/L	-14.066	ppb	09:57:39
2	Sr 421.552†	28.1	-8.8	-0.0690	ug/L	-0.0690	ppb	09:57:39
2	Sc 361.383	880144.5	880144.5	104.12	%			09:59:01
2	Y 371.029	740922.7	740922.7	103.92	%			09:59:01
2	Ag 328.068†	197.3	32.8	0.1719	ug/L	0.1719	ppb	09:59:06
2	As 188.979†	-18.3	4.5	2.5351	ug/L	2.5351	ppb	09:59:26
2	B 249.677†	-142.7	310.3	8.7697	ug/L	8.7697	ppb	09:59:26
2	Ba 233.527†	22.4	9.6	0.0930	ug/L	0.0930	ppb	09:59:26
2	Be 313.107†	-4294.1	333.3	0.1424	ug/L	0.1424	ppb	09:59:06
2	Cd 226.502†	-153.4	1.1	0.0167	ug/L	0.0167	ppb	09:59:26
2	Co 228.616†	-32.8	22.1	0.5800	ug/L	0.5800	ppb	09:59:26
2	Cr 267.716†	88.5	14.8	0.2015	ug/L	0.2015	ppb	09:59:26
2	Cu 324.752†	5648.2	-101.4	-0.3377	ug/L	-0.3377	ppb	09:59:06
2	Mn 257.610†	425.4	22.3	0.0272	ug/L	0.0272	ppb	09:59:26
2	Mo 202.031†	8.1	-5.1	-0.4565	ug/L	-0.4565	ppb	09:59:26
2	Ni 231.604†	80.5	4.7	0.1506	ug/L	0.1506	ppb	09:59:26

2	P 214.914†	178.8	-29.0	-21.891 ug/L	-21.891 ppb	09:59:26
2	Pb 220.353†	-56.3	-5.2	-0.8129 ug/L	-0.8129 ppb	09:59:26
2	S 181.975 Axial†	36.0	4.6	8.4029 ug/L	8.4029 ppb	09:59:26
2	Sb 206.836†	31.9	5.2	2.2162 ug/L	2.2162 ppb	09:59:26
2	Se 196.026†	-13.9	8.8	7.3900 ug/L	7.3900 ppb	09:59:26
2	Si 251.611†	573.8	32.3	1.2394 ug/L	1.2394 ppb	09:59:26
2	Sn 189.927†	4.2	0.3	0.0765 ug/L	0.0765 ppb	09:59:26
2	Ti 334.940†	-1054.2	33.1	0.0496 ug/L	0.0496 ppb	09:59:06
2	Tl 190.801†	-21.2	8.7	3.4281 ug/L	3.4281 ppb	09:59:26
2	U 409.014†	-1871.8	145.5	4.3030 ug/L	4.3030 ppb	09:59:01
2	V 292.402†	-1297.6	104.4	0.8383 ug/L	0.8383 ppb	09:59:06
2	Zn 213.857†	676.9	45.8	0.5625 ug/L	0.5625 ppb	09:59:26
2	SiO2†	568.5	9.7	0.7997 ug/L	0.7997 ppb	10:00:37
3	Sc Radial	4461.5	4461.5	98.0 %		09:58:24
3	Y RADIAL	5052.7	5052.7	102.8 %		09:58:04
3	Al 396.153Radial†	-69.3	2.4	2.4347 ug/L	2.4347 ppb	09:58:24
3	Ca 317.933Radial†	28.0	10.2	19.238 ug/L	19.238 ppb	09:58:24
3	Fe 238.204 Radial†	7.3	0.8	9.0876 ug/L	9.0876 ppb	09:58:24
3	K 766.490 Radial†	2686.4	230.4	43.846 ug/L	43.846 ppb	09:58:04
3	Mg 279.077 IEC†	-0.5	-1.0	-39.727 ug/L	-39.727 ppb	09:58:24
3	Na 589.592 Radial†	-741.5	-38.8	-13.549 ug/L	-13.549 ppb	09:58:04
3	Sr 421.552†	55.5	19.1	0.1499 ug/L	0.1499 ppb	09:58:04
3	Sc 361.383	892799.0	892799.0	105.62 %		09:59:31
3	Y 371.029	751095.2	751095.2	105.35 %		09:59:31
3	Ag 328.068†	213.2	45.2	0.2395 ug/L	0.2395 ppb	09:59:36
3	As 188.979†	-14.5	8.4	4.7221 ug/L	4.7221 ppb	09:59:56
3	B 249.677†	-146.8	308.5	8.7169 ug/L	8.7169 ppb	09:59:56
3	Ba 233.527†	10.5	-2.0	-0.0175 ug/L	-0.0175 ppb	09:59:56
3	Be 313.107†	-4303.7	382.6	0.1634 ug/L	0.1634 ppb	09:59:36
3	Cd 226.502†	-167.4	-10.0	-0.1483 ug/L	-0.1483 ppb	09:59:56
3	Co 228.616†	-43.8	12.1	0.3169 ug/L	0.3169 ppb	09:59:56
3	Cr 267.716†	63.3	-10.2	-0.1364 ug/L	-0.1364 ppb	09:59:56
3	Cu 324.752†	5670.7	-157.0	-0.5187 ug/L	-0.5187 ppb	09:59:36
3	Mn 257.610†	431.7	22.4	0.0323 ug/L	0.0323 ppb	09:59:56
3	Mo 202.031†	6.1	-7.1	-0.6421 ug/L	-0.6421 ppb	09:59:56
3	Ni 231.604†	77.2	0.4	0.0141 ug/L	0.0141 ppb	09:59:56
3	P 214.914†	178.7	-31.5	-23.769 ug/L	-23.769 ppb	09:59:56
3	Pb 220.353†	-46.9	4.5	0.6971 ug/L	0.6971 ppb	09:59:56
3	S 181.975 Axial†	31.3	-0.2	-0.3938 ug/L	-0.3938 ppb	09:59:56
3	Sb 206.836†	28.4	1.5	0.6517 ug/L	0.6517 ppb	09:59:56
3	Se 196.026†	-22.1	1.3	1.1006 ug/L	1.1006 ppb	09:59:56
3	Si 251.611†	561.6	12.9	0.5017 ug/L	0.5017 ppb	09:59:56
3	Sn 189.927†	12.7	8.3	1.9084 ug/L	1.9084 ppb	09:59:56
3	Ti 334.940†	-1098.1	5.9	0.0168 ug/L	0.0168 ppb	09:59:36
3	Tl 190.801†	-31.3	-0.5	-0.2004 ug/L	-0.2004 ppb	09:59:56
3	U 409.014†	-2111.5	-56.0	-1.6584 ug/L	-1.6584 ppb	09:59:31
3	V 292.402†	-1340.0	82.0	0.6426 ug/L	0.6426 ppb	09:59:36
3	Zn 213.857†	678.4	38.0	0.4672 ug/L	0.4672 ppb	09:59:56
3	SiO2†	574.8	7.8	0.6535 ug/L	0.6535 ppb	10:00:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	887763.7	105.02	%	0.794				0.76%
Sc Radial	4467.4	98.1	%	0.11				0.12%
Y 371.029	747198.4	104.80	%	0.770				0.73%
Y RADIAL	5072.1	103.2	%	0.41				0.40%
Ag 328.068†	20.8	0.1103	ug/L	0.16866	0.1103	ppb	0.16866	152.95%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.9	-4.8569	ug/L	6.88745	-4.8569	ppb	6.88745	141.81%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.4	3.0347	ug/L	1.50127	3.0347	ppb	1.50127	49.47%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	307.2	8.6805	ug/L	0.11194	8.6805	ppb	0.11194	1.29%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.3	0.0619	ug/L	0.06929	0.0619	ppb	0.06929	111.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	368.5	0.1575	ug/L	0.01313	0.1575	ppb	0.01313	8.34%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.2	13.552	ug/L	8.0220	13.552	ppb	8.0220	59.19%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -9.6     -0.1407 ug/L       0.15374     -0.1407 ppb        0.15374 109.29%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              15.7      0.4117 ug/L       0.14617      0.4117 ppb        0.14617  35.50%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               5.0      0.0694 ug/L       0.18058      0.0694 ppb        0.18058 260.22%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -135.2     -0.4487 ug/L       0.09720     -0.4487 ppb        0.09720  21.66%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.6      6.5364 ug/L       4.26273      6.5364 ppb        4.26273  65.22%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       165.9      31.569 ug/L       11.6798      31.569 ppb        11.6798  37.00%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.2      49.880 ug/L       78.8237      49.880 ppb        78.8237 158.03%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              17.5      0.0219 ug/L       0.01391      0.0219 ppb        0.01391  63.57%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -4.0     -0.3604 ug/L       0.33998     -0.3604 ppb        0.33998  94.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -45.0     -15.728 ug/L        3.3366     -15.728 ppb         3.3366  21.21%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               3.3      0.1070 ug/L       0.08046      0.1070 ppb        0.08046  75.22%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -27.1     -20.477 ug/L        4.1815     -20.477 ppb         4.1815  20.42%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.3      0.0502 ug/L       0.77784      0.0502 ppb        0.77784 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          0.9      1.6381 ug/L       6.01215      1.6381 ppb        6.01215 367.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               1.4      0.5900 ug/L       1.65802      0.5900 ppb        1.65802 281.04%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               7.3      6.1138 ug/L       4.51246      6.1138 ppb        4.51246  73.81%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              15.4      0.5940 ug/L       0.60448      0.5940 ppb        0.60448 101.76%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.8      1.1019 ug/L       0.93533      1.1019 ppb        0.93533  84.89%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               0.8      0.0061 ug/L       0.12452      0.0061 ppb        0.12452 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              36.9      0.0611 ug/L       0.05096      0.0611 ppb        0.05096  83.45%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               2.3      0.9083 ug/L       2.18742      0.9083 ppb        2.18742 240.83%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               63.6      1.8798 ug/L       3.13320      1.8798 ppb        3.13320 166.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               90.9      0.7265 ug/L       0.10076      0.7265 ppb        0.10076  13.87%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              39.6      0.4864 ug/L       0.06854      0.4864 ppb        0.06854  14.09%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     7.4      0.6082 ug/L       0.21778      0.6082 ppb        0.21778  35.81%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 21
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/22/2010 11:07:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4709.3	4709.3	103	%			11:09:07
1	Y RADIAL	5049.0	5049.0	102.7	%			11:09:07
1	Al 396.153Radial†	5102.2	5004.9	4927.9	ug/L	4927.9	ppb	11:09:07
1	Ca 317.933Radial†	2768.0	2657.2	5014.0	ug/L	5014.0	ppb	11:09:27
1	Fe 238.204 Radial†	463.9	441.8	5086.0	ug/L	5086.0	ppb	11:09:27
1	K 766.490 Radial†	30297.2	26774.9	5088.1	ug/L	5088.1	ppb	11:09:07
1	Mg 279.077 IEC†	129.5	124.8	5181.1	ug/L	5181.1	ppb	11:09:27
1	Na 589.592 Radial†	29248.2	28989.2	10122	ug/L	10122	ppb	11:09:07
1	Sr 421.552†	66075.2	63831.0	500.07	ug/L	500.07	ppb	11:09:07
1	Sc 361.383	885694.5	885694.5	104.78	%			11:10:24
1	Y 371.029	735463.9	735463.9	103.16	%			11:10:24
1	Ag 328.068†	99195.2	94515.1	490.22	ug/L	490.22	ppb	11:10:30
1	As 188.979†	917.6	897.9	510.10	ug/L	510.10	ppb	11:10:50
1	B 249.677†	17689.2	17330.0	487.63	ug/L	487.63	ppb	11:10:30
1	Ba 233.527†	54348.7	51858.4	494.20	ug/L	494.20	ppb	11:10:30
1	Be 313.107†	1230740.0	1179074.0	504.44	ug/L	504.44	ppb	11:10:24
1	Cd 226.502†	35177.6	33721.9	495.32	ug/L	495.32	ppb	11:10:30
1	Co 228.616†	19834.3	18983.5	499.87	ug/L	499.87	ppb	11:10:30
1	Cr 267.716†	38149.0	36339.2	495.12	ug/L	495.12	ppb	11:10:30
1	Cu 324.752†	160675.2	147822.2	489.71	ug/L	489.71	ppb	11:10:30
1	Mn 257.610†	393566.0	375232.6	499.26	ug/L	499.26	ppb	11:10:24
1	Mo 202.031†	5741.0	5466.3	492.35	ug/L	492.35	ppb	11:10:50
1	Ni 231.604†	16334.0	15516.5	501.03	ug/L	501.03	ppb	11:10:30
1	P 214.914†	3635.4	3269.0	2382.1	ug/L	2382.1	ppb	11:10:50
1	Pb 220.353†	3306.0	3204.1	502.62	ug/L	502.62	ppb	11:10:50
1	S 181.975 Axial†	598.7	541.5	980.17	ug/L	980.17	ppb	11:10:50
1	Sb 206.836†	1234.3	1152.6	508.81	ug/L	508.81	ppb	11:10:50
1	Se 196.026†	598.5	593.4	511.97	ug/L	511.97	ppb	11:10:50
1	Si 251.611†	69003.6	65338.1	2489.2	ug/L	2489.2	ppb	11:10:30
1	Sn 189.927†	2244.8	2138.7	493.48	ug/L	493.48	ppb	11:10:50
1	Ti 334.940†	287143.2	275094.6	478.37	ug/L	478.37	ppb	11:10:30
1	Tl 190.801†	1295.7	1265.8	502.75	ug/L	502.75	ppb	11:10:50
1	U 409.014†	15992.0	17205.9	507.39	ug/L	507.39	ppb	11:10:30
1	V 292.402†	63114.4	61587.0	499.92	ug/L	499.92	ppb	11:10:30
1	Zn 213.857†	42782.8	40227.5	491.16	ug/L	491.16	ppb	11:10:30
1	SiO2†	69414.9	65713.1	5321.6	ug/L	5321.6	ppb	11:11:57
2	Sc Radial	4774.4	4774.4	105	%			11:09:32
2	Y RADIAL	5116.8	5116.8	104.1	%			11:09:32
2	Al 396.153Radial†	5095.6	4931.5	4855.9	ug/L	4855.9	ppb	11:09:32
2	Ca 317.933Radial†	2755.9	2609.2	4923.5	ug/L	4923.5	ppb	11:09:52
2	Fe 238.204 Radial†	458.2	430.2	4952.5	ug/L	4952.5	ppb	11:09:52
2	K 766.490 Radial†	30073.8	26162.5	4971.7	ug/L	4971.7	ppb	11:09:32
2	Mg 279.077 IEC†	128.7	122.3	5079.2	ug/L	5079.2	ppb	11:09:52
2	Na 589.592 Radial†	29089.1	28452.0	9934.5	ug/L	9934.5	ppb	11:09:32
2	Sr 421.552†	65608.5	62515.1	489.76	ug/L	489.76	ppb	11:09:32
2	Sc 361.383	912492.4	912492.4	107.95	%			11:10:56
2	Y 371.029	758012.3	758012.3	106.32	%			11:10:56
2	Ag 328.068†	99817.9	92311.6	478.79	ug/L	478.79	ppb	11:11:01
2	As 188.979†	909.7	864.8	491.37	ug/L	491.37	ppb	11:11:21
2	B 249.677†	17808.1	16944.4	476.78	ug/L	476.78	ppb	11:11:01
2	Ba 233.527†	54705.4	50665.5	482.83	ug/L	482.83	ppb	11:11:01
2	Be 313.107†	1229932.8	1143830.4	489.37	ug/L	489.37	ppb	11:10:56
2	Cd 226.502†	35424.6	32964.7	484.20	ug/L	484.20	ppb	11:11:01
2	Co 228.616†	19970.9	18554.0	488.56	ug/L	488.56	ppb	11:11:01
2	Cr 267.716†	38401.4	35503.7	483.74	ug/L	483.74	ppb	11:11:01
2	Cu 324.752†	161616.4	144190.6	477.68	ug/L	477.68	ppb	11:11:01
2	Mn 257.610†	392957.3	363637.6	483.83	ug/L	483.83	ppb	11:10:56
2	Mo 202.031†	5747.2	5311.2	478.38	ug/L	478.38	ppb	11:11:21
2	Ni 231.604†	16429.9	15147.5	489.11	ug/L	489.11	ppb	11:11:01

2	P 214.914†	3615.6	3148.7	2293.4 ug/L	2293.4 ppb	11:11:21
2	Pb 220.353†	3295.1	3101.4	486.52 ug/L	486.52 ppb	11:11:21
2	S 181.975 Axial†	588.5	515.2	932.70 ug/L	932.70 ppb	11:11:21
2	Sb 206.836†	1236.6	1120.1	494.49 ug/L	494.49 ppb	11:11:21
2	Se 196.026†	603.3	581.1	501.25 ug/L	501.25 ppb	11:11:21
2	Si 251.611†	69464.5	63831.0	2431.8 ug/L	2431.8 ppb	11:11:01
2	Sn 189.927†	2246.7	2077.6	479.39 ug/L	479.39 ppb	11:11:21
2	Ti 334.940†	288860.8	268637.6	467.15 ug/L	467.15 ppb	11:11:01
2	Tl 190.801†	1304.2	1237.3	491.42 ug/L	491.42 ppb	11:11:21
2	U 409.014†	15857.1	16632.7	490.48 ug/L	490.48 ppb	11:11:01
2	V 292.402†	63445.3	60124.5	488.00 ug/L	488.00 ppb	11:11:01
2	Zn 213.857†	42956.8	39189.6	478.48 ug/L	478.48 ppb	11:11:01
2	SiO2†	69708.8	64039.8	5186.1 ug/L	5186.1 ppb	11:12:02
3	Sc Radial	4744.0	4744.0	104 %		11:09:57
3	Y RADIAL	5038.3	5038.3	102.5 %		11:09:57
3	Al 396.153Radial†	5073.4	4941.3	4865.0 ug/L	4865.0 ppb	11:09:57
3	Ca 317.933Radial†	2748.2	2618.7	4941.4 ug/L	4941.4 ppb	11:10:17
3	Fe 238.204 Radial†	461.2	435.9	5018.8 ug/L	5018.8 ppb	11:10:17
3	K 766.490 Radial†	30145.2	26414.8	5019.7 ug/L	5019.7 ppb	11:09:57
3	Mg 279.077 IEC†	130.5	124.8	5181.6 ug/L	5181.6 ppb	11:10:17
3	Na 589.592 Radial†	28962.9	28508.6	9954.3 ug/L	9954.3 ppb	11:09:57
3	Sr 421.552†	65438.3	62752.7	491.62 ug/L	491.62 ppb	11:09:57
3	Sc 361.383	882407.3	882407.3	104.39 %		11:11:27
3	Y 371.029	733380.8	733380.8	102.87 %		11:11:27
3	Ag 328.068†	99774.1	95422.4	494.91 ug/L	494.91 ppb	11:11:32
3	As 188.979†	907.6	891.5	506.54 ug/L	506.54 ppb	11:11:52
3	B 249.677†	17892.8	17587.9	494.92 ug/L	494.92 ppb	11:11:32
3	Ba 233.527†	54771.8	52456.9	499.90 ug/L	499.90 ppb	11:11:32
3	Be 313.107†	1229575.7	1182334.5	505.85 ug/L	505.85 ppb	11:11:27
3	Cd 226.502†	35485.3	34141.8	501.50 ug/L	501.50 ppb	11:11:32
3	Co 228.616†	19968.6	19182.6	505.10 ug/L	505.10 ppb	11:11:32
3	Cr 267.716†	38445.1	36758.4	500.83 ug/L	500.83 ppb	11:11:32
3	Cu 324.752†	161208.7	148904.5	493.30 ug/L	493.30 ppb	11:11:32
3	Mn 257.610†	392898.4	375992.3	500.26 ug/L	500.26 ppb	11:11:27
3	Mo 202.031†	5698.3	5445.8	490.51 ug/L	490.51 ppb	11:11:52
3	Ni 231.604†	16500.7	15734.3	508.06 ug/L	508.06 ppb	11:11:32
3	P 214.914†	3597.2	3245.3	2363.5 ug/L	2363.5 ppb	11:11:52
3	Pb 220.353†	3250.0	3162.3	496.06 ug/L	496.06 ppb	11:11:52
3	S 181.975 Axial†	589.3	534.6	967.77 ug/L	967.77 ppb	11:11:52
3	Sb 206.836†	1227.3	1150.3	507.74 ug/L	507.74 ppb	11:11:52
3	Se 196.026†	602.3	599.2	516.55 ug/L	516.55 ppb	11:11:52
3	Si 251.611†	69437.3	65998.9	2514.5 ug/L	2514.5 ppb	11:11:32
3	Sn 189.927†	2218.7	2121.7	489.56 ug/L	489.56 ppb	11:11:52
3	Ti 334.940†	288829.0	277730.5	482.95 ug/L	482.95 ppb	11:11:32
3	Tl 190.801†	1291.9	1266.6	503.11 ug/L	503.11 ppb	11:11:52
3	U 409.014†	15675.6	16959.6	500.10 ug/L	500.10 ppb	11:11:32
3	V 292.402†	63640.0	62314.9	505.71 ug/L	505.71 ppb	11:11:32
3	Zn 213.857†	43094.0	40677.8	496.67 ug/L	496.67 ppb	11:11:32
3	SiO2†	70562.5	67059.3	5430.9 ug/L	5430.9 ppb	11:12:07

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	893531.4	105.71	%	1.952				1.85%
Sc Radial	4742.5	104	%	0.7				0.69%
Y 371.029	742285.7	104.12	%	1.916				1.84%
Y RADIAL	5068.0	103.1	%	0.87				0.84%
Ag 328.068†	94083.0	487.97	ug/L	8.290	487.97	ppb	8.290	1.70%
QC value within limits for Ag 328.068 Recovery = 97.59%								
Al 396.153Radial†	4959.2	4882.9	ug/L	39.20	4882.9	ppb	39.20	0.80%
QC value within limits for Al 396.153Radial Recovery = 97.66%								
As 188.979†	884.7	502.67	ug/L	9.951	502.67	ppb	9.951	1.98%
QC value within limits for As 188.979 Recovery = 100.53%								
B 249.677†	17287.4	486.44	ug/L	9.125	486.44	ppb	9.125	1.88%
QC value within limits for B 249.677 Recovery = 97.29%								
Ba 233.527†	51660.2	492.31	ug/L	8.690	492.31	ppb	8.690	1.77%
QC value within limits for Ba 233.527 Recovery = 98.46%								
Be 313.107†	1168412.9	499.89	ug/L	9.133	499.89	ppb	9.133	1.83%
QC value within limits for Be 313.107 Recovery = 99.98%								
Ca 317.933Radial†	2628.3	4959.6	ug/L	47.95	4959.6	ppb	47.95	0.97%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.19%
Cd 226.502†            33609.5      493.68 ug/L         8.767      493.68 ppb          8.767   1.78%
   QC value within limits for Cd 226.502  Recovery = 98.74%
Co 228.616†            18906.7      497.84 ug/L         8.456      497.84 ppb          8.456   1.70%
   QC value within limits for Co 228.616  Recovery = 99.57%
Cr 267.716†            36200.4      493.23 ug/L         8.700      493.23 ppb          8.700   1.76%
   QC value within limits for Cr 267.716  Recovery = 98.65%
Cu 324.752†           146972.4      486.90 ug/L         8.179      486.90 ppb          8.179   1.68%
   QC value within limits for Cu 324.752  Recovery = 97.38%
Fe 238.204 Radial†       436.0      5019.1 ug/L        66.74      5019.1 ppb         66.74   1.33%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.38%
K 766.490 Radial†      26450.8      5026.5 ug/L        58.49      5026.5 ppb         58.49   1.16%
   QC value within limits for K 766.490 Radial  Recovery = 100.53%
Mg 279.077 IEC†          124.0      5147.3 ug/L        58.98      5147.3 ppb         58.98   1.15%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.95%
Mn 257.610†           371620.8      494.45 ug/L         9.210      494.45 ppb          9.210   1.86%
   QC value within limits for Mn 257.610  Recovery = 98.89%
Mo 202.031†             5407.7      487.08 ug/L         7.589      487.08 ppb          7.589   1.56%
   QC value within limits for Mo 202.031  Recovery = 97.42%
Na 589.592 Radial†     28649.9       10004 ug/L       103.1        10004 ppb        103.1   1.03%
   QC value within limits for Na 589.592 Radial  Recovery = 100.04%
Ni 231.604†            15466.1      499.40 ug/L         9.578      499.40 ppb          9.578   1.92%
   QC value within limits for Ni 231.604  Recovery = 99.88%
P 214.914†              3221.0      2346.3 ug/L        46.80      2346.3 ppb         46.80   1.99%
   QC value within limits for P 214.914  Recovery = 93.85%
Pb 220.353†             3155.9      495.06 ug/L         8.096      495.06 ppb          8.096   1.64%
   QC value within limits for Pb 220.353  Recovery = 99.01%
S 181.975 Axial†         530.4      960.22 ug/L        24.621      960.22 ppb         24.621   2.56%
   QC value within limits for S 181.975 Axial  Recovery = 96.02%
Sb 206.836†             1141.0      503.68 ug/L         7.978      503.68 ppb          7.978   1.58%
   QC value within limits for Sb 206.836  Recovery = 100.74%
Se 196.026†              591.2      509.92 ug/L         7.856      509.92 ppb          7.856   1.54%
   QC value within limits for Se 196.026  Recovery = 101.98%
Si 251.611†            65056.0      2478.5 ug/L        42.35      2478.5 ppb         42.35   1.71%
   QC value within limits for Si 251.611  Recovery = 99.14%
Sn 189.927†             2112.6      487.48 ug/L         7.274      487.48 ppb          7.274   1.49%
   QC value within limits for Sn 189.927  Recovery = 97.50%
Sr 421.552†            63032.9      493.82 ug/L         5.494      493.82 ppb          5.494   1.11%
   QC value within limits for Sr 421.552  Recovery = 98.76%
Ti 334.940†           273820.9      476.16 ug/L         8.130      476.16 ppb          8.130   1.71%
   QC value within limits for Ti 334.940  Recovery = 95.23%
Tl 190.801†             1256.6      499.09 ug/L         6.647      499.09 ppb          6.647   1.33%
   QC value within limits for Tl 190.801  Recovery = 99.82%
U 409.014†             16932.7      499.32 ug/L         8.486      499.32 ppb          8.486   1.70%
   QC value within limits for U 409.014  Recovery = 99.86%
V 292.402†             61342.1      497.88 ug/L         9.027      497.88 ppb          9.027   1.81%
   QC value within limits for V 292.402  Recovery = 99.58%
Zn 213.857†            40031.6      488.77 ug/L         9.327      488.77 ppb          9.327   1.91%
   QC value within limits for Zn 213.857  Recovery = 97.75%
SiO2†                  65604.1      5312.9 ug/L       122.63      5312.9 ppb        122.63   2.31%
   QC value within limits for SiO2  Recovery = 99.35%
All analyte(s) passed QC.
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Sequence No.: 22
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/22/2010 11:14:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4836.3	4836.3	106	%			11:16:10
1	Y RADIAL	5214.1	5214.1	106.0	%			11:16:10
1	Al 396.153Radial†	-65.7	11.3	11.191	ug/L	11.191	ppb	11:16:30
1	Ca 317.933Radial†	26.4	6.5	12.209	ug/L	12.209	ppb	11:16:30
1	Fe 238.204 Radial†	7.4	0.4	4.1581	ug/L	4.1581	ppb	11:16:30
1	K 766.490 Radial†	2673.0	5.4	1.0221	ug/L	1.0221	ppb	11:16:10
1	Mg 279.077 IEC†	2.5	1.9	79.283	ug/L	79.283	ppb	11:16:30
1	Na 589.592 Radial†	-746.6	15.1	5.2603	ug/L	5.2603	ppb	11:16:10
1	Sr 421.552†	54.3	13.7	0.1070	ug/L	0.1070	ppb	11:16:10
1	Sc 361.383	872566.6	872566.6	103.22	%			11:17:27
1	Y 371.029	736483.3	736483.3	103.30	%			11:17:27
1	Ag 328.068†	323.6	156.8	0.8091	ug/L	0.8091	ppb	11:17:27
1	As 188.979†	-15.4	7.1	4.0306	ug/L	4.0306	ppb	11:17:47
1	B 249.677†	-280.9	175.3	4.9546	ug/L	4.9546	ppb	11:17:47
1	Ba 233.527†	16.8	4.3	0.0415	ug/L	0.0415	ppb	11:17:47
1	Be 313.107†	-4392.4	202.2	0.0863	ug/L	0.0863	ppb	11:17:27
1	Cd 226.502†	-158.4	-5.0	-0.0734	ug/L	-0.0734	ppb	11:17:47
1	Co 228.616†	-36.3	18.5	0.4856	ug/L	0.4856	ppb	11:17:47
1	Cr 267.716†	82.1	9.3	0.1271	ug/L	0.1271	ppb	11:17:47
1	Cu 324.752†	5686.1	-17.5	-0.0585	ug/L	-0.0585	ppb	11:17:27
1	Mn 257.610†	438.3	38.3	0.0481	ug/L	0.0481	ppb	11:17:47
1	Mo 202.031†	10.6	-2.6	-0.2371	ug/L	-0.2371	ppb	11:17:47
1	Ni 231.604†	85.6	10.3	0.3333	ug/L	0.3333	ppb	11:17:47
1	P 214.914†	180.1	-26.2	-19.814	ug/L	-19.814	ppb	11:17:47
1	Pb 220.353†	-43.6	6.6	1.0396	ug/L	1.0396	ppb	11:17:47
1	S 181.975 Axial†	36.6	5.5	9.9996	ug/L	9.9996	ppb	11:17:47
1	Sb 206.836†	41.8	15.0	6.4050	ug/L	6.4050	ppb	11:17:47
1	Se 196.026†	-27.2	-4.2	-3.4528	ug/L	-3.4528	ppb	11:17:47
1	Si 251.611†	680.2	140.2	5.3561	ug/L	5.3561	ppb	11:17:47
1	Sn 189.927†	5.9	2.0	0.4528	ug/L	0.4528	ppb	11:17:47
1	Ti 334.940†	-1080.5	-1.2	-0.0075	ug/L	-0.0075	ppb	11:17:27
1	Tl 190.801†	-30.4	-0.3	-0.1389	ug/L	-0.1389	ppb	11:17:47
1	U 409.014†	-1964.2	40.3	1.1911	ug/L	1.1911	ppb	11:17:27
1	V 292.402†	-1373.2	20.4	0.1631	ug/L	0.1631	ppb	11:17:27
1	Zn 213.857†	668.9	43.7	0.5356	ug/L	0.5356	ppb	11:17:47
1	SiO2†	667.9	110.7	8.9941	ug/L	8.9941	ppb	11:18:58
2	Sc Radial	4716.7	4716.7	104	%			11:16:35
2	Y RADIAL	5097.9	5097.9	103.7	%			11:16:35
2	Al 396.153Radial†	-78.5	-2.6	-2.5275	ug/L	-2.5275	ppb	11:16:55
2	Ca 317.933Radial†	20.0	0.9	1.7627	ug/L	1.7627	ppb	11:16:55
2	Fe 238.204 Radial†	9.4	2.4	28.012	ug/L	28.012	ppb	11:16:55
2	K 766.490 Radial†	2690.2	85.8	16.327	ug/L	16.327	ppb	11:16:35
2	Mg 279.077 IEC†	2.6	2.1	85.928	ug/L	85.928	ppb	11:16:55
2	Na 589.592 Radial†	-721.3	21.7	7.5597	ug/L	7.5597	ppb	11:16:35
2	Sr 421.552†	21.1	-17.1	-0.1341	ug/L	-0.1341	ppb	11:16:35
2	Sc 361.383	870461.9	870461.9	102.98	%			11:17:52
2	Y 371.029	735732.8	735732.8	103.20	%			11:17:52
2	Ag 328.068†	203.2	40.7	0.2198	ug/L	0.2198	ppb	11:17:52
2	As 188.979†	-24.7	-1.9	-1.0518	ug/L	-1.0518	ppb	11:18:12
2	B 249.677†	-285.9	169.8	4.7932	ug/L	4.7932	ppb	11:18:12
2	Ba 233.527†	10.4	-1.8	-0.0160	ug/L	-0.0160	ppb	11:18:12
2	Be 313.107†	-4319.1	263.0	0.1123	ug/L	0.1123	ppb	11:17:52
2	Cd 226.502†	-159.9	-6.8	-0.1034	ug/L	-0.1034	ppb	11:18:12
2	Co 228.616†	-28.6	25.8	0.6791	ug/L	0.6791	ppb	11:18:12
2	Cr 267.716†	86.7	14.0	0.1940	ug/L	0.1940	ppb	11:18:12
2	Cu 324.752†	5730.9	39.3	0.1321	ug/L	0.1321	ppb	11:17:52
2	Mn 257.610†	470.2	70.3	0.0928	ug/L	0.0928	ppb	11:18:12
2	Mo 202.031†	12.2	-1.0	-0.0890	ug/L	-0.0890	ppb	11:18:12
2	Ni 231.604†	90.5	15.3	0.4935	ug/L	0.4935	ppb	11:18:12

2	P 214.914†	175.6	-30.1	-22.837	ug/L	-22.837 ppb	11:18:12
2	Pb 220.353†	-53.6	-3.1	-0.4959	ug/L	-0.4959 ppb	11:18:12
2	S 181.975 Axial†	35.7	4.8	8.6247	ug/L	8.6247 ppb	11:18:12
2	Sb 206.836†	26.6	0.4	0.1939	ug/L	0.1939 ppb	11:18:12
2	Se 196.026†	-26.8	-3.9	-3.1627	ug/L	-3.1627 ppb	11:18:12
2	Si 251.611†	694.4	155.5	5.9407	ug/L	5.9407 ppb	11:18:12
2	Sn 189.927†	13.2	9.1	2.0974	ug/L	2.0974 ppb	11:18:12
2	Ti 334.940†	-1073.9	2.7	-0.0017	ug/L	-0.0017 ppb	11:17:52
2	Tl 190.801†	-32.8	-2.8	-1.1027	ug/L	-1.1027 ppb	11:18:12
2	U 409.014†	-2034.9	-33.0	-0.9787	ug/L	-0.9787 ppb	11:17:52
2	V 292.402†	-1368.4	21.8	0.1690	ug/L	0.1690 ppb	11:17:52
2	Zn 213.857†	656.5	33.2	0.4023	ug/L	0.4023 ppb	11:18:12
2	SiO2†	669.8	114.1	9.2633	ug/L	9.2633 ppb	11:19:18
3	Sc Radial	4673.5	4673.5	103	%		11:17:00
3	Y RADIAL	5040.4	5040.4	102.5	%		11:17:00
3	Al 396.153Radial†	-77.0	-1.8	-1.7942	ug/L	-1.7942 ppb	11:17:20
3	Ca 317.933Radial†	29.6	10.4	19.707	ug/L	19.707 ppb	11:17:20
3	Fe 238.204 Radial†	8.3	1.5	16.915	ug/L	16.915 ppb	11:17:20
3	K 766.490 Radial†	2649.2	69.9	13.290	ug/L	13.290 ppb	11:17:00
3	Mg 279.077 IEC†	0.4	-0.1	-2.4152	ug/L	-2.4152 ppb	11:17:20
3	Na 589.592 Radial†	-761.7	-24.2	-8.4436	ug/L	-8.4436 ppb	11:17:00
3	Sr 421.552†	39.4	0.9	0.0068	ug/L	0.0068 ppb	11:17:00
3	Sc 361.383	866043.6	866043.6	102.45	%		11:18:17
3	Y 371.029	730785.9	730785.9	102.50	%		11:18:17
3	Ag 328.068†	146.3	-13.9	-0.0660	ug/L	-0.0660 ppb	11:18:17
3	As 188.979†	-21.7	0.9	0.5327	ug/L	0.5327 ppb	11:18:37
3	B 249.677†	-297.0	157.6	4.4510	ug/L	4.4510 ppb	11:18:37
3	Ba 233.527†	15.4	3.1	0.0307	ug/L	0.0307 ppb	11:18:37
3	Be 313.107†	-4359.1	202.6	0.0866	ug/L	0.0866 ppb	11:18:17
3	Cd 226.502†	-166.6	-14.1	-0.2083	ug/L	-0.2083 ppb	11:18:37
3	Co 228.616†	-48.0	6.8	0.1782	ug/L	0.1782 ppb	11:18:37
3	Cr 267.716†	75.6	3.6	0.0507	ug/L	0.0507 ppb	11:18:37
3	Cu 324.752†	5639.7	-21.4	-0.0707	ug/L	-0.0707 ppb	11:18:17
3	Mn 257.610†	451.7	54.6	0.0744	ug/L	0.0744 ppb	11:18:37
3	Mo 202.031†	15.2	2.0	0.1786	ug/L	0.1786 ppb	11:18:37
3	Ni 231.604†	85.2	10.5	0.3400	ug/L	0.3400 ppb	11:18:37
3	P 214.914†	191.9	-13.4	-10.119	ug/L	-10.119 ppb	11:18:37
3	Pb 220.353†	-42.0	7.9	1.2383	ug/L	1.2383 ppb	11:18:37
3	S 181.975 Axial†	31.4	0.7	1.3196	ug/L	1.3196 ppb	11:18:37
3	Sb 206.836†	28.7	2.5	1.0991	ug/L	1.0991 ppb	11:18:37
3	Se 196.026†	-19.6	3.1	2.6150	ug/L	2.6150 ppb	11:18:37
3	Si 251.611†	650.6	116.2	4.4344	ug/L	4.4344 ppb	11:18:37
3	Sn 189.927†	8.2	4.3	0.9951	ug/L	0.9951 ppb	11:18:37
3	Ti 334.940†	-1033.8	36.5	0.0656	ug/L	0.0656 ppb	11:18:17
3	Tl 190.801†	-28.4	1.4	0.5608	ug/L	0.5608 ppb	11:18:37
3	U 409.014†	-1936.6	52.9	1.5632	ug/L	1.5632 ppb	11:18:17
3	V 292.402†	-1324.7	57.7	0.4649	ug/L	0.4649 ppb	11:18:17
3	Zn 213.857†	669.5	49.2	0.6019	ug/L	0.6019 ppb	11:18:37
3	SiO2†	686.4	133.6	10.843	ug/L	10.843 ppb	11:19:38

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	869690.7	102.88	%	0.394				0.38%
Sc Radial	4742.1	104	%	1.9				1.78%
Y 371.029	734334.0	103.00	%	0.434				0.42%
Y RADIAL	5117.5	104.1	%	1.80				1.73%
Ag 328.068†	61.2	0.3209	ug/L	0.44622	0.3209	ppb	0.44622	139.03%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.3	2.2897	ug/L	7.71736	2.2897	ppb	7.71736	337.04%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.1	1.1705	ug/L	2.60055	1.1705	ppb	2.60055	222.17%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	167.6	4.7329	ug/L	0.25712	4.7329	ppb	0.25712	5.43%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.9	0.0187	ug/L	0.03059	0.0187	ppb	0.03059	163.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	222.6	0.0951	ug/L	0.01492	0.0951	ppb	0.01492	15.69%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.9	11.226	ug/L	9.0122	11.226	ppb	9.0122	80.28%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -8.6     -0.1284 ug/L       0.07085     -0.1284 ppb        0.07085  55.19%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                17.0      0.4476 ug/L       0.25256      0.4476 ppb        0.25256  56.42%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.0      0.1239 ug/L       0.07170      0.1239 ppb        0.07170  57.85%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 0.1      0.0010 ug/L       0.11371      0.0010 ppb        0.11371 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.4      16.362 ug/L       11.9367      16.362 ppb        11.9367  72.95%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          53.7      10.213 ug/L        8.1030      10.213 ppb         8.1030  79.34%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.3      54.265 ug/L       49.1988      54.265 ppb        49.1988  90.66%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                54.4      0.0718 ug/L       0.02245      0.0718 ppb        0.02245  31.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -0.6     -0.0492 ug/L       0.21068     -0.0492 ppb        0.21068 428.58%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          4.2      1.4588 ug/L       8.65250      1.4588 ppb        8.65250 593.12%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                12.0      0.3889 ug/L       0.09064      0.3889 ppb        0.09064  23.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -23.2     -17.590 ug/L        6.6442     -17.590 ppb         6.6442  37.77%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.8      0.5940 ug/L       0.94910      0.5940 ppb        0.94910 159.79%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            3.7      6.6480 ug/L       4.66539      6.6480 ppb        4.66539  70.18%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 6.0      2.5660 ug/L       3.35531      2.5660 ppb        3.35531 130.76%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.7     -1.3335 ug/L       3.42258     -1.3335 ppb        3.42258 256.66%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               137.3      5.2437 ug/L       0.75941      5.2437 ppb        0.75941  14.48%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.1      1.1818 ug/L       0.83801      1.1818 ppb        0.83801  70.91%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -0.9     -0.0068 ug/L       0.12110     -0.0068 ppb        0.12110 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                12.7      0.0188 ug/L       0.04065      0.0188 ppb        0.04065 216.29%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.6     -0.2270 ug/L       0.83526     -0.2270 ppb        0.83526 368.01%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 20.1      0.5919 ug/L       1.37281      0.5919 ppb        1.37281 231.94%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 33.3      0.2657 ug/L       0.17258      0.2657 ppb        0.17258  64.96%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                42.0      0.5133 ug/L       0.10167      0.5133 ppb        0.10167  19.81%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     119.5      9.7002 ug/L       0.99906      9.7002 ppb        0.99906  10.30%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 29
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/22/2010 12:02:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4593.6	4593.6	101	%			12:04:41
1	Y RADIAL	4910.8	4910.8	99.88	%			12:04:41
1	Al 396.153Radial†	4959.1	4987.4	4910.0	ug/L	4910.0	ppb	12:04:41
1	Ca 317.933Radial†	2721.5	2678.5	5054.3	ug/L	5054.3	ppb	12:05:01
1	Fe 238.204 Radial†	453.3	442.6	5095.0	ug/L	5095.0	ppb	12:05:01
1	K 766.490 Radial†	29520.6	26742.9	5082.1	ug/L	5082.1	ppb	12:04:41
1	Mg 279.077 IEC†	128.1	126.5	5251.9	ug/L	5251.9	ppb	12:05:01
1	Na 589.592 Radial†	27614.2	28082.0	9805.3	ug/L	9805.3	ppb	12:04:41
1	Sr 421.552†	62969.3	62361.9	488.56	ug/L	488.56	ppb	12:04:41
1	Sc 361.383	867016.2	867016.2	102.57	%			12:05:58
1	Y 371.029	722074.3	722074.3	101.28	%			12:05:58
1	Ag 328.068†	99300.8	96657.5	501.31	ug/L	501.31	ppb	12:06:04
1	As 188.979†	905.5	904.9	514.12	ug/L	514.12	ppb	12:06:24
1	B 249.677†	17607.1	17613.7	495.62	ug/L	495.62	ppb	12:06:04
1	Ba 233.527†	54287.5	52916.1	504.28	ug/L	504.28	ppb	12:06:04
1	Be 313.107†	1201995.0	1176353.8	503.31	ug/L	503.31	ppb	12:05:58
1	Cd 226.502†	35058.3	34328.9	504.25	ug/L	504.25	ppb	12:06:04
1	Co 228.616†	19832.1	19389.1	510.55	ug/L	510.55	ppb	12:06:04
1	Cr 267.716†	38165.1	37139.2	506.02	ug/L	506.02	ppb	12:06:04
1	Cu 324.752†	160442.1	150898.5	499.91	ug/L	499.91	ppb	12:06:04
1	Mn 257.610†	381262.3	371329.1	494.06	ug/L	494.06	ppb	12:06:04
1	Mo 202.031†	5738.9	5582.3	502.79	ug/L	502.79	ppb	12:06:24
1	Ni 231.604†	16308.0	15827.0	511.05	ug/L	511.05	ppb	12:06:04
1	P 214.914†	3619.6	3328.3	2425.2	ug/L	2425.2	ppb	12:06:24
1	Pb 220.353†	3276.2	3243.1	508.72	ug/L	508.72	ppb	12:06:24
1	S 181.975 Axial†	595.4	550.6	996.82	ug/L	996.82	ppb	12:06:24
1	Sb 206.836†	1230.2	1173.9	518.27	ug/L	518.27	ppb	12:06:24
1	Se 196.026†	601.2	608.3	524.43	ug/L	524.43	ppb	12:06:24
1	Si 251.611†	68670.4	66432.0	2530.9	ug/L	2530.9	ppb	12:06:04
1	Sn 189.927†	2237.3	2177.6	502.45	ug/L	502.45	ppb	12:06:24
1	Ti 334.940†	287068.8	280926.0	488.51	ug/L	488.51	ppb	12:06:04
1	Tl 190.801†	1296.3	1292.9	513.46	ug/L	513.46	ppb	12:06:24
1	U 409.014†	15701.7	17251.7	508.73	ug/L	508.73	ppb	12:06:04
1	V 292.402†	63227.0	62994.4	511.32	ug/L	511.32	ppb	12:06:04
1	Zn 213.857†	42770.7	41095.4	501.78	ug/L	501.78	ppb	12:06:04
1	SiO2†	68377.9	66129.4	5355.1	ug/L	5355.1	ppb	12:07:31
2	Sc Radial	4671.6	4671.6	103	%			12:05:06
2	Y RADIAL	4968.5	4968.5	101.0	%			12:05:06
2	Al 396.153Radial†	4976.7	4922.4	4846.1	ug/L	4846.1	ppb	12:05:06
2	Ca 317.933Radial†	2727.3	2639.1	4980.0	ug/L	4980.0	ppb	12:05:26
2	Fe 238.204 Radial†	453.2	434.9	5007.5	ug/L	5007.5	ppb	12:05:26
2	K 766.490 Radial†	29627.2	26358.1	5009.0	ug/L	5009.0	ppb	12:05:06
2	Mg 279.077 IEC†	127.4	123.8	5138.4	ug/L	5138.4	ppb	12:05:26
2	Na 589.592 Radial†	27677.3	27686.3	9667.2	ug/L	9667.2	ppb	12:05:06
2	Sr 421.552†	63811.9	62140.4	486.82	ug/L	486.82	ppb	12:05:06
2	Sc 361.383	873973.1	873973.1	103.39	%			12:06:29
2	Y 371.029	726444.4	726444.4	101.89	%			12:06:29
2	Ag 328.068†	99558.9	96136.6	498.59	ug/L	498.59	ppb	12:06:34
2	As 188.979†	903.6	896.1	509.14	ug/L	509.14	ppb	12:06:54
2	B 249.677†	17764.3	17629.1	496.07	ug/L	496.07	ppb	12:06:34
2	Ba 233.527†	54634.6	52830.5	503.46	ug/L	503.46	ppb	12:06:34
2	Be 313.107†	1213062.3	1177729.7	503.89	ug/L	503.89	ppb	12:06:29
2	Cd 226.502†	35292.6	34283.4	503.59	ug/L	503.59	ppb	12:06:34
2	Co 228.616†	19955.2	19354.3	509.63	ug/L	509.63	ppb	12:06:34
2	Cr 267.716†	38272.8	36947.3	503.39	ug/L	503.39	ppb	12:06:34
2	Cu 324.752†	160971.2	150165.1	497.47	ug/L	497.47	ppb	12:06:34
2	Mn 257.610†	382599.5	369663.4	491.85	ug/L	491.85	ppb	12:06:34
2	Mo 202.031†	5710.4	5510.2	496.30	ug/L	496.30	ppb	12:06:54
2	Ni 231.604†	16390.5	15780.2	509.54	ug/L	509.54	ppb	12:06:34

2	P 214.914†	3627.5	3307.9	2410.2 ug/L	2410.2 ppb	12:06:54
2	Pb 220.353†	3280.8	3222.1	505.43 ug/L	505.43 ppb	12:06:54
2	S 181.975 Axial†	597.0	547.5	991.17 ug/L	991.17 ppb	12:06:54
2	Sb 206.836†	1235.9	1169.9	516.36 ug/L	516.36 ppb	12:06:54
2	Se 196.026†	592.3	595.0	513.05 ug/L	513.05 ppb	12:06:54
2	Si 251.611†	69000.7	66218.6	2522.8 ug/L	2522.8 ppb	12:06:34
2	Sn 189.927†	2238.4	2161.2	498.68 ug/L	498.68 ppb	12:06:54
2	Ti 334.940†	287694.3	279303.1	485.69 ug/L	485.69 ppb	12:06:34
2	Tl 190.801†	1294.1	1280.8	508.65 ug/L	508.65 ppb	12:06:54
2	U 409.014†	15938.6	17358.9	511.91 ug/L	511.91 ppb	12:06:34
2	V 292.402†	63335.4	62608.6	508.16 ug/L	508.16 ppb	12:06:34
2	Zn 213.857†	43034.8	41018.9	500.86 ug/L	500.86 ppb	12:06:34
2	SiO2†	69266.5	66458.1	5381.9 ug/L	5381.9 ppb	12:07:36
3	Sc Radial	4704.2	4704.2	103 %		12:05:31
3	Y RADIAL	5055.6	5055.6	102.8 %		12:05:31
3	Al 396.153Radial†	5064.2	4973.5	4896.5 ug/L	4896.5 ppb	12:05:31
3	Ca 317.933Radial†	2736.1	2629.2	4961.2 ug/L	4961.2 ppb	12:05:51
3	Fe 238.204 Radial†	450.9	429.6	4946.6 ug/L	4946.6 ppb	12:05:51
3	K 766.490 Radial†	29983.6	26503.0	5036.5 ug/L	5036.5 ppb	12:05:31
3	Mg 279.077 IEC†	128.5	123.9	5144.2 ug/L	5144.2 ppb	12:05:51
3	Na 589.592 Radial†	28035.1	27845.7	9722.8 ug/L	9722.8 ppb	12:05:31
3	Sr 421.552†	64515.8	62390.9	488.79 ug/L	488.79 ppb	12:05:31
3	Sc 361.383	870247.9	870247.9	102.95 %		12:07:00
3	Y 371.029	723434.4	723434.4	101.47 %		12:07:00
3	Ag 328.068†	99700.7	96686.5	501.42 ug/L	501.42 ppb	12:07:05
3	As 188.979†	912.2	908.1	515.93 ug/L	515.93 ppb	12:07:25
3	B 249.677†	17856.5	17792.1	500.68 ug/L	500.68 ppb	12:07:05
3	Ba 233.527†	54661.8	53083.1	505.87 ug/L	505.87 ppb	12:07:05
3	Be 313.107†	1211280.2	1181021.0	505.30 ug/L	505.30 ppb	12:07:00
3	Cd 226.502†	35323.2	34459.3	506.18 ug/L	506.18 ppb	12:07:05
3	Co 228.616†	19956.7	19438.4	511.84 ug/L	511.84 ppb	12:07:05
3	Cr 267.716†	38284.0	37116.5	505.69 ug/L	505.69 ppb	12:07:05
3	Cu 324.752†	161359.6	151208.9	500.92 ug/L	500.92 ppb	12:07:05
3	Mn 257.610†	383409.6	372034.4	494.99 ug/L	494.99 ppb	12:07:05
3	Mo 202.031†	5713.1	5536.5	498.66 ug/L	498.66 ppb	12:07:25
3	Ni 231.604†	16434.3	15890.7	513.11 ug/L	513.11 ppb	12:07:05
3	P 214.914†	3600.0	3296.2	2400.7 ug/L	2400.7 ppb	12:07:25
3	Pb 220.353†	3297.0	3251.4	510.03 ug/L	510.03 ppb	12:07:25
3	S 181.975 Axial†	601.5	554.4	1003.6 ug/L	1003.6 ppb	12:07:25
3	Sb 206.836†	1228.0	1167.3	515.32 ug/L	515.32 ppb	12:07:25
3	Se 196.026†	619.8	624.2	537.21 ug/L	537.21 ppb	12:07:25
3	Si 251.611†	69056.6	66558.5	2535.8 ug/L	2535.8 ppb	12:07:05
3	Sn 189.927†	2230.2	2162.6	498.99 ug/L	498.99 ppb	12:07:25
3	Ti 334.940†	288545.4	281321.0	489.19 ug/L	489.19 ppb	12:07:05
3	Tl 190.801†	1303.7	1295.4	514.45 ug/L	514.45 ppb	12:07:25
3	U 409.014†	15839.0	17328.2	511.01 ug/L	511.01 ppb	12:07:05
3	V 292.402†	63552.9	63082.1	511.99 ug/L	511.99 ppb	12:07:05
3	Zn 213.857†	42902.6	41068.6	501.46 ug/L	501.46 ppb	12:07:05
3	SiO2†	69931.4	67390.7	5457.6 ug/L	5457.6 ppb	12:07:41

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	870412.4	102.97	%	0.412				0.40%
Sc Radial	4656.5	102	%	1.2				1.22%
Y 371.029	723984.4	101.55	%	0.314				0.31%
Y RADIAL	4978.3	101.2	%	1.48				1.46%
Ag 328.068†	96493.5	500.44	ug/L	1.605	500.44	ppb	1.605	0.32%
QC value within limits for Ag 328.068 Recovery = 100.09%								
Al 396.153Radial†	4961.1	4884.2	ug/L	33.70	4884.2	ppb	33.70	0.69%
QC value within limits for Al 396.153Radial Recovery = 97.68%								
As 188.979†	903.0	513.06	ug/L	3.514	513.06	ppb	3.514	0.68%
QC value within limits for As 188.979 Recovery = 102.61%								
B 249.677†	17678.3	497.46	ug/L	2.802	497.46	ppb	2.802	0.56%
QC value within limits for B 249.677 Recovery = 99.49%								
Ba 233.527†	52943.3	504.54	ug/L	1.224	504.54	ppb	1.224	0.24%
QC value within limits for Ba 233.527 Recovery = 100.91%								
Be 313.107†	1178368.2	504.16	ug/L	1.026	504.16	ppb	1.026	0.20%
QC value within limits for Be 313.107 Recovery = 100.83%								
Ca 317.933Radial†	2648.9	4998.5	ug/L	49.25	4998.5	ppb	49.25	0.99%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.97%
Cd 226.502†            34357.2      504.67 ug/L         1.347      504.67 ppb          1.347   0.27%
   QC value within limits for Cd 226.502  Recovery = 100.93%
Co 228.616†            19393.9      510.67 ug/L         1.112      510.67 ppb          1.112   0.22%
   QC value within limits for Co 228.616  Recovery = 102.13%
Cr 267.716†            37067.7      505.04 ug/L         1.431      505.04 ppb          1.431   0.28%
   QC value within limits for Cr 267.716  Recovery = 101.01%
Cu 324.752†           150757.5      499.43 ug/L         1.775      499.43 ppb          1.775   0.36%
   QC value within limits for Cu 324.752  Recovery = 99.89%
Fe 238.204 Radial†       435.7      5016.4 ug/L         74.60      5016.4 ppb          74.60   1.49%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.33%
K 766.490 Radial†      26534.7      5042.6 ug/L         36.94      5042.6 ppb          36.94   0.73%
   QC value within limits for K 766.490 Radial  Recovery = 100.85%
Mg 279.077 IEC†          124.7      5178.2 ug/L         63.93      5178.2 ppb          63.93   1.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.56%
Mn 257.610†           371009.0      493.63 ug/L         1.617      493.63 ppb          1.617   0.33%
   QC value within limits for Mn 257.610  Recovery = 98.73%
Mo 202.031†             5543.0      499.25 ug/L         3.286      499.25 ppb          3.286   0.66%
   QC value within limits for Mo 202.031  Recovery = 99.85%
Na 589.592 Radial†     27871.4      9731.8 ug/L         69.51      9731.8 ppb          69.51   0.71%
   QC value within limits for Na 589.592 Radial  Recovery = 97.32%
Ni 231.604†            15832.6      511.23 ug/L         1.791      511.23 ppb          1.791   0.35%
   QC value within limits for Ni 231.604  Recovery = 102.25%
P 214.914†              3310.8      2412.0 ug/L         12.34      2412.0 ppb          12.34   0.51%
   QC value within limits for P 214.914  Recovery = 96.48%
Pb 220.353†             3238.9      508.06 ug/L         2.373      508.06 ppb          2.373   0.47%
   QC value within limits for Pb 220.353  Recovery = 101.61%
S 181.975 Axial†         550.9      997.21 ug/L         6.243      997.21 ppb          6.243   0.63%
   QC value within limits for S 181.975 Axial  Recovery = 99.72%
Sb 206.836†             1170.4      516.65 ug/L         1.498      516.65 ppb          1.498   0.29%
   QC value within limits for Sb 206.836  Recovery = 103.33%
Se 196.026†              609.2      524.90 ug/L        12.087      524.90 ppb         12.087   2.30%
   QC value within limits for Se 196.026  Recovery = 104.98%
Si 251.611†            66403.0      2529.8 ug/L          6.54      2529.8 ppb           6.54   0.26%
   QC value within limits for Si 251.611  Recovery = 101.19%
Sn 189.927†             2167.1      500.04 ug/L         2.095      500.04 ppb          2.095   0.42%
   QC value within limits for Sn 189.927  Recovery = 100.01%
Sr 421.552†            62297.7      488.06 ug/L         1.074      488.06 ppb          1.074   0.22%
   QC value within limits for Sr 421.552  Recovery = 97.61%
Ti 334.940†           280516.7      487.80 ug/L         1.859      487.80 ppb          1.859   0.38%
   QC value within limits for Ti 334.940  Recovery = 97.56%
Tl 190.801†             1289.7      512.19 ug/L         3.101      512.19 ppb          3.101   0.61%
   QC value within limits for Tl 190.801  Recovery = 102.44%
U 409.014†             17313.0      510.55 ug/L         1.643      510.55 ppb          1.643   0.32%
   QC value within limits for U 409.014  Recovery = 102.11%
V 292.402†             62895.0      510.49 ug/L         2.045      510.49 ppb          2.045   0.40%
   QC value within limits for V 292.402  Recovery = 102.10%
Zn 213.857†            41061.0      501.37 ug/L         0.465      501.37 ppb          0.465   0.09%
   QC value within limits for Zn 213.857  Recovery = 100.27%
SiO2†                  66659.4      5398.2 ug/L         53.16      5398.2 ppb          53.16   0.98%
   QC value within limits for SiO2  Recovery = 100.95%
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/22/2010 12:09:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4735.6	4735.6	104	%			12:11:44
1	Y RADIAL	5105.9	5105.9	103.8	%			12:11:44
1	Al 396.153Radial†	-82.3	-6.0	-5.9062	ug/L	-5.9062	ppb	12:12:04
1	Ca 317.933Radial†	25.9	6.5	12.283	ug/L	12.283	ppb	12:12:04
1	Fe 238.204 Radial†	8.2	1.2	14.260	ug/L	14.260	ppb	12:12:04
1	K 766.490 Radial†	2603.9	-7.5	-1.4251	ug/L	-1.4251	ppb	12:11:44
1	Mg 279.077 IEC†	2.0	1.5	62.490	ug/L	62.490	ppb	12:12:04
1	Na 589.592 Radial†	-755.0	-8.0	-2.7901	ug/L	-2.7901	ppb	12:11:44
1	Sr 421.552†	36.5	-2.4	-0.0188	ug/L	-0.0188	ppb	12:11:44
1	Sc 361.383	876712.5	876712.5	103.72	%			12:13:01
1	Y 371.029	740410.3	740410.3	103.85	%			12:13:01
1	Ag 328.068†	151.0	-11.1	-0.0543	ug/L	-0.0543	ppb	12:13:01
1	As 188.979†	-20.9	1.9	1.0975	ug/L	1.0975	ppb	12:13:21
1	B 249.677†	-288.7	169.1	4.7757	ug/L	4.7757	ppb	12:13:21
1	Ba 233.527†	13.0	0.6	0.0082	ug/L	0.0082	ppb	12:13:21
1	Be 313.107†	-4385.5	229.0	0.0981	ug/L	0.0981	ppb	12:13:01
1	Cd 226.502†	-160.0	-5.8	-0.0857	ug/L	-0.0857	ppb	12:13:21
1	Co 228.616†	-41.9	13.2	0.3483	ug/L	0.3483	ppb	12:13:21
1	Cr 267.716†	73.8	1.0	0.0140	ug/L	0.0140	ppb	12:13:21
1	Cu 324.752†	5687.1	-42.6	-0.1444	ug/L	-0.1444	ppb	12:13:01
1	Mn 257.610†	452.7	50.2	0.0655	ug/L	0.0655	ppb	12:13:21
1	Mo 202.031†	16.8	3.3	0.2978	ug/L	0.2978	ppb	12:13:21
1	Ni 231.604†	87.1	11.4	0.3668	ug/L	0.3668	ppb	12:13:21
1	P 214.914†	189.4	-18.1	-13.702	ug/L	-13.702	ppb	12:13:21
1	Pb 220.353†	-47.7	2.9	0.4534	ug/L	0.4534	ppb	12:13:21
1	S 181.975 Axial†	25.0	-5.8	-10.550	ug/L	-10.550	ppb	12:13:21
1	Sb 206.836†	30.6	4.1	1.7438	ug/L	1.7438	ppb	12:13:21
1	Se 196.026†	-20.5	2.4	2.0140	ug/L	2.0140	ppb	12:13:21
1	Si 251.611†	586.0	46.2	1.7615	ug/L	1.7615	ppb	12:13:21
1	Sn 189.927†	1.6	-2.1	-0.4881	ug/L	-0.4881	ppb	12:13:21
1	Ti 334.940†	-1003.4	78.1	0.1294	ug/L	0.1294	ppb	12:13:01
1	Tl 190.801†	-23.6	6.3	2.4857	ug/L	2.4857	ppb	12:13:21
1	U 409.014†	-1768.8	237.7	7.0319	ug/L	7.0319	ppb	12:13:01
1	V 292.402†	-1259.8	136.1	1.1065	ug/L	1.1065	ppb	12:13:01
1	Zn 213.857†	780.6	148.3	1.8235	ug/L	1.8235	ppb	12:13:21
1	SiO2†	578.2	21.2	1.7104	ug/L	1.7104	ppb	12:14:32
2	Sc Radial	4641.2	4641.2	102	%			12:12:09
2	Y RADIAL	5006.5	5006.5	101.8	%			12:12:09
2	Al 396.153Radial†	-69.4	5.1	5.1103	ug/L	5.1103	ppb	12:12:29
2	Ca 317.933Radial†	25.6	6.8	12.802	ug/L	12.802	ppb	12:12:29
2	Fe 238.204 Radial†	9.6	2.8	32.063	ug/L	32.063	ppb	12:12:29
2	K 766.490 Radial†	2448.5	-109.0	-20.734	ug/L	-20.734	ppb	12:12:09
2	Mg 279.077 IEC†	3.1	2.6	108.93	ug/L	108.93	ppb	12:12:29
2	Na 589.592 Radial†	-762.4	-30.0	-10.459	ug/L	-10.459	ppb	12:12:09
2	Sr 421.552†	45.5	7.2	0.0564	ug/L	0.0564	ppb	12:12:09
2	Sc 361.383	875622.3	875622.3	103.59	%			12:13:26
2	Y 371.029	739172.2	739172.2	103.68	%			12:13:26
2	Ag 328.068†	209.8	45.9	0.2456	ug/L	0.2456	ppb	12:13:26
2	As 188.979†	-19.7	3.1	1.7633	ug/L	1.7633	ppb	12:13:46
2	B 249.677†	-319.4	139.1	3.9258	ug/L	3.9258	ppb	12:13:46
2	Ba 233.527†	23.7	10.9	0.1057	ug/L	0.1057	ppb	12:13:46
2	Be 313.107†	-4346.1	261.8	0.1121	ug/L	0.1121	ppb	12:13:26
2	Cd 226.502†	-167.7	-13.4	-0.1988	ug/L	-0.1988	ppb	12:13:46
2	Co 228.616†	-43.5	11.6	0.3035	ug/L	0.3035	ppb	12:13:46
2	Cr 267.716†	78.2	5.3	0.0746	ug/L	0.0746	ppb	12:13:46
2	Cu 324.752†	5718.8	-5.2	-0.0175	ug/L	-0.0175	ppb	12:13:26
2	Mn 257.610†	437.4	36.0	0.0465	ug/L	0.0465	ppb	12:13:46
2	Mo 202.031†	9.0	-4.2	-0.3756	ug/L	-0.3756	ppb	12:13:46
2	Ni 231.604†	103.1	26.9	0.8700	ug/L	0.8700	ppb	12:13:46

2	P 214.914†	187.7	-19.4	-14.726	ug/L	-14.726	ppb	12:13:46
2	Pb 220.353†	-69.4	-18.1	-2.8319	ug/L	-2.8319	ppb	12:13:46
2	S 181.975 Axial†	29.6	-1.3	-2.4140	ug/L	-2.4140	ppb	12:13:46
2	Sb 206.836†	30.9	4.3	1.8726	ug/L	1.8726	ppb	12:13:46
2	Se 196.026†	-19.2	3.7	3.1351	ug/L	3.1351	ppb	12:13:46
2	Si 251.611†	585.8	46.7	1.7883	ug/L	1.7883	ppb	12:13:46
2	Sn 189.927†	12.1	7.9	1.8285	ug/L	1.8285	ppb	12:13:46
2	Ti 334.940†	-981.8	97.7	0.1613	ug/L	0.1613	ppb	12:13:26
2	Tl 190.801†	-30.1	0.1	0.0216	ug/L	0.0216	ppb	12:13:46
2	U 409.014†	-1894.2	114.5	3.3844	ug/L	3.3844	ppb	12:13:26
2	V 292.402†	-1332.8	64.0	0.5111	ug/L	0.5111	ppb	12:13:26
2	Zn 213.857†	776.7	145.6	1.7835	ug/L	1.7835	ppb	12:13:46
2	SiO2†	591.7	34.9	2.8417	ug/L	2.8417	ppb	12:14:52
3	Sc Radial	4745.3	4745.3	104	%			12:12:34
3	Y RADIAL	5114.6	5114.6	104.0	%			12:12:34
3	Al 396.153Radial†	-74.0	2.2	2.1553	ug/L	2.1553	ppb	12:12:54
3	Ca 317.933Radial†	29.6	10.0	18.860	ug/L	18.860	ppb	12:12:54
3	Fe 238.204 Radial†	7.1	0.2	1.7903	ug/L	1.7903	ppb	12:12:54
3	K 766.490 Radial†	2598.9	-17.4	-3.3145	ug/L	-3.3145	ppb	12:12:34
3	Mg 279.077 IEC†	2.3	1.8	73.763	ug/L	73.763	ppb	12:12:54
3	Na 589.592 Radial†	-753.7	-5.3	-1.8410	ug/L	-1.8410	ppb	12:12:34
3	Sr 421.552†	49.8	10.3	0.0807	ug/L	0.0807	ppb	12:12:34
3	Sc 361.383	867644.5	867644.5	102.64	%			12:13:51
3	Y 371.029	732213.8	732213.8	102.70	%			12:13:51
3	Ag 328.068†	230.9	68.3	0.3545	ug/L	0.3545	ppb	12:13:51
3	As 188.979†	-21.8	0.9	0.4911	ug/L	0.4911	ppb	12:14:11
3	B 249.677†	-284.8	169.9	4.8026	ug/L	4.8026	ppb	12:14:11
3	Ba 233.527†	20.6	8.1	0.0786	ug/L	0.0786	ppb	12:14:11
3	Be 313.107†	-4353.2	216.2	0.0920	ug/L	0.0920	ppb	12:13:51
3	Cd 226.502†	-171.9	-19.0	-0.2794	ug/L	-0.2794	ppb	12:14:11
3	Co 228.616†	-43.3	11.4	0.3007	ug/L	0.3007	ppb	12:14:11
3	Cr 267.716†	64.2	-7.6	-0.1030	ug/L	-0.1030	ppb	12:14:11
3	Cu 324.752†	5555.5	-113.5	-0.3763	ug/L	-0.3763	ppb	12:13:51
3	Mn 257.610†	431.9	34.5	0.0431	ug/L	0.0431	ppb	12:14:11
3	Mo 202.031†	9.3	-3.9	-0.3478	ug/L	-0.3478	ppb	12:14:11
3	Ni 231.604†	88.6	13.7	0.4431	ug/L	0.4431	ppb	12:14:11
3	P 214.914†	173.7	-31.5	-23.766	ug/L	-23.766	ppb	12:14:11
3	Pb 220.353†	-59.3	-8.9	-1.3927	ug/L	-1.3927	ppb	12:14:11
3	S 181.975 Axial†	29.4	-1.2	-2.1881	ug/L	-2.1881	ppb	12:14:11
3	Sb 206.836†	29.2	3.0	1.2689	ug/L	1.2689	ppb	12:14:11
3	Se 196.026†	-21.4	1.4	1.1343	ug/L	1.1343	ppb	12:14:11
3	Si 251.611†	565.0	31.6	1.2106	ug/L	1.2106	ppb	12:14:11
3	Sn 189.927†	6.4	2.5	0.5834	ug/L	0.5834	ppb	12:14:11
3	Ti 334.940†	-1160.8	-85.4	-0.1522	ug/L	-0.1522	ppb	12:13:51
3	Tl 190.801†	-21.9	7.7	3.0402	ug/L	3.0402	ppb	12:14:11
3	U 409.014†	-1977.4	16.6	0.4921	ug/L	0.4921	ppb	12:13:51
3	V 292.402†	-1305.7	78.6	0.6270	ug/L	0.6270	ppb	12:13:51
3	Zn 213.857†	765.8	141.8	1.7452	ug/L	1.7452	ppb	12:14:11
3	SiO2†	585.3	33.8	2.7572	ug/L	2.7572	ppb	12:15:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	873326.4	103.31	%	0.586				0.57%
Sc Radial	4707.3	103	%	1.3				1.22%
Y 371.029	737265.4	103.41	%	0.620				0.60%
Y RADIAL	5075.7	103.2	%	1.22				1.18%
Ag 328.068†	34.4	0.1819	ug/L	0.21166	0.1819	ppb	0.21166	116.35%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.5	0.4531	ug/L	5.70210	0.4531	ppb	5.70210	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.0	1.1173	ug/L	0.63633	1.1173	ppb	0.63633	56.95%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	159.4	4.5014	ug/L	0.49864	4.5014	ppb	0.49864	11.08%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.5	0.0642	ug/L	0.05031	0.0642	ppb	0.05031	78.40%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	235.6	0.1007	ug/L	0.01035	0.1007	ppb	0.01035	10.27%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.8	14.648	ug/L	3.6563	14.648	ppb	3.6563	24.96%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -12.8     -0.1880 ug/L       0.09731     -0.1880 ppb        0.09731  51.77%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               12.1      0.3175 ug/L       0.02673      0.3175 ppb        0.02673   8.42%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -0.5     -0.0048 ug/L       0.09028     -0.0048 ppb        0.09028 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -53.8     -0.1794 ug/L       0.18193     -0.1794 ppb        0.18193 101.41%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.4      16.038 ug/L      15.2146      16.038 ppb       15.2146  94.87%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -44.6     -8.4912 ug/L      10.64453     -8.4912 ppb      10.64453 125.36%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.0      81.726 ug/L      24.2200      81.726 ppb       24.2200  29.64%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               40.2      0.0517 ug/L       0.01210      0.0517 ppb        0.01210  23.40%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -1.6     -0.1418 ug/L       0.38101     -0.1418 ppb        0.38101 268.64%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -14.4     -5.0299 ug/L       4.72534     -5.0299 ppb        4.72534  93.94%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               17.3      0.5600 ug/L       0.27121      0.5600 ppb        0.27121  48.43%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -23.0     -17.398 ug/L        5.5387     -17.398 ppb         5.5387  31.83%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -8.0     -1.2571 ug/L       1.64687     -1.2571 ppb        1.64687 131.01%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.8     -5.0506 ug/L       4.76373     -5.0506 ppb        4.76373  94.32%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                3.8      1.6284 ug/L       0.31797      1.6284 ppb        0.31797  19.53%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.5      2.0945 ug/L       1.00283      2.0945 ppb        1.00283  47.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               41.5      1.5868 ug/L       0.32606      1.5868 ppb        0.32606  20.55%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.8      0.6413 ug/L       1.15942      0.6413 ppb        1.15942 180.81%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                5.0      0.0394 ug/L       0.05187      0.0394 ppb        0.05187 131.55%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               30.1      0.0461 ug/L       0.17252      0.0461 ppb        0.17252 373.95%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                4.7      1.8492 ug/L       1.60679      1.8492 ppb        1.60679  86.89%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               123.0      3.6361 ug/L       3.27716      3.6361 ppb        3.27716  90.13%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                92.9      0.7482 ug/L       0.31567      0.7482 ppb        0.31567  42.19%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              145.2      1.7841 ug/L       0.03916      1.7841 ppb        0.03916   2.19%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     30.0      2.4364 ug/L       0.63017      2.4364 ppb        0.63017  25.86%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/22/2010 13:04:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4688.6	4688.6	103	%			13:06:18
1	Y RADIAL	5000.5	5000.5	101.7	%			13:06:18
1	Al 396.153Radial†	5121.9	5045.8	4968.1	ug/L	4968.1	ppb	13:06:18
1	Ca 317.933Radial†	2735.2	2637.1	4976.2	ug/L	4976.2	ppb	13:06:38
1	Fe 238.204 Radial†	460.3	440.3	5068.9	ug/L	5068.9	ppb	13:06:38
1	K 766.490 Radial†	30309.2	26915.5	5114.9	ug/L	5114.9	ppb	13:06:18
1	Mg 279.077 IEC†	128.8	124.7	5176.3	ug/L	5176.3	ppb	13:06:38
1	Na 589.592 Radial†	28995.1	28867.9	10080	ug/L	10080	ppb	13:06:18
1	Sr 421.552†	66017.3	64056.0	501.83	ug/L	501.83	ppb	13:06:18
1	Sc 361.383	873826.2	873826.2	103.37	%			13:07:35
1	Y 371.029	727463.6	727463.6	102.04	%			13:07:35
1	Ag 328.068†	101479.7	98010.9	508.30	ug/L	508.30	ppb	13:07:41
1	As 188.979†	908.6	901.0	512.03	ug/L	512.03	ppb	13:08:01
1	B 249.677†	18294.4	18144.8	510.61	ug/L	510.61	ppb	13:07:41
1	Ba 233.527†	55613.2	53786.1	512.57	ug/L	512.57	ppb	13:07:41
1	Be 313.107†	1232239.5	1196478.2	511.92	ug/L	511.92	ppb	13:07:35
1	Cd 226.502†	35863.5	34841.4	511.79	ug/L	511.79	ppb	13:07:41
1	Co 228.616†	20303.2	19694.2	518.56	ug/L	518.56	ppb	13:07:41
1	Cr 267.716†	39028.0	37684.0	513.43	ug/L	513.43	ppb	13:07:41
1	Cu 324.752†	164740.0	153837.1	509.63	ug/L	509.63	ppb	13:07:41
1	Mn 257.610†	390104.9	376986.1	501.59	ug/L	501.59	ppb	13:07:41
1	Mo 202.031†	5733.4	5533.4	498.39	ug/L	498.39	ppb	13:08:01
1	Ni 231.604†	16702.0	16084.3	519.36	ug/L	519.36	ppb	13:07:41
1	P 214.914†	3625.8	3306.8	2406.9	ug/L	2406.9	ppb	13:08:01
1	Pb 220.353†	3301.6	3242.8	508.67	ug/L	508.67	ppb	13:08:01
1	S 181.975 Axial†	598.7	549.3	994.31	ug/L	994.31	ppb	13:08:01
1	Sb 206.836†	1231.3	1165.7	514.65	ug/L	514.65	ppb	13:08:01
1	Se 196.026†	604.4	606.8	523.13	ug/L	523.13	ppb	13:08:01
1	Si 251.611†	70359.6	67544.4	2573.4	ug/L	2573.4	ppb	13:07:41
1	Sn 189.927†	2247.2	2170.2	500.74	ug/L	500.74	ppb	13:08:01
1	Ti 334.940†	294305.3	285745.2	496.88	ug/L	496.88	ppb	13:07:41
1	Tl 190.801†	1296.1	1282.9	509.56	ug/L	509.56	ppb	13:08:01
1	U 409.014†	16264.2	17676.5	521.28	ug/L	521.28	ppb	13:07:41
1	V 292.402†	64608.3	63850.3	518.13	ug/L	518.13	ppb	13:07:41
1	Zn 213.857†	43701.6	41671.0	508.81	ug/L	508.81	ppb	13:07:41
1	SiO2†	68300.6	65535.0	5306.9	ug/L	5306.9	ppb	13:09:08
2	Sc Radial	4690.9	4690.9	103	%			13:06:43
2	Y RADIAL	4997.4	4997.4	101.6	%			13:06:43
2	Al 396.153Radial†	5061.5	4984.8	4907.8	ug/L	4907.8	ppb	13:06:43
2	Ca 317.933Radial†	2743.1	2643.5	4988.3	ug/L	4988.3	ppb	13:07:03
2	Fe 238.204 Radial†	452.7	432.7	4981.3	ug/L	4981.3	ppb	13:07:03
2	K 766.490 Radial†	30082.8	26681.5	5070.4	ug/L	5070.4	ppb	13:06:43
2	Mg 279.077 IEC†	127.8	123.7	5134.0	ug/L	5134.0	ppb	13:07:03
2	Na 589.592 Radial†	28508.1	28381.6	9910.0	ug/L	9910.0	ppb	13:06:43
2	Sr 421.552†	64814.6	62857.7	492.44	ug/L	492.44	ppb	13:06:43
2	Sc 361.383	874216.8	874216.8	103.42	%			13:08:06
2	Y 371.029	725956.6	725956.6	101.82	%			13:08:06
2	Ag 328.068†	99665.2	96212.5	498.97	ug/L	498.97	ppb	13:08:11
2	As 188.979†	902.3	894.6	508.29	ug/L	508.29	ppb	13:08:31
2	B 249.677†	17800.5	17659.3	496.93	ug/L	496.93	ppb	13:08:11
2	Ba 233.527†	54645.8	52826.6	503.42	ug/L	503.42	ppb	13:08:11
2	Be 313.107†	1220620.1	1184710.5	506.87	ug/L	506.87	ppb	13:08:06
2	Cd 226.502†	35285.4	34266.9	503.35	ug/L	503.35	ppb	13:08:11
2	Co 228.616†	19908.7	19303.9	508.30	ug/L	508.30	ppb	13:08:11
2	Cr 267.716†	38249.8	36914.7	502.95	ug/L	502.95	ppb	13:08:11
2	Cu 324.752†	161470.2	150604.2	498.92	ug/L	498.92	ppb	13:08:11
2	Mn 257.610†	382741.9	369698.0	491.89	ug/L	491.89	ppb	13:08:11
2	Mo 202.031†	5691.8	5490.7	494.54	ug/L	494.54	ppb	13:08:31
2	Ni 231.604†	16356.8	15743.3	508.35	ug/L	508.35	ppb	13:08:11

2	P 214.914†	3599.1	3279.4	2388.3 ug/L	2388.3 ppb	13:08:31
2	Pb 220.353†	3268.0	3208.9	503.37 ug/L	503.37 ppb	13:08:31
2	S 181.975 Axial†	586.7	537.4	972.83 ug/L	972.83 ppb	13:08:31
2	Sb 206.836†	1227.0	1160.9	512.47 ug/L	512.47 ppb	13:08:31
2	Se 196.026†	592.4	595.0	512.98 ug/L	512.98 ppb	13:08:31
2	Si 251.611†	69042.8	66240.6	2523.7 ug/L	2523.7 ppb	13:08:11
2	Sn 189.927†	2229.1	2151.7	496.49 ug/L	496.49 ppb	13:08:31
2	Ti 334.940†	288053.8	279573.1	486.16 ug/L	486.16 ppb	13:08:11
2	Tl 190.801†	1291.9	1278.2	507.66 ug/L	507.66 ppb	13:08:31
2	U 409.014†	15944.1	17360.0	511.95 ug/L	511.95 ppb	13:08:11
2	V 292.402†	63392.1	62646.4	508.44 ug/L	508.44 ppb	13:08:11
2	Zn 213.857†	42850.2	40828.8	498.53 ug/L	498.53 ppb	13:08:11
2	SiO2†	69258.5	66431.7	5379.8 ug/L	5379.8 ppb	13:09:13
3	Sc Radial	4500.5	4500.5	98.9 %		13:07:08
3	Y RADIAL	4800.5	4800.5	97.63 %		13:07:08
3	Al 396.153Radial†	4899.6	5028.8	4951.5 ug/L	4951.5 ppb	13:07:08
3	Ca 317.933Radial†	2746.3	2759.3	5206.8 ug/L	5206.8 ppb	13:07:28
3	Fe 238.204 Radial†	458.7	457.3	5263.6 ug/L	5263.6 ppb	13:07:28
3	K 766.490 Radial†	29139.1	26962.0	5123.7 ug/L	5123.7 ppb	13:07:08
3	Mg 279.077 IEC†	127.9	128.9	5351.7 ug/L	5351.7 ppb	13:07:28
3	Na 589.592 Radial†	27397.2	28428.3	9926.3 ug/L	9926.3 ppb	13:07:08
3	Sr 421.552†	62486.3	63163.6	494.84 ug/L	494.84 ppb	13:07:08
3	Sc 361.383	883793.6	883793.6	104.55 %		13:08:37
3	Y 371.029	734156.4	734156.4	102.98 %		13:08:37
3	Ag 328.068†	99675.6	95178.2	493.71 ug/L	493.71 ppb	13:08:42
3	As 188.979†	905.8	888.4	504.85 ug/L	504.85 ppb	13:09:02
3	B 249.677†	17875.3	17544.3	493.64 ug/L	493.64 ppb	13:08:42
3	Ba 233.527†	54545.7	52158.4	497.07 ug/L	497.07 ppb	13:08:42
3	Be 313.107†	1219384.9	1170739.9	500.89 ug/L	500.89 ppb	13:08:37
3	Cd 226.502†	35228.3	33842.7	497.08 ug/L	497.08 ppb	13:08:42
3	Co 228.616†	20004.1	19186.5	505.21 ug/L	505.21 ppb	13:08:42
3	Cr 267.716†	38280.7	36543.4	497.93 ug/L	497.93 ppb	13:08:42
3	Cu 324.752†	161078.9	148538.1	492.10 ug/L	492.10 ppb	13:08:42
3	Mn 257.610†	382570.6	365524.0	486.36 ug/L	486.36 ppb	13:08:42
3	Mo 202.031†	5716.8	5455.0	491.35 ug/L	491.35 ppb	13:09:02
3	Ni 231.604†	16381.1	15595.1	503.56 ug/L	503.56 ppb	13:08:42
3	P 214.914†	3601.1	3243.7	2362.3 ug/L	2362.3 ppb	13:09:02
3	Pb 220.353†	3283.6	3189.5	500.31 ug/L	500.31 ppb	13:09:02
3	S 181.975 Axial†	594.2	538.4	974.61 ug/L	974.61 ppb	13:09:02
3	Sb 206.836†	1235.6	1156.3	510.39 ug/L	510.39 ppb	13:09:02
3	Se 196.026†	599.4	595.5	514.22 ug/L	514.22 ppb	13:09:02
3	Si 251.611†	68996.8	65473.3	2494.4 ug/L	2494.4 ppb	13:08:42
3	Sn 189.927†	2238.5	2137.3	493.20 ug/L	493.20 ppb	13:09:02
3	Ti 334.940†	287938.1	276444.4	480.73 ug/L	480.73 ppb	13:08:42
3	Tl 190.801†	1295.7	1268.4	503.72 ug/L	503.72 ppb	13:09:02
3	U 409.014†	15838.7	17092.1	504.00 ug/L	504.00 ppb	13:08:42
3	V 292.402†	63304.4	61898.3	502.36 ug/L	502.36 ppb	13:08:42
3	Zn 213.857†	42841.8	40371.8	492.89 ug/L	492.89 ppb	13:08:42
3	SiO2†	69938.5	66356.4	5373.8 ug/L	5373.8 ppb	13:09:18

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	877278.9	103.78	%	0.668				0.64%
Sc Radial	4626.7	102	%	2.4				2.36%
Y 371.029	729192.2	102.28	%	0.612				0.60%
Y RADIAL	4932.8	100.3	%	2.33				2.32%
Ag 328.068†	96467.2	500.32	ug/L	7.390	500.32	ppb	7.390	1.48%
QC value within limits for Ag 328.068 Recovery = 100.06%								
Al 396.153Radial†	5019.8	4942.5	ug/L	31.12	4942.5	ppb	31.12	0.63%
QC value within limits for Al 396.153Radial Recovery = 98.85%								
As 188.979†	894.7	508.39	ug/L	3.592	508.39	ppb	3.592	0.71%
QC value within limits for As 188.979 Recovery = 101.68%								
B 249.677†	17782.8	500.40	ug/L	8.998	500.40	ppb	8.998	1.80%
QC value within limits for B 249.677 Recovery = 100.08%								
Ba 233.527†	52923.7	504.35	ug/L	7.793	504.35	ppb	7.793	1.55%
QC value within limits for Ba 233.527 Recovery = 100.87%								
Be 313.107†	1183976.2	506.56	ug/L	5.519	506.56	ppb	5.519	1.09%
QC value within limits for Be 313.107 Recovery = 101.31%								
Ca 317.933Radial†	2680.0	5057.1	ug/L	129.79	5057.1	ppb	129.79	2.57%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.14%
Cd 226.502†            34317.0      504.07 ug/L         7.380      504.07 ppb          7.380   1.46%
   QC value within limits for Cd 226.502  Recovery = 100.81%
Co 228.616†            19394.9      510.69 ug/L         6.989      510.69 ppb          6.989   1.37%
   QC value within limits for Co 228.616  Recovery = 102.14%
Cr 267.716†            37047.4      504.77 ug/L         7.910      504.77 ppb          7.910   1.57%
   QC value within limits for Cr 267.716  Recovery = 100.95%
Cu 324.752†           150993.1      500.22 ug/L         8.839      500.22 ppb          8.839   1.77%
   QC value within limits for Cu 324.752  Recovery = 100.04%
Fe 238.204 Radial†       443.4      5104.6 ug/L        144.48      5104.6 ppb        144.48   2.83%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.09%
K 766.490 Radial†      26853.0      5103.0 ug/L         28.56      5103.0 ppb         28.56   0.56%
   QC value within limits for K 766.490 Radial  Recovery = 102.06%
Mg 279.077 IEC†          125.8      5220.7 ug/L        115.46      5220.7 ppb        115.46   2.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.41%
Mn 257.610†           370736.0      493.28 ug/L         7.709      493.28 ppb          7.709   1.56%
   QC value within limits for Mn 257.610  Recovery = 98.66%
Mo 202.031†             5493.0      494.76 ug/L         3.523      494.76 ppb          3.523   0.71%
   QC value within limits for Mo 202.031  Recovery = 98.95%
Na 589.592 Radial†     28559.3      9972.0 ug/L         93.67      9972.0 ppb         93.67   0.94%
   QC value within limits for Na 589.592 Radial  Recovery = 99.72%
Ni 231.604†            15807.6      510.42 ug/L         8.100      510.42 ppb          8.100   1.59%
   QC value within limits for Ni 231.604  Recovery = 102.08%
P 214.914†              3276.6      2385.9 ug/L         22.40      2385.9 ppb         22.40   0.94%
   QC value within limits for P 214.914  Recovery = 95.44%
Pb 220.353†             3213.7      504.11 ug/L         4.231      504.11 ppb          4.231   0.84%
   QC value within limits for Pb 220.353  Recovery = 100.82%
S 181.975 Axial†         541.7      980.59 ug/L        11.920      980.59 ppb         11.920   1.22%
   QC value within limits for S 181.975 Axial  Recovery = 98.06%
Sb 206.836†             1161.0      512.50 ug/L         2.129      512.50 ppb          2.129   0.42%
   QC value within limits for Sb 206.836  Recovery = 102.50%
Se 196.026†              599.1      516.78 ug/L         5.539      516.78 ppb          5.539   1.07%
   QC value within limits for Se 196.026  Recovery = 103.36%
Si 251.611†            66419.4      2530.5 ug/L         39.94      2530.5 ppb         39.94   1.58%
   QC value within limits for Si 251.611  Recovery = 101.22%
Sn 189.927†             2153.1      496.81 ug/L         3.780      496.81 ppb          3.780   0.76%
   QC value within limits for Sn 189.927  Recovery = 99.36%
Sr 421.552†            63359.1      496.37 ug/L         4.878      496.37 ppb          4.878   0.98%
   QC value within limits for Sr 421.552  Recovery = 99.27%
Ti 334.940†           280587.6      487.93 ug/L         8.218      487.93 ppb          8.218   1.68%
   QC value within limits for Ti 334.940  Recovery = 97.59%
Tl 190.801†             1276.5      506.98 ug/L         2.982      506.98 ppb          2.982   0.59%
   QC value within limits for Tl 190.801  Recovery = 101.40%
U 409.014†             17376.2      512.41 ug/L         8.649      512.41 ppb          8.649   1.69%
   QC value within limits for U 409.014  Recovery = 102.48%
V 292.402†             62798.3      509.65 ug/L         7.954      509.65 ppb          7.954   1.56%
   QC value within limits for V 292.402  Recovery = 101.93%
Zn 213.857†            40957.2      500.08 ug/L         8.071      500.08 ppb          8.071   1.61%
   QC value within limits for Zn 213.857  Recovery = 100.02%
SiO2†                  66107.7      5353.5 ug/L         40.46      5353.5 ppb         40.46   0.76%
   QC value within limits for SiO2  Recovery = 100.11%
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/22/2010 13:11:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4731.0	4731.0	104	%			13:13:20
1	Y RADIAL	5093.6	5093.6	103.6	%			13:13:20
1	Al 396.153Radial†	-68.9	6.8	6.7857	ug/L	6.7857	ppb	13:13:40
1	Ca 317.933Radial†	28.0	8.6	16.142	ug/L	16.142	ppb	13:13:40
1	Fe 238.204 Radial†	9.5	2.5	28.611	ug/L	28.611	ppb	13:13:40
1	K 766.490 Radial†	2636.8	26.6	5.0602	ug/L	5.0602	ppb	13:13:20
1	Mg 279.077 IEC†	2.2	1.7	71.344	ug/L	71.344	ppb	13:13:40
1	Na 589.592 Radial†	-747.5	-1.4	-0.5019	ug/L	-0.5019	ppb	13:13:20
1	Sr 421.552†	32.7	-6.0	-0.0471	ug/L	-0.0471	ppb	13:13:20
1	Sc 361.383	871263.9	871263.9	103.07	%			13:14:37
1	Y 371.029	736095.4	736095.4	103.25	%			13:14:37
1	Ag 328.068†	217.0	53.9	0.2872	ug/L	0.2872	ppb	13:14:37
1	As 188.979†	-28.6	-5.7	-3.1892	ug/L	-3.1892	ppb	13:14:57
1	B 249.677†	-238.5	216.0	6.1010	ug/L	6.1010	ppb	13:14:57
1	Ba 233.527†	6.2	-6.0	-0.0543	ug/L	-0.0543	ppb	13:14:57
1	Be 313.107†	-4372.1	215.5	0.0919	ug/L	0.0919	ppb	13:14:37
1	Cd 226.502†	-161.7	-8.4	-0.1259	ug/L	-0.1259	ppb	13:14:57
1	Co 228.616†	-37.2	17.6	0.4612	ug/L	0.4612	ppb	13:14:57
1	Cr 267.716†	59.5	-12.4	-0.1659	ug/L	-0.1659	ppb	13:14:57
1	Cu 324.752†	5664.9	-29.9	-0.0989	ug/L	-0.0989	ppb	13:14:37
1	Mn 257.610†	425.0	26.0	0.0345	ug/L	0.0345	ppb	13:14:57
1	Mo 202.031†	8.8	-4.4	-0.3925	ug/L	-0.3925	ppb	13:14:57
1	Ni 231.604†	87.6	12.4	0.3988	ug/L	0.3988	ppb	13:14:57
1	P 214.914†	179.9	-26.1	-19.798	ug/L	-19.798	ppb	13:14:57
1	Pb 220.353†	-47.4	2.9	0.4463	ug/L	0.4463	ppb	13:14:57
1	S 181.975 Axial†	29.1	-1.6	-2.9797	ug/L	-2.9797	ppb	13:14:57
1	Sb 206.836†	29.2	2.8	1.2062	ug/L	1.2062	ppb	13:14:57
1	Se 196.026†	-18.3	4.4	3.7585	ug/L	3.7585	ppb	13:14:57
1	Si 251.611†	579.2	43.1	1.6522	ug/L	1.6522	ppb	13:14:57
1	Sn 189.927†	4.4	0.6	0.1347	ug/L	0.1347	ppb	13:14:57
1	Ti 334.940†	-1106.5	-28.0	-0.0533	ug/L	-0.0533	ppb	13:14:37
1	Tl 190.801†	-14.1	15.4	6.0833	ug/L	6.0833	ppb	13:14:57
1	U 409.014†	-1919.3	81.0	2.3942	ug/L	2.3942	ppb	13:14:37
1	V 292.402†	-1305.0	84.6	0.6738	ug/L	0.6738	ppb	13:14:37
1	Zn 213.857†	769.3	142.1	1.7442	ug/L	1.7442	ppb	13:14:57
1	SiO2†	559.7	6.7	0.5561	ug/L	0.5561	ppb	13:15:53
2	Sc Radial	4695.7	4695.7	103	%			13:13:45
2	Y RADIAL	5045.4	5045.4	102.6	%			13:13:45
2	Al 396.153Radial†	-81.6	-5.9	-5.8775	ug/L	-5.8775	ppb	13:14:05
2	Ca 317.933Radial†	26.8	7.6	14.340	ug/L	14.340	ppb	13:14:05
2	Fe 238.204 Radial†	9.8	2.8	32.585	ug/L	32.585	ppb	13:14:05
2	K 766.490 Radial†	2676.5	84.1	16.003	ug/L	16.003	ppb	13:13:45
2	Mg 279.077 IEC†	2.8	2.3	96.451	ug/L	96.451	ppb	13:14:05
2	Na 589.592 Radial†	-751.7	-10.9	-3.8099	ug/L	-3.8099	ppb	13:13:45
2	Sr 421.552†	39.3	0.6	0.0049	ug/L	0.0049	ppb	13:13:45
2	Sc 361.383	860152.4	860152.4	101.76	%			13:15:02
2	Y 371.029	726371.4	726371.4	101.88	%			13:15:02
2	Ag 328.068†	229.7	69.0	0.3653	ug/L	0.3653	ppb	13:15:02
2	As 188.979†	-24.9	-2.4	-1.3333	ug/L	-1.3333	ppb	13:15:22
2	B 249.677†	-243.0	208.7	5.8933	ug/L	5.8933	ppb	13:15:22
2	Ba 233.527†	15.5	3.3	0.0320	ug/L	0.0320	ppb	13:15:22
2	Be 313.107†	-4394.7	138.5	0.0593	ug/L	0.0593	ppb	13:15:02
2	Cd 226.502†	-160.8	-9.6	-0.1445	ug/L	-0.1445	ppb	13:15:22
2	Co 228.616†	-53.2	1.4	0.0361	ug/L	0.0361	ppb	13:15:22
2	Cr 267.716†	78.4	6.9	0.0971	ug/L	0.0971	ppb	13:15:22
2	Cu 324.752†	5719.9	95.1	0.3174	ug/L	0.3174	ppb	13:15:02
2	Mn 257.610†	438.0	44.2	0.0580	ug/L	0.0580	ppb	13:15:22
2	Mo 202.031†	18.3	5.1	0.4618	ug/L	0.4618	ppb	13:15:22
2	Ni 231.604†	74.8	0.9	0.0302	ug/L	0.0302	ppb	13:15:22

2	P 214.914†	184.8	-19.0	-14.533 ug/L	-14.533 ppb	13:15:22
2	Pb 220.353†	-39.6	10.0	1.5556 ug/L	1.5556 ppb	13:15:22
2	S 181.975 Axial†	28.7	-1.7	-3.1311 ug/L	-3.1311 ppb	13:15:22
2	Sb 206.836†	25.1	-0.8	-0.3531 ug/L	-0.3531 ppb	13:15:22
2	Se 196.026†	-16.3	6.2	5.2303 ug/L	5.2303 ppb	13:15:22
2	Si 251.611†	559.5	31.0	1.1785 ug/L	1.1785 ppb	13:15:22
2	Sn 189.927†	1.1	-2.7	-0.6164 ug/L	-0.6164 ppb	13:15:22
2	Ti 334.940†	-1015.4	47.7	0.0774 ug/L	0.0774 ppb	13:15:02
2	Tl 190.801†	-21.1	8.4	3.3144 ug/L	3.3144 ppb	13:15:22
2	U 409.014†	-2009.3	-31.5	-0.9356 ug/L	-0.9356 ppb	13:15:02
2	V 292.402†	-1406.3	-31.3	-0.2494 ug/L	-0.2494 ppb	13:15:02
2	Zn 213.857†	761.8	144.3	1.7733 ug/L	1.7733 ppb	13:15:22
2	SiO2†	545.1	-0.6	-0.0653 ug/L	-0.0653 ppb	13:15:58
3	Sc Radial	4722.5	4722.5	104 %		13:14:10
3	Y RADIAL	5077.0	5077.0	103.3 %		13:14:10
3	Al 396.153Radial†	-64.5	10.9	10.814 ug/L	10.814 ppb	13:14:30
3	Ca 317.933Radial†	28.4	9.0	17.067 ug/L	17.067 ppb	13:14:30
3	Fe 238.204 Radial†	6.0	-0.8	-9.4548 ug/L	-9.4548 ppb	13:14:30
3	K 766.490 Radial†	2532.2	-69.7	-13.257 ug/L	-13.257 ppb	13:14:10
3	Mg 279.077 IEC†	-2.5	-2.8	-117.46 ug/L	-117.46 ppb	13:14:30
3	Na 589.592 Radial†	-819.7	-72.4	-25.264 ug/L	-25.264 ppb	13:14:10
3	Sr 421.552†	39.3	0.4	0.0034 ug/L	0.0034 ppb	13:14:10
3	Sc 361.383	880003.0	880003.0	104.10 %		13:15:27
3	Y 371.029	742578.6	742578.6	104.16 %		13:15:27
3	Ag 328.068†	245.6	79.3	0.4100 ug/L	0.4100 ppb	13:15:27
3	As 188.979†	-22.7	0.3	0.1660 ug/L	0.1660 ppb	13:15:47
3	B 249.677†	-255.7	201.8	5.7065 ug/L	5.7065 ppb	13:15:47
3	Ba 233.527†	21.1	8.3	0.0817 ug/L	0.0817 ppb	13:15:47
3	Be 313.107†	-4416.4	215.1	0.0918 ug/L	0.0918 ppb	13:15:27
3	Cd 226.502†	-157.8	-3.1	-0.0445 ug/L	-0.0445 ppb	13:15:47
3	Co 228.616†	-47.4	8.1	0.2143 ug/L	0.2143 ppb	13:15:47
3	Cr 267.716†	64.4	-8.4	-0.1131 ug/L	-0.1131 ppb	13:15:47
3	Cu 324.752†	5731.7	-20.3	-0.0685 ug/L	-0.0685 ppb	13:15:27
3	Mn 257.610†	426.9	23.7	0.0354 ug/L	0.0354 ppb	13:15:47
3	Mo 202.031†	18.1	4.4	0.3990 ug/L	0.3990 ppb	13:15:47
3	Ni 231.604†	94.5	18.2	0.5865 ug/L	0.5865 ppb	13:15:47
3	P 214.914†	183.6	-24.3	-18.410 ug/L	-18.410 ppb	13:15:47
3	Pb 220.353†	-52.6	-1.6	-0.2458 ug/L	-0.2458 ppb	13:15:47
3	S 181.975 Axial†	28.5	-2.5	-4.5141 ug/L	-4.5141 ppb	13:15:47
3	Sb 206.836†	27.3	0.8	0.3601 ug/L	0.3601 ppb	13:15:47
3	Se 196.026†	-15.9	6.9	5.6931 ug/L	5.6931 ppb	13:15:47
3	Si 251.611†	552.6	12.0	0.4541 ug/L	0.4541 ppb	13:15:47
3	Sn 189.927†	9.7	5.6	1.2900 ug/L	1.2900 ppb	13:15:47
3	Ti 334.940†	-1090.0	-1.5	0.0087 ug/L	0.0087 ppb	13:15:27
3	Tl 190.801†	-20.3	9.6	3.7932 ug/L	3.7932 ppb	13:15:47
3	U 409.014†	-1977.8	43.4	1.2848 ug/L	1.2848 ppb	13:15:27
3	V 292.402†	-1223.0	175.9	1.4166 ug/L	1.4166 ppb	13:15:27
3	Zn 213.857†	755.8	121.7	1.4972 ug/L	1.4972 ppb	13:15:47
3	SiO2†	619.1	58.3	4.7234 ug/L	4.7234 ppb	13:16:03

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	870473.1	102.98	%	1.177				1.14%
Sc Radial	4716.4	104	%	0.4				0.39%
Y 371.029	735015.1	103.10	%	1.144				1.11%
Y RADIAL	5072.0	103.2	%	0.50				0.48%
Ag 328.068†	67.4	0.3542	ug/L	0.06216	0.3542	ppb	0.06216	17.55%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.0	3.9074	ug/L	8.71008	3.9074	ppb	8.71008	222.91%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.6	-1.4522	ug/L	1.68071	-1.4522	ppb	1.68071	115.74%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	208.9	5.9003	ug/L	0.19731	5.9003	ppb	0.19731	3.34%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.9	0.0198	ug/L	0.06882	0.0198	ppb	0.06882	347.86%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	189.7	0.0810	ug/L	0.01879	0.0810	ppb	0.01879	23.20%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8.4	15.850	ug/L	1.3867	15.850	ppb	1.3867	8.75%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -7.0     -0.1050 ug/L       0.05319     -0.1050 ppb        0.05319  50.68%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               9.0      0.2372 ug/L       0.21348      0.2372 ppb        0.21348  90.01%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -4.6     -0.0606 ug/L       0.13915     -0.0606 ppb        0.13915 229.57%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              15.0      0.0500 ug/L       0.23203      0.0500 ppb        0.23203 463.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.5      17.247 ug/L       23.2096      17.247 ppb        23.2096 134.57%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        13.7      2.6023 ug/L      14.78409      2.6023 ppb       14.78409 568.12%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.4      16.780 ug/L      116.9279      16.780 ppb       116.9279 696.84%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              31.3      0.0426 ug/L       0.01330      0.0426 ppb        0.01330  31.20%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               1.7      0.1561 ug/L       0.47614      0.1561 ppb        0.47614 305.04%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -28.2     -9.8584 ug/L      13.44334     -9.8584 ppb       13.44334 136.36%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              10.5      0.3385 ug/L       0.28299      0.3385 ppb        0.28299  83.61%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -23.2     -17.580 ug/L        2.7288     -17.580 ppb         2.7288  15.52%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               3.7      0.5854 ug/L       0.90870      0.5854 ppb        0.90870 155.24%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.0     -3.5416 ug/L       0.84556     -3.5416 ppb        0.84556  23.87%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               0.9      0.4044 ug/L       0.78061      0.4044 ppb        0.78061 193.03%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               5.8      4.8940 ug/L       1.01021      4.8940 ppb        1.01021  20.64%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              28.7      1.0949 ug/L       0.60342      1.0949 ppb        0.60342  55.11%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.2      0.2694 ug/L       0.96032      0.2694 ppb        0.96032 356.44%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -1.6     -0.0129 ug/L       0.02959     -0.0129 ppb        0.02959 228.96%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               6.1      0.0109 ug/L       0.06537      0.0109 ppb        0.06537 598.49%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              11.1      4.3969 ug/L       1.47989      4.3969 ppb        1.47989  33.66%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               31.0      0.9145 ug/L       1.69550      0.9145 ppb        1.69550 185.41%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               76.4      0.6137 ug/L       0.83463      0.6137 ppb        0.83463 136.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             136.0      1.6716 ug/L       0.15168      1.6716 ppb        0.15168   9.07%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    21.5      1.7381 ug/L       2.60396      1.7381 ppb        2.60396 149.82%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 16
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/22/2010 14:07:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4726.5	4726.5	104	%			14:09:23
1	Y RADIAL	5052.9	5052.9	102.8	%			14:09:23
1	Al 396.153Radial†	5105.1	4989.7	4912.7	ug/L	4912.7	ppb	14:09:23
1	Ca 317.933Radial†	2755.6	2635.5	4973.2	ug/L	4973.2	ppb	14:09:43
1	Fe 238.204 Radial†	459.9	436.3	5023.2	ug/L	5023.2	ppb	14:09:43
1	K 766.490 Radial†	30467.5	26832.1	5099.0	ug/L	5099.0	ppb	14:09:23
1	Mg 279.077 IEC†	130.4	125.2	5198.9	ug/L	5198.9	ppb	14:09:43
1	Na 589.592 Radial†	29067.1	28711.6	10025	ug/L	10025	ppb	14:09:23
1	Sr 421.552†	65649.4	63187.9	495.03	ug/L	495.03	ppb	14:09:23
1	Sc 361.383	876357.8	876357.8	103.67	%			14:10:40
1	Y 371.029	726686.6	726686.6	101.93	%			14:10:40
1	Ag 328.068†	101572.7	97817.0	507.28	ug/L	507.28	ppb	14:10:46
1	As 188.979†	894.2	884.6	502.77	ug/L	502.77	ppb	14:11:06
1	B 249.677†	18223.2	18025.0	507.23	ug/L	507.23	ppb	14:10:46
1	Ba 233.527†	55769.6	53781.6	512.52	ug/L	512.52	ppb	14:10:46
1	Be 313.107†	1222621.0	1183757.1	506.48	ug/L	506.48	ppb	14:10:40
1	Cd 226.502†	36094.1	34963.6	513.59	ug/L	513.59	ppb	14:10:46
1	Co 228.616†	20423.0	19752.9	520.10	ug/L	520.10	ppb	14:10:46
1	Cr 267.716†	38980.6	37529.3	511.32	ug/L	511.32	ppb	14:10:46
1	Cu 324.752†	164763.0	153398.9	508.18	ug/L	508.18	ppb	14:10:46
1	Mn 257.610†	392768.8	378465.5	503.55	ug/L	503.55	ppb	14:10:40
1	Mo 202.031†	5712.9	5497.6	495.16	ug/L	495.16	ppb	14:11:06
1	Ni 231.604†	16742.9	16077.1	519.12	ug/L	519.12	ppb	14:10:46
1	P 214.914†	3623.2	3294.2	2397.6	ug/L	2397.6	ppb	14:11:06
1	Pb 220.353†	3282.9	3215.5	504.40	ug/L	504.40	ppb	14:11:06
1	S 181.975 Axial†	599.0	547.9	991.86	ug/L	991.86	ppb	14:11:06
1	Sb 206.836†	1233.0	1163.9	513.69	ug/L	513.69	ppb	14:11:06
1	Se 196.026†	607.9	608.5	524.39	ug/L	524.39	ppb	14:11:06
1	Si 251.611†	70816.5	67788.4	2582.8	ug/L	2582.8	ppb	14:10:46
1	Sn 189.927†	2221.3	2138.9	493.52	ug/L	493.52	ppb	14:11:06
1	Ti 334.940†	294594.0	285201.2	495.94	ug/L	495.94	ppb	14:10:46
1	Tl 190.801†	1300.2	1283.2	509.68	ug/L	509.68	ppb	14:11:06
1	U 409.014†	16232.3	17600.3	519.04	ug/L	519.04	ppb	14:10:46
1	V 292.402†	64539.5	63603.4	516.11	ug/L	516.11	ppb	14:10:46
1	Zn 213.857†	43838.5	41680.9	508.94	ug/L	508.94	ppb	14:10:46
1	SiO2†	70084.0	67064.4	5431.2	ug/L	5431.2	ppb	14:12:13
2	Sc Radial	4607.7	4607.7	101	%			14:09:48
2	Y RADIAL	4914.5	4914.5	99.95	%			14:09:48
2	Al 396.153Radial†	4945.1	4958.6	4882.0	ug/L	4882.0	ppb	14:09:48
2	Ca 317.933Radial†	2759.0	2707.3	5108.6	ug/L	5108.6	ppb	14:10:08
2	Fe 238.204 Radial†	463.1	450.9	5190.7	ug/L	5190.7	ppb	14:10:08
2	K 766.490 Radial†	29709.4	26840.1	5100.5	ug/L	5100.5	ppb	14:09:48
2	Mg 279.077 IEC†	127.8	125.8	5224.3	ug/L	5224.3	ppb	14:10:08
2	Na 589.592 Radial†	28174.8	28552.3	9969.5	ug/L	9969.5	ppb	14:09:48
2	Sr 421.552†	63825.7	63017.3	493.69	ug/L	493.69	ppb	14:09:48
2	Sc 361.383	880618.2	880618.2	104.18	%			14:11:11
2	Y 371.029	731931.5	731931.5	102.66	%			14:11:11
2	Ag 328.068†	100715.5	96520.2	500.63	ug/L	500.63	ppb	14:11:17
2	As 188.979†	903.9	889.7	505.64	ug/L	505.64	ppb	14:11:37
2	B 249.677†	18110.8	17832.0	501.77	ug/L	501.77	ppb	14:11:17
2	Ba 233.527†	55353.1	53121.5	506.24	ug/L	506.24	ppb	14:11:17
2	Be 313.107†	1229626.6	1184776.3	506.90	ug/L	506.90	ppb	14:11:11
2	Cd 226.502†	35868.3	34578.4	507.90	ug/L	507.90	ppb	14:11:17
2	Co 228.616†	20241.7	19483.6	513.01	ug/L	513.01	ppb	14:11:17
2	Cr 267.716†	38804.0	37177.8	506.55	ug/L	506.55	ppb	14:11:17
2	Cu 324.752†	163052.2	150987.9	500.21	ug/L	500.21	ppb	14:11:17
2	Mn 257.610†	393550.1	377382.6	502.12	ug/L	502.12	ppb	14:11:11
2	Mo 202.031†	5711.4	5469.4	492.65	ug/L	492.65	ppb	14:11:37
2	Ni 231.604†	16585.1	15847.4	511.71	ug/L	511.71	ppb	14:11:17

2	P 214.914†	3622.8	3276.9	2386.0 ug/L	2386.0 ppb	14:11:37
2	Pb 220.353†	3293.4	3210.3	503.55 ug/L	503.55 ppb	14:11:37
2	S 181.975 Axial†	602.1	548.0	992.13 ug/L	992.13 ppb	14:11:37
2	Sb 206.836†	1245.8	1170.4	516.40 ug/L	516.40 ppb	14:11:37
2	Se 196.026†	605.8	603.7	520.81 ug/L	520.81 ppb	14:11:37
2	Si 251.611†	70139.5	66808.1	2545.4 ug/L	2545.4 ppb	14:11:17
2	Sn 189.927†	2233.7	2140.4	493.89 ug/L	493.89 ppb	14:11:37
2	Ti 334.940†	292008.1	281344.2	489.25 ug/L	489.25 ppb	14:11:17
2	Tl 190.801†	1292.1	1269.4	504.20 ug/L	504.20 ppb	14:11:37
2	U 409.014†	15898.9	17204.6	507.32 ug/L	507.32 ppb	14:11:17
2	V 292.402†	64111.3	62891.2	510.34 ug/L	510.34 ppb	14:11:17
2	Zn 213.857†	43547.1	41196.6	503.01 ug/L	503.01 ppb	14:11:17
2	SiO2†	69867.0	66529.0	5387.8 ug/L	5387.8 ppb	14:12:18
3	Sc Radial	4609.5	4609.5	101 %		14:10:13
3	Y RADIAL	4951.8	4951.8	100.7 %		14:10:13
3	Al 396.153Radial†	5004.3	5015.1	4938.1 ug/L	4938.1 ppb	14:10:13
3	Ca 317.933Radial†	2784.9	2731.8	5154.9 ug/L	5154.9 ppb	14:10:33
3	Fe 238.204 Radial†	464.4	452.0	5202.7 ug/L	5202.7 ppb	14:10:33
3	K 766.490 Radial†	30010.0	27125.3	5154.8 ug/L	5154.8 ppb	14:10:13
3	Mg 279.077 IEC†	130.5	128.4	5332.0 ug/L	5332.0 ppb	14:10:33
3	Na 589.592 Radial†	28374.1	28738.1	10034 ug/L	10034 ppb	14:10:13
3	Sr 421.552†	64247.4	63408.9	496.76 ug/L	496.76 ppb	14:10:13
3	Sc 361.383	890690.8	890690.8	105.37 %		14:11:42
3	Y 371.029	739272.7	739272.7	103.69 %		14:11:42
3	Ag 328.068†	100383.1	95111.4	493.34 ug/L	493.34 ppb	14:11:48
3	As 188.979†	912.9	888.5	504.89 ug/L	504.89 ppb	14:12:08
3	B 249.677†	17998.0	17528.3	493.21 ug/L	493.21 ppb	14:11:48
3	Ba 233.527†	55111.6	52291.4	498.33 ug/L	498.33 ppb	14:11:48
3	Be 313.107†	1244048.9	1185115.8	507.03 ug/L	507.03 ppb	14:11:42
3	Cd 226.502†	35639.5	33971.9	498.99 ug/L	498.99 ppb	14:11:48
3	Co 228.616†	20116.9	19145.5	504.12 ug/L	504.12 ppb	14:11:48
3	Cr 267.716†	38563.1	36527.9	497.71 ug/L	497.71 ppb	14:11:48
3	Cu 324.752†	162285.5	148490.2	491.93 ug/L	491.93 ppb	14:11:48
3	Mn 257.610†	398723.2	378020.0	502.97 ug/L	502.97 ppb	14:11:42
3	Mo 202.031†	5739.0	5433.7	489.43 ug/L	489.43 ppb	14:12:08
3	Ni 231.604†	16501.8	15588.3	503.34 ug/L	503.34 ppb	14:11:48
3	P 214.914†	3646.3	3259.9	2374.7 ug/L	2374.7 ppb	14:12:08
3	Pb 220.353†	3317.4	3197.2	501.51 ug/L	501.51 ppb	14:12:08
3	S 181.975 Axial†	597.9	537.5	973.08 ug/L	973.08 ppb	14:12:08
3	Sb 206.836†	1241.9	1153.2	508.90 ug/L	508.90 ppb	14:12:08
3	Se 196.026†	611.9	602.9	520.20 ug/L	520.20 ppb	14:12:08
3	Si 251.611†	69762.5	65689.0	2502.7 ug/L	2502.7 ppb	14:11:48
3	Sn 189.927†	2228.9	2111.6	487.27 ug/L	487.27 ppb	14:12:08
3	Ti 334.940†	290588.7	276827.3	481.39 ug/L	481.39 ppb	14:11:48
3	Tl 190.801†	1285.0	1248.6	496.01 ug/L	496.01 ppb	14:12:08
3	U 409.014†	15986.9	17115.4	504.70 ug/L	504.70 ppb	14:11:48
3	V 292.402†	63806.2	61905.7	502.40 ug/L	502.40 ppb	14:11:48
3	Zn 213.857†	43276.9	40467.5	494.08 ug/L	494.08 ppb	14:11:48
3	SiO2†	69534.1	65454.7	5300.7 ug/L	5300.7 ppb	14:12:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	882555.6	104.41	%	0.871				0.83%
Sc Radial	4647.9	102	%	1.5				1.47%
Y 371.029	732630.3	102.76	%	0.887				0.86%
Y RADIAL	4973.0	101.1	%	1.46				1.44%
Ag 328.068†	96482.8	500.42	ug/L	6.970	500.42	ppb	6.970	1.39%
QC value within limits for Ag 328.068 Recovery = 100.08%								
Al 396.153Radial†	4987.8	4910.9	ug/L	28.09	4910.9	ppb	28.09	0.57%
QC value within limits for Al 396.153Radial Recovery = 98.22%								
As 188.979†	887.6	504.43	ug/L	1.489	504.43	ppb	1.489	0.30%
QC value within limits for As 188.979 Recovery = 100.89%								
B 249.677†	17795.1	500.73	ug/L	7.068	500.73	ppb	7.068	1.41%
QC value within limits for B 249.677 Recovery = 100.15%								
Ba 233.527†	53064.8	505.70	ug/L	7.111	505.70	ppb	7.111	1.41%
QC value within limits for Ba 233.527 Recovery = 101.14%								
Be 313.107†	1184549.7	506.81	ug/L	0.286	506.81	ppb	0.286	0.06%
QC value within limits for Be 313.107 Recovery = 101.36%								
Ca 317.933Radial†	2691.5	5078.9	ug/L	94.45	5078.9	ppb	94.45	1.86%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.58%
Cd 226.502†            34504.7      506.83 ug/L         7.360      506.83 ppb          7.360   1.45%
   QC value within limits for Cd 226.502  Recovery = 101.37%
Co 228.616†            19460.7      512.41 ug/L         8.007      512.41 ppb          8.007   1.56%
   QC value within limits for Co 228.616  Recovery = 102.48%
Cr 267.716†            37078.3      505.19 ug/L         6.906      505.19 ppb          6.906   1.37%
   QC value within limits for Cr 267.716  Recovery = 101.04%
Cu 324.752†           150959.0      500.11 ug/L         8.123      500.11 ppb          8.123   1.62%
   QC value within limits for Cu 324.752  Recovery = 100.02%
Fe 238.204 Radial†       446.4      5138.9 ug/L        100.34      5138.9 ppb         100.34   1.95%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.78%
K 766.490 Radial†      26932.5      5118.1 ug/L         31.75      5118.1 ppb          31.75   0.62%
   QC value within limits for K 766.490 Radial  Recovery = 102.36%
Mg 279.077 IEC†          126.5      5251.7 ug/L         70.68      5251.7 ppb          70.68   1.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.03%
Mn 257.610†           377956.0      502.88 ug/L         0.716      502.88 ppb          0.716   0.14%
   QC value within limits for Mn 257.610  Recovery = 100.58%
Mo 202.031†             5466.9      492.41 ug/L         2.875      492.41 ppb          2.875   0.58%
   QC value within limits for Mo 202.031  Recovery = 98.48%
Na 589.592 Radial†     28667.3       10010 ug/L          35.1       10010 ppb           35.1   0.35%
   QC value within limits for Na 589.592 Radial  Recovery = 100.10%
Ni 231.604†            15837.6      511.39 ug/L         7.896      511.39 ppb          7.896   1.54%
   QC value within limits for Ni 231.604  Recovery = 102.28%
P 214.914†              3277.0      2386.1 ug/L         11.47      2386.1 ppb          11.47   0.48%
   QC value within limits for P 214.914  Recovery = 95.44%
Pb 220.353†             3207.7      503.15 ug/L         1.483      503.15 ppb          1.483   0.29%
   QC value within limits for Pb 220.353  Recovery = 100.63%
S 181.975 Axial†         544.5      985.69 ug/L        10.918      985.69 ppb         10.918   1.11%
   QC value within limits for S 181.975 Axial  Recovery = 98.57%
Sb 206.836†             1162.5      513.00 ug/L         3.795      513.00 ppb          3.795   0.74%
   QC value within limits for Sb 206.836  Recovery = 102.60%
Se 196.026†              605.1      521.80 ug/L         2.261      521.80 ppb          2.261   0.43%
   QC value within limits for Se 196.026  Recovery = 104.36%
Si 251.611†            66761.8      2543.6 ug/L         40.08      2543.6 ppb          40.08   1.58%
   QC value within limits for Si 251.611  Recovery = 101.74%
Sn 189.927†             2130.3      491.56 ug/L         3.722      491.56 ppb          3.722   0.76%
   QC value within limits for Sn 189.927  Recovery = 98.31%
Sr 421.552†            63204.7      495.16 ug/L         1.538      495.16 ppb          1.538   0.31%
   QC value within limits for Sr 421.552  Recovery = 99.03%
Ti 334.940†           281124.3      488.86 ug/L         7.279      488.86 ppb          7.279   1.49%
   QC value within limits for Ti 334.940  Recovery = 97.77%
Tl 190.801†             1267.1      503.30 ug/L         6.878      503.30 ppb          6.878   1.37%
   QC value within limits for Tl 190.801  Recovery = 100.66%
U 409.014†             17306.8      510.35 ug/L         7.635      510.35 ppb          7.635   1.50%
   QC value within limits for U 409.014  Recovery = 102.07%
V 292.402†             62800.1      509.62 ug/L         6.884      509.62 ppb          6.884   1.35%
   QC value within limits for V 292.402  Recovery = 101.92%
Zn 213.857†            41115.0      502.01 ug/L         7.480      502.01 ppb          7.480   1.49%
   QC value within limits for Zn 213.857  Recovery = 100.40%
SiO2†                  66349.3      5373.2 ug/L         66.47      5373.2 ppb          66.47   1.24%
   QC value within limits for SiO2  Recovery = 100.48%
All analyte(s) passed QC.
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Sequence No.: 17
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/22/2010 14:14:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4462.0	4462.0	98.0	%			14:16:46
1	Y RADIAL	5335.8	5335.8	108.5	%			14:16:26
1	Al 396.153Radial†	-68.0	3.8	3.7826	ug/L	3.7826	ppb	14:16:46
1	Ca 317.933Radial†	26.4	8.6	16.169	ug/L	16.169	ppb	14:16:46
1	Fe 238.204 Radial†	8.5	2.0	23.020	ug/L	23.020	ppb	14:16:46
1	K 766.490 Radial†	2691.6	235.4	44.790	ug/L	44.790	ppb	14:16:26
1	Mg 279.077 IEC†	2.0	1.6	66.100	ug/L	66.100	ppb	14:16:46
1	Na 589.592 Radial†	-738.8	-35.9	-12.546	ug/L	-12.546	ppb	14:16:26
1	Sr 421.552†	14.2	-22.9	-0.1797	ug/L	-0.1797	ppb	14:16:26
1	Sc 361.383	873374.9	873374.9	103.32	%			14:17:43
1	Y 371.029	735996.5	735996.5	103.23	%			14:17:43
1	Ag 328.068†	246.4	81.8	0.4305	ug/L	0.4305	ppb	14:17:43
1	As 188.979†	-28.5	-5.5	-3.0702	ug/L	-3.0702	ppb	14:18:03
1	B 249.677†	-245.8	209.5	5.9184	ug/L	5.9184	ppb	14:18:03
1	Ba 233.527†	14.1	1.7	0.0176	ug/L	0.0176	ppb	14:18:03
1	Be 313.107†	-4442.4	157.8	0.0677	ug/L	0.0677	ppb	14:17:43
1	Cd 226.502†	-179.0	-24.7	-0.3661	ug/L	-0.3661	ppb	14:18:03
1	Co 228.616†	-42.2	12.8	0.3363	ug/L	0.3363	ppb	14:18:03
1	Cr 267.716†	67.1	-5.2	-0.0680	ug/L	-0.0680	ppb	14:18:03
1	Cu 324.752†	5690.3	-18.6	-0.0603	ug/L	-0.0603	ppb	14:17:43
1	Mn 257.610†	446.7	46.1	0.0609	ug/L	0.0609	ppb	14:18:03
1	Mo 202.031†	15.1	1.7	0.1535	ug/L	0.1535	ppb	14:18:03
1	Ni 231.604†	69.3	-5.6	-0.1807	ug/L	-0.1807	ppb	14:18:03
1	P 214.914†	192.0	-14.9	-11.282	ug/L	-11.282	ppb	14:18:03
1	Pb 220.353†	-39.1	11.0	1.7251	ug/L	1.7251	ppb	14:18:03
1	S 181.975 Axial†	33.0	2.0	3.6559	ug/L	3.6559	ppb	14:18:03
1	Sb 206.836†	30.4	4.0	1.6881	ug/L	1.6881	ppb	14:18:03
1	Se 196.026†	-16.4	6.3	5.3452	ug/L	5.3452	ppb	14:18:03
1	Si 251.611†	658.6	118.7	4.5297	ug/L	4.5297	ppb	14:18:03
1	Sn 189.927†	0.5	-3.3	-0.7475	ug/L	-0.7475	ppb	14:18:03
1	Ti 334.940†	-1001.5	76.2	0.1295	ug/L	0.1295	ppb	14:17:43
1	Tl 190.801†	-33.0	-2.8	-1.1153	ug/L	-1.1153	ppb	14:18:03
1	U 409.014†	-2014.4	-6.5	-0.1943	ug/L	-0.1943	ppb	14:17:43
1	V 292.402†	-1331.4	62.1	0.4971	ug/L	0.4971	ppb	14:17:43
1	Zn 213.857†	791.2	161.5	1.9882	ug/L	1.9882	ppb	14:18:03
1	SiO2†	654.3	96.9	7.8643	ug/L	7.8643	ppb	14:18:59
2	Sc Radial	4444.1	4444.1	97.6	%			14:17:11
2	Y RADIAL	4989.1	4989.1	101.5	%			14:16:51
2	Al 396.153Radial†	-81.9	-10.7	-10.577	ug/L	-10.577	ppb	14:17:11
2	Ca 317.933Radial†	29.4	11.7	22.148	ug/L	22.148	ppb	14:17:11
2	Fe 238.204 Radial†	9.3	2.9	33.488	ug/L	33.488	ppb	14:17:11
2	K 766.490 Radial†	2569.6	121.6	23.126	ug/L	23.126	ppb	14:16:51
2	Mg 279.077 IEC†	3.0	2.7	110.10	ug/L	110.10	ppb	14:17:11
2	Na 589.592 Radial†	-726.3	-26.2	-9.1316	ug/L	-9.1316	ppb	14:16:51
2	Sr 421.552†	29.3	-7.4	-0.0581	ug/L	-0.0581	ppb	14:16:51
2	Sc 361.383	863818.3	863818.3	102.19	%			14:18:08
2	Y 371.029	728445.3	728445.3	102.17	%			14:18:08
2	Ag 328.068†	110.5	-48.6	-0.2432	ug/L	-0.2432	ppb	14:18:08
2	As 188.979†	-20.1	2.5	1.3891	ug/L	1.3891	ppb	14:18:29
2	B 249.677†	-257.6	195.3	5.5156	ug/L	5.5156	ppb	14:18:29
2	Ba 233.527†	17.9	5.6	0.0541	ug/L	0.0541	ppb	14:18:29
2	Be 313.107†	-4353.7	197.0	0.0841	ug/L	0.0841	ppb	14:18:08
2	Cd 226.502†	-159.0	-7.1	-0.1063	ug/L	-0.1063	ppb	14:18:29
2	Co 228.616†	-47.9	6.7	0.1764	ug/L	0.1764	ppb	14:18:29
2	Cr 267.716†	79.2	7.3	0.1019	ug/L	0.1019	ppb	14:18:29
2	Cu 324.752†	5757.9	108.5	0.3588	ug/L	0.3588	ppb	14:18:08
2	Mn 257.610†	446.4	50.5	0.0660	ug/L	0.0660	ppb	14:18:29
2	Mo 202.031†	11.9	-1.2	-0.1078	ug/L	-0.1078	ppb	14:18:29
2	Ni 231.604†	93.6	18.9	0.6116	ug/L	0.6116	ppb	14:18:29

2	P 214.914†	197.4	-7.5	-5.7719 ug/L	-5.7719 ppb	14:18:29
2	Pb 220.353†	-53.7	-3.7	-0.5827 ug/L	-0.5827 ppb	14:18:29
2	S 181.975 Axial†	37.6	6.9	12.504 ug/L	12.504 ppb	14:18:29
2	Sb 206.836†	22.4	-3.5	-1.4753 ug/L	-1.4753 ppb	14:18:29
2	Se 196.026†	-25.8	-3.0	-2.4307 ug/L	-2.4307 ppb	14:18:29
2	Si 251.611†	643.8	111.1	4.2458 ug/L	4.2458 ppb	14:18:29
2	Sn 189.927†	12.0	8.0	1.8470 ug/L	1.8470 ppb	14:18:29
2	Ti 334.940†	-1061.7	6.6	0.0034 ug/L	0.0034 ppb	14:18:08
2	Tl 190.801†	-30.7	-0.9	-0.3623 ug/L	-0.3623 ppb	14:18:29
2	U 409.014†	-1832.5	149.9	4.4311 ug/L	4.4311 ppb	14:18:08
2	V 292.402†	-1359.8	20.0	0.1645 ug/L	0.1645 ppb	14:18:08
2	Zn 213.857†	771.9	151.1	1.8527 ug/L	1.8527 ppb	14:18:29
2	SiO2†	816.7	262.8	21.341 ug/L	21.341 ppb	14:19:04
3	Sc Radial	4459.3	4459.3	98.0 %		14:17:37
3	Y RADIAL	5029.7	5029.7	102.3 %		14:17:16
3	Al 396.153Radial†	-73.5	-1.9	-1.8746 ug/L	-1.8746 ppb	14:17:37
3	Ca 317.933Radial†	25.2	7.4	13.929 ug/L	13.929 ppb	14:17:37
3	Fe 238.204 Radial†	8.6	2.2	25.108 ug/L	25.108 ppb	14:17:37
3	K 766.490 Radial†	2721.3	267.5	50.893 ug/L	50.893 ppb	14:17:16
3	Mg 279.077 IEC†	2.1	1.7	71.923 ug/L	71.923 ppb	14:17:37
3	Na 589.592 Radial†	-746.1	-43.9	-15.315 ug/L	-15.315 ppb	14:17:16
3	Sr 421.552†	-0.9	-38.4	-0.3010 ug/L	-0.3010 ppb	14:17:16
3	Sc 361.383	869652.4	869652.4	102.88 %		14:18:34
3	Y 371.029	733738.6	733738.6	102.92 %		14:18:34
3	Ag 328.068†	216.0	53.3	0.2853 ug/L	0.2853 ppb	14:18:34
3	As 188.979†	-23.2	-0.4	-0.2397 ug/L	-0.2397 ppb	14:18:54
3	B 249.677†	-259.4	195.3	5.5174 ug/L	5.5174 ppb	14:18:54
3	Ba 233.527†	13.1	0.8	0.0092 ug/L	0.0092 ppb	14:18:54
3	Be 313.107†	-4354.9	224.3	0.0959 ug/L	0.0959 ppb	14:18:34
3	Cd 226.502†	-171.7	-18.4	-0.2737 ug/L	-0.2737 ppb	14:18:54
3	Co 228.616†	-52.0	3.1	0.0821 ug/L	0.0821 ppb	14:18:54
3	Cr 267.716†	87.4	14.8	0.2053 ug/L	0.2053 ppb	14:18:54
3	Cu 324.752†	5779.8	92.0	0.3070 ug/L	0.3070 ppb	14:18:34
3	Mn 257.610†	451.4	52.5	0.0693 ug/L	0.0693 ppb	14:18:54
3	Mo 202.031†	18.9	5.5	0.4928 ug/L	0.4928 ppb	14:18:54
3	Ni 231.604†	86.0	11.0	0.3549 ug/L	0.3549 ppb	14:18:54
3	P 214.914†	198.6	-7.6	-5.8742 ug/L	-5.8742 ppb	14:18:54
3	Pb 220.353†	-49.7	0.6	0.0840 ug/L	0.0840 ppb	14:18:54
3	S 181.975 Axial†	34.4	3.6	6.4810 ug/L	6.4810 ppb	14:18:54
3	Sb 206.836†	30.0	3.7	1.6135 ug/L	1.6135 ppb	14:18:54
3	Se 196.026†	-13.4	9.1	7.6930 ug/L	7.6930 ppb	14:18:54
3	Si 251.611†	640.7	104.0	3.9644 ug/L	3.9644 ppb	14:18:54
3	Sn 189.927†	6.0	2.1	0.4863 ug/L	0.4863 ppb	14:18:54
3	Ti 334.940†	-1037.0	37.6	0.0620 ug/L	0.0620 ppb	14:18:34
3	Tl 190.801†	-21.1	8.5	3.3730 ug/L	3.3730 ppb	14:18:54
3	U 409.014†	-2054.5	-53.8	-1.5945 ug/L	-1.5945 ppb	14:18:34
3	V 292.402†	-1327.5	60.3	0.4848 ug/L	0.4848 ppb	14:18:34
3	Zn 213.857†	756.2	130.7	1.6046 ug/L	1.6046 ppb	14:18:54
3	SiO2†	600.2	47.1	3.8102 ug/L	3.8102 ppb	14:19:09

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	868948.5	102.80	%	0.570				0.55%
Sc Radial	4455.1	97.9	%	0.21				0.22%
Y 371.029	732726.8	102.77	%	0.544				0.53%
Y RADIAL	5118.2	104.1	%	3.85				3.70%
Ag 328.068†	28.8	0.1575	ug/L	0.35457	0.1575	ppb	0.35457	225.09%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.9	-2.8897	ug/L	7.23353	-2.8897	ppb	7.23353	250.32%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.1	-0.6403	ug/L	2.25649	-0.6403	ppb	2.25649	352.41%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	200.1	5.6505	ug/L	0.23205	5.6505	ppb	0.23205	4.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.7	0.0270	ug/L	0.02390	0.0270	ppb	0.02390	88.67%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	193.0	0.0826	ug/L	0.01420	0.0826	ppb	0.01420	17.20%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.2	17.415	ug/L	4.2490	17.415	ppb	4.2490	24.40%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -16.8     -0.2487 ug/L       0.13168     -0.2487 ppb        0.13168  52.94%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                7.5      0.1983 ug/L       0.12847      0.1983 ppb        0.12847  64.80%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                5.6      0.0797 ug/L       0.13801      0.0797 ppb        0.13801 173.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               60.6      0.2018 ug/L       0.22846      0.2018 ppb        0.22846 113.20%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         2.4      27.205 ug/L        5.5404      27.205 ppb         5.5404  20.37%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        208.1      39.603 ug/L       14.5924      39.603 ppb        14.5924  36.85%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.0      82.709 ug/L       23.9023      82.709 ppb        23.9023  28.90%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               49.7      0.0654 ug/L       0.00425      0.0654 ppb        0.00425   6.50%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                2.0      0.1795 ug/L       0.30116      0.1795 ppb        0.30116 167.80%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -35.3     -12.331 ug/L        3.0974     -12.331 ppb         3.0974  25.12%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                8.1      0.2619 ug/L       0.40424      0.2619 ppb        0.40424 154.33%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -10.0     -7.6428 ug/L       3.15228     -7.6428 ppb        3.15228  41.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                2.6      0.4088 ug/L       1.18769      0.4088 ppb        1.18769 290.53%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           4.2      7.5470 ug/L       4.51947      7.5470 ppb        4.51947  59.88%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                1.4      0.6088 ug/L       1.80522      0.6088 ppb        1.80522 296.53%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                4.2      3.5358 ug/L       5.29882      3.5358 ppb        5.29882 149.86%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              111.3      4.2466 ug/L       0.28265      4.2466 ppb        0.28265   6.66%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.3      0.5286 ug/L       1.29778      0.5286 ppb        1.29778 245.52%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -22.9     -0.1796 ug/L       0.12146     -0.1796 ppb        0.12146  67.63%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               40.1      0.0650 ug/L       0.06310      0.0650 ppb        0.06310  97.13%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                1.6      0.6318 ug/L       2.40360      0.6318 ppb        2.40360 380.44%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                29.9      0.8808 ug/L       3.15334      0.8808 ppb        3.15334 358.01%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                47.5      0.3821 ug/L       0.18856      0.3821 ppb        0.18856  49.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              147.8      1.8152 ug/L       0.19452      1.8152 ppb        0.19452  10.72%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    135.6      11.005 ug/L        9.1777      11.005 ppb         9.1777  83.39%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 24
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/22/2010 15:03:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4639.1	4639.1	102	%			15:05:12
1	Y RADIAL	4962.4	4962.4	100.9	%			15:05:12
1	Al 396.153Radial†	5038.9	5017.5	4940.4	ug/L	4940.4	ppb	15:05:12
1	Ca 317.933Radial†	2759.2	2689.1	5074.2	ug/L	5074.2	ppb	15:05:32
1	Fe 238.204 Radial†	456.2	441.0	5077.3	ug/L	5077.3	ppb	15:05:32
1	K 766.490 Radial†	30238.5	27160.6	5161.6	ug/L	5161.6	ppb	15:05:12
1	Mg 279.077 IEC†	129.4	126.6	5256.4	ug/L	5256.4	ppb	15:05:32
1	Na 589.592 Radial†	28232.6	28420.6	9923.6	ug/L	9923.6	ppb	15:05:12
1	Sr 421.552†	64115.2	62874.6	492.58	ug/L	492.58	ppb	15:05:12
1	Sc 361.383	887961.0	887961.0	105.05	%			15:06:29
1	Y 371.029	736362.5	736362.5	103.28	%			15:06:29
1	Ag 328.068†	101183.4	96166.1	498.76	ug/L	498.76	ppb	15:06:34
1	As 188.979†	909.8	888.2	504.75	ug/L	504.75	ppb	15:06:54
1	B 249.677†	18309.1	17877.1	503.06	ug/L	503.06	ppb	15:06:34
1	Ba 233.527†	55709.4	53021.3	505.28	ug/L	505.28	ppb	15:06:34
1	Be 313.107†	1238587.5	1183546.3	506.38	ug/L	506.38	ppb	15:06:29
1	Cd 226.502†	36029.8	34447.5	505.99	ug/L	505.99	ppb	15:06:34
1	Co 228.616†	20434.4	19506.4	513.62	ug/L	513.62	ppb	15:06:34
1	Cr 267.716†	38824.7	36889.5	502.62	ug/L	502.62	ppb	15:06:34
1	Cu 324.752†	164289.7	150871.6	499.81	ug/L	499.81	ppb	15:06:34
1	Mn 257.610†	398340.6	378819.1	504.02	ug/L	504.02	ppb	15:06:29
1	Mo 202.031†	5749.4	5460.3	491.82	ug/L	491.82	ppb	15:06:54
1	Ni 231.604†	16692.0	15817.5	510.74	ug/L	510.74	ppb	15:06:34
1	P 214.914†	3669.2	3292.3	2397.8	ug/L	2397.8	ppb	15:06:54
1	Pb 220.353†	3311.7	3201.5	502.20	ug/L	502.20	ppb	15:06:54
1	S 181.975 Axial†	600.0	541.3	979.89	ug/L	979.89	ppb	15:06:54
1	Sb 206.836†	1242.9	1157.7	510.94	ug/L	510.94	ppb	15:06:54
1	Se 196.026†	607.4	600.4	517.76	ug/L	517.76	ppb	15:06:54
1	Si 251.611†	70977.7	67049.3	2554.6	ug/L	2554.6	ppb	15:06:34
1	Sn 189.927†	2237.8	2126.5	490.70	ug/L	490.70	ppb	15:06:54
1	Ti 334.940†	294094.2	281012.2	488.66	ug/L	488.66	ppb	15:06:34
1	Tl 190.801†	1313.8	1279.7	508.30	ug/L	508.30	ppb	15:06:54
1	U 409.014†	16165.4	17332.1	511.11	ug/L	511.11	ppb	15:06:34
1	V 292.402†	64329.7	62590.2	507.94	ug/L	507.94	ppb	15:06:34
1	Zn 213.857†	43718.5	41014.1	500.78	ug/L	500.78	ppb	15:06:34
1	SiO2†	71282.4	67321.8	5452.2	ug/L	5452.2	ppb	15:08:02
2	Sc Radial	4512.3	4512.3	99.1	%			15:05:37
2	Y RADIAL	4821.0	4821.0	98.05	%			15:05:37
2	Al 396.153Radial†	5000.7	5117.9	5039.8	ug/L	5039.8	ppb	15:05:37
2	Ca 317.933Radial†	2780.0	2786.1	5257.4	ug/L	5257.4	ppb	15:05:57
2	Fe 238.204 Radial†	460.3	457.7	5268.3	ug/L	5268.3	ppb	15:05:57
2	K 766.490 Radial†	30060.9	27814.9	5285.9	ug/L	5285.9	ppb	15:05:37
2	Mg 279.077 IEC†	126.5	127.2	5281.4	ug/L	5281.4	ppb	15:05:57
2	Na 589.592 Radial†	27870.4	28833.4	10068	ug/L	10068	ppb	15:05:37
2	Sr 421.552†	63864.0	64388.5	504.44	ug/L	504.44	ppb	15:05:37
2	Sc 361.383	888814.3	888814.3	105.15	%			15:07:00
2	Y 371.029	736695.6	736695.6	103.33	%			15:07:00
2	Ag 328.068†	99802.3	94760.2	491.55	ug/L	491.55	ppb	15:07:05
2	As 188.979†	910.3	887.8	504.49	ug/L	504.49	ppb	15:07:25
2	B 249.677†	18053.7	17617.4	495.71	ug/L	495.71	ppb	15:07:05
2	Ba 233.527†	54867.7	52169.9	497.17	ug/L	497.17	ppb	15:07:05
2	Be 313.107†	1232252.4	1176389.5	503.30	ug/L	503.30	ppb	15:07:00
2	Cd 226.502†	35601.8	34007.5	499.50	ug/L	499.50	ppb	15:07:05
2	Co 228.616†	20162.3	19229.0	506.32	ug/L	506.32	ppb	15:07:05
2	Cr 267.716†	38310.5	36365.0	495.50	ug/L	495.50	ppb	15:07:05
2	Cu 324.752†	161244.3	147825.2	489.74	ug/L	489.74	ppb	15:07:05
2	Mn 257.610†	396704.9	376899.4	501.49	ug/L	501.49	ppb	15:07:00
2	Mo 202.031†	5723.5	5430.4	489.14	ug/L	489.14	ppb	15:07:25
2	Ni 231.604†	16439.5	15562.1	502.50	ug/L	502.50	ppb	15:07:05

2	P 214.914†	3643.7	3264.7	2378.7 ug/L	2378.7 ppb	15:07:25
2	Pb 220.353†	3291.3	3179.1	498.70 ug/L	498.70 ppb	15:07:25
2	S 181.975 Axial†	599.5	540.3	978.02 ug/L	978.02 ppb	15:07:25
2	Sb 206.836†	1241.3	1155.1	509.78 ug/L	509.78 ppb	15:07:25
2	Se 196.026†	608.5	600.9	518.74 ug/L	518.74 ppb	15:07:25
2	Si 251.611†	69860.1	65921.5	2511.6 ug/L	2511.6 ppb	15:07:05
2	Sn 189.927†	2239.8	2126.5	490.71 ug/L	490.71 ppb	15:07:25
2	Ti 334.940†	289361.2	276242.1	480.40 ug/L	480.40 ppb	15:07:05
2	Tl 190.801†	1294.9	1260.6	500.72 ug/L	500.72 ppb	15:07:25
2	U 409.014†	15747.6	16919.9	498.91 ug/L	498.91 ppb	15:07:05
2	V 292.402†	63405.2	61652.2	500.35 ug/L	500.35 ppb	15:07:05
2	Zn 213.857†	43105.1	40390.8	493.14 ug/L	493.14 ppb	15:07:05
2	SiO2†	70270.3	66294.1	5368.8 ug/L	5368.8 ppb	15:08:07
3	Sc Radial	4608.2	4608.2	101 %		15:06:02
3	Y RADIAL	4922.0	4922.0	100.1 %		15:06:02
3	Al 396.153Radial†	5010.0	5022.0	4944.7 ug/L	4944.7 ppb	15:06:02
3	Ca 317.933Radial†	2747.5	2695.6	5086.7 ug/L	5086.7 ppb	15:06:22
3	Fe 238.204 Radial†	457.9	445.6	5130.4 ug/L	5130.4 ppb	15:06:22
3	K 766.490 Radial†	29928.1	27052.6	5141.1 ug/L	5141.1 ppb	15:06:02
3	Mg 279.077 IEC†	127.6	125.6	5216.0 ug/L	5216.0 ppb	15:06:22
3	Na 589.592 Radial†	27548.3	27930.0	9752.3 ug/L	9752.3 ppb	15:06:02
3	Sr 421.552†	63379.7	62569.1	490.18 ug/L	490.18 ppb	15:06:02
3	Sc 361.383	880780.4	880780.4	104.20 %		15:07:31
3	Y 371.029	730007.0	730007.0	102.39 %		15:07:31
3	Ag 328.068†	100657.6	96446.8	500.23 ug/L	500.23 ppb	15:07:36
3	As 188.979†	917.3	902.5	512.80 ug/L	512.80 ppb	15:07:56
3	B 249.677†	18216.1	17929.9	504.54 ug/L	504.54 ppb	15:07:36
3	Ba 233.527†	55434.1	53189.5	506.88 ug/L	506.88 ppb	15:07:36
3	Be 313.107†	1223205.7	1178396.8	504.18 ug/L	504.18 ppb	15:07:31
3	Cd 226.502†	35916.1	34618.0	508.49 ug/L	508.49 ppb	15:07:36
3	Co 228.616†	20329.1	19564.0	515.14 ug/L	515.14 ppb	15:07:36
3	Cr 267.716†	38700.1	37071.2	505.10 ug/L	505.10 ppb	15:07:36
3	Cu 324.752†	163080.3	150986.0	500.20 ug/L	500.20 ppb	15:07:36
3	Mn 257.610†	394312.5	378044.7	503.00 ug/L	503.00 ppb	15:07:31
3	Mo 202.031†	5737.5	5493.5	494.81 ug/L	494.81 ppb	15:07:56
3	Ni 231.604†	16612.4	15870.7	512.46 ug/L	512.46 ppb	15:07:36
3	P 214.914†	3637.3	3290.2	2396.1 ug/L	2396.1 ppb	15:07:56
3	Pb 220.353†	3294.2	3210.4	503.60 ug/L	503.60 ppb	15:07:56
3	S 181.975 Axial†	600.3	546.2	988.79 ug/L	988.79 ppb	15:07:56
3	Sb 206.836†	1252.0	1176.1	518.89 ug/L	518.89 ppb	15:07:56
3	Se 196.026†	603.3	601.2	518.60 ug/L	518.60 ppb	15:07:56
3	Si 251.611†	70447.9	67091.7	2556.2 ug/L	2556.2 ppb	15:07:36
3	Sn 189.927†	2235.7	2141.9	494.25 ug/L	494.25 ppb	15:07:56
3	Ti 334.940†	292344.3	281615.3	489.72 ug/L	489.72 ppb	15:07:36
3	Tl 190.801†	1307.3	1283.7	509.87 ug/L	509.87 ppb	15:07:56
3	U 409.014†	15964.5	17264.7	509.11 ug/L	509.11 ppb	15:07:36
3	V 292.402†	64039.7	62811.2	509.74 ug/L	509.74 ppb	15:07:36
3	Zn 213.857†	43386.8	41035.0	501.02 ug/L	501.02 ppb	15:07:36
3	SiO2†	69523.5	66187.0	5360.0 ug/L	5360.0 ppb	15:08:12

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	885851.9	104.80	%	0.522				0.50%
Sc Radial	4586.5	101	%	1.5				1.44%
Y 371.029	734355.1	103.00	%	0.529				0.51%
Y RADIAL	4901.8	99.69	%	1.481				1.49%
Ag 328.068†	95791.1	496.85	ug/L	4.646	496.85	ppb	4.646	0.94%
QC value within limits for Ag 328.068 Recovery = 99.37%								
Al 396.153Radial†	5052.5	4974.9	ug/L	56.22	4974.9	ppb	56.22	1.13%
QC value within limits for Al 396.153Radial Recovery = 99.50%								
As 188.979†	892.8	507.35	ug/L	4.721	507.35	ppb	4.721	0.93%
QC value within limits for As 188.979 Recovery = 101.47%								
B 249.677†	17808.1	501.10	ug/L	4.730	501.10	ppb	4.730	0.94%
QC value within limits for B 249.677 Recovery = 100.22%								
Ba 233.527†	52793.6	503.11	ug/L	5.204	503.11	ppb	5.204	1.03%
QC value within limits for Ba 233.527 Recovery = 100.62%								
Be 313.107†	1179444.2	504.62	ug/L	1.583	504.62	ppb	1.583	0.31%
QC value within limits for Be 313.107 Recovery = 100.92%								
Ca 317.933Radial†	2723.6	5139.4	ug/L	102.35	5139.4	ppb	102.35	1.99%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.79%
Cd 226.502†            34357.7      504.66 ug/L         4.641      504.66 ppb          4.641   0.92%
   QC value within limits for Cd 226.502  Recovery = 100.93%
Co 228.616†            19433.1      511.69 ug/L         4.713      511.69 ppb          4.713   0.92%
   QC value within limits for Co 228.616  Recovery = 102.34%
Cr 267.716†            36775.2      501.07 ug/L         4.981      501.07 ppb          4.981   0.99%
   QC value within limits for Cr 267.716  Recovery = 100.21%
Cu 324.752†           149894.3      496.58 ug/L         5.931      496.58 ppb          5.931   1.19%
   QC value within limits for Cu 324.752  Recovery = 99.32%
Fe 238.204 Radial†       448.1      5158.6 ug/L        98.58      5158.6 ppb         98.58   1.91%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.17%
K 766.490 Radial†      27342.7      5196.2 ug/L        78.40      5196.2 ppb         78.40   1.51%
   QC value within limits for K 766.490 Radial  Recovery = 103.92%
Mg 279.077 IEC†          126.5      5251.3 ug/L        32.99      5251.3 ppb         32.99   0.63%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.03%
Mn 257.610†           377921.0      502.84 ug/L         1.275      502.84 ppb          1.275   0.25%
   QC value within limits for Mn 257.610  Recovery = 100.57%
Mo 202.031†             5461.4      491.92 ug/L         2.835      491.92 ppb          2.835   0.58%
   QC value within limits for Mo 202.031  Recovery = 98.38%
Na 589.592 Radial†     28394.7      9914.5 ug/L       157.92      9914.5 ppb        157.92   1.59%
   QC value within limits for Na 589.592 Radial  Recovery = 99.15%
Ni 231.604†            15750.1      508.57 ug/L         5.327      508.57 ppb          5.327   1.05%
   QC value within limits for Ni 231.604  Recovery = 101.71%
P 214.914†              3282.4      2390.9 ug/L        10.56      2390.9 ppb         10.56   0.44%
   QC value within limits for P 214.914  Recovery = 95.64%
Pb 220.353†             3197.0      501.50 ug/L         2.524      501.50 ppb          2.524   0.50%
   QC value within limits for Pb 220.353  Recovery = 100.30%
S 181.975 Axial†         542.6      982.23 ug/L         5.753      982.23 ppb          5.753   0.59%
   QC value within limits for S 181.975 Axial  Recovery = 98.22%
Sb 206.836†             1163.0      513.20 ug/L         4.962      513.20 ppb          4.962   0.97%
   QC value within limits for Sb 206.836  Recovery = 102.64%
Se 196.026†              600.8      518.36 ug/L         0.531      518.36 ppb          0.531   0.10%
   QC value within limits for Se 196.026  Recovery = 103.67%
Si 251.611†            66687.5      2540.8 ug/L        25.32      2540.8 ppb         25.32   1.00%
   QC value within limits for Si 251.611  Recovery = 101.63%
Sn 189.927†             2131.7      491.88 ug/L         2.047      491.88 ppb          2.047   0.42%
   QC value within limits for Sn 189.927  Recovery = 98.38%
Sr 421.552†            63277.4      495.73 ug/L         7.633      495.73 ppb          7.633   1.54%
   QC value within limits for Sr 421.552  Recovery = 99.15%
Ti 334.940†           279623.2      486.26 ug/L         5.105      486.26 ppb          5.105   1.05%
   QC value within limits for Ti 334.940  Recovery = 97.25%
Tl 190.801†             1274.7      506.30 ug/L         4.898      506.30 ppb          4.898   0.97%
   QC value within limits for Tl 190.801  Recovery = 101.26%
U 409.014†             17172.2      506.38 ug/L         6.543      506.38 ppb          6.543   1.29%
   QC value within limits for U 409.014  Recovery = 101.28%
V 292.402†             62351.2      506.01 ug/L         4.983      506.01 ppb          4.983   0.98%
   QC value within limits for V 292.402  Recovery = 101.20%
Zn 213.857†            40813.3      498.31 ug/L         4.484      498.31 ppb          4.484   0.90%
   QC value within limits for Zn 213.857  Recovery = 99.66%
SiO2†                  66601.0      5393.7 ug/L        50.88      5393.7 ppb         50.88   0.94%
   QC value within limits for SiO2  Recovery = 100.86%
All analyte(s) passed QC.
```

Sequence No.: 25
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/22/2010 15:10:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4715.4	4715.4	104	%			15:12:14
1	Y RADIAL	5082.0	5082.0	103.4	%			15:12:14
1	Al 396.153Radial†	-80.1	-4.2	-4.1333	ug/L	-4.1333	ppb	15:12:34
1	Ca 317.933Radial†	31.4	11.9	22.464	ug/L	22.464	ppb	15:12:34
1	Fe 238.204 Radial†	9.1	2.1	24.261	ug/L	24.261	ppb	15:12:34
1	K 766.490 Radial†	2574.2	-25.5	-4.8713	ug/L	-4.8713	ppb	15:12:14
1	Mg 279.077 IEC†	3.9	3.4	141.51	ug/L	141.51	ppb	15:12:34
1	Na 589.592 Radial†	-667.8	73.1	25.528	ug/L	25.528	ppb	15:12:14
1	Sr 421.552†	39.3	0.5	0.0037	ug/L	0.0037	ppb	15:12:14
1	Sc 361.383	878603.2	878603.2	103.94	%			15:13:31
1	Y 371.029	739777.5	739777.5	103.76	%			15:13:31
1	Ag 328.068†	201.3	37.0	0.1981	ug/L	0.1981	ppb	15:13:31
1	As 188.979†	-16.2	6.5	3.6835	ug/L	3.6835	ppb	15:13:51
1	B 249.677†	-196.3	258.6	7.3042	ug/L	7.3042	ppb	15:13:51
1	Ba 233.527†	6.2	-6.0	-0.0543	ug/L	-0.0543	ppb	15:13:51
1	Be 313.107†	-4448.3	177.6	0.0760	ug/L	0.0760	ppb	15:13:31
1	Cd 226.502†	-181.7	-26.3	-0.3888	ug/L	-0.3888	ppb	15:13:51
1	Co 228.616†	-47.2	8.2	0.2158	ug/L	0.2158	ppb	15:13:51
1	Cr 267.716†	76.3	3.2	0.0456	ug/L	0.0456	ppb	15:13:51
1	Cu 324.752†	5706.5	-35.7	-0.1191	ug/L	-0.1191	ppb	15:13:31
1	Mn 257.610†	456.8	53.2	0.0673	ug/L	0.0673	ppb	15:13:51
1	Mo 202.031†	10.7	-2.6	-0.2292	ug/L	-0.2292	ppb	15:13:51
1	Ni 231.604†	81.0	5.4	0.1729	ug/L	0.1729	ppb	15:13:51
1	P 214.914†	190.9	-17.0	-12.890	ug/L	-12.890	ppb	15:13:51
1	Pb 220.353†	-36.2	14.1	2.2010	ug/L	2.2010	ppb	15:13:51
1	S 181.975 Axial†	27.7	-3.3	-5.9314	ug/L	-5.9314	ppb	15:13:51
1	Sb 206.836†	25.2	-1.2	-0.4913	ug/L	-0.4913	ppb	15:13:51
1	Se 196.026†	-20.1	2.8	2.3893	ug/L	2.3893	ppb	15:13:51
1	Si 251.611†	783.2	234.7	8.9665	ug/L	8.9665	ppb	15:13:51
1	Sn 189.927†	12.9	8.7	2.0068	ug/L	2.0068	ppb	15:13:51
1	Ti 334.940†	-1043.4	41.7	0.0624	ug/L	0.0624	ppb	15:13:31
1	Tl 190.801†	-29.4	0.8	0.3215	ug/L	0.3215	ppb	15:13:51
1	U 409.014†	-1895.4	119.5	3.5343	ug/L	3.5343	ppb	15:13:31
1	V 292.402†	-1306.9	93.3	0.7501	ug/L	0.7501	ppb	15:13:31
1	Zn 213.857†	762.6	129.4	1.5906	ug/L	1.5906	ppb	15:13:51
1	SiO2†	771.6	206.1	16.735	ug/L	16.735	ppb	15:15:02
2	Sc Radial	4700.5	4700.5	103	%			15:12:39
2	Y RADIAL	5090.6	5090.6	103.5	%			15:12:39
2	Al 396.153Radial†	-68.8	6.5	6.3894	ug/L	6.3894	ppb	15:12:59
2	Ca 317.933Radial†	27.4	8.2	15.456	ug/L	15.456	ppb	15:12:59
2	Fe 238.204 Radial†	7.7	0.9	9.8282	ug/L	9.8282	ppb	15:12:59
2	K 766.490 Radial†	2529.6	-60.8	-11.580	ug/L	-11.580	ppb	15:12:39
2	Mg 279.077 IEC†	3.1	2.6	108.99	ug/L	108.99	ppb	15:12:59
2	Na 589.592 Radial†	-658.3	80.2	28.013	ug/L	28.013	ppb	15:12:39
2	Sr 421.552†	24.6	-13.6	-0.1069	ug/L	-0.1069	ppb	15:12:39
2	Sc 361.383	875672.4	875672.4	103.59	%			15:13:57
2	Y 371.029	736180.7	736180.7	103.26	%			15:13:57
2	Ag 328.068†	190.3	27.1	0.1429	ug/L	0.1429	ppb	15:13:57
2	As 188.979†	-18.5	4.2	2.3751	ug/L	2.3751	ppb	15:14:17
2	B 249.677†	-192.7	261.4	7.3866	ug/L	7.3866	ppb	15:14:17
2	Ba 233.527†	-16.0	-27.4	-0.2580	ug/L	-0.2580	ppb	15:14:17
2	Be 313.107†	-4469.6	142.7	0.0611	ug/L	0.0611	ppb	15:13:57
2	Cd 226.502†	-161.8	-7.7	-0.1130	ug/L	-0.1130	ppb	15:14:17
2	Co 228.616†	-52.2	3.2	0.0852	ug/L	0.0852	ppb	15:14:17
2	Cr 267.716†	84.2	11.1	0.1513	ug/L	0.1513	ppb	15:14:17
2	Cu 324.752†	5677.4	-45.4	-0.1523	ug/L	-0.1523	ppb	15:13:57
2	Mn 257.610†	441.2	39.6	0.0492	ug/L	0.0492	ppb	15:14:17
2	Mo 202.031†	22.8	9.1	0.8210	ug/L	0.8210	ppb	15:14:17
2	Ni 231.604†	75.1	-0.1	-0.0033	ug/L	-0.0033	ppb	15:14:17

2	P 214.914†	195.2	-12.2	-9.1991 ug/L	-9.1991 ppb	15:14:17
2	Pb 220.353†	-35.7	14.4	2.2558 ug/L	2.2558 ppb	15:14:17
2	S 181.975 Axial†	39.7	8.4	15.213 ug/L	15.213 ppb	15:14:17
2	Sb 206.836†	33.3	6.7	2.8930 ug/L	2.8930 ppb	15:14:17
2	Se 196.026†	-18.2	4.7	3.9064 ug/L	3.9064 ppb	15:14:17
2	Si 251.611†	773.4	227.7	8.6868 ug/L	8.6868 ppb	15:14:17
2	Sn 189.927†	12.5	8.4	1.9308 ug/L	1.9308 ppb	15:14:17
2	Ti 334.940†	-1031.6	49.7	0.0777 ug/L	0.0777 ppb	15:13:57
2	Tl 190.801†	-26.4	3.6	1.4108 ug/L	1.4108 ppb	15:14:17
2	U 409.014†	-1869.5	138.5	4.0970 ug/L	4.0970 ppb	15:13:57
2	V 292.402†	-1271.5	123.3	1.0078 ug/L	1.0078 ppb	15:13:57
2	Zn 213.857†	780.0	148.7	1.8308 ug/L	1.8308 ppb	15:14:17
2	SiO2†	978.0	407.7	33.081 ug/L	33.081 ppb	15:15:22
3	Sc Radial	4689.4	4689.4	103 %		15:13:04
3	Y RADIAL	5076.5	5076.5	103.2 %		15:13:04
3	Al 396.153Radial†	-68.8	6.4	6.3074 ug/L	6.3074 ppb	15:13:24
3	Ca 317.933Radial†	29.6	10.4	19.633 ug/L	19.633 ppb	15:13:24
3	Fe 238.204 Radial†	6.5	-0.4	-4.0213 ug/L	-4.0213 ppb	15:13:24
3	K 766.490 Radial†	2535.3	-49.4	-9.4088 ug/L	-9.4088 ppb	15:13:04
3	Mg 279.077 IEC†	1.3	0.8	35.252 ug/L	35.252 ppb	15:13:24
3	Na 589.592 Radial†	-712.0	26.6	9.2793 ug/L	9.2793 ppb	15:13:04
3	Sr 421.552†	40.3	1.7	0.0130 ug/L	0.0130 ppb	15:13:04
3	Sc 361.383	872548.5	872548.5	103.22 %		15:14:22
3	Y 371.029	734415.6	734415.6	103.01 %		15:14:22
3	Ag 328.068†	170.4	8.4	0.0392 ug/L	0.0392 ppb	15:14:22
3	As 188.979†	-24.2	-1.3	-0.7467 ug/L	-0.7467 ppb	15:14:42
3	B 249.677†	-202.1	251.7	7.1137 ug/L	7.1137 ppb	15:14:42
3	Ba 233.527†	14.8	2.4	0.0235 ug/L	0.0235 ppb	15:14:42
3	Be 313.107†	-4419.1	176.2	0.0756 ug/L	0.0756 ppb	15:14:22
3	Cd 226.502†	-173.1	-19.3	-0.2814 ug/L	-0.2814 ppb	15:14:42
3	Co 228.616†	-35.4	19.3	0.5073 ug/L	0.5073 ppb	15:14:42
3	Cr 267.716†	92.8	19.8	0.2667 ug/L	0.2667 ppb	15:14:42
3	Cu 324.752†	5693.1	-10.7	-0.0386 ug/L	-0.0386 ppb	15:14:22
3	Mn 257.610†	452.1	51.7	0.0669 ug/L	0.0669 ppb	15:14:42
3	Mo 202.031†	12.9	-0.4	-0.0348 ug/L	-0.0348 ppb	15:14:42
3	Ni 231.604†	72.6	-2.3	-0.0745 ug/L	-0.0745 ppb	15:14:42
3	P 214.914†	191.3	-15.3	-11.585 ug/L	-11.585 ppb	15:14:42
3	Pb 220.353†	-45.8	4.6	0.7189 ug/L	0.7189 ppb	15:14:42
3	S 181.975 Axial†	32.9	2.0	3.5860 ug/L	3.5860 ppb	15:14:42
3	Sb 206.836†	32.3	5.8	2.4927 ug/L	2.4927 ppb	15:14:42
3	Se 196.026†	-19.6	3.1	2.6093 ug/L	2.6093 ppb	15:14:42
3	Si 251.611†	748.5	206.3	7.8782 ug/L	7.8782 ppb	15:14:42
3	Sn 189.927†	7.3	3.4	0.7838 ug/L	0.7838 ppb	15:14:42
3	Ti 334.940†	-993.9	82.6	0.1410 ug/L	0.1410 ppb	15:14:22
3	Tl 190.801†	-26.6	3.4	1.3256 ug/L	1.3256 ppb	15:14:42
3	U 409.014†	-1817.5	182.4	5.3978 ug/L	5.3978 ppb	15:14:22
3	V 292.402†	-1330.9	61.3	0.5020 ug/L	0.5020 ppb	15:14:22
3	Zn 213.857†	778.8	150.2	1.8521 ug/L	1.8521 ppb	15:14:42
3	SiO2†	780.1	219.4	17.810 ug/L	17.810 ppb	15:15:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	875608.0	103.58	%	0.358				0.35%
Sc Radial	4701.8	103	%	0.3				0.28%
Y 371.029	736791.3	103.34	%	0.383				0.37%
Y RADIAL	5083.0	103.4	%	0.14				0.14%
Ag 328.068†	24.1	0.1267	ug/L	0.08066	0.1267	ppb	0.08066	63.64%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.9	2.8545	ug/L	6.05173	2.8545	ppb	6.05173	212.01%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.1	1.7707	ug/L	2.27613	1.7707	ppb	2.27613	128.55%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	257.2	7.2682	ug/L	0.14000	7.2682	ppb	0.14000	1.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-10.3	-0.0963	ug/L	0.14538	-0.0963	ppb	0.14538	151.02%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	165.5	0.0709	ug/L	0.00846	0.0709	ppb	0.00846	11.94%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	10.2	19.184	ug/L	3.5260	19.184	ppb	3.5260	18.38%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -17.8     -0.2611 ug/L       0.13903     -0.2611 ppb        0.13903  53.26%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               10.2      0.2694 ug/L       0.21613      0.2694 ppb        0.21613  80.21%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               11.3      0.1545 ug/L       0.11057      0.1545 ppb        0.11057  71.56%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -30.6     -0.1033 ug/L       0.05846     -0.1033 ppb        0.05846  56.56%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.9      10.022 ug/L       14.1419      10.022 ppb        14.1419 141.10%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -45.2     -8.6202 ug/L       3.42332     -8.6202 ppb        3.42332  39.71%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.3      95.250 ug/L       54.4455      95.250 ppb        54.4455  57.16%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               48.2      0.0611 ug/L       0.01035      0.0611 ppb        0.01035  16.94%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                2.1      0.1857 ug/L       0.55871      0.1857 ppb        0.55871 300.91%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        60.0      20.940 ug/L       10.1748      20.940 ppb        10.1748  48.59%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                1.0      0.0317 ug/L       0.12737      0.0317 ppb        0.12737 401.78%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -14.8     -11.225 ug/L        1.8718     -11.225 ppb         1.8718  16.68%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               11.0      1.7252 ug/L       0.87196      1.7252 ppb        0.87196  50.54%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           2.4      4.2892 ug/L      10.58970      4.2892 ppb       10.58970 246.89%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                3.8      1.6315 ug/L       1.84923      1.6315 ppb        1.84923 113.35%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.5      2.9683 ug/L       0.81980      2.9683 ppb        0.81980  27.62%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              222.9      8.5105 ug/L       0.56517      8.5105 ppb        0.56517   6.64%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                6.8      1.5738 ug/L       0.68524      1.5738 ppb        0.68524  43.54%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -3.8     -0.0301 ug/L       0.06668     -0.0301 ppb        0.06668 221.83%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               58.0      0.0937 ug/L       0.04167      0.0937 ppb        0.04167  44.45%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                2.6      1.0193 ug/L       0.60581      1.0193 ppb        0.60581  59.43%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               146.8      4.3430 ug/L       0.95582      4.3430 ppb        0.95582  22.01%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                92.7      0.7533 ug/L       0.25291      0.7533 ppb        0.25291  33.57%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              142.8      1.7578 ug/L       0.14520      1.7578 ppb        0.14520   8.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    277.7      22.542 ug/L        9.1425      22.542 ppb         9.1425  40.56%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/22/2010 16:05:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4676.2	4676.2	103	%			16:07:09
1	Y RADIAL	4985.7	4985.7	101.4	%			16:07:09
1	Al 396.153Radial†	5006.2	4946.3	4869.7	ug/L	4869.7	ppb	16:07:09
1	Ca 317.933Radial†	2751.5	2660.0	5019.4	ug/L	5019.4	ppb	16:07:29
1	Fe 238.204 Radial†	455.4	436.7	5027.8	ug/L	5027.8	ppb	16:07:29
1	K 766.490 Radial†	30276.0	26961.2	5123.7	ug/L	5123.7	ppb	16:07:09
1	Mg 279.077 IEC†	131.9	128.0	5312.4	ug/L	5312.4	ppb	16:07:29
1	Na 589.592 Radial†	27939.6	27915.1	9747.1	ug/L	9747.1	ppb	16:07:09
1	Sr 421.552†	63567.5	61841.2	484.48	ug/L	484.48	ppb	16:07:09
1	Sc 361.383	881008.1	881008.1	104.22	%			16:08:26
1	Y 371.029	730432.5	730432.5	102.45	%			16:08:26
1	Ag 328.068†	101240.9	96981.5	502.96	ug/L	502.96	ppb	16:08:31
1	As 188.979†	923.6	908.2	516.05	ug/L	516.05	ppb	16:08:51
1	B 249.677†	18371.2	18074.1	508.62	ug/L	508.62	ppb	16:08:31
1	Ba 233.527†	55539.9	53277.2	507.72	ug/L	507.72	ppb	16:08:31
1	Be 313.107†	1232842.9	1187339.9	508.01	ug/L	508.01	ppb	16:08:26
1	Cd 226.502†	36001.2	34690.8	509.57	ug/L	509.57	ppb	16:08:31
1	Co 228.616†	20431.3	19657.0	517.58	ug/L	517.58	ppb	16:08:31
1	Cr 267.716†	38851.6	37206.9	506.93	ug/L	506.93	ppb	16:08:31
1	Cu 324.752†	164441.4	152251.5	504.38	ug/L	504.38	ppb	16:08:31
1	Mn 257.610†	396348.8	379900.6	505.45	ug/L	505.45	ppb	16:08:26
1	Mo 202.031†	5760.1	5513.8	496.62	ug/L	496.62	ppb	16:08:51
1	Ni 231.604†	16664.4	15916.5	513.94	ug/L	513.94	ppb	16:08:31
1	P 214.914†	3681.6	3331.7	2426.9	ug/L	2426.9	ppb	16:08:51
1	Pb 220.353†	3309.9	3224.7	505.83	ug/L	505.83	ppb	16:08:51
1	S 181.975 Axial†	616.7	561.8	1017.1	ug/L	1017.1	ppb	16:08:51
1	Sb 206.836†	1256.3	1179.9	520.61	ug/L	520.61	ppb	16:08:51
1	Se 196.026†	612.2	609.6	525.26	ug/L	525.26	ppb	16:08:51
1	Si 251.611†	70996.2	67600.3	2575.6	ug/L	2575.6	ppb	16:08:31
1	Sn 189.927†	2250.6	2155.7	497.41	ug/L	497.41	ppb	16:08:51
1	Ti 334.940†	294212.0	283334.7	492.69	ug/L	492.69	ppb	16:08:31
1	Tl 190.801†	1300.9	1277.3	507.36	ug/L	507.36	ppb	16:08:51
1	U 409.014†	16204.0	17490.5	515.80	ug/L	515.80	ppb	16:08:31
1	V 292.402†	64355.5	63098.2	512.09	ug/L	512.09	ppb	16:08:31
1	Zn 213.857†	43745.4	41368.3	505.13	ug/L	505.13	ppb	16:08:31
1	SiO2†	70886.6	67477.6	5464.7	ug/L	5464.7	ppb	16:09:59
2	Sc Radial	4705.6	4705.6	103	%			16:07:34
2	Y RADIAL	5013.0	5013.0	102.0	%			16:07:34
2	Al 396.153Radial†	5100.6	5007.3	4929.7	ug/L	4929.7	ppb	16:07:34
2	Ca 317.933Radial†	2738.4	2630.7	4964.0	ug/L	4964.0	ppb	16:07:54
2	Fe 238.204 Radial†	456.9	435.4	5012.7	ug/L	5012.7	ppb	16:07:54
2	K 766.490 Radial†	30805.0	27289.0	5186.1	ug/L	5186.1	ppb	16:07:34
2	Mg 279.077 IEC†	127.5	122.9	5103.5	ug/L	5103.5	ppb	16:07:54
2	Na 589.592 Radial†	28233.2	28029.4	9787.0	ug/L	9787.0	ppb	16:07:34
2	Sr 421.552†	64941.5	62784.3	491.87	ug/L	491.87	ppb	16:07:34
2	Sc 361.383	869912.4	869912.4	102.91	%			16:08:57
2	Y 371.029	720729.1	720729.1	101.09	%			16:08:57
2	Ag 328.068†	99526.2	96554.3	500.75	ug/L	500.75	ppb	16:09:02
2	As 188.979†	915.1	911.3	517.73	ug/L	517.73	ppb	16:09:22
2	B 249.677†	18034.2	17971.6	505.73	ug/L	505.73	ppb	16:09:02
2	Ba 233.527†	54726.0	53166.1	506.66	ug/L	506.66	ppb	16:09:02
2	Be 313.107†	1216192.2	1186247.8	507.53	ug/L	507.53	ppb	16:08:57
2	Cd 226.502†	35522.2	34665.8	509.21	ug/L	509.21	ppb	16:09:02
2	Co 228.616†	20075.0	19560.7	515.07	ug/L	515.07	ppb	16:09:02
2	Cr 267.716†	38313.8	37159.9	506.29	ug/L	506.29	ppb	16:09:02
2	Cu 324.752†	160943.9	150865.4	499.79	ug/L	499.79	ppb	16:09:02
2	Mn 257.610†	392066.3	380589.9	506.38	ug/L	506.38	ppb	16:08:57
2	Mo 202.031†	5761.6	5585.8	503.10	ug/L	503.10	ppb	16:09:22
2	Ni 231.604†	16402.9	15866.3	512.32	ug/L	512.32	ppb	16:09:02

2	P 214.914†	3673.4	3368.8	2456.0 ug/L	2456.0 ppb	16:09:22
2	Pb 220.353†	3304.0	3259.5	511.30 ug/L	511.30 ppb	16:09:22
2	S 181.975 Axial†	607.1	560.1	1013.9 ug/L	1013.9 ppb	16:09:22
2	Sb 206.836†	1257.3	1196.3	527.82 ug/L	527.82 ppb	16:09:22
2	Se 196.026†	618.0	622.7	536.20 ug/L	536.20 ppb	16:09:22
2	Si 251.611†	69616.0	67128.0	2557.5 ug/L	2557.5 ppb	16:09:02
2	Sn 189.927†	2256.1	2188.6	504.99 ug/L	504.99 ppb	16:09:22
2	Ti 334.940†	288824.8	281700.6	489.86 ug/L	489.86 ppb	16:09:02
2	Tl 190.801†	1290.6	1283.2	509.69 ug/L	509.69 ppb	16:09:22
2	U 409.014†	15714.7	17213.4	507.60 ug/L	507.60 ppb	16:09:02
2	V 292.402†	63325.9	62885.4	510.46 ug/L	510.46 ppb	16:09:02
2	Zn 213.857†	43013.2	41192.2	502.98 ug/L	502.98 ppb	16:09:02
2	SiO2†	70042.7	67525.1	5468.4 ug/L	5468.4 ppb	16:10:04
3	Sc Radial	4633.5	4633.5	102 %		16:07:59
3	Y RADIAL	4938.7	4938.7	100.4 %		16:07:59
3	Al 396.153Radial†	5001.6	4986.8	4909.6 ug/L	4909.6 ppb	16:07:59
3	Ca 317.933Radial†	2726.4	2660.1	5019.5 ug/L	5019.5 ppb	16:08:19
3	Fe 238.204 Radial†	456.3	441.6	5084.1 ug/L	5084.1 ppb	16:08:19
3	K 766.490 Radial†	30247.3	27205.0	5170.1 ug/L	5170.1 ppb	16:07:59
3	Mg 279.077 IEC†	128.8	126.2	5238.7 ug/L	5238.7 ppb	16:08:19
3	Na 589.592 Radial†	27770.8	28000.2	9776.8 ug/L	9776.8 ppb	16:07:59
3	Sr 421.552†	63882.6	62721.8	491.38 ug/L	491.38 ppb	16:07:59
3	Sc 361.383	880433.1	880433.1	104.16 %		16:09:28
3	Y 371.029	729300.9	729300.9	102.29 %		16:09:28
3	Ag 328.068†	101368.9	97167.8	503.94 ug/L	503.94 ppb	16:09:33
3	As 188.979†	913.9	899.6	511.18 ug/L	511.18 ppb	16:09:53
3	B 249.677†	18445.2	18156.7	510.95 ug/L	510.95 ppb	16:09:33
3	Ba 233.527†	55651.4	53419.1	509.07 ug/L	509.07 ppb	16:09:33
3	Be 313.107†	1235091.2	1190271.0	509.26 ug/L	509.26 ppb	16:09:28
3	Cd 226.502†	36085.4	34794.2	511.09 ug/L	511.09 ppb	16:09:33
3	Co 228.616†	20414.1	19653.2	517.49 ug/L	517.49 ppb	16:09:33
3	Cr 267.716†	38924.1	37300.9	508.22 ug/L	508.22 ppb	16:09:33
3	Cu 324.752†	164205.8	152128.3	503.98 ug/L	503.98 ppb	16:09:33
3	Mn 257.610†	397521.6	381275.0	507.29 ug/L	507.29 ppb	16:09:28
3	Mo 202.031†	5788.1	5544.2	499.37 ug/L	499.37 ppb	16:09:53
3	Ni 231.604†	16732.5	15992.3	516.39 ug/L	516.39 ppb	16:09:33
3	P 214.914†	3691.0	3343.1	2435.5 ug/L	2435.5 ppb	16:09:53
3	Pb 220.353†	3330.3	3246.3	509.21 ug/L	509.21 ppb	16:09:53
3	S 181.975 Axial†	616.7	562.2	1017.7 ug/L	1017.7 ppb	16:09:53
3	Sb 206.836†	1254.3	1178.8	520.18 ug/L	520.18 ppb	16:09:53
3	Se 196.026†	617.5	615.0	529.99 ug/L	529.99 ppb	16:09:53
3	Si 251.611†	71031.2	67678.4	2578.5 ug/L	2578.5 ppb	16:09:33
3	Sn 189.927†	2247.9	2154.5	497.14 ug/L	497.14 ppb	16:09:53
3	Ti 334.940†	294291.4	283595.3	493.15 ug/L	493.15 ppb	16:09:33
3	Tl 190.801†	1296.1	1273.5	505.86 ug/L	505.86 ppb	16:09:53
3	U 409.014†	16136.1	17435.4	514.16 ug/L	514.16 ppb	16:09:33
3	V 292.402†	64426.0	63206.2	512.98 ug/L	512.98 ppb	16:09:33
3	Zn 213.857†	43745.6	41395.9	505.45 ug/L	505.45 ppb	16:09:33
3	SiO2†	70709.7	67352.2	5454.4 ug/L	5454.4 ppb	16:10:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	877117.9	103.76	%	0.739				0.71%
Sc Radial	4671.8	103	%	0.8				0.78%
Y 371.029	726820.8	101.95	%	0.744				0.73%
Y RADIAL	4979.1	101.3	%	0.76				0.75%
Ag 328.068†	96901.2	502.55	ug/L	1.633	502.55	ppb	1.633	0.32%
QC value within limits for Ag 328.068 Recovery = 100.51%								
Al 396.153Radial†	4980.1	4903.0	ug/L	30.54	4903.0	ppb	30.54	0.62%
QC value within limits for Al 396.153Radial Recovery = 98.06%								
As 188.979†	906.4	514.99	ug/L	3.405	514.99	ppb	3.405	0.66%
QC value within limits for As 188.979 Recovery = 103.00%								
B 249.677†	18067.5	508.44	ug/L	2.613	508.44	ppb	2.613	0.51%
QC value within limits for B 249.677 Recovery = 101.69%								
Ba 233.527†	53287.4	507.81	ug/L	1.209	507.81	ppb	1.209	0.24%
QC value within limits for Ba 233.527 Recovery = 101.56%								
Be 313.107†	1187952.9	508.27	ug/L	0.891	508.27	ppb	0.891	0.18%
QC value within limits for Be 313.107 Recovery = 101.65%								
Ca 317.933Radial†	2650.2	5001.0	ug/L	31.99	5001.0	ppb	31.99	0.64%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.02%
Cd 226.502†            34716.9      509.96 ug/L         0.997      509.96 ppb          0.997   0.20%
   QC value within limits for Cd 226.502  Recovery = 101.99%
Co 228.616†            19623.6      516.71 ug/L         1.424      516.71 ppb          1.424   0.28%
   QC value within limits for Co 228.616  Recovery = 103.34%
Cr 267.716†            37222.6      507.15 ug/L         0.981      507.15 ppb          0.981   0.19%
   QC value within limits for Cr 267.716  Recovery = 101.43%
Cu 324.752†           151748.4      502.72 ug/L         2.540      502.72 ppb          2.540   0.51%
   QC value within limits for Cu 324.752  Recovery = 100.54%
Fe 238.204 Radial†       437.9      5041.5 ug/L        37.61      5041.5 ppb         37.61   0.75%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.83%
K 766.490 Radial†      27151.7      5159.9 ug/L        32.40      5159.9 ppb         32.40   0.63%
   QC value within limits for K 766.490 Radial  Recovery = 103.20%
Mg 279.077 IEC†          125.7      5218.2 ug/L       105.92      5218.2 ppb        105.92   2.03%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.36%
Mn 257.610†           380588.5      506.37 ug/L         0.918      506.37 ppb          0.918   0.18%
   QC value within limits for Mn 257.610  Recovery = 101.27%
Mo 202.031†             5547.9      499.70 ug/L         3.250      499.70 ppb          3.250   0.65%
   QC value within limits for Mo 202.031  Recovery = 99.94%
Na 589.592 Radial†     27981.6      9770.3 ug/L        20.74      9770.3 ppb         20.74   0.21%
   QC value within limits for Na 589.592 Radial  Recovery = 97.70%
Ni 231.604†            15925.0      514.21 ug/L         2.049      514.21 ppb          2.049   0.40%
   QC value within limits for Ni 231.604  Recovery = 102.84%
P 214.914†              3347.9      2439.4 ug/L        14.95      2439.4 ppb         14.95   0.61%
   QC value within limits for P 214.914  Recovery = 97.58%
Pb 220.353†             3243.5      508.78 ug/L         2.764      508.78 ppb          2.764   0.54%
   QC value within limits for Pb 220.353  Recovery = 101.76%
S 181.975 Axial†         561.3      1016.2 ug/L         2.05      1016.2 ppb          2.05   0.20%
   QC value within limits for S 181.975 Axial  Recovery = 101.62%
Sb 206.836†             1185.0      522.87 ug/L         4.294      522.87 ppb          4.294   0.82%
   QC value within limits for Sb 206.836  Recovery = 104.57%
Se 196.026†              615.8      530.49 ug/L         5.486      530.49 ppb          5.486   1.03%
   QC value within limits for Se 196.026  Recovery = 106.10%
Si 251.611†            67468.9      2570.5 ug/L        11.41      2570.5 ppb         11.41   0.44%
   QC value within limits for Si 251.611  Recovery = 102.82%
Sn 189.927†             2166.3      499.85 ug/L         4.455      499.85 ppb          4.455   0.89%
   QC value within limits for Sn 189.927  Recovery = 99.97%
Sr 421.552†            62449.1      489.24 ug/L         4.132      489.24 ppb          4.132   0.84%
   QC value within limits for Sr 421.552  Recovery = 97.85%
Ti 334.940†           282876.9      491.90 ug/L         1.781      491.90 ppb          1.781   0.36%
   QC value within limits for Ti 334.940  Recovery = 98.38%
Tl 190.801†             1278.0      507.64 ug/L         1.930      507.64 ppb          1.930   0.38%
   QC value within limits for Tl 190.801  Recovery = 101.53%
U 409.014†             17379.8      512.52 ug/L         4.337      512.52 ppb          4.337   0.85%
   QC value within limits for U 409.014  Recovery = 102.50%
V 292.402†             63063.3      511.84 ug/L         1.277      511.84 ppb          1.277   0.25%
   QC value within limits for V 292.402  Recovery = 102.37%
Zn 213.857†            41318.8      504.52 ug/L         1.343      504.52 ppb          1.343   0.27%
   QC value within limits for Zn 213.857  Recovery = 100.90%
SiO2†                  67451.6      5462.5 ug/L         7.22      5462.5 ppb          7.22   0.13%
   QC value within limits for SiO2  Recovery = 102.15%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/22/2010 16:12:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4705.1	4705.1	103	%			16:14:12
1	Y RADIAL	5050.3	5050.3	102.7	%			16:14:12
1	Al 396.153Radial†	-75.0	0.6	0.5605	ug/L	0.5605	ppb	16:14:32
1	Ca 317.933Radial†	28.9	9.6	18.064	ug/L	18.064	ppb	16:14:32
1	Fe 238.204 Radial†	5.8	-1.0	-11.671	ug/L	-11.671	ppb	16:14:32
1	K 766.490 Radial†	2718.1	119.2	22.657	ug/L	22.657	ppb	16:14:12
1	Mg 279.077 IEC†	2.3	1.9	77.200	ug/L	77.200	ppb	16:14:32
1	Na 589.592 Radial†	-628.5	109.8	38.324	ug/L	38.324	ppb	16:14:12
1	Sr 421.552†	23.9	-14.3	-0.1125	ug/L	-0.1125	ppb	16:14:12
1	Sc 361.383	878023.4	878023.4	103.87	%			16:15:29
1	Y 371.029	738704.7	738704.7	103.61	%			16:15:29
1	Ag 328.068†	37.3	-120.8	-0.6258	ug/L	-0.6258	ppb	16:15:29
1	As 188.979†	-27.3	-4.2	-2.3934	ug/L	-2.3934	ppb	16:15:49
1	B 249.677†	-116.3	335.5	9.4849	ug/L	9.4849	ppb	16:15:49
1	Ba 233.527†	10.5	-1.9	-0.0173	ug/L	-0.0173	ppb	16:15:49
1	Be 313.107†	-4417.6	204.4	0.0875	ug/L	0.0875	ppb	16:15:29
1	Cd 226.502†	-155.4	-1.1	-0.0147	ug/L	-0.0147	ppb	16:15:49
1	Co 228.616†	-47.8	7.6	0.2005	ug/L	0.2005	ppb	16:15:49
1	Cr 267.716†	70.5	-2.3	-0.0329	ug/L	-0.0329	ppb	16:15:49
1	Cu 324.752†	5754.3	13.8	0.0445	ug/L	0.0445	ppb	16:15:29
1	Mn 257.610†	439.1	36.4	0.0441	ug/L	0.0441	ppb	16:15:49
1	Mo 202.031†	13.0	-0.4	-0.0350	ug/L	-0.0350	ppb	16:15:49
1	Ni 231.604†	76.5	1.0	0.0332	ug/L	0.0332	ppb	16:15:49
1	P 214.914†	196.5	-11.5	-8.7294	ug/L	-8.7294	ppb	16:15:49
1	Pb 220.353†	-64.4	-13.1	-2.0409	ug/L	-2.0409	ppb	16:15:49
1	S 181.975 Axial†	31.5	0.5	0.8497	ug/L	0.8497	ppb	16:15:49
1	Sb 206.836†	39.6	12.7	5.3970	ug/L	5.3970	ppb	16:15:49
1	Se 196.026†	-18.2	4.7	3.8652	ug/L	3.8652	ppb	16:15:49
1	Si 251.611†	783.3	235.3	8.9851	ug/L	8.9851	ppb	16:15:49
1	Sn 189.927†	1.6	-2.2	-0.5016	ug/L	-0.5016	ppb	16:15:49
1	Ti 334.940†	-1029.8	54.1	0.0897	ug/L	0.0897	ppb	16:15:29
1	Tl 190.801†	-26.9	3.2	1.2506	ug/L	1.2506	ppb	16:15:49
1	U 409.014†	-1975.3	41.5	1.2278	ug/L	1.2278	ppb	16:15:29
1	V 292.402†	-1355.5	45.7	0.3708	ug/L	0.3708	ppb	16:15:29
1	Zn 213.857†	777.2	143.9	1.7750	ug/L	1.7750	ppb	16:15:49
1	SiO2†	813.4	246.7	20.030	ug/L	20.030	ppb	16:16:45
2	Sc Radial	4578.9	4578.9	101	%			16:14:37
2	Y RADIAL	4921.2	4921.2	100.1	%			16:14:37
2	Al 396.153Radial†	-77.1	-3.4	-3.3940	ug/L	-3.3940	ppb	16:14:57
2	Ca 317.933Radial†	31.7	13.1	24.763	ug/L	24.763	ppb	16:14:57
2	Fe 238.204 Radial†	10.0	3.3	37.824	ug/L	37.824	ppb	16:14:57
2	K 766.490 Radial†	2699.3	173.0	32.899	ug/L	32.899	ppb	16:14:37
2	Mg 279.077 IEC†	1.3	0.9	38.010	ug/L	38.010	ppb	16:14:57
2	Na 589.592 Radial†	-645.6	76.0	26.535	ug/L	26.535	ppb	16:14:37
2	Sr 421.552†	38.0	0.4	0.0026	ug/L	0.0026	ppb	16:14:37
2	Sc 361.383	877280.5	877280.5	103.78	%			16:15:54
2	Y 371.029	737108.0	737108.0	103.39	%			16:15:54
2	Ag 328.068†	212.2	47.8	0.2606	ug/L	0.2606	ppb	16:15:54
2	As 188.979†	-20.7	2.1	1.1987	ug/L	1.1987	ppb	16:16:15
2	B 249.677†	-136.9	315.5	8.9124	ug/L	8.9124	ppb	16:16:15
2	Ba 233.527†	14.7	2.2	0.0242	ug/L	0.0242	ppb	16:16:15
2	Be 313.107†	-4451.4	168.2	0.0722	ug/L	0.0722	ppb	16:15:54
2	Cd 226.502†	-180.8	-25.7	-0.3811	ug/L	-0.3811	ppb	16:16:15
2	Co 228.616†	-40.0	15.0	0.3941	ug/L	0.3941	ppb	16:16:15
2	Cr 267.716†	77.6	4.6	0.0672	ug/L	0.0672	ppb	16:16:15
2	Cu 324.752†	5770.4	34.0	0.1140	ug/L	0.1140	ppb	16:15:54
2	Mn 257.610†	451.1	48.3	0.0665	ug/L	0.0665	ppb	16:16:15
2	Mo 202.031†	10.6	-2.7	-0.2389	ug/L	-0.2389	ppb	16:16:15
2	Ni 231.604†	84.5	8.8	0.2843	ug/L	0.2843	ppb	16:16:15

2	P 214.914†	193.1	-14.6	-11.083 ug/L	-11.083 ppb	16:16:15
2	Pb 220.353†	-37.4	12.9	2.0040 ug/L	2.0040 ppb	16:16:15
2	S 181.975 Axial†	33.7	2.6	4.7379 ug/L	4.7379 ppb	16:16:15
2	Sb 206.836†	30.6	4.0	1.7275 ug/L	1.7275 ppb	16:16:15
2	Se 196.026†	-18.1	4.7	4.0108 ug/L	4.0108 ppb	16:16:15
2	Si 251.611†	783.7	236.3	9.0285 ug/L	9.0285 ppb	16:16:15
2	Sn 189.927†	9.0	4.9	1.1413 ug/L	1.1413 ppb	16:16:15
2	Ti 334.940†	-990.3	91.3	0.1584 ug/L	0.1584 ppb	16:15:54
2	Tl 190.801†	-27.8	2.3	0.9015 ug/L	0.9015 ppb	16:16:15
2	U 409.014†	-1970.4	44.6	1.3138 ug/L	1.3138 ppb	16:15:54
2	V 292.402†	-1269.6	127.4	1.0146 ug/L	1.0146 ppb	16:15:54
2	Zn 213.857†	803.0	169.4	2.0807 ug/L	2.0807 ppb	16:16:15
2	SiO2†	764.0	199.8	16.230 ug/L	16.230 ppb	16:16:50
3	Sc Radial	4639.4	4639.4	102 %		16:15:02
3	Y RADIAL	5001.2	5001.2	101.7 %		16:15:02
3	Al 396.153Radial†	-76.9	-2.3	-2.2269 ug/L	-2.2269 ppb	16:15:22
3	Ca 317.933Radial†	26.0	7.1	13.424 ug/L	13.424 ppb	16:15:22
3	Fe 238.204 Radial†	6.0	-0.7	-8.2050 ug/L	-8.2050 ppb	16:15:22
3	K 766.490 Radial†	2676.7	115.8	22.028 ug/L	22.028 ppb	16:15:02
3	Mg 279.077 IEC†	-0.3	-0.7	-30.383 ug/L	-30.383 ppb	16:15:22
3	Na 589.592 Radial†	-666.8	63.6	22.194 ug/L	22.194 ppb	16:15:02
3	Sr 421.552†	32.3	-5.7	-0.0451 ug/L	-0.0451 ppb	16:15:02
3	Sc 361.383	870822.0	870822.0	103.02 %		16:16:20
3	Y 371.029	732446.8	732446.8	102.74 %		16:16:20
3	Ag 328.068†	119.0	-41.2	-0.2193 ug/L	-0.2193 ppb	16:16:20
3	As 188.979†	-20.7	2.0	1.1456 ug/L	1.1456 ppb	16:16:40
3	B 249.677†	-150.1	301.8	8.5309 ug/L	8.5309 ppb	16:16:40
3	Ba 233.527†	-2.6	-14.5	-0.1381 ug/L	-0.1381 ppb	16:16:40
3	Be 313.107†	-4521.6	68.2	0.0293 ug/L	0.0293 ppb	16:16:20
3	Cd 226.502†	-154.7	-1.7	-0.0223 ug/L	-0.0223 ppb	16:16:40
3	Co 228.616†	-42.7	12.2	0.3188 ug/L	0.3188 ppb	16:16:40
3	Cr 267.716†	80.4	7.9	0.1041 ug/L	0.1041 ppb	16:16:40
3	Cu 324.752†	5655.9	-35.8	-0.1222 ug/L	-0.1222 ppb	16:16:20
3	Mn 257.610†	460.6	60.8	0.0813 ug/L	0.0813 ppb	16:16:40
3	Mo 202.031†	6.3	-6.8	-0.6084 ug/L	-0.6084 ppb	16:16:40
3	Ni 231.604†	79.0	4.0	0.1300 ug/L	0.1300 ppb	16:16:40
3	P 214.914†	191.0	-15.2	-11.505 ug/L	-11.505 ppb	16:16:40
3	Pb 220.353†	-66.2	-15.4	-2.4103 ug/L	-2.4103 ppb	16:16:40
3	S 181.975 Axial†	33.1	2.2	4.0525 ug/L	4.0525 ppb	16:16:40
3	Sb 206.836†	31.2	4.9	2.0610 ug/L	2.0610 ppb	16:16:40
3	Se 196.026†	-13.9	8.7	7.2262 ug/L	7.2262 ppb	16:16:40
3	Si 251.611†	771.3	229.8	8.7849 ug/L	8.7849 ppb	16:16:40
3	Sn 189.927†	4.7	0.9	0.2009 ug/L	0.2009 ppb	16:16:40
3	Ti 334.940†	-1034.2	41.7	0.0743 ug/L	0.0743 ppb	16:16:20
3	Tl 190.801†	-25.0	4.8	1.8940 ug/L	1.8940 ppb	16:16:40
3	U 409.014†	-1809.5	186.7	5.5233 ug/L	5.5233 ppb	16:16:20
3	V 292.402†	-1381.4	9.8	0.0809 ug/L	0.0809 ppb	16:16:20
3	Zn 213.857†	786.7	159.3	1.9642 ug/L	1.9642 ppb	16:16:40
3	SiO2†	804.6	244.7	19.879 ug/L	19.879 ppb	16:16:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	875375.3	103.56	%	0.469				0.45%
Sc Radial	4641.1	102	%	1.4				1.36%
Y 371.029	736086.5	103.25	%	0.456				0.44%
Y RADIAL	4990.9	101.5	%	1.33				1.31%
Ag 328.068†	-38.1	-0.1948	ug/L	0.44374	-0.1948	ppb	0.44374	227.73%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.7	-1.6868	ug/L	2.03185	-1.6868	ppb	2.03185	120.45%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.0	-0.0164	ug/L	2.05871	-0.0164	ppb	2.05871	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	317.6	8.9761	ug/L	0.48017	8.9761	ppb	0.48017	5.35%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.7	-0.0438	ug/L	0.08429	-0.0438	ppb	0.08429	192.66%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	146.9	0.0630	ug/L	0.03017	0.0630	ppb	0.03017	47.90%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.9	18.750	ug/L	5.7004	18.750	ppb	5.7004	30.40%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -9.5     -0.1394 ug/L       0.20939     -0.1394 ppb        0.20939 150.22%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              11.6      0.3045 ug/L       0.09761      0.3045 ppb        0.09761  32.06%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               3.4      0.0462 ug/L       0.07088      0.0462 ppb        0.07088 153.57%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               4.0      0.0121 ug/L       0.12137      0.0121 ppb        0.12137 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.5      5.9827 ug/L      27.62967      5.9827 ppb       27.62967 461.83%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       136.0     25.862 ug/L        6.1029     25.862 ppb         6.1029  23.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.7     28.276 ug/L       54.4481     28.276 ppb        54.4481 192.56%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              48.5      0.0640 ug/L       0.01873      0.0640 ppb        0.01873  29.28%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -3.3     -0.2941 ug/L       0.29066     -0.2941 ppb        0.29066  98.82%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       83.1     29.017 ug/L        8.3467     29.017 ppb         8.3467  28.76%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               4.6      0.1492 ug/L       0.12662      0.1492 ppb        0.12662  84.89%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -13.8    -10.439 ug/L        1.4955    -10.439 ppb         1.4955  14.33%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -5.2     -0.8157 ug/L       2.44894     -0.8157 ppb        2.44894 300.22%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.8      3.2134 ug/L       2.07548      3.2134 ppb        2.07548  64.59%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               7.2      3.0618 ug/L       2.02917      3.0618 ppb        2.02917  66.27%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               6.0      5.0341 ug/L       1.89986      5.0341 ppb        1.89986  37.74%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             233.8      8.9328 ug/L       0.12994      8.9328 ppb        0.12994   1.45%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.2      0.2802 ug/L       0.82431      0.2802 ppb        0.82431 294.18%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -6.6     -0.0517 ug/L       0.05785     -0.0517 ppb        0.05785 111.96%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              62.4      0.1075 ug/L       0.04480      0.1075 ppb        0.04480  41.69%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               3.4      1.3487 ug/L       0.50344      1.3487 ppb        0.50344  37.33%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               90.9      2.6883 ug/L       2.45556      2.6883 ppb        2.45556  91.34%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               61.0      0.4888 ug/L       0.47791      0.4888 ppb        0.47791  97.78%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             157.6      1.9399 ug/L       0.15428      1.9399 ppb        0.15428   7.95%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   230.4     18.713 ug/L        2.1516     18.713 ppb         2.1516  11.50%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/22/2010 17:15:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4688.9	4688.9	103	%			17:17:41
1	Y RADIAL	5013.0	5013.0	102.0	%			17:17:41
1	Al 396.153Radial†	5088.5	5013.0	4935.4	ug/L	4935.4	ppb	17:17:41
1	Ca 317.933Radial†	2765.2	2666.1	5030.8	ug/L	5030.8	ppb	17:18:01
1	Fe 238.204 Radial†	462.2	442.1	5089.6	ug/L	5089.6	ppb	17:18:01
1	K 766.490 Radial†	30621.1	27216.2	5172.1	ug/L	5172.1	ppb	17:17:41
1	Mg 279.077 IEC†	128.0	123.9	5143.6	ug/L	5143.6	ppb	17:18:01
1	Na 589.592 Radial†	29015.2	28885.5	10086	ug/L	10086	ppb	17:17:41
1	Sr 421.552†	65319.4	63374.1	496.49	ug/L	496.49	ppb	17:17:41
1	Sc 361.383	872961.8	872961.8	103.27	%			17:18:58
1	Y 371.029	723976.8	723976.8	101.55	%			17:18:58
1	Ag 328.068†	102193.0	98798.8	512.38	ug/L	512.38	ppb	17:19:04
1	As 188.979†	918.5	911.5	517.98	ug/L	517.98	ppb	17:19:24
1	B 249.677†	18315.0	18182.2	511.65	ug/L	511.65	ppb	17:19:04
1	Ba 233.527†	55982.1	54196.6	516.48	ug/L	516.48	ppb	17:19:04
1	Be 313.107†	1221374.1	1187137.5	507.94	ug/L	507.94	ppb	17:18:58
1	Cd 226.502†	36140.3	35143.8	516.23	ug/L	516.23	ppb	17:19:04
1	Co 228.616†	20451.9	19857.6	522.86	ug/L	522.86	ppb	17:19:04
1	Cr 267.716†	39083.4	37775.0	514.67	ug/L	514.67	ppb	17:19:04
1	Cu 324.752†	166223.7	155431.6	514.92	ug/L	514.92	ppb	17:19:04
1	Mn 257.610†	392324.9	379509.4	504.95	ug/L	504.95	ppb	17:18:58
1	Mo 202.031†	5783.5	5587.4	503.25	ug/L	503.25	ppb	17:19:24
1	Ni 231.604†	16774.6	16170.6	522.14	ug/L	522.14	ppb	17:19:04
1	P 214.914†	3680.8	3363.5	2448.8	ug/L	2448.8	ppb	17:19:24
1	Pb 220.353†	3320.6	3264.3	512.05	ug/L	512.05	ppb	17:19:24
1	S 181.975 Axial†	605.3	556.2	1006.9	ug/L	1006.9	ppb	17:19:24
1	Sb 206.836†	1250.5	1185.5	523.18	ug/L	523.18	ppb	17:19:24
1	Se 196.026†	618.9	621.4	535.35	ug/L	535.35	ppb	17:19:24
1	Si 251.611†	71392.2	68611.7	2614.1	ug/L	2614.1	ppb	17:19:04
1	Sn 189.927†	2251.4	2176.4	502.18	ug/L	502.18	ppb	17:19:24
1	Ti 334.940†	296803.0	288445.6	501.59	ug/L	501.59	ppb	17:19:04
1	Tl 190.801†	1301.7	1289.6	512.23	ug/L	512.23	ppb	17:19:24
1	U 409.014†	16294.3	17721.2	522.60	ug/L	522.60	ppb	17:19:04
1	V 292.402†	64934.9	64228.4	521.22	ug/L	521.22	ppb	17:19:04
1	Zn 213.857†	43958.7	41961.8	512.37	ug/L	512.37	ppb	17:19:04
1	SiO2†	71064.8	68277.0	5529.4	ug/L	5529.4	ppb	17:20:31
2	Sc Radial	4663.2	4663.2	102	%			17:18:06
2	Y RADIAL	5015.7	5015.7	102.0	%			17:18:06
2	Al 396.153Radial†	5070.8	5023.1	4945.8	ug/L	4945.8	ppb	17:18:06
2	Ca 317.933Radial†	2756.2	2672.1	5042.2	ug/L	5042.2	ppb	17:18:26
2	Fe 238.204 Radial†	460.7	443.1	5100.8	ug/L	5100.8	ppb	17:18:26
2	K 766.490 Radial†	30644.3	27403.0	5207.6	ug/L	5207.6	ppb	17:18:06
2	Mg 279.077 IEC†	128.7	125.3	5200.2	ug/L	5200.2	ppb	17:18:26
2	Na 589.592 Radial†	28800.1	28830.9	10067	ug/L	10067	ppb	17:18:06
2	Sr 421.552†	64905.0	63319.4	496.06	ug/L	496.06	ppb	17:18:06
2	Sc 361.383	889476.9	889476.9	105.23	%			17:19:29
2	Y 371.029	736751.5	736751.5	103.34	%			17:19:29
2	Ag 328.068†	102395.4	97153.8	503.87	ug/L	503.87	ppb	17:19:35
2	As 188.979†	915.7	892.3	507.12	ug/L	507.12	ppb	17:19:55
2	B 249.677†	18390.8	17924.9	504.39	ug/L	504.39	ppb	17:19:35
2	Ba 233.527†	56375.1	53563.5	510.44	ug/L	510.44	ppb	17:19:35
2	Be 313.107†	1241711.3	1184505.5	506.80	ug/L	506.80	ppb	17:19:29
2	Cd 226.502†	36415.9	34756.0	510.53	ug/L	510.53	ppb	17:19:35
2	Co 228.616†	20628.1	19657.3	517.58	ug/L	517.58	ppb	17:19:35
2	Cr 267.716†	39332.1	37308.7	508.32	ug/L	508.32	ppb	17:19:35
2	Cu 324.752†	166560.2	152762.8	506.08	ug/L	506.08	ppb	17:19:35
2	Mn 257.610†	399385.9	379166.2	504.49	ug/L	504.49	ppb	17:19:29
2	Mo 202.031†	5776.7	5476.9	493.31	ug/L	493.31	ppb	17:19:55
2	Ni 231.604†	16844.6	15935.5	514.55	ug/L	514.55	ppb	17:19:35

2	P 214.914†	3677.9	3294.6	2398.3 ug/L	2398.3 ppb	17:19:55
2	Pb 220.353†	3313.4	3197.8	501.61 ug/L	501.61 ppb	17:19:55
2	S 181.975 Axial†	608.0	547.9	991.92 ug/L	991.92 ppb	17:19:55
2	Sb 206.836†	1258.4	1170.5	516.45 ug/L	516.45 ppb	17:19:55
2	Se 196.026†	607.4	599.4	517.00 ug/L	517.00 ppb	17:19:55
2	Si 251.611†	71856.8	67769.6	2582.1 ug/L	2582.1 ppb	17:19:35
2	Sn 189.927†	2253.4	2137.8	493.29 ug/L	493.29 ppb	17:19:55
2	Ti 334.940†	298097.0	284339.1	494.45 ug/L	494.45 ppb	17:19:35
2	Tl 190.801†	1309.1	1273.2	505.73 ug/L	505.73 ppb	17:19:55
2	U 409.014†	16460.3	17586.1	518.61 ug/L	518.61 ppb	17:19:35
2	V 292.402†	65185.1	63298.7	513.64 ug/L	513.64 ppb	17:19:35
2	Zn 213.857†	44208.8	41409.1	505.61 ug/L	505.61 ppb	17:19:35
2	SiO2†	71366.7	67286.3	5449.3 ug/L	5449.3 ppb	17:20:36
3	Sc Radial	4753.5	4753.5	104 %		17:18:31
3	Y RADIAL	5083.7	5083.7	103.4 %		17:18:31
3	Al 396.153Radial†	5133.8	4989.3	4912.6 ug/L	4912.6 ppb	17:18:31
3	Ca 317.933Radial†	2767.2	2631.6	4965.8 ug/L	4965.8 ppb	17:18:51
3	Fe 238.204 Radial†	458.3	432.3	4976.9 ug/L	4976.9 ppb	17:18:51
3	K 766.490 Radial†	31097.6	27269.0	5182.2 ug/L	5182.2 ppb	17:18:31
3	Mg 279.077 IEC†	130.0	124.0	5149.8 ug/L	5149.8 ppb	17:18:51
3	Na 589.592 Radial†	29204.2	28684.1	10016 ug/L	10016 ppb	17:18:31
3	Sr 421.552†	66030.9	63194.6	495.08 ug/L	495.08 ppb	17:18:31
3	Sc 361.383	890356.2	890356.2	105.33 %		17:20:00
3	Y 371.029	737859.6	737859.6	103.49 %		17:20:00
3	Ag 328.068†	101410.7	96122.8	498.50 ug/L	498.50 ppb	17:20:06
3	As 188.979†	906.9	883.1	501.85 ug/L	501.85 ppb	17:20:26
3	B 249.677†	18214.8	17740.6	499.22 ug/L	499.22 ppb	17:20:06
3	Ba 233.527†	55616.2	52790.1	503.07 ug/L	503.07 ppb	17:20:06
3	Be 313.107†	1242735.4	1184312.4	506.70 ug/L	506.70 ppb	17:20:00
3	Cd 226.502†	35923.9	34254.7	503.17 ug/L	503.17 ppb	17:20:06
3	Co 228.616†	20384.8	19407.0	511.00 ug/L	511.00 ppb	17:20:06
3	Cr 267.716†	38878.8	36841.4	501.95 ug/L	501.95 ppb	17:20:06
3	Cu 324.752†	164465.2	150617.5	498.97 ug/L	498.97 ppb	17:20:06
3	Mn 257.610†	400099.9	379469.2	504.88 ug/L	504.88 ppb	17:20:00
3	Mo 202.031†	5740.6	5437.2	489.73 ug/L	489.73 ppb	17:20:26
3	Ni 231.604†	16744.1	15824.2	510.96 ug/L	510.96 ppb	17:20:06
3	P 214.914†	3649.9	3264.5	2377.0 ug/L	2377.0 ppb	17:20:26
3	Pb 220.353†	3301.3	3183.2	499.34 ug/L	499.34 ppb	17:20:26
3	S 181.975 Axial†	608.2	547.5	991.11 ug/L	991.11 ppb	17:20:26
3	Sb 206.836†	1255.8	1166.8	514.75 ug/L	514.75 ppb	17:20:26
3	Se 196.026†	609.8	601.1	518.03 ug/L	518.03 ppb	17:20:26
3	Si 251.611†	70809.6	66707.9	2541.6 ug/L	2541.6 ppb	17:20:06
3	Sn 189.927†	2234.7	2117.9	488.70 ug/L	488.70 ppb	17:20:26
3	Ti 334.940†	294437.3	280584.8	487.92 ug/L	487.92 ppb	17:20:06
3	Tl 190.801†	1295.1	1258.7	500.00 ug/L	500.00 ppb	17:20:26
3	U 409.014†	16218.0	17340.5	511.38 ug/L	511.38 ppb	17:20:06
3	V 292.402†	64326.3	62422.2	506.58 ug/L	506.58 ppb	17:20:06
3	Zn 213.857†	43740.3	40922.8	499.67 ug/L	499.67 ppb	17:20:06
3	SiO2†	70672.0	66559.8	5390.4 ug/L	5390.4 ppb	17:20:41

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	884265.0	104.61	%	1.159				1.11%
Sc Radial	4701.9	103	%	1.0				0.99%
Y 371.029	732862.6	102.79	%	1.082				1.05%
Y RADIAL	5037.5	102.5	%	0.81				0.80%
Ag 328.068†	97358.4	504.92	ug/L	6.996	504.92	ppb	6.996	1.39%
QC value within limits for Ag 328.068 Recovery = 100.98%								
Al 396.153Radial†	5008.5	4931.3	ug/L	16.97	4931.3	ppb	16.97	0.34%
QC value within limits for Al 396.153Radial Recovery = 98.63%								
As 188.979†	895.6	508.99	ug/L	8.222	508.99	ppb	8.222	1.62%
QC value within limits for As 188.979 Recovery = 101.80%								
B 249.677†	17949.2	505.09	ug/L	6.245	505.09	ppb	6.245	1.24%
QC value within limits for B 249.677 Recovery = 101.02%								
Ba 233.527†	53516.8	510.00	ug/L	6.714	510.00	ppb	6.714	1.32%
QC value within limits for Ba 233.527 Recovery = 102.00%								
Be 313.107†	1185318.5	507.15	ug/L	0.688	507.15	ppb	0.688	0.14%
QC value within limits for Be 313.107 Recovery = 101.43%								
Ca 317.933Radial†	2656.6	5012.9	ug/L	41.24	5012.9	ppb	41.24	0.82%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.26%
Cd 226.502†            34718.1      509.98 ug/L         6.548      509.98 ppb          6.548   1.28%
   QC value within limits for Cd 226.502  Recovery = 102.00%
Co 228.616†            19640.6      517.15 ug/L         5.945      517.15 ppb          5.945   1.15%
   QC value within limits for Co 228.616  Recovery = 103.43%
Cr 267.716†            37308.4      508.31 ug/L         6.361      508.31 ppb          6.361   1.25%
   QC value within limits for Cr 267.716  Recovery = 101.66%
Cu 324.752†           152937.3      506.65 ug/L         7.990      506.65 ppb          7.990   1.58%
   QC value within limits for Cu 324.752  Recovery = 101.33%
Fe 238.204 Radial†       439.1      5055.8 ug/L         68.54      5055.8 ppb          68.54   1.36%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.12%
K 766.490 Radial†      27296.1      5187.3 ug/L         18.31      5187.3 ppb          18.31   0.35%
   QC value within limits for K 766.490 Radial  Recovery = 103.75%
Mg 279.077 IEC†          124.4      5164.5 ug/L         31.04      5164.5 ppb          31.04   0.60%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.29%
Mn 257.610†           379381.6      504.77 ug/L         0.248      504.77 ppb          0.248   0.05%
   QC value within limits for Mn 257.610  Recovery = 100.95%
Mo 202.031†             5500.5      495.43 ug/L         7.004      495.43 ppb          7.004   1.41%
   QC value within limits for Mo 202.031  Recovery = 99.09%
Na 589.592 Radial†     28800.2       10056 ug/L          36.4       10056 ppb           36.4   0.36%
   QC value within limits for Na 589.592 Radial  Recovery = 100.56%
Ni 231.604†            15976.8      515.89 ug/L         5.710      515.89 ppb          5.710   1.11%
   QC value within limits for Ni 231.604  Recovery = 103.18%
P 214.914†              3307.5      2408.0 ug/L         36.91      2408.0 ppb          36.91   1.53%
   QC value within limits for P 214.914  Recovery = 96.32%
Pb 220.353†             3215.1      504.33 ug/L         6.777      504.33 ppb          6.777   1.34%
   QC value within limits for Pb 220.353  Recovery = 100.87%
S 181.975 Axial†         550.5      996.65 ug/L         8.908      996.65 ppb          8.908   0.89%
   QC value within limits for S 181.975 Axial  Recovery = 99.66%
Sb 206.836†             1174.2      518.12 ug/L         4.459      518.12 ppb          4.459   0.86%
   QC value within limits for Sb 206.836  Recovery = 103.62%
Se 196.026†              607.3      523.46 ug/L        10.313      523.46 ppb         10.313   1.97%
   QC value within limits for Se 196.026  Recovery = 104.69%
Si 251.611†            67696.4      2579.3 ug/L         36.35      2579.3 ppb          36.35   1.41%
   QC value within limits for Si 251.611  Recovery = 103.17%
Sn 189.927†             2144.0      494.72 ug/L         6.856      494.72 ppb          6.856   1.39%
   QC value within limits for Sn 189.927  Recovery = 98.94%
Sr 421.552†            63296.1      495.88 ug/L         0.720      495.88 ppb          0.720   0.15%
   QC value within limits for Sr 421.552  Recovery = 99.18%
Ti 334.940†           284456.5      494.65 ug/L         6.839      494.65 ppb          6.839   1.38%
   QC value within limits for Ti 334.940  Recovery = 98.93%
Tl 190.801†             1273.8      505.99 ug/L         6.119      505.99 ppb          6.119   1.21%
   QC value within limits for Tl 190.801  Recovery = 101.20%
U 409.014†             17549.3      517.53 ug/L         5.689      517.53 ppb          5.689   1.10%
   QC value within limits for U 409.014  Recovery = 103.51%
V 292.402†             63316.4      513.81 ug/L         7.324      513.81 ppb          7.324   1.43%
   QC value within limits for V 292.402  Recovery = 102.76%
Zn 213.857†            41431.2      505.88 ug/L         6.352      505.88 ppb          6.352   1.26%
   QC value within limits for Zn 213.857  Recovery = 101.18%
SiO2†                  67374.4      5456.4 ug/L         69.79      5456.4 ppb          69.79   1.28%
   QC value within limits for SiO2  Recovery = 102.04%
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/22/2010 17:22:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4954.0	4954.0	109	%			17:24:44
1	Y RADIAL	5314.0	5314.0	108.1	%			17:24:44
1	Al 396.153Radial†	-73.3	5.8	5.7225	ug/L	5.7225	ppb	17:25:05
1	Ca 317.933Radial†	32.7	11.6	21.965	ug/L	21.965	ppb	17:25:05
1	Fe 238.204 Radial†	8.8	1.4	16.148	ug/L	16.148	ppb	17:25:05
1	K 766.490 Radial†	2584.1	-136.0	-25.903	ug/L	-25.903	ppb	17:24:44
1	Mg 279.077 IEC†	0.9	0.4	17.035	ug/L	17.035	ppb	17:25:05
1	Na 589.592 Radial†	-672.4	99.9	34.892	ug/L	34.892	ppb	17:24:44
1	Sr 421.552†	6.3	-31.7	-0.2482	ug/L	-0.2482	ppb	17:24:44
1	Sc 361.383	834067.1	834067.1	98.670	%			17:26:01
1	Y 371.029	702417.4	702417.4	98.523	%			17:26:01
1	Ag 328.068†	229.0	75.4	0.3940	ug/L	0.3940	ppb	17:26:01
1	As 188.979†	-18.3	3.6	2.0201	ug/L	2.0201	ppb	17:26:21
1	B 249.677†	-308.0	135.3	3.8224	ug/L	3.8224	ppb	17:26:21
1	Ba 233.527†	3.4	-8.6	-0.0807	ug/L	-0.0807	ppb	17:26:21
1	Be 313.107†	-4339.6	59.2	0.0250	ug/L	0.0250	ppb	17:26:01
1	Cd 226.502†	-175.7	-29.5	-0.4357	ug/L	-0.4357	ppb	17:26:21
1	Co 228.616†	-46.5	6.5	0.1713	ug/L	0.1713	ppb	17:26:21
1	Cr 267.716†	95.2	26.3	0.3597	ug/L	0.3597	ppb	17:26:21
1	Cu 324.752†	5611.3	160.9	0.5341	ug/L	0.5341	ppb	17:26:01
1	Mn 257.610†	470.8	90.8	0.1217	ug/L	0.1217	ppb	17:26:21
1	Mo 202.031†	13.7	1.0	0.0915	ug/L	0.0915	ppb	17:26:21
1	Ni 231.604†	77.9	6.4	0.2059	ug/L	0.2059	ppb	17:26:21
1	P 214.914†	199.7	1.7	1.1855	ug/L	1.1855	ppb	17:26:21
1	Pb 220.353†	-58.2	-10.1	-1.5834	ug/L	-1.5834	ppb	17:26:21
1	S 181.975 Axial†	37.1	7.7	13.973	ug/L	13.973	ppb	17:26:21
1	Sb 206.836†	33.4	8.4	3.6025	ug/L	3.6025	ppb	17:26:21
1	Se 196.026†	-22.5	-0.6	-0.4467	ug/L	-0.4467	ppb	17:26:21
1	Si 251.611†	697.0	187.6	7.1633	ug/L	7.1633	ppb	17:26:21
1	Sn 189.927†	6.0	2.3	0.5398	ug/L	0.5398	ppb	17:26:21
1	Ti 334.940†	-1105.2	-74.6	-0.1280	ug/L	-0.1280	ppb	17:26:01
1	Tl 190.801†	-26.5	2.3	0.8984	ug/L	0.8984	ppb	17:26:21
1	U 409.014†	-1938.1	-21.1	-0.6262	ug/L	-0.6262	ppb	17:26:01
1	V 292.402†	-1326.0	6.8	0.0526	ug/L	0.0526	ppb	17:26:01
1	Zn 213.857†	786.8	193.1	2.3755	ug/L	2.3755	ppb	17:26:21
1	SiO2†	702.1	175.3	14.226	ug/L	14.226	ppb	17:27:32
2	Sc Radial	4824.1	4824.1	106	%			17:25:10
2	Y RADIAL	5202.5	5202.5	105.8	%			17:25:10
2	Al 396.153Radial†	-69.1	8.0	7.9342	ug/L	7.9342	ppb	17:25:30
2	Ca 317.933Radial†	30.9	10.8	20.337	ug/L	20.337	ppb	17:25:30
2	Fe 238.204 Radial†	7.5	0.4	4.9837	ug/L	4.9837	ppb	17:25:30
2	K 766.490 Radial†	2623.7	-34.7	-6.6249	ug/L	-6.6249	ppb	17:25:10
2	Mg 279.077 IEC†	-0.3	-0.7	-28.743	ug/L	-28.743	ppb	17:25:30
2	Na 589.592 Radial†	-673.0	82.7	28.886	ug/L	28.886	ppb	17:25:10
2	Sr 421.552†	37.8	-1.8	-0.0144	ug/L	-0.0144	ppb	17:25:10
2	Sc 361.383	869416.6	869416.6	102.85	%			17:26:27
2	Y 371.029	731546.7	731546.7	102.61	%			17:26:27
2	Ag 328.068†	151.8	-9.1	-0.0498	ug/L	-0.0498	ppb	17:26:27
2	As 188.979†	-21.4	1.3	0.7444	ug/L	0.7444	ppb	17:26:47
2	B 249.677†	-315.6	140.5	3.9714	ug/L	3.9714	ppb	17:26:47
2	Ba 233.527†	6.9	-5.3	-0.0496	ug/L	-0.0496	ppb	17:26:47
2	Be 313.107†	-4391.9	187.2	0.0802	ug/L	0.0802	ppb	17:26:27
2	Cd 226.502†	-169.7	-16.5	-0.2417	ug/L	-0.2417	ppb	17:26:47
2	Co 228.616†	-43.8	11.1	0.2899	ug/L	0.2899	ppb	17:26:47
2	Cr 267.716†	86.8	14.2	0.1920	ug/L	0.1920	ppb	17:26:47
2	Cu 324.752†	5601.0	-80.3	-0.2693	ug/L	-0.2693	ppb	17:26:27
2	Mn 257.610†	459.0	60.0	0.0814	ug/L	0.0814	ppb	17:26:47
2	Mo 202.031†	9.6	-3.6	-0.3232	ug/L	-0.3232	ppb	17:26:47
2	Ni 231.604†	78.9	4.1	0.1320	ug/L	0.1320	ppb	17:26:47

2	P 214.914†	190.7	-15.3	-11.535	ug/L	-11.535 ppb	17:26:47
2	Pb 220.353†	-48.6	1.7	0.2646	ug/L	0.2646 ppb	17:26:47
2	S 181.975 Axial†	32.3	1.5	2.7019	ug/L	2.7019 ppb	17:26:47
2	Sb 206.836†	28.2	1.9	0.8290	ug/L	0.8290 ppb	17:26:47
2	Se 196.026†	-15.2	7.4	6.1651	ug/L	6.1651 ppb	17:26:47
2	Si 251.611†	687.4	149.5	5.7135	ug/L	5.7135 ppb	17:26:47
2	Sn 189.927†	7.8	3.9	0.8914	ug/L	0.8914 ppb	17:26:47
2	Ti 334.940†	-992.0	81.1	0.1432	ug/L	0.1432 ppb	17:26:27
2	Tl 190.801†	-25.7	4.1	1.6323	ug/L	1.6323 ppb	17:26:47
2	U 409.014†	-1780.2	212.3	6.2805	ug/L	6.2805 ppb	17:26:27
2	V 292.402†	-1357.8	30.6	0.2507	ug/L	0.2507 ppb	17:26:27
2	Zn 213.857†	779.7	153.8	1.8944	ug/L	1.8944 ppb	17:26:47
2	SiO2†	687.4	132.0	10.722	ug/L	10.722 ppb	17:27:52
3	Sc Radial	4696.5	4696.5	103	%		17:25:35
3	Y RADIAL	5044.3	5044.3	102.6	%		17:25:35
3	Al 396.153Radial†	-69.3	6.0	5.9543	ug/L	5.9543 ppb	17:25:55
3	Ca 317.933Radial†	27.5	8.3	15.574	ug/L	15.574 ppb	17:25:55
3	Fe 238.204 Radial†	6.9	0.1	0.6458	ug/L	0.6458 ppb	17:25:55
3	K 766.490 Radial†	2613.6	22.7	4.3076	ug/L	4.3076 ppb	17:25:35
3	Mg 279.077 IEC†	1.0	0.5	21.648	ug/L	21.648 ppb	17:25:55
3	Na 589.592 Radial†	-687.8	51.1	17.852	ug/L	17.852 ppb	17:25:35
3	Sr 421.552†	20.6	-17.5	-0.1371	ug/L	-0.1371 ppb	17:25:35
3	Sc 361.383	886338.0	886338.0	104.85	%		17:26:52
3	Y 371.029	746079.3	746079.3	104.65	%		17:26:52
3	Ag 328.068†	234.3	66.8	0.3405	ug/L	0.3405 ppb	17:26:52
3	As 188.979†	-25.0	-1.7	-0.9793	ug/L	-0.9793 ppb	17:27:12
3	B 249.677†	-327.0	135.6	3.8332	ug/L	3.8332 ppb	17:27:12
3	Ba 233.527†	23.1	10.0	0.0954	ug/L	0.0954 ppb	17:27:12
3	Be 313.107†	-4455.4	208.2	0.0890	ug/L	0.0890 ppb	17:26:52
3	Cd 226.502†	-164.1	-8.0	-0.1170	ug/L	-0.1170 ppb	17:27:12
3	Co 228.616†	-58.8	-2.4	-0.0644	ug/L	-0.0644 ppb	17:27:12
3	Cr 267.716†	76.1	2.4	0.0304	ug/L	0.0304 ppb	17:27:12
3	Cu 324.752†	5733.6	-57.8	-0.1944	ug/L	-0.1944 ppb	17:26:52
3	Mn 257.610†	458.5	50.9	0.0669	ug/L	0.0669 ppb	17:27:12
3	Mo 202.031†	11.9	-1.5	-0.1369	ug/L	-0.1369 ppb	17:27:12
3	Ni 231.604†	78.6	2.4	0.0764	ug/L	0.0764 ppb	17:27:12
3	P 214.914†	193.9	-15.8	-11.914	ug/L	-11.914 ppb	17:27:12
3	Pb 220.353†	-66.9	-14.9	-2.3264	ug/L	-2.3264 ppb	17:27:12
3	S 181.975 Axial†	29.0	-2.3	-4.1236	ug/L	-4.1236 ppb	17:27:12
3	Sb 206.836†	28.8	2.0	0.8397	ug/L	0.8397 ppb	17:27:12
3	Se 196.026†	-22.7	0.5	0.4377	ug/L	0.4377 ppb	17:27:12
3	Si 251.611†	688.1	137.4	5.2485	ug/L	5.2485 ppb	17:27:12
3	Sn 189.927†	-2.4	-6.0	-1.3878	ug/L	-1.3878 ppb	17:27:12
3	Ti 334.940†	-1070.4	24.7	0.0411	ug/L	0.0411 ppb	17:26:52
3	Tl 190.801†	-36.3	-5.5	-2.1609	ug/L	-2.1609 ppb	17:27:12
3	U 409.014†	-1859.4	169.8	5.0241	ug/L	5.0241 ppb	17:26:52
3	V 292.402†	-1407.7	8.1	0.0731	ug/L	0.0731 ppb	17:26:52
3	Zn 213.857†	782.8	142.2	1.7528	ug/L	1.7528 ppb	17:27:12
3	SiO2†	696.7	128.1	10.407	ug/L	10.407 ppb	17:28:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	863273.9	102.13	%	3.155				3.09%
Sc Radial	4824.9	106	%	2.8				2.67%
Y 371.029	726681.1	101.93	%	3.119				3.06%
Y RADIAL	5186.9	105.5	%	2.76				2.61%
Ag 328.068†	44.4	0.2282	ug/L	0.24224	0.2282	ppb	0.24224	106.13%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.6	6.5370	ug/L	1.21556	6.5370	ppb	1.21556	18.59%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.1	0.5951	ug/L	1.50526	0.5951	ppb	1.50526	252.95%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	137.2	3.8757	ug/L	0.08306	3.8757	ppb	0.08306	2.14%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.3	-0.0116	ug/L	0.09403	-0.0116	ppb	0.09403	807.31%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	151.5	0.0647	ug/L	0.03469	0.0647	ppb	0.03469	53.60%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	10.2	19.292	ug/L	3.3212	19.292	ppb	3.3212	17.22%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -18.0     -0.2648 ug/L       0.16063     -0.2648 ppb        0.16063  60.66%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                5.0      0.1323 ug/L       0.18035      0.1323 ppb        0.18035 136.36%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               14.3      0.1940 ug/L       0.16467      0.1940 ppb        0.16467  84.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                7.6      0.0235 ug/L       0.44382      0.0235 ppb        0.44382 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.6      7.2592 ug/L       7.99765      7.2592 ppb        7.99765 110.17%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -49.3     -9.4068 ug/L      15.29623     -9.4068 ppb       15.29623 162.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.1      3.3132 ug/L      27.85710      3.3132 ppb       27.85710 840.80%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               67.3      0.0900 ug/L       0.02837      0.0900 ppb        0.02837  31.52%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -1.4     -0.1229 ug/L       0.20769     -0.1229 ppb        0.20769 169.06%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        77.9      27.210 ug/L        8.6427      27.210 ppb         8.6427  31.76%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                4.3      0.1381 ug/L       0.06500      0.1381 ppb        0.06500  47.07%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -9.8     -7.4212 ug/L       7.45600     -7.4212 ppb        7.45600 100.47%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -7.8     -1.2151 ug/L       1.33422     -1.2151 ppb        1.33422 109.81%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           2.3      4.1837 ug/L       9.13871      4.1837 ppb        9.13871 218.44%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                4.1      1.7571 ug/L       1.59819      1.7571 ppb        1.59819  90.96%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.4      2.0521 ug/L       3.58935      2.0521 ppb        3.58935 174.91%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              158.2      6.0418 ug/L       0.99875      6.0418 ppb        0.99875  16.53%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                0.0      0.0145 ug/L       1.22707      0.0145 ppb        1.22707 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -17.0     -0.1332 ug/L       0.11692     -0.1332 ppb        0.11692  87.75%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               10.4      0.0188 ug/L       0.13699      0.0188 ppb        0.13699 729.43%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                0.3      0.1233 ug/L       2.01191      0.1233 ppb        2.01191 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               120.3      3.5595 ug/L       3.67893      3.5595 ppb        3.67893 103.36%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                15.2      0.1255 ug/L       0.10894      0.1255 ppb        0.10894  86.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              163.1      2.0076 ug/L       0.32645      2.0076 ppb        0.32645  16.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    145.1      11.785 ug/L        2.1200      11.785 ppb         2.1200  17.99%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/22/2010 18:39:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4696.9	4696.9	103	%			18:41:48
1	Y RADIAL	5024.3	5024.3	102.2	%			18:41:48
1	Al 396.153Radial†	5082.2	4998.6	4921.4	ug/L	4921.4	ppb	18:41:48
1	Ca 317.933Radial†	2800.5	2695.7	5086.8	ug/L	5086.8	ppb	18:42:08
1	Fe 238.204 Radial†	470.0	448.8	5167.1	ug/L	5167.1	ppb	18:42:08
1	K 766.490 Radial†	30654.8	27198.7	5168.7	ug/L	5168.7	ppb	18:41:48
1	Mg 279.077 IEC†	133.1	128.6	5337.1	ug/L	5337.1	ppb	18:42:08
1	Na 589.592 Radial†	29248.1	29063.7	10148	ug/L	10148	ppb	18:41:48
1	Sr 421.552†	65692.3	63628.5	498.48	ug/L	498.48	ppb	18:41:48
1	Sc 361.383	881325.9	881325.9	104.26	%			18:43:05
1	Y 371.029	731232.7	731232.7	102.56	%			18:43:05
1	Ag 328.068†	101752.2	97436.8	505.36	ug/L	505.36	ppb	18:43:11
1	As 188.979†	913.3	898.1	510.39	ug/L	510.39	ppb	18:43:31
1	B 249.677†	18268.7	17969.5	505.64	ug/L	505.64	ppb	18:43:11
1	Ba 233.527†	55833.1	53539.2	510.22	ug/L	510.22	ppb	18:43:11
1	Be 313.107†	1235608.0	1189565.4	508.96	ug/L	508.96	ppb	18:43:05
1	Cd 226.502†	36157.5	34828.2	511.58	ug/L	511.58	ppb	18:43:11
1	Co 228.616†	20482.5	19698.9	518.68	ug/L	518.68	ppb	18:43:11
1	Cr 267.716†	39064.0	37397.3	509.54	ug/L	509.54	ppb	18:43:11
1	Cu 324.752†	165288.5	153007.0	506.89	ug/L	506.89	ppb	18:43:11
1	Mn 257.610†	396412.0	379824.2	505.36	ug/L	505.36	ppb	18:43:05
1	Mo 202.031†	5765.8	5517.3	496.95	ug/L	496.95	ppb	18:43:31
1	Ni 231.604†	16790.1	16031.3	517.65	ug/L	517.65	ppb	18:43:11
1	P 214.914†	3669.8	3319.1	2416.7	ug/L	2416.7	ppb	18:43:31
1	Pb 220.353†	3315.1	3228.5	506.41	ug/L	506.41	ppb	18:43:31
1	S 181.975 Axial†	613.2	558.3	1010.6	ug/L	1010.6	ppb	18:43:31
1	Sb 206.836†	1247.3	1170.9	516.78	ug/L	516.78	ppb	18:43:31
1	Se 196.026†	603.7	601.2	518.67	ug/L	518.67	ppb	18:43:31
1	Si 251.611†	70798.9	67386.5	2567.4	ug/L	2567.4	ppb	18:43:11
1	Sn 189.927†	2256.2	2160.3	498.48	ug/L	498.48	ppb	18:43:31
1	Ti 334.940†	295630.0	284593.0	494.88	ug/L	494.88	ppb	18:43:11
1	Tl 190.801†	1291.4	1267.7	503.59	ug/L	503.59	ppb	18:43:31
1	U 409.014†	16165.5	17448.0	514.52	ug/L	514.52	ppb	18:43:11
1	V 292.402†	64873.1	63572.4	515.87	ug/L	515.87	ppb	18:43:11
1	Zn 213.857†	43869.6	41472.3	506.36	ug/L	506.36	ppb	18:43:11
1	SiO2†	70382.0	66969.1	5423.4	ug/L	5423.4	ppb	18:44:38
2	Sc Radial	4611.8	4611.8	101	%			18:42:13
2	Y RADIAL	4927.3	4927.3	100.2	%			18:42:13
2	Al 396.153Radial†	5015.0	5023.2	4945.5	ug/L	4945.5	ppb	18:42:13
2	Ca 317.933Radial†	2796.6	2742.0	5174.0	ug/L	5174.0	ppb	18:42:33
2	Fe 238.204 Radial†	470.3	457.5	5267.0	ug/L	5267.0	ppb	18:42:33
2	K 766.490 Radial†	30370.7	27466.5	5219.6	ug/L	5219.6	ppb	18:42:13
2	Mg 279.077 IEC†	127.5	125.4	5207.6	ug/L	5207.6	ppb	18:42:33
2	Na 589.592 Radial†	28879.4	29222.8	10204	ug/L	10204	ppb	18:42:13
2	Sr 421.552†	64679.0	63803.0	499.85	ug/L	499.85	ppb	18:42:13
2	Sc 361.383	876395.7	876395.7	103.68	%			18:43:36
2	Y 371.029	726801.3	726801.3	101.94	%			18:43:36
2	Ag 328.068†	100774.8	97043.1	503.35	ug/L	503.35	ppb	18:43:42
2	As 188.979†	919.6	909.0	516.54	ug/L	516.54	ppb	18:44:02
2	B 249.677†	18135.3	17939.3	504.78	ug/L	504.78	ppb	18:43:42
2	Ba 233.527†	55344.9	53369.6	508.60	ug/L	508.60	ppb	18:43:42
2	Be 313.107†	1228903.2	1189765.4	509.04	ug/L	509.04	ppb	18:43:36
2	Cd 226.502†	35798.1	34676.6	509.34	ug/L	509.34	ppb	18:43:42
2	Co 228.616†	20277.3	19611.6	516.40	ug/L	516.40	ppb	18:43:42
2	Cr 267.716†	38712.4	37268.9	507.80	ug/L	507.80	ppb	18:43:42
2	Cu 324.752†	163495.4	152169.4	504.12	ug/L	504.12	ppb	18:43:42
2	Mn 257.610†	394644.5	380258.2	505.96	ug/L	505.96	ppb	18:43:36
2	Mo 202.031†	5779.5	5561.6	500.95	ug/L	500.95	ppb	18:44:02
2	Ni 231.604†	16612.0	15950.0	515.02	ug/L	515.02	ppb	18:43:42

2	P 214.914†	3670.4	3339.5	2432.7 ug/L	2432.7 ppb	18:44:02
2	Pb 220.353†	3331.7	3262.4	511.73 ug/L	511.73 ppb	18:44:02
2	S 181.975 Axial†	604.1	552.8	1000.7 ug/L	1000.7 ppb	18:44:02
2	Sb 206.836†	1264.1	1193.9	526.67 ug/L	526.67 ppb	18:44:02
2	Se 196.026†	610.3	610.8	526.99 ug/L	526.99 ppb	18:44:02
2	Si 251.611†	70079.4	67074.5	2555.4 ug/L	2555.4 ppb	18:43:42
2	Sn 189.927†	2249.9	2166.4	499.88 ug/L	499.88 ppb	18:44:02
2	Ti 334.940†	292735.3	283396.1	492.83 ug/L	492.83 ppb	18:43:42
2	Tl 190.801†	1308.4	1291.1	512.80 ug/L	512.80 ppb	18:44:02
2	U 409.014†	16106.8	17478.5	515.41 ug/L	515.41 ppb	18:43:42
2	V 292.402†	64150.6	63225.5	513.13 ug/L	513.13 ppb	18:43:42
2	Zn 213.857†	43561.3	41411.7	505.62 ug/L	505.62 ppb	18:43:42
2	SiO2†	70270.6	67241.5	5445.4 ug/L	5445.4 ppb	18:44:43
3	Sc Radial	4668.8	4668.8	103 %		18:42:38
3	Y RADIAL	4981.1	4981.1	101.3 %		18:42:38
3	Al 396.153Radial†	5035.0	4982.3	4905.3 ug/L	4905.3 ppb	18:42:38
3	Ca 317.933Radial†	2783.3	2695.3	5086.1 ug/L	5086.1 ppb	18:42:58
3	Fe 238.204 Radial†	466.8	448.5	5162.9 ug/L	5162.9 ppb	18:42:58
3	K 766.490 Radial†	30380.4	27110.0	5151.8 ug/L	5151.8 ppb	18:42:38
3	Mg 279.077 IEC†	131.1	127.4	5290.6 ug/L	5290.6 ppb	18:42:58
3	Na 589.592 Radial†	28968.5	28961.7	10112 ug/L	10112 ppb	18:42:38
3	Sr 421.552†	65026.2	63362.2	496.40 ug/L	496.40 ppb	18:42:38
3	Sc 361.383	877361.8	877361.8	103.79 %		18:44:07
3	Y 371.029	727990.1	727990.1	102.11 %		18:44:07
3	Ag 328.068†	101151.1	97298.7	504.64 ug/L	504.64 ppb	18:44:13
3	As 188.979†	911.5	900.3	511.62 ug/L	511.62 ppb	18:44:33
3	B 249.677†	18120.9	17906.3	503.85 ug/L	503.85 ppb	18:44:13
3	Ba 233.527†	55585.0	53542.1	510.24 ug/L	510.24 ppb	18:44:13
3	Be 313.107†	1231149.9	1190624.8	509.41 ug/L	509.41 ppb	18:44:07
3	Cd 226.502†	35970.8	34805.0	511.24 ug/L	511.24 ppb	18:44:13
3	Co 228.616†	20418.8	19726.3	519.40 ug/L	519.40 ppb	18:44:13
3	Cr 267.716†	38855.3	37365.5	509.10 ug/L	509.10 ppb	18:44:13
3	Cu 324.752†	163917.6	152402.6	504.89 ug/L	504.89 ppb	18:44:13
3	Mn 257.610†	395988.5	381134.0	507.11 ug/L	507.11 ppb	18:44:07
3	Mo 202.031†	5731.0	5508.7	496.18 ug/L	496.18 ppb	18:44:33
3	Ni 231.604†	16648.7	15967.8	515.59 ug/L	515.59 ppb	18:44:13
3	P 214.914†	3636.1	3302.6	2404.6 ug/L	2404.6 ppb	18:44:33
3	Pb 220.353†	3293.3	3221.9	505.38 ug/L	505.38 ppb	18:44:33
3	S 181.975 Axial†	613.8	561.5	1016.5 ug/L	1016.5 ppb	18:44:33
3	Sb 206.836†	1251.9	1180.8	521.03 ug/L	521.03 ppb	18:44:33
3	Se 196.026†	604.6	604.7	521.59 ug/L	521.59 ppb	18:44:33
3	Si 251.611†	70379.6	67289.3	2563.7 ug/L	2563.7 ppb	18:44:13
3	Sn 189.927†	2261.8	2175.4	501.96 ug/L	501.96 ppb	18:44:33
3	Ti 334.940†	293494.9	283817.0	493.54 ug/L	493.54 ppb	18:44:13
3	Tl 190.801†	1297.6	1279.2	508.13 ug/L	508.13 ppb	18:44:33
3	U 409.014†	16155.5	17508.4	516.30 ug/L	516.30 ppb	18:44:13
3	V 292.402†	64246.9	63250.2	513.28 ug/L	513.28 ppb	18:44:13
3	Zn 213.857†	43669.6	41469.8	506.35 ug/L	506.35 ppb	18:44:13
3	SiO2†	70093.9	66996.5	5425.7 ug/L	5425.7 ppb	18:44:48

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	878361.1	103.91	%	0.309				0.30%
Sc Radial	4659.1	102	%	1.0				0.93%
Y 371.029	728674.7	102.21	%	0.322				0.31%
Y RADIAL	4977.6	101.2	%	0.99				0.98%
Ag 328.068†	97259.6	504.45	ug/L	1.019	504.45	ppb	1.019	0.20%
QC value within limits for Ag 328.068 Recovery = 100.89%								
Al 396.153Radial†	5001.3	4924.1	ug/L	20.25	4924.1	ppb	20.25	0.41%
QC value within limits for Al 396.153Radial Recovery = 98.48%								
As 188.979†	902.5	512.85	ug/L	3.258	512.85	ppb	3.258	0.64%
QC value within limits for As 188.979 Recovery = 102.57%								
B 249.677†	17938.4	504.76	ug/L	0.894	504.76	ppb	0.894	0.18%
QC value within limits for B 249.677 Recovery = 100.95%								
Ba 233.527†	53483.6	509.69	ug/L	0.939	509.69	ppb	0.939	0.18%
QC value within limits for Ba 233.527 Recovery = 101.94%								
Be 313.107†	1189985.2	509.14	ug/L	0.239	509.14	ppb	0.239	0.05%
QC value within limits for Be 313.107 Recovery = 101.83%								
Ca 317.933Radial†	2711.0	5115.6	ug/L	50.58	5115.6	ppb	50.58	0.99%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.31%
Cd 226.502†            34769.9      510.72 ug/L         1.206      510.72 ppb          1.206   0.24%
   QC value within limits for Cd 226.502  Recovery = 102.14%
Co 228.616†            19679.0      518.16 ug/L         1.571      518.16 ppb          1.571   0.30%
   QC value within limits for Co 228.616  Recovery = 103.63%
Cr 267.716†            37343.9      508.81 ug/L         0.904      508.81 ppb          0.904   0.18%
   QC value within limits for Cr 267.716  Recovery = 101.76%
Cu 324.752†           152526.3      505.30 ug/L         1.430      505.30 ppb          1.430   0.28%
   QC value within limits for Cu 324.752  Recovery = 101.06%
Fe 238.204 Radial†       451.6      5199.0 ug/L        58.93      5199.0 ppb          58.93   1.13%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.98%
K 766.490 Radial†      27258.4      5180.1 ug/L        35.28      5180.1 ppb          35.28   0.68%
   QC value within limits for K 766.490 Radial  Recovery = 103.60%
Mg 279.077 IEC†          127.1      5278.5 ug/L        65.60      5278.5 ppb          65.60   1.24%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.57%
Mn 257.610†           380405.5      506.14 ug/L         0.886      506.14 ppb          0.886   0.18%
   QC value within limits for Mn 257.610  Recovery = 101.23%
Mo 202.031†             5529.2      498.02 ug/L         2.560      498.02 ppb          2.560   0.51%
   QC value within limits for Mo 202.031  Recovery = 99.60%
Na 589.592 Radial†     29082.7       10155 ug/L          46.0       10155 ppb           46.0   0.45%
   QC value within limits for Na 589.592 Radial  Recovery = 101.55%
Ni 231.604†            15983.0      516.09 ug/L         1.380      516.09 ppb          1.380   0.27%
   QC value within limits for Ni 231.604  Recovery = 103.22%
P 214.914†              3320.4      14.07 ug/L         14.07      2418.0 ppb          14.07   0.58%
   QC value within limits for P 214.914  Recovery = 96.72%
Pb 220.353†             3237.6      507.84 ug/L         3.407      507.84 ppb          3.407   0.67%
   QC value within limits for Pb 220.353  Recovery = 101.57%
S 181.975 Axial†         557.5      1009.3 ug/L         7.99      1009.3 ppb           7.99   0.79%
   QC value within limits for S 181.975 Axial  Recovery = 100.93%
Sb 206.836†             1181.8      521.49 ug/L         4.964      521.49 ppb          4.964   0.95%
   QC value within limits for Sb 206.836  Recovery = 104.30%
Se 196.026†              605.6      522.41 ug/L         4.219      522.41 ppb          4.219   0.81%
   QC value within limits for Se 196.026  Recovery = 104.48%
Si 251.611†            67250.1      2562.2 ug/L         6.13      2562.2 ppb           6.13   0.24%
   QC value within limits for Si 251.611  Recovery = 102.49%
Sn 189.927†             2167.4      500.11 ug/L         1.751      500.11 ppb          1.751   0.35%
   QC value within limits for Sn 189.927  Recovery = 100.02%
Sr 421.552†            63597.9      498.24 ug/L         1.739      498.24 ppb          1.739   0.35%
   QC value within limits for Sr 421.552  Recovery = 99.65%
Ti 334.940†           283935.4      493.75 ug/L         1.046      493.75 ppb          1.046   0.21%
   QC value within limits for Ti 334.940  Recovery = 98.75%
Tl 190.801†             1279.3      508.17 ug/L         4.605      508.17 ppb          4.605   0.91%
   QC value within limits for Tl 190.801  Recovery = 101.63%
U 409.014†             17478.3      515.41 ug/L         0.894      515.41 ppb          0.894   0.17%
   QC value within limits for U 409.014  Recovery = 103.08%
V 292.402†             63349.4      514.09 ug/L         1.538      514.09 ppb          1.538   0.30%
   QC value within limits for V 292.402  Recovery = 102.82%
Zn 213.857†            41451.2      506.11 ug/L         0.424      506.11 ppb          0.424   0.08%
   QC value within limits for Zn 213.857  Recovery = 101.22%
SiO2†                  67069.0      5431.5 ug/L        12.11      5431.5 ppb          12.11   0.22%
   QC value within limits for SiO2  Recovery = 101.57%
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/22/2010 18:46:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4709.5	4709.5	103	%			18:48:51
1	Y RADIAL	5062.5	5062.5	103.0	%			18:48:51
1	Al 396.153Radial†	-74.8	0.8	0.8131	ug/L	0.8131	ppb	18:49:11
1	Ca 317.933Radial†	31.9	12.5	23.583	ug/L	23.583	ppb	18:49:11
1	Fe 238.204 Radial†	6.0	-0.8	-9.6889	ug/L	-9.6889	ppb	18:49:11
1	K 766.490 Radial†	2715.2	113.9	21.663	ug/L	21.663	ppb	18:48:51
1	Mg 279.077 IEC†	1.3	0.8	34.828	ug/L	34.828	ppb	18:49:11
1	Na 589.592 Radial†	-695.1	45.9	16.033	ug/L	16.033	ppb	18:48:51
1	Sr 421.552†	9.5	-28.3	-0.2219	ug/L	-0.2219	ppb	18:48:51
1	Sc 361.383	868193.5	868193.5	102.71	%			18:50:08
1	Y 371.029	743488.4	743488.4	104.28	%			18:50:08
1	Ag 328.068†	162.9	2.0	0.0099	ug/L	0.0099	ppb	18:50:08
1	As 188.979†	-28.9	-6.1	-3.4115	ug/L	-3.4115	ppb	18:50:28
1	B 249.677†	-269.1	185.5	5.2433	ug/L	5.2433	ppb	18:50:28
1	Ba 233.527†	10.9	-1.3	-0.0110	ug/L	-0.0110	ppb	18:50:28
1	Be 313.107†	-4420.1	153.8	0.0659	ug/L	0.0659	ppb	18:50:08
1	Cd 226.502†	-160.3	-7.6	-0.1100	ug/L	-0.1100	ppb	18:50:28
1	Co 228.616†	-40.5	14.1	0.3724	ug/L	0.3724	ppb	18:50:28
1	Cr 267.716†	67.1	-4.8	-0.0658	ug/L	-0.0658	ppb	18:50:28
1	Cu 324.752†	5688.9	12.9	0.0422	ug/L	0.0422	ppb	18:50:08
1	Mn 257.610†	443.3	45.4	0.0579	ug/L	0.0579	ppb	18:50:28
1	Mo 202.031†	15.0	1.7	0.1535	ug/L	0.1535	ppb	18:50:28
1	Ni 231.604†	74.4	-0.2	-0.0070	ug/L	-0.0070	ppb	18:50:28
1	P 214.914†	205.6	-0.5	-0.3788	ug/L	-0.3788	ppb	18:50:28
1	Pb 220.353†	-60.5	-10.0	-1.5622	ug/L	-1.5622	ppb	18:50:28
1	S 181.975 Axial†	33.5	2.8	4.9861	ug/L	4.9861	ppb	18:50:28
1	Sb 206.836†	33.7	7.3	3.1563	ug/L	3.1563	ppb	18:50:28
1	Se 196.026†	-26.1	-3.2	-2.6980	ug/L	-2.6980	ppb	18:50:28
1	Si 251.611†	584.5	50.3	1.9194	ug/L	1.9194	ppb	18:50:28
1	Sn 189.927†	10.7	6.7	1.5400	ug/L	1.5400	ppb	18:50:28
1	Ti 334.940†	-1018.2	54.2	0.0946	ug/L	0.0946	ppb	18:50:08
1	Tl 190.801†	-26.3	3.5	1.3879	ug/L	1.3879	ppb	18:50:28
1	U 409.014†	-1987.5	8.1	0.2397	ug/L	0.2397	ppb	18:50:08
1	V 292.402†	-1281.9	102.6	0.8264	ug/L	0.8264	ppb	18:50:08
1	Zn 213.857†	800.9	175.5	2.1640	ug/L	2.1640	ppb	18:50:28
1	SiO2†	595.6	43.6	3.5319	ug/L	3.5319	ppb	18:51:39
2	Sc Radial	4681.6	4681.6	103	%			18:49:16
2	Y RADIAL	5032.1	5032.1	102.3	%			18:49:16
2	Al 396.153Radial†	-76.3	-1.1	-1.0332	ug/L	-1.0332	ppb	18:49:36
2	Ca 317.933Radial†	24.8	5.7	10.842	ug/L	10.842	ppb	18:49:36
2	Fe 238.204 Radial†	6.1	-0.7	-7.9403	ug/L	-7.9403	ppb	18:49:36
2	K 766.490 Radial†	2674.2	89.7	17.059	ug/L	17.059	ppb	18:49:16
2	Mg 279.077 IEC†	2.6	2.1	86.846	ug/L	86.846	ppb	18:49:36
2	Na 589.592 Radial†	-708.4	28.9	10.099	ug/L	10.099	ppb	18:49:16
2	Sr 421.552†	11.7	-26.1	-0.2044	ug/L	-0.2044	ppb	18:49:16
2	Sc 361.383	865597.0	865597.0	102.40	%			18:50:33
2	Y 371.029	738775.4	738775.4	103.62	%			18:50:33
2	Ag 328.068†	159.0	-1.4	-0.0121	ug/L	-0.0121	ppb	18:50:33
2	As 188.979†	-19.0	3.5	1.9988	ug/L	1.9988	ppb	18:50:53
2	B 249.677†	-251.3	202.0	5.7115	ug/L	5.7115	ppb	18:50:53
2	Ba 233.527†	4.0	-8.0	-0.0762	ug/L	-0.0762	ppb	18:50:53
2	Be 313.107†	-4475.4	86.9	0.0371	ug/L	0.0371	ppb	18:50:33
2	Cd 226.502†	-159.6	-7.4	-0.1065	ug/L	-0.1065	ppb	18:50:53
2	Co 228.616†	-45.5	9.2	0.2419	ug/L	0.2419	ppb	18:50:53
2	Cr 267.716†	71.3	-0.6	-0.0101	ug/L	-0.0101	ppb	18:50:53
2	Cu 324.752†	5687.9	28.5	0.0922	ug/L	0.0922	ppb	18:50:33
2	Mn 257.610†	444.6	47.8	0.0593	ug/L	0.0593	ppb	18:50:53
2	Mo 202.031†	8.8	-4.4	-0.3921	ug/L	-0.3921	ppb	18:50:53
2	Ni 231.604†	81.7	7.2	0.2309	ug/L	0.2309	ppb	18:50:53

2	P 214.914†	190.5	-14.6	-11.065	ug/L	-11.065 ppb	18:50:53
2	Pb 220.353†	-47.7	2.3	0.3628	ug/L	0.3628 ppb	18:50:53
2	S 181.975 Axial†	26.9	-3.7	-6.6625	ug/L	-6.6625 ppb	18:50:53
2	Sb 206.836†	36.0	9.7	4.1837	ug/L	4.1837 ppb	18:50:53
2	Se 196.026†	-18.6	4.0	3.3291	ug/L	3.3291 ppb	18:50:53
2	Si 251.611†	580.4	47.9	1.8360	ug/L	1.8360 ppb	18:50:53
2	Sn 189.927†	15.8	11.7	2.7072	ug/L	2.7072 ppb	18:50:53
2	Ti 334.940†	-1078.4	-7.6	-0.0204	ug/L	-0.0204 ppb	18:50:33
2	Tl 190.801†	-26.6	3.1	1.2250	ug/L	1.2250 ppb	18:50:53
2	U 409.014†	-1867.0	119.9	3.5488	ug/L	3.5488 ppb	18:50:33
2	V 292.402†	-1356.7	25.8	0.2104	ug/L	0.2104 ppb	18:50:33
2	Zn 213.857†	798.2	175.2	2.1585	ug/L	2.1585 ppb	18:50:53
2	SiO2†	586.8	36.7	2.9941	ug/L	2.9941 ppb	18:51:59
3	Sc Radial	4780.0	4780.0	105	%		18:49:41
3	Y RADIAL	5171.9	5171.9	105.2	%		18:49:41
3	Al 396.153Radial†	-80.6	-3.6	-3.5439	ug/L	-3.5439 ppb	18:50:01
3	Ca 317.933Radial†	29.2	9.4	17.807	ug/L	17.807 ppb	18:50:01
3	Fe 238.204 Radial†	7.1	0.1	1.5629	ug/L	1.5629 ppb	18:50:01
3	K 766.490 Radial†	2586.1	-47.7	-9.0857	ug/L	-9.0857 ppb	18:49:41
3	Mg 279.077 IEC†	2.9	2.3	96.944	ug/L	96.944 ppb	18:50:01
3	Na 589.592 Radial†	-704.0	47.4	16.539	ug/L	16.539 ppb	18:49:41
3	Sr 421.552†	-9.2	-46.2	-0.3621	ug/L	-0.3621 ppb	18:49:41
3	Sc 361.383	867565.2	867565.2	102.63	%		18:50:58
3	Y 371.029	741412.1	741412.1	103.99	%		18:50:58
3	Ag 328.068†	127.2	-32.7	-0.1676	ug/L	-0.1676 ppb	18:50:58
3	As 188.979†	-17.7	4.8	2.7164	ug/L	2.7164 ppb	18:51:18
3	B 249.677†	-278.8	175.8	4.9671	ug/L	4.9671 ppb	18:51:18
3	Ba 233.527†	-9.8	-21.5	-0.2037	ug/L	-0.2037 ppb	18:51:18
3	Be 313.107†	-4448.8	122.7	0.0525	ug/L	0.0525 ppb	18:50:58
3	Cd 226.502†	-168.5	-15.7	-0.2308	ug/L	-0.2308 ppb	18:51:18
3	Co 228.616†	-37.7	16.9	0.4449	ug/L	0.4449 ppb	18:51:18
3	Cr 267.716†	79.6	7.3	0.1003	ug/L	0.1003 ppb	18:51:18
3	Cu 324.752†	5772.0	97.9	0.3238	ug/L	0.3238 ppb	18:50:58
3	Mn 257.610†	458.0	59.9	0.0759	ug/L	0.0759 ppb	18:51:18
3	Mo 202.031†	20.1	6.7	0.6054	ug/L	0.6054 ppb	18:51:18
3	Ni 231.604†	82.9	8.2	0.2639	ug/L	0.2639 ppb	18:51:18
3	P 214.914†	189.4	-16.1	-12.278	ug/L	-12.278 ppb	18:51:18
3	Pb 220.353†	-68.7	-18.1	-2.8252	ug/L	-2.8252 ppb	18:51:18
3	S 181.975 Axial†	35.6	4.8	8.7091	ug/L	8.7091 ppb	18:51:18
3	Sb 206.836†	26.1	0.0	0.0321	ug/L	0.0321 ppb	18:51:18
3	Se 196.026†	-23.2	-0.5	-0.3853	ug/L	-0.3853 ppb	18:51:18
3	Si 251.611†	584.2	50.4	1.9182	ug/L	1.9182 ppb	18:51:18
3	Sn 189.927†	5.5	1.7	0.3868	ug/L	0.3868 ppb	18:51:18
3	Ti 334.940†	-1037.1	35.1	0.0549	ug/L	0.0549 ppb	18:50:58
3	Tl 190.801†	-25.4	4.3	1.7004	ug/L	1.7004 ppb	18:51:18
3	U 409.014†	-1956.5	36.8	1.0890	ug/L	1.0890 ppb	18:50:58
3	V 292.402†	-1331.5	53.3	0.4392	ug/L	0.4392 ppb	18:50:58
3	Zn 213.857†	798.1	173.3	2.1336	ug/L	2.1336 ppb	18:51:18
3	SiO2†	576.7	25.6	2.0588	ug/L	2.0588 ppb	18:52:19

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	867118.6	102.58	%	0.160				0.16%
Sc Radial	4723.7	104	%	1.1				1.07%
Y 371.029	741225.3	103.97	%	0.331				0.32%
Y RADIAL	5088.8	103.5	%	1.49				1.44%
Ag 328.068†	-10.7	-0.0566	ug/L	0.09676	-0.0566	ppb	0.09676	170.84%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.3	-1.2547	ug/L	2.18697	-1.2547	ppb	2.18697	174.31%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.8	0.4346	ug/L	3.35003	0.4346	ppb	3.35003	770.89%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	187.8	5.3073	ug/L	0.37629	5.3073	ppb	0.37629	7.09%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-10.3	-0.0969	ug/L	0.09798	-0.0969	ppb	0.09798	101.07%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	121.1	0.0518	ug/L	0.01441	0.0518	ppb	0.01441	27.82%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.2	17.411	ug/L	6.3796	17.411	ppb	6.3796	36.64%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -10.2     -0.1491 ug/L       0.07080     -0.1491 ppb        0.07080  47.49%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               13.4      0.3531 ug/L       0.10286      0.3531 ppb        0.10286  29.13%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                0.6      0.0081 ug/L       0.08454      0.0081 ppb        0.08454 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               46.5      0.1527 ug/L       0.15024      0.1527 ppb        0.15024  98.38%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.5     -5.3554 ug/L       6.05492     -5.3554 ppb        6.05492 113.06%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         52.0      9.8790 ug/L      16.58448      9.8790 ppb       16.58448 167.88%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.8      72.873 ug/L       33.3322      72.873 ppb        33.3322  45.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               51.0      0.0644 ug/L       0.00999      0.0644 ppb        0.00999  15.52%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.4      0.1223 ug/L       0.49952      0.1223 ppb        0.49952 408.49%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        40.7      14.224 ug/L        3.5809      14.224 ppb         3.5809  25.18%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                5.0      0.1626 ug/L       0.14783      0.1626 ppb        0.14783  90.92%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -10.4     -7.9072 ug/L       6.54791     -7.9072 ppb        6.54791  82.81%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -8.6     -1.3416 ug/L       1.60541     -1.3416 ppb        1.60541 119.67%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           1.3      2.3442 ug/L       8.01914      2.3442 ppb        8.01914 342.08%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.7      2.4574 ug/L       2.16229      2.4574 ppb        2.16229  87.99%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                0.1      0.0819 ug/L       3.04059      0.0819 ppb        3.04059 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               49.6      1.8912 ug/L       0.04778      1.8912 ppb        0.04778   2.53%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                6.7      1.5447 ug/L       1.16025      1.5447 ppb        1.16025  75.11%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -33.5     -0.2628 ug/L       0.08645     -0.2628 ppb        0.08645  32.90%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               27.2      0.0430 ug/L       0.05841      0.0430 ppb        0.05841 135.75%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.6      1.4378 ug/L       0.24158      1.4378 ppb        0.24158  16.80%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                54.9      1.6258 ug/L       1.71860      1.6258 ppb        1.71860 105.71%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                60.6      0.4920 ug/L       0.31134      0.4920 ppb        0.31134  63.28%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              174.7      2.1520 ug/L       0.01617      2.1520 ppb        0.01617   0.75%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     35.3      2.8616 ug/L       0.74542      2.8616 ppb        0.74542  26.05%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 20
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/22/2010 19:43:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4671.3	4671.3	103	%			19:45:08
1	Y RADIAL	4987.9	4987.9	101.4	%			19:45:08
1	Al 396.153Radial†	4998.3	4943.8	4867.5	ug/L	4867.5	ppb	19:45:08
1	Ca 317.933Radial†	2736.4	2648.1	4997.0	ug/L	4997.0	ppb	19:45:28
1	Fe 238.204 Radial†	452.7	434.5	5001.8	ug/L	5001.8	ppb	19:45:28
1	K 766.490 Radial†	30122.4	26842.4	5101.1	ug/L	5101.1	ppb	19:45:08
1	Mg 279.077 IEC†	130.4	126.7	5258.8	ug/L	5258.8	ppb	19:45:28
1	Na 589.592 Radial†	28061.9	28062.8	9798.6	ug/L	9798.6	ppb	19:45:08
1	Sr 421.552†	63777.7	62110.9	486.59	ug/L	486.59	ppb	19:45:08
1	Sc 361.383	887021.8	887021.8	104.94	%			19:46:25
1	Y 371.029	736621.9	736621.9	103.32	%			19:46:25
1	Ag 328.068†	99847.5	94995.1	492.69	ug/L	492.69	ppb	19:46:31
1	As 188.979†	907.5	886.9	503.93	ug/L	503.93	ppb	19:46:51
1	B 249.677†	17998.8	17599.8	495.26	ug/L	495.26	ppb	19:46:31
1	Ba 233.527†	54936.8	52341.2	498.80	ug/L	498.80	ppb	19:46:31
1	Be 313.107†	1234127.9	1180544.9	505.08	ug/L	505.08	ppb	19:46:25
1	Cd 226.502†	35521.0	33999.0	499.41	ug/L	499.41	ppb	19:46:31
1	Co 228.616†	20056.0	19166.3	504.68	ug/L	504.68	ppb	19:46:31
1	Cr 267.716†	38363.8	36489.3	497.16	ug/L	497.16	ppb	19:46:31
1	Cu 324.752†	161463.2	148343.7	491.44	ug/L	491.44	ppb	19:46:31
1	Mn 257.610†	395085.5	376118.6	500.42	ug/L	500.42	ppb	19:46:25
1	Mo 202.031†	5729.2	5446.8	490.60	ug/L	490.60	ppb	19:46:51
1	Ni 231.604†	16505.9	15657.0	505.56	ug/L	505.56	ppb	19:46:31
1	P 214.914†	3639.6	3267.8	2380.9	ug/L	2380.9	ppb	19:46:51
1	Pb 220.353†	3305.8	3199.2	501.84	ug/L	501.84	ppb	19:46:51
1	S 181.975 Axial†	600.4	542.3	981.71	ug/L	981.71	ppb	19:46:51
1	Sb 206.836†	1244.4	1160.4	512.09	ug/L	512.09	ppb	19:46:51
1	Se 196.026†	609.7	603.2	519.82	ug/L	519.82	ppb	19:46:51
1	Si 251.611†	69907.7	66101.1	2518.4	ug/L	2518.4	ppb	19:46:31
1	Sn 189.927†	2236.0	2127.1	490.83	ug/L	490.83	ppb	19:46:51
1	Ti 334.940†	289519.7	276949.3	481.59	ug/L	481.59	ppb	19:46:31
1	Tl 190.801†	1295.2	1263.3	501.81	ug/L	501.81	ppb	19:46:51
1	U 409.014†	15822.5	17021.6	501.95	ug/L	501.95	ppb	19:46:31
1	V 292.402†	63559.1	61920.6	502.56	ug/L	502.56	ppb	19:46:31
1	Zn 213.857†	43113.8	40481.8	494.28	ug/L	494.28	ppb	19:46:31
1	SiO2†	70514.6	66662.0	5398.6	ug/L	5398.6	ppb	19:47:58
2	Sc Radial	4630.1	4630.1	102	%			19:45:33
2	Y RADIAL	4967.0	4967.0	101.0	%			19:45:33
2	Al 396.153Radial†	5002.5	4991.3	4914.4	ug/L	4914.4	ppb	19:45:33
2	Ca 317.933Radial†	2747.9	2683.3	5063.3	ug/L	5063.3	ppb	19:45:53
2	Fe 238.204 Radial†	460.2	445.8	5131.7	ug/L	5131.7	ppb	19:45:53
2	K 766.490 Radial†	30127.5	27109.1	5151.8	ug/L	5151.8	ppb	19:45:33
2	Mg 279.077 IEC†	128.6	126.0	5230.4	ug/L	5230.4	ppb	19:45:53
2	Na 589.592 Radial†	27859.7	28107.8	9814.3	ug/L	9814.3	ppb	19:45:33
2	Sr 421.552†	63528.5	62419.9	489.01	ug/L	489.01	ppb	19:45:33
2	Sc 361.383	884877.1	884877.1	104.68	%			19:46:56
2	Y 371.029	734598.9	734598.9	103.04	%			19:46:56
2	Ag 328.068†	101633.0	96931.3	502.73	ug/L	502.73	ppb	19:47:02
2	As 188.979†	915.1	896.3	509.34	ug/L	509.34	ppb	19:47:22
2	B 249.677†	18549.6	18167.5	511.25	ug/L	511.25	ppb	19:47:02
2	Ba 233.527†	55778.4	53272.0	507.67	ug/L	507.67	ppb	19:47:02
2	Be 313.107†	1230033.3	1179483.9	504.65	ug/L	504.65	ppb	19:46:56
2	Cd 226.502†	36062.7	34598.5	508.21	ug/L	508.21	ppb	19:47:02
2	Co 228.616†	20422.7	19563.0	515.10	ug/L	515.10	ppb	19:47:02
2	Cr 267.716†	39001.6	37187.3	506.68	ug/L	506.68	ppb	19:47:02
2	Cu 324.752†	165351.3	152430.9	504.98	ug/L	504.98	ppb	19:47:02
2	Mn 257.610†	393124.8	375158.1	499.16	ug/L	499.16	ppb	19:46:56
2	Mo 202.031†	5739.6	5470.0	492.70	ug/L	492.70	ppb	19:47:22
2	Ni 231.604†	16783.9	15960.7	515.37	ug/L	515.37	ppb	19:47:02

2	P 214.914†	3656.7	3292.6	2396.9	ug/L	2396.9 ppb	19:47:22
2	Pb 220.353†	3310.5	3211.4	503.73	ug/L	503.73 ppb	19:47:22
2	S 181.975 Axial†	607.4	550.3	996.28	ug/L	996.28 ppb	19:47:22
2	Sb 206.836†	1245.8	1164.6	513.97	ug/L	513.97 ppb	19:47:22
2	Se 196.026†	601.0	596.3	514.49	ug/L	514.49 ppb	19:47:22
2	Si 251.611†	71365.2	67655.0	2577.7	ug/L	2577.7 ppb	19:47:02
2	Sn 189.927†	2244.0	2139.9	493.78	ug/L	493.78 ppb	19:47:22
2	Ti 334.940†	294752.1	282616.4	491.45	ug/L	491.45 ppb	19:47:02
2	Tl 190.801†	1298.9	1269.9	504.43	ug/L	504.43 ppb	19:47:22
2	U 409.014†	16245.9	17462.5	514.96	ug/L	514.96 ppb	19:47:02
2	V 292.402†	64665.0	63123.9	512.22	ug/L	512.22 ppb	19:47:02
2	Zn 213.857†	43845.8	41280.7	504.02	ug/L	504.02 ppb	19:47:02
2	SiO2†	70772.4	67071.1	5431.8	ug/L	5431.8 ppb	19:48:03
3	Sc Radial	4671.0	4671.0	103	%		19:45:58
3	Y RADIAL	5008.2	5008.2	101.9	%		19:45:58
3	Al 396.153Radial†	5071.5	5015.5	4938.4	ug/L	4938.4 ppb	19:45:58
3	Ca 317.933Radial†	2760.8	2672.1	5042.3	ug/L	5042.3 ppb	19:46:18
3	Fe 238.204 Radial†	459.8	441.5	5082.6	ug/L	5082.6 ppb	19:46:18
3	K 766.490 Radial†	30269.8	26988.2	5128.8	ug/L	5128.8 ppb	19:45:58
3	Mg 279.077 IEC†	128.6	124.9	5185.6	ug/L	5185.6 ppb	19:46:18
3	Na 589.592 Radial†	28264.7	28262.4	9868.3	ug/L	9868.3 ppb	19:45:58
3	Sr 421.552†	64096.4	62426.2	489.06	ug/L	489.06 ppb	19:45:58
3	Sc 361.383	889042.5	889042.5	105.17	%		19:47:27
3	Y 371.029	737739.5	737739.5	103.48	%		19:47:27
3	Ag 328.068†	100539.5	95436.7	494.99	ug/L	494.99 ppb	19:47:33
3	As 188.979†	912.5	889.7	505.53	ug/L	505.53 ppb	19:47:53
3	B 249.677†	18187.2	17739.9	499.19	ug/L	499.19 ppb	19:47:33
3	Ba 233.527†	55243.0	52513.3	500.44	ug/L	500.44 ppb	19:47:33
3	Be 313.107†	1236436.5	1180066.8	504.88	ug/L	504.88 ppb	19:47:27
3	Cd 226.502†	35703.0	34095.0	500.81	ug/L	500.81 ppb	19:47:33
3	Co 228.616†	20237.2	19295.2	508.07	ug/L	508.07 ppb	19:47:33
3	Cr 267.716†	38644.9	36673.6	499.68	ug/L	499.68 ppb	19:47:33
3	Cu 324.752†	162451.8	148933.9	493.40	ug/L	493.40 ppb	19:47:33
3	Mn 257.610†	396490.4	376598.6	501.07	ug/L	501.07 ppb	19:47:27
3	Mo 202.031†	5752.5	5456.6	491.49	ug/L	491.49 ppb	19:47:53
3	Ni 231.604†	16607.1	15717.5	507.51	ug/L	507.51 ppb	19:47:33
3	P 214.914†	3662.6	3281.7	2391.0	ug/L	2391.0 ppb	19:47:53
3	Pb 220.353†	3294.5	3181.3	499.04	ug/L	499.04 ppb	19:47:53
3	S 181.975 Axial†	600.8	541.3	979.90	ug/L	979.90 ppb	19:47:53
3	Sb 206.836†	1237.8	1151.5	508.27	ug/L	508.27 ppb	19:47:53
3	Se 196.026†	608.8	601.1	518.32	ug/L	518.32 ppb	19:47:53
3	Si 251.611†	70411.1	66428.4	2530.9	ug/L	2530.9 ppb	19:47:33
3	Sn 189.927†	2238.1	2124.2	490.16	ug/L	490.16 ppb	19:47:53
3	Ti 334.940†	291411.2	278120.6	483.64	ug/L	483.64 ppb	19:47:33
3	Tl 190.801†	1313.0	1277.5	507.41	ug/L	507.41 ppb	19:47:53
3	U 409.014†	16112.6	17263.1	509.08	ug/L	509.08 ppb	19:47:33
3	V 292.402†	63885.6	62093.4	503.96	ug/L	503.96 ppb	19:47:33
3	Zn 213.857†	43435.4	40694.3	496.87	ug/L	496.87 ppb	19:47:33
3	SiO2†	70922.5	66897.1	5417.7	ug/L	5417.7 ppb	19:48:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	886980.5	104.93	%	0.246				0.23%
Sc Radial	4657.5	102	%	0.5				0.51%
Y 371.029	736320.1	103.28	%	0.223				0.22%
Y RADIAL	4987.7	101.4	%	0.42				0.41%
Ag 328.068†	95787.7	496.80	ug/L	5.264	496.80	ppb	5.264	1.06%
QC value within limits for Ag 328.068 Recovery = 99.36%								
Al 396.153Radial†	4983.5	4906.8	ug/L	36.05	4906.8	ppb	36.05	0.73%
QC value within limits for Al 396.153Radial Recovery = 98.14%								
As 188.979†	890.9	506.27	ug/L	2.778	506.27	ppb	2.778	0.55%
QC value within limits for As 188.979 Recovery = 101.25%								
B 249.677†	17835.7	501.90	ug/L	8.336	501.90	ppb	8.336	1.66%
QC value within limits for B 249.677 Recovery = 100.38%								
Ba 233.527†	52708.8	502.30	ug/L	4.721	502.30	ppb	4.721	0.94%
QC value within limits for Ba 233.527 Recovery = 100.46%								
Be 313.107†	1180031.9	504.87	ug/L	0.215	504.87	ppb	0.215	0.04%
QC value within limits for Be 313.107 Recovery = 100.97%								
Ca 317.933Radial†	2667.8	5034.2	ug/L	33.87	5034.2	ppb	33.87	0.67%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.68%
Cd 226.502†            34230.8      502.81 ug/L         4.729      502.81 ppb          4.729   0.94%
   QC value within limits for Cd 226.502  Recovery = 100.56%
Co 228.616†            19341.5      509.28 ug/L         5.318      509.28 ppb          5.318   1.04%
   QC value within limits for Co 228.616  Recovery = 101.86%
Cr 267.716†            36783.4      501.17 ug/L         4.929      501.17 ppb          4.929   0.98%
   QC value within limits for Cr 267.716  Recovery = 100.23%
Cu 324.752†           149902.8      496.61 ug/L         7.319      496.61 ppb          7.319   1.47%
   QC value within limits for Cu 324.752  Recovery = 99.32%
Fe 238.204 Radial†       440.6      5072.1 ug/L        65.59      5072.1 ppb          65.59   1.29%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.44%
K 766.490 Radial†      26979.9      5127.2 ug/L        25.39      5127.2 ppb          25.39   0.50%
   QC value within limits for K 766.490 Radial  Recovery = 102.54%
Mg 279.077 IEC†          125.9      5224.9 ug/L        36.87      5224.9 ppb          36.87   0.71%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.50%
Mn 257.610†           375958.4      500.22 ug/L         0.973      500.22 ppb          0.973   0.19%
   QC value within limits for Mn 257.610  Recovery = 100.04%
Mo 202.031†             5457.8      491.59 ug/L         1.054      491.59 ppb          1.054   0.21%
   QC value within limits for Mo 202.031  Recovery = 98.32%
Na 589.592 Radial†     28144.3      9827.1 ug/L        36.57      9827.1 ppb          36.57   0.37%
   QC value within limits for Na 589.592 Radial  Recovery = 98.27%
Ni 231.604†            15778.4      509.48 ug/L         5.189      509.48 ppb          5.189   1.02%
   QC value within limits for Ni 231.604  Recovery = 101.90%
P 214.914†              3280.7      2389.6 ug/L         8.11      2389.6 ppb           8.11   0.34%
   QC value within limits for P 214.914  Recovery = 95.59%
Pb 220.353†             3197.3      501.54 ug/L         2.360      501.54 ppb          2.360   0.47%
   QC value within limits for Pb 220.353  Recovery = 100.31%
S 181.975 Axial†         544.6      985.96 ug/L         8.978      985.96 ppb          8.978   0.91%
   QC value within limits for S 181.975 Axial  Recovery = 98.60%
Sb 206.836†             1158.9      511.44 ug/L         2.901      511.44 ppb          2.901   0.57%
   QC value within limits for Sb 206.836  Recovery = 102.29%
Se 196.026†              600.2      517.55 ug/L         2.747      517.55 ppb          2.747   0.53%
   QC value within limits for Se 196.026  Recovery = 103.51%
Si 251.611†            66728.2      2542.3 ug/L        31.27      2542.3 ppb          31.27   1.23%
   QC value within limits for Si 251.611  Recovery = 101.69%
Sn 189.927†             2130.4      491.59 ug/L         1.927      491.59 ppb          1.927   0.39%
   QC value within limits for Sn 189.927  Recovery = 98.32%
Sr 421.552†            62319.0      488.22 ug/L         1.412      488.22 ppb          1.412   0.29%
   QC value within limits for Sr 421.552  Recovery = 97.64%
Ti 334.940†           279228.8      485.56 ug/L         5.204      485.56 ppb          5.204   1.07%
   QC value within limits for Ti 334.940  Recovery = 97.11%
Tl 190.801†             1270.3      504.55 ug/L         2.800      504.55 ppb          2.800   0.56%
   QC value within limits for Tl 190.801  Recovery = 100.91%
U 409.014†             17249.1      508.66 ug/L         6.516      508.66 ppb          6.516   1.28%
   QC value within limits for U 409.014  Recovery = 101.73%
V 292.402†             62379.3      506.25 ug/L         5.221      506.25 ppb          5.221   1.03%
   QC value within limits for V 292.402  Recovery = 101.25%
Zn 213.857†            40818.9      498.39 ug/L         5.048      498.39 ppb          5.048   1.01%
   QC value within limits for Zn 213.857  Recovery = 99.68%
SiO2†                  66876.7      5416.1 ug/L        16.64      5416.1 ppb          16.64   0.31%
   QC value within limits for SiO2  Recovery = 101.28%
All analyte(s) passed QC.
```

Sequence No.: 21
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/22/2010 19:50:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4666.1	4666.1	103	%			19:52:10
1	Y RADIAL	5051.9	5051.9	102.7	%			19:52:10
1	Al 396.153Radial†	-75.2	-0.2	-0.1936	ug/L	-0.1936	ppb	19:52:30
1	Ca 317.933Radial†	23.4	4.5	8.4613	ug/L	8.4613	ppb	19:52:30
1	Fe 238.204 Radial†	10.2	3.3	38.411	ug/L	38.411	ppb	19:52:30
1	K 766.490 Radial†	2807.1	228.0	43.386	ug/L	43.386	ppb	19:52:10
1	Mg 279.077 IEC†	1.3	0.9	36.632	ug/L	36.632	ppb	19:52:30
1	Na 589.592 Radial†	-723.3	12.2	4.2433	ug/L	4.2433	ppb	19:52:10
1	Sr 421.552†	2.5	-35.0	-0.2742	ug/L	-0.2742	ppb	19:52:10
1	Sc 361.383	872499.4	872499.4	103.22	%			19:53:27
1	Y 371.029	735245.8	735245.8	103.13	%			19:53:27
1	Ag 328.068†	125.7	-34.9	-0.1689	ug/L	-0.1689	ppb	19:53:27
1	As 188.979†	-19.5	3.2	1.8304	ug/L	1.8304	ppb	19:53:47
1	B 249.677†	-151.4	300.8	8.4957	ug/L	8.4957	ppb	19:53:47
1	Ba 233.527†	6.7	-5.4	-0.0495	ug/L	-0.0495	ppb	19:53:47
1	Be 313.107†	-4366.2	227.3	0.0972	ug/L	0.0972	ppb	19:53:27
1	Cd 226.502†	-171.3	-17.5	-0.2598	ug/L	-0.2598	ppb	19:53:47
1	Co 228.616†	-40.7	14.1	0.3715	ug/L	0.3715	ppb	19:53:47
1	Cr 267.716†	70.2	-2.1	-0.0256	ug/L	-0.0256	ppb	19:53:47
1	Cu 324.752†	5687.2	-16.0	-0.0530	ug/L	-0.0530	ppb	19:53:27
1	Mn 257.610†	424.6	25.1	0.0357	ug/L	0.0357	ppb	19:53:47
1	Mo 202.031†	13.7	0.4	0.0394	ug/L	0.0394	ppb	19:53:47
1	Ni 231.604†	86.4	11.1	0.3596	ug/L	0.3596	ppb	19:53:47
1	P 214.914†	185.4	-21.1	-15.952	ug/L	-15.952	ppb	19:53:47
1	Pb 220.353†	-47.9	2.5	0.3914	ug/L	0.3914	ppb	19:53:47
1	S 181.975 Axial†	29.3	-1.6	-2.8228	ug/L	-2.8228	ppb	19:53:47
1	Sb 206.836†	31.8	5.4	2.3329	ug/L	2.3329	ppb	19:53:47
1	Se 196.026†	-20.5	2.3	2.0547	ug/L	2.0547	ppb	19:53:47
1	Si 251.611†	840.6	295.6	11.289	ug/L	11.289	ppb	19:53:47
1	Sn 189.927†	16.7	12.5	2.8718	ug/L	2.8718	ppb	19:53:47
1	Ti 334.940†	-1039.0	38.9	0.0643	ug/L	0.0643	ppb	19:53:27
1	Tl 190.801†	-29.5	0.5	0.1973	ug/L	0.1973	ppb	19:53:47
1	U 409.014†	-1886.4	115.6	3.4149	ug/L	3.4149	ppb	19:53:27
1	V 292.402†	-1332.2	60.1	0.4832	ug/L	0.4832	ppb	19:53:27
1	Zn 213.857†	2834.9	2142.3	26.394	ug/L	26.394	ppb	19:53:47
1	SiO2†	869.0	305.6	24.809	ug/L	24.809	ppb	19:54:43
2	Sc Radial	4704.2	4704.2	103	%			19:52:35
2	Y RADIAL	5075.7	5075.7	103.2	%			19:52:35
2	Al 396.153Radial†	-64.4	10.9	10.782	ug/L	10.782	ppb	19:52:55
2	Ca 317.933Radial†	18.8	-0.2	-0.2882	ug/L	-0.2882	ppb	19:52:55
2	Fe 238.204 Radial†	6.7	-0.1	-1.5455	ug/L	-1.5455	ppb	19:52:55
2	K 766.490 Radial†	2578.1	-15.8	-3.0078	ug/L	-3.0078	ppb	19:52:35
2	Mg 279.077 IEC†	1.8	1.3	54.851	ug/L	54.851	ppb	19:52:55
2	Na 589.592 Radial†	-711.4	29.4	10.249	ug/L	10.249	ppb	19:52:35
2	Sr 421.552†	11.3	-26.5	-0.2079	ug/L	-0.2079	ppb	19:52:35
2	Sc 361.383	872027.4	872027.4	103.16	%			19:53:52
2	Y 371.029	735228.3	735228.3	103.13	%			19:53:52
2	Ag 328.068†	172.8	10.8	0.0577	ug/L	0.0577	ppb	19:53:52
2	As 188.979†	-21.4	1.3	0.7364	ug/L	0.7364	ppb	19:54:12
2	B 249.677†	-163.0	289.4	8.1807	ug/L	8.1807	ppb	19:54:12
2	Ba 233.527†	14.1	1.7	0.0175	ug/L	0.0175	ppb	19:54:12
2	Be 313.107†	-4395.2	196.8	0.0840	ug/L	0.0840	ppb	19:53:52
2	Cd 226.502†	-154.7	-1.5	-0.0216	ug/L	-0.0216	ppb	19:54:12
2	Co 228.616†	-53.7	1.5	0.0404	ug/L	0.0404	ppb	19:54:12
2	Cr 267.716†	81.6	9.0	0.1225	ug/L	0.1225	ppb	19:54:12
2	Cu 324.752†	5653.4	-45.8	-0.1518	ug/L	-0.1518	ppb	19:53:52
2	Mn 257.610†	435.6	36.0	0.0455	ug/L	0.0455	ppb	19:54:12
2	Mo 202.031†	12.3	-1.0	-0.0928	ug/L	-0.0928	ppb	19:54:12
2	Ni 231.604†	97.3	21.7	0.7005	ug/L	0.7005	ppb	19:54:12

2	P 214.914†	179.1	-27.0	-20.436 ug/L	-20.436 ppb	19:54:12
2	Pb 220.353†	-58.9	-8.2	-1.2744 ug/L	-1.2744 ppb	19:54:12
2	S 181.975 Axial†	31.0	0.2	0.3371 ug/L	0.3371 ppb	19:54:12
2	Sb 206.836†	23.8	-2.4	-1.0054 ug/L	-1.0054 ppb	19:54:12
2	Se 196.026†	-21.5	1.3	1.1111 ug/L	1.1111 ppb	19:54:12
2	Si 251.611†	824.6	280.5	10.714 ug/L	10.714 ppb	19:54:12
2	Sn 189.927†	7.0	3.1	0.7102 ug/L	0.7102 ppb	19:54:12
2	Ti 334.940†	-1069.0	9.3	0.0118 ug/L	0.0118 ppb	19:53:52
2	Tl 190.801†	-24.5	5.3	2.1102 ug/L	2.1102 ppb	19:54:12
2	U 409.014†	-2013.9	-9.0	-0.2658 ug/L	-0.2658 ppb	19:53:52
2	V 292.402†	-1327.2	64.1	0.5132 ug/L	0.5132 ppb	19:53:52
2	Zn 213.857†	2839.0	2147.7	26.465 ug/L	26.465 ppb	19:54:12
2	SiO2†	781.3	221.0	17.947 ug/L	17.947 ppb	19:54:48
3	Sc Radial	4706.6	4706.6	103 %		19:53:00
3	Y RADIAL	5026.8	5026.8	102.2 %		19:53:00
3	Al 396.153Radial†	-63.7	11.5	11.418 ug/L	11.418 ppb	19:53:20
3	Ca 317.933Radial†	12.3	-6.5	-12.230 ug/L	-12.230 ppb	19:53:20
3	Fe 238.204 Radial†	5.1	-1.7	-19.850 ug/L	-19.850 ppb	19:53:20
3	K 766.490 Radial†	2613.0	16.7	3.1824 ug/L	3.1824 ppb	19:53:00
3	Mg 279.077 IEC†	1.2	0.8	32.346 ug/L	32.346 ppb	19:53:20
3	Na 589.592 Radial†	-704.3	36.6	12.784 ug/L	12.784 ppb	19:53:00
3	Sr 421.552†	33.6	-5.0	-0.0390 ug/L	-0.0390 ppb	19:53:00
3	Sc 361.383	863145.8	863145.8	102.11 %		19:54:17
3	Y 371.029	726805.7	726805.7	101.94 %		19:54:17
3	Ag 328.068†	141.5	-18.1	-0.1017 ug/L	-0.1017 ppb	19:54:17
3	As 188.979†	-16.2	6.2	3.5082 ug/L	3.5082 ppb	19:54:37
3	B 249.677†	-159.6	291.1	8.2327 ug/L	8.2327 ppb	19:54:37
3	Ba 233.527†	-1.3	-13.2	-0.1258 ug/L	-0.1258 ppb	19:54:37
3	Be 313.107†	-4360.1	187.4	0.0801 ug/L	0.0801 ppb	19:54:17
3	Cd 226.502†	-164.8	-13.0	-0.1874 ug/L	-0.1874 ppb	19:54:37
3	Co 228.616†	-51.2	3.4	0.0903 ug/L	0.0903 ppb	19:54:37
3	Cr 267.716†	79.3	7.5	0.0988 ug/L	0.0988 ppb	19:54:37
3	Cu 324.752†	5610.6	-31.4	-0.1073 ug/L	-0.1073 ppb	19:54:17
3	Mn 257.610†	442.6	47.1	0.0594 ug/L	0.0594 ppb	19:54:37
3	Mo 202.031†	13.1	-0.0	-0.0049 ug/L	-0.0049 ppb	19:54:37
3	Ni 231.604†	82.0	7.7	0.2482 ug/L	0.2482 ppb	19:54:37
3	P 214.914†	196.4	-8.3	-6.2517 ug/L	-6.2517 ppb	19:54:37
3	Pb 220.353†	-68.1	-17.8	-2.7749 ug/L	-2.7749 ppb	19:54:37
3	S 181.975 Axial†	32.2	1.6	2.9153 ug/L	2.9153 ppb	19:54:37
3	Sb 206.836†	24.5	-1.4	-0.5838 ug/L	-0.5838 ppb	19:54:37
3	Se 196.026†	-18.3	4.3	3.5067 ug/L	3.5067 ppb	19:54:37
3	Si 251.611†	827.4	291.4	11.130 ug/L	11.130 ppb	19:54:37
3	Sn 189.927†	12.4	8.4	1.9339 ug/L	1.9339 ppb	19:54:37
3	Ti 334.940†	-1049.3	17.9	0.0250 ug/L	0.0250 ppb	19:54:17
3	Tl 190.801†	-26.2	3.4	1.3543 ug/L	1.3543 ppb	19:54:37
3	U 409.014†	-1837.0	144.1	4.2660 ug/L	4.2660 ppb	19:54:17
3	V 292.402†	-1353.1	25.6	0.2166 ug/L	0.2166 ppb	19:54:17
3	Zn 213.857†	2810.7	2148.3	26.478 ug/L	26.478 ppb	19:54:37
3	SiO2†	827.7	274.2	22.262 ug/L	22.262 ppb	19:54:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	869224.2	102.83	%	0.623				0.61%
Sc Radial	4692.3	103	%	0.5				0.48%
Y 371.029	732426.6	102.73	%	0.683				0.66%
Y RADIAL	5051.5	102.7	%	0.50				0.48%
Ag 328.068†	-14.0	-0.0710	ug/L	0.11641	-0.0710	ppb	0.11641	164.05%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.4	7.3354	ug/L	6.52809	7.3354	ppb	6.52809	88.99%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.6	2.0250	ug/L	1.39611	2.0250	ppb	1.39611	68.94%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	293.8	8.3030	ug/L	0.16887	8.3030	ppb	0.16887	2.03%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.6	-0.0526	ug/L	0.07171	-0.0526	ppb	0.07171	136.30%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	203.8	0.0871	ug/L	0.00896	0.0871	ppb	0.00896	10.28%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.7	-1.3523	ug/L	10.38658	-1.3523	ppb	10.38658	768.06%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -10.6     -0.1563 ug/L       0.12210     -0.1563 ppb        0.12210  78.13%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                6.4      0.1674 ug/L       0.17848      0.1674 ppb        0.17848 106.62%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                4.8      0.0652 ug/L       0.07958      0.0652 ppb        0.07958 122.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -31.1     -0.1040 ug/L       0.04947     -0.1040 ppb        0.04947  47.56%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.5      5.6722 ug/L      29.79356      5.6722 ppb       29.79356 525.26%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         76.3     14.520 ug/L       25.1893      14.520 ppb        25.1893 173.48%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.0     41.276 ug/L       11.9497      41.276 ppb        11.9497  28.95%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               36.1      0.0469 ug/L       0.01191      0.0469 ppb        0.01191  25.42%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -0.2     -0.0194 ug/L       0.06731     -0.0194 ppb        0.06731 346.49%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        26.0      9.0922 ug/L       4.38640      9.0922 ppb        4.38640  48.24%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               13.5      0.4361 ug/L       0.23565      0.4361 ppb        0.23565  54.04%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -18.8     -14.213 ug/L        7.2504     -14.213 ppb         7.2504  51.01%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -7.8     -1.2193 ug/L       1.58384     -1.2193 ppb        1.58384 129.90%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.1      0.1432 ug/L       2.87398      0.1432 ppb        2.87398 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                0.5      0.2479 ug/L       1.81791      0.2479 ppb        1.81791 733.37%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.6      2.2242 ug/L       1.20677      2.2242 ppb        1.20677  54.26%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              289.2     11.045 ug/L        0.2972      11.045 ppb         0.2972   2.69%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                8.0      1.8387 ug/L       1.08394      1.8387 ppb        1.08394  58.95%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -22.2     -0.1737 ug/L       0.12128     -0.1737 ppb        0.12128  69.81%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               22.1      0.0337 ug/L       0.02733      0.0337 ppb        0.02733  81.08%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.1      1.2206 ug/L       0.96346      1.2206 ppb        0.96346  78.93%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                83.6      2.4717 ug/L       2.40860      2.4717 ppb        2.40860  97.45%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                49.9      0.4043 ug/L       0.16326      0.4043 ppb        0.16326  40.38%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             2146.1     26.446 ug/L        0.0451      26.446 ppb         0.0451   0.17%
   QC value greater than the upper limit for Zn 213.857  Recovery = Not calculated
SiO2†                    266.9     21.673 ug/L        3.4684      21.673 ppb         3.4684  16.00%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 29
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/22/2010 20:46:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4933.0	4933.0	108	%			20:48:28
1	Y RADIAL	5255.9	5255.9	106.9	%			20:48:28
1	Al 396.153Radial†	5078.1	4759.1	4684.6	ug/L	4684.6	ppb	20:48:28
1	Ca 317.933Radial†	2638.0	2415.9	4558.7	ug/L	4558.7	ppb	20:48:48
1	Fe 238.204 Radial†	434.2	394.0	4538.0	ug/L	4538.0	ppb	20:48:48
1	K 766.490 Radial†	30463.3	25600.1	4865.1	ug/L	4865.1	ppb	20:48:28
1	Mg 279.077 IEC†	124.1	114.1	4736.5	ug/L	4736.5	ppb	20:48:48
1	Na 589.592 Radial†	27667.0	26248.0	9165.0	ug/L	9165.0	ppb	20:48:28
1	Sr 421.552†	64156.2	59163.8	463.51	ug/L	463.51	ppb	20:48:28
1	Sc 361.383	878924.3	878924.3	103.98	%			20:49:45
1	Y 371.029	728583.4	728583.4	102.19	%			20:49:45
1	Ag 328.068†	101107.0	97083.0	503.34	ug/L	503.34	ppb	20:49:50
1	As 188.979†	909.1	896.4	509.27	ug/L	509.27	ppb	20:50:10
1	B 249.677†	18003.2	17762.0	499.89	ug/L	499.89	ppb	20:49:50
1	Ba 233.527†	55512.9	53377.6	508.66	ug/L	508.66	ppb	20:49:50
1	Be 313.107†	1226022.0	1183584.2	506.40	ug/L	506.40	ppb	20:49:45
1	Cd 226.502†	35862.6	34639.4	508.87	ug/L	508.87	ppb	20:49:50
1	Co 228.616†	20273.2	19551.4	514.81	ug/L	514.81	ppb	20:49:50
1	Cr 267.716†	38732.6	37180.9	506.53	ug/L	506.53	ppb	20:49:50
1	Cu 324.752†	163594.2	151810.8	502.90	ug/L	502.90	ppb	20:49:50
1	Mn 257.610†	393796.1	378347.2	503.36	ug/L	503.36	ppb	20:49:45
1	Mo 202.031†	5719.3	5487.7	494.23	ug/L	494.23	ppb	20:50:10
1	Ni 231.604†	16622.4	15914.0	513.86	ug/L	513.86	ppb	20:49:50
1	P 214.914†	3633.5	3293.9	2398.8	ug/L	2398.8	ppb	20:50:10
1	Pb 220.353†	3283.1	3206.4	502.99	ug/L	502.99	ppb	20:50:10
1	S 181.975 Axial†	598.9	546.1	988.61	ug/L	988.61	ppb	20:50:10
1	Sb 206.836†	1242.1	1169.2	515.95	ug/L	515.95	ppb	20:50:10
1	Se 196.026†	612.2	610.9	524.90	ug/L	524.90	ppb	20:50:10
1	Si 251.611†	70316.3	67107.9	2556.8	ug/L	2556.8	ppb	20:49:50
1	Sn 189.927†	2232.0	2142.9	494.42	ug/L	494.42	ppb	20:50:10
1	Ti 334.940†	292742.7	282590.9	491.38	ug/L	491.38	ppb	20:49:50
1	Tl 190.801†	1293.4	1273.0	505.65	ug/L	505.65	ppb	20:50:10
1	U 409.014†	16045.1	17374.5	512.42	ug/L	512.42	ppb	20:49:50
1	V 292.402†	64176.4	63072.4	511.90	ug/L	511.90	ppb	20:49:50
1	Zn 213.857†	43553.2	41283.0	504.15	ug/L	504.15	ppb	20:49:50
1	SiO2†	69811.4	66604.7	5393.9	ug/L	5393.9	ppb	20:51:18
2	Sc Radial	4419.8	4419.8	97.1	%			20:48:53
2	Y RADIAL	4735.9	4735.9	96.32	%			20:48:53
2	Al 396.153Radial†	4856.6	5075.0	4998.2	ug/L	4998.2	ppb	20:48:53
2	Ca 317.933Radial†	2730.3	2793.6	5271.5	ug/L	5271.5	ppb	20:49:13
2	Fe 238.204 Radial†	447.9	454.6	5232.7	ug/L	5232.7	ppb	20:49:13
2	K 766.490 Radial†	29352.6	27720.0	5268.1	ug/L	5268.1	ppb	20:48:53
2	Mg 279.077 IEC†	129.3	132.7	5510.4	ug/L	5510.4	ppb	20:49:13
2	Na 589.592 Radial†	26115.1	27613.9	9641.9	ug/L	9641.9	ppb	20:48:53
2	Sr 421.552†	60619.3	62394.8	488.82	ug/L	488.82	ppb	20:48:53
2	Sc 361.383	927943.3	927943.3	109.78	%			20:50:16
2	Y 371.029	770786.3	770786.3	108.11	%			20:50:16
2	Ag 328.068†	101248.4	92075.1	477.64	ug/L	477.64	ppb	20:50:21
2	As 188.979†	913.3	854.0	485.38	ug/L	485.38	ppb	20:50:41
2	B 249.677†	18124.2	16957.6	477.11	ug/L	477.11	ppb	20:50:21
2	Ba 233.527†	55268.1	50334.3	479.69	ug/L	479.69	ppb	20:50:21
2	Be 313.107†	1239220.1	1133319.2	484.88	ug/L	484.88	ppb	20:50:16
2	Cd 226.502†	35710.8	32679.1	479.97	ug/L	479.97	ppb	20:50:21
2	Co 228.616†	20247.9	18498.4	487.08	ug/L	487.08	ppb	20:50:21
2	Cr 267.716†	38655.7	35143.1	478.86	ug/L	478.86	ppb	20:50:21
2	Cu 324.752†	163985.1	143855.5	476.59	ug/L	476.59	ppb	20:50:21
2	Mn 257.610†	396164.8	360498.2	479.67	ug/L	479.67	ppb	20:50:16
2	Mo 202.031†	5761.0	5235.1	471.56	ug/L	471.56	ppb	20:50:41
2	Ni 231.604†	16605.4	15054.0	486.09	ug/L	486.09	ppb	20:50:21

2	P 214.914†	3656.0	3129.8	2278.9 ug/L	2278.9 ppb	20:50:41
2	Pb 220.353†	3307.8	3062.1	480.36 ug/L	480.36 ppb	20:50:41
2	S 181.975 Axial†	610.5	526.3	952.62 ug/L	952.62 ppb	20:50:41
2	Sb 206.836†	1250.4	1113.6	491.38 ug/L	491.38 ppb	20:50:41
2	Se 196.026†	608.6	576.6	498.31 ug/L	498.31 ppb	20:50:41
2	Si 251.611†	70353.0	63568.9	2421.9 ug/L	2421.9 ppb	20:50:21
2	Sn 189.927†	2237.9	2034.8	469.59 ug/L	469.59 ppb	20:50:41
2	Ti 334.940†	292420.7	267424.8	465.05 ug/L	465.05 ppb	20:50:21
2	Tl 190.801†	1309.8	1222.2	485.46 ug/L	485.46 ppb	20:50:41
2	U 409.014†	16010.8	16528.2	487.36 ug/L	487.36 ppb	20:50:21
2	V 292.402†	64071.5	59716.3	484.60 ug/L	484.60 ppb	20:50:21
2	Zn 213.857†	43444.1	38970.9	475.77 ug/L	475.77 ppb	20:50:21
2	SiO2†	70318.9	63520.4	5144.1 ug/L	5144.1 ppb	20:51:23
3	Sc Radial	4675.6	4675.6	103 %		20:49:18
3	Y RADIAL	4985.6	4985.6	101.4 %		20:49:18
3	Al 396.153Radial†	5058.0	4997.5	4920.4 ug/L	4920.4 ppb	20:49:18
3	Ca 317.933Radial†	2730.4	2639.9	4981.4 ug/L	4981.4 ppb	20:49:38
3	Fe 238.204 Radial†	453.3	434.7	5004.2 ug/L	5004.2 ppb	20:49:38
3	K 766.490 Radial†	30327.9	27016.0	5134.2 ug/L	5134.2 ppb	20:49:18
3	Mg 279.077 IEC†	126.2	122.5	5085.3 ug/L	5085.3 ppb	20:49:38
3	Na 589.592 Radial†	27380.8	27374.9	9558.4 ug/L	9558.4 ppb	20:49:18
3	Sr 421.552†	63558.5	61841.3	484.48 ug/L	484.48 ppb	20:49:18
3	Sc 361.383	888669.8	888669.8	105.13 %		20:50:47
3	Y 371.029	737647.8	737647.8	103.46 %		20:50:47
3	Ag 328.068†	101375.9	96272.4	499.29 ug/L	499.29 ppb	20:50:52
3	As 188.979†	913.4	891.0	506.27 ug/L	506.27 ppb	20:51:12
3	B 249.677†	18263.2	17819.4	501.44 ug/L	501.44 ppb	20:50:52
3	Ba 233.527†	55686.3	52957.0	504.67 ug/L	504.67 ppb	20:50:52
3	Be 313.107†	1238411.2	1182438.3	505.90 ug/L	505.90 ppb	20:50:47
3	Cd 226.502†	36163.2	34547.1	507.46 ug/L	507.46 ppb	20:50:52
3	Co 228.616†	20394.8	19453.2	512.22 ug/L	512.22 ppb	20:50:52
3	Cr 267.716†	39003.8	37030.4	504.52 ug/L	504.52 ppb	20:50:52
3	Cu 324.752†	164112.5	150578.3	498.84 ug/L	498.84 ppb	20:50:52
3	Mn 257.610†	395964.8	376256.7	500.62 ug/L	500.62 ppb	20:50:47
3	Mo 202.031†	5786.3	5491.0	494.57 ug/L	494.57 ppb	20:51:12
3	Ni 231.604†	16752.2	15862.2	512.19 ug/L	512.19 ppb	20:50:52
3	P 214.914†	3689.6	3308.9	2410.7 ug/L	2410.7 ppb	20:51:12
3	Pb 220.353†	3328.7	3215.2	504.35 ug/L	504.35 ppb	20:51:12
3	S 181.975 Axial†	607.7	548.2	992.33 ug/L	992.33 ppb	20:51:12
3	Sb 206.836†	1259.5	1172.6	517.40 ug/L	517.40 ppb	20:51:12
3	Se 196.026†	611.3	603.6	520.24 ug/L	520.24 ppb	20:51:12
3	Si 251.611†	70534.0	66573.3	2536.4 ug/L	2536.4 ppb	20:50:52
3	Sn 189.927†	2255.7	2141.9	494.24 ug/L	494.24 ppb	20:51:12
3	Ti 334.940†	293751.7	280463.2	487.71 ug/L	487.71 ppb	20:50:52
3	Tl 190.801†	1311.8	1276.9	507.15 ug/L	507.15 ppb	20:51:12
3	U 409.014†	16326.0	17472.5	515.27 ug/L	515.27 ppb	20:50:52
3	V 292.402†	64507.4	62710.4	508.96 ug/L	508.96 ppb	20:50:52
3	Zn 213.857†	43924.8	41177.1	502.79 ug/L	502.79 ppb	20:50:52
3	SiO2†	70567.2	66587.4	5392.5 ug/L	5392.5 ppb	20:51:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	898512.5	106.29	%	3.070				2.89%
Sc Radial	4676.1	103	%	5.6				5.49%
Y 371.029	745672.5	104.59	%	3.116				2.98%
Y RADIAL	4992.5	101.5	%	5.29				5.21%
Ag 328.068†	95143.5	493.42	ug/L	13.814	493.42	ppb	13.814	2.80%
QC value within limits for Ag 328.068 Recovery = 98.68%								
Al 396.153Radial†	4943.9	4867.7	ug/L	163.34	4867.7	ppb	163.34	3.36%
QC value within limits for Al 396.153Radial Recovery = 97.35%								
As 188.979†	880.5	500.31	ug/L	13.013	500.31	ppb	13.013	2.60%
QC value within limits for As 188.979 Recovery = 100.06%								
B 249.677†	17513.0	492.81	ug/L	13.619	492.81	ppb	13.619	2.76%
QC value within limits for B 249.677 Recovery = 98.56%								
Ba 233.527†	52222.9	497.67	ug/L	15.700	497.67	ppb	15.700	3.15%
QC value within limits for Ba 233.527 Recovery = 99.53%								
Be 313.107†	1166447.2	499.06	ug/L	12.283	499.06	ppb	12.283	2.46%
QC value within limits for Be 313.107 Recovery = 99.81%								
Ca 317.933Radial†	2616.4	4937.2	ug/L	358.46	4937.2	ppb	358.46	7.26%

```
   QC value within limits for Ca 317.933Radial  Recovery = 98.74%
Cd 226.502†            33955.2      498.77 ug/L        16.292      498.77 ppb         16.292   3.27%
   QC value within limits for Cd 226.502  Recovery = 99.75%
Co 228.616†            19167.7      504.70 ug/L        15.320      504.70 ppb         15.320   3.04%
   QC value within limits for Co 228.616  Recovery = 100.94%
Cr 267.716†            36451.5      496.64 ug/L        15.425      496.64 ppb         15.425   3.11%
   QC value within limits for Cr 267.716  Recovery = 99.33%
Cu 324.752†           148748.2      492.77 ug/L        14.161      492.77 ppb         14.161   2.87%
   QC value within limits for Cu 324.752  Recovery = 98.55%
Fe 238.204 Radial†       427.8      4925.0 ug/L        354.03      4925.0 ppb         354.03   7.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.50%
K 766.490 Radial†      26778.7      5089.1 ug/L        205.24      5089.1 ppb         205.24   4.03%
   QC value within limits for K 766.490 Radial  Recovery = 101.78%
Mg 279.077 IEC†          123.1      5110.7 ug/L        387.62      5110.7 ppb         387.62   7.58%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.21%
Mn 257.610†           371700.7      494.55 ug/L        12.962      494.55 ppb         12.962   2.62%
   QC value within limits for Mn 257.610  Recovery = 98.91%
Mo 202.031†             5404.6      486.79 ug/L        13.188      486.79 ppb         13.188   2.71%
   QC value within limits for Mo 202.031  Recovery = 97.36%
Na 589.592 Radial†     27078.9      9455.1 ug/L        254.70      9455.1 ppb         254.70   2.69%
   QC value within limits for Na 589.592 Radial  Recovery = 94.55%
Ni 231.604†            15610.0      504.04 ug/L        15.572      504.04 ppb         15.572   3.09%
   QC value within limits for Ni 231.604  Recovery = 100.81%
P 214.914†              3244.2      2362.8 ug/L         72.86      2362.8 ppb          72.86   3.08%
   QC value within limits for P 214.914  Recovery = 94.51%
Pb 220.353†             3161.2      495.90 ug/L        13.478      495.90 ppb         13.478   2.72%
   QC value within limits for Pb 220.353  Recovery = 99.18%
S 181.975 Axial†         540.2      977.85 ug/L        21.932      977.85 ppb         21.932   2.24%
   QC value within limits for S 181.975 Axial  Recovery = 97.78%
Sb 206.836†             1151.8      508.24 ug/L        14.623      508.24 ppb         14.623   2.88%
   QC value within limits for Sb 206.836  Recovery = 101.65%
Se 196.026†              597.0      514.48 ug/L        14.198      514.48 ppb         14.198   2.76%
   QC value within limits for Se 196.026  Recovery = 102.90%
Si 251.611†            65750.0      2505.0 ug/L         72.70      2505.0 ppb          72.70   2.90%
   QC value within limits for Si 251.611  Recovery = 100.20%
Sn 189.927†             2106.6      486.08 ug/L        14.280      486.08 ppb         14.280   2.94%
   QC value within limits for Sn 189.927  Recovery = 97.22%
Sr 421.552†            61133.3      478.93 ug/L        13.536      478.93 ppb         13.536   2.83%
   QC value within limits for Sr 421.552  Recovery = 95.79%
Ti 334.940†           276826.3      481.38 ug/L        14.259      481.38 ppb         14.259   2.96%
   QC value within limits for Ti 334.940  Recovery = 96.28%
Tl 190.801†             1257.4      499.42 ug/L        12.117      499.42 ppb         12.117   2.43%
   QC value within limits for Tl 190.801  Recovery = 99.88%
U 409.014†             17125.1      505.02 ug/L        15.357      505.02 ppb         15.357   3.04%
   QC value within limits for U 409.014  Recovery = 101.00%
V 292.402†             61833.0      501.82 ug/L        14.984      501.82 ppb         14.984   2.99%
   QC value within limits for V 292.402  Recovery = 100.36%
Zn 213.857†            40477.0      494.24 ug/L        16.011      494.24 ppb         16.011   3.24%
   QC value within limits for Zn 213.857  Recovery = 98.85%
SiO2†                  65570.8      5310.2 ug/L        143.81      5310.2 ppb         143.81   2.71%
   QC value within limits for SiO2  Recovery = 99.30%
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/22/2010 20:53:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4900.3	4900.3	108	%			20:55:29
1	Y RADIAL	5274.7	5274.7	107.3	%			20:55:29
1	Al 396.153Radial†	-71.9	6.4	6.3023	ug/L	6.3023	ppb	20:55:49
1	Ca 317.933Radial†	21.5	1.6	3.0313	ug/L	3.0313	ppb	20:55:49
1	Fe 238.204 Radial†	8.3	1.1	12.316	ug/L	12.316	ppb	20:55:49
1	K 766.490 Radial†	2607.0	-88.7	-16.886	ug/L	-16.886	ppb	20:55:29
1	Mg 279.077 IEC†	2.0	1.5	60.890	ug/L	60.890	ppb	20:55:49
1	Na 589.592 Radial†	-758.6	13.1	4.5615	ug/L	4.5615	ppb	20:55:29
1	Sr 421.552†	33.2	-6.6	-0.0518	ug/L	-0.0518	ppb	20:55:29
1	Sc 361.383	870403.6	870403.6	102.97	%			20:56:46
1	Y 371.029	733619.0	733619.0	102.90	%			20:56:46
1	Ag 328.068†	122.4	-37.8	-0.1914	ug/L	-0.1914	ppb	20:56:46
1	As 188.979†	-23.7	-1.0	-0.5498	ug/L	-0.5498	ppb	20:57:06
1	B 249.677†	-291.2	164.6	4.6517	ug/L	4.6517	ppb	20:57:06
1	Ba 233.527†	2.5	-9.6	-0.0905	ug/L	-0.0905	ppb	20:57:06
1	Be 313.107†	-4344.8	237.9	0.1017	ug/L	0.1017	ppb	20:56:46
1	Cd 226.502†	-177.4	-23.8	-0.3502	ug/L	-0.3502	ppb	20:57:06
1	Co 228.616†	-55.7	-0.4	-0.0103	ug/L	-0.0103	ppb	20:57:06
1	Cr 267.716†	69.6	-2.6	-0.0337	ug/L	-0.0337	ppb	20:57:06
1	Cu 324.752†	5577.9	-108.9	-0.3604	ug/L	-0.3604	ppb	20:56:46
1	Mn 257.610†	414.7	16.5	0.0207	ug/L	0.0207	ppb	20:57:06
1	Mo 202.031†	22.3	8.7	0.7872	ug/L	0.7872	ppb	20:57:06
1	Ni 231.604†	93.7	18.4	0.5941	ug/L	0.5941	ppb	20:57:06
1	P 214.914†	188.8	-17.3	-13.059	ug/L	-13.059	ppb	20:57:06
1	Pb 220.353†	-48.2	2.1	0.3361	ug/L	0.3361	ppb	20:57:06
1	S 181.975 Axial†	28.5	-2.2	-4.0428	ug/L	-4.0428	ppb	20:57:06
1	Sb 206.836†	36.0	9.5	4.0903	ug/L	4.0903	ppb	20:57:06
1	Se 196.026†	-17.1	5.6	4.6639	ug/L	4.6639	ppb	20:57:06
1	Si 251.611†	604.0	67.7	2.5774	ug/L	2.5774	ppb	20:57:06
1	Sn 189.927†	14.2	10.1	2.3185	ug/L	2.3185	ppb	20:57:06
1	Ti 334.940†	-1023.2	51.8	0.0855	ug/L	0.0855	ppb	20:56:46
1	Tl 190.801†	-22.0	7.8	3.0618	ug/L	3.0618	ppb	20:57:06
1	U 409.014†	-1990.1	10.4	0.3069	ug/L	0.3069	ppb	20:56:46
1	V 292.402†	-1393.1	-2.3	-0.0071	ug/L	-0.0071	ppb	20:56:46
1	Zn 213.857†	2813.8	2128.3	26.225	ug/L	26.225	ppb	20:57:06
1	SiO2†	601.2	47.6	3.8395	ug/L	3.8395	ppb	20:58:17
2	Sc Radial	4820.6	4820.6	106	%			20:55:54
2	Y RADIAL	5189.4	5189.4	105.5	%			20:55:54
2	Al 396.153Radial†	-85.3	-7.4	-7.3152	ug/L	-7.3152	ppb	20:56:14
2	Ca 317.933Radial†	16.5	-2.8	-5.2816	ug/L	-5.2816	ppb	20:56:14
2	Fe 238.204 Radial†	9.3	2.1	24.276	ug/L	24.276	ppb	20:56:14
2	K 766.490 Radial†	2633.4	-23.8	-4.5258	ug/L	-4.5258	ppb	20:55:54
2	Mg 279.077 IEC†	3.0	2.4	100.02	ug/L	100.02	ppb	20:56:14
2	Na 589.592 Radial†	-747.5	11.9	4.1484	ug/L	4.1484	ppb	20:55:54
2	Sr 421.552†	48.1	8.0	0.0626	ug/L	0.0626	ppb	20:55:54
2	Sc 361.383	873545.5	873545.5	103.34	%			20:57:11
2	Y 371.029	736291.5	736291.5	103.27	%			20:57:11
2	Ag 328.068†	165.8	3.8	0.0242	ug/L	0.0242	ppb	20:57:11
2	As 188.979†	-24.3	-1.5	-0.8285	ug/L	-0.8285	ppb	20:57:31
2	B 249.677†	-300.8	156.4	4.4150	ug/L	4.4150	ppb	20:57:31
2	Ba 233.527†	18.1	5.6	0.0538	ug/L	0.0538	ppb	20:57:31
2	Be 313.107†	-4364.4	234.0	0.0998	ug/L	0.0998	ppb	20:57:11
2	Cd 226.502†	-156.7	-3.2	-0.0485	ug/L	-0.0485	ppb	20:57:31
2	Co 228.616†	-31.5	23.2	0.6098	ug/L	0.6098	ppb	20:57:31
2	Cr 267.716†	62.6	-9.6	-0.1298	ug/L	-0.1298	ppb	20:57:31
2	Cu 324.752†	5598.7	-108.3	-0.3595	ug/L	-0.3595	ppb	20:57:11
2	Mn 257.610†	411.1	11.5	0.0136	ug/L	0.0136	ppb	20:57:31
2	Mo 202.031†	14.8	1.4	0.1255	ug/L	0.1255	ppb	20:57:31
2	Ni 231.604†	95.1	19.5	0.6282	ug/L	0.6282	ppb	20:57:31

2	P 214.914†	188.0	-18.8	-14.160	ug/L	-14.160 ppb	20:57:31
2	Pb 220.353†	-44.9	5.5	0.8540	ug/L	0.8540 ppb	20:57:31
2	S 181.975 Axial†	32.8	1.8	3.3264	ug/L	3.3264 ppb	20:57:31
2	Sb 206.836†	26.7	0.4	0.1716	ug/L	0.1716 ppb	20:57:31
2	Se 196.026†	-22.4	0.5	0.4742	ug/L	0.4742 ppb	20:57:31
2	Si 251.611†	613.7	75.1	2.8658	ug/L	2.8658 ppb	20:57:31
2	Sn 189.927†	7.4	3.4	0.7855	ug/L	0.7855 ppb	20:57:31
2	Ti 334.940†	-1109.5	-28.1	-0.0592	ug/L	-0.0592 ppb	20:57:11
2	Tl 190.801†	-20.7	9.0	3.5668	ug/L	3.5668 ppb	20:57:31
2	U 409.014†	-1891.1	113.2	3.3476	ug/L	3.3476 ppb	20:57:11
2	V 292.402†	-1397.6	-1.7	-0.0068	ug/L	-0.0068 ppb	20:57:11
2	Zn 213.857†	2797.8	2103.0	25.911	ug/L	25.911 ppb	20:57:31
2	SiO2†	619.8	63.5	5.1493	ug/L	5.1493 ppb	20:58:37
3	Sc Radial	4762.7	4762.7	105	%		20:56:19
3	Y RADIAL	5129.6	5129.6	104.3	%		20:56:19
3	Al 396.153Radial†	-72.6	3.8	3.7588	ug/L	3.7588 ppb	20:56:39
3	Ca 317.933Radial†	17.2	-1.9	-3.6255	ug/L	-3.6255 ppb	20:56:39
3	Fe 238.204 Radial†	10.1	3.0	34.930	ug/L	34.930 ppb	20:56:39
3	K 766.490 Radial†	2612.2	-13.8	-2.6381	ug/L	-2.6381 ppb	20:56:19
3	Mg 279.077 IEC†	0.7	0.2	9.1443	ug/L	9.1443 ppb	20:56:39
3	Na 589.592 Radial†	-684.5	63.6	22.203	ug/L	22.203 ppb	20:56:19
3	Sr 421.552†	49.1	9.5	0.0746	ug/L	0.0746 ppb	20:56:19
3	Sc 361.383	881945.0	881945.0	104.33	%		20:57:37
3	Y 371.029	743725.1	743725.1	104.32	%		20:57:37
3	Ag 328.068†	168.8	5.1	0.0337	ug/L	0.0337 ppb	20:57:37
3	As 188.979†	-21.5	1.5	0.8406	ug/L	0.8406 ppb	20:57:57
3	B 249.677†	-289.8	169.7	4.7907	ug/L	4.7907 ppb	20:57:57
3	Ba 233.527†	19.6	6.8	0.0675	ug/L	0.0675 ppb	20:57:57
3	Be 313.107†	-4383.3	256.2	0.1094	ug/L	0.1094 ppb	20:57:37
3	Cd 226.502†	-173.0	-17.3	-0.2557	ug/L	-0.2557 ppb	20:57:57
3	Co 228.616†	-39.8	15.4	0.4045	ug/L	0.4045 ppb	20:57:57
3	Cr 267.716†	78.2	4.8	0.0667	ug/L	0.0667 ppb	20:57:57
3	Cu 324.752†	5715.8	-47.7	-0.1609	ug/L	-0.1609 ppb	20:57:37
3	Mn 257.610†	435.3	30.9	0.0442	ug/L	0.0442 ppb	20:57:57
3	Mo 202.031†	9.0	-4.3	-0.3841	ug/L	-0.3841 ppb	20:57:57
3	Ni 231.604†	93.9	17.4	0.5615	ug/L	0.5615 ppb	20:57:57
3	P 214.914†	187.3	-21.1	-15.987	ug/L	-15.987 ppb	20:57:57
3	Pb 220.353†	-52.3	-1.2	-0.1986	ug/L	-0.1986 ppb	20:57:57
3	S 181.975 Axial†	29.6	-1.5	-2.7956	ug/L	-2.7956 ppb	20:57:57
3	Sb 206.836†	29.5	2.8	1.2016	ug/L	1.2016 ppb	20:57:57
3	Se 196.026†	-25.4	-2.2	-1.6915	ug/L	-1.6915 ppb	20:57:57
3	Si 251.611†	613.6	69.3	2.6498	ug/L	2.6498 ppb	20:57:57
3	Sn 189.927†	9.4	5.3	1.2131	ug/L	1.2131 ppb	20:57:57
3	Ti 334.940†	-1088.7	2.0	-0.0015	ug/L	-0.0015 ppb	20:57:37
3	Tl 190.801†	-35.2	-4.6	-1.8181	ug/L	-1.8181 ppb	20:57:57
3	U 409.014†	-1726.4	288.5	8.5309	ug/L	8.5309 ppb	20:57:37
3	V 292.402†	-1299.4	105.3	0.8495	ug/L	0.8495 ppb	20:57:37
3	Zn 213.857†	2836.5	2114.3	26.049	ug/L	26.049 ppb	20:57:57
3	SiO2†	608.1	46.5	3.7835	ug/L	3.7835 ppb	20:58:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	875298.1	103.55	%	0.706				0.68%
Sc Radial	4827.9	106	%	1.5				1.43%
Y 371.029	737878.5	103.50	%	0.735				0.71%
Y RADIAL	5197.9	105.7	%	1.48				1.40%
Ag 328.068†	-9.6	-0.0445	ug/L	0.12735	-0.0445	ppb	0.12735	286.15%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.9	0.9153	ug/L	7.24037	0.9153	ppb	7.24037	791.03%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.3	-0.1792	ug/L	0.89417	-0.1792	ppb	0.89417	498.89%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	163.6	4.6192	ug/L	0.18995	4.6192	ppb	0.18995	4.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.9	0.0103	ug/L	0.08755	0.0103	ppb	0.08755	851.18%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	242.7	0.1036	ug/L	0.00506	0.1036	ppb	0.00506	4.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.0	-1.9586	ug/L	4.39999	-1.9586	ppb	4.39999	224.65%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -14.8     -0.2181 ug/L       0.15431     -0.2181 ppb        0.15431  70.74%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               12.7      0.3347 ug/L       0.31587      0.3347 ppb        0.31587  94.38%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -2.5     -0.0323 ug/L       0.09827     -0.0323 ppb        0.09827 304.22%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -88.3     -0.2936 ug/L       0.11491     -0.2936 ppb        0.11491  39.14%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         2.1      23.841 ug/L       11.3133      23.841 ppb        11.3133  47.45%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -42.1     -8.0168 ug/L       7.73910     -8.0168 ppb        7.73910  96.54%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.4      56.684 ug/L       45.5822      56.684 ppb        45.5822  80.41%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               19.6      0.0261 ug/L       0.01604      0.0261 ppb        0.01604  61.36%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.9      0.1762 ug/L       0.58732      0.1762 ppb        0.58732 333.34%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        29.5      10.304 ug/L       10.3067      10.304 ppb        10.3067 100.02%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               18.4      0.5946 ug/L       0.03331      0.5946 ppb        0.03331   5.60%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -19.1     -14.402 ug/L        1.4793     -14.402 ppb         1.4793  10.27%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                2.1      0.3305 ug/L       0.52633      0.3305 ppb        0.52633 159.25%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -0.6     -1.1707 ug/L       3.94416     -1.1707 ppb        3.94416 336.92%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                4.2      1.8212 ug/L       2.03151      1.8212 ppb        2.03151 111.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                1.3      1.1489 ug/L       3.23098      1.1489 ppb        3.23098 281.23%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               70.7      2.6977 ug/L       0.15006      2.6977 ppb        0.15006   5.56%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                6.3      1.4390 ug/L       0.79105      1.4390 ppb        0.79105  54.97%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                3.6      0.0284 ug/L       0.06978      0.0284 ppb        0.06978 245.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                8.6      0.0083 ug/L       0.07280      0.0083 ppb        0.07280 879.32%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                4.1      1.6035 ug/L       2.97391      1.6035 ppb        2.97391 185.46%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               137.4      4.0618 ug/L       4.15823      4.0618 ppb        4.15823 102.37%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                33.8      0.2786 ug/L       0.49447      0.2786 ppb        0.49447 177.51%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             2115.2      26.062 ug/L        0.1572      26.062 ppb         0.1572   0.60%
   QC value greater than the upper limit for Zn 213.857  Recovery = Not calculated
SiO2†                     52.5      4.2574 ug/L       0.77288      4.2574 ppb        0.77288  18.15%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 38
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/22/2010 21:50:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4596.3	4596.3	101	%			21:52:19
1	Y RADIAL	4956.4	4956.4	100.8	%			21:52:19
1	Al 396.153Radial†	4948.2	4973.7	4897.0	ug/L	4897.0	ppb	21:52:19
1	Ca 317.933Radial†	2738.9	2694.1	5083.7	ug/L	5083.7	ppb	21:52:39
1	Fe 238.204 Radial†	454.2	443.2	5101.8	ug/L	5101.8	ppb	21:52:39
1	K 766.490 Radial†	29947.9	27148.8	5159.4	ug/L	5159.4	ppb	21:52:19
1	Mg 279.077 IEC†	123.3	121.7	5052.4	ug/L	5052.4	ppb	21:52:39
1	Na 589.592 Radial†	27100.4	27556.9	9622.0	ug/L	9622.0	ppb	21:52:19
1	Sr 421.552†	62601.0	61960.1	485.41	ug/L	485.41	ppb	21:52:19
1	Sc 361.383	883925.5	883925.5	104.57	%			21:53:36
1	Y 371.029	734384.9	734384.9	103.01	%			21:53:36
1	Ag 328.068†	101606.5	97010.5	503.12	ug/L	503.12	ppb	21:53:42
1	As 188.979†	909.0	891.4	506.57	ug/L	506.57	ppb	21:54:02
1	B 249.677†	18140.3	17795.2	500.74	ug/L	500.74	ppb	21:53:42
1	Ba 233.527†	55403.7	52971.1	504.81	ug/L	504.81	ppb	21:53:42
1	Be 313.107†	1235456.1	1185934.9	507.40	ug/L	507.40	ppb	21:53:36
1	Cd 226.502†	35785.3	34370.3	504.86	ug/L	504.86	ppb	21:53:42
1	Co 228.616†	20248.7	19417.6	511.27	ug/L	511.27	ppb	21:53:42
1	Cr 267.716†	38834.8	37067.9	505.04	ug/L	505.04	ppb	21:53:42
1	Cu 324.752†	165057.0	152319.4	504.61	ug/L	504.61	ppb	21:53:42
1	Mn 257.610†	394588.6	376962.2	501.56	ug/L	501.56	ppb	21:53:36
1	Mo 202.031†	5717.1	5454.4	491.28	ug/L	491.28	ppb	21:54:02
1	Ni 231.604†	16619.9	15821.1	510.86	ug/L	510.86	ppb	21:53:42
1	P 214.914†	3633.1	3273.7	2382.7	ug/L	2382.7	ppb	21:54:02
1	Pb 220.353†	3273.5	3179.4	498.73	ug/L	498.73	ppb	21:54:02
1	S 181.975 Axial†	596.5	540.5	978.51	ug/L	978.51	ppb	21:54:02
1	Sb 206.836†	1223.5	1144.6	505.31	ug/L	505.31	ppb	21:54:02
1	Se 196.026†	600.6	596.5	514.56	ug/L	514.56	ppb	21:54:02
1	Si 251.611†	70453.2	66856.2	2547.2	ug/L	2547.2	ppb	21:53:42
1	Sn 189.927†	2212.5	2112.2	487.38	ug/L	487.38	ppb	21:54:02
1	Ti 334.940†	293809.2	282017.9	490.43	ug/L	490.43	ppb	21:53:42
1	Tl 190.801†	1297.1	1269.5	504.28	ug/L	504.28	ppb	21:54:02
1	U 409.014†	16359.1	17587.5	518.66	ug/L	518.66	ppb	21:53:42
1	V 292.402†	64389.0	62926.4	510.63	ug/L	510.63	ppb	21:53:42
1	Zn 213.857†	43711.5	41197.4	503.03	ug/L	503.03	ppb	21:53:42
1	SiO2†	69201.4	65641.5	5315.8	ug/L	5315.8	ppb	21:55:09
2	Sc Radial	4736.7	4736.7	104	%			21:52:44
2	Y RADIAL	5077.9	5077.9	103.3	%			21:52:44
2	Al 396.153Radial†	5062.4	4938.2	4861.8	ug/L	4861.8	ppb	21:52:44
2	Ca 317.933Radial†	2742.2	2616.9	4938.0	ug/L	4938.0	ppb	21:53:04
2	Fe 238.204 Radial†	453.2	428.9	4937.5	ug/L	4937.5	ppb	21:53:04
2	K 766.490 Radial†	30408.8	26712.5	5076.5	ug/L	5076.5	ppb	21:52:44
2	Mg 279.077 IEC†	133.3	127.7	5300.0	ug/L	5300.0	ppb	21:53:04
2	Na 589.592 Radial†	27757.6	27392.9	9564.7	ug/L	9564.7	ppb	21:52:44
2	Sr 421.552†	63903.0	61373.5	480.82	ug/L	480.82	ppb	21:52:44
2	Sc 361.383	882795.8	882795.8	104.44	%			21:54:08
2	Y 371.029	733366.4	733366.4	102.86	%			21:54:08
2	Ag 328.068†	100490.2	96065.9	498.20	ug/L	498.20	ppb	21:54:13
2	As 188.979†	912.6	895.9	509.04	ug/L	509.04	ppb	21:54:33
2	B 249.677†	17960.0	17644.7	496.52	ug/L	496.52	ppb	21:54:13
2	Ba 233.527†	55101.0	52749.0	502.68	ug/L	502.68	ppb	21:54:13
2	Be 313.107†	1225334.8	1177755.3	503.90	ug/L	503.90	ppb	21:54:08
2	Cd 226.502†	35648.8	34283.4	503.59	ug/L	503.59	ppb	21:54:13
2	Co 228.616†	20146.6	19344.7	509.37	ug/L	509.37	ppb	21:54:13
2	Cr 267.716†	38596.1	36886.9	502.56	ug/L	502.56	ppb	21:54:13
2	Cu 324.752†	162297.9	149879.5	496.52	ug/L	496.52	ppb	21:54:13
2	Mn 257.610†	391578.3	374562.7	498.35	ug/L	498.35	ppb	21:54:08
2	Mo 202.031†	5738.6	5482.0	493.76	ug/L	493.76	ppb	21:54:33
2	Ni 231.604†	16563.7	15787.7	509.78	ug/L	509.78	ppb	21:54:13

2	P 214.914†	3646.3	3290.8	2397.5 ug/L	2397.5 ppb	21:54:33
2	Pb 220.353†	3302.8	3211.4	503.76 ug/L	503.76 ppb	21:54:33
2	S 181.975 Axial†	603.8	548.3	992.51 ug/L	992.51 ppb	21:54:33
2	Sb 206.836†	1237.4	1159.4	511.78 ug/L	511.78 ppb	21:54:33
2	Se 196.026†	606.6	603.0	519.54 ug/L	519.54 ppb	21:54:33
2	Si 251.611†	69728.6	66248.6	2524.0 ug/L	2524.0 ppb	21:54:13
2	Sn 189.927†	2244.7	2145.6	495.08 ug/L	495.08 ppb	21:54:33
2	Ti 334.940†	290979.2	279667.6	486.30 ug/L	486.30 ppb	21:54:13
2	Tl 190.801†	1307.2	1280.7	508.68 ug/L	508.68 ppb	21:54:33
2	U 409.014†	16013.8	17276.9	509.50 ug/L	509.50 ppb	21:54:13
2	V 292.402†	63815.4	62456.0	506.91 ug/L	506.91 ppb	21:54:13
2	Zn 213.857†	43314.0	40870.2	499.04 ug/L	499.04 ppb	21:54:13
2	SiO2†	70050.4	66539.2	5388.6 ug/L	5388.6 ppb	21:55:14
3	Sc Radial	4645.6	4645.6	102 %		21:53:09
3	Y RADIAL	4973.2	4973.2	101.1 %		21:53:09
3	Al 396.153Radial†	5022.6	4994.6	4917.8 ug/L	4917.8 ppb	21:53:09
3	Ca 317.933Radial†	2737.3	2663.7	5026.5 ug/L	5026.5 ppb	21:53:29
3	Fe 238.204 Radial†	451.2	435.5	5014.0 ug/L	5014.0 ppb	21:53:29
3	K 766.490 Radial†	30120.6	27003.2	5131.7 ug/L	5131.7 ppb	21:53:09
3	Mg 279.077 IEC†	127.5	124.5	5170.1 ug/L	5170.1 ppb	21:53:29
3	Na 589.592 Radial†	27468.7	27633.0	9648.6 ug/L	9648.6 ppb	21:53:09
3	Sr 421.552†	63103.5	61794.6	484.11 ug/L	484.11 ppb	21:53:09
3	Sc 361.383	889543.8	889543.8	105.23 %		21:54:39
3	Y 371.029	738506.3	738506.3	103.59 %		21:54:39
3	Ag 328.068†	100850.5	95678.4	496.22 ug/L	496.22 ppb	21:54:44
3	As 188.979†	908.4	885.3	503.09 ug/L	503.09 ppb	21:55:04
3	B 249.677†	17954.1	17508.7	492.67 ug/L	492.67 ppb	21:54:44
3	Ba 233.527†	55333.8	52570.0	500.98 ug/L	500.98 ppb	21:54:44
3	Be 313.107†	1232974.7	1176114.6	503.19 ug/L	503.19 ppb	21:54:39
3	Cd 226.502†	35773.5	34142.9	501.52 ug/L	501.52 ppb	21:54:44
3	Co 228.616†	20256.7	19303.0	508.26 ug/L	508.26 ppb	21:54:44
3	Cr 267.716†	38725.0	36729.0	500.42 ug/L	500.42 ppb	21:54:44
3	Cu 324.752†	162977.5	149346.5	494.76 ug/L	494.76 ppb	21:54:44
3	Mn 257.610†	395302.1	375257.0	499.28 ug/L	499.28 ppb	21:54:39
3	Mo 202.031†	5735.8	5437.7	489.77 ug/L	489.77 ppb	21:55:04
3	Ni 231.604†	16616.6	15717.7	507.52 ug/L	507.52 ppb	21:54:44
3	P 214.914†	3643.5	3261.6	2375.6 ug/L	2375.6 ppb	21:55:04
3	Pb 220.353†	3288.5	3173.8	497.87 ug/L	497.87 ppb	21:55:04
3	S 181.975 Axial†	606.5	546.5	989.25 ug/L	989.25 ppb	21:55:04
3	Sb 206.836†	1250.3	1162.7	512.97 ug/L	512.97 ppb	21:55:04
3	Se 196.026†	595.8	588.3	507.49 ug/L	507.49 ppb	21:55:04
3	Si 251.611†	70005.8	66005.5	2514.8 ug/L	2514.8 ppb	21:54:44
3	Sn 189.927†	2224.9	2110.6	487.01 ug/L	487.01 ppb	21:55:04
3	Ti 334.940†	292092.5	278611.9	484.49 ug/L	484.49 ppb	21:54:44
3	Tl 190.801†	1297.3	1261.9	501.23 ug/L	501.23 ppb	21:55:04
3	U 409.014†	16065.8	17210.0	507.51 ug/L	507.51 ppb	21:54:44
3	V 292.402†	64052.0	62217.3	504.93 ug/L	504.93 ppb	21:54:44
3	Zn 213.857†	43500.9	40733.2	497.36 ug/L	497.36 ppb	21:54:44
3	SiO2†	70187.7	66160.8	5358.0 ug/L	5358.0 ppb	21:55:19

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	885421.7	104.75	%	0.428				0.41%
Sc Radial	4659.5	102	%	1.6				1.53%
Y 371.029	735419.2	103.15	%	0.382				0.37%
Y RADIAL	5002.5	101.7	%	1.34				1.32%
Ag 328.068†	96251.6	499.18	ug/L	3.556	499.18	ppb	3.556	0.71%
QC value within limits for Ag 328.068 Recovery = 99.84%								
Al 396.153Radial†	4968.8	4892.2	ug/L	28.32	4892.2	ppb	28.32	0.58%
QC value within limits for Al 396.153Radial Recovery = 97.84%								
As 188.979†	890.9	506.23	ug/L	2.989	506.23	ppb	2.989	0.59%
QC value within limits for As 188.979 Recovery = 101.25%								
B 249.677†	17649.5	496.64	ug/L	4.039	496.64	ppb	4.039	0.81%
QC value within limits for B 249.677 Recovery = 99.33%								
Ba 233.527†	52763.4	502.82	ug/L	1.918	502.82	ppb	1.918	0.38%
QC value within limits for Ba 233.527 Recovery = 100.56%								
Be 313.107†	1179935.0	504.83	ug/L	2.253	504.83	ppb	2.253	0.45%
QC value within limits for Be 313.107 Recovery = 100.97%								
Ca 317.933Radial†	2658.2	5016.1	ug/L	73.43	5016.1	ppb	73.43	1.46%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.32%
Cd 226.502†            34265.5      503.32 ug/L         1.684      503.32 ppb          1.684   0.33%
   QC value within limits for Cd 226.502  Recovery = 100.66%
Co 228.616†            19355.1      509.63 ug/L         1.521      509.63 ppb          1.521   0.30%
   QC value within limits for Co 228.616  Recovery = 101.93%
Cr 267.716†            36894.6      502.68 ug/L         2.312      502.68 ppb          2.312   0.46%
   QC value within limits for Cr 267.716  Recovery = 100.54%
Cu 324.752†           150515.1      498.63 ug/L         5.252      498.63 ppb          5.252   1.05%
   QC value within limits for Cu 324.752  Recovery = 99.73%
Fe 238.204 Radial†       435.8      5017.8 ug/L        82.19      5017.8 ppb         82.19   1.64%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.36%
K 766.490 Radial†      26954.9      5122.6 ug/L        42.23      5122.6 ppb         42.23   0.82%
   QC value within limits for K 766.490 Radial  Recovery = 102.45%
Mg 279.077 IEC†          124.6      5174.2 ug/L       123.83      5174.2 ppb        123.83   2.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.48%
Mn 257.610†           375594.0      499.73 ug/L         1.655      499.73 ppb          1.655   0.33%
   QC value within limits for Mn 257.610  Recovery = 99.95%
Mo 202.031†             5458.0      491.61 ug/L         2.012      491.61 ppb          2.012   0.41%
   QC value within limits for Mo 202.031  Recovery = 98.32%
Na 589.592 Radial†     27527.6      9611.8 ug/L        42.86      9611.8 ppb         42.86   0.45%
   QC value within limits for Na 589.592 Radial  Recovery = 96.12%
Ni 231.604†            15775.5      509.39 ug/L         1.705      509.39 ppb          1.705   0.33%
   QC value within limits for Ni 231.604  Recovery = 101.88%
P 214.914†              3275.4      2385.2 ug/L        11.17      2385.2 ppb         11.17   0.47%
   QC value within limits for P 214.914  Recovery = 95.41%
Pb 220.353†             3188.2      500.12 ug/L         3.182      500.12 ppb          3.182   0.64%
   QC value within limits for Pb 220.353  Recovery = 100.02%
S 181.975 Axial†         545.1      986.76 ug/L         7.328      986.76 ppb          7.328   0.74%
   QC value within limits for S 181.975 Axial  Recovery = 98.68%
Sb 206.836†             1155.6      510.02 ug/L         4.125      510.02 ppb          4.125   0.81%
   QC value within limits for Sb 206.836  Recovery = 102.00%
Se 196.026†              596.0      513.86 ug/L         6.058      513.86 ppb          6.058   1.18%
   QC value within limits for Se 196.026  Recovery = 102.77%
Si 251.611†            66370.1      2528.7 ug/L        16.73      2528.7 ppb         16.73   0.66%
   QC value within limits for Si 251.611  Recovery = 101.15%
Sn 189.927†             2122.8      489.83 ug/L         4.556      489.83 ppb          4.556   0.93%
   QC value within limits for Sn 189.927  Recovery = 97.97%
Sr 421.552†            61709.4      483.45 ug/L         2.369      483.45 ppb          2.369   0.49%
   QC value within limits for Sr 421.552  Recovery = 96.69%
Ti 334.940†           280099.1      487.08 ug/L         3.042      487.08 ppb          3.042   0.62%
   QC value within limits for Ti 334.940  Recovery = 97.42%
Tl 190.801†             1270.7      504.73 ug/L         3.746      504.73 ppb          3.746   0.74%
   QC value within limits for Tl 190.801  Recovery = 100.95%
U 409.014†             17358.1      511.89 ug/L         5.948      511.89 ppb          5.948   1.16%
   QC value within limits for U 409.014  Recovery = 102.38%
V 292.402†             62533.2      507.49 ug/L         2.894      507.49 ppb          2.894   0.57%
   QC value within limits for V 292.402  Recovery = 101.50%
Zn 213.857†            40933.6      499.81 ug/L         2.914      499.81 ppb          2.914   0.58%
   QC value within limits for Zn 213.857  Recovery = 99.96%
SiO2†                  66113.8      5354.1 ug/L        36.56      5354.1 ppb         36.56   0.68%
   QC value within limits for SiO2  Recovery = 100.12%
All analyte(s) passed QC.
```

Sequence No.: 39
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/22/2010 21:57:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4452.8	4452.8	97.8	%			21:59:41
1	Y RADIAL	5105.1	5105.1	103.8	%			21:59:21
1	Al 396.153Radial†	-75.5	-4.0	-3.9111	ug/L	-3.9111	ppb	21:59:41
1	Ca 317.933Radial†	20.4	2.5	4.6887	ug/L	4.6887	ppb	21:59:41
1	Fe 238.204 Radial†	9.6	3.2	36.626	ug/L	36.626	ppb	21:59:41
1	K 766.490 Radial†	2589.1	136.4	25.954	ug/L	25.954	ppb	21:59:21
1	Mg 279.077 IEC†	4.6	4.3	178.80	ug/L	178.80	ppb	21:59:41
1	Na 589.592 Radial†	-727.9	-26.3	-9.1922	ug/L	-9.1922	ppb	21:59:21
1	Sr 421.552†	32.9	-3.8	-0.0297	ug/L	-0.0297	ppb	21:59:21
1	Sc 361.383	873130.1	873130.1	103.29	%			22:00:38
1	Y 371.029	737515.5	737515.5	103.45	%			22:00:38
1	Ag 328.068†	160.6	-1.2	0.0058	ug/L	0.0058	ppb	22:00:38
1	As 188.979†	-21.7	1.1	0.6013	ug/L	0.6013	ppb	22:00:58
1	B 249.677†	-325.9	132.0	3.7228	ug/L	3.7228	ppb	22:00:58
1	Ba 233.527†	-2.7	-14.6	-0.1364	ug/L	-0.1364	ppb	22:00:58
1	Be 313.107†	-4329.6	265.7	0.1135	ug/L	0.1135	ppb	22:00:38
1	Cd 226.502†	-178.8	-24.6	-0.3647	ug/L	-0.3647	ppb	22:00:58
1	Co 228.616†	-36.7	18.1	0.4742	ug/L	0.4742	ppb	22:00:58
1	Cr 267.716†	75.4	2.8	0.0426	ug/L	0.0426	ppb	22:00:58
1	Cu 324.752†	5564.1	-139.2	-0.4600	ug/L	-0.4600	ppb	22:00:38
1	Mn 257.610†	418.2	18.6	0.0210	ug/L	0.0210	ppb	22:00:58
1	Mo 202.031†	9.5	-3.7	-0.3318	ug/L	-0.3318	ppb	22:00:58
1	Ni 231.604†	94.6	19.0	0.6124	ug/L	0.6124	ppb	22:00:58
1	P 214.914†	199.7	-7.3	-5.4723	ug/L	-5.4723	ppb	22:00:58
1	Pb 220.353†	-51.8	-1.3	-0.2059	ug/L	-0.2059	ppb	22:00:58
1	S 181.975 Axial†	28.8	-2.0	-3.6447	ug/L	-3.6447	ppb	22:00:58
1	Sb 206.836†	33.5	7.0	3.0147	ug/L	3.0147	ppb	22:00:58
1	Se 196.026†	-7.5	14.9	12.496	ug/L	12.496	ppb	22:00:58
1	Si 251.611†	595.1	57.4	2.1946	ug/L	2.1946	ppb	22:00:58
1	Sn 189.927†	10.8	6.7	1.5451	ug/L	1.5451	ppb	22:00:58
1	Ti 334.940†	-1074.2	5.6	-0.0049	ug/L	-0.0049	ppb	22:00:38
1	Tl 190.801†	-31.3	-1.3	-0.4978	ug/L	-0.4978	ppb	22:00:58
1	U 409.014†	-1964.7	41.1	1.2122	ug/L	1.2122	ppb	22:00:38
1	V 292.402†	-1341.8	51.6	0.4093	ug/L	0.4093	ppb	22:00:38
1	Zn 213.857†	2823.5	2129.2	26.233	ug/L	26.233	ppb	22:00:58
1	SiO2†	607.8	52.1	4.2390	ug/L	4.2390	ppb	22:02:09
2	Sc Radial	4468.7	4468.7	98.2	%			22:00:06
2	Y RADIAL	4993.4	4993.4	101.6	%			21:59:46
2	Al 396.153Radial†	-80.9	-9.2	-9.1167	ug/L	-9.1167	ppb	22:00:06
2	Ca 317.933Radial†	15.6	-2.5	-4.7618	ug/L	-4.7618	ppb	22:00:06
2	Fe 238.204 Radial†	7.4	0.9	10.740	ug/L	10.740	ppb	22:00:06
2	K 766.490 Radial†	2644.8	183.7	34.961	ug/L	34.961	ppb	21:59:46
2	Mg 279.077 IEC†	1.6	1.2	51.319	ug/L	51.319	ppb	22:00:06
2	Na 589.592 Radial†	-751.8	-48.0	-16.769	ug/L	-16.769	ppb	21:59:46
2	Sr 421.552†	24.8	-12.2	-0.0958	ug/L	-0.0958	ppb	21:59:46
2	Sc 361.383	875140.8	875140.8	103.53	%			22:01:03
2	Y 371.029	737357.5	737357.5	103.42	%			22:01:03
2	Ag 328.068†	159.1	-3.0	-0.0139	ug/L	-0.0139	ppb	22:01:03
2	As 188.979†	-16.0	6.6	3.7343	ug/L	3.7343	ppb	22:01:23
2	B 249.677†	-306.4	151.5	4.2802	ug/L	4.2802	ppb	22:01:23
2	Ba 233.527†	18.7	6.1	0.0595	ug/L	0.0595	ppb	22:01:23
2	Be 313.107†	-4432.3	176.2	0.0752	ug/L	0.0752	ppb	22:01:03
2	Cd 226.502†	-167.2	-13.1	-0.1922	ug/L	-0.1922	ppb	22:01:23
2	Co 228.616†	-55.5	0.0	0.0008	ug/L	0.0008	ppb	22:01:23
2	Cr 267.716†	76.0	3.2	0.0441	ug/L	0.0441	ppb	22:01:23
2	Cu 324.752†	5553.8	-161.5	-0.5369	ug/L	-0.5369	ppb	22:01:03
2	Mn 257.610†	439.9	38.6	0.0503	ug/L	0.0503	ppb	22:01:23
2	Mo 202.031†	17.7	4.1	0.3742	ug/L	0.3742	ppb	22:01:23
2	Ni 231.604†	76.4	1.2	0.0390	ug/L	0.0390	ppb	22:01:23

2	P 214.914†	207.3	-0.4	-0.2304 ug/L	-0.2304 ppb	22:01:23
2	Pb 220.353†	-40.0	10.3	1.6080 ug/L	1.6080 ppb	22:01:23
2	S 181.975 Axial†	39.3	8.0	14.534 ug/L	14.534 ppb	22:01:23
2	Sb 206.836†	24.6	-1.7	-0.6864 ug/L	-0.6864 ppb	22:01:23
2	Se 196.026†	-25.9	-2.8	-2.3335 ug/L	-2.3335 ppb	22:01:23
2	Si 251.611†	584.9	46.1	1.7570 ug/L	1.7570 ppb	22:01:23
2	Sn 189.927†	9.1	5.0	1.1588 ug/L	1.1588 ppb	22:01:23
2	Ti 334.940†	-1074.8	7.4	0.0062 ug/L	0.0062 ppb	22:01:03
2	Tl 190.801†	-29.9	0.2	0.0933 ug/L	0.0933 ppb	22:01:23
2	U 409.014†	-1865.3	141.4	4.1838 ug/L	4.1838 ppb	22:01:03
2	V 292.402†	-1348.1	48.6	0.4019 ug/L	0.4019 ppb	22:01:03
2	Zn 213.857†	2796.4	2096.7	25.840 ug/L	25.840 ppb	22:01:23
2	SiO2†	600.9	44.1	3.5666 ug/L	3.5666 ppb	22:02:29
3	Sc Radial	4496.2	4496.2	98.8 %		22:00:31
3	Y RADIAL	5039.8	5039.8	102.5 %		22:00:11
3	Al 396.153Radial†	-71.4	0.9	0.8612 ug/L	0.8612 ppb	22:00:31
3	Ca 317.933Radial†	23.4	5.4	10.098 ug/L	10.098 ppb	22:00:31
3	Fe 238.204 Radial†	5.4	-1.2	-13.688 ug/L	-13.688 ppb	22:00:31
3	K 766.490 Radial†	2707.8	230.9	43.945 ug/L	43.945 ppb	22:00:11
3	Mg 279.077 IEC†	0.8	0.4	18.382 ug/L	18.382 ppb	22:00:31
3	Na 589.592 Radial†	-748.3	-39.8	-13.906 ug/L	-13.906 ppb	22:00:11
3	Sr 421.552†	32.5	-4.6	-0.0357 ug/L	-0.0357 ppb	22:00:11
3	Sc 361.383	877109.6	877109.6	103.76 %		22:01:28
3	Y 371.029	738624.8	738624.8	103.60 %		22:01:28
3	Ag 328.068†	102.4	-58.0	-0.3028 ug/L	-0.3028 ppb	22:01:28
3	As 188.979†	-20.2	2.7	1.4922 ug/L	1.4922 ppb	22:01:49
3	B 249.677†	-321.6	137.5	3.8873 ug/L	3.8873 ppb	22:01:49
3	Ba 233.527†	14.8	2.3	0.0221 ug/L	0.0221 ppb	22:01:49
3	Be 313.107†	-4457.5	161.5	0.0691 ug/L	0.0691 ppb	22:01:28
3	Cd 226.502†	-175.9	-21.0	-0.3069 ug/L	-0.3069 ppb	22:01:49
3	Co 228.616†	-46.9	8.4	0.2233 ug/L	0.2233 ppb	22:01:49
3	Cr 267.716†	69.1	-3.6	-0.0497 ug/L	-0.0497 ppb	22:01:49
3	Cu 324.752†	5640.6	-89.9	-0.2991 ug/L	-0.2991 ppb	22:01:28
3	Mn 257.610†	418.5	17.0	0.0205 ug/L	0.0205 ppb	22:01:49
3	Mo 202.031†	18.3	4.8	0.4284 ug/L	0.4284 ppb	22:01:49
3	Ni 231.604†	84.1	8.4	0.2728 ug/L	0.2728 ppb	22:01:49
3	P 214.914†	185.8	-21.6	-16.313 ug/L	-16.313 ppb	22:01:49
3	Pb 220.353†	-56.3	-5.4	-0.8411 ug/L	-0.8411 ppb	22:01:49
3	S 181.975 Axial†	26.1	-4.8	-8.6324 ug/L	-8.6324 ppb	22:01:49
3	Sb 206.836†	22.5	-3.7	-1.5475 ug/L	-1.5475 ppb	22:01:49
3	Se 196.026†	-23.9	-0.9	-0.7697 ug/L	-0.7697 ppb	22:01:49
3	Si 251.611†	599.2	58.6	2.2338 ug/L	2.2338 ppb	22:01:49
3	Sn 189.927†	11.7	7.6	1.7519 ug/L	1.7519 ppb	22:01:49
3	Ti 334.940†	-1044.2	39.2	0.0676 ug/L	0.0676 ppb	22:01:28
3	Tl 190.801†	-32.6	-2.3	-0.9118 ug/L	-0.9118 ppb	22:01:49
3	U 409.014†	-1979.6	35.3	1.0475 ug/L	1.0475 ppb	22:01:28
3	V 292.402†	-1358.3	41.7	0.3442 ug/L	0.3442 ppb	22:01:28
3	Zn 213.857†	2801.0	2095.2	25.822 ug/L	25.822 ppb	22:01:49
3	SiO2†	584.4	26.9	2.1697 ug/L	2.1697 ppb	22:02:49

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	875126.8	103.53	%	0.235				0.23%
Sc Radial	4472.5	98.3	%	0.48				0.49%
Y 371.029	737832.6	103.49	%	0.097				0.09%
Y RADIAL	5046.1	102.6	%	1.14				1.11%
Ag 328.068†	-20.7	-0.1036	ug/L	0.17278	-0.1036	ppb	0.17278	166.74%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.1	-4.0555	ug/L	4.99054	-4.0555	ppb	4.99054	123.05%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.4	1.9426	ug/L	1.61438	1.9426	ppb	1.61438	83.10%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	140.3	3.9634	ug/L	0.28637	3.9634	ppb	0.28637	7.23%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.0	-0.0182	ug/L	0.10401	-0.0182	ppb	0.10401	569.92%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	201.1	0.0859	ug/L	0.02404	0.0859	ppb	0.02404	27.97%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.8	3.3418	ug/L	7.52112	3.3418	ppb	7.52112	225.06%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -19.6     -0.2879 ug/L       0.08782     -0.2879 ppb        0.08782  30.50%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                8.8      0.2328 ug/L       0.23682      0.2328 ppb        0.23682 101.74%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                0.8      0.0123 ug/L       0.05375      0.0123 ppb        0.05375 435.98%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -130.2     -0.4320 ug/L       0.12135     -0.4320 ppb        0.12135  28.09%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.0      11.226 ug/L       25.1601      11.226 ppb        25.1601 224.12%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        183.7      34.953 ug/L        8.9951      34.953 ppb         8.9951  25.73%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.0      82.834 ug/L       84.7267      82.834 ppb        84.7267 102.28%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               24.7      0.0306 ug/L       0.01705      0.0306 ppb        0.01705  55.71%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.7      0.1569 ug/L       0.42411      0.1569 ppb        0.42411 270.23%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -38.1     -13.289 ug/L        3.8260     -13.289 ppb         3.8260  28.79%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                9.5      0.3081 ug/L       0.28833      0.3081 ppb        0.28833  93.59%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -9.8     -7.3385 ug/L       8.20198     -7.3385 ppb        8.20198 111.77%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                1.2      0.1870 ug/L       1.27095      0.1870 ppb        1.27095 679.77%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.4      0.7523 ug/L      12.19308      0.7523 ppb       12.19308 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                0.5      0.2602 ug/L       2.42395      0.2602 ppb        2.42395 931.40%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.7      3.1309 ug/L       8.14802      3.1309 ppb        8.14802 260.24%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               54.0      2.0618 ug/L       0.26468      2.0618 ppb        0.26468  12.84%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                6.4      1.4853 ug/L       0.30101      1.4853 ppb        0.30101  20.27%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -6.9     -0.0537 ug/L       0.03656     -0.0537 ppb        0.03656  68.02%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               17.4      0.0230 ug/L       0.03907      0.0230 ppb        0.03907 169.95%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -1.1     -0.4388 ug/L       0.50515     -0.4388 ppb        0.50515 115.13%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                72.6      2.1478 ug/L       1.76513      2.1478 ppb        1.76513  82.18%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                47.3      0.3851 ug/L       0.03562      0.3851 ppb        0.03562   9.25%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             2107.0      25.965 ug/L        0.2320      25.965 ppb         0.2320   0.89%
   QC value greater than the upper limit for Zn 213.857  Recovery = Not calculated
SiO2†                     41.0      3.3251 ug/L       1.05559      3.3251 ppb        1.05559  31.75%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 47
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/22/2010 22:54:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4630.2	4630.2	102	%			22:55:58
1	Y RADIAL	4962.9	4962.9	100.9	%			22:55:58
1	Al 396.153Radial†	5007.0	4995.5	4918.5	ug/L	4918.5	ppb	22:55:58
1	Ca 317.933Radial†	2737.7	2673.1	5044.1	ug/L	5044.1	ppb	22:56:18
1	Fe 238.204 Radial†	447.5	433.3	4988.2	ug/L	4988.2	ppb	22:56:18
1	K 766.490 Radial†	30166.9	27146.7	5159.2	ug/L	5159.2	ppb	22:55:58
1	Mg 279.077 IEC†	127.6	125.0	5191.2	ug/L	5191.2	ppb	22:56:18
1	Na 589.592 Radial†	26341.4	26614.0	9292.8	ug/L	9292.8	ppb	22:55:58
1	Sr 421.552†	62076.8	60990.4	477.81	ug/L	477.81	ppb	22:55:58
1	Sc 361.383	887441.5	887441.5	104.98	%			22:57:16
1	Y 371.029	737461.3	737461.3	103.44	%			22:57:16
1	Ag 328.068†	100689.6	95752.1	496.60	ug/L	496.60	ppb	22:57:21
1	As 188.979†	927.1	905.2	514.28	ug/L	514.28	ppb	22:57:41
1	B 249.677†	18176.6	17761.0	499.80	ug/L	499.80	ppb	22:57:21
1	Ba 233.527†	55347.2	52707.3	502.29	ug/L	502.29	ppb	22:57:21
1	Be 313.107†	1238740.3	1184382.1	506.73	ug/L	506.73	ppb	22:57:16
1	Cd 226.502†	35790.6	34239.7	502.95	ug/L	502.95	ppb	22:57:21
1	Co 228.616†	20258.8	19350.5	509.53	ug/L	509.53	ppb	22:57:21
1	Cr 267.716†	38849.7	36934.9	503.23	ug/L	503.23	ppb	22:57:21
1	Cu 324.752†	162994.4	149729.4	496.03	ug/L	496.03	ppb	22:57:21
1	Mn 257.610†	395271.0	376117.2	500.42	ug/L	500.42	ppb	22:57:16
1	Mo 202.031†	5778.1	5490.8	494.56	ug/L	494.56	ppb	22:57:41
1	Ni 231.604†	16656.9	15793.4	509.97	ug/L	509.97	ppb	22:57:21
1	P 214.914†	3670.6	3295.7	2401.2	ug/L	2401.2	ppb	22:57:41
1	Pb 220.353†	3317.3	3208.7	503.34	ug/L	503.34	ppb	22:57:41
1	S 181.975 Axial†	607.9	549.2	994.18	ug/L	994.18	ppb	22:57:41
1	Sb 206.836†	1259.3	1174.0	518.06	ug/L	518.06	ppb	22:57:41
1	Se 196.026†	611.6	604.8	521.15	ug/L	521.15	ppb	22:57:41
1	Si 251.611†	70268.5	66413.4	2530.3	ug/L	2530.3	ppb	22:57:21
1	Sn 189.927†	2261.6	2150.5	496.22	ug/L	496.22	ppb	22:57:41
1	Ti 334.940†	291956.6	279140.0	485.41	ug/L	485.41	ppb	22:57:21
1	Tl 190.801†	1309.4	1276.3	506.93	ug/L	506.93	ppb	22:57:41
1	U 409.014†	15888.6	17077.4	503.59	ug/L	503.59	ppb	22:57:21
1	V 292.402†	64341.7	62637.4	508.36	ug/L	508.36	ppb	22:57:21
1	Zn 213.857†	43517.4	40846.9	498.74	ug/L	498.74	ppb	22:57:21
1	SiO2†	70186.4	66317.6	5370.6	ug/L	5370.6	ppb	22:58:48
2	Sc Radial	4717.2	4717.2	104	%			22:56:23
2	Y RADIAL	5042.8	5042.8	102.6	%			22:56:23
2	Al 396.153Radial†	5094.5	4989.2	4911.6	ug/L	4911.6	ppb	22:56:23
2	Ca 317.933Radial†	2694.4	2581.7	4871.6	ug/L	4871.6	ppb	22:56:43
2	Fe 238.204 Radial†	442.7	420.6	4842.9	ug/L	4842.9	ppb	22:56:43
2	K 766.490 Radial†	30420.0	26844.0	5101.6	ug/L	5101.6	ppb	22:56:23
2	Mg 279.077 IEC†	126.2	121.4	5038.5	ug/L	5038.5	ppb	22:56:43
2	Na 589.592 Radial†	26806.5	26585.3	9282.7	ug/L	9282.7	ppb	22:56:23
2	Sr 421.552†	63071.4	60824.7	476.52	ug/L	476.52	ppb	22:56:23
2	Sc 361.383	861942.7	861942.7	101.97	%			22:57:47
2	Y 371.029	715813.5	715813.5	100.40	%			22:57:47
2	Ag 328.068†	100853.5	98750.2	512.06	ug/L	512.06	ppb	22:57:52
2	As 188.979†	916.7	921.1	523.30	ug/L	523.30	ppb	22:58:12
2	B 249.677†	18164.4	18261.2	513.92	ug/L	513.92	ppb	22:57:52
2	Ba 233.527†	55370.7	54290.0	517.36	ug/L	517.36	ppb	22:57:52
2	Be 313.107†	1233244.0	1213897.5	519.36	ug/L	519.36	ppb	22:57:47
2	Cd 226.502†	35781.4	35239.3	517.66	ug/L	517.66	ppb	22:57:52
2	Co 228.616†	20265.3	19927.7	524.73	ug/L	524.73	ppb	22:57:52
2	Cr 267.716†	38709.1	37891.7	516.23	ug/L	516.23	ppb	22:57:52
2	Cu 324.752†	163066.4	154392.9	511.46	ug/L	511.46	ppb	22:57:52
2	Mn 257.610†	394407.8	386408.7	514.10	ug/L	514.10	ppb	22:57:47
2	Mo 202.031†	5764.8	5640.6	508.02	ug/L	508.02	ppb	22:58:12
2	Ni 231.604†	16640.0	16246.2	524.59	ug/L	524.59	ppb	22:57:52

2	P 214.914†	3676.2	3404.6	2480.9 ug/L	2480.9 ppb	22:58:12
2	Pb 220.353†	3331.5	3316.1	520.19 ug/L	520.19 ppb	22:58:12
2	S 181.975 Axial†	609.9	568.2	1028.7 ug/L	1028.7 ppb	22:58:12
2	Sb 206.836†	1257.4	1207.6	532.85 ug/L	532.85 ppb	22:58:12
2	Se 196.026†	612.0	622.3	535.38 ug/L	535.38 ppb	22:58:12
2	Si 251.611†	70254.9	68380.0	2605.2 ug/L	2605.2 ppb	22:57:52
2	Sn 189.927†	2253.8	2206.6	509.13 ug/L	509.13 ppb	22:58:12
2	Ti 334.940†	291880.2	287291.9	499.57 ug/L	499.57 ppb	22:57:52
2	Tl 190.801†	1301.0	1305.0	518.35 ug/L	518.35 ppb	22:58:12
2	U 409.014†	15949.5	17584.8	518.59 ug/L	518.59 ppb	22:57:52
2	V 292.402†	64193.6	64305.2	521.93 ug/L	521.93 ppb	22:57:52
2	Zn 213.857†	43543.0	42098.2	514.07 ug/L	514.07 ppb	22:57:52
2	SiO2†	70287.8	68394.8	5538.8 ug/L	5538.8 ppb	22:58:53
3	Sc Radial	4586.5	4586.5	101 %		22:56:48
3	Y RADIAL	4979.3	4979.3	101.3 %		22:56:48
3	Al 396.153Radial†	4972.0	5007.8	4930.8 ug/L	4930.8 ppb	22:56:48
3	Ca 317.933Radial†	2710.0	2671.2	5040.6 ug/L	5040.6 ppb	22:57:08
3	Fe 238.204 Radial†	442.1	432.1	4975.1 ug/L	4975.1 ppb	22:57:08
3	K 766.490 Radial†	30036.7	27300.2	5188.4 ug/L	5188.4 ppb	22:56:48
3	Mg 279.077 IEC†	126.5	125.1	5193.9 ug/L	5193.9 ppb	22:57:08
3	Na 589.592 Radial†	26091.0	26612.4	9292.2 ug/L	9292.2 ppb	22:56:48
3	Sr 421.552†	61685.7	61184.1	479.33 ug/L	479.33 ppb	22:56:48
3	Sc 361.383	884903.5	884903.5	104.68 %		22:58:18
3	Y 371.029	734458.9	734458.9	103.02 %		22:58:18
3	Ag 328.068†	101149.1	96466.2	500.28 ug/L	500.28 ppb	22:58:23
3	As 188.979†	908.7	890.1	505.80 ug/L	505.80 ppb	22:58:43
3	B 249.677†	18286.4	17915.5	504.17 ug/L	504.17 ppb	22:58:23
3	Ba 233.527†	55382.7	52892.5	504.05 ug/L	504.05 ppb	22:58:23
3	Be 313.107†	1234166.4	1183397.1	506.31 ug/L	506.31 ppb	22:58:18
3	Cd 226.502†	35980.2	34518.6	507.05 ug/L	507.05 ppb	22:58:23
3	Co 228.616†	20290.8	19436.4	511.77 ug/L	511.77 ppb	22:58:23
3	Cr 267.716†	38977.0	37162.7	506.32 ug/L	506.32 ppb	22:58:23
3	Cu 324.752†	163725.0	150872.6	499.81 ug/L	499.81 ppb	22:58:23
3	Mn 257.610†	394807.1	376753.9	501.27 ug/L	501.27 ppb	22:58:18
3	Mo 202.031†	5727.8	5458.6	491.65 ug/L	491.65 ppb	22:58:43
3	Ni 231.604†	16687.3	15867.9	512.37 ug/L	512.37 ppb	22:58:23
3	P 214.914†	3641.6	3278.0	2387.0 ug/L	2387.0 ppb	22:58:43
3	Pb 220.353†	3294.3	3195.8	501.32 ug/L	501.32 ppb	22:58:43
3	S 181.975 Axial†	607.3	550.2	996.02 ug/L	996.02 ppb	22:58:43
3	Sb 206.836†	1252.4	1170.9	516.59 ug/L	516.59 ppb	22:58:43
3	Se 196.026†	608.3	603.3	519.85 ug/L	519.85 ppb	22:58:43
3	Si 251.611†	70533.2	66858.2	2547.3 ug/L	2547.3 ppb	22:58:23
3	Sn 189.927†	2233.2	2129.6	491.40 ug/L	491.40 ppb	22:58:43
3	Ti 334.940†	293163.6	281090.6	488.80 ug/L	488.80 ppb	22:58:23
3	Tl 190.801†	1293.9	1265.1	502.54 ug/L	502.54 ppb	22:58:43
3	U 409.014†	16041.1	17266.5	509.17 ug/L	509.17 ppb	22:58:23
3	V 292.402†	64387.9	62857.3	510.09 ug/L	510.09 ppb	22:58:23
3	Zn 213.857†	43650.1	41092.5	501.75 ug/L	501.75 ppb	22:58:23
3	SiO2†	70342.8	66658.7	5398.4 ug/L	5398.4 ppb	22:58:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	878095.9	103.88	%	1.662				1.60%
Sc Radial	4644.7	102	%	1.5				1.43%
Y 371.029	729244.6	102.29	%	1.645				1.61%
Y RADIAL	4995.0	101.6	%	0.86				0.84%
Ag 328.068†	96989.5	502.98	ug/L	8.071	502.98	ppb	8.071	1.60%
QC value within limits for Ag 328.068 Recovery = 100.60%								
Al 396.153Radial†	4997.5	4920.3	ug/L	9.71	4920.3	ppb	9.71	0.20%
QC value within limits for Al 396.153Radial Recovery = 98.41%								
As 188.979†	905.5	514.46	ug/L	8.752	514.46	ppb	8.752	1.70%
QC value within limits for As 188.979 Recovery = 102.89%								
B 249.677†	17979.2	505.96	ug/L	7.229	505.96	ppb	7.229	1.43%
QC value within limits for B 249.677 Recovery = 101.19%								
Ba 233.527†	53296.6	507.90	ug/L	8.239	507.90	ppb	8.239	1.62%
QC value within limits for Ba 233.527 Recovery = 101.58%								
Be 313.107†	1193892.2	510.80	ug/L	7.415	510.80	ppb	7.415	1.45%
QC value within limits for Be 313.107 Recovery = 102.16%								
Ca 317.933Radial†	2642.0	4985.4	ug/L	98.59	4985.4	ppb	98.59	1.98%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.71%
Cd 226.502†            34665.9      509.22 ug/L         7.593      509.22 ppb          7.593   1.49%
   QC value within limits for Cd 226.502  Recovery = 101.84%
Co 228.616†            19571.6      515.34 ug/L         8.205      515.34 ppb          8.205   1.59%
   QC value within limits for Co 228.616  Recovery = 103.07%
Cr 267.716†            37329.8      508.59 ug/L         6.795      508.59 ppb          6.795   1.34%
   QC value within limits for Cr 267.716  Recovery = 101.72%
Cu 324.752†           151665.0      502.44 ug/L         8.044      502.44 ppb          8.044   1.60%
   QC value within limits for Cu 324.752  Recovery = 100.49%
Fe 238.204 Radial†       428.7      4935.4 ug/L        80.39      4935.4 ppb         80.39   1.63%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.71%
K 766.490 Radial†      27097.0      5149.7 ug/L        44.15      5149.7 ppb         44.15   0.86%
   QC value within limits for K 766.490 Radial  Recovery = 102.99%
Mg 279.077 IEC†          123.8      5141.2 ug/L        88.96      5141.2 ppb         88.96   1.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.82%
Mn 257.610†           379759.9      505.26 ug/L         7.664      505.26 ppb          7.664   1.52%
   QC value within limits for Mn 257.610  Recovery = 101.05%
Mo 202.031†             5530.0      498.08 ug/L         8.734      498.08 ppb          8.734   1.75%
   QC value within limits for Mo 202.031  Recovery = 99.62%
Na 589.592 Radial†     26603.9      9289.2 ug/L         5.64      9289.2 ppb          5.64   0.06%
   QC value within limits for Na 589.592 Radial  Recovery = 92.89%
Ni 231.604†            15969.2      515.64 ug/L         7.840      515.64 ppb          7.840   1.52%
   QC value within limits for Ni 231.604  Recovery = 103.13%
P 214.914†              3326.1      2423.1 ug/L        50.62      2423.1 ppb         50.62   2.09%
   QC value within limits for P 214.914  Recovery = 96.92%
Pb 220.353†             3240.2      508.28 ug/L        10.358      508.28 ppb         10.358   2.04%
   QC value within limits for Pb 220.353  Recovery = 101.66%
S 181.975 Axial†         555.9      1006.3 ug/L        19.42      1006.3 ppb         19.42   1.93%
   QC value within limits for S 181.975 Axial  Recovery = 100.63%
Sb 206.836†             1184.2      522.50 ug/L         8.993      522.50 ppb          8.993   1.72%
   QC value within limits for Sb 206.836  Recovery = 104.50%
Se 196.026†              610.1      525.46 ug/L         8.618      525.46 ppb          8.618   1.64%
   QC value within limits for Se 196.026  Recovery = 105.09%
Si 251.611†            67217.2      2560.9 ug/L        39.29      2560.9 ppb         39.29   1.53%
   QC value within limits for Si 251.611  Recovery = 102.44%
Sn 189.927†             2162.2      498.92 ug/L         9.163      498.92 ppb          9.163   1.84%
   QC value within limits for Sn 189.927  Recovery = 99.78%
Sr 421.552†            60999.7      477.89 ug/L         1.409      477.89 ppb          1.409   0.29%
   QC value within limits for Sr 421.552  Recovery = 95.58%
Ti 334.940†           282507.5      491.26 ug/L         7.393      491.26 ppb          7.393   1.50%
   QC value within limits for Ti 334.940  Recovery = 98.25%
Tl 190.801†             1282.2      509.27 ug/L         8.163      509.27 ppb          8.163   1.60%
   QC value within limits for Tl 190.801  Recovery = 101.85%
U 409.014†             17309.6      510.45 ug/L         7.581      510.45 ppb          7.581   1.49%
   QC value within limits for U 409.014  Recovery = 102.09%
V 292.402†             63266.7      513.46 ug/L         7.390      513.46 ppb          7.390   1.44%
   QC value within limits for V 292.402  Recovery = 102.69%
Zn 213.857†            41345.9      504.86 ug/L         8.123      504.86 ppb          8.123   1.61%
   QC value within limits for Zn 213.857  Recovery = 100.97%
SiO2†                  67123.7      5435.9 ug/L        90.21      5435.9 ppb         90.21   1.66%
   QC value within limits for SiO2  Recovery = 101.65%
All analyte(s) passed QC.
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Sequence No.: 48
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/22/2010 23:01:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4783.4	4783.4	105	%			23:03:00
1	Y RADIAL	5154.2	5154.2	104.8	%			23:03:00
1	Al 396.153Radial†	-78.7	-1.7	-1.6671	ug/L	-1.6671	ppb	23:03:20
1	Ca 317.933Radial†	22.2	2.8	5.2284	ug/L	5.2284	ppb	23:03:20
1	Fe 238.204 Radial†	6.1	-0.8	-9.7376	ug/L	-9.7376	ppb	23:03:20
1	K 766.490 Radial†	2760.3	116.3	22.128	ug/L	22.128	ppb	23:03:00
1	Mg 279.077 IEC†	0.1	-0.3	-12.585	ug/L	-12.585	ppb	23:03:20
1	Na 589.592 Radial†	-701.4	50.3	17.563	ug/L	17.563	ppb	23:03:00
1	Sr 421.552†	28.1	-10.7	-0.0837	ug/L	-0.0837	ppb	23:03:00
1	Sc 361.383	874336.8	874336.8	103.43	%			23:04:17
1	Y 371.029	737760.2	737760.2	103.48	%			23:04:17
1	Ag 328.068†	264.8	99.3	0.5083	ug/L	0.5083	ppb	23:04:17
1	As 188.979†	-21.4	1.4	0.7906	ug/L	0.7906	ppb	23:04:37
1	B 249.677†	-171.4	281.7	7.9636	ug/L	7.9636	ppb	23:04:37
1	Ba 233.527†	7.3	-4.9	-0.0460	ug/L	-0.0460	ppb	23:04:37
1	Be 313.107†	-4352.9	249.0	0.1064	ug/L	0.1064	ppb	23:04:17
1	Cd 226.502†	-163.5	-9.6	-0.1394	ug/L	-0.1394	ppb	23:04:37
1	Co 228.616†	-47.1	8.0	0.2113	ug/L	0.2113	ppb	23:04:37
1	Cr 267.716†	73.8	1.1	0.0141	ug/L	0.0141	ppb	23:04:37
1	Cu 324.752†	5602.4	-109.6	-0.3644	ug/L	-0.3644	ppb	23:04:17
1	Mn 257.610†	442.2	41.2	0.0543	ug/L	0.0543	ppb	23:04:37
1	Mo 202.031†	12.3	-1.0	-0.0911	ug/L	-0.0911	ppb	23:04:37
1	Ni 231.604†	88.7	13.1	0.4246	ug/L	0.4246	ppb	23:04:37
1	P 214.914†	189.0	-18.0	-13.512	ug/L	-13.512	ppb	23:04:37
1	Pb 220.353†	-44.9	5.5	0.8553	ug/L	0.8553	ppb	23:04:37
1	S 181.975 Axial†	30.2	-0.7	-1.2374	ug/L	-1.2374	ppb	23:04:37
1	Sb 206.836†	21.5	-4.6	-1.9535	ug/L	-1.9535	ppb	23:04:37
1	Se 196.026†	-19.9	2.9	2.3799	ug/L	2.3799	ppb	23:04:37
1	Si 251.611†	747.2	203.5	7.7737	ug/L	7.7737	ppb	23:04:37
1	Sn 189.927†	10.8	6.7	1.5484	ug/L	1.5484	ppb	23:04:37
1	Ti 334.940†	-1058.1	22.6	0.0403	ug/L	0.0403	ppb	23:04:17
1	Tl 190.801†	-17.8	11.9	4.7046	ug/L	4.7046	ppb	23:04:37
1	U 409.014†	-1955.2	52.9	1.5654	ug/L	1.5654	ppb	23:04:17
1	V 292.402†	-1372.4	23.9	0.1943	ug/L	0.1943	ppb	23:04:17
1	Zn 213.857†	2807.9	2110.4	26.008	ug/L	26.008	ppb	23:04:37
1	SiO2†	739.2	178.3	14.475	ug/L	14.475	ppb	23:05:48
2	Sc Radial	4622.3	4622.3	102	%			23:03:25
2	Y RADIAL	4994.2	4994.2	101.6	%			23:03:25
2	Al 396.153Radial†	-73.9	0.4	0.4123	ug/L	0.4123	ppb	23:03:45
2	Ca 317.933Radial†	15.7	-2.9	-5.5277	ug/L	-5.5277	ppb	23:03:45
2	Fe 238.204 Radial†	8.4	1.6	18.905	ug/L	18.905	ppb	23:03:45
2	K 766.490 Radial†	2664.0	113.0	21.493	ug/L	21.493	ppb	23:03:25
2	Mg 279.077 IEC†	2.3	1.9	77.243	ug/L	77.243	ppb	23:03:45
2	Na 589.592 Radial†	-708.3	20.2	7.0681	ug/L	7.0681	ppb	23:03:25
2	Sr 421.552†	30.0	-8.0	-0.0623	ug/L	-0.0623	ppb	23:03:25
2	Sc 361.383	876156.5	876156.5	103.65	%			23:04:42
2	Y 371.029	738472.6	738472.6	103.58	%			23:04:42
2	Ag 328.068†	203.7	39.9	0.2141	ug/L	0.2141	ppb	23:04:42
2	As 188.979†	-14.1	8.5	4.8011	ug/L	4.8011	ppb	23:05:02
2	B 249.677†	-178.2	275.5	7.7837	ug/L	7.7837	ppb	23:05:02
2	Ba 233.527†	11.4	-1.0	-0.0081	ug/L	-0.0081	ppb	23:05:02
2	Be 313.107†	-4317.7	291.6	0.1248	ug/L	0.1248	ppb	23:04:42
2	Cd 226.502†	-159.0	-4.9	-0.0744	ug/L	-0.0744	ppb	23:05:02
2	Co 228.616†	-35.0	19.9	0.5225	ug/L	0.5225	ppb	23:05:02
2	Cr 267.716†	71.2	-1.5	-0.0177	ug/L	-0.0177	ppb	23:05:02
2	Cu 324.752†	5641.7	-83.0	-0.2726	ug/L	-0.2726	ppb	23:04:42
2	Mn 257.610†	424.8	23.6	0.0301	ug/L	0.0301	ppb	23:05:02
2	Mo 202.031†	14.6	1.2	0.1096	ug/L	0.1096	ppb	23:05:02
2	Ni 231.604†	94.7	18.7	0.6045	ug/L	0.6045	ppb	23:05:02

2	P 214.914†	190.5	-16.9	-12.771 ug/L	-12.771 ppb	23:05:02
2	Pb 220.353†	-48.4	2.2	0.3446 ug/L	0.3446 ppb	23:05:02
2	S 181.975 Axial†	31.0	0.0	0.0367 ug/L	0.0367 ppb	23:05:02
2	Sb 206.836†	36.0	9.3	3.9885 ug/L	3.9885 ppb	23:05:02
2	Se 196.026†	-17.2	5.6	4.7340 ug/L	4.7340 ppb	23:05:02
2	Si 251.611†	742.8	197.8	7.5530 ug/L	7.5530 ppb	23:05:02
2	Sn 189.927†	8.0	4.0	0.9155 ug/L	0.9155 ppb	23:05:02
2	Ti 334.940†	-995.1	85.5	0.1426 ug/L	0.1426 ppb	23:04:42
2	Tl 190.801†	-29.8	0.4	0.1479 ug/L	0.1479 ppb	23:05:02
2	U 409.014†	-2094.8	-77.8	-2.3052 ug/L	-2.3052 ppb	23:04:42
2	V 292.402†	-1376.9	22.3	0.1745 ug/L	0.1745 ppb	23:04:42
2	Zn 213.857†	2823.0	2119.3	26.113 ug/L	26.113 ppb	23:05:02
2	SiO2†	733.2	171.0	13.880 ug/L	13.880 ppb	23:06:08
3	Sc Radial	4693.8	4693.8	103 %		23:03:50
3	Y RADIAL	5070.7	5070.7	103.1 %		23:03:50
3	Al 396.153Radial†	-72.4	3.0	2.9433 ug/L	2.9433 ppb	23:04:10
3	Ca 317.933Radial†	19.9	0.9	1.6768 ug/L	1.6768 ppb	23:04:10
3	Fe 238.204 Radial†	8.2	1.3	15.005 ug/L	15.005 ppb	23:04:10
3	K 766.490 Radial†	2637.7	47.6	9.0572 ug/L	9.0572 ppb	23:03:50
3	Mg 279.077 IEC†	3.2	2.7	111.61 ug/L	111.61 ppb	23:04:10
3	Na 589.592 Radial†	-764.7	-23.8	-8.3147 ug/L	-8.3147 ppb	23:03:50
3	Sr 421.552†	27.5	-10.8	-0.0846 ug/L	-0.0846 ppb	23:03:50
3	Sc 361.383	882362.5	882362.5	104.38 %		23:05:07
3	Y 371.029	744213.6	744213.6	104.39 %		23:05:07
3	Ag 328.068†	182.6	18.3	0.0987 ug/L	0.0987 ppb	23:05:07
3	As 188.979†	-29.7	-6.4	-3.5759 ug/L	-3.5759 ppb	23:05:27
3	B 249.677†	-194.5	261.1	7.3775 ug/L	7.3775 ppb	23:05:27
3	Ba 233.527†	6.7	-5.5	-0.0507 ug/L	-0.0507 ppb	23:05:27
3	Be 313.107†	-4419.8	223.1	0.0955 ug/L	0.0955 ppb	23:05:07
3	Cd 226.502†	-174.7	-18.9	-0.2779 ug/L	-0.2779 ppb	23:05:27
3	Co 228.616†	-42.8	12.6	0.3326 ug/L	0.3326 ppb	23:05:27
3	Cr 267.716†	71.7	-1.5	-0.0188 ug/L	-0.0188 ppb	23:05:27
3	Cu 324.752†	5638.4	-124.4	-0.4129 ug/L	-0.4129 ppb	23:05:07
3	Mn 257.610†	433.8	29.3	0.0359 ug/L	0.0359 ppb	23:05:27
3	Mo 202.031†	16.9	3.2	0.2931 ug/L	0.2931 ppb	23:05:27
3	Ni 231.604†	82.9	6.8	0.2194 ug/L	0.2194 ppb	23:05:27
3	P 214.914†	192.8	-16.0	-12.017 ug/L	-12.017 ppb	23:05:27
3	Pb 220.353†	-43.1	7.6	1.1911 ug/L	1.1911 ppb	23:05:27
3	S 181.975 Axial†	28.1	-3.0	-5.4812 ug/L	-5.4812 ppb	23:05:27
3	Sb 206.836†	20.6	-5.7	-2.4264 ug/L	-2.4264 ppb	23:05:27
3	Se 196.026†	-19.2	3.8	3.1808 ug/L	3.1808 ppb	23:05:27
3	Si 251.611†	730.4	180.9	6.9036 ug/L	6.9036 ppb	23:05:27
3	Sn 189.927†	7.4	3.3	0.7695 ug/L	0.7695 ppb	23:05:27
3	Ti 334.940†	-1022.4	66.0	0.1048 ug/L	0.1048 ppb	23:05:07
3	Tl 190.801†	-28.3	2.0	0.7944 ug/L	0.7944 ppb	23:05:27
3	U 409.014†	-1934.1	90.3	2.6689 ug/L	2.6689 ppb	23:05:07
3	V 292.402†	-1343.5	63.6	0.5184 ug/L	0.5184 ppb	23:05:07
3	Zn 213.857†	2817.4	2094.8	25.814 ug/L	25.814 ppb	23:05:27
3	SiO2†	733.6	166.4	13.503 ug/L	13.503 ppb	23:06:28

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	877618.6	103.82	%	0.498				0.48%
Sc Radial	4699.8	103	%	1.8				1.72%
Y 371.029	740148.8	103.82	%	0.496				0.48%
Y RADIAL	5073.0	103.2	%	1.63				1.58%
Ag 328.068†	52.5	0.2737	ug/L	0.21118	0.2737	ppb	0.21118	77.16%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.6	0.5628	ug/L	2.30890	0.5628	ppb	2.30890	410.23%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.2	0.6719	ug/L	4.18974	0.6719	ppb	4.18974	623.54%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	272.8	7.7082	ug/L	0.30023	7.7082	ppb	0.30023	3.89%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.8	-0.0350	ug/L	0.02337	-0.0350	ppb	0.02337	66.84%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	254.6	0.1089	ug/L	0.01482	0.1089	ppb	0.01482	13.61%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.2	0.4591	ug/L	5.48048	0.4591	ppb	5.48048	>999.9%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -11.1     -0.1639 ug/L       0.10395     -0.1639 ppb        0.10395  63.43%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               13.5      0.3555 ug/L       0.15685      0.3555 ppb        0.15685  44.12%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -0.6     -0.0075 ug/L       0.01868     -0.0075 ppb        0.01868 250.44%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -105.7     -0.3500 ug/L       0.07125     -0.3500 ppb        0.07125  20.36%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.7      8.0574 ug/L      15.53384      8.0574 ppb       15.53384 192.79%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         92.3      17.559 ug/L        7.3700      17.559 ppb         7.3700  41.97%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.4      58.756 ug/L       64.1283      58.756 ppb        64.1283 109.14%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               31.4      0.0401 ug/L       0.01266      0.0401 ppb        0.01266  31.57%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.1      0.1039 ug/L       0.19213      0.1039 ppb        0.19213 184.98%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        15.6      5.4389 ug/L      13.01569      5.4389 ppb       13.01569 239.31%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               12.9      0.4162 ug/L       0.19268      0.4162 ppb        0.19268  46.30%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -16.9     -12.767 ug/L        0.7472     -12.767 ppb         0.7472   5.85%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                5.1      0.7970 ug/L       0.42626      0.7970 ppb        0.42626  53.48%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.2     -2.2273 ug/L       2.88910     -2.2273 ppb        2.88910 129.71%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -0.4     -0.1305 ug/L       3.57493     -0.1305 ppb        3.57493 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                4.1      3.4316 ug/L       1.19692      3.4316 ppb        1.19692  34.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              194.1      7.4101 ug/L       0.45232      7.4101 ppb        0.45232   6.10%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                4.7      1.0778 ug/L       0.41405      1.0778 ppb        0.41405  38.42%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -9.8     -0.0769 ug/L       0.01262     -0.0769 ppb        0.01262  16.42%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               58.0      0.0959 ug/L       0.05174      0.0959 ppb        0.05174  53.95%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                4.8      1.8823 ug/L       2.46547      1.8823 ppb        2.46547 130.98%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                21.8      0.6430 ug/L       2.61220      0.6430 ppb        2.61220 406.24%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                36.6      0.2957 ug/L       0.19308      0.2957 ppb        0.19308  65.29%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             2108.2      25.978 ug/L        0.1517      25.978 ppb         0.1517   0.58%
   QC value greater than the upper limit for Zn 213.857  Recovery = Not calculated
SiO2†                   171.9      13.953 ug/L        0.4900      13.953 ppb         0.4900   3.51%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

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Sequence No.: 57 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 3/23/2010 00:04:59**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4771.0	4771.0	105	%			00:06:51
1	Y RADIAL	5111.9	5111.9	104.0	%			00:06:51
1	Al 396.153Radial†	5109.2	4947.8	4871.5	ug/L	4871.5	ppb	00:06:51
1	Ca 317.933Radial†	2734.8	2590.9	4889.1	ug/L	4889.1	ppb	00:07:11
1	Fe 238.204 Radial†	451.2	423.9	4880.2	ug/L	4880.2	ppb	00:07:11
1	K 766.490 Radial†	30678.0	26759.2	5085.4	ug/L	5085.4	ppb	00:06:51
1	Mg 279.077 IEC†	126.1	120.0	4980.3	ug/L	4980.3	ppb	00:07:11
1	Na 589.592 Radial†	27828.6	27268.8	9521.4	ug/L	9521.4	ppb	00:06:51
1	Sr 421.552†	64303.4	61313.9	480.35	ug/L	480.35	ppb	00:06:51
1	Sc 361.383	890646.7	890646.7	105.36	%			00:08:08
1	Y 371.029	740433.0	740433.0	103.86	%			00:08:08
1	Ag 328.068†	100896.9	95603.7	495.80	ug/L	495.80	ppb	00:08:14
1	As 188.979†	919.4	894.7	508.32	ug/L	508.32	ppb	00:08:34
1	B 249.677†	17914.9	17450.3	491.05	ug/L	491.05	ppb	00:08:14
1	Ba 233.527†	55247.0	52422.5	499.57	ug/L	499.57	ppb	00:08:14
1	Be 313.107†	1240753.6	1182046.7	505.72	ug/L	505.72	ppb	00:08:08
1	Cd 226.502†	35773.4	34100.7	500.91	ug/L	500.91	ppb	00:08:14
1	Co 228.616†	20201.4	19226.6	506.26	ug/L	506.26	ppb	00:08:14
1	Cr 267.716†	38669.6	36630.9	499.08	ug/L	499.08	ppb	00:08:14
1	Cu 324.752†	162673.2	148865.8	493.16	ug/L	493.16	ppb	00:08:14
1	Mn 257.610†	396338.5	375775.4	499.97	ug/L	499.97	ppb	00:08:08
1	Mo 202.031†	5740.0	5434.9	489.51	ug/L	489.51	ppb	00:08:34
1	Ni 231.604†	16590.4	15673.2	506.08	ug/L	506.08	ppb	00:08:14
1	P 214.914†	3639.0	3253.1	2369.5	ug/L	2369.5	ppb	00:08:34
1	Pb 220.353†	3295.9	3177.0	498.38	ug/L	498.38	ppb	00:08:34
1	S 181.975 Axial†	601.6	541.1	979.58	ug/L	979.58	ppb	00:08:34
1	Sb 206.836†	1236.7	1148.3	506.87	ug/L	506.87	ppb	00:08:34
1	Se 196.026†	604.1	595.5	513.06	ug/L	513.06	ppb	00:08:34
1	Si 251.611†	70038.9	65954.5	2512.8	ug/L	2512.8	ppb	00:08:14
1	Sn 189.927†	2233.4	2116.0	488.25	ug/L	488.25	ppb	00:08:34
1	Ti 334.940†	291651.0	277849.2	483.17	ug/L	483.17	ppb	00:08:14
1	Tl 190.801†	1294.6	1257.8	499.62	ug/L	499.62	ppb	00:08:34
1	U 409.014†	15829.4	16966.7	500.33	ug/L	500.33	ppb	00:08:14
1	V 292.402†	64148.9	62233.9	505.06	ug/L	505.06	ppb	00:08:14
1	Zn 213.857†	43573.5	40750.9	497.61	ug/L	497.61	ppb	00:08:14
1	SiO2†	70755.6	66617.2	5395.0	ug/L	5395.0	ppb	00:09:41
2	Sc Radial	4571.3	4571.3	100	%			00:07:16
2	Y RADIAL	4914.5	4914.5	99.95	%			00:07:16
2	Al 396.153Radial†	4916.3	4968.8	4891.8	ug/L	4891.8	ppb	00:07:16
2	Ca 317.933Radial†	2744.5	2714.5	5122.3	ug/L	5122.3	ppb	00:07:36
2	Fe 238.204 Radial†	455.0	446.4	5139.6	ug/L	5139.6	ppb	00:07:36
2	K 766.490 Radial†	29607.0	26971.8	5125.8	ug/L	5125.8	ppb	00:07:16
2	Mg 279.077 IEC†	127.0	126.0	5232.0	ug/L	5232.0	ppb	00:07:36
2	Na 589.592 Radial†	26433.2	27039.6	9441.4	ug/L	9441.4	ppb	00:07:16
2	Sr 421.552†	61676.0	61378.7	480.86	ug/L	480.86	ppb	00:07:16
2	Sc 361.383	871439.8	871439.8	103.09	%			00:08:39
2	Y 371.029	724785.7	724785.7	101.66	%			00:08:39
2	Ag 328.068†	101739.0	98531.2	511.00	ug/L	511.00	ppb	00:08:45
2	As 188.979†	894.9	890.1	505.90	ug/L	505.90	ppb	00:09:05
2	B 249.677†	18085.8	17990.8	506.25	ug/L	506.25	ppb	00:08:45
2	Ba 233.527†	55482.5	53806.6	512.77	ug/L	512.77	ppb	00:08:45
2	Be 313.107†	1213731.8	1181789.8	505.65	ug/L	505.65	ppb	00:08:39
2	Cd 226.502†	35915.2	34986.6	513.91	ug/L	513.91	ppb	00:08:45
2	Co 228.616†	20272.3	19718.0	519.18	ug/L	519.18	ppb	00:08:45
2	Cr 267.716†	38891.6	37655.1	513.04	ug/L	513.04	ppb	00:08:45
2	Cu 324.752†	164925.2	154453.2	511.68	ug/L	511.68	ppb	00:08:45
2	Mn 257.610†	388053.1	376029.3	500.32	ug/L	500.32	ppb	00:08:39
2	Mo 202.031†	5714.4	5530.1	498.10	ug/L	498.10	ppb	00:09:05
2	Ni 231.604†	16610.9	16040.2	517.93	ug/L	517.93	ppb	00:08:45

2	P 214.914†	3622.7	3313.4	2411.4 ug/L	2411.4 ppb	00:09:05
2	Pb 220.353†	3269.8	3220.6	505.18 ug/L	505.18 ppb	00:09:05
2	S 181.975 Axial†	597.5	549.7	995.06 ug/L	995.06 ppb	00:09:05
2	Sb 206.836†	1235.0	1172.5	517.48 ug/L	517.48 ppb	00:09:05
2	Se 196.026†	599.6	603.8	520.80 ug/L	520.80 ppb	00:09:05
2	Si 251.611†	70722.4	68082.7	2594.0 ug/L	2594.0 ppb	00:08:45
2	Sn 189.927†	2227.2	2156.7	497.65 ug/L	497.65 ppb	00:09:05
2	Ti 334.940†	294276.3	286496.6	498.21 ug/L	498.21 ppb	00:08:45
2	Tl 190.801†	1282.5	1273.1	505.70 ug/L	505.70 ppb	00:09:05
2	U 409.014†	16179.6	17637.6	520.12 ug/L	520.12 ppb	00:08:45
2	V 292.402†	64493.0	63909.6	518.59 ug/L	518.59 ppb	00:08:45
2	Zn 213.857†	43731.9	41816.1	510.60 ug/L	510.60 ppb	00:08:45
2	SiO2†	70547.6	67895.5	5498.6 ug/L	5498.6 ppb	00:09:46
3	Sc Radial	4697.6	4697.6	103 %		00:07:41
3	Y RADIAL	5023.5	5023.5	102.2 %		00:07:41
3	Al 396.153Radial†	5044.6	4961.5	4885.0 ug/L	4885.0 ppb	00:07:41
3	Ca 317.933Radial†	2733.2	2630.1	4963.0 ug/L	4963.0 ppb	00:08:01
3	Fe 238.204 Radial†	450.9	430.3	4953.3 ug/L	4953.3 ppb	00:08:01
3	K 766.490 Radial†	30385.2	26933.1	5118.5 ug/L	5118.5 ppb	00:07:41
3	Mg 279.077 IEC†	129.5	125.1	5192.0 ug/L	5192.0 ppb	00:08:01
3	Na 589.592 Radial†	27224.5	27098.6	9462.0 ug/L	9462.0 ppb	00:07:41
3	Sr 421.552†	63289.4	61290.7	480.17 ug/L	480.17 ppb	00:07:41
3	Sc 361.383	895028.8	895028.8	105.88 %		00:09:11
3	Y 371.029	744506.9	744506.9	104.43 %		00:09:11
3	Ag 328.068†	99255.8	93585.0	485.38 ug/L	485.38 ppb	00:09:16
3	As 188.979†	914.6	885.9	503.30 ug/L	503.30 ppb	00:09:36
3	B 249.677†	17660.7	17127.0	481.93 ug/L	481.93 ppb	00:09:16
3	Ba 233.527†	54479.8	51441.2	490.23 ug/L	490.23 ppb	00:09:16
3	Be 313.107†	1242603.4	1178028.3	503.99 ug/L	503.99 ppb	00:09:11
3	Cd 226.502†	35062.3	33262.9	488.59 ug/L	488.59 ppb	00:09:16
3	Co 228.616†	19842.8	18794.1	494.89 ug/L	494.89 ppb	00:09:16
3	Cr 267.716†	38097.5	35910.8	489.28 ug/L	489.28 ppb	00:09:16
3	Cu 324.752†	160840.5	146379.1	484.93 ug/L	484.93 ppb	00:09:16
3	Mn 257.610†	396091.3	373700.3	497.21 ug/L	497.21 ppb	00:09:11
3	Mo 202.031†	5776.7	5442.8	490.23 ug/L	490.23 ppb	00:09:36
3	Ni 231.604†	16287.3	15309.8	494.35 ug/L	494.35 ppb	00:09:16
3	P 214.914†	3672.7	3268.0	2382.4 ug/L	2382.4 ppb	00:09:36
3	Pb 220.353†	3301.6	3167.1	496.83 ug/L	496.83 ppb	00:09:36
3	S 181.975 Axial†	603.3	539.9	977.29 ug/L	977.29 ppb	00:09:36
3	Sb 206.836†	1253.3	1158.2	511.10 ug/L	511.10 ppb	00:09:36
3	Se 196.026†	612.2	600.4	517.38 ug/L	517.38 ppb	00:09:36
3	Si 251.611†	69002.8	64650.5	2463.0 ug/L	2463.0 ppb	00:09:16
3	Sn 189.927†	2246.4	2117.9	488.69 ug/L	488.69 ppb	00:09:36
3	Ti 334.940†	287561.4	272631.6	474.09 ug/L	474.09 ppb	00:09:16
3	Tl 190.801†	1310.1	1266.4	503.01 ug/L	503.01 ppb	00:09:36
3	U 409.014†	15933.3	16991.3	501.07 ug/L	501.07 ppb	00:09:16
3	V 292.402†	63234.7	61072.4	495.78 ug/L	495.78 ppb	00:09:16
3	Zn 213.857†	42760.6	39780.8	485.73 ug/L	485.73 ppb	00:09:16
3	SiO2†	69796.2	65382.4	5294.8 ug/L	5294.8 ppb	00:09:51

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	885705.1	104.78	%	1.484				1.42%
Sc Radial	4679.9	103	%	2.2				2.16%
Y 371.029	736575.2	103.31	%	1.460				1.41%
Y RADIAL	5016.6	102.0	%	2.01				1.97%
Ag 328.068†	95906.7	497.39	ug/L	12.887	497.39	ppb	12.887	2.59%
QC value within limits for Ag 328.068 Recovery = 99.48%								
Al 396.153Radial†	4959.3	4882.8	ug/L	10.34	4882.8	ppb	10.34	0.21%
QC value within limits for Al 396.153Radial Recovery = 97.66%								
As 188.979†	890.2	505.84	ug/L	2.513	505.84	ppb	2.513	0.50%
QC value within limits for As 188.979 Recovery = 101.17%								
B 249.677†	17522.7	493.07	ug/L	12.286	493.07	ppb	12.286	2.49%
QC value within limits for B 249.677 Recovery = 98.61%								
Ba 233.527†	52556.8	500.86	ug/L	11.325	500.86	ppb	11.325	2.26%
QC value within limits for Ba 233.527 Recovery = 100.17%								
Be 313.107†	1180621.6	505.12	ug/L	0.981	505.12	ppb	0.981	0.19%
QC value within limits for Be 313.107 Recovery = 101.02%								
Ca 317.933Radial†	2645.2	4991.4	ug/L	119.20	4991.4	ppb	119.20	2.39%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.83%
Cd 226.502†            34116.7      501.14 ug/L        12.664      501.14 ppb         12.664   2.53%
   QC value within limits for Cd 226.502  Recovery = 100.23%
Co 228.616†            19246.2      506.78 ug/L        12.153      506.78 ppb         12.153   2.40%
   QC value within limits for Co 228.616  Recovery = 101.36%
Cr 267.716†            36732.3      500.47 ug/L        11.941      500.47 ppb         11.941   2.39%
   QC value within limits for Cr 267.716  Recovery = 100.09%
Cu 324.752†           149899.4      496.59 ug/L        13.699      496.59 ppb         13.699   2.76%
   QC value within limits for Cu 324.752  Recovery = 99.32%
Fe 238.204 Radial†       433.5      4991.0 ug/L        133.76      4991.0 ppb         133.76   2.68%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.82%
K 766.490 Radial†      26888.0      5109.9 ug/L         21.53      5109.9 ppb          21.53   0.42%
   QC value within limits for K 766.490 Radial  Recovery = 102.20%
Mg 279.077 IEC†          123.7      5134.8 ug/L        135.25      5134.8 ppb         135.25   2.63%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.70%
Mn 257.610†           375168.3      499.16 ug/L         1.705      499.16 ppb          1.705   0.34%
   QC value within limits for Mn 257.610  Recovery = 99.83%
Mo 202.031†             5469.3      492.61 ug/L         4.765      492.61 ppb          4.765   0.97%
   QC value within limits for Mo 202.031  Recovery = 98.52%
Na 589.592 Radial†     27135.7      9474.9 ug/L         41.54      9474.9 ppb          41.54   0.44%
   QC value within limits for Na 589.592 Radial  Recovery = 94.75%
Ni 231.604†            15674.4      506.12 ug/L        11.791      506.12 ppb         11.791   2.33%
   QC value within limits for Ni 231.604  Recovery = 101.22%
P 214.914†              3278.2      2387.8 ug/L         21.48      2387.8 ppb          21.48   0.90%
   QC value within limits for P 214.914  Recovery = 95.51%
Pb 220.353†             3188.2      500.13 ug/L         4.443      500.13 ppb          4.443   0.89%
   QC value within limits for Pb 220.353  Recovery = 100.03%
S 181.975 Axial†         543.5      983.97 ug/L         9.667      983.97 ppb          9.667   0.98%
   QC value within limits for S 181.975 Axial  Recovery = 98.40%
Sb 206.836†             1159.7      511.82 ug/L         5.340      511.82 ppb          5.340   1.04%
   QC value within limits for Sb 206.836  Recovery = 102.36%
Se 196.026†              599.9      517.08 ug/L         3.881      517.08 ppb          3.881   0.75%
   QC value within limits for Se 196.026  Recovery = 103.42%
Si 251.611†            66229.2      2523.3 ug/L         66.11      2523.3 ppb          66.11   2.62%
   QC value within limits for Si 251.611  Recovery = 100.93%
Sn 189.927†             2130.2      491.53 ug/L         5.303      491.53 ppb          5.303   1.08%
   QC value within limits for Sn 189.927  Recovery = 98.31%
Sr 421.552†            61327.8      480.46 ug/L         0.357      480.46 ppb          0.357   0.07%
   QC value within limits for Sr 421.552  Recovery = 96.09%
Ti 334.940†           278992.4      485.15 ug/L        12.182      485.15 ppb         12.182   2.51%
   QC value within limits for Ti 334.940  Recovery = 97.03%
Tl 190.801†             1265.8      502.78 ug/L         3.048      502.78 ppb          3.048   0.61%
   QC value within limits for Tl 190.801  Recovery = 100.56%
U 409.014†             17198.5      507.18 ug/L        11.217      507.18 ppb         11.217   2.21%
   QC value within limits for U 409.014  Recovery = 101.44%
V 292.402†             62405.3      506.48 ug/L        11.472      506.48 ppb         11.472   2.27%
   QC value within limits for V 292.402  Recovery = 101.30%
Zn 213.857†            40782.6      497.98 ug/L        12.439      497.98 ppb         12.439   2.50%
   QC value within limits for Zn 213.857  Recovery = 99.60%
SiO2†                  66631.7      5396.1 ug/L        101.91      5396.1 ppb         101.91   1.89%
   QC value within limits for SiO2  Recovery = 100.91%
All analyte(s) passed QC.
```

Sequence No.: 58
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/23/2010 00:12:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4773.1	4773.1	105	%			00:13:53
1	Y RADIAL	5136.0	5136.0	104.5	%			00:13:53
1	Al 396.153Radial†	-76.1	0.6	0.5173	ug/L	0.5173	ppb	00:14:13
1	Ca 317.933Radial†	21.6	2.3	4.2474	ug/L	4.2474	ppb	00:14:13
1	Fe 238.204 Radial†	5.9	-1.0	-11.325	ug/L	-11.325	ppb	00:14:13
1	K 766.490 Radial†	2666.3	32.4	6.1476	ug/L	6.1476	ppb	00:13:53
1	Mg 279.077 IEC†	2.2	1.7	69.861	ug/L	69.861	ppb	00:14:13
1	Na 589.592 Radial†	-697.2	52.9	18.467	ug/L	18.467	ppb	00:13:53
1	Sr 421.552†	32.8	-6.1	-0.0482	ug/L	-0.0482	ppb	00:13:53
1	Sc 361.383	872356.6	872356.6	103.20	%			00:15:10
1	Y 371.029	735534.1	735534.1	103.17	%			00:15:10
1	Ag 328.068†	187.4	24.9	0.1227	ug/L	0.1227	ppb	00:15:10
1	As 188.979†	-23.2	-0.4	-0.2515	ug/L	-0.2515	ppb	00:15:30
1	B 249.677†	-318.1	139.2	3.9349	ug/L	3.9349	ppb	00:15:30
1	Ba 233.527†	19.8	7.2	0.0686	ug/L	0.0686	ppb	00:15:30
1	Be 313.107†	-4276.5	313.5	0.1338	ug/L	0.1338	ppb	00:15:10
1	Cd 226.502†	-159.5	-6.1	-0.0867	ug/L	-0.0867	ppb	00:15:30
1	Co 228.616†	-41.5	13.4	0.3543	ug/L	0.3543	ppb	00:15:30
1	Cr 267.716†	94.2	21.1	0.2845	ug/L	0.2845	ppb	00:15:30
1	Cu 324.752†	5642.6	-58.4	-0.1962	ug/L	-0.1962	ppb	00:15:10
1	Mn 257.610†	445.2	45.1	0.0560	ug/L	0.0560	ppb	00:15:30
1	Mo 202.031†	20.4	6.9	0.6190	ug/L	0.6190	ppb	00:15:30
1	Ni 231.604†	96.5	20.8	0.6734	ug/L	0.6734	ppb	00:15:30
1	P 214.914†	191.5	-15.1	-11.351	ug/L	-11.351	ppb	00:15:30
1	Pb 220.353†	-52.9	-2.3	-0.3609	ug/L	-0.3609	ppb	00:15:30
1	S 181.975 Axial†	32.7	1.8	3.2319	ug/L	3.2319	ppb	00:15:30
1	Sb 206.836†	31.0	4.6	1.9747	ug/L	1.9747	ppb	00:15:30
1	Se 196.026†	-3.4	18.9	15.689	ug/L	15.689	ppb	00:15:30
1	Si 251.611†	662.6	123.2	4.6987	ug/L	4.6987	ppb	00:15:30
1	Sn 189.927†	8.9	4.9	1.1278	ug/L	1.1278	ppb	00:15:30
1	Ti 334.940†	-1083.9	-4.8	-0.0152	ug/L	-0.0152	ppb	00:15:10
1	Tl 190.801†	-31.7	-1.6	-0.6438	ug/L	-0.6438	ppb	00:15:30
1	U 409.014†	-1875.5	125.8	3.7232	ug/L	3.7232	ppb	00:15:10
1	V 292.402†	-1368.9	24.3	0.2131	ug/L	0.2131	ppb	00:15:10
1	Zn 213.857†	2811.3	2119.8	26.123	ug/L	26.123	ppb	00:15:30
1	SiO2†	665.0	108.0	8.7525	ug/L	8.7525	ppb	00:16:41
2	Sc Radial	4715.7	4715.7	104	%			00:14:18
2	Y RADIAL	5105.2	5105.2	103.8	%			00:14:18
2	Al 396.153Radial†	-81.5	-5.5	-5.4043	ug/L	-5.4043	ppb	00:14:38
2	Ca 317.933Radial†	18.2	-0.8	-1.5111	ug/L	-1.5111	ppb	00:14:38
2	Fe 238.204 Radial†	8.3	1.4	15.591	ug/L	15.591	ppb	00:14:38
2	K 766.490 Radial†	2763.3	156.9	29.845	ug/L	29.845	ppb	00:14:18
2	Mg 279.077 IEC†	1.3	0.9	36.417	ug/L	36.417	ppb	00:14:38
2	Na 589.592 Radial†	-721.1	21.7	7.5668	ug/L	7.5668	ppb	00:14:18
2	Sr 421.552†	55.4	16.0	0.1255	ug/L	0.1255	ppb	00:14:18
2	Sc 361.383	873912.8	873912.8	103.38	%			00:15:35
2	Y 371.029	737558.4	737558.4	103.45	%			00:15:35
2	Ag 328.068†	170.3	8.0	0.0470	ug/L	0.0470	ppb	00:15:35
2	As 188.979†	-26.3	-3.3	-1.8709	ug/L	-1.8709	ppb	00:15:55
2	B 249.677†	-333.1	125.3	3.5381	ug/L	3.5381	ppb	00:15:55
2	Ba 233.527†	10.2	-2.1	-0.0181	ug/L	-0.0181	ppb	00:15:55
2	Be 313.107†	-4332.4	266.7	0.1142	ug/L	0.1142	ppb	00:15:35
2	Cd 226.502†	-178.5	-24.2	-0.3558	ug/L	-0.3558	ppb	00:15:55
2	Co 228.616†	-47.5	7.7	0.2013	ug/L	0.2013	ppb	00:15:55
2	Cr 267.716†	62.4	-9.8	-0.1314	ug/L	-0.1314	ppb	00:15:55
2	Cu 324.752†	5638.7	-71.8	-0.2381	ug/L	-0.2381	ppb	00:15:35
2	Mn 257.610†	417.7	17.7	0.0236	ug/L	0.0236	ppb	00:15:55
2	Mo 202.031†	8.8	-4.4	-0.3943	ug/L	-0.3943	ppb	00:15:55
2	Ni 231.604†	99.5	23.6	0.7618	ug/L	0.7618	ppb	00:15:55

2	P 214.914†	188.9	-17.9	-13.543	ug/L	-13.543	ppb	00:15:55
2	Pb 220.353†	-51.3	-0.7	-0.1156	ug/L	-0.1156	ppb	00:15:55
2	S 181.975 Axial†	30.8	-0.1	-0.1609	ug/L	-0.1609	ppb	00:15:55
2	Sb 206.836†	27.3	1.0	0.4191	ug/L	0.4191	ppb	00:15:55
2	Se 196.026†	-28.6	-5.5	-4.5427	ug/L	-4.5427	ppb	00:15:55
2	Si 251.611†	681.2	140.1	5.3560	ug/L	5.3560	ppb	00:15:55
2	Sn 189.927†	5.6	1.7	0.3839	ug/L	0.3839	ppb	00:15:55
2	Ti 334.940†	-991.5	86.5	0.1467	ug/L	0.1467	ppb	00:15:35
2	Tl 190.801†	-16.1	13.5	5.3452	ug/L	5.3452	ppb	00:15:55
2	U 409.014†	-1954.7	52.4	1.5493	ug/L	1.5493	ppb	00:15:35
2	V 292.402†	-1327.1	67.0	0.5326	ug/L	0.5326	ppb	00:15:35
2	Zn 213.857†	2814.0	2117.6	26.091	ug/L	26.091	ppb	00:15:55
2	SiO2†	691.2	132.2	10.746	ug/L	10.746	ppb	00:17:01
3	Sc Radial	4728.0	4728.0	104	%			00:14:43
3	Y RADIAL	5091.9	5091.9	103.6	%			00:14:43
3	Al 396.153Radial†	-72.7	3.2	3.1632	ug/L	3.1632	ppb	00:15:03
3	Ca 317.933Radial†	16.5	-2.5	-4.6328	ug/L	-4.6328	ppb	00:15:03
3	Fe 238.204 Radial†	5.1	-1.7	-19.353	ug/L	-19.353	ppb	00:15:03
3	K 766.490 Radial†	2653.3	44.1	8.3870	ug/L	8.3870	ppb	00:14:43
3	Mg 279.077 IEC†	4.0	3.4	142.29	ug/L	142.29	ppb	00:15:03
3	Na 589.592 Radial†	-725.0	19.7	6.8801	ug/L	6.8801	ppb	00:14:43
3	Sr 421.552†	47.6	8.3	0.0653	ug/L	0.0653	ppb	00:14:43
3	Sc 361.383	873247.0	873247.0	103.31	%			00:16:00
3	Y 371.029	737883.3	737883.3	103.50	%			00:16:00
3	Ag 328.068†	214.1	50.6	0.2530	ug/L	0.2530	ppb	00:16:00
3	As 188.979†	-21.6	1.2	0.6715	ug/L	0.6715	ppb	00:16:20
3	B 249.677†	-341.0	117.4	3.3208	ug/L	3.3208	ppb	00:16:20
3	Ba 233.527†	5.4	-6.7	-0.0632	ug/L	-0.0632	ppb	00:16:20
3	Be 313.107†	-4233.1	359.7	0.1536	ug/L	0.1536	ppb	00:16:00
3	Cd 226.502†	-183.5	-29.2	-0.4254	ug/L	-0.4254	ppb	00:16:20
3	Co 228.616†	-46.9	8.3	0.2164	ug/L	0.2164	ppb	00:16:20
3	Cr 267.716†	61.2	-11.0	-0.1523	ug/L	-0.1523	ppb	00:16:20
3	Cu 324.752†	5605.4	-99.9	-0.3347	ug/L	-0.3347	ppb	00:16:00
3	Mn 257.610†	434.8	34.6	0.0383	ug/L	0.0383	ppb	00:16:20
3	Mo 202.031†	8.0	-5.2	-0.4679	ug/L	-0.4679	ppb	00:16:20
3	Ni 231.604†	100.1	24.3	0.7843	ug/L	0.7843	ppb	00:16:20
3	P 214.914†	192.2	-14.6	-10.964	ug/L	-10.964	ppb	00:16:20
3	Pb 220.353†	-61.8	-10.9	-1.7070	ug/L	-1.7070	ppb	00:16:20
3	S 181.975 Axial†	31.6	0.7	1.3000	ug/L	1.3000	ppb	00:16:20
3	Sb 206.836†	28.2	1.9	0.7974	ug/L	0.7974	ppb	00:16:20
3	Se 196.026†	-20.7	2.1	1.7085	ug/L	1.7085	ppb	00:16:20
3	Si 251.611†	664.8	124.7	4.7693	ug/L	4.7693	ppb	00:16:20
3	Sn 189.927†	3.5	-0.3	-0.0729	ug/L	-0.0729	ppb	00:16:20
3	Ti 334.940†	-1052.3	27.0	0.0327	ug/L	0.0327	ppb	00:16:00
3	Tl 190.801†	-32.5	-2.4	-0.9517	ug/L	-0.9517	ppb	00:16:20
3	U 409.014†	-1844.1	158.0	4.6788	ug/L	4.6788	ppb	00:16:00
3	V 292.402†	-1330.1	63.2	0.5138	ug/L	0.5138	ppb	00:16:00
3	Zn 213.857†	2796.4	2102.7	25.912	ug/L	25.912	ppb	00:16:20
3	SiO2†	659.5	102.0	8.2957	ug/L	8.2957	ppb	00:17:21

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	873172.1	103.30	%	0.092				0.09%
Sc Radial	4739.0	104	%	0.7				0.64%
Y 371.029	736991.9	103.37	%	0.179				0.17%
Y RADIAL	5111.0	103.9	%	0.46				0.44%
Ag 328.068†	27.8	0.1409	ug/L	0.10421	0.1409	ppb	0.10421	73.94%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.6	-0.5746	ug/L	4.38687	-0.5746	ppb	4.38687	763.43%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.9	-0.4836	ug/L	1.28696	-0.4836	ppb	1.28696	266.11%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	127.3	3.5979	ug/L	0.31141	3.5979	ppb	0.31141	8.66%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.5	-0.0043	ug/L	0.06701	-0.0043	ppb	0.06701	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	313.3	0.1339	ug/L	0.01972	0.1339	ppb	0.01972	14.73%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.3	-0.6321	ug/L	4.50486	-0.6321	ppb	4.50486	712.64%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -19.8     -0.2893 ug/L       0.17888     -0.2893 ppb        0.17888  61.83%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                9.8      0.2573 ug/L       0.08434      0.2573 ppb        0.08434  32.77%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                0.1      0.0003 ug/L       0.24637      0.0003 ppb        0.24637 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -76.7     -0.2563 ug/L       0.07105     -0.2563 ppb        0.07105  27.72%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.4     -5.0291 ug/L      18.30289     -5.0291 ppb       18.30289 363.94%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         77.8      14.793 ug/L       13.0832      14.793 ppb        13.0832  88.44%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.0      82.855 ug/L       54.1179      82.855 ppb        54.1179  65.32%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               32.5      0.0393 ug/L       0.01619      0.0393 ppb        0.01619  41.21%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -0.9     -0.0811 ug/L       0.60736     -0.0811 ppb        0.60736 749.29%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        31.4      10.971 ug/L        6.5005      10.971 ppb         6.5005  59.25%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               22.9      0.7398 ug/L       0.05865      0.7398 ppb        0.05865   7.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -15.8     -11.953 ug/L        1.3910     -11.953 ppb         1.3910  11.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -4.7     -0.7278 ug/L       0.85678     -0.7278 ppb        0.85678 117.72%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.8      1.4570 ug/L       1.70187      1.4570 ppb        1.70187 116.81%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                2.5      1.0637 ug/L       0.81128      1.0637 ppb        0.81128  76.27%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                5.2      4.2849 ug/L      10.35887      4.2849 ppb       10.35887 241.76%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              129.4      4.9413 ug/L       0.36085      4.9413 ppb        0.36085   7.30%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.1      0.4796 ug/L       0.60606      0.4796 ppb        0.60606 126.37%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                6.1      0.0476 ug/L       0.08821      0.0476 ppb        0.08821 185.46%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               36.2      0.0547 ug/L       0.08317      0.0547 ppb        0.08317 152.00%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.2      1.2499 ug/L       3.54999      1.2499 ppb        3.54999 284.02%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               112.1      3.3171 ug/L       1.60379      3.3171 ppb        1.60379  48.35%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                51.5      0.4198 ug/L       0.17930      0.4198 ppb        0.17930  42.71%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             2113.3      26.042 ug/L        0.1135      26.042 ppb         0.1135   0.44%
   QC value greater than the upper limit for Zn 213.857  Recovery = Not calculated
SiO2†                    114.1      9.2649 ug/L       1.30326      9.2649 ppb        1.30326  14.07%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 67
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/23/2010 01:15:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4690.0	4690.0	103	%			01:17:04
1	Y RADIAL	5027.7	5027.7	102.3	%			01:17:04
1	Al 396.153Radial†	4973.9	4900.7	4824.7	ug/L	4824.7	ppb	01:17:04
1	Ca 317.933Radial†	2766.2	2666.4	5031.5	ug/L	5031.5	ppb	01:17:24
1	Fe 238.204 Radial†	456.2	436.2	5021.6	ug/L	5021.6	ppb	01:17:24
1	K 766.490 Radial†	30140.6	26743.1	5082.2	ug/L	5082.2	ppb	01:17:04
1	Mg 279.077 IEC†	129.9	125.6	5216.2	ug/L	5216.2	ppb	01:17:24
1	Na 589.592 Radial†	28037.6	27930.1	9752.3	ug/L	9752.3	ppb	01:17:04
1	Sr 421.552†	63387.9	61484.8	481.69	ug/L	481.69	ppb	01:17:04
1	Sc 361.383	882943.0	882943.0	104.45	%			01:18:22
1	Y 371.029	733750.0	733750.0	102.92	%			01:18:22
1	Ag 328.068†	100952.5	96492.6	500.44	ug/L	500.44	ppb	01:18:27
1	As 188.979†	914.0	897.1	509.73	ug/L	509.73	ppb	01:18:47
1	B 249.677†	18085.3	17761.8	499.82	ug/L	499.82	ppb	01:18:27
1	Ba 233.527†	55468.0	53091.6	505.95	ug/L	505.95	ppb	01:18:27
1	Be 313.107†	1242466.3	1193960.9	510.82	ug/L	510.82	ppb	01:18:22
1	Cd 226.502†	35934.1	34550.8	507.52	ug/L	507.52	ppb	01:18:27
1	Co 228.616†	20149.3	19344.0	509.35	ug/L	509.35	ppb	01:18:27
1	Cr 267.716†	38845.0	37119.0	505.74	ug/L	505.74	ppb	01:18:27
1	Cu 324.752†	163114.5	150635.4	499.03	ug/L	499.03	ppb	01:18:27
1	Mn 257.610†	388593.8	371642.8	494.48	ug/L	494.48	ppb	01:18:27
1	Mo 202.031†	5755.4	5497.2	495.13	ug/L	495.13	ppb	01:18:47
1	Ni 231.604†	16671.0	15887.7	513.01	ug/L	513.01	ppb	01:18:27
1	P 214.914†	3654.1	3297.7	2402.1	ug/L	2402.1	ppb	01:18:47
1	Pb 220.353†	3304.0	3212.1	503.85	ug/L	503.85	ppb	01:18:47
1	S 181.975 Axial†	603.6	548.0	992.06	ug/L	992.06	ppb	01:18:47
1	Sb 206.836†	1243.6	1165.1	514.26	ug/L	514.26	ppb	01:18:47
1	Se 196.026†	609.3	605.5	521.79	ug/L	521.79	ppb	01:18:47
1	Si 251.611†	70261.8	66747.9	2543.0	ug/L	2543.0	ppb	01:18:27
1	Sn 189.927†	2244.7	2145.3	495.03	ug/L	495.03	ppb	01:18:47
1	Ti 334.940†	292342.7	280926.6	488.51	ug/L	488.51	ppb	01:18:27
1	Tl 190.801†	1306.0	1279.4	508.14	ug/L	508.14	ppb	01:18:47
1	U 409.014†	15913.2	17178.1	506.55	ug/L	506.55	ppb	01:18:27
1	V 292.402†	64267.6	62878.7	510.30	ug/L	510.30	ppb	01:18:27
1	Zn 213.857†	43651.0	41186.0	502.90	ug/L	502.90	ppb	01:18:27
1	SiO2†	70126.5	66600.9	5393.6	ug/L	5393.6	ppb	01:19:54
2	Sc Radial	4643.9	4643.9	102	%			01:17:29
2	Y RADIAL	4967.1	4967.1	101.0	%			01:17:29
2	Al 396.153Radial†	4986.3	4960.7	4884.2	ug/L	4884.2	ppb	01:17:29
2	Ca 317.933Radial†	2750.2	2677.4	5052.2	ug/L	5052.2	ppb	01:17:50
2	Fe 238.204 Radial†	461.4	445.6	5129.7	ug/L	5129.7	ppb	01:17:50
2	K 766.490 Radial†	29987.7	26883.8	5109.0	ug/L	5109.0	ppb	01:17:29
2	Mg 279.077 IEC†	130.0	127.1	5275.4	ug/L	5275.4	ppb	01:17:50
2	Na 589.592 Radial†	27454.2	27628.6	9647.0	ug/L	9647.0	ppb	01:17:29
2	Sr 421.552†	62965.8	61682.1	483.23	ug/L	483.23	ppb	01:17:29
2	Sc 361.383	888541.3	888541.3	105.11	%			01:18:52
2	Y 371.029	738092.3	738092.3	103.53	%			01:18:52
2	Ag 328.068†	101494.1	96398.8	499.98	ug/L	499.98	ppb	01:18:58
2	As 188.979†	917.1	894.5	508.33	ug/L	508.33	ppb	01:19:18
2	B 249.677†	18331.4	17886.9	503.33	ug/L	503.33	ppb	01:18:58
2	Ba 233.527†	55644.5	52924.9	504.37	ug/L	504.37	ppb	01:18:58
2	Be 313.107†	1243720.4	1187659.5	508.13	ug/L	508.13	ppb	01:18:52
2	Cd 226.502†	36022.5	34418.1	505.56	ug/L	505.56	ppb	01:18:58
2	Co 228.616†	20332.9	19397.2	510.74	ug/L	510.74	ppb	01:18:58
2	Cr 267.716†	38886.0	36923.7	503.09	ug/L	503.09	ppb	01:18:58
2	Cu 324.752†	164353.6	150830.3	499.68	ug/L	499.68	ppb	01:18:58
2	Mn 257.610†	389814.5	370460.2	492.91	ug/L	492.91	ppb	01:18:58
2	Mo 202.031†	5757.8	5464.7	492.22	ug/L	492.22	ppb	01:19:18
2	Ni 231.604†	16745.8	15858.4	512.06	ug/L	512.06	ppb	01:18:58

2	P 214.914†	3666.6	3287.5	2394.2 ug/L	2394.2 ppb	01:19:18
2	Pb 220.353†	3319.5	3206.9	503.03 ug/L	503.03 ppb	01:19:18
2	S 181.975 Axial†	603.8	544.5	985.68 ug/L	985.68 ppb	01:19:18
2	Sb 206.836†	1249.8	1163.5	513.49 ug/L	513.49 ppb	01:19:18
2	Se 196.026†	606.8	599.4	517.09 ug/L	517.09 ppb	01:19:18
2	Si 251.611†	70719.5	66759.5	2543.5 ug/L	2543.5 ppb	01:18:58
2	Sn 189.927†	2253.7	2140.3	493.86 ug/L	493.86 ppb	01:19:18
2	Ti 334.940†	293824.3	280572.6	487.90 ug/L	487.90 ppb	01:18:58
2	Tl 190.801†	1298.8	1264.7	502.31 ug/L	502.31 ppb	01:19:18
2	U 409.014†	16021.5	17185.1	506.76 ug/L	506.76 ppb	01:18:58
2	V 292.402†	64596.7	62804.2	509.64 ug/L	509.64 ppb	01:18:58
2	Zn 213.857†	43882.3	41142.7	502.35 ug/L	502.35 ppb	01:18:58
2	SiO2†	71211.9	67210.5	5443.1 ug/L	5443.1 ppb	01:19:59
3	Sc Radial	4697.7	4697.7	103 %		01:17:55
3	Y RADIAL	5000.1	5000.1	101.7 %		01:17:55
3	Al 396.153Radial†	5091.8	5007.0	4929.9 ug/L	4929.9 ppb	01:17:55
3	Ca 317.933Radial†	2771.6	2667.3	5033.1 ug/L	5033.1 ppb	01:18:15
3	Fe 238.204 Radial†	461.9	440.9	5075.7 ug/L	5075.7 ppb	01:18:15
3	K 766.490 Radial†	30638.1	27177.2	5164.8 ug/L	5164.8 ppb	01:17:55
3	Mg 279.077 IEC†	128.3	123.9	5145.5 ug/L	5145.5 ppb	01:18:15
3	Na 589.592 Radial†	28298.5	28138.4	9825.0 ug/L	9825.0 ppb	01:17:55
3	Sr 421.552†	64491.3	62453.4	489.28 ug/L	489.28 ppb	01:17:55
3	Sc 361.383	888256.1	888256.1	105.08 %		01:19:23
3	Y 371.029	739102.6	739102.6	103.67 %		01:19:23
3	Ag 328.068†	100679.3	95654.4	496.11 ug/L	496.11 ppb	01:19:28
3	As 188.979†	920.5	898.1	510.25 ug/L	510.25 ppb	01:19:48
3	B 249.677†	18083.4	17656.5	496.84 ug/L	496.84 ppb	01:19:28
3	Ba 233.527†	55158.9	52479.8	500.12 ug/L	500.12 ppb	01:19:28
3	Be 313.107†	1249179.9	1193234.9	510.50 ug/L	510.50 ppb	01:19:23
3	Cd 226.502†	35646.3	34071.2	500.46 ug/L	500.46 ppb	01:19:28
3	Co 228.616†	20148.3	19227.6	506.29 ug/L	506.29 ppb	01:19:28
3	Cr 267.716†	38642.9	36704.2	500.09 ug/L	500.09 ppb	01:19:28
3	Cu 324.752†	162863.4	149462.4	495.15 ug/L	495.15 ppb	01:19:28
3	Mn 257.610†	386322.0	367255.7	488.65 ug/L	488.65 ppb	01:19:28
3	Mo 202.031†	5768.0	5476.2	493.25 ug/L	493.25 ppb	01:19:48
3	Ni 231.604†	16506.7	15635.9	504.88 ug/L	504.88 ppb	01:19:28
3	P 214.914†	3647.3	3270.2	2382.0 ug/L	2382.0 ppb	01:19:48
3	Pb 220.353†	3295.1	3184.6	499.57 ug/L	499.57 ppb	01:19:48
3	S 181.975 Axial†	609.1	549.7	995.18 ug/L	995.18 ppb	01:19:48
3	Sb 206.836†	1254.2	1168.1	515.45 ug/L	515.45 ppb	01:19:48
3	Se 196.026†	608.7	601.4	518.62 ug/L	518.62 ppb	01:19:48
3	Si 251.611†	69975.3	66072.9	2517.3 ug/L	2517.3 ppb	01:19:28
3	Sn 189.927†	2253.8	2141.1	494.05 ug/L	494.05 ppb	01:19:48
3	Ti 334.940†	291085.7	278056.2	483.53 ug/L	483.53 ppb	01:19:28
3	Tl 190.801†	1314.9	1280.4	508.49 ug/L	508.49 ppb	01:19:48
3	U 409.014†	15924.3	17097.5	504.18 ug/L	504.18 ppb	01:19:28
3	V 292.402†	63950.0	62208.5	504.89 ug/L	504.89 ppb	01:19:28
3	Zn 213.857†	43397.9	40695.2	496.90 ug/L	496.90 ppb	01:19:28
3	SiO2†	70616.9	66666.0	5398.9 ug/L	5398.9 ppb	01:20:04

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	886580.1	104.88	%	0.373				0.36%
Sc Radial	4677.2	103	%	0.6				0.62%
Y 371.029	736981.6	103.37	%	0.399				0.39%
Y RADIAL	4998.3	101.7	%	0.62				0.61%
Ag 328.068†	96181.9	498.85	ug/L	2.376	498.85	ppb	2.376	0.48%
QC value within limits for Ag 328.068 Recovery = 99.77%								
Al 396.153Radial†	4956.2	4879.6	ug/L	52.77	4879.6	ppb	52.77	1.08%
QC value within limits for Al 396.153Radial Recovery = 97.59%								
As 188.979†	896.6	509.44	ug/L	0.995	509.44	ppb	0.995	0.20%
QC value within limits for As 188.979 Recovery = 101.89%								
B 249.677†	17768.4	500.00	ug/L	3.249	500.00	ppb	3.249	0.65%
QC value within limits for B 249.677 Recovery = 100.00%								
Ba 233.527†	52832.1	503.48	ug/L	3.012	503.48	ppb	3.012	0.60%
QC value within limits for Ba 233.527 Recovery = 100.70%								
Be 313.107†	1191618.4	509.82	ug/L	1.470	509.82	ppb	1.470	0.29%
QC value within limits for Be 313.107 Recovery = 101.96%								
Ca 317.933Radial†	2670.4	5038.9	ug/L	11.51	5038.9	ppb	11.51	0.23%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.78%
Cd 226.502†            34346.7      504.51 ug/L         3.643      504.51 ppb          3.643   0.72%
   QC value within limits for Cd 226.502  Recovery = 100.90%
Co 228.616†            19322.9      508.79 ug/L         2.277      508.79 ppb          2.277   0.45%
   QC value within limits for Co 228.616  Recovery = 101.76%
Cr 267.716†            36915.6      502.97 ug/L         2.823      502.97 ppb          2.823   0.56%
   QC value within limits for Cr 267.716  Recovery = 100.59%
Cu 324.752†           150309.3      497.95 ug/L         2.451      497.95 ppb          2.451   0.49%
   QC value within limits for Cu 324.752  Recovery = 99.59%
Fe 238.204 Radial†       440.9      5075.7 ug/L        54.05      5075.7 ppb          54.05   1.06%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.51%
K 766.490 Radial†      26934.7      5118.7 ug/L        42.13      5118.7 ppb          42.13   0.82%
   QC value within limits for K 766.490 Radial  Recovery = 102.37%
Mg 279.077 IEC†          125.6      5212.4 ug/L        65.01      5212.4 ppb          65.01   1.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.25%
Mn 257.610†           369786.3      492.01 ug/L         3.015      492.01 ppb          3.015   0.61%
   QC value within limits for Mn 257.610  Recovery = 98.40%
Mo 202.031†             5479.4      493.53 ug/L         1.478      493.53 ppb          1.478   0.30%
   QC value within limits for Mo 202.031  Recovery = 98.71%
Na 589.592 Radial†     27899.0      9741.5 ug/L        89.51      9741.5 ppb          89.51   0.92%
   QC value within limits for Na 589.592 Radial  Recovery = 97.41%
Ni 231.604†            15794.0      509.99 ug/L         4.447      509.99 ppb          4.447   0.87%
   QC value within limits for Ni 231.604  Recovery = 102.00%
P 214.914†              3285.1      2392.8 ug/L        10.10      2392.8 ppb          10.10   0.42%
   QC value within limits for P 214.914  Recovery = 95.71%
Pb 220.353†             3201.2      502.15 ug/L         2.273      502.15 ppb          2.273   0.45%
   QC value within limits for Pb 220.353  Recovery = 100.43%
S 181.975 Axial†         547.4      990.97 ug/L         4.839      990.97 ppb          4.839   0.49%
   QC value within limits for S 181.975 Axial  Recovery = 99.10%
Sb 206.836†             1165.6      514.40 ug/L         0.988      514.40 ppb          0.988   0.19%
   QC value within limits for Sb 206.836  Recovery = 102.88%
Se 196.026†              602.1      519.17 ug/L         2.395      519.17 ppb          2.395   0.46%
   QC value within limits for Se 196.026  Recovery = 103.83%
Si 251.611†            66526.8      2534.6 ug/L        15.01      2534.6 ppb          15.01   0.59%
   QC value within limits for Si 251.611  Recovery = 101.38%
Sn 189.927†             2142.3      494.31 ug/L         0.623      494.31 ppb          0.623   0.13%
   QC value within limits for Sn 189.927  Recovery = 98.86%
Sr 421.552†            61873.4      484.73 ug/L         4.010      484.73 ppb          4.010   0.83%
   QC value within limits for Sr 421.552  Recovery = 96.95%
Ti 334.940†           279851.8      486.65 ug/L         2.717      486.65 ppb          2.717   0.56%
   QC value within limits for Ti 334.940  Recovery = 97.33%
Tl 190.801†             1274.8      506.32 ug/L         3.470      506.32 ppb          3.470   0.69%
   QC value within limits for Tl 190.801  Recovery = 101.26%
U 409.014†             17153.6      505.83 ug/L         1.434      505.83 ppb          1.434   0.28%
   QC value within limits for U 409.014  Recovery = 101.17%
V 292.402†             62630.5      508.28 ug/L         2.949      508.28 ppb          2.949   0.58%
   QC value within limits for V 292.402  Recovery = 101.66%
Zn 213.857†            41008.0      500.71 ug/L         3.318      500.71 ppb          3.318   0.66%
   QC value within limits for Zn 213.857  Recovery = 100.14%
SiO2†                  66825.8      5411.9 ug/L        27.21      5411.9 ppb          27.21   0.50%
   QC value within limits for SiO2  Recovery = 101.20%
All analyte(s) passed QC.
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Sequence No.: 68
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/23/2010 01:22:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4668.5	4668.5	103	%			01:24:07
1	Y RADIAL	5050.8	5050.8	102.7	%			01:24:07
1	Al 396.153Radial†	-79.3	-4.1	-4.0959	ug/L	-4.0959	ppb	01:24:27
1	Ca 317.933Radial†	21.8	2.9	5.4654	ug/L	5.4654	ppb	01:24:27
1	Fe 238.204 Radial†	6.8	0.0	0.0511	ug/L	0.0511	ppb	01:24:27
1	K 766.490 Radial†	2781.3	201.4	38.318	ug/L	38.318	ppb	01:24:07
1	Mg 279.077 IEC†	2.7	2.2	92.000	ug/L	92.000	ppb	01:24:27
1	Na 589.592 Radial†	-757.1	-20.4	-7.1404	ug/L	-7.1404	ppb	01:24:07
1	Sr 421.552†	22.5	-15.6	-0.1219	ug/L	-0.1219	ppb	01:24:07
1	Sc 361.383	873996.5	873996.5	103.39	%			01:25:24
1	Y 371.029	737954.0	737954.0	103.51	%			01:25:24
1	Ag 328.068†	199.0	35.8	0.1875	ug/L	0.1875	ppb	01:25:24
1	As 188.979†	-28.7	-5.7	-3.2117	ug/L	-3.2117	ppb	01:25:44
1	B 249.677†	-223.5	231.3	6.5368	ug/L	6.5368	ppb	01:25:44
1	Ba 233.527†	8.7	-3.6	-0.0315	ug/L	-0.0315	ppb	01:25:44
1	Be 313.107†	-4383.7	217.5	0.0930	ug/L	0.0930	ppb	01:25:24
1	Cd 226.502†	-163.7	-9.9	-0.1444	ug/L	-0.1444	ppb	01:25:44
1	Co 228.616†	-40.0	15.0	0.3942	ug/L	0.3942	ppb	01:25:44
1	Cr 267.716†	78.3	5.5	0.0758	ug/L	0.0758	ppb	01:25:44
1	Cu 324.752†	5598.0	-111.8	-0.3713	ug/L	-0.3713	ppb	01:25:24
1	Mn 257.610†	427.8	27.5	0.0328	ug/L	0.0328	ppb	01:25:44
1	Mo 202.031†	16.7	3.3	0.2956	ug/L	0.2956	ppb	01:25:44
1	Ni 231.604†	108.1	32.0	1.0326	ug/L	1.0326	ppb	01:25:44
1	P 214.914†	190.8	-16.1	-12.118	ug/L	-12.118	ppb	01:25:44
1	Pb 220.353†	-48.8	1.7	0.2640	ug/L	0.2640	ppb	01:25:44
1	S 181.975 Axial†	30.8	-0.1	-0.1388	ug/L	-0.1388	ppb	01:25:44
1	Sb 206.836†	32.1	5.6	2.4275	ug/L	2.4275	ppb	01:25:44
1	Se 196.026†	-7.0	15.4	12.866	ug/L	12.866	ppb	01:25:44
1	Si 251.611†	684.7	143.4	5.4731	ug/L	5.4731	ppb	01:25:44
1	Sn 189.927†	14.8	10.6	2.4341	ug/L	2.4341	ppb	01:25:44
1	Ti 334.940†	-1050.4	29.6	0.0440	ug/L	0.0440	ppb	01:25:24
1	Tl 190.801†	-28.5	1.5	0.6008	ug/L	0.6008	ppb	01:25:44
1	U 409.014†	-1957.8	49.7	1.4690	ug/L	1.4690	ppb	01:25:24
1	V 292.402†	-1259.5	132.6	1.0705	ug/L	1.0705	ppb	01:25:24
1	Zn 213.857†	2832.3	2135.0	26.307	ug/L	26.307	ppb	01:25:44
1	SiO2†	666.1	107.9	8.7496	ug/L	8.7496	ppb	01:26:40
2	Sc Radial	4601.9	4601.9	101	%			01:24:32
2	Y RADIAL	4987.1	4987.1	101.4	%			01:24:32
2	Al 396.153Radial†	-75.3	-1.3	-1.2911	ug/L	-1.2911	ppb	01:24:52
2	Ca 317.933Radial†	20.6	2.0	3.8492	ug/L	3.8492	ppb	01:24:52
2	Fe 238.204 Radial†	7.0	0.3	3.4752	ug/L	3.4752	ppb	01:24:52
2	K 766.490 Radial†	2749.7	209.5	39.861	ug/L	39.861	ppb	01:24:32
2	Mg 279.077 IEC†	0.7	0.3	13.314	ug/L	13.314	ppb	01:24:52
2	Na 589.592 Radial†	-769.0	-42.9	-14.968	ug/L	-14.968	ppb	01:24:32
2	Sr 421.552†	24.7	-13.0	-0.1017	ug/L	-0.1017	ppb	01:24:32
2	Sc 361.383	878435.2	878435.2	103.92	%			01:25:49
2	Y 371.029	742335.4	742335.4	104.12	%			01:25:49
2	Ag 328.068†	234.7	69.2	0.3582	ug/L	0.3582	ppb	01:25:49
2	As 188.979†	-20.8	2.1	1.1890	ug/L	1.1890	ppb	01:26:09
2	B 249.677†	-221.0	234.8	6.6353	ug/L	6.6353	ppb	01:26:09
2	Ba 233.527†	-1.1	-13.0	-0.1219	ug/L	-0.1219	ppb	01:26:09
2	Be 313.107†	-4280.0	338.7	0.1452	ug/L	0.1452	ppb	01:25:49
2	Cd 226.502†	-167.4	-12.6	-0.1843	ug/L	-0.1843	ppb	01:26:09
2	Co 228.616†	-42.4	12.8	0.3354	ug/L	0.3354	ppb	01:26:09
2	Cr 267.716†	57.5	-14.8	-0.2016	ug/L	-0.2016	ppb	01:26:09
2	Cu 324.752†	5585.4	-151.3	-0.5027	ug/L	-0.5027	ppb	01:25:49
2	Mn 257.610†	455.5	52.0	0.0690	ug/L	0.0690	ppb	01:26:09
2	Mo 202.031†	10.8	-2.5	-0.2250	ug/L	-0.2250	ppb	01:26:09
2	Ni 231.604†	100.8	24.3	0.7864	ug/L	0.7864	ppb	01:26:09

2	P 214.914†	181.1	-26.4	-19.876 ug/L	-19.876 ppb	01:26:09
2	Pb 220.353†	-55.7	-4.7	-0.7300 ug/L	-0.7300 ppb	01:26:09
2	S 181.975 Axial†	23.9	-6.9	-12.467 ug/L	-12.467 ppb	01:26:09
2	Sb 206.836†	30.2	3.6	1.5381 ug/L	1.5381 ppb	01:26:09
2	Se 196.026†	-21.0	2.0	1.6377 ug/L	1.6377 ppb	01:26:09
2	Si 251.611†	686.9	142.1	5.4314 ug/L	5.4314 ppb	01:26:09
2	Sn 189.927†	9.6	5.5	1.2668 ug/L	1.2668 ppb	01:26:09
2	Ti 334.940†	-936.6	144.3	0.2491 ug/L	0.2491 ppb	01:25:49
2	Tl 190.801†	-26.1	4.0	1.5701 ug/L	1.5701 ppb	01:26:09
2	U 409.014†	-1913.2	102.1	3.0223 ug/L	3.0223 ppb	01:25:49
2	V 292.402†	-1303.6	96.3	0.7732 ug/L	0.7732 ppb	01:25:49
2	Zn 213.857†	2807.9	2097.7	25.848 ug/L	25.848 ppb	01:26:09
2	SiO2†	643.9	83.3	6.7671 ug/L	6.7671 ppb	01:26:45
3	Sc Radial	4613.2	4613.2	101 %		01:24:57
3	Y RADIAL	4975.7	4975.7	101.2 %		01:24:57
3	Al 396.153Radial†	-75.9	-1.7	-1.6380 ug/L	-1.6380 ppb	01:25:17
3	Ca 317.933Radial†	17.8	-0.8	-1.5149 ug/L	-1.5149 ppb	01:25:17
3	Fe 238.204 Radial†	6.9	0.2	1.8378 ug/L	1.8378 ppb	01:25:17
3	K 766.490 Radial†	2727.0	180.4	34.327 ug/L	34.327 ppb	01:24:57
3	Mg 279.077 IEC†	1.8	1.4	56.247 ug/L	56.247 ppb	01:25:17
3	Na 589.592 Radial†	-781.4	-53.3	-18.610 ug/L	-18.610 ppb	01:24:57
3	Sr 421.552†	18.9	-18.8	-0.1475 ug/L	-0.1475 ppb	01:24:57
3	Sc 361.383	879871.5	879871.5	104.09 %		01:26:14
3	Y 371.029	744146.8	744146.8	104.38 %		01:26:14
3	Ag 328.068†	214.6	49.5	0.2549 ug/L	0.2549 ppb	01:26:14
3	As 188.979†	-17.5	5.3	2.9732 ug/L	2.9732 ppb	01:26:34
3	B 249.677†	-234.4	222.2	6.2815 ug/L	6.2815 ppb	01:26:34
3	Ba 233.527†	12.5	0.0	0.0006 ug/L	0.0006 ppb	01:26:34
3	Be 313.107†	-4179.9	441.7	0.1886 ug/L	0.1886 ppb	01:26:14
3	Cd 226.502†	-174.4	-19.1	-0.2803 ug/L	-0.2803 ppb	01:26:34
3	Co 228.616†	-45.3	10.1	0.2639 ug/L	0.2639 ppb	01:26:34
3	Cr 267.716†	73.0	-0.0	-0.0003 ug/L	-0.0003 ppb	01:26:34
3	Cu 324.752†	5610.3	-136.1	-0.4515 ug/L	-0.4515 ppb	01:26:14
3	Mn 257.610†	417.9	15.2	0.0181 ug/L	0.0181 ppb	01:26:34
3	Mo 202.031†	2.7	-10.3	-0.9257 ug/L	-0.9257 ppb	01:26:34
3	Ni 231.604†	95.9	19.5	0.6300 ug/L	0.6300 ppb	01:26:34
3	P 214.914†	176.0	-31.6	-23.882 ug/L	-23.882 ppb	01:26:34
3	Pb 220.353†	-65.0	-13.6	-2.1283 ug/L	-2.1283 ppb	01:26:34
3	S 181.975 Axial†	36.4	5.1	9.2564 ug/L	9.2564 ppb	01:26:34
3	Sb 206.836†	24.3	-2.1	-0.9354 ug/L	-0.9354 ppb	01:26:34
3	Se 196.026†	-17.7	5.1	4.2913 ug/L	4.2913 ppb	01:26:34
3	Si 251.611†	658.4	113.7	4.3554 ug/L	4.3554 ppb	01:26:34
3	Sn 189.927†	1.6	-2.2	-0.5129 ug/L	-0.5129 ppb	01:26:34
3	Ti 334.940†	-1066.7	20.7	0.0308 ug/L	0.0308 ppb	01:26:14
3	Tl 190.801†	-25.1	5.0	1.9826 ug/L	1.9826 ppb	01:26:34
3	U 409.014†	-1984.6	36.5	1.0808 ug/L	1.0808 ppb	01:26:14
3	V 292.402†	-1395.6	9.9	0.0689 ug/L	0.0689 ppb	01:26:14
3	Zn 213.857†	2820.3	2105.2	25.942 ug/L	25.942 ppb	01:26:34
3	SiO2†	631.9	70.7	5.7688 ug/L	5.7688 ppb	01:26:50

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	877434.4	103.80	%	0.362				0.35%
Sc Radial	4627.9	102	%	0.8				0.77%
Y 371.029	741478.7	104.00	%	0.447				0.43%
Y RADIAL	5004.6	101.8	%	0.82				0.81%
Ag 328.068†	51.5	0.2669	ug/L	0.08601	0.2669	ppb	0.08601	32.23%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.4	-2.3417	ug/L	1.52910	-2.3417	ppb	1.52910	65.30%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.6	0.3168	ug/L	3.18333	0.3168	ppb	3.18333	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	229.4	6.4845	ug/L	0.18263	6.4845	ppb	0.18263	2.82%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.5	-0.0509	ug/L	0.06356	-0.0509	ppb	0.06356	124.83%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	332.6	0.1423	ug/L	0.04790	0.1423	ppb	0.04790	33.67%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.4	2.5999	ug/L	3.65403	2.5999	ppb	3.65403	140.55%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -13.9     -0.2030 ug/L       0.06982     -0.2030 ppb        0.06982  34.39%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               12.6      0.3311 ug/L       0.06523      0.3311 ppb        0.06523  19.70%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -3.1     -0.0420 ug/L       0.14330     -0.0420 ppb        0.14330 340.85%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -133.1     -0.4418 ug/L       0.06624     -0.4418 ppb        0.06624  14.99%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.2      1.7880 ug/L       1.71263      1.7880 ppb        1.71263  95.78%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        197.1      37.502 ug/L        2.8557      37.502 ppb         2.8557   7.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.3      53.854 ug/L       39.3977      53.854 ppb        39.3977  73.16%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               31.6      0.0400 ug/L       0.02618      0.0400 ppb        0.02618  65.47%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -3.2     -0.2850 ug/L       0.61287     -0.2850 ppb        0.61287 215.02%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -38.9     -13.573 ug/L        5.8608     -13.573 ppb         5.8608  43.18%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               25.3      0.8163 ug/L       0.20294      0.8163 ppb        0.20294  24.86%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -24.7     -18.626 ug/L        5.9811     -18.626 ppb         5.9811  32.11%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -5.5     -0.8648 ug/L       1.20184     -0.8648 ppb        1.20184 138.98%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -0.6     -1.1164 ug/L      10.89460     -1.1164 ppb       10.89460 975.85%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                2.3      1.0101 ug/L       1.74252      1.0101 ppb        1.74252 172.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                7.5      6.2651 ug/L       5.86888      6.2651 ppb        5.86888  93.68%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              133.1      5.0866 ug/L       0.63362      5.0866 ppb        0.63362  12.46%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                4.6      1.0627 ug/L       1.48405      1.0627 ppb        1.48405 139.65%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -15.8     -0.1237 ug/L       0.02295     -0.1237 ppb        0.02295  18.55%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               64.9      0.1080 ug/L       0.12240      0.1080 ppb        0.12240 113.36%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.5      1.3845 ug/L       0.70933      1.3845 ppb        0.70933  51.23%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                62.8      1.8574 ug/L       1.02733      1.8574 ppb        1.02733  55.31%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                79.6      0.6376 ug/L       0.51440      0.6376 ppb        0.51440  80.68%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             2112.7      26.032 ug/L        0.2426      26.032 ppb         0.2426   0.93%
   QC value greater than the upper limit for Zn 213.857  Recovery = Not calculated
SiO2†                     87.3      7.0952 ug/L       1.51728      7.0952 ppb        1.51728  21.38%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 77
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/23/2010 02:25:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4588.9	4588.9	101	%			02:27:28
1	Y RADIAL	4950.4	4950.4	100.7	%			02:27:28
1	Al 396.153Radial†	5022.7	5055.5	4977.8	ug/L	4977.8	ppb	02:27:28
1	Ca 317.933Radial†	2727.7	2687.4	5071.0	ug/L	5071.0	ppb	02:27:48
1	Fe 238.204 Radial†	447.8	437.6	5037.9	ug/L	5037.9	ppb	02:27:48
1	K 766.490 Radial†	30097.2	27344.8	5196.9	ug/L	5196.9	ppb	02:27:28
1	Mg 279.077 IEC†	129.4	128.0	5312.1	ug/L	5312.1	ppb	02:27:48
1	Na 589.592 Radial†	26092.5	26600.6	9288.1	ug/L	9288.1	ppb	02:27:28
1	Sr 421.552†	61794.1	61260.0	479.93	ug/L	479.93	ppb	02:27:28
1	Sc 361.383	886561.9	886561.9	104.88	%			02:28:45
1	Y 371.029	736905.9	736905.9	103.36	%			02:28:45
1	Ag 328.068†	99963.5	95155.0	493.52	ug/L	493.52	ppb	02:28:50
1	As 188.979†	917.0	896.4	509.31	ug/L	509.31	ppb	02:29:10
1	B 249.677†	17773.6	17394.0	489.43	ug/L	489.43	ppb	02:28:50
1	Ba 233.527†	54914.3	52346.9	498.86	ug/L	498.86	ppb	02:28:50
1	Be 313.107†	1239813.8	1186576.3	507.65	ug/L	507.65	ppb	02:28:45
1	Cd 226.502†	35546.7	34041.0	500.02	ug/L	500.02	ppb	02:28:50
1	Co 228.616†	20041.7	19162.6	504.59	ug/L	504.59	ppb	02:28:50
1	Cr 267.716†	38490.0	36628.7	499.06	ug/L	499.06	ppb	02:28:50
1	Cu 324.752†	161595.8	148549.9	492.12	ug/L	492.12	ppb	02:28:50
1	Mn 257.610†	384875.8	366579.3	487.74	ug/L	487.74	ppb	02:28:50
1	Mo 202.031†	5787.6	5505.4	495.87	ug/L	495.87	ppb	02:29:10
1	Ni 231.604†	16494.8	15654.6	505.48	ug/L	505.48	ppb	02:28:50
1	P 214.914†	3671.7	3300.2	2405.4	ug/L	2405.4	ppb	02:29:10
1	Pb 220.353†	3296.4	3191.9	500.73	ug/L	500.73	ppb	02:29:10
1	S 181.975 Axial†	610.3	552.0	999.28	ug/L	999.28	ppb	02:29:10
1	Sb 206.836†	1245.7	1162.2	513.05	ug/L	513.05	ppb	02:29:10
1	Se 196.026†	623.9	617.0	531.52	ug/L	531.52	ppb	02:29:10
1	Si 251.611†	69511.0	65757.5	2505.2	ug/L	2505.2	ppb	02:28:50
1	Sn 189.927†	2260.3	2151.4	496.42	ug/L	496.42	ppb	02:29:10
1	Ti 334.940†	289502.1	277075.6	481.82	ug/L	481.82	ppb	02:28:50
1	Tl 190.801†	1313.7	1281.6	508.96	ug/L	508.96	ppb	02:29:10
1	U 409.014†	15876.9	17081.3	503.70	ug/L	503.70	ppb	02:28:50
1	V 292.402†	63686.4	62073.5	503.86	ug/L	503.86	ppb	02:28:50
1	Zn 213.857†	43221.6	40606.0	495.80	ug/L	495.80	ppb	02:28:50
1	SiO2†	70334.8	66525.4	5387.4	ug/L	5387.4	ppb	02:30:17
2	Sc Radial	4671.7	4671.7	103	%			02:27:53
2	Y RADIAL	5038.8	5038.8	102.5	%			02:27:53
2	Al 396.153Radial†	4968.3	4914.2	4837.8	ug/L	4837.8	ppb	02:27:53
2	Ca 317.933Radial†	2725.3	2637.1	4976.2	ug/L	4976.2	ppb	02:28:13
2	Fe 238.204 Radial†	443.6	425.6	4900.9	ug/L	4900.9	ppb	02:28:13
2	K 766.490 Radial†	29804.0	26529.8	5041.9	ug/L	5041.9	ppb	02:27:53
2	Mg 279.077 IEC†	127.7	124.1	5151.0	ug/L	5151.0	ppb	02:28:13
2	Na 589.592 Radial†	25604.9	25666.5	8961.9	ug/L	8961.9	ppb	02:27:53
2	Sr 421.552†	60983.6	59383.3	465.22	ug/L	465.22	ppb	02:27:53
2	Sc 361.383	883938.9	883938.9	104.57	%			02:29:16
2	Y 371.029	735255.9	735255.9	103.13	%			02:29:16
2	Ag 328.068†	102400.2	97768.0	506.99	ug/L	506.99	ppb	02:29:21
2	As 188.979†	923.2	905.0	514.20	ug/L	514.20	ppb	02:29:41
2	B 249.677†	18300.6	17948.2	505.08	ug/L	505.08	ppb	02:29:21
2	Ba 233.527†	56097.0	53633.3	511.11	ug/L	511.11	ppb	02:29:21
2	Be 313.107†	1236249.6	1186675.8	507.73	ug/L	507.73	ppb	02:29:16
2	Cd 226.502†	36291.9	34854.2	511.99	ug/L	511.99	ppb	02:29:21
2	Co 228.616†	20516.5	19673.4	518.01	ug/L	518.01	ppb	02:29:21
2	Cr 267.716†	39357.3	37566.9	511.82	ug/L	511.82	ppb	02:29:21
2	Cu 324.752†	165637.5	152872.2	506.43	ug/L	506.43	ppb	02:29:21
2	Mn 257.610†	393247.7	375674.3	499.83	ug/L	499.83	ppb	02:29:21
2	Mo 202.031†	5794.2	5528.1	497.90	ug/L	497.90	ppb	02:29:41
2	Ni 231.604†	16834.4	16026.0	517.48	ug/L	517.48	ppb	02:29:21

2	P 214.914†	3656.1	3295.7	2399.2 ug/L	2399.2 ppb	02:29:41
2	Pb 220.353†	3309.5	3213.7	504.13 ug/L	504.13 ppb	02:29:41
2	S 181.975 Axial†	605.2	548.8	993.58 ug/L	993.58 ppb	02:29:41
2	Sb 206.836†	1247.6	1167.7	515.42 ug/L	515.42 ppb	02:29:41
2	Se 196.026†	618.6	613.8	528.38 ug/L	528.38 ppb	02:29:41
2	Si 251.611†	71105.9	67479.3	2570.9 ug/L	2570.9 ppb	02:29:21
2	Sn 189.927†	2256.2	2153.8	496.98 ug/L	496.98 ppb	02:29:41
2	Ti 334.940†	296682.7	284761.5	495.17 ug/L	495.17 ppb	02:29:21
2	Tl 190.801†	1310.4	1282.2	509.27 ug/L	509.27 ppb	02:29:41
2	U 409.014†	16519.0	17740.2	523.19 ug/L	523.19 ppb	02:29:21
2	V 292.402†	65258.9	63757.4	517.41 ug/L	517.41 ppb	02:29:21
2	Zn 213.857†	44239.5	41701.7	509.23 ug/L	509.23 ppb	02:29:21
2	SiO2†	71214.2	67565.4	5471.8 ug/L	5471.8 ppb	02:30:22
3	Sc Radial	4672.9	4672.9	103 %		02:28:18
3	Y RADIAL	4990.3	4990.3	101.5 %		02:28:18
3	Al 396.153Radial†	5076.0	5017.8	4940.7 ug/L	4940.7 ppb	02:28:18
3	Ca 317.933Radial†	2734.4	2645.3	4991.7 ug/L	4991.7 ppb	02:28:38
3	Fe 238.204 Radial†	450.5	432.2	4975.9 ug/L	4975.9 ppb	02:28:38
3	K 766.490 Radial†	30451.9	27153.5	5160.5 ug/L	5160.5 ppb	02:28:18
3	Mg 279.077 IEC†	128.9	125.2	5197.1 ug/L	5197.1 ppb	02:28:38
3	Na 589.592 Radial†	26190.1	26230.2	9158.8 ug/L	9158.8 ppb	02:28:18
3	Sr 421.552†	62384.9	60733.3	475.80 ug/L	475.80 ppb	02:28:18
3	Sc 361.383	893602.3	893602.3	105.71 %		02:29:46
3	Y 371.029	743922.9	743922.9	104.34 %		02:29:46
3	Ag 328.068†	101868.5	96206.1	498.94 ug/L	498.94 ppb	02:29:52
3	As 188.979†	915.7	888.3	504.78 ug/L	504.78 ppb	02:30:12
3	B 249.677†	18188.0	17652.4	496.74 ug/L	496.74 ppb	02:29:52
3	Ba 233.527†	55720.8	52697.3	502.19 ug/L	502.19 ppb	02:29:52
3	Be 313.107†	1251062.5	1187903.5	508.23 ug/L	508.23 ppb	02:29:46
3	Cd 226.502†	35997.8	34200.7	502.38 ug/L	502.38 ppb	02:29:52
3	Co 228.616†	20358.9	19312.2	508.50 ug/L	508.50 ppb	02:29:52
3	Cr 267.716†	39116.3	36932.0	503.18 ug/L	503.18 ppb	02:29:52
3	Cu 324.752†	164973.4	150531.0	498.68 ug/L	498.68 ppb	02:29:52
3	Mn 257.610†	390835.2	369325.4	491.39 ug/L	491.39 ppb	02:29:52
3	Mo 202.031†	5777.1	5451.9	491.05 ug/L	491.05 ppb	02:30:12
3	Ni 231.604†	16716.2	15740.1	508.24 ug/L	508.24 ppb	02:29:52
3	P 214.914†	3660.5	3262.0	2375.1 ug/L	2375.1 ppb	02:30:12
3	Pb 220.353†	3323.9	3193.2	500.91 ug/L	500.91 ppb	02:30:12
3	S 181.975 Axial†	598.0	535.8	969.97 ug/L	969.97 ppb	02:30:12
3	Sb 206.836†	1256.2	1162.9	513.15 ug/L	513.15 ppb	02:30:12
3	Se 196.026†	610.7	599.9	517.04 ug/L	517.04 ppb	02:30:12
3	Si 251.611†	70685.2	66346.1	2527.7 ug/L	2527.7 ppb	02:29:52
3	Sn 189.927†	2260.6	2134.7	492.57 ug/L	492.57 ppb	02:30:12
3	Ti 334.940†	294954.1	280058.3	487.00 ug/L	487.00 ppb	02:29:52
3	Tl 190.801†	1311.7	1269.9	504.36 ug/L	504.36 ppb	02:30:12
3	U 409.014†	16221.2	17287.7	509.81 ug/L	509.81 ppb	02:29:52
3	V 292.402†	64777.1	62626.8	508.24 ug/L	508.24 ppb	02:29:52
3	Zn 213.857†	43961.8	40981.5	500.41 ug/L	500.41 ppb	02:29:52
3	SiO2†	69764.9	65458.0	5300.9 ug/L	5300.9 ppb	02:30:27

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	888034.4	105.05	%	0.591				0.56%
Sc Radial	4644.5	102	%	1.1				1.04%
Y 371.029	738694.9	103.61	%	0.646				0.62%
Y RADIAL	4993.2	101.6	%	0.90				0.89%
Ag 328.068†	96376.4	499.82	ug/L	6.776	499.82	ppb	6.776	1.36%
QC value within limits for Ag 328.068 Recovery = 99.96%								
Al 396.153Radial†	4995.8	4918.8	ug/L	72.50	4918.8	ppb	72.50	1.47%
QC value within limits for Al 396.153Radial Recovery = 98.38%								
As 188.979†	896.6	509.43	ug/L	4.711	509.43	ppb	4.711	0.92%
QC value within limits for As 188.979 Recovery = 101.89%								
B 249.677†	17664.9	497.08	ug/L	7.831	497.08	ppb	7.831	1.58%
QC value within limits for B 249.677 Recovery = 99.42%								
Ba 233.527†	52892.5	504.05	ug/L	6.335	504.05	ppb	6.335	1.26%
QC value within limits for Ba 233.527 Recovery = 100.81%								
Be 313.107†	1187051.9	507.87	ug/L	0.315	507.87	ppb	0.315	0.06%
QC value within limits for Be 313.107 Recovery = 101.57%								
Ca 317.933Radial†	2656.6	5013.0	ug/L	50.89	5013.0	ppb	50.89	1.02%

```
   QC value within limits for Ca 317.933Radial  Recovery = 100.26%
Cd 226.502†            34365.3      504.80 ug/L         6.343      504.80 ppb          6.343   1.26%
   QC value within limits for Cd 226.502  Recovery = 100.96%
Co 228.616†            19382.7      510.37 ug/L         6.904      510.37 ppb          6.904   1.35%
   QC value within limits for Co 228.616  Recovery = 102.07%
Cr 267.716†            37042.5      504.69 ug/L         6.509      504.69 ppb          6.509   1.29%
   QC value within limits for Cr 267.716  Recovery = 100.94%
Cu 324.752†           150651.0      499.08 ug/L         7.159      499.08 ppb          7.159   1.43%
   QC value within limits for Cu 324.752  Recovery = 99.82%
Fe 238.204 Radial†       431.8      4971.6 ug/L        68.61      4971.6 ppb         68.61   1.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.43%
K 766.490 Radial†      27009.4      5133.1 ug/L        81.02      5133.1 ppb         81.02   1.58%
   QC value within limits for K 766.490 Radial  Recovery = 102.66%
Mg 279.077 IEC†          125.7      5220.0 ug/L        82.97      5220.0 ppb         82.97   1.59%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.40%
Mn 257.610†           370526.3      492.99 ug/L         6.199      492.99 ppb          6.199   1.26%
   QC value within limits for Mn 257.610  Recovery = 98.60%
Mo 202.031†             5495.1      494.94 ug/L         3.516      494.94 ppb          3.516   0.71%
   QC value within limits for Mo 202.031  Recovery = 98.99%
Na 589.592 Radial†     26165.8      9136.3 ug/L       164.24      9136.3 ppb        164.24   1.80%
   QC value within limits for Na 589.592 Radial  Recovery = 91.36%
Ni 231.604†            15806.9      510.40 ug/L         6.280      510.40 ppb          6.280   1.23%
   QC value within limits for Ni 231.604  Recovery = 102.08%
P 214.914†              3285.9      2393.2 ug/L        15.99      2393.2 ppb         15.99   0.67%
   QC value within limits for P 214.914  Recovery = 95.73%
Pb 220.353†             3199.6      501.92 ug/L         1.913      501.92 ppb          1.913   0.38%
   QC value within limits for Pb 220.353  Recovery = 100.38%
S 181.975 Axial†         545.6      987.61 ug/L        15.541      987.61 ppb         15.541   1.57%
   QC value within limits for S 181.975 Axial  Recovery = 98.76%
Sb 206.836†             1164.3      513.87 ug/L         1.340      513.87 ppb          1.340   0.26%
   QC value within limits for Sb 206.836  Recovery = 102.77%
Se 196.026†              610.2      525.65 ug/L         7.616      525.65 ppb          7.616   1.45%
   QC value within limits for Se 196.026  Recovery = 105.13%
Si 251.611†            66527.6      2534.6 ug/L        33.40      2534.6 ppb         33.40   1.32%
   QC value within limits for Si 251.611  Recovery = 101.39%
Sn 189.927†             2146.6      495.33 ug/L         2.404      495.33 ppb          2.404   0.49%
   QC value within limits for Sn 189.927  Recovery = 99.07%
Sr 421.552†            60458.9      473.65 ug/L         7.583      473.65 ppb          7.583   1.60%
   QC value within limits for Sr 421.552  Recovery = 94.73%
Ti 334.940†           280631.8      488.00 ug/L         6.734      488.00 ppb          6.734   1.38%
   QC value within limits for Ti 334.940  Recovery = 97.60%
Tl 190.801†             1277.9      507.53 ug/L         2.747      507.53 ppb          2.747   0.54%
   QC value within limits for Tl 190.801  Recovery = 101.51%
U 409.014†             17369.7      512.23 ug/L         9.965      512.23 ppb          9.965   1.95%
   QC value within limits for U 409.014  Recovery = 102.45%
V 292.402†             62819.2      509.84 ug/L         6.917      509.84 ppb          6.917   1.36%
   QC value within limits for V 292.402  Recovery = 101.97%
Zn 213.857†            41096.4      501.82 ug/L         6.823      501.82 ppb          6.823   1.36%
   QC value within limits for Zn 213.857  Recovery = 100.36%
SiO2†                  66516.3      5386.7 ug/L        85.46      5386.7 ppb         85.46   1.59%
   QC value within limits for SiO2  Recovery = 100.73%
All analyte(s) passed QC.
```

Sequence No.: 78
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/23/2010 02:32:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4453.9	4453.9	97.8	%			02:34:50
1	Y RADIAL	4998.7	4998.7	101.7	%			02:34:30
1	Al 396.153Radial†	-75.1	-3.6	-3.5222	ug/L	-3.5222	ppb	02:34:50
1	Ca 317.933Radial†	24.6	6.8	12.745	ug/L	12.745	ppb	02:34:50
1	Fe 238.204 Radial†	8.8	2.4	27.455	ug/L	27.455	ppb	02:34:50
1	K 766.490 Radial†	2554.2	100.0	19.030	ug/L	19.030	ppb	02:34:30
1	Mg 279.077 IEC†	2.3	1.9	80.003	ug/L	80.003	ppb	02:34:50
1	Na 589.592 Radial†	-760.8	-59.8	-20.877	ug/L	-20.877	ppb	02:34:30
1	Sr 421.552†	55.8	19.6	0.1534	ug/L	0.1534	ppb	02:34:30
1	Sc 361.383	898280.3	898280.3	106.27	%			02:35:46
1	Y 371.029	756198.7	756198.7	106.07	%			02:35:46
1	Ag 328.068†	202.2	33.6	0.1820	ug/L	0.1820	ppb	02:35:51
1	As 188.979†	-20.3	3.0	1.6742	ug/L	1.6742	ppb	02:36:12
1	B 249.677†	-305.2	160.3	4.5246	ug/L	4.5246	ppb	02:36:12
1	Ba 233.527†	13.6	0.8	0.0096	ug/L	0.0096	ppb	02:36:12
1	Be 313.107†	-4321.4	390.8	0.1673	ug/L	0.1673	ppb	02:35:51
1	Cd 226.502†	-166.5	-8.2	-0.1225	ug/L	-0.1225	ppb	02:36:12
1	Co 228.616†	-42.8	13.4	0.3512	ug/L	0.3512	ppb	02:36:12
1	Cr 267.716†	68.0	-6.2	-0.0811	ug/L	-0.0811	ppb	02:36:12
1	Cu 324.752†	5636.7	-221.7	-0.7340	ug/L	-0.7340	ppb	02:35:51
1	Mn 257.610†	435.9	23.9	0.0312	ug/L	0.0312	ppb	02:36:12
1	Mo 202.031†	14.5	0.7	0.0654	ug/L	0.0654	ppb	02:36:12
1	Ni 231.604†	95.5	17.2	0.5564	ug/L	0.5564	ppb	02:36:12
1	P 214.914†	184.6	-26.9	-20.267	ug/L	-20.267	ppb	02:36:12
1	Pb 220.353†	-47.0	4.7	0.7344	ug/L	0.7344	ppb	02:36:12
1	S 181.975 Axial†	27.4	-4.1	-7.4949	ug/L	-7.4949	ppb	02:36:12
1	Sb 206.836†	30.7	3.5	1.5114	ug/L	1.5114	ppb	02:36:12
1	Se 196.026†	-22.1	1.4	1.2208	ug/L	1.2208	ppb	02:36:12
1	Si 251.611†	636.0	79.6	3.0410	ug/L	3.0410	ppb	02:36:12
1	Sn 189.927†	12.1	7.6	1.7582	ug/L	1.7582	ppb	02:36:12
1	Ti 334.940†	-994.6	109.6	0.1853	ug/L	0.1853	ppb	02:35:51
1	Tl 190.801†	-31.1	-0.2	-0.0856	ug/L	-0.0856	ppb	02:36:12
1	U 409.014†	-2013.2	48.6	1.4364	ug/L	1.4364	ppb	02:35:46
1	V 292.402†	-1377.2	54.7	0.4395	ug/L	0.4395	ppb	02:35:51
1	Zn 213.857†	2820.0	2049.4	25.250	ug/L	25.250	ppb	02:36:12
1	SiO2†	639.5	65.4	5.3115	ug/L	5.3115	ppb	02:37:17
2	Sc Radial	4423.3	4423.3	97.2	%			02:35:15
2	Y RADIAL	4943.7	4943.7	100.5	%			02:34:55
2	Al 396.153Radial†	-64.4	6.9	6.8029	ug/L	6.8029	ppb	02:35:15
2	Ca 317.933Radial†	22.3	4.6	8.6149	ug/L	8.6149	ppb	02:35:15
2	Fe 238.204 Radial†	7.2	0.8	8.7753	ug/L	8.7753	ppb	02:35:15
2	K 766.490 Radial†	2732.3	301.4	57.356	ug/L	57.356	ppb	02:34:55
2	Mg 279.077 IEC†	-1.3	-1.7	-71.801	ug/L	-71.801	ppb	02:35:15
2	Na 589.592 Radial†	-821.5	-127.7	-44.572	ug/L	-44.572	ppb	02:34:55
2	Sr 421.552†	38.6	2.2	0.0175	ug/L	0.0175	ppb	02:34:55
2	Sc 361.383	896044.1	896044.1	106.00	%			02:36:17
2	Y 371.029	754280.9	754280.9	105.80	%			02:36:17
2	Ag 328.068†	232.1	62.3	0.3305	ug/L	0.3305	ppb	02:36:22
2	As 188.979†	-26.4	-2.9	-1.6067	ug/L	-1.6067	ppb	02:36:42
2	B 249.677†	-326.0	139.9	3.9524	ug/L	3.9524	ppb	02:36:42
2	Ba 233.527†	9.3	-3.2	-0.0275	ug/L	-0.0275	ppb	02:36:42
2	Be 313.107†	-4345.2	358.2	0.1533	ug/L	0.1533	ppb	02:36:22
2	Cd 226.502†	-180.0	-21.3	-0.3146	ug/L	-0.3146	ppb	02:36:42
2	Co 228.616†	-35.3	20.3	0.5349	ug/L	0.5349	ppb	02:36:42
2	Cr 267.716†	84.8	9.8	0.1373	ug/L	0.1373	ppb	02:36:42
2	Cu 324.752†	5735.2	-115.6	-0.3806	ug/L	-0.3806	ppb	02:36:22
2	Mn 257.610†	432.9	22.1	0.0332	ug/L	0.0332	ppb	02:36:42
2	Mo 202.031†	17.3	3.4	0.3072	ug/L	0.3072	ppb	02:36:42
2	Ni 231.604†	88.3	10.7	0.3441	ug/L	0.3441	ppb	02:36:42

2	P 214.914†	192.0	-19.5	-14.698 ug/L	-14.698 ppb	02:36:42
2	Pb 220.353†	-58.7	-6.5	-1.0110 ug/L	-1.0110 ppb	02:36:42
2	S 181.975 Axial†	28.5	-3.0	-5.3926 ug/L	-5.3926 ppb	02:36:42
2	Sb 206.836†	28.9	1.8	0.7909 ug/L	0.7909 ppb	02:36:42
2	Se 196.026†	-21.3	2.0	1.7351 ug/L	1.7351 ppb	02:36:42
2	Si 251.611†	652.4	96.6	3.6873 ug/L	3.6873 ppb	02:36:42
2	Sn 189.927†	9.2	4.9	1.1352 ug/L	1.1352 ppb	02:36:42
2	Ti 334.940†	-995.8	106.1	0.1930 ug/L	0.1930 ppb	02:36:22
2	Tl 190.801†	-20.9	9.4	3.7071 ug/L	3.7071 ppb	02:36:42
2	U 409.014†	-2176.0	-109.6	-3.2446 ug/L	-3.2446 ppb	02:36:17
2	V 292.402†	-1291.0	132.8	1.0590 ug/L	1.0590 ppb	02:36:22
2	Zn 213.857†	2802.3	2039.3	25.130 ug/L	25.130 ppb	02:36:42
2	SiO2†	629.3	57.3	4.6462 ug/L	4.6462 ppb	02:37:23
3	Sc Radial	4446.3	4446.3	97.7 %		02:35:40
3	Y RADIAL	5099.2	5099.2	103.7 %		02:35:20
3	Al 396.153Radial†	-74.2	-2.8	-2.7903 ug/L	-2.7903 ppb	02:35:40
3	Ca 317.933Radial†	16.8	-1.1	-2.1379 ug/L	-2.1379 ppb	02:35:40
3	Fe 238.204 Radial†	6.9	0.4	4.6576 ug/L	4.6576 ppb	02:35:40
3	K 766.490 Radial†	2703.8	257.7	49.031 ug/L	49.031 ppb	02:35:20
3	Mg 279.077 IEC†	0.1	-0.3	-13.633 ug/L	-13.633 ppb	02:35:40
3	Na 589.592 Radial†	-740.8	-40.6	-14.192 ug/L	-14.192 ppb	02:35:20
3	Sr 421.552†	28.9	-7.9	-0.0618 ug/L	-0.0618 ppb	02:35:20
3	Sc 361.383	901972.3	901972.3	106.70 %		02:36:47
3	Y 371.029	758877.7	758877.7	106.44 %		02:36:47
3	Ag 328.068†	234.6	63.2	0.3294 ug/L	0.3294 ppb	02:36:52
3	As 188.979†	-13.3	9.7	5.4467 ug/L	5.4467 ppb	02:37:12
3	B 249.677†	-366.9	103.6	2.9257 ug/L	2.9257 ppb	02:37:12
3	Ba 233.527†	5.7	-6.7	-0.0601 ug/L	-0.0601 ppb	02:37:12
3	Be 313.107†	-4300.0	427.5	0.1830 ug/L	0.1830 ppb	02:36:52
3	Cd 226.502†	-167.4	-8.4	-0.1226 ug/L	-0.1226 ppb	02:37:12
3	Co 228.616†	-37.2	18.8	0.4930 ug/L	0.4930 ppb	02:37:12
3	Cr 267.716†	73.5	-1.3	-0.0162 ug/L	-0.0162 ppb	02:37:12
3	Cu 324.752†	5618.4	-260.6	-0.8651 ug/L	-0.8651 ppb	02:36:52
3	Mn 257.610†	437.7	23.9	0.0328 ug/L	0.0328 ppb	02:37:12
3	Mo 202.031†	12.8	-0.9	-0.0827 ug/L	-0.0827 ppb	02:37:12
3	Ni 231.604†	98.5	19.7	0.6368 ug/L	0.6368 ppb	02:37:12
3	P 214.914†	191.3	-21.4	-15.987 ug/L	-15.987 ppb	02:37:12
3	Pb 220.353†	-66.1	-13.1	-2.0433 ug/L	-2.0433 ppb	02:37:12
3	S 181.975 Axial†	32.0	0.0	0.0872 ug/L	0.0872 ppb	02:37:12
3	Sb 206.836†	20.5	-6.2	-2.5980 ug/L	-2.5980 ppb	02:37:12
3	Se 196.026†	-16.5	6.7	5.6251 ug/L	5.6251 ppb	02:37:12
3	Si 251.611†	636.2	77.4	2.9561 ug/L	2.9561 ppb	02:37:12
3	Sn 189.927†	18.6	13.7	3.1637 ug/L	3.1637 ppb	02:37:12
3	Ti 334.940†	-984.6	122.8	0.2127 ug/L	0.2127 ppb	02:36:52
3	Tl 190.801†	-32.4	-1.3	-0.5151 ug/L	-0.5151 ppb	02:37:12
3	U 409.014†	-1933.9	130.8	3.8682 ug/L	3.8682 ppb	02:36:47
3	V 292.402†	-1258.8	171.0	1.3746 ug/L	1.3746 ppb	02:36:52
3	Zn 213.857†	2837.0	2054.4	25.316 ug/L	25.316 ppb	02:37:12
3	SiO2†	640.4	63.8	5.1804 ug/L	5.1804 ppb	02:37:28

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	898765.6	106.32	%	0.354				0.33%
Sc Radial	4441.2	97.6	%	0.35				0.36%
Y 371.029	756452.4	106.10	%	0.324				0.31%
Y RADIAL	5013.9	102.0	%	1.60				1.57%
Ag 328.068†	53.0	0.2807	ug/L	0.08541	0.2807	ppb	0.08541	30.43%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.2	0.1634	ug/L	5.76159	0.1634	ppb	5.76159	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.3	1.8381	ug/L	3.52954	1.8381	ppb	3.52954	192.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	134.6	3.8009	ug/L	0.81014	3.8009	ppb	0.81014	21.31%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.0	-0.0260	ug/L	0.03491	-0.0260	ppb	0.03491	134.32%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	392.2	0.1679	ug/L	0.01482	0.1679	ppb	0.01482	8.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.4	6.4072	ug/L	7.68297	6.4072	ppb	7.68297	119.91%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -12.6     -0.1866 ug/L       0.11088     -0.1866 ppb        0.11088  59.44%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               17.5      0.4597 ug/L       0.09630      0.4597 ppb        0.09630  20.95%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                0.8      0.0134 ug/L       0.11216      0.0134 ppb        0.11216 840.06%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -199.3     -0.6599 ug/L       0.25058     -0.6599 ppb        0.25058  37.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.2      13.629 ug/L       12.1494      13.629 ppb        12.1494  89.14%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        219.7      41.806 ug/L       20.1589      41.806 ppb        20.1589  48.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.0     -1.8105 ug/L      76.58952     -1.8105 ppb       76.58952 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               23.3      0.0324 ug/L       0.00105      0.0324 ppb        0.00105   3.23%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.1      0.0966 ug/L       0.19678      0.0966 ppb        0.19678 203.66%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -76.0     -26.547 ug/L       15.9637     -26.547 ppb        15.9637  60.13%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               15.9      0.5124 ug/L       0.15123      0.5124 ppb        0.15123  29.51%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -22.6     -16.984 ug/L        2.9151     -16.984 ppb         2.9151  17.16%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -4.9     -0.7733 ug/L       1.40404     -0.7733 ppb        1.40404 181.56%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.4     -4.2668 ug/L       3.91440     -4.2668 ppb        3.91440  91.74%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -0.3     -0.0986 ug/L       2.19433     -0.0986 ppb        2.19433 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.4      2.8604 ug/L       2.40813      2.8604 ppb        2.40813  84.19%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               84.6      3.2281 ug/L       0.39989      3.2281 ppb        0.39989  12.39%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                8.8      2.0190 ug/L       1.03908      2.0190 ppb        1.03908  51.46%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                4.7      0.0364 ug/L       0.10882      0.0364 ppb        0.10882 299.06%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              112.8      0.1970 ug/L       0.01417      0.1970 ppb        0.01417   7.19%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                2.6      1.0355 ug/L       2.32366      1.0355 ppb        2.32366 224.41%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                23.3      0.6867 ug/L       3.61518      0.6867 ppb        3.61518 526.47%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               119.5      0.9577 ug/L       0.47571      0.9577 ppb        0.47571  49.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             2047.7      25.232 ug/L        0.0941      25.232 ppb         0.0941   0.37%
   QC value greater than the upper limit for Zn 213.857  Recovery = Not calculated
SiO2†                     62.2      5.0460 ug/L       0.35243      5.0460 ppb        0.35243   6.98%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 79
Sample ID: 1202053148|957527|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 99
Date Collected: 3/23/2010 02:39:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053148|957527|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4716.7	4716.7	104	%			02:41:31
1	Y RADIAL	5103.2	5103.2	103.8	%			02:41:31
1	Al 396.153Radial†	-78.4	-2.5	-2.4907	ug/L	-2.4907	ppb	02:41:51
1	Ca 317.933Radial†	22.8	3.6	6.8556	ug/L	6.8556	ppb	02:41:51
1	Fe 238.204 Radial†	8.7	1.7	19.906	ug/L	19.906	ppb	02:41:51
1	K 766.490 Radial†	2642.5	39.8	7.5707	ug/L	7.5707	ppb	02:41:31
1	Mg 279.077 IEC†	2.9	2.4	99.583	ug/L	99.583	ppb	02:41:51
1	Na 589.592 Radial†	-791.7	-46.3	-16.184	ug/L	-16.184	ppb	02:41:31
1	Sr 421.552†	33.5	-5.1	-0.0401	ug/L	-0.0401	ppb	02:41:31
1	Sc 361.383	882005.9	882005.9	104.34	%			02:42:48
1	Y 371.029	742022.6	742022.6	104.08	%			02:42:48
1	Ag 328.068†	224.0	58.0	0.2999	ug/L	0.2999	ppb	02:42:53
1	As 188.979†	-26.8	-3.6	-2.0186	ug/L	-2.0186	ppb	02:43:13
1	B 249.677†	-366.3	96.4	2.7197	ug/L	2.7197	ppb	02:43:13
1	Ba 233.527†	22.1	9.3	0.0894	ug/L	0.0894	ppb	02:43:13
1	Be 313.107†	-4416.8	224.3	0.0960	ug/L	0.0960	ppb	02:42:53
1	Cd 226.502†	-170.3	-14.7	-0.2168	ug/L	-0.2168	ppb	02:43:13
1	Co 228.616†	-44.5	10.9	0.2872	ug/L	0.2872	ppb	02:43:13
1	Cr 267.716†	80.0	6.5	0.0878	ug/L	0.0878	ppb	02:43:13
1	Cu 324.752†	5653.7	-107.6	-0.3595	ug/L	-0.3595	ppb	02:42:53
1	Mn 257.610†	527.5	119.2	0.1565	ug/L	0.1565	ppb	02:43:13
1	Mo 202.031†	15.1	1.6	0.1424	ug/L	0.1424	ppb	02:43:13
1	Ni 231.604†	74.0	-1.7	-0.0559	ug/L	-0.0559	ppb	02:43:13
1	P 214.914†	185.7	-22.6	-17.103	ug/L	-17.103	ppb	02:43:13
1	Pb 220.353†	-54.8	-3.6	-0.5720	ug/L	-0.5720	ppb	02:43:13
1	S 181.975 Axial†	19.8	-10.9	-19.769	ug/L	-19.769	ppb	02:43:13
1	Sb 206.836†	26.0	-0.5	-0.2196	ug/L	-0.2196	ppb	02:43:13
1	Se 196.026†	-25.4	-2.2	-1.7749	ug/L	-1.7749	ppb	02:43:13
1	Si 251.611†	856.1	301.6	11.517	ug/L	11.517	ppb	02:43:13
1	Sn 189.927†	6.5	2.5	0.5760	ug/L	0.5760	ppb	02:43:13
1	Ti 334.940†	-1013.6	74.1	0.1183	ug/L	0.1183	ppb	02:42:53
1	Tl 190.801†	-28.8	1.5	0.5768	ug/L	0.5768	ppb	02:43:13
1	U 409.014†	-1763.7	252.8	7.4784	ug/L	7.4784	ppb	02:42:48
1	V 292.402†	-1367.8	39.8	0.3342	ug/L	0.3342	ppb	02:42:53
1	Zn 213.857†	633.4	2.7	0.0312	ug/L	0.0312	ppb	02:43:13
1	SiO2†	883.1	310.0	25.166	ug/L	25.166	ppb	02:44:19
2	Sc Radial	4670.8	4670.8	103	%			02:41:56
2	Y RADIAL	5030.3	5030.3	102.3	%			02:41:56
2	Al 396.153Radial†	-70.1	4.8	4.7461	ug/L	4.7461	ppb	02:42:16
2	Ca 317.933Radial†	25.9	6.9	12.964	ug/L	12.964	ppb	02:42:16
2	Fe 238.204 Radial†	5.7	-1.0	-11.958	ug/L	-11.958	ppb	02:42:16
2	K 766.490 Radial†	2716.6	137.0	26.075	ug/L	26.075	ppb	02:41:56
2	Mg 279.077 IEC†	2.0	1.6	65.250	ug/L	65.250	ppb	02:42:16
2	Na 589.592 Radial†	-794.4	-56.5	-19.713	ug/L	-19.713	ppb	02:41:56
2	Sr 421.552†	33.6	-4.7	-0.0369	ug/L	-0.0369	ppb	02:41:56
2	Sc 361.383	891278.3	891278.3	105.44	%			02:43:18
2	Y 371.029	749807.8	749807.8	105.17	%			02:43:18
2	Ag 328.068†	78.2	-82.5	-0.4290	ug/L	-0.4290	ppb	02:43:23
2	As 188.979†	-27.3	-3.8	-2.1416	ug/L	-2.1416	ppb	02:43:43
2	B 249.677†	-346.8	118.5	3.3509	ug/L	3.3509	ppb	02:43:43
2	Ba 233.527†	-3.2	-15.0	-0.1426	ug/L	-0.1426	ppb	02:43:43
2	Be 313.107†	-4460.3	227.1	0.0977	ug/L	0.0977	ppb	02:43:23
2	Cd 226.502†	-172.3	-14.9	-0.2178	ug/L	-0.2178	ppb	02:43:43
2	Co 228.616†	-49.1	7.0	0.1854	ug/L	0.1854	ppb	02:43:43
2	Cr 267.716†	91.0	16.1	0.2179	ug/L	0.2179	ppb	02:43:43
2	Cu 324.752†	5631.0	-185.4	-0.6154	ug/L	-0.6154	ppb	02:43:23
2	Mn 257.610†	493.6	81.9	0.1050	ug/L	0.1050	ppb	02:43:43
2	Mo 202.031†	19.2	5.3	0.4784	ug/L	0.4784	ppb	02:43:43
2	Ni 231.604†	83.2	6.3	0.2034	ug/L	0.2034	ppb	02:43:43

2	P 214.914†	188.4	-21.9	-16.494 ug/L	-16.494 ppb	02:43:43
2	Pb 220.353†	-55.3	-3.6	-0.5526 ug/L	-0.5526 ppb	02:43:43
2	S 181.975 Axial†	33.5	1.8	3.3437 ug/L	3.3437 ppb	02:43:43
2	Sb 206.836†	31.8	4.7	2.0142 ug/L	2.0142 ppb	02:43:43
2	Se 196.026†	-10.5	12.2	10.170 ug/L	10.170 ppb	02:43:43
2	Si 251.611†	857.0	294.0	11.222 ug/L	11.222 ppb	02:43:43
2	Sn 189.927†	7.8	3.7	0.8578 ug/L	0.8578 ppb	02:43:43
2	Ti 334.940†	-891.4	200.1	0.3441 ug/L	0.3441 ppb	02:43:23
2	Tl 190.801†	-30.0	0.7	0.2588 ug/L	0.2588 ppb	02:43:43
2	U 409.014†	-2018.6	28.7	0.8487 ug/L	0.8487 ppb	02:43:18
2	V 292.402†	-1398.3	24.5	0.2072 ug/L	0.2072 ppb	02:43:23
2	Zn 213.857†	632.0	-4.9	-0.0591 ug/L	-0.0591 ppb	02:43:43
2	SiO2†	850.0	269.9	21.895 ug/L	21.895 ppb	02:44:24
3	Sc Radial	4622.3	4622.3	102 %		02:42:21
3	Y RADIAL	5003.5	5003.5	101.8 %		02:42:21
3	Al 396.153Radial†	-68.3	5.9	5.8298 ug/L	5.8298 ppb	02:42:41
3	Ca 317.933Radial†	23.4	4.6	8.7679 ug/L	8.7679 ppb	02:42:41
3	Fe 238.204 Radial†	6.4	-0.3	-3.7897 ug/L	-3.7897 ppb	02:42:41
3	K 766.490 Radial†	2677.1	126.0	23.972 ug/L	23.972 ppb	02:42:21
3	Mg 279.077 IEC†	1.8	1.4	57.309 ug/L	57.309 ppb	02:42:41
3	Na 589.592 Radial†	-757.8	-28.5	-9.9621 ug/L	-9.9621 ppb	02:42:21
3	Sr 421.552†	65.0	26.6	0.2083 ug/L	0.2083 ppb	02:42:21
3	Sc 361.383	895417.1	895417.1	105.93 %		02:43:48
3	Y 371.029	752830.5	752830.5	105.59 %		02:43:48
3	Ag 328.068†	163.4	-2.4	-0.0092 ug/L	-0.0092 ppb	02:43:53
3	As 188.979†	-26.3	-2.8	-1.5557 ug/L	-1.5557 ppb	02:44:14
3	B 249.677†	-378.4	90.3	2.5511 ug/L	2.5511 ppb	02:44:14
3	Ba 233.527†	4.4	-7.8	-0.0741 ug/L	-0.0741 ppb	02:44:14
3	Be 313.107†	-4410.8	293.4	0.1255 ug/L	0.1255 ppb	02:43:53
3	Cd 226.502†	-173.0	-14.9	-0.2192 ug/L	-0.2192 ppb	02:44:14
3	Co 228.616†	-46.3	9.9	0.2592 ug/L	0.2592 ppb	02:44:14
3	Cr 267.716†	67.0	-6.9	-0.0926 ug/L	-0.0926 ppb	02:44:14
3	Cu 324.752†	5639.5	-202.2	-0.6676 ug/L	-0.6676 ppb	02:43:53
3	Mn 257.610†	506.2	91.6	0.1191 ug/L	0.1191 ppb	02:44:14
3	Mo 202.031†	13.0	-0.7	-0.0597 ug/L	-0.0597 ppb	02:44:14
3	Ni 231.604†	71.3	-5.3	-0.1705 ug/L	-0.1705 ppb	02:44:14
3	P 214.914†	201.7	-10.3	-7.6510 ug/L	-7.6510 ppb	02:44:14
3	Pb 220.353†	-57.1	-5.0	-0.7837 ug/L	-0.7837 ppb	02:44:14
3	S 181.975 Axial†	31.5	-0.2	-0.3070 ug/L	-0.3070 ppb	02:44:14
3	Sb 206.836†	24.9	-2.0	-0.8353 ug/L	-0.8353 ppb	02:44:14
3	Se 196.026†	-15.7	7.4	6.1399 ug/L	6.1399 ppb	02:44:14
3	Si 251.611†	840.0	274.1	10.471 ug/L	10.471 ppb	02:44:14
3	Sn 189.927†	6.5	2.4	0.5601 ug/L	0.5601 ppb	02:44:14
3	Ti 334.940†	-1031.5	71.8	0.1232 ug/L	0.1232 ppb	02:43:53
3	Tl 190.801†	-19.6	10.6	4.1725 ug/L	4.1725 ppb	02:44:14
3	U 409.014†	-2209.4	-142.6	-4.2188 ug/L	-4.2188 ppb	02:43:48
3	V 292.402†	-1397.7	31.2	0.2424 ug/L	0.2424 ppb	02:43:53
3	Zn 213.857†	638.2	-1.8	-0.0196 ug/L	-0.0196 ppb	02:44:14
3	SiO2†	873.2	288.0	23.382 ug/L	23.382 ppb	02:44:29

Mean Data: 1202053148|957527|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	889567.1	105.24	%	0.812				0.77%
Sc Radial	4669.9	103	%	1.0				1.01%
Y 371.029	748220.3	104.95	%	0.782				0.75%
Y RADIAL	5045.7	102.6	%	1.05				1.02%
Ag 328.068†	-9.0	-0.0461	ug/L	0.36586	-0.0461	ppb	0.36586	794.05%
Al 396.153Radial†	2.7	2.6950	ug/L	4.52359	2.6950	ppb	4.52359	167.85%
As 188.979†	-3.4	-1.9053	ug/L	0.30893	-1.9053	ppb	0.30893	16.21%
B 249.677†	101.7	2.8739	ug/L	0.42164	2.8739	ppb	0.42164	14.67%
Ba 233.527†	-4.5	-0.0425	ug/L	0.11921	-0.0425	ppb	0.11921	280.74%
Be 313.107†	248.2	0.1064	ug/L	0.01655	0.1064	ppb	0.01655	15.55%
Ca 317.933Radial†	5.0	9.5292	ug/L	3.12453	9.5292	ppb	3.12453	32.79%
Cd 226.502†	-14.8	-0.2179	ug/L	0.00118	-0.2179	ppb	0.00118	0.54%
Co 228.616†	9.3	0.2439	ug/L	0.05260	0.2439	ppb	0.05260	21.56%
Cr 267.716†	5.2	0.0710	ug/L	0.15596	0.0710	ppb	0.15596	219.60%
Cu 324.752†	-165.0	-0.5475	ug/L	0.16490	-0.5475	ppb	0.16490	30.12%
Fe 238.204 Radial†	0.1	1.3860	ug/L	16.55048	1.3860	ppb	16.55048	>999.9%
K 766.490 Radial†	100.9	19.206	ug/L	10.1311	19.206	ppb	10.1311	52.75%

Mg 279.077 IEC†	1.8	74.047	ug/L	22.4681	74.047	ppb	22.4681 30.34%
Mn 257.610†	97.6	0.1269	ug/L	0.02658	0.1269	ppb	0.02658 20.96%
Mo 202.031†	2.1	0.1870	ug/L	0.27183	0.1870	ppb	0.27183 145.34%
Na 589.592 Radial†	-43.8	-15.286	ug/L	4.9369	-15.286	ppb	4.9369 32.30%
Ni 231.604†	-0.2	-0.0077	ug/L	0.19160	-0.0077	ppb	0.19160 >999.9%
P 214.914†	-18.3	-13.749	ug/L	5.2902	-13.749	ppb	5.2902 38.48%
Pb 220.353†	-4.1	-0.6361	ug/L	0.12823	-0.6361	ppb	0.12823 20.16%
S 181.975 Axial†	-3.1	-5.5775	ug/L	12.42517	-5.5775	ppb	12.42517 222.77%
Sb 206.836†	0.7	0.3198	ug/L	1.49939	0.3198	ppb	1.49939 468.88%
Se 196.026†	5.8	4.8450	ug/L	6.07685	4.8450	ppb	6.07685 125.43%
Si 251.611†	289.9	11.070	ug/L	0.5397	11.070	ppb	0.5397 4.88%
Sn 189.927†	2.9	0.6646	ug/L	0.16745	0.6646	ppb	0.16745 25.19%
Sr 421.552†	5.6	0.0438	ug/L	0.14252	0.0438	ppb	0.14252 325.53%
Ti 334.940†	115.3	0.1952	ug/L	0.12898	0.1952	ppb	0.12898 66.07%
Tl 190.801†	4.2	1.6693	ug/L	2.17362	1.6693	ppb	2.17362 130.21%
U 409.014†	46.3	1.3694	ug/L	5.86595	1.3694	ppb	5.86595 428.36%
V 292.402†	31.8	0.2612	ug/L	0.06558	0.2612	ppb	0.06558 25.10%
Zn 213.857†	-1.3	-0.0158	ug/L	0.04524	-0.0158	ppb	0.04524 285.99%
SiO2†	289.3	23.481	ug/L	1.6375	23.481	ppb	1.6375 6.97%

Sequence No.: 80
Sample ID: 1202053149|957527|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 100
Date Collected: 3/23/2010 02:46:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053149|957527|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4801.4	4801.4	105	%			02:48:34
1	Y RADIAL	5177.8	5177.8	105.3	%			02:48:34
1	Al 396.153Radial†	4890.6	4709.8	4636.5	ug/L	4636.5	ppb	02:48:34
1	Ca 317.933Radial†	2685.0	2527.2	4768.8	ug/L	4768.8	ppb	02:48:54
1	Fe 238.204 Radial†	438.1	408.7	4705.2	ug/L	4705.2	ppb	02:48:54
1	K 766.490 Radial†	29596.5	25548.6	4857.1	ug/L	4857.1	ppb	02:48:34
1	Mg 279.077 IEC†	125.0	118.1	4901.8	ug/L	4901.8	ppb	02:48:54
1	Na 589.592 Radial†	13033.8	13074.5	4565.2	ug/L	4565.2	ppb	02:48:34
1	Sr 421.552†	61682.4	58440.8	457.84	ug/L	457.84	ppb	02:48:34
1	Sc 361.383	899501.8	899501.8	106.41	%			02:49:52
1	Y 371.029	747963.2	747963.2	104.91	%			02:49:52
1	Ag 328.068†	97777.3	91729.4	475.73	ug/L	475.73	ppb	02:49:57
1	As 188.979†	903.7	871.4	495.11	ug/L	495.11	ppb	02:50:17
1	B 249.677†	17604.7	16991.4	478.17	ug/L	478.17	ppb	02:49:57
1	Ba 233.527†	54993.5	51668.1	492.37	ug/L	492.37	ppb	02:49:57
1	Be 313.107†	1224329.5	1155019.5	494.17	ug/L	494.17	ppb	02:49:52
1	Cd 226.502†	34719.9	32776.4	481.47	ug/L	481.47	ppb	02:49:57
1	Co 228.616†	19424.8	18308.1	482.07	ug/L	482.07	ppb	02:49:57
1	Cr 267.716†	38029.4	35667.9	485.95	ug/L	485.95	ppb	02:49:57
1	Cu 324.752†	162913.2	147571.5	488.86	ug/L	488.86	ppb	02:49:57
1	Mn 257.610†	390956.8	367014.9	488.30	ug/L	488.30	ppb	02:49:52
1	Mo 202.031†	5671.2	5316.6	478.85	ug/L	478.85	ppb	02:50:17
1	Ni 231.604†	16387.1	15327.1	494.92	ug/L	494.92	ppb	02:49:57
1	P 214.914†	960.1	701.5	436.58	ug/L	436.58	ppb	02:50:17
1	Pb 220.353†	3222.2	3076.9	482.67	ug/L	482.67	ppb	02:50:17
1	S 181.975 Axial†	2918.6	2712.9	4914.8	ug/L	4914.8	ppb	02:50:17
1	Sb 206.836†	1279.9	1177.4	519.03	ug/L	519.03	ppb	02:50:17
1	Se 196.026†	586.3	573.1	493.81	ug/L	493.81	ppb	02:50:17
1	Si 251.611†	132726.3	124210.5	4737.8	ug/L	4737.8	ppb	02:49:57
1	Sn 189.927†	2261.1	2121.2	489.43	ug/L	489.43	ppb	02:50:17
1	Ti 334.940†	290591.7	274128.7	476.69	ug/L	476.69	ppb	02:49:57
1	Tl 190.801†	1270.1	1222.6	485.76	ug/L	485.76	ppb	02:50:17
1	U 409.014†	16369.7	17326.6	511.03	ug/L	511.03	ppb	02:49:57
1	V 292.402†	63533.9	61056.6	495.54	ug/L	495.54	ppb	02:49:57
1	Zn 213.857†	42405.5	39246.2	479.17	ug/L	479.17	ppb	02:49:57
1	SiO2†	133391.3	124818.0	10120	ug/L	10120	ppb	02:51:24
2	Sc Radial	4809.7	4809.7	106	%			02:48:59
2	Y RADIAL	5150.7	5150.7	104.8	%			02:48:59
2	Al 396.153Radial†	5048.9	4851.6	4776.8	ug/L	4776.8	ppb	02:48:59
2	Ca 317.933Radial†	2688.2	2525.8	4766.2	ug/L	4766.2	ppb	02:49:19
2	Fe 238.204 Radial†	445.9	415.4	4782.3	ug/L	4782.3	ppb	02:49:19
2	K 766.490 Radial†	30423.5	26283.0	4996.7	ug/L	4996.7	ppb	02:48:59
2	Mg 279.077 IEC†	128.2	120.9	5021.3	ug/L	5021.3	ppb	02:49:19
2	Na 589.592 Radial†	13457.8	13454.5	4697.9	ug/L	4697.9	ppb	02:48:59
2	Sr 421.552†	63816.7	60360.0	472.88	ug/L	472.88	ppb	02:48:59
2	Sc 361.383	895649.9	895649.9	105.96	%			02:50:23
2	Y 371.029	744957.6	744957.6	104.49	%			02:50:23
2	Ag 328.068†	97101.3	91486.6	474.50	ug/L	474.50	ppb	02:50:28
2	As 188.979†	897.9	869.6	494.09	ug/L	494.09	ppb	02:50:48
2	B 249.677†	17550.8	17011.7	478.73	ug/L	478.73	ppb	02:50:28
2	Ba 233.527†	54758.2	51668.3	492.38	ug/L	492.38	ppb	02:50:28
2	Be 313.107†	1211784.9	1148128.2	491.23	ug/L	491.23	ppb	02:50:23
2	Cd 226.502†	34443.9	32656.2	479.70	ug/L	479.70	ppb	02:50:28
2	Co 228.616†	19359.5	18324.9	482.52	ug/L	482.52	ppb	02:50:28
2	Cr 267.716†	37684.7	35496.3	483.63	ug/L	483.63	ppb	02:50:28
2	Cu 324.752†	161766.5	147147.7	487.46	ug/L	487.46	ppb	02:50:28
2	Mn 257.610†	386809.7	364681.0	485.20	ug/L	485.20	ppb	02:50:23
2	Mo 202.031†	5645.1	5314.9	478.70	ug/L	478.70	ppb	02:50:48
2	Ni 231.604†	16310.7	15321.3	494.73	ug/L	494.73	ppb	02:50:28

2	P 214.914†	966.8	711.8	444.64 ug/L	444.64 ppb	02:50:48
2	Pb 220.353†	3213.9	3082.1	483.50 ug/L	483.50 ppb	02:50:48
2	S 181.975 Axial†	2907.4	2714.1	4916.9 ug/L	4916.9 ppb	02:50:48
2	Sb 206.836†	1291.6	1193.5	525.95 ug/L	525.95 ppb	02:50:48
2	Se 196.026†	582.4	571.8	493.00 ug/L	493.00 ppb	02:50:48
2	Si 251.611†	131784.8	123858.4	4724.3 ug/L	4724.3 ppb	02:50:28
2	Sn 189.927†	2262.5	2131.6	491.83 ug/L	491.83 ppb	02:50:48
2	Ti 334.940†	288287.8	273128.8	474.94 ug/L	474.94 ppb	02:50:28
2	Tl 190.801†	1268.8	1226.6	487.28 ug/L	487.28 ppb	02:50:48
2	U 409.014†	16158.6	17193.5	507.09 ug/L	507.09 ppb	02:50:28
2	V 292.402†	63158.6	60959.1	494.74 ug/L	494.74 ppb	02:50:28
2	Zn 213.857†	42161.3	39187.1	478.43 ug/L	478.43 ppb	02:50:28
2	SiO2†	132294.2	124321.6	10080 ug/L	10080 ppb	02:51:29
3	Sc Radial	4767.3	4767.3	105 %		02:49:24
3	Y RADIAL	5128.9	5128.9	104.3 %		02:49:24
3	Al 396.153Radial†	5090.6	4933.8	4858.4 ug/L	4858.4 ppb	02:49:24
3	Ca 317.933Radial†	2686.8	2547.1	4806.3 ug/L	4806.3 ppb	02:49:45
3	Fe 238.204 Radial†	439.8	413.3	4757.8 ug/L	4757.8 ppb	02:49:45
3	K 766.490 Radial†	30372.7	26490.3	5036.1 ug/L	5036.1 ppb	02:49:24
3	Mg 279.077 IEC†	125.7	119.6	4965.9 ug/L	4965.9 ppb	02:49:45
3	Na 589.592 Radial†	13496.2	13604.3	4750.2 ug/L	4750.2 ppb	02:49:24
3	Sr 421.552†	64105.9	61172.7	479.24 ug/L	479.24 ppb	02:49:24
3	Sc 361.383	906002.2	906002.2	107.18 %		02:50:54
3	Y 371.029	753199.4	753199.4	105.65 %		02:50:54
3	Ag 328.068†	97977.6	91257.0	473.30 ug/L	473.30 ppb	02:50:59
3	As 188.979†	895.4	857.5	487.27 ug/L	487.27 ppb	02:51:19
3	B 249.677†	17717.0	16977.6	477.78 ug/L	477.78 ppb	02:50:59
3	Ba 233.527†	55162.3	51454.8	490.34 ug/L	490.34 ppb	02:50:59
3	Be 313.107†	1224400.8	1146830.9	490.67 ug/L	490.67 ppb	02:50:54
3	Cd 226.502†	34783.2	32601.4	478.89 ug/L	478.89 ppb	02:50:59
3	Co 228.616†	19502.2	18249.3	480.52 ug/L	480.52 ppb	02:50:59
3	Cr 267.716†	38061.6	35441.5	482.87 ug/L	482.87 ppb	02:50:59
3	Cu 324.752†	163239.1	146777.1	486.23 ug/L	486.23 ppb	02:50:59
3	Mn 257.610†	390708.9	364147.6	484.49 ug/L	484.49 ppb	02:50:54
3	Mo 202.031†	5674.8	5281.7	475.71 ug/L	475.71 ppb	02:51:19
3	Ni 231.604†	16445.6	15271.3	493.11 ug/L	493.11 ppb	02:50:59
3	P 214.914†	974.7	708.7	442.52 ug/L	442.52 ppb	02:51:19
3	Pb 220.353†	3222.1	3055.1	479.29 ug/L	479.29 ppb	02:51:19
3	S 181.975 Axial†	2918.6	2693.1	4879.0 ug/L	4879.0 ppb	02:51:19
3	Sb 206.836†	1283.0	1171.6	516.45 ug/L	516.45 ppb	02:51:19
3	Se 196.026†	582.3	565.4	487.65 ug/L	487.65 ppb	02:51:19
3	Si 251.611†	133161.4	123721.5	4719.1 ug/L	4719.1 ppb	02:50:59
3	Sn 189.927†	2258.6	2103.6	485.38 ug/L	485.38 ppb	02:51:19
3	Ti 334.940†	290776.9	272342.2	473.58 ug/L	473.58 ppb	02:50:59
3	Tl 190.801†	1282.0	1225.2	486.75 ug/L	486.75 ppb	02:51:19
3	U 409.014†	16517.1	17353.7	511.83 ug/L	511.83 ppb	02:50:59
3	V 292.402†	63638.3	60725.6	492.84 ug/L	492.84 ppb	02:50:59
3	Zn 213.857†	42497.4	39046.1	476.71 ug/L	476.71 ppb	02:50:59
3	SiO2†	134020.6	124505.7	10095 ug/L	10095 ppb	02:51:35

Mean Data: 1202053149|957527|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	900384.6	106.52	%	0.619				0.58%
Sc Radial	4792.8	105	%	0.5				0.47%
Y 371.029	748706.7	105.02	%	0.585				0.56%
Y RADIAL	5152.5	104.8	%	0.50				0.48%
Ag 328.068†	91491.0	474.51	ug/L	1.215	474.51	ppb	1.215	0.26%
Al 396.153Radial†	4831.7	4757.2	ug/L	112.22	4757.2	ppb	112.22	2.36%
As 188.979†	866.1	492.16	ug/L	4.264	492.16	ppb	4.264	0.87%
B 249.677†	16993.6	478.23	ug/L	0.480	478.23	ppb	0.480	0.10%
Ba 233.527†	51597.1	491.70	ug/L	1.174	491.70	ppb	1.174	0.24%
Be 313.107†	1149992.9	492.02	ug/L	1.882	492.02	ppb	1.882	0.38%
Ca 317.933Radial†	2533.4	4780.4	ug/L	22.43	4780.4	ppb	22.43	0.47%
Cd 226.502†	32678.0	480.02	ug/L	1.319	480.02	ppb	1.319	0.27%
Co 228.616†	18294.1	481.70	ug/L	1.047	481.70	ppb	1.047	0.22%
Cr 267.716†	35535.3	484.15	ug/L	1.604	484.15	ppb	1.604	0.33%
Cu 324.752†	147165.4	487.52	ug/L	1.316	487.52	ppb	1.316	0.27%
Fe 238.204 Radial†	412.4	4748.4	ug/L	39.39	4748.4	ppb	39.39	0.83%
K 766.490 Radial†	26107.3	4963.3	ug/L	94.10	4963.3	ppb	94.10	1.90%

Mg 279.077 IEC†	119.5	4963.0	ug/L	59.81	4963.0	ppb	59.81	1.21%
Mn 257.610†	365281.1	486.00	ug/L	2.026	486.00	ppb	2.026	0.42%
Mo 202.031†	5304.4	477.76	ug/L	1.770	477.76	ppb	1.770	0.37%
Na 589.592 Radial†	13377.8	4671.1	ug/L	95.37	4671.1	ppb	95.37	2.04%
Ni 231.604†	15306.6	494.25	ug/L	0.991	494.25	ppb	0.991	0.20%
P 214.914†	707.4	441.25	ug/L	4.177	441.25	ppb	4.177	0.95%
Pb 220.353†	3071.4	481.82	ug/L	2.228	481.82	ppb	2.228	0.46%
S 181.975 Axial†	2706.7	4903.6	ug/L	21.32	4903.6	ppb	21.32	0.43%
Sb 206.836†	1180.8	520.47	ug/L	4.912	520.47	ppb	4.912	0.94%
Se 196.026†	570.1	491.48	ug/L	3.350	491.48	ppb	3.350	0.68%
Si 251.611†	123930.2	4727.1	ug/L	9.62	4727.1	ppb	9.62	0.20%
Sn 189.927†	2118.8	488.88	ug/L	3.260	488.88	ppb	3.260	0.67%
Sr 421.552†	59991.2	469.99	ug/L	10.991	469.99	ppb	10.991	2.34%
Ti 334.940†	273199.9	475.07	ug/L	1.558	475.07	ppb	1.558	0.33%
Tl 190.801†	1224.8	486.59	ug/L	0.772	486.59	ppb	0.772	0.16%
U 409.014†	17291.3	509.98	ug/L	2.539	509.98	ppb	2.539	0.50%
V 292.402†	60913.8	494.37	ug/L	1.385	494.37	ppb	1.385	0.28%
Zn 213.857†	39159.8	478.10	ug/L	1.262	478.10	ppb	1.262	0.26%
SiO2†	124548.4	10099	ug/L	20.4	10099	ppb	20.4	0.20%

Sequence No.: 81
Sample ID: 247817001|957527|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 3/23/2010 02:53:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 247817001|957527|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4837.4	4837.4	106	%			02:55:39
1	Y RADIAL	5158.9	5158.9	104.9	%			02:55:39
1	Al 396.153Radial†	-52.9	23.4	23.071	ug/L	23.071	ppb	02:55:59
1	Ca 317.933Radial†	6031.7	5657.6	10676	ug/L	10676	ppb	02:55:39
1	Fe 238.204 Radial†	10.9	3.7	42.034	ug/L	42.034	ppb	02:55:59
1	K 766.490 Radial†	11407.9	8224.5	1557.3	ug/L	1557.3	ppb	02:55:39
1	Mg 279.077 IEC†	75.7	70.8	2940.0	ug/L	2940.0	ppb	02:55:59
1	Na 589.592 Radial†	30442.4	29364.3	10253	ug/L	10253	ppb	02:55:39
1	Sr 421.552†	7047.5	6594.3	51.585	ug/L	51.585	ppb	02:55:39
1	Sc 361.383	881347.0	881347.0	104.26	%			02:56:56
1	Y 371.029	734870.4	734870.4	103.08	%			02:56:56
1	Ag 328.068†	265.2	97.7	0.3921	ug/L	0.3921	ppb	02:57:01
1	As 188.979†	-18.5	4.4	2.4680	ug/L	2.4680	ppb	02:57:21
1	B 249.677†	74.3	518.7	14.655	ug/L	14.655	ppb	02:57:21
1	Ba 233.527†	2217.3	2114.6	20.114	ug/L	20.114	ppb	02:57:21
1	Be 313.107†	-4428.6	209.8	0.0869	ug/L	0.0869	ppb	02:57:01
1	Cd 226.502†	-150.9	3.7	0.0502	ug/L	0.0502	ppb	02:57:21
1	Co 228.616†	-52.8	3.0	0.0912	ug/L	0.0912	ppb	02:57:21
1	Cr 267.716†	234.2	154.4	2.1109	ug/L	2.1109	ppb	02:57:21
1	Cu 324.752†	5679.7	-78.6	-0.2586	ug/L	-0.2586	ppb	02:57:01
1	Mn 257.610†	5998.0	5366.4	7.0200	ug/L	7.0200	ppb	02:57:01
1	Mo 202.031†	22.2	8.4	0.8878	ug/L	0.8878	ppb	02:57:21
1	Ni 231.604†	42.2	-32.1	-1.0376	ug/L	-1.0376	ppb	02:57:21
1	P 214.914†	221.3	11.6	8.6108	ug/L	8.6108	ppb	02:57:21
1	Pb 220.353†	-62.2	-10.8	-1.5344	ug/L	-1.5344	ppb	02:57:21
1	S 181.975 Axial†	380.6	335.1	607.18	ug/L	607.18	ppb	02:57:21
1	Sb 206.836†	32.5	5.7	2.1281	ug/L	2.1281	ppb	02:57:21
1	Se 196.026†	-22.0	1.1	1.0556	ug/L	1.0556	ppb	02:57:21
1	Si 251.611†	919305.7	881193.3	33653	ug/L	33653	ppb	02:56:56
1	Sn 189.927†	-90.3	-90.3	-18.914	ug/L	-18.914	ppb	02:57:21
1	Ti 334.940†	-1791.2	-672.4	0.0210	ug/L	0.0210	ppb	02:57:01
1	Tl 190.801†	-31.3	-1.0	-0.3695	ug/L	-0.3695	ppb	02:57:21
1	U 409.014†	-1998.3	26.6	0.7768	ug/L	0.7768	ppb	02:56:56
1	V 292.402†	-725.8	654.5	5.3063	ug/L	5.3063	ppb	02:57:01
1	Zn 213.857†	1789.4	1112.0	13.705	ug/L	13.705	ppb	02:57:21
1	SiO2†	933983.8	895253.7	72682	ug/L	72682	ppb	02:58:28
2	Sc Radial	4735.8	4735.8	104	%			02:56:04
2	Y RADIAL	5055.2	5055.2	102.8	%			02:56:04
2	Al 396.153Radial†	-68.7	7.1	7.0213	ug/L	7.0213	ppb	02:56:24
2	Ca 317.933Radial†	5954.3	5704.9	10765	ug/L	10765	ppb	02:56:04
2	Fe 238.204 Radial†	7.8	0.9	9.9428	ug/L	9.9428	ppb	02:56:24
2	K 766.490 Radial†	11160.7	8217.2	1555.9	ug/L	1555.9	ppb	02:56:04
2	Mg 279.077 IEC†	76.7	73.4	3046.0	ug/L	3046.0	ppb	02:56:24
2	Na 589.592 Radial†	29626.8	29195.0	10194	ug/L	10194	ppb	02:56:04
2	Sr 421.552†	6856.9	6553.3	51.264	ug/L	51.264	ppb	02:56:04
2	Sc 361.383	891058.7	891058.7	105.41	%			02:57:27
2	Y 371.029	742764.0	742764.0	104.18	%			02:57:27
2	Ag 328.068†	163.0	-2.0	-0.1349	ug/L	-0.1349	ppb	02:57:32
2	As 188.979†	-19.2	3.8	2.1542	ug/L	2.1542	ppb	02:57:52
2	B 249.677†	72.1	515.8	14.579	ug/L	14.579	ppb	02:57:52
2	Ba 233.527†	2190.5	2066.0	19.652	ug/L	19.652	ppb	02:57:52
2	Be 313.107†	-4357.4	323.7	0.1355	ug/L	0.1355	ppb	02:57:32
2	Cd 226.502†	-166.1	-9.1	-0.1345	ug/L	-0.1345	ppb	02:57:52
2	Co 228.616†	-60.9	-4.2	-0.0965	ug/L	-0.0965	ppb	02:57:52
2	Cr 267.716†	241.1	158.5	2.1623	ug/L	2.1623	ppb	02:57:52
2	Cu 324.752†	5723.9	-96.0	-0.3201	ug/L	-0.3201	ppb	02:57:32
2	Mn 257.610†	5982.6	5289.2	6.9097	ug/L	6.9097	ppb	02:57:32
2	Mo 202.031†	25.4	11.1	1.1320	ug/L	1.1320	ppb	02:57:52
2	Ni 231.604†	44.7	-30.2	-0.9747	ug/L	-0.9747	ppb	02:57:52

2	P 214.914†	228.6	16.2	12.158	ug/L	12.158	ppb	02:57:52
2	Pb 220.353†	-59.6	-7.7	-1.0443	ug/L	-1.0443	ppb	02:57:52
2	S 181.975 Axial†	391.9	341.8	619.40	ug/L	619.40	ppb	02:57:52
2	Sb 206.836†	26.9	0.1	-0.2403	ug/L	-0.2403	ppb	02:57:52
2	Se 196.026†	-22.4	0.9	0.8074	ug/L	0.8074	ppb	02:57:52
2	Si 251.611†	929755.7	881496.9	33665	ug/L	33665	ppb	02:57:27
2	Sn 189.927†	-89.0	-88.1	-18.399	ug/L	-18.399	ppb	02:57:52
2	Ti 334.940†	-1827.5	-688.2	-0.0047	ug/L	-0.0047	ppb	02:57:32
2	Tl 190.801†	-28.6	1.9	0.7769	ug/L	0.7769	ppb	02:57:52
2	U 409.014†	-1888.9	151.3	4.4705	ug/L	4.4705	ppb	02:57:27
2	V 292.402†	-694.2	692.1	5.6244	ug/L	5.6244	ppb	02:57:32
2	Zn 213.857†	1801.9	1105.1	13.624	ug/L	13.624	ppb	02:57:52
2	SiO2†	931840.6	883457.2	71724	ug/L	71724	ppb	02:58:34
3	Sc Radial	4685.0	4685.0	103	%			02:56:29
3	Y RADIAL	5005.5	5005.5	101.8	%			02:56:29
3	Al 396.153Radial†	-63.5	11.5	11.375	ug/L	11.375	ppb	02:56:50
3	Ca 317.933Radial†	5889.8	5704.2	10764	ug/L	10764	ppb	02:56:29
3	Fe 238.204 Radial†	8.6	1.7	19.726	ug/L	19.726	ppb	02:56:50
3	K 766.490 Radial†	11230.4	8401.1	1590.9	ug/L	1590.9	ppb	02:56:29
3	Mg 279.077 IEC†	76.9	74.4	3087.2	ug/L	3087.2	ppb	02:56:50
3	Na 589.592 Radial†	29330.2	29215.4	10201	ug/L	10201	ppb	02:56:29
3	Sr 421.552†	6792.0	6561.7	51.330	ug/L	51.330	ppb	02:56:29
3	Sc 361.383	889051.8	889051.8	105.18	%			02:57:57
3	Y 371.029	740561.0	740561.0	103.87	%			02:57:57
3	Ag 328.068†	219.6	52.1	0.1487	ug/L	0.1487	ppb	02:58:02
3	As 188.979†	-16.8	6.1	3.4547	ug/L	3.4547	ppb	02:58:22
3	B 249.677†	72.1	516.0	14.583	ug/L	14.583	ppb	02:58:22
3	Ba 233.527†	2214.9	2094.0	19.919	ug/L	19.919	ppb	02:58:22
3	Be 313.107†	-4456.5	220.1	0.0912	ug/L	0.0912	ppb	02:58:02
3	Cd 226.502†	-145.8	9.9	0.1433	ug/L	0.1433	ppb	02:58:22
3	Co 228.616†	-40.6	15.0	0.4067	ug/L	0.4067	ppb	02:58:22
3	Cr 267.716†	238.2	156.3	2.1331	ug/L	2.1331	ppb	02:58:22
3	Cu 324.752†	5647.9	-156.0	-0.5185	ug/L	-0.5185	ppb	02:58:02
3	Mn 257.610†	5982.7	5302.0	6.9261	ug/L	6.9261	ppb	02:58:02
3	Mo 202.031†	16.6	2.9	0.3914	ug/L	0.3914	ppb	02:58:22
3	Ni 231.604†	48.6	-26.4	-0.8539	ug/L	-0.8539	ppb	02:58:22
3	P 214.914†	243.2	30.6	23.046	ug/L	23.046	ppb	02:58:22
3	Pb 220.353†	-61.9	-9.9	-1.3992	ug/L	-1.3992	ppb	02:58:22
3	S 181.975 Axial†	380.9	332.3	602.08	ug/L	602.08	ppb	02:58:22
3	Sb 206.836†	25.0	-1.7	-1.0289	ug/L	-1.0289	ppb	02:58:22
3	Se 196.026†	-18.1	5.0	4.2263	ug/L	4.2263	ppb	02:58:22
3	Si 251.611†	928249.5	882055.8	33686	ug/L	33686	ppb	02:57:57
3	Sn 189.927†	-96.0	-95.0	-19.990	ug/L	-19.990	ppb	02:58:22
3	Ti 334.940†	-1848.6	-712.1	-0.0500	ug/L	-0.0500	ppb	02:58:02
3	Tl 190.801†	-32.4	-1.7	-0.6471	ug/L	-0.6471	ppb	02:58:22
3	U 409.014†	-1871.4	163.8	4.8405	ug/L	4.8405	ppb	02:57:57
3	V 292.402†	-636.5	745.5	6.0417	ug/L	6.0417	ppb	02:58:02
3	Zn 213.857†	1769.8	1078.4	13.294	ug/L	13.294	ppb	02:58:22
3	SiO2†	938086.5	891391.3	72368	ug/L	72368	ppb	02:58:40

Mean Data: 247817001|957527|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	887152.5	104.95	%	0.607				0.58%
Sc Radial	4752.7	104	%	1.7				1.63%
Y 371.029	739398.5	103.71	%	0.571				0.55%
Y RADIAL	5073.2	103.2	%	1.59				1.54%
Ag 328.068†	49.3	0.1353	ug/L	0.26376	0.1353	ppb	0.26376	195.00%
Al 396.153Radial†	14.0	13.823	ug/L	8.3003	13.823	ppb	8.3003	60.05%
As 188.979†	4.8	2.6923	ug/L	0.67861	2.6923	ppb	0.67861	25.21%
B 249.677†	516.8	14.606	ug/L	0.0427	14.606	ppb	0.0427	0.29%
Ba 233.527†	2091.6	19.895	ug/L	0.2320	19.895	ppb	0.2320	1.17%
Be 313.107†	251.2	0.1045	ug/L	0.02688	0.1045	ppb	0.02688	25.72%
Ca 317.933Radial†	5688.9	10735	ug/L	51.2	10735	ppb	51.2	0.48%
Cd 226.502†	1.5	0.0197	ug/L	0.14137	0.0197	ppb	0.14137	718.26%
Co 228.616†	4.6	0.1338	ug/L	0.25426	0.1338	ppb	0.25426	190.05%
Cr 267.716†	156.4	2.1355	ug/L	0.02580	2.1355	ppb	0.02580	1.21%
Cu 324.752†	-110.2	-0.3657	ug/L	0.13583	-0.3657	ppb	0.13583	37.14%
Fe 238.204 Radial†	2.1	23.901	ug/L	16.4479	23.901	ppb	16.4479	68.82%
K 766.490 Radial†	8281.0	1568.1	ug/L	19.81	1568.1	ppb	19.81	1.26%

Mg 279.077 IEC†	72.8	3024.4	ug/L	75.95	3024.4	ppb	75.95	2.51%
Mn 257.610†	5319.2	6.9520	ug/L	0.05949	6.9520	ppb	0.05949	0.86%
Mo 202.031†	7.5	0.8037	ug/L	0.37738	0.8037	ppb	0.37738	46.95%
Na 589.592 Radial†	29258.2	10216	ug/L	32.3	10216	ppb	32.3	0.32%
Ni 231.604†	-29.6	-0.9554	ug/L	0.09336	-0.9554	ppb	0.09336	9.77%
P 214.914†	19.5	14.605	ug/L	7.5221	14.605	ppb	7.5221	51.50%
Pb 220.353†	-9.4	-1.3260	ug/L	0.25313	-1.3260	ppb	0.25313	19.09%
S 181.975 Axial†	336.4	609.55	ug/L	8.898	609.55	ppb	8.898	1.46%
Sb 206.836†	1.4	0.2863	ug/L	1.64305	0.2863	ppb	1.64305	573.93%
Se 196.026†	2.3	2.0298	ug/L	1.90631	2.0298	ppb	1.90631	93.92%
Si 251.611†	881582.0	33668	ug/L	16.7	33668	ppb	16.7	0.05%
Sn 189.927†	-91.2	-19.101	ug/L	0.8115	-19.101	ppb	0.8115	4.25%
Sr 421.552†	6569.8	51.393	ug/L	0.1698	51.393	ppb	0.1698	0.33%
Ti 334.940†	-690.9	-0.0112	ug/L	0.03592	-0.0112	ppb	0.03592	319.35%
Tl 190.801†	-0.2	-0.0799	ug/L	0.75487	-0.0799	ppb	0.75487	944.57%
U 409.014†	113.9	3.3626	ug/L	2.24703	3.3626	ppb	2.24703	66.82%
V 292.402†	697.4	5.6575	ug/L	0.36879	5.6575	ppb	0.36879	6.52%
Zn 213.857†	1098.5	13.541	ug/L	0.2179	13.541	ppb	0.2179	1.61%
SiO2†	890034.1	72258	ug/L	488.3	72258	ppb	488.3	0.68%

Sequence No.: 82
Sample ID: 247817002|957527|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 102
Date Collected: 3/23/2010 03:00:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 247817002|957527|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4650.6	4650.6	102	%			03:02:45
1	Y RADIAL	4979.3	4979.3	101.3	%			03:02:45
1	Al 396.153Radial†	-56.0	18.3	18.144	ug/L	18.144	ppb	03:03:05
1	Ca 317.933Radial†	5704.1	5564.8	10501	ug/L	10501	ppb	03:02:45
1	Fe 238.204 Radial†	9.0	2.2	25.132	ug/L	25.132	ppb	03:03:05
1	K 766.490 Radial†	10976.5	8233.3	1559.2	ug/L	1559.2	ppb	03:02:45
1	Mg 279.077 IEC†	75.4	73.4	3045.8	ug/L	3045.8	ppb	03:03:05
1	Na 589.592 Radial†	28425.7	28540.5	9965.4	ug/L	9965.4	ppb	03:02:45
1	Sr 421.552†	6569.7	6392.9	50.009	ug/L	50.009	ppb	03:02:45
1	Sc 361.383	894637.3	894637.3	105.84	%			03:04:02
1	Y 371.029	745523.9	745523.9	104.57	%			03:04:02
1	Ag 328.068†	261.4	90.3	0.3526	ug/L	0.3526	ppb	03:04:07
1	As 188.979†	-17.9	5.1	2.8941	ug/L	2.8941	ppb	03:04:27
1	B 249.677†	-30.0	419.0	11.841	ug/L	11.841	ppb	03:04:27
1	Ba 233.527†	2174.4	2042.5	19.429	ug/L	19.429	ppb	03:04:27
1	Be 313.107†	-4359.0	338.7	0.1424	ug/L	0.1424	ppb	03:04:07
1	Cd 226.502†	-149.0	7.7	0.1098	ug/L	0.1098	ppb	03:04:27
1	Co 228.616†	-50.5	5.9	0.1655	ug/L	0.1655	ppb	03:04:27
1	Cr 267.716†	233.8	150.7	2.0599	ug/L	2.0599	ppb	03:04:27
1	Cu 324.752†	5690.1	-149.7	-0.4955	ug/L	-0.4955	ppb	03:04:07
1	Mn 257.610†	5534.1	4842.6	6.3175	ug/L	6.3175	ppb	03:04:07
1	Mo 202.031†	15.3	1.6	0.2677	ug/L	0.2677	ppb	03:04:27
1	Ni 231.604†	37.6	-37.1	-1.1989	ug/L	-1.1989	ppb	03:04:27
1	P 214.914†	234.2	20.6	15.534	ug/L	15.534	ppb	03:04:27
1	Pb 220.353†	-57.7	-5.6	-0.7341	ug/L	-0.7341	ppb	03:04:27
1	S 181.975 Axial†	368.1	317.9	575.95	ug/L	575.95	ppb	03:04:27
1	Sb 206.836†	26.0	-0.8	-0.6254	ug/L	-0.6254	ppb	03:04:27
1	Se 196.026†	-27.9	-4.2	-3.3900	ug/L	-3.3900	ppb	03:04:27
1	Si 251.611†	909992.4	859295.3	32817	ug/L	32817	ppb	03:04:02
1	Sn 189.927†	-81.1	-80.4	-16.660	ug/L	-16.660	ppb	03:04:27
1	Ti 334.940†	-1681.4	-543.1	0.2134	ug/L	0.2134	ppb	03:04:07
1	Tl 190.801†	-47.1	-15.4	-6.0698	ug/L	-6.0698	ppb	03:04:27
1	U 409.014†	-1998.8	54.5	1.6063	ug/L	1.6063	ppb	03:04:02
1	V 292.402†	-662.0	725.2	5.8693	ug/L	5.8693	ppb	03:04:07
1	Zn 213.857†	853.2	201.9	2.4925	ug/L	2.4925	ppb	03:04:27
1	SiO2†	918098.1	866936.5	70383	ug/L	70383	ppb	03:05:34
2	Sc Radial	4739.8	4739.8	104	%			03:03:11
2	Y RADIAL	5053.0	5053.0	102.8	%			03:03:11
2	Al 396.153Radial†	-58.8	16.7	16.494	ug/L	16.494	ppb	03:03:31
2	Ca 317.933Radial†	5777.4	5530.1	10435	ug/L	10435	ppb	03:03:11
2	Fe 238.204 Radial†	8.4	1.4	16.634	ug/L	16.634	ppb	03:03:31
2	K 766.490 Radial†	11111.7	8160.9	1545.4	ug/L	1545.4	ppb	03:03:11
2	Mg 279.077 IEC†	78.9	75.4	3129.7	ug/L	3129.7	ppb	03:03:31
2	Na 589.592 Radial†	29027.7	28595.0	9984.5	ug/L	9984.5	ppb	03:03:11
2	Sr 421.552†	6746.5	6441.7	50.392	ug/L	50.392	ppb	03:03:11
2	Sc 361.383	891050.2	891050.2	105.41	%			03:04:33
2	Y 371.029	741742.8	741742.8	104.04	%			03:04:33
2	Ag 328.068†	138.7	-25.1	-0.2430	ug/L	-0.2430	ppb	03:04:38
2	As 188.979†	-24.4	-1.1	-0.6140	ug/L	-0.6140	ppb	03:04:58
2	B 249.677†	1.5	448.9	12.686	ug/L	12.686	ppb	03:04:58
2	Ba 233.527†	2174.2	2050.6	19.504	ug/L	19.504	ppb	03:04:58
2	Be 313.107†	-4410.3	273.5	0.1144	ug/L	0.1144	ppb	03:04:38
2	Cd 226.502†	-161.9	-5.1	-0.0777	ug/L	-0.0777	ppb	03:04:58
2	Co 228.616†	-65.7	-8.7	-0.2157	ug/L	-0.2157	ppb	03:04:58
2	Cr 267.716†	241.8	159.2	2.1749	ug/L	2.1749	ppb	03:04:58
2	Cu 324.752†	5664.5	-152.3	-0.5023	ug/L	-0.5023	ppb	03:04:38
2	Mn 257.610†	5529.8	4859.6	6.3358	ug/L	6.3358	ppb	03:04:38
2	Mo 202.031†	25.2	11.0	1.1128	ug/L	1.1128	ppb	03:04:58
2	Ni 231.604†	40.3	-34.4	-1.1101	ug/L	-1.1101	ppb	03:04:58

2	P 214.914†	241.3	28.3	21.339	ug/L	21.339 ppb	03:04:58
2	Pb 220.353†	-66.9	-14.5	-2.1226	ug/L	-2.1226 ppb	03:04:58
2	S 181.975 Axial†	367.1	318.4	576.89	ug/L	576.89 ppb	03:04:58
2	Sb 206.836†	24.5	-2.2	-1.2262	ug/L	-1.2262 ppb	03:04:58
2	Se 196.026†	-27.0	-3.5	-2.8266	ug/L	-2.8266 ppb	03:04:58
2	Si 251.611†	908831.1	861654.9	32907	ug/L	32907 ppb	03:04:33
2	Sn 189.927†	-90.9	-89.9	-18.868	ug/L	-18.868 ppb	03:04:58
2	Ti 334.940†	-1732.0	-597.6	0.1048	ug/L	0.1048 ppb	03:04:38
2	Tl 190.801†	-32.3	-1.5	-0.5971	ug/L	-0.5971 ppb	03:04:58
2	U 409.014†	-2137.4	-84.5	-2.5069	ug/L	-2.5069 ppb	03:04:33
2	V 292.402†	-746.7	642.3	5.2123	ug/L	5.2123 ppb	03:04:38
2	Zn 213.857†	845.5	197.8	2.4428	ug/L	2.4428 ppb	03:04:58
2	SiO2†	901715.4	854887.0	69405	ug/L	69405 ppb	03:05:40
3	Sc Radial	4740.8	4740.8	104	%		03:03:36
3	Y RADIAL	5085.8	5085.8	103.4	%		03:03:36
3	Al 396.153Radial†	-52.3	22.9	22.653	ug/L	22.653 ppb	03:03:56
3	Ca 317.933Radial†	5803.4	5553.9	10480	ug/L	10480 ppb	03:03:36
3	Fe 238.204 Radial†	5.4	-1.5	-16.753	ug/L	-16.753 ppb	03:03:56
3	K 766.490 Radial†	10923.8	7978.3	1510.6	ug/L	1510.6 ppb	03:03:36
3	Mg 279.077 IEC†	75.6	72.2	2998.1	ug/L	2998.1 ppb	03:03:56
3	Na 589.592 Radial†	28980.0	28543.6	9966.5	ug/L	9966.5 ppb	03:03:36
3	Sr 421.552†	6707.2	6402.6	50.085	ug/L	50.085 ppb	03:03:36
3	Sc 361.383	890027.7	890027.7	105.29	%		03:05:03
3	Y 371.029	741164.2	741164.2	103.96	%		03:05:03
3	Ag 328.068†	215.8	48.3	0.1189	ug/L	0.1189 ppb	03:05:08
3	As 188.979†	-13.0	9.8	5.4973	ug/L	5.4973 ppb	03:05:28
3	B 249.677†	8.5	455.5	12.880	ug/L	12.880 ppb	03:05:28
3	Ba 233.527†	2150.5	2030.5	19.314	ug/L	19.314 ppb	03:05:28
3	Be 313.107†	-4484.2	198.5	0.0824	ug/L	0.0824 ppb	03:05:08
3	Cd 226.502†	-149.4	6.6	0.0996	ug/L	0.0996 ppb	03:05:28
3	Co 228.616†	-63.4	-6.6	-0.1610	ug/L	-0.1610 ppb	03:05:28
3	Cr 267.716†	237.3	155.2	2.1134	ug/L	2.1134 ppb	03:05:28
3	Cu 324.752†	5602.3	-205.2	-0.6847	ug/L	-0.6847 ppb	03:05:08
3	Mn 257.610†	5611.0	4942.8	6.4485	ug/L	6.4485 ppb	03:05:08
3	Mo 202.031†	21.1	7.1	0.7642	ug/L	0.7642 ppb	03:05:28
3	Ni 231.604†	47.5	-27.5	-0.8888	ug/L	-0.8888 ppb	03:05:28
3	P 214.914†	231.7	19.4	14.637	ug/L	14.637 ppb	03:05:28
3	Pb 220.353†	-56.0	-4.2	-0.5096	ug/L	-0.5096 ppb	03:05:28
3	S 181.975 Axial†	363.0	314.8	570.50	ug/L	570.50 ppb	03:05:28
3	Sb 206.836†	23.1	-3.5	-1.7903	ug/L	-1.7903 ppb	03:05:28
3	Se 196.026†	-19.7	3.5	2.8389	ug/L	2.8389 ppb	03:05:28
3	Si 251.611†	905077.5	859080.5	32809	ug/L	32809 ppb	03:05:03
3	Sn 189.927†	-90.8	-89.9	-18.861	ug/L	-18.861 ppb	03:05:28
3	Ti 334.940†	-1716.5	-584.7	0.1398	ug/L	0.1398 ppb	03:05:08
3	Tl 190.801†	-35.9	-5.0	-1.9775	ug/L	-1.9775 ppb	03:05:28
3	U 409.014†	-1797.7	235.8	6.9747	ug/L	6.9747 ppb	03:05:03
3	V 292.402†	-666.1	718.0	5.8345	ug/L	5.8345 ppb	03:05:08
3	Zn 213.857†	848.3	201.4	2.4911	ug/L	2.4911 ppb	03:05:28
3	SiO2†	909835.5	863581.9	70110	ug/L	70110 ppb	03:05:46

Mean Data: 247817002|957527|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	891905.1	105.51	%	0.286				0.27%
Sc Radial	4710.4	103	%	1.1				1.10%
Y 371.029	742810.3	104.19	%	0.332				0.32%
Y RADIAL	5039.4	102.5	%	1.11				1.08%
Ag 328.068†	37.8	0.0761	ug/L	0.30012	0.0761	ppb	0.30012	394.13%
Al 396.153Radial†	19.3	19.097	ug/L	3.1883	19.097	ppb	3.1883	16.70%
As 188.979†	4.6	2.5925	ug/L	3.06683	2.5925	ppb	3.06683	118.30%
B 249.677†	441.1	12.469	ug/L	0.5523	12.469	ppb	0.5523	4.43%
Ba 233.527†	2041.2	19.416	ug/L	0.0960	19.416	ppb	0.0960	0.49%
Be 313.107†	270.2	0.1131	ug/L	0.03003	0.1131	ppb	0.03003	26.56%
Ca 317.933Radial†	5549.6	10472	ug/L	33.5	10472	ppb	33.5	0.32%
Cd 226.502†	3.1	0.0439	ug/L	0.10547	0.0439	ppb	0.10547	240.27%
Co 228.616†	-3.1	-0.0704	ug/L	0.20611	-0.0704	ppb	0.20611	292.68%
Cr 267.716†	155.0	2.1161	ug/L	0.05755	2.1161	ppb	0.05755	2.72%
Cu 324.752†	-169.1	-0.5608	ug/L	0.10729	-0.5608	ppb	0.10729	19.13%
Fe 238.204 Radial†	0.7	8.3377	ug/L	22.14056	8.3377	ppb	22.14056	265.55%
K 766.490 Radial†	8124.1	1538.4	ug/L	25.00	1538.4	ppb	25.00	1.63%

Mg 279.077 IEC†	73.7	3057.9	ug/L	66.65	3057.9	ppb	66.65	2.18%
Mn 257.610†	4881.7	6.3672	ug/L	0.07094	6.3672	ppb	0.07094	1.11%
Mo 202.031†	6.6	0.7149	ug/L	0.42467	0.7149	ppb	0.42467	59.40%
Na 589.592 Radial†	28559.7	9972.1	ug/L	10.70	9972.1	ppb	10.70	0.11%
Ni 231.604†	-33.0	-1.0660	ug/L	0.15969	-1.0660	ppb	0.15969	14.98%
P 214.914†	22.8	17.170	ug/L	3.6380	17.170	ppb	3.6380	21.19%
Pb 220.353†	-8.1	-1.1221	ug/L	0.87368	-1.1221	ppb	0.87368	77.86%
S 181.975 Axial†	317.0	574.44	ug/L	3.451	574.44	ppb	3.451	0.60%
Sb 206.836†	-2.2	-1.2140	ug/L	0.58253	-1.2140	ppb	0.58253	47.99%
Se 196.026†	-1.4	-1.1259	ug/L	3.44512	-1.1259	ppb	3.44512	305.99%
Si 251.611†	860010.2	32844	ug/L	54.5	32844	ppb	54.5	0.17%
Sn 189.927†	-86.7	-18.130	ug/L	1.2726	-18.130	ppb	1.2726	7.02%
Sr 421.552†	6412.4	50.162	ug/L	0.2026	50.162	ppb	0.2026	0.40%
Ti 334.940†	-575.1	0.1527	ug/L	0.05543	0.1527	ppb	0.05543	36.31%
Tl 190.801†	-7.3	-2.8814	ug/L	2.84612	-2.8814	ppb	2.84612	98.77%
U 409.014†	68.6	2.0247	ug/L	4.75465	2.0247	ppb	4.75465	234.84%
V 292.402†	695.2	5.6387	ug/L	0.36971	5.6387	ppb	0.36971	6.56%
Zn 213.857†	200.3	2.4755	ug/L	0.02830	2.4755	ppb	0.02830	1.14%
SiO2†	861801.8	69966	ug/L	504.9	69966	ppb	504.9	0.72%

Sequence No.: 84
Sample ID: 1202053150|957527|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 3/23/2010 03:15:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053150|957527|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4719.8	4719.8	104	%			03:16:58
1	Y RADIAL	5040.5	5040.5	102.5	%			03:16:58
1	Al 396.153Radial†	469.2	525.7	520.09	ug/L	520.09	ppb	03:16:58
1	Ca 317.933Radial†	6080.4	5845.8	11031	ug/L	11031	ppb	03:16:58
1	Fe 238.204 Radial†	30.2	22.5	258.35	ug/L	258.35	ppb	03:17:18
1	K 766.490 Radial†	12192.3	9248.4	1750.5	ug/L	1750.5	ppb	03:16:58
1	Mg 279.077 IEC†	78.3	75.1	3118.6	ug/L	3118.6	ppb	03:17:18
1	Na 589.592 Radial†	41142.1	40397.3	14105	ug/L	14105	ppb	03:16:58
1	Sr 421.552†	7058.4	6770.0	52.960	ug/L	52.960	ppb	03:16:58
1	Sc 361.383	892361.9	892361.9	105.57	%			03:18:14
1	Y 371.029	741550.6	741550.6	104.01	%			03:18:14
1	Ag 328.068†	228.3	59.5	0.2584	ug/L	0.2584	ppb	03:18:20
1	As 188.979†	-22.2	1.0	0.6687	ug/L	0.6687	ppb	03:18:40
1	B 249.677†	59.1	503.4	14.186	ug/L	14.186	ppb	03:18:40
1	Ba 233.527†	2672.7	2519.8	23.974	ug/L	23.974	ppb	03:18:40
1	Be 313.107†	-4428.4	262.5	0.1210	ug/L	0.1210	ppb	03:18:20
1	Cd 226.502†	-162.0	-5.0	-0.0995	ug/L	-0.0995	ppb	03:18:40
1	Co 228.616†	-24.6	30.4	0.7980	ug/L	0.7980	ppb	03:18:40
1	Cr 267.716†	306.2	219.9	3.0238	ug/L	3.0238	ppb	03:18:40
1	Cu 324.752†	5679.4	-146.1	-0.4723	ug/L	-0.4723	ppb	03:18:20
1	Mn 257.610†	10277.7	9349.4	12.330	ug/L	12.330	ppb	03:18:20
1	Mo 202.031†	17.0	3.2	0.4397	ug/L	0.4397	ppb	03:18:40
1	Ni 231.604†	65.0	-11.0	-0.3570	ug/L	-0.3570	ppb	03:18:40
1	P 214.914†	240.1	26.8	20.135	ug/L	20.135	ppb	03:18:40
1	Pb 220.353†	-53.5	-1.8	-0.0471	ug/L	-0.0471	ppb	03:18:40
1	S 181.975 Axial†	932.5	853.5	1546.4	ug/L	1546.4	ppb	03:18:40
1	Sb 206.836†	28.0	1.0	0.0908	ug/L	0.0908	ppb	03:18:40
1	Se 196.026†	-24.9	-1.5	-0.3082	ug/L	-0.3082	ppb	03:18:40
1	Si 251.611†	942123.0	891924.0	34063	ug/L	34063	ppb	03:18:14
1	Sn 189.927†	-97.4	-96.0	-20.176	ug/L	-20.176	ppb	03:18:40
1	Ti 334.940†	1283.6	2261.5	5.1562	ug/L	5.1562	ppb	03:18:20
1	Tl 190.801†	-38.1	-7.0	-2.6848	ug/L	-2.6848	ppb	03:18:40
1	U 409.014†	-1935.6	109.6	3.2081	ug/L	3.2081	ppb	03:18:14
1	V 292.402†	-633.7	750.4	6.0382	ug/L	6.0382	ppb	03:18:20
1	Zn 213.857†	940.8	286.9	3.4999	ug/L	3.4999	ppb	03:18:40
1	SiO2†	941878.9	891675.3	72391	ug/L	72391	ppb	03:19:47
2	Sc Radial	4652.9	4652.9	102	%			03:17:23
2	Y RADIAL	4974.0	4974.0	101.2	%			03:17:23
2	Al 396.153Radial†	476.8	539.6	533.82	ug/L	533.82	ppb	03:17:23
2	Ca 317.933Radial†	6030.8	5881.6	11099	ug/L	11099	ppb	03:17:23
2	Fe 238.204 Radial†	28.8	21.5	247.32	ug/L	247.32	ppb	03:17:43
2	K 766.490 Radial†	12172.6	9398.1	1779.0	ug/L	1779.0	ppb	03:17:23
2	Mg 279.077 IEC†	79.6	77.5	3217.8	ug/L	3217.8	ppb	03:17:43
2	Na 589.592 Radial†	40223.4	40068.4	13991	ug/L	13991	ppb	03:17:23
2	Sr 421.552†	6919.5	6731.9	52.661	ug/L	52.661	ppb	03:17:23
2	Sc 361.383	878068.6	878068.6	103.88	%			03:18:45
2	Y 371.029	730152.9	730152.9	102.41	%			03:18:45
2	Ag 328.068†	221.5	56.6	0.2442	ug/L	0.2442	ppb	03:18:50
2	As 188.979†	-19.0	3.8	2.2364	ug/L	2.2364	ppb	03:19:10
2	B 249.677†	67.1	512.1	14.432	ug/L	14.432	ppb	03:19:10
2	Ba 233.527†	2686.5	2574.3	24.493	ug/L	24.493	ppb	03:19:10
2	Be 313.107†	-4428.2	194.3	0.0918	ug/L	0.0918	ppb	03:18:50
2	Cd 226.502†	-152.7	1.5	-0.0042	ug/L	-0.0042	ppb	03:19:10
2	Co 228.616†	-11.5	42.6	1.1211	ug/L	1.1211	ppb	03:19:10
2	Cr 267.716†	293.9	212.7	2.9283	ug/L	2.9283	ppb	03:19:10
2	Cu 324.752†	5653.1	-83.8	-0.2640	ug/L	-0.2640	ppb	03:18:50
2	Mn 257.610†	10209.2	9442.0	12.448	ug/L	12.448	ppb	03:18:50
2	Mo 202.031†	21.4	7.7	0.8448	ug/L	0.8448	ppb	03:19:10
2	Ni 231.604†	52.0	-22.6	-0.7303	ug/L	-0.7303	ppb	03:19:10

2	P 214.914†	236.2	26.7	20.002 ug/L	20.002 ppb	03:19:10
2	Pb 220.353†	-40.3	10.1	1.8195 ug/L	1.8195 ppb	03:19:10
2	S 181.975 Axial†	936.0	871.2	1578.5 ug/L	1578.5 ppb	03:19:10
2	Sb 206.836†	26.9	0.5	-0.1582 ug/L	-0.1582 ppb	03:19:10
2	Se 196.026†	-9.9	12.7	11.446 ug/L	11.446 ppb	03:19:10
2	Si 251.611†	924953.6	889922.4	33986 ug/L	33986 ppb	03:18:45
2	Sn 189.927†	-99.4	-99.4	-20.959 ug/L	-20.959 ppb	03:19:10
2	Ti 334.940†	1248.9	2247.9	5.1353 ug/L	5.1353 ppb	03:18:50
2	Tl 190.801†	-39.0	-8.5	-3.2715 ug/L	-3.2715 ppb	03:19:10
2	U 409.014†	-2052.0	-32.2	-0.9882 ug/L	-0.9882 ppb	03:18:45
2	V 292.402†	-564.5	807.2	6.4950 ug/L	6.4950 ppb	03:18:50
2	Zn 213.857†	944.2	304.6	3.7225 ug/L	3.7225 ppb	03:19:10
2	SiO2†	936566.2	901084.2	73155 ug/L	73155 ppb	03:19:53
3	Sc Radial	4637.6	4637.6	102 %		03:17:48
3	Y RADIAL	4971.9	4971.9	101.1 %		03:17:48
3	Al 396.153Radial†	477.3	541.6	535.82 ug/L	535.82 ppb	03:17:48
3	Ca 317.933Radial†	6044.2	5914.2	11160 ug/L	11160 ppb	03:17:48
3	Fe 238.204 Radial†	30.5	23.3	266.98 ug/L	266.98 ppb	03:18:08
3	K 766.490 Radial†	12138.6	9404.0	1780.1 ug/L	1780.1 ppb	03:17:48
3	Mg 279.077 IEC†	77.6	75.8	3145.3 ug/L	3145.3 ppb	03:18:08
3	Na 589.592 Radial†	40310.8	40284.2	14066 ug/L	14066 ppb	03:17:48
3	Sr 421.552†	6970.1	6803.9	53.224 ug/L	53.224 ppb	03:17:48
3	Sc 361.383	883073.0	883073.0	104.47 %		03:19:15
3	Y 371.029	733856.3	733856.3	102.93 %		03:19:15
3	Ag 328.068†	206.2	40.7	0.1672 ug/L	0.1672 ppb	03:19:20
3	As 188.979†	-20.1	2.8	1.6776 ug/L	1.6776 ppb	03:19:40
3	B 249.677†	25.8	472.1	13.300 ug/L	13.300 ppb	03:19:40
3	Ba 233.527†	2662.8	2537.0	24.138 ug/L	24.138 ppb	03:19:40
3	Be 313.107†	-4402.2	243.5	0.1129 ug/L	0.1129 ppb	03:19:20
3	Cd 226.502†	-151.9	3.0	0.0162 ug/L	0.0162 ppb	03:19:40
3	Co 228.616†	-19.8	34.6	0.9131 ug/L	0.9131 ppb	03:19:40
3	Cr 267.716†	288.7	206.2	2.8413 ug/L	2.8413 ppb	03:19:40
3	Cu 324.752†	5612.7	-153.4	-0.4928 ug/L	-0.4928 ppb	03:19:20
3	Mn 257.610†	10199.1	9376.6	12.366 ug/L	12.366 ppb	03:19:20
3	Mo 202.031†	28.6	14.4	1.4533 ug/L	1.4533 ppb	03:19:40
3	Ni 231.604†	61.2	-14.0	-0.4527 ug/L	-0.4527 ppb	03:19:40
3	P 214.914†	229.1	18.7	13.978 ug/L	13.978 ppb	03:19:40
3	Pb 220.353†	-63.2	-11.6	-1.5800 ug/L	-1.5800 ppb	03:19:40
3	S 181.975 Axial†	932.4	862.6	1562.9 ug/L	1562.9 ppb	03:19:40
3	Sb 206.836†	24.6	-1.9	-1.1243 ug/L	-1.1243 ppb	03:19:40
3	Se 196.026†	-22.4	0.7	1.5657 ug/L	1.5657 ppb	03:19:40
3	Si 251.611†	928472.1	888244.4	33922 ug/L	33922 ppb	03:19:15
3	Sn 189.927†	-93.5	-93.2	-19.506 ug/L	-19.506 ppb	03:19:40
3	Ti 334.940†	1274.6	2265.7	5.1809 ug/L	5.1809 ppb	03:19:20
3	Tl 190.801†	-31.5	-1.1	-0.3457 ug/L	-0.3457 ppb	03:19:40
3	U 409.014†	-2103.7	-70.5	-2.1233 ug/L	-2.1233 ppb	03:19:15
3	V 292.402†	-608.8	767.9	6.1820 ug/L	6.1820 ppb	03:19:20
3	Zn 213.857†	950.8	305.8	3.7327 ug/L	3.7327 ppb	03:19:40
3	SiO2†	942141.6	901311.8	73174 ug/L	73174 ppb	03:19:58

Mean Data: 1202053150|957527|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	884501.1	104.64	%	0.858				0.82%
Sc Radial	4670.1	103	%	1.0				0.94%
Y 371.029	735186.6	103.12	%	0.816				0.79%
Y RADIAL	4995.5	101.6	%	0.79				0.78%
Ag 328.068†	52.3	0.2233	ug/L	0.04906	0.2233	ppb	0.04906	21.97%
Al 396.153Radial†	535.6	529.91	ug/L	8.563	529.91	ppb	8.563	1.62%
As 188.979†	2.5	1.5276	ug/L	0.79454	1.5276	ppb	0.79454	52.01%
B 249.677†	495.9	13.972	ug/L	0.5955	13.972	ppb	0.5955	4.26%
Ba 233.527†	2543.7	24.202	ug/L	0.2653	24.202	ppb	0.2653	1.10%
Be 313.107†	233.4	0.1086	ug/L	0.01504	0.1086	ppb	0.01504	13.86%
Ca 317.933Radial†	5880.6	11097	ug/L	64.5	11097	ppb	64.5	0.58%
Cd 226.502†	-0.2	-0.0291	ug/L	0.06175	-0.0291	ppb	0.06175	211.96%
Co 228.616†	35.9	0.9441	ug/L	0.16377	0.9441	ppb	0.16377	17.35%
Cr 267.716†	212.9	2.9311	ug/L	0.09126	2.9311	ppb	0.09126	3.11%
Cu 324.752†	-127.8	-0.4097	ug/L	0.12661	-0.4097	ppb	0.12661	30.90%
Fe 238.204 Radial†	22.4	257.55	ug/L	9.858	257.55	ppb	9.858	3.83%
K 766.490 Radial†	9350.2	1769.9	ug/L	16.77	1769.9	ppb	16.77	0.95%

Mg 279.077 IEC†	76.1	3160.6	ug/L	51.35	3160.6	ppb	51.35	1.62%
Mn 257.610†	9389.3	12.382	ug/L	0.0605	12.382	ppb	0.0605	0.49%
Mo 202.031†	8.5	0.9126	ug/L	0.51016	0.9126	ppb	0.51016	55.90%
Na 589.592 Radial†	40250.0	14054	ug/L	58.3	14054	ppb	58.3	0.42%
Ni 231.604†	-15.9	-0.5134	ug/L	0.19391	-0.5134	ppb	0.19391	37.77%
P 214.914†	24.1	18.038	ug/L	3.5167	18.038	ppb	3.5167	19.50%
Pb 220.353†	-1.1	0.0641	ug/L	1.70246	0.0641	ppb	1.70246	>999.9%
S 181.975 Axial†	862.4	1562.6	ug/L	16.09	1562.6	ppb	16.09	1.03%
Sb 206.836†	-0.1	-0.3972	ug/L	0.64187	-0.3972	ppb	0.64187	161.58%
Se 196.026†	4.0	4.2346	ug/L	6.31539	4.2346	ppb	6.31539	149.14%
Si 251.611†	890030.3	33991	ug/L	70.4	33991	ppb	70.4	0.21%
Sn 189.927†	-96.2	-20.214	ug/L	0.7276	-20.214	ppb	0.7276	3.60%
Sr 421.552†	6768.6	52.948	ug/L	0.2820	52.948	ppb	0.2820	0.53%
Ti 334.940†	2258.3	5.1574	ug/L	0.02286	5.1574	ppb	0.02286	0.44%
Tl 190.801†	-5.5	-2.1007	ug/L	1.54788	-2.1007	ppb	1.54788	73.69%
U 409.014†	2.3	0.0322	ug/L	2.80834	0.0322	ppb	2.80834	>999.9%
V 292.402†	775.2	6.2384	ug/L	0.23356	6.2384	ppb	0.23356	3.74%
Zn 213.857†	299.1	3.6517	ug/L	0.13155	3.6517	ppb	0.13155	3.60%
SiO2†	898023.7	72907	ug/L	446.4	72907	ppb	446.4	0.61%

Sequence No.: 85
Sample ID: 1202053151|957527|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 3/23/2010 03:22:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053151|957527|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4576.6	4576.6	101	%			03:24:04
1	Y RADIAL	4892.1	4892.1	99.49	%			03:24:04
1	Al 396.153Radial†	5320.5	5365.0	5284.8	ug/L	5284.8	ppb	03:24:04
1	Ca 317.933Radial†	8425.7	8362.1	15779	ug/L	15779	ppb	03:24:04
1	Fe 238.204 Radial†	467.3	458.1	5273.3	ug/L	5273.3	ppb	03:24:24
1	K 766.490 Radial†	38393.6	35676.8	6775.0	ug/L	6775.0	ppb	03:24:04
1	Mg 279.077 IEC†	200.9	199.4	8277.2	ug/L	8277.2	ppb	03:24:24
1	Na 589.592 Radial†	52676.9	53111.5	18545	ug/L	18545	ppb	03:24:04
1	Sr 421.552†	67567.0	67166.4	526.12	ug/L	526.12	ppb	03:24:04
1	Sc 361.383	880862.2	880862.2	104.21	%			03:25:21
1	Y 371.029	728775.7	728775.7	102.22	%			03:25:21
1	Ag 328.068†	98101.8	93985.2	487.45	ug/L	487.45	ppb	03:25:26
1	As 188.979†	886.8	873.1	496.37	ug/L	496.37	ppb	03:25:46
1	B 249.677†	18270.1	17980.0	505.99	ug/L	505.99	ppb	03:25:26
1	Ba 233.527†	57646.3	55307.4	527.03	ug/L	527.03	ppb	03:25:26
1	Be 313.107†	1208386.7	1164066.9	498.07	ug/L	498.07	ppb	03:25:21
1	Cd 226.502†	34713.0	33460.3	491.46	ug/L	491.46	ppb	03:25:26
1	Co 228.616†	19515.8	18781.7	494.51	ug/L	494.51	ppb	03:25:26
1	Cr 267.716†	38187.0	36575.3	498.37	ug/L	498.37	ppb	03:25:26
1	Cu 324.752†	166679.5	154425.4	511.59	ug/L	511.59	ppb	03:25:26
1	Mn 257.610†	391793.4	375592.1	499.63	ug/L	499.63	ppb	03:25:21
1	Mo 202.031†	5559.8	5322.5	479.56	ug/L	479.56	ppb	03:25:46
1	Ni 231.604†	16186.5	15460.5	499.22	ug/L	499.22	ppb	03:25:26
1	P 214.914†	988.0	747.4	466.45	ug/L	466.45	ppb	03:25:46
1	Pb 220.353†	3122.7	3045.6	477.97	ug/L	477.97	ppb	03:25:46
1	S 181.975 Axial†	3754.3	3572.9	6473.0	ug/L	6473.0	ppb	03:25:46
1	Sb 206.836†	1277.9	1200.9	528.85	ug/L	528.85	ppb	03:25:46
1	Se 196.026†	570.4	569.6	492.72	ug/L	492.72	ppb	03:25:46
1	Si 251.611†	1056428.2	1013266.1	38691	ug/L	38691	ppb	03:25:21
1	Sn 189.927†	2160.8	2069.9	479.53	ug/L	479.53	ppb	03:25:46
1	Ti 334.940†	294606.5	283760.1	494.63	ug/L	494.63	ppb	03:25:26
1	Tl 190.801†	1251.6	1230.2	488.83	ug/L	488.83	ppb	03:25:46
1	U 409.014†	16393.7	17675.1	521.25	ug/L	521.25	ppb	03:25:26
1	V 292.402†	64644.3	63385.6	514.18	ug/L	514.18	ppb	03:25:26
1	Zn 213.857†	42684.0	40356.8	492.71	ug/L	492.71	ppb	03:25:26
1	SiO2†	1060757.8	1017403.4	82586	ug/L	82586	ppb	03:26:55
2	Sc Radial	5062.0	5062.0	111	%			03:24:29
2	Y RADIAL	5400.8	5400.8	109.8	%			03:24:29
2	Al 396.153Radial†	5327.2	4863.7	4788.6	ug/L	4788.6	ppb	03:24:29
2	Ca 317.933Radial†	8417.2	7550.9	14248	ug/L	14248	ppb	03:24:29
2	Fe 238.204 Radial†	460.6	407.6	4692.7	ug/L	4692.7	ppb	03:24:49
2	K 766.490 Radial†	38727.8	32315.8	6136.7	ug/L	6136.7	ppb	03:24:29
2	Mg 279.077 IEC†	200.6	180.0	7471.9	ug/L	7471.9	ppb	03:24:49
2	Na 589.592 Radial†	52727.1	48132.9	16806	ug/L	16806	ppb	03:24:29
2	Sr 421.552†	67569.0	60724.4	475.66	ug/L	475.66	ppb	03:24:29
2	Sc 361.383	880830.0	880830.0	104.20	%			03:25:52
2	Y 371.029	729039.4	729039.4	102.26	%			03:25:52
2	Ag 328.068†	95721.8	91704.6	475.50	ug/L	475.50	ppb	03:25:57
2	As 188.979†	887.7	874.0	496.61	ug/L	496.61	ppb	03:26:17
2	B 249.677†	17839.2	17567.2	494.45	ug/L	494.45	ppb	03:25:57
2	Ba 233.527†	56412.2	54125.1	515.75	ug/L	515.75	ppb	03:25:57
2	Be 313.107†	1206064.5	1161880.7	497.11	ug/L	497.11	ppb	03:25:52
2	Cd 226.502†	33881.4	32663.4	479.81	ug/L	479.81	ppb	03:25:57
2	Co 228.616†	19038.7	18324.5	482.51	ug/L	482.51	ppb	03:25:57
2	Cr 267.716†	37306.5	35731.7	486.83	ug/L	486.83	ppb	03:25:57
2	Cu 324.752†	162721.5	150632.9	499.01	ug/L	499.01	ppb	03:25:57
2	Mn 257.610†	390947.6	374794.2	498.54	ug/L	498.54	ppb	03:25:52
2	Mo 202.031†	5588.2	5350.0	481.97	ug/L	481.97	ppb	03:26:17
2	Ni 231.604†	15823.3	15112.6	487.98	ug/L	487.98	ppb	03:25:57

2	P 214.914†	989.1	748.6	470.18 ug/L	470.18 ppb	03:26:17
2	Pb 220.353†	3132.7	3055.3	479.45 ug/L	479.45 ppb	03:26:17
2	S 181.975 Axial†	3764.2	3582.5	6490.5 ug/L	6490.5 ppb	03:26:17
2	Sb 206.836†	1261.2	1184.9	522.16 ug/L	522.16 ppb	03:26:17
2	Se 196.026†	571.4	570.5	491.67 ug/L	491.67 ppb	03:26:17
2	Si 251.611†	1054652.1	1011598.7	38627 ug/L	38627 ppb	03:25:52
2	Sn 189.927†	2174.1	2082.7	482.24 ug/L	482.24 ppb	03:26:17
2	Ti 334.940†	287481.1	276932.4	482.63 ug/L	482.63 ppb	03:25:57
2	Tl 190.801†	1240.7	1219.7	484.69 ug/L	484.69 ppb	03:26:17
2	U 409.014†	15797.5	17103.6	504.43 ug/L	504.43 ppb	03:25:57
2	V 292.402†	63105.9	61911.5	502.46 ug/L	502.46 ppb	03:25:57
2	Zn 213.857†	41712.6	39426.0	481.41 ug/L	481.41 ppb	03:25:57
2	SiO2†	1069735.3	1026056.0	83288 ug/L	83288 ppb	03:27:01
3	Sc Radial	4752.2	4752.2	104 %		03:24:54
3	Y RADIAL	5066.4	5066.4	103.0 %		03:24:54
3	Al 396.153Radial†	5483.6	5325.8	5245.8 ug/L	5245.8 ppb	03:24:54
3	Ca 317.933Radial†	8653.8	8270.9	15607 ug/L	15607 ppb	03:24:54
3	Fe 238.204 Radial†	465.8	439.5	5059.0 ug/L	5059.0 ppb	03:25:14
3	K 766.490 Radial†	39666.4	35484.9	6738.7 ug/L	6738.7 ppb	03:24:54
3	Mg 279.077 IEC†	202.6	193.7	8040.8 ug/L	8040.8 ppb	03:25:14
3	Na 589.592 Radial†	54033.5	52475.0	18323 ug/L	18323 ppb	03:24:54
3	Sr 421.552†	69556.2	66588.5	521.59 ug/L	521.59 ppb	03:24:54
3	Sc 361.383	881861.9	881861.9	104.32 %		03:26:23
3	Y 371.029	731388.9	731388.9	102.59 %		03:26:23
3	Ag 328.068†	96069.4	91930.3	476.76 ug/L	476.76 ppb	03:26:28
3	As 188.979†	897.7	882.6	501.56 ug/L	501.56 ppb	03:26:48
3	B 249.677†	17909.9	17614.9	495.73 ug/L	495.73 ppb	03:26:28
3	Ba 233.527†	56622.7	54263.5	517.07 ug/L	517.07 ppb	03:26:28
3	Be 313.107†	1210881.0	1165143.2	498.51 ug/L	498.51 ppb	03:26:23
3	Cd 226.502†	33950.4	32691.5	480.18 ug/L	480.18 ppb	03:26:28
3	Co 228.616†	19118.9	18380.0	483.97 ug/L	483.97 ppb	03:26:28
3	Cr 267.716†	37554.3	35927.3	489.53 ug/L	489.53 ppb	03:26:28
3	Cu 324.752†	163065.2	150779.6	499.51 ug/L	499.51 ppb	03:26:28
3	Mn 257.610†	390981.1	374387.3	498.01 ug/L	498.01 ppb	03:26:23
3	Mo 202.031†	5616.7	5370.9	483.90 ug/L	483.90 ppb	03:26:48
3	Ni 231.604†	15871.9	15141.4	488.91 ug/L	488.91 ppb	03:26:28
3	P 214.914†	1005.1	762.8	480.69 ug/L	480.69 ppb	03:26:48
3	Pb 220.353†	3142.1	3060.7	480.37 ug/L	480.37 ppb	03:26:48
3	S 181.975 Axial†	3771.5	3585.2	6495.4 ug/L	6495.4 ppb	03:26:48
3	Sb 206.836†	1262.8	1185.0	522.26 ug/L	522.26 ppb	03:26:48
3	Se 196.026†	577.8	576.1	497.50 ug/L	497.50 ppb	03:26:48
3	Si 251.611†	1054049.0	1009836.2	38560 ug/L	38560 ppb	03:26:23
3	Sn 189.927†	2188.3	2093.8	485.04 ug/L	485.04 ppb	03:26:48
3	Ti 334.940†	288229.0	277326.5	483.45 ug/L	483.45 ppb	03:26:28
3	Tl 190.801†	1232.6	1210.6	481.07 ug/L	481.07 ppb	03:26:48
3	U 409.014†	15812.1	17099.8	504.27 ug/L	504.27 ppb	03:26:28
3	V 292.402†	63280.4	62008.0	503.22 ug/L	503.22 ppb	03:26:28
3	Zn 213.857†	41804.8	39467.5	481.86 ug/L	481.86 ppb	03:26:28
3	SiO2†	1058633.9	1014213.6	82326 ug/L	82326 ppb	03:27:07

Mean Data: 1202053151|957527|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	881184.7	104.24	%	0.069				0.07%
Sc Radial	4796.9	105	%	5.4				5.12%
Y 371.029	729734.7	102.35	%	0.202				0.20%
Y RADIAL	5119.8	104.1	%	5.26				5.05%
Ag 328.068†	92540.0	479.91	ug/L	6.564	479.91	ppb	6.564	1.37%
Al 396.153Radial†	5184.8	5106.4	ug/L	275.88	5106.4	ppb	275.88	5.40%
As 188.979†	876.6	498.18	ug/L	2.930	498.18	ppb	2.930	0.59%
B 249.677†	17720.7	498.72	ug/L	6.325	498.72	ppb	6.325	1.27%
Ba 233.527†	54565.3	519.95	ug/L	6.166	519.95	ppb	6.166	1.19%
Be 313.107†	1163696.9	497.90	ug/L	0.714	497.90	ppb	0.714	0.14%
Ca 317.933Radial†	8061.3	15212	ug/L	838.5	15212	ppb	838.5	5.51%
Cd 226.502†	32938.4	483.82	ug/L	6.625	483.82	ppb	6.625	1.37%
Co 228.616†	18495.4	486.99	ug/L	6.546	486.99	ppb	6.546	1.34%
Cr 267.716†	36078.1	491.58	ug/L	6.037	491.58	ppb	6.037	1.23%
Cu 324.752†	151946.0	503.37	ug/L	7.125	503.37	ppb	7.125	1.42%
Fe 238.204 Radial†	435.1	5008.3	ug/L	293.61	5008.3	ppb	293.61	5.86%
K 766.490 Radial†	34492.5	6550.1	ug/L	358.50	6550.1	ppb	358.50	5.47%

Mg 279.077 IEC†	191.0	7929.9 ug/L	413.93	7929.9 ppb	413.93	5.22%
Mn 257.610†	374924.5	498.73 ug/L	0.823	498.73 ppb	0.823	0.16%
Mo 202.031†	5347.8	481.81 ug/L	2.174	481.81 ppb	2.174	0.45%
Na 589.592 Radial†	51239.8	17891 ug/L	946.0	17891 ppb	946.0	5.29%
Ni 231.604†	15238.1	492.04 ug/L	6.234	492.04 ppb	6.234	1.27%
P 214.914†	752.9	472.44 ug/L	7.386	472.44 ppb	7.386	1.56%
Pb 220.353†	3053.9	479.26 ug/L	1.212	479.26 ppb	1.212	0.25%
S 181.975 Axial†	3580.2	6486.3 ug/L	11.75	6486.3 ppb	11.75	0.18%
Sb 206.836†	1190.3	524.43 ug/L	3.834	524.43 ppb	3.834	0.73%
Se 196.026†	572.0	493.96 ug/L	3.107	493.96 ppb	3.107	0.63%
Si 251.611†	1011567.0	38626 ug/L	65.5	38626 ppb	65.5	0.17%
Sn 189.927†	2082.1	482.27 ug/L	2.751	482.27 ppb	2.751	0.57%
Sr 421.552†	64826.4	507.79 ug/L	27.919	507.79 ppb	27.919	5.50%
Ti 334.940†	279339.7	486.90 ug/L	6.707	486.90 ppb	6.707	1.38%
Tl 190.801†	1220.2	484.86 ug/L	3.883	484.86 ppb	3.883	0.80%
U 409.014†	17292.8	509.98 ug/L	9.757	509.98 ppb	9.757	1.91%
V 292.402†	62435.0	506.62 ug/L	6.559	506.62 ppb	6.559	1.29%
Zn 213.857†	39750.1	485.33 ug/L	6.396	485.33 ppb	6.396	1.32%
SiO2†	1019224.3	82733 ug/L	497.5	82733 ppb	497.5	0.60%

Sequence No.: 86
Sample ID: 1202053152|957527|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 106
Date Collected: 3/23/2010 03:29:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053152|957527|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4684.4	4684.4	103	%			03:31:12
1	Y RADIAL	5082.3	5082.3	103.4	%			03:31:12
1	Al 396.153Radial†	-11.9	61.6	60.990	ug/L	60.990	ppb	03:31:32
1	Ca 317.933Radial†	1202.3	1149.9	2169.9	ug/L	2169.9	ppb	03:31:32
1	Fe 238.204 Radial†	9.9	3.0	34.379	ug/L	34.379	ppb	03:31:32
1	K 766.490 Radial†	4458.3	1821.9	344.89	ug/L	344.89	ppb	03:31:12
1	Mg 279.077 IEC†	14.6	13.7	570.66	ug/L	570.66	ppb	03:31:32
1	Na 589.592 Radial†	7092.5	7609.8	2657.1	ug/L	2657.1	ppb	03:31:12
1	Sr 421.552†	1360.0	1284.1	10.045	ug/L	10.045	ppb	03:31:12
1	Sc 361.383	861968.3	861968.3	101.97	%			03:32:29
1	Y 371.029	735535.9	735535.9	103.17	%			03:32:29
1	Ag 328.068†	271.9	110.0	0.5523	ug/L	0.5523	ppb	03:32:29
1	As 188.979†	-21.3	1.2	0.6796	ug/L	0.6796	ppb	03:32:49
1	B 249.677†	-222.8	228.9	6.4634	ug/L	6.4634	ppb	03:32:49
1	Ba 233.527†	558.5	535.7	5.0964	ug/L	5.0964	ppb	03:32:49
1	Be 313.107†	-4304.4	236.2	0.1025	ug/L	0.1025	ppb	03:32:29
1	Cd 226.502†	-170.4	-18.7	-0.2775	ug/L	-0.2775	ppb	03:32:49
1	Co 228.616†	-29.3	24.9	0.6529	ug/L	0.6529	ppb	03:32:49
1	Cr 267.716†	112.3	39.9	0.5482	ug/L	0.5482	ppb	03:32:49
1	Cu 324.752†	5570.4	-63.3	-0.2082	ug/L	-0.2082	ppb	03:32:29
1	Mn 257.610†	2250.3	1820.5	2.4009	ug/L	2.4009	ppb	03:32:49
1	Mo 202.031†	4.9	-8.1	-0.7026	ug/L	-0.7026	ppb	03:32:49
1	Ni 231.604†	75.8	1.7	0.0561	ug/L	0.0561	ppb	03:32:49
1	P 214.914†	203.3	-1.3	-1.0284	ug/L	-1.0284	ppb	03:32:49
1	Pb 220.353†	-48.2	1.7	0.3004	ug/L	0.3004	ppb	03:32:49
1	S 181.975 Axial†	201.8	168.0	304.33	ug/L	304.33	ppb	03:32:49
1	Sb 206.836†	24.2	-1.7	-0.8351	ug/L	-0.8351	ppb	03:32:49
1	Se 196.026†	-22.5	0.1	0.1823	ug/L	0.1823	ppb	03:32:49
1	Si 251.611†	182810.8	178758.1	6826.8	ug/L	6826.8	ppb	03:32:29
1	Sn 189.927†	-18.7	-22.1	-4.7010	ug/L	-4.7010	ppb	03:32:49
1	Ti 334.940†	-633.0	424.7	0.9828	ug/L	0.9828	ppb	03:32:29
1	Tl 190.801†	-21.3	8.2	3.2475	ug/L	3.2475	ppb	03:32:49
1	U 409.014†	-1958.3	22.7	0.6669	ug/L	0.6669	ppb	03:32:29
1	V 292.402†	-1224.2	150.2	1.1989	ug/L	1.1989	ppb	03:32:29
1	Zn 213.857†	700.1	82.3	1.0086	ug/L	1.0086	ppb	03:32:49
1	SiO2†	185051.7	180938.2	14690	ug/L	14690	ppb	03:33:45
2	Sc Radial	4720.2	4720.2	104	%			03:31:37
2	Y RADIAL	5079.5	5079.5	103.3	%			03:31:37
2	Al 396.153Radial†	-19.8	54.1	53.528	ug/L	53.528	ppb	03:31:57
2	Ca 317.933Radial†	1178.8	1118.5	2110.5	ug/L	2110.5	ppb	03:31:57
2	Fe 238.204 Radial†	11.7	4.7	53.481	ug/L	53.481	ppb	03:31:57
2	K 766.490 Radial†	4578.2	1904.5	360.65	ug/L	360.65	ppb	03:31:37
2	Mg 279.077 IEC†	15.7	14.7	611.79	ug/L	611.79	ppb	03:31:57
2	Na 589.592 Radial†	7007.8	7475.8	2610.3	ug/L	2610.3	ppb	03:31:37
2	Sr 421.552†	1359.6	1273.7	9.9637	ug/L	9.9637	ppb	03:31:37
2	Sc 361.383	856904.6	856904.6	101.37	%			03:32:54
2	Y 371.029	732893.6	732893.6	102.80	%			03:32:54
2	Ag 328.068†	74.0	-83.7	-0.4453	ug/L	-0.4453	ppb	03:32:54
2	As 188.979†	-28.8	-6.4	-3.5628	ug/L	-3.5628	ppb	03:33:14
2	B 249.677†	-242.1	208.6	5.8885	ug/L	5.8885	ppb	03:33:14
2	Ba 233.527†	548.2	528.8	5.0299	ug/L	5.0299	ppb	03:33:14
2	Be 313.107†	-4299.4	216.2	0.0940	ug/L	0.0940	ppb	03:32:54
2	Cd 226.502†	-172.3	-21.5	-0.3202	ug/L	-0.3202	ppb	03:33:14
2	Co 228.616†	-46.9	7.3	0.1929	ug/L	0.1929	ppb	03:33:14
2	Cr 267.716†	120.3	48.5	0.6639	ug/L	0.6639	ppb	03:33:14
2	Cu 324.752†	5561.0	-40.2	-0.1333	ug/L	-0.1333	ppb	03:32:54
2	Mn 257.610†	2260.5	1843.6	2.4318	ug/L	2.4318	ppb	03:33:14
2	Mo 202.031†	17.5	4.4	0.4209	ug/L	0.4209	ppb	03:33:14
2	Ni 231.604†	84.1	10.3	0.3334	ug/L	0.3334	ppb	03:33:14

2	P 214.914†	208.7	5.2	3.9151	ug/L	3.9151	ppb	03:33:14
2	Pb 220.353†	-50.6	-1.0	-0.1242	ug/L	-0.1242	ppb	03:33:14
2	S 181.975 Axial†	214.5	181.7	329.23	ug/L	329.23	ppb	03:33:14
2	Sb 206.836†	23.3	-2.5	-1.1622	ug/L	-1.1622	ppb	03:33:14
2	Se 196.026†	-8.2	14.0	11.863	ug/L	11.863	ppb	03:33:14
2	Si 251.611†	181290.8	178318.0	6810.0	ug/L	6810.0	ppb	03:32:54
2	Sn 189.927†	-24.7	-28.1	-6.0956	ug/L	-6.0956	ppb	03:33:14
2	Ti 334.940†	-618.2	435.7	0.9885	ug/L	0.9885	ppb	03:32:54
2	Tl 190.801†	-28.3	1.2	0.4754	ug/L	0.4754	ppb	03:33:14
2	U 409.014†	-1794.6	172.9	5.1075	ug/L	5.1075	ppb	03:32:54
2	V 292.402†	-1295.1	73.1	0.6039	ug/L	0.6039	ppb	03:32:54
2	Zn 213.857†	692.3	78.7	0.9594	ug/L	0.9594	ppb	03:33:14
2	SiO2†	183595.1	180573.7	14660	ug/L	14660	ppb	03:33:50
3	Sc Radial	4607.2	4607.2	101	%			03:32:02
3	Y RADIAL	4960.4	4960.4	100.9	%			03:32:02
3	Al 396.153Radial†	-13.2	60.1	59.489	ug/L	59.489	ppb	03:32:22
3	Ca 317.933Radial†	1188.0	1155.4	2180.2	ug/L	2180.2	ppb	03:32:22
3	Fe 238.204 Radial†	12.2	5.4	62.475	ug/L	62.475	ppb	03:32:22
3	K 766.490 Radial†	4505.9	1941.5	367.61	ug/L	367.61	ppb	03:32:02
3	Mg 279.077 IEC†	17.8	17.2	712.89	ug/L	712.89	ppb	03:32:22
3	Na 589.592 Radial†	7178.4	7810.1	2727.0	ug/L	2727.0	ppb	03:32:02
3	Sr 421.552†	1340.4	1286.9	10.067	ug/L	10.067	ppb	03:32:02
3	Sc 361.383	856658.7	856658.7	101.34	%			03:33:19
3	Y 371.029	732693.6	732693.6	102.77	%			03:33:19
3	Ag 328.068†	228.2	68.4	0.3466	ug/L	0.3466	ppb	03:33:19
3	As 188.979†	-16.0	6.3	3.5867	ug/L	3.5867	ppb	03:33:39
3	B 249.677†	-237.9	212.7	6.0015	ug/L	6.0015	ppb	03:33:39
3	Ba 233.527†	549.1	529.8	5.0426	ug/L	5.0426	ppb	03:33:39
3	Be 313.107†	-4310.0	204.5	0.0889	ug/L	0.0889	ppb	03:33:19
3	Cd 226.502†	-175.2	-24.4	-0.3636	ug/L	-0.3636	ppb	03:33:39
3	Co 228.616†	-37.3	16.8	0.4418	ug/L	0.4418	ppb	03:33:39
3	Cr 267.716†	118.0	46.3	0.6366	ug/L	0.6366	ppb	03:33:39
3	Cu 324.752†	5651.9	51.0	0.1700	ug/L	0.1700	ppb	03:33:19
3	Mn 257.610†	2256.0	1839.8	2.4235	ug/L	2.4235	ppb	03:33:39
3	Mo 202.031†	11.4	-1.6	-0.1171	ug/L	-0.1171	ppb	03:33:39
3	Ni 231.604†	90.7	16.9	0.5467	ug/L	0.5467	ppb	03:33:39
3	P 214.914†	202.1	-1.3	-1.0877	ug/L	-1.0877	ppb	03:33:39
3	Pb 220.353†	-55.8	-6.2	-0.9364	ug/L	-0.9364	ppb	03:33:39
3	S 181.975 Axial†	213.9	181.2	328.27	ug/L	328.27	ppb	03:33:39
3	Sb 206.836†	23.8	-1.9	-0.9066	ug/L	-0.9066	ppb	03:33:39
3	Se 196.026†	-18.5	3.9	3.4692	ug/L	3.4692	ppb	03:33:39
3	Si 251.611†	181607.2	178681.6	6823.9	ug/L	6823.9	ppb	03:33:19
3	Sn 189.927†	-21.0	-24.5	-5.2552	ug/L	-5.2552	ppb	03:33:39
3	Ti 334.940†	-647.1	407.0	0.9401	ug/L	0.9401	ppb	03:33:19
3	Tl 190.801†	-24.0	5.4	2.1335	ug/L	2.1335	ppb	03:33:39
3	U 409.014†	-1829.6	137.8	4.0679	ug/L	4.0679	ppb	03:33:19
3	V 292.402†	-1133.5	232.2	1.8693	ug/L	1.8693	ppb	03:33:19
3	Zn 213.857†	705.3	91.7	1.1169	ug/L	1.1169	ppb	03:33:39
3	SiO2†	184407.3	181427.1	14729	ug/L	14729	ppb	03:33:55

Mean Data: 1202053152|957527|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	858510.5	101.56	%	0.355				0.35%
Sc Radial	4670.6	103	%	1.3				1.24%
Y 371.029	733707.7	102.91	%	0.223				0.22%
Y RADIAL	5040.7	102.5	%	1.42				1.38%
Ag 328.068†	31.6	0.1512	ug/L	0.52670	0.1512	ppb	0.52670	348.34%
Al 396.153Radial†	58.6	58.003	ug/L	3.9468	58.003	ppb	3.9468	6.80%
As 188.979†	0.4	0.2345	ug/L	3.59547	0.2345	ppb	3.59547	>999.9%
B 249.677†	216.8	6.1178	ug/L	0.30461	6.1178	ppb	0.30461	4.98%
Ba 233.527†	531.5	5.0563	ug/L	0.03528	5.0563	ppb	0.03528	0.70%
Be 313.107†	218.9	0.0951	ug/L	0.00688	0.0951	ppb	0.00688	7.23%
Ca 317.933Radial†	1141.2	2153.5	ug/L	37.59	2153.5	ppb	37.59	1.75%
Cd 226.502†	-21.5	-0.3204	ug/L	0.04300	-0.3204	ppb	0.04300	13.42%
Co 228.616†	16.3	0.4292	ug/L	0.23024	0.4292	ppb	0.23024	53.64%
Cr 267.716†	44.9	0.6162	ug/L	0.06048	0.6162	ppb	0.06048	9.81%
Cu 324.752†	-17.5	-0.0572	ug/L	0.20025	-0.0572	ppb	0.20025	350.21%
Fe 238.204 Radial†	4.4	50.112	ug/L	14.3478	50.112	ppb	14.3478	28.63%
K 766.490 Radial†	1889.3	357.72	ug/L	11.644	357.72	ppb	11.644	3.26%

Mg 279.077 IEC†	15.2	631.78	ug/L	73.192	631.78	ppb	73.192	11.58%
Mn 257.610†	1834.7	2.4188	ug/L	0.01602	2.4188	ppb	0.01602	0.66%
Mo 202.031†	-1.8	-0.1329	ug/L	0.56192	-0.1329	ppb	0.56192	422.77%
Na 589.592 Radial†	7631.9	2664.8	ug/L	58.75	2664.8	ppb	58.75	2.20%
Ni 231.604†	9.7	0.3121	ug/L	0.24601	0.3121	ppb	0.24601	78.84%
P 214.914†	0.9	0.5996	ug/L	2.87138	0.5996	ppb	2.87138	478.85%
Pb 220.353†	-1.8	-0.2534	ug/L	0.62845	-0.2534	ppb	0.62845	247.97%
S 181.975 Axial†	176.9	320.61	ug/L	14.105	320.61	ppb	14.105	4.40%
Sb 206.836†	-2.1	-0.9679	ug/L	0.17196	-0.9679	ppb	0.17196	17.77%
Se 196.026†	6.0	5.1715	ug/L	6.02351	5.1715	ppb	6.02351	116.47%
Si 251.611†	178585.9	6820.3	ug/L	8.99	6820.3	ppb	8.99	0.13%
Sn 189.927†	-24.9	-5.3506	ug/L	0.70214	-5.3506	ppb	0.70214	13.12%
Sr 421.552†	1281.6	10.025	ug/L	0.0541	10.025	ppb	0.0541	0.54%
Ti 334.940†	422.5	0.9705	ug/L	0.02644	0.9705	ppb	0.02644	2.72%
Tl 190.801†	4.9	1.9521	ug/L	1.39495	1.9521	ppb	1.39495	71.46%
U 409.014†	111.1	3.2808	ug/L	2.32261	3.2808	ppb	2.32261	70.79%
V 292.402†	151.8	1.2240	ug/L	0.63308	1.2240	ppb	0.63308	51.72%
Zn 213.857†	84.2	1.0283	ug/L	0.08057	1.0283	ppb	0.08057	7.84%
SiO2†	180979.7	14693	ug/L	34.8	14693	ppb	34.8	0.24%

Sequence No.: 88
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/23/2010 03:43:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4731.6	4731.6	104	%			03:45:05
1	Y RADIAL	5066.2	5066.2	103.0	%			03:45:05
1	Al 396.153Radial†	5156.5	5034.0	4954.9	ug/L	4954.9	ppb	03:45:05
1	Ca 317.933Radial†	2777.5	2653.7	5007.5	ug/L	5007.5	ppb	03:45:25
1	Fe 238.204 Radial†	455.2	431.3	4966.8	ug/L	4966.8	ppb	03:45:25
1	K 766.490 Radial†	30883.0	27200.5	5169.3	ug/L	5169.3	ppb	03:45:05
1	Mg 279.077 IEC†	132.2	126.8	5264.0	ug/L	5264.0	ppb	03:45:25
1	Na 589.592 Radial†	27126.1	26814.3	9362.7	ug/L	9362.7	ppb	03:45:05
1	Sr 421.552†	63795.0	61336.4	480.52	ug/L	480.52	ppb	03:45:05
1	Sc 361.383	856750.5	856750.5	101.35	%			03:46:22
1	Y 371.029	711871.3	711871.3	99.849	%			03:46:22
1	Ag 328.068†	103710.4	102168.3	529.78	ug/L	529.78	ppb	03:46:27
1	As 188.979†	946.6	956.1	543.14	ug/L	543.14	ppb	03:46:47
1	B 249.677†	18479.6	18680.2	525.69	ug/L	525.69	ppb	03:46:27
1	Ba 233.527†	57042.6	56268.6	536.22	ug/L	536.22	ppb	03:46:27
1	Be 313.107†	1289157.3	1276393.6	546.08	ug/L	546.08	ppb	03:46:22
1	Cd 226.502†	36861.5	36517.6	536.44	ug/L	536.44	ppb	03:46:27
1	Co 228.616†	20898.3	20672.7	544.35	ug/L	544.35	ppb	03:46:27
1	Cr 267.716†	40043.7	39438.6	537.30	ug/L	537.30	ppb	03:46:27
1	Cu 324.752†	167725.4	159958.8	529.90	ug/L	529.90	ppb	03:46:27
1	Mn 257.610†	411486.7	405603.6	539.63	ug/L	539.63	ppb	03:46:22
1	Mo 202.031†	5959.6	5867.1	528.41	ug/L	528.41	ppb	03:46:47
1	Ni 231.604†	17130.5	16829.1	543.41	ug/L	543.41	ppb	03:46:27
1	P 214.914†	3776.2	3525.1	2568.7	ug/L	2568.7	ppb	03:46:47
1	Pb 220.353†	3424.9	3428.1	537.74	ug/L	537.74	ppb	03:46:47
1	S 181.975 Axial†	628.8	590.5	1069.1	ug/L	1069.1	ppb	03:46:47
1	Sb 206.836†	1297.7	1254.9	553.76	ug/L	553.76	ppb	03:46:47
1	Se 196.026†	621.5	635.4	546.69	ug/L	546.69	ppb	03:46:47
1	Si 251.611†	72156.6	70673.9	2692.6	ug/L	2692.6	ppb	03:46:27
1	Sn 189.927†	2335.5	2300.5	530.80	ug/L	530.80	ppb	03:46:47
1	Ti 334.940†	301197.2	298219.2	518.56	ug/L	518.56	ppb	03:46:27
1	Tl 190.801†	1356.9	1367.9	543.32	ug/L	543.32	ppb	03:46:47
1	U 409.014†	16423.5	18147.3	535.17	ug/L	535.17	ppb	03:46:27
1	V 292.402†	66299.8	66764.9	541.92	ug/L	541.92	ppb	03:46:27
1	Zn 213.857†	44786.2	43583.7	532.22	ug/L	532.22	ppb	03:46:27
1	SiO2†	71730.2	70235.7	5687.7	ug/L	5687.7	ppb	03:47:55
2	Sc Radial	4336.7	4336.7	95.3	%			03:45:30
2	Y RADIAL	4654.1	4654.1	94.65	%			03:45:30
2	Al 396.153Radial†	5189.7	5520.6	5436.5	ug/L	5436.5	ppb	03:45:30
2	Ca 317.933Radial†	2812.1	2933.3	5535.2	ug/L	5535.2	ppb	03:45:50
2	Fe 238.204 Radial†	456.6	472.7	5441.5	ug/L	5441.5	ppb	03:45:50
2	K 766.490 Radial†	31043.5	30074.4	5715.7	ug/L	5715.7	ppb	03:45:30
2	Mg 279.077 IEC†	135.2	141.5	5875.8	ug/L	5875.8	ppb	03:45:50
2	Na 589.592 Radial†	27226.1	29295.6	10229	ug/L	10229	ppb	03:45:30
2	Sr 421.552†	64071.6	67215.4	526.58	ug/L	526.58	ppb	03:45:30
2	Sc 361.383	865690.7	865690.7	102.41	%			03:46:53
2	Y 371.029	718846.9	718846.9	100.83	%			03:46:53
2	Ag 328.068†	105203.5	102569.5	531.99	ug/L	531.99	ppb	03:46:58
2	As 188.979†	952.6	952.2	541.10	ug/L	541.10	ppb	03:47:18
2	B 249.677†	18908.1	18910.3	532.12	ug/L	532.12	ppb	03:46:58
2	Ba 233.527†	57733.3	56361.9	537.12	ug/L	537.12	ppb	03:46:58
2	Be 313.107†	1276063.4	1250472.5	535.02	ug/L	535.02	ppb	03:46:53
2	Cd 226.502†	37267.7	36538.6	536.70	ug/L	536.70	ppb	03:46:58
2	Co 228.616†	21101.7	20658.5	543.95	ug/L	543.95	ppb	03:46:58
2	Cr 267.716†	40463.9	39440.9	537.38	ug/L	537.38	ppb	03:46:58
2	Cu 324.752†	170782.9	161235.3	534.15	ug/L	534.15	ppb	03:46:58
2	Mn 257.610†	406929.3	396960.7	528.16	ug/L	528.16	ppb	03:46:53
2	Mo 202.031†	5968.4	5814.9	523.76	ug/L	523.76	ppb	03:47:18
2	Ni 231.604†	17335.6	16854.8	544.24	ug/L	544.24	ppb	03:46:58

2	P 214.914†	3765.7	3476.4	2530.7 ug/L	2530.7 ppb	03:47:18
2	Pb 220.353†	3420.0	3388.4	531.56 ug/L	531.56 ppb	03:47:18
2	S 181.975 Axial†	622.7	578.1	1046.6 ug/L	1046.6 ppb	03:47:18
2	Sb 206.836†	1298.6	1242.5	548.28 ug/L	548.28 ppb	03:47:18
2	Se 196.026†	630.8	638.1	550.44 ug/L	550.44 ppb	03:47:18
2	Si 251.611†	73239.7	70996.2	2704.9 ug/L	2704.9 ppb	03:46:58
2	Sn 189.927†	2335.2	2276.5	525.31 ug/L	525.31 ppb	03:47:18
2	Ti 334.940†	305018.3	298881.4	519.73 ug/L	519.73 ppb	03:46:58
2	Tl 190.801†	1339.9	1337.4	531.25 ug/L	531.25 ppb	03:47:18
2	U 409.014†	16763.1	18311.5	539.97 ug/L	539.97 ppb	03:46:58
2	V 292.402†	67195.9	66964.3	543.40 ug/L	543.40 ppb	03:46:58
2	Zn 213.857†	45434.0	43759.8	534.31 ug/L	534.31 ppb	03:46:58
2	SiO2†	72026.8	69794.4	5652.0 ug/L	5652.0 ppb	03:48:00
3	Sc Radial	4554.2	4554.2	100 %		03:45:55
3	Y RADIAL	4877.7	4877.7	99.20 %		03:45:55
3	Al 396.153Radial†	5107.4	5178.1	5098.4 ug/L	5098.4 ppb	03:45:55
3	Ca 317.933Radial†	2791.5	2771.8	5230.3 ug/L	5230.3 ppb	03:46:15
3	Fe 238.204 Radial†	459.2	452.3	5207.2 ug/L	5207.2 ppb	03:46:15
3	K 766.490 Radial†	30534.2	28008.7	5323.0 ug/L	5323.0 ppb	03:45:55
3	Mg 279.077 IEC†	130.4	130.0	5396.1 ug/L	5396.1 ppb	03:46:15
3	Na 589.592 Radial†	26752.1	27456.6	9587.0 ug/L	9587.0 ppb	03:45:55
3	Sr 421.552†	62732.9	62664.5	490.93 ug/L	490.93 ppb	03:45:55
3	Sc 361.383	889634.4	889634.4	105.24 %		03:47:24
3	Y 371.029	738503.3	738503.3	103.58 %		03:47:24
3	Ag 328.068†	102954.9	97668.2	506.57 ug/L	506.57 ppb	03:47:29
3	As 188.979†	959.9	934.2	530.70 ug/L	530.70 ppb	03:47:49
3	B 249.677†	18401.5	17932.0	504.57 ug/L	504.57 ppb	03:47:29
3	Ba 233.527†	56771.8	53931.1	513.95 ug/L	513.95 ppb	03:47:29
3	Be 313.107†	1291773.0	1231863.9	527.02 ug/L	527.02 ppb	03:47:24
3	Cd 226.502†	36807.6	35122.1	515.90 ug/L	515.90 ppb	03:47:29
3	Co 228.616†	20791.3	19808.9	521.61 ug/L	521.61 ppb	03:47:29
3	Cr 267.716†	39745.5	37694.9	513.59 ug/L	513.59 ppb	03:47:29
3	Cu 324.752†	166080.1	152278.7	504.48 ug/L	504.48 ppb	03:47:29
3	Mn 257.610†	412368.4	391434.6	520.81 ug/L	520.81 ppb	03:47:24
3	Mo 202.031†	5961.0	5651.1	508.99 ug/L	508.99 ppb	03:47:49
3	Ni 231.604†	16998.5	16078.9	519.18 ug/L	519.18 ppb	03:47:29
3	P 214.914†	3774.1	3385.4	2467.5 ug/L	2467.5 ppb	03:47:49
3	Pb 220.353†	3411.9	3290.8	516.22 ug/L	516.22 ppb	03:47:49
3	S 181.975 Axial†	628.9	567.7	1027.7 ug/L	1027.7 ppb	03:47:49
3	Sb 206.836†	1315.2	1224.2	539.95 ug/L	539.95 ppb	03:47:49
3	Se 196.026†	616.5	607.9	524.51 ug/L	524.51 ppb	03:47:49
3	Si 251.611†	71846.3	67747.6	2581.0 ug/L	2581.0 ppb	03:47:29
3	Sn 189.927†	2337.9	2217.7	511.73 ug/L	511.73 ppb	03:47:49
3	Ti 334.940†	298360.1	284538.9	494.80 ug/L	494.80 ppb	03:47:29
3	Tl 190.801†	1347.6	1309.6	520.16 ug/L	520.16 ppb	03:47:49
3	U 409.014†	16316.0	17446.2	514.45 ug/L	514.45 ppb	03:47:29
3	V 292.402†	65668.3	63746.8	517.43 ug/L	517.43 ppb	03:47:29
3	Zn 213.857†	44582.1	41756.3	509.85 ug/L	509.85 ppb	03:47:29
3	SiO2†	72480.0	68332.2	5533.7 ug/L	5533.7 ppb	03:48:05

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	870691.8	103.00	%	2.011				1.95%
Sc Radial	4540.8	99.8	%	4.35				4.36%
Y 371.029	723073.8	101.42	%	1.937				1.91%
Y RADIAL	4866.0	98.96	%	4.197				4.24%
Ag 328.068†	100802.0	522.78	ug/L	14.078	522.78	ppb	14.078	2.69%
QC value within limits for Ag 328.068 Recovery = 104.56%								
Al 396.153Radial†	5244.2	5163.3	ug/L	247.30	5163.3	ppb	247.30	4.79%
QC value within limits for Al 396.153Radial Recovery = 103.27%								
As 188.979†	947.5	538.31	ug/L	6.673	538.31	ppb	6.673	1.24%
QC value within limits for As 188.979 Recovery = 107.66%								
B 249.677†	18507.5	520.79	ug/L	14.415	520.79	ppb	14.415	2.77%
QC value within limits for B 249.677 Recovery = 104.16%								
Ba 233.527†	55520.5	529.10	ug/L	13.125	529.10	ppb	13.125	2.48%
QC value within limits for Ba 233.527 Recovery = 105.82%								
Be 313.107†	1252910.0	536.04	ug/L	9.573	536.04	ppb	9.573	1.79%
QC value within limits for Be 313.107 Recovery = 107.21%								
Ca 317.933Radial†	2786.3	5257.7	ug/L	264.89	5257.7	ppb	264.89	5.04%

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   QC value within limits for Ca 317.933Radial  Recovery = 105.15%
Cd 226.502†            36059.4      529.68 ug/L        11.939      529.68 ppb         11.939   2.25%
   QC value within limits for Cd 226.502  Recovery = 105.94%
Co 228.616†            20380.0      536.63 ug/L        13.017      536.63 ppb         13.017   2.43%
   QC value within limits for Co 228.616  Recovery = 107.33%
Cr 267.716†            38858.1      529.43 ug/L        13.712      529.43 ppb         13.712   2.59%
   QC value within limits for Cr 267.716  Recovery = 105.89%
Cu 324.752†           157824.3      522.84 ug/L        16.045      522.84 ppb         16.045   3.07%
   QC value within limits for Cu 324.752  Recovery = 104.57%
Fe 238.204 Radial†       452.1      5205.2 ug/L       237.34      5205.2 ppb         237.34   4.56%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.10%
K 766.490 Radial†      28427.9      5402.7 ug/L       281.75      5402.7 ppb         281.75   5.21%
   QC value within limits for K 766.490 Radial  Recovery = 108.05%
Mg 279.077 IEC†          132.8      5512.0 ug/L       321.91      5512.0 ppb         321.91   5.84%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 110.24%
Mn 257.610†           397999.6      529.53 ug/L         9.486      529.53 ppb          9.486   1.79%
   QC value within limits for Mn 257.610  Recovery = 105.91%
Mo 202.031†             5777.7      520.39 ug/L        10.139      520.39 ppb         10.139   1.95%
   QC value within limits for Mo 202.031  Recovery = 104.08%
Na 589.592 Radial†     27855.5      9726.3 ug/L       449.68      9726.3 ppb         449.68   4.62%
   QC value within limits for Na 589.592 Radial  Recovery = 97.26%
Ni 231.604†            16587.6      535.61 ug/L        14.232      535.61 ppb         14.232   2.66%
   QC value within limits for Ni 231.604  Recovery = 107.12%
P 214.914†              3462.3      2522.3 ug/L         51.12      2522.3 ppb          51.12   2.03%
   QC value within limits for P 214.914  Recovery = 100.89%
Pb 220.353†             3369.1      528.51 ug/L        11.077      528.51 ppb         11.077   2.10%
   QC value within limits for Pb 220.353  Recovery = 105.70%
S 181.975 Axial†         578.8      1047.8 ug/L         20.72      1047.8 ppb          20.72   1.98%
   QC value within limits for S 181.975 Axial  Recovery = 104.78%
Sb 206.836†             1240.6      547.33 ug/L         6.955      547.33 ppb          6.955   1.27%
   QC value within limits for Sb 206.836  Recovery = 109.47%
Se 196.026†              627.1      540.55 ug/L        14.012      540.55 ppb         14.012   2.59%
   QC value within limits for Se 196.026  Recovery = 108.11%
Si 251.611†            69805.9      2659.5 ug/L         68.24      2659.5 ppb          68.24   2.57%
   QC value within limits for Si 251.611  Recovery = 106.38%
Sn 189.927†             2264.9      522.61 ug/L         9.813      522.61 ppb          9.813   1.88%
   QC value within limits for Sn 189.927  Recovery = 104.52%
Sr 421.552†            63738.8      499.35 ug/L        24.155      499.35 ppb         24.155   4.84%
   QC value within limits for Sr 421.552  Recovery = 99.87%
Ti 334.940†           293879.9      511.03 ug/L        14.068      511.03 ppb         14.068   2.75%
   QC value within limits for Ti 334.940  Recovery = 102.21%
Tl 190.801†             1338.3      531.58 ug/L        11.579      531.58 ppb         11.579   2.18%
   QC value within limits for Tl 190.801  Recovery = 106.32%
U 409.014†             17968.3      529.86 ug/L        13.564      529.86 ppb         13.564   2.56%
   QC value within limits for U 409.014  Recovery = 105.97%
V 292.402†             65825.3      534.25 ug/L        14.585      534.25 ppb         14.585   2.73%
   QC value within limits for V 292.402  Recovery = 106.85%
Zn 213.857†            43033.3      525.46 ug/L        13.558      525.46 ppb         13.558   2.58%
   QC value within limits for Zn 213.857  Recovery = 105.09%
SiO2†                  69454.1      5624.5 ug/L         80.61      5624.5 ppb          80.61   1.43%
   QC value within limits for SiO2  Recovery = 105.18%
QC Failed.  Continue with analysis.
```

Sequence No.: 89
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/23/2010 03:50:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4842.1	4842.1	106	%			03:52:08
1	Y RADIAL	5236.7	5236.7	106.5	%			03:52:08
1	Al 396.153Radial†	-76.7	1.1	1.0820	ug/L	1.0820	ppb	03:52:28
1	Ca 317.933Radial†	31.1	10.9	20.576	ug/L	20.576	ppb	03:52:28
1	Fe 238.204 Radial†	8.5	1.3	15.468	ug/L	15.468	ppb	03:52:28
1	K 766.490 Radial†	2670.2	-0.2	-0.0523	ug/L	-0.0523	ppb	03:52:08
1	Mg 279.077 IEC†	1.7	1.2	51.149	ug/L	51.149	ppb	03:52:28
1	Na 589.592 Radial†	-765.1	-1.5	-0.5302	ug/L	-0.5302	ppb	03:52:08
1	Sr 421.552†	24.7	-14.3	-0.1118	ug/L	-0.1118	ppb	03:52:08
1	Sc 361.383	867087.4	867087.4	102.58	%			03:53:25
1	Y 371.029	731785.5	731785.5	102.64	%			03:53:25
1	Ag 328.068†	142.5	-17.8	-0.0856	ug/L	-0.0856	ppb	03:53:25
1	As 188.979†	-20.2	2.3	1.3252	ug/L	1.3252	ppb	03:53:45
1	B 249.677†	-251.7	202.0	5.7082	ug/L	5.7082	ppb	03:53:45
1	Ba 233.527†	13.4	1.1	0.0122	ug/L	0.0122	ppb	03:53:45
1	Be 313.107†	-4351.8	214.8	0.0916	ug/L	0.0916	ppb	03:53:25
1	Cd 226.502†	-156.3	-3.9	-0.0587	ug/L	-0.0587	ppb	03:53:45
1	Co 228.616†	-46.7	8.1	0.2125	ug/L	0.2125	ppb	03:53:45
1	Cr 267.716†	79.1	6.9	0.0958	ug/L	0.0958	ppb	03:53:45
1	Cu 324.752†	5639.1	-28.6	-0.0940	ug/L	-0.0940	ppb	03:53:25
1	Mn 257.610†	421.7	24.8	0.0324	ug/L	0.0324	ppb	03:53:45
1	Mo 202.031†	12.1	-1.1	-0.0958	ug/L	-0.0958	ppb	03:53:45
1	Ni 231.604†	84.6	9.8	0.3172	ug/L	0.3172	ppb	03:53:45
1	P 214.914†	193.8	-11.7	-8.8793	ug/L	-8.8793	ppb	03:53:45
1	Pb 220.353†	-58.3	-7.9	-1.2405	ug/L	-1.2405	ppb	03:53:45
1	S 181.975 Axial†	31.7	1.0	1.8511	ug/L	1.8511	ppb	03:53:45
1	Sb 206.836†	31.3	5.1	2.1749	ug/L	2.1749	ppb	03:53:45
1	Se 196.026†	-16.2	6.4	5.3446	ug/L	5.3446	ppb	03:53:45
1	Si 251.611†	627.0	92.4	3.5297	ug/L	3.5297	ppb	03:53:45
1	Sn 189.927†	7.4	3.5	0.8070	ug/L	0.8070	ppb	03:53:45
1	Ti 334.940†	-1100.6	-27.4	-0.0493	ug/L	-0.0493	ppb	03:53:25
1	Tl 190.801†	-25.9	3.8	1.5164	ug/L	1.5164	ppb	03:53:45
1	U 409.014†	-1978.3	14.6	0.4287	ug/L	0.4287	ppb	03:53:25
1	V 292.402†	-1330.0	54.1	0.4317	ug/L	0.4317	ppb	03:53:25
1	Zn 213.857†	815.8	191.0	2.3499	ug/L	2.3499	ppb	03:53:45
1	SiO2†	610.8	59.1	4.8037	ug/L	4.8037	ppb	03:54:56
2	Sc Radial	4686.8	4686.8	103	%			03:52:33
2	Y RADIAL	5048.1	5048.1	102.7	%			03:52:33
2	Al 396.153Radial†	-74.9	0.4	0.4209	ug/L	0.4209	ppb	03:52:53
2	Ca 317.933Radial†	27.2	8.1	15.285	ug/L	15.285	ppb	03:52:53
2	Fe 238.204 Radial†	6.0	-0.8	-9.3087	ug/L	-9.3087	ppb	03:52:53
2	K 766.490 Radial†	2656.3	69.4	13.208	ug/L	13.208	ppb	03:52:33
2	Mg 279.077 IEC†	0.8	0.4	17.015	ug/L	17.015	ppb	03:52:53
2	Na 589.592 Radial†	-734.1	4.8	1.6734	ug/L	1.6734	ppb	03:52:33
2	Sr 421.552†	11.1	-26.7	-0.2094	ug/L	-0.2094	ppb	03:52:33
2	Sc 361.383	872598.8	872598.8	103.23	%			03:53:50
2	Y 371.029	737159.1	737159.1	103.40	%			03:53:50
2	Ag 328.068†	231.7	67.7	0.3457	ug/L	0.3457	ppb	03:53:50
2	As 188.979†	-16.9	5.7	3.2177	ug/L	3.2177	ppb	03:54:11
2	B 249.677†	-299.3	157.5	4.4527	ug/L	4.4527	ppb	03:54:11
2	Ba 233.527†	12.2	-0.1	-0.0007	ug/L	-0.0007	ppb	03:54:11
2	Be 313.107†	-4289.4	302.1	0.1292	ug/L	0.1292	ppb	03:53:50
2	Cd 226.502†	-166.4	-12.8	-0.1857	ug/L	-0.1857	ppb	03:54:11
2	Co 228.616†	-49.5	5.7	0.1490	ug/L	0.1490	ppb	03:54:11
2	Cr 267.716†	88.5	15.5	0.2096	ug/L	0.2096	ppb	03:54:11
2	Cu 324.752†	5646.4	-56.2	-0.1880	ug/L	-0.1880	ppb	03:53:50
2	Mn 257.610†	427.6	27.9	0.0355	ug/L	0.0355	ppb	03:54:11
2	Mo 202.031†	9.7	-3.5	-0.3138	ug/L	-0.3138	ppb	03:54:11
2	Ni 231.604†	86.6	11.3	0.3638	ug/L	0.3638	ppb	03:54:11

2	P 214.914†	180.7	-25.7	-19.388 ug/L	-19.388 ppb	03:54:11
2	Pb 220.353†	-56.5	-5.9	-0.9180 ug/L	-0.9180 ppb	03:54:11
2	S 181.975 Axial†	31.0	0.1	0.1615 ug/L	0.1615 ppb	03:54:11
2	Sb 206.836†	32.6	6.2	2.6418 ug/L	2.6418 ppb	03:54:11
2	Se 196.026†	-21.1	1.8	1.4434 ug/L	1.4434 ppb	03:54:11
2	Si 251.611†	627.2	88.8	3.3942 ug/L	3.3942 ppb	03:54:11
2	Sn 189.927†	8.6	4.6	1.0644 ug/L	1.0644 ppb	03:54:11
2	Ti 334.940†	-1012.5	64.7	0.1121 ug/L	0.1121 ppb	03:53:50
2	Tl 190.801†	-27.3	2.7	1.0632 ug/L	1.0632 ppb	03:54:11
2	U 409.014†	-1926.3	77.1	2.2831 ug/L	2.2831 ppb	03:53:50
2	V 292.402†	-1345.8	47.0	0.3781 ug/L	0.3781 ppb	03:53:50
2	Zn 213.857†	816.9	187.1	2.3046 ug/L	2.3046 ppb	03:54:11
2	SiO2†	625.7	69.7	5.6706 ug/L	5.6706 ppb	03:55:16
3	Sc Radial	4698.7	4698.7	103 %		03:52:58
3	Y RADIAL	5080.1	5080.1	103.3 %		03:52:58
3	Al 396.153Radial†	-73.1	2.4	2.3156 ug/L	2.3156 ppb	03:53:19
3	Ca 317.933Radial†	33.1	13.7	25.784 ug/L	25.784 ppb	03:53:19
3	Fe 238.204 Radial†	6.5	-0.3	-3.5556 ug/L	-3.5556 ppb	03:53:19
3	K 766.490 Radial†	2634.3	41.6	7.8977 ug/L	7.8977 ppb	03:52:58
3	Mg 279.077 IEC†	2.2	1.7	72.376 ug/L	72.376 ppb	03:53:19
3	Na 589.592 Radial†	-737.3	3.5	1.2330 ug/L	1.2330 ppb	03:52:58
3	Sr 421.552†	18.7	-19.3	-0.1516 ug/L	-0.1516 ppb	03:52:58
3	Sc 361.383	869956.6	869956.6	102.92 %		03:54:16
3	Y 371.029	734046.0	734046.0	102.96 %		03:54:16
3	Ag 328.068†	162.6	1.3	0.0055 ug/L	0.0055 ppb	03:54:16
3	As 188.979†	-21.2	1.5	0.8538 ug/L	0.8538 ppb	03:54:36
3	B 249.677†	-294.0	161.8	4.5729 ug/L	4.5729 ppb	03:54:36
3	Ba 233.527†	9.3	-2.9	-0.0266 ug/L	-0.0266 ppb	03:54:36
3	Be 313.107†	-4286.0	292.8	0.1251 ug/L	0.1251 ppb	03:54:16
3	Cd 226.502†	-156.5	-3.6	-0.0513 ug/L	-0.0513 ppb	03:54:36
3	Co 228.616†	-41.4	13.4	0.3534 ug/L	0.3534 ppb	03:54:36
3	Cr 267.716†	75.1	2.8	0.0374 ug/L	0.0374 ppb	03:54:36
3	Cu 324.752†	5660.7	-25.7	-0.0863 ug/L	-0.0863 ppb	03:54:16
3	Mn 257.610†	417.6	19.4	0.0225 ug/L	0.0225 ppb	03:54:36
3	Mo 202.031†	17.7	4.3	0.3867 ug/L	0.3867 ppb	03:54:36
3	Ni 231.604†	84.6	9.6	0.3101 ug/L	0.3101 ppb	03:54:36
3	P 214.914†	182.5	-23.3	-17.636 ug/L	-17.636 ppb	03:54:36
3	Pb 220.353†	-56.6	-6.1	-0.9564 ug/L	-0.9564 ppb	03:54:36
3	S 181.975 Axial†	29.1	-1.6	-2.9473 ug/L	-2.9473 ppb	03:54:36
3	Sb 206.836†	39.5	12.9	5.5204 ug/L	5.5204 ppb	03:54:36
3	Se 196.026†	-13.0	9.6	7.9512 ug/L	7.9512 ppb	03:54:36
3	Si 251.611†	602.8	66.9	2.5496 ug/L	2.5496 ppb	03:54:36
3	Sn 189.927†	9.0	5.0	1.1563 ug/L	1.1563 ppb	03:54:36
3	Ti 334.940†	-1050.7	24.6	0.0394 ug/L	0.0394 ppb	03:54:16
3	Tl 190.801†	-25.5	4.3	1.6834 ug/L	1.6834 ppb	03:54:36
3	U 409.014†	-1931.2	66.7	1.9744 ug/L	1.9744 ppb	03:54:16
3	V 292.402†	-1325.5	62.8	0.5138 ug/L	0.5138 ppb	03:54:16
3	Zn 213.857†	816.0	188.6	2.3228 ug/L	2.3228 ppb	03:54:36
3	SiO2†	639.3	84.9	6.8787 ug/L	6.8787 ppb	03:55:36

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	869880.9	102.91	%	0.326				0.32%
Sc Radial	4742.5	104	%	1.9				1.82%
Y 371.029	734330.2	103.00	%	0.378				0.37%
Y RADIAL	5121.6	104.2	%	2.05				1.97%
Ag 328.068†	17.1	0.0885	ug/L	0.22733	0.0885	ppb	0.22733	256.75%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.3	1.2728	ug/L	0.96167	1.2728	ppb	0.96167	75.55%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.2	1.7989	ug/L	1.25113	1.7989	ppb	1.25113	69.55%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	173.8	4.9113	ug/L	0.69280	4.9113	ppb	0.69280	14.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.6	-0.0050	ug/L	0.01977	-0.0050	ppb	0.01977	391.83%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	269.9	0.1153	ug/L	0.02062	0.1153	ppb	0.02062	17.89%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	10.9	20.548	ug/L	5.2495	20.548	ppb	5.2495	25.55%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -6.7     -0.0986 ug/L       0.07558     -0.0986 ppb        0.07558  76.68%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               9.1      0.2383 ug/L       0.10462      0.2383 ppb        0.10462  43.90%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               8.4      0.1143 ug/L       0.08757      0.1143 ppb        0.08757  76.62%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -36.8     -0.1228 ug/L       0.05663     -0.1228 ppb        0.05663  46.12%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.1      0.8680 ug/L      12.96728      0.8680 ppb       12.96728 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        36.9      7.0178 ug/L       6.67371      7.0178 ppb        6.67371  95.10%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.1     46.847 ug/L      27.9300      46.847 ppb        27.9300  59.62%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              24.1      0.0302 ug/L       0.00679      0.0302 ppb        0.00679  22.50%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -0.1     -0.0076 ug/L       0.35847     -0.0076 ppb        0.35847 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        2.3      0.7921 ug/L       1.16607      0.7921 ppb        1.16607 147.22%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              10.2      0.3304 ug/L       0.02917      0.3304 ppb        0.02917   8.83%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -20.2    -15.301 ug/L        5.6299    -15.301 ppb         5.6299  36.79%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -6.6     -1.0383 ug/L       0.17615     -1.0383 ppb        0.17615  16.97%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -0.2     -0.3116 ug/L       2.43392     -0.3116 ppb        2.43392 781.14%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               8.0      3.4457 ug/L       1.81186      3.4457 ppb        1.81186  52.58%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               5.9      4.9130 ug/L       3.27526      4.9130 ppb        3.27526  66.66%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              82.7      3.1578 ug/L       0.53110      3.1578 ppb        0.53110  16.82%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.4      1.0092 ug/L       0.18108      1.0092 ppb        0.18108  17.94%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -20.1     -0.1576 ug/L       0.04904     -0.1576 ppb        0.04904  31.12%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              20.6      0.0341 ug/L       0.08082      0.0341 ppb        0.08082 237.03%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               3.6      1.4210 ug/L       0.32092      1.4210 ppb        0.32092  22.58%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               52.8      1.5621 ug/L       0.99360      1.5621 ppb        0.99360  63.61%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               54.6      0.4412 ug/L       0.06831      0.4412 ppb        0.06831  15.48%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             188.9      2.3258 ug/L       0.02282      2.3258 ppb        0.02282   0.98%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    71.2      5.7844 ug/L       1.04220      5.7844 ppb        1.04220  18.02%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

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3/24/2010 05:37:20 Hg ReAlign... Actual peak offset (nm): -0.009
Drift (nm): 0.000 Slit adjustment: -2

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Analysis Begun

Start Time: 3/24/2010 05:49:58 **Plasma On Time: 3/22/2010 06:16:18**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\032410.sif
Batch ID:
Results Data Set: 032410
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 3/23/2010 16:41:09**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 3/24/2010 05:49:59**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

	Net	Corrected	Calib.	Analysis

Repl#	Analyte	Intensity	Intensity	Conc.	Units	Time
1	Sc Radial	4252.5	4252.5	100	%	05:52:12
1	Y RADIAL	4790.6	4790.6	99.93	%	05:51:52
1	Al 396.153Radial†	-69.7	-69.7	[0.00]	ug/L	05:52:12
1	Ca 317.933Radial†	15.2	15.2	[0.00]	ug/L	05:52:12
1	Fe 238.204 Radial†	4.5	4.5	[0.00]	ug/L	05:52:12
1	K 766.490 Radial†	2710.0	2709.1	[0.00]	ug/L	05:51:52
1	Mg 279.077 IEC†	-1.6	-1.6	[0.00]	ug/L	05:52:12
1	Na 589.592 Radial†	-892.5	-892.1	[0.00]	ug/L	05:51:52
1	Sr 421.552†	40.2	40.2	[0.00]	ug/L	05:51:52
1	Sc 361.383	882708.2	882708.2	100.16	%	05:53:09
1	Y 371.029	749970.0	749970.0	100.16	%	05:53:09
1	Ag 328.068†	268.0	267.6	[0.00]	ug/L	05:53:14
1	As 188.979†	-19.3	-19.2	[0.00]	ug/L	05:53:34
1	B 249.677†	-359.6	-359.1	[0.00]	ug/L	05:53:34
1	Ba 233.527†	12.4	12.4	[0.00]	ug/L	05:53:34
1	Be 313.107†	-4280.2	-4273.6	[0.00]	ug/L	05:53:14
1	Cd 226.502†	-175.8	-175.6	[0.00]	ug/L	05:53:34
1	Co 228.616†	-52.5	-52.4	[0.00]	ug/L	05:53:34
1	Cr 267.716†	64.8	64.7	[0.00]	ug/L	05:53:34
1	Cu 324.752†	6340.0	6330.2	[0.00]	ug/L	05:53:14
1	Mn 257.610†	456.6	455.9	[0.00]	ug/L	05:53:34
1	Mo 202.031†	20.8	20.7	[0.00]	ug/L	05:53:34
1	Ni 231.604†	90.0	89.9	[0.00]	ug/L	05:53:34
1	P 214.914†	181.3	181.0	[0.00]	ug/L	05:53:34
1	Pb 220.353†	-46.8	-46.7	[0.00]	ug/L	05:53:34
1	S 181.975 Axial†	14.5	14.5	[0.00]	ug/L	05:53:34
1	Sb 206.836†	28.1	28.1	[0.00]	ug/L	05:53:34
1	Se 196.026†	-18.3	-18.3	[0.00]	ug/L	05:53:34
1	Si 251.611†	559.7	558.8	[0.00]	ug/L	05:53:34
1	Sn 189.927†	8.3	8.3	[0.00]	ug/L	05:53:34
1	Ti 334.940†	-1077.1	-1075.5	[0.00]	ug/L	05:53:14
1	Tl 190.801†	-30.6	-30.5	[0.00]	ug/L	05:53:34
1	U 409.014†	-1863.7	-1860.9	[0.00]	ug/L	05:53:09
1	V 292.402†	-1374.7	-1372.6	[0.00]	ug/L	05:53:14
1	Zn 213.857†	625.9	625.0	[0.00]	ug/L	05:53:34
1	SiO2†	594.9	594.0	[0.00]	ug/L	05:54:55
2	Sc Radial	4261.3	4261.3	100	%	05:52:37
2	Y RADIAL	4813.3	4813.3	100.4	%	05:52:17
2	Al 396.153Radial†	-79.7	-79.5	[0.00]	ug/L	05:52:37
2	Ca 317.933Radial†	22.5	22.4	[0.00]	ug/L	05:52:37
2	Fe 238.204 Radial†	7.9	7.9	[0.00]	ug/L	05:52:37
2	K 766.490 Radial†	2701.4	2694.8	[0.00]	ug/L	05:52:17
2	Mg 279.077 IEC†	1.4	1.4	[0.00]	ug/L	05:52:37
2	Na 589.592 Radial†	-856.8	-854.7	[0.00]	ug/L	05:52:17
2	Sr 421.552†	37.1	37.0	[0.00]	ug/L	05:52:17
2	Sc 361.383	873963.5	873963.5	99.163	%	05:53:39
2	Y 371.029	743300.5	743300.5	99.268	%	05:53:39
2	Ag 328.068†	275.0	277.3	[0.00]	ug/L	05:53:44
2	As 188.979†	-19.9	-20.1	[0.00]	ug/L	05:54:04
2	B 249.677†	-393.8	-397.1	[0.00]	ug/L	05:54:04
2	Ba 233.527†	19.5	19.7	[0.00]	ug/L	05:54:04
2	Be 313.107†	-4262.4	-4298.4	[0.00]	ug/L	05:53:44
2	Cd 226.502†	-177.6	-179.1	[0.00]	ug/L	05:54:04
2	Co 228.616†	-45.0	-45.4	[0.00]	ug/L	05:54:04
2	Cr 267.716†	68.2	68.8	[0.00]	ug/L	05:54:04
2	Cu 324.752†	6283.5	6336.6	[0.00]	ug/L	05:53:44
2	Mn 257.610†	480.9	485.0	[0.00]	ug/L	05:54:04
2	Mo 202.031†	11.1	11.2	[0.00]	ug/L	05:54:04
2	Ni 231.604†	104.3	105.2	[0.00]	ug/L	05:54:04
2	P 214.914†	179.6	181.1	[0.00]	ug/L	05:54:04
2	Pb 220.353†	-49.6	-50.1	[0.00]	ug/L	05:54:04
2	S 181.975 Axial†	30.5	30.8	[0.00]	ug/L	05:54:04
2	Sb 206.836†	28.2	28.4	[0.00]	ug/L	05:54:04
2	Se 196.026†	-14.1	-14.2	[0.00]	ug/L	05:54:04
2	Si 251.611†	578.0	582.9	[0.00]	ug/L	05:54:04
2	Sn 189.927†	10.6	10.7	[0.00]	ug/L	05:54:04
2	Ti 334.940†	-1091.1	-1100.3	[0.00]	ug/L	05:53:44
2	Tl 190.801†	-27.3	-27.5	[0.00]	ug/L	05:54:04
2	U 409.014†	-1891.0	-1906.9	[0.00]	ug/L	05:53:39
2	V 292.402†	-1370.7	-1382.3	[0.00]	ug/L	05:53:44

2	Zn 213.857†	629.1	634.4	[0.00]	ug/L	05:54:04
2	SiO2†	594.5	599.5	[0.00]	ug/L	05:55:15
3	Sc Radial	4239.1	4239.1	99.7	%	05:53:02
3	Y RADIAL	4777.9	4777.9	99.66	%	05:52:42
3	Al 396.153Radial†	-75.5	-75.7	[0.00]	ug/L	05:53:02
3	Ca 317.933Radial†	13.7	13.8	[0.00]	ug/L	05:53:02
3	Fe 238.204 Radial†	6.0	6.0	[0.00]	ug/L	05:53:02
3	K 766.490 Radial†	2711.5	2719.1	[0.00]	ug/L	05:52:42
3	Mg 279.077 IEC†	2.1	2.1	[0.00]	ug/L	05:53:02
3	Na 589.592 Radial†	-861.2	-863.6	[0.00]	ug/L	05:52:42
3	Sr 421.552†	-17.3	-17.4	[0.00]	ug/L	05:52:42
3	Sc 361.383	887349.2	887349.2	100.68	%	05:54:09
3	Y 371.029	753075.0	753075.0	100.57	%	05:54:09
3	Ag 328.068†	235.3	233.7	[0.00]	ug/L	05:54:14
3	As 188.979†	-22.7	-22.5	[0.00]	ug/L	05:54:34
3	B 249.677†	-411.0	-408.3	[0.00]	ug/L	05:54:34
3	Ba 233.527†	-1.8	-1.8	[0.00]	ug/L	05:54:34
3	Be 313.107†	-4305.5	-4276.3	[0.00]	ug/L	05:54:14
3	Cd 226.502†	-162.0	-160.9	[0.00]	ug/L	05:54:34
3	Co 228.616†	-42.7	-42.4	[0.00]	ug/L	05:54:34
3	Cr 267.716†	71.4	70.9	[0.00]	ug/L	05:54:34
3	Cu 324.752†	6360.5	6317.4	[0.00]	ug/L	05:54:14
3	Mn 257.610†	451.3	448.2	[0.00]	ug/L	05:54:34
3	Mo 202.031†	9.7	9.7	[0.00]	ug/L	05:54:34
3	Ni 231.604†	92.1	91.5	[0.00]	ug/L	05:54:34
3	P 214.914†	173.9	172.8	[0.00]	ug/L	05:54:34
3	Pb 220.353†	-53.8	-53.4	[0.00]	ug/L	05:54:34
3	S 181.975 Axial†	24.6	24.4	[0.00]	ug/L	05:54:34
3	Sb 206.836†	26.2	26.0	[0.00]	ug/L	05:54:34
3	Se 196.026†	-17.7	-17.6	[0.00]	ug/L	05:54:34
3	Si 251.611†	568.8	565.0	[0.00]	ug/L	05:54:34
3	Sn 189.927†	1.8	1.8	[0.00]	ug/L	05:54:34
3	Ti 334.940†	-986.8	-980.1	[0.00]	ug/L	05:54:14
3	Tl 190.801†	-43.5	-43.2	[0.00]	ug/L	05:54:34
3	U 409.014†	-1910.3	-1897.4	[0.00]	ug/L	05:54:09
3	V 292.402†	-1373.2	-1363.9	[0.00]	ug/L	05:54:14
3	Zn 213.857†	619.3	615.1	[0.00]	ug/L	05:54:34
3	SiO2†	592.7	588.6	[0.00]	ug/L	05:55:35

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	881340.3	6796.86	0.77%	100.00	%
Sc Radial	4251.0	11.17	0.26%	100	%
Y 371.029	748781.8	4994.41	0.67%	100.00	%
Y RADIAL	4793.9	17.95	0.37%	100.0	%
Ag 328.068†	259.5	22.91	8.83%	[0.00]	ug/L
Al 396.153Radial†	-75.0	4.92	6.56%	[0.00]	ug/L
As 188.979†	-20.6	1.71	8.31%	[0.00]	ug/L
B 249.677†	-388.1	25.80	6.65%	[0.00]	ug/L
Ba 233.527†	10.1	10.92	108.44%	[0.00]	ug/L
Be 313.107†	-4282.8	13.58	0.32%	[0.00]	ug/L
Ca 317.933Radial†	17.1	4.65	27.14%	[0.00]	ug/L
Cd 226.502†	-171.9	9.64	5.61%	[0.00]	ug/L
Co 228.616†	-46.7	5.13	10.98%	[0.00]	ug/L
Cr 267.716†	68.2	3.16	4.63%	[0.00]	ug/L
Cu 324.752†	6328.0	9.75	0.15%	[0.00]	ug/L
Fe 238.204 Radial†	6.2	1.70	27.67%	[0.00]	ug/L
K 766.490 Radial†	2707.6	12.20	0.45%	[0.00]	ug/L
Mg 279.077 IEC†	0.6	1.95	308.99%	[0.00]	ug/L
Mn 257.610†	463.0	19.39	4.19%	[0.00]	ug/L
Mo 202.031†	13.9	6.00	43.32%	[0.00]	ug/L
Na 589.592 Radial†	-870.2	19.55	2.25%	[0.00]	ug/L
Ni 231.604†	95.5	8.39	8.79%	[0.00]	ug/L
P 214.914†	178.3	4.79	2.69%	[0.00]	ug/L
Pb 220.353†	-50.1	3.34	6.67%	[0.00]	ug/L
S 181.975 Axial†	23.2	8.19	35.25%	[0.00]	ug/L
Sb 206.836†	27.5	1.29	4.70%	[0.00]	ug/L
Se 196.026†	-16.7	2.20	13.18%	[0.00]	ug/L
Si 251.611†	568.9	12.48	2.19%	[0.00]	ug/L

Sn 189.927†	6.9	4.60	66.54%	[0.00] ug/L
Sr 421.552†	19.9	32.34	162.19%	[0.00] ug/L
Ti 334.940†	-1052.0	63.44	6.03%	[0.00] ug/L
Tl 190.801†	-33.8	8.31	24.62%	[0.00] ug/L
U 409.014†	-1888.4	24.32	1.29%	[0.00] ug/L
V 292.402†	-1372.9	9.18	0.67%	[0.00] ug/L
Zn 213.857†	624.8	9.62	1.54%	[0.00] ug/L
SiO2†	594.1	5.45	0.92%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 3/24/2010 05:57:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4427.0	4427.0	104	%	05:59:43
1	Y RADIAL	4817.8	4817.8	100.5	%	05:59:43
1	K 766.490 Radial†	8099.1	5069.3	[1000]	ug/L	05:59:38
1	Sr 421.552†	12389.1	11876.4	[100]	ug/L	05:59:43
1	Sc 361.383	854710.3	854710.3	96.978	%	06:00:10
1	Y 371.029	727166.5	727166.5	97.113	%	06:00:10
1	Ag 328.068†	20772.6	21160.3	[100]	ug/L	06:00:10
1	As 188.979†	165.3	191.1	[100]	ug/L	06:00:30
1	B 249.677†	3241.1	3730.3	[100]	ug/L	06:00:10
1	Ba 233.527†	11243.1	11583.3	[100]	ug/L	06:00:10
1	Be 313.107†	249135.5	261180.5	[100]	ug/L	06:00:10
1	Cd 226.502†	7019.4	7410.0	[100]	ug/L	06:00:30
1	Co 228.616†	4006.4	4177.9	[100]	ug/L	06:00:30
1	Cr 267.716†	7990.7	8171.5	[100]	ug/L	06:00:10
1	Cu 324.752†	38050.4	32907.9	[100]	ug/L	06:00:10
1	Mn 257.610†	81074.5	83137.5	[100]	ug/L	06:00:10
1	Mo 202.031†	1205.7	1229.4	[100]	ug/L	06:00:30
1	Ni 231.604†	3449.9	3461.9	[100]	ug/L	06:00:30
1	P 214.914†	884.2	733.5	[500]	ug/L	06:00:30
1	Pb 220.353†	628.8	698.4	[100]	ug/L	06:00:30
1	S 181.975 Axial†	145.5	126.8	[200]	ug/L	06:00:30
1	Sb 206.836†	271.0	251.9	[100]	ug/L	06:00:30
1	Se 196.026†	105.0	125.0	[100]	ug/L	06:00:30
1	Si 251.611†	14333.7	14211.4	[500]	ug/L	06:00:10
1	Sn 189.927†	461.4	468.9	[100]	ug/L	06:00:30
1	Ti 334.940†	59296.5	62196.0	[100]	ug/L	06:00:10
1	Tl 190.801†	253.2	294.8	[100]	ug/L	06:00:30
1	U 409.014†	1505.4	3440.7	[100]	ug/L	06:00:10
1	V 292.402†	11827.7	13569.2	[100]	ug/L	06:00:10
1	Zn 213.857†	9639.5	9315.0	[100]	ug/L	06:00:10
1	SiO2†	14535.4	14394.2	[1069.5]	ug/L	06:01:27
2	Sc Radial	4444.9	4444.9	105	%	05:59:53
2	Y RADIAL	4843.5	4843.5	101.0	%	05:59:53
2	K 766.490 Radial†	7986.0	4930.0	[1000]	ug/L	05:59:48
2	Sr 421.552†	12425.8	11863.8	[100]	ug/L	05:59:53
2	Sc 361.383	858671.2	858671.2	97.428	%	06:00:36
2	Y 371.029	730837.4	730837.4	97.604	%	06:00:36
2	Ag 328.068†	20921.3	21214.1	[100]	ug/L	06:00:36
2	As 188.979†	166.1	191.1	[100]	ug/L	06:00:56
2	B 249.677†	3271.3	3745.8	[100]	ug/L	06:00:36
2	Ba 233.527†	11280.7	11568.4	[100]	ug/L	06:00:36
2	Be 313.107†	251357.0	262275.6	[100]	ug/L	06:00:36
2	Cd 226.502†	7001.6	7358.4	[100]	ug/L	06:00:56
2	Co 228.616†	4018.2	4171.1	[100]	ug/L	06:00:56
2	Cr 267.716†	8109.0	8254.9	[100]	ug/L	06:00:36
2	Cu 324.752†	38338.3	33022.4	[100]	ug/L	06:00:36
2	Mn 257.610†	81483.9	83172.1	[100]	ug/L	06:00:36
2	Mo 202.031†	1204.3	1222.2	[100]	ug/L	06:00:56
2	Ni 231.604†	3429.7	3424.7	[100]	ug/L	06:00:56
2	P 214.914†	893.9	739.2	[500]	ug/L	06:00:56
2	Pb 220.353†	641.2	708.2	[100]	ug/L	06:00:56
2	S 181.975 Axial†	147.5	128.1	[200]	ug/L	06:00:56
2	Sb 206.836†	269.3	248.9	[100]	ug/L	06:00:56
2	Se 196.026†	107.8	127.3	[100]	ug/L	06:00:56
2	Si 251.611†	14350.2	14160.2	[500]	ug/L	06:00:36
2	Sn 189.927†	458.7	463.9	[100]	ug/L	06:00:56
2	Ti 334.940†	59850.6	62482.7	[100]	ug/L	06:00:36
2	Tl 190.801†	241.9	282.1	[100]	ug/L	06:00:56
2	U 409.014†	1665.7	3598.0	[100]	ug/L	06:00:36

2	V 292.402†	11975.6	13664.7	[100]	ug/L	06:00:36
2	Zn 213.857†	9762.1	9395.0	[100]	ug/L	06:00:36
2	SiO2†	14293.8	14077.2	[1069.5]	ug/L	06:01:32
3	Sc Radial	4465.1	4465.1	105	%	06:00:03
3	Y RADIAL	4864.2	4864.2	101.5	%	06:00:03
3	K 766.490 Radial†	8070.8	4976.2	[1000]	ug/L	05:59:58
3	Sr 421.552†	12480.3	11861.9	[100]	ug/L	06:00:03
3	Sc 361.383	860963.9	860963.9	97.688	%	06:01:01
3	Y 371.029	733282.7	733282.7	97.930	%	06:01:01
3	Ag 328.068†	21081.6	21321.0	[100]	ug/L	06:01:01
3	As 188.979†	170.5	195.2	[100]	ug/L	06:01:21
3	B 249.677†	3284.0	3749.9	[100]	ug/L	06:01:01
3	Ba 233.527†	11288.3	11545.4	[100]	ug/L	06:01:01
3	Be 313.107†	251515.3	261750.7	[100]	ug/L	06:01:01
3	Cd 226.502†	7009.2	7346.9	[100]	ug/L	06:01:21
3	Co 228.616†	4010.9	4152.6	[100]	ug/L	06:01:21
3	Cr 267.716†	8102.0	8225.6	[100]	ug/L	06:01:01
3	Cu 324.752†	38451.6	33033.6	[100]	ug/L	06:01:01
3	Mn 257.610†	81738.0	83209.5	[100]	ug/L	06:01:01
3	Mo 202.031†	1193.3	1207.7	[100]	ug/L	06:01:21
3	Ni 231.604†	3405.6	3390.6	[100]	ug/L	06:01:21
3	P 214.914†	880.0	722.5	[500]	ug/L	06:01:21
3	Pb 220.353†	634.6	699.7	[100]	ug/L	06:01:21
3	S 181.975 Axial†	155.5	135.9	[200]	ug/L	06:01:21
3	Sb 206.836†	272.0	251.0	[100]	ug/L	06:01:21
3	Se 196.026†	112.7	132.0	[100]	ug/L	06:01:21
3	Si 251.611†	14432.4	14205.1	[500]	ug/L	06:01:01
3	Sn 189.927†	465.9	470.0	[100]	ug/L	06:01:21
3	Ti 334.940†	60103.9	62578.3	[100]	ug/L	06:01:01
3	Tl 190.801†	238.4	277.8	[100]	ug/L	06:01:21
3	U 409.014†	1752.6	3682.5	[100]	ug/L	06:01:01
3	V 292.402†	11933.6	13589.0	[100]	ug/L	06:01:01
3	Zn 213.857†	9723.0	9328.3	[100]	ug/L	06:01:01
3	SiO2†	14339.9	14085.3	[1069.5]	ug/L	06:01:37

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	858115.1	3163.70	0.37%	97.365	%
Sc Radial	4445.7	19.04	0.43%	105	%
Y 371.029	730428.9	3078.50	0.42%	97.549	%
Y RADIAL	4841.8	23.25	0.48%	101.0	%
Ag 328.068†	21231.8	81.81	0.39%	[100]	ug/L
As 188.979†	192.5	2.36	1.23%	[100]	ug/L
B 249.677†	3742.0	10.34	0.28%	[100]	ug/L
Ba 233.527†	11565.7	19.09	0.17%	[100]	ug/L
Be 313.107†	261735.6	547.71	0.21%	[100]	ug/L
Cd 226.502†	7371.7	33.59	0.46%	[100]	ug/L
Co 228.616†	4167.2	13.11	0.31%	[100]	ug/L
Cr 267.716†	8217.3	42.29	0.51%	[100]	ug/L
Cu 324.752†	32988.0	69.57	0.21%	[100]	ug/L
K 766.490 Radial†	4991.8	70.95	1.42%	[1000]	ug/L
Mn 257.610†	83173.0	35.99	0.04%	[100]	ug/L
Mo 202.031†	1219.8	11.06	0.91%	[100]	ug/L
Ni 231.604†	3425.7	35.61	1.04%	[100]	ug/L
P 214.914†	731.7	8.48	1.16%	[500]	ug/L
Pb 220.353†	702.1	5.30	0.76%	[100]	ug/L
S 181.975 Axial†	130.3	4.91	3.77%	[200]	ug/L
Sb 206.836†	250.6	1.52	0.60%	[100]	ug/L
Se 196.026†	128.1	3.59	2.80%	[100]	ug/L
Si 251.611†	14192.2	27.95	0.20%	[500]	ug/L
Sn 189.927†	467.6	3.25	0.70%	[100]	ug/L
Sr 421.552†	11867.4	7.88	0.07%	[100]	ug/L
Ti 334.940†	62419.0	198.94	0.32%	[100]	ug/L
Tl 190.801†	284.9	8.85	3.11%	[100]	ug/L
U 409.014†	3573.7	122.71	3.43%	[100]	ug/L
V 292.402†	13607.6	50.44	0.37%	[100]	ug/L
Zn 213.857†	9346.1	42.85	0.46%	[100]	ug/L
SiO2†	14185.6	180.78	1.27%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 3/24/2010 06:03:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4390.5	4390.5	103	%	06:05:39
1	Y RADIAL	4755.9	4755.9	99.21	%	06:05:39
1	Al 396.153Radial†	4966.4	4883.5	[5000]	ug/L	06:05:39
1	Ca 317.933Radial†	2674.2	2572.1	[5000]	ug/L	06:05:59
1	K 766.490 Radial†	29121.7	25488.8	[5000]	ug/L	06:05:39
1	Mg 279.077 IEC†	126.5	121.8	[5000]	ug/L	06:05:59
1	Sr 421.552†	61660.6	59681.6	[500]	ug/L	06:05:39
1	Sc 361.383	875200.8	875200.8	99.303	%	06:06:57
1	Y 371.029	734669.4	734669.4	98.115	%	06:06:57
1	Ag 328.068†	103753.6	104221.9	[500]	ug/L	06:07:02
1	As 188.979†	941.9	969.2	[500]	ug/L	06:07:22
1	B 249.677†	18217.6	18733.5	[500]	ug/L	06:07:02
1	Ba 233.527†	55215.1	55592.4	[500]	ug/L	06:07:02
1	Be 313.107†	1264540.3	1277693.8	[500]	ug/L	06:06:57
1	Cd 226.502†	36186.1	36611.8	[500]	ug/L	06:07:02
1	Co 228.616†	20174.4	20362.7	[500]	ug/L	06:07:02
1	Cr 267.716†	39460.7	39669.4	[500]	ug/L	06:07:02
1	Cu 324.752†	165014.9	159844.4	[500]	ug/L	06:07:02
1	Mn 257.610†	394767.2	397073.5	[500]	ug/L	06:06:57
1	Mo 202.031†	5883.2	5910.6	[500]	ug/L	06:07:22
1	Ni 231.604†	16835.0	16857.6	[500]	ug/L	06:07:02
1	P 214.914†	3670.7	3518.2	[2500]	ug/L	06:07:22
1	Pb 220.353†	3335.7	3409.2	[500]	ug/L	06:07:22
1	S 181.975 Axial†	625.4	606.6	[1000]	ug/L	06:07:22
1	Sb 206.836†	1245.4	1226.6	[500]	ug/L	06:07:22
1	Se 196.026†	623.1	644.1	[500]	ug/L	06:07:22
1	Si 251.611†	70254.5	70178.5	[2500]	ug/L	06:07:02
1	Sn 189.927†	2300.4	2309.7	[500]	ug/L	06:07:22
1	Ti 334.940†	297637.6	300777.5	[500]	ug/L	06:07:02
1	Tl 190.801†	1304.4	1347.3	[500]	ug/L	06:07:22
1	U 409.014†	16045.3	18046.2	[500]	ug/L	06:07:02
1	V 292.402†	65159.5	66989.5	[500]	ug/L	06:07:02
1	Zn 213.857†	44420.5	44107.3	[500]	ug/L	06:07:02
1	SiO2†	70323.4	70222.7	[5347.5]	ug/L	06:08:29
2	Sc Radial	4348.5	4348.5	102	%	06:06:04
2	Y RADIAL	4717.9	4717.9	98.41	%	06:06:04
2	Al 396.153Radial†	4963.5	4927.1	[5000]	ug/L	06:06:04
2	Ca 317.933Radial†	2687.6	2610.2	[5000]	ug/L	06:06:24
2	K 766.490 Radial†	29115.4	25754.9	[5000]	ug/L	06:06:04
2	Mg 279.077 IEC†	125.9	122.4	[5000]	ug/L	06:06:24
2	Sr 421.552†	61328.1	59933.1	[500]	ug/L	06:06:04
2	Sc 361.383	884215.6	884215.6	100.33	%	06:07:28
2	Y 371.029	741878.0	741878.0	99.078	%	06:07:28
2	Ag 328.068†	104388.7	103789.8	[500]	ug/L	06:07:33
2	As 188.979†	937.5	955.1	[500]	ug/L	06:07:53
2	B 249.677†	18432.2	18760.4	[500]	ug/L	06:07:33
2	Ba 233.527†	55838.9	55647.3	[500]	ug/L	06:07:33
2	Be 313.107†	1280217.3	1280337.1	[500]	ug/L	06:07:28
2	Cd 226.502†	36508.1	36561.2	[500]	ug/L	06:07:33
2	Co 228.616†	20366.7	20347.2	[500]	ug/L	06:07:33
2	Cr 267.716†	39996.6	39798.4	[500]	ug/L	06:07:33
2	Cu 324.752†	166528.5	159659.0	[500]	ug/L	06:07:33
2	Mn 257.610†	399460.9	397698.9	[500]	ug/L	06:07:28
2	Mo 202.031†	5928.7	5895.5	[500]	ug/L	06:07:53
2	Ni 231.604†	17007.5	16856.7	[500]	ug/L	06:07:33
2	P 214.914†	3690.5	3500.2	[2500]	ug/L	06:07:53
2	Pb 220.353†	3336.1	3375.3	[500]	ug/L	06:07:53
2	S 181.975 Axial†	619.2	593.9	[1000]	ug/L	06:07:53
2	Sb 206.836†	1267.5	1235.9	[500]	ug/L	06:07:53

2	Se 196.026†	637.6	652.2	[500]	ug/L	06:07:53
2	Si 251.611†	70952.9	70153.2	[2500]	ug/L	06:07:33
2	Sn 189.927†	2316.0	2301.5	[500]	ug/L	06:07:53
2	Ti 334.940†	300414.6	300489.7	[500]	ug/L	06:07:33
2	Tl 190.801†	1306.7	1336.2	[500]	ug/L	06:07:53
2	U 409.014†	16201.8	18037.5	[500]	ug/L	06:07:33
2	V 292.402†	65938.4	67096.9	[500]	ug/L	06:07:33
2	Zn 213.857†	44793.8	44023.3	[500]	ug/L	06:07:33
2	SiO2†	69881.7	69060.4	[5347.5]	ug/L	06:08:34
3	Sc Radial	4366.5	4366.5	103	%	06:06:29
3	Y RADIAL	4738.2	4738.2	98.84	%	06:06:29
3	Al 396.153Radial†	4967.9	4911.5	[5000]	ug/L	06:06:29
3	Ca 317.933Radial†	2684.0	2595.9	[5000]	ug/L	06:06:49
3	K 766.490 Radial†	29169.7	25690.6	[5000]	ug/L	06:06:29
3	Mg 279.077 IEC†	130.0	125.9	[5000]	ug/L	06:06:49
3	Sr 421.552†	61513.1	59866.3	[500]	ug/L	06:06:29
3	Sc 361.383	873178.9	873178.9	99.074	%	06:07:59
3	Y 371.029	731862.7	731862.7	97.740	%	06:07:59
3	Ag 328.068†	104277.4	104992.5	[500]	ug/L	06:08:04
3	As 188.979†	951.6	981.1	[500]	ug/L	06:08:24
3	B 249.677†	18371.2	18931.1	[500]	ug/L	06:08:04
3	Ba 233.527†	55636.7	56146.7	[500]	ug/L	06:08:04
3	Be 313.107†	1262299.5	1278380.7	[500]	ug/L	06:07:59
3	Cd 226.502†	36354.6	36866.3	[500]	ug/L	06:08:04
3	Co 228.616†	20344.8	20581.7	[500]	ug/L	06:08:04
3	Cr 267.716†	39729.3	40032.5	[500]	ug/L	06:08:04
3	Cu 324.752†	166120.8	161345.5	[500]	ug/L	06:08:04
3	Mn 257.610†	395269.0	398500.5	[500]	ug/L	06:07:59
3	Mo 202.031†	5962.7	6004.6	[500]	ug/L	06:08:24
3	Ni 231.604†	16913.9	16976.5	[500]	ug/L	06:08:04
3	P 214.914†	3727.2	3583.8	[2500]	ug/L	06:08:24
3	Pb 220.353†	3358.9	3440.4	[500]	ug/L	06:08:24
3	S 181.975 Axial†	625.2	607.8	[1000]	ug/L	06:08:24
3	Sb 206.836†	1266.8	1251.2	[500]	ug/L	06:08:24
3	Se 196.026†	631.6	654.2	[500]	ug/L	06:08:24
3	Si 251.611†	70763.2	70855.7	[2500]	ug/L	06:08:04
3	Sn 189.927†	2327.6	2342.4	[500]	ug/L	06:08:24
3	Ti 334.940†	299322.6	303172.3	[500]	ug/L	06:08:04
3	Tl 190.801†	1325.5	1371.7	[500]	ug/L	06:08:24
3	U 409.014†	16183.4	18223.1	[500]	ug/L	06:08:04
3	V 292.402†	65536.5	67522.0	[500]	ug/L	06:08:04
3	Zn 213.857†	44634.9	44427.3	[500]	ug/L	06:08:04
3	SiO2†	70312.9	70376.1	[5347.5]	ug/L	06:08:39

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	877531.7	5875.98	0.67%	99.568	%
Sc Radial	4368.5	21.07	0.48%	103	%
Y 371.029	736136.7	5166.39	0.70%	98.311	%
Y RADIAL	4737.3	19.03	0.40%	98.82	%
Ag 328.068†	104334.7	609.26	0.58%	[500]	ug/L
Al 396.153Radial†	4907.4	22.09	0.45%	[5000]	ug/L
As 188.979†	968.5	13.03	1.34%	[500]	ug/L
B 249.677†	18808.3	107.13	0.57%	[500]	ug/L
Ba 233.527†	55795.5	305.43	0.55%	[500]	ug/L
Be 313.107†	1278803.9	1371.51	0.11%	[500]	ug/L
Ca 317.933Radial†	2592.7	19.25	0.74%	[5000]	ug/L
Cd 226.502†	36679.8	163.49	0.45%	[500]	ug/L
Co 228.616†	20430.5	131.14	0.64%	[500]	ug/L
Cr 267.716†	39833.4	184.07	0.46%	[500]	ug/L
Cu 324.752†	160282.9	924.85	0.58%	[500]	ug/L
K 766.490 Radial†	25644.8	138.85	0.54%	[5000]	ug/L
Mg 279.077 IEC†	123.4	2.21	1.79%	[5000]	ug/L
Mn 257.610†	397757.6	715.31	0.18%	[500]	ug/L
Mo 202.031†	5936.9	59.12	1.00%	[500]	ug/L
Ni 231.604†	16897.0	68.90	0.41%	[500]	ug/L
P 214.914†	3534.0	43.99	1.24%	[2500]	ug/L
Pb 220.353†	3408.3	32.56	0.96%	[500]	ug/L
S 181.975 Axial†	602.8	7.70	1.28%	[1000]	ug/L

Sb 206.836†	1237.9	12.41	1.00%	[500]	ug/L
Se 196.026†	650.2	5.32	0.82%	[500]	ug/L
Si 251.611†	70395.8	398.48	0.57%	[2500]	ug/L
Sn 189.927†	2317.9	21.66	0.93%	[500]	ug/L
Sr 421.552†	59827.0	130.26	0.22%	[500]	ug/L
Ti 334.940†	301479.8	1472.75	0.49%	[500]	ug/L
Tl 190.801†	1351.7	18.14	1.34%	[500]	ug/L
U 409.014†	18102.2	104.72	0.58%	[500]	ug/L
V 292.402†	67202.8	281.61	0.42%	[500]	ug/L
Zn 213.857†	44186.0	213.14	0.48%	[500]	ug/L
SiO2†	69886.4	719.42	1.03%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 3/24/2010 06:10:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4221.6	4221.6	99.3	%	06:13:03
1	Y RADIAL	4705.3	4705.3	98.15	%	06:12:43
1	Al 396.153Radial†	9957.3	10101.6	[10000]	ug/L	06:12:43
1	Ca 317.933Radial†	5386.5	5406.9	[10000]	ug/L	06:12:43
1	Fe 238.204 Radial†	872.3	872.2	[10000]	ug/L	06:13:03
1	K 766.490 Radial†	55465.5	53144.2	[10000]	ug/L	06:12:43
1	Mg 279.077 IEC†	255.9	257.1	[10000]	ug/L	06:13:03
1	Na 589.592 Radial†	25529.6	26577.6	[10000]	ug/L	06:12:43
1	Sr 421.552†	121450.1	122276.1	[1000]	ug/L	06:12:43
1	Sc 361.383	840405.9	840405.9	95.355	%	06:14:06
1	Y 371.029	705183.0	705183.0	94.177	%	06:14:06
1	Ag 328.068†	203738.2	213402.3	[1000]	ug/L	06:14:06
1	As 188.979†	1923.2	2037.5	[1000]	ug/L	06:14:26
1	B 249.677†	37471.0	39684.3	[1000]	ug/L	06:14:06
1	Ba 233.527†	109746.6	115082.1	[1000]	ug/L	06:14:06
1	Be 313.107†	2558770.0	2687684.8	[1000]	ug/L	06:14:01
1	Cd 226.502†	72512.2	76215.9	[1000]	ug/L	06:14:06
1	Co 228.616†	39418.5	41385.2	[1000]	ug/L	06:14:26
1	Cr 267.716†	78641.5	82403.8	[1000]	ug/L	06:14:06
1	Cu 324.752†	322599.2	331984.2	[1000]	ug/L	06:14:06
1	Mn 257.610†	794261.0	832484.7	[1000]	ug/L	06:14:01
1	Mo 202.031†	11781.3	12341.2	[1000]	ug/L	06:14:26
1	Ni 231.604†	32900.5	34407.5	[1000]	ug/L	06:14:26
1	P 214.914†	7354.5	7534.4	[5000]	ug/L	06:14:26
1	Pb 220.353†	6757.6	7136.8	[1000]	ug/L	06:14:26
1	S 181.975 Axial†	1234.1	1270.9	[2000]	ug/L	06:14:26
1	Sb 206.836†	2544.9	2641.3	[1000]	ug/L	06:14:26
1	Se 196.026†	1281.3	1360.4	[1000]	ug/L	06:14:26
1	Si 251.611†	138956.5	145155.9	[5000]	ug/L	06:14:06
1	Sn 189.927†	4661.0	4881.1	[1000]	ug/L	06:14:26
1	Ti 334.940†	590614.4	620433.9	[1000]	ug/L	06:14:06
1	Tl 190.801†	2641.9	2804.3	[1000]	ug/L	06:14:26
1	U 409.014†	33294.7	36804.9	[1000]	ug/L	06:14:06
1	V 292.402†	131405.9	139179.4	[1000]	ug/L	06:14:06
1	Zn 213.857†	87196.7	90819.1	[1000]	ug/L	06:14:06
1	SiO2†	138548.4	144702.7	[10695]	ug/L	06:15:35
2	Sc Radial	4205.2	4205.2	98.9	%	06:13:28
2	Y RADIAL	4667.4	4667.4	97.36	%	06:13:08
2	Al 396.153Radial†	9932.8	10115.9	[10000]	ug/L	06:13:08
2	Ca 317.933Radial†	5383.9	5425.3	[10000]	ug/L	06:13:08
2	Fe 238.204 Radial†	878.0	881.3	[10000]	ug/L	06:13:28
2	K 766.490 Radial†	55299.5	53193.6	[10000]	ug/L	06:13:08
2	Mg 279.077 IEC†	254.6	256.7	[10000]	ug/L	06:13:28
2	Na 589.592 Radial†	25366.0	26512.2	[10000]	ug/L	06:13:08
2	Sr 421.552†	120603.1	121895.6	[1000]	ug/L	06:13:08
2	Sc 361.383	844396.2	844396.2	95.808	%	06:14:38
2	Y 371.029	708873.8	708873.8	94.670	%	06:14:38
2	Ag 328.068†	204685.7	213381.7	[1000]	ug/L	06:14:38
2	As 188.979†	1915.5	2019.9	[1000]	ug/L	06:14:58
2	B 249.677†	37737.8	39777.0	[1000]	ug/L	06:14:38
2	Ba 233.527†	110382.4	115201.8	[1000]	ug/L	06:14:38
2	Be 313.107†	2528636.3	2643552.2	[1000]	ug/L	06:14:32
2	Cd 226.502†	73047.7	76415.5	[1000]	ug/L	06:14:38
2	Co 228.616†	39261.1	41025.6	[1000]	ug/L	06:14:58
2	Cr 267.716†	79073.0	82464.4	[1000]	ug/L	06:14:38
2	Cu 324.752†	323859.5	331701.0	[1000]	ug/L	06:14:38
2	Mn 257.610†	785108.3	818995.4	[1000]	ug/L	06:14:32
2	Mo 202.031†	11742.2	12242.1	[1000]	ug/L	06:14:58
2	Ni 231.604†	32797.7	34137.2	[1000]	ug/L	06:14:58

2	P 214.914†	7332.8	7475.4	[5000]	ug/L	06:14:58
2	Pb 220.353†	6765.7	7111.8	[1000]	ug/L	06:14:58
2	S 181.975 Axial†	1227.0	1257.4	[2000]	ug/L	06:14:58
2	Sb 206.836†	2529.2	2612.4	[1000]	ug/L	06:14:58
2	Se 196.026†	1285.3	1358.2	[1000]	ug/L	06:14:58
2	Si 251.611†	139805.2	145353.1	[5000]	ug/L	06:14:38
2	Sn 189.927†	4637.0	4833.0	[1000]	ug/L	06:14:58
2	Ti 334.940†	592943.2	619937.7	[1000]	ug/L	06:14:38
2	Tl 190.801†	2640.1	2789.3	[1000]	ug/L	06:14:58
2	U 409.014†	33634.4	36994.3	[1000]	ug/L	06:14:38
2	V 292.402†	132229.4	139387.6	[1000]	ug/L	06:14:38
2	Zn 213.857†	87738.7	90952.6	[1000]	ug/L	06:14:38
2	SiO2†	139609.8	145124.0	[10695]	ug/L	06:15:40
3	Sc Radial	4194.8	4194.8	98.7	%	06:13:53
3	Y RADIAL	4650.5	4650.5	97.01	%	06:13:33
3	Al 396.153Radial†	9946.2	10154.4	[10000]	ug/L	06:13:33
3	Ca 317.933Radial†	5385.6	5440.6	[10000]	ug/L	06:13:33
3	Fe 238.204 Radial†	873.3	878.8	[10000]	ug/L	06:13:53
3	K 766.490 Radial†	55419.3	53453.8	[10000]	ug/L	06:13:33
3	Mg 279.077 IEC†	257.0	259.8	[10000]	ug/L	06:13:53
3	Na 589.592 Radial†	25369.1	26579.1	[10000]	ug/L	06:13:33
3	Sr 421.552†	120779.7	122377.3	[1000]	ug/L	06:13:33
3	Sc 361.383	838025.0	838025.0	95.085	%	06:15:09
3	Y 371.029	702846.6	702846.6	93.865	%	06:15:09
3	Ag 328.068†	203014.4	213248.2	[1000]	ug/L	06:15:09
3	As 188.979†	1911.9	2031.4	[1000]	ug/L	06:15:29
3	B 249.677†	37309.8	39626.3	[1000]	ug/L	06:15:09
3	Ba 233.527†	109493.3	115142.6	[1000]	ug/L	06:15:09
3	Be 313.107†	2527493.1	2662415.3	[1000]	ug/L	06:15:04
3	Cd 226.502†	72369.4	76281.8	[1000]	ug/L	06:15:09
3	Co 228.616†	39298.6	41376.5	[1000]	ug/L	06:15:29
3	Cr 267.716†	78321.4	82301.5	[1000]	ug/L	06:15:09
3	Cu 324.752†	320862.6	331119.1	[1000]	ug/L	06:15:09
3	Mn 257.610†	786273.4	826450.8	[1000]	ug/L	06:15:04
3	Mo 202.031†	11748.5	12341.9	[1000]	ug/L	06:15:29
3	Ni 231.604†	32844.8	34446.9	[1000]	ug/L	06:15:29
3	P 214.914†	7312.9	7512.6	[5000]	ug/L	06:15:29
3	Pb 220.353†	6731.2	7129.2	[1000]	ug/L	06:15:29
3	S 181.975 Axial†	1232.0	1272.4	[2000]	ug/L	06:15:29
3	Sb 206.836†	2541.6	2645.4	[1000]	ug/L	06:15:29
3	Se 196.026†	1280.6	1363.5	[1000]	ug/L	06:15:29
3	Si 251.611†	138342.9	144924.6	[5000]	ug/L	06:15:09
3	Sn 189.927†	4647.1	4880.4	[1000]	ug/L	06:15:29
3	Ti 334.940†	588222.6	619678.3	[1000]	ug/L	06:15:09
3	Tl 190.801†	2646.9	2817.5	[1000]	ug/L	06:15:29
3	U 409.014†	33451.0	37068.4	[1000]	ug/L	06:15:09
3	V 292.402†	130776.3	138908.7	[1000]	ug/L	06:15:09
3	Zn 213.857†	86716.2	90573.5	[1000]	ug/L	06:15:09
3	SiO2†	137935.1	144470.5	[10695]	ug/L	06:15:45

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	840942.4	3219.30	0.38%	95.416	%
Sc Radial	4207.2	13.50	0.32%	99.0	%
Y 371.029	705634.5	3038.86	0.43%	94.238	%
Y RADIAL	4674.4	28.06	0.60%	97.51	%
Ag 328.068†	213344.1	83.65	0.04%	[1000]	ug/L
Al 396.153Radial†	10124.0	27.29	0.27%	[10000]	ug/L
As 188.979†	2029.6	8.92	0.44%	[1000]	ug/L
B 249.677†	39695.9	76.00	0.19%	[1000]	ug/L
Ba 233.527†	115142.2	59.84	0.05%	[1000]	ug/L
Be 313.107†	2664550.8	22143.68	0.83%	[1000]	ug/L
Ca 317.933Radial†	5424.3	16.88	0.31%	[10000]	ug/L
Cd 226.502†	76304.4	101.69	0.13%	[1000]	ug/L
Co 228.616†	41262.4	205.14	0.50%	[1000]	ug/L
Cr 267.716†	82389.9	82.37	0.10%	[1000]	ug/L
Cu 324.752†	331601.4	441.07	0.13%	[1000]	ug/L
Fe 238.204 Radial†	877.5	4.72	0.54%	[10000]	ug/L
K 766.490 Radial†	53263.9	166.32	0.31%	[10000]	ug/L

Mg 279.077 IEC†	257.8	1.71	0.66%	[10000]	ug/L
Mn 257.610†	825977.0	6757.15	0.82%	[1000]	ug/L
Mo 202.031†	12308.4	57.45	0.47%	[1000]	ug/L
Na 589.592 Radial†	26556.3	38.19	0.14%	[10000]	ug/L
Ni 231.604†	34330.5	168.59	0.49%	[1000]	ug/L
P 214.914†	7507.4	29.84	0.40%	[5000]	ug/L
Pb 220.353†	7125.9	12.84	0.18%	[1000]	ug/L
S 181.975 Axial†	1266.9	8.25	0.65%	[2000]	ug/L
Sb 206.836†	2633.0	18.01	0.68%	[1000]	ug/L
Se 196.026†	1360.7	2.67	0.20%	[1000]	ug/L
Si 251.611†	145144.6	214.45	0.15%	[5000]	ug/L
Sn 189.927†	4864.8	27.56	0.57%	[1000]	ug/L
Sr 421.552†	122183.0	254.03	0.21%	[1000]	ug/L
Ti 334.940†	620016.6	383.97	0.06%	[1000]	ug/L
Tl 190.801†	2803.7	14.08	0.50%	[1000]	ug/L
U 409.014†	36955.9	135.92	0.37%	[1000]	ug/L
V 292.402†	139158.6	240.12	0.17%	[1000]	ug/L
Zn 213.857†	90781.7	192.30	0.21%	[1000]	ug/L
SiO2†	144765.7	331.25	0.23%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/24/2010 06:17:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4306.8	4306.8	101	%	06:20:10
1	Y RADIAL	4635.5	4635.5	96.70	%	06:20:10
1	Al 396.153Radial†	48193.7	47644.5	[50000]	ug/L	06:19:50
1	Ca 317.933Radial†	25010.9	24669.9	[50000]	ug/L	06:19:50
1	Fe 238.204 Radial†	1656.8	1629.2	[20000]	ug/L	06:20:10
1	Mg 279.077 IEC†	1189.3	1173.2	[50000]	ug/L	06:20:10
1	Na 589.592 Radial†	49072.3	49307.0	[20000]	ug/L	06:19:50
1	Sc 361.383	855898.1	855898.1	97.113	%	06:21:07
1	Y 371.029	713024.3	713024.3	95.225	%	06:21:07
2	Sc Radial	4267.3	4267.3	100	%	06:20:35
2	Y RADIAL	4612.4	4612.4	96.21	%	06:20:35
2	Al 396.153Radial†	49256.1	49142.6	[50000]	ug/L	06:20:15
2	Ca 317.933Radial†	25571.8	25456.9	[50000]	ug/L	06:20:15
2	Fe 238.204 Radial†	1651.2	1638.7	[20000]	ug/L	06:20:35
2	Mg 279.077 IEC†	1173.4	1168.3	[50000]	ug/L	06:20:35
2	Na 589.592 Radial†	50416.0	51093.2	[20000]	ug/L	06:20:15
2	Sc 361.383	849333.2	849333.2	96.368	%	06:21:13
2	Y 371.029	706809.7	706809.7	94.395	%	06:21:13
3	Sc Radial	4284.8	4284.8	101	%	06:21:00
3	Y RADIAL	4616.0	4616.0	96.29	%	06:21:00
3	Al 396.153Radial†	49388.0	49072.6	[50000]	ug/L	06:20:40
3	Ca 317.933Radial†	25527.2	25308.3	[50000]	ug/L	06:20:40
3	Fe 238.204 Radial†	1643.5	1624.3	[20000]	ug/L	06:21:00
3	Mg 279.077 IEC†	1178.4	1168.5	[50000]	ug/L	06:21:00
3	Na 589.592 Radial†	49886.6	50362.4	[20000]	ug/L	06:20:40
3	Sc 361.383	841621.0	841621.0	95.493	%	06:21:18
3	Y 371.029	701201.8	701201.8	93.646	%	06:21:18

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	848950.8	7146.21	0.84%	96.325	%
Sc Radial	4286.3	19.76	0.46%	101	%
Y 371.029	707011.9	5913.86	0.84%	94.422	%
Y RADIAL	4621.3	12.45	0.27%	96.40	%
Al 396.153Radial†	48619.9	845.46	1.74%	[50000]	ug/L
Ca 317.933Radial†	25145.0	418.13	1.66%	[50000]	ug/L
Fe 238.204 Radial†	1630.7	7.32	0.45%	[20000]	ug/L
Mg 279.077 IEC†	1170.0	2.81	0.24%	[50000]	ug/L
Na 589.592 Radial†	50254.2	898.03	1.79%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	212.4	0.00000	0.999962	
Al 396.153Radial	3	Lin Thru 0	0.0	0.9740	0.00000	0.999969	
As 188.979	3	Lin Thru 0	0.0	2.010	0.00000	0.999824	
B 249.677	3	Lin Thru 0	0.0	39.27	0.00000	0.999769	
Ba 233.527	3	Lin Thru 0	0.0	114.4	0.00000	0.999923	
Be 313.107	3	Lin Thru 0	0.0	2643	0.00000	0.999870	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5046	0.00000	0.999884	
Cd 226.502	3	Lin Thru 0	0.0	75.70	0.00000	0.999877	
Co 228.616	3	Lin Thru 0	0.0	41.19	0.00000	0.999992	
Cr 267.716	3	Lin Thru 0	0.0	81.85	0.00000	0.999912	
Cu 324.752	3	Lin Thru 0	0.0	329.4	0.00000	0.999911	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0828	0.00000	0.999550	
K 766.490 Radial	3	Lin Thru 0	0.0	5.285	0.00000	0.999877	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0235	0.00000	0.999799
Mn 257.610	3	Lin Thru 0	0.0	820.0	0.00000	0.999890
Mo 202.031	3	Lin Thru 0	0.0	12.22	0.00000	0.999900
Na 589.592 Radia	2	Lin Thru 0	0.0	2.541	0.00000	0.999747
Ni 231.604	3	Lin Thru 0	0.0	34.22	0.00000	0.999980
P 214.914	3	Lin Thru 0	0.0	1.484	0.00000	0.999721
Pb 220.353	3	Lin Thru 0	0.0	7.064	0.00000	0.999848
S 181.975 Axial	3	Lin Thru 0	0.0	0.6275	0.00000	0.999804
Sb 206.836	3	Lin Thru 0	0.0	2.601	0.00000	0.999705
Se 196.026	3	Lin Thru 0	0.0	1.348	0.00000	0.999831
Si 251.611	3	Lin Thru 0	0.0	28.85	0.00000	0.999927
Sn 189.927	3	Lin Thru 0	0.0	4.818	0.00000	0.999817
Sr 421.552	3	Lin Thru 0	0.0	121.7	0.00000	0.999963
Ti 334.940	3	Lin Thru 0	0.0	616.7	0.00000	0.999939
Tl 190.801	3	Lin Thru 0	0.0	2.784	0.00000	0.999895
U 409.014	3	Lin Thru 0	0.0	36.80	0.00000	0.999964
V 292.402	3	Lin Thru 0	0.0	138.2	0.00000	0.999905
Zn 213.857	3	Lin Thru 0	0.0	90.32	0.00000	0.999939
SiO2	3	Lin Thru 0	0.0	13.44	0.00000	0.999904

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/24/2010 06:23:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4429.4	4429.4	104	%			06:25:22
1	Y RADIAL	4777.9	4777.9	99.66	%			06:25:22
1	Al 396.153Radial†	5044.7	4916.4	5022.7	ug/L	5022.7	ppb	06:25:22
1	Ca 317.933Radial†	2681.4	2556.3	5066.4	ug/L	5066.4	ppb	06:25:43
1	Fe 238.204 Radial†	446.6	422.4	5117.9	ug/L	5117.9	ppb	06:25:43
1	K 766.490 Radial†	15846.5	12500.4	2362.0	ug/L	2362.0	ppb	06:25:22
1	Mg 279.077 IEC†	129.4	123.5	5255.2	ug/L	5255.2	ppb	06:25:43
1	Na 589.592 Radial†	5749.9	6388.4	2513.8	ug/L	2513.8	ppb	06:25:22
1	Sr 421.552†	64569.1	61947.9	509.18	ug/L	509.18	ppb	06:25:22
1	Sc 361.383	880378.5	880378.5	99.891	%			06:26:40
1	Y 371.029	740116.0	740116.0	98.843	%			06:26:40
1	Ag 328.068†	52961.0	52759.4	251.50	ug/L	251.50	ppb	06:26:40
1	As 188.979†	882.8	904.4	454.06	ug/L	454.06	ppb	06:27:00
1	B 249.677†	19263.4	19672.5	498.77	ug/L	498.77	ppb	06:26:40
1	Ba 233.527†	56784.9	56836.9	497.89	ug/L	497.89	ppb	06:26:40
1	Be 313.107†	658648.3	663650.6	252.21	ug/L	252.21	ppb	06:26:40
1	Cd 226.502†	35617.9	35828.7	473.18	ug/L	473.18	ppb	06:27:00
1	Co 228.616†	20366.0	20435.0	496.29	ug/L	496.29	ppb	06:27:00
1	Cr 267.716†	38864.5	38838.8	475.57	ug/L	475.57	ppb	06:26:40
1	Cu 324.752†	169347.9	163204.8	495.47	ug/L	495.47	ppb	06:26:40
1	Mn 257.610†	408515.4	408498.6	498.47	ug/L	498.47	ppb	06:26:40
1	Mo 202.031†	6295.6	6288.6	515.02	ug/L	515.02	ppb	06:27:00
1	Ni 231.604†	16792.9	16715.7	488.13	ug/L	488.13	ppb	06:27:00
1	P 214.914†	3734.9	3560.7	2303.3	ug/L	2303.3	ppb	06:27:00
1	Pb 220.353†	3344.4	3398.2	482.53	ug/L	482.53	ppb	06:27:00
1	S 181.975 Axial†	1499.2	1477.5	2353.7	ug/L	2353.7	ppb	06:27:00
1	Sb 206.836†	1268.5	1242.4	496.17	ug/L	496.17	ppb	06:27:00
1	Se 196.026†	3299.3	3319.6	2480.3	ug/L	2480.3	ppb	06:27:00
1	Si 251.611†	138675.6	138258.2	4785.8	ug/L	4785.8	ppb	06:26:40
1	Sn 189.927†	2473.9	2469.6	513.21	ug/L	513.21	ppb	06:27:00
1	Ti 334.940†	300592.5	301972.9	489.55	ug/L	489.55	ppb	06:26:40
1	Tl 190.801†	1393.2	1428.5	516.42	ug/L	516.42	ppb	06:27:00
1	U 409.014†	15893.8	17799.6	482.08	ug/L	482.08	ppb	06:26:40
1	V 292.402†	66732.6	68178.5	500.22	ug/L	500.22	ppb	06:26:40
1	Zn 213.857†	45139.7	44564.2	488.83	ug/L	488.83	ppb	06:26:40
1	SiO2†	138833.8	138391.4	10282	ug/L	10282	ppb	06:27:58
2	Sc Radial	4450.1	4450.1	105	%			06:25:48
2	Y RADIAL	4835.9	4835.9	100.9	%			06:25:48
2	Al 396.153Radial†	5112.0	4958.2	5065.6	ug/L	5065.6	ppb	06:25:48
2	Ca 317.933Radial†	2686.3	2549.0	5052.1	ug/L	5052.1	ppb	06:26:08
2	Fe 238.204 Radial†	449.2	422.9	5123.8	ug/L	5123.8	ppb	06:26:08
2	K 766.490 Radial†	15917.5	12497.7	2361.5	ug/L	2361.5	ppb	06:25:48
2	Mg 279.077 IEC†	131.0	124.5	5298.9	ug/L	5298.9	ppb	06:26:08
2	Na 589.592 Radial†	5733.9	6347.5	2497.8	ug/L	2497.8	ppb	06:25:48
2	Sr 421.552†	65128.7	62194.9	511.21	ug/L	511.21	ppb	06:25:48
2	Sc 361.383	883744.1	883744.1	100.27	%			06:27:06
2	Y 371.029	743058.7	743058.7	99.236	%			06:27:06
2	Ag 328.068†	52889.0	52485.6	250.21	ug/L	250.21	ppb	06:27:06
2	As 188.979†	886.0	904.2	453.93	ug/L	453.93	ppb	06:27:26
2	B 249.677†	19303.3	19638.9	497.91	ug/L	497.91	ppb	06:27:06
2	Ba 233.527†	56715.8	56551.5	495.39	ug/L	495.39	ppb	06:27:06
2	Be 313.107†	657866.3	660359.6	250.96	ug/L	250.96	ppb	06:27:06
2	Cd 226.502†	35658.2	35733.0	471.91	ug/L	471.91	ppb	06:27:26
2	Co 228.616†	20420.3	20411.5	495.72	ug/L	495.72	ppb	06:27:26
2	Cr 267.716†	38858.0	38684.1	473.68	ug/L	473.68	ppb	06:27:06
2	Cu 324.752†	169613.8	162824.4	494.32	ug/L	494.32	ppb	06:27:06
2	Mn 257.610†	408219.4	406646.0	496.21	ug/L	496.21	ppb	06:27:06
2	Mo 202.031†	6325.9	6294.8	515.53	ug/L	515.53	ppb	06:27:26
2	Ni 231.604†	16830.1	16688.8	487.34	ug/L	487.34	ppb	06:27:26

2	P 214.914†	3734.8	3546.4	2293.9 ug/L	2293.9 ppb	06:27:26
2	Pb 220.353†	3357.3	3398.3	482.55 ug/L	482.55 ppb	06:27:26
2	S 181.975 Axial†	1503.6	1476.3	2351.6 ug/L	2351.6 ppb	06:27:26
2	Sb 206.836†	1276.8	1245.8	497.43 ug/L	497.43 ppb	06:27:26
2	Se 196.026†	3328.4	3336.0	2492.5 ug/L	2492.5 ppb	06:27:26
2	Si 251.611†	138749.0	137802.7	4770.0 ug/L	4770.0 ppb	06:27:06
2	Sn 189.927†	2463.0	2449.4	509.00 ug/L	509.00 ppb	06:27:26
2	Ti 334.940†	300645.5	300879.7	487.78 ug/L	487.78 ppb	06:27:06
2	Tl 190.801†	1395.1	1425.1	515.17 ug/L	515.17 ppb	06:27:26
2	U 409.014†	15621.3	17467.2	473.05 ug/L	473.05 ppb	06:27:06
2	V 292.402†	66675.0	67866.6	497.96 ug/L	497.96 ppb	06:27:06
2	Zn 213.857†	45254.9	44506.9	488.20 ug/L	488.20 ppb	06:27:06
2	SiO2†	137303.7	136336.2	10129 ug/L	10129 ppb	06:28:03
3	Sc Radial	4425.8	4425.8	104 %		06:26:13
3	Y RADIAL	4799.4	4799.4	100.1 %		06:26:13
3	Al 396.153Radial†	5037.3	4913.3	5019.4 ug/L	5019.4 ppb	06:26:13
3	Ca 317.933Radial†	2666.5	2544.0	5042.2 ug/L	5042.2 ppb	06:26:33
3	Fe 238.204 Radial†	444.5	420.8	5097.7 ug/L	5097.7 ppb	06:26:33
3	K 766.490 Radial†	15885.0	12549.9	2371.4 ug/L	2371.4 ppb	06:26:13
3	Mg 279.077 IEC†	129.9	124.1	5281.6 ug/L	5281.6 ppb	06:26:33
3	Na 589.592 Radial†	5691.0	6336.3	2493.4 ug/L	2493.4 ppb	06:26:13
3	Sr 421.552†	64382.7	61819.6	508.12 ug/L	508.12 ppb	06:26:13
3	Sc 361.383	881056.5	881056.5	99.968 %		06:27:32
3	Y 371.029	742170.4	742170.4	99.117 %		06:27:32
3	Ag 328.068†	52671.0	52428.5	249.93 ug/L	249.93 ppb	06:27:32
3	As 188.979†	884.0	904.9	454.30 ug/L	454.30 ppb	06:27:52
3	B 249.677†	19075.2	19469.5	493.61 ug/L	493.61 ppb	06:27:32
3	Ba 233.527†	56519.9	56528.1	495.18 ug/L	495.18 ppb	06:27:32
3	Be 313.107†	656076.7	660570.8	251.04 ug/L	251.04 ppb	06:27:32
3	Cd 226.502†	35525.2	35708.5	471.59 ug/L	471.59 ppb	06:27:52
3	Co 228.616†	20307.7	20361.0	494.50 ug/L	494.50 ppb	06:27:52
3	Cr 267.716†	38804.5	38748.9	474.47 ug/L	474.47 ppb	06:27:32
3	Cu 324.752†	168278.9	162005.1	491.83 ug/L	491.83 ppb	06:27:32
3	Mn 257.610†	405730.9	405398.5	494.69 ug/L	494.69 ppb	06:27:32
3	Mo 202.031†	6301.8	6290.0	515.13 ug/L	515.13 ppb	06:27:52
3	Ni 231.604†	16757.7	16667.6	486.72 ug/L	486.72 ppb	06:27:52
3	P 214.914†	3721.4	3544.3	2293.0 ug/L	2293.0 ppb	06:27:52
3	Pb 220.353†	3349.6	3400.8	482.90 ug/L	482.90 ppb	06:27:52
3	S 181.975 Axial†	1495.3	1472.5	2345.7 ug/L	2345.7 ppb	06:27:52
3	Sb 206.836†	1262.7	1235.6	493.53 ug/L	493.53 ppb	06:27:52
3	Se 196.026†	3315.6	3333.4	2490.4 ug/L	2490.4 ppb	06:27:52
3	Si 251.611†	137757.8	137233.3	4750.3 ug/L	4750.3 ppb	06:27:32
3	Sn 189.927†	2467.9	2461.8	511.57 ug/L	511.57 ppb	06:27:52
3	Ti 334.940†	298878.8	300027.1	486.40 ug/L	486.40 ppb	06:27:32
3	Tl 190.801†	1389.9	1424.1	514.80 ug/L	514.80 ppb	06:27:52
3	U 409.014†	15708.8	17602.3	476.72 ug/L	476.72 ppb	06:27:32
3	V 292.402†	66417.0	67811.3	497.57 ug/L	497.57 ppb	06:27:32
3	Zn 213.857†	44936.6	44326.3	486.21 ug/L	486.21 ppb	06:27:32
3	SiO2†	138022.1	137472.5	10214 ug/L	10214 ppb	06:28:08

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	881726.4	100.04	%	0.202				0.20%
Sc Radial	4435.1	104	%	0.3				0.30%
Y 371.029	741781.7	99.065	%	0.2016				0.20%
Y RADIAL	4804.4	100.2	%	0.61				0.61%
Ag 328.068†	52557.8	250.54	ug/L	0.837	250.54	ppb	0.837	0.33%
QC value within limits for Ag 328.068 Recovery = 100.22%								
Al 396.153Radial†	4929.3	5035.9	ug/L	25.76	5035.9	ppb	25.76	0.51%
QC value within limits for Al 396.153Radial Recovery = 100.72%								
As 188.979†	904.5	454.10	ug/L	0.185	454.10	ppb	0.185	0.04%
QC value within limits for As 188.979 Recovery = 90.82%								
B 249.677†	19593.6	496.76	ug/L	2.767	496.76	ppb	2.767	0.56%
QC value within limits for B 249.677 Recovery = 99.35%								
Ba 233.527†	56638.8	496.15	ug/L	1.506	496.15	ppb	1.506	0.30%
QC value within limits for Ba 233.527 Recovery = 99.23%								
Be 313.107†	661527.0	251.41	ug/L	0.700	251.41	ppb	0.700	0.28%
QC value within limits for Be 313.107 Recovery = 100.56%								
Ca 317.933Radial†	2549.8	5053.5	ug/L	12.19	5053.5	ppb	12.19	0.24%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.07%
Cd 226.502†            35756.7      472.23 ug/L         0.839      472.23 ppb          0.839   0.18%
   QC value within limits for Cd 226.502  Recovery = 94.45%
Co 228.616†            20402.5      495.50 ug/L         0.915      495.50 ppb          0.915   0.18%
   QC value within limits for Co 228.616  Recovery = 99.10%
Cr 267.716†            38757.3      474.57 ug/L         0.949      474.57 ppb          0.949   0.20%
   QC value within limits for Cr 267.716  Recovery = 94.91%
Cu 324.752†           162678.1      493.87 ug/L         1.861      493.87 ppb          1.861   0.38%
   QC value within limits for Cu 324.752  Recovery = 98.77%
Fe 238.204 Radial†       422.0      5113.1 ug/L         13.68      5113.1 ppb          13.68   0.27%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.26%
K 766.490 Radial†      12516.0      2364.9 ug/L          5.57      2364.9 ppb           5.57   0.24%
   QC value within limits for K 766.490 Radial  Recovery = 94.60%
Mg 279.077 IEC†          124.1      5278.6 ug/L         22.01      5278.6 ppb          22.01   0.42%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.57%
Mn 257.610†           406847.7      496.46 ug/L         1.904      496.46 ppb          1.904   0.38%
   QC value within limits for Mn 257.610  Recovery = 99.29%
Mo 202.031†             6291.2      515.23 ug/L         0.268      515.23 ppb          0.268   0.05%
   QC value within limits for Mo 202.031  Recovery = 103.05%
Na 589.592 Radial†      6357.4      2501.6 ug/L         10.78      2501.6 ppb          10.78   0.43%
   QC value within limits for Na 589.592 Radial  Recovery = 100.07%
Ni 231.604†            16690.7      487.40 ug/L         0.705      487.40 ppb          0.705   0.14%
   QC value within limits for Ni 231.604  Recovery = 97.48%
P 214.914†              3550.4      2296.7 ug/L          5.74      2296.7 ppb           5.74   0.25%
   QC value within limits for P 214.914  Recovery = 91.87%
Pb 220.353†             3399.1      482.66 ug/L         0.210      482.66 ppb          0.210   0.04%
   QC value within limits for Pb 220.353  Recovery = 96.53%
S 181.975 Axial†        1475.5      2350.3 ug/L          4.16      2350.3 ppb           4.16   0.18%
   QC value within limits for S 181.975 Axial  Recovery = 94.01%
Sb 206.836†             1241.2      495.71 ug/L         1.992      495.71 ppb          1.992   0.40%
   QC value within limits for Sb 206.836  Recovery = 99.14%
Se 196.026†             3329.7      2487.7 ug/L          6.55      2487.7 ppb           6.55   0.26%
   QC value within limits for Se 196.026  Recovery = 99.51%
Si 251.611†           137764.7      4768.7 ug/L         17.80      4768.7 ppb          17.80   0.37%
   QC value within limits for Si 251.611  Recovery = 95.37%
Sn 189.927†             2460.3      511.26 ug/L         2.123      511.26 ppb          2.123   0.42%
   QC value within limits for Sn 189.927  Recovery = 102.25%
Sr 421.552†            61987.5      509.50 ug/L         1.568      509.50 ppb          1.568   0.31%
   QC value within limits for Sr 421.552  Recovery = 101.90%
Ti 334.940†           300959.9      487.91 ug/L         1.583      487.91 ppb          1.583   0.32%
   QC value within limits for Ti 334.940  Recovery = 97.58%
Tl 190.801†             1425.9      515.46 ug/L         0.846      515.46 ppb          0.846   0.16%
   QC value within limits for Tl 190.801  Recovery = 103.09%
U 409.014†             17623.0      477.28 ug/L         4.541      477.28 ppb          4.541   0.95%
   QC value within limits for U 409.014  Recovery = 95.46%
V 292.402†             67952.1      498.58 ug/L         1.435      498.58 ppb          1.435   0.29%
   QC value within limits for V 292.402  Recovery = 99.72%
Zn 213.857†            44465.8      487.75 ug/L         1.366      487.75 ppb          1.366   0.28%
   QC value within limits for Zn 213.857  Recovery = 97.55%
SiO2†                 137400.0       10208 ug/L          76.6       10208 ppb           76.6   0.75%
   QC value within limits for SiO2  Recovery = 95.45%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 3/24/2010 06:30:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4399.2	4399.2	103	%			06:32:12
1	Y RADIAL	4795.7	4795.7	100.0	%			06:32:12
1	Al 396.153Radial†	-80.6	-2.9	-2.9760	ug/L	-2.9760	ppb	06:32:32
1	Ca 317.933Radial†	15.6	-2.1	-4.1204	ug/L	-4.1204	ppb	06:32:32
1	Fe 238.204 Radial†	7.3	0.9	10.653	ug/L	10.653	ppb	06:32:32
1	K 766.490 Radial†	2701.6	-97.0	-18.354	ug/L	-18.354	ppb	06:32:12
1	Mg 279.077 IEC†	1.1	0.4	16.410	ug/L	16.410	ppb	06:32:32
1	Na 589.592 Radial†	-935.2	-33.5	-13.195	ug/L	-13.195	ppb	06:32:12
1	Sr 421.552†	-7.2	-26.9	-0.2209	ug/L	-0.2209	ppb	06:32:12
1	Sc 361.383	891953.3	891953.3	101.20	%			06:33:29
1	Y 371.029	756472.5	756472.5	101.03	%			06:33:29
1	Ag 328.068†	228.4	-33.8	-0.1558	ug/L	-0.1558	ppb	06:33:34
1	As 188.979†	-17.7	3.2	1.5757	ug/L	1.5757	ppb	06:33:54
1	B 249.677†	-183.5	206.8	5.2650	ug/L	5.2650	ppb	06:33:54
1	Ba 233.527†	23.9	13.5	0.1177	ug/L	0.1177	ppb	06:33:54
1	Be 313.107†	-4271.4	62.2	0.0234	ug/L	0.0234	ppb	06:33:34
1	Cd 226.502†	-168.7	5.1	0.0662	ug/L	0.0662	ppb	06:33:54
1	Co 228.616†	-52.0	-4.6	-0.1129	ug/L	-0.1129	ppb	06:33:54
1	Cr 267.716†	75.6	6.5	0.0811	ug/L	0.0811	ppb	06:33:54
1	Cu 324.752†	6325.6	-77.7	-0.2345	ug/L	-0.2345	ppb	06:33:34
1	Mn 257.610†	421.2	-46.9	-0.0568	ug/L	-0.0568	ppb	06:33:54
1	Mo 202.031†	14.0	-0.1	-0.0046	ug/L	-0.0046	ppb	06:33:54
1	Ni 231.604†	78.5	-18.0	-0.5245	ug/L	-0.5245	ppb	06:33:54
1	P 214.914†	163.3	-16.9	-11.369	ug/L	-11.369	ppb	06:33:54
1	Pb 220.353†	-52.6	-1.9	-0.2741	ug/L	-0.2741	ppb	06:33:54
1	S 181.975 Axial†	28.0	4.4	7.0472	ug/L	7.0472	ppb	06:33:54
1	Sb 206.836†	16.9	-10.8	-4.1569	ug/L	-4.1569	ppb	06:33:54
1	Se 196.026†	-8.5	8.3	6.2003	ug/L	6.2003	ppb	06:33:54
1	Si 251.611†	551.2	-24.2	-0.8392	ug/L	-0.8392	ppb	06:33:54
1	Sn 189.927†	7.2	0.2	0.0353	ug/L	0.0353	ppb	06:33:54
1	Ti 334.940†	-1107.5	-42.3	-0.0700	ug/L	-0.0700	ppb	06:33:34
1	Tl 190.801†	-18.3	15.7	5.6390	ug/L	5.6390	ppb	06:33:54
1	U 409.014†	-1962.7	-51.0	-1.3870	ug/L	-1.3870	ppb	06:33:29
1	V 292.402†	-1431.5	-41.5	-0.3042	ug/L	-0.3042	ppb	06:33:34
1	Zn 213.857†	618.6	-13.6	-0.1487	ug/L	-0.1487	ppb	06:33:54
1	SiO2†	580.1	-20.9	-1.5547	ug/L	-1.5547	ppb	06:35:15
2	Sc Radial	4524.2	4524.2	106	%			06:32:37
2	Y RADIAL	4948.6	4948.6	103.2	%			06:32:37
2	Al 396.153Radial†	-70.3	8.9	9.1535	ug/L	9.1535	ppb	06:32:57
2	Ca 317.933Radial†	17.3	-0.9	-1.7351	ug/L	-1.7351	ppb	06:32:57
2	Fe 238.204 Radial†	6.3	-0.3	-3.3621	ug/L	-3.3621	ppb	06:32:57
2	K 766.490 Radial†	2680.5	-189.0	-35.776	ug/L	-35.776	ppb	06:32:37
2	Mg 279.077 IEC†	3.5	2.7	112.87	ug/L	112.87	ppb	06:32:57
2	Na 589.592 Radial†	-888.1	35.7	14.056	ug/L	14.056	ppb	06:32:37
2	Sr 421.552†	39.6	17.3	0.1421	ug/L	0.1421	ppb	06:32:37
2	Sc 361.383	890720.2	890720.2	101.06	%			06:33:59
2	Y 371.029	754834.9	754834.9	100.81	%			06:33:59
2	Ag 328.068†	240.5	-21.5	-0.0984	ug/L	-0.0984	ppb	06:34:04
2	As 188.979†	-26.1	-5.2	-2.6048	ug/L	-2.6048	ppb	06:34:24
2	B 249.677†	-155.1	234.7	5.9769	ug/L	5.9769	ppb	06:34:24
2	Ba 233.527†	16.1	5.9	0.0513	ug/L	0.0513	ppb	06:34:24
2	Be 313.107†	-4284.9	43.0	0.0161	ug/L	0.0161	ppb	06:34:04
2	Cd 226.502†	-173.7	0.0	-0.0006	ug/L	-0.0006	ppb	06:34:24
2	Co 228.616†	-41.4	5.8	0.1418	ug/L	0.1418	ppb	06:34:24
2	Cr 267.716†	81.8	12.8	0.1581	ug/L	0.1581	ppb	06:34:24
2	Cu 324.752†	6353.1	-41.9	-0.1245	ug/L	-0.1245	ppb	06:34:04
2	Mn 257.610†	418.1	-49.3	-0.0651	ug/L	-0.0651	ppb	06:34:24
2	Mo 202.031†	21.9	7.9	0.6423	ug/L	0.6423	ppb	06:34:24
2	Ni 231.604†	87.8	-8.7	-0.2530	ug/L	-0.2530	ppb	06:34:24

2	P 214.914†	181.7	1.5	1.0082	ug/L	1.0082	ppb	06:34:24
2	Pb 220.353†	-59.5	-8.8	-1.2407	ug/L	-1.2407	ppb	06:34:24
2	S 181.975 Axial†	26.4	2.9	4.5787	ug/L	4.5787	ppb	06:34:24
2	Sb 206.836†	30.4	2.5	0.9625	ug/L	0.9625	ppb	06:34:24
2	Se 196.026†	-13.4	3.5	2.5580	ug/L	2.5580	ppb	06:34:24
2	Si 251.611†	530.2	-44.3	-1.5440	ug/L	-1.5440	ppb	06:34:24
2	Sn 189.927†	2.6	-4.3	-0.8993	ug/L	-0.8993	ppb	06:34:24
2	Ti 334.940†	-1116.0	-52.3	-0.0920	ug/L	-0.0920	ppb	06:34:04
2	Tl 190.801†	-23.2	10.8	3.8724	ug/L	3.8724	ppb	06:34:24
2	U 409.014†	-2096.4	-185.9	-5.0531	ug/L	-5.0531	ppb	06:33:59
2	V 292.402†	-1393.6	-6.0	-0.0410	ug/L	-0.0410	ppb	06:34:04
2	Zn 213.857†	595.9	-35.2	-0.3878	ug/L	-0.3878	ppb	06:34:24
2	SiO2†	579.2	-21.0	-1.5769	ug/L	-1.5769	ppb	06:35:35
3	Sc Radial	4418.3	4418.3	104	%			06:33:02
3	Y RADIAL	4825.1	4825.1	100.7	%			06:33:02
3	Al 396.153Radial†	-76.8	1.1	1.1474	ug/L	1.1474	ppb	06:33:22
3	Ca 317.933Radial†	19.6	1.7	3.4072	ug/L	3.4072	ppb	06:33:22
3	Fe 238.204 Radial†	7.2	0.8	9.1338	ug/L	9.1338	ppb	06:33:22
3	K 766.490 Radial†	2788.5	-24.7	-4.6662	ug/L	-4.6662	ppb	06:33:02
3	Mg 279.077 IEC†	4.1	3.3	140.85	ug/L	140.85	ppb	06:33:22
3	Na 589.592 Radial†	-948.8	-42.7	-16.793	ug/L	-16.793	ppb	06:33:02
3	Sr 421.552†	1.6	-18.4	-0.1515	ug/L	-0.1515	ppb	06:33:02
3	Sc 361.383	880687.6	880687.6	99.926	%			06:34:29
3	Y 371.029	747622.5	747622.5	99.845	%			06:34:29
3	Ag 328.068†	176.5	-82.9	-0.3883	ug/L	-0.3883	ppb	06:34:34
3	As 188.979†	-22.0	-1.4	-0.7034	ug/L	-0.7034	ppb	06:34:54
3	B 249.677†	-184.1	203.9	5.1894	ug/L	5.1894	ppb	06:34:54
3	Ba 233.527†	25.1	15.0	0.1307	ug/L	0.1307	ppb	06:34:54
3	Be 313.107†	-4268.0	11.6	0.0044	ug/L	0.0044	ppb	06:34:34
3	Cd 226.502†	-176.2	-4.4	-0.0597	ug/L	-0.0597	ppb	06:34:54
3	Co 228.616†	-26.5	20.2	0.4911	ug/L	0.4911	ppb	06:34:54
3	Cr 267.716†	78.3	10.2	0.1253	ug/L	0.1253	ppb	06:34:54
3	Cu 324.752†	6305.2	-18.2	-0.0541	ug/L	-0.0541	ppb	06:34:34
3	Mn 257.610†	448.4	-14.3	-0.0224	ug/L	-0.0224	ppb	06:34:54
3	Mo 202.031†	12.6	-1.3	-0.1055	ug/L	-0.1055	ppb	06:34:54
3	Ni 231.604†	100.8	5.3	0.1554	ug/L	0.1554	ppb	06:34:54
3	P 214.914†	165.0	-13.1	-8.8506	ug/L	-8.8506	ppb	06:34:54
3	Pb 220.353†	-71.7	-21.7	-3.0735	ug/L	-3.0735	ppb	06:34:54
3	S 181.975 Axial†	29.9	6.7	10.694	ug/L	10.694	ppb	06:34:54
3	Sb 206.836†	28.4	0.9	0.3564	ug/L	0.3564	ppb	06:34:54
3	Se 196.026†	-14.5	2.2	1.6696	ug/L	1.6696	ppb	06:34:54
3	Si 251.611†	554.6	-13.9	-0.4800	ug/L	-0.4800	ppb	06:34:54
3	Sn 189.927†	9.1	2.2	0.4473	ug/L	0.4473	ppb	06:34:54
3	Ti 334.940†	-1057.7	-6.5	-0.0211	ug/L	-0.0211	ppb	06:34:34
3	Tl 190.801†	-18.5	15.3	5.4817	ug/L	5.4817	ppb	06:34:54
3	U 409.014†	-1926.6	-39.6	-1.0784	ug/L	-1.0784	ppb	06:34:29
3	V 292.402†	-1423.9	-52.0	-0.3784	ug/L	-0.3784	ppb	06:34:34
3	Zn 213.857†	605.2	-19.2	-0.2144	ug/L	-0.2144	ppb	06:34:54
3	SiO2†	572.9	-20.8	-1.5418	ug/L	-1.5418	ppb	06:35:55

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	887787.0	100.73	%	0.701				0.70%
Sc Radial	4447.2	105	%	1.6				1.51%
Y 371.029	752976.6	100.56	%	0.629				0.63%
Y RADIAL	4856.5	101.3	%	1.69				1.67%
Ag 328.068†	-46.1	-0.2142	ug/L	0.15350	-0.2142	ppb	0.15350	71.68%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.4	2.4417	ug/L	6.16748	2.4417	ppb	6.16748	252.59%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.2	-0.5775	ug/L	2.09307	-0.5775	ppb	2.09307	362.43%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	215.1	5.4771	ug/L	0.43451	5.4771	ppb	0.43451	7.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.5	0.0999	ug/L	0.04259	0.0999	ppb	0.04259	42.63%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	38.9	0.0146	ug/L	0.00960	0.0146	ppb	0.00960	65.72%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.4	-0.8161	ug/L	3.84704	-0.8161	ppb	3.84704	471.39%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                0.2      0.0020 ug/L       0.06298      0.0020 ppb        0.06298 >999.9%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                7.1      0.1733 ug/L       0.30323      0.1733 ppb        0.30323 174.95%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                9.8      0.1215 ug/L       0.03865      0.1215 ppb        0.03865  31.81%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -45.9     -0.1377 ug/L       0.09089     -0.1377 ppb        0.09089  66.02%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.5      5.4749 ug/L       7.69072      5.4749 ppb        7.69072 140.47%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -103.6     -19.599 ug/L       15.5921     -19.599 ppb        15.5921  79.56%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.1      90.045 ug/L       65.2865      90.045 ppb        65.2865  72.50%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -36.8     -0.0481 ug/L       0.02265     -0.0481 ppb        0.02265  47.12%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                2.2      0.1774 ug/L       0.40578      0.1774 ppb        0.40578 228.74%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -13.5     -5.3105 ug/L      16.86801     -5.3105 ppb       16.86801 317.63%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -7.1     -0.2074 ug/L       0.34223     -0.2074 ppb        0.34223 165.04%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -9.5     -6.4036 ug/L       6.54114     -6.4036 ppb        6.54114 102.15%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -10.8     -1.5294 ug/L       1.42183     -1.5294 ppb        1.42183  92.96%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           4.7      7.4398 ug/L       3.07630      7.4398 ppb        3.07630  41.35%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.5     -0.9460 ug/L       2.79715     -0.9460 ppb        2.79715 295.68%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                4.7      3.4760 ug/L       2.40081      3.4760 ppb        2.40081  69.07%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -27.5     -0.9544 ug/L       0.54131     -0.9544 ppb        0.54131  56.72%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.7     -0.1389 ug/L       0.69000     -0.1389 ppb        0.69000 496.70%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -9.3     -0.0767 ug/L       0.19269     -0.0767 ppb        0.19269 251.09%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -33.7     -0.0610 ug/L       0.03630     -0.0610 ppb        0.03630  59.47%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               13.9      4.9977 ug/L       0.97770      4.9977 ppb        0.97770  19.56%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -92.2     -2.5062 ug/L       2.21110     -2.5062 ppb        2.21110  88.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -33.1     -0.2412 ug/L       0.17730     -0.2412 ppb        0.17730  73.50%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -22.7     -0.2503 ug/L       0.12351     -0.2503 ppb        0.12351  49.35%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -20.9     -1.5578 ug/L       0.01777     -1.5578 ppb        0.01777   1.14%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 3/24/2010 06:38:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4425.5	4425.5	104	%			06:40:00
1	Y RADIAL	4839.1	4839.1	100.9	%			06:40:00
1	Al 396.153Radial†	134.4	204.0	209.03	ug/L	209.03	ppb	06:40:20
1	Ca 317.933Radial†	123.3	101.3	200.74	ug/L	200.74	ppb	06:40:20
1	Fe 238.204 Radial†	14.2	7.5	90.193	ug/L	90.193	ppb	06:40:20
1	K 766.490 Radial†	3465.3	621.0	117.30	ug/L	117.30	ppb	06:40:00
1	Mg 279.077 IEC†	10.1	9.1	385.71	ug/L	385.71	ppb	06:40:20
1	Na 589.592 Radial†	-83.0	790.4	311.03	ug/L	311.03	ppb	06:40:00
1	Sr 421.552†	619.1	574.7	4.7227	ug/L	4.7227	ppb	06:40:00
1	Sc 361.383	882587.8	882587.8	100.14	%			06:41:17
1	Y 371.029	749365.7	749365.7	100.08	%			06:41:17
1	Ag 328.068†	1256.8	995.5	4.6958	ug/L	4.6958	ppb	06:41:22
1	As 188.979†	33.0	53.6	26.711	ug/L	26.711	ppb	06:41:42
1	B 249.677†	1666.1	2051.9	52.228	ug/L	52.228	ppb	06:41:22
1	Ba 233.527†	584.6	573.7	5.0256	ug/L	5.0256	ppb	06:41:42
1	Be 313.107†	8461.8	12732.6	4.8285	ug/L	4.8285	ppb	06:41:22
1	Cd 226.502†	190.8	362.4	4.7898	ug/L	4.7898	ppb	06:41:42
1	Co 228.616†	154.1	200.6	4.8805	ug/L	4.8805	ppb	06:41:42
1	Cr 267.716†	483.3	414.5	5.0634	ug/L	5.0634	ppb	06:41:42
1	Cu 324.752†	9522.5	3181.0	9.6383	ug/L	9.6383	ppb	06:41:22
1	Mn 257.610†	8717.0	8241.7	10.044	ug/L	10.044	ppb	06:41:22
1	Mo 202.031†	129.0	114.9	9.4134	ug/L	9.4134	ppb	06:41:42
1	Ni 231.604†	265.0	169.1	4.9390	ug/L	4.9390	ppb	06:41:42
1	P 214.914†	380.0	201.2	133.74	ug/L	133.74	ppb	06:41:42
1	Pb 220.353†	28.7	78.7	11.195	ug/L	11.195	ppb	06:41:42
1	S 181.975 Axial†	91.9	68.5	109.19	ug/L	109.19	ppb	06:41:42
1	Sb 206.836†	48.6	21.0	8.4179	ug/L	8.4179	ppb	06:41:42
1	Se 196.026†	25.4	42.1	31.584	ug/L	31.584	ppb	06:41:42
1	Si 251.611†	3273.7	2700.2	93.474	ug/L	93.474	ppb	06:41:42
1	Sn 189.927†	55.3	48.3	10.049	ug/L	10.049	ppb	06:41:42
1	Ti 334.940†	1918.4	2967.7	4.7875	ug/L	4.7875	ppb	06:41:22
1	Tl 190.801†	29.5	63.2	22.752	ug/L	22.752	ppb	06:41:42
1	U 409.014†	-335.0	1553.9	42.207	ug/L	42.207	ppb	06:41:17
1	V 292.402†	-747.5	626.5	4.7349	ug/L	4.7349	ppb	06:41:22
1	Zn 213.857†	1522.9	895.9	9.8609	ug/L	9.8609	ppb	06:41:42
1	SiO2†	3408.3	2809.4	208.76	ug/L	208.76	ppb	06:42:48
2	Sc Radial	4478.6	4478.6	105	%			06:40:25
2	Y RADIAL	4917.3	4917.3	102.6	%			06:40:25
2	Al 396.153Radial†	131.1	199.4	204.33	ug/L	204.33	ppb	06:40:45
2	Ca 317.933Radial†	127.8	104.2	206.53	ug/L	206.53	ppb	06:40:45
2	Fe 238.204 Radial†	16.6	9.6	116.35	ug/L	116.35	ppb	06:40:45
2	K 766.490 Radial†	3468.2	584.3	110.35	ug/L	110.35	ppb	06:40:25
2	Mg 279.077 IEC†	8.8	7.7	329.34	ug/L	329.34	ppb	06:40:45
2	Na 589.592 Radial†	-17.2	853.8	335.99	ug/L	335.99	ppb	06:40:25
2	Sr 421.552†	639.9	587.4	4.8270	ug/L	4.8270	ppb	06:40:25
2	Sc 361.383	879876.2	879876.2	99.834	%			06:41:47
2	Y 371.029	746272.2	746272.2	99.665	%			06:41:47
2	Ag 328.068†	1299.7	1042.4	4.9180	ug/L	4.9180	ppb	06:41:52
2	As 188.979†	33.4	54.1	26.955	ug/L	26.955	ppb	06:42:12
2	B 249.677†	1652.5	2043.4	52.009	ug/L	52.009	ppb	06:41:52
2	Ba 233.527†	560.3	551.1	4.8292	ug/L	4.8292	ppb	06:42:12
2	Be 313.107†	8324.2	12620.8	4.7865	ug/L	4.7865	ppb	06:41:52
2	Cd 226.502†	186.8	359.0	4.7427	ug/L	4.7427	ppb	06:42:12
2	Co 228.616†	148.0	195.0	4.7426	ug/L	4.7426	ppb	06:42:12
2	Cr 267.716†	478.0	410.7	5.0162	ug/L	5.0162	ppb	06:42:12
2	Cu 324.752†	9661.3	3349.3	10.147	ug/L	10.147	ppb	06:41:52
2	Mn 257.610†	8647.8	8199.1	9.9972	ug/L	9.9972	ppb	06:41:52
2	Mo 202.031†	118.6	104.9	8.5962	ug/L	8.5962	ppb	06:42:12
2	Ni 231.604†	261.5	166.5	4.8609	ug/L	4.8609	ppb	06:42:12

2	P 214.914†	383.4	205.8	136.71 ug/L	136.71 ppb	06:42:12
2	Pb 220.353†	24.0	74.1	10.543 ug/L	10.543 ppb	06:42:12
2	S 181.975 Axial†	84.9	61.8	98.414 ug/L	98.414 ppb	06:42:12
2	Sb 206.836†	42.0	14.5	5.9211 ug/L	5.9211 ppb	06:42:12
2	Se 196.026†	31.6	48.3	36.255 ug/L	36.255 ppb	06:42:12
2	Si 251.611†	3271.4	2708.0	93.755 ug/L	93.755 ppb	06:42:12
2	Sn 189.927†	57.7	50.8	10.582 ug/L	10.582 ppb	06:42:12
2	Ti 334.940†	2009.4	3064.7	4.9469 ug/L	4.9469 ppb	06:41:52
2	Tl 190.801†	30.3	64.1	23.083 ug/L	23.083 ppb	06:42:12
2	U 409.014†	-56.0	1832.3	49.769 ug/L	49.769 ppb	06:41:47
2	V 292.402†	-750.8	620.9	4.6918 ug/L	4.6918 ppb	06:41:52
2	Zn 213.857†	1517.5	895.2	9.8486 ug/L	9.8486 ppb	06:42:12
2	SiO2†	3347.3	2758.8	205.02 ug/L	205.02 ppb	06:42:53
3	Sc Radial	4395.9	4395.9	103 %		06:40:50
3	Y RADIAL	4799.9	4799.9	100.1 %		06:40:50
3	Al 396.153Radial†	130.5	201.1	206.09 ug/L	206.09 ppb	06:41:10
3	Ca 317.933Radial†	132.1	110.6	219.26 ug/L	219.26 ppb	06:41:10
3	Fe 238.204 Radial†	18.5	11.7	141.68 ug/L	141.68 ppb	06:41:10
3	K 766.490 Radial†	3453.2	631.7	119.34 ug/L	119.34 ppb	06:40:50
3	Mg 279.077 IEC†	6.9	6.0	256.18 ug/L	256.18 ppb	06:41:10
3	Na 589.592 Radial†	-142.7	732.1	288.09 ug/L	288.09 ppb	06:40:50
3	Sr 421.552†	621.0	580.6	4.7710 ug/L	4.7710 ppb	06:40:50
3	Sc 361.383	881396.5	881396.5	100.01 %		06:42:17
3	Y 371.029	748215.4	748215.4	99.924 %		06:42:17
3	Ag 328.068†	1269.6	1010.0	4.7752 ug/L	4.7752 ppb	06:42:22
3	As 188.979†	24.9	45.6	22.718 ug/L	22.718 ppb	06:42:42
3	B 249.677†	1679.4	2067.4	52.616 ug/L	52.616 ppb	06:42:22
3	Ba 233.527†	572.8	562.7	4.9321 ug/L	4.9321 ppb	06:42:42
3	Be 313.107†	8356.9	12639.2	4.7933 ug/L	4.7933 ppb	06:42:22
3	Cd 226.502†	198.4	370.3	4.8895 ug/L	4.8895 ppb	06:42:42
3	Co 228.616†	156.6	203.3	4.9449 ug/L	4.9449 ppb	06:42:42
3	Cr 267.716†	458.7	390.5	4.7741 ug/L	4.7741 ppb	06:42:42
3	Cu 324.752†	9587.2	3258.6	9.8729 ug/L	9.8729 ppb	06:42:22
3	Mn 257.610†	8702.7	8239.1	10.051 ug/L	10.051 ppb	06:42:22
3	Mo 202.031†	117.5	103.7	8.4960 ug/L	8.4960 ppb	06:42:42
3	Ni 231.604†	250.3	154.8	4.5191 ug/L	4.5191 ppb	06:42:42
3	P 214.914†	391.6	213.3	141.80 ug/L	141.80 ppb	06:42:42
3	Pb 220.353†	14.2	64.2	9.1333 ug/L	9.1333 ppb	06:42:42
3	S 181.975 Axial†	83.0	59.7	95.159 ug/L	95.159 ppb	06:42:42
3	Sb 206.836†	46.9	19.4	7.7475 ug/L	7.7475 ppb	06:42:42
3	Se 196.026†	23.8	40.5	30.527 ug/L	30.527 ppb	06:42:42
3	Si 251.611†	3267.3	2698.2	93.419 ug/L	93.419 ppb	06:42:42
3	Sn 189.927†	48.9	42.0	8.7401 ug/L	8.7401 ppb	06:42:42
3	Ti 334.940†	1948.7	3000.5	4.8511 ug/L	4.8511 ppb	06:42:22
3	Tl 190.801†	32.4	66.2	23.829 ug/L	23.829 ppb	06:42:42
3	U 409.014†	-94.6	1793.8	48.722 ug/L	48.722 ppb	06:42:17
3	V 292.402†	-708.4	664.6	4.9997 ug/L	4.9997 ppb	06:42:22
3	Zn 213.857†	1506.3	881.3	9.6941 ug/L	9.6941 ppb	06:42:42
3	SiO2†	3393.1	2798.9	208.00 ug/L	208.00 ppb	06:42:58

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	881286.8	99.994	%	0.1542				0.15%
Sc Radial	4433.3	104	%	1.0				0.95%
Y 371.029	747951.1	99.889	%	0.2088				0.21%
Y RADIAL	4852.1	101.2	%	1.25				1.23%
Ag 328.068†	1015.9	4.7963	ug/L	0.11264	4.7963	ppb	0.11264	2.35%
QC value within limits for Ag 328.068 Recovery = 95.93%								
Al 396.153Radial†	201.5	206.49	ug/L	2.375	206.49	ppb	2.375	1.15%
QC value within limits for Al 396.153Radial Recovery = 103.24%								
As 188.979†	51.1	25.461	ug/L	2.3788	25.461	ppb	2.3788	9.34%
QC value within limits for As 188.979 Recovery = 84.87%								
B 249.677†	2054.2	52.284	ug/L	0.3075	52.284	ppb	0.3075	0.59%
QC value within limits for B 249.677 Recovery = 104.57%								
Ba 233.527†	562.5	4.9290	ug/L	0.09823	4.9290	ppb	0.09823	1.99%
QC value within limits for Ba 233.527 Recovery = 98.58%								
Be 313.107†	12664.2	4.8028	ug/L	0.02254	4.8028	ppb	0.02254	0.47%
QC value within limits for Be 313.107 Recovery = 96.06%								
Ca 317.933Radial†	105.4	208.84	ug/L	9.479	208.84	ppb	9.479	4.54%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.42%
Cd 226.502†              363.9      4.8073 ug/L       0.07493      4.8073 ppb        0.07493   1.56%
   QC value within limits for Cd 226.502  Recovery = 96.15%
Co 228.616†              199.6      4.8560 ug/L       0.10335      4.8560 ppb        0.10335   2.13%
   QC value within limits for Co 228.616  Recovery = 97.12%
Cr 267.716†              405.2      4.9512 ug/L       0.15523      4.9512 ppb        0.15523   3.14%
   QC value within limits for Cr 267.716  Recovery = 99.02%
Cu 324.752†             3263.0      9.8860 ug/L       0.25438      9.8860 ppb        0.25438   2.57%
   QC value within limits for Cu 324.752  Recovery = 98.86%
Fe 238.204 Radial†         9.6      116.07 ug/L        25.743      116.07 ppb         25.743  22.18%
   QC value within limits for Fe 238.204 Radial  Recovery = 116.07%
K 766.490 Radial†        612.3      115.66 ug/L         4.717      115.66 ppb          4.717   4.08%
   QC value within limits for K 766.490 Radial  Recovery = 77.11%
Mg 279.077 IEC†            7.6      323.74 ug/L        64.944      323.74 ppb         64.944  20.06%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.91%
Mn 257.610†             8226.7      10.031 ug/L        0.0294      10.031 ppb         0.0294   0.29%
   QC value within limits for Mn 257.610  Recovery = 100.31%
Mo 202.031†              107.8      8.8352 ug/L       0.50320      8.8352 ppb        0.50320   5.70%
   QC value within limits for Mo 202.031  Recovery = 88.35%
Na 589.592 Radial†       792.1      311.70 ug/L        23.959      311.70 ppb         23.959   7.69%
   QC value within limits for Na 589.592 Radial  Recovery = 103.90%
Ni 231.604†              163.4      4.7730 ug/L       0.22333      4.7730 ppb        0.22333   4.68%
   QC value within limits for Ni 231.604  Recovery = 95.46%
P 214.914†               206.7      137.42 ug/L         4.077      137.42 ppb          4.077   2.97%
   QC value within limits for P 214.914  Recovery = 91.61%
Pb 220.353†               72.3      10.290 ug/L        1.0537      10.290 ppb         1.0537  10.24%
   QC value within limits for Pb 220.353  Recovery = 102.90%
S 181.975 Axial†          63.4      100.92 ug/L         7.342      100.92 ppb          7.342   7.28%
   QC value within limits for S 181.975 Axial  Recovery = 100.92%
Sb 206.836†               18.3      7.3622 ug/L       1.29224      7.3622 ppb        1.29224  17.55%
   QC value within limits for Sb 206.836  Recovery = 73.62%
Se 196.026†               43.6      32.788 ug/L        3.0481      32.788 ppb         3.0481   9.30%
   QC value within limits for Se 196.026  Recovery = 109.29%
Si 251.611†             2702.1      93.549 ug/L        0.1800      93.549 ppb         0.1800   0.19%
   QC value within limits for Si 251.611  Recovery = 93.55%
Sn 189.927†               47.0      9.7903 ug/L       0.94780      9.7903 ppb        0.94780   9.68%
   QC value within limits for Sn 189.927  Recovery = 97.90%
Sr 421.552†              580.9      4.7735 ug/L       0.05220      4.7735 ppb        0.05220   1.09%
   QC value within limits for Sr 421.552  Recovery = 95.47%
Ti 334.940†             3011.0      4.8618 ug/L       0.08024      4.8618 ppb        0.08024   1.65%
   QC value within limits for Ti 334.940  Recovery = 97.24%
Tl 190.801†               64.5      23.221 ug/L        0.5515      23.221 ppb         0.5515   2.37%
   QC value within limits for Tl 190.801  Recovery = 116.11%
U 409.014†              1726.6      46.899 ug/L        4.0973      46.899 ppb         4.0973   8.74%
   QC value within limits for U 409.014  Recovery = 93.80%
V 292.402†               637.3      4.8088 ug/L       0.16677      4.8088 ppb        0.16677   3.47%
   QC value within limits for V 292.402  Recovery = 96.18%
Zn 213.857†              890.8      9.8012 ug/L       0.09293      9.8012 ppb        0.09293   0.95%
   QC value within limits for Zn 213.857  Recovery = 98.01%
SiO2†                   2789.0      207.26 ug/L         1.978      207.26 ppb          1.978   0.95%
   QC value within limits for SiO2  Recovery = 97.31%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 3/24/2010 06:45:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3966.7	3966.7	93.3	%			06:47:24
1	Y RADIAL	4280.5	4280.5	89.29	%			06:47:24
1	Al 396.153Radial†	476980.5	511245.1	524890	ug/L	524890	ppb	06:47:19
1	Ca 317.933Radial†	230431.1	246931.2	489400	ug/L	489400	ppb	06:47:19
1	Fe 238.204 Radial†	14715.3	15764.0	190430	ug/L	190430	ppb	06:47:24
1	K 766.490 Radial†	2439.8	-92.9	-181.28	ug/L	-181.28	ppb	06:47:24
1	Mg 279.077 IEC†	10955.9	11740.6	499330	ug/L	499330	ppb	06:47:24
1	Na 589.592 Radial†	-747.6	69.0	27.132	ug/L	27.132	ppb	06:47:24
1	Sr 421.552†	425.9	436.5	-0.0663	ug/L	-0.0663	ppb	06:47:24
1	Sc 361.383	754518.0	754518.0	85.610	%			06:47:51
1	Y 371.029	626659.8	626659.8	83.691	%			06:47:51
1	Ag 328.068†	-9123.0	-10916.0	0.8725	ug/L	0.8725	ppb	06:47:51
1	As 188.979†	-63.5	-53.6	17.792	ug/L	17.792	ppb	06:48:11
1	B 249.677†	246.5	676.0	-13.713	ug/L	-13.713	ppb	06:47:51
1	Ba 233.527†	-532.3	-631.8	0.3019	ug/L	0.3019	ppb	06:48:11
1	Be 313.107†	-4479.1	-949.2	-0.4152	ug/L	-0.4152	ppb	06:47:51
1	Cd 226.502†	1107.6	1465.6	-0.3015	ug/L	-0.3015	ppb	06:48:11
1	Co 228.616†	5.2	52.8	-1.4570	ug/L	-1.4570	ppb	06:48:11
1	Cr 267.716†	-1287.7	-1572.3	0.9712	ug/L	0.9712	ppb	06:48:11
1	Cu 324.752†	3154.0	-2643.9	2.0354	ug/L	2.0354	ppb	06:48:11
1	Mn 257.610†	-1436.2	-2140.6	-4.2264	ug/L	-4.2264	ppb	06:47:51
1	Mo 202.031†	-193.2	-239.5	1.0094	ug/L	1.0094	ppb	06:48:11
1	Ni 231.604†	184.2	119.6	3.4951	ug/L	3.4951	ppb	06:48:11
1	P 214.914†	186.4	39.5	4.9273	ug/L	4.9273	ppb	06:48:11
1	Pb 220.353†	-706.4	-775.1	-13.892	ug/L	-13.892	ppb	06:48:11
1	S 181.975 Axial†	45.4	29.8	-50.838	ug/L	-50.838	ppb	06:48:11
1	Sb 206.836†	63.5	46.7	0.1423	ug/L	0.1423	ppb	06:48:11
1	Se 196.026†	-845.5	-971.0	-5.6337	ug/L	-5.6337	ppb	06:48:11
1	Si 251.611†	362.4	-145.5	-4.8027	ug/L	-4.8027	ppb	06:48:11
1	Sn 189.927†	-326.2	-387.9	-4.5004	ug/L	-4.5004	ppb	06:48:11
1	Ti 334.940†	-13925.6	-15214.3	0.1618	ug/L	0.1618	ppb	06:47:51
1	Tl 190.801†	-66.8	-44.3	-16.162	ug/L	-16.162	ppb	06:48:11
1	U 409.014†	-599.2	1188.4	10.630	ug/L	10.630	ppb	06:47:51
1	V 292.402†	359.1	1792.4	-5.2992	ug/L	-5.2992	ppb	06:48:11
1	Zn 213.857†	2709.3	2539.9	-0.3906	ug/L	-0.3906	ppb	06:48:11
1	SiO2†	461.6	-54.8	-3.5462	ug/L	-3.5462	ppb	06:49:08
2	Sc Radial	3981.8	3981.8	93.7	%			06:47:34
2	Y RADIAL	4290.3	4290.3	89.49	%			06:47:34
2	Al 396.153Radial†	472790.5	504828.3	518300	ug/L	518300	ppb	06:47:29
2	Ca 317.933Radial†	228361.3	243782.5	483160	ug/L	483160	ppb	06:47:29
2	Fe 238.204 Radial†	14708.6	15696.8	189620	ug/L	189620	ppb	06:47:34
2	K 766.490 Radial†	2472.4	-68.1	-174.50	ug/L	-174.50	ppb	06:47:34
2	Mg 279.077 IEC†	10986.0	11728.1	498800	ug/L	498800	ppb	06:47:34
2	Na 589.592 Radial†	-737.2	83.1	32.720	ug/L	32.720	ppb	06:47:34
2	Sr 421.552†	447.3	457.6	0.1536	ug/L	0.1536	ppb	06:47:34
2	Sc 361.383	750601.9	750601.9	85.166	%			06:48:17
2	Y 371.029	623632.4	623632.4	83.286	%			06:48:17
2	Ag 328.068†	-8954.0	-10773.1	1.3794	ug/L	1.3794	ppb	06:48:17
2	As 188.979†	-71.0	-62.8	13.022	ug/L	13.022	ppb	06:48:37
2	B 249.677†	234.5	663.5	-13.901	ug/L	-13.901	ppb	06:48:17
2	Ba 233.527†	-505.4	-603.4	0.5251	ug/L	0.5251	ppb	06:48:37
2	Be 313.107†	-4494.3	-994.4	-0.4333	ug/L	-0.4333	ppb	06:48:17
2	Cd 226.502†	1139.3	1509.6	0.3639	ug/L	0.3639	ppb	06:48:37
2	Co 228.616†	12.5	61.4	-1.2351	ug/L	-1.2351	ppb	06:48:37
2	Cr 267.716†	-1334.6	-1635.2	0.1167	ug/L	0.1167	ppb	06:48:37
2	Cu 324.752†	3126.0	-2657.6	1.9510	ug/L	1.9510	ppb	06:48:37
2	Mn 257.610†	-1209.0	-1882.7	-3.9704	ug/L	-3.9704	ppb	06:48:17
2	Mo 202.031†	-196.2	-244.2	0.4833	ug/L	0.4833	ppb	06:48:37
2	Ni 231.604†	202.7	142.5	4.1634	ug/L	4.1634	ppb	06:48:37

2	P 214.914†	146.6	-6.1	-26.833 ug/L	-26.833 ppb	06:48:37
2	Pb 220.353†	-687.7	-757.5	-12.823 ug/L	-12.823 ppb	06:48:37
2	S 181.975 Axial†	26.4	7.8	-84.734 ug/L	-84.734 ppb	06:48:37
2	Sb 206.836†	58.8	41.6	-1.7358 ug/L	-1.7358 ppb	06:48:37
2	Se 196.026†	-879.7	-1016.3	-43.669 ug/L	-43.669 ppb	06:48:37
2	Si 251.611†	413.4	-83.5	-2.6494 ug/L	-2.6494 ppb	06:48:37
2	Sn 189.927†	-348.2	-415.8	-11.356 ug/L	-11.356 ppb	06:48:37
2	Ti 334.940†	-14095.4	-15498.5	-1.0926 ug/L	-1.0926 ppb	06:48:17
2	Tl 190.801†	-60.3	-37.0	-13.547 ug/L	-13.547 ppb	06:48:37
2	U 409.014†	-593.7	1191.3	10.801 ug/L	10.801 ppb	06:48:17
2	V 292.402†	368.8	1806.0	-5.0980 ug/L	-5.0980 ppb	06:48:37
2	Zn 213.857†	2732.0	2583.0	0.2040 ug/L	0.2040 ppb	06:48:37
2	SiO2†	407.9	-115.1	-8.0196 ug/L	-8.0196 ppb	06:49:13
3	Sc Radial	4011.6	4011.6	94.4 %		06:47:45
3	Y RADIAL	4348.3	4348.3	90.70 %		06:47:45
3	Al 396.153Radial†	475234.6	503665.7	517110 ug/L	517110 ppb	06:47:40
3	Ca 317.933Radial†	230160.6	243876.6	483350 ug/L	483350 ppb	06:47:40
3	Fe 238.204 Radial†	14807.5	15684.9	189480 ug/L	189480 ppb	06:47:45
3	K 766.490 Radial†	2513.8	-43.9	-169.98 ug/L	-169.98 ppb	06:47:45
3	Mg 279.077 IEC†	11042.5	11700.8	497640 ug/L	497640 ppb	06:47:45
3	Na 589.592 Radial†	-754.4	70.8	27.849 ug/L	27.849 ppb	06:47:45
3	Sr 421.552†	430.3	436.0	-0.0249 ug/L	-0.0249 ppb	06:47:45
3	Sc 361.383	745954.4	745954.4	84.639 %		06:48:42
3	Y 371.029	619521.6	619521.6	82.737 %		06:48:42
3	Ag 328.068†	-9011.6	-10906.7	0.7031 ug/L	0.7031 ppb	06:48:42
3	As 188.979†	-60.8	-51.2	18.777 ug/L	18.777 ppb	06:49:02
3	B 249.677†	269.5	706.5	-12.779 ug/L	-12.779 ppb	06:48:42
3	Ba 233.527†	-553.4	-663.9	-0.0078 ug/L	-0.0078 ppb	06:49:02
3	Be 313.107†	-4538.0	-1078.8	-0.4633 ug/L	-0.4633 ppb	06:48:42
3	Cd 226.502†	1097.9	1469.0	-0.1570 ug/L	-0.1570 ppb	06:49:02
3	Co 228.616†	-5.2	40.5	-1.7420 ug/L	-1.7420 ppb	06:49:02
3	Cr 267.716†	-1301.8	-1606.2	0.4554 ug/L	0.4554 ppb	06:49:02
3	Cu 324.752†	3155.3	-2600.1	2.1177 ug/L	2.1177 ppb	06:49:02
3	Mn 257.610†	-1367.2	-2078.3	-4.1756 ug/L	-4.1756 ppb	06:48:42
3	Mo 202.031†	-192.9	-241.8	0.6752 ug/L	0.6752 ppb	06:49:02
3	Ni 231.604†	203.5	144.9	4.2338 ug/L	4.2338 ppb	06:49:02
3	P 214.914†	167.3	19.4	-9.7609 ug/L	-9.7609 ppb	06:49:02
3	Pb 220.353†	-657.8	-727.1	-8.7657 ug/L	-8.7657 ppb	06:49:02
3	S 181.975 Axial†	40.9	25.1	-56.958 ug/L	-56.958 ppb	06:49:02
3	Sb 206.836†	32.5	10.8	-13.393 ug/L	-13.393 ppb	06:49:02
3	Se 196.026†	-849.0	-986.4	-22.303 ug/L	-22.303 ppb	06:49:02
3	Si 251.611†	428.7	-62.3	-1.9174 ug/L	-1.9174 ppb	06:49:02
3	Sn 189.927†	-314.2	-378.1	-3.4898 ug/L	-3.4898 ppb	06:49:02
3	Ti 334.940†	-13551.2	-14958.7	-0.0973 ug/L	-0.0973 ppb	06:48:42
3	Tl 190.801†	-59.4	-36.4	-13.324 ug/L	-13.324 ppb	06:49:02
3	U 409.014†	-581.8	1201.0	11.082 ug/L	11.082 ppb	06:48:42
3	V 292.402†	364.5	1803.6	-5.1142 ug/L	-5.1142 ppb	06:49:02
3	Zn 213.857†	2752.4	2627.1	0.7135 ug/L	0.7135 ppb	06:49:02
3	SiO2†	423.1	-94.1	-6.4657 ug/L	-6.4657 ppb	06:49:18

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	750358.1	85.138	%	0.4864				0.57%
Sc Radial	3986.7	93.8	%	0.54				0.57%
Y 371.029	623271.3	83.238	%	0.4785				0.57%
Y RADIAL	4306.4	89.83	%	0.764				0.85%
Ag 328.068†	-10865.3	0.9850	ug/L	0.35194	0.9850	ppb	0.35194	35.73%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	506579.7	520100	ug/L	4190.9	520100	ppb	4190.9	0.81%
QC value within limits for Al 396.153Radial Recovery = 104.02%								
As 188.979†	-55.8	16.530	ug/L	3.0775	16.530	ppb	3.0775	18.62%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	682.0	-13.464	ug/L	0.6008	-13.464	ppb	0.6008	4.46%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-633.1	0.2731	ug/L	0.26764	0.2731	ppb	0.26764	98.01%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1007.5	-0.4372	ug/L	0.02429	-0.4372	ppb	0.02429	5.55%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	244863.4	485310	ug/L	3550.3	485310	ppb	3550.3	0.73%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.06%
Cd 226.502†            1481.4     -0.0315 ug/L       0.35001     -0.0315 ppb        0.35001 >999.9%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              51.6     -1.4781 ug/L       0.25413     -1.4781 ppb        0.25413  17.19%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†           -1604.6      0.5144 ug/L       0.43028      0.5144 ppb        0.43028  83.64%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -2633.8      2.0347 ug/L       0.08336      2.0347 ppb        0.08336   4.10%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    15715.2      189850 ug/L         515.0      189850 ppb          515.0   0.27%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.92%
K 766.490 Radial†       -68.3     -175.25 ug/L         5.689     -175.25 ppb          5.689   3.25%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       11723.1      498590 ug/L         865.7      498590 ppb          865.7   0.17%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.72%
Mn 257.610†           -2033.9     -4.1241 ug/L       0.13559     -4.1241 ppb        0.13559   3.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -241.8      0.7226 ug/L       0.26621      0.7226 ppb        0.26621  36.84%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       74.3      29.234 ug/L        3.0402      29.234 ppb         3.0402  10.40%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             135.7      3.9641 ug/L       0.40770      3.9641 ppb        0.40770  10.28%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               17.6     -10.556 ug/L       15.8952     -10.556 ppb        15.8952 150.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -753.2     -11.827 ug/L        2.7043     -11.827 ppb         2.7043  22.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         20.9     -64.177 ug/L       18.0643     -64.177 ppb        18.0643  28.15%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              33.0     -4.9956 ug/L       7.33290     -4.9956 ppb        7.33290 146.79%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -991.2     -23.868 ug/L       19.0658     -23.868 ppb        19.0658  79.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -97.1     -3.1232 ug/L       1.49989     -3.1232 ppb        1.49989  48.02%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -393.9     -6.4486 ug/L       4.27956     -6.4486 ppb        4.27956  66.36%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             443.4      0.0208 ug/L       0.11687      0.0208 ppb        0.11687 561.67%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -15223.8     -0.3427 ug/L       0.66219     -0.3427 ppb        0.66219 193.23%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -39.3     -14.345 ug/L        1.5783     -14.345 ppb         1.5783  11.00%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             1193.6      10.838 ug/L        0.2283      10.838 ppb         0.2283   2.11%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             1800.7     -5.1705 ug/L       0.11179     -5.1705 ppb        0.11179   2.16%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2583.3      0.1756 ug/L       0.55260      0.1756 ppb        0.55260 314.62%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -88.0     -6.0105 ug/L       2.27118     -6.0105 ppb        2.27118  37.79%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 3/24/2010 06:51:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3979.6	3979.6	93.6	%			06:53:42
1	Y RADIAL	4340.2	4340.2	90.53	%			06:53:42
1	Al 396.153Radial†	485010.5	518158.7	531960	ug/L	531960	ppb	06:53:22
1	Ca 317.933Radial†	231944.7	247744.1	491020	ug/L	491020	ppb	06:53:22
1	Fe 238.204 Radial†	14519.9	15503.9	187310	ug/L	187310	ppb	06:53:42
1	K 766.490 Radial†	29202.0	28485.6	5223.2	ug/L	5223.2	ppb	06:53:22
1	Mg 279.077 IEC†	10927.4	11671.9	496420	ug/L	496420	ppb	06:53:42
1	Na 589.592 Radial†	12453.2	14172.6	5576.9	ug/L	5576.9	ppb	06:53:42
1	Sr 421.552†	57137.6	61013.9	497.87	ug/L	497.87	ppb	06:53:22
1	Sc 361.383	758836.3	758836.3	86.100	%			06:54:40
1	Y 371.029	628869.3	628869.3	83.986	%			06:54:40
1	Ag 328.068†	39800.1	45965.8	269.28	ug/L	269.28	ppb	06:54:40
1	As 188.979†	793.3	942.0	515.51	ug/L	515.51	ppb	06:55:00
1	B 249.677†	17452.6	20658.2	494.44	ug/L	494.44	ppb	06:54:40
1	Ba 233.527†	46787.0	54330.1	481.55	ug/L	481.55	ppb	06:54:40
1	Be 313.107†	537692.2	628778.1	239.00	ug/L	239.00	ppb	06:54:40
1	Cd 226.502†	30442.9	35529.3	450.38	ug/L	450.38	ppb	06:55:00
1	Co 228.616†	15668.9	18245.2	440.37	ug/L	440.37	ppb	06:55:00
1	Cr 267.716†	31997.4	37094.8	473.57	ug/L	473.57	ppb	06:54:40
1	Cu 324.752†	157493.1	176590.2	545.73	ug/L	545.73	ppb	06:54:40
1	Mn 257.610†	330638.5	383552.6	465.95	ug/L	465.95	ppb	06:54:40
1	Mo 202.031†	4802.3	5563.7	475.63	ug/L	475.63	ppb	06:55:00
1	Ni 231.604†	13180.6	15212.9	444.25	ug/L	444.25	ppb	06:55:00
1	P 214.914†	3278.5	3629.5	2325.2	ug/L	2325.2	ppb	06:55:00
1	Pb 220.353†	2042.3	2422.0	441.64	ug/L	441.64	ppb	06:55:00
1	S 181.975 Axial†	1398.7	1601.3	2452.1	ug/L	2452.1	ppb	06:55:00
1	Sb 206.836†	1200.6	1366.8	524.86	ug/L	524.86	ppb	06:55:00
1	Se 196.026†	2002.3	2342.2	2446.7	ug/L	2446.7	ppb	06:55:00
1	Si 251.611†	127376.4	147370.8	5102.4	ug/L	5102.4	ppb	06:54:40
1	Sn 189.927†	1667.9	1930.2	477.11	ug/L	477.11	ppb	06:55:00
1	Ti 334.940†	254214.3	296305.8	505.41	ug/L	505.41	ppb	06:54:40
1	Tl 190.801†	997.7	1192.5	431.65	ug/L	431.65	ppb	06:55:00
1	U 409.014†	14482.0	18708.3	486.05	ug/L	486.05	ppb	06:54:40
1	V 292.402†	59043.9	69948.6	495.22	ug/L	495.22	ppb	06:54:40
1	Zn 213.857†	40367.7	46259.7	480.56	ug/L	480.56	ppb	06:54:40
1	SiO2†	127080.7	147002.1	10924	ug/L	10924	ppb	06:55:58
2	Sc Radial	3991.4	3991.4	93.9	%			06:54:08
2	Y RADIAL	4326.1	4326.1	90.24	%			06:54:08
2	Al 396.153Radial†	475492.2	506494.2	519990	ug/L	519990	ppb	06:53:47
2	Ca 317.933Radial†	227957.5	242767.2	481150	ug/L	481150	ppb	06:53:47
2	Fe 238.204 Radial†	14531.5	15470.5	186900	ug/L	186900	ppb	06:54:08
2	K 766.490 Radial†	28825.6	27992.8	5133.2	ug/L	5133.2	ppb	06:53:47
2	Mg 279.077 IEC†	10950.3	11661.9	495990	ug/L	495990	ppb	06:54:08
2	Na 589.592 Radial†	12540.6	14226.4	5598.1	ug/L	5598.1	ppb	06:54:08
2	Sr 421.552†	55934.0	59552.1	485.93	ug/L	485.93	ppb	06:53:47
2	Sc 361.383	761966.1	761966.1	86.455	%			06:55:06
2	Y 371.029	632054.1	632054.1	84.411	%			06:55:06
2	Ag 328.068†	40080.1	46099.8	269.92	ug/L	269.92	ppb	06:55:06
2	As 188.979†	771.1	912.6	500.77	ug/L	500.77	ppb	06:55:26
2	B 249.677†	17565.7	20705.7	495.73	ug/L	495.73	ppb	06:55:06
2	Ba 233.527†	46982.5	54333.0	481.56	ug/L	481.56	ppb	06:55:06
2	Be 313.107†	540002.6	628885.5	239.04	ug/L	239.04	ppb	06:55:06
2	Cd 226.502†	30235.6	35144.3	445.33	ug/L	445.33	ppb	06:55:26
2	Co 228.616†	15548.7	18031.3	435.18	ug/L	435.18	ppb	06:55:26
2	Cr 267.716†	31924.6	36857.9	470.64	ug/L	470.64	ppb	06:55:06
2	Cu 324.752†	158381.6	176866.5	546.55	ug/L	546.55	ppb	06:55:06
2	Mn 257.610†	331112.2	382523.2	464.67	ug/L	464.67	ppb	06:55:06
2	Mo 202.031†	4805.4	5544.4	473.90	ug/L	473.90	ppb	06:55:26
2	Ni 231.604†	13115.9	15075.2	440.23	ug/L	440.23	ppb	06:55:26

2	P 214.914†	3274.5	3609.2	2308.6 ug/L	2308.6 ppb	06:55:26
2	Pb 220.353†	2075.2	2450.3	442.90 ug/L	442.90 ppb	06:55:26
2	S 181.975 Axial†	1403.1	1599.6	2451.7 ug/L	2451.7 ppb	06:55:26
2	Sb 206.836†	1200.5	1361.0	522.77 ug/L	522.77 ppb	06:55:26
2	Se 196.026†	1991.0	2319.6	2425.0 ug/L	2425.0 ppb	06:55:26
2	Si 251.611†	127770.4	147218.8	5097.1 ug/L	5097.1 ppb	06:55:06
2	Sn 189.927†	1638.0	1887.7	466.56 ug/L	466.56 ppb	06:55:26
2	Ti 334.940†	254885.1	295868.9	503.41 ug/L	503.41 ppb	06:55:06
2	Tl 190.801†	1009.8	1201.8	434.98 ug/L	434.98 ppb	06:55:26
2	U 409.014†	14432.2	18581.6	482.66 ug/L	482.66 ppb	06:55:06
2	V 292.402†	59146.4	69785.5	494.06 ug/L	494.06 ppb	06:55:06
2	Zn 213.857†	40412.1	46118.5	479.08 ug/L	479.08 ppb	06:55:06
2	SiO2†	127265.3	146609.4	10895 ug/L	10895 ppb	06:56:03
3	Sc Radial	3923.5	3923.5	92.3 %		06:54:33
3	Y RADIAL	4257.1	4257.1	88.80 %		06:54:33
3	Al 396.153Radial†	476995.2	516888.6	530660 ug/L	530660 ppb	06:54:13
3	Ca 317.933Radial†	228368.1	247414.6	490360 ug/L	490360 ppb	06:54:13
3	Fe 238.204 Radial†	14331.1	15521.3	187520 ug/L	187520 ppb	06:54:33
3	K 766.490 Radial†	28791.9	28487.8	5223.8 ug/L	5223.8 ppb	06:54:13
3	Mg 279.077 IEC†	10805.6	11707.0	497910 ug/L	497910 ppb	06:54:33
3	Na 589.592 Radial†	12287.0	14182.9	5581.0 ug/L	5581.0 ppb	06:54:33
3	Sr 421.552†	56081.5	60743.1	495.65 ug/L	495.65 ppb	06:54:13
3	Sc 361.383	760359.0	760359.0	86.273 %		06:55:32
3	Y 371.029	630318.1	630318.1	84.179 %		06:55:32
3	Ag 328.068†	39744.0	45808.2	268.61 ug/L	268.61 ppb	06:55:32
3	As 188.979†	807.5	956.6	522.81 ug/L	522.81 ppb	06:55:52
3	B 249.677†	17490.5	20661.6	494.49 ug/L	494.49 ppb	06:55:32
3	Ba 233.527†	46838.5	54281.0	481.13 ug/L	481.13 ppb	06:55:32
3	Be 313.107†	538901.9	628929.8	239.05 ug/L	239.05 ppb	06:55:32
3	Cd 226.502†	30437.7	35452.6	449.35 ug/L	449.35 ppb	06:55:52
3	Co 228.616†	15696.0	18240.1	440.25 ug/L	440.25 ppb	06:55:52
3	Cr 267.716†	32022.8	37049.9	473.04 ug/L	473.04 ppb	06:55:32
3	Cu 324.752†	157921.6	176720.6	546.14 ug/L	546.14 ppb	06:55:32
3	Mn 257.610†	330534.9	382663.5	464.83 ug/L	464.83 ppb	06:55:32
3	Mo 202.031†	4812.3	5564.1	475.67 ug/L	475.67 ppb	06:55:52
3	Ni 231.604†	13219.6	15227.5	444.68 ug/L	444.68 ppb	06:55:52
3	P 214.914†	3269.2	3611.1	2312.2 ug/L	2312.2 ppb	06:55:52
3	Pb 220.353†	2063.8	2442.2	444.16 ug/L	444.16 ppb	06:55:52
3	S 181.975 Axial†	1396.6	1595.5	2443.1 ug/L	2443.1 ppb	06:55:52
3	Sb 206.836†	1199.7	1363.0	523.38 ug/L	523.38 ppb	06:55:52
3	Se 196.026†	2014.7	2352.0	2454.1 ug/L	2454.1 ppb	06:55:52
3	Si 251.611†	127438.0	147145.8	5094.6 ug/L	5094.6 ppb	06:55:32
3	Sn 189.927†	1655.9	1912.4	473.30 ug/L	473.30 ppb	06:55:52
3	Ti 334.940†	254113.9	295598.1	504.05 ug/L	504.05 ppb	06:55:32
3	Tl 190.801†	998.2	1190.8	431.01 ug/L	431.01 ppb	06:55:52
3	U 409.014†	14528.7	18728.8	486.59 ug/L	486.59 ppb	06:55:32
3	V 292.402†	59090.9	69865.9	494.62 ug/L	494.62 ppb	06:55:32
3	Zn 213.857†	40421.5	46228.2	480.18 ug/L	480.18 ppb	06:55:32
3	SiO2†	126757.1	146331.4	10875 ug/L	10875 ppb	06:56:08

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	760387.1	86.276	%	0.1776				0.21%
Sc Radial	3964.8	93.3	%	0.85				0.92%
Y 371.029	630413.8	84.192	%	0.2129				0.25%
Y RADIAL	4307.8	89.86	%	0.928				1.03%
Ag 328.068†	45957.9	269.27	ug/L	0.655	269.27	ppb	0.655	0.24%
QC value within limits for Ag 328.068 Recovery = 107.71%								
Al 396.153Radial†	513847.2	527540	ug/L	6570.1	527540	ppb	6570.1	1.25%
QC value within limits for Al 396.153Radial Recovery = 105.51%								
As 188.979†	937.1	513.03	ug/L	11.228	513.03	ppb	11.228	2.19%
QC value within limits for As 188.979 Recovery = 102.61%								
B 249.677†	20675.2	494.89	ug/L	0.730	494.89	ppb	0.730	0.15%
QC value within limits for B 249.677 Recovery = 98.98%								
Ba 233.527†	54314.7	481.42	ug/L	0.248	481.42	ppb	0.248	0.05%
QC value within limits for Ba 233.527 Recovery = 96.28%								
Be 313.107†	628864.4	239.03	ug/L	0.028	239.03	ppb	0.028	0.01%
QC value within limits for Be 313.107 Recovery = 95.61%								
Ca 317.933Radial†	245975.3	487510	ug/L	5516.1	487510	ppb	5516.1	1.13%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.50%
Cd 226.502†            35375.4      448.35 ug/L         2.666      448.35 ppb          2.666   0.59%
   QC value within limits for Cd 226.502  Recovery = 89.67%
Co 228.616†            18172.2      438.60 ug/L         2.960      438.60 ppb          2.960   0.67%
   QC value within limits for Co 228.616  Recovery = 87.72%
Cr 267.716†            37000.8      472.42 ug/L         1.566      472.42 ppb          1.566   0.33%
   QC value within limits for Cr 267.716  Recovery = 94.48%
Cu 324.752†           176725.8      546.14 ug/L         0.410      546.14 ppb          0.410   0.08%
   QC value within limits for Cu 324.752  Recovery = 109.23%
Fe 238.204 Radial†     15498.6      187240 ug/L         311.8      187240 ppb          311.8   0.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.62%
K 766.490 Radial†      28322.1      5193.4 ug/L         52.12      5193.4 ppb          52.12   1.00%
   QC value within limits for K 766.490 Radial  Recovery = 103.87%
Mg 279.077 IEC†        11680.3      496780 ug/L        1007.5      496780 ppb         1007.5   0.20%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.36%
Mn 257.610†           382913.1      465.15 ug/L         0.698      465.15 ppb          0.698   0.15%
   QC value within limits for Mn 257.610  Recovery = 93.03%
Mo 202.031†             5557.4      475.06 ug/L         1.010      475.06 ppb          1.010   0.21%
   QC value within limits for Mo 202.031  Recovery = 95.01%
Na 589.592 Radial†     14193.9      5585.3 ug/L         11.23      5585.3 ppb          11.23   0.20%
   QC value within limits for Na 589.592 Radial  Recovery = 111.71%
Ni 231.604†            15171.9      443.05 ug/L         2.454      443.05 ppb          2.454   0.55%
   QC value within limits for Ni 231.604  Recovery = 88.61%
P 214.914†              3616.6      2315.3 ug/L          8.74      2315.3 ppb           8.74   0.38%
   QC value within limits for P 214.914  Recovery = 92.61%
Pb 220.353†             2438.2      442.90 ug/L         1.264      442.90 ppb          1.264   0.29%
   QC value within limits for Pb 220.353  Recovery = 88.58%
S 181.975 Axial†        1598.8      2449.0 ug/L          5.06      2449.0 ppb           5.06   0.21%
   QC value within limits for S 181.975 Axial  Recovery = 97.96%
Sb 206.836†             1363.6      523.67 ug/L         1.077      523.67 ppb          1.077   0.21%
   QC value within limits for Sb 206.836  Recovery = 104.73%
Se 196.026†             2337.9      2441.9 ug/L         15.17      2441.9 ppb          15.17   0.62%
   QC value within limits for Se 196.026  Recovery = 97.68%
Si 251.611†           147245.1      5098.0 ug/L          3.98      5098.0 ppb           3.98   0.08%
   QC value within limits for Si 251.611  Recovery = 101.96%
Sn 189.927†             1910.1      472.32 ug/L         5.346      472.32 ppb          5.346   1.13%
   QC value within limits for Sn 189.927  Recovery = 94.46%
Sr 421.552†            60436.4      493.15 ug/L         6.352      493.15 ppb          6.352   1.29%
   QC value within limits for Sr 421.552  Recovery = 98.63%
Ti 334.940†           295924.3      504.29 ug/L         1.018      504.29 ppb          1.018   0.20%
   QC value within limits for Ti 334.940  Recovery = 100.86%
Tl 190.801†             1195.0      432.55 ug/L         2.134      432.55 ppb          2.134   0.49%
   QC value within limits for Tl 190.801  Recovery = 86.51%
U 409.014†             18672.9      485.10 ug/L         2.129      485.10 ppb          2.129   0.44%
   QC value within limits for U 409.014  Recovery = 97.02%
V 292.402†             69866.7      494.63 ug/L         0.579      494.63 ppb          0.579   0.12%
   QC value within limits for V 292.402  Recovery = 98.93%
Zn 213.857†            46202.1      479.94 ug/L         0.767      479.94 ppb          0.767   0.16%
   QC value within limits for Zn 213.857  Recovery = 95.99%
SiO2†                 146647.6       10898 ug/L          25.1       10898 ppb           25.1   0.23%
   QC value within limits for SiO2  Recovery = 101.90%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 3/24/2010 06:58:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3891.1	3891.1	91.5	%			07:00:31
1	Y RADIAL	4245.0	4245.0	88.55	%			07:00:31
1	Al 396.153Radial†	461424.8	504170.5	517630	ug/L	517630	ppb	07:00:11
1	Ca 317.933Radial†	222676.8	243251.9	482110	ug/L	482110	ppb	07:00:11
1	Fe 238.204 Radial†	32992.4	36037.3	435340	ug/L	435340	ppb	07:00:31
1	K 766.490 Radial†	2870.1	427.8	-287.02	ug/L	-287.02	ppb	07:00:11
1	Mg 279.077 IEC†	10593.2	11572.2	491910	ug/L	491910	ppb	07:00:31
1	Na 589.592 Radial†	1232225.9	1347047.6	530060	ug/L	530060	ppb	07:00:11
1	Sr 421.552†	1384.2	1492.3	8.6667	ug/L	8.6667	ppb	07:00:31
1	Sc 361.383	737751.3	737751.3	83.708	%			07:01:29
1	Y 371.029	613456.2	613456.2	81.927	%			07:01:29
1	Ag 328.068†	-20837.0	-25152.1	-1.9809	ug/L	-1.9809	ppb	07:01:29
1	As 188.979†	-147.5	-155.6	24.472	ug/L	24.472	ppb	07:01:49
1	B 249.677†	945.9	1518.1	-32.054	ug/L	-32.054	ppb	07:01:29
1	Ba 233.527†	-1436.8	-1726.5	-1.8032	ug/L	-1.8032	ppb	07:01:49
1	Be 313.107†	-10364.7	-8099.2	-3.1175	ug/L	-3.1175	ppb	07:01:29
1	Cd 226.502†	2825.0	3546.7	4.6826	ug/L	4.6826	ppb	07:01:49
1	Co 228.616†	190.2	274.0	0.3146	ug/L	0.3146	ppb	07:01:49
1	Cr 267.716†	-1166.7	-1461.9	22.598	ug/L	22.598	ppb	07:01:49
1	Cu 324.752†	793.0	-5380.7	-1.2339	ug/L	-1.2339	ppb	07:01:29
1	Mn 257.610†	-22782.3	-27679.5	-10.891	ug/L	-10.891	ppb	07:01:29
1	Mo 202.031†	-423.2	-519.4	-2.9672	ug/L	-2.9672	ppb	07:01:49
1	Ni 231.604†	276.9	235.2	6.8696	ug/L	6.8696	ppb	07:01:49
1	P 214.914†	485.3	401.4	51.393	ug/L	51.393	ppb	07:01:49
1	Pb 220.353†	-509.9	-559.1	-19.922	ug/L	-19.922	ppb	07:01:49
1	S 181.975 Axial†	60.6	49.2	-18.649	ug/L	-18.649	ppb	07:01:49
1	Sb 206.836†	44.8	26.0	-10.904	ug/L	-10.904	ppb	07:01:49
1	Se 196.026†	-2003.6	-2376.8	-346.75	ug/L	-346.75	ppb	07:01:49
1	Si 251.611†	-493.6	-1158.6	-39.633	ug/L	-39.633	ppb	07:01:49
1	Sn 189.927†	-349.2	-424.1	-27.359	ug/L	-27.359	ppb	07:01:49
1	Ti 334.940†	-12944.3	-14411.7	-5.2157	ug/L	-5.2157	ppb	07:01:29
1	Tl 190.801†	-69.2	-48.9	-17.966	ug/L	-17.966	ppb	07:01:49
1	U 409.014†	440295.4	527878.8	14296	ug/L	14296	ppb	07:01:29
1	V 292.402†	827.0	2360.9	-9.9256	ug/L	-9.9256	ppb	07:01:49
1	Zn 213.857†	4837.4	5154.1	-8.1094	ug/L	-8.1094	ppb	07:01:49
1	SiO2†	-599.8	-1310.6	-96.353	ug/L	-96.353	ppb	07:02:46
2	Sc Radial	3922.5	3922.5	92.3	%			07:00:57
2	Y RADIAL	4254.6	4254.6	88.75	%			07:00:57
2	Al 396.153Radial†	462492.6	501298.5	514680	ug/L	514680	ppb	07:00:37
2	Ca 317.933Radial†	222293.7	240892.4	477440	ug/L	477440	ppb	07:00:37
2	Fe 238.204 Radial†	33130.3	35898.6	433670	ug/L	433670	ppb	07:00:57
2	K 766.490 Radial†	2835.2	364.9	-295.79	ug/L	-295.79	ppb	07:00:37
2	Mg 279.077 IEC†	10645.7	11536.6	490400	ug/L	490400	ppb	07:00:57
2	Na 589.592 Radial†	1232742.4	1336847.4	526050	ug/L	526050	ppb	07:00:37
2	Sr 421.552†	1382.7	1478.6	8.5891	ug/L	8.5891	ppb	07:00:57
2	Sc 361.383	741065.9	741065.9	84.084	%			07:01:55
2	Y 371.029	616358.5	616358.5	82.315	%			07:01:55
2	Ag 328.068†	-20963.4	-25191.0	-2.6161	ug/L	-2.6161	ppb	07:01:55
2	As 188.979†	-160.8	-170.6	16.608	ug/L	16.608	ppb	07:02:15
2	B 249.677†	1039.1	1623.9	-29.086	ug/L	-29.086	ppb	07:01:55
2	Ba 233.527†	-1396.6	-1671.0	-1.3696	ug/L	-1.3696	ppb	07:02:15
2	Be 313.107†	-10482.6	-8184.0	-3.1507	ug/L	-3.1507	ppb	07:01:55
2	Cd 226.502†	2823.9	3530.3	4.6371	ug/L	4.6371	ppb	07:02:15
2	Co 228.616†	172.2	251.5	-0.2024	ug/L	-0.2024	ppb	07:02:15
2	Cr 267.716†	-1151.5	-1437.6	22.719	ug/L	22.719	ppb	07:02:15
2	Cu 324.752†	819.3	-5353.7	-1.2391	ug/L	-1.2391	ppb	07:01:55
2	Mn 257.610†	-23316.5	-28193.1	-11.620	ug/L	-11.620	ppb	07:01:55
2	Mo 202.031†	-412.7	-504.7	-1.9486	ug/L	-1.9486	ppb	07:02:15
2	Ni 231.604†	246.3	197.4	5.7630	ug/L	5.7630	ppb	07:02:15

2	P 214.914†	497.1	412.9	59.768 ug/L	59.768 ppb	07:02:15
2	Pb 220.353†	-501.2	-546.0	-18.540 ug/L	-18.540 ppb	07:02:15
2	S 181.975 Axial†	52.0	38.6	-34.956 ug/L	-34.956 ppb	07:02:15
2	Sb 206.836†	20.9	-2.7	-21.781 ug/L	-21.781 ppb	07:02:15
2	Se 196.026†	-2029.6	-2397.1	-367.52 ug/L	-367.52 ppb	07:02:15
2	Si 251.611†	-470.6	-1128.6	-38.610 ug/L	-38.610 ppb	07:02:15
2	Sn 189.927†	-336.7	-407.4	-24.629 ug/L	-24.629 ppb	07:02:15
2	Ti 334.940†	-13265.0	-14723.9	-6.2246 ug/L	-6.2246 ppb	07:01:55
2	Tl 190.801†	-103.3	-89.1	-32.420 ug/L	-32.420 ppb	07:02:15
2	U 409.014†	442196.7	527787.3	14294 ug/L	14294 ppb	07:01:55
2	V 292.402†	836.1	2367.3	-9.6519 ug/L	-9.6519 ppb	07:02:15
2	Zn 213.857†	4843.0	5134.9	-8.0638 ug/L	-8.0638 ppb	07:02:15
2	SiO2†	-602.4	-1310.4	-96.371 ug/L	-96.371 ppb	07:02:51
3	Sc Radial	3902.1	3902.1	91.8 %		07:01:22
3	Y RADIAL	4257.0	4257.0	88.80 %		07:01:22
3	Al 396.153Radial†	462631.7	504067.3	517520 ug/L	517520 ppb	07:01:02
3	Ca 317.933Radial†	222252.0	242104.9	479840 ug/L	479840 ppb	07:01:02
3	Fe 238.204 Radial†	33098.7	36051.7	435520 ug/L	435520 ppb	07:01:22
3	K 766.490 Radial†	2911.1	463.7	-279.05 ug/L	-279.05 ppb	07:01:02
3	Mg 279.077 IEC†	10648.9	11600.3	493110 ug/L	493110 ppb	07:01:22
3	Na 589.592 Radial†	1233196.0	1344317.5	528990 ug/L	528990 ppb	07:01:02
3	Sr 421.552†	1366.3	1468.5	8.4881 ug/L	8.4881 ppb	07:01:22
3	Sc 361.383	736902.7	736902.7	83.612 %		07:02:21
3	Y 371.029	612494.5	612494.5	81.799 %		07:02:21
3	Ag 328.068†	-20799.8	-25136.2	-1.8076 ug/L	-1.8076 ppb	07:02:21
3	As 188.979†	-145.9	-153.9	25.369 ug/L	25.369 ppb	07:02:41
3	B 249.677†	885.7	1447.4	-33.883 ug/L	-33.883 ppb	07:02:21
3	Ba 233.527†	-1457.3	-1753.0	-2.0295 ug/L	-2.0295 ppb	07:02:41
3	Be 313.107†	-10420.4	-8180.1	-3.1496 ug/L	-3.1496 ppb	07:02:21
3	Cd 226.502†	2814.3	3537.8	4.5435 ug/L	4.5435 ppb	07:02:41
3	Co 228.616†	191.0	275.2	0.3474 ug/L	0.3474 ppb	07:02:41
3	Cr 267.716†	-1176.3	-1475.0	22.463 ug/L	22.463 ppb	07:02:41
3	Cu 324.752†	710.5	-5478.3	-1.5121 ug/L	-1.5121 ppb	07:02:21
3	Mn 257.610†	-23175.3	-28180.9	-11.534 ug/L	-11.534 ppb	07:02:21
3	Mo 202.031†	-402.8	-495.7	-1.0398 ug/L	-1.0398 ppb	07:02:41
3	Ni 231.604†	256.6	211.4	6.1730 ug/L	6.1730 ppb	07:02:41
3	P 214.914†	491.6	409.6	56.798 ug/L	56.798 ppb	07:02:41
3	Pb 220.353†	-492.7	-539.2	-17.170 ug/L	-17.170 ppb	07:02:41
3	S 181.975 Axial†	46.9	32.8	-44.708 ug/L	-44.708 ppb	07:02:41
3	Sb 206.836†	51.5	34.1	-7.8067 ug/L	-7.8067 ppb	07:02:41
3	Se 196.026†	-2009.9	-2387.1	-353.92 ug/L	-353.92 ppb	07:02:41
3	Si 251.611†	-480.8	-1143.9	-39.151 ug/L	-39.151 ppb	07:02:41
3	Sn 189.927†	-357.7	-434.7	-29.991 ug/L	-29.991 ppb	07:02:41
3	Ti 334.940†	-13281.3	-14832.5	-6.2936 ug/L	-6.2936 ppb	07:02:21
3	Tl 190.801†	-92.9	-77.3	-28.197 ug/L	-28.197 ppb	07:02:41
3	U 409.014†	439293.9	527286.7	14280 ug/L	14280 ppb	07:02:21
3	V 292.402†	849.9	2389.5	-9.7236 ug/L	-9.7236 ppb	07:02:41
3	Zn 213.857†	4826.0	5147.1	-8.2077 ug/L	-8.2077 ppb	07:02:41
3	SiO2†	-492.2	-1182.7	-86.887 ug/L	-86.887 ppb	07:02:56

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	738573.3	83.801	%	0.2496				0.30%
Sc Radial	3905.2	91.9	%	0.37				0.41%
Y 371.029	614103.1	82.014	%	0.2686				0.33%
Y RADIAL	4252.2	88.70	%	0.133				0.15%
Ag 328.068†	-25159.8	-2.1349	ug/L	0.42563	-2.1349	ppb	0.42563	19.94%
Al 396.153Radial†	503178.8	516610	ug/L	1672.7	516610	ppb	1672.7	0.32%
QC value within limits for Al 396.153Radial Recovery = 103.32%								
As 188.979†	-160.0	22.150	ug/L	4.8200	22.150	ppb	4.8200	21.76%
B 249.677†	1529.8	-31.674	ug/L	2.4212	-31.674	ppb	2.4212	7.64%
Ba 233.527†	-1716.9	-1.7341	ug/L	0.33530	-1.7341	ppb	0.33530	19.34%
Be 313.107†	-8154.4	-3.1393	ug/L	0.01888	-3.1393	ppb	0.01888	0.60%
Ca 317.933Radial†	242083.1	479800	ug/L	2338.6	479800	ppb	2338.6	0.49%
QC value within limits for Ca 317.933Radial Recovery = 95.96%								
Cd 226.502†	3538.3	4.6211	ug/L	0.07092	4.6211	ppb	0.07092	1.53%
Co 228.616†	266.9	0.1532	ug/L	0.30840	0.1532	ppb	0.30840	201.30%
Cr 267.716†	-1458.2	22.594	ug/L	0.1280	22.594	ppb	0.1280	0.57%
Cu 324.752†	-5404.2	-1.3284	ug/L	0.15911	-1.3284	ppb	0.15911	11.98%

Fe 238.204 Radial†	35995.9	434840	ug/L	1020.8	434840	ppb	1020.8	0.23%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 86.97%								
K 766.490 Radial†	418.8	-287.29	ug/L	8.371	-287.29	ppb	8.371	2.91%
Mg 279.077 IEC†	11569.7	491810	ug/L	1356.9	491810	ppb	1356.9	0.28%
QC value within limits for Mg 279.077 IEC Recovery = 98.36%								
Mn 257.610†	-28017.8	-11.348	ug/L	0.3987	-11.348	ppb	0.3987	3.51%
Mo 202.031†	-506.6	-1.9852	ug/L	0.96423	-1.9852	ppb	0.96423	48.57%
Na 589.592 Radial†	1342737.5	528370	ug/L	2077.9	528370	ppb	2077.9	0.39%
QC value within limits for Na 589.592 Radial Recovery = 105.67%								
Ni 231.604†	214.7	6.2685	ug/L	0.55949	6.2685	ppb	0.55949	8.93%
P 214.914†	408.0	55.986	ug/L	4.2462	55.986	ppb	4.2462	7.58%
Pb 220.353†	-548.1	-18.544	ug/L	1.3759	-18.544	ppb	1.3759	7.42%
S 181.975 Axial†	40.2	-32.771	ug/L	13.1660	-32.771	ppb	13.1660	40.18%
Sb 206.836†	19.1	-13.497	ug/L	7.3394	-13.497	ppb	7.3394	54.38%
Se 196.026†	-2387.0	-356.07	ug/L	10.552	-356.07	ppb	10.552	2.96%
Si 251.611†	-1143.7	-39.132	ug/L	0.5120	-39.132	ppb	0.5120	1.31%
Sn 189.927†	-422.0	-27.326	ug/L	2.6808	-27.326	ppb	2.6808	9.81%
Sr 421.552†	1479.8	8.5813	ug/L	0.08957	8.5813	ppb	0.08957	1.04%
Ti 334.940†	-14656.1	-5.9113	ug/L	0.60338	-5.9113	ppb	0.60338	10.21%
Tl 190.801†	-71.8	-26.194	ug/L	7.4322	-26.194	ppb	7.4322	28.37%
U 409.014†	527650.9	14290	ug/L	8.7	14290	ppb	8.7	0.06%
QC value within limits for U 409.014 Recovery = 95.27%								
V 292.402†	2372.5	-9.7670	ug/L	0.14192	-9.7670	ppb	0.14192	1.45%
Zn 213.857†	5145.4	-8.1270	ug/L	0.07350	-8.1270	ppb	0.07350	0.90%
SiO2†	-1267.9	-93.204	ug/L	5.4707	-93.204	ppb	5.4707	5.87%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 3/24/2010 07:05:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4401.8	4401.8	104	%			07:07:04
1	Y RADIAL	4745.7	4745.7	98.99	%			07:07:04
1	Al 396.153Radial†	382.2	444.0	11.427	ug/L	11.427	ppb	07:07:04
1	Ca 317.933Radial†	30.6	12.5	24.710	ug/L	24.710	ppb	07:07:24
1	Fe 238.204 Radial†	-14.1	-19.8	42.247	ug/L	42.247	ppb	07:07:24
1	K 766.490 Radial†	1548644.4	1492862.4	282480	ug/L	282480	ppb	07:06:59
1	Mg 279.077 IEC†	-5.7	-6.1	-164.45	ug/L	-164.45	ppb	07:07:24
1	Na 589.592 Radial†	-345.6	536.4	211.07	ug/L	211.07	ppb	07:07:04
1	Sr 421.552†	1182756.6	1142201.8	9389.0	ug/L	9389.0	ppb	07:06:59
1	Sc 361.383	846869.9	846869.9	96.089	%			07:08:41
1	Y 371.029	702359.0	702359.0	93.800	%			07:08:41
1	Ag 328.068†	-5913.2	-6413.4	9.3045	ug/L	9.3045	ppb	07:08:47
1	As 188.979†	17873.9	18622.0	9324.7	ug/L	9324.7	ppb	07:08:47
1	B 249.677†	183920.4	191794.7	4857.8	ug/L	4857.8	ppb	07:08:41
1	Ba 233.527†	1510953.3	1572444.0	13762	ug/L	13762	ppb	07:08:41
1	Be 313.107†	6996573.0	7285639.4	2778.6	ug/L	2778.6	ppb	07:08:35
1	Cd 226.502†	679627.6	707462.5	9351.8	ug/L	9351.8	ppb	07:08:41
1	Co 228.616†	372200.1	387396.7	9403.3	ug/L	9403.3	ppb	07:08:41
1	Cr 267.716†	1841479.6	1916365.7	23428	ug/L	23428	ppb	07:08:41
1	Cu 324.752†	6273097.4	6522105.1	19800	ug/L	19800	ppb	07:08:35
1	Mn 257.610†	7204053.6	7496819.4	9142.7	ug/L	9142.7	ppb	07:08:35
1	Mo 202.031†	107636.8	112004.1	9164.7	ug/L	9164.7	ppb	07:08:47
1	Ni 231.604†	316443.5	329228.3	9614.3	ug/L	9614.3	ppb	07:08:41
1	P 214.914†	23254.8	24023.0	12347	ug/L	12347	ppb	07:08:47
1	Pb 220.353†	159717.3	166268.4	23550	ug/L	23550	ppb	07:08:41
1	S 181.975 Axial†	28902.8	30056.0	47897	ug/L	47897	ppb	07:08:47
1	Sb 206.836†	24594.4	25568.0	10170	ug/L	10170	ppb	07:08:47
1	Se 196.026†	12264.7	12780.6	9508.1	ug/L	9508.1	ppb	07:08:47
1	Si 251.611†	1283193.4	1334854.7	46154	ug/L	46154	ppb	07:08:41
1	Sn 189.927†	44062.9	45849.5	9516.6	ug/L	9516.6	ppb	07:08:47
1	Ti 334.940†	5738193.3	5972808.7	9677.2	ug/L	9677.2	ppb	07:08:35
1	Tl 190.801†	24464.6	25494.2	9221.2	ug/L	9221.2	ppb	07:08:47
1	U 409.014†	-927.7	922.9	-27.289	ug/L	-27.289	ppb	07:08:41
1	V 292.402†	1298725.8	1352961.2	9901.2	ug/L	9901.2	ppb	07:08:41
1	Zn 213.857†	1176461.2	1223722.2	13460	ug/L	13460	ppb	07:08:41
1	SiO2†	1284106.2	1335779.5	99131	ug/L	99131	ppb	07:09:33
2	Sc Radial	4317.6	4317.6	102	%			07:07:34
2	Y RADIAL	4680.4	4680.4	97.63	%			07:07:34
2	Al 396.153Radial†	397.9	466.7	28.235	ug/L	28.235	ppb	07:07:34
2	Ca 317.933Radial†	28.7	11.1	22.052	ug/L	22.052	ppb	07:07:54
2	Fe 238.204 Radial†	-14.7	-20.6	31.867	ug/L	31.867	ppb	07:07:54
2	K 766.490 Radial†	1552656.2	1525999.9	288750	ug/L	288750	ppb	07:07:29
2	Mg 279.077 IEC†	-3.2	-3.8	-63.237	ug/L	-63.237	ppb	07:07:54
2	Na 589.592 Radial†	-434.3	442.6	174.15	ug/L	174.15	ppb	07:07:34
2	Sr 421.552†	1184136.6	1165852.1	9583.4	ug/L	9583.4	ppb	07:07:29
2	Sc 361.383	848752.9	848752.9	96.303	%			07:09:01
2	Y 371.029	705588.4	705588.4	94.232	%			07:09:01
2	Ag 328.068†	-6017.5	-6508.0	8.9468	ug/L	8.9468	ppb	07:09:07
2	As 188.979†	18281.7	19004.2	9513.6	ug/L	9513.6	ppb	07:09:07
2	B 249.677†	184384.8	191852.2	4859.2	ug/L	4859.2	ppb	07:09:01
2	Ba 233.527†	1512618.2	1570684.2	13746	ug/L	13746	ppb	07:09:01
2	Be 313.107†	6986807.6	7259344.8	2768.4	ug/L	2768.4	ppb	07:08:55
2	Cd 226.502†	682957.6	709351.2	9376.8	ug/L	9376.8	ppb	07:09:01
2	Co 228.616†	372862.9	387225.5	9399.6	ug/L	9399.6	ppb	07:09:01
2	Cr 267.716†	1849092.5	1920019.1	23472	ug/L	23472	ppb	07:09:01
2	Cu 324.752†	6218399.4	6450823.2	19584	ug/L	19584	ppb	07:08:55
2	Mn 257.610†	7148431.8	7422428.7	9052.0	ug/L	9052.0	ppb	07:08:55
2	Mo 202.031†	109446.7	113635.0	9298.1	ug/L	9298.1	ppb	07:09:07
2	Ni 231.604†	317420.6	329512.2	9622.6	ug/L	9622.6	ppb	07:09:01

2	P 214.914†	23736.0	24469.1	12693	ug/L	12693	ppb	07:09:07
2	Pb 220.353†	159975.6	166167.8	23536	ug/L	23536	ppb	07:09:01
2	S 181.975 Axial†	29549.3	30660.6	48860	ug/L	48860	ppb	07:09:07
2	Sb 206.836†	24941.5	25871.6	10292	ug/L	10292	ppb	07:09:07
2	Se 196.026†	12560.0	13058.9	9715.0	ug/L	9715.0	ppb	07:09:07
2	Si 251.611†	1283559.1	1332271.7	46063	ug/L	46063	ppb	07:09:01
2	Sn 189.927†	44912.9	46630.4	9678.7	ug/L	9678.7	ppb	07:09:07
2	Ti 334.940†	5691287.2	5910852.9	9576.7	ug/L	9576.7	ppb	07:08:55
2	Tl 190.801†	24852.2	25840.2	9344.2	ug/L	9344.2	ppb	07:09:07
2	U 409.014†	-1008.5	841.1	-29.610	ug/L	-29.610	ppb	07:09:01
2	V 292.402†	1304554.1	1356014.6	9925.3	ug/L	9925.3	ppb	07:09:01
2	Zn 213.857†	1180103.4	1224788.0	13472	ug/L	13472	ppb	07:09:01
2	SiO2†	1284362.2	1333080.5	98927	ug/L	98927	ppb	07:09:39
3	Sc Radial	4297.0	4297.0	101	%			07:08:05
3	Y RADIAL	4643.3	4643.3	96.86	%			07:08:05
3	Al 396.153Radial†	381.6	452.4	2.4936	ug/L	2.4936	ppb	07:08:05
3	Ca 317.933Radial†	28.2	10.8	21.387	ug/L	21.387	ppb	07:08:25
3	Fe 238.204 Radial†	-15.2	-21.2	26.256	ug/L	26.256	ppb	07:08:25
3	K 766.490 Radial†	1565095.5	1545624.8	292460	ug/L	292460	ppb	07:08:00
3	Mg 279.077 IEC†	-1.3	-1.9	19.081	ug/L	19.081	ppb	07:08:25
3	Na 589.592 Radial†	-478.9	396.4	155.97	ug/L	155.97	ppb	07:08:05
3	Sr 421.552†	1193226.6	1180426.5	9703.2	ug/L	9703.2	ppb	07:08:00
3	Sc 361.383	827571.2	827571.2	93.899	%			07:09:22
3	Y 371.029	685991.5	685991.5	91.614	%			07:09:22
3	Ag 328.068†	-6207.3	-6870.1	7.2408	ug/L	7.2408	ppb	07:09:27
3	As 188.979†	18288.3	19497.2	9760.4	ug/L	9760.4	ppb	07:09:27
3	B 249.677†	179630.1	191689.2	4855.0	ug/L	4855.0	ppb	07:09:22
3	Ba 233.527†	1485150.6	1581634.0	13842	ug/L	13842	ppb	07:09:22
3	Be 313.107†	6964923.2	7421731.8	2830.4	ug/L	2830.4	ppb	07:09:15
3	Cd 226.502†	667879.6	711445.1	9404.4	ug/L	9404.4	ppb	07:09:22
3	Co 228.616†	365242.2	389019.5	9443.2	ug/L	9443.2	ppb	07:09:22
3	Cr 267.716†	1807296.0	1924651.7	23529	ug/L	23529	ppb	07:09:22
3	Cu 324.752†	6197220.8	6593539.3	20017	ug/L	20017	ppb	07:09:15
3	Mn 257.610†	7166465.5	7631622.9	9307.1	ug/L	9307.1	ppb	07:09:15
3	Mo 202.031†	109344.5	116434.9	9527.2	ug/L	9527.2	ppb	07:09:27
3	Ni 231.604†	310276.1	330339.9	9646.7	ug/L	9646.7	ppb	07:09:22
3	P 214.914†	23870.4	25243.0	13131	ug/L	13131	ppb	07:09:27
3	Pb 220.353†	156727.2	166960.1	23649	ug/L	23649	ppb	07:09:22
3	S 181.975 Axial†	29583.0	31481.9	50169	ug/L	50169	ppb	07:09:27
3	Sb 206.836†	25054.4	26654.8	10601	ug/L	10601	ppb	07:09:27
3	Se 196.026†	12591.2	13426.0	9987.9	ug/L	9987.9	ppb	07:09:27
3	Si 251.611†	1255210.6	1336195.4	46196	ug/L	46196	ppb	07:09:22
3	Sn 189.927†	45018.4	47936.4	9949.7	ug/L	9949.7	ppb	07:09:27
3	Ti 334.940†	5692295.0	6063187.5	9823.7	ug/L	9823.7	ppb	07:09:15
3	Tl 190.801†	24878.1	26528.2	9594.4	ug/L	9594.4	ppb	07:09:27
3	U 409.014†	-981.1	843.5	-29.670	ug/L	-29.670	ppb	07:09:22
3	V 292.402†	1272018.1	1356036.8	9928.4	ug/L	9928.4	ppb	07:09:22
3	Zn 213.857†	1157860.8	1232464.7	13556	ug/L	13556	ppb	07:09:22
3	SiO2†	1282171.2	1364882.6	101290	ug/L	101290	ppb	07:09:45

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	841064.7	95.430	%	1.3302				1.39%
Sc Radial	4338.8	102	%	1.3				1.28%
Y 371.029	697979.6	93.215	%	1.4032				1.51%
Y RADIAL	4689.8	97.83	%	1.081				1.10%
Ag 328.068†	-6597.2	8.4974	ug/L	1.10281	8.4974	ppb	1.10281	12.98%
Al 396.153Radial†	454.4	14.052	ug/L	13.0699	14.052	ppb	13.0699	93.01%
As 188.979†	19041.1	9532.9	ug/L	218.49	9532.9	ppb	218.49	2.29%
QC value within limits for As 188.979 Recovery = 95.33%								
B 249.677†	191778.7	4857.3	ug/L	2.17	4857.3	ppb	2.17	0.04%
QC value within limits for B 249.677 Recovery = 97.15%								
Ba 233.527†	1574920.7	13783	ug/L	51.4	13783	ppb	51.4	0.37%
QC value within limits for Ba 233.527 Recovery = 91.89%								
Be 313.107†	7322238.6	2792.5	ug/L	33.25	2792.5	ppb	33.25	1.19%
QC value within limits for Be 313.107 Recovery = 93.08%								
Ca 317.933Radial†	11.5	22.717	ug/L	1.7583	22.717	ppb	1.7583	7.74%
Cd 226.502†	709419.6	9377.7	ug/L	26.33	9377.7	ppb	26.33	0.28%
QC value within limits for Cd 226.502 Recovery = 93.78%								

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Co 228.616†          387880.6      9415.4 ug/L        24.18      9415.4 ppb        24.18   0.26%
   QC value within limits for Co 228.616  Recovery = 94.15%
Cr 267.716†         1920345.5       23476 ug/L         50.8       23476 ppb         50.8   0.22%
   QC value within limits for Cr 267.716  Recovery = 93.90%
Cu 324.752†         6522155.9       19800 ug/L        216.6       19800 ppb        216.6   1.09%
   QC value within limits for Cu 324.752  Recovery = 99.00%
Fe 238.204 Radial†       -20.6      33.457 ug/L       8.1136      33.457 ppb       8.1136  24.25%
K 766.490 Radial†    1521495.7      287900 ug/L       5046.2      287900 ppb       5046.2   1.75%
   QC value within limits for K 766.490 Radial  Recovery = 95.97%
Mg 279.077 IEC†          -3.9     -69.534 ug/L      91.9257     -69.534 ppb      91.9257 132.20%
Mn 257.610†          7516957.0      9167.2 ug/L       129.32      9167.2 ppb       129.32   1.41%
   QC value within limits for Mn 257.610  Recovery = 91.67%
Mo 202.031†           114024.7      9330.0 ug/L       183.37      9330.0 ppb       183.37   1.97%
   QC value within limits for Mo 202.031  Recovery = 93.30%
Na 589.592 Radial†       458.4      180.40 ug/L       28.076      180.40 ppb       28.076  15.56%
Ni 231.604†           329693.5      9627.9 ug/L        16.86      9627.9 ppb        16.86   0.18%
   QC value within limits for Ni 231.604  Recovery = 96.28%
P 214.914†             24578.4       12724 ug/L        392.5       12724 ppb        392.5   3.09%
   QC value less than the lower limit for P 214.914  Recovery = 84.82%
Pb 220.353†           166465.4       23578 ug/L         61.4       23578 ppb         61.4   0.26%
   QC value within limits for Pb 220.353  Recovery = 94.31%
S 181.975 Axial†       30732.8       48975 ug/L       1140.5       48975 ppb       1140.5   2.33%
   QC value within limits for S 181.975 Axial  Recovery = 97.95%
Sb 206.836†            26031.4       10354 ug/L        222.4       10354 ppb        222.4   2.15%
   QC value within limits for Sb 206.836  Recovery = 103.54%
Se 196.026†            13088.5      9737.0 ug/L       240.66      9737.0 ppb       240.66   2.47%
   QC value within limits for Se 196.026  Recovery = 97.37%
Si 251.611†          1334440.6       46138 ug/L         68.1       46138 ppb         68.1   0.15%
   QC value within limits for Si 251.611  Recovery = 92.28%
Sn 189.927†            46805.5      9715.0 ug/L       218.85      9715.0 ppb       218.85   2.25%
   QC value within limits for Sn 189.927  Recovery = 97.15%
Sr 421.552†          1162826.8      9558.5 ug/L       158.57      9558.5 ppb       158.57   1.66%
   QC value within limits for Sr 421.552  Recovery = 95.59%
Ti 334.940†          5982283.0      9692.5 ug/L       124.21      9692.5 ppb       124.21   1.28%
   QC value within limits for Ti 334.940  Recovery = 96.93%
Tl 190.801†            25954.2      9386.6 ug/L       190.17      9386.6 ppb       190.17   2.03%
   QC value within limits for Tl 190.801  Recovery = 93.87%
U 409.014†               869.2     -28.856 ug/L       1.3576     -28.856 ppb       1.3576   4.70%
V 292.402†           1355004.2      9918.3 ug/L        14.88      9918.3 ppb        14.88   0.15%
   QC value within limits for V 292.402  Recovery = 99.18%
Zn 213.857†          1226991.6       13496 ug/L         52.5       13496 ppb         52.5   0.39%
   QC value less than the lower limit for Zn 213.857  Recovery = 89.97%
SiO2†                1344580.8       99781 ug/L       1307.4       99781 ppb       1307.4   1.31%
   QC value within limits for SiO2  Recovery = 93.25%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/24/2010 07:11:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4380.1	4380.1	103	%			07:13:47
1	Y RADIAL	4731.1	4731.1	98.69	%			07:13:47
1	Al 396.153Radial†	4978.7	4906.9	5014.5	ug/L	5014.5	ppb	07:13:47
1	Ca 317.933Radial†	2673.9	2578.0	5109.5	ug/L	5109.5	ppb	07:14:07
1	Fe 238.204 Radial†	435.2	416.2	5043.0	ug/L	5043.0	ppb	07:14:07
1	K 766.490 Radial†	30829.8	27213.4	5143.2	ug/L	5143.2	ppb	07:13:47
1	Mg 279.077 IEC†	129.2	124.8	5308.3	ug/L	5308.3	ppb	07:14:07
1	Na 589.592 Radial†	25233.8	25360.2	9979.2	ug/L	9979.2	ppb	07:13:47
1	Sr 421.552†	60556.4	58751.5	482.90	ug/L	482.90	ppb	07:13:47
1	Sc 361.383	881070.3	881070.3	99.969	%			07:15:05
1	Y 371.029	736706.6	736706.6	98.387	%			07:15:05
1	Ag 328.068†	103848.7	103621.0	490.88	ug/L	490.88	ppb	07:15:10
1	As 188.979†	958.6	979.5	491.44	ug/L	491.44	ppb	07:15:30
1	B 249.677†	19455.9	19850.0	503.31	ug/L	503.31	ppb	07:15:10
1	Ba 233.527†	55389.1	55396.0	485.27	ug/L	485.27	ppb	07:15:10
1	Be 313.107†	1268890.9	1273562.4	482.97	ug/L	482.97	ppb	07:15:05
1	Cd 226.502†	36315.5	36498.5	482.04	ug/L	482.04	ppb	07:15:10
1	Co 228.616†	20263.6	20316.5	493.34	ug/L	493.34	ppb	07:15:10
1	Cr 267.716†	39632.3	39576.3	484.56	ug/L	484.56	ppb	07:15:10
1	Cu 324.752†	165615.6	159338.3	483.72	ug/L	483.72	ppb	07:15:10
1	Mn 257.610†	399123.5	398782.8	486.61	ug/L	486.61	ppb	07:15:05
1	Mo 202.031†	5912.9	5900.9	483.29	ug/L	483.29	ppb	07:15:30
1	Ni 231.604†	16888.7	16798.3	490.54	ug/L	490.54	ppb	07:15:10
1	P 214.914†	3697.4	3520.2	2278.1	ug/L	2278.1	ppb	07:15:30
1	Pb 220.353†	3324.5	3375.5	479.26	ug/L	479.26	ppb	07:15:30
1	S 181.975 Axial†	620.2	597.1	950.60	ug/L	950.60	ppb	07:15:30
1	Sb 206.836†	1277.1	1250.0	497.94	ug/L	497.94	ppb	07:15:30
1	Se 196.026†	625.5	642.4	494.06	ug/L	494.06	ppb	07:15:30
1	Si 251.611†	70677.7	70130.5	2424.8	ug/L	2424.8	ppb	07:15:10
1	Sn 189.927†	2323.5	2317.3	481.61	ug/L	481.61	ppb	07:15:30
1	Ti 334.940†	298143.1	299286.5	485.20	ug/L	485.20	ppb	07:15:10
1	Tl 190.801†	1320.2	1354.4	489.74	ug/L	489.74	ppb	07:15:30
1	U 409.014†	15883.4	17776.7	481.44	ug/L	481.44	ppb	07:15:10
1	V 292.402†	65342.8	66735.7	489.35	ug/L	489.35	ppb	07:15:10
1	Zn 213.857†	44569.5	43958.4	482.14	ug/L	482.14	ppb	07:15:10
1	SiO2†	70144.9	69572.4	5163.0	ug/L	5163.0	ppb	07:16:37
2	Sc Radial	4424.8	4424.8	104	%			07:14:12
2	Y RADIAL	4804.9	4804.9	100.2	%			07:14:12
2	Al 396.153Radial†	5050.7	4927.3	5035.1	ug/L	5035.1	ppb	07:14:12
2	Ca 317.933Radial†	2657.7	2536.2	5026.5	ug/L	5026.5	ppb	07:14:32
2	Fe 238.204 Radial†	433.6	410.4	4973.0	ug/L	4973.0	ppb	07:14:32
2	K 766.490 Radial†	31136.6	27206.1	5141.9	ug/L	5141.9	ppb	07:14:12
2	Mg 279.077 IEC†	128.8	123.2	5239.8	ug/L	5239.8	ppb	07:14:32
2	Na 589.592 Radial†	25337.7	25212.7	9921.2	ug/L	9921.2	ppb	07:14:12
2	Sr 421.552†	61167.3	58745.1	482.85	ug/L	482.85	ppb	07:14:12
2	Sc 361.383	867652.5	867652.5	98.447	%			07:15:36
2	Y 371.029	727685.0	727685.0	97.183	%			07:15:36
2	Ag 328.068†	103482.6	104855.6	496.69	ug/L	496.69	ppb	07:15:41
2	As 188.979†	961.8	997.6	500.46	ug/L	500.46	ppb	07:16:01
2	B 249.677†	19432.7	20127.4	510.37	ug/L	510.37	ppb	07:15:41
2	Ba 233.527†	55226.5	56087.7	491.33	ug/L	491.33	ppb	07:15:41
2	Be 313.107†	1250696.4	1274709.7	483.42	ug/L	483.42	ppb	07:15:36
2	Cd 226.502†	36234.0	36977.5	488.38	ug/L	488.38	ppb	07:15:41
2	Co 228.616†	20156.5	20521.3	498.31	ug/L	498.31	ppb	07:15:41
2	Cr 267.716†	39645.6	40202.9	492.21	ug/L	492.21	ppb	07:15:41
2	Cu 324.752†	164784.5	161056.0	488.93	ug/L	488.93	ppb	07:15:41
2	Mn 257.610†	392104.9	397827.6	485.44	ug/L	485.44	ppb	07:15:36
2	Mo 202.031†	5899.7	5978.9	489.66	ug/L	489.66	ppb	07:16:01
2	Ni 231.604†	16837.9	17008.0	496.67	ug/L	496.67	ppb	07:15:41

2	P 214.914†	3684.5	3564.3	2306.9 ug/L	2306.9 ppb	07:16:01
2	Pb 220.353†	3345.0	3447.8	489.52 ug/L	489.52 ppb	07:16:01
2	S 181.975 Axial†	632.7	619.4	986.18 ug/L	986.18 ppb	07:16:01
2	Sb 206.836†	1279.9	1272.6	506.87 ug/L	506.87 ppb	07:16:01
2	Se 196.026†	623.5	650.0	499.56 ug/L	499.56 ppb	07:16:01
2	Si 251.611†	70483.2	71026.2	2455.8 ug/L	2455.8 ppb	07:15:41
2	Sn 189.927†	2320.2	2349.9	488.35 ug/L	488.35 ppb	07:16:01
2	Ti 334.940†	297130.2	302869.6	490.99 ug/L	490.99 ppb	07:15:41
2	Tl 190.801†	1327.0	1381.7	499.55 ug/L	499.55 ppb	07:16:01
2	U 409.014†	15969.1	18109.4	490.48 ug/L	490.48 ppb	07:15:41
2	V 292.402†	65245.8	67648.0	496.06 ug/L	496.06 ppb	07:15:41
2	Zn 213.857†	44344.8	44419.5	487.21 ug/L	487.21 ppb	07:15:41
2	SiO2†	70663.7	71184.4	5282.7 ug/L	5282.7 ppb	07:16:42
3	Sc Radial	4329.2	4329.2	102 %		07:14:37
3	Y RADIAL	4698.8	4698.8	98.01 %		07:14:37
3	Al 396.153Radial†	4946.4	4932.0	5039.7 ug/L	5039.7 ppb	07:14:37
3	Ca 317.933Radial†	2675.5	2610.1	5173.0 ug/L	5173.0 ppb	07:14:57
3	Fe 238.204 Radial†	435.0	420.9	5100.1 ug/L	5100.1 ppb	07:14:57
3	K 766.490 Radial†	30548.9	27289.2	5157.6 ug/L	5157.6 ppb	07:14:37
3	Mg 279.077 IEC†	129.1	126.2	5368.6 ug/L	5368.6 ppb	07:14:57
3	Na 589.592 Radial†	24879.7	25300.2	9955.6 ug/L	9955.6 ppb	07:14:37
3	Sr 421.552†	59813.8	58713.0	482.59 ug/L	482.59 ppb	07:14:37
3	Sc 361.383	866736.4	866736.4	98.343 %		07:16:07
3	Y 371.029	726339.8	726339.8	97.003 %		07:16:07
3	Ag 328.068†	103314.8	104796.1	496.45 ug/L	496.45 ppb	07:16:12
3	As 188.979†	960.3	997.1	500.23 ug/L	500.23 ppb	07:16:32
3	B 249.677†	19413.2	20128.5	510.38 ug/L	510.38 ppb	07:16:12
3	Ba 233.527†	55283.9	56205.3	492.36 ug/L	492.36 ppb	07:16:12
3	Be 313.107†	1255072.7	1280502.6	485.61 ug/L	485.61 ppb	07:16:07
3	Cd 226.502†	36239.8	37022.2	488.96 ug/L	488.96 ppb	07:16:12
3	Co 228.616†	20163.1	20549.6	499.01 ug/L	499.01 ppb	07:16:12
3	Cr 267.716†	39660.1	40260.2	492.93 ug/L	492.93 ppb	07:16:12
3	Cu 324.752†	164955.9	161407.2	490.00 ug/L	490.00 ppb	07:16:12
3	Mn 257.610†	393182.9	399344.8	487.30 ug/L	487.30 ppb	07:16:07
3	Mo 202.031†	5928.6	6014.7	492.60 ug/L	492.60 ppb	07:16:32
3	Ni 231.604†	16876.0	17064.8	498.33 ug/L	498.33 ppb	07:16:12
3	P 214.914†	3703.8	3587.9	2322.6 ug/L	2322.6 ppb	07:16:32
3	Pb 220.353†	3340.2	3446.5	489.33 ug/L	489.33 ppb	07:16:32
3	S 181.975 Axial†	628.1	615.4	979.75 ug/L	979.75 ppb	07:16:32
3	Sb 206.836†	1282.9	1277.0	508.72 ug/L	508.72 ppb	07:16:32
3	Se 196.026†	633.8	661.2	508.23 ug/L	508.23 ppb	07:16:32
3	Si 251.611†	70477.7	71096.3	2458.2 ug/L	2458.2 ppb	07:16:12
3	Sn 189.927†	2344.3	2376.9	493.97 ug/L	493.97 ppb	07:16:32
3	Ti 334.940†	297285.3	303346.3	491.77 ug/L	491.77 ppb	07:16:12
3	Tl 190.801†	1332.9	1389.1	502.24 ug/L	502.24 ppb	07:16:32
3	U 409.014†	15992.4	18150.2	491.57 ug/L	491.57 ppb	07:16:12
3	V 292.402†	65218.1	67689.9	496.39 ug/L	496.39 ppb	07:16:12
3	Zn 213.857†	44488.5	44613.3	489.32 ug/L	489.32 ppb	07:16:12
3	SiO2†	70357.9	70949.4	5265.2 ug/L	5265.2 ppb	07:16:47

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	871819.8	98.920	%	0.9105				0.92%
Sc Radial	4378.0	103	%	1.1				1.09%
Y 371.029	730243.8	97.524	%	0.7528				0.77%
Y RADIAL	4744.9	98.98	%	1.135				1.15%
Ag 328.068†	104424.2	494.68	ug/L	3.287	494.68	ppb	3.287	0.66%
QC value within limits for Ag 328.068 Recovery = 98.94%								
Al 396.153Radial†	4922.1	5029.8	ug/L	13.45	5029.8	ppb	13.45	0.27%
QC value within limits for Al 396.153Radial Recovery = 100.60%								
As 188.979†	991.4	497.37	ug/L	5.141	497.37	ppb	5.141	1.03%
QC value within limits for As 188.979 Recovery = 99.47%								
B 249.677†	20035.3	508.02	ug/L	4.079	508.02	ppb	4.079	0.80%
QC value within limits for B 249.677 Recovery = 101.60%								
Ba 233.527†	55896.3	489.65	ug/L	3.830	489.65	ppb	3.830	0.78%
QC value within limits for Ba 233.527 Recovery = 97.93%								
Be 313.107†	1276258.2	484.00	ug/L	1.413	484.00	ppb	1.413	0.29%
QC value within limits for Be 313.107 Recovery = 96.80%								
Ca 317.933Radial†	2574.7	5103.0	ug/L	73.45	5103.0	ppb	73.45	1.44%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.06%
Cd 226.502†            36832.7      486.46 ug/L         3.839      486.46 ppb          3.839   0.79%
   QC value within limits for Cd 226.502  Recovery = 97.29%
Co 228.616†            20462.5      496.89 ug/L         3.091      496.89 ppb          3.091   0.62%
   QC value within limits for Co 228.616  Recovery = 99.38%
Cr 267.716†            40013.1      489.90 ug/L         4.639      489.90 ppb          4.639   0.95%
   QC value within limits for Cr 267.716  Recovery = 97.98%
Cu 324.752†           160600.5      487.55 ug/L         3.358      487.55 ppb          3.358   0.69%
   QC value within limits for Cu 324.752  Recovery = 97.51%
Fe 238.204 Radial†       415.9      5038.7 ug/L        63.67      5038.7 ppb         63.67   1.26%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.77%
K 766.490 Radial†      27236.2      5147.6 ug/L         8.68      5147.6 ppb          8.68   0.17%
   QC value within limits for K 766.490 Radial  Recovery = 102.95%
Mg 279.077 IEC†          124.7      5305.6 ug/L        64.43      5305.6 ppb         64.43   1.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.11%
Mn 257.610†           398651.7      486.45 ug/L         0.939      486.45 ppb          0.939   0.19%
   QC value within limits for Mn 257.610  Recovery = 97.29%
Mo 202.031†             5964.8      488.52 ug/L         4.763      488.52 ppb          4.763   0.97%
   QC value within limits for Mo 202.031  Recovery = 97.70%
Na 589.592 Radial†     25291.0      9952.0 ug/L        29.18      9952.0 ppb         29.18   0.29%
   QC value within limits for Na 589.592 Radial  Recovery = 99.52%
Ni 231.604†            16957.1      495.18 ug/L         4.099      495.18 ppb          4.099   0.83%
   QC value within limits for Ni 231.604  Recovery = 99.04%
P 214.914†              3557.5      2302.5 ug/L        22.54      2302.5 ppb         22.54   0.98%
   QC value within limits for P 214.914  Recovery = 92.10%
Pb 220.353†             3423.3      486.04 ug/L         5.869      486.04 ppb          5.869   1.21%
   QC value within limits for Pb 220.353  Recovery = 97.21%
S 181.975 Axial†         610.6      972.18 ug/L        18.961      972.18 ppb         18.961   1.95%
   QC value within limits for S 181.975 Axial  Recovery = 97.22%
Sb 206.836†             1266.5      504.51 ug/L         5.767      504.51 ppb          5.767   1.14%
   QC value within limits for Sb 206.836  Recovery = 100.90%
Se 196.026†              651.2      500.62 ug/L         7.140      500.62 ppb          7.140   1.43%
   QC value within limits for Se 196.026  Recovery = 100.12%
Si 251.611†            70751.0      2446.3 ug/L        18.61      2446.3 ppb         18.61   0.76%
   QC value within limits for Si 251.611  Recovery = 97.85%
Sn 189.927†             2348.0      487.98 ug/L         6.188      487.98 ppb          6.188   1.27%
   QC value within limits for Sn 189.927  Recovery = 97.60%
Sr 421.552†            58736.5      482.78 ug/L         0.170      482.78 ppb          0.170   0.04%
   QC value within limits for Sr 421.552  Recovery = 96.56%
Ti 334.940†           301834.1      489.32 ug/L         3.595      489.32 ppb          3.595   0.73%
   QC value within limits for Ti 334.940  Recovery = 97.86%
Tl 190.801†             1375.1      497.18 ug/L         6.582      497.18 ppb          6.582   1.32%
   QC value within limits for Tl 190.801  Recovery = 99.44%
U 409.014†             18012.1      487.83 ug/L         5.558      487.83 ppb          5.558   1.14%
   QC value within limits for U 409.014  Recovery = 97.57%
V 292.402†             67357.9      493.93 ug/L         3.972      493.93 ppb          3.972   0.80%
   QC value within limits for V 292.402  Recovery = 98.79%
Zn 213.857†            44330.4      486.22 ug/L         3.692      486.22 ppb          3.692   0.76%
   QC value within limits for Zn 213.857  Recovery = 97.24%
SiO2†                  70568.7      5236.9 ug/L        64.67      5236.9 ppb         64.67   1.23%
   QC value within limits for SiO2  Recovery = 97.93%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/24/2010 07:18:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4493.3	4493.3	106	%			07:20:50
1	Y RADIAL	4882.0	4882.0	101.8	%			07:20:50
1	Al 396.153Radial†	-62.1	16.2	16.566	ug/L	16.566	ppb	07:21:10
1	Ca 317.933Radial†	23.5	5.1	10.074	ug/L	10.074	ppb	07:21:10
1	Fe 238.204 Radial†	8.9	2.3	27.842	ug/L	27.842	ppb	07:21:10
1	K 766.490 Radial†	3487.7	592.0	111.98	ug/L	111.98	ppb	07:20:50
1	Mg 279.077 IEC†	2.8	2.0	84.785	ug/L	84.785	ppb	07:21:10
1	Na 589.592 Radial†	-674.1	232.4	91.462	ug/L	91.462	ppb	07:20:50
1	Sr 421.552†	39.1	17.1	0.1404	ug/L	0.1404	ppb	07:20:50
1	Sc 361.383	859652.6	859652.6	97.539	%			07:22:07
1	Y 371.029	734120.2	734120.2	98.042	%			07:22:07
1	Ag 328.068†	277.4	24.8	0.1284	ug/L	0.1284	ppb	07:22:07
1	As 188.979†	-9.7	10.7	5.3166	ug/L	5.3166	ppb	07:22:27
1	B 249.677†	432.6	831.7	21.176	ug/L	21.176	ppb	07:22:27
1	Ba 233.527†	14.4	4.7	0.0424	ug/L	0.0424	ppb	07:22:27
1	Be 313.107†	-4098.3	81.0	0.0308	ug/L	0.0308	ppb	07:22:07
1	Cd 226.502†	-144.9	23.3	0.3043	ug/L	0.3043	ppb	07:22:27
1	Co 228.616†	-36.5	9.3	0.2272	ug/L	0.2272	ppb	07:22:27
1	Cr 267.716†	172.4	108.6	1.3310	ug/L	1.3310	ppb	07:22:27
1	Cu 324.752†	6310.8	142.0	0.4344	ug/L	0.4344	ppb	07:22:07
1	Mn 257.610†	462.6	11.3	0.0130	ug/L	0.0130	ppb	07:22:27
1	Mo 202.031†	22.1	8.8	0.7224	ug/L	0.7224	ppb	07:22:27
1	Ni 231.604†	104.5	11.6	0.3388	ug/L	0.3388	ppb	07:22:27
1	P 214.914†	191.3	17.8	11.901	ug/L	11.901	ppb	07:22:27
1	Pb 220.353†	-55.4	-6.8	-0.9599	ug/L	-0.9599	ppb	07:22:27
1	S 181.975 Axial†	39.2	17.0	27.016	ug/L	27.016	ppb	07:22:27
1	Sb 206.836†	43.0	16.6	6.4170	ug/L	6.4170	ppb	07:22:27
1	Se 196.026†	-16.7	-0.4	-0.2235	ug/L	-0.2235	ppb	07:22:27
1	Si 251.611†	654.1	101.7	3.5166	ug/L	3.5166	ppb	07:22:27
1	Sn 189.927†	14.4	7.8	1.6281	ug/L	1.6281	ppb	07:22:27
1	Ti 334.940†	-978.8	48.5	0.0740	ug/L	0.0740	ppb	07:22:07
1	Tl 190.801†	-16.8	16.5	5.9317	ug/L	5.9317	ppb	07:22:27
1	U 409.014†	-1957.9	-118.9	-3.2376	ug/L	-3.2376	ppb	07:22:07
1	V 292.402†	-1324.4	15.2	0.1107	ug/L	0.1107	ppb	07:22:07
1	Zn 213.857†	685.6	78.1	0.8577	ug/L	0.8577	ppb	07:22:27
1	SiO2†	685.9	109.1	8.0991	ug/L	8.0991	ppb	07:23:23
2	Sc Radial	4296.5	4296.5	101	%			07:21:15
2	Y RADIAL	4724.3	4724.3	98.55	%			07:21:15
2	Al 396.153Radial†	-70.6	5.1	5.2397	ug/L	5.2397	ppb	07:21:35
2	Ca 317.933Radial†	22.3	4.9	9.7128	ug/L	9.7128	ppb	07:21:35
2	Fe 238.204 Radial†	9.1	2.8	34.345	ug/L	34.345	ppb	07:21:35
2	K 766.490 Radial†	3414.9	671.1	126.97	ug/L	126.97	ppb	07:21:15
2	Mg 279.077 IEC†	-2.9	-3.5	-147.46	ug/L	-147.46	ppb	07:21:35
2	Na 589.592 Radial†	-752.2	125.9	49.557	ug/L	49.557	ppb	07:21:15
2	Sr 421.552†	15.8	-4.3	-0.0355	ug/L	-0.0355	ppb	07:21:15
2	Sc 361.383	863375.2	863375.2	97.962	%			07:22:32
2	Y 371.029	737454.5	737454.5	98.487	%			07:22:32
2	Ag 328.068†	181.3	-74.5	-0.3387	ug/L	-0.3387	ppb	07:22:32
2	As 188.979†	-8.1	12.4	6.1578	ug/L	6.1578	ppb	07:22:52
2	B 249.677†	438.0	835.2	21.266	ug/L	21.266	ppb	07:22:52
2	Ba 233.527†	4.3	-5.6	-0.0481	ug/L	-0.0481	ppb	07:22:52
2	Be 313.107†	-4152.1	44.3	0.0167	ug/L	0.0167	ppb	07:22:32
2	Cd 226.502†	-145.7	23.1	0.3020	ug/L	0.3020	ppb	07:22:52
2	Co 228.616†	-43.4	2.4	0.0581	ug/L	0.0581	ppb	07:22:52
2	Cr 267.716†	173.3	108.8	1.3332	ug/L	1.3332	ppb	07:22:52
2	Cu 324.752†	6319.9	123.4	0.3771	ug/L	0.3771	ppb	07:22:32
2	Mn 257.610†	472.6	19.4	0.0331	ug/L	0.0331	ppb	07:22:52
2	Mo 202.031†	16.9	3.4	0.2830	ug/L	0.2830	ppb	07:22:52
2	Ni 231.604†	91.0	-2.6	-0.0773	ug/L	-0.0773	ppb	07:22:52

2	P 214.914†	184.5	10.0	6.6680	ug/L	6.6680 ppb	07:22:52
2	Pb 220.353†	-56.5	-7.6	-1.0783	ug/L	-1.0783 ppb	07:22:52
2	S 181.975 Axial†	26.2	3.5	5.5519	ug/L	5.5519 ppb	07:22:52
2	Sb 206.836†	26.7	-0.3	-0.0739	ug/L	-0.0739 ppb	07:22:52
2	Se 196.026†	-12.6	3.8	2.9107	ug/L	2.9107 ppb	07:22:52
2	Si 251.611†	667.8	112.8	3.9071	ug/L	3.9071 ppb	07:22:52
2	Sn 189.927†	15.2	8.6	1.7838	ug/L	1.7838 ppb	07:22:52
2	Ti 334.940†	-1041.1	-10.8	-0.0041	ug/L	-0.0041 ppb	07:22:32
2	Tl 190.801†	-15.6	17.8	6.3936	ug/L	6.3936 ppb	07:22:52
2	U 409.014†	-1891.2	-42.2	-1.1525	ug/L	-1.1525 ppb	07:22:32
2	V 292.402†	-1331.4	13.9	0.0938	ug/L	0.0938 ppb	07:22:32
2	Zn 213.857†	677.4	66.6	0.7326	ug/L	0.7326 ppb	07:22:52
2	SiO2†	671.3	91.2	6.7810	ug/L	6.7810 ppb	07:23:28
3	Sc Radial	4387.3	4387.3	103	%		07:21:40
3	Y RADIAL	4765.8	4765.8	99.41	%		07:21:40
3	Al 396.153Radial†	-78.8	-1.4	-1.4692	ug/L	-1.4692 ppb	07:22:00
3	Ca 317.933Radial†	22.5	4.7	9.2536	ug/L	9.2536 ppb	07:22:00
3	Fe 238.204 Radial†	6.4	0.1	0.7903	ug/L	0.7903 ppb	07:22:00
3	K 766.490 Radial†	3435.3	620.9	117.47	ug/L	117.47 ppb	07:21:40
3	Mg 279.077 IEC†	2.2	1.5	63.686	ug/L	63.686 ppb	07:22:00
3	Na 589.592 Radial†	-717.3	175.1	68.902	ug/L	68.902 ppb	07:21:40
3	Sr 421.552†	-5.7	-25.4	-0.2090	ug/L	-0.2090 ppb	07:21:40
3	Sc 361.383	857608.2	857608.2	97.307	%		07:22:57
3	Y 371.029	731558.3	731558.3	97.700	%		07:22:57
3	Ag 328.068†	288.0	36.4	0.1769	ug/L	0.1769 ppb	07:22:57
3	As 188.979†	-9.3	11.1	5.4995	ug/L	5.4995 ppb	07:23:17
3	B 249.677†	404.4	803.7	20.468	ug/L	20.468 ppb	07:23:17
3	Ba 233.527†	16.2	6.6	0.0579	ug/L	0.0579 ppb	07:23:17
3	Be 313.107†	-4214.3	-48.2	-0.0183	ug/L	-0.0183 ppb	07:22:57
3	Cd 226.502†	-159.7	7.8	0.1014	ug/L	0.1014 ppb	07:23:17
3	Co 228.616†	-29.4	16.5	0.4006	ug/L	0.4006 ppb	07:23:17
3	Cr 267.716†	184.2	121.1	1.4824	ug/L	1.4824 ppb	07:23:17
3	Cu 324.752†	6396.0	244.9	0.7469	ug/L	0.7469 ppb	07:22:57
3	Mn 257.610†	455.7	5.3	0.0039	ug/L	0.0039 ppb	07:23:17
3	Mo 202.031†	19.7	6.3	0.5192	ug/L	0.5192 ppb	07:23:17
3	Ni 231.604†	95.4	2.6	0.0744	ug/L	0.0744 ppb	07:23:17
3	P 214.914†	183.7	10.5	6.9563	ug/L	6.9563 ppb	07:23:17
3	Pb 220.353†	-40.0	9.0	1.2677	ug/L	1.2677 ppb	07:23:17
3	S 181.975 Axial†	33.4	11.1	17.621	ug/L	17.621 ppb	07:23:17
3	Sb 206.836†	31.7	5.0	1.9801	ug/L	1.9801 ppb	07:23:17
3	Se 196.026†	-15.4	0.9	0.6406	ug/L	0.6406 ppb	07:23:17
3	Si 251.611†	647.6	96.7	3.3441	ug/L	3.3441 ppb	07:23:17
3	Sn 189.927†	15.6	9.2	1.9026	ug/L	1.9026 ppb	07:23:17
3	Ti 334.940†	-1049.5	-26.5	-0.0449	ug/L	-0.0449 ppb	07:22:57
3	Tl 190.801†	-22.3	10.8	3.8792	ug/L	3.8792 ppb	07:23:17
3	U 409.014†	-2049.1	-217.4	-5.9119	ug/L	-5.9119 ppb	07:22:57
3	V 292.402†	-1317.8	18.6	0.1316	ug/L	0.1316 ppb	07:22:57
3	Zn 213.857†	696.1	90.6	1.0013	ug/L	1.0013 ppb	07:23:17
3	SiO2†	664.4	88.7	6.5853	ug/L	6.5853 ppb	07:23:33

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	860212.0	97.603	%	0.3318				0.34%
Sc Radial	4392.4	103	%	2.3				2.24%
Y 371.029	734377.6	98.076	%	0.3948				0.40%
Y RADIAL	4790.7	99.93	%	1.706				1.71%
Ag 328.068†	-4.4	-0.0111	ug/L	0.28472	-0.0111	ppb	0.28472	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.6	6.7787	ug/L	9.11542	6.7787	ppb	9.11542	134.47%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	11.4	5.6580	ug/L	0.44242	5.6580	ppb	0.44242	7.82%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	823.5	20.970	ug/L	0.4368	20.970	ppb	0.4368	2.08%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.9	0.0174	ug/L	0.05722	0.0174	ppb	0.05722	329.00%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	25.7	0.0097	ug/L	0.02531	0.0097	ppb	0.02531	259.70%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.9	9.6802	ug/L	0.41136	9.6802	ppb	0.41136	4.25%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                18.1      0.2359 ug/L       0.11649      0.2359 ppb        0.11649  49.39%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 9.4      0.2286 ug/L       0.17123      0.2286 ppb        0.17123  74.89%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               112.8      1.3822 ug/L       0.08682      1.3822 ppb        0.08682   6.28%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               170.1      0.5195 ug/L       0.19906      0.5195 ppb        0.19906  38.32%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.7      20.992 ug/L       17.7951      20.992 ppb        17.7951  84.77%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         628.0      118.81 ug/L         7.586      118.81 ppb          7.586   6.39%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.0      0.3370 ug/L     128.43005      0.3370 ppb      128.43005 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                12.0      0.0167 ug/L       0.01492      0.0167 ppb        0.01492  89.52%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 6.2      0.5082 ug/L       0.21993      0.5082 ppb        0.21993  43.28%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        177.8      69.973 ug/L       20.9731      69.973 ppb        20.9731  29.97%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 3.8      0.1120 ug/L       0.21059      0.1120 ppb        0.21059 188.04%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 12.8      8.5083 ug/L       2.94133      8.5083 ppb        2.94133  34.57%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -1.8     -0.2568 ug/L       1.32162     -0.2568 ppb        1.32162 514.55%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           10.5      16.730 ug/L       10.7598      16.730 ppb        10.7598  64.32%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 7.1      2.7744 ug/L       3.31755      2.7744 ppb        3.31755 119.58%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.4      1.1092 ug/L       1.61879      1.1092 ppb        1.61879 145.94%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               103.7      3.5893 ug/L       0.28847      3.5893 ppb        0.28847   8.04%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 8.5      1.7715 ug/L       0.13770      1.7715 ppb        0.13770   7.77%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -4.2     -0.0347 ug/L       0.17469     -0.0347 ppb        0.17469 503.71%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 3.7      0.0083 ug/L       0.06043      0.0083 ppb        0.06043 727.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                15.0      5.4015 ug/L       1.33843      5.4015 ppb        1.33843  24.78%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -126.2     -3.4340 ug/L       2.38574     -3.4340 ppb        2.38574  69.47%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 15.9      0.1120 ug/L       0.01892      0.1120 ppb        0.01892  16.89%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                78.4      0.8639 ug/L       0.13444      0.8639 ppb        0.13444  15.56%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      96.4      7.1551 ug/L       0.82333      7.1551 ppb        0.82333  11.51%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 3/24/2010 07:27:35 **Plasma On Time: 3/22/2010 06:16:18**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\032410.sif
Batch ID:
Results Data Set: 032410
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 3/24/2010 05:55:37**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 37**
Sample ID: LR1 **Date Collected: 3/24/2010 07:27:36**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4369.3	4369.3	103	%			07:29:29
1	Y RADIAL	4768.4	4768.4	99.47	%			07:29:29
1	Al 396.153Radial†	-105.0	-27.2	-26.803	ug/L	-26.803	ppb	07:29:49

1	Ca 317.933Radial†	17.2	-0.3	-0.6930 ug/L	-0.6930 ppb	07:29:49
1	Fe 238.204 Radial†	32827.3	31931.8	385750 ug/L	385750 ppb	07:29:29
1	K 766.490 Radial†	2683.5	-96.9	-18.301 ug/L	-18.301 ppb	07:29:29
1	Mg 279.077 IEC†	12.4	11.4	81.474 ug/L	81.474 ppb	07:29:49
1	Na 589.592 Radial†	-786.9	104.6	41.145 ug/L	41.145 ppb	07:29:29
1	Sr 421.552†	77.0	55.0	0.4523 ug/L	0.4523 ppb	07:29:29
1	Sc 361.383	857219.2	857219.2	97.263 %		07:30:47
1	Y 371.029	724094.7	724094.7	96.703 %		07:30:47
1	Ag 328.068†	-24584.6	-25536.0	-0.7813 ug/L	-0.7813 ppb	07:30:47
1	As 188.979†	-177.9	-162.3	9.6927 ug/L	9.6927 ppb	07:31:07
1	B 249.677†	1638.5	2072.8	-9.9026 ug/L	-9.9026 ppb	07:30:47
1	Ba 233.527†	-1695.4	-1753.2	-3.4787 ug/L	-3.4787 ppb	07:30:47
1	Be 313.107†	-4103.4	63.9	0.0239 ug/L	0.0239 ppb	07:30:47
1	Cd 226.502†	2732.7	2981.5	-0.4469 ug/L	-0.4469 ppb	07:30:47
1	Co 228.616†	623.0	687.3	11.056 ug/L	11.056 ppb	07:31:07
1	Cr 267.716†	-562.7	-646.7	33.013 ug/L	33.013 ppb	07:30:47
1	Cu 324.752†	-1960.9	-8344.1	-4.9440 ug/L	-4.9440 ppb	07:30:47
1	Mn 257.610†	-35839.4	-37310.9	-7.4232 ug/L	-7.4232 ppb	07:30:47
1	Mo 202.031†	-272.6	-294.2	5.8762 ug/L	5.8762 ppb	07:30:47
1	Ni 231.604†	194.0	104.0	3.0273 ug/L	3.0273 ppb	07:31:07
1	P 214.914†	631.1	470.6	11.409 ug/L	11.409 ppb	07:31:07
1	Pb 220.353†	152.4	206.8	-25.670 ug/L	-25.670 ppb	07:31:07
1	S 181.975 Axial†	43.1	21.1	33.590 ug/L	33.590 ppb	07:31:07
1	Sb 206.836†	19.8	-7.2	-7.5224 ug/L	-7.5224 ppb	07:31:07
1	Se 196.026†	-1812.1	-1846.4	-260.70 ug/L	-260.70 ppb	07:31:07
1	Si 251.611†	-401.7	-981.9	-33.736 ug/L	-33.736 ppb	07:30:47
1	Sn 189.927†	-25.4	-33.0	-28.995 ug/L	-28.995 ppb	07:31:07
1	Ti 334.940†	-1104.2	-83.3	-0.1960 ug/L	-0.1960 ppb	07:30:47
1	Tl 190.801†	-26.7	6.3	1.8801 ug/L	1.8801 ppb	07:31:07
1	U 409.014†	120.9	2012.7	10.740 ug/L	10.740 ppb	07:30:47
1	V 292.402†	5052.3	6567.4	-8.8803 ug/L	-8.8803 ppb	07:30:47
1	Zn 213.857†	3848.1	3331.5	-20.829 ug/L	-20.829 ppb	07:31:07
1	SiO2†	-506.3	-1114.6	-82.268 ug/L	-82.268 ppb	07:32:04
2	Sc Radial	4311.0	4311.0	101 %		07:29:54
2	Y RADIAL	4680.5	4680.5	97.63 %		07:29:54
2	Al 396.153Radial†	-98.0	-21.7	-21.076 ug/L	-21.076 ppb	07:30:14
2	Ca 317.933Radial†	15.4	-1.9	-3.8573 ug/L	-3.8573 ppb	07:30:14
2	Fe 238.204 Radial†	32624.5	32164.1	388560 ug/L	388560 ppb	07:29:54
2	K 766.490 Radial†	2777.8	31.5	5.9930 ug/L	5.9930 ppb	07:29:54
2	Mg 279.077 IEC†	9.5	8.7	-35.373 ug/L	-35.373 ppb	07:30:14
2	Na 589.592 Radial†	-806.5	74.9	29.474 ug/L	29.474 ppb	07:29:54
2	Sr 421.552†	75.4	54.4	0.4471 ug/L	0.4471 ppb	07:29:54
2	Sc 361.383	851868.9	851868.9	96.656 %		07:31:13
2	Y 371.029	720377.7	720377.7	96.207 %		07:31:13
2	Ag 328.068†	-24426.2	-25530.8	0.1127 ug/L	0.1127 ppb	07:31:13
2	As 188.979†	-162.0	-147.0	17.970 ug/L	17.970 ppb	07:31:33
2	B 249.677†	1573.5	2016.1	-11.802 ug/L	-11.802 ppb	07:31:13
2	Ba 233.527†	-1756.0	-1826.8	-4.0358 ug/L	-4.0358 ppb	07:31:13
2	Be 313.107†	-4171.7	-33.2	-0.0131 ug/L	-0.0131 ppb	07:31:13
2	Cd 226.502†	2756.4	3023.6	-0.1800 ug/L	-0.1800 ppb	07:31:13
2	Co 228.616†	635.3	704.0	11.418 ug/L	11.418 ppb	07:31:33
2	Cr 267.716†	-517.8	-603.9	33.834 ug/L	33.834 ppb	07:31:13
2	Cu 324.752†	-2212.1	-8616.7	-5.6223 ug/L	-5.6223 ppb	07:31:13
2	Mn 257.610†	-35589.3	-37283.6	-7.1081 ug/L	-7.1081 ppb	07:31:13
2	Mo 202.031†	-281.8	-305.4	5.1724 ug/L	5.1724 ppb	07:31:13
2	Ni 231.604†	199.5	110.9	3.2315 ug/L	3.2315 ppb	07:31:33
2	P 214.914†	637.5	481.3	16.541 ug/L	16.541 ppb	07:31:33
2	Pb 220.353†	137.0	191.8	-28.180 ug/L	-28.180 ppb	07:31:33
2	S 181.975 Axial†	36.7	14.7	23.424 ug/L	23.424 ppb	07:31:33
2	Sb 206.836†	17.6	-9.3	-8.3933 ug/L	-8.3933 ppb	07:31:33
2	Se 196.026†	-1811.3	-1857.2	-260.66 ug/L	-260.66 ppb	07:31:33
2	Si 251.611†	-540.3	-1127.9	-38.786 ug/L	-38.786 ppb	07:31:13
2	Sn 189.927†	-23.7	-31.4	-28.827 ug/L	-28.827 ppb	07:31:33
2	Ti 334.940†	-1143.2	-130.8	-0.2639 ug/L	-0.2639 ppb	07:31:13
2	Tl 190.801†	-20.7	12.4	4.0549 ug/L	4.0549 ppb	07:31:33
2	U 409.014†	85.9	1977.2	9.4543 ug/L	9.4543 ppb	07:31:13
2	V 292.402†	5049.7	6597.4	-9.0893 ug/L	-9.0893 ppb	07:31:13
2	Zn 213.857†	3892.9	3402.8	-20.460 ug/L	-20.460 ppb	07:31:33
2	SiO2†	-492.7	-1103.8	-81.442 ug/L	-81.442 ppb	07:32:09
3	Sc Radial	4300.1	4300.1	101 %		07:30:19
3	Y RADIAL	4685.0	4685.0	97.73 %		07:30:19

3	Al 396.153Radial†	-95.0	-18.9	-18.401	ug/L	-18.401 ppb	07:30:40
3	Ca 317.933Radial†	19.3	2.0	3.9722	ug/L	3.9722 ppb	07:30:40
3	Fe 238.204 Radial†	32460.2	32082.9	387570	ug/L	387570 ppb	07:30:19
3	K 766.490 Radial†	2690.9	-47.5	-8.9733	ug/L	-8.9733 ppb	07:30:19
3	Mg 279.077 IEC†	9.0	8.3	-54.547	ug/L	-54.547 ppb	07:30:40
3	Na 589.592 Radial†	-765.5	113.4	44.636	ug/L	44.636 ppb	07:30:19
3	Sr 421.552†	32.8	12.5	0.1030	ug/L	0.1030 ppb	07:30:19
3	Sc 361.383	859342.7	859342.7	97.504	%		07:31:39
3	Y 371.029	726894.2	726894.2	97.077	%		07:31:39
3	Ag 328.068†	-24636.8	-25527.0	-0.1712	ug/L	-0.1712 ppb	07:31:39
3	As 188.979†	-166.5	-150.2	16.137	ug/L	16.137 ppb	07:31:59
3	B 249.677†	1580.7	2009.3	-11.815	ug/L	-11.815 ppb	07:31:39
3	Ba 233.527†	-1828.1	-1884.9	-4.5732	ug/L	-4.5732 ppb	07:31:39
3	Be 313.107†	-4175.7	0.1	-0.0003	ug/L	-0.0003 ppb	07:31:39
3	Cd 226.502†	2786.0	3029.2	-0.0061	ug/L	-0.0061 ppb	07:31:39
3	Co 228.616†	625.3	688.0	11.055	ug/L	11.055 ppb	07:31:59
3	Cr 267.716†	-460.6	-540.6	34.504	ug/L	34.504 ppb	07:31:39
3	Cu 324.752†	-2171.0	-8554.6	-5.4848	ug/L	-5.4848 ppb	07:31:39
3	Mn 257.610†	-35967.5	-37351.2	-7.2866	ug/L	-7.2866 ppb	07:31:39
3	Mo 202.031†	-235.0	-254.9	9.2325	ug/L	9.2325 ppb	07:31:39
3	Ni 231.604†	159.6	68.2	1.9834	ug/L	1.9834 ppb	07:31:59
3	P 214.914†	653.2	491.6	24.228	ug/L	24.228 ppb	07:31:59
3	Pb 220.353†	150.4	204.3	-26.262	ug/L	-26.262 ppb	07:31:59
3	S 181.975 Axial†	34.5	12.1	19.297	ug/L	19.297 ppb	07:31:59
3	Sb 206.836†	6.4	-20.9	-12.769	ug/L	-12.769 ppb	07:31:59
3	Se 196.026†	-1829.0	-1859.1	-264.87	ug/L	-264.87 ppb	07:31:59
3	Si 251.611†	-493.7	-1075.2	-37.012	ug/L	-37.012 ppb	07:31:39
3	Sn 189.927†	-29.0	-36.6	-29.848	ug/L	-29.848 ppb	07:31:59
3	Ti 334.940†	-1132.7	-109.7	-0.2264	ug/L	-0.2264 ppb	07:31:39
3	Tl 190.801†	-32.0	1.0	-0.0317	ug/L	-0.0317 ppb	07:31:59
3	U 409.014†	21.7	1910.7	7.7549	ug/L	7.7549 ppb	07:31:39
3	V 292.402†	5113.4	6617.2	-8.7489	ug/L	-8.7489 ppb	07:31:39
3	Zn 213.857†	3893.4	3368.2	-20.688	ug/L	-20.688 ppb	07:31:59
3	SiO2†	-560.6	-1169.0	-86.403	ug/L	-86.403 ppb	07:32:14

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	856143.6	97.141	%	0.4370				0.45%
Sc Radial	4326.8	102	%	0.9				0.86%
Y 371.029	723788.9	96.662	%	0.4366				0.45%
Y RADIAL	4711.3	98.28	%	1.032				1.05%
Ag 328.068†	-25531.2	-0.2799	ug/L	0.45684	-0.2799	ppb	0.45684	163.19%
Al 396.153Radial†	-22.6	-22.093	ug/L	4.2922	-22.093	ppb	4.2922	19.43%
As 188.979†	-153.1	14.600	ug/L	4.3477	14.600	ppb	4.3477	29.78%
B 249.677†	2032.7	-11.173	ug/L	1.1003	-11.173	ppb	1.1003	9.85%
Ba 233.527†	-1821.6	-4.0292	ug/L	0.54732	-4.0292	ppb	0.54732	13.58%
Be 313.107†	10.3	0.0035	ug/L	0.01876	0.0035	ppb	0.01876	537.47%
Ca 317.933Radial†	-0.1	-0.1927	ug/L	3.93862	-0.1927	ppb	3.93862	>999.9%
Cd 226.502†	3011.4	-0.2110	ug/L	0.22200	-0.2110	ppb	0.22200	105.21%
Co 228.616†	693.1	11.176	ug/L	0.2093	11.176	ppb	0.2093	1.87%
Cr 267.716†	-597.1	33.784	ug/L	0.7471	33.784	ppb	0.7471	2.21%
Cu 324.752†	-8505.1	-5.3504	ug/L	0.35857	-5.3504	ppb	0.35857	6.70%
Fe 238.204 Radial†	32059.6	387290	ug/L	1424.2	387290	ppb	1424.2	0.37%
K 766.490 Radial†	-37.7	-7.0939	ug/L	12.25577	-7.0939	ppb	12.25577	172.76%
Mg 279.077 IEC†	9.5	-2.8154	ug/L	73.62336	-2.8154	ppb	73.62336	>999.9%
Mn 257.610†	-37315.2	-7.2726	ug/L	0.15800	-7.2726	ppb	0.15800	2.17%
Mo 202.031†	-284.8	6.7604	ug/L	2.16966	6.7604	ppb	2.16966	32.09%
Na 589.592 Radial†	97.6	38.418	ug/L	7.9405	38.418	ppb	7.9405	20.67%
Ni 231.604†	94.4	2.7474	ug/L	0.66949	2.7474	ppb	0.66949	24.37%
P 214.914†	481.1	17.393	ug/L	6.4522	17.393	ppb	6.4522	37.10%
Pb 220.353†	201.0	-26.704	ug/L	1.3122	-26.704	ppb	1.3122	4.91%
S 181.975 Axial†	16.0	25.437	ug/L	7.3559	25.437	ppb	7.3559	28.92%
Sb 206.836†	-12.5	-9.5616	ug/L	2.81173	-9.5616	ppb	2.81173	29.41%
Se 196.026†	-1854.3	-262.08	ug/L	2.416	-262.08	ppb	2.416	0.92%
Si 251.611†	-1061.7	-36.511	ug/L	2.5621	-36.511	ppb	2.5621	7.02%
Sn 189.927†	-33.7	-29.223	ug/L	0.5473	-29.223	ppb	0.5473	1.87%
Sr 421.552†	40.6	0.3341	ug/L	0.20018	0.3341	ppb	0.20018	59.91%
Ti 334.940†	-107.9	-0.2288	ug/L	0.03398	-0.2288	ppb	0.03398	14.85%
Tl 190.801†	6.5	1.9677	ug/L	2.04472	1.9677	ppb	2.04472	103.91%

U 409.014†	1966.9	9.3163	ug/L	1.49713	9.3163	ppb	1.49713	16.07%
V 292.402†	6594.0	-8.9062	ug/L	0.17171	-8.9062	ppb	0.17171	1.93%
Zn 213.857†	3367.5	-20.659	ug/L	0.1860	-20.659	ppb	0.1860	0.90%
SiO2†	-1129.1	-83.371	ug/L	2.6582	-83.371	ppb	2.6582	3.19%

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/24/2010 07:34:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4311.8	4311.8	101	%			07:36:18
1	Y RADIAL	4684.5	4684.5	97.72	%			07:36:18
1	Al 396.153Radial†	4934.7	4940.0	5048.6	ug/L	5048.6	ppb	07:36:18
1	Ca 317.933Radial†	2683.8	2628.8	5210.1	ug/L	5210.1	ppb	07:36:38
1	Fe 238.204 Radial†	435.1	422.8	5121.8	ug/L	5121.8	ppb	07:36:38
1	K 766.490 Radial†	29265.5	26144.8	4941.0	ug/L	4941.0	ppb	07:36:18
1	Mg 279.077 IEC†	126.5	124.1	5278.6	ug/L	5278.6	ppb	07:36:38
1	Na 589.592 Radial†	24572.8	25096.2	9875.4	ug/L	9875.4	ppb	07:36:18
1	Sr 421.552†	59479.5	58620.2	481.82	ug/L	481.82	ppb	07:36:18
1	Sc 361.383	883208.7	883208.7	100.21	%			07:37:35
1	Y 371.029	740415.0	740415.0	98.883	%			07:37:35
1	Ag 328.068†	103389.5	102911.3	487.55	ug/L	487.55	ppb	07:37:40
1	As 188.979†	928.4	947.1	475.31	ug/L	475.31	ppb	07:38:00
1	B 249.677†	18755.1	19103.6	484.30	ug/L	484.30	ppb	07:37:40
1	Ba 233.527†	55227.5	55100.6	482.69	ug/L	482.69	ppb	07:37:40
1	Be 313.107†	1271564.8	1273157.6	482.81	ug/L	482.81	ppb	07:37:35
1	Cd 226.502†	36173.4	36268.7	478.99	ug/L	478.99	ppb	07:37:40
1	Co 228.616†	20186.0	20190.1	490.27	ug/L	490.27	ppb	07:37:40
1	Cr 267.716†	39603.0	39451.0	483.03	ug/L	483.03	ppb	07:37:40
1	Cu 324.752†	164613.6	157937.3	479.47	ug/L	479.47	ppb	07:37:40
1	Mn 257.610†	388739.8	387454.3	472.81	ug/L	472.81	ppb	07:37:40
1	Mo 202.031†	5886.5	5860.2	479.97	ug/L	479.97	ppb	07:38:00
1	Ni 231.604†	16848.7	16717.6	488.19	ug/L	488.19	ppb	07:37:40
1	P 214.914†	3669.4	3483.3	2254.0	ug/L	2254.0	ppb	07:38:00
1	Pb 220.353†	3330.0	3373.1	478.90	ug/L	478.90	ppb	07:38:00
1	S 181.975 Axial†	620.9	596.4	949.44	ug/L	949.44	ppb	07:38:00
1	Sb 206.836†	1252.3	1222.2	487.13	ug/L	487.13	ppb	07:38:00
1	Se 196.026†	635.8	651.2	500.81	ug/L	500.81	ppb	07:38:00
1	Si 251.611†	70175.1	69457.8	2401.6	ug/L	2401.6	ppb	07:37:40
1	Sn 189.927†	2315.3	2303.5	478.76	ug/L	478.76	ppb	07:38:00
1	Ti 334.940†	297079.5	297503.0	482.32	ug/L	482.32	ppb	07:37:40
1	Tl 190.801†	1306.7	1337.7	483.68	ug/L	483.68	ppb	07:38:00
1	U 409.014†	15956.9	17811.6	482.39	ug/L	482.39	ppb	07:37:40
1	V 292.402†	65202.2	66437.2	487.13	ug/L	487.13	ppb	07:37:40
1	Zn 213.857†	44380.4	43661.7	478.86	ug/L	478.86	ppb	07:37:40
1	SiO2†	69730.6	68989.1	5119.7	ug/L	5119.7	ppb	07:39:07
2	Sc Radial	4394.8	4394.8	103	%			07:36:43
2	Y RADIAL	4747.1	4747.1	99.02	%			07:36:43
2	Al 396.153Radial†	4978.7	4890.7	4997.3	ug/L	4997.3	ppb	07:36:43
2	Ca 317.933Radial†	2668.4	2563.9	5081.5	ug/L	5081.5	ppb	07:37:03
2	Fe 238.204 Radial†	438.9	418.4	5069.5	ug/L	5069.5	ppb	07:37:03
2	K 766.490 Radial†	29747.4	26066.0	4926.2	ug/L	4926.2	ppb	07:36:43
2	Mg 279.077 IEC†	131.8	126.9	5398.2	ug/L	5398.2	ppb	07:37:03
2	Na 589.592 Radial†	24973.4	25026.1	9847.8	ug/L	9847.8	ppb	07:36:43
2	Sr 421.552†	60499.6	58499.3	480.83	ug/L	480.83	ppb	07:36:43
2	Sc 361.383	864114.4	864114.4	98.045	%			07:38:06
2	Y 371.029	725166.1	725166.1	96.846	%			07:38:06
2	Ag 328.068†	103378.6	105179.9	498.26	ug/L	498.26	ppb	07:38:11
2	As 188.979†	947.2	986.7	495.06	ug/L	495.06	ppb	07:38:31
2	B 249.677†	18785.1	19547.7	495.58	ug/L	495.58	ppb	07:38:11
2	Ba 233.527†	55216.4	56307.1	493.25	ug/L	493.25	ppb	07:38:11
2	Be 313.107†	1247488.7	1276639.7	484.15	ug/L	484.15	ppb	07:38:06
2	Cd 226.502†	36208.4	37102.1	490.01	ug/L	490.01	ppb	07:38:11
2	Co 228.616†	20194.1	20643.4	501.28	ug/L	501.28	ppb	07:38:11
2	Cr 267.716†	39566.5	40287.1	493.25	ug/L	493.25	ppb	07:38:11
2	Cu 324.752†	164628.6	161582.4	490.53	ug/L	490.53	ppb	07:38:11
2	Mn 257.610†	389289.0	396586.4	483.93	ug/L	483.93	ppb	07:38:11
2	Mo 202.031†	5917.0	6021.1	493.13	ug/L	493.13	ppb	07:38:31
2	Ni 231.604†	16869.2	17110.0	499.65	ug/L	499.65	ppb	07:38:11

2	P 214.914†	3713.8	3609.6	2337.1 ug/L	2337.1 ppb	07:38:31
2	Pb 220.353†	3354.6	3471.5	492.87 ug/L	492.87 ppb	07:38:31
2	S 181.975 Axial†	615.8	604.9	962.96 ug/L	962.96 ppb	07:38:31
2	Sb 206.836†	1260.4	1258.0	501.42 ug/L	501.42 ppb	07:38:31
2	Se 196.026†	629.5	658.7	506.25 ug/L	506.25 ppb	07:38:31
2	Si 251.611†	70174.3	71004.3	2455.0 ug/L	2455.0 ppb	07:38:11
2	Sn 189.927†	2335.1	2374.7	493.52 ug/L	493.52 ppb	07:38:31
2	Ti 334.940†	297075.9	304050.0	492.90 ug/L	492.90 ppb	07:38:11
2	Tl 190.801†	1317.7	1377.7	498.11 ug/L	498.11 ppb	07:38:31
2	U 409.014†	15957.2	18163.7	491.94 ug/L	491.94 ppb	07:38:11
2	V 292.402†	65258.8	67932.7	498.16 ug/L	498.16 ppb	07:38:11
2	Zn 213.857†	44398.5	44658.7	489.82 ug/L	489.82 ppb	07:38:11
2	SiO2†	70328.1	71136.0	5279.0 ug/L	5279.0 ppb	07:39:12
3	Sc Radial	4343.8	4343.8	102 %		07:37:08
3	Y RADIAL	4685.3	4685.3	97.73 %		07:37:08
3	Al 396.153Radial†	4924.3	4894.0	5001.0 ug/L	5001.0 ppb	07:37:08
3	Ca 317.933Radial†	2696.4	2621.7	5196.0 ug/L	5196.0 ppb	07:37:28
3	Fe 238.204 Radial†	442.1	426.5	5166.5 ug/L	5166.5 ppb	07:37:28
3	K 766.490 Radial†	29084.6	25755.2	4867.3 ug/L	4867.3 ppb	07:37:08
3	Mg 279.077 IEC†	132.9	129.4	5504.5 ug/L	5504.5 ppb	07:37:28
3	Na 589.592 Radial†	24575.3	24920.1	9806.1 ug/L	9806.1 ppb	07:37:08
3	Sr 421.552†	59588.0	58294.2	479.14 ug/L	479.14 ppb	07:37:08
3	Sc 361.383	877405.8	877405.8	99.554 %		07:38:37
3	Y 371.029	734733.7	734733.7	98.124 %		07:38:37
3	Ag 328.068†	103211.4	103414.7	489.94 ug/L	489.94 ppb	07:38:42
3	As 188.979†	945.8	970.7	487.09 ug/L	487.09 ppb	07:39:02
3	B 249.677†	18706.5	19178.5	486.19 ug/L	486.19 ppb	07:38:42
3	Ba 233.527†	55064.2	55301.1	484.45 ug/L	484.45 ppb	07:38:42
3	Be 313.107†	1263616.8	1273565.9	482.97 ug/L	482.97 ppb	07:38:37
3	Cd 226.502†	36123.5	36457.4	481.48 ug/L	481.48 ppb	07:38:42
3	Co 228.616†	20142.2	20279.3	492.44 ug/L	492.44 ppb	07:38:42
3	Cr 267.716†	39492.0	39601.0	484.87 ug/L	484.87 ppb	07:38:42
3	Cu 324.752†	164552.5	158962.4	482.59 ug/L	482.59 ppb	07:38:42
3	Mn 257.610†	388175.4	389453.1	475.24 ug/L	475.24 ppb	07:38:42
3	Mo 202.031†	5921.8	5934.5	486.05 ug/L	486.05 ppb	07:39:02
3	Ni 231.604†	16804.5	16784.4	490.14 ug/L	490.14 ppb	07:38:42
3	P 214.914†	3722.5	3560.9	2305.7 ug/L	2305.7 ppb	07:39:02
3	Pb 220.353†	3365.2	3430.3	487.00 ug/L	487.00 ppb	07:39:02
3	S 181.975 Axial†	625.7	605.2	963.55 ug/L	963.55 ppb	07:39:02
3	Sb 206.836†	1272.5	1250.7	498.34 ug/L	498.34 ppb	07:39:02
3	Se 196.026†	628.4	647.9	498.52 ug/L	498.52 ppb	07:39:02
3	Si 251.611†	70123.3	69868.9	2415.7 ug/L	2415.7 ppb	07:38:42
3	Sn 189.927†	2334.6	2338.2	485.95 ug/L	485.95 ppb	07:39:02
3	Ti 334.940†	296905.4	299288.8	485.19 ug/L	485.19 ppb	07:38:42
3	Tl 190.801†	1325.5	1365.2	493.59 ug/L	493.59 ppb	07:39:02
3	U 409.014†	16069.1	18029.6	488.30 ug/L	488.30 ppb	07:38:42
3	V 292.402†	65076.3	66741.0	489.42 ug/L	489.42 ppb	07:38:42
3	Zn 213.857†	44351.2	43925.3	481.76 ug/L	481.76 ppb	07:38:42
3	SiO2†	70949.4	70673.5	5244.8 ug/L	5244.8 ppb	07:39:17

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	874909.7	99.270	%	1.1107				1.12%
Sc Radial	4350.2	102	%	1.0				0.96%
Y 371.029	733438.3	97.951	%	1.0292				1.05%
Y RADIAL	4705.6	98.16	%	0.749				0.76%
Ag 328.068†	103835.3	491.92	ug/L	5.618	491.92	ppb	5.618	1.14%
QC value within limits for Ag 328.068 Recovery = 98.38%								
Al 396.153Radial†	4908.2	5015.6	ug/L	28.59	5015.6	ppb	28.59	0.57%
QC value within limits for Al 396.153Radial Recovery = 100.31%								
As 188.979†	968.2	485.82	ug/L	9.940	485.82	ppb	9.940	2.05%
QC value within limits for As 188.979 Recovery = 97.16%								
B 249.677†	19276.6	488.69	ug/L	6.045	488.69	ppb	6.045	1.24%
QC value within limits for B 249.677 Recovery = 97.74%								
Ba 233.527†	55569.6	486.80	ug/L	5.660	486.80	ppb	5.660	1.16%
QC value within limits for Ba 233.527 Recovery = 97.36%								
Be 313.107†	1274454.4	483.31	ug/L	0.733	483.31	ppb	0.733	0.15%
QC value within limits for Be 313.107 Recovery = 96.66%								
Ca 317.933Radial†	2604.8	5162.5	ug/L	70.51	5162.5	ppb	70.51	1.37%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.25%
Cd 226.502†            36609.4      483.50 ug/L         5.781      483.50 ppb          5.781   1.20%
   QC value within limits for Cd 226.502  Recovery = 96.70%
Co 228.616†            20370.9      494.66 ug/L         5.835      494.66 ppb          5.835   1.18%
   QC value within limits for Co 228.616  Recovery = 98.93%
Cr 267.716†            39779.7      487.05 ug/L         5.449      487.05 ppb          5.449   1.12%
   QC value within limits for Cr 267.716  Recovery = 97.41%
Cu 324.752†           159494.0      484.20 ug/L         5.702      484.20 ppb          5.702   1.18%
   QC value within limits for Cu 324.752  Recovery = 96.84%
Fe 238.204 Radial†       422.5      5119.3 ug/L        48.56      5119.3 ppb          48.56   0.95%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.39%
K 766.490 Radial†      25988.7      4911.5 ug/L        38.97      4911.5 ppb          38.97   0.79%
   QC value within limits for K 766.490 Radial  Recovery = 98.23%
Mg 279.077 IEC†          126.8      5393.8 ug/L       113.01      5393.8 ppb         113.01   2.10%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.88%
Mn 257.610†           391164.6      477.33 ug/L         5.850      477.33 ppb          5.850   1.23%
   QC value within limits for Mn 257.610  Recovery = 95.47%
Mo 202.031†             5938.6      486.38 ug/L         6.588      486.38 ppb          6.588   1.35%
   QC value within limits for Mo 202.031  Recovery = 97.28%
Na 589.592 Radial†     25014.1      9843.1 ug/L        34.88      9843.1 ppb          34.88   0.35%
   QC value within limits for Na 589.592 Radial  Recovery = 98.43%
Ni 231.604†            16870.6      492.66 ug/L         6.132      492.66 ppb          6.132   1.24%
   QC value within limits for Ni 231.604  Recovery = 98.53%
P 214.914†              3551.3      2299.0 ug/L        41.95      2299.0 ppb          41.95   1.82%
   QC value within limits for P 214.914  Recovery = 91.96%
Pb 220.353†             3425.0      486.26 ug/L         7.010      486.26 ppb          7.010   1.44%
   QC value within limits for Pb 220.353  Recovery = 97.25%
S 181.975 Axial†         602.2      958.65 ug/L         7.978      958.65 ppb          7.978   0.83%
   QC value within limits for S 181.975 Axial  Recovery = 95.87%
Sb 206.836†             1243.6      495.63 ug/L         7.521      495.63 ppb          7.521   1.52%
   QC value within limits for Sb 206.836  Recovery = 99.13%
Se 196.026†              652.6      501.86 ug/L         3.973      501.86 ppb          3.973   0.79%
   QC value within limits for Se 196.026  Recovery = 100.37%
Si 251.611†            70110.3      2424.1 ug/L        27.69      2424.1 ppb          27.69   1.14%
   QC value within limits for Si 251.611  Recovery = 96.96%
Sn 189.927†             2338.8      486.07 ug/L         7.381      486.07 ppb          7.381   1.52%
   QC value within limits for Sn 189.927  Recovery = 97.21%
Sr 421.552†            58471.2      480.60 ug/L         1.354      480.60 ppb          1.354   0.28%
   QC value within limits for Sr 421.552  Recovery = 96.12%
Ti 334.940†           300280.6      486.80 ug/L         5.472      486.80 ppb          5.472   1.12%
   QC value within limits for Ti 334.940  Recovery = 97.36%
Tl 190.801†             1360.2      491.79 ug/L         7.377      491.79 ppb          7.377   1.50%
   QC value within limits for Tl 190.801  Recovery = 98.36%
U 409.014†             18001.6      487.54 ug/L         4.821      487.54 ppb          4.821   0.99%
   QC value within limits for U 409.014  Recovery = 97.51%
V 292.402†             67037.0      491.57 ug/L         5.816      491.57 ppb          5.816   1.18%
   QC value within limits for V 292.402  Recovery = 98.31%
Zn 213.857†            44081.9      483.48 ug/L         5.678      483.48 ppb          5.678   1.17%
   QC value within limits for Zn 213.857  Recovery = 96.70%
SiO2†                  70266.2      5214.5 ug/L        83.90      5214.5 ppb          83.90   1.61%
   QC value within limits for SiO2  Recovery = 97.51%
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/24/2010 07:41:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4456.5	4456.5	105	%			07:43:21
1	Y RADIAL	4879.5	4879.5	101.8	%			07:43:21
1	Al 396.153Radial†	-71.3	7.0	7.1233	ug/L	7.1233	ppb	07:43:41
1	Ca 317.933Radial†	21.6	3.5	6.9157	ug/L	6.9157	ppb	07:43:41
1	Fe 238.204 Radial†	7.6	1.0	12.687	ug/L	12.687	ppb	07:43:41
1	K 766.490 Radial†	2900.2	58.8	11.112	ug/L	11.112	ppb	07:43:21
1	Mg 279.077 IEC†	0.8	0.2	6.6368	ug/L	6.6368	ppb	07:43:41
1	Na 589.592 Radial†	-853.6	55.9	22.014	ug/L	22.014	ppb	07:43:21
1	Sr 421.552†	27.2	6.0	0.0493	ug/L	0.0493	ppb	07:43:21
1	Sc 361.383	861286.3	861286.3	97.725	%			07:44:37
1	Y 371.029	734859.8	734859.8	98.141	%			07:44:37
1	Ag 328.068†	247.9	-5.8	-0.0202	ug/L	-0.0202	ppb	07:44:37
1	As 188.979†	-14.8	5.5	2.7342	ug/L	2.7342	ppb	07:44:57
1	B 249.677†	167.4	559.4	14.243	ug/L	14.243	ppb	07:44:57
1	Ba 233.527†	22.9	13.4	0.1164	ug/L	0.1164	ppb	07:44:57
1	Be 313.107†	-4203.2	-18.3	-0.0067	ug/L	-0.0067	ppb	07:44:37
1	Cd 226.502†	-162.1	6.0	0.0772	ug/L	0.0772	ppb	07:44:57
1	Co 228.616†	-28.1	18.0	0.4365	ug/L	0.4365	ppb	07:44:57
1	Cr 267.716†	122.0	56.7	0.6955	ug/L	0.6955	ppb	07:44:57
1	Cu 324.752†	6292.9	111.4	0.3423	ug/L	0.3423	ppb	07:44:37
1	Mn 257.610†	447.3	-5.3	-0.0055	ug/L	-0.0055	ppb	07:44:57
1	Mo 202.031†	17.1	3.7	0.2998	ug/L	0.2998	ppb	07:44:57
1	Ni 231.604†	99.6	6.4	0.1870	ug/L	0.1870	ppb	07:44:57
1	P 214.914†	169.5	-4.8	-3.3350	ug/L	-3.3350	ppb	07:44:57
1	Pb 220.353†	-58.3	-9.6	-1.3563	ug/L	-1.3563	ppb	07:44:57
1	S 181.975 Axial†	32.0	9.5	15.114	ug/L	15.114	ppb	07:44:57
1	Sb 206.836†	28.2	1.3	0.5034	ug/L	0.5034	ppb	07:44:57
1	Se 196.026†	-22.1	-5.9	-4.3235	ug/L	-4.3235	ppb	07:44:57
1	Si 251.611†	617.3	62.8	2.1719	ug/L	2.1719	ppb	07:44:57
1	Sn 189.927†	8.8	2.1	0.4405	ug/L	0.4405	ppb	07:44:57
1	Ti 334.940†	-981.8	47.3	0.0795	ug/L	0.0795	ppb	07:44:37
1	Tl 190.801†	-31.6	1.4	0.5064	ug/L	0.5064	ppb	07:44:57
1	U 409.014†	-2065.3	-225.0	-6.1179	ug/L	-6.1179	ppb	07:44:37
1	V 292.402†	-1399.9	-59.6	-0.4405	ug/L	-0.4405	ppb	07:44:37
1	Zn 213.857†	669.3	60.0	0.6609	ug/L	0.6609	ppb	07:44:57
1	SiO2†	638.3	59.1	4.3861	ug/L	4.3861	ppb	07:46:08
2	Sc Radial	4492.0	4492.0	106	%			07:43:46
2	Y RADIAL	4887.1	4887.1	101.9	%			07:43:46
2	Al 396.153Radial†	-75.2	3.8	3.8327	ug/L	3.8327	ppb	07:44:06
2	Ca 317.933Radial†	25.6	7.1	14.170	ug/L	14.170	ppb	07:44:06
2	Fe 238.204 Radial†	5.9	-0.6	-7.0688	ug/L	-7.0688	ppb	07:44:06
2	K 766.490 Radial†	2892.6	29.8	5.6234	ug/L	5.6234	ppb	07:43:46
2	Mg 279.077 IEC†	4.5	3.6	153.02	ug/L	153.02	ppb	07:44:06
2	Na 589.592 Radial†	-859.9	56.4	22.186	ug/L	22.186	ppb	07:43:46
2	Sr 421.552†	21.9	0.8	0.0067	ug/L	0.0067	ppb	07:43:46
2	Sc 361.383	872043.1	872043.1	98.945	%			07:45:03
2	Y 371.029	744833.8	744833.8	99.473	%			07:45:03
2	Ag 328.068†	183.9	-73.6	-0.3471	ug/L	-0.3471	ppb	07:45:03
2	As 188.979†	-22.3	-1.9	-0.9474	ug/L	-0.9474	ppb	07:45:23
2	B 249.677†	155.1	544.9	13.877	ug/L	13.877	ppb	07:45:23
2	Ba 233.527†	10.5	0.6	0.0051	ug/L	0.0051	ppb	07:45:23
2	Be 313.107†	-4226.7	11.0	0.0043	ug/L	0.0043	ppb	07:45:03
2	Cd 226.502†	-161.4	8.8	0.1161	ug/L	0.1161	ppb	07:45:23
2	Co 228.616†	-39.7	6.6	0.1606	ug/L	0.1606	ppb	07:45:23
2	Cr 267.716†	106.4	39.4	0.4818	ug/L	0.4818	ppb	07:45:23
2	Cu 324.752†	6405.2	145.4	0.4424	ug/L	0.4424	ppb	07:45:03
2	Mn 257.610†	462.7	4.6	-0.0013	ug/L	-0.0013	ppb	07:45:23
2	Mo 202.031†	20.8	7.1	0.5845	ug/L	0.5845	ppb	07:45:23
2	Ni 231.604†	95.4	0.9	0.0266	ug/L	0.0266	ppb	07:45:23

2	P 214.914†	184.2	7.9	5.2448	ug/L	5.2448 ppb	07:45:23
2	Pb 220.353†	-51.7	-2.2	-0.3101	ug/L	-0.3101 ppb	07:45:23
2	S 181.975 Axial†	30.1	7.2	11.400	ug/L	11.400 ppb	07:45:23
2	Sb 206.836†	29.0	1.7	0.6897	ug/L	0.6897 ppb	07:45:23
2	Se 196.026†	-19.3	-2.9	-2.1412	ug/L	-2.1412 ppb	07:45:23
2	Si 251.611†	605.7	43.3	1.4934	ug/L	1.4934 ppb	07:45:23
2	Sn 189.927†	8.4	1.6	0.3254	ug/L	0.3254 ppb	07:45:23
2	Ti 334.940†	-1004.1	37.2	0.0505	ug/L	0.0505 ppb	07:45:03
2	Tl 190.801†	-23.3	10.2	3.6571	ug/L	3.6571 ppb	07:45:23
2	U 409.014†	-1947.6	-80.0	-2.1732	ug/L	-2.1732 ppb	07:45:03
2	V 292.402†	-1353.6	4.9	0.0436	ug/L	0.0436 ppb	07:45:03
2	Zn 213.857†	683.0	65.4	0.7246	ug/L	0.7246 ppb	07:45:23
2	SiO2†	629.5	42.2	3.1232	ug/L	3.1232 ppb	07:46:28
3	Sc Radial	4451.8	4451.8	105	%		07:44:11
3	Y RADIAL	4866.3	4866.3	101.5	%		07:44:11
3	Al 396.153Radial†	-67.5	10.5	10.771	ug/L	10.771 ppb	07:44:31
3	Ca 317.933Radial†	20.6	2.6	5.1204	ug/L	5.1204 ppb	07:44:31
3	Fe 238.204 Radial†	5.5	-0.9	-11.123	ug/L	-11.123 ppb	07:44:31
3	K 766.490 Radial†	2842.9	7.1	1.3178	ug/L	1.3178 ppb	07:44:11
3	Mg 279.077 IEC†	0.7	0.1	3.2123	ug/L	3.2123 ppb	07:44:31
3	Na 589.592 Radial†	-802.4	103.9	40.885	ug/L	40.885 ppb	07:44:11
3	Sr 421.552†	2.0	-18.0	-0.1480	ug/L	-0.1480 ppb	07:44:11
3	Sc 361.383	868863.8	868863.8	98.584	%		07:45:28
3	Y 371.029	741387.0	741387.0	99.012	%		07:45:28
3	Ag 328.068†	182.3	-74.6	-0.3582	ug/L	-0.3582 ppb	07:45:28
3	As 188.979†	-16.8	3.6	1.7980	ug/L	1.7980 ppb	07:45:48
3	B 249.677†	141.7	531.9	13.548	ug/L	13.548 ppb	07:45:48
3	Ba 233.527†	24.3	14.6	0.1270	ug/L	0.1270 ppb	07:45:48
3	Be 313.107†	-4280.3	-59.0	-0.0225	ug/L	-0.0225 ppb	07:45:28
3	Cd 226.502†	-156.1	13.5	0.1808	ug/L	0.1808 ppb	07:45:48
3	Co 228.616†	-46.8	-0.8	-0.0187	ug/L	-0.0187 ppb	07:45:48
3	Cr 267.716†	114.9	48.4	0.5884	ug/L	0.5884 ppb	07:45:48
3	Cu 324.752†	6376.3	139.8	0.4216	ug/L	0.4216 ppb	07:45:28
3	Mn 257.610†	463.0	6.6	0.0068	ug/L	0.0068 ppb	07:45:48
3	Mo 202.031†	15.9	2.3	0.1864	ug/L	0.1864 ppb	07:45:48
3	Ni 231.604†	95.4	1.2	0.0355	ug/L	0.0355 ppb	07:45:48
3	P 214.914†	174.9	-0.9	-0.6908	ug/L	-0.6908 ppb	07:45:48
3	Pb 220.353†	-63.8	-14.6	-2.0650	ug/L	-2.0650 ppb	07:45:48
3	S 181.975 Axial†	29.4	6.5	10.421	ug/L	10.421 ppb	07:45:48
3	Sb 206.836†	33.4	6.4	2.4766	ug/L	2.4766 ppb	07:45:48
3	Se 196.026†	-18.4	-2.0	-1.5051	ug/L	-1.5051 ppb	07:45:48
3	Si 251.611†	585.9	25.4	0.8775	ug/L	0.8775 ppb	07:45:48
3	Sn 189.927†	10.3	3.6	0.7461	ug/L	0.7461 ppb	07:45:48
3	Ti 334.940†	-1082.4	-45.9	-0.0761	ug/L	-0.0761 ppb	07:45:28
3	Tl 190.801†	-27.8	5.6	2.0074	ug/L	2.0074 ppb	07:45:48
3	U 409.014†	-1711.8	152.0	4.1299	ug/L	4.1299 ppb	07:45:28
3	V 292.402†	-1361.5	-8.1	-0.0462	ug/L	-0.0462 ppb	07:45:28
3	Zn 213.857†	672.6	57.5	0.6373	ug/L	0.6373 ppb	07:45:48
3	SiO2†	608.1	22.8	1.6878	ug/L	1.6878 ppb	07:46:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	867397.8	98.418	%	0.6270				0.64%
Sc Radial	4466.7	105	%	0.5				0.49%
Y 371.029	740360.2	98.875	%	0.6765				0.68%
Y RADIAL	4877.7	101.7	%	0.22				0.22%
Ag 328.068†	-51.3	-0.2418	ug/L	0.19199	-0.2418	ppb	0.19199	79.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.1	7.2422	ug/L	3.47052	7.2422	ppb	3.47052	47.92%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.4	1.1949	ug/L	1.91349	1.1949	ppb	1.91349	160.13%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	545.4	13.889	ug/L	0.3477	13.889	ppb	0.3477	2.50%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.5	0.0828	ug/L	0.06754	0.0828	ppb	0.06754	81.57%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-22.1	-0.0083	ug/L	0.01345	-0.0083	ppb	0.01345	161.85%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.4	8.7353	ug/L	4.79123	8.7353	ppb	4.79123	54.85%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                9.4      0.1247 ug/L       0.05234      0.1247 ppb        0.05234  41.99%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                7.9      0.1928 ug/L       0.22933      0.1928 ppb        0.22933 118.94%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               48.2      0.5886 ug/L       0.10685      0.5886 ppb        0.10685  18.15%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              132.2      0.4021 ug/L       0.05283      0.4021 ppb        0.05283  13.14%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.2     -1.8350 ug/L      12.73828     -1.8350 ppb       12.73828 694.20%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         31.9      6.0179 ug/L       4.90921      6.0179 ppb        4.90921  81.58%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.3      54.291 ug/L       85.5225      54.291 ppb        85.5225 157.53%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                2.0      0.0000 ug/L       0.00627      0.0000 ppb        0.00627 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.4      0.3569 ug/L       0.20511      0.3569 ppb        0.20511  57.47%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        72.1      28.362 ug/L       10.8455      28.362 ppb        10.8455  38.24%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                2.8      0.0831 ug/L       0.09013      0.0831 ppb        0.09013 108.51%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 0.7      0.4063 ug/L       4.39384      0.4063 ppb        4.39384 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -8.8     -1.2438 ug/L       0.88286     -1.2438 ppb        0.88286  70.98%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           7.7      12.312 ug/L        2.4759      12.312 ppb         2.4759  20.11%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                3.1      1.2232 ug/L       1.08947      1.2232 ppb        1.08947  89.07%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.6     -2.6566 ug/L       1.47820     -2.6566 ppb        1.47820  55.64%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               43.8      1.5142 ug/L       0.64743      1.5142 ppb        0.64743  42.76%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.4      0.5040 ug/L       0.21742      0.5040 ppb        0.21742  43.14%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -3.7     -0.0307 ug/L       0.10380     -0.0307 ppb        0.10380 338.56%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               12.9      0.0180 ug/L       0.08275      0.0180 ppb        0.08275 460.28%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                5.7      2.0570 ug/L       1.57594      2.0570 ppb        1.57594  76.61%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -51.0     -1.3871 ug/L       5.16892     -1.3871 ppb        5.16892 372.65%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -20.9     -0.1477 ug/L       0.25752     -0.1477 ppb        0.25752 174.33%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               61.0      0.6743 ug/L       0.04514      0.6743 ppb        0.04514   6.69%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     41.3      3.0657 ug/L       1.35009      3.0657 ppb        1.35009  44.04%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/24/2010 08:41:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4505.8	4505.8	106	%			08:42:59
1	Y RADIAL	4872.5	4872.5	101.6	%			08:42:59
1	Al 396.153Radial†	5045.7	4835.3	4940.7	ug/L	4940.7	ppb	08:42:59
1	Ca 317.933Radial†	2725.4	2554.1	5062.1	ug/L	5062.1	ppb	08:43:19
1	Fe 238.204 Radial†	455.5	423.6	5131.7	ug/L	5131.7	ppb	08:43:19
1	K 766.490 Radial†	29758.1	25367.3	4793.7	ug/L	4793.7	ppb	08:42:59
1	Mg 279.077 IEC†	135.1	126.8	5395.5	ug/L	5395.5	ppb	08:43:19
1	Na 589.592 Radial†	27461.2	26778.1	10537	ug/L	10537	ppb	08:42:59
1	Sr 421.552†	63634.2	60014.9	493.29	ug/L	493.29	ppb	08:42:59
1	Sc 361.383	880155.5	880155.5	99.866	%			08:44:16
1	Y 371.029	739746.3	739746.3	98.793	%			08:44:16
1	Ag 328.068†	104589.2	104470.5	494.93	ug/L	494.93	ppb	08:44:21
1	As 188.979†	936.4	958.3	480.94	ug/L	480.94	ppb	08:44:41
1	B 249.677†	18513.0	18926.0	479.76	ug/L	479.76	ppb	08:44:21
1	Ba 233.527†	55891.0	55956.1	490.18	ug/L	490.18	ppb	08:44:21
1	Be 313.107†	1268794.1	1274784.7	483.44	ug/L	483.44	ppb	08:44:16
1	Cd 226.502†	36589.4	36810.6	486.15	ug/L	486.15	ppb	08:44:21
1	Co 228.616†	20373.1	20447.3	496.51	ug/L	496.51	ppb	08:44:21
1	Cr 267.716†	40140.8	40126.7	491.30	ug/L	491.30	ppb	08:44:21
1	Cu 324.752†	166024.1	159919.6	485.49	ug/L	485.49	ppb	08:44:21
1	Mn 257.610†	395275.3	395344.3	482.42	ug/L	482.42	ppb	08:44:16
1	Mo 202.031†	5950.1	5944.3	486.85	ug/L	486.85	ppb	08:44:41
1	Ni 231.604†	17051.7	16979.1	495.83	ug/L	495.83	ppb	08:44:21
1	P 214.914†	3696.1	3522.8	2279.4	ug/L	2279.4	ppb	08:44:41
1	Pb 220.353†	3342.9	3397.5	482.35	ug/L	482.35	ppb	08:44:41
1	S 181.975 Axial†	624.1	601.7	957.99	ug/L	957.99	ppb	08:44:41
1	Sb 206.836†	1254.5	1228.6	489.84	ug/L	489.84	ppb	08:44:41
1	Se 196.026†	632.2	649.8	499.77	ug/L	499.77	ppb	08:44:41
1	Si 251.611†	70845.2	70371.7	2433.1	ug/L	2433.1	ppb	08:44:21
1	Sn 189.927†	2326.4	2322.6	482.68	ug/L	482.68	ppb	08:44:41
1	Ti 334.940†	300160.1	301616.2	488.95	ug/L	488.95	ppb	08:44:21
1	Tl 190.801†	1323.2	1358.8	491.29	ug/L	491.29	ppb	08:44:41
1	U 409.014†	16155.7	18065.8	489.28	ug/L	489.28	ppb	08:44:21
1	V 292.402†	66235.0	67697.1	496.35	ug/L	496.35	ppb	08:44:21
1	Zn 213.857†	44877.4	44313.0	486.01	ug/L	486.01	ppb	08:44:21
1	SiO2†	69960.5	69460.6	5154.6	ug/L	5154.6	ppb	08:45:49
2	Sc Radial	4414.3	4414.3	104	%			08:43:24
2	Y RADIAL	4772.7	4772.7	99.56	%			08:43:24
2	Al 396.153Radial†	4956.5	4848.0	4953.9	ug/L	4953.9	ppb	08:43:24
2	Ca 317.933Radial†	2735.5	2617.1	5187.0	ug/L	5187.0	ppb	08:43:44
2	Fe 238.204 Radial†	456.0	433.0	5245.0	ug/L	5245.0	ppb	08:43:44
2	K 766.490 Radial†	29306.6	25514.6	4821.5	ug/L	4821.5	ppb	08:43:24
2	Mg 279.077 IEC†	130.1	124.7	5304.9	ug/L	5304.9	ppb	08:43:44
2	Na 589.592 Radial†	27038.6	26908.3	10588	ug/L	10588	ppb	08:43:24
2	Sr 421.552†	62294.6	59969.7	492.92	ug/L	492.92	ppb	08:43:24
2	Sc 361.383	882555.7	882555.7	100.14	%			08:44:47
2	Y 371.029	742065.7	742065.7	99.103	%			08:44:47
2	Ag 328.068†	104097.8	103694.9	491.30	ug/L	491.30	ppb	08:44:52
2	As 188.979†	938.3	957.6	480.60	ug/L	480.60	ppb	08:45:12
2	B 249.677†	18492.4	18855.0	477.94	ug/L	477.94	ppb	08:44:52
2	Ba 233.527†	55482.4	55396.0	485.28	ug/L	485.28	ppb	08:44:52
2	Be 313.107†	1273208.2	1275737.6	483.79	ug/L	483.79	ppb	08:44:47
2	Cd 226.502†	36349.9	36471.7	481.66	ug/L	481.66	ppb	08:44:52
2	Co 228.616†	20246.3	20265.2	492.09	ug/L	492.09	ppb	08:44:52
2	Cr 267.716†	39921.5	39798.4	487.29	ug/L	487.29	ppb	08:44:52
2	Cu 324.752†	165535.1	158979.1	482.64	ug/L	482.64	ppb	08:44:52
2	Mn 257.610†	396317.7	395308.9	482.40	ug/L	482.40	ppb	08:44:47
2	Mo 202.031†	5941.4	5919.4	484.82	ug/L	484.82	ppb	08:45:12
2	Ni 231.604†	16943.9	16825.1	491.33	ug/L	491.33	ppb	08:44:52

2	P 214.914†	3695.1	3511.7	2272.5 ug/L	2272.5 ppb	08:45:12
2	Pb 220.353†	3341.3	3386.8	480.82 ug/L	480.82 ppb	08:45:12
2	S 181.975 Axial†	618.2	594.1	945.88 ug/L	945.88 ppb	08:45:12
2	Sb 206.836†	1254.0	1224.8	488.27 ug/L	488.27 ppb	08:45:12
2	Se 196.026†	625.5	641.3	493.80 ug/L	493.80 ppb	08:45:12
2	Si 251.611†	70433.8	69767.9	2412.2 ug/L	2412.2 ppb	08:44:52
2	Sn 189.927†	2322.2	2312.1	480.51 ug/L	480.51 ppb	08:45:12
2	Ti 334.940†	298293.7	298934.9	484.63 ug/L	484.63 ppb	08:44:52
2	Tl 190.801†	1322.4	1354.3	489.69 ug/L	489.69 ppb	08:45:12
2	U 409.014†	16063.2	17929.4	485.57 ug/L	485.57 ppb	08:44:52
2	V 292.402†	65779.5	67061.8	491.71 ug/L	491.71 ppb	08:44:52
2	Zn 213.857†	44546.6	43860.4	481.02 ug/L	481.02 ppb	08:44:52
2	SiO2†	70145.5	69454.8	5154.2 ug/L	5154.2 ppb	08:45:54
3	Sc Radial	4449.6	4449.6	105 %		08:43:49
3	Y RADIAL	4814.9	4814.9	100.4 %		08:43:49
3	Al 396.153Radial†	5001.2	4852.9	4959.1 ug/L	4959.1 ppb	08:43:49
3	Ca 317.933Radial†	2733.8	2594.6	5142.4 ug/L	5142.4 ppb	08:44:09
3	Fe 238.204 Radial†	455.1	428.6	5192.1 ug/L	5192.1 ppb	08:44:09
3	K 766.490 Radial†	29553.0	25526.1	4823.7 ug/L	4823.7 ppb	08:43:49
3	Mg 279.077 IEC†	135.4	128.7	5475.1 ug/L	5475.1 ppb	08:44:09
3	Na 589.592 Radial†	27091.8	26752.5	10527 ug/L	10527 ppb	08:43:49
3	Sr 421.552†	62899.4	60071.6	493.75 ug/L	493.75 ppb	08:43:49
3	Sc 361.383	891537.9	891537.9	101.16 %		08:45:18
3	Y 371.029	748539.8	748539.8	99.968 %		08:45:18
3	Ag 328.068†	105232.3	103769.1	491.63 ug/L	491.63 ppb	08:45:23
3	As 188.979†	939.7	949.6	476.59 ug/L	476.59 ppb	08:45:43
3	B 249.677†	18749.0	18922.6	479.67 ug/L	479.67 ppb	08:45:23
3	Ba 233.527†	56031.0	55380.0	485.14 ug/L	485.14 ppb	08:45:23
3	Be 313.107†	1284467.3	1274058.0	483.16 ug/L	483.16 ppb	08:45:18
3	Cd 226.502†	36720.3	36472.1	481.67 ug/L	481.67 ppb	08:45:23
3	Co 228.616†	20449.1	20262.0	492.01 ug/L	492.01 ppb	08:45:23
3	Cr 267.716†	40298.6	39769.5	486.94 ug/L	486.94 ppb	08:45:23
3	Cu 324.752†	167409.1	159166.2	483.21 ug/L	483.21 ppb	08:45:23
3	Mn 257.610†	400904.0	395855.3	483.05 ug/L	483.05 ppb	08:45:18
3	Mo 202.031†	5956.4	5874.4	481.14 ug/L	481.14 ppb	08:45:43
3	Ni 231.604†	17069.3	16778.6	489.97 ug/L	489.97 ppb	08:45:23
3	P 214.914†	3702.7	3482.0	2252.4 ug/L	2252.4 ppb	08:45:43
3	Pb 220.353†	3342.3	3354.1	476.20 ug/L	476.20 ppb	08:45:43
3	S 181.975 Axial†	628.6	598.2	952.33 ug/L	952.33 ppb	08:45:43
3	Sb 206.836†	1264.3	1222.3	487.23 ug/L	487.23 ppb	08:45:43
3	Se 196.026†	627.1	636.6	490.20 ug/L	490.20 ppb	08:45:43
3	Si 251.611†	71259.5	69875.5	2416.0 ug/L	2416.0 ppb	08:45:23
3	Sn 189.927†	2343.5	2309.8	480.04 ug/L	480.04 ppb	08:45:43
3	Ti 334.940†	301550.1	299152.9	484.97 ug/L	484.97 ppb	08:45:23
3	Tl 190.801†	1323.9	1342.5	485.46 ug/L	485.46 ppb	08:45:43
3	U 409.014†	16197.7	17900.9	484.80 ug/L	484.80 ppb	08:45:23
3	V 292.402†	66484.7	67097.2	491.92 ug/L	491.92 ppb	08:45:23
3	Zn 213.857†	45129.4	43988.4	482.45 ug/L	482.45 ppb	08:45:23
3	SiO2†	70571.3	69170.1	5133.1 ug/L	5133.1 ppb	08:45:59

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	884749.7	100.39	%	0.681				0.68%
Sc Radial	4456.6	105	%	1.1				1.04%
Y 371.029	743450.6	99.288	%	0.6086				0.61%
Y RADIAL	4820.0	100.5	%	1.05				1.04%
Ag 328.068†	103978.2	492.62	ug/L	2.008	492.62	ppb	2.008	0.41%
QC value within limits for Ag 328.068 Recovery = 98.52%								
Al 396.153Radial†	4845.4	4951.2	ug/L	9.46	4951.2	ppb	9.46	0.19%
QC value within limits for Al 396.153Radial Recovery = 99.02%								
As 188.979†	955.2	479.38	ug/L	2.414	479.38	ppb	2.414	0.50%
QC value within limits for As 188.979 Recovery = 95.88%								
B 249.677†	18901.2	479.12	ug/L	1.024	479.12	ppb	1.024	0.21%
QC value within limits for B 249.677 Recovery = 95.82%								
Ba 233.527†	55577.4	486.87	ug/L	2.871	486.87	ppb	2.871	0.59%
QC value within limits for Ba 233.527 Recovery = 97.37%								
Be 313.107†	1274860.1	483.47	ug/L	0.318	483.47	ppb	0.318	0.07%
QC value within limits for Be 313.107 Recovery = 96.69%								
Ca 317.933Radial†	2588.6	5130.5	ug/L	63.29	5130.5	ppb	63.29	1.23%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.61%
Cd 226.502†            36584.8      483.16 ug/L         2.590      483.16 ppb          2.590   0.54%
   QC value within limits for Cd 226.502  Recovery = 96.63%
Co 228.616†            20324.8      493.54 ug/L         2.577      493.54 ppb          2.577   0.52%
   QC value within limits for Co 228.616  Recovery = 98.71%
Cr 267.716†            39898.2      488.51 ug/L         2.422      488.51 ppb          2.422   0.50%
   QC value within limits for Cr 267.716  Recovery = 97.70%
Cu 324.752†           159355.0      483.78 ug/L         1.507      483.78 ppb          1.507   0.31%
   QC value within limits for Cu 324.752  Recovery = 96.76%
Fe 238.204 Radial†       428.4      5189.6 ug/L         56.73      5189.6 ppb          56.73   1.09%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.79%
K 766.490 Radial†      25469.3      4813.0 ug/L         16.74      4813.0 ppb          16.74   0.35%
   QC value within limits for K 766.490 Radial  Recovery = 96.26%
Mg 279.077 IEC†          126.7      5391.8 ug/L         85.14      5391.8 ppb          85.14   1.58%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.84%
Mn 257.610†           395502.8      482.62 ug/L         0.370      482.62 ppb          0.370   0.08%
   QC value within limits for Mn 257.610  Recovery = 96.52%
Mo 202.031†             5912.7      484.27 ug/L         2.895      484.27 ppb          2.895   0.60%
   QC value within limits for Mo 202.031  Recovery = 96.85%
Na 589.592 Radial†     26813.0       10551 ug/L          32.9       10551 ppb           32.9   0.31%
   QC value within limits for Na 589.592 Radial  Recovery = 105.51%
Ni 231.604†            16860.9      492.37 ug/L         3.066      492.37 ppb          3.066   0.62%
   QC value within limits for Ni 231.604  Recovery = 98.47%
P 214.914†              3505.5      2268.1 ug/L         14.06      2268.1 ppb          14.06   0.62%
   QC value within limits for P 214.914  Recovery = 90.72%
Pb 220.353†             3379.5      479.79 ug/L         3.203      479.79 ppb          3.203   0.67%
   QC value within limits for Pb 220.353  Recovery = 95.96%
S 181.975 Axial†         598.0      952.06 ug/L         6.060      952.06 ppb          6.060   0.64%
   QC value within limits for S 181.975 Axial  Recovery = 95.21%
Sb 206.836†             1225.2      488.45 ug/L         1.313      488.45 ppb          1.313   0.27%
   QC value within limits for Sb 206.836  Recovery = 97.69%
Se 196.026†              642.6      494.59 ug/L         4.831      494.59 ppb          4.831   0.98%
   QC value within limits for Se 196.026  Recovery = 98.92%
Si 251.611†            70005.0      2420.5 ug/L         11.14      2420.5 ppb          11.14   0.46%
   QC value within limits for Si 251.611  Recovery = 96.82%
Sn 189.927†             2314.8      481.08 ug/L         1.409      481.08 ppb          1.409   0.29%
   QC value within limits for Sn 189.927  Recovery = 96.22%
Sr 421.552†            60018.7      493.32 ug/L         0.420      493.32 ppb          0.420   0.09%
   QC value within limits for Sr 421.552  Recovery = 98.66%
Ti 334.940†           299901.3      486.18 ug/L         2.404      486.18 ppb          2.404   0.49%
   QC value within limits for Ti 334.940  Recovery = 97.24%
Tl 190.801†             1351.9      488.81 ug/L         3.014      488.81 ppb          3.014   0.62%
   QC value within limits for Tl 190.801  Recovery = 97.76%
U 409.014†             17965.4      486.55 ug/L         2.396      486.55 ppb          2.396   0.49%
   QC value within limits for U 409.014  Recovery = 97.31%
V 292.402†             67285.4      493.33 ug/L         2.622      493.33 ppb          2.622   0.53%
   QC value within limits for V 292.402  Recovery = 98.67%
Zn 213.857†            44053.9      483.16 ug/L         2.572      483.16 ppb          2.572   0.53%
   QC value within limits for Zn 213.857  Recovery = 96.63%
SiO2†                  69361.8      5147.3 ug/L         12.28      5147.3 ppb          12.28   0.24%
   QC value within limits for SiO2  Recovery = 96.26%
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/24/2010 08:48:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4486.6	4486.6	106	%			08:50:01
1	Y RADIAL	4906.6	4906.6	102.4	%			08:50:01
1	Al 396.153Radial†	-75.2	3.7	3.7844	ug/L	3.7844	ppb	08:50:21
1	Ca 317.933Radial†	20.8	2.6	5.1673	ug/L	5.1673	ppb	08:50:21
1	Fe 238.204 Radial†	8.9	2.3	27.455	ug/L	27.455	ppb	08:50:21
1	K 766.490 Radial†	2728.4	-122.5	-23.180	ug/L	-23.180	ppb	08:50:01
1	Mg 279.077 IEC†	2.9	2.1	91.194	ug/L	91.194	ppb	08:50:21
1	Na 589.592 Radial†	-946.2	-26.4	-10.387	ug/L	-10.387	ppb	08:50:01
1	Sr 421.552†	16.7	-4.1	-0.0339	ug/L	-0.0339	ppb	08:50:01
1	Sc 361.383	879966.0	879966.0	99.844	%			08:51:18
1	Y 371.029	749600.6	749600.6	100.11	%			08:51:18
1	Ag 328.068†	290.2	31.1	0.1533	ug/L	0.1533	ppb	08:51:23
1	As 188.979†	-18.3	2.3	1.1259	ug/L	1.1259	ppb	08:51:43
1	B 249.677†	-154.1	233.8	5.9487	ug/L	5.9487	ppb	08:51:43
1	Ba 233.527†	27.2	17.1	0.1501	ug/L	0.1501	ppb	08:51:43
1	Be 313.107†	-4176.5	99.7	0.0378	ug/L	0.0378	ppb	08:51:23
1	Cd 226.502†	-162.5	9.1	0.1169	ug/L	0.1169	ppb	08:51:43
1	Co 228.616†	-35.7	11.0	0.2665	ug/L	0.2665	ppb	08:51:43
1	Cr 267.716†	119.8	51.8	0.6350	ug/L	0.6350	ppb	08:51:43
1	Cu 324.752†	6309.3	-8.9	-0.0260	ug/L	-0.0260	ppb	08:51:23
1	Mn 257.610†	467.5	5.2	0.0053	ug/L	0.0053	ppb	08:51:43
1	Mo 202.031†	14.8	1.0	0.0826	ug/L	0.0826	ppb	08:51:43
1	Ni 231.604†	86.1	-9.3	-0.2720	ug/L	-0.2720	ppb	08:51:43
1	P 214.914†	177.6	-0.4	-0.3179	ug/L	-0.3179	ppb	08:51:43
1	Pb 220.353†	-59.0	-9.1	-1.2861	ug/L	-1.2861	ppb	08:51:43
1	S 181.975 Axial†	23.5	0.3	0.4983	ug/L	0.4983	ppb	08:51:43
1	Sb 206.836†	10.6	-16.9	-6.5114	ug/L	-6.5114	ppb	08:51:43
1	Se 196.026†	-17.6	-0.9	-0.5837	ug/L	-0.5837	ppb	08:51:43
1	Si 251.611†	596.8	28.9	1.0002	ug/L	1.0002	ppb	08:51:43
1	Sn 189.927†	4.6	-2.3	-0.4846	ug/L	-0.4846	ppb	08:51:43
1	Ti 334.940†	-1029.3	21.1	0.0269	ug/L	0.0269	ppb	08:51:23
1	Tl 190.801†	-24.0	9.8	3.5041	ug/L	3.5041	ppb	08:51:43
1	U 409.014†	-1856.6	28.9	0.7818	ug/L	0.7818	ppb	08:51:18
1	V 292.402†	-1405.5	-34.8	-0.2517	ug/L	-0.2517	ppb	08:51:23
1	Zn 213.857†	697.0	73.2	0.8084	ug/L	0.8084	ppb	08:51:43
1	SiO2†	609.3	16.2	1.2062	ug/L	1.2062	ppb	08:53:04
2	Sc Radial	4503.8	4503.8	106	%			08:50:26
2	Y RADIAL	4886.2	4886.2	101.9	%			08:50:26
2	Al 396.153Radial†	-69.6	9.2	9.4448	ug/L	9.4448	ppb	08:50:46
2	Ca 317.933Radial†	24.3	5.8	11.522	ug/L	11.522	ppb	08:50:46
2	Fe 238.204 Radial†	9.7	3.0	36.234	ug/L	36.234	ppb	08:50:46
2	K 766.490 Radial†	2759.8	-102.8	-19.449	ug/L	-19.449	ppb	08:50:26
2	Mg 279.077 IEC†	1.6	0.8	35.466	ug/L	35.466	ppb	08:50:46
2	Na 589.592 Radial†	-948.3	-24.9	-9.7935	ug/L	-9.7935	ppb	08:50:26
2	Sr 421.552†	4.0	-16.1	-0.1327	ug/L	-0.1327	ppb	08:50:26
2	Sc 361.383	890478.6	890478.6	101.04	%			08:51:48
2	Y 371.029	758636.8	758636.8	101.32	%			08:51:48
2	Ag 328.068†	224.8	-37.0	-0.1601	ug/L	-0.1601	ppb	08:51:53
2	As 188.979†	-23.7	-2.8	-1.3983	ug/L	-1.3983	ppb	08:52:13
2	B 249.677†	-173.4	216.5	5.5084	ug/L	5.5084	ppb	08:52:13
2	Ba 233.527†	21.1	10.8	0.0948	ug/L	0.0948	ppb	08:52:13
2	Be 313.107†	-4273.0	53.7	0.0201	ug/L	0.0201	ppb	08:51:53
2	Cd 226.502†	-166.0	7.5	0.0948	ug/L	0.0948	ppb	08:52:13
2	Co 228.616†	-37.9	9.2	0.2239	ug/L	0.2239	ppb	08:52:13
2	Cr 267.716†	106.8	37.6	0.4645	ug/L	0.4645	ppb	08:52:13
2	Cu 324.752†	6372.1	-21.3	-0.0599	ug/L	-0.0599	ppb	08:51:53
2	Mn 257.610†	447.2	-20.4	-0.0227	ug/L	-0.0227	ppb	08:52:13
2	Mo 202.031†	19.4	5.4	0.4414	ug/L	0.4414	ppb	08:52:13
2	Ni 231.604†	97.7	1.2	0.0355	ug/L	0.0355	ppb	08:52:13

2	P 214.914†	158.4	-21.6	-14.549 ug/L	-14.549 ppb	08:52:13
2	Pb 220.353†	-51.5	-0.9	-0.1351 ug/L	-0.1351 ppb	08:52:13
2	S 181.975 Axial†	33.4	9.9	15.714 ug/L	15.714 ppb	08:52:13
2	Sb 206.836†	24.3	-3.5	-1.3226 ug/L	-1.3226 ppb	08:52:13
2	Se 196.026†	-17.2	-0.4	-0.1694 ug/L	-0.1694 ppb	08:52:13
2	Si 251.611†	604.7	29.6	1.0221 ug/L	1.0221 ppb	08:52:13
2	Sn 189.927†	9.4	2.4	0.4972 ug/L	0.4972 ppb	08:52:13
2	Ti 334.940†	-1105.7	-42.3	-0.0679 ug/L	-0.0679 ppb	08:51:53
2	Tl 190.801†	-32.5	1.5	0.5541 ug/L	0.5541 ppb	08:52:13
2	U 409.014†	-2104.1	-194.1	-5.2807 ug/L	-5.2807 ppb	08:51:48
2	V 292.402†	-1428.0	-40.4	-0.3010 ug/L	-0.3010 ppb	08:51:53
2	Zn 213.857†	710.0	77.9	0.8572 ug/L	0.8572 ppb	08:52:13
2	SiO2†	593.8	-6.4	-0.4866 ug/L	-0.4866 ppb	08:53:24
3	Sc Radial	4500.4	4500.4	106 %		08:50:51
3	Y RADIAL	4905.8	4905.8	102.3 %		08:50:51
3	Al 396.153Radial†	-75.1	4.0	4.0895 ug/L	4.0895 ppb	08:51:11
3	Ca 317.933Radial†	24.3	5.8	11.585 ug/L	11.585 ppb	08:51:11
3	Fe 238.204 Radial†	7.6	1.1	12.701 ug/L	12.701 ppb	08:51:11
3	K 766.490 Radial†	2627.3	-226.0	-42.761 ug/L	-42.761 ppb	08:50:51
3	Mg 279.077 IEC†	-1.8	-2.3	-99.192 ug/L	-99.192 ppb	08:51:11
3	Na 589.592 Radial†	-941.1	-18.8	-7.3785 ug/L	-7.3785 ppb	08:50:51
3	Sr 421.552†	28.7	7.2	0.0588 ug/L	0.0588 ppb	08:50:51
3	Sc 361.383	893640.8	893640.8	101.40 %		08:52:18
3	Y 371.029	760451.9	760451.9	101.56 %		08:52:18
3	Ag 328.068†	283.4	20.0	0.0984 ug/L	0.0984 ppb	08:52:23
3	As 188.979†	-26.8	-5.8	-2.8816 ug/L	-2.8816 ppb	08:52:43
3	B 249.677†	-170.7	219.8	5.5934 ug/L	5.5934 ppb	08:52:43
3	Ba 233.527†	28.0	17.6	0.1538 ug/L	0.1538 ppb	08:52:43
3	Be 313.107†	-4176.8	163.4	0.0616 ug/L	0.0616 ppb	08:52:23
3	Cd 226.502†	-173.3	1.0	0.0118 ug/L	0.0118 ppb	08:52:43
3	Co 228.616†	-30.1	17.0	0.4138 ug/L	0.4138 ppb	08:52:43
3	Cr 267.716†	94.7	25.2	0.3096 ug/L	0.3096 ppb	08:52:43
3	Cu 324.752†	6354.0	-61.5	-0.1854 ug/L	-0.1854 ppb	08:52:23
3	Mn 257.610†	477.8	8.2	0.0153 ug/L	0.0153 ppb	08:52:43
3	Mo 202.031†	20.7	6.6	0.5390 ug/L	0.5390 ppb	08:52:43
3	Ni 231.604†	104.7	7.7	0.2261 ug/L	0.2261 ppb	08:52:43
3	P 214.914†	171.8	-8.9	-5.9637 ug/L	-5.9637 ppb	08:52:43
3	Pb 220.353†	-64.6	-13.6	-1.9316 ug/L	-1.9316 ppb	08:52:43
3	S 181.975 Axial†	19.1	-4.4	-7.0212 ug/L	-7.0212 ppb	08:52:43
3	Sb 206.836†	21.6	-6.2	-2.3738 ug/L	-2.3738 ppb	08:52:43
3	Se 196.026†	-20.7	-3.7	-2.7168 ug/L	-2.7168 ppb	08:52:43
3	Si 251.611†	581.4	4.5	0.1509 ug/L	0.1509 ppb	08:52:43
3	Sn 189.927†	6.6	-0.4	-0.0823 ug/L	-0.0823 ppb	08:52:43
3	Ti 334.940†	-1125.6	-58.1	-0.0843 ug/L	-0.0843 ppb	08:52:23
3	Tl 190.801†	-27.8	6.4	2.2798 ug/L	2.2798 ppb	08:52:43
3	U 409.014†	-1948.2	-33.0	-0.8988 ug/L	-0.8988 ppb	08:52:18
3	V 292.402†	-1399.6	-7.4	-0.0514 ug/L	-0.0514 ppb	08:52:23
3	Zn 213.857†	687.5	53.2	0.5858 ug/L	0.5858 ppb	08:52:43
3	SiO2†	596.1	-6.1	-0.4719 ug/L	-0.4719 ppb	08:53:44

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	888028.5	100.76	%	0.812				0.81%
Sc Radial	4497.0	106	%	0.2				0.20%
Y 371.029	756229.8	100.99	%	0.776				0.77%
Y RADIAL	4899.6	102.2	%	0.24				0.24%
Ag 328.068†	4.7	0.0305	ug/L	0.16735	0.0305	ppb	0.16735	548.08%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.6	5.7729	ug/L	3.18364	5.7729	ppb	3.18364	55.15%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.1	-1.0513	ug/L	2.02617	-1.0513	ppb	2.02617	192.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	223.4	5.6835	ug/L	0.23358	5.6835	ppb	0.23358	4.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	15.2	0.1329	ug/L	0.03306	0.1329	ppb	0.03306	24.88%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	105.6	0.0399	ug/L	0.02081	0.0399	ppb	0.02081	52.22%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.8	9.4248	ug/L	3.68725	9.4248	ppb	3.68725	39.12%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                5.9      0.0745 ug/L       0.05540      0.0745 ppb        0.05540  74.34%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               12.4      0.3014 ug/L       0.09966      0.3014 ppb        0.09966  33.07%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               38.2      0.4697 ug/L       0.16278      0.4697 ppb        0.16278  34.65%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -30.6     -0.0904 ug/L       0.08400     -0.0904 ppb        0.08400  92.88%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         2.1      25.464 ug/L       11.8923      25.464 ppb        11.8923  46.70%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -150.4     -28.463 ug/L       12.5218     -28.463 ppb        12.5218  43.99%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.2      9.1558 ug/L      97.88212      9.1558 ppb       97.88212 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -2.3     -0.0007 ug/L       0.01971     -0.0007 ppb        0.01971 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.3      0.3543 ug/L       0.24031      0.3543 ppb        0.24031  67.82%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -23.3     -9.1862 ug/L       1.59340     -9.1862 ppb        1.59340  17.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -0.1     -0.0035 ug/L       0.25133     -0.0035 ppb        0.25133 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -10.3     -6.9434 ug/L       7.16587     -6.9434 ppb        7.16587 103.20%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -7.9     -1.1176 ug/L       0.91006     -1.1176 ppb        0.91006  81.43%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           1.9      3.0637 ug/L      11.58261      3.0637 ppb       11.58261 378.06%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -8.9     -3.4026 ug/L       2.74314     -3.4026 ppb        2.74314  80.62%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -1.7     -1.1566 ug/L       1.36692     -1.1566 ppb        1.36692 118.18%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               21.0      0.7244 ug/L       0.49680      0.7244 ppb        0.49680  68.58%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.1     -0.0232 ug/L       0.49355     -0.0232 ppb        0.49355 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -4.4     -0.0359 ug/L       0.09576     -0.0359 ppb        0.09576 266.63%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -26.4     -0.0418 ug/L       0.06001     -0.0418 ppb        0.06001 143.73%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                5.9      2.1126 ug/L       1.48209      2.1126 ppb        1.48209  70.15%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -66.1     -1.7992 ug/L       3.12995     -1.7992 ppb        3.12995 173.96%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -27.5     -0.2014 ug/L       0.13218     -0.2014 ppb        0.13218  65.64%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               68.1      0.7505 ug/L       0.14466      0.7505 ppb        0.14466  19.28%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      1.2      0.0826 ug/L       0.97307      0.0826 ppb        0.97307 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 3/24/2010 10:04:23 **Plasma On Time: 3/22/2010 06:16:18**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\032410.sif
Batch ID:
Results Data Set: 032410
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 10:04:24**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4201.9	4201.9	98.8	%			10:06:36
1	Y RADIAL	4742.3	4742.3	95.70	%			10:06:16
1	Al 396.153Radial†	5151.1	5286.3	5403.8	ug/L	5403.8	ppb	10:06:16
1	Ca 317.933Radial†	2706.0	2720.5	5391.9	ug/L	5391.9	ppb	10:06:36
1	Fe 238.204 Radial†	441.1	440.1	5331.5	ug/L	5331.5	ppb	10:06:36
1	K 766.490 Radial†	29884.4	27526.1	5202.0	ug/L	5202.0	ppb	10:06:16
1	Mg 279.077 IEC†	132.4	133.3	5670.7	ug/L	5670.7	ppb	10:06:36
1	Na 589.592 Radial†	26368.3	27546.7	10840	ug/L	10840	ppb	10:06:16
1	Sr 421.552†	62991.5	63708.0	523.64	ug/L	523.64	ppb	10:06:16
1	Sc 361.383	888355.5	888355.5	100.80	%			10:07:33
1	Y 371.029	744491.1	744491.1	97.421	%			10:07:33
1	Ag 328.068†	104158.6	103076.5	488.40	ug/L	488.40	ppb	10:07:38
1	As 188.979†	956.4	969.5	486.49	ug/L	486.49	ppb	10:07:58
1	B 249.677†	18384.4	18627.4	472.13	ug/L	472.13	ppb	10:07:38
1	Ba 233.527†	55662.5	55212.8	483.68	ug/L	483.68	ppb	10:07:38
1	Be 313.107†	1285182.1	1279315.9	485.14	ug/L	485.14	ppb	10:07:33
1	Cd 226.502†	36581.2	36464.2	481.55	ug/L	481.55	ppb	10:07:38
1	Co 228.616†	20324.5	20210.8	490.78	ug/L	490.78	ppb	10:07:38
1	Cr 267.716†	39906.1	39522.8	483.93	ug/L	483.93	ppb	10:07:38
1	Cu 324.752†	165747.3	158110.4	480.01	ug/L	480.01	ppb	10:07:38
1	Mn 257.610†	402523.4	398881.6	486.75	ug/L	486.75	ppb	10:07:33
1	Mo 202.031†	5988.2	5927.1	485.46	ug/L	485.46	ppb	10:07:58
1	Ni 231.604†	17037.7	16807.6	490.82	ug/L	490.82	ppb	10:07:38
1	P 214.914†	3735.9	3528.1	2284.1	ug/L	2284.1	ppb	10:07:58
1	Pb 220.353†	3363.1	3386.6	480.89	ug/L	480.89	ppb	10:07:58
1	S 181.975 Axial†	628.0	599.8	954.85	ug/L	954.85	ppb	10:07:58
1	Sb 206.836†	1257.1	1219.6	486.32	ug/L	486.32	ppb	10:07:58
1	Se 196.026†	632.0	643.7	496.01	ug/L	496.01	ppb	10:07:58
1	Si 251.611†	70670.5	69543.6	2404.5	ug/L	2404.5	ppb	10:07:38
1	Sn 189.927†	2346.1	2320.6	482.33	ug/L	482.33	ppb	10:07:58
1	Ti 334.940†	299166.3	297855.7	482.88	ug/L	482.88	ppb	10:07:38
1	Tl 190.801†	1322.9	1346.2	486.78	ug/L	486.78	ppb	10:07:58
1	U 409.014†	16086.0	17847.3	483.33	ug/L	483.33	ppb	10:07:38
1	V 292.402†	65749.7	66603.4	488.39	ug/L	488.39	ppb	10:07:38
1	Zn 213.857†	44799.3	43820.8	480.57	ug/L	480.57	ppb	10:07:38
1	SiO2†	71160.2	70004.2	5195.0	ug/L	5195.0	ppb	10:09:06
2	Sc Radial	4215.5	4215.5	99.2	%			10:07:01
2	Y RADIAL	4790.1	4790.1	96.66	%			10:06:41
2	Al 396.153Radial†	5056.9	5174.4	5289.3	ug/L	5289.3	ppb	10:06:41
2	Ca 317.933Radial†	2714.1	2719.8	5390.6	ug/L	5390.6	ppb	10:07:01
2	Fe 238.204 Radial†	446.7	444.3	5382.2	ug/L	5382.2	ppb	10:07:01
2	K 766.490 Radial†	29726.8	27269.4	5153.5	ug/L	5153.5	ppb	10:06:41
2	Mg 279.077 IEC†	132.0	132.5	5635.0	ug/L	5635.0	ppb	10:07:01
2	Na 589.592 Radial†	25796.5	26883.9	10579	ug/L	10579	ppb	10:06:41
2	Sr 421.552†	61864.9	62365.9	512.61	ug/L	512.61	ppb	10:06:41
2	Sc 361.383	894307.4	894307.4	101.47	%			10:08:04
2	Y 371.029	751150.1	751150.1	98.293	%			10:08:04

2	Ag 328.068†	104176.6	102406.6	485.25 ug/L	485.25 ppb	10:08:09
2	As 188.979†	950.8	957.6	480.60 ug/L	480.60 ppb	10:08:29
2	B 249.677†	18371.5	18493.2	468.72 ug/L	468.72 ppb	10:08:09
2	Ba 233.527†	55796.8	54977.7	481.62 ug/L	481.62 ppb	10:08:09
2	Be 313.107†	1296253.7	1281741.2	486.05 ug/L	486.05 ppb	10:08:04
2	Cd 226.502†	36531.5	36173.6	477.71 ug/L	477.71 ppb	10:08:09
2	Co 228.616†	20356.4	20107.9	488.27 ug/L	488.27 ppb	10:08:09
2	Cr 267.716†	39958.7	39311.2	481.35 ug/L	481.35 ppb	10:08:09
2	Cu 324.752†	165680.8	156950.4	476.49 ug/L	476.49 ppb	10:08:09
2	Mn 257.610†	404600.8	398271.2	486.01 ug/L	486.01 ppb	10:08:04
2	Mo 202.031†	5956.0	5855.7	479.62 ug/L	479.62 ppb	10:08:29
2	Ni 231.604†	16987.7	16645.9	486.09 ug/L	486.09 ppb	10:08:09
2	P 214.914†	3720.7	3488.4	2257.9 ug/L	2257.9 ppb	10:08:29
2	Pb 220.353†	3364.4	3365.7	477.88 ug/L	477.88 ppb	10:08:29
2	S 181.975 Axial†	621.5	589.2	938.00 ug/L	938.00 ppb	10:08:29
2	Sb 206.836†	1263.7	1217.9	485.51 ug/L	485.51 ppb	10:08:29
2	Se 196.026†	628.6	636.2	490.52 ug/L	490.52 ppb	10:08:29
2	Si 251.611†	70724.9	69130.5	2390.2 ug/L	2390.2 ppb	10:08:09
2	Sn 189.927†	2354.7	2313.7	480.88 ug/L	480.88 ppb	10:08:29
2	Ti 334.940†	299106.2	295821.3	479.59 ug/L	479.59 ppb	10:08:09
2	Tl 190.801†	1314.1	1328.8	480.53 ug/L	480.53 ppb	10:08:29
2	U 409.014†	15999.6	17656.0	478.13 ug/L	478.13 ppb	10:08:09
2	V 292.402†	65833.1	66251.5	485.75 ug/L	485.75 ppb	10:08:09
2	Zn 213.857†	44724.7	43451.4	476.51 ug/L	476.51 ppb	10:08:09
2	SiO2†	70786.6	69166.2	5132.8 ug/L	5132.8 ppb	10:09:11
3	Sc Radial	4231.0	4231.0	99.5 %		10:07:26
3	Y RADIAL	4812.5	4812.5	97.11 %		10:07:06
3	Al 396.153Radial†	5105.6	5204.6	5320.1 ug/L	5320.1 ppb	10:07:06
3	Ca 317.933Radial†	2719.9	2715.7	5382.3 ug/L	5382.3 ppb	10:07:26
3	Fe 238.204 Radial†	447.6	443.5	5372.7 ug/L	5372.7 ppb	10:07:26
3	K 766.490 Radial†	29891.2	27324.8	5164.0 ug/L	5164.0 ppb	10:07:06
3	Mg 279.077 IEC†	130.4	130.4	5546.1 ug/L	5546.1 ppb	10:07:26
3	Na 589.592 Radial†	26111.5	27105.0	10666 ug/L	10666 ppb	10:07:06
3	Sr 421.552†	62463.6	62738.7	515.68 ug/L	515.68 ppb	10:07:06
3	Sc 361.383	889879.1	889879.1	100.97 %		10:08:35
3	Y 371.029	746345.4	746345.4	97.664 %		10:08:35
3	Ag 328.068†	104202.8	102943.4	487.78 ug/L	487.78 ppb	10:08:40
3	As 188.979†	947.3	958.9	481.23 ug/L	481.23 ppb	10:09:01
3	B 249.677†	18526.8	18737.1	474.93 ug/L	474.93 ppb	10:08:40
3	Ba 233.527†	55594.6	55051.1	482.27 ug/L	482.27 ppb	10:08:40
3	Be 313.107†	1290269.5	1282171.4	486.22 ug/L	486.22 ppb	10:08:35
3	Cd 226.502†	36444.7	36266.8	478.94 ug/L	478.94 ppb	10:08:40
3	Co 228.616†	20294.7	20146.7	489.22 ug/L	489.22 ppb	10:08:40
3	Cr 267.716†	39916.3	39465.1	483.23 ug/L	483.23 ppb	10:08:40
3	Cu 324.752†	165814.9	157895.8	479.36 ug/L	479.36 ppb	10:08:40
3	Mn 257.610†	403644.6	399308.4	487.28 ug/L	487.28 ppb	10:08:35
3	Mo 202.031†	5987.2	5915.9	484.55 ug/L	484.55 ppb	10:09:01
3	Ni 231.604†	16993.5	16735.0	488.70 ug/L	488.70 ppb	10:08:40
3	P 214.914†	3731.2	3517.1	2276.7 ug/L	2276.7 ppb	10:09:01
3	Pb 220.353†	3367.3	3385.0	480.64 ug/L	480.64 ppb	10:09:01
3	S 181.975 Axial†	626.1	596.9	950.17 ug/L	950.17 ppb	10:09:01
3	Sb 206.836†	1271.7	1232.0	491.05 ug/L	491.05 ppb	10:09:01
3	Se 196.026†	632.0	642.6	495.27 ug/L	495.27 ppb	10:09:01
3	Si 251.611†	70770.4	69522.4	2403.7 ug/L	2403.7 ppb	10:08:40
3	Sn 189.927†	2346.8	2317.4	481.64 ug/L	481.64 ppb	10:09:01
3	Ti 334.940†	299165.3	297346.6	482.07 ug/L	482.07 ppb	10:08:40
3	Tl 190.801†	1319.3	1340.4	484.71 ug/L	484.71 ppb	10:09:01
3	U 409.014†	16119.4	17853.1	483.49 ug/L	483.49 ppb	10:08:40
3	V 292.402†	65849.1	66590.1	488.28 ug/L	488.28 ppb	10:08:40
3	Zn 213.857†	44750.8	43696.6	479.21 ug/L	479.21 ppb	10:08:40
3	SiO2†	68087.0	66839.7	4959.6 ug/L	4959.6 ppb	10:09:16

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	890847.4	101.08	%	0.351				0.35%
Sc Radial	4216.1	99.2	%	0.34				0.35%
Y 371.029	747328.9	97.793	%	0.4497				0.46%
Y RADIAL	4781.6	96.49	%	0.723				0.75%
Ag 328.068†	102808.8	487.15	ug/L	1.667	487.15	ppb	1.667	0.34%

```
   QC value within limits for Ag 328.068  Recovery = 97.43%
Al 396.153Radial†       5221.8      5337.7 ug/L         59.30      5337.7 ppb          59.30   1.11%
   QC value within limits for Al 396.153Radial  Recovery = 106.75%
As 188.979†              962.0      482.77 ug/L         3.236      482.77 ppb          3.236   0.67%
   QC value within limits for As 188.979  Recovery = 96.55%
B 249.677†             18619.2      471.93 ug/L         3.111      471.93 ppb          3.111   0.66%
   QC value within limits for B 249.677  Recovery = 94.39%
Ba 233.527†            55080.5      482.52 ug/L         1.053      482.52 ppb          1.053   0.22%
   QC value within limits for Ba 233.527  Recovery = 96.50%
Be 313.107†          1281076.2      485.81 ug/L         0.580      485.81 ppb          0.580   0.12%
   QC value within limits for Be 313.107  Recovery = 97.16%
Ca 317.933Radial†       2718.7      5388.3 ug/L          5.22      5388.3 ppb           5.22   0.10%
   QC value within limits for Ca 317.933Radial  Recovery = 107.77%
Cd 226.502†            36301.6      479.40 ug/L         1.964      479.40 ppb          1.964   0.41%
   QC value within limits for Cd 226.502  Recovery = 95.88%
Co 228.616†            20155.1      489.42 ug/L         1.264      489.42 ppb          1.264   0.26%
   QC value within limits for Co 228.616  Recovery = 97.88%
Cr 267.716†            39433.0      482.84 ug/L         1.335      482.84 ppb          1.335   0.28%
   QC value within limits for Cr 267.716  Recovery = 96.57%
Cu 324.752†           157652.2      478.62 ug/L         1.871      478.62 ppb          1.871   0.39%
   QC value within limits for Cu 324.752  Recovery = 95.72%
Fe 238.204 Radial†       442.7      5362.1 ug/L         26.93      5362.1 ppb          26.93   0.50%
   QC value within limits for Fe 238.204 Radial  Recovery = 107.24%
K 766.490 Radial†      27373.4      5173.1 ug/L         25.50      5173.1 ppb          25.50   0.49%
   QC value within limits for K 766.490 Radial  Recovery = 103.46%
Mg 279.077 IEC†          132.0      5617.3 ug/L         64.13      5617.3 ppb          64.13   1.14%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 112.35%
Mn 257.610†           398820.4      486.68 ug/L         0.637      486.68 ppb          0.637   0.13%
   QC value within limits for Mn 257.610  Recovery = 97.34%
Mo 202.031†             5899.6      483.21 ug/L         3.139      483.21 ppb          3.139   0.65%
   QC value within limits for Mo 202.031  Recovery = 96.64%
Na 589.592 Radial†     27178.5       10695 ug/L         132.8       10695 ppb          132.8   1.24%
   QC value within limits for Na 589.592 Radial  Recovery = 106.95%
Ni 231.604†            16729.5      488.54 ug/L         2.367      488.54 ppb          2.367   0.48%
   QC value within limits for Ni 231.604  Recovery = 97.71%
P 214.914†              3511.2      2272.9 ug/L         13.47      2272.9 ppb          13.47   0.59%
   QC value within limits for P 214.914  Recovery = 90.92%
Pb 220.353†             3379.1      479.80 ug/L         1.670      479.80 ppb          1.670   0.35%
   QC value within limits for Pb 220.353  Recovery = 95.96%
S 181.975 Axial†         595.3      947.67 ug/L         8.700      947.67 ppb          8.700   0.92%
   QC value within limits for S 181.975 Axial  Recovery = 94.77%
Sb 206.836†             1223.2      487.63 ug/L         2.992      487.63 ppb          2.992   0.61%
   QC value within limits for Sb 206.836  Recovery = 97.53%
Se 196.026†              640.8      493.93 ug/L         2.980      493.93 ppb          2.980   0.60%
   QC value within limits for Se 196.026  Recovery = 98.79%
Si 251.611†            69398.8      2399.5 ug/L          8.02      2399.5 ppb           8.02   0.33%
   QC value within limits for Si 251.611  Recovery = 95.98%
Sn 189.927†             2317.2      481.62 ug/L         0.724      481.62 ppb          0.724   0.15%
   QC value within limits for Sn 189.927  Recovery = 96.32%
Sr 421.552†            62937.5      517.31 ug/L         5.695      517.31 ppb          5.695   1.10%
   QC value within limits for Sr 421.552  Recovery = 103.46%
Ti 334.940†           297007.9      481.51 ug/L         1.715      481.51 ppb          1.715   0.36%
   QC value within limits for Ti 334.940  Recovery = 96.30%
Tl 190.801†             1338.5      484.01 ug/L         3.184      484.01 ppb          3.184   0.66%
   QC value within limits for Tl 190.801  Recovery = 96.80%
U 409.014†             17785.5      481.65 ug/L         3.047      481.65 ppb          3.047   0.63%
   QC value within limits for U 409.014  Recovery = 96.33%
V 292.402†             66481.7      487.47 ug/L         1.493      487.47 ppb          1.493   0.31%
   QC value within limits for V 292.402  Recovery = 97.49%
Zn 213.857†            43656.2      478.76 ug/L         2.067      478.76 ppb          2.067   0.43%
   QC value within limits for Zn 213.857  Recovery = 95.75%
SiO2†                  68670.0      5095.8 ug/L        121.99      5095.8 ppb         121.99   2.39%
   QC value within limits for SiO2  Recovery = 95.29%
QC Failed.  Continue with analysis.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/24/2010 10:11:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4451.7	4451.7	105	%			10:13:20
1	Y RADIAL	4830.3	4830.3	97.47	%			10:13:20
1	Al 396.153Radial†	-79.8	-1.2	-1.2978	ug/L	-1.2978	ppb	10:13:40
1	Ca 317.933Radial†	28.1	9.8	19.343	ug/L	19.343	ppb	10:13:40
1	Fe 238.204 Radial†	8.8	2.3	27.256	ug/L	27.256	ppb	10:13:40
1	K 766.490 Radial†	2758.5	-73.5	-13.919	ug/L	-13.919	ppb	10:13:20
1	Mg 279.077 IEC†	-1.3	-1.9	-79.824	ug/L	-79.824	ppb	10:13:40
1	Na 589.592 Radial†	-938.1	-25.6	-10.086	ug/L	-10.086	ppb	10:13:20
1	Sr 421.552†	25.4	4.4	0.0357	ug/L	0.0357	ppb	10:13:20
1	Sc 361.383	869079.5	869079.5	98.609	%			10:14:37
1	Y 371.029	742821.6	742821.6	97.203	%			10:14:37
1	Ag 328.068†	305.2	50.0	0.2440	ug/L	0.2440	ppb	10:14:37
1	As 188.979†	-20.3	0.0	0.0093	ug/L	0.0093	ppb	10:14:57
1	B 249.677†	-258.2	126.3	3.2101	ug/L	3.2101	ppb	10:14:57
1	Ba 233.527†	16.6	6.7	0.0589	ug/L	0.0589	ppb	10:14:57
1	Be 313.107†	-4115.4	109.3	0.0411	ug/L	0.0411	ppb	10:14:37
1	Cd 226.502†	-163.5	6.0	0.0763	ug/L	0.0763	ppb	10:14:57
1	Co 228.616†	-28.4	17.9	0.4363	ug/L	0.4363	ppb	10:14:57
1	Cr 267.716†	104.9	38.2	0.4700	ug/L	0.4700	ppb	10:14:57
1	Cu 324.752†	6372.1	134.0	0.4092	ug/L	0.4092	ppb	10:14:37
1	Mn 257.610†	484.6	28.4	0.0406	ug/L	0.0406	ppb	10:14:57
1	Mo 202.031†	20.0	6.4	0.5254	ug/L	0.5254	ppb	10:14:57
1	Ni 231.604†	90.8	-3.4	-0.0993	ug/L	-0.0993	ppb	10:14:57
1	P 214.914†	168.7	-7.2	-4.9314	ug/L	-4.9314	ppb	10:14:57
1	Pb 220.353†	-67.3	-18.2	-2.5856	ug/L	-2.5856	ppb	10:14:57
1	S 181.975 Axial†	35.0	12.2	19.499	ug/L	19.499	ppb	10:14:57
1	Sb 206.836†	23.6	-3.6	-1.3492	ug/L	-1.3492	ppb	10:14:57
1	Se 196.026†	-9.9	6.6	4.9910	ug/L	4.9910	ppb	10:14:57
1	Si 251.611†	598.8	38.3	1.3224	ug/L	1.3224	ppb	10:14:57
1	Sn 189.927†	14.0	7.3	1.5208	ug/L	1.5208	ppb	10:14:57
1	Ti 334.940†	-1104.1	-67.7	-0.1000	ug/L	-0.1000	ppb	10:14:37
1	Tl 190.801†	-23.5	9.9	3.5510	ug/L	3.5510	ppb	10:14:57
1	U 409.014†	-1928.2	-67.0	-1.8254	ug/L	-1.8254	ppb	10:14:37
1	V 292.402†	-1393.3	-40.0	-0.2909	ug/L	-0.2909	ppb	10:14:37
1	Zn 213.857†	722.8	108.2	1.1935	ug/L	1.1935	ppb	10:14:57
1	SiO2†	579.6	-6.3	-0.4811	ug/L	-0.4811	ppb	10:16:08
2	Sc Radial	4598.7	4598.7	108	%			10:13:45
2	Y RADIAL	4997.6	4997.6	100.8	%			10:13:45
2	Al 396.153Radial†	-75.9	4.8	4.9140	ug/L	4.9140	ppb	10:14:05
2	Ca 317.933Radial†	28.7	9.4	18.611	ug/L	18.611	ppb	10:14:05
2	Fe 238.204 Radial†	8.6	1.8	21.361	ug/L	21.361	ppb	10:14:05
2	K 766.490 Radial†	2656.1	-252.4	-47.785	ug/L	-47.785	ppb	10:13:45
2	Mg 279.077 IEC†	1.4	0.6	27.011	ug/L	27.011	ppb	10:14:05
2	Na 589.592 Radial†	-862.8	72.6	28.571	ug/L	28.571	ppb	10:13:45
2	Sr 421.552†	9.8	-10.9	-0.0898	ug/L	-0.0898	ppb	10:13:45
2	Sc 361.383	865525.0	865525.0	98.206	%			10:15:02
2	Y 371.029	739951.3	739951.3	96.827	%			10:15:02
2	Ag 328.068†	322.2	68.5	0.3304	ug/L	0.3304	ppb	10:15:02
2	As 188.979†	-15.5	4.9	2.4352	ug/L	2.4352	ppb	10:15:22
2	B 249.677†	-226.0	158.0	4.0184	ug/L	4.0184	ppb	10:15:22
2	Ba 233.527†	20.6	10.9	0.0948	ug/L	0.0948	ppb	10:15:22
2	Be 313.107†	-4255.9	-50.9	-0.0194	ug/L	-0.0194	ppb	10:15:02
2	Cd 226.502†	-176.3	-7.6	-0.1037	ug/L	-0.1037	ppb	10:15:22
2	Co 228.616†	-23.1	23.2	0.5650	ug/L	0.5650	ppb	10:15:22
2	Cr 267.716†	93.3	26.8	0.3308	ug/L	0.3308	ppb	10:15:22
2	Cu 324.752†	6248.9	35.0	0.1097	ug/L	0.1097	ppb	10:15:02
2	Mn 257.610†	451.2	-3.6	-0.0033	ug/L	-0.0033	ppb	10:15:22
2	Mo 202.031†	21.2	7.8	0.6363	ug/L	0.6363	ppb	10:15:22
2	Ni 231.604†	87.4	-6.6	-0.1920	ug/L	-0.1920	ppb	10:15:22

2	P 214.914†	172.1	-3.1	-2.1025 ug/L	-2.1025 ppb	10:15:22
2	Pb 220.353†	-48.4	0.8	0.1129 ug/L	0.1129 ppb	10:15:22
2	S 181.975 Axial†	30.6	7.9	12.658 ug/L	12.658 ppb	10:15:22
2	Sb 206.836†	33.7	6.8	2.6299 ug/L	2.6299 ppb	10:15:22
2	Se 196.026†	-25.4	-9.2	-6.7552 ug/L	-6.7552 ppb	10:15:22
2	Si 251.611†	589.7	31.6	1.0864 ug/L	1.0864 ppb	10:15:22
2	Sn 189.927†	5.2	-1.6	-0.3326 ug/L	-0.3326 ppb	10:15:22
2	Ti 334.940†	-1072.6	-40.3	-0.0632 ug/L	-0.0632 ppb	10:15:02
2	Tl 190.801†	-25.9	7.4	2.6464 ug/L	2.6464 ppb	10:15:22
2	U 409.014†	-2008.1	-156.4	-4.2547 ug/L	-4.2547 ppb	10:15:02
2	V 292.402†	-1418.3	-71.3	-0.5177 ug/L	-0.5177 ppb	10:15:02
2	Zn 213.857†	713.8	102.0	1.1271 ug/L	1.1271 ppb	10:15:22
2	SiO2†	606.7	23.7	1.7486 ug/L	1.7486 ppb	10:16:28
3	Sc Radial	4467.3	4467.3	105 %		10:14:10
3	Y RADIAL	4897.4	4897.4	98.83 %		10:14:10
3	Al 396.153Radial†	-81.7	-2.8	-2.8716 ug/L	-2.8716 ppb	10:14:30
3	Ca 317.933Radial†	22.1	3.9	7.8221 ug/L	7.8221 ppb	10:14:30
3	Fe 238.204 Radial†	10.0	3.4	40.615 ug/L	40.615 ppb	10:14:30
3	K 766.490 Radial†	2704.3	-134.3	-25.414 ug/L	-25.414 ppb	10:14:10
3	Mg 279.077 IEC†	2.0	1.2	52.342 ug/L	52.342 ppb	10:14:30
3	Na 589.592 Radial†	-931.9	-16.6	-6.5433 ug/L	-6.5433 ppb	10:14:10
3	Sr 421.552†	31.9	10.5	0.0859 ug/L	0.0859 ppb	10:14:10
3	Sc 361.383	866253.0	866253.0	98.288 %		10:15:27
3	Y 371.029	741580.0	741580.0	97.040 %		10:15:27
3	Ag 328.068†	259.4	4.4	0.0318 ug/L	0.0318 ppb	10:15:27
3	As 188.979†	-16.8	3.5	1.7580 ug/L	1.7580 ppb	10:15:47
3	B 249.677†	-252.1	131.7	3.3465 ug/L	3.3465 ppb	10:15:47
3	Ba 233.527†	30.1	20.6	0.1797 ug/L	0.1797 ppb	10:15:47
3	Be 313.107†	-4194.7	15.0	0.0056 ug/L	0.0056 ppb	10:15:27
3	Cd 226.502†	-177.5	-8.7	-0.1194 ug/L	-0.1194 ppb	10:15:47
3	Co 228.616†	-35.8	10.3	0.2495 ug/L	0.2495 ppb	10:15:47
3	Cr 267.716†	103.4	37.0	0.4562 ug/L	0.4562 ppb	10:15:47
3	Cu 324.752†	6261.1	42.1	0.1308 ug/L	0.1308 ppb	10:15:27
3	Mn 257.610†	465.1	10.2	0.0143 ug/L	0.0143 ppb	10:15:47
3	Mo 202.031†	16.8	3.2	0.2669 ug/L	0.2669 ppb	10:15:47
3	Ni 231.604†	93.4	-0.5	-0.0149 ug/L	-0.0149 ppb	10:15:47
3	P 214.914†	166.2	-9.2	-6.2271 ug/L	-6.2271 ppb	10:15:47
3	Pb 220.353†	-54.3	-5.2	-0.7417 ug/L	-0.7417 ppb	10:15:47
3	S 181.975 Axial†	29.9	7.2	11.478 ug/L	11.478 ppb	10:15:47
3	Sb 206.836†	29.3	2.3	0.8860 ug/L	0.8860 ppb	10:15:47
3	Se 196.026†	-23.0	-6.7	-4.8829 ug/L	-4.8829 ppb	10:15:47
3	Si 251.611†	591.1	32.5	1.1245 ug/L	1.1245 ppb	10:15:47
3	Sn 189.927†	8.4	1.6	0.3399 ug/L	0.3399 ppb	10:15:47
3	Ti 334.940†	-1049.2	-15.5	-0.0278 ug/L	-0.0278 ppb	10:15:27
3	Tl 190.801†	-25.7	7.7	2.7497 ug/L	2.7497 ppb	10:15:47
3	U 409.014†	-1919.0	-64.0	-1.7448 ug/L	-1.7448 ppb	10:15:27
3	V 292.402†	-1448.9	-101.2	-0.7372 ug/L	-0.7372 ppb	10:15:27
3	Zn 213.857†	713.7	101.3	1.1150 ug/L	1.1150 ppb	10:15:47
3	SiO2†	620.2	37.0	2.7442 ug/L	2.7442 ppb	10:16:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	866952.5	98.368	%	0.2130				0.22%
Sc Radial	4505.9	106	%	1.9				1.79%
Y 371.029	741451.0	97.024	%	0.1884				0.19%
Y RADIAL	4908.4	99.05	%	1.699				1.72%
Ag 328.068†	41.0	0.2021	ug/L	0.15367	0.2021	ppb	0.15367	76.05%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.3	0.2482	ug/L	4.11659	0.2482	ppb	4.11659	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.8	1.4009	ug/L	1.25175	1.4009	ppb	1.25175	89.36%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	138.6	3.5250	ug/L	0.43271	3.5250	ppb	0.43271	12.28%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	12.7	0.1111	ug/L	0.06202	0.1111	ppb	0.06202	55.81%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	24.5	0.0091	ug/L	0.03041	0.0091	ppb	0.03041	333.49%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.7	15.259	ug/L	6.4508	15.259	ppb	6.4508	42.28%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -3.4     -0.0489 ug/L       0.10875     -0.0489 ppb        0.10875 222.27%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              17.1      0.4170 ug/L       0.15862      0.4170 ppb        0.15862  38.04%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              34.0      0.4190 ug/L       0.07670      0.4190 ppb        0.07670  18.30%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              70.3      0.2166 ug/L       0.16715      0.2166 ppb        0.16715  77.17%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        2.5     29.744 ug/L        9.8649     29.744 ppb         9.8649  33.17%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -153.4    -29.039 ug/L       17.2217    -29.039 ppb        17.2217  59.30%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.0     -0.1571 ug/L      70.14637     -0.1571 ppb       70.14637 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              11.7      0.0172 ug/L       0.02211      0.0172 ppb        0.02211 128.69%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               5.8      0.4762 ug/L       0.18952      0.4762 ppb        0.18952  39.80%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       10.1      3.9806 ug/L      21.36911      3.9806 ppb       21.36911 536.83%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -3.5     -0.1021 ug/L       0.08859     -0.1021 ppb        0.08859  86.76%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -6.5     -4.4204 ug/L       2.10929     -4.4204 ppb        2.10929  47.72%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -7.5     -1.0715 ug/L       1.37912     -1.0715 ppb        1.37912 128.71%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          9.1     14.545 ug/L        4.3309     14.545 ppb         4.3309  29.78%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               1.8      0.7222 ug/L       1.99463      0.7222 ppb        1.99463 276.17%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.1     -2.2157 ug/L       6.31101     -2.2157 ppb        6.31101 284.83%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              34.1      1.1778 ug/L       0.12670      1.1778 ppb        0.12670  10.76%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.4      0.5094 ug/L       0.93828      0.5094 ppb        0.93828 184.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               1.3      0.0106 ug/L       0.09048      0.0106 ppb        0.09048 855.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -41.2     -0.0637 ug/L       0.03612     -0.0637 ppb        0.03612  56.71%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               8.3      2.9824 ug/L       0.49519      2.9824 ppb        0.49519  16.60%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -95.8     -2.6083 ug/L       1.42639     -2.6083 ppb        1.42639  54.69%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -70.8     -0.5153 ug/L       0.22317     -0.5153 ppb        0.22317  43.31%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             103.8      1.1452 ug/L       0.04224      1.1452 ppb        0.04224   3.69%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    18.1      1.3372 ug/L       1.65156      1.3372 ppb        1.65156 123.51%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/24/2010 10:59:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4361.7	4361.7	103	%			11:01:33
1	Y RADIAL	4734.2	4734.2	95.53	%			11:01:33
1	Al 396.153Radial†	4975.3	4924.1	5032.1	ug/L	5032.1	ppb	11:01:33
1	Ca 317.933Radial†	2689.7	2604.4	5161.7	ug/L	5161.7	ppb	11:01:53
1	Fe 238.204 Radial†	442.0	424.6	5144.1	ug/L	5144.1	ppb	11:01:53
1	K 766.490 Radial†	29307.6	25856.3	4886.4	ug/L	4886.4	ppb	11:01:33
1	Mg 279.077 IEC†	131.3	127.3	5416.5	ug/L	5416.5	ppb	11:01:53
1	Na 589.592 Radial†	25054.8	25289.2	9951.3	ug/L	9951.3	ppb	11:01:33
1	Sr 421.552†	60436.2	58882.7	483.98	ug/L	483.98	ppb	11:01:33
1	Sc 361.383	884601.5	884601.5	100.37	%			11:02:50
1	Y 371.029	740165.7	740165.7	96.855	%			11:02:50
1	Ag 328.068†	103232.6	102592.5	486.06	ug/L	486.06	ppb	11:02:56
1	As 188.979†	944.2	961.3	482.39	ug/L	482.39	ppb	11:03:16
1	B 249.677†	18297.4	18618.1	471.93	ug/L	471.93	ppb	11:02:56
1	Ba 233.527†	55435.1	55220.6	483.74	ug/L	483.74	ppb	11:02:56
1	Be 313.107†	1270581.4	1270179.9	481.68	ug/L	481.68	ppb	11:02:50
1	Cd 226.502†	36386.4	36424.2	481.04	ug/L	481.04	ppb	11:02:56
1	Co 228.616†	20244.6	20216.7	490.92	ug/L	490.92	ppb	11:02:56
1	Cr 267.716†	39635.4	39421.2	482.67	ug/L	482.67	ppb	11:02:56
1	Cu 324.752†	163946.4	157013.9	476.67	ug/L	476.67	ppb	11:02:56
1	Mn 257.610†	389731.1	387831.2	473.26	ug/L	473.26	ppb	11:02:56
1	Mo 202.031†	5929.4	5893.6	482.70	ug/L	482.70	ppb	11:03:16
1	Ni 231.604†	16914.1	16756.3	489.32	ug/L	489.32	ppb	11:02:56
1	P 214.914†	3718.4	3526.4	2283.6	ug/L	2283.6	ppb	11:03:16
1	Pb 220.353†	3353.5	3391.2	481.47	ug/L	481.47	ppb	11:03:16
1	S 181.975 Axial†	618.0	592.4	943.14	ug/L	943.14	ppb	11:03:16
1	Sb 206.836†	1262.6	1230.4	490.43	ug/L	490.43	ppb	11:03:16
1	Se 196.026†	636.3	650.7	500.51	ug/L	500.51	ppb	11:03:16
1	Si 251.611†	70141.1	69313.6	2396.5	ug/L	2396.5	ppb	11:02:56
1	Sn 189.927†	2341.9	2326.3	483.48	ug/L	483.48	ppb	11:03:16
1	Ti 334.940†	296592.3	296550.9	480.76	ug/L	480.76	ppb	11:02:56
1	Tl 190.801†	1312.8	1341.8	485.12	ug/L	485.12	ppb	11:03:16
1	U 409.014†	15906.0	17735.7	480.32	ug/L	480.32	ppb	11:02:56
1	V 292.402†	65162.7	66295.4	486.14	ug/L	486.14	ppb	11:02:56
1	Zn 213.857†	44432.7	43644.0	478.66	ug/L	478.66	ppb	11:02:56
1	SiO2†	71416.4	70559.0	5236.4	ug/L	5236.4	ppb	11:04:23
2	Sc Radial	4398.2	4398.2	103	%			11:01:58
2	Y RADIAL	4746.2	4746.2	95.78	%			11:01:58
2	Al 396.153Radial†	5011.9	4919.1	5026.9	ug/L	5026.9	ppb	11:01:58
2	Ca 317.933Radial†	2709.6	2601.8	5156.6	ug/L	5156.6	ppb	11:02:18
2	Fe 238.204 Radial†	439.9	419.0	5076.1	ug/L	5076.1	ppb	11:02:18
2	K 766.490 Radial†	29525.4	25829.6	4881.4	ug/L	4881.4	ppb	11:01:58
2	Mg 279.077 IEC†	129.7	124.8	5308.3	ug/L	5308.3	ppb	11:02:18
2	Na 589.592 Radial†	24970.4	25004.9	9839.4	ug/L	9839.4	ppb	11:01:58
2	Sr 421.552†	60603.7	58555.5	481.29	ug/L	481.29	ppb	11:01:58
2	Sc 361.383	882638.8	882638.8	100.15	%			11:03:21
2	Y 371.029	738874.7	738874.7	96.686	%			11:03:21
2	Ag 328.068†	103725.0	103312.9	489.44	ug/L	489.44	ppb	11:03:27
2	As 188.979†	934.4	953.7	478.58	ug/L	478.58	ppb	11:03:47
2	B 249.677†	18347.4	18708.5	474.24	ug/L	474.24	ppb	11:03:27
2	Ba 233.527†	55466.6	55374.9	485.09	ug/L	485.09	ppb	11:03:27
2	Be 313.107†	1267776.5	1270194.2	481.70	ug/L	481.70	ppb	11:03:21
2	Cd 226.502†	36395.6	36513.9	482.24	ug/L	482.24	ppb	11:03:27
2	Co 228.616†	20264.3	20281.2	492.48	ug/L	492.48	ppb	11:03:27
2	Cr 267.716†	39668.0	39541.5	484.14	ug/L	484.14	ppb	11:03:27
2	Cu 324.752†	165273.7	158702.5	481.79	ug/L	481.79	ppb	11:03:27
2	Mn 257.610†	390860.9	389822.8	475.69	ug/L	475.69	ppb	11:03:27
2	Mo 202.031†	5927.6	5905.0	483.63	ug/L	483.63	ppb	11:03:47
2	Ni 231.604†	16971.7	16851.2	492.09	ug/L	492.09	ppb	11:03:27

2	P 214.914†	3703.4	3519.7	2278.1 ug/L	2278.1 ppb	11:03:47
2	Pb 220.353†	3344.7	3389.8	481.28 ug/L	481.28 ppb	11:03:47
2	S 181.975 Axial†	616.8	592.6	943.47 ug/L	943.47 ppb	11:03:47
2	Sb 206.836†	1265.7	1236.3	492.72 ug/L	492.72 ppb	11:03:47
2	Se 196.026†	633.9	649.7	499.57 ug/L	499.57 ppb	11:03:47
2	Si 251.611†	70574.6	69901.9	2416.9 ug/L	2416.9 ppb	11:03:27
2	Sn 189.927†	2336.3	2326.0	483.41 ug/L	483.41 ppb	11:03:47
2	Ti 334.940†	298305.7	298918.9	484.60 ug/L	484.60 ppb	11:03:27
2	Tl 190.801†	1323.5	1355.3	490.01 ug/L	490.01 ppb	11:03:47
2	U 409.014†	16016.5	17881.3	484.28 ug/L	484.28 ppb	11:03:27
2	V 292.402†	65493.8	66770.4	489.61 ug/L	489.61 ppb	11:03:27
2	Zn 213.857†	44649.2	43958.7	482.13 ug/L	482.13 ppb	11:03:27
2	SiO2†	70480.7	69783.0	5178.6 ug/L	5178.6 ppb	11:04:28
3	Sc Radial	4416.2	4416.2	104 %		11:02:24
3	Y RADIAL	4812.1	4812.1	97.11 %		11:02:24
3	Al 396.153Radial†	5049.1	4935.1	5043.2 ug/L	5043.2 ppb	11:02:24
3	Ca 317.933Radial†	2695.0	2577.0	5107.5 ug/L	5107.5 ppb	11:02:44
3	Fe 238.204 Radial†	439.6	417.0	5052.1 ug/L	5052.1 ppb	11:02:44
3	K 766.490 Radial†	29662.6	25845.0	4884.3 ug/L	4884.3 ppb	11:02:24
3	Mg 279.077 IEC†	129.8	124.3	5289.6 ug/L	5289.6 ppb	11:02:44
3	Na 589.592 Radial†	25248.8	25174.1	9906.0 ug/L	9906.0 ppb	11:02:24
3	Sr 421.552†	61192.8	58883.0	483.98 ug/L	483.98 ppb	11:02:24
3	Sc 361.383	875502.0	875502.0	99.338 %		11:03:52
3	Y 371.029	734688.3	734688.3	96.139 %		11:03:52
3	Ag 328.068†	105061.7	105502.8	499.77 ug/L	499.77 ppb	11:03:57
3	As 188.979†	939.0	965.9	484.76 ug/L	484.76 ppb	11:04:17
3	B 249.677†	18706.0	19218.9	487.21 ug/L	487.21 ppb	11:03:57
3	Ba 233.527†	56170.4	56534.9	495.24 ug/L	495.24 ppb	11:03:57
3	Be 313.107†	1262365.2	1275066.1	483.56 ug/L	483.56 ppb	11:03:52
3	Cd 226.502†	36785.0	37202.1	491.34 ug/L	491.34 ppb	11:03:57
3	Co 228.616†	20469.3	20652.5	501.49 ug/L	501.49 ppb	11:03:57
3	Cr 267.716†	40134.2	40333.7	493.82 ug/L	493.82 ppb	11:03:57
3	Cu 324.752†	167461.9	162250.6	492.56 ug/L	492.56 ppb	11:03:57
3	Mn 257.610†	395221.5	397394.1	484.92 ug/L	484.92 ppb	11:03:57
3	Mo 202.031†	5939.4	5965.1	488.54 ug/L	488.54 ppb	11:04:17
3	Ni 231.604†	17060.9	17079.2	498.75 ug/L	498.75 ppb	11:03:57
3	P 214.914†	3725.1	3571.7	2311.1 ug/L	2311.1 ppb	11:04:17
3	Pb 220.353†	3355.6	3428.1	486.71 ug/L	486.71 ppb	11:04:17
3	S 181.975 Axial†	624.5	605.4	963.89 ug/L	963.89 ppb	11:04:17
3	Sb 206.836†	1260.9	1241.8	494.99 ug/L	494.99 ppb	11:04:17
3	Se 196.026†	620.0	640.8	492.92 ug/L	492.92 ppb	11:04:17
3	Si 251.611†	71362.7	71269.7	2464.3 ug/L	2464.3 ppb	11:03:57
3	Sn 189.927†	2340.1	2348.8	488.14 ug/L	488.14 ppb	11:04:17
3	Ti 334.940†	301791.9	304856.4	494.22 ug/L	494.22 ppb	11:03:57
3	Tl 190.801†	1313.4	1356.0	490.32 ug/L	490.32 ppb	11:04:17
3	U 409.014†	16214.0	18210.5	493.21 ug/L	493.21 ppb	11:03:57
3	V 292.402†	66250.1	68064.8	499.05 ug/L	499.05 ppb	11:03:57
3	Zn 213.857†	45162.0	44838.4	491.81 ug/L	491.81 ppb	11:03:57
3	SiO2†	70724.7	70602.3	5239.4 ug/L	5239.4 ppb	11:04:33

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	880914.1	99.952	%	0.5433				0.54%
Sc Radial	4392.0	103	%	0.7				0.63%
Y 371.029	737909.6	96.560	%	0.3747				0.39%
Y RADIAL	4764.2	96.14	%	0.847				0.88%
Ag 328.068†	103802.7	491.76	ug/L	7.145	491.76	ppb	7.145	1.45%
QC value within limits for Ag 328.068 Recovery = 98.35%								
Al 396.153Radial†	4926.1	5034.1	ug/L	8.29	5034.1	ppb	8.29	0.16%
QC value within limits for Al 396.153Radial Recovery = 100.68%								
As 188.979†	960.3	481.91	ug/L	3.116	481.91	ppb	3.116	0.65%
QC value within limits for As 188.979 Recovery = 96.38%								
B 249.677†	18848.5	477.79	ug/L	8.240	477.79	ppb	8.240	1.72%
QC value within limits for B 249.677 Recovery = 95.56%								
Ba 233.527†	55710.2	488.02	ug/L	6.291	488.02	ppb	6.291	1.29%
QC value within limits for Ba 233.527 Recovery = 97.60%								
Be 313.107†	1271813.4	482.31	ug/L	1.081	482.31	ppb	1.081	0.22%
QC value within limits for Be 313.107 Recovery = 96.46%								
Ca 317.933Radial†	2594.4	5141.9	ug/L	29.95	5141.9	ppb	29.95	0.58%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.84%
Cd 226.502†            36713.4      484.87 ug/L         5.631      484.87 ppb          5.631   1.16%
   QC value within limits for Cd 226.502  Recovery = 96.97%
Co 228.616†            20383.5      494.97 ug/L         5.705      494.97 ppb          5.705   1.15%
   QC value within limits for Co 228.616  Recovery = 98.99%
Cr 267.716†            39765.4      486.88 ug/L         6.060      486.88 ppb          6.060   1.24%
   QC value within limits for Cr 267.716  Recovery = 97.38%
Cu 324.752†           159322.3      483.68 ug/L         8.108      483.68 ppb          8.108   1.68%
   QC value within limits for Cu 324.752  Recovery = 96.74%
Fe 238.204 Radial†       420.2      5090.8 ug/L        47.74      5090.8 ppb         47.74   0.94%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.82%
K 766.490 Radial†      25843.6      4884.1 ug/L         2.51      4884.1 ppb          2.51   0.05%
   QC value within limits for K 766.490 Radial  Recovery = 97.68%
Mg 279.077 IEC†          125.5      5338.1 ug/L        68.52      5338.1 ppb         68.52   1.28%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.76%
Mn 257.610†           391682.7      477.96 ug/L         6.151      477.96 ppb          6.151   1.29%
   QC value within limits for Mn 257.610  Recovery = 95.59%
Mo 202.031†             5921.3      484.96 ug/L         3.139      484.96 ppb          3.139   0.65%
   QC value within limits for Mo 202.031  Recovery = 96.99%
Na 589.592 Radial†     25156.1      9898.9 ug/L        56.29      9898.9 ppb         56.29   0.57%
   QC value within limits for Na 589.592 Radial  Recovery = 98.99%
Ni 231.604†            16895.6      493.38 ug/L         4.846      493.38 ppb          4.846   0.98%
   QC value within limits for Ni 231.604  Recovery = 98.68%
P 214.914†              3539.2      2291.0 ug/L        17.67      2291.0 ppb         17.67   0.77%
   QC value within limits for P 214.914  Recovery = 91.64%
Pb 220.353†             3403.0      483.16 ug/L         3.081      483.16 ppb          3.081   0.64%
   QC value within limits for Pb 220.353  Recovery = 96.63%
S 181.975 Axial†         596.8      950.17 ug/L        11.883      950.17 ppb         11.883   1.25%
   QC value within limits for S 181.975 Axial  Recovery = 95.02%
Sb 206.836†             1236.1      492.71 ug/L         2.282      492.71 ppb          2.282   0.46%
   QC value within limits for Sb 206.836  Recovery = 98.54%
Se 196.026†              647.0      497.67 ug/L         4.137      497.67 ppb          4.137   0.83%
   QC value within limits for Se 196.026  Recovery = 99.53%
Si 251.611†            70161.8      2425.9 ug/L        34.75      2425.9 ppb         34.75   1.43%
   QC value within limits for Si 251.611  Recovery = 97.04%
Sn 189.927†             2333.7      485.01 ug/L         2.714      485.01 ppb          2.714   0.56%
   QC value within limits for Sn 189.927  Recovery = 97.00%
Sr 421.552†            58773.8      483.09 ug/L         1.554      483.09 ppb          1.554   0.32%
   QC value within limits for Sr 421.552  Recovery = 96.62%
Ti 334.940†           300108.7      486.53 ug/L         6.934      486.53 ppb          6.934   1.43%
   QC value within limits for Ti 334.940  Recovery = 97.31%
Tl 190.801†             1351.0      488.48 ug/L         2.917      488.48 ppb          2.917   0.60%
   QC value within limits for Tl 190.801  Recovery = 97.70%
U 409.014†             17942.5      485.94 ug/L         6.601      485.94 ppb          6.601   1.36%
   QC value within limits for U 409.014  Recovery = 97.19%
V 292.402†             67043.5      491.60 ug/L         6.679      491.60 ppb          6.679   1.36%
   QC value within limits for V 292.402  Recovery = 98.32%
Zn 213.857†            44147.0      484.20 ug/L         6.818      484.20 ppb          6.818   1.41%
   QC value within limits for Zn 213.857  Recovery = 96.84%
SiO2†                  70314.8      5218.2 ug/L        34.27      5218.2 ppb         34.27   0.66%
   QC value within limits for SiO2  Recovery = 97.58%
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/24/2010 11:06:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4480.2	4480.2	105	%			11:08:36
1	Y RADIAL	4899.0	4899.0	98.86	%			11:08:36
1	Al 396.153Radial†	-80.3	-1.2	-1.1979	ug/L	-1.1979	ppb	11:08:56
1	Ca 317.933Radial†	30.9	12.2	24.104	ug/L	24.104	ppb	11:08:56
1	Fe 238.204 Radial†	5.5	-0.9	-11.078	ug/L	-11.078	ppb	11:08:56
1	K 766.490 Radial†	2623.8	-218.1	-41.265	ug/L	-41.265	ppb	11:08:36
1	Mg 279.077 IEC†	0.1	-0.5	-23.281	ug/L	-23.281	ppb	11:08:56
1	Na 589.592 Radial†	-968.1	-48.4	-19.051	ug/L	-19.051	ppb	11:08:36
1	Sr 421.552†	14.9	-5.8	-0.0478	ug/L	-0.0478	ppb	11:08:36
1	Sc 361.383	869673.2	869673.2	98.676	%			11:09:53
1	Y 371.029	743281.8	743281.8	97.263	%			11:09:53
1	Ag 328.068†	295.3	39.8	0.1808	ug/L	0.1808	ppb	11:09:53
1	As 188.979†	-30.9	-10.7	-5.3180	ug/L	-5.3180	ppb	11:10:13
1	B 249.677†	-225.9	159.2	4.0559	ug/L	4.0559	ppb	11:10:13
1	Ba 233.527†	13.5	3.6	0.0306	ug/L	0.0306	ppb	11:10:13
1	Be 313.107†	-4202.0	24.4	0.0093	ug/L	0.0093	ppb	11:09:53
1	Cd 226.502†	-170.6	-1.0	-0.0117	ug/L	-0.0117	ppb	11:10:13
1	Co 228.616†	-36.6	9.7	0.2337	ug/L	0.2337	ppb	11:10:13
1	Cr 267.716†	76.7	9.6	0.1152	ug/L	0.1152	ppb	11:10:13
1	Cu 324.752†	6318.7	75.4	0.2274	ug/L	0.2274	ppb	11:09:53
1	Mn 257.610†	450.4	-6.6	-0.0082	ug/L	-0.0082	ppb	11:10:13
1	Mo 202.031†	6.3	-7.5	-0.6135	ug/L	-0.6135	ppb	11:10:13
1	Ni 231.604†	89.4	-4.9	-0.1438	ug/L	-0.1438	ppb	11:10:13
1	P 214.914†	178.0	2.1	1.3425	ug/L	1.3425	ppb	11:10:13
1	Pb 220.353†	-68.9	-19.7	-2.7921	ug/L	-2.7921	ppb	11:10:13
1	S 181.975 Axial†	32.4	9.5	15.216	ug/L	15.216	ppb	11:10:13
1	Sb 206.836†	27.5	0.3	0.1060	ug/L	0.1060	ppb	11:10:13
1	Se 196.026†	-15.0	1.5	1.1044	ug/L	1.1044	ppb	11:10:13
1	Si 251.611†	564.5	3.2	0.1173	ug/L	0.1173	ppb	11:10:13
1	Sn 189.927†	4.0	-2.9	-0.5870	ug/L	-0.5870	ppb	11:10:13
1	Ti 334.940†	-1023.0	15.2	0.0291	ug/L	0.0291	ppb	11:09:53
1	Tl 190.801†	-17.8	15.8	5.6592	ug/L	5.6592	ppb	11:10:13
1	U 409.014†	-1807.4	56.8	1.5442	ug/L	1.5442	ppb	11:09:53
1	V 292.402†	-1406.0	-51.9	-0.3802	ug/L	-0.3802	ppb	11:09:53
1	Zn 213.857†	728.1	113.1	1.2544	ug/L	1.2544	ppb	11:10:13
1	SiO2†	577.7	-8.6	-0.6258	ug/L	-0.6258	ppb	11:11:09
2	Sc Radial	4568.7	4568.7	107	%			11:09:01
2	Y RADIAL	4979.2	4979.2	100.5	%			11:09:01
2	Al 396.153Radial†	-80.0	0.6	0.5454	ug/L	0.5454	ppb	11:09:21
2	Ca 317.933Radial†	26.7	7.7	15.297	ug/L	15.297	ppb	11:09:21
2	Fe 238.204 Radial†	7.0	0.4	4.8370	ug/L	4.8370	ppb	11:09:21
2	K 766.490 Radial†	2566.4	-319.7	-60.509	ug/L	-60.509	ppb	11:09:01
2	Mg 279.077 IEC†	-0.5	-1.1	-45.556	ug/L	-45.556	ppb	11:09:21
2	Na 589.592 Radial†	-922.8	11.5	4.5347	ug/L	4.5347	ppb	11:09:01
2	Sr 421.552†	17.8	-3.4	-0.0277	ug/L	-0.0277	ppb	11:09:01
2	Sc 361.383	864817.7	864817.7	98.125	%			11:10:18
2	Y 371.029	740087.6	740087.6	96.845	%			11:10:18
2	Ag 328.068†	263.8	9.3	0.0434	ug/L	0.0434	ppb	11:10:18
2	As 188.979†	-17.0	3.3	1.6453	ug/L	1.6453	ppb	11:10:38
2	B 249.677†	-255.8	127.5	3.2454	ug/L	3.2454	ppb	11:10:38
2	Ba 233.527†	29.7	20.2	0.1749	ug/L	0.1749	ppb	11:10:38
2	Be 313.107†	-4157.7	45.7	0.0171	ug/L	0.0171	ppb	11:10:18
2	Cd 226.502†	-167.5	1.2	0.0150	ug/L	0.0150	ppb	11:10:38
2	Co 228.616†	-48.1	-2.3	-0.0540	ug/L	-0.0540	ppb	11:10:38
2	Cr 267.716†	74.9	8.2	0.1003	ug/L	0.1003	ppb	11:10:38
2	Cu 324.752†	6331.2	124.1	0.3779	ug/L	0.3779	ppb	11:10:18
2	Mn 257.610†	444.6	-9.9	-0.0098	ug/L	-0.0098	ppb	11:10:38
2	Mo 202.031†	21.5	8.1	0.6620	ug/L	0.6620	ppb	11:10:38
2	Ni 231.604†	95.0	1.3	0.0380	ug/L	0.0380	ppb	11:10:38

2	P 214.914†	170.3	-4.7	-3.2660 ug/L	-3.2660 ppb	11:10:38
2	Pb 220.353†	-58.0	-9.0	-1.2736 ug/L	-1.2736 ppb	11:10:38
2	S 181.975 Axial†	26.0	3.2	5.1531 ug/L	5.1531 ppb	11:10:38
2	Sb 206.836†	23.1	-4.0	-1.5060 ug/L	-1.5060 ppb	11:10:38
2	Se 196.026†	-19.5	-3.2	-2.3304 ug/L	-2.3304 ppb	11:10:38
2	Si 251.611†	581.1	23.3	0.8002 ug/L	0.8002 ppb	11:10:38
2	Sn 189.927†	13.2	6.5	1.3554 ug/L	1.3554 ppb	11:10:38
2	Ti 334.940†	-1076.4	-45.0	-0.0666 ug/L	-0.0666 ppb	11:10:18
2	Tl 190.801†	-21.5	11.8	4.2459 ug/L	4.2459 ppb	11:10:38
2	U 409.014†	-1905.1	-53.1	-1.4432 ug/L	-1.4432 ppb	11:10:18
2	V 292.402†	-1445.7	-100.3	-0.7211 ug/L	-0.7211 ppb	11:10:18
2	Zn 213.857†	719.1	108.0	1.1940 ug/L	1.1940 ppb	11:10:38
2	SiO2†	551.0	-32.5	-2.4344 ug/L	-2.4344 ppb	11:11:14
3	Sc Radial	4438.5	4438.5	104 %		11:09:26
3	Y RADIAL	4867.4	4867.4	98.22 %		11:09:26
3	Al 396.153Radial†	-81.7	-3.3	-3.3435 ug/L	-3.3435 ppb	11:09:46
3	Ca 317.933Radial†	22.2	4.1	8.1196 ug/L	8.1196 ppb	11:09:46
3	Fe 238.204 Radial†	9.2	2.6	31.751 ug/L	31.751 ppb	11:09:46
3	K 766.490 Radial†	2758.2	-66.0	-12.493 ug/L	-12.493 ppb	11:09:26
3	Mg 279.077 IEC†	1.8	1.1	45.363 ug/L	45.363 ppb	11:09:46
3	Na 589.592 Radial†	-933.9	-24.2	-9.5418 ug/L	-9.5418 ppb	11:09:26
3	Sr 421.552†	-0.6	-20.5	-0.1685 ug/L	-0.1685 ppb	11:09:26
3	Sc 361.383	860697.3	860697.3	97.658 %		11:10:43
3	Y 371.029	735147.2	735147.2	96.199 %		11:10:43
3	Ag 328.068†	181.4	-73.7	-0.3404 ug/L	-0.3404 ppb	11:10:43
3	As 188.979†	-21.2	-1.1	-0.5487 ug/L	-0.5487 ppb	11:11:03
3	B 249.677†	-249.6	132.5	3.3699 ug/L	3.3699 ppb	11:11:03
3	Ba 233.527†	5.0	-4.9	-0.0437 ug/L	-0.0437 ppb	11:11:03
3	Be 313.107†	-4181.7	0.8	0.0001 ug/L	0.0001 ppb	11:10:43
3	Cd 226.502†	-175.6	-7.9	-0.1081 ug/L	-0.1081 ppb	11:11:03
3	Co 228.616†	-50.3	-4.7	-0.1153 ug/L	-0.1153 ppb	11:11:03
3	Cr 267.716†	94.8	28.9	0.3551 ug/L	0.3551 ppb	11:11:03
3	Cu 324.752†	6318.8	142.3	0.4335 ug/L	0.4335 ppb	11:10:43
3	Mn 257.610†	451.0	-1.2	-0.0002 ug/L	-0.0002 ppb	11:11:03
3	Mo 202.031†	14.3	0.7	0.0639 ug/L	0.0639 ppb	11:11:03
3	Ni 231.604†	85.7	-7.7	-0.2250 ug/L	-0.2250 ppb	11:11:03
3	P 214.914†	162.9	-11.5	-7.8336 ug/L	-7.8336 ppb	11:11:03
3	Pb 220.353†	-65.9	-17.4	-2.4740 ug/L	-2.4740 ppb	11:11:03
3	S 181.975 Axial†	26.3	3.7	5.9281 ug/L	5.9281 ppb	11:11:03
3	Sb 206.836†	34.1	7.4	2.8384 ug/L	2.8384 ppb	11:11:03
3	Se 196.026†	-23.3	-7.2	-5.2317 ug/L	-5.2317 ppb	11:11:03
3	Si 251.611†	571.7	16.5	0.5706 ug/L	0.5706 ppb	11:11:03
3	Sn 189.927†	5.9	-0.9	-0.1807 ug/L	-0.1807 ppb	11:11:03
3	Ti 334.940†	-1076.9	-50.8	-0.0852 ug/L	-0.0852 ppb	11:10:43
3	Tl 190.801†	-24.9	8.3	2.9677 ug/L	2.9677 ppb	11:11:03
3	U 409.014†	-1828.1	16.5	0.4428 ug/L	0.4428 ppb	11:10:43
3	V 292.402†	-1428.5	-89.9	-0.6523 ug/L	-0.6523 ppb	11:10:43
3	Zn 213.857†	736.9	129.7	1.4322 ug/L	1.4322 ppb	11:11:03
3	SiO2†	603.0	23.4	1.7412 ug/L	1.7412 ppb	11:11:19

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	865062.7	98.153	%	0.5098				0.52%
Sc Radial	4495.8	106	%	1.6				1.48%
Y 371.029	739505.6	96.769	%	0.5363				0.55%
Y RADIAL	4915.2	99.19	%	1.164				1.17%
Ag 328.068†	-8.2	-0.0387	ug/L	0.27011	-0.0387	ppb	0.27011	697.06%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.3	-1.3320	ug/L	1.94791	-1.3320	ppb	1.94791	146.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.8	-1.4071	ug/L	3.56014	-1.4071	ppb	3.56014	253.01%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	139.7	3.5571	ug/L	0.43649	3.5571	ppb	0.43649	12.27%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.3	0.0539	ug/L	0.11117	0.0539	ppb	0.11117	206.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	23.6	0.0088	ug/L	0.00851	0.0088	ppb	0.00851	96.42%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8.0	15.840	ug/L	8.0061	15.840	ppb	8.0061	50.54%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -2.6     -0.0349 ug/L       0.06474     -0.0349 ppb        0.06474 185.30%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 0.9      0.0215 ug/L       0.18634      0.0215 ppb        0.18634 867.05%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                15.6      0.1902 ug/L       0.14300      0.1902 ppb        0.14300  75.16%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               113.9      0.3463 ug/L       0.10659      0.3463 ppb        0.10659  30.78%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.7      8.5034 ug/L      21.64836      8.5034 ppb       21.64836 254.59%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -201.3     -38.089 ug/L       24.1648     -38.089 ppb        24.1648  63.44%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.2     -7.8248 ug/L      47.38940     -7.8248 ppb       47.38940 605.63%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -5.9     -0.0061 ug/L       0.00512     -0.0061 ppb        0.00512  84.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 0.4      0.0375 ug/L       0.63815      0.0375 ppb        0.63815 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -20.4     -8.0193 ug/L      11.86615     -8.0193 ppb       11.86615 147.97%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -3.8     -0.1103 ug/L       0.13468     -0.1103 ppb        0.13468 122.13%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.7     -3.2524 ug/L       4.58808     -3.2524 ppb        4.58808 141.07%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -15.4     -2.1799 ug/L       0.80084     -2.1799 ppb        0.80084  36.74%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            5.5      8.7657 ug/L       5.59947      8.7657 ppb        5.59947  63.88%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.2      0.4795 ug/L       2.19616      0.4795 ppb        2.19616 458.04%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.9     -2.1525 ug/L       3.17180     -2.1525 ppb        3.17180 147.35%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                14.3      0.4961 ug/L       0.34750      0.4961 ppb        0.34750  70.05%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.9      0.1959 ug/L       1.02451      0.1959 ppb        1.02451 523.02%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -9.9     -0.0814 ug/L       0.07616     -0.0814 ppb        0.07616  93.60%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -26.8     -0.0409 ug/L       0.06135     -0.0409 ppb        0.06135 149.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                11.9      4.2909 ug/L       1.34634      4.2909 ppb        1.34634  31.38%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                  6.7      0.1813 ug/L       1.51075      0.1813 ppb        1.51075 833.51%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -80.7     -0.5845 ug/L       0.18027     -0.5845 ppb        0.18027  30.84%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               116.9      1.2935 ug/L       0.12381      1.2935 ppb        0.12381   9.57%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      -5.9     -0.4397 ug/L       2.09403     -0.4397 ppb        2.09403 476.26%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: 1202053148|957527|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 48
Date Collected: 3/24/2010 11:13:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053148|957527|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4596.8	4596.8	108	%			11:15:22
1	Y RADIAL	4935.7	4935.7	99.60	%			11:15:22
1	Al 396.153Radial†	-64.1	15.7	16.141	ug/L	16.141	ppb	11:15:42
1	Ca 317.933Radial†	22.8	3.9	7.7904	ug/L	7.7904	ppb	11:15:42
1	Fe 238.204 Radial†	8.1	1.3	15.839	ug/L	15.839	ppb	11:15:42
1	K 766.490 Radial†	2654.3	-253.1	-47.900	ug/L	-47.900	ppb	11:15:22
1	Mg 279.077 IEC†	3.4	2.5	108.12	ug/L	108.12	ppb	11:15:42
1	Na 589.592 Radial†	-874.5	61.5	24.194	ug/L	24.194	ppb	11:15:22
1	Sr 421.552†	13.8	-7.2	-0.0594	ug/L	-0.0594	ppb	11:15:22
1	Sc 361.383	894610.5	894610.5	101.51	%			11:16:39
1	Y 371.029	757760.5	757760.5	99.158	%			11:16:39
1	Ag 328.068†	250.5	-12.8	-0.0551	ug/L	-0.0551	ppb	11:16:44
1	As 188.979†	-21.7	-0.8	-0.3795	ug/L	-0.3795	ppb	11:17:04
1	B 249.677†	-257.0	134.9	3.4332	ug/L	3.4332	ppb	11:17:04
1	Ba 233.527†	11.8	1.5	0.0128	ug/L	0.0128	ppb	11:17:04
1	Be 313.107†	-4327.1	19.9	0.0079	ug/L	0.0079	ppb	11:16:44
1	Cd 226.502†	-150.4	23.7	0.3114	ug/L	0.3114	ppb	11:17:04
1	Co 228.616†	-42.8	4.6	0.1106	ug/L	0.1106	ppb	11:17:04
1	Cr 267.716†	94.1	24.5	0.3020	ug/L	0.3020	ppb	11:17:04
1	Cu 324.752†	6343.3	-78.9	-0.2369	ug/L	-0.2369	ppb	11:16:44
1	Mn 257.610†	515.9	45.3	0.0523	ug/L	0.0523	ppb	11:17:04
1	Mo 202.031†	13.2	-0.9	-0.0701	ug/L	-0.0701	ppb	11:17:04
1	Ni 231.604†	101.1	4.1	0.1197	ug/L	0.1197	ppb	11:17:04
1	P 214.914†	186.4	5.3	3.6318	ug/L	3.6318	ppb	11:17:04
1	Pb 220.353†	-60.9	-10.0	-1.4084	ug/L	-1.4084	ppb	11:17:04
1	S 181.975 Axial†	32.8	9.1	14.478	ug/L	14.478	ppb	11:17:04
1	Sb 206.836†	42.4	14.2	5.4811	ug/L	5.4811	ppb	11:17:04
1	Se 196.026†	-15.2	1.7	1.3275	ug/L	1.3275	ppb	11:17:04
1	Si 251.611†	800.5	219.7	7.6172	ug/L	7.6172	ppb	11:17:04
1	Sn 189.927†	12.8	5.7	1.1834	ug/L	1.1834	ppb	11:17:04
1	Ti 334.940†	-953.6	112.5	0.1759	ug/L	0.1759	ppb	11:16:44
1	Tl 190.801†	-21.1	12.9	4.6461	ug/L	4.6461	ppb	11:17:04
1	U 409.014†	-2026.8	-108.3	-2.9461	ug/L	-2.9461	ppb	11:16:39
1	V 292.402†	-1466.9	-72.2	-0.5299	ug/L	-0.5299	ppb	11:16:44
1	Zn 213.857†	645.5	11.1	0.1200	ug/L	0.1200	ppb	11:17:04
1	SiO2†	814.4	208.3	15.498	ug/L	15.498	ppb	11:18:10
2	Sc Radial	4549.8	4549.8	107	%			11:15:47
2	Y RADIAL	4922.2	4922.2	99.33	%			11:15:47
2	Al 396.153Radial†	-68.8	10.7	10.946	ug/L	10.946	ppb	11:16:07
2	Ca 317.933Radial†	18.5	0.2	0.3449	ug/L	0.3449	ppb	11:16:07
2	Fe 238.204 Radial†	8.2	1.5	17.709	ug/L	17.709	ppb	11:16:07
2	K 766.490 Radial†	2661.3	-221.1	-41.851	ug/L	-41.851	ppb	11:15:47
2	Mg 279.077 IEC†	3.5	2.7	113.52	ug/L	113.52	ppb	11:16:07
2	Na 589.592 Radial†	-900.4	28.9	11.385	ug/L	11.385	ppb	11:15:47
2	Sr 421.552†	7.4	-13.0	-0.1069	ug/L	-0.1069	ppb	11:15:47
2	Sc 361.383	908359.6	908359.6	103.07	%			11:17:09
2	Y 371.029	768714.6	768714.6	100.59	%			11:17:09
2	Ag 328.068†	210.7	-55.1	-0.2524	ug/L	-0.2524	ppb	11:17:14
2	As 188.979†	-22.3	-1.0	-0.4757	ug/L	-0.4757	ppb	11:17:34
2	B 249.677†	-273.4	122.8	3.1249	ug/L	3.1249	ppb	11:17:34
2	Ba 233.527†	9.7	-0.7	-0.0051	ug/L	-0.0051	ppb	11:17:34
2	Be 313.107†	-4280.7	129.4	0.0494	ug/L	0.0494	ppb	11:17:14
2	Cd 226.502†	-184.1	-6.8	-0.0917	ug/L	-0.0917	ppb	11:17:34
2	Co 228.616†	-42.0	6.0	0.1451	ug/L	0.1451	ppb	11:17:34
2	Cr 267.716†	96.3	25.3	0.3121	ug/L	0.3121	ppb	11:17:34
2	Cu 324.752†	6367.4	-150.0	-0.4538	ug/L	-0.4538	ppb	11:17:14
2	Mn 257.610†	493.0	15.3	0.0158	ug/L	0.0158	ppb	11:17:34
2	Mo 202.031†	16.5	2.2	0.1802	ug/L	0.1802	ppb	11:17:34
2	Ni 231.604†	94.1	-4.2	-0.1217	ug/L	-0.1217	ppb	11:17:34

2	P 214.914†	191.2	7.2	4.9451	ug/L	4.9451 ppb	11:17:34
2	Pb 220.353†	-58.4	-6.6	-0.9376	ug/L	-0.9376 ppb	11:17:34
2	S 181.975 Axial†	28.2	4.2	6.6351	ug/L	6.6351 ppb	11:17:34
2	Sb 206.836†	35.6	7.0	2.6996	ug/L	2.6996 ppb	11:17:34
2	Se 196.026†	-22.6	-5.2	-3.8167	ug/L	-3.8167 ppb	11:17:34
2	Si 251.611†	802.5	209.7	7.2673	ug/L	7.2673 ppb	11:17:34
2	Sn 189.927†	3.3	-3.7	-0.7752	ug/L	-0.7752 ppb	11:17:34
2	Ti 334.940†	-955.1	125.3	0.1944	ug/L	0.1944 ppb	11:17:14
2	Tl 190.801†	-21.8	12.7	4.5454	ug/L	4.5454 ppb	11:17:34
2	U 409.014†	-1995.5	-47.7	-1.3000	ug/L	-1.3000 ppb	11:17:09
2	V 292.402†	-1393.2	21.1	0.1523	ug/L	0.1523 ppb	11:17:14
2	Zn 213.857†	654.9	10.6	0.1165	ug/L	0.1165 ppb	11:17:34
2	SiO2†	809.0	190.9	14.194	ug/L	14.194 ppb	11:18:15
3	Sc Radial	4557.2	4557.2	107	%		11:16:12
3	Y RADIAL	4946.7	4946.7	99.82	%		11:16:12
3	Al 396.153Radial†	-69.4	10.2	10.413	ug/L	10.413 ppb	11:16:32
3	Ca 317.933Radial†	24.9	6.1	12.148	ug/L	12.148 ppb	11:16:32
3	Fe 238.204 Radial†	8.7	1.9	23.459	ug/L	23.459 ppb	11:16:32
3	K 766.490 Radial†	2616.2	-267.2	-50.566	ug/L	-50.566 ppb	11:16:12
3	Mg 279.077 IEC†	3.2	2.4	101.00	ug/L	101.00 ppb	11:16:32
3	Na 589.592 Radial†	-952.9	-18.7	-7.3582	ug/L	-7.3582 ppb	11:16:12
3	Sr 421.552†	8.7	-11.9	-0.0976	ug/L	-0.0976 ppb	11:16:12
3	Sc 361.383	905291.8	905291.8	102.72	%		11:17:39
3	Y 371.029	767081.3	767081.3	100.38	%		11:17:39
3	Ag 328.068†	261.4	-5.1	-0.0191	ug/L	-0.0191 ppb	11:17:44
3	As 188.979†	-28.9	-7.5	-3.7116	ug/L	-3.7116 ppb	11:18:05
3	B 249.677†	-335.2	61.8	1.5692	ug/L	1.5692 ppb	11:18:05
3	Ba 233.527†	15.3	4.9	0.0431	ug/L	0.0431 ppb	11:18:05
3	Be 313.107†	-4248.1	147.0	0.0558	ug/L	0.0558 ppb	11:17:44
3	Cd 226.502†	-179.3	-2.7	-0.0383	ug/L	-0.0383 ppb	11:18:05
3	Co 228.616†	-40.7	7.1	0.1732	ug/L	0.1732 ppb	11:18:05
3	Cr 267.716†	102.6	31.8	0.3894	ug/L	0.3894 ppb	11:18:05
3	Cu 324.752†	6302.6	-192.2	-0.5836	ug/L	-0.5836 ppb	11:17:44
3	Mn 257.610†	507.3	30.8	0.0358	ug/L	0.0358 ppb	11:18:05
3	Mo 202.031†	23.6	9.1	0.7450	ug/L	0.7450 ppb	11:18:05
3	Ni 231.604†	87.2	-10.6	-0.3102	ug/L	-0.3102 ppb	11:18:05
3	P 214.914†	185.9	2.7	1.9374	ug/L	1.9374 ppb	11:18:05
3	Pb 220.353†	-73.1	-21.1	-2.9809	ug/L	-2.9809 ppb	11:18:05
3	S 181.975 Axial†	27.7	3.7	5.8821	ug/L	5.8821 ppb	11:18:05
3	Sb 206.836†	31.4	3.1	1.2156	ug/L	1.2156 ppb	11:18:05
3	Se 196.026†	-22.3	-5.1	-3.6837	ug/L	-3.6837 ppb	11:18:05
3	Si 251.611†	791.7	201.9	6.9891	ug/L	6.9891 ppb	11:18:05
3	Sn 189.927†	11.4	4.2	0.8728	ug/L	0.8728 ppb	11:18:05
3	Ti 334.940†	-1020.2	58.8	0.0874	ug/L	0.0874 ppb	11:17:44
3	Tl 190.801†	-24.9	9.5	3.4141	ug/L	3.4141 ppb	11:18:05
3	U 409.014†	-1842.6	94.5	2.5646	ug/L	2.5646 ppb	11:17:39
3	V 292.402†	-1420.5	-10.0	-0.0586	ug/L	-0.0586 ppb	11:17:44
3	Zn 213.857†	662.1	19.8	0.2184	ug/L	0.2184 ppb	11:18:05
3	SiO2†	850.2	233.6	17.361	ug/L	17.361 ppb	11:18:20

Mean Data: 1202053148|957527|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902753.9	102.43	%	0.819				0.80%
Sc Radial	4567.9	107	%	0.6				0.55%
Y 371.029	764518.8	100.04	%	0.773				0.77%
Y RADIAL	4934.9	99.58	%	0.247				0.25%
Ag 328.068†	-24.3	-0.1088	ug/L	0.12558	-0.1088	ppb	0.12558	115.38%
Al 396.153Radial†	12.2	12.500	ug/L	3.1646	12.500	ppb	3.1646	25.32%
As 188.979†	-3.1	-1.5223	ug/L	1.89666	-1.5223	ppb	1.89666	124.59%
B 249.677†	106.5	2.7091	ug/L	0.99918	2.7091	ppb	0.99918	36.88%
Ba 233.527†	1.9	0.0169	ug/L	0.02438	0.0169	ppb	0.02438	143.87%
Be 313.107†	98.8	0.0377	ug/L	0.02601	0.0377	ppb	0.02601	68.93%
Ca 317.933Radial†	3.4	6.7610	ug/L	5.96844	6.7610	ppb	5.96844	88.28%
Cd 226.502†	4.7	0.0605	ug/L	0.21892	0.0605	ppb	0.21892	361.95%
Co 228.616†	5.9	0.1430	ug/L	0.03133	0.1430	ppb	0.03133	21.91%
Cr 267.716†	27.2	0.3345	ug/L	0.04779	0.3345	ppb	0.04779	14.29%
Cu 324.752†	-140.3	-0.4248	ug/L	0.17513	-0.4248	ppb	0.17513	41.23%
Fe 238.204 Radial†	1.6	19.002	ug/L	3.9713	19.002	ppb	3.9713	20.90%
K 766.490 Radial†	-247.1	-46.772	ug/L	4.4656	-46.772	ppb	4.4656	9.55%

Mg 279.077 IEC†	2.5	107.55	ug/L	6.280	107.55	ppb	6.280 5.84%
Mn 257.610†	30.5	0.0346	ug/L	0.01829	0.0346	ppb	0.01829 52.79%
Mo 202.031†	3.5	0.2850	ug/L	0.41755	0.2850	ppb	0.41755 146.50%
Na 589.592 Radial†	23.9	9.4069	ug/L	15.86865	9.4069	ppb	15.86865 168.69%
Ni 231.604†	-3.6	-0.1041	ug/L	0.21548	-0.1041	ppb	0.21548 207.08%
P 214.914†	5.1	3.5048	ug/L	1.50791	3.5048	ppb	1.50791 43.02%
Pb 220.353†	-12.6	-1.7757	ug/L	1.07001	-1.7757	ppb	1.07001 60.26%
S 181.975 Axial†	5.6	8.9984	ug/L	4.76040	8.9984	ppb	4.76040 52.90%
Sb 206.836†	8.1	3.1321	ug/L	2.16540	3.1321	ppb	2.16540 69.14%
Se 196.026†	-2.9	-2.0576	ug/L	2.93236	-2.0576	ppb	2.93236 142.51%
Si 251.611†	210.5	7.2912	ug/L	0.31475	7.2912	ppb	0.31475 4.32%
Sn 189.927†	2.1	0.4270	ug/L	1.05268	0.4270	ppb	1.05268 246.53%
Sr 421.552†	-10.7	-0.0880	ug/L	0.02515	-0.0880	ppb	0.02515 28.60%
Ti 334.940†	98.9	0.1526	ug/L	0.05717	0.1526	ppb	0.05717 37.47%
Tl 190.801†	11.7	4.2019	ug/L	0.68405	4.2019	ppb	0.68405 16.28%
U 409.014†	-20.5	-0.5605	ug/L	2.82877	-0.5605	ppb	2.82877 504.69%
V 292.402†	-20.4	-0.1454	ug/L	0.34932	-0.1454	ppb	0.34932 240.25%
Zn 213.857†	13.8	0.1516	ug/L	0.05781	0.1516	ppb	0.05781 38.12%
SiO2†	210.9	15.685	ug/L	1.5914	15.685	ppb	1.5914 10.15%

==========

Sequence No.: 12
Sample ID: 1202053149|957527|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 49
Date Collected: 3/24/2010 11:20:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053149|957527|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4467.4	4467.4	105	%			11:22:25
1	Y RADIAL	4833.2	4833.2	97.53	%			11:22:25
1	Al 396.153Radial†	5037.1	4868.0	4975.3	ug/L	4975.3	ppb	11:22:25
1	Ca 317.933Radial†	2696.3	2548.5	5051.0	ug/L	5051.0	ppb	11:22:45
1	Fe 238.204 Radial†	440.9	413.4	5008.4	ug/L	5008.4	ppb	11:22:45
1	K 766.490 Radial†	29394.7	25262.8	4776.1	ug/L	4776.1	ppb	11:22:25
1	Mg 279.077 IEC†	132.4	125.4	5333.7	ug/L	5333.7	ppb	11:22:45
1	Na 589.592 Radial†	12489.8	12754.8	5019.0	ug/L	5019.0	ppb	11:22:25
1	Sr 421.552†	61798.9	58784.7	483.18	ug/L	483.18	ppb	11:22:25
1	Sc 361.383	894639.5	894639.5	101.51	%			11:23:43
1	Y 371.029	749471.5	749471.5	98.073	%			11:23:43
1	Ag 328.068†	100021.3	98274.9	465.67	ug/L	465.67	ppb	11:23:48
1	As 188.979†	933.5	940.2	471.85	ug/L	471.85	ppb	11:24:08
1	B 249.677†	18147.6	18266.0	463.03	ug/L	463.03	ppb	11:23:48
1	Ba 233.527†	55894.5	55053.5	482.27	ug/L	482.27	ppb	11:23:48
1	Be 313.107†	1264370.0	1249857.4	473.98	ug/L	473.98	ppb	11:23:43
1	Cd 226.502†	35667.7	35309.4	466.33	ug/L	466.33	ppb	11:23:48
1	Co 228.616†	19721.2	19474.7	472.89	ug/L	472.89	ppb	11:23:48
1	Cr 267.716†	39377.2	38723.7	474.13	ug/L	474.13	ppb	11:23:48
1	Cu 324.752†	167324.5	158509.1	481.20	ug/L	481.20	ppb	11:23:48
1	Mn 257.610†	387965.5	381735.2	465.82	ug/L	465.82	ppb	11:23:48
1	Mo 202.031†	5798.3	5698.2	466.70	ug/L	466.70	ppb	11:24:08
1	Ni 231.604†	16888.2	16541.6	483.06	ug/L	483.06	ppb	11:23:48
1	P 214.914†	950.0	757.6	416.64	ug/L	416.64	ppb	11:24:08
1	Pb 220.353†	3313.5	3314.3	470.55	ug/L	470.55	ppb	11:24:08
1	S 181.975 Axial†	2970.8	2903.4	4625.9	ug/L	4625.9	ppb	11:24:08
1	Sb 206.836†	1304.9	1258.0	500.55	ug/L	500.55	ppb	11:24:08
1	Se 196.026†	613.3	620.9	477.93	ug/L	477.93	ppb	11:24:08
1	Si 251.611†	136193.0	133599.6	4624.9	ug/L	4624.9	ppb	11:23:48
1	Sn 189.927†	2316.1	2274.8	472.76	ug/L	472.76	ppb	11:24:08
1	Ti 334.940†	295630.1	292287.4	473.83	ug/L	473.83	ppb	11:23:48
1	Tl 190.801†	1306.4	1320.7	477.56	ug/L	477.56	ppb	11:24:08
1	U 409.014†	16620.6	18261.9	494.66	ug/L	494.66	ppb	11:23:48
1	V 292.402†	65698.0	66094.3	484.52	ug/L	484.52	ppb	11:23:48
1	Zn 213.857†	43585.0	42312.2	463.97	ug/L	463.97	ppb	11:23:48
1	SiO2†	136546.5	133922.6	9951.0	ug/L	9951.0	ppb	11:25:15
2	Sc Radial	4450.6	4450.6	105	%			11:22:51
2	Y RADIAL	4858.8	4858.8	98.05	%			11:22:51
2	Al 396.153Radial†	5021.7	4871.4	4978.4	ug/L	4978.4	ppb	11:22:51
2	Ca 317.933Radial†	2704.0	2565.6	5084.8	ug/L	5084.8	ppb	11:23:11
2	Fe 238.204 Radial†	440.8	414.8	5025.6	ug/L	5025.6	ppb	11:23:11
2	K 766.490 Radial†	29622.8	25586.5	4837.3	ug/L	4837.3	ppb	11:22:51
2	Mg 279.077 IEC†	126.5	120.2	5113.1	ug/L	5113.1	ppb	11:23:11
2	Na 589.592 Radial†	12502.7	12812.0	5041.5	ug/L	5041.5	ppb	11:22:51
2	Sr 421.552†	62058.2	59254.7	487.04	ug/L	487.04	ppb	11:22:51
2	Sc 361.383	892140.5	892140.5	101.23	%			11:24:13
2	Y 371.029	748825.9	748825.9	97.989	%			11:24:13
2	Ag 328.068†	100270.5	98797.1	468.14	ug/L	468.14	ppb	11:24:19
2	As 188.979†	934.1	943.5	473.45	ug/L	473.45	ppb	11:24:39
2	B 249.677†	18235.7	18403.0	466.51	ug/L	466.51	ppb	11:24:19
2	Ba 233.527†	56093.5	55404.3	485.34	ug/L	485.34	ppb	11:24:19
2	Be 313.107†	1262322.1	1251323.2	474.54	ug/L	474.54	ppb	11:24:13
2	Cd 226.502†	35772.0	35510.8	468.99	ug/L	468.99	ppb	11:24:19
2	Co 228.616†	19761.8	19569.2	475.20	ug/L	475.20	ppb	11:24:19
2	Cr 267.716†	39453.9	38908.1	476.38	ug/L	476.38	ppb	11:24:19
2	Cu 324.752†	167715.3	159356.9	483.77	ug/L	483.77	ppb	11:24:19
2	Mn 257.610†	388716.7	383547.9	468.04	ug/L	468.04	ppb	11:24:19
2	Mo 202.031†	5865.9	5781.0	473.48	ug/L	473.48	ppb	11:24:39
2	Ni 231.604†	16906.6	16606.4	484.95	ug/L	484.95	ppb	11:24:19

2	P 214.914†	962.8	772.8	426.44 ug/L	426.44 ppb	11:24:39
2	Pb 220.353†	3313.7	3323.7	471.89 ug/L	471.89 ppb	11:24:39
2	S 181.975 Axial†	3011.0	2951.3	4702.2 ug/L	4702.2 ppb	11:24:39
2	Sb 206.836†	1311.6	1268.2	504.69 ug/L	504.69 ppb	11:24:39
2	Se 196.026†	617.8	627.0	482.56 ug/L	482.56 ppb	11:24:39
2	Si 251.611†	136272.0	134053.4	4640.6 ug/L	4640.6 ppb	11:24:19
2	Sn 189.927†	2328.5	2293.4	476.62 ug/L	476.62 ppb	11:24:39
2	Ti 334.940†	296219.3	293685.2	476.12 ug/L	476.12 ppb	11:24:19
2	Tl 190.801†	1310.8	1328.7	480.43 ug/L	480.43 ppb	11:24:39
2	U 409.014†	16776.0	18461.3	500.07 ug/L	500.07 ppb	11:24:19
2	V 292.402†	65889.4	66464.7	487.30 ug/L	487.30 ppb	11:24:19
2	Zn 213.857†	43654.9	42501.6	466.05 ug/L	466.05 ppb	11:24:19
2	SiO2†	136299.3	134055.2	9960.7 ug/L	9960.7 ppb	11:25:20
3	Sc Radial	4411.4	4411.4	104 %		11:23:16
3	Y RADIAL	4785.7	4785.7	96.57 %		11:23:16
3	Al 396.153Radial†	5014.2	4906.8	5015.3 ug/L	5015.3 ppb	11:23:16
3	Ca 317.933Radial†	2702.1	2586.7	5126.7 ug/L	5126.7 ppb	11:23:36
3	Fe 238.204 Radial†	447.1	424.7	5144.5 ug/L	5144.5 ppb	11:23:36
3	K 766.490 Radial†	29285.9	25513.3	4823.5 ug/L	4823.5 ppb	11:23:16
3	Mg 279.077 IEC†	129.9	124.5	5298.2 ug/L	5298.2 ppb	11:23:36
3	Na 589.592 Radial†	12342.0	12763.3	5022.4 ug/L	5022.4 ppb	11:23:16
3	Sr 421.552†	61250.3	59003.0	484.97 ug/L	484.97 ppb	11:23:16
3	Sc 361.383	908677.9	908677.9	103.10 %		11:24:44
3	Y 371.029	761609.8	761609.8	99.661 %		11:24:44
3	Ag 328.068†	100871.7	97577.5	462.42 ug/L	462.42 ppb	11:24:49
3	As 188.979†	931.7	924.3	463.94 ug/L	463.94 ppb	11:25:09
3	B 249.677†	18464.1	18296.8	463.80 ug/L	463.80 ppb	11:24:49
3	Ba 233.527†	56423.1	54715.5	479.31 ug/L	479.31 ppb	11:24:49
3	Be 313.107†	1283684.7	1249347.7	473.78 ug/L	473.78 ppb	11:24:44
3	Cd 226.502†	36077.9	35164.4	464.40 ug/L	464.40 ppb	11:24:49
3	Co 228.616†	19898.7	19346.7	469.78 ug/L	469.78 ppb	11:24:49
3	Cr 267.716†	39821.5	38555.3	472.08 ug/L	472.08 ppb	11:24:49
3	Cu 324.752†	169060.7	157646.4	478.59 ug/L	478.59 ppb	11:24:49
3	Mn 257.610†	391724.4	379476.3	463.08 ug/L	463.08 ppb	11:24:49
3	Mo 202.031†	5846.3	5656.6	463.30 ug/L	463.30 ppb	11:25:09
3	Ni 231.604†	17043.9	16435.7	479.96 ug/L	479.96 ppb	11:24:49
3	P 214.914†	967.6	760.2	418.82 ug/L	418.82 ppb	11:25:09
3	Pb 220.353†	3324.0	3274.1	464.84 ug/L	464.84 ppb	11:25:09
3	S 181.975 Axial†	3010.5	2896.7	4615.2 ug/L	4615.2 ppb	11:25:09
3	Sb 206.836†	1311.2	1244.2	495.12 ug/L	495.12 ppb	11:25:09
3	Se 196.026†	610.0	608.3	469.00 ug/L	469.00 ppb	11:25:09
3	Si 251.611†	137455.7	132751.4	4595.6 ug/L	4595.6 ppb	11:24:49
3	Sn 189.927†	2332.3	2255.2	468.71 ug/L	468.71 ppb	11:25:09
3	Ti 334.940†	298058.2	290143.1	470.37 ug/L	470.37 ppb	11:24:49
3	Tl 190.801†	1329.5	1323.2	478.43 ug/L	478.43 ppb	11:25:09
3	U 409.014†	16837.4	18219.2	493.49 ug/L	493.49 ppb	11:24:49
3	V 292.402†	66148.9	65531.7	480.38 ug/L	480.38 ppb	11:24:49
3	Zn 213.857†	44063.3	42112.9	461.76 ug/L	461.76 ppb	11:24:49
3	SiO2†	136817.6	132107.4	9816.1 ug/L	9816.1 ppb	11:25:25

Mean Data: 1202053149|957527|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	898486.0	101.95	%	1.011				0.99%
Sc Radial	4443.1	105	%	0.7				0.65%
Y 371.029	753302.4	98.574	%	0.9424				0.96%
Y RADIAL	4825.9	97.39	%	0.748				0.77%
Ag 328.068†	98216.5	465.41	ug/L	2.873	465.41	ppb	2.873	0.62%
Al 396.153Radial†	4882.1	4989.7	ug/L	22.26	4989.7	ppb	22.26	0.45%
As 188.979†	936.0	469.75	ug/L	5.091	469.75	ppb	5.091	1.08%
B 249.677†	18321.9	464.45	ug/L	1.828	464.45	ppb	1.828	0.39%
Ba 233.527†	55057.8	482.31	ug/L	3.015	482.31	ppb	3.015	0.63%
Be 313.107†	1250176.1	474.10	ug/L	0.394	474.10	ppb	0.394	0.08%
Ca 317.933Radial†	2566.9	5087.5	ug/L	37.94	5087.5	ppb	37.94	0.75%
Cd 226.502†	35328.2	466.57	ug/L	2.306	466.57	ppb	2.306	0.49%
Co 228.616†	19463.6	472.62	ug/L	2.718	472.62	ppb	2.718	0.58%
Cr 267.716†	38729.0	474.20	ug/L	2.153	474.20	ppb	2.153	0.45%
Cu 324.752†	158504.1	481.18	ug/L	2.591	481.18	ppb	2.591	0.54%
Fe 238.204 Radial†	417.6	5059.5	ug/L	74.11	5059.5	ppb	74.11	1.46%
K 766.490 Radial†	25454.2	4812.3	ug/L	32.10	4812.3	ppb	32.10	0.67%

Mg 279.077 IEC†	123.4	5248.3	ug/L	118.45	5248.3	ppb	118.45	2.26%
Mn 257.610†	381586.5	465.65	ug/L	2.485	465.65	ppb	2.485	0.53%
Mo 202.031†	5711.9	467.83	ug/L	5.180	467.83	ppb	5.180	1.11%
Na 589.592 Radial†	12776.7	5027.6	ug/L	12.15	5027.6	ppb	12.15	0.24%
Ni 231.604†	16527.9	482.66	ug/L	2.517	482.66	ppb	2.517	0.52%
P 214.914†	763.5	420.63	ug/L	5.143	420.63	ppb	5.143	1.22%
Pb 220.353†	3304.0	469.09	ug/L	3.745	469.09	ppb	3.745	0.80%
S 181.975 Axial†	2917.1	4647.8	ug/L	47.43	4647.8	ppb	47.43	1.02%
Sb 206.836†	1256.8	500.12	ug/L	4.800	500.12	ppb	4.800	0.96%
Se 196.026†	618.7	476.50	ug/L	6.893	476.50	ppb	6.893	1.45%
Si 251.611†	133468.1	4620.4	ug/L	22.85	4620.4	ppb	22.85	0.49%
Sn 189.927†	2274.4	472.70	ug/L	3.960	472.70	ppb	3.960	0.84%
Sr 421.552†	59014.1	485.06	ug/L	1.933	485.06	ppb	1.933	0.40%
Ti 334.940†	292038.6	473.44	ug/L	2.895	473.44	ppb	2.895	0.61%
Tl 190.801†	1324.2	478.81	ug/L	1.471	478.81	ppb	1.471	0.31%
U 409.014†	18314.1	496.07	ug/L	3.511	496.07	ppb	3.511	0.71%
V 292.402†	66030.2	484.07	ug/L	3.479	484.07	ppb	3.479	0.72%
Zn 213.857†	42308.9	463.93	ug/L	2.141	463.93	ppb	2.141	0.46%
SiO2†	133361.8	9909.2	ug/L	80.86	9909.2	ppb	80.86	0.82%

Sequence No.: 13
Sample ID: 247817001|957527|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 50
Date Collected: 3/24/2010 11:27:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 247817001|957527|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4539.4	4539.4	107	%			11:29:30
1	Y RADIAL	4917.7	4917.7	99.24	%			11:29:30
1	Al 396.153Radial†	-61.4	17.4	17.886	ug/L	17.886	ppb	11:29:50
1	Ca 317.933Radial†	5934.2	5540.0	10980	ug/L	10980	ppb	11:29:30
1	Fe 238.204 Radial†	4.7	-1.7	-21.042	ug/L	-21.042	ppb	11:29:50
1	K 766.490 Radial†	11135.8	7720.7	1453.2	ug/L	1453.2	ppb	11:29:30
1	Mg 279.077 IEC†	80.4	74.6	3175.3	ug/L	3175.3	ppb	11:29:50
1	Na 589.592 Radial†	27793.7	26898.2	10584	ug/L	10584	ppb	11:29:30
1	Sr 421.552†	6735.6	6287.7	51.603	ug/L	51.603	ppb	11:29:30
1	Sc 361.383	892569.5	892569.5	101.27	%			11:30:47
1	Y 371.029	750018.4	750018.4	98.145	%			11:30:47
1	Ag 328.068†	302.5	39.2	0.0468	ug/L	0.0468	ppb	11:30:52
1	As 188.979†	-22.5	-1.6	-0.8088	ug/L	-0.8088	ppb	11:31:12
1	B 249.677†	141.1	527.5	13.437	ug/L	13.437	ppb	11:31:12
1	Ba 233.527†	2259.0	2220.5	19.413	ug/L	19.413	ppb	11:31:12
1	Be 313.107†	-4224.2	111.8	0.0396	ug/L	0.0396	ppb	11:30:52
1	Cd 226.502†	-160.1	13.8	0.1838	ug/L	0.1838	ppb	11:31:12
1	Co 228.616†	-38.4	8.8	0.2257	ug/L	0.2257	ppb	11:31:12
1	Cr 267.716†	267.8	196.3	2.4020	ug/L	2.4020	ppb	11:31:12
1	Cu 324.752†	6360.8	-47.3	-0.1457	ug/L	-0.1457	ppb	11:30:52
1	Mn 257.610†	6130.2	5590.0	6.6854	ug/L	6.6854	ppb	11:30:52
1	Mo 202.031†	17.7	3.6	0.4238	ug/L	0.4238	ppb	11:31:12
1	Ni 231.604†	51.2	-45.0	-1.3137	ug/L	-1.3137	ppb	11:31:12
1	P 214.914†	216.2	35.1	23.531	ug/L	23.531	ppb	11:31:12
1	Pb 220.353†	-64.0	-13.1	-1.7005	ug/L	-1.7005	ppb	11:31:12
1	S 181.975 Axial†	397.1	368.9	587.82	ug/L	587.82	ppb	11:31:12
1	Sb 206.836†	33.5	5.6	1.8320	ug/L	1.8320	ppb	11:31:12
1	Se 196.026†	-15.3	1.6	1.1410	ug/L	1.1410	ppb	11:31:12
1	Si 251.611†	954325.6	941750.5	32642	ug/L	32642	ppb	11:30:47
1	Sn 189.927†	-95.8	-101.5	-19.111	ug/L	-19.111	ppb	11:31:12
1	Ti 334.940†	-1798.5	-723.9	0.0376	ug/L	0.0376	ppb	11:30:52
1	Tl 190.801†	-21.9	12.1	4.3635	ug/L	4.3635	ppb	11:31:12
1	U 409.014†	-1834.6	76.9	2.0867	ug/L	2.0867	ppb	11:30:47
1	V 292.402†	-704.2	677.6	4.9765	ug/L	4.9765	ppb	11:30:52
1	Zn 213.857†	883.3	247.4	2.7502	ug/L	2.7502	ppb	11:31:12
1	SiO2†	964810.8	952078.6	70834	ug/L	70834	ppb	11:32:19
2	Sc Radial	4479.2	4479.2	105	%			11:29:55
2	Y RADIAL	4858.1	4858.1	98.04	%			11:29:55
2	Al 396.153Radial†	-49.4	28.1	28.852	ug/L	28.852	ppb	11:30:15
2	Ca 317.933Radial†	5878.6	5561.9	11023	ug/L	11023	ppb	11:29:55
2	Fe 238.204 Radial†	6.3	-0.2	-2.0105	ug/L	-2.0105	ppb	11:30:15
2	K 766.490 Radial†	10974.1	7707.2	1450.6	ug/L	1450.6	ppb	11:29:55
2	Mg 279.077 IEC†	78.5	73.9	3144.3	ug/L	3144.3	ppb	11:30:15
2	Na 589.592 Radial†	27582.3	27046.9	10643	ug/L	10643	ppb	11:29:55
2	Sr 421.552†	6678.0	6317.7	51.850	ug/L	51.850	ppb	11:29:55
2	Sc 361.383	883769.8	883769.8	100.28	%			11:31:17
2	Y 371.029	742478.6	742478.6	97.158	%			11:31:17
2	Ag 328.068†	333.3	72.8	0.2140	ug/L	0.2140	ppb	11:31:22
2	As 188.979†	-27.8	-7.1	-3.5178	ug/L	-3.5178	ppb	11:31:42
2	B 249.677†	148.2	535.9	13.649	ug/L	13.649	ppb	11:31:42
2	Ba 233.527†	2245.8	2229.6	19.492	ug/L	19.492	ppb	11:31:42
2	Be 313.107†	-4167.1	127.2	0.0454	ug/L	0.0454	ppb	11:31:22
2	Cd 226.502†	-151.9	20.4	0.2684	ug/L	0.2684	ppb	11:31:42
2	Co 228.616†	-44.7	2.2	0.0634	ug/L	0.0634	ppb	11:31:42
2	Cr 267.716†	280.2	211.3	2.5889	ug/L	2.5889	ppb	11:31:42
2	Cu 324.752†	6251.8	-93.4	-0.2817	ug/L	-0.2817	ppb	11:31:22
2	Mn 257.610†	6050.9	5571.3	6.6656	ug/L	6.6656	ppb	11:31:22
2	Mo 202.031†	13.6	-0.3	0.1082	ug/L	0.1082	ppb	11:31:42
2	Ni 231.604†	56.7	-38.9	-1.1372	ug/L	-1.1372	ppb	11:31:42

2	P 214.914†	215.9	37.0	24.796	ug/L	24.796 ppb	11:31:42
2	Pb 220.353†	-68.9	-18.6	-2.4781	ug/L	-2.4781 ppb	11:31:42
2	S 181.975 Axial†	385.2	360.9	575.06	ug/L	575.06 ppb	11:31:42
2	Sb 206.836†	34.0	6.4	2.1577	ug/L	2.1577 ppb	11:31:42
2	Se 196.026†	-12.9	3.8	2.8548	ug/L	2.8548 ppb	11:31:42
2	Si 251.611†	946080.6	942910.9	32682	ug/L	32682 ppb	11:31:17
2	Sn 189.927†	-86.4	-93.0	-17.354	ug/L	-17.354 ppb	11:31:42
2	Ti 334.940†	-1801.6	-744.7	0.0148	ug/L	0.0148 ppb	11:31:22
2	Tl 190.801†	-27.5	6.3	2.2733	ug/L	2.2733 ppb	11:31:42
2	U 409.014†	-2031.2	-137.3	-3.7359	ug/L	-3.7359 ppb	11:31:17
2	V 292.402†	-743.3	631.7	4.6252	ug/L	4.6252 ppb	11:31:22
2	Zn 213.857†	872.7	245.4	2.7252	ug/L	2.7252 ppb	11:31:42
2	SiO2†	959679.9	956447.7	71159	ug/L	71159 ppb	11:32:25
3	Sc Radial	4508.8	4508.8	106	%		11:30:20
3	Y RADIAL	4859.1	4859.1	98.05	%		11:30:20
3	Al 396.153Radial†	-58.0	20.3	20.784	ug/L	20.784 ppb	11:30:40
3	Ca 317.933Radial†	5887.5	5533.7	10968	ug/L	10968 ppb	11:30:20
3	Fe 238.204 Radial†	7.7	1.1	12.807	ug/L	12.807 ppb	11:30:40
3	K 766.490 Radial†	11080.3	7739.1	1456.7	ug/L	1456.7 ppb	11:30:20
3	Mg 279.077 IEC†	80.7	75.4	3208.7	ug/L	3208.7 ppb	11:30:40
3	Na 589.592 Radial†	27693.2	26980.0	10617	ug/L	10617 ppb	11:30:20
3	Sr 421.552†	6689.7	6287.2	51.600	ug/L	51.600 ppb	11:30:20
3	Sc 361.383	881366.6	881366.6	100.00	%		11:31:47
3	Y 371.029	739166.5	739166.5	96.725	%		11:31:47
3	Ag 328.068†	241.4	-18.1	-0.2093	ug/L	-0.2093 ppb	11:31:52
3	As 188.979†	-24.9	-4.3	-2.1312	ug/L	-2.1312 ppb	11:32:12
3	B 249.677†	137.4	525.5	13.381	ug/L	13.381 ppb	11:32:12
3	Ba 233.527†	2247.3	2237.2	19.559	ug/L	19.559 ppb	11:32:12
3	Be 313.107†	-4284.2	-1.3	-0.0034	ug/L	-0.0034 ppb	11:31:52
3	Cd 226.502†	-157.3	14.6	0.1890	ug/L	0.1890 ppb	11:32:12
3	Co 228.616†	-41.4	5.3	0.1419	ug/L	0.1419 ppb	11:32:12
3	Cr 267.716†	266.4	198.2	2.4308	ug/L	2.4308 ppb	11:32:12
3	Cu 324.752†	6344.7	16.4	0.0534	ug/L	0.0534 ppb	11:31:52
3	Mn 257.610†	6079.3	5616.1	6.7191	ug/L	6.7191 ppb	11:31:52
3	Mo 202.031†	28.7	14.8	1.3459	ug/L	1.3459 ppb	11:32:12
3	Ni 231.604†	41.1	-54.4	-1.5886	ug/L	-1.5886 ppb	11:32:12
3	P 214.914†	209.6	31.3	20.906	ug/L	20.906 ppb	11:32:12
3	Pb 220.353†	-63.1	-13.0	-1.6828	ug/L	-1.6828 ppb	11:32:12
3	S 181.975 Axial†	383.6	360.4	574.27	ug/L	574.27 ppb	11:32:12
3	Sb 206.836†	27.9	0.4	-0.0947	ug/L	-0.0947 ppb	11:32:12
3	Se 196.026†	-14.9	1.8	1.3671	ug/L	1.3671 ppb	11:32:12
3	Si 251.611†	946018.9	945421.8	32769	ug/L	32769 ppb	11:31:47
3	Sn 189.927†	-85.2	-92.1	-17.169	ug/L	-17.169 ppb	11:32:12
3	Ti 334.940†	-1836.7	-784.6	-0.0621	ug/L	-0.0621 ppb	11:31:52
3	Tl 190.801†	-27.7	6.1	2.2005	ug/L	2.2005 ppb	11:32:12
3	U 409.014†	-2075.8	-187.3	-5.0973	ug/L	-5.0973 ppb	11:31:47
3	V 292.402†	-792.2	580.8	4.2709	ug/L	4.2709 ppb	11:31:52
3	Zn 213.857†	867.2	242.4	2.6918	ug/L	2.6918 ppb	11:32:12
3	SiO2†	951612.0	950989.5	70753	ug/L	70753 ppb	11:32:31

Mean Data: 247817001|957527|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	885902.0	100.52	%	0.669				0.67%
Sc Radial	4509.1	106	%	0.7				0.67%
Y 371.029	743887.8	97.342	%	0.7278				0.75%
Y RADIAL	4878.3	98.44	%	0.689				0.70%
Ag 328.068†	31.3	0.0172	ug/L	0.21317	0.0172	ppb	0.21317	>999.9%
Al 396.153Radial†	21.9	22.507	ug/L	5.6824	22.507	ppb	5.6824	25.25%
As 188.979†	-4.3	-2.1526	ug/L	1.35460	-2.1526	ppb	1.35460	62.93%
B 249.677†	529.6	13.489	ug/L	0.1415	13.489	ppb	0.1415	1.05%
Ba 233.527†	2229.1	19.488	ug/L	0.0730	19.488	ppb	0.0730	0.37%
Be 313.107†	79.2	0.0272	ug/L	0.02663	0.0272	ppb	0.02663	97.89%
Ca 317.933Radial†	5545.2	10990	ug/L	29.3	10990	ppb	29.3	0.27%
Cd 226.502†	16.2	0.2137	ug/L	0.04742	0.2137	ppb	0.04742	22.19%
Co 228.616†	5.4	0.1437	ug/L	0.08119	0.1437	ppb	0.08119	56.52%
Cr 267.716†	201.9	2.4739	ug/L	0.10064	2.4739	ppb	0.10064	4.07%
Cu 324.752†	-41.4	-0.1247	ug/L	0.16854	-0.1247	ppb	0.16854	135.19%
Fe 238.204 Radial†	-0.3	-3.4154	ug/L	16.96805	-3.4154	ppb	16.96805	496.81%
K 766.490 Radial†	7722.3	1453.5	ug/L	3.05	1453.5	ppb	3.05	0.21%

Mg 279.077 IEC†	74.6	3176.1	ug/L	32.19	3176.1	ppb	32.19	1.01%
Mn 257.610†	5592.5	6.6900	ug/L	0.02703	6.6900	ppb	0.02703	0.40%
Mo 202.031†	6.1	0.6260	ug/L	0.64315	0.6260	ppb	0.64315	102.74%
Na 589.592 Radial†	26975.0	10615	ug/L	29.3	10615	ppb	29.3	0.28%
Ni 231.604†	-46.1	-1.3465	ug/L	0.22748	-1.3465	ppb	0.22748	16.89%
P 214.914†	34.5	23.077	ug/L	1.9842	23.077	ppb	1.9842	8.60%
Pb 220.353†	-14.9	-1.9538	ug/L	0.45413	-1.9538	ppb	0.45413	23.24%
S 181.975 Axial†	363.4	579.05	ug/L	7.602	579.05	ppb	7.602	1.31%
Sb 206.836†	4.1	1.2984	ug/L	1.21736	1.2984	ppb	1.21736	93.76%
Se 196.026†	2.4	1.7876	ug/L	0.93106	1.7876	ppb	0.93106	52.08%
Si 251.611†	943361.1	32698	ug/L	65.0	32698	ppb	65.0	0.20%
Sn 189.927†	-95.5	-17.878	ug/L	1.0719	-17.878	ppb	1.0719	6.00%
Sr 421.552†	6297.6	51.684	ug/L	0.1435	51.684	ppb	0.1435	0.28%
Ti 334.940†	-751.1	-0.0032	ug/L	0.05222	-0.0032	ppb	0.05222	>999.9%
Tl 190.801†	8.2	2.9458	ug/L	1.22833	2.9458	ppb	1.22833	41.70%
U 409.014†	-82.6	-2.2488	ug/L	3.81590	-2.2488	ppb	3.81590	169.69%
V 292.402†	630.1	4.6242	ug/L	0.35283	4.6242	ppb	0.35283	7.63%
Zn 213.857†	245.1	2.7224	ug/L	0.02931	2.7224	ppb	0.02931	1.08%
SiO2†	953171.9	70915	ug/L	214.9	70915	ppb	214.9	0.30%

Sequence No.: 14
Sample ID: 247817002|957527|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 51
Date Collected: 3/24/2010 11:34:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 247817002|957527|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4518.2	4518.2	106	%			11:36:34
1	Y RADIAL	4906.1	4906.1	99.00	%			11:36:34
1	Al 396.153Radial†	-55.2	23.1	23.612	ug/L	23.612	ppb	11:36:54
1	Ca 317.933Radial†	5783.0	5423.9	10750	ug/L	10750	ppb	11:36:34
1	Fe 238.204 Radial†	7.6	1.0	11.627	ug/L	11.627	ppb	11:36:54
1	K 766.490 Radial†	10880.8	7529.7	1417.1	ug/L	1417.1	ppb	11:36:34
1	Mg 279.077 IEC†	76.0	70.9	3015.3	ug/L	3015.3	ppb	11:36:54
1	Na 589.592 Radial†	27717.5	26948.5	10604	ug/L	10604	ppb	11:36:34
1	Sr 421.552†	6598.0	6187.9	50.785	ug/L	50.785	ppb	11:36:34
1	Sc 361.383	884144.7	884144.7	100.32	%			11:37:51
1	Y 371.029	743269.1	743269.1	97.261	%			11:37:51
1	Ag 328.068†	279.2	18.8	-0.0326	ug/L	-0.0326	ppb	11:37:56
1	As 188.979†	-30.0	-9.3	-4.6130	ug/L	-4.6130	ppb	11:38:16
1	B 249.677†	84.6	472.5	12.032	ug/L	12.032	ppb	11:38:16
1	Ba 233.527†	2187.7	2170.7	18.979	ug/L	18.979	ppb	11:38:16
1	Be 313.107†	-4239.6	56.6	0.0191	ug/L	0.0191	ppb	11:37:56
1	Cd 226.502†	-147.8	24.6	0.3217	ug/L	0.3217	ppb	11:38:16
1	Co 228.616†	-49.5	-2.6	-0.0512	ug/L	-0.0512	ppb	11:38:16
1	Cr 267.716†	272.6	203.6	2.4968	ug/L	2.4968	ppb	11:38:16
1	Cu 324.752†	6264.7	-83.2	-0.2502	ug/L	-0.2502	ppb	11:37:56
1	Mn 257.610†	5598.2	5117.4	6.1187	ug/L	6.1187	ppb	11:37:56
1	Mo 202.031†	27.9	14.0	1.2705	ug/L	1.2705	ppb	11:38:16
1	Ni 231.604†	45.0	-50.7	-1.4803	ug/L	-1.4803	ppb	11:38:16
1	P 214.914†	207.8	28.8	19.270	ug/L	19.270	ppb	11:38:16
1	Pb 220.353†	-61.0	-10.8	-1.3668	ug/L	-1.3668	ppb	11:38:16
1	S 181.975 Axial†	385.0	360.5	574.52	ug/L	574.52	ppb	11:38:16
1	Sb 206.836†	18.1	-9.5	-3.9104	ug/L	-3.9104	ppb	11:38:16
1	Se 196.026†	-20.3	-3.5	-2.5822	ug/L	-2.5822	ppb	11:38:16
1	Si 251.611†	922087.9	918594.2	31839	ug/L	31839	ppb	11:37:51
1	Sn 189.927†	-88.2	-94.8	-17.764	ug/L	-17.764	ppb	11:38:16
1	Ti 334.940†	-1687.2	-629.9	0.1746	ug/L	0.1746	ppb	11:37:56
1	Tl 190.801†	-31.9	2.0	0.7175	ug/L	0.7175	ppb	11:38:16
1	U 409.014†	-2007.4	-112.6	-3.0679	ug/L	-3.0679	ppb	11:37:51
1	V 292.402†	-726.2	649.1	4.7639	ug/L	4.7639	ppb	11:37:56
1	Zn 213.857†	931.0	303.2	3.3653	ug/L	3.3653	ppb	11:38:16
1	SiO2†	934017.8	930461.2	69225	ug/L	69225	ppb	11:39:23
2	Sc Radial	4578.0	4578.0	108	%			11:36:59
2	Y RADIAL	4953.5	4953.5	99.96	%			11:36:59
2	Al 396.153Radial†	-60.4	18.8	19.327	ug/L	19.327	ppb	11:37:19
2	Ca 317.933Radial†	5859.3	5423.7	10749	ug/L	10749	ppb	11:36:59
2	Fe 238.204 Radial†	8.8	2.0	24.147	ug/L	24.147	ppb	11:37:19
2	K 766.490 Radial†	11090.6	7590.8	1428.7	ug/L	1428.7	ppb	11:36:59
2	Mg 279.077 IEC†	78.9	72.6	3091.0	ug/L	3091.0	ppb	11:37:19
2	Na 589.592 Radial†	28209.1	27064.4	10650	ug/L	10650	ppb	11:36:59
2	Sr 421.552†	6717.8	6218.0	51.032	ug/L	51.032	ppb	11:36:59
2	Sc 361.383	887267.3	887267.3	100.67	%			11:38:21
2	Y 371.029	745330.9	745330.9	97.531	%			11:38:21
2	Ag 328.068†	256.7	-4.5	-0.1399	ug/L	-0.1399	ppb	11:38:26
2	As 188.979†	-25.4	-4.6	-2.2724	ug/L	-2.2724	ppb	11:38:46
2	B 249.677†	81.2	468.8	11.937	ug/L	11.937	ppb	11:38:46
2	Ba 233.527†	2204.2	2179.4	19.055	ug/L	19.055	ppb	11:38:46
2	Be 313.107†	-4334.4	-22.7	-0.0111	ug/L	-0.0111	ppb	11:38:26
2	Cd 226.502†	-144.8	28.0	0.3668	ug/L	0.3668	ppb	11:38:46
2	Co 228.616†	-60.4	-13.3	-0.3117	ug/L	-0.3117	ppb	11:38:46
2	Cr 267.716†	271.8	201.8	2.4760	ug/L	2.4760	ppb	11:38:46
2	Cu 324.752†	6397.9	27.2	0.0852	ug/L	0.0852	ppb	11:38:26
2	Mn 257.610†	5653.9	5153.1	6.1604	ug/L	6.1604	ppb	11:38:26
2	Mo 202.031†	18.8	4.8	0.5202	ug/L	0.5202	ppb	11:38:46
2	Ni 231.604†	63.0	-33.0	-0.9627	ug/L	-0.9627	ppb	11:38:46

2	P 214.914†	211.7	32.0	21.374	ug/L	21.374 ppb	11:38:46
2	Pb 220.353†	-59.8	-9.4	-1.1753	ug/L	-1.1753 ppb	11:38:46
2	S 181.975 Axial†	380.5	354.7	565.26	ug/L	565.26 ppb	11:38:46
2	Sb 206.836†	38.3	10.5	3.7885	ug/L	3.7885 ppb	11:38:46
2	Se 196.026†	-21.5	-4.7	-3.3728	ug/L	-3.3728 ppb	11:38:46
2	Si 251.611†	927329.1	920565.6	31908	ug/L	31908 ppb	11:38:21
2	Sn 189.927†	-81.3	-87.7	-16.297	ug/L	-16.297 ppb	11:38:46
2	Ti 334.940†	-1748.5	-684.8	0.0790	ug/L	0.0790 ppb	11:38:26
2	Tl 190.801†	-28.5	5.4	1.9698	ug/L	1.9698 ppb	11:38:46
2	U 409.014†	-1998.4	-96.7	-2.6351	ug/L	-2.6351 ppb	11:38:21
2	V 292.402†	-766.2	611.9	4.4848	ug/L	4.4848 ppb	11:38:26
2	Zn 213.857†	948.3	317.2	3.5137	ug/L	3.5137 ppb	11:38:46
2	SiO2†	939128.7	932261.2	69359	ug/L	69359 ppb	11:39:29
3	Sc Radial	4526.1	4526.1	106	%		11:37:24
3	Y RADIAL	4898.3	4898.3	98.85	%		11:37:24
3	Al 396.153Radial†	-67.0	12.1	12.365	ug/L	12.365 ppb	11:37:44
3	Ca 317.933Radial†	5787.8	5418.9	10740	ug/L	10740 ppb	11:37:24
3	Fe 238.204 Radial†	7.0	0.4	5.0700	ug/L	5.0700 ppb	11:37:44
3	K 766.490 Radial†	10820.6	7455.2	1403.0	ug/L	1403.0 ppb	11:37:24
3	Mg 279.077 IEC†	77.7	72.3	3078.2	ug/L	3078.2 ppb	11:37:44
3	Na 589.592 Radial†	27857.5	27034.4	10638	ug/L	10638 ppb	11:37:24
3	Sr 421.552†	6626.1	6203.4	50.912	ug/L	50.912 ppb	11:37:24
3	Sc 361.383	885628.4	885628.4	100.49	%		11:38:52
3	Y 371.029	743481.9	743481.9	97.289	%		11:38:52
3	Ag 328.068†	333.0	71.8	0.2137	ug/L	0.2137 ppb	11:38:57
3	As 188.979†	-28.1	-7.4	-3.6811	ug/L	-3.6811 ppb	11:39:17
3	B 249.677†	68.8	456.6	11.628	ug/L	11.628 ppb	11:39:17
3	Ba 233.527†	2213.3	2192.5	19.168	ug/L	19.168 ppb	11:39:17
3	Be 313.107†	-4343.9	-40.1	-0.0176	ug/L	-0.0176 ppb	11:38:57
3	Cd 226.502†	-143.2	29.4	0.3856	ug/L	0.3856 ppb	11:39:17
3	Co 228.616†	-48.1	-1.1	-0.0164	ug/L	-0.0164 ppb	11:39:17
3	Cr 267.716†	260.2	190.8	2.3392	ug/L	2.3392 ppb	11:39:17
3	Cu 324.752†	6335.1	-23.6	-0.0691	ug/L	-0.0691 ppb	11:38:57
3	Mn 257.610†	5701.0	5210.3	6.2289	ug/L	6.2289 ppb	11:38:57
3	Mo 202.031†	18.1	4.1	0.4659	ug/L	0.4659 ppb	11:39:17
3	Ni 231.604†	50.1	-45.7	-1.3350	ug/L	-1.3350 ppb	11:39:17
3	P 214.914†	222.0	42.6	28.550	ug/L	28.550 ppb	11:39:17
3	Pb 220.353†	-56.0	-5.7	-0.6543	ug/L	-0.6543 ppb	11:39:17
3	S 181.975 Axial†	389.5	364.3	580.57	ug/L	580.57 ppb	11:39:17
3	Sb 206.836†	20.2	-7.4	-3.1532	ug/L	-3.1532 ppb	11:39:17
3	Se 196.026†	-15.7	1.0	0.7751	ug/L	0.7751 ppb	11:39:17
3	Si 251.611†	926084.0	921031.0	31924	ug/L	31924 ppb	11:38:52
3	Sn 189.927†	-89.9	-96.4	-18.094	ug/L	-18.094 ppb	11:39:17
3	Ti 334.940†	-1723.7	-663.4	0.1143	ug/L	0.1143 ppb	11:38:57
3	Tl 190.801†	-36.8	-2.8	-1.0073	ug/L	-1.0073 ppb	11:39:17
3	U 409.014†	-2051.1	-152.8	-4.1586	ug/L	-4.1586 ppb	11:38:52
3	V 292.402†	-811.3	565.5	4.1482	ug/L	4.1482 ppb	11:38:57
3	Zn 213.857†	924.1	294.8	3.2718	ug/L	3.2718 ppb	11:39:17
3	SiO2†	921166.7	916112.5	68158	ug/L	68158 ppb	11:39:35

Mean Data: 247817002|957527|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	885680.1	100.49	%	0.177				0.18%
Sc Radial	4540.7	107	%	0.8				0.72%
Y 371.029	744027.3	97.361	%	0.1484				0.15%
Y RADIAL	4919.3	99.27	%	0.603				0.61%
Ag 328.068†	28.7	0.0138	ug/L	0.18129	0.0138	ppb	0.18129	>999.9%
Al 396.153Radial†	18.0	18.435	ug/L	5.6762	18.435	ppb	5.6762	30.79%
As 188.979†	-7.1	-3.5222	ug/L	1.17838	-3.5222	ppb	1.17838	33.46%
B 249.677†	466.0	11.866	ug/L	0.2111	11.866	ppb	0.2111	1.78%
Ba 233.527†	2180.9	19.067	ug/L	0.0951	19.067	ppb	0.0951	0.50%
Be 313.107†	-2.1	-0.0032	ug/L	0.01958	-0.0032	ppb	0.01958	610.43%
Ca 317.933Radial†	5422.2	10746	ug/L	5.6	10746	ppb	5.6	0.05%
Cd 226.502†	27.3	0.3580	ug/L	0.03280	0.3580	ppb	0.03280	9.16%
Co 228.616†	-5.7	-0.1264	ug/L	0.16135	-0.1264	ppb	0.16135	127.61%
Cr 267.716†	198.8	2.4373	ug/L	0.08560	2.4373	ppb	0.08560	3.51%
Cu 324.752†	-26.5	-0.0780	ug/L	0.16785	-0.0780	ppb	0.16785	215.07%
Fe 238.204 Radial†	1.1	13.615	ug/L	9.6927	13.615	ppb	9.6927	71.19%
K 766.490 Radial†	7525.2	1416.3	ug/L	12.85	1416.3	ppb	12.85	0.91%

Mg 279.077 IEC†	72.0	3061.5	ug/L	40.55	3061.5	ppb	40.55	1.32%
Mn 257.610†	5160.3	6.1693	ug/L	0.05560	6.1693	ppb	0.05560	0.90%
Mo 202.031†	7.6	0.7522	ug/L	0.44967	0.7522	ppb	0.44967	59.78%
Na 589.592 Radial†	27015.8	10631	ug/L	23.7	10631	ppb	23.7	0.22%
Ni 231.604†	-43.1	-1.2593	ug/L	0.26697	-1.2593	ppb	0.26697	21.20%
P 214.914†	34.5	23.065	ug/L	4.8655	23.065	ppb	4.8655	21.10%
Pb 220.353†	-8.6	-1.0655	ug/L	0.36874	-1.0655	ppb	0.36874	34.61%
S 181.975 Axial†	359.9	573.45	ug/L	7.714	573.45	ppb	7.714	1.35%
Sb 206.836†	-2.1	-1.0917	ug/L	4.24331	-1.0917	ppb	4.24331	388.70%
Se 196.026†	-2.4	-1.7267	ug/L	2.20234	-1.7267	ppb	2.20234	127.55%
Si 251.611†	920063.6	31890	ug/L	44.8	31890	ppb	44.8	0.14%
Sn 189.927†	-93.0	-17.385	ug/L	0.9566	-17.385	ppb	0.9566	5.50%
Sr 421.552†	6203.1	50.910	ug/L	0.1239	50.910	ppb	0.1239	0.24%
Ti 334.940†	-659.4	0.1226	ug/L	0.04830	0.1226	ppb	0.04830	39.38%
Tl 190.801†	1.5	0.5600	ug/L	1.49483	0.5600	ppb	1.49483	266.94%
U 409.014†	-120.7	-3.2872	ug/L	0.78505	-3.2872	ppb	0.78505	23.88%
V 292.402†	608.8	4.4657	ug/L	0.30829	4.4657	ppb	0.30829	6.90%
Zn 213.857†	305.1	3.3836	ug/L	0.12200	3.3836	ppb	0.12200	3.61%
SiO2†	926278.3	68914	ug/L	658.4	68914	ppb	658.4	0.96%

Sequence No.: 16
Sample ID: 1202053150|957527|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 53
Date Collected: 3/24/2010 11:48:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053150|957527|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4609.4	4609.4	108	%			11:50:44
1	Y RADIAL	4963.9	4963.9	100.2	%			11:50:44
1	Al 396.153Radial†	510.5	545.8	560.33	ug/L	560.33	ppb	11:50:44
1	Ca 317.933Radial†	6136.1	5641.8	11182	ug/L	11182	ppb	11:50:44
1	Fe 238.204 Radial†	30.2	21.7	262.41	ug/L	262.41	ppb	11:51:04
1	K 766.490 Radial†	12095.4	8447.2	1588.8	ug/L	1588.8	ppb	11:50:44
1	Mg 279.077 IEC†	83.0	75.9	3231.0	ug/L	3231.0	ppb	11:51:04
1	Na 589.592 Radial†	40522.8	38241.7	15048	ug/L	15048	ppb	11:50:44
1	Sr 421.552†	7114.7	6541.5	53.688	ug/L	53.688	ppb	11:50:44
1	Sc 361.383	891187.0	891187.0	101.12	%			11:52:01
1	Y 371.029	747432.4	747432.4	97.806	%			11:52:01
1	Ag 328.068†	272.4	9.8	0.0004	ug/L	0.0004	ppb	11:52:06
1	As 188.979†	-14.0	6.8	3.4785	ug/L	3.4785	ppb	11:52:26
1	B 249.677†	93.2	480.3	12.188	ug/L	12.188	ppb	11:52:26
1	Ba 233.527†	2719.7	2679.5	23.433	ug/L	23.433	ppb	11:52:26
1	Be 313.107†	-4174.9	154.0	0.0666	ug/L	0.0666	ppb	11:52:06
1	Cd 226.502†	-149.4	24.1	0.2899	ug/L	0.2899	ppb	11:52:26
1	Co 228.616†	-24.1	22.9	0.5538	ug/L	0.5538	ppb	11:52:26
1	Cr 267.716†	317.0	245.3	3.0347	ug/L	3.0347	ppb	11:52:26
1	Cu 324.752†	6451.1	51.8	0.1742	ug/L	0.1742	ppb	11:52:06
1	Mn 257.610†	10275.0	9698.4	11.721	ug/L	11.721	ppb	11:52:06
1	Mo 202.031†	16.7	2.7	0.3740	ug/L	0.3740	ppb	11:52:26
1	Ni 231.604†	62.5	-33.7	-0.9843	ug/L	-0.9843	ppb	11:52:26
1	P 214.914†	216.2	35.5	23.625	ug/L	23.625	ppb	11:52:26
1	Pb 220.353†	-61.4	-10.7	-1.2690	ug/L	-1.2690	ppb	11:52:26
1	S 181.975 Axial†	967.1	933.2	1487.0	ug/L	1487.0	ppb	11:52:26
1	Sb 206.836†	26.9	-1.0	-0.6886	ug/L	-0.6886	ppb	11:52:26
1	Se 196.026†	-12.2	4.7	4.3840	ug/L	4.3840	ppb	11:52:26
1	Si 251.611†	950580.5	939508.6	32564	ug/L	32564	ppb	11:52:01
1	Sn 189.927†	-88.3	-94.2	-17.588	ug/L	-17.588	ppb	11:52:26
1	Ti 334.940†	1229.4	2267.8	4.9148	ug/L	4.9148	ppb	11:52:06
1	Tl 190.801†	-36.6	-2.4	-0.7828	ug/L	-0.7828	ppb	11:52:26
1	U 409.014†	-2124.0	-212.1	-5.8012	ug/L	-5.8012	ppb	11:52:01
1	V 292.402†	-688.7	691.9	5.0179	ug/L	5.0179	ppb	11:52:06
1	Zn 213.857†	1216.9	578.6	6.3730	ug/L	6.3730	ppb	11:52:26
1	SiO2†	961636.4	950417.2	70710	ug/L	70710	ppb	11:53:33
2	Sc Radial	4529.9	4529.9	107	%			11:51:09
2	Y RADIAL	4869.0	4869.0	98.25	%			11:51:09
2	Al 396.153Radial†	486.9	531.9	546.05	ug/L	546.05	ppb	11:51:09
2	Ca 317.933Radial†	6029.4	5641.0	11180	ug/L	11180	ppb	11:51:09
2	Fe 238.204 Radial†	29.2	21.3	256.88	ug/L	256.88	ppb	11:51:29
2	K 766.490 Radial†	11946.6	8503.4	1599.5	ug/L	1599.5	ppb	11:51:09
2	Mg 279.077 IEC†	81.1	75.5	3210.4	ug/L	3210.4	ppb	11:51:29
2	Na 589.592 Radial†	39594.6	38026.8	14964	ug/L	14964	ppb	11:51:09
2	Sr 421.552†	6942.6	6495.2	53.308	ug/L	53.308	ppb	11:51:09
2	Sc 361.383	884143.3	884143.3	100.32	%			11:52:31
2	Y 371.029	741753.6	741753.6	97.063	%			11:52:31
2	Ag 328.068†	364.4	103.8	0.4400	ug/L	0.4400	ppb	11:52:37
2	As 188.979†	-24.3	-3.6	-1.6995	ug/L	-1.6995	ppb	11:52:57
2	B 249.677†	115.8	503.6	12.782	ug/L	12.782	ppb	11:52:57
2	Ba 233.527†	2683.2	2664.7	23.304	ug/L	23.304	ppb	11:52:57
2	Be 313.107†	-4171.4	124.5	0.0559	ug/L	0.0559	ppb	11:52:37
2	Cd 226.502†	-155.4	17.0	0.1963	ug/L	0.1963	ppb	11:52:57
2	Co 228.616†	-17.3	29.5	0.7164	ug/L	0.7164	ppb	11:52:57
2	Cr 267.716†	341.2	272.0	3.3590	ug/L	3.3590	ppb	11:52:57
2	Cu 324.752†	6371.6	23.4	0.0865	ug/L	0.0865	ppb	11:52:37
2	Mn 257.610†	10423.8	9927.7	12.001	ug/L	12.001	ppb	11:52:37
2	Mo 202.031†	23.7	9.8	0.9540	ug/L	0.9540	ppb	11:52:57
2	Ni 231.604†	71.9	-23.8	-0.6956	ug/L	-0.6956	ppb	11:52:57

2	P 214.914†	226.9	47.9	31.995 ug/L	31.995 ppb	11:52:57
2	Pb 220.353†	-49.5	0.7	0.3380 ug/L	0.3380 ppb	11:52:57
2	S 181.975 Axial†	952.2	925.9	1475.4 ug/L	1475.4 ppb	11:52:57
2	Sb 206.836†	18.6	-9.0	-3.7760 ug/L	-3.7760 ppb	11:52:57
2	Se 196.026†	-15.3	1.4	1.9627 ug/L	1.9627 ppb	11:52:57
2	Si 251.611†	951217.5	947632.9	32846 ug/L	32846 ppb	11:52:31
2	Sn 189.927†	-93.7	-100.3	-18.843 ug/L	-18.843 ppb	11:52:57
2	Ti 334.940†	1326.7	2374.5	5.0881 ug/L	5.0881 ppb	11:52:37
2	Tl 190.801†	-27.7	6.1	2.2803 ug/L	2.2803 ppb	11:52:57
2	U 409.014†	-2019.9	-125.2	-3.4379 ug/L	-3.4379 ppb	11:52:31
2	V 292.402†	-646.9	728.1	5.2926 ug/L	5.2926 ppb	11:52:37
2	Zn 213.857†	1217.0	588.4	6.4798 ug/L	6.4798 ppb	11:52:57
2	SiO2†	959876.0	956238.8	71143 ug/L	71143 ppb	11:53:39
3	Sc Radial	4422.9	4422.9	104 %		11:51:34
3	Y RADIAL	4773.3	4773.3	96.32 %		11:51:34
3	Al 396.153Radial†	492.8	548.6	563.19 ug/L	563.19 ppb	11:51:34
3	Ca 317.933Radial†	6001.5	5751.1	11398 ug/L	11398 ppb	11:51:34
3	Fe 238.204 Radial†	31.1	23.7	286.25 ug/L	286.25 ppb	11:51:54
3	K 766.490 Radial†	11910.8	8740.1	1644.1 ug/L	1644.1 ppb	11:51:34
3	Mg 279.077 IEC†	84.3	80.4	3419.6 ug/L	3419.6 ppb	11:51:54
3	Na 589.592 Radial†	39271.2	38614.6	15195 ug/L	15195 ppb	11:51:34
3	Sr 421.552†	6929.1	6639.7	54.494 ug/L	54.494 ppb	11:51:34
3	Sc 361.383	880308.2	880308.2	99.883 %		11:53:02
3	Y 371.029	738313.7	738313.7	96.613 %		11:53:02
3	Ag 328.068†	197.0	-62.3	-0.3345 ug/L	-0.3345 ppb	11:53:07
3	As 188.979†	-24.5	-3.9	-1.8432 ug/L	-1.8432 ppb	11:53:27
3	B 249.677†	88.4	476.7	12.093 ug/L	12.093 ppb	11:53:27
3	Ba 233.527†	2688.2	2681.3	23.449 ug/L	23.449 ppb	11:53:27
3	Be 313.107†	-4246.3	31.5	0.0208 ug/L	0.0208 ppb	11:53:07
3	Cd 226.502†	-143.2	28.5	0.3451 ug/L	0.3451 ppb	11:53:27
3	Co 228.616†	-29.0	17.6	0.4280 ug/L	0.4280 ppb	11:53:27
3	Cr 267.716†	313.8	246.0	3.0456 ug/L	3.0456 ppb	11:53:27
3	Cu 324.752†	6444.3	123.8	0.3937 ug/L	0.3937 ppb	11:53:07
3	Mn 257.610†	10360.2	9909.3	11.973 ug/L	11.973 ppb	11:53:07
3	Mo 202.031†	23.3	9.5	0.9323 ug/L	0.9323 ppb	11:53:27
3	Ni 231.604†	78.4	-17.0	-0.4980 ug/L	-0.4980 ppb	11:53:27
3	P 214.914†	210.3	32.2	21.347 ug/L	21.347 ppb	11:53:27
3	Pb 220.353†	-55.7	-5.7	-0.5620 ug/L	-0.5620 ppb	11:53:27
3	S 181.975 Axial†	953.2	931.1	1483.7 ug/L	1483.7 ppb	11:53:27
3	Sb 206.836†	25.7	-1.8	-1.0017 ug/L	-1.0017 ppb	11:53:27
3	Se 196.026†	-15.8	0.9	1.6419 ug/L	1.6419 ppb	11:53:27
3	Si 251.611†	949294.7	949838.8	32922 ug/L	32922 ppb	11:53:02
3	Sn 189.927†	-91.5	-98.5	-18.433 ug/L	-18.433 ppb	11:53:27
3	Ti 334.940†	1347.7	2401.2	5.1443 ug/L	5.1443 ppb	11:53:07
3	Tl 190.801†	-32.6	1.1	0.4761 ug/L	0.4761 ppb	11:53:27
3	U 409.014†	-2058.3	-172.3	-4.7227 ug/L	-4.7227 ppb	11:53:02
3	V 292.402†	-641.5	730.7	5.3087 ug/L	5.3087 ppb	11:53:07
3	Zn 213.857†	1208.2	584.8	6.4338 ug/L	6.4338 ppb	11:53:27
3	SiO2†	962901.6	963436.5	71679 ug/L	71679 ppb	11:53:45

Mean Data: 1202053150|957527|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	885212.8	100.44	%	0.626				0.62%
Sc Radial	4520.7	106	%	2.2				2.07%
Y 371.029	742499.9	97.161	%	0.6026				0.62%
Y RADIAL	4868.7	98.25	%	1.923				1.96%
Ag 328.068†	17.1	0.0353	ug/L	0.38843	0.0353	ppb	0.38843	>999.9%
Al 396.153Radial†	542.1	556.52	ug/L	9.179	556.52	ppb	9.179	1.65%
As 188.979†	-0.2	-0.0214	ug/L	3.03182	-0.0214	ppb	3.03182	>999.9%
B 249.677†	486.9	12.354	ug/L	0.3735	12.354	ppb	0.3735	3.02%
Ba 233.527†	2675.2	23.395	ug/L	0.0799	23.395	ppb	0.0799	0.34%
Be 313.107†	103.3	0.0477	ug/L	0.02397	0.0477	ppb	0.02397	50.21%
Ca 317.933Radial†	5678.0	11253	ug/L	125.5	11253	ppb	125.5	1.12%
Cd 226.502†	23.2	0.2771	ug/L	0.07521	0.2771	ppb	0.07521	27.14%
Co 228.616†	23.3	0.5660	ug/L	0.14458	0.5660	ppb	0.14458	25.54%
Cr 267.716†	254.5	3.1464	ug/L	0.18418	3.1464	ppb	0.18418	5.85%
Cu 324.752†	66.3	0.2181	ug/L	0.15822	0.2181	ppb	0.15822	72.54%
Fe 238.204 Radial†	22.2	268.51	ug/L	15.606	268.51	ppb	15.606	5.81%
K 766.490 Radial†	8563.5	1610.8	ug/L	29.33	1610.8	ppb	29.33	1.82%

Mg 279.077 IEC†	77.3	3287.0	ug/L	115.28	3287.0	ppb	115.28	3.51%
Mn 257.610†	9845.1	11.899	ug/L	0.1541	11.899	ppb	0.1541	1.30%
Mo 202.031†	7.3	0.7534	ug/L	0.32875	0.7534	ppb	0.32875	43.63%
Na 589.592 Radial†	38294.4	15069	ug/L	117.0	15069	ppb	117.0	0.78%
Ni 231.604†	-24.8	-0.7260	ug/L	0.24456	-0.7260	ppb	0.24456	33.69%
P 214.914†	38.5	25.655	ug/L	5.6072	25.655	ppb	5.6072	21.86%
Pb 220.353†	-5.2	-0.4977	ug/L	0.80540	-0.4977	ppb	0.80540	161.83%
S 181.975 Axial†	930.1	1482.0	ug/L	5.95	1482.0	ppb	5.95	0.40%
Sb 206.836†	-3.9	-1.8221	ug/L	1.69933	-1.8221	ppb	1.69933	93.26%
Se 196.026†	2.3	2.6629	ug/L	1.49916	2.6629	ppb	1.49916	56.30%
Si 251.611†	945660.1	32777	ug/L	188.6	32777	ppb	188.6	0.58%
Sn 189.927†	-97.7	-18.288	ug/L	0.6397	-18.288	ppb	0.6397	3.50%
Sr 421.552†	6558.8	53.830	ug/L	0.6057	53.830	ppb	0.6057	1.13%
Ti 334.940†	2347.8	5.0491	ug/L	0.11966	5.0491	ppb	0.11966	2.37%
Tl 190.801†	1.6	0.6579	ug/L	1.53964	0.6579	ppb	1.53964	234.03%
U 409.014†	-169.9	-4.6539	ug/L	1.18319	-4.6539	ppb	1.18319	25.42%
V 292.402†	716.9	5.2064	ug/L	0.16344	5.2064	ppb	0.16344	3.14%
Zn 213.857†	583.9	6.4288	ug/L	0.05358	6.4288	ppb	0.05358	0.83%
SiO2†	956697.5	71177	ug/L	485.2	71177	ppb	485.2	0.68%

Sequence No.: 17
Sample ID: 1202053151|957527|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 54
Date Collected: 3/24/2010 11:55:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053151|957527|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4409.4	4409.4	104	%			11:57:49
1	Y RADIAL	4765.5	4765.5	96.17	%			11:57:49
1	Al 396.153Radial†	5413.0	5293.4	5411.9	ug/L	5411.9	ppb	11:57:49
1	Ca 317.933Radial†	8459.6	8138.4	16130	ug/L	16130	ppb	11:57:49
1	Fe 238.204 Radial†	463.5	440.7	5337.8	ug/L	5337.8	ppb	11:58:09
1	K 766.490 Radial†	37932.4	33861.5	6393.8	ug/L	6393.8	ppb	11:57:49
1	Mg 279.077 IEC†	202.4	194.5	8272.9	ug/L	8272.9	ppb	11:58:09
1	Na 589.592 Radial†	50926.0	49966.0	19662	ug/L	19662	ppb	11:57:49
1	Sr 421.552†	67140.2	64707.4	531.78	ug/L	531.78	ppb	11:57:49
1	Sc 361.383	877594.2	877594.2	99.575	%			11:59:06
1	Y 371.029	733343.8	733343.8	95.963	%			11:59:06
1	Ag 328.068†	98983.2	99146.2	469.76	ug/L	469.76	ppb	11:59:12
1	As 188.979†	928.1	952.7	478.17	ug/L	478.17	ppb	11:59:32
1	B 249.677†	18646.4	19114.1	484.58	ug/L	484.58	ppb	11:59:12
1	Ba 233.527†	57537.3	57772.8	506.06	ug/L	506.06	ppb	11:59:12
1	Be 313.107†	1250331.1	1259951.0	477.82	ug/L	477.82	ppb	11:59:06
1	Cd 226.502†	35027.3	35348.7	466.81	ug/L	466.81	ppb	11:59:12
1	Co 228.616†	19412.1	19541.6	474.51	ug/L	474.51	ppb	11:59:12
1	Cr 267.716†	38896.4	38994.2	477.48	ug/L	477.48	ppb	11:59:12
1	Cu 324.752†	169120.6	163514.4	496.41	ug/L	496.41	ppb	11:59:12
1	Mn 257.610†	393049.7	394264.5	481.01	ug/L	481.01	ppb	11:59:12
1	Mo 202.031†	5719.9	5730.5	469.50	ug/L	469.50	ppb	11:59:32
1	Ni 231.604†	16401.7	16376.2	478.22	ug/L	478.22	ppb	11:59:12
1	P 214.914†	974.6	800.5	442.27	ug/L	442.27	ppb	11:59:32
1	Pb 220.353†	3227.0	3290.8	467.43	ug/L	467.43	ppb	11:59:32
1	S 181.975 Axial†	3862.1	3855.3	6142.8	ug/L	6142.8	ppb	11:59:32
1	Sb 206.836†	1282.9	1260.8	501.48	ug/L	501.48	ppb	11:59:32
1	Se 196.026†	591.6	610.8	471.59	ug/L	471.59	ppb	11:59:32
1	Si 251.611†	1074688.6	1078707.2	37383	ug/L	37383	ppb	11:59:06
1	Sn 189.927†	2212.9	2215.4	462.39	ug/L	462.39	ppb	11:59:32
1	Ti 334.940†	295231.6	297543.8	483.60	ug/L	483.60	ppb	11:59:12
1	Tl 190.801†	1267.0	1306.1	472.43	ug/L	472.43	ppb	11:59:32
1	U 409.014†	16389.7	18348.0	496.95	ug/L	496.95	ppb	11:59:12
1	V 292.402†	65553.5	67206.2	492.61	ug/L	492.61	ppb	11:59:12
1	Zn 213.857†	43310.3	42870.3	470.11	ug/L	470.11	ppb	11:59:12
1	SiO2†	1077079.7	1081083.3	80419	ug/L	80419	ppb	12:00:40
2	Sc Radial	4454.4	4454.4	105	%			11:58:14
2	Y RADIAL	4812.4	4812.4	97.11	%			11:58:14
2	Al 396.153Radial†	5475.9	5300.8	5420.0	ug/L	5420.0	ppb	11:58:14
2	Ca 317.933Radial†	8520.5	8114.4	16082	ug/L	16082	ppb	11:58:14
2	Fe 238.204 Radial†	464.2	436.9	5291.5	ug/L	5291.5	ppb	11:58:34
2	K 766.490 Radial†	38385.3	33924.9	6405.9	ug/L	6405.9	ppb	11:58:14
2	Mg 279.077 IEC†	208.3	198.1	8429.7	ug/L	8429.7	ppb	11:58:34
2	Na 589.592 Radial†	51207.9	49739.8	19573	ug/L	19573	ppb	11:58:14
2	Sr 421.552†	67668.5	64558.7	530.56	ug/L	530.56	ppb	11:58:14
2	Sc 361.383	888317.2	888317.2	100.79	%			11:59:37
2	Y 371.029	741018.9	741018.9	96.967	%			11:59:37
2	Ag 328.068†	98107.9	97077.8	459.99	ug/L	459.99	ppb	11:59:43
2	As 188.979†	916.6	930.0	466.84	ug/L	466.84	ppb	12:00:03
2	B 249.677†	18410.0	18653.6	472.87	ug/L	472.87	ppb	11:59:43
2	Ba 233.527†	57514.2	57052.4	499.74	ug/L	499.74	ppb	11:59:43
2	Be 313.107†	1263770.8	1258127.8	477.11	ug/L	477.11	ppb	11:59:37
2	Cd 226.502†	34958.9	34856.2	460.30	ug/L	460.30	ppb	11:59:43
2	Co 228.616†	19427.2	19321.3	469.16	ug/L	469.16	ppb	11:59:43
2	Cr 267.716†	38754.2	38381.7	469.98	ug/L	469.98	ppb	11:59:43
2	Cu 324.752†	167524.2	159880.4	485.38	ug/L	485.38	ppb	11:59:43
2	Mn 257.610†	391618.4	388079.6	473.46	ug/L	473.46	ppb	11:59:43
2	Mo 202.031†	5689.8	5631.3	461.38	ug/L	461.38	ppb	12:00:03
2	Ni 231.604†	16334.8	16111.0	470.47	ug/L	470.47	ppb	11:59:43

2	P 214.914†	978.8	792.8	439.30 ug/L	439.30 ppb	12:00:03
2	Pb 220.353†	3200.3	3225.2	458.13 ug/L	458.13 ppb	12:00:03
2	S 181.975 Axial†	3815.9	3762.7	5995.2 ug/L	5995.2 ppb	12:00:03
2	Sb 206.836†	1259.0	1221.6	486.16 ug/L	486.16 ppb	12:00:03
2	Se 196.026†	584.9	597.0	461.19 ug/L	461.19 ppb	12:00:03
2	Si 251.611†	1090116.7	1080985.9	37462 ug/L	37462 ppb	11:59:37
2	Sn 189.927†	2212.1	2187.8	456.65 ug/L	456.65 ppb	12:00:03
2	Ti 334.940†	293410.1	292157.6	474.86 ug/L	474.86 ppb	11:59:43
2	Tl 190.801†	1254.6	1278.5	462.44 ug/L	462.44 ppb	12:00:03
2	U 409.014†	16152.2	17913.7	485.17 ug/L	485.17 ppb	11:59:43
2	V 292.402†	65280.3	66140.5	484.78 ug/L	484.78 ppb	11:59:43
2	Zn 213.857†	43044.2	42081.4	461.44 ug/L	461.44 ppb	11:59:43
2	SiO2†	1095271.2	1086074.7	80790 ug/L	80790 ppb	12:00:46
3	Sc Radial	4468.5	4468.5	105 %		11:58:39
3	Y RADIAL	4805.0	4805.0	96.96 %		11:58:39
3	Al 396.153Radial†	5446.7	5256.5	5374.1 ug/L	5374.1 ppb	11:58:39
3	Ca 317.933Radial†	8440.4	8012.4	15880 ug/L	15880 ppb	11:58:39
3	Fe 238.204 Radial†	464.4	435.6	5276.7 ug/L	5276.7 ppb	11:58:59
3	K 766.490 Radial†	38182.6	33616.2	6347.6 ug/L	6347.6 ppb	11:58:39
3	Mg 279.077 IEC†	203.8	193.2	8221.6 ug/L	8221.6 ppb	11:58:59
3	Na 589.592 Radial†	50889.6	49282.4	19393 ug/L	19393 ppb	11:58:39
3	Sr 421.552†	67629.8	64317.5	528.58 ug/L	528.58 ppb	11:58:39
3	Sc 361.383	874384.9	874384.9	99.211 %		12:00:08
3	Y 371.029	731072.8	731072.8	95.666 %		12:00:08
3	Ag 328.068†	98020.4	98540.6	466.89 ug/L	466.89 ppb	12:00:13
3	As 188.979†	907.8	935.7	469.68 ug/L	469.68 ppb	12:00:34
3	B 249.677†	18410.8	18945.4	480.30 ug/L	480.30 ppb	12:00:13
3	Ba 233.527†	57123.1	57567.4	504.26 ug/L	504.26 ppb	12:00:13
3	Be 313.107†	1241697.4	1255857.3	476.26 ug/L	476.26 ppb	12:00:08
3	Cd 226.502†	34667.6	35115.2	463.73 ug/L	463.73 ppb	12:00:13
3	Co 228.616†	19192.8	19392.2	470.88 ug/L	470.88 ppb	12:00:13
3	Cr 267.716†	38656.3	38895.6	476.26 ug/L	476.26 ppb	12:00:13
3	Cu 324.752†	167644.4	162649.9	493.78 ug/L	493.78 ppb	12:00:13
3	Mn 257.610†	389679.6	392316.3	478.63 ug/L	478.63 ppb	12:00:13
3	Mo 202.031†	5678.1	5709.4	467.77 ug/L	467.77 ppb	12:00:34
3	Ni 231.604†	16265.4	16299.2	475.97 ug/L	475.97 ppb	12:00:13
3	P 214.914†	973.8	803.3	444.72 ug/L	444.72 ppb	12:00:34
3	Pb 220.353†	3178.6	3253.9	462.20 ug/L	462.20 ppb	12:00:34
3	S 181.975 Axial†	3833.5	3840.8	6119.6 ug/L	6119.6 ppb	12:00:34
3	Sb 206.836†	1263.4	1246.0	495.74 ug/L	495.74 ppb	12:00:34
3	Se 196.026†	589.4	610.8	471.36 ug/L	471.36 ppb	12:00:34
3	Si 251.611†	1069455.9	1077394.1	37338 ug/L	37338 ppb	12:00:08
3	Sn 189.927†	2205.8	2216.4	462.56 ug/L	462.56 ppb	12:00:34
3	Ti 334.940†	292737.4	296118.0	481.26 ug/L	481.26 ppb	12:00:13
3	Tl 190.801†	1275.5	1319.4	477.18 ug/L	477.18 ppb	12:00:34
3	U 409.014†	16161.9	18178.9	492.37 ug/L	492.37 ppb	12:00:13
3	V 292.402†	65026.9	66917.1	490.49 ug/L	490.49 ppb	12:00:13
3	Zn 213.857†	42909.6	42626.1	467.43 ug/L	467.43 ppb	12:00:13
3	SiO2†	1081393.9	1089401.9	81038 ug/L	81038 ppb	12:00:52

Mean Data: 1202053151|957527|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	880098.8	99.859	%	0.8278				0.83%
Sc Radial	4444.1	105	%	0.7				0.69%
Y 371.029	735145.2	96.198	%	0.6820				0.71%
Y RADIAL	4794.3	96.75	%	0.509				0.53%
Ag 328.068†	98254.9	465.54	ug/L	5.023	465.54	ppb	5.023	1.08%
Al 396.153Radial†	5283.6	5402.0	ug/L	24.46	5402.0	ppb	24.46	0.45%
As 188.979†	939.5	471.57	ug/L	5.894	471.57	ppb	5.894	1.25%
B 249.677†	18904.4	479.25	ug/L	5.924	479.25	ppb	5.924	1.24%
Ba 233.527†	57464.2	503.35	ug/L	3.252	503.35	ppb	3.252	0.65%
Be 313.107†	1257978.7	477.06	ug/L	0.778	477.06	ppb	0.778	0.16%
Ca 317.933Radial†	8088.4	16031	ug/L	132.6	16031	ppb	132.6	0.83%
Cd 226.502†	35106.7	463.62	ug/L	3.256	463.62	ppb	3.256	0.70%
Co 228.616†	19418.4	471.52	ug/L	2.731	471.52	ppb	2.731	0.58%
Cr 267.716†	38757.2	474.57	ug/L	4.023	474.57	ppb	4.023	0.85%
Cu 324.752†	162014.9	491.86	ug/L	5.761	491.86	ppb	5.761	1.17%
Fe 238.204 Radial†	437.7	5302.0	ug/L	31.86	5302.0	ppb	31.86	0.60%
K 766.490 Radial†	33800.9	6382.4	ug/L	30.77	6382.4	ppb	30.77	0.48%

Mg 279.077 IEC†	195.3	8308.1	ug/L	108.42	8308.1	ppb	108.42	1.31%
Mn 257.610†	391553.4	477.70	ug/L	3.862	477.70	ppb	3.862	0.81%
Mo 202.031†	5690.4	466.21	ug/L	4.277	466.21	ppb	4.277	0.92%
Na 589.592 Radial†	49662.7	19542	ug/L	137.0	19542	ppb	137.0	0.70%
Ni 231.604†	16262.1	474.89	ug/L	3.986	474.89	ppb	3.986	0.84%
P 214.914†	798.9	442.10	ug/L	2.716	442.10	ppb	2.716	0.61%
Pb 220.353†	3256.6	462.58	ug/L	4.660	462.58	ppb	4.660	1.01%
S 181.975 Axial†	3819.6	6085.8	ug/L	79.38	6085.8	ppb	79.38	1.30%
Sb 206.836†	1242.8	494.46	ug/L	7.739	494.46	ppb	7.739	1.57%
Se 196.026†	606.2	468.05	ug/L	5.941	468.05	ppb	5.941	1.27%
Si 251.611†	1079029.0	37394	ug/L	63.0	37394	ppb	63.0	0.17%
Sn 189.927†	2206.5	460.53	ug/L	3.362	460.53	ppb	3.362	0.73%
Sr 421.552†	64527.9	530.30	ug/L	1.616	530.30	ppb	1.616	0.30%
Ti 334.940†	295273.1	479.91	ug/L	4.528	479.91	ppb	4.528	0.94%
Tl 190.801†	1301.3	470.69	ug/L	7.524	470.69	ppb	7.524	1.60%
U 409.014†	18146.9	491.50	ug/L	5.938	491.50	ppb	5.938	1.21%
V 292.402†	66754.6	489.29	ug/L	4.049	489.29	ppb	4.049	0.83%
Zn 213.857†	42525.9	466.33	ug/L	4.436	466.33	ppb	4.436	0.95%
SiO2†	1085520.0	80749	ug/L	311.5	80749	ppb	311.5	0.39%

Sequence No.: 18
Sample ID: 1202053152|957527|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 55
Date Collected: 3/24/2010 12:03:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053152|957527|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4422.0	4422.0	104	%			12:04:55
1	Y RADIAL	4834.8	4834.8	97.56	%			12:04:55
1	Al 396.153Radial†	-9.7	65.7	67.371	ug/L	67.371	ppb	12:05:15
1	Ca 317.933Radial†	1193.3	1130.0	2239.7	ug/L	2239.7	ppb	12:05:15
1	Fe 238.204 Radial†	13.2	6.6	79.341	ug/L	79.341	ppb	12:05:15
1	K 766.490 Radial†	4487.6	1606.4	302.08	ug/L	302.08	ppb	12:04:55
1	Mg 279.077 IEC†	15.3	14.1	598.95	ug/L	598.95	ppb	12:05:15
1	Na 589.592 Radial†	6817.2	7423.7	2921.2	ug/L	2921.2	ppb	12:04:55
1	Sr 421.552†	1362.1	1289.5	10.583	ug/L	10.583	ppb	12:04:55
1	Sc 361.383	894202.7	894202.7	101.46	%			12:06:12
1	Y 371.029	754993.8	754993.8	98.796	%			12:06:12
1	Ag 328.068†	375.0	110.1	0.5180	ug/L	0.5180	ppb	12:06:17
1	As 188.979†	-20.0	0.9	0.4733	ug/L	0.4733	ppb	12:06:37
1	B 249.677†	-196.8	194.1	4.9313	ug/L	4.9313	ppb	12:06:37
1	Ba 233.527†	556.0	537.9	4.7053	ug/L	4.7053	ppb	12:06:37
1	Be 313.107†	-4224.9	118.7	0.0469	ug/L	0.0469	ppb	12:06:17
1	Cd 226.502†	-168.0	6.3	0.0742	ug/L	0.0742	ppb	12:06:37
1	Co 228.616†	-44.9	2.5	0.0622	ug/L	0.0622	ppb	12:06:37
1	Cr 267.716†	135.6	65.5	0.8105	ug/L	0.8105	ppb	12:06:37
1	Cu 324.752†	6297.6	-121.1	-0.3625	ug/L	-0.3625	ppb	12:06:17
1	Mn 257.610†	2334.5	1837.9	2.2247	ug/L	2.2247	ppb	12:06:37
1	Mo 202.031†	24.8	10.6	0.9012	ug/L	0.9012	ppb	12:06:37
1	Ni 231.604†	80.8	-15.8	-0.4626	ug/L	-0.4626	ppb	12:06:37
1	P 214.914†	173.4	-7.4	-5.0219	ug/L	-5.0219	ppb	12:06:37
1	Pb 220.353†	-57.8	-7.0	-0.9478	ug/L	-0.9478	ppb	12:06:37
1	S 181.975 Axial†	211.7	185.4	295.40	ug/L	295.40	ppb	12:06:37
1	Sb 206.836†	24.1	-3.7	-1.5007	ug/L	-1.5007	ppb	12:06:37
1	Se 196.026†	-21.6	-4.6	-3.1539	ug/L	-3.1539	ppb	12:06:37
1	Si 251.611†	188024.1	184750.6	6403.6	ug/L	6403.6	ppb	12:06:12
1	Sn 189.927†	-18.1	-24.8	-4.7457	ug/L	-4.7457	ppb	12:06:37
1	Ti 334.940†	-515.3	544.1	1.1341	ug/L	1.1341	ppb	12:06:17
1	Tl 190.801†	-35.3	-1.1	-0.3645	ug/L	-0.3645	ppb	12:06:37
1	U 409.014†	-1976.0	-59.2	-1.6184	ug/L	-1.6184	ppb	12:06:12
1	V 292.402†	-1246.6	144.3	1.0520	ug/L	1.0520	ppb	12:06:17
1	Zn 213.857†	858.2	221.0	2.4388	ug/L	2.4388	ppb	12:06:37
1	SiO2†	188149.3	184848.8	13753	ug/L	13753	ppb	12:07:43
2	Sc Radial	4443.5	4443.5	105	%			12:05:20
2	Y RADIAL	4845.0	4845.0	97.77	%			12:05:20
2	Al 396.153Radial†	-20.5	55.4	56.853	ug/L	56.853	ppb	12:05:40
2	Ca 317.933Radial†	1194.7	1125.8	2231.3	ug/L	2231.3	ppb	12:05:40
2	Fe 238.204 Radial†	13.2	6.5	78.402	ug/L	78.402	ppb	12:05:40
2	K 766.490 Radial†	4492.4	1590.1	299.03	ug/L	299.03	ppb	12:05:20
2	Mg 279.077 IEC†	19.6	18.1	770.26	ug/L	770.26	ppb	12:05:40
2	Na 589.592 Radial†	6776.1	7352.7	2893.3	ug/L	2893.3	ppb	12:05:20
2	Sr 421.552†	1344.6	1266.4	10.393	ug/L	10.393	ppb	12:05:20
2	Sc 361.383	892652.6	892652.6	101.28	%			12:06:42
2	Y 371.029	753529.4	753529.4	98.604	%			12:06:42
2	Ag 328.068†	338.4	74.6	0.3495	ug/L	0.3495	ppb	12:06:47
2	As 188.979†	-25.5	-4.6	-2.2599	ug/L	-2.2599	ppb	12:07:07
2	B 249.677†	-195.4	195.3	4.9592	ug/L	4.9592	ppb	12:07:07
2	Ba 233.527†	555.9	538.7	4.7118	ug/L	4.7118	ppb	12:07:07
2	Be 313.107†	-4250.7	85.9	0.0340	ug/L	0.0340	ppb	12:06:47
2	Cd 226.502†	-159.7	14.2	0.1788	ug/L	0.1788	ppb	12:07:07
2	Co 228.616†	-35.2	12.0	0.2913	ug/L	0.2913	ppb	12:07:07
2	Cr 267.716†	118.8	49.1	0.6102	ug/L	0.6102	ppb	12:07:07
2	Cu 324.752†	6315.8	-92.3	-0.2752	ug/L	-0.2752	ppb	12:06:47
2	Mn 257.610†	2323.5	1831.0	2.2093	ug/L	2.2093	ppb	12:07:07
2	Mo 202.031†	16.9	2.9	0.2661	ug/L	0.2661	ppb	12:07:07
2	Ni 231.604†	82.8	-13.8	-0.4021	ug/L	-0.4021	ppb	12:07:07

2	P 214.914†	185.4	4.8	3.1729 ug/L	3.1729 ppb		12:07:07
2	Pb 220.353†	-57.2	-6.4	-0.8726 ug/L	-0.8726 ppb		12:07:07
2	S 181.975 Axial†	212.9	187.0	297.95 ug/L	297.95 ppb		12:07:07
2	Sb 206.836†	19.9	-7.9	-3.1285 ug/L	-3.1285 ppb		12:07:07
2	Se 196.026†	-10.1	6.7	5.2115 ug/L	5.2115 ppb		12:07:07
2	Si 251.611†	187388.4	184444.8	6393.0 ug/L	6393.0 ppb		12:06:42
2	Sn 189.927†	-19.3	-25.9	-4.9903 ug/L	-4.9903 ppb		12:07:07
2	Ti 334.940†	-644.5	415.6	0.9108 ug/L	0.9108 ppb		12:06:47
2	Tl 190.801†	-20.7	13.4	4.8160 ug/L	4.8160 ppb		12:07:07
2	U 409.014†	-1970.5	-57.2	-1.5639 ug/L	-1.5639 ppb		12:06:42
2	V 292.402†	-1279.4	109.7	0.7970 ug/L	0.7970 ppb		12:06:47
2	Zn 213.857†	860.1	224.4	2.4753 ug/L	2.4753 ppb		12:07:07
2	SiO2†	185881.8	182932.1	13610 ug/L	13610 ppb		12:07:48
3	Sc Radial	4455.5	4455.5	105 %			12:05:45
3	Y RADIAL	4854.3	4854.3	97.96 %			12:05:45
3	Al 396.153Radial†	-12.3	63.2	64.926 ug/L	64.926 ppb		12:06:05
3	Ca 317.933Radial†	1195.1	1123.1	2225.9 ug/L	2225.9 ppb		12:06:05
3	Fe 238.204 Radial†	10.9	4.2	50.736 ug/L	50.736 ppb		12:06:05
3	K 766.490 Radial†	4413.5	1503.3	282.60 ug/L	282.60 ppb		12:05:45
3	Mg 279.077 IEC†	16.2	14.8	629.31 ug/L	629.31 ppb		12:06:05
3	Na 589.592 Radial†	6712.5	7274.5	2862.5 ug/L	2862.5 ppb		12:05:45
3	Sr 421.552†	1330.0	1249.0	10.250 ug/L	10.250 ppb		12:05:45
3	Sc 361.383	884851.7	884851.7	100.40 %			12:07:12
3	Y 371.029	748220.2	748220.2	97.909 %			12:07:12
3	Ag 328.068†	224.3	-36.1	-0.1787 ug/L	-0.1787 ppb		12:07:17
3	As 188.979†	-19.4	1.3	0.6437 ug/L	0.6437 ppb		12:07:38
3	B 249.677†	-215.5	173.5	4.4101 ug/L	4.4101 ppb		12:07:38
3	Ba 233.527†	544.6	532.3	4.6558 ug/L	4.6558 ppb		12:07:38
3	Be 313.107†	-4230.2	69.4	0.0280 ug/L	0.0280 ppb		12:07:17
3	Cd 226.502†	-162.0	10.5	0.1337 ug/L	0.1337 ppb		12:07:38
3	Co 228.616†	-32.6	14.2	0.3446 ug/L	0.3446 ppb		12:07:38
3	Cr 267.716†	139.7	70.9	0.8744 ug/L	0.8744 ppb		12:07:38
3	Cu 324.752†	6284.5	-68.5	-0.2044 ug/L	-0.2044 ppb		12:07:17
3	Mn 257.610†	2303.5	1831.3	2.2127 ug/L	2.2127 ppb		12:07:38
3	Mo 202.031†	11.7	-2.2	-0.1463 ug/L	-0.1463 ppb		12:07:38
3	Ni 231.604†	86.8	-9.0	-0.2633 ug/L	-0.2633 ppb		12:07:38
3	P 214.914†	183.4	4.4	2.9256 ug/L	2.9256 ppb		12:07:38
3	Pb 220.353†	-70.9	-20.5	-2.8693 ug/L	-2.8693 ppb		12:07:38
3	S 181.975 Axial†	215.0	190.9	304.21 ug/L	304.21 ppb		12:07:38
3	Sb 206.836†	23.1	-4.5	-1.8044 ug/L	-1.8044 ppb		12:07:38
3	Se 196.026†	-6.1	10.6	8.0339 ug/L	8.0339 ppb		12:07:38
3	Si 251.611†	185290.0	183985.8	6377.1 ug/L	6377.1 ppb		12:07:12
3	Sn 189.927†	-17.0	-23.8	-4.5552 ug/L	-4.5552 ppb		12:07:38
3	Ti 334.940†	-586.1	468.2	1.0067 ug/L	1.0067 ppb		12:07:17
3	Tl 190.801†	-27.4	6.4	2.3267 ug/L	2.3267 ppb		12:07:38
3	U 409.014†	-1945.7	-49.6	-1.3550 ug/L	-1.3550 ppb		12:07:12
3	V 292.402†	-1213.5	164.3	1.1872 ug/L	1.1872 ppb		12:07:17
3	Zn 213.857†	857.1	228.9	2.5288 ug/L	2.5288 ppb		12:07:38
3	SiO2†	187977.1	186637.1	13886 ug/L	13886 ppb		12:07:54

Mean Data: 1202053152|957527|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	890569.0	101.05	%	0.569				0.56%
Sc Radial	4440.3	104	%	0.4				0.38%
Y 371.029	752247.8	98.436	%	0.4664				0.47%
Y RADIAL	4844.7	97.76	%	0.196				0.20%
Ag 328.068†	49.5	0.2296	ug/L	0.36351	0.2296	ppb	0.36351	158.33%
Al 396.153Radial†	61.4	63.050	ug/L	5.5044	63.050	ppb	5.5044	8.73%
As 188.979†	-0.8	-0.3810	ug/L	1.62944	-0.3810	ppb	1.62944	427.72%
B 249.677†	187.6	4.7669	ug/L	0.30924	4.7669	ppb	0.30924	6.49%
Ba 233.527†	536.3	4.6909	ug/L	0.03059	4.6909	ppb	0.03059	0.65%
Be 313.107†	91.3	0.0363	ug/L	0.00966	0.0363	ppb	0.00966	26.62%
Ca 317.933Radial†	1126.3	2232.3	ug/L	6.93	2232.3	ppb	6.93	0.31%
Cd 226.502†	10.3	0.1289	ug/L	0.05248	0.1289	ppb	0.05248	40.72%
Co 228.616†	9.6	0.2327	ug/L	0.15005	0.2327	ppb	0.15005	64.49%
Cr 267.716†	61.8	0.7650	ug/L	0.13787	0.7650	ppb	0.13787	18.02%
Cu 324.752†	-93.9	-0.2807	ug/L	0.07919	-0.2807	ppb	0.07919	28.21%
Fe 238.204 Radial†	5.8	69.493	ug/L	16.2509	69.493	ppb	16.2509	23.38%
K 766.490 Radial†	1566.6	294.57	ug/L	10.478	294.57	ppb	10.478	3.56%

Mg 279.077 IEC†	15.7	666.17	ug/L	91.409	666.17	ppb	91.409	13.72%
Mn 257.610†	1833.4	2.2155	ug/L	0.00811	2.2155	ppb	0.00811	0.37%
Mo 202.031†	3.8	0.3403	ug/L	0.52764	0.3403	ppb	0.52764	155.04%
Na 589.592 Radial†	7350.3	2892.4	ug/L	29.37	2892.4	ppb	29.37	1.02%
Ni 231.604†	-12.9	-0.3760	ug/L	0.10219	-0.3760	ppb	0.10219	27.18%
P 214.914†	0.6	0.3588	ug/L	4.66151	0.3588	ppb	4.66151	>999.9%
Pb 220.353†	-11.3	-1.5632	ug/L	1.13169	-1.5632	ppb	1.13169	72.40%
S 181.975 Axial†	187.8	299.19	ug/L	4.531	299.19	ppb	4.531	1.51%
Sb 206.836†	-5.4	-2.1445	ug/L	0.86556	-2.1445	ppb	0.86556	40.36%
Se 196.026†	4.2	3.3638	ug/L	5.81823	3.3638	ppb	5.81823	172.96%
Si 251.611†	184393.8	6391.2	ug/L	13.34	6391.2	ppb	13.34	0.21%
Sn 189.927†	-24.8	-4.7637	ug/L	0.21810	-4.7637	ppb	0.21810	4.58%
Sr 421.552†	1268.3	10.409	ug/L	0.1668	10.409	ppb	0.1668	1.60%
Ti 334.940†	476.0	1.0172	ug/L	0.11203	1.0172	ppb	0.11203	11.01%
Tl 190.801†	6.3	2.2594	ug/L	2.59090	2.2594	ppb	2.59090	114.67%
U 409.014†	-55.3	-1.5124	ug/L	0.13907	-1.5124	ppb	0.13907	9.20%
V 292.402†	139.4	1.0121	ug/L	0.19813	1.0121	ppb	0.19813	19.58%
Zn 213.857†	224.8	2.4810	ug/L	0.04531	2.4810	ppb	0.04531	1.83%
SiO2†	184806.0	13749	ug/L	137.9	13749	ppb	137.9	1.00%

Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/24/2010 12:10:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4225.9	4225.9	99.4	%			12:12:17
1	Y RADIAL	4847.9	4847.9	97.83	%			12:11:56
1	Al 396.153Radial†	5095.3	5200.5	5315.8	ug/L	5315.8	ppb	12:11:56
1	Ca 317.933Radial†	2705.9	2704.9	5360.9	ug/L	5360.9	ppb	12:12:17
1	Fe 238.204 Radial†	443.8	440.2	5333.0	ug/L	5333.0	ppb	12:12:17
1	K 766.490 Radial†	29845.5	27315.0	5162.0	ug/L	5162.0	ppb	12:11:56
1	Mg 279.077 IEC†	132.1	132.2	5626.3	ug/L	5626.3	ppb	12:12:17
1	Na 589.592 Radial†	26681.8	27710.3	10904	ug/L	10904	ppb	12:11:56
1	Sr 421.552†	63177.2	63532.2	522.20	ug/L	522.20	ppb	12:11:56
1	Sc 361.383	876339.6	876339.6	99.433	%			12:13:14
1	Y 371.029	734379.9	734379.9	96.098	%			12:13:14
1	Ag 328.068†	103088.9	103417.7	490.01	ug/L	490.01	ppb	12:13:19
1	As 188.979†	934.0	960.0	481.79	ug/L	481.79	ppb	12:13:39
1	B 249.677†	18212.0	18704.1	474.08	ug/L	474.08	ppb	12:13:19
1	Ba 233.527†	55234.8	55539.9	486.54	ug/L	486.54	ppb	12:13:19
1	Be 313.107†	1261854.6	1273337.8	482.89	ug/L	482.89	ppb	12:13:14
1	Cd 226.502†	36265.7	36644.5	483.94	ug/L	483.94	ppb	12:13:19
1	Co 228.616†	20166.3	20328.1	493.62	ug/L	493.62	ppb	12:13:19
1	Cr 267.716†	39480.1	39637.2	485.33	ug/L	485.33	ppb	12:13:19
1	Cu 324.752†	163976.0	158583.7	481.45	ug/L	481.45	ppb	12:13:19
1	Mn 257.610†	388604.5	390359.0	476.36	ug/L	476.36	ppb	12:13:19
1	Mo 202.031†	5902.6	5922.4	485.07	ug/L	485.07	ppb	12:13:39
1	Ni 231.604†	16833.5	16834.0	491.59	ug/L	491.59	ppb	12:13:19
1	P 214.914†	3672.2	3514.8	2274.9	ug/L	2274.9	ppb	12:13:39
1	Pb 220.353†	3326.1	3395.2	482.08	ug/L	482.08	ppb	12:13:39
1	S 181.975 Axial†	619.6	599.8	954.91	ug/L	954.91	ppb	12:13:39
1	Sb 206.836†	1272.9	1252.7	499.07	ug/L	499.07	ppb	12:13:39
1	Se 196.026†	615.5	635.7	490.05	ug/L	490.05	ppb	12:13:39
1	Si 251.611†	70077.1	69908.1	2417.1	ug/L	2417.1	ppb	12:13:19
1	Sn 189.927†	2331.2	2337.6	485.84	ug/L	485.84	ppb	12:13:39
1	Ti 334.940†	296165.8	298907.8	484.59	ug/L	484.59	ppb	12:13:19
1	Tl 190.801†	1296.9	1338.1	483.83	ug/L	483.83	ppb	12:13:39
1	U 409.014†	15882.5	17861.5	483.71	ug/L	483.71	ppb	12:13:19
1	V 292.402†	65087.7	66832.0	490.04	ug/L	490.04	ppb	12:13:19
1	Zn 213.857†	44308.6	43936.6	481.85	ug/L	481.85	ppb	12:13:19
1	SiO2†	70039.7	69845.3	5183.2	ug/L	5183.2	ppb	12:14:46
2	Sc Radial	4204.3	4204.3	98.9	%			12:12:42
2	Y RADIAL	4774.9	4774.9	96.36	%			12:12:22
2	Al 396.153Radial†	5036.9	5167.8	5282.0	ug/L	5282.0	ppb	12:12:22
2	Ca 317.933Radial†	2699.8	2712.7	5376.4	ug/L	5376.4	ppb	12:12:42
2	Fe 238.204 Radial†	444.7	443.4	5372.0	ug/L	5372.0	ppb	12:12:42
2	K 766.490 Radial†	29560.7	27181.3	5136.8	ug/L	5136.8	ppb	12:12:22
2	Mg 279.077 IEC†	130.6	131.4	5591.5	ug/L	5591.5	ppb	12:12:42
2	Na 589.592 Radial†	26276.2	27438.1	10797	ug/L	10797	ppb	12:12:22
2	Sr 421.552†	62242.1	62913.4	517.11	ug/L	517.11	ppb	12:12:22
2	Sc 361.383	870068.7	870068.7	98.721	%			12:13:44
2	Y 371.029	730238.3	730238.3	95.556	%			12:13:44
2	Ag 328.068†	104109.2	105198.4	498.43	ug/L	498.43	ppb	12:13:50
2	As 188.979†	940.7	973.5	488.59	ug/L	488.59	ppb	12:14:10
2	B 249.677†	18419.2	19045.9	482.76	ug/L	482.76	ppb	12:13:50
2	Ba 233.527†	55485.1	56193.8	492.27	ug/L	492.27	ppb	12:13:50
2	Be 313.107†	1258327.9	1278912.0	485.01	ug/L	485.01	ppb	12:13:44
2	Cd 226.502†	36378.4	37021.5	488.92	ug/L	488.92	ppb	12:13:50
2	Co 228.616†	20298.5	20608.2	500.41	ug/L	500.41	ppb	12:13:50
2	Cr 267.716†	39674.1	40119.9	491.24	ug/L	491.24	ppb	12:13:50
2	Cu 324.752†	165860.3	161680.9	490.85	ug/L	490.85	ppb	12:13:50
2	Mn 257.610†	390978.3	395580.3	482.73	ug/L	482.73	ppb	12:13:50
2	Mo 202.031†	5894.8	5957.3	487.93	ug/L	487.93	ppb	12:14:10
2	Ni 231.604†	16870.8	16993.8	496.25	ug/L	496.25	ppb	12:13:50

2	P 214.914†	3683.5	3552.9	2298.6 ug/L	2298.6 ppb	12:14:10
2	Pb 220.353†	3345.4	3438.8	488.25 ug/L	488.25 ppb	12:14:10
2	S 181.975 Axial†	617.4	602.1	958.53 ug/L	958.53 ppb	12:14:10
2	Sb 206.836†	1252.1	1240.8	494.59 ug/L	494.59 ppb	12:14:10
2	Se 196.026†	623.7	648.5	499.61 ug/L	499.61 ppb	12:14:10
2	Si 251.611†	70589.5	70935.0	2452.7 ug/L	2452.7 ppb	12:13:50
2	Sn 189.927†	2317.7	2340.8	486.50 ug/L	486.50 ppb	12:14:10
2	Ti 334.940†	298784.6	303707.3	492.37 ug/L	492.37 ppb	12:13:50
2	Tl 190.801†	1309.5	1360.3	491.85 ug/L	491.85 ppb	12:14:10
2	U 409.014†	15933.1	18027.9	488.22 ug/L	488.22 ppb	12:13:50
2	V 292.402†	65642.3	67865.6	497.55 ug/L	497.55 ppb	12:13:50
2	Zn 213.857†	44608.0	44561.1	488.71 ug/L	488.71 ppb	12:13:50
2	SiO2†	69879.7	70190.9	5208.9 ug/L	5208.9 ppb	12:14:51
3	Sc Radial	4227.1	4227.1	99.4 %		12:13:07
3	Y RADIAL	4737.9	4737.9	95.61 %		12:12:47
3	Al 396.153Radial†	4999.4	5102.5	5215.1 ug/L	5215.1 ppb	12:12:47
3	Ca 317.933Radial†	2711.8	2710.0	5371.0 ug/L	5371.0 ppb	12:13:07
3	Fe 238.204 Radial†	446.3	442.7	5362.5 ug/L	5362.5 ppb	12:13:07
3	K 766.490 Radial†	29325.1	26782.8	5061.4 ug/L	5061.4 ppb	12:12:47
3	Mg 279.077 IEC†	130.0	130.1	5535.7 ug/L	5535.7 ppb	12:13:07
3	Na 589.592 Radial†	25853.9	26869.8	10573 ug/L	10573 ppb	12:12:47
3	Sr 421.552†	61435.6	61762.0	507.65 ug/L	507.65 ppb	12:12:47
3	Sc 361.383	874936.2	874936.2	99.273 %		12:14:15
3	Y 371.029	735284.3	735284.3	96.217 %		12:14:15
3	Ag 328.068†	104300.6	104804.5	496.56 ug/L	496.56 ppb	12:14:20
3	As 188.979†	935.9	963.4	483.51 ug/L	483.51 ppb	12:14:41
3	B 249.677†	18539.5	19063.3	483.22 ug/L	483.22 ppb	12:14:20
3	Ba 233.527†	55381.5	55776.7	488.62 ug/L	488.62 ppb	12:14:20
3	Be 313.107†	1257151.6	1270636.0	481.87 ug/L	481.87 ppb	12:14:15
3	Cd 226.502†	36298.3	36735.9	485.14 ug/L	485.14 ppb	12:14:20
3	Co 228.616†	20188.6	20383.1	494.95 ug/L	494.95 ppb	12:14:20
3	Cr 267.716†	39617.0	39838.8	487.80 ug/L	487.80 ppb	12:14:20
3	Cu 324.752†	166496.8	161387.5	489.96 ug/L	489.96 ppb	12:14:20
3	Mn 257.610†	390345.2	392739.3	479.26 ug/L	479.26 ppb	12:14:20
3	Mo 202.031†	5917.2	5946.7	487.06 ug/L	487.06 ppb	12:14:41
3	Ni 231.604†	16898.0	16926.1	494.28 ug/L	494.28 ppb	12:14:20
3	P 214.914†	3703.9	3552.7	2298.6 ug/L	2298.6 ppb	12:14:41
3	Pb 220.353†	3345.3	3419.8	485.54 ug/L	485.54 ppb	12:14:41
3	S 181.975 Axial†	622.1	603.4	960.64 ug/L	960.64 ppb	12:14:41
3	Sb 206.836†	1273.0	1254.8	499.90 ug/L	499.90 ppb	12:14:41
3	Se 196.026†	622.8	644.1	496.31 ug/L	496.31 ppb	12:14:41
3	Si 251.611†	70748.2	70697.1	2444.4 ug/L	2444.4 ppb	12:14:20
3	Sn 189.927†	2314.1	2324.2	483.05 ug/L	483.05 ppb	12:14:41
3	Ti 334.940†	298761.8	302000.6	489.61 ug/L	489.61 ppb	12:14:20
3	Tl 190.801†	1311.3	1354.6	489.81 ug/L	489.81 ppb	12:14:41
3	U 409.014†	16184.1	18190.9	492.66 ug/L	492.66 ppb	12:14:20
3	V 292.402†	65656.8	67510.3	494.98 ug/L	494.98 ppb	12:14:20
3	Zn 213.857†	44550.8	44252.0	485.31 ug/L	485.31 ppb	12:14:20
3	SiO2†	69880.4	69797.8	5179.6 ug/L	5179.6 ppb	12:14:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	873781.5	99.142	%	0.3734				0.38%
Sc Radial	4219.1	99.3	%	0.30				0.30%
Y 371.029	733300.8	95.957	%	0.3521				0.37%
Y RADIAL	4786.9	96.60	%	1.130				1.17%
Ag 328.068†	104473.5	495.00	ug/L	4.422	495.00	ppb	4.422	0.89%
QC value within limits for Ag 328.068 Recovery = 99.00%								
Al 396.153Radial†	5156.9	5271.0	ug/L	51.25	5271.0	ppb	51.25	0.97%
QC value within limits for Al 396.153Radial Recovery = 105.42%								
As 188.979†	965.6	484.63	ug/L	3.533	484.63	ppb	3.533	0.73%
QC value within limits for As 188.979 Recovery = 96.93%								
B 249.677†	18937.8	480.02	ug/L	5.150	480.02	ppb	5.150	1.07%
QC value within limits for B 249.677 Recovery = 96.00%								
Ba 233.527†	55836.8	489.14	ug/L	2.901	489.14	ppb	2.901	0.59%
QC value within limits for Ba 233.527 Recovery = 97.83%								
Be 313.107†	1274295.3	483.26	ug/L	1.602	483.26	ppb	1.602	0.33%
QC value within limits for Be 313.107 Recovery = 96.65%								
Ca 317.933Radial†	2709.2	5369.5	ug/L	7.85	5369.5	ppb	7.85	0.15%

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   QC value within limits for Ca 317.933Radial  Recovery = 107.39%
Cd 226.502†            36800.6      486.00 ug/L         2.598      486.00 ppb          2.598   0.53%
   QC value within limits for Cd 226.502  Recovery = 97.20%
Co 228.616†            20439.8      496.33 ug/L         3.599      496.33 ppb          3.599   0.73%
   QC value within limits for Co 228.616  Recovery = 99.27%
Cr 267.716†            39865.3      488.13 ug/L         2.968      488.13 ppb          2.968   0.61%
   QC value within limits for Cr 267.716  Recovery = 97.63%
Cu 324.752†           160550.7      487.42 ug/L         5.190      487.42 ppb          5.190   1.06%
   QC value within limits for Cu 324.752  Recovery = 97.48%
Fe 238.204 Radial†       442.1      5355.8 ug/L         20.34      5355.8 ppb          20.34   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 107.12%
K 766.490 Radial†      27093.1      5120.1 ug/L         52.33      5120.1 ppb          52.33   1.02%
   QC value within limits for K 766.490 Radial  Recovery = 102.40%
Mg 279.077 IEC†          131.3      5584.5 ug/L         45.70      5584.5 ppb          45.70   0.82%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 111.69%
Mn 257.610†           392892.9      479.45 ug/L         3.190      479.45 ppb          3.190   0.67%
   QC value within limits for Mn 257.610  Recovery = 95.89%
Mo 202.031†             5942.1      486.69 ug/L         1.465      486.69 ppb          1.465   0.30%
   QC value within limits for Mo 202.031  Recovery = 97.34%
Na 589.592 Radial†     27339.4       10758 ug/L         168.7       10758 ppb          168.7   1.57%
   QC value within limits for Na 589.592 Radial  Recovery = 107.58%
Ni 231.604†            16918.0      494.04 ug/L         2.342      494.04 ppb          2.342   0.47%
   QC value within limits for Ni 231.604  Recovery = 98.81%
P 214.914†              3540.2      2290.7 ug/L         13.71      2290.7 ppb          13.71   0.60%
   QC value within limits for P 214.914  Recovery = 91.63%
Pb 220.353†             3417.9      485.29 ug/L         3.094      485.29 ppb          3.094   0.64%
   QC value within limits for Pb 220.353  Recovery = 97.06%
S 181.975 Axial†         601.8      958.03 ug/L         2.899      958.03 ppb          2.899   0.30%
   QC value within limits for S 181.975 Axial  Recovery = 95.80%
Sb 206.836†             1249.4      497.85 ug/L         2.856      497.85 ppb          2.856   0.57%
   QC value within limits for Sb 206.836  Recovery = 99.57%
Se 196.026†              642.8      495.32 ug/L         4.856      495.32 ppb          4.856   0.98%
   QC value within limits for Se 196.026  Recovery = 99.06%
Si 251.611†            70513.4      2438.1 ug/L         18.61      2438.1 ppb          18.61   0.76%
   QC value within limits for Si 251.611  Recovery = 97.52%
Sn 189.927†             2334.2      485.13 ug/L         1.828      485.13 ppb          1.828   0.38%
   QC value within limits for Sn 189.927  Recovery = 97.03%
Sr 421.552†            62735.9      515.65 ug/L         7.385      515.65 ppb          7.385   1.43%
   QC value within limits for Sr 421.552  Recovery = 103.13%
Ti 334.940†           301538.5      488.86 ug/L         3.946      488.86 ppb          3.946   0.81%
   QC value within limits for Ti 334.940  Recovery = 97.77%
Tl 190.801†             1351.0      488.50 ug/L         4.167      488.50 ppb          4.167   0.85%
   QC value within limits for Tl 190.801  Recovery = 97.70%
U 409.014†             18026.8      488.20 ug/L         4.472      488.20 ppb          4.472   0.92%
   QC value within limits for U 409.014  Recovery = 97.64%
V 292.402†             67402.6      494.19 ug/L         3.818      494.19 ppb          3.818   0.77%
   QC value within limits for V 292.402  Recovery = 98.84%
Zn 213.857†            44249.9      485.29 ug/L         3.433      485.29 ppb          3.433   0.71%
   QC value within limits for Zn 213.857  Recovery = 97.06%
SiO2†                  69944.7      5190.6 ug/L         15.94      5190.6 ppb          15.94   0.31%
   QC value within limits for SiO2  Recovery = 97.07%
QC Failed.  Continue with analysis.
```

Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/24/2010 12:17:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4492.3	4492.3	106	%			12:18:59
1	Y RADIAL	4912.9	4912.9	99.14	%			12:18:59
1	Al 396.153Radial†	-78.3	0.8	0.8071	ug/L	0.8071	ppb	12:19:19
1	Ca 317.933Radial†	25.2	6.8	13.415	ug/L	13.415	ppb	12:19:19
1	Fe 238.204 Radial†	9.0	2.4	28.530	ug/L	28.530	ppb	12:19:19
1	K 766.490 Radial†	2607.0	-240.7	-45.551	ug/L	-45.551	ppb	12:18:59
1	Mg 279.077 IEC†	0.6	-0.1	-4.0669	ug/L	-4.0669	ppb	12:19:19
1	Na 589.592 Radial†	-897.1	21.2	8.3557	ug/L	8.3557	ppb	12:18:59
1	Sr 421.552†	16.1	-4.7	-0.0386	ug/L	-0.0386	ppb	12:18:59
1	Sc 361.383	877621.3	877621.3	99.578	%			12:20:16
1	Y 371.029	744473.5	744473.5	97.419	%			12:20:16
1	Ag 328.068†	230.5	-28.0	-0.1198	ug/L	-0.1198	ppb	12:20:21
1	As 188.979†	-21.5	-0.9	-0.4574	ug/L	-0.4574	ppb	12:20:41
1	B 249.677†	-250.3	136.8	3.4782	ug/L	3.4782	ppb	12:20:41
1	Ba 233.527†	23.9	14.0	0.1230	ug/L	0.1230	ppb	12:20:41
1	Be 313.107†	-4202.9	62.0	0.0234	ug/L	0.0234	ppb	12:20:21
1	Cd 226.502†	-158.7	12.5	0.1612	ug/L	0.1612	ppb	12:20:41
1	Co 228.616†	-27.6	19.0	0.4630	ug/L	0.4630	ppb	12:20:41
1	Cr 267.716†	85.7	17.9	0.2239	ug/L	0.2239	ppb	12:20:41
1	Cu 324.752†	6210.3	-91.4	-0.2737	ug/L	-0.2737	ppb	12:20:21
1	Mn 257.610†	456.1	-5.0	-0.0032	ug/L	-0.0032	ppb	12:20:41
1	Mo 202.031†	22.6	8.8	0.7255	ug/L	0.7255	ppb	12:20:41
1	Ni 231.604†	117.3	22.3	0.6503	ug/L	0.6503	ppb	12:20:41
1	P 214.914†	175.2	-2.4	-1.5809	ug/L	-1.5809	ppb	12:20:41
1	Pb 220.353†	-61.8	-12.0	-1.6974	ug/L	-1.6974	ppb	12:20:41
1	S 181.975 Axial†	28.1	5.0	7.9852	ug/L	7.9852	ppb	12:20:41
1	Sb 206.836†	25.8	-1.6	-0.5936	ug/L	-0.5936	ppb	12:20:41
1	Se 196.026†	-17.2	-0.6	-0.3400	ug/L	-0.3400	ppb	12:20:41
1	Si 251.611†	603.5	37.2	1.2793	ug/L	1.2793	ppb	12:20:41
1	Sn 189.927†	9.8	2.9	0.6046	ug/L	0.6046	ppb	12:20:41
1	Ti 334.940†	-1068.1	-20.6	-0.0296	ug/L	-0.0296	ppb	12:20:21
1	Tl 190.801†	-23.4	10.3	3.6832	ug/L	3.6832	ppb	12:20:41
1	U 409.014†	-2031.5	-151.7	-4.1270	ug/L	-4.1270	ppb	12:20:16
1	V 292.402†	-1368.5	-1.3	-0.0116	ug/L	-0.0116	ppb	12:20:21
1	Zn 213.857†	705.9	84.0	0.9223	ug/L	0.9223	ppb	12:20:41
1	SiO2†	622.3	30.9	2.2793	ug/L	2.2793	ppb	12:22:02
2	Sc Radial	4481.1	4481.1	105	%			12:19:24
2	Y RADIAL	4895.8	4895.8	98.80	%			12:19:24
2	Al 396.153Radial†	-72.8	5.8	5.9922	ug/L	5.9922	ppb	12:19:44
2	Ca 317.933Radial†	25.9	7.5	14.856	ug/L	14.856	ppb	12:19:44
2	Fe 238.204 Radial†	7.9	1.4	16.343	ug/L	16.343	ppb	12:19:44
2	K 766.490 Radial†	2712.7	-134.3	-25.408	ug/L	-25.408	ppb	12:19:24
2	Mg 279.077 IEC†	1.1	0.4	17.675	ug/L	17.675	ppb	12:19:44
2	Na 589.592 Radial†	-927.9	-10.1	-3.9602	ug/L	-3.9602	ppb	12:19:24
2	Sr 421.552†	-1.3	-21.2	-0.1742	ug/L	-0.1742	ppb	12:19:24
2	Sc 361.383	874920.8	874920.8	99.272	%			12:20:46
2	Y 371.029	743441.3	743441.3	97.284	%			12:20:46
2	Ag 328.068†	248.9	-8.7	-0.0328	ug/L	-0.0328	ppb	12:20:51
2	As 188.979†	-26.2	-5.8	-2.8883	ug/L	-2.8883	ppb	12:21:11
2	B 249.677†	-257.1	129.2	3.2874	ug/L	3.2874	ppb	12:21:11
2	Ba 233.527†	23.2	13.3	0.1169	ug/L	0.1169	ppb	12:21:11
2	Be 313.107†	-4157.9	94.3	0.0358	ug/L	0.0358	ppb	12:20:51
2	Cd 226.502†	-179.2	-8.7	-0.1168	ug/L	-0.1168	ppb	12:21:11
2	Co 228.616†	-55.6	-9.3	-0.2260	ug/L	-0.2260	ppb	12:21:11
2	Cr 267.716†	79.0	11.5	0.1436	ug/L	0.1436	ppb	12:21:11
2	Cu 324.752†	6313.8	32.1	0.1004	ug/L	0.1004	ppb	12:20:51
2	Mn 257.610†	424.7	-35.2	-0.0420	ug/L	-0.0420	ppb	12:21:11
2	Mo 202.031†	17.2	3.4	0.2833	ug/L	0.2833	ppb	12:21:11
2	Ni 231.604†	90.3	-4.6	-0.1336	ug/L	-0.1336	ppb	12:21:11

2	P 214.914†	178.1	1.1	0.7051 ug/L	0.7051 ppb	12:21:11
2	Pb 220.353†	-60.6	-11.0	-1.5596 ug/L	-1.5596 ppb	12:21:11
2	S 181.975 Axial†	28.4	5.4	8.5632 ug/L	8.5632 ppb	12:21:11
2	Sb 206.836†	26.8	-0.5	-0.1713 ug/L	-0.1713 ppb	12:21:11
2	Se 196.026†	-17.8	-1.2	-0.8656 ug/L	-0.8656 ppb	12:21:11
2	Si 251.611†	597.8	33.3	1.1514 ug/L	1.1514 ppb	12:21:11
2	Sn 189.927†	11.1	4.3	0.8919 ug/L	0.8919 ppb	12:21:11
2	Ti 334.940†	-1018.6	25.9	0.0443 ug/L	0.0443 ppb	12:20:51
2	Tl 190.801†	-26.4	7.2	2.5909 ug/L	2.5909 ppb	12:21:11
2	U 409.014†	-2023.8	-150.3	-4.0859 ug/L	-4.0859 ppb	12:20:46
2	V 292.402†	-1357.0	6.0	0.0374 ug/L	0.0374 ppb	12:20:51
2	Zn 213.857†	721.9	102.4	1.1315 ug/L	1.1315 ppb	12:21:11
2	SiO2†	595.5	5.8	0.4268 ug/L	0.4268 ppb	12:22:22
3	Sc Radial	4483.9	4483.9	105 %		12:19:49
3	Y RADIAL	4895.1	4895.1	98.78 %		12:19:49
3	Al 396.153Radial†	-67.6	10.8	11.106 ug/L	11.106 ppb	12:20:09
3	Ca 317.933Radial†	26.2	7.7	15.327 ug/L	15.327 ppb	12:20:09
3	Fe 238.204 Radial†	9.0	2.4	28.846 ug/L	28.846 ppb	12:20:09
3	K 766.490 Radial†	2799.2	-53.8	-10.197 ug/L	-10.197 ppb	12:19:49
3	Mg 279.077 IEC†	3.8	3.0	126.02 ug/L	126.02 ppb	12:20:09
3	Na 589.592 Radial†	-876.8	38.9	15.298 ug/L	15.298 ppb	12:19:49
3	Sr 421.552†	-10.9	-30.2	-0.2486 ug/L	-0.2486 ppb	12:19:49
3	Sc 361.383	891032.0	891032.0	101.10 %		12:21:16
3	Y 371.029	757369.0	757369.0	99.107 %		12:21:16
3	Ag 328.068†	269.7	7.3	0.0449 ug/L	0.0449 ppb	12:21:21
3	As 188.979†	-15.7	5.1	2.5359 ug/L	2.5359 ppb	12:21:41
3	B 249.677†	-216.4	174.0	4.4278 ug/L	4.4278 ppb	12:21:41
3	Ba 233.527†	12.0	1.8	0.0166 ug/L	0.0166 ppb	12:21:41
3	Be 313.107†	-4217.4	111.2	0.0418 ug/L	0.0418 ppb	12:21:21
3	Cd 226.502†	-178.0	-4.2	-0.0590 ug/L	-0.0590 ppb	12:21:41
3	Co 228.616†	-46.0	1.2	0.0300 ug/L	0.0300 ppb	12:21:41
3	Cr 267.716†	86.0	16.9	0.2105 ug/L	0.2105 ppb	12:21:41
3	Cu 324.752†	6328.9	-68.0	-0.2035 ug/L	-0.2035 ppb	12:21:21
3	Mn 257.610†	438.4	-29.4	-0.0382 ug/L	-0.0382 ppb	12:21:41
3	Mo 202.031†	15.6	1.6	0.1335 ug/L	0.1335 ppb	12:21:41
3	Ni 231.604†	101.0	4.4	0.1289 ug/L	0.1289 ppb	12:21:41
3	P 214.914†	181.5	1.2	0.8589 ug/L	0.8589 ppb	12:21:41
3	Pb 220.353†	-65.5	-14.7	-2.0826 ug/L	-2.0826 ppb	12:21:41
3	S 181.975 Axial†	27.9	4.4	6.9847 ug/L	6.9847 ppb	12:21:41
3	Sb 206.836†	29.0	1.1	0.4478 ug/L	0.4478 ppb	12:21:41
3	Se 196.026†	-20.3	-3.4	-2.4314 ug/L	-2.4314 ppb	12:21:41
3	Si 251.611†	577.5	2.3	0.0775 ug/L	0.0775 ppb	12:21:41
3	Sn 189.927†	10.4	3.3	0.6958 ug/L	0.6958 ppb	12:21:41
3	Ti 334.940†	-1138.5	-74.1	-0.1275 ug/L	-0.1275 ppb	12:21:21
3	Tl 190.801†	-23.0	11.0	3.9528 ug/L	3.9528 ppb	12:21:41
3	U 409.014†	-1995.6	-85.5	-2.3279 ug/L	-2.3279 ppb	12:21:16
3	V 292.402†	-1381.8	6.2	0.0405 ug/L	0.0405 ppb	12:21:21
3	Zn 213.857†	720.0	87.3	0.9619 ug/L	0.9619 ppb	12:21:41
3	SiO2†	614.8	14.0	1.0396 ug/L	1.0396 ppb	12:22:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	881191.4	99.983	%	0.9790				0.98%
Sc Radial	4485.8	106	%	0.1				0.13%
Y 371.029	748428.0	97.937	%	1.0155				1.04%
Y RADIAL	4901.3	98.91	%	0.203				0.21%
Ag 328.068†	-9.8	-0.0359	ug/L	0.08244	-0.0359	ppb	0.08244	229.58%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.8	5.9684	ug/L	5.14948	5.9684	ppb	5.14948	86.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.6	-0.2700	ug/L	2.71697	-0.2700	ppb	2.71697	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	146.7	3.7311	ug/L	0.61083	3.7311	ppb	0.61083	16.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.7	0.0855	ug/L	0.05973	0.0855	ppb	0.05973	69.85%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	89.2	0.0337	ug/L	0.00939	0.0337	ppb	0.00939	27.89%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.3	14.533	ug/L	0.9960	14.533	ppb	0.9960	6.85%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -0.1     -0.0049 ug/L       0.14669     -0.0049 ppb        0.14669 >999.9%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               3.6      0.0890 ug/L       0.34830      0.0890 ppb        0.34830 391.39%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              15.4      0.1927 ug/L       0.04302      0.1927 ppb        0.04302  22.33%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -42.4     -0.1256 ug/L       0.19887     -0.1256 ppb        0.19887 158.36%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        2.0      24.573 ug/L        7.1289      24.573 ppb         7.1289  29.01%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -142.9     -27.052 ug/L       17.7347     -27.052 ppb        17.7347  65.56%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.1      46.543 ug/L       69.6826      46.543 ppb        69.6826 149.72%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -23.2     -0.0278 ug/L       0.02141     -0.0278 ppb        0.02141  77.06%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               4.6      0.3807 ug/L       0.30779      0.3807 ppb        0.30779  80.84%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       16.7      6.5644 ug/L       9.75313      6.5644 ppb        9.75313 148.58%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               7.4      0.2152 ug/L       0.39900      0.2152 ppb        0.39900 185.41%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -0.0     -0.0056 ug/L       1.36640     -0.0056 ppb        1.36640 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -12.6     -1.7799 ug/L       0.27111     -1.7799 ppb        0.27111  15.23%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.9      7.8444 ug/L       0.79866      7.8444 ppb        0.79866  10.18%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.3     -0.1057 ug/L       0.52379     -0.1057 ppb        0.52379 495.65%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.7     -1.2124 ug/L       1.08797     -1.2124 ppb        1.08797  89.74%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              24.3      0.8361 ug/L       0.66008      0.8361 ppb        0.66008  78.95%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.5      0.7308 ug/L       0.14677      0.7308 ppb        0.14677  20.08%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -18.7     -0.1538 ug/L       0.10648     -0.1538 ppb        0.10648  69.23%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -22.9     -0.0376 ug/L       0.08614     -0.0376 ppb        0.08614 229.16%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               9.5      3.4090 ug/L       0.72118      3.4090 ppb        0.72118  21.16%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -129.2     -3.5136 ug/L       1.02704     -3.5136 ppb        1.02704  29.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                3.6      0.0221 ug/L       0.02924      0.0221 ppb        0.02924 132.21%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              91.2      1.0052 ug/L       0.11116      1.0052 ppb        0.11116  11.06%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    16.9      1.2486 ug/L       0.94374      1.2486 ppb        0.94374  75.59%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 22
Sample ID: 247817001|957527|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 57
Date Collected: 3/24/2010 12:31:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 247817001|957527|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4476.3	4476.3	105	%			12:33:49
1	Y RADIAL	4888.5	4888.5	98.65	%			12:33:49
1	Al 396.153Radial†	-61.0	17.0	17.455	ug/L	17.455	ppb	12:34:09
1	Ca 317.933Radial†	1188.2	1111.3	2202.5	ug/L	2202.5	ppb	12:34:09
1	Fe 238.204 Radial†	7.4	0.9	11.033	ug/L	11.033	ppb	12:34:09
1	K 766.490 Radial†	4423.2	1492.9	280.99	ug/L	280.99	ppb	12:33:49
1	Mg 279.077 IEC†	16.9	15.5	657.53	ug/L	657.53	ppb	12:34:09
1	Na 589.592 Radial†	4425.3	5072.7	1996.1	ug/L	1996.1	ppb	12:33:49
1	Sr 421.552†	1307.1	1221.3	10.023	ug/L	10.023	ppb	12:33:49
1	Sc 361.383	871589.7	871589.7	98.894	%			12:35:06
1	Y 371.029	742051.3	742051.3	97.102	%			12:35:06
1	Ag 328.068†	233.9	-23.0	-0.1334	ug/L	-0.1334	ppb	12:35:06
1	As 188.979†	-22.0	-1.6	-0.8045	ug/L	-0.8045	ppb	12:35:26
1	B 249.677†	-277.0	108.0	2.7496	ug/L	2.7496	ppb	12:35:26
1	Ba 233.527†	468.7	463.9	4.0552	ug/L	4.0552	ppb	12:35:26
1	Be 313.107†	-4272.1	-37.1	-0.0144	ug/L	-0.0144	ppb	12:35:06
1	Cd 226.502†	-186.3	-16.5	-0.2196	ug/L	-0.2196	ppb	12:35:26
1	Co 228.616†	-47.9	-1.7	-0.0386	ug/L	-0.0386	ppb	12:35:26
1	Cr 267.716†	106.6	39.6	0.4860	ug/L	0.4860	ppb	12:35:26
1	Cu 324.752†	6137.1	-122.3	-0.3712	ug/L	-0.3712	ppb	12:35:06
1	Mn 257.610†	1532.1	1086.3	1.2989	ug/L	1.2989	ppb	12:35:26
1	Mo 202.031†	23.2	9.6	0.8104	ug/L	0.8104	ppb	12:35:26
1	Ni 231.604†	88.7	-5.8	-0.1686	ug/L	-0.1686	ppb	12:35:26
1	P 214.914†	189.7	13.5	9.1383	ug/L	9.1383	ppb	12:35:26
1	Pb 220.353†	-66.0	-16.7	-2.3233	ug/L	-2.3233	ppb	12:35:26
1	S 181.975 Axial†	96.2	74.0	117.92	ug/L	117.92	ppb	12:35:26
1	Sb 206.836†	22.9	-4.4	-1.7634	ug/L	-1.7634	ppb	12:35:26
1	Se 196.026†	-18.6	-2.2	-1.5592	ug/L	-1.5592	ppb	12:35:26
1	Si 251.611†	192547.3	194132.5	6728.8	ug/L	6728.8	ppb	12:35:06
1	Sn 189.927†	-22.4	-29.5	-5.7412	ug/L	-5.7412	ppb	12:35:26
1	Ti 334.940†	-1127.1	-87.7	0.0988	ug/L	0.0988	ppb	12:35:06
1	Tl 190.801†	-29.7	3.7	1.3414	ug/L	1.3414	ppb	12:35:26
1	U 409.014†	-1823.4	44.6	1.2090	ug/L	1.2090	ppb	12:35:06
1	V 292.402†	-1276.0	82.7	0.6227	ug/L	0.6227	ppb	12:35:06
1	Zn 213.857†	838.5	223.1	2.4700	ug/L	2.4700	ppb	12:35:26
1	SiO2†	193067.7	194633.5	14481	ug/L	14481	ppb	12:36:22
2	Sc Radial	4398.0	4398.0	103	%			12:34:14
2	Y RADIAL	4798.5	4798.5	96.83	%			12:34:14
2	Al 396.153Radial†	-75.7	1.8	1.7898	ug/L	1.7898	ppb	12:34:34
2	Ca 317.933Radial†	1192.5	1135.5	2250.6	ug/L	2250.6	ppb	12:34:34
2	Fe 238.204 Radial†	5.0	-1.3	-15.587	ug/L	-15.587	ppb	12:34:34
2	K 766.490 Radial†	4306.0	1454.4	273.66	ug/L	273.66	ppb	12:34:14
2	Mg 279.077 IEC†	16.4	15.2	647.79	ug/L	647.79	ppb	12:34:34
2	Na 589.592 Radial†	4474.6	5195.2	2044.3	ug/L	2044.3	ppb	12:34:14
2	Sr 421.552†	1304.2	1240.7	10.182	ug/L	10.182	ppb	12:34:14
2	Sc 361.383	864139.4	864139.4	98.048	%			12:35:31
2	Y 371.029	734795.7	734795.7	96.153	%			12:35:31
2	Ag 328.068†	304.1	50.7	0.2036	ug/L	0.2036	ppb	12:35:31
2	As 188.979†	-23.6	-3.5	-1.7346	ug/L	-1.7346	ppb	12:35:51
2	B 249.677†	-252.9	130.2	3.3184	ug/L	3.3184	ppb	12:35:51
2	Ba 233.527†	479.5	478.9	4.1853	ug/L	4.1853	ppb	12:35:51
2	Be 313.107†	-4231.2	-32.6	-0.0130	ug/L	-0.0130	ppb	12:35:31
2	Cd 226.502†	-180.6	-12.3	-0.1612	ug/L	-0.1612	ppb	12:35:51
2	Co 228.616†	-45.0	0.8	0.0231	ug/L	0.0231	ppb	12:35:51
2	Cr 267.716†	137.6	72.2	0.8799	ug/L	0.8799	ppb	12:35:51
2	Cu 324.752†	6231.0	27.0	0.0804	ug/L	0.0804	ppb	12:35:31
2	Mn 257.610†	1519.7	1086.9	1.2975	ug/L	1.2975	ppb	12:35:51
2	Mo 202.031†	17.6	4.1	0.3579	ug/L	0.3579	ppb	12:35:51
2	Ni 231.604†	85.3	-8.5	-0.2480	ug/L	-0.2480	ppb	12:35:51

2	P 214.914†	173.8	-1.1	-0.7699 ug/L	-0.7699 ppb	12:35:51
2	Pb 220.353†	-68.1	-19.4	-2.7119 ug/L	-2.7119 ppb	12:35:51
2	S 181.975 Axial†	90.9	69.4	110.63 ug/L	110.63 ppb	12:35:51
2	Sb 206.836†	15.3	-11.9	-4.6497 ug/L	-4.6497 ppb	12:35:51
2	Se 196.026†	-22.6	-6.4	-4.7910 ug/L	-4.7910 ppb	12:35:51
2	Si 251.611†	190404.7	193625.8	6711.2 ug/L	6711.2 ppb	12:35:31
2	Sn 189.927†	-21.7	-29.0	-5.6205 ug/L	-5.6205 ppb	12:35:51
2	Ti 334.940†	-1196.5	-168.3	-0.0250 ug/L	-0.0250 ppb	12:35:31
2	Tl 190.801†	-24.6	8.6	3.1029 ug/L	3.1029 ppb	12:35:51
2	U 409.014†	-1801.7	50.8	1.3808 ug/L	1.3808 ppb	12:35:31
2	V 292.402†	-1296.0	51.1	0.3922 ug/L	0.3922 ppb	12:35:31
2	Zn 213.857†	833.4	225.2	2.4972 ug/L	2.4972 ppb	12:35:51
2	SiO2†	190425.5	193621.9	14405 ug/L	14405 ppb	12:36:27
3	Sc Radial	4444.8	4444.8	105 %		12:34:39
3	Y RADIAL	4834.4	4834.4	97.56 %		12:34:39
3	Al 396.153Radial†	-75.6	2.7	2.7314 ug/L	2.7314 ppb	12:34:59
3	Ca 317.933Radial†	1188.7	1119.8	2219.3 ug/L	2219.3 ppb	12:34:59
3	Fe 238.204 Radial†	6.4	-0.1	-0.7327 ug/L	-0.7327 ppb	12:34:59
3	K 766.490 Radial†	4306.4	1410.9	265.47 ug/L	265.47 ppb	12:34:39
3	Mg 279.077 IEC†	16.0	14.6	622.80 ug/L	622.80 ppb	12:34:59
3	Na 589.592 Radial†	4419.0	5096.5	2005.5 ug/L	2005.5 ppb	12:34:39
3	Sr 421.552†	1309.5	1232.5	10.114 ug/L	10.114 ppb	12:34:39
3	Sc 361.383	862410.5	862410.5	97.852 %		12:35:56
3	Y 371.029	732800.3	732800.3	95.892 %		12:35:56
3	Ag 328.068†	279.8	26.5	0.0991 ug/L	0.0991 ppb	12:35:56
3	As 188.979†	-14.9	5.4	2.6769 ug/L	2.6769 ppb	12:36:16
3	B 249.677†	-252.0	130.6	3.3245 ug/L	3.3245 ppb	12:36:16
3	Ba 233.527†	466.2	466.4	4.0770 ug/L	4.0770 ppb	12:36:16
3	Be 313.107†	-4281.2	-92.4	-0.0358 ug/L	-0.0358 ppb	12:35:56
3	Cd 226.502†	-151.5	17.0	0.2240 ug/L	0.2240 ppb	12:36:16
3	Co 228.616†	-35.8	10.2	0.2494 ug/L	0.2494 ppb	12:36:16
3	Cr 267.716†	111.8	46.1	0.5655 ug/L	0.5655 ppb	12:36:16
3	Cu 324.752†	6255.9	65.2	0.1994 ug/L	0.1994 ppb	12:35:56
3	Mn 257.610†	1522.3	1092.7	1.3070 ug/L	1.3070 ppb	12:36:16
3	Mo 202.031†	13.7	0.1	0.0363 ug/L	0.0363 ppb	12:36:16
3	Ni 231.604†	77.5	-16.3	-0.4769 ug/L	-0.4769 ppb	12:36:16
3	P 214.914†	183.4	9.1	6.0677 ug/L	6.0677 ppb	12:36:16
3	Pb 220.353†	-63.8	-15.1	-2.1068 ug/L	-2.1068 ppb	12:36:16
3	S 181.975 Axial†	104.1	83.2	132.55 ug/L	132.55 ppb	12:36:16
3	Sb 206.836†	24.0	-3.0	-1.2324 ug/L	-1.2324 ppb	12:36:16
3	Se 196.026†	-25.7	-9.5	-7.0827 ug/L	-7.0827 ppb	12:36:16
3	Si 251.611†	189650.1	193244.0	6698.0 ug/L	6698.0 ppb	12:35:56
3	Sn 189.927†	-19.3	-26.7	-5.1411 ug/L	-5.1411 ppb	12:36:16
3	Ti 334.940†	-1261.5	-237.2	-0.1369 ug/L	-0.1369 ppb	12:35:56
3	Tl 190.801†	-31.2	1.9	0.6740 ug/L	0.6740 ppb	12:36:16
3	U 409.014†	-1939.1	-93.3	-2.5361 ug/L	-2.5361 ppb	12:35:56
3	V 292.402†	-1248.3	97.2	0.7113 ug/L	0.7113 ppb	12:35:56
3	Zn 213.857†	841.1	234.8	2.6019 ug/L	2.6019 ppb	12:36:16
3	SiO2†	189871.4	193444.9	14392 ug/L	14392 ppb	12:36:32

Mean Data: 247817001|957527|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	866046.6	98.265	%	0.5534				0.56%
Sc Radial	4439.7	104	%	0.9				0.89%
Y 371.029	736549.1	96.382	%	0.6371				0.66%
Y RADIAL	4840.5	97.68	%	0.914				0.94%
Ag 328.068†	18.0	0.0564	ug/L	0.17247	0.0564	ppb	0.17247	305.75%
Al 396.153Radial†	7.2	7.3252	ug/L	8.78487	7.3252	ppb	8.78487	119.93%
As 188.979†	0.1	0.0460	ug/L	2.32547	0.0460	ppb	2.32547	>999.9%
B 249.677†	122.9	3.1309	ug/L	0.33016	3.1309	ppb	0.33016	10.55%
Ba 233.527†	469.7	4.1059	ug/L	0.06968	4.1059	ppb	0.06968	1.70%
Be 313.107†	-54.1	-0.0211	ug/L	0.01282	-0.0211	ppb	0.01282	60.90%
Ca 317.933Radial†	1122.2	2224.1	ug/L	24.40	2224.1	ppb	24.40	1.10%
Cd 226.502†	-4.0	-0.0523	ug/L	0.24103	-0.0523	ppb	0.24103	461.15%
Co 228.616†	3.1	0.0780	ug/L	0.15164	0.0780	ppb	0.15164	194.50%
Cr 267.716†	52.6	0.6438	ug/L	0.20832	0.6438	ppb	0.20832	32.36%
Cu 324.752†	-10.0	-0.0305	ug/L	0.30102	-0.0305	ppb	0.30102	987.40%
Fe 238.204 Radial†	-0.1	-1.7623	ug/L	13.33959	-1.7623	ppb	13.33959	756.95%
K 766.490 Radial†	1452.7	273.37	ug/L	7.763	273.37	ppb	7.763	2.84%

Mg 279.077 IEC†	15.1	642.71	ug/L	17.916	642.71	ppb	17.916	2.79%
Mn 257.610†	1088.6	1.3012	ug/L	0.00512	1.3012	ppb	0.00512	0.39%
Mo 202.031†	4.6	0.4015	ug/L	0.38888	0.4015	ppb	0.38888	96.85%
Na 589.592 Radial†	5121.5	2015.3	ug/L	25.55	2015.3	ppb	25.55	1.27%
Ni 231.604†	-10.2	-0.2978	ug/L	0.16005	-0.2978	ppb	0.16005	53.74%
P 214.914†	7.2	4.8120	ug/L	5.07204	4.8120	ppb	5.07204	105.40%
Pb 220.353†	-17.1	-2.3807	ug/L	0.30661	-2.3807	ppb	0.30661	12.88%
S 181.975 Axial†	75.5	120.37	ug/L	11.164	120.37	ppb	11.164	9.27%
Sb 206.836†	-6.4	-2.5485	ug/L	1.83896	-2.5485	ppb	1.83896	72.16%
Se 196.026†	-6.0	-4.4776	ug/L	2.77506	-4.4776	ppb	2.77506	61.98%
Si 251.611†	193667.4	6712.7	ug/L	15.44	6712.7	ppb	15.44	0.23%
Sn 189.927†	-28.4	-5.5009	ug/L	0.31739	-5.5009	ppb	0.31739	5.77%
Sr 421.552†	1231.5	10.106	ug/L	0.0798	10.106	ppb	0.0798	0.79%
Ti 334.940†	-164.4	-0.0211	ug/L	0.11790	-0.0211	ppb	0.11790	560.05%
Tl 190.801†	4.7	1.7061	ug/L	1.25485	1.7061	ppb	1.25485	73.55%
U 409.014†	0.7	0.0179	ug/L	2.21348	0.0179	ppb	2.21348	>999.9%
V 292.402†	77.0	0.5754	ug/L	0.16474	0.5754	ppb	0.16474	28.63%
Zn 213.857†	227.7	2.5231	ug/L	0.06965	2.5231	ppb	0.06965	2.76%
SiO2†	193900.1	14426	ug/L	47.7	14426	ppb	47.7	0.33%

Sequence No.: 23
Sample ID: 247817002|957527|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 58
Date Collected: 3/24/2010 12:38:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 247817002|957527|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4523.9	4523.9	106	%			12:40:36
1	Y RADIAL	4879.1	4879.1	98.46	%			12:40:36
1	Al 396.153Radial†	-70.8	8.4	8.5927	ug/L	8.5927	ppb	12:40:56
1	Ca 317.933Radial†	1179.1	1090.9	2162.0	ug/L	2162.0	ppb	12:40:56
1	Fe 238.204 Radial†	10.2	3.5	41.794	ug/L	41.794	ppb	12:40:56
1	K 766.490 Radial†	4275.9	1310.4	246.42	ug/L	246.42	ppb	12:40:36
1	Mg 279.077 IEC†	13.8	12.3	523.03	ug/L	523.03	ppb	12:40:56
1	Na 589.592 Radial†	4754.8	5338.2	2100.6	ug/L	2100.6	ppb	12:40:36
1	Sr 421.552†	1340.7	1239.9	10.176	ug/L	10.176	ppb	12:40:36
1	Sc 361.383	892693.8	892693.8	101.29	%			12:41:53
1	Y 371.029	755265.0	755265.0	98.831	%			12:41:53
1	Ag 328.068†	252.9	-9.9	-0.0541	ug/L	-0.0541	ppb	12:41:58
1	As 188.979†	-23.3	-2.4	-1.1862	ug/L	-1.1862	ppb	12:42:18
1	B 249.677†	-308.9	83.1	2.1101	ug/L	2.1101	ppb	12:42:18
1	Ba 233.527†	451.1	435.3	3.8075	ug/L	3.8075	ppb	12:42:18
1	Be 313.107†	-4263.6	73.4	0.0268	ug/L	0.0268	ppb	12:41:58
1	Cd 226.502†	-161.3	12.7	0.1618	ug/L	0.1618	ppb	12:42:18
1	Co 228.616†	-42.4	4.9	0.1220	ug/L	0.1220	ppb	12:42:18
1	Cr 267.716†	137.2	67.3	0.8298	ug/L	0.8298	ppb	12:42:18
1	Cu 324.752†	6252.0	-155.5	-0.4671	ug/L	-0.4671	ppb	12:41:58
1	Mn 257.610†	1472.1	990.4	1.1905	ug/L	1.1905	ppb	12:42:18
1	Mo 202.031†	19.5	5.4	0.4696	ug/L	0.4696	ppb	12:42:18
1	Ni 231.604†	96.1	-0.6	-0.0189	ug/L	-0.0189	ppb	12:42:18
1	P 214.914†	171.7	-8.8	-5.9347	ug/L	-5.9347	ppb	12:42:18
1	Pb 220.353†	-66.7	-15.8	-2.2060	ug/L	-2.2060	ppb	12:42:18
1	S 181.975 Axial†	97.5	73.0	116.30	ug/L	116.30	ppb	12:42:18
1	Sb 206.836†	27.4	-0.5	-0.2416	ug/L	-0.2416	ppb	12:42:18
1	Se 196.026†	-24.6	-7.6	-5.5203	ug/L	-5.5203	ppb	12:42:18
1	Si 251.611†	189397.7	186420.0	6461.5	ug/L	6461.5	ppb	12:41:53
1	Sn 189.927†	-17.3	-24.0	-4.6038	ug/L	-4.6038	ppb	12:42:18
1	Ti 334.940†	-1326.2	-257.4	-0.1681	ug/L	-0.1681	ppb	12:41:58
1	Tl 190.801†	-36.5	-2.3	-0.8126	ug/L	-0.8126	ppb	12:42:18
1	U 409.014†	-2108.2	-193.0	-5.2516	ug/L	-5.2516	ppb	12:41:53
1	V 292.402†	-1236.9	151.7	1.0983	ug/L	1.0983	ppb	12:41:58
1	Zn 213.857†	837.1	201.7	2.2270	ug/L	2.2270	ppb	12:42:18
1	SiO2†	189040.4	186042.0	13841	ug/L	13841	ppb	12:43:24
2	Sc Radial	4567.4	4567.4	107	%			12:41:01
2	Y RADIAL	4925.2	4925.2	99.39	%			12:41:01
2	Al 396.153Radial†	-72.2	7.7	7.9597	ug/L	7.9597	ppb	12:41:21
2	Ca 317.933Radial†	1177.8	1079.1	2138.7	ug/L	2138.7	ppb	12:41:21
2	Fe 238.204 Radial†	6.0	-0.5	-6.5938	ug/L	-6.5938	ppb	12:41:21
2	K 766.490 Radial†	4345.8	1337.1	251.49	ug/L	251.49	ppb	12:41:01
2	Mg 279.077 IEC†	16.8	15.0	636.60	ug/L	636.60	ppb	12:41:21
2	Na 589.592 Radial†	4754.3	5295.0	2083.6	ug/L	2083.6	ppb	12:41:01
2	Sr 421.552†	1363.8	1249.4	10.254	ug/L	10.254	ppb	12:41:01
2	Sc 361.383	890961.9	890961.9	101.09	%			12:42:23
2	Y 371.029	751816.1	751816.1	98.380	%			12:42:23
2	Ag 328.068†	315.3	52.4	0.2183	ug/L	0.2183	ppb	12:42:28
2	As 188.979†	-21.1	-0.2	-0.1157	ug/L	-0.1157	ppb	12:42:48
2	B 249.677†	-292.6	98.7	2.5139	ug/L	2.5139	ppb	12:42:48
2	Ba 233.527†	464.2	449.1	3.9256	ug/L	3.9256	ppb	12:42:48
2	Be 313.107†	-4239.6	89.0	0.0330	ug/L	0.0330	ppb	12:42:28
2	Cd 226.502†	-165.2	8.5	0.1129	ug/L	0.1129	ppb	12:42:48
2	Co 228.616†	-43.8	3.4	0.0849	ug/L	0.0849	ppb	12:42:48
2	Cr 267.716†	93.7	24.5	0.2998	ug/L	0.2998	ppb	12:42:48
2	Cu 324.752†	6284.8	-111.1	-0.3381	ug/L	-0.3381	ppb	12:42:28
2	Mn 257.610†	1498.1	1018.9	1.2159	ug/L	1.2159	ppb	12:42:48
2	Mo 202.031†	11.8	-2.2	-0.1546	ug/L	-0.1546	ppb	12:42:48
2	Ni 231.604†	92.9	-3.6	-0.1063	ug/L	-0.1063	ppb	12:42:48

2	P 214.914†	179.8	-0.5	-0.2977	ug/L	-0.2977	ppb	12:42:48
2	Pb 220.353†	-43.1	7.4	1.0853	ug/L	1.0853	ppb	12:42:48
2	S 181.975 Axial†	94.4	70.1	111.73	ug/L	111.73	ppb	12:42:48
2	Sb 206.836†	15.1	-12.6	-4.9283	ug/L	-4.9283	ppb	12:42:48
2	Se 196.026†	-15.3	1.6	1.1344	ug/L	1.1344	ppb	12:42:48
2	Si 251.611†	189295.6	186682.5	6470.6	ug/L	6470.6	ppb	12:42:23
2	Sn 189.927†	-17.1	-23.8	-4.5567	ug/L	-4.5567	ppb	12:42:48
2	Ti 334.940†	-1251.7	-186.2	-0.0674	ug/L	-0.0674	ppb	12:42:28
2	Tl 190.801†	-30.5	3.6	1.3014	ug/L	1.3014	ppb	12:42:48
2	U 409.014†	-1888.4	20.4	0.5535	ug/L	0.5535	ppb	12:42:23
2	V 292.402†	-1278.7	108.1	0.7939	ug/L	0.7939	ppb	12:42:28
2	Zn 213.857†	839.3	205.4	2.2762	ug/L	2.2762	ppb	12:42:48
2	SiO2†	188727.9	186095.8	13845	ug/L	13845	ppb	12:43:29
3	Sc Radial	4584.1	4584.1	108	%			12:41:26
3	Y RADIAL	4963.8	4963.8	100.2	%			12:41:26
3	Al 396.153Radial†	-77.4	3.2	3.2527	ug/L	3.2527	ppb	12:41:46
3	Ca 317.933Radial†	1184.3	1081.1	2142.7	ug/L	2142.7	ppb	12:41:46
3	Fe 238.204 Radial†	8.8	2.0	24.541	ug/L	24.541	ppb	12:41:46
3	K 766.490 Radial†	4234.3	1219.0	229.14	ug/L	229.14	ppb	12:41:26
3	Mg 279.077 IEC†	17.1	15.2	647.57	ug/L	647.57	ppb	12:41:46
3	Na 589.592 Radial†	4794.8	5316.5	2092.1	ug/L	2092.1	ppb	12:41:26
3	Sr 421.552†	1359.6	1240.9	10.184	ug/L	10.184	ppb	12:41:26
3	Sc 361.383	885666.1	885666.1	100.49	%			12:42:53
3	Y 371.029	748636.2	748636.2	97.964	%			12:42:53
3	Ag 328.068†	251.9	-8.9	-0.0557	ug/L	-0.0557	ppb	12:42:59
3	As 188.979†	-21.0	-0.3	-0.1371	ug/L	-0.1371	ppb	12:43:19
3	B 249.677†	-283.1	106.5	2.7068	ug/L	2.7068	ppb	12:43:19
3	Ba 233.527†	456.6	444.3	3.8845	ug/L	3.8845	ppb	12:43:19
3	Be 313.107†	-4303.0	0.8	-0.0001	ug/L	-0.0001	ppb	12:42:59
3	Cd 226.502†	-170.3	2.4	0.0273	ug/L	0.0273	ppb	12:43:19
3	Co 228.616†	-38.8	8.1	0.1993	ug/L	0.1993	ppb	12:43:19
3	Cr 267.716†	119.1	50.4	0.6211	ug/L	0.6211	ppb	12:43:19
3	Cu 324.752†	6305.1	-53.7	-0.1584	ug/L	-0.1584	ppb	12:42:59
3	Mn 257.610†	1449.7	979.6	1.1705	ug/L	1.1705	ppb	12:43:19
3	Mo 202.031†	16.6	2.6	0.2437	ug/L	0.2437	ppb	12:43:19
3	Ni 231.604†	79.4	-16.5	-0.4828	ug/L	-0.4828	ppb	12:43:19
3	P 214.914†	184.9	5.7	3.8210	ug/L	3.8210	ppb	12:43:19
3	Pb 220.353†	-61.2	-10.9	-1.5130	ug/L	-1.5130	ppb	12:43:19
3	S 181.975 Axial†	96.5	72.8	115.96	ug/L	115.96	ppb	12:43:19
3	Sb 206.836†	26.6	-1.0	-0.4560	ug/L	-0.4560	ppb	12:43:19
3	Se 196.026†	-23.1	-6.3	-4.6332	ug/L	-4.6332	ppb	12:43:19
3	Si 251.611†	187344.2	185860.2	6442.1	ug/L	6442.1	ppb	12:42:53
3	Sn 189.927†	-16.4	-23.2	-4.4401	ug/L	-4.4401	ppb	12:43:19
3	Ti 334.940†	-1172.2	-114.5	0.0513	ug/L	0.0513	ppb	12:42:59
3	Tl 190.801†	-32.8	1.1	0.4003	ug/L	0.4003	ppb	12:43:19
3	U 409.014†	-2120.8	-222.1	-6.0399	ug/L	-6.0399	ppb	12:42:53
3	V 292.402†	-1291.8	87.5	0.6333	ug/L	0.6333	ppb	12:42:59
3	Zn 213.857†	845.5	216.5	2.3966	ug/L	2.3966	ppb	12:43:19
3	SiO2†	187284.9	185776.1	13822	ug/L	13822	ppb	12:43:35

Mean Data: 247817002|957527|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	889773.9	100.96	%	0.415				0.41%
Sc Radial	4558.5	107	%	0.7				0.68%
Y 371.029	751905.8	98.392	%	0.4338				0.44%
Y RADIAL	4922.7	99.34	%	0.855				0.86%
Ag 328.068†	11.2	0.0362	ug/L	0.15778	0.0362	ppb	0.15778	436.40%
Al 396.153Radial†	6.4	6.6017	ug/L	2.91754	6.6017	ppb	2.91754	44.19%
As 188.979†	-1.0	-0.4796	ug/L	0.61195	-0.4796	ppb	0.61195	127.58%
B 249.677†	96.1	2.4436	ug/L	0.30447	2.4436	ppb	0.30447	12.46%
Ba 233.527†	442.9	3.8725	ug/L	0.05997	3.8725	ppb	0.05997	1.55%
Be 313.107†	54.4	0.0199	ug/L	0.01760	0.0199	ppb	0.01760	88.48%
Ca 317.933Radial†	1083.7	2147.8	ug/L	12.45	2147.8	ppb	12.45	0.58%
Cd 226.502†	7.8	0.1007	ug/L	0.06810	0.1007	ppb	0.06810	67.66%
Co 228.616†	5.5	0.1354	ug/L	0.05833	0.1354	ppb	0.05833	43.08%
Cr 267.716†	47.4	0.5836	ug/L	0.26698	0.5836	ppb	0.26698	45.75%
Cu 324.752†	-106.8	-0.3212	ug/L	0.15501	-0.3212	ppb	0.15501	48.26%
Fe 238.204 Radial†	1.6	19.914	ug/L	24.5235	19.914	ppb	24.5235	123.15%
K 766.490 Radial†	1288.8	242.35	ug/L	11.720	242.35	ppb	11.720	4.84%

Mg 279.077 IEC†	14.2	602.40	ug/L	68.954	602.40	ppb	68.954	11.45%
Mn 257.610†	996.3	1.1923	ug/L	0.02274	1.1923	ppb	0.02274	1.91%
Mo 202.031†	1.9	0.1863	ug/L	0.31606	0.1863	ppb	0.31606	169.68%
Na 589.592 Radial†	5316.6	2092.1	ug/L	8.48	2092.1	ppb	8.48	0.41%
Ni 231.604†	-6.9	-0.2027	ug/L	0.24651	-0.2027	ppb	0.24651	121.63%
P 214.914†	-1.2	-0.8038	ug/L	4.89749	-0.8038	ppb	4.89749	609.30%
Pb 220.353†	-6.4	-0.8779	ug/L	1.73512	-0.8779	ppb	1.73512	197.65%
S 181.975 Axial†	72.0	114.66	ug/L	2.545	114.66	ppb	2.545	2.22%
Sb 206.836†	-4.7	-1.8753	ug/L	2.64617	-1.8753	ppb	2.64617	141.11%
Se 196.026†	-4.1	-3.0064	ug/L	3.61336	-3.0064	ppb	3.61336	120.19%
Si 251.611†	186320.9	6458.0	ug/L	14.56	6458.0	ppb	14.56	0.23%
Sn 189.927†	-23.7	-4.5335	ug/L	0.08429	-4.5335	ppb	0.08429	1.86%
Sr 421.552†	1243.4	10.205	ug/L	0.0429	10.205	ppb	0.0429	0.42%
Ti 334.940†	-186.0	-0.0614	ug/L	0.10981	-0.0614	ppb	0.10981	178.85%
Tl 190.801†	0.8	0.2964	ug/L	1.06085	0.2964	ppb	1.06085	357.96%
U 409.014†	-131.6	-3.5793	ug/L	3.60080	-3.5793	ppb	3.60080	100.60%
V 292.402†	115.7	0.8419	ug/L	0.23620	0.8419	ppb	0.23620	28.06%
Zn 213.857†	207.9	2.2999	ug/L	0.08725	2.2999	ppb	0.08725	3.79%
SiO2†	185971.3	13836	ug/L	12.7	13836	ppb	12.7	0.09%

Sequence No.: 25
Sample ID: 1202053150|957527|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 60
Date Collected: 3/24/2010 12:52:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053150|957527|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4495.5	4495.5	106	%			12:54:27
1	Y RADIAL	4866.0	4866.0	98.19	%			12:54:27
1	Al 396.153Radial†	44.3	116.8	119.91	ug/L	119.91	ppb	12:54:47
1	Ca 317.933Radial†	1222.9	1139.3	2258.0	ug/L	2258.0	ppb	12:54:47
1	Fe 238.204 Radial†	10.6	3.8	46.248	ug/L	46.248	ppb	12:54:47
1	K 766.490 Radial†	4581.8	1624.9	305.57	ug/L	305.57	ppb	12:54:27
1	Mg 279.077 IEC†	16.1	14.6	620.10	ug/L	620.10	ppb	12:54:47
1	Na 589.592 Radial†	7079.5	7564.6	2976.7	ug/L	2976.7	ppb	12:54:27
1	Sr 421.552†	1426.0	1328.5	10.903	ug/L	10.903	ppb	12:54:27
1	Sc 361.383	886653.1	886653.1	100.60	%			12:55:44
1	Y 371.029	749364.3	749364.3	98.059	%			12:55:44
1	Ag 328.068†	231.2	-29.7	-0.1482	ug/L	-0.1482	ppb	12:55:49
1	As 188.979†	-11.9	8.8	4.3920	ug/L	4.3920	ppb	12:56:09
1	B 249.677†	-305.5	84.4	2.1420	ug/L	2.1420	ppb	12:56:09
1	Ba 233.527†	573.8	560.3	4.9001	ug/L	4.9001	ppb	12:56:09
1	Be 313.107†	-4204.7	103.2	0.0406	ug/L	0.0406	ppb	12:55:49
1	Cd 226.502†	-172.9	0.0	-0.0052	ug/L	-0.0052	ppb	12:56:09
1	Co 228.616†	-37.7	9.2	0.2252	ug/L	0.2252	ppb	12:56:09
1	Cr 267.716†	135.7	66.7	0.8235	ug/L	0.8235	ppb	12:56:09
1	Cu 324.752†	6343.0	-23.1	-0.0660	ug/L	-0.0660	ppb	12:55:49
1	Mn 257.610†	2433.2	1955.6	2.3641	ug/L	2.3641	ppb	12:56:09
1	Mo 202.031†	18.6	4.6	0.4096	ug/L	0.4096	ppb	12:56:09
1	Ni 231.604†	82.8	-13.2	-0.3850	ug/L	-0.3850	ppb	12:56:09
1	P 214.914†	201.0	21.5	14.465	ug/L	14.465	ppb	12:56:09
1	Pb 220.353†	-70.5	-20.0	-2.7802	ug/L	-2.7802	ppb	12:56:09
1	S 181.975 Axial†	228.4	203.8	324.68	ug/L	324.68	ppb	12:56:09
1	Sb 206.836†	26.3	-1.4	-0.6144	ug/L	-0.6144	ppb	12:56:09
1	Se 196.026†	-18.3	-1.5	-0.9203	ug/L	-0.9203	ppb	12:56:09
1	Si 251.611†	192839.9	191115.5	6624.2	ug/L	6624.2	ppb	12:55:44
1	Sn 189.927†	-15.5	-22.3	-4.2338	ug/L	-4.2338	ppb	12:56:09
1	Ti 334.940†	-633.2	422.6	0.9385	ug/L	0.9385	ppb	12:55:49
1	Tl 190.801†	-29.9	4.0	1.4503	ug/L	1.4503	ppb	12:56:09
1	U 409.014†	-2013.5	-113.0	-3.0779	ug/L	-3.0779	ppb	12:55:44
1	V 292.402†	-1196.0	184.1	1.3360	ug/L	1.3360	ppb	12:55:49
1	Zn 213.857†	872.2	242.2	2.6767	ug/L	2.6767	ppb	12:56:09
1	SiO2†	195441.1	193675.9	14409	ug/L	14409	ppb	12:57:15
2	Sc Radial	4590.4	4590.4	108	%			12:54:52
2	Y RADIAL	4983.1	4983.1	100.6	%			12:54:52
2	Al 396.153Radial†	41.2	113.1	116.06	ug/L	116.06	ppb	12:55:12
2	Ca 317.933Radial†	1242.0	1133.0	2245.6	ug/L	2245.6	ppb	12:55:12
2	Fe 238.204 Radial†	10.3	3.4	40.960	ug/L	40.960	ppb	12:55:12
2	K 766.490 Radial†	4512.0	1470.8	276.41	ug/L	276.41	ppb	12:54:52
2	Mg 279.077 IEC†	18.2	16.3	691.54	ug/L	691.54	ppb	12:55:12
2	Na 589.592 Radial†	7142.0	7484.1	2945.0	ug/L	2945.0	ppb	12:54:52
2	Sr 421.552†	1454.9	1327.3	10.894	ug/L	10.894	ppb	12:54:52
2	Sc 361.383	896010.7	896010.7	101.66	%			12:56:14
2	Y 371.029	755414.7	755414.7	98.851	%			12:56:14
2	Ag 328.068†	167.2	-95.1	-0.4607	ug/L	-0.4607	ppb	12:56:19
2	As 188.979†	-31.6	-10.4	-5.1656	ug/L	-5.1656	ppb	12:56:39
2	B 249.677†	-296.9	96.1	2.4408	ug/L	2.4408	ppb	12:56:39
2	Ba 233.527†	583.0	563.4	4.9260	ug/L	4.9260	ppb	12:56:39
2	Be 313.107†	-4240.3	111.9	0.0441	ug/L	0.0441	ppb	12:56:19
2	Cd 226.502†	-160.2	14.3	0.1844	ug/L	0.1844	ppb	12:56:39
2	Co 228.616†	-37.9	9.5	0.2321	ug/L	0.2321	ppb	12:56:39
2	Cr 267.716†	134.5	64.2	0.7905	ug/L	0.7905	ppb	12:56:39
2	Cu 324.752†	6344.2	-87.7	-0.2629	ug/L	-0.2629	ppb	12:56:19
2	Mn 257.610†	2431.1	1928.3	2.3274	ug/L	2.3274	ppb	12:56:39
2	Mo 202.031†	25.0	10.7	0.9056	ug/L	0.9056	ppb	12:56:39
2	Ni 231.604†	89.7	-7.2	-0.2117	ug/L	-0.2117	ppb	12:56:39

2	P 214.914†	190.7	9.3	6.2851	ug/L	6.2851 ppb	12:56:39
2	Pb 220.353†	-68.3	-17.1	-2.3728	ug/L	-2.3728 ppb	12:56:39
2	S 181.975 Axial†	225.9	198.9	317.02	ug/L	317.02 ppb	12:56:39
2	Sb 206.836†	30.2	2.2	0.7883	ug/L	0.7883 ppb	12:56:39
2	Se 196.026†	-15.8	1.1	1.0012	ug/L	1.0012 ppb	12:56:39
2	Si 251.611†	195228.4	191463.1	6636.2	ug/L	6636.2 ppb	12:56:14
2	Sn 189.927†	-17.5	-24.1	-4.6099	ug/L	-4.6099 ppb	12:56:39
2	Ti 334.940†	-571.8	489.6	1.0393	ug/L	1.0393 ppb	12:56:19
2	Tl 190.801†	-26.8	7.4	2.6869	ug/L	2.6869 ppb	12:56:39
2	U 409.014†	-2003.4	-82.2	-2.2397	ug/L	-2.2397 ppb	12:56:14
2	V 292.402†	-1289.8	104.3	0.7689	ug/L	0.7689 ppb	12:56:19
2	Zn 213.857†	876.4	237.3	2.6223	ug/L	2.6223 ppb	12:56:39
2	SiO2†	194222.1	190448.0	14169	ug/L	14169 ppb	12:57:20
3	Sc Radial	4464.3	4464.3	105	%		12:55:17
3	Y RADIAL	4872.3	4872.3	98.32	%		12:55:17
3	Al 396.153Radial†	48.5	121.1	124.36	ug/L	124.36 ppb	12:55:37
3	Ca 317.933Radial†	1247.6	1170.9	2320.6	ug/L	2320.6 ppb	12:55:37
3	Fe 238.204 Radial†	14.2	7.3	88.792	ug/L	88.792 ppb	12:55:37
3	K 766.490 Radial†	4469.3	1548.1	291.01	ug/L	291.01 ppb	12:55:17
3	Mg 279.077 IEC†	17.0	15.5	660.61	ug/L	660.61 ppb	12:55:37
3	Na 589.592 Radial†	6964.4	7501.7	2951.9	ug/L	2951.9 ppb	12:55:17
3	Sr 421.552†	1409.8	1322.5	10.854	ug/L	10.854 ppb	12:55:17
3	Sc 361.383	892129.3	892129.3	101.22	%		12:56:45
3	Y 371.029	752995.9	752995.9	98.534	%		12:56:45
3	Ag 328.068†	224.7	-37.5	-0.1770	ug/L	-0.1770 ppb	12:56:50
3	As 188.979†	-19.0	1.8	0.9450	ug/L	0.9450 ppb	12:57:10
3	B 249.677†	-311.8	80.1	2.0242	ug/L	2.0242 ppb	12:57:10
3	Ba 233.527†	569.6	552.7	4.8344	ug/L	4.8344 ppb	12:57:10
3	Be 313.107†	-4259.2	75.1	0.0299	ug/L	0.0299 ppb	12:56:50
3	Cd 226.502†	-164.3	9.6	0.1180	ug/L	0.1180 ppb	12:57:10
3	Co 228.616†	-34.5	12.7	0.3070	ug/L	0.3070 ppb	12:57:10
3	Cr 267.716†	140.3	70.5	0.8715	ug/L	0.8715 ppb	12:57:10
3	Cu 324.752†	6341.1	-63.6	-0.1890	ug/L	-0.1890 ppb	12:56:50
3	Mn 257.610†	2437.6	1945.1	2.3539	ug/L	2.3539 ppb	12:57:10
3	Mo 202.031†	13.8	-0.3	0.0125	ug/L	0.0125 ppb	12:57:10
3	Ni 231.604†	106.5	9.7	0.2840	ug/L	0.2840 ppb	12:57:10
3	P 214.914†	178.3	-2.2	-1.5322	ug/L	-1.5322 ppb	12:57:10
3	Pb 220.353†	-57.7	-7.0	-0.9368	ug/L	-0.9368 ppb	12:57:10
3	S 181.975 Axial†	208.7	182.9	291.45	ug/L	291.45 ppb	12:57:10
3	Sb 206.836†	18.0	-9.8	-3.8501	ug/L	-3.8501 ppb	12:57:10
3	Se 196.026†	-16.9	-0.0	0.2909	ug/L	0.2909 ppb	12:57:10
3	Si 251.611†	194237.0	191319.1	6631.3	ug/L	6631.3 ppb	12:56:45
3	Sn 189.927†	-19.0	-25.7	-4.9329	ug/L	-4.9329 ppb	12:57:10
3	Ti 334.940†	-648.6	411.2	0.9234	ug/L	0.9234 ppb	12:56:50
3	Tl 190.801†	-23.3	10.7	3.8725	ug/L	3.8725 ppb	12:57:10
3	U 409.014†	-1872.8	38.2	1.0274	ug/L	1.0274 ppb	12:56:45
3	V 292.402†	-1231.3	156.5	1.1331	ug/L	1.1331 ppb	12:56:50
3	Zn 213.857†	880.5	245.0	2.6981	ug/L	2.6981 ppb	12:57:10
3	SiO2†	194547.6	191600.8	14255	ug/L	14255 ppb	12:57:26

Mean Data: 1202053150|957527|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	891597.7	101.16	%	0.533				0.53%
Sc Radial	4516.7	106	%	1.5				1.45%
Y 371.029	752591.7	98.481	%	0.3985				0.40%
Y RADIAL	4907.1	99.02	%	1.329				1.34%
Ag 328.068†	-54.1	-0.2620	ug/L	0.17270	-0.2620	ppb	0.17270	65.92%
Al 396.153Radial†	117.0	120.11	ug/L	4.155	120.11	ppb	4.155	3.46%
As 188.979†	0.1	0.0572	ug/L	4.84026	0.0572	ppb	4.84026	>999.9%
B 249.677†	86.9	2.2023	ug/L	0.21474	2.2023	ppb	0.21474	9.75%
Ba 233.527†	558.8	4.8868	ug/L	0.04725	4.8868	ppb	0.04725	0.97%
Be 313.107†	96.7	0.0382	ug/L	0.00740	0.0382	ppb	0.00740	19.37%
Ca 317.933Radial†	1147.7	2274.7	ug/L	40.23	2274.7	ppb	40.23	1.77%
Cd 226.502†	8.0	0.0990	ug/L	0.09622	0.0990	ppb	0.09622	97.15%
Co 228.616†	10.5	0.2548	ug/L	0.04538	0.2548	ppb	0.04538	17.81%
Cr 267.716†	67.1	0.8285	ug/L	0.04072	0.8285	ppb	0.04072	4.91%
Cu 324.752†	-58.1	-0.1726	ug/L	0.09948	-0.1726	ppb	0.09948	57.63%
Fe 238.204 Radial†	4.9	58.667	ug/L	26.2228	58.667	ppb	26.2228	44.70%
K 766.490 Radial†	1547.9	291.00	ug/L	14.580	291.00	ppb	14.580	5.01%

Mg 279.077 IEC†	15.5	657.42	ug/L	35.825	657.42	ppb	35.825	5.45%
Mn 257.610†	1943.0	2.3485	ug/L	0.01895	2.3485	ppb	0.01895	0.81%
Mo 202.031†	5.0	0.4426	ug/L	0.44746	0.4426	ppb	0.44746	101.10%
Na 589.592 Radial†	7516.8	2957.9	ug/L	16.65	2957.9	ppb	16.65	0.56%
Ni 231.604†	-3.6	-0.1042	ug/L	0.34722	-0.1042	ppb	0.34722	333.13%
P 214.914†	9.5	6.4059	ug/L	7.99913	6.4059	ppb	7.99913	124.87%
Pb 220.353†	-14.7	-2.0299	ug/L	0.96833	-2.0299	ppb	0.96833	47.70%
S 181.975 Axial†	195.2	311.05	ug/L	17.398	311.05	ppb	17.398	5.59%
Sb 206.836†	-3.0	-1.2254	ug/L	2.37876	-1.2254	ppb	2.37876	194.12%
Se 196.026†	-0.1	0.1239	ug/L	0.97155	0.1239	ppb	0.97155	783.86%
Si 251.611†	191299.2	6630.6	ug/L	6.05	6630.6	ppb	6.05	0.09%
Sn 189.927†	-24.1	-4.5922	ug/L	0.34988	-4.5922	ppb	0.34988	7.62%
Sr 421.552†	1326.1	10.884	ug/L	0.0262	10.884	ppb	0.0262	0.24%
Ti 334.940†	441.1	0.9671	ug/L	0.06299	0.9671	ppb	0.06299	6.51%
Tl 190.801†	7.4	2.6699	ug/L	1.21120	2.6699	ppb	1.21120	45.37%
U 409.014†	-52.3	-1.4300	ug/L	2.16910	-1.4300	ppb	2.16910	151.68%
V 292.402†	148.3	1.0793	ug/L	0.28733	1.0793	ppb	0.28733	26.62%
Zn 213.857†	241.5	2.6657	ug/L	0.03908	2.6657	ppb	0.03908	1.47%
SiO2†	191908.3	14278	ug/L	121.7	14278	ppb	121.7	0.85%

Sequence No.: 26
Sample ID: 1202053151|957527|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 61
Date Collected: 3/24/2010 12:59:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053151|957527|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4481.4	4481.4	105	%			13:01:30
1	Y RADIAL	4845.4	4845.4	97.78	%			13:01:30
1	Al 396.153Radial†	1036.2	1057.9	1081.6	ug/L	1081.6	ppb	13:01:30
1	Ca 317.933Radial†	1748.7	1641.7	3253.7	ug/L	3253.7	ppb	13:01:50
1	Fe 238.204 Radial†	99.3	88.0	1066.4	ug/L	1066.4	ppb	13:01:50
1	K 766.490 Radial†	9897.3	6680.8	1261.5	ug/L	1261.5	ppb	13:01:30
1	Mg 279.077 IEC†	44.9	41.9	1783.7	ug/L	1783.7	ppb	13:01:50
1	Na 589.592 Radial†	9484.4	9866.9	3882.6	ug/L	3882.6	ppb	13:01:30
1	Sr 421.552†	13446.4	12735.1	104.66	ug/L	104.66	ppb	13:01:30
1	Sc 361.383	885439.9	885439.9	100.47	%			13:02:47
1	Y 371.029	745832.5	745832.5	97.597	%			13:02:47
1	Ag 328.068†	20242.5	19889.3	94.235	ug/L	94.235	ppb	13:02:52
1	As 188.979†	174.6	194.5	97.586	ug/L	97.586	ppb	13:03:12
1	B 249.677†	3376.2	3748.7	95.026	ug/L	95.026	ppb	13:02:52
1	Ba 233.527†	11801.8	11737.1	102.81	ug/L	102.81	ppb	13:02:52
1	Be 313.107†	248747.8	251878.8	95.522	ug/L	95.522	ppb	13:02:47
1	Cd 226.502†	6887.6	7027.6	92.805	ug/L	92.805	ppb	13:03:12
1	Co 228.616†	3895.6	3924.3	95.288	ug/L	95.288	ppb	13:03:12
1	Cr 267.716†	8026.8	7921.5	96.994	ug/L	96.994	ppb	13:02:52
1	Cu 324.752†	38588.2	32081.5	97.398	ug/L	97.398	ppb	13:02:52
1	Mn 257.610†	82222.9	81379.2	99.278	ug/L	99.278	ppb	13:02:52
1	Mo 202.031†	1163.1	1143.9	93.720	ug/L	93.720	ppb	13:03:12
1	Ni 231.604†	3399.9	3288.6	96.034	ug/L	96.034	ppb	13:03:12
1	P 214.914†	333.5	153.6	84.473	ug/L	84.473	ppb	13:03:12
1	Pb 220.353†	622.6	669.8	95.129	ug/L	95.129	ppb	13:03:12
1	S 181.975 Axial†	809.9	783.0	1247.5	ug/L	1247.5	ppb	13:03:12
1	Sb 206.836†	279.4	250.5	99.678	ug/L	99.678	ppb	13:03:12
1	Se 196.026†	107.6	123.8	95.535	ug/L	95.535	ppb	13:03:12
1	Si 251.611†	219060.1	217476.9	7536.8	ug/L	7536.8	ppb	13:02:47
1	Sn 189.927†	454.8	445.8	93.046	ug/L	93.046	ppb	13:03:12
1	Ti 334.940†	58935.2	59714.3	97.048	ug/L	97.048	ppb	13:02:52
1	Tl 190.801†	241.2	273.9	99.039	ug/L	99.039	ppb	13:03:12
1	U 409.014†	1622.8	3503.7	94.878	ug/L	94.878	ppb	13:02:47
1	V 292.402†	12058.4	13375.5	98.036	ug/L	98.036	ppb	13:02:52
1	Zn 213.857†	9581.3	8912.1	97.764	ug/L	97.764	ppb	13:02:52
1	SiO2†	221033.2	219415.8	16322	ug/L	16322	ppb	13:04:19
2	Sc Radial	4484.7	4484.7	105	%			13:01:55
2	Y RADIAL	4859.8	4859.8	98.07	%			13:01:55
2	Al 396.153Radial†	1024.7	1046.3	1069.7	ug/L	1069.7	ppb	13:01:55
2	Ca 317.933Radial†	1730.5	1623.2	3217.1	ug/L	3217.1	ppb	13:02:16
2	Fe 238.204 Radial†	97.3	86.1	1042.7	ug/L	1042.7	ppb	13:02:16
2	K 766.490 Radial†	9837.3	6616.9	1249.4	ug/L	1249.4	ppb	13:01:55
2	Mg 279.077 IEC†	42.5	39.6	1685.7	ug/L	1685.7	ppb	13:02:16
2	Na 589.592 Radial†	9499.6	9874.6	3885.7	ug/L	3885.7	ppb	13:01:55
2	Sr 421.552†	13480.3	12757.8	104.85	ug/L	104.85	ppb	13:01:55
2	Sc 361.383	895321.2	895321.2	101.59	%			13:03:18
2	Y 371.029	752625.6	752625.6	98.486	%			13:03:18
2	Ag 328.068†	20052.8	19480.2	92.289	ug/L	92.289	ppb	13:03:23
2	As 188.979†	176.3	194.2	97.445	ug/L	97.445	ppb	13:03:43
2	B 249.677†	3360.7	3696.3	93.701	ug/L	93.701	ppb	13:03:23
2	Ba 233.527†	11708.0	11515.1	100.86	ug/L	100.86	ppb	13:03:23
2	Be 313.107†	250943.8	251308.0	95.301	ug/L	95.301	ppb	13:03:18
2	Cd 226.502†	6861.6	6926.3	91.469	ug/L	91.469	ppb	13:03:43
2	Co 228.616†	3883.7	3869.8	93.966	ug/L	93.966	ppb	13:03:43
2	Cr 267.716†	7924.1	7732.2	94.675	ug/L	94.675	ppb	13:03:23
2	Cu 324.752†	38190.6	31266.2	94.919	ug/L	94.919	ppb	13:03:23
2	Mn 257.610†	81607.3	79870.0	97.439	ug/L	97.439	ppb	13:03:23
2	Mo 202.031†	1157.5	1125.6	92.219	ug/L	92.219	ppb	13:03:43
2	Ni 231.604†	3374.6	3226.4	94.219	ug/L	94.219	ppb	13:03:43

2	P 214.914†	337.8	154.2	85.384 ug/L	85.384 ppb	13:03:43
2	Pb 220.353†	621.2	661.5	93.958 ug/L	93.958 ppb	13:03:43
2	S 181.975 Axial†	808.0	772.1	1230.3 ug/L	1230.3 ppb	13:03:43
2	Sb 206.836†	272.5	240.7	95.839 ug/L	95.839 ppb	13:03:43
2	Se 196.026†	105.8	120.8	93.250 ug/L	93.250 ppb	13:03:43
2	Si 251.611†	221429.7	217403.0	7534.2 ug/L	7534.2 ppb	13:03:18
2	Sn 189.927†	451.5	437.6	91.330 ug/L	91.330 ppb	13:03:43
2	Ti 334.940†	58243.6	58386.1	94.896 ug/L	94.896 ppb	13:03:23
2	Tl 190.801†	238.3	268.4	97.050 ug/L	97.050 ppb	13:03:43
2	U 409.014†	1832.0	3691.8	99.997 ug/L	99.997 ppb	13:03:18
2	V 292.402†	11870.5	13058.0	95.732 ug/L	95.732 ppb	13:03:23
2	Zn 213.857†	9472.9	8700.2	95.436 ug/L	95.436 ppb	13:03:23
2	SiO2†	216740.6	212762.1	15827 ug/L	15827 ppb	13:04:24
3	Sc Radial	4563.1	4563.1	107 %		13:02:21
3	Y RADIAL	4949.6	4949.6	99.88 %		13:02:21
3	Al 396.153Radial†	1072.8	1074.4	1098.5 ug/L	1098.5 ppb	13:02:21
3	Ca 317.933Radial†	1760.0	1622.5	3215.6 ug/L	3215.6 ppb	13:02:41
3	Fe 238.204 Radial†	101.7	88.5	1072.5 ug/L	1072.5 ppb	13:02:41
3	K 766.490 Radial†	9986.1	6595.4	1245.3 ug/L	1245.3 ppb	13:02:21
3	Mg 279.077 IEC†	43.2	39.6	1683.6 ug/L	1683.6 ppb	13:02:41
3	Na 589.592 Radial†	9637.6	9848.5	3875.4 ug/L	3875.4 ppb	13:02:21
3	Sr 421.552†	13743.4	12783.4	105.06 ug/L	105.06 ppb	13:02:21
3	Sc 361.383	893340.5	893340.5	101.36 %		13:03:48
3	Y 371.029	751888.1	751888.1	98.389 %		13:03:48
3	Ag 328.068†	20209.3	19678.3	93.238 ug/L	93.238 ppb	13:03:53
3	As 188.979†	174.8	193.1	96.898 ug/L	96.898 ppb	13:04:13
3	B 249.677†	3324.0	3667.5	92.963 ug/L	92.963 ppb	13:03:53
3	Ba 233.527†	11791.1	11622.7	101.80 ug/L	101.80 ppb	13:03:53
3	Be 313.107†	250000.2	250924.7	95.160 ug/L	95.160 ppb	13:03:48
3	Cd 226.502†	6837.3	6917.3	91.347 ug/L	91.347 ppb	13:04:13
3	Co 228.616†	3852.9	3847.9	93.433 ug/L	93.433 ppb	13:04:13
3	Cr 267.716†	7981.2	7805.8	95.580 ug/L	95.580 ppb	13:03:53
3	Cu 324.752†	38755.6	31906.9	96.865 ug/L	96.865 ppb	13:03:53
3	Mn 257.610†	82245.9	80678.1	98.427 ug/L	98.427 ppb	13:03:53
3	Mo 202.031†	1170.3	1140.7	93.458 ug/L	93.458 ppb	13:04:13
3	Ni 231.604†	3362.5	3221.9	94.085 ug/L	94.085 ppb	13:04:13
3	P 214.914†	338.0	155.1	85.581 ug/L	85.581 ppb	13:04:13
3	Pb 220.353†	601.9	643.9	91.463 ug/L	91.463 ppb	13:04:13
3	S 181.975 Axial†	786.0	752.2	1198.5 ug/L	1198.5 ppb	13:04:13
3	Sb 206.836†	271.7	240.6	95.789 ug/L	95.789 ppb	13:04:13
3	Se 196.026†	109.5	124.7	96.197 ug/L	96.197 ppb	13:04:13
3	Si 251.611†	220779.4	217244.8	7528.7 ug/L	7528.7 ppb	13:03:48
3	Sn 189.927†	445.0	432.1	90.192 ug/L	90.192 ppb	13:04:13
3	Ti 334.940†	59126.2	59383.9	96.513 ug/L	96.513 ppb	13:03:53
3	Tl 190.801†	235.9	266.5	96.380 ug/L	96.380 ppb	13:04:13
3	U 409.014†	1845.3	3708.9	100.46 ug/L	100.46 ppb	13:03:48
3	V 292.402†	12108.6	13318.9	97.632 ug/L	97.632 ppb	13:03:53
3	Zn 213.857†	9559.9	8806.6	96.609 ug/L	96.609 ppb	13:03:53
3	SiO2†	220381.4	216827.0	16129 ug/L	16129 ppb	13:04:29

Mean Data: 1202053151|957527|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	891367.2	101.14	%	0.593				0.59%
Sc Radial	4509.7	106	%	1.1				1.03%
Y 371.029	750115.4	98.157	%	0.4878				0.50%
Y RADIAL	4884.9	98.58	%	1.139				1.16%
Ag 328.068†	19682.6	93.254	ug/L	0.9732	93.254	ppb	0.9732	1.04%
Al 396.153Radial†	1059.5	1083.3	ug/L	14.48	1083.3	ppb	14.48	1.34%
As 188.979†	193.9	97.309	ug/L	0.3635	97.309	ppb	0.3635	0.37%
B 249.677†	3704.2	93.896	ug/L	1.0451	93.896	ppb	1.0451	1.11%
Ba 233.527†	11625.0	101.82	ug/L	0.973	101.82	ppb	0.973	0.96%
Be 313.107†	251370.5	95.327	ug/L	0.1826	95.327	ppb	0.1826	0.19%
Ca 317.933Radial†	1629.1	3228.8	ug/L	21.57	3228.8	ppb	21.57	0.67%
Cd 226.502†	6957.0	91.874	ug/L	0.8087	91.874	ppb	0.8087	0.88%
Co 228.616†	3880.6	94.229	ug/L	0.9547	94.229	ppb	0.9547	1.01%
Cr 267.716†	7819.8	95.750	ug/L	1.1691	95.750	ppb	1.1691	1.22%
Cu 324.752†	31751.5	96.394	ug/L	1.3052	96.394	ppb	1.3052	1.35%
Fe 238.204 Radial†	87.6	1060.5	ug/L	15.75	1060.5	ppb	15.75	1.48%
K 766.490 Radial†	6631.0	1252.0	ug/L	8.39	1252.0	ppb	8.39	0.67%

Mg 279.077 IEC†	40.4	1717.7	ug/L	57.20	1717.7	ppb	57.20	3.33%
Mn 257.610†	80642.4	98.381	ug/L	0.9203	98.381	ppb	0.9203	0.94%
Mo 202.031†	1136.7	93.133	ug/L	0.8015	93.133	ppb	0.8015	0.86%
Na 589.592 Radial†	9863.3	3881.2	ug/L	5.28	3881.2	ppb	5.28	0.14%
Ni 231.604†	3245.6	94.780	ug/L	1.0888	94.780	ppb	1.0888	1.15%
P 214.914†	154.3	85.146	ug/L	0.5913	85.146	ppb	0.5913	0.69%
Pb 220.353†	658.4	93.517	ug/L	1.8725	93.517	ppb	1.8725	2.00%
S 181.975 Axial†	769.1	1225.4	ug/L	24.85	1225.4	ppb	24.85	2.03%
Sb 206.836†	243.9	97.102	ug/L	2.2309	97.102	ppb	2.2309	2.30%
Se 196.026†	123.1	94.994	ug/L	1.5462	94.994	ppb	1.5462	1.63%
Si 251.611†	217374.9	7533.2	ug/L	4.11	7533.2	ppb	4.11	0.05%
Sn 189.927†	438.5	91.523	ug/L	1.4365	91.523	ppb	1.4365	1.57%
Sr 421.552†	12758.7	104.85	ug/L	0.199	104.85	ppb	0.199	0.19%
Ti 334.940†	59161.4	96.152	ug/L	1.1206	96.152	ppb	1.1206	1.17%
Tl 190.801†	269.6	97.490	ug/L	1.3827	97.490	ppb	1.3827	1.42%
U 409.014†	3634.8	98.444	ug/L	3.0974	98.444	ppb	3.0974	3.15%
V 292.402†	13250.8	97.133	ug/L	1.2303	97.133	ppb	1.2303	1.27%
Zn 213.857†	8806.3	96.603	ug/L	1.1638	96.603	ppb	1.1638	1.20%
SiO2†	216334.9	16093	ug/L	249.5	16093	ppb	249.5	1.55%

Sequence No.: 27
Sample ID: 1202053152|957527|25
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 62
Date Collected: 3/24/2010 13:06:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053152|957527|25

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4450.6	4450.6	105	%			13:08:34
1	Y RADIAL	4828.5	4828.5	97.44	%			13:08:34
1	Al 396.153Radial†	-67.6	10.4	10.700	ug/L	10.700	ppb	13:08:54
1	Ca 317.933Radial†	258.3	229.6	454.99	ug/L	454.99	ppb	13:08:54
1	Fe 238.204 Radial†	7.7	1.2	14.094	ug/L	14.094	ppb	13:08:54
1	K 766.490 Radial†	3037.0	193.1	36.171	ug/L	36.171	ppb	13:08:34
1	Mg 279.077 IEC†	7.5	6.5	276.99	ug/L	276.99	ppb	13:08:54
1	Na 589.592 Radial†	630.4	1472.3	579.36	ug/L	579.36	ppb	13:08:34
1	Sr 421.552†	284.4	251.7	2.0657	ug/L	2.0657	ppb	13:08:34
1	Sc 361.383	893869.9	893869.9	101.42	%			13:09:51
1	Y 371.029	757336.3	757336.3	99.102	%			13:09:51
1	Ag 328.068†	257.0	-6.2	-0.0329	ug/L	-0.0329	ppb	13:09:56
1	As 188.979†	-26.0	-5.0	-2.4796	ug/L	-2.4796	ppb	13:10:16
1	B 249.677†	-391.2	2.4	0.0588	ug/L	0.0588	ppb	13:10:16
1	Ba 233.527†	124.9	113.0	0.9876	ug/L	0.9876	ppb	13:10:16
1	Be 313.107†	-4260.7	81.8	0.0311	ug/L	0.0311	ppb	13:09:56
1	Cd 226.502†	-181.3	-6.9	-0.0926	ug/L	-0.0926	ppb	13:10:16
1	Co 228.616†	-34.1	13.1	0.3152	ug/L	0.3152	ppb	13:10:16
1	Cr 267.716†	92.2	22.7	0.2783	ug/L	0.2783	ppb	13:10:16
1	Cu 324.752†	6351.1	-66.0	-0.2001	ug/L	-0.2001	ppb	13:09:56
1	Mn 257.610†	817.3	342.9	0.4082	ug/L	0.4082	ppb	13:10:16
1	Mo 202.031†	3.0	-10.9	-0.8830	ug/L	-0.8830	ppb	13:10:16
1	Ni 231.604†	94.8	-2.0	-0.0600	ug/L	-0.0600	ppb	13:10:16
1	P 214.914†	186.8	5.9	3.9708	ug/L	3.9708	ppb	13:10:16
1	Pb 220.353†	-48.1	2.7	0.3832	ug/L	0.3832	ppb	13:10:16
1	S 181.975 Axial†	66.9	42.7	68.111	ug/L	68.111	ppb	13:10:16
1	Sb 206.836†	26.0	-1.9	-0.7463	ug/L	-0.7463	ppb	13:10:16
1	Se 196.026†	-10.6	6.2	4.6397	ug/L	4.6397	ppb	13:10:16
1	Si 251.611†	38524.6	37415.7	1296.9	ug/L	1296.9	ppb	13:09:56
1	Sn 189.927†	4.3	-2.6	-0.4644	ug/L	-0.4644	ppb	13:10:16
1	Ti 334.940†	-1032.0	34.4	0.0936	ug/L	0.0936	ppb	13:09:56
1	Tl 190.801†	-35.1	-0.9	-0.3161	ug/L	-0.3161	ppb	13:10:16
1	U 409.014†	-1872.3	42.4	1.1492	ug/L	1.1492	ppb	13:09:51
1	V 292.402†	-1432.2	-39.2	-0.2906	ug/L	-0.2906	ppb	13:09:56
1	Zn 213.857†	838.7	202.1	2.2362	ug/L	2.2362	ppb	13:10:16
1	SiO2†	38039.2	36911.9	2746.2	ug/L	2746.2	ppb	13:11:22
2	Sc Radial	4481.1	4481.1	105	%			13:08:59
2	Y RADIAL	4883.6	4883.6	98.55	%			13:08:59
2	Al 396.153Radial†	-64.2	14.0	14.419	ug/L	14.419	ppb	13:09:19
2	Ca 317.933Radial†	259.3	228.9	453.64	ug/L	453.64	ppb	13:09:19
2	Fe 238.204 Radial†	7.5	0.9	11.082	ug/L	11.082	ppb	13:09:19
2	K 766.490 Radial†	3029.7	166.5	31.133	ug/L	31.133	ppb	13:08:59
2	Mg 279.077 IEC†	5.3	4.4	185.98	ug/L	185.98	ppb	13:09:19
2	Na 589.592 Radial†	580.9	1421.3	559.27	ug/L	559.27	ppb	13:08:59
2	Sr 421.552†	317.6	281.3	2.3092	ug/L	2.3092	ppb	13:08:59
2	Sc 361.383	883840.2	883840.2	100.28	%			13:10:21
2	Y 371.029	747613.9	747613.9	97.830	%			13:10:21
2	Ag 328.068†	205.0	-55.1	-0.2570	ug/L	-0.2570	ppb	13:10:26
2	As 188.979†	-33.6	-12.9	-6.4140	ug/L	-6.4140	ppb	13:10:46
2	B 249.677†	-386.2	3.0	0.0739	ug/L	0.0739	ppb	13:10:46
2	Ba 233.527†	129.2	118.8	1.0389	ug/L	1.0389	ppb	13:10:46
2	Be 313.107†	-4204.1	90.6	0.0347	ug/L	0.0347	ppb	13:10:26
2	Cd 226.502†	-189.7	-17.3	-0.2301	ug/L	-0.2301	ppb	13:10:46
2	Co 228.616†	-37.4	9.4	0.2283	ug/L	0.2283	ppb	13:10:46
2	Cr 267.716†	78.1	9.7	0.1217	ug/L	0.1217	ppb	13:10:46
2	Cu 324.752†	6319.7	-26.2	-0.0766	ug/L	-0.0766	ppb	13:10:26
2	Mn 257.610†	806.0	340.7	0.4090	ug/L	0.4090	ppb	13:10:46
2	Mo 202.031†	12.9	-1.0	-0.0794	ug/L	-0.0794	ppb	13:10:46
2	Ni 231.604†	88.8	-7.0	-0.2037	ug/L	-0.2037	ppb	13:10:46

2	P 214.914†	179.8	1.0	0.6441	ug/L	0.6441	ppb	13:10:46
2	Pb 220.353†	-60.9	-10.6	-1.4963	ug/L	-1.4963	ppb	13:10:46
2	S 181.975 Axial†	69.1	45.6	72.724	ug/L	72.724	ppb	13:10:46
2	Sb 206.836†	26.7	-0.9	-0.3741	ug/L	-0.3741	ppb	13:10:46
2	Se 196.026†	-21.4	-4.6	-3.3861	ug/L	-3.3861	ppb	13:10:46
2	Si 251.611†	38755.5	38077.0	1319.8	ug/L	1319.8	ppb	13:10:26
2	Sn 189.927†	-2.4	-9.3	-1.8423	ug/L	-1.8423	ppb	13:10:46
2	Ti 334.940†	-925.6	129.0	0.2568	ug/L	0.2568	ppb	13:10:26
2	Tl 190.801†	-23.3	10.5	3.7705	ug/L	3.7705	ppb	13:10:46
2	U 409.014†	-2058.8	-164.6	-4.4745	ug/L	-4.4745	ppb	13:10:21
2	V 292.402†	-1327.8	48.9	0.3458	ug/L	0.3458	ppb	13:10:26
2	Zn 213.857†	831.8	204.6	2.2653	ug/L	2.2653	ppb	13:10:46
2	SiO2†	38065.4	37363.7	2779.8	ug/L	2779.8	ppb	13:11:27
3	Sc Radial	4495.8	4495.8	106	%			13:09:24
3	Y RADIAL	4874.6	4874.6	98.37	%			13:09:24
3	Al 396.153Radial†	-60.3	17.9	18.430	ug/L	18.430	ppb	13:09:44
3	Ca 317.933Radial†	263.5	232.0	459.90	ug/L	459.90	ppb	13:09:44
3	Fe 238.204 Radial†	9.0	2.4	28.692	ug/L	28.692	ppb	13:09:44
3	K 766.490 Radial†	3093.8	217.7	40.826	ug/L	40.826	ppb	13:09:24
3	Mg 279.077 IEC†	7.2	6.2	263.42	ug/L	263.42	ppb	13:09:44
3	Na 589.592 Radial†	572.1	1411.1	555.29	ug/L	555.29	ppb	13:09:24
3	Sr 421.552†	278.8	243.7	1.9999	ug/L	1.9999	ppb	13:09:24
3	Sc 361.383	889844.2	889844.2	100.96	%			13:10:51
3	Y 371.029	753424.9	753424.9	98.590	%			13:10:51
3	Ag 328.068†	184.0	-77.3	-0.3525	ug/L	-0.3525	ppb	13:10:56
3	As 188.979†	-14.4	6.3	3.1571	ug/L	3.1571	ppb	13:11:16
3	B 249.677†	-377.4	14.4	0.3609	ug/L	0.3609	ppb	13:11:16
3	Ba 233.527†	119.9	108.7	0.9532	ug/L	0.9532	ppb	13:11:16
3	Be 313.107†	-4246.4	77.0	0.0294	ug/L	0.0294	ppb	13:10:56
3	Cd 226.502†	-173.5	0.0	-0.0039	ug/L	-0.0039	ppb	13:11:16
3	Co 228.616†	-34.0	13.0	0.3146	ug/L	0.3146	ppb	13:11:16
3	Cr 267.716†	97.0	28.0	0.3483	ug/L	0.3483	ppb	13:11:16
3	Cu 324.752†	6284.6	-103.5	-0.3094	ug/L	-0.3094	ppb	13:10:56
3	Mn 257.610†	803.5	332.8	0.3979	ug/L	0.3979	ppb	13:11:16
3	Mo 202.031†	8.5	-5.4	-0.4371	ug/L	-0.4371	ppb	13:11:16
3	Ni 231.604†	99.8	3.4	0.0978	ug/L	0.0978	ppb	13:11:16
3	P 214.914†	182.0	2.0	1.3529	ug/L	1.3529	ppb	13:11:16
3	Pb 220.353†	-65.8	-15.1	-2.1356	ug/L	-2.1356	ppb	13:11:16
3	S 181.975 Axial†	61.5	37.7	60.095	ug/L	60.095	ppb	13:11:16
3	Sb 206.836†	25.9	-1.9	-0.7524	ug/L	-0.7524	ppb	13:11:16
3	Se 196.026†	-23.5	-6.6	-4.8053	ug/L	-4.8053	ppb	13:11:16
3	Si 251.611†	38578.3	37640.7	1304.7	ug/L	1304.7	ppb	13:10:56
3	Sn 189.927†	2.2	-4.8	-0.9100	ug/L	-0.9100	ppb	13:11:16
3	Ti 334.940†	-1000.3	61.2	0.1419	ug/L	0.1419	ppb	13:10:56
3	Tl 190.801†	-24.3	9.7	3.4761	ug/L	3.4761	ppb	13:11:16
3	U 409.014†	-2124.9	-216.2	-5.8798	ug/L	-5.8798	ppb	13:10:51
3	V 292.402†	-1243.4	141.4	1.0064	ug/L	1.0064	ppb	13:10:56
3	Zn 213.857†	838.2	205.3	2.2688	ug/L	2.2688	ppb	13:11:16
3	SiO2†	38755.2	37790.8	2811.6	ug/L	2811.6	ppb	13:11:32

Mean Data: 1202053152|957527|25

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	889184.8	100.89	%	0.573				0.57%
Sc Radial	4475.8	105	%	0.5				0.52%
Y 371.029	752791.7	98.508	%	0.6402				0.65%
Y RADIAL	4862.2	98.12	%	0.597				0.61%
Ag 328.068†	-46.2	-0.2141	ug/L	0.16407	-0.2141	ppb	0.16407	76.62%
Al 396.153Radial†	14.1	14.516	ug/L	3.8659	14.516	ppb	3.8659	26.63%
As 188.979†	-3.9	-1.9122	ug/L	4.81069	-1.9122	ppb	4.81069	251.58%
B 249.677†	6.6	0.1645	ug/L	0.17020	0.1645	ppb	0.17020	103.45%
Ba 233.527†	113.5	0.9932	ug/L	0.04309	0.9932	ppb	0.04309	4.34%
Be 313.107†	83.1	0.0317	ug/L	0.00275	0.0317	ppb	0.00275	8.68%
Ca 317.933Radial†	230.2	456.18	ug/L	3.296	456.18	ppb	3.296	0.72%
Cd 226.502†	-8.1	-0.1089	ug/L	0.11396	-0.1089	ppb	0.11396	104.69%
Co 228.616†	11.8	0.2860	ug/L	0.05003	0.2860	ppb	0.05003	17.49%
Cr 267.716†	20.1	0.2495	ug/L	0.11603	0.2495	ppb	0.11603	46.51%
Cu 324.752†	-65.2	-0.1954	ug/L	0.11649	-0.1954	ppb	0.11649	59.63%
Fe 238.204 Radial†	1.5	17.956	ug/L	9.4187	17.956	ppb	9.4187	52.45%
K 766.490 Radial†	192.4	36.044	ug/L	4.8475	36.044	ppb	4.8475	13.45%

Mg 279.077 IEC†	5.7	242.13	ug/L	49.100	242.13	ppb	49.100	20.28%
Mn 257.610†	338.8	0.4050	ug/L	0.00619	0.4050	ppb	0.00619	1.53%
Mo 202.031†	-5.8	-0.4665	ug/L	0.40264	-0.4665	ppb	0.40264	86.31%
Na 589.592 Radial†	1434.9	564.64	ug/L	12.905	564.64	ppb	12.905	2.29%
Ni 231.604†	-1.9	-0.0553	ug/L	0.15083	-0.0553	ppb	0.15083	272.88%
P 214.914†	2.9	1.9893	ug/L	1.75228	1.9893	ppb	1.75228	88.09%
Pb 220.353†	-7.7	-1.0829	ug/L	1.30926	-1.0829	ppb	1.30926	120.90%
S 181.975 Axial†	42.0	66.977	ug/L	6.3905	66.977	ppb	6.3905	9.54%
Sb 206.836†	-1.6	-0.6243	ug/L	0.21668	-0.6243	ppb	0.21668	34.71%
Se 196.026†	-1.7	-1.1839	ug/L	5.09309	-1.1839	ppb	5.09309	430.19%
Si 251.611†	37711.2	1307.1	ug/L	11.65	1307.1	ppb	11.65	0.89%
Sn 189.927†	-5.6	-1.0722	ug/L	0.70310	-1.0722	ppb	0.70310	65.57%
Sr 421.552†	258.9	2.1249	ug/L	0.16292	2.1249	ppb	0.16292	7.67%
Ti 334.940†	74.9	0.1641	ug/L	0.08383	0.1641	ppb	0.08383	51.09%
Tl 190.801†	6.4	2.3102	ug/L	2.27920	2.3102	ppb	2.27920	98.66%
U 409.014†	-112.8	-3.0684	ug/L	3.71947	-3.0684	ppb	3.71947	121.22%
V 292.402†	50.4	0.3539	ug/L	0.64850	0.3539	ppb	0.64850	183.26%
Zn 213.857†	204.0	2.2568	ug/L	0.01787	2.2568	ppb	0.01787	0.79%
SiO2†	37355.4	2779.2	ug/L	32.69	2779.2	ppb	32.69	1.18%

Sequence No.: 29
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/24/2010 13:20:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4496.7	4496.7	106	%			13:22:38
1	Y RADIAL	4861.8	4861.8	98.11	%			13:22:38
1	Al 396.153Radial†	5089.7	4886.5	4993.2	ug/L	4993.2	ppb	13:22:38
1	Ca 317.933Radial†	2719.0	2553.3	5060.5	ug/L	5060.5	ppb	13:22:58
1	Fe 238.204 Radial†	450.9	420.1	5089.5	ug/L	5089.5	ppb	13:22:58
1	K 766.490 Radial†	29908.7	25566.8	4831.5	ug/L	4831.5	ppb	13:22:38
1	Mg 279.077 IEC†	128.8	121.1	5152.7	ug/L	5152.7	ppb	13:22:58
1	Na 589.592 Radial†	26919.7	26319.0	10357	ug/L	10357	ppb	13:22:38
1	Sr 421.552†	63284.8	59806.9	491.58	ug/L	491.58	ppb	13:22:38
1	Sc 361.383	872259.1	872259.1	98.970	%			13:23:55
1	Y 371.029	730880.5	730880.5	95.640	%			13:23:55
1	Ag 328.068†	103644.4	104463.9	494.88	ug/L	494.88	ppb	13:24:01
1	As 188.979†	942.3	972.7	488.08	ug/L	488.08	ppb	13:24:21
1	B 249.677†	18159.0	18736.2	474.93	ug/L	474.93	ppb	13:24:01
1	Ba 233.527†	55308.3	55874.1	489.46	ug/L	489.46	ppb	13:24:01
1	Be 313.107†	1259793.6	1277192.1	484.35	ug/L	484.35	ppb	13:23:55
1	Cd 226.502†	36384.0	36934.6	487.80	ug/L	487.80	ppb	13:24:01
1	Co 228.616†	20171.6	20428.4	496.06	ug/L	496.06	ppb	13:24:01
1	Cr 267.716†	39639.7	39984.3	489.55	ug/L	489.55	ppb	13:24:01
1	Cu 324.752†	164604.8	159990.5	485.71	ug/L	485.71	ppb	13:24:01
1	Mn 257.610†	389425.6	393016.9	479.59	ug/L	479.59	ppb	13:24:01
1	Mo 202.031†	5934.6	5982.5	489.97	ug/L	489.97	ppb	13:24:21
1	Ni 231.604†	16874.9	16955.1	495.12	ug/L	495.12	ppb	13:24:01
1	P 214.914†	3708.6	3569.0	2310.6	ug/L	2310.6	ppb	13:24:21
1	Pb 220.353†	3355.3	3440.3	488.43	ug/L	488.43	ppb	13:24:21
1	S 181.975 Axial†	627.8	611.1	972.88	ug/L	972.88	ppb	13:24:21
1	Sb 206.836†	1276.6	1262.4	502.99	ug/L	502.99	ppb	13:24:21
1	Se 196.026†	637.1	660.4	507.58	ug/L	507.58	ppb	13:24:21
1	Si 251.611†	70367.0	70530.7	2438.6	ug/L	2438.6	ppb	13:24:01
1	Sn 189.927†	2342.3	2359.7	490.40	ug/L	490.40	ppb	13:24:21
1	Ti 334.940†	297149.9	301295.6	488.46	ug/L	488.46	ppb	13:24:01
1	Tl 190.801†	1309.0	1356.4	490.42	ug/L	490.42	ppb	13:24:21
1	U 409.014†	15824.5	17877.7	484.17	ug/L	484.17	ppb	13:24:01
1	V 292.402†	65291.3	67344.0	493.83	ug/L	493.83	ppb	13:24:01
1	Zn 213.857†	44534.1	44373.0	486.69	ug/L	486.69	ppb	13:24:01
1	SiO2†	69524.0	69653.8	5168.8	ug/L	5168.8	ppb	13:25:28
2	Sc Radial	4454.8	4454.8	105	%			13:23:03
2	Y RADIAL	4808.0	4808.0	97.02	%			13:23:03
2	Al 396.153Radial†	5016.0	4861.4	4967.6	ug/L	4967.6	ppb	13:23:03
2	Ca 317.933Radial†	2729.0	2587.0	5127.3	ug/L	5127.3	ppb	13:23:23
2	Fe 238.204 Radial†	449.8	423.1	5125.5	ug/L	5125.5	ppb	13:23:23
2	K 766.490 Radial†	29707.5	25640.3	4845.4	ug/L	4845.4	ppb	13:23:03
2	Mg 279.077 IEC†	131.3	124.6	5303.3	ug/L	5303.3	ppb	13:23:23
2	Na 589.592 Radial†	26556.4	26211.2	10314	ug/L	10314	ppb	13:23:03
2	Sr 421.552†	62570.2	59686.8	490.59	ug/L	490.59	ppb	13:23:03
2	Sc 361.383	874015.5	874015.5	99.169	%			13:24:26
2	Y 371.029	732328.5	732328.5	95.830	%			13:24:26
2	Ag 328.068†	103092.2	103696.7	491.26	ug/L	491.26	ppb	13:24:32
2	As 188.979†	939.8	968.3	485.91	ug/L	485.91	ppb	13:24:52
2	B 249.677†	18171.4	18711.8	474.31	ug/L	474.31	ppb	13:24:32
2	Ba 233.527†	55173.5	55625.8	487.28	ug/L	487.28	ppb	13:24:32
2	Be 313.107†	1262055.9	1276915.5	484.24	ug/L	484.24	ppb	13:24:26
2	Cd 226.502†	36103.5	36578.0	483.08	ug/L	483.08	ppb	13:24:32
2	Co 228.616†	20159.6	20375.3	494.77	ug/L	494.77	ppb	13:24:32
2	Cr 267.716†	39433.1	39695.4	486.02	ug/L	486.02	ppb	13:24:32
2	Cu 324.752†	163859.6	158904.8	482.41	ug/L	482.41	ppb	13:24:32
2	Mn 257.610†	387709.8	390496.0	476.51	ug/L	476.51	ppb	13:24:32
2	Mo 202.031†	5883.8	5919.2	484.80	ug/L	484.80	ppb	13:24:52
2	Ni 231.604†	16821.1	16866.6	492.54	ug/L	492.54	ppb	13:24:32

2	P 214.914†	3681.4	3533.9	2287.6 ug/L	2287.6 ppb	13:24:52
2	Pb 220.353†	3342.5	3420.6	485.62 ug/L	485.62 ppb	13:24:52
2	S 181.975 Axial†	622.5	604.4	962.29 ug/L	962.29 ppb	13:24:52
2	Sb 206.836†	1273.2	1256.3	500.42 ug/L	500.42 ppb	13:24:52
2	Se 196.026†	626.4	648.3	498.68 ug/L	498.68 ppb	13:24:52
2	Si 251.611†	70033.8	70051.9	2422.1 ug/L	2422.1 ppb	13:24:32
2	Sn 189.927†	2304.2	2316.6	481.44 ug/L	481.44 ppb	13:24:52
2	Ti 334.940†	295979.4	299511.9	485.56 ug/L	485.56 ppb	13:24:32
2	Tl 190.801†	1307.5	1352.2	488.91 ug/L	488.91 ppb	13:24:52
2	U 409.014†	15931.7	17953.6	486.24 ug/L	486.24 ppb	13:24:32
2	V 292.402†	64897.7	66814.5	489.94 ug/L	489.94 ppb	13:24:32
2	Zn 213.857†	44325.1	44071.7	483.37 ug/L	483.37 ppb	13:24:32
2	SiO2†	70050.1	70043.1	5197.9 ug/L	5197.9 ppb	13:25:33
3	Sc Radial	4459.6	4459.6	105 %		13:23:29
3	Y RADIAL	4803.5	4803.5	96.93 %		13:23:29
3	Al 396.153Radial†	5071.8	4909.5	5017.1 ug/L	5017.1 ppb	13:23:29
3	Ca 317.933Radial†	2721.7	2577.3	5108.0 ug/L	5108.0 ppb	13:23:49
3	Fe 238.204 Radial†	451.1	423.8	5134.6 ug/L	5134.6 ppb	13:23:49
3	K 766.490 Radial†	29875.2	25770.0	4870.0 ug/L	4870.0 ppb	13:23:29
3	Mg 279.077 IEC†	130.5	123.8	5266.9 ug/L	5266.9 ppb	13:23:49
3	Na 589.592 Radial†	26477.5	26109.1	10274 ug/L	10274 ppb	13:23:29
3	Sr 421.552†	62751.5	59795.9	491.49 ug/L	491.49 ppb	13:23:29
3	Sc 361.383	879407.8	879407.8	99.781 %		13:24:57
3	Y 371.029	738203.0	738203.0	96.599 %		13:24:57
3	Ag 328.068†	104430.3	104400.3	494.59 ug/L	494.59 ppb	13:25:02
3	As 188.979†	930.6	953.3	478.46 ug/L	478.46 ppb	13:25:22
3	B 249.677†	18529.3	18958.1	480.57 ug/L	480.57 ppb	13:25:02
3	Ba 233.527†	55553.4	55665.4	487.64 ug/L	487.64 ppb	13:25:02
3	Be 313.107†	1263905.6	1270965.9	482.00 ug/L	482.00 ppb	13:24:57
3	Cd 226.502†	36415.4	36667.3	484.26 ug/L	484.26 ppb	13:25:02
3	Co 228.616†	20320.2	20411.6	495.64 ug/L	495.64 ppb	13:25:02
3	Cr 267.716†	39773.6	39792.8	487.22 ug/L	487.22 ppb	13:25:02
3	Cu 324.752†	166644.3	160682.4	487.81 ug/L	487.81 ppb	13:25:02
3	Mn 257.610†	391845.9	392244.0	478.65 ug/L	478.65 ppb	13:25:02
3	Mo 202.031†	5906.9	5906.1	483.72 ug/L	483.72 ppb	13:25:22
3	Ni 231.604†	16980.7	16922.5	494.17 ug/L	494.17 ppb	13:25:02
3	P 214.914†	3705.7	3535.6	2287.6 ug/L	2287.6 ppb	13:25:22
3	Pb 220.353†	3340.4	3397.8	482.40 ug/L	482.40 ppb	13:25:22
3	S 181.975 Axial†	620.2	598.3	952.50 ug/L	952.50 ppb	13:25:22
3	Sb 206.836†	1262.0	1237.3	493.09 ug/L	493.09 ppb	13:25:22
3	Se 196.026†	622.0	640.0	492.57 ug/L	492.57 ppb	13:25:22
3	Si 251.611†	70912.5	70499.5	2437.6 ug/L	2437.6 ppb	13:25:02
3	Sn 189.927†	2326.0	2324.2	483.03 ug/L	483.03 ppb	13:25:22
3	Ti 334.940†	299764.6	301475.3	488.75 ug/L	488.75 ppb	13:25:02
3	Tl 190.801†	1303.1	1339.7	484.45 ug/L	484.45 ppb	13:25:22
3	U 409.014†	15966.0	17889.5	484.49 ug/L	484.49 ppb	13:25:02
3	V 292.402†	65801.1	67318.7	493.56 ug/L	493.56 ppb	13:25:02
3	Zn 213.857†	44711.8	44185.2	484.60 ug/L	484.60 ppb	13:25:02
3	SiO2†	71152.6	70714.9	5248.0 ug/L	5248.0 ppb	13:25:38

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	875227.5	99.306	%	0.4227				0.43%
Sc Radial	4470.4	105	%	0.5				0.51%
Y 371.029	733804.0	96.023	%	0.5074				0.53%
Y RADIAL	4824.4	97.36	%	0.655				0.67%
Ag 328.068†	104187.0	493.58	ug/L	2.012	493.58	ppb	2.012	0.41%
QC value within limits for Ag 328.068 Recovery = 98.72%								
Al 396.153Radial†	4885.8	4992.6	ug/L	24.76	4992.6	ppb	24.76	0.50%
QC value within limits for Al 396.153Radial Recovery = 99.85%								
As 188.979†	964.8	484.15	ug/L	5.046	484.15	ppb	5.046	1.04%
QC value within limits for As 188.979 Recovery = 96.83%								
B 249.677†	18802.0	476.60	ug/L	3.453	476.60	ppb	3.453	0.72%
QC value within limits for B 249.677 Recovery = 95.32%								
Ba 233.527†	55721.8	488.13	ug/L	1.168	488.13	ppb	1.168	0.24%
QC value within limits for Ba 233.527 Recovery = 97.63%								
Be 313.107†	1275024.5	483.53	ug/L	1.329	483.53	ppb	1.329	0.27%
QC value within limits for Be 313.107 Recovery = 96.71%								
Ca 317.933Radial†	2572.5	5098.6	ug/L	34.36	5098.6	ppb	34.36	0.67%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.97%
Cd 226.502†            36726.6      485.04 ug/L         2.455      485.04 ppb          2.455   0.51%
   QC value within limits for Cd 226.502  Recovery = 97.01%
Co 228.616†            20405.1      495.49 ug/L         0.660      495.49 ppb          0.660   0.13%
   QC value within limits for Co 228.616  Recovery = 99.10%
Cr 267.716†            39824.2      487.60 ug/L         1.796      487.60 ppb          1.796   0.37%
   QC value within limits for Cr 267.716  Recovery = 97.52%
Cu 324.752†           159859.2      485.31 ug/L         2.721      485.31 ppb          2.721   0.56%
   QC value within limits for Cu 324.752  Recovery = 97.06%
Fe 238.204 Radial†       422.3      5116.5 ug/L        23.85      5116.5 ppb         23.85   0.47%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.33%
K 766.490 Radial†      25659.0      4849.0 ug/L        19.48      4849.0 ppb         19.48   0.40%
   QC value within limits for K 766.490 Radial  Recovery = 96.98%
Mg 279.077 IEC†          123.2      5240.9 ug/L        78.55      5240.9 ppb         78.55   1.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.82%
Mn 257.610†           391919.0      478.25 ug/L         1.576      478.25 ppb          1.576   0.33%
   QC value within limits for Mn 257.610  Recovery = 95.65%
Mo 202.031†             5935.9      486.16 ug/L         3.344      486.16 ppb          3.344   0.69%
   QC value within limits for Mo 202.031  Recovery = 97.23%
Na 589.592 Radial†     26213.1       10315 ug/L          41.3       10315 ppb           41.3   0.40%
   QC value within limits for Na 589.592 Radial  Recovery = 103.15%
Ni 231.604†            16914.7      493.94 ug/L         1.307      493.94 ppb          1.307   0.26%
   QC value within limits for Ni 231.604  Recovery = 98.79%
P 214.914†              3546.2      2295.3 ug/L        13.30      2295.3 ppb         13.30   0.58%
   QC value within limits for P 214.914  Recovery = 91.81%
Pb 220.353†             3419.5      485.48 ug/L         3.019      485.48 ppb          3.019   0.62%
   QC value within limits for Pb 220.353  Recovery = 97.10%
S 181.975 Axial†         604.6      962.56 ug/L        10.190      962.56 ppb         10.190   1.06%
   QC value within limits for S 181.975 Axial  Recovery = 96.26%
Sb 206.836†             1252.0      498.83 ug/L         5.138      498.83 ppb          5.138   1.03%
   QC value within limits for Sb 206.836  Recovery = 99.77%
Se 196.026†              649.6      499.61 ug/L         7.551      499.61 ppb          7.551   1.51%
   QC value within limits for Se 196.026  Recovery = 99.92%
Si 251.611†            70360.7      2432.8 ug/L          9.27      2432.8 ppb          9.27   0.38%
   QC value within limits for Si 251.611  Recovery = 97.31%
Sn 189.927†             2333.5      484.96 ug/L         4.779      484.96 ppb          4.779   0.99%
   QC value within limits for Sn 189.927  Recovery = 96.99%
Sr 421.552†            59763.2      491.22 ug/L         0.546      491.22 ppb          0.546   0.11%
   QC value within limits for Sr 421.552  Recovery = 98.24%
Ti 334.940†           300760.9      487.59 ug/L         1.761      487.59 ppb          1.761   0.36%
   QC value within limits for Ti 334.940  Recovery = 97.52%
Tl 190.801†             1349.4      487.93 ug/L         3.105      487.93 ppb          3.105   0.64%
   QC value within limits for Tl 190.801  Recovery = 97.59%
U 409.014†             17906.9      484.97 ug/L         1.113      484.97 ppb          1.113   0.23%
   QC value within limits for U 409.014  Recovery = 96.99%
V 292.402†             67159.1      492.44 ug/L         2.176      492.44 ppb          2.176   0.44%
   QC value within limits for V 292.402  Recovery = 98.49%
Zn 213.857†            44210.0      484.89 ug/L         1.678      484.89 ppb          1.678   0.35%
   QC value within limits for Zn 213.857  Recovery = 96.98%
SiO2†                  70137.3      5204.9 ug/L        40.02      5204.9 ppb         40.02   0.77%
   QC value within limits for SiO2  Recovery = 97.33%
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/24/2010 13:27:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4490.7	4490.7	106	%			13:29:41
1	Y RADIAL	4871.2	4871.2	98.30	%			13:29:41
1	Al 396.153Radial†	-73.4	5.5	5.5644	ug/L	5.5644	ppb	13:30:01
1	Ca 317.933Radial†	27.0	8.5	16.794	ug/L	16.794	ppb	13:30:01
1	Fe 238.204 Radial†	8.3	1.7	20.257	ug/L	20.257	ppb	13:30:01
1	K 766.490 Radial†	2604.8	-241.9	-45.784	ug/L	-45.784	ppb	13:29:41
1	Mg 279.077 IEC†	3.1	2.3	96.260	ug/L	96.260	ppb	13:30:01
1	Na 589.592 Radial†	-918.7	0.5	0.2112	ug/L	0.2112	ppb	13:29:41
1	Sr 421.552†	6.5	-13.7	-0.1131	ug/L	-0.1131	ppb	13:29:41
1	Sc 361.383	883422.7	883422.7	100.24	%			13:30:58
1	Y 371.029	748924.6	748924.6	98.002	%			13:30:58
1	Ag 328.068†	225.0	-35.0	-0.1562	ug/L	-0.1562	ppb	13:31:03
1	As 188.979†	-24.6	-3.9	-1.9571	ug/L	-1.9571	ppb	13:31:23
1	B 249.677†	-296.5	92.3	2.3477	ug/L	2.3477	ppb	13:31:23
1	Ba 233.527†	7.2	-2.9	-0.0253	ug/L	-0.0253	ppb	13:31:23
1	Be 313.107†	-4290.5	2.4	0.0008	ug/L	0.0008	ppb	13:31:03
1	Cd 226.502†	-187.5	-15.2	-0.2037	ug/L	-0.2037	ppb	13:31:23
1	Co 228.616†	-39.4	7.4	0.1811	ug/L	0.1811	ppb	13:31:23
1	Cr 267.716†	73.5	5.1	0.0663	ug/L	0.0663	ppb	13:31:23
1	Cu 324.752†	6465.6	122.3	0.3748	ug/L	0.3748	ppb	13:31:03
1	Mn 257.610†	444.3	-19.8	-0.0261	ug/L	-0.0261	ppb	13:31:23
1	Mo 202.031†	22.9	9.0	0.7397	ug/L	0.7397	ppb	13:31:23
1	Ni 231.604†	96.9	1.2	0.0336	ug/L	0.0336	ppb	13:31:23
1	P 214.914†	183.6	4.9	3.2150	ug/L	3.2150	ppb	13:31:23
1	Pb 220.353†	-76.7	-26.5	-3.7524	ug/L	-3.7524	ppb	13:31:23
1	S 181.975 Axial†	29.5	6.2	9.8194	ug/L	9.8194	ppb	13:31:23
1	Sb 206.836†	29.7	2.1	0.8209	ug/L	0.8209	ppb	13:31:23
1	Se 196.026†	-19.6	-2.9	-2.0703	ug/L	-2.0703	ppb	13:31:23
1	Si 251.611†	578.7	8.5	0.2840	ug/L	0.2840	ppb	13:31:23
1	Sn 189.927†	3.8	-3.1	-0.6517	ug/L	-0.6517	ppb	13:31:23
1	Ti 334.940†	-1067.6	-13.1	-0.0249	ug/L	-0.0249	ppb	13:31:03
1	Tl 190.801†	-21.4	12.5	4.4728	ug/L	4.4728	ppb	13:31:23
1	U 409.014†	-2062.7	-169.5	-4.6083	ug/L	-4.6083	ppb	13:30:58
1	V 292.402†	-1416.7	-40.5	-0.2923	ug/L	-0.2923	ppb	13:31:03
1	Zn 213.857†	735.1	108.6	1.1983	ug/L	1.1983	ppb	13:31:23
1	SiO2†	615.6	20.1	1.4730	ug/L	1.4730	ppb	13:32:29
2	Sc Radial	4434.2	4434.2	104	%			13:30:06
2	Y RADIAL	4870.8	4870.8	98.29	%			13:30:06
2	Al 396.153Radial†	-73.5	4.5	4.6462	ug/L	4.6462	ppb	13:30:26
2	Ca 317.933Radial†	24.5	6.3	12.546	ug/L	12.546	ppb	13:30:26
2	Fe 238.204 Radial†	9.3	2.7	32.801	ug/L	32.801	ppb	13:30:26
2	K 766.490 Radial†	2705.2	-114.3	-21.624	ug/L	-21.624	ppb	13:30:06
2	Mg 279.077 IEC†	3.6	2.8	119.99	ug/L	119.99	ppb	13:30:26
2	Na 589.592 Radial†	-913.6	-5.7	-2.2430	ug/L	-2.2430	ppb	13:30:06
2	Sr 421.552†	18.6	-2.1	-0.0173	ug/L	-0.0173	ppb	13:30:06
2	Sc 361.383	875921.3	875921.3	99.385	%			13:31:28
2	Y 371.029	742920.2	742920.2	97.216	%			13:31:28
2	Ag 328.068†	316.4	58.8	0.2896	ug/L	0.2896	ppb	13:31:33
2	As 188.979†	-18.3	2.2	1.1064	ug/L	1.1064	ppb	13:31:53
2	B 249.677†	-288.0	98.4	2.4997	ug/L	2.4997	ppb	13:31:53
2	Ba 233.527†	17.6	7.6	0.0679	ug/L	0.0679	ppb	13:31:53
2	Be 313.107†	-4235.0	21.6	0.0080	ug/L	0.0080	ppb	13:31:33
2	Cd 226.502†	-167.3	3.5	0.0427	ug/L	0.0427	ppb	13:31:53
2	Co 228.616†	-40.6	5.9	0.1435	ug/L	0.1435	ppb	13:31:53
2	Cr 267.716†	79.3	11.6	0.1469	ug/L	0.1469	ppb	13:31:53
2	Cu 324.752†	6309.8	20.8	0.0666	ug/L	0.0666	ppb	13:31:33
2	Mn 257.610†	430.5	-29.9	-0.0381	ug/L	-0.0381	ppb	13:31:53
2	Mo 202.031†	15.4	1.7	0.1401	ug/L	0.1401	ppb	13:31:53
2	Ni 231.604†	93.6	-1.3	-0.0377	ug/L	-0.0377	ppb	13:31:53

2	P 214.914†	178.0	0.9	0.5329 ug/L	0.5329 ppb	13:31:53
2	Pb 220.353†	-67.5	-17.9	-2.5346 ug/L	-2.5346 ppb	13:31:53
2	S 181.975 Axial†	33.6	10.6	16.819 ug/L	16.819 ppb	13:31:53
2	Sb 206.836†	32.1	4.7	1.8219 ug/L	1.8219 ppb	13:31:53
2	Se 196.026†	-13.4	3.2	2.4558 ug/L	2.4558 ppb	13:31:53
2	Si 251.611†	588.2	22.9	0.7925 ug/L	0.7925 ppb	13:31:53
2	Sn 189.927†	5.3	-1.6	-0.3277 ug/L	-0.3277 ppb	13:31:53
2	Ti 334.940†	-1085.9	-40.7	-0.0728 ug/L	-0.0728 ppb	13:31:33
2	Tl 190.801†	-23.1	10.5	3.7750 ug/L	3.7750 ppb	13:31:53
2	U 409.014†	-1983.7	-107.6	-2.9278 ug/L	-2.9278 ppb	13:31:28
2	V 292.402†	-1352.3	12.3	0.0830 ug/L	0.0830 ppb	13:31:33
2	Zn 213.857†	714.4	94.0	1.0363 ug/L	1.0363 ppb	13:31:53
2	SiO2†	595.2	4.9	0.3591 ug/L	0.3591 ppb	13:32:34
3	Sc Radial	4465.4	4465.4	105 %		13:30:31
3	Y RADIAL	4882.7	4882.7	98.53 %		13:30:31
3	Al 396.153Radial†	-80.3	-1.5	-1.5014 ug/L	-1.5014 ppb	13:30:51
3	Ca 317.933Radial†	24.9	6.6	13.075 ug/L	13.075 ppb	13:30:51
3	Fe 238.204 Radial†	9.4	2.8	34.224 ug/L	34.224 ppb	13:30:51
3	K 766.490 Radial†	2666.0	-169.7	-32.116 ug/L	-32.116 ppb	13:30:31
3	Mg 279.077 IEC†	4.0	3.2	135.31 ug/L	135.31 ppb	13:30:51
3	Na 589.592 Radial†	-921.9	-7.4	-2.9243 ug/L	-2.9243 ppb	13:30:31
3	Sr 421.552†	52.9	30.4	0.2499 ug/L	0.2499 ppb	13:30:31
3	Sc 361.383	888033.5	888033.5	100.76 %		13:31:59
3	Y 371.029	753508.7	753508.7	98.601 %		13:31:59
3	Ag 328.068†	318.0	56.1	0.2758 ug/L	0.2758 ppb	13:32:04
3	As 188.979†	-14.6	6.1	3.0509 ug/L	3.0509 ppb	13:32:24
3	B 249.677†	-325.9	64.7	1.6417 ug/L	1.6417 ppb	13:32:24
3	Ba 233.527†	11.8	1.6	0.0152 ug/L	0.0152 ppb	13:32:24
3	Be 313.107†	-4253.6	61.2	0.0231 ug/L	0.0231 ppb	13:32:04
3	Cd 226.502†	-170.3	2.9	0.0340 ug/L	0.0340 ppb	13:32:24
3	Co 228.616†	-41.0	6.1	0.1473 ug/L	0.1473 ppb	13:32:24
3	Cr 267.716†	77.7	8.9	0.1135 ug/L	0.1135 ppb	13:32:24
3	Cu 324.752†	6296.2	-79.3	-0.2377 ug/L	-0.2377 ppb	13:32:04
3	Mn 257.610†	465.7	-0.8	-0.0031 ug/L	-0.0031 ppb	13:32:24
3	Mo 202.031†	16.9	2.9	0.2387 ug/L	0.2387 ppb	13:32:24
3	Ni 231.604†	97.8	1.6	0.0458 ug/L	0.0458 ppb	13:32:24
3	P 214.914†	182.5	2.8	1.9017 ug/L	1.9017 ppb	13:32:24
3	Pb 220.353†	-64.6	-14.1	-1.9943 ug/L	-1.9943 ppb	13:32:24
3	S 181.975 Axial†	31.2	7.7	12.334 ug/L	12.334 ppb	13:32:24
3	Sb 206.836†	20.1	-7.6	-2.8897 ug/L	-2.8897 ppb	13:32:24
3	Se 196.026†	-14.9	1.9	1.5083 ug/L	1.5083 ppb	13:32:24
3	Si 251.611†	571.5	-1.7	-0.0621 ug/L	-0.0621 ppb	13:32:24
3	Sn 189.927†	10.3	3.3	0.6852 ug/L	0.6852 ppb	13:32:24
3	Ti 334.940†	-1084.4	-24.3	-0.0478 ug/L	-0.0478 ppb	13:32:04
3	Tl 190.801†	-25.1	8.8	3.1723 ug/L	3.1723 ppb	13:32:24
3	U 409.014†	-1976.3	-73.0	-1.9877 ug/L	-1.9877 ppb	13:31:59
3	V 292.402†	-1394.2	-10.7	-0.0803 ug/L	-0.0803 ppb	13:32:04
3	Zn 213.857†	729.0	98.7	1.0876 ug/L	1.0876 ppb	13:32:24
3	SiO2†	600.1	1.5	0.1054 ug/L	0.1054 ppb	13:32:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	882459.2	100.13	%	0.694				0.69%
Sc Radial	4463.4	105	%	0.7				0.63%
Y 371.029	748451.2	97.940	%	0.6949				0.71%
Y RADIAL	4874.9	98.37	%	0.136				0.14%
Ag 328.068†	26.6	0.1364	ug/L	0.25350	0.1364	ppb	0.25350	185.88%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.8	2.9031	ug/L	3.84191	2.9031	ppb	3.84191	132.34%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.5	0.7334	ug/L	2.52479	0.7334	ppb	2.52479	344.25%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	85.1	2.1630	ug/L	0.45785	2.1630	ppb	0.45785	21.17%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.1	0.0193	ug/L	0.04673	0.0193	ppb	0.04673	242.64%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	28.4	0.0106	ug/L	0.01135	0.0106	ppb	0.01135	106.58%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.1	14.138	ug/L	2.3149	14.138	ppb	2.3149	16.37%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -2.9     -0.0423 ug/L       0.13984     -0.0423 ppb        0.13984 330.45%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               6.5      0.1573 ug/L       0.02065      0.1573 ppb        0.02065  13.13%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               8.6      0.1089 ug/L       0.04051      0.1089 ppb        0.04051  37.20%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              21.3      0.0679 ug/L       0.30626      0.0679 ppb        0.30626 451.00%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        2.4     29.094 ug/L        7.6859     29.094 ppb         7.6859  26.42%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -175.3    -33.175 ug/L       12.1147    -33.175 ppb        12.1147  36.52%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.8     117.19 ug/L        19.677     117.19 ppb         19.677  16.79%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -16.8     -0.0224 ug/L       0.01776     -0.0224 ppb        0.01776  79.17%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               4.5      0.3729 ug/L       0.32151      0.3729 ppb        0.32151  86.23%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -4.2     -1.6521 ug/L       1.64916     -1.6521 ppb        1.64916  99.82%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.5      0.0139 ug/L       0.04510      0.0139 ppb        0.04510 324.38%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                2.8      1.8832 ug/L       1.34114      1.8832 ppb        1.34114  71.22%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -19.5     -2.7604 ug/L       0.90051     -2.7604 ppb        0.90051  32.62%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          8.2     12.991 ug/L        3.5457     12.991 ppb         3.5457  27.29%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.2     -0.0823 ug/L       2.48225     -0.0823 ppb        2.48225 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.7      0.6313 ug/L       2.38710      0.6313 ppb        2.38710 378.15%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               9.9      0.3381 ug/L       0.42986      0.3381 ppb        0.42986 127.14%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.5     -0.0981 ug/L       0.69738     -0.0981 ppb        0.69738 710.98%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               4.9      0.0398 ug/L       0.18809      0.0398 ppb        0.18809 472.09%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -26.0     -0.0485 ug/L       0.02398     -0.0485 ppb        0.02398  49.45%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              10.6      3.8067 ug/L       0.65085      3.8067 ppb        0.65085  17.10%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -116.7     -3.1746 ug/L       1.32758     -3.1746 ppb        1.32758  41.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -13.0     -0.0965 ug/L       0.18819     -0.0965 ppb        0.18819 194.97%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             100.4      1.1074 ug/L       0.08280      1.1074 ppb        0.08280   7.48%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     8.8      0.6459 ug/L       0.72750      0.6459 ppb        0.72750 112.64%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, April 15, 2010 12:06:38
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.1065
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1937.5	1937.532	78.762	4.1
	Mg	24.0	35069.4	35069.398	454.955	1.3
	Co	58.9	69340.3	69340.277	248.748	0.4
	Rh	102.9	138174.0	138174.049	1242.109	0.9
	In	114.9	179528.3	179528.304	1747.385	1.0
	Pb	208.0	206316.2	206316.166	937.448	0.5
⌈>	Ba	137.9	178500.2	178500.154	607.704	0.3
⌊	Ba++	69.0	3244.1	0.018	0.000	1.7
⌈>	Ce	139.9	218663.6	218663.604	1078.278	0.5
⌊	CeO	155.9	4653.5	0.021	0.000	1.5
	Bkgd	220.0	22.8	22.800	1.924	8.4

Current Optimization File Data

Current Value	Description
0.86	Nebulizer Gas Flow
6.75	Lens Voltage
1450.00	ICP RF Power
-1812.50	Analog Stage Voltage
1300.00	Pulse Stage Voltage
200.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	9.3	3229.7
Co	59	21	10.0	69006.6
In	115	21	11.8	183202.9

ICPMS #5 Instrument Tuning Report

File Name: 100415.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	599	2072	0.580
Be	9.0	9.0	2044	2088	0.593
Mg	24.0	24.0	5695	2085	0.616
Mg	25.0	25.0	5947	2085	0.606
Mg	26.0	26.0	6184	2100	0.581
Co	58.9	58.9	14189	2125	0.579
Rh	102.9	102.9	24878	2180	0.582
In	114.9	114.9	27794	2200	0.586
Ce	139.9	139.9	33864	2220	0.591
Pb	206.0	206.0	49948	2305	0.612
Pb	207.0	207.0	50171	2240	0.666
Pb	208.0	208.0	50451	2280	0.715
U	238.1	238.1	57731	2295	0.723

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, April 15, 2010 22:07:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\Blank.237

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		27	
>	Sc	45		ug/L		766866	
	Cr	52		ug/L		-3248	
	Cr	53		ug/L		97444	
	Mn	55		ug/L		1740	
	Ni	60		ug/L		259	
>	Ge	74		ug/L		311762	
	As	75		ug/L		-213	
	Se	77		ug/L		5200	
	Se	82		ug/L		-2	
	Kr	83		ug/L		112	
	Mo	98		ug/L		163	
	Ag	107		ug/L		126	
	Cd	111		ug/L		52	
	Cd	114		ug/L		96	
>	In	115		ug/L		185310	
	Sb	121		ug/L		192	
	Sb	123		ug/L		161	
>	Lu	175		ug/L		344769	
	Tl	205		ug/L		1532	
	Pb	208		ug/L		2717	
	U	238		ug/L		657	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Mn	55	Simple Linear	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Mo	98	Simple Linear	
Ag	107	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, April 15, 2010 22:12:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\Standard 1.238

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	3.356	2422	0.003
>	Sc	45		ug/L		803049	803048.704
	Cr	52	10.000	ug/L	1.865	41817	0.056
	Cr	53		ug/L		105014	0.004
	Mn	55	10.000	ug/L	1.243	72347	0.088
	Ni	60	10.000	ug/L	1.337	11516	0.014
>	Ge	74		ug/L		323265	323264.871
	As	75	10.000	ug/L	0.552	9274	0.029
	Se	77		ug/L		5984	0.002
	Se	82	10.000	ug/L	5.352	808	0.003
	Kr	83		ug/L		122	0.000
	Mo	98	10.000	ug/L	2.571	27409	0.140
	Ag	107	10.000	ug/L	1.047	47144	0.241
	Cd	111	10.000	ug/L	3.560	11583	0.059
	Cd	114		ug/L		27763	0.142
>	In	115		ug/L		194792	194791.573
	Sb	121	10.000	ug/L	5.742	42067	0.215
	Sb	123		ug/L		32599	0.167
>	Lu	175		ug/L		354262	354262.297
	Tl	205	10.000	ug/L	3.047	170511	0.477
	Pb	208	10.000	ug/L	1.797	302115	0.845
	U	238	10.000	ug/L	0.738	372018	1.048

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, April 15, 2010 22:17:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lani liquid.mth
Dataset File: C:\elandata\Dataset\100415\Standard 2.239

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**99.979**	**ug/L**	3.063	23074	0.029
>	Sc	45		**ug/L**		789878	789877.838
	Cr	52	**99.969**	**ug/L**	1.443	427672	0.546
	Cr	53		**ug/L**		146718	0.059
	Mn	55	**99.973**	**ug/L**	1.208	677110	0.855
	Ni	60	**99.990**	**ug/L**	0.524	109765	0.139
>	Ge	74		**ug/L**		319844	319843.808
	As	75	**99.997**	**ug/L**	0.398	93489	0.293
	Se	77		**ug/L**		11380	0.019
	Se	82	**100.036**	**ug/L**	0.723	8315	0.026
	Kr	83		**ug/L**		135	0.000
	Mo	98	**100.002**	**ug/L**	0.496	269652	1.401
	Ag	107	**99.970**	**ug/L**	0.296	450775	2.343
	Cd	111	**100.008**	**ug/L**	1.509	114805	0.597
	Cd	114		**ug/L**		273548	1.422
>	In	115		**ug/L**		192361	192360.962
	Sb	121	**100.032**	**ug/L**	1.320	427454	2.221
	Sb	123		**ug/L**		333538	1.733
>	Lu	175		**ug/L**		356568	356567.985
	Tl	205	**99.896**	**ug/L**	2.502	1540974	4.317
	Pb	208	**99.920**	**ug/L**	0.752	2790692	7.819
	U	238	**99.910**	**ug/L**	0.121	3425215	9.604

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, April 15, 2010 22:21:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lani liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 1.240

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**50.713**	**ug/L**	2.967	11552	0.015
|>	Sc	45		**ug/L**		778929	778929.271
|	Cr	52	**51.693**	**ug/L**	0.923	216471	0.282
|	Cr	53		**ug/L**		122151	0.030
|	Mn	55	**52.174**	**ug/L**	3.108	349216	0.446
⌊	Ni	60	**51.874**	**ug/L**	2.076	56262	0.072
⌈>	Ge	74		**ug/L**		319197	319197.454
|	As	75	**50.644**	**ug/L**	0.608	47143	0.148
|	Se	77		**ug/L**		7996	0.008
|	Se	82	**51.210**	**ug/L**	1.804	4247	0.013
⌊	Kr	83		**ug/L**		142	0.000
⌈	Mo	98	**50.061**	**ug/L**	1.379	133723	0.701
|	Ag	107	**51.400**	**ug/L**	0.851	229541	1.205
|	Cd	111	**50.756**	**ug/L**	0.882	57715	0.303
|	Cd	114		**ug/L**		136610	0.717
|>	In	115		**ug/L**		190454	190454.399
|	Sb	121	**54.457**	**ug/L**	0.840	230494	1.209
⌊	Sb	123		**ug/L**		179201	0.940
⌈>	Lu	175		**ug/L**		351774	351774.318
|	Tl	205	**51.846**	**ug/L**	1.431	789825	2.241
|	Pb	208	**51.966**	**ug/L**	0.750	1433199	4.066
⌊	U	238	**51.641**	**ug/L**	0.858	1746988	4.964

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	101.425				
>	Sc	45		101.6			
	Cr	52	103.386				
	Cr	53					
	Mn	55	104.348				
	Ni	60	103.749				
>	Ge	74		102.4			
	As	75	101.288				
	Se	77					
	Se	82	102.421				
	Kr	83					
	Mo	98	100.122				
	Ag	107	102.801				
	Cd	111	101.512				
	Cd	114					
>	In	115		102.8			
	Sb	121	108.915				
	Sb	123					
>	Lu	175		102.0			
	Tl	205	103.692				
	Pb	208	103.932				
	U	238	103.282				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, April 15, 2010 22:26:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 2.241

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.001	ug/L	3557.444	28	-0.000
>	Sc	45		ug/L		788166	788165.913
	Cr	52	0.012	ug/L	497.067	-3285	0.000
	Cr	53		ug/L		97542	-0.003
	Mn	55	-0.025	ug/L	45.030	1617	-0.000
	Ni	60	-0.029	ug/L	40.489	235	-0.000
>	Ge	74		ug/L		321028	321028.237
	As	75	0.267	ug/L	165.205	31	0.001
	Se	77		ug/L		4918	-0.001
	Se	82	0.016	ug/L	480.237	-1	0.000
	Kr	83		ug/L		115	-0.000
	Mo	98	0.030	ug/L	12.006	248	0.000
	Ag	107	0.001	ug/L	128.746	134	0.000
	Cd	111	-0.010	ug/L	107.807	43	-0.000
	Cd	114		ug/L		109	0.000
>	In	115		ug/L		191951	191950.512
	Sb	121	0.230	ug/L	5.857	1178	0.005
	Sb	123		ug/L		913	0.004
>	Lu	175		ug/L		354645	354645.459
	Tl	205	0.119	ug/L	8.070	3400	0.005
	Pb	208	-0.002	ug/L	52.379	2736	-0.000
	U	238	0.000	ug/L	428.191	679	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.8			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		103.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.6			
	Sb	121					
	Sb	123					
>	Lu	175		102.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, April 15, 2010 22:30:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 3.242

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.515**	**ug/L**	7.850	144	0.000
>	Sc	45		**ug/L**		776160	776159.921
	Cr	52	**11.556**	**ug/L**	2.731	45664	0.063
	Cr	53		**ug/L**		103536	0.006
	Mn	55	**5.960**	**ug/L**	1.736	41316	0.051
	Ni	60	**2.349**	**ug/L**	4.510	2789	0.003
>	Ge	74		**ug/L**		312970	312969.830
	As	75	**6.514**	**ug/L**	8.031	5755	0.019
	Se	77		**ug/L**		5219	-0.000
	Se	82	**6.036**	**ug/L**	8.364	489	0.002
	Kr	83		**ug/L**		117	0.000
	Mo	98	**0.538**	**ug/L**	5.856	1607	0.008
	Ag	107	**1.059**	**ug/L**	1.898	4864	0.025
	Cd	111	**1.135**	**ug/L**	5.823	1346	0.007
	Cd	114		**ug/L**		3039	0.015
>	In	115		**ug/L**		190809	190809.430
	Sb	121	**3.196**	**ug/L**	3.970	13735	0.071
	Sb	123		**ug/L**		10564	0.054
>	Lu	175		**ug/L**		351836	351835.709
	Tl	205	**1.218**	**ug/L**	1.438	20078	0.053
	Pb	208	**2.367**	**ug/L**	0.511	67932	0.185
	U	238	**0.282**	**ug/L**	1.174	10205	0.027

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	103.071				
>	Sc	45		101.2			
	Cr	52	115.558				
	Cr	53					
	Mn	55	119.202				
	Ni	60	117.470				
>	Ge	74		100.4			
	As	75	130.287				
	Se	77					
	Se	82	120.714				
	Kr	83					
	Mo	98	107.637				
	Ag	107	105.861				
	Cd	111	113.548				
	Cd	114					
>	In	115		103.0			
	Sb	121	106.527				
	Sb	123					
>	Lu	175		102.0			
	Tl	205	121.755				
	Pb	208	118.339				
	U	238	140.967				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	As	75	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, April 15, 2010 22:35:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 4.243

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.095**	**ug/L**	21.963	46	0.000
>	Sc	45		**ug/L**		725297	725296.595
	Cr	52	**2.364**	**ug/L**	0.562	6287	0.013
	Cr	53		**ug/L**		83137	-0.012
	Mn	55	**5.611**	**ug/L**	1.066	36448	0.048
	Ni	60	**2.866**	**ug/L**	3.277	3127	0.004
>	Ge	74		**ug/L**		299312	299312.015
	As	75	**0.082**	**ug/L**	241.725	-134	0.000
	Se	77		**ug/L**		5766	0.003
	Se	82	**-1.502**	**ug/L**	19.207	-119	-0.000
	Kr	83		**ug/L**		253	0.000
	Mo	98	**1961.000**	**ug/L**	2.254	4945655	27.472
	Ag	107	**0.116**	**ug/L**	11.140	613	0.003
	Cd	111	**0.423**	**ug/L**	17.941	505	0.003
	Cd	114		**ug/L**		6579	0.036
>	In	115		**ug/L**		180060	180060.464
	Sb	121	**0.138**	**ug/L**	19.562	739	0.003
	Sb	123		**ug/L**		576	0.002
>	Lu	175		**ug/L**		329856	329855.642
	Tl	205	**-0.004**	**ug/L**	104.094	1415	-0.000
	Pb	208	**0.201**	**ug/L**	4.199	7777	0.016
	U	238	**-0.014**	**ug/L**	2.417	174	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		94.6			
	Cr	52	71.632				
	Cr	53					
	Mn	55	96.736				
	Ni	60	86.577				
>	Ge	74		96.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98	98.050				
	Ag	107					
	Cd	111	95.339				
	Cd	114					
>	In	115		97.2			
	Sb	121					
	Sb	123					
>	Lu	175		95.7			
	Tl	205					
	Pb	208	106.188				
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, April 15, 2010 22:40:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lani liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 5.244

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**19.690**	ug/L	2.588	4317	0.006
|>	Sc	45		ug/L		746662	746661.593
|	Cr	52	**21.614**	ug/L	1.782	84948	0.118
|	Cr	53		ug/L		92079	-0.004
|	Mn	55	**24.212**	ug/L	0.967	156306	0.207
⌊	Ni	60	**20.554**	ug/L	1.914	21528	0.028
⌈>	Ge	74		ug/L		309090	309089.682
|	As	75	**19.575**	ug/L	3.189	17519	0.057
|	Se	77		ug/L		6980	0.006
|	Se	82	**17.500**	ug/L	3.781	1404	0.005
⌊	Kr	83		ug/L		250	0.000
⌈	Mo	98	**2015.827**	ug/L	1.457	5073930	28.240
|	Ag	107	**18.841**	ug/L	1.012	79452	0.442
|	Cd	111	**18.804**	ug/L	1.303	20206	0.112
|	Cd	114		ug/L		53270	0.296
|>	In	115		ug/L		179684	179684.454
|	Sb	121	**20.343**	ug/L	0.122	81345	0.452
⌊	Sb	123		ug/L		62780	0.349
⌈>	Lu	175		ug/L		337418	337417.774
|	Tl	205	**18.428**	ug/L	1.236	270241	0.796
|	Pb	208	**19.238**	ug/L	0.772	510596	1.505
⌊	U	238	**20.221**	ug/L	0.858	656497	1.944

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	98.449				
>	Sc	45		97.4			
	Cr	52	92.766				
	Cr	53					
	Mn	55	93.845				
	Ni	60	88.178				
>	Ge	74		99.1			
	As	75	97.873				
	Se	77					
	Se	82	87.502				
	Kr	83					
	Mo	98	100.791				
	Ag	107	94.204				
	Cd	111	91.979				
	Cd	114					
>	In	115		97.0			
	Sb	121	101.713				
	Sb	123					
>	Lu	175		97.9			
	Tl	205	92.142				
	Pb	208	95.290				
	U	238	101.106				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, April 15, 2010 22:44:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lani liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 6.245

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.841**	ug/L	7.523	11121	0.014
>	Sc	45		ug/L		778756	778755.627
	Cr	52	**49.136**	ug/L	0.838	205596	0.268
	Cr	53		ug/L		117794	0.024
	Mn	55	**49.392**	ug/L	1.293	330692	0.422
	Ni	60	**48.984**	ug/L	1.965	53141	0.068
>	Ge	74		ug/L		318835	318834.508
	As	75	**49.874**	ug/L	0.904	46369	0.146
	Se	77		ug/L		7566	0.007
	Se	82	**48.731**	ug/L	1.902	4037	0.013
	Kr	83		ug/L		112	-0.000
	Mo	98	**49.318**	ug/L	2.019	129791	0.691
	Ag	107	**50.005**	ug/L	1.854	219984	1.172
	Cd	111	**48.485**	ug/L	1.363	54320	0.289
	Cd	114		ug/L		130052	0.693
>	In	115		ug/L		187636	187635.846
	Sb	121	**51.922**	ug/L	1.244	216507	1.153
	Sb	123		ug/L		166576	0.887
>	Lu	175		ug/L		346731	346731.353
	Tl	205	**49.688**	ug/L	1.461	746078	2.147
	Pb	208	**50.209**	ug/L	1.357	1364880	3.929
	U	238	**50.017**	ug/L	1.120	1667726	4.808

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	97.682				
>	Sc	45		101.6			
	Cr	52	98.273				
	Cr	53					
	Mn	55	98.784				
	Ni	60	97.968				
>	Ge	74		102.3			
	As	75	99.748				
	Se	77					
	Se	82	97.463				
	Kr	83					
	Mo	98	98.637				
	Ag	107	100.009				
	Cd	111	96.970				
	Cd	114					
>	In	115		101.3			
	Sb	121	103.845				
	Sb	123					
>	Lu	175		100.6			
	Tl	205	99.376				
	Pb	208	100.418				
	U	238	100.034				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, April 15, 2010 22:49:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 7.246

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.015**	**ug/L**	99.763	25	-0.000
>	Sc	45		**ug/L**		790087	790086.816
	Cr	52	**-0.069**	**ug/L**	44.569	-3646	-0.000
	Cr	53		**ug/L**		97929	-0.003
	Mn	55	**-0.037**	**ug/L**	20.233	1541	-0.000
	Ni	60	**-0.013**	**ug/L**	89.114	253	-0.000
>	Ge	74		**ug/L**		324315	324315.055
	As	75	**0.508**	**ug/L**	77.359	259	0.001
	Se	77		**ug/L**		4714	-0.002
	Se	82	**-0.091**	**ug/L**	123.475	-10	-0.000
	Kr	83		**ug/L**		121	0.000
	Mo	98	**0.077**	**ug/L**	10.515	378	0.001
	Ag	107	**0.002**	**ug/L**	86.519	141	0.000
	Cd	111	**0.004**	**ug/L**	234.429	59	0.000
	Cd	114		**ug/L**		105	0.000
>	In	115		**ug/L**		192501	192501.494
	Sb	121	**0.054**	**ug/L**	2.073	431	0.001
	Sb	123		**ug/L**		362	0.001
>	Lu	175		**ug/L**		354312	354311.777
	Tl	205	**0.191**	**ug/L**	14.991	4503	0.008
	Pb	208	**0.003**	**ug/L**	89.109	2868	0.000
	U	238	**0.002**	**ug/L**	66.646	739	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		103.0			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		104.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.9			
	Sb	121					
	Sb	123					
>	Lu	175		102.8			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Thursday, April 15, 2010 22:53:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 10.247

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**993.952**	**ug/L**	6.219	218217	0.290
>	Sc	45		**ug/L**		752929	752929.437
	Cr	52	**971.053**	**ug/L**	0.859	3987517	5.301
	Cr	53		**ug/L**		545283	0.598
	Mn	55	**944.228**	**ug/L**	2.091	6079757	8.076
	Ni	60	**904.234**	**ug/L**	2.896	943624	1.254
>	Ge	74		**ug/L**		312000	311999.712
	As	75	**910.165**	**ug/L**	0.227	831784	2.667
	Se	77		**ug/L**		33507	0.091
	Se	82	**468.196**	**ug/L**	0.366	37970	0.122
	Kr	83		**ug/L**		176	0.000
	Mo	98	**1043.524**	**ug/L**	2.072	2592945	14.619
	Ag	107	**249.242**	**ug/L**	2.156	1035922	5.841
	Cd	111	**938.020**	**ug/L**	2.572	992337	5.596
	Cd	114		**ug/L**		2491852	14.050
>	In	115		**ug/L**		177374	177374.473
	Sb	121	**271.065**	**ug/L**	1.705	1067614	6.019
	Sb	123		**ug/L**		826925	4.662
>	Lu	175		**ug/L**		347721	347720.822
	Tl	205	**469.580**	**ug/L**	1.949	7058920	20.295
	Pb	208	**4826.231**	**ug/L**	0.888	131322437	377.653
	U	238	**5148.665**	**ug/L**	0.449	172098121	494.933

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	99.395				
>	Sc	45		98.2			
	Cr	52	97.105				
	Cr	53					
	Mn	55	94.423				
	Ni	60	90.423				
>	Ge	74		100.1			
	As	75	91.016				
	Se	77					
	Se	82	93.639				
	Kr	83					
	Mo	98	104.352				
	Ag	107	99.697				
	Cd	111	93.802				
	Cd	114					
>	In	115		95.7			
	Sb	121	108.426				
	Sb	123					
>	Lu	175		100.9			
	Tl	205	93.916				
	Pb	208	96.525				
	U	238	102.973				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Thursday, April 15, 2010 22:58:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lani liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 11.248

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.334**	ug/L	3.985	11452	0.015
>	Sc	45		ug/L		777872	777871.764
	Cr	52	**51.361**	ug/L	0.841	214813	0.280
	Cr	53		ug/L		116971	0.023
	Mn	55	**52.307**	ug/L	1.778	349699	0.447
	Ni	60	**51.576**	ug/L	2.385	55872	0.072
>	Ge	74		ug/L		321514	321514.454
	As	75	**51.447**	ug/L	1.773	48234	0.151
	Se	77		ug/L		7507	0.007
	Se	82	**50.136**	ug/L	3.814	4187	0.013
	Kr	83		ug/L		121	0.000
	Mo	98	**50.271**	ug/L	0.668	134171	0.704
	Ag	107	**51.370**	ug/L	1.591	229175	1.204
	Cd	111	**50.170**	ug/L	1.502	57009	0.299
	Cd	114		ug/L		135102	0.710
>	In	115		ug/L		190289	190288.913
	Sb	121	**53.826**	ug/L	0.434	227620	1.195
	Sb	123		ug/L		173633	0.912
>	Lu	175		ug/L		352149	352148.990
	Tl	205	**52.985**	ug/L	1.382	807936	2.290
	Pb	208	**52.678**	ug/L	1.383	1454320	4.122
	U	238	**52.422**	ug/L	0.692	1775216	5.039

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	100.668				
>	Sc	45		101.4			
	Cr	52	102.723				
	Cr	53					
	Mn	55	104.615				
	Ni	60	103.152				
>	Ge	74		103.1			
	As	75	102.893				
	Se	77					
	Se	82	100.272				
	Kr	83					
	Mo	98	100.543				
	Ag	107	102.740				
	Cd	111	100.341				
	Cd	114					
>	In	115		102.7			
	Sb	121	107.651				
	Sb	123					
>	Lu	175		102.1			
	Tl	205	105.970				
	Pb	208	105.357				
	U	238	104.844				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Thursday, April 15, 2010 23:03:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lani liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 12.249

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**-0.012**	**ug/L**	131.023	25	-0.000
|>	Sc	45		**ug/L**		788211	788210.858
|	Cr	52	**-0.008**	**ug/L**	226.332	-3372	-0.000
|	Cr	53		**ug/L**		93544	-0.008
|	Mn	55	**-0.018**	**ug/L**	13.791	1671	-0.000
⌊	Ni	60	**-0.004**	**ug/L**	882.802	262	-0.000
⌈>	Ge	74		**ug/L**		320109	320109.102
|	As	75	**0.242**	**ug/L**	164.325	10	0.001
|	Se	77		**ug/L**		4400	-0.003
|	Se	82	**-0.258**	**ug/L**	58.281	-23	-0.000
⌊	Kr	83		**ug/L**		131	0.000
⌈	Mo	98	**0.117**	**ug/L**	20.095	477	0.002
|	Ag	107	**0.003**	**ug/L**	189.526	140	0.000
|	Cd	111	**-0.000**	**ug/L**	2321.217	53	-0.000
|	Cd	114		**ug/L**		129	0.000
|>	In	115		**ug/L**		189578	189577.861
|	Sb	121	**0.074**	**ug/L**	8.884	506	0.002
⌊	Sb	123		**ug/L**		437	0.001
⌈>	Lu	175		**ug/L**		356219	356218.557
|	Tl	205	**0.373**	**ug/L**	9.692	7327	0.016
|	Pb	208	**0.039**	**ug/L**	13.708	3891	0.003
⌊	U	238	**0.033**	**ug/L**	16.631	1817	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.8			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		102.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.3			
	Sb	121					
	Sb	123					
>	Lu	175		103.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, April 15, 2010 23:39:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lani liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 8.257

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.542**	**ug/L**	5.291	10997	0.014
>	Sc	45		**ug/L**		774615	774614.586
	Cr	52	**49.034**	**ug/L**	0.496	204058	0.268
	Cr	53		**ug/L**		131342	0.043
	Mn	55	**49.046**	**ug/L**	0.928	326663	0.419
	Ni	60	**48.813**	**ug/L**	2.199	52671	0.068
>	Ge	74		**ug/L**		316794	316794.297
	As	75	**49.492**	**ug/L**	3.189	45725	0.145
	Se	77		**ug/L**		7873	0.008
	Se	82	**48.219**	**ug/L**	1.889	3968	0.013
	Kr	83		**ug/L**		137	0.000
	Mo	98	**47.922**	**ug/L**	0.771	126313	0.671
	Ag	107	**49.647**	**ug/L**	1.975	218706	1.163
	Cd	111	**48.620**	**ug/L**	1.825	54546	0.290
	Cd	114		**ug/L**		128537	0.684
>	In	115		**ug/L**		187896	187895.794
	Sb	121	**51.567**	**ug/L**	0.093	215327	1.145
	Sb	123		**ug/L**		168516	0.896
>	Lu	175		**ug/L**		347968	347968.250
	Tl	205	**50.139**	**ug/L**	0.735	755539	2.167
	Pb	208	**50.023**	**ug/L**	1.872	1364607	3.914
	U	238	**49.759**	**ug/L**	1.276	1664925	4.783

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	97.085				
>	Sc	45		101.0			
	Cr	52	98.069				
	Cr	53					
	Mn	55	98.093				
	Ni	60	97.625				
>	Ge	74		101.6			
	As	75	98.984				
	Se	77					
	Se	82	96.438				
	Kr	83					
	Mo	98	95.844				
	Ag	107	99.293				
	Cd	111	97.240				
	Cd	114					
>	In	115		101.4			
	Sb	121	103.135				
	Sb	123					
>	Lu	175		100.9			
	Tl	205	100.277				
	Pb	208	100.046				
	U	238	99.519				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, April 15, 2010 23:44:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 9.258

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.013**	**ug/L**	148.840	25	-0.000
>	Sc	45		**ug/L**		795064	795064.059
	Cr	52	**-0.171**	**ug/L**	39.781	-4108	-0.001
	Cr	53		**ug/L**		101503	0.001
	Mn	55	**-0.036**	**ug/L**	13.417	1558	-0.000
	Ni	60	**-0.033**	**ug/L**	41.872	233	-0.000
>	Ge	74		**ug/L**		322080	322079.957
	As	75	**0.419**	**ug/L**	36.475	175	0.001
	Se	77		**ug/L**		4766	-0.002
	Se	82	**-0.128**	**ug/L**	60.114	-13	-0.000
	Kr	83		**ug/L**		121	0.000
	Mo	98	**0.031**	**ug/L**	27.606	250	0.000
	Ag	107	**0.002**	**ug/L**	61.339	137	0.000
	Cd	111	**0.003**	**ug/L**	83.485	57	0.000
	Cd	114		**ug/L**		110	0.000
>	In	115		**ug/L**		190751	190751.332
	Sb	121	**0.044**	**ug/L**	17.680	382	0.001
	Sb	123		**ug/L**		295	0.001
>	Lu	175		**ug/L**		351920	351919.645
	Tl	205	**0.510**	**ug/L**	7.124	9319	0.022
	Pb	208	**0.014**	**ug/L**	38.524	3163	0.001
	U	238	**0.011**	**ug/L**	21.184	1049	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		103.7			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		103.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.9			
	Sb	121					
	Sb	123					
>	Lu	175		102.1			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, April 16, 2010 00:16:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 8.265

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.933**	**ug/L**	1.329	11057	0.015
>	Sc	45		**ug/L**		756741	756741.034
	Cr	52	**49.443**	**ug/L**	0.520	201040	0.270
	Cr	53		**ug/L**		127789	0.042
	Mn	55	**50.785**	**ug/L**	1.619	330420	0.434
	Ni	60	**49.756**	**ug/L**	1.689	52460	0.069
>	Ge	74		**ug/L**		311523	311522.550
	As	75	**49.190**	**ug/L**	2.128	44683	0.144
	Se	77		**ug/L**		7980	0.009
	Se	82	**48.251**	**ug/L**	1.992	3906	0.013
	Kr	83		**ug/L**		139	0.000
	Mo	98	**48.166**	**ug/L**	2.623	125473	0.675
	Ag	107	**49.446**	**ug/L**	1.644	215358	1.159
	Cd	111	**48.594**	**ug/L**	2.096	53891	0.290
	Cd	114		**ug/L**		130146	0.700
>	In	115		**ug/L**		185791	185791.397
	Sb	121	**51.696**	**ug/L**	2.632	213351	1.148
	Sb	123		**ug/L**		167738	0.902
>	Lu	175		**ug/L**		344083	344082.970
	Tl	205	**49.450**	**ug/L**	0.799	736780	2.137
	Pb	208	**50.878**	**ug/L**	1.858	1372118	3.981
	U	238	**50.255**	**ug/L**	0.334	1662789	4.831

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Be	9	99.866				
>	Sc	45		98.7			
	Cr	52	98.887				
	Cr	53					
	Mn	55	101.571				
	Ni	60	99.513				
>	Ge	74		99.9			
	As	75	98.381				
	Se	77					
	Se	82	96.502				
	Kr	83					
	Mo	98	96.332				
	Ag	107	98.891				
	Cd	111	97.189				
	Cd	114					
>	In	115		100.3			
	Sb	121	103.391				
	Sb	123					
>	Lu	175		99.8			
	Tl	205	98.899				
	Pb	208	101.755				
	U	238	100.510				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, April 16, 2010 00:21:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 9.266

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**-0.018**	**ug/L**	49.381	24	-0.000
|>	Sc	45		**ug/L**		788976	788976.351
|	Cr	52	**-0.143**	**ug/L**	71.886	-3951	-0.001
|	Cr	53		**ug/L**		101605	0.002
|	Mn	55	**-0.037**	**ug/L**	2.883	1539	-0.000
⌊	Ni	60	**-0.008**	**ug/L**	265.530	257	-0.000
⌈>	Ge	74		**ug/L**		323441	323440.529
|	As	75	**0.407**	**ug/L**	57.340	164	0.001
|	Se	77		**ug/L**		4844	-0.002
|	Se	82	**-0.148**	**ug/L**	65.872	-14	-0.000
⌊	Kr	83		**ug/L**		127	0.000
⌈	Mo	98	**0.031**	**ug/L**	49.880	253	0.000
|	Ag	107	**0.002**	**ug/L**	137.058	142	0.000
|	Cd	111	**-0.002**	**ug/L**	794.547	53	-0.000
|	Cd	114		**ug/L**		98	-0.000
|>	In	115		**ug/L**		193673	193673.451
|	Sb	121	**0.038**	**ug/L**	11.452	362	0.001
⌊	Sb	123		**ug/L**		281	0.001
⌈>	Lu	175		**ug/L**		359388	359388.331
|	Tl	205	**0.720**	**ug/L**	3.617	12770	0.031
|	Pb	208	**0.005**	**ug/L**	33.104	2984	0.000
⌊	U	238	**0.008**	**ug/L**	27.665	964	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.9			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		103.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.5			
	Sb	121					
	Sb	123					
>	Lu	175		104.2			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, April 16, 2010 00:57:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lani liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 8.274

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**52.696**	**ug/L**	4.384	12404	0.015
|>	Sc	45		**ug/L**		805134	805133.584
|	Cr	52	**51.174**	**ug/L**	2.092	221440	0.279
|	Cr	53		**ug/L**		138372	0.045
|	Mn	55	**51.516**	**ug/L**	3.029	356388	0.441
⌊	Ni	60	**50.911**	**ug/L**	2.060	57080	0.071
⌈>	Ge	74		**ug/L**		328216	328215.812
|	As	75	**51.127**	**ug/L**	1.223	48938	0.150
|	Se	77		**ug/L**		10129	0.014
|	Se	82	**50.378**	**ug/L**	2.350	4297	0.013
⌊	Kr	83		**ug/L**		142	0.000
⌈	Mo	98	**50.266**	**ug/L**	2.987	136203	0.704
|	Ag	107	**51.024**	**ug/L**	1.825	231173	1.196
|	Cd	111	**49.771**	**ug/L**	3.429	57405	0.297
|	Cd	114		**ug/L**		138516	0.716
|>	In	115		**ug/L**		193271	193271.079
|	Sb	121	**53.246**	**ug/L**	2.494	228619	1.182
⌊	Sb	123		**ug/L**		175432	0.907
⌈>	Lu	175		**ug/L**		363677	363677.402
|	Tl	205	**51.703**	**ug/L**	0.279	814256	2.235
|	Pb	208	**51.576**	**ug/L**	1.086	1470434	4.036
⌊	U	238	**50.823**	**ug/L**	0.523	1777359	4.886

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	105.392				
>	Sc	45		105.0			
	Cr	52	102.348				
	Cr	53					
	Mn	55	103.032				
	Ni	60	101.822				
>	Ge	74		105.3			
	As	75	102.255				
	Se	77					
	Se	82	100.757				
	Kr	83					
	Mo	98	100.532				
	Ag	107	102.047				
	Cd	111	99.542				
	Cd	114					
>	In	115		104.3			
	Sb	121	106.492				
	Sb	123					
>	Lu	175		105.5			
	Tl	205	103.406				
	Pb	208	103.152				
	U	238	101.647				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, April 16, 2010 01:02:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ani liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 9.275

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**-0.000**	**ug/L**	1583.377	28	-0.000
|>	Sc	45		**ug/L**		797474	797474.023
|	Cr	52	**0.275**	**ug/L**	14.154	-2178	0.002
|	Cr	53		**ug/L**		107344	0.008
|	Mn	55	**-0.016**	**ug/L**	40.872	1701	-0.000
⌊	Ni	60	**-0.008**	**ug/L**	238.572	261	-0.000
⌈>	Ge	74		**ug/L**		324839	324839.446
|	As	75	**0.230**	**ug/L**	63.699	-3	0.001
|	Se	77		**ug/L**		6452	0.003
|	Se	82	**-0.199**	**ug/L**	66.272	-19	-0.000
⌊	Kr	83		**ug/L**		130	0.000
⌈	Mo	98	**0.028**	**ug/L**	22.122	243	0.000
|	Ag	107	**0.002**	**ug/L**	63.429	140	0.000
|	Cd	111	**-0.003**	**ug/L**	215.407	51	-0.000
|	Cd	114		**ug/L**		110	0.000
|>	In	115		**ug/L**		191658	191657.648
|	Sb	121	**0.045**	**ug/L**	2.201	391	0.001
⌊	Sb	123		**ug/L**		316	0.001
⌈>	Lu	175		**ug/L**		359989	359989.476
|	Tl	205	**0.225**	**ug/L**	8.285	5099	0.010
|	Pb	208	**-0.010**	**ug/L**	14.994	2543	-0.001
⌊	U	238	**0.008**	**ug/L**	14.101	950	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		104.0			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		104.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.4			
	Sb	121					
	Sb	123					
>	Lu	175		104.4			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, April 16, 2010 01:48:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 8.285

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**47.784**	ug/L	6.039	11099	0.014
>	Sc	45		ug/L		794171	794170.571
	Cr	52	**48.558**	ug/L	2.136	207169	0.265
	Cr	53		ug/L		141813	0.052
	Mn	55	**48.670**	ug/L	1.375	332341	0.416
	Ni	60	**48.235**	ug/L	3.409	53358	0.067
>	Ge	74		ug/L		323310	323310.262
	As	75	**48.529**	ug/L	2.256	45750	0.142
	Se	77		ug/L		10430	0.016
	Se	82	**48.727**	ug/L	1.487	4093	0.013
	Kr	83		ug/L		140	0.000
	Mo	98	**48.056**	ug/L	2.481	127194	0.673
	Ag	107	**49.317**	ug/L	0.988	218214	1.156
	Cd	111	**47.295**	ug/L	0.881	53294	0.282
	Cd	114		ug/L		127460	0.675
>	In	115		ug/L		188715	188714.813
	Sb	121	**51.264**	ug/L	2.398	214978	1.138
	Sb	123		ug/L		166091	0.879
>	Lu	175		ug/L		350040	350040.165
	Tl	205	**49.935**	ug/L	2.646	756894	2.158
	Pb	208	**50.245**	ug/L	0.729	1378957	3.932
	U	238	**49.585**	ug/L	0.796	1669073	4.766

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9	95.569				
|>	Sc	45		103.6			
|	Cr	52	97.117				
|	Cr	53					
|	Mn	55	97.341				
⌊	Ni	60	96.470				
⌈>	Ge	74		103.7			
|	As	75	97.058				
|	Se	77					
|	Se	82	97.454				
⌊	Kr	83					
⌈	Mo	98	96.112				
|	Ag	107	98.634				
|	Cd	111	94.590				
|	Cd	114					
|>	In	115		101.8			
|	Sb	121	102.529				
⌊	Sb	123					
⌈>	Lu	175		101.5			
|	Tl	205	99.869				
|	Pb	208	100.490				
⌊	U	238	99.169				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, April 16, 2010 01:53:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ani liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 9.286

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.015	ug/L	159.424	24	-0.000
>	Sc	45		ug/L		780349	780349.153
	Cr	52	0.086	ug/L	58.398	-2940	0.000
	Cr	53		ug/L		110401	0.014
	Mn	55	-0.037	ug/L	17.330	1527	-0.000
	Ni	60	-0.028	ug/L	17.143	233	-0.000
>	Ge	74		ug/L		316714	316713.569
	As	75	0.471	ug/L	19.432	220	0.001
	Se	77		ug/L		6823	0.005
	Se	82	-0.402	ug/L	25.816	-35	-0.000
	Kr	83		ug/L		134	0.000
	Mo	98	0.025	ug/L	6.097	227	0.000
	Ag	107	0.002	ug/L	230.179	133	0.000
	Cd	111	-0.009	ug/L	197.479	43	-0.000
	Cd	114		ug/L		109	0.000
>	In	115		ug/L		185130	185130.182
	Sb	121	0.039	ug/L	15.683	354	0.001
	Sb	123		ug/L		284	0.001
>	Lu	175		ug/L		344094	344094.221
	Tl	205	0.365	ug/L	13.412	6945	0.016
	Pb	208	0.004	ug/L	71.572	2809	0.000
	U	238	0.009	ug/L	18.286	955	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.8			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		101.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.9			
	Sb	121					
	Sb	123					
>	Lu	175		99.8			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202053155
Sample Date/Time: Friday, April 16, 2010 01:57:41
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 957529|1|skj
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\1202053155.287

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.015**	ug/L	78.946	24	-0.000
>	Sc	45		ug/L		777036	777035.845
	Cr	52	**0.332**	ug/L	24.098	-1877	0.002
	Cr	53		ug/L		218599	0.154
	Mn	55	**0.135**	ug/L	8.842	2662	0.001
	Ni	60	**-0.064**	ug/L	8.519	193	-0.000
>	Ge	74		ug/L		315197	315197.181
	As	75	**0.224**	ug/L	97.931	-7	0.001
	Se	77		ug/L		17100	0.038
	Se	82	**-0.143**	ug/L	76.450	-14	-0.000
	Kr	83		ug/L		127	0.000
	Mo	98	**-0.021**	ug/L	5.404	107	-0.000
	Ag	107	**-0.016**	ug/L	12.240	54	-0.000
	Cd	111	**-0.003**	ug/L	634.041	49	-0.000
	Cd	114		ug/L		90	-0.000
>	In	115		ug/L		182801	182801.357
	Sb	121	**0.006**	ug/L	66.060	215	0.000
	Sb	123		ug/L		183	0.000
>	Lu	175		ug/L		344191	344190.974
	Tl	205	**0.118**	ug/L	7.814	3280	0.005
	Pb	208	**-0.025**	ug/L	3.808	2038	-0.002
	U	238	**-0.014**	ug/L	1.879	191	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.3			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		101.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.6			
	Sb	121					
	Sb	123					
>	Lu	175		99.8			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202053156
Sample Date/Time: Friday, April 16, 2010 02:02:16
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 957529|1|skj
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\1202053156.288

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.924**	ug/L	5.355	11751	0.015
>	Sc	45		ug/L		774137	774137.339
	Cr	52	**48.367**	ug/L	2.645	201093	0.264
	Cr	53		ug/L		241740	0.185
	Mn	55	**48.051**	ug/L	2.649	319851	0.411
	Ni	60	**47.958**	ug/L	1.675	51724	0.066
>	Ge	74		ug/L		317525	317524.668
	As	75	**47.131**	ug/L	1.698	43622	0.138
	Se	77		ug/L		19545	0.045
	Se	82	**47.003**	ug/L	2.036	3878	0.012
	Kr	83		ug/L		153	0.000
	Mo	98	**48.280**	ug/L	2.711	124000	0.676
	Ag	107	**49.329**	ug/L	2.256	211815	1.156
	Cd	111	**48.165**	ug/L	4.605	52637	0.287
	Cd	114		ug/L		124475	0.679
>	In	115		ug/L		183224	183223.710
	Sb	121	**50.837**	ug/L	3.127	206847	1.129
	Sb	123		ug/L		162735	0.888
>	Lu	175		ug/L		350750	350750.221
	Tl	205	**43.678**	ug/L	0.216	663645	1.888
	Pb	208	**49.165**	ug/L	1.386	1351779	3.847
	U	238	**48.359**	ug/L	0.195	1631233	4.649

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		100.9			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		101.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.9			
	Sb	121					
	Sb	123					
>	Lu	175		101.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 247817001
Sample Date/Time: Friday, April 16, 2010 02:06:52
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 957529|1|skj
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\247817001.289

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.039**	**ug/L**	42.162	20	-0.000
>	Sc	45		**ug/L**		826200	826199.999
	Cr	52	**2.432**	**ug/L**	1.734	7469	0.013
	Cr	53		**ug/L**		222180	0.142
	Mn	55	**5.707**	**ug/L**	0.840	42194	0.049
	Ni	60	**0.178**	**ug/L**	9.774	483	0.000
>	Ge	74		**ug/L**		309662	309661.635
	As	75	**-0.132**	**ug/L**	297.903	-335	-0.000
	Se	77		**ug/L**		17966	0.041
	Se	82	**0.124**	**ug/L**	169.822	8	0.000
	Kr	83		**ug/L**		130	0.000
	Mo	98	**1.020**	**ug/L**	1.081	2808	0.014
	Ag	107	**-0.012**	**ug/L**	28.211	74	-0.000
	Cd	111	**-0.017**	**ug/L**	59.219	33	-0.000
	Cd	114		**ug/L**		71	-0.000
>	In	115		**ug/L**		185180	185180.204
	Sb	121	**0.057**	**ug/L**	9.503	427	0.001
	Sb	123		**ug/L**		370	0.001
>	Lu	175		**ug/L**		352027	352026.695
	Tl	205	**0.614**	**ug/L**	11.916	10883	0.027
	Pb	208	**-0.029**	**ug/L**	10.207	1971	-0.002
	U	238	**0.320**	**ug/L**	0.135	11512	0.031

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		107.7			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		99.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.9			
	Sb	121					
	Sb	123					
>	Lu	175		102.1			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 247817002
Sample Date/Time: Friday, April 16, 2010 02:11:28
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 957529|1|skj
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\247817002.290

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.033**	ug/L	29.760	22	-0.000
>	Sc	45		ug/L		862441	862440.744
	Cr	52	**2.789**	ug/L	0.942	9475	0.015
	Cr	53		ug/L		229651	0.139
	Mn	55	**5.336**	ug/L	2.022	41302	0.046
	Ni	60	**0.151**	ug/L	15.573	472	0.000
>	Ge	74		ug/L		325180	325180.473
	As	75	**-0.291**	ug/L	286.274	-496	-0.001
	Se	77		ug/L		19020	0.042
	Se	82	**-0.240**	ug/L	44.532	-22	-0.000
	Kr	83		ug/L		158	0.000
	Mo	98	**0.991**	ug/L	2.113	2787	0.014
	Ag	107	**-0.016**	ug/L	6.235	58	-0.000
	Cd	111	**-0.023**	ug/L	40.925	27	-0.000
	Cd	114		ug/L		66	-0.000
>	In	115		ug/L		188824	188824.238
	Sb	121	**0.032**	ug/L	5.185	330	0.001
	Sb	123		ug/L		314	0.001
>	Lu	175		ug/L		364306	364305.553
	Tl	205	**0.156**	ug/L	5.643	4067	0.007
	Pb	208	**-0.027**	ug/L	0.743	2092	-0.002
	U	238	**0.324**	ug/L	1.506	12022	0.031

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		112.5			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		104.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.9			
	Sb	121					
	Sb	123					
>	Lu	175		105.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202053157
Sample Date/Time: Friday, April 16, 2010 02:20:41
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 957529|1|skj
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\1202053157.292

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.024	ug/L	63.606	24	-0.000
>	Sc	45		ug/L		851054	851054.496
	Cr	52	3.445	ug/L	1.006	12399	0.019
	Cr	53		ug/L		227683	0.140
	Mn	55	10.497	ug/L	2.121	78343	0.090
	Ni	60	0.518	ug/L	1.791	899	0.001
>	Ge	74		ug/L		315272	315271.816
	As	75	0.041	ug/L	1153.939	-177	0.000
	Se	77		ug/L		18844	0.043
	Se	82	-0.064	ug/L	220.640	-7	-0.000
	Kr	83		ug/L		148	0.000
	Mo	98	1.084	ug/L	3.032	2955	0.015
	Ag	107	-0.016	ug/L	5.402	55	-0.000
	Cd	111	-0.026	ug/L	7.229	23	-0.000
	Cd	114		ug/L		81	-0.000
>	In	115		ug/L		183902	183901.688
	Sb	121	0.061	ug/L	5.928	441	0.001
	Sb	123		ug/L		373	0.001
>	Lu	175		ug/L		355525	355525.410
	Tl	205	0.063	ug/L	6.947	2547	0.003
	Pb	208	0.144	ug/L	2.676	6818	0.011
	U	238	0.492	ug/L	1.347	17501	0.047

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		111.0			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		101.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.2			
	Sb	121					
	Sb	123					
>	Lu	175		103.1			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202053158
Sample Date/Time: Friday, April 16, 2010 02:25:17
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 957529|1|skj
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\1202053158.293

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**54.847**	**ug/L**	1.824	12910	0.016
>	Sc	45		**ug/L**		804795	804794.978
	Cr	52	**47.094**	**ug/L**	2.776	203420	0.257
	Cr	53		**ug/L**		232269	0.162
	Mn	55	**54.399**	**ug/L**	1.465	376318	0.465
	Ni	60	**44.354**	**ug/L**	2.134	49772	0.061
>	Ge	74		**ug/L**		299669	299668.692
	As	75	**74.369**	**ug/L**	2.064	65071	0.218
	Se	77		**ug/L**		17942	0.043
	Se	82	**18.578**	**ug/L**	0.363	1445	0.005
	Kr	83		**ug/L**		173	0.000
	Mo	98	**47.158**	**ug/L**	2.858	117522	0.661
	Ag	107	**48.292**	**ug/L**	0.181	201237	1.132
	Cd	111	**9.828**	**ug/L**	3.551	10465	0.059
	Cd	114		**ug/L**		24039	0.135
>	In	115		**ug/L**		177714	177713.827
	Sb	121	**191.198**	**ug/L**	1.106	754534	4.245
	Sb	123		**ug/L**		592850	3.336
>	Lu	175		**ug/L**		345854	345853.914
	Tl	205	**82.673**	**ug/L**	0.481	1237360	3.573
	Pb	208	**38.596**	**ug/L**	2.557	1046875	3.020
	U	238	**48.407**	**ug/L**	0.841	1609940	4.653

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		104.9			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		96.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.9			
	Sb	121					
	Sb	123					
>	Lu	175		100.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202053159
Sample Date/Time: Friday, April 16, 2010 02:29:53
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 957529|5|skj
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\1202053159.294

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.013**	ug/L	175.679	26	-0.000
>	Sc	45		ug/L		803206	803205.877
	Cr	52	**0.629**	ug/L	17.010	-639	0.003
	Cr	53		ug/L		138299	0.045
	Mn	55	**2.194**	ug/L	2.683	16890	0.019
	Ni	60	**0.031**	ug/L	43.234	306	0.000
>	Ge	74		ug/L		322878	322878.311
	As	75	**0.588**	ug/L	83.177	337	0.002
	Se	77		ug/L		9375	0.012
	Se	82	**-0.384**	ug/L	46.741	-34	-0.000
	Kr	83		ug/L		137	0.000
	Mo	98	**0.204**	ug/L	5.504	708	0.003
	Ag	107	**-0.016**	ug/L	16.285	59	-0.000
	Cd	111	**-0.020**	ug/L	7.367	30	-0.000
	Cd	114		ug/L		57	-0.000
>	In	115		ug/L		189614	189614.017
	Sb	121	**0.030**	ug/L	13.665	324	0.001
	Sb	123		ug/L		259	0.000
>	Lu	175		ug/L		352551	352551.206
	Tl	205	**1.061**	ug/L	8.435	17727	0.046
	Pb	208	**0.016**	ug/L	19.637	3216	0.001
	U	238	**0.089**	ug/L	3.203	3681	0.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		104.7			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		103.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.3			
	Sb	121					
	Sb	123					
>	Lu	175		102.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, April 16, 2010 02:39:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 6.296

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.135**	**ug/L**	3.236	11549	0.015
>	Sc	45		**ug/L**		757692	757692.416
	Cr	52	**48.620**	**ug/L**	1.717	197822	0.265
	Cr	53		**ug/L**		130778	0.046
	Mn	55	**49.342**	**ug/L**	3.655	321235	0.422
	Ni	60	**48.458**	**ug/L**	1.476	51151	0.067
>	Ge	74		**ug/L**		310316	310315.524
	As	75	**48.300**	**ug/L**	2.035	43698	0.142
	Se	77		**ug/L**		9236	0.013
	Se	82	**48.861**	**ug/L**	3.974	3938	0.013
	Kr	83		**ug/L**		143	0.000
	Mo	98	**47.329**	**ug/L**	0.592	122661	0.663
	Ag	107	**49.037**	**ug/L**	1.306	212435	1.149
	Cd	111	**47.299**	**ug/L**	2.109	52175	0.282
	Cd	114		**ug/L**		125257	0.677
>	In	115		**ug/L**		184754	184753.508
	Sb	121	**51.126**	**ug/L**	1.834	209913	1.135
	Sb	123		**ug/L**		162321	0.878
>	Lu	175		**ug/L**		345251	345251.293
	Tl	205	**48.073**	**ug/L**	2.682	718909	2.078
	Pb	208	**50.135**	**ug/L**	2.926	1356652	3.923
	U	238	**50.120**	**ug/L**	0.984	1664153	4.818

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	104.270				
>	Sc	45		98.8			
	Cr	52	97.241				
	Cr	53					
	Mn	55	98.685				
	Ni	60	96.915				
>	Ge	74		99.5			
	As	75	96.601				
	Se	77					
	Se	82	97.723				
	Kr	83					
	Mo	98	94.657				
	Ag	107	98.074				
	Cd	111	94.598				
	Cd	114					
>	In	115		99.7			
	Sb	121	102.252				
	Sb	123					
>	Lu	175		100.1			
	Tl	205	96.146				
	Pb	208	100.271				
	U	238	100.239				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, April 16, 2010 02:43:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 7.297

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**-0.016**	ug/L	160.988	25	-0.000
|>	Sc	45		ug/L		795673	795672.969
|	Cr	52	**0.103**	ug/L	102.216	-2919	0.001
|	Cr	53		ug/L		104660	0.005
|	Mn	55	**-0.039**	ug/L	19.315	1538	-0.000
⌊	Ni	60	**-0.029**	ug/L	35.027	236	-0.000
⌈>	Ge	74		ug/L		323250	323249.968
|	As	75	**0.157**	ug/L	75.143	-71	0.000
|	Se	77		ug/L		5895	0.002
|	Se	82	**-0.139**	ug/L	245.919	-14	-0.000
⌊	Kr	83		ug/L		138	0.000
⌈	Mo	98	**0.028**	ug/L	31.751	246	0.000
|	Ag	107	**0.002**	ug/L	152.883	140	0.000
|	Cd	111	**0.002**	ug/L	257.216	57	0.000
|	Cd	114		ug/L		102	0.000
|>	In	115		ug/L		192427	192426.754
|	Sb	121	**0.018**	ug/L	28.212	276	0.000
⌊	Sb	123		ug/L		223	0.000
⌈>	Lu	175		ug/L		360754	360754.287
|	Tl	205	**0.564**	ug/L	5.967	10396	0.024
|	Pb	208	**-0.007**	ug/L	10.623	2656	-0.001
⌊	U	238	**0.009**	ug/L	5.692	989	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		103.8			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		103.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.8			
	Sb	121					
	Sb	123					
>	Lu	175		104.6			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, April 16, 2010 14:12:40
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.1080
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	4096.4	4096.388	103.077	2.5
	Mg	24.0	57078.2	57078.225	954.120	1.7
	Co	58.9	106943.5	106943.490	1811.457	1.7
	Rh	102.9	205757.0	205756.988	958.409	0.5
	In	114.9	287057.5	287057.547	3658.722	1.3
	Pb	208.0	304945.8	304945.848	5761.142	1.9
⌈>	Ba	137.9	275284.2	275284.201	4136.739	1.5
⌊	Ba++	69.0	4779.6	0.017	0.000	1.4
⌈>	Ce	139.9	340439.5	340439.475	3719.924	1.1
⌊	CeO	155.9	8053.2	0.024	0.001	3.3
	Bkgd	220.0	26.5	26.500	4.077	15.4

Current Optimization File Data

Current Value	Description
0.88	Nebulizer Gas Flow
6.75	Lens Voltage
1450.00	ICP RF Power
-1812.50	Analog Stage Voltage
1300.00	Pulse Stage Voltage
200.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	9.0	3118.7
Co	59	21	9.8	70529.0
In	115	21	10.8	192576.0

ICPMS #5 Instrument Tuning Report

File Name: 100416.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	601	2072	0.577
Be	9.0	9.1	2059	2088	0.597
Mg	24.0	24.0	5693	2085	0.586
Mg	25.0	25.0	5945	2085	0.585
Mg	26.0	25.9	6170	2100	0.578
Co	58.9	58.9	14187	2125	0.570
Rh	102.9	102.9	24871	2180	0.571
In	114.9	114.9	27799	2200	0.579
Ce	139.9	139.9	33869	2220	0.589
Pb	206.0	206.0	49948	2305	0.598
Pb	207.0	207.0	50171	2240	0.653
Pb	208.0	207.9	50439	2280	0.700
U	238.1	238.0	57725	2295	0.708

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, April 17, 2010 02:41:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\Blank.197

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		480241	
	U	238		ug/L		859	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, April 17, 2010 02:42:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\Standard 1.198

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		477606	477605.958
	U	238	10.000	ug/L	1.510	433712	0.906

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, April 17, 2010 02:44:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\Standard 2.199

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		473304	473304.247
	U	238	**99.894**	**ug/L**	0.766	3873959	8.183

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, April 17, 2010 02:46:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\QC Std 1.200

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		473128	473127.858
	U	238	51.433	ug/L	1.146	1994127	4.213

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		98.5			
	U	238	102.866				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, April 17, 2010 02:47:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\QC Std 2.201

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		471739	471738.675
⌊	U	238	0.020	ug/L	9.497	1632	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		98.2			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, April 17, 2010 02:49:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\QC Std 3.202

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		475542	475542.457
	U	238	0.210	ug/L	1.195	9012	0.017

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		99.0			
	U	238	104.755				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, April 17, 2010 02:51:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\QC Std 4.203

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		444530	444529.905
	U	238	-0.014	ug/L	1.988	282	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		92.6			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, April 17, 2010 02:52:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\QC Std 5.204

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		447699	447698.864
	U	238	**22.727**	**ug/L**	0.492	834286	1.862

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		93.2			
	U	238	113.637				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, April 17, 2010 02:54:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\QC Std 6.205

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		463655	463654.534
⌊	U	238	52.472	ug/L	1.110	1993708	4.298

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		96.5			
⌊	U	238	104.945				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, April 17, 2010 02:56:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\QC Std 7.206

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		487589	487589.426
⌊	U	238	0.016	ug/L	10.466	1513	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		101.5			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Saturday, April 17, 2010 03:09:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\QC Std 8.214

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		450881	450880.531
⌊	U	238	**53.499**	**ug/L**	0.529	1976776	4.383

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		93.9			
⌊	U	238	106.997				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Saturday, April 17, 2010 03:11:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\QC Std 9.215

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		464346	464346.092
⌊	U	238	0.022	ug/L	4.837	1661	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		96.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202053155
Sample Date/Time: Saturday, April 17, 2010 03:12:54
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 957529|1|skj
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\1202053155.216

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		458337	458336.792
	U	238	-0.008	ug/L	3.171	522	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		95.4			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202053156
Sample Date/Time: Saturday, April 17, 2010 03:14:35
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 957529|1|skj
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\1202053156.217

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		451653	451652.835
⌊	U	238	53.267	ug/L	1.471	1971420	4.364

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		94.0			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 247817001
Sample Date/Time: Saturday, April 17, 2010 03:16:16
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 957529|1|skj
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\247817001.218

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		448632	448632.130
⌊	U	238	0.394	ug/L	1.084	15279	0.032

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		93.4			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 247817002
Sample Date/Time: Saturday, April 17, 2010 03:17:57
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 957529|1|skj
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\247817002.219

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		455269	455268.621
⌊	U	238	**0.354**	**ug/L**	0.270	14033	0.029

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		94.8			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202053157
Sample Date/Time: Saturday, April 17, 2010 03:21:20
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 957529|1|skj
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\1202053157.221

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		438702	438701.548
	U	238	0.545	ug/L	1.327	20356	0.045

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		91.4			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202053158
Sample Date/Time: Saturday, April 17, 2010 03:23:01
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 957529|1|skj
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\1202053158.222

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		444030	444030.387
⌊	U	238	52.155	ug/L	1.517	1897892	4.272

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		92.5			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202053159
Sample Date/Time: Saturday, April 17, 2010 03:24:42
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 957529|5|skj
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\1202053159.223

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		432880	432880.214
⌊	U	238	0.107	ug/L	2.656	4556	0.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		90.1			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Saturday, April 17, 2010 03:28:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\QC Std 8.225

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		441343	441343.222
⌊	U	238	53.410	ug/L	0.248	1931768	4.375

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
⌈>	Lu	175		91.9			
⌊	U	238	106.820				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Saturday, April 17, 2010 03:29:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\QC Std 9.226

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		476715	476715.227
⌊	U	238	0.020	ug/L	5.801	1646	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		99.3			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\030210W1.SIF
Batch ID:
Results Data Set: 030210W3
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 3/2/2010 08:26:33**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0006	0.0027	0.0006	08:27:33	Yes
2		[0.00]	0.0006	0.0025	0.0006	08:28:08	Yes
Mean:		[0.00]	0.0006				
SD:		0.00	0.0000				
%RSD:		0.00	8.04				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 3/2/2010 08:28:26**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0021	0.0131	0.0027	08:29:27	Yes
2		[0.2]	0.0021	0.0122	0.0028	08:30:02	Yes
Mean:		[0.2]	0.0021				
SD:		0.0	0.0000				
%RSD:		0.0	0.35				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01068 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/2/2010 08:30:21**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0054	0.0299	0.0060	08:31:22	Yes
2		[0.5]	0.0055	0.0282	0.0061	08:31:57	Yes
Mean:		[0.5]	0.0055				
SD:		0.0	0.0001				
%RSD:		0.0	1.42				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999936 Slope: 0.01097 Intercept: -0.00002

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 3/2/2010 08:32:17**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	[2.0]	0.0209	0.1041	0.0215	08:33:18	Yes
2	[2.0]	0.0206	0.1004	0.0212	08:33:53	Yes
Mean:	[2.0]	0.0207				
SD:	0.0	0.0002				
%RSD:	0.0	0.90				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999896 Slope: 0.01034 Intercept: 0.00011

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 3/2/2010 08:34:13**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0520	0.2558	0.0526	08:35:15	Yes
2		[5.0]	0.0500	0.2379	0.0506	08:35:49	Yes
Mean:		[5.0]	0.0510				
SD:		0.0	0.0014				
%RSD:		0.0	2.77				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999965 Slope: 0.01018 Intercept: 0.00020

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 3/2/2010 08:36:10**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1058	0.5210	0.1064	08:37:10	Yes
2		[10.0]	0.1077	0.5459	0.1083	08:37:45	Yes
Mean:		[10.0]	0.1068				
SD:		0.0	0.0014				
%RSD:		0.0	1.27				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999746 Slope: 0.01062 Intercept: -0.00030

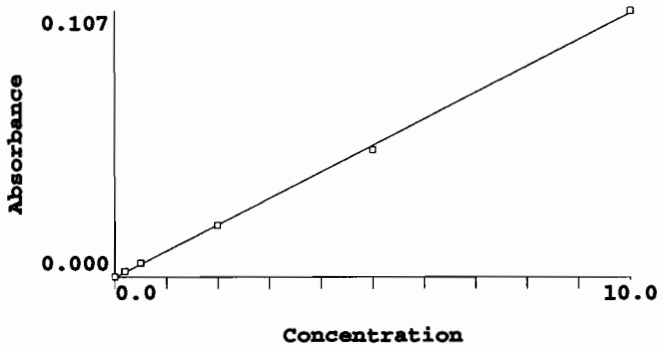

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	0.028	0.00	8.0
S0.2	0.0021	0.2	0.229	0.00	0.4
S0.5	0.0055	0.5	0.544	0.00	1.4
S2.0	0.0207	2.0	1.982	0.00	0.9
S5.0	0.0510	5.0	4.832	0.00	2.8
S10.0	0.1068	10.0	10.085	0.00	1.3

Correlation Coef.: 0.999746 Slope: 0.01062 Intercept: -0.00030

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 3/2/2010 08:38:04**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.221	5.221	0.0551	0.2819	0.0557	08:39:05	Yes
2	5.176	5.176	0.0547	0.2755	0.0553	08:39:40	Yes
Mean:	5.199	5.199	0.0549				
SD:	0.032	0.032	0.0003				
%RSD:	0.612	0.612	0.61				

QC value within limits for Hg 253.7 Recovery = 103.98%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 3/2/2010 08:40:00**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.031	0.031	0.0000	0.0024	0.0006	08:41:01	Yes
2	0.039	0.039	0.0001	0.0036	0.0007	08:41:36	Yes
Mean:	0.035	0.035	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	15.89	15.89	82.13				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 3/2/2010 08:41:56**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.234	0.234	0.0022	0.0142	0.0028	08:42:57	Yes
2	0.245	0.245	0.0023	0.0156	0.0029	08:43:32	Yes
Mean:	0.240	0.240	0.0022				
SD:	0.008	0.008	0.0001				
%RSD:	3.187	3.187	3.61				

QC value within limits for Hg 253.7 Recovery = 119.76%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 08:43:52**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.182	5.182	0.0547	0.2774	0.0553	08:44:52	Yes
2	5.128	5.128	0.0542	0.2734	0.0548	08:45:27	Yes
Mean:	5.155	5.155	0.0544				
SD:	0.038	0.038	0.0004				
%RSD:	0.738	0.738	0.74				

QC value within limits for Hg 253.7 Recovery = 103.11%
All analyte(s) passed QC.

==========

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 08:45:46**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	-0.0002	-0.0000	0.0004	08:46:47	Yes
2	0.012	0.012	-0.0002	-0.0001	0.0004	08:47:22	Yes
Mean:	0.012	0.012	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.848	0.848	0.63				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202055823|958575|1 **Date Collected: 3/2/2010 08:47:41**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055823|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	-0.0002	-0.0000	0.0004	08:48:43	Yes
2	0.016	0.016	-0.0001	0.0004	0.0005	08:49:17	Yes
Mean:	0.014	0.014	-0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	18.17	18.17	19.03				

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1202055824|958575|1 **Date Collected: 3/2/2010 08:49:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055824|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.127	2.127	0.0223	0.1129	0.0229	08:50:40	Yes
2	2.104	2.104	0.0220	0.1110	0.0227	08:51:14	Yes
Mean:	2.116	2.116	0.0222				
SD:	0.016	0.016	0.0002				
%RSD:	0.778	0.778	0.79				

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 247037001|958575|1 **Date Collected: 3/2/2010 08:51:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 247037001|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.028	0.028	-0.0000	0.0025	0.0006	08:52:35	Yes
2	0.045	0.045	0.0002	0.0048	0.0008	08:53:11	Yes
Mean:	0.037	0.037	0.0001				
SD:	0.012	0.012	0.0001				
%RSD:	34.19	34.19	145.41				

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 1202055825|958575|1 **Date Collected: 3/2/2010 08:53:30**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055825|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.019	0.019	-0.0001	0.0021	0.0005	08:54:30	Yes
2	0.028	0.028	-0.0000	0.0030	0.0006	08:55:05	Yes
Mean:	0.024	0.024	-0.0000				
SD:	0.006	0.006	0.0001				

1	0.032	0.032	0.0000	0.0035	0.0007	09:04:04	Yes
2	0.032	0.032	0.0000	0.0030	0.0007	09:04:39	Yes
Mean:	0.032	0.032	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	0.786	0.786	6.22				

==========

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 247042004|958575|1 **Date Collected: 3/2/2010 09:04:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 247042004|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.028	0.028	0.0000	0.0031	0.0006	09:05:59	Yes
2	0.030	0.030	0.0000	0.0036	0.0006	09:06:34	Yes
Mean:	0.029	0.029	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.826	4.826	93.90				

==========

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 09:06:54**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.128	5.128	0.0541	0.2768	0.0548	09:07:54	Yes
2	5.127	5.127	0.0541	0.2755	0.0547	09:08:29	Yes
Mean:	5.128	5.128	0.0541				
SD:	0.001	0.001	0.0000				
%RSD:	0.015	0.015	0.02				

QC value within limits for Hg 253.7 Recovery = 102.55%
All analyte(s) passed QC.

==========

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 09:08:48**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.032	0.032	0.0000	0.0035	0.0007	09:09:49	Yes
2	0.037	0.037	0.0001	0.0040	0.0007	09:10:24	Yes
Mean:	0.035	0.035	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	10.44	10.44	53.94				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 247042005|958575|1 **Date Collected: 3/2/2010 09:10:43**
Analyst: JXL **Data Type: Original**

Replicate Data: 247042005|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.029	0.029	0.0000	0.0033	0.0006	09:11:44	Yes
2	0.033	0.033	0.0001	0.0036	0.0007	09:12:19	Yes
Mean:	0.031	0.031	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	8.235	8.235	83.29				

==========

SD:	0.003	0.003	0.0000
%RSD:	9.252	9.252	154.88

==========

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 1202055830|958578|1 **Date Collected: 3/2/2010 09:22:19**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055830|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.029	0.029	0.0000	0.0034	0.0006	09:23:19	Yes
2	0.026	0.026	-0.0000	0.0025	0.0006	09:23:54	Yes
Mean:	0.027	0.027	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	7.825	7.825	359.08				

==========

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 1202055831|958578|1 **Date Collected: 3/2/2010 09:24:13**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055831|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.105	2.105	0.0221	0.1147	0.0227	09:25:14	Yes
2	2.105	2.105	0.0221	0.1146	0.0227	09:25:49	Yes
Mean:	2.105	2.105	0.0221				
SD:	0.000	0.000	0.0000				
%RSD:	0.010	0.010	0.01				

==========

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 1202055832|958278|5 **Date Collected: 3/2/2010 09:26:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055832|958278|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.026	0.026	-0.0000	0.0028	0.0006	09:27:08	Yes
2	0.025	0.025	-0.0000	0.0026	0.0006	09:27:43	Yes
Mean:	0.025	0.025	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	3.125	3.125	27.93				

==========

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 247036002|958578|1 **Date Collected: 3/2/2010 09:28:02**
Analyst: JXL **Data Type: Original**

Replicate Data: 247036002|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.023	0.023	-0.0001	0.0026	0.0006	09:29:03	Yes
2	0.029	0.029	0.0000	0.0031	0.0006	09:29:38	Yes
Mean:	0.026	0.026	-0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	16.58	16.58	246.20				

==========

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 09:29:57**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.092	5.092	0.0538	0.2718	0.0544	09:30:58	Yes
2	5.019	5.019	0.0530	0.2655	0.0536	09:31:32	Yes
Mean:	5.056	5.056	0.0534				
SD:	0.051	0.051	0.0005				
%RSD:	1.013	1.013	1.02				

QC value within limits for Hg 253.7 Recovery = 101.11%
All analyte(s) passed QC.

==========

Sequence No.: 35 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 09:31:51**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.048	0.048	0.0002	0.0039	0.0008	09:32:52	Yes
2	0.033	0.033	0.0001	0.0029	0.0007	09:33:27	Yes
Mean:	0.040	0.040	0.0001				
SD:	0.010	0.010	0.0001				
%RSD:	25.10	25.10	81.63				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 36 **Autosampler Location: 32**
Sample ID: 247036003|958578|1 **Date Collected: 3/2/2010 09:33:47**
Analyst: JXL **Data Type: Original**

Replicate Data: 247036003|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.026	0.026	-0.0000	0.0027	0.0006	09:34:48	Yes
2	0.029	0.029	0.0000	0.0030	0.0006	09:35:23	Yes
Mean:	0.028	0.028	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	8.511	8.511	602.34				

==========

Sequence No.: 37 **Autosampler Location: 33**
Sample ID: 247036004|958578|1 **Date Collected: 3/2/2010 09:35:42**
Analyst: JXL **Data Type: Original**

Replicate Data: 247036004|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.023	0.023	-0.0000	0.0024	0.0006	09:36:43	Yes
2	0.037	0.037	0.0001	0.0036	0.0007	09:37:18	Yes
Mean:	0.030	0.030	0.0000				
SD:	0.009	0.009	0.0001				
%RSD:	31.23	31.23	437.06				

==========

Sequence No.: 38 **Autosampler Location: 34**
Sample ID: 247036005|958578|1 **Date Collected: 3/2/2010 09:37:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 247036005|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.027	0.027	-0.0000	0.0029	0.0006	09:38:39	Yes
2	0.025	0.025	-0.0000	0.0028	0.0006	09:39:14	Yes
Mean:	0.026	0.026	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.570	4.570	52.14				

Mean:	0.029	0.029	0.0000
SD:	0.004	0.004	0.0000
%RSD:	15.71	15.71	746.11

==========

Sequence No.: 44 **Autosampler Location: 40**
Sample ID: 1202055833|958581|1 **Date Collected: 3/2/2010 09:49:16**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055833|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.021	0.021	-0.0001	0.0024	0.0005	09:50:17	Yes
2	0.029	0.029	0.0000	0.0030	0.0006	09:50:51	Yes
Mean:	0.025	0.025	-0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	21.51	21.51	171.71				

==========

Sequence No.: 45 **Autosampler Location: 41**
Sample ID: 1202055834|958581|1 **Date Collected: 3/2/2010 09:51:11**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055834|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.186	2.186	0.0229	0.1196	0.0235	09:52:12	Yes
2	2.183	2.183	0.0229	0.1194	0.0235	09:52:47	Yes
Mean:	2.184	2.184	0.0229				
SD:	0.003	0.003	0.0000				
%RSD:	0.123	0.123	0.12				

==========

Sequence No.: 46 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 09:53:06**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.016	5.016	0.0530	0.2735	0.0536	09:54:06	Yes
2	5.018	5.018	0.0530	0.2717	0.0536	09:54:41	Yes
Mean:	5.017	5.017	0.0530				
SD:	0.001	0.001	0.0000				
%RSD:	0.023	0.023	0.02				

QC value within limits for Hg 253.7 Recovery = 100.34%
All analyte(s) passed QC.

==========

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 09:55:00**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.035	0.035	0.0001	0.0033	0.0007	09:56:01	Yes
2	0.032	0.032	0.0000	0.0031	0.0007	09:56:36	Yes
Mean:	0.034	0.034	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	5.467	5.467	32.35				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 48 **Autosampler Location: 42**
Sample ID: 247817001|958581|1 **Date Collected: 3/2/2010 09:56:55**

Analyst: JXL Data Type: Original

Replicate Data: 247817001|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.038	0.038	0.0001	0.0034	0.0007	09:57:56	Yes
2	0.045	0.045	0.0002	0.0041	0.0008	09:58:31	Yes
Mean:	0.042	0.042	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	13.38	13.38	40.85				

==========

Sequence No.: 49 Autosampler Location: 43
Sample ID: 1202055835|958581|1 Date Collected: 3/2/2010 09:58:50
Analyst: JXL Data Type: Original

Replicate Data: 1202055835|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.029	0.029	0.0000	0.0029	0.0006	09:59:51	Yes
2	0.033	0.033	0.0001	0.0033	0.0007	10:00:26	Yes
Mean:	0.031	0.031	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	9.334	9.334	96.53				

==========

Sequence No.: 50 Autosampler Location: 44
Sample ID: 1202055836|958581|1 Date Collected: 3/2/2010 10:00:46
Analyst: JXL Data Type: Original

Replicate Data: 1202055836|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.161	2.161	0.0226	0.1194	0.0233	10:01:47	Yes
2	2.162	2.162	0.0227	0.1189	0.0233	10:02:21	Yes
Mean:	2.161	2.161	0.0227				
SD:	0.001	0.001	0.0000				
%RSD:	0.032	0.032	0.03				

==========

Sequence No.: 51 Autosampler Location: 45
Sample ID: 1202055837|958581|5 Date Collected: 3/2/2010 10:02:41
Analyst: JXL Data Type: Original

Replicate Data: 1202055837|958581|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.033	0.033	0.0001	0.0033	0.0007	10:03:42	Yes
2	0.027	0.027	-0.0000	0.0028	0.0006	10:04:17	Yes
Mean:	0.030	0.030	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	13.36	13.36	192.48				

==========

Sequence No.: 52 Autosampler Location: 46
Sample ID: 247817002|958581|1 Date Collected: 3/2/2010 10:04:36
Analyst: JXL Data Type: Original

Replicate Data: 247817002|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.027	0.027	-0.0000	0.0029	0.0006	10:05:38	Yes
2	0.035	0.035	0.0001	0.0034	0.0007	10:06:13	Yes
Mean:	0.031	0.031	0.0000				
SD:	0.006	0.006	0.0001				
%RSD:	18.10	18.10	191.43				

2	0.038	0.038	0.0001	0.0037	0.0007	10:15:55	Yes
Mean:	0.037	0.037	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	4.045	4.045	16.44				

==========

Sequence No.: 58 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 10:16:14**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.001	5.001	0.0528	0.2739	0.0534	10:17:15	Yes
2	4.992	4.992	0.0527	0.2715	0.0533	10:17:50	Yes
Mean:	4.997	4.997	0.0528				
SD:	0.006	0.006	0.0001				
%RSD:	0.126	0.126	0.13				

QC value within limits for Hg 253.7 Recovery = 99.93%
All analyte(s) passed QC.

==========

Sequence No.: 59 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 10:18:09**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.031	0.031	0.0000	0.0030	0.0006	10:19:09	Yes
2	0.033	0.033	0.0001	0.0032	0.0007	10:19:45	Yes
Mean:	0.032	0.032	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	5.084	5.084	37.73				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 60 **Autosampler Location: 52**
Sample ID: 1202055843|958587|1 **Date Collected: 3/2/2010 10:20:04**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055843|958587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.028	0.028	-0.0000	0.0029	0.0006	10:21:05	Yes
2	0.032	0.032	0.0000	0.0035	0.0007	10:21:41	Yes
Mean:	0.030	0.030	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	11.19	11.19	167.05				

==========

Sequence No.: 61 **Autosampler Location: 53**
Sample ID: 1202055844|958587|1 **Date Collected: 3/2/2010 10:22:00**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055844|958587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.176	2.176	0.0228	0.1196	0.0234	10:23:01	Yes
2	2.169	2.169	0.0227	0.1186	0.0233	10:23:36	Yes
Mean:	2.173	2.173	0.0228				
SD:	0.005	0.005	0.0001				
%RSD:	0.228	0.228	0.23				

==========

Sequence No.: 62 **Autosampler Location: 54**

Miscellaneous

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **957526.0** Verified by: _____

Analyst: Francena Armstrong

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202053149	Metals Spike Mix I	UI100205-01	.25	mL
LCS	1202053149	Metals Spike Mix II	UI100205-06	.25	mL
MS	1202053151	Metals Spike Mix I	UI100205-01	.25	mL
MS	1202053151	Metals Spike Mix II	UI100205-06	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202053148 MB	01-MAR-2010 12:45:00	Ground Water	50	50	1	<2
1202053149 LCS	01-MAR-2010 12:45:00	Ground Water	50	50	1	<2
247817001	01-MAR-2010 12:45:00	Ground Water	50	50	1	<2
247817002	01-MAR-2010 12:45:00	Ground Water	50	50	1	<2
247829001	01-MAR-2010 12:45:00	Ground Water	50	50	1	<2
1202053150 DUP (247829001)	01-MAR-2010 12:45:00	Ground Water	50	50	1	<2
1202053151 MS (247829001)	01-MAR-2010 12:45:00	Ground Water	50	50	1	<2
1202053152 SDILT (247829001)	01-MAR-2010 12:45:00	Ground Water	50	50	1	<2
247829002	01-MAR-2010 12:45:00	Ground Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1274969	Nitric Acid CONC.	1 mL
1274973	HYDROCHLORIC ACID	2.5 mL

Comments:

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **957528.0** Verified by: _____

Analyst: Francena Armstrong

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202053156	ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).	UI100205-A	.5	mL
LCS	1202053156	MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).	UI100205-B	.5	mL
MS	1202053158	ICP-MS DOE liquid Spike Solution A	UI090930-A	.5	mL
MS	1202053158	ICP-MS DOE Liquid Spike Solution B	UI090930-B	.5	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202053155 MB	02-MAR-2010 14:30:00	Ground Water	50	50	1	<2
1202053156 LCS	02-MAR-2010 14:30:00	Ground Water	50	50	1	<2
247817001	02-MAR-2010 14:30:00	Ground Water	50	50	1	<2
247817002	02-MAR-2010 14:30:00	Ground Water	50	50	1	<2
247829001	02-MAR-2010 14:30:00	Ground Water	50	50	1	<2
1202053157 DUP (247829001)	02-MAR-2010 14:30:00	Ground Water	50	50	1	<2
1202053158 MS (247829001)	02-MAR-2010 14:30:00	Ground Water	50	50	1	<2
1202053159 SDILT (247829001)	02-MAR-2010 14:30:00	Ground Water	50	50	1	<2
247829002	02-MAR-2010 14:30:00	Ground Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1274969	Nitric Acid CONC.	1 mL
1274973	HYDROCHLORIC ACID	2.5 mL

Comments:

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **958580.0** Verified by: _____

Analyst: Tara Griffin

Method: EPA 245.1/245.2 Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: No analytical instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202055834	Mercury working intermediate standard for LCS/MS	WHG100301-13	.2	mL
MS	1202055836	Mercury working intermediate standard for LCS/MS	WHG100301-13	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202055833 MB	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
1202055834 LCS	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
247817001	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
1202055835 DUP (247817001)	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
1202055836 MS (247817001)	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
1202055837 SDILT (247817001)	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
247817002	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
247829001	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
247829002	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
247922004	01-MAR-2010 12:20:00	Water	20	20	1	<2
248023001	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
248023002	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2

Reagent/Solvent Lot ID	Description	Amount
1176183	Sulfuric Acid, Concentrated	1 mL
1255532-C	Hg reducing agent	1 mL
1274391-1	NITRIC ACID	.5 mL
1274397-C	5% KMnO4 solution	3 mL
1276435-C	5% Potassium Persulfate	1.5 mL
WHG100301-01a	Mercury Working 1st Source CAL 0.2/CRA	20 uL
WHG100301-02	Mercury Working 1st Source CAL 0.5	50 mL
WHG100301-03	Mercury Working 1st Source CAL 2.0	200 uL
WHG100301-04	Mercury Working 1st Source CAL 5.0/CCV	500 uL
WHG100301-05	Mercury Working 1st Source CAL 10.0	1 mL
WHG100301-06	Mercury Working 2nd Source 5.0/ICV	500 uL

Comments:

Digestion Start Date: 01-MAR-10 12:20

Digestion End Date: 01-MAR-10 14:20

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
24-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3005/6010B	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
957527	See Below		

Potentially affected work order(s)(SDG): 247817(10-2001),247829(10-2006)

Application Issues:

Failed RPD for DUP

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for DUP: QC 1202053150DUP	1. The sample and sample duplicate % RPD failed outside the control limits for aluminum due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Camello 24-MAR-10

Data Validator/Group Leader:

Christopher Louviere 25-MAR-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Standard Logbook

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Standard Logbook

Serial ID:	UI090925-41	**Opened:**	23-OCT-09	**Amount :**	500 mL
Name:	SECOND SOURCE STD -1	**Received:**	25-SEP-09	**Catalog Number :**	SGELMX39-500B
Type:	Source Material	**Expires:**	30-SEP-10	**Lot Number :**	4909130
Employee:	Helen Camello			**Solvent :**	5%HNO3,TR.HF
Supplier:	SPECTRO PURE				
Description:	SECOND SOURCE STD #1B				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID:	UI090930-A	**Opened:**	30-SEP-09	**Catalog Number :**	160067-02
Name:	ICP-MS DOE Liquid SPIKE	**Received:**	28-SEP-09	**Lot Number :**	1017141
Type:	Source Material	**Expires:**	30-SEP-10		
Employee:	Francena Armstrong	**Verified:**	21-NOV-08		
Supplier:	O2Si				
Description:	ICP-MS DOE liquid Spike Solution A				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090930-B **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100205-01 **Opened:** 05-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Standard Logbook

Serial ID: UI100205-06 **Opened:** 05-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI100205-A **Opened:** 05-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 05-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI100205-B **Opened:** 05-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 05-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI100310-48 **Opened:** 19-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 12-MAR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 19-MAR-11 **Lot Number :** 1019141
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100312-40 **Opened:** 14-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 12-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 14-MAR-11 **Lot Number :** 1018981
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100312-41 **Opened:** 14-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 12-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 14-MAR-11 **Lot Number :** 1018981
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100317-06 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-MAR-10 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019161
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI100317-07 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-MAR-10 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019162
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L

Analyte	Concentration	Analyte	Concentration
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI100317-08 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-MAR-10 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019163
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI100318-11 **Opened:** 18-MAR-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 18-MAR-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 15-APR-10 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI100405-12 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 05-APR-10 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019466
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI100405-13 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 05-APR-10 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019467
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: O2SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100405-60 **Opened:** 05-APR-10 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 05-APR-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019464
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Zinc	250 mg/L		

Serial ID: UI100405-61 **Opened:** 05-APR-10 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 05-APR-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019464
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI100415-11 **Opened:** 15-APR-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 15-APR-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 15-APR-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UMS100226-01 **Opened:** 26-FEB-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 26-FEB-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-104JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L

Analyte	Concentration	Analyte	Concentration
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100226-02 **Opened:** 26-FEB-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 26-FEB-10 **Lot Number :** 21-103JB
Type: Source Material **Expires:** 26-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100226-03 **Opened:** 26-FEB-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 26-FEB-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-102JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: UMS100415-01 **Opened:** 15-APR-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 15-APR-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-20JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100415-02 **Opened:** 15-APR-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 15-APR-10 **Lot Number :** 22-21JB
Type: Source Material **Expires:** 28-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100415-03 **Opened:** 15-APR-11 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 15-APR-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-22JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100301-01 **Opened:** 01-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 01-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 02-MAR-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100301-02 **Opened:** 01-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 02-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100301-01a **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG100301-02 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100301-03 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG100301-04 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100301-05 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG100301-06 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100301-13 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100322-42 **Opened:** 22-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 23-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1289705
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100322-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100322-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100322-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100322-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100322-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100322-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100322-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100322-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100322-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100322-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100322-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Serial ID: WI100322-43 **Opened:** 22-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 23-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1289705
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100322-44 **Opened:** 22-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 23-MAR-10 **Solvent :** 3%HCL and 1 %HNO3-1289705
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100322-45 **Opened:** 22-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 23-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1289705
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100322-46 **Opened:** 22-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 23-MAR-10 **Solvent :** 3%HCL AND 1%HNO3-1289705
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100322-47 **Opened:** 22-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 23-MAR-10 **Solvent :** 3%HCL &1%HNO3-1289705
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100324-43 **Opened:** 24-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 25-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1289705
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100324-47 **Opened:** 24-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 25-MAR-10 **Solvent :** 3%HCL &1%HNO3-1289705
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Serial ID: WMS100415-04 **Opened:** 15-APR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 15-APR-10 **Balance Id :** 4025216
Type: Working **Expires:** 16-APR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1300209
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Serial ID: WMS100415-04A **Opened:** 15-APR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 15-APR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 16-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100415-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100415-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100415-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100415-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100415-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100415-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100415-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100415-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100415-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100415-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Serial ID: WMS100415-05 **Opened:** 15-APR-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 15-APR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 16-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100415-06 **Opened:** 15-APR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 15-APR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 16-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100415-07 **Opened:** 15-APR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 15-APR-10 **Lot Number :** 1010773
Type: Working **Expires:** 16-APR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1300209
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100415-08 **Opened:** 15-APR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 15-APR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 16-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS100415-70 **Opened:** 15-APR-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 15-APR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 16-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100405-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100405-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100405-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100405-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100405-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100405-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100405-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100416-04 **Opened:** 16-APR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 16-APR-10 **Balance Id :** 4025216
Type: Working **Expires:** 17-APR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1300209
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100416-04A **Opened:** 16-APR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 16-APR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 17-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd **Verified:** 16-APR-10
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100416-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100416-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100416-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100416-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100416-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100416-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100416-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100416-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100416-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100416-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100416-05 **Opened:** 16-APR-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 16-APR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 17-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100416-06 **Opened:** 16-APR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 16-APR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 17-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100416-07 **Opened:** 16-APR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 16-APR-10 **Lot Number :** 1010773
Type: Working **Expires:** 17-APR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1300209
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100416-08 **Opened:** 16-APR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 16-APR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 17-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Standard Logbook

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1274397-C **Opened:** 24-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 24-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1274969 **Opened:** 24-FEB-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 24-FEB-10
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1274973 **Opened:** 24-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 24-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1276435-C **Opened:** 28-FEB-10 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 28-FEB-10
Type: Reagent/Solvent **Expires:** 28-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1277916 **Opened:** 02-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 02-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 02-MAR-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1289705 **Opened:** 22-MAR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 12-MAR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 28-MAR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL

Standard Logbook

Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1291278 **Opened:** 25-MAR-10 **Lot Number :** J 08035 L
Name: I-HNO3 **Received:** 25-MAR-10
Type: Reagent/Solvent **Expires:** 25-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1300209 **Opened:** 12-APR-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 12-APR-10
Type: Reagent/Solvent **Expires:** 19-APR-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1277916	I-HCL	36.5-38.0	90 mL	9 l	N/A
1291278	I-HNO3	69.0-70.0	180 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2001

Method/Analysis Information

Product: **Specific Conductivity**

Analytical Batch: 960274 **Method:** EPA120.1 Specific Conductivity

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 120.1:

Sample ID	Client ID
247817001	CAPA-10-13094
1202059732	247817001(CAPA-10-13094) Sample Duplicate (DUP)
1202059733	247922004(WST29-10-13281) Sample Duplicate (DUP)
1202059735	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-009 REV# 9.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Conductivity analysis was performed on a Orion 160 Conductivity Meter.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 247817001 (CAPA-10-13094) and 247922004 (WST29-10-13281).

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

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

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

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

Method/Analysis Information

Product: **pH**

Analytical Batch: 957681 **Method:** EPA 150.1 pH

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 150.1:

Sample ID	Client ID
247817001	CAPA-10-13094
1202053581	247922004(WST29-10-13281) Sample Duplicate (DUP)
1202053582	247817001(CAPA-10-13094) Sample Duplicate (DUP)
1202053583	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-008 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Electrode analysis was performed on a PerpHecT LogR pH/ISE.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 247817001 (CAPA-10-13094) and 247922004 (WST29-10-13281).

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
The following sample from this sample group was received by the lab outside of the method specified holding time: 247817001 (CAPA-10-13094).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

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

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	956940	**Method:**	EPA 335.4 Cyanide and Total
Prep Batch :	956939	**Method:**	EEPA 335.4

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 335.4:

Sample ID	Client ID
247817002	CAPA-10-13095
1202051809	Method Blank (MB)
1202051810	247817002(CAPA-10-13095) Sample Duplicate (DUP)
1202051811	247817002(CAPA-10-13095) Matrix Spike (MS)
1202051812	247817002(CAPA-10-13095) Matrix Spike Duplicate (MSD)
1202051813	Laboratory Control Sample (LCS)
1202053279	247771001(RE15-10-8272) Sample Duplicate (DUP)
1202053280	247771001(RE15-10-8272) Matrix Spike (MS)
1202053281	247771001(RE15-10-8272) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

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

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 247771001 (RE15-10-8272) and 247817002 (CAPA-10-13095).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202051810 (CAPA-10-13095), 1202053279 (RE15-10-8272) and 247817002 (CAPA-10-13095).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

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

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments

Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Ion Chromatography**

Analytical Batch: 963224 **Method:** EPA 300.0 Anions Liquid 28 day

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
247817001	CAPA-10-13094
1202066399	Method Blank (MB)
1202066400	247261004(CAPA-10-12692) Sample Duplicate (DUP)
1202066401	247261004(CAPA-10-12692) Post Spike (PS)
1202066402	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-086 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Ion Chromatography analysis was performed on a Dionex ICS-3000 Ion Chromatograph.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 247261004 (CAPA-10-12692).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

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

Sample Re-analysis
The following samples were re-extracted and reanalyzed due to CCV, CCB, and LCS failures for Sulfate: 1202066399 (MB), 1202066400 (CAPA-10-12692), 1202066401 (CAPA-10-12692), 1202066402 (LCS) and 247817001 (CAPA-10-13094).

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Manual Integrations
The following samples from this sample group had to be manually integrated due to errors in the instrument software peak integration: 1202066400 (CAPA-10-12692), 1202066401 (CAPA-10-12692) and 247817001 (CAPA-10-13094).

Additional Comments
Additional comments were not required for this SDG.

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

Method/Analysis Information

Product:	**Ammonia Nitrogen**		
Analytical Batch:	957556	**Method:**	EPA 350.1 Nitrogen and Ammonia L
Prep Batch :	957555	**Method:**	EEPA 350.2 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 350.1:

Sample ID	Client ID
247817001	CAPA-10-13094
1202053226	Method Blank (MB)
1202053227	247817001(CAPA-10-13094) Sample Duplicate (DUP)
1202053229	247817001(CAPA-10-13094) Matrix Spike (MS)
1202053231	247817001(CAPA-10-13094) Matrix Spike Duplicate (MSD)
1202053233	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-106 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 247817001 (CAPA-10-13094).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202053229 (CAPA-10-13094).

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202053231 (CAPA-10-13094).

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202053227 (CAPA-10-13094).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

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

Sample Re-analysis
The following samples were re-analyzed due to MB failure: 1202053226 (MB), 1202053227 (CAPA-10-13094), 1202053229 (CAPA-10-13094), 1202053231 (CAPA-10-13094), 1202053233 (LCS) and 247817001 (CAPA-10-13094).

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 796155 1202053229 (CAPA-10-13094) and 1202053231 (CAPA-10-13094).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Nitrate Nitrite by Cadmium Reduction**		
Analytical Batch:	957559	**Method:**	EPA 353.2 Nitrogen and Nitrate/Nitrite

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 353.2:

Sample ID	Client ID
247817001	CAPA-10-13094
1202053242	Method Blank (MB)
1202053243	247780001(RE11-10-1579) Sample Duplicate (DUP)
1202053244	247817001(CAPA-10-13094) Sample Duplicate (DUP)
1202053245	247780001(RE11-10-1579) Post Spike (PS)
1202053246	247817001(CAPA-10-13094) Post Spike (PS)
1202053247	Laboratory Control Sample (LCS)
1202053327	247913001(50FWC-10-9942) Sample Duplicate (DUP)
1202053328	247913001(50FWC-10-9942) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-128 REV# 5.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8500 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 247780001 (RE11-10-1579), 247817001 (CAPA-10-13094) and 247913001 (50FWC-10-9942).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202053245 (RE11-10-1579).

Duplicate Relative Percent Difference (RPD) Statement
One or more of the values for the sample and/or duplicate are less than 5 times the Practical Quantitation Limit (PQL), and the difference is within one PQL value; therefore, the RPD is not applicable. 1202053244 (CAPA-10-13094).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1202053327 (50FWC-10-9942) and 1202053328 (50FWC-10-9942). The following samples in this sample group were diluted due to matrix interference: 1202053243 (RE11-10-1579), 1202053244 (CAPA-10-13094), 1202053245 (RE11-10-1579), 1202053246 (CAPA-10-13094) and 247817001 (CAPA-10-13094).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 795918 1202053245 (RE11-10-1579).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be

scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Total Phosphorus**		
Analytical Batch:	958139	**Method:**	EPA 365.4 Phosphorus and Total in
Prep Batch :	958136	**Method:**	EEPA 365.4 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 365.4:

Sample ID	Client ID
247817001	CAPA-10-13094
1202054686	Method Blank (MB)
1202054687	247817001(CAPA-10-13094) Sample Duplicate (DUP)
1202054689	247817001(CAPA-10-13094) Matrix Spike (MS)
1202054691	247817001(CAPA-10-13094) Matrix Spike Duplicate (MSD)
1202054693	Laboratory Control Sample (LCS)
1202054716	248019001(WST05-10-12492) Sample Duplicate (DUP)
1202054717	248019001(WST05-10-12492) Matrix Spike (MS)
1202054718	248019001(WST05-10-12492) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-103 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

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

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 247817001 (CAPA-10-13094) and 248019001 (WST05-10-12492).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

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

Sample Re-analysis
The following sample was re-analyzed due to instrument failure: 247817001 (CAPA-10-13094). The following samples were re-analyzed due to CCB failure: 1202054717 (WST05-10-12492), 1202054718 (WST05-10-12492) and 247817001 (CAPA-10-13094).

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Solids, Total Dissolved**

Analytical Batch: 958112 **Method:** EPA 160.1 Solids and Dissolved-F

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 160.1:

Sample ID	Client ID
247817001	CAPA-10-13094
1202054639	Method Blank (MB)
1202054640	247817001(CAPA-10-13094) Sample Duplicate (DUP)
1202054642	Laboratory Control Sample (LCS)
1202055007	247922004(WST29-10-13281) Sample Duplicate (DUP)
1202055008	248074001(SWWS46-10-13636) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-001 REV# 10.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Solids analysis was performed on a Sartorius Balance BAL216. Solids lab

Initial Calibration

All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 247817001 (CAPA-10-13094), 247922004 (WST29-10-13281) and 248074001 (SWWS46-10-13636).

Duplicate Relative Percent Difference (RPD) Statement

The Relative Percent Difference (RPD) between the sample and its duplicate falls outside of the normal acceptance limits for samples 1202054640 (CAPA-10-13094) and 247817001 (CAPA-10-13094) because of the heterogeneous matrix of the sample.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Sample Aliquot
A sufficient amount of sample was provided by the client for analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 798385 1202054640 (CAPA-10-13094).

Additional Comments
Additional comments were not required for this SDG.

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

Method/Analysis Information

Product: **Alkalinity**

Analytical Batch: 957056 **Method:** EPA 310.1 Total Alkalinity

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 310.1:

Sample ID	Client ID
247817001	CAPA-10-13094
1202052085	Method Blank (MB)
1202052087	247817001(CAPA-10-13094) Sample Duplicate (DUP)
1202052089	247817001(CAPA-10-13094) Matrix Spike (MS)
1202052090	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-033 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Titration analysis was performed on a manually operated buret.

Initial Standardization

The titrant was properly standardized

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following sample was selected for QC analysis: 247817001 (CAPA-10-13094).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The MS/PS recovery for this sample set was within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
N/A

MS/MSD Relative Percent Difference (RPD) Statement
N/A

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

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

Certification Statement

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

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer:_____ **Date:**_____03/23/10_____

Sample Data Summary

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

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

Client SDG: 10-2001 GEL Work Order: 247817

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 23, 2010

Client SDG: 10-2001

Client Sample ID: CAPA-10-13094
Sample ID: 247817001
Matrix: Ground Water
Collect Date: 21-FEB-10 12:00
Receive Date: 23-FEB-10
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Conductivity Analysis										
EPA120.1 Specific Conductivity "As Received"										
Conductivity		122	1.00	1.00	umhos/cm	1	TXT1 03/03/10	1625	960274	1
Electrode Analysis										
EPA 150.1 pH "As Received"										
pH at Temp 12.1C	H	7.92	0.010	0.100	SU	1	LXA1 02/25/10	1156	957681	2
Ion Chromatography										
EPA 300.0 Anions Liquid 28 day "As Received"										
Bromide	U	ND	0.066	0.200	mg/L	1	GXM 03/10/10 3	2110	963224	3
Chloride		1.82	0.066	0.200	mg/L	1				
Fluoride		0.225	0.033	0.100	mg/L	1				
Sulfate		1.93	0.100	0.400	mg/L	1	GXM 03/17/10 3	1740	963224	4
Nutrient Analysis										
EPA 350.1 Nitrogen, Ammonia L "As Received"										
Nitrogen, Ammonia	J	0.038	0.016	0.050	mg/L	1	AXH3 02/25/10	1534	957556	5
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"										
Nitrogen, Nitrate/Nitrite		0.390	0.050	0.250	mg/L	5	AXH3 02/25/10	1445	957559	6
EPA 365.4 Phosphorus, Total in "As Received"										
Phosphorus, Total as P		0.060	0.015	0.050	mg/L	1	AXH3 03/05/10	0945	958139	7
Solids Analysis										
EPA 160.1 Solids, Dissolved-F "As Received"										
Total Dissolved Solids		123	2.38	10.0	mg/L		SDS 02/26/10	1123	958112	8
Titration Analysis										
EPA 310.1 Total Alkalinity "As Received"										
Alkalinity, Total as CaCO3		53.8	0.725	1.00	mg/L		LXA1 02/24/10	1108	957056	9
Carbonate alkalinity (CaCO3)	U	ND	0.725	1.00	mg/L					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	SXJ1	02/25/10	1300	957555
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	SXJ1	03/02/10	1030	958136

The following Analytical Methods were performed

Method	Description	Analyst Comments

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 23, 2010

Client SDG: 10-2001

Client Sample ID: CAPA-10-13094
Sample ID: 247817001

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 120.1	
2	EPA 150.1	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 350.1	
6	EPA 353.2	
7	EPA 365.4	
8	EPA 160.1	
9	EPA 310.1	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 23, 2010

Client SDG: 10-2001

Client Sample ID:	CAPA-10-13095	Project:	ESHL01000
Sample ID:	247817002	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	21-FEB-10 12:00		
Receive Date:	23-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
EPA 335.4 Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/02/10	1557	956940	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	03/02/10	1321	956939

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

Quality Control Summary

GEL LABORATORIES LLC

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QC Summary

Report Date: March 23, 2010
Page 1 of 4

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

Contact: Ms. Joylene Valdez

Workorder: 247817

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Conductivity Analysis											
Batch 960274											
QC1202059732 247817001 DUP											
Conductivity			122		122	umhos/cm	0.164		(0%-10%)	TXT1	03/03/10 16:25
QC1202059733 247922004 DUP											
Conductivity			281		282	umhos/cm	0.355		(0%-10%)		03/03/10 16:27
QC1202059735 LCS											
Conductivity	1410				1380	umhos/cm		97.4	(95%-105%)		03/03/10 16:24
Electrode Analysis											
Batch 957681											
QC1202053581 247922004 DUP											
pH		H	7.57	H	7.61	SU	0.527		(0%-10%)	LXA1	02/25/10 12:48
QC1202053582 247817001 DUP											
pH		H	7.92	H	7.81	SU	1.40		(0%-10%)		02/25/10 12:03
QC1202053583 LCS											
pH	7.00				7.02	SU		100	(95%-105%)		02/25/10 11:50
Flow Injection Analysis											
Batch 956940											
QC1202051810 247817002 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A			AXC2	03/02/10 15:58
QC1202053279 247771001 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A				03/02/10 15:46
QC1202051813 LCS											
Cyanide, Total	50.0				54.8	ug/L		110	(90%-110%)		03/02/10 15:40
QC1202051809 MB											
Cyanide, Total				U	ND	ug/L					03/02/10 15:39
QC1202051811 247817002 MS											
Cyanide, Total	100	U	ND		114	ug/L		114	(60%-144%)		03/02/10 15:59
QC1202053280 247771001 MS											
Cyanide, Total	100	U	ND		117	ug/L		117	(60%-144%)		03/02/10 15:47
QC1202051812 247817002 MSD											
Cyanide, Total	100	U	ND		105	ug/L	8.22	105	(0%-20%)		03/02/10 16:00
QC1202053281 247771001 MSD											
Cyanide, Total	100	U	ND		115	ug/L	1.72	115	(0%-20%)		03/02/10 15:48
Ion Chromatography											
Batch 963224											
QC1202066400 247261004 DUP											
Bromide		U	ND	U	ND	mg/L	N/A			GXM3	03/10/10 19:41
Chloride			2.01		2.01	mg/L	0.239		(0%-20%)		
Fluoride			0.241		0.239	mg/L	0.709 ^		(+/-0.100)		
Sulfate		H	2.36	H	2.35	mg/L	0.352		(0%-20%)		03/17/10 16:11
QC1202066402 LCS											
Bromide	2.50				2.50	mg/L		100	(90%-110%)		03/10/10 18:41

QC Summary

Workorder: 247817

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Ion Chromatography											
Batch 963224											
Chloride	10.0				9.38	mg/L		93.8	(90%-110%)		
Fluoride	5.00				4.88	mg/L		97.6	(90%-110%)	GXM3	03/10/10 18:41
Sulfate	20.0				19.0	mg/L		95	(90%-110%)		03/17/10 15:11
QC1202066399 MB											
Bromide				U	ND	mg/L					03/10/10 18:11
Chloride				U	ND	mg/L					
Fluoride				U	ND	mg/L					
Sulfate				U	ND	mg/L					03/17/10 14:42
QC1202066401 247261004 PS											
Bromide	2.50	U	ND		2.53	mg/L		101	(90%-110%)		03/10/10 20:11
Chloride	10.0		2.01		11.6	mg/L		96.2	(90%-110%)		
Fluoride	5.00		0.241		5.08	mg/L		96.7	(90%-110%)		
Sulfate	20.0	H	2.36	H	21.4	mg/L		95.3	(90%-110%)		03/17/10 16:41
Nutrient Analysis											
Batch 957556											
QC1202053227 247817001 DUP											
Nitrogen, Ammonia		J	0.038	J	0.020	mg/L	62.1 ^		(+/-0.050)	AXH3	02/25/10 15:35
QC1202053233 LCS											
Nitrogen, Ammonia	1.00				1.00	mg/L		100	(90%-110%)		02/25/10 15:33
QC1202053226 MB											
Nitrogen, Ammonia				J	0.026	mg/L					02/25/10 15:32
QC1202053229 247817001 MS											
Nitrogen, Ammonia	1.00	J	0.038		0.800	mg/L		76.2 *	(90%-110%)		02/25/10 15:36
QC1202053231 247817001 MSD											
Nitrogen, Ammonia	1.00	J	0.038		0.815	mg/L	1.86	77.7 *	(0%-15%)		02/25/10 15:37
Batch 957559											
QC1202053243 247780001 DUP											
Nitrogen, Nitrate/Nitrite		J	0.0735	J	0.0605	mg/L	19.4 ^		(+/-0.250)	AXH3	02/25/10 14:42
QC1202053244 247817001 DUP											
Nitrogen, Nitrate/Nitrite			0.390		0.314	mg/L	21.6 ^		(+/-0.250)		02/25/10 14:47
QC1202053327 247913001 DUP											
Nitrogen, Nitrate/Nitrite			1.84		1.74	mg/L	5.59 ^		(+/-0.500)		02/25/10 14:55
QC1202053247 LCS											
Nitrogen, Nitrate/Nitrite	1.00				0.928	mg/L		92.8	(90%-110%)		02/25/10 14:40
QC1202053242 MB											
Nitrogen, Nitrate/Nitrite				U	ND	mg/L					02/25/10 14:39
QC1202053245 247780001 PS											
Nitrogen, Nitrate/Nitrite	1.00	J	0.0147		0.913	mg/L		89.8 *	(90%-110%)		02/25/10 14:43
QC1202053246 247817001 PS											
Nitrogen, Nitrate/Nitrite	1.00		0.0779		0.994	mg/L		91.6	(90%-110%)		02/25/10 14:46
QC1202053328 247913001 PS											
Nitrogen, Nitrate/Nitrite	1.00		0.184		1.16	mg/L		97.6	(90%-110%)		02/25/10 14:54
Batch 958139											
QC1202054687 247817001 DUP											
Phosphorus, Total as P			0.060		0.050	mg/L	18.2 ^		(+/-0.050)	AXH3	03/05/10 08:57
QC1202054716 248019001 DUP											

QC Summary

Workorder: 247817

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Nutrient Analysis											
Batch 958139											
Phosphorus, Total as P			0.102		0.096	mg/L	6.06 ^		(+/-0.050)		03/05/10 09:02
QC1202054693 LCS											
Phosphorus, Total as P	1.00				1.09	mg/L		109	(86%-120%)	AXH3	03/05/10 08:55
QC1202054686 MB											
Phosphorus, Total as P				J	0.027	mg/L					03/05/10 08:54
QC1202054689 247817001 MS											
Phosphorus, Total as P	1.00		0.060		1.07	mg/L		107	(42%-150%)		03/05/10 08:58
QC1202054717 248019001 MS											
Phosphorus, Total as P	1.00		0.102		1.14	mg/L		104	(42%-150%)		03/05/10 09:44
QC1202054691 247817001 MSD											
Phosphorus, Total as P	1.00		0.060		1.05	mg/L	1.88	105	(0%-26%)		03/05/10 08:58
QC1202054718 248019001 MSD											
Phosphorus, Total as P	1.00		0.102		1.15	mg/L	1.48	105	(0%-26%)		03/05/10 09:44
Solids Analysis											
Batch 958112											
QC1202054640 247817001 DUP											
Total Dissolved Solids			123		155	mg/L	23.0*		(0%-10%)	SDS	02/26/10 11:23
QC1202055007 247922004 DUP											
Total Dissolved Solids			260		260	mg/L	1.53		(0%-10%)		02/26/10 11:23
QC1202055008 248074001 DUP											
Total Dissolved Solids			652		672	mg/L	3.02		(0%-10%)		02/26/10 11:23
QC1202054642 LCS											
Total Dissolved Solids	300				299	mg/L		99.7	(95%-105%)		02/26/10 11:23
QC1202054639 MB											
Total Dissolved Solids				U	ND	mg/L					02/26/10 11:23
Titration Analysis											
Batch 957056											
QC1202052087 247817001 DUP											
Alkalinity, Total as CaCO3			53.8		53.8	mg/L	0.00		(0%-20%)	LXA1	02/24/10 11:14
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1202052090 LCS											
Alkalinity, Total as CaCO3	50.0				50.5	mg/L		101	(90%-110%)		02/24/10 11:04
QC1202052085 MB											
Alkalinity, Total as CaCO3				J	0.953	mg/L					02/24/10 11:03
Carbonate alkalinity (CaCO3)				U	ND	mg/L					
QC1202052089 247817001 MS											
Alkalinity, Total as CaCO3	50.0		53.8		102	mg/L		97.2	(80%-120%)		02/24/10 11:24

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

QC Summary

Workorder: 247817

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 23-MAR-2010 12:47

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-2001

Flow Injection Analysis

Method: EPA 335.4 Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**02-MAR-2010 08:53:45**	**OM_3-2-2010_08-43-10**	**144**	**150**	**96**	**(90%-110%)**	**Yes**
CCV	02-MAR-2010 15:29:15	OM_3-2-2010_14-50-22	107	100	107	(90%-110%)	Yes
CCV	02-MAR-2010 15:41:44	OM_3-2-2010_14-50-22	107	100	107	(90%-110%)	Yes
CCV	02-MAR-2010 15:54:17	OM_3-2-2010_14-50-22	106	100	106	(90%-110%)	Yes
CCV	02-MAR-2010 16:06:46	OM_3-2-2010_14-50-22	107	100	107	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**02-MAR-2010 08:55:35**	**OM_3-2-2010_08-43-10**	**-1.14**	**10**	**Yes**
CCB	02-MAR-2010 15:31:06	OM_3-2-2010_14-50-22	-2.57	10	Yes
CCB	02-MAR-2010 15:43:34	OM_3-2-2010_14-50-22	-0.884	10	Yes
CCB	02-MAR-2010 15:56:06	OM_3-2-2010_14-50-22	-2.36	10	Yes
CCB	02-MAR-2010 16:08:37	OM_3-2-2010_14-50-22	-1.91	10	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 23-MAR-2010 12:47

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-2001

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Bromide

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**10-MAR-2010 11:42:00**	**100310**	**2.5086**	**2.5**	**100**	**(90%-110%)**	**Yes**
CCV	10-MAR-2010 17:11:00	100310	3.8241	3.75	102	(90%-110%)	Yes
CCV	10-MAR-2010 23:10:00	100310	2.498	2.5	99.9	(90%-110%)	Yes
ICV	**11-MAR-2010 22:21:00**	**100311**	**2.4934**	**2.5**	**99.7**	**(90%-110%)**	**Yes**
CCV	12-MAR-2010 20:16:00	100311	0	3.75	0	(90%-110%)	No
CCV	13-MAR-2010 02:15:00	100311	0	2.5	0	(90%-110%)	No
ICV	**17-MAR-2010 13:43:00**	**100317**	**2.4926**	**2.5**	**99.7**	**(90%-110%)**	**Yes**
CCV	17-MAR-2010 19:40:00	100317	3.7794	3.75	101	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**10-MAR-2010 12:12:00**	**100310**	**0**	**0.2**	**Yes**
CCB	10-MAR-2010 17:41:00	100310	0	0.2	Yes
CCB	10-MAR-2010 23:40:00	100310	0	0.2	Yes
ICB	**11-MAR-2010 22:51:00**	**100311**	**0**	**0.2**	**Yes**
CCB	12-MAR-2010 20:46:00	100311	0	0.2	Yes
CCB	13-MAR-2010 02:45:00	100311	0	0.2	Yes
ICB	**17-MAR-2010 14:12:00**	**100317**	**0**	**0.2**	**Yes**
CCB	17-MAR-2010 20:10:00	100317	0	0.2	Yes

Parmname: Chloride

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**10-MAR-2010 11:42:00**	**100310**	**9.3258**	**10**	**93.3**	**(90%-110%)**	**Yes**
CCV	10-MAR-2010 17:11:00	100310	14.7559	15	98.4	(90%-110%)	Yes
CCV	10-MAR-2010 23:10:00	100310	9.3353	10	93.4	(90%-110%)	Yes
ICV	**11-MAR-2010 22:21:00**	**100311**	**9.4835**	**10**	**94.8**	**(90%-110%)**	**Yes**
CCV	12-MAR-2010 20:16:00	100311	14.6759	15	97.8	(90%-110%)	Yes
CCV	13-MAR-2010 02:15:00	100311	9.2695	10	92.7	(90%-110%)	Yes
ICV	**17-MAR-2010 13:43:00**	**100317**	**9.3464**	**10**	**93.5**	**(90%-110%)**	**Yes**
CCV	17-MAR-2010 19:40:00	100317	14.8256	15	98.8	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**10-MAR-2010 12:12:00**	**100310**	**0**	**0.2**	**Yes**
CCB	10-MAR-2010 17:41:00	100310	0	0.2	Yes
CCB	10-MAR-2010 23:40:00	100310	0	0.2	Yes
ICB	**11-MAR-2010 22:51:00**	**100311**	**0**	**0.2**	**Yes**
CCB	12-MAR-2010 20:46:00	100311	0	0.2	Yes
CCB	13-MAR-2010 02:45:00	100311	0	0.2	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 23-MAR-2010 12:47

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-2001

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Chloride

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**17-MAR-2010 14:12:00**	**100317**	**0.1862**	**0.2**	**Yes**
CCB	17-MAR-2010 20:10:00	100317	0	0.2	Yes

Parmname: Fluoride

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**10-MAR-2010 11:42:00**	**100310**	**4.8773**	**5**	**97.5**	**(90%-110%)**	**Yes**
CCV	10-MAR-2010 17:11:00	100310	7.4981	7.5	100	(90%-110%)	Yes
CCV	10-MAR-2010 23:10:00	100310	4.8879	5	97.8	(90%-110%)	Yes
ICV	**11-MAR-2010 22:21:00**	**100311**	**4.9917**	**5**	**99.8**	**(90%-110%)**	**Yes**
CCV	12-MAR-2010 20:16:00	100311	7.503	7.5	100	(90%-110%)	Yes
CCV	13-MAR-2010 02:15:00	100311	4.8754	5	97.5	(90%-110%)	Yes
ICV	**17-MAR-2010 13:43:00**	**100317**	**4.9617**	**5**	**99.2**	**(90%-110%)**	**Yes**
CCV	17-MAR-2010 19:40:00	100317	7.5953	7.5	101	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**10-MAR-2010 12:12:00**	**100310**	**0**	**0.1**	**Yes**
CCB	10-MAR-2010 17:41:00	100310	0	0.1	Yes
CCB	10-MAR-2010 23:40:00	100310	0	0.1	Yes
ICB	**11-MAR-2010 22:51:00**	**100311**	**0**	**0.1**	**Yes**
CCB	12-MAR-2010 20:46:00	100311	0	0.1	Yes
CCB	13-MAR-2010 02:45:00	100311	0	0.1	Yes
ICB	**17-MAR-2010 14:12:00**	**100317**	**0**	**0.1**	**Yes**
CCB	17-MAR-2010 20:10:00	100317	0	0.1	Yes

Parmname: Sulfate

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**10-MAR-2010 11:42:00**	**100310**	**19.169**	**20**	**95.8**	**(90%-110%)**	**Yes**
CCV	10-MAR-2010 17:11:00	100310	35.262	30	118	(90%-110%)	No
CCV	10-MAR-2010 23:10:00	100310	23.2474	20	116	(90%-110%)	No
ICV	**11-MAR-2010 22:21:00**	**100311**	**19.7293**	**20**	**98.6**	**(90%-110%)**	**Yes**
CCV	12-MAR-2010 20:16:00	100311	30.1294	30	100	(90%-110%)	Yes
CCV	13-MAR-2010 02:15:00	100311	19.291	20	96.5	(90%-110%)	Yes
ICV	**17-MAR-2010 13:43:00**	**100317**	**18.9605**	**20**	**94.8**	**(90%-110%)**	**Yes**
CCV	17-MAR-2010 19:40:00	100317	29.6703	30	98.9	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**10-MAR-2010 12:12:00**	**100310**	**0**	**0.4**	**Yes**

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 23-MAR-2010 12:47

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-2001

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Sulfate

Sample Type	Run Date	Data File	Result	Limits	Within Limits
CCB	10-MAR-2010 17:41:00	100310	0	0.4	Yes
CCB	10-MAR-2010 23:40:00	100310	1.924	0.4	No
ICB	**11-MAR-2010 22:51:00**	**100311**	**0**	**0.4**	**Yes**
CCB	12-MAR-2010 20:46:00	100311	0	0.4	Yes
CCB	13-MAR-2010 02:45:00	100311	0.3616	0.4	Yes
ICB	**17-MAR-2010 14:12:00**	**100317**	**0**	**0.4**	**Yes**
CCB	17-MAR-2010 20:10:00	100317	0	0.4	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 23-MAR-2010 12:47

GEL Laboratories LLC

Contract: **ESHL01000**

SDG #: **10-2001**

Nutrient Analysis

Method: EPA 350.1 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Nitrogen, Ammonia

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**25-FEB-2010 12:53:13**	**OM_2-25-2010_12-43-55**	**0.996**	**1**	**99.6**	**(90%-110%)**	**Yes**
CCV	25-FEB-2010 15:29:19	OM_2-25-2010_15-16-29	1.043	1	104	(90%-110%)	Yes
CCV	25-FEB-2010 15:41:23	OM_2-25-2010_15-16-29	1.045	1	105	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**25-FEB-2010 12:55:04**	**OM_2-25-2010_12-43-55**	**-0.011**	**0.05**	**Yes**
CCB	25-FEB-2010 15:31:10	OM_2-25-2010_15-16-29	-0.008	0.05	Yes
CCB	25-FEB-2010 15:43:13	OM_2-25-2010_15-16-29	-0.006	0.05	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 23-MAR-2010 12:47

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-2001

Nutrient Analysis

Method: EPA 353.2 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8500 Series

Parmname: Nitrogen, Nitrate/Nitrite

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**25-FEB-2010 10:18:53**	**OM_2-25-2010_10-08-41**	**0.978**	**1**	**97.8**	**(90%-110%)**	**Yes**
CCV	25-FEB-2010 14:32:00	OM_2-25-2010_13-40-36	0.912	1	91.2	(90%-110%)	Yes
CCV	25-FEB-2010 14:48:45	OM_2-25-2010_13-40-36	0.901	1	90.1	(90%-110%)	Yes
CCV	25-FEB-2010 15:01:49	OM_2-25-2010_13-40-36	0.936	1	93.6	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**25-FEB-2010 10:21:15**	**OM_2-25-2010_10-08-41**	**-0.00122**	**0.05**	**Yes**
CCB	25-FEB-2010 14:34:22	OM_2-25-2010_13-40-36	-0.00146	0.05	Yes
CCB	25-FEB-2010 14:51:07	OM_2-25-2010_13-40-36	-0.00014	0.05	Yes
CCB	25-FEB-2010 15:04:11	OM_2-25-2010_13-40-36	-0.00147	0.05	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 23-MAR-2010 12:47

GEL Laboratories LLC

Contract: **ESHL01000**

SDG #: **10-2001**

Nutrient Analysis

Method: EPA 365.4 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Phosphorus, Total as P

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**05-MAR-2010 08:50:31**	**OM_3-5-2010_08-40-57**	**1.021**	**1**	**102**	**(90%-110%)**	**Yes**
CCV	05-MAR-2010 09:02:59	OM_3-5-2010_08-40-57	1.002	1	100	(90%-110%)	Yes
CCV	05-MAR-2010 09:40:00	OM_3-5-2010_09-38-31	0.987	1	98.7	(90%-110%)	Yes
CCV	05-MAR-2010 09:52:23	OM_3-5-2010_09-38-31	0.966	1	96.6	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**05-MAR-2010 08:52:36**	**OM_3-5-2010_08-40-57**	**0.024**	**0.05**	**Yes**
CCB	05-MAR-2010 09:05:03	OM_3-5-2010_08-40-57	0.016	0.05	Yes
CCB	05-MAR-2010 09:42:04	OM_3-5-2010_09-38-31	0.017	0.05	Yes
CCB	05-MAR-2010 09:54:27	OM_3-5-2010_09-38-31	0.017	0.05	Yes

Alkalinity

Alkalinity LogBook

Analyst: LXA1
Batch: 957056
Lab SOP: GL-GC-E-033 REV# 6
SOP Description: Alkalinity: Total, Bicarbonate, Carbonate, Hydroxide, and Phenolphthalein
Run Date: 24-FEB-2010

Type	Sample Id	Lot Id	Nc(mg/L)	Recovery(%)
LCS	1202052090	IMM100107-ALK	50	100.965
LCS	1202052251	IMM100107-ALK	50	100.33
MS	1202052089	IMM100107-ALK	50	97.155
MS	1202052338	IMM100107-ALK	100	1103.63
MSD	1202052350	IMM100107-ALK	100	963.168

Type	Sample Id	Rpd(%)	Parmname
DUP	1202052087	0	Alkalinity, Total as CaCO3
DUP	1202052087	0	Carbonate alkalinity (CaCO3)
DUP	1202052337	1.527	Carbonate alkalinity (CaCO3)

Type	Sample id	Parent Sample Id	Time	Ph	Aliquot	Units	Normality H2SO4	H2SO4 Ph 8.3 (mL)	H2SO4 Ph 4.5(mL)	Alkalinity	Bicarbonate	CO2 Dissolved	CO2 Free	CO2 Total	Carbonate	Hydroxide	Phenol phthalein	Units
MB	1202052250		11:01	6.15	100	mL	0.10033	0	0.05	2.5083					0.0000			mg/L
LCS	1202052251		11:02	9.18	100	mL	0.10033	0	1	50.165								mg/L
MB	1202052085		11:03	6.29	100	mL	0.01905	0	0.1	0.95250					0.0000			mg/L
LCS	1202052090		11:04	9.22	100	mL	0.01905	0	5.3	50.483								mg/L
SAMPLE	247817001		11:08	7.89	100	mL	0.01905	0	5.65	53.816					0.0000			mg/L
DUP	1202052087	247817001	11:14	7.92	100	mL	0.01905	0	5.65	53.816					0.0000			mg/L
MS	1202052089	247817001	11:24	9.07	100	mL	0.01905	0	10.75	102.39								mg/L
SAMPLE	247829001		11:30	7.96	100	mL	0.01905	0	6.25	59.531					0.0000			mg/L
SAMPLE	247854001		11:40	8.42	50	mL	0.10033	4.15	31.9	3200.5					832.74			mg/L
SAMPLE	247854002		12:12	8.46	50	mL	0.10033	3.7	20.2	2026.7					742.44			mg/L
SAMPLE	247854003		12:18	8.45	50	mL	0.10033	3.9	29.4	2949.7					782.57			mg/L
SAMPLE	247854004		12:24	8.41	50	mL	0.10033	3.25	21.8	2187.2					652.15			mg/L
DUP	1202052337	247854004	12:33	8.41	50	mL	0.10033	3.3	22	2207.3					662.18			mg/L
MS	1202052338	247854004	12:42	8.45	50	mL	0.10033	0	32.8	3290.8								mg/L
MSD	1202052350	247854004	12:54	8.46	50	mL	0.10033	0	31.4	3150.4								mg/L

Run Date: 24-FEB-10 08:19
Instrument: PHX370
Analyst: LXA1

Standard	Observed	Theoretical		%Recovery
UPH100224-PH3	10.04	10	SU	100.4
UPH100224-PH5	12.01	12	SU	100.08
UPH100224-PH4	2.09	2	SU	104.5
IMM100224-PH1	4.01	4	SU	100.25
IMM100224-PH2	7.01	7	SU	100.14
IMM100224-PH6	7.03	7	SU	100.43

Comments:

Run Date: 11-FEB-2010 16:53
Instrument: TIT001
Analyst: LXA1

Na2CO3 Std. ID	Na2CO3, 0.05 N g Na2C03/L
1071836	2.5214

Alkalinity LogBook

		H2SO4 N (approx.)	NA2CO3 titrated	H2SO4 to pH 3.7	Actual Normality	Normality Average
2.5214	.1	40	18.9	.09989	.10033	
2.5214	.1	40	18.95	.10042		
	.1	40	19.05	.10068		

Run Date: 11-FEB-2010 18:08
Instrument: TIT001
Analyst: LXA1

Na2CO3 Std. ID	Na2CO3, 0.05 N g Na2C03/L	H2SO4 N (approx.)	NA2CO3 titrated	H2SO4 to pH 3.7	Actual Normality	Normality Average
1071836	2.5214	.02	15	37.4	.01903	.01905
	2.5214	.02	15	37.45	.01905	
	2.5214	.02	15	37.5	.01908	

Normality of H2SO4 solution
A x B / 53.00 x C
where:
A = grams of Na2CO3
B = volume (mL) of the Na2CO3 solution
C = Total volume of the 0.02 N H2SO4 acid titrant used to reach a pH of 3.7

Total Alkalinity (mg/L)
Vt x N x 50000 / Vs
Where:
Vt = volume (mL) of H2SO4 used to reach the pH 4.5 endpoint
N = normality of the H2SO4 titrant
Vs = volume (mL) of sample used

Phenolphthalein alkalinity (mg/L)
Vt x N x 50000 / Vs
Where:
Vt = volume (mL) of H2SO4 used to reach the pH 8.3 endpoint
N = normality of the H2SO4 titrant
Vs = volume (mL) of sample used

Bicarbonate Alkalinity
Relationship Table SM2320B

Carbonate Alkalinity
Relationship Table SM2320B

Hydroxide Alkalinity
Relationship Table SM2320B

Free Carbon Dioxide
mg CO2/L = 2.0 x B x 10 (6-pH)
Where B = Bicarbonate Alkalinity

Total Carbon Dioxide
mg total CO2/L = A + 0.44(2B + C)
Where:
A = mg Free CO2/L
B = Bicarbonate Alkalinity

Alkalinity LogBook

C = Carbonate Alkalinity

Relationship Table SM2320B

P = 0	then H = 0,	C = 0,	B = T
P < 1/2 T	then H = 0,	C = 2P,	B = T - 2P
P = 1/2 T	then H = 0,	C = 2P,	B = 0
P > 1/2 T	then H = 2P - T,	C = 2(T - P),	B = 0
P = T	then H = T,	C = 0,	B = 0

Ammonia Nitrogen

Prep Logbook

Ammonia-Nitrogen Sample Preparation

Batch ID: **957555.0** Verified by: _____

Analyst: Stephanie Jackson

Method: EPA 350.2 Prep

Lab SOP: GL-GC-E-072 REV# 11

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202053233	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202053229	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202053230	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202053231	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202053232	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202053226 MB	25-FEB-2010 13:00:00	Ground Water	25	25	1	9.5
1202053233 LCS	25-FEB-2010 13:00:00	Ground Water	25	25	1	9.5
247817001	25-FEB-2010 13:00:00	Ground Water	25	25	1	9.5
1202053227 DUP (247817001)	25-FEB-2010 13:00:00	Ground Water	25	25	1	9.5
1202053229 MS (247817001)	25-FEB-2010 13:00:00	Ground Water	25	25	1	9.5
1202053231 MSD (247817001)	25-FEB-2010 13:00:00	Ground Water	25	25	1	9.5
247829001	25-FEB-2010 13:00:00	Ground Water	25	25	1	9.5
247867001	25-FEB-2010 13:00:00	Waste Water	10	25	2.5	9.5
247867002	25-FEB-2010 13:00:00	Waste Water	5	25	5	9.5
247867003	25-FEB-2010 13:00:00	Water	5	25	5	9.5
247929001	25-FEB-2010 13:00:00	Ground Water	25	25	1	9.5
247929002	25-FEB-2010 13:00:00	Ground Water	10	25	2.5	9.5
247929003	25-FEB-2010 13:00:00	Ground Water	25	25	1	9.5
247929004	25-FEB-2010 13:00:00	Ground Water	25	25	1	9.5
247936001	25-FEB-2010 13:00:00	Misc Liquid	10	25	2.5	9.5
1202053228 DUP (247936001)	25-FEB-2010 13:00:00	Misc Liquid	10	25	2.5	9.5
1202053230 MS (247936001)	25-FEB-2010 13:00:00	Misc Liquid	10	25	2.5	9.5
1202053232 MSD (247936001)	25-FEB-2010 13:00:00	Misc Liquid	10	25	2.5	9.5
247936002	25-FEB-2010 13:00:00	Misc Liquid	25	25	1	9.5
247936003	25-FEB-2010 13:00:00	Misc Liquid	10	25	2.5	9.5
247936004	25-FEB-2010 13:00:00	Misc Liquid	25	25	1	9.5
247936005	25-FEB-2010 13:00:00	Misc Liquid	25	25	1	9.5
247936006	25-FEB-2010 13:00:00	Misc Liquid	25	25	1	9.5

Prep Logbook

Batch ID: **957555.0** Verified by: _____

Analyst: Stephanie Jackson

Method: EPA 350.2 Prep

Lab SOP: GL-GC-E-072 REV# 11

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202053233	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202053229	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202053230	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202053231	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202053232	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
247936007	25-FEB-2010 13:00:00	Misc Liquid	10	25	2.5	9.5
247936008	25-FEB-2010 13:00:00	Misc Liquid	25	25	1	9.5
247953001	25-FEB-2010 13:00:00	Waste Water	10	25	2.5	9.5

Reagent/Solvent Lot ID	Description	Amount
1271208-C	Borate Buffer	1.25 mL
1271210-C	50% NaOH Solution	1 mL

Comments:

samples 247867001, 247929002, 247936001, DUP, MS and MSD, 247963003, 2479636007 and 247953001 prepped @10mL due to bright yellow color NH3 test strip... samples 247867002 and 247867003 prepped @ 5mL due to dark orange color on NH3 test strip

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
2.0 ppm Std.		1	axh3	2/25/2010 12:47:07	OM_2-25-2010_12-43-55
1.0 ppm Std.		1	axh3	2/25/2010 12:47:57	OM_2-25-2010_12-43-55
0.5 ppm Std		1	axh3	2/25/2010 12:48:47	OM_2-25-2010_12-43-55
0.1 ppm Std		1	axh3	2/25/2010 12:49:38	OM_2-25-2010_12-43-55
0.05 ppm Std		1	axh3	2/25/2010 12:50:30	OM_2-25-2010_12-43-55
ICAL-00		1	axh3	2/25/2010 12:51:22	OM_2-25-2010_12-43-55
ICV		1	axh3	2/25/2010 12:53:13	OM_2-25-2010_12-43-55
ICB		1	axh3	2/25/2010 12:55:04	OM_2-25-2010_12-43-55
1202050875	956489	1	axh3	2/25/2010 12:56:53	OM_2-25-2010_12-43-55
1202050879	956489	1	axh3	2/25/2010 12:57:43	OM_2-25-2010_12-43-55
247763002	956489	1	axh3	2/25/2010 12:58:34	OM_2-25-2010_12-43-55
1202050876	956489	1	axh3	2/25/2010 12:59:25	OM_2-25-2010_12-43-55
1202050877	956489	1	axh3	2/25/2010 13:00:15	OM_2-25-2010_12-43-55
1202050878	956489	1	axh3	2/25/2010 13:01:04	OM_2-25-2010_12-43-55
247854001	956489	1	axh3	2/25/2010 13:01:55	OM_2-25-2010_12-43-55
1202051767	956489	1	axh3	2/25/2010 13:02:46	OM_2-25-2010_12-43-55
1202051768	956489	1	axh3	2/25/2010 13:03:37	OM_2-25-2010_12-43-55
1202051769	956489	1	axh3	2/25/2010 13:04:28	OM_2-25-2010_12-43-55
CCV		1	axh3	2/25/2010 13:05:18	OM_2-25-2010_12-43-55
CCB		1	axh3	2/25/2010 13:07:08	OM_2-25-2010_12-43-55
247763001	956489	1	axh3	2/25/2010 13:08:57	OM_2-25-2010_12-43-55
247850001	956489	1	axh3	2/25/2010 13:09:47	OM_2-25-2010_12-43-55
247850002	956489	1	axh3	2/25/2010 13:10:36	OM_2-25-2010_12-43-55
247850003	956489	1	axh3	2/25/2010 13:11:25	OM_2-25-2010_12-43-55
247850004	956489	1	axh3	2/25/2010 13:12:13	OM_2-25-2010_12-43-55
247850005	956489	1	axh3	2/25/2010 13:13:01	OM_2-25-2010_12-43-55
247850006	956489	1	axh3	2/25/2010 13:13:49	OM_2-25-2010_12-43-55
247850007	956489	1	axh3	2/25/2010 13:14:37	OM_2-25-2010_12-43-55
247850008	956489	1	axh3	2/25/2010 13:15:24	OM_2-25-2010_12-43-55
247854002	956489	1	axh3	2/25/2010 13:16:13	OM_2-25-2010_12-43-55
CCV		1	axh3	2/25/2010 13:17:03	OM_2-25-2010_12-43-55
CCB		1	axh3	2/25/2010 13:18:54	OM_2-25-2010_12-43-55
247854003	956489	1	axh3	2/25/2010 13:20:42	OM_2-25-2010_12-43-55
247854004	956489	1	axh3	2/25/2010 13:21:32	OM_2-25-2010_12-43-55
1202050413	956216	1	axh3	2/25/2010 13:22:22	OM_2-25-2010_12-43-55
1202050417	956216	1	axh3	2/25/2010 13:23:11	OM_2-25-2010_12-43-55
247435002*	956216	1	axh3	2/25/2010 13:24:00	OM_2-25-2010_12-43-55
1202050414*	956216	1	axh3	2/25/2010 13:24:49	OM_2-25-2010_12-43-55
1202050415*	956216	1	axh3	2/25/2010 13:25:38	OM_2-25-2010_12-43-55
1202050416*	956216	1	axh3	2/25/2010 13:26:26	OM_2-25-2010_12-43-55
247435001	956216	1	axh3	2/25/2010 13:27:14	OM_2-25-2010_12-43-55
247435003	956216	1	axh3	2/25/2010 13:28:03	OM_2-25-2010_12-43-55
CCV		1	axh3	2/25/2010 13:28:52	OM_2-25-2010_12-43-55
CCB		1	axh3	2/25/2010 13:30:42	OM_2-25-2010_12-43-55
247435004	956216	1	axh3	2/25/2010 13:32:32	OM_2-25-2010_12-43-55
247435005	956216	1	axh3	2/25/2010 13:33:24	OM_2-25-2010_12-43-55
247435006	956216	1	axh3	2/25/2010 13:34:16	OM_2-25-2010_12-43-55
247435002	956216	1	axh3	2/25/2010 13:35:05	OM_2-25-2010_12-43-55
1202050414	956216	1	axh3	2/25/2010 13:35:54	OM_2-25-2010_12-43-55
1202050415	956216	1	axh3	2/25/2010 13:36:42	OM_2-25-2010_12-43-55
1202050416	956216	1	axh3	2/25/2010 13:37:30	OM_2-25-2010_12-43-55
CCV		1	axh3	2/25/2010 13:39:19	OM_2-25-2010_12-43-55
CCB		1	axh3	2/25/2010 13:41:09	OM_2-25-2010_12-43-55

Author: axh3 Date : 2/25/2010

Original Run Filename: OM_2-25-2010_12-43-55.OMN created 2/25/2010 12:43:55
Original Run Author's Signature: [axh3]
Current Run Filename: OM_2-25-2010_12-43-55.OMN last modified 2/25/2010 13:42:13
Current Run Author's Signature: [axh3]
Description: Ammonia EPA Method 350.1 GEL SOP: GL-GC-E-106
Detection Wavelength: 630nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 NH3 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100225-03	1	S10	2.000	14.483	2/25/2010@12:47:07			2.0 ppm Std.
WTR100225-04	1	S11	1.000	7.504	2/25/2010@12:47:57			1.0 ppm Std.
WTR100225-05	1	S12	0.500	3.822	2/25/2010@12:48:47			0.5 ppm Std
WTR100225-06	1	S13	0.100	0.839	2/25/2010@12:49:38			0.1 ppm Std
WTR100225-07	1	S14	0.050	0.415	2/25/2010@12:50:30			0.05 ppm Std
WTR100225-10 0.0 ppm	1	S15	0.000	0.053	2/25/2010@12:51:22			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99984 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR100225-08 ICV	1	S16	0.996	7.322	2/25/2010@12:53:13			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	0.996 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.996 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR100225-10 ICB	1	S15	-0.011	0.044	2/25/2010@12:55:04			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.011 < 0.050					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.011 > -0.050					
		Message	ICB Passed					
		Action	Continue					
1202050875|956489|MB	1	1	0.022	0.278	2/25/2010@12:56:53			
1202050879||LCS	1	2	1.000	7.351	2/25/2010@12:57:43			
247763002	1	4	0.026	0.312	2/25/2010@12:58:34			
1202050876||DUP	1	5	0.043	0.433	2/25/2010@12:59:25			
1202050877||MS	1	6	0.780	5.760	2/25/2010@13:00:15			
1202050878||MSD	1	7	0.733	5.423	2/25/2010@13:01:04			
247854001	1	16	0.324	2.466	2/25/2010@13:01:55			
1202051767||DUP	1	17	0.454	3.406	2/25/2010@13:02:46			
1202051768||MS	1	18	1.231	9.025	2/25/2010@13:03:37			
1202051769||MSD	1	19	1.129	8.286	2/25/2010@13:04:28			
WTR100225-04 CCV	1	S11	1.035	7.608	2/25/2010@13:05:18			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.035 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.035 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100225-10 CCB	1	S15	-0.008	0.060	2/25/2010@13:07:08			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.008 < 0.049					

		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.008 > -0.050					
		Message	CCB Passed					
		Action	Continue					
247763001	1	3	0.059	0.548	2/25/2010@13:08:57			
247850001	1	8	0.064	0.584	2/25/2010@13:09:47			
247850002	1	9	0.058	0.543	2/25/2010@13:10:36			
247850003	1	10	0.058	0.544	2/25/2010@13:11:25			
247850004	1	11	0.040	0.413	2/25/2010@13:12:13			
247850005	1	12	0.373	2.816	2/25/2010@13:13:01			
247850006	1	13	0.225	1.748	2/25/2010@13:13:49			
247850007	1	14	0.049	0.477	2/25/2010@13:14:37			
247850008	1	15	0.041	0.417	2/25/2010@13:15:24			
247854002	1	20	0.163	1.298	2/25/2010@13:16:13			
WTR100225-04 CCV	1	S11	1.030	7.568	2/25/2010@13:17:03			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.030 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.030 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100225-10 CCB	1	S15	-0.007	0.072	2/25/2010@13:18:54			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.007 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.007 > -0.050					
		Message	CCB Passed					
		Action	Continue					
247854003	1	21	0.201	1.572	2/25/2010@13:20:42			
247854004	1	22	0.242	1.869	2/25/2010@13:21:32			
1202050413|956216|MB	1	23	0.032	0.352	2/25/2010@13:22:22			
1202050417||LCS	1	24	1.007	7.403	2/25/2010@13:23:11			
247435002	1	26	0.055	0.521	2/25/2010@13:24:00			
1202050414||DUP	1	27	0.042	0.427	2/25/2010@13:24:49			
1202050415||MS	1	28	0.577	4.291	2/25/2010@13:25:38			
1202050416||MSD	1	29	0.462	3.463	2/25/2010@13:26:26			
247435001	1	25	0.030	0.335	2/25/2010@13:27:14			
247435003	1	30	0.016	0.237	2/25/2010@13:28:03			
WTR100225-04 CCV	1	S11	1.029	7.559	2/25/2010@13:28:52			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.029 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.029 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100225-10 CCB	1	S15	-0.009	0.059	2/25/2010@13:30:42			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.009 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.009 > -0.050					
		Message	CCB Passed					
		Action	Continue					
247435004	1	31	0.002	0.136	2/25/2010@13:32:32			
247435005	1	32	0.049	0.472	2/25/2010@13:33:24			

Author: axh3 Date : 2/25/2010

247435006	1	33	0.029	0.327	2/25/2010@13:34:16			
247435002	1	26	0.049	0.474	2/25/2010@13:35:05			
1202050414||DUP	1	27	0.043	0.434	2/25/2010@13:35:54			
1202050415||MS	1	28	0.575	4.282	2/25/2010@13:36:42			
1202050416||MSD	1	29	0.578	4.299	2/25/2010@13:37:30			
WTR100225-04 CCV	1	S11	1.047	7.691	2/25/2010@13:39:19			CCV
Known Conc:			1.000					
DQM Test: > + Concentration Limit								
Result:			1.047 < 1.104					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			1.047 > 0.895					
Message			CCV Passed					
Action			Continue					
WTR100225-10 CCB	1	S15	-0.007	0.073	2/25/2010@13:41:09			CCB
Known Conc:			0.000					
DQM Test: > + Concentration Limit								
Result:			-0.007 < 0.049					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.007 > -0.050					
Message			CCB Passed					
Action			Continue					

Channel 1 (NH3) : Current View

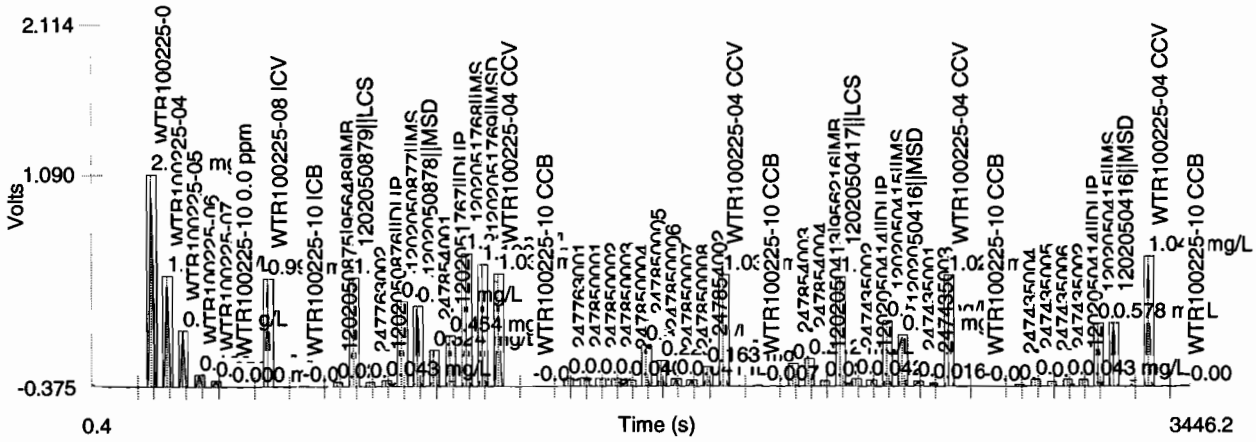

Table 1: NH3

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	2.000	1	14.483	1.459	0.7	2/25/2010	12:48:10
2	1.000	1	7.504	0.762	-2.1	2/25/2010	12:48:59
3	0.500	1	3.822	0.387	-2.3	2/25/2010	12:49:49
4	0.100	1	0.839	0.084	0.7	2/25/2010	12:50:40
5	0.050	1	0.415	0.041	14.1	2/25/2010	12:51:32
6	0.000	1	0.053	0.003		2/25/2010	12:52:25

Author: axh3

Date : 2/25/2010

Figure 1: NH3

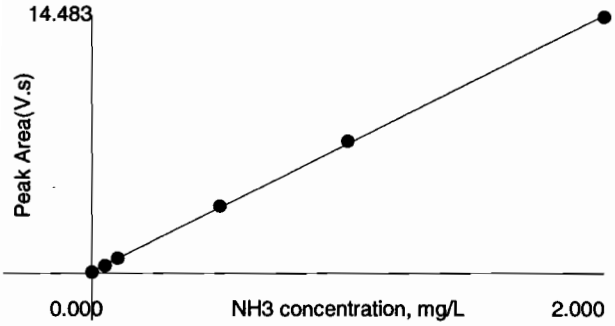

Area = 7.229 * Conc + 0.122
Conc = 0.138 * Area - 0.017
Correlation Coefficient (r) = 0.99984

No Weighting

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axh3	2/25/2010 15:17:16	OM_2-25-2010_15-16-29
CCB		1	axh3	2/25/2010 15:19:06	OM_2-25-2010_15-16-29
1202053226*	957556	1	axh3	2/25/2010 15:20:55	OM_2-25-2010_15-16-29
1202053233*	957556	1	axh3	2/25/2010 15:21:46	OM_2-25-2010_15-16-29
247817001*	957556	1	axh3	2/25/2010 15:22:37	OM_2-25-2010_15-16-29
1202053227*	957556	1	axh3	2/25/2010 15:23:28	OM_2-25-2010_15-16-29
1202053229*	957556	1	axh3	2/25/2010 15:24:18	OM_2-25-2010_15-16-29
1202053231*	957556	1	axh3	2/25/2010 15:25:08	OM_2-25-2010_15-16-29
247936001*	957556	1	axh3	2/25/2010 15:25:56	OM_2-25-2010_15-16-29
1202053228*	957556	1	axh3	2/25/2010 15:26:46	OM_2-25-2010_15-16-29
1202053230*	957556	1	axh3	2/25/2010 15:27:38	OM_2-25-2010_15-16-29
1202053232*	957556	1	axh3	2/25/2010 15:28:29	OM_2-25-2010_15-16-29
CCV		1	axh3	2/25/2010 15:29:19	OM_2-25-2010_15-16-29
CCB		1	axh3	2/25/2010 15:31:10	OM_2-25-2010_15-16-29
1202053226	957556	1	axh3	2/25/2010 15:32:59	OM_2-25-2010_15-16-29
1202053233	957556	1	axh3	2/25/2010 15:33:50	OM_2-25-2010_15-16-29
247817001	957556	1	axh3	2/25/2010 15:34:41	OM_2-25-2010_15-16-29
1202053227	957556	1	axh3	2/25/2010 15:35:31	OM_2-25-2010_15-16-29
1202053229	957556	1	axh3	2/25/2010 15:36:22	OM_2-25-2010_15-16-29
1202053231	957556	1	axh3	2/25/2010 15:37:12	OM_2-25-2010_15-16-29
247936001	957556	1	axh3	2/25/2010 15:38:00	OM_2-25-2010_15-16-29
1202053228	957556	1	axh3	2/25/2010 15:38:50	OM_2-25-2010_15-16-29
1202053230	957556	1	axh3	2/25/2010 15:39:41	OM_2-25-2010_15-16-29
1202053232	957556	1	axh3	2/25/2010 15:40:32	OM_2-25-2010_15-16-29
CCV		1	axh3	2/25/2010 15:41:23	OM_2-25-2010_15-16-29
CCB		1	axh3	2/25/2010 15:43:13	OM_2-25-2010_15-16-29
247829001	957556	1	axh3	2/25/2010 15:45:01	OM_2-25-2010_15-16-29
247867001	957556	1	axh3	2/25/2010 15:45:51	OM_2-25-2010_15-16-29
247867002	957556	1	axh3	2/25/2010 15:46:39	OM_2-25-2010_15-16-29
247867003	957556	1	axh3	2/25/2010 15:47:28	OM_2-25-2010_15-16-29
247929001	957556	1	axh3	2/25/2010 15:48:17	OM_2-25-2010_15-16-29
247929002	957556	1	axh3	2/25/2010 15:49:05	OM_2-25-2010_15-16-29
247929003	957556	1	axh3	2/25/2010 15:49:53	OM_2-25-2010_15-16-29
247929004	957556	1	axh3	2/25/2010 15:50:41	OM_2-25-2010_15-16-29
247936002	957556	1	axh3	2/25/2010 15:51:30	OM_2-25-2010_15-16-29
247936003	957556	1	axh3	2/25/2010 15:52:20	OM_2-25-2010_15-16-29
CCV		1	axh3	2/25/2010 15:53:11	OM_2-25-2010_15-16-29
CCB		1	axh3	2/25/2010 15:55:01	OM_2-25-2010_15-16-29
247936004	957556	1	axh3	2/25/2010 15:56:50	OM_2-25-2010_15-16-29
247936005	957556	1	axh3	2/25/2010 15:57:40	OM_2-25-2010_15-16-29
247936006	957556	1	axh3	2/25/2010 15:58:29	OM_2-25-2010_15-16-29
247936007	957556	1	axh3	2/25/2010 15:59:19	OM_2-25-2010_15-16-29
247936008	957556	1	axh3	2/25/2010 16:00:09	OM_2-25-2010_15-16-29
247953001	957556	1	axh3	2/25/2010 16:00:57	OM_2-25-2010_15-16-29
247867002	957556	5	axh3	2/25/2010 16:01:46	OM_2-25-2010_15-16-29
247867003	957556	10	axh3	2/25/2010 16:02:35	OM_2-25-2010_15-16-29
247929002	957556	5	axh3	2/25/2010 16:03:23	OM_2-25-2010_15-16-29
247936003	957556	5	axh3	2/25/2010 16:04:12	OM_2-25-2010_15-16-29
CCV		1	axh3	2/25/2010 16:05:03	OM_2-25-2010_15-16-29
CCB		1	axh3	2/25/2010 16:06:53	OM_2-25-2010_15-16-29
247936007	957556	5	axh3	2/25/2010 16:08:42	OM_2-25-2010_15-16-29
CCV		1	axh3	2/25/2010 16:10:31	OM_2-25-2010_15-16-29
CCB		1	axh3	2/25/2010 16:12:21	OM_2-25-2010_15-16-29

Author: axh3 Date : 2/25/2010

Original Run Filename: OM_2-25-2010_15-16-29.OMN created 2/25/2010 15:16:29
Original Run Author's Signature: [axh3]
Current Run Filename: OM_2-25-2010_15-16-29.OMN last modified 2/25/2010 16:13:25
Current Run Author's Signature: [axh3]
Description: Ammonia EPA Method 350.1 GEL SOP: GL-GC-E-106
Detection Wavelength: 630nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 NH3 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100225-04 CCV	1	S11	1.008	7.406	2/25/2010@15:17:16			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.008 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.008 > 0.895					
		Message	CCV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR100225-10 CCB	1	S15	-0.008	0.065	2/25/2010@15:19:06			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.008 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.008 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1202053226|957556|MB	1	1	0.059	0.547	2/25/2010@15:20:55			
1202053233||LCS	1	2	1.011	7.432	2/25/2010@15:21:46			
247817001	1	3	0.038	0.398	2/25/2010@15:22:37			
1202053227||DUP	1	4	0.017	0.243	2/25/2010@15:23:28			
1202053229||MS	1	5	0.586	4.356	2/25/2010@15:24:18			
1202053231||MSD	1	6	0.819	6.045	2/25/2010@15:25:08			
247936001	1	15	2.419	17.612	2/25/2010@15:25:56			
1202053228||DUP	1	16	1.777	12.969	2/25/2010@15:26:46			
1202053230||MS	1	17	2.679	19.493	2/25/2010@15:27:38			
1202053232||MSD	1	18	3.548	25.774	2/25/2010@15:28:29			
WTR100225-04 CCV	1	S11	1.043	7.665	2/25/2010@15:29:19			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.043 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.043 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100225-10 CCB	1	S15	-0.008	0.063	2/25/2010@15:31:10			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.008 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.008 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1202053226|957556|MB	1	1	0.026	0.312	2/25/2010@15:32:59			
1202053233||LCS	1	2	1.000	7.351	2/25/2010@15:33:50			
247817001	1	3	0.038	0.392	2/25/2010@15:34:41			
1202053227||DUP	1	4	0.020	0.263	2/25/2010@15:35:31			

1202053229||MS	1	5	0.800	5.905	2/25/2010@15:36:22			
1202053231||MSD	1	6	0.815	6.014	2/25/2010@15:37:12			
247936001	1	15	1.782	13.006	2/25/2010@15:38:00			
1202053228||DUP	1	16	1.781	13.001	2/25/2010@15:38:50			
1202053230||MS	1	17	3.546	25.763	2/25/2010@15:39:41			
1202053232||MSD	1	18	3.565	25.899	2/25/2010@15:40:32			
WTR100225-04 CCV	1	S11	1.045	7.678	2/25/2010@15:41:23			CCV
	Known Conc:		1.000					
DQM Test: > + Concentration Limit								
	Result:		1.045 < 1.104					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		1.045 > 0.895					
	Message		CCV Passed					
	Action		Continue					
WTR100225-10 CCB	1	S15	-0.006	0.075	2/25/2010@15:43:13			CCB
	Known Conc:		0.000					
DQM Test: > + Concentration Limit								
	Result:		-0.006 < 0.049					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-0.006 > -0.050					
	Message		CCB Passed					
	Action		Continue					
247829001	1	7	0.026	0.312	2/25/2010@15:45:01			
247867001	1	8	1.701	12.423	2/25/2010@15:45:51			
247867002	1	9	4.198	30.475	2/25/2010@15:46:39			
247867003	1	10	6.918	50.142	2/25/2010@15:47:28			
247929001	1	11	0.065	0.592	2/25/2010@15:48:17			
247929002	1	12	3.402	24.722	2/25/2010@15:49:05			
247929003	1	13	0.038	0.396	2/25/2010@15:49:53			
247929004	1	14	0.024	0.297	2/25/2010@15:50:41			
247936002	1	19	0.318	2.423	2/25/2010@15:51:30			
247936003	1	20	2.788	20.277	2/25/2010@15:52:20			
WTR100225-04 CCV	1	S11	1.043	7.663	2/25/2010@15:53:11			CCV
	Known Conc:		1.000					
DQM Test: > + Concentration Limit								
	Result:		1.043 < 1.104					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		1.043 > 0.895					
	Message		CCV Passed					
	Action		Continue					
WTR100225-10 CCB	1	S15	-0.005	0.081	2/25/2010@15:55:01			CCB
	Known Conc:		0.000					
DQM Test: > + Concentration Limit								
	Result:		-0.005 < 0.049					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-0.005 > -0.050					
	Message		CCB Passed					
	Action		Continue					
247936004	1	21	0.096	0.817	2/25/2010@15:56:50			
247936005	1	22	0.189	1.486	2/25/2010@15:57:40			
247936006	1	23	0.339	2.571	2/25/2010@15:58:29			
247936007	1	24	3.622	26.313	2/25/2010@15:59:19			
247936008	1	25	0.281	2.153	2/25/2010@16:00:09			
247953001	1	26	1.913	13.956	2/25/2010@16:00:57			
247867002	1	9	0.688	5.099	2/25/2010@16:01:46		5.00	
247867003	1	10	0.668	4.954	2/25/2010@16:02:35		10.00	
247929002	1	12	0.626	4.645	2/25/2010@16:03:23		5.00	
247936003	1	20	0.472	3.534	2/25/2010@16:04:12		5.00	
WTR100225-04 CCV	1	S11	1.019	7.486	2/25/2010@16:05:03			CCV
	Known Conc:		1.000					

DQM Test: > + Concentration Limit								
Result:			1.019 < 1.104					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			1.019 > 0.895					
Message			CCV Passed					
Action			Continue					
WTR100225-10 CCB	1	S15	-0.005	0.085	2/25/2010@16:06:53			CCB
Known Conc:			0.000					
DQM Test: > + Concentration Limit								
Result:			-0.005 < 0.049					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.005 > -0.050					
Message			CCB Passed					
Action			Continue					
247936007	1	24	0.666	4.937	2/25/2010@16:08:42		5.00	
WTR100225-04 CCV	1	S11	1.021	7.505	2/25/2010@16:10:31			CCV
Known Conc:			1.000					
DQM Test: > + Concentration Limit								
Result:			1.021 < 1.104					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			1.021 > 0.895					
Message			CCV Passed					
Action			Continue					
WTR100225-10 CCB	1	S15	-0.006	0.079	2/25/2010@16:12:21			CCB
Known Conc:			0.000					
DQM Test: > + Concentration Limit								
Result:			-0.006 < 0.049					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.006 > -0.050					
Message			CCB Passed					
Action			Continue					

Channel 1 (NH3) : Current View

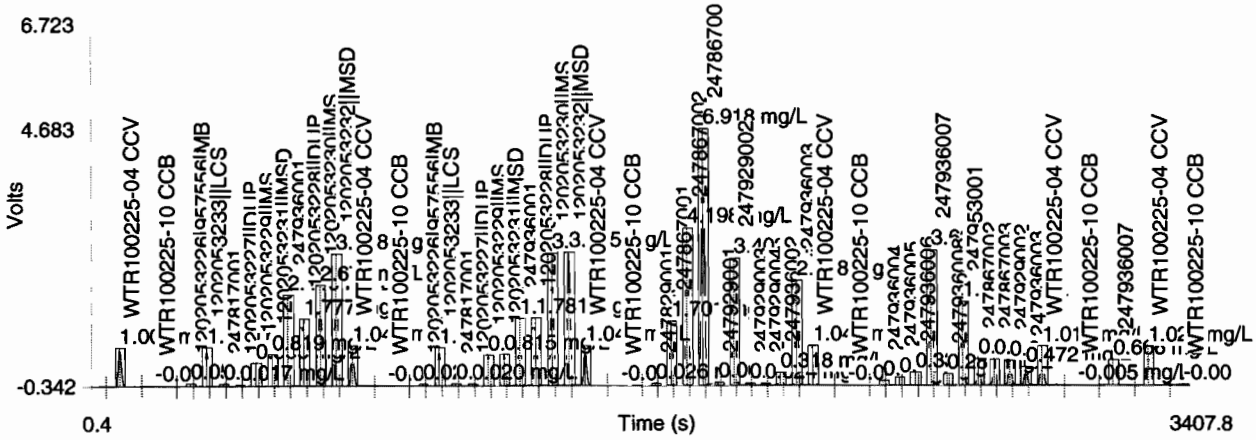
6.723
4.683
Volts
-0.342
0.4
Time (s)
3407.8
WTR100225-04 CCV
WTR100225-10 CCB
WTR100225-04 CCV
WTR100225-10 CCB
WTR100225-04 CCV
WTR100225-10 CCB

Author: axh3 Date : 2/25/2010

Table 1: NH3

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	2.000	1	14.483	1.459	0.7	2/25/2010	12:48:10
2	1.000	1	7.504	0.762	-2.1	2/25/2010	12:48:59
3	0.500	1	3.822	0.387	-2.3	2/25/2010	12:49:49
4	0.100	1	0.839	0.084	0.7	2/25/2010	12:50:40
5	0.050	1	0.415	0.041	14.1	2/25/2010	12:51:32
6	0.000	1	0.053	0.003		2/25/2010	12:52:25

Figure 1: NH3

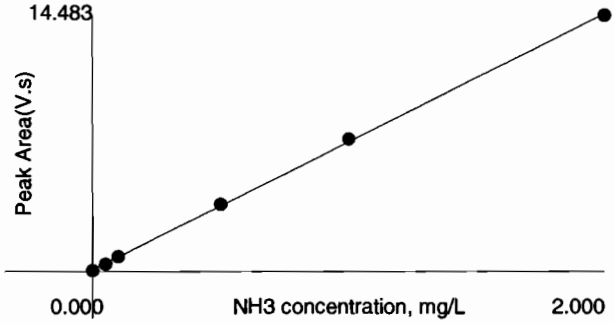

Area = 7.229 * Conc + 0.122
Conc = 0.138 * Area - 0.017
Correlation Coefficient (r) = 0.99984

No Weighting

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **956939.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010C Distillation SW846 9010B Prep EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202051813	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202051811	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202053280	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202051812	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202053281	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202051809 MB	02-MAR-2010 13:21:00	Ground Water	25	25	1	>12
1202051813 LCS	02-MAR-2010 13:21:00	Ground Water	25	25	1	>12
247771001	02-MAR-2010 13:21:00	Water	25	25	1	>12
1202053279 DUP (247771001)	02-MAR-2010 13:21:00	Water	25	25	1	>12
1202053280 MS (247771001)	02-MAR-2010 13:21:00	Water	25	25	1	>12
1202053281 MSD (247771001)	02-MAR-2010 13:21:00	Water	25	25	1	>12
247780001	02-MAR-2010 13:21:00	Water	25	25	1	>12
247793001	02-MAR-2010 13:21:00	Water	25	25	1	>12
247807001	02-MAR-2010 13:21:00	Water	25	25	1	>12
247807002	02-MAR-2010 13:21:00	Water	25	25	1	>12
247807003	02-MAR-2010 13:21:00	Water	25	25	1	>12
247807004	02-MAR-2010 13:21:00	Water	25	25	1	>12
247817002	02-MAR-2010 13:21:00	Ground Water	25	25	1	>12
1202051810 DUP (247817002)	02-MAR-2010 13:21:00	Ground Water	25	25	1	>12
1202051811 MS (247817002)	02-MAR-2010 13:21:00	Ground Water	25	25	1	>12
1202051812 MSD (247817002)	02-MAR-2010 13:21:00	Ground Water	25	25	1	>12
247819001	02-MAR-2010 13:21:00	Misc Liquid	25	25	1	>12
247858001	02-MAR-2010 13:21:00	Ground Water	25	25	1	>12
247858002	02-MAR-2010 13:21:00	Ground Water	25	25	1	>12
247858003	02-MAR-2010 13:21:00	Ground Water	25	25	1	>12

Prep Logbook

Batch ID: **956939.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010C Distillation SW846 9010B Prep EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202051813	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202051811	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202053280	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202051812	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202053281	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
247858004	02-MAR-2010 13:21:00	Ground Water	25	25	1	>12
247858005	02-MAR-2010 13:21:00	Ground Water	25	25	1	>12
247858006	02-MAR-2010 13:21:00	Ground Water	25	25	1	>12

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL
WCN100302-07	150 ppb CN Distilled ICV Standard	.0375 mL

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/2/2010 8:46:36	OM_3-2-2010_08-43-10
150 ppb		1	axc2	3/2/2010 8:47:27	OM_3-2-2010_08-43-10
100 ppb		1	axc2	3/2/2010 8:48:20	OM_3-2-2010_08-43-10
50 ppb		1	axc2	3/2/2010 8:49:13	OM_3-2-2010_08-43-10
10 ppb		1	axc2	3/2/2010 8:50:06	OM_3-2-2010_08-43-10
CRDL 5.0 ppb		1	axc2	3/2/2010 8:51:00	OM_3-2-2010_08-43-10
ICAL-00		1	axc2	3/2/2010 8:51:54	OM_3-2-2010_08-43-10
ICV		1	axc2	3/2/2010 8:53:45	OM_3-2-2010_08-43-10
ICB		1	axc2	3/2/2010 8:55:35	OM_3-2-2010_08-43-10
CRDL		1	axc2	3/2/2010 8:57:25	OM_3-2-2010_08-43-10
1202053271	957571	1	axc2	3/2/2010 8:59:13	OM_3-2-2010_08-43-10
1202053278*	957571	25	axc2	3/2/2010 9:00:05	OM_3-2-2010_08-43-10
247806007	957571	1	axc2	3/2/2010 9:00:59	OM_3-2-2010_08-43-10
1202053272	957571	1	axc2	3/2/2010 9:01:53	OM_3-2-2010_08-43-10
1202053274	957571	1	axc2	3/2/2010 9:02:46	OM_3-2-2010_08-43-10
1202053276	957571	1	axc2	3/2/2010 9:03:40	OM_3-2-2010_08-43-10
247806008	957571	1	axc2	3/2/2010 9:04:33	OM_3-2-2010_08-43-10
1202053273	957571	1	axc2	3/2/2010 9:05:26	OM_3-2-2010_08-43-10
1202053275	957571	1	axc2	3/2/2010 9:06:19	OM_3-2-2010_08-43-10
1202053277	957571	1	axc2	3/2/2010 9:07:12	OM_3-2-2010_08-43-10
CCV		1	axc2	3/2/2010 9:08:05	OM_3-2-2010_08-43-10
CCB		1	axc2	3/2/2010 9:09:55	OM_3-2-2010_08-43-10
1202053278	957571	25	axc2	3/2/2010 9:11:42	OM_3-2-2010_08-43-10
247806009	957571	1	axc2	3/2/2010 9:12:35	OM_3-2-2010_08-43-10
247806010	957571	1	axc2	3/2/2010 9:13:28	OM_3-2-2010_08-43-10
247806011	957571	1	axc2	3/2/2010 9:14:20	OM_3-2-2010_08-43-10
247806012	957571	1	axc2	3/2/2010 9:15:13	OM_3-2-2010_08-43-10
247822001	957571	1	axc2	3/2/2010 9:16:04	OM_3-2-2010_08-43-10
247822002	957571	1	axc2	3/2/2010 9:16:57	OM_3-2-2010_08-43-10
247822003	957571	1	axc2	3/2/2010 9:17:49	OM_3-2-2010_08-43-10
247822004	957571	1	axc2	3/2/2010 9:18:43	OM_3-2-2010_08-43-10
247822005	957571	1	axc2	3/2/2010 9:19:37	OM_3-2-2010_08-43-10
CCV		1	axc2	3/2/2010 9:20:30	OM_3-2-2010_08-43-10
CCB		1	axc2	3/2/2010 9:22:20	OM_3-2-2010_08-43-10
247822006	957571	1	axc2	3/2/2010 9:24:10	OM_3-2-2010_08-43-10
247840001	957571	1	axc2	3/2/2010 9:25:03	OM_3-2-2010_08-43-10
247840002	957571	1	axc2	3/2/2010 9:25:56	OM_3-2-2010_08-43-10
247840003	957571	1	axc2	3/2/2010 9:26:50	OM_3-2-2010_08-43-10
247842001	957571	1	axc2	3/2/2010 9:27:43	OM_3-2-2010_08-43-10
247842002	957571	1	axc2	3/2/2010 9:28:37	OM_3-2-2010_08-43-10
247842003	957571	1	axc2	3/2/2010 9:29:29	OM_3-2-2010_08-43-10
247842004	957571	1	axc2	3/2/2010 9:30:22	OM_3-2-2010_08-43-10
247905001	957571	1	axc2	3/2/2010 9:31:14	OM_3-2-2010_08-43-10
1202053252	957563	1	axc2	3/2/2010 9:32:07	OM_3-2-2010_08-43-10
CCV		1	axc2	3/2/2010 9:32:59	OM_3-2-2010_08-43-10
CCB		1	axc2	3/2/2010 9:34:51	OM_3-2-2010_08-43-10
1202053254	957563	1	axc2	3/2/2010 9:36:38	OM_3-2-2010_08-43-10
247831001	957563	1	axc2	3/2/2010 9:37:31	OM_3-2-2010_08-43-10
1202053253	957563	1	axc2	3/2/2010 9:38:22	OM_3-2-2010_08-43-10
247840001	957563	1	axc2	3/2/2010 9:39:17	OM_3-2-2010_08-43-10
247840002	957563	1	axc2	3/2/2010 9:40:12	OM_3-2-2010_08-43-10
247840003	957563	1	axc2	3/2/2010 9:41:05	OM_3-2-2010_08-43-10
247842001	957563	1	axc2	3/2/2010 9:41:59	OM_3-2-2010_08-43-10
247842002	957563	1	axc2	3/2/2010 9:42:53	OM_3-2-2010_08-43-10
247842003	957563	1	axc2	3/2/2010 9:43:46	OM_3-2-2010_08-43-10
247842004	957563	1	axc2	3/2/2010 9:44:39	OM_3-2-2010_08-43-10
CCV		1	axc2	3/2/2010 9:45:32	OM_3-2-2010_08-43-10
CCB		1	axc2	3/2/2010 9:47:22	OM_3-2-2010_08-43-10

247902001	957563	1	axc2	3/2/2010	9:49:11	OM_3-2-2010_08-43-10
247905001	957563	1	axc2	3/2/2010	9:50:04	OM_3-2-2010_08-43-10
1202054733	958153	1	axc2	3/2/2010	9:50:57	OM_3-2-2010_08-43-10
1202054740	958153	25	axc2	3/2/2010	9:51:50	OM_3-2-2010_08-43-10
247838002	958153	1	axc2	3/2/2010	9:52:42	OM_3-2-2010_08-43-10
248037001	958153	1	axc2	3/2/2010	9:53:36	OM_3-2-2010_08-43-10
1202054734	958153	1	axc2	3/2/2010	9:54:28	OM_3-2-2010_08-43-10
1202054736	958153	1	axc2	3/2/2010	9:55:20	OM_3-2-2010_08-43-10
1202054738	958153	1	axc2	3/2/2010	9:56:14	OM_3-2-2010_08-43-10
248037002	958153	1	axc2	3/2/2010	9:57:09	OM_3-2-2010_08-43-10
CCV		1	axc2	3/2/2010	9:58:00	OM_3-2-2010_08-43-10
CCB		1	axc2	3/2/2010	9:59:51	OM_3-2-2010_08-43-10
1202054735	958153	1	axc2	3/2/2010	10:01:42	OM_3-2-2010_08-43-10
1202054737	958153	1	axc2	3/2/2010	10:02:36	OM_3-2-2010_08-43-10
1202054739	958153	1	axc2	3/2/2010	10:03:30	OM_3-2-2010_08-43-10
248037003	958153	1	axc2	3/2/2010	10:04:24	OM_3-2-2010_08-43-10
248037004	958153	1	axc2	3/2/2010	10:05:18	OM_3-2-2010_08-43-10
248037005	958153	1	axc2	3/2/2010	10:06:10	OM_3-2-2010_08-43-10
248037006	958153	1	axc2	3/2/2010	10:07:03	OM_3-2-2010_08-43-10
248037007	958153	1	axc2	3/2/2010	10:07:56	OM_3-2-2010_08-43-10
248037008	958153	1	axc2	3/2/2010	10:08:50	OM_3-2-2010_08-43-10
248037009	958153	1	axc2	3/2/2010	10:09:42	OM_3-2-2010_08-43-10
CCV		1	axc2	3/2/2010	10:10:35	OM_3-2-2010_08-43-10
CCB		1	axc2	3/2/2010	10:12:25	OM_3-2-2010_08-43-10
248037010*	958153	1	axc2	3/2/2010	10:14:13	OM_3-2-2010_08-43-10
248037011*	958153	1	axc2	3/2/2010	10:15:06	OM_3-2-2010_08-43-10
248037012*	958153	1	axc2	3/2/2010	10:15:59	OM_3-2-2010_08-43-10
248037013*	958153	1	axc2	3/2/2010	10:16:53	OM_3-2-2010_08-43-10
248037014*	958153	1	axc2	3/2/2010	10:17:48	OM_3-2-2010_08-43-10
248037015*	958153	1	axc2	3/2/2010	10:18:42	OM_3-2-2010_08-43-10
248037016*	958153	1	axc2	3/2/2010	10:19:36	OM_3-2-2010_08-43-10
248037017*	958153	1	axc2	3/2/2010	10:20:31	OM_3-2-2010_08-43-10
248037018*	958153	1	axc2	3/2/2010	10:21:26	OM_3-2-2010_08-43-10
248037019*	958153	1	axc2	3/2/2010	10:22:19	OM_3-2-2010_08-43-10
CCV		1	axc2	3/2/2010	10:23:11	OM_3-2-2010_08-43-10

Author: axc2 Date : 3/2/2010

Original Run Filename: OM_3-2-2010_08-43-10.OMN created 3/2/2010 08:43:10
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-2-2010_08-43-10.OMN last modified 3/2/2010 10:24:17
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100302-01	1	S1	200	9.17	3/2/2010@08:46:36			200 ppb
WCN100302-02	1	S2	150	7.02	3/2/2010@08:47:27			150 ppb
WCN100302-03	1	S3	100	4.67	3/2/2010@08:48:20			100 ppb
WCN100302-04	1	S4	50.0	2.38	3/2/2010@08:49:13			50 ppb
WCN100302-05	1	S5	10.0	0.547	3/2/2010@08:50:06			10 ppb
WCN100302-06	1	S6	5.00	0.398	3/2/2010@08:51:00			CRDL 5.0 ppb
WCN100302-08	1	S7	0.00	0.0805	3/2/2010@08:51:54			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99991 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100302-07	1	S8	144	6.68	3/2/2010@08:53:45			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-3.9 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-3.9 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100302-08	1	S7	-1.14	0.0645	3/2/2010@08:55:35			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.14 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.14 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100302-06	1	S6	4.39	0.316	3/2/2010@08:57:25			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	4.39 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	4.39 > 2.50					
		Message	Pass					
		Action	None					
1202053271|957571|MB	1	29	-1.73	0.0380	3/2/2010@08:59:13			
1202053278||LCS	1	30	491	22.5	3/2/2010@09:00:05		25.00	
247806007	1	31	-1.20	0.0620	3/2/2010@09:00:59			
1202053272||DUP	1	32	0.127	0.122	3/2/2010@09:01:53			
1202053274||MS	1	33	89.2	4.18	3/2/2010@09:02:46			
1202053276||MSD	1	34	73.9	3.48	3/2/2010@09:03:40			
247806008	1	35	2.38	0.225	3/2/2010@09:04:33			
1202053273||DUP	1	36	2.16	0.215	3/2/2010@09:05:26			
1202053275||MS	1	37	51.3	2.45	3/2/2010@09:06:19			
1202053277||MSD	1	38	45.8	2.20	3/2/2010@09:07:12			
WCN100302-03	1	S3	106	4.92	3/2/2010@09:08:05			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.6 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100302-08	1	S7	-1.95	0.0279	3/2/2010@09:09:55			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.95 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.95 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202053278||LCS	1	30	19.6	1.01	3/2/2010@09:11:42		25.00	
247806009	1	39	-1.05	0.0686	3/2/2010@09:12:35			
247806010	1	40	-0.889	0.0760	3/2/2010@09:13:28			
247806011	1	41	-1.37	0.0543	3/2/2010@09:14:20			
247806012	1	42	-2.58	-8.78e-4	3/2/2010@09:15:13			
247822001	1	43	-1.79	0.0348	3/2/2010@09:16:04			
247822002	1	44	-2.00	0.0255	3/2/2010@09:16:57			
247822003	1	45	-1.52	0.0472	3/2/2010@09:17:49			
247822004	1	46	-2.00	0.0252	3/2/2010@09:18:43			
247822005	1	47	-2.01	0.0252	3/2/2010@09:19:37			
WCN100302-03	1	S3	106	4.92	3/2/2010@09:20:30			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100302-08	1	S7	-2.66	-0.00455	3/2/2010@09:22:20			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.66 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.66 > -5.00					
		Message	CCB Passed					
		Action	Continue					
247822006	1	48	-0.812	0.0795	3/2/2010@09:24:10			
247840001	1	49	-0.505	0.0935	3/2/2010@09:25:03			
247840002	1	50	-1.81	0.0341	3/2/2010@09:25:56			
247840003	1	51	-0.808	0.0797	3/2/2010@09:26:50			
247842001	1	52	-0.181	0.108	3/2/2010@09:27:43			
247842002	1	53	3.80	0.289	3/2/2010@09:28:37			
247842003	1	54	-0.365	0.0999	3/2/2010@09:29:29			
247842004	1	55	0.0716	0.120	3/2/2010@09:30:22			
247905001	1	56	1.52e+3	69.3	3/2/2010@09:31:14			
1202053252|957563|MB	1	57	0.312	0.131	3/2/2010@09:32:07			
WCN100302-03	1	S3	107	5.00	3/2/2010@09:32:59			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	7.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	7.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100302-08	1	S7	-2.71	-0.00706	3/2/2010@09:34:51			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-2.71 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.71 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202053254||LCS	1	58	-1.30	0.0574	3/2/2010@09:36:38			
247831001	1	59	21.5	1.10	3/2/2010@09:37:31			
1202053253||DUP	1	60	18.0	0.935	3/2/2010@09:38:22			
247840001	1	61	18.8	0.974	3/2/2010@09:39:17			
247840002	1	62	-0.323	0.102	3/2/2010@09:40:12			
247840003	1	63	18.0	0.935	3/2/2010@09:41:05			
247842001	1	64	20.6	1.06	3/2/2010@09:41:59			
247842002	1	65	19.2	0.992	3/2/2010@09:42:53			
247842003	1	66	14.2	0.761	3/2/2010@09:43:46			
247842004	1	67	20.6	1.05	3/2/2010@09:44:39			
WCN100302-03	1	S3	107	4.99	3/2/2010@09:45:32			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	7.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	7.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100302-08	1	S7	-2.56	-1.26e-4	3/2/2010@09:47:22			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.56 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.56 > -5.00					
		Message	CCB Passed					
		Action	Continue					
247902001	1	68	1.41e+3	64.1	3/2/2010@09:49:11			
247905001	1	69	1.23e+3	56.2	3/2/2010@09:50:04			
1202054733|958153|MB	1	70	-0.200	0.107	3/2/2010@09:50:57			
1202054740||LCS	1	71	17.4	0.907	3/2/2010@09:51:50		25.00	
247838002	1	72	-0.972	0.0723	3/2/2010@09:52:42			
248037001	1	73	-1.62	0.0428	3/2/2010@09:53:36			
1202054734||DUP	1	74	-1.80	0.0346	3/2/2010@09:54:28			
1202054736||MS	1	75	107	4.98	3/2/2010@09:55:20			
1202054738||MSD	1	76	104	4.83	3/2/2010@09:56:14			
248037002	1	77	-0.939	0.0738	3/2/2010@09:57:09			
WCN100302-03	1	S3	107	5.00	3/2/2010@09:58:00			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	7.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	7.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100302-08	1	S7	-2.55	3.95e-4	3/2/2010@09:59:51			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.55 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.55 > -5.00					
		Message	CCB Passed					
		Action	Continue					

1202054735 DUP	1	78	-1.07	0.0678	3/2/2010@10:01:42			
1202054737 MS	1	79	98.6	4.61	3/2/2010@10:02:36			
1202054739 MSD	1	80	96.1	4.49	3/2/2010@10:03:30			
248037003	1	81	0.707	0.149	3/2/2010@10:04:24			
248037004	1	82	1.09	0.166	3/2/2010@10:05:18			
248037005	1	83	0.359	0.133	3/2/2010@10:06:10			
248037006	1	84	0.328	0.131	3/2/2010@10:07:03			
248037007	1	85	0.0201	0.117	3/2/2010@10:07:56			
248037008	1	86	-2.66	-0.00454	3/2/2010@10:08:50			
248037009	1	87	-2.26	0.0136	3/2/2010@10:09:42			
WCN100302-03	1	S3	108	5.03	3/2/2010@10:10:35			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	7.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	7.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100302-08	1	S7	-2.63	-0.00301	3/2/2010@10:12:25			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.63 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.63 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248037010	1	88	0.394	0.134	3/2/2010@10:14:13			
248037011	1	89	0.366	0.133	3/2/2010@10:15:06			
248037012	1	90	-2.34	0.00976	3/2/2010@10:15:59			
248037013	1	91	-1.30	0.0573	3/2/2010@10:16:53			
248037014	1	92	1.83	0.200	3/2/2010@10:17:48			
248037015	1	93	0.0806	0.120	3/2/2010@10:18:42			
248037016	1	94	-1.39	0.0532	3/2/2010@10:19:36			
248037017	1	95	0.328	0.131	3/2/2010@10:20:31			
248037018	1	96	-1.63	0.0424	3/2/2010@10:21:26			
248037019	1	97	-0.215	0.107	3/2/2010@10:22:19			
WCN100302-03	1	S3	118	5.48	3/2/2010@10:23:11			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	17.8 > 10.0					
		Message	CCV Failed					
		Action	Stop Run					
DQM Test: < - Percent Relative Difference								
		Result:	17.8 > 10.0					
		Message	CCV Passed					
		Action	Continue					

Analyte Properties Table for OM_3-2-2010_08-43-10.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

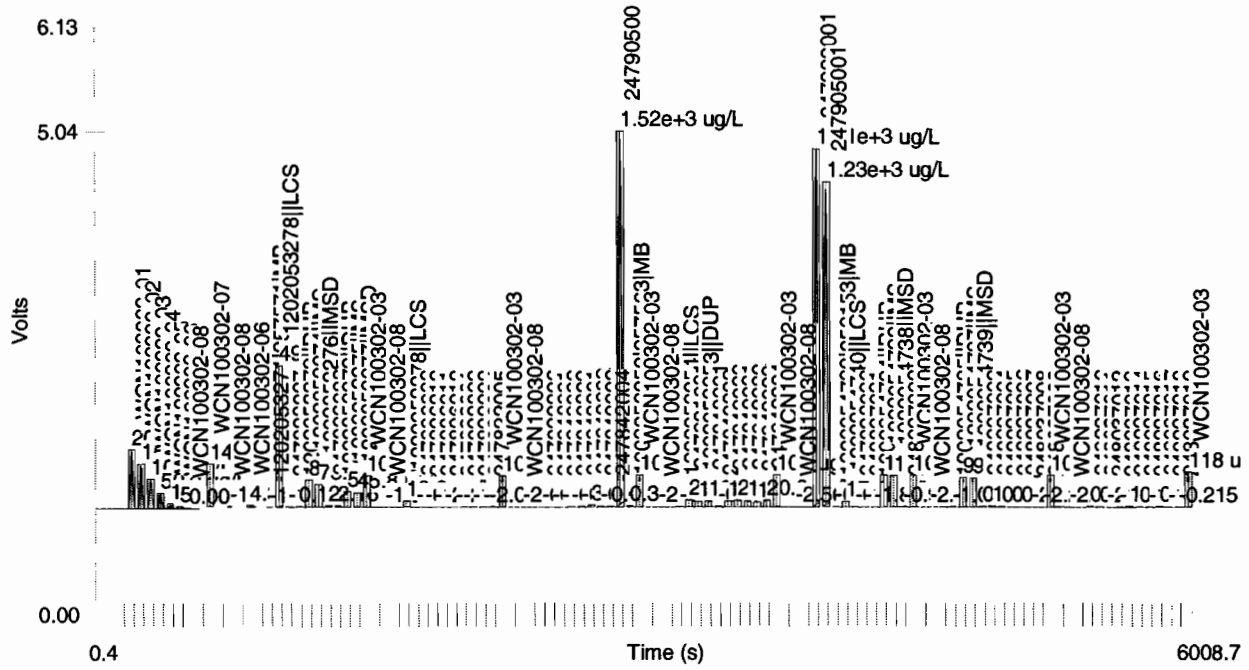

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.17	0.613	0.6	3/2/2010	08:47:39
2	150	1	7.02	0.465	-1.1	3/2/2010	08:48:31
3	100	1	4.67	0.309	0.1	3/2/2010	08:49:23
4	50.0	1	2.38	0.162	0.5	3/2/2010	08:50:16
5	10.0	1	0.547	0.0492	4.4	3/2/2010	08:51:09
6	5.00	1	0.398	0.0229	-15.5	3/2/2010	08:52:03
7	0.00	1	0.0805	0.00272		3/2/2010	08:52:57

Figure 1: TCYANIDE

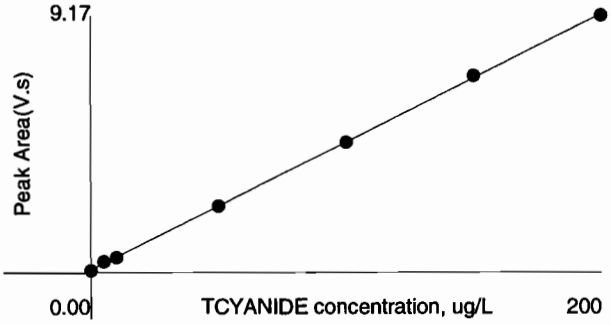

Area = 0.0455 * Conc + 0.117
Conc = 22.0 * Area - 2.56
Correlation Coefficient (r) = 0.99991

No Weighting

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	3/2/2010 14:51:53	OM_3-2-2010_14-50-22
CCB		1	axc2	3/2/2010 14:53:44	OM_3-2-2010_14-50-22
247539011	956938	1	axc2	3/2/2010 14:55:33	OM_3-2-2010_14-50-22
247546001	956938	1	axc2	3/2/2010 14:56:26	OM_3-2-2010_14-50-22
247546002	956938	1	axc2	3/2/2010 14:57:19	OM_3-2-2010_14-50-22
247546003	956938	1	axc2	3/2/2010 14:58:12	OM_3-2-2010_14-50-22
247546004	956938	1	axc2	3/2/2010 14:59:05	OM_3-2-2010_14-50-22
247550001	956938	1	axc2	3/2/2010 14:59:57	OM_3-2-2010_14-50-22
247770001	956938	1	axc2	3/2/2010 15:00:49	OM_3-2-2010_14-50-22
247770002	956938	1	axc2	3/2/2010 15:01:42	OM_3-2-2010_14-50-22
247831001	956938	1	axc2	3/2/2010 15:02:33	OM_3-2-2010_14-50-22
1202049763*	955994	1	axc2	3/2/2010 15:03:26	OM_3-2-2010_14-50-22
CCV		1	axc2	3/2/2010 15:04:18	OM_3-2-2010_14-50-22
CCB		1	axc2	3/2/2010 15:06:08	OM_3-2-2010_14-50-22
1202049763	955994	1	axc2	3/2/2010 15:07:57	OM_3-2-2010_14-50-22
1202049770	955994	25	axc2	3/2/2010 15:08:48	OM_3-2-2010_14-50-22
247321007	955994	1	axc2	3/2/2010 15:09:43	OM_3-2-2010_14-50-22
1202049764	955994	1	axc2	3/2/2010 15:10:37	OM_3-2-2010_14-50-22
1202049766	955994	1	axc2	3/2/2010 15:11:30	OM_3-2-2010_14-50-22
1202049768	955994	1	axc2	3/2/2010 15:12:23	OM_3-2-2010_14-50-22
247325001	955994	1	axc2	3/2/2010 15:13:17	OM_3-2-2010_14-50-22
1202049765	955994	1	axc2	3/2/2010 15:14:10	OM_3-2-2010_14-50-22
1202049767	955994	1	axc2	3/2/2010 15:15:03	OM_3-2-2010_14-50-22
1202049769	955994	1	axc2	3/2/2010 15:15:56	OM_3-2-2010_14-50-22
CCV		1	axc2	3/2/2010 15:16:48	OM_3-2-2010_14-50-22
CCB		1	axc2	3/2/2010 15:18:39	OM_3-2-2010_14-50-22
247456001	955994	1	axc2	3/2/2010 15:20:27	OM_3-2-2010_14-50-22
247456002	955994	1	axc2	3/2/2010 15:21:20	OM_3-2-2010_14-50-22
247456003	955994	1	axc2	3/2/2010 15:22:12	OM_3-2-2010_14-50-22
247456004	955994	1	axc2	3/2/2010 15:23:05	OM_3-2-2010_14-50-22
247456005	955994	1	axc2	3/2/2010 15:23:57	OM_3-2-2010_14-50-22
247456006	955994	1	axc2	3/2/2010 15:24:49	OM_3-2-2010_14-50-22
247463001	955994	1	axc2	3/2/2010 15:25:41	OM_3-2-2010_14-50-22
247463002	955994	1	axc2	3/2/2010 15:26:35	OM_3-2-2010_14-50-22
247463003	955994	1	axc2	3/2/2010 15:27:29	OM_3-2-2010_14-50-22
247463004	955994	1	axc2	3/2/2010 15:28:23	OM_3-2-2010_14-50-22
CCV		1	axc2	3/2/2010 15:29:15	OM_3-2-2010_14-50-22
CCB		1	axc2	3/2/2010 15:31:06	OM_3-2-2010_14-50-22
247463005	955994	1	axc2	3/2/2010 15:32:56	OM_3-2-2010_14-50-22
247463006	955994	1	axc2	3/2/2010 15:33:49	OM_3-2-2010_14-50-22
247469001	955994	1	axc2	3/2/2010 15:34:42	OM_3-2-2010_14-50-22
247469002	955994	1	axc2	3/2/2010 15:35:36	OM_3-2-2010_14-50-22
247469003*	955994	1	axc2	3/2/2010 15:36:28	OM_3-2-2010_14-50-22
247539001	955994	1	axc2	3/2/2010 15:37:21	OM_3-2-2010_14-50-22
247539002	955994	1	axc2	3/2/2010 15:38:14	OM_3-2-2010_14-50-22
247539003	955994	1	axc2	3/2/2010 15:39:07	OM_3-2-2010_14-50-22
1202051809	956940	1	axc2	3/2/2010 15:39:59	OM_3-2-2010_14-50-22
1202051813	956940	1	axc2	3/2/2010 15:40:51	OM_3-2-2010_14-50-22
CCV		1	axc2	3/2/2010 15:41:44	OM_3-2-2010_14-50-22
CCB		1	axc2	3/2/2010 15:43:34	OM_3-2-2010_14-50-22
247771001	956940	1	axc2	3/2/2010 15:45:22	OM_3-2-2010_14-50-22
1202053279	956940	1	axc2	3/2/2010 15:46:14	OM_3-2-2010_14-50-22
1202053280	956940	1	axc2	3/2/2010 15:47:08	OM_3-2-2010_14-50-22
1202053281	956940	1	axc2	3/2/2010 15:48:02	OM_3-2-2010_14-50-22
247780001	956940	1	axc2	3/2/2010 15:48:57	OM_3-2-2010_14-50-22
247793001	956940	1	axc2	3/2/2010 15:49:50	OM_3-2-2010_14-50-22
247807001	956940	1	axc2	3/2/2010 15:50:43	OM_3-2-2010_14-50-22
247807002	956940	1	axc2	3/2/2010 15:51:37	OM_3-2-2010_14-50-22

247807003	956940	1	axc2	3/2/2010	15:52:31	OM_3-2-2010_14-50-22
247807004	956940	1	axc2	3/2/2010	15:53:24	OM_3-2-2010_14-50-22
CCV		1	axc2	3/2/2010	15:54:17	OM_3-2-2010_14-50-22
CCB		1	axc2	3/2/2010	15:56:06	OM_3-2-2010_14-50-22
247817002	956940	1	axc2	3/2/2010	15:57:55	OM_3-2-2010_14-50-22
1202051810	956940	1	axc2	3/2/2010	15:58:48	OM_3-2-2010_14-50-22
1202051811	956940	1	axc2	3/2/2010	15:59:41	OM_3-2-2010_14-50-22
1202051812	956940	1	axc2	3/2/2010	16:00:34	OM_3-2-2010_14-50-22
247819001	956940	1	axc2	3/2/2010	16:01:26	OM_3-2-2010_14-50-22
247858001	956940	1	axc2	3/2/2010	16:02:19	OM_3-2-2010_14-50-22
247858002	956940	1	axc2	3/2/2010	16:03:11	OM_3-2-2010_14-50-22
247858003	956940	1	axc2	3/2/2010	16:04:05	OM_3-2-2010_14-50-22
247858004	956940	1	axc2	3/2/2010	16:05:00	OM_3-2-2010_14-50-22
247858005	956940	1	axc2	3/2/2010	16:05:54	OM_3-2-2010_14-50-22
CCV		1	axc2	3/2/2010	16:06:46	OM_3-2-2010_14-50-22
CCB		1	axc2	3/2/2010	16:08:37	OM_3-2-2010_14-50-22
247858006	956940	1	axc2	3/2/2010	16:10:27	OM_3-2-2010_14-50-22
1202053255	957567	1	axc2	3/2/2010	16:11:21	OM_3-2-2010_14-50-22
1202053262	957567	25	axc2	3/2/2010	16:12:15	OM_3-2-2010_14-50-22
247770003	957567	1	axc2	3/2/2010	16:13:08	OM_3-2-2010_14-50-22
247770004	957567	1	axc2	3/2/2010	16:14:01	OM_3-2-2010_14-50-22
247770005	957567	1	axc2	3/2/2010	16:14:54	OM_3-2-2010_14-50-22
247770006	957567	1	axc2	3/2/2010	16:15:47	OM_3-2-2010_14-50-22
247770007	957567	1	axc2	3/2/2010	16:16:41	OM_3-2-2010_14-50-22
247781001	957567	1	axc2	3/2/2010	16:17:34	OM_3-2-2010_14-50-22
1202053256	957567	1	axc2	3/2/2010	16:18:26	OM_3-2-2010_14-50-22
CCV		1	axc2	3/2/2010	16:19:18	OM_3-2-2010_14-50-22
CCB		1	axc2	3/2/2010	16:21:08	OM_3-2-2010_14-50-22
1202053258	957567	1	axc2	3/2/2010	16:22:57	OM_3-2-2010_14-50-22
1202053260	957567	1	axc2	3/2/2010	16:23:49	OM_3-2-2010_14-50-22
247781002	957567	1	axc2	3/2/2010	16:24:44	OM_3-2-2010_14-50-22
1202053257	957567	1	axc2	3/2/2010	16:25:38	OM_3-2-2010_14-50-22
1202053259	957567	1	axc2	3/2/2010	16:26:32	OM_3-2-2010_14-50-22
1202053261	957567	1	axc2	3/2/2010	16:27:27	OM_3-2-2010_14-50-22
247781003	957567	1	axc2	3/2/2010	16:28:21	OM_3-2-2010_14-50-22
247781004	957567	1	axc2	3/2/2010	16:29:15	OM_3-2-2010_14-50-22
247781005	957567	1	axc2	3/2/2010	16:30:09	OM_3-2-2010_14-50-22
247781006	957567	1	axc2	3/2/2010	16:31:03	OM_3-2-2010_14-50-22
CCV		1	axc2	3/2/2010	16:31:55	OM_3-2-2010_14-50-22
CCB		1	axc2	3/2/2010	16:33:45	OM_3-2-2010_14-50-22
247781007	957567	1	axc2	3/2/2010	16:35:34	OM_3-2-2010_14-50-22
247781008	957567	1	axc2	3/2/2010	16:36:28	OM_3-2-2010_14-50-22
247781009	957567	1	axc2	3/2/2010	16:37:21	OM_3-2-2010_14-50-22
247781010	957567	1	axc2	3/2/2010	16:38:14	OM_3-2-2010_14-50-22
247781011	957567	1	axc2	3/2/2010	16:39:07	OM_3-2-2010_14-50-22
247781012	957567	1	axc2	3/2/2010	16:40:00	OM_3-2-2010_14-50-22
247781013	957567	1	axc2	3/2/2010	16:40:52	OM_3-2-2010_14-50-22
247781014	957567	1	axc2	3/2/2010	16:41:47	OM_3-2-2010_14-50-22
247781015	957567	1	axc2	3/2/2010	16:42:42	OM_3-2-2010_14-50-22
1202053263	957569	1	axc2	3/2/2010	16:43:36	OM_3-2-2010_14-50-22
CCV		1	axc2	3/2/2010	16:44:28	OM_3-2-2010_14-50-22
CCB		1	axc2	3/2/2010	16:46:19	OM_3-2-2010_14-50-22
1202053270	957569	25	axc2	3/2/2010	16:48:09	OM_3-2-2010_14-50-22
247770008	957569	1	axc2	3/2/2010	16:49:03	OM_3-2-2010_14-50-22
1202053264	957569	1	axc2	3/2/2010	16:49:57	OM_3-2-2010_14-50-22
1202053266	957569	1	axc2	3/2/2010	16:50:51	OM_3-2-2010_14-50-22
1202053268	957569	1	axc2	3/2/2010	16:51:45	OM_3-2-2010_14-50-22
247770009	957569	1	axc2	3/2/2010	16:52:39	OM_3-2-2010_14-50-22
1202053265	957569	1	axc2	3/2/2010	16:53:32	OM_3-2-2010_14-50-22
1202053267	957569	1	axc2	3/2/2010	16:54:26	OM_3-2-2010_14-50-22

1202053269	957569	1	axc2	3/2/2010	16:55:19	OM_3-2-2010_14-50-22
247770010	957569	1	axc2	3/2/2010	16:56:12	OM_3-2-2010_14-50-22
CCV		1	axc2	3/2/2010	16:57:04	OM_3-2-2010_14-50-22
CCB		1	axc2	3/2/2010	16:58:55	OM_3-2-2010_14-50-22
247770011	957569	1	axc2	3/2/2010	17:00:44	OM_3-2-2010_14-50-22
247784002	957569	1	axc2	3/2/2010	17:01:37	OM_3-2-2010_14-50-22
247790002	957569	1	axc2	3/2/2010	17:02:32	OM_3-2-2010_14-50-22
247790003	957569	1	axc2	3/2/2010	17:03:26	OM_3-2-2010_14-50-22
247794001	957569	1	axc2	3/2/2010	17:04:21	OM_3-2-2010_14-50-22
247794002	957569	1	axc2	3/2/2010	17:05:15	OM_3-2-2010_14-50-22
247794003	957569	1	axc2	3/2/2010	17:06:10	OM_3-2-2010_14-50-22
247794004	957569	1	axc2	3/2/2010	17:07:04	OM_3-2-2010_14-50-22
247794005	957569	1	axc2	3/2/2010	17:07:58	OM_3-2-2010_14-50-22
247806001	957569	1	axc2	3/2/2010	17:08:52	OM_3-2-2010_14-50-22
CCV		1	axc2	3/2/2010	17:09:44	OM_3-2-2010_14-50-22
CCB		1	axc2	3/2/2010	17:11:35	OM_3-2-2010_14-50-22
247806002	957569	1	axc2	3/2/2010	17:13:25	OM_3-2-2010_14-50-22
247806003	957569	1	axc2	3/2/2010	17:14:18	OM_3-2-2010_14-50-22
247806004	957569	1	axc2	3/2/2010	17:15:12	OM_3-2-2010_14-50-22
247806005*	957569	1	axc2	3/2/2010	17:16:06	OM_3-2-2010_14-50-22
247806006	957569	1	axc2	3/2/2010	17:16:59	OM_3-2-2010_14-50-22
247855002	957569	1	axc2	3/2/2010	17:17:52	OM_3-2-2010_14-50-22
247902001	957569	1	axc2	3/2/2010	17:18:45	OM_3-2-2010_14-50-22
247806005*	957569	1	axc2	3/2/2010	17:19:38	OM_3-2-2010_14-50-22
247858001	956940	2	axc2	3/2/2010	17:20:31	OM_3-2-2010_14-50-22
247858002	956940	2	axc2	3/2/2010	17:21:23	OM_3-2-2010_14-50-22
CCV		1	axc2	3/2/2010	17:22:15	OM_3-2-2010_14-50-22
CCB		1	axc2	3/2/2010	17:24:05	OM_3-2-2010_14-50-22
247469003	955994	1	axc2	3/2/2010	17:25:55	OM_3-2-2010_14-50-22
247902001	957569	50	axc2	3/2/2010	17:26:48	OM_3-2-2010_14-50-22
247806005	957569	1	axc2	3/2/2010	17:27:41	OM_3-2-2010_14-50-22
CCV		1	axc2	3/2/2010	17:28:34	OM_3-2-2010_14-50-22
CCB		1	axc2	3/2/2010	17:30:24	OM_3-2-2010_14-50-22

Author: axc2 Date : 3/4/2010

Original Run Filename: OM_3-2-2010_14-50-22.OMN created 3/2/2010 14:50:22
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-2-2010_14-50-22.OMN last modified 3/2/2010 17:31:29
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100302-03	1	S3	107	4.98	3/2/2010@14:51:53			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100302-08	1	S7	-1.63	0.0424	3/2/2010@14:53:44			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.63 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.63 > -5.00					
		Message	CCB Passed					
		Action	Continue					
247539011|956938|	1	16	-0.875	0.0767	3/2/2010@14:55:33			
247546001	1	21	-2.72	-0.00747	3/2/2010@14:56:26			
247546002	1	22	-1.55	0.0460	3/2/2010@14:57:19			
247546003	1	23	-2.56	0.00	3/2/2010@14:58:12			
247546004	1	24	-2.51	0.00213	3/2/2010@14:59:05			
247550001	1	25	-1.50	0.0482	3/2/2010@14:59:57			
247770001	1	26	-2.55	3.43e-4	3/2/2010@15:00:49			
247770002	1	27	-2.56	-1.49e-4	3/2/2010@15:01:42			
247831001	1	28	-0.925	0.0744	3/2/2010@15:02:33			
1202049763|955994|MB	1	29	6.09	0.394	3/2/2010@15:03:26			
WCN100302-03	1	S3	107	4.97	3/2/2010@15:04:18			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100302-08	1	S7	-2.56	-1.64e-4	3/2/2010@15:06:08			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.56 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.56 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202049763|955994|MB	1	29	-1.20	0.0618	3/2/2010@15:07:57			
1202049770||LCS	1	30	26.0	1.30	3/2/2010@15:08:48		25.00	
247321007	1	31	-0.848	0.0779	3/2/2010@15:09:43			
1202049764||DUP	1	32	-1.10	0.0663	3/2/2010@15:10:37			
1202049766||MS	1	33	38.7	1.88	3/2/2010@15:11:30			
1202049768||MSD	1	34	55.0	2.62	3/2/2010@15:12:23			

247325001	1	35	2.97	0.252	3/2/2010@15:13:17			
1202049765||DUP	1	36	-1.44	0.0511	3/2/2010@15:14:10			
1202049767||MS	1	37	105	4.89	3/2/2010@15:15:03			
1202049769||MSD	1	38	100	4.68	3/2/2010@15:15:56			
WCN100302-03	1	S3	106	4.94	3/2/2010@15:16:48			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100302-08	1	S7	-1.63	0.0424	3/2/2010@15:18:39			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.63 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.63 > -5.00					
		Message	CCB Passed					
		Action	Continue					
247456001	1	39	-1.60	0.0434	3/2/2010@15:20:27			
247456002	1	40	5.61	0.372	3/2/2010@15:21:20			
247456003	1	41	-0.655	0.0867	3/2/2010@15:22:12			
247456004	1	42	0.189	0.125	3/2/2010@15:23:05			
247456005	1	43	-1.49	0.0487	3/2/2010@15:23:57			
247456006	1	44	-2.76	-0.00917	3/2/2010@15:24:49			
247463001	1	45	3.46	0.274	3/2/2010@15:25:41			
247463002	1	46	-1.67	0.0403	3/2/2010@15:26:35			
247463003	1	47	-1.52	0.0473	3/2/2010@15:27:29			
247463004	1	48	-1.35	0.0551	3/2/2010@15:28:23			
WCN100302-03	1	S3	107	4.97	3/2/2010@15:29:15			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100302-08	1	S7	-2.57	-4.02e-4	3/2/2010@15:31:06			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.57 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.57 > -5.00					
		Message	CCB Passed					
		Action	Continue					
247463005	1	49	-1.35	0.0551	3/2/2010@15:32:56			
247463006	1	50	-2.56	0.00	3/2/2010@15:33:49			
247469001	1	51	-3.03	-0.0213	3/2/2010@15:34:42			
247469002	1	52	-1.91	0.0295	3/2/2010@15:35:36			
247469003	1	53	12.1	0.667	3/2/2010@15:36:28			
247539001	1	54	2.67	0.238	3/2/2010@15:37:21			
247539002	1	55	-1.81	0.0340	3/2/2010@15:38:14			
247539003	1	56	-1.67	0.0406	3/2/2010@15:39:07			
1202051809|956940|MB	1	57	-1.40	0.0526	3/2/2010@15:39:59			
1202051813||LCS	1	58	54.8	2.61	3/2/2010@15:40:51			
WCN100302-03	1	S3	107	5.00	3/2/2010@15:41:44			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	7.3 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	7.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100302-08	1	S7	-0.884	0.0763	3/2/2010@15:43:34			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.884 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.884 > -5.00					
		Message	CCB Passed					
		Action	Continue					
247771001	1	59	-1.58	0.0446	3/2/2010@15:45:22			
1202053279||DUP	1	60	-2.56	-2.17e-4	3/2/2010@15:46:14			
1202053280||MS	1	61	117	5.44	3/2/2010@15:47:08			
1202053281||MSD	1	62	115	5.35	3/2/2010@15:48:02			
247780001	1	63	-2.82	-0.0117	3/2/2010@15:48:57			
247793001	1	64	-2.05	0.0233	3/2/2010@15:49:50			
247807001	1	65	-2.55	3.61e-4	3/2/2010@15:50:43			
247807002	1	66	-2.09	0.0216	3/2/2010@15:51:37			
247807003	1	67	-2.55	3.04e-4	3/2/2010@15:52:31			
247807004	1	68	-2.56	-1.55e-4	3/2/2010@15:53:24			
WCN100302-03	1	S3	106	4.96	3/2/2010@15:54:17			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100302-08	1	S7	-2.36	0.00888	3/2/2010@15:56:06			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.36 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.36 > -5.00					
		Message	CCB Passed					
		Action	Continue					
247817002	1	69	-1.44	0.0509	3/2/2010@15:57:55			
1202051810||DUP	1	70	-2.52	0.00194	3/2/2010@15:58:48			
1202051811||MS	1	71	114	5.31	3/2/2010@15:59:41			
1202051812||MSD	1	72	105	4.92	3/2/2010@16:00:34			
247819001	1	73	31.6	1.55	3/2/2010@16:01:26			
247858001	1	74	209	9.63	3/2/2010@16:02:19			
247858002	1	75	209	9.62	3/2/2010@16:03:11			
247858003	1	76	18.8	0.973	3/2/2010@16:04:05			
247858004	1	77	80.7	3.79	3/2/2010@16:05:00			
247858005	1	78	45.1	2.17	3/2/2010@16:05:54			
WCN100302-03	1	S3	107	5.00	3/2/2010@16:06:46			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	7.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	7.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100302-08	1	S7	-1.91	0.0295	3/2/2010@16:08:37			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.91 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.91 > -5.00					
		Message	CCB Passed					
		Action	Continue					
247858006	1	79	-0.616	0.0885	3/2/2010@16:10:27			
1202053255|957567|MB	1	80	-2.57	-3.76e-4	3/2/2010@16:11:21			
1202053262||LCS	1	81	15.5	0.824	3/2/2010@16:12:15		25.00	
247770003	1	82	-2.10	0.0209	3/2/2010@16:13:08			
247770004	1	83	-2.01	0.0248	3/2/2010@16:14:01			
247770005	1	84	-2.68	-0.00534	3/2/2010@16:14:54			
247770006	1	85	-2.55	2.76e-4	3/2/2010@16:15:47			
247770007	1	86	-2.45	0.00519	3/2/2010@16:16:41			
247781001	1	87	-0.808	0.0797	3/2/2010@16:17:34			
1202053256||DUP	1	88	-0.969	0.0724	3/2/2010@16:18:26			
WCN100302-03	1	S3	107	5.00	3/2/2010@16:19:18			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	7.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	7.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100302-08	1	S7	-2.72	-0.00736	3/2/2010@16:21:08			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.72 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.72 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202053258||MS	1	89	97.5	4.56	3/2/2010@16:22:57			
1202053260||MSD	1	90	105	4.92	3/2/2010@16:23:49			
247781002	1	91	-2.75	-0.00887	3/2/2010@16:24:44			
1202053257||DUP	1	92	-2.62	-0.00284	3/2/2010@16:25:38			
1202053259||MS	1	93	110	5.13	3/2/2010@16:26:32			
1202053261||MSD	1	94	104	4.86	3/2/2010@16:27:27			
247781003	1	95	-1.94	0.0281	3/2/2010@16:28:21			
247781004	1	96	-2.57	-3.51e-4	3/2/2010@16:29:15			
247781005	1	97	4.38	0.316	3/2/2010@16:30:09			
247781006	1	98	-2.66	-0.00478	3/2/2010@16:31:03			
WCN100302-03	1	S3	105	4.91	3/2/2010@16:31:55			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100302-08	1	S7	-2.09	0.0214	3/2/2010@16:33:45			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.09 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.09 > -5.00					
		Message	CCB Passed					
		Action	Continue					

247781007	1	99	-2.56	1.11e-4	3/2/2010@16:35:34			
247781008	1	100	-2.55	3.30e-4	3/2/2010@16:36:28			
247781009	1	101	-2.12	0.0202	3/2/2010@16:37:21			
247781010	1	102	0.184	0.125	3/2/2010@16:38:14			
247781011	1	103	-0.587	0.0898	3/2/2010@16:39:07			
247781012	1	104	11.5	0.639	3/2/2010@16:40:00			
247781013	1	105	-2.62	-0.00267	3/2/2010@16:40:52			
247781014	1	106	2.25	0.219	3/2/2010@16:41:47			
247781015	1	107	-1.14	0.0648	3/2/2010@16:42:42			
1202053263|957569|MB	1	108	-2.86	-0.0138	3/2/2010@16:43:36			
WCN100302-03	1	S3	104	4.87	3/2/2010@16:44:28			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		4.4 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		4.4 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100302-08	1	S7	-1.95	0.0280	3/2/2010@16:46:19			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.95 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.95 > -5.00					
	Message		CCB Passed					
	Action		Continue					
1202053270||LCS	1	109	28.4	1.41	3/2/2010@16:48:09		25.00	
247770008	1	110	-1.72	0.0381	3/2/2010@16:49:03			
1202053264||DUP	1	111	-1.87	0.0315	3/2/2010@16:49:57			
1202053266||MS	1	112	106	4.96	3/2/2010@16:50:51			
1202053268||MSD	1	113	109	5.07	3/2/2010@16:51:45			
247770009	1	114	-2.46	0.00432	3/2/2010@16:52:39			
1202053265||DUP	1	115	-2.01	0.0249	3/2/2010@16:53:32			
1202053267||MS	1	116	121	5.63	3/2/2010@16:54:26			
1202053269||MSD	1	117	104	4.87	3/2/2010@16:55:19			
247770010	1	118	-1.54	0.0462	3/2/2010@16:56:12			
WCN100302-03	1	S3	105	4.90	3/2/2010@16:57:04			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		5.1 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		5.1 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100302-08	1	S7	-2.55	3.56e-4	3/2/2010@16:58:55			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-2.55 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-2.55 > -5.00					
	Message		CCB Passed					
	Action		Continue					
247770011	1	119	-2.56	-1.49e-4	3/2/2010@17:00:44			
247784002	1	120	-1.29	0.0576	3/2/2010@17:01:37			
247790002	1	121	-2.12	0.0200	3/2/2010@17:02:32			
247790003	1	122	-2.56	0.00	3/2/2010@17:03:26			
247794001	1	123	-2.56	-1.49e-4	3/2/2010@17:04:21			
247794002	1	124	-2.55	3.61e-4	3/2/2010@17:05:15			
247794003	1	125	-2.72	-0.00709	3/2/2010@17:06:10			
247794004	1	126	-2.78	-0.00991	3/2/2010@17:07:04			

247794005	1	127	-1.86	0.0318	3/2/2010@17:07:58			
		Calibration:	Table/Fig. 1					
247806001	1	128	-1.31	0.0567	3/2/2010@17:08:52			
WCN100302-03	1	S3	106	4.93	3/2/2010@17:09:44			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100302-08	1	S7	-1.98	0.0263	3/2/2010@17:11:35			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.98 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.98 > -5.00					
		Message	CCB Passed					
		Action	Continue					
247806002	1	129	-2.57	-6.55e-4	3/2/2010@17:13:25			
247806003	1	130	-1.47	0.0495	3/2/2010@17:14:18			
247806004	1	131	-1.86	0.0317	3/2/2010@17:15:12			
247806005	1	132	8.20	0.490	3/2/2010@17:16:06			
247806006	1	133	-0.684	0.0854	3/2/2010@17:16:59			
247855002	1	134	-2.09	0.0216	3/2/2010@17:17:52			
247902001	1	135	1.78e+3	81.4	3/2/2010@17:18:45			
247806005	1	132	6.30	0.403	3/2/2010@17:19:38			
247858001|956940|	1	74	125	5.79	3/2/2010@17:20:31		2.00	
247858002	1	75	103	4.82	3/2/2010@17:21:23		2.00	
WCN100302-03	1	S3	106	4.94	3/2/2010@17:22:15			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100302-08	1	S7	-2.56	-1.85e-4	3/2/2010@17:24:05			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.56 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.56 > -5.00					
		Message	CCB Passed					
		Action	Continue					
247469003|955994|	1	53	-1.40	0.0528	3/2/2010@17:25:55			
247902001|957569|	1	135	66.2	3.13	3/2/2010@17:26:48		50.00	
247806005	1	132	-1.46	0.0501	3/2/2010@17:27:41			
WCN100302-03	1	S3	106	4.94	3/2/2010@17:28:34			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100302-08	1	S7	-0.316	0.102	3/2/2010@17:30:24			CCB
		Known Conc:	0.00					

Author: axc2 Date : 3/4/2010

DQM Test: > + Concentration Limit						
Result:	-0.316 < 5.00					
Message	CCB Passed					
Action	Continue					
DQM Test: < - Concentration Limit						
Result:	-0.316 > -5.00					
Message	CCB Passed					
Action	Continue					

Analyte Properties Table for OM_3-2-2010_14-50-22.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

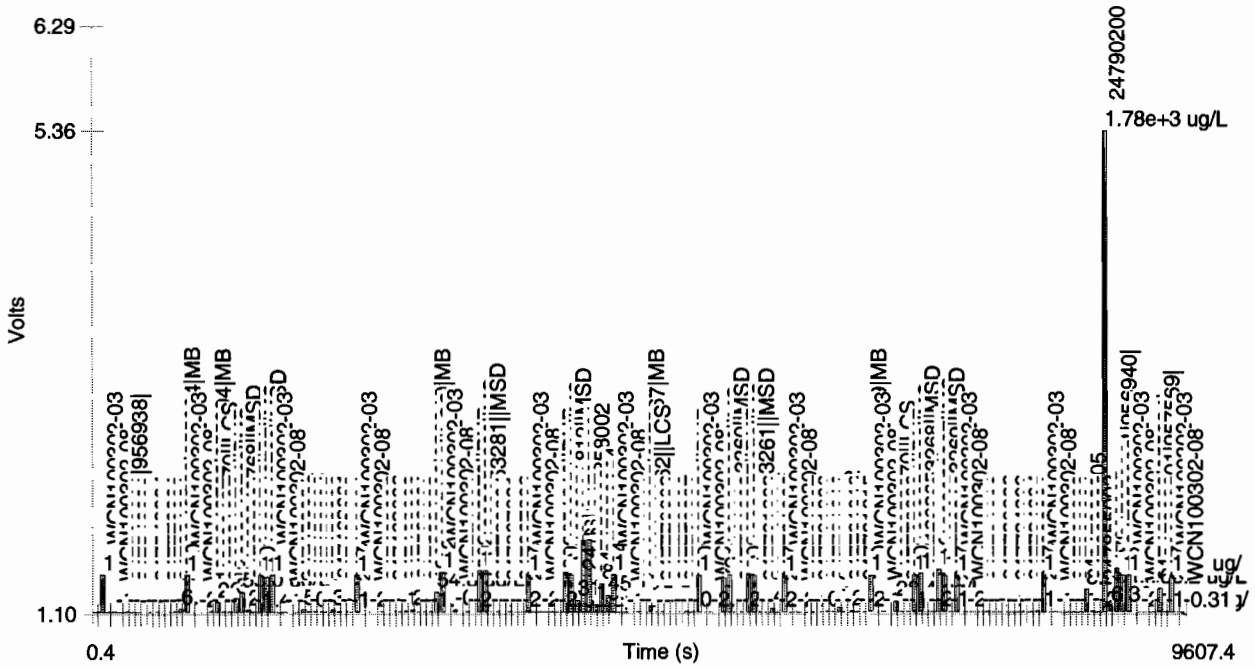

Author: axc2 Date : 3/4/2010

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.17	0.613	0.6	3/2/2010	08:47:39
2	150	1	7.02	0.465	-1.1	3/2/2010	08:48:31
3	100	1	4.67	0.309	0.1	3/2/2010	08:49:23
4	50.0	1	2.38	0.162	0.5	3/2/2010	08:50:16
5	10.0	1	0.547	0.0492	4.4	3/2/2010	08:51:09
6	5.00	1	0.398	0.0229	-15.5	3/2/2010	08:52:03
7	0.00	1	0.0805	0.00272		3/2/2010	08:52:57

Figure 1: TCYANIDE

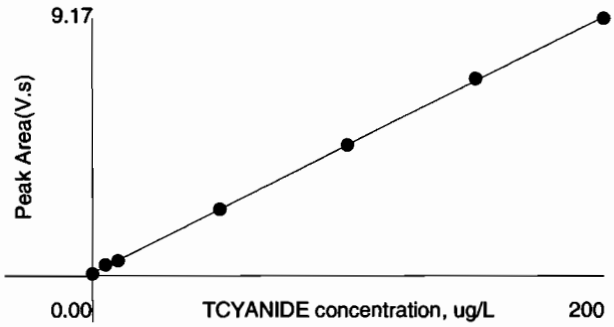

Area = 0.0455 * Conc + 0.117
Conc = 22.0 * Area - 2.56
Correlation Coefficient (r) = 0.99991

No Weighting

Ion Chromatography

This is runlog for Sequence 100311.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	02/26/10 14:29		1	100311	GXM3
ICAL-06	02/26/10 14:59		1	100311	GXM3
ICAL-05	02/26/10 15:28		1	100311	GXM3
ICAL-04	02/26/10 15:58		1	100311	GXM3
ICAL-03	02/26/10 16:28		1	100311	GXM3
ICAL-02	02/26/10 16:58		1	100311	GXM3
ICAL-01	02/26/10 17:28		1	100311	GXM3

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 14:29	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

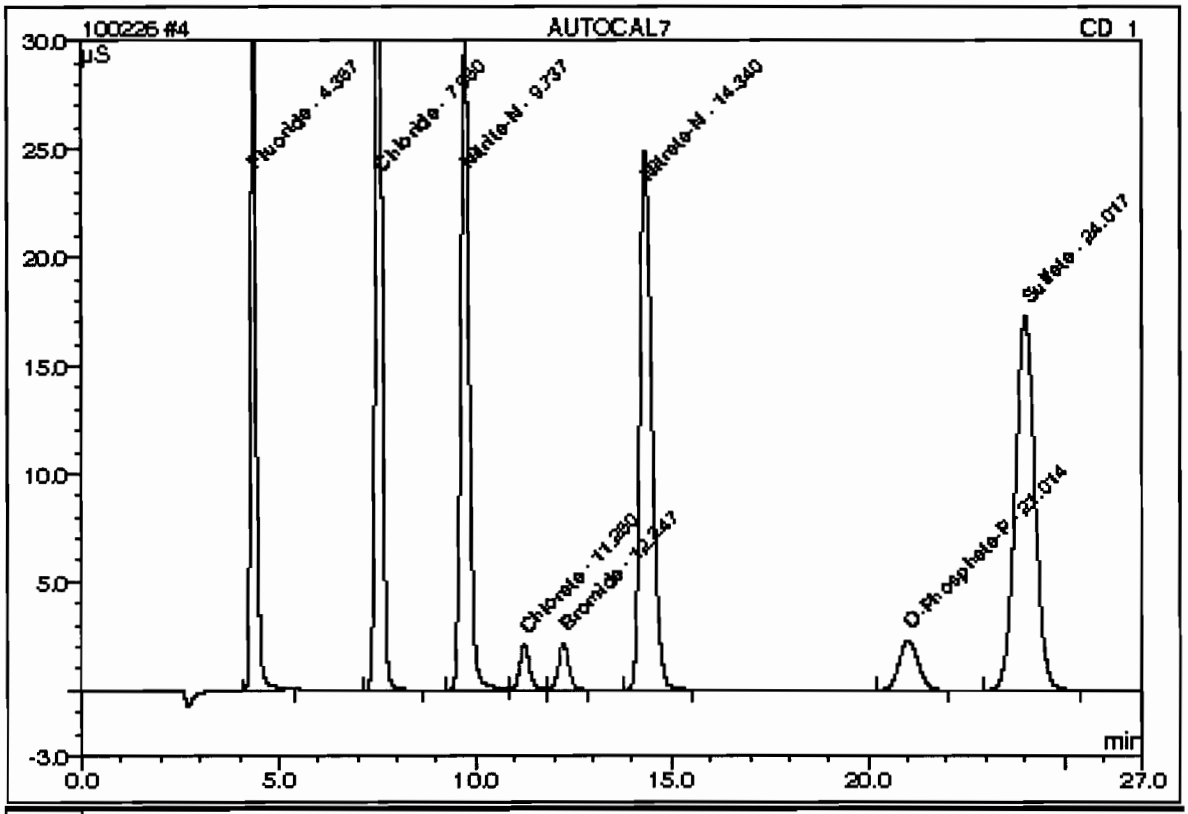

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.37	Fluoride	10.0000	10.0089		5.17293	12.53
2	7.56	Chloride	20.0000	20.0282		7.48637	18.14
3	9.74	Nitrite-N	10.0000	10.0103		7.50155	18.17
4	11.25	Chlorate	5.0000	5.0704		0.60764	1.47
5	12.25	Bromide	5.0000	5.0446		0.64007	1.55
6	14.34	Nitrate-N	10.0000	10.0132		8.61510	20.87
7	21.01	O-Phosphate-P	5.0000	5.3556		1.28170	3.11
8	24.02	Sulfate	40.0000	40.0413		9.96929	24.15
Total:				105.5724	0.000	41.275	100.00

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 14:59	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

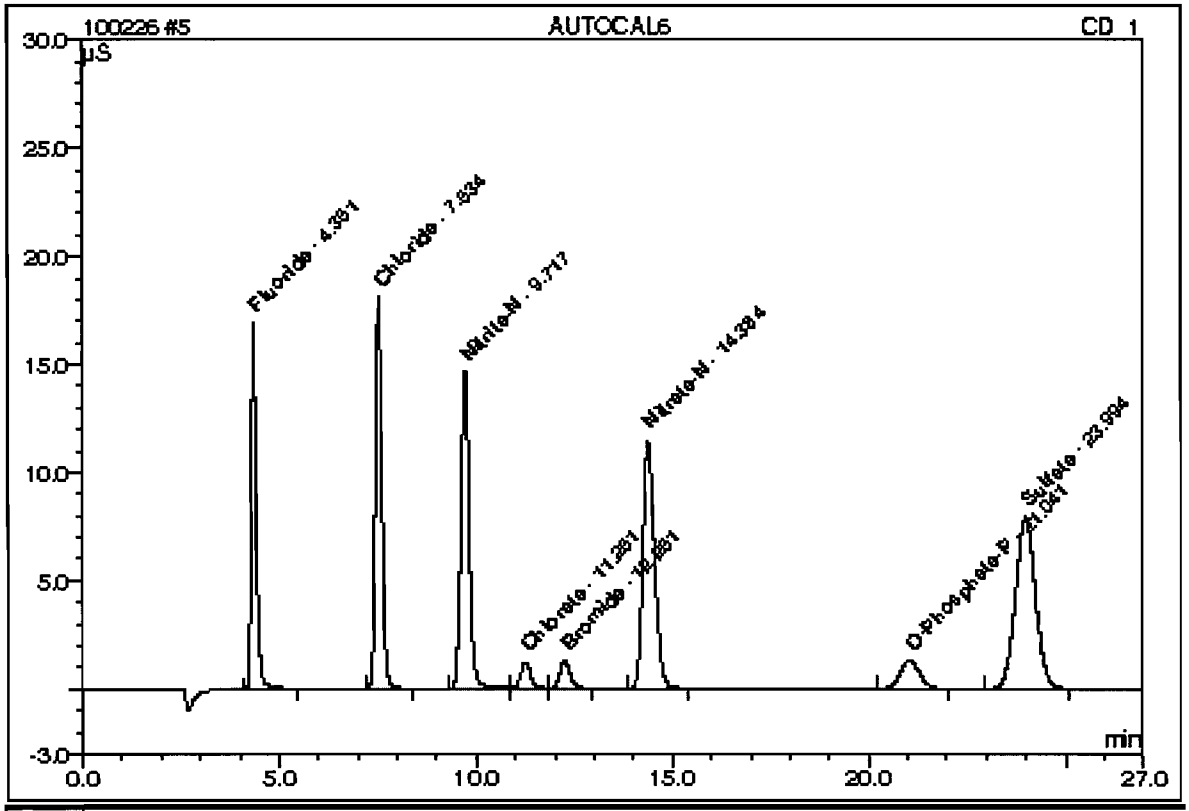

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	5.0000	4.8821		2.49823	12.80
2	7.53	Chloride	10.0000	9.2680		3.37962	17.32
3	9.72	Nitrite-N	5.0000	4.8519		3.59051	18.40
4	11.25	Chlorate	3.0000	2.9576		0.35494	1.82
5	12.25	Bromide	3.0000	2.9844		0.37955	1.94
6	14.38	Nitrate-N	5.0000	4.6879		3.93722	20.17
7	21.04	O-Phosphate-P	3.0000	3.0697		0.73810	3.78
8	23.99	Sulfate	20.0000	18.9886		4.63933	23.77
Total:				51.6902	0.000	19.517	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 15:28	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

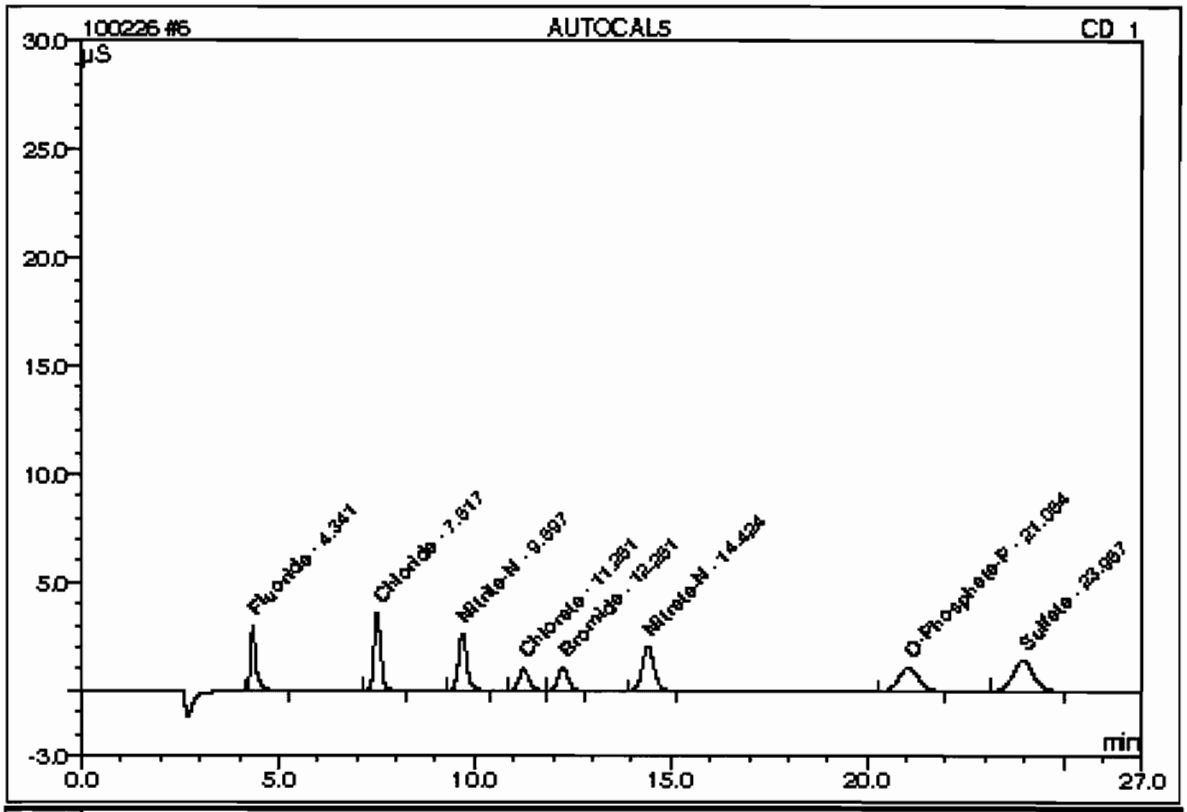

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	1.0000	0.9835		0.48520	10.55
2	7.52	Chloride	2.0000	2.0144		0.69068	15.02
3	9.70	Nitrite-N	1.0000	0.9293		0.64565	14.04
4	11.25	Chlorate	2.5000	2.4181		0.28784	6.26
5	12.25	Bromide	2.5000	2.4815		0.31507	6.85
6	14.42	Nitrate-N	1.0000	0.9207		0.70125	15.25
7	21.05	O-Phosphate-P	2.5000	2.5218		0.61342	13.34
8	23.97	Sulfate	4.0000	3.7785		0.85932	18.69
Total:				16.0479	0.000	4.598	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 15:58	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

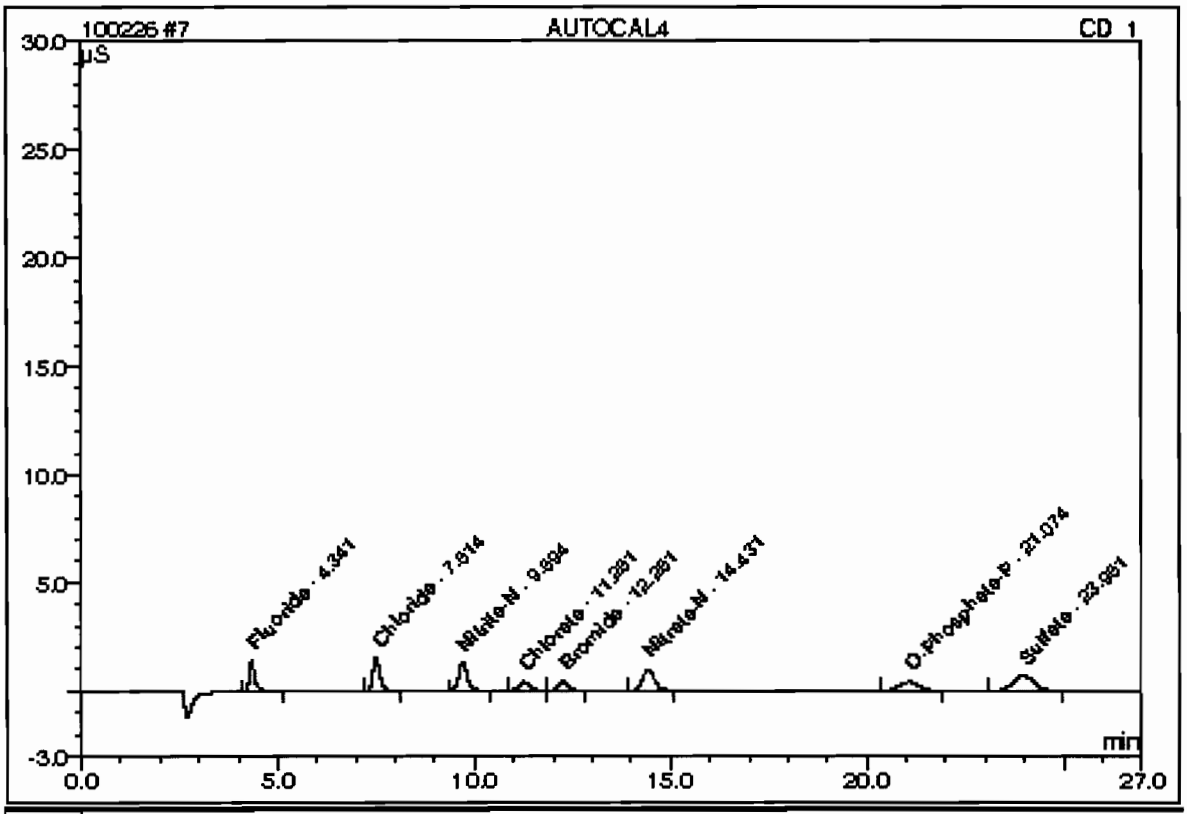

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	0.5000	0.4876		0.22674	10.95
2	7.51	Chloride	1.0000	0.9962		0.30574	14.76
3	9.69	Nitrite-N	0.5000	0.4958		0.31546	15.23
4	11.25	Chlorate	1.0000	0.9869		0.11408	5.51
5	12.25	Bromide	1.0000	0.9898		0.12420	6.00
6	14.43	Nitrate-N	0.5000	0.5100		0.34068	16.45
7	21.07	O-Phosphate-P	1.0000	0.9472		0.22299	10.76
8	23.96	Sulfate	2.0000	2.0454		0.42174	20.36
Total:				7.4589	0.000	2.072	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 16:28	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

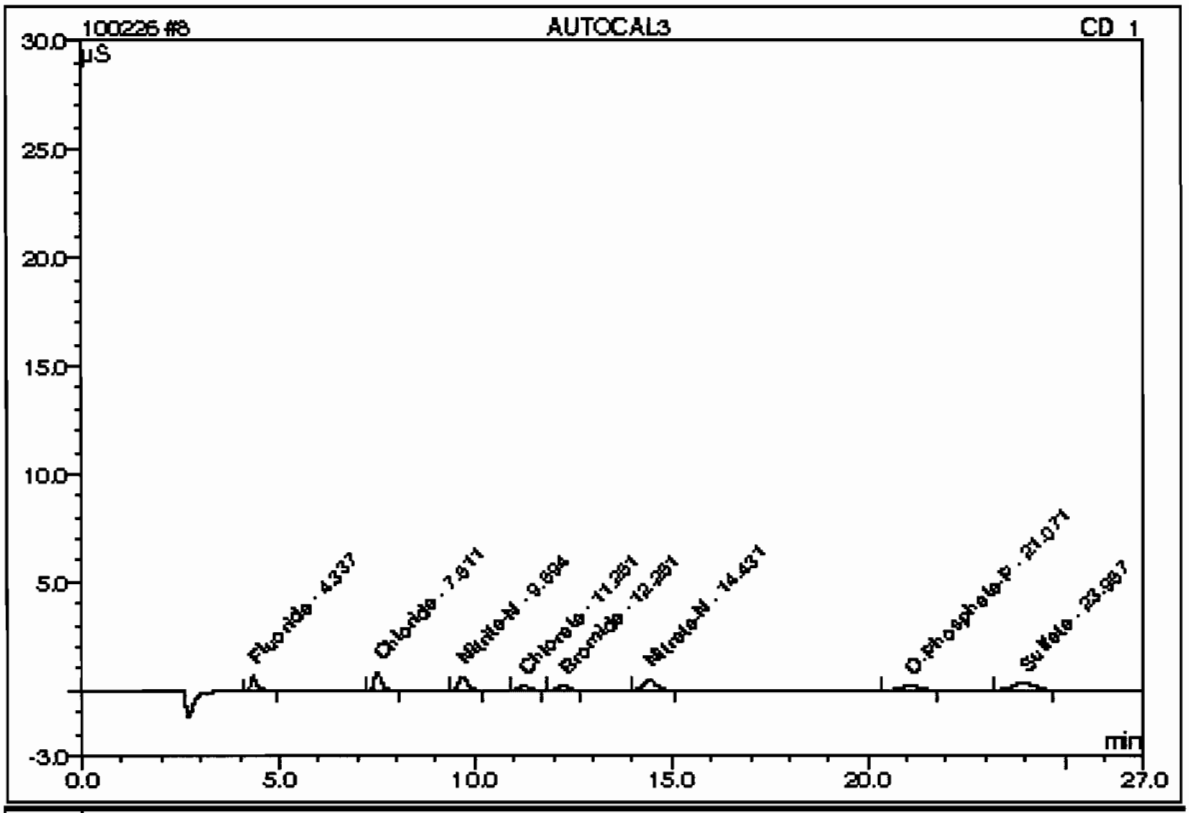

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	0.2500	0.2732		0.11429	11.11
2	7.51	Chloride	0.5000	0.6328		0.16712	16.25
3	9.69	Nitrite-N	0.2500	0.2882		0.15506	15.08
4	11.25	Chlorate	0.5000	0.5030		0.05470	5.32
5	12.25	Bromide	0.5000	0.4969		0.06070	5.90
6	14.43	Nitrate-N	0.2500	0.3206		0.17223	16.75
7	21.07	O-Phosphate-P	0.5000	0.4740		0.09833	9.56
8	23.96	Sulfate	1.0000	1.2003		0.20584	20.02
Total:				4.1891	0.000	1.028	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 16:58	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

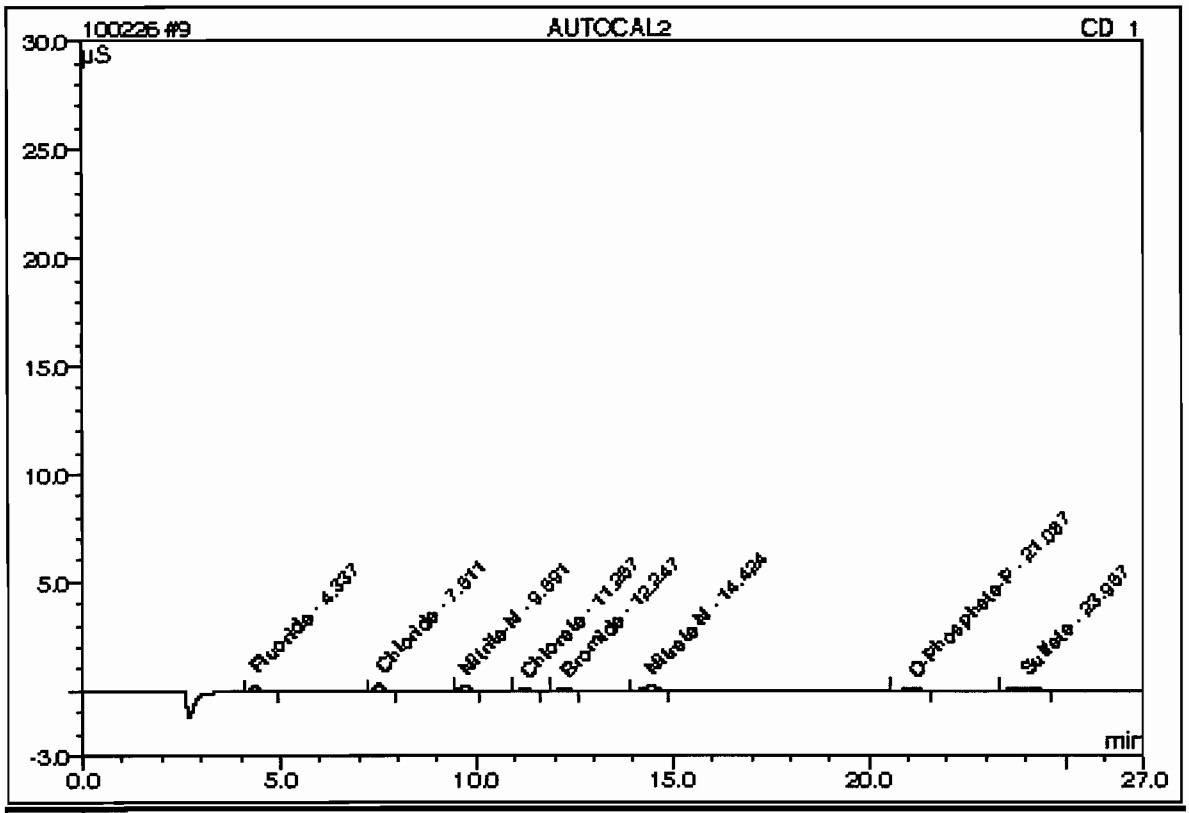

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	0.1000	0.1332		0.04630	12.02
2	7.51	Chloride	0.2000	0.3232		0.06387	16.58
3	9.69	Nitrite-N	0.1000	0.1495		0.06041	15.68
4	11.26	Chlorate	0.2000	0.2188		0.02097	5.44
5	12.25	Bromide	0.2000	0.2015		0.02291	5.95
6	14.42	Nitrate-N	0.1000	0.1778		0.06658	17.28
7	21.09	O-Phosphate-P	0.2000	0.1992		0.02730	7.09
8	23.96	Sulfate	0.4000	0.6242		0.07690	19.96
Total:				2.0274	0.000	0.385	100.00

10 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 17:28	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC E086;300;9056

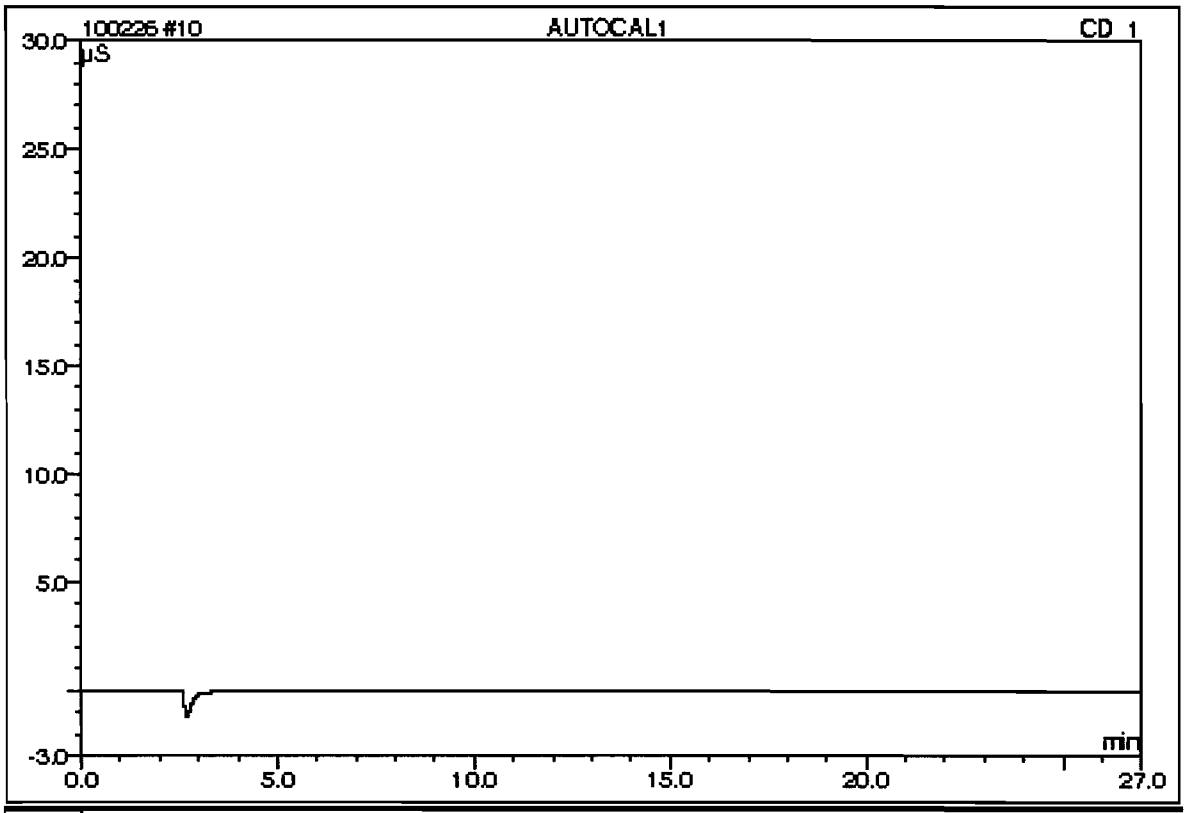

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

10 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 17:28	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002713;GLGCE086;300;9056

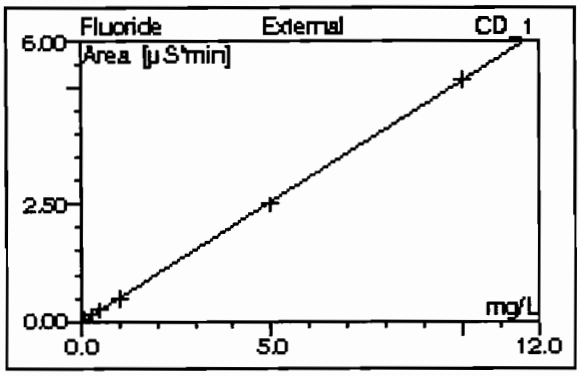

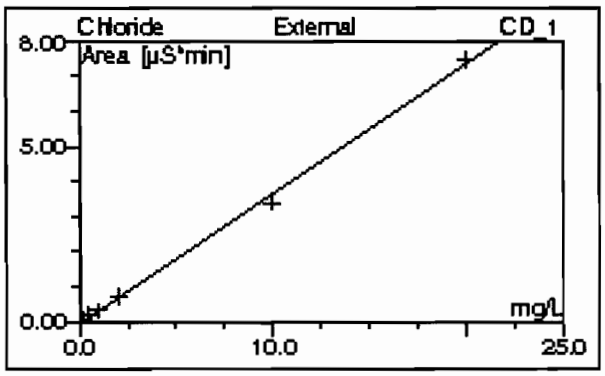

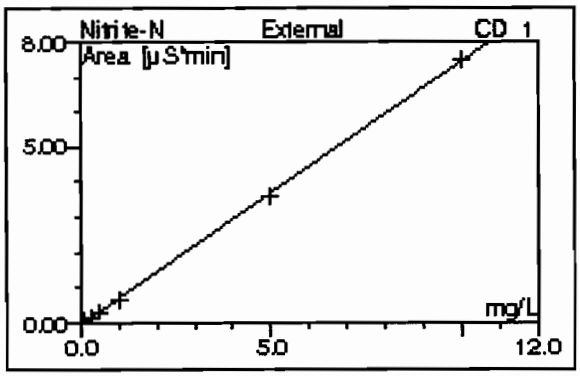

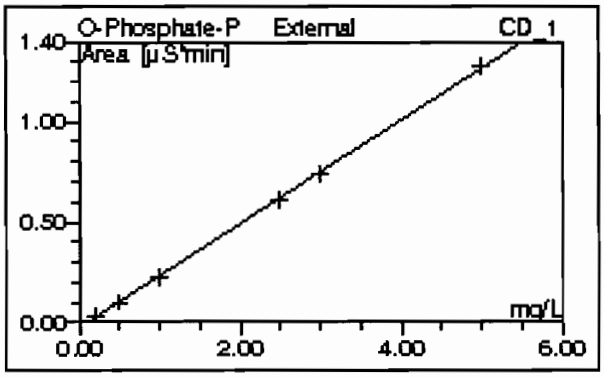

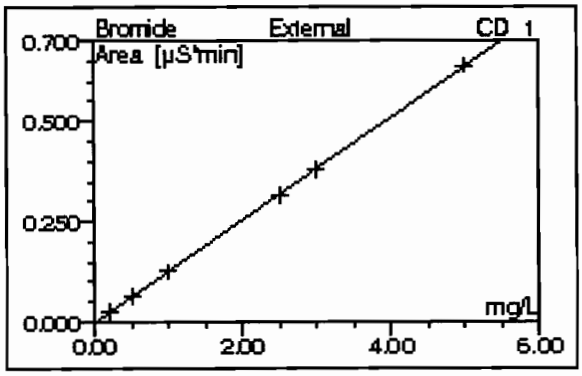

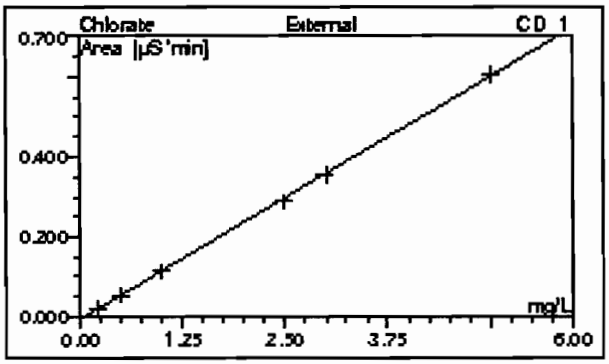

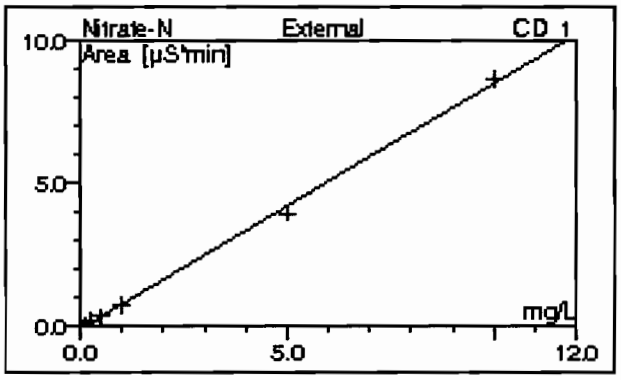

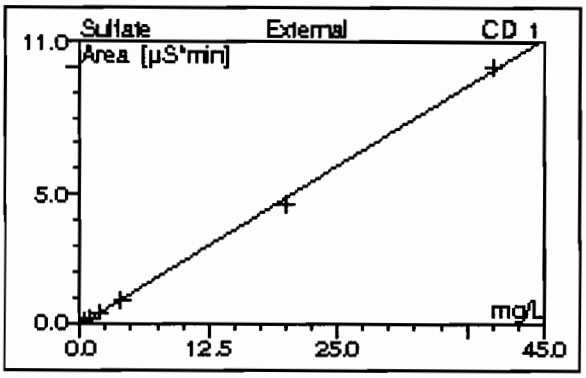

No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	0LO11	99.9752	-0.0225	0.5164	0.0000
n.a.	n.a.	Chloride	0LO11	99.7855	-0.0559	0.3705	0.0000
n.a.	n.a.	Nitrite-N	0LO11	99.9574	-0.0516	0.7496	0.0000
n.a.	n.a.	Chlorate	0LO11	99.9351	-0.0056	0.1212	0.0000
n.a.	n.a.	Bromide	0LO11	99.9942	-0.0029	0.1281	0.0000
n.a.	n.a.	Nitrate-N	0LO11	99.8341	-0.0857	0.8566	0.0000
n.a.	n.a.	O-Phosphate-P	0LO11	99.9473	-0.0242	0.2583	0.0000
n.a.	n.a.	Sulfate	0LO11	99.8946	-0.0779	0.2480	0.0000
Average:				99.9154	-0.0408	0.4061	0.0000

11 WIC100226-02ICV

Sample Name:	WIC100226-02ICV	*Injection Volume:*	50.0
Vial Number:	11	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 17:58	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

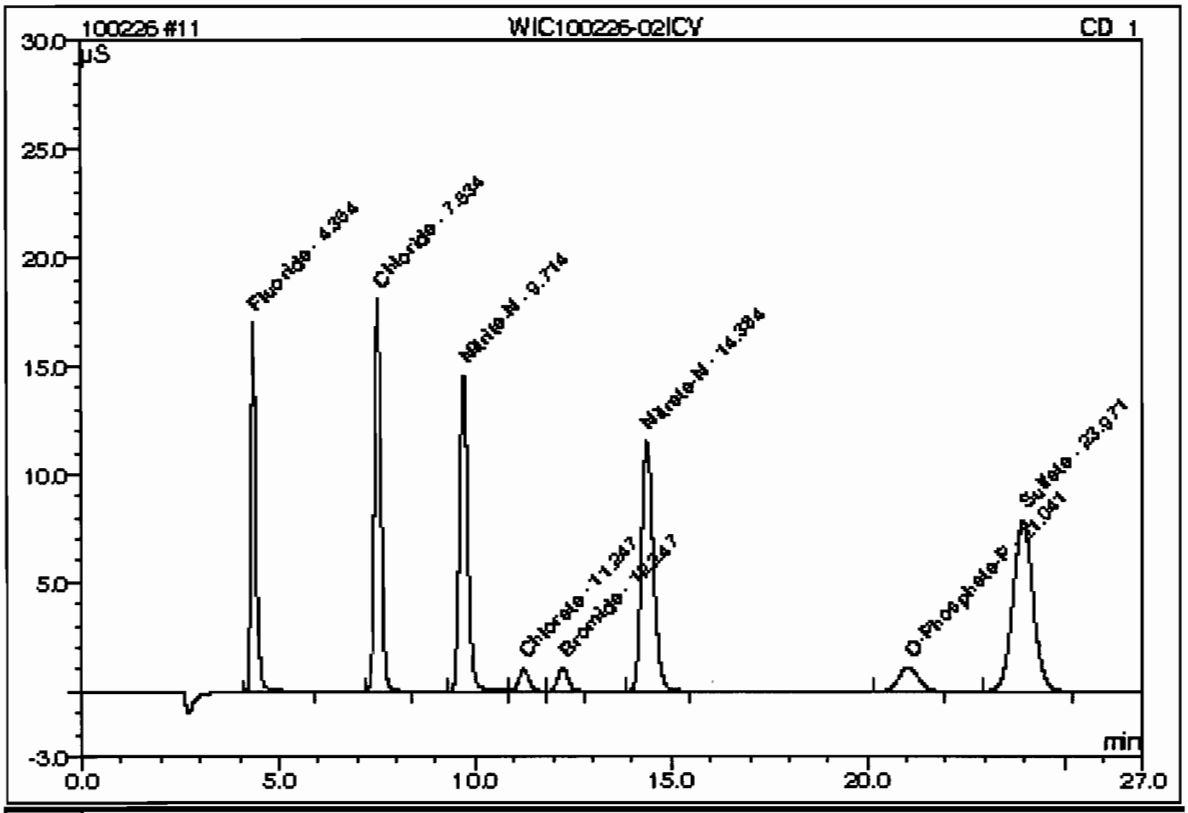

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	n.a.	4.9045		2.51013	13.00
2	7.53	Chloride	n.a.	9.2798		3.38193	17.52
3	9.71	Nitrite-N	n.a.	4.8611		3.59205	18.61
4	11.25	Chlorate	n.a.	2.4929		0.29666	1.54
5	12.25	Bromide	n.a.	2.5024		0.31765	1.65
6	14.38	Nitrate-N	n.a.	4.7351		3.97015	20.56
7	21.04	O-Phosphate-P	n.a.	2.4448		0.60728	3.15
8	23.97	Sulfate	n.a.	18.9837		4.63080	23.99
Total:				50.2043	0.000	19.307	100.00

12 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	12	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 18:27	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

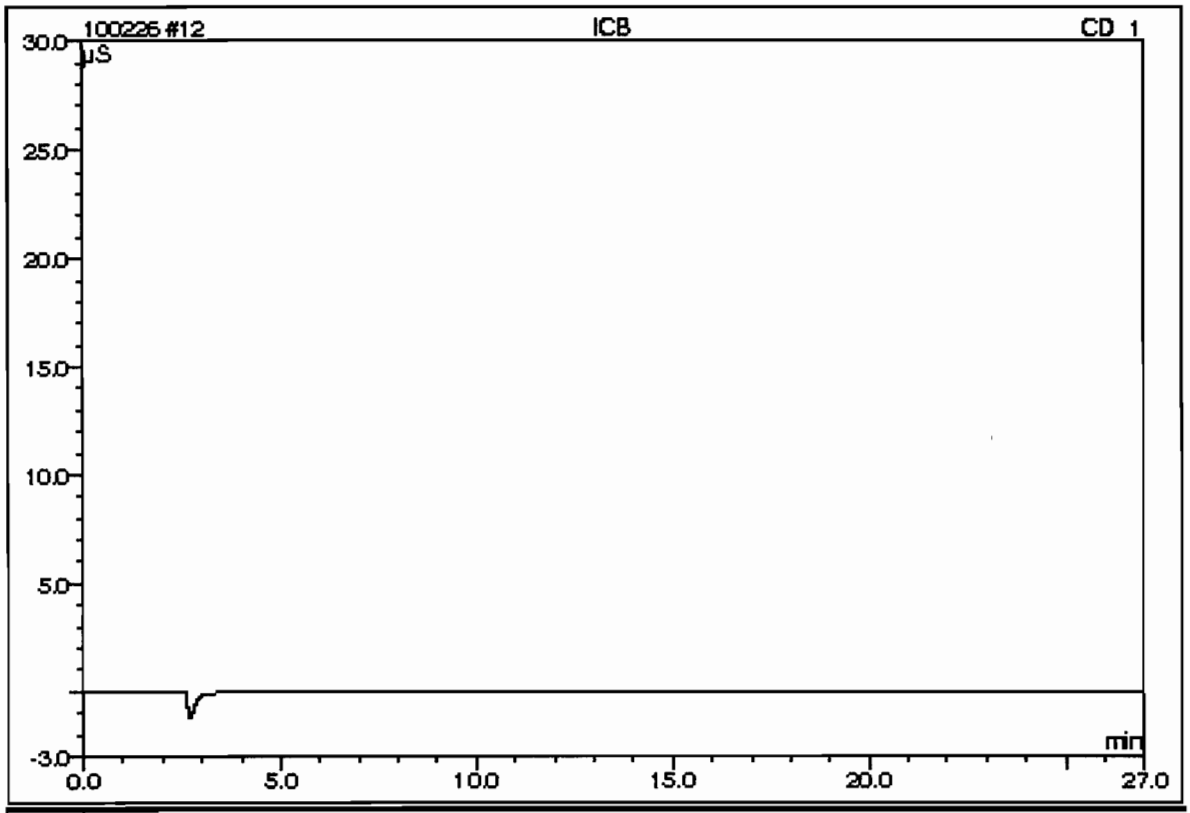

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100310.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/10/10 10:13		1	100310	GXM3
BLK	03/10/10 10:42		1	100310	GXM3
BLK	03/10/10 11:12		1	100310	GXM3
ICV	03/10/10 11:42		1	100310	GXM3
ICB	03/10/10 12:12		1	100310	GXM3
248169004	03/10/10 12:42	963046	2	100310	GXM3
1202066020	03/10/10 13:12	963046	2	100310	GXM3
1202066021	03/10/10 13:42	963046	2	100310	GXM3
CCV	03/10/10 14:12		1	100310	GXM3
CCB	03/10/10 14:42		1	100310	GXM3
248452002	03/10/10 15:12	963207	10	100310	GXM3
1202066363	03/10/10 15:41	963207	10	100310	GXM3
1202066365	03/10/10 16:11	963207	10	100310	GXM3
248452003	03/10/10 16:41	963207	10	100310	GXM3
CVH	03/10/10 17:11		1	100310	GXM3
CCB	03/10/10 17:41		1	100310	GXM3
1202066399	03/10/10 18:11	963224	1	100310	GXM3
1202066402	03/10/10 18:41	963224	1	100310	GXM3
247261004	03/10/10 19:11	963224	1	100310	GXM3
1202066400	03/10/10 19:41	963224	1	100310	GXM3
1202066401	03/10/10 20:11	963224	1	100310	GXM3
247431002	03/10/10 20:41	963224	1	100310	GXM3
247817001	03/10/10 21:10	963224	1	100310	GXM3
247829001	03/10/10 21:40	963224	1	100310	GXM3
248024002	03/10/10 22:10	963224	1	100310	GXM3
248024004	03/10/10 22:40	963224	1	100310	GXM3
CCV	03/10/10 23:10		1	100310	GXM3
CCB	03/10/10 23:40		1	100310	GXM3

11 WIC100309-02ICV

Sample Name:	WIC100309-02ICV	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 11:42	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

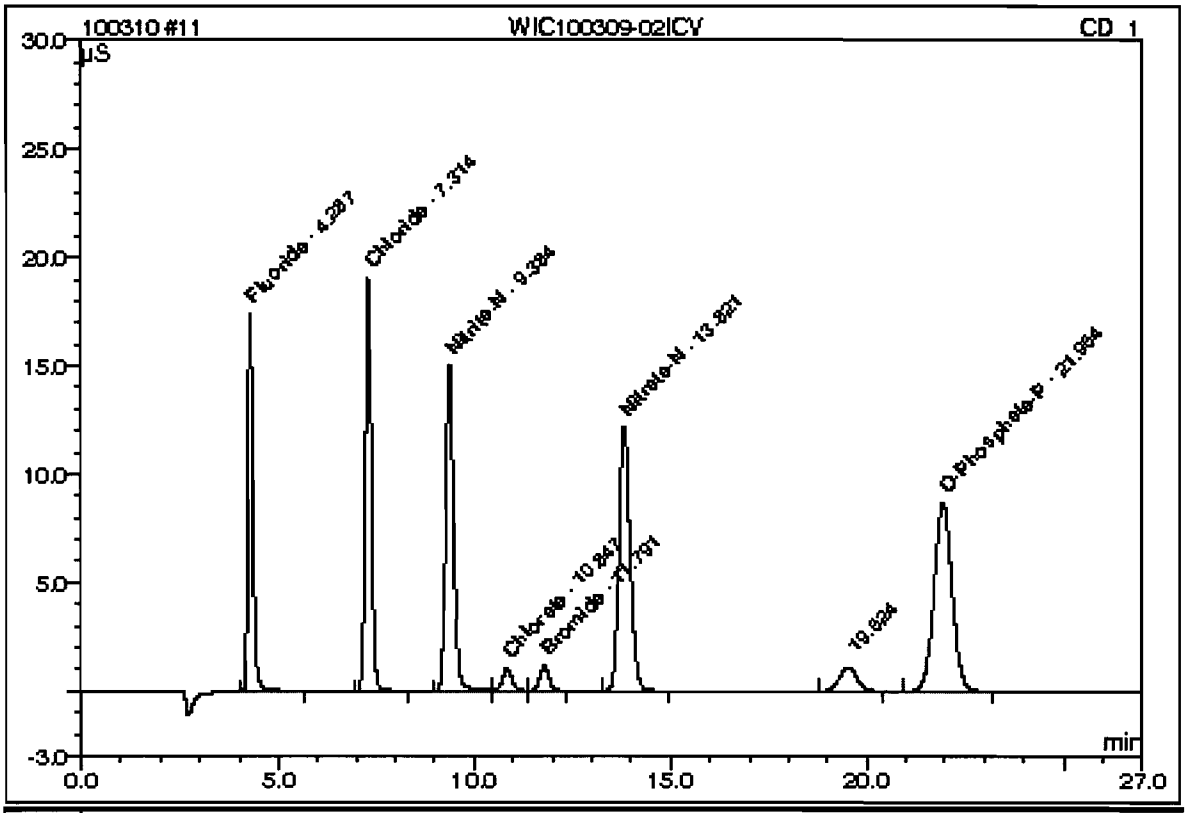

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	n.a.	4.8773		2.49606	12.91
2	7.31	Chloride	n.a.	9.3258		3.39897	17.58
3	9.38	Nitrite-N	n.a.	4.8148		3.55737	18.40
4	10.85	Chlorate	n.a.	2.5311		0.30129	1.56
5	11.79	Bromide	n.a.	2.5086		0.31844	1.65
6	13.82	Nitrate-N	n.a.	4.7730		4.00263	20.71
8	21.95	O-Phosphate-P	n.a.	18.2013		4.67675	24.19
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				47.0319	0.000	18.752	97.00

11 WIC100309-02ICV

Sample Name:	WIC100309-02ICV	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 11:42	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

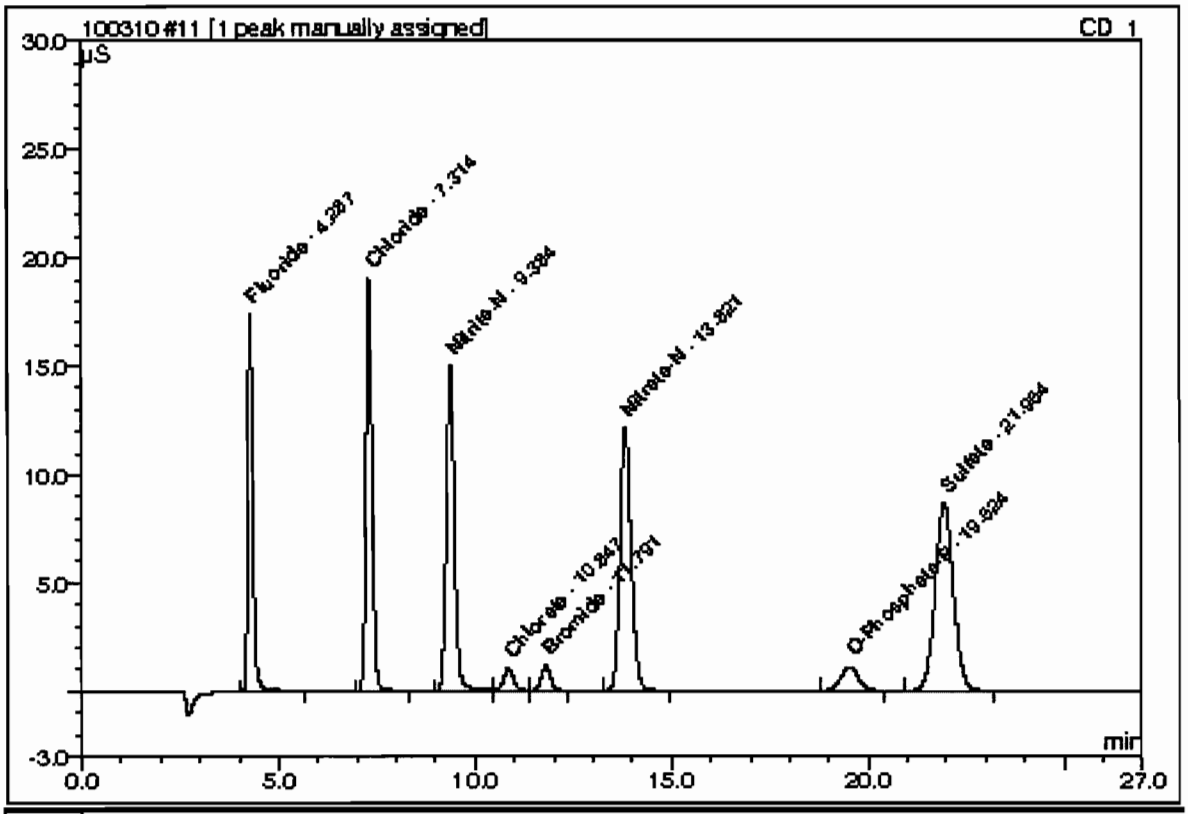

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	n.a.	4.8773		2.49606	12.91
2	7.31	Chloride	n.a.	9.3258		3.39897	17.58
3	9.38	Nitrite-N	n.a.	4.8148		3.55737	18.40
4	10.85	Chlorate	n.a.	2.5311		0.30129	1.56
5	11.79	Bromide	n.a.	2.5086		0.31844	1.65
6	13.82	Nitrate-N	n.a.	4.7730		4.00263	20.71
7	19.52	O-Phosphate-P	n.a.	2.3391		0.57998	3.00
8	21.95	Sulfate	n.a.	19.1690		4.67675	24.19
Total:				50.3387	0.000	19.332	100.00

12 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 12:12	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

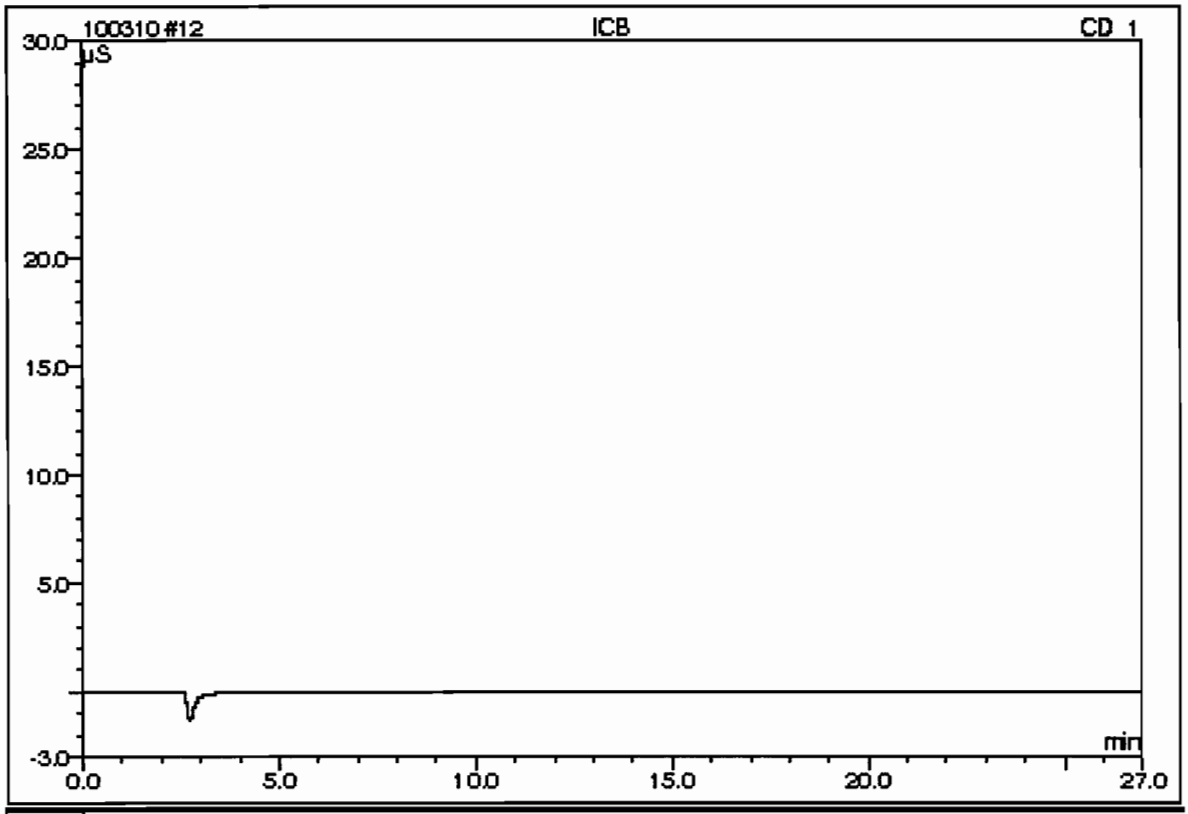

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

22 WIC100309-02CVH

Sample Name:	WIC100309-02CVH	*Injection Volume:*	50.0
Vial Number:	15	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 17:11	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

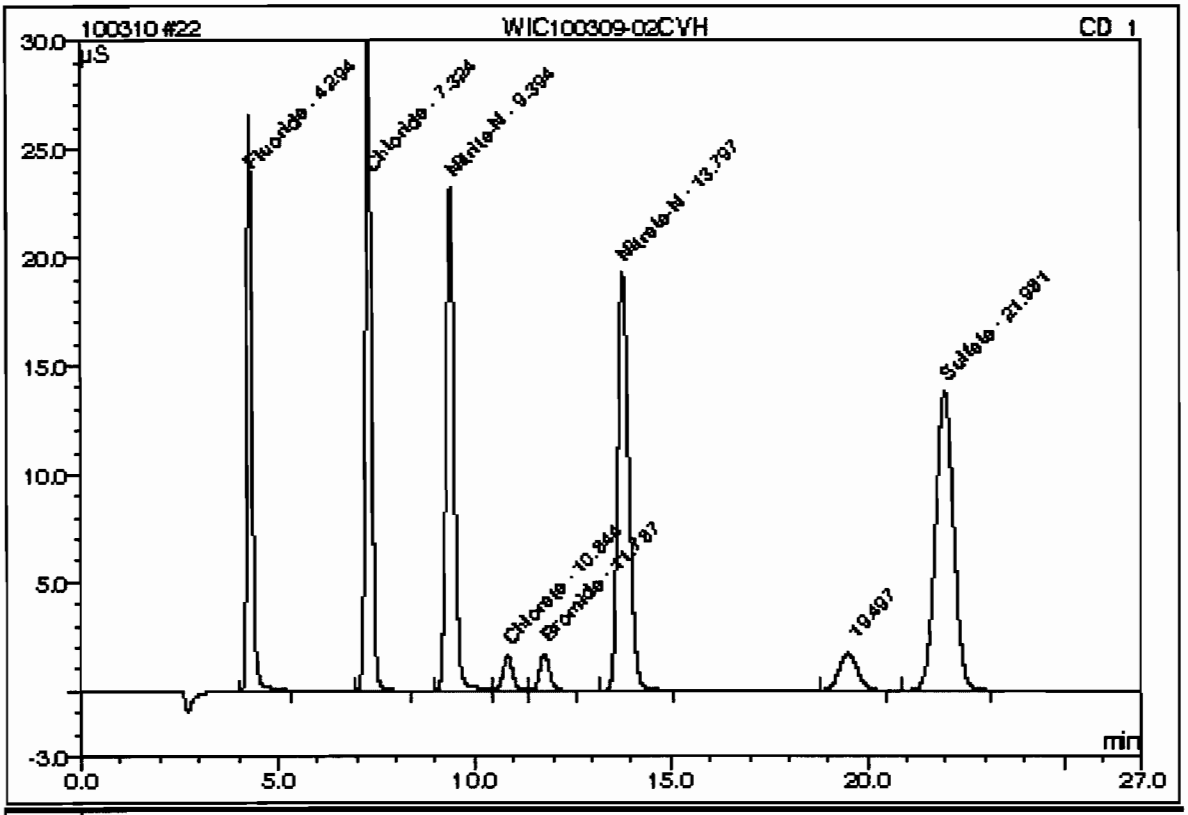

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	n.a.	7.4981		3.84942	12.70
2	7.32	Chloride	n.a.	14.7559		5.41061	17.85
3	9.39	Nitrite-N	n.a.	7.4565		5.53748	18.27
4	10.84	Chlorate	n.a.	3.7660		0.45100	1.49
5	11.79	Bromide	n.a.	3.8241		0.48696	1.61
6	13.80	Nitrate-N	n.a.	7.4675		6.31066	20.82
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
8	21.98	Sulfate	n.a.	35.2620		7.35667	24.27
Total:				80.0301	0.000	29.403	97.01

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23 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	16	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 17:41	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

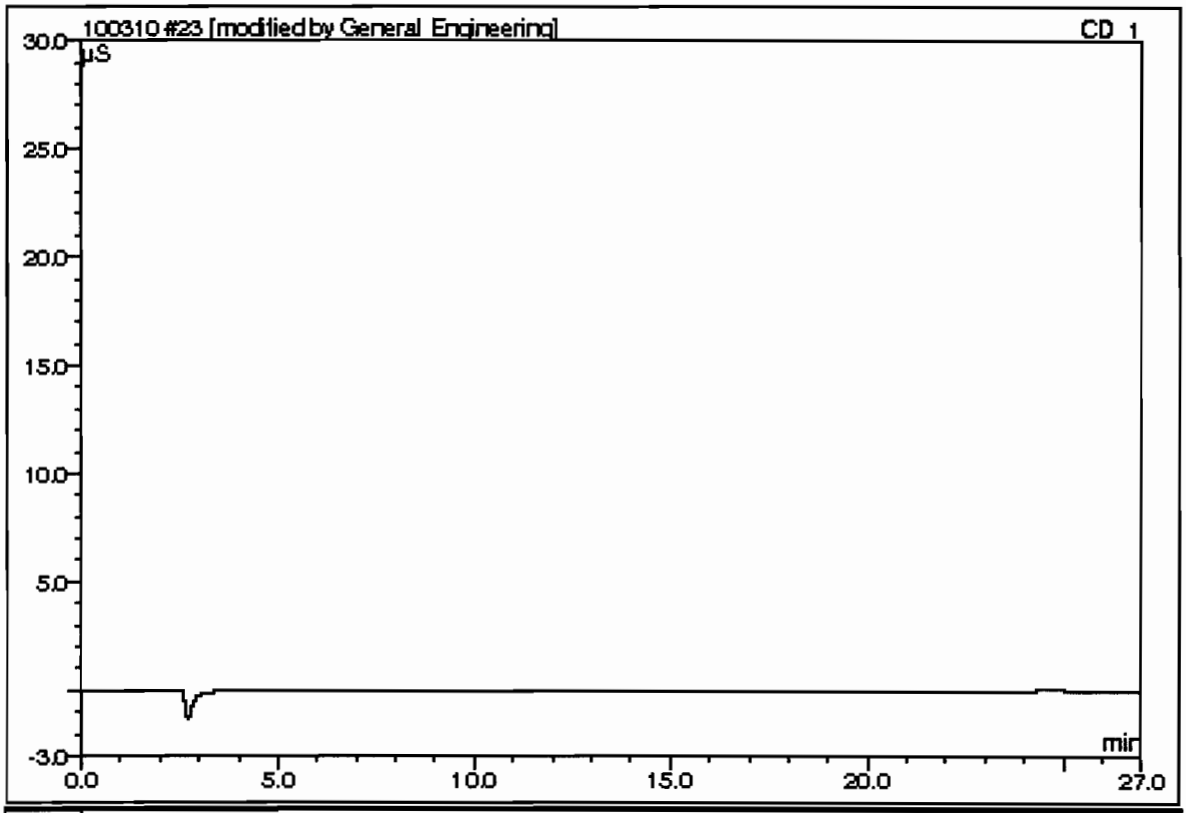

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

24 1202066399/963224/1/1/MB

Sample Name:	1202066399/963224/1/1/MB	*Injection Volume:*	50.0
Vial Number:	17	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 18:11	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

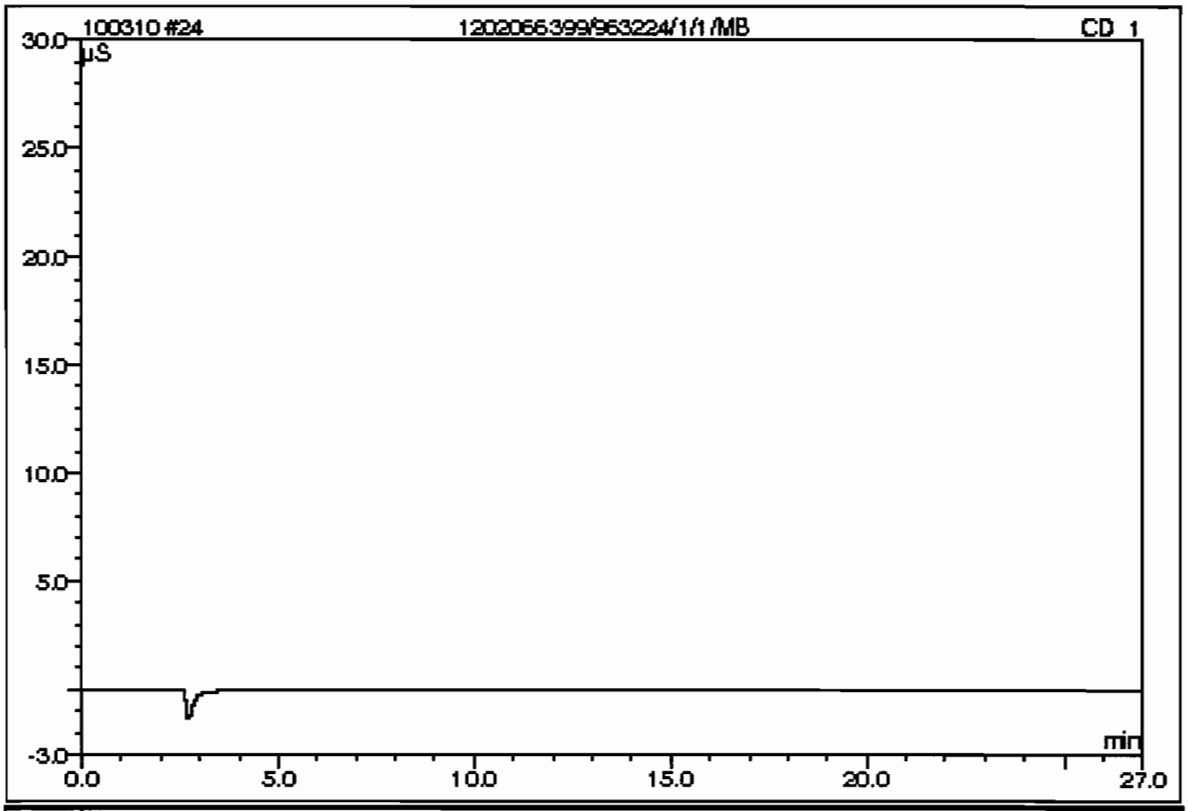

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

25 1202066402/963224/1/1/LCS

Sample Name:	1202066402/963224/1/1/LCS	*Injection Volume:*	50.0
Vial Number:	18	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 18:41	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

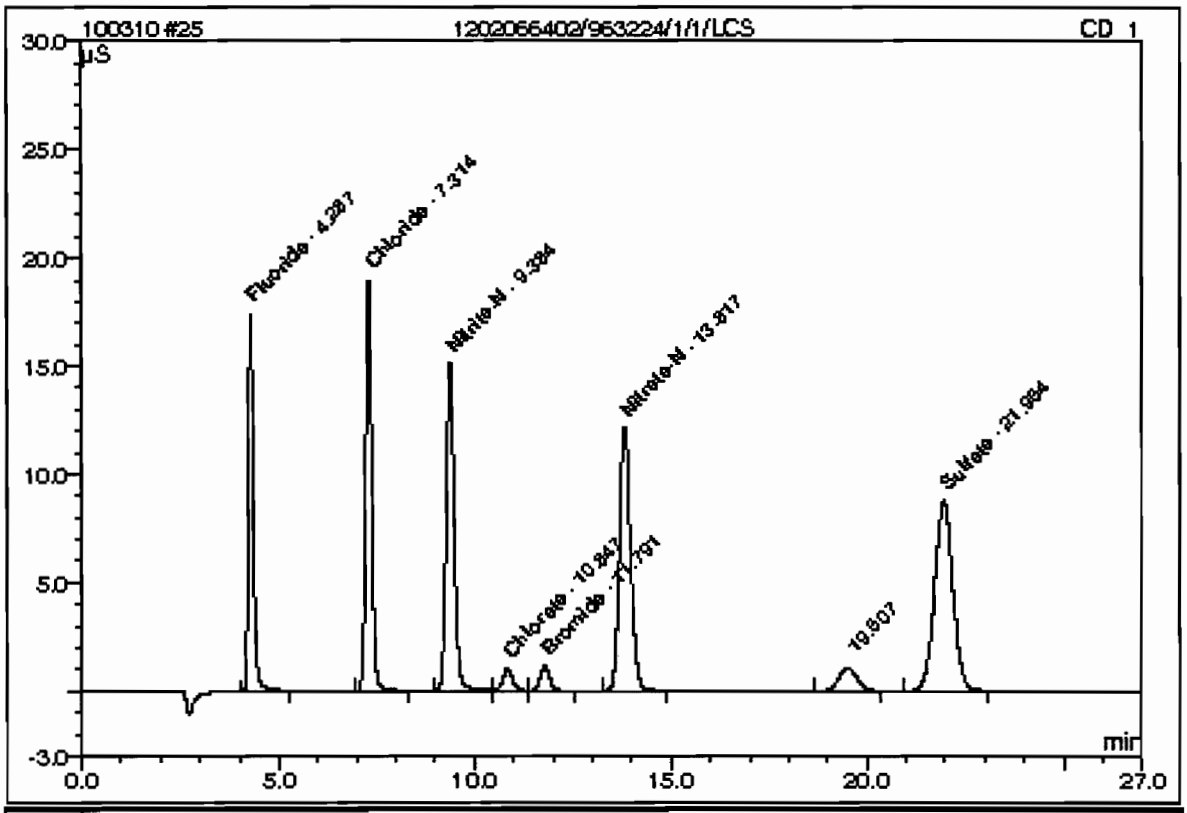

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	n.a.	4.8821		2.49854	12.88
2	7.31	Chloride	n.a.	9.3796		3.41891	17.62
3	9.38	Nitrite-N	n.a.	4.8510		3.58446	18.47
4	10.85	Chlorate	n.a.	2.5055		0.29820	1.54
5	11.79	Bromide	n.a.	2.5000		0.31734	1.64
6	13.82	Nitrate-N	n.a.	4.7576		3.98949	20.56
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
8	21.96	Sulfate	n.a.	23.2876		4.72241	24.34
Total:				52.1634	0.000	18.829	97.04

26 247261004/963224/1/1/

Sample Name:	247261004/963224/1/1/	*Injection Volume:*	50.0
Vial Number:	19	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 19:11	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

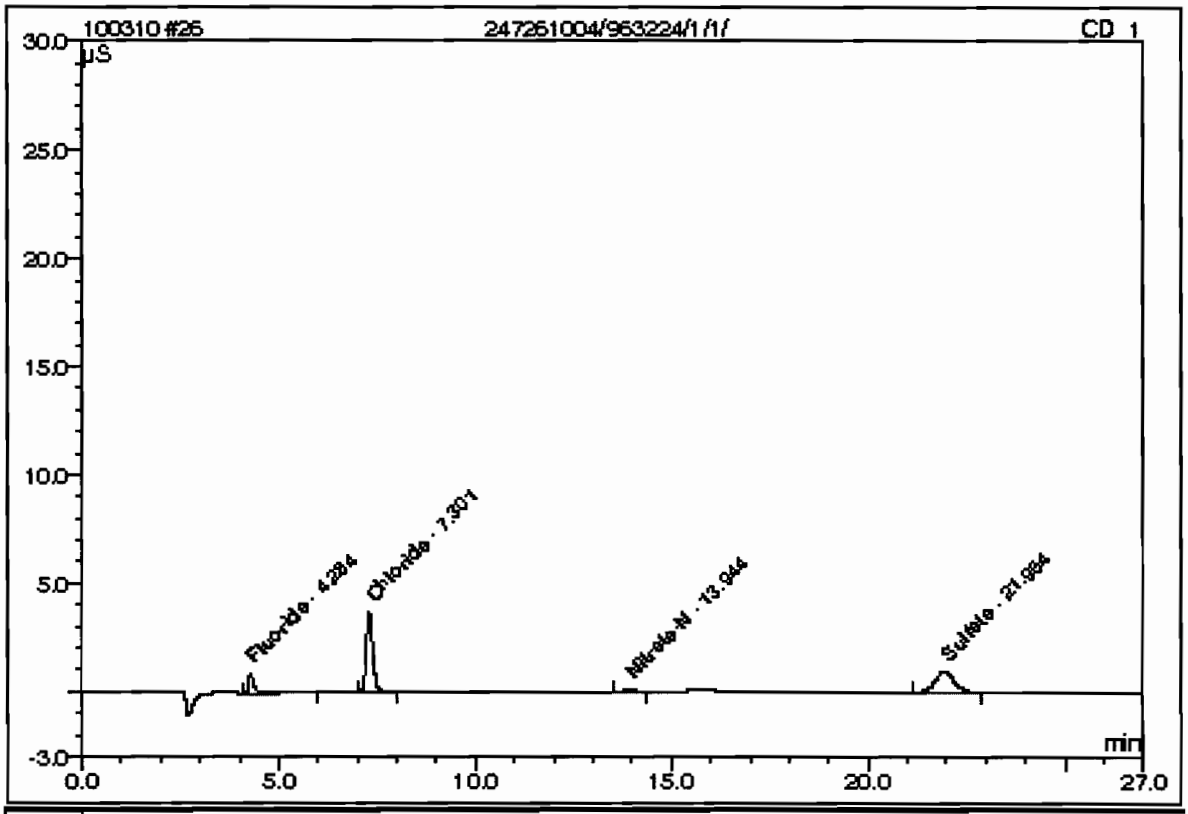

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.28	Fluoride	n.a.	0.4900		0.23055	15.70
2	7.30	Chloride	n.a.	2.0113		0.68925	46.94
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.94	Nitrate-N	n.a.	0.1316		0.02703	1.84
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	21.95	Sulfate	n.a.	4.1921		0.52158	35.52
Total:				6.8251	0.000	1.468	100.00

26 247261004/963224/1/1/

Sample Name:	247261004/963224/1/1/	*Injection Volume:*	50.0
Vial Number:	19	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 19:11	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

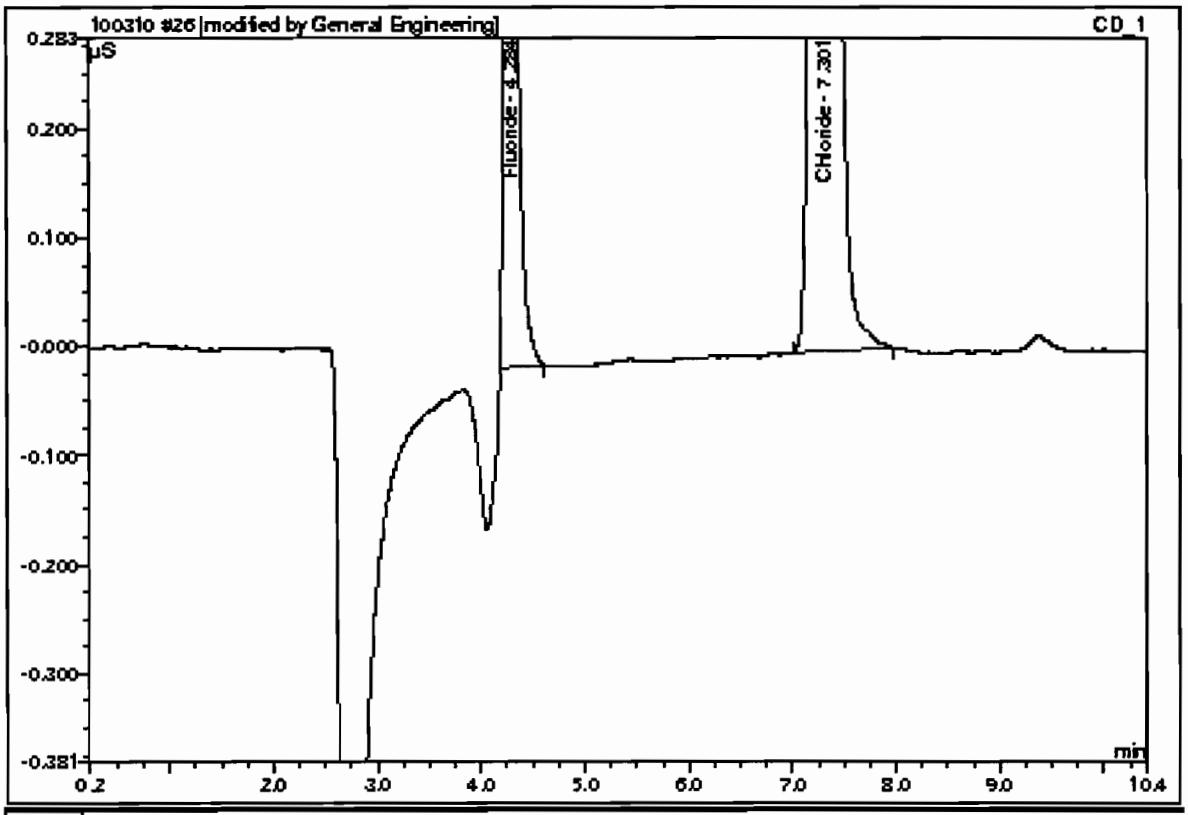

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.28	Fluoride	n.a.	0.2406		0.10176	7.60
2	7.30	Chloride	n.a.	2.0113		0.68925	51.45
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.94	Nitrate-N	n.a.	0.1316		0.02703	2.02
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	21.95	Sulfate	n.a.	4.1921		0.52158	38.93
Total:				6.5757	0.000	1.340	100.00

27 1202066400/963224/1/1/DUP

Sample Name:	1202066400/963224/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	20	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 19:41	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

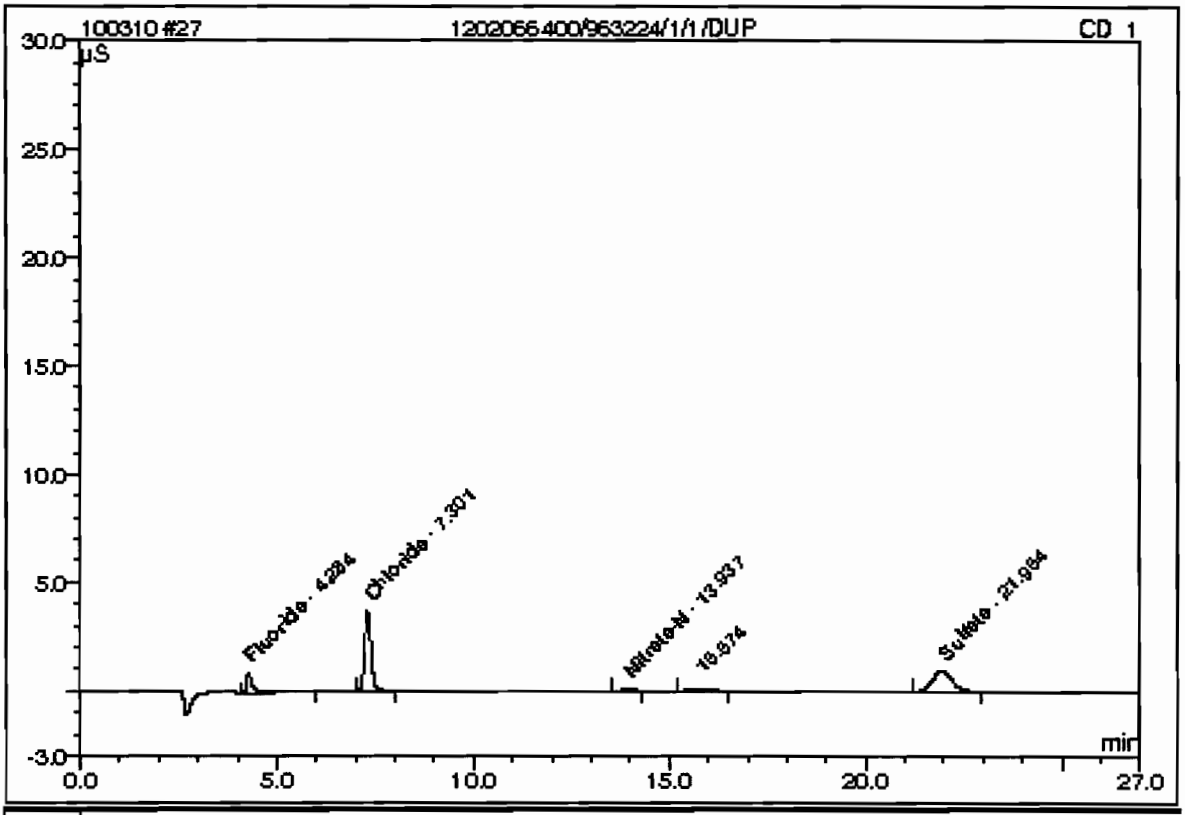

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.28	Fluoride	n.a.	0.4922		0.23166	15.21
2	7.30	Chloride	n.a.	2.0065		0.68746	45.14
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.94	Nitrate-N	n.a.	0.1309		0.02643	1.74
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	21.95	Sulfate	n.a.	4.2345		0.53089	34.86
Total:				6.8641	0.000	1.476	96.94

27 1202066400/963224/1/1/DUP

Sample Name:	1202066400/963224/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	20	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 19:41	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

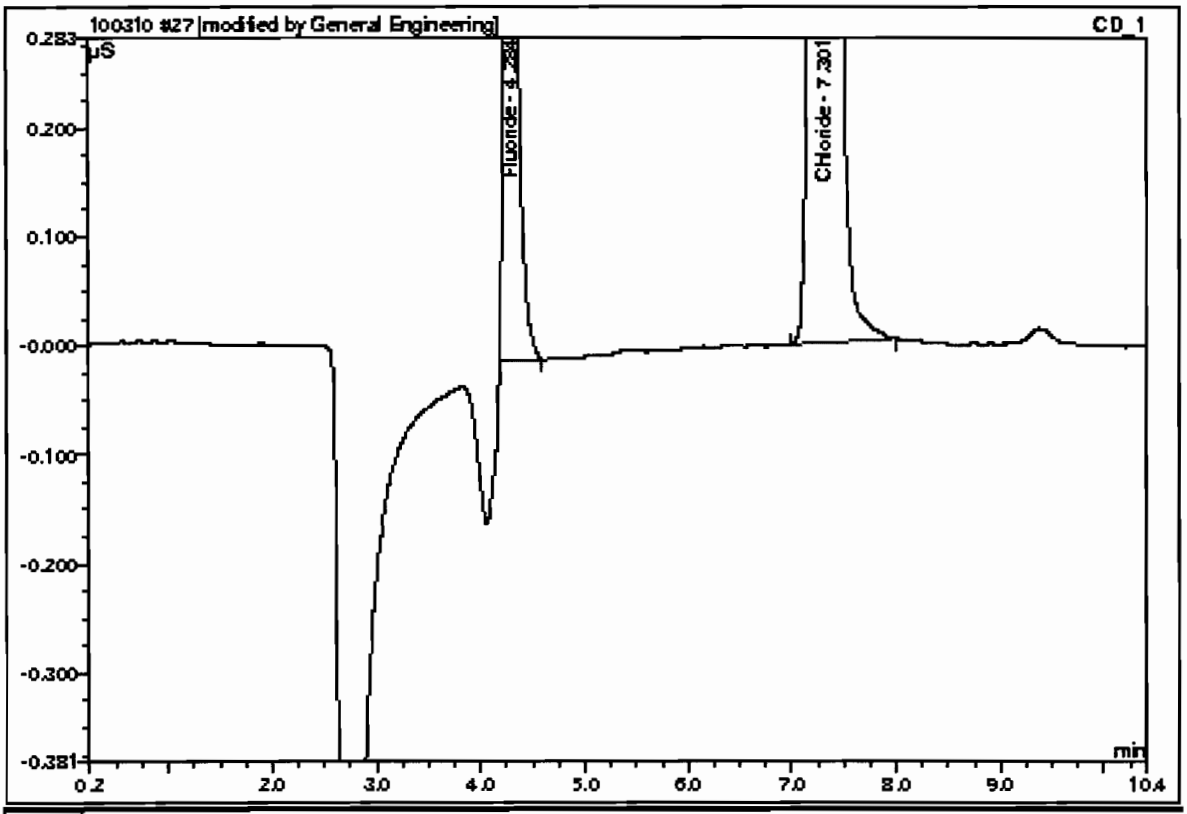

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.28	Fluoride	n.a.	0.2389		0.10088	7.25
2	7.30	Chloride	n.a.	2.0065		0.68746	49.37
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.94	Nitrate-N	n.a.	0.1309		0.02643	1.90
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	21.95	Sulfate	n.a.	4.2345		0.53089	38.13
Total:				6.6108	0.000	1.346	96.65

28 1202066401/963224/1/1/PS

Sample Name:	1202066401/963224/1/1/PS	*Injection Volume:*	50.0
Vial Number:	21	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 20:11	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

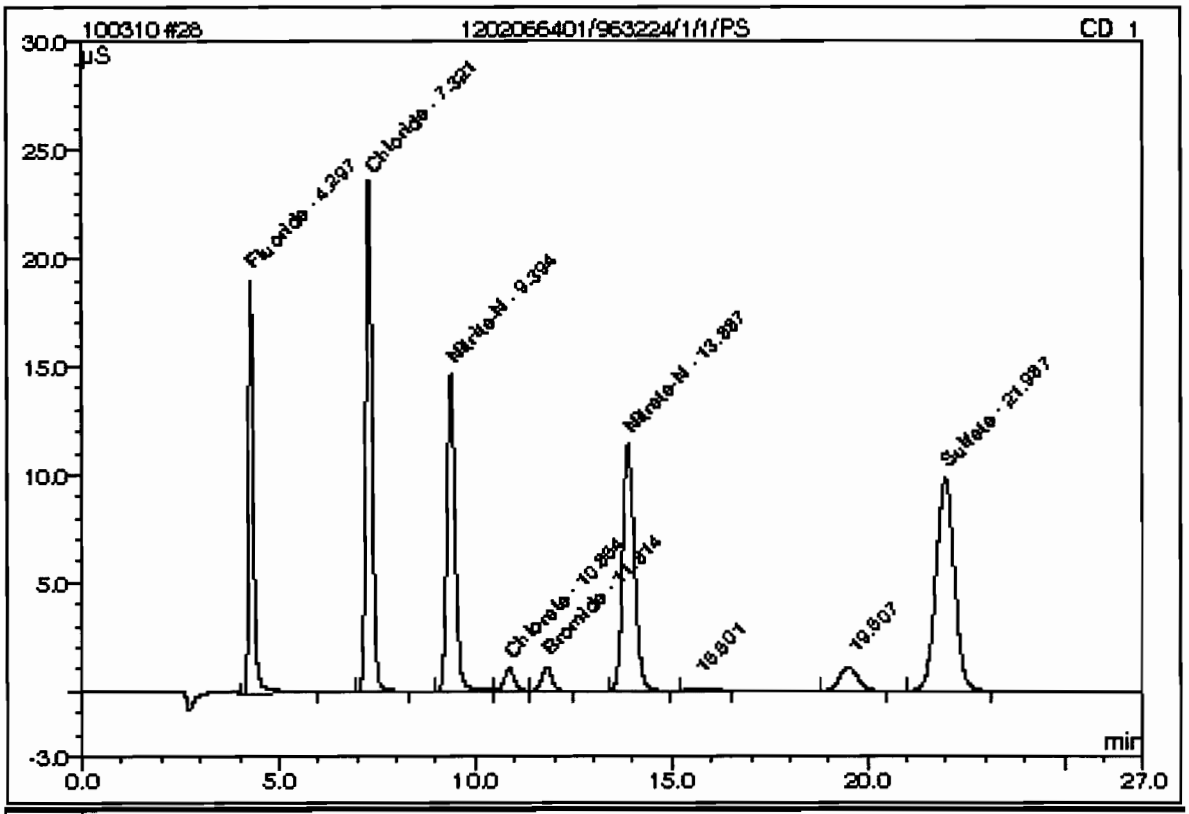

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	5.3425		2.73632	13.02
2	7.32	Chloride	n.a.	11.6349		4.25441	20.24
3	9.39	Nitrite-N	n.a.	4.7939		3.54165	16.85
4	10.86	Chlorate	n.a.	2.4933		0.29671	1.41
5	11.81	Bromide	n.a.	2.5314		0.32137	1.53
6	13.89	Nitrate-N	n.a.	4.7259		3.96227	18.85
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
9	21.99	Sulfate	n.a.	25.8170		5.27887	25.12
Total:				57.3389	0.000	20.392	97.03

28 1202066401/963224/1/1/PS

Sample Name:	1202066401/963224/1/1/PS	*Injection Volume:*	50.0
Vial Number:	21	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 20:11	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

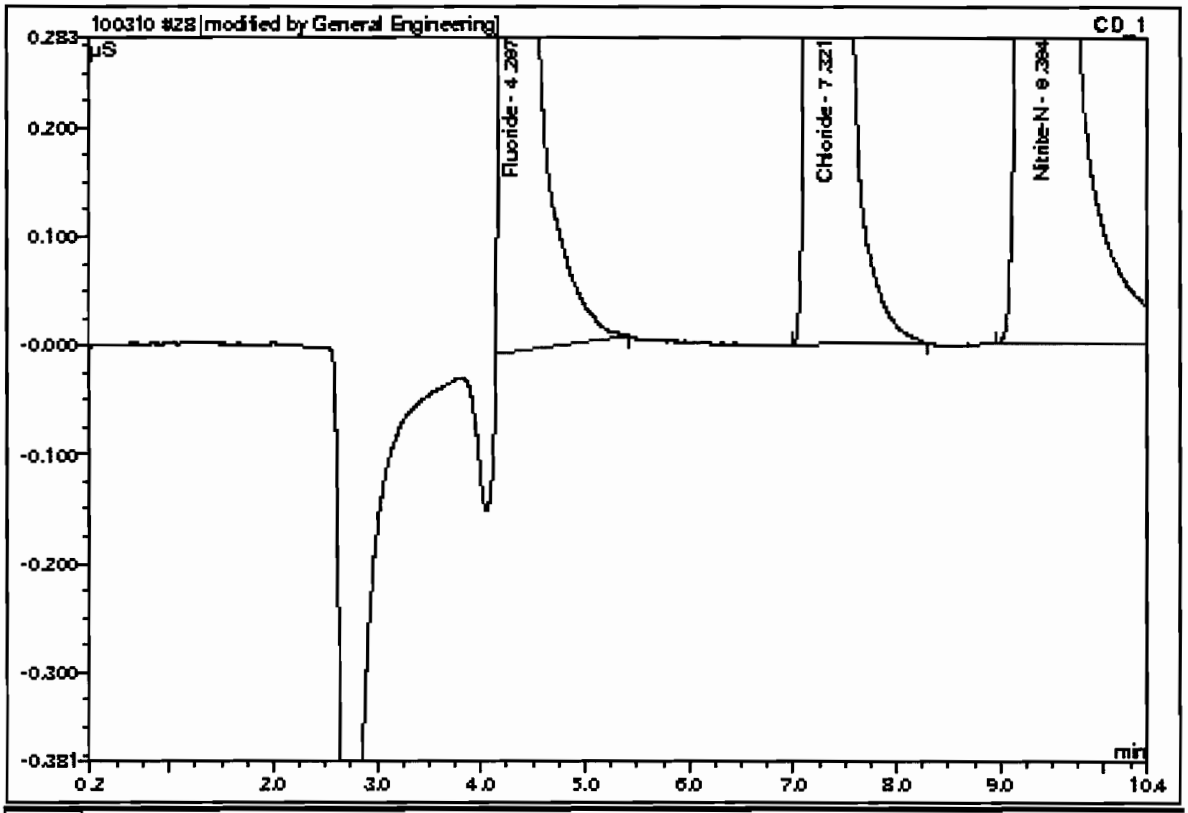

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	5.0756		2.59847	12.45
2	7.32	Chloride	n.a.	11.6349		4.25441	20.38
3	9.39	Nitrite-N	n.a.	4.7939		3.54165	16.96
4	10.86	Chlorate	n.a.	2.4933		0.29671	1.42
5	11.81	Bromide	n.a.	2.5314		0.32137	1.54
6	13.89	Nitrate-N	n.a.	4.7259		3.96227	18.98
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
9	21.99	Sulfate	n.a.	25.8170		5.27887	25.28
Total:				57.0720	0.000	20.254	97.01

30 247817001/963224/1/1/

Sample Name:	247817001/963224/1/1/	*Injection Volume:*	50.0
Vial Number:	23	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 21:10	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

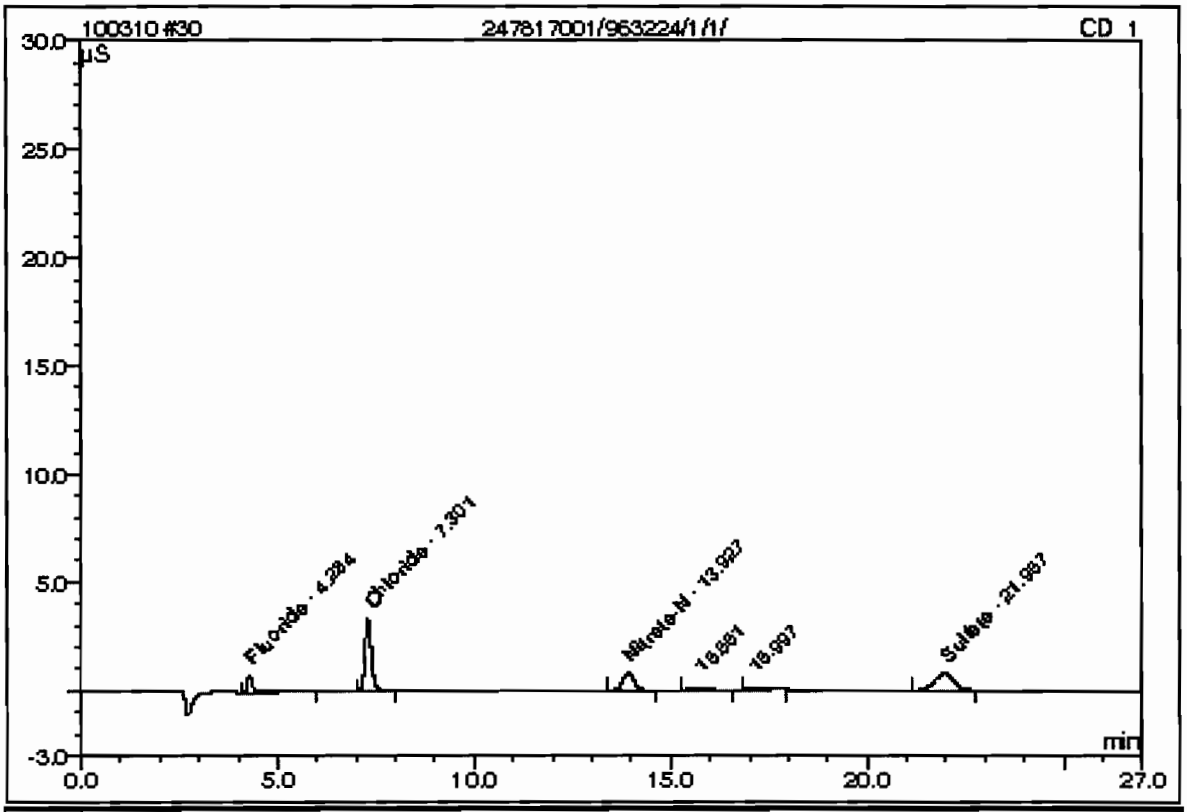

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.28	Fluoride	n.a.	0.4787		0.22469	13.97
2	7.30	Chloride	n.a.	1.8225		0.61928	38.50
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.93	Nitrate-N	n.a.	0.4113		0.26662	16.57
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
6	21.96	Sulfate	n.a.	3.7415		0.42245	26.26
Total:				6.4540	0.000	1.533	95.30

30 247817001/963224/1/1/

Sample Name:	247817001/963224/1/1/	*Injection Volume:*	50.0
Vial Number:	23	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 21:10	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

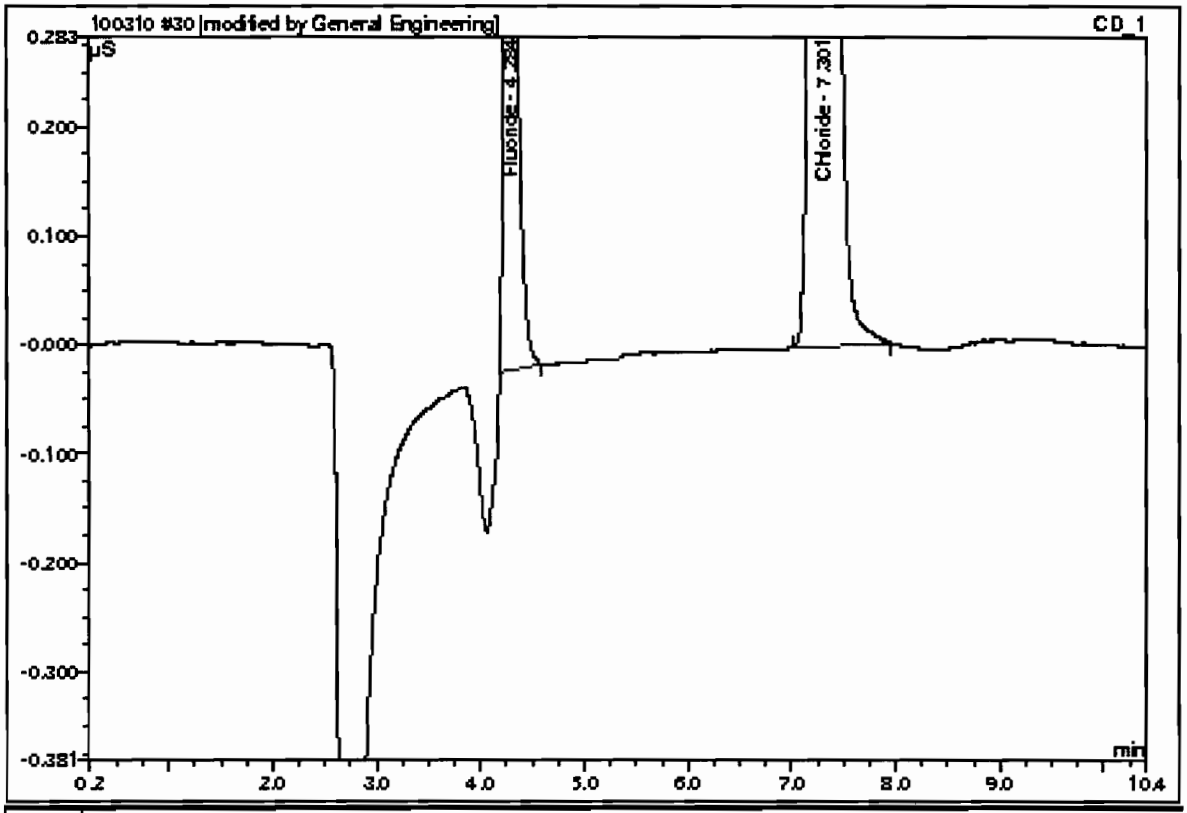

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.28	Fluoride	n.a.	0.2248		0.09357	6.33
2	7.30	Chloride	n.a.	1.8225		0.61928	41.91
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.93	Nitrate-N	n.a.	0.4113		0.26662	18.05
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
6	21.96	Sulfate	n.a.	3.7415		0.42245	28.59
Total:				6.2001	0.000	1.402	94.88

34 WIC100309-02CCV

Sample Name:	WIC100309-02CCV	*Injection Volume:*	50.0
Vial Number:	27	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 23:10	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

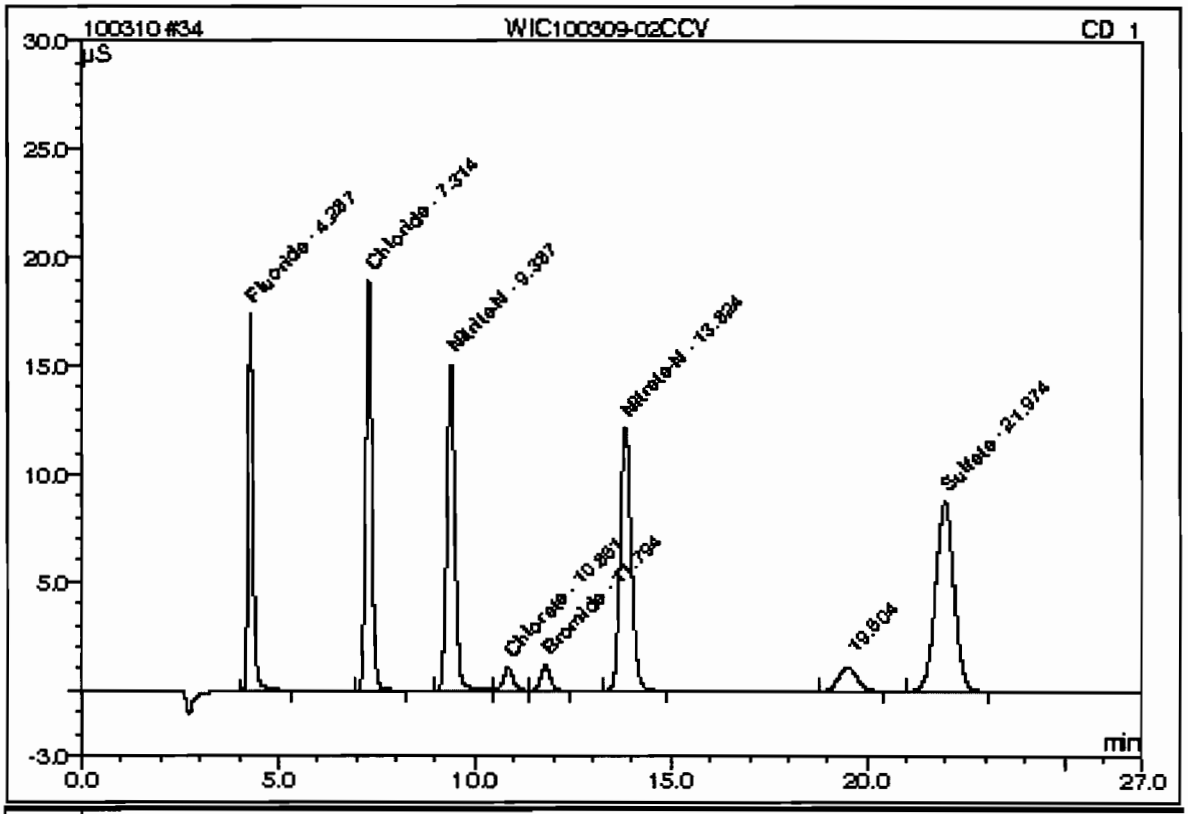

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	n.a.	4.8879		2.50157	12.90
2	7.31	Chloride	n.a.	9.3353		3.40248	17.54
3	9.39	Nitrite-N	n.a.	4.8543		3.58698	18.50
4	10.85	Chlorate	n.a.	2.5194		0.29987	1.55
5	11.79	Bromide	n.a.	2.4980		0.31709	1.64
6	13.82	Nitrate-N	n.a.	4.7598		3.99133	20.58
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
8	21.97	Sulfate	n.a.	23.2474		4.71357	24.31
Total:				52.1021	0.000	18.813	97.01

35 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	28	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 23:40	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

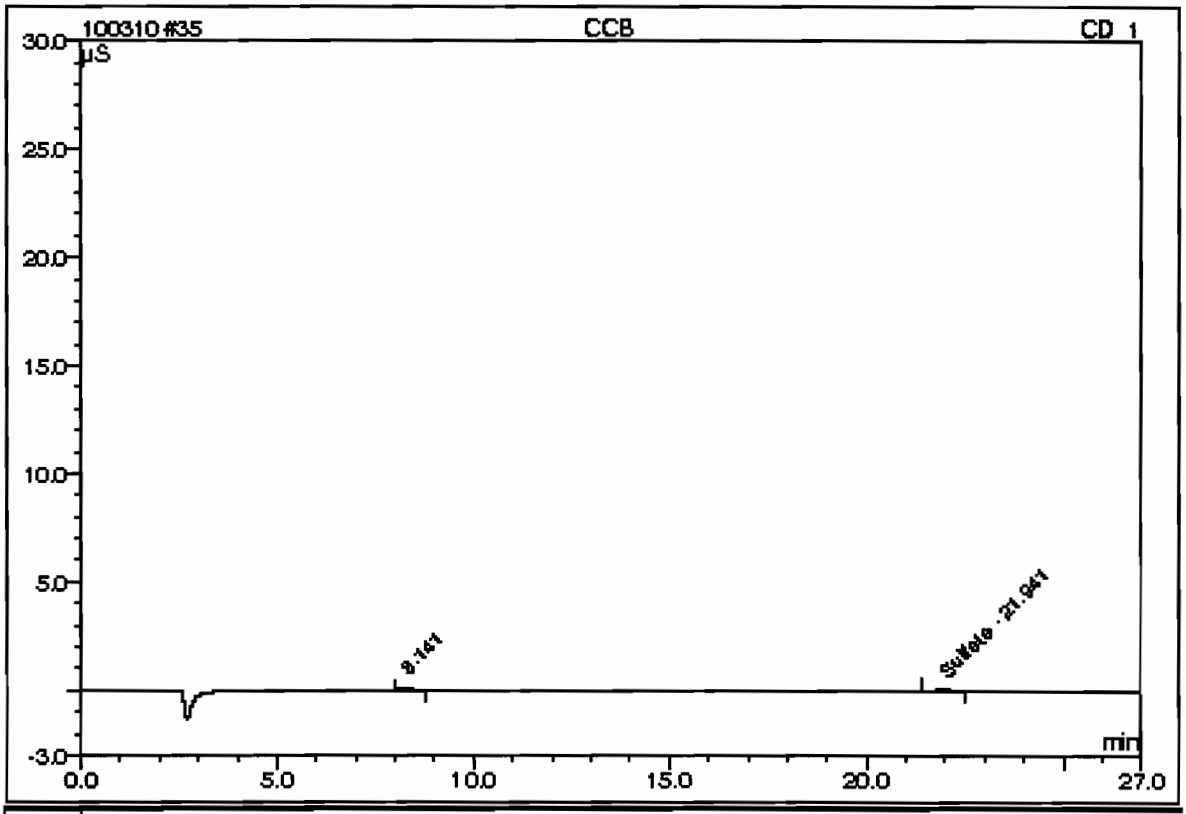

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
2	21.94	Sulfate	n.a.	1.9240		0.02260	51.99
Total:				1.9240	0.000	0.023	51.99

This is runlog for Sequence 100311.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/11/10 22:02		1	100311	GXM3
ICV	03/11/10 22:21		1	100311	GXM3
ICB	03/11/10 22:51		1	100311	GXM3
248507001	03/11/10 23:21	961208	1000	100311	GXM3
1202061770	03/11/10 23:51	961208	1000	100311	GXM3

9 WIC100310-02ICV

Sample Name:	WIC100310-02ICV	*Injection Volume:*	50.0
Vial Number:	2	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/11/2010 22:21	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

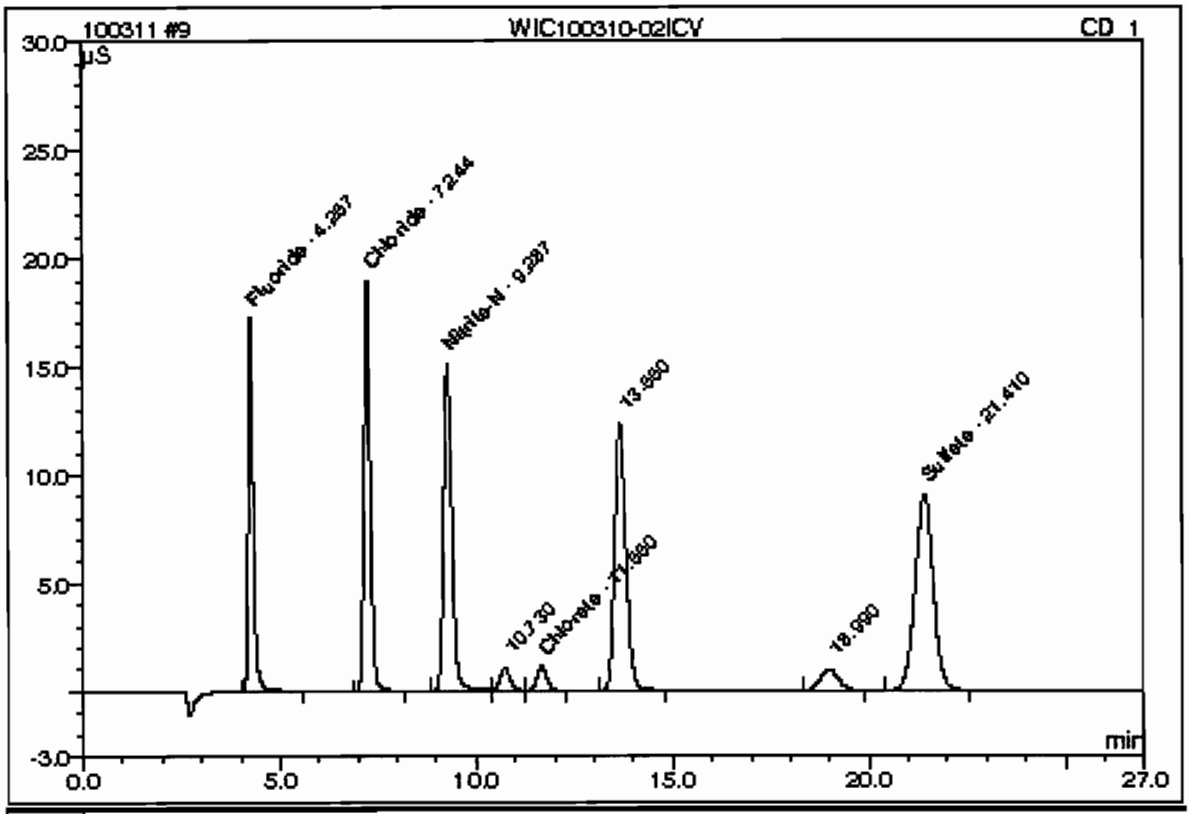

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	4.9917		2.55513	13.01
2	7.24	Chloride	n.a.	9.4835		3.45739	17.60
3	9.29	Nitrite-N	n.a.	4.9309		3.64434	18.55
5	11.66	Chlorate	n.a.	2.6564		0.31649	1.61
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
8	21.41	Sulfate	n.a.	23.7117		4.81572	24.51
Total:				45.7742	0.000	14.789	75.28

9 WIC100310-02ICV

Sample Name:	WIC100310-02ICV	*Injection Volume:*	50.0
Vial Number:	2	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/11/2010 22:21	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

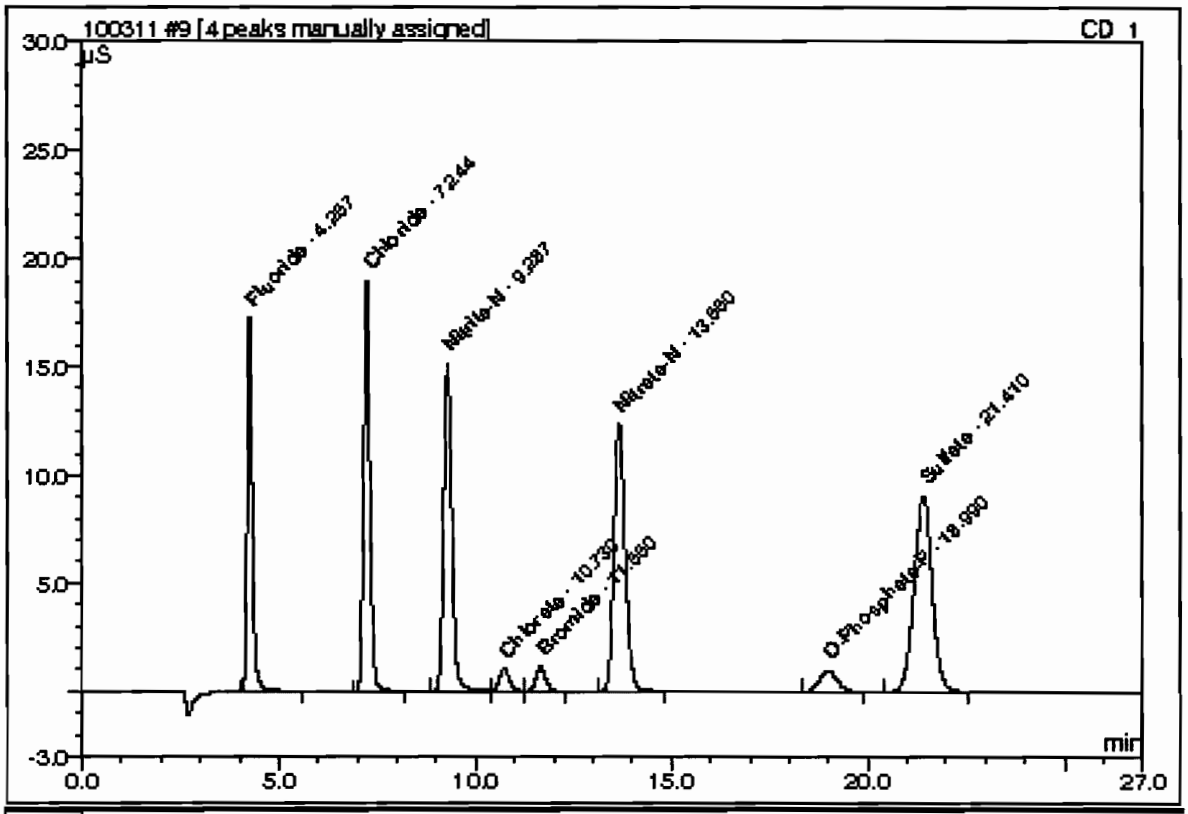

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	4.9917		2.55513	13.01
2	7.24	Chloride	n.a.	9.4835		3.45739	17.60
3	9.29	Nitrite-N	n.a.	4.9309		3.64434	18.55
4	10.73	Chlorate	n.a.	2.4591		0.29257	1.49
5	11.66	Bromide	n.a.	2.4934		0.31649	1.61
6	13.66	Nitrate-N	n.a.	4.8539		4.07196	20.73
7	18.99	O-Phosphate-P	n.a.	2.0014		0.49274	2.51
8	21.41	Sulfate	n.a.	19.7293		4.81572	24.51
Total:				50.9431	0.000	19.646	100.00

9 WIC100310-02ICV

Sample Name:	WIC100310-02ICV	*Injection Volume:*	50.0
Vial Number:	2	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/11/2010 22:21	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

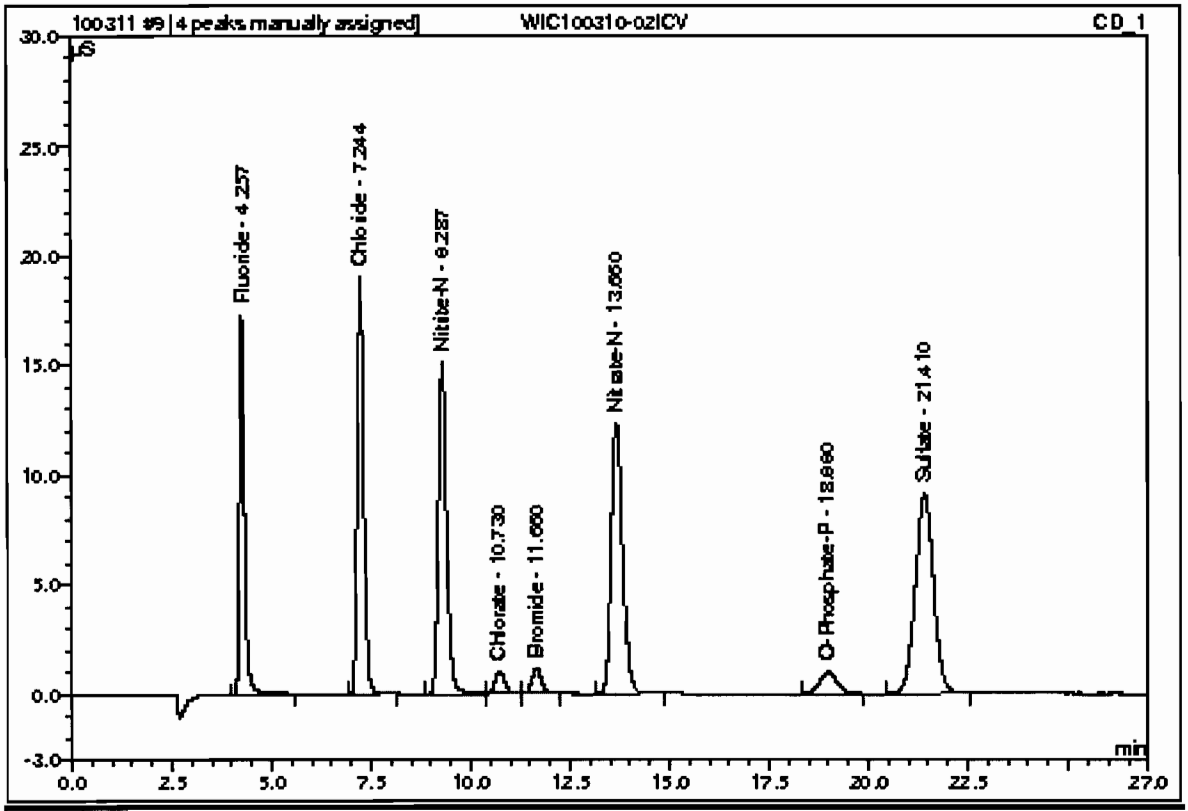

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	4.9917		2.55513	13.01
2	7.24	Chloride	n.a.	9.4835		3.45739	17.60
3	9.29	Nitrite-N	n.a.	4.9309		3.64434	18.55
4	10.73	Chlorate	n.a.	2.4591		0.29257	1.49
5	11.66	Bromide	n.a.	2.4934		0.31649	1.61
6	13.66	Nitrate-N	n.a.	4.8539		4.07196	20.73
7	18.99	O-Phosphate-P	n.a.	0.6673		0.49274	2.51
8	21.41	Sulfate	n.a.	23.7117		4.81572	24.51
Total:				53.5915	0.000	19.646	100.00

10 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/11/2010 22:51	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

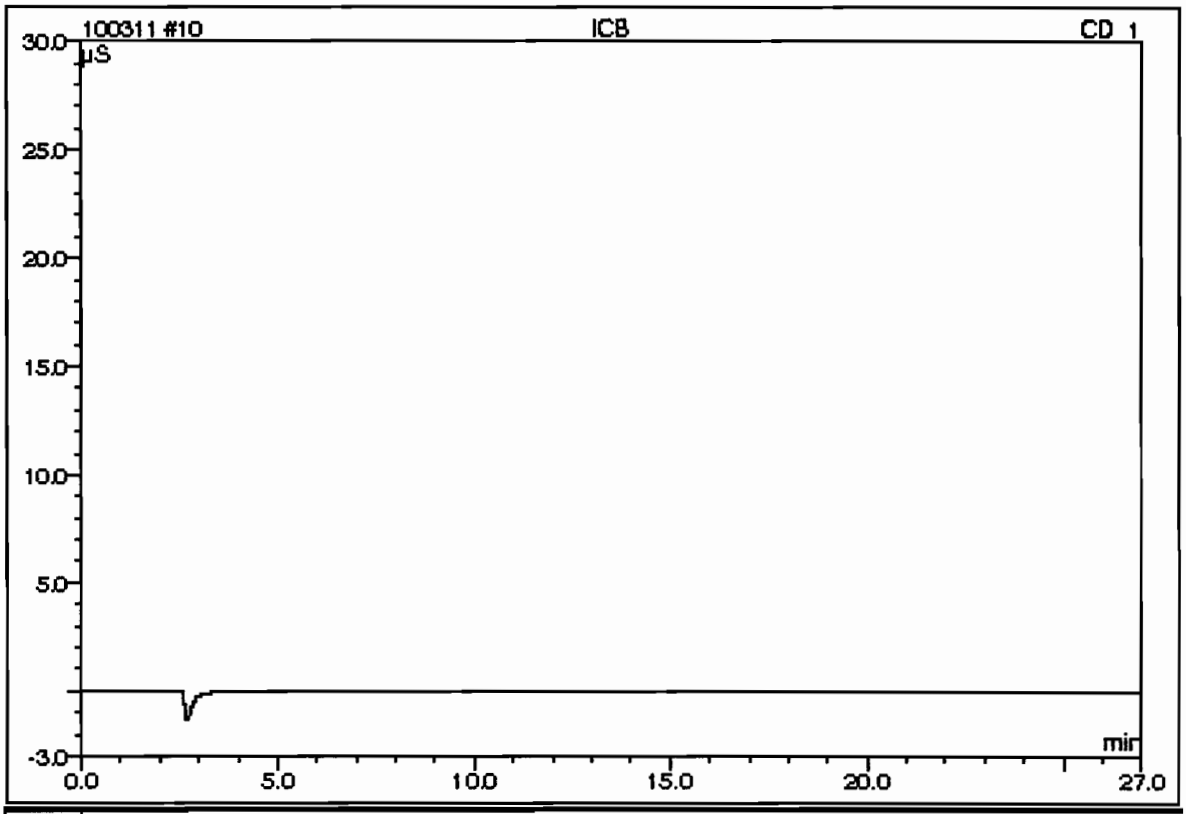

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100311.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
1202061772	03/12/10 00:21	961208	1000	100311	GXM3
248507002	03/12/10 00:51	961208	1000	100311	GXM3
248507003	03/12/10 01:20	961208	1000	100311	GXM3
248507004	03/12/10 01:50	961208	1000	100311	GXM3
248507005	03/12/10 02:20	961208	1000	100311	GXM3
248507006	03/12/10 02:50	961208	1000	100311	GXM3
248507007	03/12/10 03:20	961208	1000	100311	GXM3
248507008	03/12/10 03:50	961208	1000	100311	GXM3
CVH	03/12/10 04:20		1	100311	GXM3
CCB	03/12/10 04:50		1	100311	GXM3
248507009	03/12/10 05:20	961208	1000	100311	GXM3
248507010	03/12/10 05:50	961208	1000	100311	GXM3
248507011	03/12/10 06:20	961208	1000	100311	GXM3
248507012	03/12/10 06:49	961208	100	100311	GXM3
248507013	03/12/10 07:19	961208	100	100311	GXM3
248507014	03/12/10 07:49	961208	100	100311	GXM3
248507015	03/12/10 08:19	961208	1000	100311	GXM3
248507016	03/12/10 08:49	961208	1000	100311	GXM3
248507017	03/12/10 09:19	961208	1000	100311	GXM3
248507018	03/12/10 09:49	961208	1000	100311	GXM3
CCV	03/12/10 10:19		1	100311	GXM3
CCB	03/12/10 10:49		1	100311	GXM3
1202061769	03/12/10 11:19	961208	1	100311	GXM3
1202061774	03/12/10 11:48	961208	1	100311	GXM3
248507007	03/12/10 12:18	961208	10	100311	GXM3
248507008	03/12/10 12:48	961208	10	100311	GXM3
248507013	03/12/10 13:18	961208	5	100311	GXM3
248507019	03/12/10 13:48	961208	5	100311	GXM3

CVH	03/12/10	14:18		1	100311	GXM3
CCB	03/12/10	14:48		1	100311	GXM3
247531001	03/12/10	15:18	963216	200	100311	GXM3
1202066382	03/12/10	15:47	963216	200	100311	GXM3
1202066383	03/12/10	16:17	963216	200	100311	GXM3
CCV	03/12/10	16:47		1	100311	GXM3
CCB	03/12/10	17:17		1	100311	GXM3
1202068820	03/12/10	17:47	964332	1	100311	GXM3
1202068821	03/12/10	18:17	964332	1	100311	GXM3
248953001	03/12/10	18:47	964332	1	100311	GXM3
1202068822	03/12/10	19:17	964332	1	100311	GXM3
1202068823	03/12/10	19:47	964332	1	100311	GXM3
CVH	03/12/10	20:16		1	100311	GXM3
CCB	03/12/10	20:46		1	100311	GXM3
247261004	03/12/10	21:16	963224	1	100311	GXM3
1202066400	03/12/10	21:46	963224	1	100311	GXM3
1202066401	03/12/10	22:16	963224	1	100311	GXM3
247431002	03/12/10	22:46	963224	1	100311	GXM3
247817001	03/12/10	23:16	963224	1	100311	GXM3
247829001	03/12/10	23:46	963224	1	100311	GXM3

53 WIC100311-02CVH

Sample Name:	WIC100311-02CVH	*Injection Volume:*	50.0
Vial Number:	46	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/12/2010 20:16	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

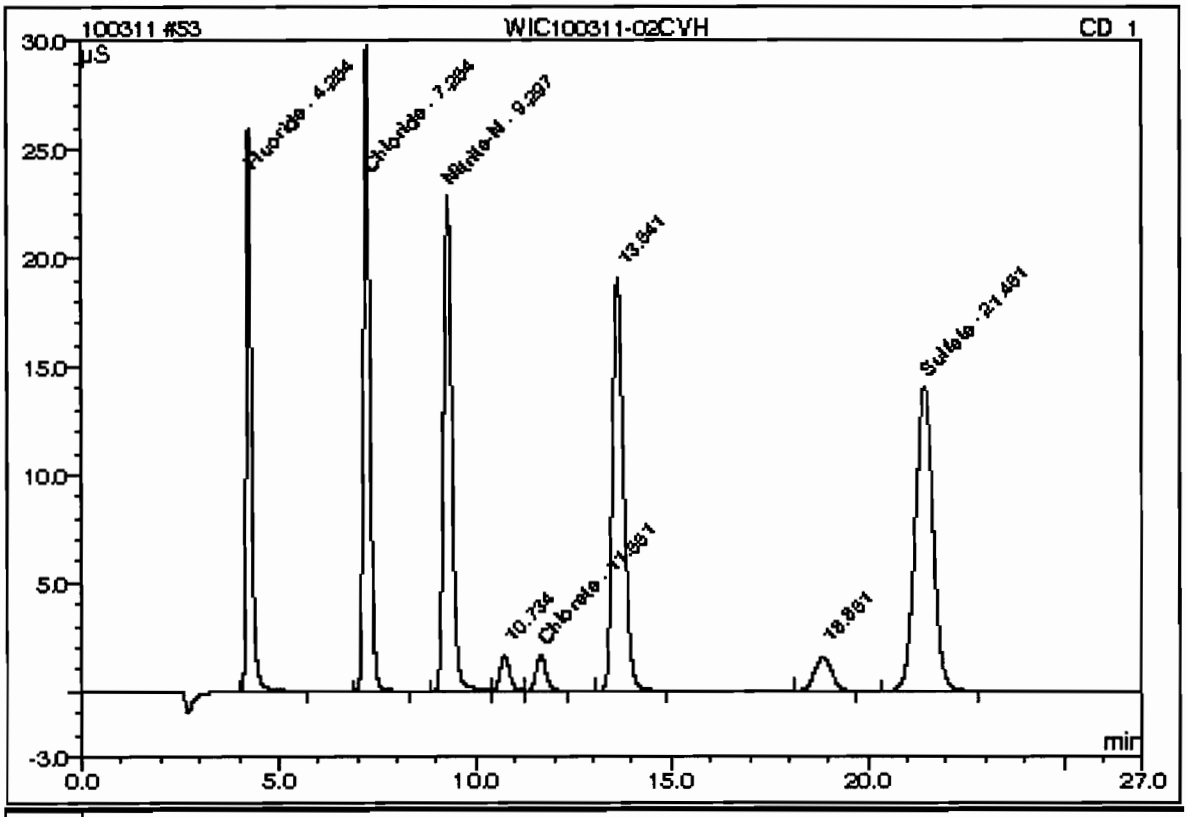

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	7.5030		3.85198	12.77
2	7.25	Chloride	n.a.	14.6759		5.38097	17.84
3	9.30	Nitrite-N	n.a.	7.4310		5.51831	18.29
5	11.66	Chlorate	n.a.	4.0220		0.48204	1.60
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
8	21.45	Sulfate	n.a.	30.1294		7.39535	24.52
Total:				63.7613	0.000	22.629	75.02

54 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	47	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/12/2010 20:46	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

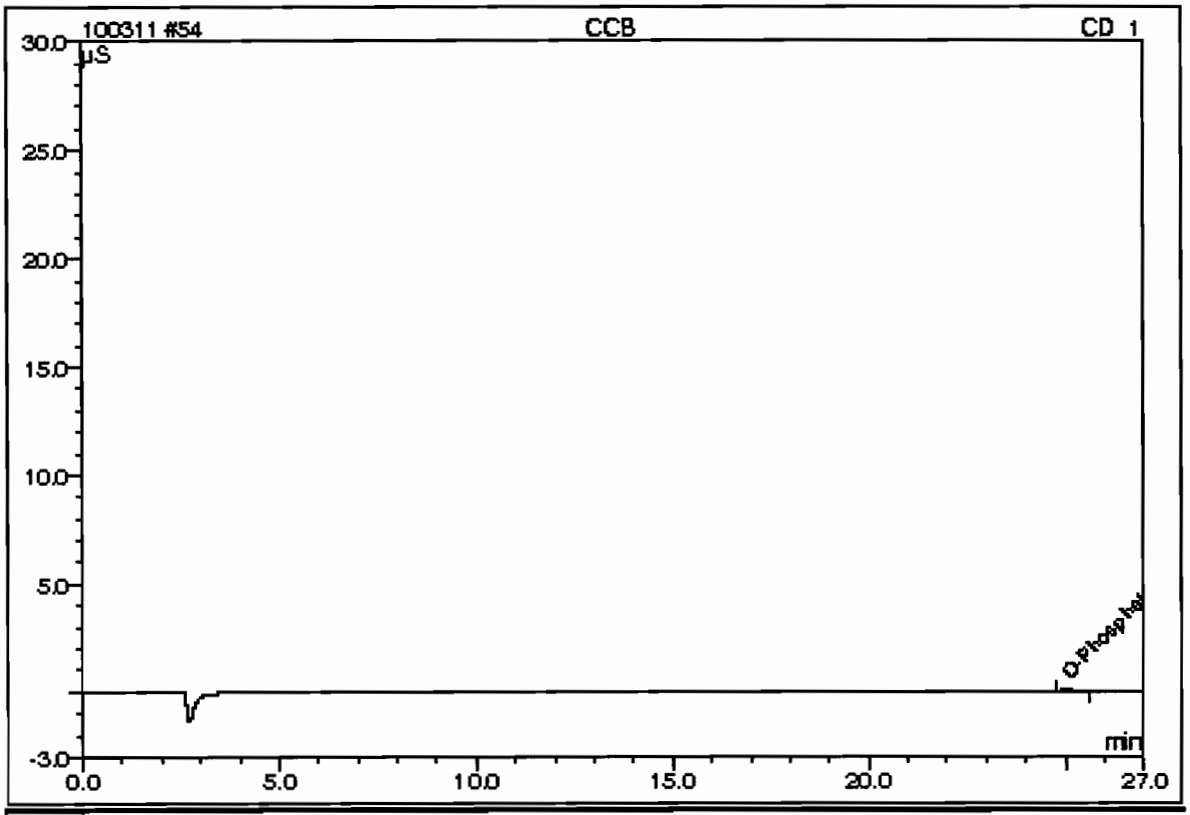

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
1	24.99	O-Phosphate-P	n.a.	0.1670		0.01898	100.00
Total:				0.1670	0.000	0.019	100.00

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Version 6.80 SR7 Build 2528 (148369)

55 247261004/963224/1/2/

Sample Name:	247261004/963224/1/2/	*Injection Volume:*	50.0
Vial Number:	48	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/12/2010 21:16	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

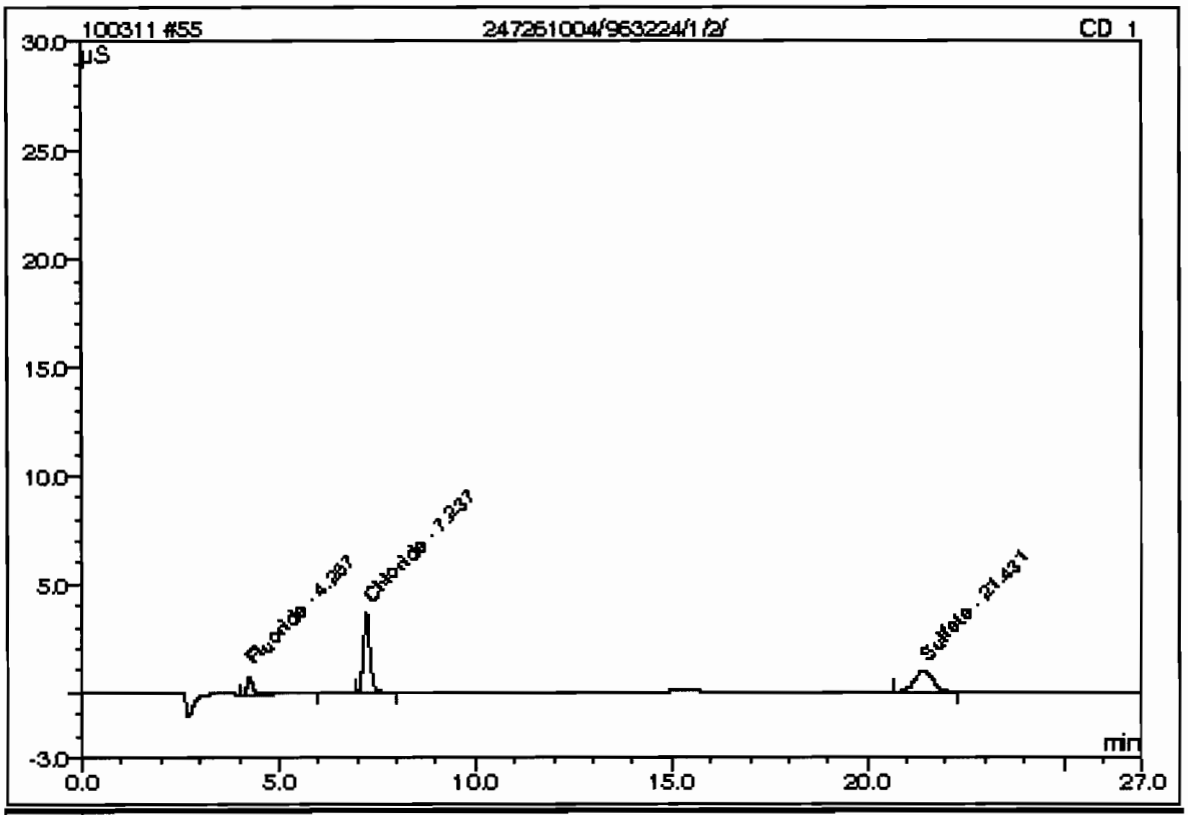

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.4935		0.23236	16.05
2	7.24	Chloride	n.a.	2.0357		0.69828	48.22
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	21.43	Sulfate	n.a.	2.4005		0.51749	35.74
Total:				4.9297	0.000	1.448	100.00

56 1202066400/963224/1/2/DUP

Sample Name:	1202066400/963224/1/2/DUP	*Injection Volume:*	50.0
Vial Number:	49	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/12/2010 21:46	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

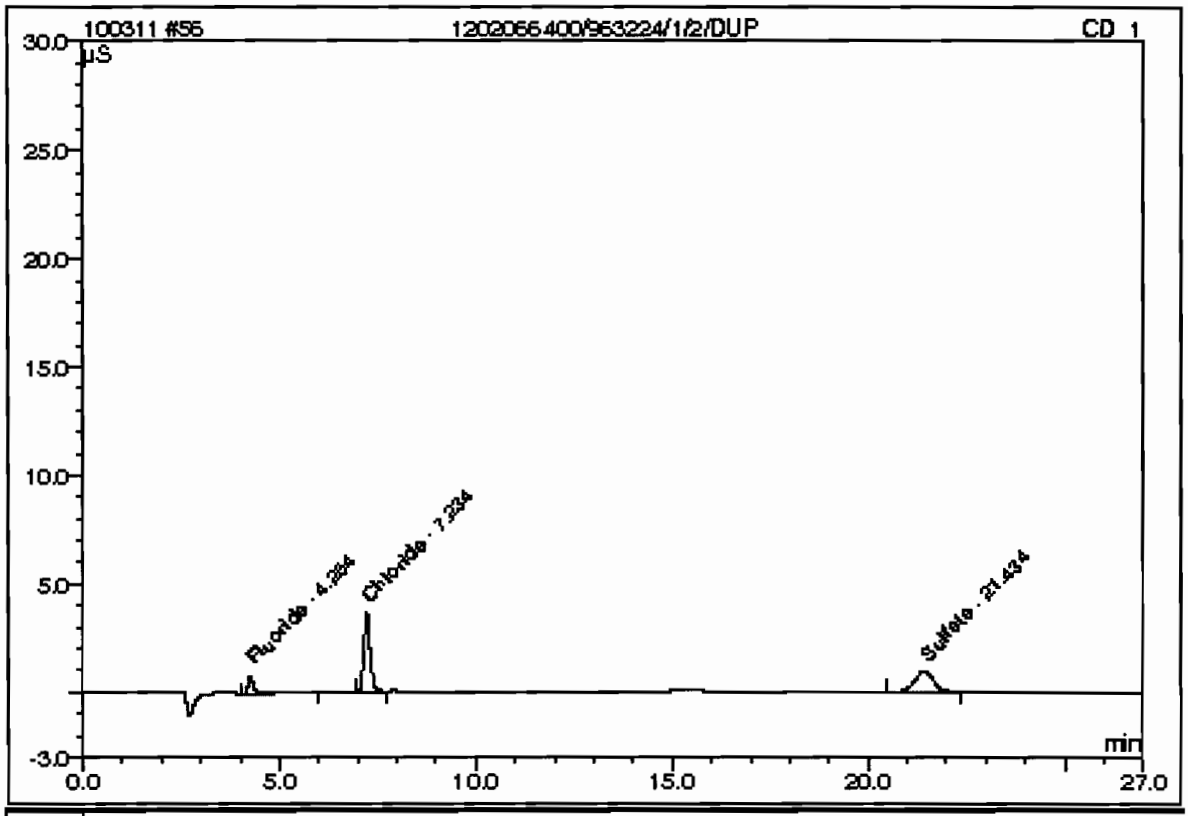

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	0.4924		0.23176	16.10
2	7.23	Chloride	n.a.	2.0092		0.68845	47.83
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	21.43	Sulfate	n.a.	2.4072		0.51917	36.07
Total:				4.9088	0.000	1.439	100.00

57 1202066401/963224/1/2/PS

Sample Name:	1202066401/963224/1/2/PS	*Injection Volume:*	50.0
Vial Number:	50	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/12/2010 22:16	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

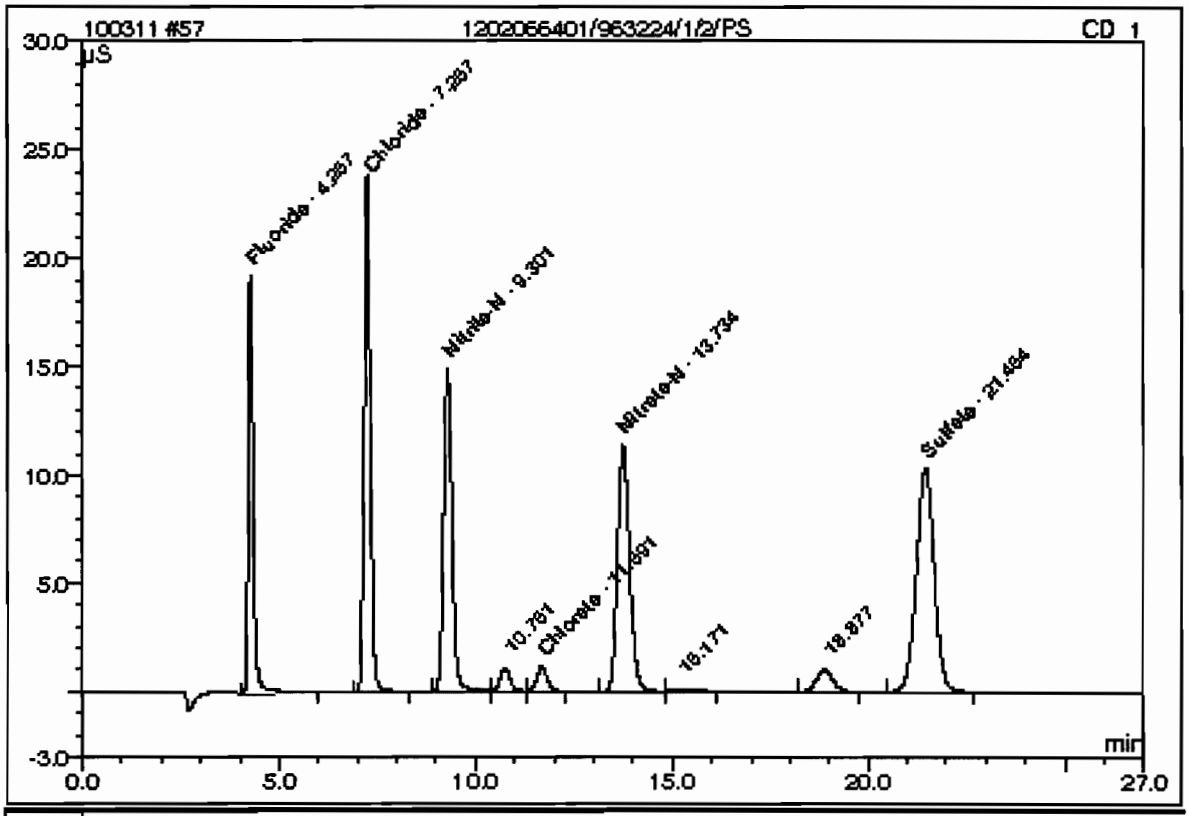

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.27	Fluoride	n.a.	5.4994		2.81731	13.08
2	7.26	Chloride	n.a.	11.9611		4.37523	20.31
3	9.30	Nitrite-N	n.a.	4.9488		3.65779	16.98
5	11.69	Chlorate	n.a.	2.7767		0.33107	1.54
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
6	13.73	Nitrate-N	n.a.	4.8457		4.06496	18.87
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
9	21.46	Sulfate	n.a.	22.2918		5.45132	25.30
Total:				52.3235	0.000	20.698	96.06

59 247817001/963224/1/2/

Sample Name:	247817001/963224/1/2/	*Injection Volume:*	50.0
Vial Number:	2	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/12/2010 23:16	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

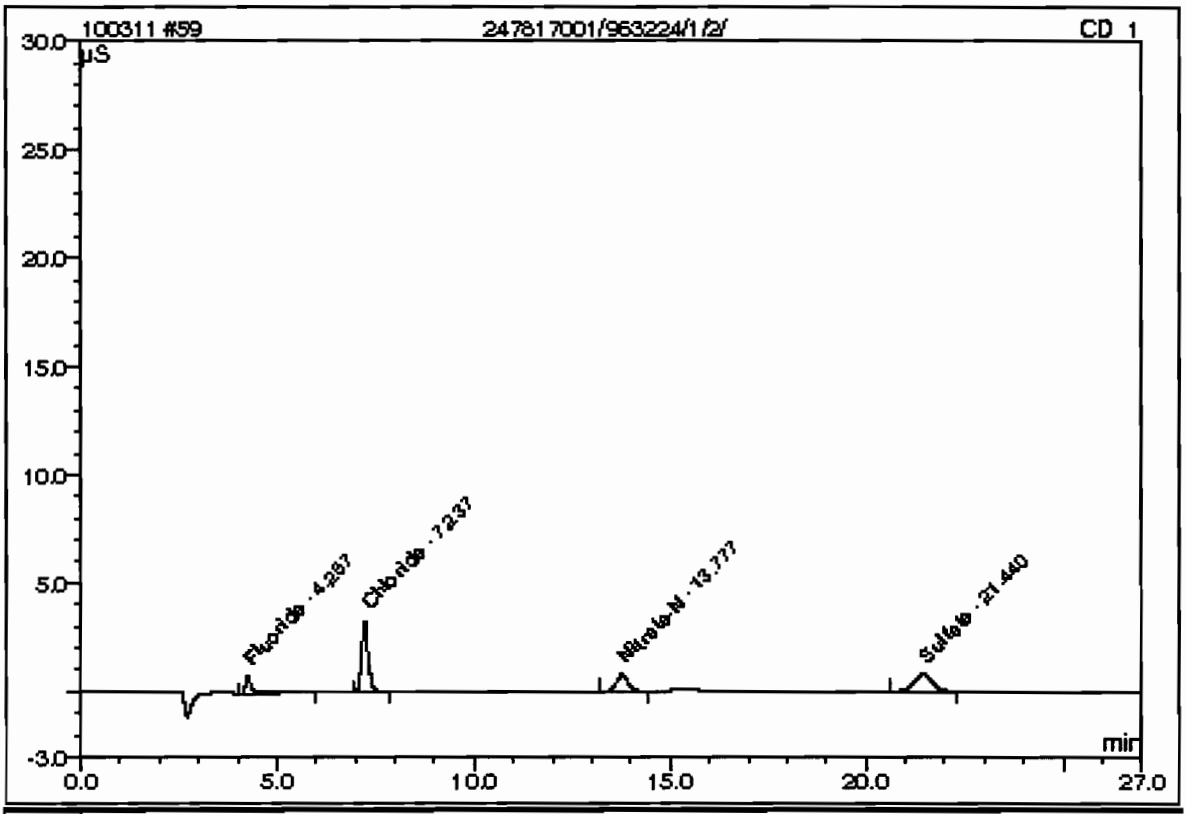

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.4860		0.22850	14.72
2	7.24	Chloride	n.a.	1.8284		0.62148	40.05
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.78	Nitrate-N	n.a.	0.4179		0.27227	17.54
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	21.44	Sulfate	n.a.	2.0463		0.42966	27.69
Total:				4.7787	0.000	1.552	100.00

This is runlog for Sequence 100311.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
248024002	03/13/10 00:16	963224	1	100311	GXM3
248024004	03/13/10 00:46	963224	1	100311	GXM3
248024002	03/13/10 01:15	963224	20	100311	GXM3
248024004	03/13/10 01:45	963224	20	100311	GXM3
CCV	03/13/10 02:15		1	100311	GXM3
CCB	03/13/10 02:45		1	100311	GXM3
BLK	03/13/10 03:45		1	100311	GXM3
BLK	03/13/10 04:15		1	100311	GXM3
BLK	03/13/10 04:45		1	100311	GXM3

65 WIC100311-02CCV

Sample Name:	WIC100311-02CCV	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/13/2010 2:15	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

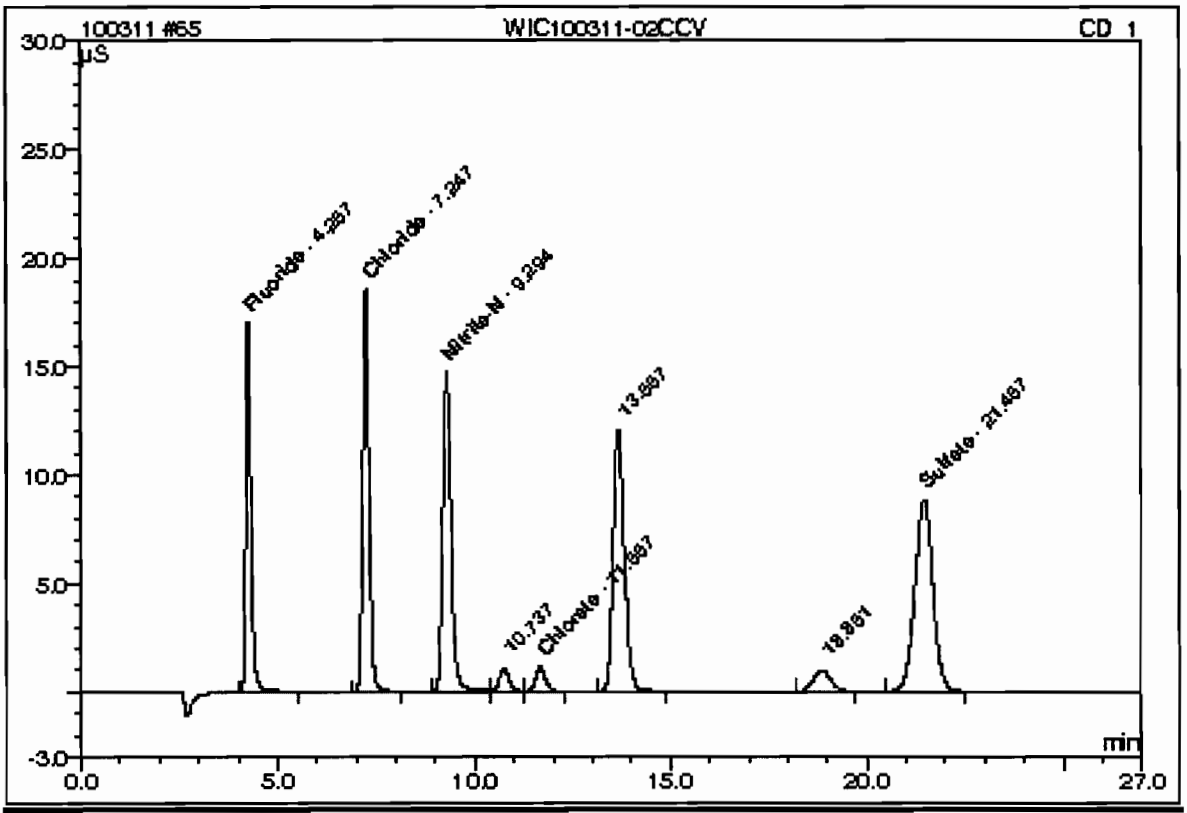

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	4.8754		2.49510	12.97
2	7.25	Chloride	n.a.	9.2695		3.37810	17.57
3	9.29	Nitrite-N	n.a.	4.8263		3.56598	18.54
5	11.67	Chlorate	n.a.	2.6726		0.31845	1.66
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
8	21.46	Sulfate	n.a.	19.2910		4.70700	24.48
Total:				40.9347	0.000	14.465	75.22

66 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/13/2010 2:45	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

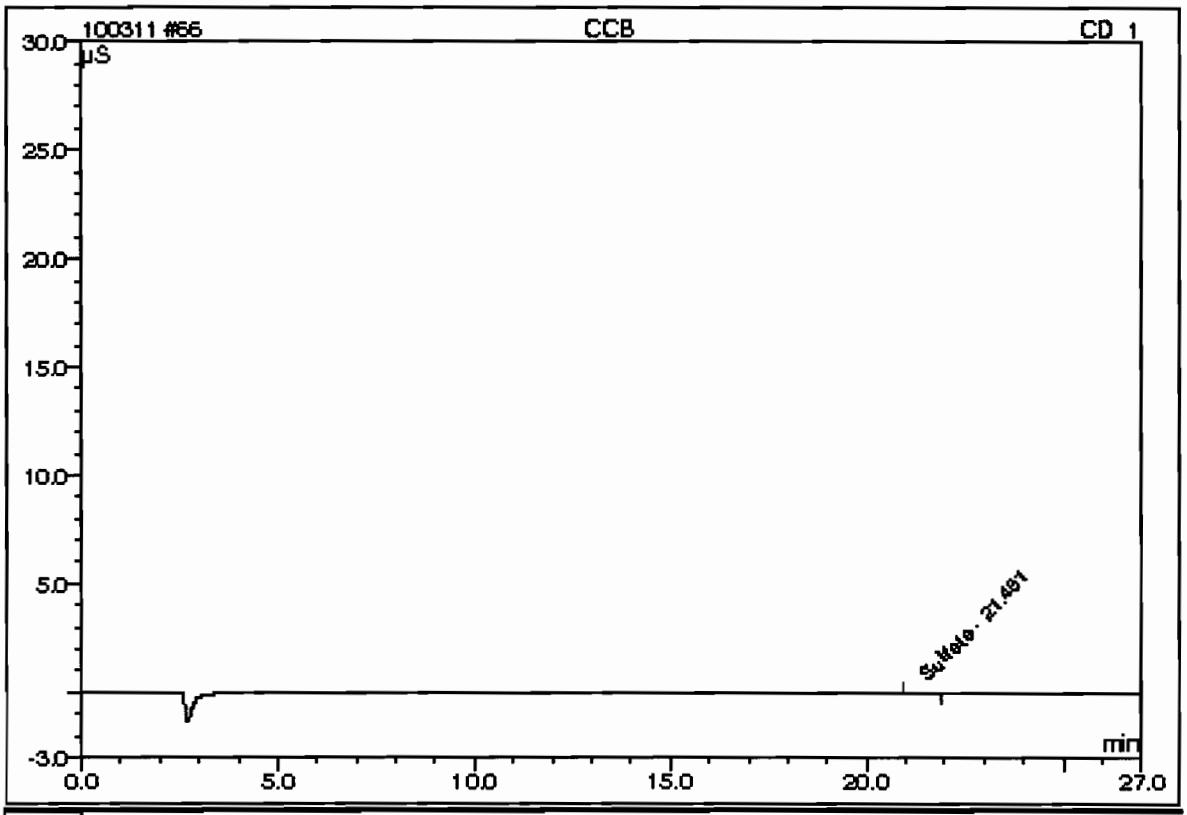

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
1	21.46	Sulfate	n.a.	0.3616		0.01177	100.00
Total:				0.3616	0.000	0.012	100.00

This is runlog for Sequence 100321.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	03/17/10 09:15		1	100321	GXM3
ICAL-06	03/17/10 09:45		1	100321	GXM3
ICAL-05	03/17/10 10:15		1	100321	GXM3
ICAL-04	03/17/10 10:45		1	100321	GXM3
ICAL-03	03/17/10 11:15		1	100321	GXM3
ICAL-02	03/17/10 11:45		1	100321	GXM3
ICAL-01	03/17/10 13:14		1	100321	GXM3

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 9:15	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC B086;300;9056

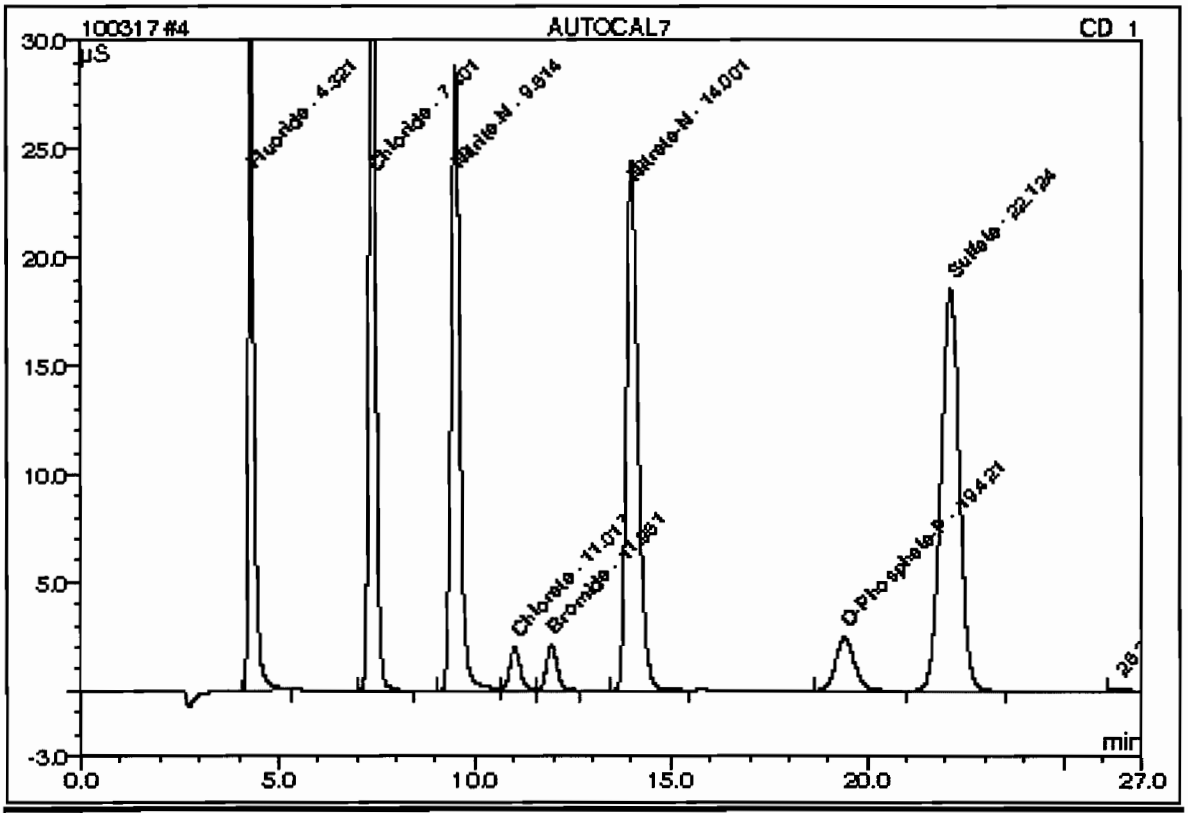

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.32	Fluoride	10.0000	10.0024		5.01638	12.24
2	7.40	Chloride	20.0000	20.0097		7.37427	18.00
3	9.51	Nitrite-N	10.0000	10.0083		7.36725	17.98
4	11.02	Chlorate	5.0000	5.0490		0.60961	1.49
5	11.96	Bromide	5.0000	5.0206		0.64557	1.58
6	14.00	Nitrate-N	10.0000	10.0123		8.56118	20.89
7	19.42	O-Phosphate-P	5.0000	5.0000		1.32928	3.24
8	22.12	Sulfate	40.0000	40.0384		10.04798	24.52
Total:				105.1408	0.000	40.952	99.94

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 9:45	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

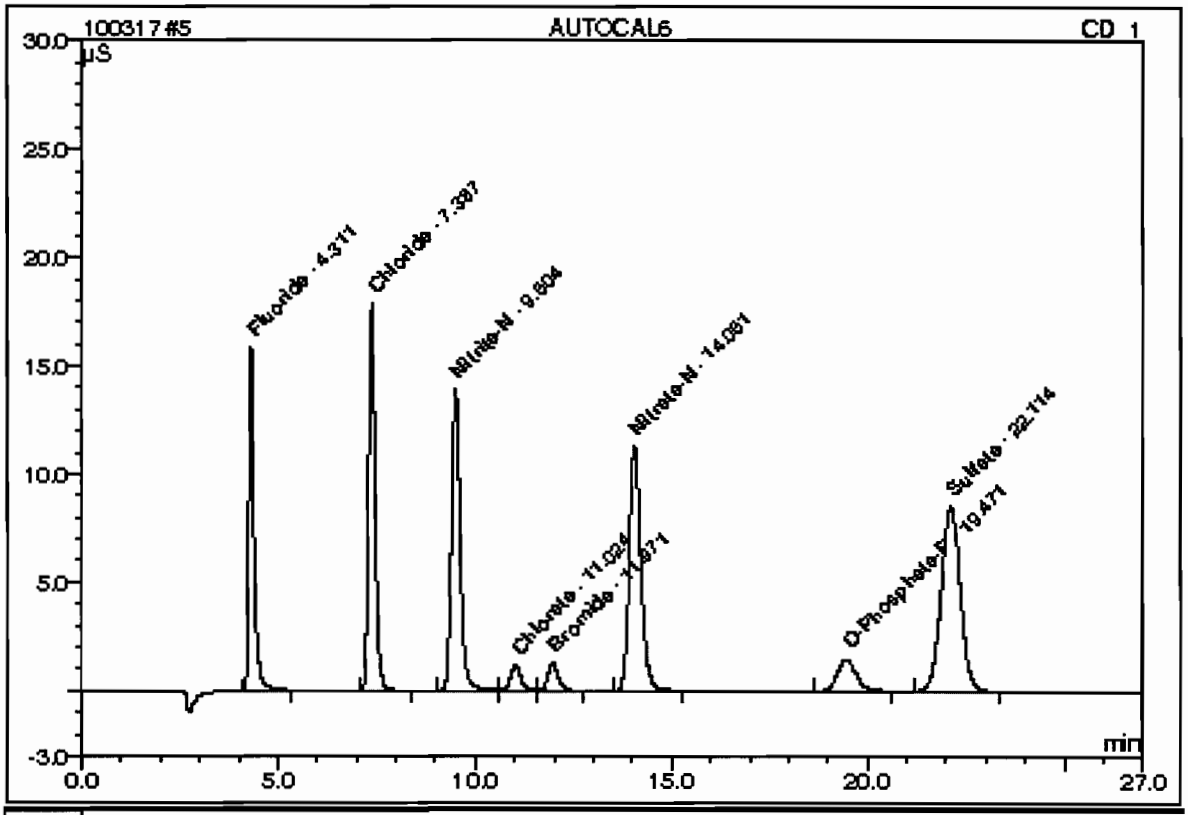

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.31	Fluoride	5.0000	4.8820		2.42594	12.44
2	7.39	Chloride	10.0000	9.3500		3.36519	17.26
3	9.50	Nitrite-N	5.0000	4.8693		3.54551	18.19
4	11.02	Chlorate	3.0000	2.9878		0.36137	1.85
5	11.97	Bromide	3.0000	2.9986		0.38556	1.98
6	14.05	Nitrate-N	5.0000	4.7145		3.94401	20.23
7	19.47	O-Phosphate-P	3.0000	2.9536		0.77886	4.00
8	22.11	Sulfate	20.0000	19.0326		4.68879	24.05
Total:				51.7885	0.000	19.495	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 10:15	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

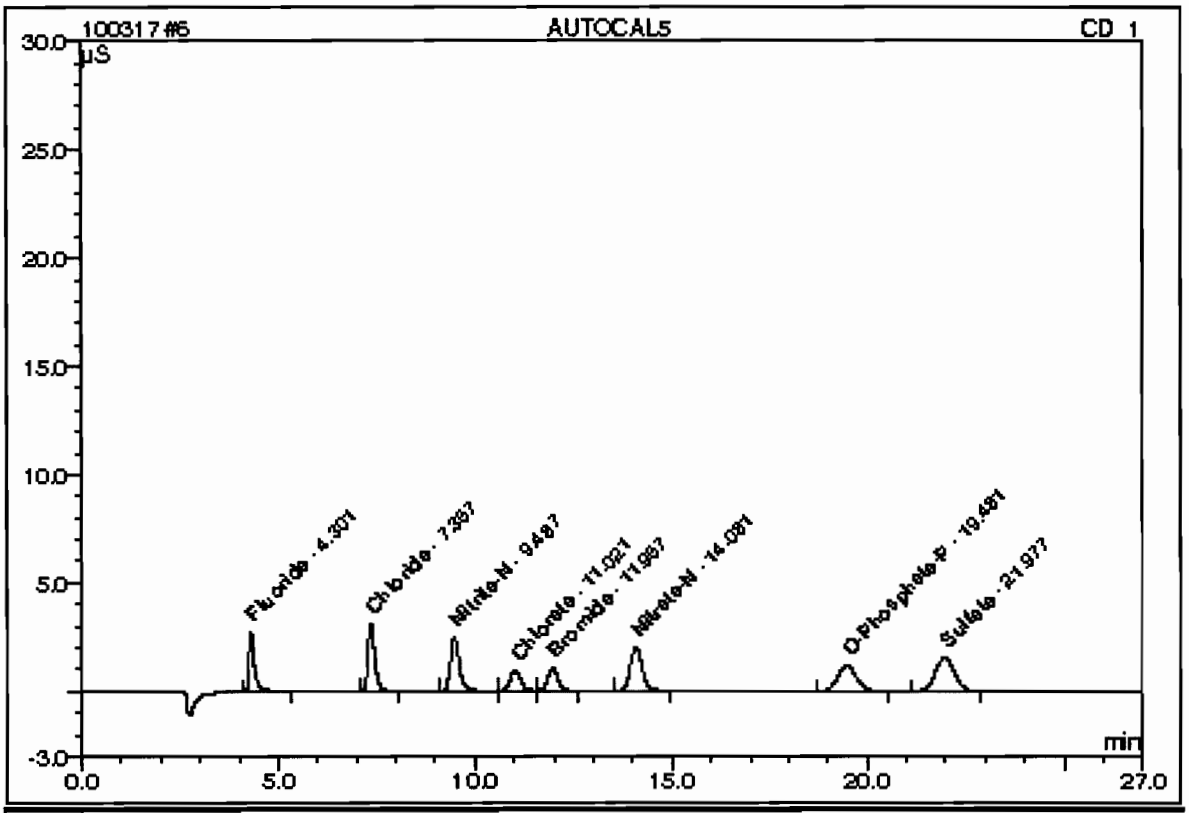

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	1.0000	0.9378		0.44618	9.89
2	7.37	Chloride	2.0000	1.8432		0.61004	13.52
3	9.49	Nitrite-N	1.0000	0.9327		0.64234	14.24
4	11.02	Chlorate	2.5000	2.3781		0.28403	6.30
5	11.97	Bromide	2.5000	2.4513		0.31361	6.95
6	14.08	Nitrate-N	1.0000	0.9208		0.70455	15.62
7	19.48	O-Phosphate-P	2.5000	2.4823		0.65221	14.46
8	21.98	Sulfate	4.0000	3.7504		0.85753	19.01
Total:				15.6967	0.000	4.511	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 10:45	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

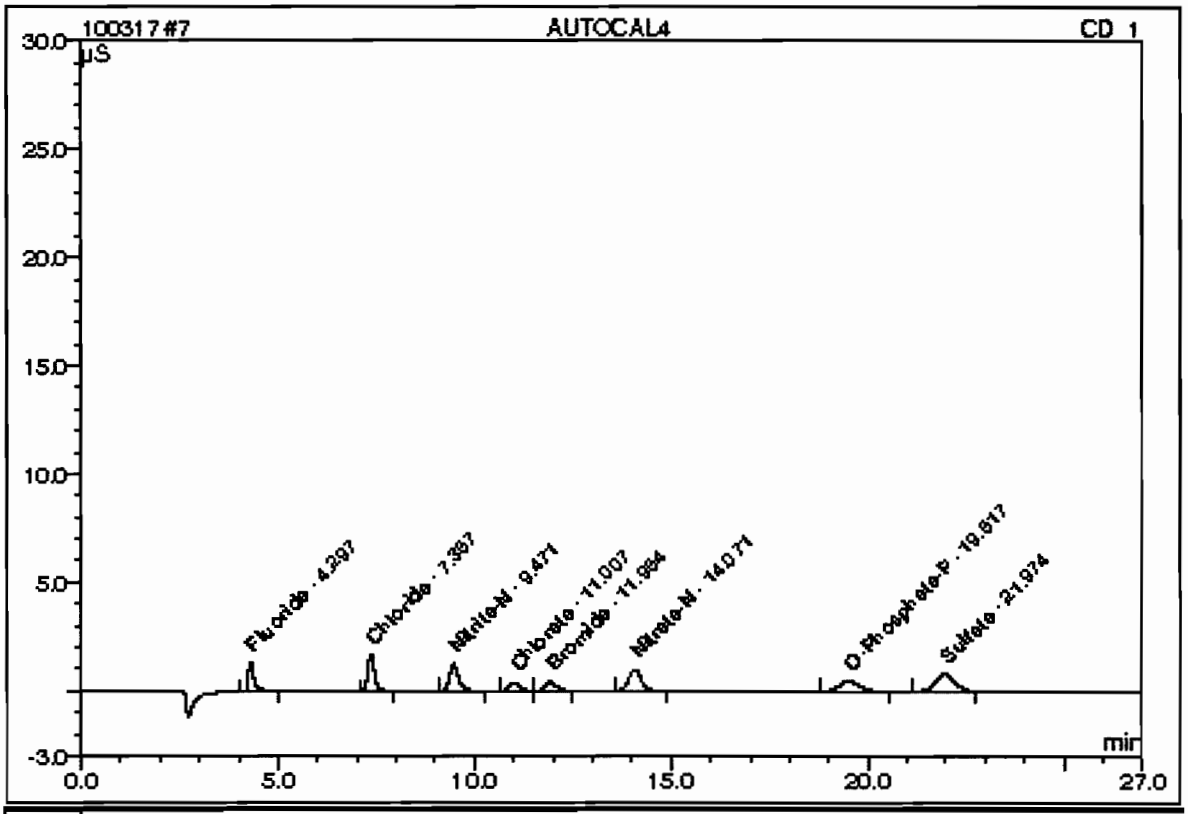

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	0.5000	0.4925		0.21806	10.30
2	7.36	Chloride	1.0000	1.0806		0.32478	15.34
3	9.47	Nitrite-N	0.5000	0.4940		0.31326	14.80
4	11.01	Chlorate	1.0000	0.9498		0.10869	5.13
5	11.95	Bromide	1.0000	0.9722		0.12171	5.75
6	14.07	Nitrate-N	0.5000	0.5111		0.34644	16.36
7	19.52	O-Phosphate-P	1.0000	0.9993		0.25849	12.21
8	21.97	Sulfate	2.0000	2.0534		0.42575	20.11
Total:				7.5529	0.000	2.117	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 11:15	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

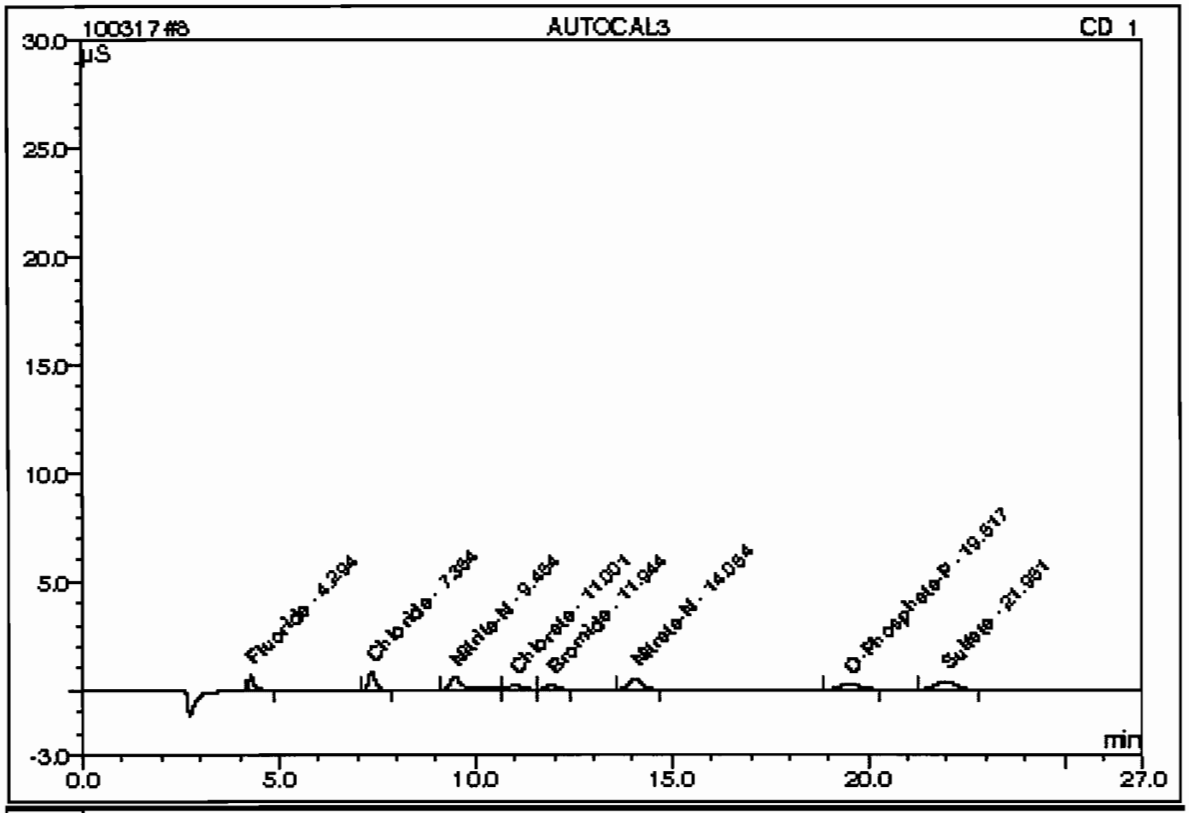

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	0.2500	0.2772		0.10608	9.31
2	7.35	Chloride	0.5000	0.6486		0.16371	14.36
3	9.46	Nitrite-N	0.2500	0.3510		0.21960	19.26
4	11.00	Chlorate	0.5000	0.6270		0.07382	6.48
5	11.94	Bromide	0.5000	0.5232		0.06434	5.64
6	14.06	Nitrate-N	0.2500	0.3124		0.17066	14.97
7	19.52	O-Phosphate-P	0.5000	0.5128		0.13076	11.47
8	21.96	Sulfate	1.0000	1.2128		0.21096	18.51
Total:				4.4648	0.000	1.140	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 11:45	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

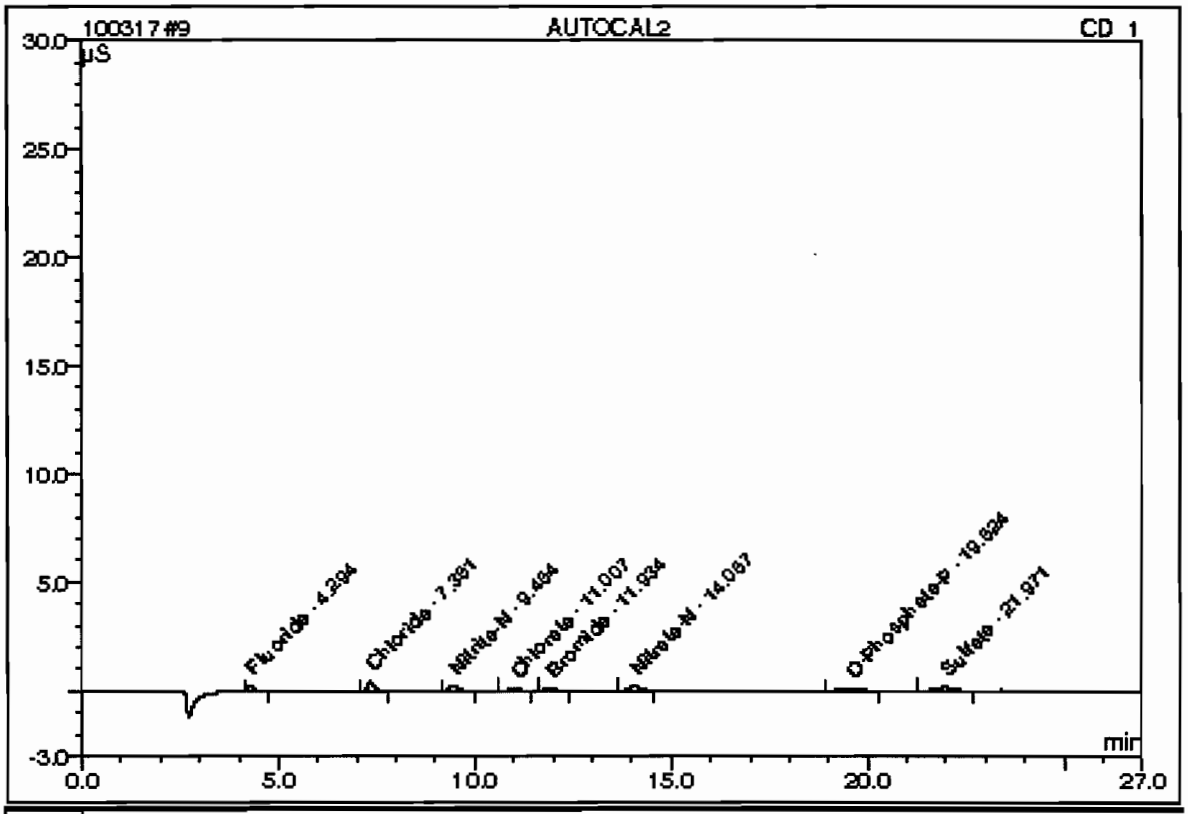

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	0.1000	0.1392		0.04186	9.37
2	7.35	Chloride	0.2000	0.3749		0.07965	17.83
3	9.46	Nitrite-N	0.1000	0.1279		0.06080	13.61
4	11.01	Chlorate	0.2000	0.1981		0.02196	4.92
5	11.93	Bromide	0.2000	0.2157		0.02531	5.67
6	14.07	Nitrate-N	0.1000	0.1723		0.06679	14.95
7	19.52	O-Phosphate-P	0.2000	0.2351		0.06039	13.52
8	21.97	Sulfate	0.4000	0.6629		0.08998	20.14
Total:				2.1261	0.000	0.447	100.00

10 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 13:14	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

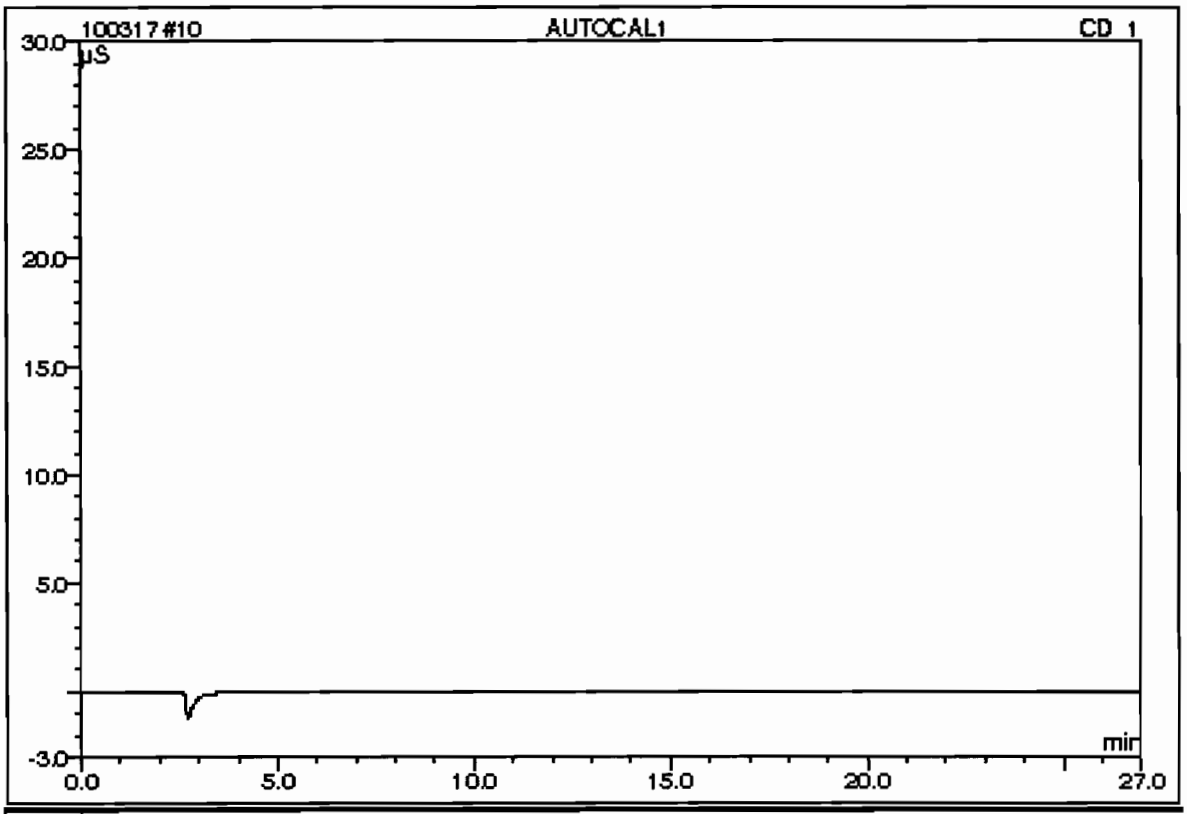

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

10 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 13:14	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002714;GLGCE086;300;9056

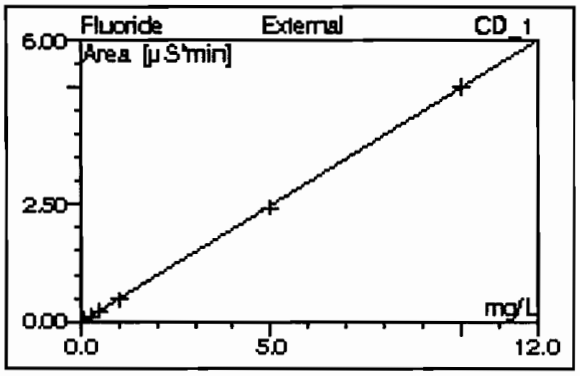

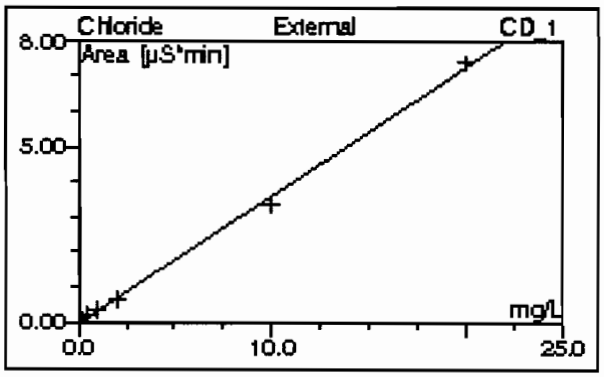

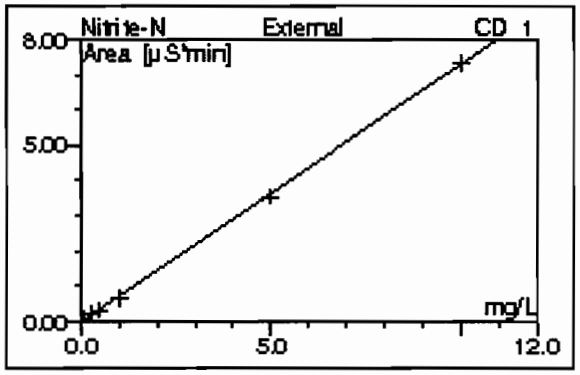

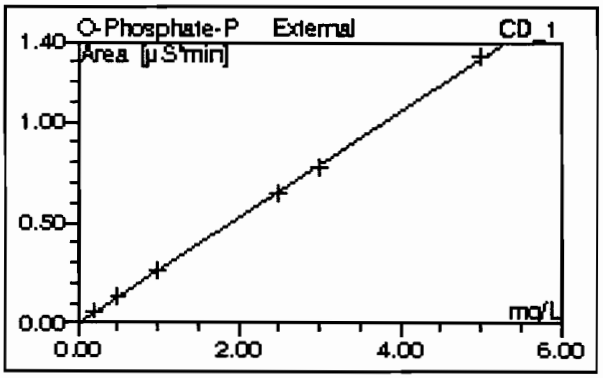

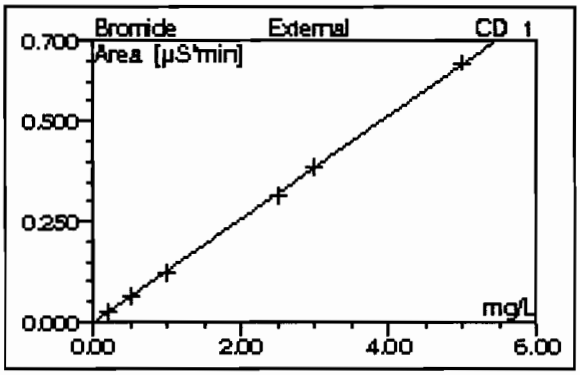

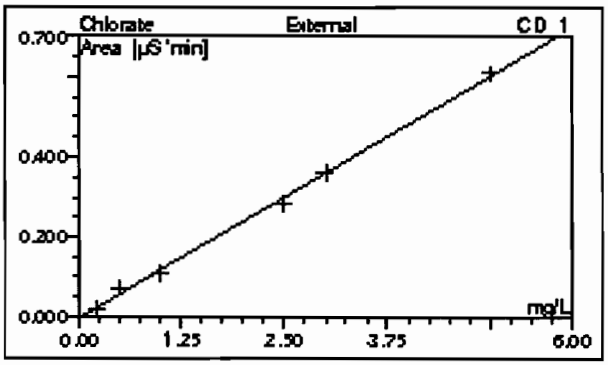

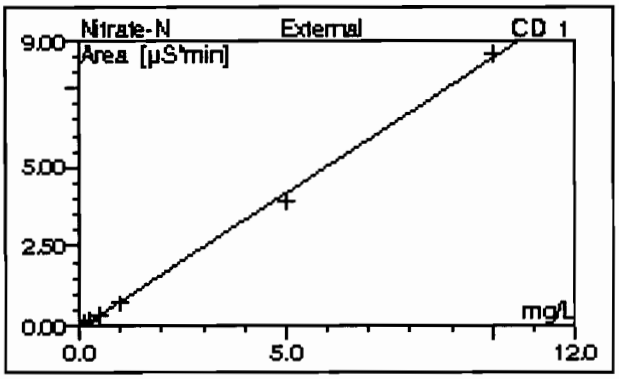

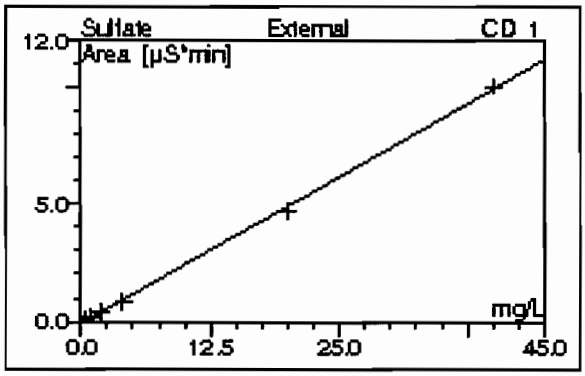

No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	0LO11	99.9751	-0.0280	0.5015	0.0000
n.a.	n.a.	Chloride	0LO11	99.8150	-0.0574	0.3656	0.0000
n.a.	n.a.	Nitrite-N	0LO11	99.9510	-0.0332	0.7348	0.0000
n.a.	n.a.	Chlorate	0LO11	99.7338	-0.0020	0.1208	0.0000
n.a.	n.a.	Bromide	0LO11	99.9700	-0.0025	0.1290	0.0000
n.a.	n.a.	Nitrate-N	0LO11	99.8613	-0.0800	0.8518	0.0000
n.a.	n.a.	O-Phosphate-P	0LO11	99.9667	-0.0017	0.2641	0.0000
n.a.	n.a.	Sulfate	0LO11	99.8983	-0.0758	0.2500	0.0000
Average:				99.8964	-0.0351	0.4022	0.0000

This is runlog for Sequence 100317.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/17/10 08:45		1	100317	GXM3
ICAL-07	03/17/10 09:15		1	100317	GXM3
ICAL-06	03/17/10 09:45		1	100317	GXM3
ICAL-05	03/17/10 10:15		1	100317	GXM3
ICAL-04	03/17/10 10:45		1	100317	GXM3
ICAL-03	03/17/10 11:15		1	100317	GXM3
ICAL-02	03/17/10 11:45		1	100317	GXM3
ICAL-01	03/17/10 13:14		1	100317	GXM3
ICV	03/17/10 13:43		1	100317	GXM3
ICB	03/17/10 14:12		1	100317	GXM3
1202066399	03/17/10 14:42	963224	1	100317	GXM3
1202066402	03/17/10 15:11	963224	1	100317	GXM3
247261004	03/17/10 15:41	963224	1	100317	GXM3
1202066400	03/17/10 16:11	963224	1	100317	GXM3
1202066401	03/17/10 16:41	963224	1	100317	GXM3
247431002	03/17/10 17:10	963224	1	100317	GXM3
247817001	03/17/10 17:40	963224	1	100317	GXM3
247829001	03/17/10 18:10	963224	1	100317	GXM3
248024002	03/17/10 18:40	963224	1	100317	GXM3
248024004	03/17/10 19:10	963224	1	100317	GXM3
CVH	03/17/10 19:40		1	100317	GXM3
CCB	03/17/10 20:10		1	100317	GXM3
1202063619	03/17/10 20:39	962082	1	100317	GXM3
1202063626	03/17/10 21:09	962082	1	100317	GXM3
248666001	03/17/10 21:39	962082	1	100317	GXM3
1202063620	03/17/10 22:09	962082	1	100317	GXM3
1202063622	03/17/10 22:39	962082	1	100317	GXM3
1202063624	03/17/10 23:09	962082	1	100317	GXM3

17 WIC100317-02ICV

Sample Name:	WIC100317-02ICV	*Injection Volume:*	50.0
Vial Number:	11	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 13:43	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

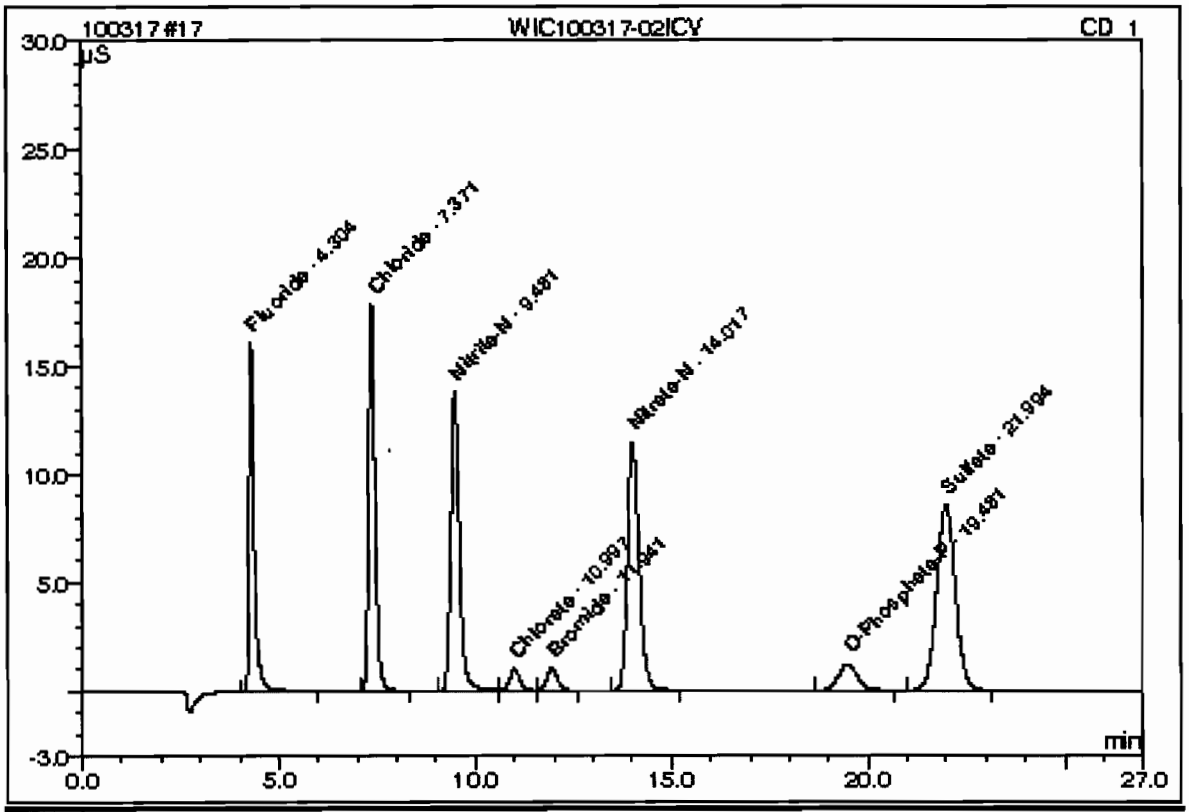

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	4.9617		2.46032	12.79
2	7.37	Chloride	n.a.	9.3464		3.35930	17.46
3	9.48	Nitrite-N	n.a.	4.8136		3.50372	18.21
4	11.00	Chlorate	n.a.	2.4909		0.29883	1.55
5	11.94	Bromide	n.a.	2.4926		0.31900	1.66
6	14.02	Nitrate-N	n.a.	4.7581		3.97314	20.65
7	19.48	O-Phosphate-P	n.a.	2.5072		0.66041	3.43
8	21.99	Sulfate	n.a.	18.9605		4.66474	24.25
Total:				50.3309	0.000	19.239	100.00

18 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	12	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 14:12	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

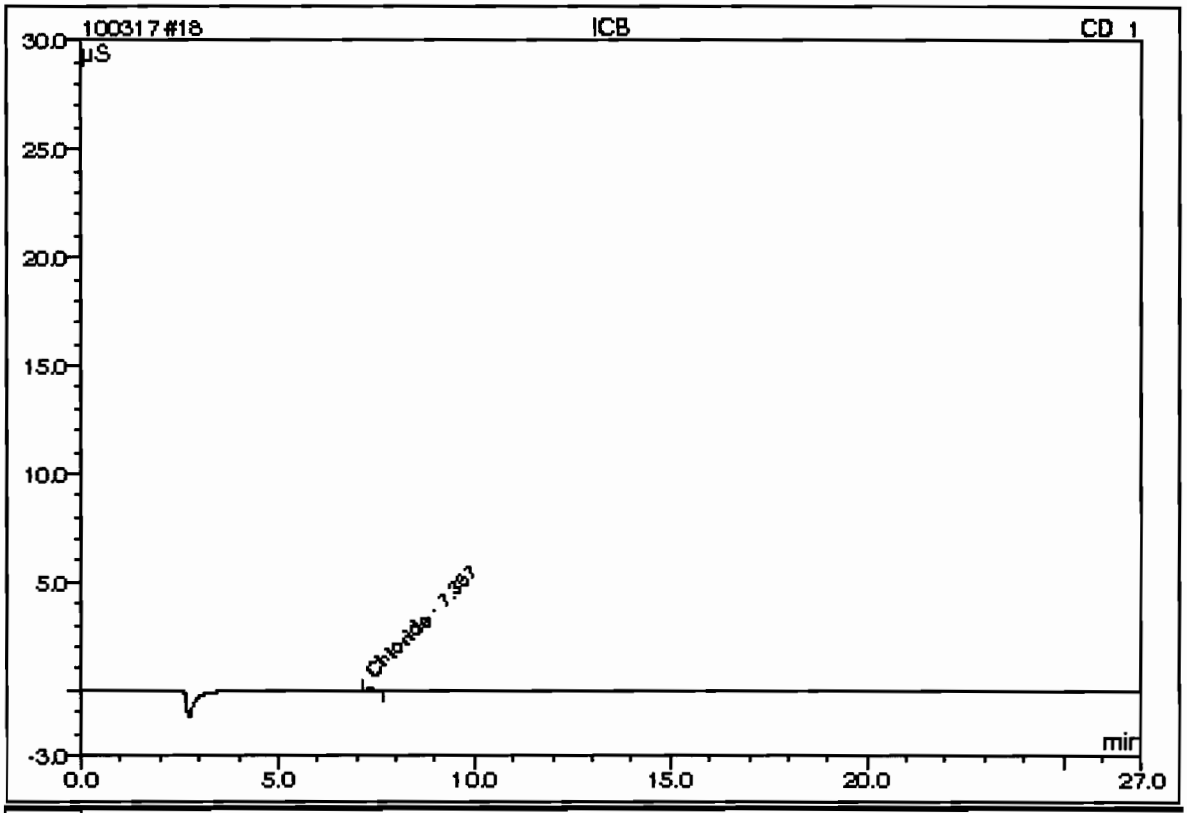

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.36	Chloride	n.a.	0.1862		0.01068	100.00
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.1862	0.000	0.011	100.00

19 1202066399/963224/1/2/MB

Sample Name:	1202066399/963224/1/2/MB	*Injection Volume:*	50.0
Vial Number:	13	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 14:42	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

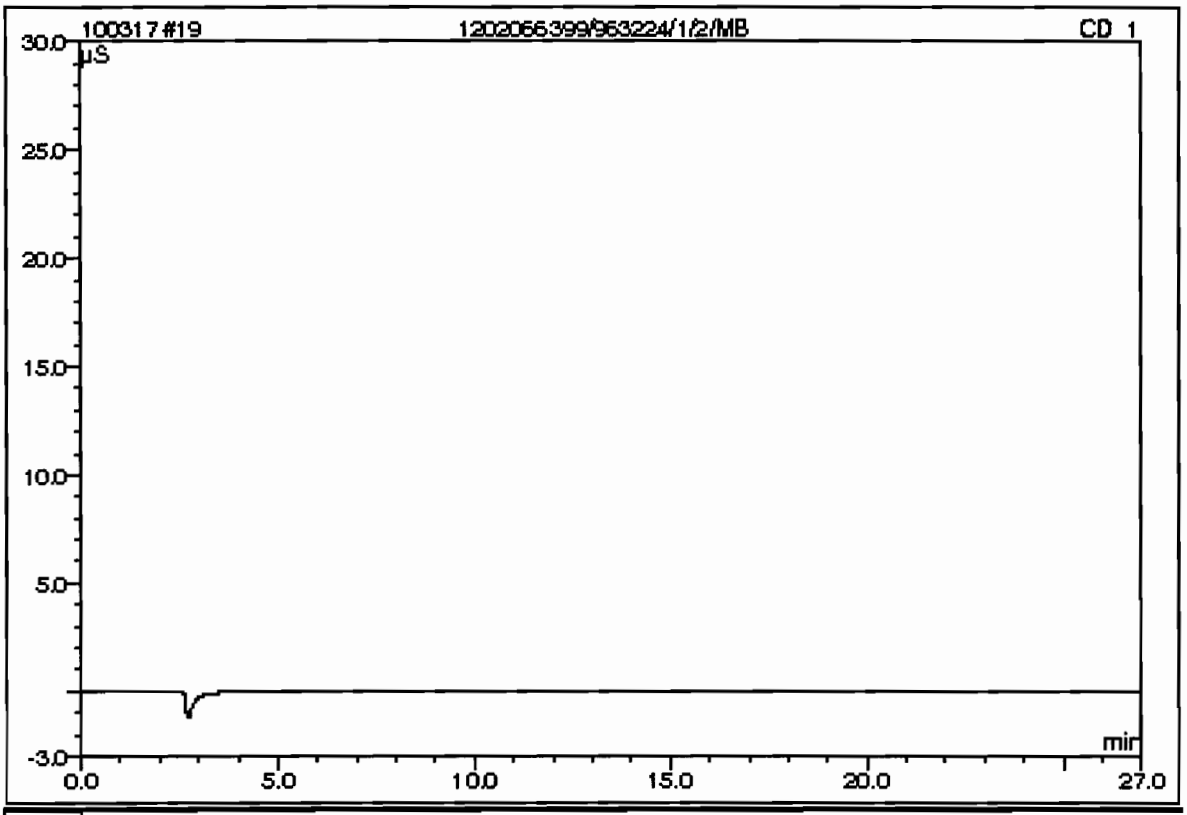

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

20 1202066402/963224/1/2/LCS

Sample Name:	1202066402/963224/1/2/LCS	*Injection Volume:*	50.0
Vial Number:	14	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 15:11	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

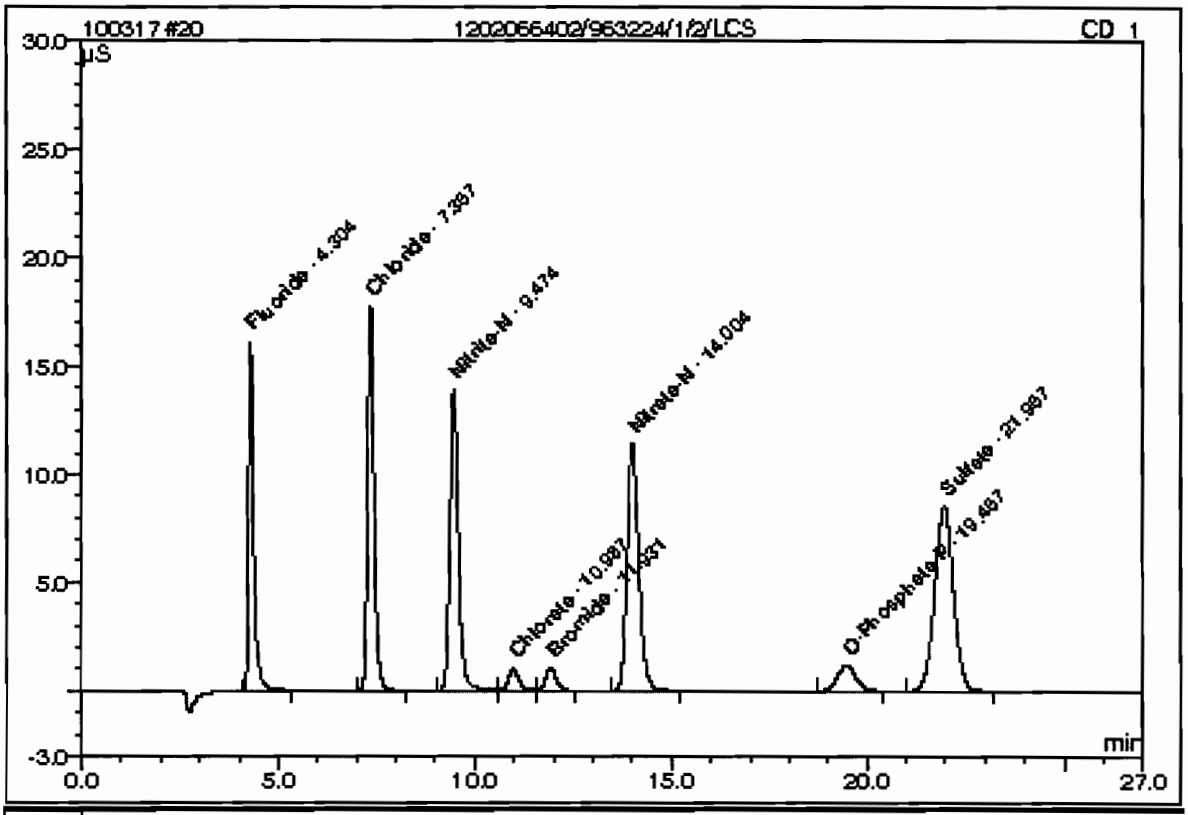

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	4.9085		2.43365	12.70
2	7.37	Chloride	n.a.	9.2905		3.33885	17.42
3	9.47	Nitrite-N	n.a.	4.8410		3.52386	18.39
4	10.99	Chlorate	n.a.	2.5161		0.30187	1.58
5	11.93	Bromide	n.a.	2.4912		0.31883	1.66
6	14.00	Nitrate-N	n.a.	4.7101		3.93230	20.52
7	19.47	O-Phosphate-P	n.a.	2.4298		0.63999	3.34
8	21.97	Sulfate	n.a.	19.0003		4.67469	24.39
Total:				50.1875	0.000	19.164	100.00

21 247261004/963224/1/3/

Sample Name:	247261004/963224/1/3/	*Injection Volume:*	50.0
Vial Number:	15	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 15:41	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

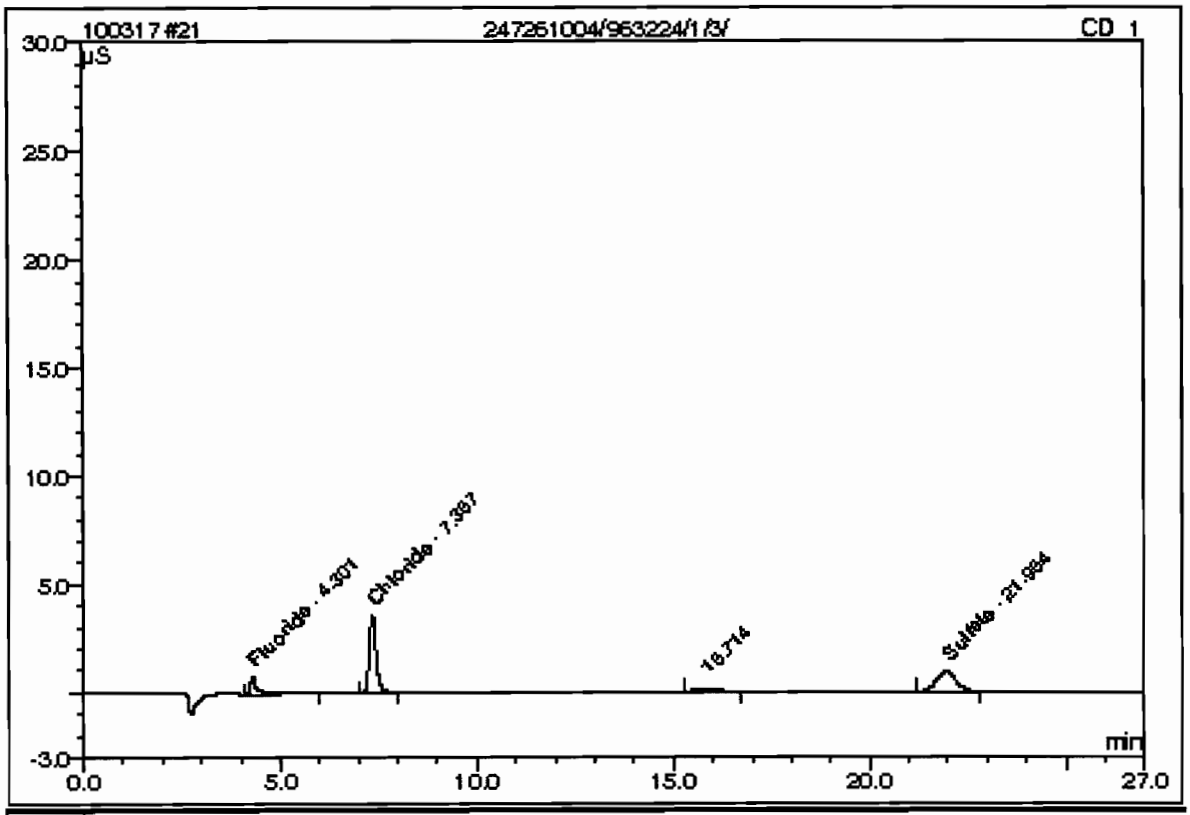

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	0.4997		0.22263	15.05
2	7.36	Chloride	n.a.	2.0600		0.69565	47.04
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	21.95	Sulfate	n.a.	2.3598		0.51423	34.77
Total:				4.9194	0.000	1.432	96.86

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Version 6.80 SR7 Build 2528 (148369)

22 1202066400/963224/1/3/DUP

Sample Name:	1202066400/963224/1/3/DUP	*Injection Volume:*	50.0
Vial Number:	16	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 16:11	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC E086;300;9056

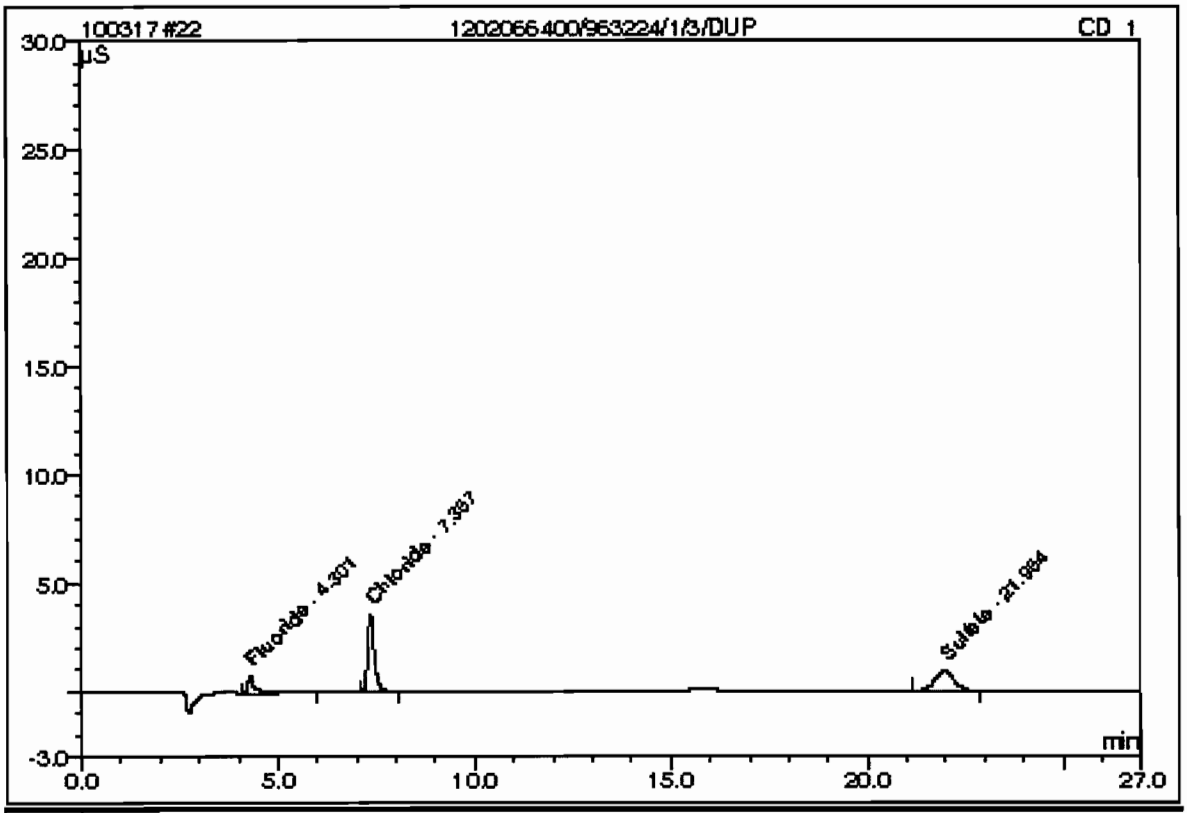

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	0.4918		0.21869	15.31
2	7.36	Chloride	n.a.	2.0647		0.69737	48.83
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	21.95	Sulfate	n.a.	2.3515		0.51216	35.86
Total:				4.9080	0.000	1.428	100.00

23 1202066401/963224/1/3/PS

Sample Name:	1202066401/963224/1/3/PS	*Injection Volume:*	50.0
Vial Number:	17	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 16:41	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC E086;300;9056

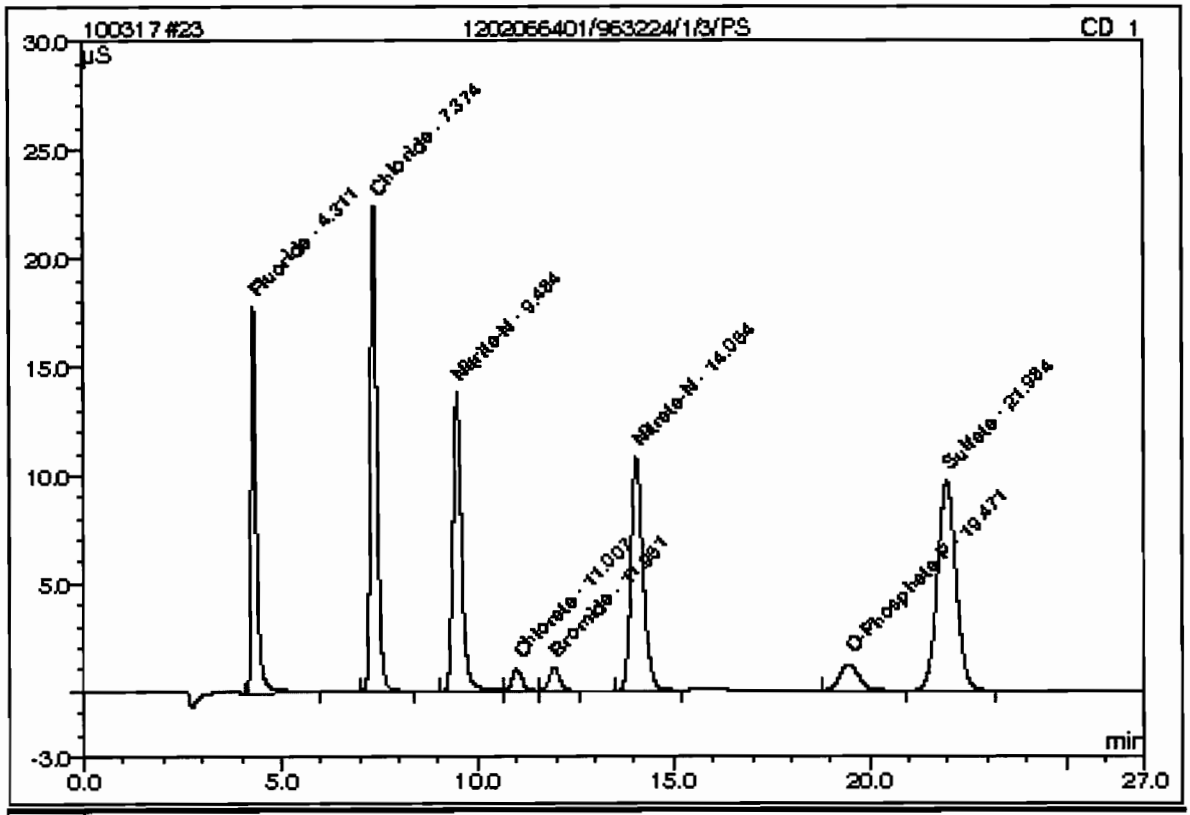

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.31	Fluoride	n.a.	5.4370		2.69867	12.89
2	7.37	Chloride	n.a.	11.7372		4.23326	20.21
3	9.48	Nitrite-N	n.a.	4.8312		3.51669	16.79
4	11.01	Chlorate	n.a.	2.4959		0.29944	1.43
5	11.96	Bromide	n.a.	2.5221		0.32281	1.54
6	14.06	Nitrate-N	n.a.	4.6962		3.92045	18.72
7	19.47	O-Phosphate-P	n.a.	2.5485		0.67132	3.21
8	21.98	Sulfate	n.a.	21.4243		5.28074	25.21
Total:				55.6924	0.000	20.943	100.00

25 247817001/963224/1/3/

Sample Name:	247817001/963224/1/3/	*Injection Volume:*	50.0
Vial Number:	19	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 17:40	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

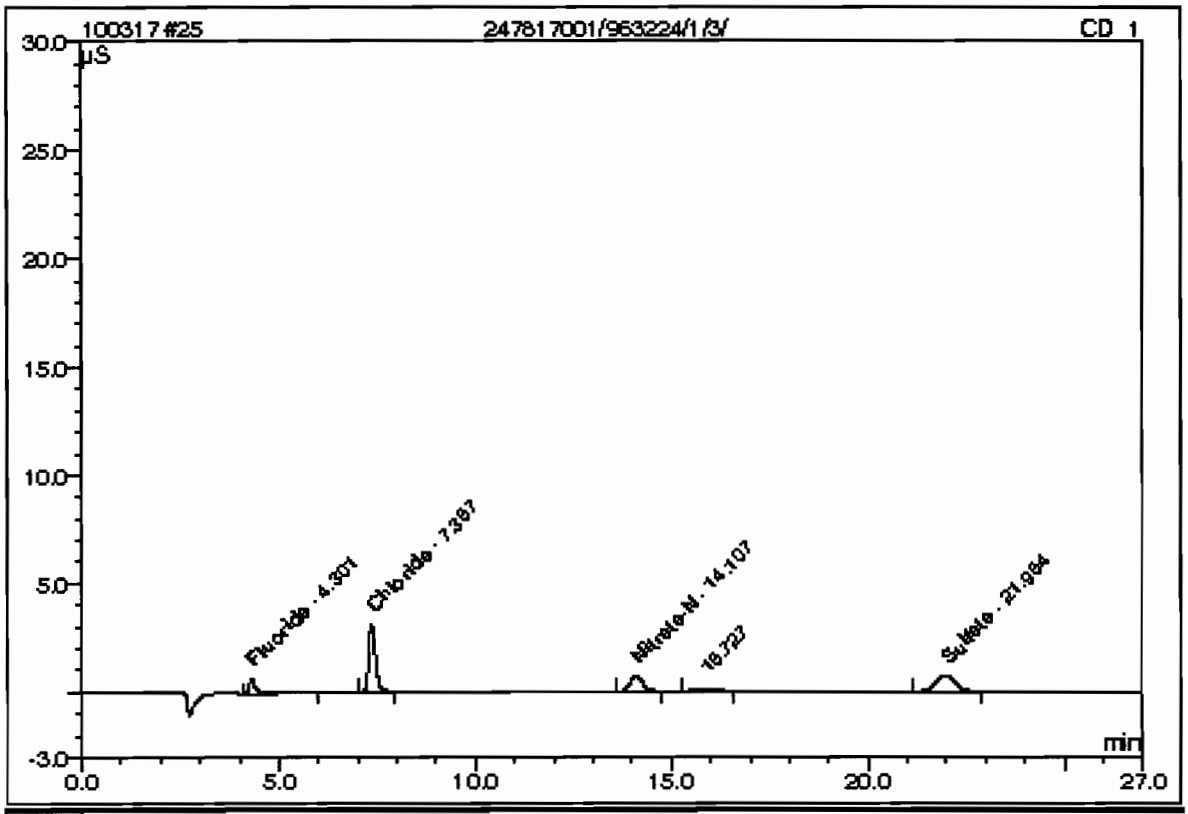

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	0.4877		0.21660	14.01
2	7.36	Chloride	n.a.	1.8442		0.61678	39.88
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	14.11	Nitrate-N	n.a.	0.4065		0.26628	17.22
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	21.95	Sulfate	n.a.	1.9303		0.40684	26.31
Total:				4.6687	0.000	1.507	97.42

29 WIC100317-02CVH

Sample Name:	WIC100317-02CVH	*Injection Volume:*	50.0
Vial Number:	23	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 19:40	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

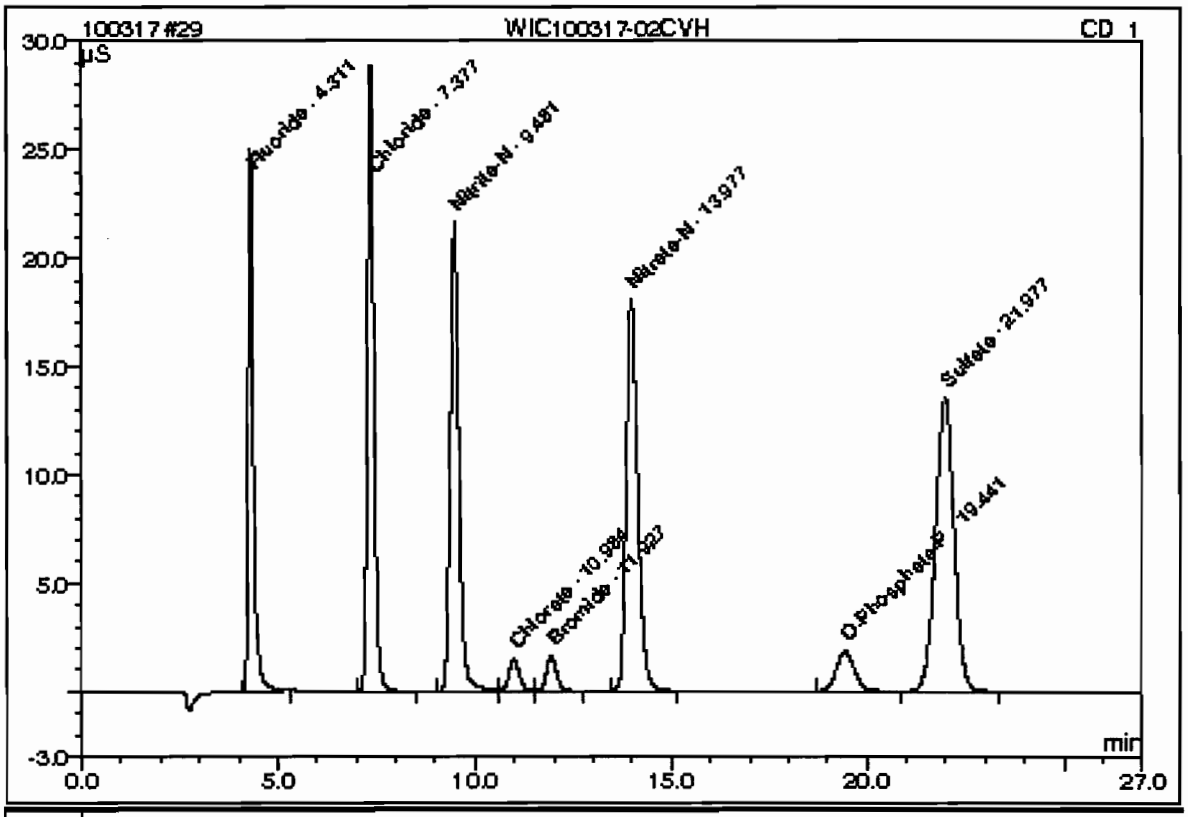

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.31	Fluoride	n.a.	7.5953		3.78108	12.57
2	7.38	Chloride	n.a.	14.8256		5.36228	17.82
3	9.48	Nitrite-N	n.a.	7.4770		5.46076	18.15
4	10.98	Chlorate	n.a.	3.7101		0.44605	1.48
5	11.93	Bromide	n.a.	3.7794		0.48498	1.61
6	13.98	Nitrate-N	n.a.	7.3974		6.22141	20.68
7	19.44	O-Phosphate-P	n.a.	3.7480		0.98809	3.28
8	21.98	Sulfate	n.a.	29.6703		7.34240	24.40
Total:				78.2031	0.000	30.087	100.00

30 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	24	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 20:10	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

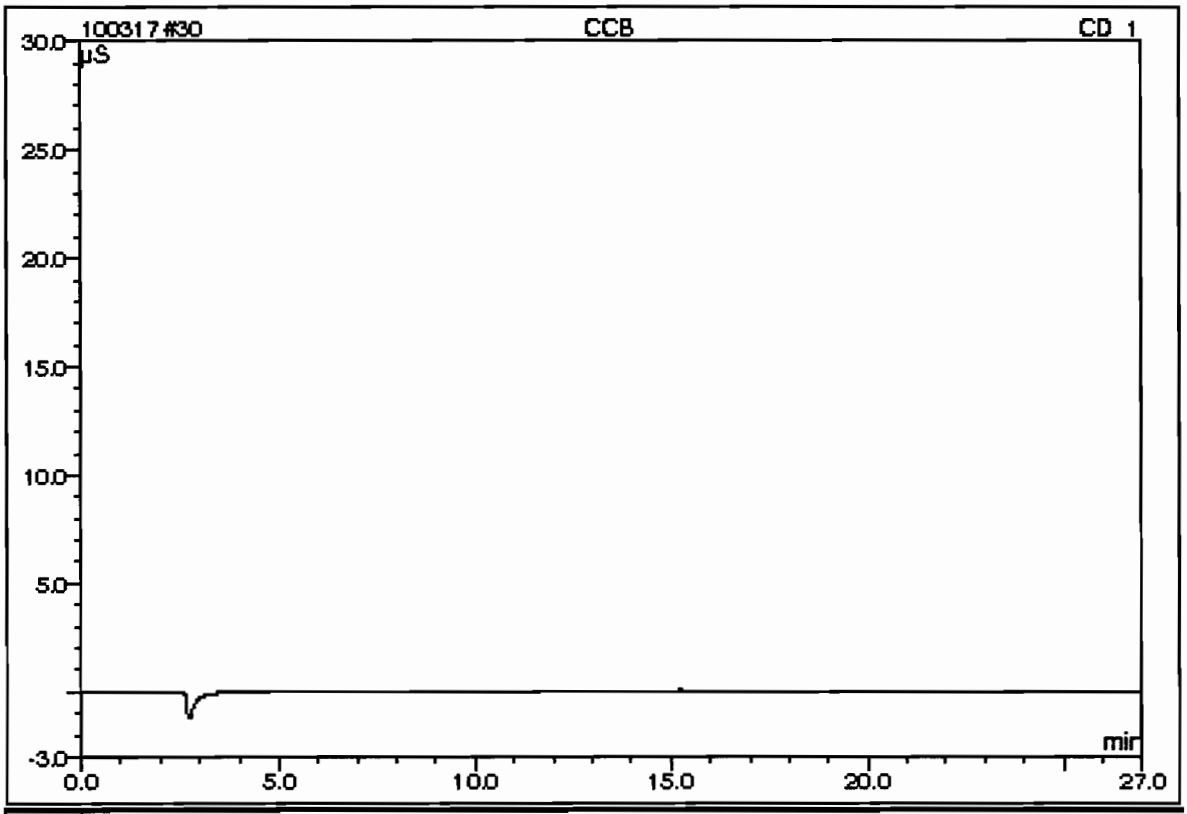

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

Nitrate Nitrite by Cadmium Reduction

This is runlog lachat3

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
1.5 PPM		1	axh3	2/25/2010 10:10:26	OM_2-25-2010_10-08-41
1.0 PPM		1	axh3	2/25/2010 10:11:38	OM_2-25-2010_10-08-41
0.5 ppm		1	axh3	2/25/2010 10:12:50	OM_2-25-2010_10-08-41
0.1 ppm		1	axh3	2/25/2010 10:14:04	OM_2-25-2010_10-08-41
0.05 ppm		1	axh3	2/25/2010 10:15:17	OM_2-25-2010_10-08-41
ICAL-00		1	axh3	2/25/2010 10:16:31	OM_2-25-2010_10-08-41
1.0 ppm ICV		1	axh3	2/25/2010 10:18:53	OM_2-25-2010_10-08-41
ICB		1	axh3	2/25/2010 10:21:15	OM_2-25-2010_10-08-41
Nitrate 1.0 ppm		1	axh3	2/25/2010 10:23:34	OM_2-25-2010_10-08-41
Nitrite 1.0 ppm		1	axh3	2/25/2010 10:25:54	OM_2-25-2010_10-08-41
1202051741	956913	1	axh3	2/25/2010 10:28:15	OM_2-25-2010_10-08-41
1202051746	956913	1	axh3	2/25/2010 10:29:29	OM_2-25-2010_10-08-41
247772001	956913	250	axh3	2/25/2010 10:30:42	OM_2-25-2010_10-08-41
247772002	956913	250	axh3	2/25/2010 10:31:55	OM_2-25-2010_10-08-41
247772003	956913	100	axh3	2/25/2010 10:33:07	OM_2-25-2010_10-08-41
247772004	956913	250	axh3	2/25/2010 10:34:20	OM_2-25-2010_10-08-41
1202051743	956913	250	axh3	2/25/2010 10:35:33	OM_2-25-2010_10-08-41
1202051745	956913	250	axh3	2/25/2010 10:36:45	OM_2-25-2010_10-08-41
247772006	956913	250	axh3	2/25/2010 10:37:57	OM_2-25-2010_10-08-41
247844003	956913	10	axh3	2/25/2010 10:39:09	OM_2-25-2010_10-08-41
1.0 ppm CCV		1	axh3	2/25/2010 10:40:22	OM_2-25-2010_10-08-41
CCB		1	axh3	2/25/2010 10:42:44	OM_2-25-2010_10-08-41
1202051742	956913	10	axh3	2/25/2010 10:45:04	OM_2-25-2010_10-08-41
1202051744	956913	10	axh3	2/25/2010 10:46:16	OM_2-25-2010_10-08-41
247772004	956913	250	axh3	2/25/2010 10:47:29	OM_2-25-2010_10-08-41
1202051743	956913	250	axh3	2/25/2010 10:48:41	OM_2-25-2010_10-08-41
1202051745	956913	250	axh3	2/25/2010 10:49:54	OM_2-25-2010_10-08-41
247844006	956913	25	axh3	2/25/2010 10:51:06	OM_2-25-2010_10-08-41
247844009	956913	25	axh3	2/25/2010 10:52:18	OM_2-25-2010_10-08-41
247844012	956913	25	axh3	2/25/2010 10:53:29	OM_2-25-2010_10-08-41
247844015	956913	10	axh3	2/25/2010 10:54:42	OM_2-25-2010_10-08-41
247844018	956913	10	axh3	2/25/2010 10:55:55	OM_2-25-2010_10-08-41
1.0 ppm CCV		1	axh3	2/25/2010 10:57:08	OM_2-25-2010_10-08-41
CCB		1	axh3	2/25/2010 10:59:29	OM_2-25-2010_10-08-41
247844022	956913	50	axh3	2/25/2010 11:01:51	OM_2-25-2010_10-08-41
247844025	956913	50	axh3	2/25/2010 11:03:03	OM_2-25-2010_10-08-41
247844029	956913	10	axh3	2/25/2010 11:04:15	OM_2-25-2010_10-08-41
247844032	956913	5	axh3	2/25/2010 11:05:28	OM_2-25-2010_10-08-41
247844035	956913	10	axh3	2/25/2010 11:06:41	OM_2-25-2010_10-08-41
247844038	956913	5	axh3	2/25/2010 11:07:54	OM_2-25-2010_10-08-41
247852001	956913	5	axh3	2/25/2010 11:09:06	OM_2-25-2010_10-08-41
1202050852	956481	1	axh3	2/25/2010 11:10:18	OM_2-25-2010_10-08-41
1202050856	956481	1	axh3	2/25/2010 11:11:30	OM_2-25-2010_10-08-41
247762001	956481	1	axh3	2/25/2010 11:12:42	OM_2-25-2010_10-08-41
1.0 ppm CCV		1	axh3	2/25/2010 11:13:54	OM_2-25-2010_10-08-41
CCB		1	axh3	2/25/2010 11:16:16	OM_2-25-2010_10-08-41
1202050853*	956481	1	axh3	2/25/2010 11:18:36	OM_2-25-2010_10-08-41
1202050854*	956481	1	axh3	2/25/2010 11:19:47	OM_2-25-2010_10-08-41
1202050855*	956481	1	axh3	2/25/2010 11:20:59	OM_2-25-2010_10-08-41
1202050857*	956483	1	axh3	2/25/2010 11:22:12	OM_2-25-2010_10-08-41
1202050860*	956483	1	axh3	2/25/2010 11:23:25	OM_2-25-2010_10-08-41
247335001*	956483	5	axh3	2/25/2010 11:24:38	OM_2-25-2010_10-08-41
1202050858*	956483	5	axh3	2/25/2010 11:25:51	OM_2-25-2010_10-08-41
1202050859*	956483	5	axh3	2/25/2010 11:27:04	OM_2-25-2010_10-08-41
247768002*	956483	25	axh3	2/25/2010 11:28:16	OM_2-25-2010_10-08-41
1202051739*	956483	25	axh3	2/25/2010 11:29:28	OM_2-25-2010_10-08-41
1.0 ppm CCV		1	axh3	2/25/2010 11:30:40	OM_2-25-2010_10-08-41

Author: lachat

Date : 2/25/2010

Original Run Filename: OM_2-25-2010_10-08-41.OMN created 2/25/2010 10:08:41
Original Run Author's Signature: [lachat]
Current Run Filename: OM_2-25-2010_10-08-41.OMN last modified 2/25/2010 11:32:02
Current Run Author's Signature: [lachat]
Description: EPA 353.2
Cadmium Colum 9056CAJ
LCS nominal 1.0 mg/L

Sample	Rep.	Cup No.	Channel 1 NO3 + NO2 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100225-26	1	S9	1.50	15.7	2/25/2010@10:10:26			1.5 PPM
WTR100225-25	1	S10	1.00	10.3	2/25/2010@10:11:38			1.0 PPM
WTR100225-24	1	S11	0.500	5.18	2/25/2010@10:12:50			0.5 ppm
WTR100225-23	1	S12	0.100	1.07	2/25/2010@10:14:04			0.1 ppm
WTR100225-21	1	S13	0.0500	0.530	2/25/2010@10:15:17			0.05 ppm
0.0ppm	1	S15	0.00	-0.0208	2/25/2010@10:16:31			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99996 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR100225-27 ICV	1	S16	0.978	10.2	2/25/2010@10:18:53			1.0 ppm ICV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.978 < 1.10					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.978 > 0.894					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
ICB	1	S15	-0.00122	-0.0225	2/25/2010@10:21:15			ICB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00122 < 0.0500					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00122 > -0.0500					
		Message	ICB Passed					
		Action	Continue					
WTR100225-22	1	S1	0.955	9.92	2/25/2010@10:23:34			Nitrate 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.955 < 1.10					
		Message	Nitrate Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.955 > 0.894					
		Message	Nitrate Standard Passed					
		Action	Continue					
WTR100225-28	1	S2	0.945	9.82	2/25/2010@10:25:54			Nitrite 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.945 < 1.10					
		Message	Nitrite Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.945 > 0.894					
		Message	Nitrite Standard Passed					
		Action	Continue					
1202051741|956913|MB	1	1	0.00449	0.0370	2/25/2010@10:28:15			
1202051746||LCS	1	2	0.986	10.2	2/25/2010@10:29:29			
247772001	1	3	0.541	5.61	2/25/2010@10:30:42		250.00	
247772002	1	4	0.508	5.27	2/25/2010@10:31:55		250.00	
247772003	1	5	0.122	1.26	2/25/2010@10:33:07		100.00	

247772004	1	6	0.469	4.87	2/25/2010@10:34:20		250.00	
1202051743||DUP	1	7	0.461	4.79	2/25/2010@10:35:33		250.00	
1202051745||PS	1	8	1.34	13.9	2/25/2010@10:36:45		250.00	
247772006	1	9	0.493	5.12	2/25/2010@10:37:57		250.00	
247844003	1	10	0.201	2.08	2/25/2010@10:39:09		10.00	
WTR100225-25 CCV	1	S10	0.992	10.3	2/25/2010@10:40:22			1.0 ppm CCV
	Known Conc:		1.00					
DQM Test: > + Concentration Limit								
		Result:	0.992 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.992 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00189	-0.0294	2/25/2010@10:42:44			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00189 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00189 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202051742||DUP	1	11	0.197	2.04	2/25/2010@10:45:04		10.00	
1202051744||PS	1	12	1.20	12.5	2/25/2010@10:46:16		10.00	
247772004	1	6	0.437	4.53	2/25/2010@10:47:29		250.00	
1202051743||DUP	1	7	0.461	4.79	2/25/2010@10:48:41		250.00	
1202051745||PS	1	8	1.44	14.9	2/25/2010@10:49:54		250.00	
247844006	1	13	0.0858	0.882	2/25/2010@10:51:06		25.00	
247844009	1	14	0.0942	0.970	2/25/2010@10:52:18		25.00	
247844012	1	15	0.0916	0.942	2/25/2010@10:53:29		25.00	
247844015	1	16	0.217	2.24	2/25/2010@10:54:42		10.00	
247844018	1	17	0.153	1.59	2/25/2010@10:55:55		10.00	
WTR100225-25 CCV	1	S10	0.978	10.2	2/25/2010@10:57:08			1.0 ppm CCV
	Known Conc:		1.00					
DQM Test: > + Concentration Limit								
		Result:	0.978 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.978 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00126	-0.0228	2/25/2010@10:59:29			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00126 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00126 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
247844022	1	18	0.199	2.05	2/25/2010@11:01:51		50.00	
247844025	1	19	0.148	1.53	2/25/2010@11:03:03		50.00	
247844029	1	20	0.240	2.49	2/25/2010@11:04:15		10.00	
247844032	1	21	0.433	4.50	2/25/2010@11:05:28		5.00	
247844035	1	22	0.216	2.23	2/25/2010@11:06:41		10.00	
247844038	1	23	0.411	4.27	2/25/2010@11:07:54		5.00	
247852001	1	24	0.0657	0.674	2/25/2010@11:09:06		5.00	
1202050852|956481|MB	1	25	0.00844	0.0780	2/25/2010@11:10:18			
1202050856||LCS	1	26	0.974	10.1	2/25/2010@11:11:30			
247762001	1	27	0.0340	0.344	2/25/2010@11:12:42			
WTR100225-25 CCV	1	S10	0.965	10.0	2/25/2010@11:13:54			1.0 ppm CCV
	Known Conc:		1.00					
DQM Test: > + Concentration Limit								

		Result:	0.965 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.965 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.0111	-0.125	2/25/2010@11:16:16			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.0111 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.0111 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202050853||DUP	1	28	0.0380	0.386	2/25/2010@11:18:36			
1202050854||MS	1	29	1.02	10.6	2/25/2010@11:19:47			
1202050855||MSD	1	30	1.11	11.5	2/25/2010@11:20:59			
1202050857|956483|MB	1	31	0.0156	0.153	2/25/2010@11:22:12			
1202050860||LCS	1	32	1.02	10.6	2/25/2010@11:23:25			
247335001	1	33	0.211	2.18	2/25/2010@11:24:38		5.00	
1202050858||DUP	1	34	-0.0352	-0.375	2/25/2010@11:25:51		5.00	
1202050859||PS	1	35	0.196	2.03	2/25/2010@11:27:04		5.00	
247768002	1	39	0.480	4.98	2/25/2010@11:28:16		25.00	
1202051739||DUP	1	40	0.492	5.11	2/25/2010@11:29:28		25.00	
WTR100225-25 CCV	1	S10	1.12	11.6	2/25/2010@11:30:40			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.12 > 1.10					
		Message	CCV Failed					
		Action	Stop Run					
DQM Test: < - Concentration Limit								
		Result:	1.12 > 0.894					
		Message	CCV Passed					
		Action	Continue					

Author: lachat

Date : 2/25/2010

Channel 1 (NO3 + NO2) : Current View

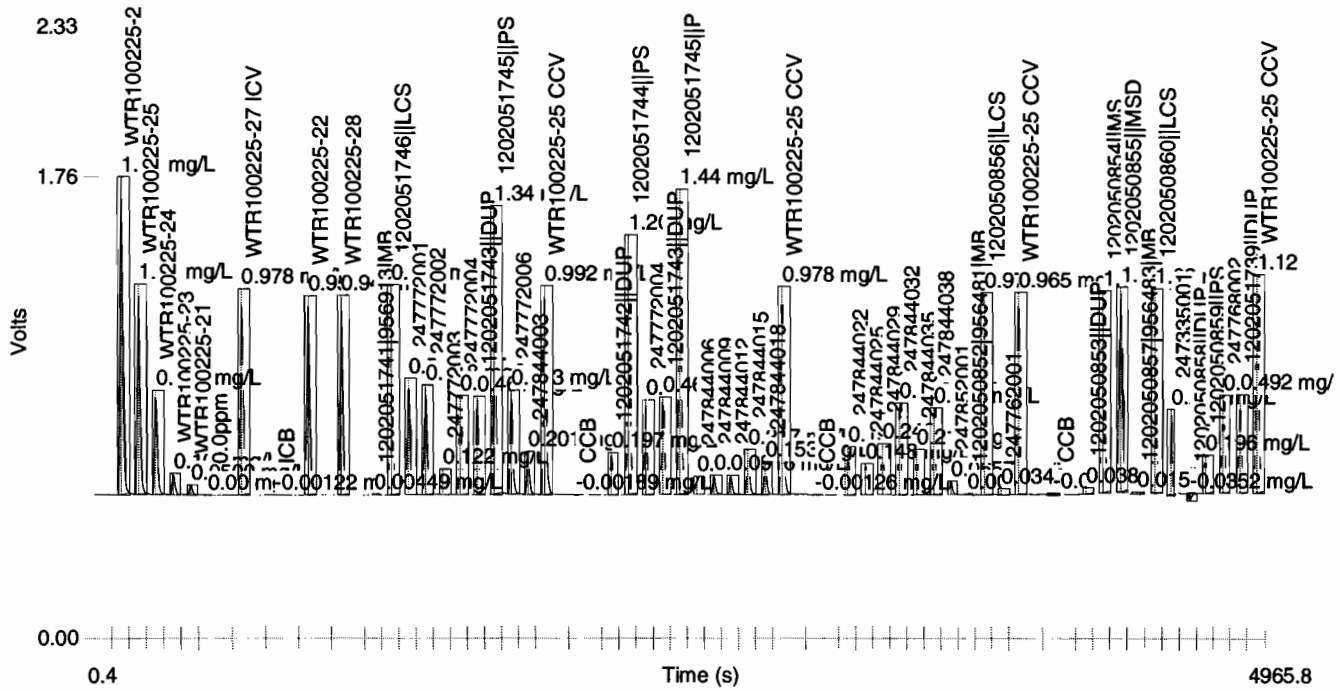

Table 1: NO3 + NO2

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	1.50	1	15.7	1.21	-0.4	2/25/2010	10:11:46
2	1.00	1	10.3	0.799	0.9	2/25/2010	10:12:57
3	0.500	1	5.18	0.398	0.2	2/25/2010	10:14:10
4	0.100	1	1.07	0.0824	-3.4	2/25/2010	10:15:23
5	0.0500	1	0.530	0.0397	-3.9	2/25/2010	10:16:37
6	0.00	1	-0.0208	-8.52e-4		2/25/2010	10:17:50

Figure 1: NO3 + NO2

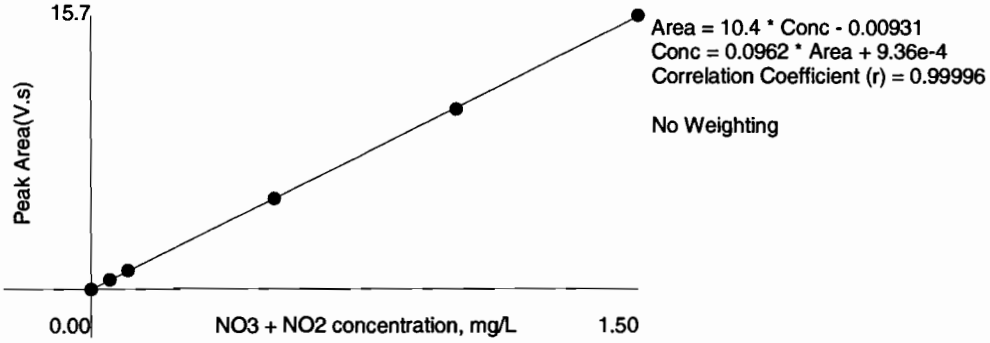

This is runlog lachat3

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
1.0 ppm CCV		1	axh3	2/25/2010 13:41:38	OM_2-25-2010_13-40-36
CCB		1	axh3	2/25/2010 13:44:00	OM_2-25-2010_13-40-36
1202050853	956481	1	axh3	2/25/2010 13:46:20	OM_2-25-2010_13-40-36
1202050854	956481	1	axh3	2/25/2010 13:47:31	OM_2-25-2010_13-40-36
1202050855	956481	1	axh3	2/25/2010 13:48:43	OM_2-25-2010_13-40-36
1202050857	956483	1	axh3	2/25/2010 13:49:56	OM_2-25-2010_13-40-36
1202050860	956483	1	axh3	2/25/2010 13:51:09	OM_2-25-2010_13-40-36
247335001	956483	10	axh3	2/25/2010 13:52:23	OM_2-25-2010_13-40-36
1202050858	956483	10	axh3	2/25/2010 13:53:35	OM_2-25-2010_13-40-36
1202050859	956483	10	axh3	2/25/2010 13:54:48	OM_2-25-2010_13-40-36
247768002	956483	25	axh3	2/25/2010 13:56:00	OM_2-25-2010_13-40-36
1202051739	956483	25	axh3	2/25/2010 13:57:12	OM_2-25-2010_13-40-36
1.0 ppm CCV		1	axh3	2/25/2010 13:58:24	OM_2-25-2010_13-40-36
CCB		1	axh3	2/25/2010 14:00:46	OM_2-25-2010_13-40-36
1202051740	956483	25	axh3	2/25/2010 14:03:06	OM_2-25-2010_13-40-36
247335001	956483	10	axh3	2/25/2010 14:04:20	OM_2-25-2010_13-40-36
1202050858	956483	10	axh3	2/25/2010 14:05:32	OM_2-25-2010_13-40-36
1202050859	956483	10	axh3	2/25/2010 14:06:45	OM_2-25-2010_13-40-36
247560001	956483	5	axh3	2/25/2010 14:07:57	OM_2-25-2010_13-40-36
247763001	956483	5	axh3	2/25/2010 14:09:10	OM_2-25-2010_13-40-36
247763002	956483	5	axh3	2/25/2010 14:10:23	OM_2-25-2010_13-40-36
247768004	956483	10	axh3	2/25/2010 14:11:35	OM_2-25-2010_13-40-36
247768006	956483	10	axh3	2/25/2010 14:12:47	OM_2-25-2010_13-40-36
247768008	956483	10	axh3	2/25/2010 14:13:58	OM_2-25-2010_13-40-36
1.0 ppm CCV		1	axh3	2/25/2010 14:15:11	OM_2-25-2010_13-40-36
CCB		1	axh3	2/25/2010 14:17:33	OM_2-25-2010_13-40-36
247768010	956483	5	axh3	2/25/2010 14:19:53	OM_2-25-2010_13-40-36
247852002	956483	5	axh3	2/25/2010 14:21:05	OM_2-25-2010_13-40-36
247852003	956483	5	axh3	2/25/2010 14:22:19	OM_2-25-2010_13-40-36
247852004	956483	5	axh3	2/25/2010 14:23:32	OM_2-25-2010_13-40-36
247852005	956483	5	axh3	2/25/2010 14:24:44	OM_2-25-2010_13-40-36
247852006	956483	5	axh3	2/25/2010 14:25:58	OM_2-25-2010_13-40-36
247852007	956483	5	axh3	2/25/2010 14:27:10	OM_2-25-2010_13-40-36
247852008	956483	5	axh3	2/25/2010 14:28:22	OM_2-25-2010_13-40-36
247852009	956483	5	axh3	2/25/2010 14:29:35	OM_2-25-2010_13-40-36
247852010	956483	5	axh3	2/25/2010 14:30:48	OM_2-25-2010_13-40-36
1.0 ppm CCV		1	axh3	2/25/2010 14:32:00	OM_2-25-2010_13-40-36
CCB		1	axh3	2/25/2010 14:34:22	OM_2-25-2010_13-40-36
247852013	956483	5	axh3	2/25/2010 14:36:41	OM_2-25-2010_13-40-36
247852014	956483	5	axh3	2/25/2010 14:37:54	OM_2-25-2010_13-40-36
1202053242	957559	1	axh3	2/25/2010 14:39:06	OM_2-25-2010_13-40-36
1202053247	957559	1	axh3	2/25/2010 14:40:18	OM_2-25-2010_13-40-36
247780001	957559	5	axh3	2/25/2010 14:41:29	OM_2-25-2010_13-40-36
1202053243	957559	5	axh3	2/25/2010 14:42:42	OM_2-25-2010_13-40-36
1202053245	957559	5	axh3	2/25/2010 14:43:54	OM_2-25-2010_13-40-36
247817001	957559	5	axh3	2/25/2010 14:45:09	OM_2-25-2010_13-40-36
1202053246	957559	5	axh3	2/25/2010 14:46:20	OM_2-25-2010_13-40-36
1202053244	957559	5	axh3	2/25/2010 14:47:33	OM_2-25-2010_13-40-36
1.0 ppm CCV		1	axh3	2/25/2010 14:48:45	OM_2-25-2010_13-40-36
CCB		1	axh3	2/25/2010 14:51:07	OM_2-25-2010_13-40-36
247913001	957559	10	axh3	2/25/2010 14:53:28	OM_2-25-2010_13-40-36
1202053328	957559	10	axh3	2/25/2010 14:54:41	OM_2-25-2010_13-40-36
1202053327	957559	10	axh3	2/25/2010 14:55:53	OM_2-25-2010_13-40-36
247829001	957559	5	axh3	2/25/2010 14:57:05	OM_2-25-2010_13-40-36
247913002	957559	10	axh3	2/25/2010 14:58:18	OM_2-25-2010_13-40-36
247949001	957559	5	axh3	2/25/2010 14:59:30	OM_2-25-2010_13-40-36
1.0 ppm CCV		1	axh3	2/25/2010 15:01:49	OM_2-25-2010_13-40-36
CCB		1	axh3	2/25/2010 15:04:11	OM_2-25-2010_13-40-36

Author: lachat

Date : 2/25/2010

Original Run Filename: OM_2-25-2010_13-40-36.OMN created 2/25/2010 13:40:36
Original Run Author's Signature: [lachat]
Current Run Filename: OM_2-25-2010_13-40-36.OMN last modified 2/25/2010 15:05:33
Current Run Author's Signature: [lachat]
Description: EPA 353.2
Cadmium Colum 9056CAJ
LCS nominal 1.0 mg/L

Sample	Rep.	Cup No.	Channel 1 NO3 + NO2 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100225-25 CCV	1	S10	1.00	10.4	2/25/2010@13:41:38			1.0 ppm CCV
		Known Conc:	1.00					
			DQM Test: > + Concentration Limit					
		Result:	1.00 < 1.10					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.00 > 0.894					
		Message	CCV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
CCB	1	S15	0.00223	0.0134	2/25/2010@13:44:00			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	0.00223 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.00223 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202050853|956481|DUP	1	28	0.0289	0.291	2/25/2010@13:46:20			
1202050854||MS	1	29	0.901	9.36	2/25/2010@13:47:31			
1202050855||MSD	1	30	0.947	9.84	2/25/2010@13:48:43			
1202050857|956483|MB	1	31	0.00299	0.0213	2/25/2010@13:49:56			
1202050860||LCS	1	32	0.962	9.99	2/25/2010@13:51:09			
247335001	1	33	-0.0102	-0.116	2/25/2010@13:52:23		10.00	
1202050858||DUP	1	34	-0.00794	-0.0923	2/25/2010@13:53:35		10.00	
1202050859||PS	1	35	0.601	6.24	2/25/2010@13:54:48		10.00	
247768002	1	39	0.401	4.16	2/25/2010@13:56:00		25.00	
1202051739||DUP	1	40	0.382	3.96	2/25/2010@13:57:12		25.00	
WTR100225-25 CCV	1	S10	0.939	9.76	2/25/2010@13:58:24			1.0 ppm CCV
		Known Conc:	1.00					
			DQM Test: > + Concentration Limit					
		Result:	0.939 < 1.10					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.939 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00130	-0.0233	2/25/2010@14:00:46			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.00130 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.00130 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202051740||PS	1	41	1.35	14.0	2/25/2010@14:03:06		25.00	
247335001	1	33	0.00583	0.0509	2/25/2010@14:04:20		10.00	
1202050858||DUP	1	34	0.00661	0.0590	2/25/2010@14:05:32		10.00	
1202050859||PS	1	35	0.825	8.57	2/25/2010@14:06:45		10.00	
247560001	1	36	0.0495	0.505	2/25/2010@14:07:57		5.00	

247763001	1	37	0.0950	0.978	2/25/2010@14:09:10		5.00	
247763002	1	38	0.194	2.00	2/25/2010@14:10:23		5.00	
247768004	1	42	0.399	4.14	2/25/2010@14:11:35		10.00	
247768006	1	43	0.740	7.68	2/25/2010@14:12:47		10.00	
247768008	1	44	0.560	5.82	2/25/2010@14:13:58		10.00	
WTR100225-25 CCV	1	S10	0.951	9.88	2/25/2010@14:15:11			1.0 ppm CCV
		Known Conc:	1.00					
			DQM Test: > + Concentration Limit					
		Result:	0.951 < 1.10					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.951 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00160	-0.0264	2/25/2010@14:17:33			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.00160 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.00160 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
247768010	1	45	0.00904	0.0843	2/25/2010@14:19:53		5.00	
247852002	1	46	0.0217	0.216	2/25/2010@14:21:05		5.00	
247852003	1	47	0.0937	0.965	2/25/2010@14:22:19		5.00	
247852004	1	48	0.0848	0.872	2/25/2010@14:23:32		5.00	
247852005	1	49	0.0142	0.138	2/25/2010@14:24:44		5.00	
247852006	1	50	0.0145	0.141	2/25/2010@14:25:58		5.00	
247852007	1	51	0.0486	0.495	2/25/2010@14:27:10		5.00	
247852008	1	52	0.0402	0.408	2/25/2010@14:28:22		5.00	
247852009	1	53	0.0389	0.395	2/25/2010@14:29:35		5.00	
247852010	1	54	0.0411	0.418	2/25/2010@14:30:48		5.00	
WTR100225-25 CCV	1	S10	0.912	9.47	2/25/2010@14:32:00			1.0 ppm CCV
		Known Conc:	1.00					
			DQM Test: > + Concentration Limit					
		Result:	0.912 < 1.10					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.912 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00146	-0.0250	2/25/2010@14:34:22			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.00146 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.00146 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
247852013	1	55	0.0828	0.851	2/25/2010@14:36:41		5.00	
247852014	1	56	0.0106	0.100	2/25/2010@14:37:54		5.00	
1202053242|957559|MB	1	57	0.00733	0.0665	2/25/2010@14:39:06			
1202053247||LCS	1	58	0.928	9.64	2/25/2010@14:40:18			
247780001	1	59	0.0147	0.143	2/25/2010@14:41:29		5.00	
1202053243||DUP	1	60	0.0121	0.116	2/25/2010@14:42:42		5.00	
1202053245||PS	1	61	0.913	9.48	2/25/2010@14:43:54		5.00	
247817001	1	63	0.0779	0.800	2/25/2010@14:45:09		5.00	
1202053246||PS	1	64	0.994	10.3	2/25/2010@14:46:20		5.00	
1202053244||DUP	1	65	0.0627	0.642	2/25/2010@14:47:33		5.00	
WTR100225-25 CCV	1	S10	0.901	9.36	2/25/2010@14:48:45			1.0 ppm CCV
		Known Conc:	1.00					
			DQM Test: > + Concentration Limit					

		Result:	0.901 < 1.10					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.901 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-1.44e-4	-0.0112	2/25/2010@14:51:07			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.44e-4 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.44e-4 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
247913001	1	67	0.184	1.90	2/25/2010@14:53:28		10.00	
1202053328|PS	1	68	1.16	12.1	2/25/2010@14:54:41		10.00	
1202053327|DUP	1	69	0.174	1.80	2/25/2010@14:55:53		10.00	
247829001	1	66	0.191	1.97	2/25/2010@14:57:05		5.00	
247913002	1	70	-0.0138	-0.153	2/25/2010@14:58:18		10.00	
247949001	1	71	0.154	1.59	2/25/2010@14:59:30		5.00	
WTR100225-25 CCV	1	S10	0.936	9.73	2/25/2010@15:01:49			1.0 ppm CCV
		Known Conc:	1.00					
			DQM Test: > + Concentration Limit					
		Result:	0.936 < 1.10					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.936 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00147	-0.0250	2/25/2010@15:04:11			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.00147 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.00147 > -0.0500					
		Message	CCB Passed					
		Action	Continue					

Author: lachat

Date : 2/25/2010

Channel 1 (NO3 + NO2) : Current View

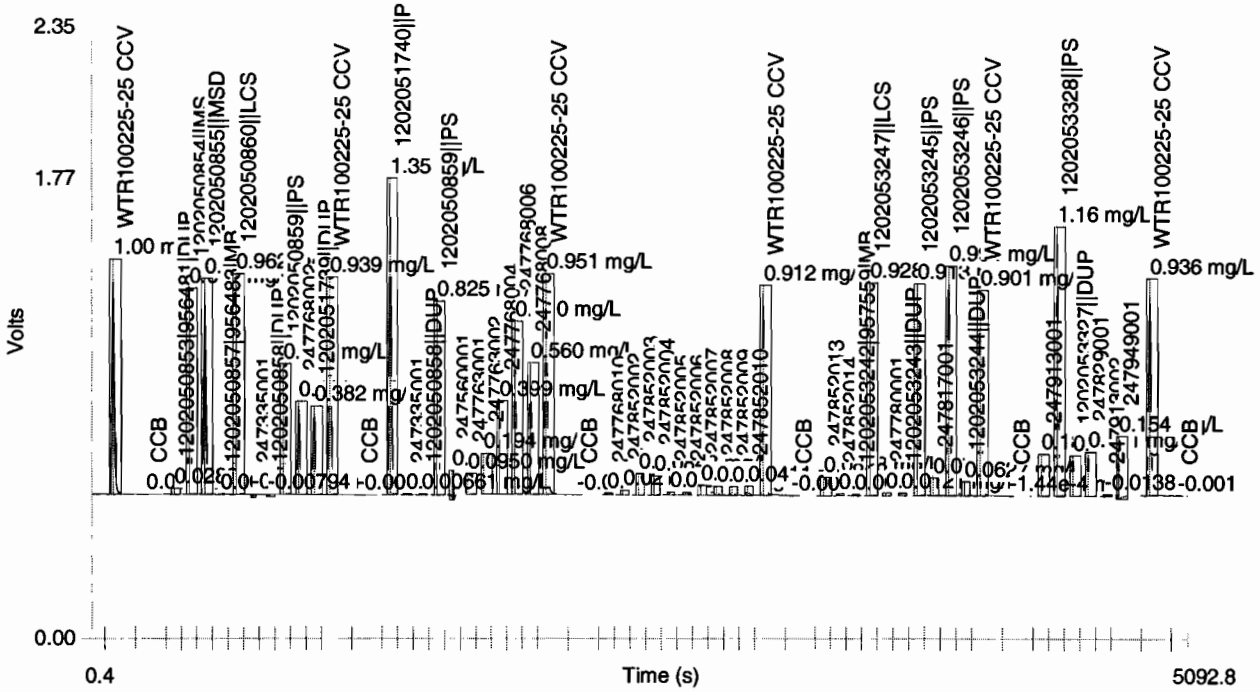

Table 1: NO3 + NO2

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	1.50	1	15.7	1.21	-0.4	2/25/2010	10:11:46
2	1.00	1	10.3	0.799	0.9	2/25/2010	10:12:57
3	0.500	1	5.18	0.398	0.2	2/25/2010	10:14:10
4	0.100	1	1.07	0.0824	-3.4	2/25/2010	10:15:23
5	0.0500	1	0.530	0.0397	-3.9	2/25/2010	10:16:37
6	0.00	1	-0.0208	-8.52e-4		2/25/2010	10:17:50

Figure 1: NO3 + NO2

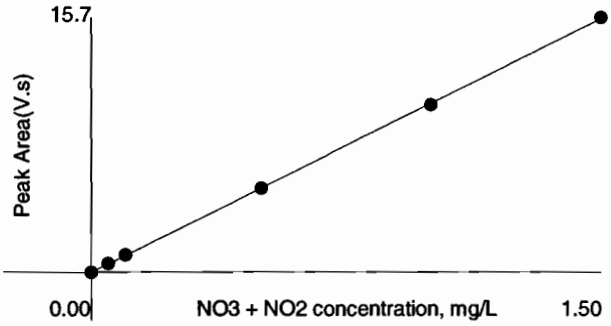

Area = 10.4 * Conc - 0.00931
Conc = 0.0962 * Area + 9.36e-4
Correlation Coefficient (r) = 0.99996

No Weighting

Solids, Total Dissolved

Batch: 958112.0
Analyst: SDS

TDS/TS/VS LogBook

Procedure Code BALDSEP_L
Procedure Description EPA 160.1 Solids, Dissolved
Lab Sop GL-GC-E-001

Sample Type	Sample Id	Lot Id	Nc(mg/L)	Recovery(%)
LCS	1202054642	WTD1254191-01	300	99.667

Sample Type	Sample Id	Rpd(%)
DUP	1202054640	23.021582733813
DUP	1202054641	6.7006654038564
DUP	1202055007	1.5267175572519
DUP	1202055008	3.0211480362538

Sample Id	Sample Type	Original Hsn	Instrument	Run Date	Crucible ID	Aliquot (L)	Crucible Wt(g)	Final Wt Event 1	Final Wt Event 2	Final Wt Event 3	Final Wt Event 4	Result	Units
1202054639	MB		BAL216	26-FEB-2010 11:23	MOR	0.1	65.6293	65.6294	65.6294			1	mg/L
1202054642	LCS		BAL216	26-FEB-2010 11:23	A1	0.1	54.1631	54.1928	54.193			299	mg/L
247817001	SAMPLE		BAL216	26-FEB-2010 11:23	JC	0.1	53.7057	53.7175	53.718			123	mg/L
1202054640	DUP	247817001	BAL216	26-FEB-2010 11:23	RAT	0.1	55.355	55.37	55.3705			155	mg/L
247829001	SAMPLE		BAL216	26-FEB-2010 11:23	GUN	0.1	50.8927	50.908	50.908			153	mg/L
247922004	SAMPLE		BAL216	26-FEB-2010 11:23	WAX	0.1	51.9184	51.9448	51.9444			260	mg/L
1202055007	DUP	247922004	BAL216	26-FEB-2010 11:23	EMS	0.1	52.247	52.2729	52.273			260	mg/L
247929001	SAMPLE		BAL216	26-FEB-2010 11:23	789	0.1	62.9298	62.9361	62.9365			67	mg/L
247929002	SAMPLE		BAL216	26-FEB-2010 11:23	14	0.1	52.986	53.0107	53.0104			244	mg/L
247929003	SAMPLE		BAL216	26-FEB-2010 11:23	LIP	0.1	51.1232	51.1311	51.1316			84	mg/L
247929004	SAMPLE		BAL216	26-FEB-2010 11:23	PUB	0.1	49.1473	49.1556	49.1556			83	mg/L
247957001	SAMPLE		BAL216	26-FEB-2010 11:23	TAC	0.1	53.7737	53.9206	53.9205			1468	mg/L
247966010	SAMPLE		BAL216	26-FEB-2010 11:23	300	0.1	54.6393	59.959	59.959			53197	mg/L
1202054641	DUP	247966010	BAL216	26-FEB-2010 11:23	DOG	0.1	53.9257	58.9006	58.9005			49748	mg/L
248074001	SAMPLE		BAL216	26-FEB-2010 11:23	JAW	0.1	51.8544	51.9192	51.9196			652	mg/L
1202055008	DUP	248074001	BAL216	26-FEB-2010 11:23	RON	0.1	51.8396	51.9066	51.9068			672	mg/L
248074002	SAMPLE		BAL216	26-FEB-2010 11:23	MOB	0.1	57.3498	57.4161	57.416			662	mg/L
248074003	SAMPLE		BAL216	26-FEB-2010 11:23	LAG	0.1	56.5166	56.5762	56.5764			598	mg/L

Comments: **All Weights are in Grams**
A) Result = (Final - Crucible)/Aliquot * 1000
B) Prep Factor = 0.5 / Aliquot

Date: 26-FEB-10 12:59:28
Date: 01-FEB-10 07:20:14
Temperature: 104 C
Temperature: 180 C

Note: Aliquot is used for the determination of the effective MDL and PQL in LIMS

Specific Conductivity

Analytical Logbook

Conductivity and Salinity

Batch ID: 960274.0
Analyst: Travis Tola
Method: EPA 120.1 (gk) SW846 9050A (jj)
Lab SOP: GL-GC-E-009 REV# 9
Instrument: Orion 160 Conductivity Meter

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
CCV	240	Conductivity LCS	WCO091117-06	25	mL
LCS	1202059735	Conductivity LCS	WCO091117-06	25	mL

Sample ID	Run Date	Dilution	Temperature (C)	Conductivity Result (umhos/cm)
1202059735 LCS	03-MAR-2010 16:24:37	1	25.1	1376
247817001 (gk)	03-MAR-2010 16:25:06	1	25.3	121.6
1202059732 DUP (247817001)	03-MAR-2010 16:25:27	1	25.8	121.8
247829001 (gk)	03-MAR-2010 16:25:59	1	25.3	141.9
247922004 (gk)	03-MAR-2010 16:26:42	1	24.8	281
CCV	03-MAR-2010 16:26:56	1	25.2	1381
1202059733 DUP (247922004)	03-MAR-2010 16:27:09	1	24.9	282
248019001 (gk)	03-MAR-2010 16:27:26	1	24.7	239
248023001 (gk)	03-MAR-2010 16:27:45	1	24.4	122.5
248024002 (gk)	03-MAR-2010 16:28:02	1	24.5	658
248024004 (gk)	03-MAR-2010 16:28:24	1	25.7	677
CCV	03-MAR-2010 16:29:37	1	25.4	1386
248044001 (gk)	03-MAR-2010 16:30:17	1	25.8	203
248044003 (gk)	03-MAR-2010 16:30:34	1	25.4	211
248044005 (gk)	03-MAR-2010 16:30:54	1	25	1.18
248044006 (gk)	03-MAR-2010 16:31:13	1	24.6	1.39
248127001 (gk)	03-MAR-2010 16:31:33	1	24.1	283
CCV	03-MAR-2010 16:31:58	1	25.6	1384
248164001 (gk)	03-MAR-2010 16:32:14	1	24.3	143.1
248164003 (gk)	03-MAR-2010 16:32:31	1	24.3	142.1
248168006 (gk)	03-MAR-2010 16:32:51	1	24.5	157.5
248169004 (gk)	03-MAR-2010 16:33:15	1	24.5	400
248362006 (jj)	03-MAR-2010 16:33:35	1	26.1	2.17
CCV	03-MAR-2010 16:33:55	1	25.4	1378
1202059734 DUP (248362006)	03-MAR-2010 16:34:19	1	26	2.18
248362007 (jj)	03-MAR-2010 16:34:33	1	24.3	1.38
248382001 (gk)	03-MAR-2010 16:34:47	1	24.2	135.4
248382004 (gk)	03-MAR-2010 16:35:35	1	24.2	163
CCV	03-MAR-2010 16:35:50	1	25	1372

Comments:

Analytical Logbook

Batch ID: 960274.0
Analyst: Travis Tola
Method: EPA 120.1 (gk) SW846 9050A (jj)
Lab SOP: GL-GC-E-009 REV# 9
Instrument: Orion 160 Conductivity Meter

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
CCV	240	Conductivity LCS	WCO091117-06	25	mL
LCS	1202059735	Conductivity LCS	WCO091117-06	25	mL

Sample ID	Run Date	Dilution	Temperature (C)	Conductivity Result (umhos/cm)

Calibration Information:

Run Date: 03-MAR-10 16:0
Instrument: CON160
Analyst: TXT1

Standard	Observed	Theoretical		%Recovery
WCO100303-07	15.58	14.5	umhos/cm	107.45
WD100303-03	1394	1413	umhos/cm	98.655
WCO100303-04	1785	1900	umhos/cm	93.947
WCO100303-08	23300	24800	umhos/cm	93.952
WCO100303-01	250	250	umhos/cm	100
WCO100303-02	731	750	umhos/cm	97.467

Total Phosphorus

Prep Logbook

Total Phosphorous and Total Kjeldahl Nitrogen Sample Preparation

Batch ID: **958136.0** Verified by: _____

Analyst: Stephanie Jackson

Method: EPA 365.4 Prep

Lab SOP: GL-GC-E-071 REV# 10

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202054693	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054689	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054690	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054717	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054691	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054692	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054718	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202054686 MB	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
1202054693 LCS	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
247817001	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
1202054687 DUP (247817001)	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
1202054689 MS (247817001)	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
1202054691 MSD (247817001)	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
247829001	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
247957001	02-MAR-2010 10:30:00	Surface Water	20	20	1	< 2
248019001	02-MAR-2010 10:30:00	Water	20	20	1	< 2
1202054716 DUP (248019001)	02-MAR-2010 10:30:00	Water	20	20	1	< 2
1202054717 MS (248019001)	02-MAR-2010 10:30:00	Water	20	20	1	< 2
1202054718 MSD (248019001)	02-MAR-2010 10:30:00	Water	20	20	1	< 2
248023001	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248024002	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248024004	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248044001	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248044003	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248044005	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248044006	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248072001	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2

Prep Logbook

Batch ID: **958136.0** Verified by: _____

Analyst: Stephanie Jackson

Method: EPA 365.4 Prep

Lab SOP: GL-GC-E-071 REV# 10

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202054693	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054689	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054690	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054717	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054691	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054692	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054718	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202054688 DUP (248072001)	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
1202054690 MS (248072001)	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
1202054692 MSD (248072001)	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248072002	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248072003	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248298001	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248298002	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248298003	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2

Reagent/Solvent Lot ID	Description	Amount
1269276-C	TKN/PO4 Digestion Solution	4 mL

Comments:

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
3.0 ppm Std.		1	axh3	3/5/2010 8:44:15	OM_3-5-2010_08-40-57
1.0 ppm Std.		1	axh3	3/5/2010 8:45:03	OM_3-5-2010_08-40-57
0.5 ppm Std		1	axh3	3/5/2010 8:45:53	OM_3-5-2010_08-40-57
0.1 ppm Std		1	axh3	3/5/2010 8:46:43	OM_3-5-2010_08-40-57
0.05 ppm Std		1	axh3	3/5/2010 8:47:34	OM_3-5-2010_08-40-57
ICAL-00		1	axh3	3/5/2010 8:48:26	OM_3-5-2010_08-40-57
ICV		1	axh3	3/5/2010 8:50:31	OM_3-5-2010_08-40-57
ICB		1	axh3	3/5/2010 8:52:36	OM_3-5-2010_08-40-57
1202054686	958139	1	axh3	3/5/2010 8:54:40	OM_3-5-2010_08-40-57
1202054693	958139	1	axh3	3/5/2010 8:55:31	OM_3-5-2010_08-40-57
247817001*	958139	1	axh3	3/5/2010 8:56:22	OM_3-5-2010_08-40-57
1202054687	958139	1	axh3	3/5/2010 8:57:12	OM_3-5-2010_08-40-57
1202054689	958139	1	axh3	3/5/2010 8:58:03	OM_3-5-2010_08-40-57
1202054691	958139	1	axh3	3/5/2010 8:58:53	OM_3-5-2010_08-40-57
247829001	958139	1	axh3	3/5/2010 8:59:43	OM_3-5-2010_08-40-57
247957001	958139	1	axh3	3/5/2010 9:00:32	OM_3-5-2010_08-40-57
248019001	958139	1	axh3	3/5/2010 9:01:21	OM_3-5-2010_08-40-57
1202054716	958139	1	axh3	3/5/2010 9:02:09	OM_3-5-2010_08-40-57
CCV		1	axh3	3/5/2010 9:02:59	OM_3-5-2010_08-40-57
CCB		1	axh3	3/5/2010 9:05:03	OM_3-5-2010_08-40-57
1202054717*	958139	1	axh3	3/5/2010 9:07:05	OM_3-5-2010_08-40-57
1202054718*	958139	1	axh3	3/5/2010 9:07:54	OM_3-5-2010_08-40-57
247817001*	958139	1	axh3	3/5/2010 9:08:43	OM_3-5-2010_08-40-57
248023001*	958139	1	axh3	3/5/2010 9:09:33	OM_3-5-2010_08-40-57
248024002*	958139	1	axh3	3/5/2010 9:10:21	OM_3-5-2010_08-40-57
248024004*	958139	1	axh3	3/5/2010 9:11:08	OM_3-5-2010_08-40-57
248044001*	958139	1	axh3	3/5/2010 9:11:58	OM_3-5-2010_08-40-57
248044003*	958139	1	axh3	3/5/2010 9:12:49	OM_3-5-2010_08-40-57
248044005*	958139	1	axh3	3/5/2010 9:13:41	OM_3-5-2010_08-40-57
248044006*	958139	1	axh3	3/5/2010 9:14:32	OM_3-5-2010_08-40-57
CCV		1	axh3	3/5/2010 9:15:22	OM_3-5-2010_08-40-57
CCB		1	axh3	3/5/2010 9:17:26	OM_3-5-2010_08-40-57

Author: axh3 Date : 3/5/2010

Original Run Filename: OM_3-5-2010_08-40-57.OMN created 3/5/2010 8:40:57
Original Run Author's Signature: [axh3]
Current Run Filename: OM_3-5-2010_08-40-57.OMN last modified 3/5/2010 9:18:48
Current Run Author's Signature: [axh3]
Description: Total Phosphorous EPA Method 365.4 GEL SOP: GL-GC-E-103
Detection Wavelength: 880nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TLPOS Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100305-13	1	S2	3.000	14.147	3/5/2010@8:44:15			3.0 ppm Std.
WTR100305-14	1	S3	1.000	4.748	3/5/2010@8:45:03			1.0 ppm Std.
WTR100305-15	1	S4	0.500	2.331	3/5/2010@8:45:53			0.5 ppm Std
WTR100305-16	1	S5	0.100	0.389	3/5/2010@8:46:43			0.1 ppm Std
WTR100305-17	1	S6	0.050	0.183	3/5/2010@8:47:34			0.05 ppm Std
WTR100305-19 0.0	1	S7	0.000	0.034	3/5/2010@8:48:26			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99997 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR100305-18 ICV	1	S8	1.021	4.800	3/5/2010@8:50:31			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.021 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.021 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR100305-19 ICB	1	S7	0.024	0.089	3/5/2010@8:52:36			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	0.024 < 0.050					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.024 > -0.050					
		Message	ICB Passed					
		Action	Continue					
1202054686|958139|MB	1	1	0.027	0.102	3/5/2010@8:54:40			
1202054693||LCS	1	2	1.093	5.145	3/5/2010@8:55:31			
247817001	1	3	0.336	1.563	3/5/2010@8:56:22			
1202054687||DUP	1	4	0.050	0.211	3/5/2010@8:57:12			
1202054689||MS	1	5	1.072	5.045	3/5/2010@8:58:03			
1202054691||MSD	1	6	1.052	4.949	3/5/2010@8:58:53			
247829001	1	7	0.064	0.275	3/5/2010@8:59:43			
247957001	1	8	0.067	0.292	3/5/2010@9:00:32			
248019001	1	9	0.102	0.455	3/5/2010@9:01:21			
1202054716||DUP	1	10	0.096	0.429	3/5/2010@9:02:09			
WTR100305-14 CCV	1	S3	1.002	4.711	3/5/2010@9:02:59			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.002 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.002 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100305-19 CCB	1	S7	0.016	0.049	3/5/2010@9:05:03			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								

		Result:	0.016 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.016 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1202054717||MS	1	11	1.148	5.403	3/5/2010@9:07:05			
1202054718||MSD	1	12	1.158	5.451	3/5/2010@9:07:54			
247817001	1	3	0.061	0.263	3/5/2010@9:08:43			
248023001	1	13	0.066	0.284	3/5/2010@9:09:33			
248024002	1	14	0.057	0.244	3/5/2010@9:10:21			
248024004	1	15	0.060	0.256	3/5/2010@9:11:08			
248044001	1	16	0.067	0.292	3/5/2010@9:11:58			
248044003	1	17	0.046	0.194	3/5/2010@9:12:49			
248044005	1	18	0.029	0.113	3/5/2010@9:13:41			
248044006	1	19	0.022	0.078	3/5/2010@9:14:32			
WTR100305-14 CCV	1	S3	0.971	4.565	3/5/2010@9:15:22			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.971 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.971 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100305-19 CCB	1	S7	0.100	0.447	3/5/2010@9:17:26			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.100 > 0.050					
		Message	CCB Failed					
		Action	Stop Run					
			DQM Test: < - Concentration Limit					
		Result:	0.100 > -0.050					
		Message	CCB Passed					
		Action	Continue					

Channel 1 (TLPOS) : Current View

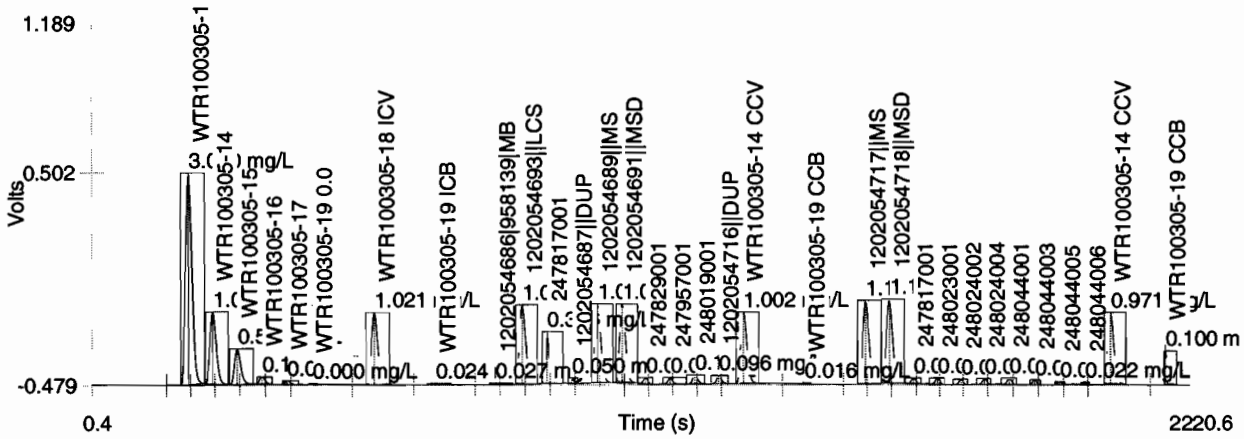

Author: axh3 Date : 3/5/2010

Table 1: TLPOS

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	3.000	1	14.147	0.976	0.1	3/5/2010	8:45:35
2	1.000	1	4.748	0.331	-1.0	3/5/2010	8:46:23
3	0.500	1	2.331	0.164	0.3	3/5/2010	8:47:13
4	0.100	1	0.389	0.032	13.0	3/5/2010	8:48:03
5	0.050	1	0.183	0.015	13.3	3/5/2010	8:48:55
6	0.000	1	0.034	0.004		3/5/2010	8:49:47

Figure 1: TLPOS

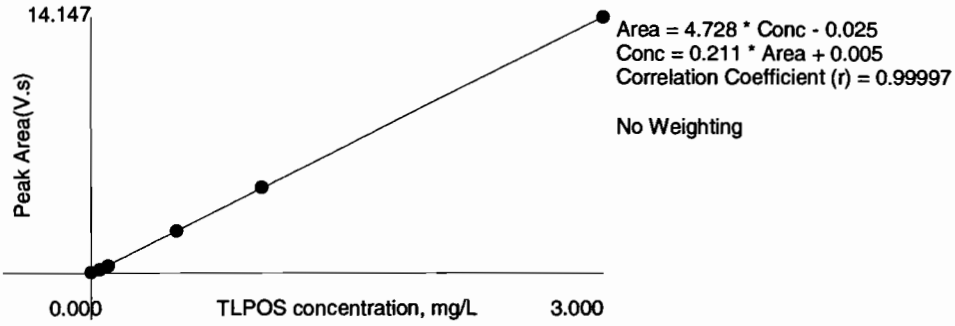

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axh3	3/5/2010 9:40:00	OM_3-5-2010_09-38-31
CCB		1	axh3	3/5/2010 9:42:04	OM_3-5-2010_09-38-31
1202054717	958139	1	axh3	3/5/2010 9:44:07	OM_3-5-2010_09-38-31
1202054718	958139	1	axh3	3/5/2010 9:44:55	OM_3-5-2010_09-38-31
247817001	958139	1	axh3	3/5/2010 9:45:45	OM_3-5-2010_09-38-31
248023001	958139	1	axh3	3/5/2010 9:46:34	OM_3-5-2010_09-38-31
248024002	958139	1	axh3	3/5/2010 9:47:22	OM_3-5-2010_09-38-31
248024004	958139	1	axh3	3/5/2010 9:48:09	OM_3-5-2010_09-38-31
248044001	958139	1	axh3	3/5/2010 9:48:59	OM_3-5-2010_09-38-31
248044003*	958139	1	axh3	3/5/2010 9:49:50	OM_3-5-2010_09-38-31
248044005	958139	1	axh3	3/5/2010 9:50:41	OM_3-5-2010_09-38-31
248044006	958139	1	axh3	3/5/2010 9:51:32	OM_3-5-2010_09-38-31
CCV		1	axh3	3/5/2010 9:52:23	OM_3-5-2010_09-38-31
CCB		1	axh3	3/5/2010 9:54:27	OM_3-5-2010_09-38-31
248072001	958139	1	axh3	3/5/2010 9:56:31	OM_3-5-2010_09-38-31
1202054688	958139	1	axh3	3/5/2010 9:57:22	OM_3-5-2010_09-38-31
1202054690	958139	1	axh3	3/5/2010 9:58:12	OM_3-5-2010_09-38-31
1202054692	958139	1	axh3	3/5/2010 9:59:01	OM_3-5-2010_09-38-31
248072002	958139	1	axh3	3/5/2010 9:59:51	OM_3-5-2010_09-38-31
248072003	958139	1	axh3	3/5/2010 10:00:40	OM_3-5-2010_09-38-31
248298001	958139	1	axh3	3/5/2010 10:01:29	OM_3-5-2010_09-38-31
248298002	958139	1	axh3	3/5/2010 10:02:18	OM_3-5-2010_09-38-31
248298003	958139	1	axh3	3/5/2010 10:03:07	OM_3-5-2010_09-38-31
248044003	958139	1	axh3	3/5/2010 10:03:56	OM_3-5-2010_09-38-31
CCV		1	axh3	3/5/2010 10:04:47	OM_3-5-2010_09-38-31
CCB		1	axh3	3/5/2010 10:06:51	OM_3-5-2010_09-38-31
1202057080*	959198	1	axh3	3/5/2010 10:08:53	OM_3-5-2010_09-38-31
1202057087*	959198	1	axh3	3/5/2010 10:09:41	OM_3-5-2010_09-38-31
248005001*	959198	1	axh3	3/5/2010 10:10:31	OM_3-5-2010_09-38-31
248005002*	959198	1	axh3	3/5/2010 10:11:23	OM_3-5-2010_09-38-31
248127001*	959198	1	axh3	3/5/2010 10:12:14	OM_3-5-2010_09-38-31
248164001*	959198	1	axh3	3/5/2010 10:13:03	OM_3-5-2010_09-38-31
1202057080	959198	1	axh3	3/5/2010 10:13:53	OM_3-5-2010_09-38-31
1202057087	959198	1	axh3	3/5/2010 10:14:40	OM_3-5-2010_09-38-31
248005001	959198	1	axh3	3/5/2010 10:15:30	OM_3-5-2010_09-38-31
248005002	959198	1	axh3	3/5/2010 10:16:22	OM_3-5-2010_09-38-31
CCV		1	axh3	3/5/2010 10:17:12	OM_3-5-2010_09-38-31
CCB		1	axh3	3/5/2010 10:19:17	OM_3-5-2010_09-38-31
248127001*	959198	1	axh3	3/5/2010 10:21:20	OM_3-5-2010_09-38-31
248164001*	959198	1	axh3	3/5/2010 10:22:11	OM_3-5-2010_09-38-31
1202057082*	959198	1	axh3	3/5/2010 10:23:00	OM_3-5-2010_09-38-31
1202057084*	959198	1	axh3	3/5/2010 10:23:50	OM_3-5-2010_09-38-31
1202057086*	959198	1	axh3	3/5/2010 10:24:39	OM_3-5-2010_09-38-31
248321001*	959198	1	axh3	3/5/2010 10:25:27	OM_3-5-2010_09-38-31
1202059637*	959198	1	axh3	3/5/2010 10:26:16	OM_3-5-2010_09-38-31
1202059638*	959198	1	axh3	3/5/2010 10:27:04	OM_3-5-2010_09-38-31
1202059639*	959198	1	axh3	3/5/2010 10:27:54	OM_3-5-2010_09-38-31
248547001*	959198	1	axh3	3/5/2010 10:28:45	OM_3-5-2010_09-38-31
CCV		1	axh3	3/5/2010 10:29:35	OM_3-5-2010_09-38-31
CCB		1	axh3	3/5/2010 10:31:39	OM_3-5-2010_09-38-31

Author: axh3 Date : 3/5/2010

Original Run Filename: OM_3-5-2010_09-38-31.OMN created 3/5/2010 9:38:31
Original Run Author's Signature: [axh3]
Current Run Filename: OM_3-5-2010_09-38-31.OMN last modified 3/5/2010 10:33:03
Current Run Author's Signature: [axh3]
Description: Total Phosphorous EPA Method 365.4 GEL SOP: GL-GC-E-103
Detection Wavelength: 880nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TLPOS Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100305-14 CCV	1	S3	0.987	4.641	3/5/2010@9:40:00			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.987 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.987 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100305-19 CCB	1	S7	0.017	0.056	3/5/2010@9:42:04			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.017 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.017 > -0.050					
		Message	CCB Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
1202054717|958139|MS	1	11	1.137	5.350	3/5/2010@9:44:07			
1202054718||MSD	1	12	1.154	5.429	3/5/2010@9:44:55			
247817001	1	3	0.060	0.260	3/5/2010@9:45:45			
248023001	1	13	0.067	0.291	3/5/2010@9:46:34			
248024002	1	14	0.058	0.248	3/5/2010@9:47:22			
248024004	1	15	0.062	0.268	3/5/2010@9:48:09			
248044001	1	16	0.061	0.261	3/5/2010@9:48:59			
248044003	1	17	0.281	1.304	3/5/2010@9:49:50			
248044005	1	18	0.028	0.107	3/5/2010@9:50:41			
248044006	1	19	0.005	-6.549e-5	3/5/2010@9:51:32			
WTR100305-14 CCV	1	S3	0.966	4.542	3/5/2010@9:52:23			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.966 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.966 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100305-19 CCB	1	S7	0.017	0.057	3/5/2010@9:54:27			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.017 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.017 > -0.050					
		Message	CCB Passed					
		Action	Continue					
248072001	1	20	0.199	0.918	3/5/2010@9:56:31			
1202054688||DUP	1	21	0.162	0.741	3/5/2010@9:57:22			
1202054690||MS	1	22	1.201	5.654	3/5/2010@9:58:12			
1202054692||MSD	1	23	1.136	5.344	3/5/2010@9:59:01			

248072002	1	24	0.050	0.212	3/5/2010@9:59:51			
248072003	1	25	0.038	0.156	3/5/2010@10:00:40			
248298001	1	26	0.042	0.174	3/5/2010@10:01:29			
248298002	1	27	0.035	0.140	3/5/2010@10:02:18			
248298003	1	28	0.037	0.150	3/5/2010@10:03:07			
248044003	1	17	0.062	0.267	3/5/2010@10:03:56			
WTR100305-14 CCV	1	S3	0.961	4.519	3/5/2010@10:04:47			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.961 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.961 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100305-19 CCB	1	S7	-0.008	-0.064	3/5/2010@10:06:51			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.008 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.008 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1202057080|959198|MB	1	29	0.018	0.058	3/5/2010@10:08:53			
1202057087||LCS	1	30	0.215	0.991	3/5/2010@10:09:41			
248005001	1	31	0.042	0.172	3/5/2010@10:10:31			
248005002	1	32	0.025	0.094	3/5/2010@10:11:23			
248127001	1	37	0.399	1.861	3/5/2010@10:12:14			
248164001	1	38	0.080	0.352	3/5/2010@10:13:03			
1202057080|959198|MB	1	29	0.018	0.058	3/5/2010@10:13:53			
1202057087||LCS	1	30	1.089	5.126	3/5/2010@10:14:40			
248005001	1	31	0.044	0.183	3/5/2010@10:15:30			
248005002	1	32	0.026	0.096	3/5/2010@10:16:22			
WTR100305-14 CCV	1	S3	0.980	4.607	3/5/2010@10:17:12			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.980 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.980 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100305-19 CCB	1	S7	0.023	0.083	3/5/2010@10:19:17			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.023 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.023 > -0.050					
		Message	CCB Passed					
		Action	Continue					
248127001	1	37	0.411	1.920	3/5/2010@10:21:20			
248164001	1	38	0.077	0.338	3/5/2010@10:22:11			
1202057082||DUP	1	39	0.152	0.696	3/5/2010@10:23:00			
1202057084||MS	1	40	0.681	3.194	3/5/2010@10:23:50			
1202057086||MSD	1	41	0.926	4.355	3/5/2010@10:24:39			
248321001	1	43	0.898	4.220	3/5/2010@10:25:27			
1202059637||DUP	1	44	0.433	2.023	3/5/2010@10:26:16			
1202059638||MS	1	45	1.013	4.765	3/5/2010@10:27:04			
1202059639||MSD	1	46	1.129	5.312	3/5/2010@10:27:54			
248547001	1	54	0.070	0.305	3/5/2010@10:28:45			
WTR100305-14 CCV	1	S3	1.042	4.901	3/5/2010@10:29:35			CCV
		Known Conc:	1.000					

Author: axh3 Date : 3/5/2010

DQM Test: > + Concentration Limit								
		Result:	1.042 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.042 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100305-19 CCB	1	S7	-0.412	-1.975	3/5/2010@10:31:39			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.412 < 0.050					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.412 < -0.050					
		Message	CCB Failed					
		Action	Stop Run					

Channel 1 (TLPOS) : Current View

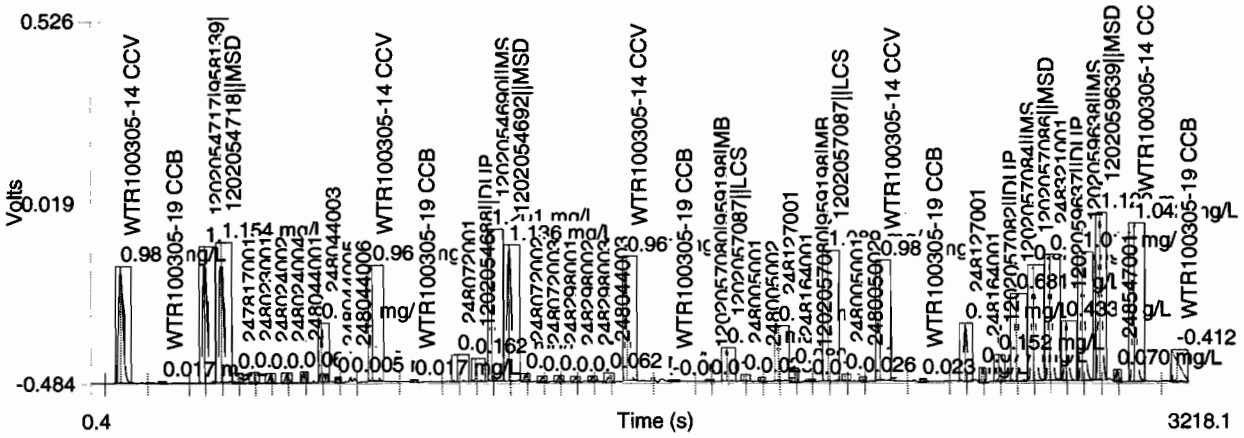

Table 1: TLPOS

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	3.000	1	14.147	0.976	0.1	3/5/2010	8:45:35
2	1.000	1	4.748	0.331	-1.0	3/5/2010	8:46:23
3	0.500	1	2.331	0.164	0.3	3/5/2010	8:47:13
4	0.100	1	0.389	0.032	13.0	3/5/2010	8:48:03
5	0.050	1	0.183	0.015	13.3	3/5/2010	8:48:55
6	0.000	1	0.034	0.004		3/5/2010	8:49:47

Author: axh3 Date : 3/5/2010

Figure 1: TLPOS

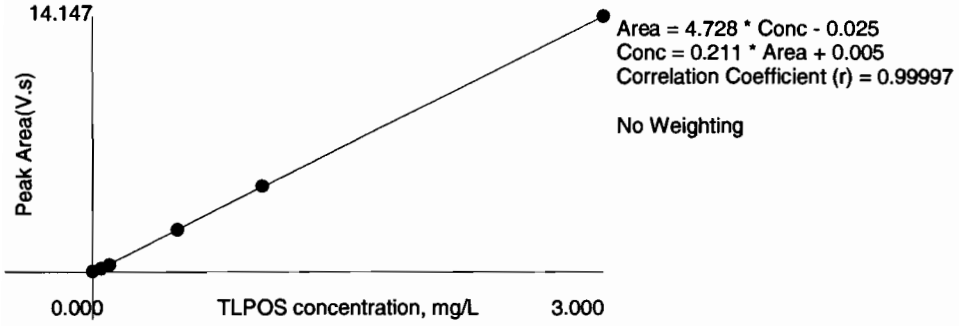

pH

pH / Corrosivity LogBook

Analyst: LXA1
Batch: 957681
Lab SOP: GL-GC-E-008 REV# 17
Description: pH
Method: SW846 9040B/9040C

Type	Sample Id	Serial Number	Description
CCV	240	IMM091029-PH	PH 7 BUFFER FOR PH
LCS	1202053583	IMM100209-01	LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parmname	Initial Wt()	Final Vol()	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
1202053583 LCS		Misc Liquid			25-FEB-10 11:50	pH			7.02	20.3'C	7	100.286	
1202053583 LCS		Misc Liquid			25-FEB-10 11:50	pH 2			7.02	20.3'C	7	100.286	
247409001		Misc Liquid			25-FEB-10 11:50	pH			13.73	14.2'C			
247409001		Misc Liquid			25-FEB-10 11:50	pH 2			13.74	14.2'C			
247531001		Waste Water			25-FEB-10 11:50	pH			9.61	12.6'C			
247531001		Waste Water			25-FEB-10 11:50	pH 2			9.61	12.6'C			
247750004		Misc Liquid			25-FEB-10 11:50	pH			3.44	15.0'C			
247750004		Misc Liquid			25-FEB-10 11:50	pH 2			3.44	15.0'C			
247817001		Ground Water			25-FEB-10 11:56	pH			7.92	12.1'C			
247817001		Ground Water			25-FEB-10 11:56	pH 2			7.91	12.1'C			
CCV					25-FEB-10 11:59	pH			7.03	20.2'C	7	100.429	
CCV					25-FEB-10 11:59	pH 2			7.03	20.2'C	7	100.429	
1202053582 DUP	247817001	Ground Water			25-FEB-10 12:03	pH			7.81	14.2'C			1.399
1202053582 DUP	247817001	Ground Water			25-FEB-10 12:03	pH 2			7.81	14.2'C			1.272
247819001		Misc Liquid			25-FEB-10 12:10	pH			8.2	15.7'C			
247819001		Misc Liquid			25-FEB-10 12:10	pH 2			8.19	15.7'C			
247829001		Ground Water			25-FEB-10 12:11	pH			8.02	15.0'C			
247829001		Ground Water			25-FEB-10 12:11	pH 2			8.01	15.0'C			
247862001		Misc Liquid			25-FEB-10 12:17	pH			0.06	17.7'C			
247862001		Misc Liquid			25-FEB-10 12:17	pH 2			0.08	18.0'C			
1202053580 DUP	247862001	Misc Liquid			25-FEB-10 12:23	pH			0.03	18.3'C			66.667
1202053580 DUP	247862001	Misc Liquid			25-FEB-10 12:23	pH 2			0.02	18.6'C			120

pH / Corrosivity LogBook

Analyst: LXA1
Batch: 957681
Lab SOP: GL-GC-E-008 REV# 17
Description: pH
Method: SW846 9040C

Type	Sample Id	Serial Number	Description
CCV	240	IMM091029-PH	PH 7 BUFFER FOR PH
LCS	1202053583	IMM100209-01	LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parmname	Initial Wt()	Final Vol()	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
CCV					25-FEB-10 12:25	pH			7.02	18.9'C	7	100.286	
CCV					25-FEB-10 12:25	pH 2			7.02	18.9'C	7	100.286	
247922004		Water			25-FEB-10 12:45	pH			7.57	17.1'C			
247922004		Water			25-FEB-10 12:45	pH 2			7.57	17.1'C			
1202053581 DUP	247922004	Water			25-FEB-10 12:48	pH			7.61	16.9'C			.527
1202053581 DUP	247922004	Water			25-FEB-10 12:48	pH 2			7.62	16.9'C			.658
247949001		Surface Water			25-FEB-10 12:52	pH			7.64	17.9'C			
247949001		Surface Water			25-FEB-10 12:52	pH 2			7.64	17.9'C			
CCV					25-FEB-10 12:56	pH			7.02	19.6'C	7	100.286	
CCV					25-FEB-10 12:56	pH 2			7.02	19.6'C	7	100.286	

Calibration Information:
Run Date: 25-FEB-10 08:32
Instrument: PHX742
Analyst: LXA1

	Standard	Observed	Theoretical		C	%Recovery
08:32	IMM100225-PH1	4.01	4	SU	21.2	100.25
08:32	IMM100225-PH2	7.01	7	SU	21.2	100.14
08:32	UPH100225-PH3	10.04	10	SU	21.2	100.4
08:32	UPH100225-PH4	2.09	2	SU	21.2	104.5
08:32	UPH100225-PH5	12.08	12	SU	21.2	100.67
08:32	IMM100225-PH6	7.03	7	SU	21.2	100.43

Comments:

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
25-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 353.2	Liquid	ESHL, HNLK, LANL
Batch ID:	**Sample Numbers:**		
957559	See Below		

Potentially affected work order(s)(SDG): 247780(10-1976),247817(10-2001),247829(10-2006),247913(10-2019),247949

Application Issues:

Failed Recovery for MS/PS

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for PS: QC 1202053245PS	1. The spike recovery falls outside of the GEL acceptance limits but within the client specified limits.

Originator's Name:

Aubrey Kingsbury 25-FEB-10

Data Validator/Group Leader:

Elzbieta Szulc 02-MAR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
26-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 350.1	Liquid	ALBR, ESHL, SCEG, SNDC,
Batch ID:	**Sample Numbers:**		
957556	See Below		

Potentially affected work order(s)(SDG): 247817(10-2001),247829(10-2006),247867,247929,247936,247953

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/MSD: QC 1202053230MS,1202053232MSD	1. The matrix spike was outside of the required acceptance limits due to matrix interference. The matrix spike duplicate verified the result with a passing RPD.
2. Failed Recovery for MS/MSD: QC 1202053229MS,1202053231MSD	2. The spike and spike duplicate recoveries fall outside of the GEL acceptance limits but within the client specified limits.

Originator's Name:

Aubrey Kingsbury 26-FEB-10

Data Validator/Group Leader:

Elzbieta Szulc 01-MAR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
03-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
BALANCE	EPA 160.1	Liquid	BJCO, ESHL, LANL, SCEG,
Batch ID:	**Sample Numbers:**		
958112	See Below		

Potentially affected work order(s)(SDG): 247817(10-2001),247829(10-2006),247922(10-2022),247929,247957,247966,248074(10-2050)

Application Issues:

Failed RPD for DUP

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for DUP: QC 1202054640DUP	1. The RPD between the sample and the duplicate falls outside the normal acceptance limits because of the heterogeneous matrix of the sample.

Originator's Name:

Shannon Hoffman 03-MAR-10

Data Validator/Group Leader:

Elzbieta Szulc 03-MAR-10

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2001

Method/Analysis Information

Product:	**Alphaspec Am241 Liquid**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Analytical Batch Number:	957019

Sample ID	Client ID
247817002	CAPA-10-13095
1202052006	Method Blank (MB)
1202052007	247829002(CAPA-10-13498) Sample Duplicate (DUP)
1202052008	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202052006 (MB) and 1202052008 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 247829002 (CAPA-10-13498). The QC was from LANL work order 247829.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec Pu, Liquid**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	957023

Sample ID	Client ID
247817002	CAPA-10-13095
1202052015	Method Blank (MB)
1202052016	247829002(CAPA-10-13498) Sample Duplicate (DUP)
1202052017	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202052015 (MB) and 1202052017 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 247829002 (CAPA-10-13498). The QC was from LANL work order 247829.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 1202052016 (CAPA-10-13498) was recounted due to high MDA.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec U, Liquid**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Analytical Batch Number:	957025

Sample ID	Client ID
247817002	CAPA-10-13095
1202052018	Method Blank (MB)
1202052019	247829002(CAPA-10-13498) Sample Duplicate (DUP)
1202052020	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202052018 (MB) and 1202052020 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 247829002 (CAPA-10-13498). The QC was from LANL work order 247829.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U-233/234 and U-235/236 blank results are greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The U-233/234, U-235/236, and U-238 blank results are greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Gammaspec, Gamma, Liquid**
Analytical Method:	EPA 901.1
Analytical Batch Number:	956976

Sample ID	Client ID
247817002	CAPA-10-13095
1202051903	Method Blank (MB)
1202051904	247829002(CAPA-10-13498) Sample Duplicate (DUP)
1202051905	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 19.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in March 2009, April 2009, June 2009, July 2009 and January 2010.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 247829002 (CAPA-10-13498). The QC was from LANL work order 247829.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The method blank, 1202051903 (MB), results for Np-237 and Gross Gamma are greater than 1.65 times the CSU, but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The method blank, 1202051903 (MB), result for Np-237 is greater than the decision level, but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Gross A/B, liquid**
Analytical Method:	EPA 900.0
Analytical Batch Number:	959739

Sample ID	Client ID
247817002	CAPA-10-13095
1202058390	Method Blank (MB)
1202058391	248020003(CAPA-10-13085) Sample Duplicate (DUP)
1202058392	248020003(CAPA-10-13085) Matrix Spike (MS)
1202058393	248020003(CAPA-10-13085) Matrix Spike Duplicate (MSD)
1202058394	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-001 REV# 12.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in July 2009. The discrimination settings are calibrated in beta discriminating mode to reduce beta to alpha crosstalk.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202058390 (MB) and 1202058394 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248020003 (CAPA-10-13085). The QC was from LANL work order 248020.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 1202058391 (CAPA-10-13085) was recounted due to a negative result greater than three times the error. Second count being reported.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Gross Alpha/Beta Preparation Information

High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating, especially to a dull red heat. For this sample set, the prepared planchet was counted for beta activity before being flamed. After flaming, the planchet was counted for alpha activity.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Sr90, liquid**
Analytical Method:	EPA 905.0 Modified
Analytical Batch Number:	959738

Sample ID	Client ID
247817002	CAPA-10-13095
1202058386	Method Blank (MB)
1202058387	248024003(CAPA-10-12873) Sample Duplicate (DUP)
1202058388	248024003(CAPA-10-12873) Matrix Spike (MS)
1202058389	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in February 2010.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202058386 (MB) and 1202058389 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248024003 (CAPA-10-12873). The QC was from LANL work order 248024.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level

The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Certification Statement

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

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer/Date: Pamela Nelle 5/15/10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

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

Client SDG: 10-2001 GEL Work Order: 247817

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: March 11, 2010

Client Sample ID:	CAPA-10-13095	Project:	ESHL01000
Sample ID:	247817002	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	21-FEB-10		
Receive Date:	23-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
Alphaspec Am241 Liquid "As Received"												
Americium-241	U	-0.00326	0.0325	+/-0.00407	0.050	pCi/L		HAKB	03/08/10	2120	957019	1
Alphaspec Pu, Liquid "As Received"												
Plutonium-238	U	0.00	0.0492	+/-0.00302	0.050	pCi/L		HAKB	03/09/10	0801	957023	2
Plutonium-239/240	U	0.00603	0.0344	+/-0.00428	0.050	pCi/L						
Alphaspec U, Liquid "As Received"												
Uranium-234		0.224	0.0896	+/-0.0398	1.00	pCi/L		HAKB	03/08/10	0705	957025	3
Uranium-235/236	U	-0.00354	0.0712	+/-0.00787	1.00	pCi/L						
Uranium-238		0.111	0.0639	+/-0.027	0.500	pCi/L						
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Liquid "As Received"												
Americium-241	U	0.196	5.81	+/-1.94	25.0	pCi/L		KXG3	03/04/10	2219	956976	4
Cesium-137	U	-0.548	3.83	+/-1.41	8.00	pCi/L						
Cobalt-60	U	-0.0707	3.64	+/-1.09	8.00	pCi/L						
Gross Gamma	U	15.4	21.4	+/-5.25	120	pCi/L						
Neptunium-237	U	-0.787	16.0	+/-5.55	10.0	pCi/L						
Potassium-40	U	-11.1	39.5	+/-13.0	10.0	pCi/L						
Sodium-22	U	0.618	3.80	+/-1.14	10.0	pCi/L						
Rad Gas Flow Proportional Counting												
GFPC, Gross A/B, liquid "As Received"												
Beta	U	1.78	2.39	+/-0.762	3.00	pCi/L		DXF3	03/05/10	0917	959739	5
Alpha	U	0.0727	1.84	+/-0.364	3.00	pCi/L		DXF3	03/06/10	0400	959739	6
GFPC, Sr90, liquid "As Received"												
Strontium-90	U	0.105	0.469	+/-0.135	0.500	pCi/L		JXR1	03/04/10	1515	959738	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	EPA 901.1

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: March 11, 2010

Client Sample ID: CAPA-10-13095
Sample ID: 247817002

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
5	EPA 900.0											
6	EPA 900.0											
7	EPA 905.0 Modified											

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	Alphaspec Am241 Liquid "As Rec	88.8	(50%-105%)
Plutonium-242 Tracer	Alphaspec Pu, Liquid "As Receive	80.4	(50%-105%)
Uranium-232 Tracer	Alphaspec U, Liquid "As Received	80.9	(50%-105%)
Strontium Carrier	GFPC, Sr90, liquid "As Received"	75.1	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: March 11, 2010

Client Sample ID: CAPA-10-13095
Sample ID: 247817002

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

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

QC Summary

Report Date: March 11, 2010

Client : **Los Alamos National Laboratory**
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: **Ms. Joylene Valdez**

Workorder: **247817**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 957019										
QC1202052007 247829002 DUP										
Americium-241	U	-0.00285	U	-0.000151	pCi/L	0.000592		(0-1)	HAKB	03/08/1021:20
	TPU:	+/-0.00232		+/-0.00271						
	Yield:	88.5		79.5						
QC1202052008 LCS										
Americium-241	2.84			2.64	pCi/L		93	(80%-120%)		
	TPU:			+/-0.182						
	Yield:			94.3						
QC1202052006 MB										
Americium-241			U	-0.00336	pCi/L					03/08/1009:38
	TPU:			+/-0.00372						
	Yield:			86.7						
Batch 957023										
QC1202052016 247829002 DUP										
Plutonium-238	U	0.00	U	0.00753	pCi/L	0.531		(0-1)	HAKB	03/10/1016:36
	TPU:	+/-0.00272		+/-0.00437						
	Yield:	85.5		69.5						
Plutonium-239/240	U	0.00348	U	0.00	pCi/L	0.255		(0-1)		
	TPU:	+/-0.00431		+/-0.00251						
	Yield:	85.5		69.5						
QC1202052017 LCS										
Plutonium-238			U	0.00827	pCi/L			(80%-120%)		03/09/1008:01
	TPU:			+/-0.00416						
	Yield:			95.4						
Plutonium-239/240	2.27			2.29	pCi/L		101	(80%-120%)		
	TPU:			+/-0.142						
	Yield:			95.4						
QC1202052015 MB										
Plutonium-238			U	-0.0018	pCi/L					
	TPU:			+/-0.00309						
	Yield:			76.4						
Plutonium-239/240			U	0.0032	pCi/L					
	TPU:			+/-0.00398						
	Yield:			76.4						

QC Summary

Workorder: 247817

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 957025										
QC1202052019 247829002 DUP										
Uranium-234		0.392		0.387	pCi/L	0.0293		(0-1)	HAKB	03/08/1007:05
	TPU:	+/-0.0394		+/-0.0538						
	Yield:	81.9		87.7						
Uranium-235/236	U	0.0171	U	0.0125	pCi/L	0.124		(0-1)		
	TPU:	+/-0.00657		+/-0.0118						
	Yield:	81.9		87.7						
Uranium-238		0.274		0.155	pCi/L	0.971		(0-1)		
	TPU:	+/-0.0304		+/-0.0309						
	Yield:	81.9		87.7						
QC1202052020 LCS										
Uranium-234				2.13	pCi/L					03/08/1007:05
	TPU:			+/-0.185						
	Yield:			95.9						
Uranium-235/236				0.126	pCi/L					
	TPU:			+/-0.0257						
	Yield:			95.9						
Uranium-238	2.59			2.28	pCi/L		87.7	(80%-120%)		
	TPU:			+/-0.196						
	Yield:			95.9						
QC1202052018 MB										
Uranium-234			U	0.0265	pCi/L					03/05/1012:23
	TPU:			+/-0.00778						
	Yield:			91.0						
Uranium-235/236			U	0.0117	pCi/L					
	TPU:			+/-0.0056						
	Yield:			91.0						
Uranium-238			U	0.00792	pCi/L					
	TPU:			+/-0.00528						
	Yield:			91.0						
Rad Gamma Spec										
Batch 956976										
QC1202051904 247829002 DUP										
Americium-241	U	-25.6	U	-20.6	pCi/L	0.155		(0-1)	KXG3	03/05/1016:47
	TPU:	+/-6.15		+/-9.83						
Cesium-137	U	-0.115	U	1.56	pCi/L	0.299		(0-1)		
	TPU:	+/-1.06		+/-1.74						

QC Summary

Workorder: 247817

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 956976										
Cobalt-60	U	0.137	U	2.26	pCi/L	0.341		(0-1)		
	TPU:	+/-1.10		+/-2.01						
Gross Gamma		32.8		31.7	pCi/L	0.0298		(0-1)		
	TPU:	+/-9.38		+/-8.76						
Neptunium-237	U	0.230	U	-28	pCi/L	0.612		(0-1)		
	TPU:	+/-8.18		+/-14.9						
Potassium-40	U	-10	U	-43.2	pCi/L	0.471		(0-1)		
	TPU:	+/-14.0		+/-21.2						
Sodium-22	U	-0.983	U	-0.245	pCi/L	0.133		(0-1)		
	TPU:	+/-1.17		+/-1.61						
QC1202051905 LCS										
Americium-241	1240			1490	pCi/L		121	(75%-125%)		03/05/1016:48
	TPU:			+/-96.3						
Cesium-137	431			452	pCi/L		105	(75%-125%)		
	TPU:			+/-18.5						
Cobalt-60	493			505	pCi/L		102	(75%-125%)		
	TPU:			+/-25.4						
Gross Gamma	2180			2050	pCi/L		94.2	(75%-125%)		
	TPU:			+/-182						
Neptunium-237				820	pCi/L					
	TPU:			+/-102						
Potassium-40			U	20.5	pCi/L					
	TPU:			+/-38.8						
Sodium-22			U	-1.21	pCi/L					
	TPU:			+/-2.28						
QC1202051903 MB										
Americium-241			U	0.417	pCi/L					03/04/1022:20
	TPU:			+/-2.56						
Cesium-137			U	0.642	pCi/L					
	TPU:			+/-0.698						
Cobalt-60			U	0.337	pCi/L					
	TPU:			+/-0.705						
Gross Gamma			U	24.6	pCi/L					

QC Summary

Workorder: 247817

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 956976										
	TPU:			+/-11.7						
Neptunium-237			U	11.0	pCi/L					
	TPU:			+/-4.57						
Potassium-40			U	2.05	pCi/L					
	TPU:			+/-11.6						
Sodium-22			U	0.0811	pCi/L					
	TPU:			+/-0.632						
Rad Gas Flow										
Batch 959738										
QC1202058387 248024003 DUP										
Strontium-90	U	0.0327	U	0.329	pCi/L	0.521		(0-1)	JXR1	03/04/1015:15
	TPU:	+/-0.134		+/-0.151						
	Yield:	78.4		86.3						
QC1202058389 LCS										
Strontium-90	22.2			19.3	pCi/L		86.9	(80%-120%)		03/04/1015:15
	TPU:			+/-1.66						
	Yield:			85.2						
QC1202058386 MB										
Strontium-90			U	0.0999	pCi/L					03/04/1018:04
	TPU:			+/-0.0688						
	Yield:			78.4						
QC1202058388 248024003 MS										
Strontium-90	222 U	0.0327		234	pCi/L		105	(75%-125%)		03/04/1016:38
	TPU:	+/-0.134		+/-19.9						
	Yield:	78.4		82.9						
Batch 959739										
QC1202058391 248020003 DUP										
Alpha	U	0.261	U	-0.387	pCi/L	0.373		(0-1)	DXF3	03/06/1015:27
	TPU:	+/-0.393		+/-0.476						
Beta	U	-0.762	U	-0.705	pCi/L	0.0179		(0-1)		03/05/1009:17
	TPU:	+/-0.739		+/-0.832						
QC1202058394 LCS										
Alpha	12.6			12.2	pCi/L		97	(80%-120%)		03/06/1004:00
	TPU:			+/-1.45						
Beta	38.5			42.5	pCi/L		111	(80%-120%)		03/05/1009:22
	TPU:			+/-3.72						
QC1202058390 MB										

QC Summary

Workorder: 247817

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 959739										
Alpha			U	0.0674	pCi/L					
	TPU:			+/-0.0742						
Beta			U	-0.242	pCi/L					03/05/1009:44
	TPU:			+/-0.117						
QC1202058392 248020003 MS										
Alpha	252 U	0.261		304	pCi/L		121	(75%-125%)		03/06/1004:00
	TPU:	+/-0.393		+/-30.0						
Beta	769 U	-0.762		791	pCi/L		103	(75%-125%)		03/05/1009:22
	TPU:	+/-0.739		+/-68.5						
QC1202058393 248020003 MSD										
Alpha	252 U	0.261		310	pCi/L	0.045	123	(0-1)		03/06/1004:00
	TPU:	+/-0.393		+/-35.7						
Beta	769 U	-0.762		824	pCi/L	0.119	107	(0-1)		03/05/1009:22
	TPU:	+/-0.739		+/-71.6						

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

QC Summary

Workorder: **247817**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time

P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 957019 Product: Am Date: 3/11/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: JoLMJ - 3/11/10

Secondary Review Performed By: KBell 3/12/10

3/13

Am/Cm Que Sheet

24-FEB-10

Batch #: 957019 | Analyst: HAKB | First Client Due Date: 13-MAR-10 | Internal Due Date02-MAR-10 | Comments:

Tracer(s): Am243/Cm244 | Tracer Code: 445-96-2-55 | Expiration Date: 5/11/10 | Vol: 0.1

LCS Isotope(s): Am241/Cm244 | LCS Code(s): 0533-0 / NA | Expiration Date: 9/10/10 / NA | Vol(s): 0.1 / NA

Spike Isotope(s): Am241/Cm244 | Spike Code(s): NA / NA | Expiration Date: NA / NA | Vol(s): NA / NA

Prep Date: 2/25/10 | Initials: HAKB | Pipet ID: 2971058 | Balance ID: MDA 2/25/10 1750207 | Witness: MDA 2/25/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Am/Cm Det #
246862002-1	CASA-10-9475	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	09-FEB-10	1	1	0.800	25
246877002-1	CASA-10-9446	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	09-FEB-10	2	2	0.800	26
246877003-1	CASA-10-9447	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	09-FEB-10	3	3	0.800	27
246886001-1	CASA-10-9456	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	09-FEB-10	4	4	0.800	28
246886003-1	CASA-10-9479	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	09-FEB-10	5	5	0.800	29
246964001-1	CAMO-10-9370	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	10-FEB-10	6	6	0.800	30
246964003-1	CAMO-10-9373	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	10-FEB-10	7	7	0.800	31
246967002-1	CAMO-10-9350	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	10-FEB-10	8	8	0.800	33
246967003-1	CAMO-10-9357	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	10-FEB-10	9	9	0.800	35
247036001-1	CASA-10-9464	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	11-FEB-10	10	10	0.800	36
247036004-1	CASA-10-9469	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	11-FEB-10	11	11	0.800	37
247042003-1	CAMO-10-9329	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	11-FEB-10	12	12	0.800	38
247042005-1	CAMO-10-9343	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	11-FEB-10	13	13	0.800	39
~~247261003-1~~	~~CAPA-10-12691~~	~~SAMPLE~~		~~.05 pCi/L~~	~~GROUND WATER~~	~~LANL010~~	~~16-FEB-10~~	~~14~~	14	0.800	~~40~~
247431001-1	CAWA-10-13090	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	17-FEB-10	15	15	0.800	41
247817002-1	CAPA-10-13095	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	21-FEB-10	16	16	0.800	42
247829002-1	CAPA-10-13498	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	22-FEB-10	17	17	0.800	~~255~~ 228
1202052006-1	MB for batch 957019	MB		.05 pCi/L	GROUND WATER	QC ACCOUNT		18	18	*~~0.800~~	256
1202052007-1	CAPA-10-13498(247829002DUP)	DUP		.05 pCi/L	GROUND WATER	QC ACCOUNT	22-FEB-10	19	19	0.800	43
1202052008-1	LCS for batch 957019	LCS		.05 pCi/L	GROUND WATER	QC ACCOUNT		20	20	*~~0.800~~	44

*1.0 DG 3/9/10

Choose SOP Used: GL-RAD-A-011 / GL-RAD-A-036

Solid Sample Dissolution by: LEACH / or DIGESTION (Circle One) — NA EB 3/9/10

Data Reviewed By: JoLAr 3/11/10

Blank Correction Report

Batch ID 957019

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202052007	DUP	Americium-241	0.800 L	-0.000151	0.00271	0.0345	-.0042	pCi/L	NO
1202052008	LCS	Americium-241	1.00 L	2.64	0.182	0.0238	-.00336	pCi/L	NO
1202052006	MB	Americium-241	1.00 L	-0.00336	0.00372	0.0229	-.00336	pCi/L	NO
246862002	CASA-10-9475	Americium-241	0.800 L	0.00916	0.0124	0.0404	-.0042	pCi/L	NO
246877002	CASA-10-9446	Americium-241	0.800 L	-0.00205	0.00355	0.0368	-.0042	pCi/L	NO
246877003	CASA-10-9447	Americium-241	0.800 L	-0.00655	0.00367	0.0328	-.0042	pCi/L	NO
246886001	CASA-10-9456	Americium-241	0.800 L	-0.00626	0.0047	0.0376	-.0042	pCi/L	NO
246886003	CASA-10-9479	Americium-241	0.800 L	-0.00575	0.00716	0.0356	-.0042	pCi/L	NO
246964001	CAMO-10-9370	Americium-241	0.800 L	-0.0136	0.008	0.0394	-.0042	pCi/L	NO
246964003	CAMO-10-9373	Americium-241	0.800 L	-0.00722	0.00518	0.0349	-.0042	pCi/L	NO
246967002	CAMO-10-9350	Americium-241	0.800 L	0.00624	0.0052	0.0354	-.0042	pCi/L	NO
246967003	CAMO-10-9357	Americium-241	0.800 L	0.0167	0.00807	0.0397	-.0042	pCi/L	NO
247036001	CASA-10-9464	Americium-241	0.800 L	0.00828	0.00483	0.0356	-.0042	pCi/L	NO
247036004	CASA-10-9469	Americium-241	0.800 L	-0.00484	0.00742	0.0334	-.0042	pCi/L	NO
247042003	CAMO-10-9329	Americium-241	0.800 L	-0.00756	0.00712	0.0342	-.0042	pCi/L	NO
247042005	CAMO-10-9343	Americium-241	0.800 L	-0.00306	0.0102	0.0325	-.0042	pCi/L	NO
247431001	CAWA-10-13090	Americium-241	0.800 L	-0.00625	0.00469	0.0375	-.0042	pCi/L	NO
247817002	CAPA-10-13095	Americium-241	0.800 L	-0.00326	0.00407	0.0325	-.0042	pCi/L	NO
247829002	CAPA-10-13498	Americium-241	0.800 L	-0.00285	0.00232	0.0296	-.0042	pCi/L	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957019	CHAMBER : 042	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0247817002_AM	DETECTOR S/N : 78793	BKG FILE : B042.CNF;1115
SAMPLE QTY : 0.800 L	AVERAGE %EFFICIENCY : 34.6417	BKG DATE : 7-MAR-2010
SAMPLE DATE : 21-FEB-2010 00:00:00	COUNT DATE : 8-MAR-2010 21:20:26	BKG LIVE TIME(SEC) : 59999.99
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W042.CNF;296
% YIELD : 88.779		CAL DATE : 5-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0533-O	ID : 0533-O
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9165E+00 dpm	NOMINAL : 3.5516E+00 pCi/L	NOMINAL : 3.5516E+00 pCi/L
RESULTS : 2.5893E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
AM-241	5479.150	5439.154	53.994	2.000	-1.281	2.160	2.3343	99.94000	-3.26E-03	4.07E-03	1.28E-02	3.25E-02	4.07E-03
AM243	5270.000	5278.828	28.182	648.000	644.400	3.600	1.8974	99.78000	1.64E+00	1.25E-01	1.04E-02	2.78E-02	6.50E-02
CM-242	6102.000	6085.701	0.000	0.000	-1.440	1.440	3.1757	100.0000	-3.92E-03	3.89E-03	1.74E-02	4.17E-02	3.89E-03
CM-3/4	5795.020	5828.066	4.909	1.000	-0.440	1.440	3.3743	100.0000	-1.12E-03	3.64E-03	1.85E-02	4.39E-02	3.64E-03
CM-5/6	5386.000	5380.855	14.112	3.000	3.000	0.000	6.9212	86.09000	8.86E-03	5.15E-03	4.41E-02	9.62E-02	5.12E-03
CM-247	4946.000	4872.828	58.903	4.000	1.120	2.880	5.6900	79.30000	3.59E-03	7.91E-03	3.94E-02	8.74E-02	7.90E-03
CM-248	5078.600	5057.254	4.909	6.000	3.840	2.160	7.8985	91.00000	1.07E-02	7.71E-03	4.76E-02	1.03E-01	7.68E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

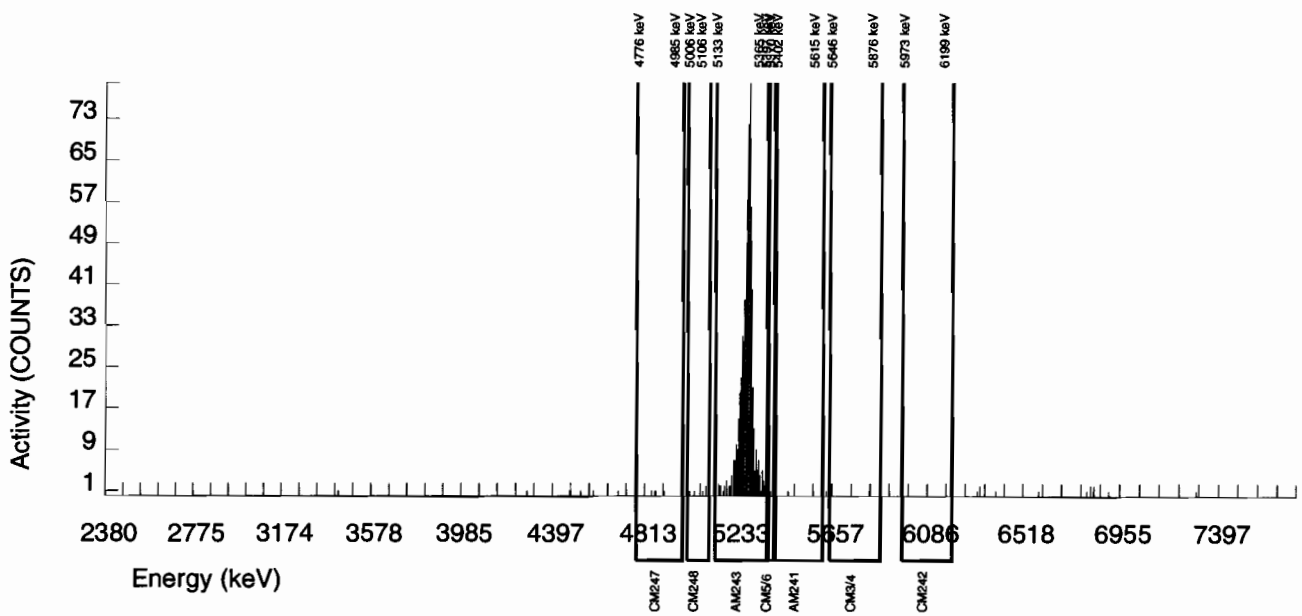

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957019	CHAMBER : 228	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0247829002_AM	DETECTOR S/N : 79421	BKG FILE : B228.CNF;87
SAMPLE QTY : 0.800 L	AVERAGE %EFFICIENCY : 38.2168	BKG DATE : 7-MAR-2010
SAMPLE DATE : 22-FEB-2010 00:00:00	COUNT DATE : 10-MAR-2010 18:56:07	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W228.CNF;30
% YIELD : 88.541		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0533-O	ID : 0533-O
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.5516E+00 pCi/L	NOMINAL : 3.5516E+00 pCi/L
RESULTS : 2.5824E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
AM-241	5479.150	5509.091	0.000	0.000	-1.234	0.000	2.3343	99.94000	-2.85E-03	2.32E-03	1.16E-02	2.96E-02	2.31E-03
AM243	5270.000	5280.209	40.153	709.000	709.000	0.000	0.0000	99.78000	1.64E+00	1.21E-01	0.00E+00	6.28E-03	6.17E-02
CM-242	6102.000	6086.097	0.000	0.000	-0.720	0.720	3.1757	100.0000	-1.79E-03	3.07E-03	1.58E-02	3.79E-02	3.06E-03
CM-3/4	5795.020	5760.439	0.000	0.000	0.000	0.000	3.3743	100.0000	0.00E+00	2.32E-03	1.68E-02	3.99E-02	2.32E-03
CM-5/6	5386.000	5380.411	8.176	9.000	9.000	0.000	6.9212	86.09000	2.42E-02	8.20E-03	4.01E-02	8.74E-02	8.05E-03
CM-247	4946.000	4912.417	4.936	12.000	12.000	0.000	5.6900	79.30000	3.50E-02	1.03E-02	3.58E-02	7.95E-02	1.01E-02
CM-248	5078.600	5063.295	0.000	17.000	17.000	0.000	7.8985	91.00000	4.32E-02	1.08E-02	4.33E-02	9.34E-02	1.05E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

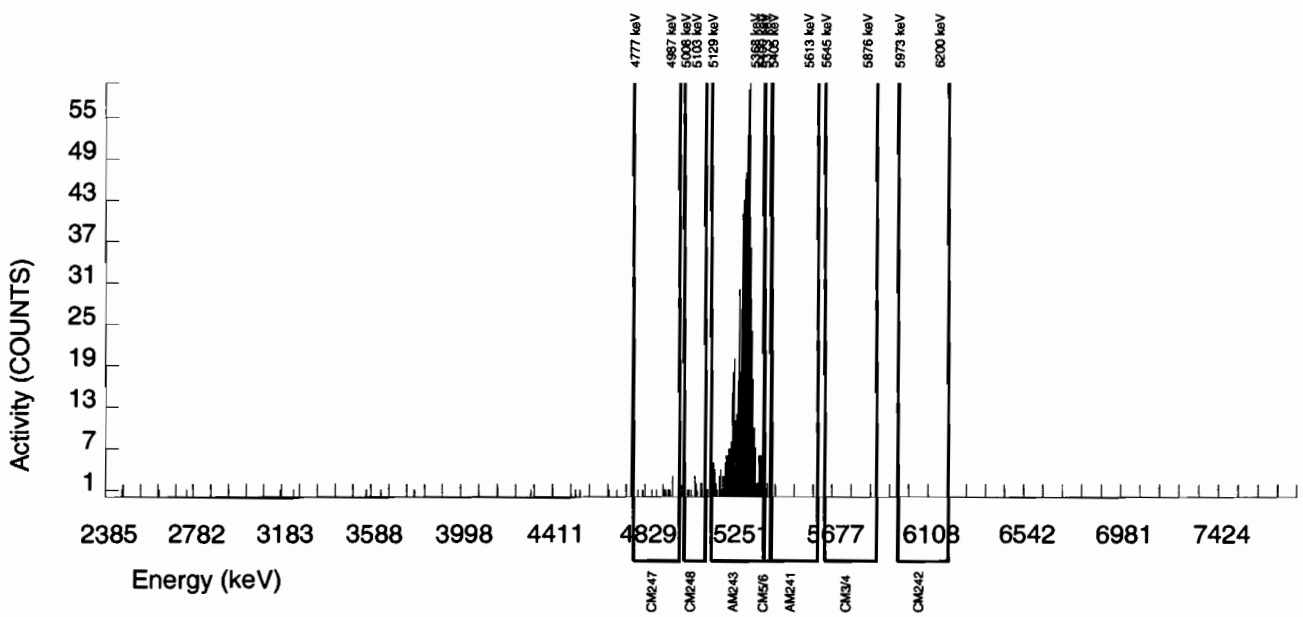

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957019	CHAMBER : 256	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202052006_AM	DETECTOR S/N : 79449	BKG FILE : B256.CNF;89
SAMPLE QTY : 1.000 L	AVERAGE %EFFICIENCY : 40.3572	BKG DATE : 7-MAR-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 8-MAR-2010 09:38:12	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W256.CNF;30
% YIELD : 86.665		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0533-O	ID : 0533-O
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9165E+00 dpm	NOMINAL : 2.8412E+00 pCi/L	NOMINAL : 2.8412E+00 pCi/L
RESULTS : 2.5276E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
AM-241	5479.150	5506.371	49.204	3.000	-1.875	3.600	2.3343	99.94000	-3.36E-03	3.72E-03	9.01E-03	2.29E-02	3.72E-03
AM243	5270.000	5278.176	39.402	735.000	732.840	2.160	1.4697	99.78000	1.31E+00	9.61E-02	5.68E-03	1.62E-02	4.87E-02
CM-242	6102.000	6087.865	0.000	0.000	0.000	0.000	3.1757	100.0000	0.00E+00	1.88E-03	1.23E-02	2.94E-02	1.88E-03
CM-3/4	5795.020	5763.292	0.000	0.000	-1.440	1.440	3.3743	100.0000	-2.58E-03	2.56E-03	1.30E-02	3.09E-02	2.56E-03
CM-5/6	5386.000	5376.653	9.072	10.000	10.000	0.000	6.9212	86.09000	2.08E-02	6.70E-03	3.10E-02	6.77E-02	6.57E-03
CM-247	4946.000	4871.334	177.136	9.000	6.840	2.160	5.6900	79.30000	1.54E-02	7.39E-03	2.77E-02	6.15E-02	7.33E-03
CM-248	5078.600	5068.838	9.841	14.000	13.280	0.720	7.8985	91.00000	2.61E-02	7.67E-03	3.35E-02	7.23E-02	7.49E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

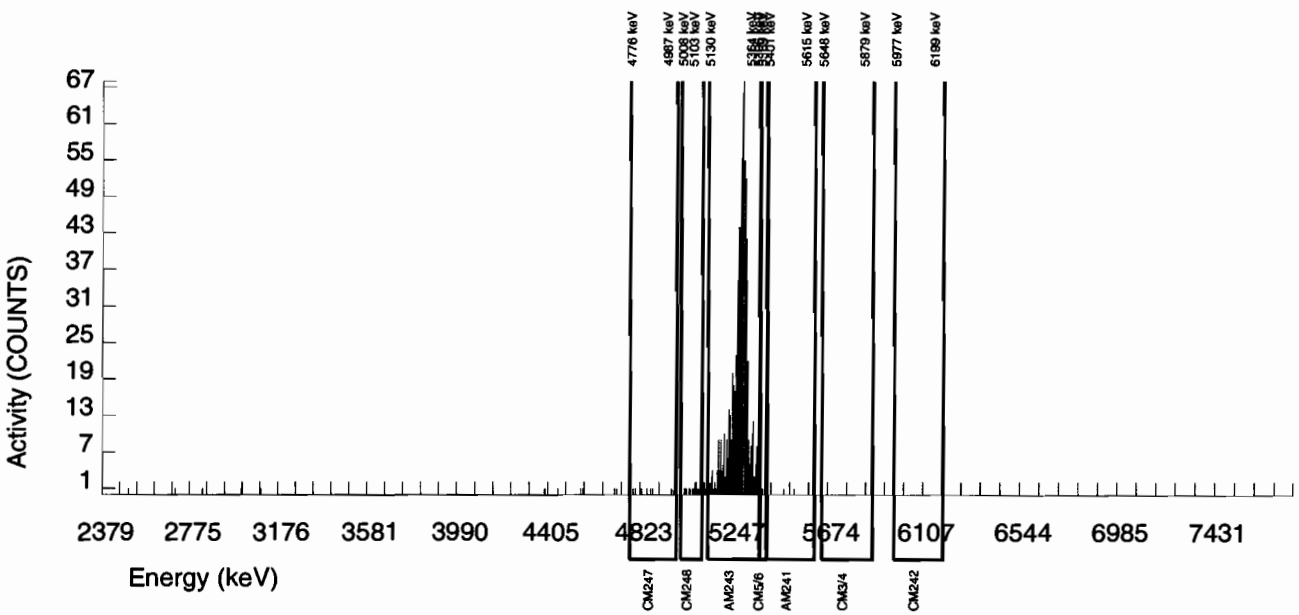

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957019	CHAMBER : 043	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202052007_AM	DETECTOR S/N : 76543	BKG FILE : B043.CNF;1113
SAMPLE QTY : 0.800 L	AVERAGE %EFFICIENCY : 36.4208	BKG DATE : 7-MAR-2010
SAMPLE DATE : 22-FEB-2010 00:00:00	COUNT DATE : 8-MAR-2010 21:20:27	BKG LIVE TIME(SEC) : 59999.99
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W043.CNF;288
% YIELD : 79.521		CAL DATE : 5-MAR-2010
TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0533-O	ID : 0533-O
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9165E+00 dpm	NOMINAL : 3.5516E+00 pCi/L	NOMINAL : 3.5516E+00 pCi/L
RESULTS : 2.3193E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
AM-241	5479.150	5584.581	4.918	1.000	-0.056	0.000	2.3343	99.94000	-1.51E-04	2.71E-03	1.36E-02	3.45E-02	2.70E-03
AM243	5270.000	5277.236	32.232	609.000	606.840	2.160	1.4697	99.78000	1.64E+00	1.27E-01	8.58E-03	2.45E-02	6.69E-02
CM-242	6102.000	6086.501	0.000	0.000	0.000	0.000	3.1757	100.0000	0.00E+00	2.89E-03	1.85E-02	4.43E-02	2.88E-03
CM-3/4	5795.020	5723.568	4.918	1.000	-1.880	2.880	3.3743	100.0000	-5.08E-03	4.74E-03	1.97E-02	4.66E-02	4.74E-03
CM-5/6	5386.000	5384.913	0.000	2.000	2.000	0.000	6.9212	86.09000	6.27E-03	4.45E-03	4.68E-02	1.02E-01	4.44E-03
CM-247	4946.000	4884.739	41.653	9.000	7.560	1.440	5.6900	79.30000	2.57E-02	1.09E-02	4.18E-02	9.28E-02	1.08E-02
CM-248	5078.600	5064.480	67.168	19.000	19.000	0.000	7.8985	91.00000	5.64E-02	1.34E-02	5.06E-02	1.09E-01	1.29E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

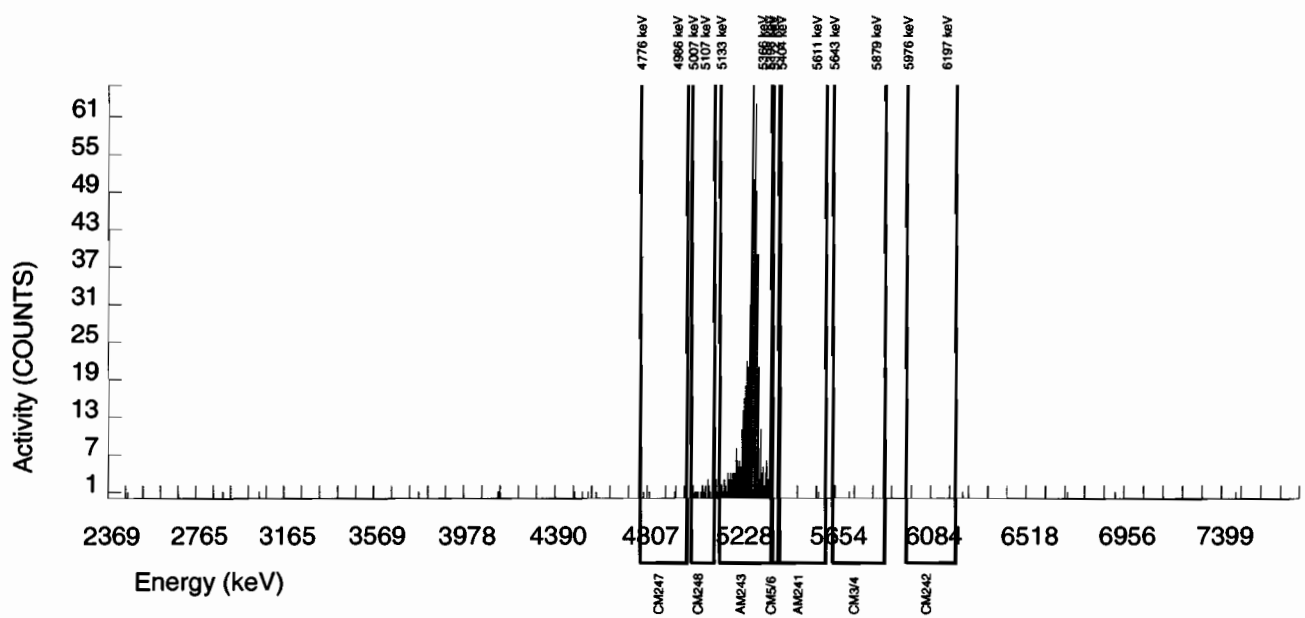

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957019	CHAMBER : 044	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202052008_AM	DETECTOR S/N : 79459	BKG FILE : B044.CNF;1123
SAMPLE QTY : 1.000 L	AVERAGE %EFFICIENCY : 35.5933	BKG DATE : 7-MAR-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 8-MAR-2010 21:20:27	BKG LIVE TIME(SEC) : 59999.99
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W044.CNF;309
% YIELD : 94.301		CAL DATE : 5-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0533-O	ID : 0533-O
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9165E+00 dpm	NOMINAL : 2.8412E+00 pCi/L	NOMINAL : 2.8412E+00 pCi/L
RESULTS : 2.7503E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
AM-241	5479.150	5501.675	38.811	1418.000	1416.776	0.000	2.3343	99.94000	2.64E+00	1.82E-01	9.39E-03	2.38E-02	7.02E-02
AM243	5270.000	5279.464	32.295	704.000	703.280	0.720	0.8485	99.78000	1.31E+00	9.72E-02	3.42E-03	1.19E-02	4.96E-02
CM-242	6102.000	6108.446	0.000	3.000	2.280	0.720	3.1757	100.0000	4.47E-03	3.69E-03	1.28E-02	3.06E-02	3.68E-03
CM-3/4	5795.020	5755.281	138.701	4.000	1.120	2.880	3.3743	100.0000	2.09E-03	4.60E-03	1.36E-02	3.22E-02	4.60E-03
CM-5/6	5386.000	5384.914	13.003	25.000	25.000	0.000	6.9212	86.09000	5.41E-02	1.14E-02	3.23E-02	7.05E-02	1.08E-02
CM-247	4946.000	4868.396	0.000	8.000	8.000	0.000	5.6900	79.30000	1.88E-02	6.75E-03	2.89E-02	6.41E-02	6.65E-03
CM-248	5078.600	5053.749	59.443	14.000	13.280	0.720	7.8985	91.00000	2.72E-02	7.99E-03	3.49E-02	7.54E-02	7.80E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

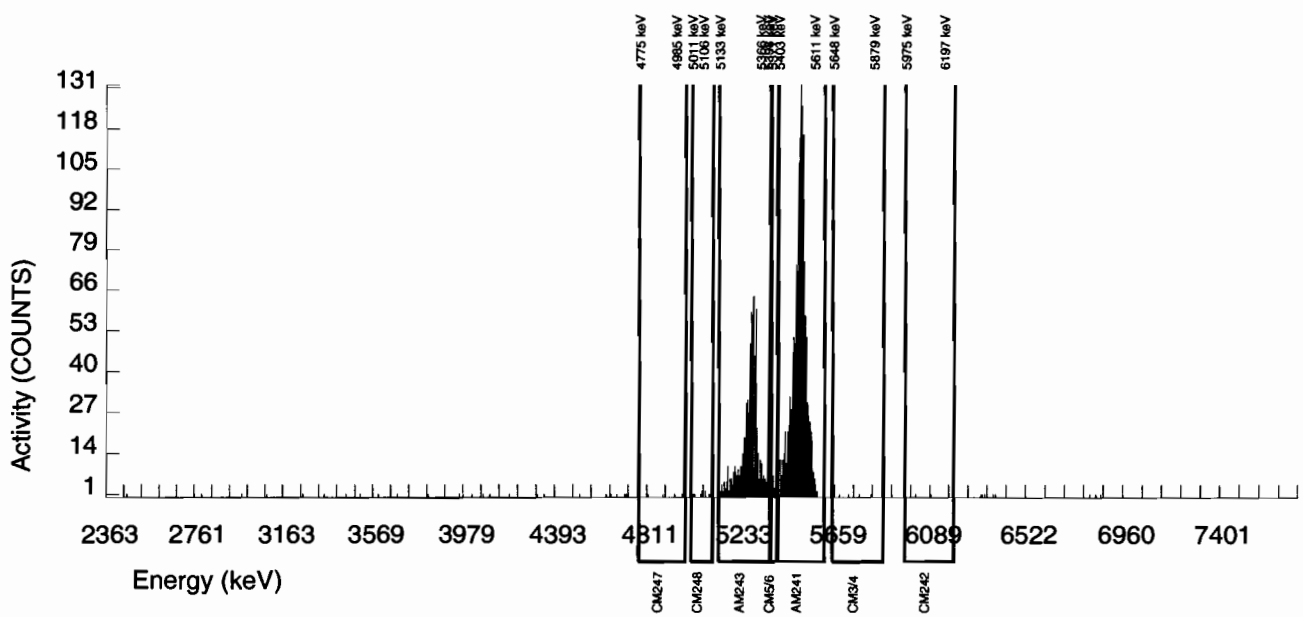

Radiochemistry Batch Checklist, Rev10

Batch# 957023 Product: PU Date: 3/4/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.		✓	Case narrative
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: 3/11/10

Secondary Review Performed By: 3/11/10

3/2 - 3/13

CAM

Plutonium Que Sheet

24-FEB-10

Batch #: 957023 Analyst: HAKB First Client Due Date:13-MAR-10 Internal Due Date:02-MAR-10

Tracer Isotope(s): Pu-242/Pu-238 Tracer Code: 1375-A Expiration Date: 1/8/11 Vol: 0.1

LCS Isotope(s): Pu-239/Pu-238 LCS Code: 0338-BB Expiration Date: 6/23/10 Vol: 0.1

Spike Isotope(s): Pu-239/Pu-238 Spike Code: NA Expiration Date: NA Vol: NA

Prep Date: 2/25/10 Initials: HAKB Pipet ID: 29710058 Balance ID: MDA 2/25/10 16750207 Witness: MDA 2/25/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l)	Pu Det #
246862002-1	CASA-10-9475	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	09-FEB-10	1	1	0.800	99 ~~45~~
246877002-1	CASA-10-9446	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	09-FEB-10	2	2	0.800	46
246877003-1	CASA-10-9447	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	09-FEB-10	3	3	0.800	~~48~~
246886001-1	CASA-10-9456	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	09-FEB-10	4	4	0.800	71
246886003-1	CASA-10-9479	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	09-FEB-10	5	5	0.800	72
246964001-1	CAMO-10-9370	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	10-FEB-10	6	6	0.800	100 ~~73~~
246964003-1	CAMO-10-9373	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	10-FEB-10	7	7	0.800	74
246967002-1	CAMO-10-9350	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	10-FEB-10	8	8	0.800	75
246967003-1	CAMO-10-9357	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	10-FEB-10	9	9	0.800	101 ~~76~~
247036001-1	CASA-10-9464	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	11-FEB-10	10	10	0.800	83
247036004-1	CASA-10-9469	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	11-FEB-10	11	11	0.800	84
247042003-1	CAMO-10-9329	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	11-FEB-10	12	12	0.800	85
247042005-1	CAMO-10-9343	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	11-FEB-10	13	13	0.800	102 ~~86~~
247261003-1	CAPA-10-12691	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	15-FEB-10	14	14	0.800	103 ~~87~~
247431001-1	CAWA-10-13090	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	17-FEB-10	15	15	0.800	105 ~~88~~
247817002-1	CAPA-10-13095	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	21-FEB-10	16	16	0.800	106
247829002-1	CAPA-10-13498	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	22-FEB-10	17	17	0.800	101
1202052015-1	MB for batch 957023	MB		.05 pCi/L	GROUND WATE	QC ACCOUNT		18	18	~~0.800~~	102
1202052016-1	CAPA-10-13498(247829002DUP)	DUP		.05 pCi/L	GROUND WATE	QC ACCOUNT	22-FEB-10	19	19	0.800	~~105~~ 106
1202052017-1	LCS for batch 957023	LCS		.05 pCi/L	GROUND WATE	QC ACCOUNT		20	20	~~0.800~~	105

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) NA ESB 3/9/10

Data Reviewed By: 03/11/10

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 957023

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202052016	DUP	Plutonium-238	0.800 L	0.00753	0.00437	0.0437	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00	0.00251	0.0304	.004	pCi/L	YES
1202052017	LCS	Plutonium-238	1.00 L	0.00827	0.00416	0.0337	-.0018	pCi/L	NO
		Plutonium-239/240	1.00 L	2.29	0.142	0.0236	.0032	pCi/L	NO
1202052015	MB	Plutonium-238	1.00 L	-0.0018	0.00309	0.0409	-.0018	pCi/L	NO
		Plutonium-239/240	1.00 L	0.0032	0.00398	0.0286	.0032	pCi/L	YES
246862002	CASA-10-9475	Plutonium-238	0.800 L	-0.000685	0.00455	0.052	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00502	0.00608	0.036	.004	pCi/L	YES
246877002	CASA-10-9446	Plutonium-238	0.800 L	0.00841	0.00488	0.0458	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00919	0.00598	0.032	.004	pCi/L	YES
246877003	CASA-10-9447	Plutonium-238	0.800 L	-0.0234	0.0109	0.0507	-.00225	pCi/L	YES
		Plutonium-239/240	0.800 L	-0.0237	0.00835	0.0354	.004	pCi/L	YES
246886001	CASA-10-9456	Plutonium-238	0.800 L	-0.00798	0.00774	0.0472	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00162	0.00504	0.033	.004	pCi/L	YES
246886003	CASA-10-9479	Plutonium-238	0.800 L	0.00582	0.0122	0.0528	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	-0.00142	0.00461	0.0369	.004	pCi/L	YES
246964001	CAMO-10-9370	Plutonium-238	0.800 L	0.00825	0.00479	0.0478	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.0055	0.0039	0.0333	.004	pCi/L	YES
246964003	CAMO-10-9373	Plutonium-238	0.800 L	0.00171	0.00532	0.0498	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.0039	0.00484	0.0348	.004	pCi/L	YES
246967002	CAMO-10-9350	Plutonium-238	0.800 L	0.00312	0.00312	0.0509	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.0227	0.00919	0.0356	.004	pCi/L	NO
246967003	CAMO-10-9357	Plutonium-238	0.800 L	0.00234	0.00235	0.0407	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00468	0.00469	0.0283	.004	pCi/L	YES
247036001	CASA-10-9464	Plutonium-238	0.800 L	0.00329	0.0122	0.0448	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	-0.00121	0.00392	0.0313	.004	pCi/L	YES
247036004	CASA-10-9469	Plutonium-238	0.800 L	-0.00213	0.00364	0.0482	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.000826	0.00364	0.0337	.004	pCi/L	YES
247042003	CAMO-10-9329	Plutonium-238	0.800 L	0.00	0.00298	0.0485	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.000832	0.00367	0.0339	.004	pCi/L	YES
247042005	CAMO-10-9343	Plutonium-238	0.800 L	0.0022	0.00381	0.0382	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	1.31E-10	0.00311	0.0266	.004	pCi/L	YES
247261003	CAPA-10-12691	Plutonium-238	0.800 L	0.00282	0.00488	0.049	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00844	0.0049	0.0341	.004	pCi/L	YES
247431001	CAWA-10-13090	Plutonium-238	0.800 L	0.00238	0.00239	0.0414	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	-0.00238	0.00533	0.0288	.004	pCi/L	YES
247817002	CAPA-10-13095	Plutonium-238	0.800 L	0.00	0.00302	0.0492	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00603	0.00428	0.0344	.004	pCi/L	YES
247829002	CAPA-10-13498	Plutonium-238	0.800 L	0.00	0.00272	0.0444	-.00225	pCi/L	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
247829002	CAPA-10-13498	Plutonium-239/240	0.800 L	0.00348	0.00431	0.031	.004	pCi/L	YES

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957023	CHAMBER : 106	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0247817002_PU	DETECTOR S/N : 64274	BKG FILE : B106.CNF;690
SAMPLE QTY : 0.800 L	AVERAGE %EFFICIENCY : 32.3164	BKG DATE : 7-MAR-2010
SAMPLE DATE : 21-FEB-2010 00:00:00	COUNT DATE : 9-MAR-2010 08:01:30	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W106.CNF;186
% YIELD : 80.358		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0338-BB	ID : 0338-BB
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 2.8357E+00 pCi/L	NOMINAL : 2.8357E+00 pCi/L
RESULTS : 2.7167E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-236	5749.000	5736.215	183.263	11.000	10.280	0.720	1.6619	100.0000	3.13E-02	1.05E-02	1.08E-02	2.98E-02	1.03E-02
PU-238	5499.000	5440.023	0.000	0.000	0.000	0.000	3.1571	99.90000	0.00E+00	3.02E-03	2.05E-02	4.92E-02	3.02E-03
PU-9/0	5155.000	5170.543	54.484	2.000	2.000	0.000	2.0178	99.90000	6.03E-03	4.28E-03	1.31E-02	3.44E-02	4.26E-03
PU242	4890.000	4863.753	52.451	635.000	632.120	2.880	1.6971	100.0000	1.90E+00	1.31E-01	1.10E-02	3.02E-02	7.60E-02
PU-244	4589.000	4540.392	0.000	8.000	8.000	0.000	4.0676	99.90000	2.41E-02	8.63E-03	2.65E-02	6.11E-02	8.53E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU242 calculated as sqrt(BKG AREA).

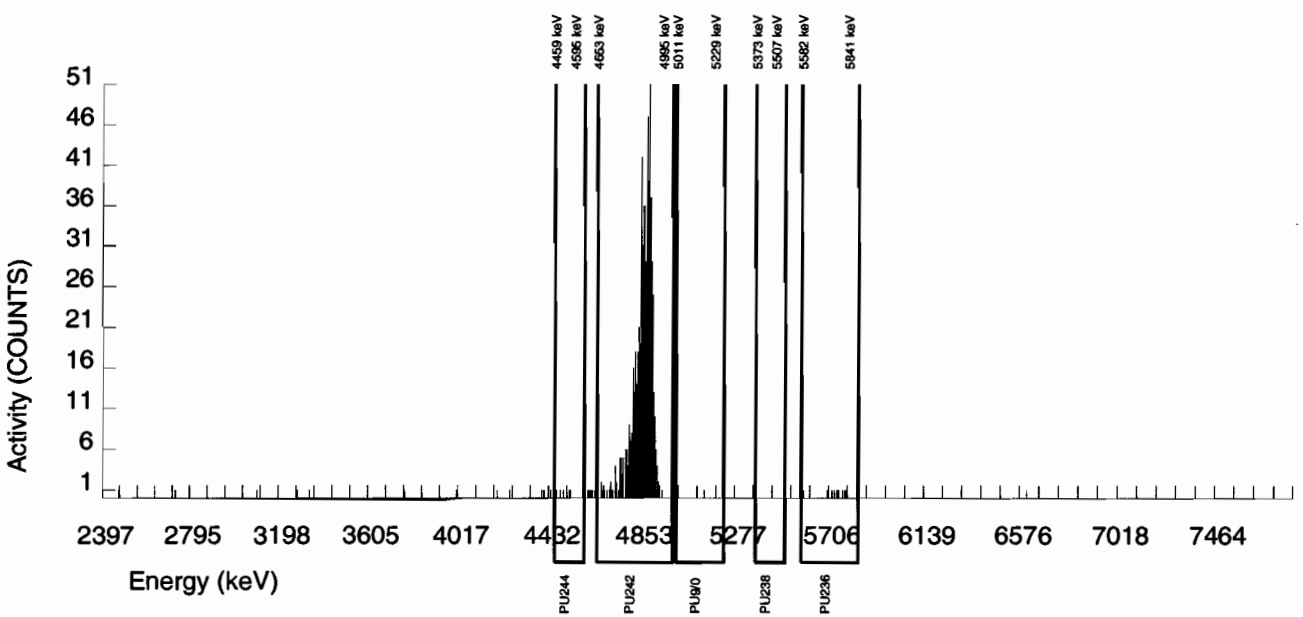

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957023	CHAMBER : 101	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0247829002_PU	DETECTOR S/N : 64253	BKG FILE : B101.CNF;690
SAMPLE QTY : 0.800 L	AVERAGE %EFFICIENCY : 33.7124	BKG DATE : 7-MAR-2010
SAMPLE DATE : 22-FEB-2010 00:00:00	COUNT DATE : 9-MAR-2010 08:01:30	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W101.CNF;180
% YIELD : 85.493		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0338-BB	ID : 0338-BB
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 2.8357E+00 pCi/L	NOMINAL : 2.8357E+00 pCi/L
RESULTS : 2.8903E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-236	5749.000	5674.479	74.065	2.000	1.280	0.720	1.6619	100.0000	3.51E-03	4.35E-03	9.73E-03	2.68E-02	4.35E-03
PU-238	5499.000	5441.996	0.000	0.000	0.000	0.000	3.1571	99.90000	0.00E+00	2.72E-03	1.85E-02	4.44E-02	2.72E-03
PU-9/0	5155.000	5091.665	108.629	2.000	1.280	0.720	2.0178	99.90000	3.48E-03	4.31E-03	1.18E-02	3.10E-02	4.31E-03
PU242	4890.000	4859.827	43.485	703.000	701.560	1.440	1.2000	100.0000	1.90E+00	1.27E-01	7.02E-03	2.14E-02	7.20E-02
PU-244	4589.000	4522.030	0.000	10.000	10.000	0.000	4.0676	99.90000	2.72E-02	8.72E-03	2.38E-02	5.50E-02	8.59E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU242 calculated as sqrt(BKG AREA).

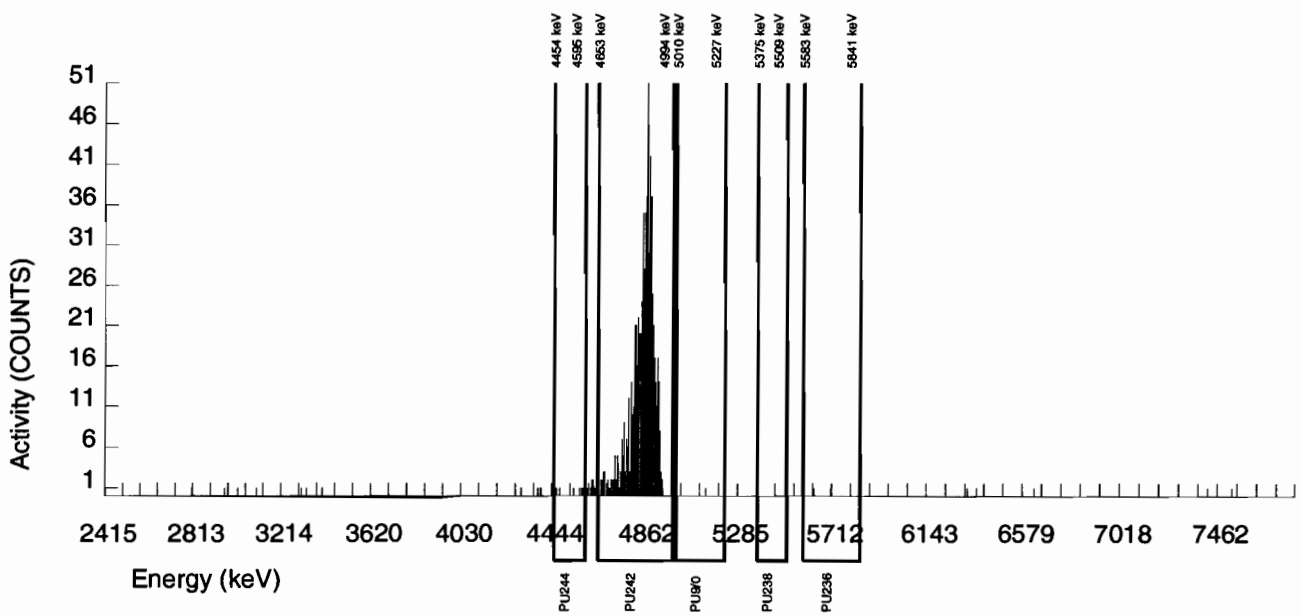

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957023	CHAMBER : 102	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202052015_PU	DETECTOR S/N : 72525	BKG FILE : B102.CNF;688
SAMPLE QTY : 1.000 L	AVERAGE %EFFICIENCY : 32.7311	BKG DATE : 7-MAR-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 9-MAR-2010 08:01:30	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W102.CNF;194
% YIELD : 76.418		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0338-BB	ID : 0338-BB
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 2.2686E+00 pCi/L	NOMINAL : 2.2686E+00 pCi/L
RESULTS : 2.5835E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-236	5749.000	5712.323	0.000	0.000	0.000	0.000	1.6619	100.0000	0.00E+00	2.53E-03	8.97E-03	2.47E-02	2.52E-03
PU-238	5499.000	5441.918	0.000	0.000	-0.720	0.720	3.1571	99.90000	-1.80E-03	3.09E-03	1.71E-02	4.09E-02	3.09E-03
PU-9/0	5155.000	5191.655	53.621	2.000	1.280	0.720	2.0178	99.90000	3.20E-03	3.98E-03	1.09E-02	2.86E-02	3.97E-03
PU242	4890.000	4875.004	60.830	611.000	608.840	2.160	1.4697	100.0000	1.52E+00	1.06E-01	7.93E-03	2.26E-02	6.19E-02
PU-244	4589.000	4547.753	126.740	7.000	6.280	0.720	4.0676	99.90000	1.57E-02	6.92E-03	2.20E-02	5.07E-02	6.87E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU242 calculated as sqrt(BKG AREA).

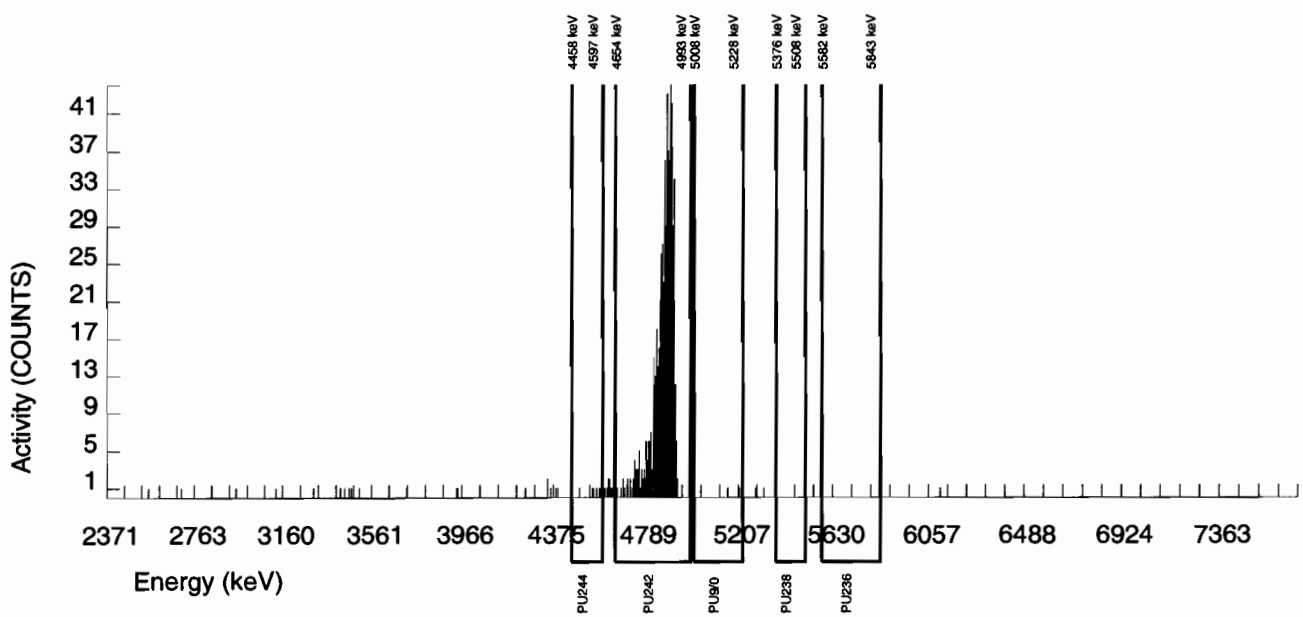

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957023	CHAMBER : 106	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202052016_PU	DETECTOR S/N : 64274	BKG FILE : B106.CNF;690
SAMPLE QTY : 0.800 L	AVERAGE %EFFICIENCY : 32.3164	BKG DATE : 7-MAR-2010
SAMPLE DATE : 22-FEB-2010 00:00:00	COUNT DATE : 10-MAR-2010 16:36:42	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W106.CNF;186
% YIELD : 69.471		CAL DATE : 9-FEB-2010
TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0338-BB	ID : 0338-BB
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 2.8357E+00 pCi/L	NOMINAL : 2.8357E+00 pCi/L
RESULTS : 2.3487E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-236	5749.000	5675.328	133.732	3.000	2.000	1.000	1.6619	100.0000	5.07E-03	5.08E-03	9.70E-03	2.62E-02	5.07E-03
PU-238	5499.000	5440.916	39.624	3.000	3.000	0.000	3.1571	99.90000	7.53E-03	4.37E-03	1.84E-02	4.37E-02	4.35E-03
PU-9/0	5155.000	5120.042	0.000	0.000	0.000	0.000	2.0178	99.90000	0.00E+00	2.51E-03	1.18E-02	3.04E-02	2.51E-03
PU242	4890.000	4855.089	56.429	763.000	759.000	4.000	2.0000	100.0000	1.90E+00	1.24E-01	1.17E-02	3.01E-02	6.95E-02
PU-244	4589.000	4566.228	7.275	9.000	9.000	0.000	4.0676	99.90000	2.26E-02	7.63E-03	2.38E-02	5.43E-02	7.53E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU242 calculated as sqrt(BKG AREA).

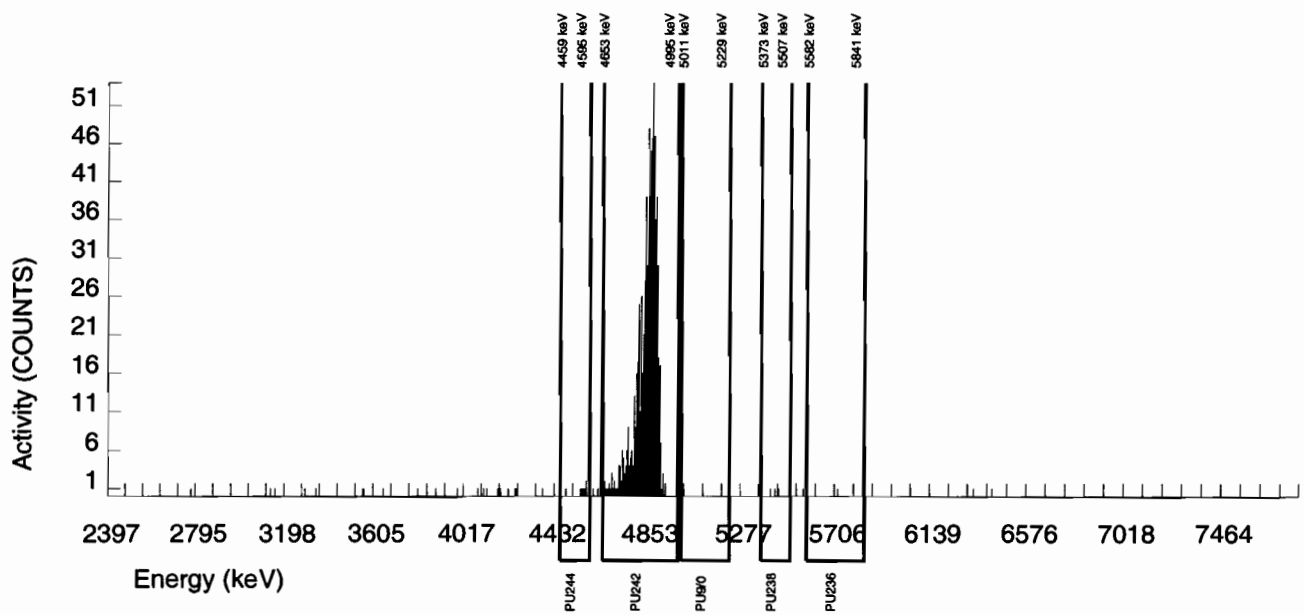

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957023	CHAMBER : 105	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202052017_PU	DETECTOR S/N : 78777	BKG FILE : B105.CNF;690
SAMPLE QTY : 1.000 L	AVERAGE %EFFICIENCY : 31.7688	BKG DATE : 7-MAR-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 9-MAR-2010 08:01:30	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W105.CNF;175
% YIELD : 95.415		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0338-BB	ID : 0338-BB
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 2.2686E+00 pCi/L	NOMINAL : 2.2686E+00 pCi/L
RESULTS : 3.2257E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-236	5749.000	5712.688	0.000	0.000	0.000	0.000	1.6619	100.0000	0.00E+00	2.08E-03	7.40E-03	2.04E-02	2.08E-03
PU-238	5499.000	5483.600	4.882	4.000	4.000	0.000	3.1571	99.90000	8.27E-03	4.16E-03	1.41E-02	3.37E-02	4.13E-03
PU-9/0	5155.000	5132.687	65.257	1111.000	1108.840	2.160	2.0178	99.90000	2.29E+00	1.42E-01	8.99E-03	2.36E-02	6.89E-02
PU242	4890.000	4869.600	57.140	740.000	737.840	2.160	1.4697	100.0000	1.52E+00	9.99E-02	6.54E-03	1.87E-02	5.62E-02
PU-244	4589.000	4533.603	78.107	2.000	1.280	0.720	4.0676	99.90000	2.64E-03	3.28E-03	1.81E-02	4.19E-02	3.28E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU242 calculated as sqrt(BKG AREA).

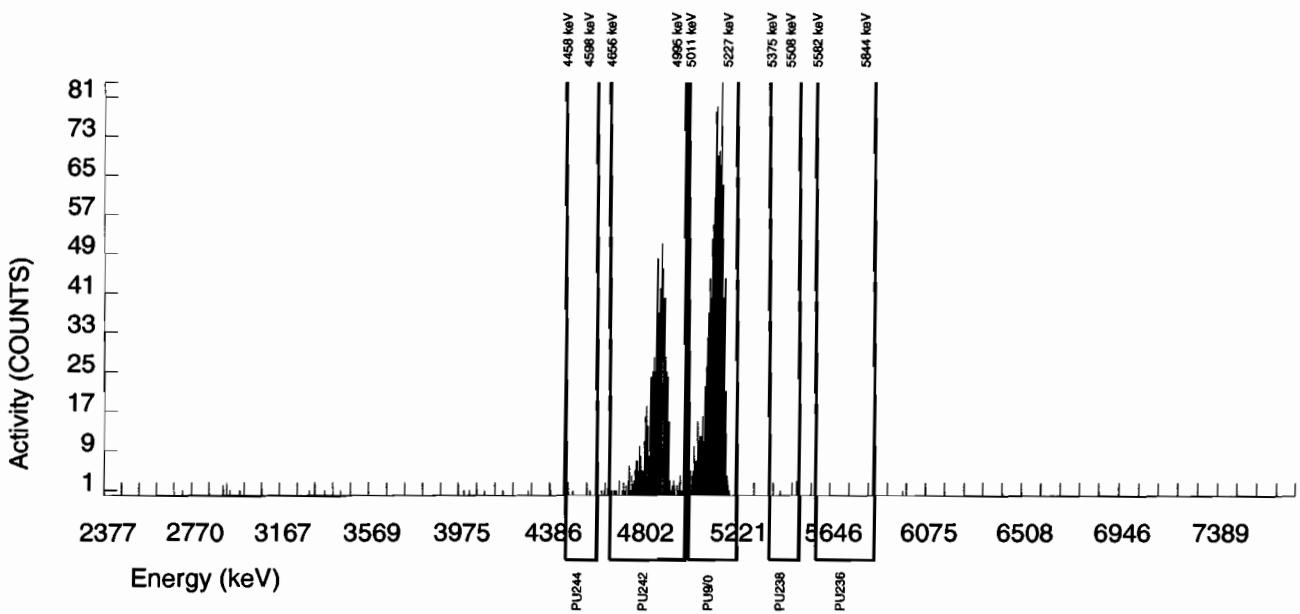

Radiochemistry Batch Checklist, Rev10

Batch# 957025 Product: U Date: 3/9/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		Case narrative
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 3/9/10

Secondary Review Performed By: [signature] 3/11/10

LANL

3/2 - 3/13

Uranium Que Sheet

24-FEB-10

Batch #: 957025 Analyst: HAKB First Client Due Date:13-MAR-10 Internal Due Date:02-MAR-10

Tracer Isotope: U-232/U-236 Tracer Code: 1283-H Expiration Date: 12/9/10 Vol: 0.1

LCS Isotope: U-238 LCS Code: 1163-H Expiration Date: 10/21/10 Vol: 0.1

Spike Isotope: U-238 Spike Code: NA Expiration Date: NA Vol: NA

Prep Date: 2/25/10 Initials: HAKB Pipet ID: 2971058 Balance ID: MDA 2/25/10 16750207 Witness: MDA 2/25/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g (l/ml))	U Det #
246862002-1	CASA-10-9475	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	09-FEB-10	1	1	0.800	7
246877002-1	CASA-10-9446	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	09-FEB-10	2	2	0.800	8
246877003-1	CASA-10-9447	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	09-FEB-10	3	3	0.800	9
246886001-1	CASA-10-9456	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	09-FEB-10	4	4	0.800	10
246886003-1	CASA-10-9479	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	09-FEB-10	5	5	0.800	141
246964001-1	CAMO-10-9370	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	10-FEB-10	6	6	0.800	142
246964003-1	CAMO-10-9373	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	10-FEB-10	7	7	0.800	143
246967002-1	CAMO-10-9350	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	10-FEB-10	8	8	0.800	144
246967003-1	CAMO-10-9357	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	10-FEB-10	9	9	0.800	145
247036001-1	CASA-10-9464	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	11-FEB-10	10	10	0.800	146
247036004-1	CASA-10-9469	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	11-FEB-10	11	11	0.800	147
247042003-1	CAMO-10-9329	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	11-FEB-10	12	12	0.800	148
247042005-1	CAMO-10-9343	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	11-FEB-10	13	13	0.800	149
247261003-1	CAPA-10-12691	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	15-FEB-10	14	14	0.800	150
247431001-1	CAWA-10-13090	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	17-FEB-10	15	15	0.800	151
247817002-1	CAPA-10-13095	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	21-FEB-10	16	16	0.800	152
247829002-1	CAPA-10-13498	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	22-FEB-10	17	17	0.800	1
1202052018-1	MB for batch 957025	MB		.5 pCi/L	GROUND WATER	QC ACCOUNT		18	18 *	~~0.800~~	11
1202052019-1	CAPA-10-13498(247829002DUP)	DUP		.5 pCi/L	GROUND WATER	QC ACCOUNT	22-FEB-10	19	19	0.800	153
1202052020-1	LCS for batch 957025	LCS		.5 pCi/L	GROUND WATER	QC ACCOUNT		20	20	~~0.800~~	154

* 1.0 DG 3/8/10

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: NA / LEACH or DIGESTION (Circle One) EJS 3/9/10

Data Reviewed By: 3/9/10

Blank Correction Report

Batch ID 957025

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202052019	DUP	Uranium-233/234	0.800 L	0.387	0.0538	0.0804	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0125	0.0118	0.0639	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.155	0.0309	0.0574	.0099	pCi/L	NO
1202052020	LCS	Uranium-233/234	1.00 L	2.13	0.185	0.0574	.0265	pCi/L	NO
		Uranium-235/236	1.00 L	0.126	0.0257	0.0457	.0117	pCi/L	NO
		Uranium-238	1.00 L	2.28	0.196	0.041	.00792	pCi/L	NO
1202052018	MB	Uranium-233/234	1.00 L	0.0265	0.00778	0.0282	.0265	pCi/L	YES
		Uranium-235/236	1.00 L	0.0117	0.0056	0.0221	.0117	pCi/L	YES
		Uranium-238	1.00 L	0.00792	0.00528	0.0199	.00792	pCi/L	YES
246862002	CASA-10-9475	Uranium-233/234	0.800 L	0.646	0.0711	0.0628	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0245	0.0127	0.050	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.382	0.0489	0.0448	.0099	pCi/L	NO
246877002	CASA-10-9446	Uranium-233/234	0.800 L	0.416	0.0521	0.0648	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.033	0.0139	0.0515	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.224	0.035	0.0463	.0099	pCi/L	NO
246877003	CASA-10-9447	Uranium-233/234	0.800 L	0.311	0.0424	0.0619	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0363	0.0142	0.0492	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.127	0.025	0.0442	.0099	pCi/L	NO
246886001	CASA-10-9456	Uranium-233/234	0.800 L	1.15	0.110	0.0616	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0217	0.0112	0.049	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.710	0.0757	0.044	.0099	pCi/L	NO
246886003	CASA-10-9479	Uranium-233/234	0.800 L	0.930	0.101	0.0798	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.050	0.0181	0.0635	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.447	0.0594	0.057	.0099	pCi/L	NO
246964001	CAMO-10-9370	Uranium-233/234	0.800 L	0.386	0.0521	0.0748	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.00586	0.00587	0.0595	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.197	0.0343	0.0534	.0099	pCi/L	NO
246964003	CAMO-10-9373	Uranium-233/234	0.800 L	0.481	0.0658	0.0915	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0215	0.0125	0.0727	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.252	0.0436	0.0653	.0099	pCi/L	NO
246967002	CAMO-10-9350	Uranium-233/234	0.800 L	0.325	0.0485	0.081	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0253	0.0128	0.0644	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.182	0.034	0.0578	.0099	pCi/L	NO
246967003	CAMO-10-9357	Uranium-233/234	0.800 L	0.560	0.0675	0.0746	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0234	0.0118	0.0593	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.217	0.0363	0.0532	.0099	pCi/L	NO
247036001	CASA-10-9464	Uranium-233/234	0.800 L	0.504	0.0628	0.0758	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0297	0.0135	0.0603	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.168	0.0312	0.0541	.0099	pCi/L	NO
247036004	CASA-10-9469	Uranium-233/234	0.800 L	0.329	0.0489	0.0819	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0352	0.0163	0.0651	.014625	pCi/L	YES

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
247036004	CASA-10-9469	Uranium-238	0.800 L	0.119	0.0273	0.0584	.0099	pCi/L	NO
247042003	CAMO-10-9329	Uranium-233/234	0.800 L	0.759	0.0857	0.0802	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0345	0.0159	0.0638	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.267	0.0425	0.0572	.0099	pCi/L	NO
247042005	CAMO-10-9343	Uranium-233/234	0.800 L	0.176	0.0331	0.0796	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0125	0.00886	0.0633	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.136	0.0289	0.0568	.0099	pCi/L	NO
247261003	CAPA-10-12691	Uranium-233/234	0.800 L	1.15	0.129	0.107	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0419	0.019	0.0851	.014625	pCi/L	YES
		Uranium-238	0.800 L	1.20	0.133	0.0764	.0099	pCi/L	NO
247431001	CAWA-10-13090	Uranium-233/234	0.800 L	0.400	0.0553	0.0819	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.00	0.00643	0.0652	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.270	0.0429	0.0585	.0099	pCi/L	NO
247817002	CAPA-10-13095	Uranium-233/234	0.800 L	0.224	0.0398	0.0896	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	-0.00354	0.00787	0.0712	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.111	0.027	0.0639	.0099	pCi/L	NO
247829002	CAPA-10-13498	Uranium-233/234	0.800 L	0.392	0.0394	0.0351	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0171	0.00657	0.0276	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.274	0.0304	0.0248	.0099	pCi/L	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957025	CHAMBER : 152	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0247817002_UU	DETECTOR S/N : 76222	BKG FILE : B152.CNF;400
SAMPLE QTY : 0.800 L	AVERAGE %EFFICIENCY : 24.3204	BKG DATE : 7-MAR-2010
SAMPLE DATE : 21-FEB-2010 00:00:00	COUNT DATE : 8-MAR-2010 07:05:00	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 30300.00	EFF FILE : W152.CNF;107
% YIELD : 80.850		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 1163-H	ID : 1163-H
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5032E+00 dpm	NOMINAL : 3.2427E+00 pCi/L	NOMINAL : 3.2427E+00 pCi/L
RESULTS : 3.6408E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U232	5302.100	5302.020	74.091	450.000	446.970	3.030	1.7407	100.0000	2.54E+00	2.34E-01	1.99E-02	5.52E-02	1.21E-01
U-3/4	4763.020	4753.058	92.012	40.000	39.547	0.000	3.2416	100.0000	2.24E-01	3.98E-02	3.71E-02	8.96E-02	3.57E-02
U-235	4391.000	4395.465	0.000	0.000	-0.505	0.505	1.8455	80.90000	-3.54E-03	7.87E-03	2.61E-02	7.12E-02	7.85E-03
U-238	4184.730	4180.475	7.244	20.000	19.495	0.505	2.1208	100.0000	1.11E-01	2.70E-02	2.43E-02	6.39E-02	2.55E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

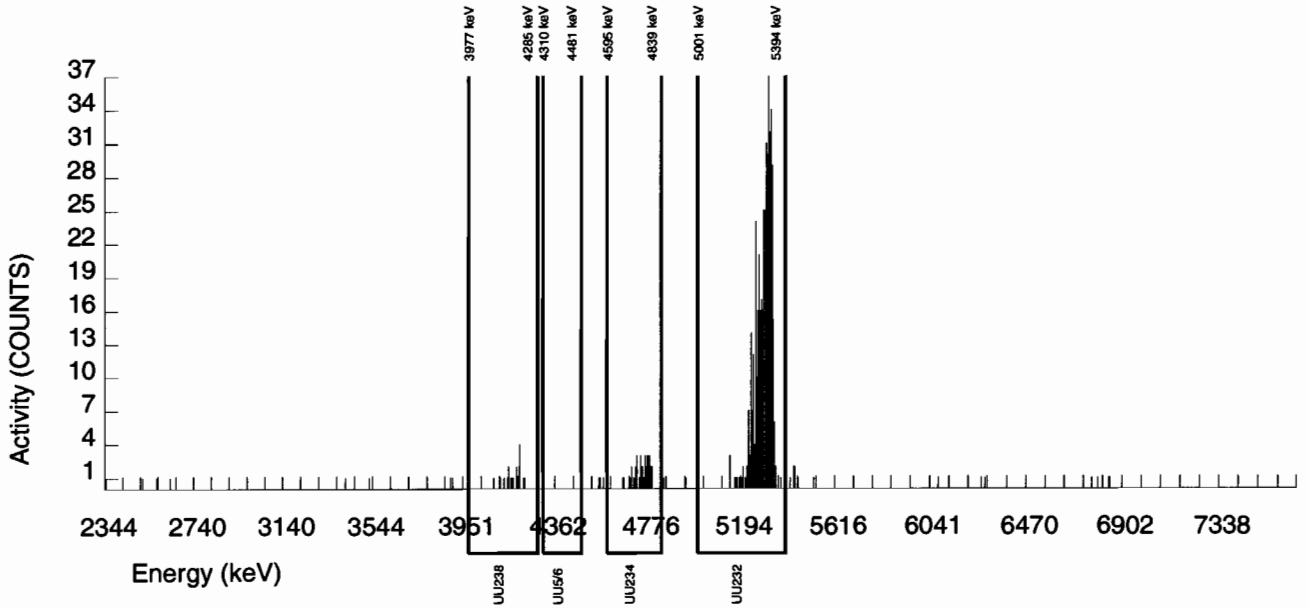

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957025	CHAMBER : 001	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0247829002_UU	DETECTOR S/N : 79451	BKG FILE : B001.CNF;1129
SAMPLE QTY : 0.800 L	AVERAGE %EFFICIENCY : 34.8147	BKG DATE : 28-FEB-2010
SAMPLE DATE : 22-FEB-2010 00:00:00	COUNT DATE : 5-MAR-2010 12:23:25	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W001.CNF;384
% YIELD : 81.929		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 1163-H	ID : 1163-H
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5031E+00 dpm	NOMINAL : 3.2427E+00 pCi/L	NOMINAL : 3.2427E+00 pCi/L
RESULTS : 3.6893E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U232	5302.100	5300.351	64.186	1291.000	1284.000	7.000	2.6458	100.0000	2.54E+00	1.93E-01	1.22E-02	2.97E-02	7.11E-02
U-3/4	4763.020	4750.946	54.733	201.000	198.700	1.000	3.2416	100.0000	3.92E-01	3.94E-02	1.49E-02	3.51E-02	2.80E-02
U-235	4391.000	4399.780	127.546	7.000	7.000	0.000	1.8455	80.90000	1.71E-02	6.57E-03	1.05E-02	2.76E-02	6.46E-03
U-238	4184.730	4175.824	49.388	140.000	139.000	1.000	2.1208	100.0000	2.74E-01	3.04E-02	9.74E-03	2.48E-02	2.34E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

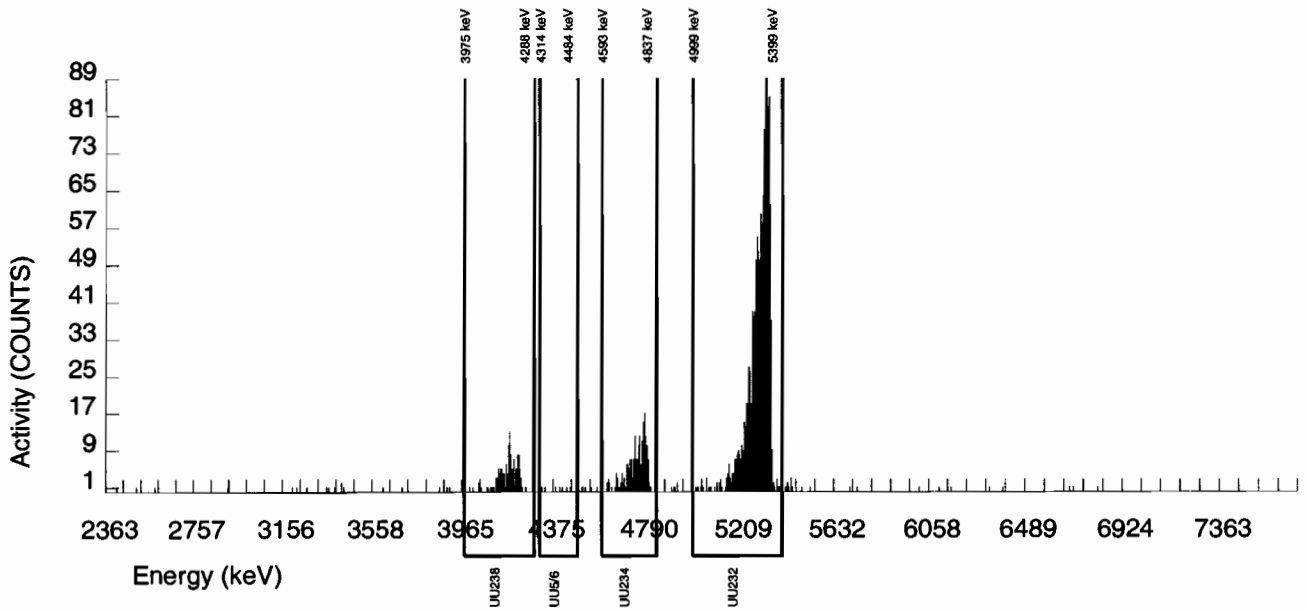

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957025	CHAMBER : 011	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202052018_UU	DETECTOR S/N : 72531	BKG FILE : B011.CNF;1120
SAMPLE QTY : 1.000 L	AVERAGE %EFFICIENCY : 31.2445	BKG DATE : 28-FEB-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 5-MAR-2010 12:23:26	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W011.CNF;315
% YIELD : 91.006		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 1163-H	ID : 1163-H
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5027E+00 dpm	NOMINAL : 2.5941E+00 pCi/L	NOMINAL : 2.5941E+00 pCi/L
RESULTS : 4.0977E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U232	5302.100	5300.796	62.035	1286.000	1280.000	6.000	2.4495	100.0000	2.03E+00	1.54E-01	9.03E-03	2.23E-02	5.70E-02
U-3/4	4763.020	4728.037	0.000	21.000	16.704	3.000	3.2416	100.0000	2.65E-02	7.78E-03	1.19E-02	2.82E-02	7.55E-03
U-235	4391.000	4398.053	99.555	7.000	6.000	1.000	1.8455	80.90000	1.17E-02	5.60E-03	8.41E-03	2.21E-02	5.54E-03
U-238	4184.730	4214.212	184.177	8.000	5.000	3.000	2.1208	100.0000	7.92E-03	5.28E-03	7.82E-03	1.99E-02	5.25E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

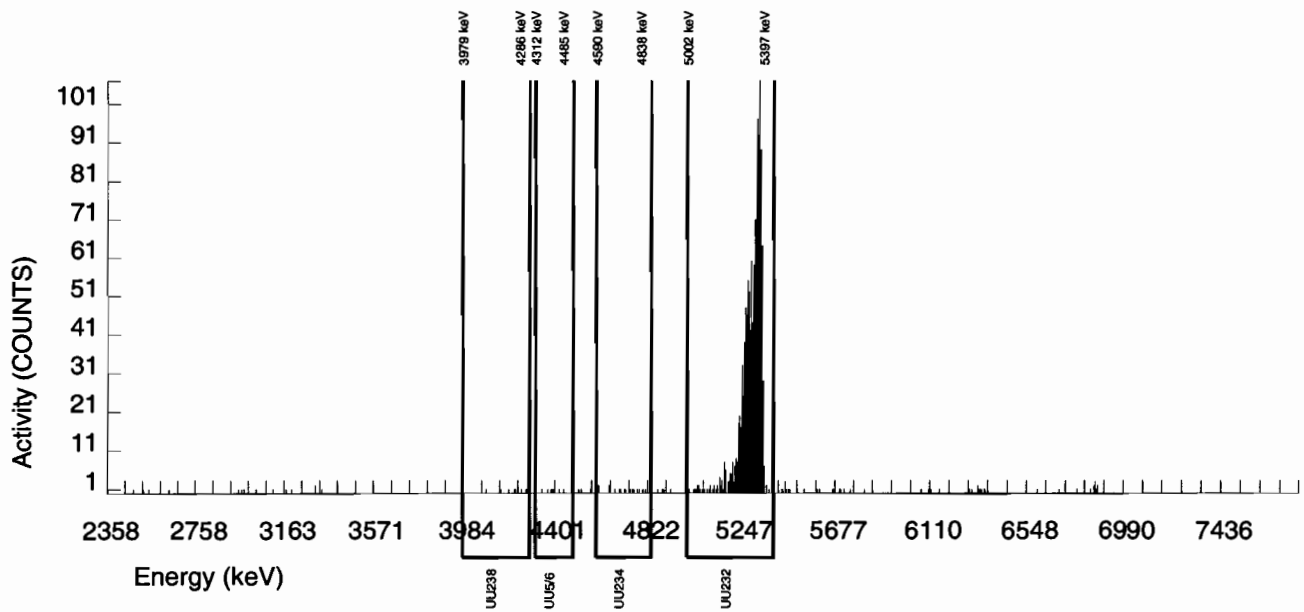

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957025	CHAMBER : 153	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202052019_UU	DETECTOR S/N : 76223	BKG FILE : B153.CNF;395
SAMPLE QTY : 0.800 L	AVERAGE %EFFICIENCY : 24.9933	BKG DATE : 7-MAR-2010
SAMPLE DATE : 22-FEB-2010 00:00:00	COUNT DATE : 8-MAR-2010 07:05:03	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 30300.00	EFF FILE : W153.CNF;110
% YIELD : 87.650		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 1163-H	ID : 1163-H
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5031E+00 dpm	NOMINAL : 3.2427E+00 pCi/L	NOMINAL : 3.2427E+00 pCi/L
RESULTS : 3.9470E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U232	5302.100	5298.599	73.687	501.000	497.970	3.030	1.7407	100.0000	2.54E+00	2.28E-01	1.79E-02	4.96E-02	1.14E-01
U-3/4	4763.020	4755.443	37.747	77.000	75.991	0.505	3.2416	100.0000	3.87E-01	5.38E-02	3.33E-02	8.04E-02	4.46E-02
U-235	4391.000	4396.438	103.394	3.000	1.990	1.010	1.8455	80.90000	1.25E-02	1.18E-02	2.34E-02	6.39E-02	1.18E-02
U-238	4184.730	4175.416	95.701	31.000	30.495	0.505	2.1208	100.0000	1.55E-01	3.09E-02	2.18E-02	5.74E-02	2.85E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

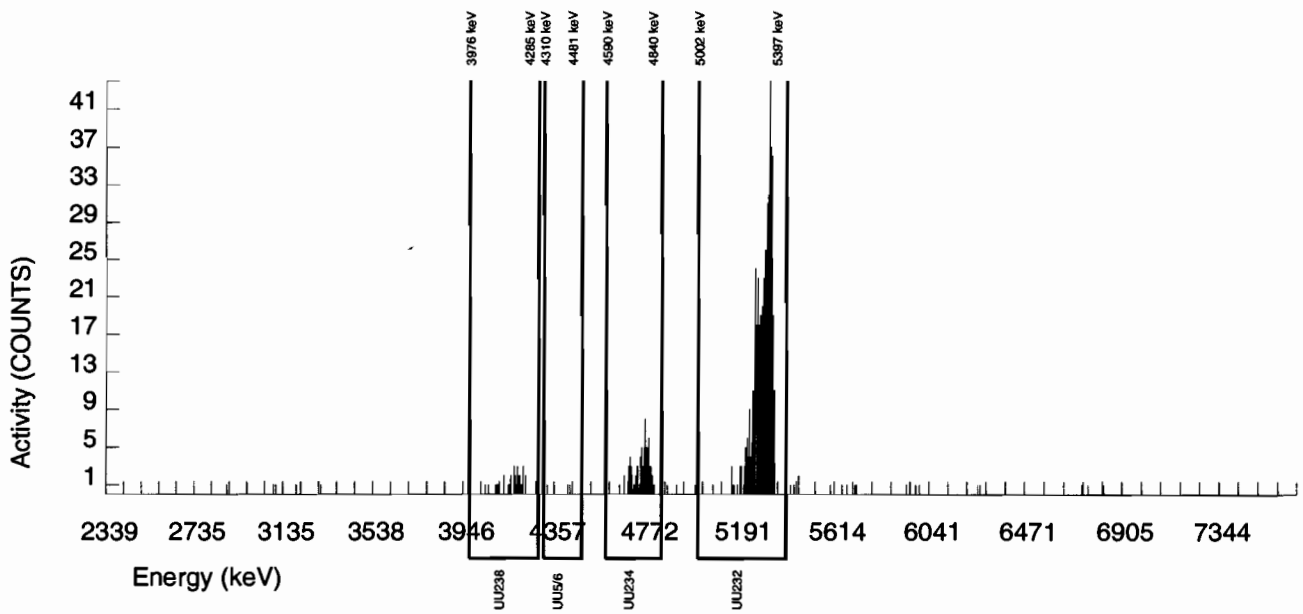

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957025	CHAMBER : 154	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202052020_UU	DETECTOR S/N : 76224	BKG FILE : B154.CNF;397
SAMPLE QTY : 1.000 L	AVERAGE %EFFICIENCY : 25.5722	BKG DATE : 7-MAR-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 8-MAR-2010 07:05:06	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 30300.00	EFF FILE : W154.CNF;108
% YIELD : 95.902		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 1163-H	ID : 1163-H
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5027E+00 dpm	NOMINAL : 2.5941E+00 pCi/L	NOMINAL : 2.5941E+00 pCi/L
RESULTS : 4.3182E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U232	5302.100	5299.680	69.400	560.000	557.475	2.525	1.5890	100.0000	2.03E+00	1.77E-01	1.17E-02	3.32E-02	8.62E-02
U-3/4	4763.020	4751.652	77.688	585.000	584.435	0.000	3.2416	100.0000	2.13E+00	1.85E-01	2.38E-02	5.74E-02	8.79E-02
U-235	4391.000	4399.715	86.490	28.000	28.000	0.000	1.8455	80.90000	1.26E-01	2.57E-02	1.67E-02	4.57E-02	2.38E-02
U-238	4184.730	4179.346	68.439	626.000	625.495	0.505	2.1208	100.0000	2.28E+00	1.96E-01	1.56E-02	4.10E-02	9.10E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

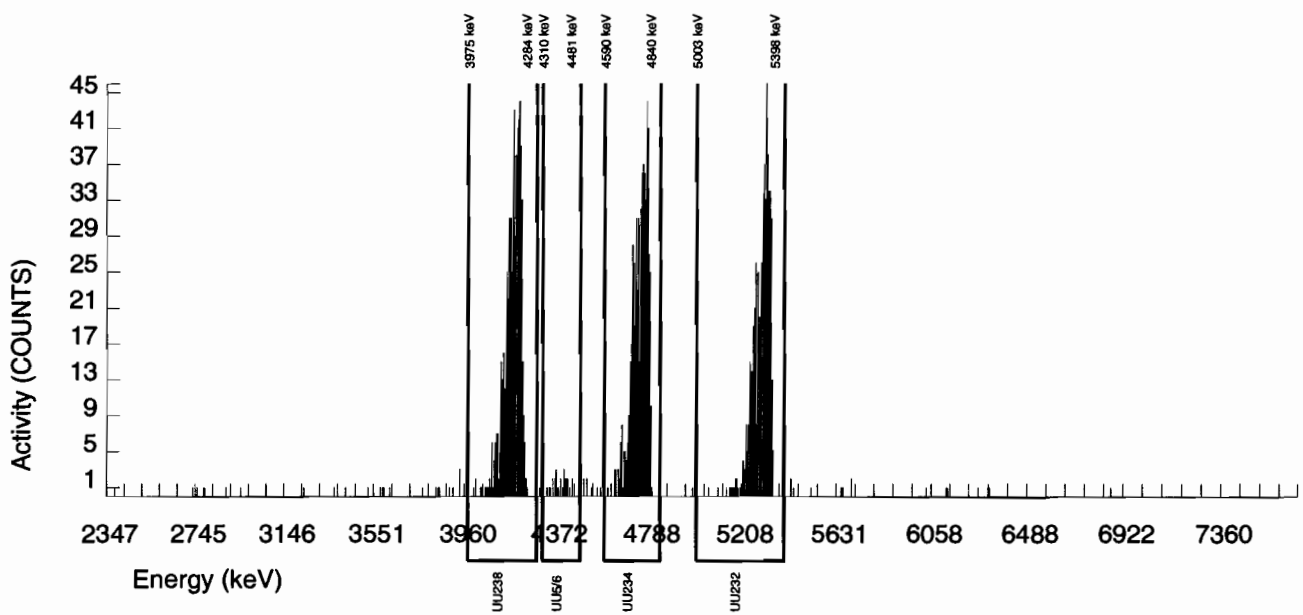

Radiochemistry Batch Checklist, Rev10

Batch# 956976 **Product:** 8L **Date:** 3/6/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 3/6/10

Secondary Review Performed By: [illegible] 3/10/10

LANL
3/25/10

Gamma Spec Que Sheet

02/24/2010

Batch #:956976 **Analyst: KXG3** **First Client DueDate03/25/2010** **Internal Due Date: 03/14/2010**

Gamma Spike Isotope: Mixed Gamma **Spike Code:** Nt **Expiration Date:** Nt **Vol:** Nt **Nominal Concentration:** Nt

Gamma LCS Isotope: Mixed Gamma **LCS Code:** 1032-A **Expiration Date:** 12/2/10 **Vol:** 1.0 mL **Nominal Concentration:** Am241-1236 Cs137-431.5 Co60-493.1 Cross 8-2177

Initials: KXG **Prep Date:** 3/3/10 **Library:** Liquid **Witness:** Nt

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date	Geometry	Wet/Dry Aliquot ~~(Wt/F)~~ mL	Detector	Sealing Date/Time (if Applicable)	
247817002-1	CAPA-10-13095	SAMPLE		LANL010	GROUND WATER	21-FEB-10 12:00:00	1 2LMB	2000	17		u
247829002-1	CAPA-10-13498	SAMPLE		LANL010	GROUND WATER	22-FEB-10 12:00:00	2	1571	19		u
1202051903-1	MB	MB		QC ACCOUNT	GROUND WATER	3/3/10	3	2000	20		u
1202051904-1	DUP CAPA-10-13498(247829002)	DUP		QC ACCOUNT	GROUND WATER	22-FEB-10 12:00:00		1571	19		u
1202051905-1	LCS	LCS		QC ACCOUNT	GROUND WATER	3/3/10		2000	2		u

JSE 3/6/10

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: [signature] 3/6/10

Daily rev

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
956976	247817002	SAMPLE	04-MAR-10		Neptunium-237	-0.7874	16.02	1.00E+01
					Potassium-40	-11.13	39.49	1.00E+01
956976	247829002	SAMPLE	04-MAR-10		Neptunium-237	0.2303	26.84	1.00E+01
					Potassium-40	-10.02	42.9	1.00E+01
956976	1202051903	MB	04-MAR-10		Neptunium-237	0.1869	13.74	1.00E+01
					Potassium-40	2.048	29.55	1.00E+01
956976	1202051904	DUP	05-MAR-10		Neptunium-237	-28.03	42.25	1.00E+01
					Potassium-40	-43.17	59.73	1.00E+01
956976	1202051905	LCS	05-MAR-10		Potassium-40	20.5	142.7	1.00E+01

Gamma Review Report based on Result > MDA for Batch:956976

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
247817002	21-FEB-10 12:00	04-MAR-10 22:19	11.4	SAMPLE	LOAD	1	LANL	ESHL01000GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Bismuth-211	HE	24.55	568	pCi/L	17.75	N	351.6	1	1.48	IDENTIFIED	43.56	☐	
Cerium-143	HE	709.5	540.2	pCi/L	0	N	0	5	0	SHORT_HLIF	0	☐	
Iodine-133	HE	2344	8886	pCi/L	0	N	0	5	0	SHORT_HLIF	0	☐	
Lead-214	HE	8.899	3.91	pCi/L	8.634	N	0	5	0	FAIL_ABUND	0	☐	
Sodium-24	HE	2.65E+05	4.22E+05	pCi/L	0	N	0	5	0	SHORT_HLIF	0	☐	
Technetium-99m		2.83E+14	7.75E+13	pCi/L	0	N	0	5	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
247829002	22-FEB-10 12:00	04-MAR-10 22:20	10.4	SAMPLE	LOAD	1	LANL	ESHL01000GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Bismuth-211	HE	47.67	1008	pCi/L	20.48	N	352	2	1.067	IDENTIFIED	25.79	☐	
Bismuth-214	✓	23.25	4.909	pCi/L	10.96	N	0	4	0	FAIL_ABUND	0	☐	
Californium-251	LA	31.94	7.934	pCi/L	15.85	N	0	4	0	FAIL_ABUND	0	☐	
Gross Gamma		32.82	9.382	pCi/L	26.29	120		0				☐	
Lead-214	✓	17.28	4.519	pCi/L	7.441	N	352	2	1.067	IDENTIFIED	25.79	☐	
Radium-224	HE	67.46	27.11	pCi/L	60.46	N	242.1	1	1.635	IDENTIFIED	40.08	☐	
Sodium-24	HE	72910	1.35E+05	pCi/L	0	N	0	4	0	SHORT_HLIF	0	☐	
Technetium-99m	HE	4.31E+12	4.09E+12	pCi/L	0	N	0	4	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202051903		04-MAR-10 22:20	0	MB	LOAD	1		GEL	N	RGSP

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202051904	22-FEB-10 12:00	05-MAR-10 16:47	11.2	DUP	LOAD	1		ESHL01000GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Bismuth-211	HE	72.98	1643	pCi/L	34.24	N	351.9	1	1.601	IDENTIFIED	22.3	☐	
Bismuth-214	HE	23.2	5.019	pCi/L	18.23	N	0	6	0	FAIL_ABUND	0	☐	
Cerium-143		2001	961.1	pCi/L	0	N	0	6	0	SHORT_HLIF	0	☐	
Gross Gamma		31.74	8.76	pCi/L	29.49	120		0				☐	
Iodine-135	HE	5.97E+12	1.23E+13	pCi/L	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-214	HE	26.46	6.012	pCi/L	19.62	N	0	6	0	FAIL_ABUND	0	☐	
Sodium-24	HE	1.12E+05	5.77E+05	pCi/L	0	N	0	6	0	SHORT_HLIF	0	☐	
Technetium-99m	HE	1.76E+13	5.34E+13	pCi/L	0	N	0	6	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202051905		05-MAR-10 16:48	0	LCS	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Americium-241	1493	96.29	pCi/L	98.4	N	59.18	1	0.9905	IDENTIFIED	4.93	☐	
Barium-137m	428	17.5	pCi/L	11.89	N	661.2	2	1.576	IDENTIFIED	3.275	☐	

Cadmium-109		**2760**	186.5	pCi/L	**298**	N	87.71	3	0.9075	IDENTIFIED	5.41	☐
Cesium-137		**452.2**	18.53	pCi/L	**12.56**	**8.00**	661.2	2	1.576	IDENTIFIED	3.275	☐
Cobalt-57	HE	**16**	4.457	pCi/L	**9.514**	N	121.7	1	0.9711	IDENTIFIED	27.69	☐
Cobalt-60		**505.4**	25.35	pCi/L	**3.863**	**8.00**	1332	1	1.904	IDENTIFIED	3.619	☐
Gross Gamma		**2051**	182.1	pCi/L	**189.8**	**120**		0				☐
Neptunium-237		**820.1**	102.3	pCi/L	**99.39**	**10.0**	87.71	3	0.9075	IDENTIFIED	5.41	☐
Technetium-99m	HE	**4935**	5321	pCi/L	**0**	N	0	1	0	SHORT_HLIF	0	☐
Tin-126		**274.8**	18.58	pCi/L	**29.9**	N	87.71	3	0.9075	IDENTIFIED	5.41	☐

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

ASE 3/16/10

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertanty	Units	DL	RDL
956976	247817002	SAMPLE	04-MAR-10	Bismuth-211	24.55	568	pCi/L	8.878	N
				Bismuth-212	44.1	13.9	pCi/L	25.99	N
				Cerium-143	709.5	540.2	pCi/L	0	N
				Gross Gamma	15.43	5.248	pCi/L	10.24	120
				Iodine-133	2344	8886	pCi/L	0	N
				Sodium-24	2.65E+05	4.22E+05	pCi/L	0	N
				Technetium-99m	2.83E+14	7.75E+13	pCi/L	0	N
				Thorium-229	24.43	13.98	pCi/L	23.52	N
956976	247829002	SAMPLE	04-MAR-10	Bismuth-211	47.67	1008	pCi/L	10.25	N
				Bismuth-214	23.25	4.909	pCi/L	5.482	N
				Californium-251	31.94	7.934	pCi/L	7.928	N
				Cerium-143	1405	476	pCi/L	726.6	N
				Gross Gamma	32.82	9.382	pCi/L	12.78	120
				Lead-214	17.28	4.519	pCi/L	3.723	N
				Radium-224	67.46	27.11	pCi/L	30.25	N
				Sodium-24	72910	1.35E+05	pCi/L	0	N
				Technetium-99m	4.31E+12	4.09E+12	pCi/L	0	N
956976	1202051903	MB	04-MAR-10	Protactinium-234	15.15	5.803	pCi/L	10.45	N
956976	1202051904	DUP	05-MAR-10	Bismuth-211	72.98	1643	pCi/L	17.13	N
				Bismuth-214	23.2	5.019	pCi/L	9.119	N
				Cerium-143	2001	961.1	pCi/L	0	N
				Gross Gamma	31.74	8.76	pCi/L	13.8	120
				Iodine-135	5.97E+12	1.23E+13	pCi/L	0	N
				Lead-214	26.48	6.012	pCi/L	9.816	N
				Sodium-24	1.12E+05	5.77E+05	pCi/L	0	N
				Technetium-99m	1.76E+13	5.34E+13	pCi/L	0	N
				Tellurium-132	33.31	17.26	pCi/L	30.66	N
956976	1202051905	LCS	05-MAR-10	Americium-241	1493	96.29	pCi/L	49.23	25.0
				Barium-133	11.46	4.721	pCi/L	8.427	N
				Barium-137m	428	17.5	pCi/L	5.948	N
				Beryllium-7	88.73	32.04	pCi/L	57.87	N
				Cadmium-109	2760	186.5	pCi/L	149.1	N
				Cesium-137	452.2	18.53	pCi/L	6.283	8.00
				Cobalt-57	18	4.457	pCi/L	4.76	N
				Cobalt-60	505.4	25.35	pCi/L	1.933	8.00
				Gross Gamma	2051	182.1	pCi/L	90.84	120
				Neptunium-237	820.1	102.3	pCi/L	49.72	10.0

ASE 3/16/10

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 04:21:25.84

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G247817002.CNF;1
Sample date       : 21-FEB-2010 12:00:00 Acquisition date : 4-MAR-2010 22:19:49.
Sample ID         : G247817002           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM17                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:26.83  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 956976                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	139.89	136	307	0.76	279.47	275	9	6.28E-03	24.8	
2	0	351.57*	68	159	1.48	703.01	697	12	3.17E-03	43.6	
3	0	609.43*	55	89	1.55	1219.00	1213	11	2.54E-03	43.6	
4	0	1926.38	24	0	1.12	3855.04	3849	13	1.11E-03	20.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 5-MAR-2010 04:21:28

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G247817002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 21-FEB-2010 12:00:00 Acquisition date : 4-MAR-2010 22:19:49
Sample ID : G247817002 Sample quantity : 2.0000 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA17 Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00 Elapsed real time: 0 06:00:26.83 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BI-211		72.87		-1.394E+02	6.452E+03	1.607E+02	7.436E+03	-0.868
	+	351.06	*	2.455E+01	1.136E+03	1.775E+01	8.211E+02	1.383

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.60	*	-3.893E-01	1.833E+01	3.001E+01	3.067E+00	-0.013
NA-22		1274.54	*	6.181E-01	2.280E+00	3.795E+00	3.279E-01	0.163
NA-24		1368.63	*	2.646E-01	2.280E+00	Half-Life too short		
K-40		1460.82	*	-1.113E+01	2.597E+01	3.949E+01	3.476E+00	-0.282
SC-46		889.28	*	5.264E-01	2.133E+00	3.619E+00	3.097E-01	0.145
		1120.55		2.895E+00	2.619E+00	4.732E+00	4.228E-01	0.612
V-48		944.13		9.193E+00	3.925E+01	6.638E+01	5.763E+00	0.138
		983.53	*	-4.713E-01	3.176E+00	5.123E+00	4.493E-01	-0.092
		1312.11		-5.500E-01	3.703E+00	6.098E+00	5.173E-01	-0.090
CR-51		320.08	*	-1.816E+01	1.875E+01	2.962E+01	3.035E+00	-0.613
MN-54		834.85	*	1.404E+00	1.996E+00	3.533E+00	3.018E-01	0.397
CO-56		846.77	*	-3.170E-01	2.252E+00	3.691E+00	3.156E-01	-0.086
		1037.84		-1.018E+01	1.531E+01	2.282E+01	2.122E+00	-0.446
		1238.28		1.196E+00	4.027E+00	6.716E+00	6.048E-01	0.178
		1771.35		4.300E+00	1.498E+01	2.572E+01	2.205E+00	0.167
CO-57		122.06	*	-1.390E-01	1.236E+00	2.033E+00	1.919E-01	-0.068
		136.47		2.997E+00	1.149E+01	1.718E+01	1.689E+00	0.174
CO-58		810.76	*	8.695E-01	2.013E+00	3.496E+00	2.986E-01	0.249
FE-59		1099.25	*	-5.290E+00	4.428E+00	5.984E+00	5.745E-01	-0.884
		1291.59		2.322E+00	7.272E+00	1.210E+01	1.178E+00	0.192
CO-60		1173.23		1.209E+00	1.973E+00	3.457E+00	3.090E-01	0.350
		1332.49	*	-7.068E-02	2.179E+00	3.636E+00	3.051E-01	-0.019
ZN-65		1115.54	*	-2.666E+00	5.190E+00	7.961E+00	7.117E-01	-0.335
SE-75		121.12		-1.818E+00	6.358E+00	1.037E+01	1.216E+00	-0.175
		136.00		3.207E-01	2.193E+00	3.256E+00	3.028E-01	0.098
		264.66	*	-1.450E-04	2.370E+00	3.753E+00	3.660E-01	0.000
		279.54		3.521E+00	5.487E+00	9.599E+00	9.668E-01	0.367

Sample ID : G247817002 Acquisition date : 4-MAR-2010 22:19:49

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		400.66		2.740E+00	1.337E+01	2.248E+01	2.657E+00	0.122
SR-85		514.00	*	-1.347E+01	3.225E+00	3.485E+00	3.315E-01	-3.864
Y-88		898.04		6.242E-01	2.212E+00	3.765E+00	3.237E-01	0.166
		1836.06	*	-1.143E+00	2.694E+00	4.083E+00	3.481E-01	-0.280
Y-91		1204.77	*	-2.593E+02	1.109E+03	1.740E+03	1.542E+02	-0.149
NB-94		702.65	*	-1.234E-01	1.897E+00	3.178E+00	2.628E-01	-0.039
		871.09		-1.295E+00	2.170E+00	3.392E+00	2.903E-01	-0.382
NB-95		765.80	*	2.734E+00	2.150E+00	3.968E+00	3.350E-01	0.689
NB-95M		235.69	*	-2.819E+01	7.948E+00	9.336E+00	9.975E-01	-3.019
ZR-95		724.19		-4.230E+00	4.481E+00	6.830E+00	6.206E-01	-0.619
		756.73	*	-1.164E+00	3.993E+00	6.516E+00	6.089E-01	-0.179
MO-99	+	140.51		1.423E+03	7.836E+02	8.859E+02	2.122E+02	1.606
		181.07		-2.367E+02	3.651E+02	5.664E+02	1.074E+02	-0.418
		366.42		-1.452E+03	2.035E+03	3.216E+03	3.119E+02	-0.451
		739.50	*	-1.070E+00	2.894E+02	4.855E+02	7.587E+01	-0.002
		777.92		6.827E-02	7.200E+02	1.204E+03	1.020E+02	0.000
TC-99M	+	140.51	*	2.831E+08	7.200E+02	Half-Life too short		
RU-103		497.08	*	-5.753E-01	2.268E+00	3.633E+00	5.294E-01	-0.158
	+	610.33		8.661E+01	7.679E+01	9.189E+01	1.510E+01	0.943
RH-106		621.93	*	6.003E+00	1.687E+01	2.805E+01	3.722E+00	0.214
		1050.41		-9.751E+00	1.270E+02	2.053E+02	1.823E+01	-0.047
RU-106		621.93	*	6.003E+00	1.686E+01	2.805E+01	2.424E+00	0.214
		1050.41		-9.751E+00	1.270E+02	2.053E+02	1.823E+01	-0.047
AG-108M		433.94	*	-4.423E-01	1.639E+00	2.650E+00	2.617E-01	-0.167
		614.28		6.508E-01	2.232E+00	3.251E+00	2.929E-01	0.200
		722.91		-1.385E+00	1.963E+00	3.081E+00	2.656E-01	-0.450
CD-109		88.03	*	-1.271E+01	3.741E+01	5.306E+01	5.018E+00	-0.239
AG-110M		657.76	*	-1.754E+00	2.158E+00	3.185E+00	2.689E-01	-0.551
		677.62		-3.531E-01	1.717E+01	2.737E+01	2.310E+00	-0.013
		706.68		-2.964E+00	1.243E+01	2.052E+01	1.753E+00	-0.144
		763.94		3.575E-01	8.972E+00	1.507E+01	1.308E+00	0.024
		884.68		-3.330E-02	2.925E+00	4.838E+00	4.276E-01	-0.007
		937.49		-1.379E+00	5.742E+00	9.201E+00	8.258E-01	-0.150
		1384.29		-7.686E+00	1.029E+01	1.330E+01	1.158E+00	-0.578
SN-113		391.70	*	-1.913E-01	2.203E+00	3.638E+00	3.547E-01	-0.053
CD-115		260.90		-4.690E+02	2.334E+03	3.647E+03	3.536E+02	-0.129
		492.35		-4.585E+01	7.137E+02	1.161E+03	1.113E+02	-0.039
		527.90	*	-3.740E+01	2.036E+02	3.260E+02	3.079E+01	-0.115
SN-117M		156.02		-4.204E+01	9.806E+01	1.567E+02	1.407E+01	-0.268
		158.56	*	5.773E-01	2.377E+00	3.923E+00	3.510E-01	0.147
TE-123M		159.00	*	4.757E-01	1.466E+00	2.429E+00	2.184E-01	0.196
SB-124		602.73		1.026E+00	2.400E+00	3.724E+00	3.299E-01	0.276
		645.85		-1.074E+01	2.650E+01	4.070E+01	3.602E+00	-0.264
		722.78		-1.388E+01	1.902E+01	2.979E+01	2.544E+00	-0.466
		1690.97	*	-2.151E-03	4.363E+00	7.164E+00	6.433E-01	0.000
SB-125		427.87	*	1.301E+00	4.789E+00	8.069E+00	7.877E-01	0.161
		463.37		-8.565E+00	1.529E+01	2.403E+01	2.456E+00	-0.356
		600.60		8.706E+00	1.063E+01	1.824E+01	1.733E+00	0.477
		635.95		-4.123E+00	1.612E+01	2.524E+01	2.317E+00	-0.163

Sample ID : G247817002 Acquisition date : 4-MAR-2010 22:19:49

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TE-125M		109.28	*	-2.869E+02	4.479E+02	7.214E+02	7.997E+01	-0.398
I-126		388.63		-3.315E+00	6.974E+00	1.118E+01	1.066E+00	-0.297
		666.33	*	-7.504E+00	1.006E+01	1.480E+01	1.204E+00	-0.507
		753.82		8.015E+01	8.202E+01	1.487E+02	1.252E+01	0.539
SB-126		414.70		-1.228E+00	3.509E+00	5.666E+00	5.432E-01	-0.217
		666.50		-2.054E+00	3.366E+00	5.030E+00	4.092E-01	-0.408
		695.00		2.382E-01	3.485E+00	5.908E+00	4.870E-01	0.040
		697.00		-5.667E+00	1.194E+01	1.930E+01	1.592E+00	-0.294
		720.70	*	6.719E-03	5.948E+00	1.000E+01	8.329E-01	0.001
		856.80		-9.922E+00	2.168E+01	3.433E+01	2.937E+00	-0.289
SN-126		64.28		-2.297E+01	1.845E+01	2.691E+01	4.278E+00	-0.854
		86.94		-5.807E+00	1.568E+01	2.209E+01	9.175E+00	-0.263
		87.57	*	-1.572E+00	3.696E+00	5.232E+00	4.946E-01	-0.300
SB-127		252.40		1.814E+01	1.251E+02	2.000E+02	8.302E+01	0.091
		473.00		-1.789E+01	4.910E+01	7.821E+01	9.903E+00	-0.229
		685.70	*	-1.065E+01	4.130E+01	6.420E+01	6.463E+00	-0.166
		783.70		-4.286E+01	9.306E+01	1.480E+02	1.682E+01	-0.290
I-131		80.19		-1.031E+02	1.191E+02	1.934E+02	1.833E+01	-0.533
		284.31		-9.447E+00	5.564E+01	9.337E+01	9.495E+00	-0.101
		364.49	*	-6.835E-01	4.340E+00	7.164E+00	7.240E-01	-0.095
		636.99		-8.171E+00	6.812E+01	1.081E+02	9.658E+00	-0.076
TE-132		49.72		-1.129E+02	1.187E+02	1.685E+02	1.938E+01	-0.670
		111.76		2.494E+02	8.836E+02	1.303E+03	1.397E+02	0.191
		116.30		-1.841E+02	6.685E+02	1.094E+03	1.175E+02	-0.168
		228.16	*	3.264E+00	1.767E+01	2.854E+01	4.475E+00	0.114
BA-133		81.00		2.321E-01	3.228E+00	5.450E+00	8.715E-01	0.043
		276.40		-6.469E-01	1.769E+01	2.997E+01	4.448E+00	-0.022
		302.85		1.342E+00	7.262E+00	1.238E+01	1.721E+00	0.108
		356.01	*	9.130E-01	2.465E+00	3.744E+00	5.143E-01	0.244
		383.85		4.557E+00	1.472E+01	2.501E+01	3.278E+00	0.182
I-133		529.87	*	2.344E-03	1.472E+01	Half-Life too short		
		875.33		1.516E-01	1.472E+01	Half-Life too short		
		1298.22		-4.653E-01	1.472E+01	Half-Life too short		
CS-134		563.25		1.782E+01	1.892E+01	3.315E+01	3.081E+00	0.538
		569.33		1.018E+01	1.024E+01	1.802E+01	1.673E+00	0.565
		604.72		-3.097E+00	2.465E+00	2.939E+00	2.604E-01	-1.054
		795.86	*	2.388E+00	2.521E+00	4.548E+00	3.894E-01	0.525
		801.95		-5.045E-01	2.686E+01	3.650E+01	3.123E+00	-0.014
		1365.19		-5.577E+00	7.531E+01	1.248E+02	1.104E+01	-0.045
CS-135		268.22	*	-3.020E+00	8.396E+00	1.296E+01	1.418E+00	-0.233
I-135		546.56		-8.266E+07	8.396E+00	Half-Life too short		
		836.80		3.129E+07	8.396E+00	Half-Life too short		
		1038.76		3.528E+06	8.396E+00	Half-Life too short		
		1131.51		-1.616E+07	8.396E+00	Half-Life too short		
		1260.41	*	-1.600E+07	8.396E+00	Half-Life too short		
		1457.56		7.326E+07	8.396E+00	Half-Life too short		
		1678.03		7.064E+07	8.396E+00	Half-Life too short		
		1791.20		2.904E+07	8.396E+00	Half-Life too short		
CS-136		153.25		1.725E+01	3.552E+01	5.936E+01	6.293E+00	0.291

Sample ID : G247817002 Acquisition date : 4-MAR-2010 22:19:49

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		176.60		3.833E+00	2.221E+01	3.632E+01	3.565E+00	0.106
		273.65		-2.094E+00	2.236E+01	3.510E+01	3.653E+00	-0.060
		340.55		-4.030E+00	6.306E+00	1.015E+01	1.025E+00	-0.397
		818.51		8.054E-01	3.633E+00	6.174E+00	5.268E-01	0.130
		1048.07	*	-4.821E+00	4.476E+00	6.198E+00	5.717E-01	-0.778
		1235.36		5.220E-01	2.221E+01	3.588E+01	4.260E+00	0.015
BA-137M		661.66	*	-5.189E-01	2.674E+00	3.621E+00	2.939E-01	-0.143
CS-137		661.66	*	-5.482E-01	2.825E+00	3.825E+00	3.111E-01	-0.143
CE-139		165.86	*	-1.254E+00	1.547E+00	2.408E+00	2.131E-01	-0.521
BA-140		162.66		3.301E+01	3.609E+01	6.110E+01	5.777E+00	0.540
		304.85		-1.990E+01	5.792E+01	9.533E+01	2.827E+01	-0.209
		423.72		-3.763E+01	8.951E+01	1.420E+02	4.710E+01	-0.265
		537.26	*	-1.522E+01	1.517E+01	1.841E+01	6.280E+00	-0.827
LA-140		328.76		-4.544E+00	1.290E+01	2.121E+01	2.179E+00	-0.214
		487.02		1.848E+00	6.174E+00	1.035E+01	1.044E+00	0.179
		815.77		-3.302E+00	1.527E+01	2.491E+01	2.378E+00	-0.133
		1596.21	*	6.731E-01	4.663E+00	7.850E+00	6.773E-01	0.086
CE-141		145.44	*	-2.467E+00	3.050E+00	4.795E+00	4.445E-01	-0.514
CE-143		57.36		-2.336E-03	3.050E+00	Half-Life too short		
		293.27	*	7.095E-04	3.050E+00	Half-Life too short		
		664.57		-7.993E-03	3.050E+00	Half-Life too short		
		721.93		-9.302E-03	3.050E+00	Half-Life too short		
CE-144		80.12		-7.756E+01	8.698E+01	1.410E+02	1.332E+01	-0.550
		133.52	*	-1.014E+01	1.020E+01	1.580E+01	2.475E+00	-0.642
PM-144		476.78		-1.767E-01	3.911E+00	6.392E+00	6.579E-01	-0.028
		618.01		-7.955E-01	1.843E+00	2.841E+00	2.536E-01	-0.280
		696.49	*	4.346E-02	1.861E+00	3.143E+00	2.593E-01	0.014
PR-144		696.51	*	1.699E+00	1.389E+02	2.343E+02	1.933E+01	0.007
		1489.16		-1.066E+02	8.574E+02	1.400E+03	1.201E+02	-0.076
PM-146		453.88	*	9.631E-01	2.314E+00	3.923E+00	4.486E-01	0.246
		633.25		5.283E+00	8.547E+01	1.380E+02	5.266E+01	0.038
		735.93		2.628E+00	8.466E+00	1.453E+01	4.061E+00	0.181
		747.24		3.759E-01	4.988E+00	8.426E+00	1.218E+00	0.045
ND-147		91.11		1.241E+01	9.510E+00	1.649E+01	1.662E+00	0.753
		319.41		1.681E+01	1.436E+02	2.433E+02	2.396E+01	0.069
		531.02	*	-4.376E+00	2.374E+01	3.796E+01	5.857E+00	-0.115
PM-149		285.90	*	-1.534E+02	1.514E+03	2.550E+03	4.136E+02	-0.060
EU-152		121.78		-3.035E-01	3.574E+00	5.887E+00	6.250E-01	-0.052
		244.70		-2.081E+01	1.787E+01	2.623E+01	2.516E+00	-0.793
		344.28	*	1.840E+00	5.161E+00	8.828E+00	9.051E-01	0.208
		778.90		2.230E+00	1.339E+01	2.275E+01	1.927E+00	0.098
		964.08		-8.406E+00	1.560E+01	2.423E+01	2.116E+00	-0.347
		1085.87		1.979E+00	1.947E+01	3.212E+01	2.863E+00	0.062
		1112.07		-1.133E+01	1.670E+01	2.487E+01	2.221E+00	-0.456
		1408.01		-6.554E+00	9.903E+00	1.489E+01	1.266E+00	-0.440
GD-153		69.67		-2.477E+01	5.253E+01	8.739E+01	8.404E+00	-0.283
		97.43	*	1.409E+00	4.618E+00	6.480E+00	6.069E-01	0.217
		103.18		3.095E+00	4.996E+00	8.535E+00	7.980E-01	0.363
EU-154		123.07		-3.189E+00	2.604E+00	4.006E+00	4.795E-01	-0.796

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		723.31		-7.654E+00	8.768E+00	1.348E+01	1.245E+00	-0.568
		873.19		-1.157E+01	1.719E+01	2.652E+01	3.143E+00	-0.436
		996.26		-1.726E+01	1.918E+01	2.759E+01	4.843E+00	-0.626
		1004.73		-3.383E+00	1.128E+01	1.783E+01	2.100E+00	-0.190
		1274.44	*	5.415E+00	6.013E+00	1.082E+01	1.232E+00	0.500
EU-155		86.55		-1.230E+00	4.548E+00	6.527E+00	6.219E-01	-0.189
		105.31	*	6.030E-01	4.937E+00	8.262E+00	7.802E-01	0.073
TA-182		67.75		-8.506E-01	3.714E+00	5.573E+00	5.394E-01	-0.153
		100.11		-2.398E+00	7.856E+00	1.293E+01	1.210E+00	-0.185
		152.43		6.341E-01	1.712E+01	2.804E+01	2.532E+00	0.023
		222.11		3.020E+00	1.763E+01	2.849E+01	2.682E+00	0.106
		1121.30		4.253E+00	7.331E+00	1.264E+01	1.129E+00	0.336
		1189.05		-3.457E+00	1.467E+01	2.298E+01	2.045E+00	-0.150
		1221.41	*	-1.197E+00	8.736E+00	1.383E+01	1.218E+00	-0.087
		1231.02		1.357E+01	1.960E+01	3.450E+01	3.029E+00	0.393
IR-192		295.96		3.032E+00	7.084E+00	9.602E+00	9.492E-01	0.316
		308.46		-1.377E+00	4.724E+00	7.823E+00	7.734E-01	-0.176
		316.51	*	1.617E+00	1.786E+00	3.150E+00	3.109E-01	0.513
		468.07		-3.657E-01	3.695E+00	6.020E+00	6.139E-01	-0.061
HG-203		70.83		1.363E+00	3.826E+01	6.483E+01	1.076E+01	0.021
		72.87		-3.287E+01	2.524E+01	3.789E+01	6.085E+00	-0.868
		279.20	*	1.541E+00	1.888E+00	3.327E+00	3.319E-01	0.463
BI-207		72.81		-8.227E+00	6.059E+00	9.206E+00	8.782E-01	-0.894
		74.97		-7.296E+00	4.116E+00	5.775E+00	5.486E-01	-1.264
		569.70		1.451E+00	1.706E+00	2.956E+00	2.709E-01	0.491
		1063.66	*	-5.101E-01	2.599E+00	4.130E+00	3.673E-01	-0.124
		1770.23		-2.701E+01	3.546E+01	5.058E+01	4.337E+00	-0.534
TL-208		277.37		-1.844E+00	1.943E+01	3.280E+01	4.378E+00	-0.056
		583.19	*	4.337E-01	2.911E+00	4.094E+00	3.942E-01	0.106
		860.56		1.024E+01	1.615E+01	2.836E+01	2.608E+00	0.361
PB-210		46.54	*	4.632E+00	4.796E+01	7.325E+01	8.133E+00	0.063
PB-211		404.85	*	-9.069E+00	4.211E+02	5.780E+01	2.675E+03	-0.157
		427.09		2.265E+01	1.051E+03	1.364E+02	6.311E+03	0.166
		832.01		-7.996E+00	3.742E+02	9.197E+01	4.256E+03	-0.087
BI-212		727.33	*	4.410E+01	2.780E+01	5.195E+01	6.375E+00	0.849
		785.37		1.049E+02	1.660E+02	2.933E+02	2.488E+01	0.358
		1620.50		-1.261E+01	1.261E+02	2.040E+02	1.760E+01	-0.062
PB-212		74.82		-2.505E+01	1.467E+01	2.035E+01	2.767E+00	-1.231
		77.11		-1.011E+01	8.517E+00	1.240E+01	1.174E+00	-0.815
		238.63	*	-8.159E-01	4.298E+00	6.830E+00	7.235E-01	-0.119
		300.09		1.175E+01	4.024E+01	6.903E+01	7.977E+00	0.170
BI-214	+	609.32	*	8.943E+00	7.845E+00	9.525E+00	9.762E-01	0.939
		1120.29		1.301E+01	1.641E+01	2.876E+01	3.212E+00	0.452
		1764.49		1.129E+01	2.237E+01	3.424E+01	2.938E+00	0.330
PB-214		74.82		-4.389E+01	2.558E+01	3.565E+01	4.413E+00	-1.231
		77.11		-1.762E+01	1.491E+01	2.161E+01	2.714E+00	-0.815
		242.00		-4.611E+01	2.664E+01	3.172E+01	3.550E+00	-1.453
		295.22		3.550E+00	1.005E+01	1.369E+01	1.615E+00	0.259
	+	351.93	*	8.899E+00	7.820E+00	8.634E+00	9.983E-01	1.031

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RN-219		271.23		1.365E+01	6.316E+02	2.068E+01	9.568E+02	0.660
		401.81	*	-1.060E+01	4.909E+02	3.435E+01	1.589E+03	-0.309
RA-223		81.07		-1.628E+00	7.569E+01	1.239E+01	5.735E+02	-0.131
		83.79		-3.086E+00	1.429E+02	7.855E+00	3.635E+02	-0.393
		94.56		-4.740E+01	2.193E+03	2.186E+01	1.011E+03	-2.168
		144.24		2.677E+01	1.240E+03	5.961E+01	2.759E+03	0.449
		154.21		7.231E+00	3.352E+02	3.290E+01	1.522E+03	0.220
		269.46		-3.313E+00	1.536E+02	1.509E+01	6.981E+02	-0.220
		323.87	*	7.609E+00	3.539E+02	6.040E+01	2.795E+03	0.126
		338.28		5.166E+01	2.391E+03	9.296E+01	4.301E+03	0.556
RA-224		240.99	*	-9.191E+01	4.890E+01	5.888E+01	5.632E+00	-1.561
RA-226		186.21	*	3.505E+00	4.721E+01	7.199E+01	4.857E+01	0.049
AC-227		79.69		-7.952E+01	4.631E+01	6.924E+01	1.223E+01	-1.148
		235.96		-3.416E+01	1.001E+01	1.191E+01	1.323E+00	-2.869
		256.23	*	-6.060E+00	1.331E+01	2.043E+01	2.619E+00	-0.297
		299.98		5.659E+00	4.405E+01	7.492E+01	1.016E+01	0.076
		304.50		-3.532E+01	8.549E+01	1.406E+02	2.417E+01	-0.251
		329.85		8.831E+00	3.433E+01	5.849E+01	7.417E+00	0.151
		334.37		-1.109E+02	9.422E+01	1.441E+02	2.347E+01	-0.770
TH-227		79.69		-7.952E+01	3.680E+03	6.924E+01	3.204E+03	-1.148
		235.96		-3.416E+01	1.581E+03	1.191E+01	5.509E+02	-2.869
		256.23	*	-6.060E+00	2.807E+02	2.043E+01	9.453E+02	-0.297
		299.98		5.659E+00	2.655E+02	7.492E+01	3.467E+03	0.076
		304.50		-3.532E+01	1.636E+03	1.406E+02	6.504E+03	-0.251
		329.85		8.831E+00	4.101E+02	5.849E+01	2.707E+03	0.151
		334.37		-1.109E+02	5.135E+03	1.441E+02	6.668E+03	-0.770
AC-228		338.32		1.302E+01	1.438E+01	2.349E+01	9.860E+00	0.555
		911.20	*	-6.915E+00	1.063E+01	1.379E+01	1.596E+00	-0.501
		968.97		4.087E+00	1.788E+01	2.763E+01	6.743E+00	0.148
RA-228		338.32		1.302E+01	1.438E+01	2.349E+01	9.860E+00	0.555
		911.20	*	-6.915E+00	1.063E+01	1.379E+01	1.596E+00	-0.501
		968.97		4.087E+00	1.788E+01	2.763E+01	6.743E+00	0.148
TH-228		74.82		-2.505E+01	1.446E+01	2.035E+01	1.948E+00	-1.231
		77.11		-1.011E+01	8.517E+00	1.240E+01	1.174E+00	-0.815
		238.63	*	-8.159E-01	4.298E+00	6.830E+00	7.235E-01	-0.119
		300.09		1.175E+01	4.086E+01	6.903E+01	4.239E+01	0.170
TH-229		85.43		-6.341E+00	9.449E+00	1.329E+01	1.255E+00	-0.477
		88.47		-2.120E+00	5.670E+00	8.029E+00	7.587E-01	-0.264
		193.51	*	2.443E+01	2.796E+01	4.701E+01	4.296E+00	0.520
		210.85		-4.081E+00	4.374E+01	6.985E+01	6.503E+00	-0.058
PA-231		283.69	*	-5.060E+00	7.465E+01	1.260E+02	1.930E+01	-0.040
		301.36		2.028E+01	2.516E+01	4.410E+01	5.451E+00	0.460
		330.06		4.343E+01	9.649E+01	1.649E+02	4.982E+01	0.263
TH-231		84.21	*	-1.245E+01	2.100E+01	2.946E+01	5.259E+00	-0.423
TH-232		63.81	*	-6.289E+02	4.883E+03	9.989E+02	7.684E+03	-0.630
	+	140.88		1.742E+04	8.790E+03	1.073E+04	9.848E+02	1.624
PA-233		94.65		-4.184E+01	1.266E+01	1.753E+01	1.666E+00	-2.387
		98.43		-1.644E+00	7.661E+00	1.047E+01	1.024E+00	-0.157
		300.13		5.290E+00	1.984E+01	3.398E+01	5.291E+00	0.156

Sample ID : G247817002 Acquisition date : 4-MAR-2010 22:19:49

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		311.90	*	-1.780E+00	3.226E+00	5.242E+00	5.277E-01	-0.340
		340.48		-1.937E+01	3.290E+01	5.267E+01	1.291E+01	-0.368
PA-234		94.67		-2.859E+01	8.878E+00	1.173E+01	1.518E+00	-2.437
		98.44		-1.105E+00	5.133E+00	6.964E+00	3.893E+00	-0.159
		111.00		-9.474E-02	9.003E+00	1.495E+01	1.887E+00	-0.006
		131.20		-9.648E-01	5.347E+00	8.736E+00	8.128E-01	-0.110
		569.50		1.710E+01	1.446E+01	2.574E+01	2.360E+00	0.664
		733.00		-8.519E+00	2.086E+01	3.361E+01	7.428E+00	-0.253
		880.51		-3.458E+00	1.674E+01	2.715E+01	2.324E+00	-0.127
		883.24		7.431E+00	1.730E+01	2.865E+01	1.926E+01	0.259
		926.36		-5.488E+00	9.610E+00	1.465E+01	3.705E+00	-0.374
		946.00	*	-1.919E+00	1.602E+01	2.602E+01	4.891E+00	-0.074
		949.00		4.502E-02	2.336E+01	3.847E+01	3.345E+00	0.001
PA-234M		766.42		5.287E+02	6.673E+02	1.097E+03	5.562E+02	0.482
		1001.03	*	9.727E+01	2.361E+02	4.050E+02	4.101E+01	0.240
TH-234		63.29	*	-3.411E+01	4.685E+01	6.997E+01	1.328E+01	-0.488
		92.59		-8.308E+00	4.080E+01	6.179E+01	1.384E+01	-0.134
U-235		89.96		-1.397E+02	5.101E+01	5.413E+01	1.348E+01	-2.580
		93.35		-2.735E+01	3.120E+01	4.521E+01	1.058E+01	-0.605
		143.76	*	4.169E+00	1.362E+01	1.755E+01	3.023E+00	0.238
		163.33		3.242E+01	2.409E+01	4.052E+01	7.326E+00	0.800
		185.72		8.702E-01	2.954E+00	4.550E+00	4.121E-01	0.191
		205.31		-1.804E+01	2.480E+01	3.789E+01	6.992E+00	-0.476
NP-237		86.48	*	-7.874E-01	1.110E+01	1.602E+01	3.683E+00	-0.049
		95.86		-7.056E+01	4.574E+01	6.619E+01	1.606E+01	-1.066
U-238		63.29	*	-3.411E+01	4.685E+01	6.997E+01	1.328E+01	-0.488
		92.59		-8.308E+00	4.076E+01	6.179E+01	5.809E+00	-0.134
NP-239		99.53		-3.776E+00	9.295E+00	1.259E+01	1.178E+00	-0.300
		103.37		2.714E+00	4.625E+00	7.890E+00	7.376E-01	0.344
		106.12		-2.505E-01	3.941E+00	6.540E+00	6.115E-01	-0.038
		116.74	*	-3.423E+00	1.319E+01	2.159E+01	2.028E+00	-0.159
		228.18		1.906E+00	1.141E+01	1.841E+01	1.743E+00	0.104
		277.60		8.619E-01	8.728E+00	1.489E+01	1.455E+00	0.058
AM-241		59.54	*	1.958E-01	3.885E+00	5.808E+00	6.181E-01	0.034
CM-247		278.00		9.780E+00	3.784E+01	6.504E+01	6.359E+00	0.150
		287.50		6.324E+00	6.308E+01	1.074E+02	1.053E+01	0.059
		402.40	*	-3.755E-01	1.912E+00	3.126E+00	2.985E-01	-0.120
CF-249		252.80		3.402E+01	5.232E+01	8.625E+01	8.320E+00	0.394
		333.37		-9.609E+00	9.519E+00	1.492E+01	1.467E+00	-0.644
		388.16	*	-9.387E-01	2.034E+00	3.265E+00	3.115E-01	-0.287
CF-251		177.52	*	1.771E-01	6.959E+00	1.130E+01	1.014E+00	0.016
		227.38		2.551E+01	1.900E+01	3.240E+01	3.065E+00	0.787
		285.41		-4.634E+01	1.131E+02	1.872E+02	1.835E+01	-0.248
ANH-511		511.00	*	-8.701E+00	3.769E+00	5.422E+00	5.164E-01	-1.605

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G247817002      *
* Acquisition date :  4-MAR-2010 22:19:49 Detector SN#     :               *
* Detector ID       : GAM17               Sensitivity      : 5.000         *
* Geometry          : 2LMB                Energy tolerance: 1.500          *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 06:00:26.83     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 21-FEB-2010 12:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G247817002           Analyst initials: KXG3           *
* Batch Number      : 956976               Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 11-JAN-2010 14:46:18 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
BI-211	2.455E+01	1.113E+03	1.775E+01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	-3.893E-01	1.797E+01	3.001E+01	0.000E+00	NOT IDENT.
NA-22	6.181E-01	2.234E+00	3.795E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.279E+05	0.000E+00	0.000E+00	SHORT HLIF
K-40	-1.113E+01	2.545E+01	3.949E+01	0.000E+00	NOT IDENT.
SC-46	5.264E-01	2.090E+00	3.619E+00	0.000E+00	NOT IDENT.
V-48	-4.713E-01	3.113E+00	5.123E+00	0.000E+00	NOT IDENT.
CR-51	-1.816E+01	1.837E+01	2.962E+01	0.000E+00	NOT IDENT.
MN-54	1.404E+00	1.957E+00	3.533E+00	0.000E+00	NOT IDENT.
CO-56	-3.170E-01	2.207E+00	3.691E+00	0.000E+00	NOT IDENT.
CO-57	-1.390E-01	1.211E+00	2.033E+00	0.000E+00	NOT IDENT.
CO-58	8.695E-01	1.972E+00	3.496E+00	0.000E+00	NOT IDENT.
FE-59	-5.290E+00	4.340E+00	5.984E+00	0.000E+00	NOT IDENT.
CO-60	-7.068E-02	2.135E+00	3.636E+00	0.000E+00	NOT IDENT.
ZN-65	-2.666E+00	5.086E+00	7.961E+00	0.000E+00	NOT IDENT.
SE-75	-1.450E-04	2.323E+00	3.753E+00	0.000E+00	NOT IDENT.
SR-85	-1.347E+01	3.160E+00	3.485E+00	0.000E+00	NOT IDENT.
Y-88	-1.143E+00	2.640E+00	4.083E+00	0.000E+00	NOT IDENT.
Y-91	-2.593E+02	1.086E+03	1.740E+03	0.000E+00	NOT IDENT.
NB-94	-1.234E-01	1.859E+00	3.178E+00	0.000E+00	NOT IDENT.
NB-95	2.734E+00	2.107E+00	3.968E+00	0.000E+00	NOT IDENT.
NB-95M	-2.819E+01	7.789E+00	9.336E+00	0.000E+00	NOT IDENT.
ZR-95	-1.164E+00	3.913E+00	6.516E+00	0.000E+00	NOT IDENT.
MO-99	-1.070E+00	2.836E+02	4.855E+02	0.000E+00	FAIL ABUN
TC-99M	0.000E+00	1.518E+14	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-5.753E-01	2.222E+00	3.633E+00	0.000E+00	FAIL ABUN
RH-106	6.003E+00	1.653E+01	2.805E+01	0.000E+00	NOT IDENT.

RU-106	6.003E+00	1.652E+01	2.805E+01	0.000E+00	NOT IDENT.
AG-108M	-4.423E-01	1.606E+00	2.650E+00	0.000E+00	NOT IDENT.
CD-109	-1.271E+01	3.666E+01	5.306E+01	0.000E+00	NOT IDENT.
AG-110M	-1.754E+00	2.115E+00	3.185E+00	0.000E+00	NOT IDENT.
SN-113	-1.913E-01	2.159E+00	3.638E+00	0.000E+00	NOT IDENT.
CD-115	-3.740E+01	1.996E+02	3.260E+02	0.000E+00	NOT IDENT.
SN-117M	5.773E-01	2.329E+00	3.923E+00	0.000E+00	NOT IDENT.
TE-123M	4.757E-01	1.437E+00	2.429E+00	0.000E+00	NOT IDENT.
SB-124	-2.151E-03	4.276E+00	7.164E+00	0.000E+00	NOT IDENT.
SB-125	1.301E+00	4.693E+00	8.069E+00	0.000E+00	NOT IDENT.
TE-125M	-2.869E+02	4.389E+02	7.214E+02	0.000E+00	NOT IDENT.
I-126	-7.504E+00	9.860E+00	1.480E+01	0.000E+00	NOT IDENT.
SB-126	6.719E-03	5.829E+00	1.000E+01	0.000E+00	NOT IDENT.
SN-126	-1.572E+00	3.622E+00	5.232E+00	0.000E+00	NOT IDENT.
SB-127	-1.065E+01	4.048E+01	6.420E+01	0.000E+00	NOT IDENT.
I-131	-6.835E-01	4.253E+00	7.164E+00	0.000E+00	NOT IDENT.
TE-132	3.264E+00	1.732E+01	2.854E+01	0.000E+00	NOT IDENT.
BA-133	9.130E-01	2.415E+00	3.744E+00	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.742E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	2.388E+00	2.471E+00	4.548E+00	0.000E+00	NOT IDENT.
CS-135	-3.020E+00	8.228E+00	1.296E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.322E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-4.821E+00	4.386E+00	6.198E+00	0.000E+00	NOT IDENT.
BA-137M	-5.189E-01	2.621E+00	3.621E+00	0.000E+00	NOT IDENT.
CS-137	-5.482E-01	2.768E+00	3.825E+00	0.000E+00	NOT IDENT.
CE-139	-1.254E+00	1.516E+00	2.408E+00	0.000E+00	NOT IDENT.
BA-140	-1.522E+01	1.486E+01	1.841E+01	0.000E+00	NOT IDENT.
LA-140	6.731E-01	4.570E+00	7.850E+00	0.000E+00	NOT IDENT.
CE-141	-2.467E+00	2.989E+00	4.795E+00	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.059E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.014E+01	9.998E+00	1.580E+01	0.000E+00	NOT IDENT.
PM-144	4.346E-02	1.824E+00	3.143E+00	0.000E+00	NOT IDENT.
PR-144	1.699E+00	1.361E+02	2.343E+02	0.000E+00	NOT IDENT.
PM-146	9.631E-01	2.268E+00	3.923E+00	0.000E+00	NOT IDENT.
ND-147	-4.376E+00	2.327E+01	3.796E+01	0.000E+00	NOT IDENT.
PM-149	-1.534E+02	1.484E+03	2.550E+03	0.000E+00	NOT IDENT.
EU-152	1.840E+00	5.058E+00	8.828E+00	0.000E+00	NOT IDENT.
GD-153	1.409E+00	4.525E+00	6.480E+00	0.000E+00	NOT IDENT.
EU-154	5.415E+00	5.892E+00	1.082E+01	0.000E+00	NOT IDENT.
EU-155	6.030E-01	4.838E+00	8.262E+00	0.000E+00	NOT IDENT.
TA-182	-1.197E+00	8.561E+00	1.383E+01	0.000E+00	NOT IDENT.
IR-192	1.617E+00	1.750E+00	3.150E+00	0.000E+00	NOT IDENT.
HG-203	1.541E+00	1.851E+00	3.327E+00	0.000E+00	NOT IDENT.
BI-207	-5.101E-01	2.547E+00	4.130E+00	0.000E+00	NOT IDENT.
TL-208	4.337E-01	2.853E+00	4.094E+00	0.000E+00	NOT IDENT.
PB-210	4.632E+00	4.700E+01	7.325E+01	0.000E+00	NOT IDENT.
PB-211	-9.069E+00	4.127E+02	5.780E+01	0.000E+00	NOT IDENT.
BI-212	4.410E+01	2.724E+01	5.195E+01	0.000E+00	NOT IDENT.
PB-212	-8.159E-01	4.212E+00	6.830E+00	0.000E+00	NOT IDENT.
BI-214	8.943E+00	7.688E+00	9.525E+00	0.000E+00	FAIL ABUN
PB-214	0.000E+00	7.664E+00	8.634E+00	0.000E+00	FAIL ABUN
RN-219	-1.060E+01	4.811E+02	3.435E+01	0.000E+00	NOT IDENT.
RA-223	7.609E+00	3.468E+02	6.040E+01	0.000E+00	NOT IDENT.
RA-224	-9.191E+01	4.792E+01	5.888E+01	0.000E+00	NOT IDENT.
RA-226	3.505E+00	4.626E+01	7.199E+01	0.000E+00	NOT IDENT.
AC-227	-6.060E+00	1.304E+01	2.043E+01	0.000E+00	NOT IDENT.
TH-227	-6.060E+00	2.751E+02	2.043E+01	0.000E+00	NOT IDENT.
AC-228	-6.915E+00	1.042E+01	1.379E+01	0.000E+00	NOT IDENT.
RA-228	-6.915E+00	1.042E+01	1.379E+01	0.000E+00	NOT IDENT.
TH-228	-8.159E-01	4.212E+00	6.830E+00	0.000E+00	NOT IDENT.
TH-229	2.443E+01	2.740E+01	4.701E+01	0.000E+00	NOT IDENT.
PA-231	-5.060E+00	7.316E+01	1.260E+02	0.000E+00	NOT IDENT.
TH-231	-1.245E+01	2.058E+01	2.946E+01	0.000E+00	NOT IDENT.
TH-232	-6.289E+02	4.786E+03	9.989E+02	0.000E+00	FAIL ABUN
PA-233	-1.780E+00	3.162E+00	5.242E+00	0.000E+00	NOT IDENT.
PA-234	-1.919E+00	1.570E+01	2.602E+01	0.000E+00	NOT IDENT.
PA-234M	9.727E+01	2.314E+02	4.050E+02	0.000E+00	NOT IDENT.
TH-234	-3.411E+01	4.591E+01	6.997E+01	0.000E+00	NOT IDENT.
U-235	4.169E+00	1.334E+01	1.755E+01	0.000E+00	NOT IDENT.
NP-237	-7.874E-01	1.088E+01	1.602E+01	0.000E+00	NOT IDENT.
U-238	-3.411E+01	4.591E+01	6.997E+01	0.000E+00	NOT IDENT.
NP-239	-3.423E+00	1.293E+01	2.159E+01	0.000E+00	NOT IDENT.
AM-241	1.958E-01	3.807E+00	5.808E+00	0.000E+00	NOT IDENT.
CM-247	-3.755E-01	1.874E+00	3.126E+00	0.000E+00	NOT IDENT.
CF-249	-9.387E-01	1.994E+00	3.265E+00	0.000E+00	NOT IDENT.
CF-251	1.771E-01	6.820E+00	1.130E+01	0.000E+00	NOT IDENT.
ANH-511	-8.701E+00	3.694E+00	5.422E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 04:21:23.73

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G247817002.CNF;1
Sample date       : 21-FEB-2010 12:00:00 Acquisition date : 4-MAR-2010 22:19:49.
Sample ID         : G247817002           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM17                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:26.83  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 956976               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.61	285	291	0.92	92.85	89	7	1.32E-02	11.6	
2	0	63.18	158	447	0.84	125.99	123	7	7.31E-03	23.5	
3	0	76.93	88	292	0.95	153.51	152	6	4.05E-03	32.6	
4	0	92.61	301	434	1.38	184.89	181	9	1.39E-02	13.8	
5	0	139.89	136	307	0.76	279.47	275	9	6.28E-03	24.8	
6	0	185.52	225	341	1.28	370.76	365	13	1.04E-02	18.2	
7	0	198.29	55	286	1.12	396.32	392	9	2.57E-03	56.5	
8	0	238.56	175	218	0.93	476.89	472	9	8.10E-03	17.0	
9	0	351.57	103	159	1.48	703.01	697	12	4.75E-03	26.5	
10	0	510.52	283	182	2.22	1021.06	1013	19	1.31E-02	12.8	
11	0	609.43	88	89	1.55	1219.00	1213	11	4.07E-03	23.5	
12	0	1926.38	24	0	1.12	3855.04	3849	13	1.11E-03	20.4	

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 04:21:26.68

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G247817002.CNF;1
Sample date       : 21-FEB-2010 12:00:00 Acquisition date : 4-MAR-2010 22:19:49.
Sample ID         : G247817002           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM17                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:26.83  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 956976                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
BI-211	72.87	------	1.23	2.609E+00	------	Line Not Found	------
	351.06	68	12.92*	1.352E+00	2.452E+01	2.455E+01	4628.07

Flag: "*" = Keyline

Sample ID : G247817002 Acquisition date : 4-MAR-2010 22:19:49

Total number of lines in spectrum	4	
Number of unidentified lines	1	
Number of lines tentatively identified by NID	3	75.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
BI-211	21.77Y	1.00	2.452E+01	2.455E+01	113.6E+01	4628.07	
		Total Activity :	2.452E+01	2.455E+01			
		Grand Total Activity :	2.452E+01	2.455E+01			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G247817002 Acquisition date : 4-MAR-2010 22:19:49

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	139.89	136	307	0.76	279.47	275	9	6.28E-03	49.6	2.43E+00	T
0	609.43	55	89	1.55	1219.00	1213	11	2.54E-03	87.1	8.42E-01	T
0	1926.38	24	0	1.12	3855.04	3849	13	1.11E-03	40.8	3.19E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 04:21:30.86

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G247817002.CNF;1  *
* Acquisition date : 4-MAR-2010 22:19:49.  Detector SN#    :                *
* Detector ID      : GAM17                 Sensitivity     : 5.00000        *
* Geometry         : 2LMB                  Energy tolerance: 1.50000        *
* Elapsed live time: 0 06:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 06:00:26.83         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 21-FEB-2010 12:00:00  Nuclide Library : LIQUID         *
* Sample ID        : G247817002            Analyst initials: KXG3           *
* Batch Number     : 956976                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 11-JAN-2010 14:46:18.7MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BI-211	2.455E+01	1.136E+03	1.775E+01	8.211E+02	1.383

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	-3.893E-01		1.833E+01	3.001E+01	3.067E+00	-0.013
NA-22	6.181E-01		2.280E+00	3.795E+00	3.279E-01	0.163
NA-24	2.646E-01		4.224E-01	Half-Life too short		
K-40	-1.113E+01		2.597E+01	3.949E+01	3.476E+00	-0.282
SC-46	5.264E-01		2.133E+00	3.619E+00	3.097E-01	0.145
V-48	-4.713E-01		3.176E+00	5.123E+00	4.493E-01	-0.092
CR-51	-1.816E+01		1.875E+01	2.962E+01	3.035E+00	-0.613
MN-54	1.404E+00		1.996E+00	3.533E+00	3.018E-01	0.397
CO-56	-3.170E-01		2.252E+00	3.691E+00	3.156E-01	-0.086
CO-57	-1.390E-01		1.236E+00	2.033E+00	1.919E-01	-0.068
CO-58	8.695E-01		2.013E+00	3.496E+00	2.986E-01	0.249

Sample ID : G247817002 Acquisition date : 4-MAR-2010 22:19:49

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
FE-59	-5.290E+00		4.428E+00	5.984E+00	5.745E-01	-0.884
CO-60	-7.068E-02		2.179E+00	3.636E+00	3.051E-01	-0.019
ZN-65	-2.666E+00		5.190E+00	7.961E+00	7.117E-01	-0.335
SE-75	-1.450E-04		2.370E+00	3.753E+00	3.660E-01	0.000
SR-85	-1.347E+01		3.225E+00	3.485E+00	3.315E-01	-3.864
Y-88	-1.143E+00		2.694E+00	4.083E+00	3.481E-01	-0.280
Y-91	-2.593E+02		1.109E+03	1.740E+03	1.542E+02	-0.149
NB-94	-1.234E-01		1.897E+00	3.178E+00	2.628E-01	-0.039
NB-95	2.734E+00		2.150E+00	3.968E+00	3.350E-01	0.689
NB-95M	-2.819E+01		7.948E+00	9.336E+00	9.975E-01	-3.019
ZR-95	-1.164E+00		3.993E+00	6.516E+00	6.089E-01	-0.179
MO-99	-1.070E+00		2.894E+02	4.855E+02	7.587E+01	-0.002
TC-99M	2.831E+08	+	7.746E+07	Half-Life too short		
RU-103	-5.753E-01		2.268E+00	3.633E+00	5.294E-01	-0.158
RH-106	6.003E+00		1.687E+01	2.805E+01	3.722E+00	0.214
RU-106	6.003E+00		1.686E+01	2.805E+01	2.424E+00	0.214
AG-108M	-4.423E-01		1.639E+00	2.650E+00	2.617E-01	-0.167
CD-109	-1.271E+01		3.741E+01	5.306E+01	5.018E+00	-0.239
AG-110M	-1.754E+00		2.158E+00	3.185E+00	2.689E-01	-0.551
SN-113	-1.913E-01		2.203E+00	3.638E+00	3.547E-01	-0.053
CD-115	-3.740E+01		2.036E+02	3.260E+02	3.079E+01	-0.115
SN-117M	5.773E-01		2.377E+00	3.923E+00	3.510E-01	0.147
TE-123M	4.757E-01		1.466E+00	2.429E+00	2.184E-01	0.196
SB-124	-2.151E-03		4.363E+00	7.164E+00	6.433E-01	0.000
SB-125	1.301E+00		4.789E+00	8.069E+00	7.877E-01	0.161
TE-125M	-2.869E+02		4.479E+02	7.214E+02	7.997E+01	-0.398
I-126	-7.504E+00		1.006E+01	1.480E+01	1.204E+00	-0.507
SB-126	6.719E-03		5.948E+00	1.000E+01	8.329E-01	0.001
SN-126	-1.572E+00		3.696E+00	5.232E+00	4.946E-01	-0.300
SB-127	-1.065E+01		4.130E+01	6.420E+01	6.463E+00	-0.166
I-131	-6.835E-01		4.340E+00	7.164E+00	7.240E-01	-0.095
TE-132	3.264E+00		1.767E+01	2.854E+01	4.475E+00	0.114
BA-133	9.130E-01		2.465E+00	3.744E+00	5.143E-01	0.244
I-133	2.344E-03		8.886E-03	Half-Life too short		
CS-134	2.388E+00		2.521E+00	4.548E+00	3.894E-01	0.525
CS-135	-3.020E+00		8.396E+00	1.296E+01	1.418E+00	-0.233
I-135	-1.600E+07		1.695E+07	Half-Life too short		
CS-136	-4.821E+00		4.476E+00	6.198E+00	5.717E-01	-0.778
BA-137M	-5.189E-01		2.674E+00	3.621E+00	2.939E-01	-0.143
CS-137	-5.482E-01		2.825E+00	3.825E+00	3.111E-01	-0.143
CE-139	-1.254E+00		1.547E+00	2.408E+00	2.131E-01	-0.521
BA-140	-1.522E+01		1.517E+01	1.841E+01	6.280E+00	-0.827
LA-140	6.731E-01		4.663E+00	7.850E+00	6.773E-01	0.086
CE-141	-2.467E+00		3.050E+00	4.795E+00	4.445E-01	-0.514
CE-143	7.095E-04		5.402E-04	Half-Life too short		
CE-144	-1.014E+01		1.020E+01	1.580E+01	2.475E+00	-0.642
PM-144	4.346E-02		1.861E+00	3.143E+00	2.593E-01	0.014
PR-144	1.699E+00		1.389E+02	2.343E+02	1.933E+01	0.007

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PM-146	9.631E-01		2.314E+00	3.923E+00	4.486E-01	0.246
ND-147	-4.376E+00		2.374E+01	3.796E+01	5.857E+00	-0.115
PM-149	-1.534E+02		1.514E+03	2.550E+03	4.136E+02	-0.060
EU-152	1.840E+00		5.161E+00	8.828E+00	9.051E-01	0.208
GD-153	1.409E+00		4.618E+00	6.480E+00	6.069E-01	0.217
EU-154	5.415E+00		6.013E+00	1.082E+01	1.232E+00	0.500
EU-155	6.030E-01		4.937E+00	8.262E+00	7.802E-01	0.073
TA-182	-1.197E+00		8.736E+00	1.383E+01	1.218E+00	-0.087
IR-192	1.617E+00		1.786E+00	3.150E+00	3.109E-01	0.513
HG-203	1.541E+00		1.888E+00	3.327E+00	3.319E-01	0.463
BI-207	-5.101E-01		2.599E+00	4.130E+00	3.673E-01	-0.124
TL-208	4.337E-01		2.911E+00	4.094E+00	3.942E-01	0.106
PB-210	4.632E+00		4.796E+01	7.325E+01	8.133E+00	0.063
PB-211	-9.069E+00		4.211E+02	5.780E+01	2.675E+03	-0.157
BI-212	4.410E+01		2.780E+01	5.195E+01	6.375E+00	0.849
PB-212	-8.159E-01		4.298E+00	6.830E+00	7.235E-01	-0.119
BI-214	8.943E+00	+	7.845E+00	9.525E+00	9.762E-01	0.939
PB-214	8.899E+00	+	7.820E+00	8.634E+00	9.983E-01	1.031
RN-219	-1.060E+01		4.909E+02	3.435E+01	1.589E+03	-0.309
RA-223	7.609E+00		3.539E+02	6.040E+01	2.795E+03	0.126
RA-224	-9.191E+01		4.890E+01	5.888E+01	5.632E+00	-1.561
RA-226	3.505E+00		4.721E+01	7.199E+01	4.857E+01	0.049
AC-227	-6.060E+00		1.331E+01	2.043E+01	2.619E+00	-0.297
TH-227	-6.060E+00		2.807E+02	2.043E+01	9.453E+02	-0.297
AC-228	-6.915E+00		1.063E+01	1.379E+01	1.596E+00	-0.501
RA-228	-6.915E+00		1.063E+01	1.379E+01	1.596E+00	-0.501
TH-228	-8.159E-01		4.298E+00	6.830E+00	7.235E-01	-0.119
TH-229	2.443E+01		2.796E+01	4.701E+01	4.296E+00	0.520
PA-231	-5.060E+00		7.465E+01	1.260E+02	1.930E+01	-0.040
TH-231	-1.245E+01		2.100E+01	2.946E+01	5.259E+00	-0.423
TH-232	-6.289E+02		4.883E+03	9.989E+02	7.684E+03	-0.630
PA-233	-1.780E+00		3.226E+00	5.242E+00	5.277E-01	-0.340
PA-234	-1.919E+00		1.602E+01	2.602E+01	4.891E+00	-0.074
PA-234M	9.727E+01		2.361E+02	4.050E+02	4.101E+01	0.240
TH-234	-3.411E+01		4.685E+01	6.997E+01	1.328E+01	-0.488
U-235	4.169E+00		1.362E+01	1.755E+01	3.023E+00	0.238
NP-237	-7.874E-01		1.110E+01	1.602E+01	3.683E+00	-0.049
U-238	-3.411E+01		4.685E+01	6.997E+01	1.328E+01	-0.488
NP-239	-3.423E+00		1.319E+01	2.159E+01	2.028E+00	-0.159
AM-241	1.958E-01		3.885E+00	5.808E+00	6.181E-01	0.034
CM-247	-3.755E-01		1.912E+00	3.126E+00	2.985E-01	-0.120
CF-249	-9.387E-01		2.034E+00	3.265E+00	3.115E-01	-0.287
CF-251	1.771E-01		6.959E+00	1.130E+01	1.014E+00	0.016
ANH-511	-8.701E+00		3.769E+00	5.422E+00	5.164E-01	-1.605

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G247817002           *
* Acquisition date  :  4-MAR-2010 22:19:49 Detector SN#     :               *
* Detector ID       : GAM17                Sensitivity      : 5.000         *
* Geometry          : 2LMB                 Energy tolerance: 1.500          *
* Elapsed live time:    0 06:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 06:00:26.83      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 21-FEB-2010 12:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G247817002           Analyst initials: KXG3           *
* Batch Number      : 956976               Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 11-JAN-2010 14:46:18 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
BI-211	2.455E+01	1.113E+03	8.878E+00	5.680E+02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU	
BE-7	-3.893E-01	1.797E+01	1.501E+01	9.167E+00	NOT IDENT.
NA-22	6.181E-01	2.234E+00	1.899E+00	1.140E+00	NOT IDENT.
NA-24	2.646E+05	8.279E+05	0.000E+00	4.224E+05	SHORT HLIF
K-40	-1.113E+01	2.545E+01	1.976E+01	1.299E+01	NOT IDENT.
SC-46	5.264E-01	2.090E+00	1.811E+00	1.067E+00	NOT IDENT.
V-48	-4.713E-01	3.113E+00	2.563E+00	1.588E+00	NOT IDENT.
CR-51	-1.816E+01	1.837E+01	1.482E+01	9.374E+00	NOT IDENT.
MN-54	1.404E+00	1.957E+00	1.767E+00	9.982E-01	NOT IDENT.
CO-56	-3.170E-01	2.207E+00	1.846E+00	1.126E+00	NOT IDENT.
CO-57	-1.390E-01	1.211E+00	1.017E+00	6.180E-01	NOT IDENT.
CO-58	8.695E-01	1.972E+00	1.749E+00	1.006E+00	NOT IDENT.
FE-59	-5.290E+00	4.340E+00	2.994E+00	2.214E+00	NOT IDENT.
CO-60	-7.068E-02	2.135E+00	1.819E+00	1.089E+00	NOT IDENT.
ZN-65	-2.666E+00	5.086E+00	3.983E+00	2.595E+00	NOT IDENT.
SE-75	-1.450E-04	2.323E+00	1.877E+00	1.185E+00	NOT IDENT.
SR-85	-1.347E+01	3.160E+00	1.744E+00	1.612E+00	NOT IDENT.
Y-88	-1.143E+00	2.640E+00	2.043E+00	1.347E+00	NOT IDENT.
Y-91	-2.593E+02	1.086E+03	8.707E+02	5.543E+02	NOT IDENT.
NB-94	-1.234E-01	1.859E+00	1.590E+00	9.483E-01	NOT IDENT.
NB-95	2.734E+00	2.107E+00	1.985E+00	1.075E+00	NOT IDENT.
NB-95M	-2.819E+01	7.789E+00	4.671E+00	3.974E+00	NOT IDENT.
ZR-95	-1.164E+00	3.913E+00	3.260E+00	1.997E+00	NOT IDENT.
MO-99	-1.070E+00	2.836E+02	2.429E+02	1.447E+02	FAIL ABUN
TC-99M	2.831E+14	1.518E+14	0.000E+00	7.746E+13	SHORT HLIF
RU-103	-5.753E-01	2.222E+00	1.817E+00	1.134E+00	FAIL ABUN
RH-106	6.003E+00	1.653E+01	1.403E+01	8.434E+00	NOT IDENT.

RU-106	6.003E+00	1.652E+01	1.403E+01	8.429E+00	NOT IDENT.
AG-108M	-4.423E-01	1.606E+00	1.326E+00	8.196E-01	NOT IDENT.
CD-109	-1.271E+01	3.666E+01	2.655E+01	1.871E+01	NOT IDENT.
AG-110M	-1.754E+00	2.115E+00	1.593E+00	1.079E+00	NOT IDENT.
SN-113	-1.913E-01	2.159E+00	1.820E+00	1.102E+00	NOT IDENT.
CD-115	-3.740E+01	1.996E+02	1.631E+02	1.018E+02	NOT IDENT.
SN-117M	5.773E-01	2.329E+00	1.963E+00	1.188E+00	NOT IDENT.
TE-123M	4.757E-01	1.437E+00	1.215E+00	7.332E-01	NOT IDENT.
SB-124	-2.151E-03	4.276E+00	3.584E+00	2.182E+00	NOT IDENT.
SB-125	1.301E+00	4.693E+00	4.037E+00	2.395E+00	NOT IDENT.
TE-125M	-2.869E+02	4.389E+02	3.609E+02	2.239E+02	NOT IDENT.
I-126	-7.504E+00	9.860E+00	7.406E+00	5.030E+00	NOT IDENT.
SB-126	6.719E-03	5.829E+00	5.004E+00	2.974E+00	NOT IDENT.
SN-126	-1.572E+00	3.622E+00	2.618E+00	1.848E+00	NOT IDENT.
SB-127	-1.065E+01	4.048E+01	3.212E+01	2.065E+01	NOT IDENT.
I-131	-6.835E-01	4.253E+00	3.584E+00	2.170E+00	NOT IDENT.
TE-132	3.264E+00	1.732E+01	1.428E+01	8.837E+00	NOT IDENT.
BA-133	9.130E-01	2.415E+00	1.873E+00	1.232E+00	NOT IDENT.
I-133	2.344E+03	1.742E+04	0.000E+00	8.886E+03	SHORT HLIF
CS-134	2.388E+00	2.471E+00	2.275E+00	1.260E+00	NOT IDENT.
CS-135	-3.020E+00	8.228E+00	6.482E+00	4.198E+00	NOT IDENT.
I-135	-1.600E+13	3.322E+13	0.000E+00	1.695E+13	SHORT HLIF
CS-136	-4.821E+00	4.386E+00	3.101E+00	2.238E+00	NOT IDENT.
BA-137M	-5.189E-01	2.621E+00	1.812E+00	1.337E+00	NOT IDENT.
CS-137	-5.482E-01	2.768E+00	1.914E+00	1.412E+00	NOT IDENT.
CE-139	-1.254E+00	1.516E+00	1.205E+00	7.735E-01	NOT IDENT.
BA-140	-1.522E+01	1.486E+01	9.209E+00	7.584E+00	NOT IDENT.
LA-140	6.731E-01	4.570E+00	3.927E+00	2.332E+00	NOT IDENT.
CE-141	-2.467E+00	2.989E+00	2.399E+00	1.525E+00	NOT IDENT.
CE-143	7.095E+02	1.059E+03	0.000E+00	5.402E+02	SHORT HLIF
CE-144	-1.014E+01	9.998E+00	7.904E+00	5.101E+00	NOT IDENT.
PM-144	4.346E-02	1.824E+00	1.573E+00	9.306E-01	NOT IDENT.
PR-144	1.699E+00	1.361E+02	1.172E+02	6.944E+01	NOT IDENT.
PM-146	9.631E-01	2.268E+00	1.962E+00	1.157E+00	NOT IDENT.
ND-147	-4.376E+00	2.327E+01	1.899E+01	1.187E+01	NOT IDENT.
PM-149	-1.534E+02	1.484E+03	1.276E+03	7.571E+02	NOT IDENT.
EU-152	1.840E+00	5.058E+00	4.416E+00	2.581E+00	NOT IDENT.
GD-153	1.409E+00	4.525E+00	3.242E+00	2.309E+00	NOT IDENT.
EU-154	5.415E+00	5.892E+00	5.413E+00	3.006E+00	NOT IDENT.
EU-155	6.030E-01	4.838E+00	4.134E+00	2.469E+00	NOT IDENT.
TA-182	-1.197E+00	8.561E+00	6.917E+00	4.368E+00	NOT IDENT.
IR-192	1.617E+00	1.750E+00	1.576E+00	8.931E-01	NOT IDENT.
HG-203	1.541E+00	1.851E+00	1.664E+00	9.442E-01	NOT IDENT.
BI-207	-5.101E-01	2.547E+00	2.066E+00	1.299E+00	NOT IDENT.
TL-208	4.337E-01	2.853E+00	2.048E+00	1.456E+00	NOT IDENT.
PB-210	4.632E+00	4.700E+01	3.665E+01	2.398E+01	NOT IDENT.
PB-211	-9.069E+00	4.127E+02	2.892E+01	2.106E+02	NOT IDENT.
BI-212	4.410E+01	2.724E+01	2.599E+01	1.390E+01	NOT IDENT.
PB-212	-8.159E-01	4.212E+00	3.417E+00	2.149E+00	NOT IDENT.
BI-214	8.943E+00	7.688E+00	4.765E+00	3.923E+00	FAIL ABUN
PB-214	8.899E+00	7.664E+00	4.319E+00	3.910E+00	FAIL ABUN
RN-219	-1.060E+01	4.811E+02	1.718E+01	2.454E+02	NOT IDENT.
RA-223	7.609E+00	3.468E+02	3.022E+01	1.769E+02	NOT IDENT.
RA-224	-9.191E+01	4.792E+01	2.946E+01	2.445E+01	NOT IDENT.
RA-226	3.505E+00	4.626E+01	3.602E+01	2.360E+01	NOT IDENT.
AC-227	-6.060E+00	1.304E+01	1.022E+01	6.653E+00	NOT IDENT.
TH-227	-6.060E+00	2.751E+02	1.022E+01	1.404E+02	NOT IDENT.
AC-228	-6.915E+00	1.042E+01	6.901E+00	5.315E+00	NOT IDENT.
RA-228	-6.915E+00	1.042E+01	6.901E+00	5.315E+00	NOT IDENT.
TH-228	-8.159E-01	4.212E+00	3.417E+00	2.149E+00	NOT IDENT.
TH-229	2.443E+01	2.740E+01	2.352E+01	1.398E+01	NOT IDENT.
PA-231	-5.060E+00	7.316E+01	6.305E+01	3.733E+01	NOT IDENT.
TH-231	-1.245E+01	2.058E+01	1.474E+01	1.050E+01	NOT IDENT.
TH-232	-6.289E+02	4.786E+03	4.997E+02	2.442E+03	FAIL ABUN
PA-233	-1.780E+00	3.162E+00	2.622E+00	1.613E+00	NOT IDENT.
PA-234	-1.919E+00	1.570E+01	1.302E+01	8.011E+00	NOT IDENT.
PA-234M	9.727E+01	2.314E+02	2.026E+02	1.180E+02	NOT IDENT.
TH-234	-3.411E+01	4.591E+01	3.501E+01	2.343E+01	NOT IDENT.
U-235	4.169E+00	1.334E+01	8.782E+00	6.808E+00	NOT IDENT.
NP-237	-7.874E-01	1.088E+01	8.013E+00	5.550E+00	NOT IDENT.
U-238	-3.411E+01	4.591E+01	3.501E+01	2.343E+01	NOT IDENT.
NP-239	-3.423E+00	1.293E+01	1.080E+01	6.596E+00	NOT IDENT.
AM-241	1.958E-01	3.807E+00	2.906E+00	1.942E+00	NOT IDENT.
CM-247	-3.755E-01	1.874E+00	1.564E+00	9.562E-01	NOT IDENT.
CF-249	-9.387E-01	1.994E+00	1.634E+00	1.017E+00	NOT IDENT.
CF-251	1.771E-01	6.820E+00	5.653E+00	3.480E+00	NOT IDENT.
ANH-511	-8.701E+00	3.694E+00	2.712E+00	1.885E+00	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	223.4857
49.72	268.0302
57.36	0.0000
59.54	276.1776
63.29	335.4391
63.29	335.4391
63.81	356.8078
64.28	377.3079
67.75	336.4378
69.67	353.0012
70.83	320.2377
72.81	367.1303
72.87	367.1806
72.87	367.1806
74.82	386.6880
74.82	386.6880
74.82	386.6880
74.97	386.8176
77.11	352.6521
77.11	352.6521
77.11	352.6521
79.69	365.4695
79.69	365.4695
80.12	332.3007
80.19	332.3492
81.00	283.0261
81.07	297.5837
83.79	298.3587
84.21	303.1817
85.43	311.2603
86.48	304.5833
86.55	319.3062
86.94	315.8827
87.57	308.9263
88.03	301.8478
88.47	303.0325
89.96	503.4586
91.11	342.5654
92.59	273.9097
92.59	273.9097
93.35	288.2567
94.56	475.3209
94.65	475.4013
94.67	475.4195
95.86	343.8189
97.43	234.2580
98.43	247.8344
98.44	247.8384
99.53	255.8605
100.11	253.3067
103.18	223.4659
103.37	227.3303
105.31	241.4194
106.12	244.6185
109.28	260.3180
111.00	250.5246
111.76	246.0417
116.30	254.6889
116.74	242.2752
121.12	226.4315
121.78	221.7847
122.06	223.8378
123.07	253.5673
131.20	240.9112
133.52	253.6926
136.00	218.6792
136.47	214.3342

140.51	245.7511
140.51	0.0000
140.88	245.8829
143.76	210.5446
144.24	200.0766
145.44	258.1102
152.43	212.5830
153.25	203.6114
154.21	211.0481
156.02	233.1285
158.56	212.2782
159.00	214.4640
162.66	212.3864
163.33	199.0898
165.86	233.0303
176.60	212.9914
177.52	213.2298
181.07	212.0300
185.72	195.0853
186.21	201.5988
193.51	182.8783
205.31	199.4889
210.85	178.7621
222.11	163.1454
227.38	149.5273
228.16	167.5140
228.18	167.5171
235.69	345.4500
235.96	345.5436
235.96	345.5436
238.63	192.9786
238.63	192.9786
240.99	308.8024
242.00	280.8013
244.70	194.1249
252.40	156.6754
252.80	143.0054
256.23	148.0585
256.23	148.0585
260.90	136.0222
264.66	143.4305
268.22	154.3414
269.46	155.6736
271.23	122.1774
273.65	146.9308
276.40	145.5362
277.37	146.5378
277.60	141.3025
278.00	143.9855
279.20	134.4703
279.54	134.5100
283.69	141.1719
284.31	139.4832
285.41	147.5686
285.90	137.0228
287.50	133.6710
293.27	0.0000
295.22	134.5489
295.96	123.9347
299.98	135.9803
299.98	135.9803
300.09	131.5208
300.09	131.5208
300.13	132.4200
301.36	127.1794
302.85	134.5116
304.50	143.6743
304.50	143.6743
304.85	140.1229
308.46	124.3192
311.90	122.8599
316.51	111.5288
319.41	128.1449
320.08	152.7627
323.87	135.8929
328.76	138.2423
329.85	122.7829
329.85	122.7829

330.06	113.6389
333.37	143.3293
334.37	153.5531
334.37	153.5531
338.28	127.2672
338.32	127.2714
338.32	127.2714
340.48	144.1077
340.55	144.1148
344.28	112.0952
351.06	113.5931
351.93	113.6657
356.01	101.6713
364.49	98.7243
366.42	106.3944
383.85	84.8281
388.16	97.5067
388.63	96.5816
391.70	90.0757
400.66	95.4410
401.81	102.2686
402.40	92.6572
404.85	87.9730
414.70	109.9498
423.72	101.7831
427.09	82.3863
427.87	81.4460
433.94	94.5630
453.88	79.7778
463.37	101.2959
468.07	91.5221
473.00	92.7974
476.78	98.0568
477.60	94.0586
487.02	71.1835
492.35	81.6003
497.08	94.0917
511.00	101.0109
514.00	277.7244
527.90	69.6990
529.87	0.0000
531.02	65.6474
537.26	76.3216
546.56	0.0000
563.25	50.8682
569.33	48.9003
569.50	48.9045
569.70	58.4795
583.19	55.6658
600.60	68.0219
602.73	74.9362
604.72	109.0503
609.32	70.4768
610.33	64.2188
614.28	62.6027
618.01	70.7704
621.93	52.3594
621.93	52.3594
633.25	66.8937
635.95	68.0774
636.99	65.9125
645.85	61.7712
657.76	82.0689
661.66	61.1046
661.66	61.1046
664.57	0.0000
666.33	65.6872
666.50	62.3523
677.62	54.8289
685.70	65.1296
695.00	61.3361
696.49	61.3743
696.51	61.3760
697.00	66.8060
702.65	66.9686
706.68	73.4300
720.70	49.2447
721.93	0.0000

722.78	63.8921
722.91	62.9827
723.31	62.9928
724.19	63.0164
727.33	38.4081
733.00	61.4156
735.93	56.9004
739.50	60.6617
747.24	46.1023
753.82	43.4520
756.73	62.0159
763.94	60.3392
765.80	41.8041
766.42	50.1781
777.92	42.0062
778.90	43.8904
783.70	50.5235
785.37	42.1304
795.86	43.2429
801.95	47.1143
810.76	40.6558
815.77	52.1010
818.51	51.2077
832.01	53.3750
834.85	42.9357
836.80	0.0000
846.77	54.6273
856.80	54.8291
860.56	43.3455
871.09	63.8167
873.19	59.9944
875.33	0.0000
880.51	52.3903
883.24	42.7303
884.68	50.5248
889.28	41.8494
898.04	40.0261
911.20	49.0381
911.20	49.0381
926.36	45.3520
937.49	40.5766
944.13	34.7163
946.00	39.7012
949.00	37.7542
964.08	57.9165
968.97	46.0079
968.97	46.0079
983.53	37.1843
996.26	45.4109
1001.03	33.3529
1004.73	40.4756
1037.84	38.8572
1038.76	0.0000
1048.07	41.0332
1050.41	32.8500
1050.41	32.8500
1063.66	32.9844
1085.87	31.1323
1099.25	43.7616
1112.07	46.0195
1115.54	54.4426
1120.29	37.7437
1120.55	32.5031
1121.30	37.7543
1131.51	0.0000
1173.23	22.3556
1189.05	35.2865
1204.77	44.0330
1221.41	32.3657
1231.02	22.7155
1235.36	36.8206
1238.28	34.6828
1260.41	0.0000
1274.44	19.6980
1274.54	28.4540
1291.59	37.3751
1298.22	0.0000
1312.11	31.3119

1332.49	28.6980
1365.19	29.8685
1368.63	0.0000
1384.29	30.9482
1408.01	28.2983
1457.56	0.0000
1460.82	23.8810
1489.16	27.8861
1596.21	23.6396
1620.50	14.8523
1678.03	0.0000
1690.97	13.0656
1764.49	15.3033
1770.23	26.5565
1771.35	14.3025
1791.20	0.0000
1836.06	23.7983

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G247817002

Total Uranium Activity	-9.9563E+01	ug/g
Total Uranium Counting Unc.	1.3673E+02	ug/g
Total Uranium Tpu	6.9761E-05	ug/g
Total Uranium Mda	1.0423E+02	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 956976                    SAMPLE ID  : G247817002       *
*   ANALYST       : KXG3                      DETECTOR   : GAM17            *
*   SAMPLE DATE   : 21-FEB-2010 12:00:00.00   COUNT TIME :    0 06:00:00.00 *
*   ANALYSIS DATE:  4-MAR-2010 22:19:49.00    SAMPLE ALQT:    2.000 LITER   *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 1.543E+01
        GROSS GAMMA ERROR   (pCi/LITER )  : 5.248E+00
        GROSS GAMMA MDA     (pCi/LITER )  : 2.140E+01
        GROSS GAMMA DLC     (pCi/LITER )  : 1.024E+01
```

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 04:20:42.55

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G247829002.CNF;1
Sample date       : 22-FEB-2010 12:00:00 Acquisition date : 4-MAR-2010 22:20:12.
Sample ID         : G247829002           Sample quantity  : 1.57100E+00 LITER
Detector name     : GAM19                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:02.24  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 956976               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	176.04	182	408	1.45	351.77	345	14	8.44E-03	24.7	0.00E+00
2	1	242.05	77	241	1.64	483.70	470	19	3.58E-03	40.1	1.50E+00
3	0	294.98	122	205	1.31	589.48	584	11	5.64E-03	24.6	
4	0	352.01*	138	234	1.07	703.48	697	12	6.39E-03	25.8	
5	0	557.90	49	134	1.48	1115.06	1110	13	2.26E-03	50.8	
6	0	609.47*	162	137	1.78	1218.18	1211	17	7.51E-03	20.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 5-MAR-2010 04:20:45

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G247829002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 22-FEB-2010 12:00:00 Acquisition date : 4-MAR-2010 22:20:12
Sample ID : G247829002 Sample quantity : 1.5710 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA19 Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00 Elapsed real time: 0 06:00:02.24 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BI-211		72.87		-1.226E+02	5.190E+03	3.512E+02	1.485E+04	-0.349
	+	351.06	*	4.767E+01	2.015E+03	2.048E+01	8.659E+02	2.327
PB-214		74.82		4.217E+00	5.315E+01	7.364E+01	8.879E+00	0.057
		77.11		1.271E+00	2.756E+01	4.190E+01	5.162E+00	0.030
	+	242.00		3.775E+01	3.042E+01	3.392E+01	2.814E+00	1.113
	+	295.22		2.632E+01	1.313E+01	1.403E+01	1.242E+00	1.876
	+	351.93	*	1.728E+01	9.037E+00	7.441E+00	6.352E-01	2.323
RA-224	+	240.99	*	6.746E+01	5.422E+01	6.046E+01	3.588E+00	1.116

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.60	*	1.044E+01	1.815E+01	3.111E+01	2.070E+00	0.336
NA-22		1274.54	*	-9.827E-01	2.349E+00	3.740E+00	2.315E-01	-0.263
NA-24		1368.63	*	7.291E-02	2.349E+00	Half-Life too short		
K-40		1460.82	*	-1.002E+01	2.796E+01	4.290E+01	2.901E+00	-0.234
SC-46		889.28	*	7.262E-01	1.907E+00	3.199E+00	2.188E-01	0.227
		1120.55		3.926E+00	2.550E+00	4.760E+00	2.823E-01	0.825
V-48		944.13		1.273E+01	3.735E+01	6.221E+01	4.217E+00	0.205
		983.53	*	3.254E+00	3.076E+00	5.453E+00	3.616E-01	0.597
		1312.11		-2.693E+00	3.024E+00	4.432E+00	2.836E-01	-0.608
CR-51		320.08	*	4.844E+00	2.053E+01	3.483E+01	2.301E+00	0.139
MN-54		834.85	*	-2.746E+00	2.076E+00	2.936E+00	1.868E-01	-0.935
CO-56		846.77	*	2.622E-01	2.220E+00	3.627E+00	2.344E-01	0.072
		1037.84		-4.152E+00	1.579E+01	2.584E+01	1.805E+00	-0.161
		1238.28		2.892E+00	3.551E+00	6.358E+00	4.017E-01	0.455
		1771.35		-2.190E+01	1.519E+01	1.904E+01	1.111E+00	-1.150
CO-57		122.06	*	6.120E-02	1.869E+00	3.045E+00	1.950E-01	0.020
		136.47		-1.597E+01	1.528E+01	2.373E+01	1.649E+00	-0.673
CO-58		810.76	*	-8.993E-01	2.198E+00	3.432E+00	2.121E-01	-0.262
FE-59		1099.25	*	1.144E-02	4.017E+00	6.719E+00	4.715E-01	0.002
		1291.59		-5.322E+00	6.115E+00	8.109E+00	6.324E-01	-0.656
CO-60		1173.23		-1.424E+00	2.620E+00	3.539E+00	1.976E-01	-0.403

Sample ID : G247829002 Acquisition date : 4-MAR-2010 22:20:12

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1332.49	*	1.367E-01	2.203E+00	3.673E+00	2.395E-01	0.037
ZN-65		1115.54	*	-2.610E+00	4.690E+00	7.456E+00	4.455E-01	-0.350
SE-75		121.12		5.790E-01	9.655E+00	1.575E+01	1.496E+00	0.037
		136.00		-2.826E+00	2.859E+00	4.454E+00	2.748E-01	-0.635
		264.66	*	3.210E-01	2.740E+00	4.645E+00	2.806E-01	0.069
		279.54		2.784E+00	6.600E+00	1.132E+01	7.310E-01	0.246
		400.66		2.512E+00	1.516E+01	2.548E+01	2.296E+00	0.099
SR-85		514.00	*	-4.998E+00	3.201E+00	4.910E+00	2.758E-01	-1.018
Y-88		898.04		-9.655E-01	2.919E+00	3.495E+00	2.437E-01	-0.276
		1836.06	*	6.392E-01	2.366E+00	3.996E+00	2.258E-01	0.160
Y-91		1204.77	*	-1.076E+02	9.392E+02	1.546E+03	8.916E+01	-0.070
NB-94		702.65	*	1.730E+00	2.001E+00	3.464E+00	1.819E-01	0.499
		871.09		-9.862E-01	1.986E+00	3.056E+00	2.041E-01	-0.323
NB-95		765.80	*	1.559E+00	2.267E+00	3.878E+00	2.238E-01	0.402
NB-95M		235.69	*	-1.136E+00	8.351E+00	1.154E+01	8.828E-01	-0.098
ZR-95		724.19		1.533E+00	4.595E+00	7.689E+00	5.013E-01	0.199
		756.73	*	-6.685E+00	4.934E+00	5.746E+00	4.014E-01	-1.163
MO-99		140.51		2.664E+02	5.064E+02	8.319E+02	1.907E+02	0.320
		181.07		-6.292E+02	4.635E+02	5.815E+02	1.027E+02	-1.082
		366.42		-1.655E+02	1.877E+03	3.121E+03	1.820E+02	-0.053
		739.50	*	1.430E+01	1.955E+02	3.202E+02	4.582E+01	0.045
		777.92		2.245E+02	6.647E+02	1.109E+03	6.511E+01	0.203
TC-99M		140.51	*	4.305E+06	6.647E+02	Half-Life too short		
RU-103		497.08	*	7.323E-02	2.400E+00	3.974E+00	4.911E-01	0.018
	+	610.33		2.212E+02	9.764E+01	1.030E+02	1.529E+01	2.147
RH-106		621.93	*	-9.599E+00	1.834E+01	2.880E+01	3.260E+00	-0.333
		1050.41		-4.153E+01	1.260E+02	2.043E+02	1.292E+01	-0.203
RU-106		621.93	*	-9.599E+00	1.832E+01	2.880E+01	1.490E+00	-0.333
		1050.41		-4.153E+01	1.260E+02	2.043E+02	1.292E+01	-0.203
AG-108M		433.94	*	-9.114E-01	1.743E+00	2.797E+00	1.716E-01	-0.326
		614.28		3.980E-01	2.265E+00	3.275E+00	1.857E-01	0.122
		722.91		-1.321E+00	2.058E+00	3.168E+00	1.852E-01	-0.417
CD-109		88.03	*	-4.154E+01	5.585E+01	8.886E+01	8.661E+00	-0.467
AG-110M		657.76	*	-6.448E-01	1.835E+00	2.909E+00	1.567E-01	-0.222
		677.62		-5.610E+00	1.624E+01	2.571E+01	1.405E+00	-0.218
		706.68		7.146E+00	1.306E+01	2.212E+01	1.256E+00	0.323
		763.94		1.085E+00	9.338E+00	1.531E+01	9.344E-01	0.071
		884.68		2.869E-01	2.735E+00	4.458E+00	3.186E-01	0.064
		937.49		-3.008E+00	5.974E+00	9.116E+00	6.556E-01	-0.330
		1384.29		-1.275E+00	1.040E+01	1.700E+01	1.156E+00	-0.075
SN-113		391.70	*	2.337E-01	2.571E+00	4.308E+00	2.625E-01	0.054
CD-115		260.90		-1.208E+03	2.260E+03	3.505E+03	2.094E+02	-0.345
		492.35		4.102E+02	5.706E+02	9.849E+02	5.580E+01	0.416
		527.90	*	-2.202E+01	1.551E+02	2.531E+02	1.412E+01	-0.087
SN-117M		156.02		1.178E+02	1.266E+02	2.120E+02	1.234E+01	0.555
		158.56	*	1.495E-01	3.076E+00	4.986E+00	2.889E-01	0.030
TE-123M		159.00	*	1.238E-02	1.969E+00	3.186E+00	1.870E-01	0.004
SB-124		602.73		2.472E+00	2.464E+00	3.836E+00	2.025E-01	0.644
		645.85		-7.893E-01	2.715E+01	4.432E+01	2.588E+00	-0.018

Sample ID : G247829002 Acquisition date : 4-MAR-2010 22:20:12

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		722.78		-1.319E+01	1.956E+01	3.001E+01	1.718E+00	-0.439
		1690.97	*	3.146E-01	5.025E+00	8.291E+00	5.429E-01	0.038
SB-125		427.87	*	4.725E+00	5.426E+00	9.468E+00	5.648E-01	0.499
		463.37		1.147E+01	1.517E+01	2.631E+01	1.750E+00	0.436
		600.60		-1.307E+01	1.194E+01	1.817E+01	1.140E+00	-0.719
		635.95		3.827E+00	1.538E+01	2.566E+01	1.592E+00	0.149
TE-125M		109.28	*	-2.825E+02	6.756E+02	1.084E+03	1.014E+02	-0.261
I-126		388.63		-4.815E+00	7.773E+00	1.248E+01	7.137E-01	-0.386
		666.33	*	-2.810E+00	9.557E+00	1.524E+01	7.563E-01	-0.184
		753.82		1.993E+01	7.920E+01	1.315E+02	7.455E+00	0.152
SB-126		414.70		2.949E-01	3.507E+00	5.862E+00	3.353E-01	0.050
		666.50		-1.081E+00	3.233E+00	5.138E+00	2.550E-01	-0.210
		695.00		2.935E+00	3.436E+00	5.963E+00	3.095E-01	0.492
		697.00		-1.371E+01	1.251E+01	1.865E+01	9.706E-01	-0.735
		720.70	*	-5.723E-01	6.031E+00	9.742E+00	5.258E-01	-0.059
		856.80		-7.181E+00	2.585E+01	3.488E+01	2.285E+00	-0.206
SN-126		64.28		3.227E+01	4.705E+01	7.272E+01	1.123E+01	0.444
		86.94		5.491E+00	2.256E+01	3.711E+01	1.543E+01	0.148
		87.57	*	-2.960E+00	5.433E+00	8.716E+00	8.473E-01	-0.340
SB-127		252.40		4.067E+01	1.243E+02	2.001E+02	8.153E+01	0.203
		473.00		1.750E+01	4.201E+01	7.138E+01	6.967E+00	0.245
		685.70	*	4.064E+00	3.266E+01	5.384E+01	4.002E+00	0.075
		783.70		7.919E+01	8.129E+01	1.425E+02	1.333E+01	0.556
I-131		80.19		-2.755E+02	2.139E+02	3.320E+02	3.090E+01	-0.830
		284.31		-3.509E+01	5.909E+01	9.646E+01	6.345E+00	-0.364
		364.49	*	-2.664E+00	4.888E+00	7.918E+00	5.122E-01	-0.336
		636.99		4.585E+01	5.866E+01	1.018E+02	5.948E+00	0.450
TE-132		49.72		-3.329E+02	5.056E+02	8.126E+02	7.917E+01	-0.410
		111.76		4.511E+02	9.074E+02	1.506E+03	1.281E+02	0.300
		116.30		-4.990E+02	7.908E+02	1.255E+03	1.036E+02	-0.398
		228.16	*	4.097E+00	1.767E+01	2.860E+01	3.907E+00	0.143
BA-133		81.00		-8.231E+00	6.687E+00	1.028E+01	1.636E+00	-0.801
		276.40		-2.122E+00	2.220E+01	3.725E+01	4.722E+00	-0.057
		302.85		-3.252E+00	8.549E+00	1.409E+01	1.621E+00	-0.231
		356.01	*	-2.568E-01	2.911E+00	4.203E+00	4.755E-01	-0.061
		383.85		-4.883E+00	1.836E+01	3.017E+01	3.208E+00	-0.162
I-133		529.87	*	-2.533E-03	1.836E+01	Half-Life too short		
		875.33		-1.873E-01	1.836E+01	Half-Life too short		
		1298.22		1.377E-01	1.836E+01	Half-Life too short		
CS-134		563.25		-4.018E+01	2.722E+01	3.301E+01	1.844E+00	-1.217
		569.33		-3.608E+00	1.972E+01	2.132E+01	1.197E+00	-0.169
		604.72		-1.438E+00	2.369E+00	3.162E+00	1.676E-01	-0.455
		795.86	*	2.642E-01	2.406E+00	3.941E+00	2.409E-01	0.067
		801.95		7.757E-01	2.333E+01	3.792E+01	2.330E+00	0.020
		1365.19		-6.606E+01	8.422E+01	1.114E+02	7.825E+00	-0.593
CS-135		268.22	*	-7.846E+00	9.452E+00	1.530E+01	1.193E+00	-0.513
I-135		546.56		-3.588E+06	9.452E+00	Half-Life too short		
		836.80		-8.604E+06	9.452E+00	Half-Life too short		
		1038.76		1.783E+05	9.452E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1131.51		-9.607E+05	9.452E+00	Half-Life too short		
		1260.41	*	-1.896E+06	9.452E+00	Half-Life too short		
		1457.56		-6.325E+06	9.452E+00	Half-Life too short		
		1678.03		2.402E+06	9.452E+00	Half-Life too short		
		1791.20		-5.991E+06	9.452E+00	Half-Life too short		
CS-136		153.25		-4.635E+01	4.779E+01	7.412E+01	5.988E+00	-0.625
	+	176.60		9.635E+01	4.802E+01	4.904E+01	3.435E+00	1.965
		273.65		1.163E+01	2.475E+01	4.252E+01	2.975E+00	0.273
		340.55		4.434E-01	6.446E+00	1.083E+01	6.917E-01	0.041
		818.51		3.746E-01	3.179E+00	5.206E+00	3.240E-01	0.072
		1048.07	*	4.962E-01	4.147E+00	7.028E+00	4.792E-01	0.071
		1235.36		1.068E+01	1.752E+01	3.092E+01	3.083E+00	0.345
BA-137M		661.66	*	-1.091E-01	1.999E+00	3.254E+00	1.603E-01	-0.034
CS-137		661.66	*	-1.153E-01	2.112E+00	3.437E+00	1.703E-01	-0.034
CE-139		165.86	*	-3.916E-01	2.051E+00	3.287E+00	1.884E-01	-0.119
BA-140		162.66		-4.039E+01	4.910E+01	6.912E+01	4.557E+00	-0.584
		304.85		-4.326E+01	6.564E+01	1.047E+02	2.996E+01	-0.413
		423.72		-4.705E+01	9.174E+01	1.456E+02	4.697E+01	-0.323
		537.26	*	7.798E+00	1.152E+01	1.945E+01	6.472E+00	0.401
LA-140		328.76		-2.789E+00	1.465E+01	2.433E+01	1.618E+00	-0.115
		487.02		-1.641E+00	6.513E+00	1.059E+01	6.839E-01	-0.155
		815.77		3.333E+00	1.385E+01	2.294E+01	1.729E+00	0.145
		1596.21	*	-2.728E-01	4.269E+00	6.952E+00	4.342E-01	-0.039
CE-141		145.44	*	-8.669E-01	4.462E+00	6.593E+00	4.068E-01	-0.131
CE-143		57.36		1.493E+03	7.731E+03	1.285E+04	1.447E+03	0.116
		293.27	*	1.405E+03	9.520E+02	1.452E+03	3.000E+02	0.967
		664.57		-8.133E+01	6.259E+03	1.022E+04	2.990E+03	-0.008
		721.93		-6.627E+03	7.324E+03	1.064E+04	2.905E+03	-0.623
CE-144		80.12		-2.179E+02	1.702E+02	2.644E+02	2.453E+01	-0.824
		133.52	*	3.003E+00	1.383E+01	2.265E+01	3.179E+00	0.133
PM-144		476.78		1.431E+00	3.820E+00	6.474E+00	4.380E-01	0.221
		618.01		8.639E-01	1.817E+00	3.083E+00	1.721E-01	0.280
		696.49	*	-6.675E-01	2.068E+00	3.291E+00	1.712E-01	-0.203
PR-144		696.51	*	-5.094E+01	1.543E+02	2.454E+02	1.277E+01	-0.208
		1489.16		-1.795E+02	7.649E+02	1.223E+03	7.836E+01	-0.147
PM-146		453.88	*	-1.210E+00	3.260E+00	4.099E+00	3.443E-01	-0.295
		633.25		-4.188E+01	8.185E+01	1.260E+02	4.732E+01	-0.332
		735.93		-8.646E+00	8.138E+00	1.135E+01	3.090E+00	-0.762
		747.24		-4.058E+00	5.279E+00	7.932E+00	1.034E+00	-0.512
ND-147		91.11		-2.353E+01	1.811E+01	2.558E+01	2.532E+00	-0.920
		319.41		3.023E+00	1.567E+02	2.631E+02	1.572E+01	0.011
		531.02	*	-2.301E+01	2.285E+01	3.430E+01	4.604E+00	-0.671
PM-149		285.90	*	-1.195E+03	1.309E+03	2.085E+03	2.970E+02	-0.573
EU-152		121.78		-4.298E-01	5.473E+00	8.882E+00	7.153E-01	-0.048
		244.70		9.825E+00	2.364E+01	3.388E+01	2.014E+00	0.290
		344.28	*	-4.381E-01	6.186E+00	9.737E+00	6.460E-01	-0.045
		778.90		-7.308E+00	1.563E+01	2.438E+01	1.434E+00	-0.300
		964.08		1.946E+01	1.502E+01	2.678E+01	1.796E+00	0.727
		1085.87		2.140E+00	1.939E+01	3.279E+01	2.012E+00	0.065

Sample ID : G247829002 Acquisition date : 4-MAR-2010 22:20:12

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1112.07		8.097E+00	1.494E+01	2.620E+01	1.568E+00	0.309
		1408.01		9.830E+00	1.134E+01	2.030E+01	1.316E+00	0.484
GD-153		69.67		-2.753E+02	1.285E+02	1.912E+02	1.722E+01	-1.440
		97.43	*	2.485E+00	6.084E+00	1.010E+01	8.448E-01	0.246
		103.18		3.107E+00	7.796E+00	1.293E+01	1.003E+00	0.240
EU-154		123.07		1.401E+00	3.807E+00	6.279E+00	6.122E-01	0.223
		723.31		-2.511E+00	9.218E+00	1.466E+01	9.858E-01	-0.171
		873.19		-9.045E+00	1.628E+01	2.485E+01	2.630E+00	-0.364
		996.26		-1.470E+01	2.027E+01	2.987E+01	4.946E+00	-0.492
		1004.73		-4.621E+00	1.107E+01	1.788E+01	1.822E+00	-0.258
		1274.44	*	-3.286E+00	6.687E+00	1.056E+01	1.020E+00	-0.311
EU-155		86.55		1.094E-01	6.633E+00	1.088E+01	1.058E+00	0.010
		105.31	*	1.808E+00	7.584E+00	1.250E+01	9.594E-01	0.145
TA-182		67.75		-8.401E+00	9.484E+00	1.393E+01	1.255E+00	-0.603
		100.11		-7.600E+00	1.420E+01	1.994E+01	1.608E+00	-0.381
		152.43		-9.749E+00	2.377E+01	3.785E+01	2.217E+00	-0.258
		222.11		3.567E+00	2.238E+01	3.614E+01	2.126E+00	0.099
		1121.30		6.215E+00	1.003E+01	1.345E+01	7.972E-01	0.462
		1189.05		3.188E+00	1.312E+01	2.240E+01	1.271E+00	0.142
		1221.41	*	3.514E+00	7.882E+00	1.372E+01	8.042E-01	0.256
		1231.02		-2.597E+00	1.652E+01	2.694E+01	1.595E+00	-0.096
IR-192	+	295.96		1.864E+01	9.224E+00	1.196E+01	7.279E-01	1.559
		308.46		3.166E+00	5.813E+00	1.001E+01	6.058E-01	0.316
		316.51	*	-1.462E+00	2.060E+00	3.329E+00	2.000E-01	-0.439
		468.07		-3.715E+00	3.827E+00	5.922E+00	3.916E-01	-0.627
HG-203		70.83		-1.249E+02	9.104E+01	1.385E+02	2.255E+01	-0.902
		72.87		-2.849E+01	6.070E+01	8.158E+01	1.287E+01	-0.349
		279.20	*	3.233E-01	2.254E+00	3.820E+00	2.410E-01	0.085
BI-207		72.81		-3.396E+00	1.485E+01	2.013E+01	1.819E+00	-0.169
		74.97		7.527E+00	8.512E+00	1.207E+01	1.097E+00	0.624
		569.70		-4.402E-01	3.058E+00	3.296E+00	1.790E-01	-0.134
		1063.66	*	1.467E+00	3.019E+00	5.251E+00	3.286E-01	0.279
		1770.23		-7.507E+01	3.635E+01	4.159E+01	2.427E+00	-1.805
TL-208		277.37		4.377E+00	2.463E+01	4.180E+01	4.551E+00	0.105
		583.19	*	-2.232E+00	2.982E+00	3.628E+00	2.286E-01	-0.615
		860.56		-8.807E+00	1.717E+01	2.648E+01	1.958E+00	-0.333
PB-210		46.54	*	-1.035E+02	3.326E+02	4.247E+02	3.464E+01	-0.244
PB-211		404.85	*	-2.764E+01	1.169E+03	6.790E+01	2.870E+03	-0.407
		427.09		8.961E+01	3.789E+03	1.589E+02	6.718E+03	0.564
		832.01		1.799E+01	7.625E+02	9.272E+01	3.919E+03	0.194
BI-212		727.33	*	-1.391E+00	2.884E+01	4.676E+01	4.919E+00	-0.030
		785.37		7.072E+00	1.721E+02	2.803E+02	1.664E+01	0.025
		1620.50		1.135E+01	1.508E+02	2.495E+02	1.546E+01	0.045
PB-212		74.82		2.404E+00	3.030E+01	4.199E+01	5.588E+00	0.057
		77.11		7.285E-01	1.580E+01	2.402E+01	2.198E+00	0.030
		238.63	*	3.359E+00	4.891E+00	6.835E+00	5.124E-01	0.491
		300.09		4.622E+01	5.258E+01	8.145E+01	6.943E+00	0.567
BI-214	+	609.32	*	2.325E+01	9.817E+00	1.096E+01	8.149E-01	2.121
		1120.29		1.730E+01	1.618E+01	2.915E+01	2.609E+00	0.593

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1764.49		2.938E+01	2.158E+01	3.721E+01	2.177E+00	0.789
RN-219		271.23		3.761E+00	1.596E+02	2.437E+01	1.030E+03	0.154
		401.81	*	7.502E+00	3.180E+02	4.094E+01	1.731E+03	0.183
RA-223		81.07		-1.871E+01	7.909E+02	2.330E+01	9.850E+02	-0.803
		83.79		3.475E+00	1.471E+02	1.400E+01	5.916E+02	0.248
		94.56		1.935E+01	8.180E+02	3.829E+01	1.618E+03	0.505
		144.24		-4.438E+00	1.950E+02	7.930E+01	3.352E+03	-0.056
		154.21		-8.455E+00	3.585E+02	4.409E+01	1.864E+03	-0.192
		269.46		-1.026E+01	4.336E+02	1.809E+01	7.645E+02	-0.567
		323.87	*	-3.873E+00	1.688E+02	6.860E+01	2.900E+03	-0.056
		338.28		2.282E+01	9.661E+02	9.556E+01	4.039E+03	0.239
RA-226		186.21	*	-2.033E+01	6.552E+01	8.568E+01	5.749E+01	-0.237
AC-227		79.69		-9.224E+01	8.711E+01	1.350E+02	2.371E+01	-0.683
		235.96		1.478E+00	1.068E+01	1.504E+01	1.238E+00	0.098
		256.23	*	-5.584E+00	1.709E+01	2.681E+01	2.767E+00	-0.208
		299.98		4.916E+01	5.732E+01	8.852E+01	9.820E+00	0.555
		304.50		-5.614E+01	1.008E+02	1.642E+02	2.516E+01	-0.342
		329.85		-5.829E+00	4.205E+01	6.999E+01	6.980E+00	-0.083
		334.37		-1.048E+02	1.083E+02	1.709E+02	2.441E+01	-0.613
TH-227		79.69		-9.224E+01	3.900E+03	1.350E+02	5.707E+03	-0.683
		235.96		1.478E+00	6.339E+01	1.504E+01	6.357E+02	0.098
		256.23	*	-5.584E+00	2.366E+02	2.681E+01	1.133E+03	-0.208
		299.98		4.916E+01	2.079E+03	8.852E+01	3.742E+03	0.555
		304.50		-5.614E+01	2.375E+03	1.642E+02	6.939E+03	-0.342
		329.85		-5.829E+00	2.499E+02	6.999E+01	2.959E+03	-0.083
		334.37		-1.048E+02	4.431E+03	1.709E+02	7.225E+03	-0.613
AC-228		338.32		5.765E+00	1.433E+01	2.414E+01	9.958E+00	0.239
		911.20	*	5.608E+00	8.022E+00	1.371E+01	1.421E+00	0.409
		968.97		-5.273E+00	1.304E+01	2.000E+01	4.749E+00	-0.264
RA-228		338.32		5.765E+00	1.433E+01	2.414E+01	9.958E+00	0.239
		911.20	*	5.608E+00	8.022E+00	1.371E+01	1.421E+00	0.409
		968.97		-5.273E+00	1.304E+01	2.000E+01	4.749E+00	-0.264
TH-228		74.82		2.404E+00	3.030E+01	4.199E+01	3.844E+00	0.057
		77.11		7.285E-01	1.580E+01	2.402E+01	2.198E+00	0.030
		238.63	*	3.359E+00	4.891E+00	6.835E+00	5.124E-01	0.491
		300.09		4.622E+01	5.951E+01	8.145E+01	4.960E+01	0.567
TH-229		85.43		3.531E+00	1.384E+01	2.289E+01	2.192E+00	0.154
		88.47		-1.520E+01	8.937E+00	1.359E+01	1.314E+00	-1.118
		193.51	*	-1.906E+01	3.420E+01	5.360E+01	3.104E+00	-0.356
		210.85		3.918E+01	5.678E+01	9.390E+01	5.490E+00	0.417
PA-231		283.69	*	-6.078E+01	8.870E+01	1.438E+02	1.899E+01	-0.423
		301.36		-7.258E-01	3.093E+01	4.905E+01	4.701E+00	-0.015
		330.06		-5.107E+00	1.207E+02	2.018E+02	5.889E+01	-0.025
TH-231		84.21	*	-9.424E-01	3.152E+01	5.163E+01	9.234E+00	-0.018
TH-232		63.81	*	-1.850E+02	2.267E+03	2.677E+03	2.059E+04	-0.069
		140.88		4.589E+03	7.901E+03	1.309E+04	7.864E+02	0.350
PA-233		94.65		1.192E+01	1.855E+01	3.096E+01	2.739E+00	0.385
		98.43		3.751E-01	1.131E+01	1.634E+01	1.426E+00	0.023
		300.13		2.296E+01	2.602E+01	4.015E+01	5.410E+00	0.572

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		311.90	*	-3.891E-02	4.029E+00	6.760E+00	4.283E-01	-0.006
		340.48		4.879E+00	3.521E+01	5.934E+01	1.379E+01	0.082
PA-234		94.67		7.429E+00	1.247E+01	2.076E+01	2.588E+00	0.358
		98.44		2.073E-01	7.524E+00	1.087E+01	6.057E+00	0.019
		111.00		8.038E+00	1.354E+01	2.253E+01	2.491E+00	0.357
		131.20		-6.721E+00	7.527E+00	1.178E+01	7.270E-01	-0.571
		569.50		-5.186E+00	2.729E+01	2.947E+01	1.600E+00	-0.176
		733.00		5.037E+00	2.010E+01	3.339E+01	7.071E+00	0.151
		880.51		1.061E+01	1.526E+01	2.625E+01	1.775E+00	0.404
		883.24		9.837E+00	1.711E+01	2.699E+01	1.809E+01	0.364
		926.36		6.880E-01	9.578E+00	1.553E+01	3.840E+00	0.044
		946.00	*	-8.080E+00	1.562E+01	2.361E+01	4.247E+00	-0.342
		949.00		9.725E+00	2.207E+01	3.718E+01	2.514E+00	0.262
PA-234M		766.42		9.416E+02	7.819E+02	1.128E+03	5.677E+02	0.835
		1001.03	*	-1.422E+01	3.080E+02	4.220E+02	3.481E+01	-0.034
TH-234		63.29	*	-7.879E+01	1.275E+02	1.888E+02	3.511E+01	-0.417
		92.59		-4.352E+01	6.065E+01	8.698E+01	1.934E+01	-0.500
U-235		89.96		-1.075E+02	6.626E+01	9.328E+01	2.323E+01	-1.152
		93.35		-2.824E+01	4.533E+01	6.536E+01	1.516E+01	-0.432
		143.76	*	-8.455E+00	1.614E+01	2.357E+01	3.717E+00	-0.359
		163.33		-1.530E+01	3.369E+01	4.809E+01	8.063E+00	-0.318
		185.72		5.594E-01	3.988E+00	5.417E+00	3.125E-01	0.103
		205.31		-2.833E+00	3.229E+01	5.167E+01	8.783E+00	-0.055
NP-237		86.48	*	2.303E-01	1.637E+01	2.684E+01	6.194E+00	0.009
		95.86		-2.205E+02	8.988E+01	1.061E+02	2.542E+01	-2.079
U-238		63.29	*	-7.879E+01	1.275E+02	1.888E+02	3.511E+01	-0.417
		92.59		-4.352E+01	6.000E+01	8.698E+01	7.831E+00	-0.500
NP-239		99.53		-3.228E+00	1.343E+01	1.912E+01	1.554E+00	-0.169
		103.37		4.639E+00	7.155E+00	1.197E+01	9.262E-01	0.388
		106.12		6.105E-01	6.015E+00	9.858E+00	7.385E-01	0.062
		116.74	*	-7.577E+00	1.964E+01	3.151E+01	2.114E+00	-0.240
		228.18		3.302E+00	1.418E+01	2.297E+01	1.355E+00	0.144
		277.60		8.817E-01	1.109E+01	1.875E+01	1.124E+00	0.047
AM-241		59.54	*	-2.559E+01	1.229E+01	1.829E+01	1.804E+00	-1.399
CM-247		278.00		-1.497E+01	4.748E+01	7.887E+01	4.727E+00	-0.190
		287.50		-4.038E+01	7.574E+01	1.206E+02	7.235E+00	-0.335
		402.40	*	2.660E-01	2.227E+00	3.734E+00	2.133E-01	0.071
CF-249		252.80		-5.165E+00	6.278E+01	9.984E+01	5.951E+00	-0.052
		333.37		2.811E-01	1.124E+01	1.885E+01	1.120E+00	0.015
		388.16	*	-1.218E+00	2.402E+00	3.885E+00	2.223E-01	-0.314
CF-251	+	177.52	*	3.194E+01	1.587E+01	1.585E+01	9.106E-01	2.016
		227.38		-6.141E+00	2.329E+01	3.683E+01	2.173E+00	-0.167
		285.41		-1.964E+02	1.326E+02	2.060E+02	1.236E+01	-0.953
ANH-511		511.00	*	-7.545E+00	4.131E+00	6.030E+00	3.392E-01	-1.251

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G247829002      *
* Acquisition date :  4-MAR-2010 22:20:12 Detector SN#    :                 *
* Detector ID       : GAM19               Sensitivity     : 5.000           *
* Geometry          : 2LMB                Energy tolerance: 1.500           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:02.24     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 22-FEB-2010 12:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G247829002           Analyst initials: KXG3           *
* Batch Number      : 956976               Sample Quantity : 1.5710E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 11-MAR-2009 08:32:49 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
BI-211	4.767E+01	1.975E+03	2.048E+01	0.000E+00
PB-214	1.728E+01	8.857E+00	7.441E+00	0.000E+00
RA-224	6.746E+01	5.313E+01	6.046E+01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	1.044E+01	1.778E+01	3.111E+01	0.000E+00	NOT IDENT.
NA-22	-9.827E-01	2.302E+00	3.740E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.636E+05	0.000E+00	0.000E+00	SHORT HLIF
K-40	-1.002E+01	2.740E+01	4.290E+01	0.000E+00	NOT IDENT.
SC-46	7.262E-01	1.869E+00	3.199E+00	0.000E+00	NOT IDENT.
V-48	3.254E+00	3.014E+00	5.453E+00	0.000E+00	NOT IDENT.
CR-51	4.844E+00	2.012E+01	3.483E+01	0.000E+00	NOT IDENT.
MN-54	-2.746E+00	2.035E+00	2.936E+00	0.000E+00	NOT IDENT.
CO-56	2.622E-01	2.175E+00	3.627E+00	0.000E+00	NOT IDENT.
CO-57	6.120E-02	1.831E+00	3.045E+00	0.000E+00	NOT IDENT.
CO-58	-8.993E-01	2.154E+00	3.432E+00	0.000E+00	NOT IDENT.
FE-59	1.144E-02	3.937E+00	6.719E+00	0.000E+00	NOT IDENT.
CO-60	1.367E-01	2.159E+00	3.673E+00	0.000E+00	NOT IDENT.
ZN-65	-2.610E+00	4.596E+00	7.456E+00	0.000E+00	NOT IDENT.
SE-75	3.210E-01	2.685E+00	4.645E+00	0.000E+00	NOT IDENT.
SR-85	-4.998E+00	3.137E+00	4.910E+00	0.000E+00	NOT IDENT.
Y-88	6.392E-01	2.319E+00	3.996E+00	0.000E+00	NOT IDENT.
Y-91	-1.076E+02	9.204E+02	1.546E+03	0.000E+00	NOT IDENT.
NB-94	1.730E+00	1.961E+00	3.464E+00	0.000E+00	NOT IDENT.
NB-95	1.559E+00	2.222E+00	3.878E+00	0.000E+00	NOT IDENT.
NB-95M	-1.136E+00	8.184E+00	1.154E+01	0.000E+00	NOT IDENT.
ZR-95	-6.685E+00	4.836E+00	5.746E+00	0.000E+00	NOT IDENT.
MO-99	1.430E+01	1.916E+02	3.202E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	8.008E+12	0.000E+00	0.000E+00	SHORT HLIF

RU-103	7.323E-02	2.352E+00	3.974E+00	0.000E+00	FAIL ABUN
RH-106	-9.599E+00	1.798E+01	2.880E+01	0.000E+00	NOT IDENT.
RU-106	-9.599E+00	1.795E+01	2.880E+01	0.000E+00	NOT IDENT.
AG-108M	-9.114E-01	1.708E+00	2.797E+00	0.000E+00	NOT IDENT.
CD-109	-4.154E+01	5.473E+01	8.886E+01	0.000E+00	NOT IDENT.
AG-110M	-6.448E-01	1.798E+00	2.909E+00	0.000E+00	NOT IDENT.
SN-113	2.337E-01	2.520E+00	4.308E+00	0.000E+00	NOT IDENT.
CD-115	-2.202E+01	1.520E+02	2.531E+02	0.000E+00	NOT IDENT.
SN-117M	1.495E-01	3.015E+00	4.986E+00	0.000E+00	NOT IDENT.
TE-123M	1.238E-02	1.930E+00	3.186E+00	0.000E+00	NOT IDENT.
SB-124	3.146E-01	4.925E+00	8.291E+00	0.000E+00	NOT IDENT.
SB-125	4.725E+00	5.317E+00	9.468E+00	0.000E+00	NOT IDENT.
TE-125M	-2.825E+02	6.621E+02	1.084E+03	0.000E+00	NOT IDENT.
I-126	-2.810E+00	9.366E+00	1.524E+01	0.000E+00	NOT IDENT.
SB-126	-5.723E-01	5.910E+00	9.742E+00	0.000E+00	NOT IDENT.
SN-126	-2.960E+00	5.324E+00	8.716E+00	0.000E+00	NOT IDENT.
SB-127	4.064E+00	3.201E+01	5.384E+01	0.000E+00	NOT IDENT.
I-131	-2.664E+00	4.790E+00	7.918E+00	0.000E+00	NOT IDENT.
TE-132	4.097E+00	1.731E+01	2.860E+01	0.000E+00	NOT IDENT.
BA-133	-2.568E-01	2.853E+00	4.203E+00	0.000E+00	NOT IDENT.
I-133	0.000E+00	7.947E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	2.642E-01	2.358E+00	3.941E+00	0.000E+00	NOT IDENT.
CS-135	-7.846E+00	9.263E+00	1.530E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.814E+12	0.000E+00	0.000E+00	SHORT HLIF
CS-136	4.962E-01	4.064E+00	7.028E+00	0.000E+00	FAIL ABUN
BA-137M	-1.091E-01	1.959E+00	3.254E+00	0.000E+00	NOT IDENT.
CS-137	-1.153E-01	2.070E+00	3.437E+00	0.000E+00	NOT IDENT.
CE-139	-3.916E-01	2.010E+00	3.287E+00	0.000E+00	NOT IDENT.
BA-140	7.798E+00	1.129E+01	1.945E+01	0.000E+00	NOT IDENT.
LA-140	-2.728E-01	4.183E+00	6.952E+00	0.000E+00	NOT IDENT.
CE-141	-8.669E-01	4.373E+00	6.593E+00	0.000E+00	NOT IDENT.
CE-143	1.405E+03	9.330E+02	1.452E+03	0.000E+00	NOT IDENT.
CE-144	3.003E+00	1.356E+01	2.265E+01	0.000E+00	NOT IDENT.
PM-144	-6.675E-01	2.026E+00	3.291E+00	0.000E+00	NOT IDENT.
PR-144	-5.094E+01	1.512E+02	2.454E+02	0.000E+00	NOT IDENT.
PM-146	-1.210E+00	3.195E+00	4.099E+00	0.000E+00	NOT IDENT.
ND-147	-2.301E+01	2.239E+01	3.430E+01	0.000E+00	NOT IDENT.
PM-149	-1.195E+03	1.283E+03	2.085E+03	0.000E+00	NOT IDENT.
EU-152	-4.381E-01	6.062E+00	9.737E+00	0.000E+00	NOT IDENT.
GD-153	2.485E+00	5.962E+00	1.010E+01	0.000E+00	NOT IDENT.
EU-154	-3.286E+00	6.554E+00	1.056E+01	0.000E+00	NOT IDENT.
EU-155	1.808E+00	7.433E+00	1.250E+01	0.000E+00	NOT IDENT.
TA-182	3.514E+00	7.724E+00	1.372E+01	0.000E+00	NOT IDENT.
IR-192	-1.462E+00	2.019E+00	3.329E+00	0.000E+00	FAIL ABUN
HG-203	3.233E-01	2.209E+00	3.820E+00	0.000E+00	NOT IDENT.
BI-207	1.467E+00	2.958E+00	5.251E+00	0.000E+00	NOT IDENT.
TL-208	-2.232E+00	2.922E+00	3.628E+00	0.000E+00	NOT IDENT.
PB-210	-1.035E+02	3.260E+02	4.247E+02	0.000E+00	NOT IDENT.
PB-211	-2.764E+01	1.146E+03	6.790E+01	0.000E+00	NOT IDENT.
BI-212	-1.391E+00	2.826E+01	4.676E+01	0.000E+00	NOT IDENT.
PB-212	3.359E+00	4.793E+00	6.835E+00	0.000E+00	NOT IDENT.
BI-214	0.000E+00	9.621E+00	1.096E+01	0.000E+00	FAIL ABUN
RN-219	7.502E+00	3.117E+02	4.094E+01	0.000E+00	NOT IDENT.
RA-223	-3.873E+00	1.654E+02	6.860E+01	0.000E+00	NOT IDENT.
RA-226	-2.033E+01	6.421E+01	8.568E+01	0.000E+00	NOT IDENT.
AC-227	-5.584E+00	1.675E+01	2.681E+01	0.000E+00	NOT IDENT.
TH-227	-5.584E+00	2.319E+02	2.681E+01	0.000E+00	NOT IDENT.
AC-228	5.608E+00	7.862E+00	1.371E+01	0.000E+00	NOT IDENT.
RA-228	5.608E+00	7.862E+00	1.371E+01	0.000E+00	NOT IDENT.
TH-228	3.359E+00	4.793E+00	6.835E+00	0.000E+00	NOT IDENT.
TH-229	-1.906E+01	3.352E+01	5.360E+01	0.000E+00	NOT IDENT.
PA-231	-6.078E+01	8.693E+01	1.438E+02	0.000E+00	NOT IDENT.
TH-231	-9.424E-01	3.089E+01	5.163E+01	0.000E+00	NOT IDENT.
TH-232	-1.850E+02	2.222E+03	2.677E+03	0.000E+00	NOT IDENT.
PA-233	-3.891E-02	3.949E+00	6.760E+00	0.000E+00	NOT IDENT.
PA-234	-8.080E+00	1.531E+01	2.361E+01	0.000E+00	NOT IDENT.
PA-234M	-1.422E+01	3.019E+02	4.220E+02	0.000E+00	NOT IDENT.
TH-234	-7.879E+01	1.249E+02	1.888E+02	0.000E+00	NOT IDENT.
U-235	-8.455E+00	1.582E+01	2.357E+01	0.000E+00	NOT IDENT.
NP-237	2.303E-01	1.604E+01	2.684E+01	0.000E+00	NOT IDENT.
U-238	-7.879E+01	1.249E+02	1.888E+02	0.000E+00	NOT IDENT.
NP-239	-7.577E+00	1.925E+01	3.151E+01	0.000E+00	NOT IDENT.
AM-241	-2.559E+01	1.205E+01	1.829E+01	0.000E+00	NOT IDENT.
CM-247	2.660E-01	2.183E+00	3.734E+00	0.000E+00	NOT IDENT.
CF-249	-1.218E+00	2.354E+00	3.885E+00	0.000E+00	NOT IDENT.
CF-251	0.000E+00	1.555E+01	1.585E+01	0.000E+00	FAIL ABUN
ANH-511	-7.545E+00	4.049E+00	6.030E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 04:20:39.15

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G247829002.CNF;1
Sample date       : 22-FEB-2010 12:00:00 Acquisition date : 4-MAR-2010 22:20:12.
Sample ID         : G247829002           Sample quantity  : 1.57100E+00 LITER
Detector name     : GAM19                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:02.24  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 956976               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	4	63.68	200	487	1.93	127.23	118	20	9.25E-03	23.6	1.62E+00
2	4	66.44	116	383	1.46	132.74	118	20	5.38E-03	32.5	
3	0	92.74	159	493	1.24	185.30	181	10	7.35E-03	27.4	
4	0	176.04	182	408	1.45	351.77	345	14	8.44E-03	24.7	
5	0	185.39	175	352	0.85	370.45	365	10	8.11E-03	21.4	
6	0	198.11	74	304	0.91	395.88	393	9	3.45E-03	43.6	
7	1	238.35	96	264	1.63	476.30	470	19	4.44E-03	32.8	1.50E+00
8	1	242.05	77	241	1.64	483.70	470	19	3.58E-03	40.1	
9	0	294.98	122	205	1.31	589.48	584	11	5.64E-03	24.6	
10	0	352.01	151	234	1.07	703.48	697	12	6.99E-03	21.9	
11	0	511.14	457	203	2.75	1021.58	1013	20	2.12E-02	9.0	
12	0	557.90	49	134	1.48	1115.06	1110	13	2.26E-03	50.8	
13	0	609.47	196	137	1.78	1218.18	1211	17	9.07E-03	15.4	
14	0	1121.02	42	52	1.59	2241.19	2234	14	1.93E-03	39.9	

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 04:20:43.40

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G247829002.CNF;1
Sample date       : 22-FEB-2010 12:00:00 Acquisition date : 4-MAR-2010 22:20:12.
Sample ID         : G247829002           Sample quantity  : 1.57100E+00 LITER
Detector name     : GAM19                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:02.24  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 956976               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
BI-211	72.87	------	1.23	1.709E+00	------ Line Not Found		------
	351.06	138	12.92*	1.786E+00	4.763E+01	4.767E+01	4227.18
PB-214	74.82	------	5.80	1.797E+00	------ Line Not Found		------
	77.11	------	9.70	1.894E+00	------ Line Not Found		------
	242.00	77	7.25	2.253E+00	3.775E+01	3.775E+01	80.58
	295.22	122	18.42	2.001E+00	2.632E+01	2.632E+01	49.91
	351.93	138	35.60*	1.786E+00	1.728E+01	1.728E+01	52.29
RA-224	240.99	77	4.10*	2.253E+00	6.675E+01	6.746E+01	80.37

Flag: "*" = Keyline

Sample ID : G247829002 Acquisition date : 4-MAR-2010 22:20:12

Total number of lines in spectrum	6	
Number of unidentified lines	1	
Number of lines tentatively identified by NID	5	83.33%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
BI-211	21.77Y	1.00	4.763E+01	4.767E+01	201.5E+01	4227.18	
PB-214	1600.00Y	1.00	1.728E+01	1.728E+01	0.904E+01	52.29	
RA-224	1.91Y	1.01	6.675E+01	6.746E+01	5.422E+01	80.37	
	Total Activity :		1.317E+02	1.324E+02			
	Grand Total Activity :		1.317E+02	1.324E+02			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G247829002 Acquisition date : 4-MAR-2010 22:20:12

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	176.04	182	408	1.45	351.77	345	14	8.44E-03	49.3	2.63E+00	T
0	557.90	49	134	1.48	1115.06	1110	13	2.26E-03	****	1.30E+00	
0	609.47	162	137	1.78	1218.18	1211	17	7.51E-03	41.6	1.22E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 04:20:47.17

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G247829002.CNF;1  *
* Acquisition date : 4-MAR-2010 22:20:12.  Detector SN#    :                *
* Detector ID      : GAM19                 Sensitivity     : 5.00000        *
* Geometry         : 2LMB                  Energy tolerance: 1.50000        *
* Elapsed live time: 0 06:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 06:00:02.24         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 22-FEB-2010 12:00:00  Nuclide Library : LIQUID          *
* Sample ID        : G247829002            Analyst initials: KXG3            *
* Batch Number     : 956976                Sample Quantity : 1.57100E+00 LITER *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 11-MAR-2009 08:32:49.9MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BI-211	4.767E+01	2.015E+03	2.048E+01	8.659E+02	2.327
PB-214	1.728E+01	9.037E+00	7.441E+00	6.352E-01	2.323
RA-224	6.746E+01	5.422E+01	6.046E+01	3.588E+00	1.116

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	1.044E+01		1.815E+01	3.111E+01	2.070E+00	0.336
NA-22	-9.827E-01		2.349E+00	3.740E+00	2.315E-01	-0.263
NA-24	7.291E-02		1.345E-01	Half-Life too short		
K-40	-1.002E+01		2.796E+01	4.290E+01	2.901E+00	-0.234
SC-46	7.262E-01		1.907E+00	3.199E+00	2.188E-01	0.227
V-48	3.254E+00		3.076E+00	5.453E+00	3.616E-01	0.597
CR-51	4.844E+00		2.053E+01	3.483E+01	2.301E+00	0.139
MN-54	-2.746E+00		2.076E+00	2.936E+00	1.868E-01	-0.935
CO-56	2.622E-01		2.220E+00	3.627E+00	2.344E-01	0.072

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-57	6.120E-02		1.869E+00	3.045E+00	1.950E-01	0.020
CO-58	-8.993E-01		2.198E+00	3.432E+00	2.121E-01	-0.262
FE-59	1.144E-02		4.017E+00	6.719E+00	4.715E-01	0.002
CO-60	1.367E-01		2.203E+00	3.673E+00	2.395E-01	0.037
ZN-65	-2.610E+00		4.690E+00	7.456E+00	4.455E-01	-0.350
SE-75	3.210E-01		2.740E+00	4.645E+00	2.806E-01	0.069
SR-85	-4.998E+00		3.201E+00	4.910E+00	2.758E-01	-1.018
Y-88	6.392E-01		2.366E+00	3.996E+00	2.258E-01	0.160
Y-91	-1.076E+02		9.392E+02	1.546E+03	8.916E+01	-0.070
NB-94	1.730E+00		2.001E+00	3.464E+00	1.819E-01	0.499
NB-95	1.559E+00		2.267E+00	3.878E+00	2.238E-01	0.402
NB-95M	-1.136E+00		8.351E+00	1.154E+01	8.828E-01	-0.098
ZR-95	-6.685E+00		4.934E+00	5.746E+00	4.014E-01	-1.163
MO-99	1.430E+01		1.955E+02	3.202E+02	4.582E+01	0.045
TC-99M	4.305E+06		4.086E+06	Half-Life too short		
RU-103	7.323E-02		2.400E+00	3.974E+00	4.911E-01	0.018
RH-106	-9.599E+00		1.834E+01	2.880E+01	3.260E+00	-0.333
RU-106	-9.599E+00		1.832E+01	2.880E+01	1.490E+00	-0.333
AG-108M	-9.114E-01		1.743E+00	2.797E+00	1.716E-01	-0.326
CD-109	-4.154E+01		5.585E+01	8.886E+01	8.661E+00	-0.467
AG-110M	-6.448E-01		1.835E+00	2.909E+00	1.567E-01	-0.222
SN-113	2.337E-01		2.571E+00	4.308E+00	2.625E-01	0.054
CD-115	-2.202E+01		1.551E+02	2.531E+02	1.412E+01	-0.087
SN-117M	1.495E-01		3.076E+00	4.986E+00	2.889E-01	0.030
TE-123M	1.238E-02		1.969E+00	3.186E+00	1.870E-01	0.004
SB-124	3.146E-01		5.025E+00	8.291E+00	5.429E-01	0.038
SB-125	4.725E+00		5.426E+00	9.468E+00	5.648E-01	0.499
TE-125M	-2.825E+02		6.756E+02	1.084E+03	1.014E+02	-0.261
I-126	-2.810E+00		9.557E+00	1.524E+01	7.563E-01	-0.184
SB-126	-5.723E-01		6.031E+00	9.742E+00	5.258E-01	-0.059
SN-126	-2.960E+00		5.433E+00	8.716E+00	8.473E-01	-0.340
SB-127	4.064E+00		3.266E+01	5.384E+01	4.002E+00	0.075
I-131	-2.664E+00		4.888E+00	7.918E+00	5.122E-01	-0.336
TE-132	4.097E+00		1.767E+01	2.860E+01	3.907E+00	0.143
BA-133	-2.568E-01		2.911E+00	4.203E+00	4.755E-01	-0.061
I-133	-2.533E-03		4.054E-03	Half-Life too short		
CS-134	2.642E-01		2.406E+00	3.941E+00	2.409E-01	0.067
CS-135	-7.846E+00		9.452E+00	1.530E+01	1.193E+00	-0.513
I-135	-1.896E+06		1.435E+06	Half-Life too short		
CS-136	4.962E-01		4.147E+00	7.028E+00	4.792E-01	0.071
BA-137M	-1.091E-01		1.999E+00	3.254E+00	1.603E-01	-0.034
CS-137	-1.153E-01		2.112E+00	3.437E+00	1.703E-01	-0.034
CE-139	-3.916E-01		2.051E+00	3.287E+00	1.884E-01	-0.119
BA-140	7.798E+00		1.152E+01	1.945E+01	6.472E+00	0.401
LA-140	-2.728E-01		4.269E+00	6.952E+00	4.342E-01	-0.039
CE-141	-8.669E-01		4.462E+00	6.593E+00	4.068E-01	-0.131
CE-143	1.405E+03		9.520E+02	1.452E+03	3.000E+02	0.967
CE-144	3.003E+00		1.383E+01	2.265E+01	3.179E+00	0.133

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PM-144	-6.675E-01		2.068E+00	3.291E+00	1.712E-01	-0.203
PR-144	-5.094E+01		1.543E+02	2.454E+02	1.277E+01	-0.208
PM-146	-1.210E+00		3.260E+00	4.099E+00	3.443E-01	-0.295
ND-147	-2.301E+01		2.285E+01	3.430E+01	4.604E+00	-0.671
PM-149	-1.195E+03		1.309E+03	2.085E+03	2.970E+02	-0.573
EU-152	-4.381E-01		6.186E+00	9.737E+00	6.460E-01	-0.045
GD-153	2.485E+00		6.084E+00	1.010E+01	8.448E-01	0.246
EU-154	-3.286E+00		6.687E+00	1.056E+01	1.020E+00	-0.311
EU-155	1.808E+00		7.584E+00	1.250E+01	9.594E-01	0.145
TA-182	3.514E+00		7.882E+00	1.372E+01	8.042E-01	0.256
IR-192	-1.462E+00		2.060E+00	3.329E+00	2.000E-01	-0.439
HG-203	3.233E-01		2.254E+00	3.820E+00	2.410E-01	0.085
BI-207	1.467E+00		3.019E+00	5.251E+00	3.286E-01	0.279
TL-208	-2.232E+00		2.982E+00	3.628E+00	2.286E-01	-0.615
PB-210	-1.035E+02		3.326E+02	4.247E+02	3.464E+01	-0.244
PB-211	-2.764E+01		1.169E+03	6.790E+01	2.870E+03	-0.407
BI-212	-1.391E+00		2.884E+01	4.676E+01	4.919E+00	-0.030
PB-212	3.359E+00		4.891E+00	6.835E+00	5.124E-01	0.491
BI-214	2.325E+01	+	9.817E+00	1.096E+01	8.149E-01	2.121
RN-219	7.502E+00		3.180E+02	4.094E+01	1.731E+03	0.183
RA-223	-3.873E+00		1.688E+02	6.860E+01	2.900E+03	-0.056
RA-226	-2.033E+01		6.552E+01	8.568E+01	5.749E+01	-0.237
AC-227	-5.584E+00		1.709E+01	2.681E+01	2.767E+00	-0.208
TH-227	-5.584E+00		2.366E+02	2.681E+01	1.133E+03	-0.208
AC-228	5.608E+00		8.022E+00	1.371E+01	1.421E+00	0.409
RA-228	5.608E+00		8.022E+00	1.371E+01	1.421E+00	0.409
TH-228	3.359E+00		4.891E+00	6.835E+00	5.124E-01	0.491
TH-229	-1.906E+01		3.420E+01	5.360E+01	3.104E+00	-0.356
PA-231	-6.078E+01		8.870E+01	1.438E+02	1.899E+01	-0.423
TH-231	-9.424E-01		3.152E+01	5.163E+01	9.234E+00	-0.018
TH-232	-1.850E+02		2.267E+03	2.677E+03	2.059E+04	-0.069
PA-233	-3.891E-02		4.029E+00	6.760E+00	4.283E-01	-0.006
PA-234	-8.080E+00		1.562E+01	2.361E+01	4.247E+00	-0.342
PA-234M	-1.422E+01		3.080E+02	4.220E+02	3.481E+01	-0.034
TH-234	-7.879E+01		1.275E+02	1.888E+02	3.511E+01	-0.417
U-235	-8.455E+00		1.614E+01	2.357E+01	3.717E+00	-0.359
NP-237	2.303E-01		1.637E+01	2.684E+01	6.194E+00	0.009
U-238	-7.879E+01		1.275E+02	1.888E+02	3.511E+01	-0.417
NP-239	-7.577E+00		1.964E+01	3.151E+01	2.114E+00	-0.240
AM-241	-2.559E+01		1.229E+01	1.829E+01	1.804E+00	-1.399
CM-247	2.660E-01		2.227E+00	3.734E+00	2.133E-01	0.071
CF-249	-1.218E+00		2.402E+00	3.885E+00	2.223E-01	-0.314
CF-251	3.194E+01	+	1.587E+01	1.585E+01	9.106E-01	2.016
ANH-511	-7.545E+00		4.131E+00	6.030E+00	3.392E-01	-1.251

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G247829002            *
* Acquisition date :  4-MAR-2010 22:20:12 Detector SN#    :                 *
* Detector ID      : GAM19                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:02.24     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 22-FEB-2010 12:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G247829002           Analyst initials: KXG3            *
* Batch Number     : 956976               Sample Quantity : 1.5710E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 11-MAR-2009 08:32:49 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
BI-211	4.767E+01	1.975E+03	1.025E+01	1.008E+03
PB-214	1.728E+01	8.857E+00	3.723E+00	4.519E+00
RA-224	6.746E+01	5.313E+01	3.025E+01	2.711E+01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU	
BE-7	1.044E+01	1.778E+01	1.557E+01	9.073E+00	NOT IDENT.
NA-22	-9.827E-01	2.302E+00	1.871E+00	1.174E+00	NOT IDENT.
NA-24	7.291E+04	2.636E+05	0.000E+00	1.345E+05	SHORT HLIF
K-40	-1.002E+01	2.740E+01	2.146E+01	1.398E+01	NOT IDENT.
SC-46	7.262E-01	1.869E+00	1.600E+00	9.536E-01	NOT IDENT.
V-48	3.254E+00	3.014E+00	2.728E+00	1.538E+00	NOT IDENT.
CR-51	4.844E+00	2.012E+01	1.742E+01	1.026E+01	NOT IDENT.
MN-54	-2.746E+00	2.035E+00	1.469E+00	1.038E+00	NOT IDENT.
CO-56	2.622E-01	2.175E+00	1.814E+00	1.110E+00	NOT IDENT.
CO-57	6.120E-02	1.831E+00	1.524E+00	9.343E-01	NOT IDENT.
CO-58	-8.993E-01	2.154E+00	1.717E+00	1.099E+00	NOT IDENT.
FE-59	1.144E-02	3.937E+00	3.362E+00	2.009E+00	NOT IDENT.
CO-60	1.367E-01	2.159E+00	1.838E+00	1.101E+00	NOT IDENT.
ZN-65	-2.610E+00	4.596E+00	3.730E+00	2.345E+00	NOT IDENT.
SE-75	3.210E-01	2.685E+00	2.324E+00	1.370E+00	NOT IDENT.
SR-85	-4.998E+00	3.137E+00	2.457E+00	1.601E+00	NOT IDENT.
Y-88	6.392E-01	2.319E+00	1.999E+00	1.183E+00	NOT IDENT.
Y-91	-1.076E+02	9.204E+02	7.736E+02	4.696E+02	NOT IDENT.
NB-94	1.730E+00	1.961E+00	1.733E+00	1.000E+00	NOT IDENT.
NB-95	1.559E+00	2.222E+00	1.940E+00	1.134E+00	NOT IDENT.
NB-95M	-1.136E+00	8.184E+00	5.775E+00	4.175E+00	NOT IDENT.
ZR-95	-6.685E+00	4.836E+00	2.875E+00	2.467E+00	NOT IDENT.
MO-99	1.430E+01	1.916E+02	1.602E+02	9.773E+01	NOT IDENT.
TC-99M	4.305E+12	8.008E+12	0.000E+00	4.086E+12	SHORT HLIF

RU-103	7.323E-02	2.352E+00	1.988E+00	1.200E+00	FAIL ABUN
RH-106	-9.599E+00	1.798E+01	1.441E+01	9.171E+00	NOT IDENT.
RU-106	-9.599E+00	1.795E+01	1.441E+01	9.159E+00	NOT IDENT.
AG-108M	-9.114E-01	1.708E+00	1.399E+00	8.713E-01	NOT IDENT.
CD-109	-4.154E+01	5.473E+01	4.446E+01	2.793E+01	NOT IDENT.
AG-110M	-6.448E-01	1.798E+00	1.456E+00	9.174E-01	NOT IDENT.
SN-113	2.337E-01	2.520E+00	2.155E+00	1.286E+00	NOT IDENT.
CD-115	-2.202E+01	1.520E+02	1.266E+02	7.753E+01	NOT IDENT.
SN-117M	1.495E-01	3.015E+00	2.494E+00	1.538E+00	NOT IDENT.
TE-123M	1.238E-02	1.930E+00	1.594E+00	9.847E-01	NOT IDENT.
SB-124	3.146E-01	4.925E+00	4.148E+00	2.513E+00	NOT IDENT.
SB-125	4.725E+00	5.317E+00	4.737E+00	2.713E+00	NOT IDENT.
TE-125M	-2.825E+02	6.621E+02	5.421E+02	3.378E+02	NOT IDENT.
I-126	-2.810E+00	9.366E+00	7.626E+00	4.778E+00	NOT IDENT.
SB-126	-5.723E-01	5.910E+00	4.874E+00	3.015E+00	NOT IDENT.
SN-126	-2.960E+00	5.324E+00	4.361E+00	2.717E+00	NOT IDENT.
SB-127	4.064E+00	3.201E+01	2.694E+01	1.633E+01	NOT IDENT.
I-131	-2.664E+00	4.790E+00	3.962E+00	2.444E+00	NOT IDENT.
TE-132	4.097E+00	1.731E+01	1.431E+01	8.833E+00	NOT IDENT.
BA-133	-2.568E-01	2.853E+00	2.103E+00	1.455E+00	NOT IDENT.
I-133	-2.533E+03	7.947E+03	0.000E+00	4.054E+03	SHORT HLIF
CS-134	2.642E-01	2.358E+00	1.972E+00	1.203E+00	NOT IDENT.
CS-135	-7.846E+00	9.263E+00	7.653E+00	4.726E+00	NOT IDENT.
I-135	-1.896E+12	2.814E+12	0.000E+00	1.435E+12	SHORT HLIF
CS-136	4.962E-01	4.064E+00	3.516E+00	2.073E+00	FAIL ABUN
BA-137M	-1.091E-01	1.959E+00	1.628E+00	9.997E-01	NOT IDENT.
CS-137	-1.153E-01	2.070E+00	1.720E+00	1.056E+00	NOT IDENT.
CE-139	-3.916E-01	2.010E+00	1.645E+00	1.025E+00	NOT IDENT.
BA-140	7.798E+00	1.129E+01	9.733E+00	5.760E+00	NOT IDENT.
LA-140	-2.728E-01	4.183E+00	3.478E+00	2.134E+00	NOT IDENT.
CE-141	-8.669E-01	4.373E+00	3.299E+00	2.231E+00	NOT IDENT.
CE-143	1.405E+03	9.330E+02	7.266E+02	4.760E+02	NOT IDENT.
CE-144	3.003E+00	1.356E+01	1.133E+01	6.916E+00	NOT IDENT.
PM-144	-6.675E-01	2.026E+00	1.646E+00	1.034E+00	NOT IDENT.
PR-144	-5.094E+01	1.512E+02	1.228E+02	7.714E+01	NOT IDENT.
PM-146	-1.210E+00	3.195E+00	2.051E+00	1.630E+00	NOT IDENT.
ND-147	-2.301E+01	2.239E+01	1.716E+01	1.142E+01	NOT IDENT.
PM-149	-1.195E+03	1.283E+03	1.043E+03	6.545E+02	NOT IDENT.
EU-152	-4.381E-01	6.062E+00	4.871E+00	3.093E+00	NOT IDENT.
GD-153	2.485E+00	5.962E+00	5.051E+00	3.042E+00	NOT IDENT.
EU-154	-3.286E+00	6.554E+00	5.284E+00	3.344E+00	NOT IDENT.
EU-155	1.808E+00	7.433E+00	6.252E+00	3.792E+00	NOT IDENT.
TA-182	3.514E+00	7.724E+00	6.862E+00	3.941E+00	NOT IDENT.
IR-192	-1.462E+00	2.019E+00	1.666E+00	1.030E+00	FAIL ABUN
HG-203	3.233E-01	2.209E+00	1.911E+00	1.127E+00	NOT IDENT.
BI-207	1.467E+00	2.958E+00	2.627E+00	1.509E+00	NOT IDENT.
TL-208	-2.232E+00	2.922E+00	1.815E+00	1.491E+00	NOT IDENT.
PB-210	-1.035E+02	3.260E+02	2.125E+02	1.663E+02	NOT IDENT.
PB-211	-2.764E+01	1.146E+03	3.397E+01	5.846E+02	NOT IDENT.
BI-212	-1.391E+00	2.826E+01	2.339E+01	1.442E+01	NOT IDENT.
PB-212	3.359E+00	4.793E+00	3.419E+00	2.446E+00	NOT IDENT.
BI-214	2.325E+01	9.621E+00	5.482E+00	4.909E+00	FAIL ABUN
RN-219	7.502E+00	3.117E+02	2.048E+01	1.590E+02	NOT IDENT.
RA-223	-3.873E+00	1.654E+02	3.432E+01	8.439E+01	NOT IDENT.
RA-226	-2.033E+01	6.421E+01	4.286E+01	3.276E+01	NOT IDENT.
AC-227	-5.584E+00	1.675E+01	1.341E+01	8.544E+00	NOT IDENT.
TH-227	-5.584E+00	2.319E+02	1.341E+01	1.183E+02	NOT IDENT.
AC-228	5.608E+00	7.862E+00	6.858E+00	4.011E+00	NOT IDENT.
RA-228	5.608E+00	7.862E+00	6.858E+00	4.011E+00	NOT IDENT.
TH-228	3.359E+00	4.793E+00	3.419E+00	2.446E+00	NOT IDENT.
TH-229	-1.906E+01	3.352E+01	2.682E+01	1.710E+01	NOT IDENT.
PA-231	-6.078E+01	8.693E+01	7.195E+01	4.435E+01	NOT IDENT.
TH-231	-9.424E-01	3.089E+01	2.583E+01	1.576E+01	NOT IDENT.
TH-232	-1.850E+02	2.222E+03	1.339E+03	1.134E+03	NOT IDENT.
PA-233	-3.891E-02	3.949E+00	3.382E+00	2.015E+00	NOT IDENT.
PA-234	-8.080E+00	1.531E+01	1.181E+01	7.812E+00	NOT IDENT.
PA-234M	-1.422E+01	3.019E+02	2.111E+02	1.540E+02	NOT IDENT.
TH-234	-7.879E+01	1.249E+02	9.444E+01	6.374E+01	NOT IDENT.
U-235	-8.455E+00	1.582E+01	1.179E+01	8.071E+00	NOT IDENT.
NP-237	2.303E-01	1.604E+01	1.343E+01	8.183E+00	NOT IDENT.
U-238	-7.879E+01	1.249E+02	9.444E+01	6.374E+01	NOT IDENT.
NP-239	-7.577E+00	1.925E+01	1.577E+01	9.822E+00	NOT IDENT.
AM-241	-2.559E+01	1.205E+01	9.149E+00	6.147E+00	NOT IDENT.
CM-247	2.660E-01	2.183E+00	1.868E+00	1.114E+00	NOT IDENT.
CF-249	-1.218E+00	2.354E+00	1.944E+00	1.201E+00	NOT IDENT.
CF-251	3.194E+01	1.555E+01	7.928E+00	7.934E+00	FAIL ABUN
ANH-511	-7.545E+00	4.049E+00	3.017E+00	2.066E+00	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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ENERGY	MDA COUNTS
46.54	280.8694
49.72	326.8232
57.36	317.8582
59.54	447.8250
63.29	454.5421
63.29	454.5421
63.81	437.9416
64.28	406.4309
67.75	478.4807
69.67	482.3789
70.83	442.0131
72.81	397.8694
72.87	417.8868
72.87	417.8868
74.82	412.6475
74.82	412.6475
74.82	412.6475
74.97	367.6286
77.11	404.4943
77.11	404.4943
77.11	404.4943
79.69	429.5932
79.69	429.5932
80.12	435.7997
80.19	435.8278
81.00	445.2103
81.07	445.2373
83.79	376.6411
84.21	395.9717
85.43	384.2589
86.48	400.8038
86.55	400.8279
86.94	386.7870
87.57	419.4154
88.03	438.8357
88.47	510.9848
89.96	523.8125
91.11	403.4000
92.59	380.4986
92.59	380.4986
93.35	375.6482
94.56	426.9742
94.65	427.0062
94.67	427.0126
95.86	542.7011
97.43	346.2586
98.43	335.2921
98.44	335.2959
99.53	335.5874
100.11	345.9786
103.18	324.2404
103.37	315.0526
105.31	335.0546
106.12	336.2907
109.28	369.0578
111.00	341.6645
111.76	350.1214
116.30	375.1256
116.74	362.8067
121.12	357.7104
121.78	364.1191
122.06	356.9074
123.07	341.5432
131.20	373.8324
133.52	327.2225
136.00	390.7941
136.47	401.4247

140.51	357.1847
140.51	0.0000
140.88	353.0545
143.76	363.2141
144.24	337.9785
145.44	329.7814
152.43	353.5280
153.25	379.2008
154.21	360.2935
156.02	320.2626
158.56	337.8089
159.00	340.0303
162.66	335.4361
163.33	318.4711
165.86	336.0733
176.60	283.2419
177.52	279.2958
181.07	376.5929
185.72	285.7731
186.21	311.8359
193.51	286.9876
205.31	299.7189
210.85	263.2764
222.11	254.8399
227.38	261.0311
228.16	247.8523
228.18	247.8540
235.69	255.8584
235.96	255.8918
235.96	255.8918
238.63	223.5226
238.63	223.5226
240.99	223.7711
242.00	223.8769
244.70	221.2595
252.40	213.7661
252.80	222.7598
256.23	238.8035
256.23	238.8035
260.90	243.8005
264.66	216.0732
268.22	229.9420
269.46	243.5999
271.23	213.0885
273.65	215.1210
276.40	228.0489
277.37	227.2390
277.60	227.2604
278.00	239.0728
279.20	215.6381
279.54	203.8898
283.69	209.6991
284.31	194.3163
285.41	221.6611
285.90	204.4418
287.50	195.9945
293.27	200.5190
295.22	194.6003
295.96	205.3043
299.98	164.5159
299.98	164.5159
300.09	164.5247
300.09	164.5247
300.13	164.5269
301.36	196.6179
302.85	202.2263
304.50	205.1109
304.50	205.1109
304.85	205.1410
308.46	178.8420
311.90	184.6001
316.51	192.3019
319.41	182.3898
320.08	175.9872
323.87	197.4746
328.76	204.3225
329.85	203.4839
329.85	203.4839

330.06	203.5000
333.37	188.0154
334.37	209.3976
334.37	209.3976
338.28	165.1715
338.32	165.1736
338.32	165.1736
340.48	164.3797
340.55	164.3840
344.28	162.7573
351.06	163.1696
351.93	163.2230
356.01	158.8002
364.49	168.6621
366.42	150.9650
383.85	159.4566
388.16	151.1914
388.63	150.2717
391.70	136.2410
400.66	142.3572
401.81	131.9686
402.40	136.7437
404.85	148.2628
414.70	133.4990
423.72	137.7246
427.09	109.1530
427.87	113.0132
433.94	128.5906
453.88	122.6545
463.37	99.7725
468.07	133.8711
473.00	105.8998
476.78	107.9689
477.60	106.0501
487.02	118.0621
492.35	107.5011
497.08	130.1637
511.00	134.6303
514.00	320.6416
527.90	94.8023
529.87	0.0000
531.02	96.8635
537.26	75.2522
546.56	0.0000
563.25	144.6177
569.33	82.9189
569.50	82.9230
569.70	78.9306
583.19	87.2421
600.60	150.1059
602.73	89.0385
604.72	124.3842
609.32	93.9059
610.33	93.9309
614.28	87.6230
618.01	80.9609
621.93	97.2516
621.93	97.2516
633.25	88.3891
635.95	78.2840
636.99	68.1352
645.85	85.6140
657.76	77.6903
661.66	83.9059
661.66	83.9059
664.57	78.8460
666.33	85.0264
666.50	85.0304
677.62	72.9345
685.70	77.1936
695.00	74.2720
696.49	101.1295
696.51	101.1295
697.00	110.4300
702.65	81.6423
706.68	92.0637
720.70	73.6868
721.93	91.3559

722.78	86.1814
722.91	86.1854
723.31	79.9627
724.19	69.5910
727.33	81.0754
733.00	65.5701
735.93	79.1543
739.50	58.3721
747.24	76.2276
753.82	70.0670
756.73	88.9491
763.94	84.8997
765.80	74.4495
766.42	61.8751
777.92	73.5991
778.90	87.2878
783.70	54.7447
785.37	68.4547
795.86	63.3354
801.95	76.1027
810.76	77.3076
815.77	58.3073
818.51	59.4029
832.01	64.8929
834.85	88.3496
836.80	0.0000
846.77	69.3640
856.80	80.2020
860.56	82.4047
871.09	70.7873
873.19	70.8179
875.33	0.0000
880.51	49.4320
883.24	51.6094
884.68	59.1532
889.28	45.2136
898.04	50.6856
911.20	57.3075
911.20	57.3075
926.36	55.3106
937.49	63.0396
944.13	46.7961
946.00	55.5235
949.00	42.4839
964.08	52.4391
968.97	62.3298
968.97	62.3298
983.53	40.5717
996.26	67.0494
1001.03	52.2570
1004.73	60.5497
1037.84	59.0755
1038.76	0.0000
1048.07	47.1630
1050.41	52.7324
1050.41	52.7324
1063.66	60.2789
1085.87	48.4136
1099.25	45.7281
1112.07	44.8945
1115.54	70.1904
1120.29	56.1987
1120.55	46.8343
1121.30	44.0300
1131.51	0.0000
1173.23	51.9810
1189.05	40.7464
1204.77	50.3539
1221.41	37.1528
1231.02	33.3950
1235.36	35.3274
1238.28	39.1649
1260.41	0.0000
1274.44	57.6465
1274.54	56.6881
1291.59	41.4253
1298.22	0.0000
1312.11	39.6253

1332.49	42.6572
1365.19	42.8703
1368.63	0.0000
1384.29	54.7194
1408.01	38.2415
1457.56	0.0000
1460.82	37.5485
1489.16	34.7237
1596.21	36.2476
1620.50	31.3141
1678.03	0.0000
1690.97	27.5273
1764.49	22.6410
1770.23	53.5531
1771.35	37.0796
1791.20	0.0000
1836.06	24.9180

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G247829002

Total Uranium Activity	-2.3830E+02	ug/g
Total Uranium Counting Unc.	3.7175E+02	ug/g
Total Uranium Tpu	1.8967E-04	ug/g
Total Uranium Mda	2.8101E+02	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 956976                    SAMPLE ID  : G247829002       *
*   ANALYST       : KXG3                      DETECTOR   : GAM19            *
*   SAMPLE DATE   : 22-FEB-2010 12:00:00.00   COUNT TIME :    0 06:00:00.00 *
*   ANALYSIS DATE:  4-MAR-2010 22:20:12.36    SAMPLE ALQT:    1.571 LITER   *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 3.282E+01
        GROSS GAMMA ERROR   (pCi/LITER )  : 9.382E+00
        GROSS GAMMA MDA     (pCi/LITER )  : 2.629E+01
        GROSS GAMMA DLC     (pCi/LITER )  : 1.278E+01
```

VAX/VMS Nuclide Identification Report Generated 9-MAR-2010 14:11:24.04

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051903.CNF;1
Sample date       : 3-MAR-2010 00:00:00. Acquisition date : 4-MAR-2010 22:20:38.
Sample ID         : G1202051903          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM20                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:01:36.63  0.4%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 3.00000
Batch ID         : 956976                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	66.90	40	214	1.33	133.78	131	6	1.85E-03	60.3	
2	0	87.46	56	179	1.27	174.82	172	6	2.61E-03	39.8	
3	0	248.94	42	127	1.91	497.35	494	8	1.94E-03	49.0	
4	0	264.18	33	78	1.42	527.78	526	5	1.50E-03	44.3	
5	0	379.48	48	133	1.73	758.14	752	13	2.20E-03	52.1	
6	0	767.91	44	43	4.21	1534.51	1528	15	2.02E-03	36.7	
7	0	834.49	40	65	7.36	1667.66	1656	20	1.86E-03	51.7	
8	0	972.18	21	35	4.33	1943.05	1936	12	9.67E-04	61.3	
9	0	1016.78	26	32	0.73	2032.26	2024	15	1.19E-03	52.7	
10	0	1086.48	19	19	3.17	2171.70	2165	11	8.66E-04	51.0	
11	0	1209.79	37	27	6.21	2418.44	2407	19	1.73E-03	37.8	
12	0	1487.26	18	12	4.48	2973.85	2967	12	8.43E-04	44.6	
13	0	1872.33	10	4	1.93	3745.13	3739	10	4.50E-04	53.0	
14	0	1897.50	18	0	4.59	3795.56	3789	13	8.33E-04	23.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 9-MAR-2010 14:11:27

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051903.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 3-MAR-2010 00:00:00 Acquisition date : 4-MAR-2010 22:20:38
Sample ID : G1202051903 Sample quantity : 2.0000 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA20 Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00 Elapsed real time: 0 06:01:36.63 0.4%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
MN-54	+	834.85	*	2.530E+00	2.628E+00	1.976E+00	1.848E-01	1.280
CD-109	+	88.03	*	3.680E+01	2.973E+01	4.745E+01	6.392E+00	0.775
SN-126		64.28		-7.669E+00	2.753E+01	3.733E+01	6.507E+00	-0.205
	+	86.94		1.525E+01	1.378E+01	1.954E+01	8.322E+00	0.781
	+	87.57	*	3.668E+00	2.963E+00	4.622E+00	6.205E-01	0.794
NP-237	+	86.48	*	1.095E+01	9.135E+00	1.394E+01	3.462E+00	0.785
		95.86		-2.672E+02	8.196E+01	5.525E+01	1.402E+01	-4.837

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.60	*	-7.180E+00	1.072E+01	1.639E+01	1.481E+00	-0.438
NA-22		1274.54	*	8.114E-02	1.263E+00	2.056E+00	1.897E-01	0.039
NA-24		1368.63	*	-1.882E-01	1.235E+01	2.068E+01	1.963E+00	-0.009
K-40		1460.82	*	2.048E+00	2.326E+01	2.955E+01	2.833E+00	0.069
SC-46		889.28	*	-1.626E-01	1.255E+00	2.045E+00	1.957E-01	-0.080
		1120.55		1.027E+00	1.487E+00	2.598E+00	2.362E-01	0.395
V-48		944.13		1.601E+01	1.860E+01	3.312E+01	3.170E+00	0.483
		983.53	*	-1.932E-02	1.320E+00	2.163E+00	2.057E-01	-0.009
		1312.11		-1.842E-01	1.405E+00	2.212E+00	2.067E-01	-0.083
CR-51		320.08	*	-6.971E+00	1.096E+01	1.740E+01	1.771E+00	-0.401
CO-56		846.77	*	-2.111E-01	1.342E+00	2.190E+00	2.060E-01	-0.096
		1037.84		-6.636E+00	8.104E+00	1.163E+01	1.140E+00	-0.570
		1238.28		1.567E+00	2.065E+00	3.659E+00	3.413E-01	0.428
		1771.35		-3.608E+00	8.938E+00	1.373E+01	1.179E+00	-0.263
CO-57		122.06	*	-7.772E-01	9.927E-01	1.520E+00	1.355E-01	-0.511
		136.47		-5.473E+00	8.107E+00	1.244E+01	1.143E+00	-0.440
CO-58		810.76	*	2.268E-01	1.103E+00	1.873E+00	1.735E-01	0.121
FE-59		1099.25	*	-1.219E+00	2.481E+00	3.790E+00	3.729E-01	-0.322
		1291.59		-2.523E+00	3.471E+00	4.997E+00	5.181E-01	-0.505
CO-60		1173.23		5.376E-01	1.453E+00	2.458E+00	2.173E-01	0.219
		1332.49	*	3.366E-01	1.409E+00	2.339E+00	2.200E-01	0.144
ZN-65		1115.54	*	-9.981E-01	2.701E+00	4.189E+00	3.822E-01	-0.238

Sample ID : G1202051903 Acquisition date : 4-MAR-2010 22:20:38

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
SE-75		121.12		-7.294E-01	4.778E+00	7.610E+00	8.660E-01	-0.096
		136.00		2.820E-01	1.448E+00	2.343E+00	2.019E-01	0.120
	+	264.66	*	1.619E+00	1.442E+00	2.876E+00	2.925E-01	0.563
		279.54		4.188E-01	4.031E+00	6.763E+00	7.247E-01	0.062
		400.66		-2.691E-01	8.918E+00	1.458E+01	1.553E+00	-0.018
SR-85		514.00	*	-1.027E+01	2.548E+00	3.104E+00	2.620E-01	-3.309
Y-88		898.04		6.838E-01	1.335E+00	2.319E+00	2.236E-01	0.295
		1836.06	*	-4.377E-04	1.158E+00	1.902E+00	1.584E-01	0.000
Y-91		1204.77	*	1.599E+02	6.469E+02	9.429E+02	8.453E+01	0.170
NB-94		702.65	*	-6.512E-01	1.237E+00	1.981E+00	1.726E-01	-0.329
		871.09		9.920E-01	1.215E+00	2.169E+00	2.061E-01	0.457
NB-95		765.80	*	7.037E-01	1.469E+00	2.255E+00	2.037E-01	0.312
NB-95M		235.69	*	-1.114E+01	4.691E+00	6.729E+00	7.181E-01	-1.655
ZR-95		724.19		-1.629E+00	2.847E+00	4.521E+00	4.312E-01	-0.360
		756.73	*	-2.067E-01	2.227E+00	3.685E+00	3.633E-01	-0.056
MO-99		140.51		-3.603E+01	4.434E+01	5.468E+01	1.295E+01	-0.659
		181.07		2.800E+00	2.662E+01	4.233E+01	7.901E+00	0.066
		366.42		1.451E+01	1.443E+02	2.392E+02	2.085E+01	0.061
		739.50	*	1.249E+00	1.574E+01	2.651E+01	4.218E+00	0.047
		777.92		1.277E+01	4.358E+01	7.473E+01	6.796E+00	0.171
TC-99M		140.51	*	-3.136E+02	3.797E+02	4.759E+02	4.414E+01	-0.659
RU-103		497.08	*	-5.710E-01	1.232E+00	1.911E+00	2.643E-01	-0.299
		610.33		4.855E-01	3.285E+01	4.660E+01	7.596E+00	0.010
RH-106		621.93	*	2.489E+00	1.198E+01	1.950E+01	2.573E+00	0.128
		1050.41		-2.335E+01	8.759E+01	1.386E+02	1.296E+01	-0.168
RU-106		621.93	*	2.489E+00	1.198E+01	1.950E+01	1.662E+00	0.128
		1050.41		-2.335E+01	8.759E+01	1.386E+02	1.296E+01	-0.168
AG-108M		433.94	*	5.956E-01	1.158E+00	1.960E+00	1.665E-01	0.304
		614.28		6.621E-01	1.412E+00	2.345E+00	2.067E-01	0.282
		722.91		-8.801E-01	1.396E+00	2.208E+00	2.007E-01	-0.399
AG-110M		657.76	*	-4.936E-01	1.180E+00	1.913E+00	1.675E-01	-0.258
		677.62		8.552E+00	1.032E+01	1.855E+01	1.637E+00	0.461
		706.68		-3.552E+00	7.689E+00	1.238E+01	1.112E+00	-0.287
		763.94		1.010E+00	6.005E+00	8.904E+00	8.239E-01	0.113
		884.68		9.288E-01	1.746E+00	3.035E+00	2.976E-01	0.306
		937.49		-4.038E-01	3.663E+00	5.958E+00	5.874E-01	-0.068
		1384.29		-3.301E+00	5.398E+00	8.281E+00	7.966E-01	-0.399
SN-113		391.70	*	2.934E-01	1.556E+00	2.587E+00	2.146E-01	0.113
CD-115		260.90		5.387E+01	1.063E+02	1.627E+02	1.636E+01	0.331
		492.35		7.292E+00	2.504E+01	4.154E+01	3.486E+00	0.176
		527.90	*	2.263E+00	7.368E+00	1.220E+01	1.033E+00	0.185
SN-117M		156.02		-6.186E+01	4.776E+01	6.977E+01	5.722E+00	-0.887
		158.56	*	1.749E-01	1.162E+00	1.863E+00	1.520E-01	0.094
TE-123M		159.00	*	1.011E+00	1.076E+00	1.796E+00	1.475E-01	0.563
SB-124		602.73		1.198E+00	1.499E+00	2.535E+00	2.163E-01	0.472
		645.85		-1.489E+01	1.551E+01	2.386E+01	2.150E+00	-0.624
		722.78		-7.741E+00	1.205E+01	1.903E+01	1.716E+00	-0.407
		1690.97	*	1.874E+00	2.505E+00	4.656E+00	4.296E-01	0.403
SB-125		427.87	*	-1.484E+00	3.459E+00	5.453E+00	4.552E-01	-0.272

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		463.37		-2.112E+00	1.053E+01	1.684E+01	1.512E+00	-0.125
		600.60		2.705E+00	8.215E+00	1.346E+01	1.235E+00	0.201
		635.95		-1.381E+01	1.430E+01	1.712E+01	1.580E+00	-0.807
TE-125M		109.28	*	-3.558E+00	3.484E+02	5.617E+02	6.611E+01	-0.006
I-126		388.63		-2.364E-01	3.015E+00	4.919E+00	3.986E-01	-0.048
		666.33	*	-1.666E+00	3.966E+00	6.432E+00	5.477E-01	-0.259
		753.82		6.583E-01	3.040E+01	5.085E+01	4.566E+00	0.013
SB-126		414.70		-1.330E+00	1.787E+00	2.174E+00	1.765E-01	-0.612
		666.50		-4.933E-01	1.322E+00	2.154E+00	1.835E-01	-0.229
		695.00		7.811E-01	1.442E+00	2.518E+00	2.184E-01	0.310
		697.00		2.197E+00	5.233E+00	9.042E+00	7.853E-01	0.243
		720.70	*	2.321E+00	2.604E+00	4.658E+00	4.104E-01	0.498
		856.80		-1.716E+00	8.608E+00	1.399E+01	1.321E+00	-0.123
SB-127		252.40		-2.927E-01	1.777E+01	2.620E+01	1.080E+01	-0.011
		473.00		4.301E+00	5.903E+00	1.012E+01	1.056E+00	0.425
		685.70	*	6.036E-01	4.113E+00	7.001E+00	6.262E-01	0.086
		783.70		-8.753E+00	1.124E+01	1.718E+01	1.820E+00	-0.509
I-131		80.19		-2.864E+01	5.084E+01	8.036E+01	1.017E+01	-0.356
		284.31		6.830E+00	1.931E+01	3.281E+01	3.511E+00	0.208
		364.49	*	-2.522E-01	1.513E+00	2.463E+00	2.260E-01	-0.102
		636.99		-2.378E+01	2.695E+01	3.266E+01	2.928E+00	-0.728
TE-132		49.72		-2.585E+01	3.611E+01	5.730E+01	6.538E+00	-0.451
		111.76		4.905E+01	8.305E+01	1.376E+02	1.368E+01	0.357
		116.30		-5.419E+01	7.043E+01	1.084E+02	1.028E+01	-0.500
		228.16	*	-2.604E-01	1.641E+00	2.739E+00	4.038E-01	-0.095
BA-133		81.00		-1.272E+00	3.187E+00	5.077E+00	9.201E-01	-0.251
		276.40		-6.880E+00	1.415E+01	2.291E+01	3.495E+00	-0.300
		302.85		4.178E-01	5.512E+00	9.201E+00	1.296E+00	0.045
		356.01	*	-2.338E-01	1.828E+00	2.990E+00	3.946E-01	-0.078
		383.85		-5.607E-01	1.192E+01	1.707E+01	2.076E+00	-0.033
I-133		529.87	*	1.536E+00	6.337E+00	1.044E+01	9.043E-01	0.147
		875.33		-7.309E+01	1.396E+02	2.176E+02	2.272E+01	-0.336
		1298.22		-1.577E+02	3.353E+02	5.054E+02	5.229E+01	-0.312
CS-134		563.25		9.111E+00	1.316E+01	2.242E+01	1.927E+00	0.406
		569.33		-8.182E-01	7.414E+00	1.178E+01	1.018E+00	-0.069
		604.72		-2.689E+00	1.794E+00	2.329E+00	1.991E-01	-1.155
		795.86	*	-4.967E-01	1.529E+00	2.460E+00	2.273E-01	-0.202
		801.95		-1.387E+01	2.289E+01	2.502E+01	2.315E+00	-0.555
		1365.19		2.266E+01	3.704E+01	6.766E+01	6.615E+00	0.335
CS-135		268.22	*	-5.367E+00	6.990E+00	9.606E+00	1.092E+00	-0.559
I-135		546.56		2.515E+03	2.659E+03	4.620E+03	5.054E+02	0.544
		836.80		1.223E+03	3.871E+03	5.809E+03	6.912E+02	0.210
		1038.76		-1.553E+03	2.568E+03	3.828E+03	4.660E+02	-0.406
		1131.51		4.182E+02	1.088E+03	1.848E+03	2.142E+02	0.226
		1260.41	*	4.874E+02	8.663E+02	1.498E+03	1.455E+02	0.325
		1457.56		-1.085E+03	3.153E+03	5.042E+03	5.917E+02	-0.215
		1678.03		1.587E+02	2.227E+03	3.727E+03	4.586E+02	0.043
		1791.20		1.735E+03	2.627E+03	4.830E+03	5.222E+02	0.359
CS-136		153.25		5.596E+00	1.655E+01	2.686E+01	2.672E+00	0.208

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		176.60		5.176E+00	1.008E+01	1.642E+01	1.506E+00	0.315
		273.65		3.123E+00	9.910E+00	1.683E+01	1.841E+00	0.186
		340.55		1.300E+00	2.764E+00	4.696E+00	4.529E-01	0.277
		818.51		1.168E+00	1.371E+00	2.451E+00	2.275E-01	0.477
		1048.07	*	5.972E-01	1.917E+00	3.240E+00	3.138E-01	0.184
		1235.36		-3.536E+00	7.584E+00	1.142E+01	1.382E+00	-0.310
BA-137M		661.66	*	6.081E-01	1.322E+00	2.304E+00	1.956E-01	0.264
CS-137		661.66	*	6.424E-01	1.397E+00	2.434E+00	2.070E-01	0.264
CE-139		165.86	*	1.663E-01	1.181E+00	1.889E+00	1.520E-01	0.088
BA-140		162.66		-1.734E+01	2.020E+01	2.594E+01	2.260E+00	-0.668
		304.85		-1.804E+01	2.773E+01	4.343E+01	1.291E+01	-0.415
		423.72		-8.072E+00	3.449E+01	5.509E+01	1.806E+01	-0.147
		537.26	*	1.994E+00	5.280E+00	8.708E+00	2.950E+00	0.229
LA-140		328.76		-1.830E+00	5.663E+00	9.177E+00	9.222E-01	-0.199
		487.02		2.419E+00	2.652E+00	4.597E+00	4.103E-01	0.526
		815.77		-4.232E+00	5.546E+00	8.433E+00	8.615E-01	-0.502
		1596.21	*	7.406E-01	1.576E+00	2.790E+00	2.550E-01	0.265
CE-141		145.44	*	2.060E+00	2.017E+00	3.377E+00	2.883E-01	0.610
CE-143		57.36		-3.620E+01	4.731E+01	7.432E+01	9.228E+00	-0.487
		293.27	*	2.837E+00	6.751E+00	1.146E+01	2.447E+00	0.248
		664.57		2.631E+01	5.740E+01	9.930E+01	2.920E+01	0.265
		721.93		-2.602E+00	6.527E+01	1.089E+02	2.990E+01	-0.024
CE-144		80.12		-4.892E+01	8.241E+01	1.300E+02	1.644E+01	-0.376
		133.52	*	1.778E-01	7.406E+00	1.187E+01	1.814E+00	0.015
PM-144		476.78		-2.198E+00	2.534E+00	3.806E+00	3.468E-01	-0.578
		618.01		-8.243E-01	1.279E+00	1.919E+00	1.683E-01	-0.430
		696.49	*	1.048E-01	1.340E+00	2.262E+00	1.964E-01	0.046
PR-144		696.51	*	6.970E+00	9.957E+01	1.679E+02	1.458E+01	0.042
		1489.16		4.111E+00	6.395E+02	9.203E+02	8.586E+01	0.004
PM-146		453.88	*	2.083E-01	1.496E+00	2.464E+00	2.541E-01	0.085
		633.25		7.413E+00	5.625E+01	9.073E+01	3.463E+01	0.082
		735.93		-4.775E+00	5.324E+00	7.849E+00	2.206E+00	-0.608
		747.24		-1.807E-01	3.365E+00	5.593E+00	8.266E-01	-0.032
ND-147		91.11		-4.256E+00	6.441E+00	8.768E+00	1.167E+00	-0.485
		319.41		-4.243E+01	5.874E+01	9.262E+01	9.069E+00	-0.458
		531.02	*	1.623E+00	9.662E+00	1.580E+01	2.349E+00	0.103
PM-149		285.90	*	-3.793E+01	6.104E+01	9.742E+01	1.612E+01	-0.389
EU-152		121.78		-2.409E+00	2.963E+00	4.526E+00	4.607E-01	-0.532
		244.70		-3.513E+00	1.483E+01	2.154E+01	2.091E+00	-0.163
		344.28	*	-1.247E+00	3.909E+00	6.320E+00	6.156E-01	-0.197
		778.90		2.031E+00	8.847E+00	1.507E+01	1.371E+00	0.135
		964.08		7.517E-01	1.020E+01	1.594E+01	1.521E+00	0.047
	+	1085.87		1.426E+01	1.461E+01	2.202E+01	2.033E+00	0.648
		1112.07		4.997E+00	1.005E+01	1.729E+01	1.578E+00	0.289
		1408.01		-4.781E-01	6.581E+00	1.092E+01	1.026E+00	-0.044
GD-153		69.67		-7.063E+01	6.534E+01	8.798E+01	1.064E+01	-0.803
		97.43	*	-5.057E+00	4.035E+00	5.142E+00	6.021E-01	-0.984
		103.18		-7.823E-01	4.037E+00	6.454E+00	7.033E-01	-0.121
EU-154		123.07		-4.169E-01	2.081E+00	3.304E+00	3.816E-01	-0.126

Sample ID : G1202051903 Acquisition date : 4-MAR-2010 22:20:38

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		723.31		-5.006E+00	6.359E+00	9.903E+00	9.584E-01	-0.505
		873.19		1.614E+00	9.797E+00	1.648E+01	2.069E+00	0.098
		996.26		-4.255E+00	1.132E+01	1.765E+01	3.161E+00	-0.241
		1004.73		-2.801E+00	7.168E+00	1.119E+01	1.374E+00	-0.250
		1274.44	*	-5.862E-01	3.728E+00	5.866E+00	6.946E-01	-0.100
EU-155	+	86.55		4.425E+00	3.575E+00	5.597E+00	7.479E-01	0.791
		105.31	*	-1.080E+00	4.067E+00	6.471E+00	6.932E-01	-0.167
TA-182	+	67.75		3.457E+00	4.187E+00	5.941E+00	7.176E-01	0.582
		100.11		-6.580E+00	7.986E+00	1.040E+01	1.177E+00	-0.633
		152.43		2.420E+00	1.255E+01	2.022E+01	1.670E+00	0.120
		222.11		4.351E+00	1.258E+01	2.156E+01	1.987E+00	0.202
		1121.30		1.804E+00	4.384E+00	7.443E+00	6.766E-01	0.242
		1189.05		-9.048E+00	8.030E+00	9.008E+00	8.021E-01	-1.004
		1221.41	*	-9.108E-01	5.219E+00	8.240E+00	7.440E-01	-0.111
		1231.02		5.324E+00	1.096E+01	1.894E+01	1.717E+00	0.281
IR-192		295.96		1.476E+00	3.726E+00	6.330E+00	6.493E-01	0.233
		308.46		4.519E+00	3.666E+00	6.457E+00	6.479E-01	0.700
		316.51	*	4.416E-01	1.266E+00	2.142E+00	2.113E-01	0.206
		468.07		5.781E-01	2.225E+00	3.689E+00	3.309E-01	0.157
HG-203		70.83		3.526E+01	3.871E+01	6.256E+01	1.137E+01	0.564
		72.87		1.269E+01	2.186E+01	3.652E+01	6.486E+00	0.347
		279.20	*	7.004E-02	1.270E+00	2.126E+00	2.259E-01	0.033
BI-207		72.81		3.462E+00	6.119E+00	1.024E+01	1.248E+00	0.338
		74.97		-4.113E+00	4.206E+00	5.896E+00	7.241E-01	-0.698
		569.70		1.575E-02	1.167E+00	1.876E+00	1.598E-01	0.008
		1063.66	*	7.702E-01	1.894E+00	3.228E+00	3.004E-01	0.239
		1770.23		-7.990E+00	2.168E+01	3.372E+01	2.898E+00	-0.237
TL-208		277.37		7.705E-02	1.484E+01	2.477E+01	3.423E+00	0.003
		583.19	*	4.934E-01	1.991E+00	2.717E+00	2.483E-01	0.182
		860.56		7.956E+00	1.101E+01	1.935E+01	1.942E+00	0.411
PB-210		46.54	*	-1.225E+02	1.590E+02	2.117E+02	2.274E+01	-0.579
BI-211		72.87		6.193E+01	5.210E+02	1.783E+02	1.468E+03	0.347
		351.06	*	-1.040E+00	1.427E+01	1.510E+01	1.244E+02	-0.069
PB-211		404.85	*	-6.147E+00	5.816E+01	4.590E+01	3.786E+02	-0.134
		427.09		-8.420E+00	8.907E+01	8.993E+01	7.418E+02	-0.094
		832.01		8.736E+00	7.991E+01	5.865E+01	4.840E+02	0.149
BI-212		727.33	*	-2.180E+00	2.475E+01	3.080E+01	3.886E+00	-0.071
		785.37		6.044E+01	1.007E+02	1.775E+02	1.620E+01	0.341
		1620.50		3.787E+01	8.064E+01	1.439E+02	1.306E+01	0.263
PB-212		74.82		-1.545E+01	1.473E+01	2.041E+01	3.197E+00	-0.757
		77.11		-1.427E+00	8.484E+00	1.183E+01	1.469E+00	-0.121
		238.63	*	-4.591E-01	3.535E+00	4.899E+00	5.202E-01	-0.094
		300.09		-4.800E+00	3.036E+01	4.998E+01	5.903E+00	-0.096
BI-214		609.32	*	-6.114E-02	4.094E+00	5.830E+00	5.847E-01	-0.010
		1120.29		7.808E+00	9.549E+00	1.690E+01	1.909E+00	0.462
		1764.49		5.485E+00	1.193E+01	1.888E+01	1.627E+00	0.291
PB-214		74.82		-2.732E+01	2.600E+01	3.610E+01	5.276E+00	-0.757
		77.11		-2.511E+00	1.493E+01	2.082E+01	3.103E+00	-0.121
		242.00		-3.572E+01	1.589E+01	2.293E+01	2.580E+00	-1.558

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		295.22		2.197E+00	5.518E+00	9.379E+00	1.136E+00	0.234
		351.93	*	4.127E-01	4.126E+00	5.512E+00	6.056E-01	0.075
RN-219		271.23		4.140E+00	3.527E+01	1.548E+01	1.275E+02	0.267
		401.81	*	-5.728E+00	4.967E+01	2.478E+01	2.041E+02	-0.231
RA-223		81.07		-2.720E+00	2.354E+01	1.156E+01	9.518E+01	-0.235
		83.79		-5.028E+00	4.184E+01	7.092E+00	5.841E+01	-0.709
		94.56		-1.734E+01	1.435E+02	2.170E+01	1.787E+02	-0.799
		144.24		-1.939E+01	1.647E+02	4.803E+01	3.956E+02	-0.404
		154.21		1.906E+01	1.577E+02	2.555E+01	2.104E+02	0.746
		269.46		-8.177E-01	9.646E+00	1.146E+01	9.440E+01	-0.071
		323.87	*	5.104E+00	4.964E+01	4.424E+01	3.644E+02	0.115
		338.28		2.408E+01	2.019E+02	6.486E+01	5.342E+02	0.371
RA-224		240.99	*	-4.371E+01	2.791E+01	4.293E+01	4.132E+00	-1.018
RA-226		186.21	*	-1.399E+01	4.083E+01	6.101E+01	4.111E+01	-0.229
AC-227		79.69		-5.475E+01	4.438E+01	6.580E+01	1.286E+01	-0.832
		235.96		-1.342E+01	6.423E+00	9.420E+00	1.046E+00	-1.424
		256.23	*	1.875E-01	9.604E+00	1.610E+01	2.100E+00	0.012
		299.98		-6.095E+00	3.315E+01	5.449E+01	7.509E+00	-0.112
		304.50		-4.643E+01	6.767E+01	1.071E+02	1.856E+01	-0.434
		329.85		-1.029E+01	2.586E+01	4.167E+01	5.202E+00	-0.247
		334.37		-4.513E+01	6.834E+01	1.077E+02	1.731E+01	-0.419
TH-227		79.69		-5.475E+01	4.531E+02	6.580E+01	5.420E+02	-0.832
		235.96		-1.342E+01	1.107E+02	9.420E+00	7.758E+01	-1.424
		256.23	*	1.875E-01	9.727E+00	1.610E+01	1.326E+02	0.012
		299.98		-6.095E+00	6.015E+01	5.449E+01	4.488E+02	-0.112
		304.50		-4.643E+01	3.883E+02	1.071E+02	8.822E+02	-0.434
		329.85		-1.029E+01	8.856E+01	4.167E+01	3.432E+02	-0.247
		334.37		-4.513E+01	3.778E+02	1.077E+02	8.867E+02	-0.419
AC-228		338.32		5.977E+00	9.849E+00	1.634E+01	6.842E+00	0.366
		911.20	*	1.612E+00	6.687E+00	8.972E+00	1.107E+00	0.180
		968.97		-1.203E+01	1.209E+01	1.404E+01	3.469E+00	-0.857
RA-228		338.32		5.977E+00	9.849E+00	1.634E+01	6.842E+00	0.366
		911.20	*	1.612E+00	6.687E+00	8.972E+00	1.107E+00	0.180
		968.97		-1.203E+01	1.209E+01	1.404E+01	3.469E+00	-0.857
TH-228		74.82		-1.545E+01	1.465E+01	2.041E+01	2.516E+00	-0.757
		77.11		-1.427E+00	8.484E+00	1.183E+01	1.469E+00	-0.121
		238.63	*	-4.591E-01	3.535E+00	4.899E+00	5.202E-01	-0.094
		300.09		-4.800E+00	3.049E+01	4.998E+01	3.071E+01	-0.096
TH-229		85.43		-7.427E+00	9.771E+00	1.160E+01	1.528E+00	-0.640
	+	88.47		5.655E+00	4.569E+00	7.243E+00	9.685E-01	0.781
		193.51	*	4.373E+00	1.983E+01	3.397E+01	2.922E+00	0.129
		210.85		1.399E+01	3.132E+01	5.407E+01	4.852E+00	0.259
PA-231		283.69	*	3.045E+01	5.867E+01	1.003E+02	1.575E+01	0.303
		301.36		5.111E+00	1.871E+01	3.158E+01	3.973E+00	0.162
		330.06		-2.837E+01	7.438E+01	1.193E+02	3.596E+01	-0.238
TH-231		84.21	*	-1.554E+01	2.204E+01	2.608E+01	5.214E+00	-0.596
TH-232		63.81	*	1.671E+02	1.642E+03	1.418E+03	1.091E+04	0.118
		140.88		-5.733E+03	5.865E+03	7.260E+03	6.142E+02	-0.790
PA-233		94.65		-1.818E+01	1.162E+01	1.727E+01	2.117E+00	-1.052

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		98.43		-5.623E+00	6.736E+00	8.829E+00	1.051E+00	-0.637
		300.13		-2.046E+00	1.510E+01	2.490E+01	3.924E+00	-0.082
		311.90	*	-1.473E+00	2.726E+00	4.371E+00	4.436E-01	-0.337
		340.48		1.127E+01	2.367E+01	4.000E+01	9.736E+00	0.282
PA-234		94.67		-1.282E+01	7.889E+00	1.154E+01	1.740E+00	-1.111
		98.44		-3.725E+00	4.929E+00	5.877E+00	3.310E+00	-0.634
		111.00		6.041E-01	7.913E+00	1.281E+01	1.677E+00	0.047
		131.20		1.055E+00	4.026E+00	6.546E+00	5.670E-01	0.161
		569.50		-9.962E-01	1.035E+01	1.648E+01	1.403E+00	-0.060
		733.00		3.738E+00	1.310E+01	2.244E+01	5.003E+00	0.167
		880.51		2.203E-01	9.914E+00	1.643E+01	1.567E+00	0.013
		883.24		6.997E+00	1.133E+01	1.819E+01	1.225E+01	0.385
		926.36		2.760E+00	5.841E+00	1.007E+01	2.579E+00	0.274
		946.00	*	1.515E+01	1.161E+01	2.090E+01	4.016E+00	0.725
		949.00		-1.731E+01	1.729E+01	2.534E+01	2.424E+00	-0.683
PA-234M	+	766.42		7.995E+02	7.142E+02	6.923E+02	3.518E+02	1.155
		1001.03	*	4.732E+01	1.522E+02	2.581E+02	2.766E+01	0.183
TH-234		63.29	*	4.356E+01	7.193E+01	1.009E+02	2.047E+01	0.432
		92.59		-8.196E+01	4.222E+01	5.828E+01	1.392E+01	-1.406
U-235		89.96		-3.054E+02	9.517E+01	4.820E+01	1.277E+01	-6.336
		93.35		-5.198E+01	3.080E+01	4.408E+01	1.091E+01	-1.179
		143.76	*	-5.920E+00	1.209E+01	1.422E+01	2.396E+00	-0.416
		163.33		-2.721E+01	2.290E+01	2.829E+01	5.008E+00	-0.962
		185.72		-3.053E-01	2.519E+00	3.909E+00	3.299E-01	-0.078
		205.31		-1.574E+01	2.406E+01	3.195E+01	5.834E+00	-0.492
U-238		63.29	*	4.356E+01	7.193E+01	1.009E+02	2.047E+01	0.432
		92.59		-8.196E+01	3.879E+01	5.828E+01	7.304E+00	-1.406
NP-239		99.53		-4.363E+00	7.973E+00	1.062E+01	1.210E+00	-0.411
		103.37		-4.448E-02	3.757E+00	6.068E+00	6.598E-01	-0.007
		106.12		2.536E-02	3.299E+00	5.330E+00	5.614E-01	0.005
		116.74	*	-6.707E+00	1.086E+01	1.685E+01	1.584E+00	-0.398
		228.18		-2.686E+00	8.373E+00	1.385E+01	1.295E+00	-0.194
		277.60		2.199E-01	6.830E+00	1.142E+01	1.189E+00	0.019
AM-241		59.54	*	4.166E-01	5.119E+00	8.453E+00	1.093E+00	0.049
CM-247		278.00		8.371E+00	2.892E+01	4.902E+01	5.108E+00	0.171
		287.50		7.135E+00	4.849E+01	8.148E+01	8.419E+00	0.088
		402.40	*	-3.145E-02	1.433E+00	2.343E+00	1.889E-01	-0.013
CF-249		252.80		-1.587E+00	4.216E+01	6.206E+01	6.133E+00	-0.026
		333.37		-8.810E-01	7.005E+00	1.149E+01	1.093E+00	-0.077
		388.16	*	2.745E-02	1.423E+00	2.339E+00	1.899E-01	0.012
CF-251		177.52	*	6.710E-02	5.295E+00	8.384E+00	6.935E-01	0.008
		227.38		4.010E+00	1.362E+01	2.327E+01	2.171E+00	0.172
		285.41		-2.991E+01	8.859E+01	1.447E+02	1.499E+01	-0.207
ANH-511		511.00	*	-4.707E+00	3.228E+00	4.741E+00	3.998E-01	-0.993

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051903     *
* Acquisition date :  4-MAR-2010 22:20:38 Detector SN#    :                 *
* Detector ID       : GAM20               Sensitivity     : 3.000           *
* Geometry          : 2LMB                Energy tolerance: 1.500           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:01:36.63     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  3-MAR-2010 00:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G1202051903          Analyst initials: KXG3           *
* Batch Number      : 956976               Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-JUL-2009 16:37:21 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
MN-54	2.530E+00	2.576E+00	1.976E+00	0.000E+00
CD-109	3.680E+01	2.913E+01	4.745E+01	0.000E+00
SN-126	3.668E+00	2.904E+00	4.622E+00	0.000E+00
NP-237	1.095E+01	8.953E+00	1.394E+01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	-7.180E+00	1.050E+01	1.639E+01	0.000E+00	NOT IDENT.
NA-22	8.114E-02	1.238E+00	2.056E+00	0.000E+00	NOT IDENT.
NA-24	-1.882E-01	1.210E+01	2.068E+01	0.000E+00	NOT IDENT.
K-40	2.048E+00	2.279E+01	2.955E+01	0.000E+00	NOT IDENT.
SC-46	-1.626E-01	1.230E+00	2.045E+00	0.000E+00	NOT IDENT.
V-48	-1.932E-02	1.294E+00	2.163E+00	0.000E+00	NOT IDENT.
CR-51	-6.971E+00	1.074E+01	1.740E+01	0.000E+00	NOT IDENT.
CO-56	-2.111E-01	1.315E+00	2.190E+00	0.000E+00	NOT IDENT.
CO-57	-7.772E-01	9.728E-01	1.520E+00	0.000E+00	NOT IDENT.
CO-58	2.268E-01	1.080E+00	1.873E+00	0.000E+00	NOT IDENT.
FE-59	-1.219E+00	2.432E+00	3.790E+00	0.000E+00	NOT IDENT.
CO-60	3.366E-01	1.381E+00	2.339E+00	0.000E+00	NOT IDENT.
ZN-65	-9.981E-01	2.647E+00	4.189E+00	0.000E+00	NOT IDENT.
SE-75	1.619E+00	1.413E+00	2.876E+00	0.000E+00	FAIL ABUN
SR-85	-1.027E+01	2.497E+00	3.104E+00	0.000E+00	NOT IDENT.
Y-88	-4.377E-04	1.135E+00	1.902E+00	0.000E+00	NOT IDENT.
Y-91	1.599E+02	6.339E+02	9.429E+02	0.000E+00	NOT IDENT.
NB-94	-6.512E-01	1.213E+00	1.981E+00	0.000E+00	NOT IDENT.
NB-95	7.037E-01	1.439E+00	2.255E+00	0.000E+00	NOT IDENT.
NB-95M	-1.114E+01	4.597E+00	6.729E+00	0.000E+00	NOT IDENT.
ZR-95	-2.067E-01	2.182E+00	3.685E+00	0.000E+00	NOT IDENT.
MO-99	1.249E+00	1.543E+01	2.651E+01	0.000E+00	NOT IDENT.
TC-99M	-3.136E+02	3.722E+02	4.759E+02	0.000E+00	NOT IDENT.

RU-103	-5.710E-01	1.207E+00	1.911E+00	0.000E+00	NOT IDENT.
RH-106	2.489E+00	1.174E+01	1.950E+01	0.000E+00	NOT IDENT.
RU-106	2.489E+00	1.174E+01	1.950E+01	0.000E+00	NOT IDENT.
AG-108M	5.956E-01	1.135E+00	1.960E+00	0.000E+00	NOT IDENT.
AG-110M	-4.936E-01	1.157E+00	1.913E+00	0.000E+00	NOT IDENT.
SN-113	2.934E-01	1.524E+00	2.587E+00	0.000E+00	NOT IDENT.
CD-115	2.263E+00	7.220E+00	1.220E+01	0.000E+00	NOT IDENT.
SN-117M	1.749E-01	1.139E+00	1.863E+00	0.000E+00	NOT IDENT.
TE-123M	1.011E+00	1.055E+00	1.796E+00	0.000E+00	NOT IDENT.
SB-124	1.874E+00	2.455E+00	4.656E+00	0.000E+00	NOT IDENT.
SB-125	-1.484E+00	3.390E+00	5.453E+00	0.000E+00	NOT IDENT.
TE-125M	-3.558E+00	3.414E+02	5.617E+02	0.000E+00	NOT IDENT.
I-126	-1.666E+00	3.887E+00	6.432E+00	0.000E+00	NOT IDENT.
SB-126	2.321E+00	2.552E+00	4.658E+00	0.000E+00	NOT IDENT.
SB-127	6.036E-01	4.031E+00	7.001E+00	0.000E+00	NOT IDENT.
I-131	-2.522E-01	1.483E+00	2.463E+00	0.000E+00	NOT IDENT.
TE-132	-2.604E-01	1.609E+00	2.739E+00	0.000E+00	NOT IDENT.
BA-133	-2.338E-01	1.791E+00	2.990E+00	0.000E+00	NOT IDENT.
I-133	1.536E+00	6.210E+00	1.044E+01	0.000E+00	NOT IDENT.
CS-134	-4.967E-01	1.498E+00	2.460E+00	0.000E+00	NOT IDENT.
CS-135	-5.367E+00	6.850E+00	9.606E+00	0.000E+00	NOT IDENT.
I-135	4.874E+02	8.490E+02	1.498E+03	0.000E+00	NOT IDENT.
CS-136	5.972E-01	1.879E+00	3.240E+00	0.000E+00	NOT IDENT.
BA-137M	6.081E-01	1.296E+00	2.304E+00	0.000E+00	NOT IDENT.
CS-137	6.424E-01	1.369E+00	2.434E+00	0.000E+00	NOT IDENT.
CE-139	1.663E-01	1.157E+00	1.889E+00	0.000E+00	NOT IDENT.
BA-140	1.994E+00	5.175E+00	8.708E+00	0.000E+00	NOT IDENT.
LA-140	7.406E-01	1.545E+00	2.790E+00	0.000E+00	NOT IDENT.
CE-141	2.060E+00	1.977E+00	3.377E+00	0.000E+00	NOT IDENT.
CE-143	2.837E+00	6.616E+00	1.146E+01	0.000E+00	NOT IDENT.
CE-144	1.778E-01	7.257E+00	1.187E+01	0.000E+00	NOT IDENT.
PM-144	1.048E-01	1.314E+00	2.262E+00	0.000E+00	NOT IDENT.
PR-144	6.970E+00	9.758E+01	1.679E+02	0.000E+00	NOT IDENT.
PM-146	2.083E-01	1.467E+00	2.464E+00	0.000E+00	NOT IDENT.
ND-147	1.623E+00	9.469E+00	1.580E+01	0.000E+00	NOT IDENT.
PM-149	-3.793E+01	5.981E+01	9.742E+01	0.000E+00	NOT IDENT.
EU-152	-1.247E+00	3.831E+00	6.320E+00	0.000E+00	FAIL ABUN
GD-153	-5.057E+00	3.954E+00	5.142E+00	0.000E+00	NOT IDENT.
EU-154	-5.862E-01	3.654E+00	5.866E+00	0.000E+00	NOT IDENT.
EU-155	-1.080E+00	3.985E+00	6.471E+00	0.000E+00	FAIL ABUN
TA-182	-9.108E-01	5.115E+00	8.240E+00	0.000E+00	FAIL ABUN
IR-192	4.416E-01	1.241E+00	2.142E+00	0.000E+00	NOT IDENT.
HG-203	7.004E-02	1.245E+00	2.126E+00	0.000E+00	NOT IDENT.
BI-207	7.702E-01	1.856E+00	3.228E+00	0.000E+00	NOT IDENT.
TL-208	4.934E-01	1.952E+00	2.717E+00	0.000E+00	NOT IDENT.
PB-210	-1.225E+02	1.558E+02	2.117E+02	0.000E+00	NOT IDENT.
BI-211	-1.040E+00	1.399E+01	1.510E+01	0.000E+00	NOT IDENT.
PB-211	-6.147E+00	5.699E+01	4.590E+01	0.000E+00	NOT IDENT.
BI-212	-2.180E+00	2.426E+01	3.080E+01	0.000E+00	NOT IDENT.
PB-212	-4.591E-01	3.464E+00	4.899E+00	0.000E+00	NOT IDENT.
BI-214	-6.114E-02	4.013E+00	5.830E+00	0.000E+00	NOT IDENT.
PB-214	4.127E-01	4.044E+00	5.512E+00	0.000E+00	NOT IDENT.
RN-219	-5.728E+00	4.868E+01	2.478E+01	0.000E+00	NOT IDENT.
RA-223	5.104E+00	4.865E+01	4.424E+01	0.000E+00	NOT IDENT.
RA-224	-4.371E+01	2.735E+01	4.293E+01	0.000E+00	NOT IDENT.
RA-226	-1.399E+01	4.001E+01	6.101E+01	0.000E+00	NOT IDENT.
AC-227	1.875E-01	9.412E+00	1.610E+01	0.000E+00	NOT IDENT.
TH-227	1.875E-01	9.533E+00	1.610E+01	0.000E+00	NOT IDENT.
AC-228	1.612E+00	6.554E+00	8.972E+00	0.000E+00	NOT IDENT.
RA-228	1.612E+00	6.554E+00	8.972E+00	0.000E+00	NOT IDENT.
TH-228	-4.591E-01	3.464E+00	4.899E+00	0.000E+00	NOT IDENT.
TH-229	4.373E+00	1.944E+01	3.397E+01	0.000E+00	FAIL ABUN
PA-231	3.045E+01	5.750E+01	1.003E+02	0.000E+00	NOT IDENT.
TH-231	-1.554E+01	2.160E+01	2.608E+01	0.000E+00	NOT IDENT.
TH-232	1.671E+02	1.610E+03	1.418E+03	0.000E+00	NOT IDENT.
PA-233	-1.473E+00	2.672E+00	4.371E+00	0.000E+00	NOT IDENT.
PA-234	1.515E+01	1.137E+01	2.090E+01	0.000E+00	NOT IDENT.
PA-234M	4.732E+01	1.491E+02	2.581E+02	0.000E+00	FAIL ABUN
TH-234	4.356E+01	7.049E+01	1.009E+02	0.000E+00	NOT IDENT.
U-235	-5.920E+00	1.185E+01	1.422E+01	0.000E+00	NOT IDENT.
U-238	4.356E+01	7.049E+01	1.009E+02	0.000E+00	NOT IDENT.
NP-239	-6.707E+00	1.064E+01	1.685E+01	0.000E+00	NOT IDENT.
AM-241	4.166E-01	5.016E+00	8.453E+00	0.000E+00	NOT IDENT.
CM-247	-3.145E-02	1.404E+00	2.343E+00	0.000E+00	NOT IDENT.
CF-249	2.745E-02	1.395E+00	2.339E+00	0.000E+00	NOT IDENT.
CF-251	6.710E-02	5.189E+00	8.384E+00	0.000E+00	NOT IDENT.
ANH-511	-4.707E+00	3.163E+00	4.741E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 9-MAR-2010 14:11:21.58

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051903.CNF;1
Sample date       : 3-MAR-2010 00:00:00. Acquisition date : 4-MAR-2010 22:20:38.
Sample ID         : G1202051903          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM20                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:01:36.63  0.4%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 3.00000
Batch ID          : 956976               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.39	91	245	1.19	92.81	89	8	4.19E-03	31.9	
2	0	63.28	191	325	0.91	126.55	123	9	8.86E-03	18.4	
3	0	66.90	40	214	1.33	133.78	131	6	1.85E-03	60.3	
4	0	87.46	56	179	1.27	174.82	172	6	2.61E-03	39.8	
5	0	92.91	262	439	1.01	185.70	181	11	1.21E-02	16.8	
6	0	98.90	61	190	1.33	197.67	194	8	2.83E-03	41.0	
7	0	143.92	58	211	0.80	287.58	284	8	2.68E-03	45.3	
8	0	185.70	200	353	1.26	371.02	366	13	9.26E-03	20.6	
9	0	238.57	140	215	1.49	476.62	470	11	6.50E-03	21.9	
10	0	248.94	42	127	1.91	497.35	494	8	1.94E-03	49.0	
11	0	264.18	33	78	1.42	527.78	526	5	1.50E-03	44.3	
12	0	379.48	48	133	1.73	758.14	752	13	2.20E-03	52.1	
13	0	511.27	533	175	2.14	1021.49	1013	20	2.47E-02	7.5	
14	0	609.90	59	114	0.84	1218.64	1212	13	2.75E-03	39.6	
15	0	767.91	44	43	4.21	1534.51	1528	15	2.02E-03	36.7	
16	0	834.49	40	65	7.36	1667.66	1656	20	1.86E-03	51.7	
17	0	972.18	21	35	4.33	1943.05	1936	12	9.67E-04	61.3	
18	0	1016.78	26	32	0.73	2032.26	2024	15	1.19E-03	52.7	
19	0	1086.48	19	19	3.17	2171.70	2165	11	8.66E-04	51.0	
20	0	1209.79	37	27	6.21	2418.44	2407	19	1.73E-03	37.8	
21	0	1461.25	24	19	2.24	2921.78	2917	10	1.10E-03	40.7	
22	0	1487.26	18	12	4.48	2973.85	2967	12	8.43E-04	44.6	
23	0	1872.33	10	4	1.93	3745.13	3739	10	4.50E-04	53.0	
24	0	1897.50	18	0	4.59	3795.56	3789	13	8.33E-04	23.6	

VAX/VMS Nuclide Identification Report Generated 9-MAR-2010 14:11:25.08

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051903.CNF;1
Sample date       : 3-MAR-2010 00:00:00. Acquisition date : 4-MAR-2010 22:20:38.
Sample ID         : G1202051903          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM20                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:01:36.63  0.4%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 3.00000
Batch ID         : 956976                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
MN-54	834.85	40	99.98*	9.959E-01	2.518E+00	2.530E+00	103.91
CD-109	88.03	56	3.70*	2.595E+00	3.668E+01	3.680E+01	80.79
SN-126	64.28	------	9.60	1.629E+00	------ Line Not Found		------
	86.94	56	8.90	2.595E+00	1.525E+01	1.525E+01	90.35
	87.57	56	37.00*	2.595E+00	3.668E+00	3.668E+00	80.79
NP-237	86.48	56	12.40*	2.595E+00	1.095E+01	1.095E+01	83.46
	95.86	------	2.68	2.763E+00	------ Line Not Found		------

Flag: "*" = Keyline

Sample ID : G1202051903 Acquisition date : 4-MAR-2010 22:20:38

Total number of lines in spectrum	14	
Number of unidentified lines	8	
Number of lines tentatively identified by NID	6	42.86%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
MN-54	312.05D	1.00	2.518E+00	2.530E+00	2.628E+00	103.91	
CD-109	461.40D	1.00	3.668E+01	3.680E+01	2.973E+01	80.79	
SN-126	2.30E+05Y	1.00	3.668E+00	3.668E+00	2.963E+00	80.79	
NP-237	2.14E+06Y	1.00	1.095E+01	1.095E+01	0.914E+01	83.46	
		Total Activity :	5.381E+01	5.394E+01			
		Grand Total Activity :	5.381E+01	5.394E+01			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202051903 Acquisition date : 4-MAR-2010 22:20:38

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	66.90	40	214	1.33	133.78	131	6	1.85E-03	****	1.78E+00	T
0	248.94	42	127	1.91	497.35	494	8	1.94E-03	98.0	2.23E+00	
0	264.18	33	78	1.42	527.78	526	5	1.50E-03	88.5	2.16E+00	T
0	379.48	48	133	1.73	758.14	752	13	2.20E-03	****	1.74E+00	
0	767.91	44	43	4.21	1534.51	1528	15	2.02E-03	73.5	1.06E+00	T
0	972.18	21	35	4.33	1943.05	1936	12	9.67E-04	****	8.78E-01	
0	1016.78	26	32	0.73	2032.26	2024	15	1.19E-03	****	8.46E-01	
0	1086.48	19	19	3.17	2171.70	2165	11	8.66E-04	****	8.01E-01	T
0	1209.79	37	27	6.21	2418.44	2407	19	1.73E-03	75.6	7.34E-01	
0	1487.26	18	12	4.48	2973.85	2967	12	8.43E-04	89.3	6.30E-01	
0	1872.33	10	4	1.93	3745.13	3739	10	4.50E-04	****	5.61E-01	
0	1897.50	18	0	4.59	3795.56	3789	13	8.33E-04	47.1	5.59E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 9-MAR-2010 14:11:29.80

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051903.CNF;1 *
* Acquisition date : 4-MAR-2010 22:20:38.  Detector SN#    :                *
* Detector ID      : GAM20                 Sensitivity     : 3.00000        *
* Geometry         : 2LMB                  Energy tolerance: 1.50000        *
* Elapsed live time: 0 06:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 06:01:36.63         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 3-MAR-2010 00:00:00.  Nuclide Library : LIQUID         *
* Sample ID        : G1202051903           Analyst initials: KXG3           *
* Batch Number     : 956976                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 6-JUL-2009 16:37:21.51MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
MN-54	2.530E+00	2.628E+00	1.976E+00	1.848E-01	1.280
CD-109	3.680E+01	2.973E+01	4.745E+01	6.392E+00	0.775
SN-126	3.668E+00	2.963E+00	4.622E+00	6.205E-01	0.794
NP-237	1.095E+01	9.135E+00	1.394E+01	3.462E+00	0.785

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	-7.180E+00		1.072E+01	1.639E+01	1.481E+00	-0.438
NA-22	8.114E-02		1.263E+00	2.056E+00	1.897E-01	0.039
NA-24	-1.882E-01		1.235E+01	2.068E+01	1.963E+00	-0.009
K-40	2.048E+00		2.326E+01	2.955E+01	2.833E+00	0.069
SC-46	-1.626E-01		1.255E+00	2.045E+00	1.957E-01	-0.080
V-48	-1.932E-02		1.320E+00	2.163E+00	2.057E-01	-0.009
CR-51	-6.971E+00		1.096E+01	1.740E+01	1.771E+00	-0.401
CO-56	-2.111E-01		1.342E+00	2.190E+00	2.060E-01	-0.096

Sample ID : G1202051903 Acquisition date : 4-MAR-2010 22:20:38

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-57	-7.772E-01		9.927E-01	1.520E+00	1.355E-01	-0.511
CO-58	2.268E-01		1.103E+00	1.873E+00	1.735E-01	0.121
FE-59	-1.219E+00		2.481E+00	3.790E+00	3.729E-01	-0.322
CO-60	3.366E-01		1.409E+00	2.339E+00	2.200E-01	0.144
ZN-65	-9.981E-01		2.701E+00	4.189E+00	3.822E-01	-0.238
SE-75	1.619E+00	+	1.442E+00	2.876E+00	2.925E-01	0.563
SR-85	-1.027E+01		2.548E+00	3.104E+00	2.620E-01	-3.309
Y-88	-4.377E-04		1.158E+00	1.902E+00	1.584E-01	0.000
Y-91	1.599E+02		6.469E+02	9.429E+02	8.453E+01	0.170
NB-94	-6.512E-01		1.237E+00	1.981E+00	1.726E-01	-0.329
NB-95	7.037E-01		1.469E+00	2.255E+00	2.037E-01	0.312
NB-95M	-1.114E+01		4.691E+00	6.729E+00	7.181E-01	-1.655
ZR-95	-2.067E-01		2.227E+00	3.685E+00	3.633E-01	-0.056
MO-99	1.249E+00		1.574E+01	2.651E+01	4.218E+00	0.047
TC-99M	-3.136E+02		3.797E+02	4.759E+02	4.414E+01	-0.659
RU-103	-5.710E-01		1.232E+00	1.911E+00	2.643E-01	-0.299
RH-106	2.489E+00		1.198E+01	1.950E+01	2.573E+00	0.128
RU-106	2.489E+00		1.198E+01	1.950E+01	1.662E+00	0.128
AG-108M	5.956E-01		1.158E+00	1.960E+00	1.665E-01	0.304
AG-110M	-4.936E-01		1.180E+00	1.913E+00	1.675E-01	-0.258
SN-113	2.934E-01		1.556E+00	2.587E+00	2.146E-01	0.113
CD-115	2.263E+00		7.368E+00	1.220E+01	1.033E+00	0.185
SN-117M	1.749E-01		1.162E+00	1.863E+00	1.520E-01	0.094
TE-123M	1.011E+00		1.076E+00	1.796E+00	1.475E-01	0.563
SB-124	1.874E+00		2.505E+00	4.656E+00	4.296E-01	0.403
SB-125	-1.484E+00		3.459E+00	5.453E+00	4.552E-01	-0.272
TE-125M	-3.558E+00		3.484E+02	5.617E+02	6.611E+01	-0.006
I-126	-1.666E+00		3.966E+00	6.432E+00	5.477E-01	-0.259
SB-126	2.321E+00		2.604E+00	4.658E+00	4.104E-01	0.498
SB-127	6.036E-01		4.113E+00	7.001E+00	6.262E-01	0.086
I-131	-2.522E-01		1.513E+00	2.463E+00	2.260E-01	-0.102
TE-132	-2.604E-01		1.641E+00	2.739E+00	4.038E-01	-0.095
BA-133	-2.338E-01		1.828E+00	2.990E+00	3.946E-01	-0.078
I-133	1.536E+00		6.337E+00	1.044E+01	9.043E-01	0.147
CS-134	-4.967E-01		1.529E+00	2.460E+00	2.273E-01	-0.202
CS-135	-5.367E+00		6.990E+00	9.606E+00	1.092E+00	-0.559
I-135	4.874E+02		8.663E+02	1.498E+03	1.455E+02	0.325
CS-136	5.972E-01		1.917E+00	3.240E+00	3.138E-01	0.184
BA-137M	6.081E-01		1.322E+00	2.304E+00	1.956E-01	0.264
CS-137	6.424E-01		1.397E+00	2.434E+00	2.070E-01	0.264
CE-139	1.663E-01		1.181E+00	1.889E+00	1.520E-01	0.088
BA-140	1.994E+00		5.280E+00	8.708E+00	2.950E+00	0.229
LA-140	7.406E-01		1.576E+00	2.790E+00	2.550E-01	0.265
CE-141	2.060E+00		2.017E+00	3.377E+00	2.883E-01	0.610
CE-143	2.837E+00		6.751E+00	1.146E+01	2.447E+00	0.248
CE-144	1.778E-01		7.406E+00	1.187E+01	1.814E+00	0.015
PM-144	1.048E-01		1.340E+00	2.262E+00	1.964E-01	0.046
PR-144	6.970E+00		9.957E+01	1.679E+02	1.458E+01	0.042

Sample ID : G1202051903 Acquisition date : 4-MAR-2010 22:20:38

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PM-146	2.083E-01		1.496E+00	2.464E+00	2.541E-01	0.085
ND-147	1.623E+00		9.662E+00	1.580E+01	2.349E+00	0.103
PM-149	-3.793E+01		6.104E+01	9.742E+01	1.612E+01	-0.389
EU-152	-1.247E+00		3.909E+00	6.320E+00	6.156E-01	-0.197
GD-153	-5.057E+00		4.035E+00	5.142E+00	6.021E-01	-0.984
EU-154	-5.862E-01		3.728E+00	5.866E+00	6.946E-01	-0.100
EU-155	-1.080E+00		4.067E+00	6.471E+00	6.932E-01	-0.167
TA-182	-9.108E-01		5.219E+00	8.240E+00	7.440E-01	-0.111
IR-192	4.416E-01		1.266E+00	2.142E+00	2.113E-01	0.206
HG-203	7.004E-02		1.270E+00	2.126E+00	2.259E-01	0.033
BI-207	7.702E-01		1.894E+00	3.228E+00	3.004E-01	0.239
TL-208	4.934E-01		1.991E+00	2.717E+00	2.483E-01	0.182
PB-210	-1.225E+02		1.590E+02	2.117E+02	2.274E+01	-0.579
BI-211	-1.040E+00		1.427E+01	1.510E+01	1.244E+02	-0.069
PB-211	-6.147E+00		5.816E+01	4.590E+01	3.786E+02	-0.134
BI-212	-2.180E+00		2.475E+01	3.080E+01	3.886E+00	-0.071
PB-212	-4.591E-01		3.535E+00	4.899E+00	5.202E-01	-0.094
BI-214	-6.114E-02		4.094E+00	5.830E+00	5.847E-01	-0.010
PB-214	4.127E-01		4.126E+00	5.512E+00	6.056E-01	0.075
RN-219	-5.728E+00		4.967E+01	2.478E+01	2.041E+02	-0.231
RA-223	5.104E+00		4.964E+01	4.424E+01	3.644E+02	0.115
RA-224	-4.371E+01		2.791E+01	4.293E+01	4.132E+00	-1.018
RA-226	-1.399E+01		4.083E+01	6.101E+01	4.111E+01	-0.229
AC-227	1.875E-01		9.604E+00	1.610E+01	2.100E+00	0.012
TH-227	1.875E-01		9.727E+00	1.610E+01	1.326E+02	0.012
AC-228	1.612E+00		6.687E+00	8.972E+00	1.107E+00	0.180
RA-228	1.612E+00		6.687E+00	8.972E+00	1.107E+00	0.180
TH-228	-4.591E-01		3.535E+00	4.899E+00	5.202E-01	-0.094
TH-229	4.373E+00		1.983E+01	3.397E+01	2.922E+00	0.129
PA-231	3.045E+01		5.867E+01	1.003E+02	1.575E+01	0.303
TH-231	-1.554E+01		2.204E+01	2.608E+01	5.214E+00	-0.596
TH-232	1.671E+02		1.642E+03	1.418E+03	1.091E+04	0.118
PA-233	-1.473E+00		2.726E+00	4.371E+00	4.436E-01	-0.337
PA-234	1.515E+01		1.161E+01	2.090E+01	4.016E+00	0.725
PA-234M	4.732E+01		1.522E+02	2.581E+02	2.766E+01	0.183
TH-234	4.356E+01		7.193E+01	1.009E+02	2.047E+01	0.432
U-235	-5.920E+00		1.209E+01	1.422E+01	2.396E+00	-0.416
U-238	4.356E+01		7.193E+01	1.009E+02	2.047E+01	0.432
NP-239	-6.707E+00		1.086E+01	1.685E+01	1.584E+00	-0.398
AM-241	4.166E-01		5.119E+00	8.453E+00	1.093E+00	0.049
CM-247	-3.145E-02		1.433E+00	2.343E+00	1.889E-01	-0.013
CF-249	2.745E-02		1.423E+00	2.339E+00	1.899E-01	0.012
CF-251	6.710E-02		5.295E+00	8.384E+00	6.935E-01	0.008
ANH-511	-4.707E+00		3.228E+00	4.741E+00	3.998E-01	-0.993

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202051903          *
* Acquisition date  :  4-MAR-2010 22:20:38 Detector SN#     :               *
* Detector ID       : GAM20                Sensitivity      : 3.000         *
* Geometry          : 2LMB                 Energy tolerance: 1.500          *
* Elapsed live time:    0 06:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 06:01:36.63      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       :  3-MAR-2010 00:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G1202051903          Analyst initials: KXG3           *
* Batch Number      : 956976               Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  6-JUL-2009 16:37:21 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
MN-54	2.530E+00	2.576E+00	9.888E-01	1.314E+00
CD-109	3.680E+01	2.913E+01	2.374E+01	1.486E+01
SN-126	3.668E+00	2.904E+00	2.312E+00	1.482E+00
NP-237	1.095E+01	8.953E+00	6.976E+00	4.568E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU	
BE-7	-7.180E+00	1.050E+01	8.199E+00	5.358E+00	NOT IDENT.
NA-22	8.114E-02	1.238E+00	1.029E+00	6.317E-01	NOT IDENT.
NA-24	-1.882E-01	1.210E+01	1.035E+01	6.176E+00	NOT IDENT.
K-40	2.048E+00	2.279E+01	1.478E+01	1.163E+01	NOT IDENT.
SC-46	-1.626E-01	1.230E+00	1.023E+00	6.274E-01	NOT IDENT.
V-48	-1.932E-02	1.294E+00	1.082E+00	6.600E-01	NOT IDENT.
CR-51	-6.971E+00	1.074E+01	8.707E+00	5.478E+00	NOT IDENT.
CO-56	-2.111E-01	1.315E+00	1.096E+00	6.708E-01	NOT IDENT.
CO-57	-7.772E-01	9.728E-01	7.605E-01	4.963E-01	NOT IDENT.
CO-58	2.268E-01	1.080E+00	9.370E-01	5.513E-01	NOT IDENT.
FE-59	-1.219E+00	2.432E+00	1.896E+00	1.241E+00	NOT IDENT.
CO-60	3.366E-01	1.381E+00	1.170E+00	7.046E-01	NOT IDENT.
ZN-65	-9.981E-01	2.647E+00	2.096E+00	1.351E+00	NOT IDENT.
SE-75	1.619E+00	1.413E+00	1.439E+00	7.211E-01	FAIL ABUN
SR-85	-1.027E+01	2.497E+00	1.553E+00	1.274E+00	NOT IDENT.
Y-88	-4.377E-04	1.135E+00	9.514E-01	5.790E-01	NOT IDENT.
Y-91	1.599E+02	6.339E+02	4.717E+02	3.234E+02	NOT IDENT.
NB-94	-6.512E-01	1.213E+00	9.910E-01	6.187E-01	NOT IDENT.
NB-95	7.037E-01	1.439E+00	1.128E+00	7.343E-01	NOT IDENT.
NB-95M	-1.114E+01	4.597E+00	3.367E+00	2.345E+00	NOT IDENT.
ZR-95	-2.067E-01	2.182E+00	1.844E+00	1.113E+00	NOT IDENT.
MO-99	1.249E+00	1.543E+01	1.326E+01	7.871E+00	NOT IDENT.
TC-99M	-3.136E+02	3.722E+02	2.381E+02	1.899E+02	NOT IDENT.

RU-103	-5.710E-01	1.207E+00	9.559E-01	6.160E-01	NOT IDENT.
RH-106	2.489E+00	1.174E+01	9.755E+00	5.991E+00	NOT IDENT.
RU-106	2.489E+00	1.174E+01	9.755E+00	5.990E+00	NOT IDENT.
AG-108M	5.956E-01	1.135E+00	9.808E-01	5.789E-01	NOT IDENT.
AG-110M	-4.936E-01	1.157E+00	9.569E-01	5.901E-01	NOT IDENT.
SN-113	2.934E-01	1.524E+00	1.294E+00	7.778E-01	NOT IDENT.
CD-115	2.263E+00	7.220E+00	6.106E+00	3.684E+00	NOT IDENT.
SN-117M	1.749E-01	1.139E+00	9.319E-01	5.809E-01	NOT IDENT.
TE-123M	1.011E+00	1.055E+00	8.986E-01	5.380E-01	NOT IDENT.
SB-124	1.874E+00	2.455E+00	2.329E+00	1.253E+00	NOT IDENT.
SB-125	-1.484E+00	3.390E+00	2.728E+00	1.730E+00	NOT IDENT.
TE-125M	-3.558E+00	3.414E+02	2.810E+02	1.742E+02	NOT IDENT.
I-126	-1.666E+00	3.887E+00	3.218E+00	1.983E+00	NOT IDENT.
SB-126	2.321E+00	2.552E+00	2.331E+00	1.302E+00	NOT IDENT.
SB-127	6.036E-01	4.031E+00	3.503E+00	2.057E+00	NOT IDENT.
I-131	-2.522E-01	1.483E+00	1.232E+00	7.566E-01	NOT IDENT.
TE-132	-2.604E-01	1.609E+00	1.370E+00	8.207E-01	NOT IDENT.
BA-133	-2.338E-01	1.791E+00	1.496E+00	9.140E-01	NOT IDENT.
I-133	1.536E+00	6.210E+00	5.222E+00	3.168E+00	NOT IDENT.
CS-134	-4.967E-01	1.498E+00	1.231E+00	7.644E-01	NOT IDENT.
CS-135	-5.367E+00	6.850E+00	4.806E+00	3.495E+00	NOT IDENT.
I-135	4.874E+02	8.490E+02	7.496E+02	4.332E+02	NOT IDENT.
CS-136	5.972E-01	1.879E+00	1.621E+00	9.586E-01	NOT IDENT.
BA-137M	6.081E-01	1.296E+00	1.153E+00	6.611E-01	NOT IDENT.
CS-137	6.424E-01	1.369E+00	1.218E+00	6.984E-01	NOT IDENT.
CE-139	1.663E-01	1.157E+00	9.448E-01	5.904E-01	NOT IDENT.
BA-140	1.994E+00	5.175E+00	4.357E+00	2.640E+00	NOT IDENT.
LA-140	7.406E-01	1.545E+00	1.396E+00	7.881E-01	NOT IDENT.
CE-141	2.060E+00	1.977E+00	1.689E+00	1.009E+00	NOT IDENT.
CE-143	2.837E+00	6.616E+00	5.732E+00	3.376E+00	NOT IDENT.
CE-144	1.778E-01	7.257E+00	5.940E+00	3.703E+00	NOT IDENT.
PM-144	1.048E-01	1.314E+00	1.132E+00	6.702E-01	NOT IDENT.
PR-144	6.970E+00	9.758E+01	8.400E+01	4.978E+01	NOT IDENT.
PM-146	2.083E-01	1.467E+00	1.233E+00	7.482E-01	NOT IDENT.
ND-147	1.623E+00	9.469E+00	7.905E+00	4.831E+00	NOT IDENT.
PM-149	-3.793E+01	5.981E+01	4.874E+01	3.052E+01	NOT IDENT.
EU-152	-1.247E+00	3.831E+00	3.162E+00	1.955E+00	FAIL ABUN
GD-153	-5.057E+00	3.954E+00	2.573E+00	2.017E+00	NOT IDENT.
EU-154	-5.862E-01	3.654E+00	2.935E+00	1.864E+00	NOT IDENT.
EU-155	-1.080E+00	3.985E+00	3.237E+00	2.033E+00	FAIL ABUN
TA-182	-9.108E-01	5.115E+00	4.123E+00	2.610E+00	FAIL ABUN
IR-192	4.416E-01	1.241E+00	1.072E+00	6.330E-01	NOT IDENT.
HG-203	7.004E-02	1.245E+00	1.063E+00	6.351E-01	NOT IDENT.
BI-207	7.702E-01	1.856E+00	1.615E+00	9.471E-01	NOT IDENT.
TL-208	4.934E-01	1.952E+00	1.360E+00	9.957E-01	NOT IDENT.
PB-210	-1.225E+02	1.558E+02	1.059E+02	7.951E+01	NOT IDENT.
BI-211	-1.040E+00	1.399E+01	7.554E+00	7.137E+00	NOT IDENT.
PB-211	-6.147E+00	5.699E+01	2.296E+01	2.908E+01	NOT IDENT.
BI-212	-2.180E+00	2.426E+01	1.541E+01	1.238E+01	NOT IDENT.
PB-212	-4.591E-01	3.464E+00	2.451E+00	1.767E+00	NOT IDENT.
BI-214	-6.114E-02	4.013E+00	2.917E+00	2.047E+00	NOT IDENT.
PB-214	4.127E-01	4.044E+00	2.758E+00	2.063E+00	NOT IDENT.
RN-219	-5.728E+00	4.868E+01	1.240E+01	2.484E+01	NOT IDENT.
RA-223	5.104E+00	4.865E+01	2.214E+01	2.482E+01	NOT IDENT.
RA-224	-4.371E+01	2.735E+01	2.148E+01	1.396E+01	NOT IDENT.
RA-226	-1.399E+01	4.001E+01	3.052E+01	2.041E+01	NOT IDENT.
AC-227	1.875E-01	9.412E+00	8.056E+00	4.802E+00	NOT IDENT.
TH-227	1.875E-01	9.533E+00	8.056E+00	4.864E+00	NOT IDENT.
AC-228	1.612E+00	6.554E+00	4.489E+00	3.344E+00	NOT IDENT.
RA-228	1.612E+00	6.554E+00	4.489E+00	3.344E+00	NOT IDENT.
TH-228	-4.591E-01	3.464E+00	2.451E+00	1.767E+00	NOT IDENT.
TH-229	4.373E+00	1.944E+01	1.700E+01	9.917E+00	FAIL ABUN
PA-231	3.045E+01	5.750E+01	5.020E+01	2.933E+01	NOT IDENT.
TH-231	-1.554E+01	2.160E+01	1.305E+01	1.102E+01	NOT IDENT.
TH-232	1.671E+02	1.610E+03	7.092E+02	8.212E+02	NOT IDENT.
PA-233	-1.473E+00	2.672E+00	2.187E+00	1.363E+00	NOT IDENT.
PA-234	1.515E+01	1.137E+01	1.045E+01	5.803E+00	NOT IDENT.
PA-234M	4.732E+01	1.491E+02	1.292E+02	7.609E+01	FAIL ABUN
TH-234	4.356E+01	7.049E+01	5.048E+01	3.596E+01	NOT IDENT.
U-235	-5.920E+00	1.185E+01	7.116E+00	6.044E+00	NOT IDENT.
U-238	4.356E+01	7.049E+01	5.048E+01	3.596E+01	NOT IDENT.
NP-239	-6.707E+00	1.064E+01	8.431E+00	5.429E+00	NOT IDENT.
AM-241	4.166E-01	5.016E+00	4.229E+00	2.559E+00	NOT IDENT.
CM-247	-3.145E-02	1.404E+00	1.172E+00	7.163E-01	NOT IDENT.
CF-249	2.745E-02	1.395E+00	1.170E+00	7.117E-01	NOT IDENT.
CF-251	6.710E-02	5.189E+00	4.194E+00	2.647E+00	NOT IDENT.
ANH-511	-4.707E+00	3.163E+00	2.372E+00	1.614E+00	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	199.3841
49.72	209.5466
57.36	190.8862
59.54	191.6729
63.29	188.4694
63.29	188.4694
63.81	223.3558
64.28	244.6896
67.75	189.9538
69.67	248.5143
70.83	193.0890
72.81	220.7000
72.87	220.7219
72.87	220.7219
74.82	261.4059
74.82	261.4059
74.82	261.4059
74.97	261.4694
77.11	230.4725
77.11	230.4725
77.11	230.4725
79.69	253.1048
79.69	253.1048
80.12	231.5651
80.19	231.5902
81.00	221.5289
81.07	221.5528
83.79	216.7559
84.21	202.8493
85.43	207.9109
86.48	233.2854
86.55	233.3104
86.94	238.1448
87.57	233.1378
88.03	246.3726
88.47	222.9768
89.96	659.3643
91.11	412.9810
92.59	248.5221
92.59	248.5221
93.35	231.9227
94.56	380.1563
94.65	380.2039
94.67	380.2148
95.86	514.1404
97.43	203.5576
98.43	185.7884
98.44	185.7906
99.53	171.1812
100.11	175.5718
103.18	183.7727
103.37	175.2693
105.31	191.7881
106.12	191.9911
109.28	217.5439
111.00	224.4949
111.76	209.5855
116.30	218.3757
116.74	205.4489
121.12	174.8478
121.78	202.3268
122.06	200.2065
123.07	189.4933
131.20	168.0653
133.52	169.6145
136.00	172.3079
136.47	199.0916

140.51	227.9021
140.51	227.9021
140.88	230.2286
143.76	209.6426
144.24	211.9944
145.44	189.8035
152.43	170.8304
153.25	165.3119
154.21	147.3410
156.02	213.4698
158.56	184.4187
159.00	163.9995
162.66	201.1743
163.33	217.3198
165.86	190.3383
176.60	161.0199
177.52	173.9105
181.07	181.4620
185.72	193.6212
186.21	190.1995
193.51	164.0910
205.31	181.8073
210.85	145.9417
222.11	157.2255
227.38	152.4397
228.16	159.7968
228.18	165.2471
235.69	265.7613
235.96	255.7666
235.96	255.7666
238.63	166.5885
238.63	166.5885
240.99	253.0814
242.00	261.5341
244.70	170.6653
252.40	137.6087
252.80	140.6097
256.23	132.6158
256.23	132.6158
260.90	135.4825
264.66	148.3492
268.22	157.1411
269.46	140.4259
271.23	134.0385
273.65	138.0211
276.40	157.0976
277.37	138.3755
277.60	140.2809
278.00	134.6691
279.20	144.2032
279.54	140.4673
283.69	130.4637
284.31	131.4642
285.41	145.7591
285.90	146.7552
287.50	127.9550
293.27	134.1583
295.22	131.4723
295.96	140.1139
299.98	132.8386
299.98	132.8386
300.09	133.8028
300.09	133.8028
300.13	133.8071
301.36	126.2617
302.85	131.1697
304.50	153.3545
304.50	153.3545
304.85	151.4713
308.46	121.0743
311.90	146.3779
316.51	123.6250
319.41	133.5233
320.08	138.4200
323.87	129.0426
328.76	128.4571
329.85	130.4913
329.85	130.4913

330.06	130.5077
333.37	121.9864
334.37	135.7316
334.37	135.7316
338.28	119.4106
338.32	119.4143
338.32	119.4143
340.48	114.6684
340.55	114.6720
344.28	123.7679
351.06	134.1219
351.93	127.2836
356.01	137.4750
364.49	111.3113
366.42	104.4681
383.85	83.5847
388.16	82.5731
388.63	87.6306
391.70	89.7944
400.66	92.2539
401.81	99.4101
402.40	95.3827
404.85	105.6663
414.70	88.8506
423.72	81.0553
427.09	81.1939
427.87	92.5365
433.94	81.4748
453.88	69.7828
463.37	93.1216
468.07	75.5024
473.00	69.3727
476.78	96.8726
477.60	91.6436
487.02	67.7119
492.35	72.1203
497.08	82.9048
511.00	132.6251
514.00	426.2516
527.90	65.7303
529.87	65.7861
531.02	72.2937
537.26	72.4879
546.56	54.3106
563.25	57.9752
569.33	71.2802
569.50	71.2842
569.70	70.1934
583.19	67.2735
600.60	101.0587
602.73	90.0299
604.72	136.8210
609.32	99.1771
610.33	91.4142
614.28	71.4570
618.01	81.6237
621.93	63.8310
621.93	63.8310
633.25	65.2323
635.95	71.1540
636.99	70.2819
645.85	73.2283
657.76	63.5657
661.66	61.8392
661.66	61.8392
664.57	57.3529
666.33	69.2331
666.50	69.2368
677.62	44.8202
685.70	47.7039
695.00	65.3509
696.49	76.4366
696.51	76.4366
697.00	74.6066
702.65	71.9881
706.68	72.0891
720.70	53.8681
721.93	65.0405

722.78	73.4241
722.91	73.4280
723.31	76.2264
724.19	68.8095
727.33	58.6457
733.00	50.3653
735.93	63.4860
739.50	50.4760
747.24	51.5464
753.82	48.8414
756.73	54.5308
763.94	50.2630
765.80	53.4377
766.42	55.0208
777.92	41.6582
778.90	45.4594
783.70	56.9136
785.37	37.9629
795.86	51.4239
801.95	46.7534
810.76	37.3157
815.77	51.7496
818.51	41.2437
832.01	45.2708
834.85	45.3109
836.80	48.2312
846.77	56.1209
856.80	58.2334
860.56	49.5544
871.09	36.0660
873.19	40.9654
875.33	48.7988
880.51	43.0096
883.24	38.1535
884.68	41.1059
889.28	45.0813
898.04	38.3202
911.20	40.4395
911.20	40.4395
926.36	32.6914
937.49	41.7385
944.13	37.8349
946.00	33.8697
949.00	60.8183
964.08	48.8095
968.97	56.8119
968.97	56.8119
983.53	35.2307
996.26	36.3630
1001.03	35.3982
1004.73	41.5075
1037.84	33.7042
1038.76	32.6906
1048.07	37.8907
1050.41	42.0110
1050.41	42.0110
1063.66	38.0424
1085.87	32.0550
1099.25	40.4625
1112.07	32.2654
1115.54	38.5447
1120.29	31.2891
1120.55	34.4196
1121.30	39.6421
1131.51	32.4213
1173.23	33.8063
1189.05	26.5100
1204.77	31.9292
1221.41	33.1222
1231.02	21.4160
1235.36	33.2281
1238.28	23.5963
1260.41	25.8715
1274.44	27.0349
1274.54	23.7907
1291.59	36.9069
1298.22	38.0488
1312.11	23.9884

1332.49	26.2852
1365.19	14.7057
1368.63	23.9137
1384.29	30.4514
1408.01	27.8210
1457.56	34.6604
1460.82	26.2466
1489.16	30.7040
1596.21	18.2826
1620.50	13.5323
1678.03	15.6283
1690.97	10.7695
1764.49	18.8431
1770.23	25.8106
1771.35	21.8442
1791.20	9.9630
1836.06	13.0503

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202051903

Total Uranium Activity	1.2684E+02	ug/g
Total Uranium Counting Unc.	2.0978E+02	ug/g
Total Uranium Tpu	1.0703E-04	ug/g
Total Uranium Mda	1.5021E+02	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 956976                    SAMPLE ID   : G1202051903       *
*   ANALYST       : KXG3                      DETECTOR    : GAM20             *
*   SAMPLE DATE   :  3-MAR-2010 00:00:00.00   COUNT TIME :    0 06:00:00.00   *
*   ANALYSIS DATE:  4-MAR-2010 22:20:38.97    SAMPLE ALQT:    2.000 LITER     *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 2.461E+01
        GROSS GAMMA ERROR  (pCi/LITER )   : 1.171E+01
        GROSS GAMMA MDA    (pCi/LITER )   : 6.391E+01
        GROSS GAMMA DLC    (pCi/LITER )   : 3.075E+01
```

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 18:47:42.72

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051904.CNF;1
Sample date       : 22-FEB-2010 12:00:00 Acquisition date : 5-MAR-2010 16:47:09.
Sample ID         : G1202051904          Sample quantity  : 1.57100E+00 LITER
Detector name     : GAM14                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.60  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 956976               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	76.68	74	111	1.20	152.90	148	9	1.03E-02	28.3	
2	0	351.94*	70	45	1.60	702.93	698	9	9.67E-03	22.3	
3	0	609.13*	53	15	2.35	1217.03	1212	10	7.29E-03	21.3	
4	0	796.48	12	10	1.34	1591.63	1586	9	1.62E-03	59.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 5-MAR-2010 18:47:46

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051904.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 22-FEB-2010 12:00:00 Acquisition date : 5-MAR-2010 16:47:09
Sample ID : G1202051904 Sample quantity : 1.5710 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA14 Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.60 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BI-211		72.87		1.610E+02	7.261E+03	6.044E+02	2.720E+04	0.266
	+	351.06	*	7.298E+01	3.285E+03	3.424E+01	1.541E+03	2.132

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.60	*	-2.319E+01	3.268E+01	4.893E+01	3.399E+00	-0.474
NA-22		1274.54	*	-2.451E-01	3.213E+00	5.195E+00	3.440E-01	-0.047
NA-24		1368.63	*	1.122E-01	3.213E+00	Half-Life too short		
K-40		1460.82	*	-4.317E+01	4.238E+01	5.973E+01	4.385E+00	-0.723
SC-46		889.28	*	-1.783E+00	3.808E+00	5.916E+00	4.516E-01	-0.301
		1120.55		2.930E+00	5.008E+00	8.940E+00	5.457E-01	0.328
V-48		944.13		-2.731E+01	7.219E+01	1.132E+02	8.490E+00	-0.241
		983.53	*	1.741E+00	5.834E+00	1.016E+01	7.364E-01	0.171
		1312.11		1.218E+00	6.758E+00	1.146E+01	8.046E-01	0.106
CR-51		320.08	*	1.099E+00	3.792E+01	6.314E+01	4.202E+00	0.017
MN-54		834.85	*	-1.032E-01	3.451E+00	5.642E+00	3.912E-01	-0.018
CO-56		846.77	*	2.442E+00	3.909E+00	7.085E+00	5.019E-01	0.345
		1037.84		-1.752E+01	2.563E+01	3.693E+01	2.735E+00	-0.474
		1238.28		-1.015E+00	6.197E+00	9.893E+00	6.496E-01	-0.103
		1771.35		-1.489E+01	2.896E+01	4.062E+01	2.450E+00	-0.366
CO-57		122.06	*	5.938E+00	3.545E+00	6.254E+00	3.779E-01	0.949
		136.47		-1.144E+00	2.910E+01	4.662E+01	3.089E+00	-0.025
CO-58		810.76	*	2.352E-01	3.681E+00	5.969E+00	3.975E-01	0.039
FE-59		1099.25	*	3.776E+00	7.500E+00	1.348E+01	9.751E-01	0.280
		1291.59		-3.034E+00	1.011E+01	1.560E+01	1.283E+00	-0.194
CO-60		1173.23		1.063E+00	3.765E+00	6.526E+00	3.624E-01	0.163
		1332.49	*	2.257E+00	4.009E+00	7.246E+00	5.249E-01	0.312
ZN-65		1115.54	*	1.294E+00	9.404E+00	1.587E+01	9.783E-01	0.082
SE-75		121.12		3.048E+01	1.862E+01	3.257E+01	3.015E+00	0.936
		136.00		-1.394E+00	5.521E+00	8.725E+00	5.064E-01	-0.160
		264.66	*	2.024E+00	5.086E+00	8.742E+00	5.132E-01	0.232
		279.54		1.134E+00	1.207E+01	2.027E+01	1.287E+00	0.056

Sample ID : G1202051904 Acquisition date : 5-MAR-2010 16:47:09

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		400.66		-1.433E+01	2.749E+01	4.287E+01	3.980E+00	-0.334
SR-85		514.00	*	-1.091E+01	6.205E+00	8.776E+00	5.185E-01	-1.243
Y-88		898.04		-4.607E-01	3.988E+00	6.297E+00	4.910E-01	-0.073
		1836.06	*	6.640E-01	3.564E+00	6.069E+00	3.489E-01	0.109
Y-91		1204.77	*	-3.378E+02	1.805E+03	2.885E+03	1.695E+02	-0.117
NB-94		702.65	*	-2.591E-01	3.254E+00	5.192E+00	2.784E-01	-0.050
		871.09		-6.454E-02	3.840E+00	6.417E+00	4.746E-01	-0.010
NB-95		765.80	*	2.847E-01	3.891E+00	6.329E+00	3.853E-01	0.045
NB-95M		235.69	*	-7.525E+00	1.294E+01	2.078E+01	1.546E+00	-0.362
ZR-95		724.19		1.747E+00	8.307E+00	1.382E+01	9.216E-01	0.126
		756.73	*	4.739E+00	7.925E+00	1.374E+01	9.922E-01	0.345
MO-99		140.51		1.912E+02	1.161E+03	1.828E+03	4.174E+02	0.105
		181.07		-2.208E+03	9.258E+02	1.191E+03	2.087E+02	-1.854
		366.42		-3.212E+03	3.823E+03	5.749E+03	3.515E+02	-0.559
		739.50	*	2.273E+02	4.434E+02	7.691E+02	1.108E+02	0.295
		777.92		-1.598E+01	1.411E+03	2.264E+03	1.411E+02	-0.007
TC-99M		140.51	*	1.758E+07	1.411E+03	Half-Life too short		
RU-103		497.08	*	1.259E+00	4.530E+00	7.622E+00	9.532E-01	0.165
	+	610.33		2.235E+02	1.009E+02	1.772E+02	2.638E+01	1.261
RH-106		621.93	*	-9.191E-01	3.482E+01	5.632E+01	6.399E+00	-0.016
		1050.41		1.430E+02	2.665E+02	4.759E+02	3.209E+01	0.300
RU-106		621.93	*	-9.191E-01	3.482E+01	5.632E+01	2.963E+00	-0.016
		1050.41		1.430E+02	2.665E+02	4.759E+02	3.209E+01	0.300
AG-108M		433.94	*	-2.256E+00	3.260E+00	4.947E+00	3.215E-01	-0.456
		614.28		3.584E+00	4.236E+00	6.804E+00	3.924E-01	0.527
		722.91		4.119E-01	3.612E+00	5.925E+00	3.560E-01	0.070
CD-109		88.03	*	-1.227E+02	1.016E+02	1.447E+02	1.337E+01	-0.848
AG-110M		657.76	*	-1.862E+00	3.479E+00	5.184E+00	2.793E-01	-0.359
		677.62		5.007E+01	3.402E+01	6.480E+01	3.562E+00	0.773
		706.68		-7.573E+00	2.069E+01	3.153E+01	1.827E+00	-0.240
		763.94		-6.475E+00	1.598E+01	2.409E+01	1.541E+00	-0.269
		884.68		3.499E+00	4.615E+00	8.569E+00	6.759E-01	0.408
		937.49		8.275E+00	1.017E+01	1.900E+01	1.500E+00	0.436
		1384.29		-1.885E+00	1.677E+01	2.688E+01	2.004E+00	-0.070
SN-113		391.70	*	-6.321E-01	5.134E+00	8.376E+00	5.438E-01	-0.075
CD-115		260.90		-1.396E+03	5.094E+03	8.345E+03	4.832E+02	-0.167
		492.35		-8.887E+02	1.292E+03	1.945E+03	1.164E+02	-0.457
		527.90	*	1.409E+02	3.491E+02	5.986E+02	3.501E+01	0.235
SN-117M		156.02		1.056E+02	2.269E+02	3.751E+02	2.025E+01	0.282
		158.56	*	-1.066E+00	5.662E+00	8.938E+00	4.795E-01	-0.119
TE-123M		159.00	*	-8.392E-01	3.515E+00	5.527E+00	3.009E-01	-0.152
SB-124		602.73		2.284E-01	4.418E+00	6.554E+00	3.545E-01	0.035
		645.85		-2.029E+01	4.962E+01	7.571E+01	4.441E+00	-0.268
		722.78		3.954E+00	3.469E+01	5.689E+01	3.351E+00	0.070
		1690.97	*	-2.776E+00	9.799E+00	1.482E+01	1.014E+00	-0.187
SB-125		427.87	*	6.800E+00	9.531E+00	1.685E+01	1.069E+00	0.404
		463.37		-2.888E+00	3.022E+01	4.909E+01	3.415E+00	-0.059
		600.60		-1.553E+01	2.105E+01	3.121E+01	1.994E+00	-0.498
		635.95		-5.319E+00	2.928E+01	4.630E+01	2.893E+00	-0.115

Sample ID : G1202051904 Acquisition date : 5-MAR-2010 16:47:09

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TE-125M		109.28	*	-9.129E+02	1.227E+03	1.877E+03	1.706E+02	-0.486
I-126		388.63		-7.893E+00	1.562E+01	2.452E+01	1.501E+00	-0.322
		666.33	*	-1.446E+01	1.684E+01	2.342E+01	1.163E+00	-0.617
		753.82		2.945E+01	1.702E+02	2.803E+02	1.667E+01	0.105
SB-126		414.70		2.461E+00	6.495E+00	1.111E+01	6.807E-01	0.221
		666.50		-4.639E+00	5.762E+00	8.109E+00	4.028E-01	-0.572
		695.00		2.524E+00	7.355E+00	1.088E+01	5.742E-01	0.232
		697.00		1.642E+01	2.205E+01	3.914E+01	2.075E+00	0.420
		720.70	*	-5.639E+00	1.195E+01	1.791E+01	9.966E-01	-0.315
		856.80		-2.863E+00	3.710E+01	6.149E+01	4.435E+00	-0.047
SN-126		64.28		7.077E+01	6.885E+01	1.181E+02	1.770E+01	0.599
		86.94		-4.585E+01	4.460E+01	5.785E+01	2.399E+01	-0.793
		87.57	*	-8.456E+00	9.540E+00	1.386E+01	1.276E+00	-0.610
SB-127		252.40		-5.697E+01	2.544E+02	4.167E+02	1.698E+02	-0.137
		473.00		-2.333E+01	8.312E+01	1.316E+02	1.333E+01	-0.177
		685.70	*	4.307E+00	7.021E+01	1.129E+02	8.685E+00	0.038
		783.70		1.251E+02	1.765E+02	3.121E+02	3.048E+01	0.401
I-131		80.19		1.110E+00	4.230E+02	6.006E+02	5.251E+01	0.002
		284.31		6.003E+01	1.204E+02	2.084E+02	1.353E+01	0.288
		364.49	*	-3.844E+00	8.770E+00	1.385E+01	9.308E-01	-0.277
		636.99		-4.641E+01	1.180E+02	1.806E+02	1.064E+01	-0.257
TE-132		49.72		-3.623E+02	9.104E+02	1.450E+03	1.333E+02	-0.250
		111.76		2.358E+03	1.785E+03	3.114E+03	2.616E+02	0.757
		116.30		-2.860E+03	1.625E+03	2.259E+03	1.842E+02	-1.266
		228.16	*	3.331E+01	3.452E+01	6.129E+01	8.366E+00	0.544
BA-133		81.00		6.960E+00	1.229E+01	1.824E+01	2.844E+00	0.382
		276.40		2.616E+01	3.853E+01	6.741E+01	8.506E+00	0.388
		302.85		1.193E+01	1.519E+01	2.679E+01	3.079E+00	0.445
		356.01	*	-6.142E+00	5.447E+00	6.489E+00	7.419E-01	-0.946
		383.85		1.751E+01	3.261E+01	5.651E+01	6.127E+00	0.310
I-133		529.87	*	-4.521E-03	3.261E+01	Half-Life too short		
		875.33		3.827E-01	3.261E+01	Half-Life too short		
		1298.22		2.193E-01	3.261E+01	Half-Life too short		
CS-134		563.25		-3.192E+01	4.295E+01	6.388E+01	3.699E+00	-0.500
		569.33		-1.045E+01	2.554E+01	3.874E+01	2.250E+00	-0.270
		604.72		2.090E+00	3.406E+00	5.362E+00	2.910E-01	0.390
	+	795.86	*	3.795E+00	4.494E+00	7.566E+00	4.943E-01	0.502
		801.95		2.728E+01	4.048E+01	7.149E+01	4.710E+00	0.382
		1365.19		-2.372E+01	1.565E+02	2.592E+02	1.990E+01	-0.092
CS-135		268.22	*	-1.865E+01	1.725E+01	2.617E+01	2.009E+00	-0.713
I-135		546.56		-2.906E+07	1.725E+01	Half-Life too short		
		836.80		-1.850E+07	1.725E+01	Half-Life too short		
		1038.76		-6.261E+07	1.725E+01	Half-Life too short		
		1131.51		7.783E+06	1.725E+01	Half-Life too short		
		1260.41	*	5.971E+06	1.725E+01	Half-Life too short		
		1457.56		-7.128E+07	1.725E+01	Half-Life too short		
		1678.03		7.109E+07	1.725E+01	Half-Life too short		
		1791.20		-2.507E+07	1.725E+01	Half-Life too short		
CS-136		153.25		-3.094E+01	8.727E+01	1.362E+02	1.060E+01	-0.227

Sample ID : G1202051904 Acquisition date : 5-MAR-2010 16:47:09

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		176.60		7.199E+01	5.636E+01	9.690E+01	6.453E+00	0.743
		273.65		-3.897E+01	4.635E+01	7.208E+01	4.957E+00	-0.541
		340.55		-3.326E+00	1.220E+01	1.973E+01	1.287E+00	-0.169
		818.51		-2.087E+00	5.911E+00	9.407E+00	6.334E-01	-0.222
		1048.07	*	1.909E+00	8.485E+00	1.459E+01	1.052E+00	0.131
		1235.36		1.250E+01	3.243E+01	5.730E+01	5.799E+00	0.218
BA-137M		661.66	*	1.477E+00	3.301E+00	5.698E+00	2.801E-01	0.259
CS-137		661.66	*	1.561E+00	3.487E+00	6.019E+00	2.977E-01	0.259
CE-139		165.86	*	8.829E-01	3.580E+00	5.824E+00	3.072E-01	0.152
BA-140		162.66		9.709E+00	8.331E+01	1.343E+02	8.339E+00	0.072
		304.85		-9.496E+01	1.240E+02	1.876E+02	5.367E+01	-0.506
		423.72		-1.787E+02	1.685E+02	2.249E+02	7.272E+01	-0.794
		537.26	*	1.056E+01	2.273E+01	3.878E+01	1.292E+01	0.272
LA-140		328.76		-3.036E+01	2.806E+01	4.219E+01	2.840E+00	-0.720
		487.02		-3.027E+00	1.319E+01	2.107E+01	1.421E+00	-0.144
		815.77		5.652E+00	2.582E+01	4.467E+01	3.553E+00	0.127
		1596.21	*	1.724E+00	7.997E+00	1.360E+01	9.100E-01	0.127
CE-141		145.44	*	5.522E-01	6.955E+00	1.122E+01	6.498E-01	0.049
CE-143		57.36		-7.170E-03	6.955E+00	Half-Life too short		
		293.27	*	2.001E-03	6.955E+00	Half-Life too short		
		664.57		-1.099E-02	6.955E+00	Half-Life too short		
		721.93		-4.672E-03	6.955E+00	Half-Life too short		
CE-144		80.12		-5.065E+00	3.174E+02	4.499E+02	3.918E+01	-0.011
		133.52	*	5.070E+00	2.669E+01	4.339E+01	6.021E+00	0.117
PM-144		476.78		-8.726E-01	6.859E+00	1.108E+01	7.815E-01	-0.079
		618.01		-5.175E-01	3.728E+00	5.950E+00	3.376E-01	-0.087
		696.49	*	1.681E+00	3.503E+00	6.025E+00	3.192E-01	0.279
PR-144		696.51	*	1.262E+02	2.617E+02	4.503E+02	2.384E+01	0.280
		1489.16		5.497E+02	1.605E+03	2.787E+03	1.946E+02	0.197
PM-146		453.88	*	-2.943E+00	4.712E+00	7.193E+00	6.224E-01	-0.409
		633.25		1.423E+02	1.669E+02	2.846E+02	1.069E+02	0.500
		735.93		-4.878E+00	1.612E+01	2.468E+01	6.733E+00	-0.198
		747.24		-1.228E+00	9.873E+00	1.559E+01	2.050E+00	-0.079
ND-147		91.11		-2.784E+01	2.899E+01	4.601E+01	4.357E+00	-0.605
		319.41		-7.950E+00	2.916E+02	4.832E+02	2.911E+01	-0.016
		531.02	*	-2.994E+01	4.531E+01	6.713E+01	9.087E+00	-0.446
PM-149		285.90	*	2.731E+03	3.206E+03	5.642E+03	8.015E+02	0.484
EU-152		121.78		1.218E+01	1.055E+01	1.808E+01	1.405E+00	0.674
		244.70		-2.635E+01	3.707E+01	5.878E+01	3.353E+00	-0.448
		344.28	*	1.875E+00	1.037E+01	1.747E+01	1.185E+00	0.107
		778.90		1.562E+01	2.526E+01	4.448E+01	2.777E+00	0.351
		964.08		-1.124E+01	2.790E+01	4.390E+01	3.239E+00	-0.256
		1085.87		-2.350E+01	3.559E+01	5.193E+01	3.341E+00	-0.452
		1112.07		-1.907E+01	2.936E+01	4.333E+01	2.681E+00	-0.440
		1408.01		1.115E+01	2.129E+01	3.795E+01	2.711E+00	0.294
GD-153		69.67		-2.079E+02	2.125E+02	3.241E+02	2.692E+01	-0.642
		97.43	*	-4.773E+00	1.147E+01	1.806E+01	1.439E+00	-0.264
		103.18		-4.814E-01	1.378E+01	2.220E+01	1.641E+00	-0.022
EU-154		123.07		5.004E+00	7.558E+00	1.262E+01	1.201E+00	0.396

Sample ID : G1202051904 Acquisition date : 5-MAR-2010 16:47:09

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		723.31		2.354E+00	1.643E+01	2.705E+01	1.857E+00	0.087
		873.19		7.110E+00	2.988E+01	5.162E+01	5.708E+00	0.138
		996.26		-1.456E+01	3.215E+01	4.912E+01	8.251E+00	-0.296
		1004.73		-2.873E+00	1.892E+01	3.066E+01	3.238E+00	-0.094
		1274.44	*	-9.042E-01	9.074E+00	1.459E+01	1.450E+00	-0.062
EU-155		86.55		-1.136E+01	1.184E+01	1.713E+01	1.578E+00	-0.664
		105.31	*	6.290E+00	1.325E+01	2.206E+01	1.616E+00	0.285
TA-182		67.75		-1.195E+01	1.424E+01	2.199E+01	1.821E+00	-0.543
		100.11		-5.522E+00	2.215E+01	3.519E+01	2.704E+00	-0.157
		152.43		-1.563E+01	4.277E+01	6.672E+01	3.635E+00	-0.234
		222.11		8.087E+00	3.868E+01	6.584E+01	3.671E+00	0.123
		1121.30		6.022E+00	1.311E+01	2.313E+01	1.410E+00	0.260
		1189.05		-7.950E+00	2.851E+01	4.122E+01	2.355E+00	-0.193
		1221.41	*	9.682E+00	1.327E+01	2.496E+01	1.509E+00	0.388
		1231.02		3.084E+01	3.445E+01	6.567E+01	4.037E+00	0.470
IR-192		295.96		5.790E+00	1.143E+01	1.975E+01	1.192E+00	0.293
		308.46		-3.605E+00	1.022E+01	1.646E+01	9.962E-01	-0.219
		316.51	*	-7.852E-01	3.670E+00	5.980E+00	3.613E-01	-0.131
		468.07		-2.656E+00	6.705E+00	1.048E+01	7.250E-01	-0.253
HG-203		70.83		-5.873E+01	1.632E+02	2.383E+02	3.791E+01	-0.246
		72.87		3.779E+01	9.668E+01	1.418E+02	2.185E+01	0.266
		279.20	*	1.485E-01	4.098E+00	6.853E+00	4.245E-01	0.022
BI-207		72.81		9.047E+00	2.366E+01	3.473E+01	2.912E+00	0.260
		74.97		4.905E+00	1.506E+01	2.117E+01	1.792E+00	0.232
		569.70		-1.909E+00	3.992E+00	6.008E+00	3.380E-01	-0.318
		1063.66	*	-9.030E-01	4.313E+00	6.871E+00	4.556E-01	-0.131
		1770.23		-6.640E+01	6.393E+01	7.568E+01	4.568E+00	-0.877
TL-208		277.37		2.094E+01	4.370E+01	7.542E+01	8.161E+00	0.278
		583.19	*	-5.176E-01	4.857E+00	7.119E+00	4.590E-01	-0.073
		860.56		1.971E+01	2.693E+01	4.967E+01	3.974E+00	0.397
PB-210		46.54	*	-2.528E+02	3.916E+02	6.322E+02	4.929E+01	-0.400
PB-211		404.85	*	3.824E+00	1.886E+02	1.277E+02	5.747E+03	0.030
		427.09		1.048E+01	4.981E+02	2.652E+02	1.194E+04	0.040
		832.01		-2.706E+01	1.221E+03	1.458E+02	6.565E+03	-0.186
BI-212		727.33	*	2.953E+00	5.071E+01	8.246E+01	8.756E+00	0.036
		785.37		-4.812E+01	3.280E+02	5.153E+02	3.258E+01	-0.093
		1620.50		3.136E+00	2.758E+02	4.495E+02	2.972E+01	0.007
PB-212		74.82		1.285E+01	5.282E+01	7.376E+01	9.507E+00	0.174
	+	77.11		5.247E+01	3.001E+01	4.126E+01	3.529E+00	1.272
		238.63	*	2.002E+00	7.530E+00	1.287E+01	9.390E-01	0.155
		300.09		-2.604E+01	9.060E+01	1.473E+02	1.252E+01	-0.177
BI-214	+	609.32	*	2.320E+01	1.004E+01	1.823E+01	1.371E+00	1.273
		1120.29		2.393E+01	2.967E+01	5.442E+01	4.934E+00	0.440
		1764.49		1.347E+01	3.303E+01	5.836E+01	3.537E+00	0.231
PB-214		74.82		2.252E+01	9.258E+01	1.293E+02	1.499E+01	0.174
	+	77.11		9.147E+01	5.285E+01	7.193E+01	8.547E+00	1.272
		242.00		-2.555E+01	4.218E+01	6.771E+01	5.498E+00	-0.377
		295.22		1.230E+01	1.568E+01	2.763E+01	2.436E+00	0.445
	+	351.93	*	2.646E+01	1.202E+01	1.962E+01	1.703E+00	1.349

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RN-219		271.23		1.545E+01	6.959E+02	4.338E+01	1.953E+03	0.356
		401.81	*	1.814E+01	8.175E+02	7.358E+01	3.312E+03	0.246
RA-223		81.07		1.682E+01	7.575E+02	4.157E+01	1.871E+03	0.405
		83.79		-1.154E+01	5.199E+02	2.350E+01	1.058E+03	-0.491
		94.56		7.404E+01	3.333E+03	7.128E+01	3.209E+03	1.039
		144.24		-4.968E+01	2.238E+03	1.340E+02	6.031E+03	-0.371
		154.21		-1.378E+01	6.220E+02	7.551E+01	3.399E+03	-0.182
		269.46		-8.061E+00	3.634E+02	3.211E+01	1.445E+03	-0.251
		323.87	*	4.305E-01	7.730E+01	1.243E+02	5.595E+03	0.003
		338.28		2.513E+01	1.136E+03	1.732E+02	7.796E+03	0.145
RA-224		240.99	*	1.736E+01	7.559E+01	1.284E+02	7.300E+00	0.135
RA-226		186.21	*	1.773E+01	9.503E+01	1.601E+02	1.074E+02	0.111
AC-227		79.69		1.027E+01	1.610E+02	2.299E+02	3.970E+01	0.045
		235.96		-5.973E+00	1.635E+01	2.670E+01	2.146E+00	-0.224
		256.23	*	2.296E+01	3.072E+01	5.386E+01	5.497E+00	0.426
		299.98		-4.786E+01	1.008E+02	1.613E+02	1.787E+01	-0.297
		304.50		-1.309E+02	1.814E+02	2.811E+02	4.306E+01	-0.466
		329.85		-4.516E+01	7.663E+01	1.207E+02	1.210E+01	-0.374
		334.37		1.008E+02	1.994E+02	3.434E+02	4.921E+01	0.293
TH-227		79.69		1.027E+01	4.896E+02	2.299E+02	1.035E+04	0.045
		235.96		-5.973E+00	2.693E+02	2.670E+01	1.202E+03	-0.224
		256.23	*	2.296E+01	1.034E+03	5.386E+01	2.425E+03	0.426
		299.98		-4.786E+01	2.157E+03	1.613E+02	7.262E+03	-0.297
		304.50		-1.309E+02	5.897E+03	2.811E+02	1.265E+04	-0.466
		329.85		-4.516E+01	2.034E+03	1.207E+02	5.432E+03	-0.374
		334.37		1.008E+02	4.540E+03	3.434E+02	1.546E+04	0.293
AC-228		338.32		2.760E+00	2.615E+01	4.371E+01	1.804E+01	0.063
		911.20	*	2.911E+00	1.313E+01	2.267E+01	2.474E+00	0.128
		968.97		-7.875E+00	2.713E+01	4.067E+01	9.735E+00	-0.194
RA-228		338.32		2.760E+00	2.615E+01	4.371E+01	1.804E+01	0.063
		911.20	*	2.911E+00	1.313E+01	2.267E+01	2.474E+00	0.128
		968.97		-7.875E+00	2.713E+01	4.067E+01	9.735E+00	-0.194
TH-228		74.82		1.285E+01	5.281E+01	7.376E+01	6.296E+00	0.174
	+	77.11		5.247E+01	3.001E+01	4.126E+01	3.529E+00	1.272
		238.63	*	2.002E+00	7.530E+00	1.287E+01	9.390E-01	0.155
		300.09		-2.604E+01	9.195E+01	1.473E+02	8.969E+01	-0.177
TH-229		85.43		-2.381E+01	2.521E+01	3.720E+01	3.367E+00	-0.640
		88.47		-2.097E+01	1.496E+01	2.193E+01	2.010E+00	-0.956
		193.51	*	-8.385E+01	6.868E+01	1.070E+02	5.788E+00	-0.783
		210.85		2.894E+01	1.020E+02	1.744E+02	9.606E+00	0.166
PA-231		283.69	*	7.536E+01	1.710E+02	2.941E+02	3.870E+01	0.256
		301.36		4.337E+01	5.270E+01	9.320E+01	8.914E+00	0.465
		330.06		-1.173E+02	2.221E+02	3.480E+02	1.016E+02	-0.337
TH-231		84.21	*	-5.627E+01	5.847E+01	8.537E+01	1.503E+01	-0.659
TH-232		63.81	*	9.894E+02	8.035E+03	4.331E+03	3.332E+04	0.228
		140.88		7.091E+03	1.437E+04	2.379E+04	1.338E+03	0.298
PA-233		94.65		3.711E+01	3.395E+01	5.800E+01	4.889E+00	0.640
		98.43		-1.343E+00	1.775E+01	2.856E+01	2.386E+00	-0.047
		300.13		-1.297E+01	4.460E+01	7.246E+01	9.752E+00	-0.179

Sample ID : G1202051904 Acquisition date : 5-MAR-2010 16:47:09

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		311.90	*	2.113E+00	6.844E+00	1.169E+01	7.422E-01	0.181
		340.48		-1.745E+01	6.413E+01	1.035E+02	2.409E+01	-0.169
PA-234		94.67		2.445E+01	2.290E+01	3.892E+01	4.739E+00	0.628
		98.44		-8.790E-01	1.182E+01	1.900E+01	1.058E+01	-0.046
		111.00		1.139E+01	2.324E+01	3.868E+01	4.191E+00	0.294
		131.20		-9.791E+00	1.427E+01	2.188E+01	1.271E+00	-0.447
		569.50		-1.764E+01	3.537E+01	5.310E+01	2.988E+00	-0.332
		733.00		-3.403E+01	4.045E+01	5.574E+01	1.184E+01	-0.610
		880.51		-2.187E+01	2.735E+01	3.983E+01	2.995E+00	-0.549
		883.24		9.739E+00	2.668E+01	4.585E+01	3.076E+01	0.212
		926.36		-8.352E+00	1.545E+01	2.307E+01	5.756E+00	-0.362
		946.00	*	8.543E+00	2.806E+01	4.898E+01	8.950E+00	0.174
		949.00		-2.934E+01	4.080E+01	5.951E+01	4.446E+00	-0.493
PA-234M		766.42		7.415E+02	1.089E+03	1.827E+03	9.202E+02	0.406
		1001.03	*	-7.697E+01	4.097E+02	6.604E+02	5.749E+01	-0.117
TH-234		63.29	*	-8.015E+01	1.880E+02	3.023E+02	5.505E+01	-0.265
		92.59		-3.809E+01	9.387E+01	1.533E+02	3.382E+01	-0.248
U-235		89.96		-1.536E+02	1.091E+02	1.504E+02	3.718E+01	-1.021
		93.35		-3.141E+01	7.169E+01	1.167E+02	2.688E+01	-0.269
		143.76	*	-1.943E+01	2.711E+01	3.910E+01	6.111E+00	-0.497
		163.33		2.963E+01	5.478E+01	9.055E+01	1.505E+01	0.327
		185.72		7.785E-01	5.938E+00	1.005E+01	5.393E-01	0.077
		205.31		-7.525E+00	5.868E+01	9.334E+01	1.576E+01	-0.081
NP-237		86.48	*	-2.803E+01	2.978E+01	4.225E+01	9.662E+00	-0.663
		95.86		-2.687E+02	1.484E+02	1.908E+02	4.545E+01	-1.409
U-238		63.29	*	-8.015E+01	1.880E+02	3.023E+02	5.505E+01	-0.265
		92.59		-3.809E+01	9.355E+01	1.533E+02	1.312E+01	-0.248
NP-239		99.53		-4.067E+00	2.042E+01	3.256E+01	2.521E+00	-0.125
		103.37		9.465E-01	1.275E+01	2.071E+01	1.527E+00	0.046
		106.12		7.273E+00	1.075E+01	1.811E+01	1.292E+00	0.402
		116.74	*	-6.788E+01	3.526E+01	4.849E+01	3.082E+00	-1.400
		228.18		2.313E+01	2.373E+01	4.243E+01	2.381E+00	0.545
		277.60		1.113E+01	1.952E+01	3.395E+01	1.993E+00	0.328
AM-241		59.54	*	-2.064E+01	1.965E+01	2.983E+01	2.689E+00	-0.692
CM-247		278.00		3.399E+01	8.290E+01	1.426E+02	8.370E+00	0.238
		287.50		3.817E+01	1.426E+02	2.425E+02	1.434E+01	0.157
		402.40	*	8.542E-01	4.006E+00	6.748E+00	4.134E-01	0.127
CF-249		252.80		-2.000E+01	1.144E+02	1.888E+02	1.086E+01	-0.106
		333.37		1.170E+01	2.116E+01	3.663E+01	2.219E+00	0.320
		388.16	*	-1.798E+00	4.492E+00	7.124E+00	4.362E-01	-0.252
CF-251		177.52	*	1.447E+01	1.766E+01	2.966E+01	1.578E+00	0.488
		227.38		4.997E+00	3.910E+01	6.617E+01	3.710E+00	0.076
		285.41		2.771E+02	2.514E+02	4.530E+02	2.674E+01	0.612
ANH-511		511.00	*	-5.176E+00	6.094E+00	1.110E+01	6.571E-01	-0.466

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051904    *
* Acquisition date :  5-MAR-2010 16:47:09 Detector SN#     :               *
* Detector ID       : GAM14                Sensitivity     : 5.000         *
* Geometry          : 2LMB                 Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:00.60      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 22-FEB-2010 12:00:00 Nuclide Library : LIQUI         *
* Sample ID         : G1202051904          Analyst initials: KXG3           *
* Batch Number      : 956976               Sample Quantity : 1.5710E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  9-MAR-2009 15:03:15 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
BI-211	7.298E+01	3.220E+03	3.424E+01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	-2.319E+01	3.203E+01	4.893E+01	0.000E+00	NOT IDENT.
NA-22	-2.451E-01	3.149E+00	5.195E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.132E+06	0.000E+00	0.000E+00	SHORT HLIF
K-40	-4.317E+01	4.154E+01	5.973E+01	0.000E+00	NOT IDENT.
SC-46	-1.783E+00	3.732E+00	5.916E+00	0.000E+00	NOT IDENT.
V-48	1.741E+00	5.717E+00	1.016E+01	0.000E+00	NOT IDENT.
CR-51	1.099E+00	3.716E+01	6.314E+01	0.000E+00	NOT IDENT.
MN-54	-1.032E-01	3.382E+00	5.642E+00	0.000E+00	NOT IDENT.
CO-56	2.442E+00	3.831E+00	7.085E+00	0.000E+00	NOT IDENT.
CO-57	5.938E+00	3.474E+00	6.254E+00	0.000E+00	NOT IDENT.
CO-58	2.352E-01	3.607E+00	5.969E+00	0.000E+00	NOT IDENT.
FE-59	3.776E+00	7.350E+00	1.348E+01	0.000E+00	NOT IDENT.
CO-60	2.257E+00	3.929E+00	7.246E+00	0.000E+00	NOT IDENT.
ZN-65	1.294E+00	9.216E+00	1.587E+01	0.000E+00	NOT IDENT.
SE-75	2.024E+00	4.984E+00	8.742E+00	0.000E+00	NOT IDENT.
SR-85	-1.091E+01	6.081E+00	8.776E+00	0.000E+00	NOT IDENT.
Y-88	6.640E-01	3.492E+00	6.069E+00	0.000E+00	NOT IDENT.
Y-91	-3.378E+02	1.769E+03	2.885E+03	0.000E+00	NOT IDENT.
NB-94	-2.591E-01	3.189E+00	5.192E+00	0.000E+00	NOT IDENT.
NB-95	2.847E-01	3.813E+00	6.329E+00	0.000E+00	NOT IDENT.
NB-95M	-7.525E+00	1.268E+01	2.078E+01	0.000E+00	NOT IDENT.
ZR-95	4.739E+00	7.766E+00	1.374E+01	0.000E+00	NOT IDENT.
MO-99	2.273E+02	4.345E+02	7.691E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.046E+14	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.259E+00	4.440E+00	7.622E+00	0.000E+00	FAIL ABUN
RH-106	-9.191E-01	3.412E+01	5.632E+01	0.000E+00	NOT IDENT.

RU-106	-9.191E-01	3.412E+01	5.632E+01	0.000E+00	NOT IDENT.
AG-108M	-2.256E+00	3.195E+00	4.947E+00	0.000E+00	NOT IDENT.
CD-109	-1.227E+02	9.952E+01	1.447E+02	0.000E+00	NOT IDENT.
AG-110M	-1.862E+00	3.410E+00	5.184E+00	0.000E+00	NOT IDENT.
SN-113	-6.321E-01	5.031E+00	8.376E+00	0.000E+00	NOT IDENT.
CD-115	1.409E+02	3.421E+02	5.986E+02	0.000E+00	NOT IDENT.
SN-117M	-1.066E+00	5.549E+00	8.938E+00	0.000E+00	NOT IDENT.
TE-123M	-8.392E-01	3.445E+00	5.527E+00	0.000E+00	NOT IDENT.
SB-124	-2.776E+00	9.603E+00	1.482E+01	0.000E+00	NOT IDENT.
SB-125	6.800E+00	9.341E+00	1.685E+01	0.000E+00	NOT IDENT.
TE-125M	-9.129E+02	1.203E+03	1.877E+03	0.000E+00	NOT IDENT.
I-126	-1.446E+01	1.650E+01	2.342E+01	0.000E+00	NOT IDENT.
SB-126	-5.639E+00	1.171E+01	1.791E+01	0.000E+00	NOT IDENT.
SN-126	-8.456E+00	9.349E+00	1.386E+01	0.000E+00	NOT IDENT.
SB-127	4.307E+00	6.881E+01	1.129E+02	0.000E+00	NOT IDENT.
I-131	-3.844E+00	8.595E+00	1.385E+01	0.000E+00	NOT IDENT.
TE-132	3.331E+01	3.383E+01	6.129E+01	0.000E+00	NOT IDENT.
BA-133	-6.142E+00	5.339E+00	6.489E+00	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.781E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	3.795E+00	4.404E+00	7.566E+00	0.000E+00	FAIL ABUN
CS-135	-1.865E+01	1.690E+01	2.617E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.417E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.909E+00	8.316E+00	1.459E+01	0.000E+00	NOT IDENT.
BA-137M	1.477E+00	3.235E+00	5.698E+00	0.000E+00	NOT IDENT.
CS-137	1.561E+00	3.418E+00	6.019E+00	0.000E+00	NOT IDENT.
CE-139	8.829E-01	3.508E+00	5.824E+00	0.000E+00	NOT IDENT.
BA-140	1.056E+01	2.228E+01	3.878E+01	0.000E+00	NOT IDENT.
LA-140	1.724E+00	7.837E+00	1.360E+01	0.000E+00	NOT IDENT.
CE-141	5.522E-01	6.816E+00	1.122E+01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.884E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	5.070E+00	2.616E+01	4.339E+01	0.000E+00	NOT IDENT.
PM-144	1.681E+00	3.433E+00	6.025E+00	0.000E+00	NOT IDENT.
PR-144	1.262E+02	2.565E+02	4.503E+02	0.000E+00	NOT IDENT.
PM-146	-2.943E+00	4.618E+00	7.193E+00	0.000E+00	NOT IDENT.
ND-147	-2.994E+01	4.440E+01	6.713E+01	0.000E+00	NOT IDENT.
PM-149	2.731E+03	3.142E+03	5.642E+03	0.000E+00	NOT IDENT.
EU-152	1.875E+00	1.016E+01	1.747E+01	0.000E+00	NOT IDENT.
GD-153	-4.773E+00	1.124E+01	1.806E+01	0.000E+00	NOT IDENT.
EU-154	-9.042E-01	8.892E+00	1.459E+01	0.000E+00	NOT IDENT.
EU-155	6.290E+00	1.298E+01	2.206E+01	0.000E+00	NOT IDENT.
TA-182	9.682E+00	1.301E+01	2.496E+01	0.000E+00	NOT IDENT.
IR-192	-7.852E-01	3.596E+00	5.980E+00	0.000E+00	NOT IDENT.
HG-203	1.485E-01	4.016E+00	6.853E+00	0.000E+00	NOT IDENT.
BI-207	-9.030E-01	4.227E+00	6.871E+00	0.000E+00	NOT IDENT.
TL-208	-5.176E-01	4.760E+00	7.119E+00	0.000E+00	NOT IDENT.
PB-210	-2.528E+02	3.838E+02	6.322E+02	0.000E+00	NOT IDENT.
PB-211	3.824E+00	1.848E+02	1.277E+02	0.000E+00	NOT IDENT.
BI-212	2.953E+00	4.970E+01	8.246E+01	0.000E+00	NOT IDENT.
PB-212	2.002E+00	7.379E+00	1.287E+01	0.000E+00	FAIL ABUN
BI-214	0.000E+00	9.838E+00	1.823E+01	0.000E+00	FAIL ABUN
PB-214	0.000E+00	1.178E+01	1.962E+01	0.000E+00	FAIL ABUN
RN-219	1.814E+01	8.011E+02	7.358E+01	0.000E+00	NOT IDENT.
RA-223	4.305E-01	7.575E+01	1.243E+02	0.000E+00	NOT IDENT.
RA-224	1.736E+01	7.408E+01	1.284E+02	0.000E+00	NOT IDENT.
RA-226	1.773E+01	9.313E+01	1.601E+02	0.000E+00	NOT IDENT.
AC-227	2.296E+01	3.011E+01	5.386E+01	0.000E+00	NOT IDENT.
TH-227	2.296E+01	1.013E+03	5.386E+01	0.000E+00	NOT IDENT.
AC-228	2.911E+00	1.286E+01	2.267E+01	0.000E+00	NOT IDENT.
RA-228	2.911E+00	1.286E+01	2.267E+01	0.000E+00	NOT IDENT.
TH-228	2.002E+00	7.379E+00	1.287E+01	0.000E+00	FAIL ABUN
TH-229	-8.385E+01	6.731E+01	1.070E+02	0.000E+00	NOT IDENT.
PA-231	7.536E+01	1.676E+02	2.941E+02	0.000E+00	NOT IDENT.
TH-231	-5.627E+01	5.730E+01	8.537E+01	0.000E+00	NOT IDENT.
TH-232	9.894E+02	7.875E+03	4.331E+03	0.000E+00	NOT IDENT.
PA-233	2.113E+00	6.708E+00	1.169E+01	0.000E+00	NOT IDENT.
PA-234	8.543E+00	2.750E+01	4.898E+01	0.000E+00	NOT IDENT.
PA-234M	-7.697E+01	4.015E+02	6.604E+02	0.000E+00	NOT IDENT.
TH-234	-8.015E+01	1.842E+02	3.023E+02	0.000E+00	NOT IDENT.
U-235	-1.943E+01	2.657E+01	3.910E+01	0.000E+00	NOT IDENT.
NP-237	-2.803E+01	2.919E+01	4.225E+01	0.000E+00	NOT IDENT.
U-238	-8.015E+01	1.842E+02	3.023E+02	0.000E+00	NOT IDENT.
NP-239	-6.788E+01	3.455E+01	4.849E+01	0.000E+00	NOT IDENT.
AM-241	-2.064E+01	1.926E+01	2.983E+01	0.000E+00	NOT IDENT.
CM-247	8.542E-01	3.926E+00	6.748E+00	0.000E+00	NOT IDENT.
CF-249	-1.798E+00	4.403E+00	7.124E+00	0.000E+00	NOT IDENT.
CF-251	1.447E+01	1.730E+01	2.966E+01	0.000E+00	NOT IDENT.
ANH-511	-5.176E+00	5.973E+00	1.110E+01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 18:47:40.12

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051904.CNF;1
Sample date       : 22-FEB-2010 12:00:00 Acquisition date : 5-MAR-2010 16:47:09.
Sample ID         : G1202051904          Sample quantity  : 1.57100E+00 LITER
Detector name     : GAM14                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.60  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 956976               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	76.68	74	111	1.20	152.90	148	9	1.03E-02	28.3	
2	0	92.99	106	147	1.46	185.48	181	11	1.48E-02	24.1	
3	0	186.04	45	168	1.79	371.40	363	13	6.28E-03	61.0	
4	0	238.58	50	84	1.38	476.38	472	10	7.00E-03	36.6	
5	0	351.94	76	45	1.60	702.93	698	9	1.06E-02	19.5	
6	0	510.50	182	50	2.31	1019.86	1011	18	2.53E-02	11.7	
7	0	609.13	62	15	2.35	1217.03	1212	10	8.62E-03	17.2	
8	0	796.48	12	10	1.34	1591.63	1586	9	1.62E-03	59.1	

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 18:47:43.68

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051904.CNF;1
Sample date      : 22-FEB-2010 12:00:00 Acquisition date : 5-MAR-2010 16:47:09.
Sample ID        : G1202051904          Sample quantity  : 1.57100E+00 LITER
Detector name    : GAM14                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00        Elapsed real time: 0 02:00:00.60  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : KXG3
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 956976               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
BI-211	72.87	------	1.23	1.847E+00	------	Line Not Found	------
	351.06	70	12.92*	1.766E+00	7.291E+01	7.298E+01	4501.53

Flag: "*" = Keyline

Sample ID : G1202051904 Acquisition date : 5-MAR-2010 16:47:09

Total number of lines in spectrum	4	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	4	100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
BI-211	21.77Y	1.00	7.291E+01	7.298E+01	328.5E+01	4501.53	
		Total Activity :	7.291E+01	7.298E+01			
		Grand Total Activity :	7.291E+01	7.298E+01			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202051904 Acquisition date : 5-MAR-2010 16:47:09

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	76.68	74	111	1.20	152.90	148	9	1.03E-02	56.6	2.01E+00	T
0	609.13	53	15	2.35	1217.03	1212	10	7.29E-03	42.6	1.19E+00	T
0	796.48	12	10	1.34	1591.63	1586	9	1.62E-03	****	9.62E-01	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 18:47:48.19

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051904.CNF;1 *
* Acquisition date : 5-MAR-2010 16:47:09.  Detector SN#    :                *
* Detector ID      : GAM14                 Sensitivity     : 5.00000        *
* Geometry         : 2LMB                  Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:00.60         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 22-FEB-2010 12:00:00  Nuclide Library : LIQUID          *
* Sample ID        : G1202051904           Analyst initials: KXG3            *
* Batch Number     : 956976                Sample Quantity : 1.57100E+00 LITER *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 9-MAR-2009 15:03:15.29MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BI-211	7.298E+01	3.285E+03	3.424E+01	1.541E+03	2.132

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	-2.319E+01		3.268E+01	4.893E+01	3.399E+00	-0.474
NA-22	-2.451E-01		3.213E+00	5.195E+00	3.440E-01	-0.047
NA-24	1.122E-01		5.774E-01	Half-Life too short		
K-40	-4.317E+01		4.238E+01	5.973E+01	4.385E+00	-0.723
SC-46	-1.783E+00		3.808E+00	5.916E+00	4.516E-01	-0.301
V-48	1.741E+00		5.834E+00	1.016E+01	7.364E-01	0.171
CR-51	1.099E+00		3.792E+01	6.314E+01	4.202E+00	0.017
MN-54	-1.032E-01		3.451E+00	5.642E+00	3.912E-01	-0.018
CO-56	2.442E+00		3.909E+00	7.085E+00	5.019E-01	0.345
CO-57	5.938E+00		3.545E+00	6.254E+00	3.779E-01	0.949
CO-58	2.352E-01		3.681E+00	5.969E+00	3.975E-01	0.039

Sample ID : G1202051904 Acquisition date : 5-MAR-2010 16:47:09

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
FE-59	3.776E+00		7.500E+00	1.348E+01	9.751E-01	0.280
CO-60	2.257E+00		4.009E+00	7.246E+00	5.249E-01	0.312
ZN-65	1.294E+00		9.404E+00	1.587E+01	9.783E-01	0.082
SE-75	2.024E+00		5.086E+00	8.742E+00	5.132E-01	0.232
SR-85	-1.091E+01		6.205E+00	8.776E+00	5.185E-01	-1.243
Y-88	6.640E-01		3.564E+00	6.069E+00	3.489E-01	0.109
Y-91	-3.378E+02		1.805E+03	2.885E+03	1.695E+02	-0.117
NB-94	-2.591E-01		3.254E+00	5.192E+00	2.784E-01	-0.050
NB-95	2.847E-01		3.891E+00	6.329E+00	3.853E-01	0.045
NB-95M	-7.525E+00		1.294E+01	2.078E+01	1.546E+00	-0.362
ZR-95	4.739E+00		7.925E+00	1.374E+01	9.922E-01	0.345
MO-99	2.273E+02		4.434E+02	7.691E+02	1.108E+02	0.295
TC-99M	1.758E+07		5.338E+07	Half-Life too short		
RU-103	1.259E+00		4.530E+00	7.622E+00	9.532E-01	0.165
RH-106	-9.191E-01		3.482E+01	5.632E+01	6.399E+00	-0.016
RU-106	-9.191E-01		3.482E+01	5.632E+01	2.963E+00	-0.016
AG-108M	-2.256E+00		3.260E+00	4.947E+00	3.215E-01	-0.456
CD-109	-1.227E+02		1.016E+02	1.447E+02	1.337E+01	-0.848
AG-110M	-1.862E+00		3.479E+00	5.184E+00	2.793E-01	-0.359
SN-113	-6.321E-01		5.134E+00	8.376E+00	5.438E-01	-0.075
CD-115	1.409E+02		3.491E+02	5.986E+02	3.501E+01	0.235
SN-117M	-1.066E+00		5.662E+00	8.938E+00	4.795E-01	-0.119
TE-123M	-8.392E-01		3.515E+00	5.527E+00	3.009E-01	-0.152
SB-124	-2.776E+00		9.799E+00	1.482E+01	1.014E+00	-0.187
SB-125	6.800E+00		9.531E+00	1.685E+01	1.069E+00	0.404
TE-125M	-9.129E+02		1.227E+03	1.877E+03	1.706E+02	-0.486
I-126	-1.446E+01		1.684E+01	2.342E+01	1.163E+00	-0.617
SB-126	-5.639E+00		1.195E+01	1.791E+01	9.966E-01	-0.315
SN-126	-8.456E+00		9.540E+00	1.386E+01	1.276E+00	-0.610
SB-127	4.307E+00		7.021E+01	1.129E+02	8.685E+00	0.038
I-131	-3.844E+00		8.770E+00	1.385E+01	9.308E-01	-0.277
TE-132	3.331E+01		3.452E+01	6.129E+01	8.366E+00	0.544
BA-133	-6.142E+00		5.447E+00	6.489E+00	7.419E-01	-0.946
I-133	-4.521E-03		1.419E-02	Half-Life too short		
CS-134	3.795E+00	+	4.494E+00	7.566E+00	4.943E-01	0.502
CS-135	-1.865E+01		1.725E+01	2.617E+01	2.009E+00	-0.713
I-135	5.971E+06		1.233E+07	Half-Life too short		
CS-136	1.909E+00		8.485E+00	1.459E+01	1.052E+00	0.131
BA-137M	1.477E+00		3.301E+00	5.698E+00	2.801E-01	0.259
CS-137	1.561E+00		3.487E+00	6.019E+00	2.977E-01	0.259
CE-139	8.829E-01		3.580E+00	5.824E+00	3.072E-01	0.152
BA-140	1.056E+01		2.273E+01	3.878E+01	1.292E+01	0.272
LA-140	1.724E+00		7.997E+00	1.360E+01	9.100E-01	0.127
CE-141	5.522E-01		6.955E+00	1.122E+01	6.498E-01	0.049
CE-143	2.001E-03		9.611E-04	Half-Life too short		
CE-144	5.070E+00		2.669E+01	4.339E+01	6.021E+00	0.117
PM-144	1.681E+00		3.503E+00	6.025E+00	3.192E-01	0.279
PR-144	1.262E+02		2.617E+02	4.503E+02	2.384E+01	0.280

Sample ID : G1202051904 Acquisition date : 5-MAR-2010 16:47:09

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PM-146	-2.943E+00		4.712E+00	7.193E+00	6.224E-01	-0.409
ND-147	-2.994E+01		4.531E+01	6.713E+01	9.087E+00	-0.446
PM-149	2.731E+03		3.206E+03	5.642E+03	8.015E+02	0.484
EU-152	1.875E+00		1.037E+01	1.747E+01	1.185E+00	0.107
GD-153	-4.773E+00		1.147E+01	1.806E+01	1.439E+00	-0.264
EU-154	-9.042E-01		9.074E+00	1.459E+01	1.450E+00	-0.062
EU-155	6.290E+00		1.325E+01	2.206E+01	1.616E+00	0.285
TA-182	9.682E+00		1.327E+01	2.496E+01	1.509E+00	0.388
IR-192	-7.852E-01		3.670E+00	5.980E+00	3.613E-01	-0.131
HG-203	1.485E-01		4.098E+00	6.853E+00	4.245E-01	0.022
BI-207	-9.030E-01		4.313E+00	6.871E+00	4.556E-01	-0.131
TL-208	-5.176E-01		4.857E+00	7.119E+00	4.590E-01	-0.073
PB-210	-2.528E+02		3.916E+02	6.322E+02	4.929E+01	-0.400
PB-211	3.824E+00		1.886E+02	1.277E+02	5.747E+03	0.030
BI-212	2.953E+00		5.071E+01	8.246E+01	8.756E+00	0.036
PB-212	2.002E+00		7.530E+00	1.287E+01	9.390E-01	0.155
BI-214	2.320E+01	+	1.004E+01	1.823E+01	1.371E+00	1.273
PB-214	2.646E+01	+	1.202E+01	1.962E+01	1.703E+00	1.349
RN-219	1.814E+01		8.175E+02	7.358E+01	3.312E+03	0.246
RA-223	4.305E-01		7.730E+01	1.243E+02	5.595E+03	0.003
RA-224	1.736E+01		7.559E+01	1.284E+02	7.300E+00	0.135
RA-226	1.773E+01		9.503E+01	1.601E+02	1.074E+02	0.111
AC-227	2.296E+01		3.072E+01	5.386E+01	5.497E+00	0.426
TH-227	2.296E+01		1.034E+03	5.386E+01	2.425E+03	0.426
AC-228	2.911E+00		1.313E+01	2.267E+01	2.474E+00	0.128
RA-228	2.911E+00		1.313E+01	2.267E+01	2.474E+00	0.128
TH-228	2.002E+00		7.530E+00	1.287E+01	9.390E-01	0.155
TH-229	-8.385E+01		6.868E+01	1.070E+02	5.788E+00	-0.783
PA-231	7.536E+01		1.710E+02	2.941E+02	3.870E+01	0.256
TH-231	-5.627E+01		5.847E+01	8.537E+01	1.503E+01	-0.659
TH-232	9.894E+02		8.035E+03	4.331E+03	3.332E+04	0.228
PA-233	2.113E+00		6.844E+00	1.169E+01	7.422E-01	0.181
PA-234	8.543E+00		2.806E+01	4.898E+01	8.950E+00	0.174
PA-234M	-7.697E+01		4.097E+02	6.604E+02	5.749E+01	-0.117
TH-234	-8.015E+01		1.880E+02	3.023E+02	5.505E+01	-0.265
U-235	-1.943E+01		2.711E+01	3.910E+01	6.111E+00	-0.497
NP-237	-2.803E+01		2.978E+01	4.225E+01	9.662E+00	-0.663
U-238	-8.015E+01		1.880E+02	3.023E+02	5.505E+01	-0.265
NP-239	-6.788E+01		3.526E+01	4.849E+01	3.082E+00	-1.400
AM-241	-2.064E+01		1.965E+01	2.983E+01	2.689E+00	-0.692
CM-247	8.542E-01		4.006E+00	6.748E+00	4.134E-01	0.127
CF-249	-1.798E+00		4.492E+00	7.124E+00	4.362E-01	-0.252
CF-251	1.447E+01		1.766E+01	2.966E+01	1.578E+00	0.488
ANH-511	-5.176E+00		6.094E+00	1.110E+01	6.571E-01	-0.466

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202051904           *
* Acquisition date :  5-MAR-2010 16:47:09 Detector SN#    :                 *
* Detector ID      : GAM14                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:00.60     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 22-FEB-2010 12:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G1202051904          Analyst initials: KXG3            *
* Batch Number     : 956976               Sample Quantity : 1.5710E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  9-MAR-2009 15:03:15 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
BI-211	7.298E+01	3.220E+03	1.713E+01	1.643E+03

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU	
BE-7	-2.319E+01	3.203E+01	2.448E+01	1.634E+01	NOT IDENT.
NA-22	-2.451E-01	3.149E+00	2.599E+00	1.606E+00	NOT IDENT.
NA-24	1.122E+05	1.132E+06	0.000E+00	5.774E+05	SHORT HLIF
K-40	-4.317E+01	4.154E+01	2.988E+01	2.119E+01	NOT IDENT.
SC-46	-1.783E+00	3.732E+00	2.960E+00	1.904E+00	NOT IDENT.
V-48	1.741E+00	5.717E+00	5.082E+00	2.917E+00	NOT IDENT.
CR-51	1.099E+00	3.716E+01	3.159E+01	1.896E+01	NOT IDENT.
MN-54	-1.032E-01	3.382E+00	2.823E+00	1.725E+00	NOT IDENT.
CO-56	2.442E+00	3.831E+00	3.544E+00	1.955E+00	NOT IDENT.
CO-57	5.938E+00	3.474E+00	3.129E+00	1.772E+00	NOT IDENT.
CO-58	2.352E-01	3.607E+00	2.986E+00	1.840E+00	NOT IDENT.
FE-59	3.776E+00	7.350E+00	6.743E+00	3.750E+00	NOT IDENT.
CO-60	2.257E+00	3.929E+00	3.625E+00	2.005E+00	NOT IDENT.
ZN-65	1.294E+00	9.216E+00	7.938E+00	4.702E+00	NOT IDENT.
SE-75	2.024E+00	4.984E+00	4.374E+00	2.543E+00	NOT IDENT.
SR-85	-1.091E+01	6.081E+00	4.391E+00	3.103E+00	NOT IDENT.
Y-88	6.640E-01	3.492E+00	3.037E+00	1.782E+00	NOT IDENT.
Y-91	-3.378E+02	1.769E+03	1.443E+03	9.026E+02	NOT IDENT.
NB-94	-2.591E-01	3.189E+00	2.597E+00	1.627E+00	NOT IDENT.
NB-95	2.847E-01	3.813E+00	3.166E+00	1.946E+00	NOT IDENT.
NB-95M	-7.525E+00	1.268E+01	1.039E+01	6.470E+00	NOT IDENT.
ZR-95	4.739E+00	7.766E+00	6.874E+00	3.962E+00	NOT IDENT.
MO-99	2.273E+02	4.345E+02	3.848E+02	2.217E+02	NOT IDENT.
TC-99M	1.758E+13	1.046E+14	0.000E+00	5.338E+13	SHORT HLIF
RU-103	1.259E+00	4.440E+00	3.813E+00	2.265E+00	FAIL ABUN
RH-106	-9.191E-01	3.412E+01	2.817E+01	1.741E+01	NOT IDENT.

RU-106	-9.191E-01	3.412E+01	2.817E+01	1.741E+01	NOT IDENT.
AG-108M	-2.256E+00	3.195E+00	2.475E+00	1.630E+00	NOT IDENT.
CD-109	-1.227E+02	9.952E+01	7.241E+01	5.078E+01	NOT IDENT.
AG-110M	-1.862E+00	3.410E+00	2.593E+00	1.740E+00	NOT IDENT.
SN-113	-6.321E-01	5.031E+00	4.191E+00	2.567E+00	NOT IDENT.
CD-115	1.409E+02	3.421E+02	2.995E+02	1.745E+02	NOT IDENT.
SN-117M	-1.066E+00	5.549E+00	4.471E+00	2.831E+00	NOT IDENT.
TE-123M	-8.392E-01	3.445E+00	2.765E+00	1.757E+00	NOT IDENT.
SB-124	-2.776E+00	9.603E+00	7.415E+00	4.900E+00	NOT IDENT.
SB-125	6.800E+00	9.341E+00	8.430E+00	4.766E+00	NOT IDENT.
TE-125M	-9.129E+02	1.203E+03	9.389E+02	6.136E+02	NOT IDENT.
I-126	-1.446E+01	1.650E+01	1.171E+01	8.419E+00	NOT IDENT.
SB-126	-5.639E+00	1.171E+01	8.959E+00	5.975E+00	NOT IDENT.
SN-126	-8.456E+00	9.349E+00	6.933E+00	4.770E+00	NOT IDENT.
SB-127	4.307E+00	6.881E+01	5.650E+01	3.511E+01	NOT IDENT.
I-131	-3.844E+00	8.595E+00	6.930E+00	4.385E+00	NOT IDENT.
TE-132	3.331E+01	3.383E+01	3.066E+01	1.726E+01	NOT IDENT.
BA-133	-6.142E+00	5.339E+00	3.247E+00	2.724E+00	NOT IDENT.
I-133	-4.521E+03	2.781E+04	0.000E+00	1.419E+04	SHORT HLIF
CS-134	3.795E+00	4.404E+00	3.785E+00	2.247E+00	FAIL ABUN
CS-135	-1.865E+01	1.690E+01	1.309E+01	8.623E+00	NOT IDENT.
I-135	5.971E+12	2.417E+13	0.000E+00	1.233E+13	SHORT HLIF
CS-136	1.909E+00	8.316E+00	7.298E+00	4.243E+00	NOT IDENT.
BA-137M	1.477E+00	3.235E+00	2.851E+00	1.651E+00	NOT IDENT.
CS-137	1.561E+00	3.418E+00	3.012E+00	1.744E+00	NOT IDENT.
CE-139	8.829E-01	3.508E+00	2.914E+00	1.790E+00	NOT IDENT.
BA-140	1.056E+01	2.228E+01	1.940E+01	1.137E+01	NOT IDENT.
LA-140	1.724E+00	7.837E+00	6.803E+00	3.998E+00	NOT IDENT.
CE-141	5.522E-01	6.816E+00	5.611E+00	3.478E+00	NOT IDENT.
CE-143	2.001E+03	1.884E+03	0.000E+00	9.611E+02	SHORT HLIF
CE-144	5.070E+00	2.616E+01	2.171E+01	1.335E+01	NOT IDENT.
PM-144	1.681E+00	3.433E+00	3.014E+00	1.752E+00	NOT IDENT.
PR-144	1.262E+02	2.565E+02	2.253E+02	1.309E+02	NOT IDENT.
PM-146	-2.943E+00	4.618E+00	3.599E+00	2.356E+00	NOT IDENT.
ND-147	-2.994E+01	4.440E+01	3.359E+01	2.265E+01	NOT IDENT.
PM-149	2.731E+03	3.142E+03	2.823E+03	1.603E+03	NOT IDENT.
EU-152	1.875E+00	1.016E+01	8.740E+00	5.184E+00	NOT IDENT.
GD-153	-4.773E+00	1.124E+01	9.036E+00	5.736E+00	NOT IDENT.
EU-154	-9.042E-01	8.892E+00	7.298E+00	4.537E+00	NOT IDENT.
EU-155	6.290E+00	1.298E+01	1.104E+01	6.623E+00	NOT IDENT.
TA-182	9.682E+00	1.301E+01	1.249E+01	6.636E+00	NOT IDENT.
IR-192	-7.852E-01	3.596E+00	2.992E+00	1.835E+00	NOT IDENT.
HG-203	1.485E-01	4.016E+00	3.428E+00	2.049E+00	NOT IDENT.
BI-207	-9.030E-01	4.227E+00	3.438E+00	2.157E+00	NOT IDENT.
TL-208	-5.176E-01	4.760E+00	3.562E+00	2.429E+00	NOT IDENT.
PB-210	-2.528E+02	3.838E+02	3.163E+02	1.958E+02	NOT IDENT.
PB-211	3.824E+00	1.848E+02	6.388E+01	9.430E+01	NOT IDENT.
BI-212	2.953E+00	4.970E+01	4.126E+01	2.536E+01	NOT IDENT.
PB-212	2.002E+00	7.379E+00	6.440E+00	3.765E+00	FAIL ABUN
BI-214	2.320E+01	9.838E+00	9.119E+00	5.019E+00	FAIL ABUN
PB-214	2.646E+01	1.178E+01	9.816E+00	6.012E+00	FAIL ABUN
RN-219	1.814E+01	8.011E+02	3.681E+01	4.087E+02	NOT IDENT.
RA-223	4.305E-01	7.575E+01	6.219E+01	3.865E+01	NOT IDENT.
RA-224	1.736E+01	7.408E+01	6.425E+01	3.780E+01	NOT IDENT.
RA-226	1.773E+01	9.313E+01	8.009E+01	4.752E+01	NOT IDENT.
AC-227	2.296E+01	3.011E+01	2.695E+01	1.536E+01	NOT IDENT.
TH-227	2.296E+01	1.013E+03	2.695E+01	5.169E+02	NOT IDENT.
AC-228	2.911E+00	1.286E+01	1.134E+01	6.563E+00	NOT IDENT.
RA-228	2.911E+00	1.286E+01	1.134E+01	6.563E+00	NOT IDENT.
TH-228	2.002E+00	7.379E+00	6.440E+00	3.765E+00	FAIL ABUN
TH-229	-8.385E+01	6.731E+01	5.355E+01	3.434E+01	NOT IDENT.
PA-231	7.536E+01	1.676E+02	1.471E+02	8.552E+01	NOT IDENT.
TH-231	-5.627E+01	5.730E+01	4.271E+01	2.924E+01	NOT IDENT.
TH-232	9.894E+02	7.875E+03	2.167E+03	4.018E+03	NOT IDENT.
PA-233	2.113E+00	6.708E+00	5.848E+00	3.422E+00	NOT IDENT.
PA-234	8.543E+00	2.750E+01	2.451E+01	1.403E+01	NOT IDENT.
PA-234M	-7.697E+01	4.015E+02	3.304E+02	2.049E+02	NOT IDENT.
TH-234	-8.015E+01	1.842E+02	1.512E+02	9.400E+01	NOT IDENT.
U-235	-1.943E+01	2.657E+01	1.956E+01	1.356E+01	NOT IDENT.
NP-237	-2.803E+01	2.919E+01	2.114E+01	1.489E+01	NOT IDENT.
U-238	-8.015E+01	1.842E+02	1.512E+02	9.400E+01	NOT IDENT.
NP-239	-6.788E+01	3.455E+01	2.426E+01	1.763E+01	NOT IDENT.
AM-241	-2.064E+01	1.926E+01	1.492E+01	9.826E+00	NOT IDENT.
CM-247	8.542E-01	3.926E+00	3.376E+00	2.003E+00	NOT IDENT.
CF-249	-1.798E+00	4.403E+00	3.564E+00	2.246E+00	NOT IDENT.
CF-251	1.447E+01	1.730E+01	1.484E+01	8.828E+00	NOT IDENT.
ANH-511	-5.176E+00	5.973E+00	5.554E+00	3.047E+00	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	103.6444
49.72	129.5292
57.36	0.0000
59.54	163.9157
63.29	168.6845
63.29	168.6845
63.81	147.0287
64.28	131.5593
67.75	180.8613
69.67	169.7403
70.83	151.5088
72.81	137.0287
72.87	137.0362
72.87	137.0362
74.82	147.3275
74.82	147.3275
74.82	147.3275
74.97	147.3479
77.11	137.5677
77.11	137.5677
77.11	137.5677
79.69	131.1580
79.69	131.1580
80.12	131.2075
80.19	131.2156
81.00	124.5751
81.07	124.5828
83.79	142.3839
84.21	144.5455
85.43	139.4146
86.48	139.5385
86.55	139.5466
86.94	142.7649
87.57	134.3755
88.03	155.5965
88.47	177.8899
89.96	183.4099
91.11	136.8913
92.59	130.6814
92.59	130.6814
93.35	138.2034
94.56	128.7605
94.65	152.1824
94.67	152.1846
95.86	214.1130
97.43	152.5179
98.43	129.1547
98.44	129.1556
99.53	120.7190
100.11	127.1861
103.18	118.9152
103.37	118.9326
105.31	110.5223
106.12	111.6632
109.28	142.0592
111.00	110.9887
111.76	95.9558
116.30	150.3525
116.74	154.7272
121.12	116.1304
121.78	128.1276
122.06	112.9478
123.07	141.2830
131.20	149.7079
133.52	132.4259
136.00	152.3706
136.47	149.1277

140.51	135.2219
140.51	0.0000
140.88	125.3572
143.76	133.2964
144.24	132.2342
145.44	110.2776
152.43	125.1490
153.25	125.2111
154.21	120.8487
156.02	105.4414
158.56	118.9390
159.00	120.0819
162.66	116.9971
163.33	107.0105
165.86	104.9346
176.60	115.6809
177.52	117.9872
181.07	179.2397
185.72	115.5805
186.21	112.9013
193.51	153.2357
205.31	105.8210
210.85	104.2859
222.11	89.2259
227.38	84.8406
228.16	71.9567
228.18	71.9577
235.69	102.7631
235.96	100.9241
235.96	100.9241
238.63	84.3622
238.63	84.3622
240.99	103.9438
242.00	115.1337
244.70	98.5424
252.40	90.4887
252.80	90.5053
256.23	79.4294
256.23	79.4294
260.90	96.4481
264.66	75.0342
268.22	89.2399
269.46	80.8287
271.23	62.0780
273.65	89.4475
276.40	64.1003
277.37	71.6703
277.60	68.8483
278.00	70.7465
279.20	75.5010
279.54	74.5678
283.69	72.8060
284.31	66.2043
285.41	60.5570
285.90	67.1943
287.50	71.0266
293.27	0.0000
295.22	63.6508
295.96	70.3217
299.98	84.7141
299.98	84.7141
300.09	79.0060
300.09	79.0060
300.13	79.0070
301.36	58.0945
302.85	56.2229
304.50	75.3316
304.50	75.3316
304.85	76.2954
308.46	65.8987
311.90	53.5555
316.51	62.2745
319.41	62.3443
320.08	63.3196
323.87	69.1769
328.76	85.6701
329.85	78.0011
329.85	78.0011

330.06	78.0080
333.37	64.6053
334.37	63.6652
334.37	63.6652
338.28	58.9277
338.32	61.8273
338.32	61.8273
340.48	61.8766
340.55	61.8781
344.28	52.2822
351.06	49.5003
351.93	48.5449
356.01	68.0629
364.49	52.6658
366.42	54.6533
383.85	46.1497
388.16	57.0350
388.63	60.9783
391.70	59.0728
400.66	55.3014
401.81	41.4919
402.40	45.4525
404.85	47.4680
414.70	41.6693
423.72	48.7572
427.09	40.8413
427.87	34.8731
433.94	50.9141
453.88	50.2289
463.37	47.3528
468.07	41.3669
473.00	38.3971
476.78	39.4523
477.60	44.5215
487.02	47.6902
492.35	47.7654
497.08	44.7783
511.00	54.1552
514.00	134.9930
527.90	28.7479
529.87	0.0000
531.02	36.9932
537.26	28.8230
546.56	0.0000
563.25	49.7625
569.33	36.3441
569.50	37.3843
569.70	37.3860
583.19	30.2249
600.60	49.2077
602.73	35.9155
604.72	20.9614
609.32	34.6274
610.33	43.7327
614.28	26.2659
618.01	38.9105
621.93	33.6852
621.93	33.6852
633.25	25.3359
635.95	31.6912
636.99	31.6992
645.85	31.7688
657.76	30.7990
661.66	20.1982
661.66	20.1982
664.57	0.0000
666.33	29.7992
666.50	29.8006
677.62	19.2085
685.70	22.4530
695.00	19.2876
696.49	24.6537
696.51	24.6537
697.00	22.5124
702.65	25.7625
706.68	27.9354
720.70	30.1813
721.93	0.0000

722.78	23.7252
722.91	23.7263
723.31	23.7284
724.19	22.6545
727.33	24.8294
733.00	33.5089
735.93	27.0410
739.50	18.4028
747.24	24.9412
753.82	30.4076
756.73	26.0807
763.94	28.2991
765.80	23.9551
766.42	17.4242
777.92	25.1102
778.90	17.4719
783.70	19.6761
785.37	26.2441
795.86	25.2079
801.95	18.6560
810.76	19.7903
815.77	20.1783
818.51	23.8608
832.01	22.0874
834.85	18.4172
836.80	0.0000
846.77	19.3854
856.80	23.1252
860.56	15.7372
871.09	26.9031
873.19	22.2739
875.33	0.0000
880.51	25.0950
883.24	14.8792
884.68	13.9532
889.28	24.2078
898.04	16.7886
911.20	17.7669
911.20	17.7669
926.36	18.7573
937.49	13.1583
944.13	21.6444
946.00	16.0039
949.00	21.6645
964.08	28.3386
968.97	21.7464
968.97	21.7464
983.53	17.0651
996.26	19.0059
1001.03	18.0715
1004.73	17.1321
1037.84	18.1921
1038.76	0.0000
1048.07	17.2661
1050.41	18.2331
1050.41	18.2331
1063.66	14.4281
1085.87	20.2780
1099.25	12.5821
1112.07	23.2793
1115.54	24.2635
1120.29	17.4836
1120.55	20.3993
1121.30	18.4588
1131.51	0.0000
1173.23	13.7192
1189.05	15.7201
1204.77	18.7147
1221.41	7.9010
1231.02	8.9022
1235.36	10.8881
1238.28	14.8541
1260.41	0.0000
1274.44	9.9593
1274.54	9.9593
1291.59	13.9795
1298.22	0.0000
1312.11	14.0234

1332.49	11.0524
1365.19	15.1453
1368.63	0.0000
1384.29	14.1755
1408.01	13.2084
1457.56	0.0000
1460.82	11.2609
1489.16	12.3335
1596.21	10.4281
1620.50	10.4614
1678.03	0.0000
1690.97	11.6128
1764.49	7.4583
1770.23	15.9930
1771.35	11.7300
1791.20	0.0000
1836.06	5.3739

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202051904

Total Uranium Activity	-2.4743E+02	ug/g
Total Uranium Counting Unc.	5.4827E+02	ug/g
Total Uranium Tpu	2.7973E-04	ug/g
Total Uranium Mda	4.5002E+02	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 956976                    SAMPLE ID  : G1202051904      *
*   ANALYST       : KXG3                      DETECTOR   : GAM14            *
*   SAMPLE DATE   : 22-FEB-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  5-MAR-2010 16:47:09.74    SAMPLE ALQT:    1.571 LITER   *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 3.174E+01
        GROSS GAMMA ERROR  (pCi/LITER )   : 8.760E+00
        GROSS GAMMA MDA    (pCi/LITER )   : 2.949E+01
        GROSS GAMMA DLC    (pCi/LITER )   : 1.380E+01
```

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 17:48:34.61

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051905.CNF;1
Sample date       : 3-MAR-2010 00:00:00. Acquisition date : 5-MAR-2010 16:48:00.
Sample ID         : G1202051905          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM02                Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.99  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 956976                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.18	979	351	0.99	117.55	112	11	2.72E-01	4.9	
2	0	62.97*	30	102	1.29	125.13	123	5	8.27E-03	59.5	
3	2	87.71	528	134	0.91	174.63	170	18	1.47E-01	5.4	2.08E+00
4	0	121.68	92	188	0.97	242.61	239	8	2.57E-02	27.7	
5	0	197.65*	50	133	1.49	394.63	391	9	1.39E-02	44.3	
6	0	661.16*	1073	35	1.58	1322.19	1315	14	2.98E-01	3.3	
7	0	1172.53	863	39	2.12	2345.61	2337	16	2.40E-01	3.8	
8	0	1331.75	803	9	1.90	2664.29	2655	16	2.23E-01	3.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 5-MAR-2010 17:48:37

Configuration	: DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051905.CNF;1		
Analyses by	: PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8		
Sample title	: KXG3		
Sample date	: 3-MAR-2010 00:00:00	Acquisition date	: 5-MAR-2010 16:48:00
Sample ID	: G1202051905	Sample quantity	: 2.0000 LITER
Sample type	: LIQUID	Sample geometry	:
Detector name	: GAMMA2	Detector geometry	: 2LMB
Elapsed live time	: 0 01:00:00.00	Elapsed real time	: 0 01:00:01.99 0.1%
Peak Width (FWHM)	: 3.00	Confidence level	: 5.00 %
Energy tolerance	: 1.50 keV	Half life ratio	: 8.00
Errors propagated	: Yes	Systematic Error	: 0.00 %
Efficiency type	: Empirical	Efficiencies at	: Peak Energy
Abundance limit	: 75.00	WTM error limit	: 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-57	+	122.06	*	1.600E+01	8.913E+00	9.514E+00	5.799E-01	1.681
		136.47		-9.427E+00	4.881E+01	7.895E+01	5.189E+00	-0.119
CO-60	+	1173.23		4.910E+02	4.619E+01	1.563E+01	8.755E-01	31.417
	+	1332.49	*	5.054E+02	5.069E+01	3.863E+00	2.684E-01	130.852
CD-109	+	88.03	*	2.760E+03	3.730E+02	2.980E+02	2.419E+01	9.260
SN-126	+	64.28		1.340E+02	1.606E+02	2.427E+02	3.551E+01	0.552
	+	86.94		1.143E+03	4.873E+02	1.255E+02	5.178E+01	9.101
	+	87.57	*	2.748E+02	3.715E+01	2.990E+01	2.420E+00	9.193
BA-137M	+	661.66	*	4.280E+02	3.500E+01	1.189E+01	5.815E-01	36.001
CS-137	+	661.66	*	4.522E+02	3.705E+01	1.256E+01	6.180E-01	36.001
TH-232	+	63.81	*	4.946E+03	3.850E+04	8.669E+03	6.669E+04	0.571
		140.88		1.435E+04	2.520E+04	4.230E+04	2.344E+03	0.339
NP-237	+	86.48	*	8.201E+02	2.046E+02	9.939E+01	2.232E+01	8.251
		95.86		8.458E+01	2.194E+02	3.373E+02	7.936E+01	0.251
AM-241	+	59.54	*	1.493E+03	1.926E+02	9.840E+01	8.168E+00	15.170

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.60	*	8.873E+01	6.408E+01	1.157E+02	7.923E+00	0.767
NA-22		1274.54	*	-1.209E+00	4.551E+00	6.934E+00	4.479E-01	-0.174
NA-24		1368.63	*	5.820E+01	9.381E+01	1.784E+02	1.268E+01	0.326
K-40		1460.82	*	2.050E+01	7.760E+01	1.427E+02	1.016E+01	0.144
SC-46		889.28	*	2.448E+00	9.626E+00	1.595E+01	1.291E+00	0.153
		1120.55		2.125E+00	1.021E+01	1.743E+01	1.089E+00	0.122
V-48		944.13		-4.295E+01	1.714E+02	2.705E+02	2.142E+01	-0.159
		983.53	*	1.689E+00	1.209E+01	1.970E+01	1.500E+00	0.086
		1312.11		1.437E+00	6.725E+00	1.152E+01	7.802E-01	0.125
CR-51		320.08	*	-9.527E+00	6.129E+01	1.008E+02	6.569E+00	-0.095
MN-54		834.85	*	1.367E+00	9.423E+00	1.558E+01	1.130E+00	0.088
CO-56		846.77	*	-4.060E+00	8.958E+00	1.389E+01	1.032E+00	-0.292
		1037.84		-6.539E+01	6.539E+01	9.693E+01	7.432E+00	-0.675
		1238.28		-1.254E+01	9.098E+00	1.118E+01	7.250E-01	-1.122

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1771.35		-1.930E+01	3.166E+01	4.125E+01	2.475E+00	-0.468
CO-58		810.76	*	2.576E+00	8.449E+00	1.425E+01	9.864E-01	0.181
FE-59		1099.25	*	4.805E+00	1.976E+01	3.367E+01	2.490E+00	0.143
		1291.59		1.058E+00	1.352E+01	2.259E+01	1.820E+00	0.047
ZN-65		1115.54	*	-1.315E+01	2.143E+01	3.347E+01	2.115E+00	-0.393
SE-75	+	121.12		8.031E+01	4.510E+01	6.155E+01	5.703E+00	1.305
		136.00		5.400E+00	8.749E+00	1.482E+01	8.514E-01	0.364
		264.66	*	-8.201E-01	9.481E+00	1.589E+01	9.060E-01	-0.052
		279.54		-7.636E+00	2.341E+01	3.847E+01	2.385E+00	-0.198
		400.66		1.600E+01	5.573E+01	9.324E+01	8.573E+00	0.172
SR-85		514.00	*	-3.338E-01	8.700E+00	1.391E+01	8.082E-01	-0.024
Y-88		898.04		1.799E+00	1.122E+01	1.844E+01	1.525E+00	0.098
		1836.06	*	4.085E+00	4.848E+00	9.972E+00	5.748E-01	0.410
Y-91		1204.77	*	3.252E+01	2.799E+03	4.636E+03	2.717E+02	0.007
NB-94		702.65	*	-1.180E+00	7.332E+00	1.194E+01	6.455E-01	-0.099
		871.09		6.697E+00	9.423E+00	1.633E+01	1.275E+00	0.410
NB-95		765.80	*	-5.200E+00	8.641E+00	1.338E+01	8.368E-01	-0.389
NB-95M		235.69	*	-2.022E+00	2.397E+01	4.049E+01	2.958E+00	-0.050
ZR-95		724.19		8.185E-01	1.758E+01	2.915E+01	1.965E+00	0.028
		756.73	*	2.258E+00	1.498E+01	2.500E+01	1.836E+00	0.090
MO-99		140.51		1.049E+02	2.274E+02	3.774E+02	8.608E+01	0.278
		181.07		-8.625E+01	1.725E+02	2.670E+02	4.666E+01	-0.323
		366.42		-4.696E+02	1.071E+03	1.706E+03	1.019E+02	-0.275
		739.50	*	8.198E+01	1.231E+02	2.155E+02	3.114E+01	0.380
		777.92		2.399E+02	3.865E+02	6.715E+02	4.315E+01	0.357
TC-99M		140.51	*	4.935E-03	3.865E+02	Half-Life too short		
RU-103		497.08	*	-1.970E+00	7.782E+00	1.221E+01	1.521E+00	-0.161
		610.33		-1.021E+01	1.298E+02	2.156E+02	3.205E+01	-0.047
RH-106		621.93	*	6.479E+01	7.158E+01	1.285E+02	1.457E+01	0.504
		1050.41		3.386E+02	5.923E+02	1.048E+03	7.342E+01	0.323
RU-106		621.93	*	6.479E+01	7.128E+01	1.285E+02	6.694E+00	0.504
		1050.41		3.386E+02	5.923E+02	1.048E+03	7.342E+01	0.323
AG-108M		433.94	*	1.880E+00	7.267E+00	1.207E+01	7.703E-01	0.156
		614.28		5.820E+00	7.957E+00	1.413E+01	8.082E-01	0.412
		722.91		-1.604E+00	8.186E+00	1.324E+01	8.060E-01	-0.121
AG-110M		657.76	*	1.714E+01	1.119E+01	1.861E+01	9.979E-01	0.921
		677.62		-2.823E+01	6.548E+01	1.037E+02	5.704E+00	-0.272
		706.68		1.244E+01	4.696E+01	7.964E+01	4.654E+00	0.156
		763.94		1.321E+01	3.493E+01	5.957E+01	3.904E+00	0.222
		884.68		4.897E+00	1.268E+01	2.137E+01	1.777E+00	0.229
		937.49		-1.762E+01	3.282E+01	5.027E+01	4.174E+00	-0.351
		1384.29		2.526E+00	1.927E+01	3.259E+01	2.345E+00	0.078
SN-113		391.70	*	3.385E+00	1.023E+01	1.718E+01	1.093E+00	0.197
CD-115		260.90		1.889E+02	6.774E+02	1.161E+03	6.523E+01	0.163
		492.35		2.035E+02	2.046E+02	3.567E+02	2.097E+01	0.570
		527.90	*	-1.996E+01	5.432E+01	8.352E+01	4.806E+00	-0.239
SN-117M		156.02		-1.158E+02	2.798E+02	4.426E+02	2.324E+01	-0.262
		158.56	*	3.741E-01	6.696E+00	1.089E+01	5.675E-01	0.034
TE-123M		159.00	*	5.483E-01	6.178E+00	1.007E+01	5.325E-01	0.054

Sample ID : G1202051905 Acquisition date : 5-MAR-2010 16:48:00

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
SB-124		602.73		-5.386E-01	6.671E+00	1.109E+01	5.930E-01	-0.049
		645.85		5.556E-01	1.022E+02	1.704E+02	9.941E+00	0.003
		722.78		-3.886E+01	7.315E+01	1.142E+02	6.815E+00	-0.340
		1690.97	*	-9.558E+00	1.391E+01	1.926E+01	1.303E+00	-0.496
SB-125		427.87	*	-1.181E+01	2.162E+01	3.352E+01	2.085E+00	-0.352
		463.37		4.432E+01	7.026E+01	1.191E+02	8.168E+00	0.372
		600.60		-2.040E+01	3.753E+01	5.961E+01	3.776E+00	-0.342
		635.95		-1.065E+01	6.480E+01	1.065E+02	6.616E+00	-0.100
TE-125M		109.28	*	1.370E+03	2.074E+03	3.554E+03	3.110E+02	0.385
I-126		388.63		-2.476E+00	2.123E+01	3.451E+01	2.065E+00	-0.072
		666.33	*	-1.774E+01	2.613E+01	3.349E+01	1.657E+00	-0.530
		753.82		1.104E+02	2.164E+02	3.739E+02	2.277E+01	0.295
SB-126		414.70		2.906E+00	9.337E+00	1.560E+01	9.353E-01	0.186
		666.50		-3.987E+00	8.536E+00	1.137E+01	5.630E-01	-0.351
		695.00		-3.693E+00	8.653E+00	1.372E+01	7.284E-01	-0.269
		697.00		4.825E+00	2.743E+01	4.626E+01	2.468E+00	0.104
		720.70	*	-1.944E+00	1.566E+01	2.553E+01	1.441E+00	-0.076
		856.80		-1.409E+01	5.855E+01	9.288E+01	7.044E+00	-0.152
SB-127		252.40		8.205E+01	1.126E+02	1.897E+02	7.666E+01	0.432
		473.00		-2.957E+01	4.325E+01	6.460E+01	5.603E+00	-0.458
		685.70	*	-1.467E+01	3.132E+01	4.940E+01	2.850E+00	-0.297
		783.70		-3.547E+01	9.352E+01	1.476E+02	1.253E+01	-0.240
I-131		80.19		6.980E+01	3.827E+02	6.500E+02	5.054E+01	0.107
		284.31		9.125E+01	1.174E+02	2.062E+02	1.300E+01	0.443
		364.49	*	4.002E+00	9.678E+00	1.642E+01	1.076E+00	0.244
		636.99		2.130E+01	1.321E+02	2.235E+02	1.299E+01	0.095
TE-132		49.72		1.544E+02	6.709E+02	1.054E+03	8.314E+01	0.147
		111.76		-7.795E+01	5.699E+02	9.339E+02	6.035E+01	-0.083
		116.30		3.122E+01	4.593E+02	7.612E+02	4.817E+01	0.041
		228.16	*	-7.647E+00	1.208E+01	1.821E+01	2.304E+00	-0.420
BA-133		81.00		-1.371E+00	2.298E+01	3.853E+01	5.810E+00	-0.036
		276.40		-2.438E+01	7.919E+01	1.303E+02	1.635E+01	-0.187
		302.85		-1.161E+01	2.992E+01	4.851E+01	5.536E+00	-0.239
		356.01	*	1.146E+01	9.443E+00	1.684E+01	1.913E+00	0.680
		383.85		2.311E+01	7.015E+01	1.180E+02	1.270E+01	0.196
I-133		529.87	*	1.851E+01	6.152E+01	1.017E+02	6.288E+00	0.182
		875.33		-5.224E+02	1.902E+03	3.006E+03	2.726E+02	-0.174
		1298.22		-4.185E+03	2.479E+03	2.402E+03	1.962E+02	-1.742
CS-134		563.25		-6.682E+01	7.716E+01	1.192E+02	6.812E+00	-0.560
		569.33		5.645E+01	4.368E+01	8.117E+01	4.653E+00	0.696
		604.72		-9.993E-01	6.721E+00	1.110E+01	5.957E-01	-0.090
		795.86	*	-1.897E+00	9.562E+00	1.529E+01	1.034E+00	-0.124
		801.95		-5.602E+01	9.254E+01	1.419E+02	9.690E+00	-0.395
		1365.19		9.013E+00	1.526E+02	2.536E+02	1.881E+01	0.036
CS-135		268.22	*	-1.788E+01	3.446E+01	5.603E+01	4.231E+00	-0.319
I-135		546.56		2.916E-02	3.446E+01	Half-Life too short		
		836.80		2.843E-02	3.446E+01	Half-Life too short		
		1038.76		-1.363E-01	3.446E+01	Half-Life too short		
		1131.51		6.679E-04	3.446E+01	Half-Life too short		

Sample ID : G1202051905 Acquisition date : 5-MAR-2010 16:48:00

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1260.41	*	-7.406E-05	3.446E+01	Half-Life too short		
		1457.56		-3.804E-02	3.446E+01	Half-Life too short		
		1678.03		-7.389E-03	3.446E+01	Half-Life too short		
		1791.20		1.853E-02	3.446E+01	Half-Life too short		
CS-136		153.25		2.263E+01	1.000E+02	1.647E+02	1.266E+01	0.137
		176.60		-3.423E+01	6.055E+01	9.389E+01	6.111E+00	-0.365
		273.65		-4.572E+01	5.872E+01	9.365E+01	6.304E+00	-0.488
		340.55		1.720E+00	1.705E+01	2.843E+01	1.815E+00	0.060
		818.51		4.752E-01	9.310E+00	1.530E+01	1.072E+00	0.031
		1048.07	*	-4.604E+00	1.336E+01	2.154E+01	1.607E+00	-0.214
		1235.36		-1.287E+01	3.328E+01	5.036E+01	5.071E+00	-0.256
CE-139		165.86	*	4.655E+00	6.354E+00	1.073E+01	5.473E-01	0.434
BA-140		162.66		-6.785E+01	9.542E+01	1.478E+02	8.969E+00	-0.459
		304.85		-2.652E+00	1.514E+02	2.524E+02	7.211E+01	-0.011
		423.72		9.395E+01	2.491E+02	4.148E+02	1.340E+02	0.226
		537.26	*	-1.035E-01	3.295E+01	5.266E+01	1.753E+01	-0.002
LA-140		328.76		1.034E+01	3.348E+01	5.677E+01	3.746E+00	0.182
		487.02		-1.374E+01	1.814E+01	2.720E+01	1.809E+00	-0.505
		815.77		5.652E+00	4.075E+01	6.756E+01	5.532E+00	0.084
		1596.21	*	-4.933E-01	5.600E+00	9.128E+00	5.975E-01	-0.054
CE-141		145.44	*	-3.494E+00	1.092E+01	1.744E+01	9.925E-01	-0.200
CE-143		57.36		1.645E+03	1.048E+03	1.727E+03	1.369E+02	0.953
		293.27	*	3.744E+00	5.075E+01	8.537E+01	1.676E+01	0.044
		664.57		1.454E+03	7.774E+02	1.175E+03	3.360E+02	1.238
		721.93		-2.716E+02	5.630E+02	8.766E+02	2.335E+02	-0.310
CE-144		80.12		1.189E+02	5.885E+02	1.000E+03	7.774E+01	0.119
		133.52	*	-7.645E+00	4.724E+01	7.664E+01	1.062E+01	-0.100
PM-144		476.78		2.856E+00	1.532E+01	2.514E+01	1.749E+00	0.114
		618.01		-5.601E+00	7.347E+00	1.141E+01	6.416E-01	-0.491
		696.49	*	2.761E+00	6.826E+00	1.178E+01	6.279E-01	0.234
PR-144		696.51	*	2.030E+02	5.073E+02	8.753E+02	4.665E+01	0.232
		1489.16		7.854E+02	1.849E+03	3.336E+03	2.259E+02	0.235
PM-146		453.88	*	6.383E+00	1.078E+01	1.828E+01	1.566E+00	0.349
		633.25		-1.452E+02	3.372E+02	5.327E+02	2.001E+02	-0.273
		735.93		2.044E+00	3.208E+01	5.324E+01	1.454E+01	0.038
		747.24		-1.165E+01	2.170E+01	3.354E+01	4.429E+00	-0.347
ND-147		91.11		-1.709E+01	3.125E+01	5.589E+01	4.758E+00	-0.306
		319.41		-5.616E+01	3.410E+02	5.603E+02	3.290E+01	-0.100
		531.02	*	-3.627E+01	5.903E+01	8.787E+01	1.186E+01	-0.413
PM-149		285.90	*	1.366E+02	4.384E+02	7.484E+02	1.057E+02	0.183
EU-152	+	121.78		4.745E+01	2.654E+01	3.643E+01	2.842E+00	1.302
		244.70		2.270E+01	7.586E+01	1.305E+02	7.215E+00	0.174
		344.28	*	-3.012E+00	2.233E+01	3.658E+01	2.434E+00	-0.082
		778.90		2.711E+01	6.465E+01	1.103E+02	7.104E+00	0.246
		964.08		-1.045E+01	7.465E+01	1.186E+02	9.213E+00	-0.088
		1085.87		-2.638E+01	9.983E+01	1.621E+02	1.076E+01	-0.163
		1112.07		-2.666E-01	7.717E+01	1.284E+02	8.152E+00	-0.002
		1408.01		-2.316E+00	2.818E+01	4.506E+01	3.103E+00	-0.051
GD-153		69.67		-1.070E+02	4.388E+02	7.297E+02	5.535E+01	-0.147

Sample ID : G1202051905 Acquisition date : 5-MAR-2010 16:48:00

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		97.43	*	-6.266E+00	1.940E+01	3.168E+01	2.254E+00	-0.198
		103.18		-1.084E+01	2.472E+01	3.997E+01	2.690E+00	-0.271
EU-154	+	123.07		3.351E+01	1.884E+01	2.391E+01	2.282E+00	1.402
		723.31		8.974E+00	3.676E+01	6.218E+01	4.311E+00	0.144
		873.19		-2.090E+01	8.046E+01	1.274E+02	1.445E+01	-0.164
		996.26		-4.017E+01	9.864E+01	1.511E+02	2.560E+01	-0.266
		1004.73		-2.744E+01	5.160E+01	8.180E+01	8.824E+00	-0.335
		1274.44	*	-3.446E+00	1.298E+01	1.977E+01	1.944E+00	-0.174
EU-155	+	86.55		3.316E+02	4.501E+01	6.952E+01	5.658E+00	4.770
		105.31	*	-1.160E+01	2.376E+01	3.822E+01	2.579E+00	-0.304
TA-182		67.75		4.784E+00	2.822E+01	4.827E+01	3.661E+00	0.099
		100.11		1.927E+01	3.937E+01	6.729E+01	4.656E+00	0.286
		152.43		2.546E+01	7.322E+01	1.215E+02	6.454E+00	0.210
		222.11		-4.136E+01	8.286E+01	1.270E+02	6.849E+00	-0.326
		1121.30		2.219E+00	2.931E+01	4.940E+01	3.083E+00	0.045
		1189.05		-2.094E+01	3.992E+01	5.964E+01	3.418E+00	-0.351
		1221.41	*	-1.490E+01	2.097E+01	2.905E+01	1.742E+00	-0.513
		1231.02		2.309E+01	5.919E+01	1.041E+02	6.326E+00	0.222
IR-192		295.96		3.664E+00	2.008E+01	3.399E+01	1.999E+00	0.108
		308.46		-9.114E+00	2.009E+01	3.244E+01	1.914E+00	-0.281
		316.51	*	-1.432E+00	7.087E+00	1.163E+01	6.849E-01	-0.123
		468.07		-6.209E+00	1.580E+01	2.470E+01	1.684E+00	-0.251
HG-203		70.83		-2.702E+02	2.901E+02	4.588E+02	7.125E+01	-0.589
		72.87		2.249E+01	1.614E+02	2.748E+02	4.121E+01	0.082
		279.20	*	-1.719E+00	7.240E+00	1.197E+01	7.229E-01	-0.144
BI-207		72.81		4.549E+00	4.483E+01	7.618E+01	5.795E+00	0.060
		74.97		-7.067E-01	2.601E+01	4.360E+01	3.331E+00	-0.016
		569.70		4.804E+00	6.890E+00	1.226E+01	6.806E-01	0.392
		1063.66	*	8.007E+00	1.259E+01	2.237E+01	1.538E+00	0.358
		1770.23		-5.287E+01	7.933E+01	1.046E+02	6.284E+00	-0.505
TL-208		277.37		6.692E+01	8.661E+01	1.518E+02	1.629E+01	0.441
		583.19	*	-1.251E+00	8.448E+00	1.410E+01	9.006E-01	-0.089
		860.56		5.877E+01	6.610E+01	1.174E+02	9.804E+00	0.500
PB-210		46.54	*	-2.470E+02	1.825E+03	2.812E+03	2.136E+02	-0.088
BI-211		72.87		1.087E+02	1.418E+03	1.328E+03	1.447E+04	0.082
		351.06	*	9.415E+00	1.135E+02	8.185E+01	8.917E+02	0.115
PB-211		404.85	*	-2.447E+01	3.169E+02	2.763E+02	3.013E+03	-0.089
		427.09		-1.034E+02	1.187E+03	5.881E+02	6.413E+03	-0.176
		832.01		-1.408E+02	1.557E+03	3.936E+02	4.293E+03	-0.358
BI-212		727.33	*	8.780E+01	1.136E+02	2.010E+02	2.144E+01	0.437
		785.37		3.022E+02	7.455E+02	1.271E+03	8.302E+01	0.238
		1620.50		-6.449E+01	3.075E+02	4.802E+02	3.112E+01	-0.134
PB-212		74.82		6.703E+00	9.146E+01	1.541E+02	1.906E+01	0.043
		77.11		-3.156E+01	5.035E+01	8.201E+01	6.302E+00	-0.385
		238.63	*	-1.001E+01	1.362E+01	2.215E+01	1.585E+00	-0.452
		300.09		3.651E+01	1.624E+02	2.757E+02	2.313E+01	0.132
BI-214		609.32	*	-1.392E+01	1.588E+01	2.506E+01	1.874E+00	-0.555
		1120.29		1.177E+01	6.737E+01	1.147E+02	1.051E+01	0.103
		1764.49		-1.321E+01	4.432E+01	8.039E+01	4.845E+00	-0.164

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PB-214		74.82		1.185E+01	1.617E+02	2.724E+02	3.000E+01	0.043
		77.11		-5.549E+01	8.864E+01	1.442E+02	1.625E+01	-0.385
		242.00		2.818E+01	7.946E+01	1.372E+02	1.097E+01	0.205
		295.22		8.268E+00	3.114E+01	5.299E+01	4.617E+00	0.156
		351.93	*	-3.666E+00	1.705E+01	2.791E+01	2.394E+00	-0.131
RN-219		271.23		4.999E+01	5.469E+02	8.791E+01	9.578E+02	0.569
		401.81	*	4.220E+01	4.696E+02	1.617E+02	1.762E+03	0.261
RA-223		81.07		-9.097E+00	1.121E+02	8.733E+01	9.515E+02	-0.104
		83.79		-3.044E+00	4.780E+01	5.156E+01	5.618E+02	-0.059
		94.56		-2.034E+01	2.330E+02	1.054E+02	1.149E+03	-0.193
		144.24		9.489E+00	1.862E+02	2.555E+02	2.784E+03	0.037
		154.21		2.446E+00	9.278E+01	1.445E+02	1.575E+03	0.017
		269.46		1.221E+01	1.388E+02	6.764E+01	7.370E+02	0.181
		323.87	*	-7.392E+01	8.186E+02	2.336E+02	2.545E+03	-0.316
		338.28		-2.809E+01	3.757E+02	3.577E+02	3.898E+03	-0.079
RA-224		240.99	*	-1.160E+02	1.423E+02	2.301E+02	1.267E+01	-0.504
RA-226		186.21	*	-9.783E+00	1.673E+02	2.884E+02	1.934E+02	-0.034
AC-227		79.69		2.981E+01	3.066E+02	5.185E+02	8.722E+01	0.057
		235.96		1.565E+01	3.234E+01	5.627E+01	4.454E+00	0.278
		256.23	*	-1.338E+01	5.825E+01	9.695E+01	9.801E+00	-0.138
		299.98		2.504E+01	1.770E+02	2.987E+02	3.283E+01	0.084
		304.50		-2.088E+01	3.578E+02	5.947E+02	9.073E+01	-0.035
		329.85		3.193E+01	1.452E+02	2.448E+02	2.433E+01	0.130
		334.37		-1.576E+02	3.850E+02	6.186E+02	8.827E+01	-0.255
TH-227		79.69		2.981E+01	4.466E+02	5.185E+02	5.650E+03	0.057
		235.96		1.565E+01	1.736E+02	5.627E+01	6.131E+02	0.278
		256.23	*	-1.338E+01	1.570E+02	9.695E+01	1.056E+03	-0.138
		299.98		2.504E+01	3.252E+02	2.987E+02	3.255E+03	0.084
		304.50		-2.088E+01	4.240E+02	5.947E+02	6.480E+03	-0.035
		329.85		3.193E+01	3.769E+02	2.448E+02	2.667E+03	0.130
		334.37		-1.576E+02	1.760E+03	6.186E+02	6.740E+03	-0.255
AC-228		338.32		-5.982E+00	5.508E+01	9.047E+01	3.731E+01	-0.066
		911.20	*	9.768E-02	4.094E+01	6.749E+01	7.589E+00	0.001
		968.97		-1.744E+01	6.459E+01	1.008E+02	2.425E+01	-0.173
RA-228		338.32		-5.982E+00	5.508E+01	9.047E+01	3.731E+01	-0.066
		911.20	*	9.768E-02	4.094E+01	6.749E+01	7.589E+00	0.001
		968.97		-1.744E+01	6.459E+01	1.008E+02	2.425E+01	-0.173
TH-228		74.82		6.703E+00	9.146E+01	1.541E+02	1.191E+01	0.043
		77.11		-3.156E+01	5.035E+01	8.201E+01	6.302E+00	-0.385
		238.63	*	-1.001E+01	1.362E+01	2.215E+01	1.585E+00	-0.452
		300.09		3.651E+01	1.639E+02	2.757E+02	1.678E+02	0.132
TH-229		85.43		2.034E+01	5.741E+01	8.837E+01	7.059E+00	0.230
	+	88.47		4.237E+02	5.728E+01	9.286E+01	7.479E+00	4.563
		193.51	*	1.085E+02	1.272E+02	1.949E+02	1.017E+01	0.556
		210.85		9.905E+01	2.091E+02	3.425E+02	1.823E+01	0.289
PA-231		283.69	*	-3.842E+01	3.396E+02	5.654E+02	7.399E+01	-0.068
		301.36		4.410E+01	9.881E+01	1.701E+02	1.611E+01	0.259
		330.06		-1.155E+02	4.228E+02	6.857E+02	2.000E+02	-0.168
TH-231		84.21	*	6.778E+00	1.272E+02	1.923E+02	3.289E+01	0.035

Sample ID : G1202051905 Acquisition date : 5-MAR-2010 16:48:00

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PA-233		94.65		-2.292E+01	5.875E+01	8.517E+01	6.395E+00	-0.269
		98.43		-1.985E+01	3.331E+01	5.346E+01	4.058E+00	-0.371
		300.13		2.059E+01	8.087E+01	1.374E+02	1.840E+01	0.150
		311.90	*	1.058E+01	1.507E+01	2.626E+01	1.629E+00	0.403
		340.48		1.414E+01	1.401E+02	2.336E+02	5.429E+01	0.061
PA-234		94.67		-1.634E+01	3.949E+01	5.708E+01	6.597E+00	-0.286
		98.44		-1.326E+01	2.333E+01	3.556E+01	1.976E+01	-0.373
		111.00		3.471E+00	4.574E+01	7.601E+01	8.059E+00	0.046
		131.20		8.272E-01	2.509E+01	4.122E+01	2.383E+00	0.020
		569.50		7.176E+01	6.019E+01	1.112E+02	6.173E+00	0.645
		733.00		-2.895E+01	8.189E+01	1.295E+02	2.753E+01	-0.224
		880.51		3.135E+01	7.767E+01	1.310E+02	1.042E+01	0.239
		883.24		-7.017E+01	9.391E+01	1.203E+02	8.076E+01	-0.583
		926.36		1.811E+01	5.380E+01	8.931E+01	2.240E+01	0.203
		946.00	*	2.532E+01	9.855E+01	1.623E+02	2.994E+01	0.156
		949.00		1.784E+01	1.437E+02	2.342E+02	1.846E+01	0.076
PA-234M		766.42		-1.212E+03	2.674E+03	4.091E+03	2.062E+03	-0.296
		1001.03	*	-1.216E+03	1.295E+03	1.911E+03	1.717E+02	-0.636
TH-234	+	63.29	*	3.476E+02	4.182E+02	7.071E+02	1.266E+02	0.492
		92.59		4.178E+01	1.770E+02	3.241E+02	7.030E+01	0.129
U-235		89.96		3.258E-01	1.839E+02	3.077E+02	7.495E+01	0.001
		93.35		-7.313E+00	1.325E+02	2.256E+02	5.120E+01	-0.032
		143.76	*	7.690E+00	4.643E+01	7.707E+01	1.202E+01	0.100
		163.33		-1.194E+02	1.051E+02	1.555E+02	2.576E+01	-0.768
		185.72		9.478E-01	1.029E+01	1.794E+01	9.288E-01	0.053
		205.31		-9.793E+00	1.133E+02	1.774E+02	2.985E+01	-0.055
U-238	+	63.29	*	3.476E+02	4.182E+02	7.071E+02	1.266E+02	0.492
		92.59		4.178E+01	1.768E+02	3.241E+02	2.450E+01	0.129
NP-239		99.53		-3.974E+00	3.935E+01	6.511E+01	4.532E+00	-0.061
		103.37		-1.488E+01	2.343E+01	3.739E+01	2.512E+00	-0.398
		106.12		-6.391E+00	1.934E+01	3.145E+01	2.068E+00	-0.203
		116.74	*	-8.495E-01	6.656E+01	1.047E+02	6.487E+00	-0.008
		228.18		-3.308E+01	5.281E+01	7.988E+01	4.336E+00	-0.414
		277.60		4.165E+01	3.907E+01	6.977E+01	3.980E+00	0.597
CM-247		278.00		1.930E+02	1.652E+02	2.967E+02	1.693E+01	0.650
		287.50		1.931E+02	2.833E+02	4.949E+02	2.846E+01	0.390
		402.40	*	-4.652E-01	8.761E+00	1.427E+01	8.550E-01	-0.033
CF-249		252.80		2.094E+02	2.272E+02	4.033E+02	2.248E+01	0.519
		333.37		-2.687E+01	3.903E+01	6.131E+01	3.624E+00	-0.438
		388.16	*	-1.963E+00	1.005E+01	1.624E+01	9.719E-01	-0.121
CF-251		177.52	*	7.233E+00	2.973E+01	4.858E+01	2.496E+00	0.149
		227.38		-3.107E+01	8.348E+01	1.286E+02	6.974E+00	-0.242
		285.41		2.374E+02	5.148E+02	8.872E+02	5.094E+01	0.268
ANH-511		511.00	*	-1.137E+01	8.793E+00	1.484E+01	8.637E-01	-0.766

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051905     *
* Acquisition date :  5-MAR-2010 16:48:00 Detector SN#     :               *
* Detector ID       : GAM02               Sensitivity      : 5.000         *
* Geometry          : 2LMB                Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:01.99     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  3-MAR-2010 00:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G1202051905          Analyst initials: KXG3           *
* Batch Number      : 956976               Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 17-JUN-2009 08:42:38 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
CO-57	1.600E+01	8.735E+00	9.514E+00	0.000E+00
CO-60	5.054E+02	4.968E+01	3.863E+00	0.000E+00
CD-109	2.760E+03	3.656E+02	2.980E+02	0.000E+00
SN-126	2.748E+02	3.641E+01	2.990E+01	0.000E+00
BA-137M	4.280E+02	3.430E+01	1.189E+01	0.000E+00
CS-137	4.522E+02	3.631E+01	1.256E+01	0.000E+00
TH-232	4.946E+03	3.773E+04	8.669E+03	0.000E+00
NP-237	8.201E+02	2.005E+02	9.939E+01	0.000E+00
AM-241	1.493E+03	1.887E+02	9.840E+01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	8.873E+01	6.279E+01	1.157E+02	0.000E+00	NOT IDENT.
NA-22	-1.209E+00	4.460E+00	6.934E+00	0.000E+00	NOT IDENT.
NA-24	5.820E+01	9.194E+01	1.784E+02	0.000E+00	NOT IDENT.
K-40	2.050E+01	7.605E+01	1.427E+02	0.000E+00	NOT IDENT.
SC-46	2.448E+00	9.434E+00	1.595E+01	0.000E+00	NOT IDENT.
V-48	1.689E+00	1.185E+01	1.970E+01	0.000E+00	NOT IDENT.
CR-51	-9.527E+00	6.006E+01	1.008E+02	0.000E+00	NOT IDENT.
MN-54	1.367E+00	9.234E+00	1.558E+01	0.000E+00	NOT IDENT.
CO-56	-4.060E+00	8.779E+00	1.389E+01	0.000E+00	NOT IDENT.
CO-58	2.576E+00	8.280E+00	1.425E+01	0.000E+00	NOT IDENT.
FE-59	4.805E+00	1.936E+01	3.367E+01	0.000E+00	NOT IDENT.
ZN-65	-1.315E+01	2.100E+01	3.347E+01	0.000E+00	NOT IDENT.
SE-75	-8.201E-01	9.292E+00	1.589E+01	0.000E+00	FAIL ABUN
SR-85	-3.338E-01	8.526E+00	1.391E+01	0.000E+00	NOT IDENT.
Y-88	4.085E+00	4.751E+00	9.972E+00	0.000E+00	NOT IDENT.
Y-91	3.252E+01	2.743E+03	4.636E+03	0.000E+00	NOT IDENT.
NB-94	-1.180E+00	7.185E+00	1.194E+01	0.000E+00	NOT IDENT.
NB-95	-5.200E+00	8.468E+00	1.338E+01	0.000E+00	NOT IDENT.

NB-95M	-2.022E+00	2.349E+01	4.049E+01	0.000E+00	NOT IDENT.
ZR-95	2.258E+00	1.468E+01	2.500E+01	0.000E+00	NOT IDENT.
MO-99	8.198E+01	1.207E+02	2.155E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.043E+04	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.970E+00	7.627E+00	1.221E+01	0.000E+00	NOT IDENT.
RH-106	6.479E+01	7.015E+01	1.285E+02	0.000E+00	NOT IDENT.
RU-106	6.479E+01	6.986E+01	1.285E+02	0.000E+00	NOT IDENT.
AG-108M	1.880E+00	7.122E+00	1.207E+01	0.000E+00	NOT IDENT.
AG-110M	1.714E+01	1.096E+01	1.861E+01	0.000E+00	NOT IDENT.
SN-113	3.385E+00	1.003E+01	1.718E+01	0.000E+00	NOT IDENT.
CD-115	-1.996E+01	5.324E+01	8.352E+01	0.000E+00	NOT IDENT.
SN-117M	3.741E-01	6.562E+00	1.089E+01	0.000E+00	NOT IDENT.
TE-123M	5.483E-01	6.054E+00	1.007E+01	0.000E+00	NOT IDENT.
SB-124	-9.558E+00	1.363E+01	1.926E+01	0.000E+00	NOT IDENT.
SB-125	-1.181E+01	2.119E+01	3.352E+01	0.000E+00	NOT IDENT.
TE-125M	1.370E+03	2.033E+03	3.554E+03	0.000E+00	NOT IDENT.
I-126	-1.774E+01	2.561E+01	3.349E+01	0.000E+00	NOT IDENT.
SB-126	-1.944E+00	1.535E+01	2.553E+01	0.000E+00	NOT IDENT.
SB-127	-1.467E+01	3.069E+01	4.940E+01	0.000E+00	NOT IDENT.
I-131	4.002E+00	9.485E+00	1.642E+01	0.000E+00	NOT IDENT.
TE-132	-7.647E+00	1.184E+01	1.821E+01	0.000E+00	NOT IDENT.
BA-133	1.146E+01	9.254E+00	1.684E+01	0.000E+00	NOT IDENT.
I-133	1.851E+01	6.029E+01	1.017E+02	0.000E+00	NOT IDENT.
CS-134	-1.897E+00	9.371E+00	1.529E+01	0.000E+00	NOT IDENT.
CS-135	-1.788E+01	3.377E+01	5.603E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.775E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-4.604E+00	1.310E+01	2.154E+01	0.000E+00	NOT IDENT.
CE-139	4.655E+00	6.227E+00	1.073E+01	0.000E+00	NOT IDENT.
BA-140	-1.035E-01	3.229E+01	5.266E+01	0.000E+00	NOT IDENT.
LA-140	-4.933E-01	5.488E+00	9.128E+00	0.000E+00	NOT IDENT.
CE-141	-3.494E+00	1.070E+01	1.744E+01	0.000E+00	NOT IDENT.
CE-143	3.744E+00	4.974E+01	8.537E+01	0.000E+00	NOT IDENT.
CE-144	-7.645E+00	4.629E+01	7.664E+01	0.000E+00	NOT IDENT.
PM-144	2.761E+00	6.690E+00	1.178E+01	0.000E+00	NOT IDENT.
PR-144	2.030E+02	4.972E+02	8.753E+02	0.000E+00	NOT IDENT.
PM-146	6.383E+00	1.056E+01	1.828E+01	0.000E+00	NOT IDENT.
ND-147	-3.627E+01	5.785E+01	8.787E+01	0.000E+00	NOT IDENT.
PM-149	1.366E+02	4.296E+02	7.484E+02	0.000E+00	NOT IDENT.
EU-152	-3.012E+00	2.189E+01	3.658E+01	0.000E+00	FAIL ABUN
GD-153	-6.266E+00	1.901E+01	3.168E+01	0.000E+00	NOT IDENT.
EU-154	-3.446E+00	1.272E+01	1.977E+01	0.000E+00	FAIL ABUN
EU-155	-1.160E+01	2.328E+01	3.822E+01	0.000E+00	FAIL ABUN
TA-182	-1.490E+01	2.055E+01	2.905E+01	0.000E+00	NOT IDENT.
IR-192	-1.432E+00	6.946E+00	1.163E+01	0.000E+00	NOT IDENT.
HG-203	-1.719E+00	7.095E+00	1.197E+01	0.000E+00	NOT IDENT.
BI-207	8.007E+00	1.234E+01	2.237E+01	0.000E+00	NOT IDENT.
TL-208	-1.251E+00	8.279E+00	1.410E+01	0.000E+00	NOT IDENT.
PB-210	-2.470E+02	1.789E+03	2.812E+03	0.000E+00	NOT IDENT.
BI-211	9.415E+00	1.112E+02	8.185E+01	0.000E+00	NOT IDENT.
PB-211	-2.447E+01	3.106E+02	2.763E+02	0.000E+00	NOT IDENT.
BI-212	8.780E+01	1.113E+02	2.010E+02	0.000E+00	NOT IDENT.
PB-212	-1.001E+01	1.335E+01	2.215E+01	0.000E+00	NOT IDENT.
BI-214	-1.392E+01	1.556E+01	2.506E+01	0.000E+00	NOT IDENT.
PB-214	-3.666E+00	1.671E+01	2.791E+01	0.000E+00	NOT IDENT.
RN-219	4.220E+01	4.602E+02	1.617E+02	0.000E+00	NOT IDENT.
RA-223	-7.392E+01	8.022E+02	2.336E+02	0.000E+00	NOT IDENT.
RA-224	-1.160E+02	1.395E+02	2.301E+02	0.000E+00	NOT IDENT.
RA-226	-9.783E+00	1.639E+02	2.884E+02	0.000E+00	NOT IDENT.
AC-227	-1.338E+01	5.709E+01	9.695E+01	0.000E+00	NOT IDENT.
TH-227	-1.338E+01	1.539E+02	9.695E+01	0.000E+00	NOT IDENT.
AC-228	9.768E-02	4.012E+01	6.749E+01	0.000E+00	NOT IDENT.
RA-228	9.768E-02	4.012E+01	6.749E+01	0.000E+00	NOT IDENT.
TH-228	-1.001E+01	1.335E+01	2.215E+01	0.000E+00	NOT IDENT.
TH-229	1.085E+02	1.247E+02	1.949E+02	0.000E+00	FAIL ABUN
PA-231	-3.842E+01	3.328E+02	5.654E+02	0.000E+00	NOT IDENT.
TH-231	6.778E+00	1.247E+02	1.923E+02	0.000E+00	NOT IDENT.
PA-233	1.058E+01	1.477E+01	2.626E+01	0.000E+00	NOT IDENT.
PA-234	2.532E+01	9.658E+01	1.623E+02	0.000E+00	NOT IDENT.
PA-234M	-1.216E+03	1.269E+03	1.911E+03	0.000E+00	NOT IDENT.
TH-234	3.476E+02	4.098E+02	7.071E+02	0.000E+00	FAIL ABUN
U-235	7.690E+00	4.550E+01	7.707E+01	0.000E+00	NOT IDENT.
U-238	3.476E+02	4.098E+02	7.071E+02	0.000E+00	FAIL ABUN
NP-239	-8.495E-01	6.523E+01	1.047E+02	0.000E+00	NOT IDENT.
CM-247	-4.652E-01	8.586E+00	1.427E+01	0.000E+00	NOT IDENT.
CF-249	-1.963E+00	9.848E+00	1.624E+01	0.000E+00	NOT IDENT.
CF-251	7.233E+00	2.913E+01	4.858E+01	0.000E+00	NOT IDENT.
ANH-511	-1.137E+01	8.617E+00	1.484E+01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 17:48:32.29

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051905.CNF;1
Sample date       : 3-MAR-2010 00:00:00. Acquisition date : 5-MAR-2010 16:48:00.
Sample ID         : G1202051905          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM02                Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.99  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 956976               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.18	979	351	0.99	117.55	112	11	2.72E-01	4.9	
2	0	62.97	68	102	1.29	125.13	123	5	1.90E-02	25.1	
3	2	87.71	528	134	0.91	174.63	170	18	1.47E-01	5.4	2.08E+00
4	2	92.36	165	133	1.13	183.94	170	18	4.57E-02	15.0	
5	0	121.68	92	188	0.97	242.61	239	8	2.57E-02	27.7	
6	0	185.25	97	156	1.27	369.83	366	9	2.71E-02	25.2	
7	0	197.65	55	133	1.49	394.63	391	9	1.54E-02	39.6	
8	0	661.16	1076	35	1.58	1322.19	1315	14	2.99E-01	3.3	
9	0	1172.53	863	39	2.12	2345.61	2337	16	2.40E-01	3.8	
10	0	1331.75	803	9	1.90	2664.29	2655	16	2.23E-01	3.6	

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 17:48:35.57

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051905.CNF;1
Sample date       : 3-MAR-2010 00:00:00. Acquisition date : 5-MAR-2010 16:48:00.
Sample ID         : G1202051905          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM02                Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.99  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 956976               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
CO-57	122.06	92	85.60*	2.553E+00	1.589E+01	1.600E+01	55.72
	136.47	------	10.68	2.598E+00	------ Line Not Found		------
CO-60	1173.23	863	99.85	6.616E-01	4.905E+02	4.910E+02	9.41
	1332.49	803	99.98*	5.969E-01	5.049E+02	5.054E+02	10.03
CD-109	88.03	528	3.70*	1.949E+00	2.748E+03	2.760E+03	13.52
SN-126	64.28	30	9.60	8.692E-01	1.340E+02	1.340E+02	119.87
	86.94	528	8.90	1.949E+00	1.143E+03	1.143E+03	42.65
	87.57	528	37.00*	1.949E+00	2.748E+02	2.748E+02	13.52
BA-137M	661.66	1073	89.90*	1.047E+00	4.279E+02	4.280E+02	8.18
CS-137	661.66	1073	85.10*	1.047E+00	4.521E+02	4.522E+02	8.19
TH-232	63.81	30	0.26*	8.692E-01	4.946E+03	4.946E+03	778.41
	140.88	------	0.02	2.597E+00	------ Line Not Found		------
NP-237	86.48	528	12.40*	1.949E+00	8.201E+02	8.201E+02	24.95
	95.86	------	2.68	2.183E+00	------ Line Not Found		------
AM-241	59.54	979	35.90*	6.856E-01	1.493E+03	1.493E+03	12.90

Flag: "*" = Keyline

Sample ID : G1202051905 Acquisition date : 5-MAR-2010 16:48:00

Total number of lines in spectrum	8	
Number of unidentified lines	1	
Number of lines tentatively identified by NID	7	87.50%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	271.74D	1.01	1.589E+01	1.600E+01	0.891E+01	55.72	
CO-60	1925.28D	1.00	5.049E+02	5.054E+02	0.507E+02	10.03	
CD-109	461.40D	1.00	2.748E+03	2.760E+03	0.373E+03	13.52	
SN-126	2.30E+05Y	1.00	2.748E+02	2.748E+02	0.372E+02	13.52	
BA-137M	30.08Y	1.00	4.279E+02	4.280E+02	0.350E+02	8.18	
CS-137	30.08Y	1.00	4.521E+02	4.522E+02	0.371E+02	8.19	
TH-232	1.41E+10Y	1.00	4.946E+03	4.946E+03	38.50E+03	778.41	
NP-237	2.14E+06Y	1.00	8.201E+02	8.201E+02	2.046E+02	24.95	
AM-241	432.60Y	1.00	1.493E+03	1.493E+03	0.193E+03	12.90	
		Total Activity :	1.168E+04	1.170E+04			
		Grand Total Activity :	1.168E+04	1.170E+04			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202051905 Acquisition date : 5-MAR-2010 16:48:00

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	197.65	50	133	1.49	394.63	391	9	1.39E-02	88.7	2.35E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 17:48:39.90

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051905.CNF;1 *
* Acquisition date : 5-MAR-2010 16:48:00.  Detector SN#     :              *
* Detector ID      : GAM02                 Sensitivity      : 5.00000      *
* Geometry         : 2LMB                  Energy tolerance: 1.50000       *
* Elapsed live time: 0 01:00:00.00         Abundance limit : 75.00000      *
* Elapsed real time: 0 01:00:01.99         Half life ratio : 8.00000       *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 3-MAR-2010 00:00:00.  Nuclide Library : LIQUID        *
* Sample ID        : G1202051905           Analyst initials: KXG3          *
* Batch Number     : 956976                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 17-JUN-2009 08:42:38.1MS Isotope      :               *
* MSD ID           :                       MSD Isotope     :               *
* LCS ID           : 1032-A                LCS Isotope     :               *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-57	1.600E+01	8.913E+00	9.514E+00	5.799E-01	1.681
CO-60	5.054E+02	5.069E+01	3.863E+00	2.684E-01	130.852
CD-109	2.760E+03	3.730E+02	2.980E+02	2.419E+01	9.260
SN-126	2.748E+02	3.715E+01	2.990E+01	2.420E+00	9.193
BA-137M	4.280E+02	3.500E+01	1.189E+01	5.815E-01	36.001
CS-137	4.522E+02	3.705E+01	1.256E+01	6.180E-01	36.001
TH-232	4.946E+03	3.850E+04	8.669E+03	6.669E+04	0.571
NP-237	8.201E+02	2.046E+02	9.939E+01	2.232E+01	8.251
AM-241	1.493E+03	1.926E+02	9.840E+01	8.168E+00	15.170

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	8.873E+01		6.408E+01	1.157E+02	7.923E+00	0.767
NA-22	-1.209E+00		4.551E+00	6.934E+00	4.479E-01	-0.174
NA-24	5.820E+01		9.381E+01	1.784E+02	1.268E+01	0.326

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
K-40	2.050E+01		7.760E+01	1.427E+02	1.016E+01	0.144
SC-46	2.448E+00		9.626E+00	1.595E+01	1.291E+00	0.153
V-48	1.689E+00		1.209E+01	1.970E+01	1.500E+00	0.086
CR-51	-9.527E+00		6.129E+01	1.008E+02	6.569E+00	-0.095
MN-54	1.367E+00		9.423E+00	1.558E+01	1.130E+00	0.088
CO-56	-4.060E+00		8.958E+00	1.389E+01	1.032E+00	-0.292
CO-58	2.576E+00		8.449E+00	1.425E+01	9.864E-01	0.181
FE-59	4.805E+00		1.976E+01	3.367E+01	2.490E+00	0.143
ZN-65	-1.315E+01		2.143E+01	3.347E+01	2.115E+00	-0.393
SE-75	-8.201E-01		9.481E+00	1.589E+01	9.060E-01	-0.052
SR-85	-3.338E-01		8.700E+00	1.391E+01	8.082E-01	-0.024
Y-88	4.085E+00		4.848E+00	9.972E+00	5.748E-01	0.410
Y-91	3.252E+01		2.799E+03	4.636E+03	2.717E+02	0.007
NB-94	-1.180E+00		7.332E+00	1.194E+01	6.455E-01	-0.099
NB-95	-5.200E+00		8.641E+00	1.338E+01	8.368E-01	-0.389
NB-95M	-2.022E+00		2.397E+01	4.049E+01	2.958E+00	-0.050
ZR-95	2.258E+00		1.498E+01	2.500E+01	1.836E+00	0.090
MO-99	8.198E+01		1.231E+02	2.155E+02	3.114E+01	0.380
TC-99M	4.935E-03		5.321E-03	Half-Life too short		
RU-103	-1.970E+00		7.782E+00	1.221E+01	1.521E+00	-0.161
RH-106	6.479E+01		7.158E+01	1.285E+02	1.457E+01	0.504
RU-106	6.479E+01		7.128E+01	1.285E+02	6.694E+00	0.504
AG-108M	1.880E+00		7.267E+00	1.207E+01	7.703E-01	0.156
AG-110M	1.714E+01		1.119E+01	1.861E+01	9.979E-01	0.921
SN-113	3.385E+00		1.023E+01	1.718E+01	1.093E+00	0.197
CD-115	-1.996E+01		5.432E+01	8.352E+01	4.806E+00	-0.239
SN-117M	3.741E-01		6.696E+00	1.089E+01	5.675E-01	0.034
TE-123M	5.483E-01		6.178E+00	1.007E+01	5.325E-01	0.054
SB-124	-9.558E+00		1.391E+01	1.926E+01	1.303E+00	-0.496
SB-125	-1.181E+01		2.162E+01	3.352E+01	2.085E+00	-0.352
TE-125M	1.370E+03		2.074E+03	3.554E+03	3.110E+02	0.385
I-126	-1.774E+01		2.613E+01	3.349E+01	1.657E+00	-0.530
SB-126	-1.944E+00		1.566E+01	2.553E+01	1.441E+00	-0.076
SB-127	-1.467E+01		3.132E+01	4.940E+01	2.850E+00	-0.297
I-131	4.002E+00		9.678E+00	1.642E+01	1.076E+00	0.244
TE-132	-7.647E+00		1.208E+01	1.821E+01	2.304E+00	-0.420
BA-133	1.146E+01		9.443E+00	1.684E+01	1.913E+00	0.680
I-133	1.851E+01		6.152E+01	1.017E+02	6.288E+00	0.182
CS-134	-1.897E+00		9.562E+00	1.529E+01	1.034E+00	-0.124
CS-135	-1.788E+01		3.446E+01	5.603E+01	4.231E+00	-0.319
I-135	-7.406E-05		9.057E-03	Half-Life too short		
CS-136	-4.604E+00		1.336E+01	2.154E+01	1.607E+00	-0.214
CE-139	4.655E+00		6.354E+00	1.073E+01	5.473E-01	0.434
BA-140	-1.035E-01		3.295E+01	5.266E+01	1.753E+01	-0.002
LA-140	-4.933E-01		5.600E+00	9.128E+00	5.975E-01	-0.054
CE-141	-3.494E+00		1.092E+01	1.744E+01	9.925E-01	-0.200
CE-143	3.744E+00		5.075E+01	8.537E+01	1.676E+01	0.044
CE-144	-7.645E+00		4.724E+01	7.664E+01	1.062E+01	-0.100

Sample ID : G1202051905 Acquisition date : 5-MAR-2010 16:48:00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PM-144	2.761E+00		6.826E+00	1.178E+01	6.279E-01	0.234
PR-144	2.030E+02		5.073E+02	8.753E+02	4.665E+01	0.232
PM-146	6.383E+00		1.078E+01	1.828E+01	1.566E+00	0.349
ND-147	-3.627E+01		5.903E+01	8.787E+01	1.186E+01	-0.413
PM-149	1.366E+02		4.384E+02	7.484E+02	1.057E+02	0.183
EU-152	-3.012E+00		2.233E+01	3.658E+01	2.434E+00	-0.082
GD-153	-6.266E+00		1.940E+01	3.168E+01	2.254E+00	-0.198
EU-154	-3.446E+00		1.298E+01	1.977E+01	1.944E+00	-0.174
EU-155	-1.160E+01		2.376E+01	3.822E+01	2.579E+00	-0.304
TA-182	-1.490E+01		2.097E+01	2.905E+01	1.742E+00	-0.513
IR-192	-1.432E+00		7.087E+00	1.163E+01	6.849E-01	-0.123
HG-203	-1.719E+00		7.240E+00	1.197E+01	7.229E-01	-0.144
BI-207	8.007E+00		1.259E+01	2.237E+01	1.538E+00	0.358
TL-208	-1.251E+00		8.448E+00	1.410E+01	9.006E-01	-0.089
PB-210	-2.470E+02		1.825E+03	2.812E+03	2.136E+02	-0.088
BI-211	9.415E+00		1.135E+02	8.185E+01	8.917E+02	0.115
PB-211	-2.447E+01		3.169E+02	2.763E+02	3.013E+03	-0.089
BI-212	8.780E+01		1.136E+02	2.010E+02	2.144E+01	0.437
PB-212	-1.001E+01		1.362E+01	2.215E+01	1.585E+00	-0.452
BI-214	-1.392E+01		1.588E+01	2.506E+01	1.874E+00	-0.555
PB-214	-3.666E+00		1.705E+01	2.791E+01	2.394E+00	-0.131
RN-219	4.220E+01		4.696E+02	1.617E+02	1.762E+03	0.261
RA-223	-7.392E+01		8.186E+02	2.336E+02	2.545E+03	-0.316
RA-224	-1.160E+02		1.423E+02	2.301E+02	1.267E+01	-0.504
RA-226	-9.783E+00		1.673E+02	2.884E+02	1.934E+02	-0.034
AC-227	-1.338E+01		5.825E+01	9.695E+01	9.801E+00	-0.138
TH-227	-1.338E+01		1.570E+02	9.695E+01	1.056E+03	-0.138
AC-228	9.768E-02		4.094E+01	6.749E+01	7.589E+00	0.001
RA-228	9.768E-02		4.094E+01	6.749E+01	7.589E+00	0.001
TH-228	-1.001E+01		1.362E+01	2.215E+01	1.585E+00	-0.452
TH-229	1.085E+02		1.272E+02	1.949E+02	1.017E+01	0.556
PA-231	-3.842E+01		3.396E+02	5.654E+02	7.399E+01	-0.068
TH-231	6.778E+00		1.272E+02	1.923E+02	3.289E+01	0.035
PA-233	1.058E+01		1.507E+01	2.626E+01	1.629E+00	0.403
PA-234	2.532E+01		9.855E+01	1.623E+02	2.994E+01	0.156
PA-234M	-1.216E+03		1.295E+03	1.911E+03	1.717E+02	-0.636
TH-234	3.476E+02	+	4.182E+02	7.071E+02	1.266E+02	0.492
U-235	7.690E+00		4.643E+01	7.707E+01	1.202E+01	0.100
U-238	3.476E+02	+	4.182E+02	7.071E+02	1.266E+02	0.492
NP-239	-8.495E-01		6.656E+01	1.047E+02	6.487E+00	-0.008
CM-247	-4.652E-01		8.761E+00	1.427E+01	8.550E-01	-0.033
CF-249	-1.963E+00		1.005E+01	1.624E+01	9.719E-01	-0.121
CF-251	7.233E+00		2.973E+01	4.858E+01	2.496E+00	0.149
ANH-511	-1.137E+01		8.793E+00	1.484E+01	8.637E-01	-0.766

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202051905          *
* Acquisition date  :  5-MAR-2010 16:48:00 Detector SN#     :               *
* Detector ID       : GAM02                Sensitivity      : 5.000         *
* Geometry          : 2LMB                 Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:01.99      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  3-MAR-2010 00:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G1202051905          Analyst initials: KXG3           *
* Batch Number      : 956976               Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 17-JUN-2009 08:42:38 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
CO-57	1.600E+01	8.735E+00	4.760E+00	4.457E+00
CO-60	5.054E+02	4.968E+01	1.933E+00	2.535E+01
CD-109	2.760E+03	3.656E+02	1.491E+02	1.865E+02
SN-126	2.748E+02	3.641E+01	1.496E+01	1.858E+01
BA-137M	4.280E+02	3.430E+01	5.948E+00	1.750E+01
CS-137	4.522E+02	3.631E+01	6.283E+00	1.853E+01
TH-232	4.946E+03	3.773E+04	4.337E+03	1.925E+04
NP-237	8.201E+02	2.005E+02	4.972E+01	1.023E+02
AM-241	1.493E+03	1.887E+02	4.923E+01	9.629E+01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU	
BE-7	8.873E+01	6.279E+01	5.787E+01	3.204E+01	NOT IDENT.
NA-22	-1.209E+00	4.460E+00	3.469E+00	2.276E+00	NOT IDENT.
NA-24	5.820E+01	9.194E+01	8.924E+01	4.691E+01	NOT IDENT.
K-40	2.050E+01	7.605E+01	7.141E+01	3.880E+01	NOT IDENT.
SC-46	2.448E+00	9.434E+00	7.982E+00	4.813E+00	NOT IDENT.
V-48	1.689E+00	1.185E+01	9.858E+00	6.046E+00	NOT IDENT.
CR-51	-9.527E+00	6.006E+01	5.042E+01	3.064E+01	NOT IDENT.
MN-54	1.367E+00	9.234E+00	7.794E+00	4.711E+00	NOT IDENT.
CO-56	-4.060E+00	8.779E+00	6.947E+00	4.479E+00	NOT IDENT.
CO-58	2.576E+00	8.280E+00	7.128E+00	4.225E+00	NOT IDENT.
FE-59	4.805E+00	1.936E+01	1.685E+01	9.879E+00	NOT IDENT.
ZN-65	-1.315E+01	2.100E+01	1.674E+01	1.072E+01	NOT IDENT.
SE-75	-8.201E-01	9.292E+00	7.948E+00	4.741E+00	FAIL ABUN
SR-85	-3.338E-01	8.526E+00	6.962E+00	4.350E+00	NOT IDENT.
Y-88	4.085E+00	4.751E+00	4.989E+00	2.424E+00	NOT IDENT.
Y-91	3.252E+01	2.743E+03	2.320E+03	1.400E+03	NOT IDENT.
NB-94	-1.180E+00	7.185E+00	5.972E+00	3.666E+00	NOT IDENT.
NB-95	-5.200E+00	8.468E+00	6.692E+00	4.320E+00	NOT IDENT.

NB-95M	-2.022E+00	2.349E+01	2.026E+01	1.198E+01	NOT IDENT.
ZR-95	2.258E+00	1.468E+01	1.251E+01	7.488E+00	NOT IDENT.
MO-99	8.198E+01	1.207E+02	1.078E+02	6.157E+01	NOT IDENT.
TC-99M	4.935E+03	1.043E+04	0.000E+00	5.321E+03	SHORT HLIF
RU-103	-1.970E+00	7.627E+00	6.110E+00	3.891E+00	NOT IDENT.
RH-106	6.479E+01	7.015E+01	6.428E+01	3.579E+01	NOT IDENT.
RU-106	6.479E+01	6.986E+01	6.428E+01	3.564E+01	NOT IDENT.
AG-108M	1.880E+00	7.122E+00	6.038E+00	3.634E+00	NOT IDENT.
AG-110M	1.714E+01	1.096E+01	9.311E+00	5.593E+00	NOT IDENT.
SN-113	3.385E+00	1.003E+01	8.596E+00	5.116E+00	NOT IDENT.
CD-115	-1.996E+01	5.324E+01	4.179E+01	2.716E+01	NOT IDENT.
SN-117M	3.741E-01	6.562E+00	5.449E+00	3.348E+00	NOT IDENT.
TE-123M	5.483E-01	6.054E+00	5.036E+00	3.089E+00	NOT IDENT.
SB-124	-9.558E+00	1.363E+01	9.638E+00	6.953E+00	NOT IDENT.
SB-125	-1.181E+01	2.119E+01	1.677E+01	1.081E+01	NOT IDENT.
TE-125M	1.370E+03	2.033E+03	1.778E+03	1.037E+03	NOT IDENT.
I-126	-1.774E+01	2.561E+01	1.676E+01	1.306E+01	NOT IDENT.
SB-126	-1.944E+00	1.535E+01	1.277E+01	7.831E+00	NOT IDENT.
SB-127	-1.467E+01	3.069E+01	2.471E+01	1.566E+01	NOT IDENT.
I-131	4.002E+00	9.485E+00	8.216E+00	4.839E+00	NOT IDENT.
TE-132	-7.647E+00	1.184E+01	9.110E+00	6.039E+00	NOT IDENT.
BA-133	1.146E+01	9.254E+00	8.427E+00	4.721E+00	NOT IDENT.
I-133	1.851E+01	6.029E+01	5.087E+01	3.076E+01	NOT IDENT.
CS-134	-1.897E+00	9.371E+00	7.649E+00	4.781E+00	NOT IDENT.
CS-135	-1.788E+01	3.377E+01	2.803E+01	1.723E+01	NOT IDENT.
I-135	-7.406E+01	1.775E+04	0.000E+00	9.057E+03	SHORT HLIF
CS-136	-4.604E+00	1.310E+01	1.078E+01	6.682E+00	NOT IDENT.
CE-139	4.655E+00	6.227E+00	5.369E+00	3.177E+00	NOT IDENT.
BA-140	-1.035E-01	3.229E+01	2.634E+01	1.648E+01	NOT IDENT.
LA-140	-4.933E-01	5.488E+00	4.567E+00	2.800E+00	NOT IDENT.
CE-141	-3.494E+00	1.070E+01	8.725E+00	5.458E+00	NOT IDENT.
CE-143	3.744E+00	4.974E+01	4.271E+01	2.538E+01	NOT IDENT.
CE-144	-7.645E+00	4.629E+01	3.835E+01	2.362E+01	NOT IDENT.
PM-144	2.761E+00	6.690E+00	5.895E+00	3.413E+00	NOT IDENT.
PR-144	2.030E+02	4.972E+02	4.379E+02	2.537E+02	NOT IDENT.
PM-146	6.383E+00	1.056E+01	9.143E+00	5.389E+00	NOT IDENT.
ND-147	-3.627E+01	5.785E+01	4.396E+01	2.952E+01	NOT IDENT.
PM-149	1.366E+02	4.296E+02	3.744E+02	2.192E+02	NOT IDENT.
EU-152	-3.012E+00	2.189E+01	1.830E+01	1.117E+01	FAIL ABUN
GD-153	-6.266E+00	1.901E+01	1.585E+01	9.700E+00	NOT IDENT.
EU-154	-3.446E+00	1.272E+01	9.891E+00	6.490E+00	FAIL ABUN
EU-155	-1.160E+01	2.328E+01	1.912E+01	1.188E+01	FAIL ABUN
TA-182	-1.490E+01	2.055E+01	1.453E+01	1.048E+01	NOT IDENT.
IR-192	-1.432E+00	6.946E+00	5.817E+00	3.544E+00	NOT IDENT.
HG-203	-1.719E+00	7.095E+00	5.988E+00	3.620E+00	NOT IDENT.
BI-207	8.007E+00	1.234E+01	1.119E+01	6.295E+00	NOT IDENT.
TL-208	-1.251E+00	8.279E+00	7.055E+00	4.224E+00	NOT IDENT.
PB-210	-2.470E+02	1.789E+03	1.407E+03	9.127E+02	NOT IDENT.
BI-211	9.415E+00	1.112E+02	4.095E+01	5.675E+01	NOT IDENT.
PB-211	-2.447E+01	3.106E+02	1.382E+02	1.585E+02	NOT IDENT.
BI-212	8.780E+01	1.113E+02	1.005E+02	5.681E+01	NOT IDENT.
PB-212	-1.001E+01	1.335E+01	1.108E+01	6.809E+00	NOT IDENT.
BI-214	-1.392E+01	1.556E+01	1.254E+01	7.941E+00	NOT IDENT.
PB-214	-3.666E+00	1.671E+01	1.396E+01	8.527E+00	NOT IDENT.
RN-219	4.220E+01	4.602E+02	8.091E+01	2.348E+02	NOT IDENT.
RA-223	-7.392E+01	8.022E+02	1.169E+02	4.093E+02	NOT IDENT.
RA-224	-1.160E+02	1.395E+02	1.151E+02	7.115E+01	NOT IDENT.
RA-226	-9.783E+00	1.639E+02	1.443E+02	8.363E+01	NOT IDENT.
AC-227	-1.338E+01	5.709E+01	4.850E+01	2.913E+01	NOT IDENT.
TH-227	-1.338E+01	1.539E+02	4.850E+01	7.850E+01	NOT IDENT.
AC-228	9.768E-02	4.012E+01	3.377E+01	2.047E+01	NOT IDENT.
RA-228	9.768E-02	4.012E+01	3.377E+01	2.047E+01	NOT IDENT.
TH-228	-1.001E+01	1.335E+01	1.108E+01	6.809E+00	NOT IDENT.
TH-229	1.085E+02	1.247E+02	9.751E+01	6.360E+01	FAIL ABUN
PA-231	-3.842E+01	3.328E+02	2.828E+02	1.698E+02	NOT IDENT.
TH-231	6.778E+00	1.247E+02	9.620E+01	6.360E+01	NOT IDENT.
PA-233	1.058E+01	1.477E+01	1.314E+01	7.533E+00	NOT IDENT.
PA-234	2.532E+01	9.658E+01	8.120E+01	4.928E+01	NOT IDENT.
PA-234M	-1.216E+03	1.269E+03	9.560E+02	6.474E+02	NOT IDENT.
TH-234	3.476E+02	4.098E+02	3.537E+02	2.091E+02	FAIL ABUN
U-235	7.690E+00	4.550E+01	3.856E+01	2.322E+01	NOT IDENT.
U-238	3.476E+02	4.098E+02	3.537E+02	2.091E+02	FAIL ABUN
NP-239	-8.495E-01	6.523E+01	5.238E+01	3.328E+01	NOT IDENT.
CM-247	-4.652E-01	8.586E+00	7.139E+00	4.381E+00	NOT IDENT.
CF-249	-1.963E+00	9.848E+00	8.125E+00	5.025E+00	NOT IDENT.
CF-251	7.233E+00	2.913E+01	2.431E+01	1.486E+01	NOT IDENT.
ANH-511	-1.137E+01	8.617E+00	7.425E+00	4.396E+00	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.54	175.2119
49.72	204.6490
57.36	234.1867
59.54	202.2792
63.29	137.2481
63.29	137.2481
63.81	138.3278
64.28	155.5054
67.75	147.8160
69.67	146.8390
70.83	162.3905
72.81	155.2298
72.87	155.2546
72.87	155.2546
74.82	163.2324
74.82	163.2324
74.82	163.2324
74.97	163.2962
77.11	175.0310
77.11	175.0310
77.11	175.0310
79.69	164.3737
79.69	164.3737
80.12	160.0049
80.19	160.0335
81.00	166.7336
81.07	170.4075
83.79	172.0047
84.21	168.0469
85.43	172.6847
86.48	181.4253
86.55	151.4436
86.94	151.5829
87.57	151.8081
88.03	151.9716
88.47	152.1276
89.96	152.6535
91.11	153.0560
92.59	153.5707
92.59	153.5707
93.35	129.4452
94.56	136.8495
94.65	136.8769
94.67	136.8828
95.86	114.6052
97.43	138.1890
98.43	147.9742
98.44	147.9774
99.53	143.5709
100.11	132.3253
103.18	139.8922
103.37	144.7406
105.31	135.6994
106.12	138.8174
109.28	144.5597
111.00	156.7377
111.76	156.9735
116.30	139.6758
116.74	144.1252
121.12	139.9601
121.78	140.1315
122.06	140.2039
123.07	137.4771
131.20	154.6622
133.52	163.4092
136.00	138.6258
136.47	162.1993

140.51	142.7668
140.51	0.0000
140.88	134.6327
143.76	135.2763
144.24	135.3816
145.44	150.1449
152.43	137.1726
153.25	138.3983
154.21	145.9554
156.02	156.8968
158.56	141.6526
159.00	144.9214
162.66	147.8515
163.33	162.9065
165.86	125.0445
176.60	151.9615
177.52	132.5948
181.07	144.1749
185.72	127.5087
186.21	136.3932
193.51	106.6279
205.31	137.5789
210.85	139.6663
222.11	158.8452
227.38	132.0340
228.16	144.9051
228.18	144.9089
235.69	145.5768
235.96	129.8308
235.96	129.8308
238.63	152.2197
238.63	152.2197
240.99	156.1498
242.00	132.4791
244.70	131.9892
252.40	111.6590
252.80	111.7077
256.23	121.9831
256.23	121.9831
260.90	115.3750
264.66	113.1115
268.22	118.0684
269.46	103.6691
271.23	85.6350
273.65	124.2025
276.40	116.3030
277.37	99.9172
277.60	93.5208
278.00	90.8064
279.20	113.8735
279.54	118.5065
283.69	113.4582
284.31	95.9893
285.41	105.3321
285.90	106.3069
287.50	95.3633
293.27	91.2395
295.22	95.1410
295.96	97.0747
299.98	85.2625
299.98	85.2625
300.09	85.2722
300.09	85.2722
300.13	85.2750
301.36	79.7446
302.85	96.7652
304.50	95.0327
304.50	95.0327
304.85	95.0635
308.46	106.7134
311.90	88.1028
316.51	96.0822
319.41	90.6092
320.08	92.5715
323.87	100.5460
328.76	88.4764
329.85	87.5981
329.85	87.5981

330.06	97.2427
333.37	91.7283
334.37	94.7072
334.37	94.7072
338.28	100.8436
338.32	100.8468
338.32	100.8468
340.48	98.1181
340.55	98.1242
344.28	90.6373
351.06	81.3510
351.93	80.4297
356.01	64.9536
364.49	84.2322
366.42	100.2418
383.85	79.4906
388.16	94.8993
388.63	90.8933
391.70	84.0208
400.66	75.4171
401.81	73.4425
402.40	79.5972
404.85	83.8318
414.70	80.3209
423.72	77.7351
427.09	79.9996
427.87	81.0838
433.94	73.0794
453.88	69.8551
463.37	78.8226
468.07	89.7524
473.00	73.9647
476.78	65.5506
477.60	47.3073
487.02	83.2917
492.35	59.6955
497.08	67.4946
511.00	77.9628
514.00	89.1073
527.90	56.5781
529.87	44.4275
531.02	60.0183
537.26	60.2391
546.56	0.0000
563.25	62.5110
569.33	42.7257
569.50	42.7303
569.70	50.0089
583.19	57.7151
600.60	57.3394
602.73	47.2211
604.72	50.9784
609.32	60.3948
610.33	58.5688
614.28	49.3744
618.01	65.3405
621.93	44.8969
621.93	44.8969
633.25	59.2748
635.95	58.4141
636.99	57.5032
645.85	55.8699
657.76	65.0968
661.66	41.0421
661.66	41.0421
664.57	44.6068
666.33	46.2400
666.50	43.0543
677.62	49.0626
685.70	51.1859
695.00	54.3252
696.49	37.8603
696.51	37.8603
697.00	40.7829
702.65	49.6540
706.68	48.7732
720.70	46.1474
721.93	55.0156

722.78	55.0375
722.91	49.1431
723.31	44.2375
724.19	48.1889
727.33	40.3794
733.00	46.4091
735.93	42.5160
739.50	39.6143
747.24	48.6973
753.82	42.8604
756.73	47.9051
763.94	44.0537
765.80	54.1107
766.42	52.1206
777.92	45.3318
778.90	48.3738
783.70	59.5834
785.37	45.4779
795.86	39.5913
801.95	47.8365
810.76	43.9270
815.77	45.0431
818.51	44.0698
832.01	59.7757
834.85	56.7496
836.80	0.0000
846.77	53.9145
856.80	52.0508
860.56	34.4051
871.09	47.1127
873.19	61.8204
875.33	60.8235
880.51	50.4398
883.24	66.2730
884.68	46.3117
889.28	47.4489
898.04	58.1891
911.20	58.4832
911.20	58.4832
926.36	60.9577
937.49	73.0236
944.13	79.6620
946.00	71.0982
949.00	71.1772
964.08	62.8938
968.97	55.4015
968.97	55.4015
983.53	55.6916
996.26	55.9431
1001.03	61.5303
1004.73	49.5077
1037.84	49.1484
1038.76	0.0000
1048.07	44.6680
1050.41	35.3900
1050.41	35.3900
1063.66	35.5461
1085.87	49.9441
1099.25	48.2690
1112.07	48.4683
1115.54	56.1335
1120.29	39.0664
1120.55	38.1169
1121.30	40.0330
1131.51	0.0000
1173.23	34.8750
1189.05	18.4952
1204.77	18.5825
1221.41	14.7437
1231.02	13.7995
1235.36	13.8171
1238.28	16.7925
1260.41	0.0000
1274.44	7.9850
1274.54	7.9854
1291.59	10.0301
1298.22	23.1123
1312.11	10.0879

1332.49	1.7391
1365.19	6.1411
1368.63	4.0980
1384.29	6.1726
1408.01	9.3168
1457.56	0.0000
1460.82	11.5434
1489.16	5.2844
1596.21	5.5779
1620.50	5.6095
1678.03	0.0000
1690.97	12.3498
1764.49	6.7578
1770.23	8.6993
1771.35	6.7678
1791.20	0.0000
1836.06	1.9602

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202051905

Total Uranium Activity	1.0376E+03	ug/g
Total Uranium Counting Unc.	1.2194E+03	ug/g
Total Uranium Tpu	6.2217E-04	ug/g
Total Uranium Mda	1.0525E+03	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 956976                    SAMPLE ID  : G1202051905        *
*   ANALYST       : KXG3                      DETECTOR   : GAM02              *
*   SAMPLE DATE   :  3-MAR-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00   *
*   ANALYSIS DATE:  5-MAR-2010 16:48:00.22    SAMPLE ALQT:    2.000 LITER     *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 2.051E+03
        GROSS GAMMA ERROR  (pCi/LITER )   : 1.821E+02
        GROSS GAMMA MDA    (pCi/LITER )   : 1.898E+02
        GROSS GAMMA DLC    (pCi/LITER )   : 9.084E+01
```

Radiochemistry Batch Checklist, Rev10

Batch# 959738 Product: SR-90 Date: 03/10/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.			N/A
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: V. Culpepper

Secondary Review Performed By: [illegible]

LANL
03/25

Strontium 90 Que Sheet

03/02/10

Batch #: 959738 Analyst: JXR1 First Client Due Date: 03/25/2010 Internal Due Date 03/14/2010 Comments

Sr-90 Spike Code: 1243-B Expiration Date: 1-21-11 Vol: 0.1 Sr Sep. Date/time: 3-4-10 / 0952

Sr-90 LCS Code: 1243-B Expiration Date: 1-21-11 Vol: 0.1

Sr Carrier Code: 1194590 Exp Date: 3-19-10 Vol: 0.5 Sdt Wt: 8.93

Prep Date: 3-3-10 Initials: JLR Pipet ID: 1795419 Balance #: 512048 63 Analytical Scale #: 38110047 Witness: HS 3-3-10

Sample ID	Client Description	Type	RDL	Collection Date	Matrix	Client	Rad	Pos. #	Wet/Dry Aliquot (mL) or (g)	Det # 1 & 2	Initial Sr wt (g)	Final Sr wt (g)	Net Sr wt (mg)
247817002-1	CAPA-10-13095	SAMPLE	.5 pCi/L	FEB-21-10 12:00 PM	GROUND WATE	LANL010		1	500	13C	0.0258	0.0325	6.7
247829002-1	CAPA-10-13498	SAMPLE	.5 pCi/L	FEB-22-10 12:00 PM	GROUND WATE	LANL010		2	500	13B	0.0250	0.0311	6.1
248020001-1	CAPA-10-12771	SAMPLE	.5 pCi/L	FEB-22-10 12:00 PM	GROUND WATE	LANL010		3	500	14B	0.0252	0.0320	6.8
248020003-1	CAPA-10-13085	SAMPLE	.5 pCi/L	FEB-23-10 12:00 PM	GROUND WATE	LANL010		4	500 * ~~14A~~	1C	0.0259	0.0332	7.3
248023002-1	CAPA-10-12917	SAMPLE	.5 pCi/L	FEB-23-10 12:00 PM	GROUND WATE	LANL010		5	500	14C	0.0261	0.0335	7.4
248024001-1	CAPA-10-12871	SAMPLE	.5 pCi/L	FEB-23-10 12:00 PM	GROUND WATE	LANL010		6	500 * ~~14A~~	2A	0.0255	0.0326	7.1
248024003-1	CAPA-10-12873	SAMPLE	.5 pCi/L	FEB-23-10 12:00 PM	GROUND WATE	LANL010		7	400	13C	0.0250	0.0320	7.0
1202058386-1	MB for batch 959738	MB	.5 pCi/L		GROUND WATE	QC ACCOUNT		8	1000 ~~500~~ *	14B	0.0250	0.0320	7.0
1202058387-1	CAPA-10-12873(248024003DUP)	DUP	.5 pCi/L	FEB-23-10 12:00 PM	GROUND WATE	QC ACCOUNT		9	400	14D	0.0258	0.0335	7.7
1202058388-1	CAPA-10-12873(248024003MS)	MS	.5 pCi/L	FEB-23-10 12:00 PM	GROUND WATE	QC ACCOUNT		10	100	13A	0.0253	0.0327	7.4
1202058389-1	LCS for batch 959738	LCS	.5 pCi/L		GROUND WATE	QC ACCOUNT		11	1000 ~~500~~ *	13A	0.0250	0.0326	7.6

* VC 03/05/10 Daily ✓ ✓

Solid Sample Dissolution by: LEACH or DIGESTION Data Reviewed By: V. Calpepper 03/10/10

Circle One

Page 1 of 1

Blank Correction Report

Batch ID 959738

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202058387	DUP	Strontium-90	0.400 L	0.329	0.151	0.480	.24975	pCi/L	YES
1202058389	LCS	Strontium-90	1.00 L	19.3	1.66	0.505	.0999	pCi/L	NO
1202058386	MB	Strontium-90	1.00 L	0.0999	0.0688	0.229	.0999	pCi/L	YES
1202058388	MS	Strontium-90	0.100 L	234	19.9	5.10	.999	pCi/L	NO
247817002	CAPA-10-13095	Strontium-90	0.500 L	0.105	0.135	0.469	.1998	pCi/L	YES
247829002	CAPA-10-13498	Strontium-90	0.500 L	0.0618	0.132	0.472	.1998	pCi/L	YES
248020001	CAPA-10-12771	Strontium-90	0.500 L	0.165	0.135	0.456	.1998	pCi/L	YES
248020003	CAPA-10-13085	Strontium-90	0.500 L	-0.255	0.0944	0.471	.1998	pCi/L	YES
248023002	CAPA-10-12917	Strontium-90	0.500 L	-0.111	0.127	0.475	.1998	pCi/L	YES
248024001	CAPA-10-12871	Strontium-90	0.500 L	0.0283	0.128	0.474	.1998	pCi/L	YES
248024003	CAPA-10-12873	Strontium-90	0.400 L	0.0327	0.134	0.474	.24975	pCi/L	YES

Strontium-90 Liquid

Filename : SR90.XLS
File type : Excel
Version # : 1.3.1

Spike S/N : 1243-B
Spike Exp Date : 1/21/2011
Spike Activity (dpm/ml): 493.26
Spike Volume Added: 0.10

Batch : 959738
Analyst : JXR1
Prep Date : 3/3/2010

LCS S/N : 1243-B
LCS Exp Date : 1/21/2011
LCS Activity (dpm/ml): 493.26
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Sr-90 Abundance : 1
Method Uncertainty : 0.0784

Carrier S/N : 1194590
Carrier Exp Date : 3/19/2010
Carrier Volume Added: 0.50
Carrier Weight (mg/ml): 17.85
Carrier Weight StDev.: 0.06

Procedure Code : GFC90SRL
Parmname : Strontium-90
Required MDC : 0.5 pCi/L
Halflife of Sr-90 : 28.90 years
Halflife of Y-90 : 64.053 hours

Geometry: Tuffryn Filter

Sample Characteristics					Carrier Calculations				
Pos.	Sample ID	Sample Aliquot L	Sample Aliquot StDev. L	Sample Date/Time	Carrier Weight (mg) (Standard)	Net Weight (mg) (Sample)	Net Weight StDev. (mg)	Carrier Aliquot (mL)	Carrier Aliquot StDev. (mL)
1	247817002.1	0.5000	2.0256E-05	2/21/2010 12:00	17.85	6.70	0.036127	0.5	0.002564
2	247829002.1	0.5000	2.0256E-05	2/22/2010 12:00	17.85	6.10	0.033548	0.5	0.002564
3	248020001.1	0.5000	2.0256E-05	2/22/2010 12:00	17.85	6.80	0.036556	0.5	0.002564
4	248020003.1	0.5000	2.0256E-05	2/23/2010 12:00	17.85	7.30	0.038705	0.5	0.002564
5	248023002.1	0.5000	2.0256E-05	2/23/2010 12:00	17.85	7.40	0.039135	0.5	0.002564
6	248024001.1	0.5000	2.0256E-05	2/23/2010 12:00	17.85	7.10	0.037846	0.5	0.002564
7	248024003.1	0.4000	1.9669E-05	2/23/2010 12:00	17.85	7.00	0.037416	0.5	0.002564
8	1202058386.1	1.0000	2.0399E-05	3/3/2010 0:00	17.85	7.00	0.037416	0.5	0.002564
9	1202058387.1	0.4000	1.9669E-05	2/23/2010 12:00	17.85	7.70	0.040425	0.5	0.002564
10	1202058388.1	0.1000	1.1370E-05	2/23/2010 12:00	17.85	7.40	0.039135	0.5	0.002564
11	1202058389.1	1.0000	2.0399E-05	3/3/2010 0:00	17.85	7.60	0.039995	0.5	0.002564

Count Raw Data

Pos.	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Gross Beta CPM	Count Start Date/Time	Strontium Separation Date/Time	Yttrium Ingrowth	Sr-90 Decay	Calculated Sample Recovery %	Sample Recovery Error %
1	13C	160	10	56	0.345	3/4/2010 15:15	3/4/2010 9:52	0.070	0.999	75.07%	0.98%
2	13B	170	5	50	0.292	3/4/2010 15:15	3/4/2010 9:52	0.071	0.999	68.35%	0.99%
3	14B	160	5	56	0.346	3/4/2010 15:15	3/4/2010 9:52	0.070	0.999	76.19%	0.98%
4	1C	60	2	15	0.248	3/9/2010 17:52	3/4/2010 9:52	0.751	0.999	81.79%	0.97%
5	14C	180	5	67	0.367	3/4/2010 15:16	3/4/2010 9:52	0.072	0.999	82.91%	0.97%
6	8A	70	6	35	0.496	3/9/2010 9:21	3/4/2010 9:52	0.727	0.999	79.55%	0.97%
7	13C	220	9	70	0.315	3/4/2010 18:05	3/4/2010 9:52	0.103	0.999	78.43%	0.97%
8	14B	140	0	51	0.364	3/4/2010 18:04	3/4/2010 9:52	0.096	1.000	78.43%	0.97%
9	14D	280	6	152	0.536	3/4/2010 15:15	3/4/2010 9:52	0.080	0.999	86.27%	0.96%
10	13A	60	4	1238	20.629	3/4/2010 16:38	3/4/2010 9:52	0.076	0.999	82.91%	0.97%
11	13A	60	3	1038	17.297	3/4/2010 15:15	3/4/2010 9:52	0.062	1.000	85.15%	0.96%

Calibration Data

Pos.	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm) Sr-90	Detector Efficiency (cpm/dpm) Y-90	Detector Efficiency Error (cpm/dpm)	Alpha X-Talk	Weekly Bkg CPM	Weekly Bkg Count Time (min.)
1	PIC	2/1/2010	2/28/2011	0.4333	0.5190	0.00816	0.07662	0.304	500
2	PIC	2/1/2010	2/28/2011	0.4369	0.5200	0.00816	0.06516	0.270	500
3	PIC	2/1/2010	2/28/2011	0.4246	0.5092	0.00816	0.12148	0.282	500
4	PIC	2/1/2010	2/28/2011	0.4142	0.4984	0.00344	0.07334	0.430	1000
5	PIC	2/1/2010	2/28/2011	0.4223	0.5095	0.00816	0.18229	0.414	500
6	PIC	2/1/2010	2/28/2011	0.4211	0.5137	0.00816	0.04870	0.476	500
7	PIC	2/1/2010	2/28/2011	0.4324	0.5190	0.00816	0.07669	0.304	500
8	PIC	2/1/2010	2/28/2011	0.4241	0.5092	0.00816	0.12147	0.282	500
9	PIC	2/1/2010	2/28/2011	0.4213	0.5096	0.00816	0.30648	0.420	500
10	PIC	2/1/2010	2/28/2011	0.4231	0.5109	0.00816	0.06800	0.726	500
11	PIC	2/1/2010	2/28/2011	0.4225	0.5109	0.00816	0.06802	0.726	500

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

* - RPD changed to 0% due to activity below MDC for 1202058387.1

Results Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	0.2983	0.2106	0.5	0.4692	**0.1054**	1.2761	0.0412	0.0526	0.1345	0.1347		SAMPLE				
2	0.2992	0.2113	0.5	0.4716	**0.0618**	2.1408	0.0222	0.0475	0.1323	0.1324		SAMPLE				
3	0.2888	0.2039	0.5	0.4560	**0.1650**	0.8136	0.0642	0.0522	0.1342	0.1349		SAMPLE				
4	0.2839	0.2005	0.5	0.4708	**-0.2551**	0.3701	-0.1824	0.0675	0.0944	0.0944		SAMPLE				
5	0.3087	0.2179	0.5	0.4753	**-0.1110**	1.1433	-0.0468	0.0536	0.1268	0.1269		SAMPLE				
6	0.2926	0.2066	0.5	0.4743	**0.0283**	4.5215	0.0198	0.0896	0.1279	0.1279		SAMPLE				
7	0.3073	0.2170	0.5	0.4743	**0.0327**	4.0895	0.0110	0.0452	0.1335	0.1336		SAMPLE				
8	0.1436	0.1014	0.5	0.2288	**0.0999**	0.6839	0.0823	0.0563	0.0683	0.0688		MB				
9	0.3185	0.2249	0.5	0.4801	**0.3287**	0.4516	0.1163	0.0525	0.1484	0.1507	248024003.1	DUP	0.0%	0.5207		
10	3.1932	2.2544	0.5	5.0975	**234.3058**	0.0321	19.9028	0.5876	6.9174	19.9433	248024003.1	MS			222.2998	105.4%
11	0.3161	0.2231	0.5	0.5045	**19.3086**	0.0349	16.5706	0.5383	0.6272	1.6641		LCS			22.2190	86.9%

959738r2

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
247817002	13C	160	10	56	3/4/2010 15:15	3/4/2010 17:55	PIC
247829002	13B	170	5	50	3/4/2010 15:15	3/4/2010 18:05	PIC
248020001	14B	160	5	56	3/4/2010 15:15	3/4/2010 17:55	PIC
248020003	1C	60	2	15	3/9/2010 17:52	3/9/2010 18:52	PIC
248023002	14C	180	5	67	3/4/2010 15:16	3/4/2010 18:16	PIC
248024001	8A	70	6	35	3/9/2010 9:21	3/9/2010 10:31	PIC
248024003	13C	220	9	70	3/4/2010 18:05	3/4/2010 21:45	PIC
1202058386	14B	140	0	51	3/4/2010 18:04	3/4/2010 20:24	PIC
1202058387	14D	280	6	152	3/4/2010 15:15	3/4/2010 19:55	PIC
1202058388	13A	60	4	1238	3/4/2010 16:38	3/4/2010 17:38	PIC
1202058389	13A	60	3	1038	3/4/2010 15:15	3/4/2010 16:15	PIC

Radiochemistry Batch Checklist, Rev10

Batch# 959739 Product: GAB Date: 3.6.10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.	✓		
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.	✓		
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Rhyan Brantley LANL

Secondary Review Performed By: [illegible] 3.25

Blank Correction Report

Batch ID 959739

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202058391	DUP	ALPHA	0.150 L	-0.387	0.476	2.49	.449333333	pCi/L	YES
		BETA	0.150 L	-0.705	0.832	2.98	-1.6133333	pCi/L	NO
1202058394	LCS	ALPHA	1.00 L	12.2	1.45	0.385	.0674	pCi/L	NO
		BETA	1.00 L	42.5	3.72	0.592	-.242	pCi/L	NO
1202058390	MB	ALPHA	1.00 L	0.0674	0.0742	0.284	.0674	pCi/L	YES
		BETA	1.00 L	-0.242	0.117	0.446	-.242	pCi/L	NO
1202058392	MS	ALPHA	0.050 L	304	30.0	9.03	1.348	pCi/L	NO
		BETA	0.050 L	791	68.5	10.2	-4.84	pCi/L	NO
1202058393	MSD	ALPHA	0.050 L	310	35.7	6.75	1.348	pCi/L	NO
		BETA	0.050 L	824	71.6	10.1	-4.84	pCi/L	NO
247817002	CAPA-10-13095	ALPHA	0.150 L	0.0727	0.364	1.84	.449333333	pCi/L	YES
		BETA	0.150 L	1.78	0.762	2.39	-1.6133333	pCi/L	NO
247829002	CAPA-10-13498	ALPHA	0.150 L	1.43	0.719	1.93	.449333333	pCi/L	YES
		BETA	0.150 L	3.47	0.879	2.44	-1.6133333	pCi/L	NO
248020001	CAPA-10-12771	ALPHA	0.150 L	1.79	0.818	2.13	.449333333	pCi/L	YES
		BETA	0.150 L	4.55	0.984	2.60	-1.6133333	pCi/L	NO
248020002	CAPA-10-13083	ALPHA	0.150 L	1.33	0.754	2.23	.449333333	pCi/L	YES
		BETA	0.150 L	2.15	0.859	2.66	-1.6133333	pCi/L	NO
248020003	CAPA-10-13085	ALPHA	0.150 L	0.261	0.393	1.68	.449333333	pCi/L	YES
		BETA	0.150 L	-0.762	0.739	2.70	-1.6133333	pCi/L	NO
248023002	CAPA-10-12917	ALPHA	0.150 L	0.350	0.524	2.12	.449333333	pCi/L	YES
		BETA	0.150 L	-0.00872	0.789	2.78	-1.6133333	pCi/L	NO
248024001	CAPA-10-12871	ALPHA	0.150 L	1.59	0.839	2.35	.449333333	pCi/L	YES
		BETA	0.150 L	6.13	1.13	2.81	-1.6133333	pCi/L	NO
248024003	CAPA-10-12873	ALPHA	0.150 L	2.46	0.994	2.21	.449333333	pCi/L	NO
		BETA	0.150 L	4.24	1.04	2.94	-1.6133333	pCi/L	NO

Gross Alpha Beta Que Sheet

03/02/2010 08:37:48

Batch #:959739 Analyst:DXF3 First Client DueDate 03/25/2010 Internal Due Date 03/14/2010

Alpha Spike Isotope: Th-230 Spike Code: 1242-B Vol: 0.1 Balance #: 167 SD207
Beta Spike Isotope: Sr-90 Spike Code: 1067-C Vol: 0.1 Pipette #: 4497063 Analytical Scale # C3154
Alpha LCS Isotope: Th-230 LCS Code: 1242-B Vol: 0.1 Prep Date: 3/4/10 Witness: SEH 3-4-10
Beta LCS Isotope: Sr-90 LCS Code: 1067-C Vol: 0.1 Initials: DHF Reapy

10% HNO3: 1269401
Conc HNO3: 1274802.8
Conc HCl: —
Conc HF: —
Conc Boric: —

Sample ID	Client Description	Type	Hazard Code	RDL Alpha/Beta	Client	Matrix	Bkr#	Wet/Dry Aliquot (mL or g)	Carrier or Det#	Initial Wt (g)	Final Wt (g)	Net Wt (mg)
247817002-1	CAPA-10-13095	SAMPLE		3 pCi/L	LANL010	GROUND WATER	1	1SD	8B	7.5896	7.6049	15.3
247829002-1	CAPA-10-13498	SAMPLE		3 pCi/L	LANL010	GROUND WATER	2	1SD	11C	7.5648	7.5842	19.4
248020001-1	CAPA-10-12771	SAMPLE		3 pCi/L	LANL010	GROUND WATER	3	1SD	1A	7.5499	7.5676	17.7
248020002-1	CAPA-10-13083	SAMPLE		3 pCi/L	LANL010	GROUND WATER	4	1SD	12B	7.5866	7.6060	19.4
• 248020003-1	CAPA-10-13085	SAMPLE		3 pCi/L	LANL010	GROUND WATER	5	1SD	9C	7.5681	7.5688	0.7
248023002-1	CAPA-10-12917	SAMPLE		3 pCi/L	LANL010	GROUND WATER	6	1SD	4C	7.6149	7.6306	15.7
248024001-1	CAPA-10-12871	SAMPLE		3 pCi/L	LANL010	GROUND WATER	7	1SD	10A	7.5615	7.6033	41.8
248024003-1	CAPA-10-12873	SAMPLE		3 pCi/L	LANL010	GROUND WATER	8	1SD	5B	7.5829	7.6262	43.3
1202058390-1	MB	MB		3 pCi/L	QC ACCOUNT	GROUND WATER	9	1000 ~~1SD~~	10B	7.5777	7.5779	0.2
1202058391-1	DUP CAPA-10-13085(248020003)	DUP		3 pCi/L	QC ACCOUNT	GROUND WATER	10	1SD	~~11A~~ F1	7.5920	7.5925	0.5
1202058392-1	MS CAPA-10-13085(248020003)	MS		3 pCi/L	QC ACCOUNT	GROUND WATER	11	5D	4B	7.5588	7.5596	0.8
1202058393-1	MSD CAPA-10-13085(248020003)	MSD		3 pCi/L	QC ACCOUNT	GROUND WATER	12	5D	8C	7.5346	7.5357	1.1
1202058394-1	LCS	LCS		3 pCi/L	QC ACCOUNT	GROUND WATER	13	1000 ~~1SD~~	8D	7.5808	7.5822	1.4

a → 40 3.6.10

Have the planchets been flamed? Yes / No

Data Reviewed By: Rhyan Brantley

Gross Alpha Liquid

Filename : ALPHA.XLS
File type : Excel
Version # : 1.3

Batch : 959739
Analyst : DXF3
Prep Date : 3/4/2010

Method Uncertainty : 0.0829
Geometry: 2 inch Planchett

Spike S/N : 1242-B
Spike Exp Date : 12/2/2010
Spike Activity (dpm/ml): 279.79
Spike Volume Added: 0.10

LCS S/N : 1242-B
LCS Exp Date : 12/2/2010
LCS Activity (dpm/ml): 279.79
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Procedure Code : GFCGANBL
Parmname : Alpha
Required MDC : 3 pCi/L

Sample Characteristics						Count Raw Data				
Pos.	Sample ID	Sample Aliquot L	Sample Residue Wt. (mg)	Sample Aliquot StDev. L	Sample Date/Time	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Count Start Date/Time
1	247817002.2	0.1500	15.3	1.4035E-05	2/21/2010 12:00	8B	60	2	29	3/6/2010 4:00
2	247829002.2	0.1500	19.4	1.4035E-05	2/22/2010 12:00	11C	60	7	40	3/6/2010 3:55
3	248020001.2	0.1500	17.7	1.4035E-05	2/22/2010 12:00	1A	60	9	40	3/6/2010 4:22
4	248020002.2	0.1500	19.4	1.4035E-05	2/23/2010 12:00	12B	60	7	40	3/6/2010 3:55
5	248020003.2	0.1500	0.7	1.4035E-05	2/23/2010 12:00	9C	60	3	41	3/6/2010 4:23
6	248023002.2	0.1500	15.7	1.4035E-05	2/23/2010 12:00	4C	60	4	34	3/6/2010 4:23
7	248024001.2	0.1500	41.8	1.4035E-05	2/23/2010 12:00	10A	60	7	41	3/6/2010 4:23
8	248024003.2	0.1500	43.3	1.4035E-05	2/23/2010 12:00	5B	60	10	61	3/6/2010 4:23
9	1202058390.2	1.0000	0.2	2.0399E-05	3/4/2010 0:00	10B	60	5	21	3/6/2010 4:00
10	1202058391.2	0.1500	0.5	1.4035E-05	2/23/2010 12:00	F1	60	4	92	3/6/2010 15:27
11	1202058392.2	0.0500	0.8	7.8337E-06	2/23/2010 12:00	4B	60	417	2648	3/6/2010 4:00
12	1202058393.2	0.0500	1.1	7.8337E-06	2/23/2010 12:00	8C	60	502	2752	3/6/2010 4:00
13	1202058394.2	1.0000	1.4	2.0399E-05	3/4/2010 0:00	8D	60	406	2728	3/6/2010 4:00

Calibration Data

Pos.	Counted on	Calibration Date	Calibration Due Date	Calibration Source Used	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Beta X-Talk	Weekly Bkg CPM	Weekly Bkg Count Time (min.)
1	PIC	7/31/2009	7/31/2010	Th230	0.2043	0.06392	0.00081	0.028	500
2	PIC	7/31/2009	7/31/2010	Th230	0.1908	0.06392	0.00011	0.026	500
3	PIC	7/31/2009	7/31/2010	Th230	0.1906	0.04886	0.00080	0.036	500
4	PIC	7/31/2009	7/31/2010	Th230	0.1819	0.06392	0.00006	0.036	500
5	PIC	7/31/2009	7/31/2010	Th230	0.2287	0.06392	0.00012	0.030	500
6	PIC	7/31/2009	7/31/2010	Th230	0.1984	0.04190	0.00623	0.040	500
7	PIC	7/31/2009	7/31/2010	Th230	0.1634	0.06392	0.00038	0.030	500
8	PIC	7/31/2009	7/31/2010	Th230	0.1668	0.06392	0.00406	0.026	500
9	PIC	7/31/2009	7/31/2010	Th230	0.2351	0.06392	0.00042	0.048	500
10	LB4100	7/31/2009	7/31/2010	Th230	0.2279	0.03764	0.00004	0.096	500
11	PIC	7/31/2009	7/31/2010	Th230	0.2026	0.01889	0.00007	0.116	500
12	PIC	7/31/2009	7/31/2010	Th230	0.2385	0.06392	0.00187	0.082	500
13	PIC	7/31/2009	7/31/2010	Th230	0.2406	0.06392	0.00264	0.120	500

Notes:
* - Reference date for Spike Activity (dpm/ml) is the batch Prep Date

* - RPD changed to 0% due to activity below MDC for 1202058391.2

Alpha Results Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	0.7830	0.5528	3	1.8407	**0.0727**	4.6372	0.0053	0.0247	0.3635	0.3644		SAMPLE				
2	0.8081	0.5705	3	1.9281	**1.4261**	0.4969	0.0907	0.0447	0.7034	0.7191		SAMPLE				
3	0.9517	0.6719	3	2.1317	**1.7878**	0.4475	0.1140	0.0507	0.7991	0.8176		SAMPLE				
4	0.9970	0.7039	3	2.2331	**1.3309**	0.5603	0.0807	0.0449	0.7412	0.7542		SAMPLE				
5	0.7239	0.5111	3	1.6785	**0.2615**	1.4958	0.0200	0.0299	0.3924	0.3934		SAMPLE				
6	0.9635	0.6803	3	2.1172	**0.3502**	1.2949	0.0267	0.0345	0.5223	0.5236		SAMPLE				
7	1.0131	0.7152	3	2.3491	**1.5876**	0.5205	0.0867	0.0448	0.8226	0.8393		SAMPLE				
8	0.9241	0.6525	3	2.2051	**2.4582**	0.3835	0.1407	0.0532	0.9577	0.9937		SAMPLE				
9	0.1336	0.0943	3	0.2844	**0.0674**	1.0925	0.0353	0.0385	0.0738	0.0742		MB				
10	1.2999	0.9177	3	2.4944	**-0.3874**	1.2312	-0.0293	0.0361	0.4757	0.4762	248020003.2	DUP	0.0%	0.3731		
11	4.8220	3.4044	3	9.0326	**303.8051**	0.0533	6.8340	0.3407	15.1518	29.9572	248020003.2	MS			252.0645	120.5%
12	3.4435	2.4311	3	6.7509	**309.7145**	0.0782	8.2847	0.3736	14.1141	35.6718	248020003.2	MSD	1.9%	0.0450	252.0645	122.9%
13	0.2065	0.1458	3	0.3852	**12.2202**	0.0815	6.6467	0.3362	0.6295	1.4469		LCS			12.6032	97.0%

959739r1

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
247817002	8B	60	2	29	3/6/2010 4:00	3/6/2010 5:00	PIC
247829002	11C	60	7	40	3/6/2010 3:55	3/6/2010 4:55	PIC
248020001	1A	60	9	40	3/6/2010 4:22	3/6/2010 5:22	PIC
248020002	12B	60	7	40	3/6/2010 3:55	3/6/2010 4:55	PIC
248020003	9C	60	3	41	3/6/2010 4:23	3/6/2010 5:23	PIC
248023002	4C	60	4	34	3/6/2010 4:23	3/6/2010 5:23	PIC
248024001	10A	60	7	41	3/6/2010 4:23	3/6/2010 5:23	PIC
248024003	5B	60	10	61	3/6/2010 4:23	3/6/2010 5:23	PIC
1202058390	10B	60	5	21	3/6/2010 4:00	3/6/2010 5:00	PIC
1202058391	F1	60	4	92	3/6/2010 15:27	3/6/2010 16:27	LB4100
1202058392	4B	60	417	2648	3/6/2010 4:00	3/6/2010 5:00	PIC
1202058393	8C	60	502	2752	3/6/2010 4:00	3/6/2010 5:00	PIC
1202058394	8D	60	406	2728	3/6/2010 4:00	3/6/2010 5:00	PIC

Gross Alpha Beta Que Sheet

03/02/2010 08:37:48

Batch #:959739 Analyst:DXF3 First Client DueDate 03/25/2010 Internal Due Date 03/14/2010

Alpha Spike Isotope: Th-230 Spike Code: 1242-B Vol: 0.1 Balance #: 16750207
Beta Spike Isotope: Sr-90 Spike Code: 1067-C Vol: 0.1 Pipette #: 44970063 Analytical Scale # C31574
Alpha LCS Isotope: Th-230 LCS Code: 1242-B Vol: 0.1 Prep Date: 3/4/10 Witness: JEH 3-4-10
Beta LCS Isotope: Sr-90 LCS Code: 1067-C Vol: 0.1 Initials: DHF

10% HNO3: 12694 01
Conc HNO3: 12748027.8
Conc HCl: —
Conc HF: —
Conc Boric: —

Sample ID	Client Description	Type	Hazard Code	RDL Alpha/Beta	Client	Matrix	Bkr#	Wet/Dry Aliquot (mL or g)	Carrier or Det#	Initial Wt (g)	Final Wt (g)	Net Wt (mg)
247817002-1	CAPA-10-13095	SAMPLE		3 pCi/L	LANL010	GROUND WATER	1	1SD	F2	7.5896	7.6172	27.6
247829002-1	CAPA-10-13498	SAMPLE		3 pCi/L	LANL010	GROUND WATER	2	1SD	F3	7.5648	7.5975	32.7
248020001-1	CAPA-10-12771	SAMPLE		3 pCi/L	LANL010	GROUND WATER	3	1SD	G2	7.5499	7.5811	31.2
248020002-1	CAPA-10-13083	SAMPLE		3 pCi/L	LANL010	GROUND WATER	4	1SD	H1	7.5866	7.6231	36.5
248020003-1	CAPA-10-13085	SAMPLE		3 pCi/L	LANL010	GROUND WATER	5	1SD	H4	7.5681	7.5681	0
248023002-1	CAPA-10-12917	SAMPLE		3 pCi/L	LANL010	GROUND WATER	6	1SD	H2	7.6149	7.6412	26.3
248024001-1	CAPA-10-12871	SAMPLE		3 pCi/L	LANL010	GROUND WATER	7	1SD	H3	7.5615	7.6431	81.6
248024003-1	CAPA-10-12873	SAMPLE		3 pCi/L	LANL010	GROUND WATER	8	1SD	F4	7.5829	7.6639	81.0
1202058390-1	MB	MB		3 pCi/L	QC ACCOUNT	GROUND WATER	9	1000 ~~1SD~~*	G1	7.5777	7.5774	0
1202058391-1	DUP CAPA-10-13085(248020003)	DUP		3 pCi/L	QC ACCOUNT	GROUND WATER	10	1SD	F1	7.5970	7.5970	0
1202058392-1	MS CAPA-10-13085(248020003)	MS		3 pCi/L	QC ACCOUNT	GROUND WATER	11	5D	B1	7.5588	7.5587	0
1202058393-1	MSD CAPA-10-13085(248020003)	MSD		3 pCi/L	QC ACCOUNT	GROUND WATER	12	5D	B2	7.5346	7.5345	0
1202058394-1	LCS	LCS		3 pCi/L	QC ACCOUNT	GROUND WATER	13	1000 ~~1SD~~*	B4	7.5808	7.5807	0

*vc 03/05/10

weights ✓

Have the planchets been flamed? Yes / No

Data Reviewed By: Ryan Bentley

Gross Beta Liquid

Filename : BETA.XLS
File type : Excel
Version # : 1.3

Batch : 959739
Analyst : DXF3
Prep Date : 3/4/2010

Method Uncertainty : 0.0821
Geometry: 2 inch Planchett

Spike S/N : 1067-C
Spike Exp Date : 6/17/2010
Spike Activity (dpm/ml): 426.80
Spike Volume Added: 0.10

LCS S/N : 1067-C
LCS Exp Date : 6/17/2010
LCS Activity (dpm/ml): 426.80
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Procedure Code : GFCGANBL
Parmname : Beta
Required MDC : 3 pCi/L

Sample Characteristics						Count Raw Data				
Pos.	Sample ID	Sample Aliquot L	Sample Residue Wt. (mg)	Sample Aliquot StDev. L	Sample Date/Time	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Count Start Date/Time
1	247817002.1	0.1500	27.6	1.4035E-05	2/21/2010 12:00	F2	110	3	133	3/5/2010 9:17
2	247829002.1	0.1500	32.7	1.4035E-05	2/22/2010 12:00	F3	110	16	165	3/5/2010 9:17
3	248020001.1	0.1500	31.2	1.4035E-05	2/22/2010 12:00	G2	110	14	181	3/5/2010 9:44
4	248020002.1	0.1500	36.5	1.4035E-05	2/23/2010 12:00	H1	110	8	150	3/5/2010 9:20
5	248020003.1	0.1500	0	1.4035E-05	2/23/2010 12:00	H4	110	7	129	3/5/2010 9:20
6	248023002.1	0.1500	26.3	1.4035E-05	2/23/2010 12:00	H2	110	7	136	3/5/2010 9:20
7	248024001.1	0.1500	81.6	1.4035E-05	2/23/2010 12:00	H3	110	15	245	3/5/2010 9:20
8	248024003.1	0.1500	81	1.4035E-05	2/23/2010 12:00	F4	110	10	242	3/5/2010 9:17
9	1202058390.1	1.0000	0	2.0399E-05	3/4/2010 0:00	G1	110	2	111	3/5/2010 9:44
10	1202058391.1	0.1500	0	1.4035E-05	2/23/2010 12:00	F1	110	5	181	3/5/2010 9:17
11	1202058392.1	0.0500	0	7.8337E-06	2/23/2010 12:00	B1	60	428	2611	3/5/2010 9:22
12	1202058393.1	0.0500	0	7.8337E-06	2/23/2010 12:00	B2	60	474	2721	3/5/2010 9:22
13	1202058394.1	1.0000	0	2.0399E-05	3/4/2010 0:00	B4	60	340	2427	3/5/2010 9:22

Calibration Data								Weekly Bkg	
Pos.	Counted on	Calibration Date	Calibration Due Date	Calibration Source Used	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Alpha X-Talk	CPM	Count Time (min.)
1	LB4100	7/31/2009	7/31/2010	Sr90	0.4557	0.01570	0.02983	0.938	500
2	LB4100	7/31/2009	7/31/2010	Sr90	0.4531	0.02185	0.03031	0.972	500
3	LB4100	7/31/2009	7/31/2010	Sr90	0.4303	0.01093	0.03146	0.990	500
4	LB4100	7/31/2009	7/31/2010	Sr90	0.4312	0.02167	0.03067	1.052	500
5	LB4100	7/31/2009	7/31/2010	Sr90	0.4674	0.01752	0.02043	1.290	500
6	LB4100	7/31/2009	7/31/2010	Sr90	0.4459	0.01656	0.02606	1.236	500
7	LB4100	7/31/2009	7/31/2010	Sr90	0.4509	0.01564	0.03419	1.302	500
8	LB4100	7/31/2009	7/31/2010	Sr90	0.4669	0.02017	0.03562	1.538	500
9	LB4100	7/31/2009	7/31/2010	Sr90	0.4164	0.01162	0.02106	1.232	500
10	LB4100	7/31/2009	7/31/2010	Sr90	0.4904	0.01646	0.01479	1.760	500
11	LB4100	7/31/2009	7/31/2010	Sr90	0.4810	0.01808	0.01330	1.202	500
12	LB4100	7/31/2009	7/31/2010	Sr90	0.4811	0.01942	0.01722	1.194	500
13	LB4100	7/31/2009	7/31/2010	Sr90	0.4145	0.02075	0.02403	1.210	500

Notes:
* - Reference date for Spike Activity (dpm/ml) is the batch Prep Date

* - RPD changed to 0% due to activity below MDC for 1202058391.1

Beta Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	1.5662	1.1057	3	2.3912	**1.7812**	0.4187	0.2711	0.1134	0.7476	0.7623		SAMPLE				
2	1.6033	1.1319	3	2.4446	**3.4700**	0.2374	0.5280	0.1248	0.8272	0.8790		SAMPLE				
3	1.7038	1.2029	3	2.5960	**4.5460**	0.1989	0.6555	0.1301	0.9082	0.9841		SAMPLE				
4	1.7526	1.2373	3	2.6646	**2.1546**	0.3870	0.3116	0.1204	0.8386	0.8586		SAMPLE				
5	1.7906	1.2641	3	2.7035	**-0.7618**	0.9814	-0.1173	0.1151	0.7393	0.7393		SAMPLE				
6	1.8373	1.2972	3	2.7781	**-8.719E-03**	322.0163	0.0004	0.1171	0.7887	0.7887		SAMPLE				
7	1.8648	1.3165	3	2.8147	**6.1314**	0.1641	0.9253	0.1512	1.0068	1.1309		SAMPLE				
8	1.9573	1.3819	3	2.9392	**4.2371**	0.2304	0.6620	0.1519	0.9771	1.0413		SAMPLE				
9	0.2947	0.2080	3	0.4456	**-0.2416**	0.4841	-0.2229	0.1079	0.1167	0.1167		MB				
10	1.9933	1.4073	3	2.9815	**-0.7055**	1.1869	-0.1145	0.1359	0.8324	0.8324	248020003.1	DUP	0.0%	0.0179		
11	6.5376	4.6156	3	10.1677	**790.8443**	0.0271	42.3147	0.8530	15.9788	68.5224	248020003.1	MS			769.0016	102.8%
12	6.5138	4.5988	3	10.1339	**824.3145**	0.0277	44.1560	0.8708	16.3058	71.6395	248020003.1	MSD	4.1%	0.1194	769.0016	107.2%
13	0.3806	0.2687	3	0.5917	**42.4972**	0.0295	39.2400	0.8225	0.8939	3.7202		LCS			38.4501	110.5%

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
247817002	F2	110	3	133	3/5/2010 9:17	3/5/2010 11:07	LB4100
247829002	F3	110	16	165	3/5/2010 9:17	3/5/2010 11:07	LB4100
248020001	G2	110	14	181	3/5/2010 9:44	3/5/2010 11:34	LB4100
248020002	H1	110	8	150	3/5/2010 9:20	3/5/2010 11:10	LB4100
248020003	H4	110	7	129	3/5/2010 9:20	3/5/2010 11:10	LB4100
248023002	H2	110	7	136	3/5/2010 9:20	3/5/2010 11:10	LB4100
248024001	H3	110	15	245	3/5/2010 9:20	3/5/2010 11:10	LB4100
248024003	F4	110	10	242	3/5/2010 9:17	3/5/2010 11:07	LB4100
1202058390	G1	110	2	111	3/5/2010 9:44	3/5/2010 11:34	LB4100
1202058391	F1	110	5	181	3/5/2010 9:17	3/5/2010 11:07	LB4100
1202058392	B1	60	428	2611	3/5/2010 9:22	3/5/2010 10:22	LB4100
1202058393	B2	60	474	2721	3/5/2010 9:22	3/5/2010 10:22	LB4100
1202058394	B4	60	340	2427	3/5/2010 9:22	3/5/2010 10:22	LB4100

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W001.QAF;7
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.294900 through 0.361886

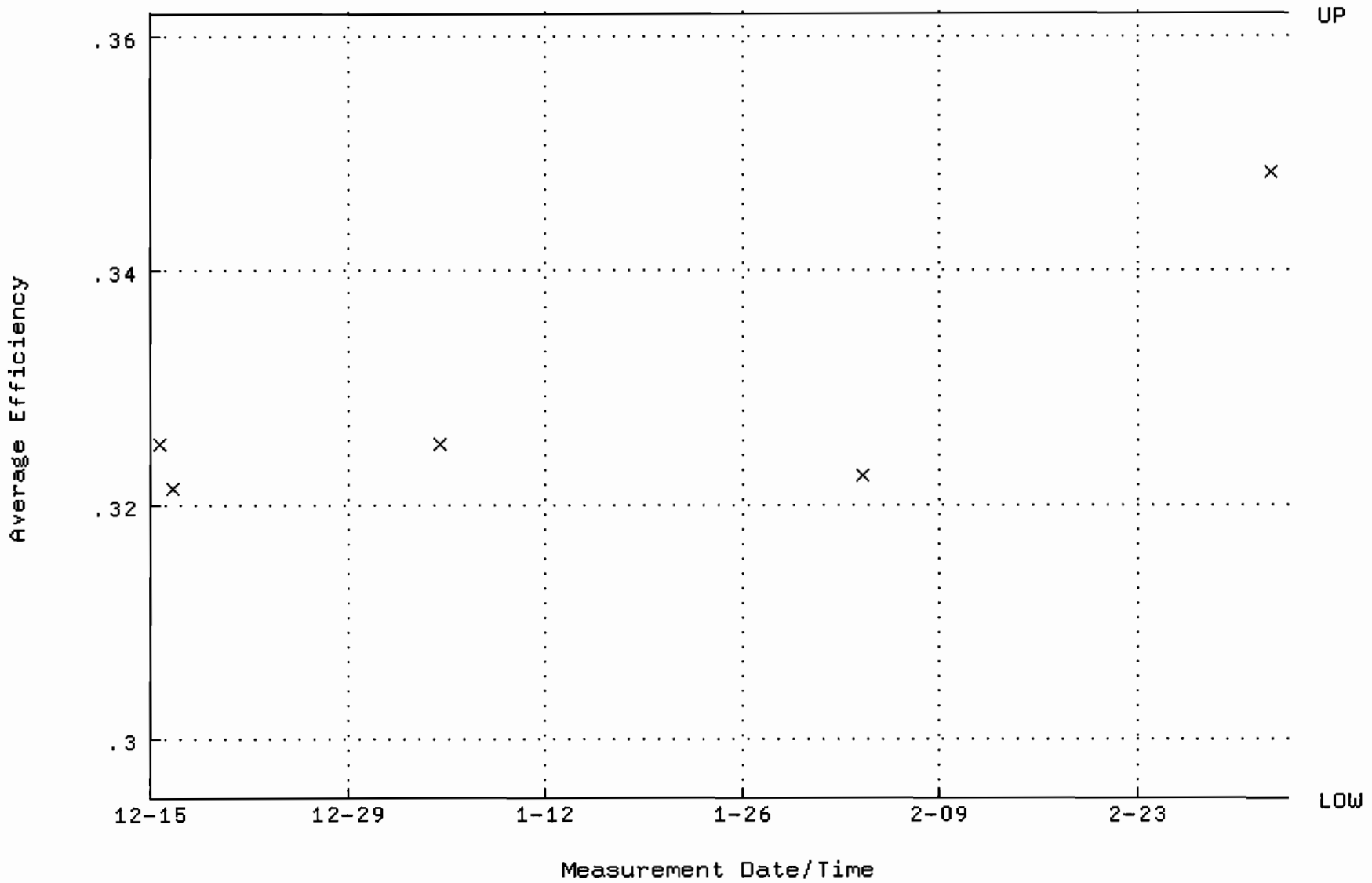

QA filename : DKA100:[ENV_ALPHA.QA.W]W001.QAF;7
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 82.3264 through 98.7414

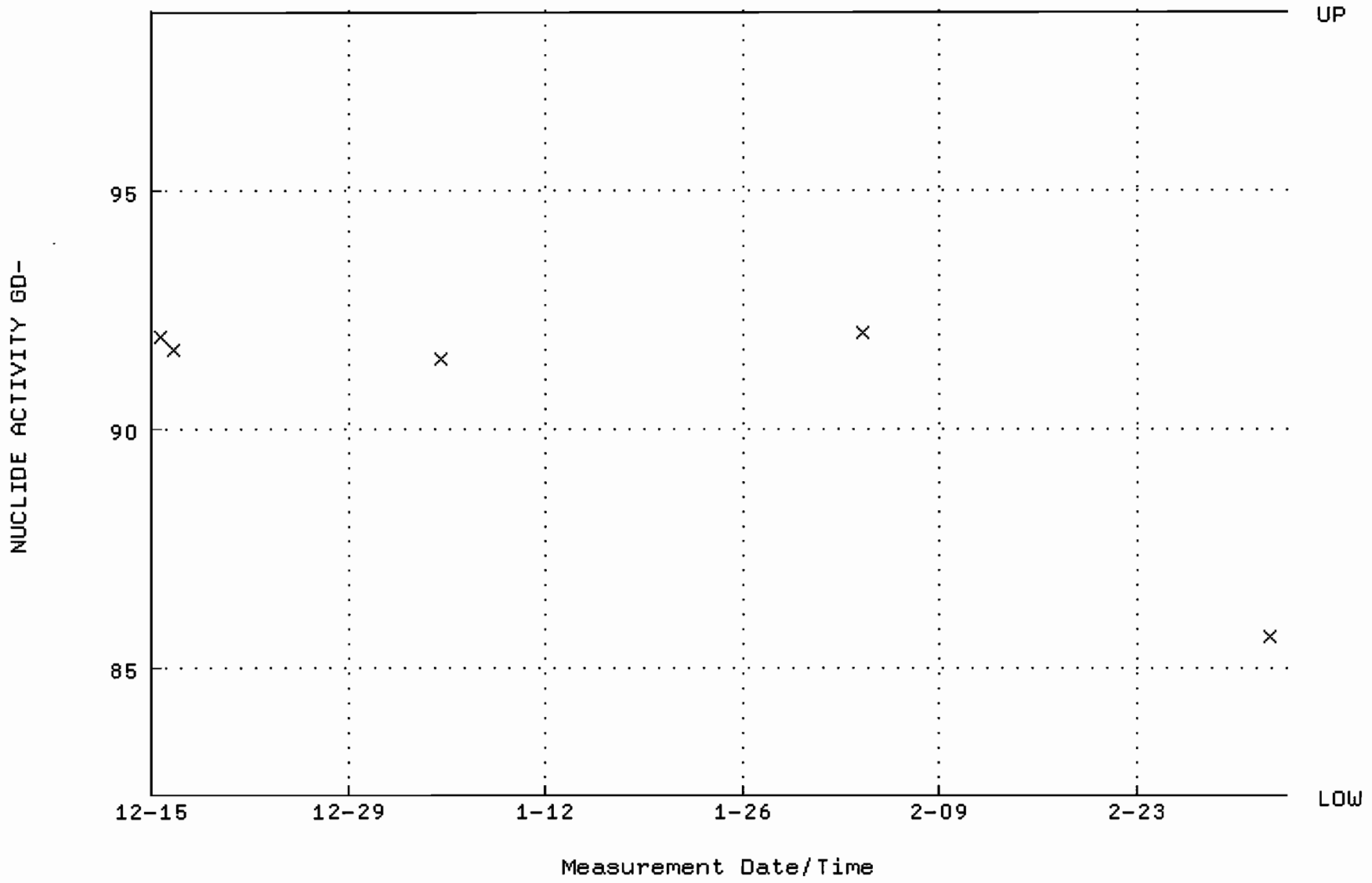

QA filename : DKA100:[ENV_ALPHA.QA.B]B001.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:00 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

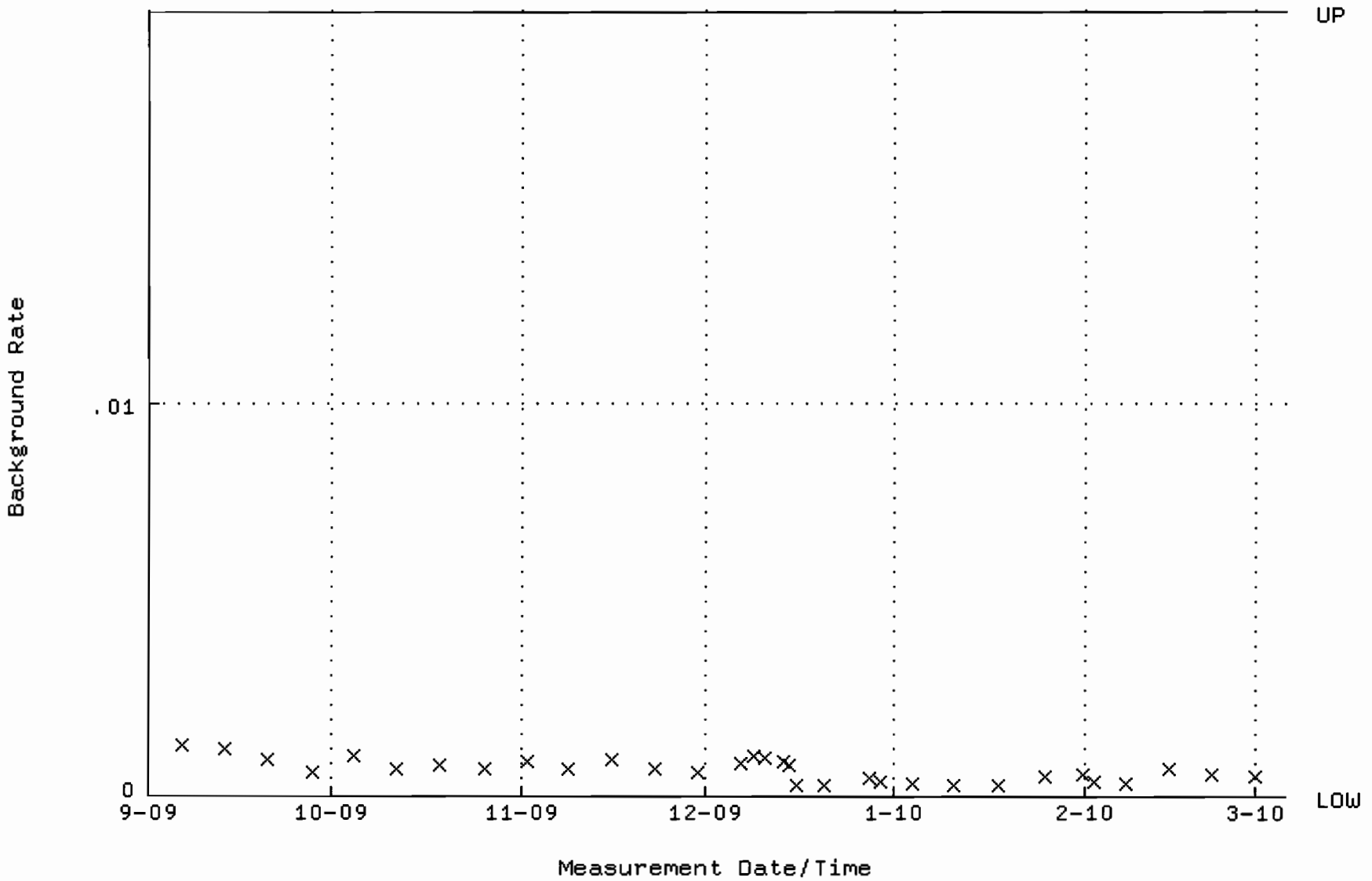

QA filename : DKA100:[ENV_ALPHA.QA.W]W011.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:40 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.279805 through 0.315875

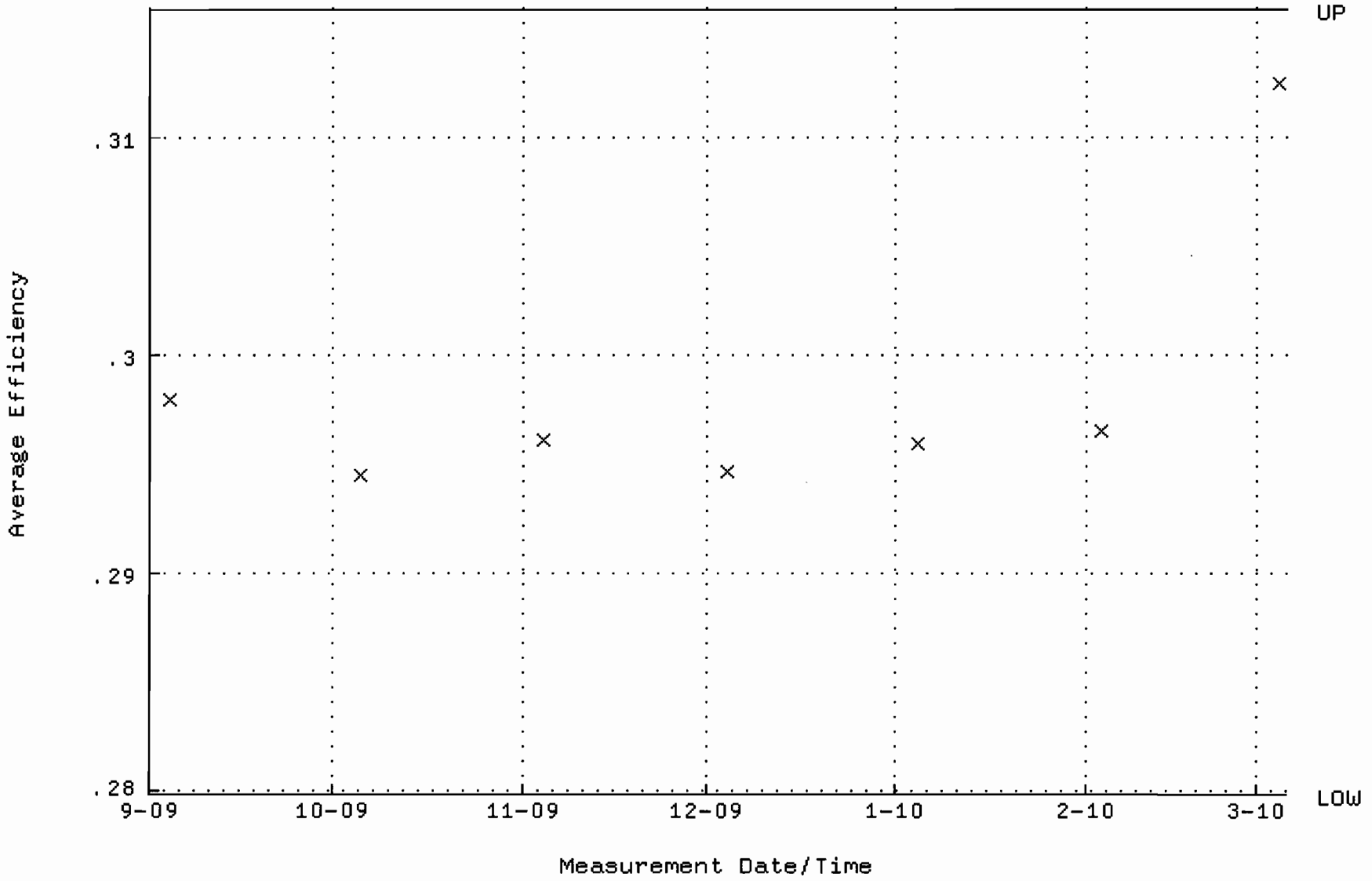

QA filename : DKA100:[ENV_ALPHA.QA.W]W011.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:40 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 88.5390 through 101.289

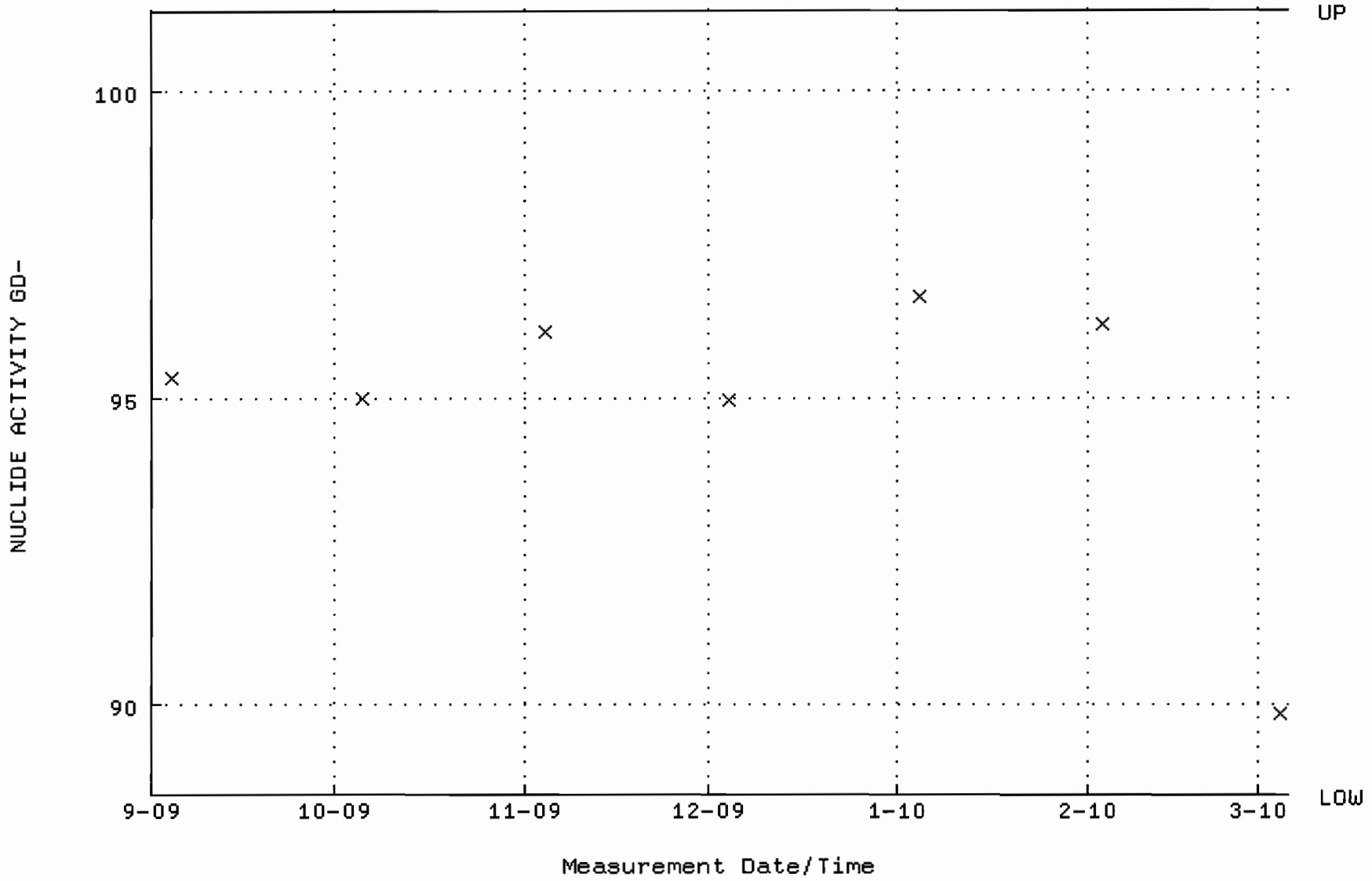

QA filename : DKA100:[ENV_ALPHA.QA.B]B011.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:01 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

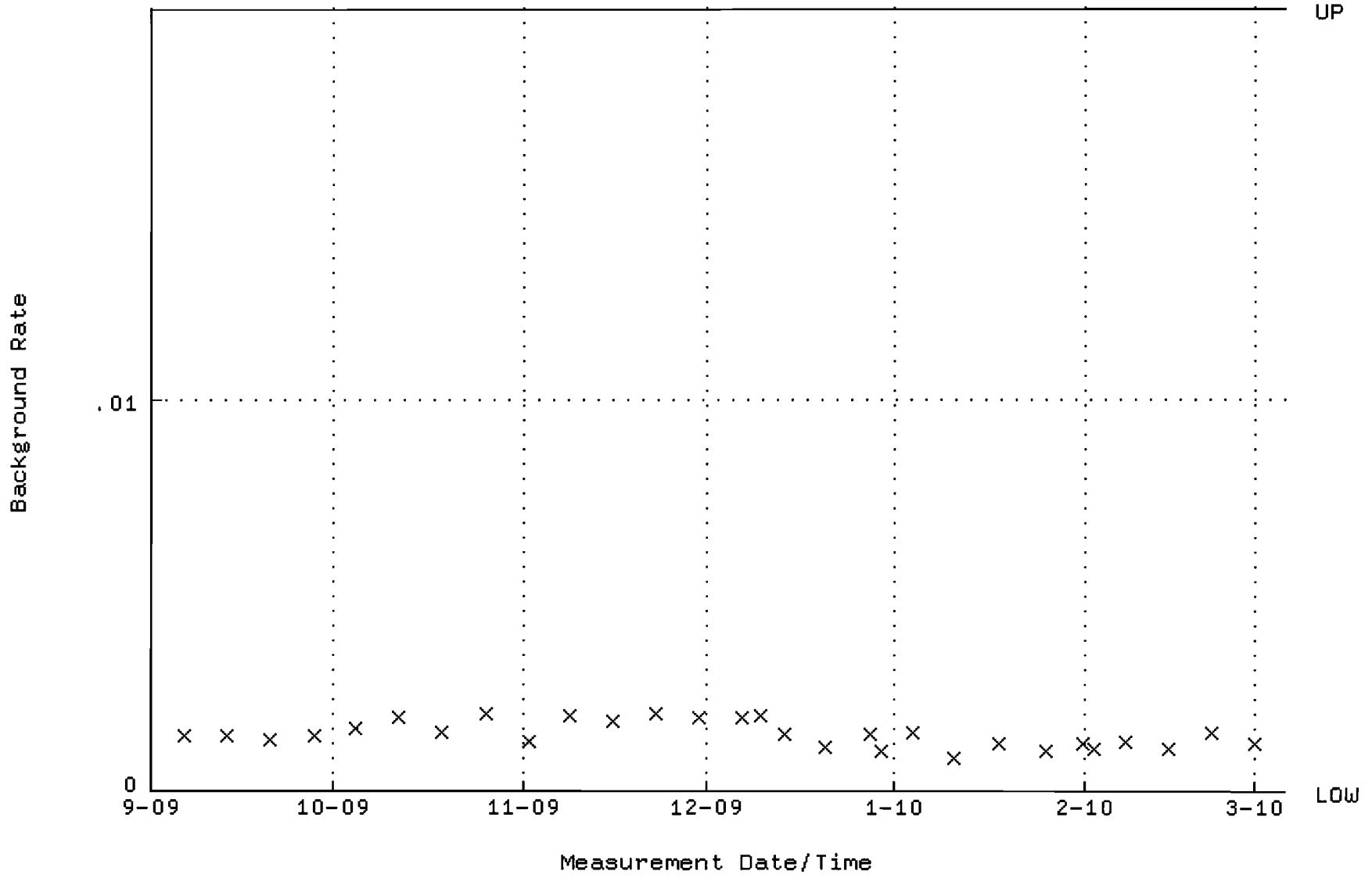

QA filename : DKA100:[ENV_ALPHA.QA.W]W042.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:11 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.314079 through 0.353023

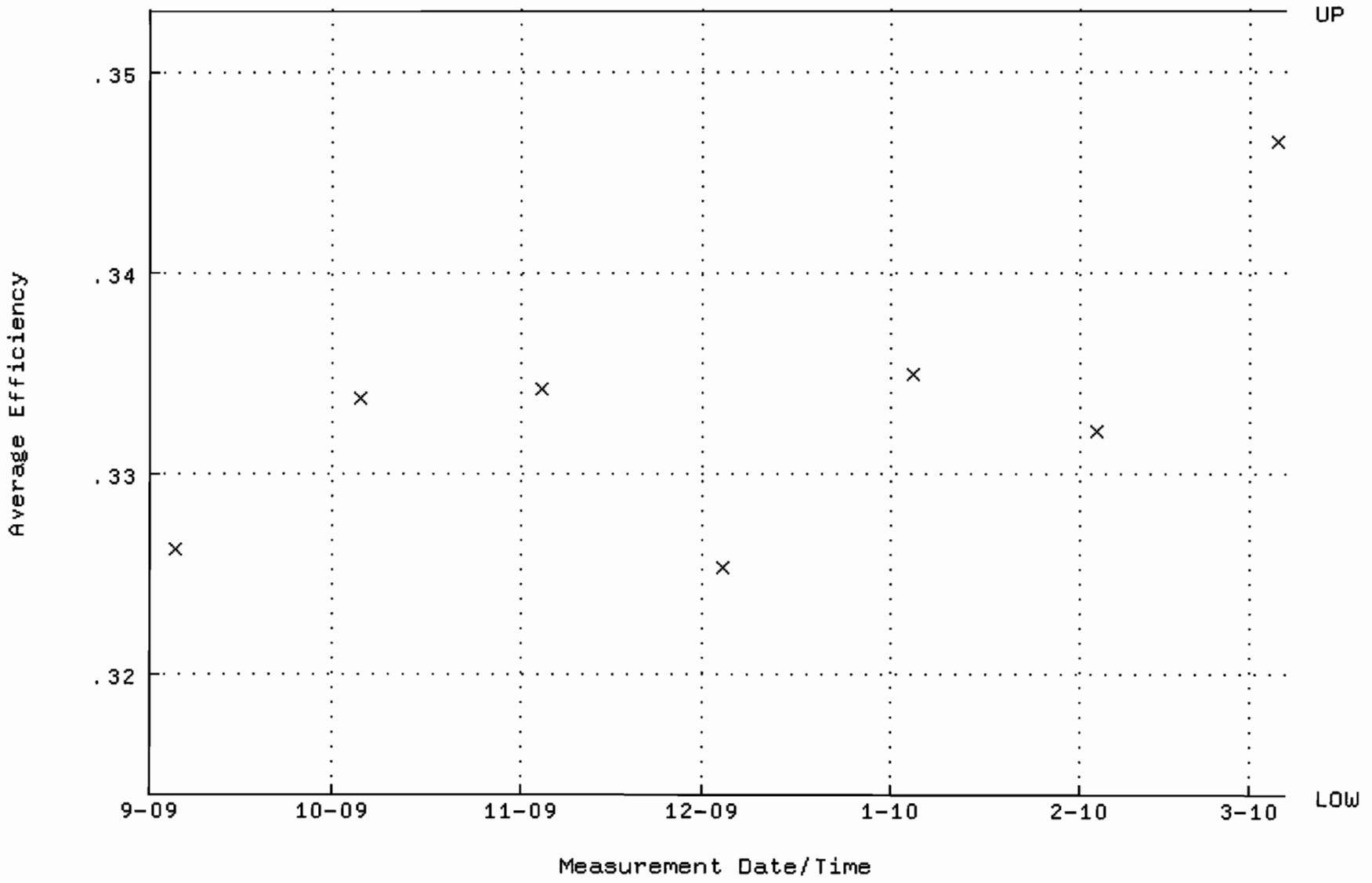

QA filename : DKA100:[ENV_ALPHA.QA.W]W042.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:11 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 78.2587 through 90.0439

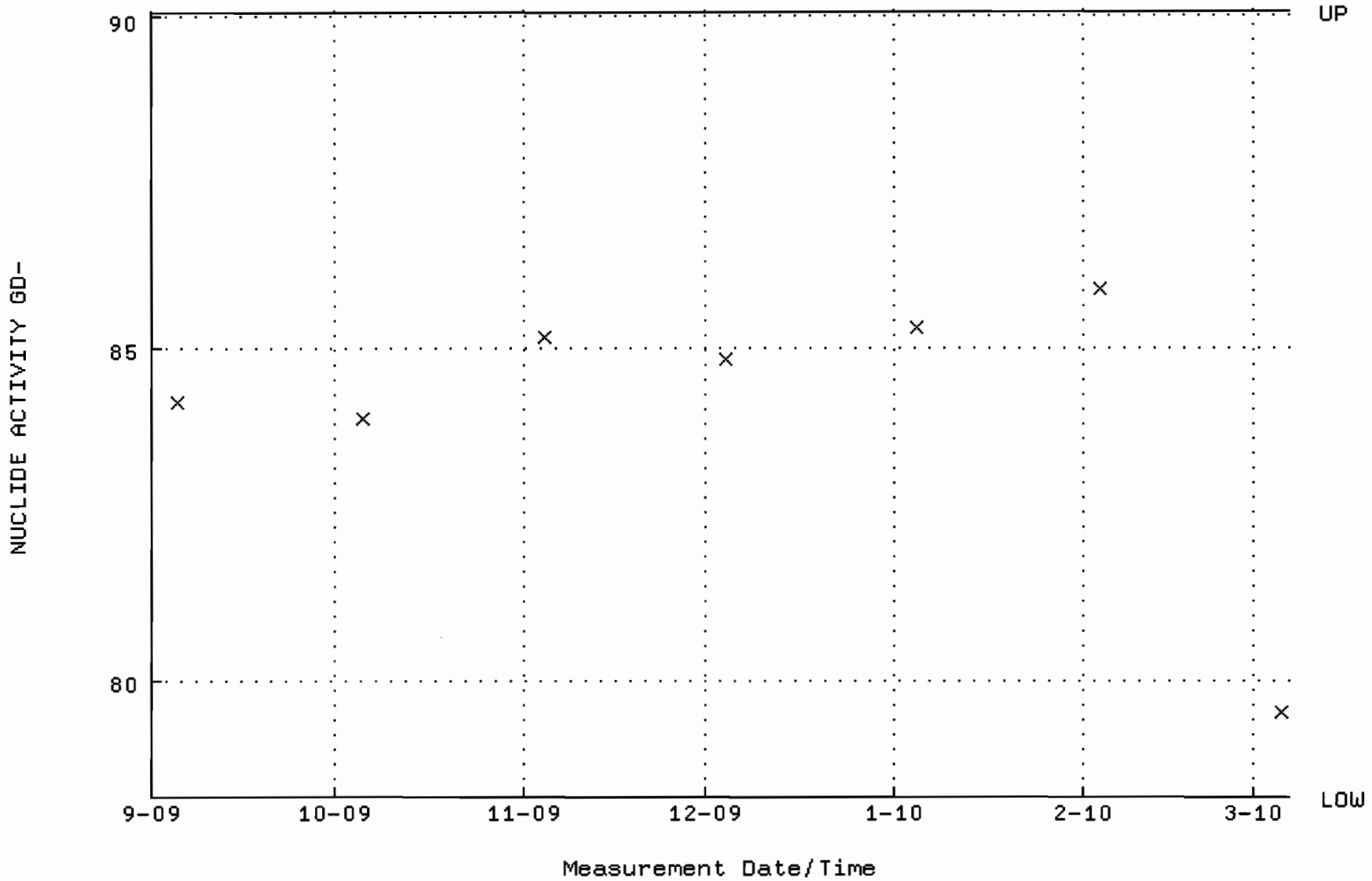

QA filename : DKA100:[ENV_ALPHA.QA.B]B042.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:05 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

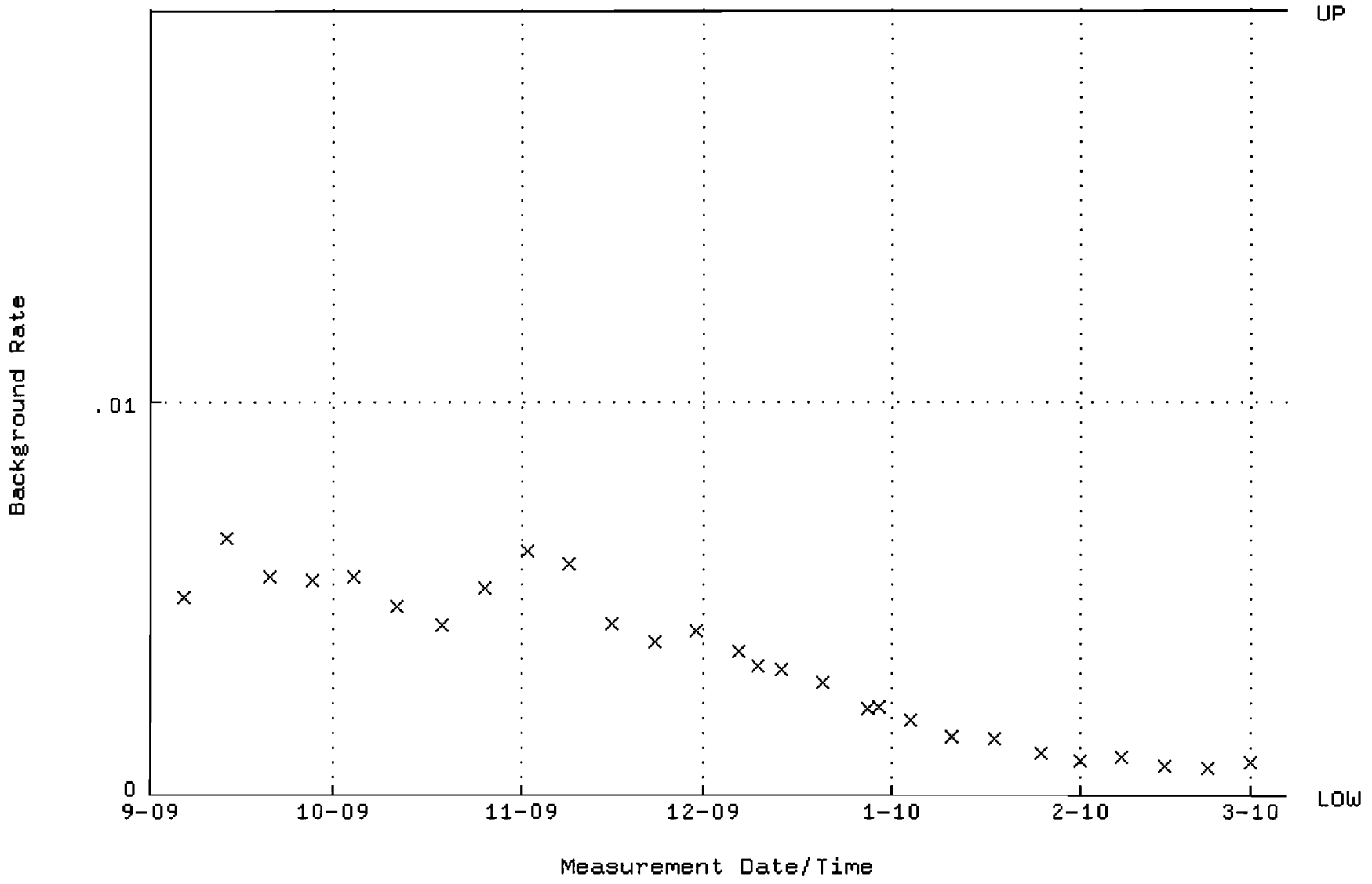

QA filename : DKA100:[ENV_ALPHA.QA.W]W043.QAF;102
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:12 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.316853 through 0.369991

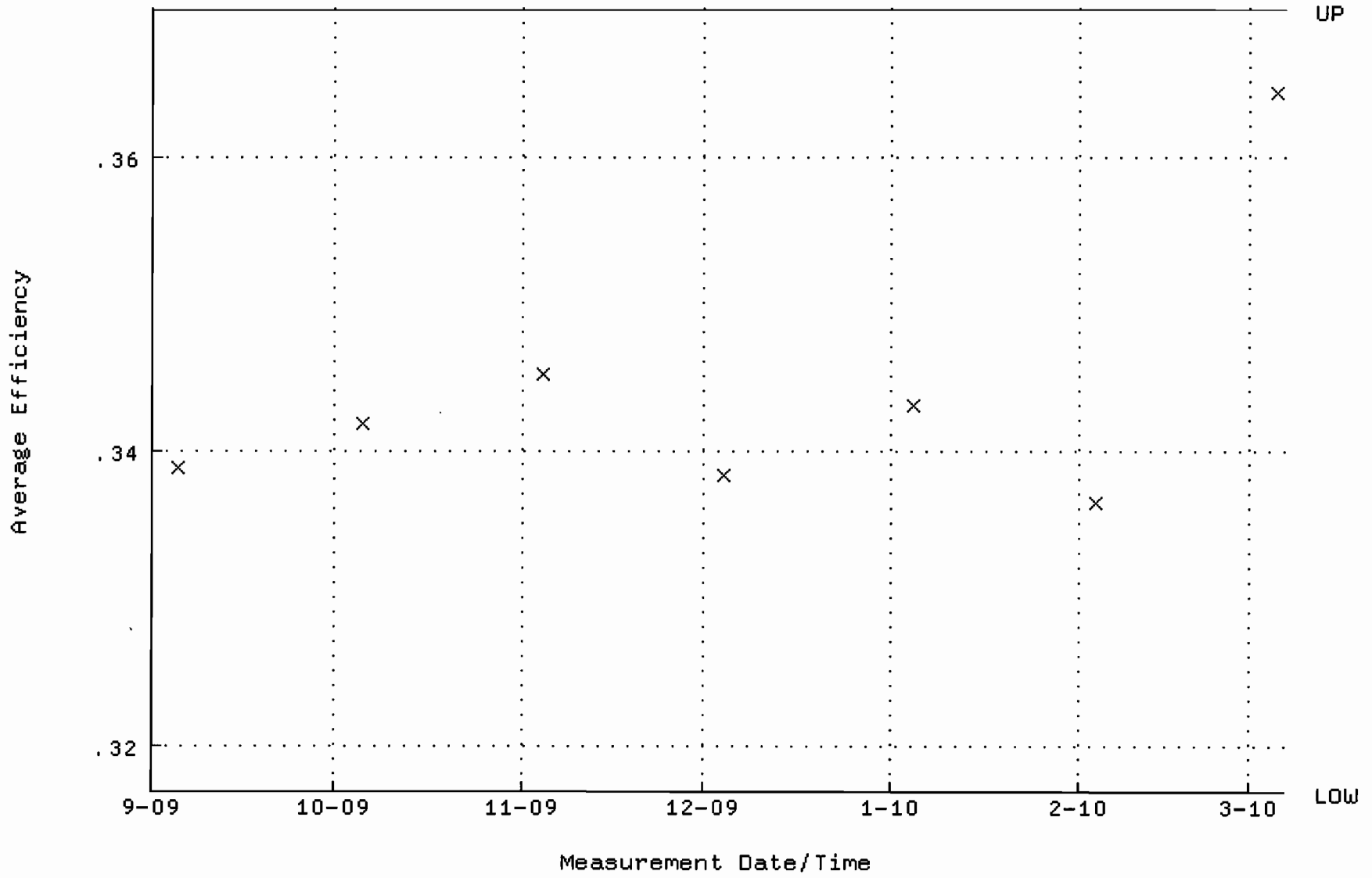

QA filename : DKA100:[ENV_ALPHA.QA.W]W043.QAF;102
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:12 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 79.8821 through 94.8741

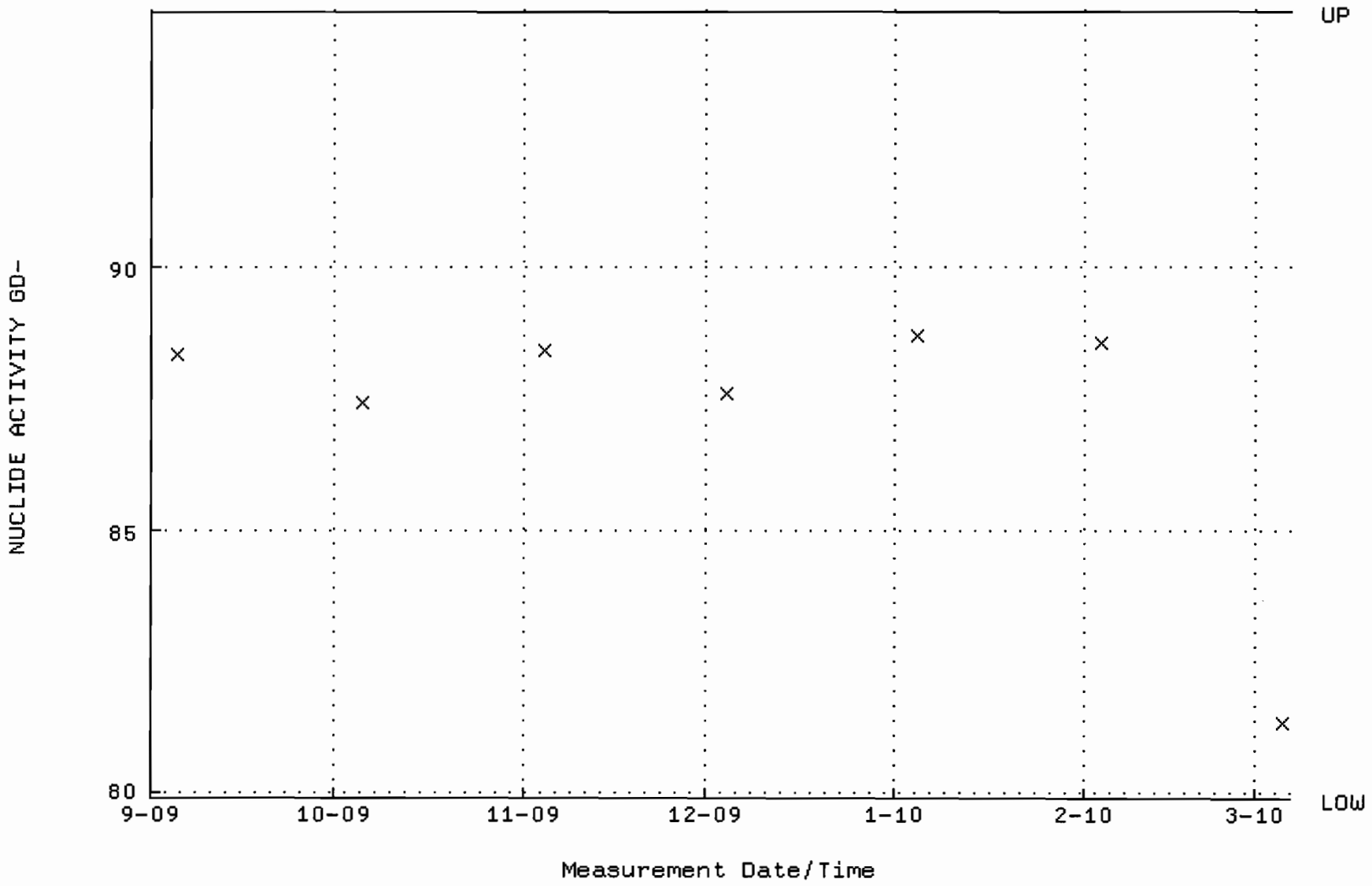

QA filename : DKA100:[ENV_ALPHA.QA.B]B043.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:06 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

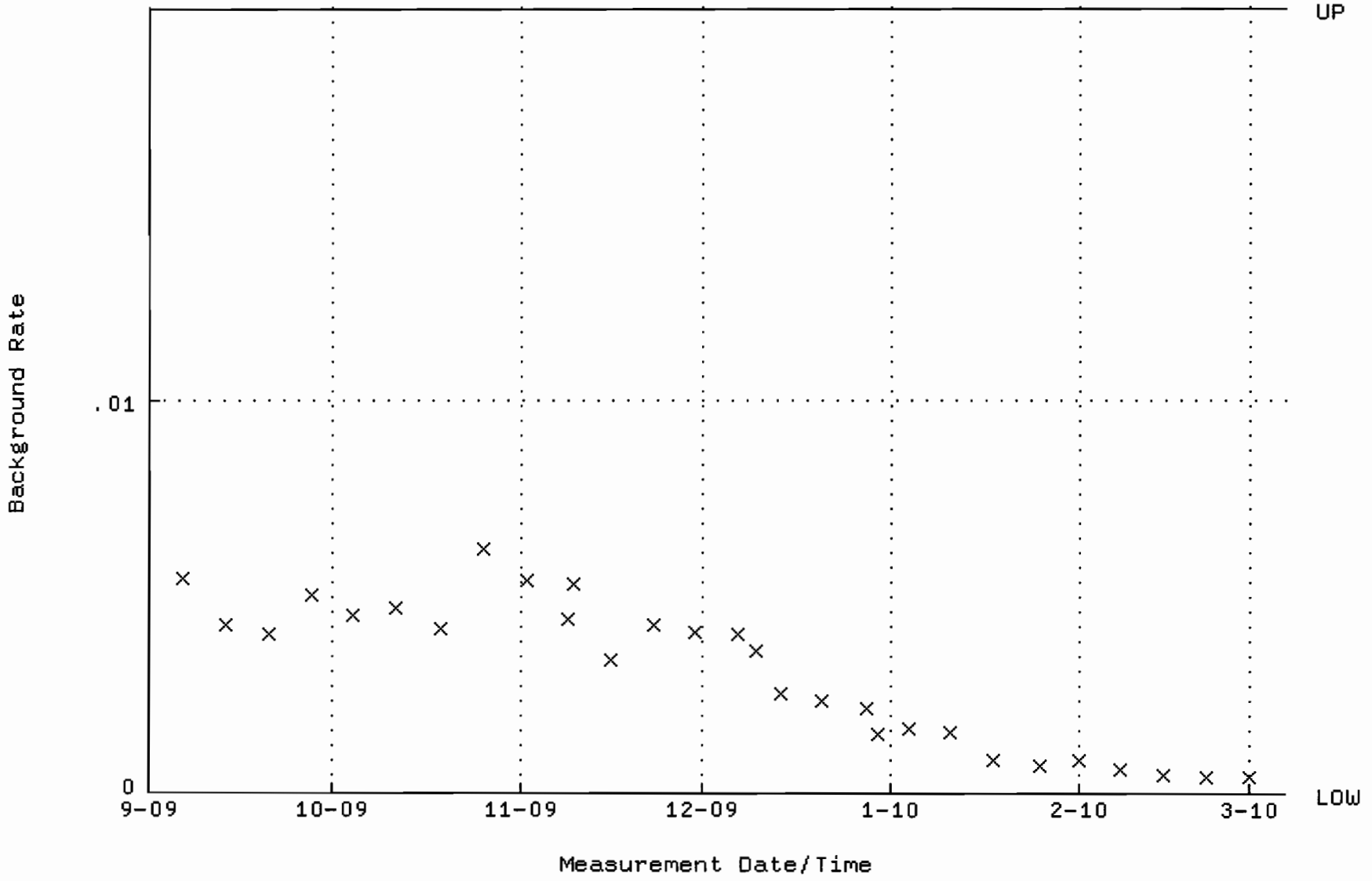

QA filename : DKA100:[ENV_ALPHA.QA.W]W044.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:12 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.335013 through 0.362525

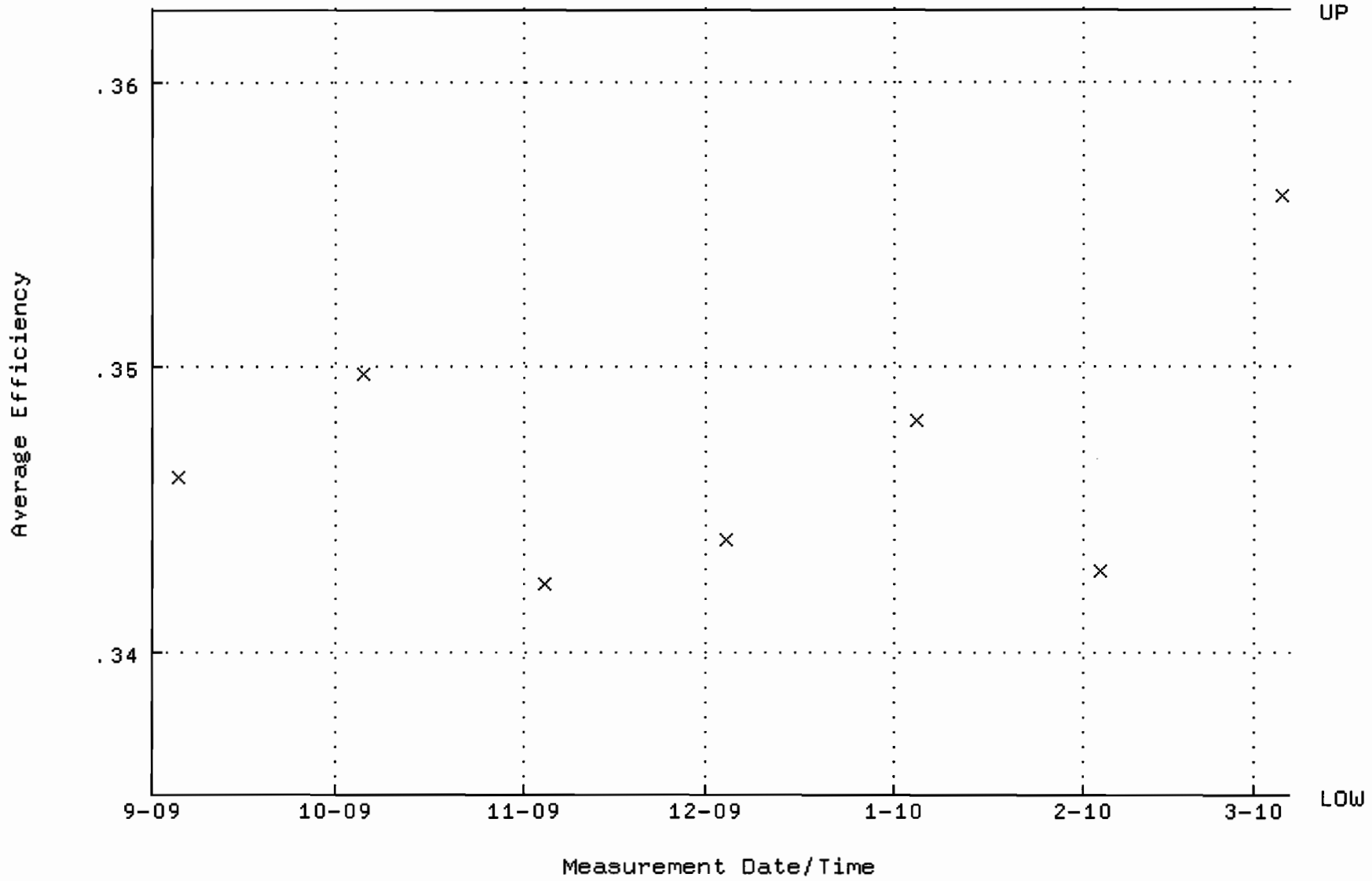

QA filename : DKA100:[ENV_ALPHA.QA.W]W044.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:12 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 83.8858 through 91.0588

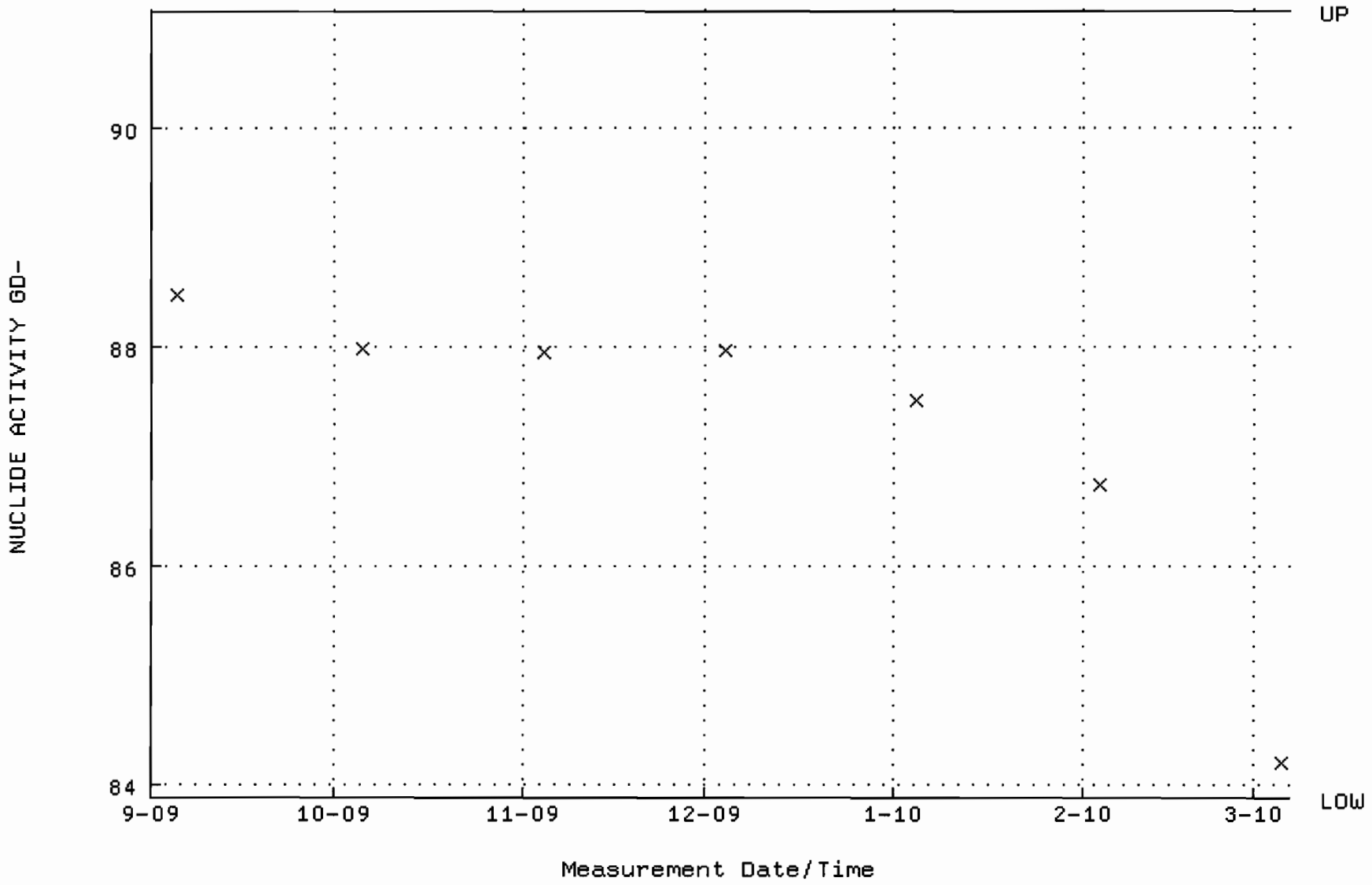

QA filename : DKA100:[ENV_ALPHA.QA.B]B044.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:06 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

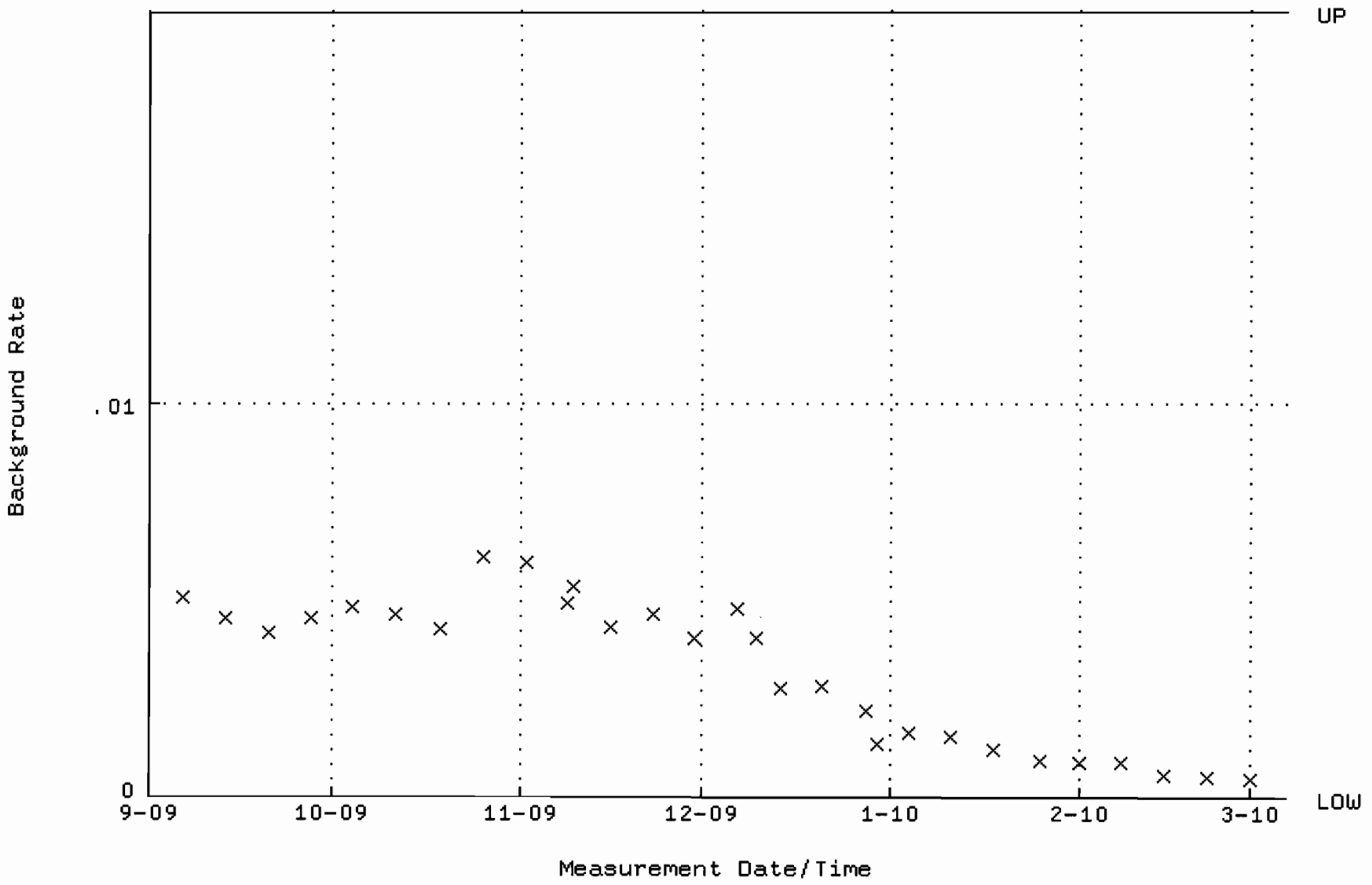

QA filename : DKA100:[ENV_ALPHA.QA.W]W101.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:51 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.317122 through 0.350794

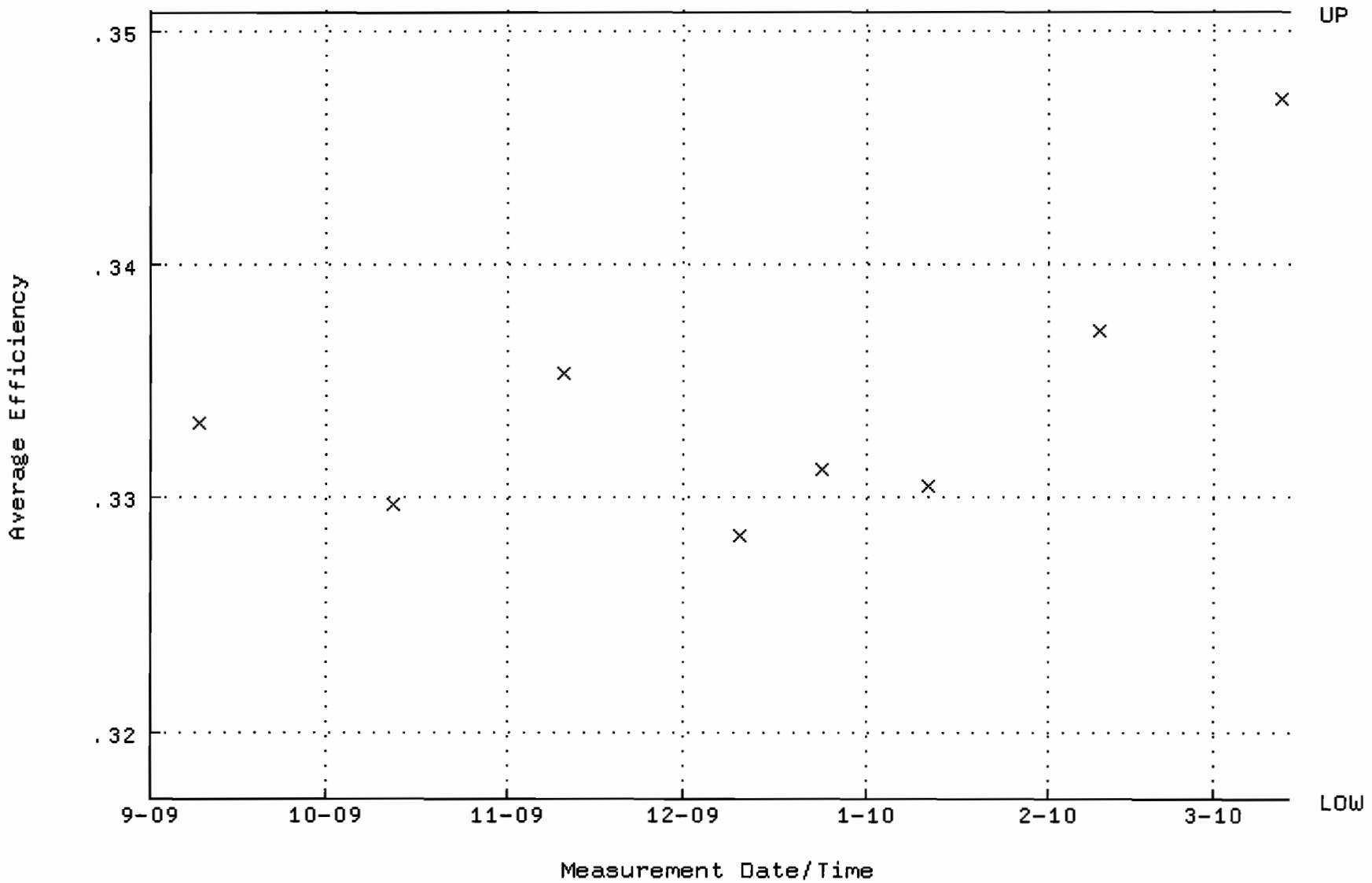

QA filename : DKA100:[ENV_ALPHA.QA.W]W101.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:51 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 66.8994 through 74.4026

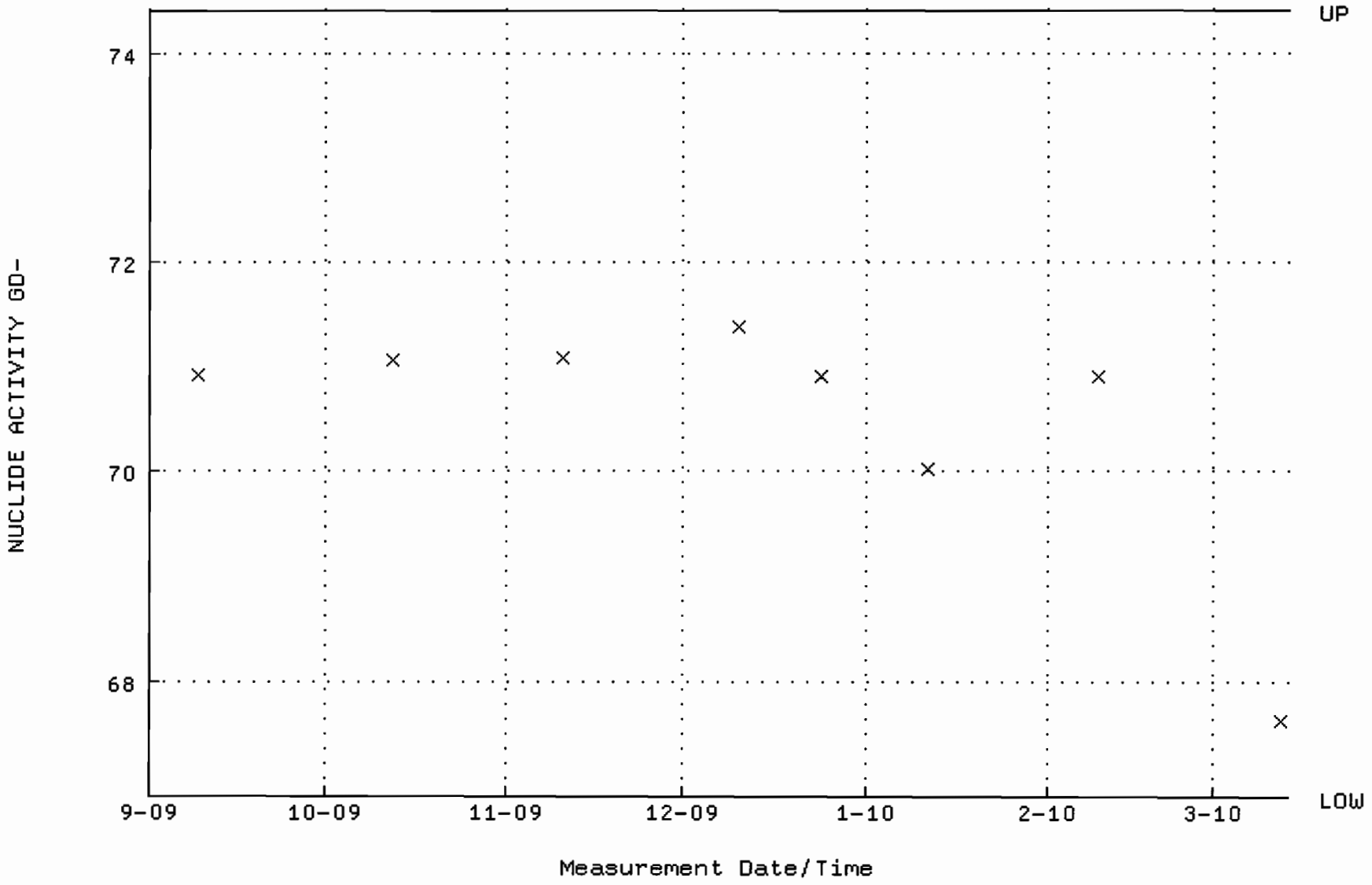

QA filename : DKA100:[ENV_ALPHA.QA.B]B101.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

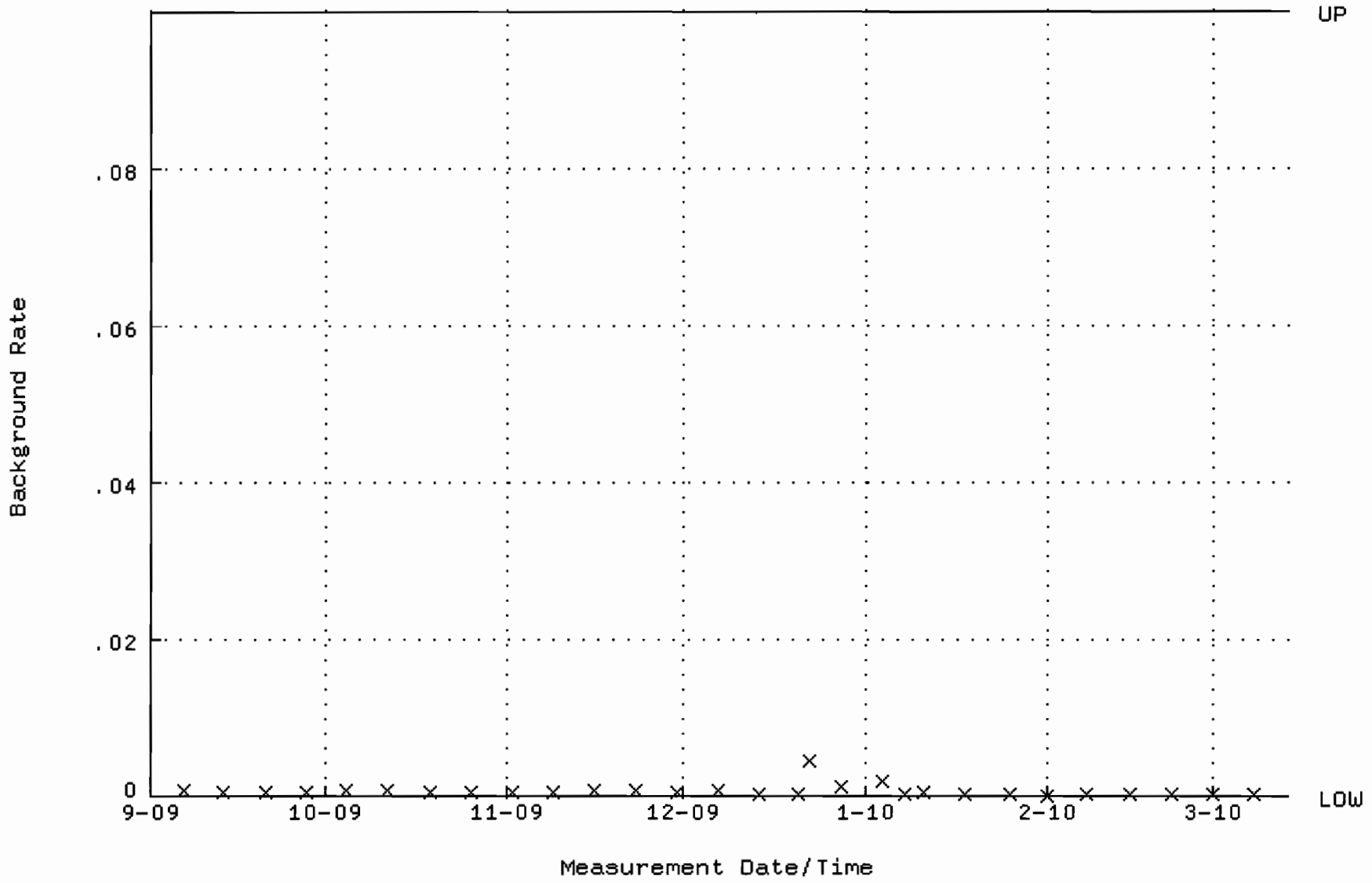

QA filename : DKA100:[ENV_ALPHA.QA.W]W102.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:51 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.315554 through 0.352816

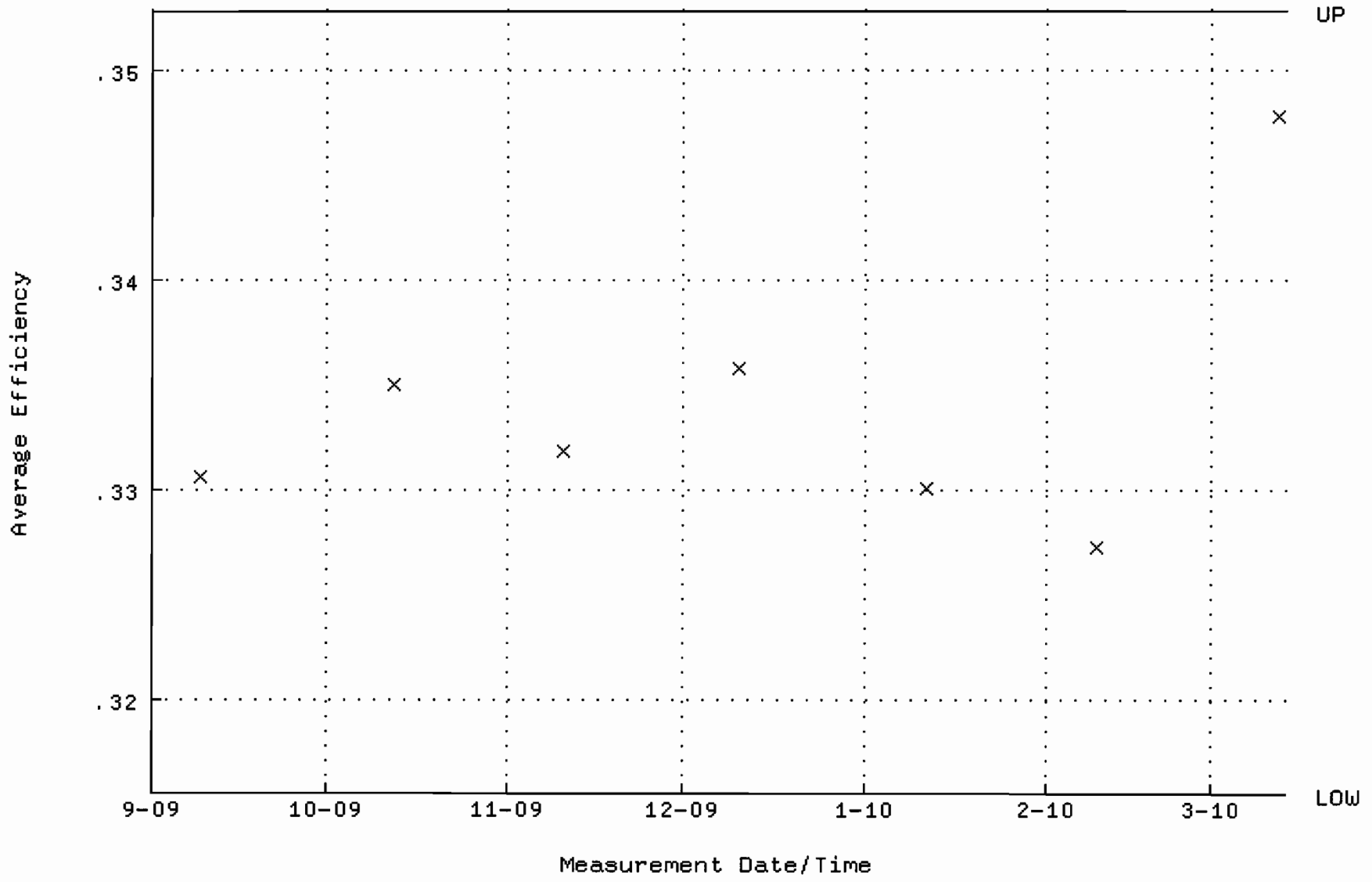

QA filename : DKA100:[ENV_ALPHA.QA.W]W102.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:51 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 66.6183 through 74.7119

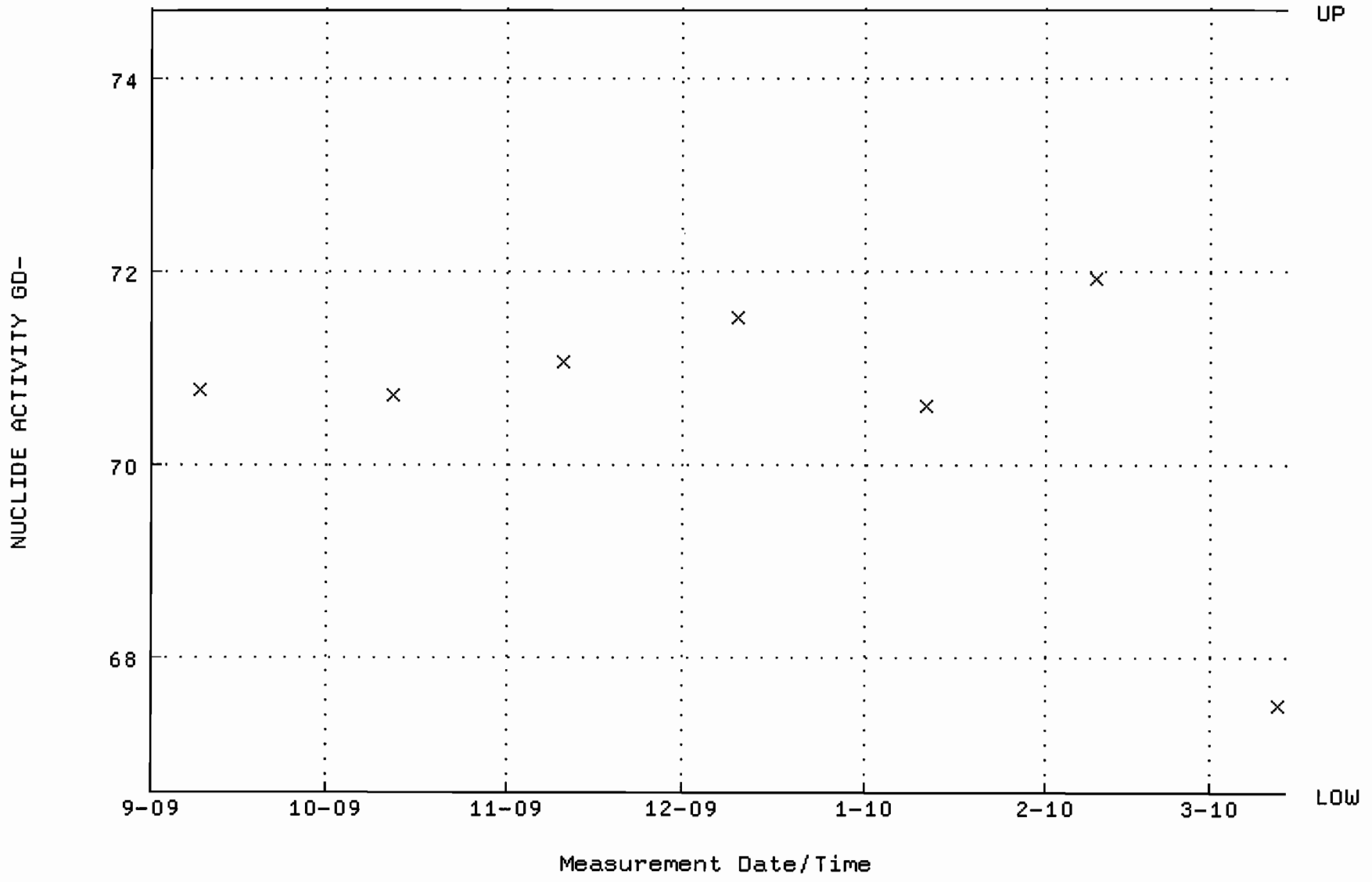

QA filename : DKA100:[ENV_ALPHA.QA.B]B102.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

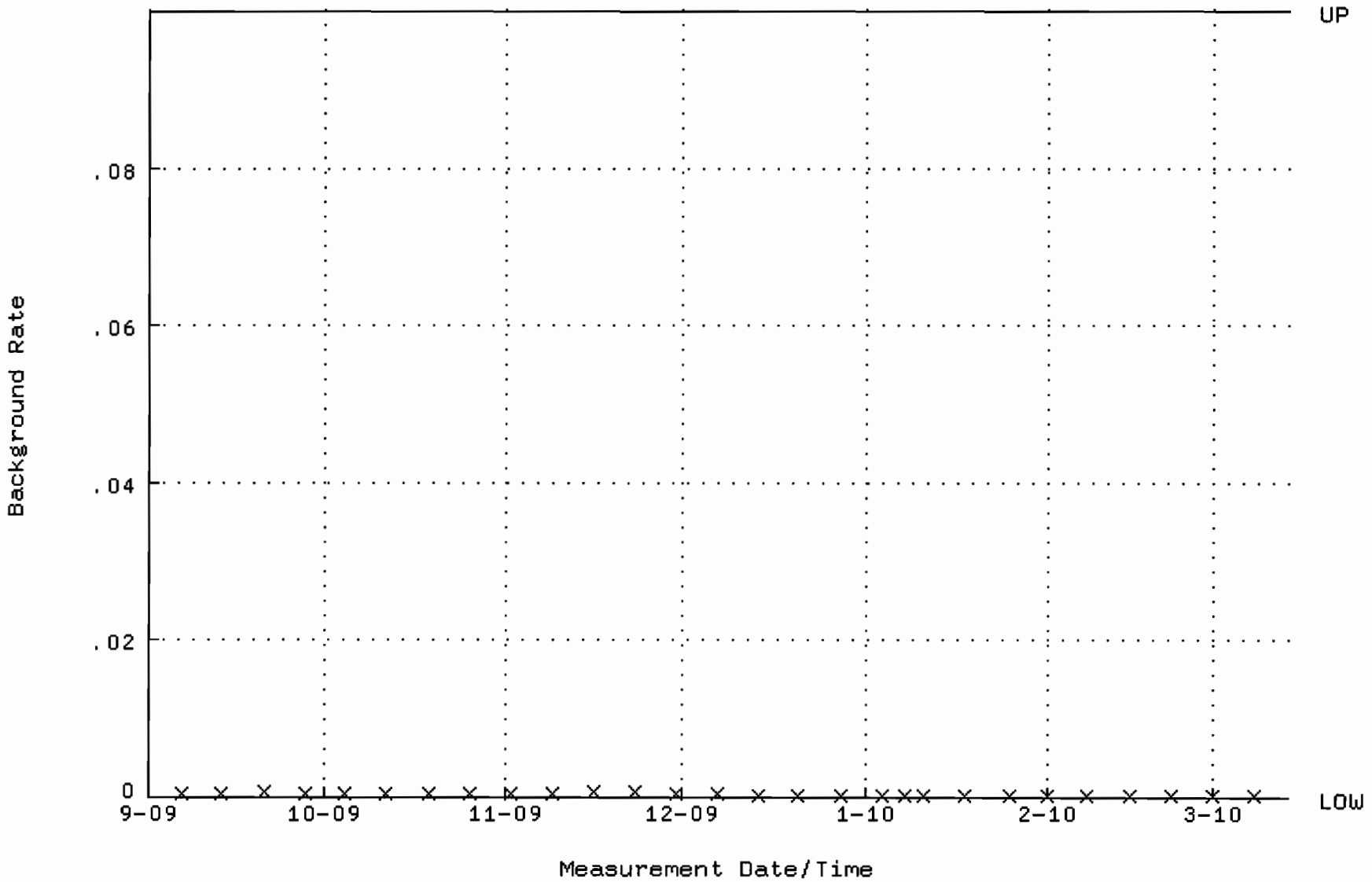

QA filename : DKA100:[ENV_ALPHA.QA.W]W105.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-SEP-2009 08:05:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.309544 through 0.338666

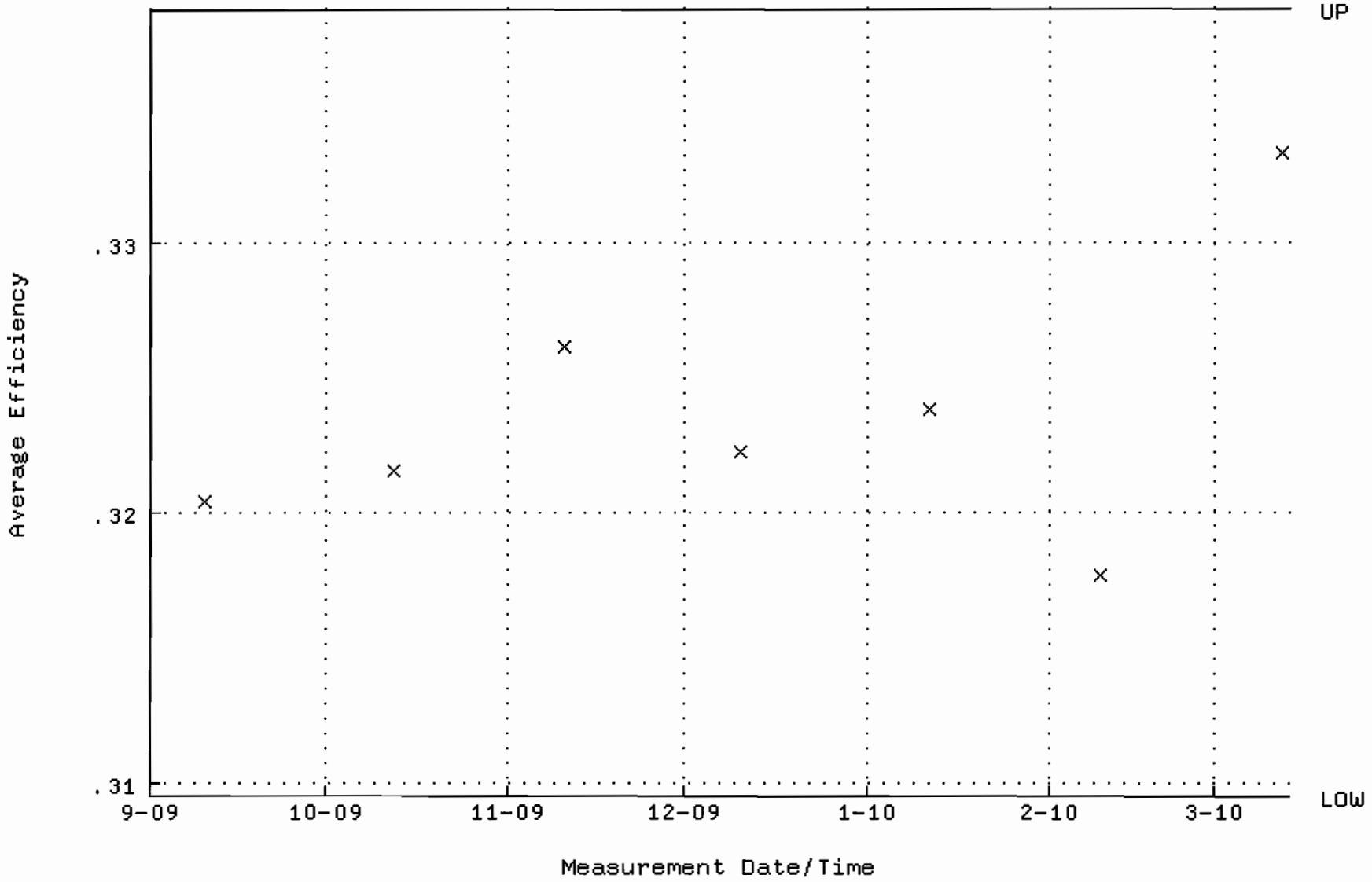

QA filename : DKA100:[ENV_ALPHA.QA.W]W105.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-SEP-2009 08:05:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 67.6585 through 76.2091

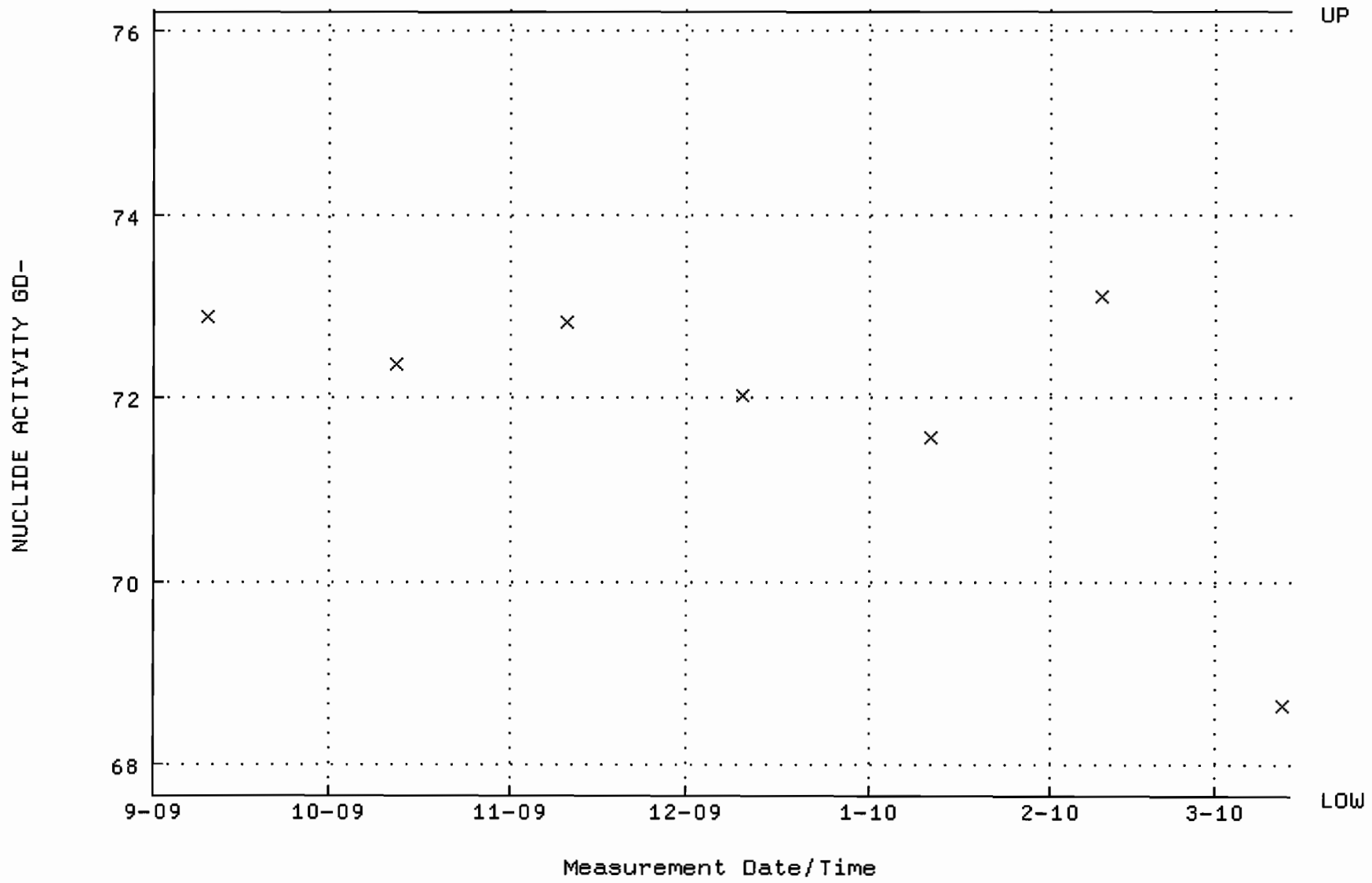

QA filename : DKA100:[ENV_ALPHA.QA.B]B105.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

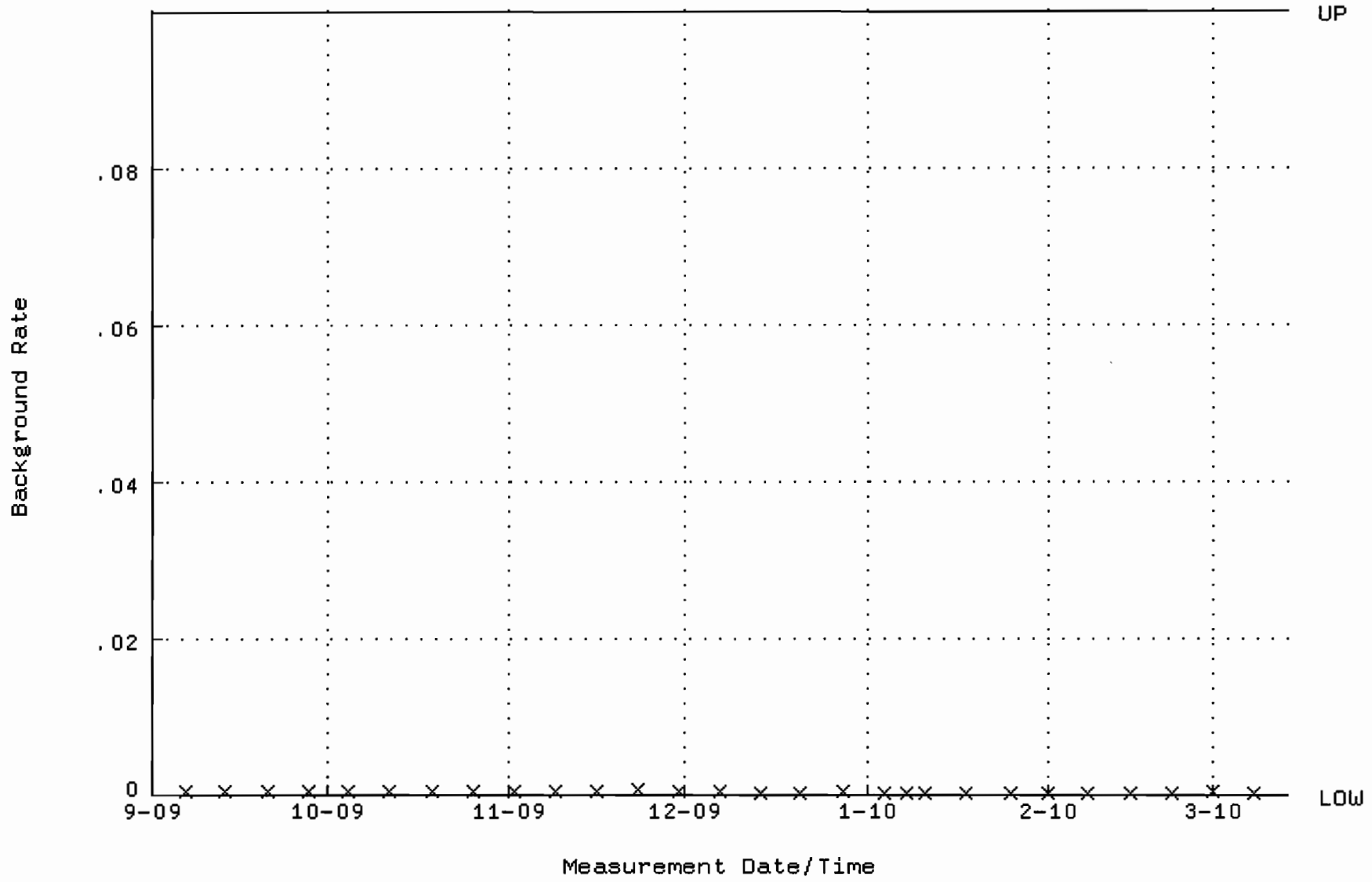

QA filename : DKA100:[ENV_ALPHA.QA.W]W106.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:51 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.307743 through 0.341905

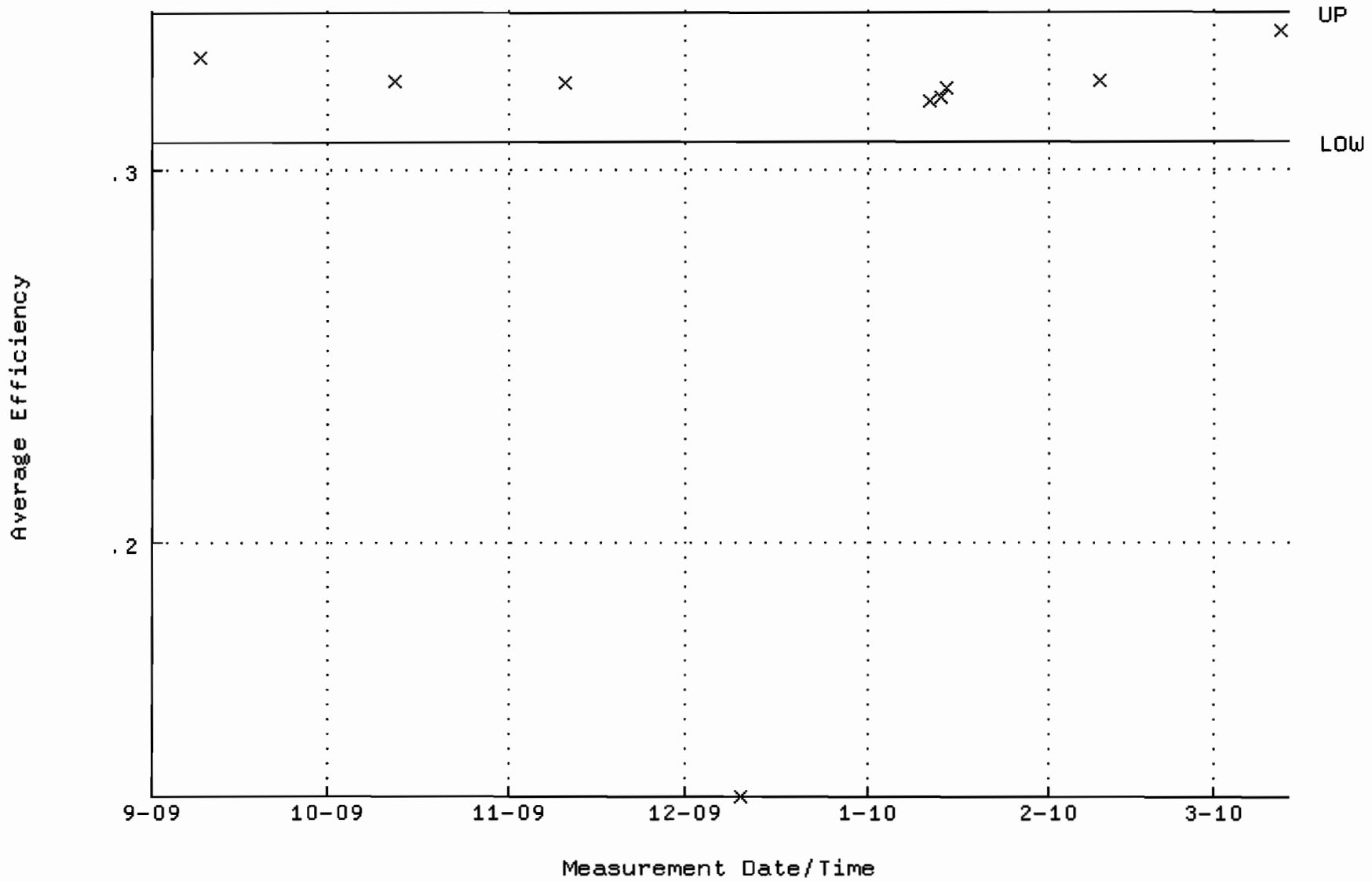

QA filename : DKA100:[ENV_ALPHA.QA.W]W106.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:51 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 63.2632 through 75.3973

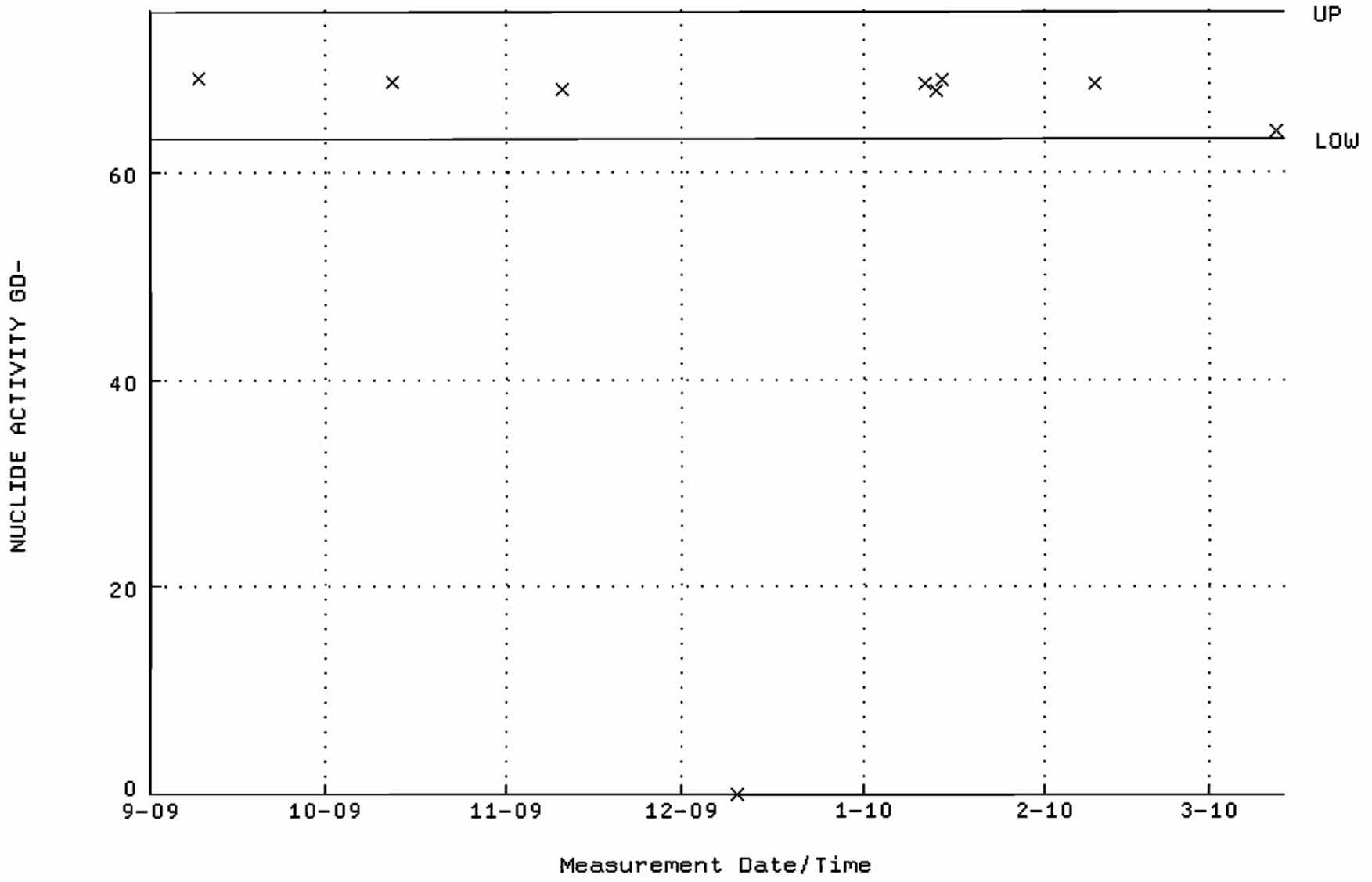

QA filename : DKA100:[ENV_ALPHA.QA.B]B106.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

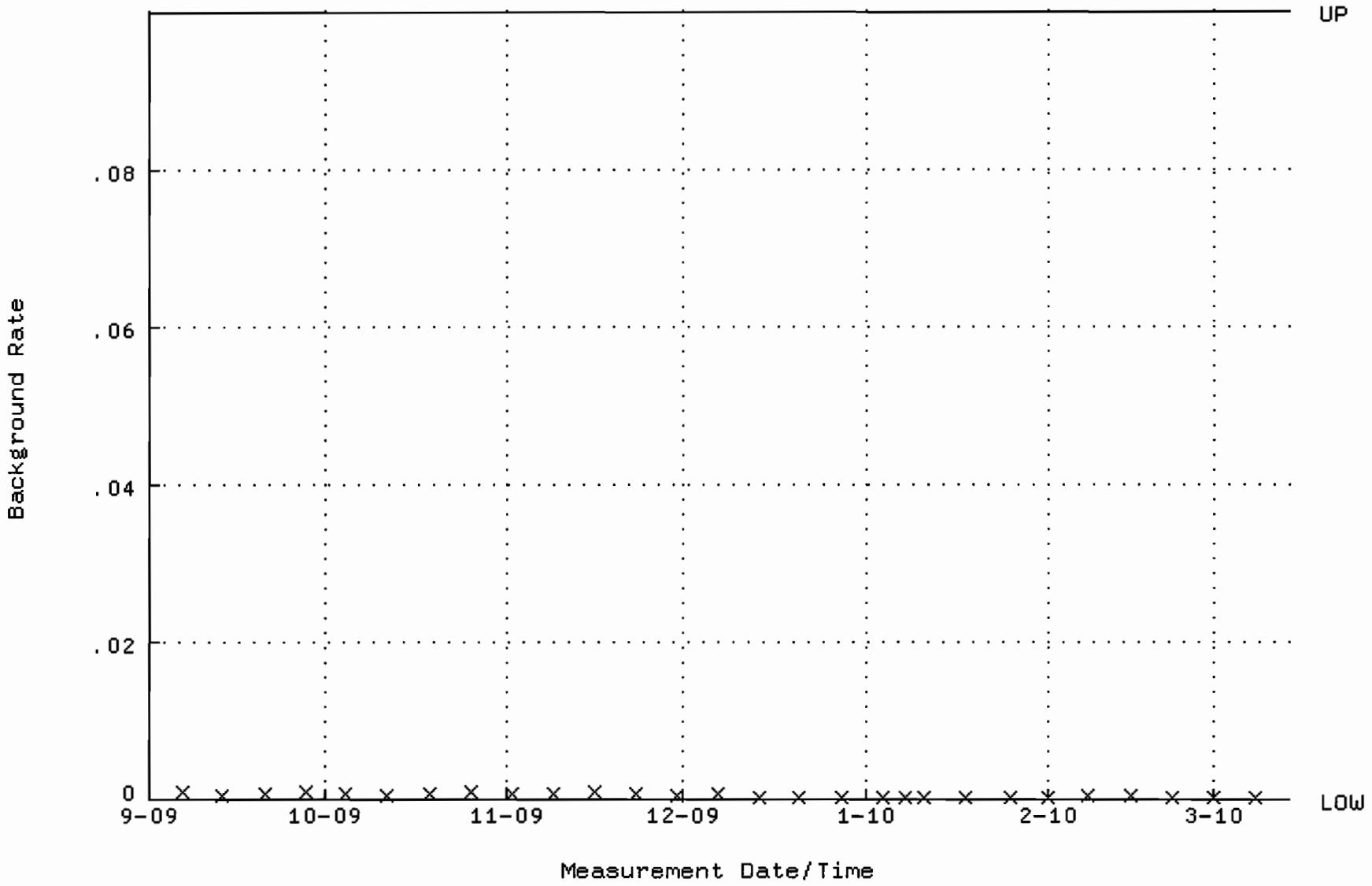

QA filename : DKA100:[ENV_ALPHA.QA.W]W152.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:47:27 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.238479 through 0.258479

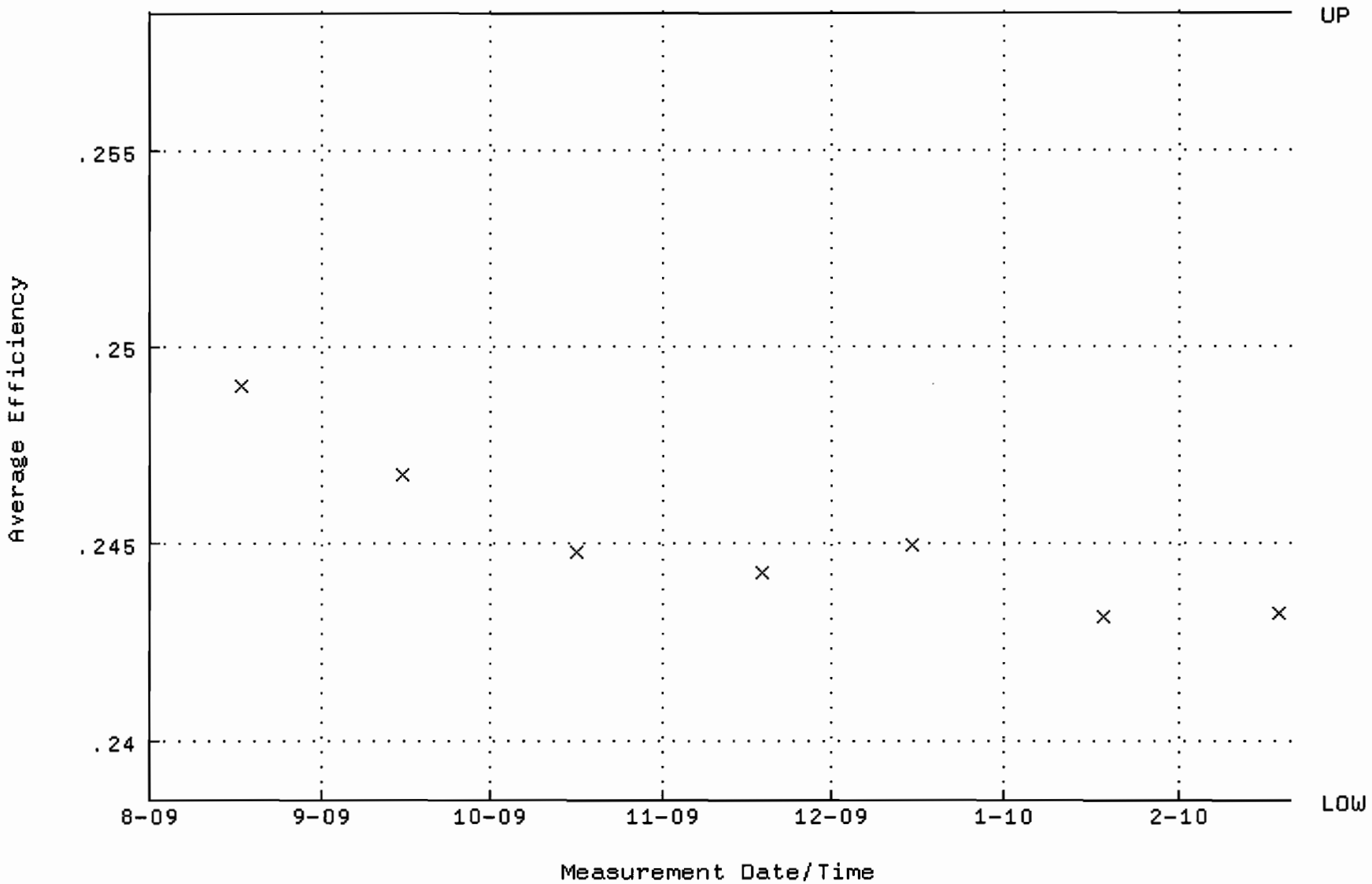

QA filename : DKA100:[ENV_ALPHA.QA.W]W152.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:47:27 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 83.7180 through 92.5304

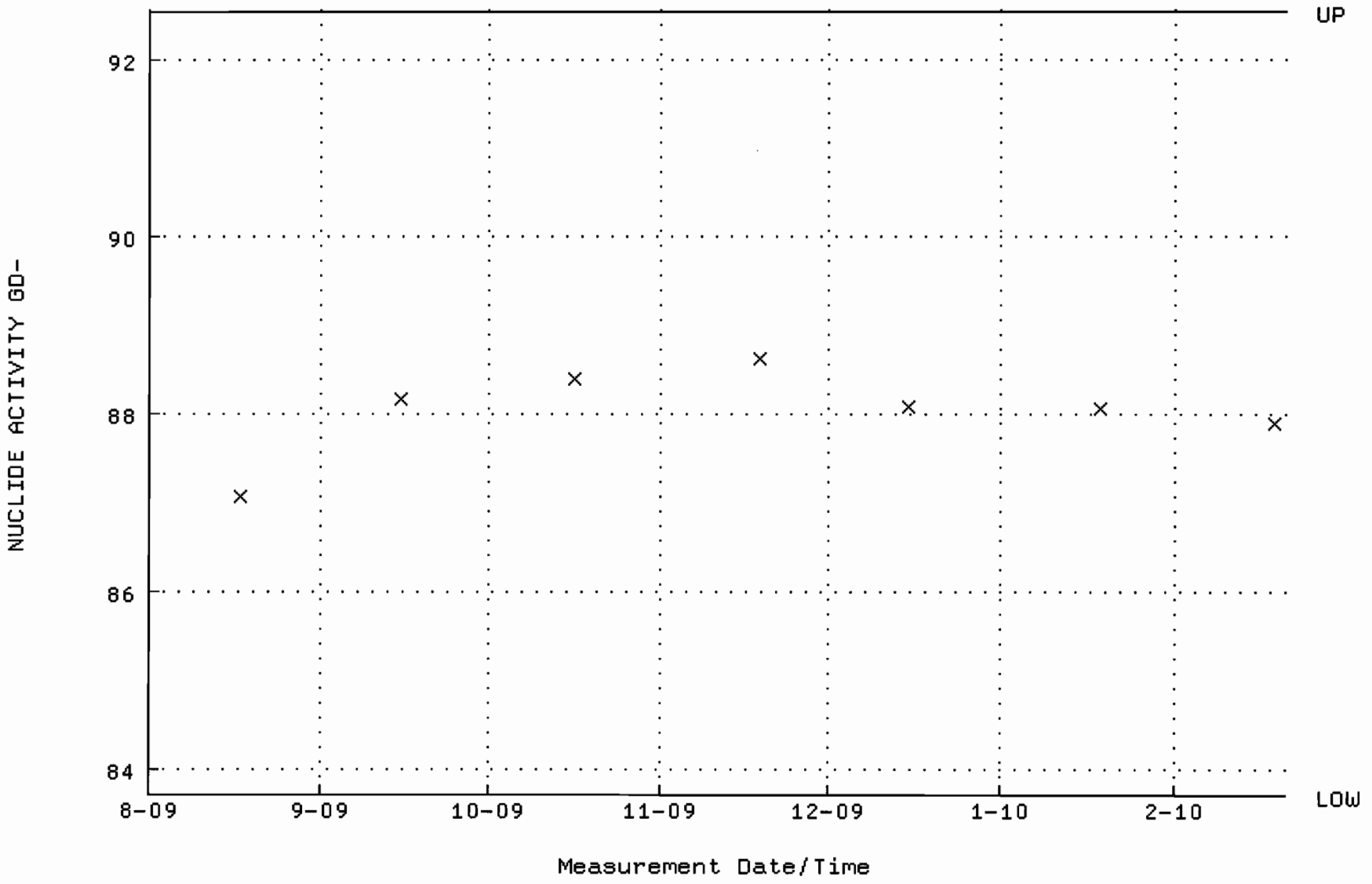

QA filename : DKA100:[ENV_ALPHA.QA.B]B152.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:44 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

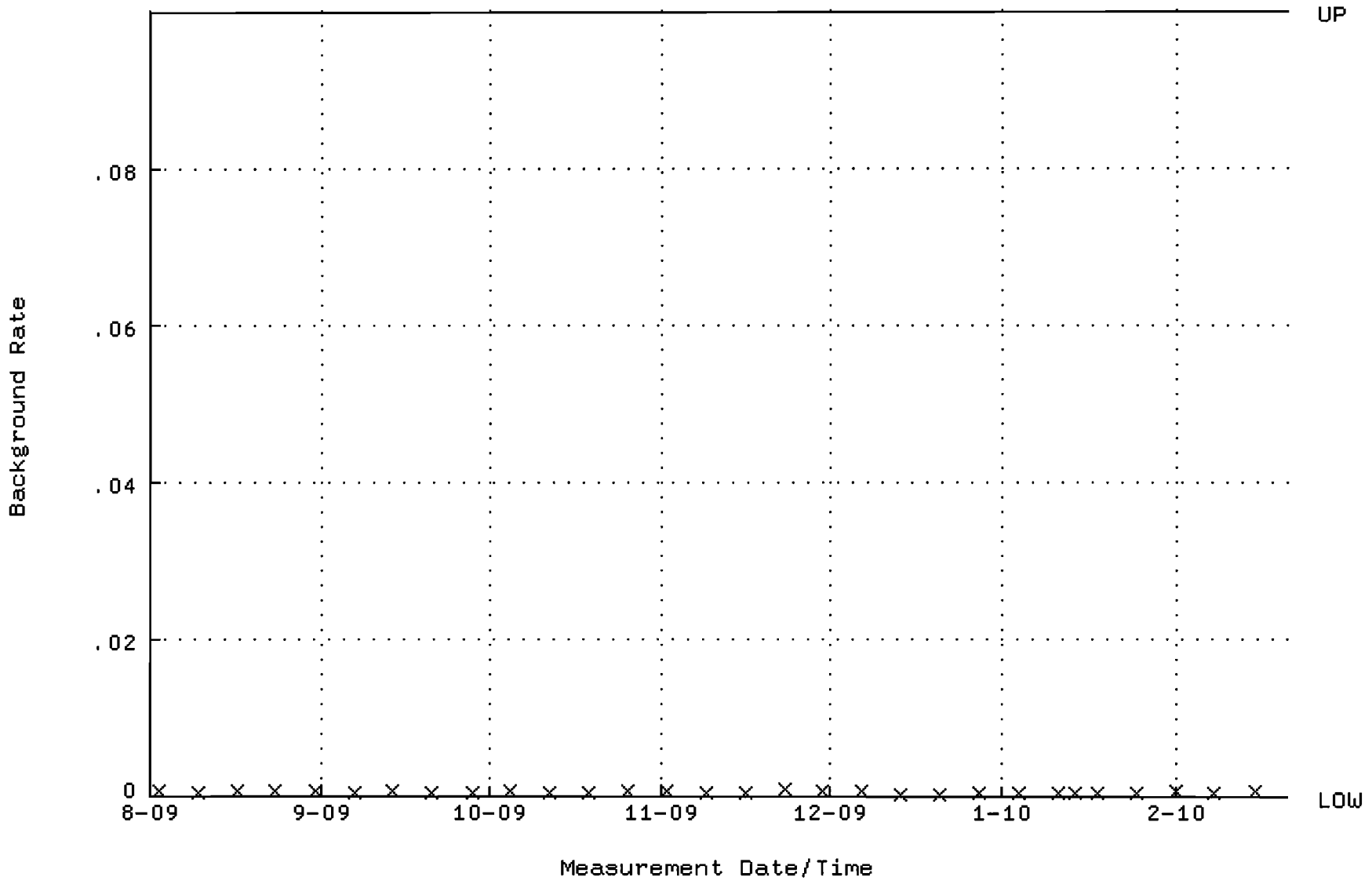

QA filename : DKA100:[ENV_ALPHA.QA.W]W153.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:47:33 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.244738 through 0.264738

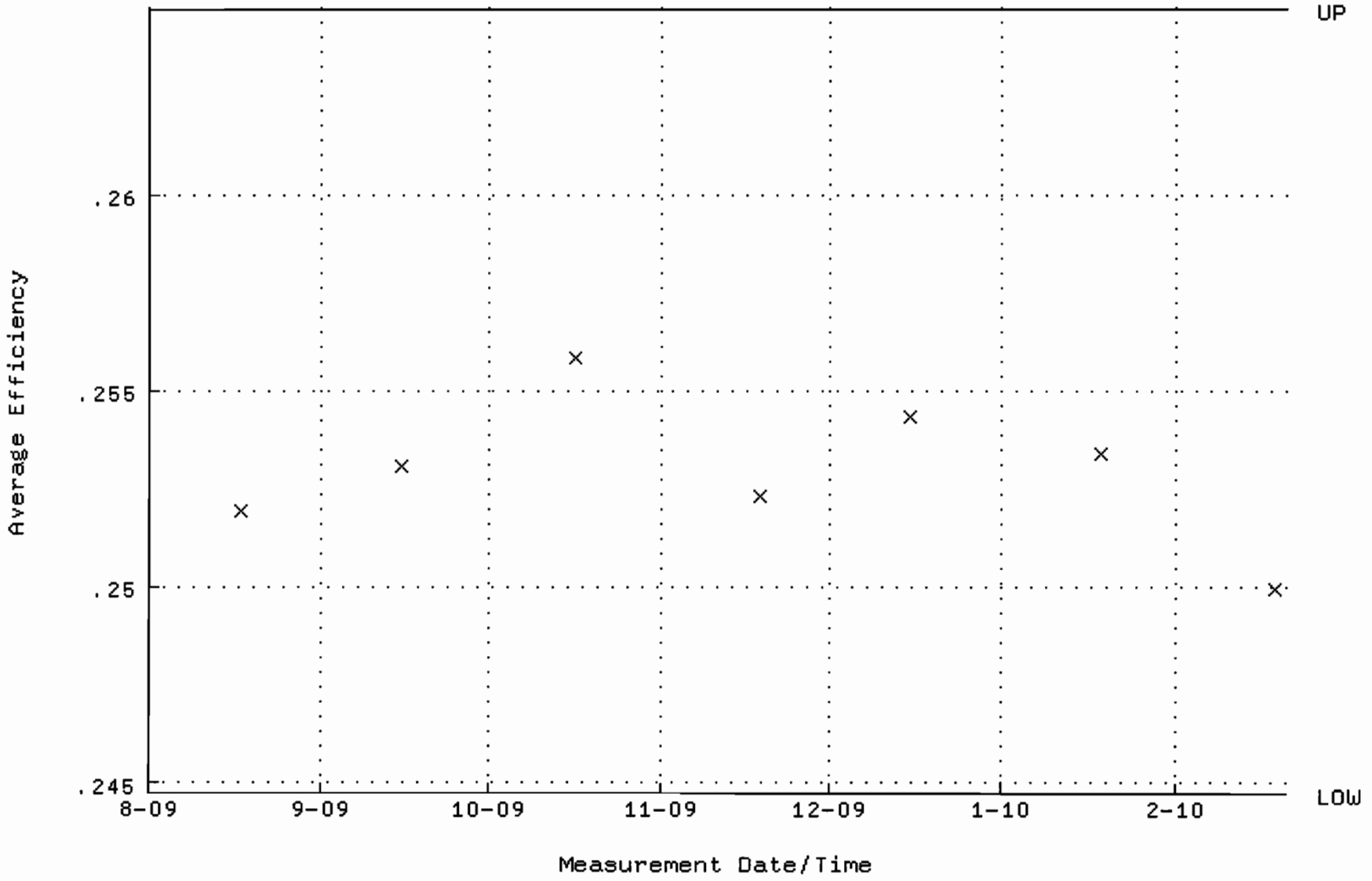

QA filename : DKA100:[ENV_ALPHA.QA.W]W153.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:47:33 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 81.3634 through 89.9280

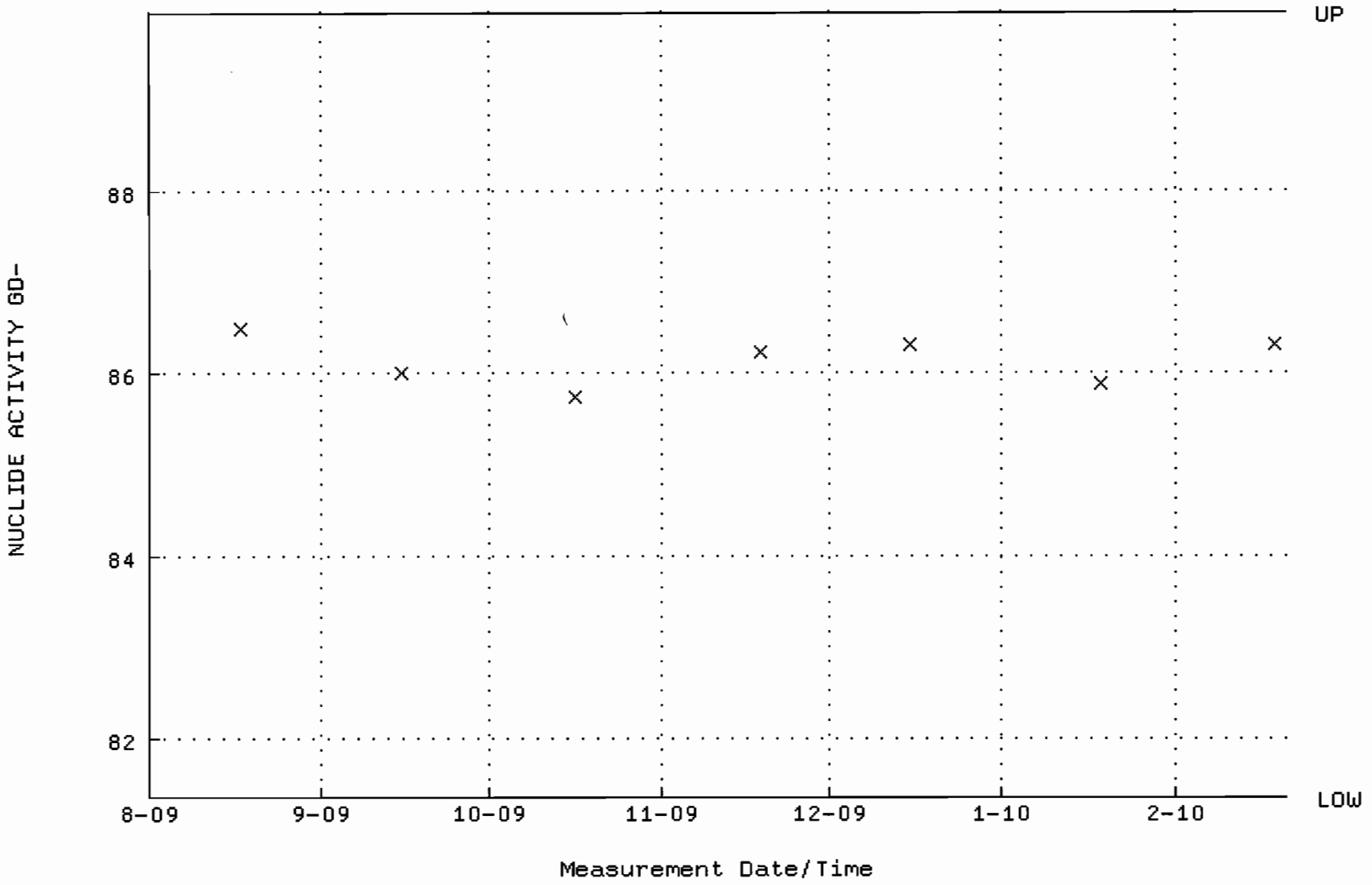

QA filename : DKA100:[ENV_ALPHA.QA.B]B153.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:49 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

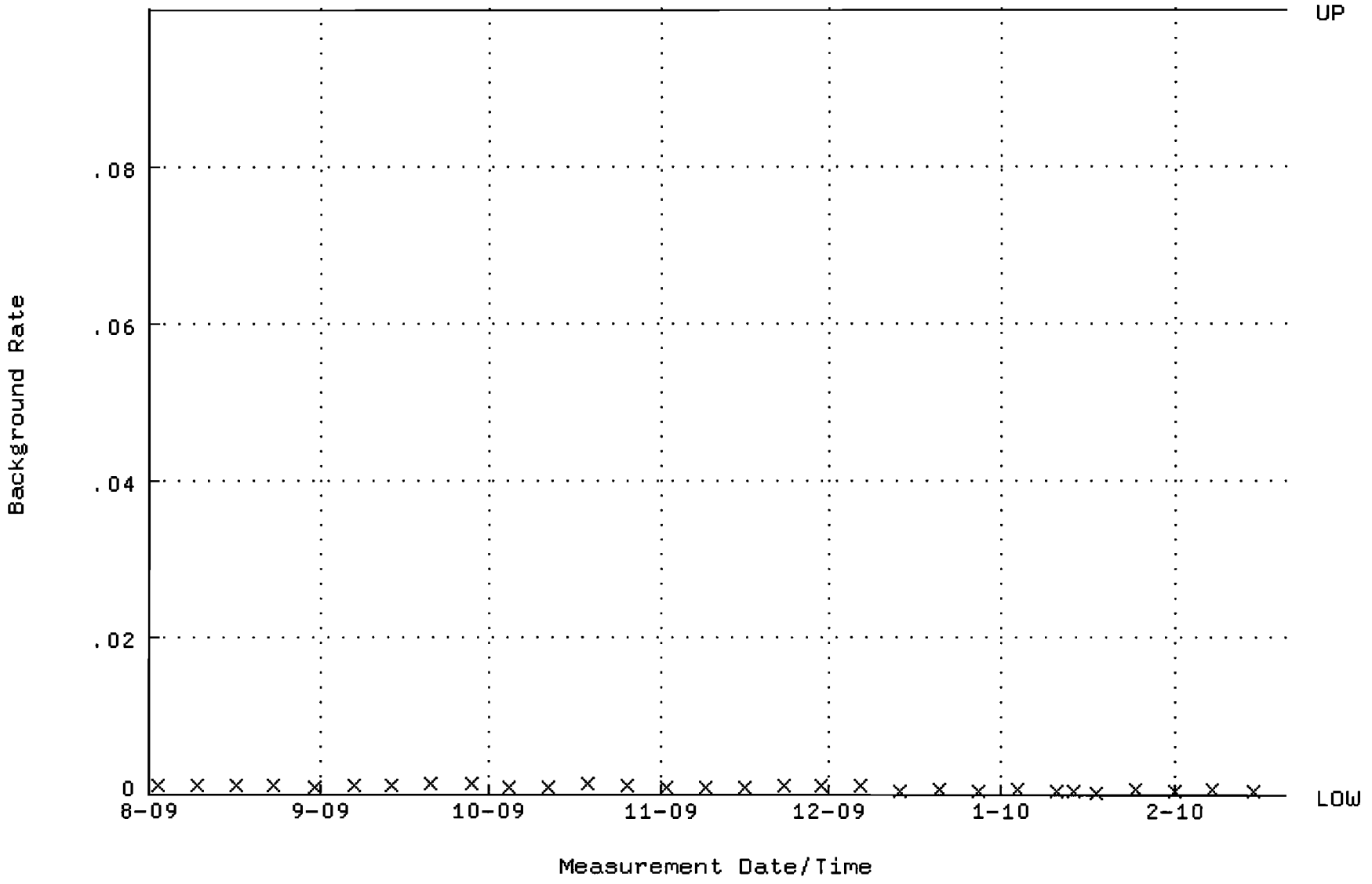

QA filename : DKA100:[ENV_ALPHA.QA.W]W154.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:47:38 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.251386 through 0.271386

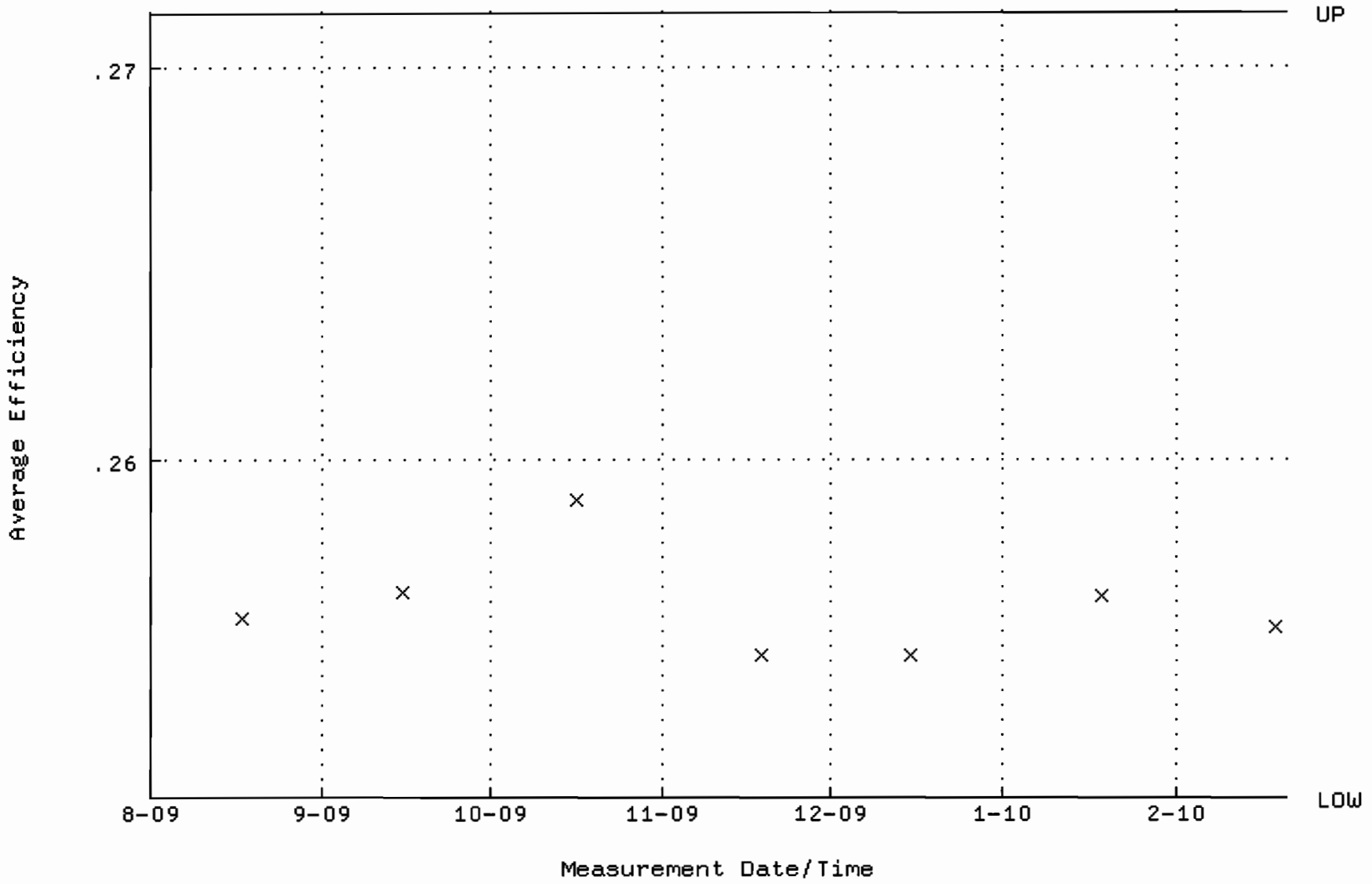

QA filename : DKA100:[ENV_ALPHA.QA.W]W154.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:47:38 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 79.9003 through 88.3109

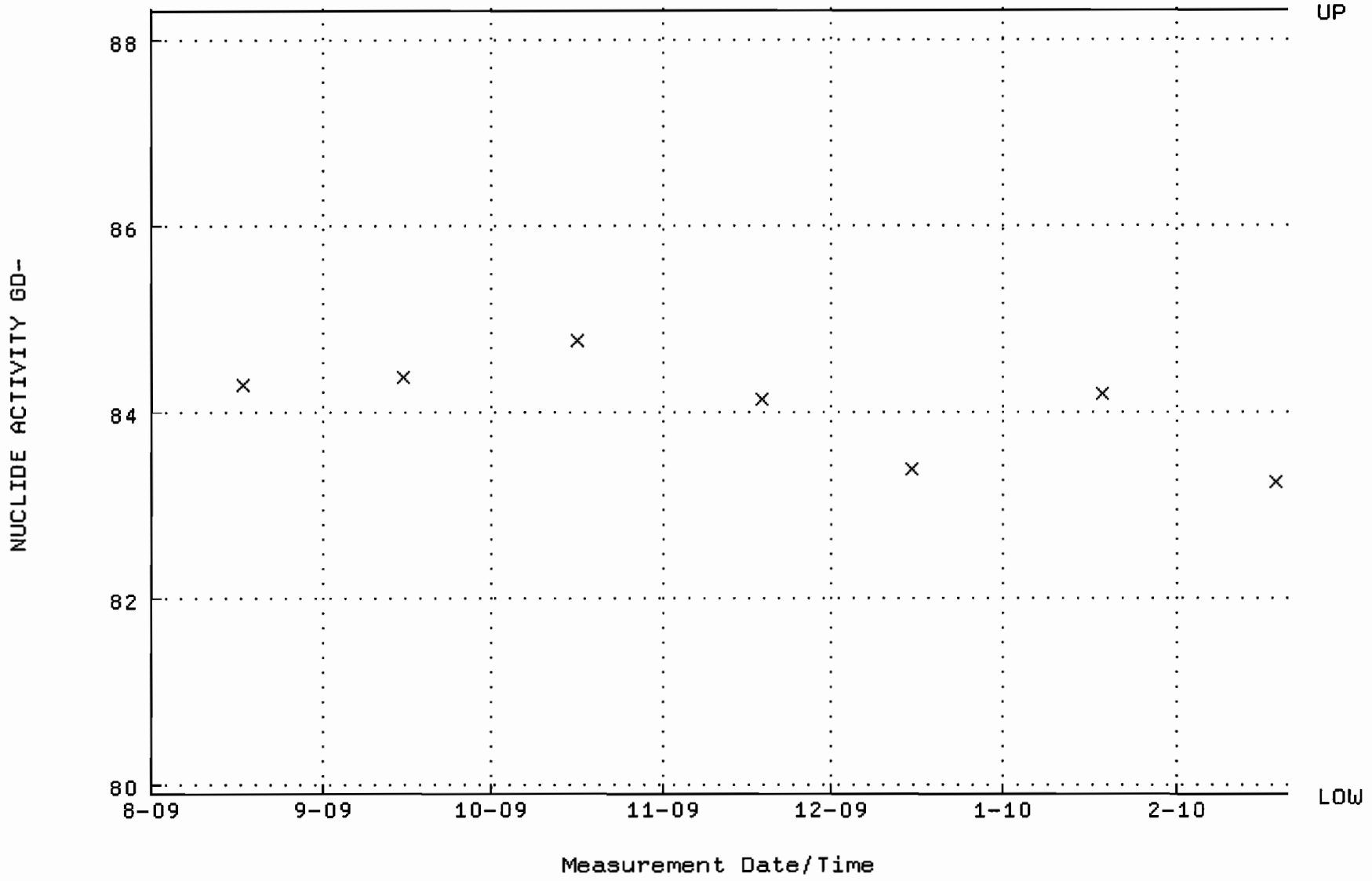

QA filename : DKA100:[ENV_ALPHA.QA.B]B154.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:53 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

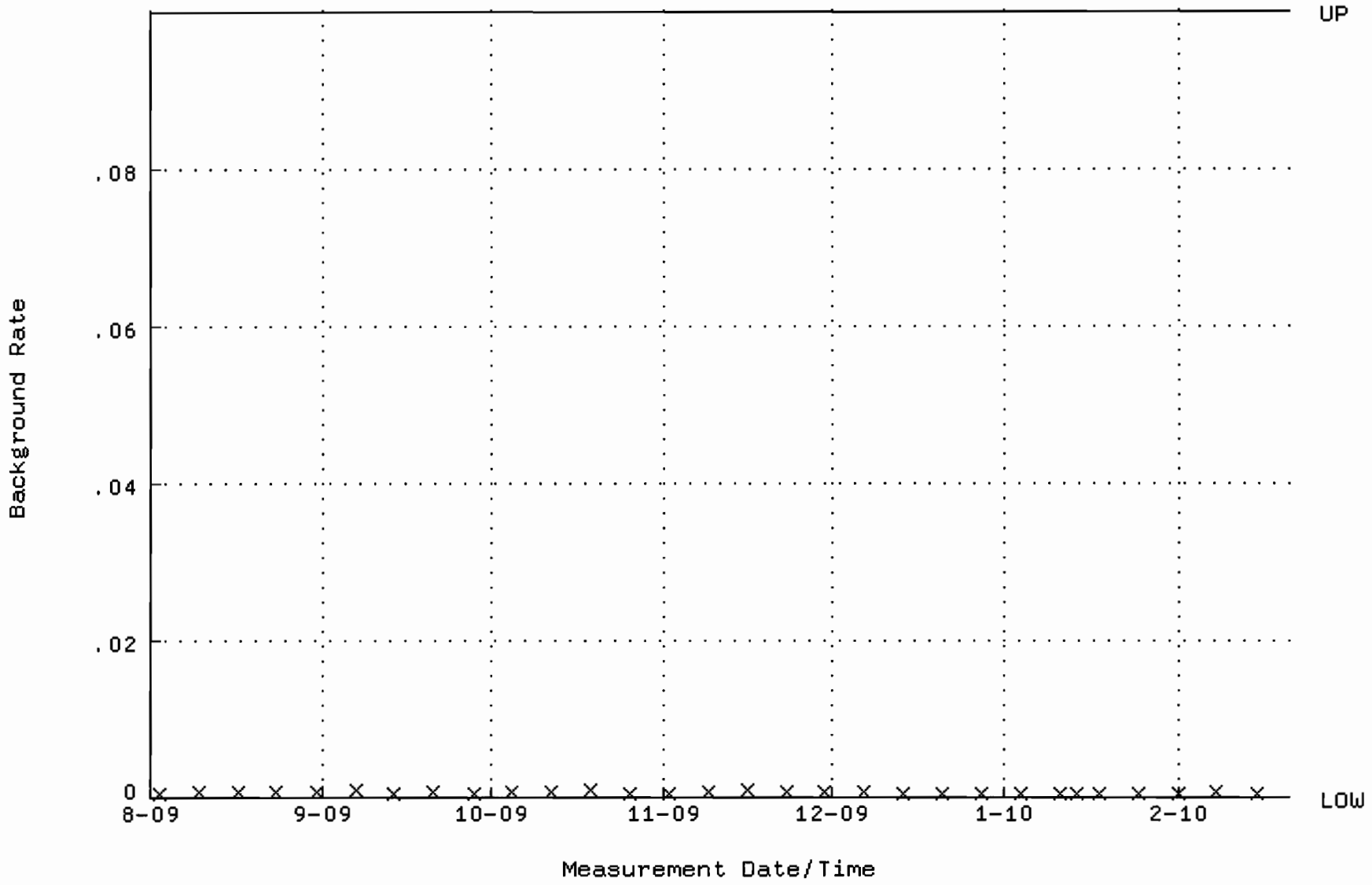

QA filename : DKA100:[ENV_ALPHA.QA.W]W256.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:10:37 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.355610 through 0.410626

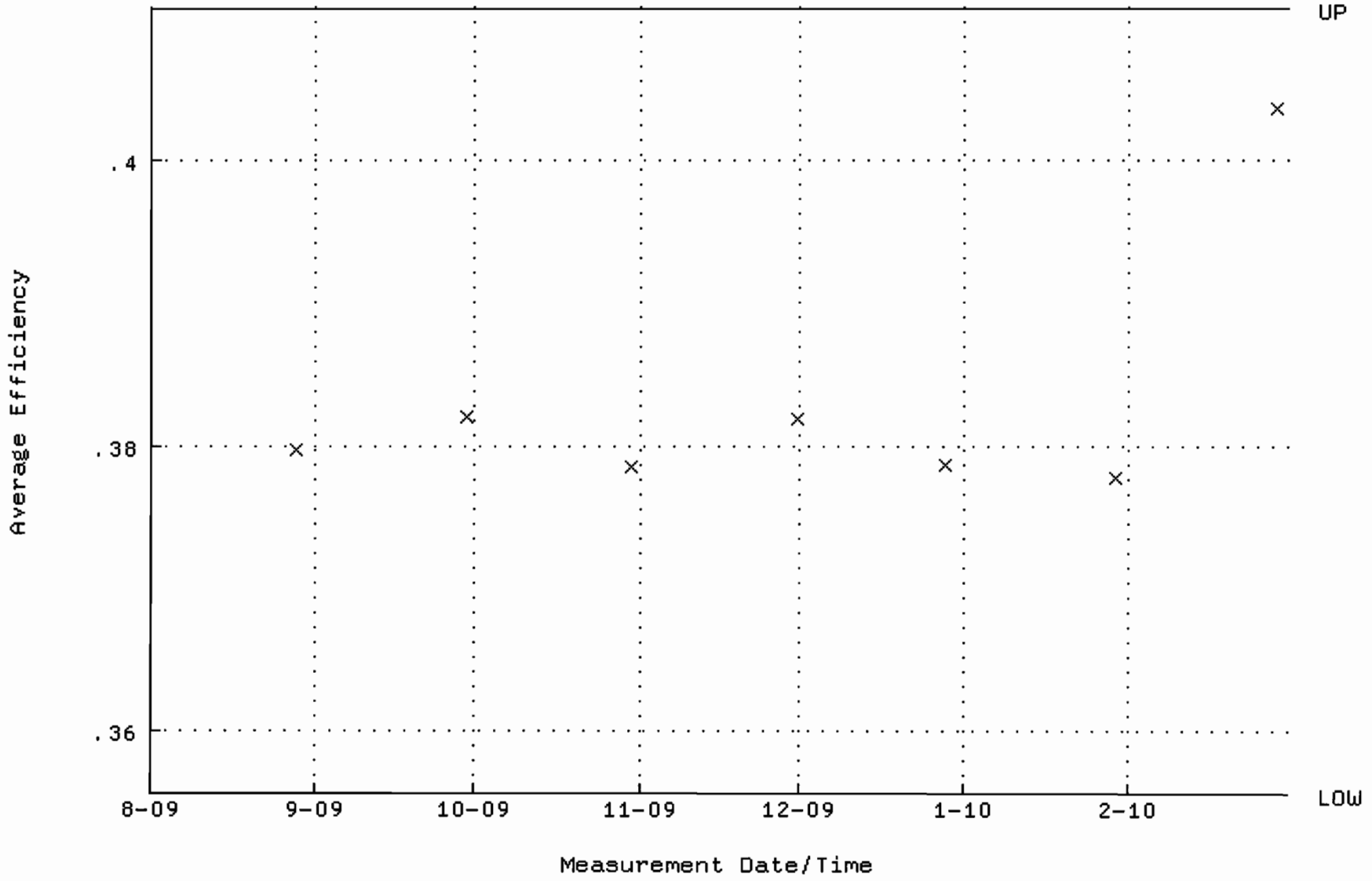

QA filename : DKA100:[ENV_ALPHA.QA.W]W256.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:10:37 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 78.3575 through 89.6335

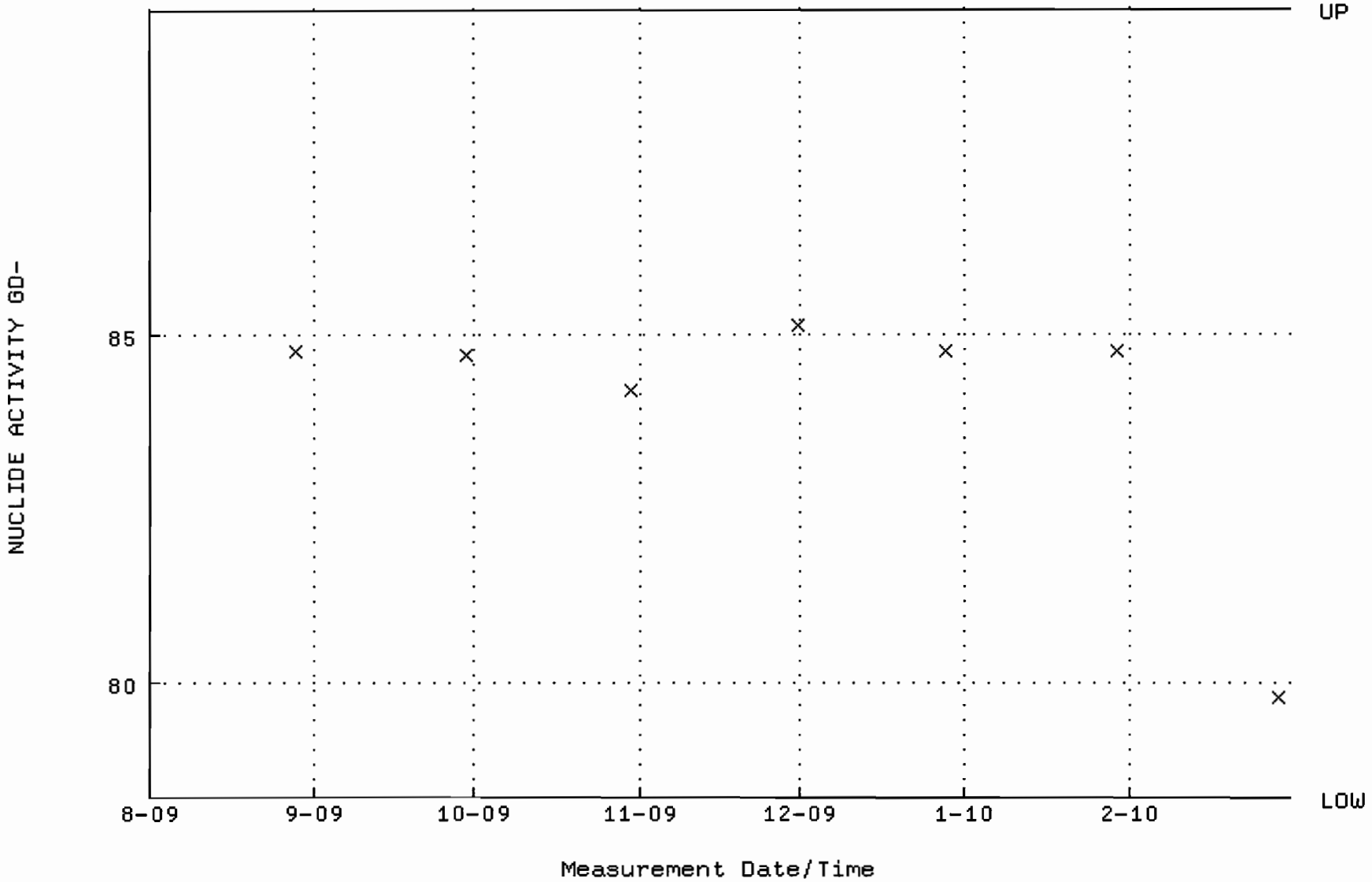

QA filename : DKA100:[ENV_ALPHA.QA.B]B256.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:28:37 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

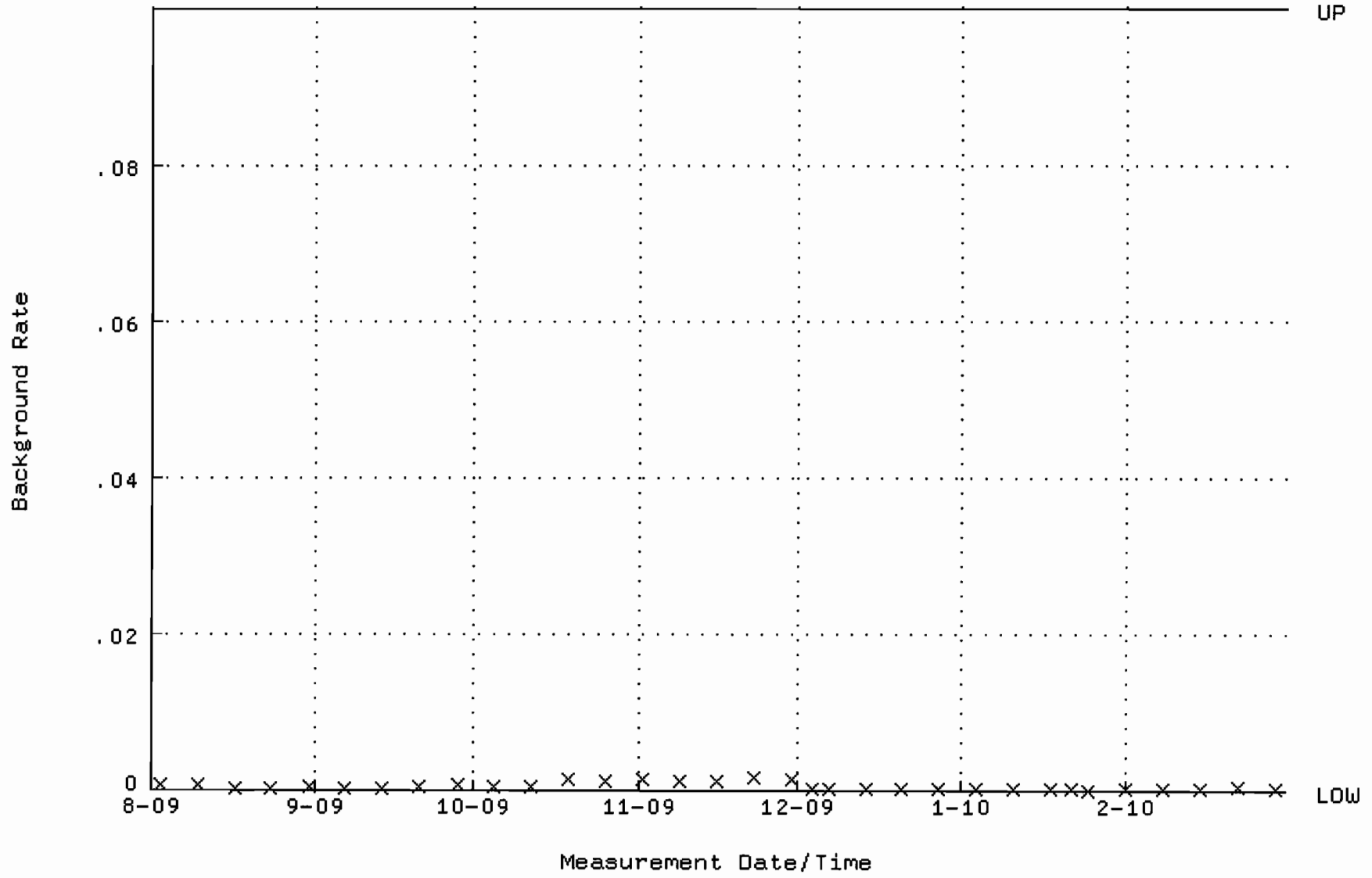

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM02_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:40:02 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

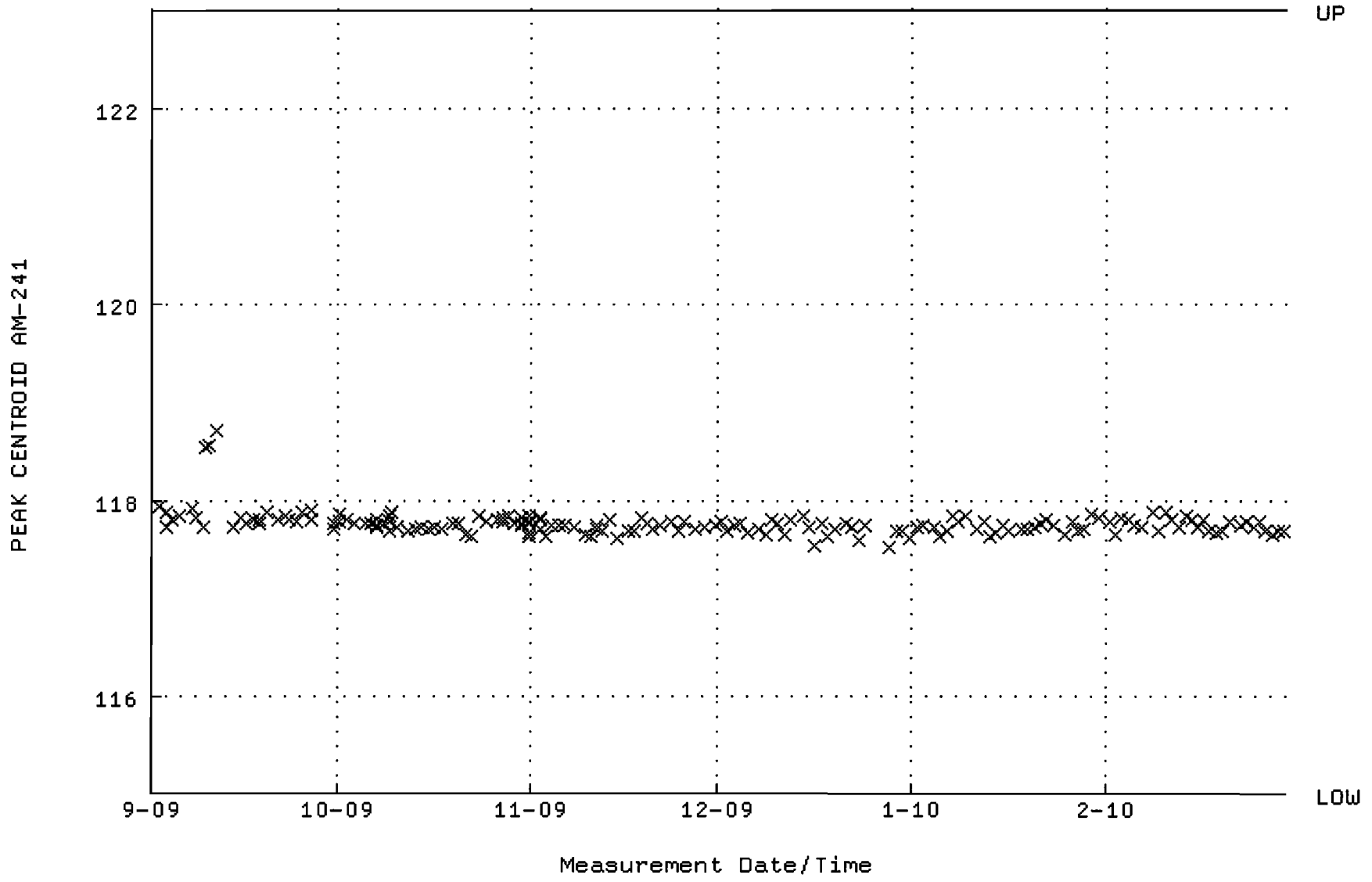

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM02.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:37:17 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 2.00226 +- 2.139827E-02 (1.07 %)

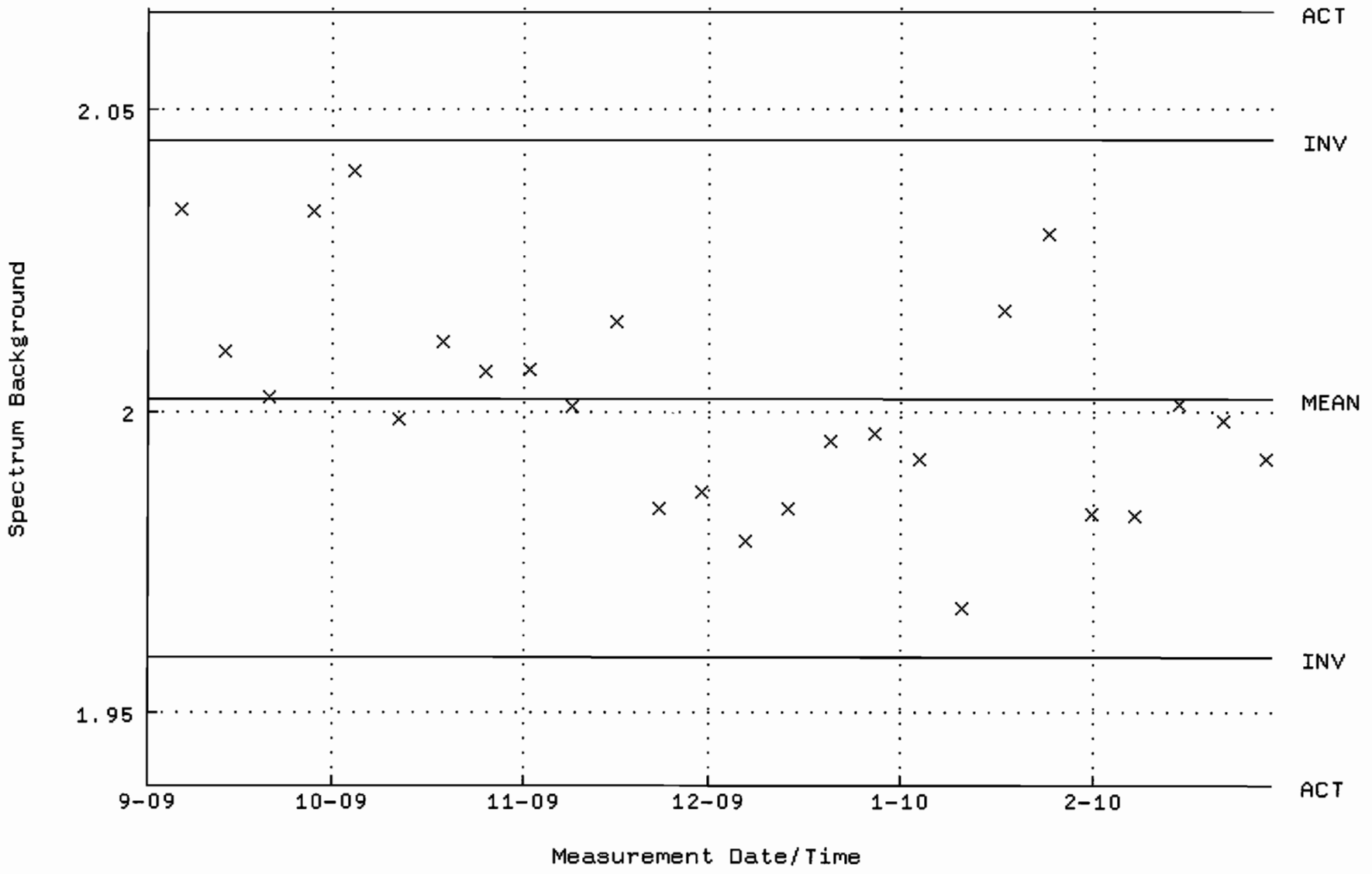

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM14_2LMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:40:36 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

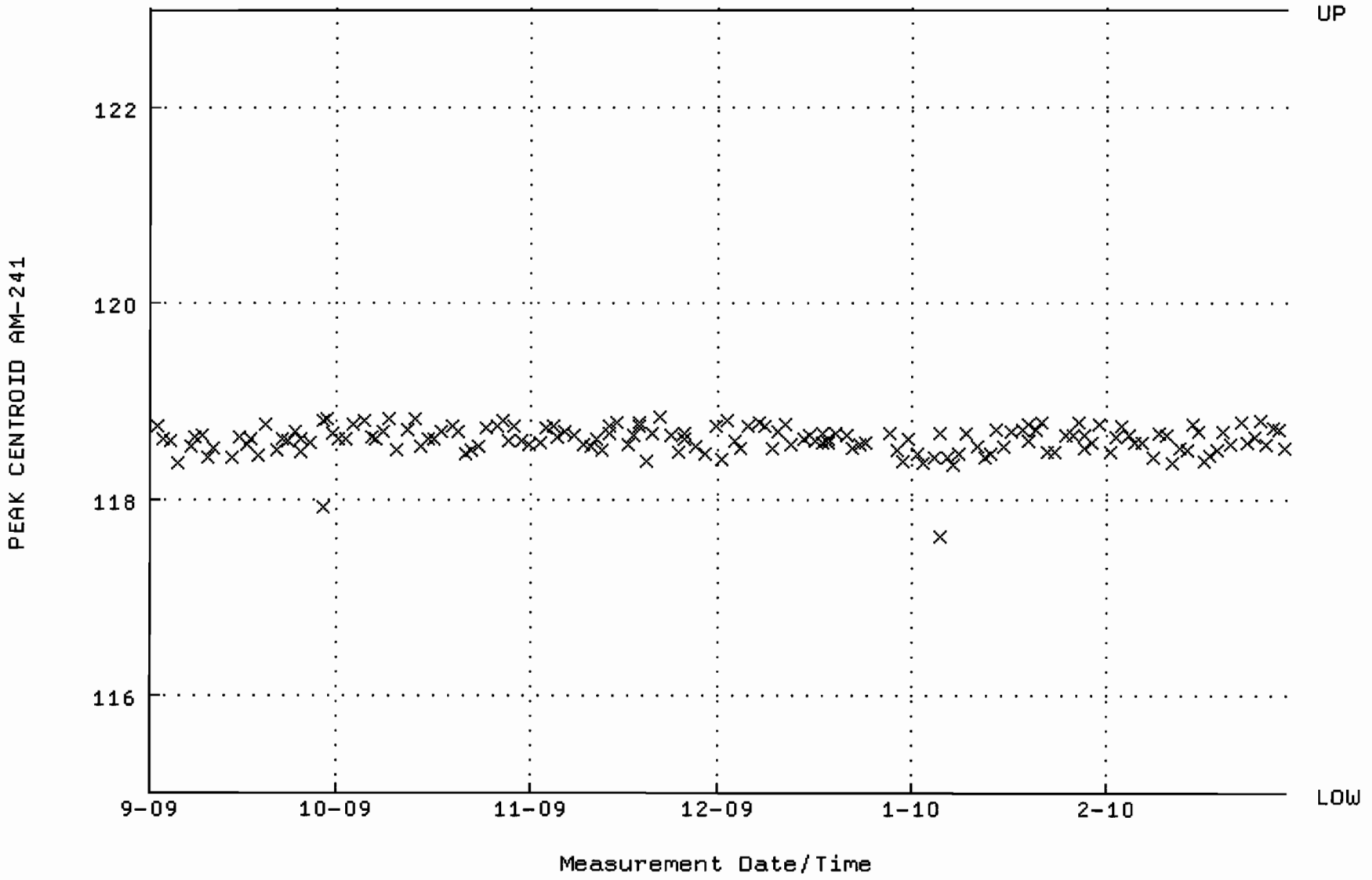

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM14.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:43:20 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.48240 +- 2.535500E-02 (1.71 %)

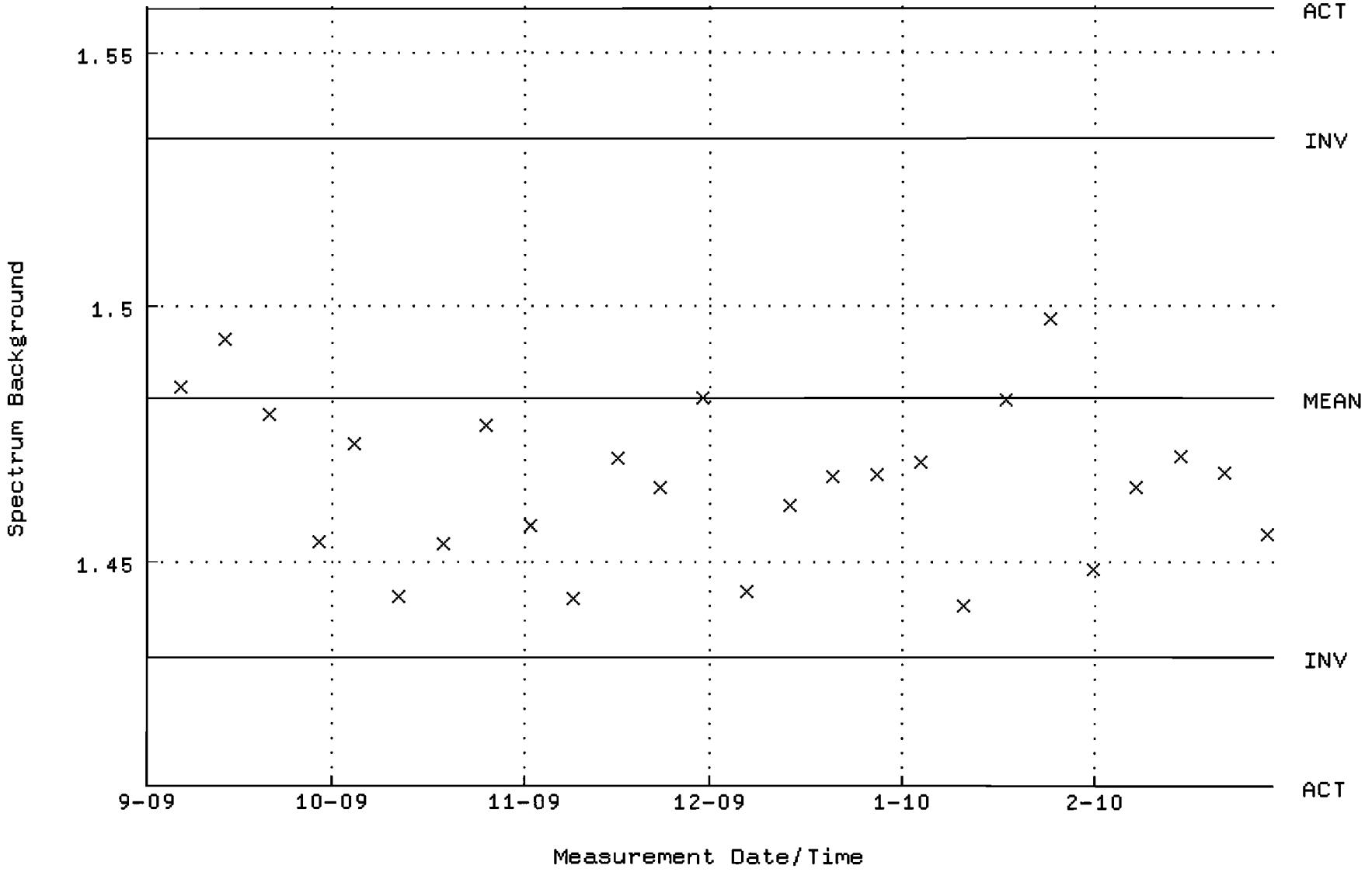

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM17_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 05:06:49 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

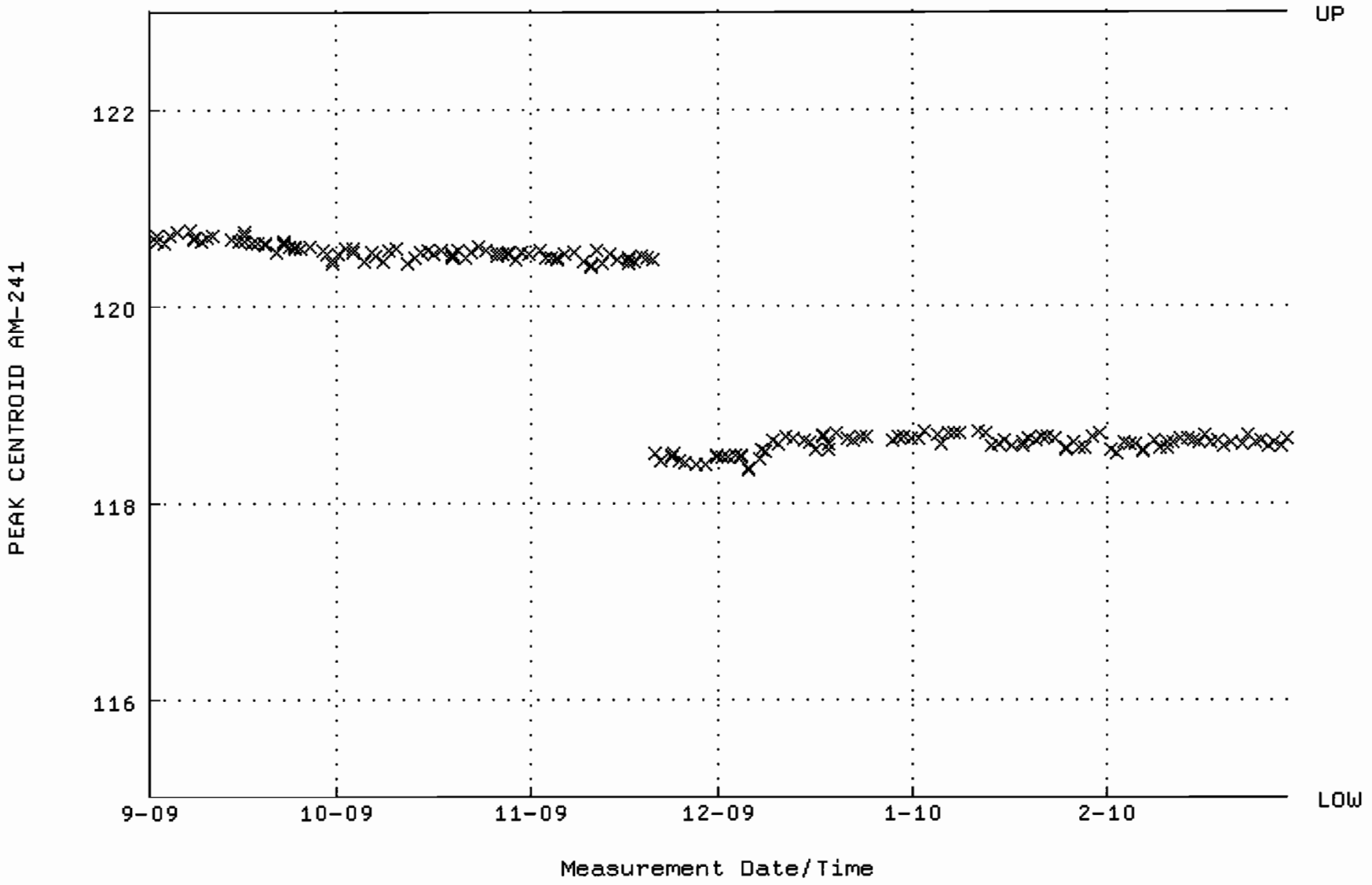

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM17.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:44:33 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.42766 +- 1.396974E-02 (0.98 %)

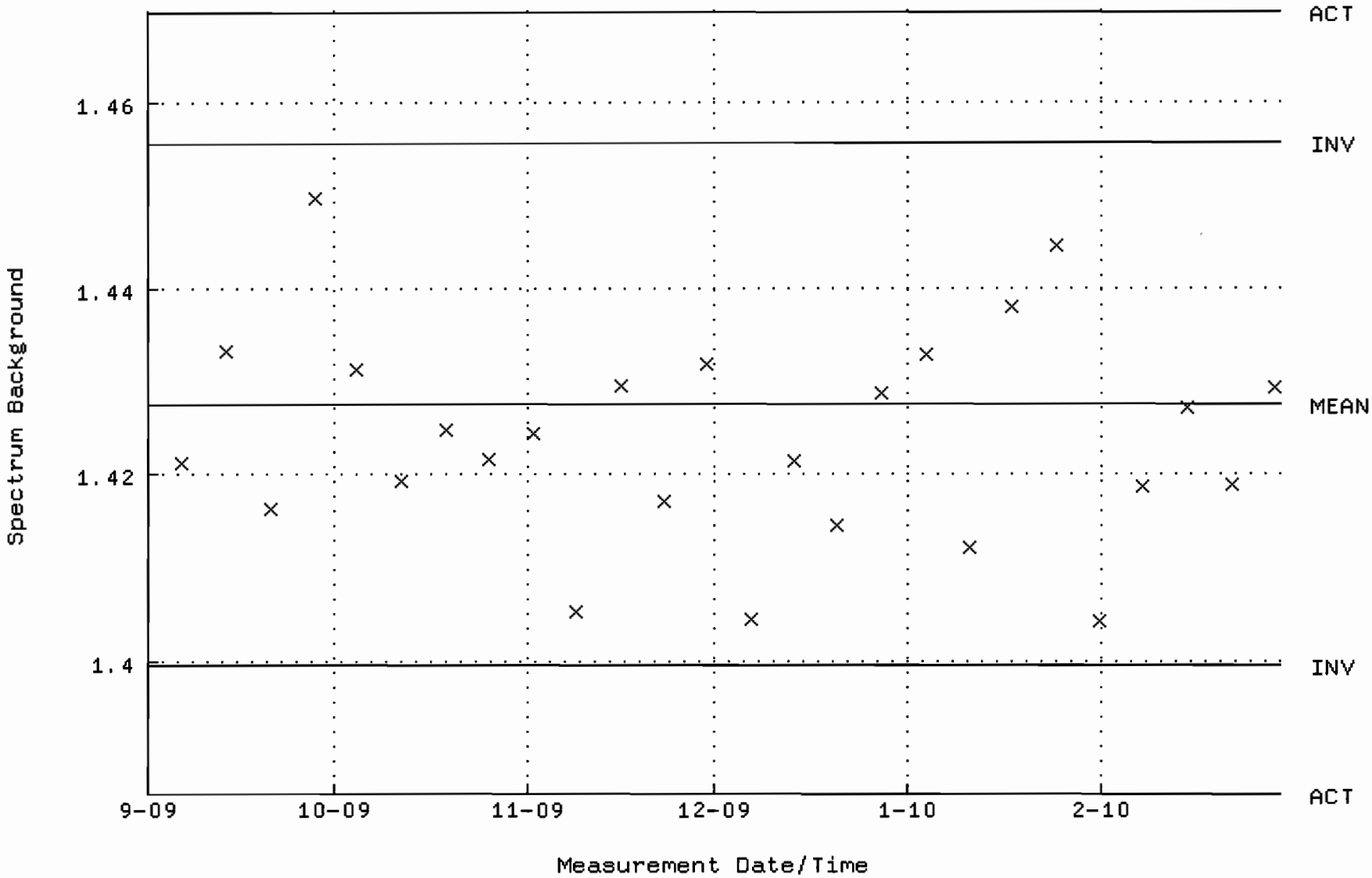

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM19_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 05:06:58 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

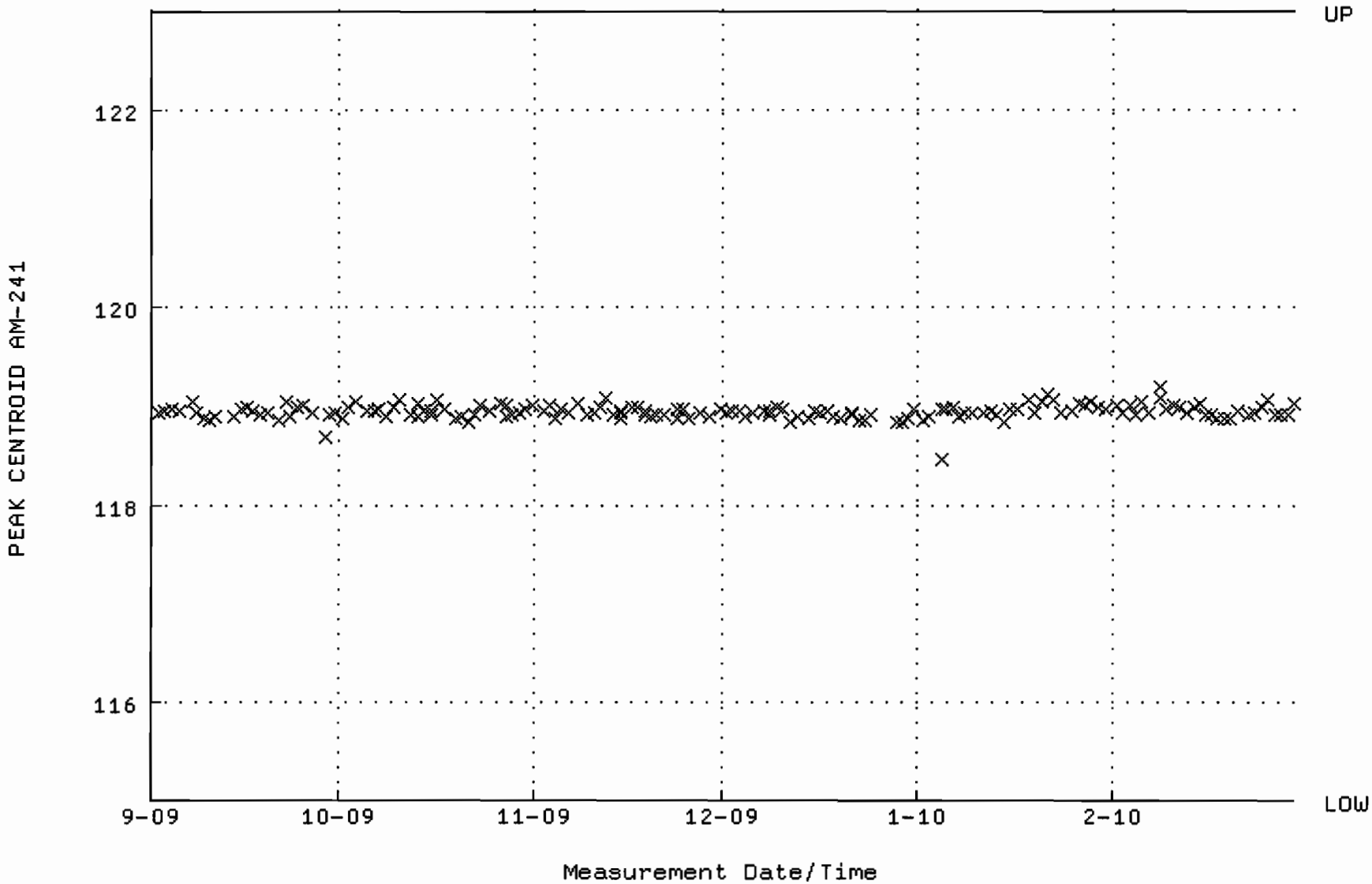

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM19.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:45:39 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.45067 +- 2.046038E-02 (1.41 %)

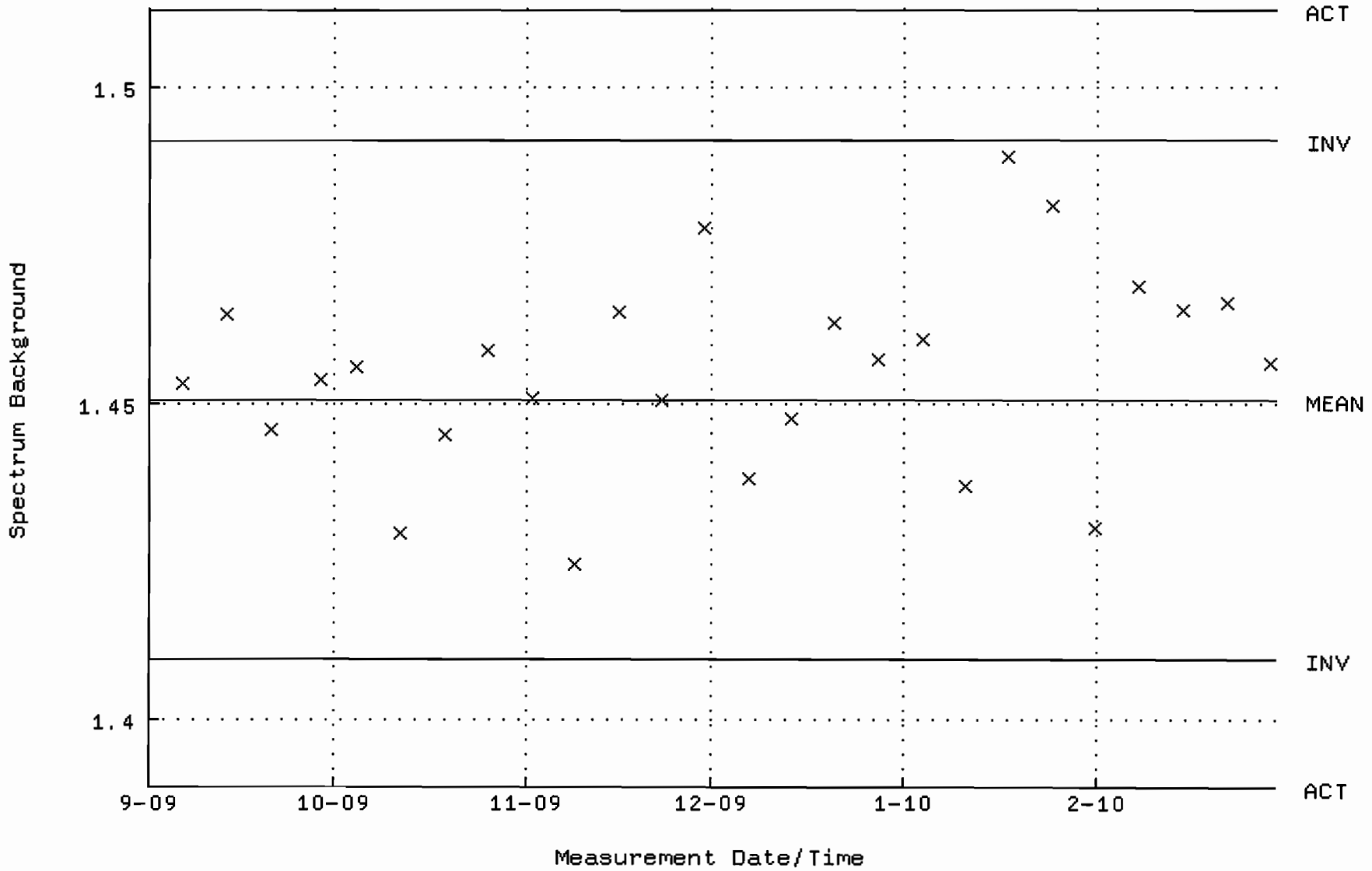

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM20_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:53:11 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

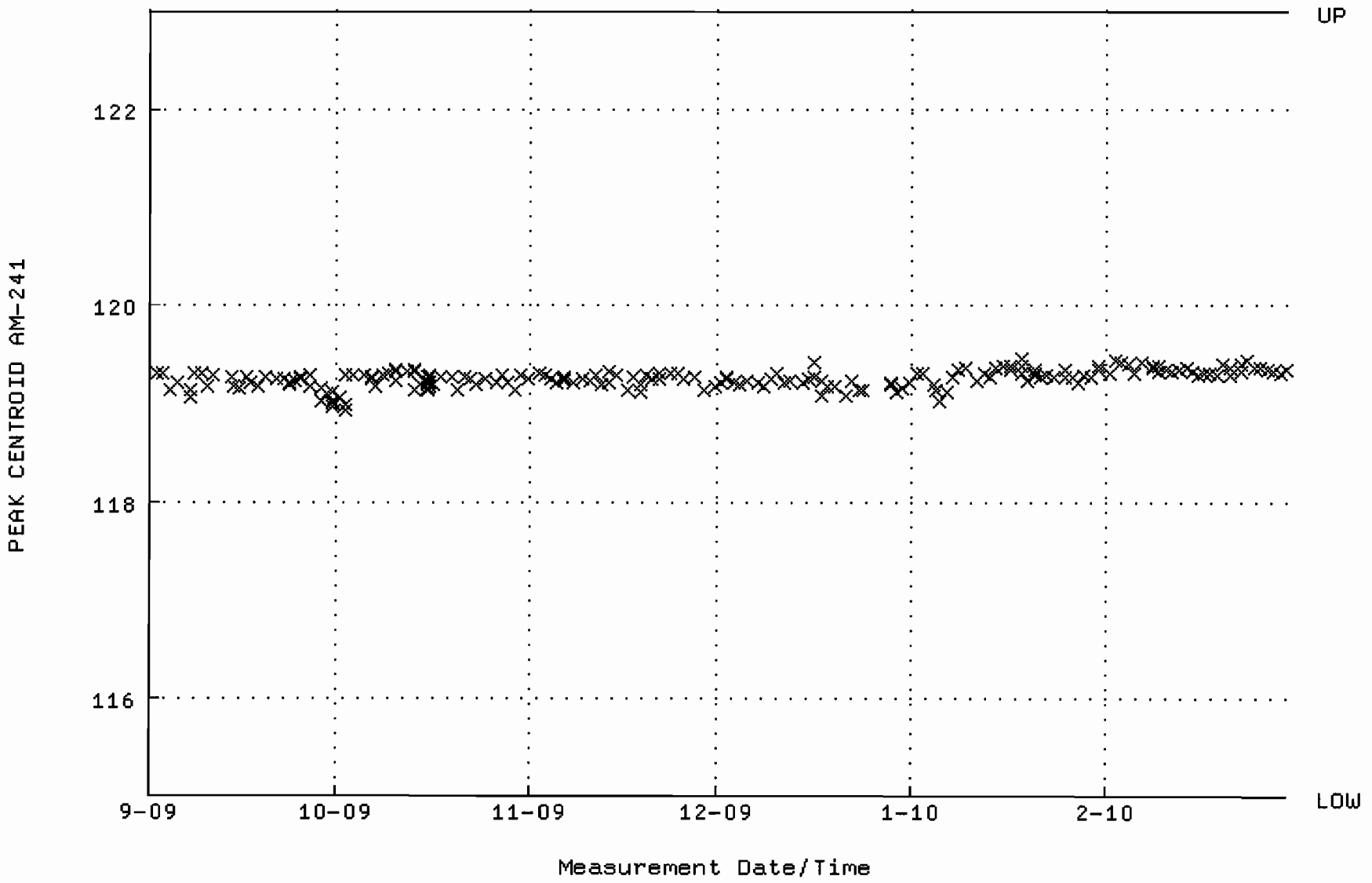

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM20.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:46:04 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.48527 +- 2.388665E-02 (1.61 %)

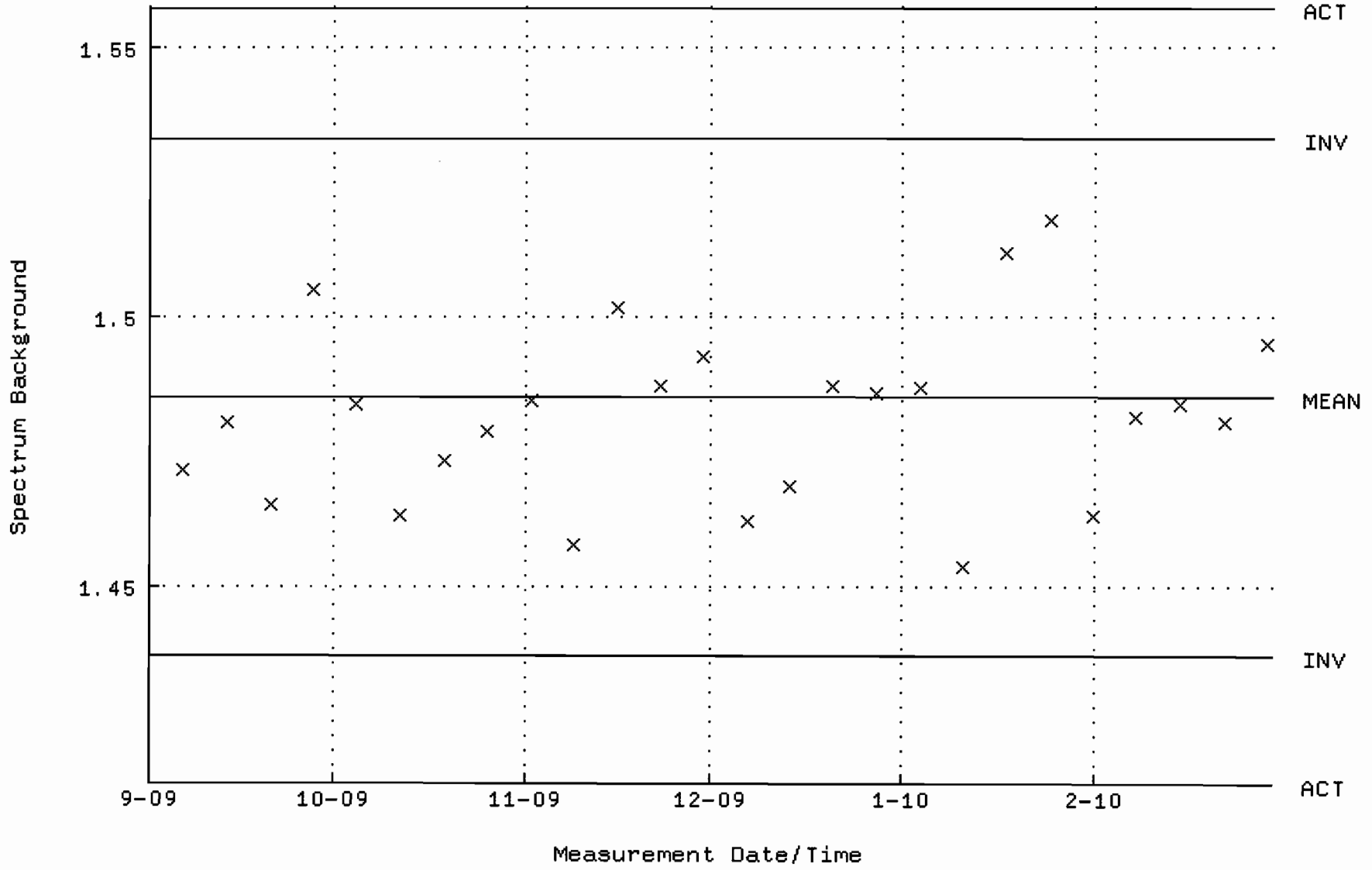

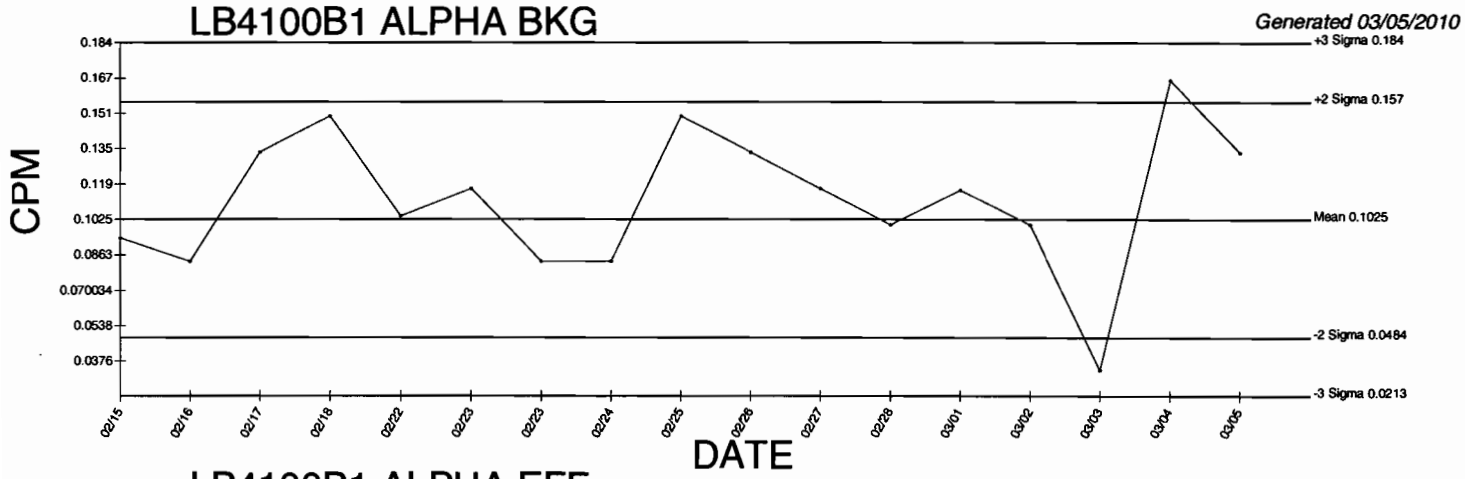
LB4100B1 ALPHA BKG
Generated 03/05/2010
CPM
0.184
0.167
0.151
0.135
0.119
0.1025
0.0863
0.070034
0.0538
0.0376
+3 Sigma 0.184
+2 Sigma 0.157
Mean 0.1025
-2 Sigma 0.0484
-3 Sigma 0.0213
02/15
02/16
02/17
02/18
02/22
02/23
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
DATE

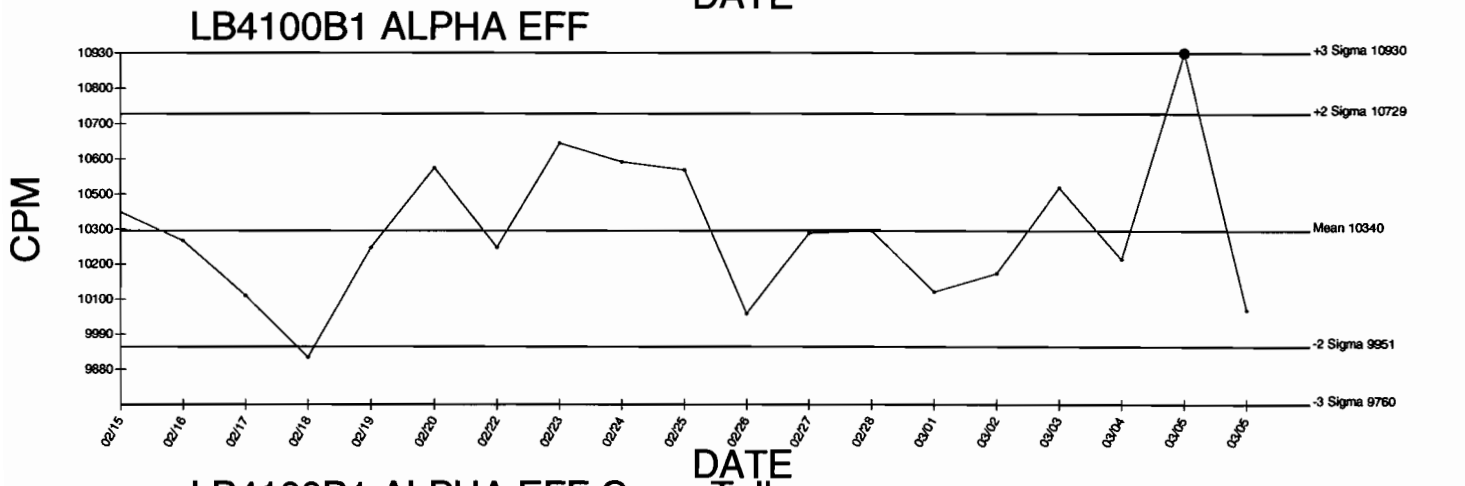
LB4100B1 ALPHA EFF
CPM
10930
10800
10700
10600
10500
10300
10200
10100
9990
9680
+3 Sigma 10930
+2 Sigma 10729
Mean 10340
-2 Sigma 9951
-3 Sigma 9760
02/15
02/16
02/17
02/18
02/19
02/20
02/22
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
03/05
DATE

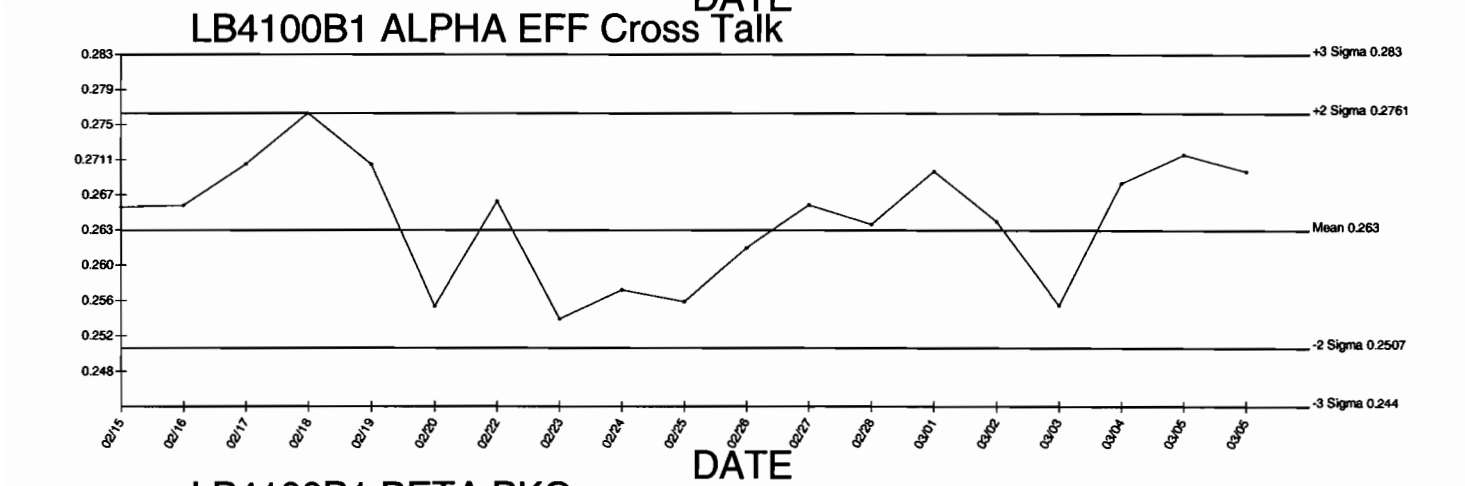
LB4100B1 ALPHA EFF Cross Talk
0.283
0.279
0.275
0.2711
0.267
0.263
0.260
0.256
0.252
0.248
+3 Sigma 0.283
+2 Sigma 0.2761
Mean 0.263
-2 Sigma 0.2507
-3 Sigma 0.244
02/15
02/16
02/17
02/18
02/19
02/20
02/22
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
03/05
DATE

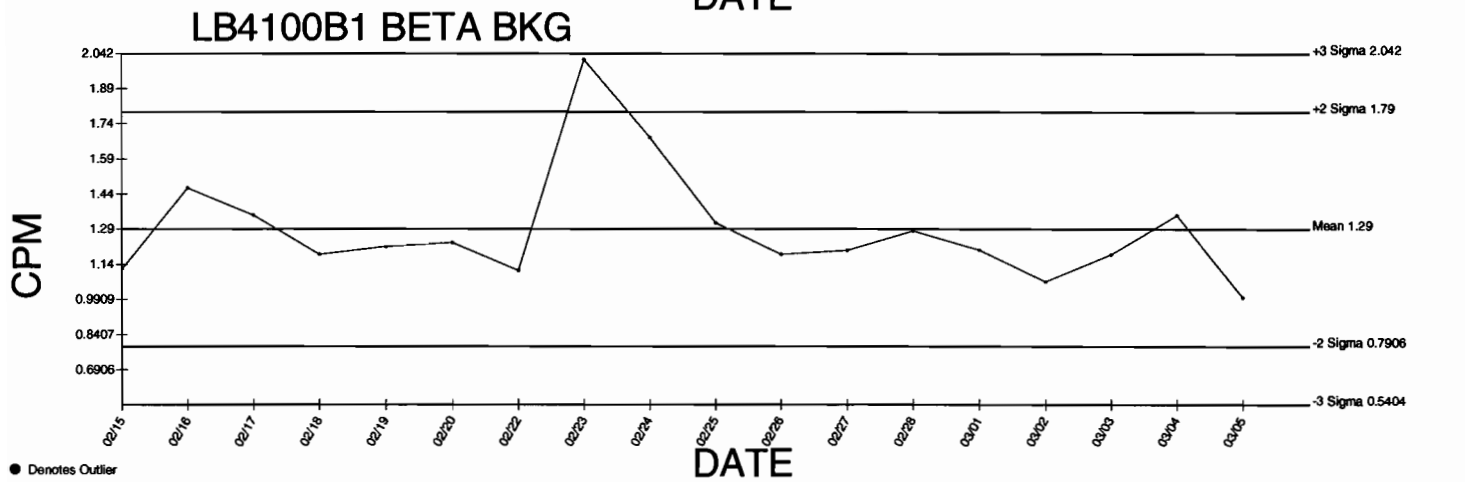
LB4100B1 BETA BKG
CPM
2.042
1.89
1.74
1.59
1.44
1.29
1.14
0.9909
0.8407
0.6906
+3 Sigma 2.042
+2 Sigma 1.79
Mean 1.29
-2 Sigma 0.7906
-3 Sigma 0.5404
02/15
02/16
02/17
02/18
02/19
02/20
02/22
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
DATE
● Denotes Outlier

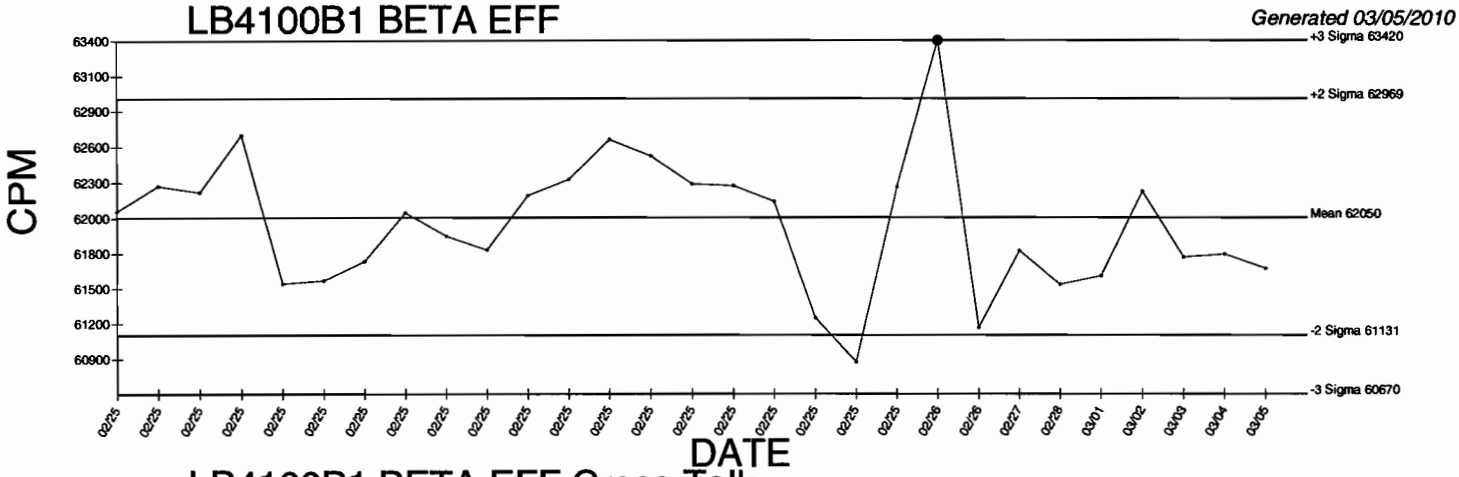

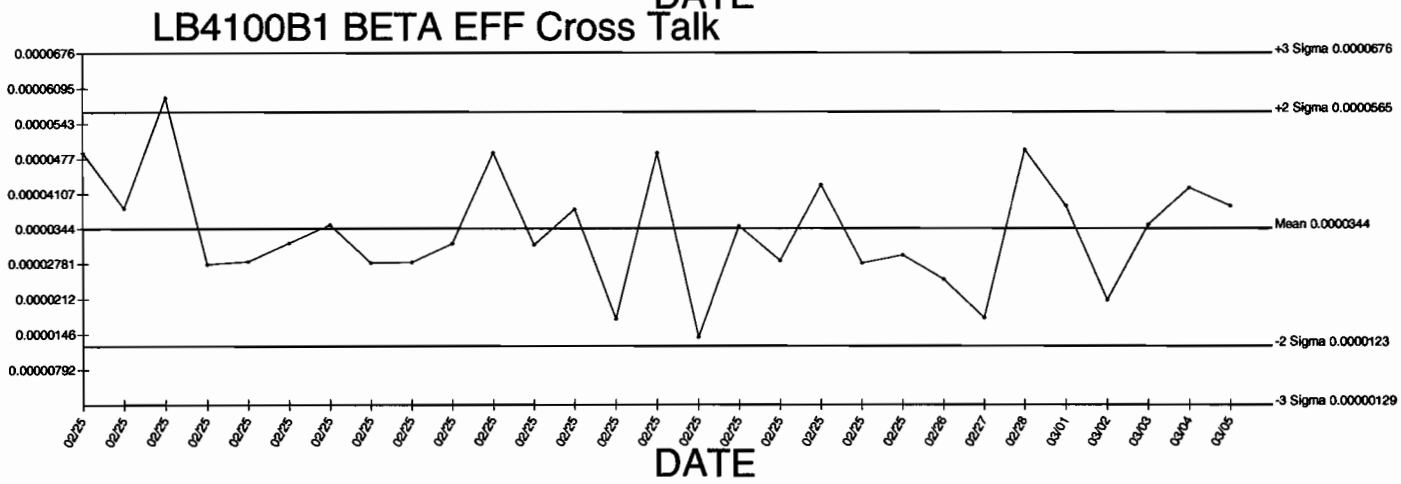

● Denotes Outlier

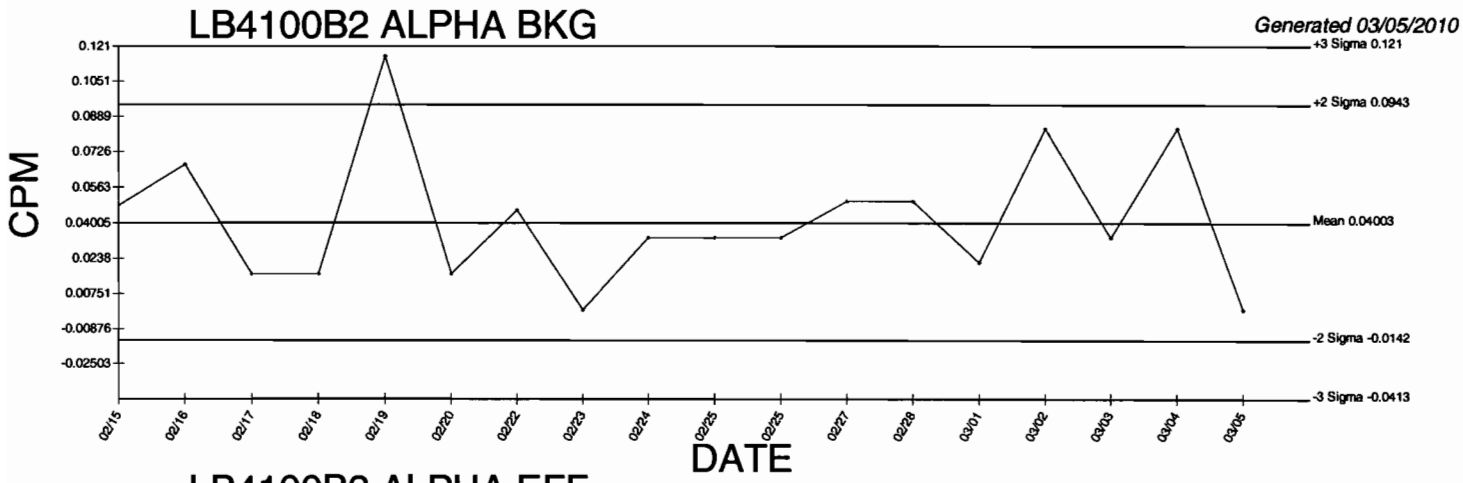

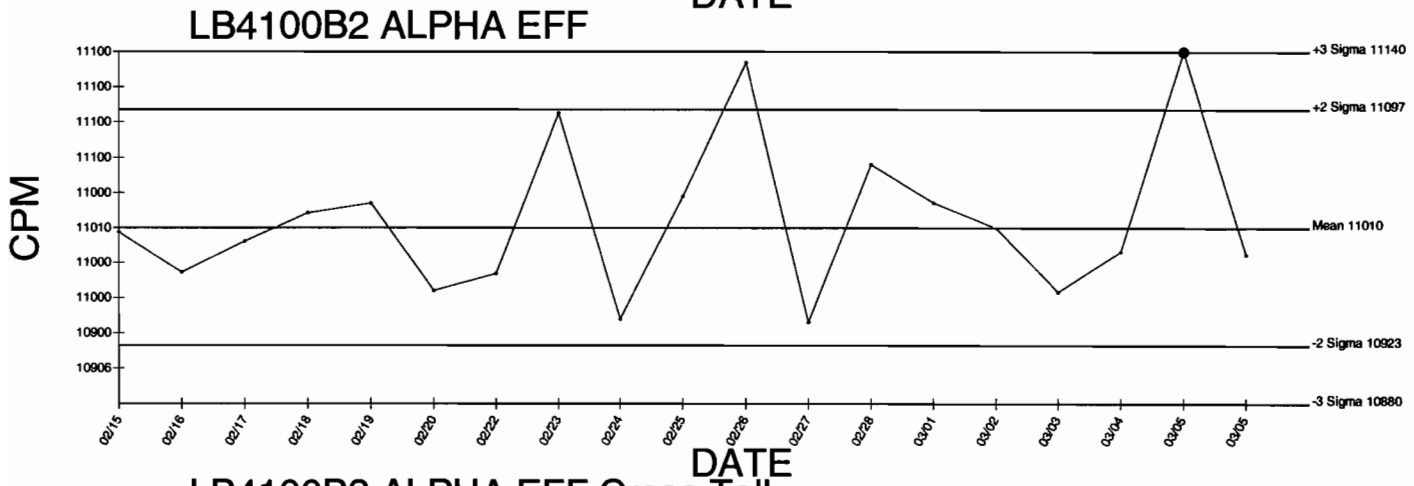

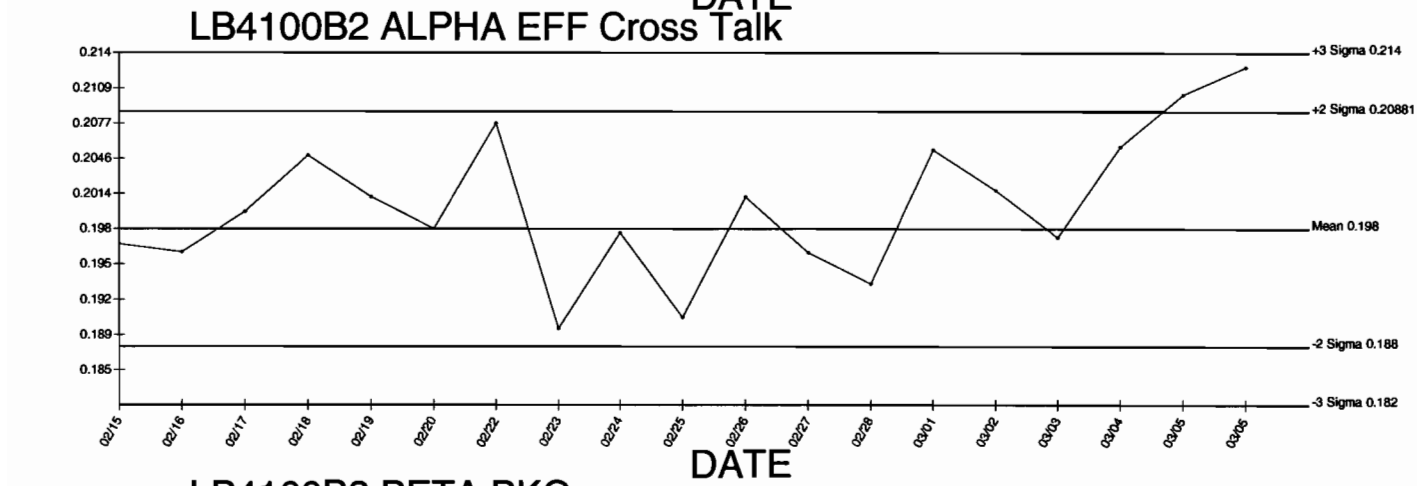

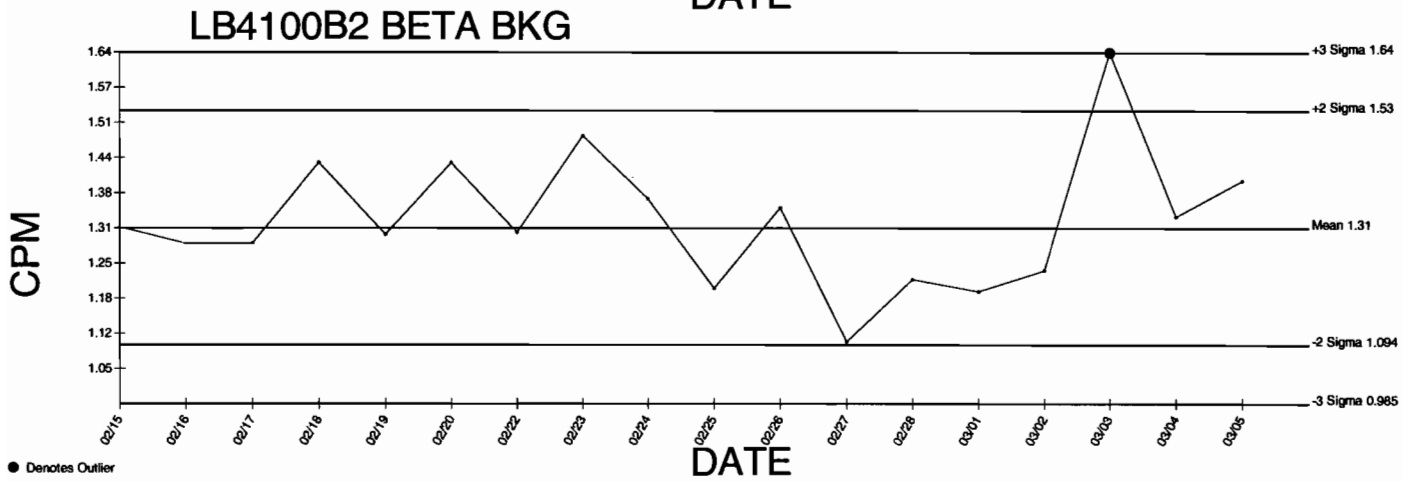

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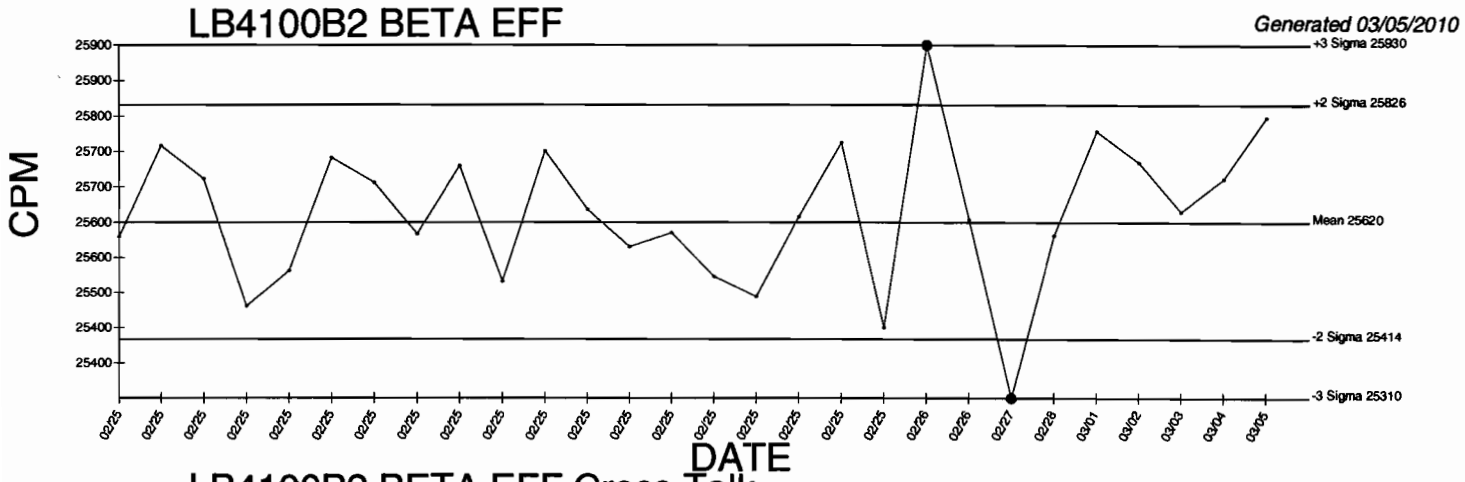

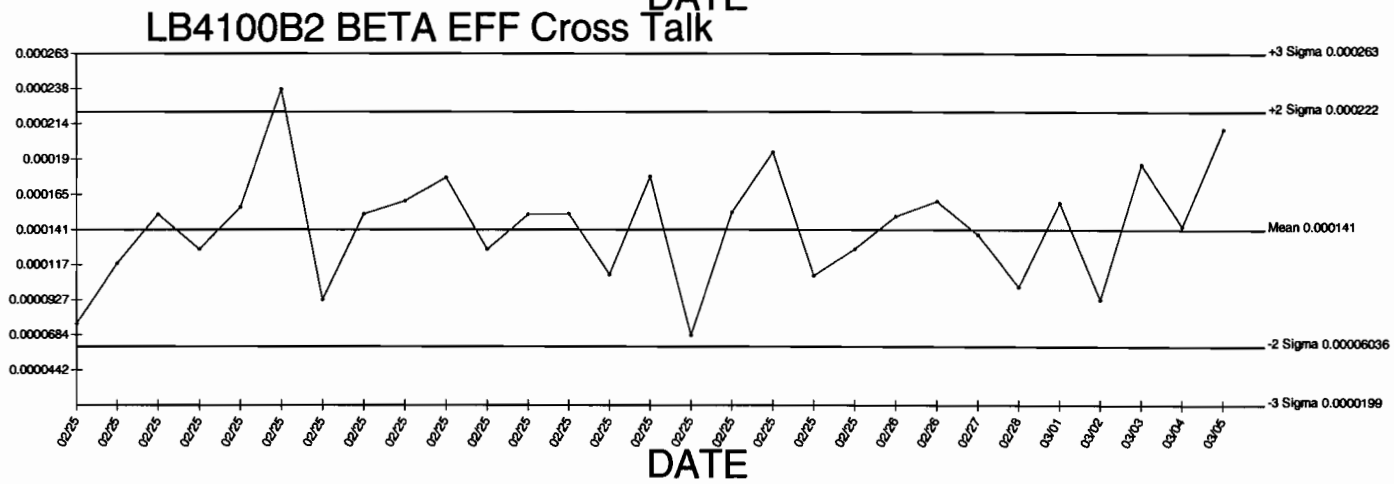

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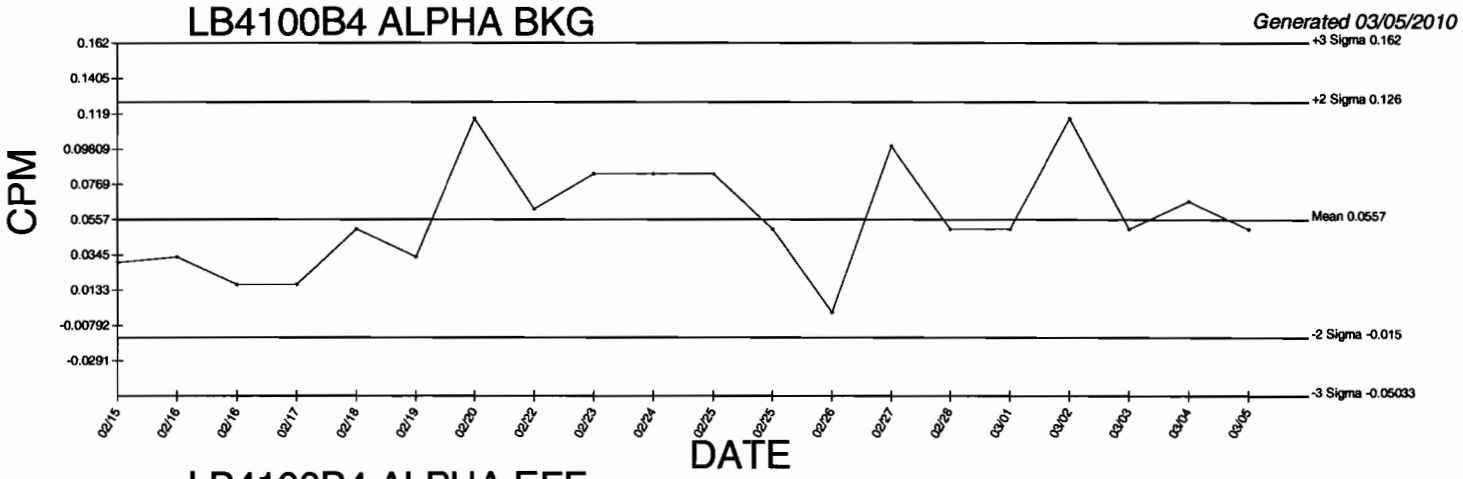

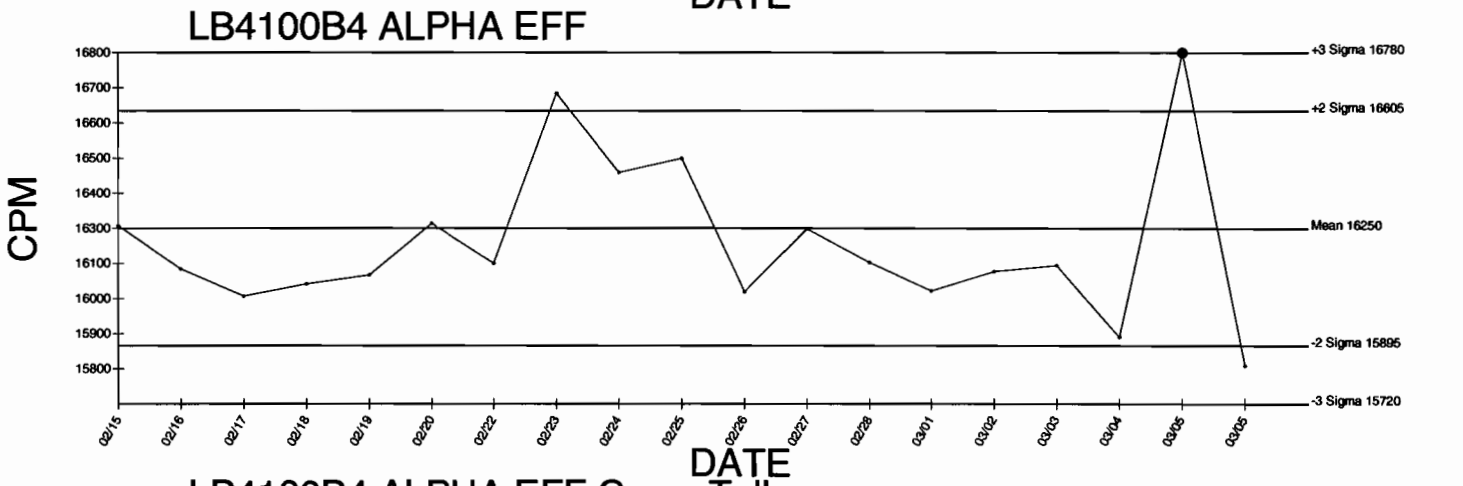

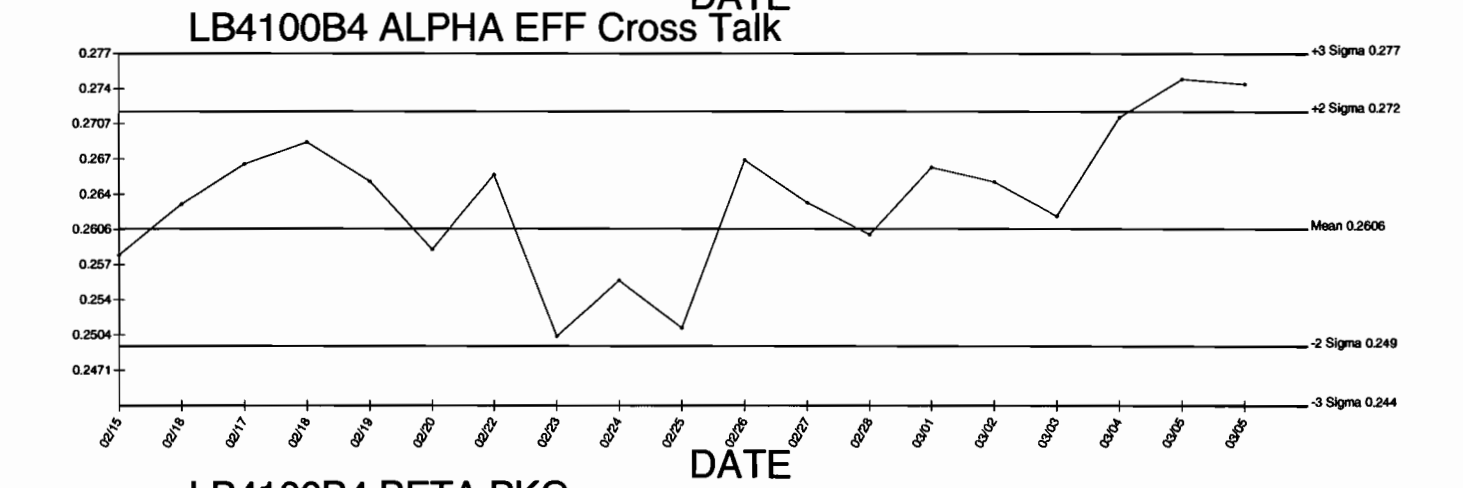

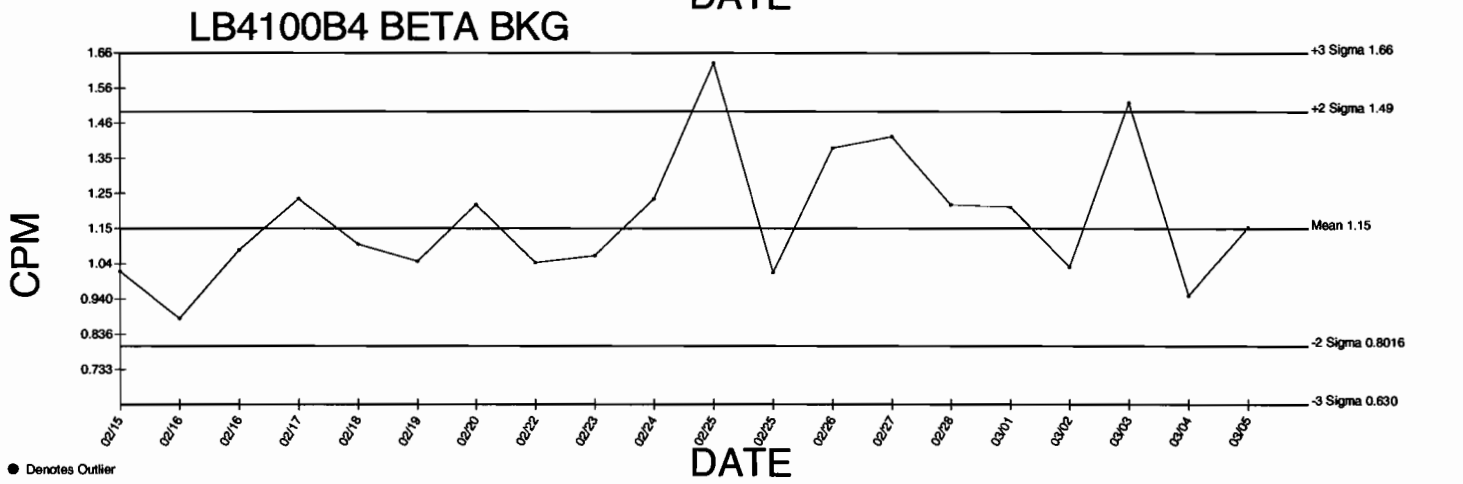

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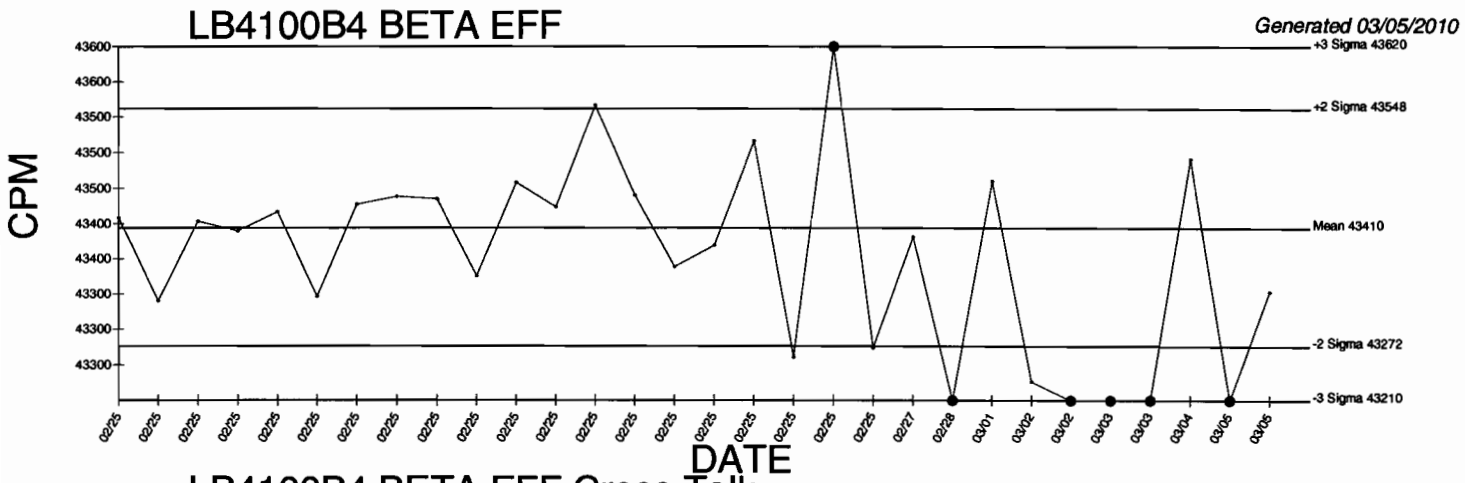

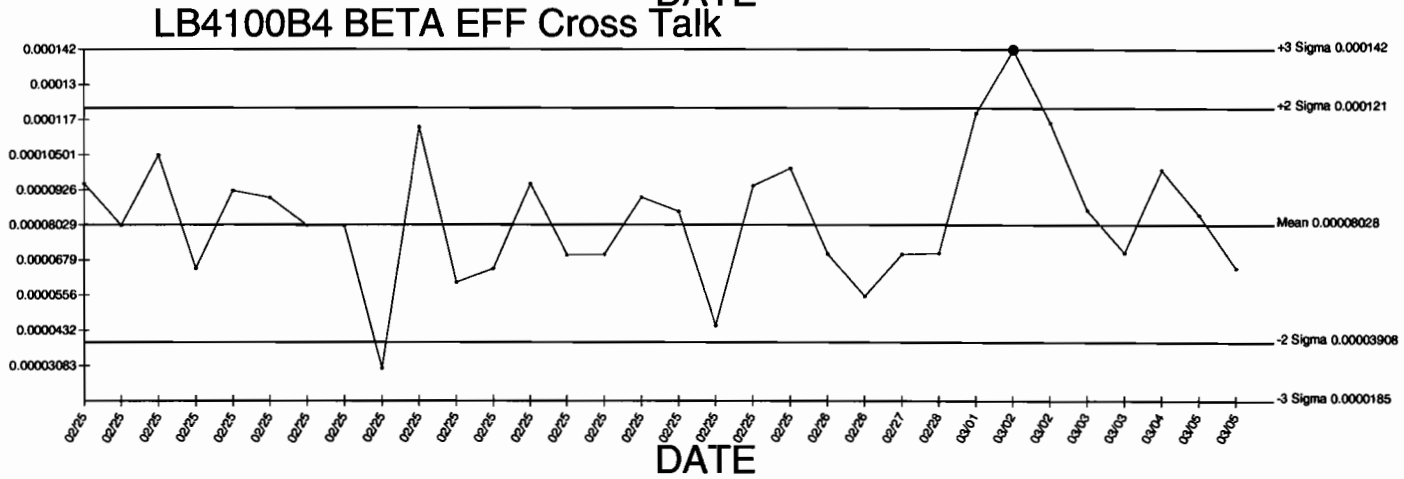

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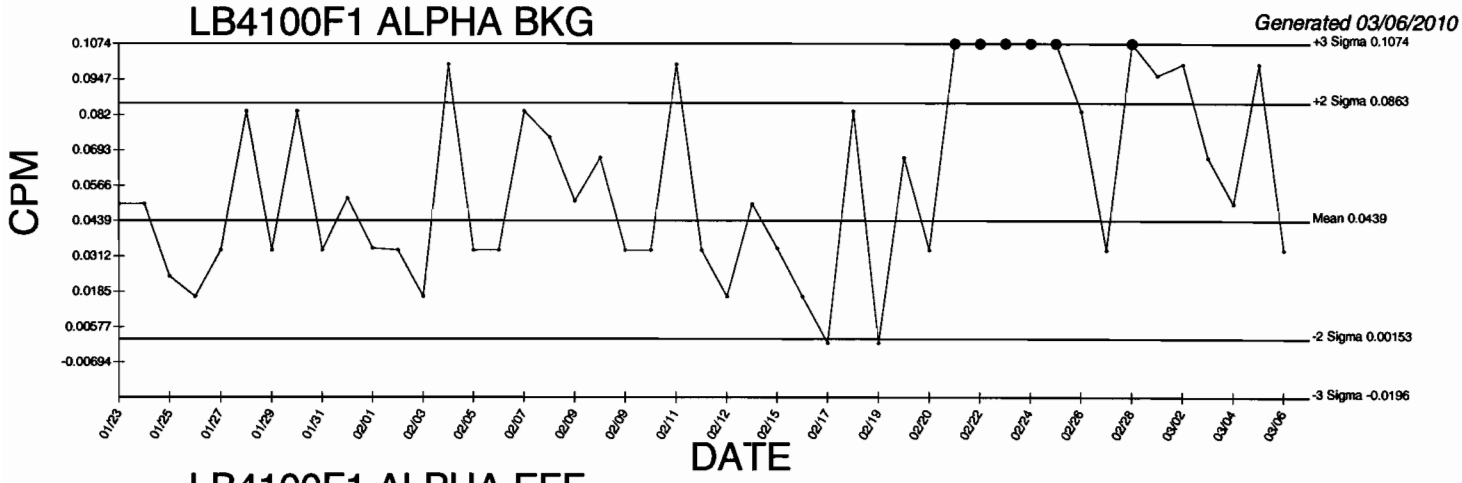

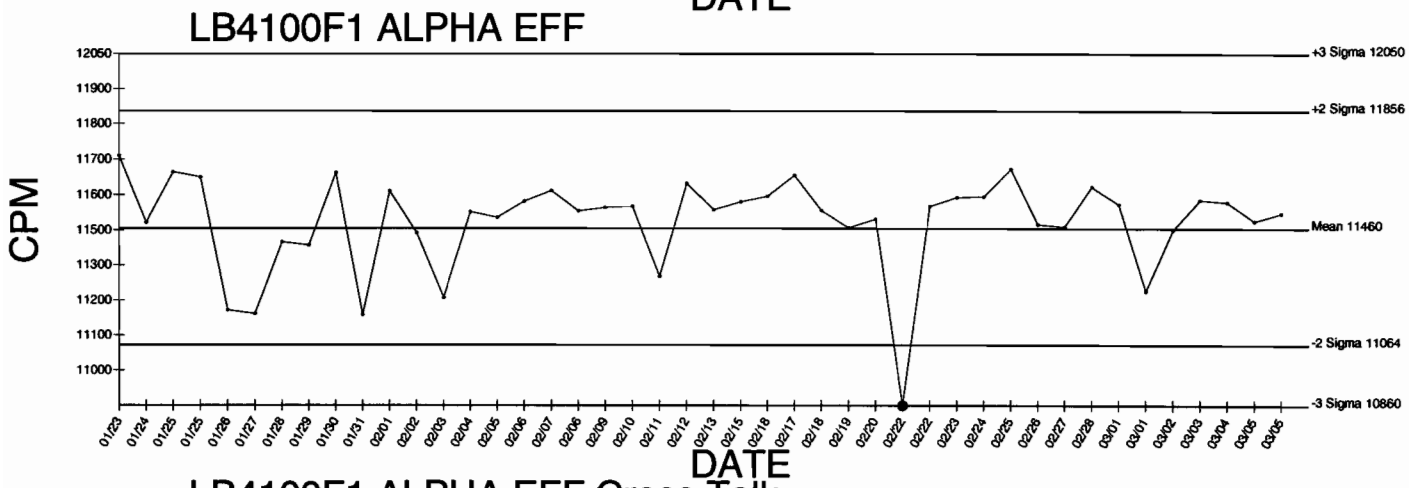

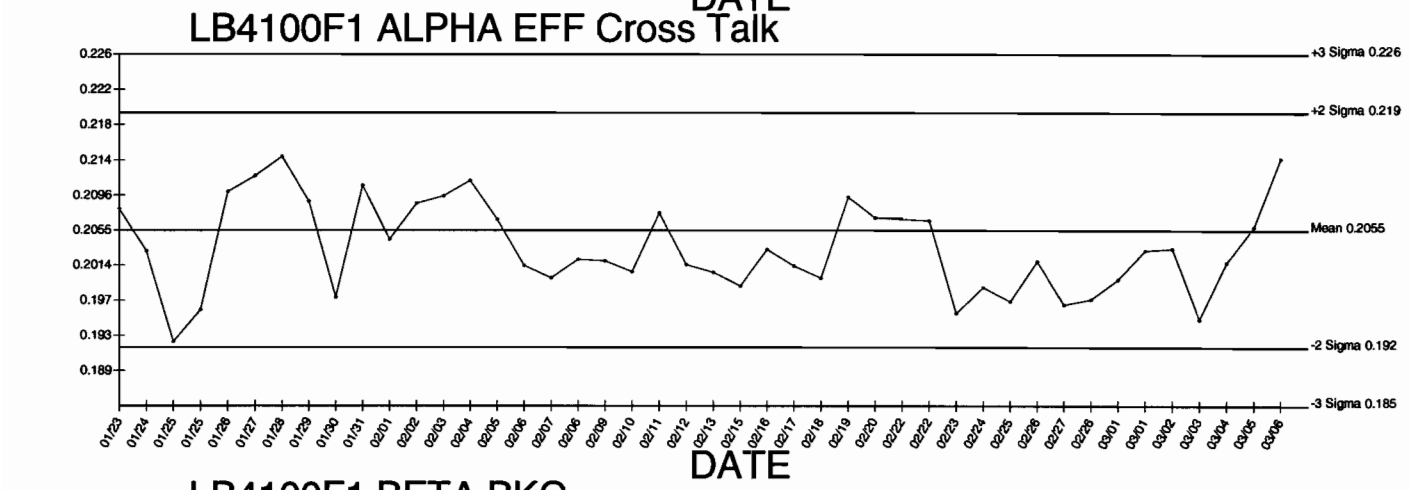

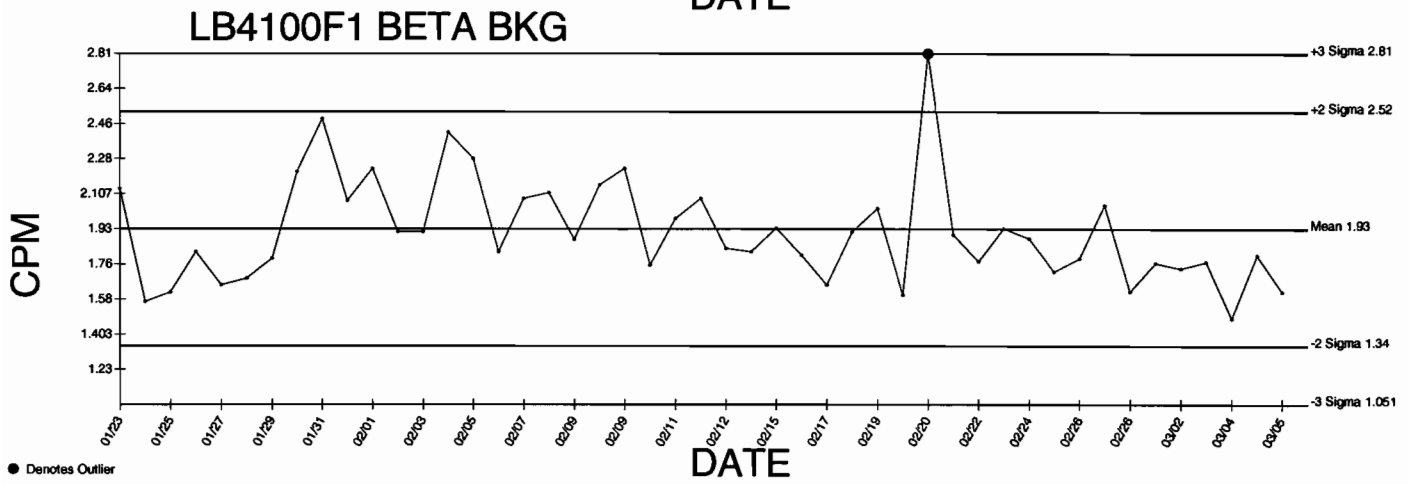

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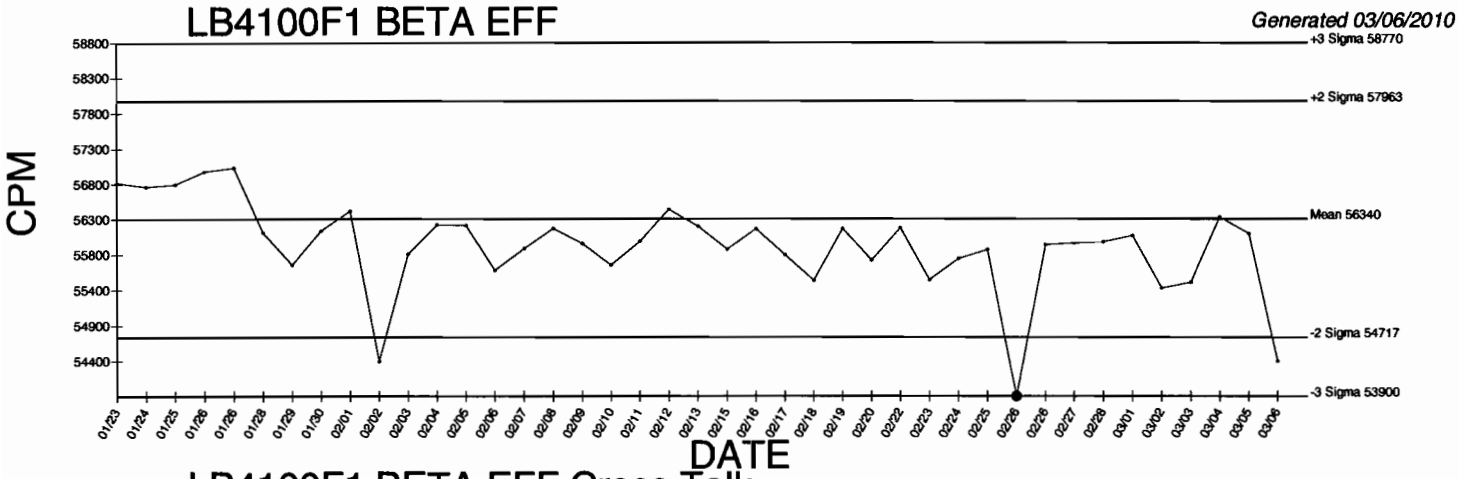

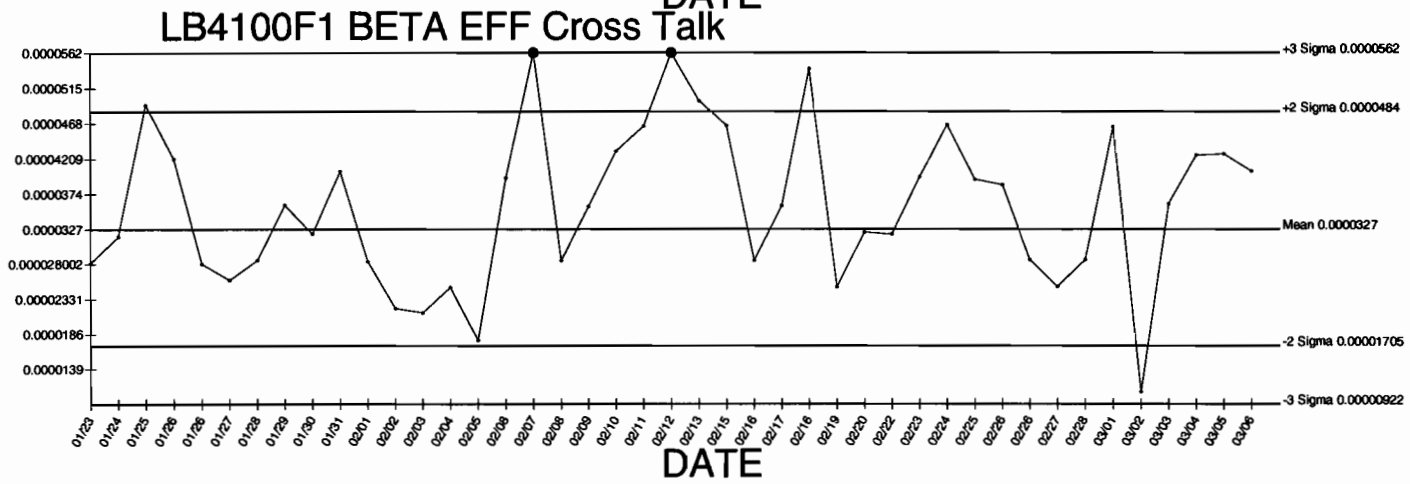

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Generated 03/05/2010

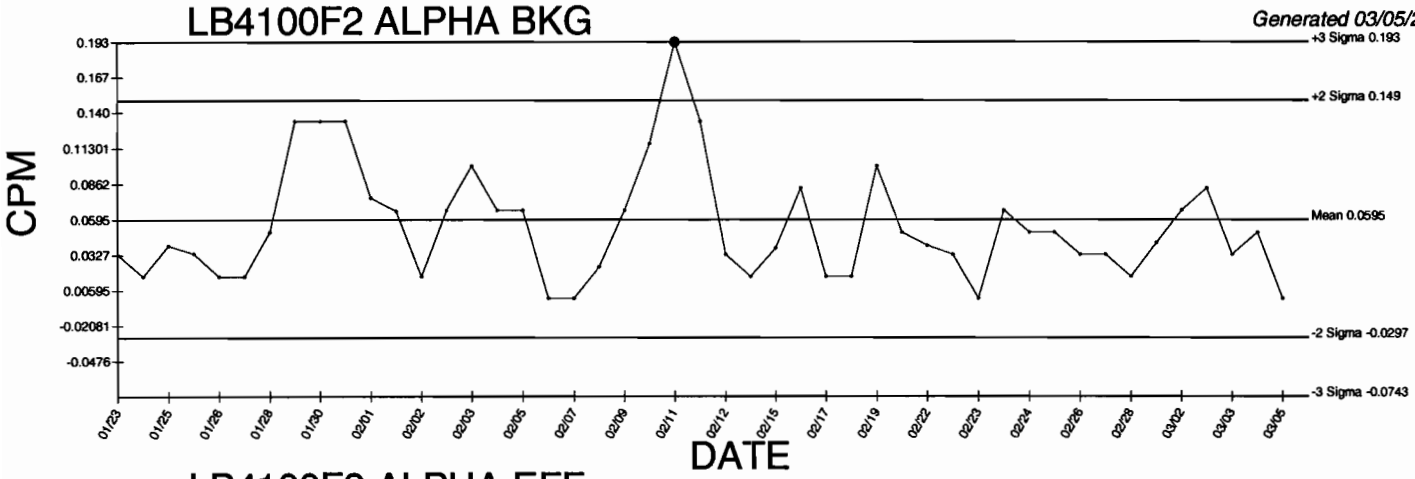

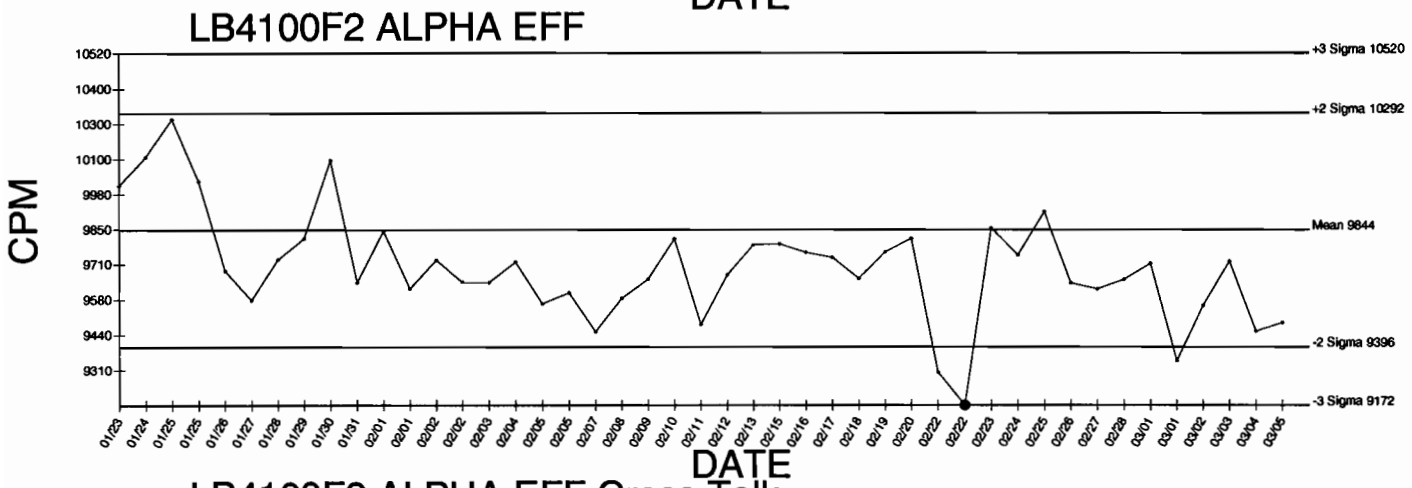

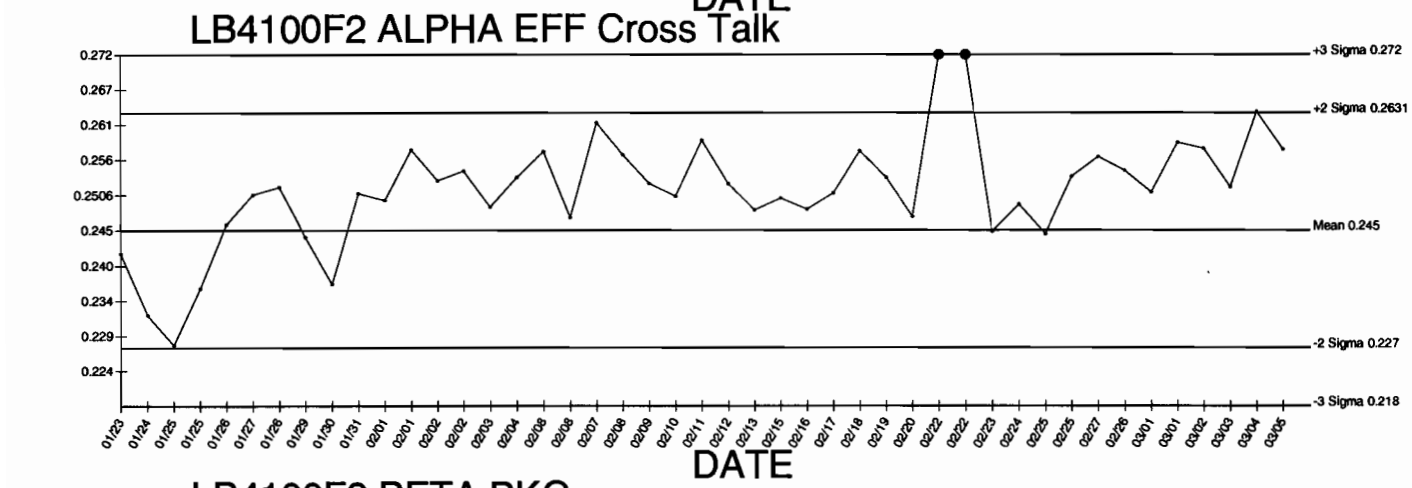

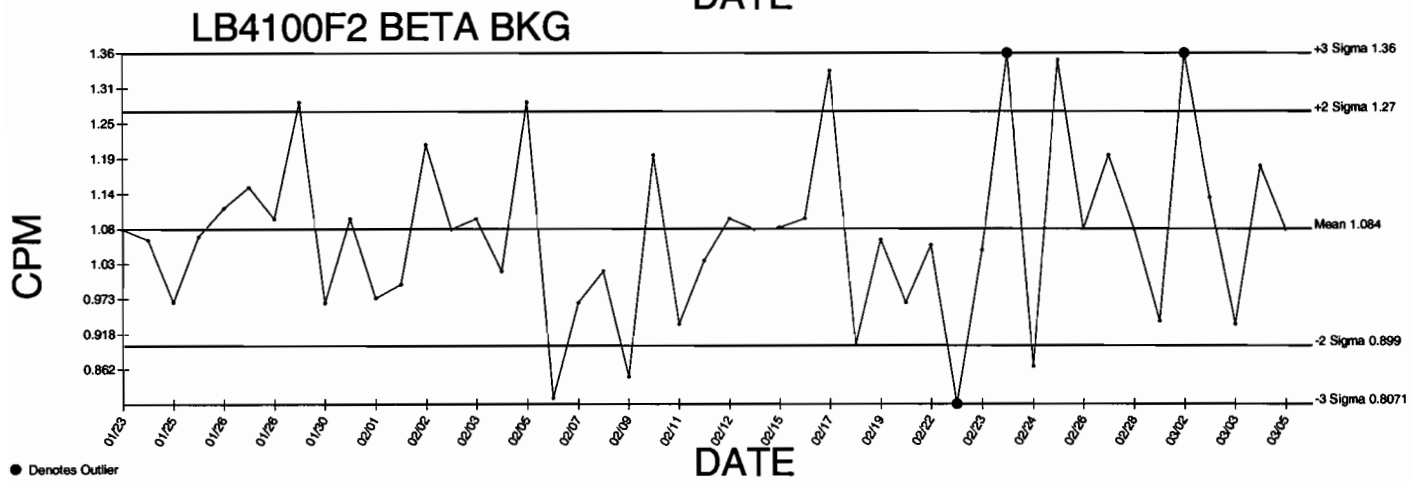

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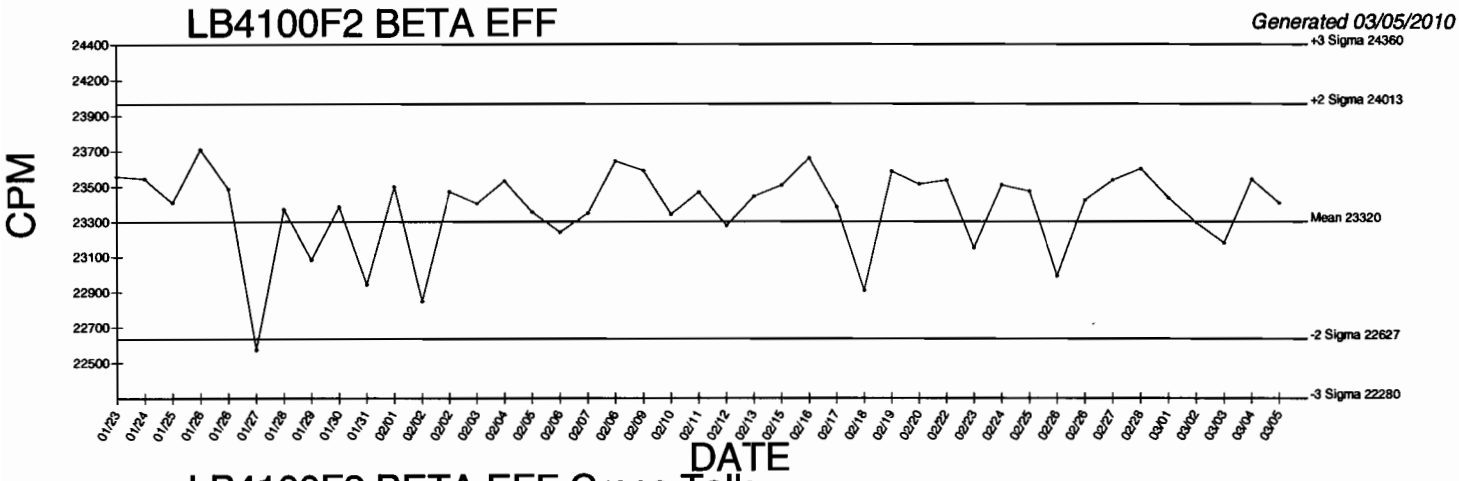

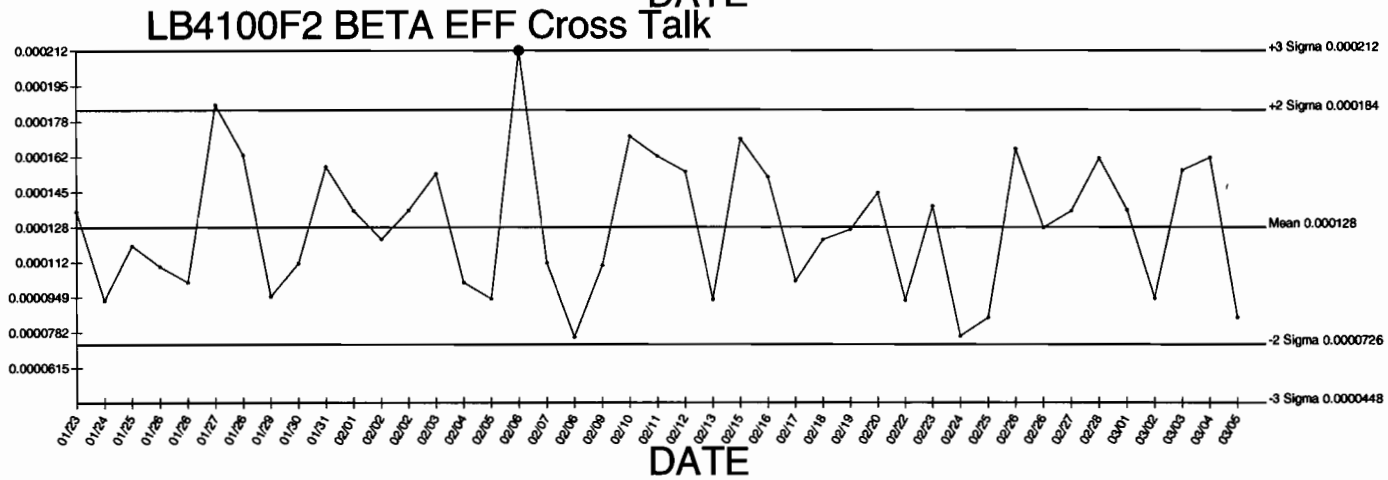

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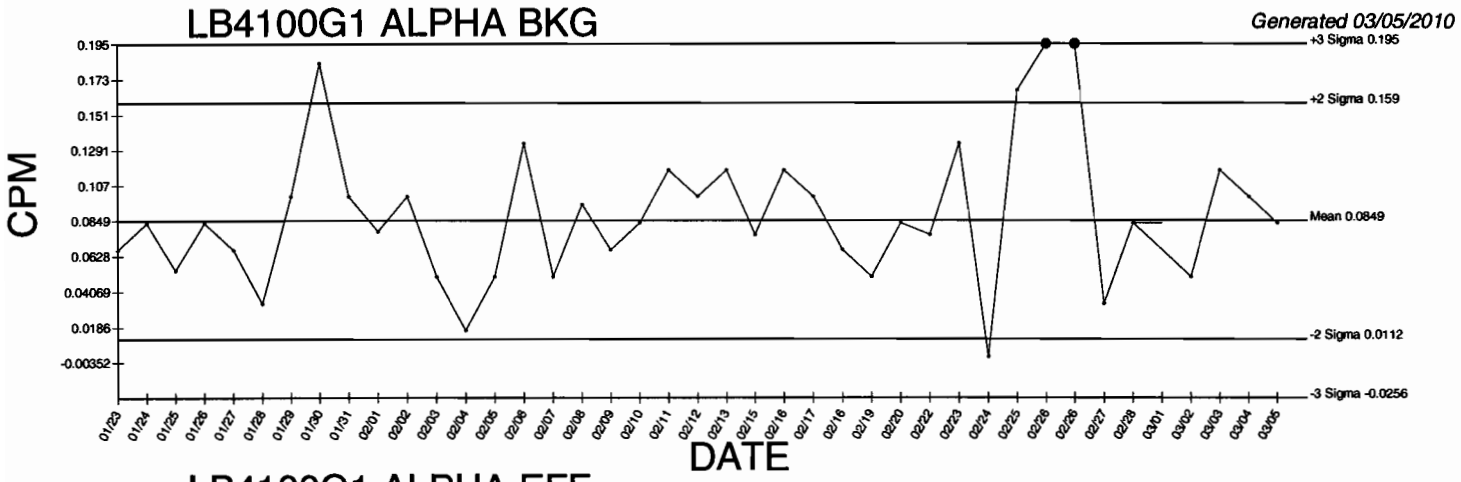
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Generated 03/05/2010
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Mean 0.0849
-2 Sigma 0.0112
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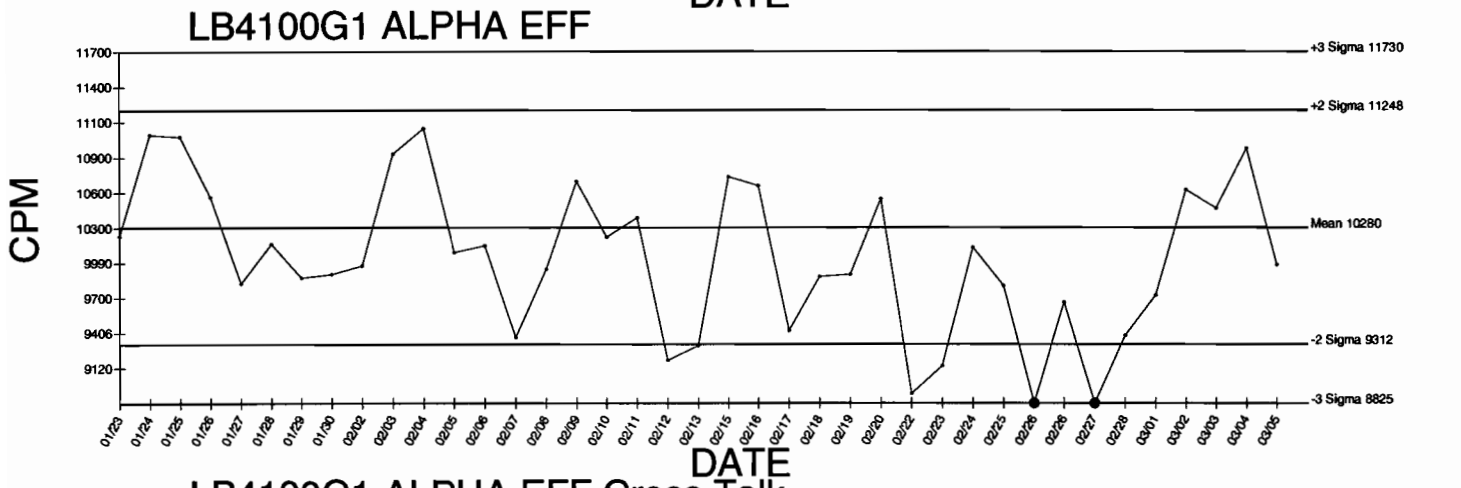
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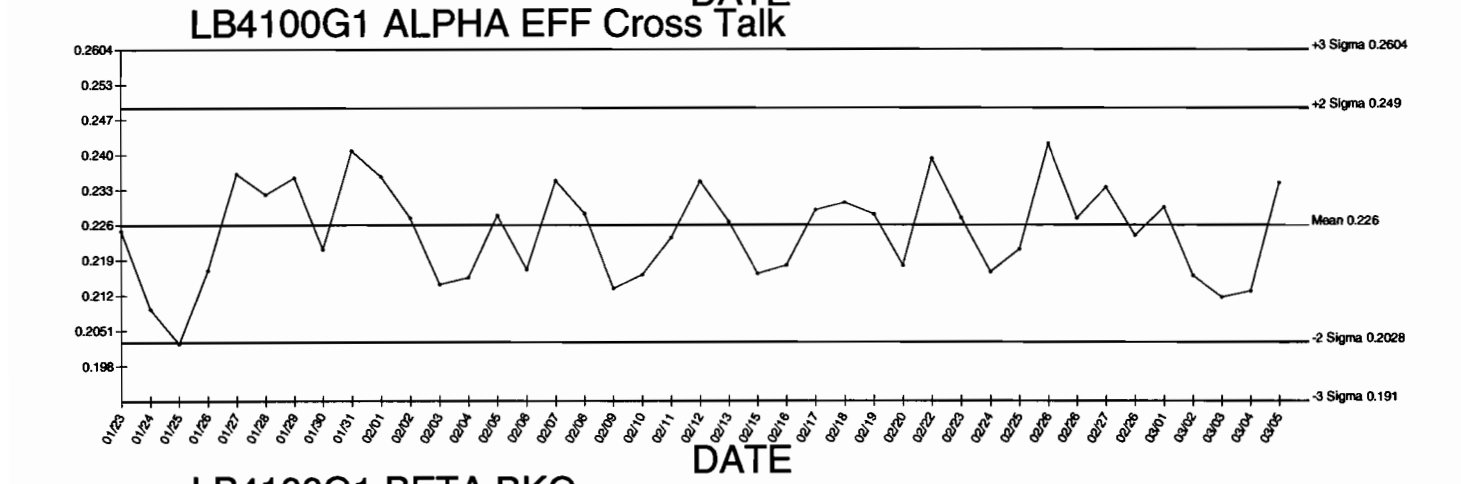
LB4100G1 ALPHA EFF Cross Talk
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+2 Sigma 0.249
Mean 0.226
-2 Sigma 0.2028
-3 Sigma 0.191

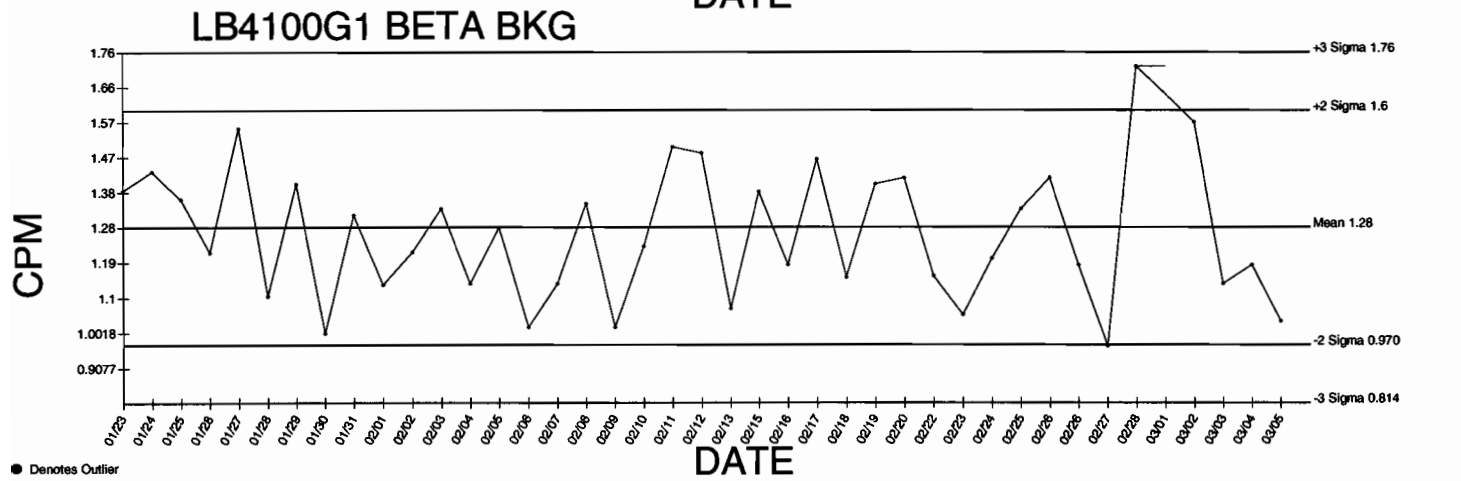
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CPM
DATE
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● Denotes Outlier

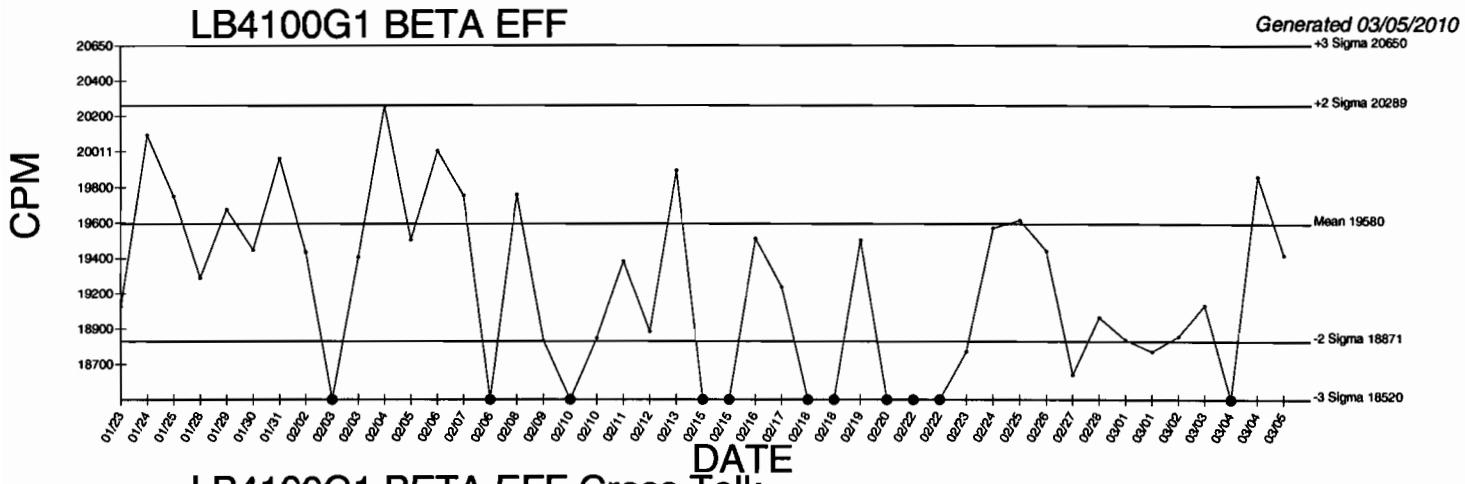

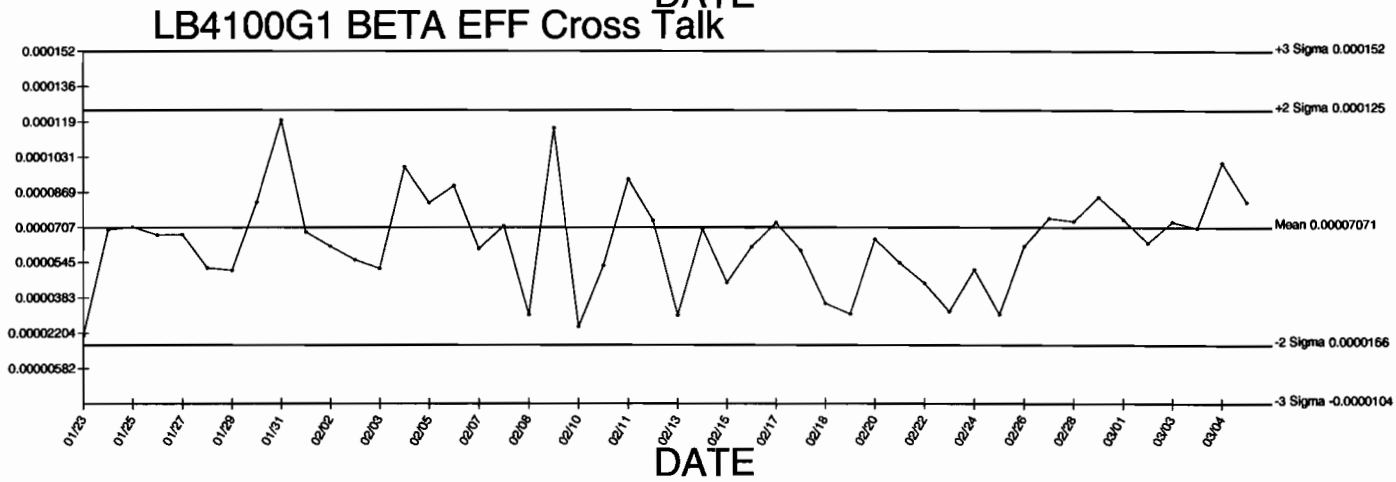

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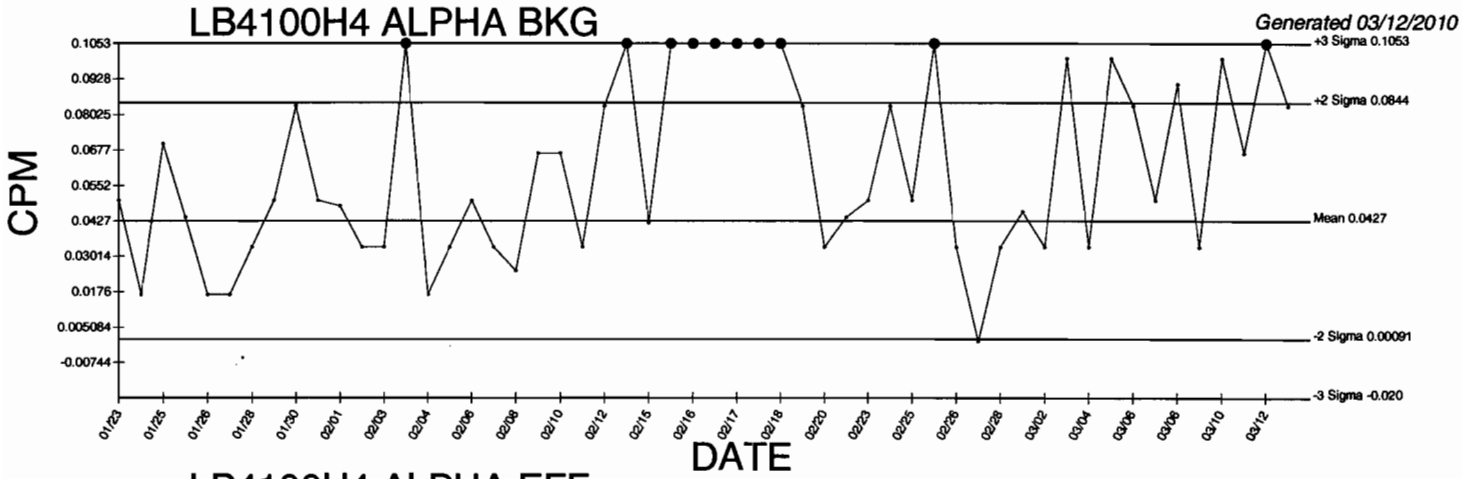

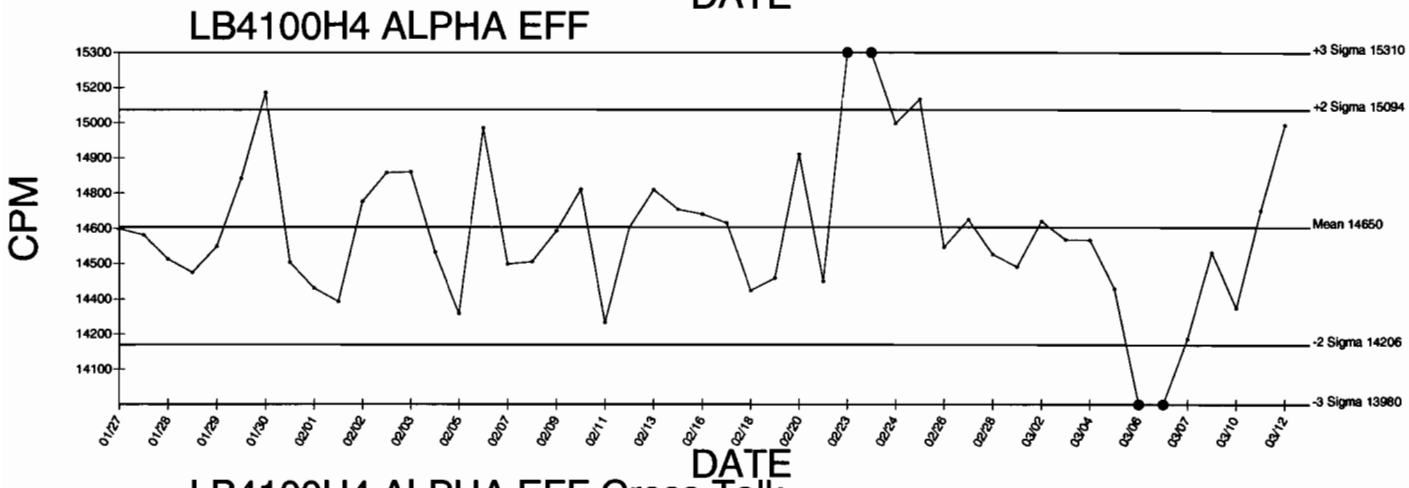

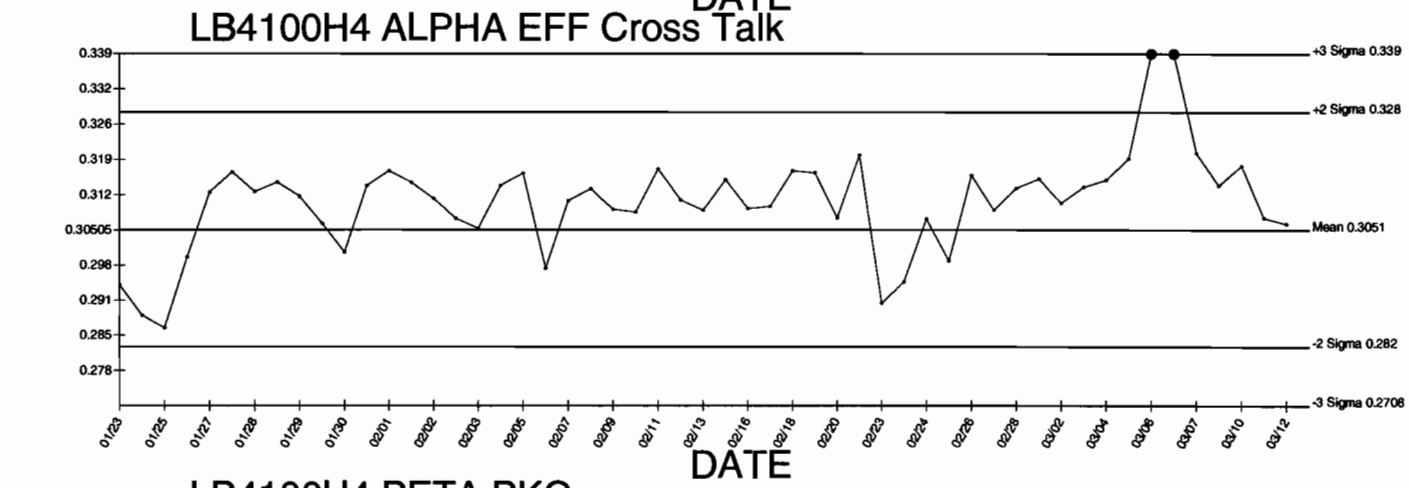

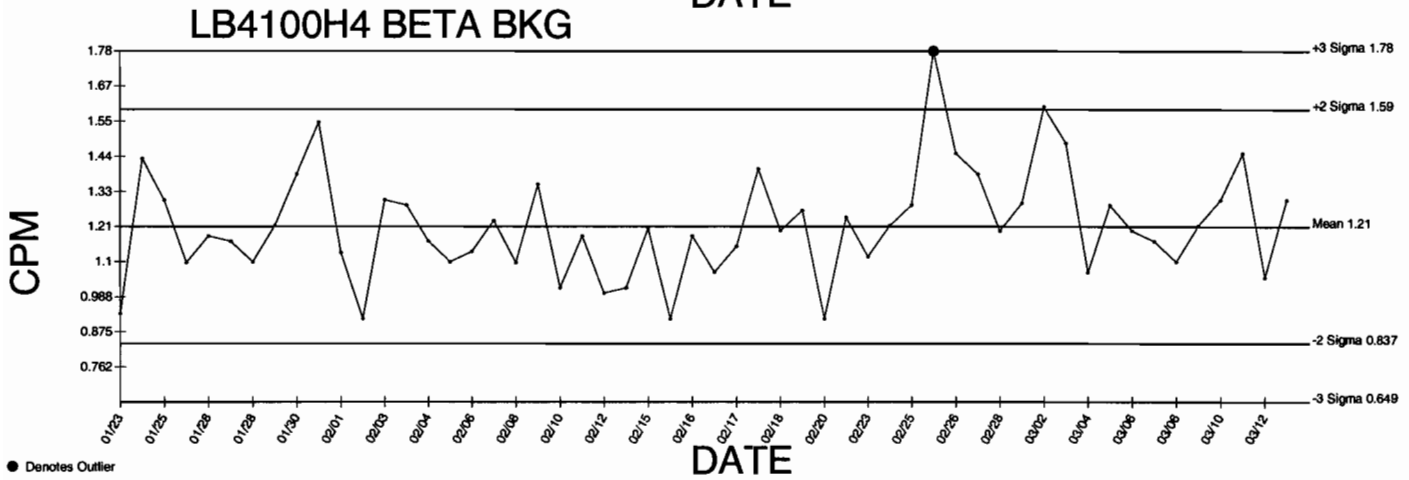

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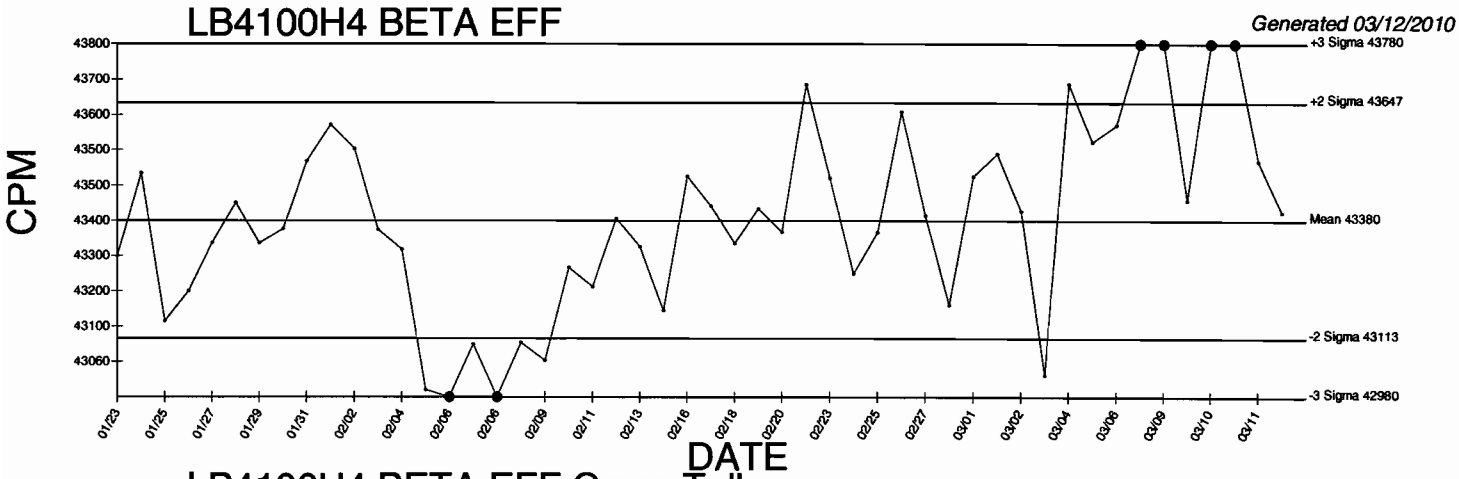

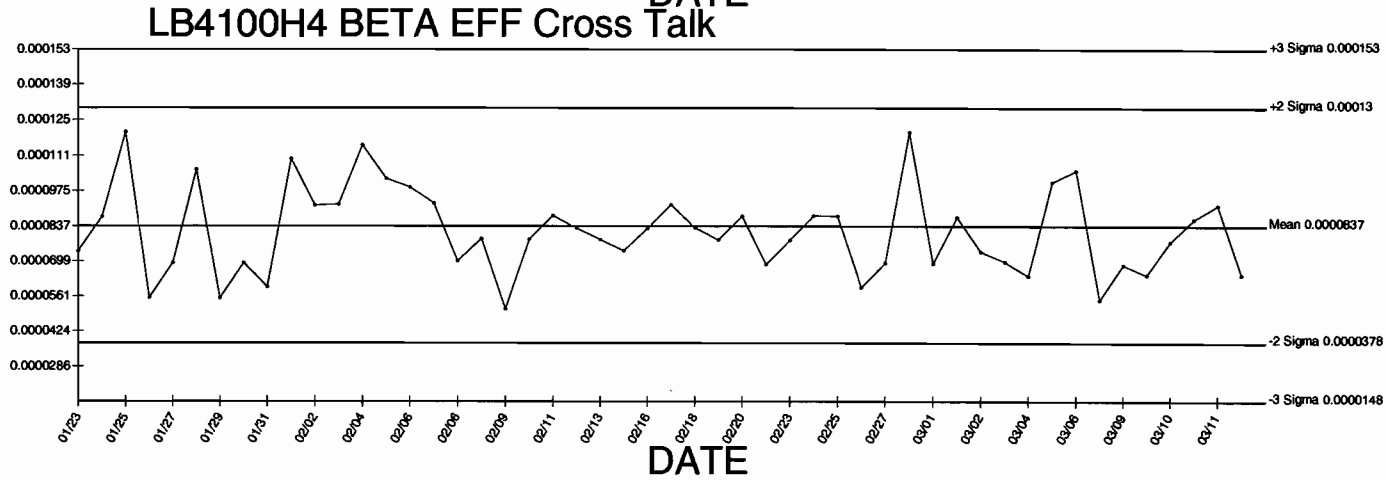

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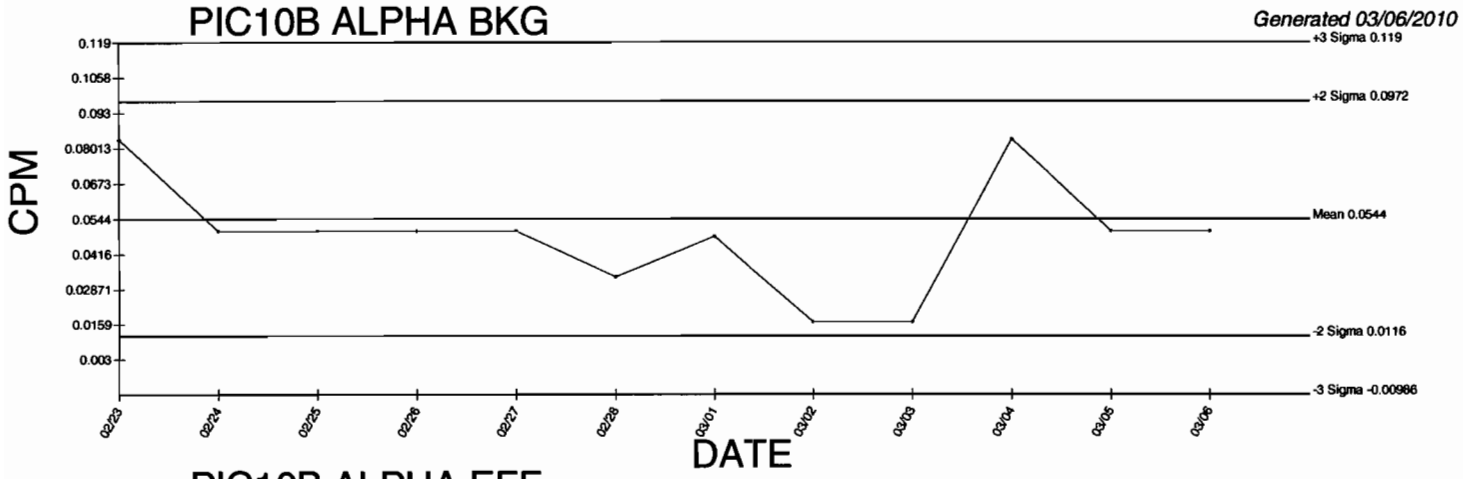
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0.0159
0.003
+3 Sigma 0.119
+2 Sigma 0.0972
Mean 0.0544
-2 Sigma 0.0116
-3 Sigma -0.00986
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
03/06
DATE

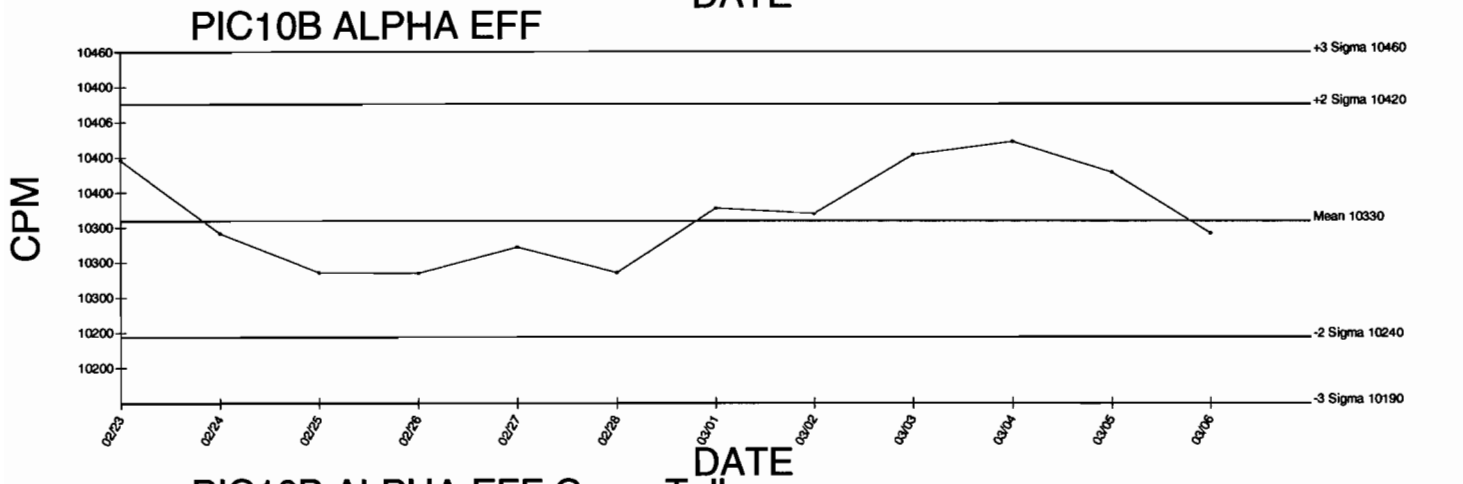
PIC10B ALPHA EFF
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10400
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10300
10300
10300
10200
10200
+3 Sigma 10460
+2 Sigma 10420
Mean 10330
-2 Sigma 10240
-3 Sigma 10190
02/23
02/24
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02/26
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03/05
03/06
DATE

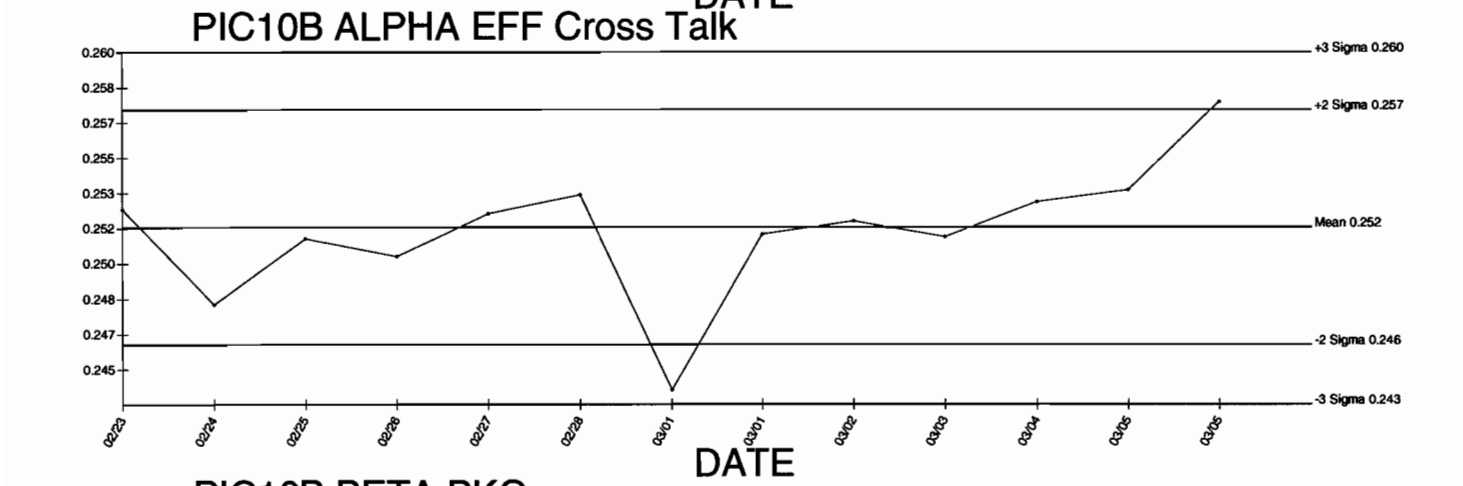
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0.252
0.250
0.248
0.247
0.245
+3 Sigma 0.260
+2 Sigma 0.257
Mean 0.252
-2 Sigma 0.246
-3 Sigma 0.243
02/23
02/24
02/25
02/26
02/27
02/28
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03/05
03/05
DATE

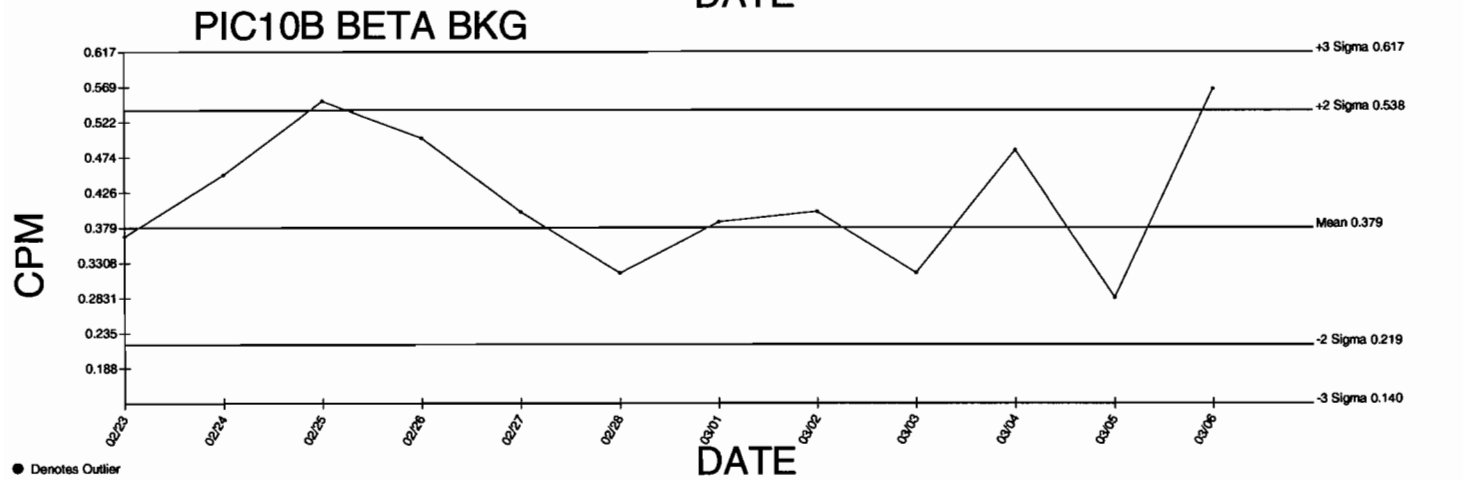
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0.426
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0.3308
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0.188
+3 Sigma 0.617
+2 Sigma 0.538
Mean 0.379
-2 Sigma 0.219
-3 Sigma 0.140
02/23
02/24
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DATE
● Denotes Outlier

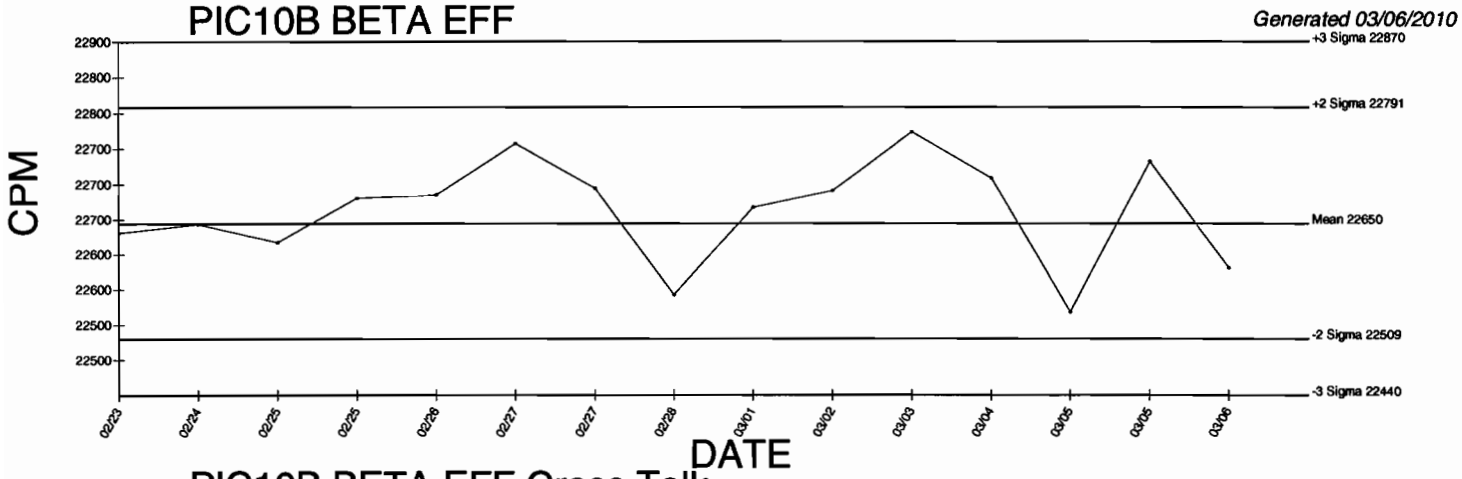

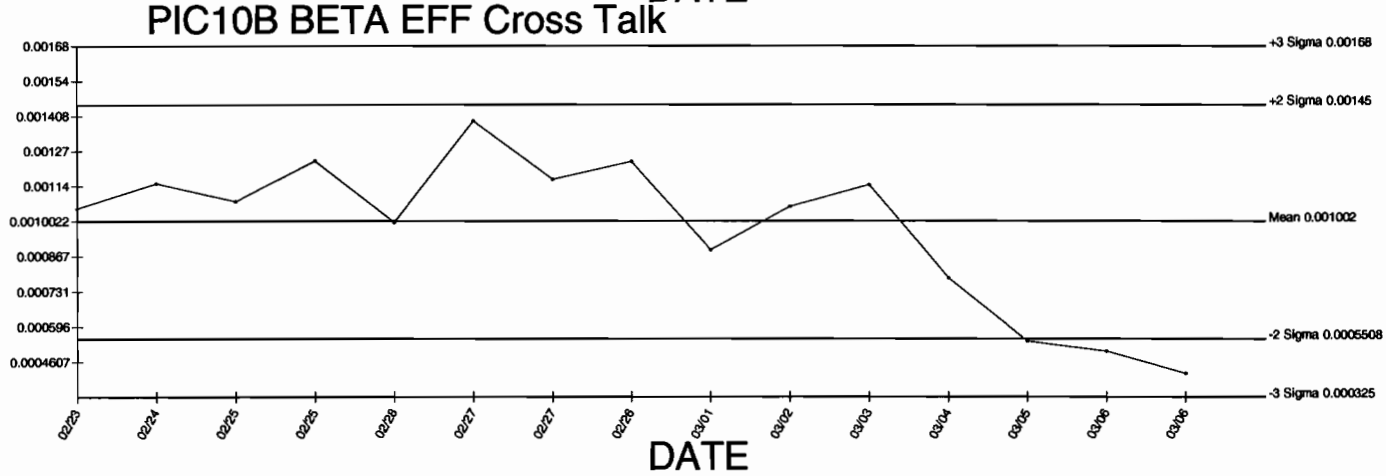

● Denotes Outlier

PIC13A ALPHA BKG

Generated 03/04/2010

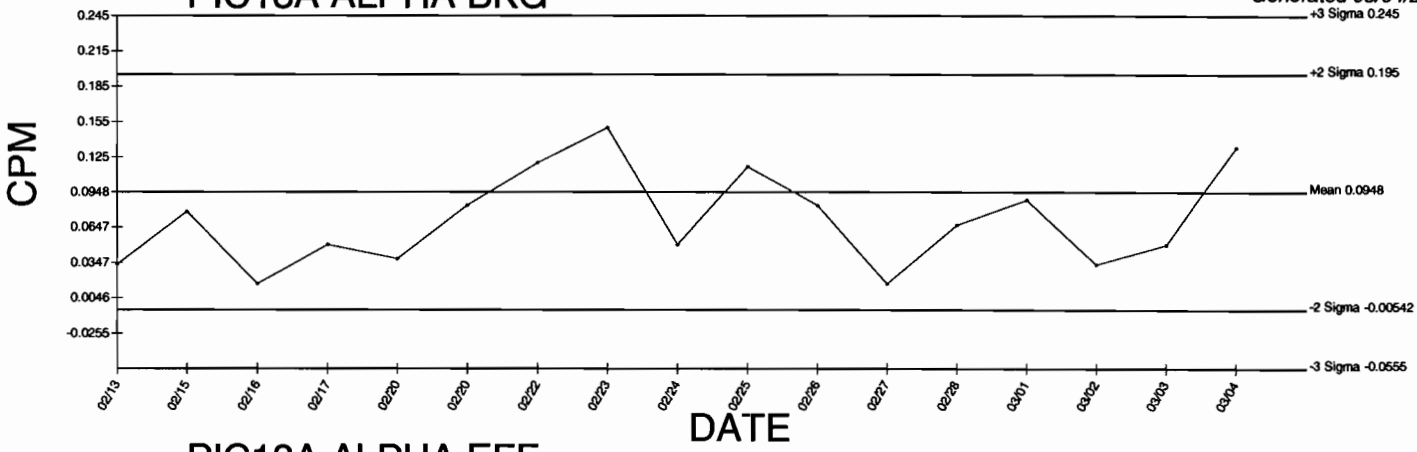

PIC13A ALPHA EFF

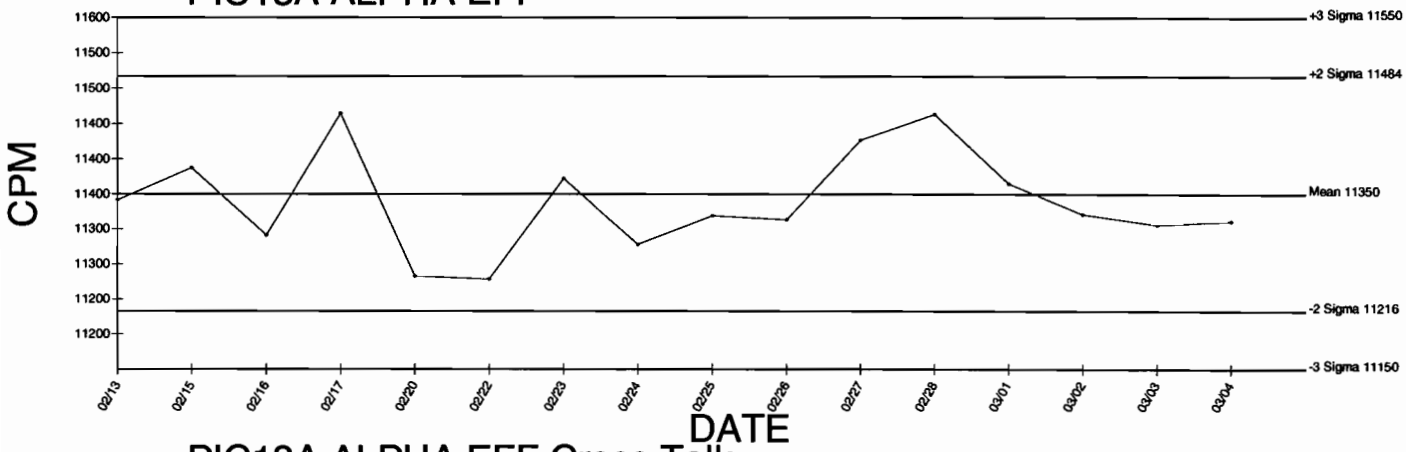

PIC13A ALPHA EFF Cross Talk

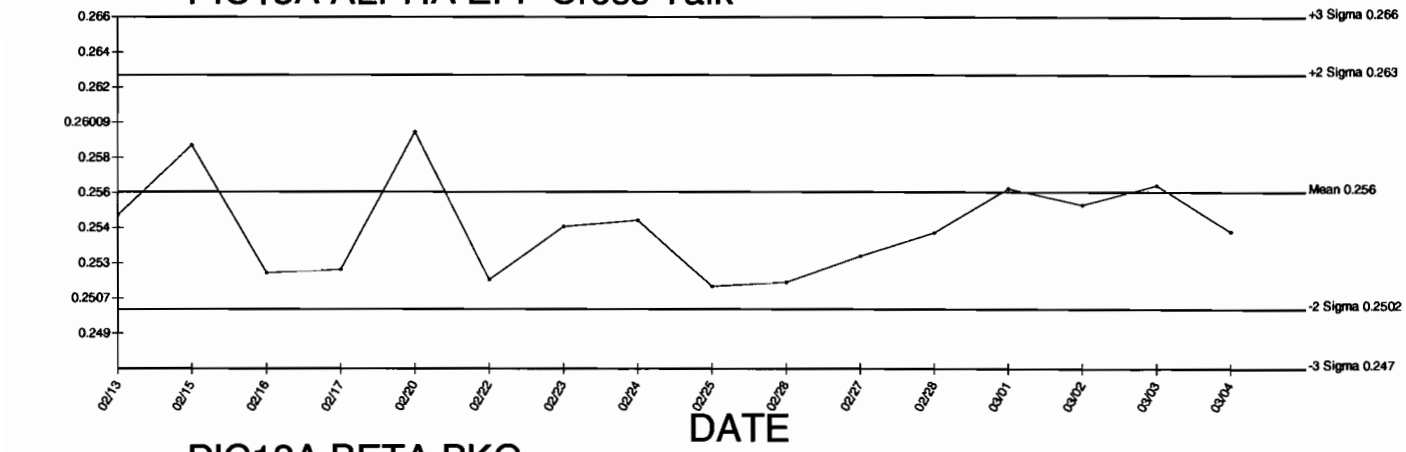

PIC13A BETA BKG

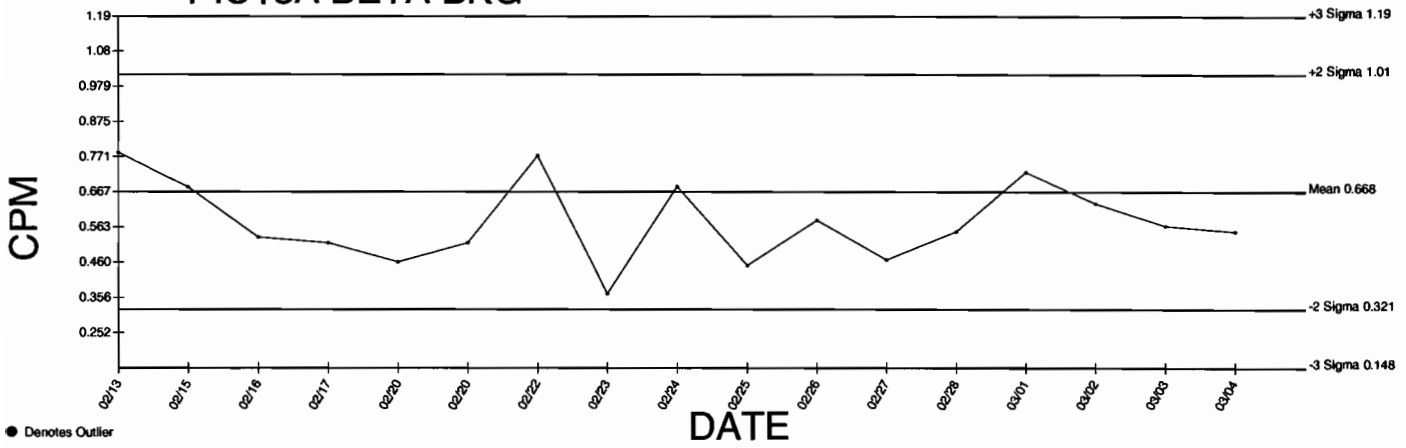

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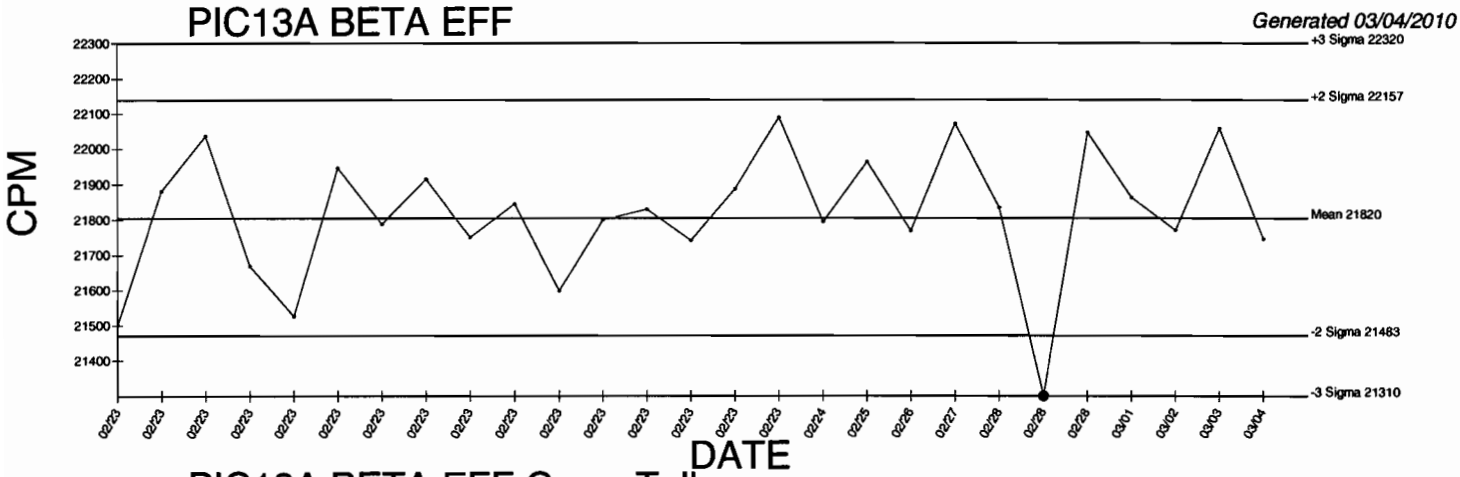

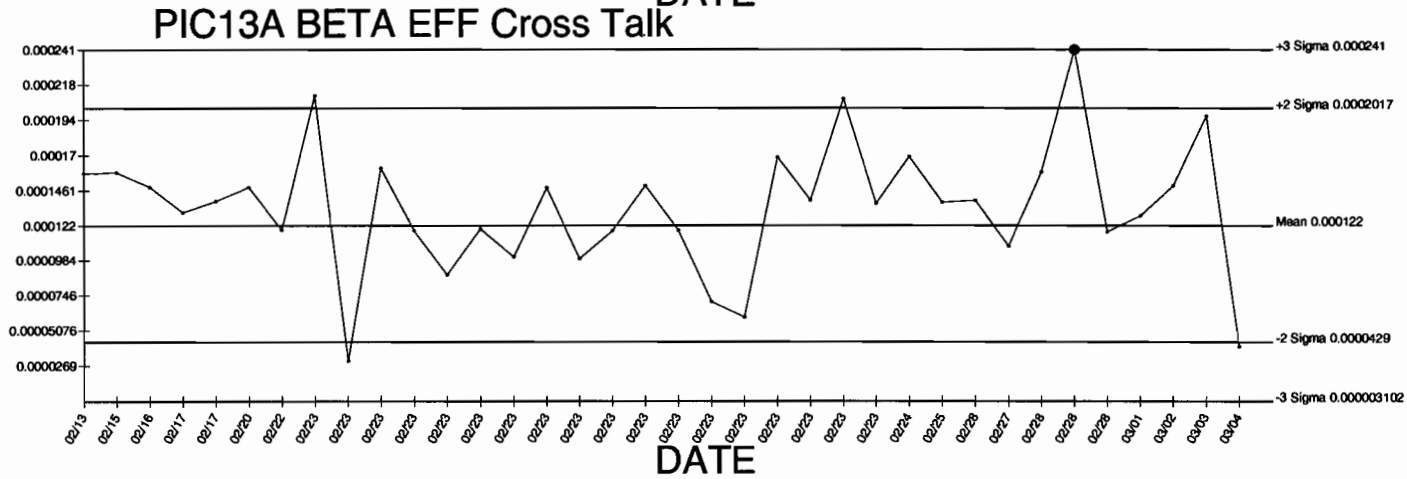

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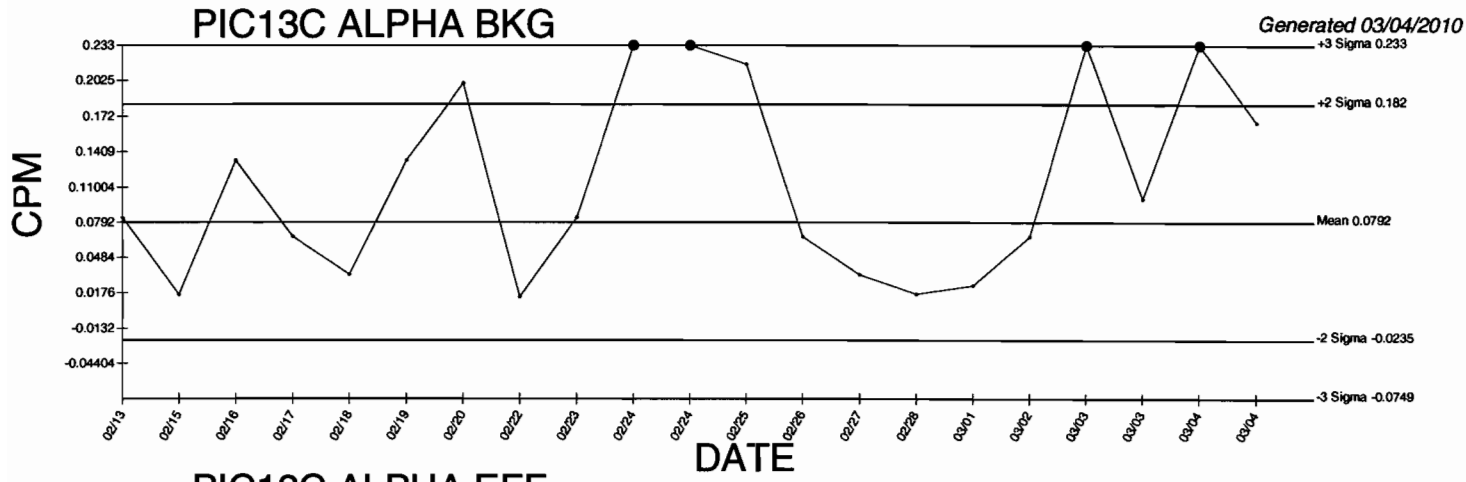

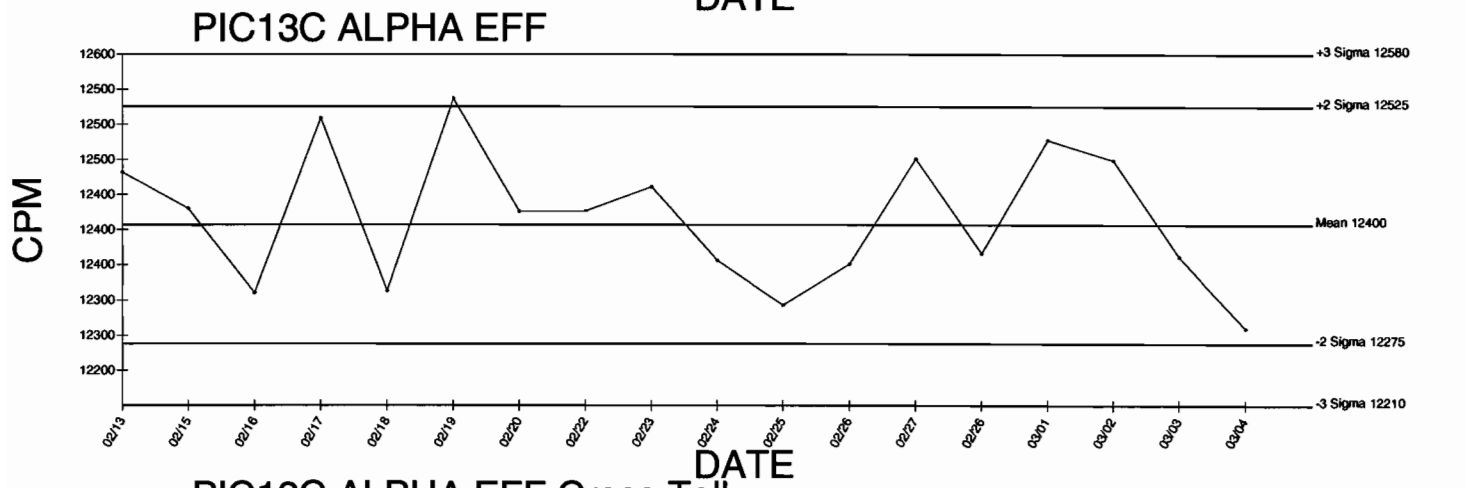

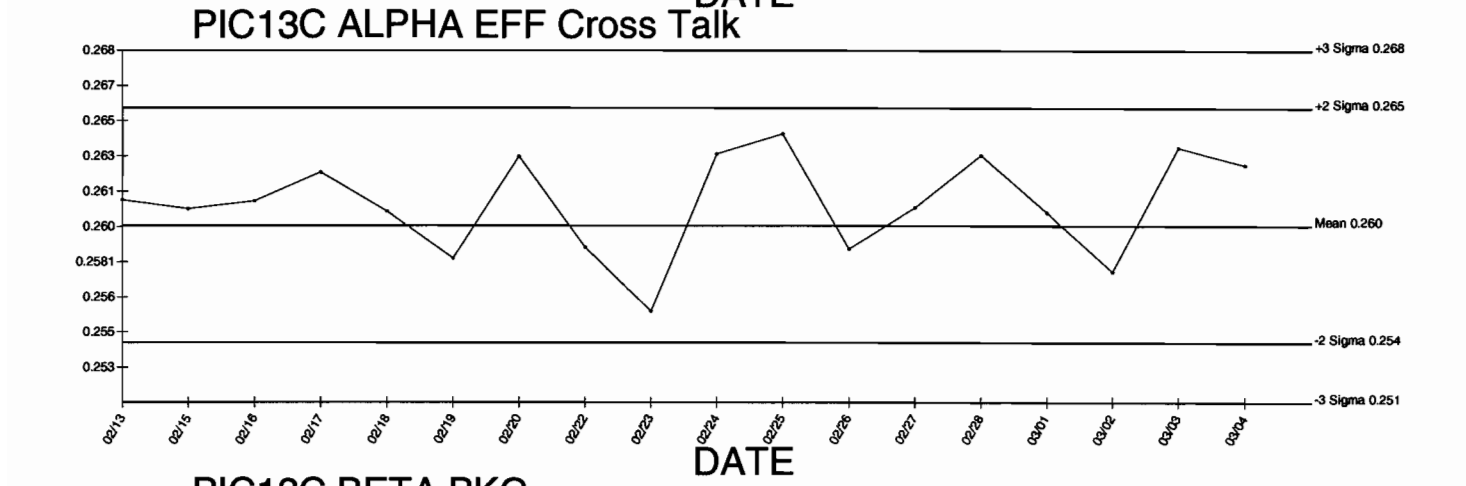

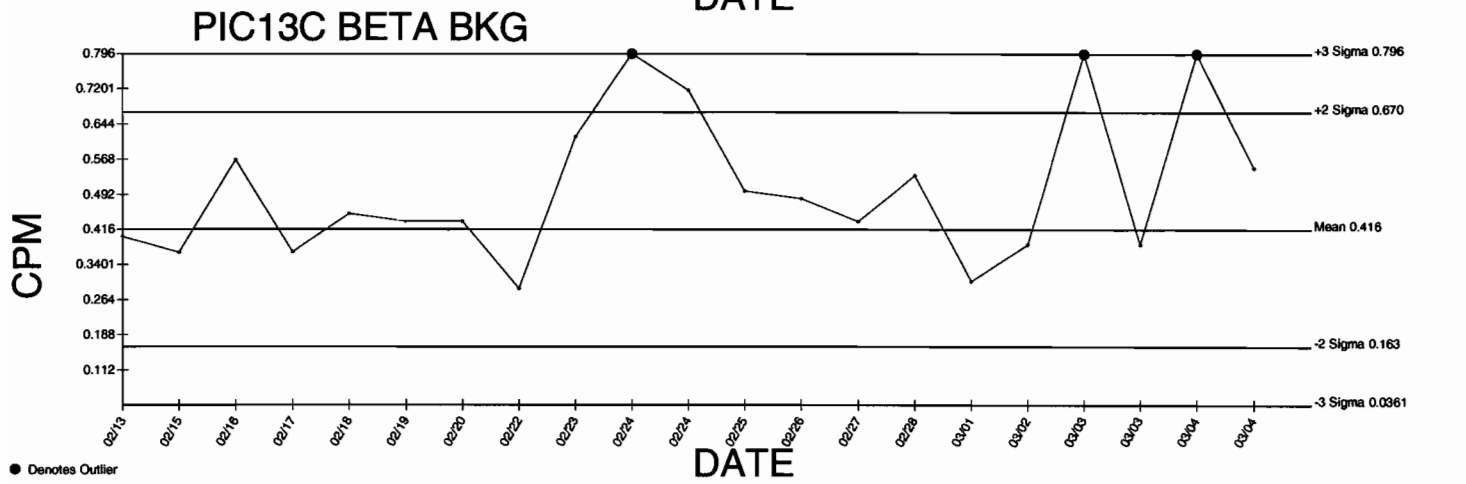

● Denotes Outlier

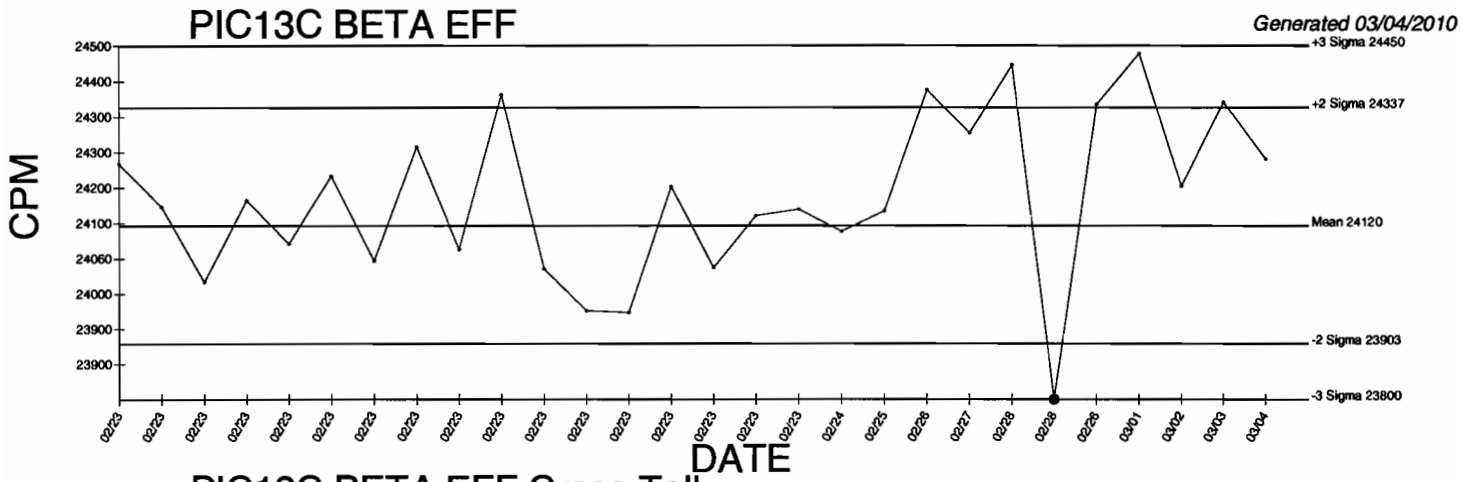

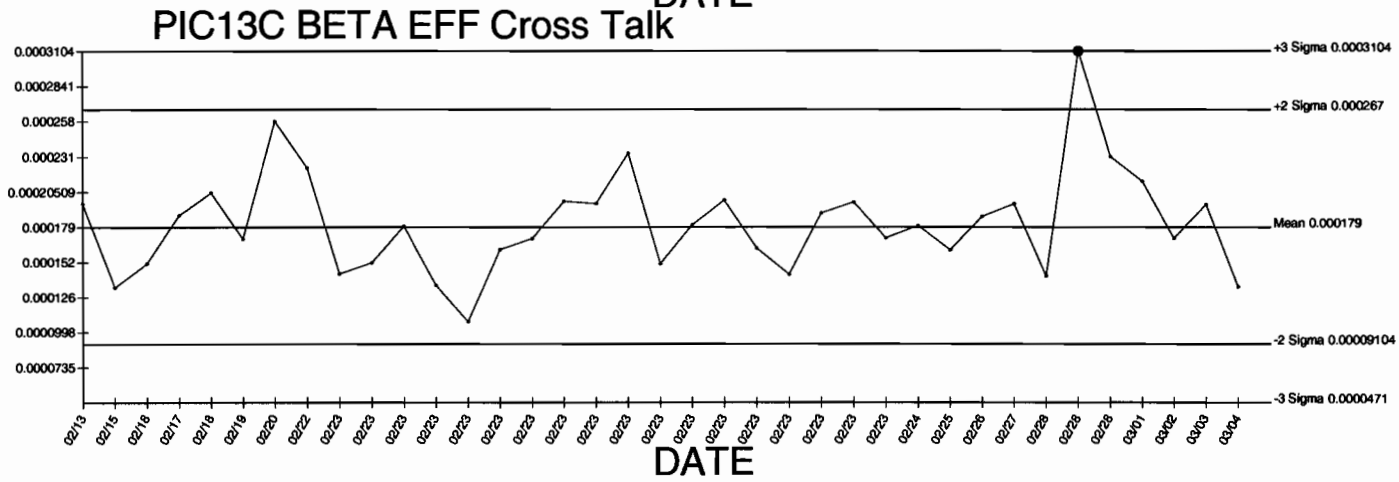

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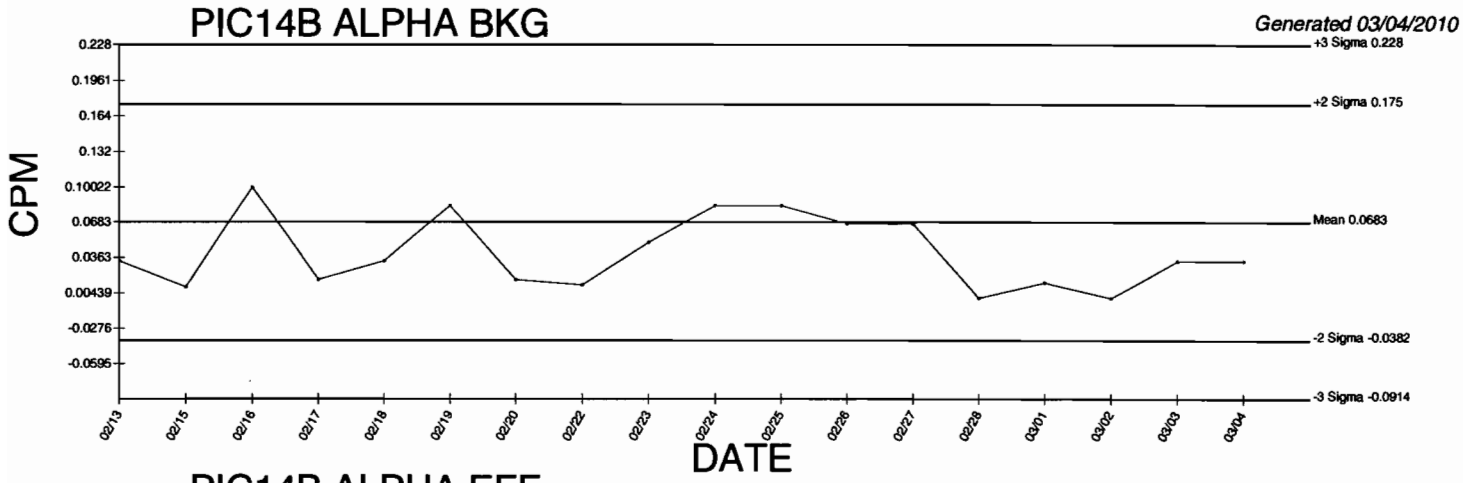
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Generated 03/04/2010
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0.164
0.132
0.10022
0.0683
0.0363
0.00439
-0.0276
-0.0595
+3 Sigma 0.228
+2 Sigma 0.175
Mean 0.0683
-2 Sigma -0.0382
-3 Sigma -0.0914
02/13
02/15
02/16
02/17
02/18
02/19
02/20
02/22
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
DATE

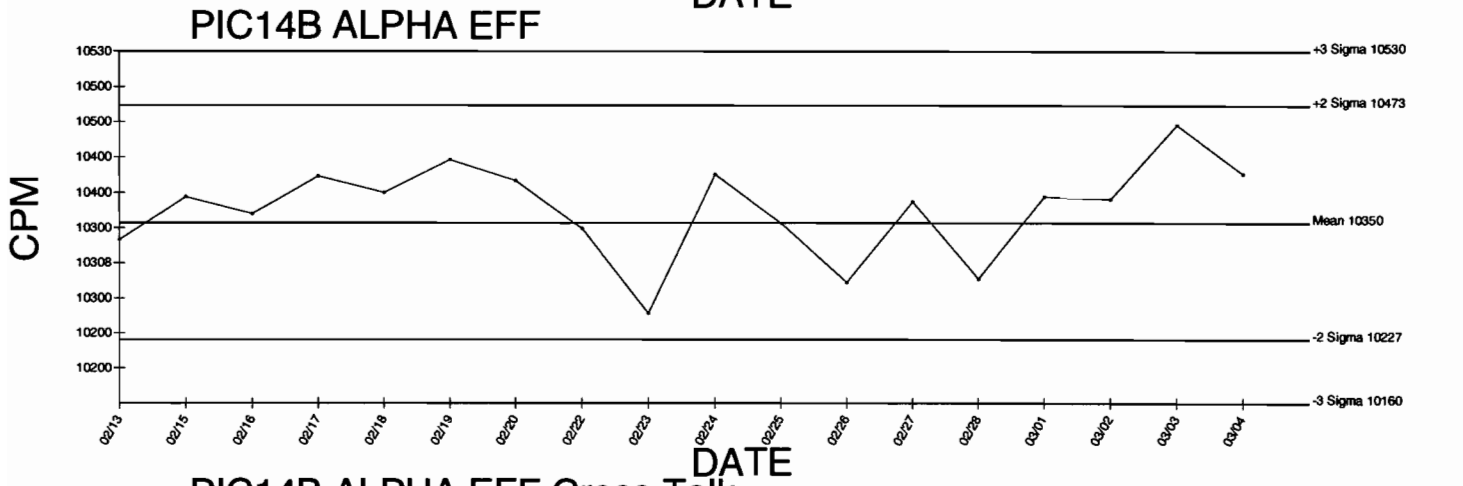
PIC14B ALPHA EFF
CPM
10530
10500
10500
10400
10400
10300
10308
10300
10200
10200
+3 Sigma 10530
+2 Sigma 10473
Mean 10350
-2 Sigma 10227
-3 Sigma 10160
02/13
02/15
02/16
02/17
02/18
02/19
02/20
02/22
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02/26
02/27
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03/01
03/02
03/03
03/04
DATE

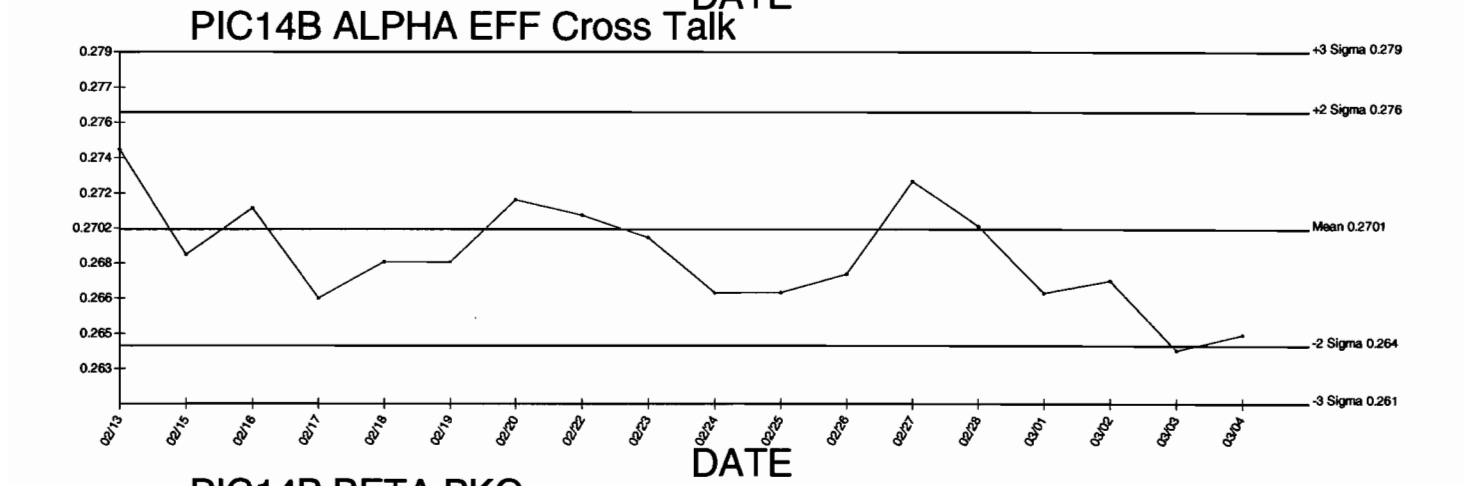
PIC14B ALPHA EFF Cross Talk
0.279
0.277
0.276
0.274
0.272
0.2702
0.268
0.266
0.265
0.263
+3 Sigma 0.279
+2 Sigma 0.276
Mean 0.2701
-2 Sigma 0.264
-3 Sigma 0.261
02/13
02/15
02/16
02/17
02/18
02/19
02/20
02/22
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
DATE

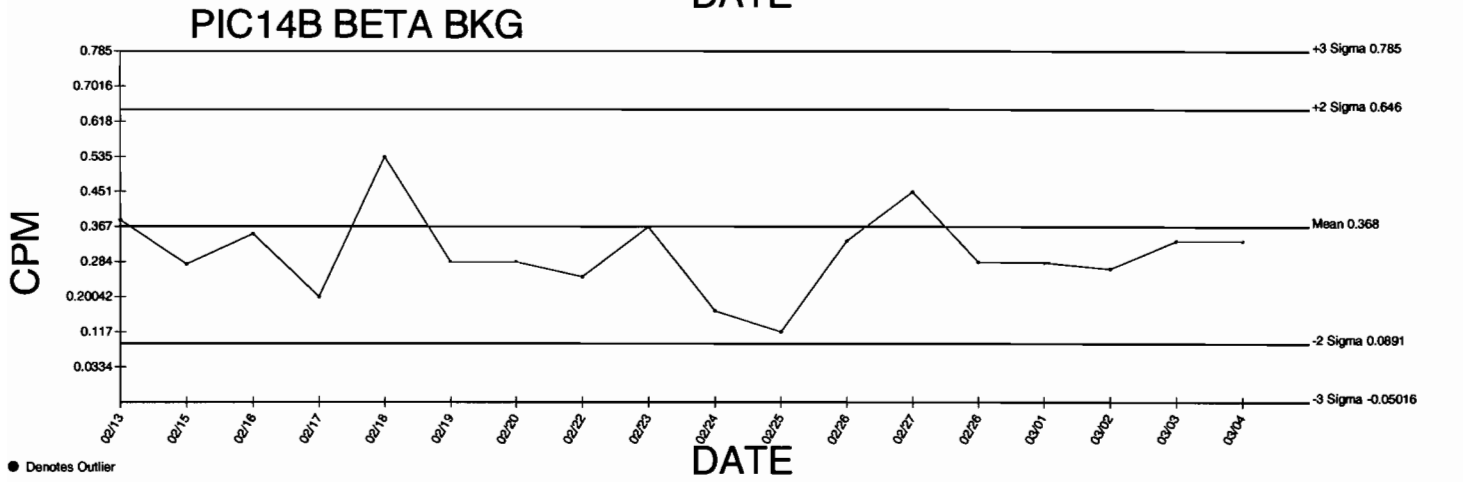
PIC14B BETA BKG
CPM
0.785
0.7016
0.618
0.535
0.451
0.367
0.284
0.20042
0.117
0.0334
+3 Sigma 0.785
+2 Sigma 0.646
Mean 0.368
-2 Sigma 0.0891
-3 Sigma -0.05016
02/13
02/15
02/16
02/17
02/18
02/19
02/20
02/22
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03/02
03/03
03/04
DATE
● Denotes Outlier

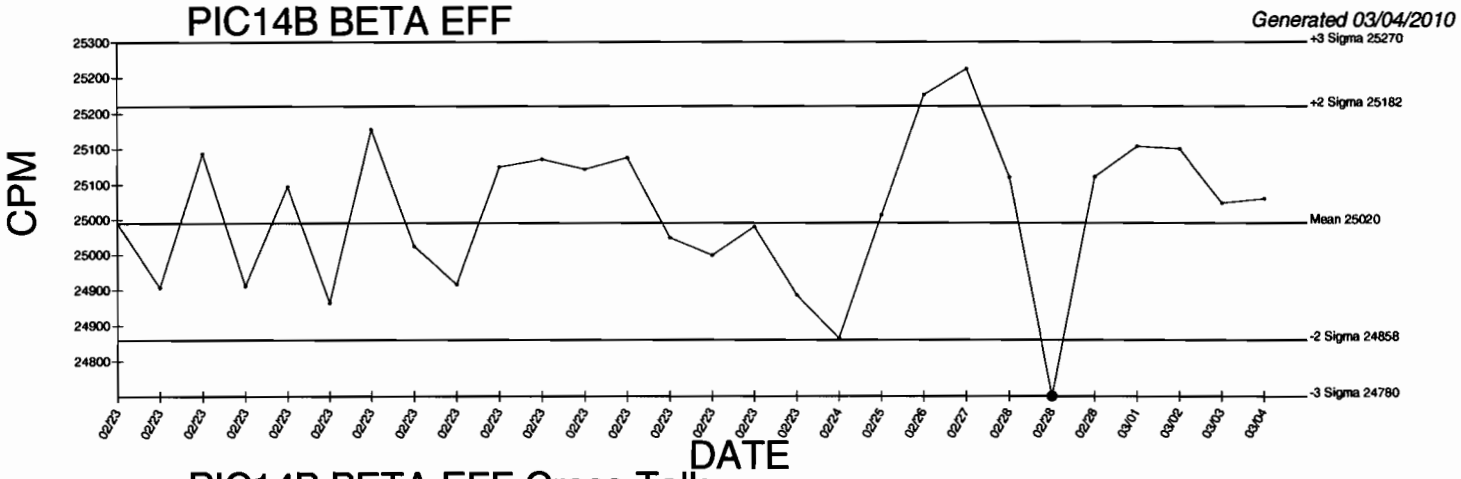

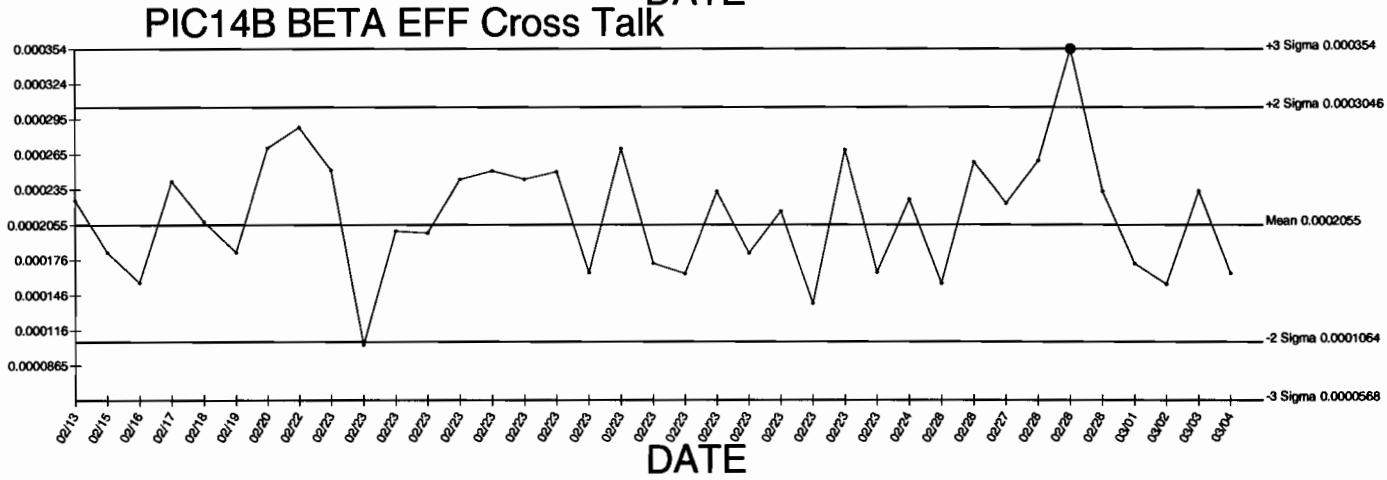

● Denotes Outlier

PIC14D ALPHA BKG

Generated 03/04/2010

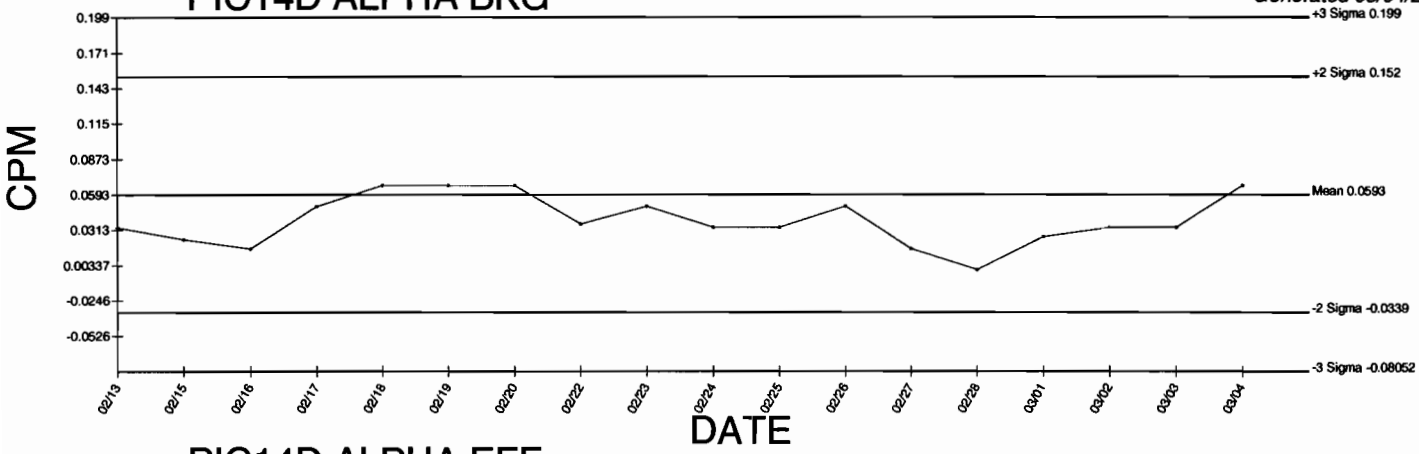

PIC14D ALPHA EFF

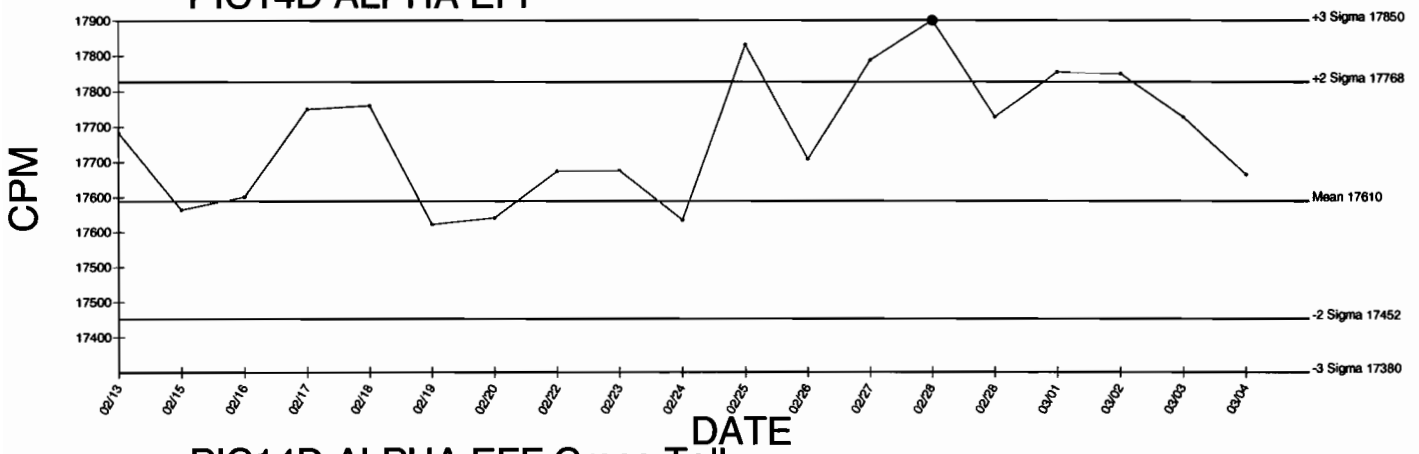

PIC14D ALPHA EFF Cross Talk

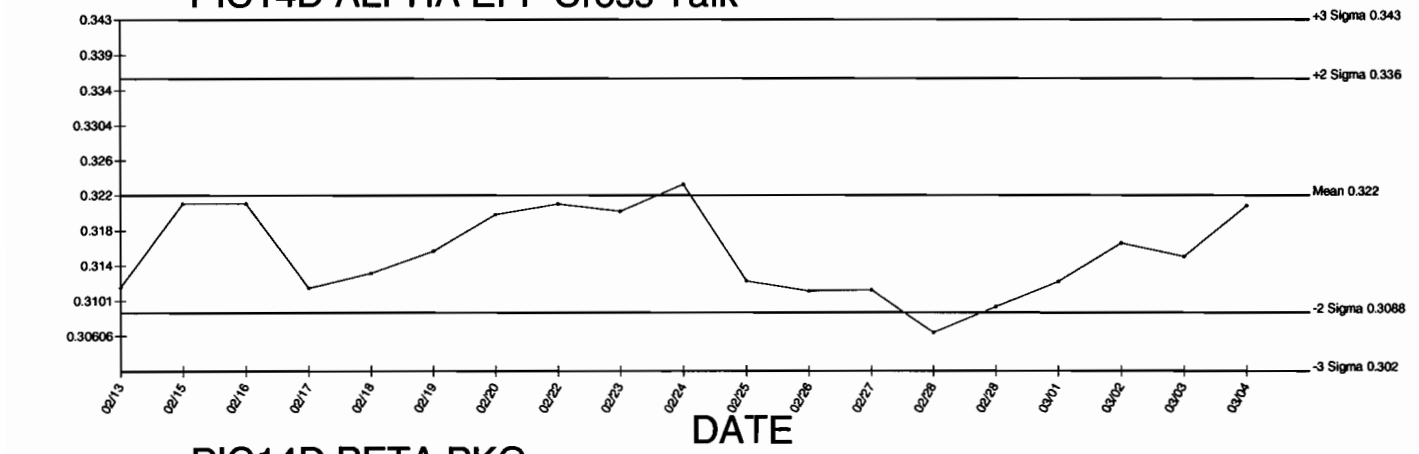

PIC14D BETA BKG

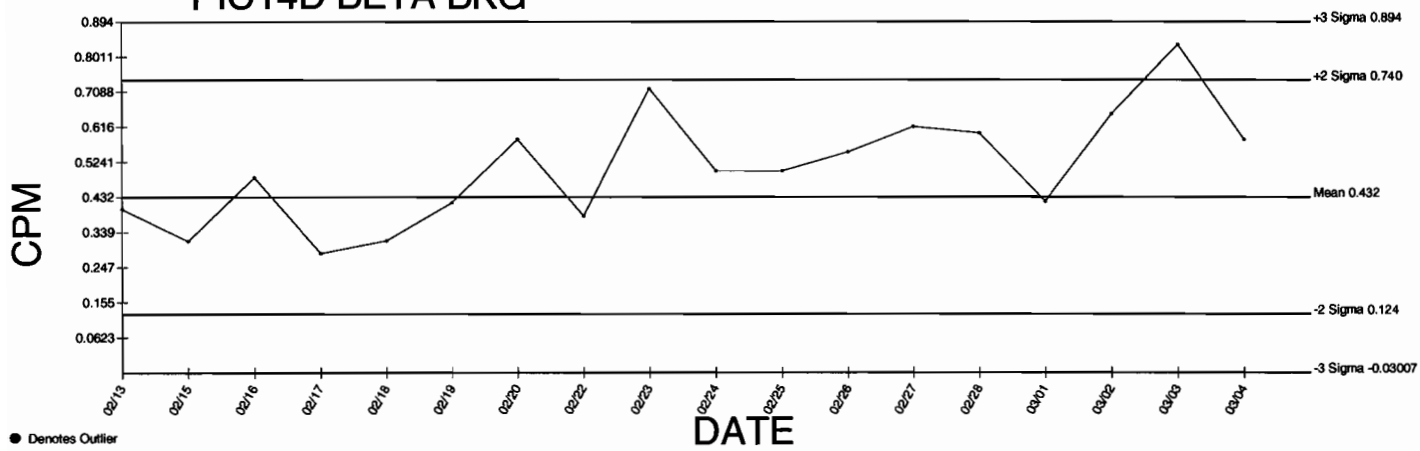

● Denotes Outlier

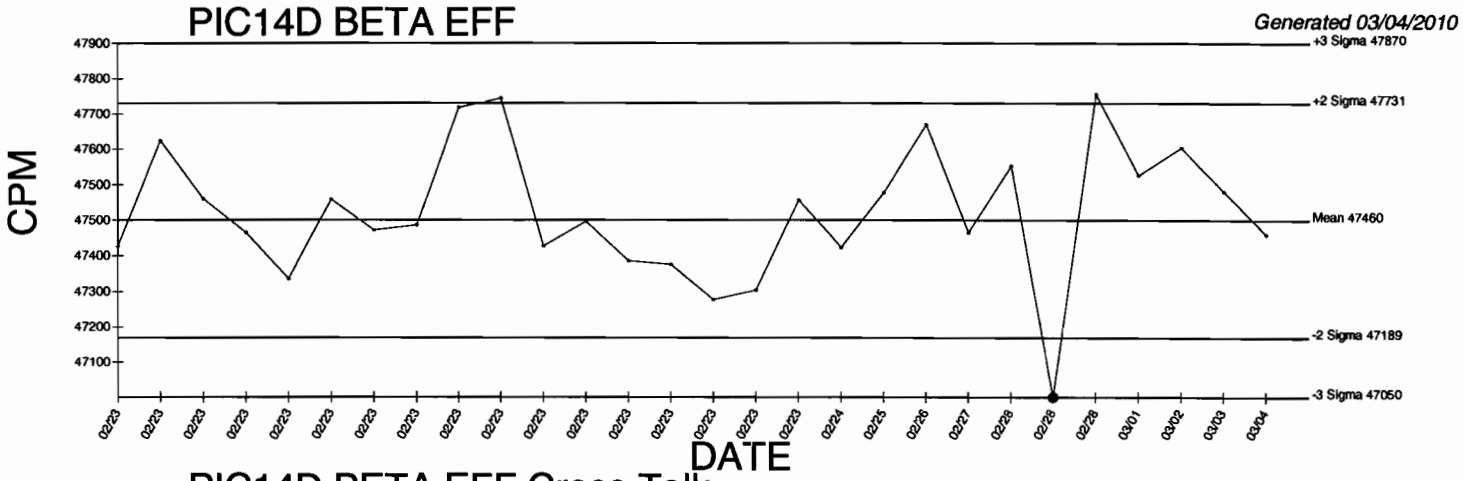

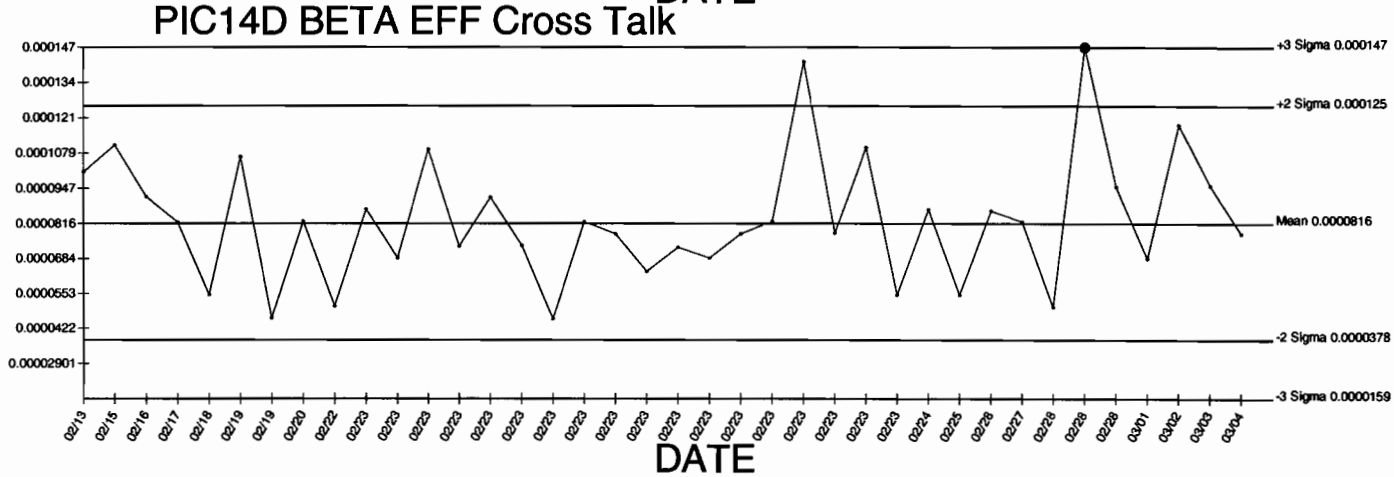

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Generated 03/06/2010

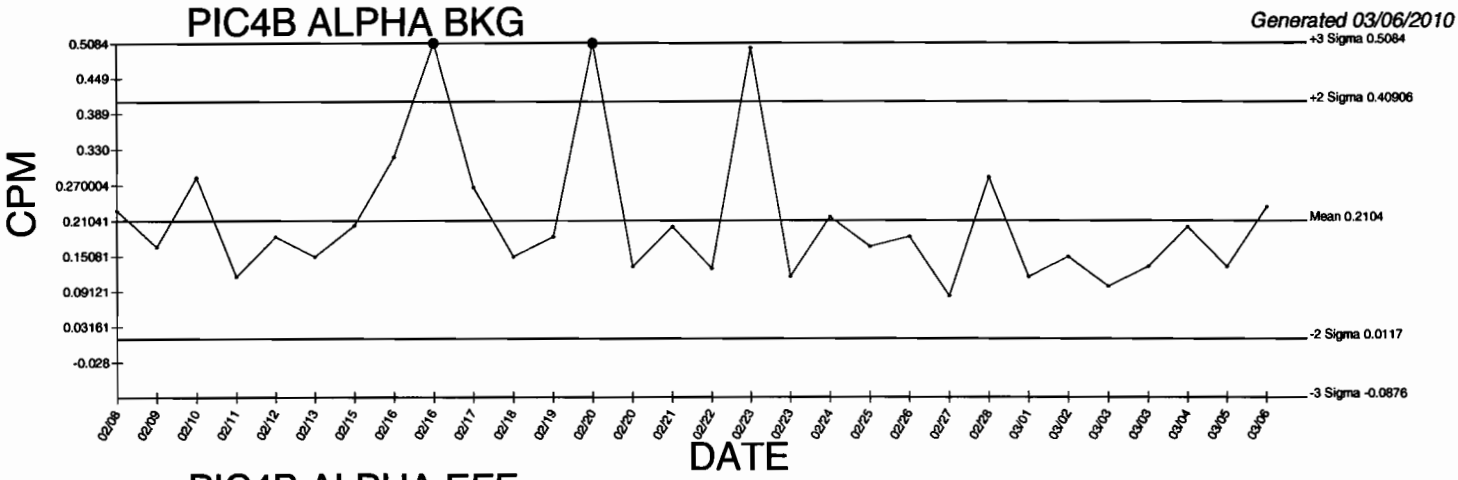

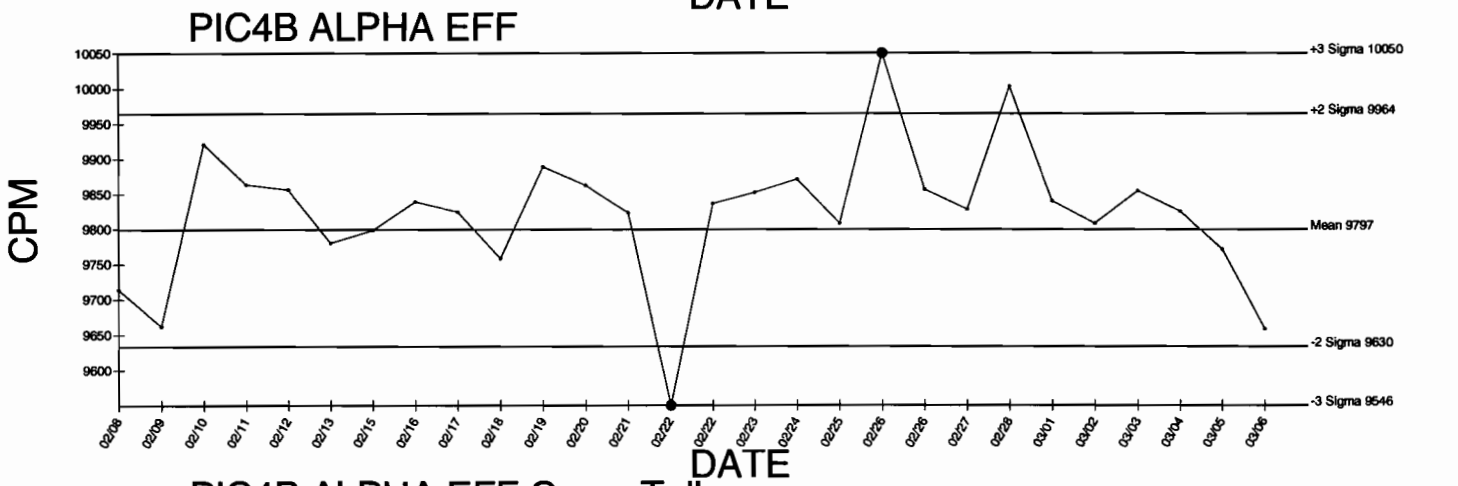

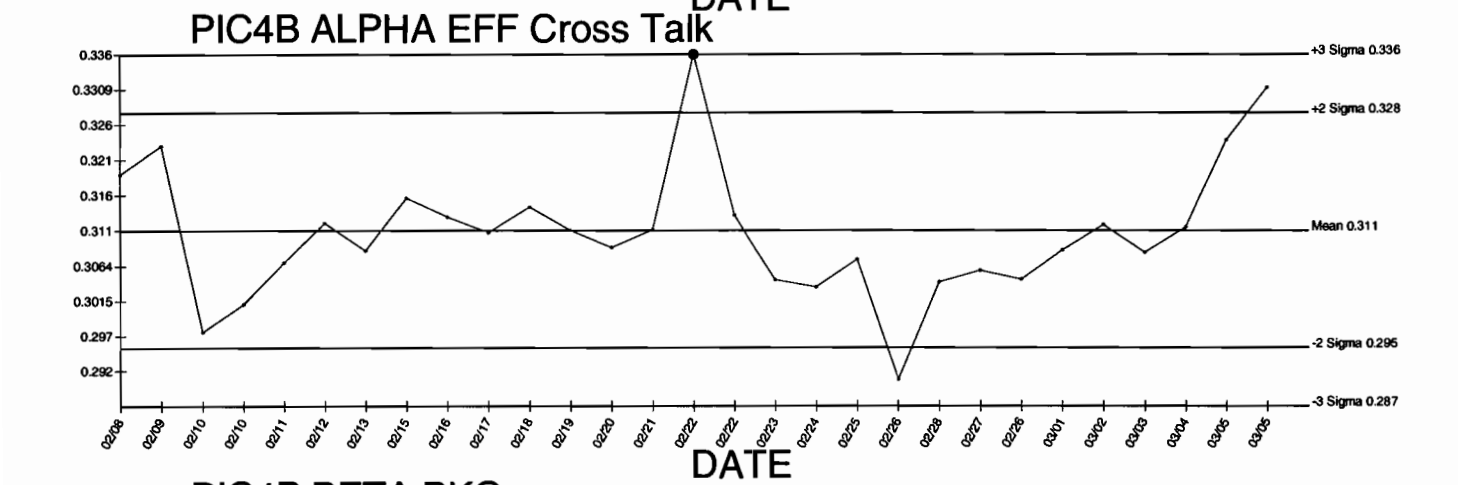

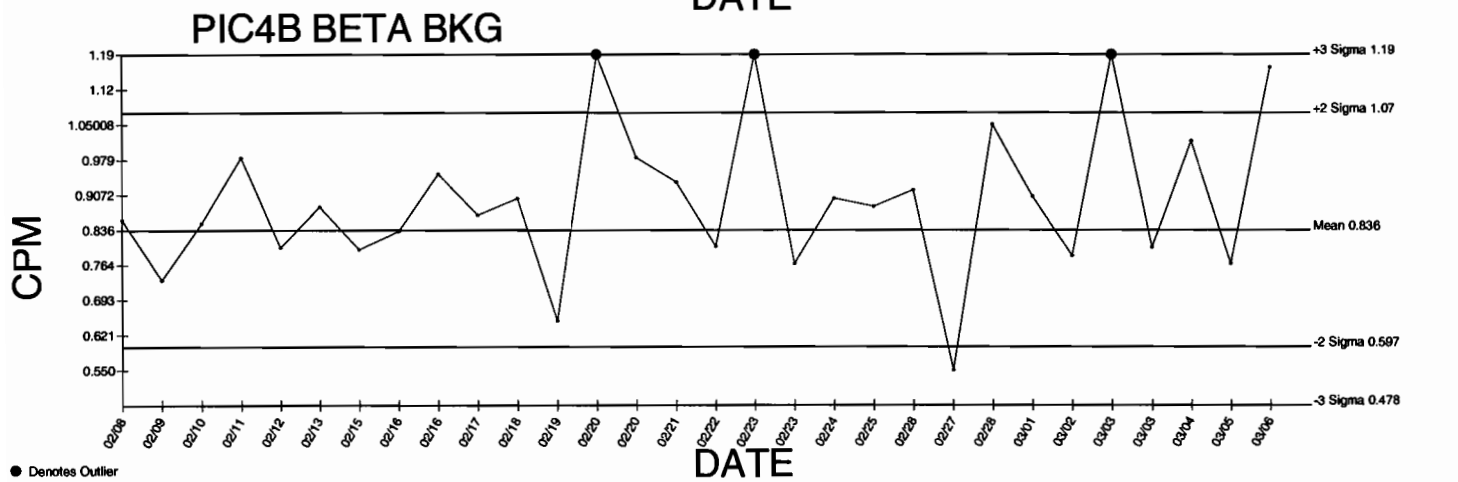

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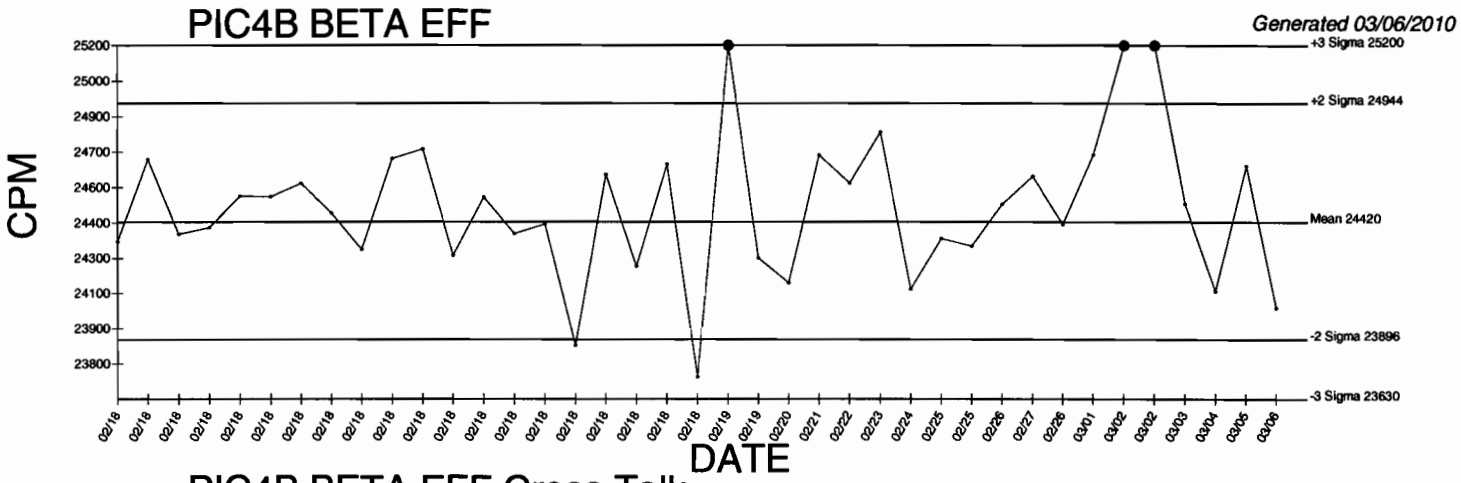

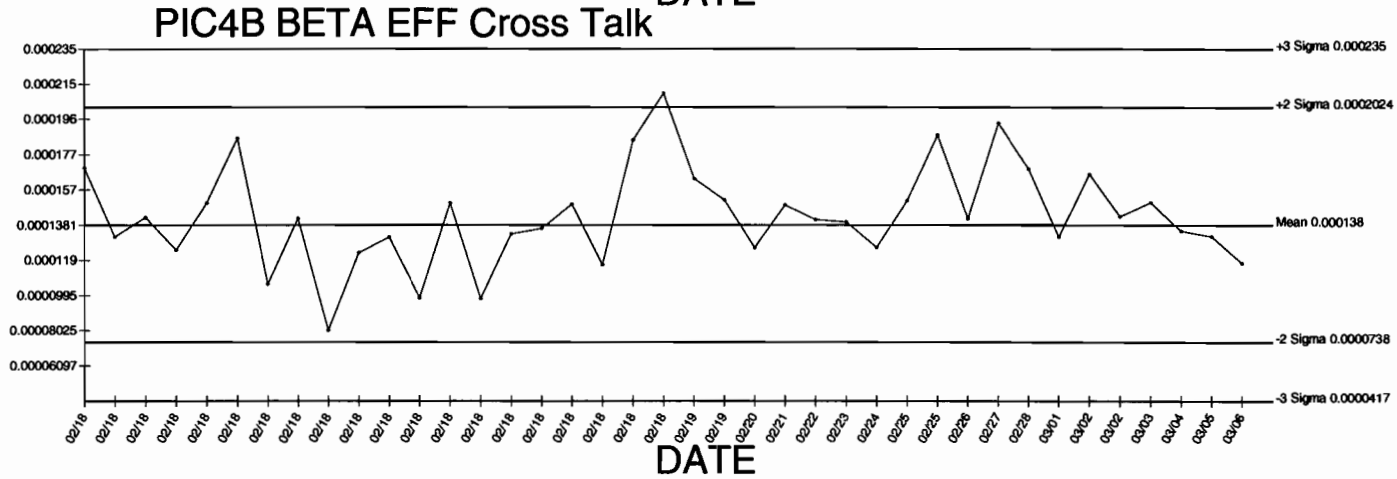

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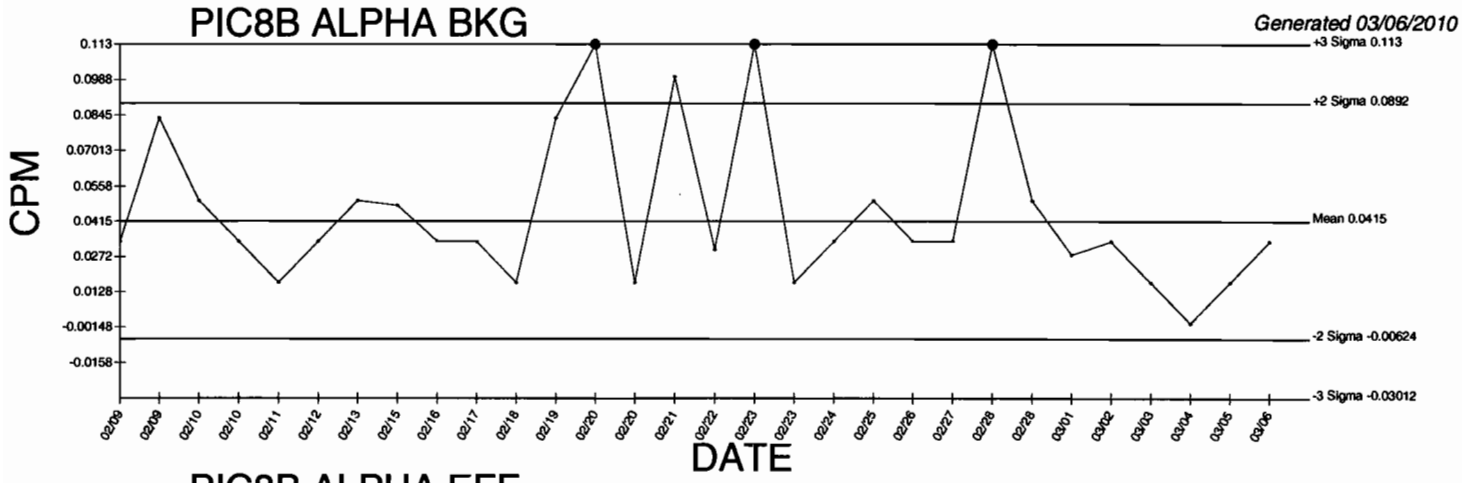
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Generated 03/06/2010
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DATE
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+2 Sigma 0.0892
Mean 0.0415
-2 Sigma -0.00624
-3 Sigma -0.03012

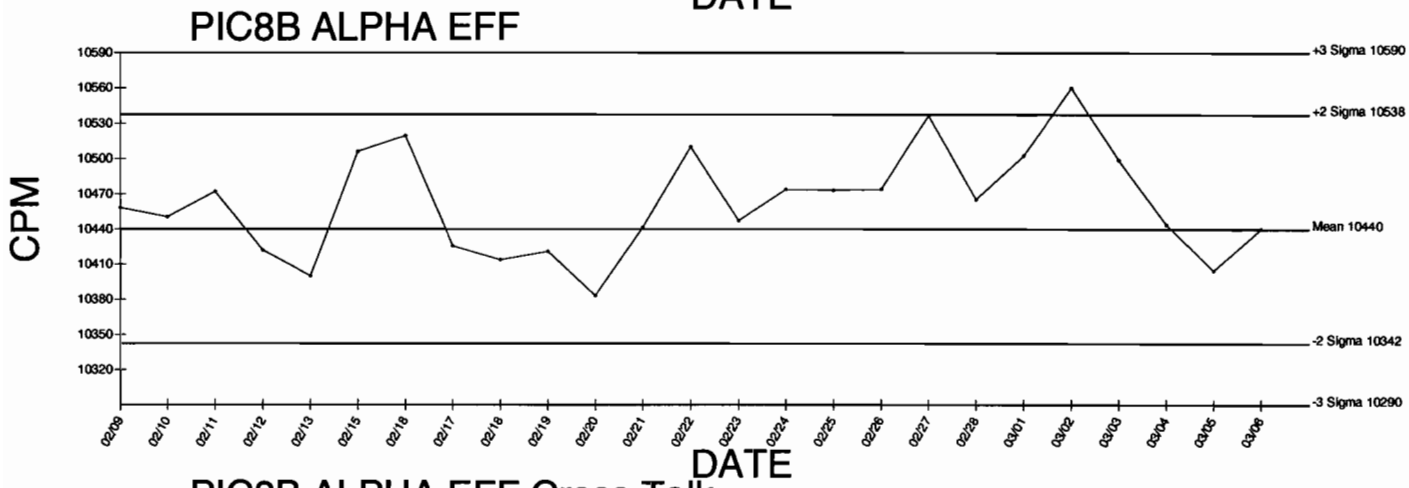
PIC8B ALPHA EFF
CPM
DATE
+3 Sigma 10590
+2 Sigma 10538
Mean 10440
-2 Sigma 10342
-3 Sigma 10290

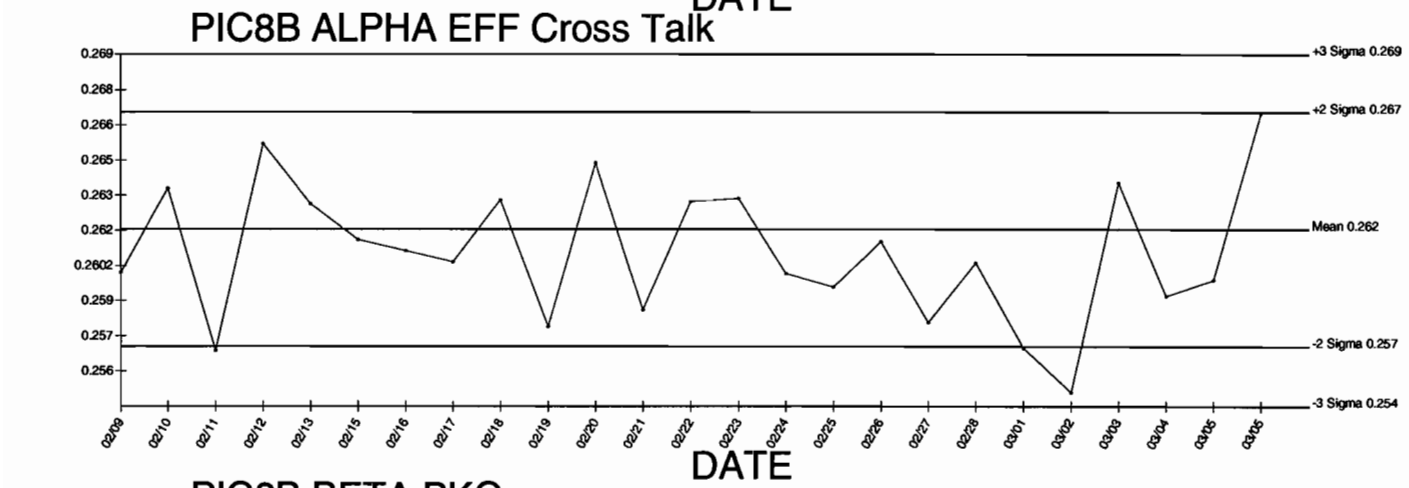
PIC8B ALPHA EFF Cross Talk
DATE
+3 Sigma 0.269
+2 Sigma 0.267
Mean 0.262
-2 Sigma 0.257
-3 Sigma 0.254

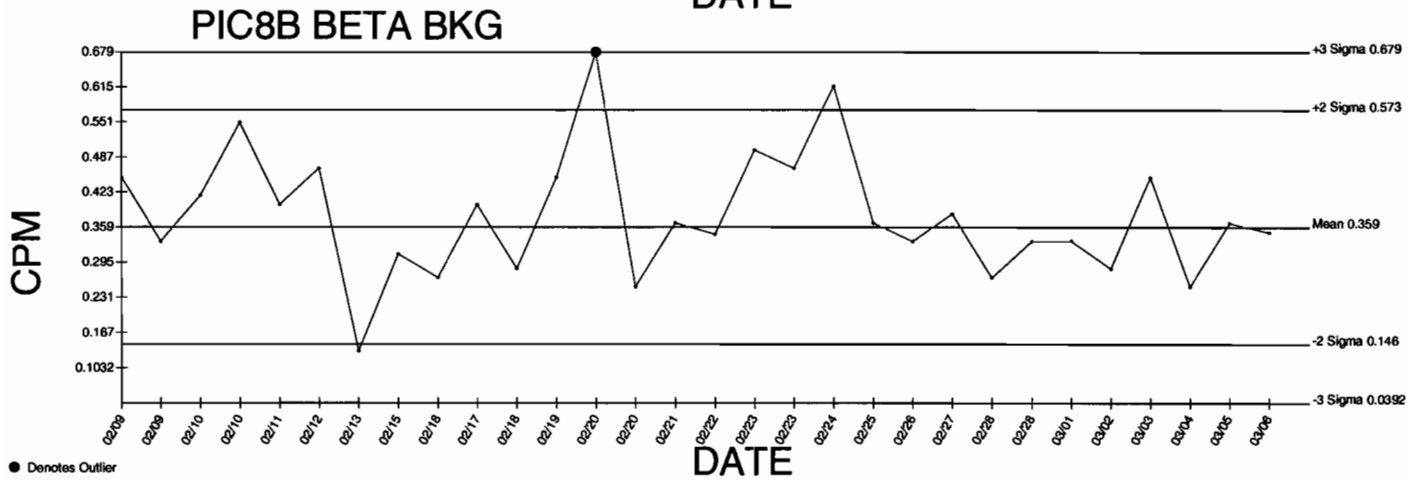
PIC8B BETA BKG
CPM
DATE
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+2 Sigma 0.573
Mean 0.359
-2 Sigma 0.146
-3 Sigma 0.0392
● Denotes Outlier

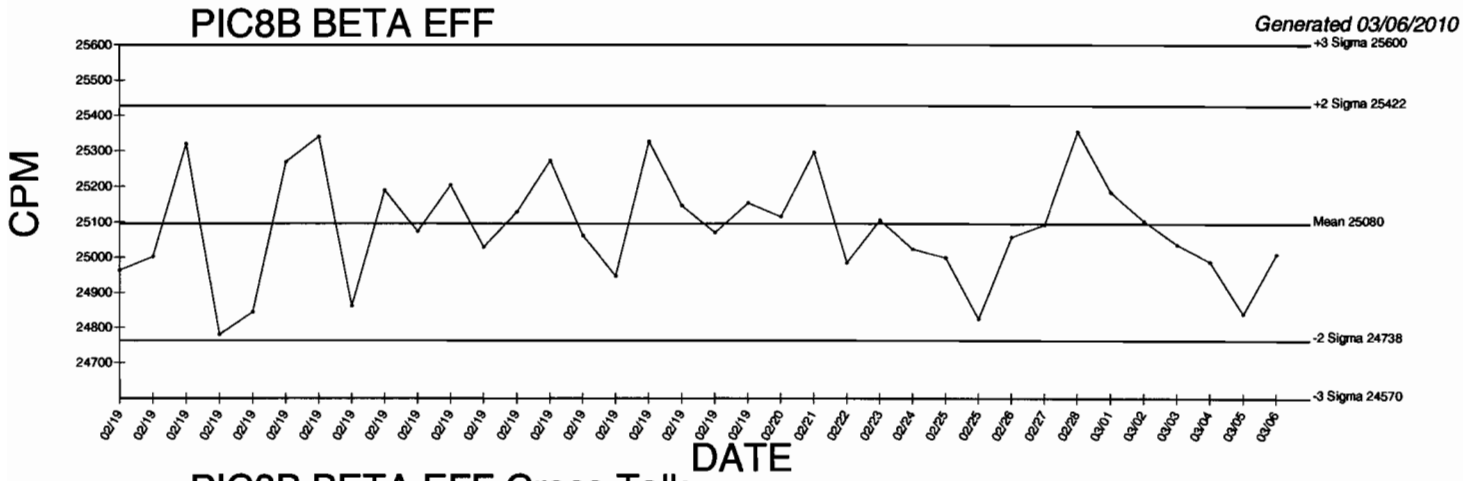

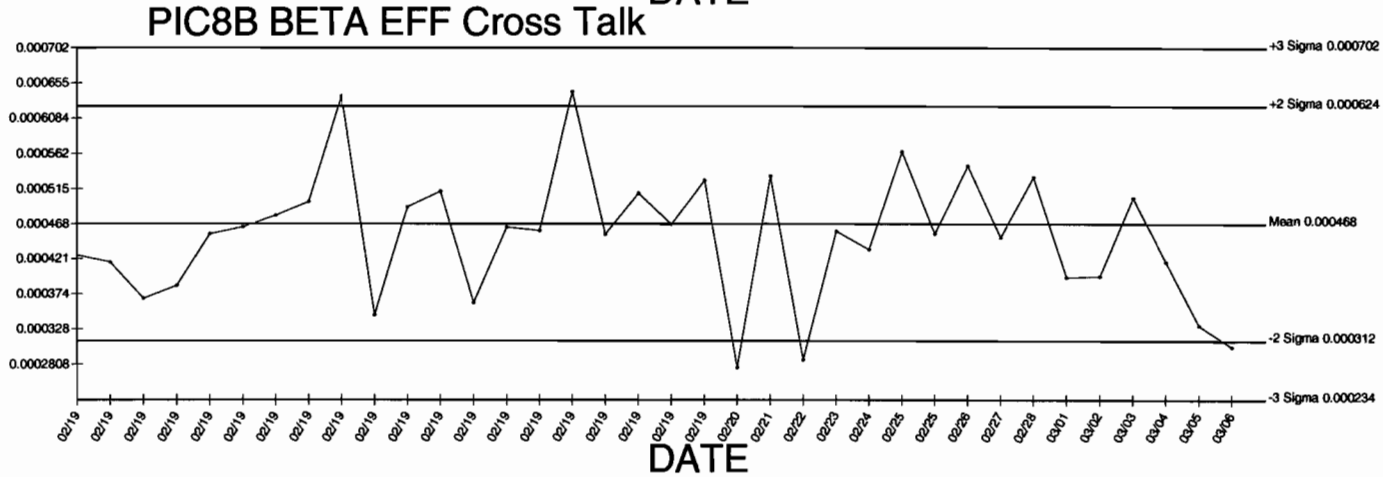

● Denotes Outlier

PIC8C ALPHA BKG

Generated 03/06/2010

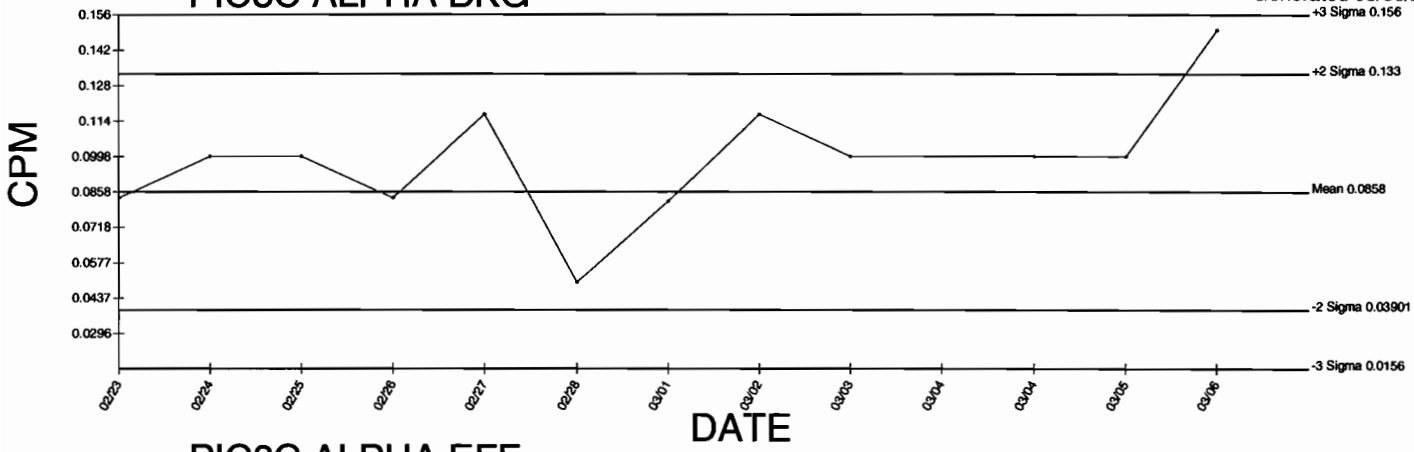

PIC8C ALPHA EFF

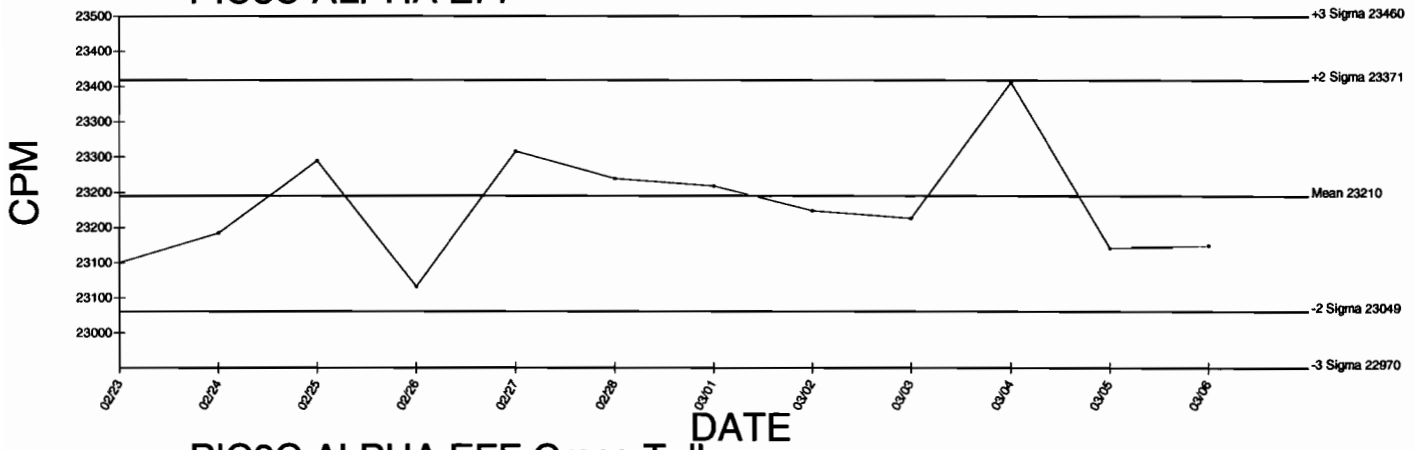

PIC8C ALPHA EFF Cross Talk

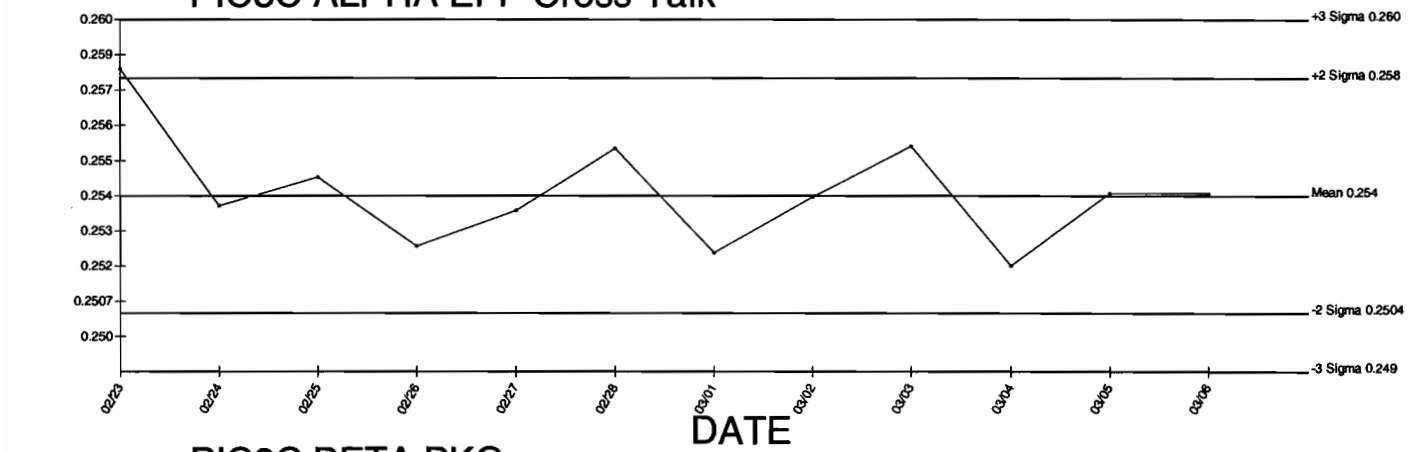

PIC8C BETA BKG

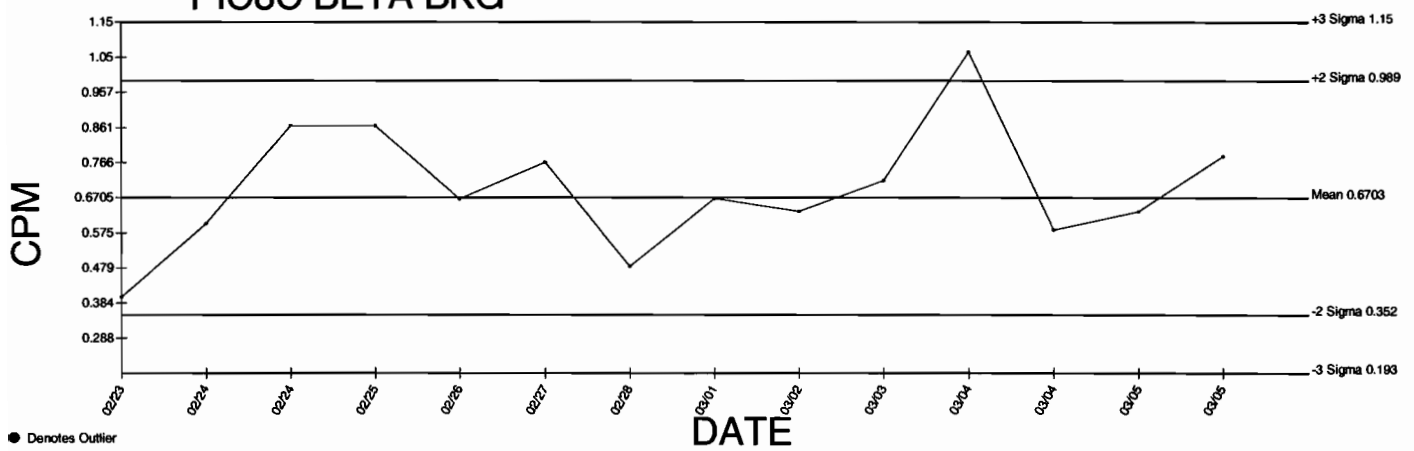

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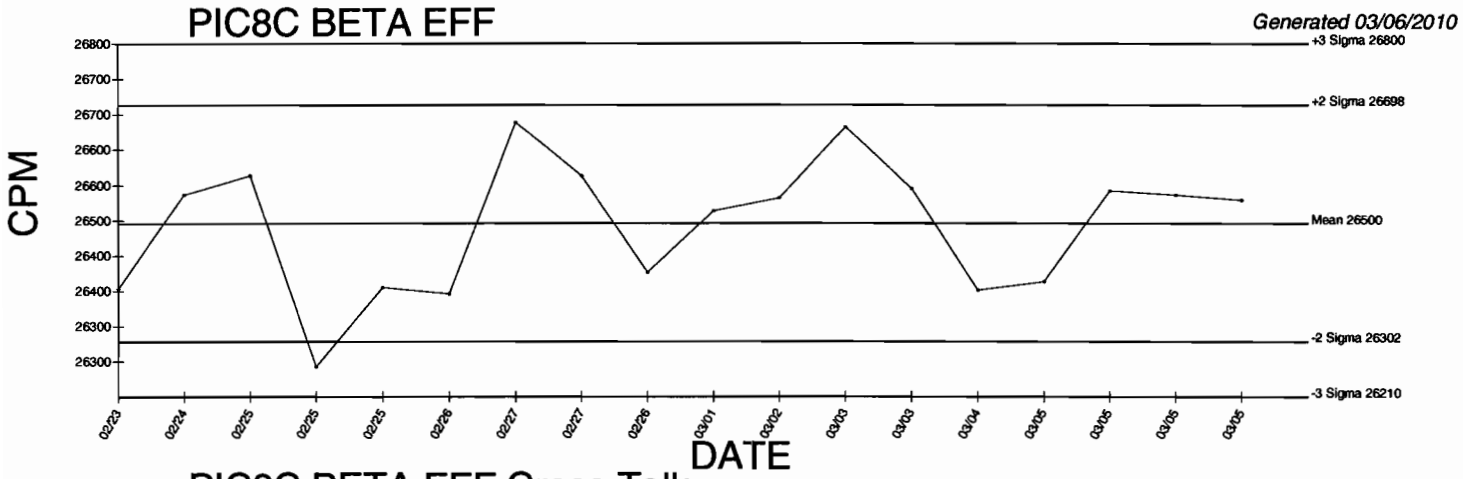

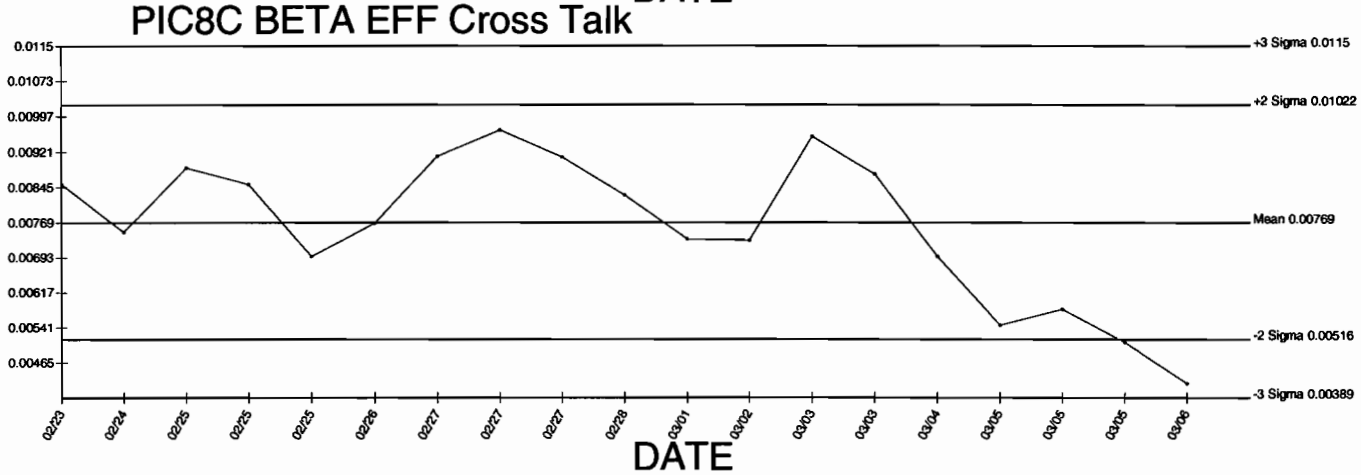

● Denotes Outlier

PIC8D ALPHA BKG

Generated 03/06/2010

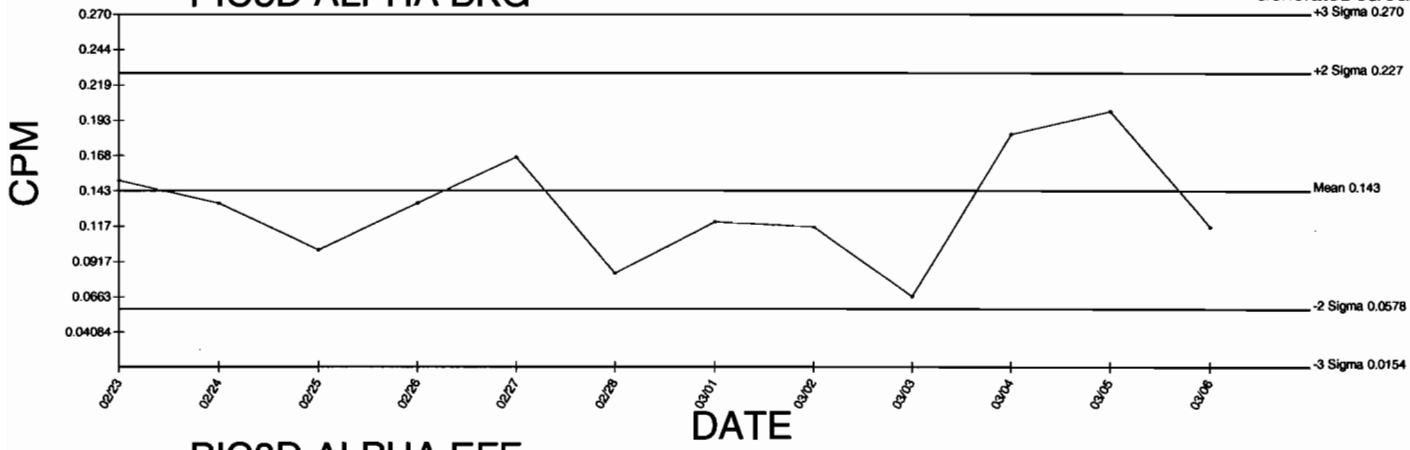

PIC8D ALPHA EFF

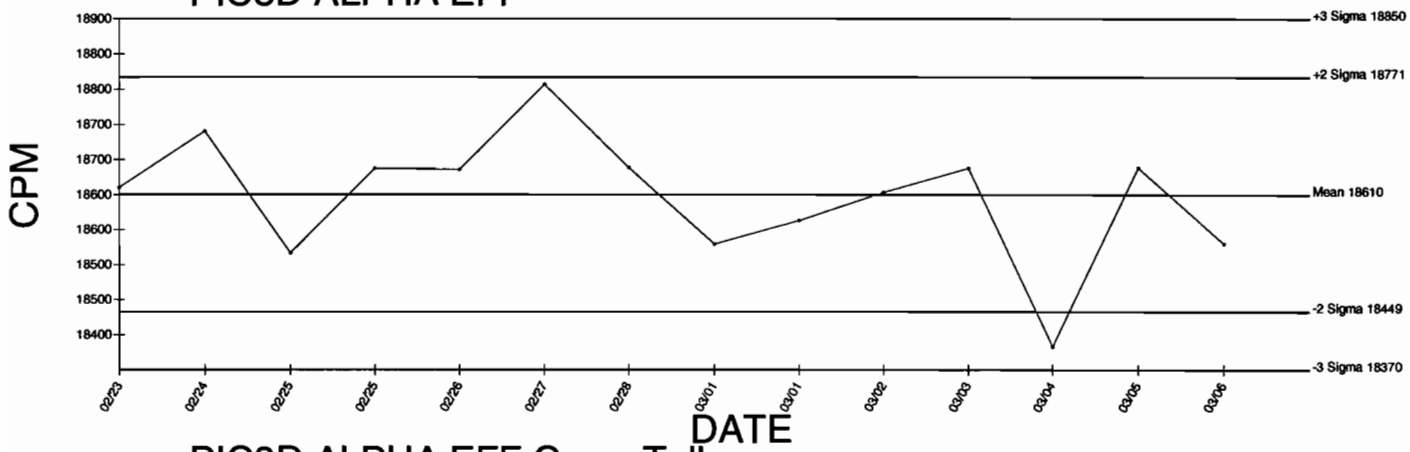

PIC8D ALPHA EFF Cross Talk

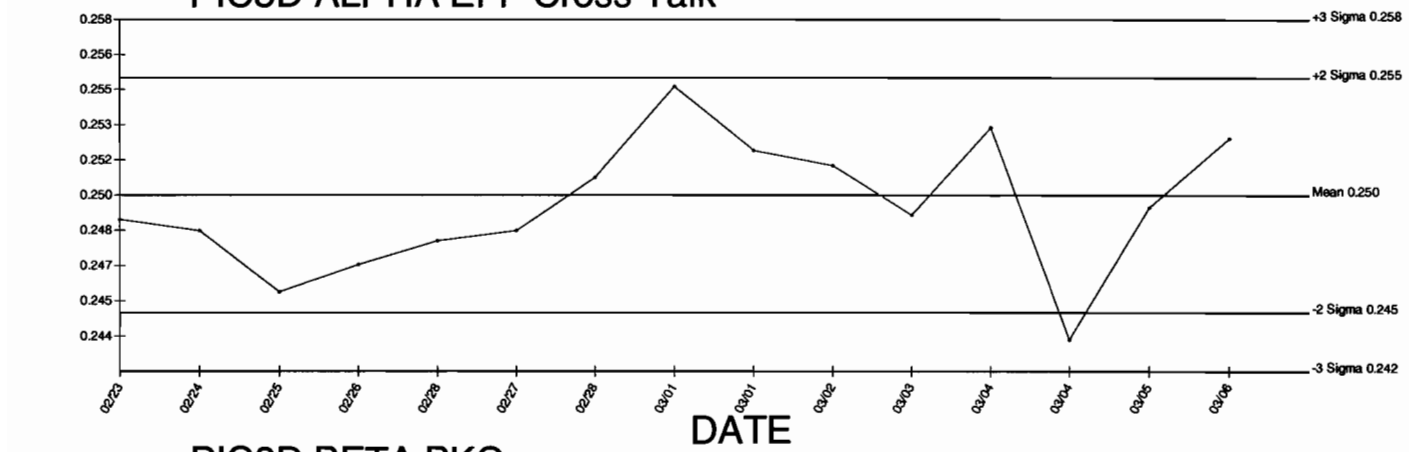

PIC8D BETA BKG

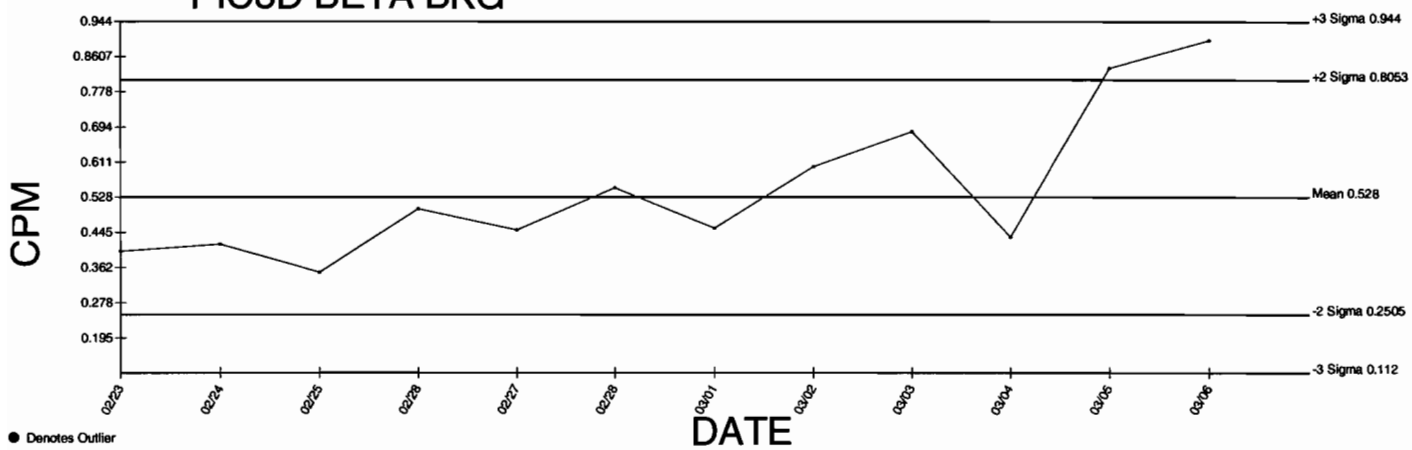

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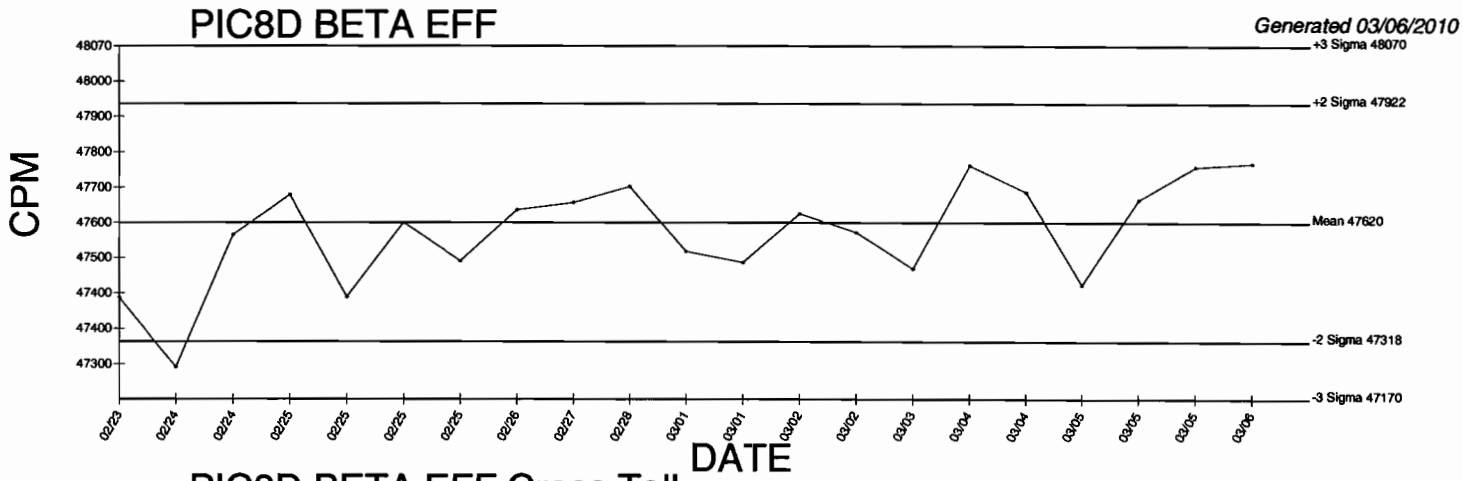

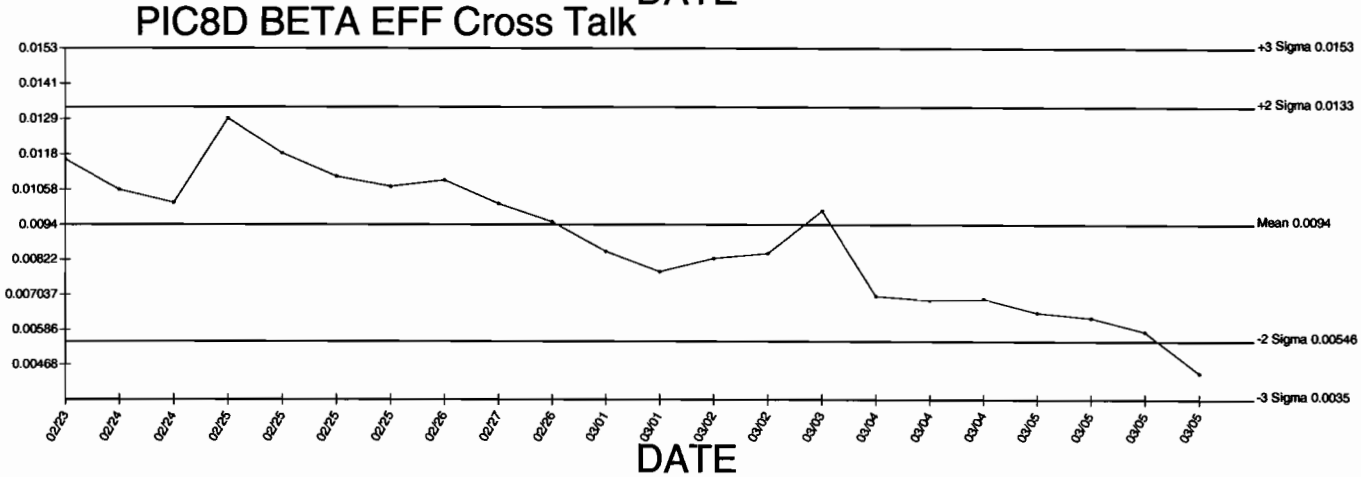

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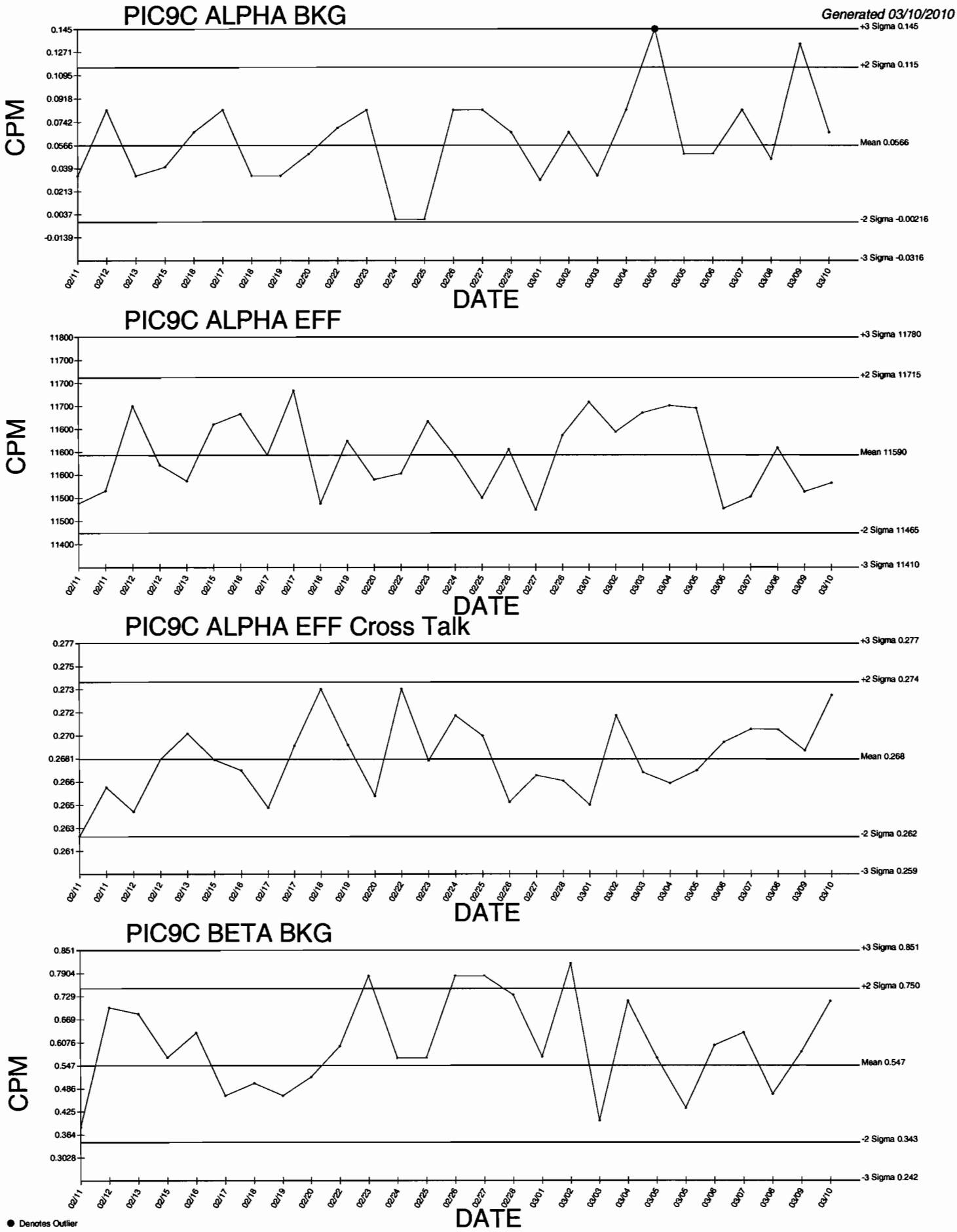
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+2 Sigma 0.115
Mean 0.0566
-2 Sigma -0.00216
-3 Sigma -0.0316
DATE
PIC9C ALPHA EFF
CPM
+3 Sigma 11780
+2 Sigma 11715
Mean 11590
-2 Sigma 11465
-3 Sigma 11410
DATE
PIC9C ALPHA EFF Cross Talk
+3 Sigma 0.277
+2 Sigma 0.274
Mean 0.268
-2 Sigma 0.262
-3 Sigma 0.259
DATE
PIC9C BETA BKG
CPM
+3 Sigma 0.851
+2 Sigma 0.750
Mean 0.547
-2 Sigma 0.343
-3 Sigma 0.242
DATE
● Denotes Outlier

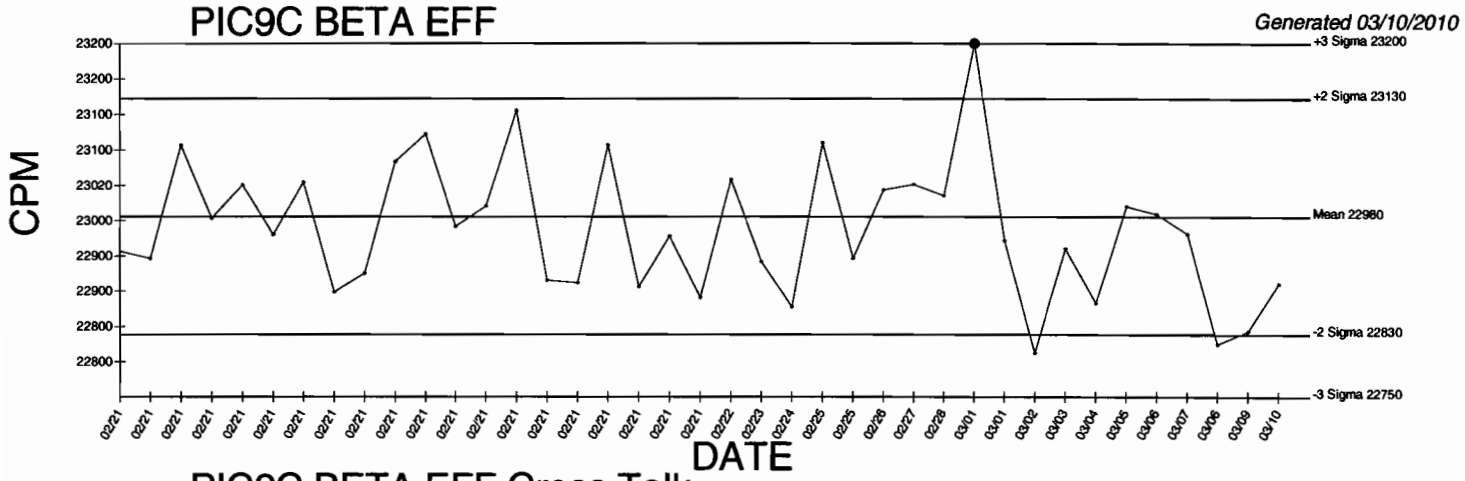

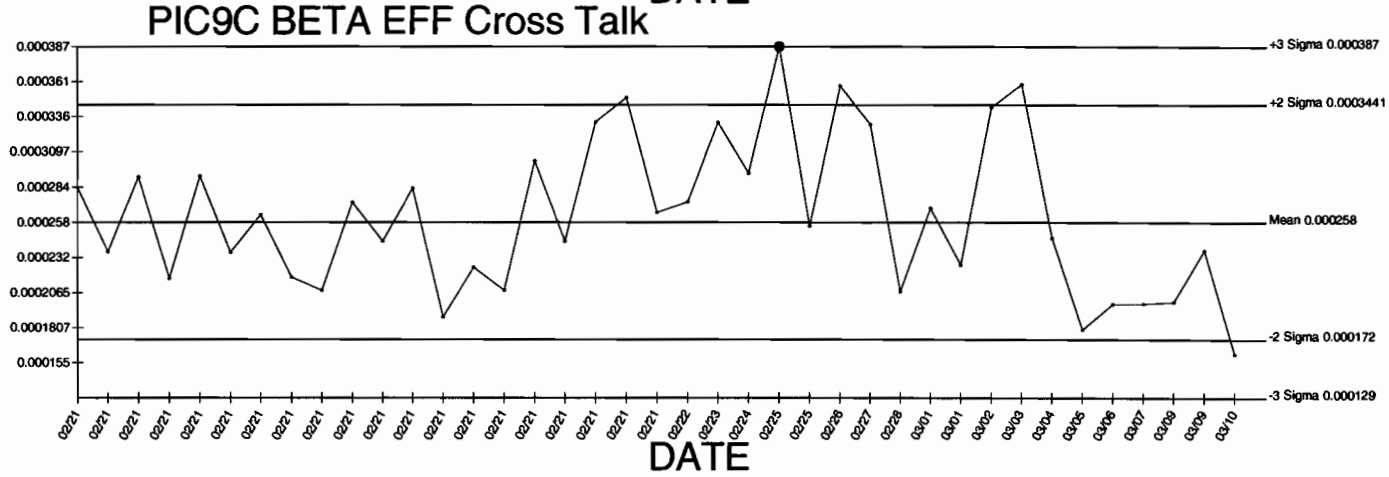

● Denotes Outlier

STANDARDS DATA

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74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/30/06
RC-S-045-073-0

Laboratory
24937 Avenue
1380 Seaboard Industrial Blvd. Atlanta, Georgia 30318

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
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www.analyticsinc.com

ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- VER. JAR-1
	Mixed Gamma N2	2510	pCi/L	- VER. JAR-3
	Mixed Gamma N3	2413	pCi/L	- VER. JAR. 5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**	
Stdev =	64.065		**Rule 3 (Pass/Fail)**	
Certificate Value =	2485.68018	pCi/L		
Lower Limit =	2357.536524	pCi/L		
Upper Limit =	2613.796809	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	128.1301422			
10 % of Mean =	248.56666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 verification 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2
Mean Value (Counting) =	886.90	**95.01**	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result	
	Mixed Gamma N1	1572	pCi/L - VER-JAR-5
	Mixed Gamma N2	1495	pCi/L - VER-JAR-2
	Mixed Gamma N3	1501	pCi/L - VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**
Stdev =	42.829	**Rule 3 (Pass/Fail)**	
Certificate Value =	1545.8378	pCi/L	
Lower Limit =	1437.008431	pCi/L	
Upper Limit =	1608.324902	pCi/L	
Rule 1 (Pass/Fail)	**Pass**		
Two sigma =	85.65823564		
10 % of Mean =	152.26666667		
Rule 2 (Pass/Fail)	**Pass**		

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0533

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 · U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

65338-278

Am-241 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Am-241
ACTIVITY (dps):	3.920 E4
HALF-LIFE:	4.322 E2 years
CALIBRATION DATE:	January 15, 2003 12:00 EST
TOTAL UNCERTAINTY*:	3.2%
SYSTEMATIC:	2.2%
RANDOM:	1.0%

*99% confidence level.

5.10649 grams 1M HCl solution.

Impurities: γ-impurities <0.1%
α-impurities <0.1%

P O NUMBER 3213 RD, Item 1

SOURCE PREPARED BY: M Taskaeva
M. Taskaeva, Radiochemist

Q A APPROVED: UM Mt 1-16-03

RC-S-035-048a

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0533
Prepared By:	Angela Johnson
Carrier Conc:	1 M HCL
Reference Date:	01/15/2003
Ampoule Mass (g):	5.10649 g
Uncertainty:	+/- 3.2 %
LogBook No:	RC S 035 048

A Solution Material Info	
Isotope:	Americium-241
Prepared By:	Angela Johnson
Prep Date:	02/05/2003
Verification Date:	09/29/2008
Expiration Date:	09/29/2009
Primary Code:	0533-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8225 g
Density(g/mL):	1.0139
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)

(4.8225 g) * (39200 dps) * (60 dpm/dps) / (5.10649 g * 100 mL) = 22211.9695 dpm/mL

(4.8225 g) * (39200 dps) * (60 dpm/dps) / (1.0139 g/mL)/ (5.10649 g * 100 mL) = 21907.2185 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
02/20/2003	Angela Johnson	1.0151	100	0533-B	222.38 dpm/mL	03/01/2006	03/01/2007
02/20/2003	Angela Johnson	.6819	250	0533-C	59.754 dpm/mL	02/20/2004	02/20/2005
05/07/2003	Tim Chandler	.1245	100	0533-D	27.2745 dpm/mL	05/03/2004	05/03/2005
09/10/2004	Amanda Fehr	.6933	250	0533-E	60.753 dpm/mL	09/10/2005	09/10/2006
12/17/2004	Brenda Burke	.0093	100	0533-F	2.0374 dpm/mL	12/20/2004	12/20/2005
12/21/2004	Brenda Burke	.009273	100	0533-G	2.0315 dpm/mL	12/07/2005	12/07/2006
04/28/2005	Brenda Burke	.1347	100	0533-H	29.4598 dpm/mL	04/27/2006	04/27/2007
10/19/2005	Mary Aders	.6948	250	0533-I	60.7831 dpm/mL	10/18/2006	10/18/2007

05/08/2006	Julie Strock	.0711	100	0533-J	15.576 dpm/mL	05/10/2008	05/10/2009
05/11/2006	Brenda Burke	.00092601	100	0533-K	.20286 dpm/mL	08/02/2007	07/28/2007
11/15/2006	Tara Sides	.132	1000	0533-L	2.88586 dpm/mL	10/06/2009	10/06/2010
06/12/2007	Julie Strock	.000979	100	0533-M	.21448 dpm/mL	05/20/2009	05/20/2010
08/03/2007	Daniel Roy	.7042	250	0533-N	61.7083 dpm/ml	08/02/2008	08/02/2009
09/25/2008	Daniel Roy	1.4561	500	0533-O	63.7982 dpm/ml	09/10/2009	09/10/2010
09/29/2008	Tara Sides	.1004	100	0533-P	21.9948 dpm/mL	09/09/2009	09/09/2010
06/03/2009	Julie Strock	.0009751	100	0533-Q	.2136 dpm/mL	06/05/2009	06/03/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-241 Standard *0533-O*

M. Aders			
9/10/2009	**Isotope**	**Value**	**Uncertainty**
	0533-O #1	2.880	0.3960
	0533-O #2	2.820	0.3910
	0533-O #3	2.790	0.3840
Mean Value (Counting) =	2.830	0.9953264	
Stdev =	0.045825757		
Target =	2.84		
Lower Limit =	2.738348486		
Upper Limit =	2.921651514		
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**
Two sigma =	0.091651514		
10 % of Mean =	0.283		
Rule 2 (Pass/Fail)	**Pass**		

Rule 1 = The target value must lie within the average counting value concentration plus or minus two times the standard deviation of the three counting sources.
Rule 2 =The calculated value of two times the standard deviation of the concentration of the three counted sources must be less than 10% of the average concentration value.
Rule 3 = The determined mean value must be +/- 5% of the of the certificate value or within the uncertainty of the standards being verified.

The analyst prepared three standard verification sources for standard ***0533-O*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Am_243*** standard ***445-96-2-SS*** in a disposable centrifuge tube. 4 mL of 2M HCL was added and was diluted with 6 mL of DI water. 25 micrograms of neodymium carrier and two mL of 49% HF was added to precipitate neodymium (and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-241 were calculated by comparison to Am-243 certified values.

9/22/09

9/25/09

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution:	5.3739 g (in a 5 ml Flame Sealed Ampoule)	
b. Chemical form:	Am(NO3)3 in 2N HNO3	
c. Carrier content:	None added	
d. Density:	1.0651	g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under:	228, 278	keV.
Branching ratio(s) used:	0.108, 0.1420	gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration:	±3.0%
b. Random uncertainty in assay:	±0.4%
c. Random uncertainty in weighing(s):	±0.0%
d. Total uncertainty at the 99% confidence level:	±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Khan
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ **1. STANDARD WIPE TEST**

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **2. SOAK TEST**

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **3. SOAK TEST -- BERYLLIUM WINDOW**

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **4. GAS SOURCE TEST (Radioactive Gas)**

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ **5. OTHER LEAK TEST**

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **6. LEAK TEST NOT APPLICABLE**

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	05/11/2009
Expiration Date:	05/11/2010
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Julie Strock	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/30/2008	09/29/2009
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-SS*

M. Aders	Isotope	Value	Uncertainty
5/15/2009	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590

Mean Value (Counting) =	1.340	101.99	**Pass**
Stdev =	0.043588989		**Rule 3 (Pass/Fail)**

Target =	1.314
Lower Limit =	1.252822021
Upper Limit =	1.427177979
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.087177979
10 % of Mean =	0.134
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-SS*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Mary Lindsay 5/15/09
Rob Robin 007509

0338

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 · U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

60513-278

Pu-239 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using an aliquot measured gravimetrically from a master radionuclide solution standard. The master radionuclide solution standard was calibrated by the Department Des Applications Et De La Metrologie Des Rayonnements Ionisants (DAMRI), Paris, France, as Number 24148.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Pu-239
ACTIVITY (dps):	3.674 E4
HALF-LIFE:	24131 years
CALIBRATION DATE:	October 30, 2000 12:00 EST
TOTAL UNCERTAINTY*:	5.0%

*99% confidence level.

5.45541 grams 3M HNO_3 solution.

Impurities detected (activity in dps/vial on Oct. 30, 2000):

Am-241 297.28
Pu-240 1208.8
Pu-241 2010.7
Pu-242 0.17

See reverse side for additional information.

P O NUMBER 2528RD, Item 1

PREPARED BY: M Taskaeva
M. Taskaeva, Radiochemist

Q A APPROVED: RCWW 11/13/00

RC-S-028-167

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0338
Prepared By:	Penet Melton
Carrier Conc:	3 M HNO3
Reference Date:	10/30/2000
Ampoule Mass (g):	5.45541 g
Uncertainty:	+/- 5 %
LogBook No:	RC S 027 167

A Solution Material Info	
Isotope:	Plutonium-239
Prepared By:	Penet Melton
Prep Date:	12/01/2000
Verification Date:	09/29/2008
Expiration Date:	09/29/2009
Primary Code:	0338-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.1674 g
Density(g/mL):	1.0121
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL | dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)

(5.1674 g) * (36740 dps) * (60 dpm/dps) / (5.45541 g * 100 mL) = 20880.2208 dpm/mL

(5.1674 g) * (36740 dps) * (60 dpm/dps) / (1.0121 g/mL)/ (5.45541 g * 100 mL) = 20630.6111 dpm/g

(5.1674 g) * (37948.8 dps) * (60 dpm/dps) / (5.45541 g * 100 mL) = 21567.2108 dpm/mL

(5.1674 g) * (37948.8 dps) * (60 dpm/dps) / (1.0121 g/mL)/ (5.45541 g * 100 mL) = 21309.3885 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
06/23/2009	Mary Aders	.591	250	0338-BB	50.3753 dpm/mL	06/23/2009	06/23/2010
10/29/2001	Tim Chandler	.3032	250	0338-E		10/16/2003	10/16/2004
12/30/2002	Tim Chandler	10.0252	100	0338-I		10/24/2003	10/24/2004
08/12/2003	Amanda Fehr	.2282	100	0338-K		08/12/2003	08/12/2004
12/09/2003	Amanda Fehr	.2409	100	0338-L		12/09/2003	12/09/2004

03/18/2004	Tim Chandler	10.0192	500	0338-M		03/18/2004	03/18/2005
04/26/2004	Amanda Fehr	.643	250	0338-N		04/26/2005	04/26/2006
05/26/2004	Eric Williamson	.355	250	0338-O	30.2619 dpm/mL	05/17/2007	05/17/2008
12/20/2004	Brenda Burke	.01957	100	0338-P	4.16992 dpm/mL	12/19/2006	12/19/2007
03/16/2005	Julie Strock	10.0395	100	0338-Q	2139.558 dpm/mL	06/12/2008	06/12/2009
07/19/2005	Amanda Fehr	.677	250	0338-R		07/10/2006	07/10/2007
05/11/2006	Brenda Burke	.0009935	100	0338-S	.21172 dpm/mL	07/30/2007	07/28/2007
01/04/2007	Julie Strock	.050286	250	0338-T	4.2887 dpm/mL	12/31/2007	12/31/2008
01/05/2007	Daniel Roy	.7285	250	0338-U		01/05/2008	01/05/2009
03/16/2005	Julie Strock	.010175	1000	0338-V	.216847 dpm/mL	04/23/2009	04/23/2010
05/15/2007	Eric Williamson	.253	250	0338-W	21.567 dpm/mL	05/21/2009	05/21/2010
07/31/2007	Julie Strock	.0010045	100	0338-X	.21379 dpm/mL	12/31/2007	12/31/2008
12/10/2008	Daniel Roy	.7715	250	0338-Y		12/10/2008	12/10/2009
09/29/2008	Julie Strock	.0504	250	0338-Z	4.29599 dpm/mL	09/30/2008	09/29/2009

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Plutonium-239 Standard *0338-BB*

Analyst: M. Aders	**Serial #**	**Value**	**Uncertainty**
Date: 6/25/09	0338-BB #1	2.350	0.2960
	0338-BB #2	2.190	0.2210
	0338-BB #3	2.300	0.2920
Mean Value (Counting) =	2.280	103.80917	**Pass**
Stdev =	0.081853528		
Target =	2.196		
Lower Limit =	2.116292945		
Upper Limit =	2.443707055		
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**
Two sigma =	0.163707055		
10 % of Mean =	0.228		
Rule 2 (Pass/Fail)	**Pass**		

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements.
Rule 2 = The two sigma value used for the 95% cinfidence interval shall not exceed 10% of the mean value of the three measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three Pu-239 standard verification sources for standard ***0338-BB*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Pu-242*** standard ***1262-A*** and was diluted in a disposable centrifuge tube with 4 mL of 2 M HCl, and 6 mL of DI water, 50 micrograms of Nd carrier and 5 drops of hydrazine dihydrochloride were added to the centrifuge tube and swirled. After waiting ten minutes, two mL of 49% HF was added to precipitate Nd(and ***plutonium***) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for ***Pu-239*** were calculated by comparison to ***Pu-242*** certified values.

Mary L. Adams 6/26/09

Robert R 062609

1375

National Institute of Standards & Technology
Certificate

Standard Reference Material 4334H
Plutonium-242 Radioactivity Standard

This Standard Reference Material (SRM) consists of radioactive plutonium-242 nitrate and nitric acid dissolved in 5 mL of distilled water. The solution is contained in a flame-sealed NIST borosilicate-glass ampoule. The SRM is intended for the calibration of alpha-particle counting instruments and for the monitoring of radiochemical procedures.

Radiological Hazard: The SRM ampoule contains plutonium-242 with a total activity of approximately 150 Bq. Plutonium-242 decays by alpha-particle emission. None of the alpha particles escape from the SRM ampoule. During the decay process, X-rays and gamma rays with energies from 10 keV to 160 keV are also emitted. Most of these photons escape from the SRM ampoule but their intensities are so small that they do not represent a radiation hazard. Approximate unshielded dose rates at several distances (as of the reference time) are given in note [a]*. The SRM should be used only by persons qualified to handle radioactive material.

Chemical Hazard: The SRM ampoule contains nitric acid (HNO_3) with a concentration of 3 moles per liter of water. The solution is corrosive and represents a health hazard if it comes in contact with eyes or skin. If the ampoule is to be opened to transfer the solution, the recommended procedure is given on page 2. The ampoule should be opened only by persons qualified to handle both radioactive material and strong acid solution.

Storage and Handling: The SRM should be stored and used at a temperature between 5 °C and 65 °C. The solution in an unopened ampoule should remain stable and homogeneous until at least January 2015. The ampoule (or any subsequent container) should always be clearly marked as containing radioactive material. If the ampoule is transported it should be packed, marked, labeled, and shipped in accordance with the applicable national, international, and carrier regulations. The solution in the ampoule is a dangerous good (hazardous material) both because of the radioactivity and because of the strong acid.

Preparation: This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

RECEIVED 7/21/01

Lisa R. Karam, Acting Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
January 2005

Robert L. Watters, Jr., Chief
Measurement Services Division

*Notes and references are on pages 5 to 7.

RC-5-08-173 094

Recommended Procedure for Opening the SRM Ampoule

1) If the SRM solution is to be diluted, it is recommended that the diluting solution have a composition comparable to that of the SRM solution.

2) Wear eye protection, gloves, and protective clothing and work over a tray with absorbent paper in it. Work in a fume hood. In addition to the radioactive material, the solution contains strong acid and is corrosive.

3) Shake the ampoule to wet all of the inside surface of the ampoule. Return the ampoule to the upright position.

4) Check that all of the liquid has drained out of the neck of the ampoule. If necessary, gently tap the neck to speed the process.

5) Holding the ampoule upright, score the narrowest part of the neck with a scribe or diamond pencil.

6) Lightly wet the scored line. This reduces the crack propagation velocity and makes for a cleaner break.

7) Hold the ampoule upright with a paper towel, a wiper, or a support jig. Position the scored line away from you. Using a paper towel or wiper to avoid contamination, snap off the top of the ampoule by pressing the narrowest part of the neck away from you while pulling the tip of the ampoule towards you.

8) Transfer the solution from the ampoule using a pycnometer or a pipet with dispenser handle. NEVER PIPETTE BY MOUTH.

9) Seal any unused SRM solution in a flame-sealed glass ampoule, if possible, to minimize the evaporation loss.

See also reference [4]*.

*Notes and references are on pages 5 to 7.

PROPERTIES OF SRM 4334H

Certified values

Radionuclide	**Plutonium-242**
Reference time	**1200 EST, 07 June 1994 [b]***
Massic activity of the solution [c]	**26.31 $Bq \cdot g^{-1}$**
Relative expanded uncertainty (k=2)	**0.72% [d] [e]**
Solution density	**(1.105 ± 0.002) $g \cdot mL^{-1}$ at 20 °C [f]**

Uncertified values

Physical Properties:			
Source description	Liquid in flame-sealed NIST borosilicate-glass ampoule		
Ampoule specifications	Body outside diameter Wall thickness Barium content Lead-oxide content Other heavy elements	(16.5 ± 0.5) mm (0.60 ± 0.04) mm Less than 2.5% Less than 0.02% Trace quantities	
Solution mass	Approximately 5.5 g		
Chemical Properties:			
Solution composition	Chemical Formula	Concentration ($mol \cdot L^{-1}$)	Mass Fraction ($g \cdot g^{-1}$)
	H_2O HNO_3 $^{242}Pu^{+6}$	50 3.2 8×10^{-7}	0.81 0.19 2×10^{-7}
Radiological Properties:			
Alpha-particle-emitting impurities	None detected [g] [h]. See table on page 5.		
Beta-particle-emitting impurities	Plutonium-241: (0.092 ± 0.018) $Bq \cdot g^{-1}$ [f] [h]		
Photon-emitting impurities	None detected [i]		
Half lives used	Plutonium-242: $(373\,500 \pm 1100)$ a [j] [5] Plutonium-241: (14.35 ± 0.10) a [j] [5] Americium-241: (432.2 ± 0.7) a [j] [5]		
Calibration method and measuring instrument(s)	Three $4\pi\alpha$ liquid-scintillation counters, a calibrated germanium detector system, and a silicon surface-barrier detector		

*Notes and references are on pages 5 to 7.

EVALUATION OF THE UNCERTAINTY OF THE MASSIC ACTIVITY [d] [e]*

Input Quantity x_i, the source of uncertainty (and individual uncertainty components where appropriate)	Method Used To Evaluate $u(x_i)$, the standard uncertainty of x_i (A) denotes evaluation by statistical methods (B) denotes evaluation by other methods	Relative Uncertainty Of Input Quantity, $u(x_i)/x_i$, (%) [k]	Relative Sensitivity Factor, $\lvert\partial y/\partial x_i\rvert \cdot (x_i/y)$ [m]	Relative Uncertainty Of Output Quantity, $u_i(y)/y$, (%) [n]
Massic alpha-particle emission rate, corrected for background and decay	Standard deviation of the mean for 80 sets of $4\pi\alpha$ liquid-scintillation measurements (A)	0.05	1.0	0.05
Half life of Pu-242	Standard uncertainty of the half life (A)	0.32 [p]	0.00001 [q]	0.000003
Decay-scheme data	Standard uncertainty of the probability of decay by alpha-particle emission (A)	0.001	1.0	0.001
Extrapolation of alpha-particle-count-rate-versus-energy to zero energy	Estimated (B)	0.25	1.0	0.25
Gravimetric measurements	Estimated (B)	0.10	1.0	0.10
Live time [r]	Estimated (B)	0.10	1.0	0.10
Alpha-particle detection efficiency of scintillators	Estimated (B)	0.15	1.0	0.15
Alpha-particle-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Photon-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Relative Combined Standard Uncertainty of the Output Quantity, $u_c(y)/y$, (%)				0.36
Coverage Factor, k				x 2
Relative Expanded Uncertainty of the Output Quantity, U/y, (%)				0.72

*Notes and references are on pages 5 to 7.

RELATIVE ACTIVITIES OF RADIONUCLIDIC IMPURITIES AT THE REFERENCE TIME [b]

Radionuclide	Half Life (years) [j] [5]	Relative Activity As Determined By	
		LLNL	NIST
Plutonium-242	373 500 ± 1100	1.000 000	1.000 000
Plutonium-241	14.35 ± 0.10	- -	0.0035 ± 0.0004 [t]
Plutonium-240	6 564 ± 11	^{239}Pu + ^{240}Pu <0.000 001 [u]	^{239}Pu + ^{240}Pu 0.000 020 ± 0.000 021 [v]
Plutonium-239	24 110 ± 30		
Plutonium-238	87.7 ± 0.1	^{238}Pu + ^{241}Am <0.000 016 [u]	0.000 009 ± 0.000 016 [v]
Americium-241	432.2 ± 0.7		0.000 000 assumed [t]

NOTES

[a] The Sievert is the SI unit for dose equivalent. See reference [1]. One μSv is equal to 0.1 mrem.

Distance from Ampoule (cm):	1	30	100
Approximate Dose Rate (μSv/h):	<0.1	-	-

[b] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994.

[c] **Massic activity** is the preferred name for the quantity activity divided by the total mass of the sample. See reference [1].

[d] The reported value, y, of massic activity (activity per unit mass) at the reference time was not measured directly but was derived from measurements and calculations of other quantities. This can be expressed as $y = f(x_1, x_2, x_3, \ldots x_n)$, where f is a mathematical function derived from the assumed model of the measurement process. The value, x_i, used for each input quantity i has a **standard uncertainty**, $u(x_i)$, that generates a corresponding uncertainty in y, $u_i(y) = |\partial y/\partial x_i| \cdot u(x_i)$, called a **component of combined standard uncertainty** of y. The **combined standard uncertainty** of y, $u_c(y)$, is the positive square root of the sum of the squares of the components of combined standard uncertainty. The combined standard uncertainty is multiplied by a **coverage factor** of $k = 2$ to obtain U, the **expanded uncertainty** of y.

Since it can be assumed that the possible estimated values of the massic activity are approximately normally distributed with approximate standard deviation $u_c(y)$, the unknown value of the massic activity is believed to lie in the interval $y \pm U$ with a level of confidence of approximately 95 percent.

For further information on the expression of uncertainties, see references [2] and [3].

[e] The value of each component of combined standard uncertainty, and hence the value of the expanded uncertainty itself, is a best estimate based upon all available information, but is only approximately known. That is to say, the "uncertainty of the uncertainty" is large and not well known. This is true for uncertainties evaluated by statistical methods (e.g., the relative standard deviation of the standard deviation of the mean for the massic response is approximately 50%) and for uncertainties evaluated by other methods (which could easily be over estimated or under estimated by substantial amounts). The unknown value of the expanded uncertainty is believed to lie in the interval $U/2$ to $2U$ (i.e., within a factor of 2 of the estimated value).

[f] The stated uncertainty is two times the standard uncertainty.

[g] Estimated limits of detection for alpha-particle-emitting impurities, expressed as massic alpha-particle emission rates (numbers of alpha particles per second per gram), are:
0.003 $s^{-1} \cdot g^{-1}$ for energies less than 3.1 MeV,
0.03 $s^{-1} \cdot g^{-1}$ for energies between 3.1 and 4.4 MeV, and
0.003 $s^{-1} \cdot g^{-1}$ for energies greater than 5.0 MeV.

[h] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994. Americium-241, the daughter of plutonium-241, was removed but has been growing in since that time.

[i] Estimated limits of detection for photon-emitting impurities, expressed as massic photon emission rates (numbers of photons per second per gram), are:
5×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 19 and 39 keV,
7×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 49 and 92 keV,
2×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 106 and 507 keV,
1×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 515 and 1456 keV, and
5×10^{-6} $s^{-1} \cdot g^{-1}$ for energies between 1465 and 2750 keV,
provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of plutonium-242, plutonium-241, or americium-241.

[j] The stated uncertainty is the standard uncertainty.

[k] Relative standard uncertainty of the input quantity x_i.

[m] The relative change in the output quantity y divided by the relative change in the input quantity x_i. If $|\partial y/\partial x_i| \cdot (x_i/y) = 1.0$, then a 1% change in x_i results in a 1% change in y. If $|\partial y/\partial x_i| \cdot (x_i/y) = 0.05$, then a 1% change in x_i results in a 0.05% change in y.

[n] Relative component of combined standard uncertainty of output quantity y, rounded to two significant figures or less. The relative component of combined standard uncertainty of y is given by $u_i(y)/y \equiv |\partial y/\partial x_i| \cdot u(x_i)/y = |\partial y/\partial x_i| \cdot (x_i/y) \cdot u(x_i)/x_i$. The numerical values of $u(x_i)/x_i$, $|\partial y/\partial x_i| \cdot (x_i/y)$, and $u_i(y)/y$, all dimensionless quantities, are listed in columns 3, 4, and 5, respectively. Thus, the value in column 5 is equal to the value in column 4 multiplied by the value in column 3. The input quantities are independent, or very nearly so. Hence the covariances are zero or negligible.

[p] The relative standard uncertainty of $\lambda \cdot t$ is determined by the relative standard uncertainty of λ (i.e., of the half life). The relative standard uncertainty of t is negligible.

[q] $|\partial y/\partial x_i| \cdot (x_i/y) = |\lambda \cdot t|$

[r] The live time is determined by counting the pulses from a gated crystal-controlled oscillator.

[s] The standard uncertainty for each undetected impurity that might reasonably be expected to be present is estimated to be equal to the estimated limit of detection for that impurity, i.e. $u(x_i)/x_i$ = 100%. $|\partial y/\partial x_i| \cdot (x_i/y)$ = {(response per Bq of impurity)/(response per Bq of Pu-242)}•{(Bq of impurity)/(Bq of Pu-242)}. Thus $u_i(y)/y$ is the relative change in y if the impurity were present with a massic activity equal to the estimated limit of detection.

[t] The stated uncertainty is the standard uncertainty. The plutonium-241 activity was calculated from a gamma-ray measurement of the americium-241 ingrowth as of 25 November 1998, assuming that americium-241 was completely removed at the time of chemical purification.

[u] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The value shown is an estimated upper limit based upon background and counting statistics. Measurements were made at the Lawrence Livermore National Laboratory (LLNL) in July of 1994.

[v] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The stated uncertainty is the standard uncertainty. Measurements were made at the National Institute of Standards and Technology (NIST) in June and July of 1999.

REFERENCES

[1] International Organization for Standardization (ISO), *ISO Standards Handbook - Quantities and Units*, 1993. Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B.N. Taylor and C.E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

[4] National Council on Radiation Protection and Measurements Report No. 58, *A Handbook of Radioactivity Measurements Procedures*, Second Edition, 1985. Available from the National Council on Radiation Protection and Measurements, 7910 Woodmont Avenue, Bethesda, MD 20814 U.S.A.

[5] Evaluated Nuclear Structure Data File (ENSDF), January 2005.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1375
Prepared By:	Mary Aders
Carrier Conc:	0.5M HNO3
Reference Date:	06/07/1994
Ampoule Mass (g):	5.5 g
Uncertainty:	+/- .72 %
LogBook No:	RC-S-051-094

A Solution Material Info	
Isotope:	Plutonium-242
Prepared By:	Ashley Drochter
Prep Date:	01/08/2010
Verification Date:	01/08/2010
Expiration Date:	01/08/2011
Primary Code:	1375-A
Dilution(mL):	250 mL
Mass of Parent(g):	5.3542 g
Density(g/mL):	1.0148
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (250 mL) = 33.8086 dpm/mL
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (1.0148 g/mL) / (250 mL) = 33.3155 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Pu-242 Standard 1375-*A*

A.Drochter	Isotope	Value	Uncertainty
1/9/2010	1375-A	1.530	0.2410
	1375-A	1.630	0.2630
	1375-A	1.580	0.2480

Mean Value (Counting) =	1.580	103.75	**Pass**
Stdev =	0.05		**Rule 3 (Pass/Fail)**

Target =	1.52
Lower Limit =	1.48
Upper Limit =	1.68
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.1
10 % of Mean =	0.158
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for standard 1375-A using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. Two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-242 were calculated by comparison to Pu-239 certified values.

1/12/10

1/12/10

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CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1067

74463-278

Sr-90 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Sr-90
ACTIVITY (Bq):	3.835 E4
HALF-LIFE:	28.79 years
CALIBRATION DATE:	February 7, 2007 12:00 EST
RELATIVE EXPANDED UNCERTAINTY (k=2):	1.7%

Impurities: γ-impurities <0.1%

5.01066 grams 0.1M HCl solution with 30 μg/g Sr carrier.

NOTE: This source also contains Y-90 in secular equilibrium with Sr-90. The Y-90 activity is equal to the Sr-90 activity. Since Sr-90 and Y-90 both decay 100% by beta emission, the total beta emission rate for the source is twice the certified Sr-90 activity. The half-life for Y-90 is 64.08 hours.

P O NUMBER 2739 RD, Item 1

RECEIVED 2/8/07

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 2-7-07

RC-S-045-108-A

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1067
Prepared By:	Daniel Roy
Carrier Conc:	0.1M HCl
Reference Date:	02/07/2007
Ampoule Mass (g):	5.01066 g
Uncertainty:	+/- 1.7 %
LogBook No:	RC-S-045-108

A Solution Material Info	
Isotope:	Strontium-90
Prepared By:	Julie Strock
Prep Date:	10/12/2007
Verification Date:	06/17/2009
Expiration Date:	06/23/2010
Primary Code:	1067-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.9657 g
Density(g/mL):	0.9962
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (bq)) * (conversion dpm to bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)

(Mass of parent(g)) * (Parm Activity (bq)) * (conversion dpm to bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)

(4.9657 g) * (38350 bq) * (60 dpm/bq) / (5.01066 g * 100 mL) = 22803.5343 dpm/mL

(4.9657 g) * (38350 bq) * (60 dpm/bq) / (0.9962 g/mL)/ (5.01066 g * 100 mL) = 22889.8293 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/23/2008	Daniel Roy	20.0611	1000	1067-B	459.1952 dpm/ml	07/23/2008	07/23/2009
06/16/2009	Mary Aders	20.0693	1000	1067-C	459.3829 dpm/mL	06/17/2009	06/17/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Sr-90 Standard 1067-C

6/18/2009	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (mL)	Source DPM/mL
M. Aders	1067-C N1	922.6000	45.1300	877.4700	2.030242	1.0000	432.1997082
	1067-C N2	905.2700	45.1300	860.1400	2.030242	1.0000	423.66378
	1067-C N3	918.2700	45.1300	873.1400	2.030242	1.0000	430.0669575
						Average =	428.6434819
Mean Value (Counting) =	428.6434819		98.7965109	% of known	Pass		
Stdev =	4.442435123		0.01036394				
Certificate Value =	433.865	dpm/mL					
Lower Limit =	419.7586117	dpm/mL					
Upper Limit =	437.5283522	dpm/mL					
Rule 1 Pass/Fail	Pass	Pass	Pass				
Two sigma =	8.884870247						
10 % of Mean =	42.86434819						
Rule 2 (Pass/Fail)	Pass						

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for Sr-90 source 1067-C by transferring 1 mL portions of the standard into glass liquid scintillation vials. Thirteen mL of Ecoscint Ultra liquid scintillation coctail was prepared in a similar fashion using 1 mL of DI water and 13 mL of Ecoscint Ultra liquid scintillation coctail. The standard verification vials and Background source were dark adapted for two hours and counted on LSC Green for Sr-90 source standard verification. The Sr-90 efficiency calibration which was used for verification calculations was performed on 6/17/09 using source 0133-A (Sr-90). Calibration data is recorded in this logbook under Sr-90 0133-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.
RAD SOP M-001

6/18/09
6/29/09

STANDARDIZATION OF STRONTIUM CARRIER

DATE: [redacted] EXP. DATE: [redacted]

LOT NUMBER [redacted]

STRONTIUM PRECIPITATES

	1	2	3	4
Weight of carrier added	[redacted]			
Aliquot (5.00 mL)				
Crucible + ppt.	[redacted]			
Crucible				
Wt. of ppt., g	0.0178	0.0179	0.0179	0.0178
mg Sr/mL	17.80	17.90	17.90	17.80
mg Sr/g	17.28	17.72	17.55	17.28

Must weigh carrier added

Jennifer L. Robb
9-24-09

Average	Std. Dev.	
17.85	± 0.06	0.00323446
17.46	± 0.22	0.0124023
mg Sr/ 0.5 mL		**8.93**
mg Sr/g		17.46

0.5% of Mean Value = 0.08925 Pass

A satisfactory standardization is obtained when results give a standard deviation of less than 0.5% of the mean value.

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CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1243

78352-278

Sr-90 10 mL Liquid in Flame Sealed Vial

Customer: General Engineering Labs/Charleston, SC
P.O. No.: 7312 RD, Item 3

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	Sr-90
Activity (Bq):	3.856 E5
Half-Life:	28.79 years
Calibration Date:	October 1, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	1.7%

Comments:
Impurities: γ-impurities <0.1%
10.41484 grams 0.1M HCl solution with 30 μg/g Sr carrier.

NOTE: This source also contains Y-90 in secular equilibrium with Sr-90. The Y-90 activity is equal to the Sr-90 activity. Since Sr-90 and Y-90 both decay 100% by beta emission, the total beta emission rate for the source is twice the certified Sr-90 activity. The half-life for Y-90 is 64.08 hours.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 10/3/08
D. M. Montgomery, QA Manager

RECEIVED

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1243
Prepared By:	Daniel Roy
Carrier Conc:	0.1M HCL
Reference Date:	10/01/2008
Ampoule Mass (g):	10.41484 g
Uncertainty:	+/- 1.7 %
LogBook No:	RC-S-048-124

A Solution Material Info	
Isotope:	Strontium-90
Prepared By:	Daniel Roy
Prep Date:	12/19/2008
Verification Date:	01/21/2010
Expiration Date:	01/21/2011
Primary Code:	1243-A
Dilution(mL):	100 mL
Mass of Parent(g):	10.2164 g
Density(g/mL):	0.9991
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(10.2164 g) * (385600 Bq) * (60 dpm/Bq) / (10.41484 g * 100 mL) = 226951.7634 dpm/mL
(10.2164 g) * (385600 Bq) * (60 dpm/Bq) / (0.9991 g/mL)/ (10.41484 g * 100 mL) = 227146.2010 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/21/2010	Bethany Fiem	2.2467	1000	1243-B	510.329369 dpm/mL	01/21/2010	01/21/2011

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Sr-90 Standard 1243-B

1/21/2010	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (mL)	Source DPM/mL
B. Fiem	1243-B N1	1043.4000	43.6000	999.8000	2.030242	1.0000	492.453609
	1243-B N2	1035.2000	43.6000	991.6000	2.030242	1.0000	488.4146816
	1243-B N3	1020.0000	43.6000	976.4000	2.030242	1.0000	480.9278894
						Average =	487.2653933
Mean Value (Counting) =	487.2653933		**98.5553214**	**Pass**			
Stdev =	5.848179264		0.01200204	**Rule 3 (Pass/Fail)**			

Certificate Value =	494.408	dpm/mL
Lower Limit =	475.5690348	dpm/mL
Upper Limit =	498.9617518	dpm/mL
Rule 1 Pass/Fail	**Pass**	
Two sigma =	11.69635853	
10 % of Mean =	48.72653933	
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for Sr-90 source 1243-B by transferring 1 mL portions of the standard into glass liquid scintillation vials with 10 mL of Ecoscint Ultra liquid scintillation coctai. A Background was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation coctail. The standard verification vials and Background source were dark adapted for two hours and counted on LSC Green for Sr-90 source standard verification. The Sr-90 efficiency calibration which was used for verification calculations was performed on 6/17/09 using source 0133-A (Sr-90). Calibration data is recorded in this logbook under Sr-90 0133-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

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1/25/10

BF 1-25-10

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CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1242

78148-278

Th-230 5 mL Liquid in Flame Sealed Vial

Customer: General Engineerings Labs
P.O. No.: 7311RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	Th-230
Activity (Bq):	4.021 E4
Half-Life:	7.538 E4 years
Calibration Date:	August 25, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	2.0%

Comments:
Impurities: γ-impurities <0.1%, α-impurities <0.04%
5.07467 grams 0.5M HNO3 solution.

Source Prepared By: MITaskaeva
M. I. Taskaeva, Radiochemist

QA Approved: DM Montgomery
D. M. Montgomery, QA Manager

Date: 9-4-08

RECEIVED 9/17/08
RC-S-048-123

End of Certificate

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1242
Prepared By:	Daniel Roy
Carrier Conc:	0.5M HNO3
Reference Date:	08/25/2008
Ampoule Mass (g):	5.07467 g
Uncertainty:	+/- 2 %
LogBook No:	RC-S-048-123

A Solution Material Info	
Isotope:	Thorium-230
Prepared By:	Ashley Drochter
Prep Date:	11/10/2009
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1242-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8836 g
Density(g/mL):	1.0597
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8836 g) * (40210 Bq) * (60 dpm/Bq) / (5.07467 g * 100 mL) = 23217.6149 dpm/mL
(4.8836 g) * (40210 Bq) * (60 dpm/Bq) / (1.0597 g/mL)/ (5.07467 g * 100 mL) = 21908.6601 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/01/2009	Bethany Fiem	6.3855	500	1242-B	279.79548 dpm/mL	12/02/2009	12/02/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Th-230 Standard 1242-B

Analyst: B. Fiem	Source ID	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (ml)	Source DPM/ml
Date: 12/1/09	1242-B #1	321.8000	39.8000	282.0000	1.069320	1.0000	263.719
	1242-B #2	325.2000	39.8000	285.4000	1.069320	1.0000	266.899
	1242-B #3	339.2000	39.8000	299.4000	1.069320	1.0000	279.991

Mean Value (Counting) =	270.2028704	96.5727649	Pass
Stdev =	8.62458049		Rule 3 (Pass/Fail)

Certificate Value =	279.792
Lower Limit =	252.9537094
Upper Limit =	287.4520313
Rule 1 Pass/Fail	Pass
Two sigma =	17.24916098
10 % of Mean =	27.02028704
Rule 2 (Pass/Fail)	Pass

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for **Th-230** source **1242-B** by transferring 1.0 mL portions of the standard to glass liquid scintillation vials. 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Background vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for one hour and counted on LSC Green for standard verification. The alpha efficiency calibration which was used for verification calculations was performed on 11/16/09 using NIST source 0905-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference: RAD SOP M - 001

12-1-09

12/2/09

National Institute of Standards & Technology

Certificate 1163

Standard Reference Material 4321C
Natural Uranium Radioactivity Standard

This Standard Reference Material (SRM) consists of a solution of a standardized and certified quantity of radioactive uranium-238, uranium-235, and uranium-234 in a suitably stable and homogeneous matrix. It is intended primarily for the calibration of instruments that are used to measure radioactivity and for the monitoring of radiochemical procedures. The solution, whose composition is specified in Table 1, is contained in a flame-sealed, 5 mL, NIST, borosilicate-glass ampoule (see Note 1)*.

The certified massic activities for the uranium isotopes at a **Reference Time of 1200 EST, 1 August 1997**, are:

Uranium-238: (242.0 ± 1.5) $Bq \cdot g^{-1}$

Uranium-235: (11.14 ± 0.07) $Bq \cdot g^{-1}$

Uranium-234: (233.1 ± 2.2) $Bq \cdot g^{-1}$

Additional physical, chemical, and radiological properties for the SRM, as well as details on the standardization method, are given in Table 1. Uncertainty intervals for certified quantities are expanded ($k = 2$) uncertainties calculated according to the ISO and NIST Guidelines (see Note 2). Table 2 contains a specification of the components that comprise the uncertainty analyses.

The certification of this SRM, within the measurement uncertainties specified, is valid for at least five (5) years after receipt. The solution matrix, in an unopened ampoule, is believed to be indefinitely homogeneous and stable, within its half-life-dependent, useful lifetime. NIST will monitor this material and will report any substantive changes in certification to the purchaser. Should any of the certified values change, purchasers of this SRM will be notified of the change by NIST.

This SRM may represent a radiological hazard and a chemical hazard. Consult the Material Safety Data Sheet (MSDS), enclosed with the SRM shipment, for details (see Note 1).

This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, Dr. M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by Dr. L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

Lisa R. Karam, Deputy Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
November 1997
Text revised and expiration date extended February 2007

Robert L. Watters, Jr., Chief
Measurement Services Division

RECEIVED 11/98

*Notes and references are on page 4

RC-5-048-044

Table 1. Properties of SRM 4321C

Certified values

Radionuclides	**Natural Uranium (Mixture of ^{238}U, ^{235}U, and ^{234}U)**
Reference time	**1200 EST, 1 August 1997**
Massic activities of the solution	**^{238}U : 242.0 Bq•g^{-1}** **^{235}U : 11.14 Bq•g^{-1}** **^{234}U : 233.1 Bq•g^{-1}**
Relative expanded uncertainties ($k = 2$)	**^{238}U : 0.60%** (see Note 2)* **^{235}U : 0.60%** (see Note 2) **^{234}U : 0.96%** (see Note 2)

Uncertified information

Source description	Liquid in flame-sealed, 5 mL NIST borosilicate ampoule (see Note 1)
Solution composition	1.0 mol•L^{-1} HCl with 30 mg $UO_2(NO_3)_2$ per gram of solution
Solution density	(1.053 ± 0.001) g•mL^{-1} at 21.4 °C (see Note 3)
Solution mass	(5.258 ± 0.002) g (see Note 3)
Mass fraction of uranium	(0.01960 ± 0.00010) g•g^{-1} (see Note 3)
Photon-emitting impurities	None detected (see Note 4)
Half-lifes used [1]	^{238}U : (4.468 ± 0.003) x 10^9 a ‡ ^{235}U : (7.038 ± 0.005) x 10^8 a ‡ ^{234}U : (2.455 ± 0.006) x 10^5 a ‡
Calibration method (and instruments)	The certified massic activity for natural uranium was obtained by mass spectrometer, silicon surface-barrier detector, and $4\pi\alpha\beta$ liquid scintillation (LS) counting systems.

‡ See Note 5

*Notes and references are on page 4

Table 2. Uncertainty evaluation for the massic activity for SRM 4321C

	Uncertainty component	Assessment Type†	Relative standard uncertainty contribution on massic activity of Natural Uranium (%)
1	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{238}U	A	0.001
2	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{235}U	A	0.07
3	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{234}U	A	0.3
4	Half life of ^{238}U; standard uncertainty of the half-life	A	0.07
5	Half life of ^{235}U; standard uncertainty of the half-life	A	0.07
6	Half life of ^{234}U; standard uncertainty of the half-life	A	0.24
7	Uranium mass fraction in SRM 960; from SRM960 certificate	B	0.003
8	Quantitative dissolution	B	0.25
9	Gravimetric (mass) measurements	B	0.10
10	Limit for photon-emitting impurities	B	0.10
Relative combined standard uncertainty		^{238}U	**0.30**
		^{235}U	**0.30**
		^{234}U	**0.48**
Relative expanded uncertainty ($k = 2$)		^{238}U	**0.60**
		^{235}U	**0.60**
		^{234}U	**0.96**

† = (A) denotes evaluation by statistical methods; (B) denotes evaluation by other methods.

NOTES

Note 1. Refer to http://physics.nist.gov/Divisions/Div846/srm.html for the standardized ampoule dimensions and for assistance and instructions on how to properly open an ampoule. Information on additional storage and handling requirements is also included in the website.

Note 2. The uncertainties on certified values are expanded uncertainties, $U = ku_c$. The quantity u_c is the combined standard uncertainty calculated according to the ISO and NIST Guides (see references [2] and [3]). The combined standard uncertainty is multiplied by a coverage factor of $k = 2$ and was chosen to obtain an approximate 95 % level of confidence.

Note 3. The stated uncertainty is two times the standard uncertainty. See reference [3].

Note 4. The estimated lower limits of detection for photon-emitting impurities, expressed as massic photon emission rates are;

$1.4\ s^{-1} \cdot g^{-1}$ for 8 keV < E < 59 keV
$1.1\ s^{-1} \cdot g^{-1}$ for 67 keV < E < 88 keV
$0.5\ s^{-1} \cdot g^{-1}$ for 102 keV < E < 197 keV
$0.3\ s^{-1} \cdot g^{-1}$ for 205 keV < E < 762 keV
$0.2\ s^{-1} \cdot g^{-1}$ for 770 keV < E < 996 keV, and
$0.1\ s^{-1} \cdot g^{-1}$ for 1006 keV < E < 1900 keV

provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of ^{238}U, ^{235}U, ^{234}U, or their progeny.

Note 5. The stated uncertainty is the standard uncertainty. See reference [3].

REFERENCES

[1] Evaluated Nuclear Structure Data File (ENSDF), online database, National Nuclear Data Center, Brookhaven Laboratory (Upton, NY), August 2007. Refer to http://www.nndc.bnl.gov/ensdf/

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B. N. Taylor and C. E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1163
Prepared By:	Daniel Roy
Carrier Conc:	1M HCL
Reference Date:	08/01/1997
Ampoule Mass (g):	5.258 g
Uncertainty:	+/- .6 %
LogBook No:	RC-S-048-044

A Solution Material Info	
Isotope:	Uranium-238
Prepared By:	Daniel Roy
Prep Date:	02/23/2008
Verification Date:	10/21/2009
Expiration Date:	10/21/2010
Primary Code:	1163-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.118 g
Density(g/mL):	1.0327
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.118 g) * (242 Bq/g) * (60 dpm/Bq) / (100 mL) = 743.1336 dpm/mL
(5.118 g) * (242 Bq/g) * (60 dpm/Bq) / (1.0327 g/mL) / (100 mL) = 719.5817 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/23/2009	Julie Strock	.1	100	1163-090723-1		07/30/2008	07/30/2009
07/23/2009	Julie Strock	1	100	1163-090723-2		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.25	50	1163-090723-3		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.02	20	1163-090723-4		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.2	20	1163-090723-5		07/30/2008	07/30/2009
07/23/2009	Julie Strock	2	20	1163-090723-6		07/30/2008	07/30/2009
07/31/2009	James Schoneman	.1	100	1163-090731-1		08/07/2008	08/07/2009
07/31/2009	James Schoneman	1	100	1163-090731-2		08/07/2008	08/07/2009
07/31/2009	James Schoneman	.02	20	1163-090731-3		08/07/2008	08/07/2009
07/31/2009	James Schoneman	.2	20	1163-090731-4		08/07/2008	08/07/2009
07/31/2009	James Schoneman	2	20	1163-090731-5		08/07/2008	08/07/2009

08/05/2009	James Schoneman	.1	20	1163-090805-1	08/07/2008	08/07/2009
08/06/2009	James Schoneman	.02	20	1163-090806-1	08/07/2008	08/07/2009
08/06/2009	James Schoneman	.2	20	1163-090806-2	08/07/2008	08/07/2009
08/06/2009	James Schoneman	2	20	1163-090806-3	08/07/2008	08/07/2009
08/14/2009	James Schoneman	.1	100	1163-090814-1	08/21/2008	08/21/2009
08/14/2009	James Schoneman	1	100	1163-090814-2	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.02	20	1163-090814-3	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.2	20	1163-090814-4	08/21/2008	08/21/2009
08/14/2009	James Schoneman	2	20	1163-090814-5	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.01	20	1163-090814-6	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.05	25	13451163-090814-1	08/21/2008	08/21/2009
08/18/2009	James Schoneman	.1	20	1163-090818-1	08/21/2008	08/21/2009
08/18/2009	James Schoneman	2.5	25	1163-090818-2	08/21/2008	08/21/2009
08/21/2009	James Schoneman	.1	100	1163-090821-1	08/28/2008	08/28/2009
08/21/2009	James Schoneman	1	100	1163-090821-2	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.02	20	1163-090821-3	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.2	20	1163-090821-4	08/28/2008	08/28/2009
08/21/2009	James Schoneman	2	20	1163-090821-5	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.01	20	1163-090821-6	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.05	25	13451163-090821-1	08/28/2008	08/28/2009
08/28/2009	James Schoneman	.1	100	1163-090828-1	09/04/2008	09/04/2009

08/28/2009	James Schoneman	1	100	1163-090828-2		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.02	20	1163-090828-3		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.2	20	1163-090828-4		09/04/2008	09/04/2009
08/28/2009	James Schoneman	2	20	1163-090828-5		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.01	20	1163-090828-6		09/04/2008	09/04/2009
09/01/2009	James Schoneman	.01	20	1163-090901-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.01	20	1163-090902-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.01	20	1163-090902-2		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.05	25	11631345-090828-1		09/04/2008	09/04/2009
09/01/2009	James Schoneman	.05	25	11631345-090901-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.05	25	11631345-090902		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.05	25	11631345-090902-1		09/04/2008	09/04/2009
09/11/2009	James Schoneman	.1	100	1163-090911-1	999645.956 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	1	100	1163-090911-2	999.646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.02	20	1163-090911-3	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.2	20	1163-090911-4	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	2	20	1163-090911-5	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.01	20	1163-090911-6	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.02	20	1163-090916-1	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.2	20	1163-090916-2	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	2	20	1163-090916-3	9.99646 ug/L	09/18/2008	09/18/2009

09/16/2009	James Schoneman	.01	20	1163-090916-4	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.05	25	11631332-090916-1	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.05	25	11631345-090911-1	9.99646 ug/L	09/18/2008	09/18/2009
09/18/2009	James Schoneman	.1	20	1163-090918-1	999.646 ug/L	09/18/2008	09/18/2009
09/19/2009	James Schoneman	.1	100	1163-090919-1		09/26/2008	09/26/2009
09/19/2009	James Schoneman	1	100	1163-090919-2		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.02	20	1163-090919-3		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.2	20	1163-090919-4		09/26/2008	09/26/2009
09/19/2009	James Schoneman	2	20	1163-090919-5		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.01	20	1163-090919-6		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.05	25	11631332-090919-1		09/26/2008	09/26/2009
09/28/2009	James Schoneman	.1	100	1163-090928-1		10/05/2008	10/05/2009
09/28/2009	James Schoneman	1	100	1163-090928-2		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.02	20	1163-090928-3		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.2	20	1163-090928-4		10/05/2008	10/05/2009
09/28/2009	James Schoneman	2	20	1163-090928-5		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.01	20	1163-090928-6		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.05	25	11631332-090928-1		10/05/2008	10/05/2009
10/05/2009	James Schoneman	.1	100	1163-091005-1		10/12/2008	10/12/2009
10/05/2009	James Schoneman	1	100	1163-091005-2		10/12/2008	10/12/2009
10/05/2009	James Schoneman	.02	20	1163-091005-3		10/12/2008	10/12/2009

10/05/2009	James Schoneman	.2	20	1163-091005-4	10/12/2008	10/12/2009
10/05/2009	James Schoneman	2	20	1163-091005-5	10/12/2008	10/12/2009
10/05/2009	James Schoneman	.01	20	1163-091005-6	10/12/2008	10/12/2009
10/05/2009	James Schoneman	.05	25	11631332-091005	10/12/2008	10/12/2009
10/08/2009	James Schoneman	.1	20	1163-091008-1	10/12/2008	10/12/2009
10/09/2009	James Schoneman	.1	100	1163-091009-1	10/16/2008	10/16/2009
10/09/2009	James Schoneman	1	100	1163-091009-2	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.02	20	1163-091009-3	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.2	20	1163-091009-4	10/16/2008	10/16/2009
10/09/2009	James Schoneman	2	20	1163-091009-5	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.01	20	1163-091009-6	10/16/2008	10/16/2009
10/12/2009	James Schoneman	.01	20	1163-091012-1	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.05	25	11631332-091009-1	10/16/2008	10/16/2009
10/15/2009	James Schoneman	.1	100	1163-091015-1	10/22/2008	10/22/2009
10/15/2009	James Schoneman	1	100	1163-091015-2	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.02	20	1163-091015-3	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.2	20	1163-091015-4	10/22/2008	10/22/2009
10/15/2009	James Schoneman	2	20	1163-091015-5	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.01	20	1163-091015-6	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.05	25	11631332-091015	10/22/2008	10/22/2009
10/22/2009	James Schoneman	.1	100	1163-091022-1	10/29/2008	10/29/2009

10/22/2009	James Schoneman	1	100	1163-091022-2	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.2	20	1163-091022-4	10/29/2008	10/29/2009
10/22/2009	James Schoneman	2	20	1163-091022-5	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.01	20	1163-091022-6	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.05	25	11631332-091022-1	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.02	20	1163-091022-3	10/29/2008	10/29/2009
10/29/2009	James Schoneman	.1	100	1163-091029-1	11/05/2008	11/05/2009
10/29/2009	James Schoneman	1	100	1163-091029-2	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.02	20	1163-091029-3	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.2	20	1163-091029-4	11/05/2008	11/05/2009
10/29/2009	James Schoneman	2	20	1163-091029-5	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.01	20	1163-091029-6	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.05	25	11631332-091029	11/05/2008	11/05/2009
11/05/2009	James Schoneman	.1	100	1163-091105-1	11/12/2008	11/12/2009
11/05/2009	James Schoneman	1	100	1163-091105-2	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.02	20	1163-091105-3	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.2	20	1163-091105-4	11/12/2008	11/12/2009
11/05/2009	James Schoneman	2	20	1163-091105-5	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.01	20	1163-091105-6	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.05	25	11631332-091105-1	11/12/2008	11/12/2009
11/10/2009	James Schoneman	.1	20	1163-091110-1	11/12/2008	11/12/2009

11/12/2009	James Schoneman	.1	100	1163-091112-1	11/19/2008	11/19/2009
11/12/2009	James Schoneman	1	100	1163-091112-2	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.02	20	1163-091112-3	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.2	20	1163-091112-4	11/19/2008	11/19/2009
11/12/2009	James Schoneman	2	20	1163-091112-5	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.01	20	1163-091112-6	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.05	25	11631332-091112-1	11/19/2008	11/19/2009
11/18/2009	James Schoneman	.1	100	1163-091118-1	11/25/2008	11/25/2009
11/18/2009	James Schoneman	1	100	1163-091118-2	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.02	20	1163-091118-3	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.2	20	1163-091118-4	11/25/2008	11/25/2009
11/18/2009	James Schoneman	2	20	1163-091118-5	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.01	20	1163-091118-6	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.05	25	11631332-091118-1	11/25/2008	11/25/2009
11/30/2009	James Schoneman	.1	100	1163-091130-1	12/06/2008	12/06/2009
11/30/2009	James Schoneman	1	100	1163-091130-2	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.02	20	1163-091130-3	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.2	20	1163-091130-4	12/06/2008	12/06/2009
11/30/2009	James Schoneman	2	20	1163-091130-5	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.01	20	1163-091130-6	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.05	25	11631332-091130-1	12/06/2008	12/06/2009

12/07/2009	James Schoneman	.1	100	1163-091207-1		12/14/2008	12/14/2009
12/07/2009	James Schoneman	1	100	1163-091207-2		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.02	20	1163-091207-3		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.2	20	1163-091207-4		12/14/2008	12/14/2009
12/07/2009	James Schoneman	2	20	1163-091207-5		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.01	20	1163-091207-6		12/14/2008	12/14/2009
12/09/2009	James Schoneman	.01	20	1163-091209-1		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.02	20	1163-091210-2		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.2	20	1163-091210-3		12/14/2008	12/14/2009
12/10/2009	James Schoneman	2	20	1163-091210-4		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.05	25	11631332-091207-1		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.1	20	1163-091210-1		12/14/2008	12/14/2009
12/11/2009	James Schoneman	.1	100	1163-091211-1		12/18/2008	12/18/2009
12/11/2009	James Schoneman	1	100	1163-091211-2		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.02	20	1163-091211-3		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.2	20	1163-091211-4		12/18/2008	12/18/2009
12/11/2009	James Schoneman	2	20	1163-091211-5		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.01	20	1163-091211-6		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.05	25	11631333-091211-1		12/18/2008	12/18/2009
02/27/2008	Daniel Roy	8.0851	100	1163-B	58.1789 dpm/ml	03/01/2008	03/01/2009
02/27/2008	Daniel Roy	8.1015	100	1163-C	58.2969 dpm/ml	03/01/2008	03/01/2009

04/16/2008	Julie Strock	.5619	100	1163-D	4.0433 dpm/mL	04/16/2008	04/16/2009
07/10/2008	Daniel Roy	20.0175	250	1163-E	57.6169 dpm/ml	07/13/2008	07/13/2009
01/05/2009	Tina Schoneman	.519	100	1163-F	3.7346 dpm/mL	01/05/2009	01/05/2010
04/16/2009	Mary Aders	19.4278	250	1163-G	55.9196 dpm/ml	04/16/2009	04/16/2010
10/21/2009	Mary Aders	20.008	250	1163-H	57.5896 dpm/mL	10/21/2009	10/21/2010
08/01/1997	Julie Strock	7.379	250	1163-I	21.2392 dpm/mL	12/07/2009	12/02/2010
08/01/1997	Julie Strock	.106	375	1163-J	.2034 dpm/mL	12/07/2009	12/02/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Uranium-238 Standard *1163-H*

Analyst: M. Aders	Serial #	Value	Uncertainty
Date: 10/21/2009	1163-H N1	2.660	0.510
	1163-H N2	2.460	0.469
	1163-H N3	2.530	0.409

Mean Value (Counting) =	2.550	**98.298998**	**Pass**
Stdev =	0.101488916		**Rule 3 (Pass/Fail)**

Target =	2.594
Lower Limit =	2.347022169
Upper Limit =	2.752977831
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.202977831
10 % of Mean =	0.255
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1163-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-232** standard **1283-E** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

10/21/09
11/2/09

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404·352·8677
Fax 404·352·2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: W. Mao, Radiochemist

QA Approved: D. M. Montgomery, QA Manager Date: 12-11-08

End of Certificate

RECEIVED 12/15/08
RC-S-OE

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	**Serial #**	**Value**		**Uncertainty**	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Drochter AMS 12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 956976**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
247817002	SAMPLE	KXG3	GAM17	04-MAR-10 22:19	DONE	2LMB	11-JAN-10 00:00
247829002	SAMPLE	KXG3	GAM19	04-MAR-10 22:20	DONE	2LMB	11-MAR-09 00:00
1202051903	MB	KXG3	GAM20	04-MAR-10 22:20	DONE	2LMB	06-JUL-09 00:00
1202051904	DUP	KXG3	GAM14	05-MAR-10 16:47	DONE	2LMB	09-MAR-09 00:00
1202051905	LCS	KXG3	GAM02	05-MAR-10 16:48	DONE	2LMB	17-JUN-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 957019**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
247829002	SAMPLE	HAKB	1255	08-MAR-10 09:38	DUSE		
1202052006	MB	HAKB	1256	08-MAR-10 09:38	DONE		
246862002	SAMPLE	HAKB	1025	08-MAR-10 21:20	DONE		
246877002	SAMPLE	HAKB	1026	08-MAR-10 21:20	DONE		
246877003	SAMPLE	HAKB	1027	08-MAR-10 21:20	DONE		
246886001	SAMPLE	HAKB	1028	08-MAR-10 21:20	DONE		
246886003	SAMPLE	HAKB	1029	08-MAR-10 21:20	DONE		
246964001	SAMPLE	HAKB	1030	08-MAR-10 21:20	DONE		
246964003	SAMPLE	HAKB	1031	08-MAR-10 21:20	DONE		
246967002	SAMPLE	HAKB	1033	08-MAR-10 21:20	DONE		
246967003	SAMPLE	HAKB	1035	08-MAR-10 21:20	DONE		
247036001	SAMPLE	HAKB	1036	08-MAR-10 21:20	DONE		
247036004	SAMPLE	HAKB	1037	08-MAR-10 21:20	DONE		
247042003	SAMPLE	HAKB	1038	08-MAR-10 21:20	DONE		
247042005	SAMPLE	HAKB	1039	08-MAR-10 21:20	DONE		
247261003	SAMPLE	HAKB	1040	08-MAR-10 21:20	DUSE		
247431001	SAMPLE	HAKB	1041	08-MAR-10 21:20	DONE		
247817002	SAMPLE	HAKB	1042	08-MAR-10 21:20	DONE		
1202052007	DUP	HAKB	1043	08-MAR-10 21:20	DONE		
1202052008	LCS	HAKB	1044	08-MAR-10 21:20	DONE		
247829002	SAMPLE	HAKB	1228	10-MAR-10 18:56	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 957023**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
246862002	SAMPLE	HAKB	1045	08-MAR-10 21:20	DUSE		
246877002	SAMPLE	HAKB	1046	08-MAR-10 21:20	DONE		
246877003	SAMPLE	HAKB	1048	08-MAR-10 21:20	DONE		
246886001	SAMPLE	HAKB	1071	08-MAR-10 21:20	DONE		
246886003	SAMPLE	HAKB	1072	08-MAR-10 21:20	DONE		
246964001	SAMPLE	HAKB	1073	08-MAR-10 21:20	DUSE		
246964003	SAMPLE	HAKB	1074	08-MAR-10 21:20	DONE		
246967002	SAMPLE	HAKB	1075	08-MAR-10 21:20	DONE		
246967003	SAMPLE	HAKB	1076	08-MAR-10 21:20	DUSE		
247036001	SAMPLE	HAKB	1083	08-MAR-10 21:20	DONE		
247036004	SAMPLE	HAKB	1084	08-MAR-10 21:20	DONE		
247042003	SAMPLE	HAKB	1085	08-MAR-10 21:20	DONE		
247042005	SAMPLE	HAKB	1086	08-MAR-10 21:20	DUSE		
247261003	SAMPLE	HAKB	1087	08-MAR-10 21:20	DUSE		
247431001	SAMPLE	HAKB	1088	08-MAR-10 21:20	DUSE		
247829002	SAMPLE	HAKB	1101	09-MAR-10 08:01	DONE		
1202052015	MB	HAKB	1102	09-MAR-10 08:01	DONE		
1202052017	LCS	HAKB	1105	09-MAR-10 08:01	DONE		
247817002	SAMPLE	HAKB	1106	09-MAR-10 08:01	DONE		
246862002	SAMPLE	HAKB	1099	10-MAR-10 16:36	DONE		
246964001	SAMPLE	HAKB	1100	10-MAR-10 16:36	DONE		
246967003	SAMPLE	HAKB	1101	10-MAR-10 16:36	DONE		
247042005	SAMPLE	HAKB	1102	10-MAR-10 16:36	DONE		
247261003	SAMPLE	HAKB	1103	10-MAR-10 16:36	DONE		
247431001	SAMPLE	HAKB	1105	10-MAR-10 16:36	DONE		
1202052016	DUP	HAKB	1106	10-MAR-10 16:36	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 957025**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
247829002	SAMPLE	HAKB	1001	05-MAR-10 12:23	DONE		
1202052018	MB	HAKB	1011	05-MAR-10 12:23	DONE		
246886003	SAMPLE	HAKB	1141	08-MAR-10 07:04	DONE		
246964001	SAMPLE	HAKB	1142	08-MAR-10 07:04	DONE		
246964003	SAMPLE	HAKB	1143	08-MAR-10 07:04	DONE		
246967002	SAMPLE	HAKB	1144	08-MAR-10 07:04	DONE		
246967003	SAMPLE	HAKB	1145	08-MAR-10 07:04	DONE		
247036001	SAMPLE	HAKB	1146	08-MAR-10 07:04	DONE		
247036004	SAMPLE	HAKB	1147	08-MAR-10 07:04	DONE		
247042003	SAMPLE	HAKB	1148	08-MAR-10 07:04	DONE		
247042005	SAMPLE	HAKB	1149	08-MAR-10 07:04	DONE		
247261003	SAMPLE	HAKB	1150	08-MAR-10 07:04	DONE		
247431001	SAMPLE	HAKB	1151	08-MAR-10 07:04	DONE		
247817002	SAMPLE	HAKB	1152	08-MAR-10 07:05	DONE		
1202052019	DUP	HAKB	1153	08-MAR-10 07:05	DONE		
1202052020	LCS	HAKB	1154	08-MAR-10 07:05	DONE		
246862002	SAMPLE	HAKB	1007	08-MAR-10 08:49	DONE		
246877002	SAMPLE	HAKB	1008	08-MAR-10 08:49	DONE		
246877003	SAMPLE	HAKB	1009	08-MAR-10 08:49	DONE		
246886001	SAMPLE	HAKB	1010	08-MAR-10 08:49	DONE		

Instrument Run Log

Instrument Type: GFPC **Batch ID: 959738**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202058389	LCS	JXR1	PIC13A	04-MAR-10 15:15	DONE	Tuffryn Filter	01-FEB-10 00:00
1202058387	DUP	JXR1	PIC14D	04-MAR-10 15:15	DONE	Tuffryn Filter	01-FEB-10 00:00
247817002	SAMPLE	JXR1	PIC13C	04-MAR-10 15:15	DONE	Tuffryn Filter	01-FEB-10 00:00
247829002	SAMPLE	JXR1	PIC13B	04-MAR-10 15:15	DONE	Tuffryn Filter	01-FEB-10 00:00
248020001	SAMPLE	JXR1	PIC14B	04-MAR-10 15:15	DONE	Tuffryn Filter	01-FEB-10 00:00
248023002	SAMPLE	JXR1	PIC14C	04-MAR-10 15:16	DONE	Tuffryn Filter	01-FEB-10 00:00
1202058388	MS	JXR1	PIC13A	04-MAR-10 16:38	DONE	Tuffryn Filter	01-FEB-10 00:00
1202058386	MB	JXR1	PIC14B	04-MAR-10 18:04	DONE	Tuffryn Filter	01-FEB-10 00:00
248024003	SAMPLE	JXR1	PIC13C	04-MAR-10 18:05	DONE	Tuffryn Filter	01-FEB-10 00:00
248024001	SAMPLE	JXR1	PIC8A	09-MAR-10 09:21	DONE	Tuffryn Filter	01-FEB-10 00:00
248020003	SAMPLE	JXR1	PIC1C	09-MAR-10 17:52	DONE	Tuffryn Filter	01-FEB-10 00:00

Instrument Run Log

Instrument Type: GFPC **Batch ID: 959739**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202058391	DUP	DXF3	LB4100F1	05-MAR-10 09:17	DONE	2 inch Planchett	31-JUL-09 00:00
247817002	SAMPLE	DXF3	LB4100F2	05-MAR-10 09:17	DONE	2 inch Planchett	31-JUL-09 00:00
247829002	SAMPLE	DXF3	LB4100F3	05-MAR-10 09:17	DONE	2 inch Planchett	31-JUL-09 00:00
248024003	SAMPLE	DXF3	LB4100F4	05-MAR-10 09:17	DONE	2 inch Planchett	31-JUL-09 00:00
248020002	SAMPLE	DXF3	LB4100H1	05-MAR-10 09:20	DONE	2 inch Planchett	31-JUL-09 00:00
248023002	SAMPLE	DXF3	LB4100H2	05-MAR-10 09:20	DONE	2 inch Planchett	31-JUL-09 00:00
248024001	SAMPLE	DXF3	LB4100H3	05-MAR-10 09:20	DONE	2 inch Planchett	31-JUL-09 00:00
248020003	SAMPLE	DXF3	LB4100H4	05-MAR-10 09:20	DONE	2 inch Planchett	31-JUL-09 00:00
1202058392	MS	DXF3	LB4100B1	05-MAR-10 09:22	DONE	2 inch Planchett	31-JUL-09 00:00
1202058393	MSD	DXF3	LB4100B2	05-MAR-10 09:22	DONE	2 inch Planchett	31-JUL-09 00:00
1202058394	LCS	DXF3	LB4100B4	05-MAR-10 09:22	DONE	2 inch Planchett	31-JUL-09 00:00
1202058390	MB	DXF3	LB4100G1	05-MAR-10 09:44	DONE	2 inch Planchett	31-JUL-09 00:00
248020001	SAMPLE	DXF3	LB4100G2	05-MAR-10 09:44	DONE	2 inch Planchett	31-JUL-09 00:00
247829002	SAMPLE	DXF3	PIC11C	06-MAR-10 03:55	DONE	2 inch Planchett	31-JUL-09 00:00
248020002	SAMPLE	DXF3	PIC12B	06-MAR-10 03:55	DONE	2 inch Planchett	31-JUL-09 00:00
1202058390	MB	DXF3	PIC10B	06-MAR-10 04:00	DONE	2 inch Planchett	31-JUL-09 00:00
1202058392	MS	DXF3	PIC4B	06-MAR-10 04:00	DONE	2 inch Planchett	31-JUL-09 00:00
1202058393	MSD	DXF3	PIC8C	06-MAR-10 04:00	DONE	2 inch Planchett	31-JUL-09 00:00
1202058394	LCS	DXF3	PIC8D	06-MAR-10 04:00	DONE	2 inch Planchett	31-JUL-09 00:00
247817002	SAMPLE	DXF3	PIC8B	06-MAR-10 04:00	DONE	2 inch Planchett	31-JUL-09 00:00
248020001	SAMPLE	DXF3	PIC1A	06-MAR-10 04:22	DONE	2 inch Planchett	31-JUL-09 00:00
248020003	SAMPLE	DXF3	PIC9C	06-MAR-10 04:23	DONE	2 inch Planchett	31-JUL-09 00:00
248023002	SAMPLE	DXF3	PIC4C	06-MAR-10 04:23	DONE	2 inch Planchett	31-JUL-09 00:00
248024001	SAMPLE	DXF3	PIC10A	06-MAR-10 04:23	DONE	2 inch Planchett	31-JUL-09 00:00
248024003	SAMPLE	DXF3	PIC5B	06-MAR-10 04:23	DONE	2 inch Planchett	31-JUL-09 00:00
1202058391	DUP	DXF3	LB4100F1	06-MAR-10 15:27	DONE	2 inch Planchett	31-JUL-09 00:00

Monday, February 22, 2010

REQUEST NUMBER: 10-2000

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2000

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/22/2010

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:351.2	1	CAPA-10-13095	WG	2/21/2010	
	SW-846:8081A	1	CAPA-10-13095	WG	2/21/2010	
		2	CAPA-10-13095	WG	2/21/2010	
		3	CAPA-10-13095	WG	2/21/2010	
	SW-846:8082	1	CAPA-10-13095	WG	2/21/2010	
		2	CAPA-10-13095	WG	2/21/2010	
		3	CAPA-10-13095	WG	2/21/2010	
	SW-846:8260B	1	CAPA-10-13095	WG	2/21/2010	
		2	CAPA-10-13095	WG	2/21/2010	

Monday, February 22, 2010

REQUEST NUMBER: 10-2000

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	CAPA-10-13096	WG	2/21/2010	
	SW-846:8270C	1	CAPA-10-13095	WG	2/21/2010	
		2	CAPA-10-13095	WG	2/21/2010	
		3	CAPA-10-13095	WG	2/21/2010	
	SW-846:8321A_MOD	1	CAPA-10-13095	WG	2/21/2010	
		2	CAPA-10-13095	WG	2/21/2010	
		3	CAPA-10-13095	WG	2/21/2010	
	SW-846:9060	1	CAPA-10-13095	WG	2/21/2010	

Final Page of REQUEST NUMBER 10-2000

Monday, February 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2000

REQUEST NUMBER: 10-2000

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-13095	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-13095	2	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-13095	3	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-13095	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-13095	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-13095	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-13095	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-13095	3	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-13095	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13095	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13095	3	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13095	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-13095	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-13095	2	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-13095	3	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-13096	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		2/22/10	1800				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2635 **EVENT NAME:** R-54 Characterization Sampling

SAMPLE ID: CAPA-10-13094 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/21/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0603	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-54		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
TOP DEPTH:	915		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	925		SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice		
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	pH <2	
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice		
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	pH <2	

SAMPLE DESC:

SAMPLE COMMENTS: Collect sample from lower screen. Depths are from the proposed well design and may change once fact sheet is released.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D. Woody, M Green **REVIEWED BY (PRINT)** M Green

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Hal Wershow	2/22/10	(Printed Name) Sherri Sherwood	2/22/10
(Signature) Hal	0915	(Signature) Sherri Sherwood	0915
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2635 **EVENT NAME:** R-54 Characterization Sampling

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Wooly, M Green

REVIEWED BY (PRINT) M Green

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Hal Wershaw (Signature) Hal Wershaw	2/22/10 0915	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	2/22/10 0915
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2635 **EVENT NAME:** R-54 Characterization Sampling

SAMPLE ID: CAPA-10-13095 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/21/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0603	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-54		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
TOP DEPTH:	915		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	925		SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
3		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)		pH < 2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice		
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice		
3		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice		
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide		pH > 12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice		
1		WSP-GrossA/B	1 LITER POLY	None		
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice		
1		WSP-LL-H-3	1 LITER POLY	None		
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid		pH<2
1		WSP-RAD	1 GAL POLY	Nitric Acid		pH<2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		pH<2
3		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice		

SAMPLE DESC:

SAMPLE COMMENTS: Collect sample from lower screen. Depths are from the proposed well design and may change once fact sheet is released.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2635 **EVENT NAME:** R-54 Characterization Sampling

SAMPLE ID: CAPA-10-13096 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/21/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0603	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	NA	
LOCATION ID:	R-54		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
TOP DEPTH:	915		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	925		SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 ~~2~~		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	1H42

SAMPLE DESC: QC Sample of CAPA-10-13095

SAMPLE COMMENTS: Collect sample from lower screen. Depths are from the proposed well design and may change once fact sheet is released.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D. Woody, M Green **REVIEWED BY (PRINT)** M Green

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Hal Wershow (Signature) Hal	2/22/10 0915	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	2/22/10 0915
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-2000 VALIDATION DATE: 4/19/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☐ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☒ OTHER (DESCRIBE): VOC

Section II. Completeness Check

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

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

1. The ICAL and/or ICV/CCV RRFs for isobutyl alcohol and n-butyl alcohol were <0.05. All associated sample results were ND and were qualified R,V7b.
2. In the FTB methylene chloride was detected. The associated sample result was ND and was not qualified.
3. The ICV/CCV %Ds for dichlorodifluoromethane, acetone, carbon disulfide, and vinyl acetate were > 20%. All associated sample results were ND and were qualified UJ,V7c.
4. It should be noted that ten target analytes were not present in the MS/MSD spiking solution. No sample results were qualified.

Reviewed by: Allison Felix Level: 1 Date: 4/21/10

DATA VALIDATION COVER SHEET	
5114-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943
VALIDATOR'S SIGNATURE: _____	DATE: 4/19/10
Form 5114-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

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

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**	**Date Collected:**	**02/21/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247828002**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13095**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**960638**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 20:08**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/03/2010 20:08**				
Data File:	**030310V4\4A308.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00	UJ,V7c
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00	
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00	
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00	
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0	UJ,V7c
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0	
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00	
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0	
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00	UJ,V7c
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00	UJ,V7c
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00	
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0	R,V7b
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00	
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00	
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00	
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00	

MLH
4/19/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**	**Date Collected:**	**02/21/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247828002**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13095**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**960638**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 20:08**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/03/2010 20:08**				
Data File:	**030310V4\4A308.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00	
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00	
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00	
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00	
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00	
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00	
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00	
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00	
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00	
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00	
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00	
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00	
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00	
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00	
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0	R,V7b
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00	

MLH
4/19/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**	**Date Collected:**	**02/21/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247828002**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13095**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**960638**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 20:08**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/03/2010 20:08**				
Data File:	**030310V4\4A308.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	50.9	50.0	ug/L	102	(72%-132%)
Bromofluorobenzene	57.7	50.0	ug/L	115	(77%-123%)
Toluene-d8	51.8	50.0	ug/L	104	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48		ug/L	0	J

MLH
4/19/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**	**Date Collected:**	**02/21/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247828005**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13096**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**960638**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 20:36**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/03/2010 20:36**				
Data File:	**030310V4\4A309.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00	UJ,V7c
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00	
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00	
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00	
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0	UJ,V7c
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0	
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00	
75-09-2	Methylene chloride	J	4.37	ug/L	3.00	10.0	
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00	UJ,V7c
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00	UJ,V7c
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00	
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0	R,V7b
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00	
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00	
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00	
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00	

MLH
4/19/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**	**Date Collected:**	**02/21/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247828005**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13096**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**960638**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 20:36**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/03/2010 20:36**				
Data File:	**030310V4\4A309.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00	
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00	
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00	
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00	
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00	
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00	
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00	
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00	
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00	
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00	
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00	
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00	
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00	
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00	
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0	R,V7b
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00	

MLH
4/19/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**	**Date Collected:**	**02/21/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247828005**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13096**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**960638**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 20:36**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/03/2010 20:36**				
Data File:	**030310V4\4A309.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	50.6	50.0	ug/L	101	(72%-132%)
Bromofluorobenzene	58.1	50.0	ug/L	116	(77%-123%)
Toluene-d8	51.1	50.0	ug/L	102	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	Estimated RT	Units	Fit	Qual
	unknown hydrocarbon	4.48	ug/L	0	J
	unknown siloxane	12.47	ug/L	0	J
	unknown siloxane	14.83	ug/L	0	J
	unknown siloxane	16.79	ug/L	0	J

MLH
4/19/10

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-2000 VALIDATION DATE: 04/19/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☐ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☒ OTHER (DESCRIBE): SVOC

Section II. Completeness Check

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

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

1. The ICAL RRF for atrazine was <.05. The associated sample result was ND and was qualified R,SV7b.
2. The LCS %R for benzidine was < 10%. The associated sample result was ND and was qualified R,SV12.
3. The ICV /CCV %Ds for pyridine and 2-methyl-4,6-dinitrophenol were >20%. The associated sample results were ND and were qualified UJ,SV7c.
4. The LCS %R for pyridine was > 10% but < the laboratory LAL. The associated sample result was ND and was qualified UJ,SV12.
5. The MS/MSD %Rs for benzidine and pyridine were not within the laboratory's QC limits. However, MS/MSD analyses are not required for SVOCs and, thus, no sample data were qualified.

It should be noted that 6 target analytes were not included in the LCS/MS/MSD spiking solutions. No sample data

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

were qualified.

Reviewed by: Allison Felix Level: 1 Date: 4/21/10

VALIDATOR'S SIGNATURE: _____ DATE: 04/19/10

Form 5115-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

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

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

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

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

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

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

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

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**	**Date Collected:**	**02/21/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247828002**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13095**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**957046**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 18:28**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/24/2010 20:21**	**Aliquot:**	**860 mL**	**Final Volume:**	**1 mL**
Data File:	**s8b2520.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	11.6	ug/L	2.33	11.6	
108-95-2	Phenol	U	11.6	ug/L	1.16	11.6	
95-57-8	2-Chlorophenol	U	11.6	ug/L	2.33	11.6	
106-46-7	1,4-Dichlorobenzene	U	11.6	ug/L	2.33	11.6	
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	11.6	ug/L	2.33	11.6	
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	11.6	ug/L	2.33	11.6	
83-32-9	Acenaphthene	U	1.16	ug/L	0.360	1.16	
121-14-2	2,4-Dinitrotoluene	U	11.6	ug/L	2.33	11.6	
100-02-7	4-Nitrophenol	U	11.6	ug/L	2.33	11.6	
87-86-5	Pentachlorophenol	U	11.6	ug/L	2.33	11.6	
129-00-0	Pyrene	U	1.16	ug/L	0.349	1.16	
110-86-1	Pyridine	U	11.6	ug/L	3.49	11.6	UJ,SV7c
62-53-3	Aniline	U	11.6	ug/L	2.91	11.6	
111-44-4	bis(2-Chloroethyl) ether	U	11.6	ug/L	2.33	11.6	
541-73-1	1,3-Dichlorobenzene	U	11.6	ug/L	2.33	11.6	
100-51-6	Benzyl alcohol	U	11.6	ug/L	2.33	11.6	
95-50-1	1,2-Dichlorobenzene	U	11.6	ug/L	2.33	11.6	
108-60-1	bis(2-Chloroisopropyl)ether	U	11.6	ug/L	2.33	11.6	
95-48-7	o-Cresol	U	11.6	ug/L	2.33	11.6	
65794-96-9	m,p-Cresols	U	11.6	ug/L	3.49	11.6	
67-72-1	Hexachloroethane	U	11.6	ug/L	2.33	11.6	
98-95-3	Nitrobenzene	U	11.6	ug/L	3.49	11.6	
78-59-1	Isophorone	U	11.6	ug/L	3.49	11.6	
88-75-5	2-Nitrophenol	U	11.6	ug/L	2.33	11.6	
105-67-9	2,4-Dimethylphenol	U	11.6	ug/L	2.33	11.6	
111-91-1	bis(2-Chloroethoxy)methane	U	11.6	ug/L	3.49	11.6	
120-83-2	2,4-Dichlorophenol	U	11.6	ug/L	2.33	11.6	
65-85-0	Benzoic acid	U	23.3	ug/L	6.98	23.3	
91-20-3	Naphthalene	U	1.16	ug/L	0.349	1.16	
106-47-8	4-Chloroaniline	U	11.6	ug/L	2.33	11.6	
87-68-3	Hexachlorobutadiene	U	11.6	ug/L	2.33	11.6	
91-57-6	2-Methylnaphthalene	U	1.16	ug/L	0.349	1.16	
90-12-0	1-Methylnaphthalene	U	1.16	ug/L	0.349	1.16	
77-47-4	Hexachlorocyclopentadiene	U	11.6	ug/L	3.49	11.6	
88-06-2	2,4,6-Trichlorophenol	U	11.6	ug/L	2.33	11.6	
95-95-4	2,4,5-Trichlorophenol	U	11.6	ug/L	2.33	11.6	
91-58-7	2-Chloronaphthalene	U	1.16	ug/L	0.349	1.16	

MLH
4/19/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**	**Date Collected:**	**02/21/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247828002**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13095**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**957046**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 18:28**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/24/2010 20:21**	**Aliquot:**	**860 mL**	**Final Volume:**	**1 mL**
Data File:	**s8b2520.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	11.6	ug/L	2.33	11.6	
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	11.6	ug/L	2.33	11.6	
131-11-3	Dimethylphthalate	U	11.6	ug/L	2.33	11.6	
606-20-2	2,6-Dinitrotoluene	U	11.6	ug/L	2.33	11.6	
208-96-8	Acenaphthylene	U	1.16	ug/L	0.233	1.16	
51-28-5	2,4-Dinitrophenol	U	23.3	ug/L	5.81	23.3	
132-64-9	Dibenzofuran	U	11.6	ug/L	2.33	11.6	
84-66-2	Diethylphthalate	U	11.6	ug/L	2.33	11.6	
86-73-7	Fluorene	U	1.16	ug/L	0.233	1.16	
7005-72-3	4-Chlorophenylphenylether	U	11.6	ug/L	2.33	11.6	
534-52-1	2-Methyl-4,6-dinitrophenol	U	11.6	ug/L	3.49	11.6	UJ,SV7c
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	11.6	ug/L	3.49	11.6	
122-39-4	Diphenylamine *1,2-Diphenylhydrazine*	U	11.6	ug/L	3.49	11.6	
122-66-7	Azobenzene	U	11.6	ug/L	2.33	11.6	
101-55-3	4-Bromophenylphenylether	U	11.6	ug/L	2.33	11.6	
118-74-1	Hexachlorobenzene	U	11.6	ug/L	2.33	11.6	
1912-24-9	Atrazine	U	11.6	ug/L	3.49	11.6	R,SV7b
85-01-8	Phenanthrene	U	1.16	ug/L	0.233	1.16	
120-12-7	Anthracene	U	1.16	ug/L	0.233	1.16	
84-74-2	Di-n-butylphthalate	U	11.6	ug/L	2.33	11.6	
206-44-0	Fluoranthene	U	1.16	ug/L	0.233	1.16	
92-87-5	Benzidine	U	11.6	ug/L	3.49	11.6	R,SV12
85-68-7	Butylbenzylphthalate	U	11.6	ug/L	2.33	11.6	
56-55-3	Benzo(a)anthracene	U	1.16	ug/L	0.233	1.16	
91-94-1	3,3'-Dichlorobenzidine	U	11.6	ug/L	2.33	11.6	
218-01-9	Chrysene	U	1.16	ug/L	0.233	1.16	
117-81-7	bis(2-Ethylhexyl)phthalate	U	11.6	ug/L	2.33	11.6	
117-84-0	Di-n-octylphthalate	U	11.6	ug/L	3.49	11.6	
205-99-2	Benzo(b)fluoranthene	U	1.16	ug/L	0.233	1.16	
207-08-9	Benzo(k)fluoranthene	U	1.16	ug/L	0.233	1.16	
50-32-8	Benzo(a)pyrene	U	1.16	ug/L	0.233	1.16	
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.16	ug/L	0.233	1.16	
53-70-3	Dibenzo(a,h)anthracene	U	1.16	ug/L	0.233	1.16	
191-24-2	Benzo(ghi)perylene	U	1.16	ug/L	0.233	1.16	
123-91-1	1,4-Dioxane	U	11.6	ug/L	2.33	11.6	
55-18-5	N-Nitrosodiethylamine	U	11.6	ug/L	2.33	11.6	

MLH
4/19/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**	**Date Collected:**	**02/21/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247828002**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13095**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**957046**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 18:28**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/24/2010 20:21**	**Aliquot:**	**860 mL**	**Final Volume:**	**1 mL**
Data File:	**s8b2520.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	11.6	ug/L	2.33	11.6
924-16-3	N-Nitrosodi-n-butylamine	U	11.6	ug/L	3.49	11.6
95-94-3	1,2,4,5-Tetrachlorobenzene	U	11.6	ug/L	3.49	11.6
608-93-5	Pentachlorobenzene	U	11.6	ug/L	3.49	11.6
58-90-2	2,3,4,6-Tetrachlorophenol	U	11.6	ug/L	2.33	11.6
88-85-7	Dinoseb	U	11.6	ug/L	2.33	11.6
120-82-1	1,2,4-Trichlorobenzene	U	11.6	ug/L	2.33	11.6

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	77.7	116	ug/L	66.8	(39%-120%)
2-Fluorobiphenyl	31.8	58.1	ug/L	54.8	(38%-108%)
2-Fluorophenol	43.6	116	ug/L	37.5	(19%-98%)
Nitrobenzene-d5	36.6	58.1	ug/L	62.9	(31%-122%)
Phenol-d5	28.8	116	ug/L	24.7	(15%-83%)
p-Terphenyl-d14	53.7	58.1	ug/L	92.4	(40%-138%)

Tentatively Identified Compound Summary

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

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DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-2000 VALIDATION DATE: 04/19/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

☐ OTHER (DESCRIBE):

Section II. Completeness Check

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

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

1. The ICAL RRF values for 2-amino-4,6-dinitrotoluene; PETN; m-nitrotoluene; o-nitrotoluene; and p–nitrotoluene were < 0.05 but ≥0.01. All associated sample results were ND and were qualified UJ,HE7b.
2. In the MB 2,6-dinitrotoluene was detected. The associated sample result was ND and was not qualified.

Reviewed by: Allison Felix Level: 1 Date: 4/21/10

DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

VALIDATOR'S SIGNATURE: _____ DATE: 4/19/10

Form 5122-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
☐	☐	☒	3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
☐	☐	☒	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
☐	☐	☒	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
☐	☒	☐	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
☐	☒	☐	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
☐	☒	☐	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
☐	☐	☒	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	11. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE3d	R, HE3d
☒	☐	☐	12. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, HE4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, HE4a
☐	☐	☒	14. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, HE4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE4e	R, HE4e
☐	☒	☐	16. The absence of sample carry-over must be determined and verified.	N/A	R, N, HE4f
☐	☒	☐	17. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, HE7	J, HE7
☐	☒	☐	18. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less < 0.99.	UJ, R, HE7a	J, HE7a
☒	☐	☐	19. The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV.	UJ, R, HE7b	J, HE7b
☐	☒	☐	20. The ICV and/or CCV were recovered outside the method limits.	UJ, R, HE7c	J, HE7c
☐	☒	☐	21. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, HE7d	J, HE7d
☐	☒	☐	22. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, HE7f	R, HE7f

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
☐	☒	☐	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
☐	☒	☐	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
☐	☒	☐	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
☐	☒	☐	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
☐	☒	☐	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
☐	☒	☐	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
☐	☒	☐	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
☐	☒	☐	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
☐	☒	☐	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
☐	☒	☐	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
☐	☐	☒	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, HE15	R, HE15
☐	☐	☒	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
☐	☐	☒	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13095

Lab Code: GEL

GEL Job No (SDG) 10-2000

Matrix: GROUND WATER

GEL Sample ID: 247828003

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 23-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 957190

Concentrated Extract Volume (mL) 5

Date Extracted: 25-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0322024.wiff

Date Analyzed: 23-MAR-10 01:40

Units: ug/L

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		0.325	U
121-14-2	2,4-Dinitrotoluene		0.325	U
121-82-4	RDX		0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.325	U
2691-41-0	HMX		0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ,HE7b	0.325	U
479-45-8	Tetryl		0.649	U
606-20-2	2,6-Dinitrotoluene		0.325	U
78-11-5	PETN	UJ,HE7b	1.3	U
88-72-2	o-Nitrotoluene	UJ,HE7b	0.325	U
98-95-3	Nitrobenzene		0.325	U
99-08-1	m-Nitrotoluene	UJ,HE7b	0.325	U
99-35-4	1,3,5-Trinitrobenzene		0.325	U
99-65-0	m-Dinitrobenzene		0.325	U
99-99-0	p-Nitrotoluene	UJ,HE7b	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MLH
4/19/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13095

Lab Code: GEL

GEL Job No (SDG) 10-2000

Matrix: GROUND WATER

GEL Sample ID: 247828003

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 23-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 957190

Concentrated Extract Volume (mL) 5

Date Extracted: 25-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310042.wiff

Date Analyzed: 31-MAR-10 19:24

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MLH
4/19/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-2000 VALIDATION DATE: 4/19/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

☐ OTHER (DESCRIBE): pesticides

Section II. Completeness Check

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

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

1. The CCV %D for alpha-chlordane was >15% on one column only. The associated sample result was ND and was not qualified.
2. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN. No sample results were qualified.

Reviewed by: Allison Felix Level: 1 Date: 4/21/10

DATA VALIDATION COVER SHEET	
5116-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943
VALIDATOR'S SIGNATURE: _____	DATE: 04/19/10
Form 5116-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

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

5116-2

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

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

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

5116-2

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

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

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

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

5116-2

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

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

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

5116-2

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

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

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

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-2000	**Date Collected:**	02/21/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	247828004	**Date Received:**	02/23/2010 08:50		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-13095	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	957867	**Inst:**	ECD7A.I	**Dilution:**	1
Run Date:	02/27/2010 02:09	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	02/26/2010 14:34	**Aliquot:**	900 mL	**Final Volume:**	5 mL
Data File:	039f3901.d	**Column:**	1 CLP-1	**Level:**	LOW
	039b3901.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.0222	ug/L	0.00556	0.0222	1
58-89-9	gamma-BHC (Lindane)	U	0.0222	ug/L	0.00556	0.0222	1
319-85-7	beta-BHC	U	0.0222	ug/L	0.00667	0.0222	1
319-86-8	delta-BHC	U	0.0222	ug/L	0.00556	0.0222	1
76-44-8	Heptachlor	U	0.0222	ug/L	0.00556	0.0222	1
309-00-2	Aldrin	U	0.0222	ug/L	0.00556	0.0222	1
1024-57-3	Heptachlor epoxide	U	0.0222	ug/L	0.00556	0.0222	1
5103-74-2	gamma-Chlordane	U	0.0222	ug/L	0.00556	0.0222	1
5103-71-9	alpha-Chlordane	U	0.0222	ug/L	0.00556	0.0222	1
959-98-8	Endosulfan I	U	0.0222	ug/L	0.00556	0.0222	1
72-55-9	4,4'-DDE	U	0.0444	ug/L	0.00556	0.0444	1
60-57-1	Dieldrin	U	0.0444	ug/L	0.0111	0.0444	1
72-20-8	Endrin	U	0.0444	ug/L	0.0111	0.0444	1
72-54-8	4,4'-DDD	U	0.0444	ug/L	0.0111	0.0444	1
33213-65-9	Endosulfan II	U	0.0444	ug/L	0.0111	0.0444	1
7421-93-4	Endrin aldehyde	U	0.0444	ug/L	0.00556	0.0444	1
50-29-3	4,4'-DDT	U	0.0444	ug/L	0.0111	0.0444	1
1031-07-8	Endosulfan sulfate	U	0.0444	ug/L	0.0111	0.0444	1
72-43-5	Methoxychlor	U	0.222	ug/L	0.0556	0.222	1
53494-70-5	Endrin ketone	U	0.0444	ug/L	0.0111	0.0444	1
8001-35-2	Toxaphene	U	0.556	ug/L	0.167	0.556	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.623	1.11	ug/L	56.1	(30%-105%)
Decachlorobiphenyl	0.669	1.11	ug/L	60.2	(30%-126%)

MLH
4/19/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-2000 VALIDATION DATE: 04/19/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

☐ OTHER (DESCRIBE): PCB

Section II. Completeness Check

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

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

1. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN. No sample results were qualified.

Reviewed by: Allison Felix Level: 1 Date: 4/21/10

VALIDATOR'S SIGNATURE:	DATE: 04/19/10
Form 5116-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

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

5116-2

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

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

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

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

5116-2

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

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

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

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

5116-2

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

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

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

5116-2

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

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2000**	**Date Collected:**	**02/21/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247828001**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA–10–13095**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**961887**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 11:35**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/08/2010 14:29**	**Aliquot:**	**920 mL**	**Final Volume:**	**1 mL**
Data File:	**032f3201.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	032b3201.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	0.109	ug/L	0.0362	0.109	1
11104–28–2	Aroclor–1221	U	0.109	ug/L	0.0362	0.109	1
11141–16–5	Aroclor–1232	U	0.109	ug/L	0.0362	0.109	1
53469–21–9	Aroclor–1242	U	0.109	ug/L	0.0362	0.109	1
12672–29–6	Aroclor–1248	U	0.109	ug/L	0.0362	0.109	1
11097–69–1	Aroclor–1254	U	0.109	ug/L	0.0362	0.109	1
11096–82–5	Aroclor–1260	U	0.109	ug/L	0.0362	0.109	1
37324–23–5	Aroclor–1262	U	0.109	ug/L	0.0362	0.109	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.119	0.217	ug/L	54.8	(30%–105%)
Decachlorobiphenyl	0.161	0.217	ug/L	74.1	(30%–126%)

MLH
4/19/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-2000 VALIDATION DATE: 04/19/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

☐ OTHER (DESCRIBE):

Section II. Completeness Check

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

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

1. It should be noted that the matrix QC analyses for TKN and TOC were performed on LANL samples from other RNs. No sample results were qualified.

Reviewed by: Allison Felix Level: 1 Date: 4/21/10

DATA VALIDATION COVER SHEET	
5120-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943
VALIDATOR'S SIGNATURE _____	DATE: 04/19/10
Form 5120-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 23, 2010

Client SDG: 10-2000

Client Sample ID: CAPA-10-13095
Sample ID: 247828003
Matrix: Ground Water
Collect Date: 21-FEB-10 12:00
Receive Date: 23-FEB-10
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis											
SW 9060 Total Organic Carbon "As Received"											
Total Organic Carbon Average	J	0.766	0.330	1.00	mg/L	1	TSM	03/02/10	1747	959246	1
Nutrient Analysis											
Nitrogen, Total Kjeldahl (TKN) "As Received"											
Nitrogen, Total Kjeldahl	U	ND	0.033	0.100	mg/L	1	AXH3	03/01/10	1008	956923	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 351.2 Prep	EPA 351.2 Total Kjeldahl Nitrogen Prep	SXJ1	02/25/10	1330	956922

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9060	
2	EPA 351.2	

MLH
4/19/10

Monday, February 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2000

REQUEST NUMBER: 10-2000

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 247828 1.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-13095	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-13095	2	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-13095	3	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-13095	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-13095	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-13095	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-13095	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-13095	3	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-13095	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13095	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13095	3	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13095	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-13095	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-13095	2	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-13095	3	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-13096	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	2/22/10	1800	Patricia Dover-Dent	P. Dover-Dent	2/23/10	08:50
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

Monday, February 22, 2010

REQUEST NUMBER: 10-2000

LOS ALAMOS
NATIONAL LABORATORY

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

These Samples are on:
LANL Request Number:10-2000
Per Agreement Number:126310011
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/22/2010
TURNAROUND/REPORT DUE: 3/24/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:351.2	1	CAPA-10-13095	WG	2/21/2010	
	SW-846:8081A	1	CAPA-10-13095	WG	2/21/2010	
		2	CAPA-10-13095	WG	2/21/2010	
		3	CAPA-10-13095	WG	2/21/2010	
	SW-846:8082	1	CAPA-10-13095	WG	2/21/2010	
		2	CAPA-10-13095	WG	2/21/2010	
		3	CAPA-10-13095	WG	2/21/2010	
	SW-846:8260B	1	CAPA-10-13095	WG	2/21/2010	
		2	CAPA-10-13095	WG	2/21/2010	

Monday, February 22, 2010

REQUEST NUMBER: 10-2000

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	CAPA-10-13096	WG	2/21/2010	
	SW-846:8270C	1	CAPA-10-13095	WG	2/21/2010	
		2	CAPA-10-13095	WG	2/21/2010	
		3	CAPA-10-13095	WG	2/21/2010	
	SW-846:8321A_MOD	1	CAPA-10-13095	WG	2/21/2010	
		2	CAPA-10-13095	WG	2/21/2010	
		3	CAPA-10-13095	WG	2/21/2010	
	SW-846:9060	1	CAPA-10-13095	WG	2/21/2010	

Final Page of REQUEST NUMBER 10-2000

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

March 01, 2010

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

Re: LANL-WQH Water Samples
Work Order: 247828
SDG: 10-2000

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 23, 2010, and analyzed for Explosives by LCMSMS, GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile, GC/MS Volatile and General Chemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2000
Enclosures

problem solved

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 247828
SDG # : 10-2000

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GC Semivolatile PCB Analysis.....802
Sample Data Summary.....808
Quality Control Summary.....810
Sample Data.....816
Standards Data.....822
Quality Control Data.....892
Miscellaneous Data.....907

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Sample Data Summary.....946
Quality Control Summary.....949
Instrument QC Data Summary.....952
Carbon, Total Organic.....955
Total Kjeldahl Nitrogen.....975
Miscellaneous.....984

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 247828
SDG # : 10-2000

March 01, 2010

Laboratory Identification:

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

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 23, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
247828001	CAPA-10-13095
247828002	CAPA-10-13095
247828003	CAPA-10-13095
247828004	CAPA-10-13095
247828005	CAPA-10-13096

Case Narrative

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

Data Package

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Explosives by LCMSMS, GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile, GC/MS Volatile and General Chemistry.

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

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 01 March 2010

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

Chain of Custody and Supporting Documentation

Monday, February 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2000

LOS ALAMOS

NATIONAL LABORATORY

REQUEST NUMBER: 10-2000

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 247828.1

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-13095	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-13095	2	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-13095	3	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-13095	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-13095	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-13095	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-13095	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-13095	3	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-13095	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13095	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13095	3	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13095	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-13095	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-13095	2	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-13095	3	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-13096	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	2/22/10	1800	Patricia Dover-Dent	P. D. Dent	2/23/10	08:50
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

Monday, February 22, 2010

REQUEST NUMBER: 10-2000

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2000

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/22/2010

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:351.2	1	CAPA-10-13095	WG	2/21/2010	
	SW-846:8081A	1	CAPA-10-13095	WG	2/21/2010	
		2	CAPA-10-13095	WG	2/21/2010	
		3	CAPA-10-13095	WG	2/21/2010	
	SW-846:8082	1	CAPA-10-13095	WG	2/21/2010	
		2	CAPA-10-13095	WG	2/21/2010	
		3	CAPA-10-13095	WG	2/21/2010	
	SW-846:8260B	1	CAPA-10-13095	WG	2/21/2010	
		2	CAPA-10-13095	WG	2/21/2010	

Monday, February 22, 2010

REQUEST NUMBER: 10-2000

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	CAPA-10-13096	WG	2/21/2010	
	SW-846:8270C	1	CAPA-10-13095	WG	2/21/2010	
		2	CAPA-10-13095	WG	2/21/2010	
		3	CAPA-10-13095	WG	2/21/2010	
	SW-846:8321A_MOD	1	CAPA-10-13095	WG	2/21/2010	
		2	CAPA-10-13095	WG	2/21/2010	
		3	CAPA-10-13095	WG	2/21/2010	
	SW-846:9060	1	CAPA-10-13095	WG	2/21/2010	

Final Page of REQUEST NUMBER 10-2000

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-2000**
Received By: Patricia Dover-Dent	**Date Received: February 23, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60 CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe **0,2-4** **7,11,&12C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?	X			Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?			X	Sample ID's affected: **time written on containers, not on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#S

7209 7850 1530 0C	**7209 7850 1610 2C**	**7209 7850 1584 3C**
7209 7850 1595 2C	**7209 7850 1518 3C**	**7209 7850 1621 4C**
7209 7850 1632 2C	**7209 7850 1562 3C**	**7209 7850 1600 7C**
7209 7850 1529 2C	**7209 7850 1573 3C**	**7209 7850 1507 11C**
	7209 7850 1492 12C	

PM (or PMA) review: Initials _____ Date 2/24/10

LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER:

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWMO

0°

FedEx Express

2 of 2
MPS# 0263 7209 7850 1530
Mstr# 7209 7850 1529 0201

TUE - 23FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A05158YDO

2°

FedEx Express

2 of 2
MPS# 0263 7209 7850 1595
Mstr# 7209 7850 1584 0201

TUE - 23FEB A1
PRIORITY OVERNIGHT

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

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TUE - 23FEB
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWMO

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PRIORITY OVERNIGHT

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ENE VALDEZ
ALAMOS NATL LAB
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ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

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NERAL ENGINEERING LAB
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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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PRIORITY OVERNIGHT

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
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PRIORITY OVERNIGHT

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05528E00

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Part # 156148-434 NRT V3 09-08

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BLDG 1237 DPU 03

LAMOS, NM 87545
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CAD: 0014176/CAFE2450

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 68.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWMO

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PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 05

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AAREW0130DM00

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PRIORITY OVERNIGHT

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Part # 156148-434 NRIT V3.09-09

DATA REVIEW QUALIFIER FLAG DEFINITION SHEET

Data Review Qualifier Definitions

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

GC/MS Volatile Analysis

Case Narrative

ChemStation Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2000

Method/Analysis Information

Procedure: Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method: SW846 8260B DOE-AL
Prep Method: SW846 5030B
Analytical Batch Number: 960638

Sample Analysis

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

Sample ID	Client ID
247828002	CAPA-10-13095
247828005	CAPA-10-13096
1202060495	Method Blank (MB)
1202060498	Laboratory Control Sample (LCS)
1202060499	Laboratory Control Sample (LCS)
1202060496	247828002(CAPA-10-13095) Post Spike (PS)
1202060497	247828002(CAPA-10-13095) Post Spike Duplicate (PSD)

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

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 14.

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

Calibration Information

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

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

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

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

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

Quality Control (QC) Information

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

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

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 247828002 (CAPA-10-13095) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

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

Technical Information

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

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

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

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

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate

all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
A Data Exception Document was not required for this SDG.

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

TIC Comment
Tentatively identified compounds (TIC) were required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

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

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

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA4.I	Gas Chromatograph/Mass Spectrometer	HP6890/HP5973	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

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

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

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

Client SDG: 10-2000 GEL Work Order: 247828

The Qualifiers in this report are defined as follows:

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

** Analyte is a surrogate compound

J Value is estimated

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

Review/Validation

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

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

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

Date: 19 MAR 2010 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000	**Date Collected:**	02/21/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	247828002	**Date Received:**	02/23/2010 08:50		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-13095	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	960638	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/03/2010 20:08	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/03/2010 20:08				
Data File:	030310V4\4A308.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000	**Date Collected:**	02/21/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	247828002	**Date Received:**	02/23/2010 08:50		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-13095	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	960638	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/03/2010 20:08	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/03/2010 20:08				
Data File:	030310V4\4A308.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000	**Date Collected:**	02/21/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	247828002	**Date Received:**	02/23/2010 08:50		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-13095	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	960638	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/03/2010 20:08	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/03/2010 20:08				
Data File:	030310V4\4A308.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	50.9	50.0	ug/L	102	(72%-132%)
Bromofluorobenzene	57.7	50.0	ug/L	115	(77%-123%)
Toluene-d8	51.8	50.0	ug/L	104	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48		ug/L	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**	**Date Collected:**	**02/21/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247828005**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13096**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**960638**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 20:36**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/03/2010 20:36**				
Data File:	**030310V4\4A309.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	J	4.37	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000	Date Collected:	02/21/2010 12:00	Matrix:	GROUND WATER
Lab Sample ID:	247828005	Date Received:	02/23/2010 08:50		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-13096	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	960638	Inst:	VOA4.I	Dilution:	1
Run Date:	03/03/2010 20:36	Analyst:	ACJ	Purge Vol:	5 mL
Prep Date:	03/03/2010 20:36				
Data File:	030310V4\4A309.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**	**Date Collected:**	**02/21/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247828005**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13096**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**960638**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 20:36**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/03/2010 20:36**				
Data File:	**030310V4\4A309.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	50.6	50.0	ug/L	101	(72%-132%)
Bromofluorobenzene	58.1	50.0	ug/L	116	(77%-123%)
Toluene-d8	51.1	50.0	ug/L	102	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	Estimated RT	Units	Fit	Qual
	unknown hydrocarbon	4.48	ug/L	0	J
	unknown siloxane	12.47	ug/L	0	J
	unknown siloxane	14.83	ug/L	0	J
	unknown siloxane	16.79	ug/L	0	J

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-2000

Matrix Type: LIQUID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202060498	LCS for batch 960638	98	96	104
1202060499	LCS for batch 960638	99	101	110
1202060495	MB for batch 960638	103	104	115
247828002	CAPA-10-13095	102	104	115
247828005	CAPA-10-13096	101	102	116
1202060496	CAPA-10-13095PS	99	98	103
1202060497	CAPA-10-13095PSD	99	98	101

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(72%-132%)
TOL	= Toluene-d8	(76%-122%)
BFB	= Bromofluorobenzene	(77%-123%)

* Recovery outside Acceptance Limits
# Column to be used to flag recovery values
D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2000
Client ID: CAPA-10-13095PS
Lab Sample ID: 1202060496
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: GROUND WATER
Analysis Date: 03/04/2010 03:33
Dilution: 1
Prep Batch ID: 960638
Batch ID: 960638

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	44.0	88	36-136
74-87-3	PS	Chloromethane	50.0	0.00	U	48.8	98	47-135
75-01-4	PS	Vinyl chloride	50.0	0.00	U	49.8	100	51-136
74-83-9	PS	Bromomethane	50.0	0.00	U	49.9	100	50-140
75-00-3	PS	Chloroethane	50.0	0.00	U	47.1	94	60-125
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	47.1	94	54-146
60-29-7	PS	Ethyl ether	50.0	0.00	U	48.0	96	61-112
67-64-1	PS	Acetone	250	0.00	U	91.3	37	15-142
75-05-8	PS	Acetonitrile	1250	0.00	U	1250	100	53-129
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	45.4	91	59-128
74-88-4	PS	Iodomethane	250	0.00	U	212	85	57-133
75-09-2	PS	Methylene chloride	50.0	0.00	U	41.1	82	63-122
75-15-0	PS	Carbon disulfide	250	0.00	U	254	102	62-135
1634-04-4	PS	tert-Butyl methyl ether	50.0	0.00	U	45.4	91	65-120
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	46.9	94	64-120
108-05-4	PS	Vinyl acetate	250	0.00	U	306	122	56-151
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	48.2	96	58-132
78-93-3	PS	2-Butanone	250	0.00	U	138	55	11-118
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	47.7	95	63-132
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	42.3	85	56-136
67-66-3	PS	Chloroform	50.0	0.00	U	46.5	93	68-130
74-97-5	PS	Bromochloromethane	50.0	0.00	U	44.9	90	70-124

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2000
Client ID: CAPA-10-13095PS
Lab Sample ID: 1202060496
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: GROUND WATER
Analysis Date: 03/04/2010 03:33
Dilution: 1
Prep Batch ID: 960638
Batch ID: 960638

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	44.7	89	66-132
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	44.9	90	64-130
71-36-3	PS	n-Butyl alcohol	5000	0.00	U	5070	101	52-149
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	44.1	88	61-137
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	48.5	97	60-127
71-43-2	PS	Benzene	50.0	0.00	U	45.6	91	65-119
79-01-6	PS	Trichloroethylene	50.0	0.00	U	44.7	89	68-121
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	48.7	97	69-122
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	49.2	98	67-134
74-95-3	PS	Dibromomethane	50.0	0.00	U	46.9	94	70-122
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	230	92	52-130
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	46.7	93	64-133
108-88-3	PS	Toluene	50.0	0.00	U	43.7	87	64-116
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	47.8	96	63-133
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	48.2	96	66-123
591-78-6	PS	2-Hexanone	250	0.00	U	169	68	25-125
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	47.9	96	70-119
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	41.2	82	63-121
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	47.9	96	66-132
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	46.6	93	72-122
108-90-7	PS	Chlorobenzene	50.0	0.00	U	44.1	88	74-116
100-41-4	PS	Ethylbenzene	50.0	0.00	U	44.2	88	59-125

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2000
Client ID: CAPA-10-13095PS
Lab Sample ID: 1202060496
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: GROUND WATER
Analysis Date: 03/04/2010 03:33
Dilution: 1
Prep Batch ID: 960638
Batch ID: 960638

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	PS	m,p-Xylenes	100	0.00	U	88.8	89	48-140
95-47-6	PS	o-Xylene	50.0	0.00	U	45.9	92	59-134
100-42-5	PS	Styrene	50.0	0.00	U	47.9	96	54-138
75-25-2	PS	Bromoform	50.0	0.00	U	44.7	89	59-140
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	45.8	92	65-124
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	42.5	85	61-137
108-86-1	PS	Bromobenzene	50.0	0.00	U	42.1	84	64-125
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	41.1	82	56-128
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	42.3	85	62-125
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	40.5	81	44-134
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	42.0	84	55-133
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	41.7	83	62-126
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	39.9	80	62-130
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	42.2	84	66-123
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	41.0	82	61-121
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	40.8	82	60-136
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	41.6	83	66-122
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	41.3	83	75-120
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	40.1	80	57-133
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	44.2	88	58-138
87-68-3	PS	Hexachlorobutadiene	50.0	0.00	U	33.7	67	48-136
91-20-3	PS	Naphthalene	50.0	0.00	U	41.5	83	63-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2000
Client ID: CAPA-10-13095PS
Lab Sample ID: 1202060496
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: GROUND WATER
Analysis Date: 03/04/2010 03:33
Dilution: 1
Prep Batch ID: 960638
Batch ID: 960638

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
87-61-6	PS	1,2,3-Trichlorobenzene	50.0	0.00	U	41.9	84	65-129
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	46.2	92	69-128
120-82-1	PS	1,2,4-Trichlorobenzene	50.0	0.00	U	41.1	82	56-130
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	42.5	85	67-123

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2000
Client ID: CAPA-10-13095PSD
Lab Sample ID: 1202060497
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 03/04/2010 04:00
Dilution: 1
Prep Batch ID: 960638
Batch ID: 960638

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	46.7	93	36-136	6	0-20
74-87-3	PSD	Chloromethane	50.0	0.00	U	50.1	100	47-135	3	0-20
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	50.9	102	51-136	2	0-20
74-83-9	PSD	Bromomethane	50.0	0.00	U	51.7	103	50-140	4	0-20
75-00-3	PSD	Chloroethane	50.0	0.00	U	49.5	99	60-125	5	0-20
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	49.0	98	54-146	4	0-20
60-29-7	PSD	Ethyl ether	50.0	0.00	U	50.1	100	61-112	4	0-20
67-64-1	PSD	Acetone	250	0.00	U	91.7	37	15-142	0	0-20
75-05-8	PSD	Acetonitrile	1250	0.00	U	1270	101	53-129	1	0-20
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	47.9	96	59-128	5	0-20
74-88-4	PSD	Iodomethane	250	0.00	U	227	91	57-133	7	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	44.1	88	63-122	7	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	262	105	62-135	3	0-20
1634-04-4	PSD	tert-Butyl methyl ether	50.0	0.00	U	45.8	92	65-120	1	0-20
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	46.2	92	64-120	1	0-20
108-05-4	PSD	Vinyl acetate	250	0.00	U	301	120	56-151	2	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	48.3	97	58-132	0	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	136	54	11-118	1	0-20
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	47.4	95	63-132	1	0-20
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	40.7	81	56-136	4	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	46.6	93	68-130	0	0-20
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	45.7	91	70-124	2	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2000
Client ID: CAPA-10-13095PSD
Lab Sample ID: 1202060497
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 03/04/2010 04:00
Dilution: 1
Prep Batch ID: 960638
Batch ID: 960638

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	43.7	87	66-132	2	0-20
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	44.1	88	64-130	2	0-29
71-36-3	PSD	n-Butyl alcohol	5000	0.00	U	5120	102	52-149	1	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	43.6	87	61-137	1	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	48.4	97	60-127	0	0-20
71-43-2	PSD	Benzene	50.0	0.00	U	44.9	90	65-119	2	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	43.0	86	68-121	4	0-20
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	48.6	97	69-122	0	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	49.1	98	67-134	0	0-20
74-95-3	PSD	Dibromomethane	50.0	0.00	U	46.3	93	70-122	1	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	226	90	52-130	2	0-20
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	46.1	92	64-133	1	0-20
108-88-3	PSD	Toluene	50.0	0.00	U	41.5	83	64-116	5	0-20
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	46.6	93	63-133	3	0-20
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	47.9	96	66-123	1	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	165	66	25-125	2	0-20
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	46.8	94	70-119	2	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	38.2	76	63-121	8	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	47.7	95	66-132	0	0-20
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	46.2	92	72-122	1	0-20
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	42.3	85	74-116	4	0-20
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	41.4	83	59-125	7	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2000
Client ID: CAPA-10-13095PSD
Lab Sample ID: 1202060497
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 03/04/2010 04:00
Dilution: 1
Prep Batch ID: 960638
Batch ID: 960638

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	82.2	82	48-140	8	0-20
95-47-6	PSD	o-Xylene	50.0	0.00	U	43.6	87	59-134	5	0-20
100-42-5	PSD	Styrene	50.0	0.00	U	45.2	90	54-138	6	0-20
75-25-2	PSD	Bromoform	50.0	0.00	U	45.1	90	59-140	1	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	45.8	92	65-124	0	0-20
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	43.5	87	61-137	2	0-20
108-86-1	PSD	Bromobenzene	50.0	0.00	U	41.2	82	64-125	2	0-20
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	38.1	76	56-128	8	0-20
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	39.8	80	62-125	6	0-20
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	37.8	76	44-134	7	0-20
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	39.7	79	55-133	6	0-20
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	39.9	80	62-126	4	0-20
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	38.5	77	62-130	4	0-20
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	39.8	80	66-123	6	0-20
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	38.1	76	61-121	7	0-20
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	38.3	77	60-136	6	0-20
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	40.6	81	66-122	3	0-20
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	40.2	80	75-120	3	0-20
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	37.9	76	57-133	6	0-20
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	45.4	91	58-138	3	0-20
87-68-3	PSD	Hexachlorobutadiene	50.0	0.00	U	33.0	66	48-136	2	0-20
91-20-3	PSD	Naphthalene	50.0	0.00	U	41.5	83	63-129	0	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2000
Client ID: CAPA-10-13095PSD
Lab Sample ID: 1202060497
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 03/04/2010 04:00
Dilution: 1
Prep Batch ID: 960638
Batch ID: 960638

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
87-61-6	PSD	1,2,3-Trichlorobenzene	50.0	0.00	U	42.6	85	65-129	2	0-24
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	44.9	90	69-128	3	0-20
120-82-1	PSD	1,2,4-Trichlorobenzene	50.0	0.00	U	40.6	81	56-130	1	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	41.6	83	67-123	2	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2000
Client ID: LCS for batch 960638
Lab Sample ID: 1202060498
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/03/2010 17:21
Dilution: 1
Prep Batch ID: 960638
Batch ID: 960638

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	51.5	103	58-147
74-87-3	LCS	Chloromethane	50.0	0.0	55.7	111	57-131
75-01-4	LCS	Vinyl chloride	50.0	0.0	57.3	115	68-129
74-83-9	LCS	Bromomethane	50.0	0.0	57.3	115	70-129
75-00-3	LCS	Chloroethane	50.0	0.0	55.0	110	69-128
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	56.1	112	70-150
60-29-7	LCS	Ethyl ether	50.0	0.0	49.7	99	68-122
67-64-1	LCS	Acetone	250	0.0	232	93	30-152
75-05-8	LCS	Acetonitrile	1250	0.0	1270	102	60-121
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	54.4	109	71-130
74-88-4	LCS	Iodomethane	250	0.0	239	96	71-129
75-09-2	LCS	Methylene chloride	50.0	0.0	46.0	92	70-124
75-15-0	LCS	Carbon disulfide	250	0.0	305	122	74-137
1634-04-4	LCS	tert-Butyl methyl ether	50.0	0.0	45.9	92	70-120
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	54.0	108	73-122
108-05-4	LCS	Vinyl acetate	250	0.0	316	126	62-143
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	54.4	109	75-121
78-93-3	LCS	2-Butanone	250	0.0	233	93	30-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	53.5	107	76-125
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	51.8	104	74-138
67-66-3	LCS	Chloroform	50.0	0.0	52.1	104	75-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	48.1	96	74-122

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2000
Client ID: LCS for batch 960638
Lab Sample ID: 1202060498
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/03/2010 17:21
Dilution: 1
Prep Batch ID: 960638
Batch ID: 960638

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	52.1	104	73-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	54.4	109	79-130
71-36-3	LCS	n-Butyl alcohol	5000	0.0	4930	99	60-141
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	53.1	106	73-139
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	51.3	103	66-123
71-43-2	LCS	Benzene	50.0	0.0	52.0	104	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	53.4	107	78-123
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	53.3	107	75-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	54.0	108	76-129
74-95-3	LCS	Dibromomethane	50.0	0.0	49.3	99	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	243	97	57-132
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	53.5	107	78-129
108-88-3	LCS	Toluene	50.0	0.0	50.3	101	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	52.0	104	77-126
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	50.5	101	74-120
591-78-6	LCS	2-Hexanone	250	0.0	257	103	30-149
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	50.6	101	74-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	50.2	100	73-124
124-48-1	LCS	Dibromochloromethane	50.0	0.0	51.2	102	74-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	48.9	98	77-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	51.2	102	77-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	53.1	106	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2000
Client ID: LCS for batch 960638
Lab Sample ID: 1202060498
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/03/2010 17:21
Dilution: 1
Prep Batch ID: 960638
Batch ID: 960638

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	LCS	m,p-Xylenes	100	0.0	108	108	75-121
95-47-6	LCS	o-Xylene	50.0	0.0	55.6	111	76-123
100-42-5	LCS	Styrene	50.0	0.0	57.1	114	74-128
75-25-2	LCS	Bromoform	50.0	0.0	50.4	101	67-134
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	49.2	98	69-120
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	45.3	91	72-134
108-86-1	LCS	Bromobenzene	50.0	0.0	50.6	101	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	55.0	110	70-123
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	54.8	110	72-121
98-82-8	LCS	Isopropylbenzene	50.0	0.0	52.4	105	58-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	56.1	112	71-125
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	54.1	108	73-122
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	53.8	108	75-127
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	54.6	109	74-123
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	54.8	110	74-126
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	55.6	111	76-129
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	52.7	105	76-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	52.4	105	75-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	57.8	116	75-130
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	45.3	91	66-130
87-68-3	LCS	Hexachlorobutadiene	50.0	0.0	48.9	98	67-132
91-20-3	LCS	Naphthalene	50.0	0.0	42.8	86	66-126

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2000
Client ID: LCS for batch 960638
Lab Sample ID: 1202060498
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/03/2010 17:21
Dilution: 1
Prep Batch ID: 960638
Batch ID: 960638

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
87-61-6	LCS	1,2,3-Trichlorobenzene	50.0	0.0	48.1	96	71-130
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	51.9	104	76-125
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	50.7	101	73-127
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	50.8	102	76-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2000
Client ID: LCS for batch 960638
Lab Sample ID: 1202060499
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/03/2010 18:17
Dilution: 1
Prep Batch ID: 960638
Batch ID: 960638

CAS No	Parmname		Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
107-02-8	LCS	Acrolein	250	0.0	253	101	43-147
76-13-1	LCS	Trichlorotrifluoroethane	250	0.0	228	91	66-142
107-05-1	LCS	Allyl chloride	250	0.0	264	106	61-137
107-13-1	LCS	Acrylonitrile	250	0.0	238	95	55-137
126-99-8	LCS	2-Chloro-1,3-butadiene	50.0	0.0	56.4	113	71-143
107-12-0	LCS	Propionitrile	250	0.0	238	95	68-131
126-98-7	LCS	Methacrylonitrile	250	0.0	246	98	54-134
78-83-1	LCS	Isobutyl alcohol	2500	0.0	2420	97	50-143
80-62-6	LCS	Methyl methacrylate	250	0.0	241	97	63-133
97-63-2	LCS	Ethyl methacrylate	250	0.0	255	102	66-128

Method Blank Summary

SDG Number:	10-2000	Client:	LANL010	Matrix:	GROUND WATER
Client ID:	MB for batch 960638	Instrument ID:	VOA4.I	Data File:	030310V4\4A307BL.D
Lab Sample ID:	1202060495	Prep Date:	03/03/2010 19:40	Analyzed:	03/03/10 19:40
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 960638	1202060498	030310V4\4A302LL.D	03/03/10	1721
02	LCS for batch 960638	1202060499	030310V4\4A304shl.D	03/03/10	1817
03	CAPA-10-13095	247828002	030310V4\4A308.D	03/03/10	2008
04	CAPA-10-13096	247828005	030310V4\4A309.D	03/03/10	2036
05	CAPA-10-13095PS	1202060496	030310V4\4A324.D	03/04/10	0333
06	CAPA-10-13095PSD	1202060497	030310V4\4A325.D	03/04/10	0400

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2000

Instrument ID: VOA4.I **Injection Date/Time:** 01-MAR-10 19:08

Column Description: DB-624 **Lab File ID** 030110V4\4A101.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	19.1
75	30.0 - 60.0% of mass 95	49.8
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	82.3
175	5.0 -9.0% of mass 174	7
176	95.0 - 101.0% of mass 174	95.5
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W4VM100301-01	030110V4\4A103.D	01-MAR-10 20:03
ICALMIX[A]	W4VM100301-02	030110V4\4A104.D	01-MAR-10 20:30
ICALMIX[A]	W4VM100301-04	030110V4\4A106.D	01-MAR-10 21:26
ICALMIX[A]	W4VM100301-05	030110V4\4A107.D	01-MAR-10 21:54
ICALMIX[A]	W4VM100301-06	030110V4\4A108.D	01-MAR-10 22:21
ICALMIX[A]	W4VM100301-08	030110V4\4A110.D	01-MAR-10 23:16
ICALMIX[A]	W4VM100301-09	030110V4\4A111.D	01-MAR-10 23:44
ICALMIX[B]	W4VM100301-10	030110V4\4A113.D	02-MAR-10 00:39
ICALMIX[B]	W4VM100301-11	030110V4\4A114.D	02-MAR-10 01:06
ICALMIX[B]	W4VM100301-12	030110V4\4A115.D	02-MAR-10 01:34
ICALMIX[B]	W4VM100301-13	030110V4\4A116.D	02-MAR-10 02:01
ICALMIX[B]	W4VM100301-14	030110V4\4A117.D	02-MAR-10 02:28
ICALMIX[B]	W4VM100301-15	030110V4\4A118.D	02-MAR-10 02:56
ICALMIX[B]	W4VM100301-16	030110V4\4A119.D	02-MAR-10 03:23
ICVMIX[A]01	W4VM100301-18	030110V4\4A122.D	02-MAR-10 04:45
ICVMIX[B]02	W4VM100301-19	030110V4\4A123.D	02-MAR-10 05:13

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2000

Instrument ID: VOA4.I **Injection Date/Time:** 03-MAR-10 17:21

Column Description: DB-624 **Lab File ID** 030310V4\4A302bfb.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	21.4
75	30.0 - 60.0% of mass 95	52.3
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	76.1
175	5.0 -9.0% of mass 174	7.2
176	95.0 - 101.0% of mass 174	96.7
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]01	W4VM100303-01	030310V4\4A302.D	03-MAR-10 17:21
BLK01LCS	1202060498	030310V4\4A302LL.D	03-MAR-10 17:21
CCVMIX[B]02	W4VM100303-03	030310V4\4A304.D	03-MAR-10 18:17
BLK01SLCS	1202060499	030310V4\4A304shl.D	03-MAR-10 18:17
BLK01	1202060495	030310V4\4A307BL.D	03-MAR-10 19:40
CAPA-10-13095	247828002	030310V4\4A308.D	03-MAR-10 20:08
CAPA-10-13096	247828005	030310V4\4A309.D	03-MAR-10 20:36
CAPA-10-13095MS	1202060496	030310V4\4A324.D	04-MAR-10 03:33
CAPA-10-13095MSD	1202060497	030310V4\4A325.D	04-MAR-10 04:00

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA4.I

GC Column: DB-624

Client SDG: 10-2000

STD Analysis Time: 03-MAR-10 17:21

Data File: C:\msdchem\1\DATA\030310V4\4A302.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1144105		10.6	991556		13.8	689146		16.2
Upper Limit	2288210		11.1	1983112		14.3	1378292		16.7
Lower Limit	572053		10.1	495778		13.3	344573		15.7
Sample ID									
K01LCS	1144105		10.6	991556		13.8	689146		16.2
K01SLCS	1284119		10.6	1051108		13.8	684242		16.2
K01	1185994		10.6	943899		13.8	550298		16.2
PA-10-13095	1173896		10.6	926824		13.8	532680		16.2
PA-10-13096	1098412		10.6	887236		13.8	510046		16.2
PA-10-13095MS	1100913		10.6	940775		13.8	678186		16.2
PA-10-13095MSD	1158427		10.6	989981		13.8	715824		16.2

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000	**Date Collected:**	02/21/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	247828002	**Date Received:**	02/23/2010 08:50		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-13095	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	960638	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/03/2010 20:08	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/03/2010 20:08				
Data File:	030310V4\4A308.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000	**Date Collected:**	02/21/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	247828002	**Date Received:**	02/23/2010 08:50		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-13095	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	960638	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/03/2010 20:08	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/03/2010 20:08				
Data File:	030310V4\4A308.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**	**Date Collected:**	**02/21/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247828002**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13095**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**960638**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 20:08**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/03/2010 20:08**				
Data File:	**030310V4\4A308.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	50.9	50.0	ug/L	102	(72%-132%)
Bromofluorobenzene	57.7	50.0	ug/L	115	(77%-123%)
Toluene-d8	51.8	50.0	ug/L	104	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48		ug/L	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A308.D
Acq On : 3 Mar 2010 8:08 pm
Operator : ACJ
InstName : VOA4
Sample : |247828002|960638|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 04 19:01:36 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.620	10.620	1.000	96	1174284	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	926824	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.180	16.180	1.000	152	532558	50.00	ug/L	0.00
82) B Fluorobenzene	10.620	10.619	1.000	96	1173896	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	926824	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	532680	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.260	10.260	0.966	65	247122	50.87	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 101.74%					
43) Toluene-d8	12.253	12.247	0.890	98	890687	51.81	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 103.62%					
61) Bromofluorobenzene	14.954	14.954	0.924	95	601447	57.72	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 115.44%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.911	0.000		0	N.D.		
3) Chloromethane	5.299	5.291	0.499	50	1082	N.D.		
4) Vinyl chloride	0.000	5.521	0.000		0	N.D.		
5) Bromomethane	0.000	6.137	0.000		0	N.D.		
6) Chloroethane	6.383	6.295	0.601	64	143	N.D.		
7) Trichlorofluoromethane	0.000	6.669	0.000		0	N.D.		
8) Ethyl ether	0.000	6.998	0.000		0	N.D.		
9) Acetone	7.370	7.352	0.694	43	6738	N.D.		
10) 1,1-Dichloroethylene	0.000	7.389	0.000		0	N.D.		
11) Iodomethane	7.699	7.663	0.725	142	128	N.D.		
12) Acetonitrile	7.712	7.699	0.726	41	892	N.D.		
13) Methyl acetate	7.736	7.748	0.728	43	201	N.D.		
14) Carbon disulfide	7.748	7.773	0.730	76	413	N.D.		
15) Methylene chloride	7.937	7.931	0.747	84	3559	N.D.		
16) tert-Butyl methyl ether	0.000	8.242	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.285	0.000		0	N.D.		
18) Vinyl acetate	8.699	8.705	0.819	43	241	N.D.		
19) 1,1-Dichloroethane	0.000	8.760	0.000		0	N.D.		
20) 2-Butanone	9.339	9.327	0.879	43	1319	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.388	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.419	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.705	9.687	0.914	83	136	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.979	0.000		0	N.D.		
26) Cyclohexane	10.083	10.083	0.949	56	176	N.D.		
27) 1,1-Dichloropropene	0.000	10.132	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.175	0.000		0	N.D.		
30) 1,2-Dichloroethane	10.339	10.339	0.974	62	126	N.D.		
31) Benzene	10.376	10.370	0.977	78	546	N.D.		
32) Cyclohexene	10.626	10.492	1.001	67	372	N.D.		
33) n-Butyl alcohol	10.681	10.693	1.006	56	415	N.D.		
34) Trichloroethylene	0.000	11.004	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	11.266	11.260	1.061	83	139	N.D.		
37) Dibromomethane	0.000	11.376	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.485	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.699	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A308.D
Acq On : 3 Mar 2010 8:08 pm
Operator : ACJ
InstName : VOA4
Sample : |247828002|960638|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 04 19:01:36 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	12.022	12.016	0.873	58	154	N.D.	
44) Toluene	12.321	12.320	0.895	91	5187	N.D.	
45) trans-1,3-Dichloroprop...	12.467	12.461	0.905	75	2001	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.680	0.000		0	N.D.	
47) 2-Hexanone	12.863	12.857	0.934	43	985	N.D.	
48) 1,3-Dichloropropane	0.000	12.875	0.000		0	N.D.	
49) Tetrachloroethylene	12.930	12.918	0.939	164	436	N.D.	
50) Dibromochloromethane	0.000	13.144	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.320	0.000		0	N.D.	
52) Chlorobenzene	13.808	13.802	1.003	112	563	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.851	0.000		0	N.D.	
54) Ethylbenzene	13.863	13.863	1.007	91	1471	N.D.	
55) m,p-Xylenes	13.973	13.973	1.015	106	1137	N.D.	
56) o-Xylene	14.406	14.399	1.046	106	502	N.D.	
57) Styrene	14.393	14.399	1.045	104	198	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	14.820	14.759	0.916	105	401	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	15.015	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.107	0.000		0	N.D.	
64) Bromobenzene	0.000	15.168	0.000		0	N.D.	
65) n-Propylbenzene	15.186	15.180	0.939	91	1695	N.D.	
66) 1,3,5-Trimethylbenzene	15.326	15.332	0.947	105	1316	N.D.	
67) 2-Chlorotoluene	15.338	15.332	0.948	126	153	N.D.	
68) 4-Chlorotoluene	15.436	15.430	0.954	91	630	N.D.	
69) tert-Butylbenzene	0.000	15.704	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.753	15.741	0.974	105	1902	N.D.	
71) sec-Butylbenzene	15.936	15.930	0.985	105	1179	N.D.	
72) 4-Isopropyltoluene	16.045	16.051	0.992	119	1066	N.D.	
73) 1,3-Dichlorobenzene	16.131	16.119	0.997	146	570	N.D.	
74) 1,4-Dichlorobenzene	16.216	16.204	1.002	146	870	N.D.	
75) n-Butylbenzene	16.509	16.503	1.020	91	1174	N.D.	
76) 1,2-Dichlorobenzene	16.643	16.643	1.029	146	645	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.527	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	18.636	18.630	1.152	180	561	N.D.	
79) Hexachlorobutadiene	0.000	18.819	0.000		0	N.D.	
80) Naphthalene	19.020	19.026	1.176	128	4247	N.D.	
81) 1,2,3-Trichlorobenzene	19.368	19.386	1.197	180	124	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	0.000	7.180	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.369	0.000		0	N.D.	
87) Isopropyl Alcohol	7.431	7.430	0.700	45	372	N.D.	
88) Allyl chloride	7.876	7.796	0.742	41	231	N.D.	
89) tert-Butyl Alcohol	7.937	7.924	0.747	59	364	N.D.	
90) Acrylonitrile	0.000	8.174	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.741	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	8.986	8.869	0.846	53	132	N.D.	
93) Ethyl tert-butyl ether	8.980	9.143	0.846	59	161	N.D.	
94) Ethyl acetate	9.339	9.338	0.879	43	1319	N.D.	
95) Propionitrile	0.000	9.393	0.000		0	N.D.	
96) Methacrylonitrile	9.583	9.576	0.902	41	435	N.D.	
97) Tetrahydrofuran	9.711	9.710	0.914	42	304	N.D.	
98) Isobutyl alcohol	10.028	10.009	0.944	41	643	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A308.D
Acq On : 3 Mar 2010 8:08 pm
Operator : ACJ
InstName : VOA4
Sample : |247828002|960638|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 04 19:01:36 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	0.000	10.387	0.000		0	N.D.	
100)	Methyl methacrylate	11.205	11.204	1.055	69	140	N.D.	
101)	1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102)	2-Nitropropane	11.644	11.673	1.096	43	157	N.D.	
104)	Ethyl methacrylate	12.461	12.466	0.905	69	679	N.D.	
106)	1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	14.777	14.783	0.913	53	276	N.D.	
108)	Cyclohexanone	14.905	14.904	0.921	42	816	N.D.	
109)	trans-1,4-Dichloro-2-b...	15.064	15.063	0.931	53	231	N.D.	
110)	Pentachloroethane	15.765	15.770	0.974	167	187	N.D.	
111)	Benzyl chloride	16.320	16.319	1.009	91	2473	N.D.	
112)	bis(2-Chloroisopropyl)...	16.728	16.721	1.034	45	839	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A308.D
Acq On : 3 Mar 2010 8:08 pm
Operator : ACJ
InstName : VOA4
Sample : |247828002|960638|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 04 19:01:36 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

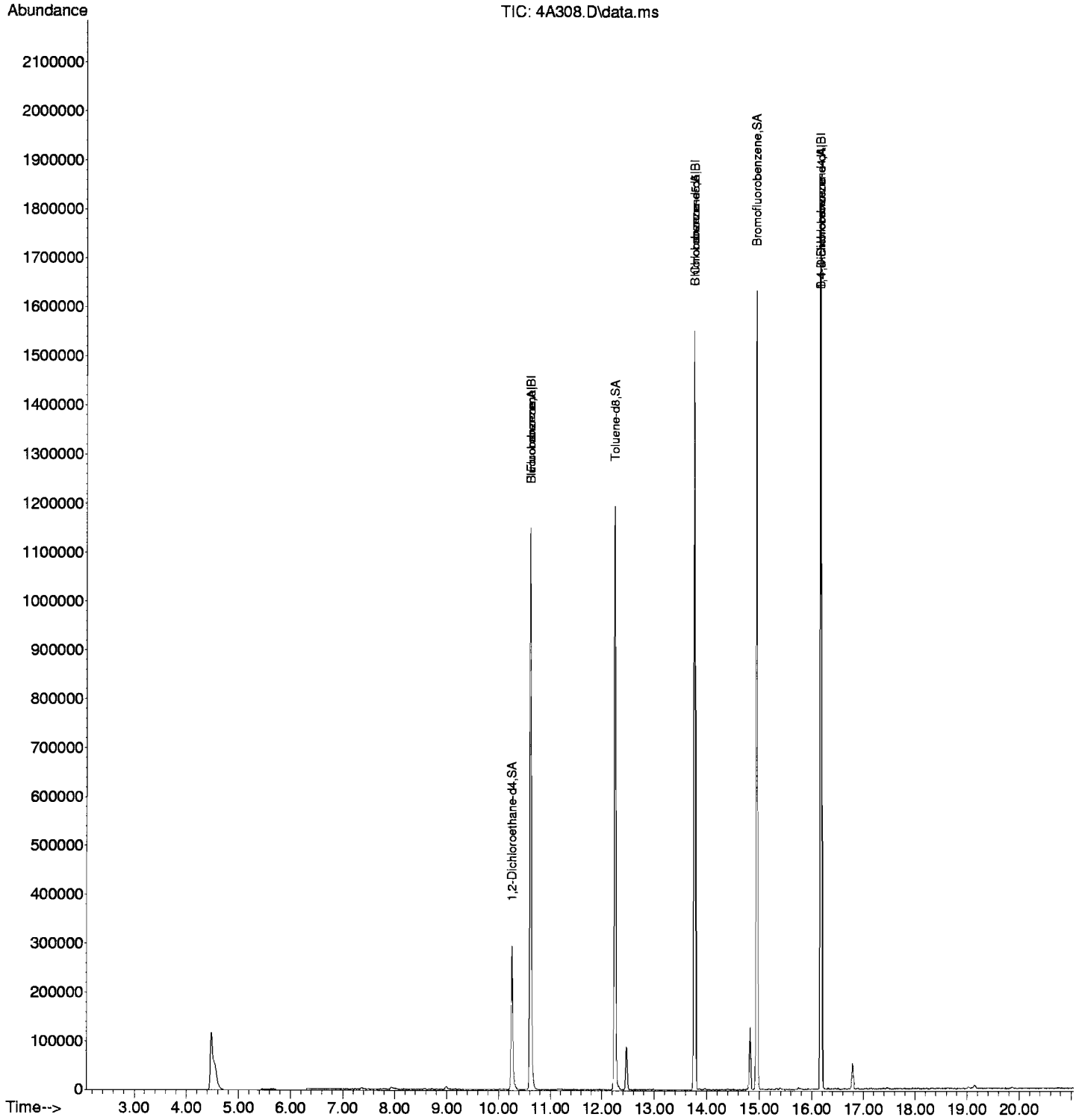

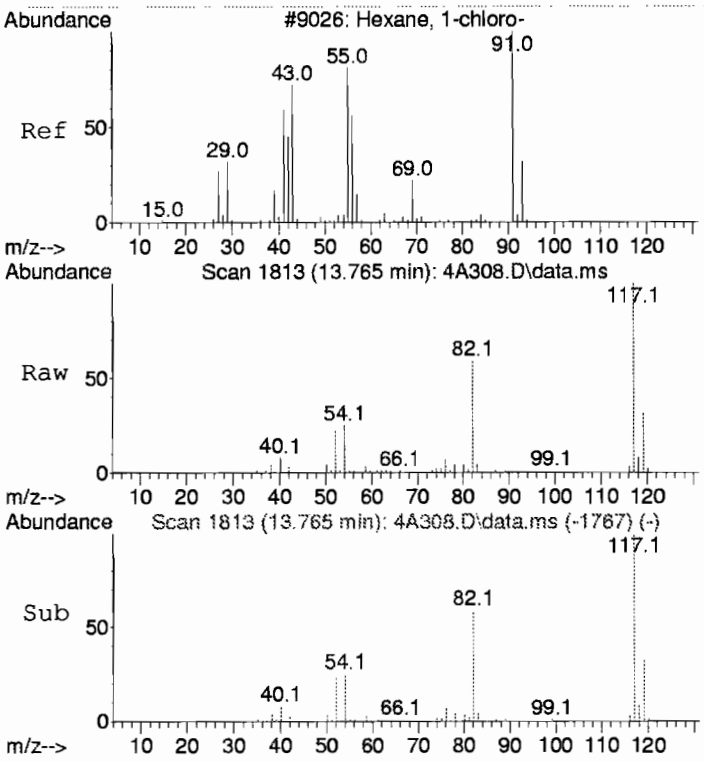

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.72 ug/L
RT: 13.765 min Scan# 1813
Delta R.T. 0.105 min
Lab File: 4A308.D
Acq: 3 Mar 2010 8:08 pm

Tgt Ion: 55 Resp: 10543

Ion	Ratio	Lower	Upper
55	100		
91	19.3	112.1	172.1#
56	59.6	28.5	88.5

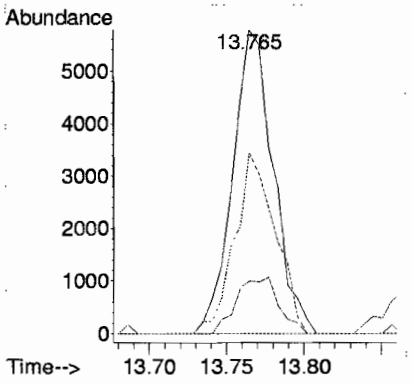

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A308.D
Acq On : 3 Mar 2010 8:08 pm
Operator : ACJ
Sample : |247828002|960638|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	11.94 ug/L	617485	Fluorobenzene	10.620

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	3

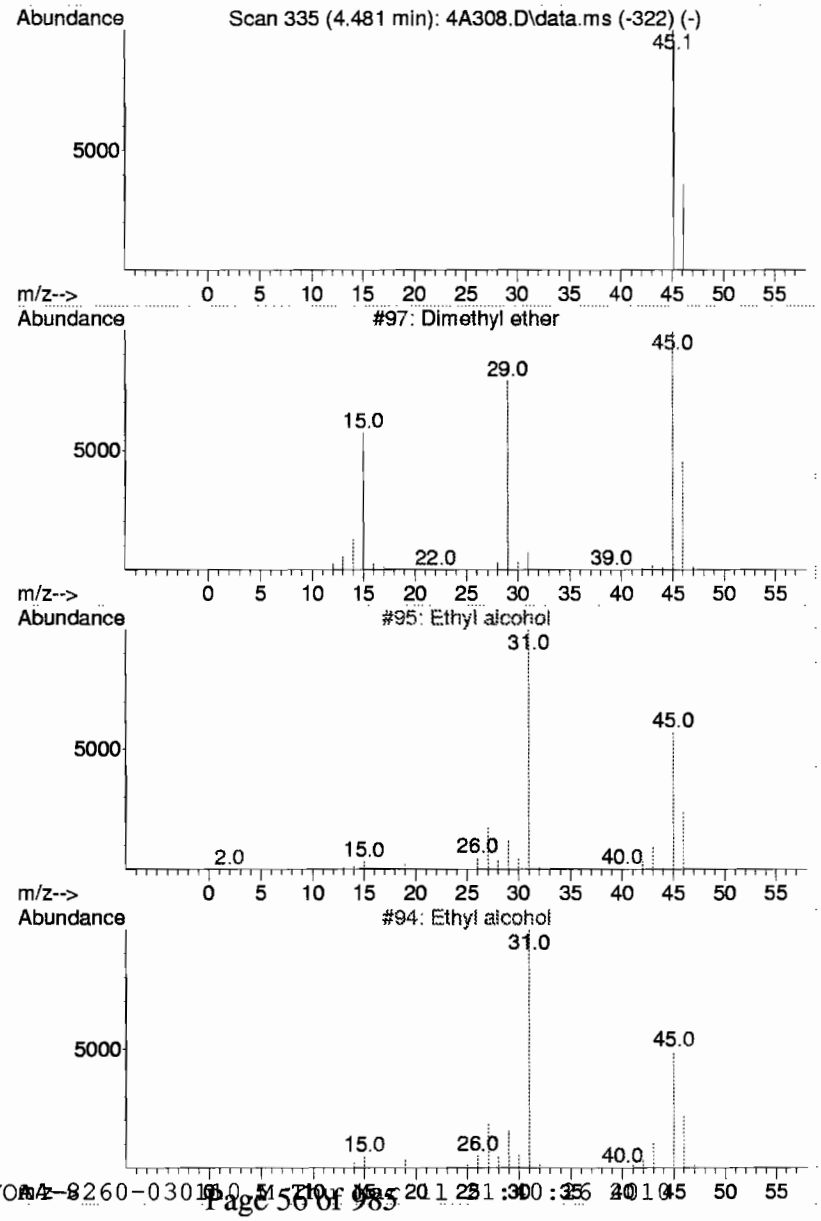

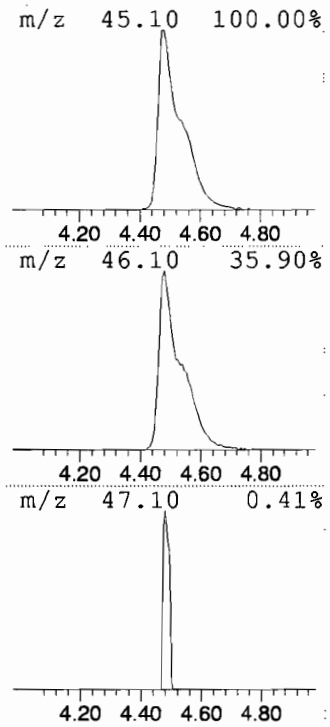

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A308.D
Acq On : 3 Mar 2010 8:08 pm
Operator : ACJ
Sample : |247828002|960638|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc
nknown hydroca...	4.481	11.9	ug/L	617485	1	10.620	2586140	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**	**Date Collected:**	**02/21/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247828005**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13096**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**960638**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 20:36**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/03/2010 20:36**				
Data File:	**030310V4\4A309.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	J	4.37	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000	**Date Collected:**	02/21/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	247828005	**Date Received:**	02/23/2010 08:50		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-13096	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	960638	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/03/2010 20:36	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/03/2010 20:36				
Data File:	030310V4\4A309.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000	**Date Collected:**	02/21/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	247828005	**Date Received:**	02/23/2010 08:50		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-13096	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	960638	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/03/2010 20:36	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/03/2010 20:36				
Data File:	030310V4\4A309.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	50.6	50.0	ug/L	101	(72%-132%)
Bromofluorobenzene	58.1	50.0	ug/L	116	(77%-123%)
Toluene-d8	51.1	50.0	ug/L	102	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	unknown hydrocarbon	4.48	ug/L	0	J
	unknown siloxane	12.47	ug/L	0	J
	unknown siloxane	14.83	ug/L	0	J
	unknown siloxane	16.79	ug/L	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A309.D
Acq On : 3 Mar 2010 8:36 pm
Operator : ACJ
InstName : VOA4
Sample : |247828005|960638|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 04 19:02:11 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.619	10.620	1.000	96	1098948	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	887172	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	510029	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1098412	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	887236	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	510046	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	229964	50.58	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 101.16%					
43) Toluene-d8	12.253	12.247	0.890	98	841335	51.12	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 102.24%					
61) Bromofluorobenzene	14.953	14.954	0.924	95	579244	58.05	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 116.10%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.911	0.000		0	N.D.		
3) Chloromethane	5.292	5.291	0.498	50	869	N.D.		
4) Vinyl chloride	0.000	5.521	0.000		0	N.D.		
5) Bromomethane	0.000	6.137	0.000		0	N.D.		
6) Chloroethane	0.000	6.295	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.669	0.000		0	N.D.		
8) Ethyl ether	7.010	6.998	0.660	59	835	N.D.		
9) Acetone	7.363	7.352	0.693	43	6781	N.D.		
10) 1,1-Dichloroethylene	0.000	7.389	0.000		0	N.D.		
11) Iodomethane	0.000	7.663	0.000		0	N.D.		
12) Acetonitrile	7.711	7.699	0.726	41	372	N.D.		
13) Methyl acetate	7.699	7.748	0.725	43	129	N.D.		
14) Carbon disulfide	7.766	7.773	0.731	76	1204	N.D.		
15) Methylene chloride	7.942	7.931	0.748	84	43407	4.37	ug/L	97
16) tert-Butyl methyl ether	0.000	8.242	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.285	0.000		0	N.D.		
18) Vinyl acetate	8.704	8.705	0.820	43	127	N.D.		
19) 1,1-Dichloroethane	0.000	8.760	0.000		0	N.D.		
20) 2-Butanone	9.326	9.327	0.878	43	444	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.388	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.419	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.692	9.687	0.913	83	578	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.979	0.000		0	N.D.		
26) Cyclohexane	0.000	10.083	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	10.132	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.175	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.339	0.000		0	N.D.		
31) Benzene	10.369	10.370	0.976	78	646	N.D.		
32) Cyclohexene	10.606	10.492	0.999	67	437	N.D.		
33) n-Butyl alcohol	0.000	10.693	0.000		0m	N.D.	d	
34) Trichloroethylene	0.000	11.004	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.260	0.000		0	N.D.		
37) Dibromomethane	0.000	11.376	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.485	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.699	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A309.D
Acq On : 3 Mar 2010 8:36 pm
Operator : ACJ
InstName : VOA4
Sample : |247828005|960638|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 04 19:02:11 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40)	cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000	12.016	0.000		0	N.D.	
44)	Toluene	12.320	12.320	0.895	91	2395	N.D.	
45)	trans-1,3-Dichloroprop...	0.000	12.461	0.000		0m	N.D.	d
46)	1,1,2-Trichloroethane	0.000	12.680	0.000		0	N.D.	
47)	2-Hexanone	12.868	12.857	0.934	43	875	N.D.	
48)	1,3-Dichloropropane	0.000	12.875	0.000		0	N.D.	
49)	Tetrachloroethylene	12.923	12.918	0.938	164	295	N.D.	
50)	Dibromochloromethane	0.000	13.144	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000	13.320	0.000		0	N.D.	
52)	Chlorobenzene	13.807	13.802	1.003	112	422	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	13.851	0.000		0	N.D.	
54)	Ethylbenzene	13.862	13.863	1.007	91	1038	N.D.	
55)	m,p-Xylenes	13.972	13.973	1.015	106	657	N.D.	
56)	o-Xylene	0.000	14.399	0.000		0	N.D.	
57)	Styrene	14.405	14.399	1.046	104	301	N.D.	
59)	Bromoform	0.000	14.655	0.000		0	N.D.	
60)	Isopropylbenzene	14.770	14.759	0.913	105	699	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	15.015	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	15.107	0.000		0	N.D.	
64)	Bromobenzene	15.167	15.168	0.937	156	248	N.D.	
65)	n-Propylbenzene	15.179	15.180	0.938	91	1013	N.D.	
66)	1,3,5-Trimethylbenzene	15.331	15.332	0.948	105	1037	N.D.	
67)	2-Chlorotoluene	0.000	15.332	0.000		0	N.D.	
68)	4-Chlorotoluene	15.429	15.430	0.954	91	755	N.D.	
69)	tert-Butylbenzene	15.709	15.704	0.971	134	125	N.D.	
70)	1,2,4-Trimethylbenzene	15.746	15.741	0.973	105	1006	N.D.	
71)	sec-Butylbenzene	15.935	15.930	0.985	105	659	N.D.	
72)	4-Isopropyltoluene	16.051	16.051	0.992	119	778	N.D.	
73)	1,3-Dichlorobenzene	16.136	16.119	0.997	146	281	N.D.	
74)	1,4-Dichlorobenzene	16.203	16.204	1.002	146	824	N.D.	
75)	n-Butylbenzene	16.514	16.503	1.021	91	689	N.D.	
76)	1,2-Dichlorobenzene	16.642	16.643	1.029	146	443	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	17.527	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	18.623	18.630	1.151	180	314	N.D.	
79)	Hexachlorobutadiene	0.000	18.819	0.000		0	N.D.	
80)	Naphthalene	19.044	19.026	1.177	128	4745	N.D.	
81)	1,2,3-Trichlorobenzene	0.000	19.386	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85)	Acrolein	0.000	7.180	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	7.369	0.000		0	N.D.	
87)	Isopropyl Alcohol	7.449	7.430	0.701	45	164	N.D.	
88)	Allyl chloride	7.772	7.796	0.732	41	189	N.D.	
89)	tert-Butyl Alcohol	7.924	7.924	0.746	59	818	N.D.	
90)	Acrylonitrile	0.000	8.174	0.000		0	N.D.	
91)	Isopropyl ether	8.802	8.741	0.829	45	120	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	8.869	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	9.143	0.000		0	N.D.	
94)	Ethyl acetate	9.326	9.338	0.878	43	444	N.D.	
95)	Propionitrile	0.000	9.393	0.000		0	N.D.	
96)	Methacrylonitrile	9.588	9.576	0.903	41	158	N.D.	
97)	Tetrahydrofuran	9.716	9.710	0.915	42	860	N.D.	
98)	Isobutyl alcohol	10.058	10.009	0.947	41	241	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A309.D
Acq On : 3 Mar 2010 8:36 pm
Operator : ACJ
InstName : VOA4
Sample : |247828005|960638|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 04 19:02:11 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	10.460	10.387	0.985	73	114	N.D.	
100)	Methyl methacrylate	11.216	11.204	1.056	69	118	N.D.	
101)	1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102)	2-Nitropropane	11.728	11.673	1.104	43	211	N.D.	
104)	Ethyl methacrylate	12.466	12.466	0.905	69	411	N.D.	
106)	1-Chlorohexane	13.649	13.661	0.844	55	106	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.776	14.783	0.913	53	165	N.D.	
108)	Cyclohexanone	14.904	14.904	0.921	42	688	N.D.	
109)	trans-1,4-Dichloro-2-b...	15.045	15.063	0.930	53	102	N.D.	
110)	Pentachloroethane	15.788	15.770	0.976	167	149	N.D.	
111)	Benzyl chloride	16.319	16.319	1.009	91	1612	N.D.	
112)	bis(2-Chloroisopropyl)...	16.721	16.721	1.034	45	789	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A309.D
Acq On : 3 Mar 2010 8:36 pm
Operator : ACJ
InstName : VOA4
Sample : |247828005|960638|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 04 19:02:11 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

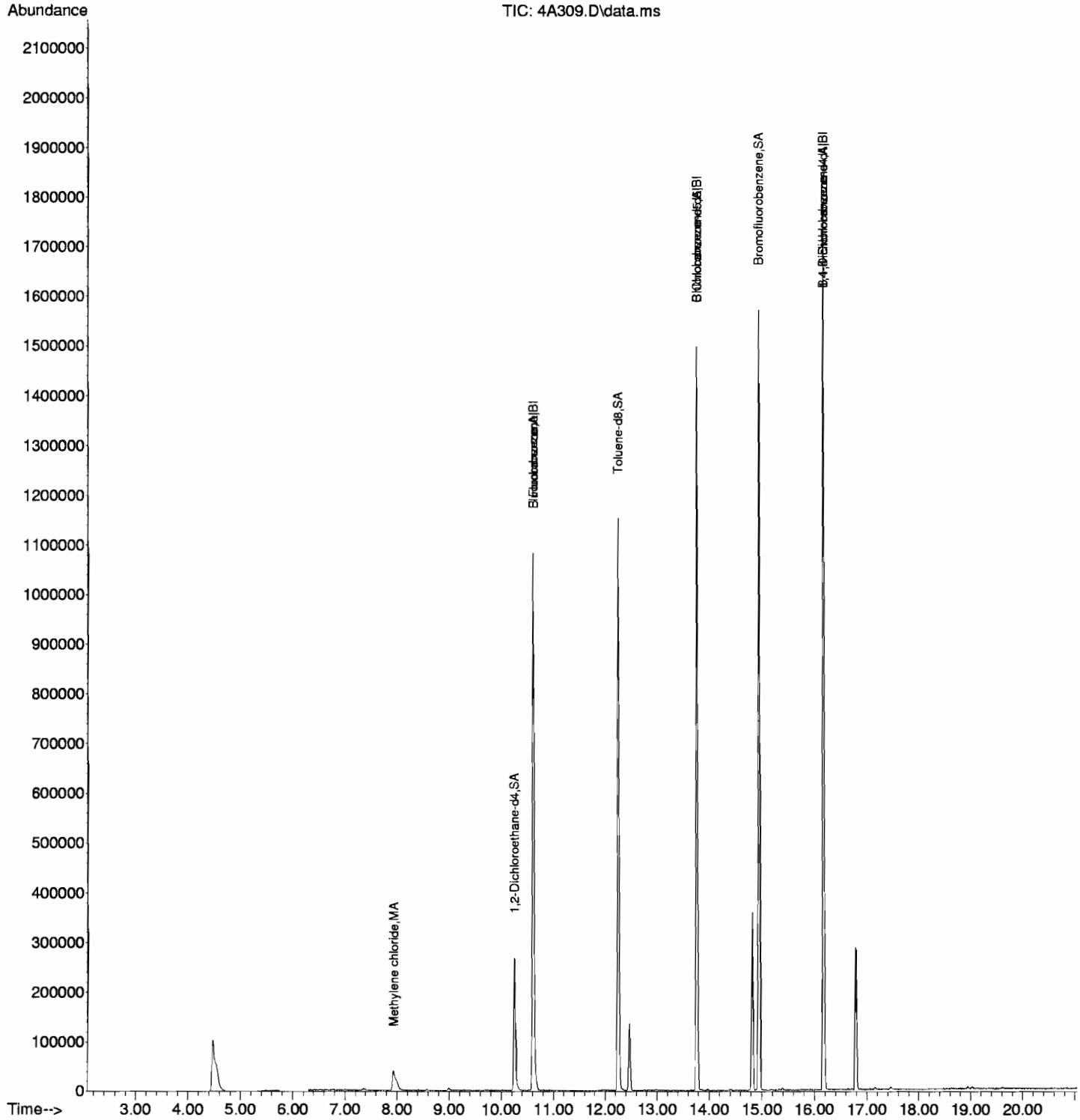

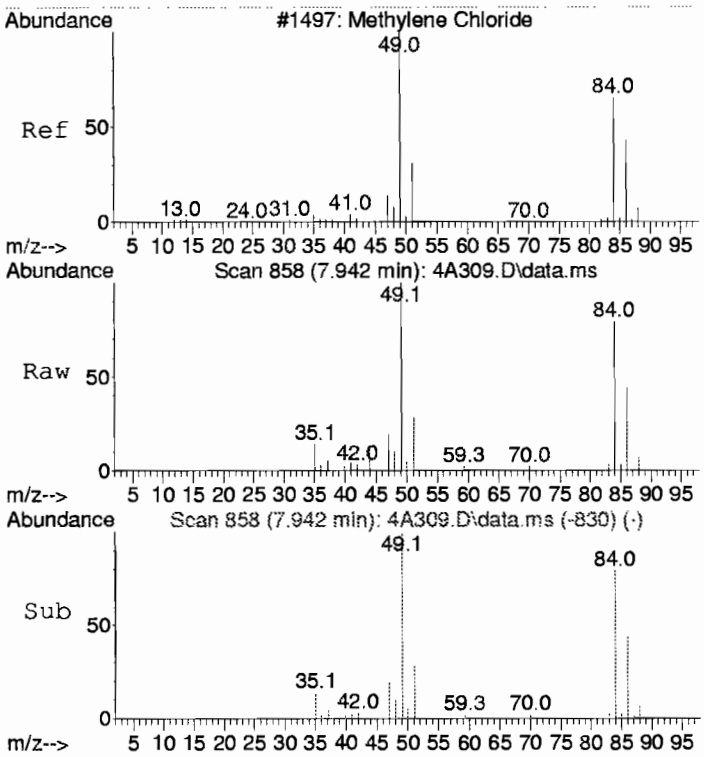

#15
Methylene chloride
Concen: 4.37 ug/L
RT: 7.942 min Scan# 858
Delta R.T. 0.011 min
Lab File: 4A309.D
Acq: 3 Mar 2010 8:36 pm

Tgt Ion: 84 Resp: 43407

Ion	Ratio	Lower	Upper
84	100		
86	63.1	33.9	93.9
49	133.4	98.9	158.9

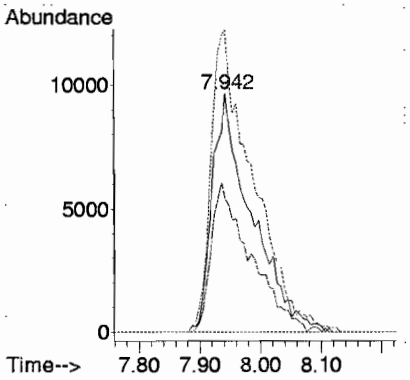

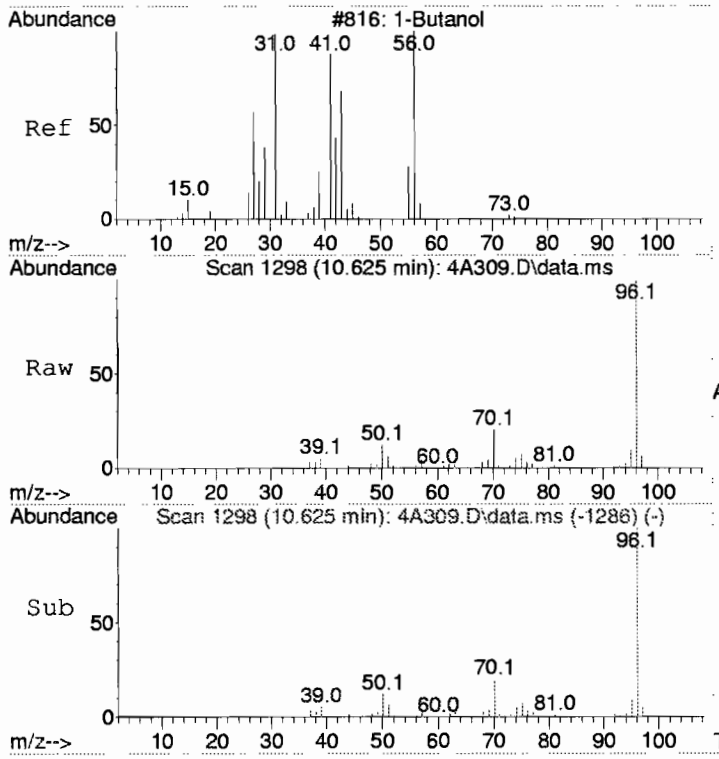

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 27.38 ug/L
RT: 10.625 min Scan# 1298
Delta R.T. -0.068 min
Lab File: 4A309.D
Acq: 3 Mar 2010 8:36 pm

Tgt Ion: 56 Resp: 7917

Ion	Ratio	Lower	Upper
56	100		
41	1.5	44.5	104.5#
43	2.8	28.5	88.5#

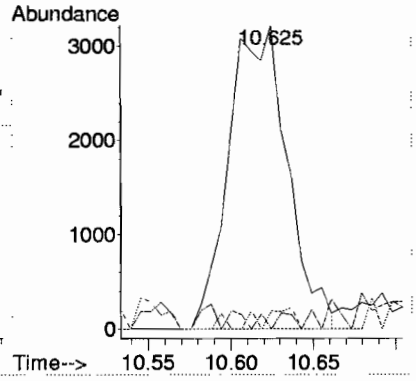

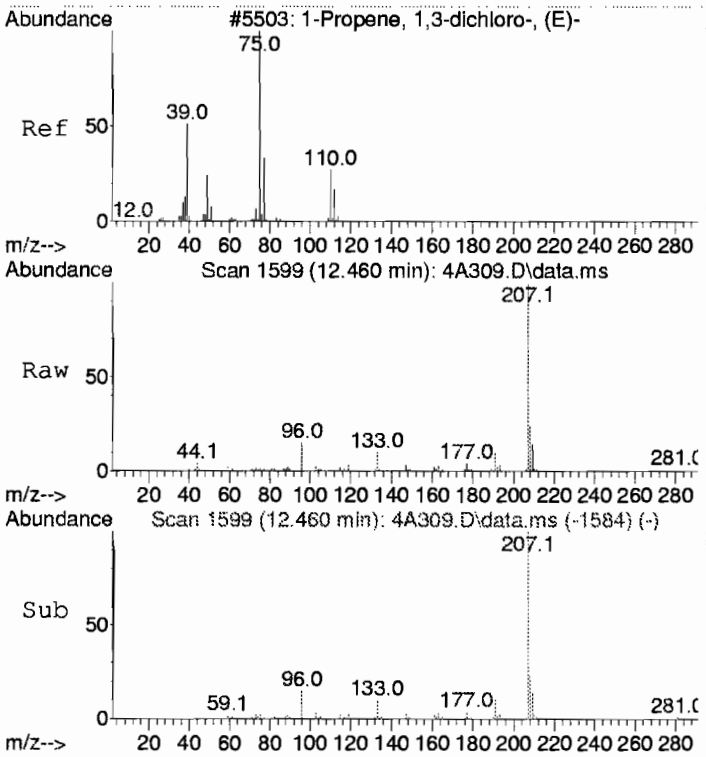

#45 BEFORE analyst DELETION
trans-1,3-Dichloropropylene
Concen: 0.26 ug/L
RT: 12.460 min Scan# 1599
Delta R.T. -0.001 min
Lab File: 4A309.D
Acq: 3 Mar 2010 8:36 pm

Tgt Ion: 75 Resp: 2692

Ion	Ratio	Lower	Upper
75	100		
39	15.1	22.8	82.8#
77	0.0	1.6	61.6#

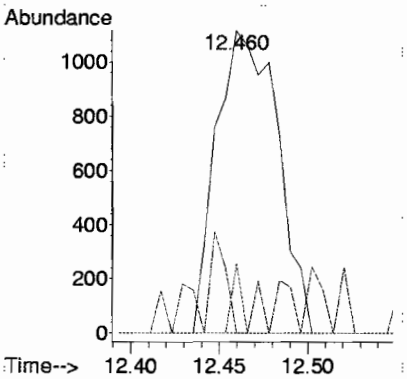

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A309.D
Acq On : 3 Mar 2010 8:36 pm
Operator : ACJ
Sample : |247828005|960638|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	11.95 ug/L	578658	Fluorobenzene	10.619

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	3

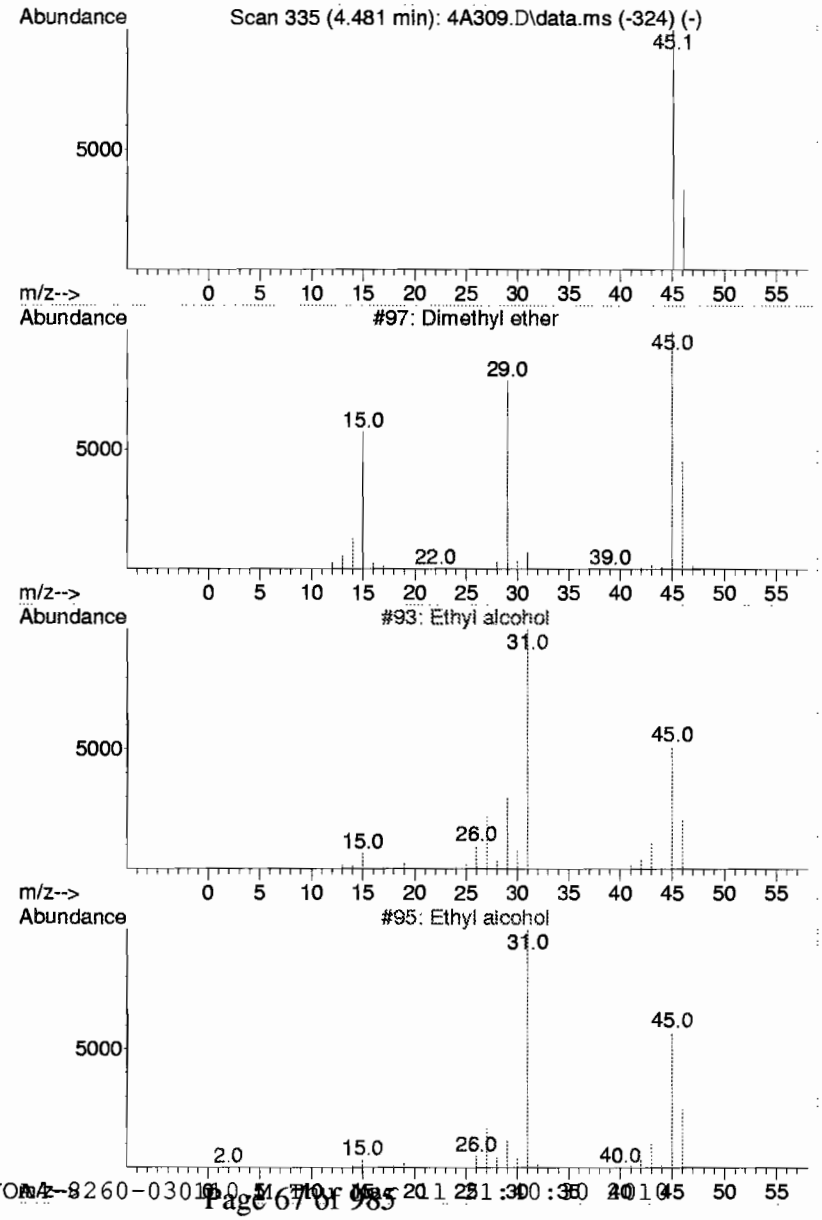

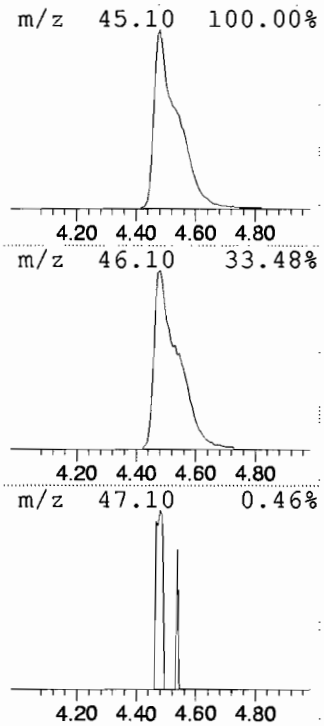

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A309.D
Acq On : 3 Mar 2010 8:36 pm
Operator : ACJ
Sample : |247828005|960638|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 2 unknown siloxane Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.472	5.29 ug/L	301233	Chlorobenzene-d5	13.771

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	91
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	91
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	80
4	2-Ethylacridine	207	C15H13N	055751-83-2	42
5	4-Cyclohexene-1,2-dicarboximide,...	207	C12H17NO2	028916-00-9	40

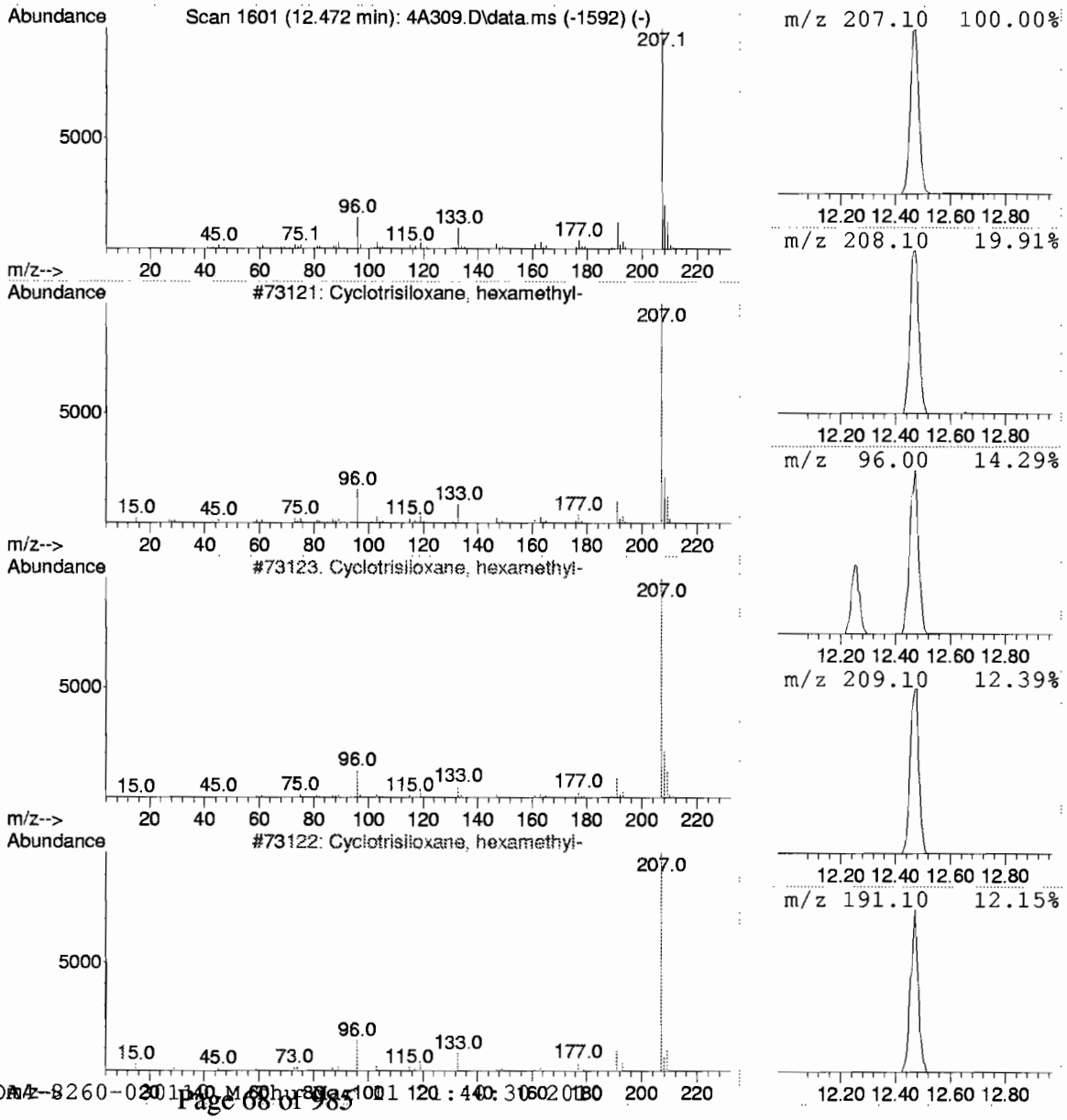

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A309.D
Acq On : 3 Mar 2010 8:36 pm
Operator : ACJ
Sample : |247828005|960638|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 3 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.825	12.17 ug/L	693288	B Chlorobenzene-d5	13.771

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	83
2	7H-Dibenzo[b,g]carbazole, 7-methyl-	281	C21H15N	003557-49-1	50
3	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	49
4	4H-1,2,4-Triazole-3-thiol, 4-all...	281	C16H15N3S	031803-13-1	47
5	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	46

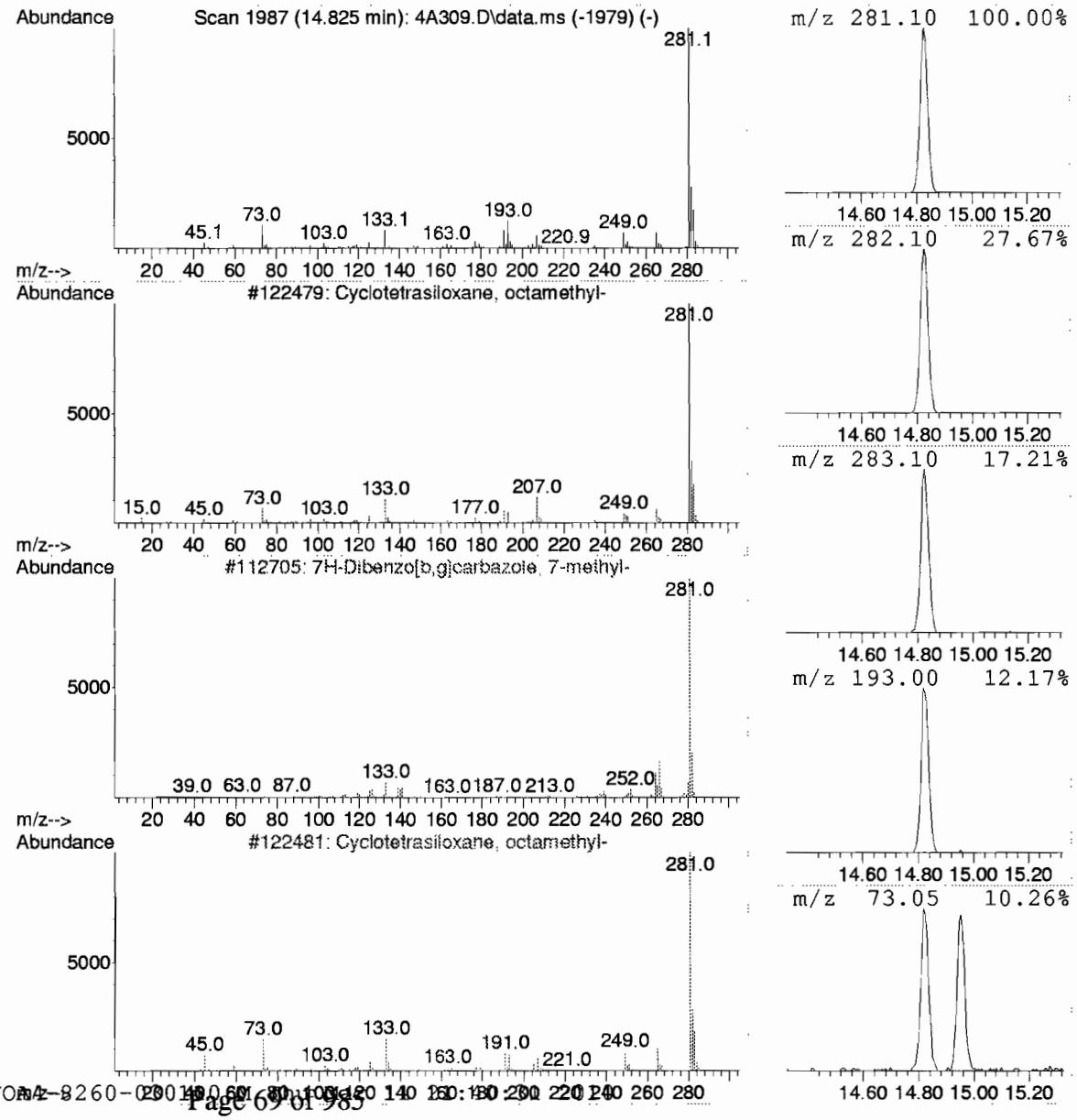

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A309.D
Acq On : 3 Mar 2010 8:36 pm
Operator : ACJ
Sample : |247828005|960638|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 4 unknown siloxane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.788	9.41 ug/L	612057	B 1,4-Dichlorobenzene-d4	16.179

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	45
2	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	38
3	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	38
4	1-Boraindane, 3-methyl-1-[1-(tri...	266	C17H23BSi	190316-36-0	23
5	Benzeneacetic acid, 3-methoxy-4-...	268	C13H20O4Si	015964-84-8	9

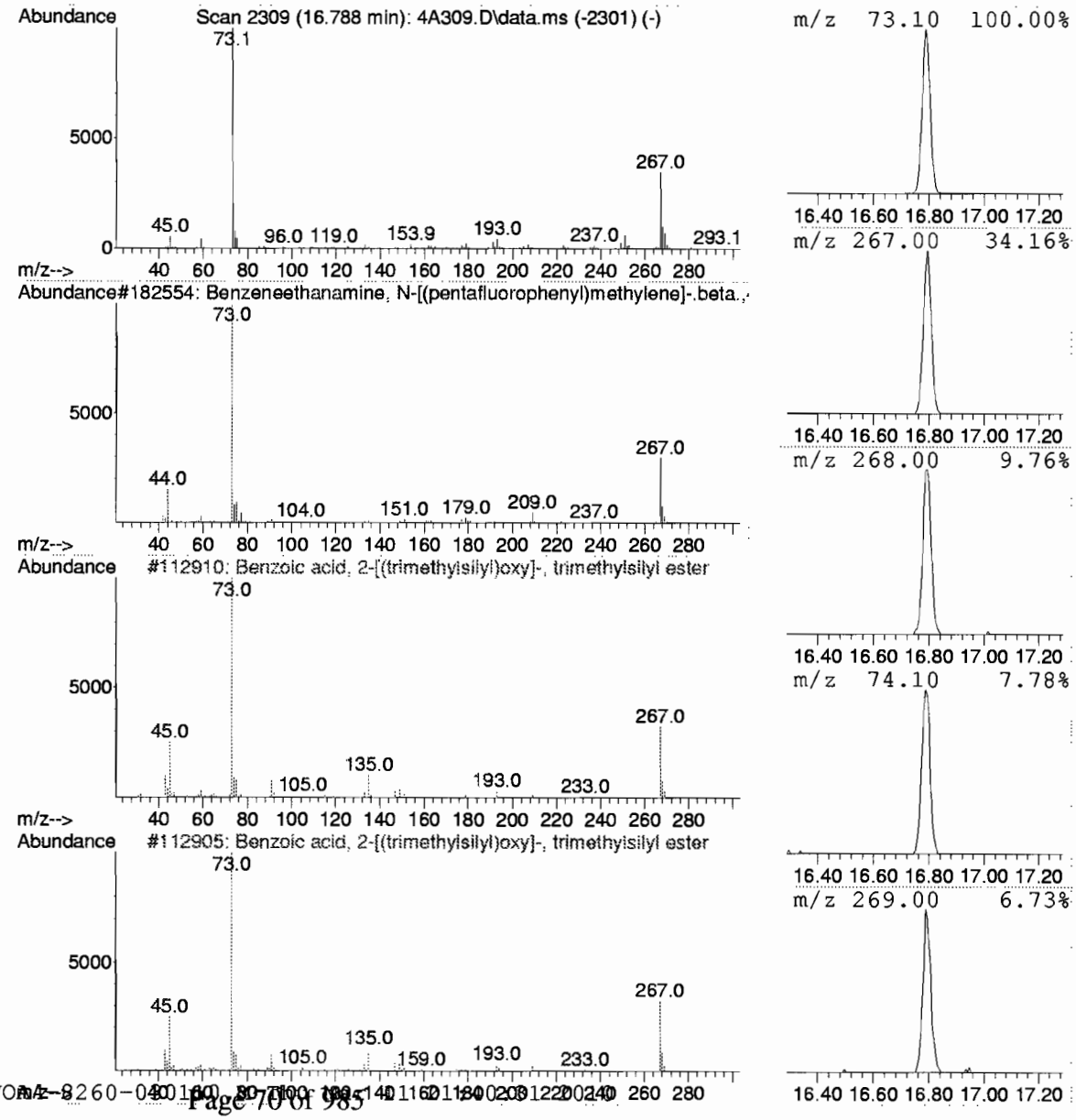

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A309.D
Acq On : 3 Mar 2010 8:36 pm
Operator : ACJ
Sample : |247828005|960638|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc
nknown hydroca...	4.481	11.9	ug/L	578658	1	10.619	2421280	50.0
nknown siloxane	12.472	5.3	ug/L	301233	3	13.771	2847990	50.0
nknown siloxane	14.825	12.2	ug/L	693288	4	13.771	2847990	50.0
nknown siloxane	16.788	9.4	ug/L	612057	6	16.179	3252370	50.0

Standards

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOA4
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Last Update : Tue Mar 02 15:03:40 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\030110V4\4A103.D

Injection Date	Mix	Calibration File
1 Mar 2010 8:03 pm	A	C:\msdchem\1\DATA\030110V4\4A103.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\030110V4\4A104.D

Injection Date	Mix	Calibration File
1 Mar 2010 8:30 pm	A	C:\msdchem\1\DATA\030110V4\4A104.D
2 Mar 2010 12:39 am	B	C:\msdchem\1\DATA\030110V4\4A113.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\030110V4\4A114.D

Injection Date	Mix	Calibration File
1 Mar 2010 9:26 pm	A	C:\msdchem\1\DATA\030110V4\4A106.D
2 Mar 2010 1:06 am	B	C:\msdchem\1\DATA\030110V4\4A114.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\030110V4\4A115.D

Injection Date	Mix	Calibration File
1 Mar 2010 9:54 pm	A	C:\msdchem\1\DATA\030110V4\4A107.D
2 Mar 2010 1:34 am	B	C:\msdchem\1\DATA\030110V4\4A115.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\030110V4\4A116.D

Injection Date	Mix	Calibration File
1 Mar 2010 10:21 pm	A	C:\msdchem\1\DATA\030110V4\4A108.D
2 Mar 2010 2:01 am	B	C:\msdchem\1\DATA\030110V4\4A116.D

Cal Lvl:5 Amt:-1 Last Updated with: C:\msdchem\1\DATA\030110V4\4A117.D

Injection Date	Mix	Calibration File
1 Mar 2010 10:49 pm	A	C:\msdchem\1\DATA\030110V4\4A109.D
2 Mar 2010 2:28 am	B	C:\msdchem\1\DATA\030110V4\4A117.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\030110V4\4A118.D

Injection Date	Mix	Calibration File
1 Mar 2010 11:16 pm	A	C:\msdchem\1\DATA\030110V4\4A110.D
2 Mar 2010 2:56 am	B	C:\msdchem\1\DATA\030110V4\4A118.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\030110V4\4A119.D

Injection Date	Mix	Calibration File
1 Mar 2010 11:44 pm	A	C:\msdchem\1\DATA\030110V4\4A111.D
2 Mar 2010 3:23 am	B	C:\msdchem\1\DATA\030110V4\4A119.D

Response Factor Report VOA4
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Method File : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Last Update : Tue Mar 02 15:03:40 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane		0.3094751	0.3280031	0.3612408	0.3086181					
	0.2908561	0.3031216					0.3169	AVRG		7.8338
3)MPA Chloromethane		0.5729365	0.5257676	0.5300317	0.5087671					
	0.4893066	0.4852403					0.5187	AVRG		6.2189
4)MCA Vinyl chloride		0.5556015	0.5350749	0.5133625	0.5104256					
	0.4896654	0.4800115					0.5140	AVRG		5.4579
5)MA Bromomethane		0.2891901	0.3068545	0.2985733	0.3159442					
	0.3113689	0.3122806					0.3057	AVRG		3.2877
6)MA Chloroethane		0.2722809	0.2615291	0.2661486	0.2656411					
	0.2619117	0.2612404					0.2648	AVRG		1.6040
7)MA Trichlorofluoromethane		0.5030491	0.5264847	0.5272128	0.5275867					
	0.5258166	0.5349635					0.5242	AVRG		2.0751
8)MA Ethyl ether		0.2415341	0.2378465	0.2480119	0.2617549					
	0.2548761	0.2540043					0.2497	AVRG		3.5854
9)MA Acetone		0.3705916	0.3197349	0.3077369	0.3139688					
	0.3032708	0.2752399					0.3151	AVRG		9.9201
10)MCA 1,1-Dichloroethylene		0.5794751	0.5416569	0.6102438	0.6071555					
	0.5519492	0.6065546					0.5828	AVRG		5.1849
11)MA Iodomethane		0.5734048	0.5471266	0.6082113	0.6470482					
	0.5910160	0.6450650					0.6020	AVRG		6.5914
12)MA Acetonitrile		0.0504308	0.0513643	0.0552385	0.0552876					
	0.0510683	0.0504136					0.0523	AVRG		4.4436
13)MA Methyl acetate		0.2702859	0.2639834	0.2673019	0.2855392					
	0.2611160	0.2577124					0.2677	AVRG		3.6682
14)MA Carbon disulfide		0.9801140	0.9486797	1.1622919	1.1922855					
	1.0876449	1.1334287					1.0841	AVRG		9.1704
15)MA Methylene chloride			0.5413222	0.4788783	0.4500774					
	0.3791125	0.4118045					0.4522	AVRG		13.8235
16)MA tert-Butyl methyl ether		0.9693907	0.9709886	0.9531098	1.0246243					
	0.9092717	0.9481439					0.9626	AVRG		3.9165

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GEL Laboratories, LLC

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
7)MA trans-1,2-Dichloroethyle		0.4568833	0.4331088	0.4667206	0.4691201					
	0.4278390	0.4394880					0.4489	AVRG		3.9499
8)MA Vinyl acetate		0.6003014	0.6013608	0.6048363	0.5853654					
	0.5871409	0.5211594					0.5834	AVRG		5.3988
19)MPA 1,1-Dichloroethane		0.5785324	0.5298634	0.5778642	0.5939291					
	0.5386702	0.5580868					0.5628	AVRG		4.4474
20)MA 2-Butanone		0.3516691	0.3325229	0.3247048	0.3275315					
	0.3481286	0.2989724					0.3306	AVRG		5.7383
21)MA cis-1,2-Dichloroethylene		0.5066074	0.4842512	0.5084067	0.5131511					
	0.4630022	0.4767585					0.4920	AVRG		4.1285
22)MA 2,2-Dichloropropane		0.3345652	0.2947900	0.3049192	0.3192840					
	0.2817542	0.2754918					0.3018	AVRG		7.4565
23)MA Bromochloromethane		0.1665375	0.1772055	0.1857821	0.1886328					
	0.1690604	0.1826083					0.1783	AVRG		5.0552
24)MCA Chloroform		0.6050823	0.6010229	0.5945464	0.6059334					
	0.5562893	0.5831481					0.5910	AVRG		3.2112
25)MA 1,1,1-Trichloroethane		0.4648209	0.4513728	0.4789040	0.4849944					
	0.4386245	0.4451256					0.4606	AVRG		4.0677
26)MA Cyclohexane		0.5588252	0.5202214	0.5216520	0.5277387					
	0.4630114	0.4789281					0.5117	AVRG		6.8224
27)MA 1,1-Dichloropropene		0.4624488	0.4115936	0.4524134	0.4394794					
	0.4060724	0.4217200					0.4323	AVRG		5.2686
28)MA Carbon tetrachloride		0.4498581	0.4242158	0.4397280	0.4587258					
	0.4179535	0.4380206					0.4381	AVRG		3.4843
29)SA 1,2-Dichloroethane-d4		0.2043679	0.2090512	0.2098656	0.2123324					
	0.2034892	0.2019789					0.2068	AVRG		1.9954
30)MA 1,2-Dichloroethane		0.5074893	0.4854465	0.4863183	0.4981336					
	0.4503800	0.4655985					0.4822	AVRG		4.3588
31)MA Benzene		1.3318439	1.2441519	1.3096329	1.3356057					
	1.2030885	1.2240879					1.2747	AVRG		4.5497

Response Factor Report VOA4
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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene		0.6395393	0.5860420	0.6494392	0.6392113					
	0.6007305	0.6137152					0.6214	AVRG		4.0511
33)MA n-Butyl alcohol	0.0152149	0.0108964	0.0112719	0.0124979	0.0135854					
	0.0142691	0.0143615					0.0132	AVRG		12.4909
34)MA Trichloroethylene		0.3437801	0.3200982	0.3470815	0.3477155					
	0.3248326	0.3388240					0.3371	AVRG		3.5091
35)MCA 1,2-Dichloropropane		0.3333792	0.3186002	0.3302578	0.3490766					
	0.3141259	0.3337969					0.3299	AVRG		3.7660
36)MA Methylcyclohexane		0.5498840	0.5176396	0.5554798	0.5485111					
	0.5032676	0.5212290					0.5327	AVRG		4.0167
37)MA Dibromomethane		0.2116389	0.2197578	0.2208584	0.2244713					
	0.2076497	0.2218045					0.2177	AVRG		3.0098
38)MA Bromodichloromethane		0.4181989	0.4146854	0.4276733	0.4597959					
	0.4357536	0.4678536					0.4373	AVRG		5.0211
39)MA 2-Chloroethylvinyl ether		0.1693963	0.1682743	0.2063950	0.1768768					
	0.1882166	0.1873501					0.1828	AVRG		7.8632
40)MA cis-1,3-Dichloropropylen		0.4961760	0.4860043	0.5009409	0.5342986					
	0.5042918	0.5407149					0.5104	AVRG		4.3053
42)MA 4-Methyl-2-pentanone		0.1812431	0.1913755	0.1812924	0.1814015					
	0.1874330	0.1710181					0.1823	AVRG		3.7921
43)SA Toluene-d8		0.9571065	0.9493994	0.9489777	0.9189842					
	0.9087348	0.8817669					0.9275	AVRG		3.1741
44)MCA Toluene		1.8581648	1.6886550	1.7535024	1.6503380					
	1.5066037	1.4729560					1.6550	AVRG		8.8511
45)MA trans-1,3-Dichloropropyl		0.5744260	0.5816789	0.5737143	0.5981879					
	0.5688252	0.5899924					0.5811	AVRG		1.9180
46)MA 1,1,2-Trichloroethane		0.2905339	0.3038670	0.3013148	0.3068866					
	0.2863925	0.2982854					0.2979	AVRG		2.6640
47)MA 2-Hexanone		0.5036428	0.5363755	0.5159977	0.5061352					
	0.5382292	0.4346162					0.5058	AVRG		7.4823

Response Factor Report VOA4
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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane		0.6286995	0.6273240	0.6290113	0.6310176					
	0.5849931	0.6121944					0.6189	AVRG		2.9002
49)MA Tetrachloroethylene		0.3642776	0.3253014	0.3419562	0.3310143					
	0.3132361	0.3223346					0.3330	AVRG		5.4152
50)MA Dibromochloromethane		0.4089868	0.4098351	0.4043078	0.4264329					
	0.4309932	0.4648053					0.4242	AVRG		5.3060
51)MA 1,2-Dibromoethane		0.3814705	0.3843430	0.3784487	0.3896992					
	0.3774139	0.3926663					0.3840	AVRG		1.5981
52)MPA Chlorobenzene		1.1723073	1.1582322	1.1598989	1.1365570					
	1.0469242	1.0892324					1.1272	AVRG		4.3535
53)MA 1,1,1,2-Tetrachloroethan		0.4198035	0.4188438	0.4138090	0.4265661					
	0.4215505	0.4667464					0.4279	AVRG		4.5525
54)MCA Ethylbenzene		2.0840260	2.0164027	2.0203991	1.9648385					
	1.8396323	1.8349551					1.9600	AVRG		5.2209
55)MA m,p-Xylenes		0.7968904	0.7843637	0.7812839	0.7687025					
	0.7500114	0.7838288					0.7775	AVRG		2.0822
56)MA o-Xylene		0.7644591	0.7952265	0.8048390	0.7930166					
	0.8014504	0.8757789					0.8058	AVRG		4.6105
57)MA Styrene		1.2443810	1.2117404	1.2744438	1.3143277					
	1.3579431	1.4472582					1.3083	AVRG		6.5184
59)MPA Bromoform		0.3902477	0.4141142	0.4242333	0.4566677					
	0.4801735	0.5461896					0.4519	AVRG		12.4017
60)MA Isopropylbenzene		3.3175209	3.3494916	3.3243159	3.1363524					
	2.8963725	2.9600744					3.1640	AVRG		6.2838
61)SA Bromofluorobenzene		0.9826198	1.0053785	0.9728582	0.9665938					
	0.9564305	0.9856607					0.9783	AVRG		1.7414
62)MPA 1,1,2,2-Tetrachloroethan		0.9195561	0.9683729	0.9026073	0.9198707					
	0.8567728	0.8818222					0.9082	AVRG		4.1952
63)MA 1,2,3-Trichloropropane		0.2432967	0.2801066	0.2441238	0.2472761					
	0.2288957	0.2413168					0.2475	AVRG		6.9435

Response Factor Report VOA4
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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA Bromobenzene		0.8647386	0.8752875	0.8519557	0.8635659					
	0.8331826	0.9351452					0.8706	AVRG		3.9852
65)MA n-Propylbenzene		4.0498435	4.1369496	4.0588436	3.8552049					
	3.5743302	3.5017307					3.8628	AVRG		6.9678
66)MA 1,3,5-Trimethylbenzene		2.8354956	3.0146701	2.9763206	2.9065436					
	2.7813114	2.8437041					2.8930	AVRG		3.0971
67)MA 2-Chlorotoluene		0.8688915	0.8524719	0.8724659	0.8294085					
	0.8241385	0.9261661					0.8623	AVRG		4.2959
68)MA 4-Chlorotoluene		2.4844031	2.5612741	2.5152706	2.3978939					
	2.2460486	2.2714761					2.4127	AVRG		5.4253
69)MA tert-Butylbenzene		0.6320613	0.6437287	0.6497004	0.6155296					
	0.5991326	0.6650760					0.6342	AVRG		3.7759
70)MA 1,2,4-Trimethylbenzene		2.8841431	3.0892537	3.0875822	3.0143936					
	2.8235529	2.8025765					2.9503	AVRG		4.4071
71)MA sec-Butylbenzene		4.0143071	4.0846347	4.1051946	3.9152029					
	3.6420766	3.5181276					3.8799	AVRG		6.3072
72)MA 4-Isopropyltoluene		3.0338824	3.2694698	3.3123587	3.1719621					
	3.0102983	2.9278625					3.1210	AVRG		4.9307
73)MA 1,3-Dichlorobenzene		1.7733193	1.7685299	1.7969645	1.7342003					
	1.6369787	1.6738737					1.7306	AVRG		3.6236
74)MA 1,4-Dichlorobenzene		1.7771756	1.9012008	1.8477494	1.7442019					
	1.6703842	1.6822429					1.7705	AVRG		5.1518
75)MA n-Butylbenzene		2.9574109	3.0426503	3.2663712	3.0010450					
	2.8332954	2.6704491					2.9619	AVRG		6.7905
76)MA 1,2-Dichlorobenzene		1.6923391	1.8190827	1.7229194	1.6964463					
	1.5724597	1.6033986					1.6844	AVRG		5.2380
77)MA 1,2-Dibromo-3-chloroprop		0.1427388	0.1601043	0.1552744	0.1568820					
	0.1724465	0.1820974					0.1616	AVRG		8.5663
78)MA 1,2,4-Trichlorobenzene		0.8213712	0.8237018	0.8975434	0.8897582					
	0.8820654	0.8549721					0.8616	AVRG		3.8851

Response Factor Report VOA4
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Last Update : Tue Mar 02 15:03:40 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
79)MA Hexachlorobutadiene	0.5423204	0.5620564 0.5524787	0.5490636	0.6013384	0.5418709		0.5582	AVRG		4.0146
80)MA Naphthalene	2.0444053	2.3970157 1.9772015	2.2199511	2.0905527	2.1315508		2.1434	AVRG		6.9367
81)MA 1,2,3-Trichlorobenzene	0.7056849	0.7105499 0.7041686	0.7076489	0.7426567	0.7348618		0.7176	AVRG		2.3293
83)B Chlorotrifluoroethylene	0.1651545	0.1928176 0.1795403	0.1589189	0.1461446	0.1735227	0.2114385	0.1754	AVRG		12.4398
84)B 2-Chloro-1,1,1-trifluoro	0.5904177	0.5721523 0.5501506	0.5400354	0.5501283	0.5962120	0.5535334	0.5647	AVRG		3.8712
85)B Acrolein -0.0135 | 0.0505 | 0.00	321964	6504 773364	9876	23934	49064	109086		LINR		0.9943
86)B Trichlorotrifluoroethane	0.1023600	0.1461689 0.1060014	0.1221725	0.1222409	0.1237840	0.1087334	0.1188	AVRG		12.5463
87)B Isopropyl Alcohol	0.0315174	0.0309507 0.0328078	0.0289400	0.0295944	0.0321518	0.0309392	0.0310	AVRG		4.3869
88)B Allyl chloride	0.4247044	0.4410914 0.3890080	0.4144177	0.4329829	0.4237283	0.4390746	0.4236	AVRG		4.2184
89)B tert-Butyl Alcohol	0.0499952	0.0493194 0.0515867	0.0465802	0.0486116	0.0516194	0.0492098	0.0496	AVRG		3.5428
90)B Acrylonitrile	0.1226476	0.1354744 0.1210012	0.1169982	0.1192240	0.1172877	0.1199926	0.1218	AVRG		5.2104
91)B Isopropyl ether	1.0893456	1.0359445 1.0610693	1.0095069	1.0621565	1.1182501	1.0699375	1.0637	AVRG		3.2990
92)B 2-Chloro-1,3-butadiene	0.4396326	0.4432562 0.3923863	0.4025100	0.4251441	0.4110593	0.4255095	0.4199	AVRG		4.4883
93)B Ethyl tert-butyl ether	1.0232943	0.9724237 1.0210297	0.9454935	0.9877587	1.0437350	1.0062867	1.0000	AVRG		3.3710
94)B Ethyl acetate	0.3335166	0.4207751 0.3226695	0.3344995	0.3419534	0.3318285	0.3437715	0.3470	AVRG		9.5860

Response Factor Report VOA4
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Last Update : Tue Mar 02 15:03:40 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile		0.0579700	0.0471239	0.0497289	0.0512108	0.0510792				
	0.0516971	0.0529726					0.0517	AVRG		6.4357
96)B Methacrylonitrile		0.2375600	0.1961336	0.2113702	0.2065848	0.2121764				
	0.2106405	0.2040929					0.2112	AVRG		6.0965
97)B Tetrahydrofuran		0.1362498	0.1128471	0.1112702	0.1073795	0.1101952				
	0.1086713	0.1103988					0.1139	AVRG		8.8074
98)B Isobutyl alcohol		0.0152586	0.0143983	0.0161756	0.0155977	0.0159383				
	0.0170587	0.0160889					0.0158	AVRG		5.2524
99)B Methyl tert-amyl ether		0.9092583	0.9103189	0.9127399	0.9686898	0.9431764				
	0.9699206	0.9951498					0.9442	AVRG		3.6732
100)B Methyl methacrylate		0.2366812	0.2151339	0.2261493	0.2218900	0.2322491				
	0.2372493	0.2371432					0.2295	AVRG		3.7866
101)B 1,4-Dioxane		0.0045376	0.0041314	0.0041319	0.0042340	0.0043051				
	0.0045308	0.0043816					0.0043	AVRG	#	3.9414
102)B 2-Nitropropane		0.1281983	0.0945526	0.1031010	0.1109235	0.1179372				
	0.1188684	0.1221423					0.1137	AVRG		10.2389
104)B Ethyl methacrylate		0.5301747	0.4853177	0.5128271	0.5124319	0.5436019				
	0.5410113	0.4985569					0.5177	AVRG		4.1999
106)B 1-Chlorohexane		0.5706431	0.5950303	0.5938594	0.6226543	0.6078436				
	0.6049091	0.4412334					0.5766	AVRG		10.7135
107)B cis-1,4-Dichloro-2-buten		0.2562164	0.2433071	0.2543648	0.2476176	0.2715778				
	0.2753507	0.2528613					0.2573	AVRG		4.6219
108)B Cyclohexanone		0.0319960	0.0244636	0.0253938	0.0259780	0.0283148				
							0.0272	AVRG		11.0914
109)B trans-1,4-Dichloro-2-but		0.2448200	0.2333204	0.2463157	0.2452294	0.2638413				
	0.2676538	0.2425929					0.2491	AVRG		4.8999
110)B Pentachloroethane		0.2773251	0.2448282	0.2417607	0.3144067	0.3343024				
	0.2405564	0.2477113					0.2716	AVRG		14.2132
111)B Benzyl chloride		1.2135141	1.1462821	1.2503052	1.2578961	1.3440856				
	1.3187502	1.0882205					1.2313	AVRG		7.3732

Response Factor Report VOA4
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Last Update : Tue Mar 02 15:03:40 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
12)B bis(2-Chloroisopropyl)et	0.4143469	0.4102831 0.4031629	0.3581670	0.3914475	0.3940309	0.4206244	0.3989	AVRG		5.2157

(#) = Out of Range

Continuing Calibration Summary

Client SDG: 10-2000

Instrument ID: VOA4.I **Injection Dat** 02-MAR-10 04:45

Data File: 030110V4\4A122.D **Init. Cal. Date(s)** 01-MAR-10 20:03 - 02-MAR-10 03:2

Lab Sample ID W4VM100301-18 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.2068	0.20039		.01		-3.09961	30		Averaged	
S	Toluene-d8	0.9275	0.92786		.01		0.03881	30		Averaged	
S	Bromofluorobenzene	0.9783	0.9522		.01		-2.66789	30		Averaged	
	Dichlorodifluoromethane	0.3169	0.20881		.01		-34.10855	30	*	Averaged	
	Chloromethane	0.5187	0.39141		.1		-24.5402	30		Averaged	spcc
	Vinyl chloride	0.514	0.435		.01		-15.36965	20		Averaged	ccc
	Bromomethane	0.3057	0.27503		.01		-10.03271	30		Averaged	
	Chloroethane	0.2648	0.23859		.01		-9.89804	30		Averaged	
	Trichlorofluoromethane	0.5242	0.48534		.01		-7.4132	30		Averaged	
	Ethyl ether	0.2497	0.23194		.01		-7.11254	30		Averaged	
	Acetone	0.3151	0.2404		.01		-23.70676	40		Averaged	
	1,1-Dichloroethylene	0.5828	0.49891		.01		-14.3943	20		Averaged	ccc
	Iodomethane	0.602	0.55263		.01		-8.201	30		Averaged	
	Acetonitrile	0.0523	0.0479		.01		-8.413	30		Averaged	
	Methyl acetate	0.2677	0.23983		.01		-10.41091	40		Averaged	
	Carbon disulfide	1.0841	1.0305		.01		-4.94419	30		Averaged	
	Methylene chloride	0.4522	0.36418		.01		-19.46484	30		Averaged	
	tert-Butyl methyl ether	0.9626	0.86175		.01		-10.47683	30		Averaged	
	trans-1,2-Dichloroethylene	0.4489	0.40435		.01		-9.92426	30		Averaged	
	Vinyl acetate	0.5834	0.47195		.01		-19.10353	40		Averaged	
	1,1-Dichloroethane	0.5628	0.522		.1		-7.24947	30		Averaged	spcc
	2-Butanone	0.3306	0.2659		.01		-19.57048	40		Averaged	
	cis-1,2-Dichloroethylene	0.492	0.45017		.01		-8.50203	30		Averaged	
	2,2-Dichloropropane	0.3018	0.26297		.01		-12.86614	30		Averaged	
	Bromochloromethane	0.1783	0.16596		.01		-6.92092	30		Averaged	
	Chloroform	0.591	0.55389		.01		-6.27919	20		Averaged	ccc
	1,1,1-Trichloroethane	0.4606	0.42347		.01		-8.06122	30		Averaged	
	Cyclohexane	0.5117	0.44897		.01		-12.25914	30		Averaged	
	1,1-Dichloropropene	0.4323	0.39451		.01		-8.74161	30		Averaged	
	Carbon tetrachloride	0.4381	0.40412		.01		-7.75622	30		Averaged	
	1,2-Dichloroethane	0.4822	0.43255		.01		-10.29656	30		Averaged	
	Benzene	1.2747	1.16072		.01		-8.94171	30		Averaged	
	Cyclohexene	0.6214	0.55044		.01		-11.41938	30		Averaged	
	n-Butyl alcohol	0.0132	0.01316		.01		-0.30303	40		Averaged	
	Trichloroethylene	0.3371	0.32002		.01		-5.06675	30		Averaged	
	1,2-Dichloropropane	0.3299	0.31032		.01		-5.93513	20		Averaged	ccc
	Methylcyclohexane	0.5327	0.47592		.01		-10.65891	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA4.I **Injection Dat** 02-MAR-10 04:45

Data File: 030110V4\4A122.D **Init. Cal. Date(s)** 01-MAR-10 20:03 02-MAR-10 03:2

Lab Sample ID W4VM100301-18 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.2177	0.19691		.01		-9.54984	30		Averaged	
Bromodichloromethane	0.4373	0.42638		.01		-2.49714	30		Averaged	
2-Chloroethylvinyl ether	0.1828	0.18686		.01		2.22101	30		Averaged	
cis-1,3-Dichloropropylene	0.5104	0.48153		.01		-5.65635	30		Averaged	
4-Methyl-2-pentanone	0.1823	0.16376		.01		-10.17005	40		Averaged	
Toluene	1.655	1.48911		.01		-10.02356	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.5811	0.55064		.01		-5.24178	30		Averaged	
1,1,2-Trichloroethane	0.2979	0.28433		.01		-4.55522	30		Averaged	
2-Hexanone	0.5058	0.41646		.01		-17.66311	40		Averaged	
1,3-Dichloropropane	0.6189	0.57199		.01		-7.57958	30		Averaged	
Tetrachloroethylene	0.333	0.30484		.01		-8.45646	30		Averaged	
Dibromochloromethane	0.4242	0.4208		.01		-0.80151	30		Averaged	
1,2-Dibromoethane	0.384	0.36883		.01		-3.95052	30		Averaged	
Chlorobenzene	1.1272	1.05319		.3		-6.56583	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.4279	0.41668		.01		-2.62211	30		Averaged	
Ethylbenzene	1.96	1.801		.01		-8.11224	20		Averaged	ccc
m,p-Xylenes	0.7775	0.73062		.01		-6.02958	30		Averaged	
o-Xylene	0.8058	0.78154		.01		-3.01067	30		Averaged	
Styrene	1.3083	1.32658		.01		1.39723	30		Averaged	
Bromoform	0.4519	0.44567		.1		-1.37862	30		Averaged	spcc
Isopropylbenzene	3.164	2.79156		.01		-11.77118	30		Averaged	
1,1,2,2-Tetrachloroethane	0.9082	0.79153		.3		-12.84629	30		Averaged	spcc
1,2,3-Trichloropropane	0.2475	0.2197		.01		-11.23232	30		Averaged	
Bromobenzene	0.8706	0.81417		.01		-6.48174	30		Averaged	
n-Propylbenzene	3.8628	3.45672		.01		-10.51258	30		Averaged	
2-Chlorotoluene	0.8623	0.8077		.01		-6.3319	30		Averaged	
1,3,5-Trimethylbenzene	2.893	2.69152		.01		-6.9644	30		Averaged	
4-Chlorotoluene	2.4127	2.1839		.01		-9.48315	30		Averaged	
tert-Butylbenzene	0.6342	0.587		.01		-7.44245	30		Averaged	
1,2,4-Trimethylbenzene	2.9503	2.72034		.01		-7.79446	30		Averaged	
sec-Butylbenzene	3.8799	3.52828		.01		-9.0626	30		Averaged	
4-Isopropyltoluene	3.121	2.92624		.01		-6.24031	30		Averaged	
1,3-Dichlorobenzene	1.7306	1.604		.01		-7.31538	30		Averaged	
1,4-Dichlorobenzene	1.7705	1.63632		.01		-7.57865	30		Averaged	
n-Butylbenzene	2.9619	2.76611		.01		-6.61028	30		Averaged	
1,2-Dichlorobenzene	1.6844	1.58047		.01		-6.17015	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1616	0.16175		.01		0.09282	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA4.I **Injection Date** 02-MAR-10 04:45

Data File: 030110V4\4A122.D **Init. Cal. Date(s)** 01-MAR-10 20:03 02-MAR-10 03:2

Lab Sample ID W4VM100301-18 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8616	0.84001		.01		-2.5058	30		Averaged
Hexachlorobutadiene	0.5582	0.5327		.01		-4.56826	30		Averaged
Naphthalene	2.1434	1.99062		.01		-7.12793	30		Averaged
1,2,3-Trichlorobenzene	0.7176	0.70968		.01		-1.10368	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A122.D
Acq On : 2 Mar 2010 4:45 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-18|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[A] 0220-01B+0301-01
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 02 15:05:11 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.619	10.620	1.000	96	1540174	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	1292531	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	911427	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1539787	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	1292531	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	913350	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	308637	48.44	ug/L	0.00
43) Toluene-d8	12.253	12.247	0.890	98	1199290	50.02	ug/L	0.00
61) Bromofluorobenzene	14.953	14.954	0.924	95	867862	48.67	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.904	4.911	0.462	85	321604	32.95	ug/L	100
3) Chloromethane	5.292	5.291	0.498	50	602837	37.73	ug/L	99
4) Vinyl chloride	5.521	5.521	0.520	62	669968	42.31	ug/L	100
5) Bromomethane	6.130	6.137	0.577	94	423599	44.98	ug/L	99
6) Chloroethane	6.295	6.295	0.593	64	367464	45.05	ug/L	100
7) Trichlorofluoromethane	6.668	6.669	0.628	101	747504	46.29	ug/L	100
8) Ethyl ether	6.997	6.998	0.659	59	357225	46.45	ug/L	98
9) Acetone	7.357	7.352	0.693	43	1851300	190.74	ug/L	100
10) 1,1-Dichloroethylene	7.394	7.389	0.696	61	768401	42.80	ug/L	100
11) Iodomethane	7.662	7.663	0.722	142	4255710	229.50	ug/L	100
12) Acetonitrile	7.699	7.699	0.725	41	1844276	1144.77	ug/L	99
13) Methyl acetate	7.753	7.748	0.730	43	1846931	224.01	ug/L	99
14) Carbon disulfide	7.772	7.773	0.732	76	7935717	237.64	ug/L	100
15) Methylene chloride	7.936	7.931	0.747	84	560901	40.26	ug/L	100
16) tert-Butyl methyl ether	8.241	8.242	0.776	73	1327244	44.76	ug/L	99
17) trans-1,2-Dichloroethy...	8.284	8.285	0.780	61	622773	45.04	ug/L	100
18) Vinyl acetate	8.711	8.705	0.820	43	3634425	202.25	ug/L	99
19) 1,1-Dichloroethane	8.759	8.760	0.825	63	803966	46.37	ug/L	100
20) 2-Butanone	9.326	9.327	0.878	43	2047670	201.08	ug/L	99
21) cis-1,2-Dichloroethylene	9.387	9.388	0.884	61	693341	45.75	ug/L	100
22) 2,2-Dichloropropane	9.418	9.419	0.887	77	405016	43.57	ug/L	98
23) Bromochloromethane	9.656	9.656	0.909	128	255613	46.54	ug/L	98
24) Chloroform	9.692	9.687	0.913	83	853090	46.86	ug/L	98
25) 1,1,1-Trichloroethane	9.979	9.979	0.940	97	652222	45.97	ug/L	100
26) Cyclohexane	10.082	10.083	0.949	56	691497	43.87	ug/L	99
27) 1,1-Dichloropropene	10.137	10.132	0.955	75	607607	45.63	ug/L #	79
28) Carbon tetrachloride	10.174	10.175	0.958	117	622408	46.12	ug/L	100
30) 1,2-Dichloroethane	10.338	10.339	0.974	62	666203	44.85	ug/L	99
31) Benzene	10.375	10.370	0.977	78	1787715	45.53	ug/L	100
32) Cyclohexene	10.497	10.492	0.989	67	847777	44.29	ug/L	98
33) n-Butyl alcohol	10.692	10.693	1.007	56	2026999	5001.56	ug/L	100
34) Trichloroethylene	11.009	11.004	1.037	95	492892	47.47	ug/L	99
35) 1,2-Dichloropropane	11.241	11.241	1.059	63	477950	47.04	ug/L	100
36) Methylcyclohexane	11.265	11.260	1.061	83	733004	44.67	ug/L	99
37) Dibromomethane	11.375	11.376	1.071	93	303275	45.23	ug/L	100
38) Bromodichloromethane	11.484	11.485	1.082	83	656694	48.75	ug/L	100
39) 2-Chloroethylvinyl ether	11.698	11.699	1.102	63	1438998	255.62	ug/L	100
40) cis-1,3-Dichloropropylene	11.929	11.930	1.123	75	741641	47.17	ug/L	100
42) 4-Methyl-2-pentanone	12.021	12.016	0.873	58	1058321	224.58	ug/L	98
44) Toluene	12.326	12.320	0.895	91	1924727	44.99	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A122.D
Acq On : 2 Mar 2010 4:45 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-18|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[A] 0220-01B+0301-01
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 02 15:05:11 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
45)	trans-1,3-Dichloroprop...	12.466	12.461	0.905	75	711716	47.38	ug/L	99
46)	1,1,2-Trichloroethane	12.685	12.680	0.921	83	367506	47.73	ug/L	100
47)	2-Hexanone	12.856	12.857	0.934	43	2691452	205.83	ug/L	98
48)	1,3-Dichloropropane	12.874	12.875	0.935	76	739318	46.21	ug/L	89
49)	Tetrachloroethylene	12.923	12.918	0.938	164	394013	45.77	ug/L	99
50)	Dibromochloromethane	13.149	13.144	0.955	129	543899	49.60	ug/L	100
51)	1,2-Dibromoethane	13.319	13.320	0.967	107	476721	48.02	ug/L	100
52)	Chlorobenzene	13.801	13.802	1.002	112	1361279	46.72	ug/L	100
53)	1,1,1,2-Tetrachloroethane	13.850	13.851	1.006	131	538577	48.69	ug/L	99
54)	Ethylbenzene	13.862	13.863	1.007	91	2327846	45.94	ug/L	100
55)	m,p-Xylenes	13.972	13.973	1.015	106	1888702	93.97	ug/L	100
56)	o-Xylene	14.405	14.399	1.046	106	1010170	48.50	ug/L	98
57)	Styrene	14.405	14.399	1.046	104	1714651	50.70	ug/L	100
59)	Bromoform	14.661	14.655	0.906	173	406192	49.31	ug/L	99
60)	Isopropylbenzene	14.758	14.759	0.912	105	2544300	44.11	ug/L	100
62)	1,1,2,2-Tetrachloroethane	15.020	15.015	0.928	83	721422	43.58	ug/L	99
63)	1,2,3-Trichloropropane	15.112	15.107	0.934	110	200239	44.38	ug/L	97
64)	Bromobenzene	15.167	15.168	0.937	156	742061	46.76	ug/L	99
65)	n-Propylbenzene	15.185	15.180	0.939	91	3150549	44.74	ug/L	99
66)	1,3,5-Trimethylbenzene	15.331	15.332	0.948	105	2453122	46.52	ug/L	100
67)	2-Chlorotoluene	15.331	15.332	0.948	126	736161	46.84	ug/L	99
68)	4-Chlorotoluene	15.429	15.430	0.954	91	1990465	45.26	ug/L	100
69)	tert-Butylbenzene	15.703	15.704	0.971	134	535011	46.28	ug/L	99
70)	1,2,4-Trimethylbenzene	15.746	15.741	0.973	105	2479390	46.10	ug/L	99
71)	sec-Butylbenzene	15.935	15.930	0.985	105	3215773	45.47	ug/L	100
72)	4-Isopropyltoluene	16.051	16.051	0.992	119	2667056	46.88	ug/L	100
73)	1,3-Dichlorobenzene	16.124	16.119	0.997	146	1461933	46.34	ug/L	100
74)	1,4-Dichlorobenzene	16.209	16.204	1.002	146	1491390	46.21	ug/L	99
75)	n-Butylbenzene	16.508	16.503	1.020	91	2521109	46.70	ug/L	100
76)	1,2-Dichlorobenzene	16.642	16.643	1.029	146	1440483	46.91	ug/L	100
77)	1,2-Dibromo-3-chloropr...	17.532	17.527	1.084	157	147425	50.05	ug/L	100
78)	1,2,4-Trichlorobenzene	18.635	18.630	1.152	180	765605	48.75	ug/L	99
79)	Hexachlorobutadiene	18.818	18.819	1.163	225	485516	47.72	ug/L	100
80)	Naphthalene	19.032	19.026	1.176	128	1814309	46.44	ug/L	99
81)	1,2,3-Trichlorobenzene	19.385	19.386	1.198	180	646822	49.45	ug/L	99
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85)	Acrolein	7.241	7.180	0.682		0m	N.D.	d	
86)	Trichlorotrifluoroethane	0.000	7.369	0.000		0	N.D.		
87)	Isopropyl Alcohol	7.351	7.430	0.692		0m	N.D.	d	
88)	Allyl chloride	7.699	7.796	0.725		0m	N.D.	d	
89)	tert-Butyl Alcohol	0.000	7.924	0.000		0	N.D.		
90)	Acrylonitrile	8.241	8.174	0.776		0m	N.D.	d	
91)	Isopropyl ether	8.711	8.741	0.820		0m	N.D.	d	
92)	2-Chloro-1,3-butadiene	8.875	8.869	0.836		0m	N.D.	d	
93)	Ethyl tert-butyl ether	9.131	9.143	0.860		0m	N.D.	d	
94)	Ethyl acetate	9.326	9.338	0.878		0m	N.D.	d	
95)	Propionitrile	9.442	9.393	0.889		0m	N.D.	d	
96)	Methacrylonitrile	0.000	9.576	0.000		0	N.D.		
97)	Tetrahydrofuran	9.716	9.710	0.915		0m	N.D.	d	
98)	Isobutyl alcohol	9.997	10.009	0.941		0m	N.D.	d	
99)	Methyl tert-amyl ether	10.375	10.387	0.977		0m	N.D.	d	
100)	Methyl methacrylate	11.167	11.204	1.052		0m	N.D.	d	
101)	1,4-Dioxane	11.344	11.326	1.068		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A122.D
Acq On : 2 Mar 2010 4:45 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-18|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[A] 0220-01B+0301-01
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 02 15:05:11 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
102) 2-Nitropropane	11.698	11.673	1.102		0m	N.D.	d
104) Ethyl methacrylate	12.466	12.466	0.905		0m	N.D.	d
106) 1-Chlorohexane	13.667	13.661	0.845		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.764	14.783	0.913		0m	N.D.	d
108) Cyclohexanone	14.911	14.904	0.922		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.069	15.063	0.931		0m	N.D.	d
110) Pentachloroethane	15.770	15.770	0.975		0m	N.D.	d
111) Benzyl chloride	16.313	16.319	1.008		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.721	16.721	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A122.D
Acq On : 2 Mar 2010 4:45 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-18|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[A] 0220-01B+0301-01
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 02 15:05:11 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

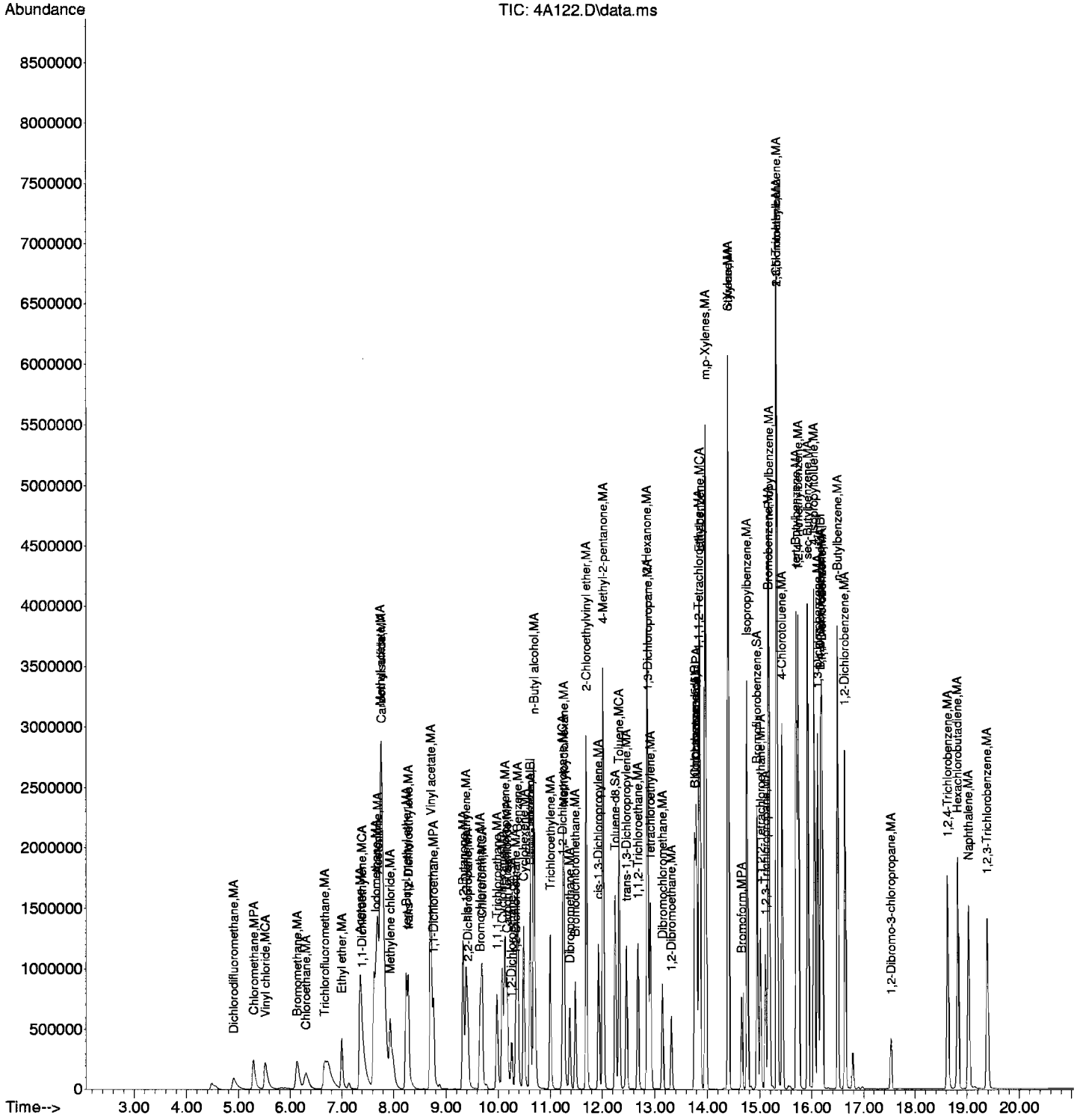

Continuing Calibration Summary

Client SDG: 10-2000

Instrument ID: VOA4.I **Injection Date** 02-MAR-10 05:13

Data File: 030110V4\4A123.D **Init. Cal. Date(s)** 01-MAR-10 20:03 - 02-MAR-10 03:2

Lab Sample ID W4VM100301-19 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.2068	0.19926		.01		-3.64603	30		Averaged
S	Toluene-d8	0.9275	0.92876		.01		0.13585	30		Averaged
S	Bromofluorobenzene	0.9783	0.99852		.01		2.06685	30		Averaged
	Chlorotrifluoroethylene	0.1754	0.18522		.01		5.59863	30		Averaged
	2-Chloro-1,1,1-trifluoroethane	0.5647	0.54723		.01		-3.09368	30		Averaged
	Acrolein	250	210.71	250			-15.716	30		Linear
	Trichlorotrifluoroethane	0.1188	0.11301		.01		-4.87374	30		Averaged
	Isopropyl Alcohol	0.031	0.02807		.01		-9.45161	40		Averaged
	Allyl chloride	0.4236	0.39588		.01		-6.54391	30		Averaged
	tert-Butyl Alcohol	0.0496	0.04432		.01		-10.64516	40		Averaged
	Acrylonitrile	0.1218	0.10925		.01		-10.30378	30		Averaged
	Isopropyl ether	1.0637	1.00324		.01		-5.68393	30		Averaged
	2-Chloro-1,3-butadiene	0.4199	0.43689		.01		4.0462	30		Averaged
	Ethyl tert-butyl ether	1	0.94464		.01		-5.536	30		Averaged
	Ethyl acetate	0.347	0.27896		.01		-19.60807	40		Averaged
	Propionitrile	0.0517	0.04585		.01		-11.31528	30		Averaged
	Methacrylonitrile	0.2112	0.18555		.01		-12.14489	30		Averaged
	Tetrahydrofuran	0.1139	0.09806		.01		-13.90694	30		Averaged
	Isobutyl alcohol	0.0158	0.01386		.01		-12.27848	40		Averaged
	Methyl tert-amyl ether	0.9442	0.9056		.01		-4.08812	30		Averaged
	Methyl methacrylate	0.2295	0.20869		.01		-9.06754	30		Averaged
	1,4-Dioxane	0.0043	0.00376		.01		-12.55814	40		Averaged
	2-Nitropropane	0.1137	0.10782		.01		-5.1715	30		Averaged
	Ethyl methacrylate	0.5177	0.48191		.01		-6.91327	30		Averaged
	1-Chlorohexane	0.5766	0.55415		.01		-3.89351	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2573	0.25096		.01		-2.46405	30		Averaged
	Cyclohexanone	0.0272	0.05136		.01		88.82353	40	*	Averaged
	trans-1,4-Dichloro-2-butene	0.2491	0.23734		.01		-4.721	30		Averaged
	Pentachloroethane	0.2716	0.16088		.01		-40.76583	30	*	Averaged
	Benzyl chloride	1.2313	1.05586		.01		-14.24836	30		Averaged
	bis(2-Chloroisopropyl)ether	0.3989	0.35372		.01		-11.32615	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A123.D
Acq On : 2 Mar 2010 5:13 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-19|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[B] 0215-08A+0125-08E
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 02 15:05:20 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.619	10.620	1.000	96	1591342	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	1313113	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	848630	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1590834	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	1313113	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	848653	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	317090	48.17	ug/L	0.00
43) Toluene-d8	12.253	12.247	0.890	98	1219563	50.07	ug/L	0.00
61) Bromofluorobenzene	14.953	14.954	0.924	95	847377	51.04	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.818	4.911	0.454		0m	N.D.	d	
3) Chloromethane	5.292	5.291	0.498		0m	N.D.	d	
4) Vinyl chloride	5.521	5.521	0.520		0m	N.D.	d	
5) Bromomethane	6.130	6.137	0.577		0m	N.D.	d	
6) Chloroethane	6.321	6.295	0.595		0m	N.D.	d	
7) Trichlorofluoromethane	6.680	6.669	0.629		0m	N.D.	d	
8) Ethyl ether	6.991	6.998	0.658		0m	N.D.	d	
9) Acetone	7.430	7.352	0.700		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.375	7.389	0.695		0m	N.D.	d	
11) Iodomethane	7.619	7.663	0.718		0m	N.D.	d	
12) Acetonitrile	7.692	7.699	0.724		0m	N.D.	d	
13) Methyl acetate	7.753	7.748	0.730		0m	N.D.	d	
14) Carbon disulfide	7.802	7.773	0.735		0m	N.D.	d	
15) Methylene chloride	7.942	7.931	0.748		0m	N.D.	d	
16) tert-Butyl methyl ether	8.247	8.242	0.777		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.284	8.285	0.780		0m	N.D.	d	
18) Vinyl acetate	8.741	8.705	0.823		0m	N.D.	d	
19) 1,1-Dichloroethane	8.759	8.760	0.825		0m	N.D.	d	
20) 2-Butanone	9.338	9.327	0.879		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.338	9.388	0.879		0m	N.D.	d	
22) 2,2-Dichloropropane	9.558	9.419	0.900		0m	N.D.	d	
23) Bromochloromethane	9.655	9.656	0.909		0m	N.D.	d	
24) Chloroform	9.692	9.687	0.913		0m	N.D.	d	
25) 1,1,1-Trichloroethane	9.979	9.979	0.940		0m	N.D.	d	
26) Cyclohexane	10.009	10.083	0.943		0m	N.D.	d	
27) 1,1-Dichloropropene	10.125	10.132	0.953		0m	N.D.	d	
28) Carbon tetrachloride	10.174	10.175	0.958		0m	N.D.	d	
30) 1,2-Dichloroethane	10.357	10.339	0.975		0m	N.D.	d	
31) Benzene	10.375	10.370	0.977		0m	N.D.	d	
32) Cyclohexene	10.497	10.492	0.989		0m	N.D.	d	
33) n-Butyl alcohol	10.686	10.693	1.006		0m	N.D.	d	
34) Trichloroethylene	11.003	11.004	1.036		0m	N.D.	d	
35) 1,2-Dichloropropane	11.247	11.241	1.059		0m	N.D.	d	
36) Methylcyclohexane	11.210	11.260	1.056		0m	N.D.	d	
37) Dibromomethane	11.369	11.376	1.071		0m	N.D.	d	
38) Bromodichloromethane	11.478	11.485	1.081		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.692	11.699	1.101		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	11.935	11.930	1.124		0m	N.D.	d	
42) 4-Methyl-2-pentanone	12.015	12.016	0.872		0m	N.D.	d	
44) Toluene	12.326	12.320	0.895		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A123.D
Acq On : 2 Mar 2010 5:13 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-19|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[B] 0215-08A+0125-08E
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 02 15:05:20 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
45)	trans-1,3-Dichloroprop...	12.460	12.461	0.905		0m	N.D.	d	
46)	1,1,2-Trichloroethane	12.685	12.680	0.921		0m	N.D.	d	
47)	2-Hexanone	12.862	12.857	0.934		0m	N.D.	d	
48)	1,3-Dichloropropane	12.880	12.875	0.935		0m	N.D.	d	
49)	Tetrachloroethylene	12.923	12.918	0.938		0m	N.D.	d	
50)	Dibromochloromethane	13.136	13.144	0.954		0m	N.D.	d	
51)	1,2-Dibromoethane	13.313	13.320	0.967		0m	N.D.	d	
52)	Chlorobenzene	13.801	13.802	1.002		0m	N.D.	d	
53)	1,1,1,2-Tetrachloroethane	13.850	13.851	1.006		0m	N.D.	d	
54)	Ethylbenzene	13.862	13.863	1.007		0m	N.D.	d	
55)	m,p-Xylenes	13.972	13.973	1.015		0m	N.D.	d	
56)	o-Xylene	14.405	14.399	1.046		0m	N.D.	d	
57)	Styrene	14.405	14.399	1.046		0m	N.D.	d	
59)	Bromoform	14.654	14.655	0.906		0m	N.D.	d	
60)	Isopropylbenzene	14.764	14.759	0.913		0m	N.D.	d	
62)	1,1,2,2-Tetrachloroethane	15.008	15.015	0.928		0m	N.D.	d	
63)	1,2,3-Trichloropropane	15.112	15.107	0.934		0m	N.D.	d	
64)	Bromobenzene	15.167	15.168	0.937		0m	N.D.	d	
65)	n-Propylbenzene	15.185	15.180	0.939		0m	N.D.	d	
66)	1,3,5-Trimethylbenzene	15.331	15.332	0.948		0m	N.D.	d	
67)	2-Chlorotoluene	15.331	15.332	0.948		0m	N.D.	d	
68)	4-Chlorotoluene	15.435	15.430	0.954		0m	N.D.	d	
69)	tert-Butylbenzene	15.703	15.704	0.971		0m	N.D.	d	
70)	1,2,4-Trimethylbenzene	15.740	15.741	0.973		0m	N.D.	d	
71)	sec-Butylbenzene	15.935	15.930	0.985		0m	N.D.	d	
72)	4-Isopropyltoluene	16.057	16.051	0.992		0m	N.D.	d	
73)	1,3-Dichlorobenzene	16.118	16.119	0.996		0m	N.D.	d	
74)	1,4-Dichlorobenzene	16.209	16.204	1.002		0m	N.D.	d	
75)	n-Butylbenzene	16.502	16.503	1.020		0m	N.D.	d	
76)	1,2-Dichlorobenzene	16.648	16.643	1.029		0m	N.D.	d	
77)	1,2-Dibromo-3-chloropr...	17.532	17.527	1.084		0m	N.D.	d	
78)	1,2,4-Trichlorobenzene	18.635	18.630	1.152		0m	N.D.	d	
79)	Hexachlorobutadiene	18.812	18.819	1.163		0m	N.D.	d	
80)	Naphthalene	19.038	19.026	1.177		0m	N.D.	d	
81)	1,2,3-Trichlorobenzene	19.385	19.386	1.198		0m	N.D.	d	
83)	Chlorotrifluoroethylene	4.826	4.826	0.454	116	883966	158.43	ug/L	100
84)	2-Chloro-1,1,1-trifluo...	5.657	5.657	0.533	118	2611674	145.37	ug/L #	99
85)	Acrolein	7.180	7.180	0.676	56	317143	210.71	ug/L	100
86)	Trichlorotrifluoroethane	7.363	7.369	0.693	85	898867	237.85	ug/L	98
87)	Isopropyl Alcohol	7.436	7.430	0.700	45	2232769	2264.77	ug/L	99
88)	Allyl chloride	7.802	7.796	0.735	41	3148934	233.66	ug/L	99
89)	tert-Butyl Alcohol	7.930	7.924	0.747	59	3525465	2235.77	ug/L #	100
90)	Acrylonitrile	8.174	8.174	0.770	53	869015	224.24	ug/L	99
91)	Isopropyl ether	8.741	8.741	0.823	45	1595996	47.16	ug/L	100
92)	2-Chloro-1,3-butadiene	8.869	8.869	0.835	53	695018	52.02	ug/L	100
93)	Ethyl tert-butyl ether	9.143	9.143	0.861	59	1502758	47.23	ug/L	99
94)	Ethyl acetate	9.338	9.338	0.879	43	2218913	200.98	ug/L	100
95)	Propionitrile	9.393	9.393	0.885	54	364674	221.77	ug/L	100
96)	Methacrylonitrile	9.576	9.576	0.902	41	1475866	219.61	ug/L	99
97)	Tetrahydrofuran	9.716	9.710	0.915	42	780014	215.32	ug/L	99
98)	Isobutyl alcohol	10.009	10.009	0.943	41	1102186	2194.18	ug/L	100
99)	Methyl tert-amyl ether	10.387	10.387	0.978	73	1440665	47.96	ug/L	99
100)	Methyl methacrylate	11.210	11.204	1.056	69	1659968	227.33	ug/L	99
101)	1,4-Dioxane	11.332	11.326	1.067	88	299443	2177.71	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A123.D
Acq On : 2 Mar 2010 5:13 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-19|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[B] 0215-08A+0125-08E
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 02 15:05:20 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
102) 2-Nitropropane	11.673	11.673	1.099	43	857630	237.13	ug/L	99	
104) Ethyl methacrylate	12.466	12.466	0.905	69	3164038	232.72	ug/L	100	
106) 1-Chlorohexane	13.661	13.661	0.844	55	470278	48.05	ug/L	97	
107) cis-1,4-Dichloro-2-butene	14.782	14.783	0.914	53	1064876	243.81	ug/L	99	
108) Cyclohexanone	14.904	14.904	0.921	42	1089625	2357.66	ug/L	98	E
109) trans-1,4-Dichloro-2-b...	15.063	15.063	0.931	53	1007110	238.19	ug/L	99	
110) Pentachloroethane	15.776	15.770	0.975	167	682676	148.11	ug/L	100	
111) Benzyl chloride	16.319	16.319	1.009	91	4480303	214.38	ug/L	99	
112) bis(2-Chloroisopropyl)...	16.721	16.721	1.034	45	1500940	221.71	ug/L	99	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A123.D
Acq On : 2 Mar 2010 5:13 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-19|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[B] 0215-08A+0125-08E
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 02 15:05:20 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

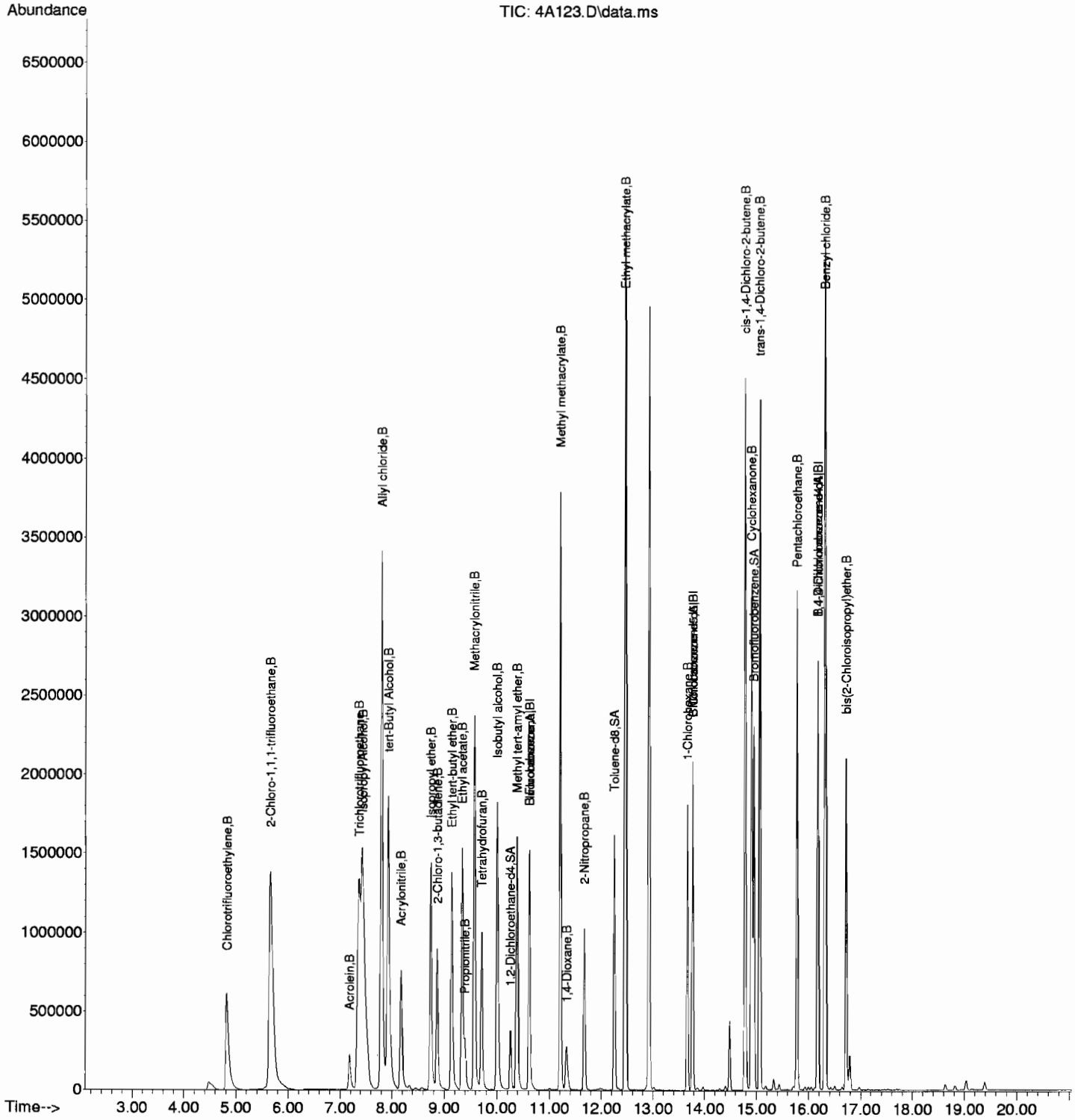

Continuing Calibration Summary

Client SDG: 10-2000

Instrument ID: VOA4.I **Injection Dat** 03-MAR-10 17:21

Data File: 030310V4\4A302.D **Init. Cal. Date(s)** 01-MAR-10 20:03 - 02-MAR-10 03:2

Lab Sample ID W4VM100303-01 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.2068	0.20352		.01		-1.58607	30		Averaged	
S	Toluene-d8	0.9275	0.8931		.01		-3.70889	30		Averaged	
S	Bromofluorobenzene	0.9783	1.01656		.01		3.91087	30		Averaged	
	Dichlorodifluoromethane	0.3169	0.32656		.01		3.04828	30		Averaged	
	Chloromethane	0.5187	0.57815		.1		11.46135	30		Averaged	spcc
	Vinyl chloride	0.514	0.58945		.01		14.67899	20		Averaged	ccc
	Bromomethane	0.3057	0.35002		.01		14.49787	30		Averaged	
	Chloroethane	0.2648	0.29101		.01		9.89804	30		Averaged	
	Trichlorofluoromethane	0.5242	0.58836		.01		12.2396	30		Averaged	
	Ethyl ether	0.2497	0.24797		.01		-0.69283	30		Averaged	
	Acetone	0.3151	0.29254		.01		-7.15963	40		Averaged	
	1,1-Dichloroethylene	0.5828	0.63356		.01		8.70968	20		Averaged	ccc
	Iodomethane	0.602	0.57574		.01		-4.36213	30		Averaged	
	Acetonitrile	0.0523	0.05331		.01		1.93117	30		Averaged	
	Methyl acetate	0.2677	0.26786		.01		0.05977	40		Averaged	
	Carbon disulfide	1.0841	1.32399		.01		22.12803	30		Averaged	
	Methylene chloride	0.4522	0.41569		.01		-8.07386	30		Averaged	
	tert-Butyl methyl ether	0.9626	0.88402		.01		-8.16331	30		Averaged	
	trans-1,2-Dichloroethylene	0.4489	0.48483		.01		8.00401	30		Averaged	
	Vinyl acetate	0.5834	0.73758		.01		26.42784	40		Averaged	
	1,1-Dichloroethane	0.5628	0.61251		.1		8.83262	30		Averaged	spcc
	2-Butanone	0.3306	0.30763		.01		-6.94797	40		Averaged	
	cis-1,2-Dichloroethylene	0.492	0.52646		.01		7.00407	30		Averaged	
	2,2-Dichloropropane	0.3018	0.31263		.01		3.58847	30		Averaged	
	Bromochloromethane	0.1783	0.17145		.01		-3.84184	30		Averaged	
	Chloroform	0.591	0.61535		.01		4.12014	20		Averaged	ccc
	1,1,1-Trichloroethane	0.4606	0.47973		.01		4.15328	30		Averaged	
	Cyclohexane	0.5117	0.54455		.01		6.41978	30		Averaged	
	1,1-Dichloropropene	0.4323	0.47012		.01		8.74855	30		Averaged	
	Carbon tetrachloride	0.4381	0.46509		.01		6.16069	30		Averaged	
	1,2-Dichloroethane	0.4822	0.49495		.01		2.64413	30		Averaged	
	Benzene	1.2747	1.32497		.01		3.94367	30		Averaged	
	Cyclohexene	0.6214	0.67102		.01		7.98519	30		Averaged	
	n-Butyl alcohol	0.0132	0.01296		.01		-1.81818	40		Averaged	
	Trichloroethylene	0.3371	0.35965		.01		6.68941	30		Averaged	
	1,2-Dichloropropane	0.3299	0.35161		.01		6.58078	20		Averaged	ccc
	Methylcyclohexane	0.5327	0.57396		.01		7.74545	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA4.I **Injection Dat** 03-MAR-10 17:21

Data File: 030310V4\4A302.D **Init. Cal. Date(s)** 01-MAR-10 20:03 02-MAR-10 03:2

Lab Sample ID W4VM100303-01 **Quant Type** ISTD **Method:**030110V4\VOA4-8260-030110.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.2177	0.21449		.01		-1.47451	30		Averaged	
Bromodichloromethane	0.4373	0.47212		.01		7.9625	30		Averaged	
2-Chloroethylvinyl ether	0.1828	0.1603		.01		-12.30853	30		Averaged	
cis-1,3-Dichloropropylene	0.5104	0.54652		.01		7.0768	30		Averaged	
4-Methyl-2-pentanone	0.1823	0.17696		.01		-2.92924	40		Averaged	
Toluene	1.655	1.6642		.01		0.55589	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.5811	0.60399		.01		3.93908	30		Averaged	
1,1,2-Trichloroethane	0.2979	0.30074		.01		0.95334	30		Averaged	
2-Hexanone	0.5058	0.51976		.01		2.75998	40		Averaged	
1,3-Dichloropropane	0.6189	0.62598		.01		1.14397	30		Averaged	
Tetrachloroethylene	0.333	0.33419		.01		0.35736	30		Averaged	
Dibromochloromethane	0.4242	0.43445		.01		2.41631	30		Averaged	
1,2-Dibromoethane	0.384	0.37588		.01		-2.11458	30		Averaged	
Chlorobenzene	1.1272	1.15506		.3		2.47161	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.4279	0.44413		.01		3.79294	30		Averaged	
Ethylbenzene	1.96	2.0818		.01		6.21429	20		Averaged	ccc
m,p-Xylenes	0.7775	0.83753		.01		7.7209	30		Averaged	
o-Xylene	0.8058	0.89599		.01		11.1926	30		Averaged	
Styrene	1.3083	1.49526		.01		14.2903	30		Averaged	
Bromoform	0.4519	0.45522		.1		0.73468	30		Averaged	spcc
Isopropylbenzene	3.164	3.31625		.01		4.81195	30		Averaged	
1,1,2,2-Tetrachloroethane	0.9082	0.89413		.3		-1.54922	30		Averaged	spcc
1,2,3-Trichloropropane	0.2475	0.22411		.01		-9.45051	30		Averaged	
Bromobenzene	0.8706	0.88109		.01		1.20492	30		Averaged	
n-Propylbenzene	3.8628	4.24978		.01		10.01812	30		Averaged	
2-Chlorotoluene	0.8623	0.94524		.01		9.61846	30		Averaged	
1,3,5-Trimethylbenzene	2.893	3.24492		.01		12.16454	30		Averaged	
4-Chlorotoluene	2.4127	2.61025		.01		8.18792	30		Averaged	
tert-Butylbenzene	0.6342	0.68263		.01		7.63639	30		Averaged	
1,2,4-Trimethylbenzene	2.9503	3.21963		.01		9.1289	30		Averaged	
sec-Butylbenzene	3.8799	4.25311		.01		9.61906	30		Averaged	
4-Isopropyltoluene	3.121	3.46723		.01		11.09356	30		Averaged	
1,3-Dichlorobenzene	1.7306	1.82468		.01		5.43626	30		Averaged	
1,4-Dichlorobenzene	1.7705	1.85685		.01		4.87715	30		Averaged	
n-Butylbenzene	2.9619	3.42147		.01		15.51605	30		Averaged	
1,2-Dichlorobenzene	1.6844	1.70969		.01		1.50142	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1616	0.1465		.01		-9.34406	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA4.I **Injection Dat** 03-MAR-10 17:21

Data File: 030310V4\4A302.D **Init. Cal. Date(s)** 01-MAR-10 20:03 02-MAR-10 03:2

Lab Sample ID W4VM100303-01 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8616	0.87395		.01		1.43338	30		Averaged
Hexachlorobutadiene	0.5582	0.54542		.01		-2.2895	30		Averaged
Naphthalene	2.1434	1.83582		.01		-14.3501	30		Averaged
1,2,3-Trichlorobenzene	0.7176	0.69079		.01		-3.73606	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A302.D
Acq On : 3 Mar 2010 5:21 pm
Operator : ACJ
InstName : VOA4
Sample : |W4VM100303-01|CCV|1|VOAF|1|
Misc : GEL 5ML - MIX[A] 0220-01C+0301-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 03 18:04:45 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.614	10.620	1.000	96	1144157	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.765	13.771	1.000	117	991556	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.180	16.180	1.000	152	689038	50.00	ug/L	0.00
82) B Fluorobenzene	10.614	10.619	1.000	96	1144105	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.765	13.771	1.000	117	991556	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	689146	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.260	10.260	0.967	65	232862	49.20	ug/L	0.00
43) Toluene-d8	12.247	12.247	0.890	98	885559	48.15	ug/L	0.00
61) Bromofluorobenzene	14.948	14.954	0.924	95	700447	51.96	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.904	4.911	0.462	85	373632	51.53	ug/L	100
3) Chloromethane	5.299	5.291	0.499	50	661490	55.73	ug/L	100
4) Vinyl chloride	5.514	5.521	0.519	62	674418	57.34	ug/L	100
5) Bromomethane	6.130	6.137	0.578	94	400482	57.25	ug/L	100
6) Chloroethane	6.295	6.295	0.593	64	332957	54.95	ug/L	99
7) Trichlorofluoromethane	6.669	6.669	0.628	101	673180	56.12	ug/L	99
8) Ethyl ether	6.992	6.998	0.659	59	283718	49.66	ug/L	95
9) Acetone	7.352	7.352	0.693	43	1673538	232.11	ug/L	96
10) 1,1-Dichloroethylene	7.395	7.389	0.697	61	724889	54.35	ug/L	96
11) Iodomethane	7.663	7.663	0.722	142	3293683	239.10	ug/L	97
12) Acetonitrile	7.699	7.699	0.725	41	1524984	1274.22	ug/L	99
13) Methyl acetate	7.742	7.748	0.729	43	1532352	250.19	ug/L	96
14) Carbon disulfide	7.779	7.773	0.733	76	7574245	305.33	ug/L	99
15) Methylene chloride	7.937	7.931	0.748	84	475616	45.96	ug/L	92
16) tert-Butyl methyl ether	8.236	8.242	0.776	73	1011454	45.92	ug/L	98
17) trans-1,2-Dichloroethy...	8.279	8.285	0.780	61	554722	54.01	ug/L	97
18) Vinyl acetate	8.705	8.705	0.820	43	4219563	316.09	ug/L	97
19) 1,1-Dichloroethane	8.754	8.760	0.825	63	700812	54.41	ug/L	99
20) 2-Butanone	9.327	9.327	0.879	43	1759870	232.64	ug/L	95
21) cis-1,2-Dichloroethylene	9.382	9.388	0.884	61	602349	53.50	ug/L	96
22) 2,2-Dichloropropane	9.419	9.419	0.887	77	357695	51.79	ug/L	89
23) Bromochloromethane	9.656	9.656	0.910	128	196171	48.08	ug/L	89
24) Chloroform	9.687	9.687	0.913	83	704053	52.06	ug/L	98
25) 1,1,1-Trichloroethane	9.973	9.979	0.940	97	548883	52.07	ug/L	98
26) Cyclohexane	10.083	10.083	0.950	56	623049	53.21	ug/L	97
27) 1,1-Dichloropropene	10.132	10.132	0.955	75	537886	54.38	ug/L #	78
28) Carbon tetrachloride	10.175	10.175	0.959	117	532133	53.08	ug/L	100
30) 1,2-Dichloroethane	10.339	10.339	0.974	62	566306	51.32	ug/L	100
31) Benzene	10.370	10.370	0.977	78	1515970	51.97	ug/L	99
32) Cyclohexene	10.492	10.492	0.989	67	767752	53.99	ug/L	96
33) n-Butyl alcohol	10.687	10.693	1.007	56	1483233	4926.58	ug/L	94
34) Trichloroethylene	11.004	11.004	1.037	95	411498	53.35	ug/L	98
35) 1,2-Dichloropropane	11.241	11.241	1.059	63	402297	53.29	ug/L	99
36) Methylcyclohexane	11.260	11.260	1.061	83	656705	53.88	ug/L	95
37) Dibromomethane	11.376	11.376	1.072	93	245411	49.26	ug/L	95
38) Bromodichloromethane	11.479	11.485	1.082	83	540180	53.98	ug/L	99
39) 2-Chloroethylvinyl ether	11.699	11.699	1.102	63	917033	219.28	ug/L	98
40) cis-1,3-Dichloropropylene	11.930	11.930	1.124	75	625305	53.54	ug/L	95
42) 4-Methyl-2-pentanone	12.016	12.016	0.873	58	877349	242.69	ug/L	89
44) Toluene	12.320	12.320	0.895	91	1650143	50.28	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A302.D
Acq On : 3 Mar 2010 5:21 pm
Operator : ACJ
InstName : VOA4
Sample : |W4VM100303-01|CCV|1|VOAF|1|
Misc : GEL 5ML - MIX[A] 0220-01C+0301-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 03 18:04:45 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
45)	trans-1,3-Dichloroprop...	12.461	12.461	0.905	75	598891	51.97	ug/L	95
46)	1,1,2-Trichloroethane	12.680	12.680	0.921	83	298196	50.48	ug/L	98
47)	2-Hexanone	12.857	12.857	0.934	43	2576869	256.88	ug/L	94
48)	1,3-Dichloropropane	12.875	12.875	0.935	76	620690	50.57	ug/L	100
49)	Tetrachloroethylene	12.918	12.918	0.938	164	331368	50.18	ug/L	96
50)	Dibromochloromethane	13.144	13.144	0.955	129	430778	51.20	ug/L	100
51)	1,2-Dibromoethane	13.314	13.320	0.967	107	372710	48.94	ug/L	99
52)	Chlorobenzene	13.802	13.802	1.003	112	1145308	51.24	ug/L	99
53)	1,1,1,2-Tetrachloroethane	13.851	13.851	1.006	131	440379	51.90	ug/L	99
54)	Ethylbenzene	13.863	13.863	1.007	91	2064224	53.11	ug/L	98
55)	m,p-Xylenes	13.967	13.973	1.015	106	1660908	107.72	ug/L	96
56)	o-Xylene	14.399	14.399	1.046	106	888424	55.60	ug/L	97
57)	Styrene	14.399	14.399	1.046	104	1482634	57.14	ug/L	97
59)	Bromoform	14.655	14.655	0.906	173	313664	50.36	ug/L	100
60)	Isopropylbenzene	14.759	14.759	0.912	105	2285021	52.41	ug/L	100
62)	1,1,2,2-Tetrachloroethane	15.015	15.015	0.928	83	616088	49.23	ug/L	99
63)	1,2,3-Trichloropropane	15.107	15.107	0.934	110	154421	45.27	ug/L	93
64)	Bromobenzene	15.168	15.168	0.937	156	607104	50.60	ug/L	93
65)	n-Propylbenzene	15.180	15.180	0.938	91	2928261	55.01	ug/L	98
66)	1,3,5-Trimethylbenzene	15.332	15.332	0.948	105	2235874	56.08	ug/L	98
67)	2-Chlorotoluene	15.332	15.332	0.948	126	651306	54.81	ug/L	94
68)	4-Chlorotoluene	15.430	15.430	0.954	91	1798562	54.09	ug/L	98
69)	tert-Butylbenzene	15.704	15.704	0.971	134	470356	53.82	ug/L	97
70)	1,2,4-Trimethylbenzene	15.741	15.741	0.973	105	2218446	54.57	ug/L	99
71)	sec-Butylbenzene	15.930	15.930	0.985	105	2930551	54.81	ug/L	98
72)	4-Isopropyltoluene	16.051	16.051	0.992	119	2389054	55.55	ug/L	99
73)	1,3-Dichlorobenzene	16.119	16.119	0.996	146	1257272	52.72	ug/L	99
74)	1,4-Dichlorobenzene	16.204	16.204	1.002	146	1279438	52.44	ug/L	99
75)	n-Butylbenzene	16.503	16.503	1.020	91	2357520	57.76	ug/L	98
76)	1,2-Dichlorobenzene	16.643	16.643	1.029	146	1178038	50.75	ug/L	99
77)	1,2-Dibromo-3-chloropr...	17.527	17.527	1.083	157	100946	45.33	ug/L	96
78)	1,2,4-Trichlorobenzene	18.630	18.630	1.151	180	602184	50.72	ug/L	100
79)	Hexachlorobutadiene	18.813	18.819	1.163	225	375814	48.86	ug/L	100
80)	Naphthalene	19.026	19.026	1.176	128	1264953	42.82	ug/L	100
81)	1,2,3-Trichlorobenzene	19.386	19.386	1.198	180	475982	48.13	ug/L	99
83)	Chlorotrifluoroethylene	4.840	4.826	0.456		0m	N.D.	d	
84)	2-Chloro-1,1,1-trifluo...	5.671	5.657	0.534		0m	N.D.	d	
85)	Acrolein	7.120	7.180	0.671		0m	N.D.	d	
86)	Trichlorotrifluoroethane	7.358	7.369	0.693		0m	N.D.	d	
87)	Isopropyl Alcohol	7.352	7.430	0.693		0m	N.D.	d	
88)	Allyl chloride	7.699	7.796	0.725		0m	N.D.	d	
89)	tert-Butyl Alcohol	0.000	7.924	0.000		0	N.D.		
90)	Acrylonitrile	8.236	8.174	0.776		0m	N.D.	d	
91)	Isopropyl ether	8.705	8.741	0.820		0m	N.D.	d	
92)	2-Chloro-1,3-butadiene	8.876	8.869	0.836		0m	N.D.	d	
93)	Ethyl tert-butyl ether	9.144	9.143	0.862		0m	N.D.	d	
94)	Ethyl acetate	9.327	9.338	0.879		0m	N.D.	d	
95)	Propionitrile	9.327	9.393	0.879		0m	N.D.	d	
96)	Methacrylonitrile	0.000	9.576	0.000		0	N.D.		
97)	Tetrahydrofuran	9.693	9.710	0.913		0m	N.D.	d	
98)	Isobutyl alcohol	9.998	10.009	0.942		0m	N.D.	d	
99)	Methyl tert-amyl ether	10.370	10.387	0.977		0m	N.D.	d	
100)	Methyl methacrylate	11.260	11.204	1.061		0m	N.D.	d	
101)	1,4-Dioxane	11.327	11.326	1.067		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A302.D
Acq On : 3 Mar 2010 5:21 pm
Operator : ACJ
InstName : VOA4
Sample : |W4VM100303-01|CCV|1|VOAF|1|
Misc : GEL 5ML - MIX[A] 0220-01C+0301-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 03 18:04:45 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
102) 2-Nitropropane	11.699	11.673	1.102		0m	N.D.	d
104) Ethyl methacrylate	12.461	12.466	0.905		0m	N.D.	d
106) 1-Chlorohexane	13.643	13.661	0.843		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.753	14.783	0.912		0m	N.D.	d
108) Cyclohexanone	14.905	14.904	0.921		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.058	15.063	0.931		0m	N.D.	d
110) Pentachloroethane	15.771	15.770	0.975		0m	N.D.	d
111) Benzyl chloride	16.326	16.319	1.009		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.716	16.721	1.033		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A302.D
Acq On    :  3 Mar 2010   5:21 pm
Operator  : ACJ
InstName  : VOA4
Sample    : |W4VM100303-01|CCV|1|VOAF|1|
Misc      : GEL 5ML - MIX[A] 0220-01C+0301-01
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Mar 03 18:04:45 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE
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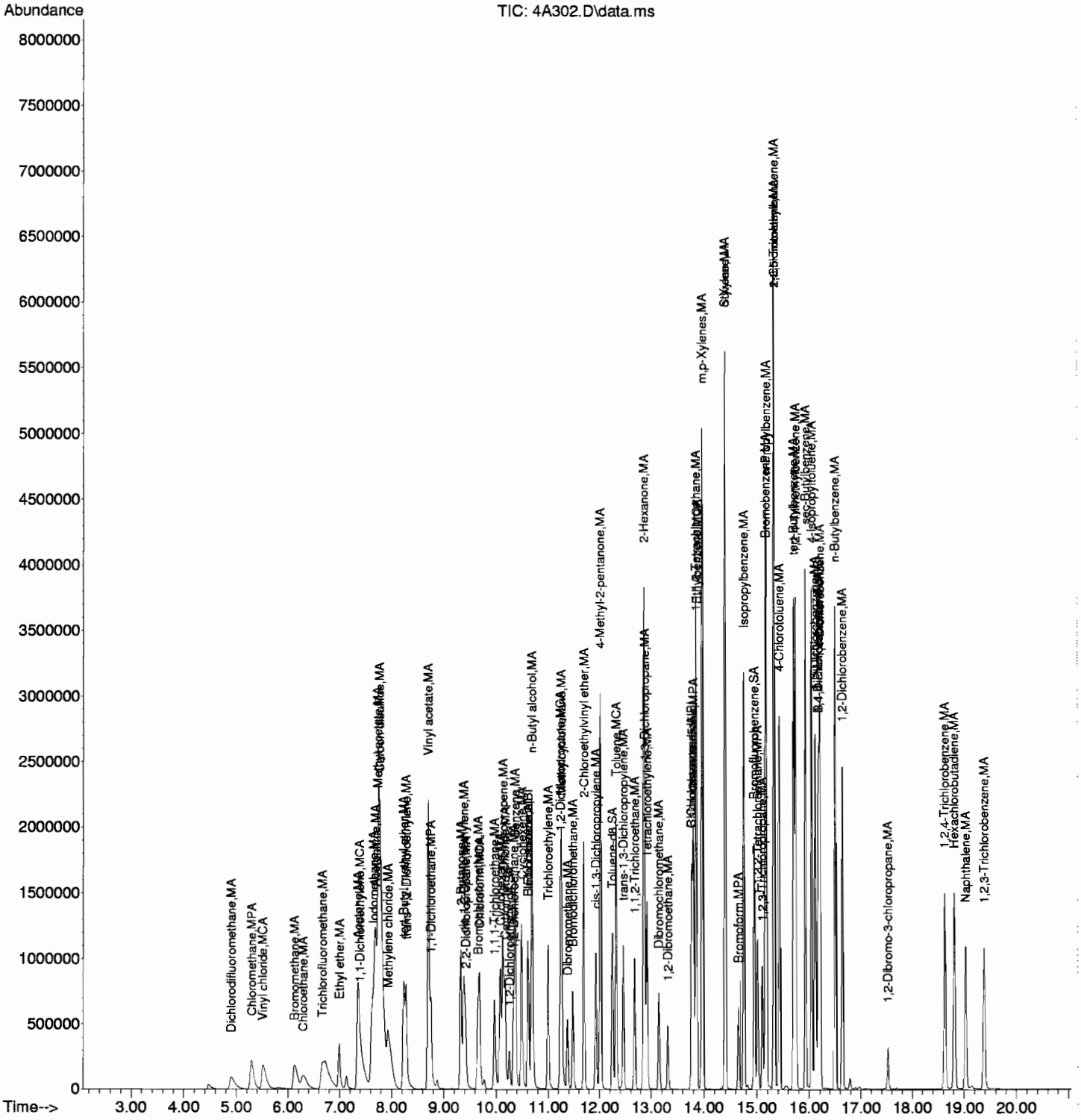

Continuing Calibration Summary

Client SDG: 10-2000

Instrument ID: VOA4.I **Injection Date** 03-MAR-10 18:17

Data File: 030310V4\4A304.D **Init. Cal. Date(s)** 01-MAR-10 20:03 - 02-MAR-10 03:2

Lab Sample ID W4VM100303-03 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.2068	0.2051		.01		-0.82205	30		Averaged
S	Toluene-d8	0.9275	0.93367		.01		0.66523	30		Averaged
S	Bromofluorobenzene	0.9783	1.0728		.01		9.65961	30		Averaged
	Acrolein	250	252.76	250			1.104	30		Linear
	Trichlorotrifluoroethane	0.1188	0.10824		.01		-8.88889	30		Averaged
	Allyl chloride	0.4236	0.44727		.01		5.58782	30		Averaged
	Acrylonitrile	0.1218	0.11617		.01		-4.62233	30		Averaged
	2-Chloro-1,3-butadiene	0.4199	0.47333		.01		12.72446	30		Averaged
	Ethyl acetate	0.347	0.31349		.01		-9.65706	40		Averaged
	Propionitrile	0.0517	0.04915		.01		-4.9323	30		Averaged
	Methacrylonitrile	0.2112	0.20752		.01		-1.74242	30		Averaged
	Tetrahydrofuran	0.1139	0.10803		.01		-5.15364	30		Averaged
	Isobutyl alcohol	0.0158	0.01528		.01		-3.29114	40		Averaged
	Methyl methacrylate	0.2295	0.22153		.01		-3.47277	30		Averaged
	1,4-Dioxane	0.0043	0.00353		.01		-17.90698	40		Averaged
	2-Nitropropane	0.1137	0.12061		.01		6.0774	30		Averaged
	Ethyl methacrylate	0.5177	0.52751		.01		1.89492	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2573	0.30902		.01		20.10105	30		Averaged
	Cyclohexanone	0.0272	0.06209		.01		128.27206	40	*	Averaged
	trans-1,4-Dichloro-2-butene	0.2491	0.29461		.01		18.26977	30		Averaged
	Pentachloroethane	0.2716	0.52833		.01		94.52504	30	*	Averaged
	Benzyl chloride	1.2313	1.65202		.01		34.16876	30	*	Averaged
	bis(2-Chloroisopropyl)ether	0.3989	0.39459		.01		-1.08047	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A304.D
Acq On : 3 Mar 2010 6:17 pm
Operator : ACJ
InstName : VOA4
Sample : |W4VM100303-03|CCV|1|VOAF|1|VOA8260BL|
Misc : GEL 5ML - MIX[B] 0215-08A+0125-08E
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 03 18:48:33 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.613	10.620	1.000	96	1284300	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	1051108	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	684222	50.00	ug/L	0.00
82) B Fluorobenzene	10.613	10.619	1.000	96	1284119	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	1051108	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	684242	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.967	65	263413	49.58	ug/L	0.00
43) Toluene-d8	12.253	12.247	0.890	98	981393	50.33	ug/L	0.00
61) Bromofluorobenzene	14.953	14.954	0.924	95	734035	54.83	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.911	0.000		0	N.D.		
3) Chloromethane	5.277	5.291	0.497		0m	N.D.	d	
4) Vinyl chloride	5.514	5.521	0.520		0m	N.D.	d	
5) Bromomethane	0.000	6.137	0.000		0	N.D.		
6) Chloroethane	0.000	6.295	0.000		0	N.D.		
7) Trichlorofluoromethane	6.699	6.669	0.631		0m	N.D.	d	
8) Ethyl ether	6.997	6.998	0.659		0m	N.D.	d	
9) Acetone	7.357	7.352	0.693		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.351	7.389	0.693		0m	N.D.	d	
11) Iodomethane	7.631	7.663	0.719		0m	N.D.	d	
12) Acetonitrile	7.705	7.699	0.726		0m	N.D.	d	
13) Methyl acetate	7.753	7.748	0.731		0m	N.D.	d	
14) Carbon disulfide	7.796	7.773	0.735		0m	N.D.	d	
15) Methylene chloride	7.973	7.931	0.751		0m	N.D.	d	
16) tert-Butyl methyl ether	8.235	8.242	0.776		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.284	8.285	0.781		0m	N.D.	d	
18) Vinyl acetate	8.711	8.705	0.821		0m	N.D.	d	
19) 1,1-Dichloroethane	8.759	8.760	0.825		0m	N.D.	d	
20) 2-Butanone	9.338	9.327	0.880		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.338	9.388	0.880		0m	N.D.	d	
22) 2,2-Dichloropropane	9.399	9.419	0.886		0m	N.D.	d	
23) Bromochloromethane	9.649	9.656	0.909		0m	N.D.	d	
24) Chloroform	9.698	9.687	0.914		0m	N.D.	d	
25) 1,1,1-Trichloroethane	9.985	9.979	0.941		0m	N.D.	d	
26) Cyclohexane	10.009	10.083	0.943		0m	N.D.	d	
27) 1,1-Dichloropropene	10.119	10.132	0.953		0m	N.D.	d	
28) Carbon tetrachloride	10.186	10.175	0.960		0m	N.D.	d	
30) 1,2-Dichloroethane	10.338	10.339	0.974		0m	N.D.	d	
31) Benzene	10.369	10.370	0.977		0m	N.D.	d	
32) Cyclohexene	10.478	10.492	0.987		0m	N.D.	d	
33) n-Butyl alcohol	10.686	10.693	1.007		0m	N.D.	d	
34) Trichloroethylene	11.003	11.004	1.037		0m	N.D.	d	
35) 1,2-Dichloropropane	11.241	11.241	1.059		0m	N.D.	d	
36) Methylcyclohexane	11.204	11.260	1.056		0m	N.D.	d	
37) Dibromomethane	11.362	11.376	1.071		0m	N.D.	d	
38) Bromodichloromethane	11.484	11.485	1.082		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.686	11.699	1.101		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	11.929	11.930	1.124		0m	N.D.	d	
42) 4-Methyl-2-pentanone	12.015	12.016	0.872		0m	N.D.	d	
44) Toluene	12.320	12.320	0.895		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A304.D
Acq On : 3 Mar 2010 6:17 pm
Operator : ACJ
InstName : VOA4
Sample : |W4VM100303-03|CCV|1|VOAF|1|VOA8260BL|
Misc : GEL 5ML - MIX[B] 0215-08A+0125-08E
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 03 18:48:33 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
45)	trans-1,3-Dichloroprop...	12.466	12.461	0.905		0m	N.D.	d	
46)	1,1,2-Trichloroethane	12.685	12.680	0.921		0m	N.D.	d	
47)	2-Hexanone	12.856	12.857	0.934		0m	N.D.	d	
48)	1,3-Dichloropropane	12.880	12.875	0.935		0m	N.D.	d	
49)	Tetrachloroethylene	12.917	12.918	0.938		0m	N.D.	d	
50)	Dibromochloromethane	13.149	13.144	0.955		0m	N.D.	d	
51)	1,2-Dibromoethane	13.319	13.320	0.967		0m	N.D.	d	
52)	Chlorobenzene	13.801	13.802	1.002		0m	N.D.	d	
53)	1,1,1,2-Tetrachloroethane	13.850	13.851	1.006		0m	N.D.	d	
54)	Ethylbenzene	13.862	13.863	1.007		0m	N.D.	d	
55)	m,p-Xylenes	13.972	13.973	1.015		0m	N.D.	d	
56)	o-Xylene	14.405	14.399	1.046		0m	N.D.	d	
57)	Styrene	14.398	14.399	1.046		0m	N.D.	d	
59)	Bromoform	14.661	14.655	0.906		0m	N.D.	d	
60)	Isopropylbenzene	14.764	14.759	0.913		0m	N.D.	d	
62)	1,1,2,2-Tetrachloroethane	15.020	15.015	0.928		0m	N.D.	d	
63)	1,2,3-Trichloropropane	15.112	15.107	0.934		0m	N.D.	d	
64)	Bromobenzene	15.161	15.168	0.937		0m	N.D.	d	
65)	n-Propylbenzene	15.185	15.180	0.939		0m	N.D.	d	
66)	1,3,5-Trimethylbenzene	15.331	15.332	0.948		0m	N.D.	d	
67)	2-Chlorotoluene	15.331	15.332	0.948		0m	N.D.	d	
68)	4-Chlorotoluene	15.435	15.430	0.954		0m	N.D.	d	
69)	tert-Butylbenzene	15.709	15.704	0.971		0m	N.D.	d	
70)	1,2,4-Trimethylbenzene	15.740	15.741	0.973		0m	N.D.	d	
71)	sec-Butylbenzene	15.935	15.930	0.985		0m	N.D.	d	
72)	4-Isopropyltoluene	16.051	16.051	0.992		0m	N.D.	d	
73)	1,3-Dichlorobenzene	16.124	16.119	0.997		0m	N.D.	d	
74)	1,4-Dichlorobenzene	16.203	16.204	1.002		0m	N.D.	d	
75)	n-Butylbenzene	16.502	16.503	1.020		0m	N.D.	d	
76)	1,2-Dichlorobenzene	16.636	16.643	1.028		0m	N.D.	d	
77)	1,2-Dibromo-3-chloropr...	17.526	17.527	1.083		0m	N.D.	d	
78)	1,2,4-Trichlorobenzene	18.635	18.630	1.152		0m	N.D.	d	
79)	Hexachlorobutadiene	18.824	18.819	1.164		0m	N.D.	d	
80)	Naphthalene	19.032	19.026	1.176		0m	N.D.	d	
81)	1,2,3-Trichlorobenzene	19.391	19.386	1.199		0m	N.D.	d	
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85)	Acrolein	7.180	7.180	0.677	56	310551	252.76	ug/L	96
86)	Trichlorotrifluoroethane	7.363	7.369	0.694	85	694965	227.82	ug/L	97
87)	Isopropyl Alcohol	0.000	7.430	0.000		0m	N.D.	d	
88)	Allyl chloride	7.796	7.796	0.735	41	2871730	263.99	ug/L	98
89)	tert-Butyl Alcohol	7.924	7.924	0.747	59	2089	N.D.		
90)	Acrylonitrile	8.174	8.174	0.770	53	745904	238.44	ug/L	99
91)	Isopropyl ether	8.735	8.741	0.823	45	765	N.D.		
92)	2-Chloro-1,3-butadiene	8.869	8.869	0.836	53	607809	56.36	ug/L	96
93)	Ethyl tert-butyl ether	9.149	9.143	0.862	59	591	N.D.		
94)	Ethyl acetate	9.338	9.338	0.880	43	2012770	225.85	ug/L	98
95)	Propionitrile	9.393	9.393	0.885	54	315551	237.73	ug/L	98
96)	Methacrylonitrile	9.576	9.576	0.902	41	1332429	245.62	ug/L	100
97)	Tetrahydrofuran	9.710	9.710	0.915	42	693648	237.21	ug/L	98
98)	Isobutyl alcohol	10.003	10.009	0.943	41	980860	2419.05	ug/L	99
99)	Methyl tert-amyl ether	10.369	10.387	0.977	73	1428	N.D.		
100)	Methyl methacrylate	11.204	11.204	1.056	69	1422350	241.32	ug/L	94
101)	1,4-Dioxane	11.326	11.326	1.067	88	226529	2040.93	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A304.D
Acq On : 3 Mar 2010 6:17 pm
Operator : ACJ
InstName : VOA4
Sample : |W4VM100303-03|CCV|1|VOAF|1|VOA8260BL|
Misc : GEL 5ML - MIX[B] 0215-08A+0125-08E
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 03 18:48:33 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
102)	2-Nitropropane	11.673	11.673	1.100	43	774420	265.26	ug/L	99	
104)	Ethyl methacrylate	12.466	12.466	0.905	69	2772355	254.74	ug/L	96	
106)	1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d		
107)	cis-1,4-Dichloro-2-butene	14.783	14.783	0.914	53	1057211	300.22	ug/L	95	
108)	Cyclohexanone	14.904	14.904	0.921	42	1062154	2850.44	ug/L	95	E
109)	trans-1,4-Dichloro-2-b...	15.063	15.063	0.931	53	1007924	295.66	ug/L	96	
110)	Pentachloroethane	15.770	15.770	0.975	167	1807515	486.39	ug/L	100	
111)	Benzyl chloride	16.319	16.319	1.009	91	5651922	335.42	ug/L	99	
112)	bis(2-Chloroisopropyl)...	16.721	16.721	1.034	45	1349981	247.32	ug/L	97	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A304.D
Acq On    :  3 Mar 2010   6:17 pm
Operator  : ACJ
InstName  : VOA4
Sample    : |W4VM100303-03|CCV|1|VOAF|1|VOA8260BL|
Misc      : GEL 5ML - MIX[B] 0215-08A+0125-08E
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Mar 03 18:48:33 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE
```

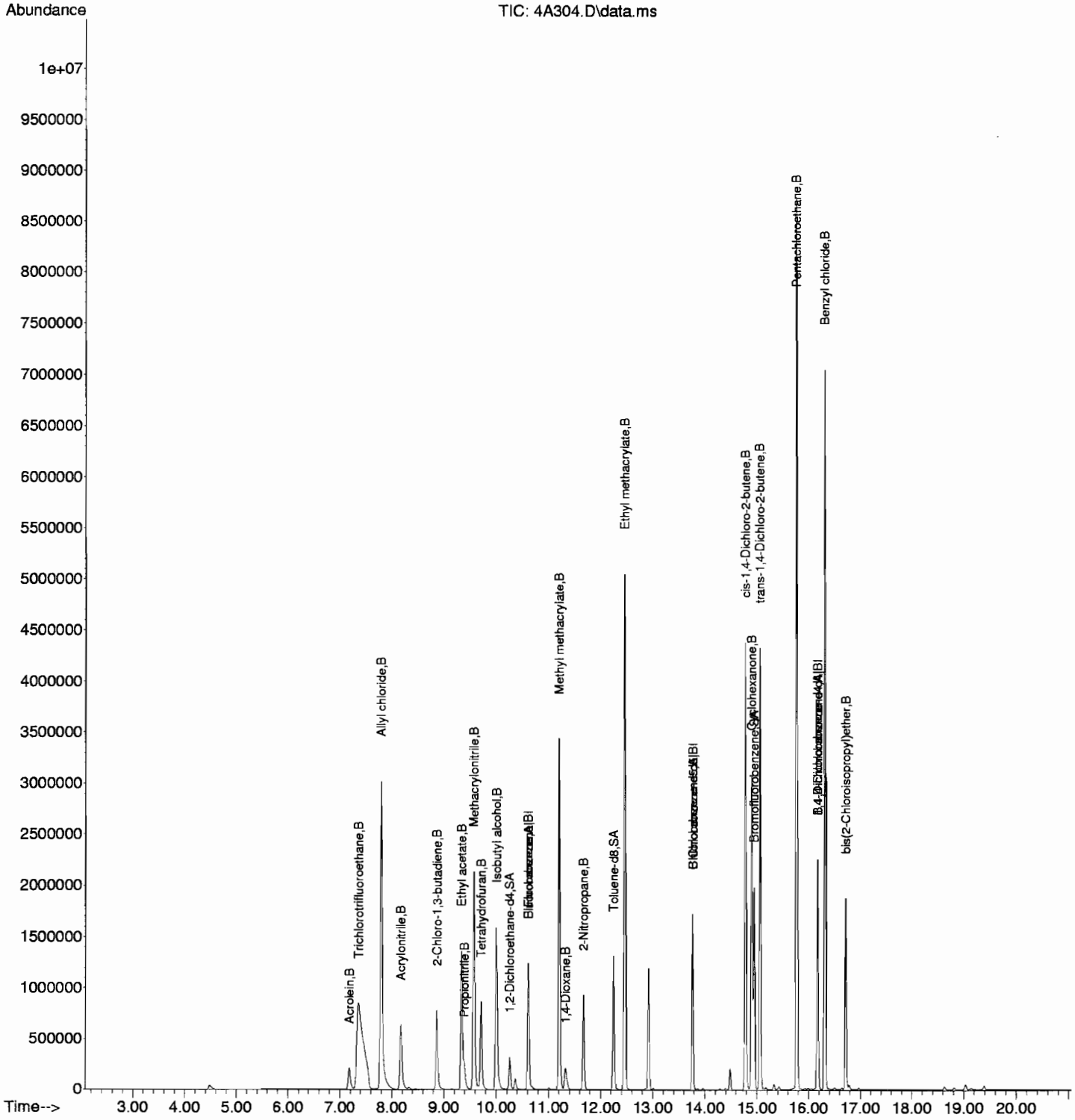

Quality Control Data

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A101.D
Acq On : 1 Mar 2010 7:08 pm
Operator : ACJ
Sample : |UVM091216-10|BFB1|1|VOAF|1|
Misc : GEL 5ML N/A
ALS Vial : 1 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Title : Volatile Organics 8260B SubList :
Last Update : Tue Mar 02 15:03:40 2010

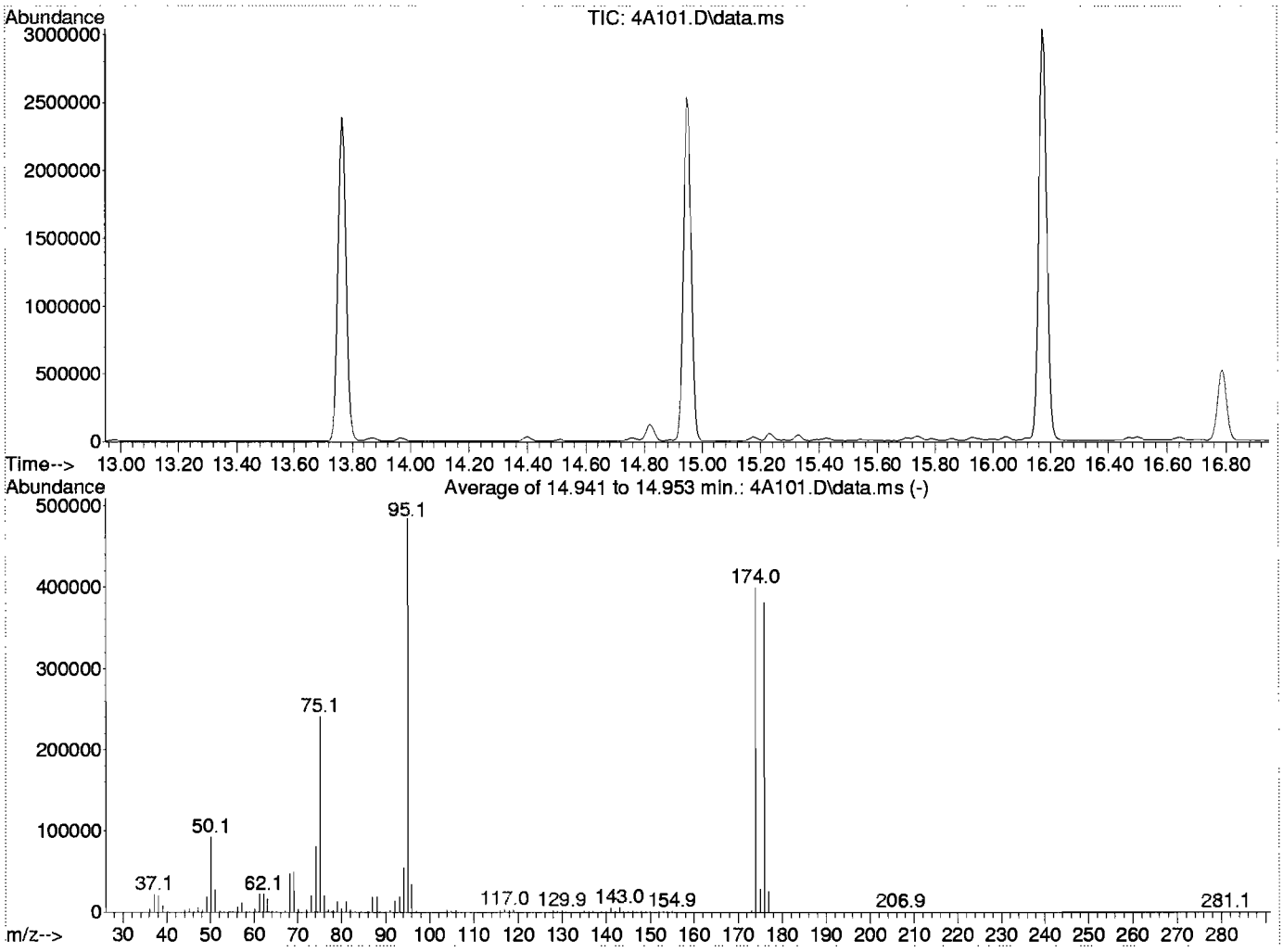

AutoFind: Scans 2006, 2007, 2008; Background Corrected with Scan 1996

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.1	92460	PASS
75	95	30	60	49.8	241152	PASS
95	95	100	100	100.0	484629	PASS
96	95	5	9	7.0	33893	PASS
173	174	0.00	2	0.5	1986	PASS
174	95	50	100	82.3	398848	PASS
175	174	5	9	7.0	27931	PASS
176	174	95	101	95.5	381035	PASS
177	176	5	9	6.7	25547	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A302bfb.D
Acq On : 3 Mar 2010 5:21 pm
Operator : ACJ
Sample : |W4VM100303-01|BFB|1|VOAF|1|
Misc : GEL 5ML - MIX[A] 0220-01C+0301-01
ALS Vial : 2 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Title : Volatile Organics 8260B SubList :
Last Update : Tue Mar 02 15:03:40 2010

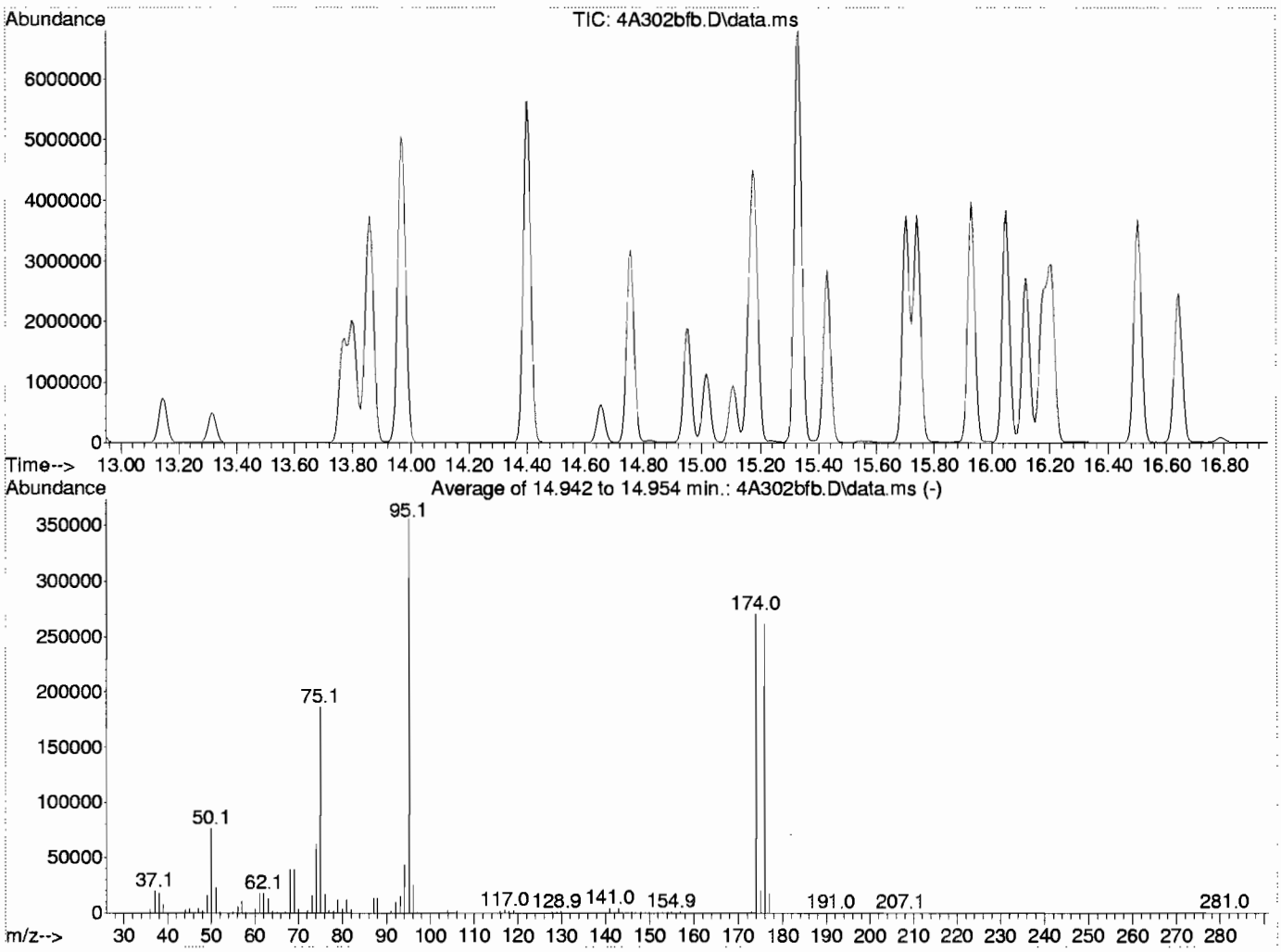

AutoFind: Scans 2006, 2007, 2008; Background Corrected with Scan 1997

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.4	76139	PASS
75	95	30	60	52.3	185856	PASS
95	95	100	100	100.0	355499	PASS
96	95	5	9	7.0	24997	PASS
173	174	0.00	2	0.6	1525	PASS
174	95	50	100	76.1	270443	PASS
175	174	5	9	7.2	19405	PASS
176	174	95	101	96.7	261440	PASS
177	176	5	9	6.7	17540	PASS

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000			**Matrix:**	GROUND WATER
Lab Sample ID:	1202060495				
Client Sample:	QC for batch 960638	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 960638	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	960638	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/03/2010 19:40	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/03/2010 19:40				
Data File:	030310V4\4A307BL.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000			**Matrix:**	GROUND WATER
Lab Sample ID:	1202060495				
Client Sample:	QC for batch 960638	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 960638	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	960638	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/03/2010 19:40	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/03/2010 19:40				
Data File:	030310V4\4A307BL.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202060495**				
Client Sample:	**QC for batch 960638**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 960638**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**960638**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 19:40**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/03/2010 19:40**				
Data File:	**030310V4\4A307BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	51.4	50.0	ug/L	103	(72%-132%)
Bromofluorobenzene	57.6	50.0	ug/L	115	(77%-123%)
Toluene-d8	52.0	50.0	ug/L	104	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	Estimated RT	Units	Fit	Qual
	unknown hydrocarbon	4.48	ug/L	0	J
	unknown siloxane	16.79	ug/L	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A307BL.D
Acq On : 3 Mar 2010 7:40 pm
Operator : ACJ
InstName : VOA4
Sample : |1202060495|960638|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML -
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 03 20:28:34 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.619	10.620	1.000	96	1186314	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	943899	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	550022	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1185994	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	943899	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	550298	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	252140	51.38	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery	=	102.76%			
43) Toluene-d8	12.253	12.247	0.890	98	909935	51.97	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery	=	103.94%			
61) Bromofluorobenzene	14.953	14.954	0.924	95	619511	57.57	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery	=	115.14%			

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.911	0.000		0	N.D.		
3) Chloromethane	5.299	5.291	0.499	50	253	N.D.		
4) Vinyl chloride	5.514	5.521	0.519	62	134	N.D.		
5) Bromomethane	0.000	6.137	0.000		0	N.D.		
6) Chloroethane	0.000	6.295	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.669	0.000		0	N.D.		
8) Ethyl ether	0.000	6.998	0.000		0	N.D.		
9) Acetone	7.369	7.352	0.694	43	3343	N.D.		
10) 1,1-Dichloroethylene	0.000	7.389	0.000		0	N.D.		
11) Iodomethane	0.000	7.663	0.000		0	N.D.		
12) Acetonitrile	7.662	7.699	0.722	41	213	N.D.		
13) Methyl acetate	7.747	7.748	0.730	43	306	N.D.		
14) Carbon disulfide	7.772	7.773	0.732	76	1315	N.D.		
15) Methylene chloride	7.942	7.931	0.748	84	6237	N.D.		
16) tert-Butyl methyl ether	0.000	8.242	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.285	0.000		0	N.D.		
18) Vinyl acetate	8.717	8.705	0.821	43	622	N.D.		
19) 1,1-Dichloroethane	0.000	8.760	0.000		0	N.D.		
20) 2-Butanone	9.351	9.327	0.881	43	1339	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.388	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.419	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.680	9.687	0.912	83	314	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.979	0.000		0	N.D.		
26) Cyclohexane	0.000	10.083	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	10.132	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.175	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.339	0.000		0	N.D.		
31) Benzene	10.375	10.370	0.977	78	727	N.D.		
32) Cyclohexene	10.619	10.492	1.000	67	293	N.D.		
33) n-Butyl alcohol	10.698	10.693	1.007	56	239	N.D.		
34) Trichloroethylene	11.021	11.004	1.038	95	108	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	11.259	11.260	1.060	83	135	N.D.		
37) Dibromomethane	0.000	11.376	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.485	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.699	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A307BL.D
Acq On : 3 Mar 2010 7:40 pm
Operator : ACJ
InstName : VOA4
Sample : |1202060495|960638|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML -
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 03 20:28:34 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40)	cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000	12.016	0.000		0	N.D.	
44)	Toluene	12.320	12.320	0.895	91	1709	N.D.	
45)	trans-1,3-Dichloroprop...	12.466	12.461	0.905	75	357	N.D.	
46)	1,1,2-Trichloroethane	0.000	12.680	0.000		0	N.D.	
47)	2-Hexanone	12.862	12.857	0.934	43	1077	N.D.	
48)	1,3-Dichloropropane	0.000	12.875	0.000		0	N.D.	
49)	Tetrachloroethylene	12.911	12.918	0.938	164	194	N.D.	
50)	Dibromochloromethane	13.143	13.144	0.954	129	125	N.D.	
51)	1,2-Dibromoethane	0.000	13.320	0.000		0	N.D.	
52)	Chlorobenzene	13.801	13.802	1.002	112	851	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	13.851	0.000		0	N.D.	
54)	Ethylbenzene	13.856	13.863	1.006	91	1293	N.D.	
55)	m,p-Xylenes	13.972	13.973	1.015	106	910	N.D.	
56)	o-Xylene	14.405	14.399	1.046	106	394	N.D.	
57)	Styrene	14.411	14.399	1.046	104	695	N.D.	
59)	Bromoform	0.000	14.655	0.000		0	N.D.	
60)	Isopropylbenzene	14.764	14.759	0.913	105	1122	N.D.	
62)	1,1,2,2-Tetrachloroethane	15.014	15.015	0.928	83	135	N.D.	
63)	1,2,3-Trichloropropane	0.000	15.107	0.000		0	N.D.	
64)	Bromobenzene	0.000	15.168	0.000		0	N.D.	
65)	n-Propylbenzene	15.179	15.180	0.938	91	1313	N.D.	
66)	1,3,5-Trimethylbenzene	15.325	15.332	0.947	105	722	N.D.	
67)	2-Chlorotoluene	0.000	15.332	0.000		0	N.D.	
68)	4-Chlorotoluene	15.435	15.430	0.954	91	803	N.D.	
69)	tert-Butylbenzene	0.000	15.704	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	15.740	15.741	0.973	105	1002	N.D.	
71)	sec-Butylbenzene	15.935	15.930	0.985	105	1000	N.D.	
72)	4-Isopropyltoluene	16.045	16.051	0.992	119	739	N.D.	
73)	1,3-Dichlorobenzene	16.118	16.119	0.996	146	574	N.D.	
74)	1,4-Dichlorobenzene	16.203	16.204	1.002	146	883	N.D.	
75)	n-Butylbenzene	16.502	16.503	1.020	91	945	N.D.	
76)	1,2-Dichlorobenzene	16.636	16.643	1.028	146	567	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	17.527	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	18.623	18.630	1.151	180	556	N.D.	
79)	Hexachlorobutadiene	0.000	18.819	0.000		0	N.D.	
80)	Naphthalene	19.038	19.026	1.177	128	5447	N.D.	
81)	1,2,3-Trichlorobenzene	19.398	19.386	1.199	180	641	N.D.	
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85)	Acrolein	0.000	7.180	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	7.369	0.000		0	N.D.	
87)	Isopropyl Alcohol	7.522	7.430	0.708	45	126	N.D.	
88)	Allyl chloride	7.802	7.796	0.735	41	1062	N.D.	
89)	tert-Butyl Alcohol	7.912	7.924	0.745	59	225	N.D.	
90)	Acrylonitrile	8.180	8.174	0.770	53	275	N.D.	
91)	Isopropyl ether	0.000	8.741	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	8.869	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	9.143	0.000		0	N.D.	
94)	Ethyl acetate	9.351	9.338	0.881	43	1339	N.D.	
95)	Propionitrile	9.400	9.393	0.885	54	115	N.D.	
96)	Methacrylonitrile	9.582	9.576	0.902	41	706	N.D.	
97)	Tetrahydrofuran	9.717	9.710	0.915	42	1444	N.D.	
98)	Isobutyl alcohol	10.003	10.009	0.942	41	542	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A307BL.D
Acq On : 3 Mar 2010 7:40 pm
Operator : ACJ
InstName : VOA4
Sample : |1202060495|960638|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML -
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 03 20:28:34 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	0.000	10.387	0.000		0	N.D.	
100)	Methyl methacrylate	11.216	11.204	1.056	69	371	N.D.	
101)	1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102)	2-Nitropropane	11.667	11.673	1.099	43	353	N.D.	
104)	Ethyl methacrylate	12.466	12.466	0.905	69	914	N.D.	
106)	1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	14.789	14.783	0.914	53	587	N.D.	
108)	Cyclohexanone	14.905	14.904	0.921	42	1808	N.D.	
109)	trans-1,4-Dichloro-2-b...	15.057	15.063	0.931	53	715	N.D.	
110)	Pentachloroethane	15.770	15.770	0.975	167	494	N.D.	
111)	Benzyl chloride	16.313	16.319	1.008	91	3559	N.D.	
112)	bis(2-Chloroisopropyl)...	16.715	16.721	1.033	45	2035	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A307BL.D
Acq On : 3 Mar 2010 7:40 pm
Operator : ACJ
InstName : VOA4
Sample : |1202060495|960638|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML -
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 03 20:28:34 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

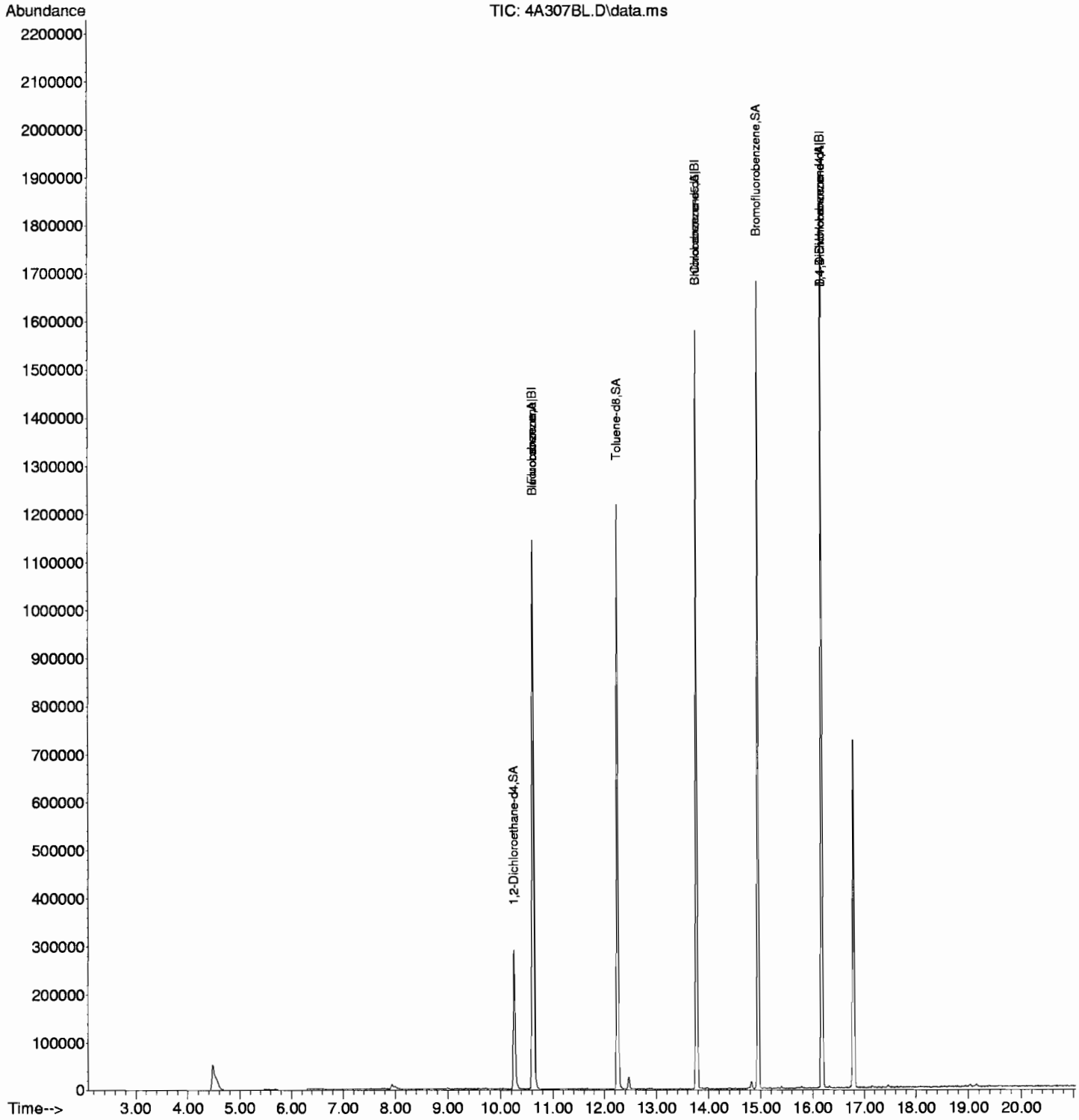

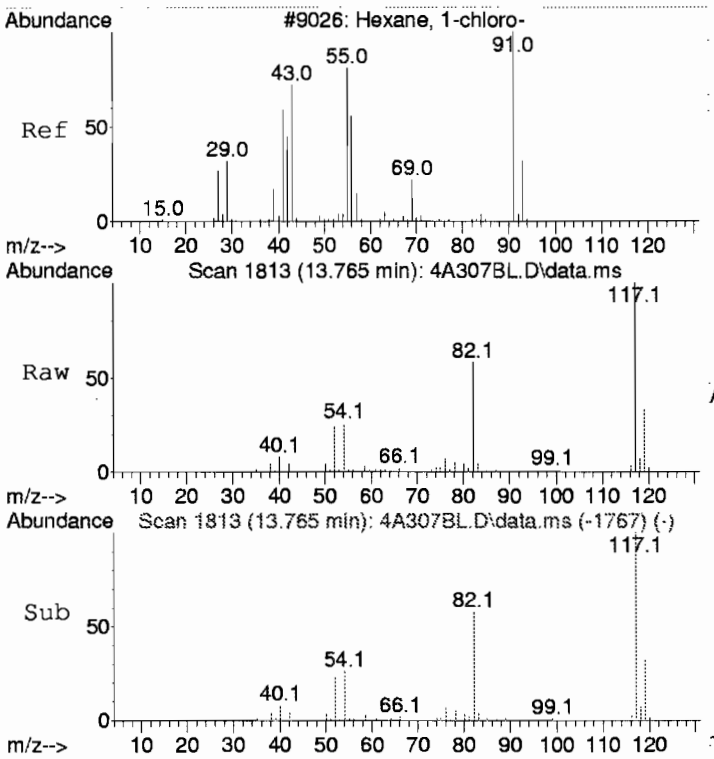

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.78 ug/L
RT: 13.765 min Scan# 1813
Delta R.T. 0.104 min
Lab File: 4A307BL.D
Acq: 3 Mar 2010 7:40 pm

Tgt Ion: 55 Resp: 11306

Ion	Ratio	Lower	Upper
55	100		
91	17.0	112.1	172.1#
56	50.0	28.5	88.5

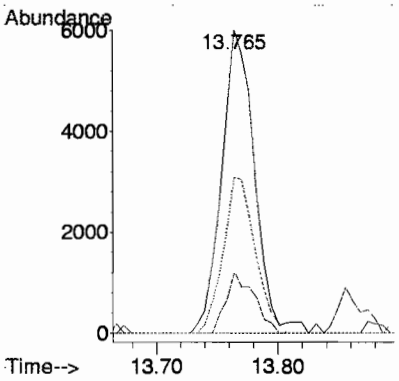

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A307BL.D
Acq On : 3 Mar 2010 7:40 pm
Operator : ACJ
Sample : |1202060495|960638|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML -
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.482	5.63 ug/L	291354	Fluorobenzene	10.619

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Dimethyl ether	46	C2H6O	000115-10-6	2

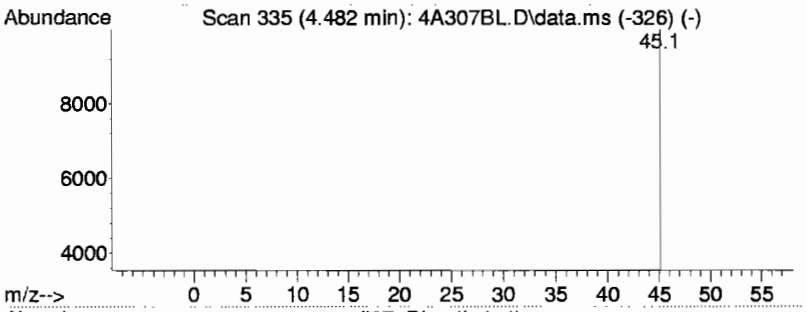

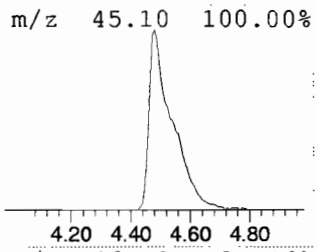

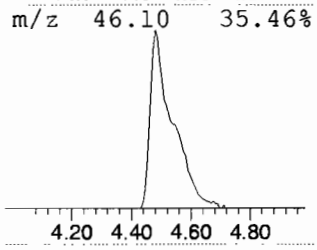

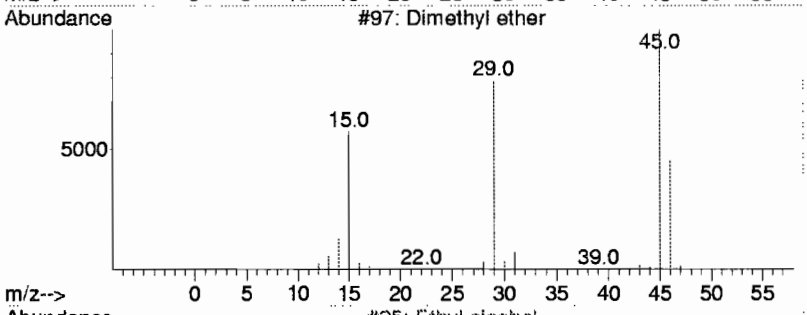

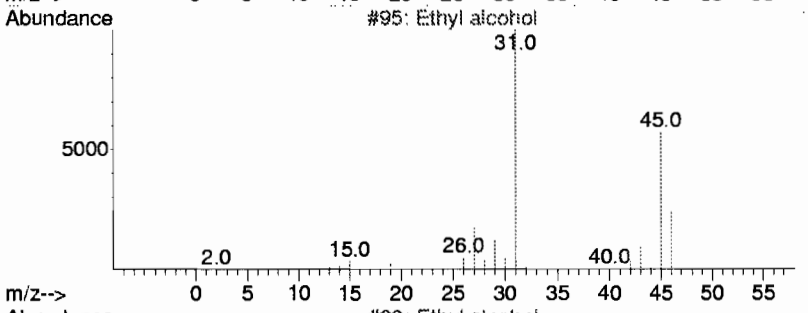

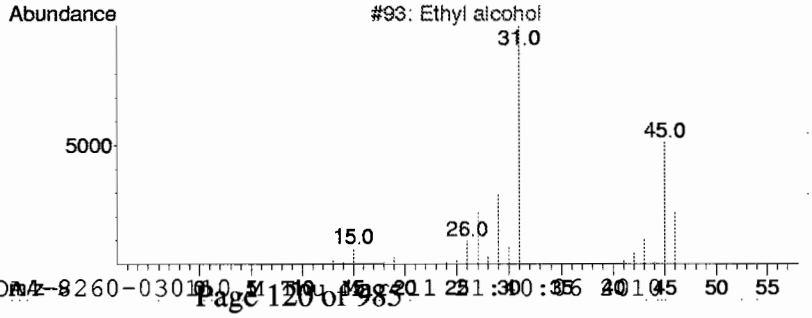

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A307BL.D
Acq On : 3 Mar 2010 7:40 pm
Operator : ACJ
Sample : |1202060495|960638|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML -
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 2 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.788	21.95 ug/L	1517110	B 1,4-Dichlorobenzene-d4	16.179

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	37
2	Tetrasiloxane, 1,1,3,3,5,5,7,7-o...	282	C8H26O3Si4	001000-05-1	16
3	1-Boraindane, 3-methyl-1-[1-(tri...	266	C17H23BSi	190316-36-0	10
4	11H-Dibenzo[b,e][1,4]diazepin-11...	267	C16H17N3O	013450-73-2	9
5	Benzeneacetic acid, 3-methoxy-4-...	268	C13H20O4Si	015964-84-8	9

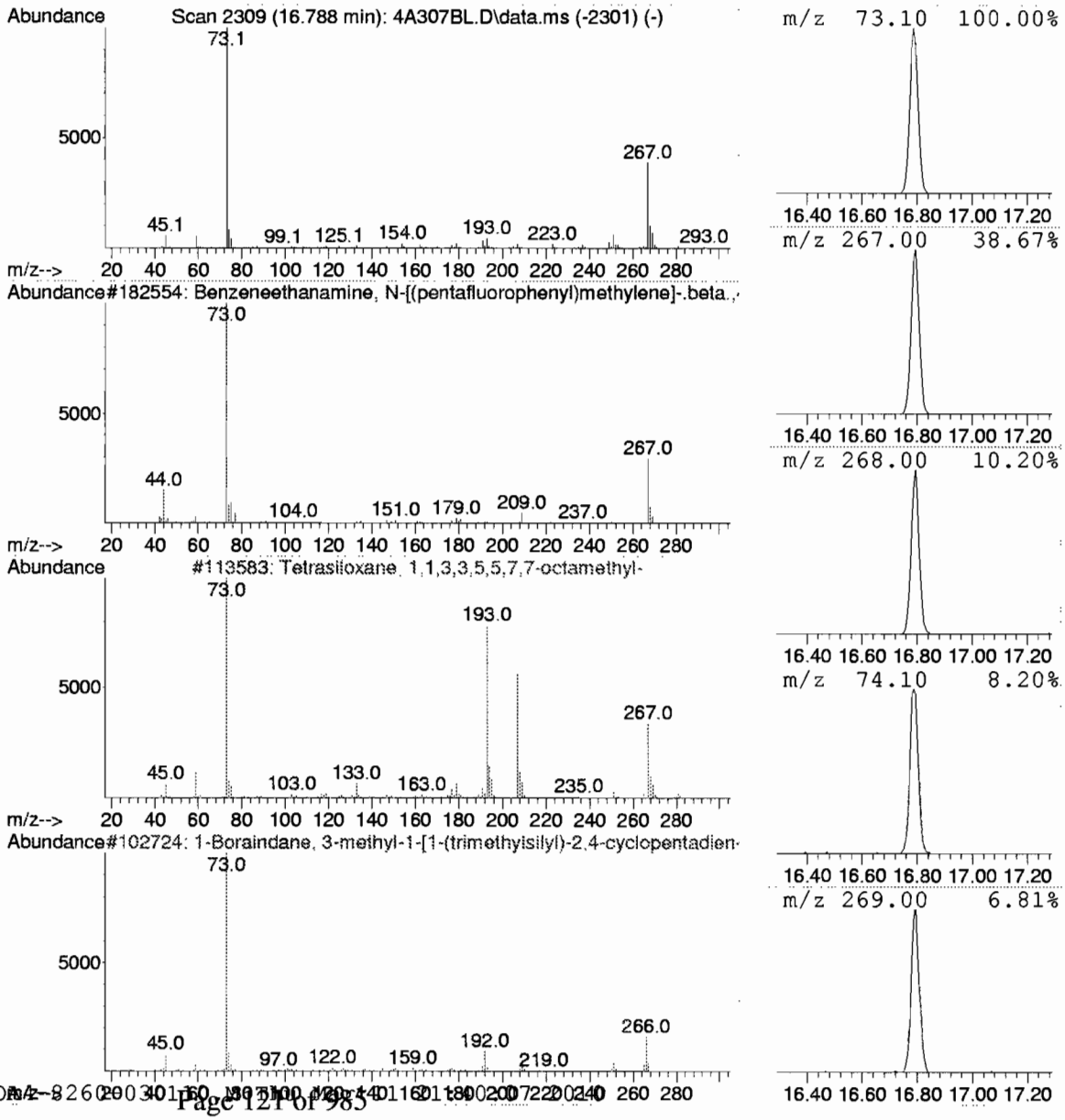

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A307BL.D
Acq On : 3 Mar 2010 7:40 pm
Operator : ACJ
Sample : |1202060495|960638|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML -
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc
nknown hydroca...	4.482	5.6	ug/L	291354	1	10.619	2589440	50.0
nknown siloxane	16.788	21.9	ug/L	1517110	6	16.179	3455900	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000			**Matrix:**	GROUND WATER
Lab Sample ID:	1202060498				
Client Sample:	QC for batch 960638	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 960638	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	960638	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/03/2010 17:21	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/03/2010 17:21				
Data File:	030310V4\4A302LL.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		51.5	ug/L	0.300	1.00
74-87-3	Chloromethane		55.7	ug/L	0.300	1.00
75-01-4	Vinyl chloride		57.3	ug/L	0.500	1.00
74-83-9	Bromomethane		57.3	ug/L	0.300	1.00
75-00-3	Chloroethane		55.0	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		56.1	ug/L	0.300	1.00
60-29-7	Ethyl ether		49.7	ug/L	0.300	1.00
67-64-1	Acetone		232	ug/L	3.50	10.0
75-05-8	Acetonitrile		1270	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		54.4	ug/L	0.300	1.00
74-88-4	Iodomethane		239	ug/L	1.25	5.00
75-09-2	Methylene chloride		46.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide		305	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		45.9	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		54.0	ug/L	0.300	1.00
108-05-4	Vinyl acetate		316	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		54.4	ug/L	0.300	1.00
78-93-3	2-Butanone		233	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		53.5	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		51.8	ug/L	0.300	1.00
67-66-3	Chloroform		52.1	ug/L	0.250	1.00
74-97-5	Bromochloromethane		48.1	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		52.1	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		54.4	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		4930	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		53.1	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		51.3	ug/L	0.250	1.00
71-43-2	Benzene		52.0	ug/L	0.300	1.00
79-01-6	Trichloroethylene		53.4	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		53.3	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		54.0	ug/L	0.250	1.00
74-95-3	Dibromomethane		49.3	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		243	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		53.5	ug/L	0.250	1.00
108-88-3	Toluene		50.3	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		52.0	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		50.5	ug/L	0.250	1.00
591-78-6	2-Hexanone		257	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000			**Matrix:**	GROUND WATER
Lab Sample ID:	1202060498				
Client Sample:	QC for batch 960638	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 960638	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	960638	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/03/2010 17:21	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/03/2010 17:21				
Data File:	030310V4\4A302LL.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		50.6	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		50.2	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		51.2	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		48.9	ug/L	0.250	1.00
108-90-7	Chlorobenzene		51.2	ug/L	0.250	1.00
100-41-4	Ethylbenzene		53.1	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		108	ug/L	0.500	2.00
95-47-6	o-Xylene		55.6	ug/L	0.300	1.00
100-42-5	Styrene		57.1	ug/L	0.250	1.00
75-25-2	Bromoform		50.4	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		49.2	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		45.3	ug/L	0.300	1.00
108-86-1	Bromobenzene		50.6	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		55.0	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		54.8	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		52.4	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		56.1	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		54.1	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		53.8	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		54.6	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		54.8	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		55.6	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		52.7	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		52.4	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		57.8	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		45.3	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		48.9	ug/L	0.300	1.00
91-20-3	Naphthalene		42.8	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		48.1	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202060498**				
Client Sample:	**QC for batch 960638**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 960638**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**960638**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 17:21**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/03/2010 17:21**				
Data File:	**030310V4\4A302LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		51.9	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		50.7	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		50.8	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	49.2	50.0	ug/L	98.4	(72%-132%)
Bromofluorobenzene	52.0	50.0	ug/L	104	(77%-123%)
Toluene-d8	48.2	50.0	ug/L	96.3	(76%-122%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A302LL.D
Acq On : 3 Mar 2010 5:21 pm
Operator : ACJ
InstName : VOA4
Sample : |1202060498|960638|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[A] 0220-01C+0301-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 03 18:04:45 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.614	10.620	1.000	96	1144157	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.765	13.771	1.000	117	991556	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.180	16.180	1.000	152	689038	50.00	ug/L	0.00
82) B Fluorobenzene	10.614	10.619	1.000	96	1144105	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.765	13.771	1.000	117	991556	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	689146	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.260	10.260	0.967	65	232862	49.20	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 98.40%					
43) Toluene-d8	12.247	12.247	0.890	98	885559	48.15	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 96.30%					
61) Bromofluorobenzene	14.948	14.954	0.924	95	700447	51.96	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 103.92%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.904	4.911	0.462	85	373632	51.53	ug/L	100
3) Chloromethane	5.299	5.291	0.499	50	661490	55.73	ug/L	100
4) Vinyl chloride	5.514	5.521	0.519	62	674418	57.34	ug/L	100
5) Bromomethane	6.130	6.137	0.578	94	400482	57.25	ug/L	100
6) Chloroethane	6.295	6.295	0.593	64	332957	54.95	ug/L	99
7) Trichlorofluoromethane	6.669	6.669	0.628	101	673180	56.12	ug/L	99
8) Ethyl ether	6.992	6.998	0.659	59	283718	49.66	ug/L	95
9) Acetone	7.352	7.352	0.693	43	1673538	232.11	ug/L	96
10) 1,1-Dichloroethylene	7.395	7.389	0.697	61	724889	54.35	ug/L	96
11) Iodomethane	7.663	7.663	0.722	142	3293683	239.10	ug/L	97
12) Acetonitrile	7.699	7.699	0.725	41	1524984	1274.22	ug/L	99
13) Methyl acetate	7.742	7.748	0.729	43	1532352	250.19	ug/L	96
14) Carbon disulfide	7.779	7.773	0.733	76	7574245	305.33	ug/L	99
15) Methylene chloride	7.937	7.931	0.748	84	475616	45.96	ug/L	92
16) tert-Butyl methyl ether	8.236	8.242	0.776	73	1011454	45.92	ug/L	98
17) trans-1,2-Dichloroethy...	8.279	8.285	0.780	61	554722	54.01	ug/L	97
18) Vinyl acetate	8.705	8.705	0.820	43	4219563	316.09	ug/L	97
19) 1,1-Dichloroethane	8.754	8.760	0.825	63	700812	54.41	ug/L	99
20) 2-Butanone	9.327	9.327	0.879	43	1759870	232.64	ug/L	95
21) cis-1,2-Dichloroethylene	9.382	9.388	0.884	61	602349	53.50	ug/L	96
22) 2,2-Dichloropropane	9.419	9.419	0.887	77	357695	51.79	ug/L	89
23) Bromochloromethane	9.656	9.656	0.910	128	196171	48.08	ug/L	89
24) Chloroform	9.687	9.687	0.913	83	704053	52.06	ug/L	98
25) 1,1,1-Trichloroethane	9.973	9.979	0.940	97	548883	52.07	ug/L	98
26) Cyclohexane	10.083	10.083	0.950	56	623049	53.21	ug/L	97
27) 1,1-Dichloropropene	10.132	10.132	0.955	75	537886	54.38	ug/L #	78
28) Carbon tetrachloride	10.175	10.175	0.959	117	532133	53.08	ug/L	100
30) 1,2-Dichloroethane	10.339	10.339	0.974	62	566306	51.32	ug/L	100
31) Benzene	10.370	10.370	0.977	78	1515970	51.97	ug/L	99
32) Cyclohexene	10.492	10.492	0.989	67	767752	53.99	ug/L	96
33) n-Butyl alcohol	10.687	10.693	1.007	56	1483233	4926.58	ug/L	94
34) Trichloroethylene	11.004	11.004	1.037	95	411498	53.35	ug/L	98
35) 1,2-Dichloropropane	11.241	11.241	1.059	63	402297	53.29	ug/L	99
36) Methylcyclohexane	11.260	11.260	1.061	83	656705	53.88	ug/L	95
37) Dibromomethane	11.376	11.376	1.072	93	245411	49.26	ug/L	95
38) Bromodichloromethane	11.479	11.485	1.082	83	540180	53.98	ug/L	99
39) 2-Chloroethylvinyl ether	11.699	11.699	1.102	63	917033	219.28	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A302LL.D
Acq On : 3 Mar 2010 5:21 pm
Operator : ACJ
InstName : VOA4
Sample : |1202060498|960638|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[A] 0220-01C+0301-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 03 18:04:45 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40)	cis-1,3-Dichloropropylene	11.930	11.930	1.124	75	625305	53.54	ug/L	95
42)	4-Methyl-2-pentanone	12.016	12.016	0.873	58	877349	242.69	ug/L	89
44)	Toluene	12.320	12.320	0.895	91	1650143	50.28	ug/L	99
45)	trans-1,3-Dichloroprop...	12.461	12.461	0.905	75	598891	51.97	ug/L	95
46)	1,1,2-Trichloroethane	12.680	12.680	0.921	83	298196	50.48	ug/L	98
47)	2-Hexanone	12.857	12.857	0.934	43	2576869	256.88	ug/L	94
48)	1,3-Dichloropropane	12.875	12.875	0.935	76	620690	50.57	ug/L	100
49)	Tetrachloroethylene	12.918	12.918	0.938	164	331368	50.18	ug/L	96
50)	Dibromochloromethane	13.144	13.144	0.955	129	430778	51.20	ug/L	100
51)	1,2-Dibromoethane	13.314	13.320	0.967	107	372710	48.94	ug/L	99
52)	Chlorobenzene	13.802	13.802	1.003	112	1145308	51.24	ug/L	99
53)	1,1,1,2-Tetrachloroethane	13.851	13.851	1.006	131	440379	51.90	ug/L	99
54)	Ethylbenzene	13.863	13.863	1.007	91	2064224	53.11	ug/L	98
55)	m,p-Xylenes	13.967	13.973	1.015	106	1660908	107.72	ug/L	96
56)	o-Xylene	14.399	14.399	1.046	106	888424	55.60	ug/L	97
57)	Styrene	14.399	14.399	1.046	104	1482634	57.14	ug/L	97
59)	Bromoform	14.655	14.655	0.906	173	313664	50.36	ug/L	100
60)	Isopropylbenzene	14.759	14.759	0.912	105	2285021	52.41	ug/L	100
62)	1,1,2,2-Tetrachloroethane	15.015	15.015	0.928	83	616088	49.23	ug/L	99
63)	1,2,3-Trichloropropane	15.107	15.107	0.934	110	154421	45.27	ug/L	93
64)	Bromobenzene	15.168	15.168	0.937	156	607104	50.60	ug/L	93
65)	n-Propylbenzene	15.180	15.180	0.938	91	2928261	55.01	ug/L	98
66)	1,3,5-Trimethylbenzene	15.332	15.332	0.948	105	2235874	56.08	ug/L	98
67)	2-Chlorotoluene	15.332	15.332	0.948	126	651306	54.81	ug/L	94
68)	4-Chlorotoluene	15.430	15.430	0.954	91	1798562	54.09	ug/L	98
69)	tert-Butylbenzene	15.704	15.704	0.971	134	470356	53.82	ug/L	97
70)	1,2,4-Trimethylbenzene	15.741	15.741	0.973	105	2218446	54.57	ug/L	99
71)	sec-Butylbenzene	15.930	15.930	0.985	105	2930551	54.81	ug/L	98
72)	4-Isopropyltoluene	16.051	16.051	0.992	119	2389054	55.55	ug/L	99
73)	1,3-Dichlorobenzene	16.119	16.119	0.996	146	1257272	52.72	ug/L	99
74)	1,4-Dichlorobenzene	16.204	16.204	1.002	146	1279438	52.44	ug/L	99
75)	n-Butylbenzene	16.503	16.503	1.020	91	2357520	57.76	ug/L	98
76)	1,2-Dichlorobenzene	16.643	16.643	1.029	146	1178038	50.75	ug/L	99
77)	1,2-Dibromo-3-chloropr...	17.527	17.527	1.083	157	100946	45.33	ug/L	96
78)	1,2,4-Trichlorobenzene	18.630	18.630	1.151	180	602184	50.72	ug/L	100
79)	Hexachlorobutadiene	18.813	18.819	1.163	225	375814	48.86	ug/L	100
80)	Naphthalene	19.026	19.026	1.176	128	1264953	42.82	ug/L	100
81)	1,2,3-Trichlorobenzene	19.386	19.386	1.198	180	475982	48.13	ug/L	99
83)	Chlorotrifluoroethylene	4.840	4.826	0.456		0m	N.D.	d	
84)	2-Chloro-1,1,1-trifluo...	5.671	5.657	0.534		0m	N.D.	d	
85)	Acrolein	7.120	7.180	0.671		0m	N.D.	d	
86)	Trichlorotrifluoroethane	7.358	7.369	0.693		0m	N.D.	d	
87)	Isopropyl Alcohol	7.352	7.430	0.693		0m	N.D.	d	
88)	Allyl chloride	7.699	7.796	0.725		0m	N.D.	d	
89)	tert-Butyl Alcohol	0.000	7.924	0.000		0	N.D.		
90)	Acrylonitrile	8.236	8.174	0.776		0m	N.D.	d	
91)	Isopropyl ether	8.705	8.741	0.820		0m	N.D.	d	
92)	2-Chloro-1,3-butadiene	8.876	8.869	0.836		0m	N.D.	d	
93)	Ethyl tert-butyl ether	9.144	9.143	0.862		0m	N.D.	d	
94)	Ethyl acetate	9.327	9.338	0.879		0m	N.D.	d	
95)	Propionitrile	9.327	9.393	0.879		0m	N.D.	d	
96)	Methacrylonitrile	0.000	9.576	0.000		0	N.D.		
97)	Tetrahydrofuran	9.693	9.710	0.913		0m	N.D.	d	
98)	Isobutyl alcohol	9.998	10.009	0.942		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A302LL.D
Acq On : 3 Mar 2010 5:21 pm
Operator : ACJ
InstName : VOA4
Sample : |1202060498|960638|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[A] 0220-01C+0301-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 03 18:04:45 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	10.370	10.387	0.977		0m	N.D.	d
100)	Methyl methacrylate	11.260	11.204	1.061		0m	N.D.	d
101)	1,4-Dioxane	11.327	11.326	1.067		0m	N.D.	d
102)	2-Nitropropane	11.699	11.673	1.102		0m	N.D.	d
104)	Ethyl methacrylate	12.461	12.466	0.905		0m	N.D.	d
106)	1-Chlorohexane	13.643	13.661	0.843		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	14.753	14.783	0.912		0m	N.D.	d
108)	Cyclohexanone	14.905	14.904	0.921		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	15.058	15.063	0.931		0m	N.D.	d
110)	Pentachloroethane	15.771	15.770	0.975		0m	N.D.	d
111)	Benzyl chloride	16.326	16.319	1.009		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.716	16.721	1.033		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A302LL.D
Acq On    :  3 Mar 2010   5:21 pm
Operator  : ACJ
InstName  : VOA4
Sample    : |1202060498|960638|1|VOAF|1|VOA8260LFD|
Misc      : GEL 5ML - MIX[A] 0220-01C+0301-01
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Mar 03 18:04:45 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE
```

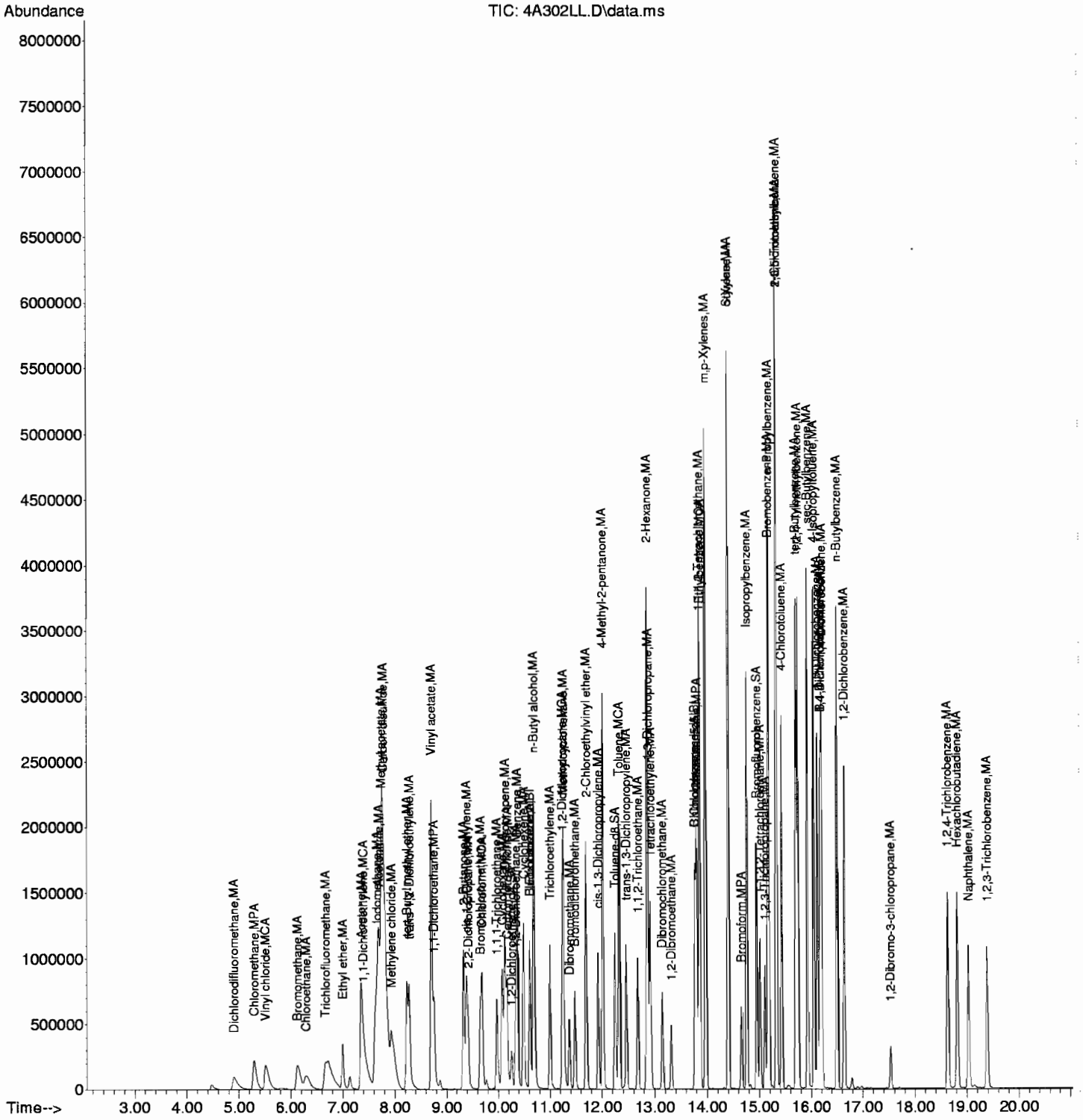

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000	**Date Collected:**	02/21/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	1202060496	**Date Received:**	02/23/2010 08:50		
Client Sample:	QC for batch 960638	**Client:**	LANL010	**Project:**	QC
Client ID:	CAPA-10-13095PS	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	960638	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/04/2010 03:33	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/04/2010 03:33				
Data File:	030310V4\4A324.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		44.0	ug/L	0.300	1.00
74-87-3	Chloromethane		48.8	ug/L	0.300	1.00
75-01-4	Vinyl chloride		49.8	ug/L	0.500	1.00
74-83-9	Bromomethane		49.9	ug/L	0.300	1.00
75-00-3	Chloroethane		47.1	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		47.1	ug/L	0.300	1.00
60-29-7	Ethyl ether		48.0	ug/L	0.300	1.00
67-64-1	Acetone		91.3	ug/L	3.50	10.0
75-05-8	Acetonitrile		1250	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		45.4	ug/L	0.300	1.00
74-88-4	Iodomethane		212	ug/L	1.25	5.00
75-09-2	Methylene chloride		41.1	ug/L	3.00	10.0
75-15-0	Carbon disulfide		254	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		45.4	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		46.9	ug/L	0.300	1.00
108-05-4	Vinyl acetate		306	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		48.2	ug/L	0.300	1.00
78-93-3	2-Butanone		138	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		47.7	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		42.3	ug/L	0.300	1.00
67-66-3	Chloroform		46.5	ug/L	0.250	1.00
74-97-5	Bromochloromethane		44.9	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		44.7	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		44.9	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		5070	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		44.1	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		48.5	ug/L	0.250	1.00
71-43-2	Benzene		45.6	ug/L	0.300	1.00
79-01-6	Trichloroethylene		44.7	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		48.7	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		49.2	ug/L	0.250	1.00
74-95-3	Dibromomethane		46.9	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		230	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		46.7	ug/L	0.250	1.00
108-88-3	Toluene		43.7	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		47.8	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		48.2	ug/L	0.250	1.00
591-78-6	2-Hexanone		169	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000	**Date Collected:**	02/21/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	1202060496	**Date Received:**	02/23/2010 08:50		
Client Sample:	QC for batch 960638	**Client:**	LANL010	**Project:**	QC
Client ID:	CAPA-10-13095PS	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	960638	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/04/2010 03:33	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/04/2010 03:33				
Data File:	030310V4\4A324.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		47.9	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		41.2	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		47.9	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		46.6	ug/L	0.250	1.00
108-90-7	Chlorobenzene		44.1	ug/L	0.250	1.00
100-41-4	Ethylbenzene		44.2	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		88.8	ug/L	0.500	2.00
95-47-6	o-Xylene		45.9	ug/L	0.300	1.00
100-42-5	Styrene		47.9	ug/L	0.250	1.00
75-25-2	Bromoform		44.7	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		45.8	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		42.5	ug/L	0.300	1.00
108-86-1	Bromobenzene		42.1	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		41.1	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		42.3	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		40.5	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		42.0	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		41.7	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		39.9	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		42.2	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		41.0	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		40.8	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		41.6	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		41.3	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		40.1	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		44.2	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		33.7	ug/L	0.300	1.00
91-20-3	Naphthalene		41.5	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		41.9	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**	**Date Collected:**	**02/21/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202060496**	**Date Received:**	**02/23/2010 08:50**		
Client Sample:	**QC for batch 960638**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-13095PS**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**960638**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 03:33**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 03:33**				
Data File:	**030310V4\4A324.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		46.2	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		41.1	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		42.5	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	49.3	50.0	ug/L	98.6	(72%-132%)
Bromofluorobenzene	51.4	50.0	ug/L	103	(77%-123%)
Toluene-d8	49.2	50.0	ug/L	98.4	(76%-122%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A324.D
Acq On : 4 Mar 2010 3:33 am
Operator : ACJ
InstName : VOA4
Sample : |1202060496|960638|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MS 247828002
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 04 11:20:12 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.619	10.620	1.000	96	1101263	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.770	13.771	1.000	117	940775	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	676734	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1100913	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.770	13.771	1.000	117	940775	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	678186	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	224662	49.31	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 98.62%					
43) Toluene-d8	12.252	12.247	0.890	98	858978	49.22	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 98.44%					
61) Bromofluorobenzene	14.953	14.954	0.924	95	680470	51.39	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 102.78%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.912	4.911	0.463	85	306860	43.97	ug/L	100
3) Chloromethane	5.291	5.291	0.498	50	557791	48.83	ug/L	100
4) Vinyl chloride	5.521	5.521	0.520	62	563540	49.78	ug/L	100
5) Bromomethane	6.145	6.137	0.579	94	335648	49.85	ug/L	99
6) Chloroethane	6.295	6.295	0.593	64	274687	47.10	ug/L	98
7) Trichlorofluoromethane	6.674	6.669	0.629	101	544098	47.13	ug/L	98
8) Ethyl ether	6.997	6.998	0.659	59	263755	47.96	ug/L	95
9) Acetone	7.357	7.352	0.693	43	633914	91.34	ug/L	96
10) 1,1-Dichloroethylene	7.388	7.389	0.696	61	583245	45.43	ug/L	96
11) Iodomethane	7.662	7.663	0.722	142	2814483	212.27	ug/L	96
12) Acetonitrile	7.698	7.699	0.725	41	1439770	1249.87	ug/L	99
13) Methyl acetate	7.747	7.748	0.730	43	1426586	241.99	ug/L	96
14) Carbon disulfide	7.778	7.773	0.732	76	6060831	253.84	ug/L	99
15) Methylene chloride	7.936	7.931	0.747	84	409125	41.07	ug/L	94
16) tert-Butyl methyl ether	8.241	8.242	0.776	73	962761	45.41	ug/L	98
17) trans-1,2-Dichloroethy...	8.284	8.285	0.780	61	463292	46.86	ug/L	96
18) Vinyl acetate	8.710	8.705	0.820	43	3934407	306.21	ug/L	97
19) 1,1-Dichloroethane	8.759	8.760	0.825	63	597342	48.19	ug/L	100
20) 2-Butanone	9.326	9.327	0.878	43	1001625	137.56	ug/L	95
21) cis-1,2-Dichloroethylene	9.387	9.388	0.884	61	516599	47.67	ug/L	96
22) 2,2-Dichloropropane	9.418	9.419	0.887	77	281137	42.29	ug/L	90
23) Bromochloromethane	9.655	9.656	0.909	128	176490	44.94	ug/L	90
24) Chloroform	9.692	9.687	0.913	83	605322	46.50	ug/L	98
25) 1,1,1-Trichloroethane	9.978	9.979	0.940	97	453834	44.73	ug/L	98
26) Cyclohexane	10.082	10.083	0.949	56	496294	44.03	ug/L	86
27) 1,1-Dichloropropene	10.131	10.132	0.954	75	427042	44.85	ug/L #	78
28) Carbon tetrachloride	10.174	10.175	0.958	117	425679	44.12	ug/L	100
30) 1,2-Dichloroethane	10.338	10.339	0.974	62	515402	48.53	ug/L	100
31) Benzene	10.375	10.370	0.977	78	1279615	45.58	ug/L	99
32) Cyclohexene	10.497	10.492	0.989	67	611052	44.64	ug/L	96
33) n-Butyl alcohol	10.692	10.693	1.007	56	1468883	5068.95	ug/L	95
34) Trichloroethylene	11.003	11.004	1.036	95	332168	44.74	ug/L	98
35) 1,2-Dichloropropane	11.240	11.241	1.059	63	353824	48.70	ug/L	100
36) Methylcyclohexane	11.265	11.260	1.061	83	516641	44.04	ug/L	95
37) Dibromomethane	11.375	11.376	1.071	93	224870	46.90	ug/L	93
38) Bromodichloromethane	11.484	11.485	1.082	83	474296	49.24	ug/L	99
39) 2-Chloroethylvinyl ether	0.000	11.699	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A324.D
Acq On : 4 Mar 2010 3:33 am
Operator : ACJ
InstName : VOA4
Sample : |1202060496|960638|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MS 247828002
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 04 11:20:12 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40)	cis-1,3-Dichloropropylene	11.929	11.930	1.123	75	525332	46.73	ug/L	94
42)	4-Methyl-2-pentanone	12.021	12.016	0.873	58	787598	229.62	ug/L	88
44)	Toluene	12.326	12.320	0.895	91	1360759	43.70	ug/L	98
45)	trans-1,3-Dichloroprop...	12.466	12.461	0.905	75	522220	47.76	ug/L	96
46)	1,1,2-Trichloroethane	12.685	12.680	0.921	83	270116	48.19	ug/L	98
47)	2-Hexanone	12.856	12.857	0.934	43	1606492	168.79	ug/L	93
48)	1,3-Dichloropropane	12.874	12.875	0.935	76	558065	47.93	ug/L	85
49)	Tetrachloroethylene	12.917	12.918	0.938	164	257956	41.17	ug/L	97
50)	Dibromochloromethane	13.149	13.144	0.955	129	382141	47.88	ug/L	98
51)	1,2-Dibromoethane	13.319	13.320	0.967	107	336668	46.60	ug/L	100
52)	Chlorobenzene	13.801	13.802	1.002	112	934550	44.06	ug/L	98
53)	1,1,1,2-Tetrachloroethane	13.850	13.851	1.006	131	371753	46.18	ug/L	99
54)	Ethylbenzene	13.862	13.863	1.007	91	1630516	44.21	ug/L	98
55)	m,p-Xylenes	13.972	13.973	1.015	106	1298492	88.76	ug/L	96
56)	o-Xylene	14.404	14.399	1.046	106	695110	45.85	ug/L	95
57)	Styrene	14.404	14.399	1.046	104	1179018	47.89	ug/L	97
59)	Bromoform	14.661	14.655	0.906	173	273230	44.67	ug/L	98
60)	Isopropylbenzene	14.758	14.759	0.912	105	1734613	40.51	ug/L	99
62)	1,1,2,2-Tetrachloroethane	15.014	15.015	0.928	83	562362	45.75	ug/L	100
63)	1,2,3-Trichloropropane	15.106	15.107	0.934	110	142214	42.45	ug/L	97
64)	Bromobenzene	15.166	15.168	0.937	156	496446	42.13	ug/L	93
65)	n-Propylbenzene	15.185	15.180	0.939	91	2146726	41.06	ug/L	97
66)	1,3,5-Trimethylbenzene	15.331	15.332	0.948	105	1645958	42.04	ug/L	98
67)	2-Chlorotoluene	15.331	15.332	0.948	126	493811	42.31	ug/L	93
68)	4-Chlorotoluene	15.429	15.430	0.954	91	1361265	41.69	ug/L	98
69)	tert-Butylbenzene	15.703	15.704	0.971	134	342301	39.88	ug/L	93
70)	1,2,4-Trimethylbenzene	15.746	15.741	0.973	105	1683130	42.15	ug/L	98
71)	sec-Butylbenzene	15.935	15.930	0.985	105	2152626	40.99	ug/L	98
72)	4-Isopropyltoluene	16.050	16.051	0.992	119	1724902	40.83	ug/L	98
73)	1,3-Dichlorobenzene	16.124	16.119	0.997	146	975078	41.63	ug/L	99
74)	1,4-Dichlorobenzene	16.209	16.204	1.002	146	989035	41.27	ug/L	99
75)	n-Butylbenzene	16.502	16.503	1.020	91	1605817	40.06	ug/L	98
76)	1,2-Dichlorobenzene	16.642	16.643	1.029	146	969482	42.52	ug/L	100
77)	1,2-Dibromo-3-chloropr...	17.532	17.527	1.084	157	96740	44.23	ug/L	94
78)	1,2,4-Trichlorobenzene	18.635	18.630	1.152	180	479576	41.13	ug/L	100
79)	Hexachlorobutadiene	18.818	18.819	1.163	225	254250	33.65	ug/L	99
80)	Naphthalene	19.032	19.026	1.176	128	1204482	41.52	ug/L	99
81)	1,2,3-Trichlorobenzene	19.391	19.386	1.199	180	406796	41.88	ug/L	99
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85)	Acrolein	0.000	7.180	0.000		0m	N.D.	d	
86)	Trichlorotrifluoroethane	0.000	7.369	0.000		0	N.D.		
87)	Isopropyl Alcohol	7.345	7.430	0.692	45	1030	N.D.		
88)	Allyl chloride	0.000	7.796	0.000		0m	N.D.	d	
89)	tert-Butyl Alcohol	0.000	7.924	0.000		0	N.D.		
90)	Acrylonitrile	0.000	8.174	0.000		0m	N.D.	d	
91)	Isopropyl ether	0.000	8.741	0.000		0m	N.D.	d	
92)	2-Chloro-1,3-butadiene	0.000	8.869	0.000		0	N.D.		
93)	Ethyl tert-butyl ether	9.149	9.143	0.862	59	1307	N.D.		
94)	Ethyl acetate	0.000	9.338	0.000		0m	N.D.	d	
95)	Propionitrile	0.000	9.393	0.000		0m	N.D.	d	
96)	Methacrylonitrile	9.643	9.576	0.908	41	620	N.D.		
97)	Tetrahydrofuran	9.668	9.710	0.910	42	714	N.D.		
98)	Isobutyl alcohol	0.000	10.009	0.000		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A324.D
Acq On : 4 Mar 2010 3:33 am
Operator : ACJ
InstName : VOA4
Sample : |1202060496|960638|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MS 247828002
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 04 11:20:12 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	0.000	10.387	0.000		0m	N.D.	d
100)	Methyl methacrylate	0.000	11.204	0.000		0m	N.D.	d
101)	1,4-Dioxane	11.375	11.326	1.071	88	634	N.D.	
102)	2-Nitropropane	11.746	11.673	1.106	43	573	N.D.	
104)	Ethyl methacrylate	12.472	12.466	0.906	69	207	N.D.	
106)	1-Chlorohexane	13.673	13.661	0.845	55	208	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	14.783	0.000		0m	N.D.	d
108)	Cyclohexanone	14.904	14.904	0.921	42	131	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	15.063	0.000		0m	N.D.	d
110)	Pentachloroethane	15.776	15.770	0.975	167	2612	N.D.	
111)	Benzyl chloride	16.276	16.319	1.006	91	253	N.D.	
112)	bis(2-Chloroisopropyl)...	0.000	16.721	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A324.D
Acq On : 4 Mar 2010 3:33 am
Operator : ACJ
InstName : VOA4
Sample : |1202060496|960638|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MS 247828002
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Mar 04 11:20:12 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

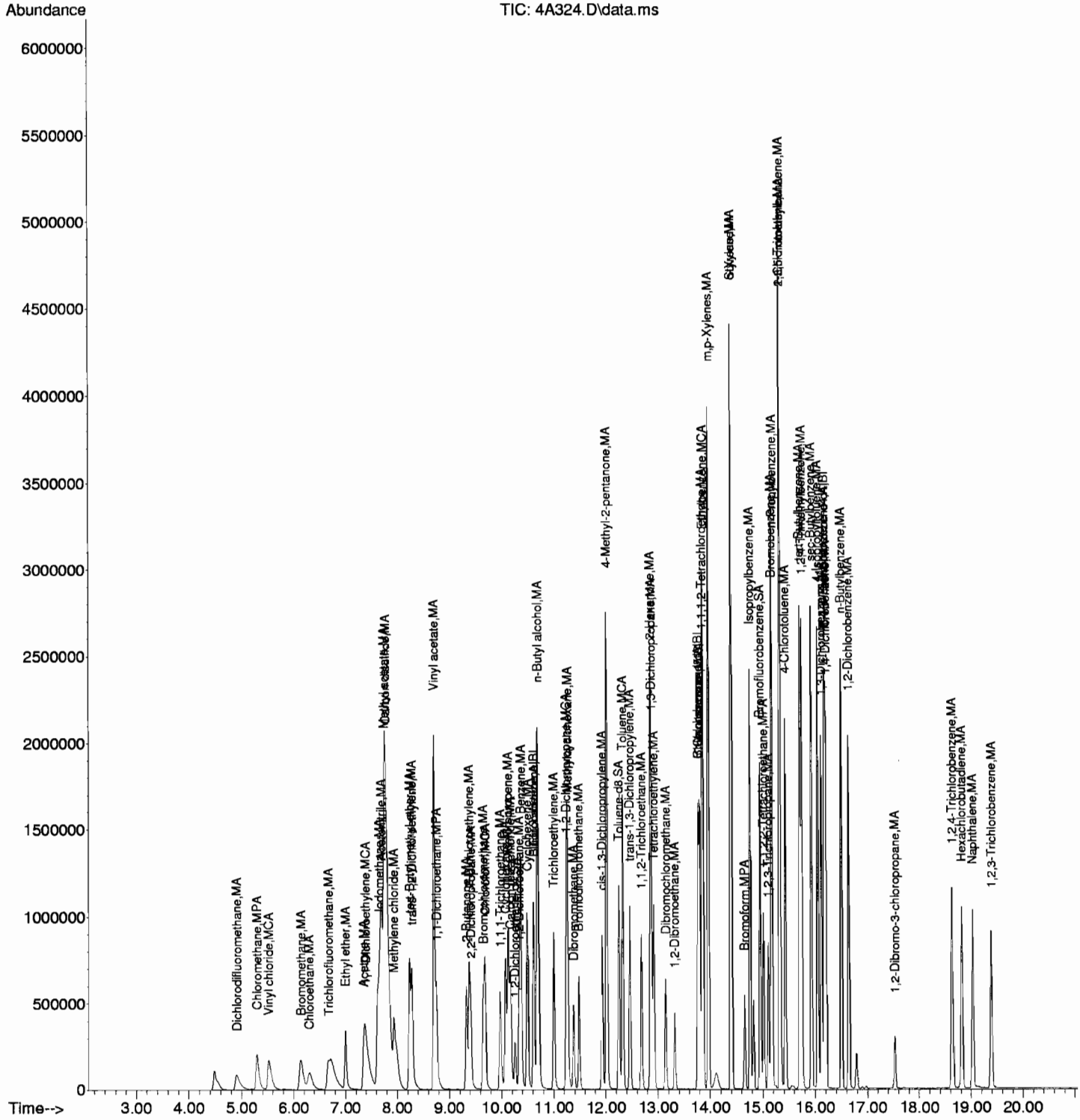

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000	**Date Collected:**	02/21/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	1202060497	**Date Received:**	02/23/2010 08:50		
Client Sample:	QC for batch 960638	**Client:**	LANL010	**Project:**	QC
Client ID:	CAPA-10-13095PSD	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	960638	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/04/2010 04:00	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/04/2010 04:00				
Data File:	030310V4\4A325.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		46.7	ug/L	0.300	1.00
74-87-3	Chloromethane		50.1	ug/L	0.300	1.00
75-01-4	Vinyl chloride		50.9	ug/L	0.500	1.00
74-83-9	Bromomethane		51.7	ug/L	0.300	1.00
75-00-3	Chloroethane		49.5	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		49.0	ug/L	0.300	1.00
60-29-7	Ethyl ether		50.1	ug/L	0.300	1.00
67-64-1	Acetone		91.7	ug/L	3.50	10.0
75-05-8	Acetonitrile		1270	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		47.9	ug/L	0.300	1.00
74-88-4	Iodomethane		227	ug/L	1.25	5.00
75-09-2	Methylene chloride		44.1	ug/L	3.00	10.0
75-15-0	Carbon disulfide		262	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		45.8	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		46.2	ug/L	0.300	1.00
108-05-4	Vinyl acetate		301	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		48.3	ug/L	0.300	1.00
78-93-3	2-Butanone		136	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		47.4	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		40.7	ug/L	0.300	1.00
67-66-3	Chloroform		46.6	ug/L	0.250	1.00
74-97-5	Bromochloromethane		45.7	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		43.7	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		44.1	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		5120	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		43.6	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		48.4	ug/L	0.250	1.00
71-43-2	Benzene		44.9	ug/L	0.300	1.00
79-01-6	Trichloroethylene		43.0	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		48.6	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		49.1	ug/L	0.250	1.00
74-95-3	Dibromomethane		46.3	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		226	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		46.1	ug/L	0.250	1.00
108-88-3	Toluene		41.5	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		46.6	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		47.9	ug/L	0.250	1.00
591-78-6	2-Hexanone		165	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000	**Date Collected:**	02/21/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	1202060497	**Date Received:**	02/23/2010 08:50		
Client Sample:	QC for batch 960638	**Client:**	LANL010	**Project:**	QC
Client ID:	CAPA-10-13095PSD	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	960638	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/04/2010 04:00	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/04/2010 04:00				
Data File:	030310V4\4A325.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		46.8	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		38.2	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		47.7	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		46.2	ug/L	0.250	1.00
108-90-7	Chlorobenzene		42.3	ug/L	0.250	1.00
100-41-4	Ethylbenzene		41.4	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		82.2	ug/L	0.500	2.00
95-47-6	o-Xylene		43.6	ug/L	0.300	1.00
100-42-5	Styrene		45.2	ug/L	0.250	1.00
75-25-2	Bromoform		45.1	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		45.8	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		43.5	ug/L	0.300	1.00
108-86-1	Bromobenzene		41.2	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		38.1	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		39.8	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		37.8	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		39.7	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		39.9	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		38.5	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		39.8	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		38.1	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		38.3	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		40.6	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		40.2	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		37.9	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		45.4	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		33.0	ug/L	0.300	1.00
91-20-3	Naphthalene		41.5	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		42.6	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000	**Date Collected:**	02/21/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	1202060497	**Date Received:**	02/23/2010 08:50		
Client Sample:	QC for batch 960638	**Client:**	LANL010	**Project:**	QC
Client ID:	CAPA-10-13095PSD	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	960638	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/04/2010 04:00	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/04/2010 04:00				
Data File:	030310V4\4A325.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		44.9	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		40.6	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		41.6	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	49.4	50.0	ug/L	98.7	(72%-132%)
Bromofluorobenzene	50.7	50.0	ug/L	101	(77%-123%)
Toluene-d8	48.9	50.0	ug/L	97.7	(76%-122%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A325.D
Acq On : 4 Mar 2010 4:00 am
Operator : ACJ
InstName : VOA4
Sample : |1202060497|960638|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MSD 247828002
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 04 11:21:03 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.619	10.620	1.000	96	1158427	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	989981	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	715783	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1158427	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	989981	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	715824	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	236611	49.37	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 98.74%					
43) Toluene-d8	12.253	12.247	0.890	98	897351	48.86	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 97.72%					
61) Bromofluorobenzene	14.953	14.954	0.924	95	709699	50.68	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 101.36%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.904	4.911	0.462	85	342736	46.68	ug/L	100
3) Chloromethane	5.299	5.291	0.499	50	602433	50.13	ug/L	100
4) Vinyl chloride	5.521	5.521	0.520	62	606479	50.93	ug/L	100
5) Bromomethane	6.138	6.137	0.578	94	366414	51.73	ug/L	99
6) Chloroethane	6.295	6.295	0.593	64	303460	49.46	ug/L	99
7) Trichlorofluoromethane	6.668	6.669	0.628	101	595385	49.02	ug/L	99
8) Ethyl ether	6.997	6.998	0.659	59	289584	50.06	ug/L	99
9) Acetone	7.351	7.352	0.692	43	669101	91.66	ug/L	96
10) 1,1-Dichloroethylene	7.400	7.389	0.697	61	646526	47.88	ug/L	95
11) Iodomethane	7.662	7.663	0.722	142	3165178	226.94	ug/L	97
12) Acetonitrile	7.699	7.699	0.725	41	1533436	1265.50	ug/L	99
13) Methyl acetate	7.747	7.748	0.730	43	1481138	238.85	ug/L	96
14) Carbon disulfide	7.784	7.773	0.733	76	6590957	262.42	ug/L	100
15) Methylene chloride	7.955	7.931	0.749	84	462390	44.13	ug/L	95
16) tert-Butyl methyl ether	8.235	8.242	0.776	73	1021815	45.82	ug/L	98
17) trans-1,2-Dichloroethy...	8.284	8.285	0.780	61	480869	46.24	ug/L	96
18) Vinyl acetate	8.711	8.705	0.820	43	4061874	300.53	ug/L	97
19) 1,1-Dichloroethane	8.759	8.760	0.825	63	629583	48.28	ug/L	100
20) 2-Butanone	9.326	9.327	0.878	43	1041096	135.93	ug/L	95
21) cis-1,2-Dichloroethylene	9.387	9.388	0.884	61	539929	47.36	ug/L	96
22) 2,2-Dichloropropane	9.418	9.419	0.887	77	284232	40.65	ug/L	92
23) Bromochloromethane	9.656	9.656	0.909	128	188958	45.74	ug/L	93
24) Chloroform	9.692	9.687	0.913	83	638364	46.62	ug/L	97
25) 1,1,1-Trichloroethane	9.979	9.979	0.940	97	466765	43.74	ug/L	98
26) Cyclohexane	10.082	10.083	0.949	56	516192	43.54	ug/L	96
27) 1,1-Dichloropropene	10.131	10.132	0.954	75	441537	44.09	ug/L #	78
28) Carbon tetrachloride	10.174	10.175	0.958	117	442145	43.56	ug/L	99
30) 1,2-Dichloroethane	10.338	10.339	0.974	62	540195	48.35	ug/L	100
31) Benzene	10.375	10.370	0.977	78	1325911	44.89	ug/L	99
32) Cyclohexene	10.497	10.492	0.989	67	614747	42.70	ug/L	97
33) n-Butyl alcohol	10.692	10.693	1.007	56	1559403	5115.77	ug/L	96
34) Trichloroethylene	11.003	11.004	1.036	95	335427	42.95	ug/L	98
35) 1,2-Dichloropropane	11.241	11.241	1.059	63	371595	48.62	ug/L	99
36) Methylcyclohexane	11.265	11.260	1.061	83	521822	42.28	ug/L	97
37) Dibromomethane	11.375	11.376	1.071	93	233609	46.32	ug/L	95
38) Bromodichloromethane	11.484	11.485	1.082	83	497783	49.13	ug/L	100
39) 2-Chloroethylvinyl ether	0.000	11.699	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A325.D
Acq On : 4 Mar 2010 4:00 am
Operator : ACJ
InstName : VOA4
Sample : |1202060497|960638|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MSD 247828002
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 04 11:21:03 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40)	cis-1,3-Dichloropropylene	11.929	11.930	1.123	75	545414	46.12	ug/L	96
42)	4-Methyl-2-pentanone	12.015	12.016	0.872	58	814420	225.64	ug/L	90
44)	Toluene	12.326	12.320	0.895	91	1360848	41.53	ug/L	99
45)	trans-1,3-Dichloroprop...	12.466	12.461	0.905	75	535622	46.55	ug/L	95
46)	1,1,2-Trichloroethane	12.685	12.680	0.921	83	282648	47.92	ug/L	98
47)	2-Hexanone	12.856	12.857	0.934	43	1652699	165.02	ug/L	94
48)	1,3-Dichloropropane	12.874	12.875	0.935	76	573476	46.80	ug/L	83
49)	Tetrachloroethylene	12.923	12.918	0.938	164	251712	38.17	ug/L	96
50)	Dibromochloromethane	13.143	13.144	0.954	129	401012	47.74	ug/L	99
51)	1,2-Dibromoethane	13.319	13.320	0.967	107	351601	46.24	ug/L	100
52)	Chlorobenzene	13.801	13.802	1.002	112	943943	42.30	ug/L	99
53)	1,1,1,2-Tetrachloroethane	13.850	13.851	1.006	131	380234	44.88	ug/L	98
54)	Ethylbenzene	13.862	13.863	1.007	91	1604949	41.36	ug/L	98
55)	m,p-Xylenes	13.972	13.973	1.015	106	1265639	82.21	ug/L	95
56)	o-Xylene	14.405	14.399	1.046	106	694781	43.55	ug/L	96
57)	Styrene	14.405	14.399	1.046	104	1171937	45.24	ug/L	98
59)	Bromoform	14.655	14.655	0.906	173	291530	45.06	ug/L	99
60)	Isopropylbenzene	14.758	14.759	0.912	105	1710984	37.77	ug/L	98
62)	1,1,2,2-Tetrachloroethane	15.014	15.015	0.928	83	595882	45.83	ug/L	100
63)	1,2,3-Trichloropropane	15.106	15.107	0.934	110	153987	43.46	ug/L	98
64)	Bromobenzene	15.167	15.168	0.937	156	513183	41.17	ug/L	95
65)	n-Propylbenzene	15.179	15.180	0.938	91	2104376	38.05	ug/L	97
66)	1,3,5-Trimethylbenzene	15.331	15.332	0.948	105	1645502	39.73	ug/L	98
67)	2-Chlorotoluene	15.331	15.332	0.948	126	490959	39.77	ug/L	93
68)	4-Chlorotoluene	15.429	15.430	0.954	91	1378637	39.91	ug/L	98
69)	tert-Butylbenzene	15.703	15.704	0.971	134	349293	38.47	ug/L	96
70)	1,2,4-Trimethylbenzene	15.740	15.741	0.973	105	1680018	39.78	ug/L	99
71)	sec-Butylbenzene	15.935	15.930	0.985	105	2118166	38.14	ug/L	98
72)	4-Isopropyltoluene	16.051	16.051	0.992	119	1713035	38.34	ug/L	98
73)	1,3-Dichlorobenzene	16.118	16.119	0.996	146	1005486	40.58	ug/L	99
74)	1,4-Dichlorobenzene	16.209	16.204	1.002	146	1018685	40.19	ug/L	99
75)	n-Butylbenzene	16.502	16.503	1.020	91	1607280	37.91	ug/L	98
76)	1,2-Dichlorobenzene	16.642	16.643	1.029	146	1002996	41.59	ug/L	100
77)	1,2-Dibromo-3-chloropr...	17.532	17.527	1.084	157	104968	45.38	ug/L	95
78)	1,2,4-Trichlorobenzene	18.629	18.630	1.151	180	500622	40.59	ug/L	99
79)	Hexachlorobutadiene	18.818	18.819	1.163	225	263847	33.02	ug/L	99
80)	Naphthalene	19.032	19.026	1.176	128	1274630	41.54	ug/L	100
81)	1,2,3-Trichlorobenzene	19.385	19.386	1.198	180	437541	42.59	ug/L	99
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85)	Acrolein	0.000	7.180	0.000		0m	N.D.	d	
86)	Trichlorotrifluoroethane	0.000	7.369	0.000		0	N.D.		
87)	Isopropyl Alcohol	7.443	7.430	0.701	45	344	N.D.		
88)	Allyl chloride	0.000	7.796	0.000		0m	N.D.	d	
89)	tert-Butyl Alcohol	8.040	7.924	0.757	59	123	N.D.		
90)	Acrylonitrile	0.000	8.174	0.000		0m	N.D.	d	
91)	Isopropyl ether	0.000	8.741	0.000		0m	N.D.	d	
92)	2-Chloro-1,3-butadiene	0.000	8.869	0.000		0	N.D.		
93)	Ethyl tert-butyl ether	9.149	9.143	0.862	59	1333	N.D.		
94)	Ethyl acetate	0.000	9.338	0.000		0m	N.D.	d	
95)	Propionitrile	0.000	9.393	0.000		0m	N.D.	d	
96)	Methacrylonitrile	0.000	9.576	0.000		0	N.D.		
97)	Tetrahydrofuran	9.674	9.710	0.911	42	831	N.D.		
98)	Isobutyl alcohol	9.973	10.009	0.939	41	469	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A325.D
Acq On : 4 Mar 2010 4:00 am
Operator : ACJ
InstName : VOA4
Sample : |1202060497|960638|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MSD 247828002
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 04 11:21:03 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	0.000	10.387	0.000		0m	N.D.	d
100)	Methyl methacrylate	0.000	11.204	0.000		0m	N.D.	d
101)	1,4-Dioxane	11.387	11.326	1.072	88	1152	N.D.	
102)	2-Nitropropane	11.625	11.673	1.095	43	977	N.D.	
104)	Ethyl methacrylate	12.478	12.466	0.906	69	123	N.D.	
106)	1-Chlorohexane	13.636	13.661	0.843	55	186	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	14.783	0.000		0m	N.D.	d
108)	Cyclohexanone	14.892	14.904	0.920	42	154	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	15.063	0.000		0m	N.D.	d
110)	Pentachloroethane	15.770	15.770	0.975	167	3004	N.D.	
111)	Benzyl chloride	0.000	16.319	0.000		0	N.D.	
112)	bis(2-Chloroisopropyl)...	16.788	16.721	1.038	45	7992	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030310V4\
Data File : 4A325.D
Acq On : 4 Mar 2010 4:00 am
Operator : ACJ
InstName : VOA4
Sample : |1202060497|960638|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MSD 247828002
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 04 11:21:03 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

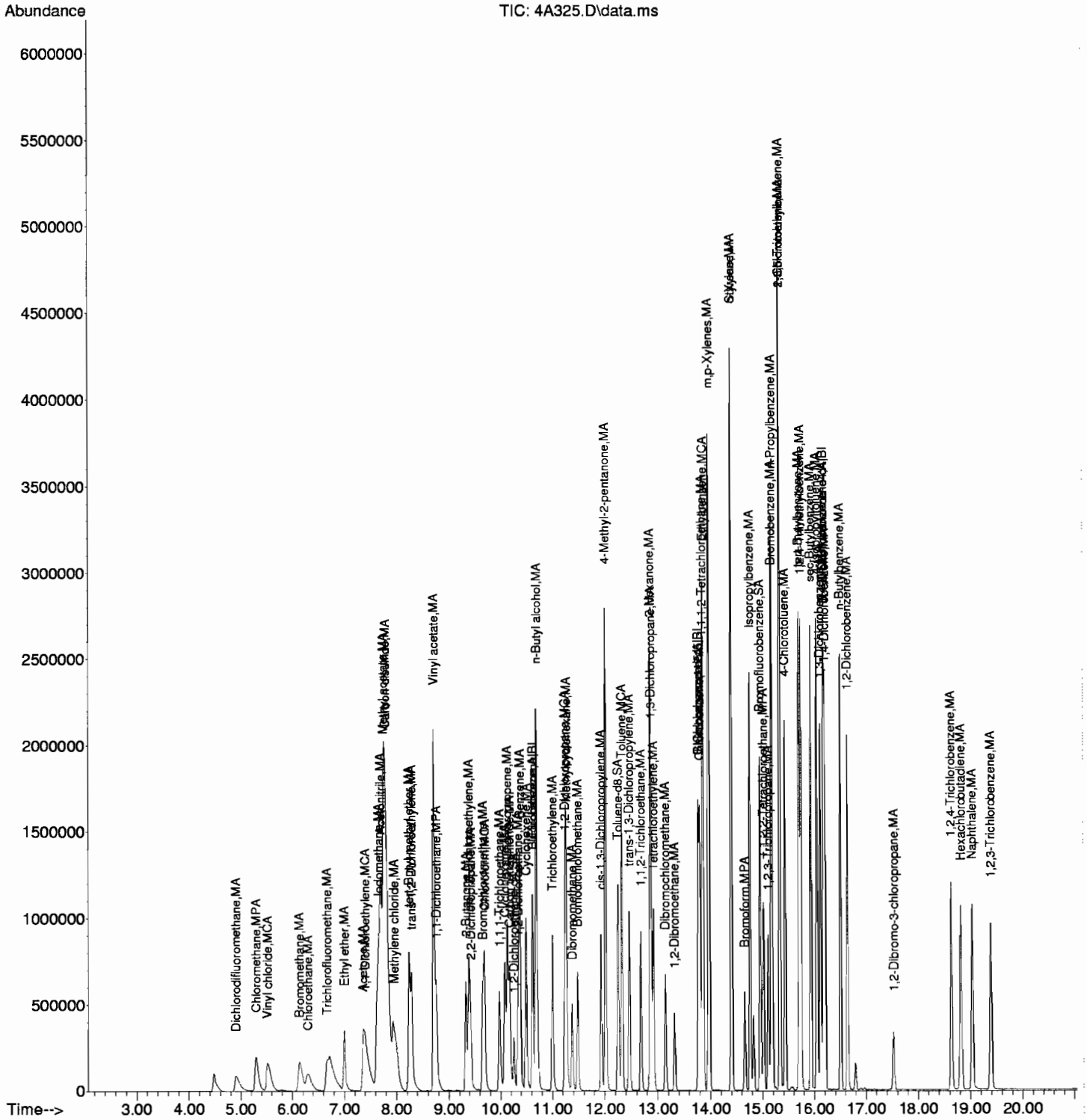

Miscellaneous

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA4

Date: 3/1/2010 Method 8260B/624 Operator: ACJ

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1671

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/1/2010

(See pg. 63 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # _____

Sequence Number: 030110V4

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV					
IS	UVM100114-01	1	1	1	
SS	UVM091216-10	1	1	1	
LCS/MS					
BFB	UVM091216-10				1
SHORT					
DHEC					

Purge Amount	
5	Water Purge Vol:
N/A	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
1 Mar 2010	19:08	4A101.D	UVM091216-10	GEL	BFB	1UL	1	N/A	1	W	ACJ	N/A	O	
1 Mar 2010	19:35	4A102.D	120256-----	GEL	BLANK	5ML	1	N/A	2	w	ACJ	N/A	X	
1 Mar 2010	20:03	4A103.D	W4VM100301-01	GEL	ICAL	5+5UL	1	N/A	3	w	ACJ	N/A	O	UVM100106-01C+UVM100222-01A
1 Mar 2010	20:30	4A104.D	W4VM100301-02	GEL	ICAL	5+5UL	1	N/A	4	w	ACJ	N/A	O	UVM100106-02C+UVM100222-02A
1 Mar 2010	20:58	4A105.D	W4VM100301-03	GEL	ICAL	5+5UL	1	N/A	5	w	ACJ	N/A	X	UVM100106-02C+UVM100222-02A
1 Mar 2010	21:26	4A106.D	W4VM100301-04	GEL	ICAL	5+5UL	1	N/A	6	w	ACJ	N/A	O	UVM100106-03C+UVM100222-03A
1 Mar 2010	21:54	4A107.D	W4VM100301-05	GEL	ICAL	5+5UL	1	N/A	7	w	ACJ	N/A	O	UVM100106-04C+UVM100222-04A
1 Mar 2010	22:21	4A108.D	W4VM100301-06	GEL	ICAL	5+5UL	1	N/A	8	w	ACJ	N/A	O	UVM100106-05C+UVM100222-05A
1 Mar 2010	22:49	4A109.D	W4VM100301-07	GEL	ICAL	5+5UL	1	N/A	9	w	ACJ	N/A	X	UVM100106-06C+UVM100222-06A
1 Mar 2010	23:16	4A110.D	W4VM100301-08	GEL	ICAL	2.5+5UL	1	N/A	10	w	ACJ	N/A	O	UVM100106-07C+UVM100222-07A
1 Mar 2010	23:44	4A111.D	W4VM100301-09	GEL	ICAL	5+5UL	1	N/A	11	w	ACJ	N/A	O	UVM100106-08C+UVM100222-08A
2 Mar 2010	00:12	4A112.D	120256-----	GEL	BLANK	5ML	1	N/A	12	w	ACJ	N/A	X	
2 Mar 2010	00:39	4A113.D	W4VM100301-10	GEL	ICAL	5+5UL	1	N/A	13	w	ACJ	N/A	O	UVM100215-01+UVM100227-01A
2 Mar 2010	01:06	4A114.D	W4VM100301-11	GEL	ICAL	5+5UL	1	N/A	14	w	ACJ	N/A	O	UVM100215-02+UVM100227-02A
2 Mar 2010	01:34	4A115.D	W4VM100301-12	GEL	ICAL	5+5UL	1	N/A	15	w	ACJ	N/A	O	UVM100215-03+UVM100227-03A
2 Mar 2010	02:01	4A116.D	W4VM100301-13	GEL	ICAL	5+5UL	1	N/A	16	w	ACJ	N/A	O	UVM100215-04+UVM100227-04A
2 Mar 2010	02:28	4A117.D	W4VM100301-14	GEL	ICAL	5+5UL	1	N/A	17	w	ACJ	N/A	O	UVM100215-05+UVM100227-05A
2 Mar 2010	02:56	4A118.D	W4VM100301-15	GEL	ICAL	5+5UL	1	N/A	18	w	ACJ	N/A	O	UVM100215-06+UVM100227-06A
2 Mar 2010	03:23	4A119.D	W4VM100301-16	GEL	ICAL	5+5UL	1	N/A	19	w	ACJ	N/A	O	UVM100215-07+UVM100227-07A
2 Mar 2010	03:50	4A120.D	120256-----	GEL	BLANK	5ML	1	N/A	20	w	ACJ	N/A	X	
2 Mar 2010	04:18	4A121.D	W4VM100301-17	GEL	ICV	5+5UL	1	N/A	21	w	ACJ	N/A	X	UVM100126-02E+IVM100301-01
2 Mar 2010	04:45	4A122.D	W4VM100301-18	GEL	ICV	5+5UL	1	N/A	22	w	ACJ	N/A	O	UVM100220-01B+IVM100301-01
2 Mar 2010	05:13	4A123.D	W4VM100301-19	GEL	ICV	5+5UL	1	N/A	23	w	ACJ	N/A	O	UVM100215-08A+UVM100125-08E
2 Mar 2010	05:41	4A124.D	120256-----	GEL	BLANK	5ML	1	N/A	24	w	ACJ	N/A	X	
2 Mar 2010	06:08	4A125.D	W4VM100301-20	GEL	TEST	5UL	1	N/A	25	w	ACJ	N/A	X	UVM100106-07C/UVM100222-07A

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA4

Date: 3/3/2010 Method 8260B/624 Operator: ACJ

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1671

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/1/2010

(See pg. 63 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 81710

Sequence Number: 030310V4

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W4VM100303-01		5+5		
IS	UVM100114-01	1	1	1	
SS	UVM091216-10	1	1	1	
LCS/MS	W4VM100303-01/02			5+5	
BFB	W4VM100303-01				1
SHORT	W4VM100303-03/04		5	5	
DHEC	N/A			5	

Purge Amount	
5	Water Purge Vol:
5G	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
3 Mar 2010 16:54	4A301.D	UVM091216-10	GEL	BFB	5ML	1	N/A	1	W	ACJ	N/A	X	PASSES; BFB FROM 4A302
3 Mar 2010 17:21	4A302.D	W4VM100303-01	GEL	CCV/LCS	5ML	1	N/A	2	W	ACJ	N/A	O	UVM100220-01C+IVM100301-01
3 Mar 2010 17:49	4A303.D	W4VM100303-02	GEL	LCS	5G	1	N/A	3	S	ACJ	N/A	O	UVM100220-01C+IVM100301-01
3 Mar 2010 18:17	4A304.D	W4VM100303-03	GEL	CCV/LCS	5ML	1	N/A	4	W	ACJ	N/A	O	UVM100215-08A
3 Mar 2010 18:44	4A305.D	W4VM100303-04	GEL	LCS	5G	1	N/A	5	S	ACJ	N/A	O	UVM100215-08A
3 Mar 2010 19:12	4A306.D	120256-----	GEL	BLANK	5G	1	N/A	6	S	ACJ	N/A	O	
3 Mar 2010 19:40	4A307.D	120256-----	GEL	BLANK	5ML	1	N/A	7	W	ACJ	N/A	O	
3 Mar 2010 20:08	4A308.D	247828002	LANL	960638	5ML	1	PH2	8	W	ACJ	N	O	
3 Mar 2010 20:36	4A309.D	247828005	LANL	960638	5ML	1	PH2	9	W	ACJ	N	O	
3 Mar 2010 21:04	4A310.D	247830001	LANL	960638	5ML	1	PH2	10	W	ACJ	N	O	
3 Mar 2010 21:32	4A311.D	247830002	LANL	960638	5ML	1	PH2	11	W	ACJ	N	O	
3 Mar 2010 22:00	4A312.D	247915008	LANL	960650	5G	1	N/A	12	S	ACJ	N/A	O	
3 Mar 2010 22:28	4A313.D	247915001	LANL	960650	5G	1	N/A	13	S	ACJ	N/A	O	
3 Mar 2010 22:56	4A314.D	247915002	LANL	960650	5G	1	N/A	14	S	ACJ	N/A	O	
3 Mar 2010 23:24	4A315.D	247915003	LANL	960650	5G	1	N/A	15	S	ACJ	N/A	O	
3 Mar 2010 23:52	4A316.D	247915004	LANL	960650	5G	1	N/A	16	S	ACJ	N/A	O	
4 Mar 2010 00:19	4A317.D	247915005	LANL	960650	5G	1	N/A	17	S	ACJ	N/A	O	
4 Mar 2010 00:47	4A318.D	247915006	LANL	960650	5G	1	N/A	18	S	ACJ	N/A	O	
4 Mar 2010 01:14	4A319.D	247915007	LANL	960650	5G	1	N/A	19	S	ACJ	N/A	O	
4 Mar 2010 01:41	4A320.D	248013001	LANL	960650	5G	1	N/A	20	S	ACJ	N/A	O	
4 Mar 2010 02:09	4A321.D	248013002	LANL	960650	5G	1	N/A	21	S	ACJ	N/A	O	
4 Mar 2010 02:37	4A322.D	248013003	LANL	960650	5G	1	N/A	22	S	ACJ	N/A	O	
4 Mar 2010 03:05	4A323.D	248013004	LANL	960650	5G	1	N/A	23	S	ACJ	N/A	O	
4 Mar 2010 03:33	4A324.D	1202060496	LANL	960638	5ML	1	PH2	24	W	ACJ	N	O	MS 247828002
4 Mar 2010 04:00	4A325.D	1202060497	LANL	960638	5ML	1	PH2	25	W	ACJ	N	O	MSD 247828002
4 Mar 2010 04:28	4A326.D	1202060518	LANL	960650	5G	1	N/A	26	S	ACJ	N/A	O	MS 247915001
4 Mar 2010 04:56	4A327.D	1202060519	LANL	960650	5G	1	N/A	27	S	ACJ	N/A	O	MSD 247915001

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2000

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3510C
Analytical Batch Number:	957046
Prep Batch Number:	957045

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
247828002	CAPA-10-13095
1202052064	Method Blank (MB)
1202052065	Laboratory Control Sample (LCS)
1202052066	247828002(CAPA-10-13095) Matrix Spike (MS)
1202052067	247828002(CAPA-10-13095) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

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

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms. 2,4-Toluene diisocyanate rapidly hydrolyzes in water (half-life less than 30 minutes). Therefore, recoveries of this compound from aqueous matrices should not be expected. In addition, in solid matrices, 2,4-Toluene diisocynate often reacts with alcohols and amines to produce urethane and ureas and consequently cannot usually coexist in a solution containing these materials. 2,4-Toluene diisocyanate is reported as an estimated value.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

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

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

Quality Control (QC) Information

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

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS failed recovery for Benzidine and Pyridine. The MS also displayed failing recoveries for those analytes. There was insufficient amount of sample to perform a re-extraction. The data were reported.

QC Sample Designation
Sample 247828002 (CAPA-10-13095) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
The MS failed recovery for Benzidine and Pyridine. The MSD was bias low, but within the acceptance limits, for the failing analytes. There was insufficient amount of sample to perform a re-extraction. The data were reported.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent differences (RPD) were not within the acceptance limits for Benzidine and Pyridine. There was insufficient amount of sample to perform a re-extraction. The data were reported.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

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

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

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

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 797189. It is located in the Miscellaneous Section of the data report.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD8.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)

Certification Statement

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

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: Dan Beecham **Date:** 3-23-10

Roadmap for LANL 10-2000 SVOA

This roadmap was analyzed by nat00999 on 03-04-2010, 11:21.
This roadmap was reviewed by dan01134 on 03-08-2010, 14:23.
This roadmap was packaged by CHA01131 on 03-19-2010, 19:41.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD8.i/s022510.b/s8b2520.d	247828002	25-FEB-2010	18:28	10-2000.sub	CAPA-10-13095	1	957046	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD8.i/s022510.b/s8b2509-1.d	1202052064	mb	25-FEB-2010	13:08	10-2000.sub	SBLK01	1	957046	
☐	N	/chem/MSD8.i/s022510.b/s8b2510-1.d	1202052065	lcs	25-FEB-2010	13:37	10-2000.sub	SBLK01LCS	1	957046	failed <5%
☐	N	/chem/MSD8.i/s022510.b/s8b2521.d	1202052066	ms	25-FEB-2010	18:57	10-2000.sub	CAPA-10-13095MS	1	957046	
☐	N	/chem/MSD8.i/s022510.b/s8b2522.d	1202052067	msd	25-FEB-2010	19:26	10-2000.sub	CAPA-10-13095MSD	1	957046	failed spike - MS bias low

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000	**Date Collected:**	02/21/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	247828002	**Date Received:**	02/23/2010 08:50		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-13095	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	957046	**Inst:**	MSD8.I	**Dilution:**	1
Run Date:	02/25/2010 18:28	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/24/2010 20:21	**Aliquot:**	860 mL	**Final Volume:**	1 mL
Data File:	s8b2520.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	11.6	ug/L	2.33	11.6
108-95-2	Phenol	U	11.6	ug/L	1.16	11.6
95-57-8	2-Chlorophenol	U	11.6	ug/L	2.33	11.6
106-46-7	1,4-Dichlorobenzene	U	11.6	ug/L	2.33	11.6
621-64-7	N-Nitrosodi--n-propylamine	U	11.6	ug/L	2.33	11.6
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol	U	11.6	ug/L	2.33	11.6
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene	U	1.16	ug/L	0.360	1.16
121-14-2	2,4-Dinitrotoluene	U	11.6	ug/L	2.33	11.6
100-02-7	4-Nitrophenol	U	11.6	ug/L	2.33	11.6
87-86-5	Pentachlorophenol	U	11.6	ug/L	2.33	11.6
129-00-0	Pyrene	U	1.16	ug/L	0.349	1.16
110-86-1	Pyridine	U	11.6	ug/L	3.49	11.6
62-53-3	Aniline	U	11.6	ug/L	2.91	11.6
111-44-4	bis(2-Chloroethyl) ether	U	11.6	ug/L	2.33	11.6
541-73-1	1,3-Dichlorobenzene	U	11.6	ug/L	2.33	11.6
100-51-6	Benzyl alcohol	U	11.6	ug/L	2.33	11.6
95-50-1	1,2-Dichlorobenzene	U	11.6	ug/L	2.33	11.6
108-60-1	bis(2-Chloroisopropyl)ether	U	11.6	ug/L	2.33	11.6
95-48-7	o-Cresol	U	11.6	ug/L	2.33	11.6
65794-96-9	m,p-Cresols	U	11.6	ug/L	3.49	11.6
67-72-1	Hexachloroethane	U	11.6	ug/L	2.33	11.6
98-95-3	Nitrobenzene	U	11.6	ug/L	3.49	11.6
78-59-1	Isophorone	U	11.6	ug/L	3.49	11.6
88-75-5	2-Nitrophenol	U	11.6	ug/L	2.33	11.6
105-67-9	2,4-Dimethylphenol	U	11.6	ug/L	2.33	11.6
111-91-1	bis(2-Chloroethoxy)methane	U	11.6	ug/L	3.49	11.6
120-83-2	2,4-Dichlorophenol	U	11.6	ug/L	2.33	11.6
65-85-0	Benzoic acid	U	23.3	ug/L	6.98	23.3
91-20-3	Naphthalene	U	1.16	ug/L	0.349	1.16
106-47-8	4-Chloroaniline	U	11.6	ug/L	2.33	11.6
87-68-3	Hexachlorobutadiene	U	11.6	ug/L	2.33	11.6
91-57-6	2-Methylnaphthalene	U	1.16	ug/L	0.349	1.16
90-12-0	1-Methylnaphthalene	U	1.16	ug/L	0.349	1.16
77-47-4	Hexachlorocyclopentadiene	U	11.6	ug/L	3.49	11.6
88-06-2	2,4,6-Trichlorophenol	U	11.6	ug/L	2.33	11.6
95-95-4	2,4,5-Trichlorophenol	U	11.6	ug/L	2.33	11.6
91-58-7	2-Chloronaphthalene	U	1.16	ug/L	0.349	1.16

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000	**Date Collected:**	02/21/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	247828002	**Date Received:**	02/23/2010 08:50		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-13095	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	957046	**Inst:**	MSD8.I	**Dilution:**	1
Run Date:	02/25/2010 18:28	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/24/2010 20:21	**Aliquot:**	860 mL	**Final Volume:**	1 mL
Data File:	s8b2520.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	11.6	ug/L	2.33	11.6
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	11.6	ug/L	2.33	11.6
131-11-3	Dimethylphthalate	U	11.6	ug/L	2.33	11.6
606-20-2	2,6-Dinitrotoluene	U	11.6	ug/L	2.33	11.6
208-96-8	Acenaphthylene	U	1.16	ug/L	0.233	1.16
51-28-5	2,4-Dinitrophenol	U	23.3	ug/L	5.81	23.3
132-64-9	Dibenzofuran	U	11.6	ug/L	2.33	11.6
84-66-2	Diethylphthalate	U	11.6	ug/L	2.33	11.6
86-73-7	Fluorene	U	1.16	ug/L	0.233	1.16
7005-72-3	4-Chlorophenylphenylether	U	11.6	ug/L	2.33	11.6
534-52-1	2-Methyl-4,6-dinitrophenol	U	11.6	ug/L	3.49	11.6
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	11.6	ug/L	3.49	11.6
122-39-4	Diphenylamine	U	11.6	ug/L	3.49	11.6
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	11.6	ug/L	2.33	11.6
101-55-3	4-Bromophenylphenylether	U	11.6	ug/L	2.33	11.6
118-74-1	Hexachlorobenzene	U	11.6	ug/L	2.33	11.6
1912-24-9	Atrazine	U	11.6	ug/L	3.49	11.6
85-01-8	Phenanthrene	U	1.16	ug/L	0.233	1.16
120-12-7	Anthracene	U	1.16	ug/L	0.233	1.16
84-74-2	Di-n-butylphthalate	U	11.6	ug/L	2.33	11.6
206-44-0	Fluoranthene	U	1.16	ug/L	0.233	1.16
92-87-5	Benzidine	U	11.6	ug/L	3.49	11.6
85-68-7	Butylbenzylphthalate	U	11.6	ug/L	2.33	11.6
56-55-3	Benzo(a)anthracene	U	1.16	ug/L	0.233	1.16
91-94-1	3,3'-Dichlorobenzidine	U	11.6	ug/L	2.33	11.6
218-01-9	Chrysene	U	1.16	ug/L	0.233	1.16
117-81-7	bis(2-Ethylhexyl)phthalate	U	11.6	ug/L	2.33	11.6
117-84-0	Di-n-octylphthalate	U	11.6	ug/L	3.49	11.6
205-99-2	Benzo(b)fluoranthene	U	1.16	ug/L	0.233	1.16
207-08-9	Benzo(k)fluoranthene	U	1.16	ug/L	0.233	1.16
50-32-8	Benzo(a)pyrene	U	1.16	ug/L	0.233	1.16
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.16	ug/L	0.233	1.16
53-70-3	Dibenzo(a,h)anthracene	U	1.16	ug/L	0.233	1.16
191-24-2	Benzo(ghi)perylene	U	1.16	ug/L	0.233	1.16
123-91-1	1,4-Dioxane	U	11.6	ug/L	2.33	11.6
55-18-5	N-Nitrosodiethylamine	U	11.6	ug/L	2.33	11.6

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**	**Date Collected:**	**02/21/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247828002**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13095**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**957046**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 18:28**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/24/2010 20:21**	**Aliquot:**	**860 mL**	**Final Volume:**	**1 mL**
Data File:	**s8b2520.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	11.6	ug/L	2.33	11.6
924-16-3	N-Nitrosodi-n-butylamine	U	11.6	ug/L	3.49	11.6
95-94-3	1,2,4,5-Tetrachlorobenzene	U	11.6	ug/L	3.49	11.6
608-93-5	Pentachlorobenzene	U	11.6	ug/L	3.49	11.6
58-90-2	2,3,4,6-Tetrachlorophenol	U	11.6	ug/L	2.33	11.6
88-85-7	Dinoseb	U	11.6	ug/L	2.33	11.6
120-82-1	1,2,4-Trichlorobenzene	U	11.6	ug/L	2.33	11.6

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	77.7	116	ug/L	66.8	(39%-120%)
2-Fluorobiphenyl	31.8	58.1	ug/L	54.8	(38%-108%)
2-Fluorophenol	43.6	116	ug/L	37.5	(19%-98%)
Nitrobenzene-d5	36.6	58.1	ug/L	62.9	(31%-122%)
Phenol-d5	28.8	116	ug/L	24.7	(15%-83%)
p-Terphenyl-d14	53.7	58.1	ug/L	92.4	(40%-138%)

Tentatively Identified Compound Summary

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

QC Summary

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2000
Client ID: LCS for batch 957045
Lab Sample ID: 1202052065
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 02/25/2010 13:37
Dilution: 1
Prep Batch ID: 957045
Batch ID: 957046

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	50.0	0.0	22.8	46	29-86
108-95-2	LCS	Phenol	50.0	0.0	14.6	29	15-50
95-57-8	LCS	2-Chlorophenol	50.0	0.0	32.8	66	43-103
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	25.2	50	35-90
621-64-7	LCS	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	50.0	0.0	37.8	76	51-111
59-50-7	LCS	Parachlorometa cresol *4-Chloro-3-methylphenol*	50.0	0.0	36.7	73	57-105
83-32-9	LCS	Acenaphthene	50.0	0.0	27.8	56	49-99
121-14-2	LCS	2,4-Dinitrotoluene	50.0	0.0	39.6	79	49-117
100-02-7	LCS	4-Nitrophenol	50.0	0.0	15.8	32	18-60
87-86-5	LCS	Pentachlorophenol	50.0	0.0	44.1	88	32-125
129-00-0	LCS	Pyrene	50.0	0.0	33.5	67	53-114
110-86-1	LCS	Pyridine	50.0	0.0	7.82	16 *	18-108
62-53-3	LCS	Aniline	50.0	0.0	32.2	64	48-120
111-44-4	LCS	bis(2-Chloroethyl) ether	50.0	0.0	32.0	64	49-99
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	25.4	51	21-88
100-51-6	LCS	Benzyl alcohol	50.0	0.0	28.5	57	33-97
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	26.1	52	24-93
108-60-1	LCS	bis(2-Chloroisopropyl)ether	50.0	0.0	35.9	72	36-117
95-48-7	LCS	o-Cresol	50.0	0.0	28.8	58	32-100
65794-96-9	LCS	m,p-Cresols	50.0	0.0	30.3	61	23-110
67-72-1	LCS	Hexachloroethane	50.0	0.0	24.5	49	10-91
98-95-3	LCS	Nitrobenzene	50.0	0.0	34.3	69	47-112

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2000
Client ID: LCS for batch 957045
Lab Sample ID: 1202052065
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 02/25/2010 13:37
Dilution: 1
Prep Batch ID: 957045
Batch ID: 957046

CAS No	Parmname		Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	50.0	0.0	36.8	74	55-109
88-75-5	LCS	2-Nitrophenol	50.0	0.0	35.7	71	51-108
105-67-9	LCS	2,4-Dimethylphenol	50.0	0.0	32.6	65	37-106
111-91-1	LCS	bis(2-Chloroethoxy)methane	50.0	0.0	35.8	72	51-106
120-83-2	LCS	2,4-Dichlorophenol	50.0	0.0	35.9	72	53-102
65-85-0	LCS	Benzoic acid	100	0.0	35.5	36	10-130
91-20-3	LCS	Naphthalene	50.0	0.0	29.5	59	39-90
106-47-8	LCS	4-Chloroaniline	50.0	0.0	44.4	89	54-123
87-68-3	LCS	Hexachlorobutadiene	50.0	0.0	23.8	48	16-93
91-57-6	LCS	2-Methylnaphthalene	50.0	0.0	31.1	62	44-98
90-12-0	LCS	1-Methylnaphthalene	50.0	0.0	30.5	61	29-104
77-47-4	LCS	Hexachlorocyclopentadiene	50.0	0.0	19.3	39	10-112
88-06-2	LCS	2,4,6-Trichlorophenol	50.0	0.0	36.3	73	47-115
95-95-4	LCS	2,4,5-Trichlorophenol	50.0	0.0	36.6	73	52-113
91-58-7	LCS	2-Chloronaphthalene	50.0	0.0	29.9	60	41-104
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	50.0	0.0	39.4	79	54-118
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	50.0	0.0	42.7	85	45-143
131-11-3	LCS	Dimethylphthalate	50.0	0.0	40.2	80	62-121
606-20-2	LCS	2,6-Dinitrotoluene	50.0	0.0	38.1	76	52-115
208-96-8	LCS	Acenaphthylene	50.0	0.0	30.0	60	46-111
51-28-5	LCS	2,4-Dinitrophenol	50.0	0.0	41.5	83	30-135
132-64-9	LCS	Dibenzofuran	50.0	0.0	33.3	67	59-106

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2000
Client ID: LCS for batch 957045
Lab Sample ID: 1202052065
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 02/25/2010 13:37
Dilution: 1
Prep Batch ID: 957045
Batch ID: 957046

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
84-66-2	LCS	Diethylphthalate	50.0	0.0	39.4	79	63-124
86-73-7	LCS	Fluorene	50.0	0.0	31.7	63	49-108
7005-72-3	LCS	4-Chlorophenylphenylether	50.0	0.0	33.1	66	56-107
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	50.0	0.0	44.4	89	45-126
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	50.0	0.0	39.6	79	43-146
122-39-4	LCS	Diphenylamine	50.0	0.0	42.5	85	60-111
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	50.0	0.0	40.2	80	47-122
101-55-3	LCS	4-Bromophenylphenylether	50.0	0.0	36.5	73	53-113
118-74-1	LCS	Hexachlorobenzene	50.0	0.0	35.6	71	53-111
1912-24-9	LCS	Atrazine	50.0	0.0	49.0	98	42-133
85-01-8	LCS	Phenanthrene	50.0	0.0	35.8	72	55-105
120-12-7	LCS	Anthracene	50.0	0.0	34.5	69	54-111
84-74-2	LCS	Di-n-butylphthalate	50.0	0.0	43.7	87	56-130
206-44-0	LCS	Fluoranthene	50.0	0.0	38.2	76	58-115
92-87-5	LCS	Benzidine	100	0.0	8.69	9 *	10-151
85-68-7	LCS	Butylbenzylphthalate	50.0	0.0	42.5	85	54-139
56-55-3	LCS	Benzo(a)anthracene	50.0	0.0	34.8	70	58-109
91-94-1	LCS	3,3'-Dichlorobenzidine	50.0	0.0	27.7	55	44-110
218-01-9	LCS	Chrysene	50.0	0.0	36.5	73	58-112
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	50.0	0.0	43.7	87	54-138
117-84-0	LCS	Di-n-octylphthalate	50.0	0.0	40.0	80	46-145
205-99-2	LCS	Benzo(b)fluoranthene	50.0	0.0	34.4	69	55-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2000
Client ID: LCS for batch 957045
Lab Sample ID: 1202052065
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 02/25/2010 13:37
Dilution: 1
Prep Batch ID: 957045
Batch ID: 957046

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
207-08-9	LCS	Benzo(k)fluoranthene	50.0	0.0	33.8	68	57-119
50-32-8	LCS	Benzo(a)pyrene	50.0	0.0	35.9	72	60-118
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	50.0	0.0	34.9	70	52-124
53-70-3	LCS	Dibenzo(a,h)anthracene	50.0	0.0	42.0	84	53-125
191-24-2	LCS	Benzo(ghi)perylene	50.0	0.0	40.0	80	49-125
123-91-1	LCS	1,4-Dioxane	50.0	0.0	28.1	56	27-93
930-55-2	LCS	N-Nitrosopyrrolidine	50.0	0.0	36.3	73	46-101
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	26.0	52	23-94

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2000
Client ID: CAPA-10-13095MS
Lab Sample ID: 1202052066
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 02/25/2010 18:57
Dilution: 1
Prep Batch ID: 957045
Batch ID: 957046

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	100	0.00	U	59.0	59	28-111
108-95-2	MS	Phenol	100	0.00	U	46.0	46	20-71
95-57-8	MS	2-Chlorophenol	100	0.00	U	68.7	69	47-99
106-46-7	MS	1,4-Dichlorobenzene	100	0.00	U	52.1	52	40-83
621-64-7	MS	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	100	0.00	U	78.6	79	35-125
59-50-7	MS	Parachlorometa cresol *4-Chloro-3-methylphenol*	100	0.00	U	77.1	77	52-112
83-32-9	MS	Acenaphthene	100	0.00	U	56.7	57	44-102
121-14-2	MS	2,4-Dinitrotoluene	100	0.00	U	82.1	82	52-111
100-02-7	MS	4-Nitrophenol	100	0.00	U	45.6	46	27-91
87-86-5	MS	Pentachlorophenol	100	0.00	U	80.8	81	20-140
129-00-0	MS	Pyrene	100	0.00	U	68.5	68	28-131
110-86-1	MS	Pyridine	100	0.00	U	16.6	17 *	22-113
62-53-3	MS	Aniline	100	0.00	U	64.2	64	45-126
111-44-4	MS	bis(2-Chloroethyl) ether	100	0.00	U	66.1	66	32-109
541-73-1	MS	1,3-Dichlorobenzene	100	0.00	U	52.3	52	37-83
100-51-6	MS	Benzyl alcohol	100	0.00	U	53.8	54	37-111
95-50-1	MS	1,2-Dichlorobenzene	100	0.00	U	53.9	54	35-88
108-60-1	MS	bis(2-Chloroisopropyl)ether	100	0.00	U	73.3	73	25-122
95-48-7	MS	o-Cresol	100	0.00	U	64.6	65	29-107
65794-96-9	MS	m,p-Cresols	100	0.00	U	73.7	74	22-116
67-72-1	MS	Hexachloroethane	100	0.00	U	50.0	50	4-98
98-95-3	MS	Nitrobenzene	100	0.00	U	71.2	71	21-138

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2000
Client ID: CAPA-10-13095MS
Lab Sample ID: 1202052066
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 02/25/2010 18:57
Dilution: 1
Prep Batch ID: 957045
Batch ID: 957046

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	100	0.00	U	77.1	77	24-136
88-75-5	MS	2-Nitrophenol	100	0.00	U	73.4	73	47-110
105-67-9	MS	2,4-Dimethylphenol	100	0.00	U	67.8	68	43-103
111-91-1	MS	bis(2-Chloroethoxy)methane	100	0.00	U	73.8	74	37-116
120-83-2	MS	2,4-Dichlorophenol	100	0.00	U	75.5	76	48-106
65-85-0	MS	Benzoic acid	200	0.00	U	99.7	50	30-100
91-20-3	MS	Naphthalene	100	0.00	U	61.0	61	32-94
106-47-8	MS	4-Chloroaniline	100	0.00	U	90.5	91	46-123
87-68-3	MS	Hexachlorobutadiene	100	0.00	U	50.1	50	18-90
91-57-6	MS	2-Methylnaphthalene	100	0.00	U	64.5	64	40-103
90-12-0	MS	1-Methylnaphthalene	100	0.00	U	63.1	63	16-113
77-47-4	MS	Hexachlorocyclopentadiene	100	0.00	U	42.2	42	10-101
88-06-2	MS	2,4,6-Trichlorophenol	100	0.00	U	70.6	71	50-111
95-95-4	MS	2,4,5-Trichlorophenol	100	0.00	U	76.3	76	52-115
91-58-7	MS	2-Chloronaphthalene	100	0.00	U	61.5	61	44-97
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	100	0.00	U	82.3	82	31-133
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	100	0.00	U	88.5	89	25-150
131-11-3	MS	Dimethylphthalate	100	0.00	U	82.8	83	49-128
606-20-2	MS	2,6-Dinitrotoluene	100	0.00	U	79.2	79	55-110
208-96-8	MS	Acenaphthylene	100	0.00	U	62.2	62	22-127
51-28-5	MS	2,4-Dinitrophenol	100	0.00	U	73.4	73	33-135
132-64-9	MS	Dibenzofuran	100	0.00	U	68.7	69	39-119

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2000
Client ID: CAPA-10-13095MS
Lab Sample ID: 1202052066
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 02/25/2010 18:57
Dilution: 1
Prep Batch ID: 957045
Batch ID: 957046

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
84-66-2	MS	Diethylphthalate	100	0.00	U	81.3	81	50-130
86-73-7	MS	Fluorene	100	0.00	U	65.6	66	37-118
7005-72-3	MS	4-Chlorophenylphenylether	100	0.00	U	69.8	70	50-111
534-52-1	MS	2-Methyl-4,6-dinitrophenol	100	0.00	U	82.4	82	41-126
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	100	0.00	U	86.4	86	23-156
122-39-4	MS	Diphenylamine	100	0.00	U	88.6	89	26-130
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	100	0.00	U	82.9	83	48-117
101-55-3	MS	4-Bromophenylphenylether	100	0.00	U	75.2	75	48-114
118-74-1	MS	Hexachlorobenzene	100	0.00	U	73.4	73	25-134
1912-24-9	MS	Atrazine	100	0.00	U	100	100	25-136
85-01-8	MS	Phenanthrene	100	0.00	U	74.3	74	33-120
120-12-7	MS	Anthracene	100	0.00	U	72.6	73	27-131
84-74-2	MS	Di-n-butylphthalate	100	0.00	U	89.1	89	38-140
206-44-0	MS	Fluoranthene	100	0.00	U	79.0	79	46-121
92-87-5	MS	Benzidine	200	0.00	U	19.4	10 *	13-138
85-68-7	MS	Butylbenzylphthalate	100	0.00	U	86.8	87	35-149
56-55-3	MS	Benzo(a)anthracene	100	0.00	U	73.1	73	33-127
91-94-1	MS	3,3'-Dichlorobenzidine	100	0.00	U	65.8	66	40-111
218-01-9	MS	Chrysene	100	0.00	U	77.1	77	36-125
117-81-7	MS	bis(2-Ethylhexyl)phthalate	100	0.00	U	89.6	90	35-148
117-84-0	MS	Di-n-octylphthalate	100	0.00	U	84.0	84	27-159
205-99-2	MS	Benzo(b)fluoranthene	100	0.00	U	72.0	72	32-134

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2000
Client ID: CAPA-10-13095MS
Lab Sample ID: 1202052066
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 02/25/2010 18:57
Dilution: 1
Prep Batch ID: 957045
Batch ID: 957046

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
207-08-9	MS	Benzo(k)fluoranthene	100	0.00	U	73.8	74	33-136
50-32-8	MS	Benzo(a)pyrene	100	0.00	U	76.5	77	35-134
193-39-5	MS	Indeno(1,2,3-cd)pyrene	100	0.00	U	78.5	78	28-138
53-70-3	MS	Dibenzo(a,h)anthracene	100	0.00	U	83.1	83	28-140
191-24-2	MS	Benzo(ghi)perylene	100	0.00	U	72.5	73	24-138
123-91-1	MS	1,4-Dioxane	100	0.00	U	70.2	70	44-102
930-55-2	MS	N-Nitrosopyrrolidine	100	0.00	U	76.5	77	29-117
120-82-1	MS	1,2,4-Trichlorobenzene	100	0.00	U	54.6	55	34-88

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2000
Client ID: CAPA-10-13095MSD
Lab Sample ID: 1202052067
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 02/25/2010 19:26
Dilution: 1
Prep Batch ID: 957045
Batch ID: 957046

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD N-Methyl-N-nitrosomethylam	100	0.00	U	57.2	57	28-111	3	0-25
108-95-2	MSD Phenol	100	0.00	U	45.8	46	20-71	1	0-25
95-57-8	MSD 2-Chlorophenol	100	0.00	U	66.3	66	47-99	4	0-25
106-46-7	MSD 1,4-Dichlorobenzene	100	0.00	U	49.1	49	40-83	6	0-25
621-64-7	MSD N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	100	0.00	U	73.7	74	35-125	6	0-25
59-50-7	MSD Parachlorometa cresol *4-Chloro-3-methylphenol*	100	0.00	U	74.2	74	52-112	4	0-25
83-32-9	MSD Acenaphthene	100	0.00	U	54.1	54	44-102	5	0-25
121-14-2	MSD 2,4-Dinitrotoluene	100	0.00	U	79.5	80	52-111	3	0-25
100-02-7	MSD 4-Nitrophenol	100	0.00	U	44.5	45	27-91	2	0-25
87-86-5	MSD Pentachlorophenol	100	0.00	U	77.7	78	20-140	4	0-25
129-00-0	MSD Pyrene	100	0.00	U	68.6	69	28-131	0	0-25
110-86-1	MSD Pyridine	100	0.00	U	26.1	26	22-113	44 *	0-25
62-53-3	MSD Aniline	100	0.00	U	67.2	67	45-126	5	0-25
111-44-4	MSD bis(2-Chloroethyl) ether	100	0.00	U	62.2	62	32-109	6	0-25
541-73-1	MSD 1,3-Dichlorobenzene	100	0.00	U	49.6	50	37-83	5	0-25
100-51-6	MSD Benzyl alcohol	100	0.00	U	54.3	54	37-111	1	0-25
95-50-1	MSD 1,2-Dichlorobenzene	100	0.00	U	50.3	50	35-88	7	0-25
108-60-1	MSD bis(2-Chloroisopropyl)ether	100	0.00	U	70.4	70	25-122	4	0-25
95-48-7	MSD o-Cresol	100	0.00	U	63.4	63	29-107	2	0-25
65794-96-9	MSD m,p-Cresols	100	0.00	U	72.5	73	22-116	2	0-25
67-72-1	MSD Hexachloroethane	100	0.00	U	47.3	47	4-98	6	0-25
98-95-3	MSD Nitrobenzene	100	0.00	U	67.0	67	21-138	6	0-25

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2000
Client ID: CAPA-10-13095MSD
Lab Sample ID: 1202052067
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 02/25/2010 19:26
Dilution: 1
Prep Batch ID: 957045
Batch ID: 957046

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	100	0.00	U	75.0	75	24-136	3	0-25
88-75-5	MSD 2-Nitrophenol	100	0.00	U	70.7	71	47-110	4	0-25
105-67-9	MSD 2,4-Dimethylphenol	100	0.00	U	63.8	64	43-103	6	0-25
111-91-1	MSD bis(2-Chloroethoxy)methane	100	0.00	U	71.5	72	37-116	3	0-25
120-83-2	MSD 2,4-Dichlorophenol	100	0.00	U	72.6	73	48-106	4	0-25
65-85-0	MSD Benzoic acid	200	0.00	U	113	56	30-100	12	0-25
91-20-3	MSD Naphthalene	100	0.00	U	57.2	57	32-94	6	0-25
106-47-8	MSD 4-Chloroaniline	100	0.00	U	90.8	91	46-123	0	0-25
87-68-3	MSD Hexachlorobutadiene	100	0.00	U	47.1	47	18-90	6	0-25
91-57-6	MSD 2-Methylnaphthalene	100	0.00	U	60.5	60	40-103	6	0-25
90-12-0	MSD 1-Methylnaphthalene	100	0.00	U	60.0	60	16-113	5	0-25
77-47-4	MSD Hexachlorocyclopentadiene	100	0.00	U	38.1	38	10-101	10	0-25
88-06-2	MSD 2,4,6-Trichlorophenol	100	0.00	U	68.8	69	50-111	3	0-25
95-95-4	MSD 2,4,5-Trichlorophenol	100	0.00	U	73.3	73	52-115	4	0-25
91-58-7	MSD 2-Chloronaphthalene	100	0.00	U	58.0	58	44-97	6	0-25
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	100	0.00	U	79.9	80	31-133	3	0-25
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	100	0.00	U	87.4	87	25-150	1	0-25
131-11-3	MSD Dimethylphthalate	100	0.00	U	81.6	82	49-128	2	0-25
606-20-2	MSD 2,6-Dinitrotoluene	100	0.00	U	77.4	77	55-110	2	0-25
208-96-8	MSD Acenaphthylene	100	0.00	U	58.7	59	22-127	6	0-25
51-28-5	MSD 2,4-Dinitrophenol	100	0.00	U	71.5	71	33-135	3	0-25
132-64-9	MSD Dibenzofuran	100	0.00	U	65.0	65	39-119	6	0-25

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2000
Client ID: CAPA-10-13095MSD
Lab Sample ID: 1202052067
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 02/25/2010 19:26
Dilution: 1
Prep Batch ID: 957045
Batch ID: 957046

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
84-66-2	MSD Diethylphthalate	100	0.00	U	78.7	79	50-130	3	0-25
86-73-7	MSD Fluorene	100	0.00	U	63.2	63	37-118	4	0-25
7005-72-3	MSD 4-Chlorophenylphenylether	100	0.00	U	66.9	67	50-111	4	0-25
534-52-1	MSD 2-Methyl-4,6-dinitrophenol	100	0.00	U	81.0	81	41-126	2	0-25
100-01-6	MSD 4-Nitroaniline *p-Nitroaniline*	100	0.00	U	85.3	85	23-156	1	0-25
122-39-4	MSD Diphenylamine	100	0.00	U	86.2	86	26-130	3	0-25
122-66-7	MSD Azobenzene *1,2-Diphenylhydrazine*	100	0.00	U	79.7	80	48-117	4	0-25
101-55-3	MSD 4-Bromophenylphenylether	100	0.00	U	73.3	73	48-114	3	0-25
118-74-1	MSD Hexachlorobenzene	100	0.00	U	71.2	71	25-134	3	0-25
1912-24-9	MSD Atrazine	100	0.00	U	98.3	98	25-136	2	0-25
85-01-8	MSD Phenanthrene	100	0.00	U	71.8	72	33-120	3	0-25
120-12-7	MSD Anthracene	100	0.00	U	69.4	69	27-131	4	0-25
84-74-2	MSD Di-n-butylphthalate	100	0.00	U	87.9	88	38-140	1	0-25
206-44-0	MSD Fluoranthene	100	0.00	U	75.4	75	46-121	5	0-25
92-87-5	MSD Benzidine	200	0.00	U	31.2	16	13-138	47 *	0-25
85-68-7	MSD Butylbenzylphthalate	100	0.00	U	88.0	88	35-149	1	0-25
56-55-3	MSD Benzo(a)anthracene	100	0.00	U	70.8	71	33-127	3	0-25
91-94-1	MSD 3,3'-Dichlorobenzidine	100	0.00	U	62.1	62	40-111	6	0-25
218-01-9	MSD Chrysene	100	0.00	U	73.5	74	36-125	5	0-25
117-81-7	MSD bis(2-Ethylhexyl)phthalate	100	0.00	U	90.6	91	35-148	1	0-25
117-84-0	MSD Di-n-octylphthalate	100	0.00	U	89.0	89	27-159	6	0-25
205-99-2	MSD Benzo(b)fluoranthene	100	0.00	U	72.3	72	32-134	0	0-25

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2000
Client ID: CAPA-10-13095MSD
Lab Sample ID: 1202052067
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 02/25/2010 19:26
Dilution: 1
Prep Batch ID: 957045
Batch ID: 957046

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
207-08-9	MSD Benzo(k)fluoranthene	100	0.00	U	73.3	73	33-136	1	0-25
50-32-8	MSD Benzo(a)pyrene	100	0.00	U	74.7	75	35-134	2	0-25
193-39-5	MSD Indeno(1,2,3-cd)pyrene	100	0.00	U	69.5	69	28-138	12	0-25
53-70-3	MSD Dibenzo(a,h)anthracene	100	0.00	U	72.5	72	28-140	14	0-25
191-24-2	MSD Benzo(ghi)perylene	100	0.00	U	63.8	64	24-138	13	0-25
123-91-1	MSD 1,4-Dioxane	100	0.00	U	68.9	69	44-102	2	0-25
930-55-2	MSD N-Nitrosopyrrolidine	100	0.00	U	75.8	76	29-117	1	0-25
120-82-1	MSD 1,2,4-Trichlorobenzene	100	0.00	U	50.7	51	34-88	7	0-25

Method Blank Summary

SDG Number:	10-2000	Client:	LANL010	Matrix:	GROUND WATER
Client ID:	MB for batch 957045	Instrument ID:	MSD8.I	Data File:	s8b2509-1.d
Lab Sample ID:	1202052064	Prep Date:	02/24/2010 20:21	Analyzed:	02/25/10 13:08
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 957045	1202052065	s8b2510-1.d	02/25/10	1337
02 CAPA-10-13095	247828002	s8b2520.d	02/25/10	1828
03 CAPA-10-13095MS	1202052066	s8b2521.d	02/25/10	1857
04 CAPA-10-13095MSD	1202052067	s8b2522.d	02/25/10	1926

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2000

Instrument ID: MSD8.I **Injection Date/Time:** 20-FEB-10 12:04

Column Description: J & W DB-5MS **Lab File ID** /chem/MSD8.i/s022010.b/s8b2001.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	41.9
68	Less than 2% of mass 69	1.9
69	Mass 69 Relative Abundance	40.3
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	49.9
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	24.3
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	76.5
442	Greater than 40% of mass 198	61.7
443	17 - 23% of mass 442	19.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGAICAL	WBN100215-08	s8b2003.d	20-FEB-10 12:55
MEGAICAL	WBN100215-07	s8b2004.d	20-FEB-10 13:30
MEGAICAL	WBN100215-06	s8b2005.d	20-FEB-10 14:05
MEGAICAL	WBN100215-05.1	s8b2006.d	20-FEB-10 14:40
MEGAICAL	WBN100215-04	s8b2007.d	20-FEB-10 15:14
MEGAICAL	WBN100215-03	s8b2008.d	20-FEB-10 15:50
MEGAICAL	WBN100215-02	s8b2009.d	20-FEB-10 16:25
MEGAICAL	WBN100215-01	s8b2010.d	20-FEB-10 16:59
MEGAICV	WBN100215-05.1	s8b2012.d	20-FEB-10 18:09

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2000

Instrument ID: MSD8.I **Injection Date/Time:** 21-FEB-10 08:35

Column Description: J & W DB-5MS **Lab File ID** /chem/MSD8.i/s022010.b/s8b2013.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	40.5
68	Less than 2% of mass 69	1.8
69	Mass 69 Relative Abundance	38.9
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	48.8
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	25.3
365	Greater than 1% of mass 198	2.8
441	Present, but less than mass 443	76.6
442	Greater than 40% of mass 198	61.7
443	17 - 23% of mass 442	19.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
APICAL	WBN100218-01	s8b2015.d	21-FEB-10 09:21
APICAL	WBN100218-02	s8b2016.d	21-FEB-10 09:52
APICAL	WBN100218-03.1	s8b2017.d	21-FEB-10 10:23
APICAL	WBN100218-04	s8b2018.d	21-FEB-10 10:54
APICAL	WBN100218-05	s8b2019.d	21-FEB-10 11:26
APICAL	WBN100218-06	s8b2020.d	21-FEB-10 11:59
APICAL	WBN100218-07	s8b2021.d	21-FEB-10 12:30
APICV	WBN100218-08.1	s8b2035.d	21-FEB-10 19:53

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2000

Instrument ID: MSD8.I **Injection Date/Time:** 25-FEB-10 10:49

Column Description: J & W DB-5MS **Lab File ID** /chem/MSD8.i/s022510.b/s8b2504.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	40.5
68	Less than 2% of mass 69	0.4
69	Mass 69 Relative Abundance	38.6
70	Less than 2% of mass 69	0.4
127	40 - 60% of mass 198	49.7
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	24.9
365	Greater than 1% of mass 198	2.8
441	Present, but less than mass 443	82.3
442	Greater than 40% of mass 198	53.1
443	17 - 23% of mass 442	18.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100215-05.3	s8b2506.d	25-FEB-10 11:38
AP12CVS	WBN100218-03.2	s8b2507.d	25-FEB-10 12:10
SBLK01	1202052064	s8b2509-1.d	25-FEB-10 13:08
SBLK02LCS	1202052065	s8b2510-1.d	25-FEB-10 13:37
CAPA-10-13095	247828002	s8b2520.d	25-FEB-10 18:28
CAPA-10-13095MS	1202052066	s8b2521.d	25-FEB-10 18:57
CAPA-10-13095MSD	1202052067	s8b2522.d	25-FEB-10 19:26

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2000

Instrument: MSD8.I

STD Analysis Time: 25-FEB-10 11:38

GC Column: J&W DB-5MS

Data File: s8b2506.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	301999		4.52	1218382		5.78	742477		7.63	1264700		9.24	1180910		12.2	883868		14.3
Upper Limit	603998		5.02	2436764		6.28	1484954		8.13	2529400		9.74	2361820		12.7	1767736		14.8
Lower Limit	151000		4.02	609191		5.28	371239		7.13	632350		8.74	590455		11.7	441934		13.8
Sample ID																		
K01	336696		4.51	1281128		5.77	781934		7.63	1326513		9.23	1034019		12.2	770916		14.3
K01LCS	346769		4.52	1377662		5.78	842190		7.63	1465582		9.24	1399755		12.2	989546		14.3
PA-10-13095	403028		4.51	1583766		5.77	973823		7.63	1699125		9.24	1400215		12.2	1050223		14.3
PA-10-13095MS	348987		4.52	1377557		5.78	858924		7.63	1518624		9.24	1487188		12.2	1075869		14.3
PA-10-13095MSD	368953		4.52	1440231		5.78	884888		7.63	1542248		9.24	1424741		12.2	938602		14.3

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000	**Date Collected:**	02/21/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	247828002	**Date Received:**	02/23/2010 08:50		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-13095	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	957046	**Inst:**	MSD8.I	**Dilution:**	1
Run Date:	02/25/2010 18:28	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/24/2010 20:21	**Aliquot:**	860 mL	**Final Volume:**	1 mL
Data File:	s8b2520.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	11.6	ug/L	2.33	11.6
108-95-2	Phenol	U	11.6	ug/L	1.16	11.6
95-57-8	2-Chlorophenol	U	11.6	ug/L	2.33	11.6
106-46-7	1,4-Dichlorobenzene	U	11.6	ug/L	2.33	11.6
621-64-7	N-Nitrosodi--n-propylamine	U	11.6	ug/L	2.33	11.6
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol	U	11.6	ug/L	2.33	11.6
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene	U	1.16	ug/L	0.360	1.16
121-14-2	2,4-Dinitrotoluene	U	11.6	ug/L	2.33	11.6
100-02-7	4-Nitrophenol	U	11.6	ug/L	2.33	11.6
87-86-5	Pentachlorophenol	U	11.6	ug/L	2.33	11.6
129-00-0	Pyrene	U	1.16	ug/L	0.349	1.16
110-86-1	Pyridine	U	11.6	ug/L	3.49	11.6
62-53-3	Aniline	U	11.6	ug/L	2.91	11.6
111-44-4	bis(2-Chloroethyl) ether	U	11.6	ug/L	2.33	11.6
541-73-1	1,3-Dichlorobenzene	U	11.6	ug/L	2.33	11.6
100-51-6	Benzyl alcohol	U	11.6	ug/L	2.33	11.6
95-50-1	1,2-Dichlorobenzene	U	11.6	ug/L	2.33	11.6
108-60-1	bis(2-Chloroisopropyl)ether	U	11.6	ug/L	2.33	11.6
95-48-7	o-Cresol	U	11.6	ug/L	2.33	11.6
65794-96-9	m,p-Cresols	U	11.6	ug/L	3.49	11.6
67-72-1	Hexachloroethane	U	11.6	ug/L	2.33	11.6
98-95-3	Nitrobenzene	U	11.6	ug/L	3.49	11.6
78-59-1	Isophorone	U	11.6	ug/L	3.49	11.6
88-75-5	2-Nitrophenol	U	11.6	ug/L	2.33	11.6
105-67-9	2,4-Dimethylphenol	U	11.6	ug/L	2.33	11.6
111-91-1	bis(2-Chloroethoxy)methane	U	11.6	ug/L	3.49	11.6
120-83-2	2,4-Dichlorophenol	U	11.6	ug/L	2.33	11.6
65-85-0	Benzoic acid	U	23.3	ug/L	6.98	23.3
91-20-3	Naphthalene	U	1.16	ug/L	0.349	1.16
106-47-8	4-Chloroaniline	U	11.6	ug/L	2.33	11.6
87-68-3	Hexachlorobutadiene	U	11.6	ug/L	2.33	11.6
91-57-6	2-Methylnaphthalene	U	1.16	ug/L	0.349	1.16
90-12-0	1-Methylnaphthalene	U	1.16	ug/L	0.349	1.16
77-47-4	Hexachlorocyclopentadiene	U	11.6	ug/L	3.49	11.6
88-06-2	2,4,6-Trichlorophenol	U	11.6	ug/L	2.33	11.6
95-95-4	2,4,5-Trichlorophenol	U	11.6	ug/L	2.33	11.6
91-58-7	2-Chloronaphthalene	U	1.16	ug/L	0.349	1.16

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000	**Date Collected:**	02/21/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	247828002	**Date Received:**	02/23/2010 08:50		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-13095	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	957046	**Inst:**	MSD8.I	**Dilution:**	1
Run Date:	02/25/2010 18:28	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/24/2010 20:21	**Aliquot:**	860 mL	**Final Volume:**	1 mL
Data File:	s8b2520.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline	U	11.6	ug/L	2.33	11.6
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	11.6	ug/L	2.33	11.6
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	11.6	ug/L	2.33	11.6
606-20-2	2,6-Dinitrotoluene	U	11.6	ug/L	2.33	11.6
208-96-8	Acenaphthylene	U	1.16	ug/L	0.233	1.16
51-28-5	2,4-Dinitrophenol	U	23.3	ug/L	5.81	23.3
132-64-9	Dibenzofuran	U	11.6	ug/L	2.33	11.6
84-66-2	Diethylphthalate	U	11.6	ug/L	2.33	11.6
86-73-7	Fluorene	U	1.16	ug/L	0.233	1.16
7005-72-3	4-Chlorophenylphenylether	U	11.6	ug/L	2.33	11.6
534-52-1	2-Methyl-4,6-dinitrophenol	U	11.6	ug/L	3.49	11.6
100-01-6	4-Nitroaniline	U	11.6	ug/L	3.49	11.6
	p-Nitroaniline					
122-39-4	Diphenylamine	U	11.6	ug/L	3.49	11.6
122-66-7	Azobenzene	U	11.6	ug/L	2.33	11.6
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	11.6	ug/L	2.33	11.6
118-74-1	Hexachlorobenzene	U	11.6	ug/L	2.33	11.6
1912-24-9	Atrazine	U	11.6	ug/L	3.49	11.6
85-01-8	Phenanthrene	U	1.16	ug/L	0.233	1.16
120-12-7	Anthracene	U	1.16	ug/L	0.233	1.16
84-74-2	Di-n-butylphthalate	U	11.6	ug/L	2.33	11.6
206-44-0	Fluoranthene	U	1.16	ug/L	0.233	1.16
92-87-5	Benzidine	U	11.6	ug/L	3.49	11.6
85-68-7	Butylbenzylphthalate	U	11.6	ug/L	2.33	11.6
56-55-3	Benzo(a)anthracene	U	1.16	ug/L	0.233	1.16
91-94-1	3,3'-Dichlorobenzidine	U	11.6	ug/L	2.33	11.6
218-01-9	Chrysene	U	1.16	ug/L	0.233	1.16
117-81-7	bis(2-Ethylhexyl)phthalate	U	11.6	ug/L	2.33	11.6
117-84-0	Di-n-octylphthalate	U	11.6	ug/L	3.49	11.6
205-99-2	Benzo(b)fluoranthene	U	1.16	ug/L	0.233	1.16
207-08-9	Benzo(k)fluoranthene	U	1.16	ug/L	0.233	1.16
50-32-8	Benzo(a)pyrene	U	1.16	ug/L	0.233	1.16
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.16	ug/L	0.233	1.16
53-70-3	Dibenzo(a,h)anthracene	U	1.16	ug/L	0.233	1.16
191-24-2	Benzo(ghi)perylene	U	1.16	ug/L	0.233	1.16
123-91-1	1,4-Dioxane	U	11.6	ug/L	2.33	11.6
55-18-5	N-Nitrosodiethylamine	U	11.6	ug/L	2.33	11.6

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**	**Date Collected:**	**02/21/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247828002**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13095**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**957046**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 18:28**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/24/2010 20:21**	**Aliquot:**	**860 mL**	**Final Volume:**	**1 mL**
Data File:	**s8b2520.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	11.6	ug/L	2.33	11.6
924-16-3	N-Nitrosodi-n-butylamine	U	11.6	ug/L	3.49	11.6
95-94-3	1,2,4,5-Tetrachlorobenzene	U	11.6	ug/L	3.49	11.6
608-93-5	Pentachlorobenzene	U	11.6	ug/L	3.49	11.6
58-90-2	2,3,4,6-Tetrachlorophenol	U	11.6	ug/L	2.33	11.6
88-85-7	Dinoseb	U	11.6	ug/L	2.33	11.6
120-82-1	1,2,4-Trichlorobenzene	U	11.6	ug/L	2.33	11.6

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	77.7	116	ug/L	66.8	(39%-120%)
2-Fluorobiphenyl	31.8	58.1	ug/L	54.8	(38%-108%)
2-Fluorophenol	43.6	116	ug/L	37.5	(19%-98%)
Nitrobenzene-d5	36.6	58.1	ug/L	62.9	(31%-122%)
Phenol-d5	28.8	116	ug/L	24.7	(15%-83%)
p-Terphenyl-d14	53.7	58.1	ug/L	92.4	(40%-138%)

Tentatively Identified Compound Summary

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

GEL Laboratories LLC

Data file : /chem/MSD8.i/s022510.b/s8b2520.d
Lab Smp Id: 247828002 Client Smp ID: CAPA-10-13095
Inj Date : 25-FEB-2010 18:28
Operator : nagl Inst ID: MSD8.i
Smp Info : |247828002|957046|1|SVM|1|LANL
Misc Info : |MSD82709L|WBN100217-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m
Meth Date : 25-Feb-2010 13:26 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2000.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	860.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.511	4.516	(1.000)	403028	40.0000	
* 29 Naphthalene-d8	136	5.773	5.777	(1.000)	1583766	40.0000	
* 46 Acenaphthene-d10	164	7.635	7.635	(1.000)	973823	40.0000	
* 67 Phenanthrene-d10	188	9.239	9.239	(1.000)	1699125	40.0000	
* 91 Chrysene-d12	240	12.168	12.173	(1.000)	1400215	40.0000	
* 98 Perylene-d12	264	14.320	14.320	(1.000)	1050223	40.0000	
$ 3 2-Fluorophenol	112	3.368	3.363	(0.747)	357045	37.5247	43.6
$ 5 Phenol-d5	99	4.125	4.135	(0.914)	293469	24.7315	28.8
$ 20 Nitrobenzene-d5	82	5.039	5.044	(0.873)	354196	31.4605	36.6
$ 39 2-Fluorobiphenyl	172	6.901	6.901	(0.904)	784992	27.3856	31.8
$ 60 2,4,6-Tribromophenol	329	8.482	8.482	(1.111)	215142	66.8329	77.7
$ 81 p-Terphenyl-d14	244	10.958	10.954	(0.901)	1164049	46.1759	53.7

ION RATIO REPORT

SV REPORT

Data file: s8b2520.d
Report Date: 02/26/2010 07:59
Lab. ID: 247828002 SampleType: SAMPLE
Injection Date: 25-FEB-2010 18:28
Operator: nagl Instrument: MSD8.i
Sample Info: |247828002|957046|1|SVM|1|LANL
Miscellaneous Info: |MSD82709L|WBN100217-01
Comment:
Method used: /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2000
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	49678	5.04	4.89	80-120	100	(T)
42	28130	5.04	4.89	39- 99	57	(T)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	126706	7.63	7.40	80-120	100	(T)
63	1636	7.63	7.40	31- 91	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	126706	7.63	7.83	80-120	100	(T)
89	1556	7.63	7.83	44-104	1	(QT)
63	1636	7.63	7.83	21- 81	1	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	723	8.48	8.27	80-120	100	(T)
105	1298	8.48	8.27	10- 70	180	(QT)
51	1450	8.48	8.27	22- 82	201	(QT)
92 Chrysene				CAS#: 218-01-9		
228	3572	12.17	12.20	80-120	100	( )
229	871	12.17	12.20	0- 49	24	( )
226	188	12.16	12.20	0- 60	5	( )
94 Di-n-octylphthalate				CAS#: 117-84-0		
149	392	13.07	13.07	80-120	100	( )
43	538	13.13	13.07	0- 41	137	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD8.i/s022510.b/s8b2520.d
Lab Smp Id: 247828002 Client Smp ID: CAPA-10-13095
Inj Date : 25-FEB-2010 18:28
Operator : nagl Inst ID: MSD8.i
Smp Info : |247828002|957046|1|SVM|1|LANL
Misc Info : |MSD82709L|WBN100217-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m
Meth Date : 25-Feb-2010 13:26 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2000.sub
Target Version: 3.50
Processing Host: hpclp1

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/MSD8.i/s022510.b/s8b2520.d
Date : 25-FEB-2010 18:28
Client ID: CAPA-10-13095
Sample Info: 1247828002195704611SVM11LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i

Operator: nag1
Column diameter: 0.20

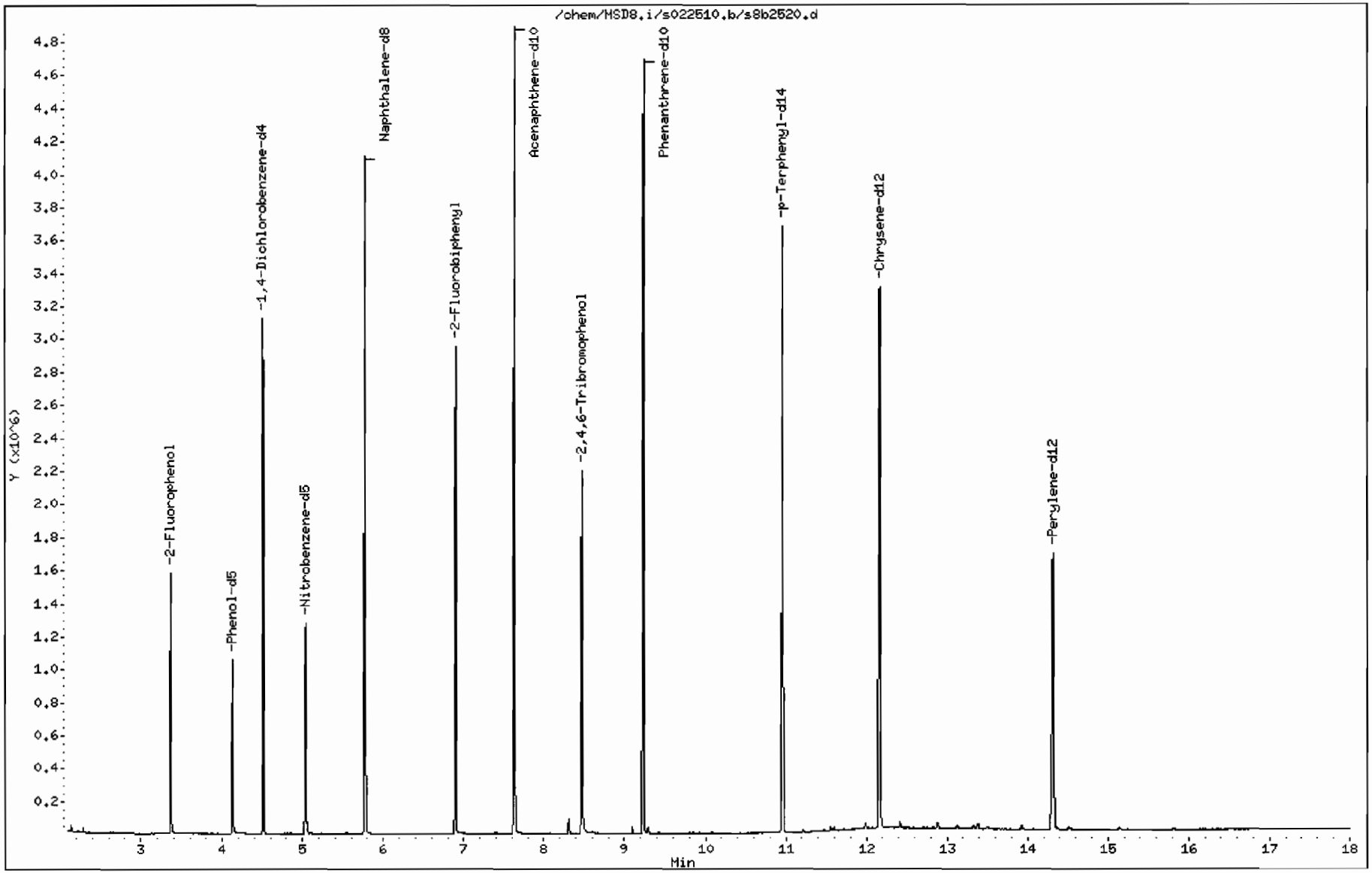

Standard Data

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate		10	20	40	50	80	100	120
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
4-Aminobiphenyl		10	20	40	50	80	100	120

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothioanisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120

SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.
(0210/Full list)

Report Date: 25-Feb-2010 13:43

Calibration History

Method : /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m
Start Cal Date: 20-FEB-2010 12:55
End Cal Date : 22-FEB-2010 01:19

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
20-FEB-2010 12:55	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2003.d
Cal Level: 2 , Cal Amount: 10.00000		
21-FEB-2010 22:13	NEV	/chem/MSD8.i/s022010.b/s8b2040.d
21-FEB-2010 16:44	HEX	/chem/MSD8.i/s022010.b/s8b2029.d
21-FEB-2010 13:02	PEST	/chem/MSD8.i/s022010.b/s8b2022.d
21-FEB-2010 09:21	AP12	/chem/MSD8.i/s022010.b/s8b2015.d
20-FEB-2010 13:30	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2004.d
Cal Level: 3 , Cal Amount: 20.00000		
21-FEB-2010 22:45	NEV	/chem/MSD8.i/s022010.b/s8b2041.d
21-FEB-2010 17:16	HEX	/chem/MSD8.i/s022010.b/s8b2030.d
21-FEB-2010 13:33	PEST	/chem/MSD8.i/s022010.b/s8b2023.d
21-FEB-2010 09:52	AP12	/chem/MSD8.i/s022010.b/s8b2016.d
20-FEB-2010 14:05	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2005.d
Cal Level: 4 , Cal Amount: 40.00000		
21-FEB-2010 23:15	NEV	/chem/MSD8.i/s022010.b/s8b2042.d
21-FEB-2010 17:48	HEX	/chem/MSD8.i/s022010.b/s8b2031.d
21-FEB-2010 14:05	PEST	/chem/MSD8.i/s022010.b/s8b2024.d
21-FEB-2010 10:23	AP12	/chem/MSD8.i/s022010.b/s8b2017.d
20-FEB-2010 14:40	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2006.d
Cal Level: 5 , Cal Amount: 50.00000		
21-FEB-2010 23:46	NEV	/chem/MSD8.i/s022010.b/s8b2043.d
21-FEB-2010 18:19	HEX	/chem/MSD8.i/s022010.b/s8b2032.d
21-FEB-2010 14:37	PEST	/chem/MSD8.i/s022010.b/s8b2025.d
21-FEB-2010 10:54	AP12	/chem/MSD8.i/s022010.b/s8b2018.d
20-FEB-2010 15:14	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2007.d
Cal Level: 6 , Cal Amount: 80.00000		
22-FEB-2010 00:17	NEV	/chem/MSD8.i/s022010.b/s8b2044.d
21-FEB-2010 18:51	HEX	/chem/MSD8.i/s022010.b/s8b2033.d
21-FEB-2010 15:09	PEST	/chem/MSD8.i/s022010.b/s8b2026.d
21-FEB-2010 11:26	AP12	/chem/MSD8.i/s022010.b/s8b2019.d
20-FEB-2010 15:50	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2008.d
Cal Level: 7 , Cal Amount: 100.00000		

21-FEB-2010 19:22	HEX	/chem/MSD8.i/s022010.b/s8b2034.d
21-FEB-2010 15:40	PEST	/chem/MSD8.i/s022010.b/s8b2027.d
21-FEB-2010 11:59	AP12	/chem/MSD8.i/s022010.b/s8b2020.d
20-FEB-2010 16:25	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2009.d

Cal Level: 8 , Cal Amount: 120.00000		
22-FEB-2010 01:19	NEV	/chem/MSD8.i/s022010.b/s8b2046.d
21-FEB-2010 16:12	PEST	/chem/MSD8.i/s022010.b/s8b2028.d
21-FEB-2010 12:30	AP12	/chem/MSD8.i/s022010.b/s8b2021.d
20-FEB-2010 16:59	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2010.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
25-FEB-2010 11:38	MEGAIICARE	/chem/MSD8.i/s022510.b/s8b2506.d
Ccal Level: 4 , Ccal Amount: 40.0		
25-FEB-2010 12:38	PEST	/chem/MSD8.i/s022510.b/s8b2508.d
Ccal Level: 4 , Ccal Amount: 40.0		
25-FEB-2010 12:10	AP12	/chem/MSD8.i/s022510.b/s8b2507.d
Ccal Level: 4 , Ccal Amount: 40.0		
25-FEB-2010 11:05	MEGAIICARE	/chem/MSD8.i/s022510.b/s8b2505.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55
End Cal Date : 22-FEB-2010 01:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m
Cal Date : 25-Feb-2010 13:26 nat00999

Calibration File Names:
Level 1: /chem/MSD8.i/s022010.b/s8b2003.d
Level 2: /chem/MSD8.i/s022010.b/s8b2040.d
Level 3: /chem/MSD8.i/s022010.b/s8b2041.d
Level 4: /chem/MSD8.i/s022010.b/s8b2042.d
Level 5: /chem/MSD8.i/s022010.b/s8b2043.d
Level 6: /chem/MSD8.i/s022010.b/s8b2044.d
Level 7: /chem/MSD8.i/s022010.b/s8b2045.d
Level 8: /chem/MSD8.i/s022010.b/s8b2046.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.61951	0.63665	0.62571	0.60931	0.60758					
	0.57992	0.58593					AVRG		0.60923		3.37337
2 Pyridine	+++++	0.89446	0.93458	0.90790	0.87786	0.88941					
	0.87607	0.87582					AVRG		0.89373		2.40541
4 Aniline	+++++	0.55291	0.56486	0.55215	0.55460	0.55759					
	0.54402	0.56183					AVRG		0.55542		1.23562
209 Benzaldehyde	+++++	0.88461	0.93065	0.82979	0.84335	0.81229					
	0.82905	0.77335					AVRG		0.84330		6.04219
6 Phenol	+++++	1.21439	1.26753	1.22620	1.19992	1.19696					
	1.19022	1.21801					AVRG		1.21617		2.13674

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55
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Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m
Cal Date : 25-Feb-2010 13:26 nat00999

Compound	1 Level 1 / 100 Level 7	10 Level 2 / 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
7 bis(2-Chloroethyl) ether	+++++	0.86875	0.87510	0.84552	0.82182	0.81301					
	0.79428	0.80161					AVRG		0.83144		3.86597
8 2-Chlorophenol	+++++	1.03978	1.08408	1.07215	1.04534	1.05301					
	1.03335	1.06466					AVRG		1.05605		1.73871
203 n-Decane	+++++	1.27851	1.24822	1.15740	1.07516	1.00264					
	0.94466	0.91988					AVRG		1.08949		13.14312
9 1,3-Dichlorobenzene	+++++	1.28111	1.28796	1.25869	1.21836	1.23373					
	1.22581	1.26112					AVRG		1.25240		2.16688
11 1,4-Dichlorobenzene	+++++	1.29450	1.32850	1.27510	1.26337	1.28372					
	1.27786	1.32204					AVRG		1.29215		1.89951
12 Benzyl alcohol	+++++	0.63823	0.66891	0.66923	0.65483	0.66997					
	0.65441	0.66840					AVRG		0.66057		1.81681
13 1,2-Dichlorobenzene	+++++	1.23246	1.24228	1.20302	1.17789	1.18128					
	1.16994	1.20670					AVRG		1.20194		2.30652
14 bis(2-Chloroisopropyl)ether	+++++	1.75891	1.77869	1.68785	1.62858	1.56724					
	1.49862	1.49146					AVRG		1.63019		7.19167
15 o-Cresol	+++++	0.83685	0.86246	0.86097	0.83301	0.83522					
	0.83135	0.85253					AVRG		0.84463		1.60879

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INITIAL CALIBRATION DATA

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Method file : /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m
Cal Date : 25-Feb-2010 13:26 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.22382	1.29124	1.18127	1.20711	1.16108					
	1.20314	1.15394					AVRG		1.20309		3.85004
17 N-Nitrosodipropylamine	+++++	0.77291	0.78775	0.78533	0.78242	0.77484					
	0.76559	0.77632					AVRG		0.77788		0.99721
18 m,p-Cresols	+++++	1.04493	1.08669	1.06836	1.05918	1.07181					
	1.06572	1.08557					AVRG		1.06890		1.36774
19 Hexachloroethane	+++++	0.48582	0.49574	0.48975	0.48187	0.48407					
	0.48126	0.49008					AVRG		0.48694		1.06899
21 Nitrobenzene	+++++	0.29364	0.29812	0.29008	0.28855	0.29311					
	0.29496	0.29467					AVRG		0.29331		1.08619
22 Isophorone	+++++	0.54198	0.54074	0.53290	0.53134	0.54066					
	0.54707	0.54526					AVRG		0.53999		1.09041
23 2-Nitrophenol	+++++	0.13002	0.13039	0.13172	0.13404	0.13721					
	0.13936	0.13958					AVRG		0.13462		3.05487
24 2,4-Dimethylphenol	+++++	0.23868	0.23567	0.23285	0.23796	0.24044					
	0.24421	0.24544					AVRG		0.23932		1.86969
25 bis(2-Chloroethoxy)methane	+++++	0.31326	0.30893	0.29561	0.29347	0.29853					
	0.30400	0.30594					AVRG		0.30282		2.39356

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Integrator : HP RTE
Method file : /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m
Cal Date : 25-Feb-2010 13:26 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.20745	0.21497	0.21364	0.21276	0.21836					
	0.22351	0.22510					AVRG		0.21654		2.87770
27 Benzoic acid	+++++	+++++	83893	215984	333227	600127					
	779305	996763					LINR	0.37420	0.17210		0.99460
28 1,2,4-Trichlorobenzene	+++++	0.30108	0.29237	0.28234	0.27990	0.28748					
	0.29534	0.29975					AVRG		0.29118		2.83696
30 Naphthalene	59622	408591	879341	1743176	2453204	3915424					
	4829589	5952102					LINR	0.05011	0.91806		0.99772
204 alpha-Terpineol	+++++	0.23619	0.23584	0.22166	0.22004	0.21591					
	0.21504	0.21341					AVRG		0.22259		4.31595
31 4-Chloroaniline	+++++	0.27947	0.29236	0.29508	0.28109	0.28200					
	0.28493	0.28604					AVRG		0.28585		2.05307
189 Caprolactam	+++++	0.05934	0.06750	0.06559	0.06739	0.06727					
	0.07008	0.06871					AVRG		0.06655		5.20909
32 Hexachlorobutadiene	+++++	0.18359	0.18107	0.17811	0.17478	0.18060					
	0.18360	0.18593					AVRG		0.18110		2.07689
33 4-Chloro-3-methylphenol	+++++	0.22447	0.23171	0.23125	0.22996	0.23628					
	0.24180	0.24455					AVRG		0.23429		3.00125

GEL Laboratories LLC

INITIAL CALIBRATION DATA

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m
Cal Date : 25-Feb-2010 13:26 nat00999

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
34 2-Methylnaphthalene	38110	275963	600338	1198438	1651350	2574886					
	3185761	3911554					LINR	0.03268	0.60114		0.99853
35 1-Methylnaphthalene	38576	271665	594641	1175844	1616234	2506814					
	3139153	3823750					LINR	0.03094	0.58835		0.99835
36 Hexachlorocyclopentadiene	+++++	0.21877	0.25138	0.24756	0.25311	0.24824					
	0.25115	0.26766					AVRG		0.24827		5.90114
208 1,1'-Biphenyl	+++++	1.22247	1.29127	1.17987	1.19898	1.18070					
	1.25475	1.22731					AVRG		1.22219		3.32526
205 2,3-Dichloroaniline	+++++	0.51270	0.51480	0.49871	0.51091	0.53248					
	0.55128	0.57535					AVRG		0.52803		5.10658
37 2,4,6-Trichlorophenol	+++++	0.27914	0.29104	0.28876	0.29978	0.31571					
	0.33385	0.34903					AVRG		0.30819		8.34550
38 2,4,5-Trichlorophenol	+++++	0.29440	0.32076	0.31947	0.31565	0.33788					
	0.34169	0.35990					AVRG		0.32711		6.48907
40 2-Chloronaphthalene	36449	268251	582975	1155795	1582228	2469755					
	3039631	3702903					LINR	0.03655	1.02665		0.99760
42 o-Nitroaniline	+++++	0.25572	0.26998	0.26946	0.27364	0.27783					
	0.28197	0.28884					AVRG		0.27392		3.85593

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Integrator : HP RTE
Method file : /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m
Cal Date : 25-Feb-2010 13:26 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.18519	0.21448	0.21492	0.21737	0.20957					
	0.20505	0.21482					AVRG		0.20877		5.36018
43 Dimethylphthalate	+++++	1.12648	1.14453	1.10613	1.09173	1.11237					
	1.12375	1.14118					AVRG		1.12088		1.68894
44 2,6-Dinitrotoluene	+++++	0.25896	0.26346	0.25342	0.24949	0.24696					
	0.24733	0.25426					AVRG		0.25341		2.42391
45 Acenaphthylene	2.18976	1.59988	1.58469	1.52835	1.53064	1.56415					
	1.60612	1.68189					AVRG		1.66068		13.20366
47 Acenaphthene	1.41358	1.00028	0.99778	0.98187	0.99926	1.00432					
	1.02939	1.07707					AVRG		1.06294		13.61052
48 2,4-Dinitrophenol	+++++	+++++	38021	93310	146622	245403					
	320377	412311					LINR	0.35935	0.12672		0.99075
49 Dibenzofuran	+++++	1.40644	1.40820	1.32867	1.33815	1.36798					
	1.41726	1.49580					AVRG		1.39464		4.06888
50 2,4-Dinitrotoluene	+++++	0.31049	0.32653	0.32098	0.31786	0.31902					
	0.33142	0.34814					AVRG		0.32492		3.75316
51 Diethylphthalate	+++++	1.16273	1.19006	1.14803	1.15696	1.15712					
	1.18165	1.21522					AVRG		1.17311		2.02529

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	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	0.10359	0.13187	0.13545	0.14163	0.14151					
	0.14797	0.15374					AVRG		0.13654		11.90490
53 Fluorene	1.69412	1.18564	1.18324	1.16123	1.18593	1.26226					
	1.29401	1.36155					AVRG		1.29100		13.69804
54 4-Chlorophenylphenylether	+++++	0.59987	0.60491	0.58500	0.59564	0.63651					
	0.64896	0.68125					AVRG		0.62173		5.60755
220 Hydroquinone	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-
55 2-Methyl-4,6-dinitrophenol	+++++	26409	78471	169233	248477	398816					
	489102	612903					LINR	0.16815	0.09594		0.99736
56 p-Nitroaniline	+++++	0.13756	0.16571	0.18963	0.20209	0.19373					
	0.19726	0.20537					AVRG		0.18448		13.23346
133 Diphenylamine	+++++	0.48702	0.48634	0.48646	0.49672	0.51765					
	0.52558	0.53844					AVRG		0.50546		4.26163
58 1,2-Diphenylhydrazine	+++++	0.58322	0.59673	0.58464	0.59299	0.60280					
	0.59206	0.60379					AVRG		0.59375		1.35599
59 Tributylphosphate	+++++	0.85316	0.98848	0.99919	0.98562	0.99554					
	0.98996	1.00565					AVRG		0.97394		5.51372

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	100 Level 7	120 Level 8									
61 4-Bromophenylphenylether	+++++	0.18589	0.18897	0.18392	0.18630	0.19322					
	0.19629	0.20338					AVRG		0.19114		3.62682
63 Hexachlorobenzene	+++++	0.19642	0.19554	0.19003	0.19110	0.20055					
	0.20365	0.21337					AVRG		0.19866		4.06498
207 Atrazine	+++++	0.03758	0.04062	0.03420	0.03665	0.03302					
	0.03441	0.03072					AVRG		0.03531		9.21662
65 Pentachlorophenol	+++++	0.06388	0.08247	0.08843	0.09083	0.09630					
	0.09718	0.10035					AVRG		0.08849		14.02887
206 n-Octadecane	+++++	0.41912	0.42264	0.40756	0.40012	0.39129					
	0.37111	0.36735					AVRG		0.39703		5.48958
68 Phenanthrene	65568	486199	1015060	2006630	2809008	4284140					
	5370346	6608324					LINR	0.04915	0.98874		0.99753
69 Anthracene	1.26726	0.89621	0.90633	0.88074	0.91241	0.94159					
	0.95537	1.00675					AVRG		0.97083		13.00076
72 Di-n-butylphthalate	+++++	0.94663	0.99271	0.99656	1.01616	1.04338					
	1.04405	1.06383					AVRG		1.01476		3.93061
76 Fluoranthene	1.27400	0.97604	0.96078	0.93382	0.96161	0.98359					
	1.01627	1.03676					AVRG		1.01786		10.65772

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	100 Level 7	120 Level 8									
77 Benzidine	+++++	114948	240488	575469	576881	1632421					
	1879386	2370017					LINR	0.20503	0.37744		0.99275
79 Pyrene	1.59200	1.13341	1.18323	1.21007	1.19482	1.23234					
	1.21785	1.22742					AVRG		1.24889		11.38418
85 Butylbenzylphthalate	+++++	0.37478	0.43005	0.45705	0.44937	0.45125					
	0.44474	0.44980					AVRG		0.43672		6.54417
89 Benzo(a)anthracene	1.38070	0.96707	0.98220	0.96802	0.98013	1.02003					
	1.04657	1.07617					AVRG		1.05261		13.14311
90 3,3'-Dichlorobenzidine	+++++	0.19682	0.23362	0.24165	0.24177	0.26523					
	0.27999	0.27551					AVRG		0.24780		11.62921
92 Chrysene	56779	460630	913811	1690536	2342194	3398164					
	4593832	5526812					LINR	0.00950	0.92743		0.99892
93 bis(2-Ethylhexyl)phthalate	0.56666	0.53374	0.59392	0.62267	0.62324	0.64211					
	0.64575	0.66128					AVRG		0.61117		7.10990
94 Di-n-octylphthalate	+++++	368592	834860	1605441	2216889	3330642					
	4377445	+++++					LINR	0.13246	1.42322		0.99630
95 Benzo(b)fluoranthene	1.19103	0.97573	1.06659	1.08748	1.13194	1.14428					
	1.17803	1.29729					AVRG		1.13405		8.41332

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	100 Level 7	120 Level 8									
96 Benzo(k)fluoranthene	1.26573	1.00893	1.07939	1.10364	1.13551	1.12361					
	1.19513	1.20870					AVRG		1.14008		7.11278
97 Benzo(a)pyrene	0.91365	0.85418	0.92377	0.94122	0.96804	0.99011					
	1.01342	1.04734					AVRG		0.95647		6.41651
99 Indeno(1,2,3-cd)pyrene	0.79917	0.81532	0.80541	0.77792	0.75613	0.85605					
	0.74498	0.78923					AVRG		0.79303		4.41296
100 Dibenzo(a,h)anthracene	0.61288	0.61866	0.60233	0.58469	0.57198	0.65233					
	0.63604	0.62414					AVRG		0.61288		4.28662
101 Benzo(ghi)perylene	0.75516	0.69322	0.66528	0.62680	0.59234	0.66873					
	0.64840	0.59909					AVRG		0.65613		8.07863
102 1,4-Dioxane	+++++	0.35084	0.36273	0.32344	0.32306	0.29885					
	0.30758	0.29584					AVRG		0.32319		7.90081
103 Methyl methacrylate	+++++	0.17778	0.18944	0.16410	0.16994	0.15571					
	0.16230	0.15788					AVRG		0.16817		7.11952
104 Ethyl methacrylate	+++++	0.70693	0.75062	0.67894	0.68905	0.63812					
	0.66413	0.62961					AVRG		0.67963		6.10805
105 2-Picoline	+++++	1.12830	1.19020	1.07957	1.10232	1.04185					
	1.07041	1.03794					AVRG		1.09294		4.88732

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	100 Level 7	120 Level 8									
106 N-Nitrosomethylethylamine	+++++	0.44779	0.46529	0.43489	0.44140	0.42410					
	0.44409	0.42146					AVRG		0.43986		3.39928
107 Methyl methanesulfonate	+++++	0.52524	0.54520	0.49099	0.48678	0.48343					
	0.49978	0.46508					AVRG		0.49950		5.43906
108 N-Nitrosodiethylamine	+++++	0.46217	0.49395	0.44813	0.46428	0.44274					
	0.45963	0.43541					AVRG		0.45804		4.17302
109 Ethyl Methanesulfonate	+++++	0.62189	0.65375	0.60074	0.60188	0.58949					
	0.61342	0.58197					AVRG		0.60902		3.91897
110 Pentachloroethane	+++++	0.32386	0.34717	0.31621	0.32412	0.30740					
	0.32132	0.30635					AVRG		0.32092		4.26755
111 N-Nitrosopyrrolidine	+++++	0.47922	0.51794	0.48306	0.49257	0.48446					
	0.49612	0.48073					AVRG		0.49059		2.76402
113 N-Nitrosomorpholine	+++++	0.68559	0.71997	0.66306	0.66815	0.64403					
	0.65152	0.61465					AVRG		0.66385		4.99866
114 o-Toluidine	+++++	1.63357	1.73837	1.58287	1.64173	1.56389					
	1.62224	1.57015					AVRG		1.62183		3.70471
115 N-Nitrosopiperidine	+++++	0.12360	0.13377	0.12334	0.12644	0.11963					
	0.12371	0.12009					AVRG		0.12437		3.81963

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	100 Level 7	120 Level 8									
116 a,a-Dimethylphenethylamine	+++++	0.64589	0.73902	0.73378	0.77250	0.75528					
	0.78780	0.76698					AVRG		0.74304		6.29693
117 Triethylphosphorothioate	+++++	0.12776	0.13008	0.12715	0.12802	0.12765					
	0.12726	0.13005					AVRG		0.12828		0.97777
118 2,6-Dichlorophenol	+++++	0.19213	0.20693	0.19910	0.19955	0.20082					
	0.20928	0.20299					AVRG		0.20154		2.79228
119 Hexachloropropene	+++++	0.11005	0.12087	0.12529	0.11800	0.12775					
	0.13255	0.13069					AVRG		0.12360		6.37831
120 p-Phenylenediamine	+++++	0.20097	0.22012	0.20890	0.19933	0.19552					
	0.18199	0.16903					AVRG		0.19655		8.57847
121 N-Nitrosodi-n-butylamine	+++++	0.22009	0.23358	0.22059	0.22594	0.19498					
	0.19691	0.18916					AVRG		0.21161		8.26915
122 Safrole	+++++	0.19404	0.20590	0.18988	0.19335	0.18710					
	0.19409	0.18904					AVRG		0.19334		3.19019
123 1,2,4,5-Tetrachlorobenzene	+++++	0.48179	0.50127	0.46416	0.46968	0.45641					
	0.48299	0.47441					AVRG		0.47582		3.07832
124 Isosafrole	+++++	0.31959	0.34105	0.31534	0.32095	0.31245					
	0.32391	0.31581					AVRG		0.32130		2.96333

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	100 Level 7	120 Level 8									
125 1,4-Naphthoquinone	+++++	0.32816	0.34621	0.30613	0.30795	0.25958					
	0.23046	+++++					AVRG		0.29641		14.64421
126 m-Dinitrobenzene	+++++	0.15594	0.16628	0.16332	0.16381	0.16032					
	0.16004	+++++					AVRG		0.16162		2.24564
127 Pentachlorobenzene	+++++	0.43767	0.45121	0.42030	0.42682	0.42210					
	0.44346	0.43799					AVRG		0.43422		2.65150
128 1-Naphthylamine	+++++	0.82239	0.86814	0.82529	0.81386	0.84167					
	0.87214	0.85263					AVRG		0.84230		2.72431
129 2-Naphthylamine	+++++	0.87494	0.84477	0.88369	0.86051	0.89209					
	0.94061	0.91680					AVRG		0.88763		3.68720
130 2,3,4,6-Tetrachlorophenol	+++++	0.25022	0.26956	0.27043	0.27312	0.28194					
	0.29224	0.30421					AVRG		0.27739		6.29089
131 5-Nitro-o-toluidine	+++++	0.21312	0.24508	0.24080	0.23259	0.24890					
	0.25619	0.25185					AVRG		0.24122		6.04443
132 Thionazin	+++++	0.13437	0.14473	0.14728	0.14423	0.14621					
	0.14438	0.14610					AVRG		0.14390		3.02307
134 Sulfotepp	+++++	0.07479	0.07643	0.07811	0.08209	0.08186					
	0.08119	0.08666					AVRG		0.08016		5.01325

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	100 Level 7	120 Level 8									
135 Phorate	+++++	0.29874	0.30476	0.30486	0.31798	0.30102					
	0.29242	0.29307					AVRG		0.30183		2.88237
136 1,3,5-Trinitrobenzene	+++++	0.07415	0.09175	0.09919	0.09673	0.10189					
	0.10131	0.09994					AVRG		0.09499		10.32629
137 Phenacetin	+++++	0.18206	0.20988	0.21406	0.21650	0.22859					
	0.23865	0.22853					AVRG		0.21690		8.45110
138 Diallate	+++++	0.20463	0.21020	0.19892	0.21153	0.19343					
	0.20258	0.19294					AVRG		0.20203		3.67352
139 Dimethoate	+++++	0.14043	0.15915	0.16697	0.17200	0.17406					
	0.16740	0.16949					AVRG		0.16422		7.00813
140 4-Aminobiphenyl	+++++	0.43217	0.48080	0.49774	0.49087	0.54937					
	0.58751	0.58243					AVRG		0.51727		11.12235
141 Pentachloronitrobenzene	+++++	0.07756	0.08234	0.07796	0.08272	0.07781					
	0.08047	0.07668					AVRG		0.07936		3.09424
142 Pronamide	+++++	0.24165	0.25727	0.24493	0.25850	0.24762					
	0.26196	0.25418					AVRG		0.25230		3.02507
143 Dinoseb	+++++	36739	110780	253153	360839	582168					
	749359	959224					LINR	0.21574	0.15018		0.99408

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	100 Level 7	120 Level 8									
144 Disulfoton	+++++	0.26489	0.24948	0.24076	0.24841	0.23789					
	0.22925	0.23314					AVRG		0.24340		4.93796
145 Methyl parathion	+++++	0.12612	0.15136	0.15938	0.16288	0.16711					
	0.16709	0.17055					AVRG		0.15779		9.71146
146 4-Nitroquinoline-1-oxide	+++++	0.02056	0.02288	0.01846	0.01666	0.01679					
	+++++	+++++					AVRG		0.01907		13.89367
147 Methapyrilene	+++++	0.29694	0.32659	0.28898	0.30536	0.28186					
	0.28225	0.26103					AVRG		0.29186		7.08529
148 Isodrin	+++++	0.10688	0.11119	0.10398	0.11043	0.10326					
	0.10901	0.10550					AVRG		0.10718		2.91403
149 Aramite	+++++	0.03161	0.03603	0.03415	0.03476	0.03379					
	0.03486	0.03195					AVRG		0.03388		4.71492
150 Kepone	+++++	0.07589	0.08420	0.07666	0.07796	0.07644					
	0.07875	0.07575					AVRG		0.07795		3.80313
151 p-(Dimethylamino)azobenzene	+++++	0.22465	0.25205	0.24804	0.27799	0.25995					
	0.27510	0.26877					AVRG		0.25808		7.17705
152 Chlorobenzilate	+++++	0.22654	0.24955	0.24660	0.29801	0.25875					
	0.28069	0.27880					AVRG		0.26271		9.30544

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55
End Cal Date : 22-FEB-2010 01:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m
Cal Date : 25-Feb-2010 13:26 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
153 3,3'-Dimethylbenzidine	+++++	0.37150	0.43396	0.42299	0.44074	0.48724					
	0.52259	0.50844					AVRG		0.45535		11.72591
154 Famphur	+++++	0.29682	0.32000	0.33232	0.36789	0.37506					
	0.36897	0.38152					AVRG		0.34894		9.31134
155 2-Acetylaminofluorene	+++++	77941	174270	466888	454874	1169522					
	1402952	1690573					LINR	0.16495	0.26994		0.99689
157 7,12Dimethylbenz(a)anthracene	+++++	0.44428	0.50077	0.50095	0.52555	0.52043					
	0.56747	0.57419					AVRG		0.51909		8.50027
158 3-Methylcholanthrene	+++++	0.31873	0.35613	0.36783	0.37459	0.37965					
	0.39268	0.38502					AVRG		0.36780		6.70304
26 Phthalic anhydride	+++++	35664	121861	249075	381828	594958					
	723533	893615					LINR	0.12971	0.14328		0.99917
173 Carbazole	0.89649	0.61077	0.58409	0.64323	0.66829	0.69364					
	0.71352	0.73688					AVRG		0.69337		13.94742
174 Hexachlorophene	+++++	935628	3163522	4273678	5413416	6917749					
	7386241	+++++					LINR	6.19705	0.07687		0.99449
179 Dibenzo(a,e)pyrene	+++++	0.28462	0.26044	0.26698	0.22397	0.28475					
	0.27252	0.23457					AVRG		0.26112		9.06299

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55
End Cal Date : 22-FEB-2010 01:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m
Cal Date : 25-Feb-2010 13:26 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
184 p-Benzoquinone	+++++	13412	38094	103028	141046	214307						
	265584	310038					LINR	0.07963	0.20135		0.99786	
191 Parathion	+++++	0.04141	0.04946	0.05375	0.05525	0.05615						
	0.05609	0.05831					AVRG		0.05291		10.91556	
192 Methoxychlor	+++++	0.47370	0.56446	0.59238	0.57838	0.60702						
	0.60937	0.59064					AVRG		0.57371		8.15235	
210 m-Toluidine	+++++	1.23929	1.38356	1.46111	1.48802	1.58621						
	1.58280	1.66243					AVRG		1.48620		9.61503	
211 p-Toluidine	+++++	1.14906	1.18370	1.16691	1.19548	1.08736						
	1.10329	1.09804					AVRG		1.14055		3.86703	
212 Cis Diallate	+++++	0.20120	0.20767	0.19674	0.21346	0.19409						
	0.19989	0.19195					AVRG		0.20071		3.79541	
213 Trans Diallate	+++++	0.24074	0.24730	0.23402	0.24886	0.22756						
	0.23833	0.22699					AVRG		0.23769		3.67352	
214 1,4-Dinitrobenzene	+++++	0.14712	0.16526	0.16942	0.17547	0.17667						
	0.18015	0.18546					AVRG		0.17136		7.34157	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55
End Cal Date : 22-FEB-2010 01:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m
Cal Date : 25-Feb-2010 13:26 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
215 2-Ethoxyethanol	+++++	0.58676	0.60203	0.59483	0.55565	0.57374					
	0.55822	0.54494					AVRG		0.57374		3.77318
216 Methylenebis(2-chloroaniline)	+++++	36455	87285	192808	305235	476431					
	647915	779120					LINR	0.18581	0.13997		0.99822
229 2,2'-Dichlorobenzil	+++++	0.53014	0.54882	0.57218	0.56813	0.55363					
	0.63091	0.61172					AVRG		0.57365		6.23315
230 4-Chlorothioanisole	+++++	0.23127	0.22998	0.24707	0.25459	0.25234					
	0.25390	0.26275					AVRG		0.24741		4.99827
231 4-Chlorothiophenol	+++++	69510	156101	409410	538100	905821					
	1130595	1540522					LINR	0.15090	0.21447		0.99884
232 bis(p-Chlorophenyl)sulfone	+++++	0.32332	0.32274	0.32522	0.32041	0.30818					
	0.34792	0.33496					AVRG		0.32611		3.81298
233 bis(p-Chlorophenyl)disulfide	+++++	0.11382	0.11054	0.12051	0.11929	0.11551					
	0.12978	0.12394					AVRG		0.11906		5.46007
234 Diphenyl disulfide	+++++	0.19202	0.19186	0.19737	0.19958	0.19288					
	0.20205	0.19917					AVRG		0.19642		2.10807
235 Diphenyl sulfide	+++++	0.76604	0.75916	0.77559	0.80138	0.79306					
	0.81579	0.83897					AVRG		0.79285		3.59622

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55
End Cal Date : 22-FEB-2010 01:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m
Cal Date : 25-Feb-2010 13:26 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
236 Phenyl sulfone	+++++	0.34800	0.34646	0.34913	0.35609	0.34394					
	0.35788	0.36394					AVRG		0.35221		2.05193
237 Hydroxymethyl phthalimide	+++++	0.11562	0.12919	0.11505	0.10331	0.08699					
	0.09932	0.08725					AVRG		0.10525		14.88762
238 Phthalic acid	+++++	20021	61221	192852	247836	445405					
	592112	841517					LINR	0.27721	0.11935		0.99378
239 Thiophenol	+++++	0.72136	0.86680	1.01677	1.07339	1.08115					
	1.06962	1.11441					AVRG		0.99193		14.55784
240 bis(Chloromethyl)ether	+++++	0.73330	0.72927	0.75420	0.77531	0.76257					
	0.72897	0.73156					AVRG		0.74502		2.53135
241 Octachlorostyrene	+++++	0.06930	0.06943	0.07008	0.07083	0.07166					
	0.07686	0.07691					AVRG		0.07215		4.62127
M 222 Trichlorophenols	+++++	0.28677	0.30590	0.30411	0.30771	0.32680					
	0.33777	0.35446					AVRG		0.31765		7.28968
M 223 Tetrachlorophenols	+++++	0.25022	0.26956	0.27043	0.27312	0.28194					
	0.29224	0.30421					AVRG		0.27739		6.29089
M 224 Benzo(b,k)fluoranthene	1.22838	0.99233	1.07299	1.09556	1.13372	1.13395					
	1.18658	1.25299					AVRG		1.13706		7.50876

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55
End Cal Date : 22-FEB-2010 01:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m
Cal Date : 25-Feb-2010 13:26 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
M 225 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 3 2-Fluorophenol	+++++	0.92659	0.96919	0.96650	0.94036	0.93281						
	0.93098	0.94400					AVRG		0.94435		1.80921	
$ 5 Phenol-d5	+++++	1.15492	1.20808	1.18961	1.17093	1.17303						
	1.15725	1.19013					AVRG		1.17771		1.63471	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.28463	0.28610	0.28272	0.27867	0.28386						
	0.28710	0.28733					AVRG		0.28435		1.06265	
$ 39 2-Fluorobiphenyl	+++++	1.17351	1.17042	1.12460	1.11619	1.18499						
	1.20400	1.26805					AVRG		1.17740		4.32813	
$ 60 2,4,6-Tribromophenol	+++++	0.12711	0.13347	0.12836	0.12619	0.12779						
	0.13893	0.14371					AVRG		0.13223		5.12665	
$ 81 p-Terphenyl-d14	+++++	0.67083	0.69230	0.71233	0.71339	0.73658						
	0.74530	0.77029					AVRG		0.72015		4.65100	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55
End Cal Date : 22-FEB-2010 01:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m
Cal Date : 25-Feb-2010 13:26 nat00999

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

Data File: /chem/MSD8.i/s022010.b/s8b2012.d
Report Date: 23-Feb-2010 13:25

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i
Lab File ID: s8b2012.d
Analysis Type:
Lab Sample ID: WBN100215-05.1
Method: /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m

Injection Date: 20-FEB-2010 18:09
Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Init. Cal. Times: 12:55 01:19
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$	3 2-Fluorophenol	0.94435	0.91252	0.91252	0.000	-3.36963	60.00000	Averaged	
$	5 Phenol-d5	1.17771	1.11967	1.11967	0.000	-4.92793	60.00000	Averaged	
$	20 Nitrobenzene-d5	0.28435	0.28445	0.28445	0.000	0.03513	60.00000	Averaged	
$	39 2-Fluorobiphenyl	1.17740	1.10971	1.10971	0.000	-5.74835	60.00000	Averaged	
$	60 2,4,6-Tribromophenol	0.13223	0.12031	0.12031	0.000	-9.01194	60.00000	Averaged	
$	81 p-Terphenyl-d14	0.72015	0.73651	0.73651	0.000	2.27163	60.00000	Averaged	
	1 N-Methyl-N-nitrosomethylami	0.60923	0.57218	0.57218	0.000	-6.08077	60.00000	Averaged	
	2 Pyridine	0.89373	0.67690	0.67690	0.000	-24.26051	60.00000	Averaged	
	4 Aniline	0.55542	0.50332	0.50332	0.000	-9.38073	60.00000	Averaged	
	6 Phenol	1.21617	1.17309	1.17309	0.001	-3.54259	20.00000	Averaged	ccc
	7 bis(2-Chloroethyl) ether	0.83144	0.74294	0.74294	0.000	-10.64430	60.00000	Averaged	
	8 2-Chlorophenol	1.05605	1.02399	1.02399	0.000	-3.03618	60.00000	Averaged	
	203 n-Decane	1.08949	1.10768	1.10768	0.000	1.66910	60.00000	Averaged	
	9 1,3-Dichlorobenzene	1.25240	1.20785	1.20785	0.000	-3.55721	60.00000	Averaged	
	11 1,4-Dichlorobenzene	1.29215	1.21176	1.21176	0.001	-6.22171	20.00000	Averaged	ccc
	13 1,2-Dichlorobenzene	1.20194	1.13600	1.13600	0.000	-5.48562	60.00000	Averaged	
	14 bis(2-Chloroisopropyl)ether	1.63019	1.56683	1.56683	0.000	-3.88699	60.00000	Averaged	
	12 Benzyl alcohol	0.66057	0.64188	0.64188	0.000	-2.82972	60.00000	Averaged	
	15 o-Cresol	0.84463	0.81254	0.81254	0.000	-3.79849	60.00000	Averaged	
	18 m,p-Cresols	1.06890	1.06346	1.06346	0.000	-0.50838	60.00000	Averaged	
	17 N-Nitrosodipropylamine	0.77788	0.74120	0.74120	0.050	-4.71529	60.00000	Averaged	spcc
	19 Hexachloroethane	0.48694	0.45665	0.45665	0.000	-6.22059	60.00000	Averaged	
	21 Nitrobenzene	0.29331	0.27681	0.27681	0.000	-5.62390	60.00000	Averaged	
	22 Isophorone	0.53999	0.49377	0.49377	0.000	-8.55934	60.00000	Averaged	
	23 2-Nitrophenol	0.13462	0.13301	0.13301	0.001	-1.19474	20.00000	Averaged	ccc
	24 2,4-Dimethylphenol	0.23932	0.22527	0.22527	0.000	-5.87154	60.00000	Averaged	
	25 bis(2-Chloroethoxy)methane	0.30282	0.26637	0.26637	0.000	-12.03559	60.00000	Averaged	
	26 2,4-Dichlorophenol	0.21654	0.20901	0.20901	0.001	-3.47894	20.00000	Averaged	ccc
	27 Benzoic acid	41.94960	40.00000	0.11609	0.000	4.87400	60.00000	Linear	
	28 1,2,4-Trichlorobenzene	0.29118	0.26506	0.26506	0.000	-8.96931	60.00000	Averaged	
	30 Naphthalene	35.39177	40.00000	0.76629	0.000	-11.52057	60.00000	Linear	
	204 alpha-Terpineol	0.22259	0.20059	0.20059	0.000	-9.88109	60.00000	Averaged	
	31 4-Chloroaniline	0.28585	0.27423	0.27423	0.000	-4.06642	60.00000	Averaged	
	32 Hexachlorobutadiene	0.18110	0.17017	0.17017	0.001	-6.03393	20.00000	Averaged	ccc
	33 4-Chloro-3-methylphenol	0.23429	0.22644	0.22644	0.001	-3.34816	20.00000	Averaged	ccc
	34 2-Methylnaphthalene	37.56535	40.00000	0.54491	0.000	-6.08662	60.00000	Linear	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 20-FEB-2010 18:09
Lab File ID: s8b2012.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Analysis Type: Init. Cal. Times: 12:55 01:19
Lab Sample ID: WBN100215-05.1 Quant Type: ISTD
Method: /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	36.14060	40.00000	0.51338	0.000	-9.64851	60.00000	Linear
36 Hexachlorocyclopentadiene	0.24827	0.20951	0.20951	0.050	-15.61096	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.52803	0.47281	0.47281	0.000	-10.45916	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.30819	0.28652	0.28652	0.001	-7.02903	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.32711	0.32121	0.32121	0.000	-1.80308	60.00000	Averaged
40 2-Chloronaphthalene	36.94398	40.00000	0.91069	0.000	-7.64006	60.00000	Linear
42 o-Nitroaniline	0.27392	0.25926	0.25926	0.000	-5.35118	60.00000	Averaged
41 m-Nitroaniline	0.20877	0.20131	0.20131	0.000	-3.57417	60.00000	Averaged
43 Dimethylphthalate	1.12088	1.03748	1.03748	0.000	-7.44016	60.00000	Averaged
44 2,6-Dinitrotoluene	0.25341	0.23417	0.23417	0.000	-7.59187	60.00000	Averaged
50 2,4-Dinitrotoluene	0.32492	0.29882	0.29882	0.000	-8.03184	60.00000	Averaged
45 Acenaphthylene	1.66068	1.47808	1.47808	0.000	-10.99555	60.00000	Averaged
47 Acenaphthene	1.06294	0.89925	0.89925	0.001	-15.39975	20.00000	Averaged ccc
48 2,4-Dinitrophenol	42.02206	40.00000	0.08759	0.050	5.05516	60.00000	Linear spcc
49 Dibenzofuran	1.39464	1.27908	1.27908	0.000	-8.28625	60.00000	Averaged
51 Diethylphthalate	1.17311	1.07200	1.07200	0.000	-8.61955	60.00000	Averaged
52 4-Nitrophenol	0.13654	0.14391	0.14391	0.050	5.40043	60.00000	Averaged spcc
53 Fluorene	1.29100	1.07540	1.07540	0.000	-16.69989	60.00000	Averaged
54 4-Chlorophenylphenylether	0.62173	0.54162	0.54162	0.000	-12.88500	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	48.66926	40.00000	0.10060	0.000	21.67316	60.00000	Linear
56 p-Nitroaniline	0.18448	0.18495	0.18495	0.000	0.25453	60.00000	Averaged
133 Diphenylamine	0.50546	0.46520	0.46520	0.001	-7.96469	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.59375	0.56532	0.56532	0.000	-4.78833	60.00000	Averaged
61 4-Bromophenylphenylether	0.19114	0.16319	0.16319	0.000	-14.62019	60.00000	Averaged
63 Hexachlorobenzene	0.19866	0.17428	0.17428	0.000	-12.27477	60.00000	Averaged
65 Pentachlorophenol	0.08849	0.08776	0.08776	0.001	-0.83218	20.00000	Averaged ccc
206 n-Octadecane	0.39703	0.39262	0.39262	0.000	-1.10928	60.00000	Averaged
68 Phenanthrene	35.36562	40.00000	0.82559	0.000	-11.58594	60.00000	Linear
69 Anthracene	0.97083	0.82497	0.82497	0.000	-15.02413	60.00000	Averaged
72 Di-n-butylphthalate	1.01476	0.94515	0.94515	0.000	-6.85986	60.00000	Averaged
76 Fluoranthene	1.01786	0.89285	0.89285	0.001	-12.28130	20.00000	Averaged ccc
79 Pyrene	1.24889	1.05447	1.05447	0.000	-15.56774	60.00000	Averaged
85 Butylbenzylphthalate	0.43672	0.42071	0.42071	0.000	-3.66508	60.00000	Averaged
89 Benzo(a)anthracene	1.05261	0.90191	0.90191	0.000	-14.31645	60.00000	Averaged
92 Chrysene	36.32073	40.00000	0.83331	0.000	-9.19818	60.00000	Linear
93 bis(2-Ethylhexyl)phthalate	0.61117	0.58944	0.58944	0.000	-3.55520	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 20-FEB-2010 18:09
Lab File ID: s8b2012.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Analysis Type: Init. Cal. Times: 12:55 01:19
Lab Sample ID: WBN100215-05.1 Quant Type: ISTD
Method: /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	39.76021	40.00000	1.22616	0.001	-0.59948	20.00000	Linear	ccc
	95 Benzo(b)fluoranthene	1.13405	1.05298	1.05298	0.000	-7.14838	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.14008	1.04465	1.04465	0.000	-8.37069	60.00000	Averaged	
	97 Benzo(a)pyrene	0.95647	0.89169	0.89169	0.001	-6.77277	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.79303	0.69287	0.69287	0.000	-12.62907	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.61288	0.52486	0.52486	0.000	-14.36175	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.65613	0.54043	0.54043	0.000	-17.63270	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16162	0.15617	0.15617	0.000	-3.37054	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.27739	0.25140	0.25140	0.000	-9.36867	60.00000	Averaged	
	143 Dinoseb	39.33235	40.00000	0.11528	0.000	-1.66914	60.00000	Linear	
	173 Carbazole	0.69337	0.64707	0.64707	0.000	-6.67637	60.00000	Averaged	
	184 p-Benzoquinone	26.23116	40.00000	0.11601	0.000	-34.42209	60.00000	Linear	
	192 Methoxychlor	0.57371	0.53574	0.53574	0.000	-6.61792	60.00000	Averaged	
	211 p-Toluidine	1.14055	0.88750	0.88750	0.000	-22.18641	60.00000	Averaged	
	210 m-Toluidine	1.48620	1.44197	1.44197	0.000	-2.97629	60.00000	Averaged	
	26 Phthalic anhydride	53.94737	40.00000	0.17465	0.000	34.86844	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	0.26112	0.15069	0.15069	0.000	-42.29332	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.17136	0.17062	0.17062	0.000	-0.43576	60.00000	Averaged	
	215 2-Ethoxyethanol	0.57374	0.58779	0.58779	0.000	2.44852	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	41.74874	40.00000	0.12008	0.000	4.37185	60.00000	Linear	
M	222 Trichlorophenols	0.31765	0.30387	0.30387	0.000	-4.33823	60.00000	Averaged	
M	223 Tetrachlorophenols	0.27739	0.25140	0.25140	0.000	-9.36867	60.00000	Averaged	
M	224 Benzo(b,k)fluoranthene	1.13706	1.04881	1.04881	0.000	-7.76116	60.00000	Averaged	

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Data file : /chem/MSD8.i/s022010.b/s8b2012.d
Lab Smp Id: WBN100215-05.1 Client Smp ID: MEGAICV
Inj Date : 20-FEB-2010 18:09
Operator : nagl Inst ID: MSD8.i
Smp Info : |WBN100215-05.1|40 PPM|1|SVM|1|MEGAICV
Misc Info : |MSD8270|WBN100217-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m
Meth Date : 23-Feb-2010 13:25 nat00999 Quant Type: ISTD
Cal Date : 22-FEB-2010 01:19 Cal File: s8b2046.d
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.530	4.530	(1.000)	613599	40.0000	
* 29 Naphthalene-d8	136	5.797	5.797	(1.000)	2473544	40.0000	
* 46 Acenaphthene-d10	164	7.663	7.663	(1.000)	1402775	40.0000	
* 67 Phenanthrene-d10	188	9.263	9.263	(1.000)	2635307	40.0000	
* 91 Chrysene-d12	240	12.197	12.197	(1.000)	2302220	40.0000	
* 98 Perylene-d12	264	14.354	14.354	(1.000)	1521193	40.0000	
$ 3 2-Fluorophenol	112	3.368	3.368	(0.743)	559924	40.0000	38.6
$ 5 Phenol-d5	99	4.149	4.149	(0.916)	687028	40.0000	38.0
$ 20 Nitrobenzene-d5	82	5.063	5.063	(0.873)	703589	40.0000	40.0
$ 39 2-Fluorobiphenyl	172	6.925	6.925	(0.904)	1556680	40.0000	37.7
$ 60 2,4,6-Tribromophenol	329	8.506	8.506	(1.110)	168767	40.0000	36.4
$ 81 p-Terphenyl-d14	244	10.978	10.978	(0.900)	1695598	40.0000	40.9
1 N-Methyl-N-nitrosomethylamine	74	2.382	2.382	(0.526)	351092	40.0000	37.6
2 Pyridine	79	2.420	2.420	(0.534)	415348	40.0000	30.3
4 Aniline	66	4.220	4.220	(0.932)	308837	40.0000	36.2
6 Phenol	94	4.163	4.163	(0.919)	719807	40.0000	38.6(Q)
7 bis(2-Chloroethyl) ether	63	4.263	4.263	(0.941)	455867	40.0000	35.7
8 2-Chlorophenol	128	4.335	4.335	(0.957)	628318	40.0000	38.8
203 n-Decane	43	4.354	4.354	(0.961)	679671	40.0000	40.7
9 1,3-Dichlorobenzene	146	4.477	4.477	(0.988)	741134	40.0000	38.6
11 1,4-Dichlorobenzene	146	4.549	4.549	(1.004)	743535	40.0000	37.5
13 1,2-Dichlorobenzene	146	4.692	4.692	(1.036)	697051	40.0000	37.8
14 bis(2-Chloroisopropyl)ether	45	4.768	4.768	(1.053)	961403	40.0000	38.4
12 Benzyl alcohol	108	4.644	4.644	(1.025)	393855	40.0000	38.9(H)
15 o-Cresol	107	4.735	4.735	(1.045)	498576	40.0000	38.5
18 m,p-Cresols	107	4.887	4.887	(1.079)	652539	40.0000	39.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.906	4.906	(1.083)	454801	40.0000	38.1
19 Hexachloroethane	117	5.025	5.025	(1.109)	280201	40.0000	37.5
21 Nitrobenzene	77	5.082	5.082	(0.877)	684707	40.0000	37.8
22 Isophorone	82	5.320	5.320	(0.918)	1221372	40.0000	36.6
23 2-Nitrophenol	139	5.397	5.397	(0.931)	329005	40.0000	39.5
24 2,4-Dimethylphenol	122	5.420	5.420	(0.935)	557217	40.0000	37.6
25 bis(2-Chloroethoxy)methane	93	5.525	5.525	(0.953)	658886	40.0000	35.2
26 2,4-Dichlorophenol	162	5.644	5.644	(0.974)	516992	40.0000	38.6
27 Benzoic acid	105	5.539	5.539	(0.956)	287142	40.0000	41.9
28 1,2,4-Trichlorobenzene	180	5.735	5.735	(0.989)	655648	40.0000	36.4
30 Naphthalene	128	5.820	5.820	(1.004)	1895442	40.0000	35.4
204 alpha-Terpineol	59	5.816	5.816	(1.003)	496172	40.0000	36.0
31 4-Chloroaniline	127	5.863	5.863	(1.012)	678318	40.0000	38.4
32 Hexachlorobutadiene	225	5.939	5.939	(1.025)	420920	40.0000	37.6
33 4-Chloro-3-methylphenol	107	6.354	6.354	(1.096)	560118	40.0000	38.7
34 2-Methylnaphthalene	142	6.539	6.539	(1.128)	1347856	40.0000	37.6
35 1-Methylnaphthalene	142	6.649	6.649	(1.147)	1269859	40.0000	36.1
36 Hexachlorocyclopentadiene	237	6.706	6.706	(0.875)	293896	40.0000	33.8
205 2,3-Dichloroaniline	161	6.835	6.835	(0.892)	663240	40.0000	35.8
37 2,4,6-Trichlorophenol	196	6.835	6.835	(0.892)	401928	40.0000	37.2
38 2,4,5-Trichlorophenol	196	6.873	6.873	(0.897)	450584	40.0000	39.3
40 2-Chloronaphthalene	162	7.063	7.063	(0.922)	1277487	40.0000	36.9
42 o-Nitroaniline	65	7.163	7.163	(0.935)	363688	40.0000	37.8
41 m-Nitroaniline	138	7.606	7.606	(0.993)	282391	40.0000	38.6
43 Dimethylphthalate	163	7.363	7.363	(0.961)	1455357	40.0000	37.0
44 2,6-Dinitrotoluene	165	7.425	7.425	(0.969)	328490	40.0000	37.0
50 2,4-Dinitrotoluene	165	7.854	7.854	(1.025)	419181	40.0000	36.8
45 Acenaphthylene	152	7.511	7.511	(0.980)	2073418	40.0000	35.6
47 Acenaphthene	154	7.697	7.697	(1.004)	1261448	40.0000	33.8
48 2,4-Dinitrophenol	184	7.711	7.711	(1.006)	122866	40.0000	42.0
49 Dibenzofuran	168	7.878	7.878	(1.028)	1794261	40.0000	36.7
51 Diethylphthalate	149	8.111	8.111	(1.058)	1503769	40.0000	36.6
52 4-Nitrophenol	139	7.768	7.768	(1.014)	201873	40.0000	42.2
53 Fluorene	166	8.249	8.249	(1.076)	1508548	40.0000	33.3
54 4-Chlorophenylphenylether	204	8.239	8.239	(1.075)	759775	40.0000	34.8
55 2-Methyl-4,6-dinitrophenol	198	8.297	8.297	(0.896)	265115	40.0000	48.7
56 p-Nitroaniline	138	8.263	8.263	(1.078)	259438	40.0000	40.1
133 Diphenylamine	169	8.368	8.368	(0.903)	1225948	40.0000	36.8
58 1,2-Diphenylhydrazine	77	8.416	8.416	(0.908)	1489780	40.0000	38.1
61 4-Bromophenylphenylether	248	8.768	8.768	(0.947)	430063	40.0000	34.2
63 Hexachlorobenzene	284	8.839	8.839	(0.954)	459277	40.0000	35.1
65 Pentachlorophenol	266	9.049	9.049	(0.977)	231262	40.0000	39.7
206 n-Octadecane	57	9.125	9.125	(0.985)	1034683	40.0000	39.6
68 Phenanthrene	178	9.292	9.292	(1.003)	2175678	40.0000	35.4
69 Anthracene	178	9.344	9.344	(1.009)	2174061	40.0000	34.0
72 Di-n-butylphthalate	149	9.873	9.873	(1.066)	2490757	40.0000	37.2
76 Fluoranthene	202	10.573	10.573	(1.141)	2352940	40.0000	35.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	10.820	10.820	(0.887)	2427617	40.0000	33.8
85 Butylbenzylphthalate	149	11.497	11.497	(0.943)	968576	40.0000	38.5
89 Benzo(a)anthracene	228	12.178	12.178	(0.998)	2076405	40.0000	34.3
92 Chrysene	228	12.230	12.230	(1.003)	1918472	40.0000	36.3
93 bis(2-Ethylhexyl)phthalate	149	12.182	12.182	(0.999)	1357026	40.0000	38.6
94 Di-n-octylphthalate	149	13.097	13.097	(0.912)	1865222	40.0000	39.8
95 Benzo(b)fluoranthene	252	13.720	13.720	(0.956)	1601785	40.0000	37.1(H)
96 Benzo(k)fluoranthene	252	13.768	13.768	(0.959)	1589110	40.0000	36.6
97 Benzo(a)pyrene	252	14.254	14.254	(0.993)	1356428	40.0000	37.3
99 Indeno(1,2,3-cd)pyrene	276	16.220	16.220	(1.130)	1053996	40.0000	34.9
100 Dibenzo(a,h)anthracene	278	16.254	16.254	(1.132)	798414	40.0000	34.2
101 Benzo(ghi)perylene	276	16.701	16.701	(1.164)	822104	40.0000	32.9
126 m-Dinitrobenzene	168	7.392	7.392	(0.965)	219071	40.0000	38.6
130 2,3,4,6-Tetrachlorophenol	232	8.001	8.001	(1.044)	352660	40.0000	36.2
143 Dinoseb	211	9.239	9.239	(0.997)	303786	40.0000	39.3
173 Carbazole	167	9.511	9.511	(1.027)	1705240	40.0000	37.3
184 p-Benzoquinone	54	3.787	3.787	(0.836)	71181	40.0000	26.2
192 Methoxychlor	227	12.078	12.078	(0.990)	1233392	40.0000	37.4
211 p-Toluidine	106	4.949	4.949	(1.093)	544571	40.0000	31.1
210 m-Toluidine	106	4.982	4.982	(1.100)	884790	40.0000	38.8
26 Phthalic anhydride	104	6.597	6.597	(1.138)	432011	40.0000	53.9
179 Dibenzo(a,e)pyrene	302	19.925	19.925	(1.388)	229221	40.0000	23.1
214 1,4-Dinitrobenzene	75	7.311	7.311	(0.954)	239338	40.0000	39.8
215 2-Ethoxyethanol	59	2.177	2.177	(0.481)	360665	40.0000	41.0
216 Methylenebis(2-chloroaniline)	231	12.135	12.135	(0.995)	276453	40.0000	41.7(Q)
M 222 Trichlorophenols	196				852512	80.0000	76.5
M 223 Tetrachlorophenols	232				352660	40.0000	36.2
M 224 Benzo(b,k)fluoranthene	252				3190895	80.0000	73.8

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD8.i/s022010.b/s8b2012.d
Date : 20-FEB-2010 18:09
Client ID: MEGAICV
Sample Info: IWBN100215-05,1140 PPM11SVM11MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: nagl
Column diameter: 0.20

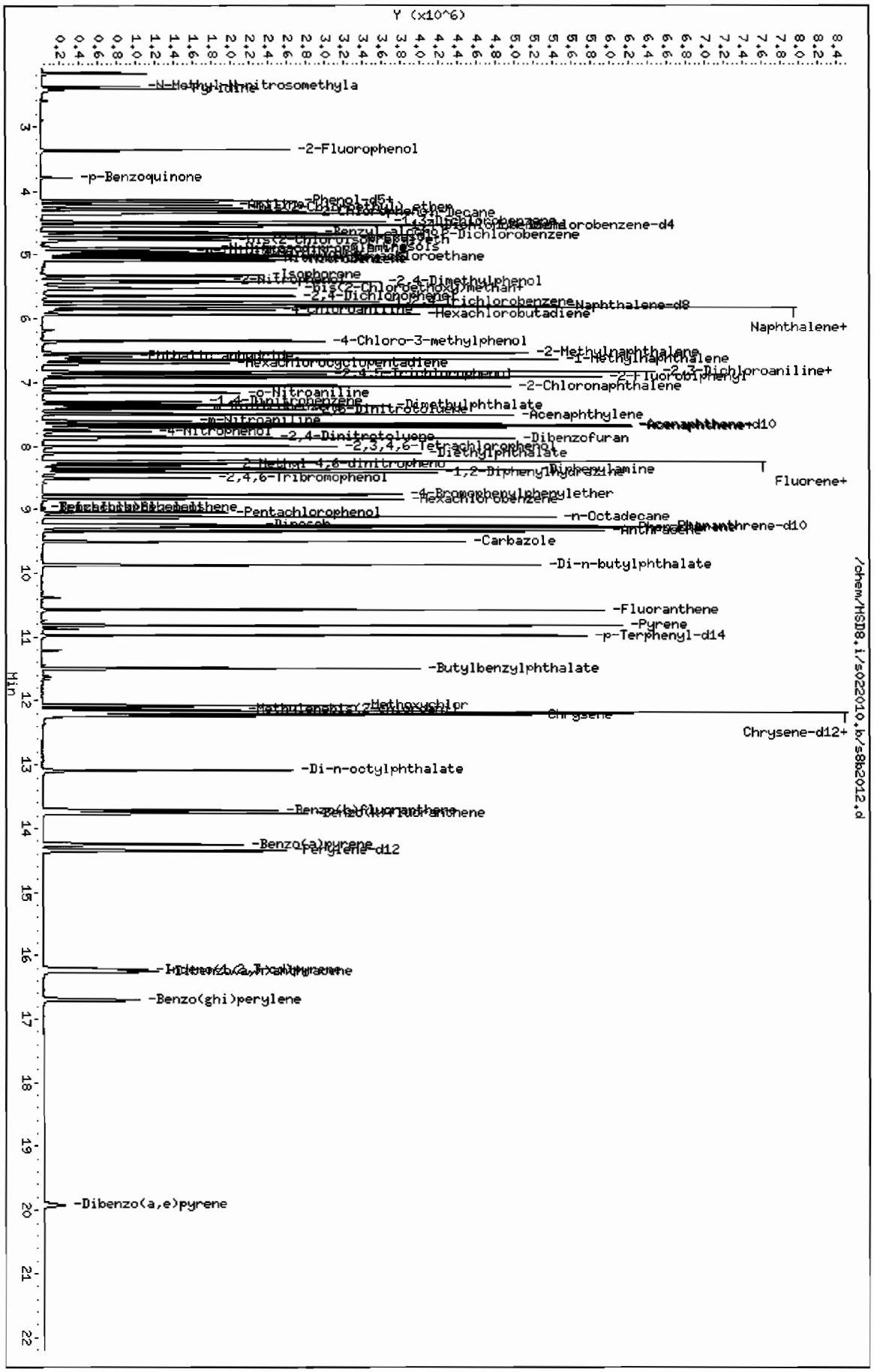

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 21-FEB-2010 19:53
Lab File ID: s8b2035.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Analysis Type: Init. Cal. Times: 12:55 01:19
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.84330	0.69688	0.69688	0.000	-17.36320	60.00000	Averaged
16 Acetophenone	1.20309	1.14109	1.14109	0.000	-5.15283	60.00000	Averaged
189 Caprolactam	0.06655	0.06831	0.06831	0.000	2.63428	60.00000	Averaged
208 1,1'-Biphenyl	1.22219	1.19703	1.19703	0.000	-2.05853	60.00000	Averaged
207 Atrazine	0.03531	0.03806	0.03806	0.000	7.78782	60.00000	Averaged
77 Benzidine	41.98033	40.00000	0.31874	0.000	4.95082	60.00000	Linear
90 3,3'-Dichlorobenzidine	0.24780	0.27320	0.27320	0.000	10.24947	60.00000	Averaged
102 1,4-Dioxane	0.32319	0.37708	0.37708	0.000	16.67521	60.00000	Averaged
103 Methyl methacrylate	0.16817	0.19675	0.19675	0.000	16.99914	60.00000	Averaged
104 Ethyl methacrylate	0.67963	0.79943	0.79943	0.000	17.62812	60.00000	Averaged
105 2-Picoline	1.09294	1.07981	1.07981	0.000	-1.20157	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.43986	0.46246	0.46246	0.000	5.13741	60.00000	Averaged
107 Methyl methanesulfonate	0.49950	0.54492	0.54492	0.000	9.09235	60.00000	Averaged
108 N-Nitrosodiethylamine	0.45804	0.47767	0.47767	0.000	4.28449	60.00000	Averaged
109 Ethyl Methanesulfonate	0.60902	0.73730	0.73730	0.000	21.06290	60.00000	Averaged
110 Pentachloroethane	0.32092	0.43327	0.43327	0.000	35.01075	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.49059	0.49284	0.49284	0.000	0.45905	60.00000	Averaged
113 N-Nitrosomorpholine	0.66385	0.70342	0.70342	0.000	5.95974	60.00000	Averaged
114 o-Toluidine	1.62183	1.64404	1.64404	0.000	1.36960	60.00000	Averaged
115 N-Nitrosopiperidine	0.12437	0.12589	0.12589	0.000	1.22448	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.74304	0.77809	0.77809	0.000	4.71795	60.00000	Averaged
118 2,6-Dichlorophenol	0.20154	0.20467	0.20467	0.000	1.55320	60.00000	Averaged
119 Hexachloropropene	0.12360	0.18944	0.18944	0.000	53.26602	60.00000	Averaged
120 p-Phenylenediamine	0.19655	0.20159	0.20159	0.000	2.56438	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21161	0.22736	0.22736	0.000	7.44405	60.00000	Averaged
122 Safrole	0.19334	0.21416	0.21416	0.000	10.76780	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.47582	0.48716	0.48716	0.000	2.38273	60.00000	Averaged
124 Isosafrole	0.32130	0.41354	0.41354	0.000	28.70739	60.00000	Averaged
125 1,4-Naphthoquinone	0.29641	0.29356	0.29356	0.000	-0.96298	60.00000	Averaged
127 Pentachlorobenzene	0.43422	0.41984	0.41984	0.000	-3.31212	60.00000	Averaged
128 1-Naphthylamine	0.84230	0.87716	0.87716	0.000	4.13822	60.00000	Averaged
129 2-Naphthylamine	0.88763	0.93442	0.93442	0.000	5.27090	60.00000	Averaged
131 5-Nitro-o-toluidine	0.24122	0.24992	0.24992	0.000	3.60687	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.09499	0.13160	0.13160	0.000	38.54101	60.00000	Averaged
137 Phenacetin	0.21690	0.22945	0.22945	0.000	5.79020	60.00000	Averaged
138 Diallate	0.20203	0.19101	0.19101	0.000	-5.45490	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 21-FEB-2010 19:53
Lab File ID: s8b2035.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Analysis Type: Init. Cal. Times: 12:55 01:19
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.20071	0.25770	0.25770	0.000	28.39010	60.00000	Averaged
213 Trans Diallate	0.23769	0.22472	0.22472	0.000	-5.45490	60.00000	Averaged
140 4-Aminobiphenyl	0.51727	0.55152	0.55152	0.000	6.62074	60.00000	Averaged
141 Pentachloronitrobenzene	0.07936	0.08310	0.08310	0.000	4.70392	60.00000	Averaged
142 Pronamide	0.25230	0.26699	0.26699	0.000	5.82308	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.01907	0.01438	0.01438	0.000	-24.58503	60.00000	Averaged
147 Methapyrilene	0.29186	0.32275	0.32275	0.000	10.58368	60.00000	Averaged
148 Isodrin	0.10718	0.09605	0.09605	0.000	-10.38226	60.00000	Averaged
149 Aramite	0.03388	0.03359	0.03359	0.000	-0.86154	60.00000	Averaged
150 Kepone	0.07795	0.07692	0.07692	0.000	-1.31942	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.25808	0.27705	0.27705	0.000	7.35059	60.00000	Averaged
152 Chlorobenzilate	0.26271	0.28217	0.28217	0.000	7.40895	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.45535	0.49139	0.49139	0.000	7.91309	60.00000	Averaged
155 2-Acetylaminofluorene	42.39036	40.00000	0.24154	0.000	5.97589	60.00000	Linear
157 7,12Dimethylbenz(a)anthrace	0.51909	0.49026	0.49026	0.000	-5.55329	60.00000	Averaged
158 3-Methylcholanthrene	0.36780	0.40291	0.40291	0.000	9.54489	60.00000	Averaged

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Data file : /chem/MSD8.i/s022010.b/s8b2035.d
Lab Smp Id: WBN100218-08.1 Client Smp ID: APICV
Inj Date : 21-FEB-2010 19:53
Operator : nag1 Inst ID: MSD8.i
Smp Info : |WBN100218-08.1|40 PPM|1|SVM|1|APICV
Misc Info : |MSD8270|WBN100217-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m
Meth Date : 23-Feb-2010 13:31 nat00999 Quant Type: ISTD
Cal Date : 22-FEB-2010 00:48 Cal File: s8b2045.d
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.530	4.530	(1.000)	649861	40.0000	
* 29 Naphthalene-d8	136	5.796	5.796	(1.000)	2469894	40.0000	
* 46 Acenaphthene-d10	164	7.658	7.658	(1.000)	1465298	40.0000	
* 67 Phenanthrene-d10	188	9.263	9.263	(1.000)	2747481	40.0000	
* 91 Chrysene-d12	240	12.192	12.192	(1.000)	2214467	40.0000	
* 98 Perylene-d12	264	14.349	14.349	(1.000)	1648118	40.0000	
209 Benzaldehyde	77	4.125	4.125	(0.911)	452872	40.0000	33.0
16 Acetophenone	105	4.906	4.906	(1.083)	741552	40.0000	37.9
189 Caprolactam	113	6.225	6.225	(1.074)	168712	40.0000	41.0(H)
208 1,1'-Biphenyl	154	7.034	7.034	(0.919)	1754011	40.0000	39.2
207 Atrazine	173	8.939	8.939	(0.965)	104582	40.0000	43.1
77 Benzidine	184	10.706	10.706	(0.878)	705844	40.0000	42.0
90 3,3'-Dichlorobenzidine	252	12.130	12.130	(0.995)	604986	40.0000	44.1
102 1,4-Dioxane	88	2.177	2.177	(0.481)	245052	40.0000	46.7
103 Methyl methacrylate	100	2.177	2.177	(0.481)	127862	40.0000	46.8
104 Ethyl methacrylate	69	2.692	2.692	(0.594)	519520	40.0000	47.0
105 2-Picoline	93	2.939	2.939	(0.649)	701726	40.0000	39.5
106 N-Nitrosomethylethylamine	88	3.011	3.011	(0.665)	300533	40.0000	42.0
107 Methyl methanesulfonate	80	3.239	3.239	(0.715)	354120	40.0000	43.6
108 N-Nitrosodiethylamine	102	3.568	3.568	(0.788)	310419	40.0000	41.7
109 Ethyl Methanesulfonate	79	3.806	3.806	(0.840)	479140	40.0000	48.4
110 Pentachloroethane	167	4.268	4.268	(0.942)	281568	40.0000	54.0
111 N-Nitrosopyrrolidine	100	4.887	4.887	(1.079)	320276	40.0000	40.2(Q)
113 N-Nitrosomorpholine	56	4.925	4.925	(1.087)	457122	40.0000	42.4
114 o-Toluidine	106	4.944	4.944	(1.091)	1068400	40.0000	40.5
115 N-Nitrosopiperidine	114	5.230	5.230	(0.902)	310940	40.0000	40.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.630	5.630	(0.971)	1921805	40.0000	41.9
118 2,6-Dichlorophenol	162	5.872	5.872	(1.013)	505519	40.0000	40.6
119 Hexachloropropene	213	5.906	5.906	(1.019)	467897	40.0000	61.3
120 p-Phenylenediamine	108	6.230	6.230	(1.075)	497912	40.0000	41.0
121 N-Nitrosodi-n-butylamine	84	6.211	6.211	(1.071)	561557	40.0000	43.0
122 Safrole	162	6.439	6.439	(1.111)	528955	40.0000	44.3
123 1,2,4,5-Tetrachlorobenzene	216	6.715	6.715	(0.877)	713829	40.0000	41.0
124 Isosafrole	162	6.992	6.992	(0.913)	605957	40.0000	51.5
125 1,4-Naphthoquinone	158	7.244	7.244	(0.946)	430153	40.0000	39.6
127 Pentachlorobenzene	250	7.830	7.830	(1.022)	615188	40.0000	38.7
128 1-Naphthylamine	143	7.958	7.958	(1.039)	1285298	40.0000	41.6
129 2-Naphthylamine	143	8.044	8.044	(1.050)	1369199	40.0000	42.1
131 5-Nitro-o-toluidine	152	8.249	8.249	(1.077)	366207	40.0000	41.4
136 1,3,5-Trinitrobenzene	75	8.634	8.634	(0.932)	361581	40.0000	55.4
137 Phenacetin	108	8.701	8.701	(0.939)	630422	40.0000	42.3(Q)
138 Diallate	86	8.673	8.673	(0.936)	524804	40.0000	37.8
212 Cis Diallate	86	8.768	8.768	(0.947)	106203	6.00000	7.7
213 Trans Diallate	86	8.673	8.673	(0.936)	524804	34.0000	32.1
140 4-Aminobiphenyl	169	9.049	9.049	(0.977)	1515283	40.0000	42.6
141 Pentachloronitrobenzene	237	9.063	9.063	(0.978)	228304	40.0000	41.9(Q)
142 Pronamide	173	9.106	9.106	(0.983)	733556	40.0000	42.3
146 4-Nitroquinoline-1-oxide	101	10.111	10.111	(1.091)	39509	40.0000	30.2
147 Methapyrilene	58	10.192	10.192	(1.100)	886744	40.0000	44.2
148 Isodrin	193	10.411	10.411	(1.124)	263898	40.0000	35.8
149 Aramite	185	10.944	10.944	(1.181)	92281	40.0000	39.6
150 Kepone	272	11.563	11.563	(1.248)	211334	40.0000	39.5
151 p-(Dimethylamino)azobenzene	120	11.125	11.125	(0.912)	613518	40.0000	42.9
152 Chlorobenzilate	251	11.173	11.173	(0.916)	624855	40.0000	43.0
153 3,3'-Dimethylbenzidine	212	11.487	11.487	(0.942)	1088156	40.0000	43.2
155 2-Acetylaminofluorene	181	11.782	11.782	(0.966)	534890	40.0000	42.4
157 7,12Dimethylbenz(a)anthracene	256	13.706	13.706	(0.955)	808013	40.0000	37.8
158 3-Methylcholanthrene	268	14.849	14.849	(1.035)	664045	40.0000	43.8(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD8.i/s022010.b/s8b2035.d
Date : 21-FEB-2010 19:53
Client ID: APICV
Sample Info: IWBM100218-08,1140 PPM11SVM11APICV
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: nagl
Column diameter: 0.20

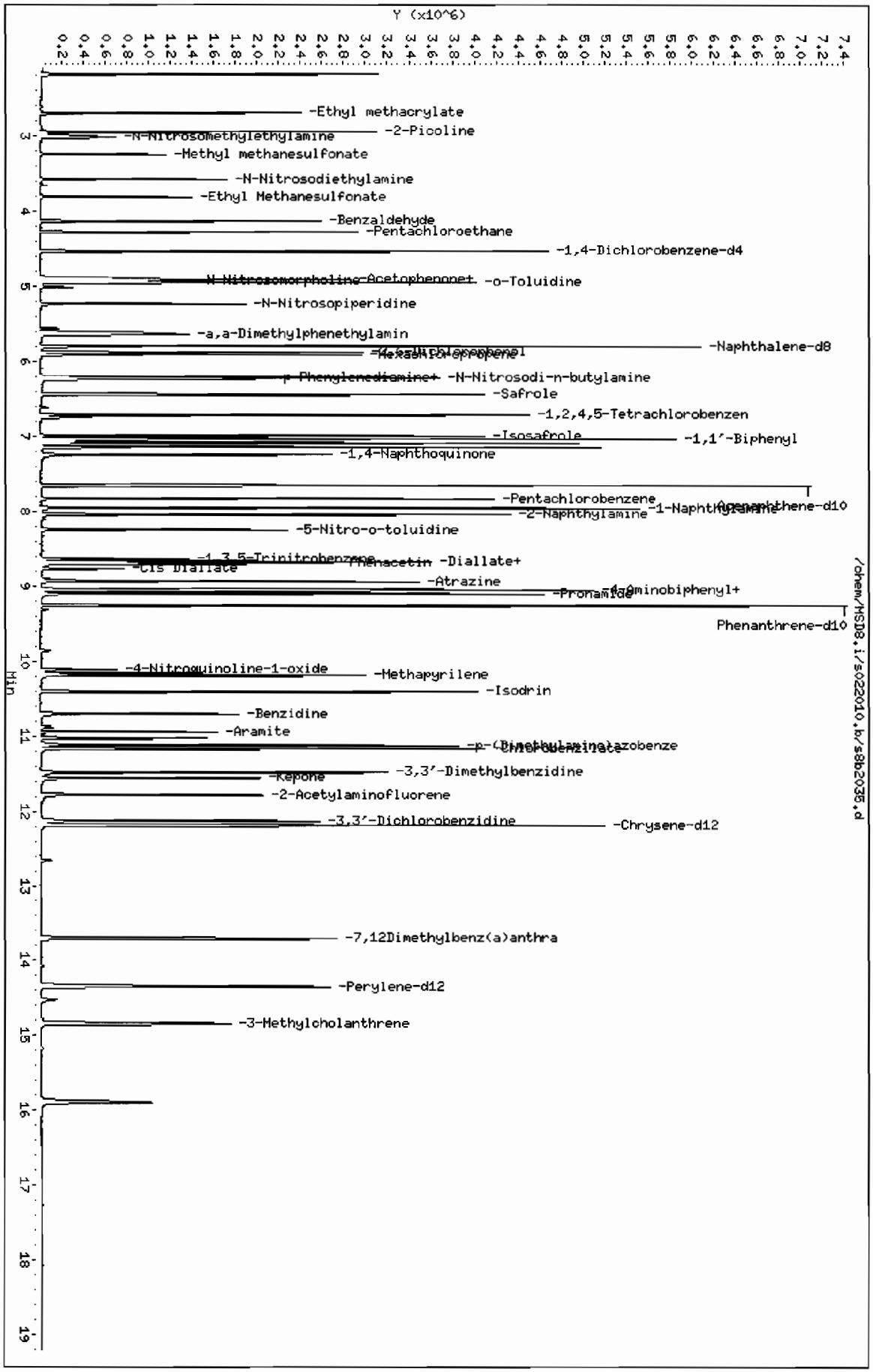

Page 1

Data File: /chem/MSD8.i/s022510.b/s8b2506.d
Report Date: 25-Feb-2010 13:27

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i
Lab File ID: s8b2506.d
Analysis Type:
Lab Sample ID: WBN100215-05.3
Method: /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m

Injection Date: 25-FEB-2010 11:38
Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Init. Cal. Times: 12:55 01:19
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	0.94435	0.93614	0.93614	0.000	-0.86900	60.00000	Averaged
$ 5 Phenol-d5	1.17771	1.19790	1.19790	0.000	1.71509	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.28435	0.28193	0.28193	0.000	-0.84887	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.17740	1.07340	1.07340	0.000	-8.83254	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.13223	0.12014	0.12014	0.000	-9.14329	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.72015	0.65420	0.65420	0.000	-9.15801	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.60923	0.57503	0.57503	0.000	-5.61456	60.00000	Averaged
2 Pyridine	0.89373	0.84610	0.84610	0.000	-5.32922	60.00000	Averaged
4 Aniline	0.55542	0.53039	0.53039	0.000	-4.50663	60.00000	Averaged
6 Phenol	1.21617	1.23646	1.23646	0.001	1.66781	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.83144	0.82875	0.82875	0.000	-0.32348	60.00000	Averaged
8 2-Chlorophenol	1.05605	1.04560	1.04560	0.000	-0.98942	60.00000	Averaged
203 n-Decane	1.08949	1.23444	1.23444	0.000	13.30401	60.00000	Averaged
9 1,3-Dichlorobenzene	1.25240	1.20551	1.20551	0.000	-3.74380	60.00000	Averaged
11 1,4-Dichlorobenzene	1.29215	1.23989	1.23989	0.001	-4.04464	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.20194	1.14572	1.14572	0.000	-4.67708	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.63019	1.79657	1.79657	0.000	10.20579	60.00000	Averaged
12 Benzyl alcohol	0.66057	0.58410	0.58410	0.000	-11.57605	60.00000	Averaged
15 o-Cresol	0.84463	0.80577	0.80577	0.000	-4.60036	60.00000	Averaged
18 m,p-Cresols	1.06890	1.03431	1.03431	0.000	-3.23552	60.00000	Averaged
17 N-Nitrosodipropylamine	0.77788	0.78168	0.78168	0.050	0.48889	60.00000	Averaged spcc
19 Hexachloroethane	0.48694	0.48524	0.48524	0.000	-0.34892	60.00000	Averaged
21 Nitrobenzene	0.29331	0.28554	0.28554	0.000	-2.64845	60.00000	Averaged
22 Isophorone	0.53999	0.53806	0.53806	0.000	-0.35780	60.00000	Averaged
23 2-Nitrophenol	0.13462	0.13593	0.13593	0.001	0.97733	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.23932	0.23002	0.23002	0.000	-3.88886	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.30282	0.30789	0.30789	0.000	1.67430	60.00000	Averaged
26 2,4-Dichlorophenol	0.21654	0.21955	0.21955	0.001	1.38882	20.00000	Averaged ccc
27 Benzoic acid	45.14053	40.00000	0.12981	0.000	12.85133	60.00000	Linear
28 1,2,4-Trichlorobenzene	0.29118	0.27288	0.27288	0.000	-6.28630	60.00000	Averaged
30 Naphthalene	38.79062	40.00000	0.84429	0.000	-3.02345	60.00000	Linear
204 alpha-Terpineol	0.22259	0.24465	0.24465	0.000	9.91134	60.00000	Averaged
31 4-Chloroaniline	0.28585	0.27824	0.27824	0.000	-2.66235	60.00000	Averaged
32 Hexachlorobutadiene	0.18110	0.17408	0.17408	0.001	-3.87280	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.23429	0.22574	0.22574	0.001	-3.64653	20.00000	Averaged ccc
34 2-Methylnaphthalene	38.20951	40.00000	0.55459	0.000	-4.47622	60.00000	Linear

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 25-FEB-2010 11:38
Lab File ID: s8b2506.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Analysis Type: Init. Cal. Times: 12:55 01:19
Lab Sample ID: WBN100215-05.3 Quant Type: ISTD
Method: /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	38.12079	40.00000	0.54250	0.000	-4.69804	60.00000	Linear
36 Hexachlorocyclopentadiene	0.24827	0.20213	0.20213	0.050	-18.58476	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.52803	0.49423	0.49423	0.000	-6.40265	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.30819	0.29516	0.29516	0.001	-4.22820	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.32711	0.29895	0.29895	0.000	-8.60851	60.00000	Averaged
40 2-Chloronaphthalene	36.82889	40.00000	0.90773	0.000	-7.92777	60.00000	Linear
42 o-Nitroaniline	0.27392	0.25943	0.25943	0.000	-5.29168	60.00000	Averaged
41 m-Nitroaniline	0.20877	0.18943	0.18943	0.000	-9.26240	60.00000	Averaged
43 Dimethylphthalate	1.12088	1.08787	1.08787	0.000	-2.94489	60.00000	Averaged
44 2,6-Dinitrotoluene	0.25341	0.24537	0.24537	0.000	-3.17414	60.00000	Averaged
50 2,4-Dinitrotoluene	0.32492	0.30740	0.30740	0.000	-5.39220	60.00000	Averaged
45 Acenaphthylene	1.66068	1.39088	1.39088	0.000	-16.24646	60.00000	Averaged
47 Acenaphthene	1.06294	0.88848	0.88848	0.001	-16.41352	20.00000	Averaged ccc
48 2,4-Dinitrophenol	42.32564	40.00000	0.08855	0.050	5.81410	60.00000	Linear spcc
49 Dibenzofuran	1.39464	1.25590	1.25590	0.000	-9.94838	60.00000	Averaged
51 Diethylphthalate	1.17311	1.09204	1.09204	0.000	-6.91133	60.00000	Averaged
52 4-Nitrophenol	0.13654	0.14055	0.14055	0.050	2.93860	60.00000	Averaged spcc
53 Fluorene	1.29100	1.14712	1.14712	0.000	-11.14504	60.00000	Averaged
54 4-Chlorophenylphenylether	0.62173	0.56766	0.56766	0.000	-8.69663	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	44.21738	40.00000	0.08992	0.000	10.54344	60.00000	Linear
56 p-Nitroaniline	0.18448	0.16397	0.16397	0.000	-11.11685	60.00000	Averaged
133 Diphenylamine	0.50546	0.51255	0.51255	0.001	1.40326	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.59375	0.59156	0.59156	0.000	-0.36737	60.00000	Averaged
61 4-Bromophenylphenylether	0.19114	0.18759	0.18759	0.000	-1.85349	60.00000	Averaged
63 Hexachlorobenzene	0.19866	0.18792	0.18792	0.000	-5.40984	60.00000	Averaged
65 Pentachlorophenol	0.08849	0.09769	0.09769	0.001	10.39680	20.00000	Averaged ccc
206 n-Octadecane	0.39703	0.43775	0.43775	0.000	10.25677	60.00000	Averaged
68 Phenanthrene	37.16122	40.00000	0.86997	0.000	-7.09695	60.00000	Linear
69 Anthracene	0.97083	0.86851	0.86851	0.000	-10.54024	60.00000	Averaged
72 Di-n-butylphthalate	1.01476	1.07594	1.07594	0.000	6.02909	60.00000	Averaged
76 Fluoranthene	1.01786	0.97131	0.97131	0.001	-4.57286	20.00000	Averaged ccc
79 Pyrene	1.24889	1.11057	1.11057	0.000	-11.07581	60.00000	Averaged
85 Butylbenzylphthalate	0.43672	0.45240	0.45240	0.000	3.59064	60.00000	Averaged
89 Benzo(a)anthracene	1.05261	0.93188	0.93188	0.000	-11.46952	60.00000	Averaged
92 Chrysene	36.76675	40.00000	0.84366	0.000	-8.08312	60.00000	Linear
93 bis(2-Ethylhexyl)phthalate	0.61117	0.67331	0.67331	0.000	10.16691	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 25-FEB-2010 11:38
Lab File ID: s8b2506.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Analysis Type: Init. Cal. Times: 12:55 01:19
Lab Sample ID: WBN100215-05.3 Quant Type: ISTD
Method: /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	39.59208	40.00000	1.22018	0.001	-1.01980	20.00000	Linear	ccc
	95 Benzo(b)fluoranthene	1.13405	0.95440	0.95440	0.000	-15.84137	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.14008	0.98433	0.98433	0.000	-13.66098	60.00000	Averaged	
	97 Benzo(a)pyrene	0.95647	0.85419	0.85419	0.001	-10.69316	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.79303	0.74483	0.74483	0.000	-6.07702	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.61288	0.59325	0.59325	0.000	-3.20225	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.65613	0.58782	0.58782	0.000	-10.41063	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16162	0.15678	0.15678	0.000	-2.99006	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.27739	0.24254	0.24254	0.000	-12.56450	60.00000	Averaged	
	143 Dinoseb	43.78356	40.00000	0.13199	0.000	9.45890	60.00000	Linear	
	173 Carbazole	0.69337	0.60459	0.60459	0.000	-12.80422	60.00000	Averaged	
	184 p-Benzoquinone	17.50213	40.00000	0.07207	0.000	-56.24466	60.00000	Linear	
	192 Methoxychlor	0.57371	0.63320	0.63320	0.000	10.37018	60.00000	Averaged	
	211 p-Toluidine	1.14055	1.07587	1.07587	0.000	-5.67116	60.00000	Averaged	
	210 m-Toluidine	1.48620	1.30017	1.30017	0.000	-12.51747	60.00000	Averaged	
	26 Phthalic anhydride	39.22011	40.00000	0.12190	0.000	-1.94972	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	0.26112	0.22089	0.22089	0.000	-15.40859	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.17136	0.16290	0.16290	0.000	-4.93816	60.00000	Averaged	
	215 2-Ethoxyethanol	0.57374	0.57009	0.57009	0.000	-0.63562	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	34.81285	40.00000	0.09581	0.000	-12.96787	60.00000	Linear	
M	222 Trichlorophenols	0.31765	0.29705	0.29705	0.000	-6.48358	60.00000	Averaged	
M	223 Tetrachlorophenols	0.27739	0.24254	0.24254	0.000	-12.56450	60.00000	Averaged	
M	224 Benzo(b,k)fluoranthene	1.13706	0.96937	0.96937	0.000	-14.74828	60.00000	Averaged	

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Data file : /chem/MSD8.i/s022510.b/s8b2506.d
Lab Smp Id: WBN100215-05.3 Client Smp ID: MEGACVS
Inj Date : 25-FEB-2010 11:38
Operator : nagl Inst ID: MSD8.i
Smp Info : |WBN100215-05.3|40 PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN100217-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m
Meth Date : 25-Feb-2010 13:26 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.516	4.516	(1.000)	301999	40.0000	
* 29 Naphthalene-d8	136	5.777	5.777	(1.000)	1218382	40.0000	
* 46 Acenaphthene-d10	164	7.635	7.635	(1.000)	742477	40.0000	
* 67 Phenanthrene-d10	188	9.239	9.239	(1.000)	1264700	40.0000	
* 91 Chrysene-d12	240	12.173	12.173	(1.000)	1180910	40.0000	
* 98 Perylene-d12	264	14.320	14.320	(1.000)	883868	40.0000	
$ 3 2-Fluorophenol	112	3.363	3.363	(0.745)	282713	40.0000	39.6
$ 5 Phenol-d5	99	4.135	4.135	(0.916)	361766	40.0000	40.7
$ 20 Nitrobenzene-d5	82	5.044	5.044	(0.873)	343501	40.0000	39.7
$ 39 2-Fluorobiphenyl	172	6.901	6.901	(0.904)	796976	40.0000	36.5
$ 60 2,4,6-Tribromophenol	329	8.482	8.482	(1.111)	89198	40.0000	36.3
$ 81 p-Terphenyl-d14	244	10.954	10.954	(0.900)	772546	40.0000	36.3
1 N-Methyl-N-nitrosomethylamine	74	2.415	2.415	(0.535)	173657	40.0000	37.8
2 Pyridine	79	2.449	2.449	(0.542)	255521	40.0000	37.9
4 Aniline	66	4.206	4.206	(0.931)	160178	40.0000	38.2
6 Phenol	94	4.144	4.144	(0.918)	373409	40.0000	40.7
7 bis(2-Chloroethyl) ether	63	4.249	4.249	(0.941)	250282	40.0000	39.9
8 2-Chlorophenol	128	4.316	4.316	(0.956)	315771	40.0000	39.6
203 n-Decane	43	4.335	4.335	(0.960)	372800	40.0000	45.3
9 1,3-Dichlorobenzene	146	4.463	4.463	(0.988)	364063	40.0000	38.5
11 1,4-Dichlorobenzene	146	4.530	4.530	(1.003)	374446	40.0000	38.4
13 1,2-Dichlorobenzene	146	4.673	4.673	(1.035)	346007	40.0000	38.1
14 bis(2-Chloroisopropyl)ether	45	4.754	4.754	(1.053)	542561	40.0000	44.1
12 Benzyl alcohol	108	4.625	4.625	(1.024)	176398	40.0000	35.4
15 o-Cresol	107	4.716	4.716	(1.044)	243342	40.0000	38.2
18 m,p-Cresols	107	4.868	4.868	(1.078)	312361	40.0000	38.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.887	4.887	(1.082)	236068	40.0000	40.2
19 Hexachloroethane	117	5.006	5.006	(1.109)	146543	40.0000	39.9
21 Nitrobenzene	77	5.063	5.063	(0.876)	347896	40.0000	38.9
22 Isophorone	82	5.301	5.301	(0.918)	655565	40.0000	39.8
23 2-Nitrophenol	139	5.377	5.377	(0.931)	165619	40.0000	40.4
24 2,4-Dimethylphenol	122	5.401	5.401	(0.935)	280247	40.0000	38.4
25 bis(2-Chloroethoxy)methane	93	5.501	5.501	(0.952)	375127	40.0000	40.7
26 2,4-Dichlorophenol	162	5.620	5.620	(0.973)	267495	40.0000	40.6
27 Benzoic acid	105	5.496	5.496	(0.951)	158163	40.0000	45.1
28 1,2,4-Trichlorobenzene	180	5.711	5.711	(0.988)	332468	40.0000	37.5
30 Naphthalene	128	5.796	5.796	(1.003)	1028673	40.0000	38.8
204 alpha-Terpineol	59	5.796	5.796	(1.003)	298073	40.0000	44.0
31 4-Chloroaniline	127	5.839	5.839	(1.011)	339006	40.0000	38.9
32 Hexachlorobutadiene	225	5.916	5.916	(1.024)	212099	40.0000	38.4
33 4-Chloro-3-methylphenol	107	6.330	6.330	(1.096)	275043	40.0000	38.5
34 2-Methylnaphthalene	142	6.520	6.520	(1.129)	675702	40.0000	38.2
35 1-Methylnaphthalene	142	6.625	6.625	(1.147)	660975	40.0000	38.1
36 Hexachlorocyclopentadiene	237	6.682	6.682	(0.875)	150075	40.0000	32.6
205 2,3-Dichloroaniline	161	6.811	6.811	(0.892)	366951	40.0000	37.4
37 2,4,6-Trichlorophenol	196	6.811	6.811	(0.892)	219146	40.0000	38.3
38 2,4,5-Trichlorophenol	196	6.849	6.849	(0.897)	221962	40.0000	36.6
40 2-Chloronaphthalene	162	7.039	7.039	(0.922)	673970	40.0000	36.8
42 o-Nitroaniline	65	7.139	7.139	(0.935)	192618	40.0000	37.9
41 m-Nitroaniline	138	7.582	7.582	(0.993)	140650	40.0000	36.3
43 Dimethylphthalate	163	7.339	7.339	(0.961)	807719	40.0000	38.8
44 2,6-Dinitrotoluene	165	7.401	7.401	(0.969)	182179	40.0000	38.7
50 2,4-Dinitrotoluene	165	7.835	7.835	(1.026)	228237	40.0000	37.8
45 Acenaphthylene	152	7.487	7.487	(0.981)	1032698	40.0000	33.5
47 Acenaphthene	154	7.673	7.673	(1.005)	659673	40.0000	33.4
48 2,4-Dinitrophenol	184	7.692	7.692	(1.007)	65746	40.0000	42.3
49 Dibenzofuran	168	7.854	7.854	(1.029)	932476	40.0000	36.0
51 Diethylphthalate	149	8.092	8.092	(1.060)	810811	40.0000	37.2
52 4-Nitrophenol	139	7.744	7.744	(1.014)	104354	40.0000	41.2
53 Fluorene	166	8.225	8.225	(1.077)	851707	40.0000	35.5
54 4-Chlorophenylphenylether	204	8.216	8.216	(1.076)	421477	40.0000	36.5
55 2-Methyl-4,6-dinitrophenol	198	8.273	8.273	(0.895)	113726	40.0000	44.2
56 p-Nitroaniline	138	8.235	8.235	(1.079)	121743	40.0000	35.6
133 Diphenylamine	169	8.344	8.344	(0.903)	648225	40.0000	40.6
58 1,2-Diphenylhydrazine	77	8.392	8.392	(0.908)	748152	40.0000	39.8
61 4-Bromophenylphenylether	248	8.749	8.749	(0.947)	237251	40.0000	39.2
63 Hexachlorobenzene	284	8.816	8.816	(0.954)	237658	40.0000	37.8
65 Pentachlorophenol	266	9.025	9.025	(0.977)	123551	40.0000	44.2
206 n-Octadecane	57	9.101	9.101	(0.985)	553622	40.0000	44.1
68 Phenanthrene	178	9.268	9.268	(1.003)	1100254	40.0000	37.2
69 Anthracene	178	9.320	9.320	(1.009)	1098399	40.0000	35.8
72 Di-n-butylphthalate	149	9.854	9.854	(1.066)	1360742	40.0000	42.4
76 Fluoranthene	202	10.549	10.549	(1.142)	1228420	40.0000	38.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	10.797	10.797	(0.887)	1311480	40.0000	35.6
85 Butylbenzylphthalate	149	11.478	11.478	(0.943)	534245	40.0000	41.4
89 Benzo(a)anthracene	228	12.154	12.154	(0.998)	1100468	40.0000	35.4
92 Chrysene	228	12.201	12.201	(1.002)	996281	40.0000	36.8
93 bis(2-Ethylhexyl)phthalate	149	12.163	12.163	(0.999)	795116	40.0000	44.1
94 Di-n-octylphthalate	149	13.073	13.073	(0.913)	1078474	40.0000	39.6
95 Benzo(b)fluoranthene	252	13.692	13.692	(0.956)	843561	40.0000	33.7
96 Benzo(k)fluoranthene	252	13.739	13.739	(0.959)	870021	40.0000	34.5
97 Benzo(a)pyrene	252	14.225	14.225	(0.993)	754991	40.0000	35.7
99 Indeno(1,2,3-cd)pyrene	276	16.182	16.182	(1.130)	658335	40.0000	37.6
100 Dibenzo(a,h)anthracene	278	16.220	16.220	(1.133)	524359	40.0000	38.7
101 Benzo(ghi)perylene	276	16.663	16.663	(1.164)	519555	40.0000	35.8
126 m-Dinitrobenzene	168	7.368	7.368	(0.965)	116409	40.0000	38.8
130 2,3,4,6-Tetrachlorophenol	232	7.977	7.977	(1.045)	180078	40.0000	35.0
143 Dinoseb	211	9.216	9.216	(0.997)	166925	40.0000	43.8
173 Carbazole	167	9.487	9.487	(1.027)	764620	40.0000	34.9
184 p-Benzoquinone	54	3.777	3.777	(0.837)	21764	40.0000	17.5
192 Methoxychlor	227	12.054	12.054	(0.990)	747755	40.0000	44.1
211 p-Toluidine	106	4.930	4.930	(1.092)	324911	40.0000	37.7
210 m-Toluidine	106	4.963	4.963	(1.099)	392649	40.0000	35.0
26 Phthalic anhydride	104	6.573	6.573	(1.138)	148521	40.0000	39.2
179 Dibenzo(a,e)pyrene	302	19.873	19.873	(1.388)	195235	40.0000	33.8
214 1,4-Dinitrobenzene	75	7.287	7.287	(0.954)	120951	40.0000	38.0
215 2-Ethoxyethanol	59	2.215	2.215	(0.491)	172167	40.0000	39.7
216 Methylenebis(2-chloroaniline)	231	12.116	12.116	(0.995)	113144	40.0000	34.8
M 222 Trichlorophenols	196				441108	80.0000	74.8
M 223 Tetrachlorophenols	232				180078	40.0000	35.0
M 224 Benzo(b,k)fluoranthene	252				1713582	80.0000	68.2

Data File: /chem/MSD8.i/s022510.b/s8b2506.d
Date : 25-FEB-2010 11:38
Client ID: MEGACVS
Sample Info: IWBN100215-05,3140 PPM|1|SVHF|1|MEGACVS
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: nagl
Column diameter: 0.20

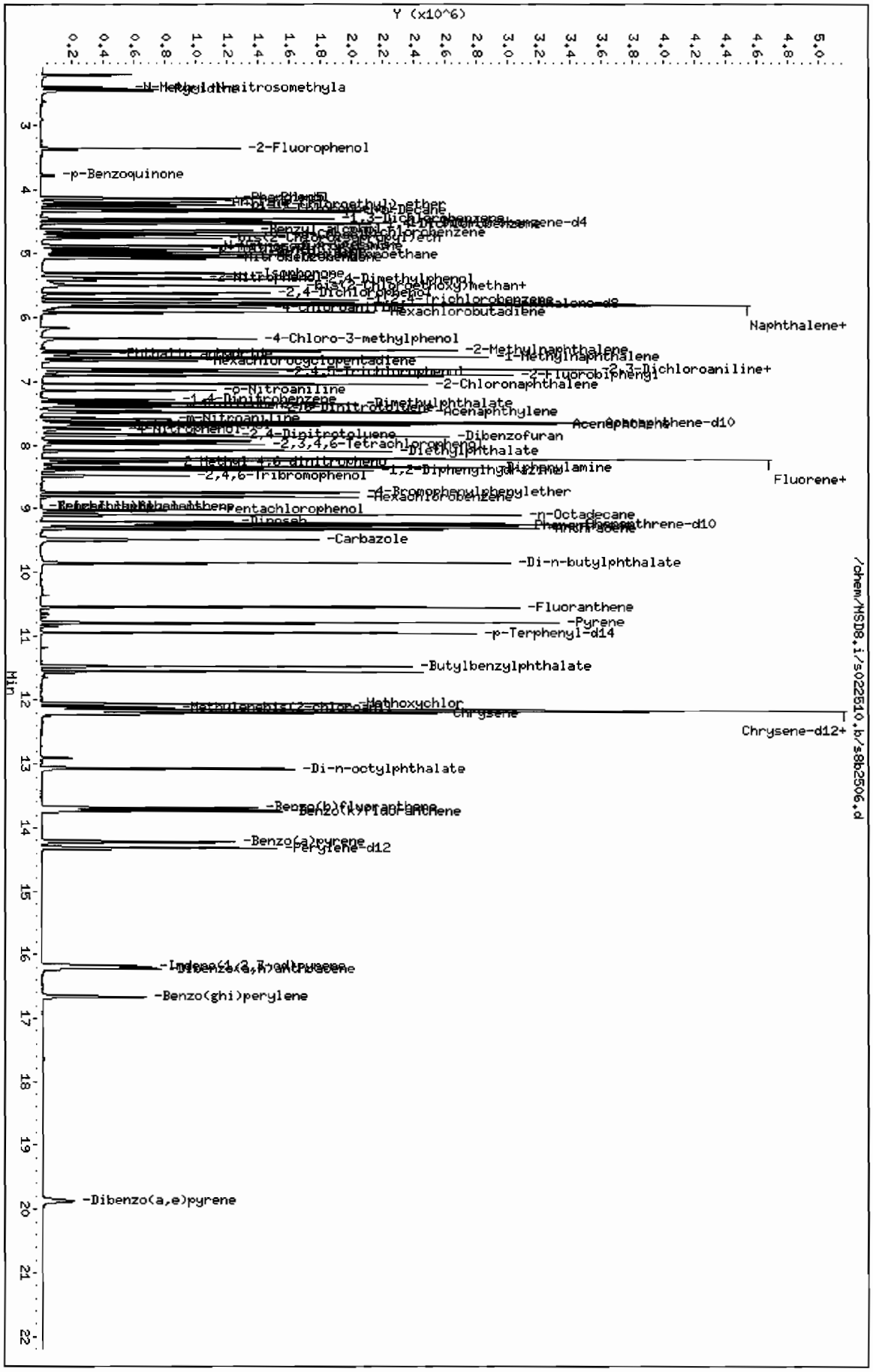

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 25-FEB-2010 12:10
Lab File ID: s8b2507.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Analysis Type: Init. Cal. Times: 12:55 01:19
Lab Sample ID: WBN100218-03.2 Quant Type: ISTD
Method: /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.84330	0.77415	0.77415	0.000	-8.19974	60.00000	Averaged
16 Acetophenone	1.20309	1.08196	1.08196	0.000	-10.06762	60.00000	Averaged
189 Caprolactam	0.06655	0.06283	0.06283	0.000	-5.59821	60.00000	Averaged
208 1,1'-Biphenyl	1.22219	1.00478	1.00478	0.000	-17.78876	60.00000	Averaged
207 Atrazine	0.03531	0.03434	0.03434	0.000	-2.76725	60.00000	Averaged
77 Benzidine	40.69843	40.00000	0.30665	0.000	1.74608	60.00000	Linear
90 3,3'-Dichlorobenzidine	0.24780	0.22104	0.22104	0.000	-10.79719	60.00000	Averaged
102 1,4-Dioxane	0.32319	0.28013	0.28013	0.000	-13.32522	60.00000	Averaged
103 Methyl methacrylate	0.16817	0.14955	0.14955	0.000	-11.06719	60.00000	Averaged
104 Ethyl methacrylate	0.67963	0.61111	0.61111	0.000	-10.08148	60.00000	Averaged
105 2-Picoline	1.09294	0.99161	0.99161	0.000	-9.27130	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.43986	0.38644	0.38644	0.000	-12.14457	60.00000	Averaged
107 Methyl methanesulfonate	0.49950	0.46636	0.46636	0.000	-6.63389	60.00000	Averaged
108 N-Nitrosodiethylamine	0.45804	0.40000	0.40000	0.000	-12.67315	60.00000	Averaged
109 Ethyl Methanesulfonate	0.60902	0.55682	0.55682	0.000	-8.57033	60.00000	Averaged
110 Pentachloroethane	0.32092	0.29910	0.29910	0.000	-6.79907	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.49059	0.44603	0.44603	0.000	-9.08169	60.00000	Averaged
113 N-Nitrosomorpholine	0.66385	0.64675	0.64675	0.000	-2.57651	60.00000	Averaged
114 o-Toluidine	1.62183	1.46403	1.46403	0.000	-9.72974	60.00000	Averaged
115 N-Nitrosopiperidine	0.12437	0.11242	0.11242	0.000	-9.60747	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.74304	0.66076	0.66076	0.000	-11.07304	60.00000	Averaged
118 2,6-Dichlorophenol	0.20154	0.19556	0.19556	0.000	-2.96736	60.00000	Averaged
119 Hexachloropropene	0.12360	0.11249	0.11249	0.000	-8.99332	60.00000	Averaged
120 p-Phenylenediamine	0.19655	0.19208	0.19208	0.000	-2.27456	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21161	0.20614	0.20614	0.000	-2.58474	60.00000	Averaged
122 Safrole	0.19334	0.17620	0.17620	0.000	-8.86720	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.47582	0.39136	0.39136	0.000	-17.74914	60.00000	Averaged
124 Isosafrole	0.32130	0.27265	0.27265	0.000	-15.14052	60.00000	Averaged
125 1,4-Naphthoquinone	0.29641	0.24501	0.24501	0.000	-17.34139	60.00000	Averaged
127 Pentachlorobenzene	0.43422	0.35756	0.35756	0.000	-17.65455	60.00000	Averaged
128 1-Naphthylamine	0.84230	0.72140	0.72140	0.000	-14.35425	60.00000	Averaged
129 2-Naphthylamine	0.88763	0.78815	0.78815	0.000	-11.20718	60.00000	Averaged
131 5-Nitro-o-toluidine	0.24122	0.21154	0.21154	0.000	-12.30424	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.09499	0.10113	0.10113	0.000	6.46389	60.00000	Averaged
137 Phenacetin	0.21690	0.20469	0.20469	0.000	-5.62725	60.00000	Averaged
138 Diallate	0.20203	0.18156	0.18156	0.000	-10.13366	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 25-FEB-2010 12:10
Lab File ID: s8b2507.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Analysis Type: Init. Cal. Times: 12:55 01:19
Lab Sample ID: WBN100218-03.2 Quant Type: ISTD
Method: /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.20071	0.17634	0.17634	0.000	-12.14565	60.00000	Averaged
213 Trans Diallate	0.23769	0.21360	0.21360	0.000	-10.13366	60.00000	Averaged
140 4-Aminobiphenyl	0.51727	0.51410	0.51410	0.000	-0.61260	60.00000	Averaged
141 Pentachloronitrobenzene	0.07936	0.07049	0.07049	0.000	-11.17727	60.00000	Averaged
142 Pronamide	0.25230	0.23863	0.23863	0.000	-5.41851	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.01907	0.02097	0.02097	0.000	9.98710	60.00000	Averaged
147 Methapyrilene	0.29186	0.27572	0.27572	0.000	-5.52850	60.00000	Averaged
148 Isodrin	0.10718	0.09844	0.09844	0.000	-8.14911	60.00000	Averaged
149 Aramite	0.03388	0.03247	0.03247	0.000	-4.15124	60.00000	Averaged
150 Kepone	0.07795	0.07031	0.07031	0.000	-9.79894	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.25808	0.23202	0.23202	0.000	-10.09620	60.00000	Averaged
152 Chlorobenzilate	0.26271	0.24204	0.24204	0.000	-7.86601	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.45535	0.44164	0.44164	0.000	-3.01039	60.00000	Averaged
155 2-Acetylaminofluorene	38.35252	40.00000	0.21429	0.000	-4.11871	60.00000	Linear
157 7,12Dimethylbenz(a)anthrace	0.51909	0.42343	0.42343	0.000	-18.42910	60.00000	Averaged
158 3-Methylcholanthrene	0.36780	0.31943	0.31943	0.000	-13.15206	60.00000	Averaged

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Data file : /chem/MSD8.i/s022510.b/s8b2507.d
Lab Smp Id: WBN100218-03.2 Client Smp ID: AP12CVS
Inj Date : 25-FEB-2010 12:10
Operator : nag1 Inst ID: MSD8.i
Smp Info : |WBN100218-03.2|40 PPM|1|SVMF|1|AP12CVS
Misc Info : |MSD8270|WBN100217-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m
Meth Date : 25-Feb-2010 13:26 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.515	4.515	(1.000)	370406	40.0000	
* 29 Naphthalene-d8	136	5.773	5.773	(1.000)	1443919	40.0000	
* 46 Acenaphthene-d10	164	7.635	7.635	(1.000)	913812	40.0000	
* 67 Phenanthrene-d10	188	9.239	9.239	(1.000)	1649988	40.0000	
* 91 Chrysene-d12	240	12.168	12.168	(1.000)	1531557	40.0000	
* 98 Perylene-d12	264	14.320	14.320	(1.000)	1181956	40.0000	
209 Benzaldehyde	77	4.115	4.115	(0.911)	286750	40.0000	36.7
16 Acetophenone	105	4.887	4.887	(1.082)	400766	40.0000	36.0
189 Caprolactam	113	6.201	6.201	(1.074)	90719	40.0000	37.8
208 1,1'-Biphenyl	154	7.011	7.011	(0.918)	918180	40.0000	32.9
207 Atrazine	173	8.916	8.916	(0.965)	56656	40.0000	38.9
77 Benzidine	184	10.687	10.687	(0.878)	469646	40.0000	40.7
90 3,3'-Dichlorobenzidine	252	12.106	12.106	(0.995)	338541	40.0000	35.7
102 1,4-Dioxane	88	2.220	2.220	(0.492)	103760	40.0000	34.7
103 Methyl methacrylate	100	2.220	2.220	(0.492)	55396	40.0000	35.6
104 Ethyl methacrylate	69	2.711	2.711	(0.600)	226359	40.0000	36.0
105 2-Picoline	93	2.954	2.954	(0.654)	367299	40.0000	36.3
106 N-Nitrosomethylethylamine	88	3.020	3.020	(0.669)	143140	40.0000	35.1
107 Methyl methanesulfonate	80	3.239	3.239	(0.717)	172744	40.0000	37.3
108 N-Nitrosodiethylamine	102	3.563	3.563	(0.789)	148161	40.0000	34.9
109 Ethyl Methanesulfonate	79	3.796	3.796	(0.841)	206251	40.0000	36.6
110 Pentachloroethane	167	4.258	4.258	(0.943)	110788	40.0000	37.3
111 N-Nitrosopyrrolidine	100	4.868	4.868	(1.078)	165213	40.0000	36.4(Q)
113 N-Nitrosomorpholine	56	4.901	4.901	(1.085)	239559	40.0000	39.0
114 o-Toluidine	106	4.925	4.925	(1.091)	542286	40.0000	36.1
115 N-Nitrosopiperidine	114	5.211	5.211	(0.903)	162326	40.0000	36.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.587	5.587	(0.968)	954083	40.0000	35.6
118 2,6-Dichlorophenol	162	5.849	5.849	(1.013)	282375	40.0000	38.8
119 Hexachloropropene	213	5.882	5.882	(1.019)	162421	40.0000	36.4
120 p-Phenylenediamine	108	6.211	6.211	(1.076)	277350	40.0000	39.1
121 N-Nitrosodi-n-butylamine	84	6.187	6.187	(1.072)	297648	40.0000	39.0
122 Safrole	162	6.415	6.415	(1.111)	254416	40.0000	36.4
123 1,2,4,5-Tetrachlorobenzene	216	6.692	6.692	(0.876)	357634	40.0000	32.9
124 Isosafrole	162	6.968	6.968	(0.913)	249155	40.0000	33.9
125 1,4-Naphthoquinone	158	7.220	7.220	(0.946)	223895	40.0000	33.1
127 Pentachlorobenzene	250	7.806	7.806	(1.022)	326743	40.0000	32.9
128 1-Naphthylamine	143	7.935	7.935	(1.039)	659220	40.0000	34.2
129 2-Naphthylamine	143	8.020	8.020	(1.051)	720223	40.0000	35.5
131 5-Nitro-o-toluidine	152	8.230	8.230	(1.078)	193307	40.0000	35.1
136 1,3,5-Trinitrobenzene	75	8.616	8.616	(0.932)	166869	40.0000	42.6
137 Phenacetin	108	8.677	8.677	(0.939)	337737	40.0000	37.7(Q)
138 Diallate	86	8.649	8.649	(0.936)	299572	40.0000	35.9
212 Cis Diallate	86	8.749	8.749	(0.947)	43643	6.00000	5.3
213 Trans Diallate	86	8.649	8.649	(0.936)	299572	34.0000	30.6
140 4-Aminobiphenyl	169	9.030	9.030	(0.977)	848261	40.0000	39.8
141 Pentachloronitrobenzene	237	9.039	9.039	(0.978)	116311	40.0000	35.5(Q)
142 Pronamide	173	9.087	9.087	(0.984)	393736	40.0000	37.8
146 4-Nitroquinoline-1-oxide	101	10.092	10.092	(1.092)	34604	40.0000	44.0
147 Methapyrilene	58	10.168	10.168	(1.101)	454940	40.0000	37.8
148 Isodrin	193	10.387	10.387	(1.124)	162432	40.0000	36.7
149 Aramite	185	10.925	10.925	(1.182)	53580	40.0000	38.3
150 Kepone	272	11.539	11.539	(1.249)	116010	40.0000	36.1
151 p-(Dimethylamino)azobenzene	120	11.106	11.106	(0.913)	355357	40.0000	36.0
152 Chlorobenzilate	251	11.154	11.154	(0.917)	370700	40.0000	36.8
153 3,3'-Dimethylbenzidine	212	11.468	11.468	(0.942)	676404	40.0000	38.8
155 2-Acetylaminofluorene	181	11.758	11.758	(0.966)	328204	40.0000	38.4
157 7,12Dimethylbenz(a)anthracene	256	13.678	13.678	(0.955)	500472	40.0000	32.6
158 3-Methylcholanthrene	268	14.816	14.816	(1.035)	377553	40.0000	34.7(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD8.i/s022510.b/s8b2507.d
Date : 25-FEB-2010 12:10
Client ID: AP12CVS
Sample Info: IWBN100218-03,2140 PPM|1|SVMF11|AP12CVS
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: nag1
Column diameter: 0.20

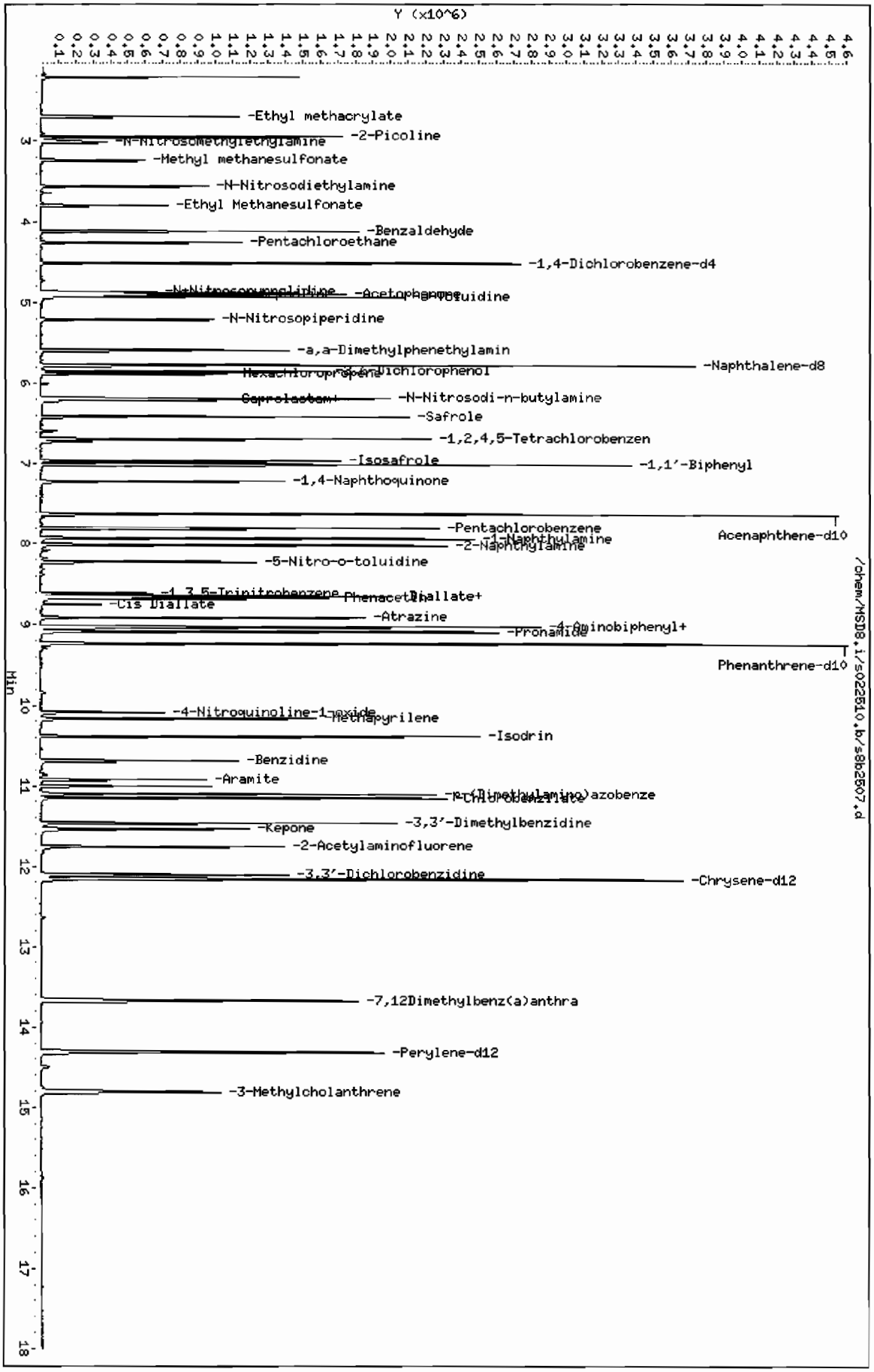

QC Data

Data File: /chem/MSD8.i/s022010.b/s8b2001.d

Date : 20-FEB-2010 12:04

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: IWBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

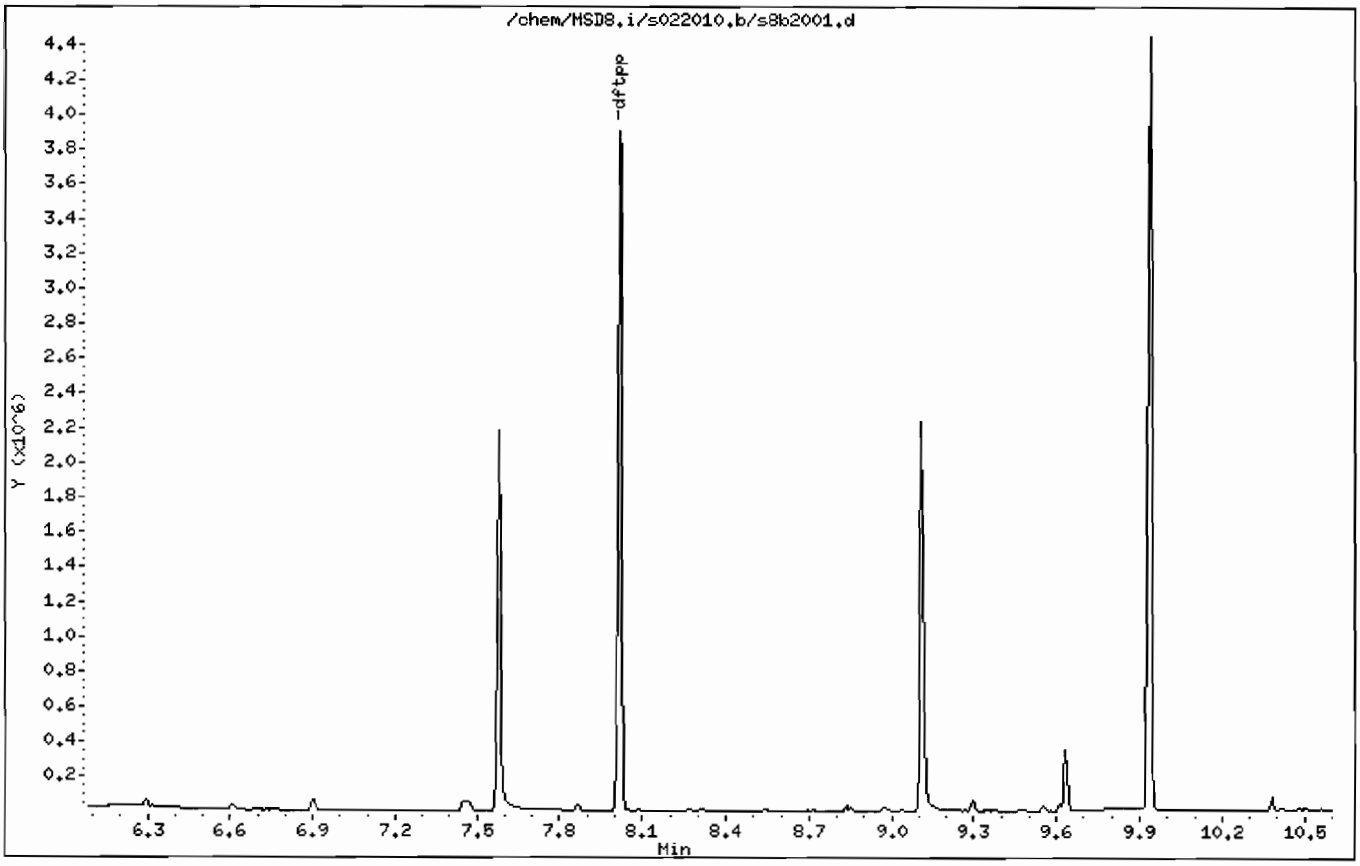

Data File: /chem/MSD8.i/s022010.b/s8b2001.d

Date : 20-FEB-2010 12:04

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

1 dftpp

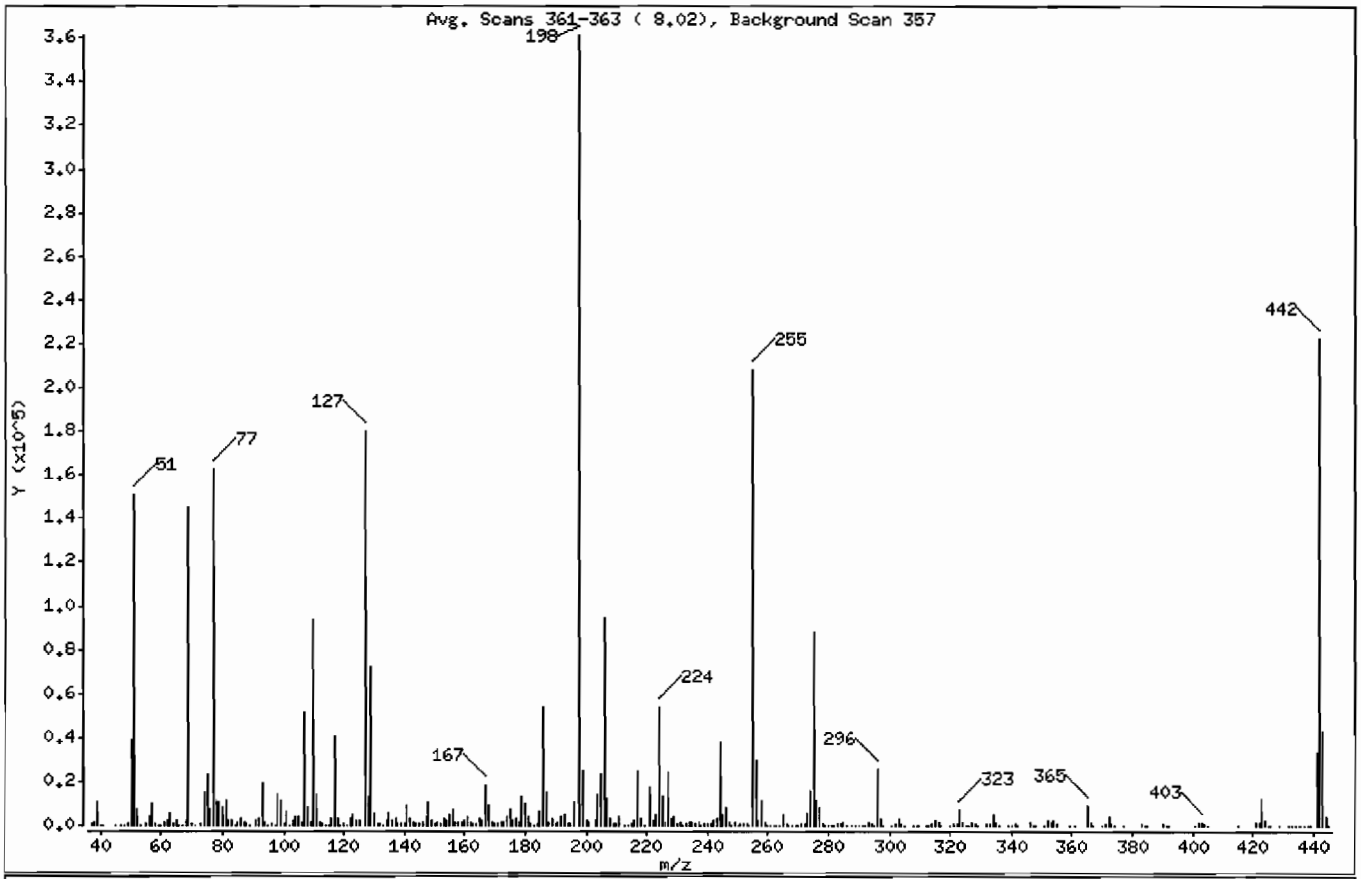

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	41.91
68	Less than 2.00% of mass 69	0.76 (1.89)
69	Mass 69 relative abundance	40.27
70	Less than 2.00% of mass 69	0.22 (0.56)
127	40.00 - 60.00% of mass 198	49.86
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.79
275	10.00 - 30.00% of mass 198	24.30
365	Greater than 1.00% of mass 198	2.63
441	Present, but less than mass 443	9.09
442	Greater than 40.00% of mass 198	61.67
443	17.00 - 23.00% of mass 442	11.88 (19.27)

Data File: /chem/MSD8.i/s022010.b/s8b2001.d

Date : 20-FEB-2010 12:04

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nagl

Column phase: J & W DB-5MS

Column diameter: 0.20

Data File: s8b2001.d

Spectrum: Avg. Scans 361-363 (8.02), Background Scan 357

Location of Maximum: 198.00

Number of points: 333

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	636	129.00	72112	216.00	2111	304.00	793
38.00	1805	130.00	6198	217.00	25088	305.00	96
39.00	10515	131.00	1179	218.00	3223	308.00	368
40.00	135	132.00	719	219.00	274	309.00	231
41.00	281	133.00	246	221.00	17016	310.00	352
45.00	296	134.00	2094	222.00	2240	312.00	71
47.00	79	135.00	5474	223.00	5388	313.00	267
48.00	100	136.00	2273	224.00	53856	314.00	1186
49.00	1097	137.00	2986	225.00	13496	315.00	2886
50.00	38736	138.00	704	226.00	1520	316.00	1494
51.00	151296	139.00	433	227.00	24000	317.00	272
52.00	7819	140.00	888	228.00	3311	320.00	103
53.00	348	141.00	9408	229.00	4563	321.00	882
55.00	755	142.00	3186	230.00	691	322.00	424
56.00	4473	143.00	1904	231.00	1920	323.00	7824
57.00	10066	144.00	664	232.00	303	324.00	1477
58.00	547	145.00	475	233.00	448	325.00	190
59.00	111	146.00	1633	234.00	1560	326.00	188
60.00	164	147.00	4413	235.00	1679	327.00	1444
61.00	1759	148.00	10596	236.00	1024	328.00	743
62.00	2153	149.00	2303	237.00	1900	329.00	97
63.00	6125	150.00	612	238.00	252	332.00	590
64.00	883	151.00	1360	239.00	942	333.00	759
65.00	2765	152.00	728	240.00	677	334.00	5028
66.00	317	153.00	2923	241.00	1231	335.00	1370
67.00	157	154.00	2190	242.00	2711	336.00	167
68.00	2746	155.00	5079	243.00	3008	339.00	122
69.00	145408	156.00	7633	244.00	38520	340.00	144
70.00	809	157.00	1609	245.00	5292	341.00	1027
71.00	66	158.00	1859	246.00	8553	342.00	229
73.00	1006	159.00	1245	247.00	1526	346.00	1715
74.00	14753	160.00	2882	248.00	404	347.00	313
75.00	23536	161.00	4229	249.00	1334	348.00	34
76.00	7856	162.00	1249	250.00	237	351.00	95
77.00	162688	163.00	420	251.00	454	352.00	2254

Data File: /chem/MSD8.i/s022010.b/s8b2001.d

Date : 20-FEB-2010 12:04

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

Data File: s8b2001.d

Spectrum: Avg. Scans 361-363 (8.02), Background Scan 357

Location of Maximum: 198.00

Number of points: 333

m/z	Y	m/z	Y	m/z	Y	m/z	Y
78.00	11164	164.00	482	252.00	526	353.00	1685
79.00	11063	165.00	3411	253.00	1014	354.00	2374
80.00	8318	166.00	2886	254.00	246	355.00	442
81.00	11755	167.00	18128	255.00	208576	359.00	131
82.00	2698	168.00	8989	256.00	29864	361.00	41
83.00	2563	169.00	1693	257.00	2335	365.00	9500
84.00	292	170.00	689	258.00	11889	366.00	1267
85.00	2016	171.00	811	259.00	1946	367.00	41
86.00	3161	172.00	1827	260.00	327	370.00	143
87.00	1709	173.00	1985	261.00	323	371.00	544
88.00	611	174.00	3761	262.00	91	372.00	4073
89.00	242	175.00	7387	263.00	105	373.00	967
91.00	2732	176.00	2369	264.00	245	374.00	36
92.00	2924	177.00	3691	265.00	4904	377.00	41
93.00	18696	178.00	1264	266.00	660	383.00	924
94.00	1352	179.00	13514	267.00	81	384.00	271
95.00	383	180.00	9564	268.00	48	385.00	83
96.00	815	181.00	4172	269.00	46	390.00	495
97.00	300	182.00	737	270.00	217	391.00	390
98.00	14288	183.00	389	271.00	458	392.00	149
99.00	11396	184.00	1158	272.00	683	401.00	249
100.00	988	185.00	6644	273.00	6165	402.00	1263
101.00	6504	186.00	53976	274.00	16175	403.00	1933
102.00	385	187.00	15120	275.00	87720	404.00	757
103.00	2407	188.00	1626	276.00	11586	405.00	99
104.00	4126	189.00	3449	277.00	8344	415.00	104
105.00	3848	190.00	678	278.00	1175	421.00	1862
106.00	1319	191.00	1548	279.00	270	422.00	1706
107.00	51688	192.00	4531	280.00	40	423.00	12077
108.00	8074	193.00	4921	281.00	26	424.00	2784
109.00	1707	194.00	960	282.00	153	425.00	353
110.00	94192	195.00	585	283.00	954	426.00	35
111.00	14368	196.00	10955	284.00	633	429.00	49
112.00	1773	198.00	361024	285.00	1386	432.00	53
113.00	552	199.00	24520	286.00	247	433.00	99

Data File: /chem/MSD8.i/s022010.b/s8b2001.d

Date : 20-FEB-2010 12:04

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

Data File: s8b2001.d
Spectrum: Avg. Scans 361-363 (8.02), Background Scan 357
Location of Maximum: 198.00
Number of points: 333

m/z	Y	m/z	Y	m/z	Y	m/z	Y
114.00	137	200.00	2077	288.00	81	434.00	73
115.00	242	201.00	1683	289.00	256	435.00	109
116.00	2914	203.00	2421	290.00	281	436.00	130
117.00	40800	204.00	13892	291.00	185	437.00	215
118.00	3050	205.00	22864	292.00	403	438.00	351
119.00	350	206.00	94712	293.00	1882	439.00	245
120.00	773	207.00	12092	294.00	526	441.00	32832
121.00	290	208.00	3333	295.00	44	442.00	222592
122.00	3559	209.00	1153	296.00	25992	443.00	42896
123.00	5240	210.00	891	297.00	3524	444.00	3896
124.00	2349	211.00	3877	298.00	302	445.00	219
125.00	2177	213.00	294	301.00	317		
127.00	179968	214.00	128	302.00	514		
128.00	13270	215.00	1136	303.00	3030		

Data File: /chem/MSD8.i/s022010.b/s8b2013.d

Date : 21-FEB-2010 08:35

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: IWBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

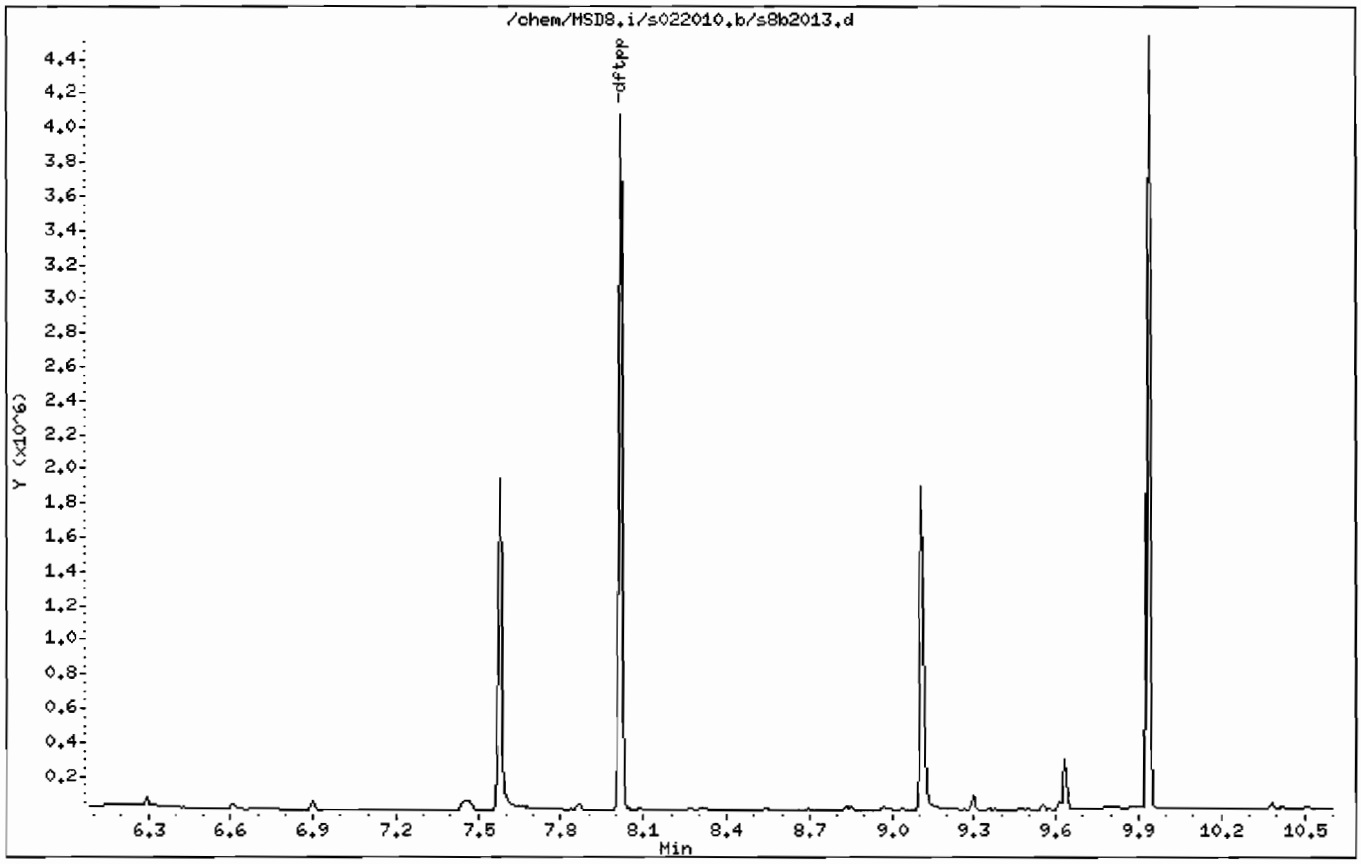

Data File: /chem/MSD8.i/s022010.b/s8b2013.d

Date : 21-FEB-2010 08:35

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

1 dftpp

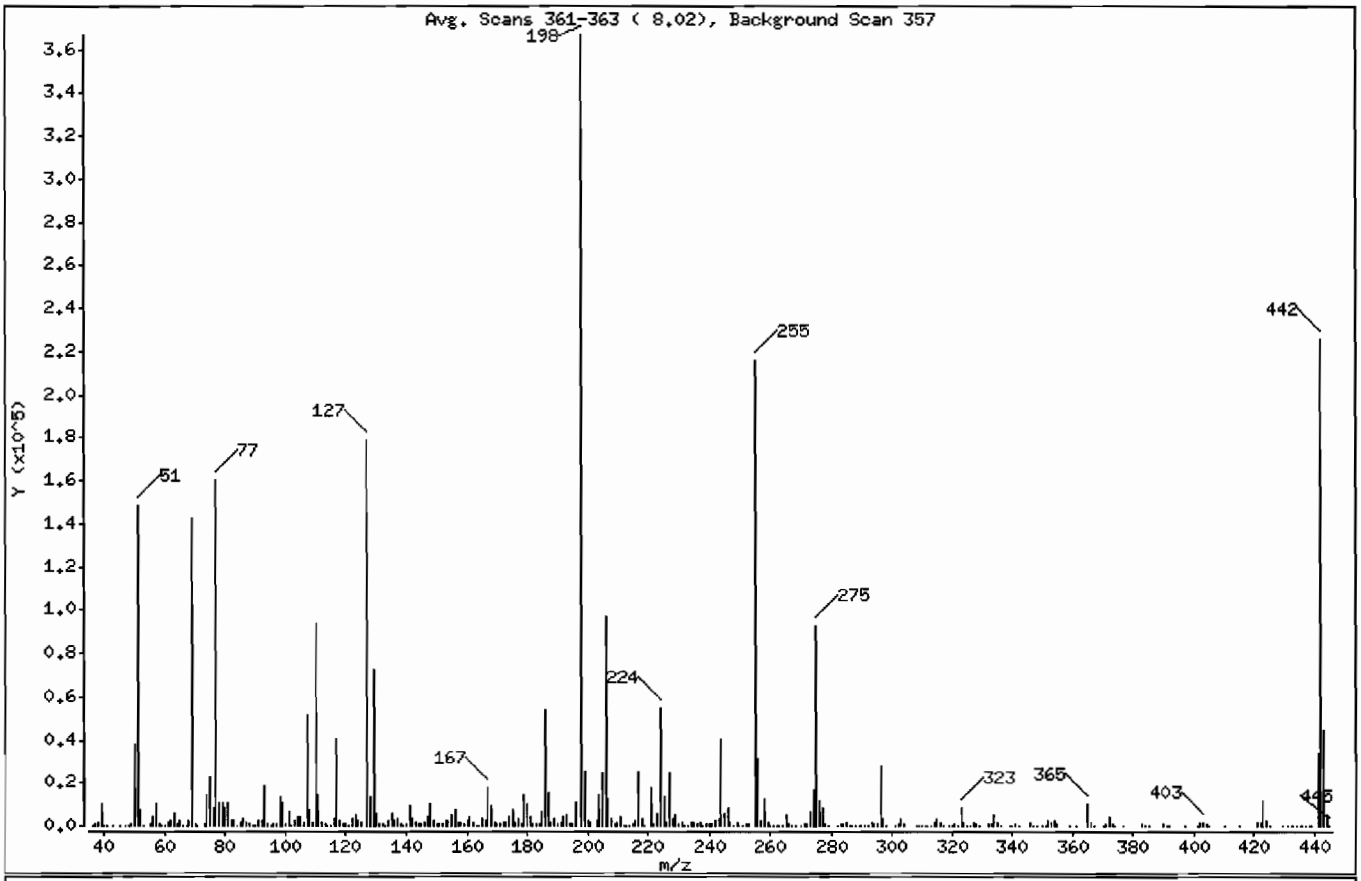

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	40.53
68	Less than 2.00% of mass 69	0.71 (1.84)
69	Mass 69 relative abundance	38.91
70	Less than 2.00% of mass 69	0.22 (0.56)
127	40.00 - 60.00% of mass 198	48.75
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.82
275	10.00 - 30.00% of mass 198	25.27
365	Greater than 1.00% of mass 198	2.78
441	Present, but less than mass 443	9.31
442	Greater than 40.00% of mass 198	61.67
443	17.00 - 23.00% of mass 442	12.15 (19.71)

Data File: /chem/MSD8.i/s022010.b/s8b2013.d

Date : 21-FEB-2010 08:35

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

Data File: s8b2013.d

Spectrum: Avg. Scans 361-363 (8.02), Background Scan 357

Location of Maximum: 198.00

Number of points: 338

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	56	127.00	178624	214.00	46	309.00	256
37.00	622	128.00	13701	215.00	1055	310.00	391
38.00	1670	129.00	72120	216.00	2351	311.00	40
39.00	10227	130.00	6084	217.00	25672	312.00	66
40.00	276	131.00	1249	218.00	3337	313.00	215
41.00	148	132.00	676	219.00	394	314.00	1282
43.00	81	133.00	345	221.00	17360	315.00	2979
45.00	175	134.00	2137	222.00	784	316.00	1571
47.00	75	135.00	5764	223.00	5854	317.00	345
48.00	135	136.00	2291	224.00	54384	319.00	39
49.00	1152	137.00	3163	225.00	13504	320.00	89
50.00	38328	138.00	613	226.00	1516	321.00	844
51.00	148480	139.00	305	227.00	24384	322.00	237
52.00	7983	140.00	874	228.00	3450	323.00	8074
53.00	379	141.00	9200	229.00	5126	324.00	1548
55.00	654	142.00	3293	230.00	654	325.00	173
56.00	4225	143.00	2051	231.00	1887	326.00	144
57.00	9800	144.00	620	232.00	354	327.00	1551
58.00	460	145.00	527	233.00	399	328.00	753
59.00	146	146.00	1802	234.00	1541	329.00	186
60.00	207	147.00	4607	235.00	1773	332.00	625
61.00	1930	148.00	10337	236.00	1054	333.00	892
62.00	2234	149.00	2168	237.00	1872	334.00	4922
63.00	5775	150.00	592	238.00	323	335.00	1472
64.00	828	151.00	1245	239.00	1019	336.00	124
65.00	2791	152.00	804	240.00	727	339.00	168
66.00	273	153.00	2889	241.00	1258	340.00	43
67.00	294	154.00	2254	242.00	2657	341.00	971
68.00	2618	155.00	4976	243.00	3024	342.00	281
69.00	142528	156.00	7917	244.00	40320	346.00	1742
70.00	801	157.00	1591	245.00	5613	347.00	411
71.00	110	158.00	1797	246.00	8746	348.00	42
73.00	982	159.00	1200	247.00	1601	350.00	100
74.00	14686	160.00	2833	248.00	402	351.00	114
75.00	23056	161.00	3964	249.00	1347	352.00	2446

Data File: /chem/MSD8.i/s022010.b/s8b2013.d

Date : 21-FEB-2010 08:35

Client ID: DFTPP | Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0 | Operator: nag1

Column phase: J & W DB-5MS | Column diameter: 0.20

Data File: s8b2013.d
Spectrum: Avg. Scans 361-363 (8.02), Background Scan 357
Location of Maximum: 198.00
Number of points: 338

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	8112	162.00	1292	250.00	297	353.00	1664
77.00	159808	163.00	370	251.00	407	354.00	2324
78.00	10752	164.00	418	252.00	537	355.00	613
79.00	10806	165.00	3457	253.00	973	359.00	188
80.00	8432	166.00	2678	255.00	216000	361.00	35
81.00	11175	167.00	17744	256.00	30888	365.00	10172
82.00	2848	168.00	9666	257.00	2348	366.00	1571
83.00	2358	169.00	1555	258.00	12794	367.00	123
84.00	380	170.00	598	259.00	1933	370.00	198
85.00	1937	171.00	742	260.00	364	371.00	652
86.00	3300	172.00	1586	261.00	405	372.00	4000
87.00	1567	173.00	2096	262.00	34	373.00	950
88.00	607	174.00	3829	263.00	99	374.00	88
89.00	261	175.00	7675	264.00	325	377.00	56
90.00	99	176.00	2028	265.00	5206	383.00	1037
91.00	2533	177.00	3616	266.00	733	384.00	350
92.00	2877	178.00	1241	267.00	130	385.00	59
93.00	18624	179.00	14050	268.00	1	390.00	434
94.00	1132	180.00	10302	270.00	314	391.00	386
95.00	384	181.00	4359	271.00	454	392.00	247
96.00	852	182.00	801	272.00	611	397.00	36
97.00	507	183.00	425	273.00	6575	401.00	218
98.00	13725	184.00	1104	274.00	16896	402.00	1420
99.00	11316	185.00	7010	275.00	92592	403.00	2003
100.00	984	186.00	53560	276.00	12112	404.00	730
101.00	6416	187.00	15376	277.00	8831	405.00	147
102.00	398	188.00	1621	278.00	1259	410.00	36
103.00	2271	189.00	3344	279.00	291	415.00	89
104.00	4172	190.00	507	282.00	228	421.00	1948
105.00	3955	191.00	1461	283.00	887	422.00	1783
106.00	1360	192.00	4556	284.00	657	423.00	12054
107.00	51416	193.00	5226	285.00	1565	424.00	2758
108.00	7732	194.00	1074	286.00	264	425.00	311
109.00	1415	195.00	648	287.00	35	429.00	89
110.00	93200	196.00	11299	288.00	114	431.00	91

Data File: /chem/MSD8.i/s022010.b/s8b2013.d

Date : 21-FEB-2010 08:35

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

Data File: s8b2013.d

Spectrum: Avg. Scans 361-363 (8.02), Background Scan 357

Location of Maximum: 198.00

Number of points: 338

m/z	Y	m/z	Y	m/z	Y	m/z	Y
111.00	14005	198.00	366464	289.00	359	432.00	75
112.00	1777	199.00	25008	290.00	221	433.00	42
113.00	565	200.00	2149	291.00	192	434.00	133
114.00	156	201.00	1762	292.00	407	435.00	174
115.00	309	203.00	2677	293.00	1828	436.00	69
116.00	2977	204.00	14145	294.00	475	437.00	142
117.00	40696	205.00	24104	295.00	609	438.00	145
118.00	2826	206.00	97072	296.00	27600	439.00	257
119.00	441	207.00	12482	297.00	3606	441.00	34104
120.00	684	208.00	3467	298.00	227	442.00	225984
121.00	249	209.00	1206	301.00	394	443.00	44536
122.00	3382	210.00	1778	302.00	459	444.00	4167
123.00	5335	211.00	3877	303.00	3092	445.00	202
124.00	2445	212.00	196	304.00	889		
125.00	2106	213.00	321	308.00	309		

Data File: /chem/MSD8.i/s022510.b/s8b2504.d

Date : 25-FEB-2010 10:49

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: 1WBN100207-01|50 PPM|1|SVMF1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

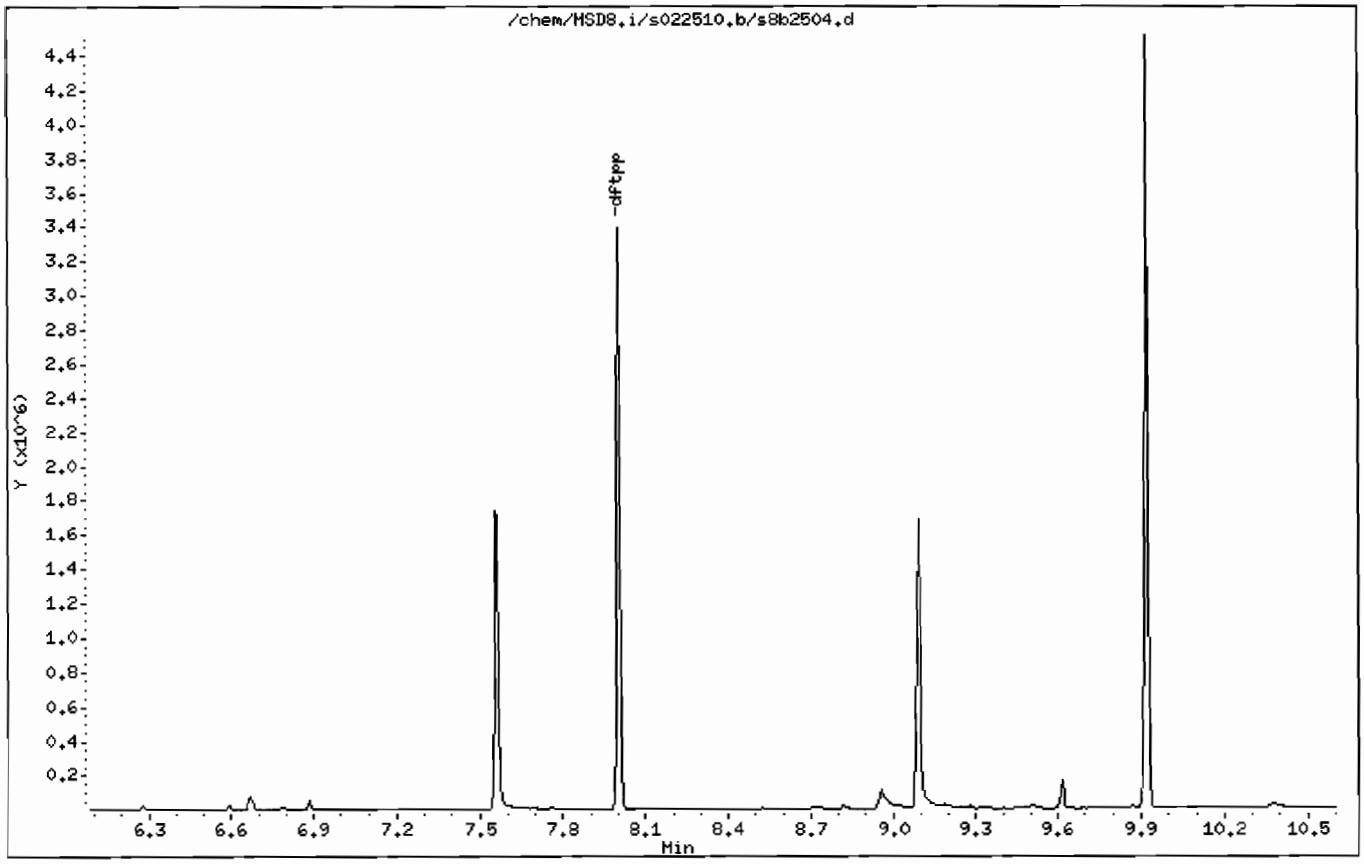

Data File: /chem/MSD8.i/s022510.b/s8b2504.d

Date : 25-FEB-2010 10:49

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: IWBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

1 dftpp

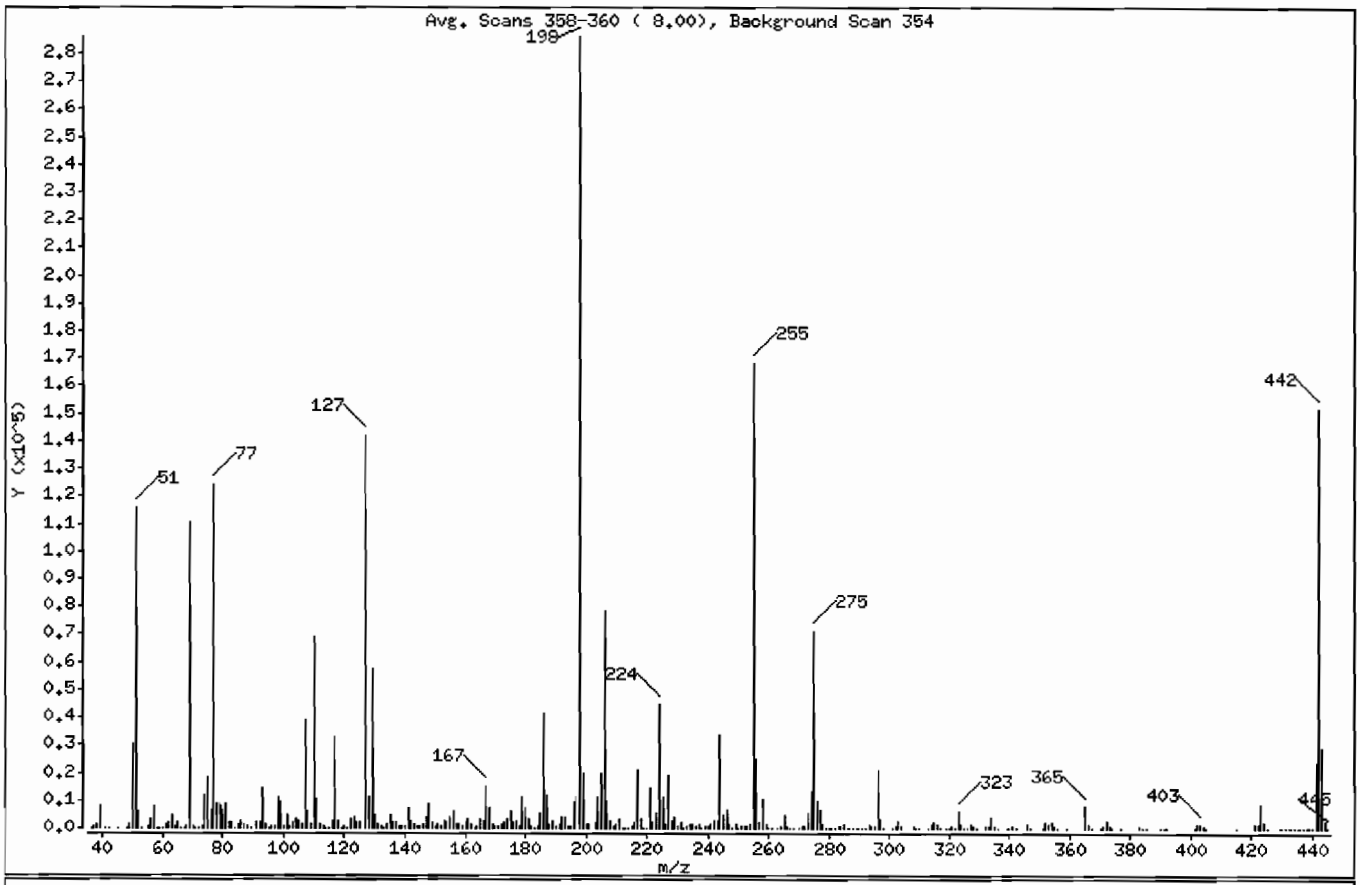

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	40.47
68	Less than 2.00% of mass 69	0.16 (0.40)
69	Mass 69 relative abundance	38.65
70	Less than 2.00% of mass 69	0.17 (0.43)
127	40.00 - 60.00% of mass 198	49.70
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.79
275	10.00 - 30.00% of mass 198	24.91
365	Greater than 1.00% of mass 198	2.83
441	Present, but less than mass 443	8.27
442	Greater than 40.00% of mass 198	53.07
443	17.00 - 23.00% of mass 442	10.05 (18.93)

Data File: /chem/MSD8.i/s022510.b/s8b2504.d

Date : 25-FEB-2010 10:49

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVHF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

Data File: s8b2504.d

Spectrum: Avg. Scans 358-360 (8.00), Background Scan 354

Location of Maximum: 198.00

Number of points: 335

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	45	128.00	10896	214.00	124	302.00	444
37.00	446	129.00	57384	215.00	891	303.00	2341
38.00	1449	130.00	4783	216.00	1761	304.00	563
39.00	8037	131.00	1069	217.00	21168	308.00	359
41.00	284	132.00	512	218.00	3099	309.00	204
42.00	41	133.00	242	219.00	266	310.00	297
45.00	260	134.00	1549	220.00	120	313.00	190
48.00	95	135.00	4572	221.00	14288	314.00	1029
49.00	1054	136.00	1646	222.00	2183	315.00	2169
50.00	30344	137.00	2275	223.00	4946	316.00	1269
51.00	115680	138.00	456	224.00	44560	317.00	230
52.00	5982	139.00	345	225.00	11321	319.00	45
53.00	256	140.00	668	226.00	1160	320.00	39
55.00	516	141.00	7309	227.00	19112	321.00	733
56.00	3360	142.00	2344	228.00	2784	322.00	316
57.00	7846	143.00	1520	229.00	4059	323.00	6196
58.00	306	144.00	463	230.00	658	324.00	1058
59.00	110	145.00	416	231.00	1697	325.00	169
60.00	98	146.00	1368	232.00	309	326.00	129
61.00	1513	147.00	3780	233.00	347	327.00	1294
62.00	1771	148.00	8796	234.00	1239	328.00	619
63.00	4625	149.00	1818	235.00	1300	329.00	85
64.00	676	150.00	462	236.00	980	332.00	465
65.00	2268	151.00	1055	237.00	1482	333.00	528
66.00	112	152.00	728	238.00	258	334.00	3909
67.00	247	153.00	2347	239.00	812	335.00	981
68.00	445	154.00	1776	240.00	553	336.00	125
69.00	110456	155.00	3976	241.00	1009	339.00	39
70.00	478	156.00	5857	242.00	2468	340.00	51
71.00	44	157.00	1147	243.00	2604	341.00	626
72.00	35	158.00	1310	244.00	33288	342.00	245
73.00	891	159.00	973	245.00	4556	346.00	1351
74.00	11699	160.00	2248	246.00	6809	347.00	284
75.00	18096	161.00	3527	247.00	1512	351.00	106
76.00	6450	162.00	1028	248.00	320	352.00	1673

Data File: /chem/MSD8.i/s022510.b/s8b2504.d

Date : 25-FEB-2010 10:49

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: IWBN100207-01|50 PPM|1|SVHF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

Data File: s8b2504.d
Spectrum: Avg. Scans 358-360 (8.00), Background Scan 354
Location of Maximum: 198.00
Number of points: 335

m/z	Y	m/z	Y	m/z	Y	m/z	Y
77.00	124312	163.00	262	249.00	1186	353.00	1144
78.00	8468	164.00	393	250.00	296	354.00	1781
79.00	8153	165.00	2969	251.00	377	355.00	477
80.00	6266	166.00	2364	252.00	420	356.00	38
81.00	8685	167.00	15020	253.00	740	359.00	133
82.00	2221	168.00	7239	254.00	1061	365.00	8093
83.00	2029	169.00	1300	255.00	168064	366.00	1113
84.00	96	170.00	552	256.00	24824	367.00	90
85.00	1539	171.00	615	257.00	1909	370.00	173
86.00	2530	172.00	1410	258.00	10407	371.00	425
87.00	1134	173.00	1866	259.00	1621	372.00	2868
88.00	471	174.00	3201	260.00	253	373.00	700
89.00	200	175.00	5861	261.00	256	374.00	82
91.00	2098	176.00	1663	263.00	105	377.00	42
92.00	2275	177.00	2544	264.00	420	383.00	685
93.00	14742	178.00	977	265.00	4351	384.00	194
94.00	1013	179.00	11399	266.00	582	385.00	68
95.00	285	180.00	7469	267.00	53	390.00	323
96.00	742	181.00	3461	268.00	166	391.00	232
97.00	435	182.00	664	270.00	277	392.00	142
98.00	11006	183.00	304	271.00	444	401.00	154
99.00	9150	184.00	919	272.00	422	402.00	1068
100.00	776	185.00	5483	273.00	5288	403.00	1460
101.00	4915	186.00	41208	274.00	13052	404.00	535
102.00	339	187.00	11722	275.00	71200	405.00	106
103.00	1731	188.00	1178	276.00	9553	415.00	35
104.00	3329	189.00	2835	277.00	6512	421.00	1336
105.00	2936	190.00	517	278.00	996	422.00	1131
106.00	1030	191.00	1300	279.00	186	423.00	8690
107.00	38944	192.00	3894	280.00	35	424.00	1717
108.00	6115	193.00	4220	281.00	90	425.00	130
109.00	1000	194.00	940	282.00	214	429.00	84
110.00	68992	195.00	626	283.00	720	430.00	82
111.00	10628	196.00	9250	284.00	499	431.00	84
112.00	1328	198.00	285824	285.00	1097	432.00	109

Data File: /chem/MSD8.i/s022510.b/s8b2504.d

Date : 25-FEB-2010 10:49

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVHF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

Data File: s8b2504.d

Spectrum: Avg. Scans 358-360 (8.00), Background Scan 354

Location of Maximum: 198.00

Number of points: 335

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	405	199.00	19400	286.00	194	433.00	88
114.00	37	200.00	1563	287.00	35	434.00	233
115.00	197	201.00	1410	288.00	101	435.00	90
116.00	2482	203.00	2220	289.00	298	436.00	200
117.00	33064	204.00	11239	290.00	175	437.00	138
118.00	2518	205.00	19664	291.00	174	438.00	35
119.00	287	206.00	78008	292.00	276	439.00	87
120.00	575	207.00	10091	293.00	1406	440.00	41
121.00	276	208.00	2740	294.00	392	441.00	23640
122.00	2969	209.00	811	295.00	516	442.00	151680
123.00	4191	210.00	1262	296.00	21328	443.00	28712
124.00	1826	211.00	2976	297.00	3094	444.00	2647
125.00	1784	212.00	281	298.00	209	445.00	161
127.00	142016	213.00	253	301.00	243		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202052064**				
Client Sample:	**QC for batch 957045**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 957045**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**957046**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 13:08**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/24/2010 20:21**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s8b2509-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.0	ug/L	2.00	10.0
108-95-2	Phenol	U	10.0	ug/L	1.00	10.0
95-57-8	2-Chlorophenol	U	10.0	ug/L	2.00	10.0
106-46-7	1,4-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
621-64-7	N-Nitrosodi--n-propylamine	U	10.0	ug/L	2.00	10.0
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol	U	10.0	ug/L	2.00	10.0
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene	U	1.00	ug/L	0.310	1.00
121-14-2	2,4-Dinitrotoluene	U	10.0	ug/L	2.00	10.0
100-02-7	4-Nitrophenol	U	10.0	ug/L	2.00	10.0
87-86-5	Pentachlorophenol	U	10.0	ug/L	2.00	10.0
129-00-0	Pyrene	U	1.00	ug/L	0.300	1.00
110-86-1	Pyridine	U	10.0	ug/L	3.00	10.0
62-53-3	Aniline	U	10.0	ug/L	2.50	10.0
111-44-4	bis(2-Chloroethyl) ether	U	10.0	ug/L	2.00	10.0
541-73-1	1,3-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
100-51-6	Benzyl alcohol	U	10.0	ug/L	2.00	10.0
95-50-1	1,2-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
108-60-1	bis(2-Chloroisopropyl)ether	U	10.0	ug/L	2.00	10.0
95-48-7	o-Cresol	U	10.0	ug/L	2.00	10.0
65794-96-9	m,p-Cresols	U	10.0	ug/L	3.00	10.0
67-72-1	Hexachloroethane	U	10.0	ug/L	2.00	10.0
98-95-3	Nitrobenzene	U	10.0	ug/L	3.00	10.0
78-59-1	Isophorone	U	10.0	ug/L	3.00	10.0
88-75-5	2-Nitrophenol	U	10.0	ug/L	2.00	10.0
105-67-9	2,4-Dimethylphenol	U	10.0	ug/L	2.00	10.0
111-91-1	bis(2-Chloroethoxy)methane	U	10.0	ug/L	3.00	10.0
120-83-2	2,4-Dichlorophenol	U	10.0	ug/L	2.00	10.0
65-85-0	Benzoic acid	U	20.0	ug/L	6.00	20.0
91-20-3	Naphthalene	U	1.00	ug/L	0.300	1.00
106-47-8	4-Chloroaniline	U	10.0	ug/L	2.00	10.0
87-68-3	Hexachlorobutadiene	U	10.0	ug/L	2.00	10.0
91-57-6	2-Methylnaphthalene	U	1.00	ug/L	0.300	1.00
90-12-0	1-Methylnaphthalene	U	1.00	ug/L	0.300	1.00
77-47-4	Hexachlorocyclopentadiene	U	10.0	ug/L	3.00	10.0
88-06-2	2,4,6-Trichlorophenol	U	10.0	ug/L	2.00	10.0
95-95-4	2,4,5-Trichlorophenol	U	10.0	ug/L	2.00	10.0
91-58-7	2-Chloronaphthalene	U	1.00	ug/L	0.300	1.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202052064**				
Client Sample:	**QC for batch 957045**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 957045**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**957046**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 13:08**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/24/2010 20:21**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s8b2509-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.0	ug/L	2.00	10.0
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.0	ug/L	2.00	10.0
131-11-3	Dimethylphthalate	U	10.0	ug/L	2.00	10.0
606-20-2	2,6-Dinitrotoluene	U	10.0	ug/L	2.00	10.0
208-96-8	Acenaphthylene	U	1.00	ug/L	0.200	1.00
51-28-5	2,4-Dinitrophenol	U	20.0	ug/L	5.00	20.0
132-64-9	Dibenzofuran	U	10.0	ug/L	2.00	10.0
84-66-2	Diethylphthalate	U	10.0	ug/L	2.00	10.0
86-73-7	Fluorene	U	1.00	ug/L	0.200	1.00
7005-72-3	4-Chlorophenylphenylether	U	10.0	ug/L	2.00	10.0
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.0	ug/L	3.00	10.0
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.0	ug/L	3.00	10.0
122-39-4	Diphenylamine *1,2-Diphenylhydrazine*	U	10.0	ug/L	3.00	10.0
122-66-7	Azobenzene	U	10.0	ug/L	2.00	10.0
101-55-3	4-Bromophenylphenylether	U	10.0	ug/L	2.00	10.0
118-74-1	Hexachlorobenzene	U	10.0	ug/L	2.00	10.0
1912-24-9	Atrazine	U	10.0	ug/L	3.00	10.0
85-01-8	Phenanthrene	U	1.00	ug/L	0.200	1.00
120-12-7	Anthracene	U	1.00	ug/L	0.200	1.00
84-74-2	Di-n-butylphthalate	U	10.0	ug/L	2.00	10.0
206-44-0	Fluoranthene	U	1.00	ug/L	0.200	1.00
92-87-5	Benzidine	U	10.0	ug/L	3.00	10.0
85-68-7	Butylbenzylphthalate	U	10.0	ug/L	2.00	10.0
56-55-3	Benzo(a)anthracene	U	1.00	ug/L	0.200	1.00
91-94-1	3,3'-Dichlorobenzidine	U	10.0	ug/L	2.00	10.0
218-01-9	Chrysene	U	1.00	ug/L	0.200	1.00
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.0	ug/L	2.00	10.0
117-84-0	Di-n-octylphthalate	U	10.0	ug/L	3.00	10.0
205-99-2	Benzo(b)fluoranthene	U	1.00	ug/L	0.200	1.00
207-08-9	Benzo(k)fluoranthene	U	1.00	ug/L	0.200	1.00
50-32-8	Benzo(a)pyrene	U	1.00	ug/L	0.200	1.00
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.00	ug/L	0.200	1.00
53-70-3	Dibenzo(a,h)anthracene	U	1.00	ug/L	0.200	1.00
191-24-2	Benzo(ghi)perylene	U	1.00	ug/L	0.200	1.00
123-91-1	1,4-Dioxane	U	10.0	ug/L	2.00	10.0
55-18-5	N-Nitrosodiethylamine	U	10.0	ug/L	2.00	10.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000			**Matrix:**	GROUND WATER
Lab Sample ID:	1202052064				
Client Sample:	QC for batch 957045	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 957045	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	957046	**Inst:**	MSD8.I	**Dilution:**	1
Run Date:	02/25/2010 13:08	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/24/2010 20:21	**Aliquot:**	1000 mL	**Final Volume:**	1 mL
Data File:	s8b2509-1.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.0	ug/L	2.00	10.0
924-16-3	N-Nitrosodi-n-butylamine	U	10.0	ug/L	3.00	10.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.0	ug/L	3.00	10.0
608-93-5	Pentachlorobenzene	U	10.0	ug/L	3.00	10.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.0	ug/L	2.00	10.0
88-85-7	Dinoseb	U	10.0	ug/L	2.00	10.0
120-82-1	1,2,4-Trichlorobenzene	U	10.0	ug/L	2.00	10.0

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	61.7	100	ug/L	61.7	(39%-120%)
2-Fluorobiphenyl	28.4	50.0	ug/L	56.8	(38%-108%)
2-Fluorophenol	40.0	100	ug/L	40.0	(19%-98%)
Nitrobenzene-d5	33.1	50.0	ug/L	66.2	(31%-122%)
Phenol-d5	24.4	100	ug/L	24.4	(15%-83%)
p-Terphenyl-d14	45.9	50.0	ug/L	91.8	(40%-138%)

Tentatively Identified Compound Summary

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

GEL Laboratories LLC

Data file : /chem/MSD8.i/s022510.b/s8b2509-1.d
Lab Smp Id: 1202052064 Client Smp ID: SBLK01
Inj Date : 25-FEB-2010 13:08
Operator : nagl Inst ID: MSD8.i
Smp Info : |1202052064|957046|1|SVM|1|SBLK01
Misc Info : |MSD82709L|WBN100217-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m
Meth Date : 25-Feb-2010 13:26 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2000.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.511	4.516	(1.000)	336696	40.0000	
* 29 Naphthalene-d8	136	5.773	5.777	(1.000)	1281128	40.0000	
* 46 Acenaphthene-d10	164	7.635	7.635	(1.000)	781934	40.0000	
* 67 Phenanthrene-d10	188	9.235	9.239	(1.000)	1326513	40.0000	
* 91 Chrysene-d12	240	12.163	12.173	(1.000)	1034019	40.0000	
* 98 Perylene-d12	264	14.316	14.320	(1.000)	770916	40.0000	
$ 3 2-Fluorophenol	112	3.363	3.363	(0.746)	317658	39.9624	40.0
$ 5 Phenol-d5	99	4.125	4.135	(0.914)	241492	24.3606	24.4
$ 20 Nitrobenzene-d5	82	5.034	5.044	(0.872)	301380	33.0929	33.1
$ 39 2-Fluorobiphenyl	172	6.901	6.901	(0.904)	654077	28.4182	28.4
$ 60 2,4,6-Tribromophenol	329	8.477	8.482	(1.110)	159554	61.7280	61.7
$ 81 p-Terphenyl-d14	244	10.954	10.954	(0.901)	854230	45.8865	45.9

GEL Laboratories LLC

Data file : /chem/MSD8.i/s022510.b/s8b2509-1.d
Lab Smp Id: 1202052064 Client Smp ID: SBLK01
Inj Date : 25-FEB-2010 13:08
Operator : nagl Inst ID: MSD8.i
Smp Info : |1202052064|957046|1|SVM|1|SBLK01
Misc Info : |MSD82709L|WBN100217-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m
Meth Date : 25-Feb-2010 13:26 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2000.sub
Target Version: 3.50
Processing Host: hpclp1

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/MSD8.i/s022510.b/s8b2509-1.d

Date : 25-FEB-2010 13:08

Client ID: SBLK01

Sample Info: |1202052064|957046|1|SVH|1|SBLK01

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD8.i

Operator: nag1

Column diameter: 0.20

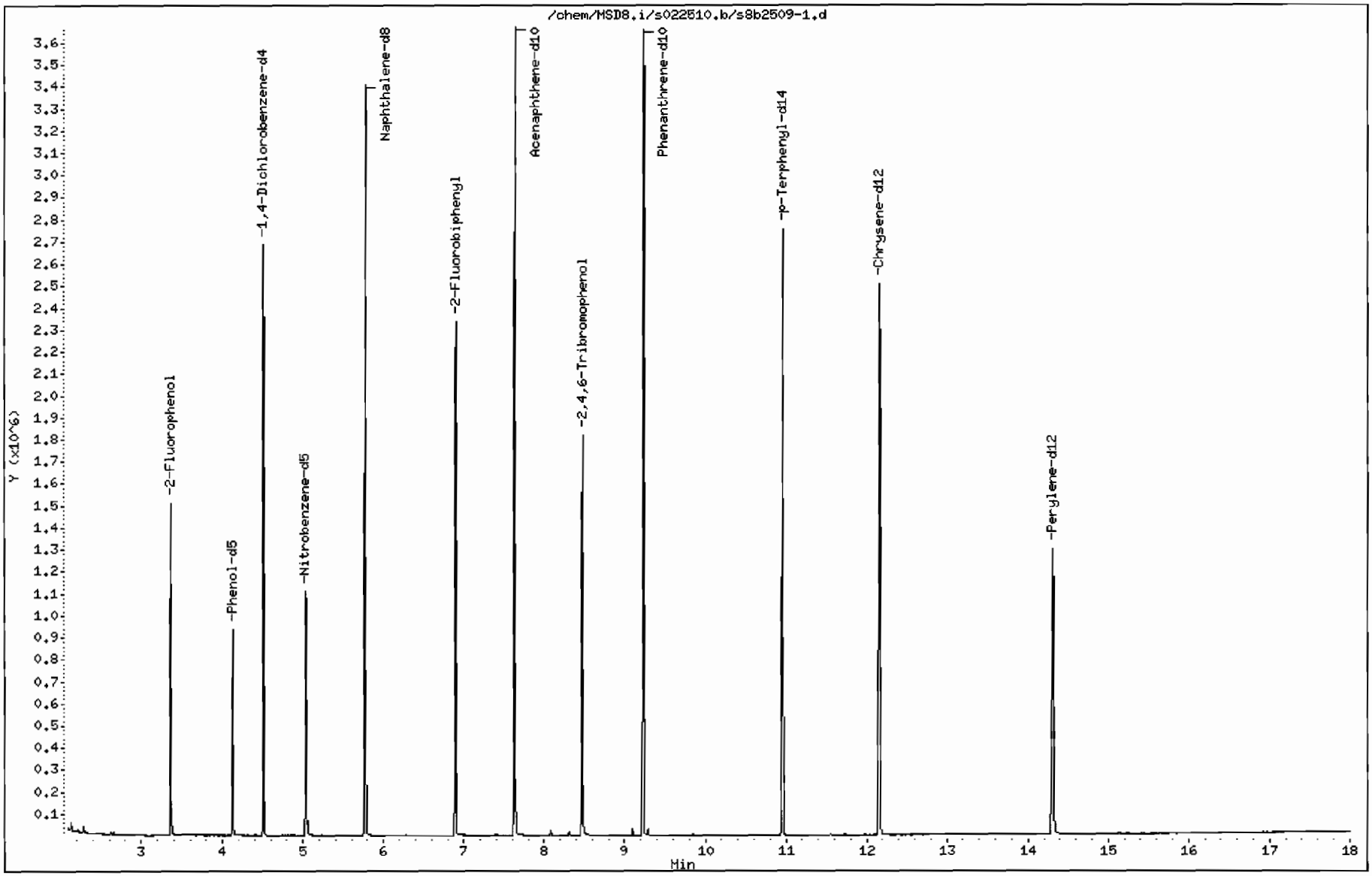

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000			**Matrix:**	GROUND WATER
Lab Sample ID:	1202052065				
Client Sample:	QC for batch 957045	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 957045	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	957046	**Inst:**	MSD8.I	**Dilution:**	1
Run Date:	02/25/2010 13:37	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/24/2010 20:21	**Aliquot:**	1000 mL	**Final Volume:**	1 mL
Data File:	s8b2510-1.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		22.8	ug/L	2.00	10.0
108-95-2	Phenol		14.6	ug/L	1.00	10.0
95-57-8	2-Chlorophenol		32.8	ug/L	2.00	10.0
106-46-7	1,4-Dichlorobenzene		25.2	ug/L	2.00	10.0
621-64-7	N-Nitrosodi--n-propylamine		37.8	ug/L	2.00	10.0
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol		36.7	ug/L	2.00	10.0
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene		27.8	ug/L	0.310	1.00
121-14-2	2,4-Dinitrotoluene		39.6	ug/L	2.00	10.0
100-02-7	4-Nitrophenol		15.8	ug/L	2.00	10.0
87-86-5	Pentachlorophenol		44.1	ug/L	2.00	10.0
129-00-0	Pyrene		33.5	ug/L	0.300	1.00
110-86-1	Pyridine	J	7.82	ug/L	3.00	10.0
62-53-3	Aniline		32.2	ug/L	2.50	10.0
111-44-4	bis(2-Chloroethyl) ether		32.0	ug/L	2.00	10.0
541-73-1	1,3-Dichlorobenzene		25.4	ug/L	2.00	10.0
100-51-6	Benzyl alcohol		28.5	ug/L	2.00	10.0
95-50-1	1,2-Dichlorobenzene		26.1	ug/L	2.00	10.0
108-60-1	bis(2-Chloroisopropyl)ether		35.9	ug/L	2.00	10.0
95-48-7	o-Cresol		28.8	ug/L	2.00	10.0
65794-96-9	m,p-Cresols		30.3	ug/L	3.00	10.0
67-72-1	Hexachloroethane		24.5	ug/L	2.00	10.0
98-95-3	Nitrobenzene		34.3	ug/L	3.00	10.0
78-59-1	Isophorone		36.8	ug/L	3.00	10.0
88-75-5	2-Nitrophenol		35.7	ug/L	2.00	10.0
105-67-9	2,4-Dimethylphenol		32.6	ug/L	2.00	10.0
111-91-1	bis(2-Chloroethoxy)methane		35.8	ug/L	3.00	10.0
120-83-2	2,4-Dichlorophenol		35.9	ug/L	2.00	10.0
65-85-0	Benzoic acid		35.5	ug/L	6.00	20.0
91-20-3	Naphthalene		29.5	ug/L	0.300	1.00
106-47-8	4-Chloroaniline		44.4	ug/L	2.00	10.0
87-68-3	Hexachlorobutadiene		23.8	ug/L	2.00	10.0
91-57-6	2-Methylnaphthalene		31.1	ug/L	0.300	1.00
90-12-0	1-Methylnaphthalene		30.5	ug/L	0.300	1.00
77-47-4	Hexachlorocyclopentadiene		19.3	ug/L	3.00	10.0
88-06-2	2,4,6-Trichlorophenol		36.3	ug/L	2.00	10.0
95-95-4	2,4,5-Trichlorophenol		36.6	ug/L	2.00	10.0
91-58-7	2-Chloronaphthalene		29.9	ug/L	0.300	1.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202052065**				
Client Sample:	**QC for batch 957045**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 957045**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**957046**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 13:37**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/24/2010 20:21**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s8b2510-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline		39.4	ug/L	2.00	10.0
	o-Nitroaniline					
99-09-2	3-Nitroaniline		42.7	ug/L	2.00	10.0
	m-Nitroaniline					
131-11-3	Dimethylphthalate		40.2	ug/L	2.00	10.0
606-20-2	2,6-Dinitrotoluene		38.1	ug/L	2.00	10.0
208-96-8	Acenaphthylene		30.0	ug/L	0.200	1.00
51-28-5	2,4-Dinitrophenol		41.5	ug/L	5.00	20.0
132-64-9	Dibenzofuran		33.3	ug/L	2.00	10.0
84-66-2	Diethylphthalate		39.4	ug/L	2.00	10.0
86-73-7	Fluorene		31.7	ug/L	0.200	1.00
7005-72-3	4-Chlorophenylphenylether		33.1	ug/L	2.00	10.0
534-52-1	2-Methyl-4,6-dinitrophenol		44.4	ug/L	3.00	10.0
100-01-6	4-Nitroaniline		39.6	ug/L	3.00	10.0
	p-Nitroaniline					
122-39-4	Diphenylamine		42.5	ug/L	3.00	10.0
122-66-7	Azobenzene		40.2	ug/L	2.00	10.0
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		36.5	ug/L	2.00	10.0
118-74-1	Hexachlorobenzene		35.6	ug/L	2.00	10.0
1912-24-9	Atrazine		49.0	ug/L	3.00	10.0
85-01-8	Phenanthrene		35.8	ug/L	0.200	1.00
120-12-7	Anthracene		34.5	ug/L	0.200	1.00
84-74-2	Di-n-butylphthalate		43.7	ug/L	2.00	10.0
206-44-0	Fluoranthene		38.2	ug/L	0.200	1.00
92-87-5	Benzidine	J	8.69	ug/L	3.00	10.0
85-68-7	Butylbenzylphthalate		42.5	ug/L	2.00	10.0
56-55-3	Benzo(a)anthracene		34.8	ug/L	0.200	1.00
91-94-1	3,3'-Dichlorobenzidine		27.7	ug/L	2.00	10.0
218-01-9	Chrysene		36.5	ug/L	0.200	1.00
117-81-7	bis(2-Ethylhexyl)phthalate		43.7	ug/L	2.00	10.0
117-84-0	Di-n-octylphthalate		40.0	ug/L	3.00	10.0
205-99-2	Benzo(b)fluoranthene		34.4	ug/L	0.200	1.00
207-08-9	Benzo(k)fluoranthene		33.8	ug/L	0.200	1.00
50-32-8	Benzo(a)pyrene		35.9	ug/L	0.200	1.00
193-39-5	Indeno(1,2,3-cd)pyrene		34.9	ug/L	0.200	1.00
53-70-3	Dibenzo(a,h)anthracene		42.0	ug/L	0.200	1.00
191-24-2	Benzo(ghi)perylene		40.0	ug/L	0.200	1.00
123-91-1	1,4-Dioxane		28.1	ug/L	2.00	10.0
55-18-5	N-Nitrosodiethylamine	U	10.0	ug/L	2.00	10.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202052065**				
Client Sample:	**QC for batch 957045**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 957045**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**957046**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 13:37**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/24/2010 20:21**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s8b2510-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine		36.3	ug/L	2.00	10.0
924-16-3	N-Nitrosodi-n-butylamine	U	10.0	ug/L	3.00	10.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.0	ug/L	3.00	10.0
608-93-5	Pentachlorobenzene	U	10.0	ug/L	3.00	10.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.0	ug/L	2.00	10.0
88-85-7	Dinoseb	U	10.0	ug/L	2.00	10.0
120-82-1	1,2,4-Trichlorobenzene		26.0	ug/L	2.00	10.0

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	81.9	100	ug/L	81.9	(39%-120%)
2-Fluorobiphenyl	30.8	50.0	ug/L	61.7	(38%-108%)
2-Fluorophenol	43.0	100	ug/L	43.0	(19%-98%)
Nitrobenzene-d5	35.1	50.0	ug/L	70.2	(31%-122%)
Phenol-d5	27.6	100	ug/L	27.6	(15%-83%)
p-Terphenyl-d14	41.2	50.0	ug/L	82.4	(40%-138%)

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Data file : /chem/MSD8.i/s022510.b/s8b2510-1.d
Lab Smp Id: 1202052065 Client Smp ID: SBLK01LCS
Inj Date : 25-FEB-2010 13:37
Operator : nagl Inst ID: MSD8.i
Smp Info : |1202052065|957046|1|SVM|1|SBLK01LCS
Misc Info : |MSD82709L|WBN100217-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m
Meth Date : 25-Feb-2010 13:26 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 7 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2000.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.516	4.516	(1.000)	346769	40.0000	
* 29 Naphthalene-d8	136	5.777	5.777	(1.000)	1377662	40.0000	
* 46 Acenaphthene-d10	164	7.635	7.635	(1.000)	842190	40.0000	
* 67 Phenanthrene-d10	188	9.239	9.239	(1.000)	1465582	40.0000	
* 91 Chrysene-d12	240	12.173	12.173	(1.000)	1399755	40.0000	
* 98 Perylene-d12	264	14.320	14.320	(1.000)	989546	40.0000	
$ 3 2-Fluorophenol	112	3.368	3.363	(0.746)	352224	43.0237	43.0
$ 5 Phenol-d5	99	4.130	4.135	(0.915)	282300	27.6499	27.6
$ 20 Nitrobenzene-d5	82	5.039	5.044	(0.872)	343837	35.1094	35.1
$ 39 2-Fluorobiphenyl	172	6.901	6.901	(0.904)	764232	30.8285	30.8
$ 60 2,4,6-Tribromophenol	329	8.487	8.482	(1.112)	228094	81.9311	81.9
$ 81 p-Terphenyl-d14	244	10.954	10.954	(0.900)	1038283	41.2005	41.2
6 Phenol	94	4.144	4.144	(0.918)	153684	14.5765	14.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	4.316	4.316	(0.956)	300257	32.7965	32.8
11 1,4-Dichlorobenzene	146	4.530	4.530	(1.003)	282428	25.2123	25.2
17 N-Nitrosodipropylamine	70	4.882	4.887	(1.081)	254965	37.8083	37.8(Q)
28 1,2,4-Trichlorobenzene	180	5.711	5.711	(0.988)	260929	26.0181	26.0
33 4-Chloro-3-methylphenol	107	6.335	6.330	(1.096)	295879	36.6675	36.7
47 Acenaphthene	154	7.668	7.673	(1.004)	622100	27.7972	27.8
50 2,4-Dinitrotoluene	165	7.830	7.835	(1.026)	270870	39.5945	39.6
52 4-Nitrophenol	139	7.754	7.744	(1.016)	45550	15.8449	15.8(R)
65 Pentachlorophenol	266	9.030	9.025	(0.977)	142878	44.0669	44.1
79 Pyrene	202	10.801	10.797	(0.887)	1463703	33.4916	33.5
2 Pyridine	79	2.458	2.449	(0.544)	60558	7.81603	7.8(aR)
4 Aniline	66	4.201	4.206	(0.930)	155012	32.1930	32.2
7 bis(2-Chloroethyl) ether	63	4.249	4.249	(0.941)	230848	32.0269	32.0
9 1,3-Dichlorobenzene	146	4.463	4.463	(0.988)	275907	25.4121	25.4
12 Benzyl alcohol	108	4.625	4.625	(1.024)	163350	28.5247	28.5
13 1,2-Dichlorobenzene	146	4.673	4.673	(1.035)	271805	26.0853	26.1
14 bis(2-Chloroisopropyl)ether	45	4.749	4.754	(1.052)	508035	35.9480	35.9
15 o-Cresol	107	4.716	4.716	(1.044)	211059	28.8243	28.8
18 m,p-Cresols	107	4.863	4.868	(1.077)	280418	30.2615	30.3
19 Hexachloroethane	117	5.006	5.006	(1.109)	103424	24.4999	24.5
21 Nitrobenzene	77	5.063	5.063	(0.876)	346192	34.2698	34.3
22 Isophorone	82	5.296	5.301	(0.917)	685046	36.8339	36.8
23 2-Nitrophenol	139	5.377	5.377	(0.931)	165291	35.6503	35.6
24 2,4-Dimethylphenol	122	5.401	5.401	(0.935)	268841	32.6159	32.6
25 bis(2-Chloroethoxy)methane	93	5.501	5.501	(0.952)	373891	35.8491	35.8
26 2,4-Dichlorophenol	162	5.620	5.620	(0.973)	267549	35.8739	35.9
27 Benzoic acid	105	5.497	5.496	(0.951)	121974	35.5466	35.5
30 Naphthalene	128	5.796	5.796	(1.003)	870876	29.5470	29.5
31 4-Chloroaniline	127	5.844	5.839	(1.012)	437376	44.4252	44.4
32 Hexachlorobutadiene	225	5.916	5.916	(1.024)	148579	23.8213	23.8
34 2-Methylnaphthalene	142	6.520	6.520	(1.129)	616654	31.0910	31.1
35 1-Methylnaphthalene	142	6.625	6.625	(1.147)	593502	30.5267	30.5
36 Hexachlorocyclopentadiene	237	6.682	6.682	(0.875)	100950	19.3124	19.3
37 2,4,6-Trichlorophenol	196	6.811	6.811	(0.892)	235497	36.2930	36.3
38 2,4,5-Trichlorophenol	196	6.849	6.849	(0.897)	252362	36.6424	36.6
40 2-Chloronaphthalene	162	7.039	7.039	(0.922)	613946	29.8647	29.9
42 o-Nitroaniline	65	7.139	7.139	(0.935)	227440	39.4358	39.4
41 m-Nitroaniline	138	7.582	7.582	(0.993)	187902	42.7476	42.7
43 Dimethylphthalate	163	7.335	7.339	(0.961)	949799	40.2460	40.2
44 2,6-Dinitrotoluene	165	7.401	7.401	(0.969)	203128	38.0711	38.1
45 Acenaphthylene	152	7.482	7.487	(0.980)	1049152	30.0055	30.0
48 2,4-Dinitrophenol	184	7.692	7.692	(1.007)	72251	41.4544	41.4
49 Dibenzofuran	168	7.854	7.854	(1.029)	976456	33.2537	33.2
51 Diethylphthalate	149	8.092	8.092	(1.060)	974384	39.4494	39.4
53 Fluorene	166	8.225	8.225	(1.077)	862138	31.7177	31.7
54 4-Chlorophenylphenylether	204	8.216	8.216	(1.076)	433756	33.1353	33.1
55 2-Methyl-4,6-dinitrophenol	198	8.273	8.273	(0.895)	132351	44.3770	44.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
56 p-Nitroaniline	138	8.239	8.235	(1.079)	153688	39.5684	39.6
133 Diphenylamine	169	8.344	8.344	(0.903)	786704	42.4791	42.5
58 1,2-Diphenylhydrazine	77	8.392	8.392	(0.908)	874653	40.2054	40.2
61 4-Bromophenylphenylether	248	8.749	8.749	(0.947)	255489	36.4818	36.5
63 Hexachlorobenzene	284	8.816	8.816	(0.954)	259133	35.6003	35.6
207 Atrazine	173	8.920	8.916	(0.965)	63338	48.9510	49.0
68 Phenanthrene	178	9.268	9.268	(1.003)	1225777	35.8020	35.8
69 Anthracene	178	9.320	9.320	(1.009)	1226477	34.4798	34.5
72 Di-n-butylphthalate	149	9.854	9.854	(1.066)	1625927	43.7308	43.7
76 Fluoranthene	202	10.554	10.549	(1.142)	1423765	38.1769	38.2
77 Benzidine	184	10.682	10.687	(0.878)	6431	8.68810	8.7(aR)
85 Butylbenzylphthalate	149	11.478	11.478	(0.943)	648922	42.4617	42.5
89 Benzo(a)anthracene	228	12.154	12.154	(0.998)	1280775	34.7707	34.8
90 3,3'-Dichlorobenzidine	252	12.111	12.106	(0.995)	240054	27.6833	27.7
92 Chrysene	228	12.206	12.201	(1.003)	1173410	36.5356	36.5
93 bis(2-Ethylhexyl)phthalate	149	12.163	12.163	(0.999)	934220	43.6812	43.7
94 Di-n-octylphthalate	149	13.073	13.073	(0.913)	1220531	39.9645	40.0
95 Benzo(b)fluoranthene	252	13.697	13.692	(0.956)	966230	34.4409	34.4
96 Benzo(k)fluoranthene	252	13.739	13.739	(0.959)	953545	33.8088	33.8
97 Benzo(a)pyrene	252	14.225	14.225	(0.993)	848992	35.8805	35.9
99 Indeno(1,2,3-cd)pyrene	276	16.187	16.182	(1.130)	683723	34.8511	34.8
100 Dibenzo(a,h)anthracene	278	16.225	16.220	(1.133)	637334	42.0354	42.0
101 Benzo(ghi)perylene	276	16.668	16.663	(1.164)	649718	40.0278	40.0
102 1,4-Dioxane	88	2.220	2.220	(0.492)	78593	28.0507	28.0
111 N-Nitrosopyrrolidine	100	4.873	4.868	(1.079)	154179	36.2518	36.2(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.411	2.415	(0.534)	120235	22.7651	22.8

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD8.i/s022510.b/s8b2510-1.d
Date : 25-FEB-2010 13:37
Client ID: SBLK01LCS
Sample Info: I120205206519570461I1SVHI1I1SBLK01LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: nagl
Column diameter: 0.20

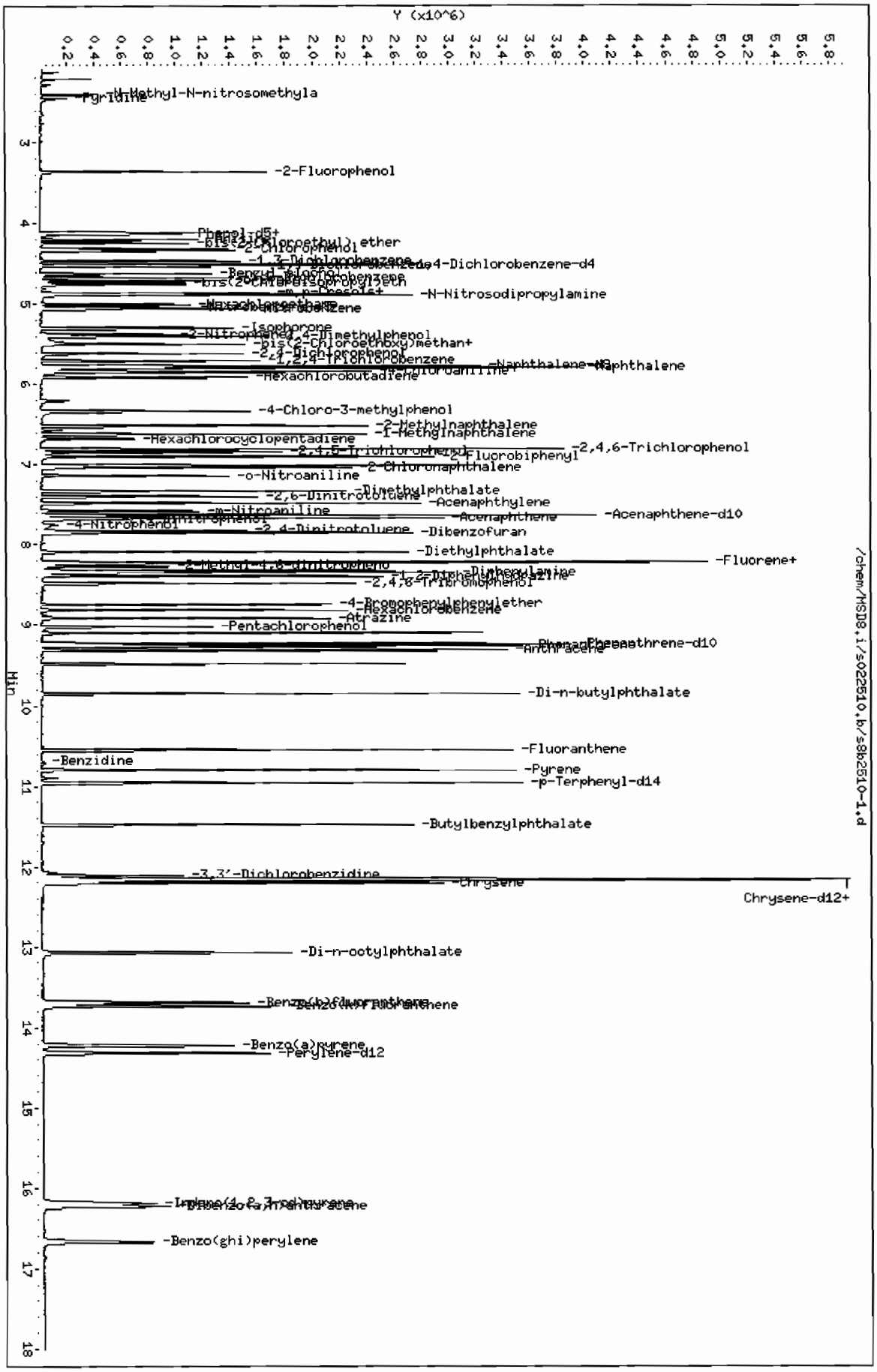

Page 1

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000	**Date Collected:**	02/21/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	1202052066	**Date Received:**	02/23/2010 08:50		
Client Sample:	QC for batch 957045	**Client:**	LANL010	**Project:**	QC
Client ID:	CAPA-10-13095MS	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	957046	**Inst:**	MSD8.I	**Dilution:**	1
Run Date:	02/25/2010 18:57	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/24/2010 20:21	**Aliquot:**	500 mL	**Final Volume:**	1 mL
Data File:	s8b2521.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		59.0	ug/L	4.00	20.0
108-95-2	Phenol		46.0	ug/L	2.00	20.0
95-57-8	2-Chlorophenol		68.7	ug/L	4.00	20.0
106-46-7	1,4-Dichlorobenzene		52.1	ug/L	4.00	20.0
621-64-7	N-Nitrosodi--n-propylamine		78.6	ug/L	4.00	20.0
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol		77.1	ug/L	4.00	20.0
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene		56.7	ug/L	0.620	2.00
121-14-2	2,4-Dinitrotoluene		82.1	ug/L	4.00	20.0
100-02-7	4-Nitrophenol		45.6	ug/L	4.00	20.0
87-86-5	Pentachlorophenol		80.8	ug/L	4.00	20.0
129-00-0	Pyrene		68.5	ug/L	0.600	2.00
110-86-1	Pyridine	J	16.6	ug/L	6.00	20.0
62-53-3	Aniline		64.2	ug/L	5.00	20.0
111-44-4	bis(2-Chloroethyl) ether		66.1	ug/L	4.00	20.0
541-73-1	1,3-Dichlorobenzene		52.3	ug/L	4.00	20.0
100-51-6	Benzyl alcohol		53.8	ug/L	4.00	20.0
95-50-1	1,2-Dichlorobenzene		53.9	ug/L	4.00	20.0
108-60-1	bis(2-Chloroisopropyl)ether		73.3	ug/L	4.00	20.0
95-48-7	o-Cresol		64.6	ug/L	4.00	20.0
65794-96-9	m,p-Cresols		73.7	ug/L	6.00	20.0
67-72-1	Hexachloroethane		50.0	ug/L	4.00	20.0
98-95-3	Nitrobenzene		71.2	ug/L	6.00	20.0
78-59-1	Isophorone		77.1	ug/L	6.00	20.0
88-75-5	2-Nitrophenol		73.4	ug/L	4.00	20.0
105-67-9	2,4-Dimethylphenol		67.8	ug/L	4.00	20.0
111-91-1	bis(2-Chloroethoxy)methane		73.8	ug/L	6.00	20.0
120-83-2	2,4-Dichlorophenol		75.5	ug/L	4.00	20.0
65-85-0	Benzoic acid		99.7	ug/L	12.0	40.0
91-20-3	Naphthalene		61.0	ug/L	0.600	2.00
106-47-8	4-Chloroaniline		90.5	ug/L	4.00	20.0
87-68-3	Hexachlorobutadiene		50.1	ug/L	4.00	20.0
91-57-6	2-Methylnaphthalene		64.5	ug/L	0.600	2.00
90-12-0	1-Methylnaphthalene		63.1	ug/L	0.600	2.00
77-47-4	Hexachlorocyclopentadiene		42.2	ug/L	6.00	20.0
88-06-2	2,4,6-Trichlorophenol		70.6	ug/L	4.00	20.0
95-95-4	2,4,5-Trichlorophenol		76.3	ug/L	4.00	20.0
91-58-7	2-Chloronaphthalene		61.5	ug/L	0.600	2.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000	**Date Collected:**	02/21/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	1202052066	**Date Received:**	02/23/2010 08:50		
Client Sample:	QC for batch 957045	**Client:**	LANL010	**Project:**	QC
Client ID:	CAPA-10-13095MS	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	957046	**Inst:**	MSD8.I	**Dilution:**	1
Run Date:	02/25/2010 18:57	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/24/2010 20:21	**Aliquot:**	500 mL	**Final Volume:**	1 mL
Data File:	s8b2521.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline		82.3	ug/L	4.00	20.0
	o-Nitroaniline					
99-09-2	3-Nitroaniline		88.5	ug/L	4.00	20.0
	m-Nitroaniline					
131-11-3	Dimethylphthalate		82.8	ug/L	4.00	20.0
606-20-2	2,6-Dinitrotoluene		79.2	ug/L	4.00	20.0
208-96-8	Acenaphthylene		62.2	ug/L	0.400	2.00
51-28-5	2,4-Dinitrophenol		73.4	ug/L	10.0	40.0
132-64-9	Dibenzofuran		68.7	ug/L	4.00	20.0
84-66-2	Diethylphthalate		81.3	ug/L	4.00	20.0
86-73-7	Fluorene		65.6	ug/L	0.400	2.00
7005-72-3	4-Chlorophenylphenylether		69.8	ug/L	4.00	20.0
534-52-1	2-Methyl-4,6-dinitrophenol		82.4	ug/L	6.00	20.0
100-01-6	4-Nitroaniline		86.4	ug/L	6.00	20.0
	p-Nitroaniline					
122-39-4	Diphenylamine		88.6	ug/L	6.00	20.0
122-66-7	Azobenzene		82.9	ug/L	4.00	20.0
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		75.2	ug/L	4.00	20.0
118-74-1	Hexachlorobenzene		73.4	ug/L	4.00	20.0
1912-24-9	Atrazine		100	ug/L	6.00	20.0
85-01-8	Phenanthrene		74.3	ug/L	0.400	2.00
120-12-7	Anthracene		72.6	ug/L	0.400	2.00
84-74-2	Di-n-butylphthalate		89.1	ug/L	4.00	20.0
206-44-0	Fluoranthene		79.0	ug/L	0.400	2.00
92-87-5	Benzidine	J	19.4	ug/L	6.00	20.0
85-68-7	Butylbenzylphthalate		86.8	ug/L	4.00	20.0
56-55-3	Benzo(a)anthracene		73.1	ug/L	0.400	2.00
91-94-1	3,3'-Dichlorobenzidine		65.8	ug/L	4.00	20.0
218-01-9	Chrysene		77.1	ug/L	0.400	2.00
117-81-7	bis(2-Ethylhexyl)phthalate		89.6	ug/L	4.00	20.0
117-84-0	Di-n-octylphthalate		84.0	ug/L	6.00	20.0
205-99-2	Benzo(b)fluoranthene		72.0	ug/L	0.400	2.00
207-08-9	Benzo(k)fluoranthene		73.8	ug/L	0.400	2.00
50-32-8	Benzo(a)pyrene		76.5	ug/L	0.400	2.00
193-39-5	Indeno(1,2,3-cd)pyrene		78.5	ug/L	0.400	2.00
53-70-3	Dibenzo(a,h)anthracene		83.1	ug/L	0.400	2.00
191-24-2	Benzo(ghi)perylene		72.5	ug/L	0.400	2.00
123-91-1	1,4-Dioxane		70.2	ug/L	4.00	20.0
55-18-5	N-Nitrosodiethylamine	U	20.0	ug/L	4.00	20.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000	**Date Collected:**	02/21/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	1202052066	**Date Received:**	02/23/2010 08:50		
Client Sample:	QC for batch 957045	**Client:**	LANL010	**Project:**	QC
Client ID:	CAPA-10-13095MS	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	957046	**Inst:**	MSD8.I	**Dilution:**	1
Run Date:	02/25/2010 18:57	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/24/2010 20:21	**Aliquot:**	500 mL	**Final Volume:**	1 mL
Data File:	s8b2521.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine		76.5	ug/L	4.00	20.0
924-16-3	N-Nitrosodi-n-butylamine	U	20.0	ug/L	6.00	20.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	20.0	ug/L	6.00	20.0
608-93-5	Pentachlorobenzene	U	20.0	ug/L	6.00	20.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	20.0	ug/L	4.00	20.0
88-85-7	Dinoseb	U	20.0	ug/L	4.00	20.0
120-82-1	1,2,4-Trichlorobenzene		54.6	ug/L	4.00	20.0

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	158	200	ug/L	79.0	(39%-120%)
2-Fluorobiphenyl	62.0	100	ug/L	62.0	(38%-108%)
2-Fluorophenol	112	200	ug/L	56.1	(19%-98%)
Nitrobenzene-d5	71.3	100	ug/L	71.3	(31%-122%)
Phenol-d5	87.6	200	ug/L	43.8	(15%-83%)
p-Terphenyl-d14	83.9	100	ug/L	83.9	(40%-138%)

GEL Laboratories LLC

Data file : /chem/MSD8.i/s022510.b/s8b2521.d
Lab Smp Id: 1202052066 Client Smp ID: CAPA-10-13095MS
Inj Date : 25-FEB-2010 18:57
Operator : nagl Inst ID: MSD8.i
Smp Info : |1202052066|957046|1|SVM|1|MS
Misc Info : |MSD82709L|WBN100217-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m
Meth Date : 25-Feb-2010 13:26 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 18 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2000.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	500.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.515	4.516	(1.000)	348987	40.0000	
* 29 Naphthalene-d8	136	5.777	5.777	(1.000)	1377557	40.0000	
* 46 Acenaphthene-d10	164	7.634	7.635	(1.000)	858924	40.0000	
* 67 Phenanthrene-d10	188	9.239	9.239	(1.000)	1518624	40.0000	
* 91 Chrysene-d12	240	12.173	12.173	(1.000)	1487188	40.0000	
* 98 Perylene-d12	264	14.325	14.320	(1.000)	1075869	40.0000	
$ 3 2-Fluorophenol	112	3.368	3.363	(0.746)	462404	56.1231	112
$ 5 Phenol-d5	99	4.134	4.135	(0.916)	449806	43.7763	87.6
$ 20 Nitrobenzene-d5	82	5.039	5.044	(0.872)	349186	35.6583	71.3
$ 39 2-Fluorobiphenyl	172	6.901	6.901	(0.904)	783643	30.9957	62.0
$ 60 2,4,6-Tribromophenol	329	8.487	8.482	(1.112)	224297	78.9976	158
$ 81 p-Terphenyl-d14	244	10.958	10.954	(0.900)	1122908	41.9389	83.9
6 Phenol	94	4.144	4.144	(0.918)	244262	23.0203	46.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	4.315	4.316	(0.956)	316513	34.3524	68.7
11 1,4-Dichlorobenzene	146	4.530	4.530	(1.003)	293448	26.0296	52.0
17 N-Nitrosodipropylamine	70	4.882	4.887	(1.081)	266682	39.2944	78.6(Q)
28 1,2,4-Trichlorobenzene	180	5.711	5.711	(0.988)	273566	27.2803	54.6
33 4-Chloro-3-methylphenol	107	6.339	6.330	(1.097)	311229	38.5728	77.1
47 Acenaphthene	154	7.673	7.673	(1.005)	647561	28.3711	56.7
50 2,4-Dinitrotoluene	165	7.830	7.835	(1.026)	286344	41.0409	82.1
52 4-Nitrophenol	139	7.758	7.744	(1.016)	66803	22.7852	45.6
65 Pentachlorophenol	266	9.030	9.025	(0.977)	135752	40.4067	80.8
79 Pyrene	202	10.801	10.797	(0.887)	1589682	34.2357	68.5
2 Pyridine	79	2.458	2.449	(0.544)	64848	8.31653	16.6(aR)
4 Aniline	66	4.201	4.206	(0.930)	155466	32.0820	64.2
7 bis(2-Chloroethyl) ether	63	4.249	4.249	(0.941)	239570	33.0257	66.0
9 1,3-Dichlorobenzene	146	4.463	4.463	(0.988)	285780	26.1541	52.3
12 Benzyl alcohol	108	4.625	4.625	(1.024)	154928	26.8821	53.8
13 1,2-Dichlorobenzene	146	4.672	4.673	(1.035)	282598	26.9487	53.9
14 bis(2-Chloroisopropyl)ether	45	4.749	4.754	(1.052)	521232	36.6474	73.3
15 o-Cresol	107	4.715	4.716	(1.044)	237867	32.2790	64.6
18 m,p-Cresols	107	4.863	4.868	(1.077)	343723	36.8573	73.7
19 Hexachloroethane	117	5.006	5.006	(1.109)	106210	24.9999	50.0
21 Nitrobenzene	77	5.063	5.063	(0.876)	359651	35.6048	71.2
22 Isophorone	82	5.296	5.301	(0.917)	717192	38.5653	77.1
23 2-Nitrophenol	139	5.377	5.377	(0.931)	170249	36.7225	73.4
24 2,4-Dimethylphenol	122	5.401	5.401	(0.935)	279394	33.8988	67.8
25 bis(2-Chloroethoxy)methane	93	5.501	5.501	(0.952)	385056	36.9225	73.8
26 2,4-Dichlorophenol	162	5.620	5.620	(0.973)	281691	37.7730	75.5
27 Benzoic acid	105	5.515	5.496	(0.955)	206697	49.8430	99.7
30 Naphthalene	128	5.796	5.796	(1.003)	901034	30.5030	61.0
31 4-Chloroaniline	127	5.844	5.839	(1.012)	445670	45.2711	90.5
32 Hexachlorobutadiene	225	5.915	5.916	(1.024)	156142	25.0358	50.1
34 2-Methylnaphthalene	142	6.515	6.520	(1.128)	640508	32.2455	64.5
35 1-Methylnaphthalene	142	6.625	6.625	(1.147)	613960	31.5386	63.1
36 Hexachlorocyclopentadiene	237	6.682	6.682	(0.875)	112371	21.0785	42.2
37 2,4,6-Trichlorophenol	196	6.811	6.811	(0.892)	233503	35.2846	70.6
38 2,4,5-Trichlorophenol	196	6.853	6.849	(0.898)	267923	38.1439	76.3
40 2-Chloronaphthalene	162	7.039	7.039	(0.922)	645169	30.7276	61.4
42 o-Nitroaniline	65	7.139	7.139	(0.935)	242021	41.1465	82.3
41 m-Nitroaniline	138	7.582	7.582	(0.993)	198381	44.2523	88.5
43 Dimethylphthalate	163	7.334	7.339	(0.961)	996963	41.4215	82.8
44 2,6-Dinitrotoluene	165	7.401	7.401	(0.969)	215551	39.6124	79.2
45 Acenaphthylene	152	7.482	7.487	(0.980)	1108569	31.0871	62.2
48 2,4-Dinitrophenol	184	7.692	7.692	(1.007)	60712	36.6862	73.4
49 Dibenzofuran	168	7.853	7.854	(1.029)	1028734	34.3515	68.7
51 Diethylphthalate	149	8.092	8.092	(1.060)	1024541	40.6719	81.3
53 Fluorene	166	8.225	8.225	(1.077)	908868	32.7854	65.6
54 4-Chlorophenylphenylether	204	8.220	8.216	(1.077)	465854	34.8940	69.8
55 2-Methyl-4,6-dinitrophenol	198	8.273	8.273	(0.895)	125483	41.1764	82.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
56 p-Nitroaniline	138	8.239	8.235	(1.079)	171060	43.1829	86.4
133 Diphenylamine	169	8.344	8.344	(0.903)	849775	44.2820	88.6
58 1,2-Diphenylhydrazine	77	8.392	8.392	(0.908)	934599	41.4605	82.9
61 4-Bromophenylphenylether	248	8.749	8.749	(0.947)	272771	37.5891	75.2
63 Hexachlorobenzene	284	8.820	8.816	(0.955)	276697	36.6856	73.4
207 Atrazine	173	8.920	8.916	(0.965)	67025	49.9912	100
68 Phenanthrene	178	9.268	9.268	(1.003)	1320783	37.1512	74.3
69 Anthracene	178	9.320	9.320	(1.009)	1337613	36.2907	72.6
72 Di-n-butylphthalate	149	9.854	9.854	(1.066)	1716547	44.5556	89.1
76 Fluoranthene	202	10.553	10.549	(1.142)	1526484	39.5016	79.0
77 Benzidine	184	10.687	10.687	(0.878)	20846	9.68668	19.4(aR)
85 Butylbenzylphthalate	149	11.477	11.478	(0.943)	704763	43.4044	86.8
89 Benzo(a)anthracene	228	12.154	12.154	(0.998)	1430471	36.5515	73.1
90 3,3'-Dichlorobenzidine	252	12.111	12.106	(0.995)	303061	32.8946	65.8
92 Chrysene	228	12.206	12.201	(1.003)	1316556	38.5614	77.1
93 bis(2-Ethylhexyl)phthalate	149	12.163	12.163	(0.999)	1017920	44.7966	89.6
94 Di-n-octylphthalate	149	13.073	13.073	(0.913)	1404080	41.9780	84.0
95 Benzo(b)fluoranthene	252	13.696	13.692	(0.956)	1097810	35.9913	72.0
96 Benzo(k)fluoranthene	252	13.744	13.739	(0.959)	1131280	36.8923	73.8
97 Benzo(a)pyrene	252	14.230	14.225	(0.993)	984045	38.2513	76.5
99 Indeno(1,2,3-cd)pyrene	276	16.187	16.182	(1.130)	837159	39.2483	78.5
100 Dibenzo(a,h)anthracene	278	16.225	16.220	(1.133)	684745	41.5388	83.1
101 Benzo(ghi)perylene	276	16.673	16.663	(1.164)	639790	36.2535	72.5
102 1,4-Dioxane	88	2.215	2.220	(0.491)	98912	35.0785	70.2
111 N-Nitrosopyrrolidine	100	4.872	4.868	(1.079)	163769	38.2620	76.5(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.411	2.415	(0.534)	156810	29.5014	59.0

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD8.i/s022510.b/s8b2521.d
Date : 25-FEB-2010 18:57
Client ID: CAPA-10-13095MS
Sample Info: I120205206619570461I1SVMI1IMS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: nagl
Column diameter: 0.20

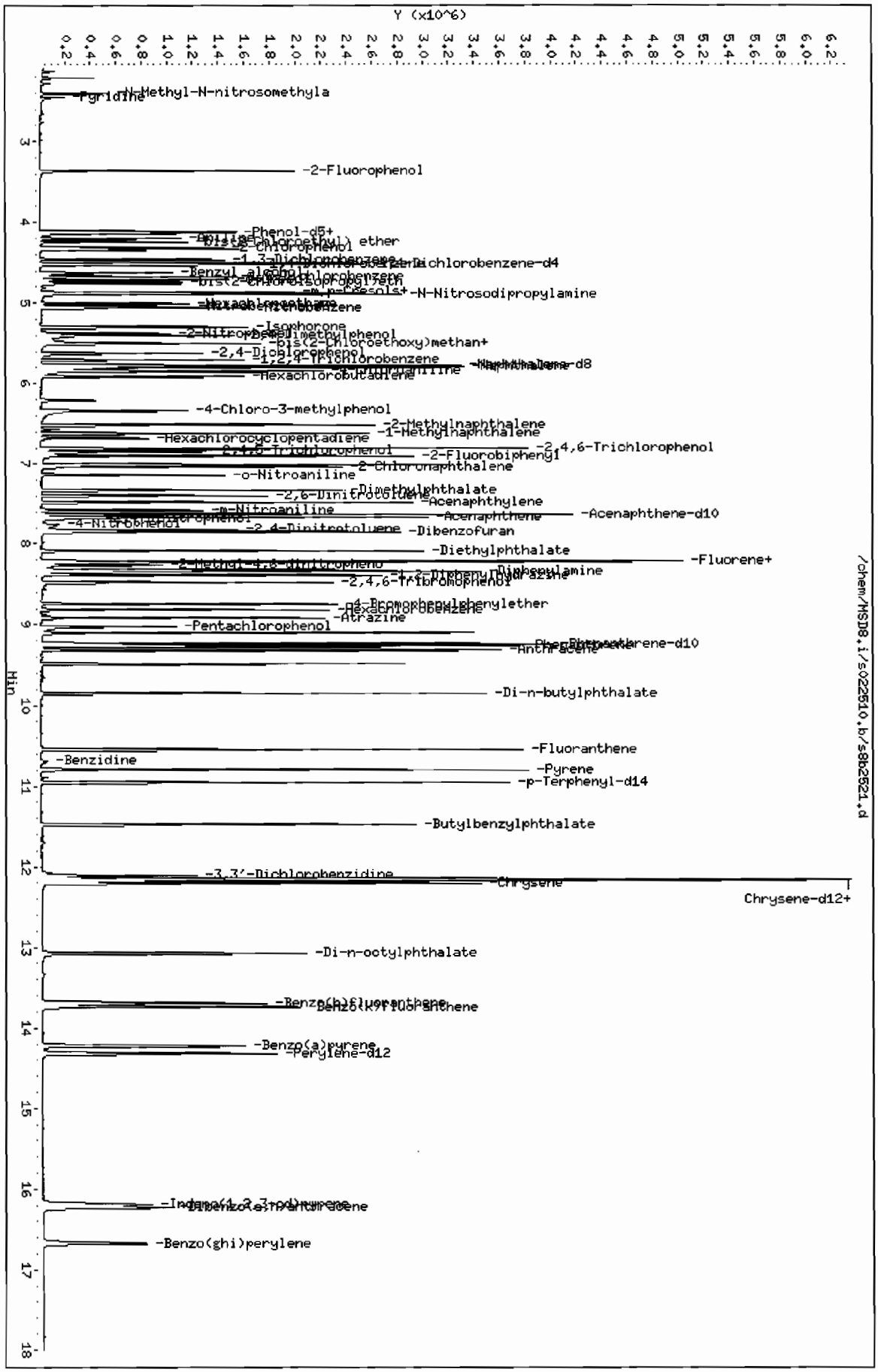

Page 1

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**	**Date Collected:**	**02/21/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202052067**	**Date Received:**	**02/23/2010 08:50**		
Client Sample:	**QC for batch 957045**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-13095MSD**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**957046**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 19:26**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/24/2010 20:21**	**Aliquot:**	**500 mL**	**Final Volume:**	**1 mL**
Data File:	**s8b2522.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		57.2	ug/L	4.00	20.0
108-95-2	Phenol		45.8	ug/L	2.00	20.0
95-57-8	2-Chlorophenol		66.3	ug/L	4.00	20.0
106-46-7	1,4-Dichlorobenzene		49.1	ug/L	4.00	20.0
621-64-7	N-Nitrosodi--n-propylamine		73.7	ug/L	4.00	20.0
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol		74.2	ug/L	4.00	20.0
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene		54.1	ug/L	0.620	2.00
121-14-2	2,4-Dinitrotoluene		79.5	ug/L	4.00	20.0
100-02-7	4-Nitrophenol		44.5	ug/L	4.00	20.0
87-86-5	Pentachlorophenol		77.7	ug/L	4.00	20.0
129-00-0	Pyrene		68.6	ug/L	0.600	2.00
110-86-1	Pyridine		26.1	ug/L	6.00	20.0
62-53-3	Aniline		67.2	ug/L	5.00	20.0
111-44-4	bis(2-Chloroethyl) ether		62.2	ug/L	4.00	20.0
541-73-1	1,3-Dichlorobenzene		49.6	ug/L	4.00	20.0
100-51-6	Benzyl alcohol		54.3	ug/L	4.00	20.0
95-50-1	1,2-Dichlorobenzene		50.3	ug/L	4.00	20.0
108-60-1	bis(2-Chloroisopropyl)ether		70.4	ug/L	4.00	20.0
95-48-7	o-Cresol		63.4	ug/L	4.00	20.0
65794-96-9	m,p-Cresols		72.5	ug/L	6.00	20.0
67-72-1	Hexachloroethane		47.3	ug/L	4.00	20.0
98-95-3	Nitrobenzene		67.0	ug/L	6.00	20.0
78-59-1	Isophorone		75.0	ug/L	6.00	20.0
88-75-5	2-Nitrophenol		70.7	ug/L	4.00	20.0
105-67-9	2,4-Dimethylphenol		63.8	ug/L	4.00	20.0
111-91-1	bis(2-Chloroethoxy)methane		71.5	ug/L	6.00	20.0
120-83-2	2,4-Dichlorophenol		72.6	ug/L	4.00	20.0
65-85-0	Benzoic acid		113	ug/L	12.0	40.0
91-20-3	Naphthalene		57.2	ug/L	0.600	2.00
106-47-8	4-Chloroaniline		90.8	ug/L	4.00	20.0
87-68-3	Hexachlorobutadiene		47.1	ug/L	4.00	20.0
91-57-6	2-Methylnaphthalene		60.5	ug/L	0.600	2.00
90-12-0	1-Methylnaphthalene		60.0	ug/L	0.600	2.00
77-47-4	Hexachlorocyclopentadiene		38.1	ug/L	6.00	20.0
88-06-2	2,4,6-Trichlorophenol		68.8	ug/L	4.00	20.0
95-95-4	2,4,5-Trichlorophenol		73.3	ug/L	4.00	20.0
91-58-7	2-Chloronaphthalene		58.0	ug/L	0.600	2.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000	**Date Collected:**	02/21/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	1202052067	**Date Received:**	02/23/2010 08:50		
Client Sample:	QC for batch 957045	**Client:**	LANL010	**Project:**	QC
Client ID:	CAPA-10-13095MSD	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	957046	**Inst:**	MSD8.I	**Dilution:**	1
Run Date:	02/25/2010 19:26	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/24/2010 20:21	**Aliquot:**	500 mL	**Final Volume:**	1 mL
Data File:	s8b2522.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline		79.9	ug/L	4.00	20.0
	o-Nitroaniline					
99-09-2	3-Nitroaniline		87.4	ug/L	4.00	20.0
	m-Nitroaniline					
131-11-3	Dimethylphthalate		81.6	ug/L	4.00	20.0
606-20-2	2,6-Dinitrotoluene		77.4	ug/L	4.00	20.0
208-96-8	Acenaphthylene		58.7	ug/L	0.400	2.00
51-28-5	2,4-Dinitrophenol		71.5	ug/L	10.0	40.0
132-64-9	Dibenzofuran		65.0	ug/L	4.00	20.0
84-66-2	Diethylphthalate		78.7	ug/L	4.00	20.0
86-73-7	Fluorene		63.2	ug/L	0.400	2.00
7005-72-3	4-Chlorophenylphenylether		66.9	ug/L	4.00	20.0
534-52-1	2-Methyl-4,6-dinitrophenol		81.0	ug/L	6.00	20.0
100-01-6	4-Nitroaniline		85.3	ug/L	6.00	20.0
	p-Nitroaniline					
122-39-4	Diphenylamine		86.2	ug/L	6.00	20.0
122-66-7	Azobenzene		79.7	ug/L	4.00	20.0
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		73.3	ug/L	4.00	20.0
118-74-1	Hexachlorobenzene		71.2	ug/L	4.00	20.0
1912-24-9	Atrazine		98.3	ug/L	6.00	20.0
85-01-8	Phenanthrene		71.8	ug/L	0.400	2.00
120-12-7	Anthracene		69.4	ug/L	0.400	2.00
84-74-2	Di-n-butylphthalate		87.9	ug/L	4.00	20.0
206-44-0	Fluoranthene		75.4	ug/L	0.400	2.00
92-87-5	Benzidine		31.2	ug/L	6.00	20.0
85-68-7	Butylbenzylphthalate		88.0	ug/L	4.00	20.0
56-55-3	Benzo(a)anthracene		70.8	ug/L	0.400	2.00
91-94-1	3,3'-Dichlorobenzidine		62.1	ug/L	4.00	20.0
218-01-9	Chrysene		73.5	ug/L	0.400	2.00
117-81-7	bis(2-Ethylhexyl)phthalate		90.6	ug/L	4.00	20.0
117-84-0	Di-n-octylphthalate		89.0	ug/L	6.00	20.0
205-99-2	Benzo(b)fluoranthene		72.3	ug/L	0.400	2.00
207-08-9	Benzo(k)fluoranthene		73.3	ug/L	0.400	2.00
50-32-8	Benzo(a)pyrene		74.7	ug/L	0.400	2.00
193-39-5	Indeno(1,2,3-cd)pyrene		69.5	ug/L	0.400	2.00
53-70-3	Dibenzo(a,h)anthracene		72.5	ug/L	0.400	2.00
191-24-2	Benzo(ghi)perylene		63.8	ug/L	0.400	2.00
123-91-1	1,4-Dioxane		68.9	ug/L	4.00	20.0
55-18-5	N-Nitrosodiethylamine	U	20.0	ug/L	4.00	20.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2000	**Date Collected:**	02/21/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	1202052067	**Date Received:**	02/23/2010 08:50		
Client Sample:	QC for batch 957045	**Client:**	LANL010	**Project:**	QC
Client ID:	CAPA-10-13095MSD	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	957046	**Inst:**	MSD8.I	**Dilution:**	1
Run Date:	02/25/2010 19:26	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	02/24/2010 20:21	**Aliquot:**	500 mL	**Final Volume:**	1 mL
Data File:	s8b2522.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine		75.8	ug/L	4.00	20.0
924-16-3	N-Nitrosodi-n-butylamine	U	20.0	ug/L	6.00	20.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	20.0	ug/L	6.00	20.0
608-93-5	Pentachlorobenzene	U	20.0	ug/L	6.00	20.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	20.0	ug/L	4.00	20.0
88-85-7	Dinoseb	U	20.0	ug/L	4.00	20.0
120-82-1	1,2,4-Trichlorobenzene		50.7	ug/L	4.00	20.0

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	153	200	ug/L	76.6	(39%-120%)
2-Fluorobiphenyl	59.8	100	ug/L	59.8	(38%-108%)
2-Fluorophenol	114	200	ug/L	57.0	(19%-98%)
Nitrobenzene-d5	68.3	100	ug/L	68.3	(31%-122%)
Phenol-d5	89.3	200	ug/L	44.7	(15%-83%)
p-Terphenyl-d14	85.0	100	ug/L	85.0	(40%-138%)

GEL Laboratories LLC

Data file : /chem/MSD8.i/s022510.b/s8b2522.d
Lab Smp Id: 1202052067 Client Smp ID: CAPA-10-13095MSD
Inj Date : 25-FEB-2010 19:26
Operator : nagl Inst ID: MSD8.i
Smp Info : |1202052067|957046|1|SVM|1|MSD
Misc Info : |MSD82709L|WBN100217-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s022510.b/MSD8-8270AQA-022010.m
Meth Date : 25-Feb-2010 13:26 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 19 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2000.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	500.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.515	4.516	(1.000)	368953	40.0000	
* 29 Naphthalene-d8	136	5.777	5.777	(1.000)	1440231	40.0000	
* 46 Acenaphthene-d10	164	7.634	7.635	(1.000)	884888	40.0000	
* 67 Phenanthrene-d10	188	9.239	9.239	(1.000)	1542248	40.0000	
* 91 Chrysene-d12	240	12.173	12.173	(1.000)	1424741	40.0000	
* 98 Perylene-d12	264	14.320	14.320	(1.000)	938602	40.0000	
$ 3 2-Fluorophenol	112	3.368	3.363	(0.746)	496562	57.0075	114
$ 5 Phenol-d5	99	4.134	4.135	(0.916)	485136	44.6597	89.3
$ 20 Nitrobenzene-d5	82	5.039	5.044	(0.872)	349702	34.1569	68.3
$ 39 2-Fluorobiphenyl	172	6.901	6.901	(0.904)	779268	29.9182	59.8
$ 60 2,4,6-Tribromophenol	329	8.487	8.482	(1.112)	224002	76.5788	153
$ 81 p-Terphenyl-d14	244	10.958	10.954	(0.900)	1090438	42.5113	85.0
6 Phenol	94	4.144	4.144	(0.918)	256764	22.8890	45.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	4.315	4.316	(0.956)	322736	33.1323	66.3
11 1,4-Dichlorobenzene	146	4.530	4.530	(1.003)	292364	24.5300	49.1
17 N-Nitrosodipropylamine	70	4.882	4.887	(1.081)	264427	36.8537	73.7(Q)
28 1,2,4-Trichlorobenzene	180	5.711	5.711	(0.988)	265773	25.3499	50.7
33 4-Chloro-3-methylphenol	107	6.339	6.330	(1.097)	312809	37.0815	74.2
47 Acenaphthene	154	7.673	7.673	(1.005)	636075	27.0502	54.1
50 2,4-Dinitrotoluene	165	7.830	7.835	(1.026)	285736	39.7521	79.5
52 4-Nitrophenol	139	7.758	7.744	(1.016)	67269	22.2710	44.5
65 Pentachlorophenol	266	9.030	9.025	(0.977)	132504	38.8358	77.7
79 Pyrene	202	10.801	10.797	(0.887)	1526040	34.3056	68.6
2 Pyridine	79	2.453	2.449	(0.543)	107423	13.0311	26.1
4 Aniline	66	4.201	4.206	(0.930)	172037	33.5805	67.2
7 bis(2-Chloroethyl) ether	63	4.249	4.249	(0.941)	238660	31.1198	62.2
9 1,3-Dichlorobenzene	146	4.463	4.463	(0.988)	286522	24.8030	49.6
12 Benzyl alcohol	108	4.625	4.625	(1.024)	165438	27.1523	54.3
13 1,2-Dichlorobenzene	146	4.673	4.673	(1.035)	278658	25.1350	50.3
14 bis(2-Chloroisopropyl)ether	45	4.753	4.754	(1.053)	528966	35.1786	70.4
15 o-Cresol	107	4.715	4.716	(1.044)	246956	31.6989	63.4
18 m,p-Cresols	107	4.863	4.868	(1.077)	357428	36.2529	72.5
19 Hexachloroethane	117	5.006	5.006	(1.109)	106239	23.6535	47.3
21 Nitrobenzene	77	5.063	5.063	(0.876)	353776	33.4991	67.0
22 Isophorone	82	5.296	5.301	(0.917)	728622	37.4750	74.9
23 2-Nitrophenol	139	5.377	5.377	(0.931)	171224	35.3256	70.6
24 2,4-Dimethylphenol	122	5.401	5.401	(0.935)	274856	31.8970	63.8
25 bis(2-Chloroethoxy)methane	93	5.501	5.501	(0.952)	389992	35.7684	71.5
26 2,4-Dichlorophenol	162	5.620	5.620	(0.973)	283208	36.3238	72.6
27 Benzoic acid	105	5.515	5.496	(0.955)	256216	56.3169	113
30 Naphthalene	128	5.796	5.796	(1.003)	879417	28.6089	57.2
31 4-Chloroaniline	127	5.844	5.839	(1.012)	467371	45.4095	90.8
32 Hexachlorobutadiene	225	5.915	5.916	(1.024)	153655	23.5649	47.1
34 2-Methylnaphthalene	142	6.520	6.520	(1.129)	626384	30.2466	60.5
35 1-Methylnaphthalene	142	6.625	6.625	(1.147)	608866	29.9796	60.0
36 Hexachlorocyclopentadiene	237	6.682	6.682	(0.875)	104585	19.0424	38.1
37 2,4,6-Trichlorophenol	196	6.811	6.811	(0.892)	234396	34.3802	68.8
38 2,4,5-Trichlorophenol	196	6.849	6.849	(0.897)	265255	36.6560	73.3
40 2-Chloronaphthalene	162	7.039	7.039	(0.922)	625726	29.0129	58.0
42 o-Nitroaniline	65	7.139	7.139	(0.935)	242189	39.9669	79.9
41 m-Nitroaniline	138	7.582	7.582	(0.993)	201730	43.6790	87.4
43 Dimethylphthalate	163	7.334	7.339	(0.961)	1011072	40.7751	81.6
44 2,6-Dinitrotoluene	165	7.401	7.401	(0.969)	216831	38.6785	77.4
45 Acenaphthylene	152	7.482	7.487	(0.980)	1078397	29.3537	58.7
48 2,4-Dinitrophenol	184	7.692	7.692	(1.007)	59921	35.7493	71.5
49 Dibenzofuran	168	7.854	7.854	(1.029)	1002096	32.4801	65.0
51 Diethylphthalate	149	8.092	8.092	(1.060)	1021172	39.3487	78.7
53 Fluorene	166	8.225	8.225	(1.077)	903146	31.6231	63.2
54 4-Chlorophenylphenylether	204	8.215	8.216	(1.076)	459733	33.4251	66.8
55 2-Methyl-4,6-dinitrophenol	198	8.273	8.273	(0.895)	124959	40.5070	81.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
56 p-Nitroaniline	138	8.239	8.235	(1.079)	174092	42.6588	85.3
133 Diphenylamine	169	8.349	8.344	(0.904)	840100	43.1073	86.2
58 1,2-Diphenylhydrazine	77	8.392	8.392	(0.908)	912596	39.8642	79.7
61 4-Bromophenylphenylether	248	8.749	8.749	(0.947)	269966	36.6327	73.3
63 Hexachlorobenzene	284	8.820	8.816	(0.955)	272694	35.6010	71.2
207 Atrazine	173	8.920	8.916	(0.965)	66956	49.1748	98.3
68 Phenanthrene	178	9.268	9.268	(1.003)	1293627	35.8998	71.8
69 Anthracene	178	9.320	9.320	(1.009)	1299497	34.7165	69.4
72 Di-n-butylphthalate	149	9.854	9.854	(1.066)	1719103	43.9384	87.9
76 Fluoranthene	202	10.554	10.549	(1.142)	1479179	37.6911	75.4
77 Benzidine	184	10.687	10.687	(0.878)	99649	15.6134	31.2
85 Butylbenzylphthalate	149	11.482	11.478	(0.943)	684092	43.9780	88.0
89 Benzo(a)anthracene	228	12.154	12.154	(0.998)	1328149	35.4244	70.8
90 3,3'-Dichlorobenzidine	252	12.111	12.106	(0.995)	273960	31.0393	62.1
92 Chrysene	228	12.206	12.201	(1.003)	1201507	36.7521	73.5
93 bis(2-Ethylhexyl)phthalate	149	12.163	12.163	(0.999)	985683	45.2792	90.6
94 Di-n-octylphthalate	149	13.073	13.073	(0.913)	1309876	44.5213	89.0
95 Benzo(b)fluoranthene	252	13.696	13.692	(0.956)	962379	36.1655	72.3
96 Benzo(k)fluoranthene	252	13.739	13.739	(0.959)	981053	36.6721	73.3
97 Benzo(a)pyrene	252	14.225	14.225	(0.993)	837829	37.3305	74.7
99 Indeno(1,2,3-cd)pyrene	276	16.182	16.182	(1.130)	646422	34.7382	69.5
100 Dibenzo(a,h)anthracene	278	16.220	16.220	(1.133)	521080	36.2332	72.5
101 Benzo(ghi)perylene	276	16.668	16.663	(1.164)	491156	31.9014	63.8
102 1,4-Dioxane	88	2.215	2.220	(0.491)	102748	34.4670	68.9
111 N-Nitrosopyrrolidine	100	4.872	4.868	(1.079)	171531	37.9068	75.8(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.411	2.415	(0.534)	160619	28.5828	57.2

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD8.i/s022510.b/s8b2522.d
Date : 25-FEB-2010 19:26
Client ID: CAPA-10-13095MSD
Sample Info: 1120205206719570461ISVM11MSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: nagl
Column diameter: 0.20

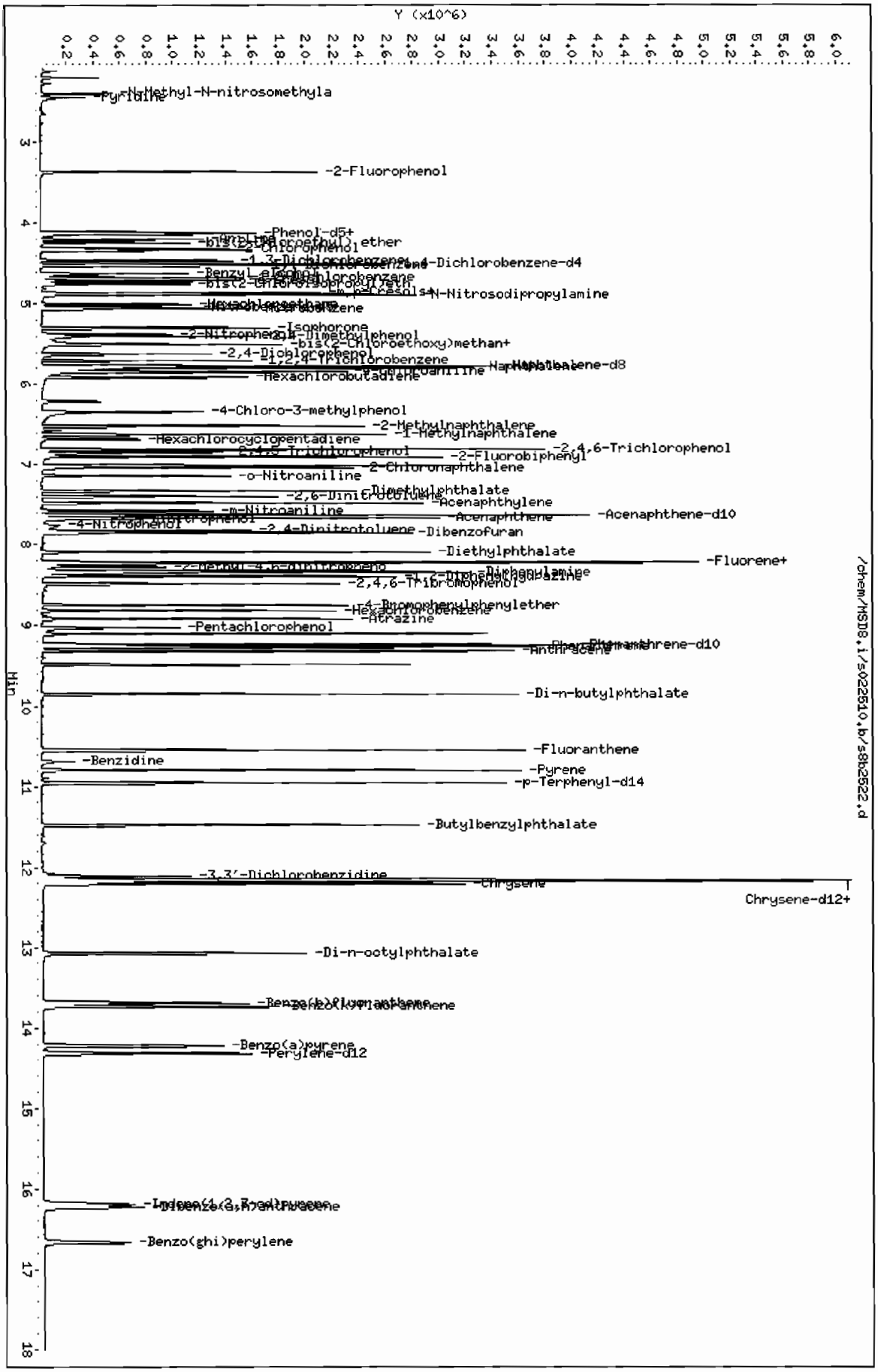

Page 1

Miscellaneous Data

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 957045 **Verified by:** _____

Analyst: Sequan Smalls

Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Sec Ext pH	Final Volume (mL)	Prepped Factor (mL/mL)
1202052064 MB	24-FEB-2010 20:21:00	1000	5	1	13	1	0.001
1202052065 LCS	24-FEB-2010 20:21:00	1000	5	1	13	1	0.001
247440004 - 2	24-FEB-2010 20:21:00	980	6	1	13	1	0.00102
247443004 - 2	24-FEB-2010 20:21:00	910	6	1	13	1	0.0011
247824002	24-FEB-2010 20:21:00	940	6	1	13	1	0.00106
247828002	24-FEB-2010 20:21:00	860	6	1	13	1	0.00116
1202052066 MS (247828002)	24-FEB-2010 20:21:00	500	6	1	13	1	0.002
1202052067 MSD (247828002)	24-FEB-2010 20:21:00	500	6	1	13	1	0.002

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202052065	BNA LCS w/o Benzidine 50ppm	UE100217-14	1	mL
LCS	1202052065	BENZIDINE LCS	UE100222-22	1	mL
MS	1202052066	BNA LCS w/o Benzidine 50ppm	UE100217-14	1	mL
MS	1202052066	BENZIDINE LCS	UE100222-22	1	mL
MSD	1202052067	BNA LCS w/o Benzidine 50ppm	UE100217-14	1	mL
MSD	1202052067	BENZIDINE LCS	UE100222-22	1	mL
SURR	All	BNA for all Surrogate	UE100222-10	1	mL
REGNT	All	Methylene Chloride	1269262-D	360	mL
REGNT	All	Sulfuric Acid Sol., 1:1	1271216	2	mL
REGNT	All	10 N Sodium Hydroxide Solution	1271281	10	mL
SOURC	All	SODIUM SULFATE	1269268	30	g

Comments:

Samples 247440004,247443004,and 2478002 were all emulsive in acid and base. Sample 247443004 took an additional 300mls of CH2CL2.

Verified By: MJS

Final Solvent: CH2CL2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD8

DATE: 02/20/2010 METHOD:See raw data OPERATOR:NAG REVIEWED BY:_____ DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT 1239699-D
Multiplier Voltage: 1094mv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100217-01
Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
SOP: GL-OA-E-009 Rev. 23

Sequence Number: /chem/MSD8.i/s022010.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s8b2001-D.d	WBN100207-01	nagl	20-FEB-2010 12:04	50 PPM	s022010	1.0	DFTPP	
s8b2001.d	WBN100207-01	nagl	20-FEB-2010 12:04	50 PPM	s022010	1.0	DFTPP	
s8b2002.d	inst blk	nagl	20-FEB-2010 12:21	--------	s022010	1.0	INST BLK	
s8b2003.d	WBN100215-08	nagl	20-FEB-2010 12:55	1 PPM	s022010	1.0	MEGAICAL	Naphthalene/1-Methylnaphthalene failed SC
s8b2004-linear.d	WBN100215-07	nagl	20-FEB-2010 13:30	10 PPM	s022010	1.0	MEGAICAL	
s8b2004.d	WBN100215-07	nagl	20-FEB-2010 13:30	10 PPM	s022010	1.0	MEGAICAL	
s8b2005-linear.d	WBN100215-06	nagl	20-FEB-2010 14:05	20 PPM	s022010	1.0	MEGAICAL	
s8b2005.d	WBN100215-06	nagl	20-FEB-2010 14:05	20 PPM	s022010	1.0	MEGAICAL	
s8b2006.d	WBN100215-05.1	nagl	20-FEB-2010 14:40	40 PPM	s022010	1.0	MEGAICAL	
s8b2007.d	WBN100215-04	nagl	20-FEB-2010 15:14	50 PPM	s022010	1.0	MEGAICAL	
s8b2008.d	WBN100215-03	nagl	20-FEB-2010 15:50	80 PPM	s022010	1.0	MEGAICAL	
s8b2009.d	WBN100215-02	nagl	20-FEB-2010 16:25	100 PPM	s022010	1.0	MEGAICAL	
s8b2010.d	WBN100215-01	nagl	20-FEB-2010 16:59	120 PPM	s022010	1.0	MEGAICAL	
s8b2011.d	inst blk	nagl	20-FEB-2010 17:34	--------	s022010	1.0	INST BLK	
s8b2012-D.d	WBN100215-05.1	nagl	20-FEB-2010 18:09	40 PPM	s022010	1.0	MEAGICV	8270D
s8b2012.d	WBN100215-05.1	nagl	20-FEB-2010 18:09	40 PPM	s022010	1.0	MEGAICV	
s8b2013-D.d	WBN100207-01	nagl	21-FEB-2010 08:35	50 PPM	s022010	1.0	DFTPP	
s8b2013.d	WBN100207-01	nagl	21-FEB-2010 08:35	50 PPM	s022010	1.0	DFTPP	
s8b2014.d	inst blk	nagl	21-FEB-2010 08:51	--------	s022010	1.0	INST BLK	

s8b2015.d	WBN100218-01	nag1	21-FEB-2010 09:21	10 PPM	s022010	1.0	APICAL	
s8b2016.d	WBN100218-02	nag1	21-FEB-2010 09:52	20 PPM	s022010	1.0	APICAL	
s8b2017.d	WBN100218-03.1	nag1	21-FEB-2010 10:23	40 PPM	s022010	1.0	APICAL	
s8b2018.d	WBN100218-04	nag1	21-FEB-2010 10:54	50 PPM	s022010	1.0	APICAL	
s8b2019.d	WBN100218-05	nag1	21-FEB-2010 11:26	80 PPM	s022010	1.0	APICAL	
s8b2020.d	WBN100218-06	nag1	21-FEB-2010 11:59	100 PPM	s022010	1.0	APICAL	
s8b2021.d	WBN100218-07	nag1	21-FEB-2010 12:30	120 PPM	s022010	1.0	APICAL	
s8b2022.d	WBN100205-25	nag1	21-FEB-2010 13:02	10 PPM	s022010	1.0	PESTICAL	
s8b2023.d	WBN100205-24	nag1	21-FEB-2010 13:33	20 PPM	s022010	1.0	PESTICAL	
s8b2024.d	WBN100205-23.1	nag1	21-FEB-2010 14:05	40 PPM	s022010	1.0	PESTICAL	
s8b2025.d	WBN100205-22	nag1	21-FEB-2010 14:37	50 PPM	s022010	1.0	PESTICAL	
s8b2026.d	WBN100205-21	nag1	21-FEB-2010 15:09	80 PPM	s022010	1.0	PESTICAL	
s8b2027.d	WBN100205-20	nag1	21-FEB-2010 15:40	100 PPM	s022010	1.0	PESTICAL	
s8b2028.d	WBN100205-19	nag1	21-FEB-2010 16:12	120 PPM	s022010	1.0	PESTICAL	
s8b2029-linear.d	WBN100120-16	nag1	21-FEB-2010 16:44	500 PPM	s022010	1.0	HEXICAL	
s8b2029.d	WBN100120-16	nag1	21-FEB-2010 16:44	500 PPM	s022010	1.0	HEXICAL	
s8b2030.d	WBN100120-15	nag1	21-FEB-2010 17:16	1000 PPM	s022010	1.0	HEXICAL	
s8b2031.d	WBN100120-14	nag1	21-FEB-2010 17:48	1250 PPM	s022010	1.0	HEXICAL	
s8b2032.d	WBN100120-13	nag1	21-FEB-2010 18:19	1500 PPM	s022010	1.0	HEXICAL	
s8b2033.d	WBN100120-12	nag1	21-FEB-2010 18:51	1750 PPM	s022010	1.0	HEXICAL	
s8b2034.d	UBN090828-02.10	nag1	21-FEB-2010 19:22	2000 PPM	s022010	1.0	HEXICAL	
s8b2035-D.d	WBN100218-08.1	nag1	21-FEB-2010 19:53	40 PPM	s022010	1.0	APICV	8270D
s8b2035.d	WBN100218-08.1	nag1	21-FEB-2010 19:53	40 PPM	s022010	1.0	APICV	
s8b2036-D.d	WBN100205-26.1	nag1	21-FEB-2010 20:25	40 PPM	s022010	1.0	PESTICV	8270D
s8b2036.d	WBN100205-26.1	nag1	21-FEB-2010 20:25	40 PPM	s022010	1.0	PESTICV	
s8b2037.d	WBN091016-10.1	nag1	21-FEB-2010 20:55	1250 PPM	s022010	1.0	HEXICV	DUSE
s8b2038-D.d	WBN100207-01	nag1	21-FEB-2010 21:26	50 PPM	s022010	1.0	DFTPP	

s8b2038.d	WBN100207-01	nagl	21-FEB-2010 21:26	50 PPM	s022010	1.0	DFTPP	
s8b2039.d	inst blk	nagl	21-FEB-2010 21:43	--------	s022010	1.0	INST BLK	
s8b2040.d	WBN100127-01	nagl	21-FEB-2010 22:13	10 PPM	s022010	1.0	NEVICAL	
s8b2041.d	WBN100127-02	nagl	21-FEB-2010 22:45	20 PPM	s022010	1.0	NEVICAL	
s8b2042.d	WBN100127-03	nagl	21-FEB-2010 23:15	40 PPM	s022010	1.0	NEVICAL	
s8b2043.d	WBN100127-04	nagl	21-FEB-2010 23:46	50 PPM	s022010	1.0	NEVICAL	
s8b2044.d	WBN100127-05	nagl	22-FEB-2010 00:17	80 PPM	s022010	1.0	NEVICAL	
s8b2045.d	WBN100127-06	nagl	22-FEB-2010 00:48	100 PPM	s022010	1.0	NEVICAL	
s8b2046.d	WBN100127-07	nagl	22-FEB-2010 01:19	120 PPM	s022010	1.0	NEVICAL	
s8b2047-D.d	WBN100103-10.2	nagl	22-FEB-2010 08:59	1250 PPM	s022010	1.0	HEXICV	8270D
s8b2047.d	WBN100103-10.2	nagl	22-FEB-2010 08:59	1250 PPM	s022010	1.0	HEXICV	

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD8

DATE: 02/25/2010 METHOD:See raw data OPERATOR:NAG REVIEWED BY:_____ DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT 1239699-D
Multiplier Voltage: 1094mv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100217-01
Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
SOP: GL-OA-E-009 Rev. 23

Sequence Number: /chem/MSD8.i/s022510.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s8b2501.d	WBN100207-01	nagl	25-FEB-2010 08:10	50 PPM	s022510	1.0	DFTPP	DUSE
s8b2502.d	WBN100207-01	nagl	25-FEB-2010 09:43	50 PPM	s022510	1.0	DFTPP	DUSE
s8b2503.d	WBN100207-01	nagl	25-FEB-2010 09:59	50 PPM	s022510	1.0	DFTPP	DUSE
s8b2504.d	WBN100207-01	nagl	25-FEB-2010 10:49	50 PPM	s022510	1.0	DFTPP	
s8b2505.d	WBN100215-05.2	nagl	25-FEB-2010 11:05	40 PPM	s022510	1.0	MEGACVS	DUSE
s8b2506.d	WBN100215-05.3	nagl	25-FEB-2010 11:38	40 PPM	s022510	1.0	MEGACVS	301999
s8b2507.d	WBN100218-03.2	nagl	25-FEB-2010 12:10	40 PPM	s022510	1.0	AP12CVS	
s8b2508.d	WBN100205-23.2	nagl	25-FEB-2010 12:38	40 PPM	s022510	1.0	PESTCVS	
s8b2509-1.d	1202052064	nagl	25-FEB-2010 13:08	957046	10-2000	1.0	SBLK01	
s8b2509-2.d	1202052064	nagl	25-FEB-2010 13:08	957046	10-2005	1.0	SBLK01	
s8b2509.d	1202052064	nagl	25-FEB-2010 13:08	957046	10-1933	1.0	SBLK01	
s8b2510-1.d	1202052065	nagl	25-FEB-2010 13:37	957046	10-2000	1.0	SBLK01LCS	failed <5%
s8b2510-2.d	1202052065	nagl	25-FEB-2010 13:37	957046	10-2005	1.0	SBLK01LCS	failed <5%
s8b2510.d	1202052065	nagl	25-FEB-2010 13:37	957046	10-1933	1.0	SBLK01LCS	failed <5%
s8b2511.d	1202050594	nagl	25-FEB-2010 14:06	956300	247574	1.0	SBLK01	
s8b2512.d	1202050595	nagl	25-FEB-2010 14:36	956300	247574	1.0	SBLK01LCS	
s8b2513.d	246140015	nagl	25-FEB-2010 15:06	949551	246140	1.0	WASP	
s8b2514.d	246140016	nagl	25-FEB-2010 15:35	949551	246140	1.0	WASP	
s8b2515.d	246140017	nagl	25-FEB-2010 16:04	949551	246140	1.0	WASP	

s8b2516.d	246140018	nagl	25-FEB-2010 16:33	949551	246140	1.0	WASP	
s8b2517.d	246140019	nagl	25-FEB-2010 17:02	949551	246140	1.0	WASP	
s8b2518.d	246140020	nagl	25-FEB-2010 17:31	949551	246140	1.0	WASP	
s8b2519.d	247824002	nagl	25-FEB-2010 18:00	957046	10-2005	1.0	LANL	DUSE - failed surr - RX - s8c0314 passes w/in holding
s8b2520.d	247828002	nagl	25-FEB-2010 18:28	957046	10-2000	1.0	LANL	
s8b2521.d	1202052066	nagl	25-FEB-2010 18:57	957046	10-2005	1.0	MS	
s8b2522.d	1202052067	nagl	25-FEB-2010 19:26	957046	10-2005	1.0	MSD	failed spike - MS bias low
s8b2523.d	247440004	nagl	25-FEB-2010 19:56	957046	10-1933RE	1.0	LANLRE	USE - RX of s8b2324
s8b2524.d	247574021	nagl	25-FEB-2010 20:25	956300	247574	4.0	EMSC	
s8b2525.d	1202050596	nagl	25-FEB-2010 20:54	956300	247574	4.0	MS	
s8b2526.d	1202050597	nagl	25-FEB-2010 21:23	956300	247574	4.0	MSD	

Instrument Batch: /chem/MSD8.i/s022510.b Page: 1

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
01-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Liquid	ESHL, LANL
Batch ID:	**Sample Numbers:**		
957046	See Below		

Potentially affected work order(s)(SDG):247440(10-1933),247443(10-1935),247824(10-2005),247828(10-2000)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for LCS/LCSD

Failed Yield for Surrogates

Specification and Requirements Exception Description:	DER Disposition:
1. The LCS failed recovery for Benzidine and Pyridine.	1. The MS also displayed failing recoveries for those analytes. There was insufficient amount of sample to perform a re-extraction. The data were reported.
2. The MS failed recovery for Benzidine and Pyridine.	2. The MSD was bias low, but within the acceptance limits, for the failing analytes. There was insufficient amount of sample to perform a re-extraction. The data were reported.
3. The MS/MSD failed RPD for Benzidine and Pyridine.	3. There was insufficient amount of sample to perform a re-extraction. The data were reported.
4. Samples 247824002 failed surrogate recovery.	4. Sample 247824002 was re-extracted in batch 959294 within holding and the surrogate failure did not confirm. The re-extract data were reported.

Originator's Name:

Nathan Greene 04-MAR-10

Data Validator/Group Leader:

Daniel Beacham 04-MAR-10

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LC/MS/MS EXPLOSIVES ANALYSIS

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

LC/MS/MS Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2000

Method/Analysis Information

Procedure:	**Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)**
Analytical Method:	SW846 3535/8321A Modified
Prep Method:	SW846 Method 3535
Analytical Batch Number:	957192
Prep Batch Number:	957190

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 3535/8321A Modified :

Sample ID	Client ID
247828003	CAPA-10-13095
1202052389	Method Blank (MB)
1202052390	Laboratory Control Sample (LCS)
1202052393	247828003(CAPA-10-13095) Matrix Spike (MS)
1202052394	247828003(CAPA-10-13095) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

Primary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

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CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB contained a detect of 2,6-Dinitrotoluene above the MDL but below the PQL. The analyte was not detected in any of the samples. The data are considered unaffected and are reported. Please see data exception report 814490.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Sample 247828003 (CAPA-10-13095) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC in this SDG.

Technical Information

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

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

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Secondary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

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

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Sample 247828003 (CAPA-10-13095) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standards were not added to the secondary analyte extracts.

Technical Information

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

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Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report 814490 was generated for this SDG.

The MB contained a detect of 2,6-Dinitrotoluene above the MDL but below the PQL. The analyte was not detected in any of the samples. The data are considered unaffected and are reported.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

Flagging Convention
The sample was not originally analyzed using SW-846 Method 8330.

Additional Comments
Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

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Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

Certification Statement

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

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: Herbert M Mauer **Date:** 04/07/10

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SAMPLE DATA SUMMARY

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13095

Lab Code: GEL

GEL Job No (SDG) 10-2000

Matrix: GROUND WATER

GEL Sample ID: 247828003

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 23-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 957190

Concentrated Extract Volume (mL) 5

Date Extracted: 25-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0322024.wiff

Date Analyzed: 23-MAR-10 01:40

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	U
121-14-2	2,4-Dinitrotoluene	0.325	U
121-82-4	RDX	0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	U
2691-41-0	HMX	0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	U
479-45-8	Tetryl	0.649	U
606-20-2	2,6-Dinitrotoluene	0.325	U
78-11-5	PETN	1.3	U
88-72-2	o-Nitrotoluene	0.325	U
98-95-3	Nitrobenzene	0.325	U
99-08-1	m-Nitrotoluene	0.325	U
99-35-4	1,3,5-Trinitrobenzene	0.325	U
99-65-0	m-Dinitrobenzene	0.325	U
99-99-0	p-Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13095

Lab Code: GEL

GEL Job No (SDG) 10-2000

Matrix: GROUND WATER

GEL Sample ID: 247828003

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 23-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 957190

Concentrated Extract Volume (mL) 5

Date Extracted: 25-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310042.wiff

Date Analyzed: 31-MAR-10 19:24

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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QUALITY CONTROL SUMMARY

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High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–2000

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
247828003	CAPA–10–13095	84.4	67 – 134	
247828003	CAPA–10–13095	88.8	67 – 134	
1202052389	MB for batch 957190	91.6	67 – 134	
1202052389	MB for batch 957190	86	67 – 134	
1202052390	LCS for batch 957190	92.8	67 – 134	
1202052390	LCS for batch 957190	88.8	67 – 134	
1202052393	CAPA–10–13095(247828003MS)	90.8	67 – 134	
1202052393	CAPA–10–13095(247828003MS)	94.4	67 – 134	
1202052394	CAPA–10–13095(247828003MSD)	86.8	67 – 134	
1202052394	CAPA–10–13095(247828003MSD)	90.8	67 – 134	

DNT = 3,4–Dinitrotoluene

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-2000

Extract Batch Code: 957190

Date Extracted: 25-FEB-10

GEL LCS ID: 1202052390

GEL LCSDUP ID:

Analysis Date/Time: 23-MAR-10 00:47

DUP Analysis Date/Time:

Reporting Units: ug/L

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
1,3,5-Trinitrobenzene	6.49351	5.31	81.8					64 – 129
2,4,6-Trinitrotoluene	6.49351	5.55	85.4					67 – 150
2,4-Dinitrotoluene	6.49351	6.22	95.8					76.9 – 126
4-Amino-2,6-dinitrotoluene	6.49351	5.97	92					68 – 141
2-Amino-4,6-dinitrotoluene	6.49351	6.18	95.2					66 – 143
2,6-Dinitrotoluene	6.49351	5.38	82.8					73 – 123
HMX	6.49351	5.52	85					57 – 129
PETN	6.49351	6.81	105					59 – 142
Tetryl	6.49351	5.9	90.8					53 – 123
p-Nitrotoluene	6.49351	5.96	91.8					56 – 129
o-Nitrotoluene	6.49351	5.55	85.4					54 – 121
m-Nitrotoluene	6.49351	5.71	88					55 – 119
m-Dinitrobenzene	6.49351	5.69	87.6					70 – 128
RDX	6.49351	5.75	88.6					66 – 150
Nitrobenzene	6.49351	5.66	87.2					56 – 125

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-2000

Extract Batch Code: 957190

Date Extracted: 25-FEB-10

GEL LCS ID: 1202052390

GEL LCSDUP ID:

Analysis Date/Time: 31-MAR-10 18:53

DUP Analysis Date/Time:

Reporting Units: ug/L

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
2,4-Diamino-6-nitrotoluene	6.49351	4.56	70.2					38 - 114
2,6-Diamino-4-nitrotoluene	6.49351	5.88	90.6					59.1 - 123
3,5-Dinitroaniline	6.49351	5.22	80.4					64 - 117
TATB	6.49351	5.03	77.4					27 - 141
tris(o-cresyl) phosphate	6.49351	2.13	32.8					17 - 73

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: CAPA-10-13095

Lab Code: GEL

GEL Job No (SDG) 10-2000

Extract Batch Code: 957190

Date Extracted: 25-FEB-10

GEL Spike ID: 1202052393

GEL SpikeDup ID: 1202052394

Analysis Date/Time: 23-MAR-10 02:06

MSD Analysis Date/Time:

Reporting Units: ug/L

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
1,3,5-Trinitrobenzene	6.49351	0	6.13	94.4	5.99	92.2	2.36	30	28 – 140
2,4,6-Trinitrotoluene	6.49351	0	5.75	88.6	5.52	85	4.15	30	68 – 147
2,4-Dinitrotoluene	6.49351	0	6.62	102	6.08	93.6	8.59	30	77.5 – 131
2,6-Dinitrotoluene	6.49351	.0621	5.71	87	5.7	86.8	.228	30	83 – 114
Nitrobenzene	6.49351	0	6.19	95.4	6.38	98.2	2.89	30	65 – 114
RDX	6.49351	0	6.74	104	6.81	105	.959	30	63 – 156
m-Dinitrobenzene	6.49351	0	6.55	101	6.25	96.2	4.67	30	79 – 117
o-Nitrotoluene	6.49351	0	6.03	92.8	5.69	87.6	5.77	30	65 – 115
p-Nitrotoluene	6.49351	0	6.6	102	5.86	90.2	11.9	30	66 – 121
m-Nitrotoluene	6.49351	0	5.92	91.2	6.03	92.8	1.74	30	66 – 111
Tetryl	6.49351	0	4.57	70.4	4.38	67.4	4.35	30	26 – 116
PETN	6.49351	0	7.01	108	6.34	97.6	10.1	30	47 – 145
HMX	6.49351	0	6.12	94.2	6.65	102	8.34	30	53 – 150
4-Amino-2,6-dinitrotoluene	6.49351	0	6.43	99	6.13	94.4	4.76	30	73 – 140
2-Amino-4,6-dinitrotoluene	6.49351	0	5.81	89.4	5.77	88.8	.673	30	70 – 149

#Column to be used to flag recovery and RPD values with an asterisk

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: CAPA-10-13095

Lab Code: GEL

GEL Job No (SDG) 10-2000

Extract Batch Code: 957190

Date Extracted: 25-FEB-10

GEL Spike ID: 1202052393

GEL SpikeDup ID: 1202052394

Analysis Date/Time: 31-MAR-10 19:40

MSD Analysis Date/Time:

Reporting Units: ug/L

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
tris(o-cresyl) phosphate	6.49351	0	2.17	33.4	1.9	29.2	13.4	30	14 – 78
TATB	6.49351	0	5.6	86.2	5.43	83.6	3.06	30	21 – 150
3,5-Dinitroaniline	6.49351	0	5.96	91.8	5.39	83	10.1	30	60 – 128
2,6-Diamino-4-nitrotoluene	6.49351	0	5.99	92.2	6.16	94.8	2.78	30	50.3 – 136
2,4-Diamino-6-nitrotoluene	6.49351	0	5.48	84.4	5.23	80.6	4.61	30	31 – 125

#Column to be used to flag recovery and RPD values with an asterisk

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2000

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 22–MAR–10 15:33

GEL Data File: EXP0322001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	2.67
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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Data File	EXP0322001.wiff	**Acquisition Date**	3/22/2010 3:33:15 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

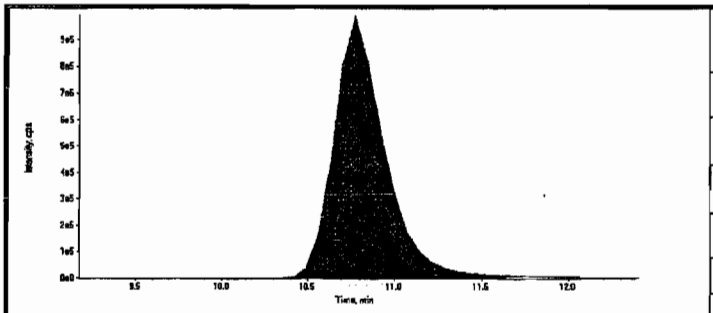

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	20000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

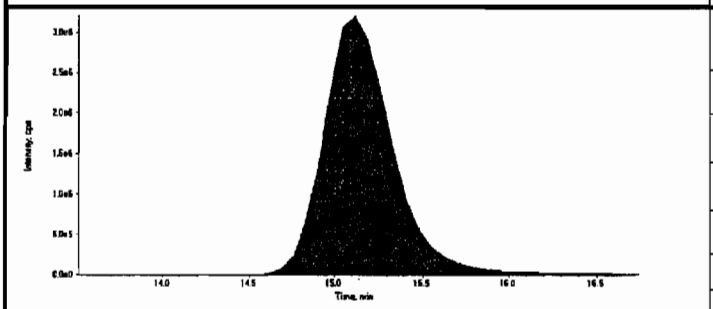

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.10
Area Counts:	88600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

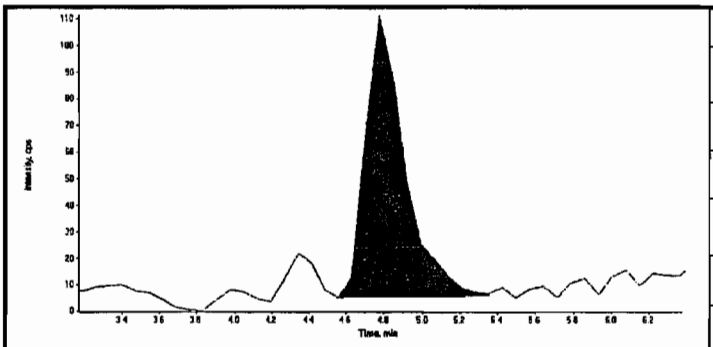

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	1.49e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

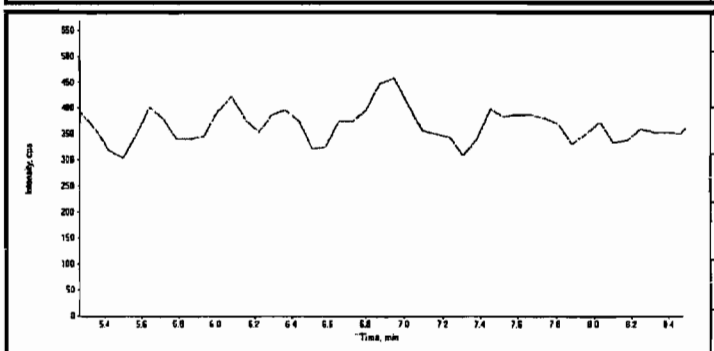

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

dmw 03/28/10
Lan 3/28/10

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Data File	EXP0322001.wiff	**Acquisition Date**	3/22/2010 3:33:15 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

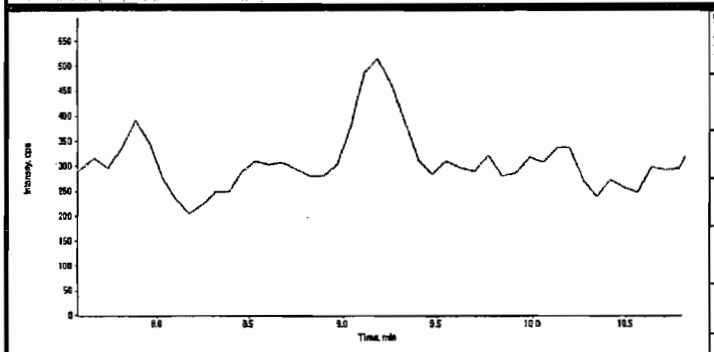

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

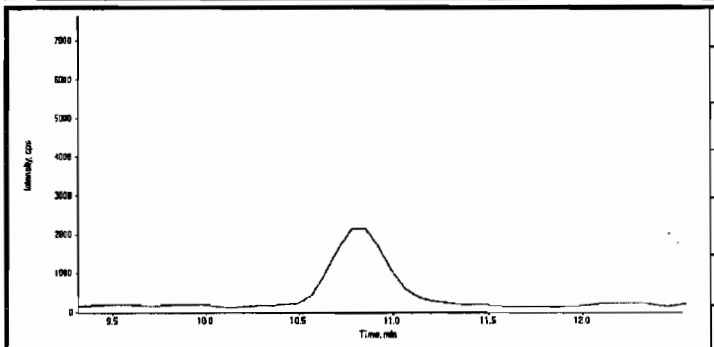

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

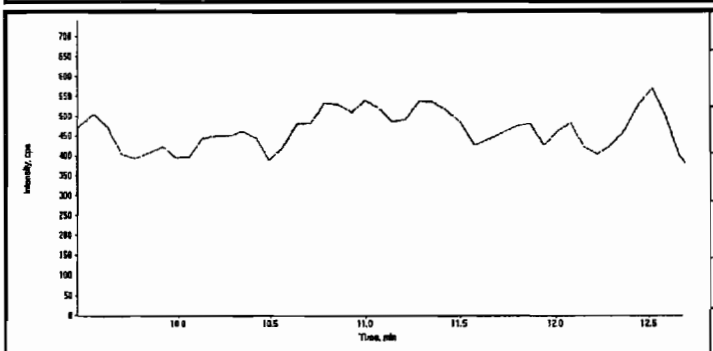

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

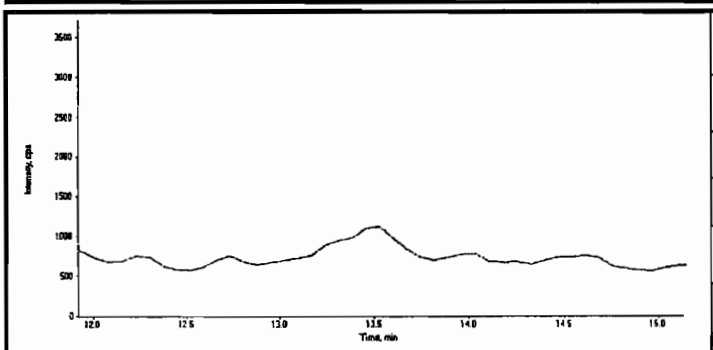

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322001.wiff	**Acquisition Date**	3/22/2010 3:33:15 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

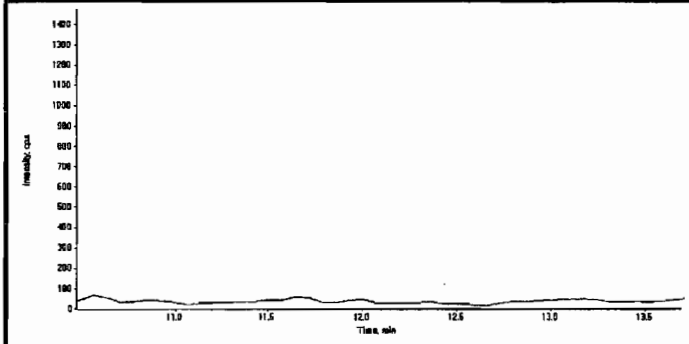

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

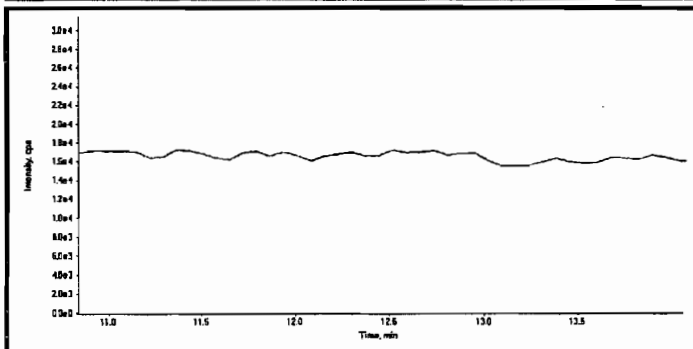

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

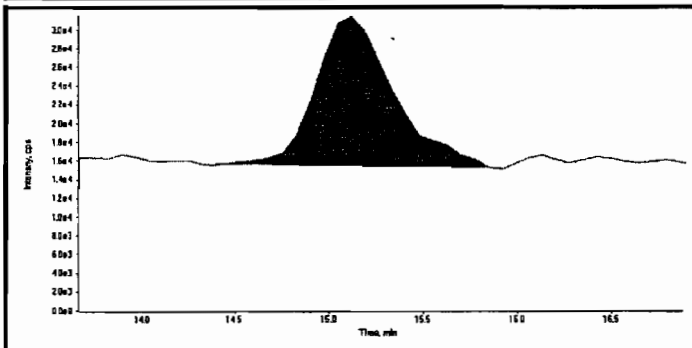

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.1
Area Counts:	4.61e+005
Manual Modification	No
Amount:	2.67 (ng/mL)
% Accuracy:	N/A

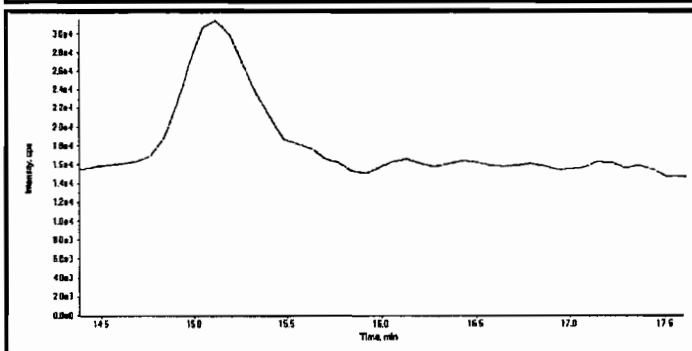

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322001.wiff	**Acquisition Date**	3/22/2010 3:33:15 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

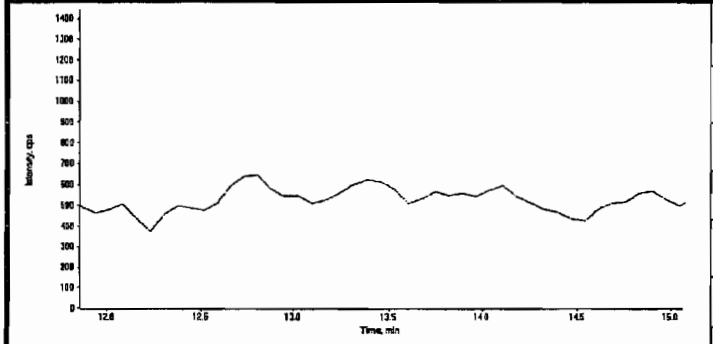

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

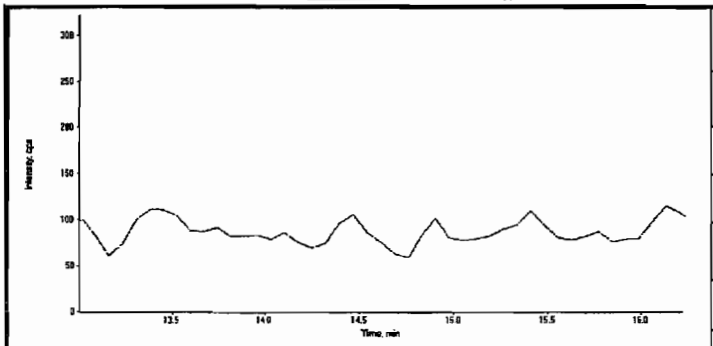

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

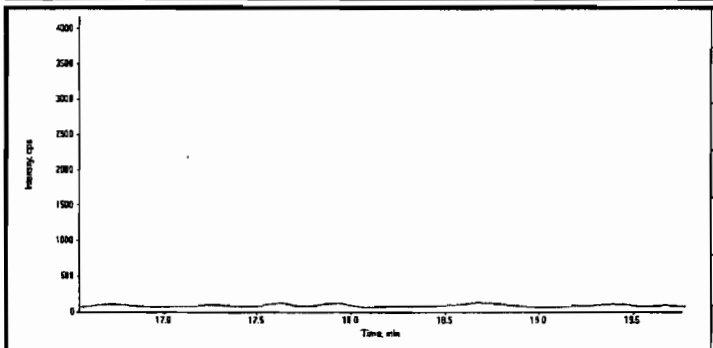

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

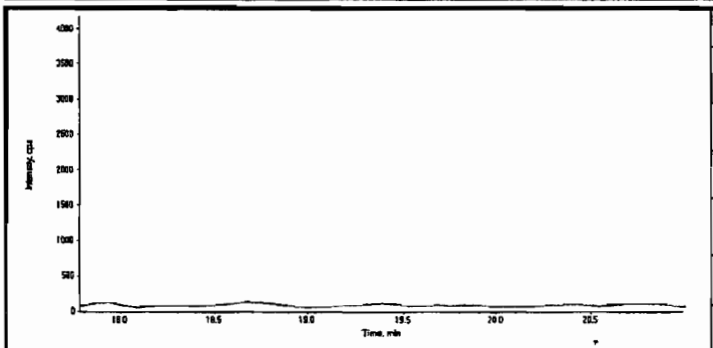

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322001.wiff	**Acquisition Date**	3/22/2010 3:33:15 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

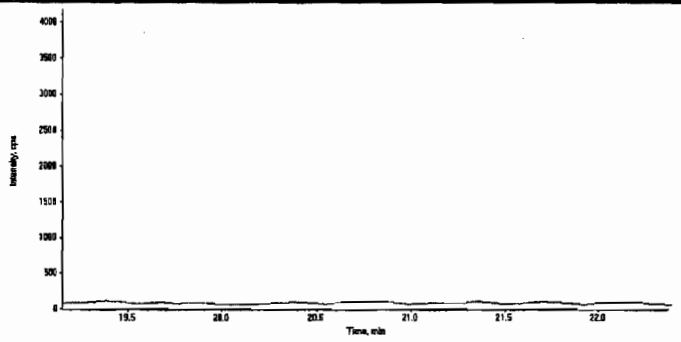

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

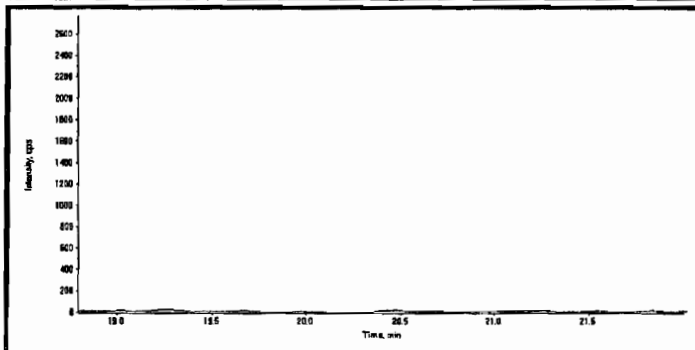

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2000

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 22-MAR-10 15:59

GEL Data File: EXP0322002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	2.8
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0

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Data File	EXP0322002.wiff	**Acquisition Date**	3/22/2010 3:59:34 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

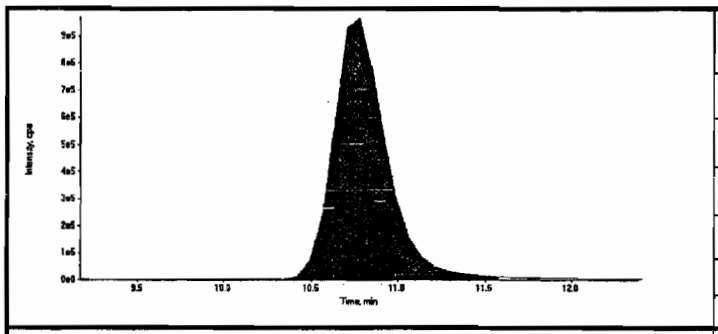

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	20800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

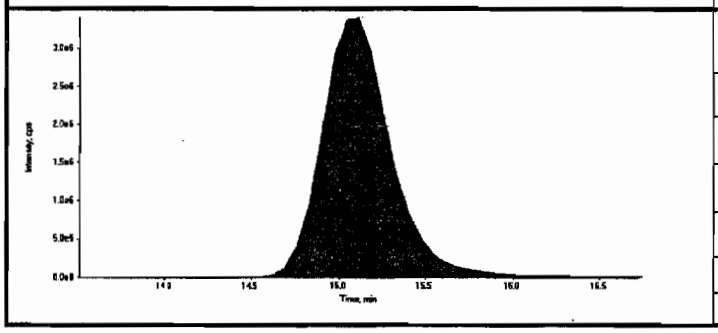

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.10
Area Counts:	96000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

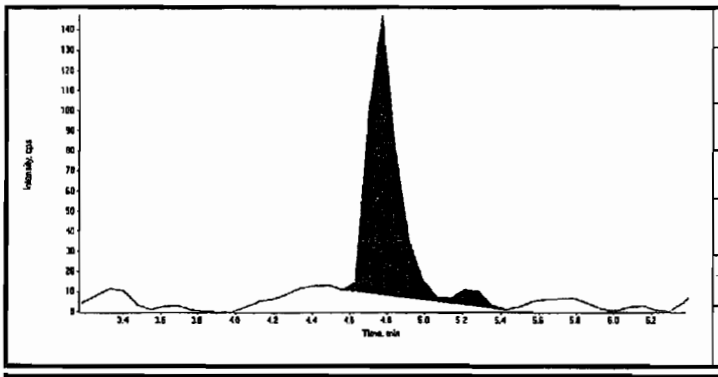

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	1.57e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

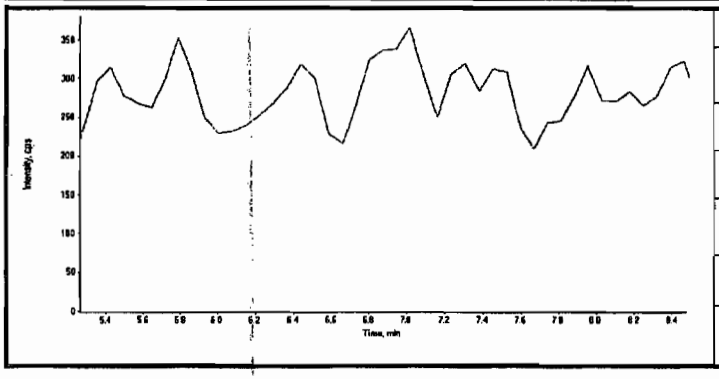

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Ran 3/28/10 dmm 03/26/10

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Data File	EXP0322002.wiff	**Acquisition Date**	3/22/2010 3:59:34 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

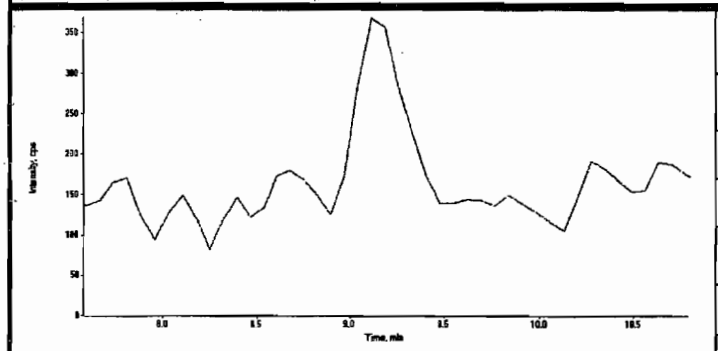

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

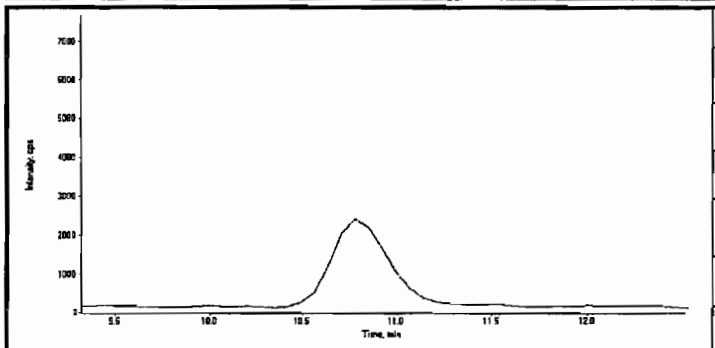

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

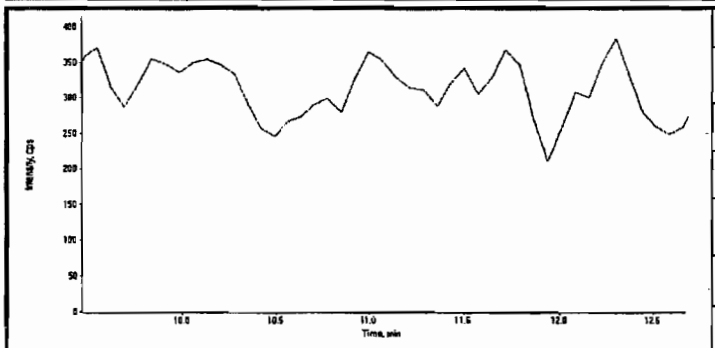

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

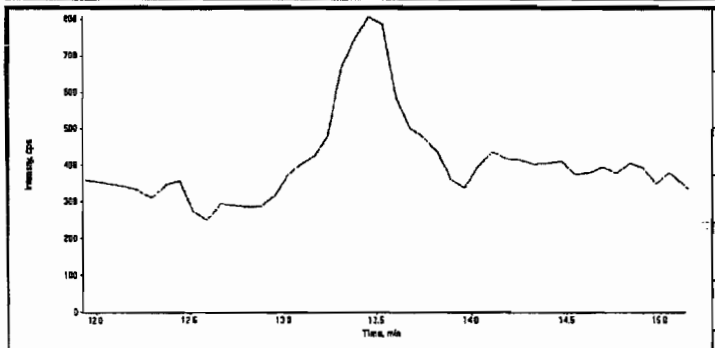

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322002.wiff	Acquisition Date	3/22/2010 3:59:34 PM
Sample Name	XIBLK01	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

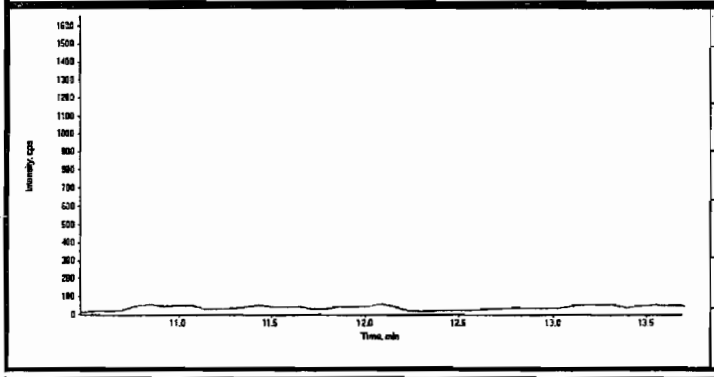

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

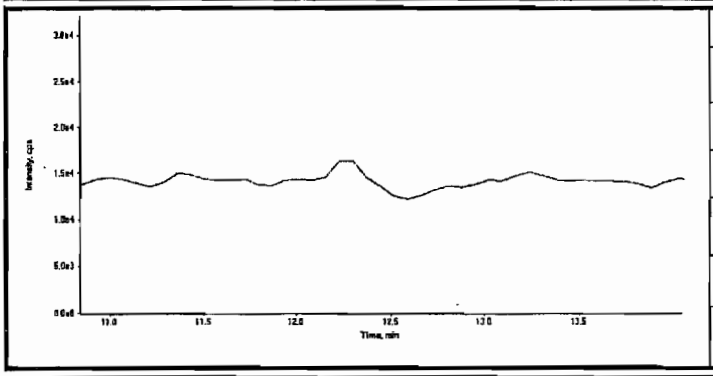

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

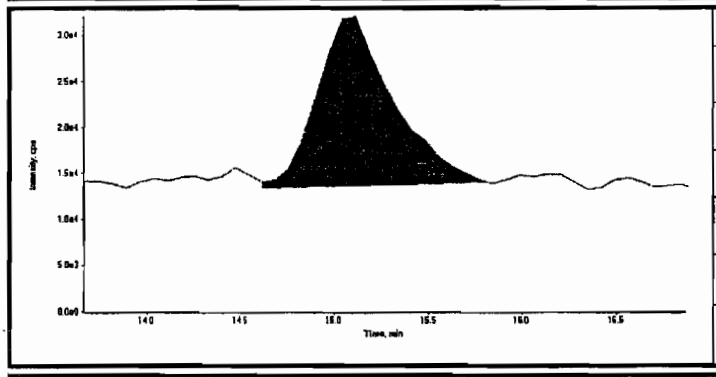

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.1
Area Counts:	5.22e+005
Manual Modification	No
Amount:	2.80 (ng/mL)
% Accuracy:	N/A

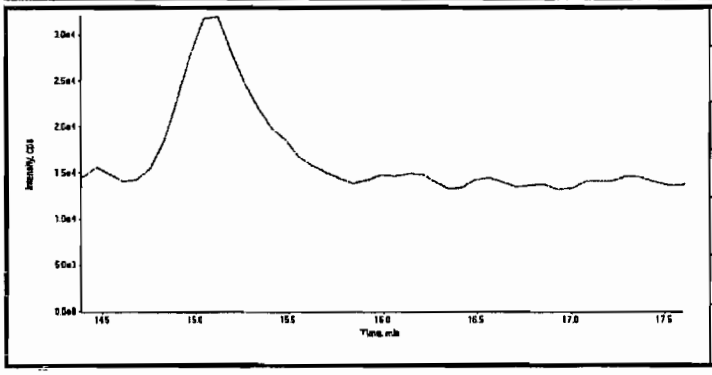

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322002.wiff	**Acquisition Date**	3/22/2010 3:59:34 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

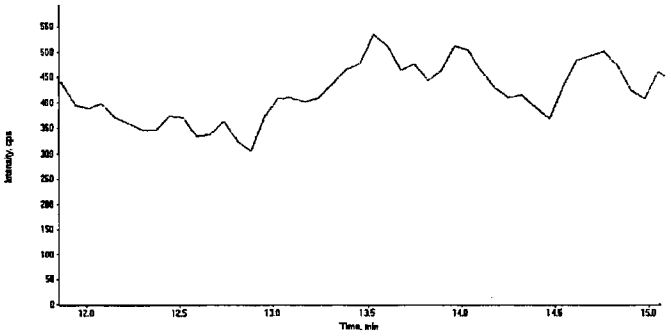

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

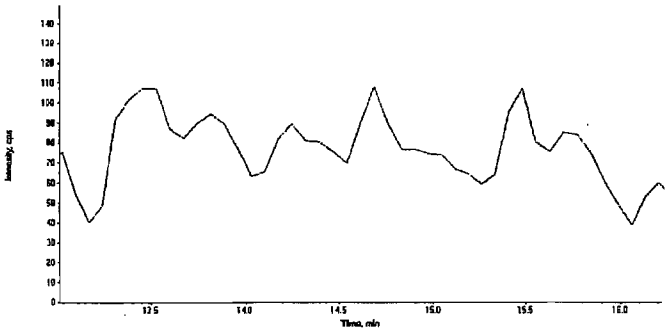

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

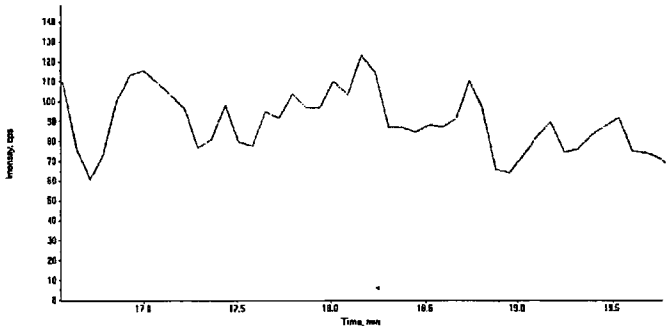

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

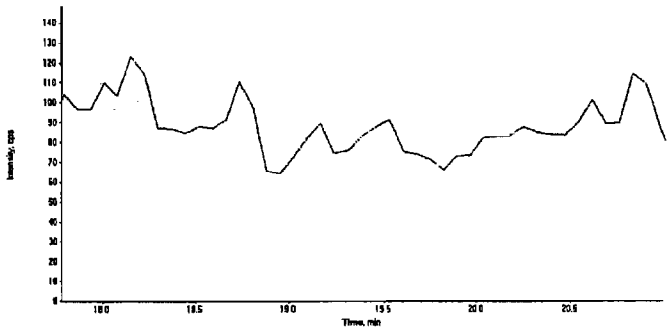

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322002.wiff	**Acquisition Date**	3/22/2010 3:59:34 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	Unknown

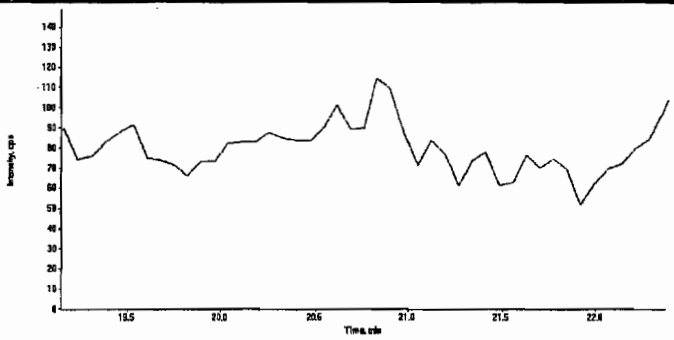

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

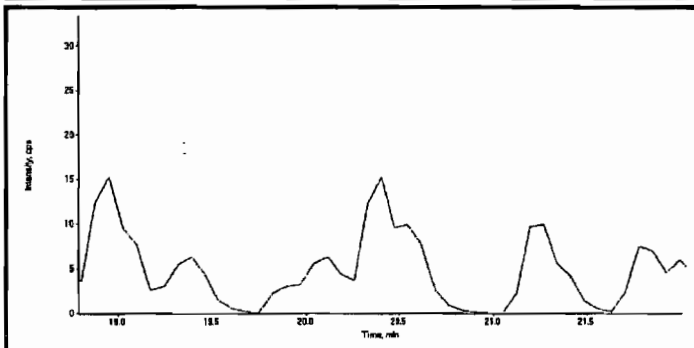

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2000

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 31-MAR-10 08:40

GEL Data File: EXS03310001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

LCR 415710

ample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03310001.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/31/2010
. Time: 8:40:32 AM

ified: No

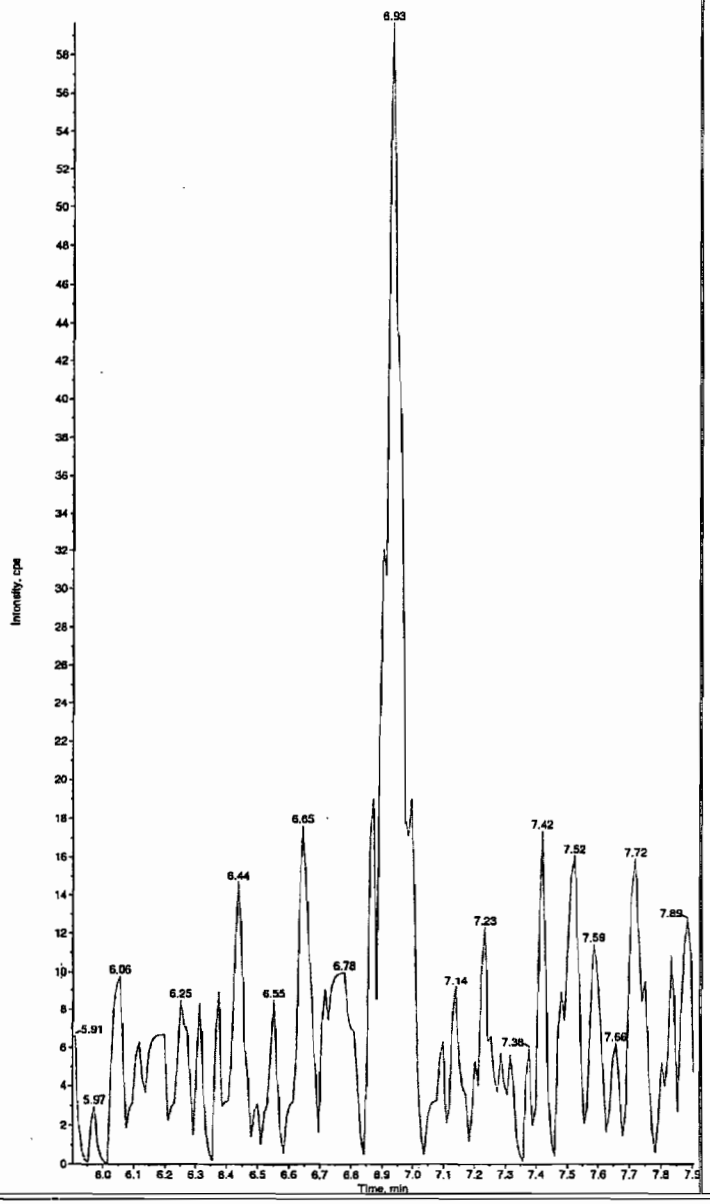

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03310001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 8:40:32 AM

Modified: No

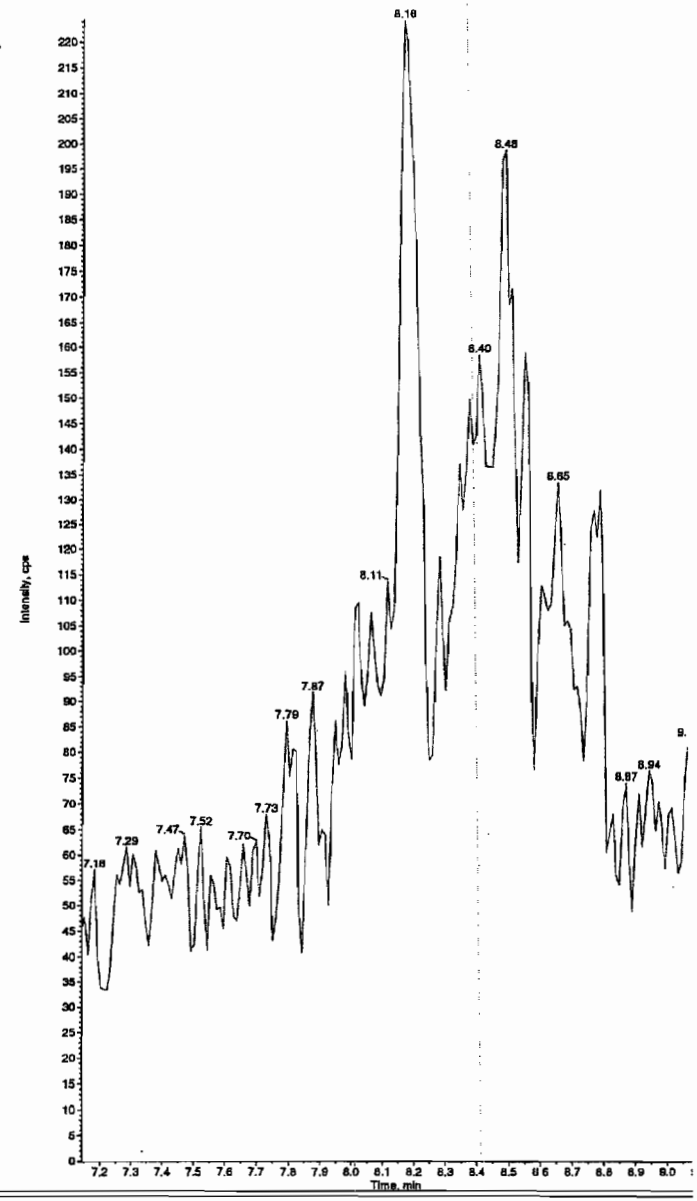

Hnm 04/05/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ımple Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03310001.wiff"
ıak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ɔmment: "LCMSEXP_B" Annotation: ""
ɔle Index: 1
ɔle Type: Unknown
ɔentration: N/A
ɔulated Conc: 0.00 ng/mL
. Date: 3/31/2010
. Time: 8:40:32 AM
ɪfied: No

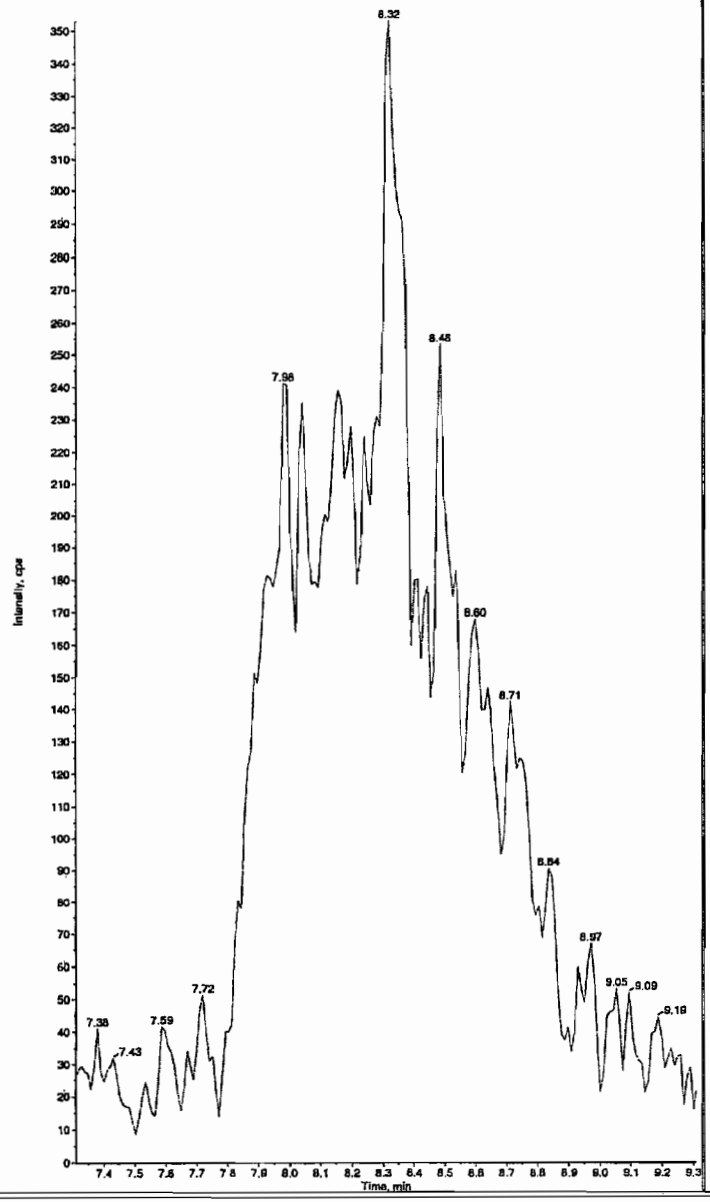

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03310001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 8:40:32 AM
Modified: No

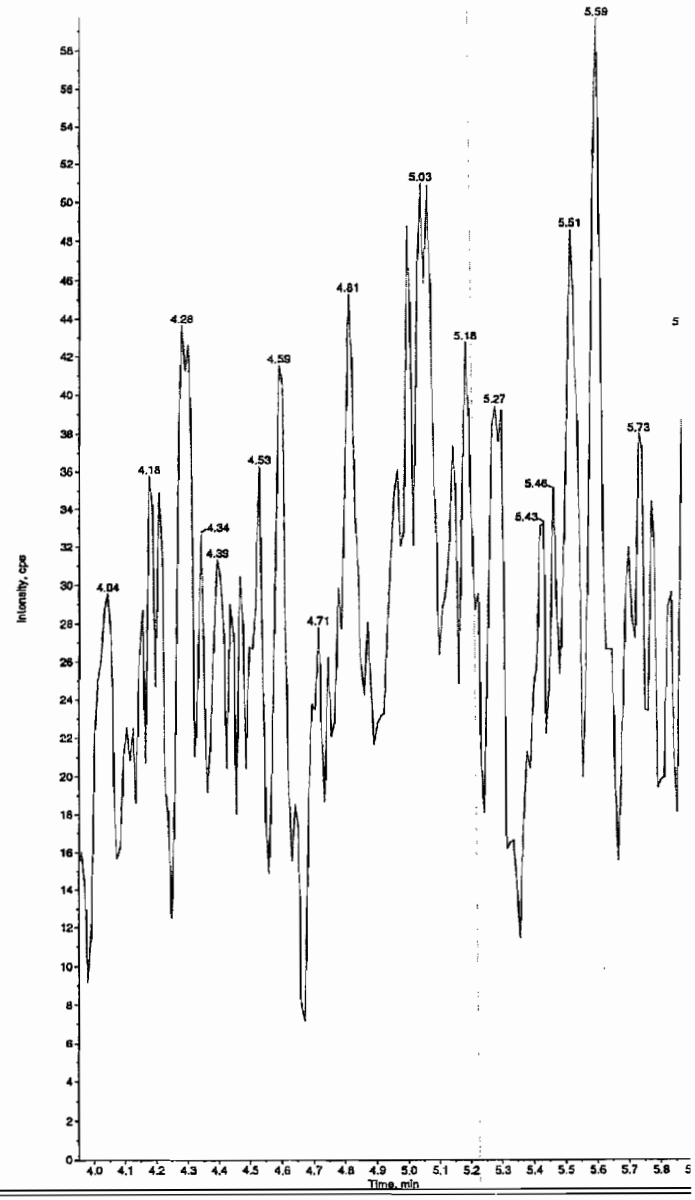

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ample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03310001.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/31/2010
. Time: 8:40:32 AM

ified: No

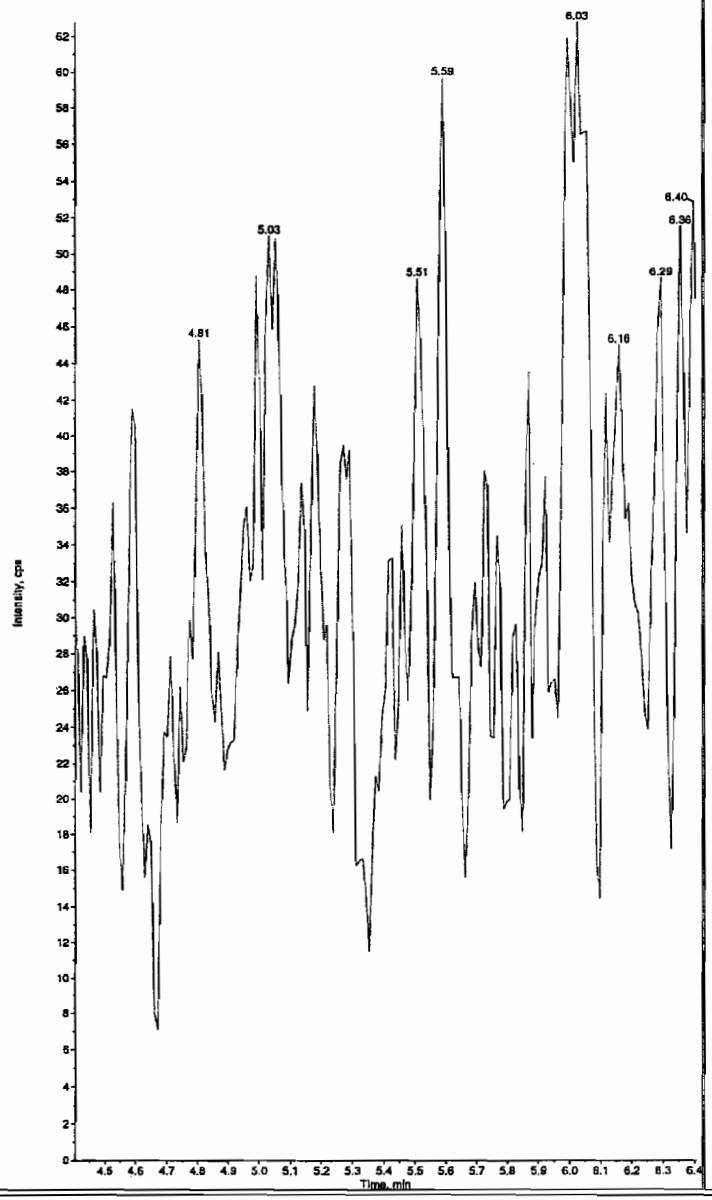

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03310001.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	No Intercept
Acq. Date:	3/31/2010
Acq. Time:	8:40:32 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.8 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.8 min
Area:	1.01e+005 counts
Height:	23759.306 cps
Start Time:	10.7 min
End Time:	11.0 min

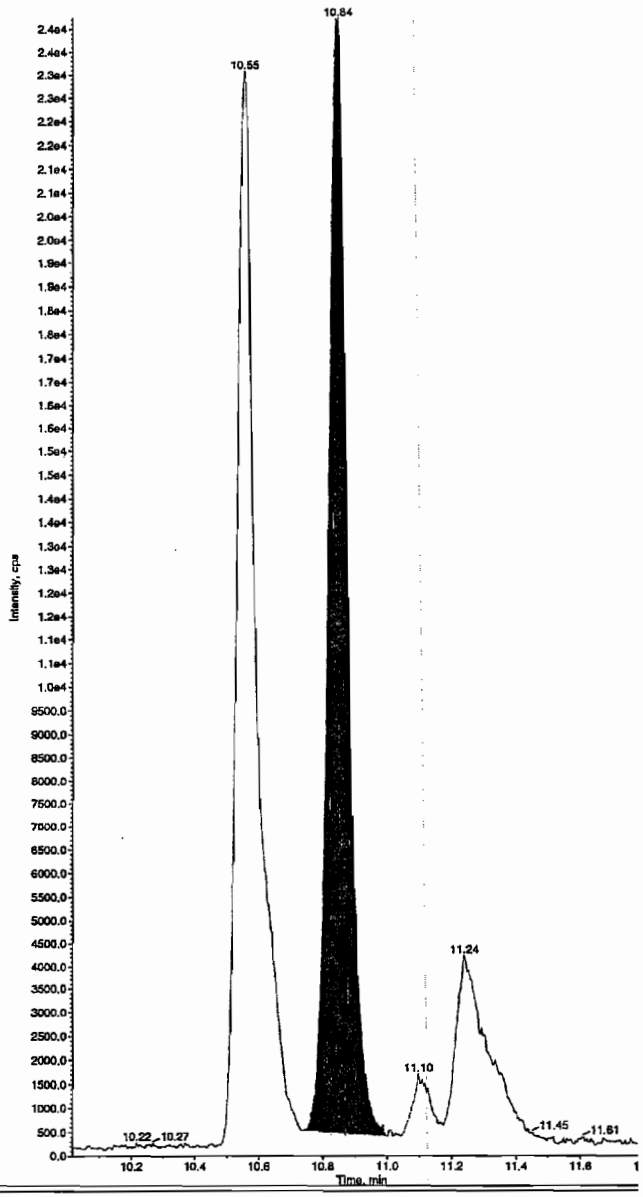

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2000

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 31–MAR–10 08:56

GEL Data File: EXS03310002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Ker 415/10

ple Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03310002.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_B" Annotation: ""
.e Index: 1
.e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/31/2010
Time: 8:56:19 AM

ied: No

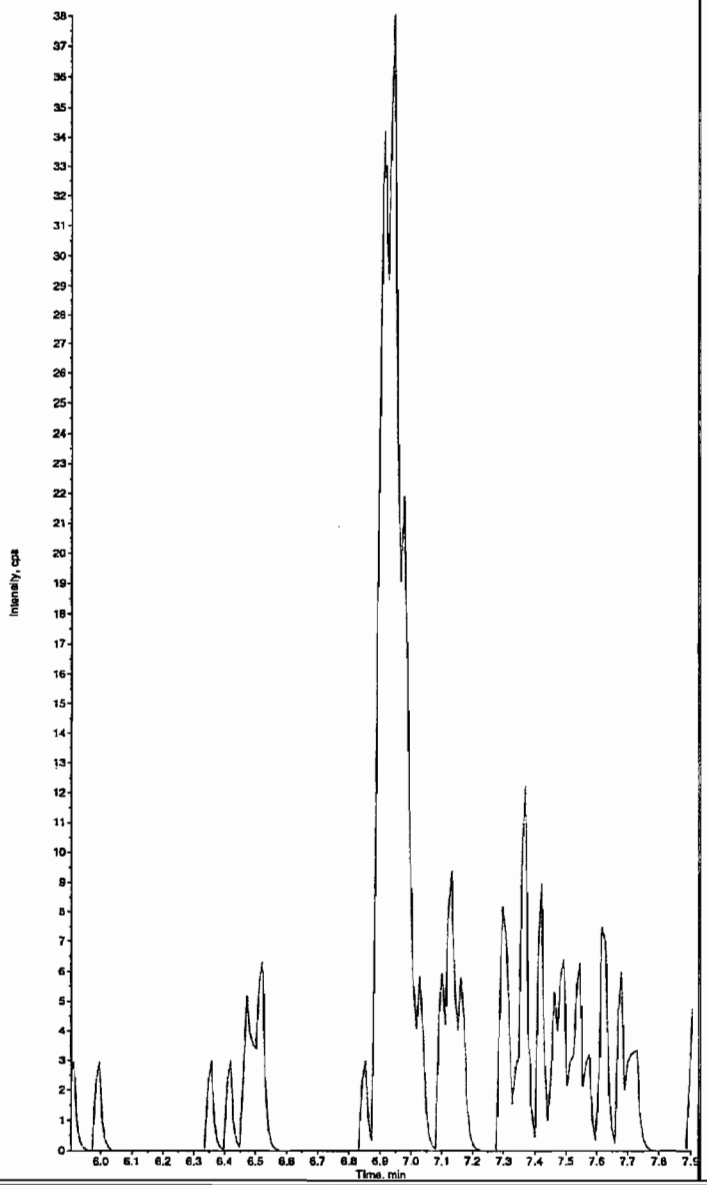

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03310002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 8:56:19 AM

Modified: No

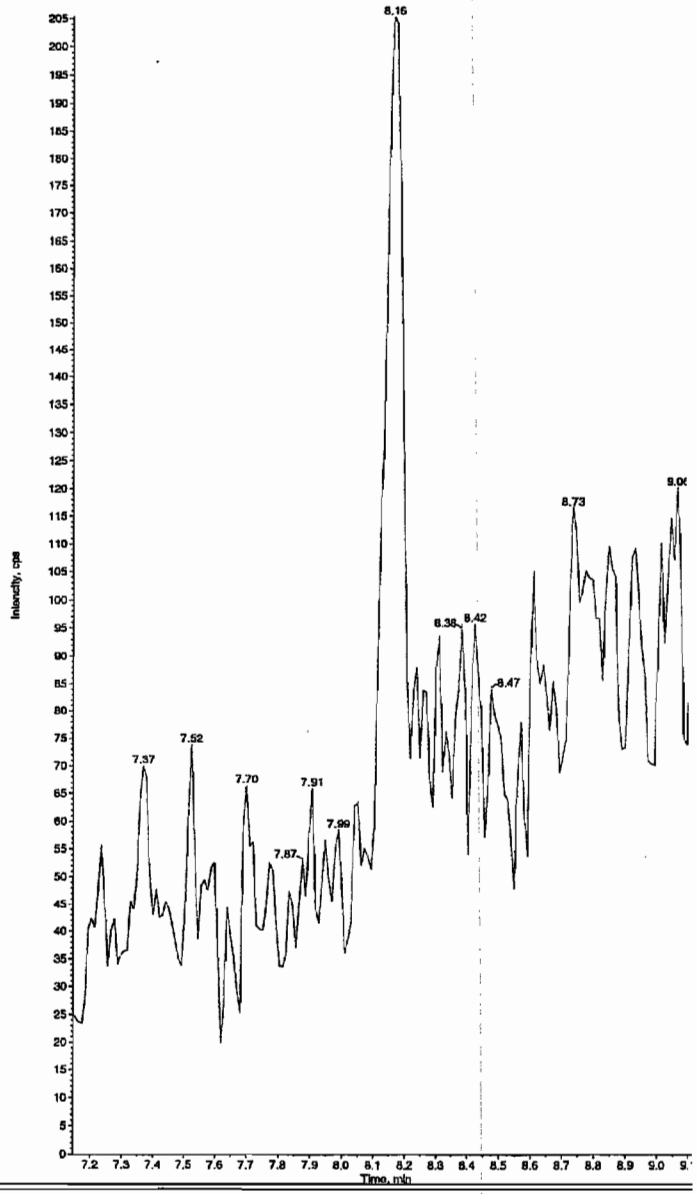

Hmm 4/05/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

nple Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03310002.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ilated Conc: 0.00 ng/mL
Date: 3/31/2010
Time: 8:56:19 AM

fied: No

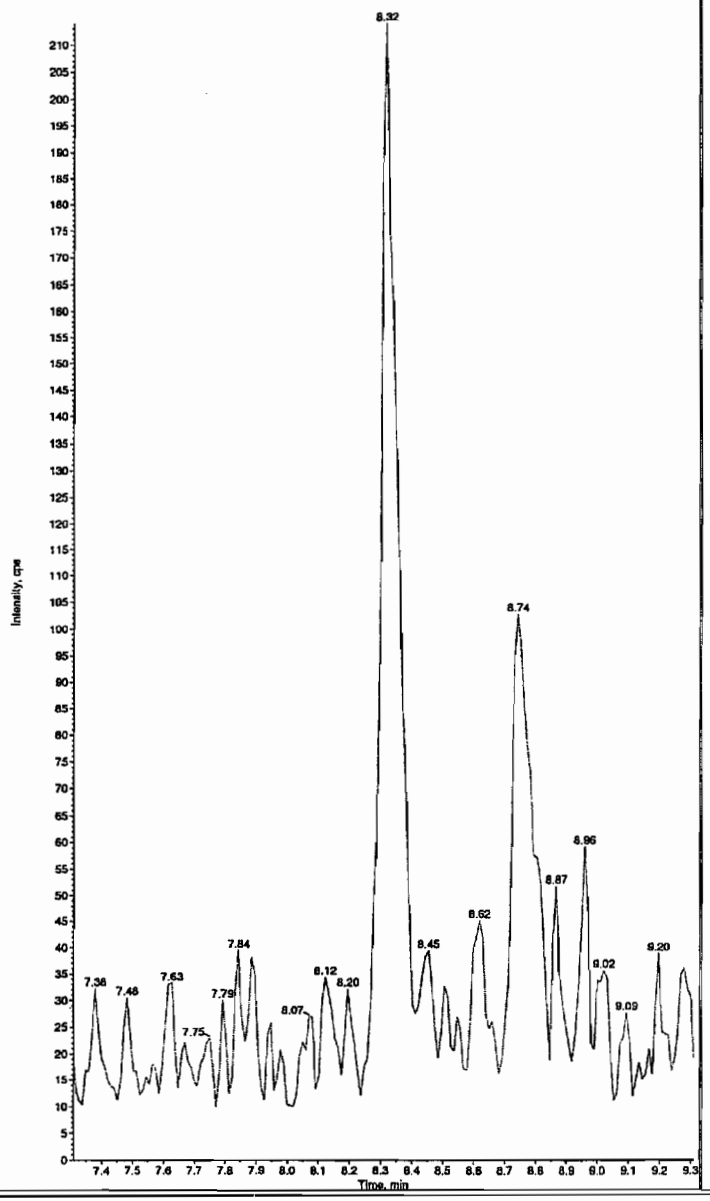

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03310002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 8:56:19 AM

Modified: No

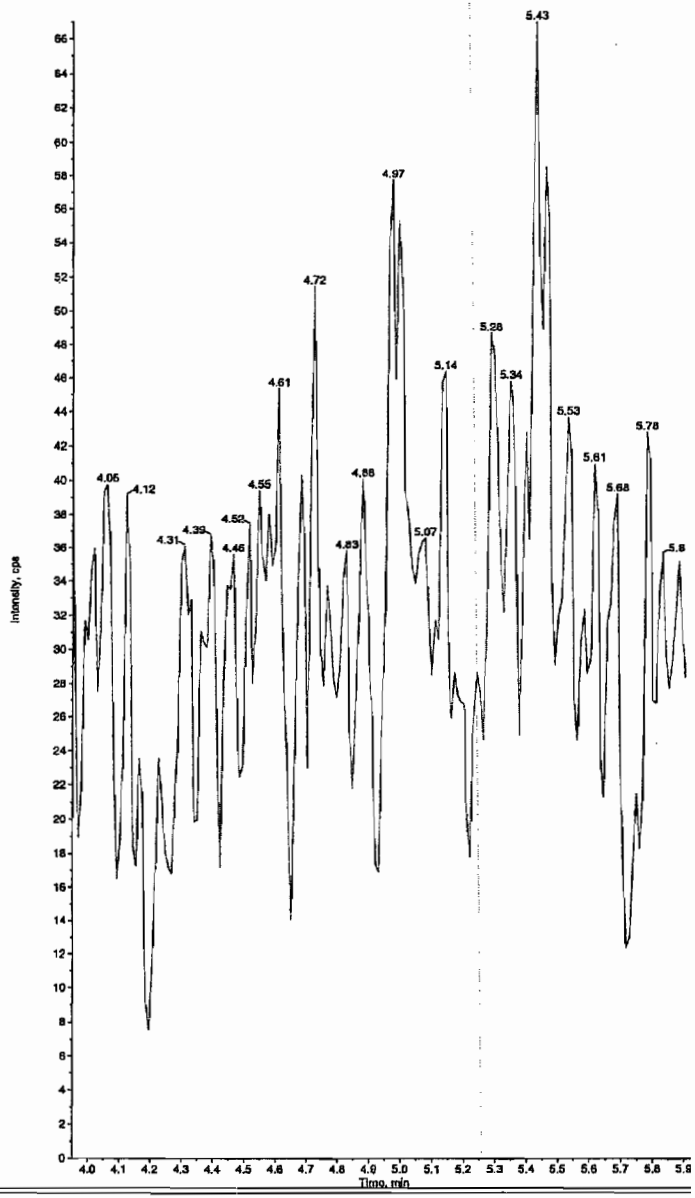

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03310002.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/31/2010
. Time: 8:56:19 AM

ified: No

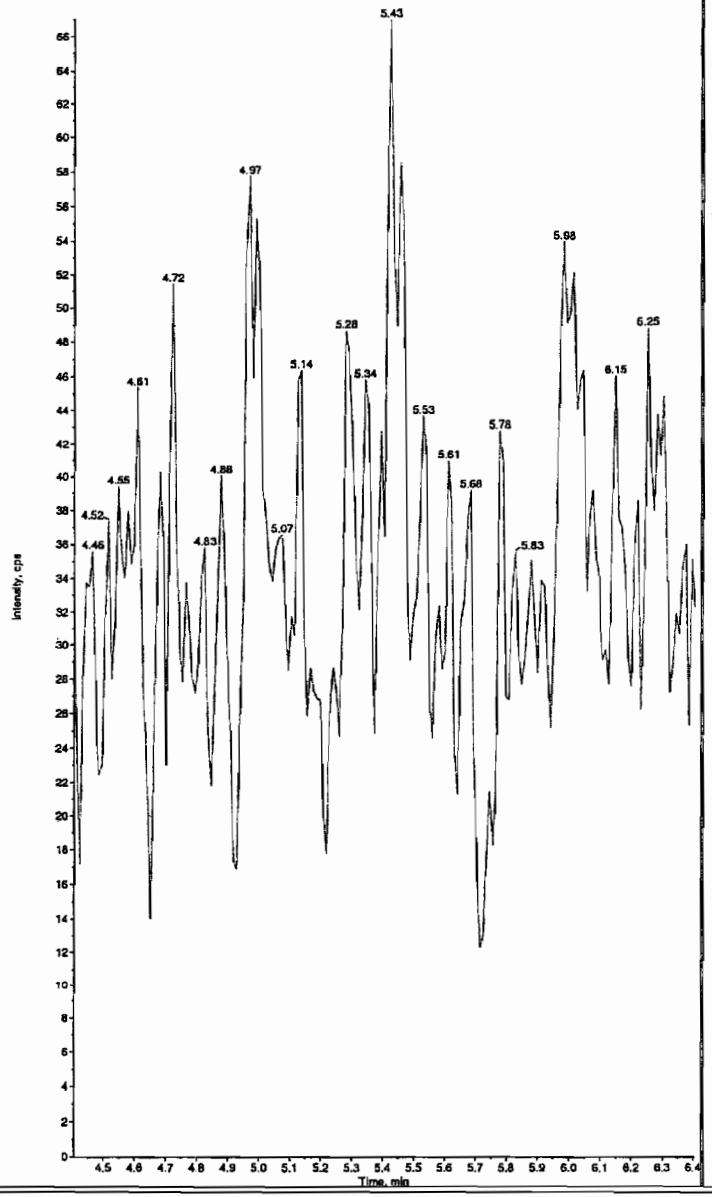

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03310002.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/31/2010
Acq. Time: 8:56:19 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 8.18e+004 counts
Height: 20231.262 cps
Start Time: 10.7 min
End Time: 11.0 min

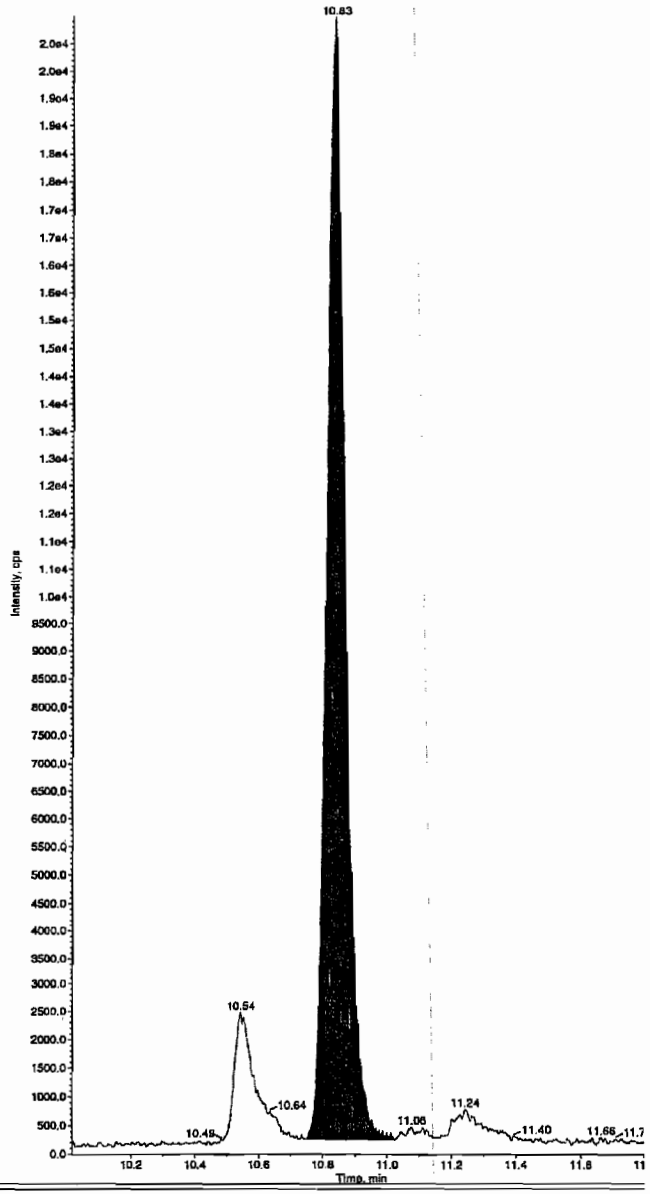

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2000

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 22–MAR–10 19:04

GEL Data File: EXP0322009.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	3.03
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322009.wiff	Acquisition Date	3/22/2010 7:04:06 PM
Sample Name	XIBLK02	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

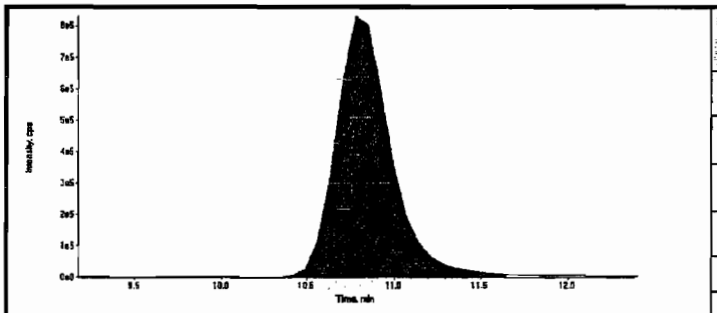

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	18209000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

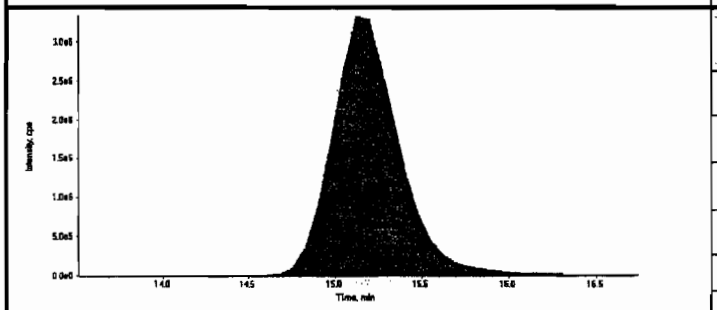

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.10
Area Counts:	89700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

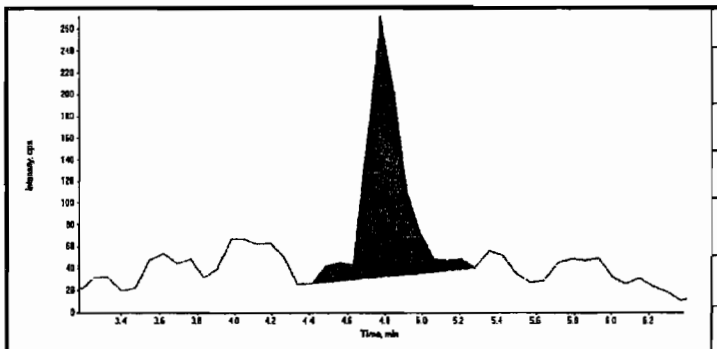

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	3.13e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

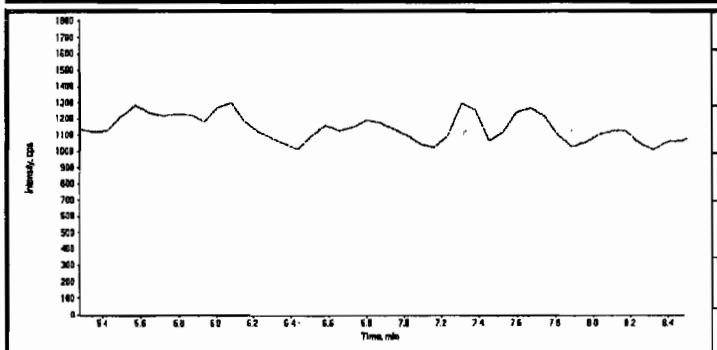

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322009.wiff	Acquisition Date	3/22/2010 7:04:06 PM
Sample Name	XIBLK02	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

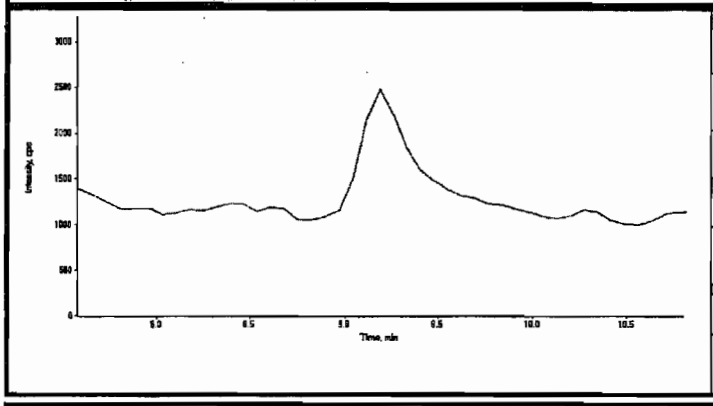

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

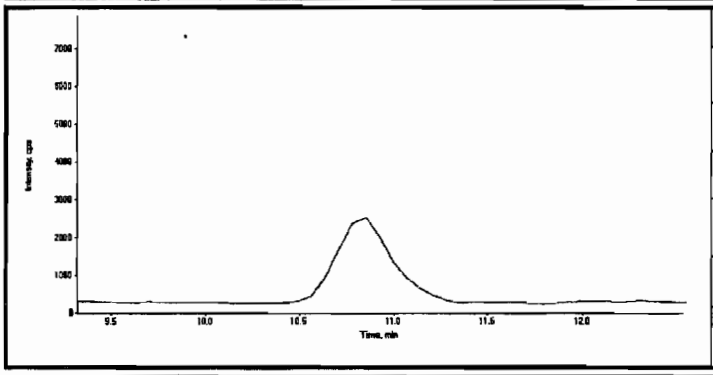

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

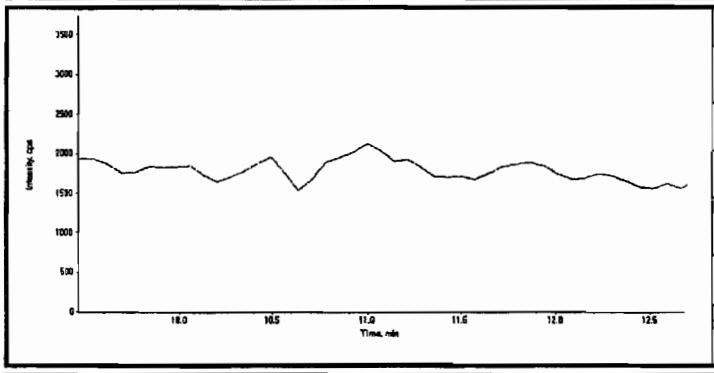

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

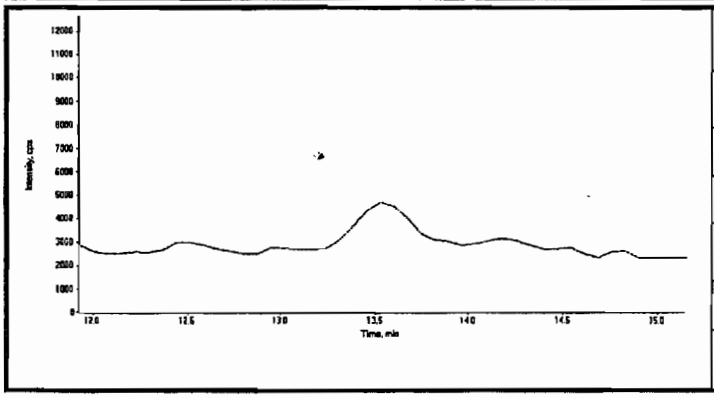

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322009.wiff	**Acquisition Date**	3/22/2010 7:04:06 PM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

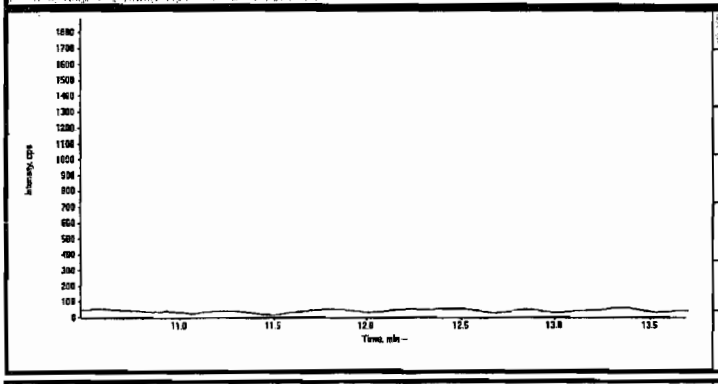

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

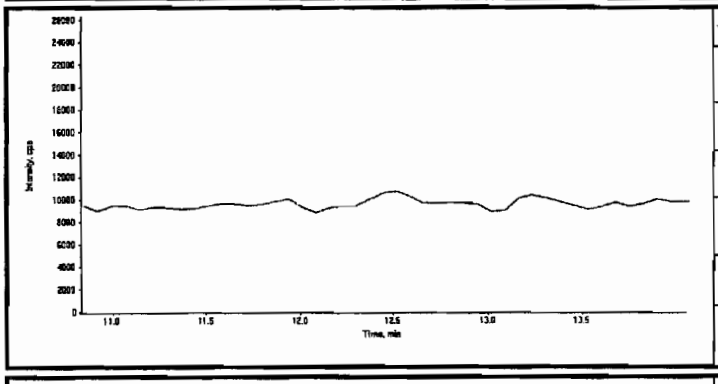

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

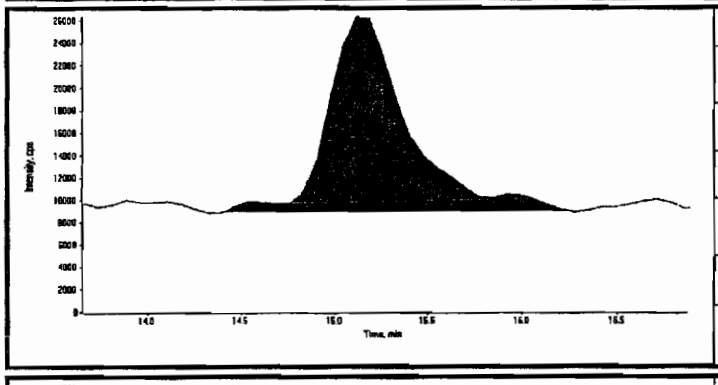

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.1
Area Counts:	5.29e+005
Manual Modification	No
Amount:	3.03 (ng/mL)
% Accuracy:	N/A

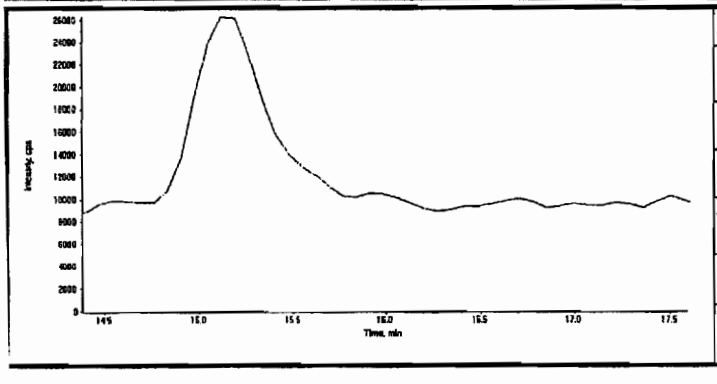

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322009.wiff	**Acquisition Date**	3/22/2010 7:04:06 PM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

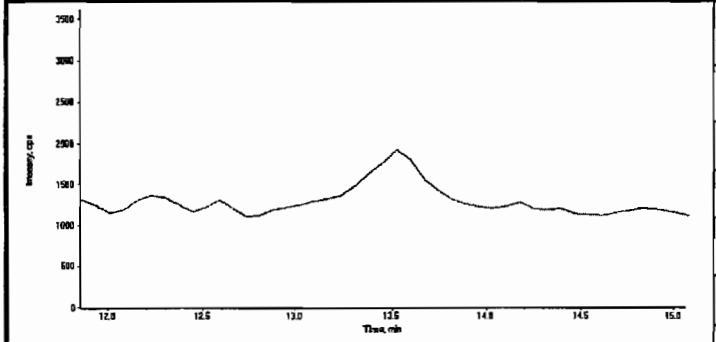

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

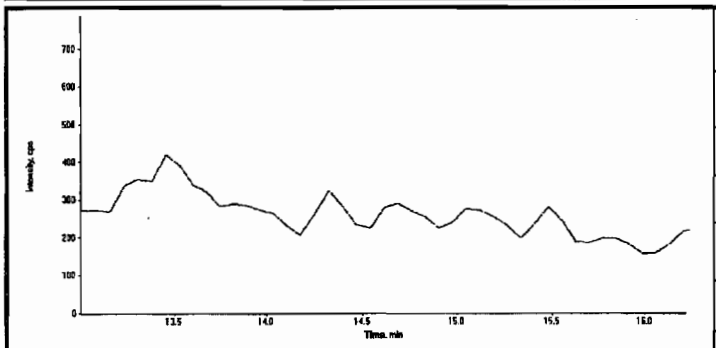

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

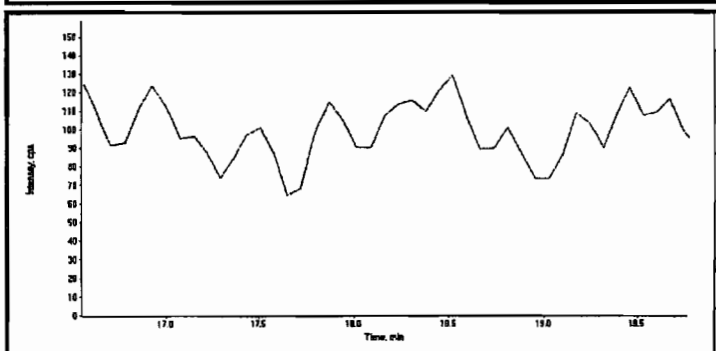

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

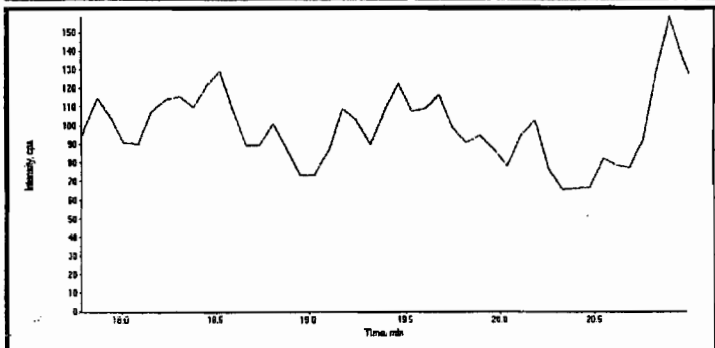

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322009.wiff	**Acquisition Date**	3/22/2010 7:04:06 PM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

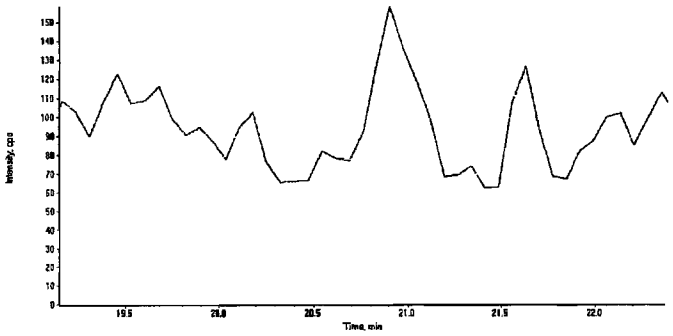

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

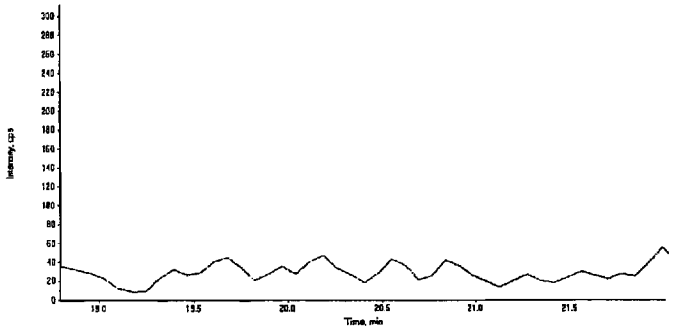

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2000

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 22–MAR–10 19:56

GEL Data File: EXP0322011.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6–Dinitrotoluene	0	2.91
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322011.wiff	**Acquisition Date**	3/22/2010 7:56:51 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

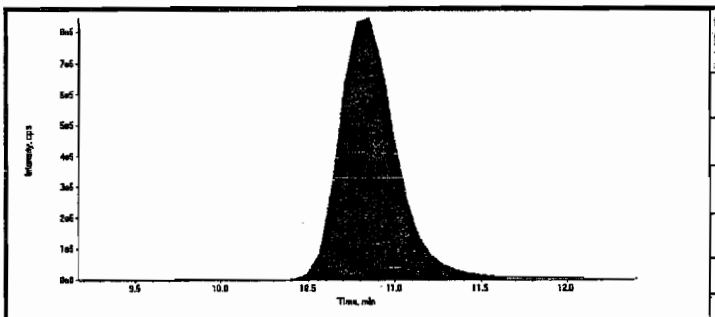

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	19500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

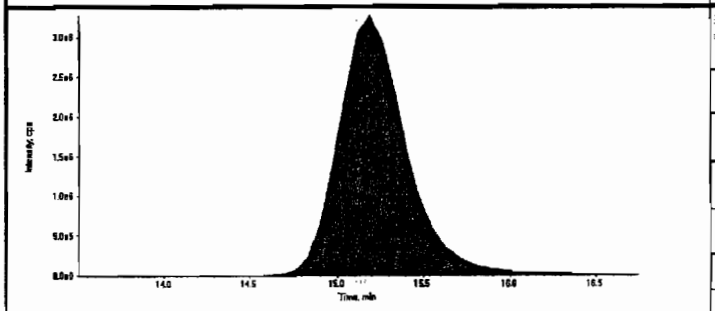

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.20
Area Counts:	90200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

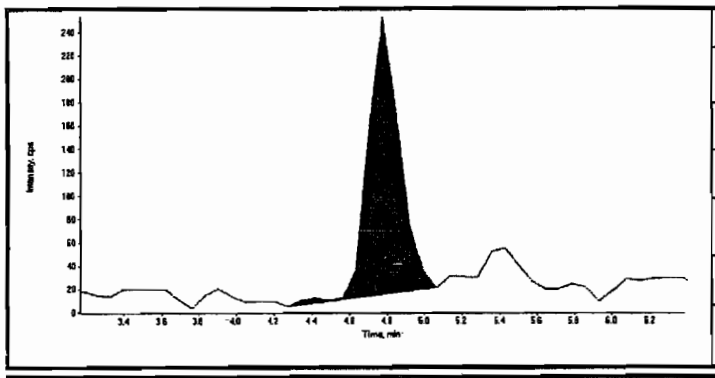

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	2.80e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

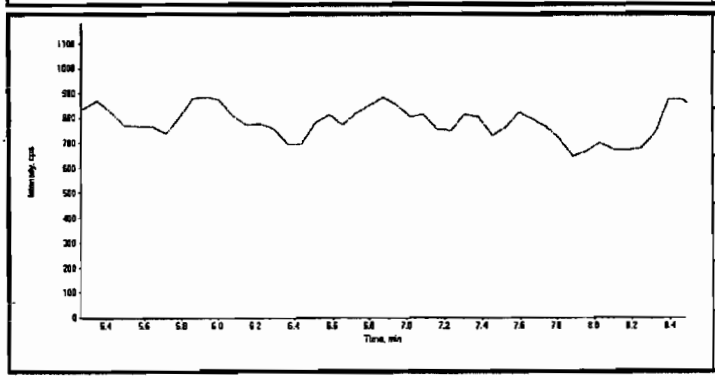

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

dmc 03/28/10

3/28/10

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Data File	EXP0322011.wiff	Acquisition Date	3/22/2010 7:56:51 PM
Sample Name	XIBLK03	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

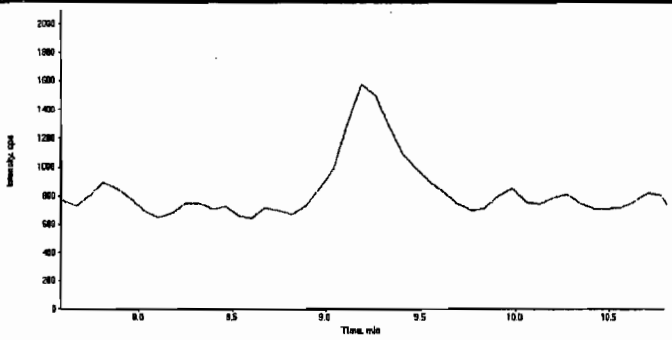

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

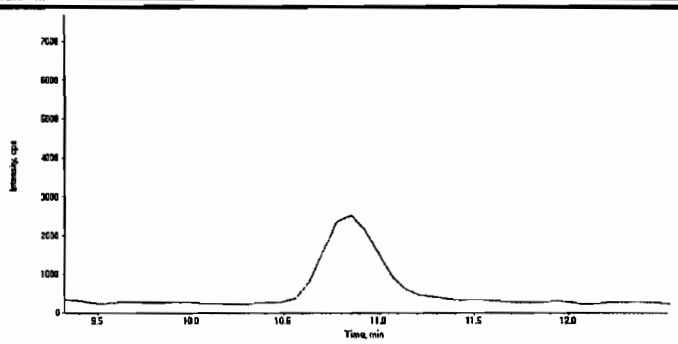

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

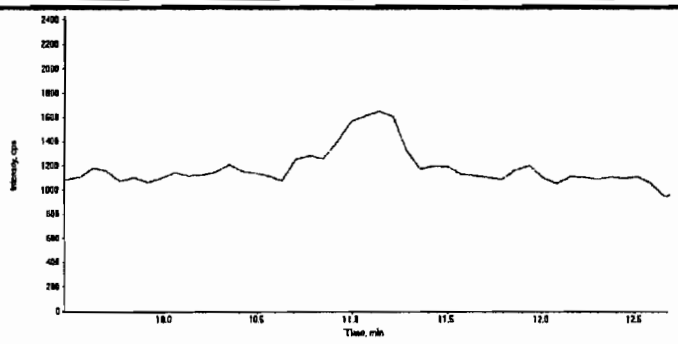

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

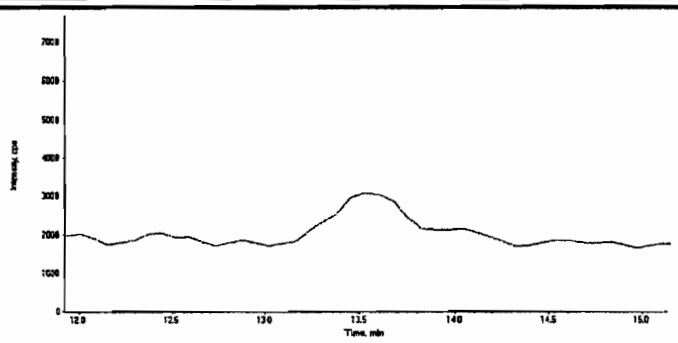

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322011.wiff	Acquisition Date	3/22/2010 7:56:51 PM
Sample Name	XIBLK03	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

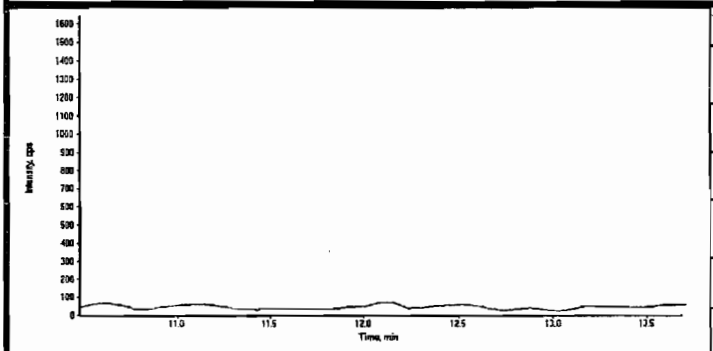

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

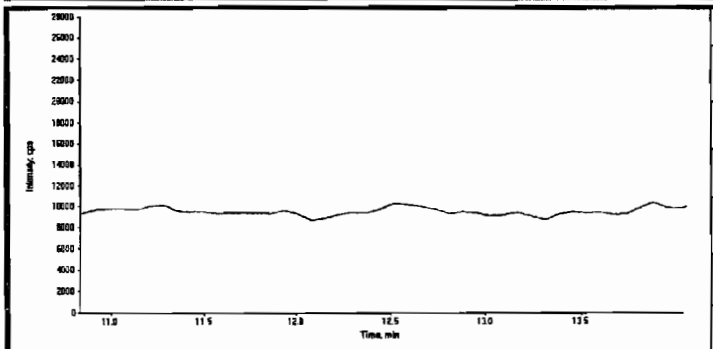

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

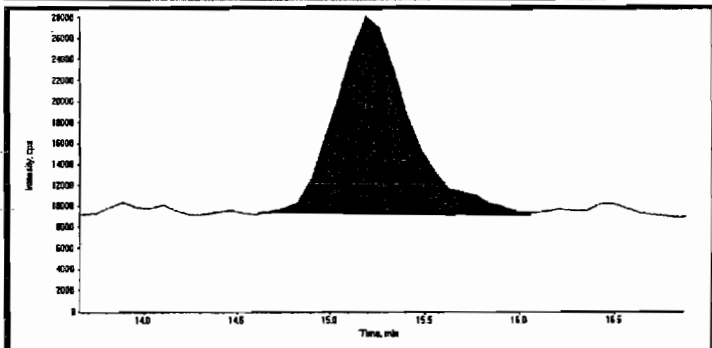

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.2
Area Counts:	5.10e+005
Manual Modification	No
Amount:	2.91 (ng/mL)
% Accuracy:	N/A

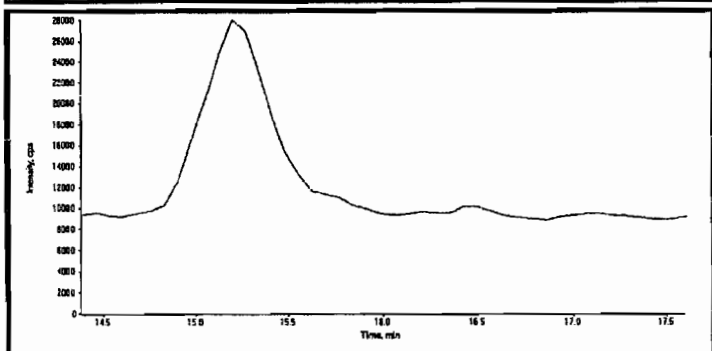

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322011.wiff	Acquisition Date	3/22/2010 7:56:51 PM
Sample Name	XIBLK03	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

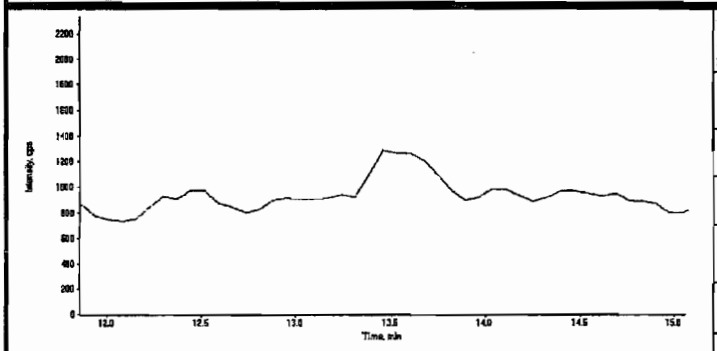

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

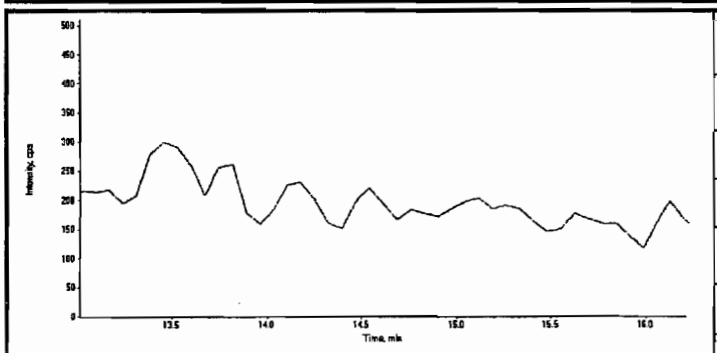

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

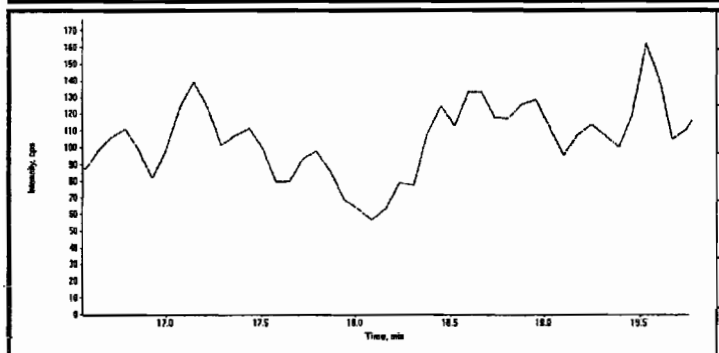

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

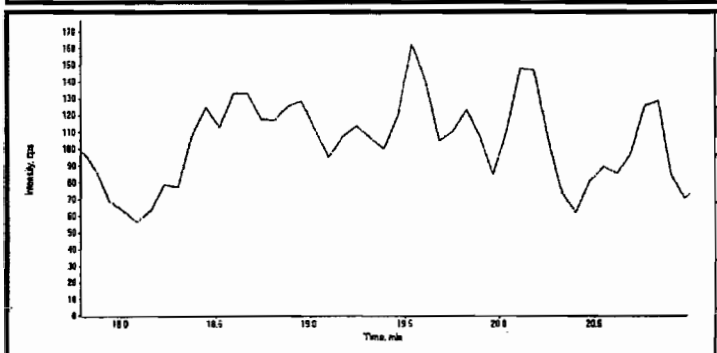

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322011.wiff	**Acquisition Date**	3/22/2010 7:56:51 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

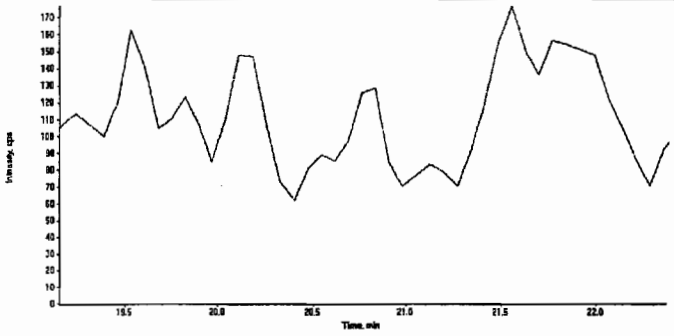

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

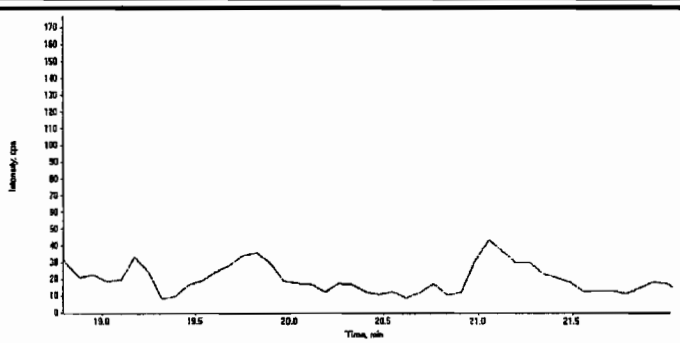

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2000

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 22–MAR–10 23:27

GEL Data File: EXP0322019.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	3.41
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322019.wiff	**Acquisition Date**	3/22/2010 11:27:58 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

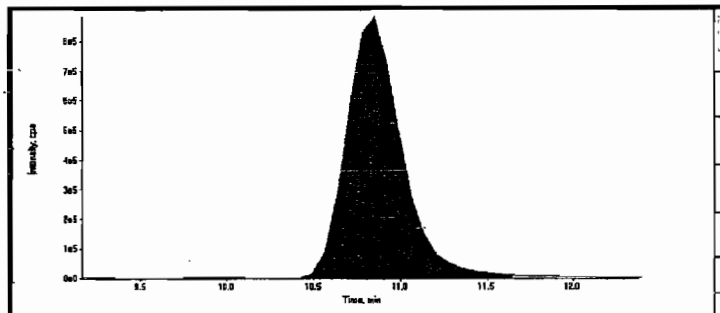

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	19700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

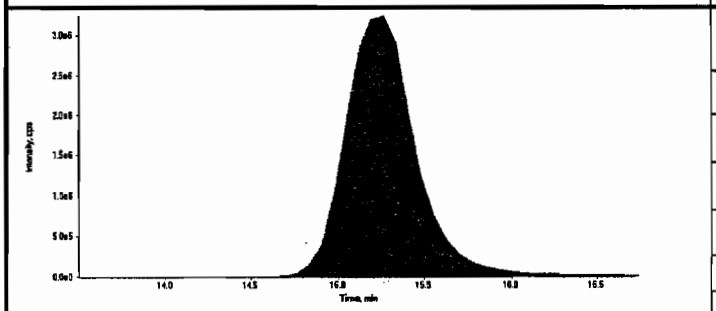

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.30
Area Counts:	92500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

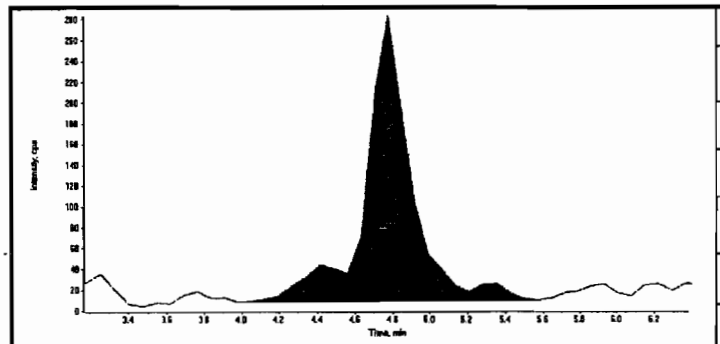

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	4.78e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

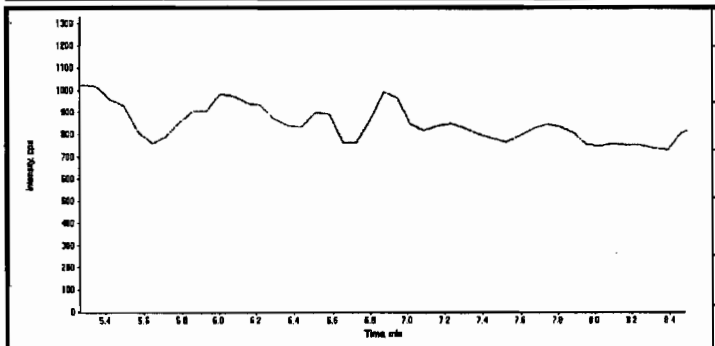

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

03/28/10

3/28/10

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Data File	EXP0322019.wiff	Acquisition Date	3/22/2010 11:27:58 PM
Sample Name	XIBLK04	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

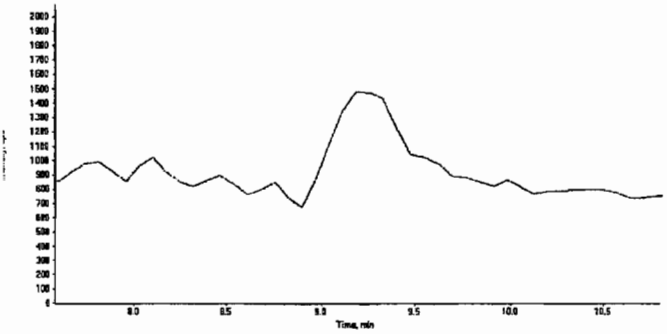

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

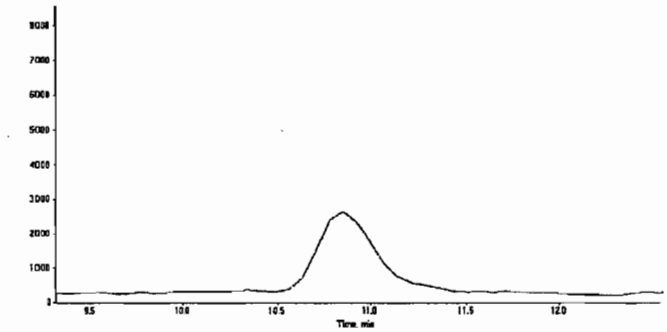

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

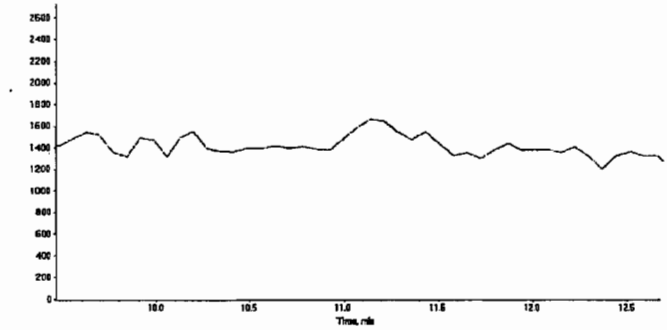

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

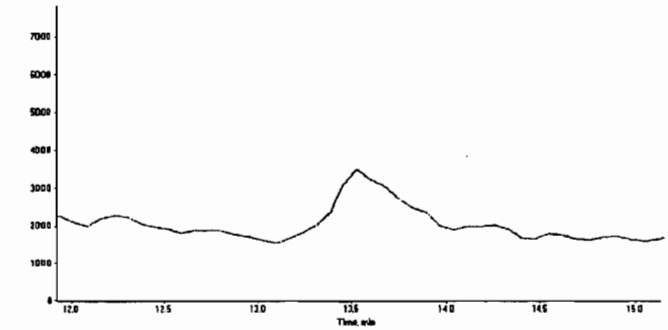

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322019.wiff	**Acquisition Date**	3/22/2010 11:27:58 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

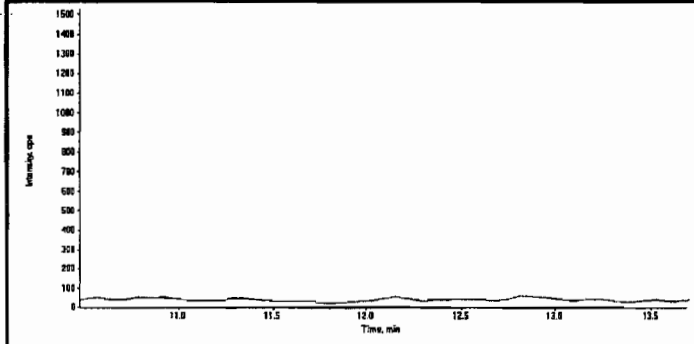

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

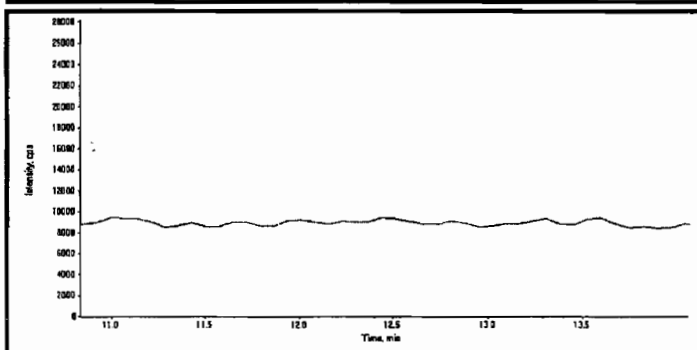

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

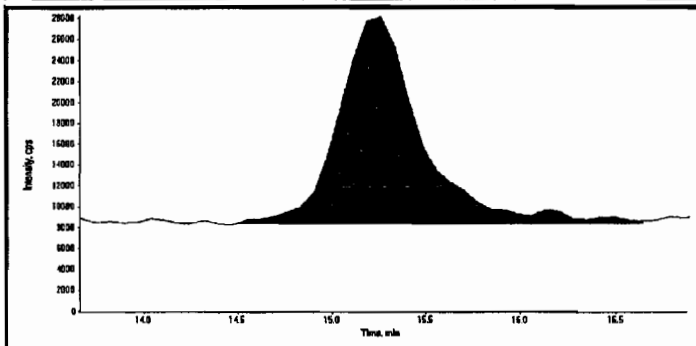

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	6.13e+005
Manual Modification	No
Amount:	3.41 (ng/mL)
% Accuracy:	N/A

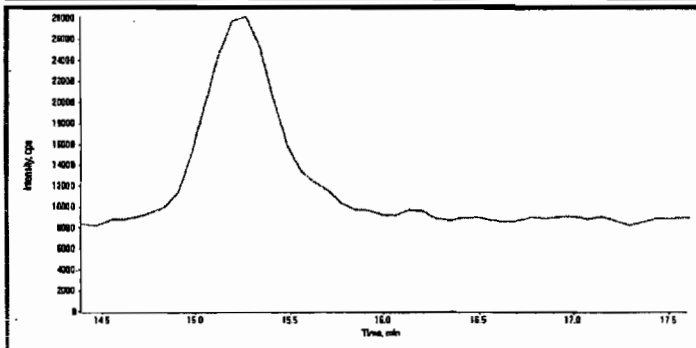

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322019.wiff	Acquisition Date	3/22/2010 11:27:58 PM
Sample Name	XIBLK04	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

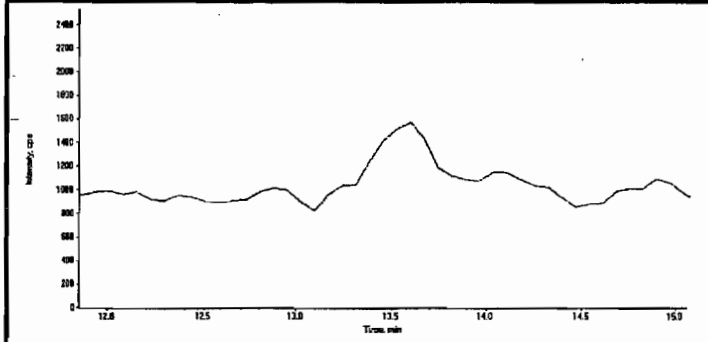

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

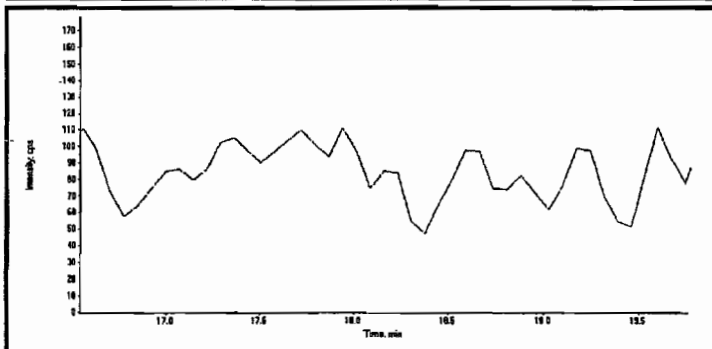

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

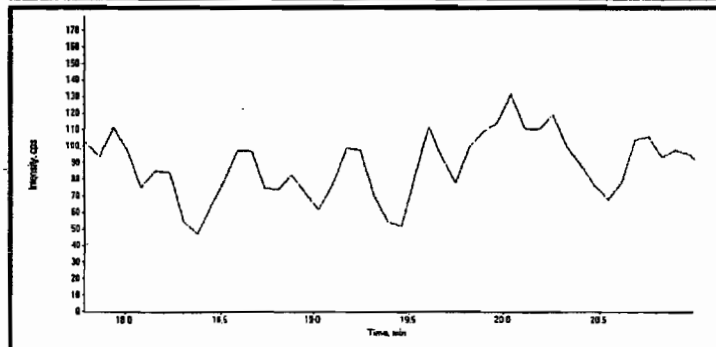

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322019.wiff	**Acquisition Date**	3/22/2010 11:27:58 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

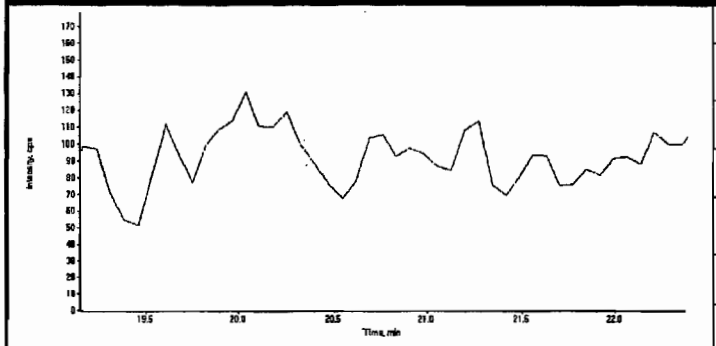

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

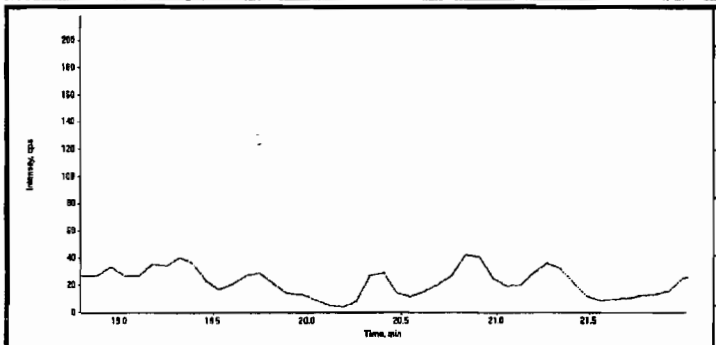

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2000

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 23–MAR–10 04:44

GEL Data File: EXP0322031.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	3.11
2–Amino–4,6–dinitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322031.wiff	Acquisition Date	3/23/2010 4:44:58 AM
Sample Name	XIBLK05	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

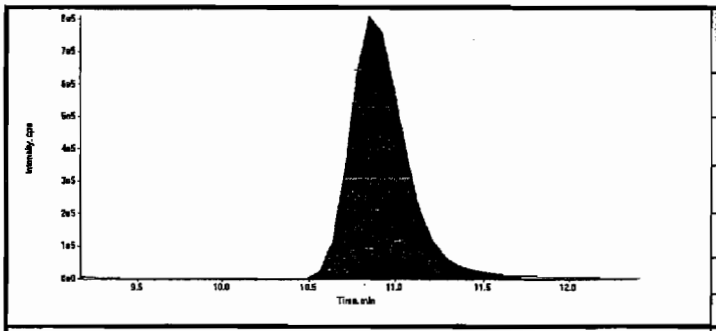

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	18000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

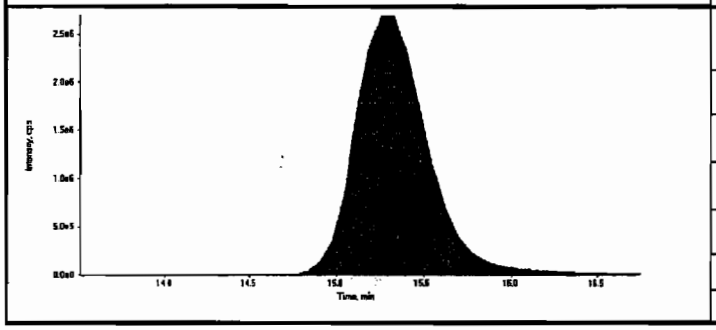

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.30
Area Counts:	78400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

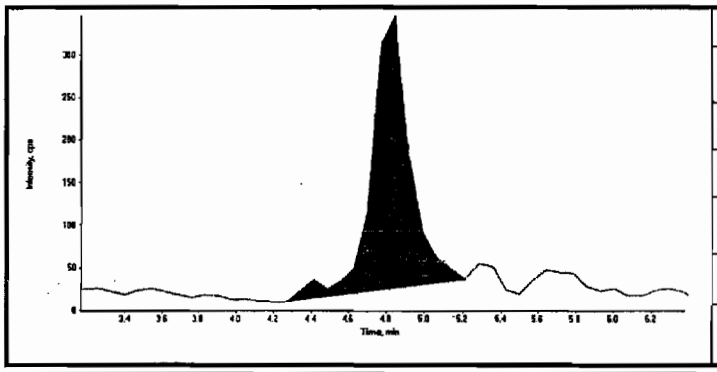

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.85
Area Counts:	4.54e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

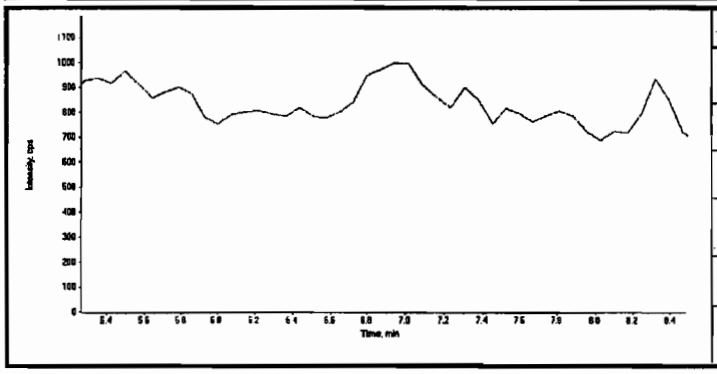

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

AMW 03/26/10
LCW 3/28/10

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Data File	EXP0322031.wiff	**Acquisition Date**	3/23/2010 4:44:58 AM
Sample Name	XIBLK05	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

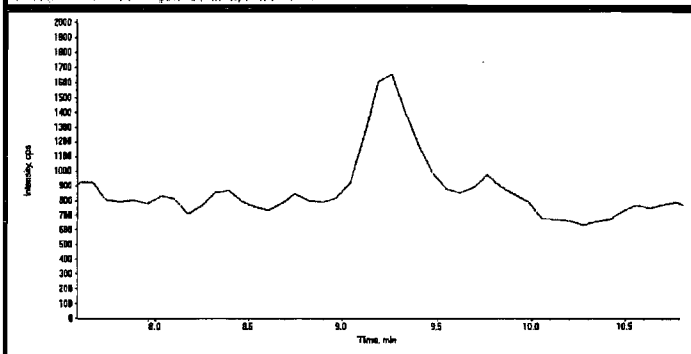

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

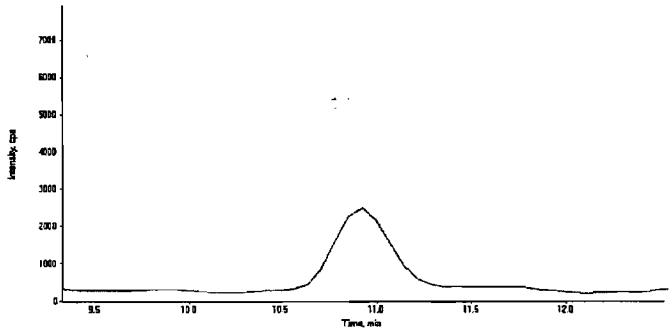

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

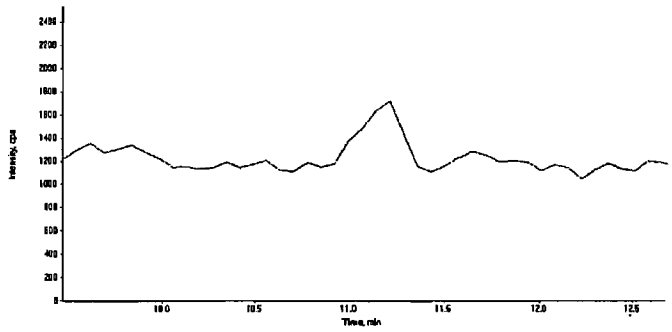

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

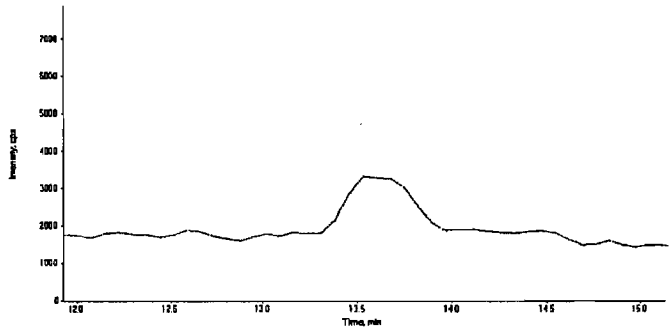

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322031.wiff	**Acquisition Date**	3/23/2010 4:44:58 AM
Sample Name	XIBLK05	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

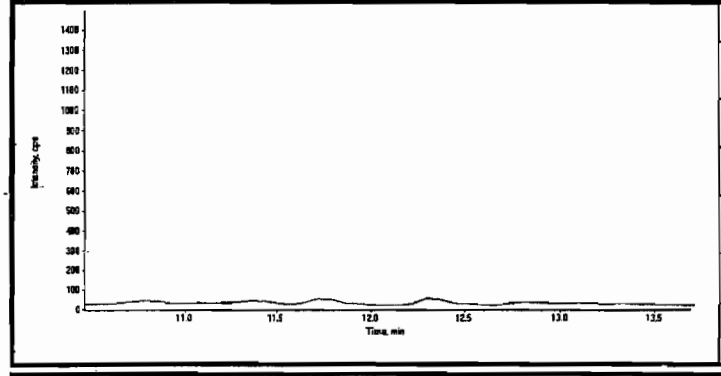

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

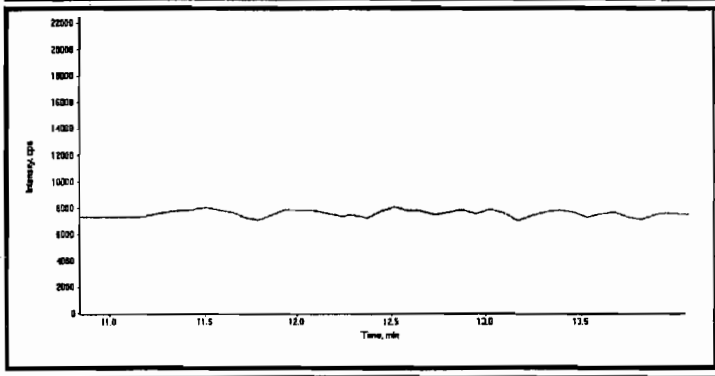

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

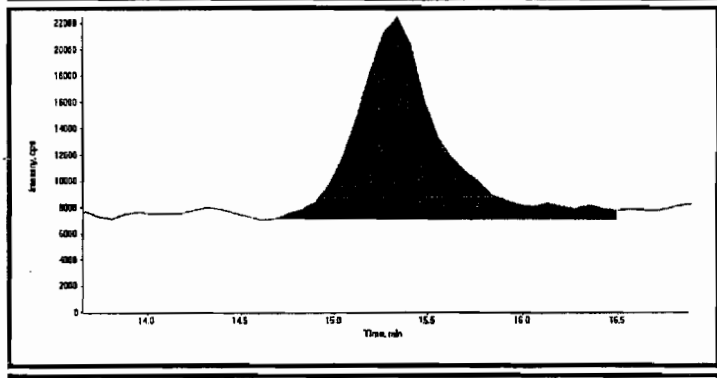

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	4.74e+005
Manual Modification	No
Amount:	3.11 (ng/mL)
% Accuracy:	N/A

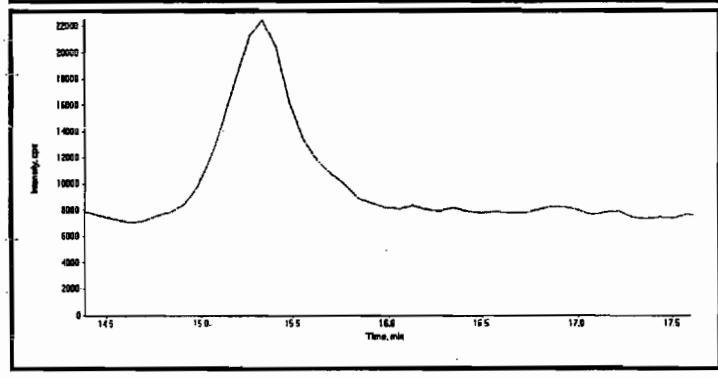

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322031.wiff	**Acquisition Date**	3/23/2010 4:44:58 AM
Sample Name	XIBLK05	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

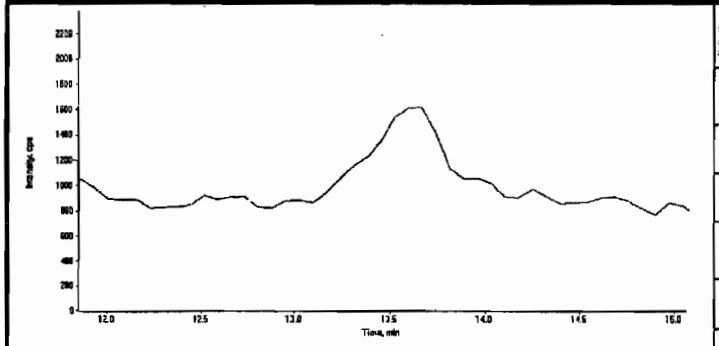

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

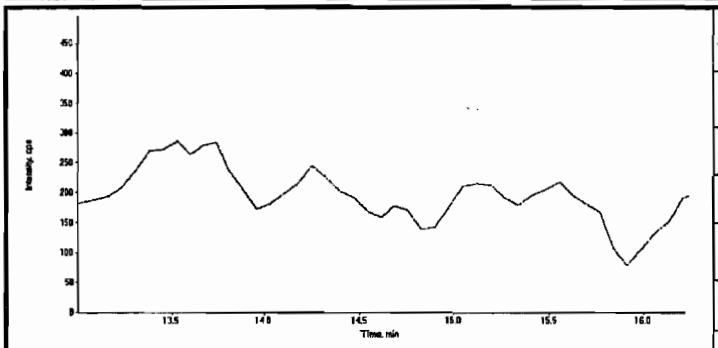

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

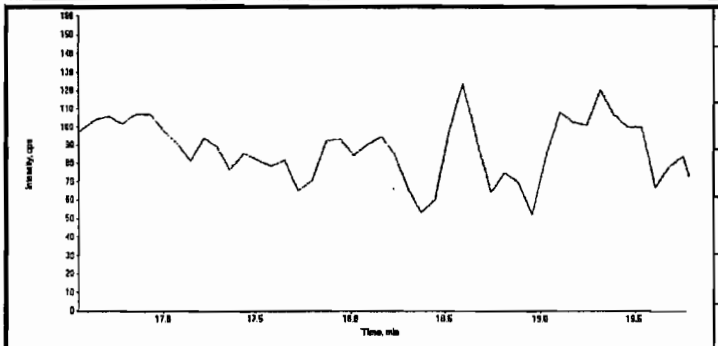

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

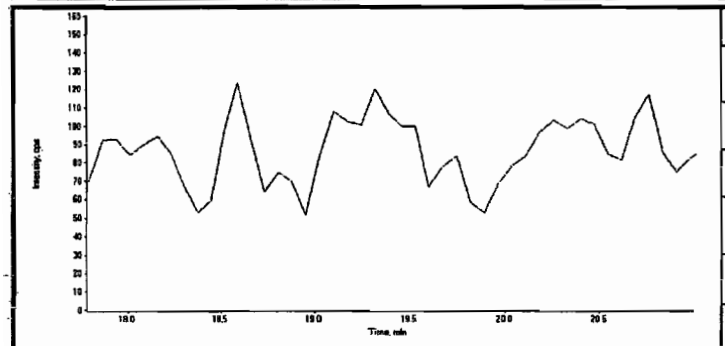

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322031.wiff	**Acquisition Date**	3/23/2010 4:44:58 AM
Sample Name	XIBLK05	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

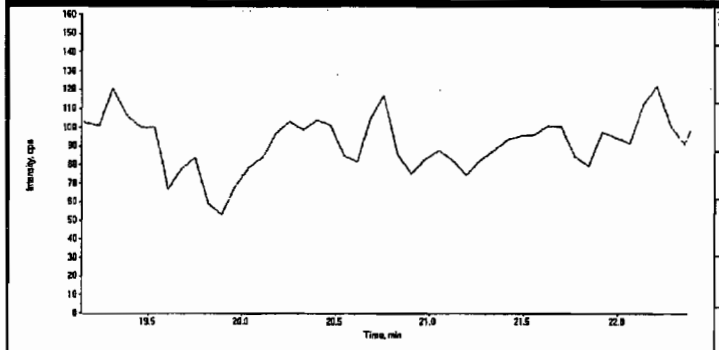

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

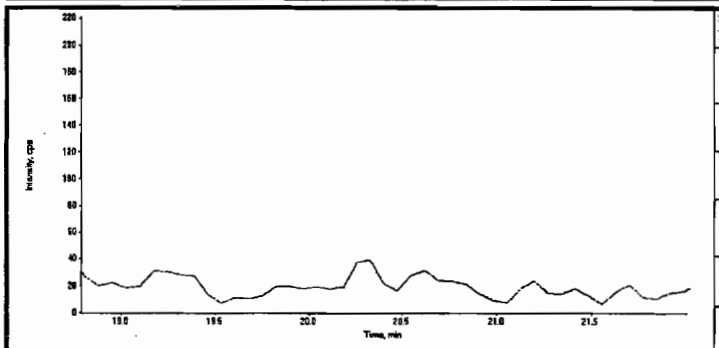

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2000

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 31–MAR–10 11:01

GEL Data File: EXS03310010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	5.19
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

LCER 4/5/10

ple Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS03310010.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/31/2010
Time: 11:01:59 AM

ied: No

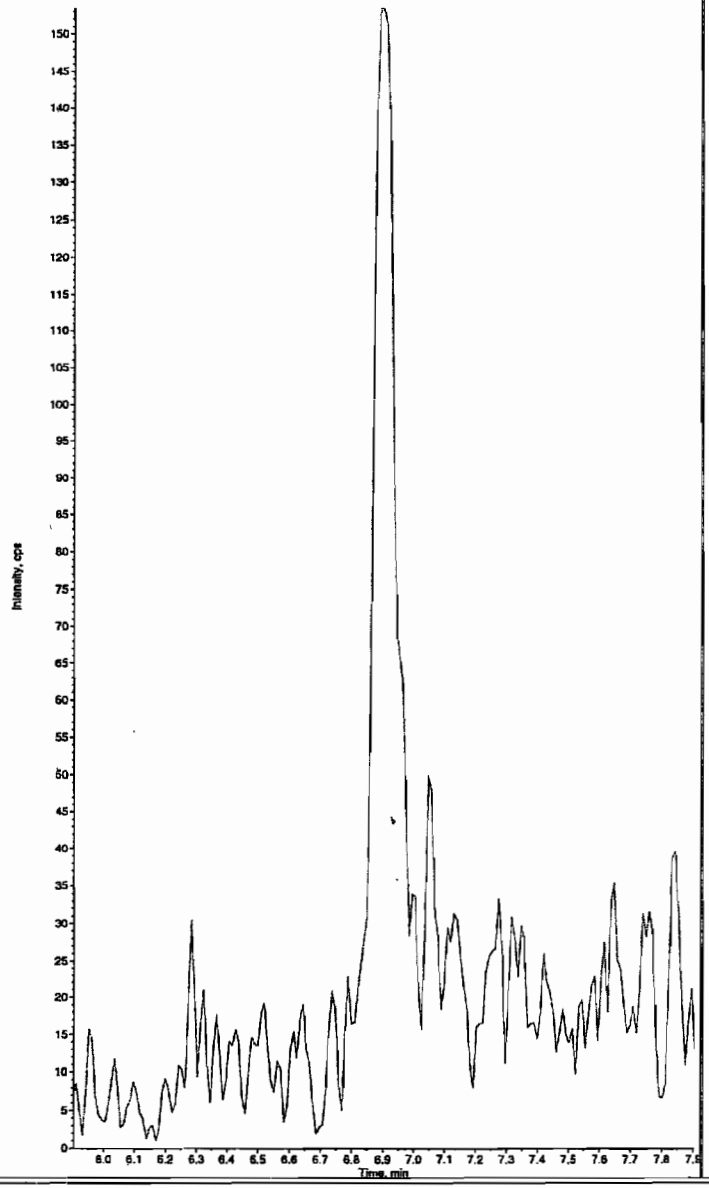

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS03310010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 11:01:59 AM

Modified: No

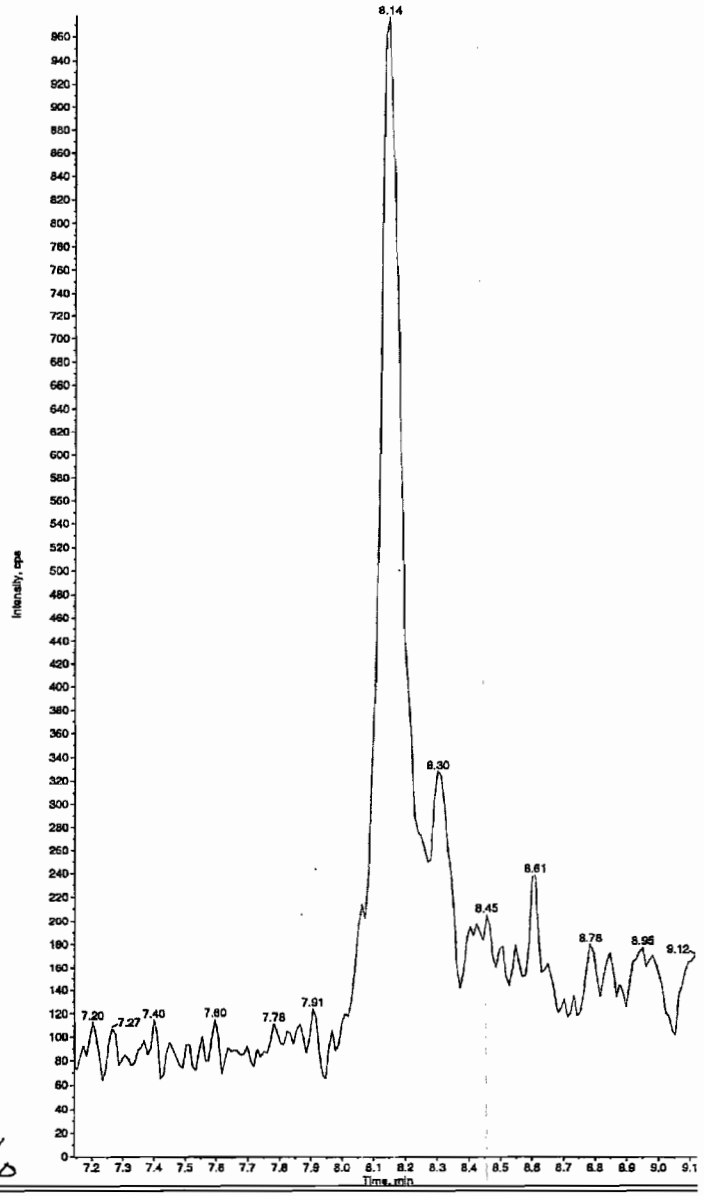

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, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS03310010.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
Date: 3/31/2010
Time: 11:01:59 AM

fied: No

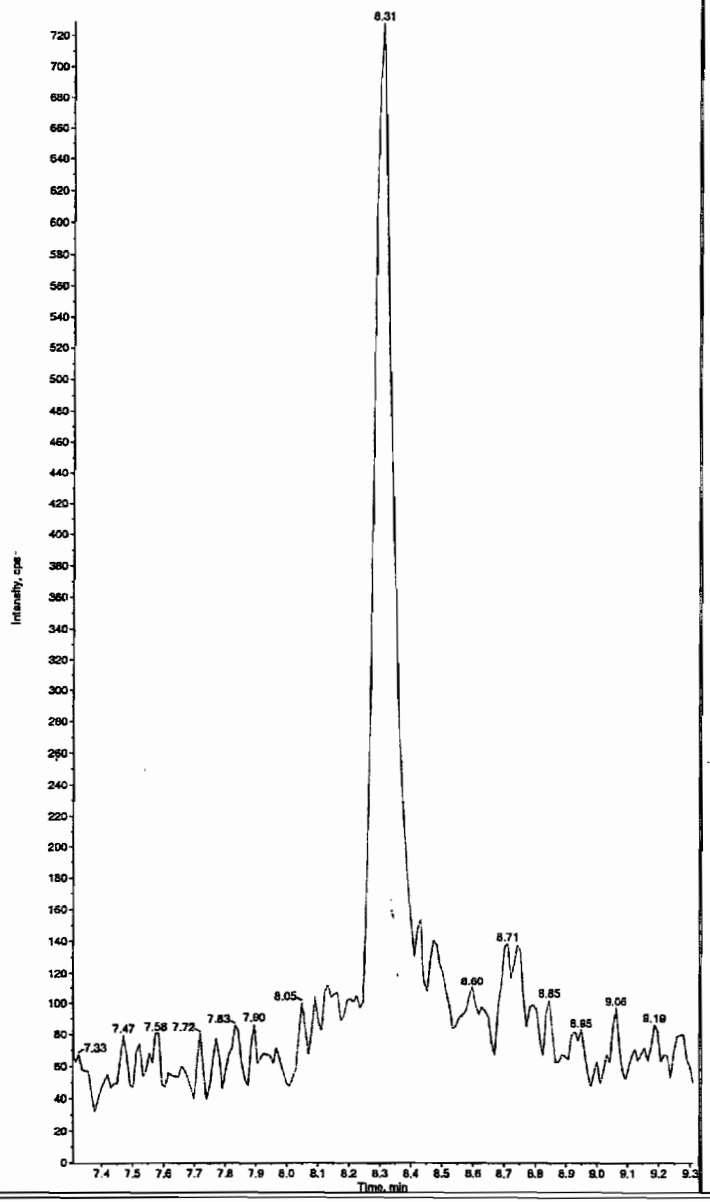

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS03310010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 11:01:59 AM

Modified: No

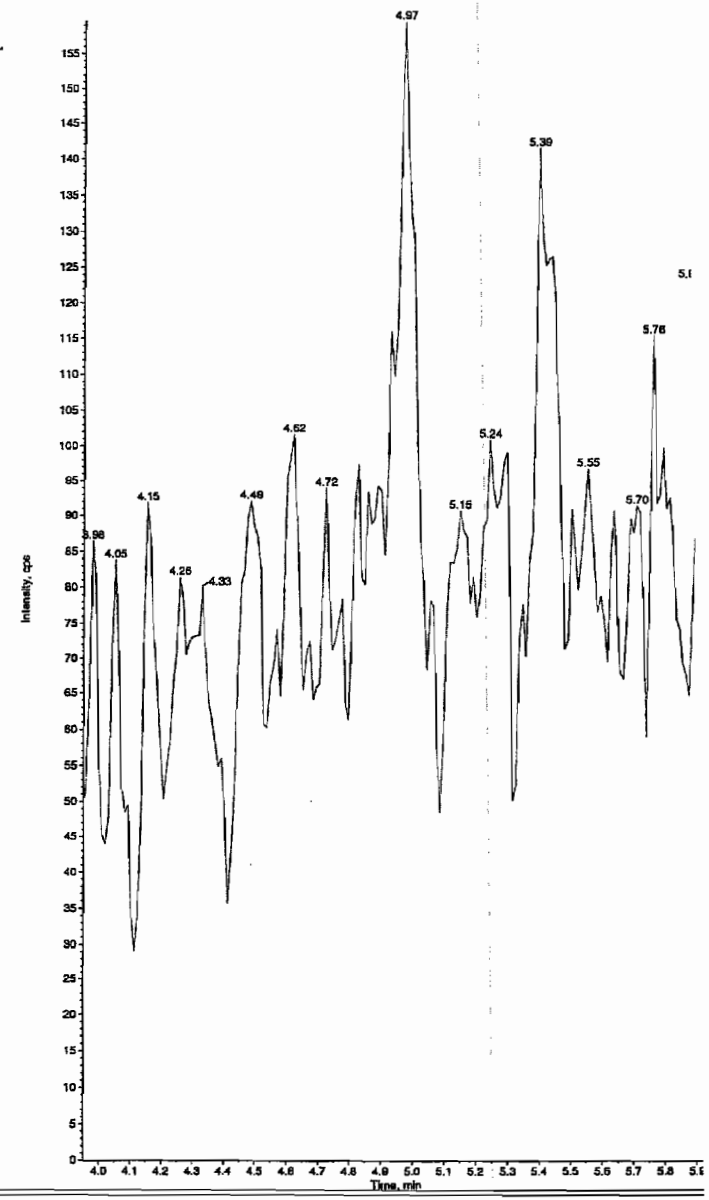

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS03310010.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_B" Annotation: ""
.e Index: 1
.e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/31/2010
Time: 11:01:59 AM

ied: No

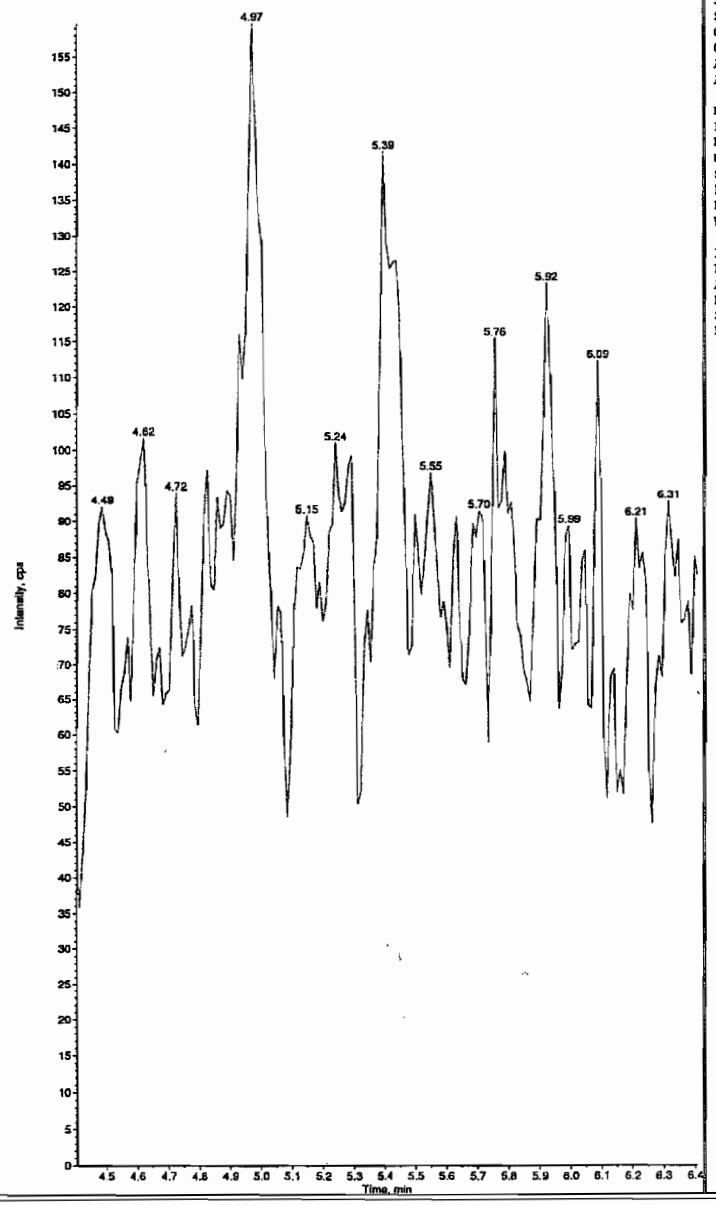

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS03310010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 5.19 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 11:01:59 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 2.49e+005 counts
Height: 59729.159 cps
Start Time: 10.7 min
End Time: 11.1 min

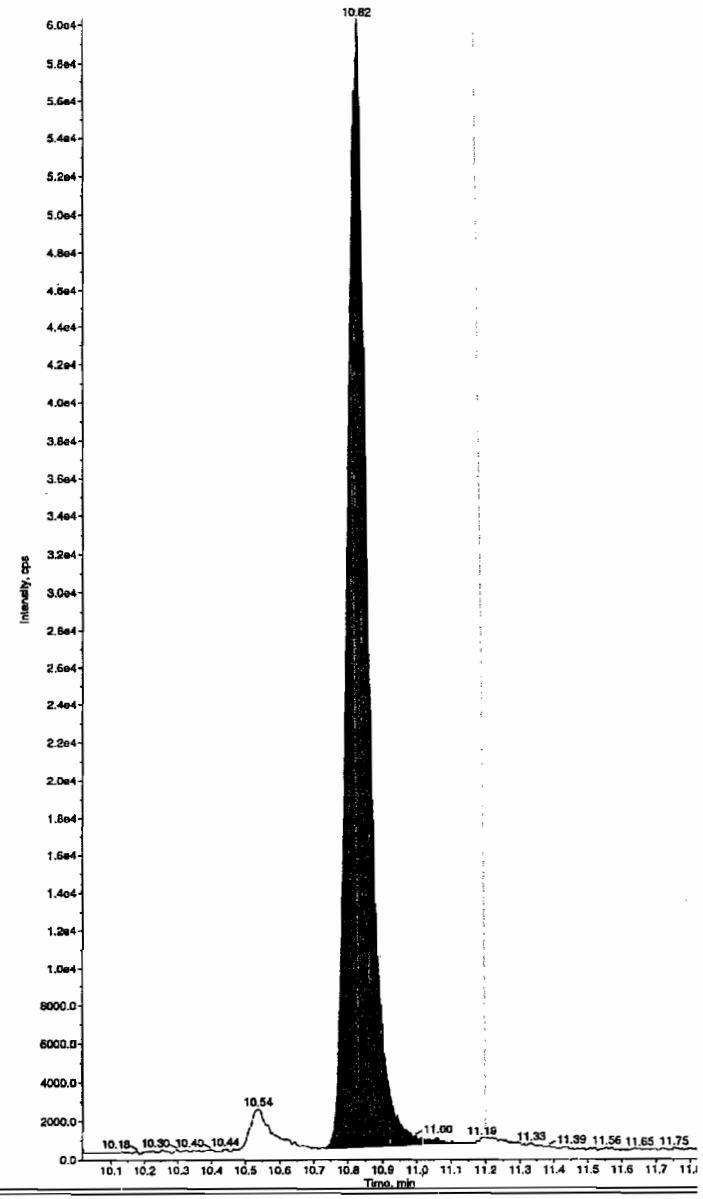

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2000

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 31–MAR–10 11:33

GEL Data File: EXS03310012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	.384
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

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ple Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS03310012.wiff"
: Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/31/2010
Time: 11:33:26 AM

ied: No

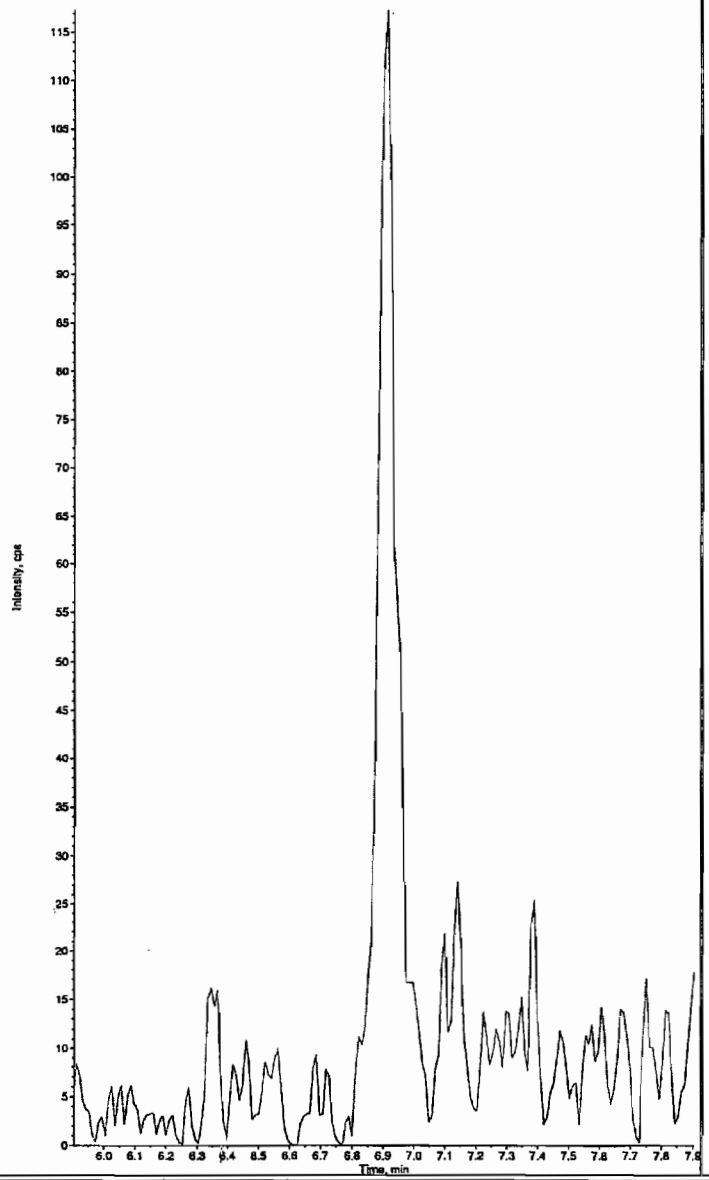

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS03310012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 11:33:26 AM

Modified: No

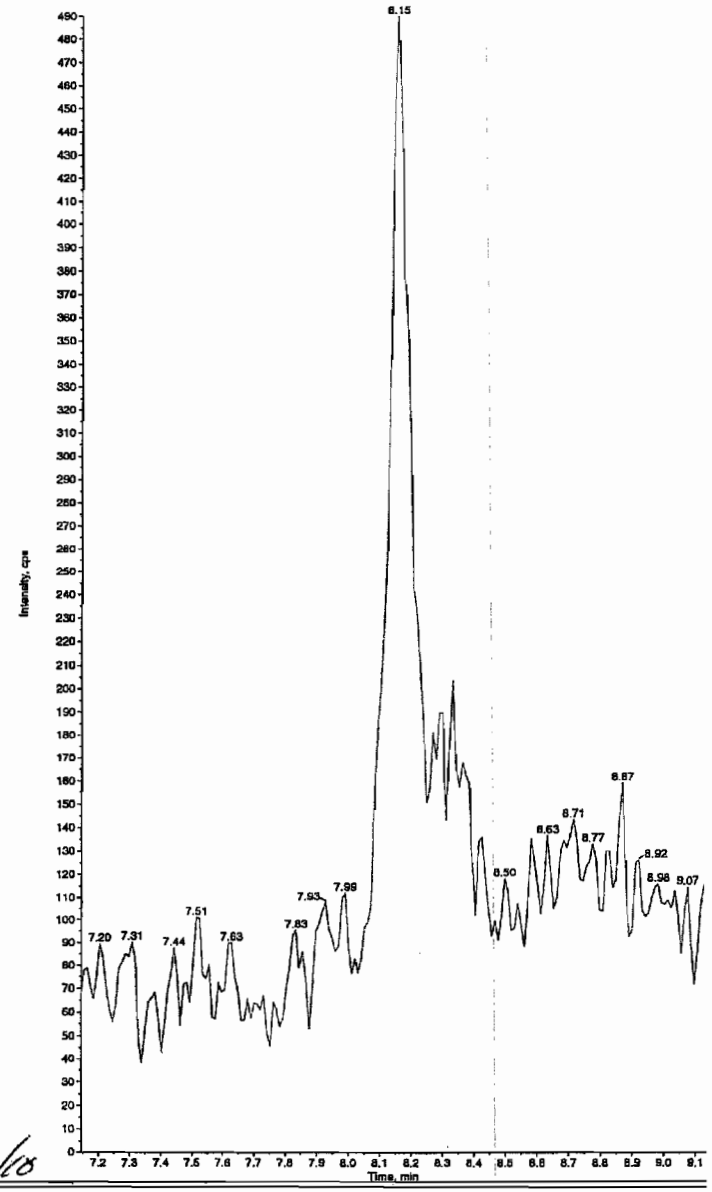

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SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS03310012.wiff"
: Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/31/2010
Time: 11:33:26 AM

ied: No

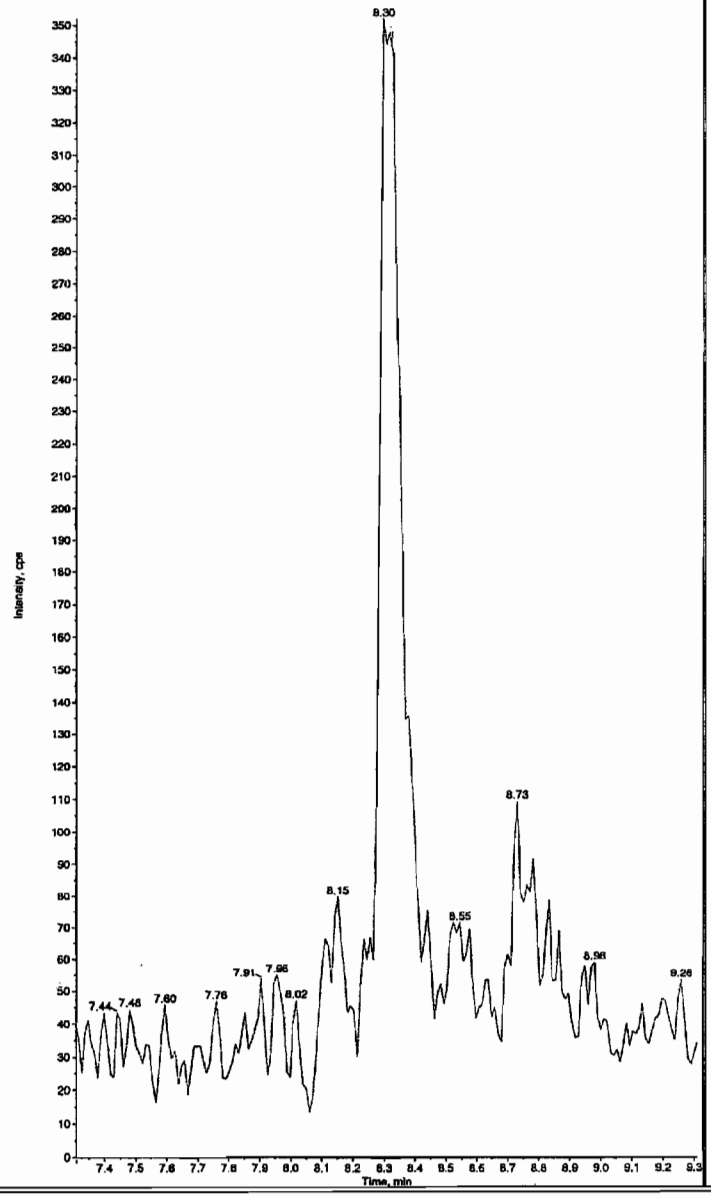

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS03310012.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 11:33:26 AM

Modified: No

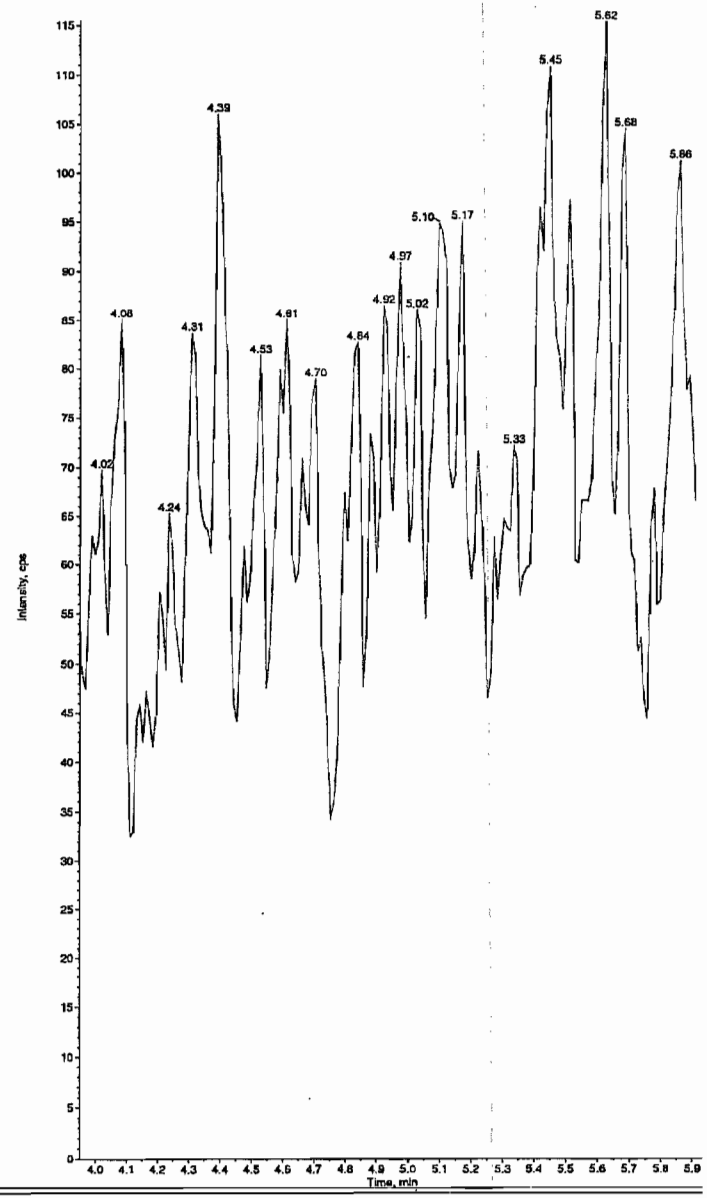

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS03310012.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/31/2010
Time: 11:33:26 AM
ied: No

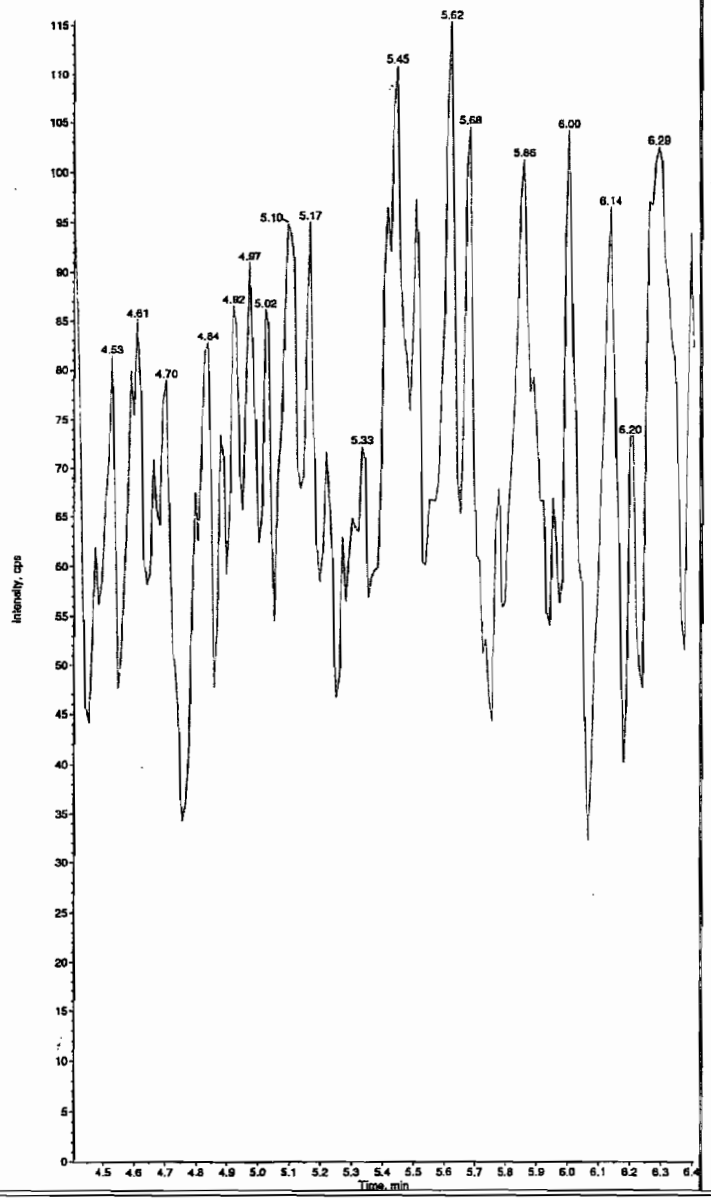

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS03310012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.384 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 11:33:26 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.54e+005 counts
Height: 37054.707 cps
Start Time: 10.7 min
End Time: 11.0 min

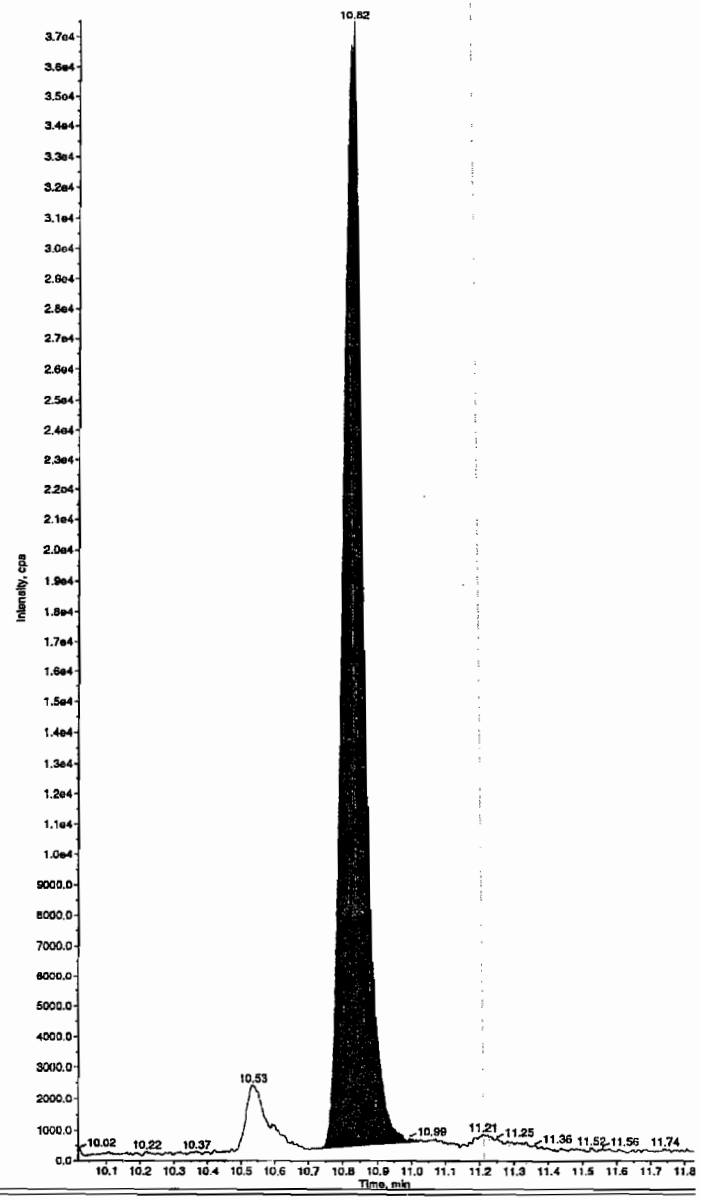

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2000

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 31–MAR–10 14:57

GEL Data File: EXS03310025.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

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ple Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS03310025.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/31/2010
Time: 2:57:37 PM

ied: No

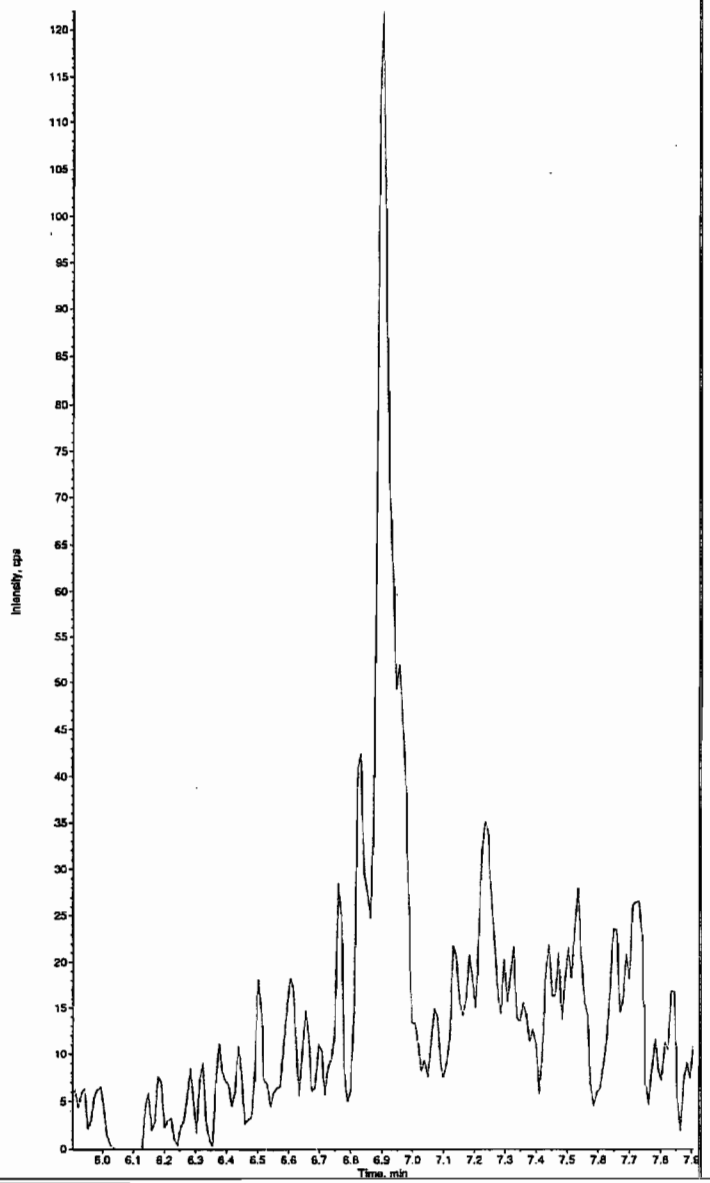

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS03310025.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 2:57:37 PM

Modified: No

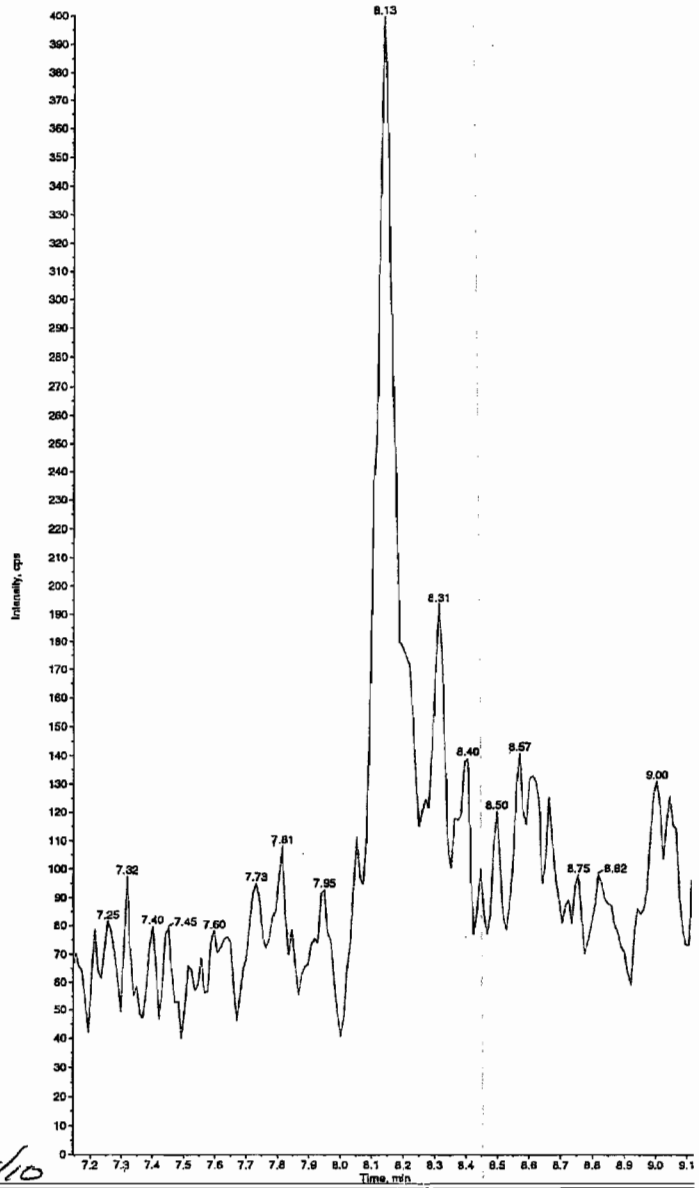

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS03310025.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_B" Annotation: ""
.e Index: 1
.e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/31/2010
Time: 2:57:37 PM
ied: No

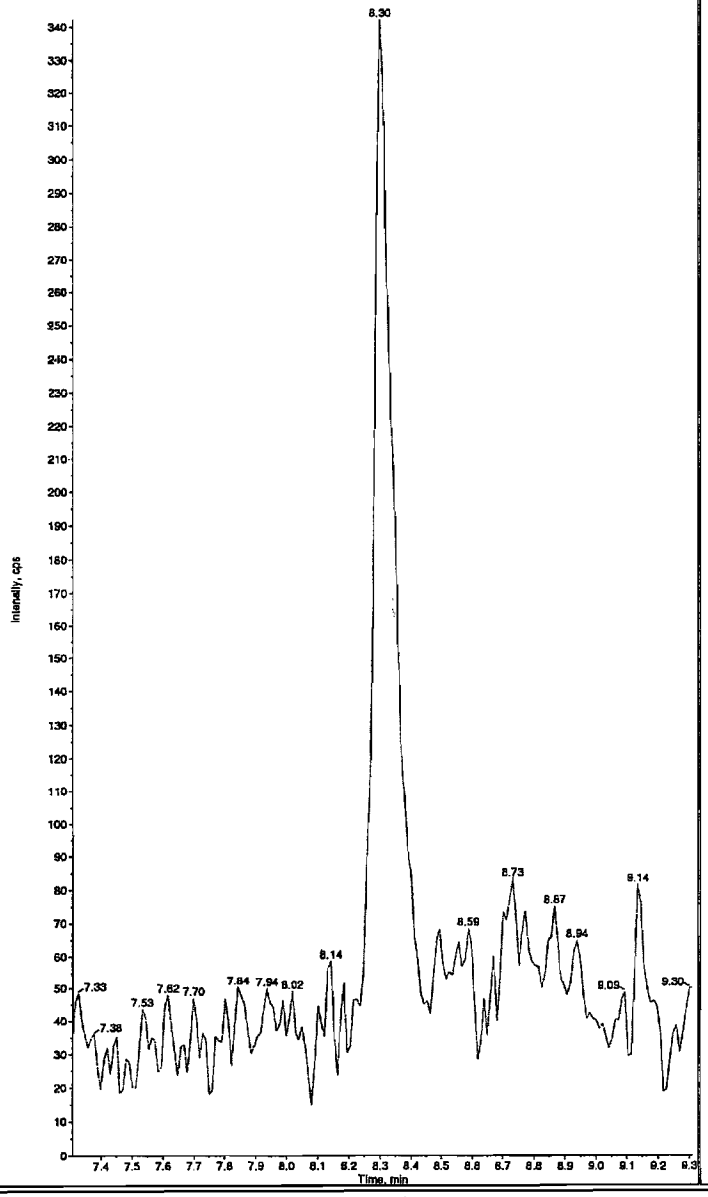

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS03310025.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 2:57:37 PM

Modified: No

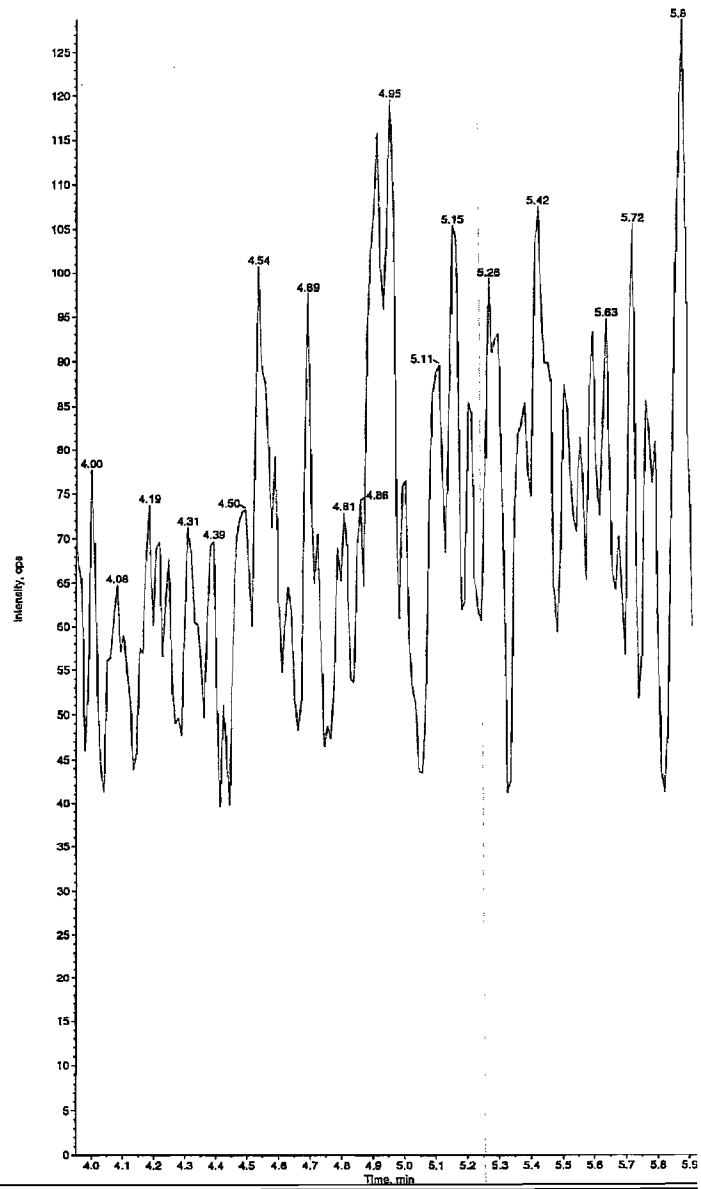

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

nple Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS03310025.wiff"
ik Name: "24-Diamino-6-nitrotoluene" Mass(es): "165.0/46.0 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ilated Conc: 0.00 ng/mL
Date: 3/31/2010
Time: 2:57:37 PM

fied: No

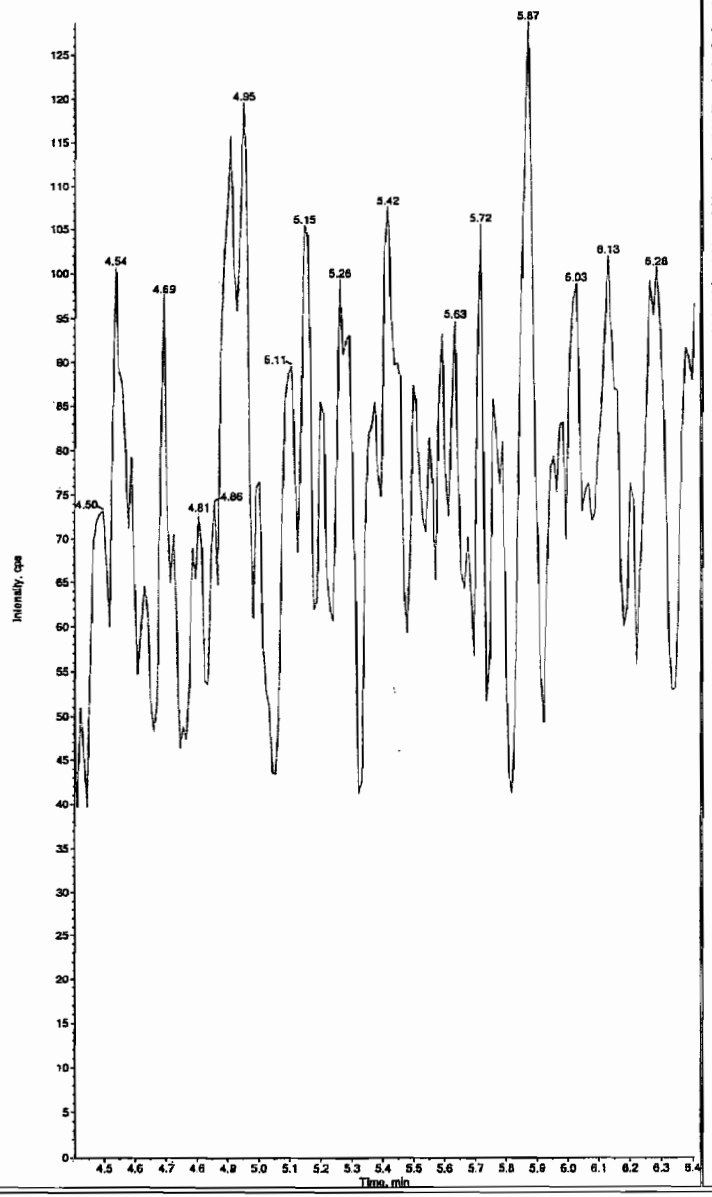

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS03310025.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	No Intercept	
Acq. Date:	3/31/2010	
Acq. Time:	2:57:37 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.8	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.8	min
Area:	1.23e+005	counts
Height:	29190.617	cps
Start Time:	10.7	min
End Time:	11.0	min

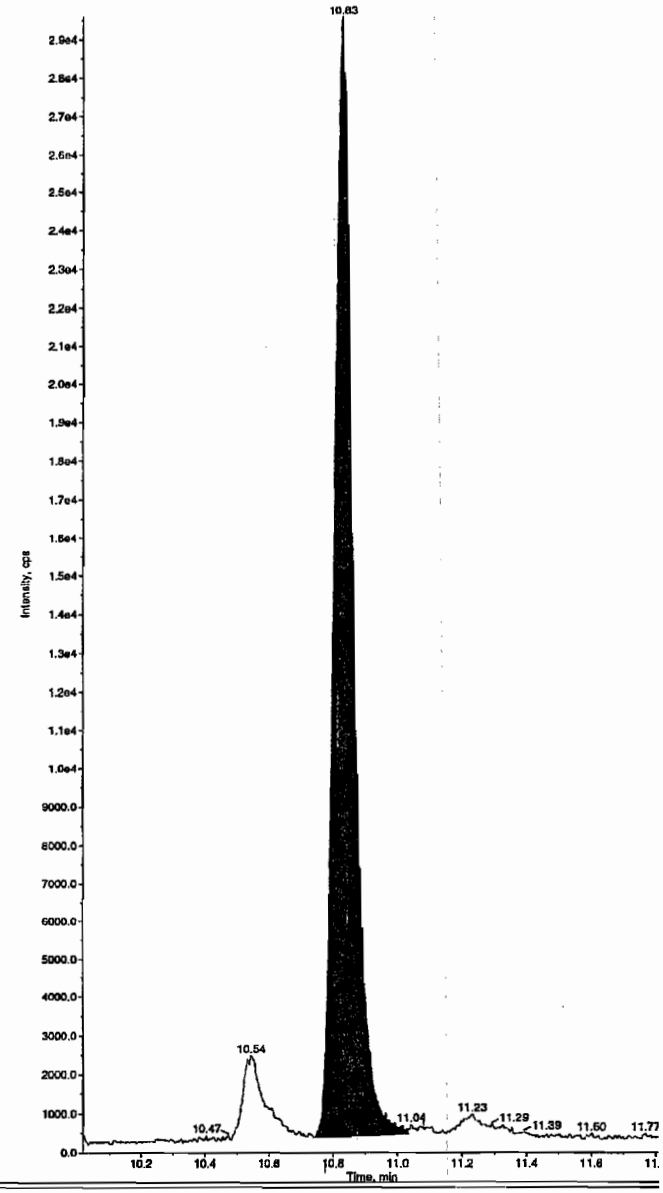

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2000

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 31–MAR–10 18:06

GEL Data File: EXS03310037.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Scan 4/5/10

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mple Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS03310037.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 3/31/2010
Time: 6:06:13 PM

fied: No

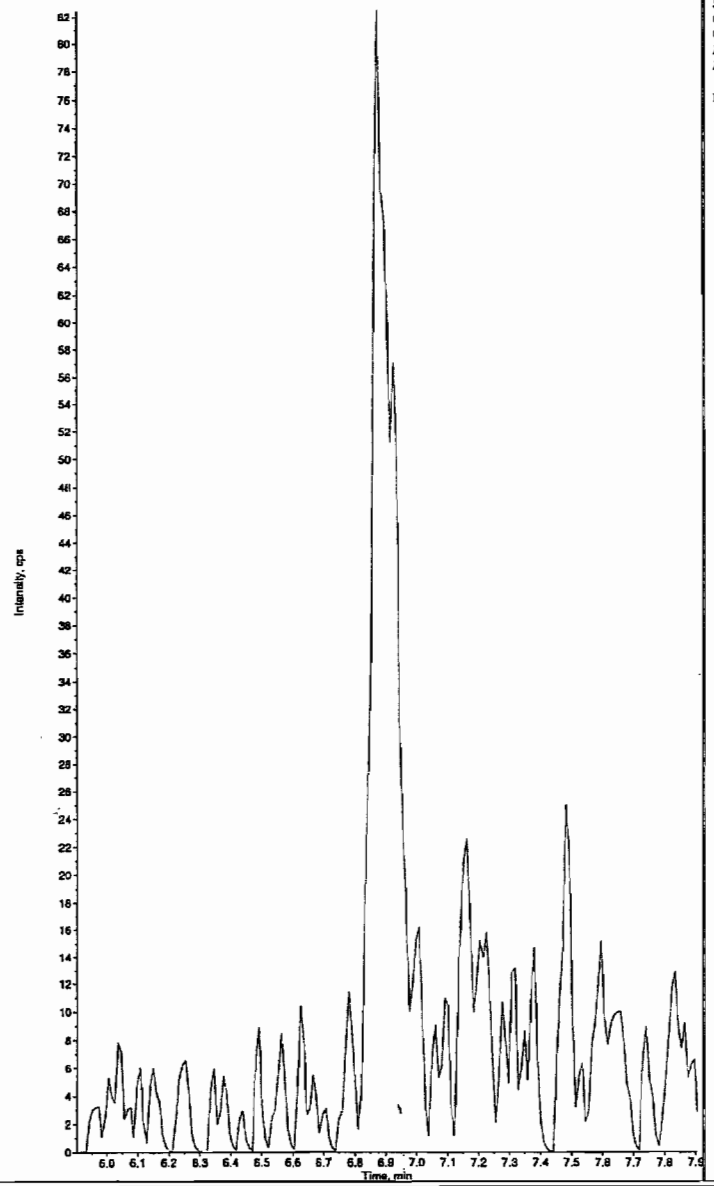

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS03310037.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 6:06:13 PM

Modified: No

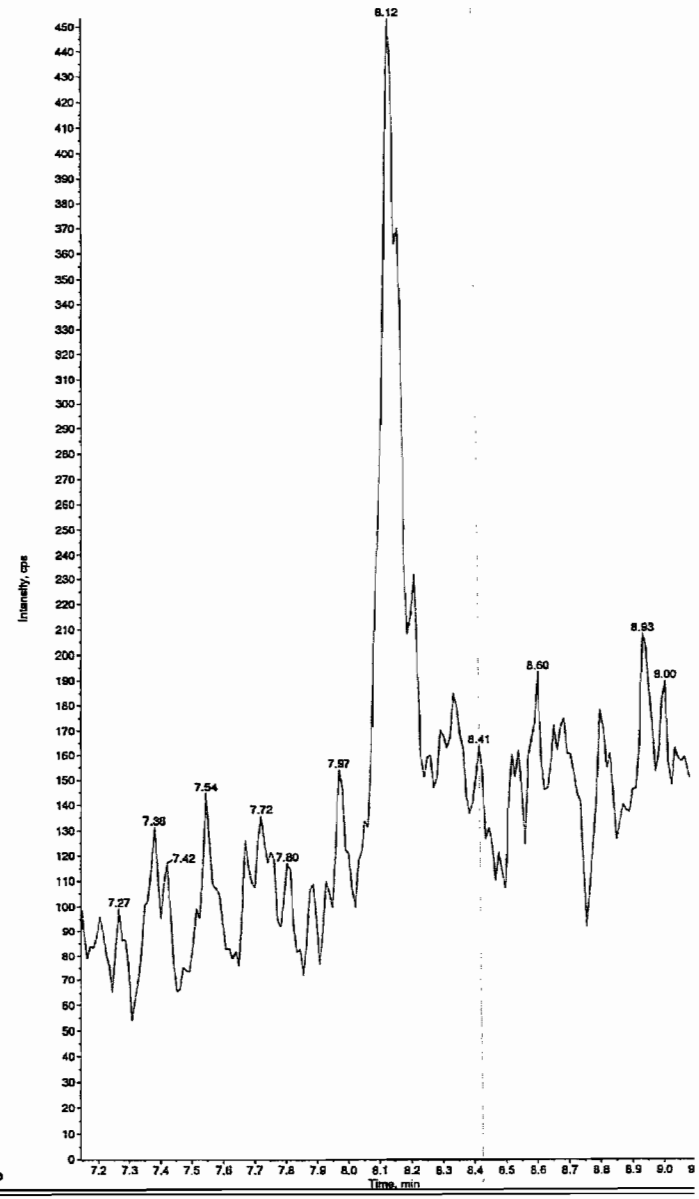

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

mple Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS03310037.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 3/31/2010
Time: 6:06:13 PM

fied: No

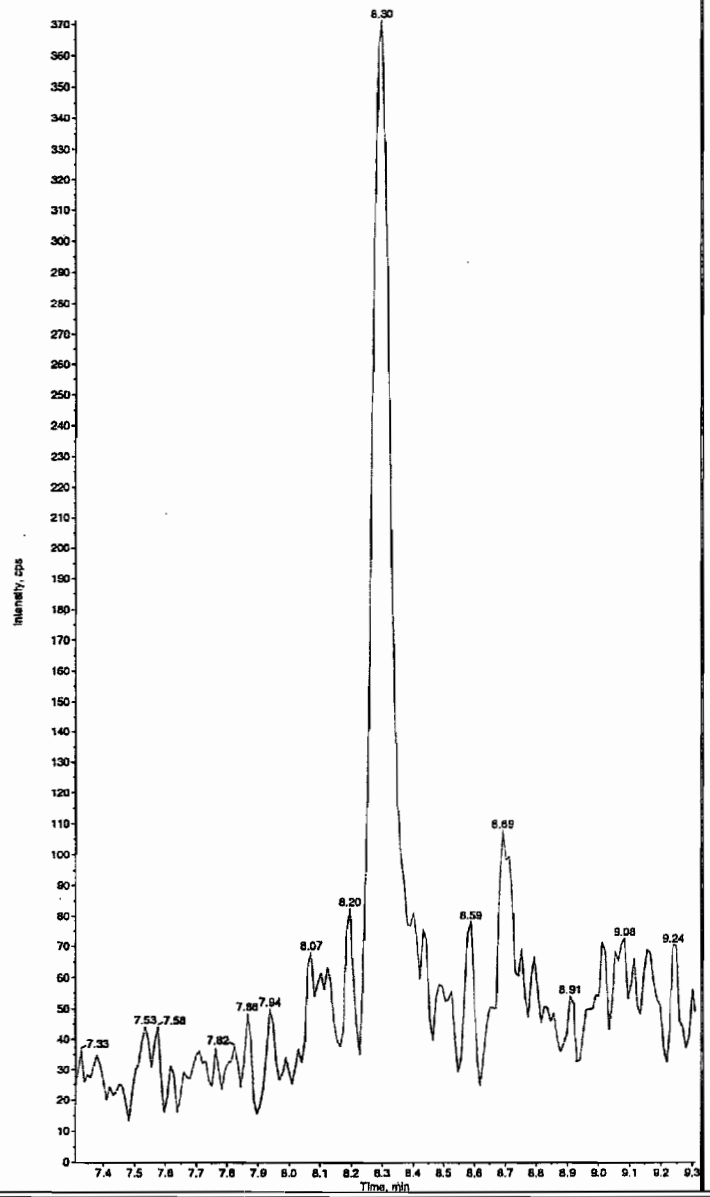

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS03310037.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "165.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 6:06:13 PM

Modified: No

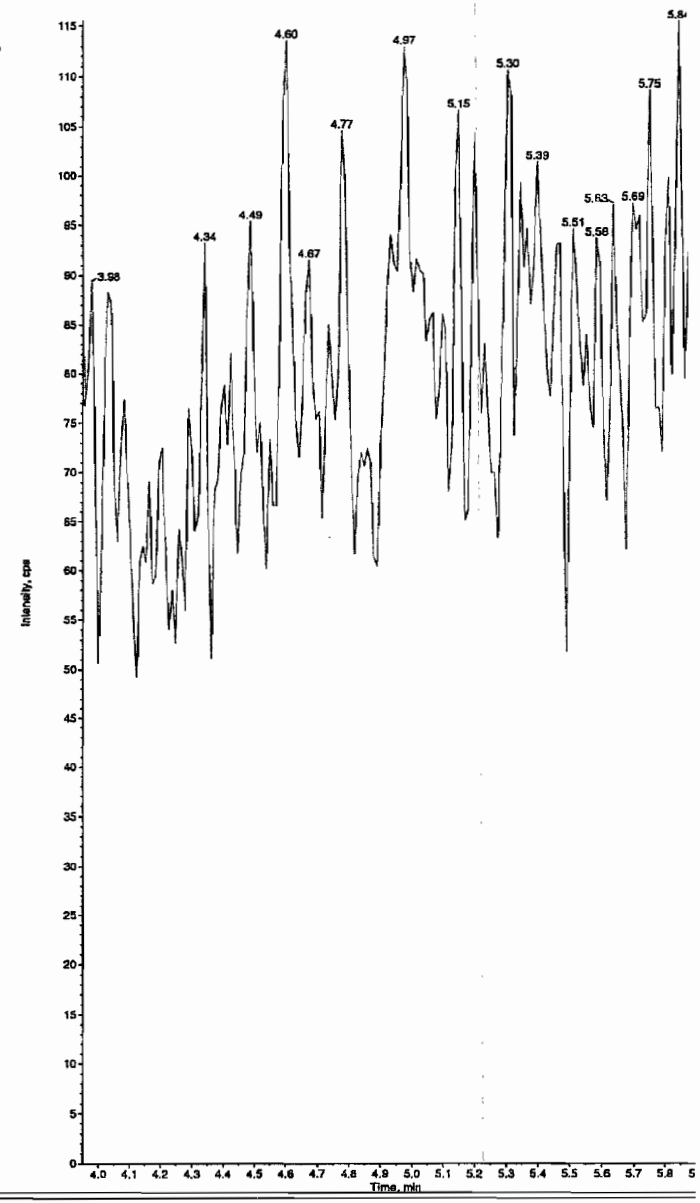

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS03310037.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/31/2010
. Time: 6:06:13 PM

ified: No

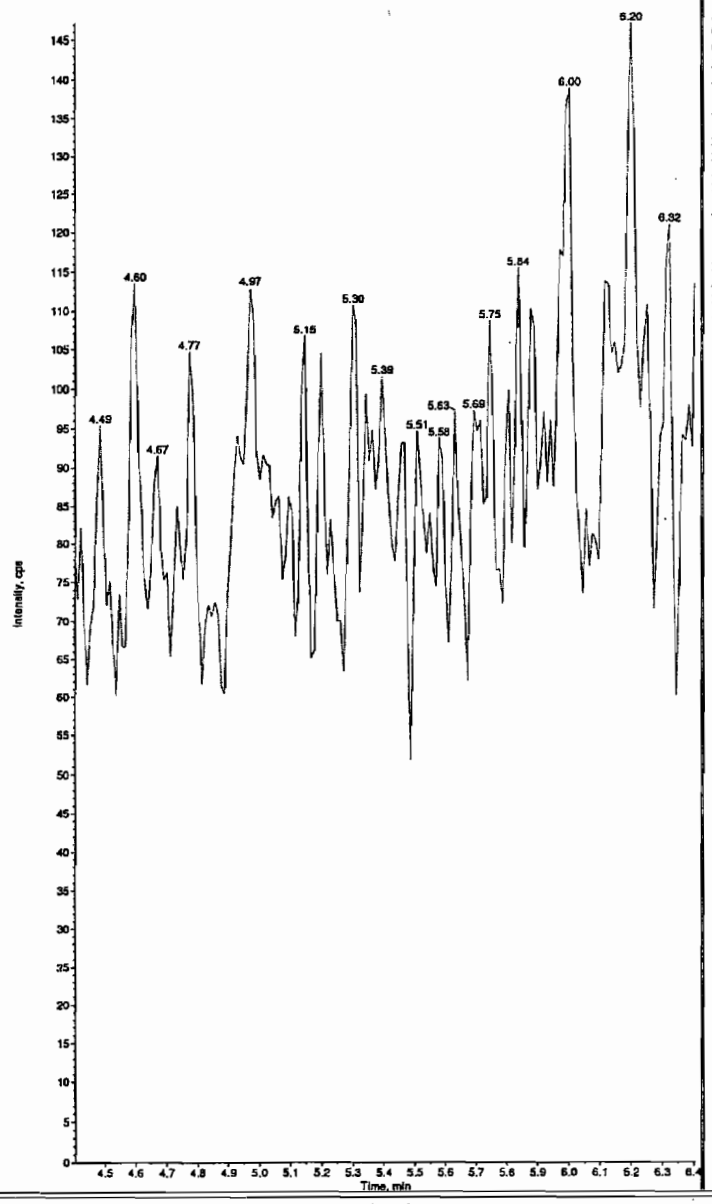

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS03310037.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/31/2010
Acq. Time: 6:06:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.20e+005 counts
Height: 28429.373 cps
Start Time: 10.7 min
End Time: 11.0 min

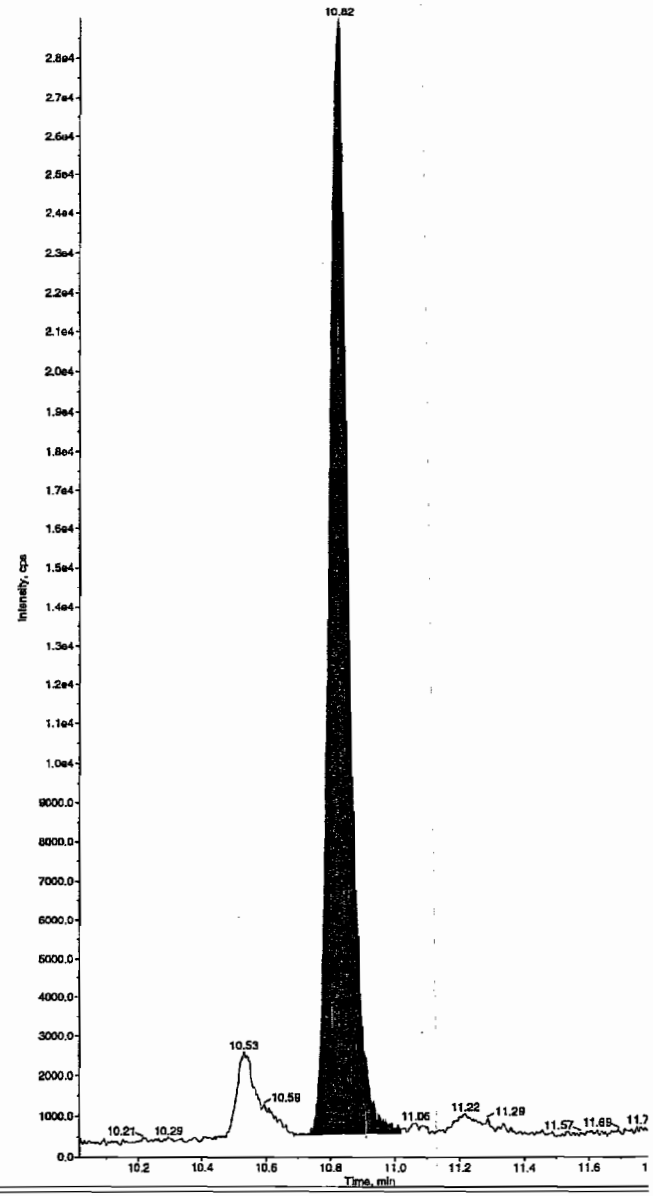

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2000

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 31–MAR–10 21:14

GEL Data File: EXS03310049.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lar 4/5/10

Sample Name: "X!BLK06" Sample ID: "|1|LER" File: "EXS03310049.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 3/31/2010
cq. Time: 9:14:49 PM

odified: No

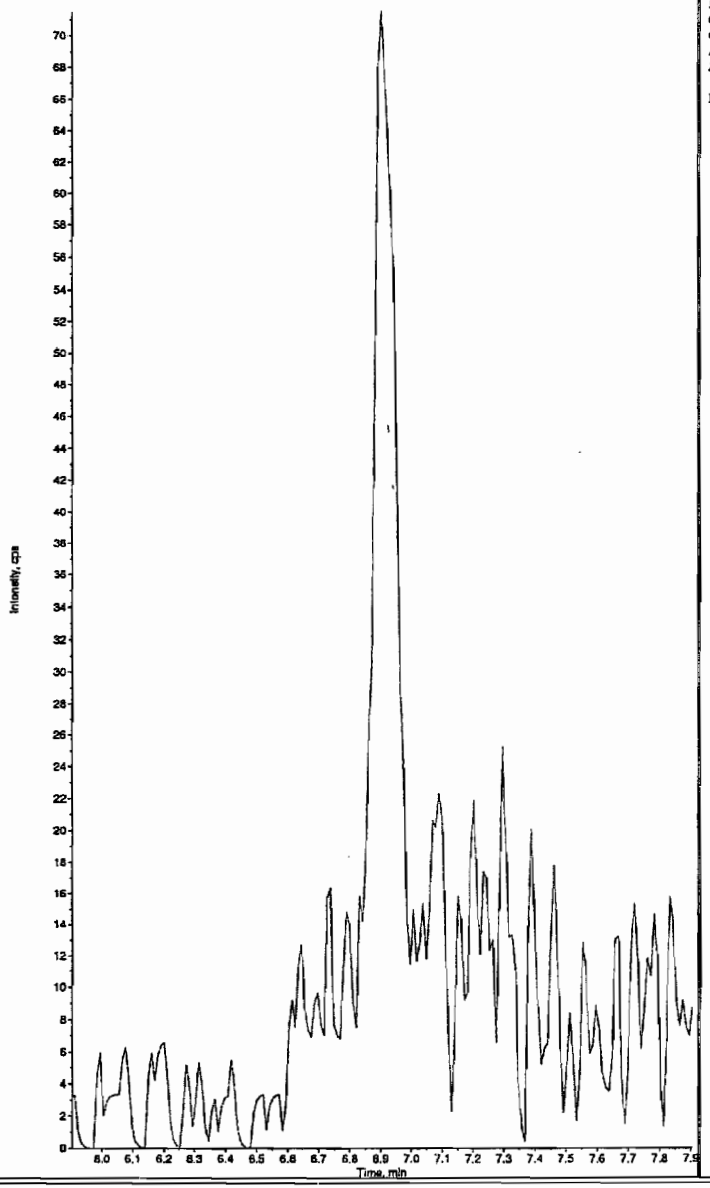

Sample Name: "X!BLK06" Sample ID: "|1|LER" File: "EXS03310049.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:14:49 PM

Modified: No

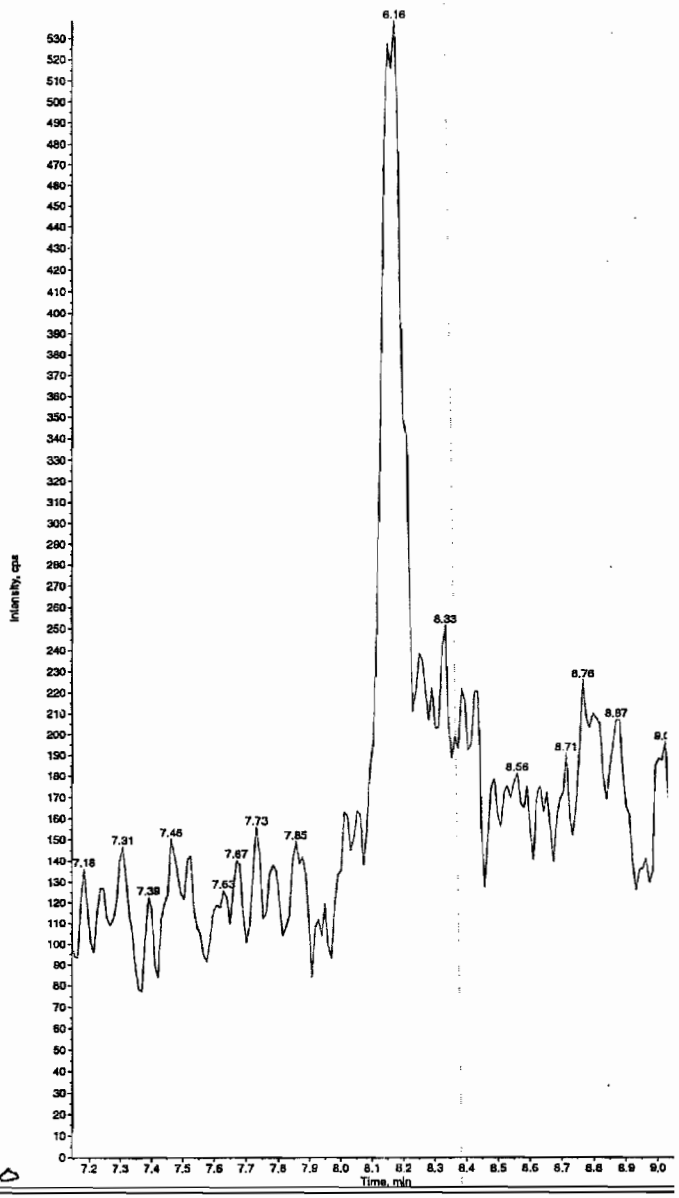

HM 04/05/10

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Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS03310049.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 3/31/2010
q. Time: 9:14:49 PM

ified: No

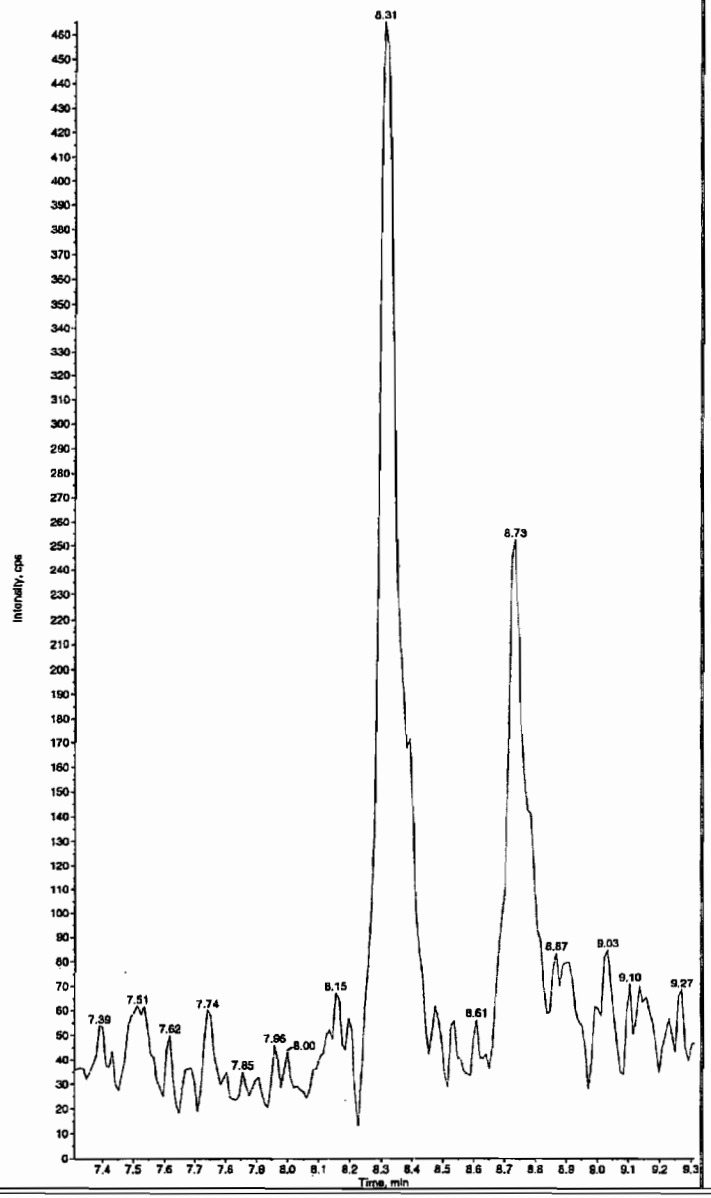

Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS03310049.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:14:49 PM

Modified: No

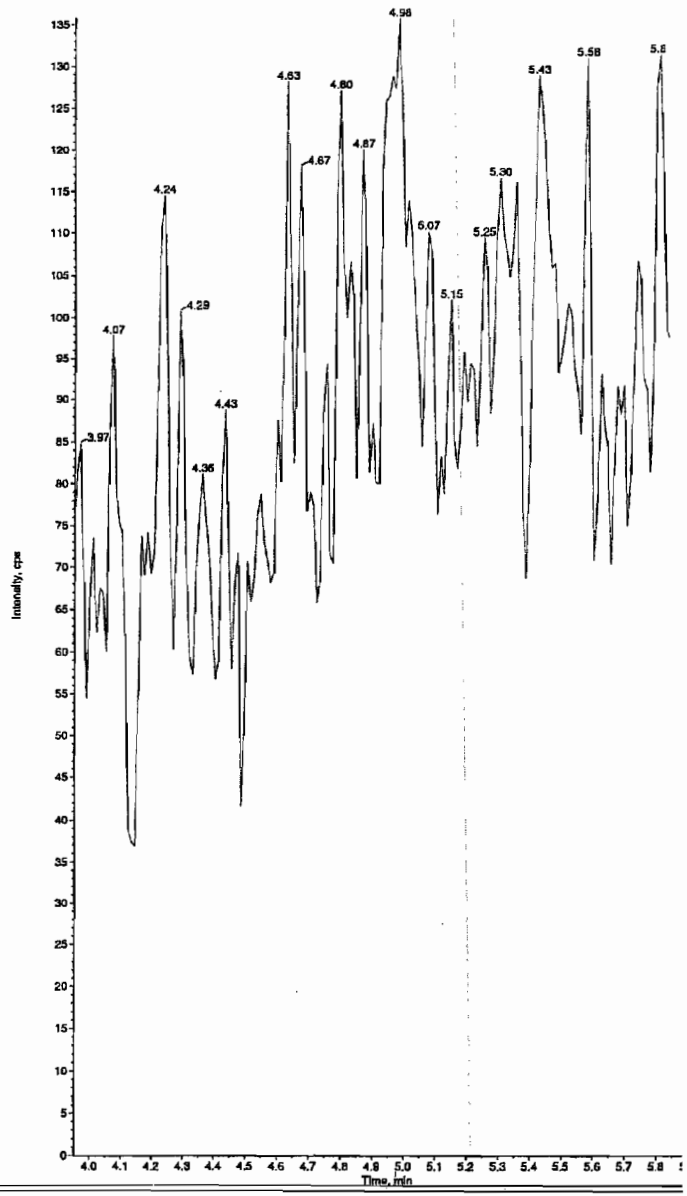

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS03310049.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
mple Index:        1
mple Type:       Unknown
ncentration:       N/A
lculated Conc:     0.00     ng/mL
q. Date:         3/31/2010
q. Time:         9:14:49 PM

dified:            No
```

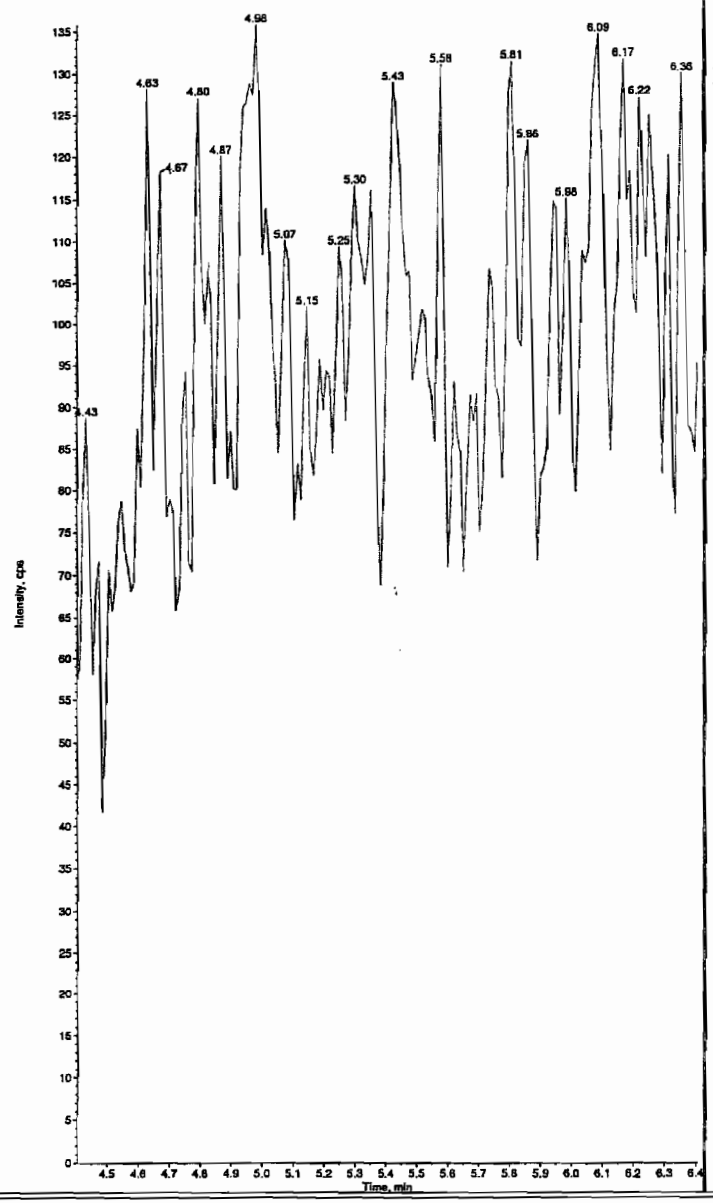

Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS03310049.wiff"
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
Sample Index:        1
Sample Type:       Unknown
Concentration:       N/A
Calculated Conc:     < 0
Acq. Date:         3/31/2010
Acq. Time:         9:14:49 PM

Modified:            No
Proc. Algorithm:   IntelliQuan - IQA
Min. Peak Height:  8000.00    cps
Min. Peak Width:      0.00    sec
Smoothing Width:   3          points
RT Window:           30.0     sec
Expected RT:         10.8     min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      10.8     min
Area:          1.37e+005     counts
Height:        32658.234     cps
Start Time:          10.8     min
End Time:            11.0     min
```

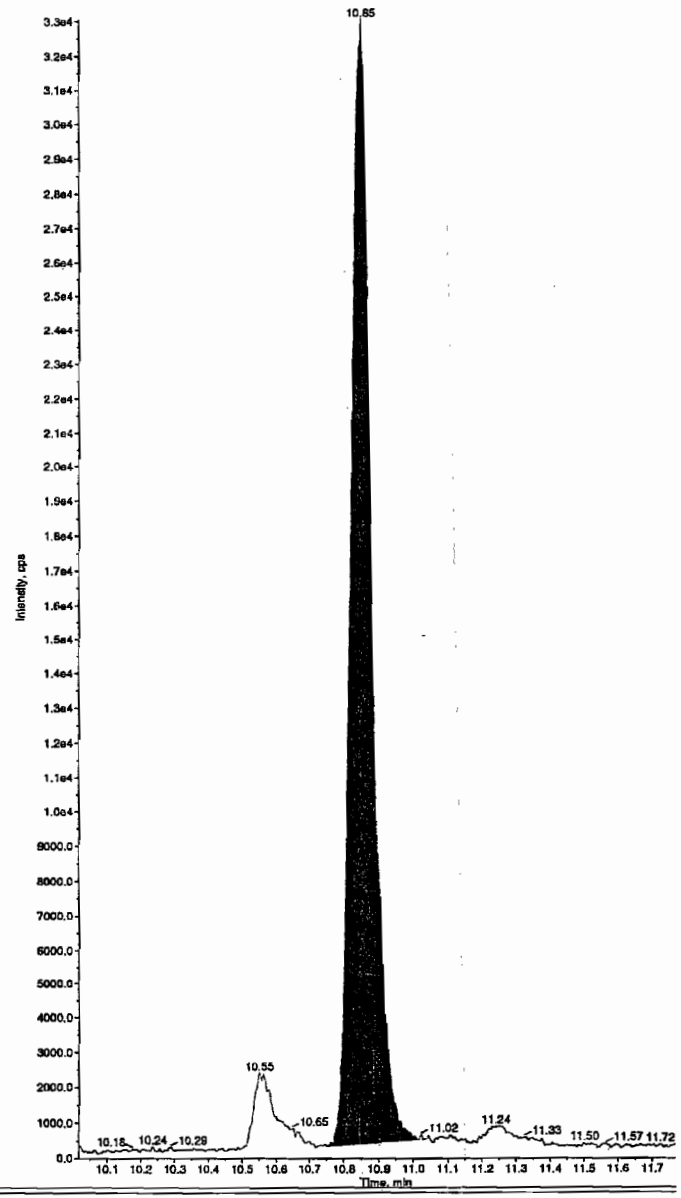

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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Calibration Report - MS1 Static

Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

15 matches of 15 tested references

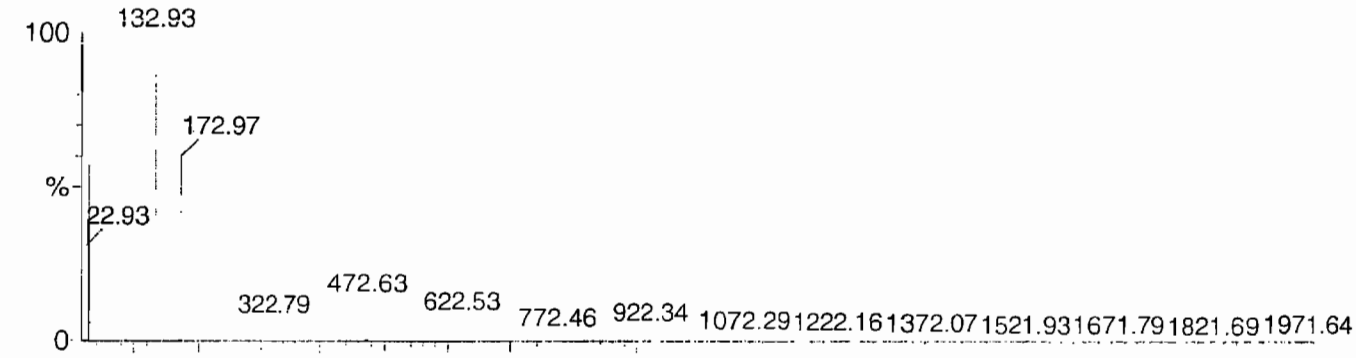

Reference file: Naics2

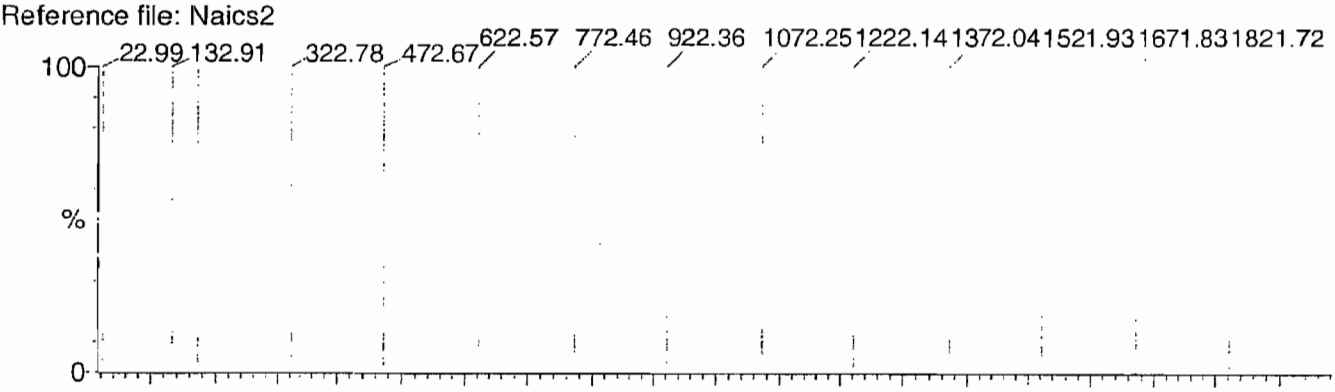

Mass difference (Raw - Ref mass)

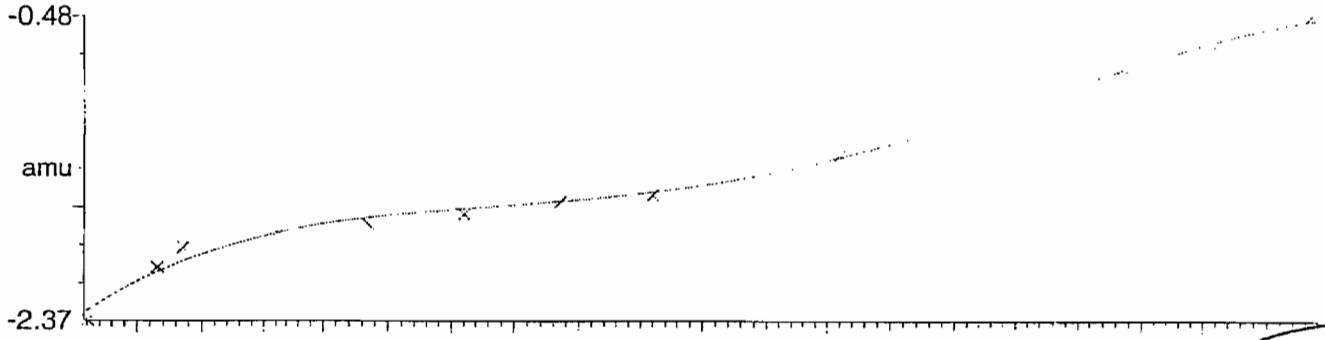

Residuals

Mean residual = -1.673470e-9 ± 0.036953

ok
lm

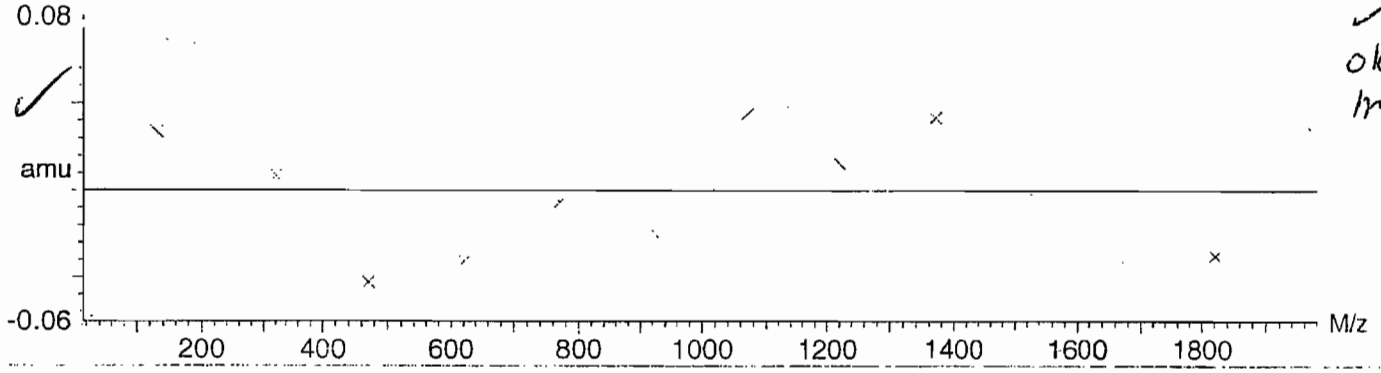

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Calibration Report - MS1 Scanning

Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

15 matches of 15 tested references

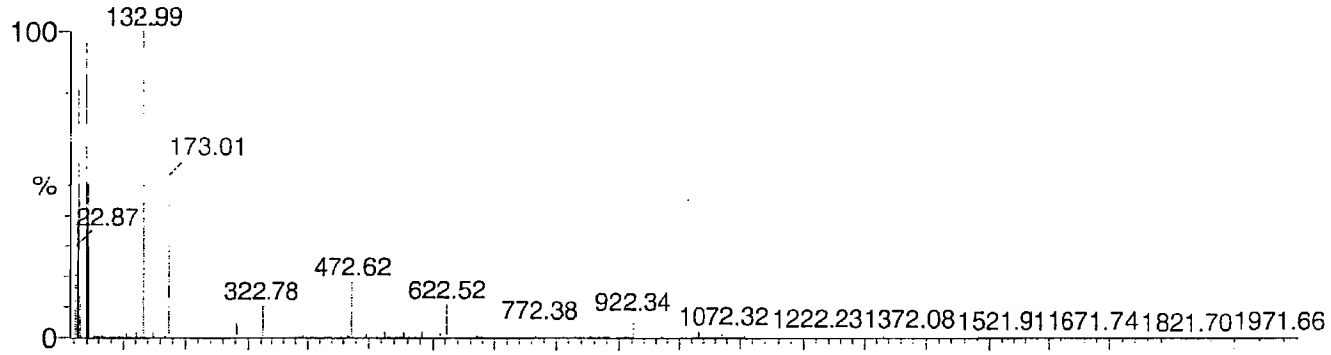

Reference file: Naics2

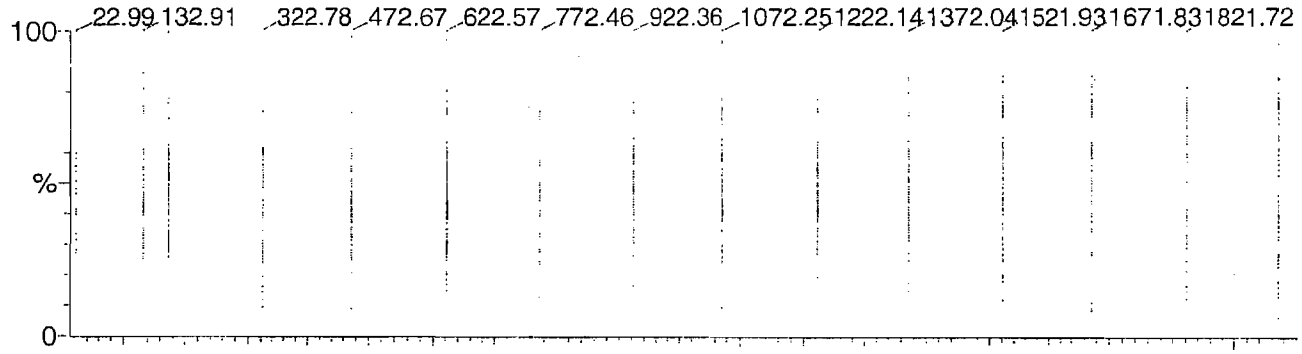

Mass difference (Raw - Ref mass)

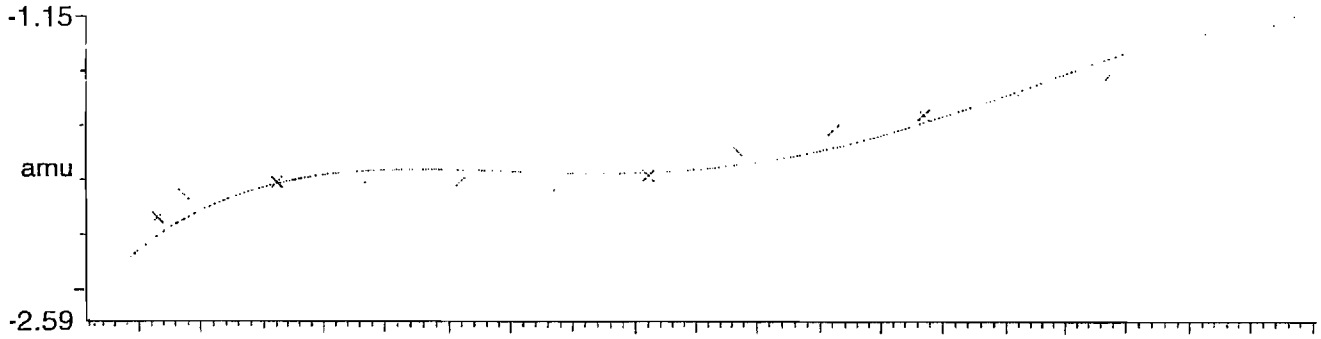

Residuals

Mean residual = -5.432715e-9 ± 0.069858

ok
m

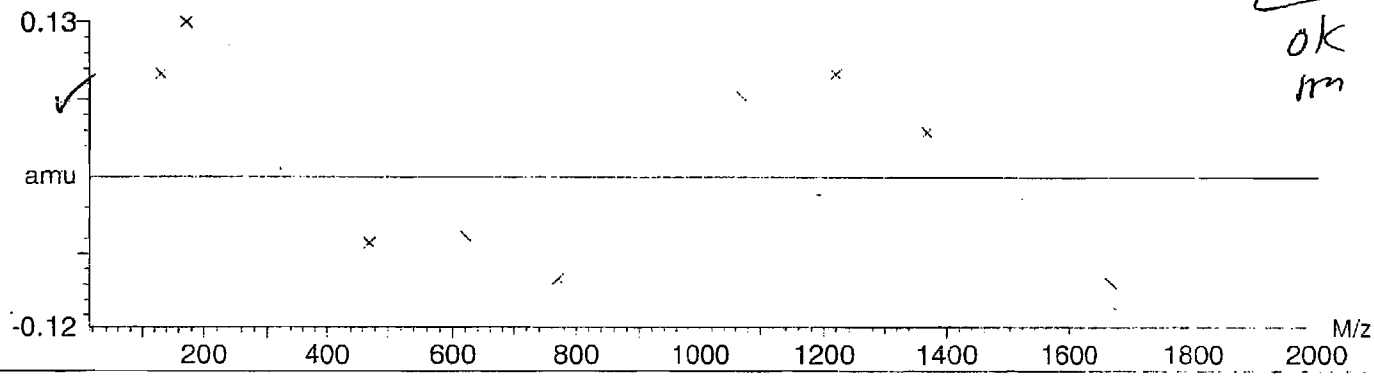

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Calibration Report - MS1 Scan Speed Compensation

Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

15 matches of 15 tested references

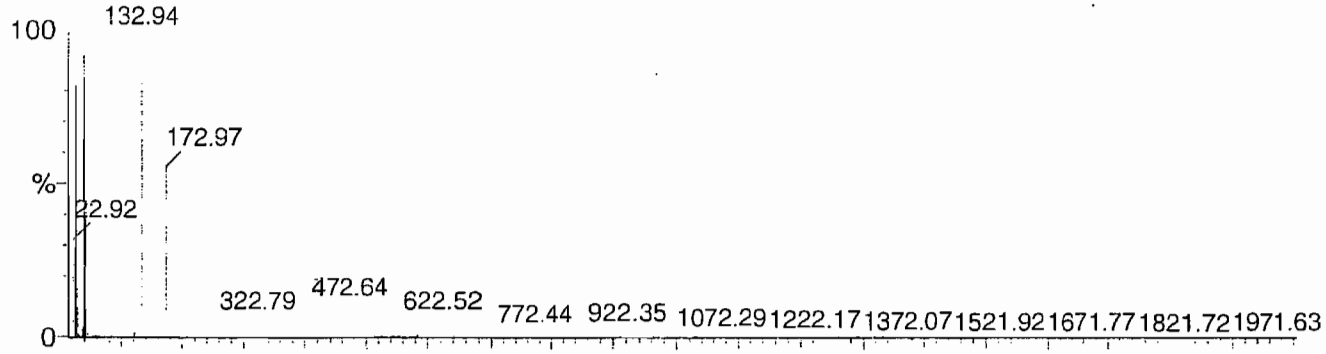

Reference file: Naics2

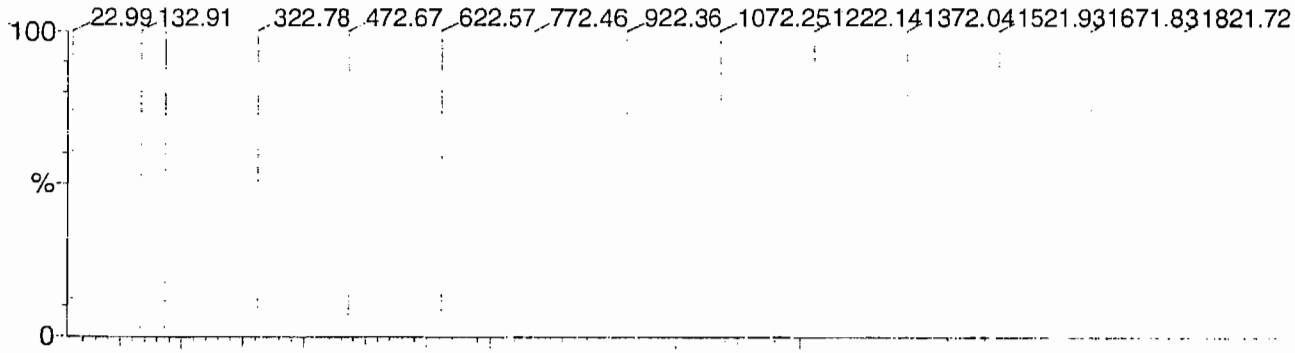

Mass difference (Raw - Ref mass)

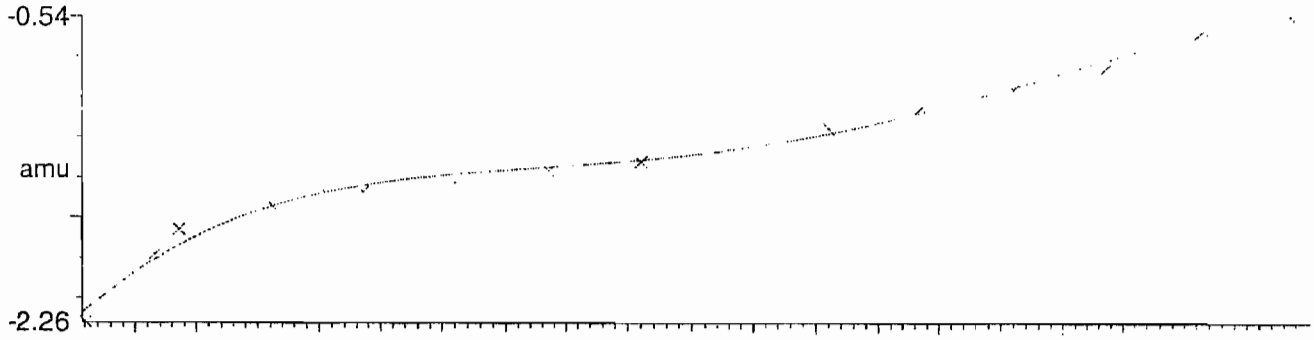

Residuals

Mean residual = 3.486639e-9 ± 0.040487

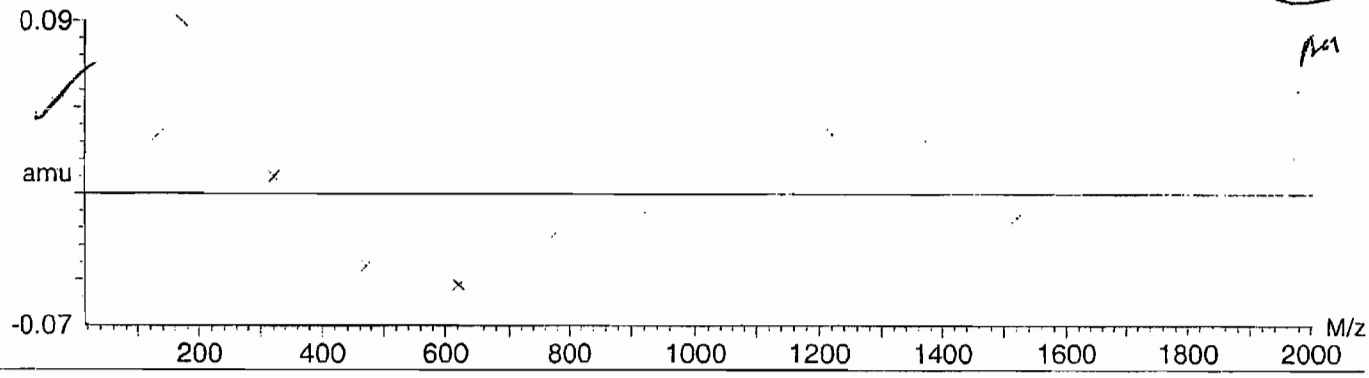

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Calibration Report - MS2 Static

Printed: Fri Aug 25 10:52:54 2006

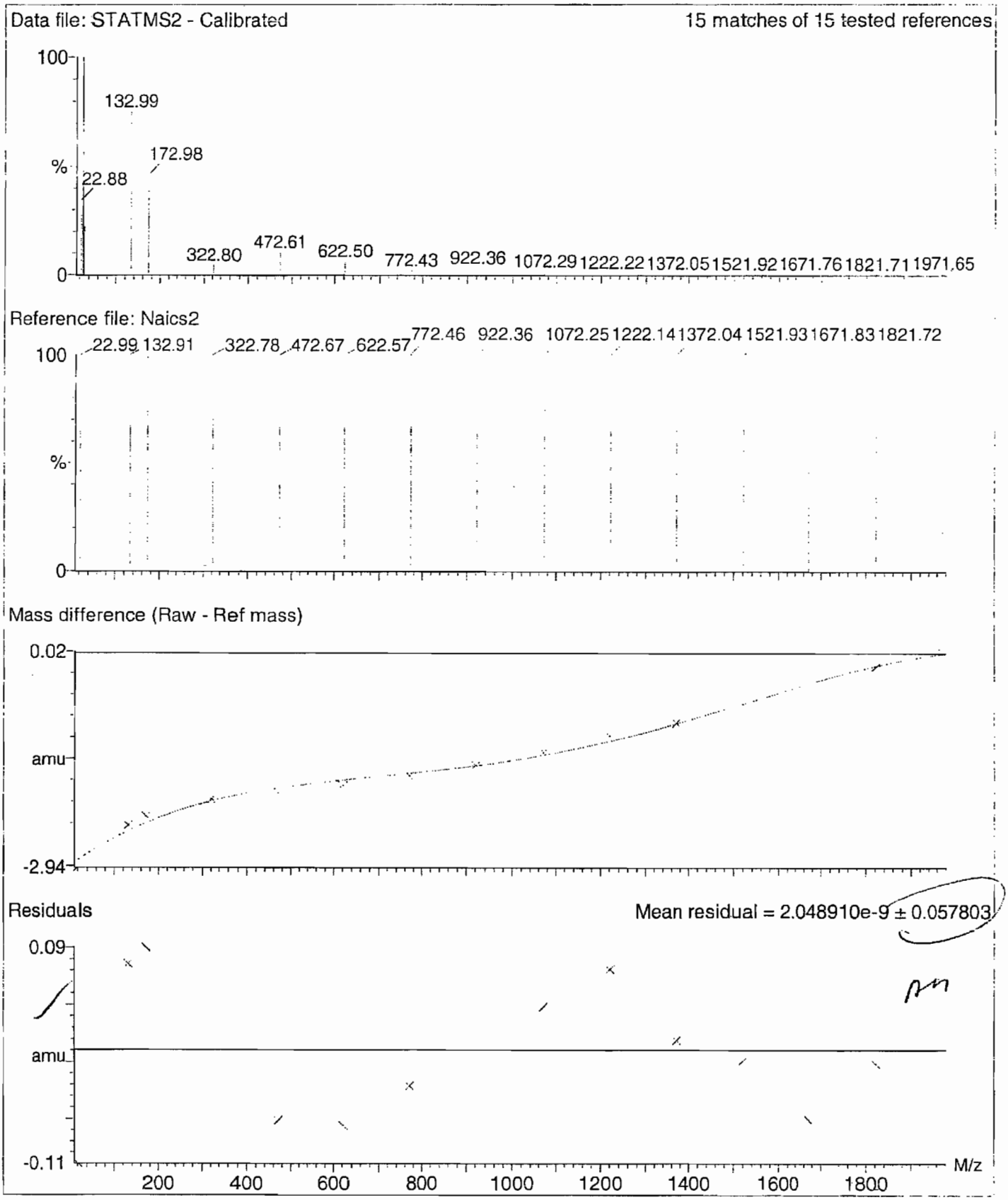

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Calibration Report - MS2 Scanning

Printed: **Fri Aug 25 10:54:00 2006**

Data file: SCNMS2 - Calibrated

14 matches of 15 tested references

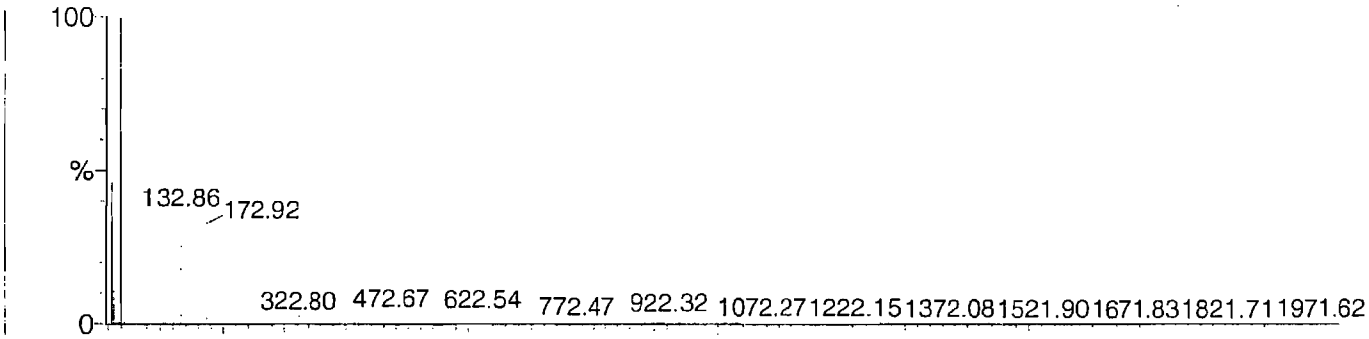

Reference file: Naics2

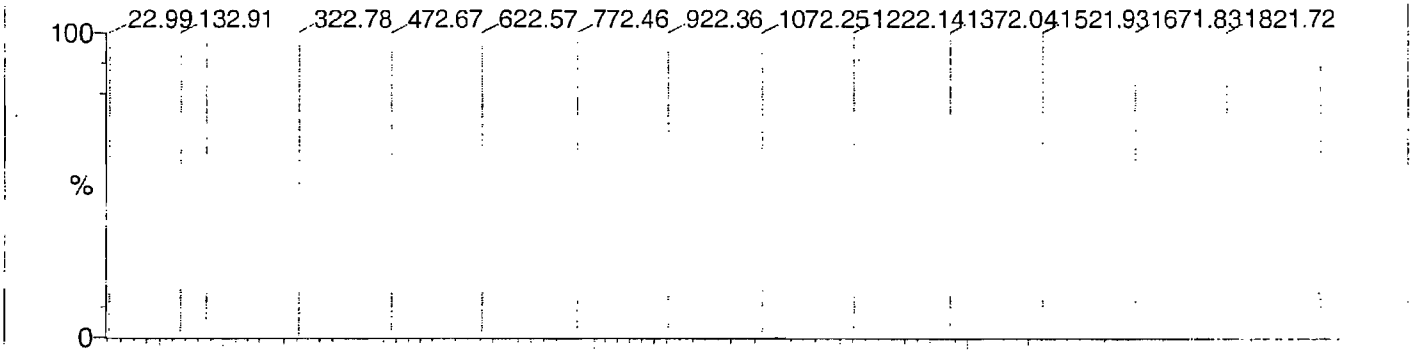

Mass difference (Raw - Ref mass)

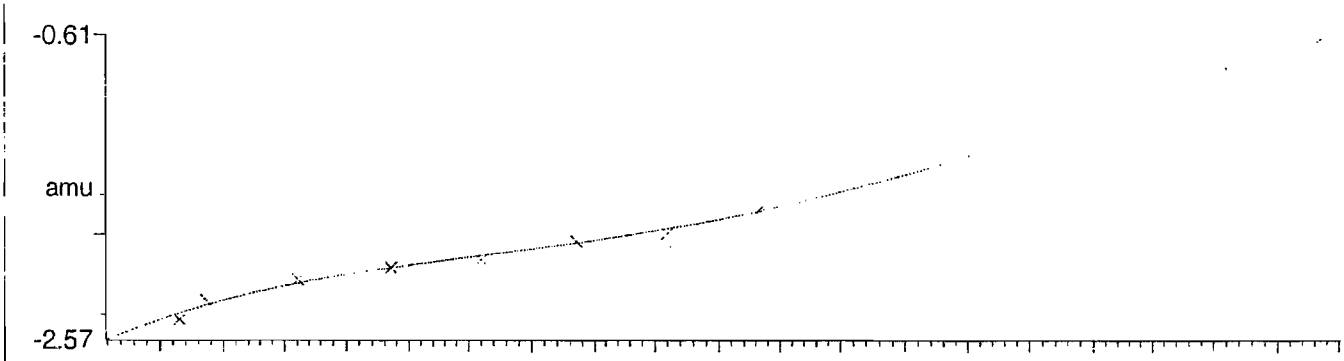

Residuals

Mean residual = -2.623502e-9 ± 0.025622

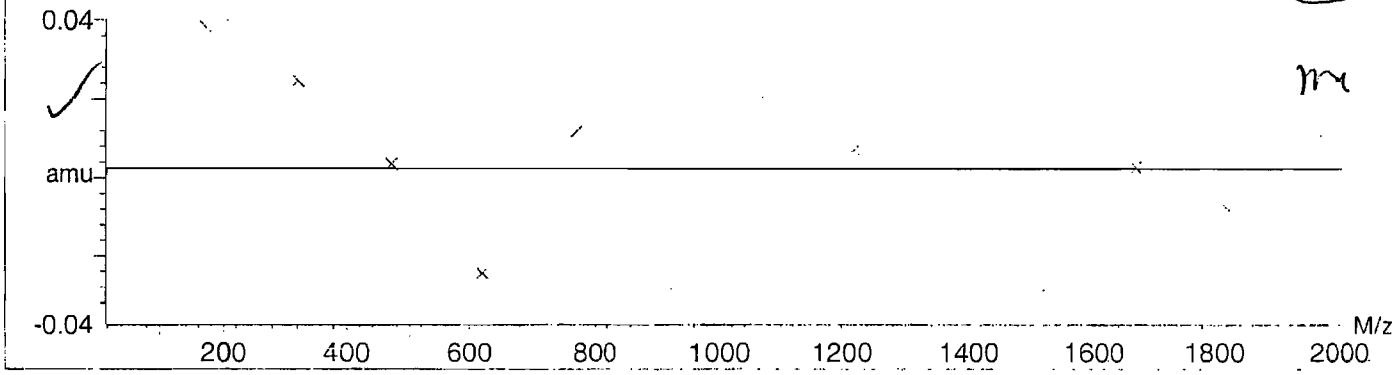

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Calibration Report - MS2 Scan Speed Compensation

Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

14 matches of 15 tested references

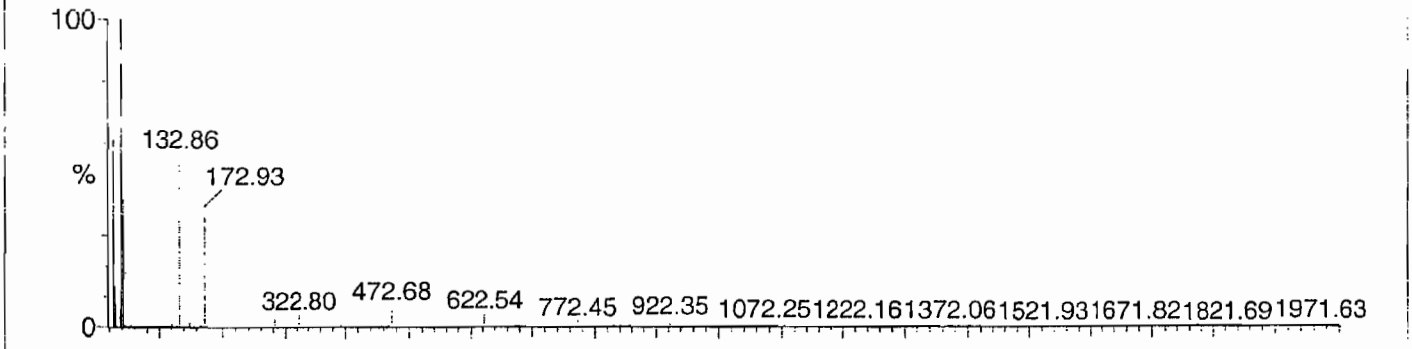

Reference file: Naics2

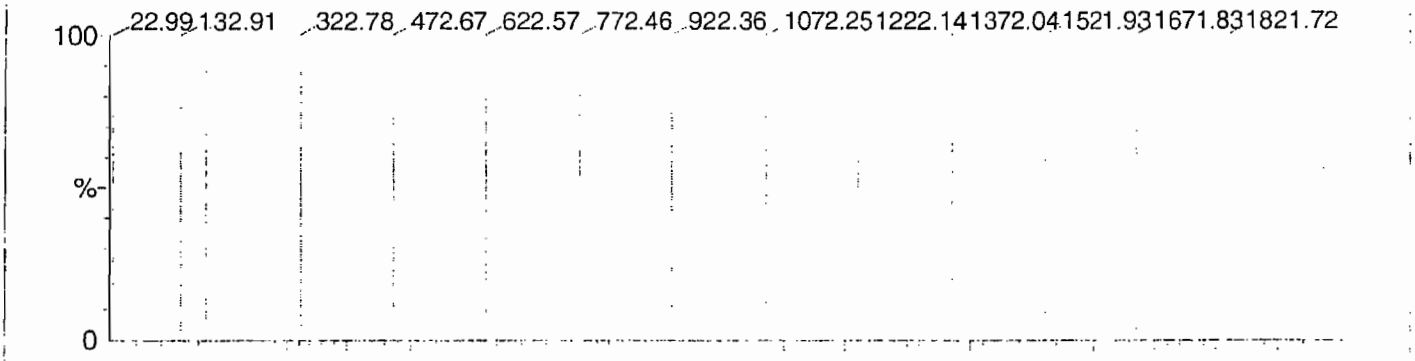

Mass difference (Raw - Ref mass)

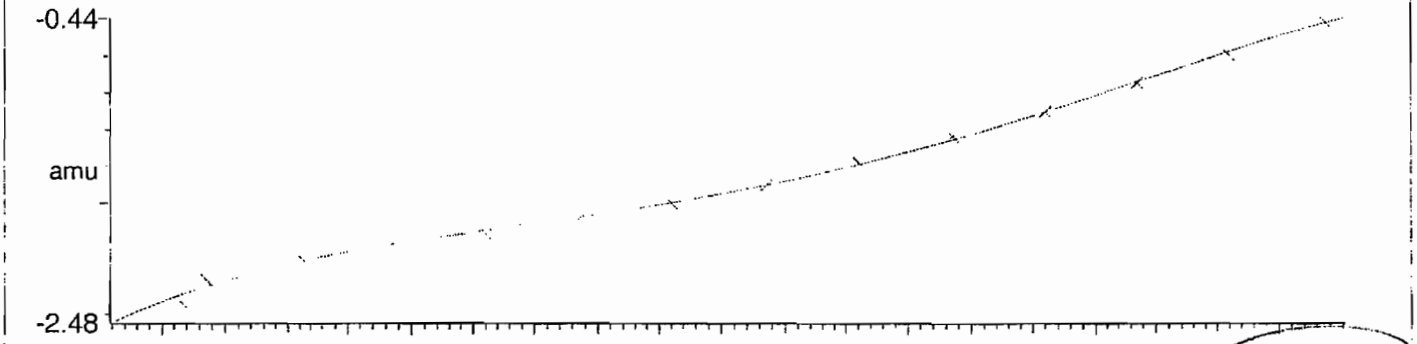

Residuals

Mean residual = -6.785350e-9 ± 0.023134

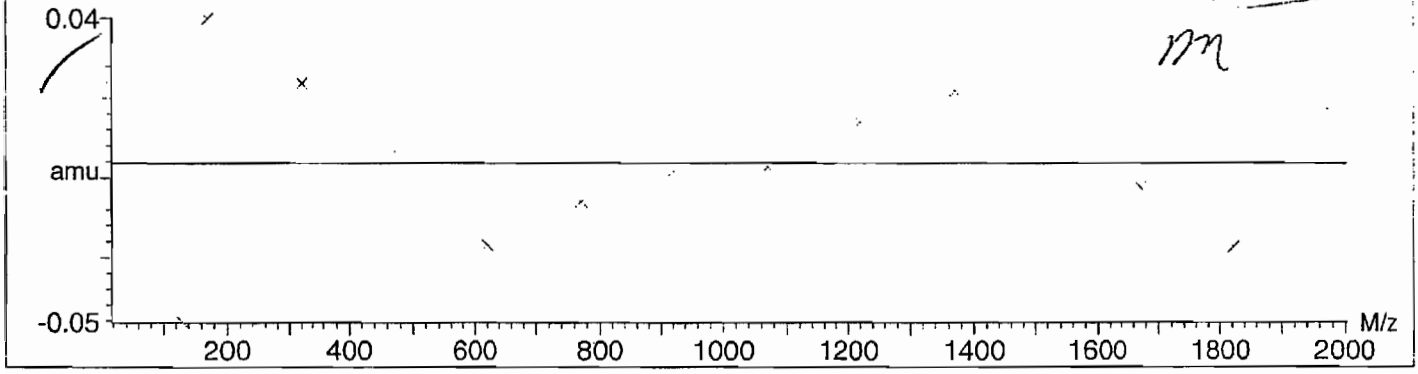

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2000

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			20900000	10.767	90983333.333	15.067
Upper Limit			27170000	11.267	118278333.333	15.567
Lower Limit			14630000	10.267	63688333.3331	14.567
MB for batch 957190	23–mar–10 00:20	EXP0322021.w	17300000	10.9	78100000	15.3
LCS for batch 957190	23–mar–10 00:47	EXP0322022.w	19400000	10.9	83800000	15.3
CAPA–10–13095	23–mar–10 01:40	EXP0322024.w	19100000	10.9	82600000	15.3
CAPA–10–13095(247828003MS	23–mar–10 02:06	EXP0322025.w	17400000	10.9	79300000	15.3
CAPA–10–13095(247828003MS	23–mar–10 02:32	EXP0322026.w	17500000	10.9	83400000	15.3

IS1 (DNB) = 1,3–Dinitrobenzene–d4
IS2 (DNT) = 2,6–Dinitrotoluene–d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = – 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = –0.5 of average multipoint RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits

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SAMPLE DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13095

Lab Code: GEL

GEL Job No (SDG) 10-2000

Matrix: GROUND WATER

GEL Sample ID: 247828003

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 23-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 957190

Concentrated Extract Volume (mL) 5

Date Extracted: 25-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0322024.wiff

Date Analyzed: 23-MAR-10 01:40

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	U
121-14-2	2,4-Dinitrotoluene	0.325	U
121-82-4	RDX	0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	U
2691-41-0	HMX	0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	U
479-45-8	Tetryl	0.649	U
606-20-2	2,6-Dinitrotoluene	0.325	U
78-11-5	PETN	1.3	U
88-72-2	o-Nitrotoluene	0.325	U
98-95-3	Nitrobenzene	0.325	U
99-08-1	m-Nitrotoluene	0.325	U
99-35-4	1,3,5-Trinitrobenzene	0.325	U
99-65-0	m-Dinitrobenzene	0.325	U
99-99-0	p-Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322024.wiff	Acquisition Date	3/23/2010 1:40:00 AM
Sample Name	247828003	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

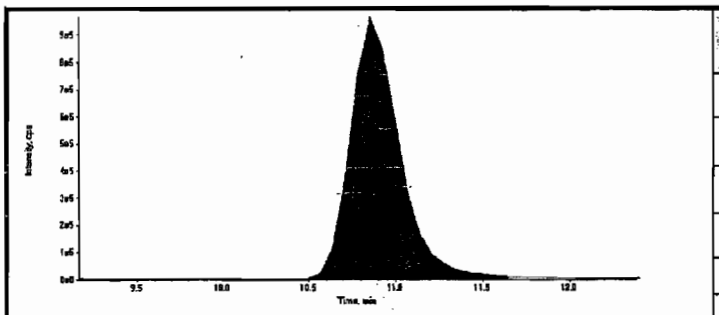

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	19100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

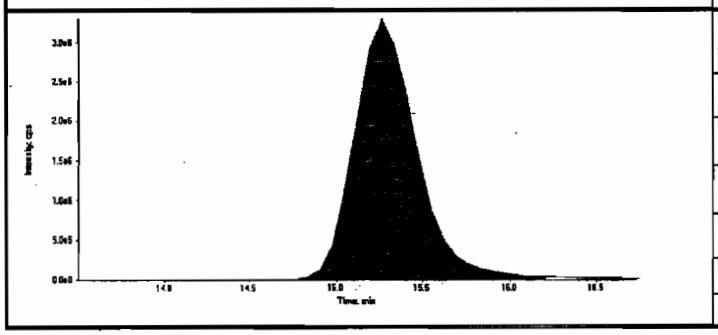

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.30
Area Counts:	82600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

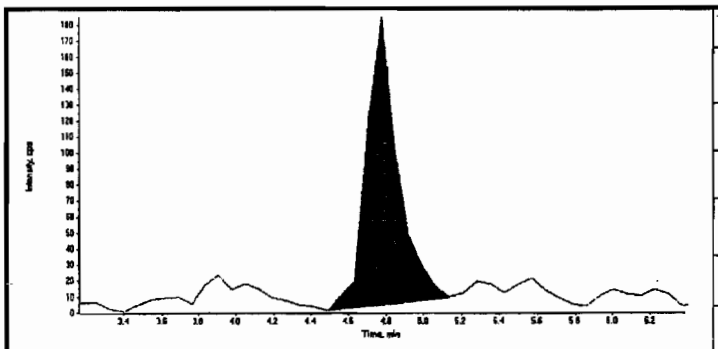

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	2.12e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

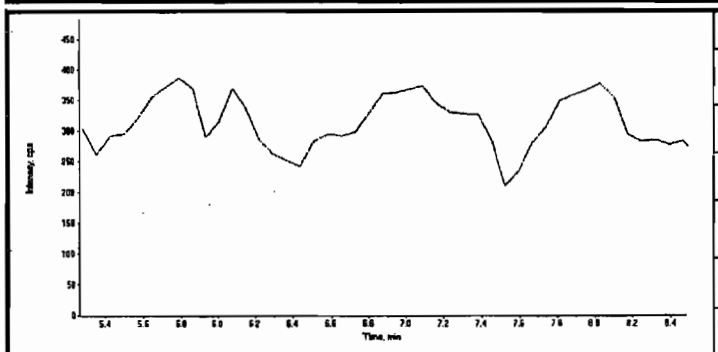

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Lcw 3/28/10

Hmm 03/30/10

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Data File	EXP0322024.wiff	Acquisition Date	3/23/2010 1:40:00 AM
Sample Name	247828003	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

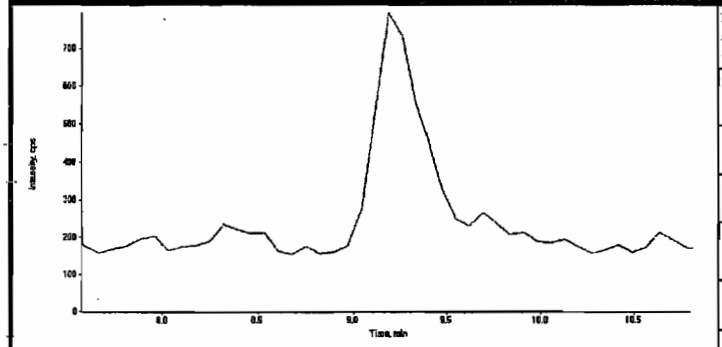

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

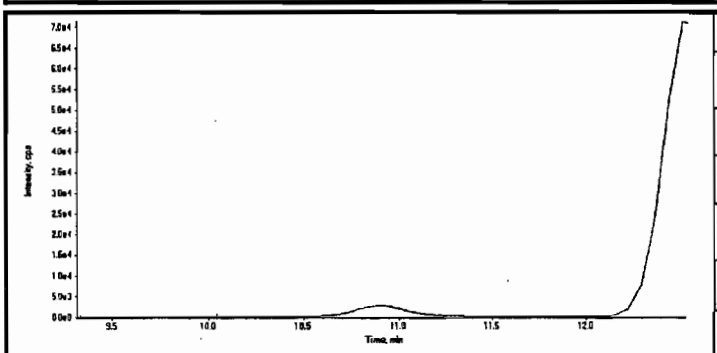

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

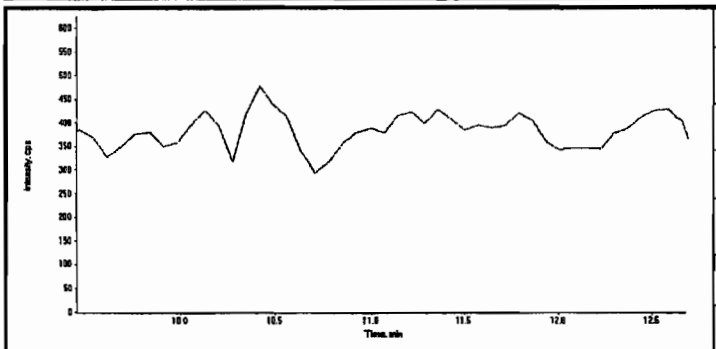

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

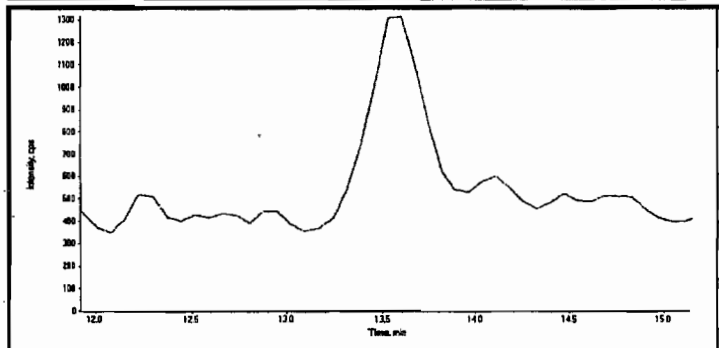

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322024.wiff	**Acquisition Date**	3/23/2010 1:40:00 AM
Sample Name	247828003	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

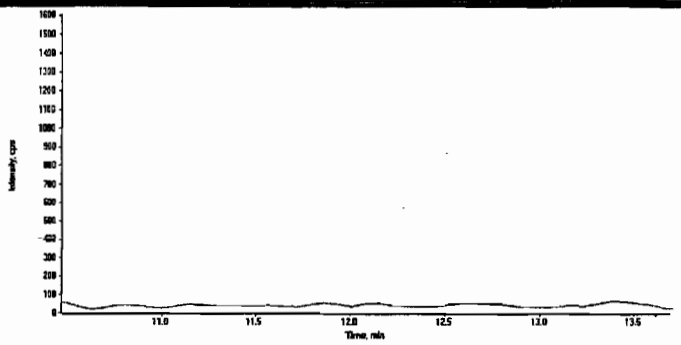

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

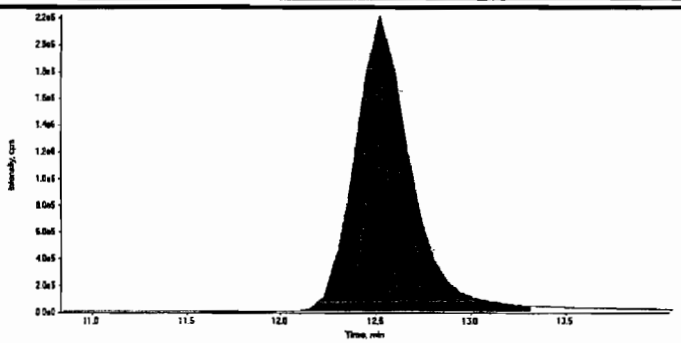

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.5
Area Counts:	4.52e+007
Manual Modification	No
Amount:	2.74 211. (ng/mL)
% Accuracy:	N/A

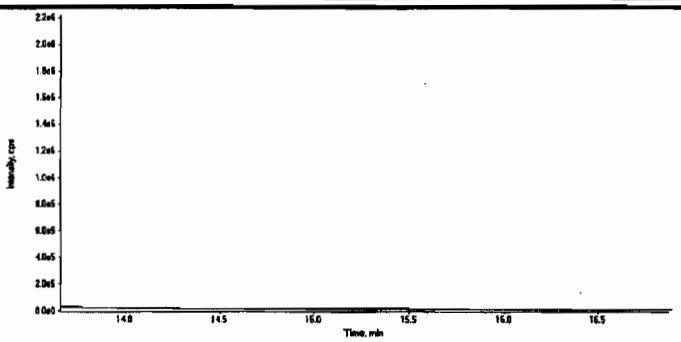

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	7.68e+005
Manual Modification	No
Amount:	4.78 (ng/mL)
% Accuracy:	N/A

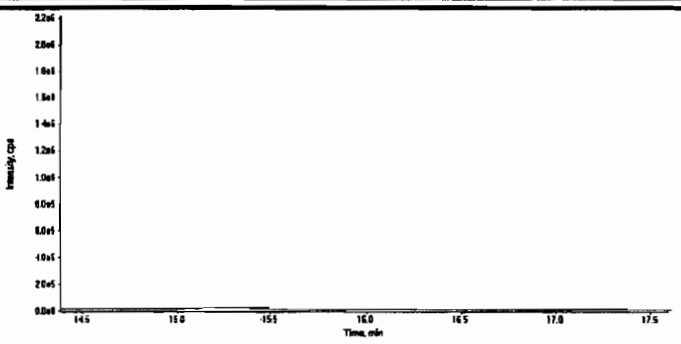

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322024.wiff	Acquisition Date	3/23/2010 1:40:00 AM
Sample Name	247828003	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

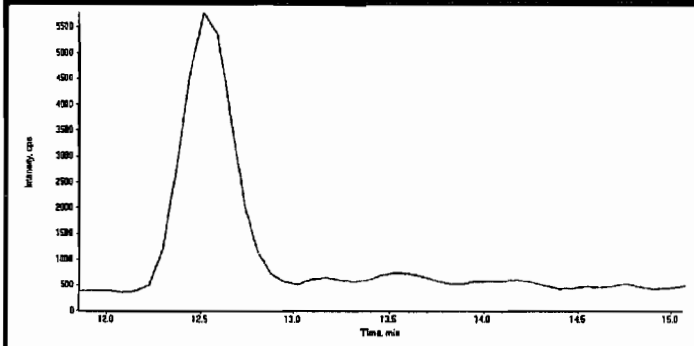

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

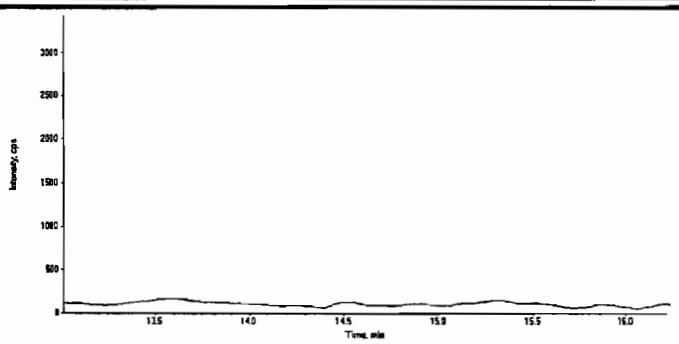

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

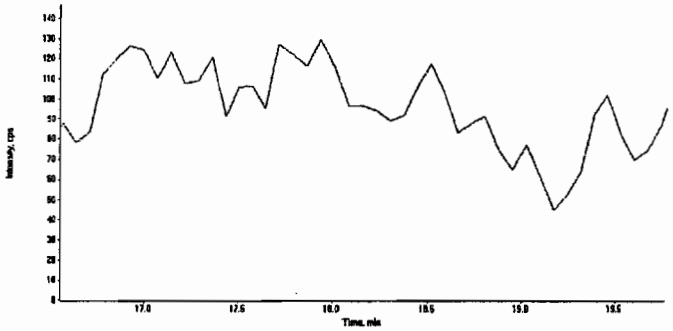

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

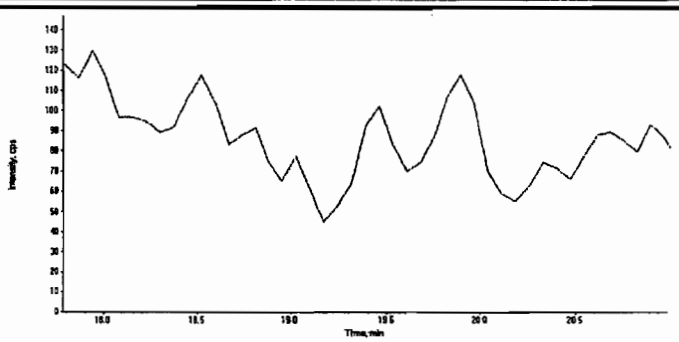

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322024.wiff	**Acquisition Date**	3/23/2010 1:40:00 AM
Sample Name	247828003	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

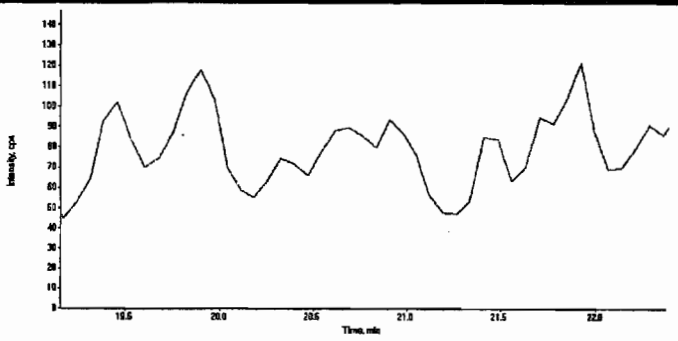

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

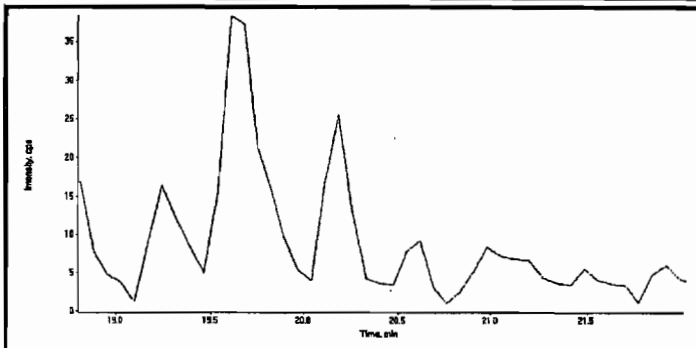

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13095

Lab Code: GEL

GEL Job No (SDG) 10-2000

Matrix: GROUND WATER

GEL Sample ID: 247828003

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 23-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 957190

Concentrated Extract Volume (mL) 5

Date Extracted: 25-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310042.wiff

Date Analyzed: 31-MAR-10 19:24

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

LCW 4/5/10

mple Name: "247828003" Sample ID: "957192|2|LER" File: "EXS03310042.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 3/31/2010
Time: 7:24:46 PM

fied: No

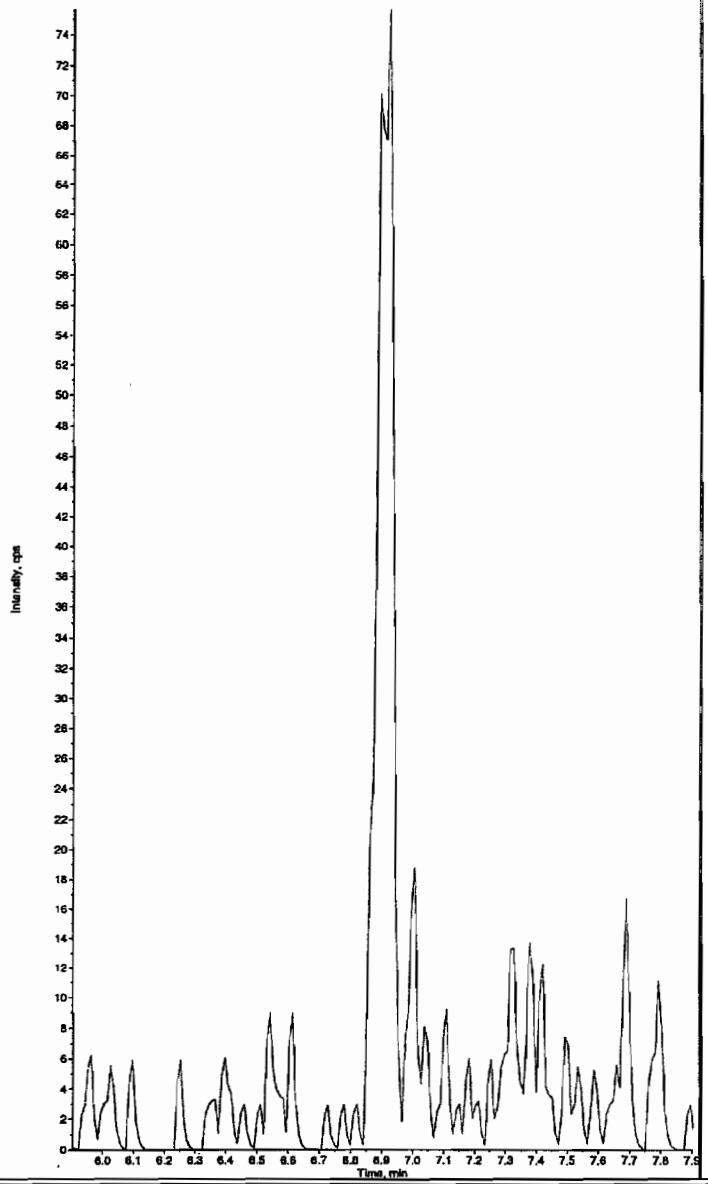

Sample Name: "247828003" Sample ID: "957192|2|LER" File: "EXS03310042.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 7:24:48 PM

Modified: No

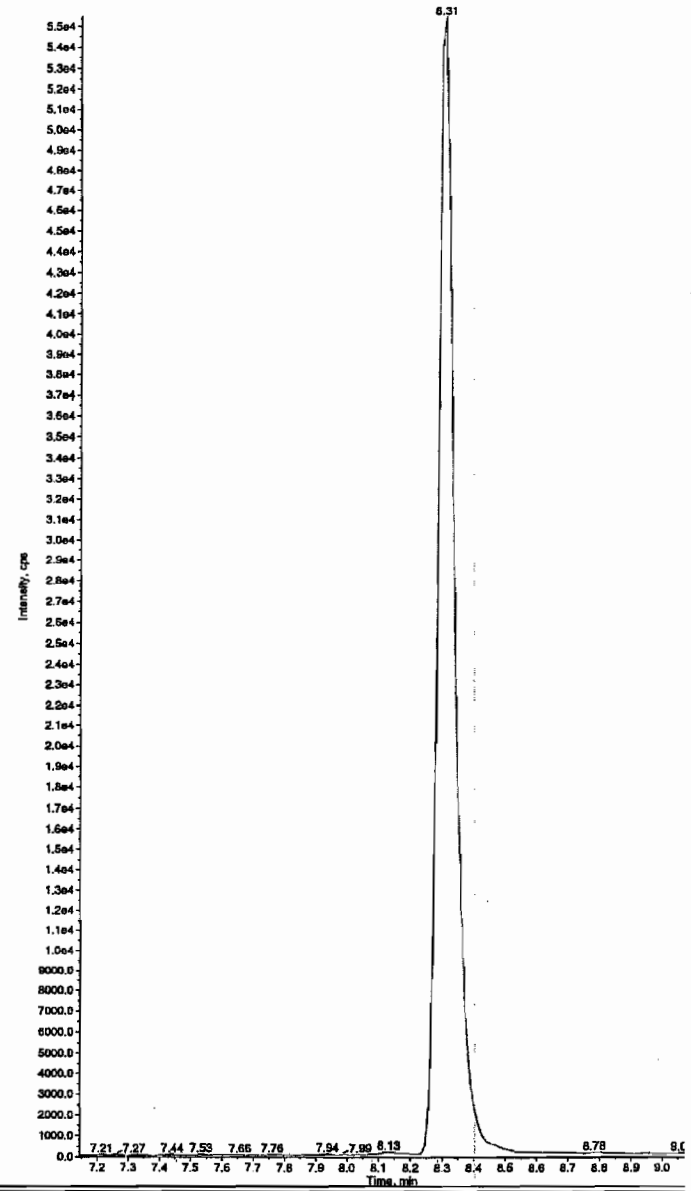

HMW 04/07/10

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "247828003" Sample ID: "957192|2|LER" File: "EXS03310042.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCX83212S" Annotation: ""

1.88

:e Index: 1
.e Type: Unknown
entration: N/A
ilated Conc: 222. ng/mL
Date: 3/31/2010
Time: 7:24:48 PM

fied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
.ndow: 15.0 sec
:ted RT: 8.31 min
lelative RT: No

Type: Valley
ition Time: 8.30 min
1.81e+006 counts
it: 459174.286 cps
Time: 8.20 min
ime: 8.68 min

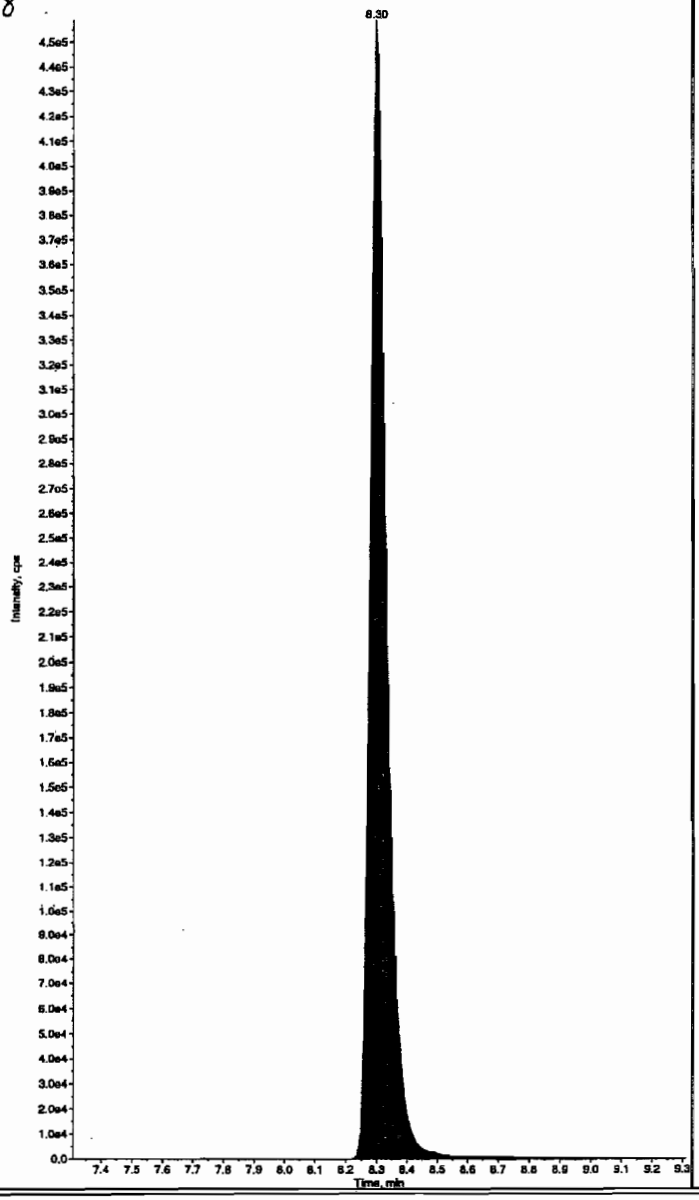

Sample Name: "247828003" Sample ID: "957192|2|LER" File: "EXS03310042.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 7:24:48 PM

Modified: No

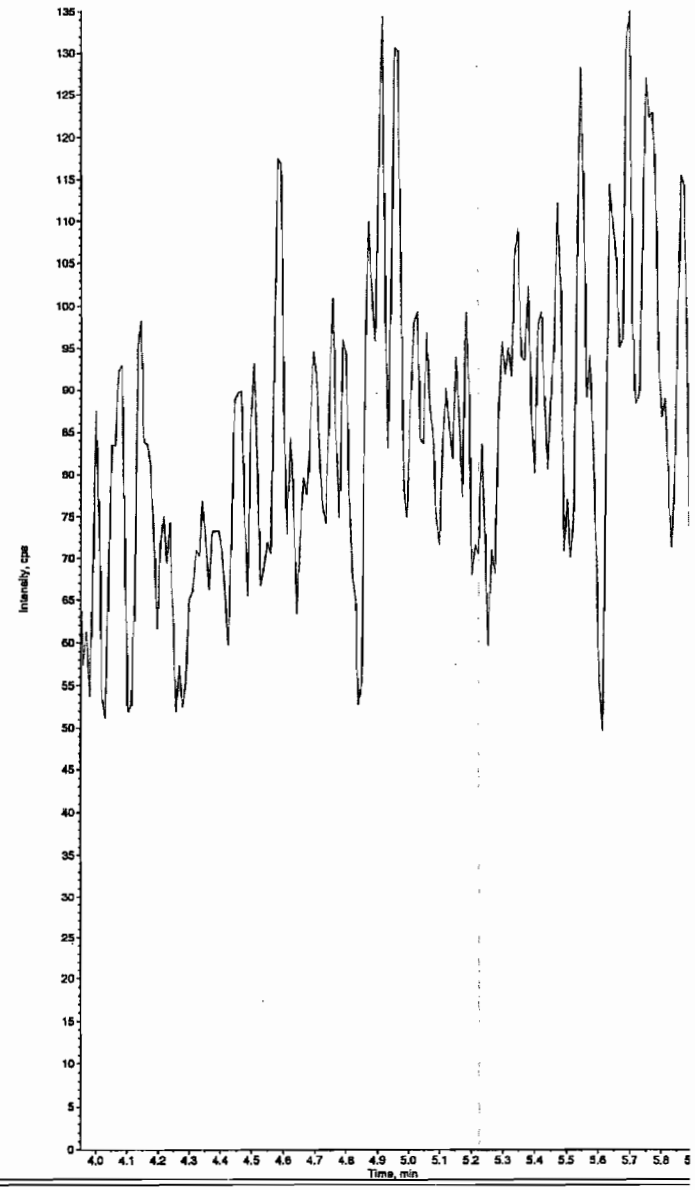

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nple Name: "247828003" Sample ID: "957192|2|LER" File: "EXS03310042.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 3/31/2010
Time: 7:24:48 PM

fied: No

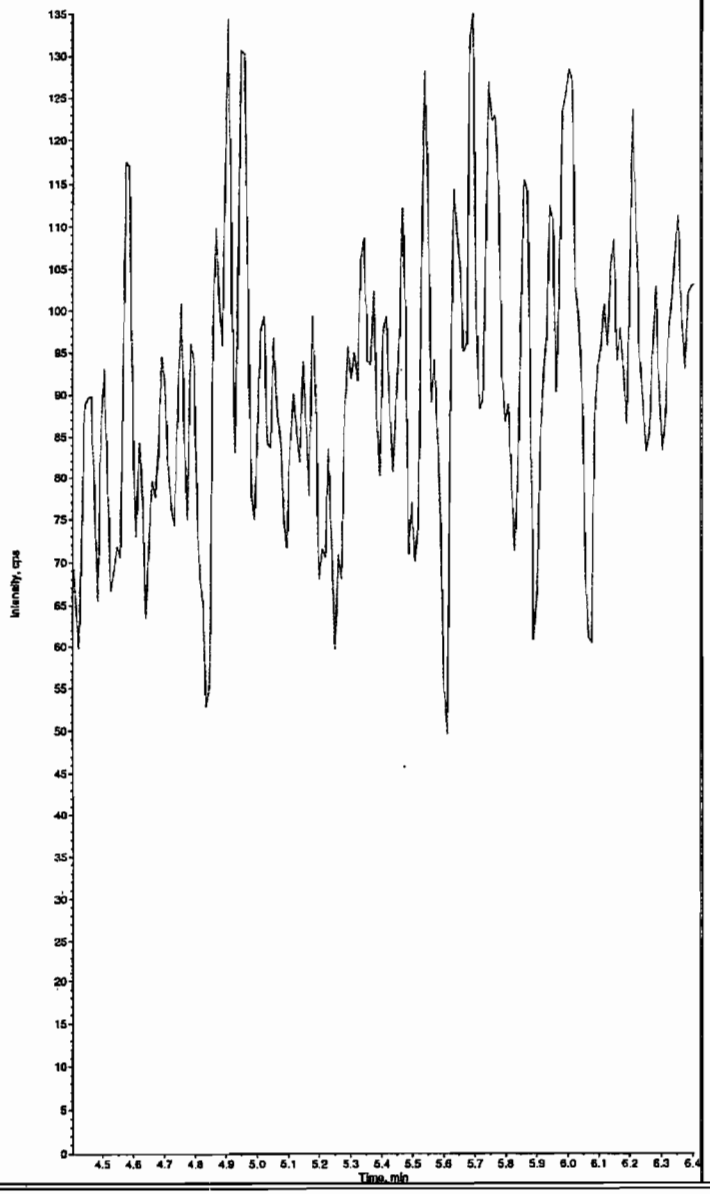

Sample Name: "247828003" Sample ID: "957192|2|LER" File: "EXS03310042.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 7:24:48 PM

Modified: No

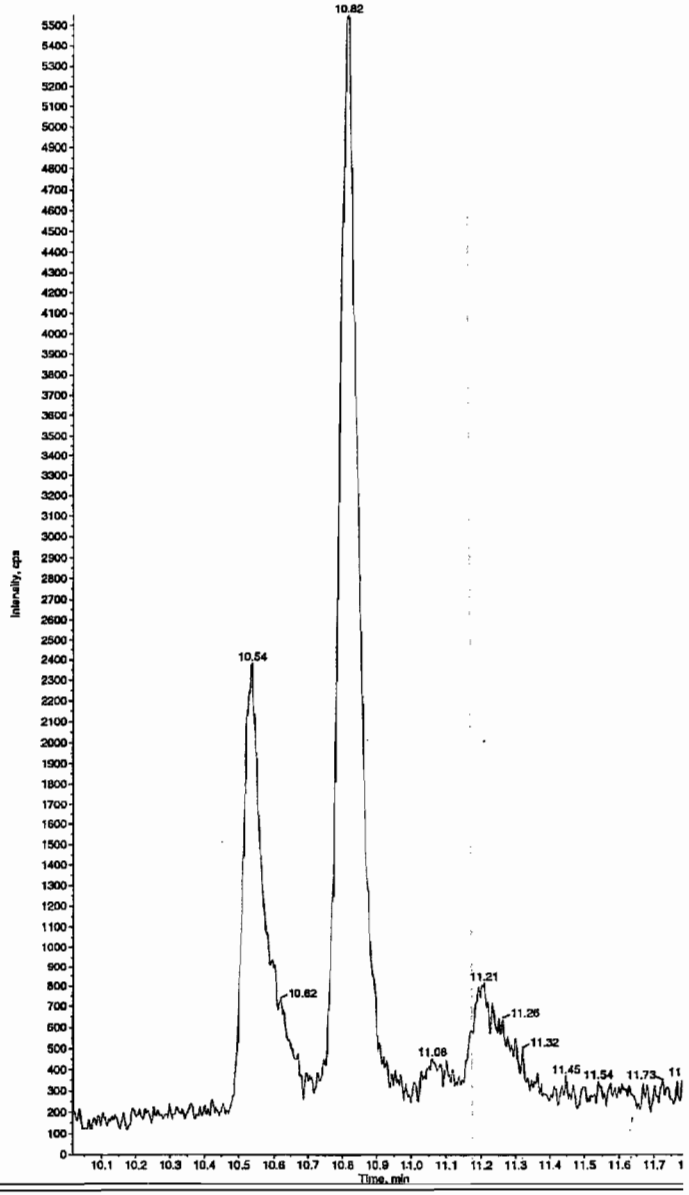

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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STANDARDS DATA

SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MNX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

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Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2000

Lab Code: GEL

Run Date: 22-MAR-10,31-MAR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	50	51	52	53	54	55	Ave RF	RSD	Q
Data File:	EXP0322003.wi	EXP0322004.wi	EXP0322005.wi	EXP0322006.wi	EXP0322007.wi	EXP0322008.wi			
Parmname									
1,3,5-Trinitrobenzene	7.75	7.28	6.98	6.36	5.48	5.07	6.487	16.2	
2,4-Dinitrotoluene	.57	.651	.566	.564	.599	.561	0.585	6.02	
2,6-Dinitrotoluene	1.11	1.15	1.01	.937	.831	.801	0.973	14.7	
2-Amino-4,6-dinitrotoluene	.032	.033	.034	.031	.038	.034	0.034	7.31	
3,4-Dinitrotoluene	1.36	1.42	1.31	1.25	1.28	1.14	1.293	7.44	
4-Amino-2,6-dinitrotoluene	1.12	1.23	1.1	1	1.01	.88	1.057	11.5	
Nitrobenzene	.125	.126	.138	.136	.143	.144	0.135	6.11	
PETN	.011	.012	.012	.011	.013	.013	0.012	7.75	
RDX	1.47	1.58	1.47	1.53	1.6	1.54	1.532	3.6	
Tetryl	4.44	4.71	4.46	4.11	4.11	3.81	4.273	7.57	
m-Dinitrobenzene	2.83	2.67	2.81	2.58	2.64	2.44	2.662	5.53	
m-Nitrotoluene	.008	.01	.009	.009	.01	.01	0.009	8.63	
o-Nitrotoluene	.014	.016	.016	.015	.017	.016	0.016	5.74	
p-Nitrotoluene	.007	.008	.008	.008	.009	.008	0.008	6.86	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2000

Lab Code: GEL

Run Date: 22-MAR-10,31-MAR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Linear

Calibration Level:	50	51	52	53	54	55	Slope	Intercept	COD	Q
Data File:	EXP0322003.w	EXP0322004.w	EXP0322005.w	EXP0322006.w	EXP0322007.w	EXP0322008.w				
Parmname										
HMX	2580000	5050000	21000000	38800000	65900000	82000000	2.13	.043	.9997	

Linear fit : Y=mx +b
where b is Intercept and m is slope

COD is Coefficient of Determination

Q column used to flag COD values outside of Limit (<0.990)
* Values outside of QC Limit

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Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2000

Lab Code: GEL

Run Date: 22-MAR-10,31-MAR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	50	51	52	53	54	55	X	X^2	Intercept	COD	Q
Data File:	EXP0322003.wiff	EXP0322004.wiff	EXP0322005.wiff	EXP0322006.wiff	EXP0322007.wiff	EXP0322008.wiff					
Parmname:											
2,4,6-Trinitrotoluene	15900000	30600000	116000000	195000000	301000000	345000000	.029	3.07	-.564	.9979	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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032210ICAL

Peak Name: 13-Dinitrobenzene-d4
Use as Internal Standard
Q1/Q3 Masses: 172.05/46.10 amu
Peak Name: 26-Dinitrotoluene-d3
Use as Internal Standard
Q1/Q3 Masses: 184.99/155.00 amu

Peak Name: HMX
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 341.20/46.00 amu

Fit Linear Weighting None Iterate No
Intercept 0.0425
Slope 2.13
Correlation coefficient 0.9997
Use Area

Peak Name: RDX
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 267.01/46.10 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.53
Standard deviation 0.0551
%RSD 3.6
Use Area

Peak Name: 135-Trinitrobenzene
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 212.97/182.80 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 6.49
Standard deviation 1.05
%RSD 16.2
Use Area

Peak Name: 13-Dinitrobenzene
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 167.95/137.90 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 2.66
Standard deviation 0.147

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%RSD 5.53
Use Area

Peak Name: Tetryl
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 240.95/180.80 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 4.27
Standard deviation 0.323
%RSD 7.57
Use Area

Peak Name: 246-Trinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 227.12/209.80 amu

Fit Quadratic Weighting None Iterate No
a0 0.029
a1 3.07
a2 -0.564
Correlation coefficient 0.9979
Use Area

Peak Name: Nitrobenzene
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 123.04/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.135
Standard deviation 0.00826
%RSD 6.11
Use Area

Peak Name: 34-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 182.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.29
Standard deviation 0.0962
%RSD 7.44
Use Area

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Peak Name: 26-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 182.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.972
Standard deviation 0.143
%RSD 14.7
Use Area

Peak Name: 24-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 182.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.585
Standard deviation 0.0352
%RSD 6.02
Use Area

Peak Name: 4-Amino-26-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 197.02/167.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.06
Standard deviation 0.121
%RSD 11.5
Use Area

Peak Name: 2-Amino-46-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 197.02/180.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.0333
Standard deviation 0.00244
%RSD 7.31
Use Area

Peak Name: 2-Nitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 137.00/46.00 amu

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Fit Mean Response Factor Weighting None Iterate No
Factor 0.0156
Standard deviation 0.000896
%RSD 5.74
Use Area

Peak Name: 4-Nitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 137.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.0078
Standard deviation 0.000535
%RSD 6.86
Use Area

Peak Name: 3-Nitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 137.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.00928
Standard deviation 0.0008
%RSD 8.63
Use Area

Peak Name: PETN
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 361.06/62.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.0119
Standard deviation 0.000925
%RSD 7.75
Use Area

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GEL SOP GL-OA-E-056, Method 8321A-Modified

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LCMSMS#3

032210.rdb
Analyte Name: HMX

Regression Equation: y = 2.13 x + 0.0425 (r = 0.9997)

Expected Concentration	Calculated Concentration	% Accuracy
25	17.67	70.7
50	47.17	94.3
200	207.55	103.8
400	402.17	100.5
800	812.43	101.6
1000	988.00	98.8

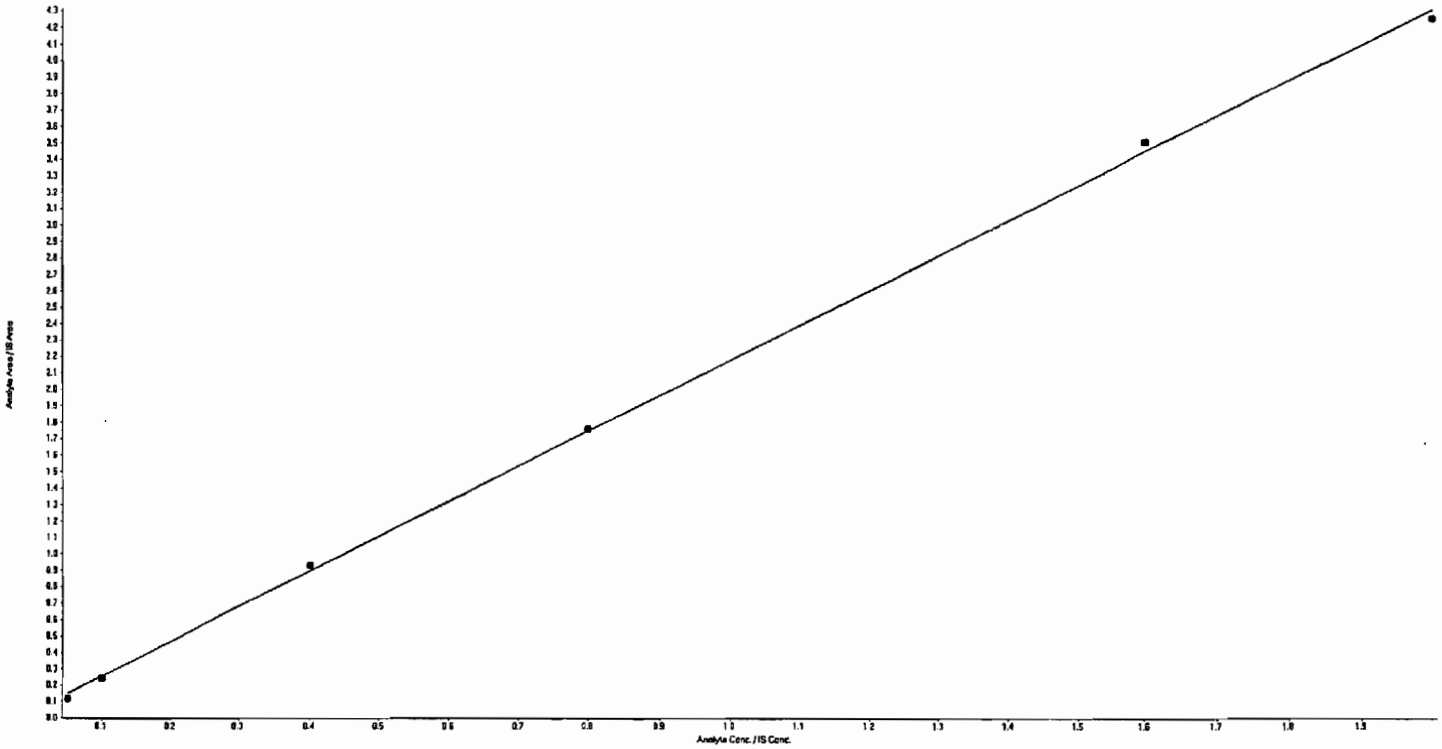

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Lcu 3/28/10

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Analyte Name: RDX

Regression Equation: y = 1.53 x (std. dev. = 0.0551)

Expected Concentration	Calculated Concentration	% Accuracy
25	23.98	95.9
50	51.74	103.5
200	191.69	95.8
400	398.64	99.7
800	834.01	104.3
1000	1008.48	100.8

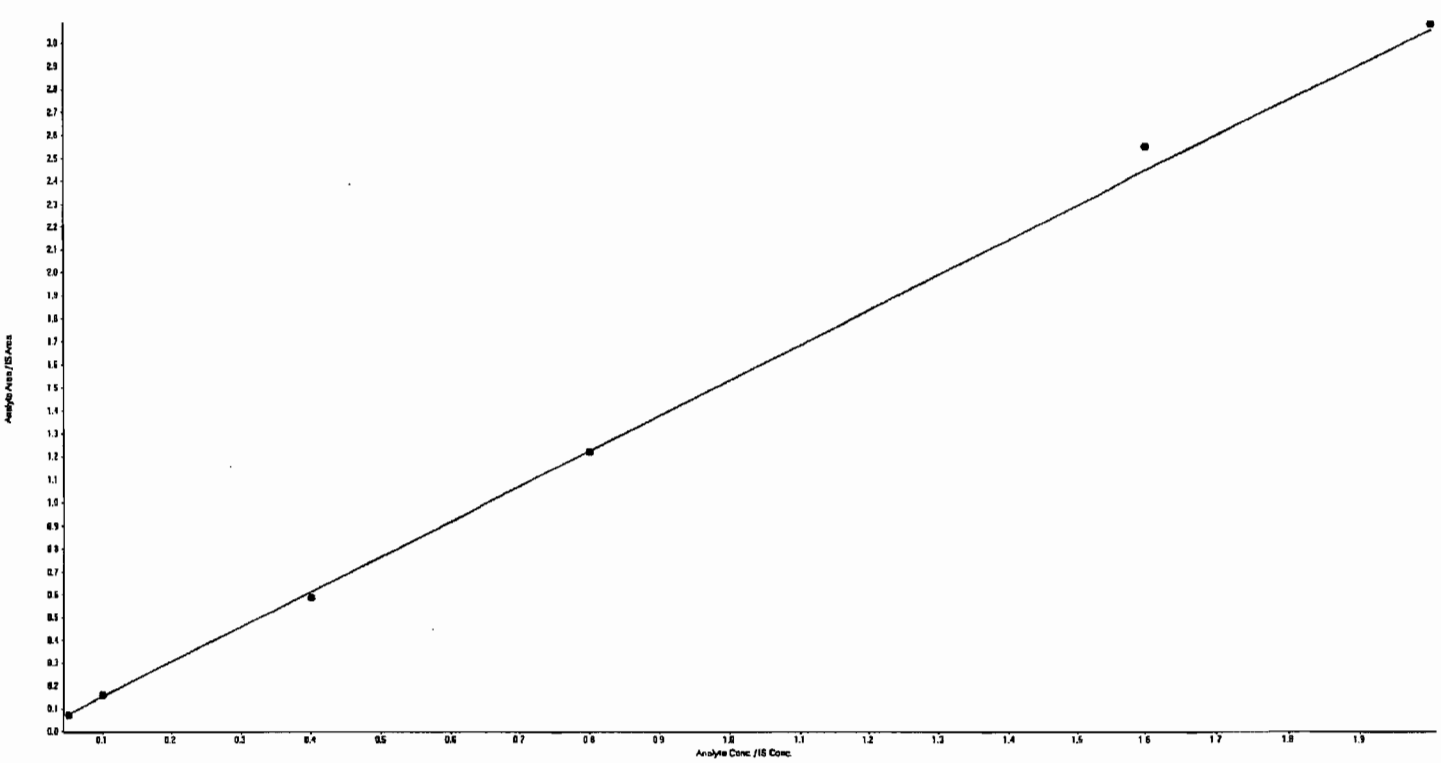

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Analyte Name: 135-Trinitrobenzene

Regression Equation: y = 6.49 x (std. dev. = 1.05)

Expected Concentration	Calculated Concentration	% Accuracy
25	29.86	119.4
50	56.14	112.3
200	215.29	107.6
400	392.08	98.0
800	675.96	84.5
1000	781.12	78.1

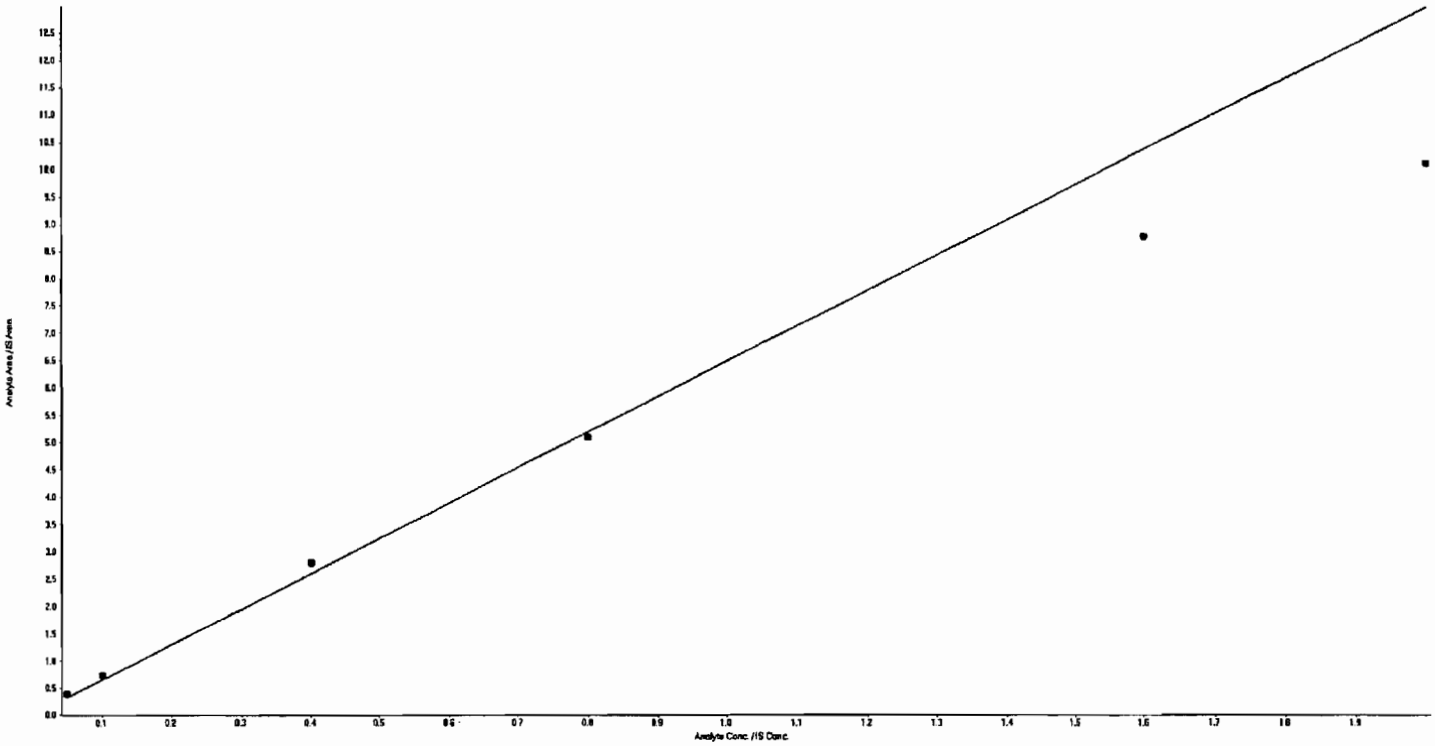

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Analyte Name: 13-Dinitrobenzene

Regression Equation: y = 2.66 x (std. dev. = 0.147)

Expected Concentration	Calculated Concentration	% Accuracy
25	26.60	106.4
50	50.25	100.5
200	211.01	105.5
400	387.47	96.9
800	793.17	99.1
1000	915.87	91.6

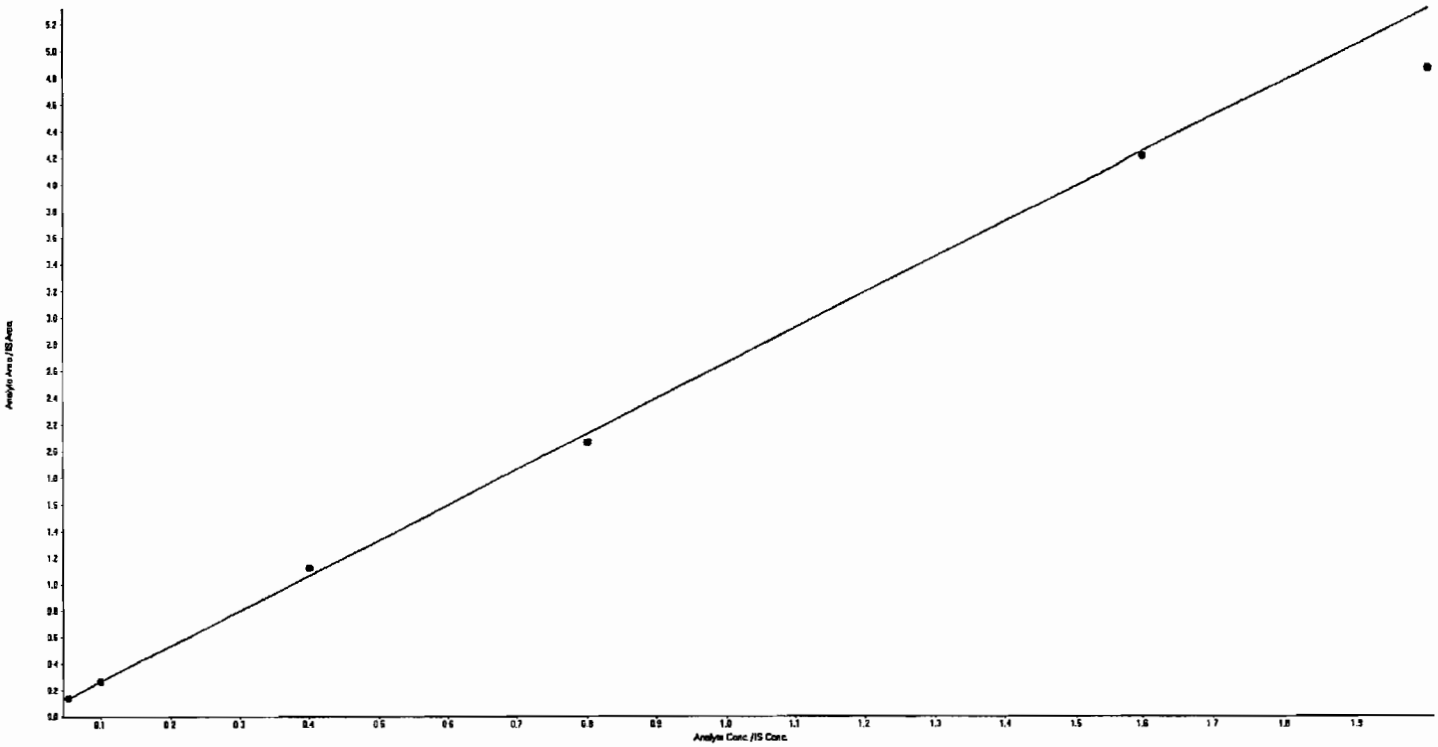

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Analyte Name: Tetryl

Regression Equation: y = 4.27 x (std. dev. = 0.323)

Expected Concentration	Calculated Concentration	% Accuracy
25	25.97	103.9
50	55.09	110.2
200	208.81	104.4
400	384.84	96.2
800	770.32	96.3
1000	890.43	89.0

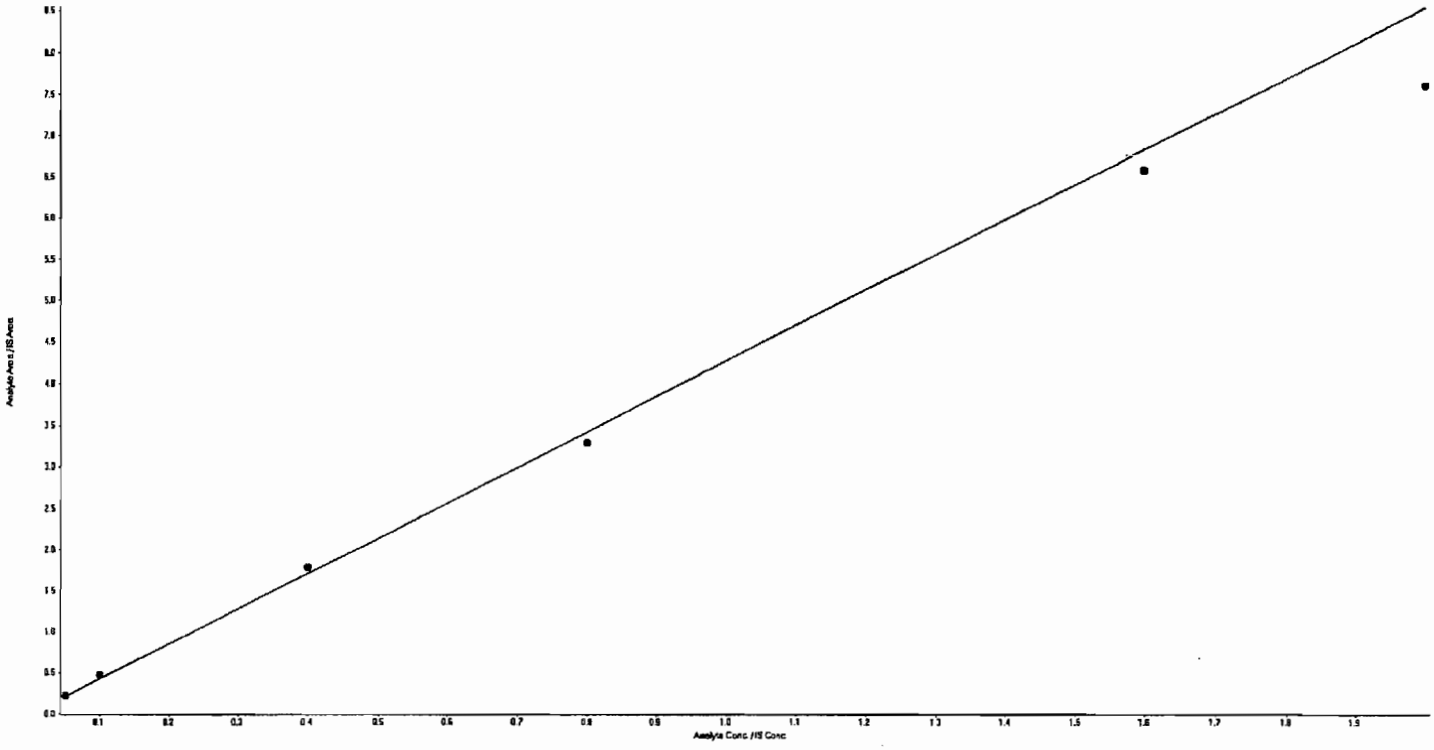

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Analyte Name: 246-Trinitrotoluene

Regression Equation: y = -0.564 x^2 + 3.07 x + 0.029 (r = 0.9979)

Expected Concentration	Calculated Concentration	% Accuracy
25	22.16	88.6
50	56.76	113.5
200	206.79	103.4
400	369.28	92.3
800	866.39	108.3
1000	953.30	95.3

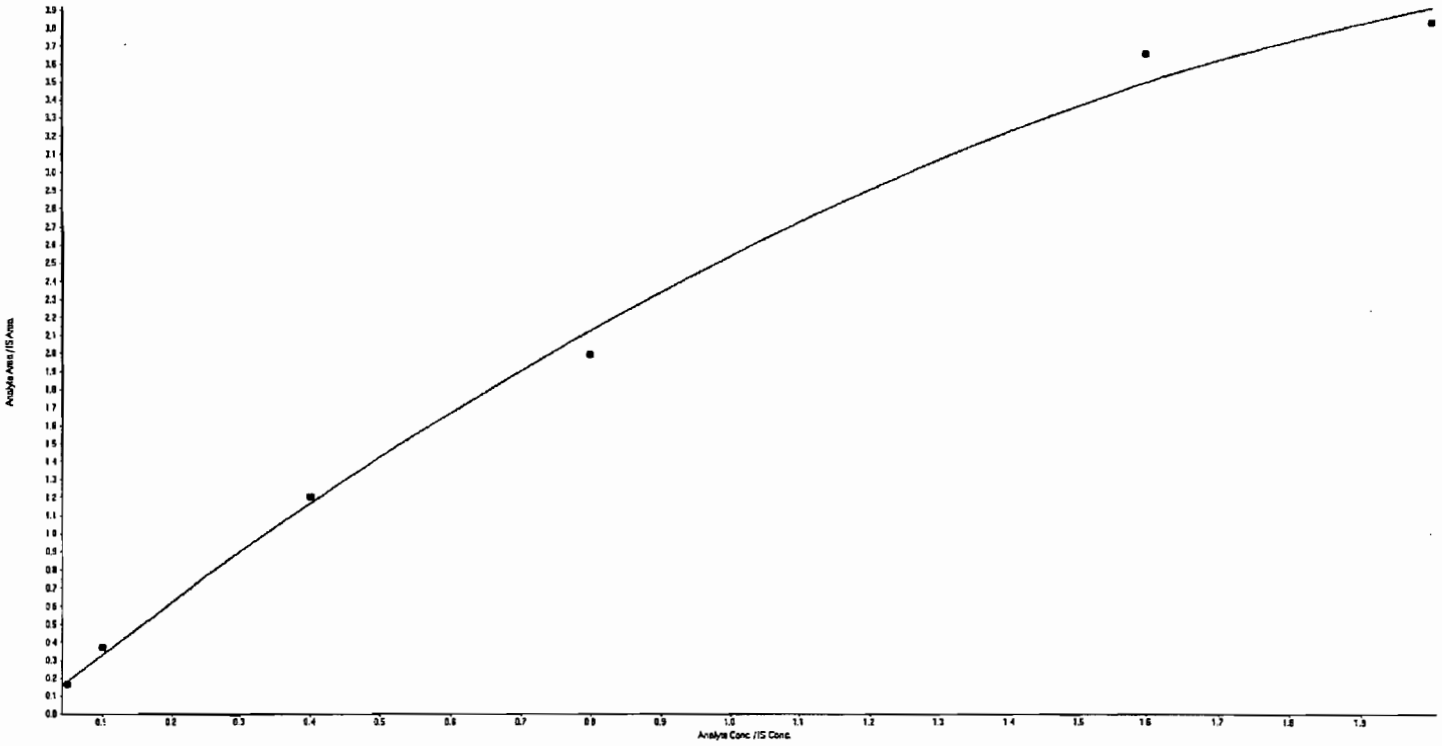

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Analyte Name: Nitrobenzene

Regression Equation: y = 0.135 x (std. dev. = 0.00826)

Expected Concentration	Calculated Concentration	% Accuracy
25	23.08	92.3
50	46.47	92.9
200	204.02	102.0
400	402.37	100.6
800	847.42	105.9
1000	1061.98	106.2

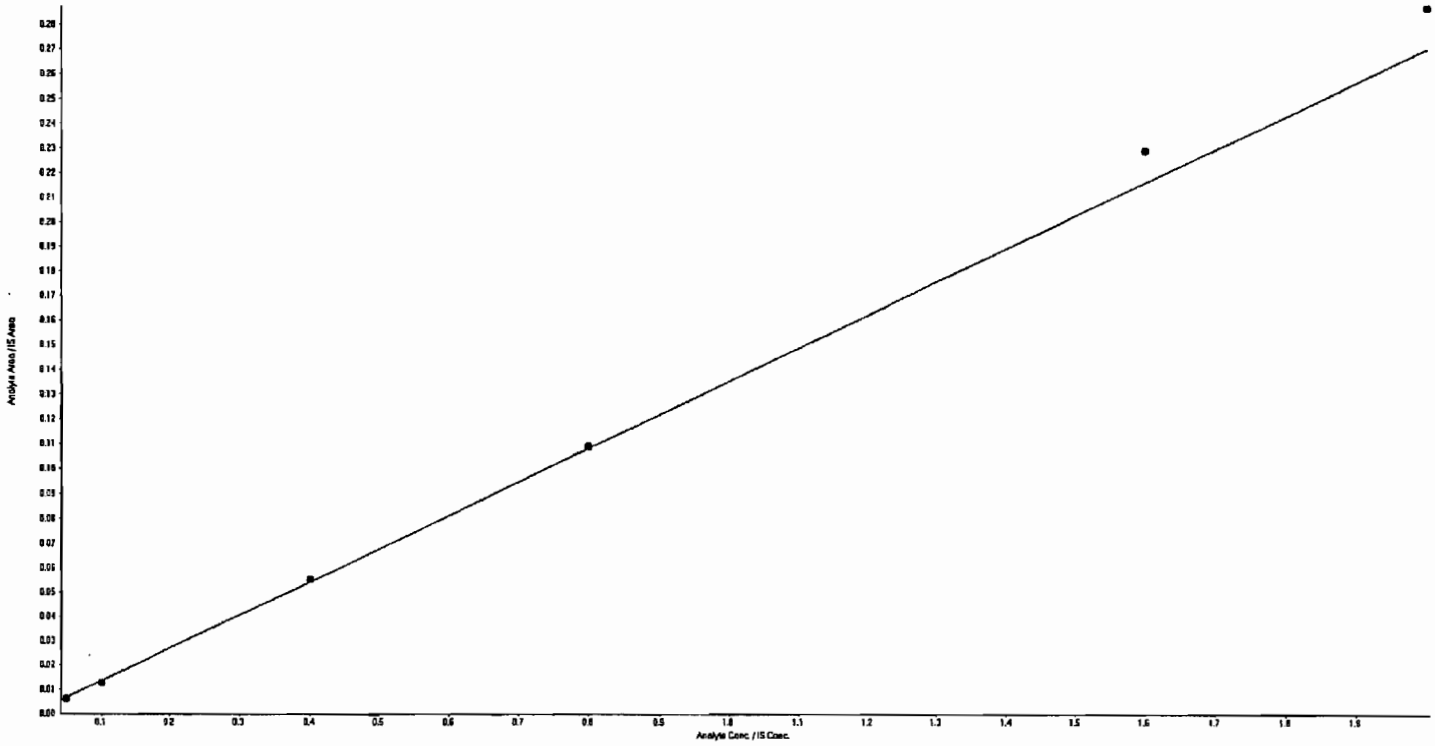

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Analyte Name: 34-dinitrotoluene

Regression Equation: y = 1.29 x (std. dev. = 0.0962)

Expected Concentration	Calculated Concentration	% Accuracy
12.5	13.12	104.9
25	27.51	110.0
100	101.29	101.3
200	192.98	96.5
400	395.66	98.9
500	441.68	88.3

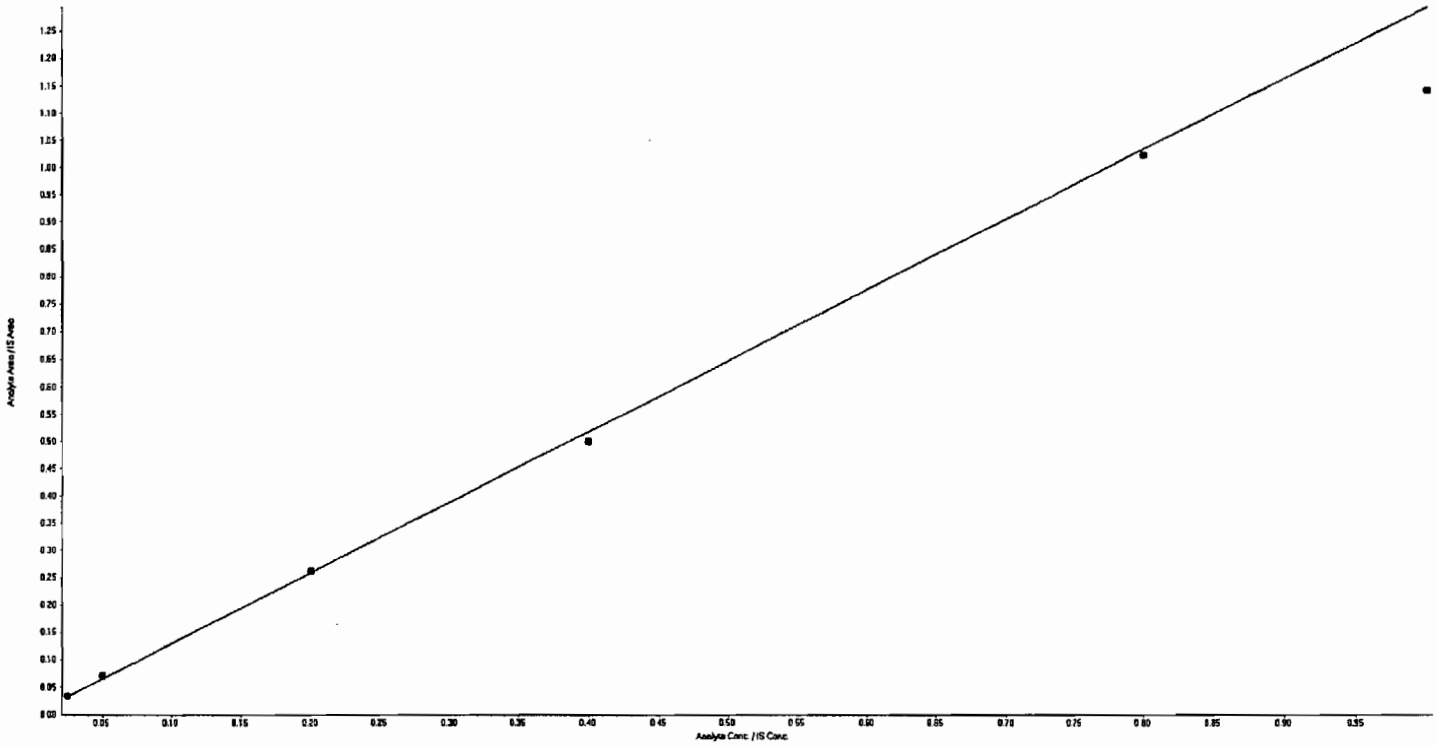

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Analyte Name: 26-dinitrotoluene

Regression Equation: y = 0.972 x (std. dev. = 0.143)

Expected Concentration	Calculated Concentration	% Accuracy
25	28.54	114.2
50	59.03	118.1
200	207.17	103.6
400	385.41	96.4
800	683.74	85.5
1000	823.74	82.4

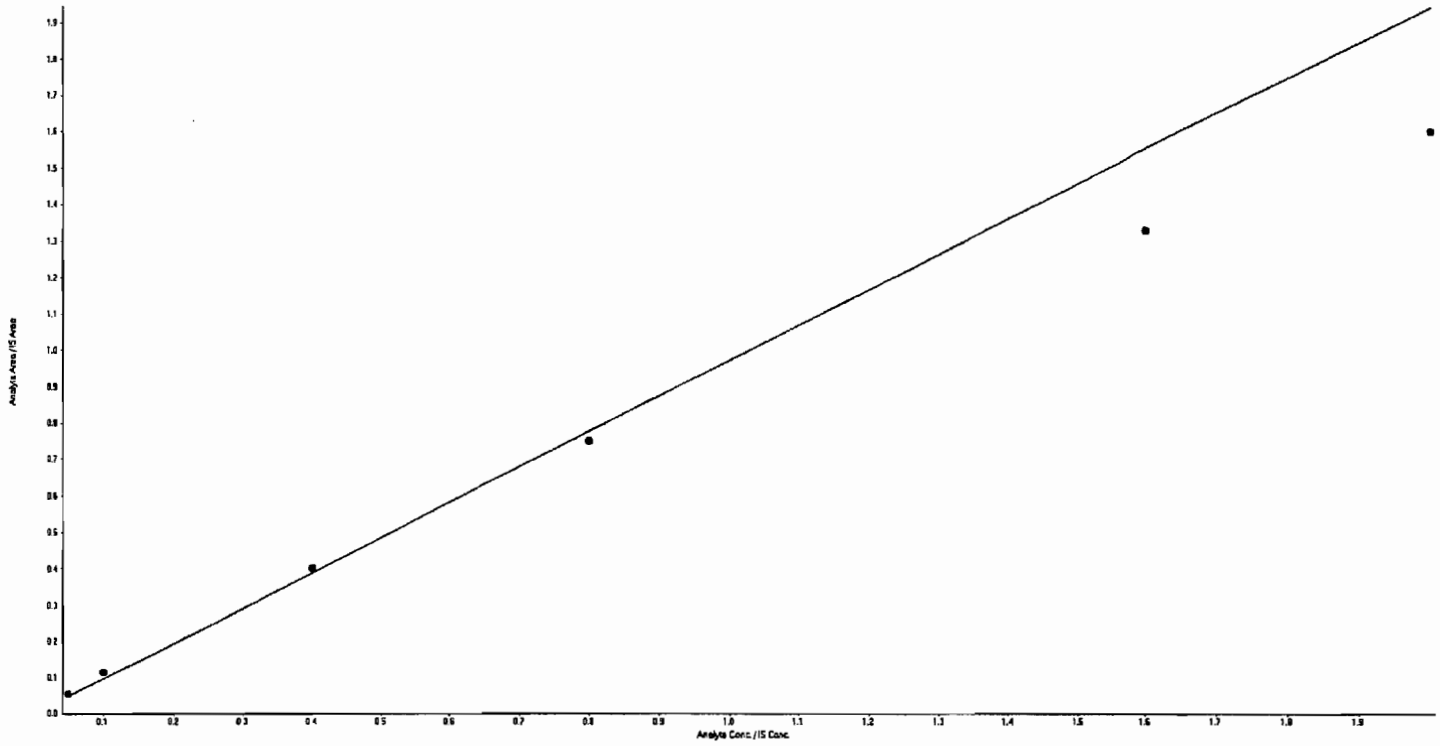

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Analyte Name: 24-dinitrotoluene

Regression Equation: y = 0.585 x (std. dev. = 0.0352)

Expected Concentration	Calculated Concentration	% Accuracy
25	24.36	97.4
50	55.65	111.3
200	193.35	96.7
400	385.77	96.4
800	818.76	102.3
1000	957.97	95.8

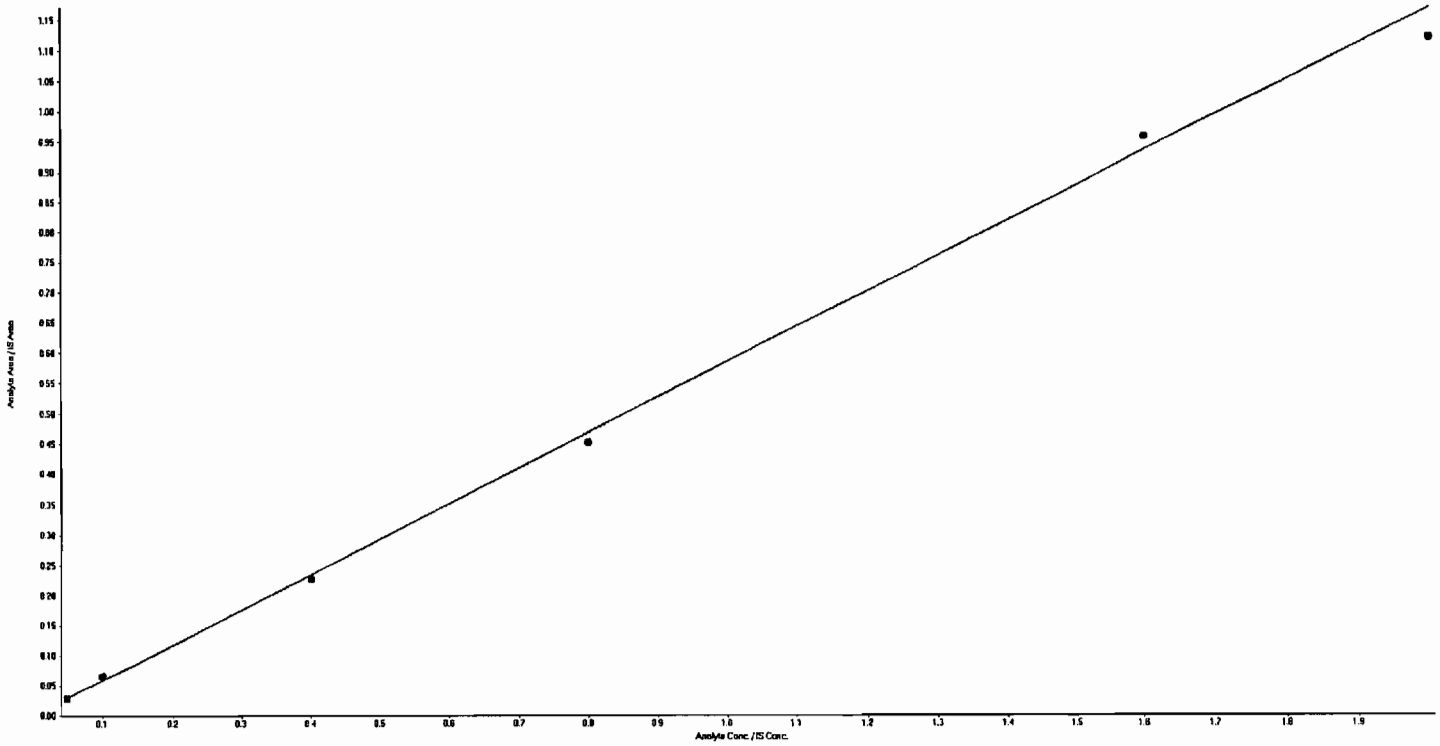

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Analyte Name: 4-Amino-26-dinitrotoluene

Regression Equation: y = 1.06 x (std. dev. = 0.121)

Expected Concentration	Calculated Concentration	% Accuracy
25	26.53	106.1
50	58.36	116.7
200	207.65	103.8
400	379.08	94.8
800	762.25	95.3
1000	832.96	83.3

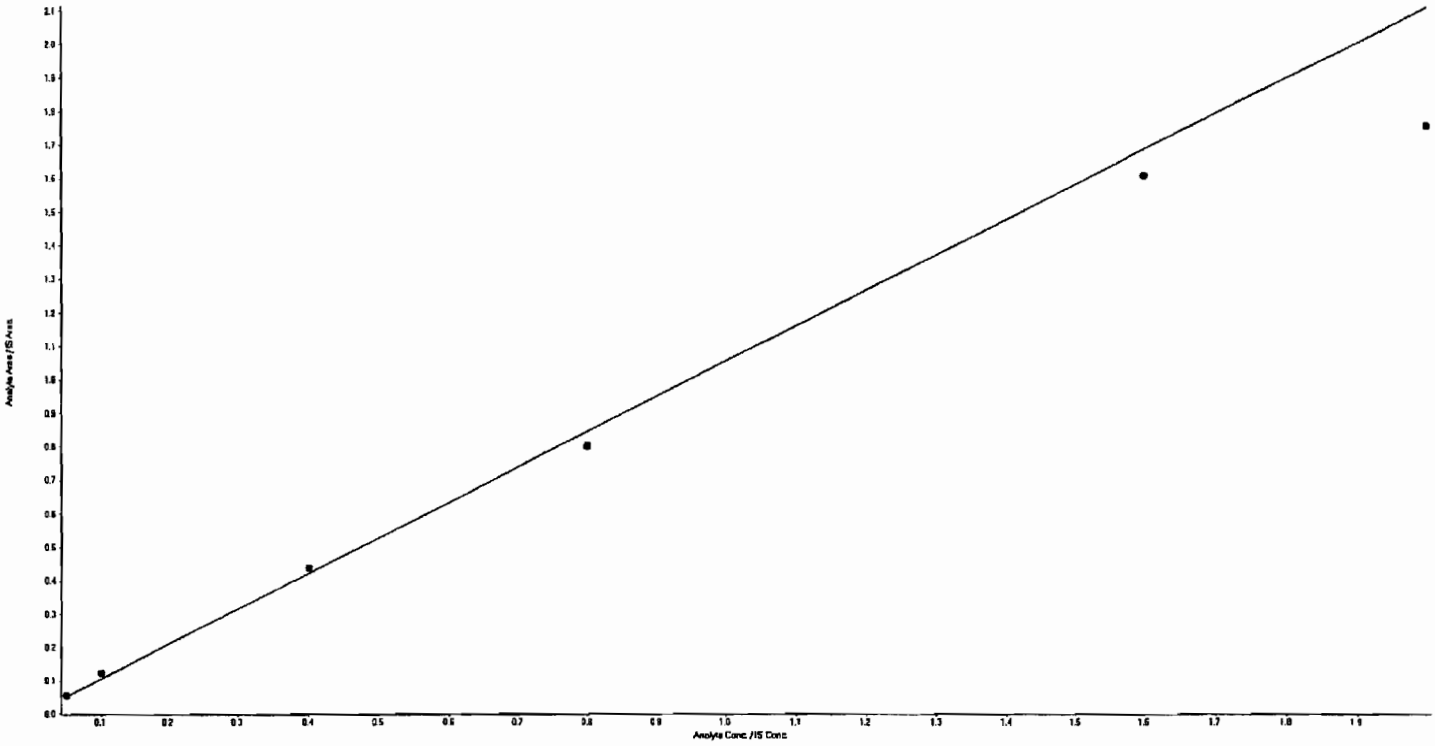

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Analyte Name: 2-Amino-46-dinitrotoluene

Regression Equation: y = 0.0333 x (std. dev. = 0.00244)

Expected Concentration	Calculated Concentration	% Accuracy
25	23.60	94.4
50	49.60	99.2
200	201.96	101.0
400	366.01	91.5
800	901.45	112.7
1000	1012.46	101.2

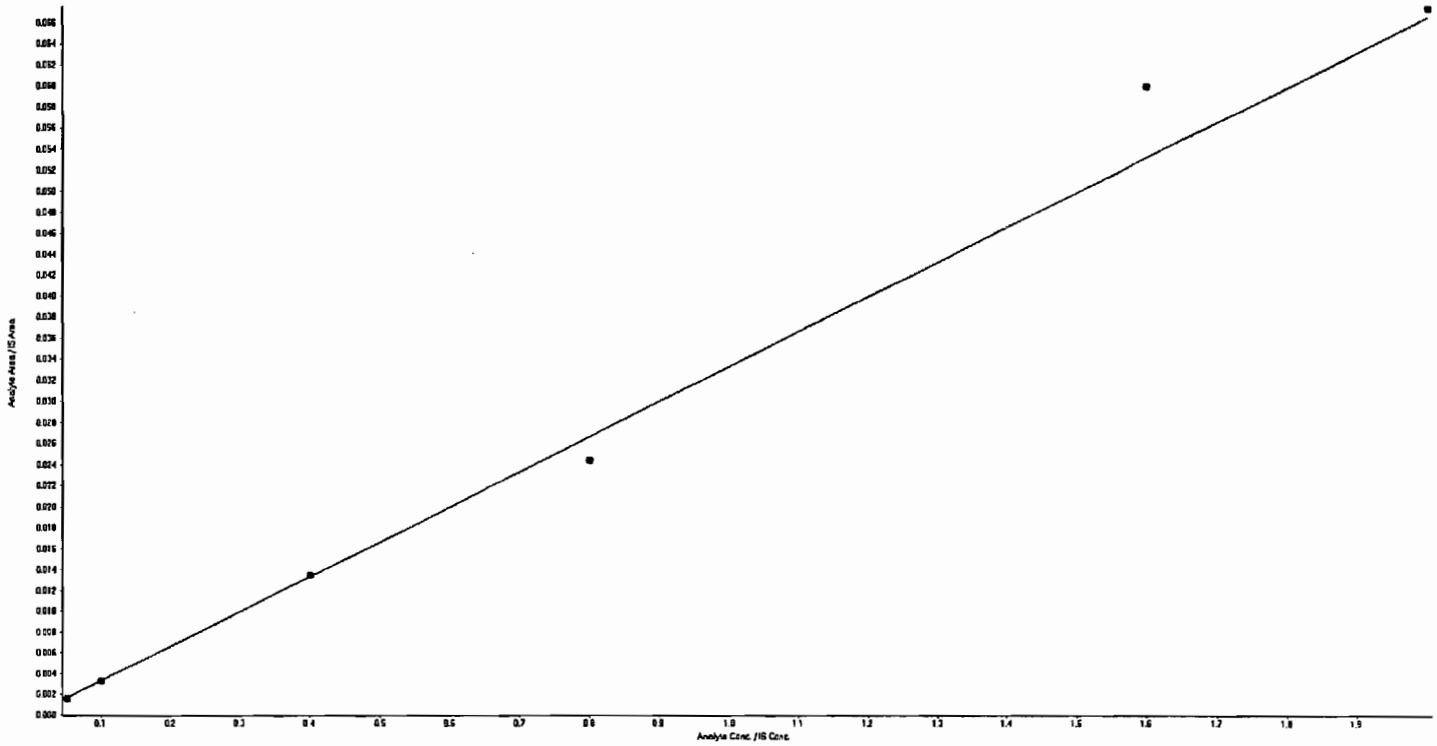

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Analyte Name: 2-Nitrotoluene

Regression Equation: y = 0.0156 x (std. dev. = 0.000896)

Expected Concentration	Calculated Concentration	% Accuracy
25	22.95	91.8
50	51.85	103.7
200	206.35	103.2
400	381.16	95.3
800	856.88	107.1
1000	989.18	98.9

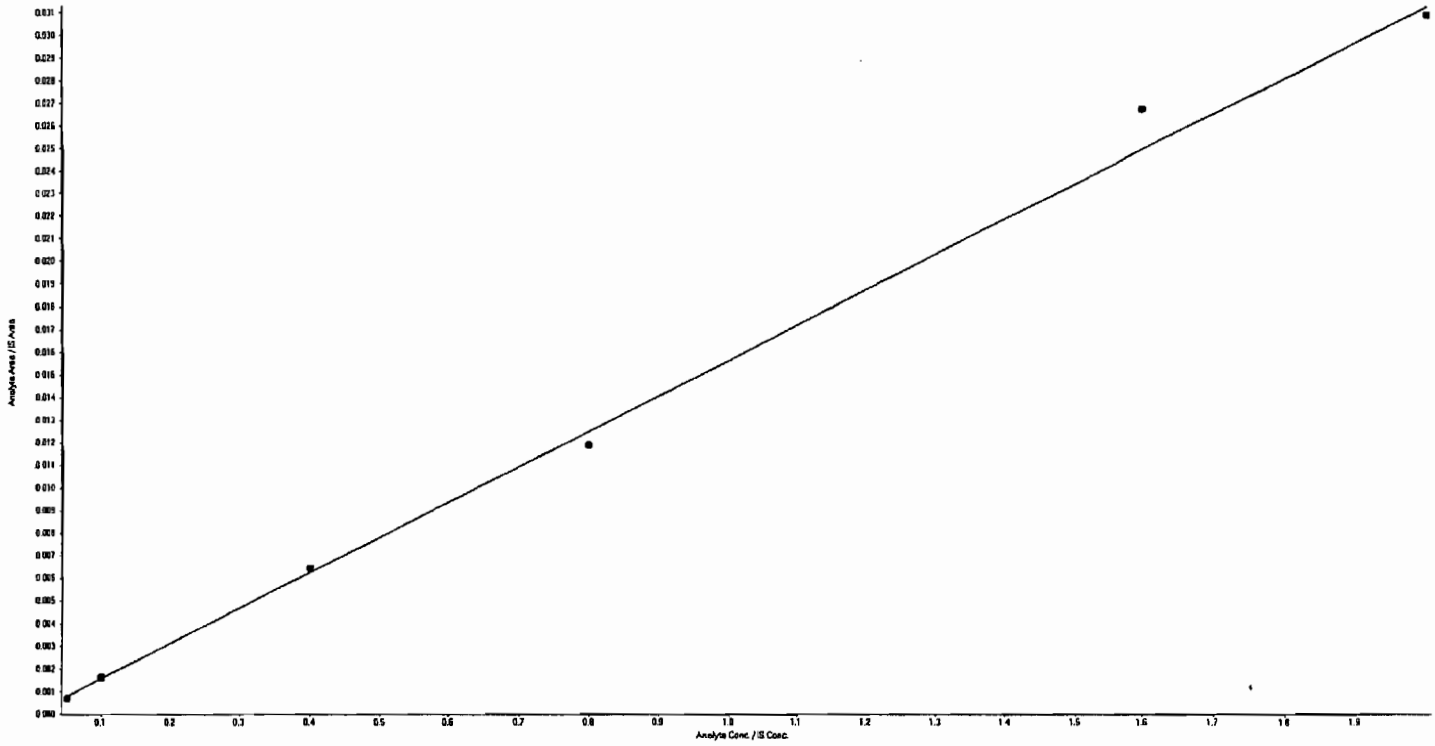

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Analyte Name: 4-Nitrotoluene

Regression Equation: y = 0.0078 x (std. dev. = 0.000535)

Expected Concentration	Calculated Concentration	% Accuracy
25	22.70	90.8
50	52.10	104.2
200	197.04	98.5
400	389.79	97.4
800	887.73	111.0
1000	980.90	98.1

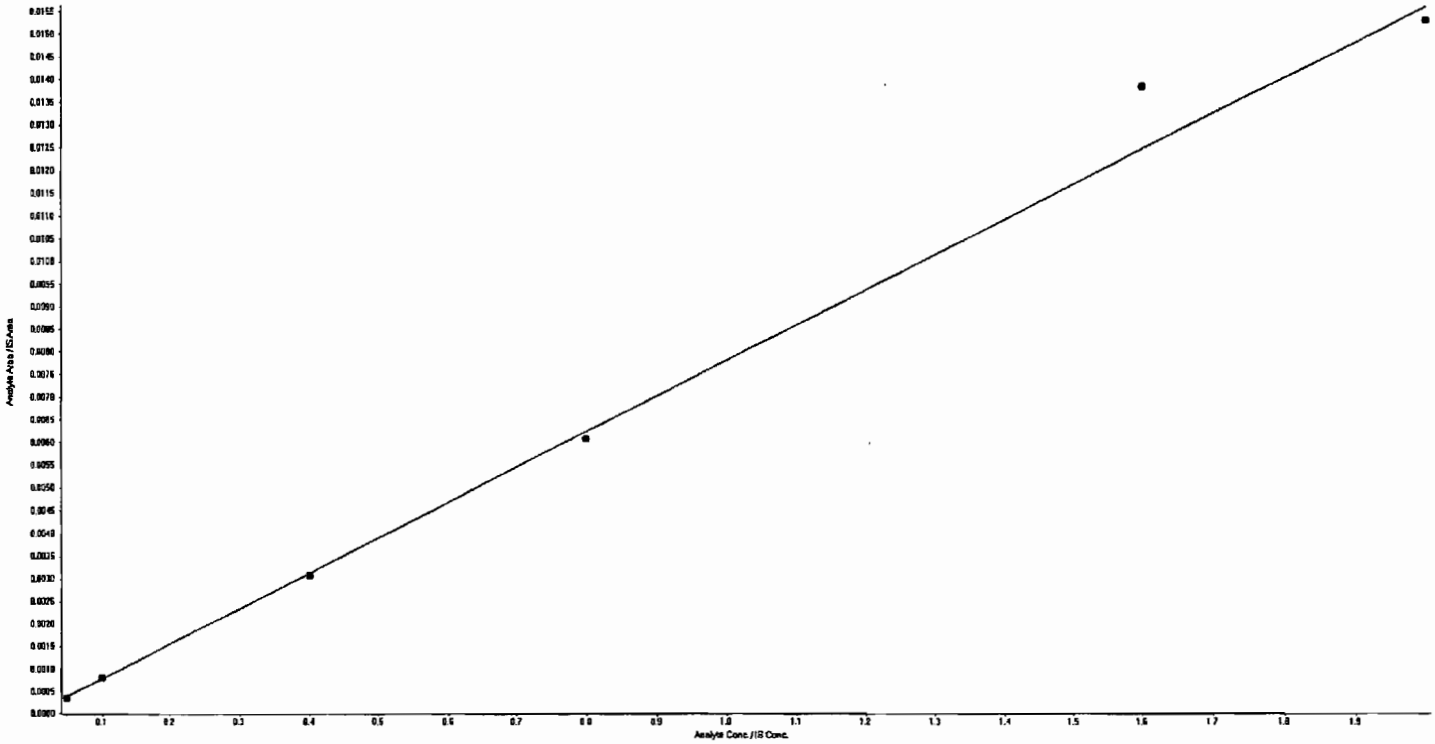

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Analyte Name: 3-Nitrotoluene

Regression Equation: y = 0.00928 x (std. dev. = 0.0008)

Expected Concentration	Calculated Concentration	% Accuracy
25	20.97	83.9
50	51.99	104.0
200	203.43	101.7
400	391.41	97.9
800	868.43	108.6
1000	1040.03	104.0

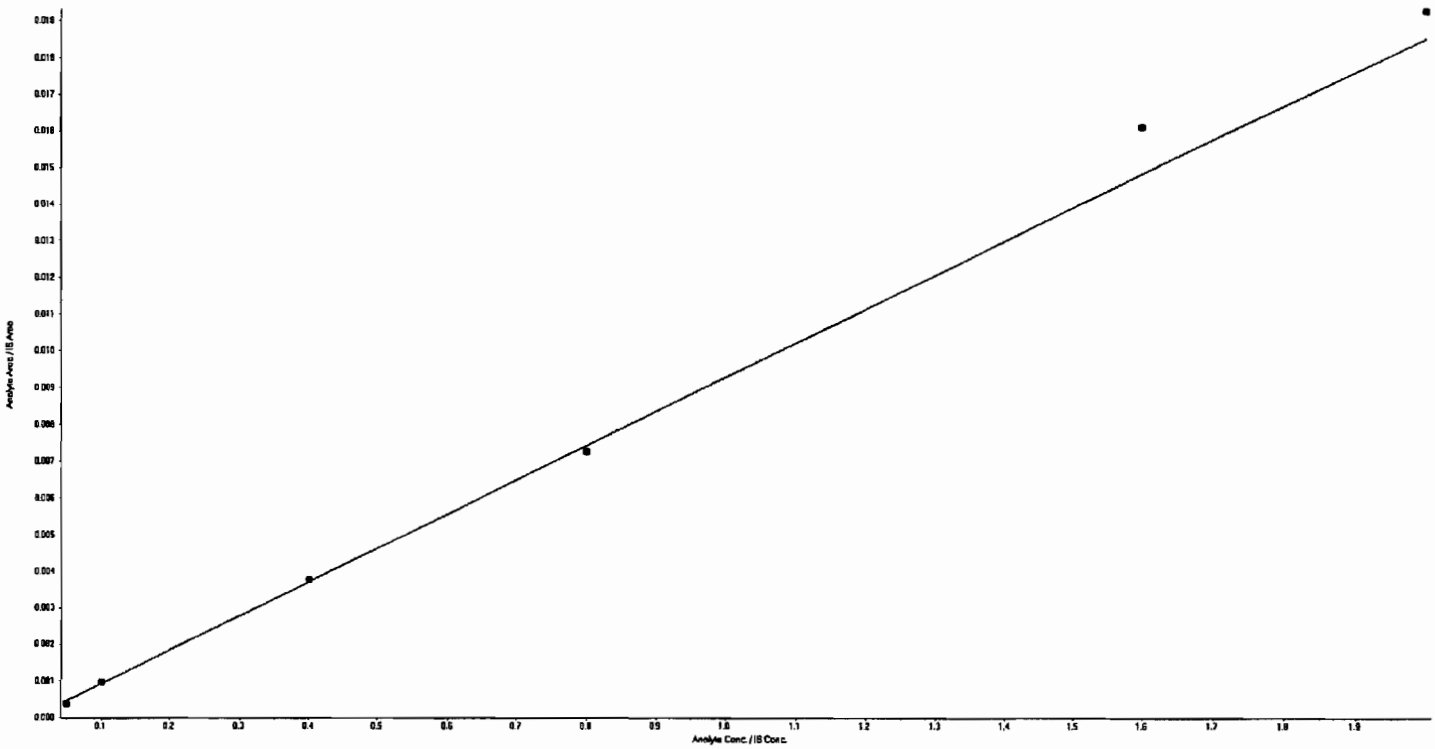

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Analyte Name: PETN

Regression Equation: y = 0.0119 x (std. dev. = 0.000925)

Expected Concentration	Calculated Concentration	% Accuracy
25	23.35	93.4
50	50.44	100.9
200	194.08	97.0
400	363.79	90.9
800	886.90	110.9
1000	1068.61	106.9

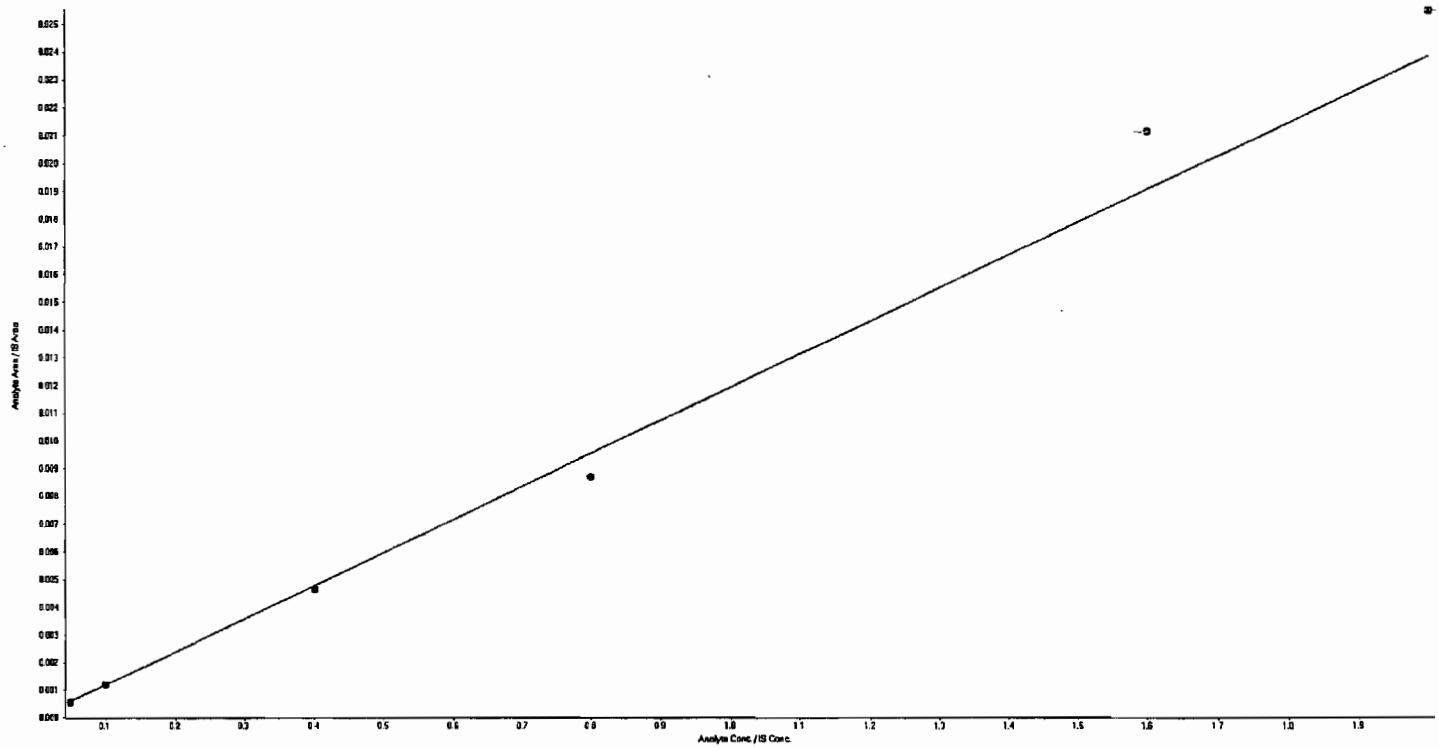

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322003.wiff	Acquisition Date	3/22/2010 4:25:52 PM
Sample Name	WXX100322-50	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_I	Sample Type	Standard

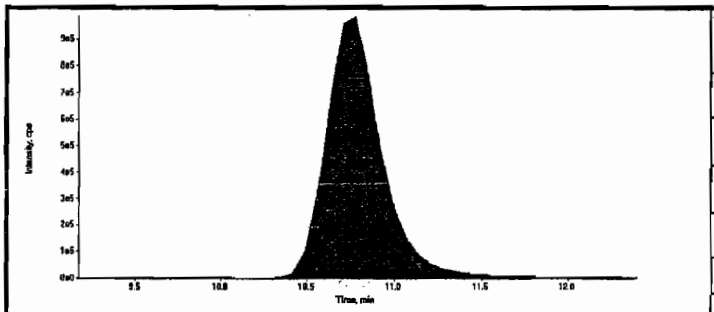

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	21900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

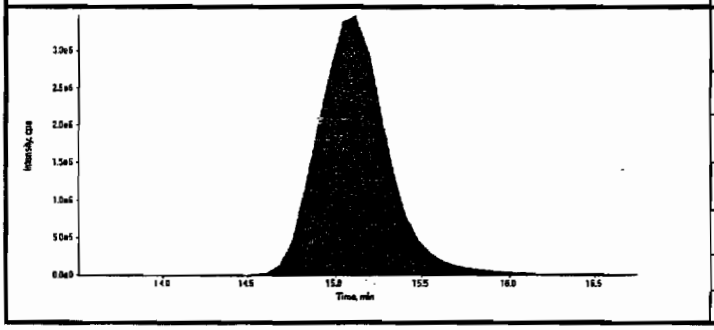

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.10
Area Counts:	96900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

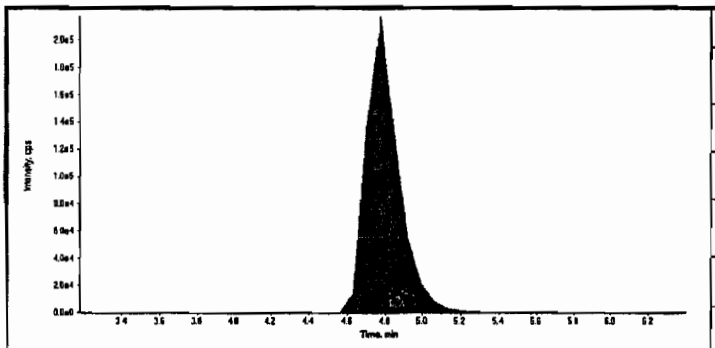

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	2.58e+006
Manual Modification	No
Amount:	17.7 (ng/mL)
% Accuracy:	70.70

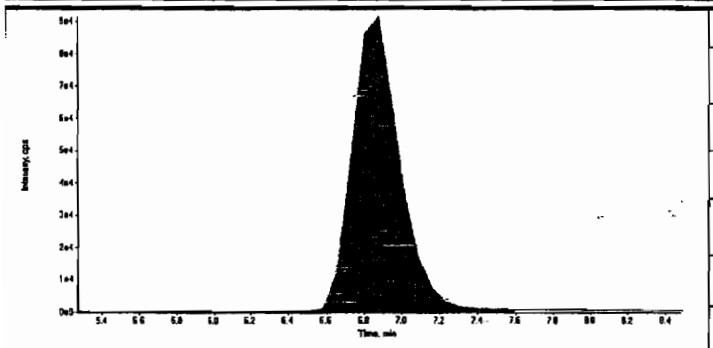

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	1.61e+006
Manual Modification	No
Amount:	24.0 (ng/mL)
% Accuracy:	95.90

LCM 3/28/10

AMW 03/29/10

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Data File	EXP0322003.wiff	**Acquisition Date**	3/22/2010 4:25:52 PM
Sample Name	WXX100322-50	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

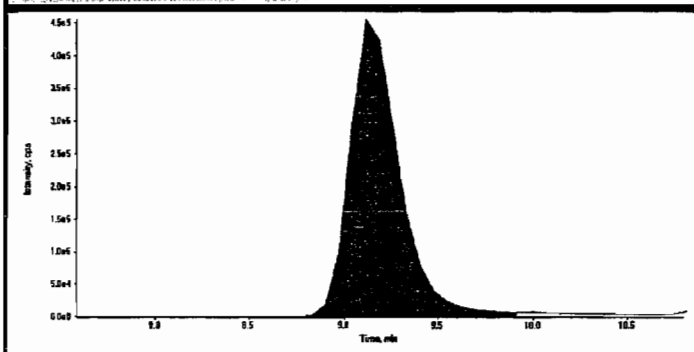

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.12
Area Counts:	8.49e+006
Manual Modification	No
Amount:	29.9 (ng/mL)
% Accuracy:	119.00

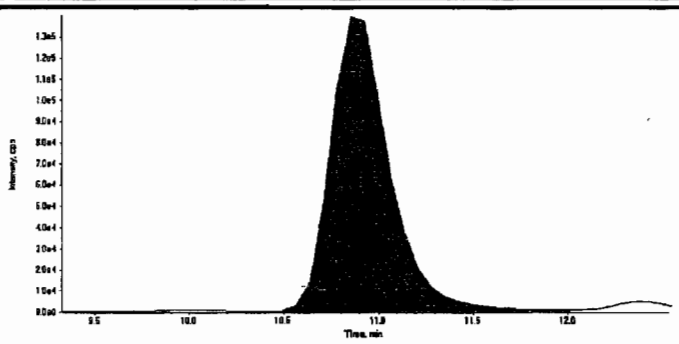

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	3.10e+006
Manual Modification	No
Amount:	26.6 (ng/mL)
% Accuracy:	106.00

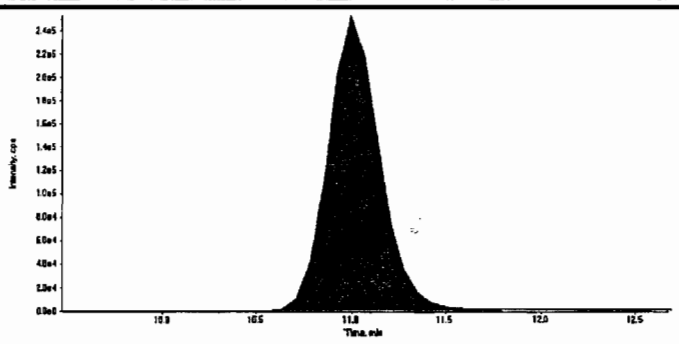

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.0
Area Counts:	4.86e+006
Manual Modification	No
Amount:	26.0 (ng/mL)
% Accuracy:	104.00

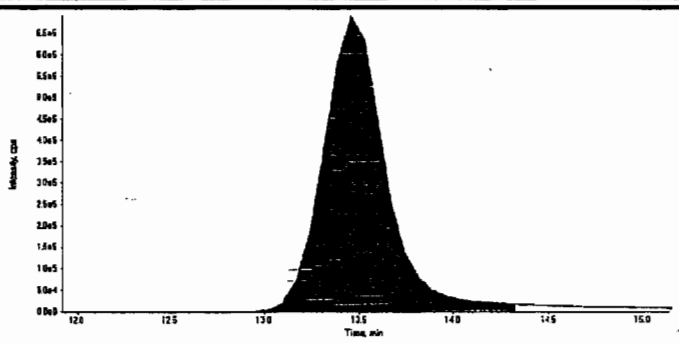

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.59e+007
Manual Modification	No
Amount:	22.2 (ng/mL)
% Accuracy:	88.60

Before Ken 3/28/10

ample Name: "WXX100322-50" Sample ID: "1|LER" File: "EXP0322003.wiff"
eak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
omment: "LCMSEXP_J" Annotation: ""
ple Index: 1
ple Type: Standard
entration: 25.0 ng/mL
culated Conc: 0.00 ng/mL
Date: 3/22/2010
Time: 4:25:52 PM

fied: Yes

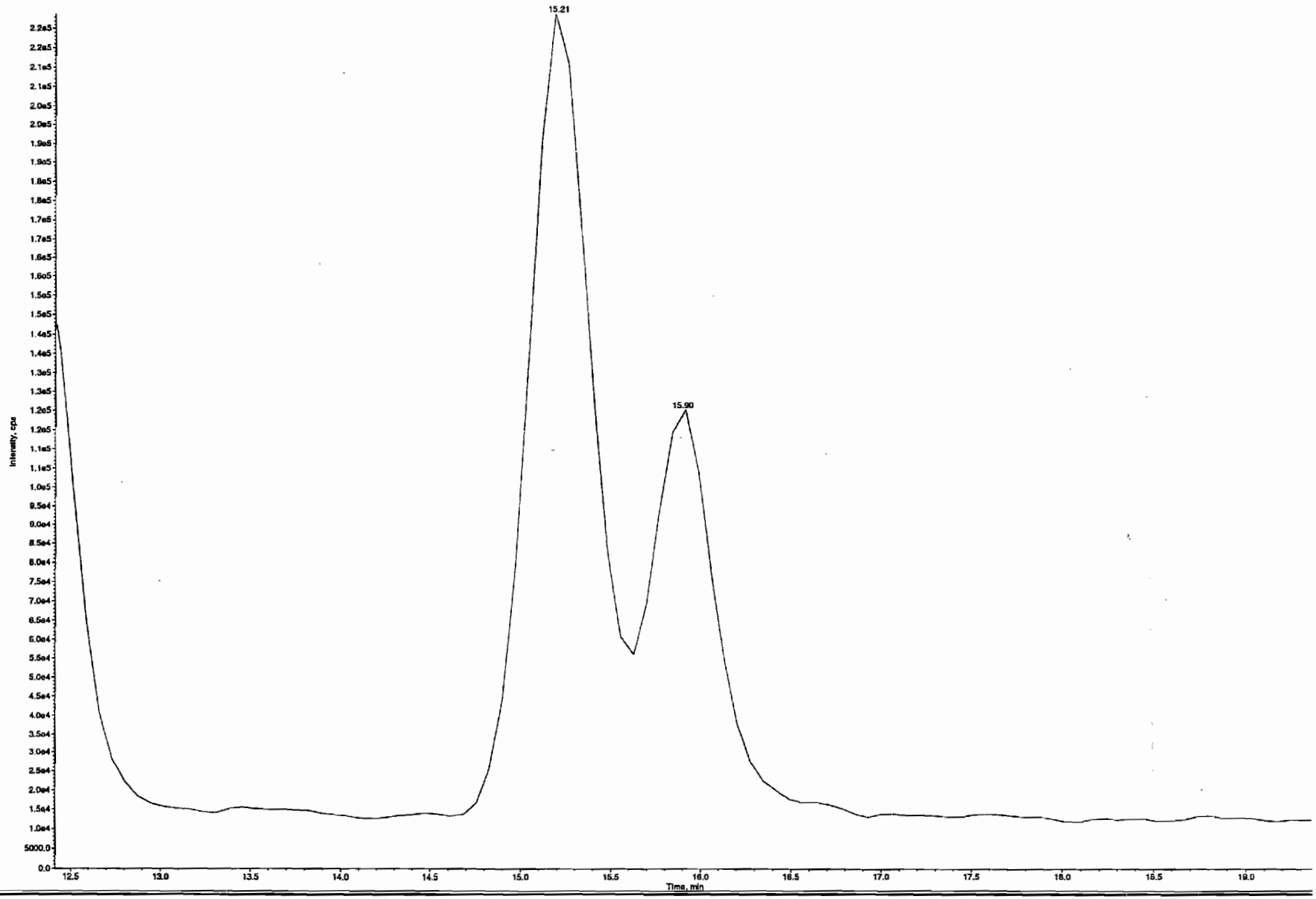

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322003.wiff	Acquisition Date	3/22/2010 4:25:52 PM
Sample Name	WXX100322-50	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_I	Sample Type	Standard

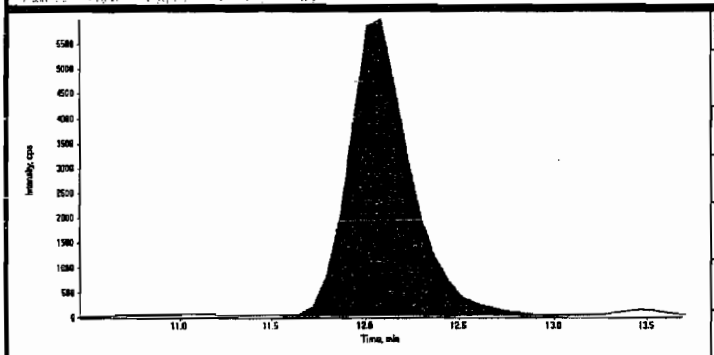

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	1.37e+005
Manual Modification	No
Amount:	23.1 (ng/mL)
% Accuracy:	92.30

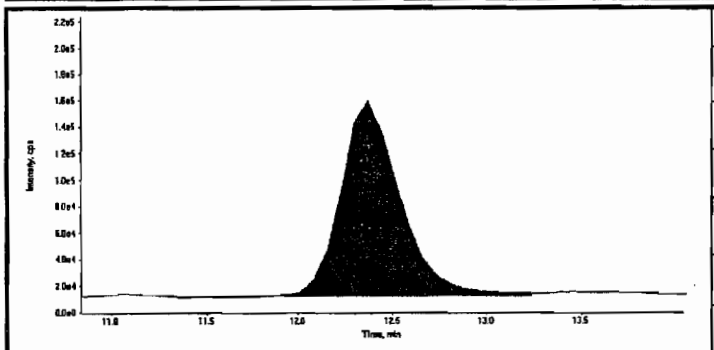

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	3.29e+006
Manual Modification	No
Amount:	13.1 (ng/mL)
% Accuracy:	105.00

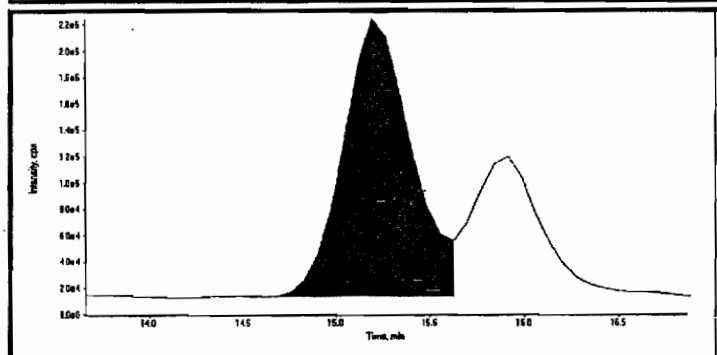

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.2
Area Counts:	5.38e+006
Manual Modification	No
Amount:	28.5 (ng/mL)
% Accuracy:	114.00

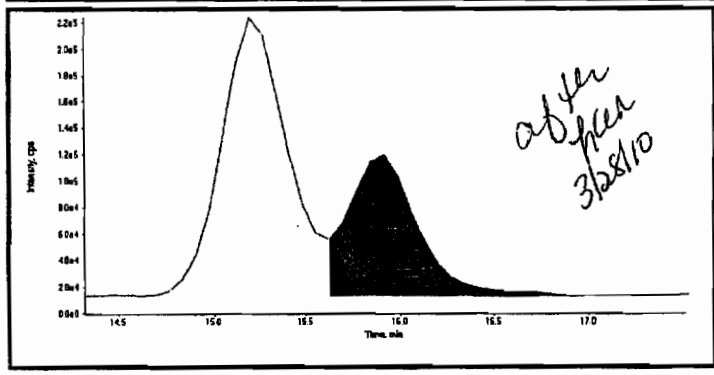

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.9
Actual RT:	15.9
Area Counts:	2.76e+006
Manual Modification	Yes
Amount:	24.4 (ng/mL)
% Accuracy:	97.40

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Data File	EXP0322003.wiff	**Acquisition Date**	3/22/2010 4:25:52 PM
Sample Name	WXX100322-50	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

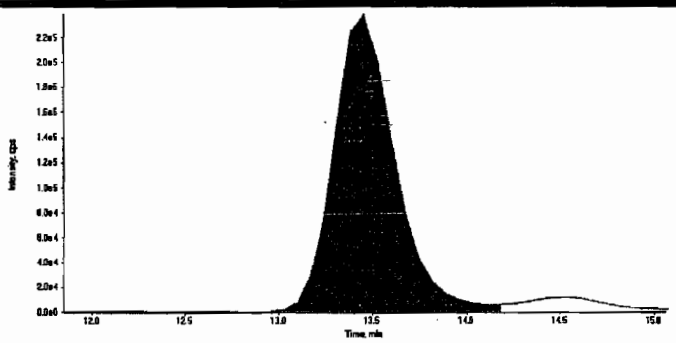

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	5.43e+006
Manual Modification	No
Amount:	26.5 (ng/mL)
% Accuracy:	106.00

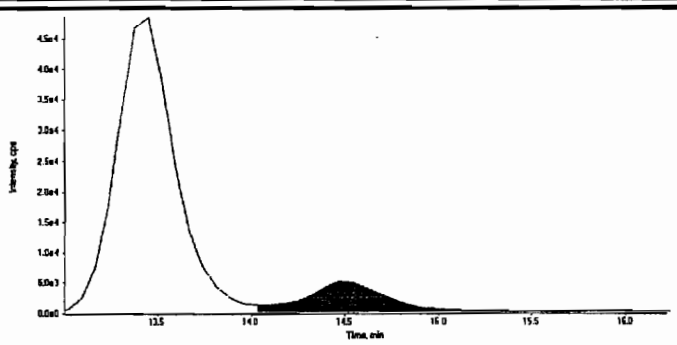

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.5
Area Counts:	1.52e+005
Manual Modification	No
Amount:	23.6 (ng/mL)
% Accuracy:	94.40

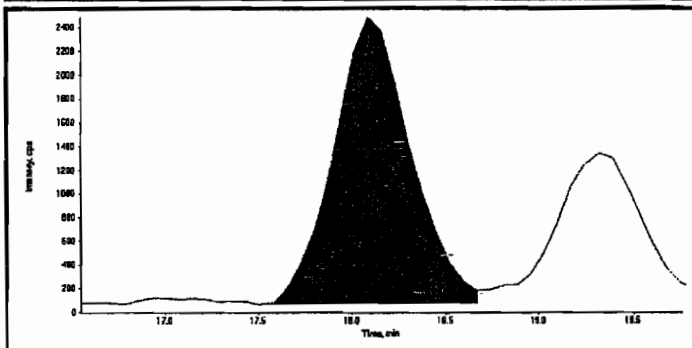

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.1
Area Counts:	6.95e+004
Manual Modification	No
Amount:	23.0 (ng/mL)
% Accuracy:	91.80

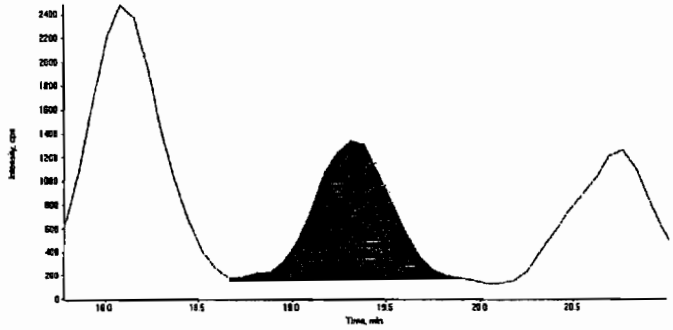

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.3
Area Counts:	3.43e+004
Manual Modification	No
Amount:	22.7 (ng/mL)
% Accuracy:	90.80

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Data File	EXP0322003.wiff	**Acquisition Date**	3/22/2010 4:25:52 PM
Sample Name	WXX100322-50	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

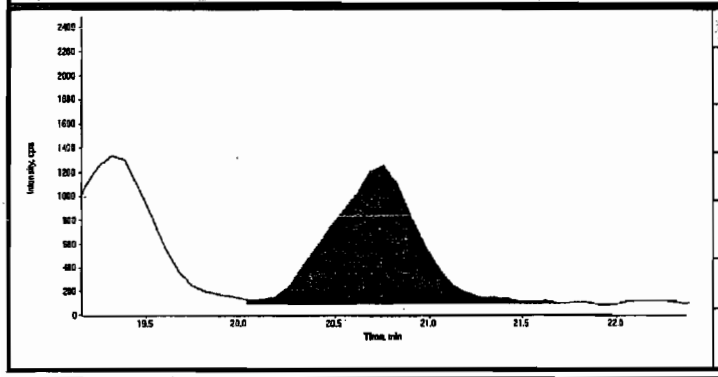

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.8
Area Counts:	3.77e+004
Manual Modification	No
Amount:	21.0 (ng/mL)
% Accuracy:	83.90

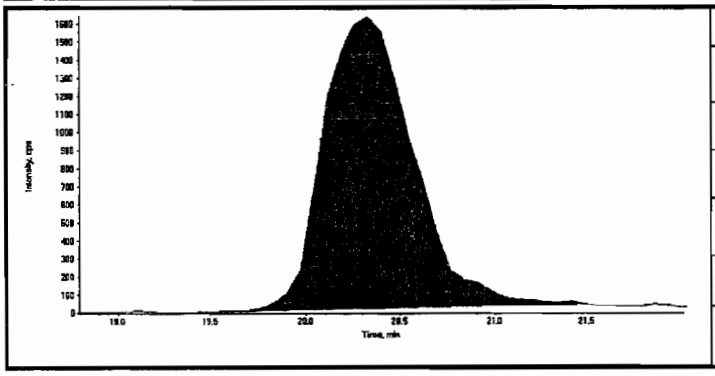

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.3
Area Counts:	5.40e+004
Manual Modification	No
Amount:	23.4 (ng/mL)
% Accuracy:	93.40

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Data File	EXP0322004.wiff	**Acquisition Date**	3/22/2010 4:52:08 PM
Sample Name	WXX100322-51	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

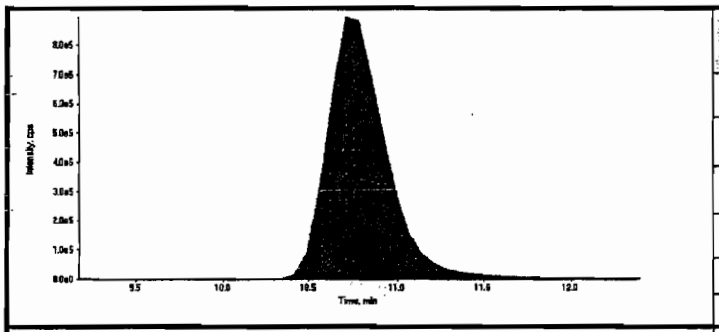

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.70
Area Counts:	20700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

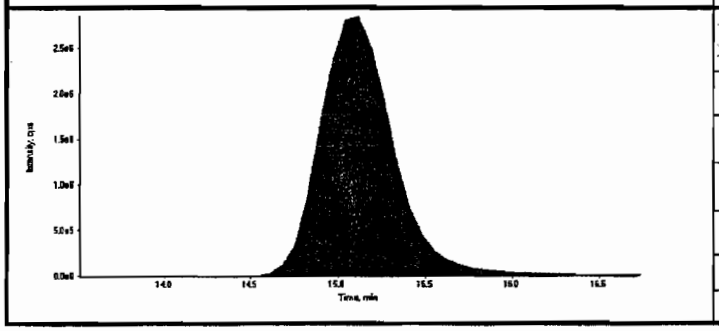

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.10
Area Counts:	82500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

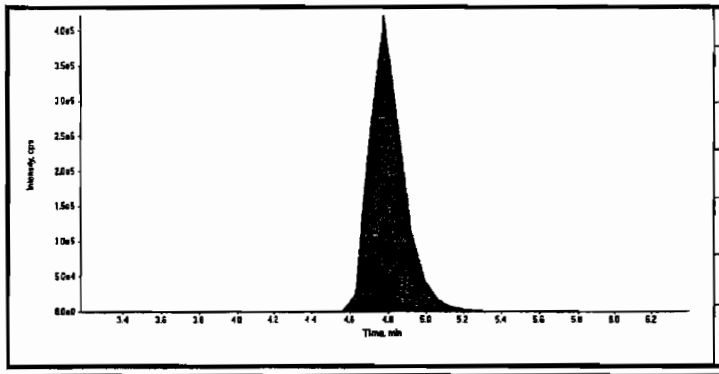

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	5.05e+006
Manual Modification	No
Amount:	47.2 (ng/mL)
% Accuracy:	94.30

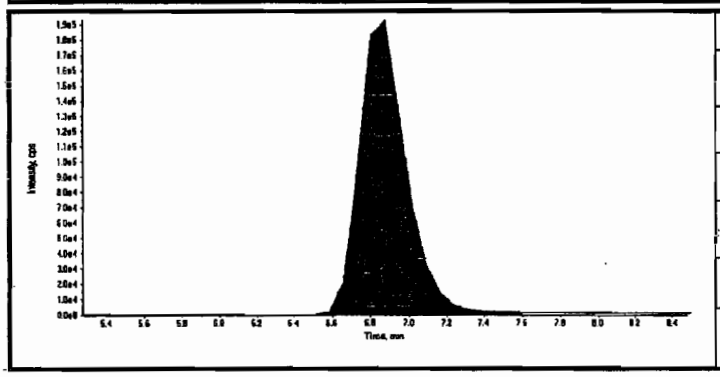

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	3.28e+006
Manual Modification	No
Amount:	51.7 (ng/mL)
% Accuracy:	103.00

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Data File	EXP0322004.wiff	**Acquisition Date**	3/22/2010 4:52:08 PM
Sample Name	WXX100322-51	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

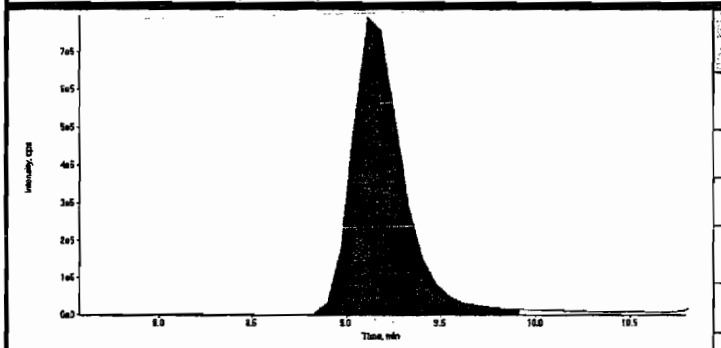

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.12
Area Counts:	1.51e+007
Manual Modification	No
Amount:	56.1 (ng/mL)
% Accuracy:	112.00

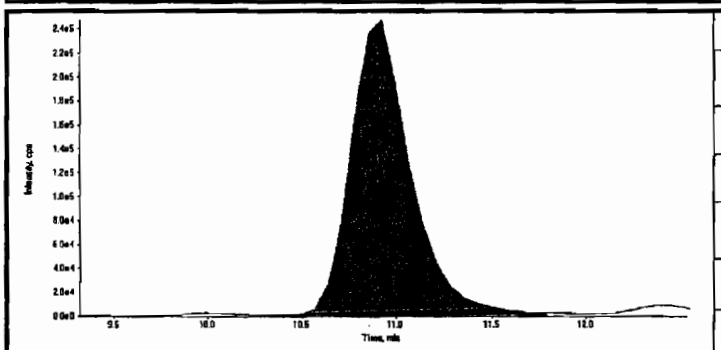

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	5.54e+006
Manual Modification	No
Amount:	50.3 (ng/mL)
% Accuracy:	101.00

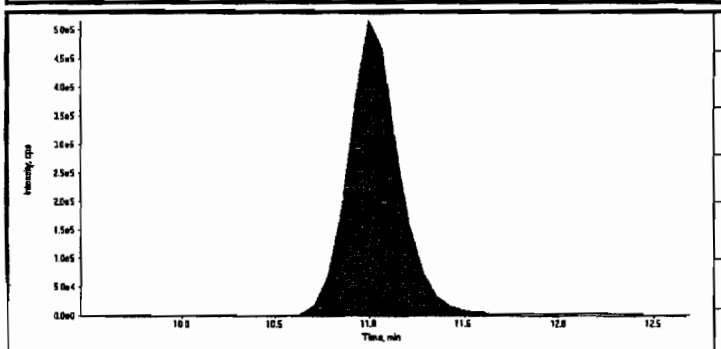

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.0
Area Counts:	9.75e+006
Manual Modification	No
Amount:	55.1 (ng/mL)
% Accuracy:	110.00

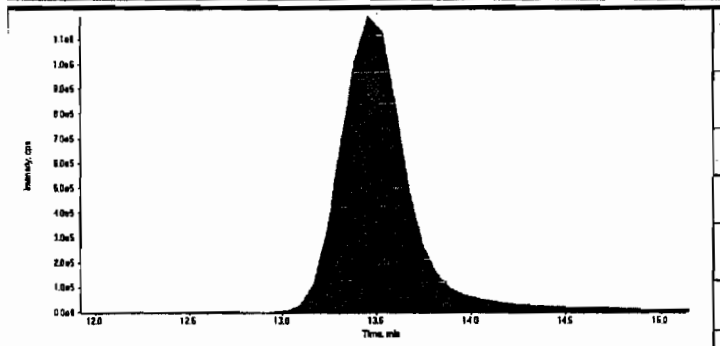

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	3.06e+007
Manual Modification	No
Amount:	56.8 (ng/mL)
% Accuracy:	114.00

Before Lan 3/28/10

mple Name: "WXX100322-51" Sample ID: "1ILER" File: "EXP0322004.wlf"
sk Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
mment: "LCMSEXP_I" Annotation: ""
le Index: 1
le Type: Standard
ntration: 50.0 ng/mL
lated Conc: 0.00 ng/mL
Date: 3/22/2010
Time: 4:52:08 PM
led: Yes

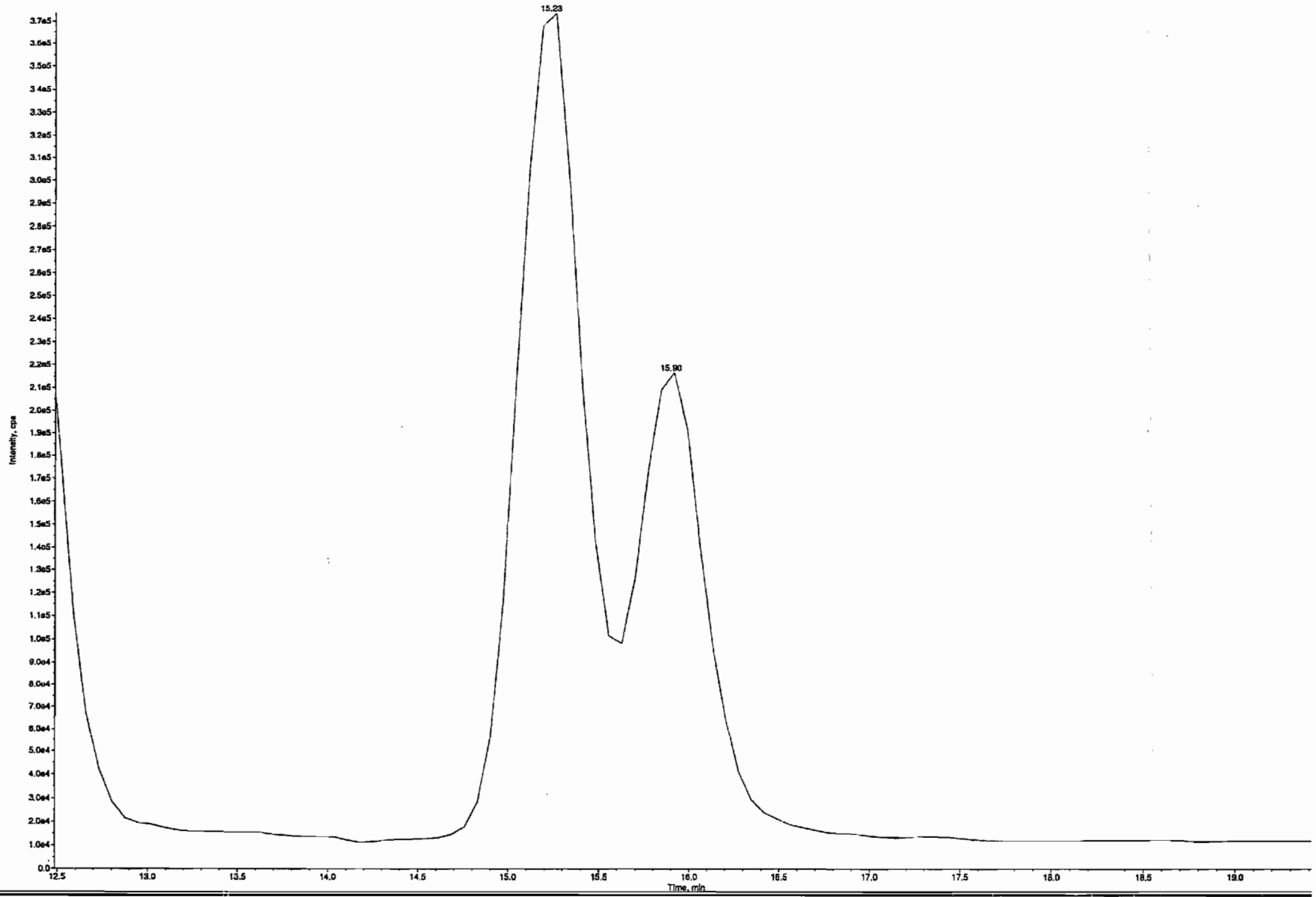

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322004.wiff	Acquisition Date	3/22/2010 4:52:08 PM
Sample Name	WXX100322-51	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_I	Sample Type	Standard

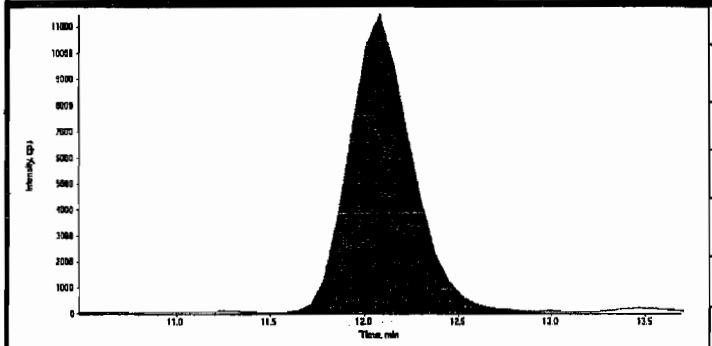

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	2.60e+005
Manual Modification	No
Amount:	46.5 (ng/mL)
% Accuracy:	92.90

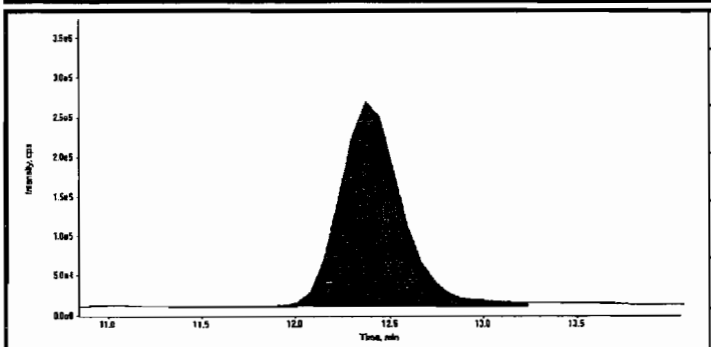

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	5.88e+006
Manual Modification	No
Amount:	27.5 (ng/mL)
% Accuracy:	110.00

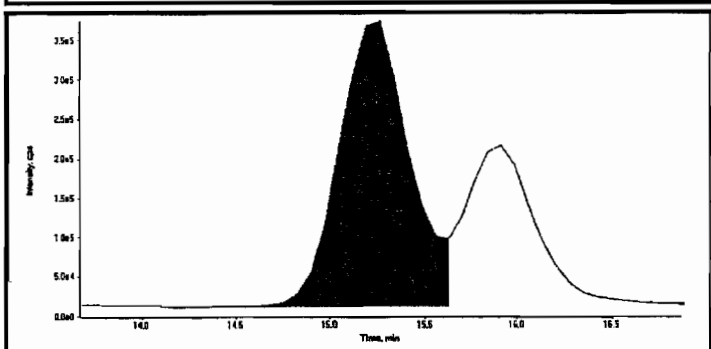

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	9.48e+006
Manual Modification	No
Amount:	59.0 (ng/mL)
% Accuracy:	118.00

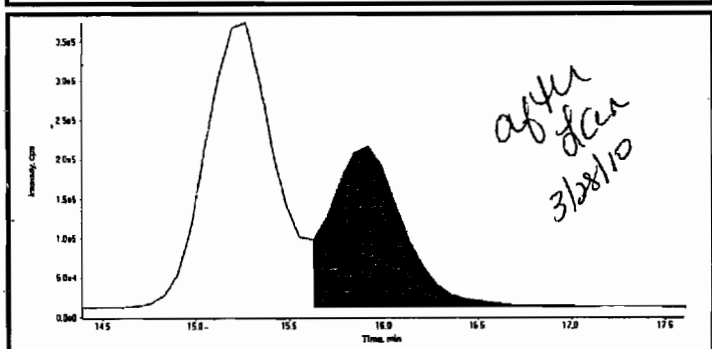

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	15.9
Area Counts:	5.38e+006
Manual Modification	Yes
Amount:	55.6 (ng/mL)
% Accuracy:	111.00

Before Ken 3/28/10

mple Name: "WXX100322-51" Sample ID: "[1]LER" File: "EXP0322004.wlf"
ak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
mment: "LCMSEXP_I" Annotation: ""

le Index:	1	
le Type:	Standard	
ntration:	50.0	ng/mL
lated Conc:	32.4	ng/mL
Date:	3/22/2010	
Time:	4:52:08 PM	
lied:	No	
Algorithm:	IntelliQuan - IQA	
Peak Height:	1000.00	cps
Peak Width:	0.00	sec
hing Width:	3	points
ndow:	30.0	sec
ted RT:	14.6	min
elative RT:	No	
Type:	Valley	
tion Time:	14.5	min
	3.92e+005	counts
t:	1.18e+004	cps
Time:	14.1	min
ine:	15.3	min

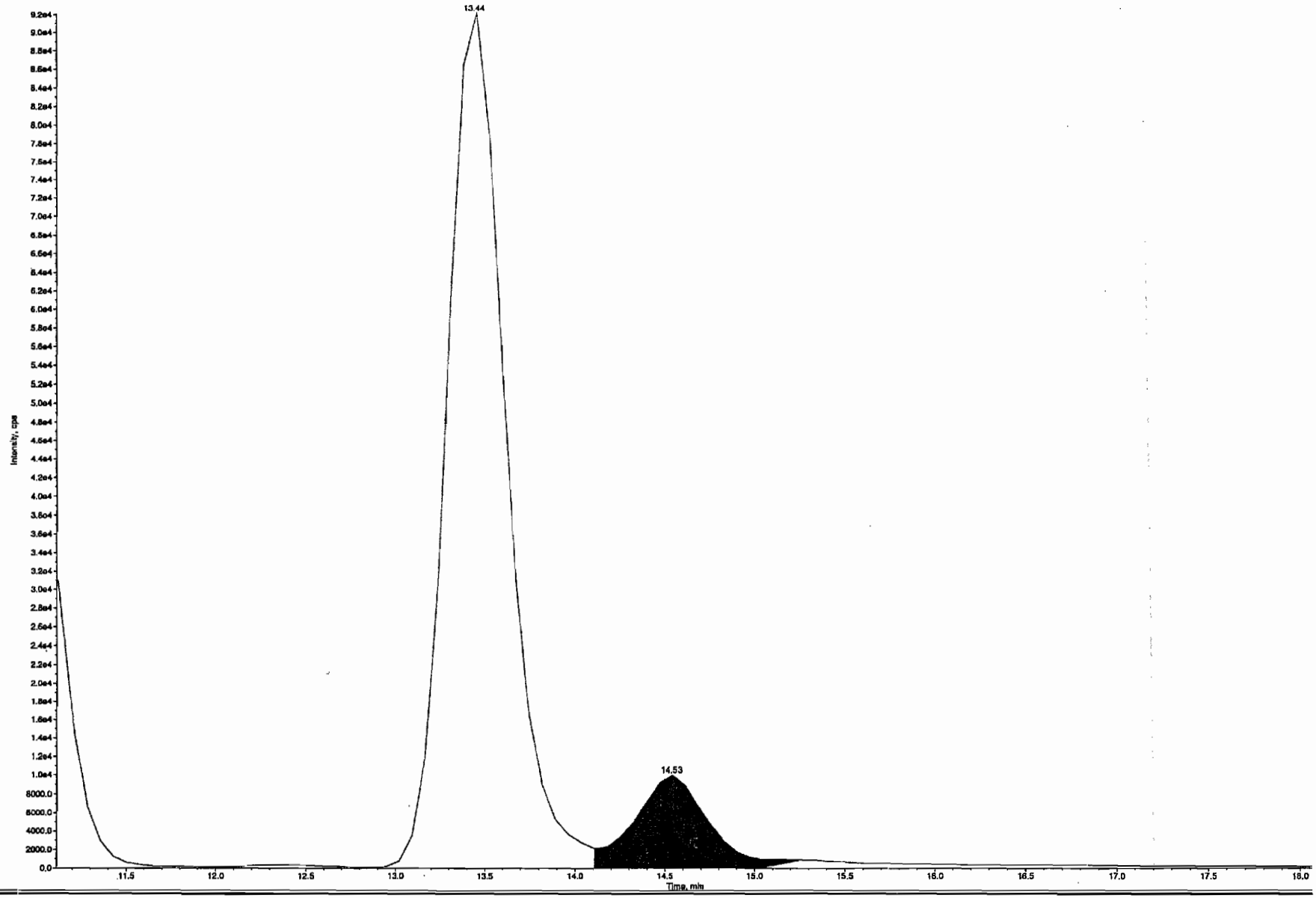

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322004.wiff	Acquisition Date	3/22/2010 4:52:08 PM
Sample Name	WXX100322-51	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_I	Sample Type	Standard

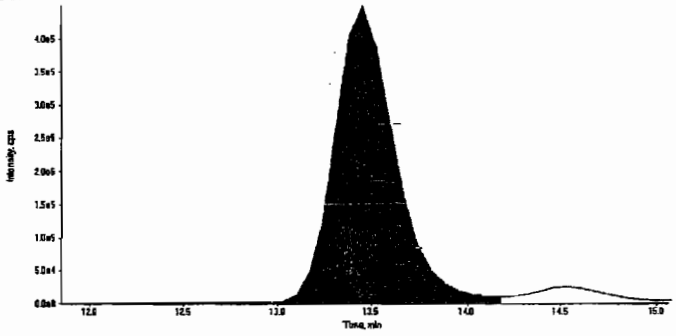

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.02e+007
Manual Modification	No
Amount:	58.4 (ng/mL)
% Accuracy:	117.00

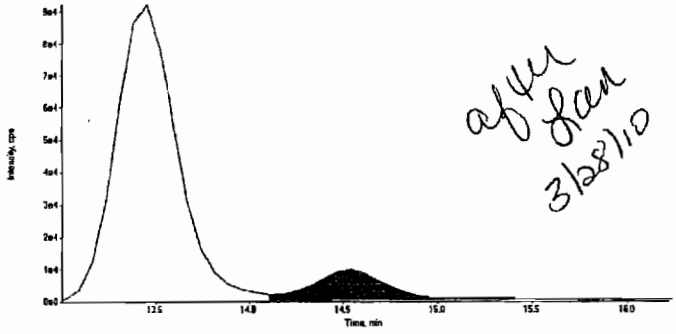

after Ran 3/28/10

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.5
Area Counts:	2.73e+005
Manual Modification	Yes
Amount:	49.6 (ng/mL)
% Accuracy:	99.20

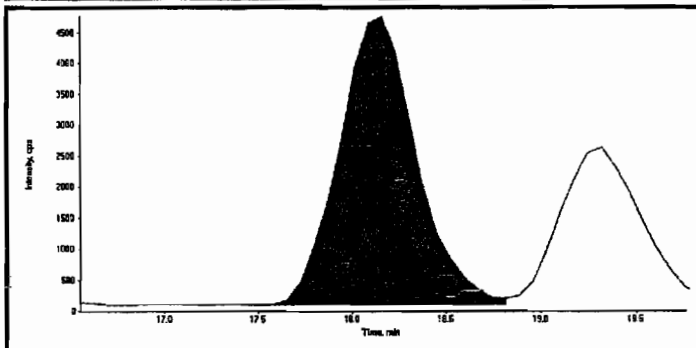

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.2
Area Counts:	1.34e+005
Manual Modification	No
Amount:	51.8 (ng/mL)
% Accuracy:	104.00

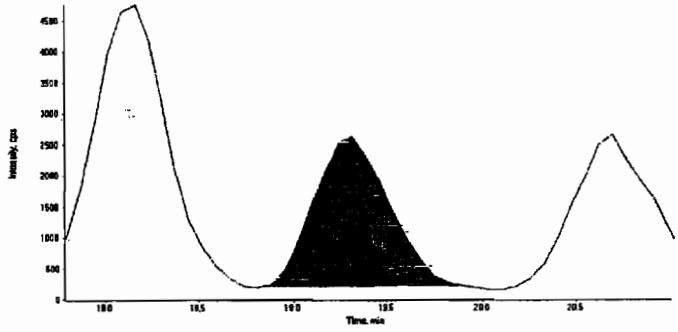

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.3
Area Counts:	6.71e+004
Manual Modification	No
Amount:	52.1 (ng/mL)
% Accuracy:	104.00

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Data File	EXP0322004.wiff	**Acquisition Date**	3/22/2010 4:52:08 PM
Sample Name	WXX100322-51	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

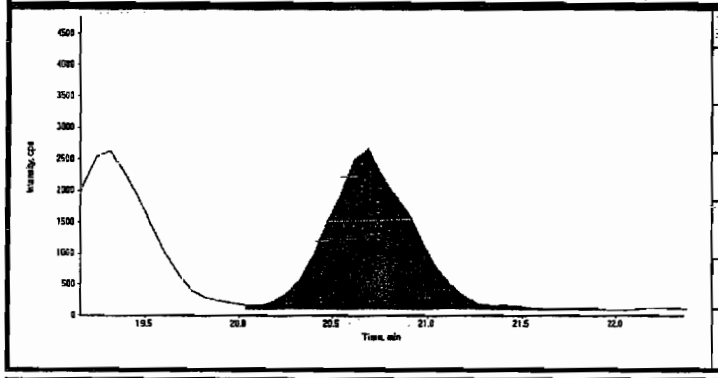

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.7
Area Counts:	7.96e+004
Manual Modification	No
Amount:	52.0 (ng/mL)
% Accuracy:	104.00

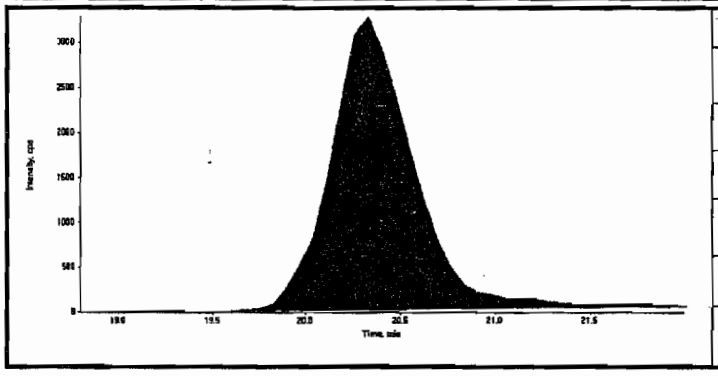

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.3
Area Counts:	9.94e+004
Manual Modification	No
Amount:	50.4 (ng/mL)
% Accuracy:	101.00

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322005.wiff	Acquisition Date	3/22/2010 5:18:27 PM
Sample Name	WXX100322-52	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_I	Sample Type	Standard

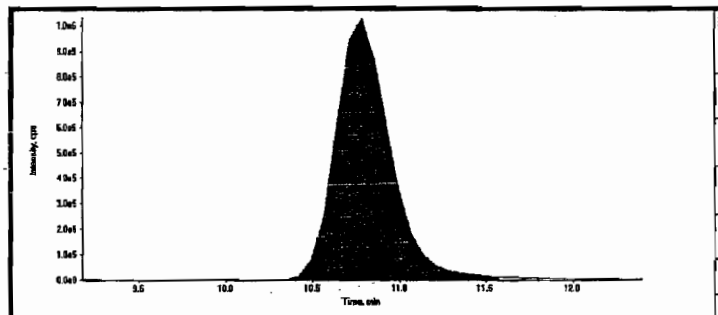

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	22600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

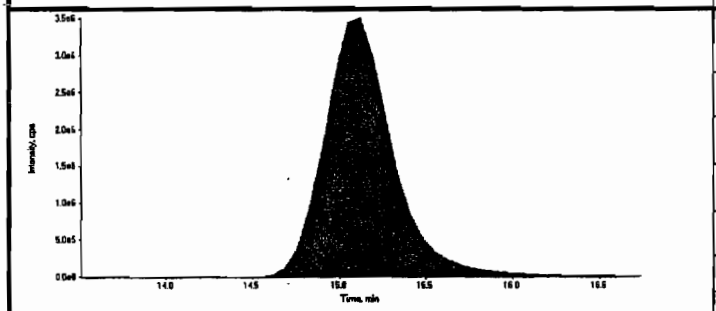

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.10
Area Counts:	96300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

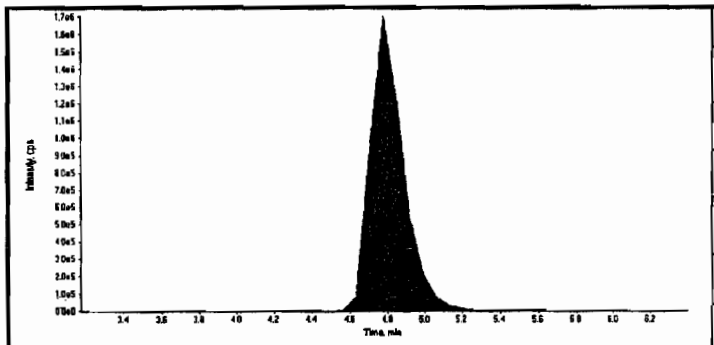

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	2.10e+007
Manual Modification	No
Amount:	208. (ng/mL)
% Accuracy:	104.00

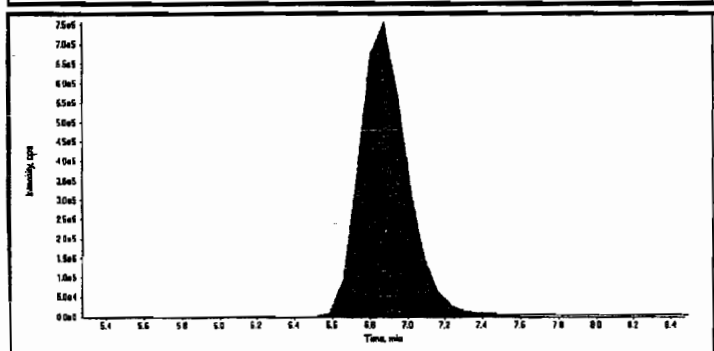

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	1.32e+007
Manual Modification	No
Amount:	192. (ng/mL)
% Accuracy:	95.80

JMW 03/28/10
LCM 3/28/10

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Data File	EXP0322005.wiff	**Acquisition Date**	3/22/2010 5:18:27 PM
Sample Name	WXX100322-52	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

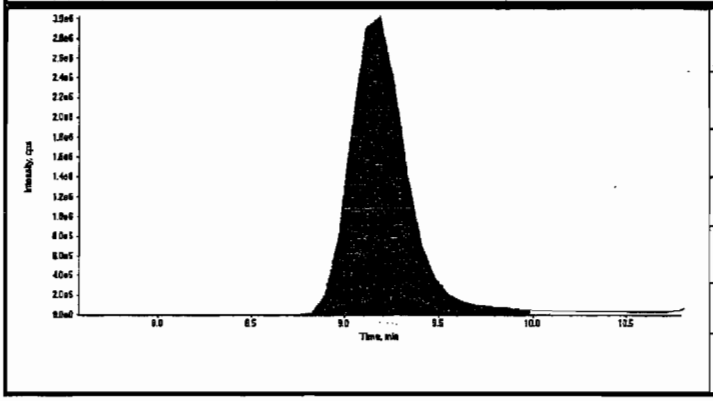

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.19
Area Counts:	6.30e+007
Manual Modification	No
Amount:	215. (ng/mL)
% Accuracy:	108.00

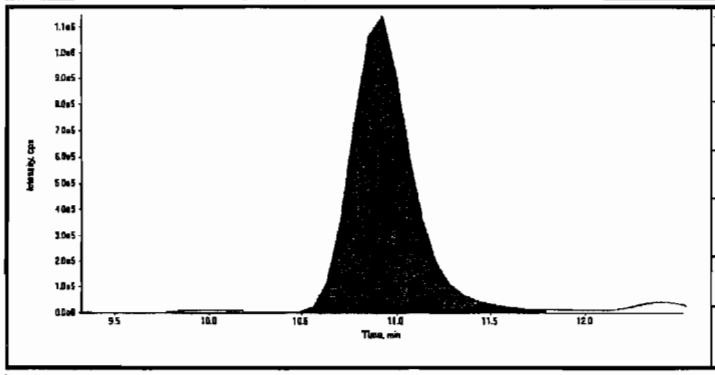

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	2.53e+007
Manual Modification	No
Amount:	211. (ng/mL)
% Accuracy:	106.00

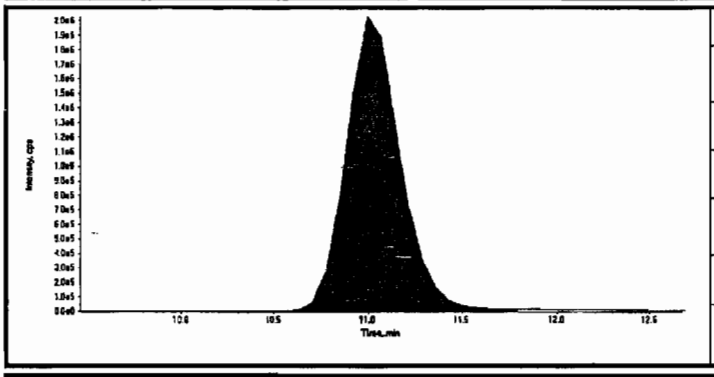

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.0
Area Counts:	4.03e+007
Manual Modification	No
Amount:	209. (ng/mL)
% Accuracy:	104.00

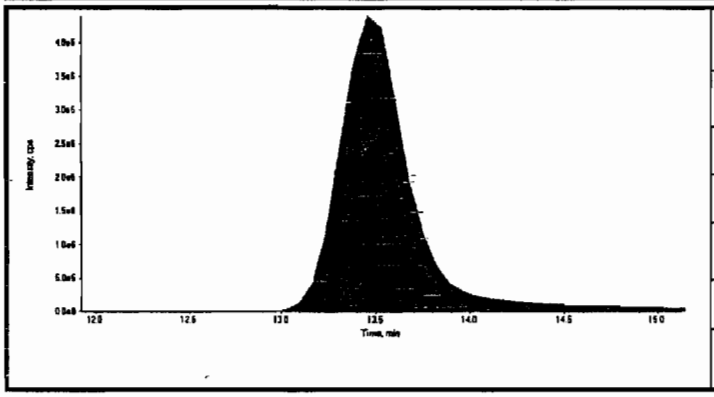

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.16e+008
Manual Modification	No
Amount:	207. (ng/mL)
% Accuracy:	103.00

Before Ran 3/28/10

mple Name: "WXX100322-52" Sample ID: "[1]LER" File: "EXP0322005.wiff"
ak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
mment: "LCMSEXP_|" Annotation: ""
le Index: 1
le Type: Standard
ntration: 200. ng/mL
lated Conc: 0.00 ng/mL
Date: 3/22/2010
Time: 5:18:27 PM
lied: Yes

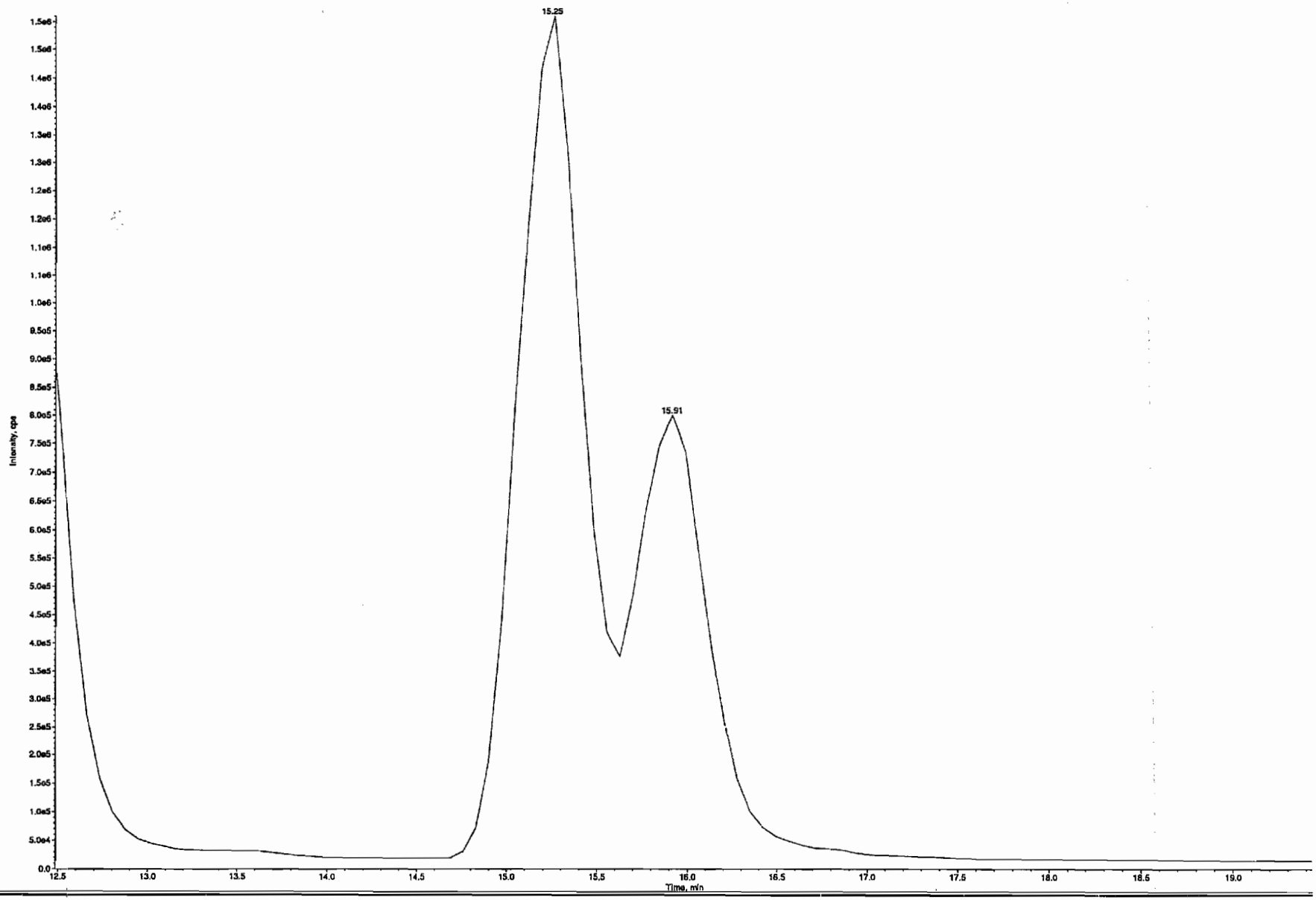

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322005.wiff	**Acquisition Date**	3/22/2010 5:18:27 PM
Sample Name	WXX100322-52	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

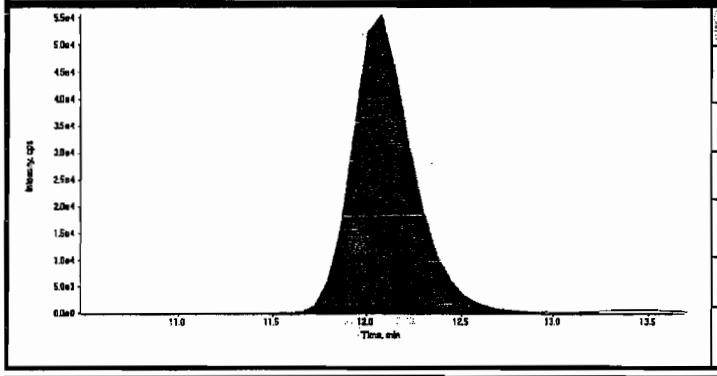

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	1.25e+006
Manual Modification	No
Amount:	204. (ng/mL)
% Accuracy:	102.00

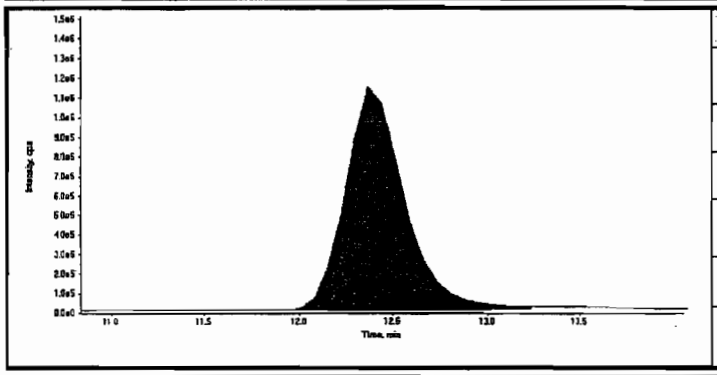

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	2.52e+007
Manual Modification	No
Amount:	101. (ng/mL)
% Accuracy:	101.00

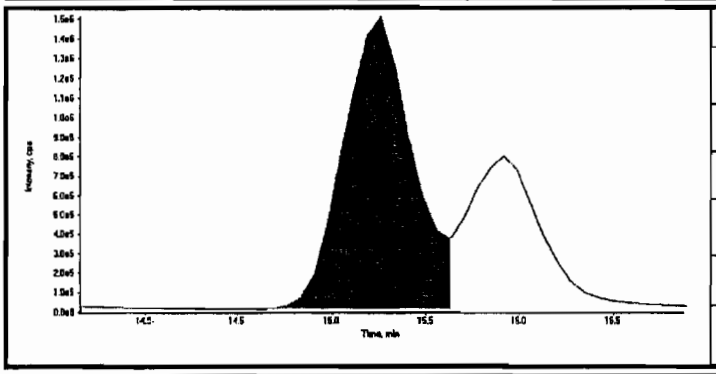

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	3.88e+007
Manual Modification	No
Amount:	207. (ng/mL)
% Accuracy:	104.00

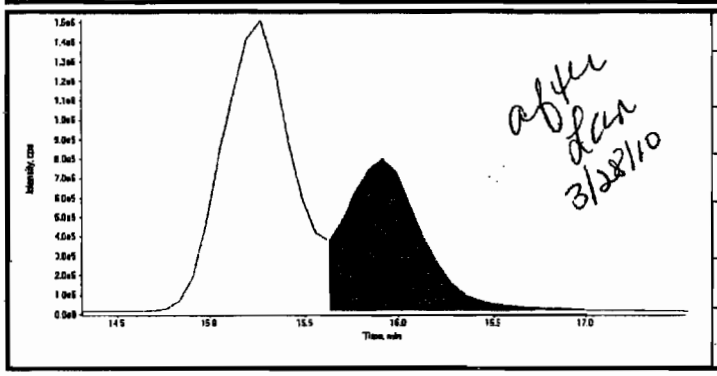

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.9
Actual RT:	15.9
Area Counts:	2.18e+007
Manual Modification	Yes
Amount:	193. (ng/mL)
% Accuracy:	96.70

Before Lan 3/28/10

mple Name: "WXX100322-52" Sample ID: "[1]LER" File: "EXP0322005.wif"
ak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
mment: "LCMSEXP_j" Annotation: ""

le Index:	1	
le Type:	Standard	
entration:	200.	ng/mL
ulated Conc:	264.	ng/mL
Date:	3/22/2010	
Time:	5:18:27 PM	
fied:	No	
. Algorithm:	IntelliQuan - IQA	
Peak Height:	1000.00	cps
Peak Width:	0.00	sec
thing Width:	3	points
indow:	30.0	sec
eted RT:	14.6	min
Relative RT:	No	
Type:	Valley	
ation Time:	14.5	min
:	3.60e+006	counts
ht:	6.20e+004	cps
t Time:	14.1	min
Time:	17.1	min

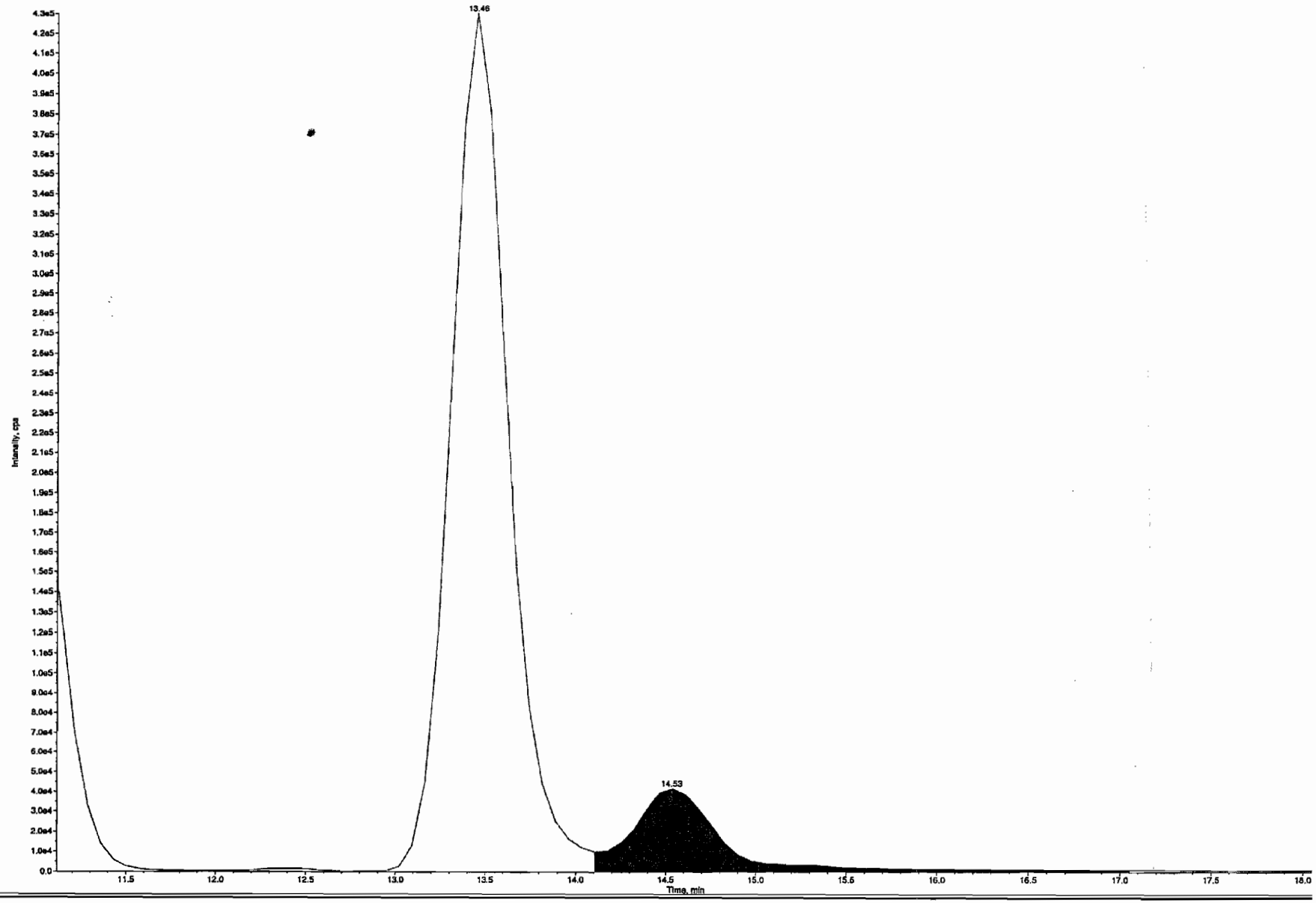

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322005.wiff	Acquisition Date	3/22/2010 5:18:27 PM
Sample Name	WXX100322-52	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_I	Sample Type	Standard

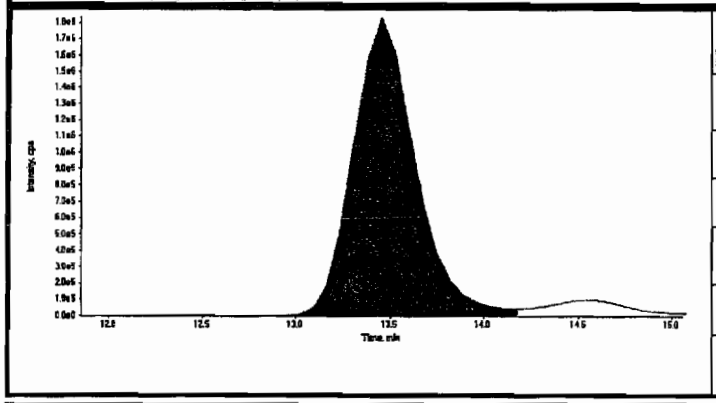

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	4.22e+007
Manual Modification	No
Amount:	208. (ng/mL)
% Accuracy:	104.00

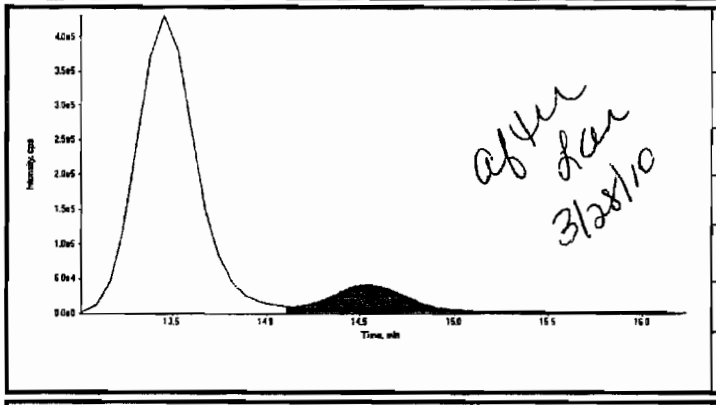

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.5
Area Counts:	1.30e+006
Manual Modification	Yes
Amount:	202. (ng/mL)
% Accuracy:	101.00

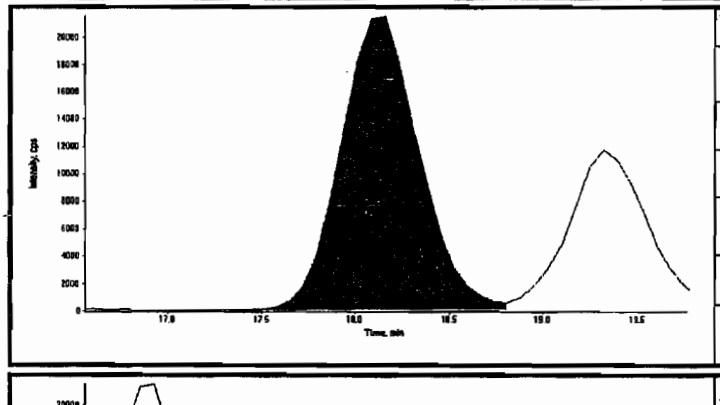

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.2
Area Counts:	6.21e+005
Manual Modification	No
Amount:	206. (ng/mL)
% Accuracy:	103.00

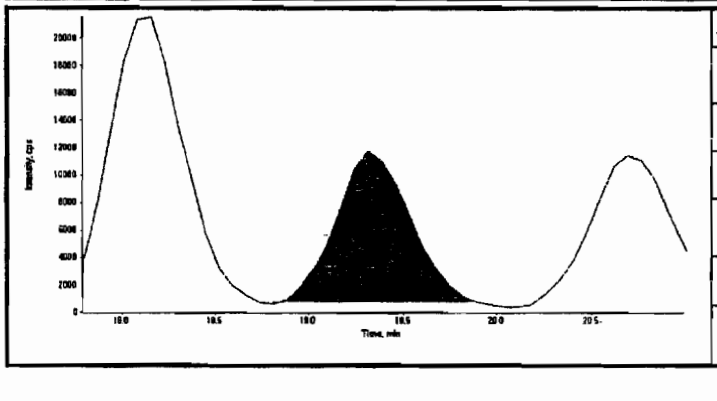

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.3
Area Counts:	2.96e+005
Manual Modification	No
Amount:	197. (ng/mL)
% Accuracy:	98.50

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Data File	EXP0322005.wiff	**Acquisition Date**	3/22/2010 5:18:27 PM
Sample Name	WXX100322-52	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

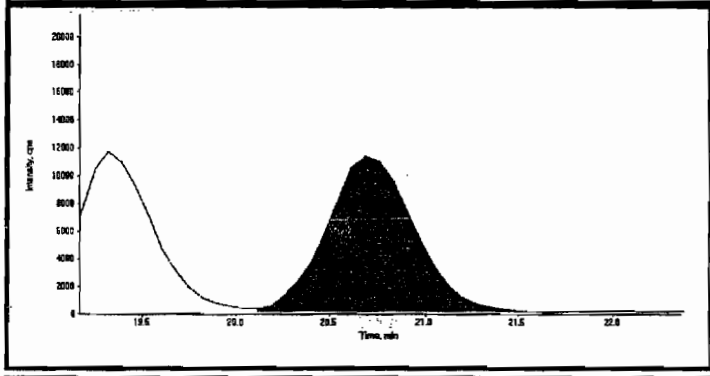

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.7
Area Counts:	3.63e+005
Manual Modification	No
Amount:	203. (ng/mL)
% Accuracy:	102.00

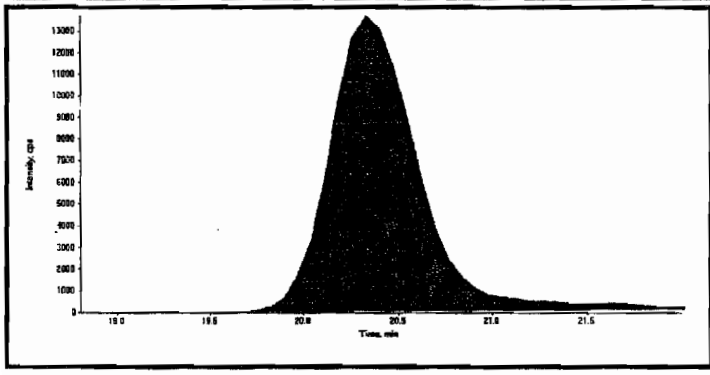

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.3
Area Counts:	4.46e+005
Manual Modification	No
Amount:	194. (ng/mL)
% Accuracy:	97.00

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322006.wiff	Acquisition Date	3/22/2010 5:44:50 PM
Sample Name	WXX100322-53	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_I	Sample Type	Standard

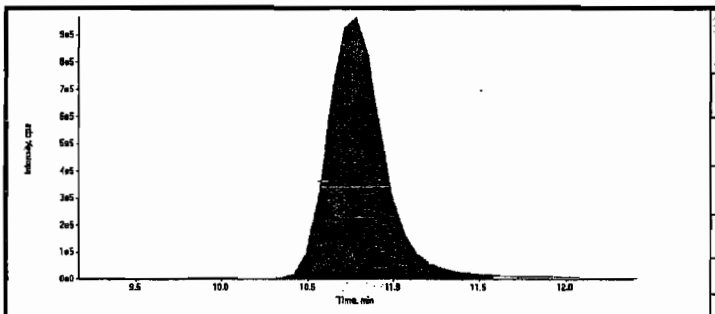

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	22100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

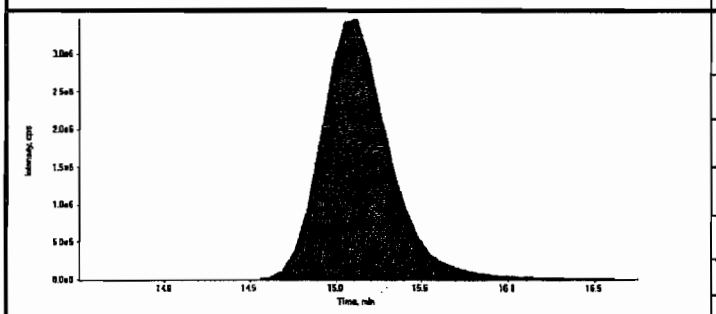

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.10
Area Counts:	98000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

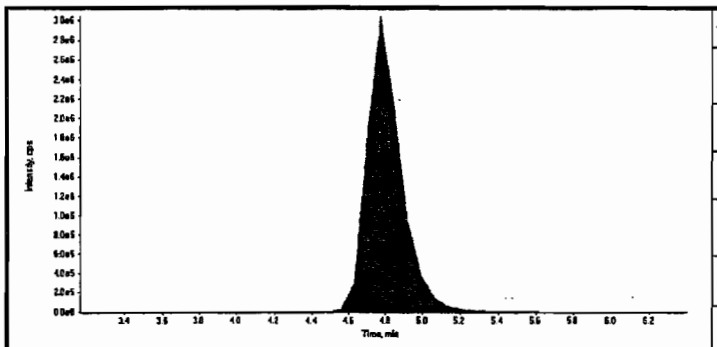

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	3.88e+007
Manual Modification	No
Amount:	402. (ng/mL)
% Accuracy:	101.00

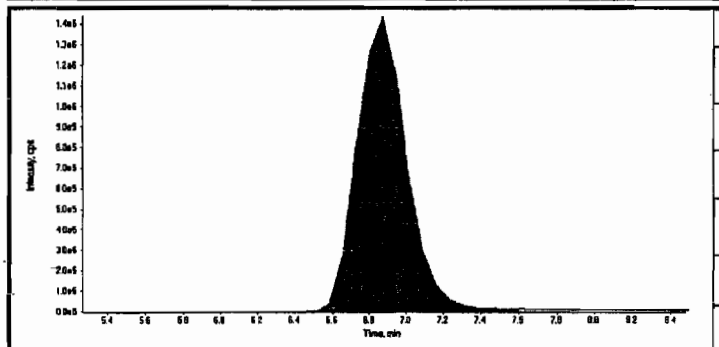

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	2.69e+007
Manual Modification	No
Amount:	399. (ng/mL)
% Accuracy:	99.70

3/26/10 Lan 3/28/10

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Data File	EXP0322006.wiff	Acquisition Date	3/22/2010 5:44:50 PM
Sample Name	WXX100322-53	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_I	Sample Type	Standard

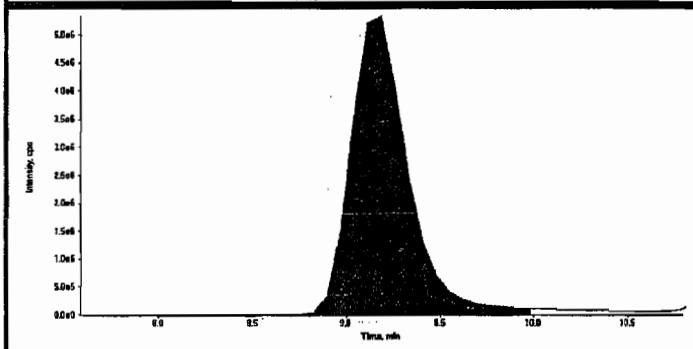

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.19
Area Counts:	1.12e+008
Manual Modification	No
Amount:	392. (ng/mL)
% Accuracy:	98.00

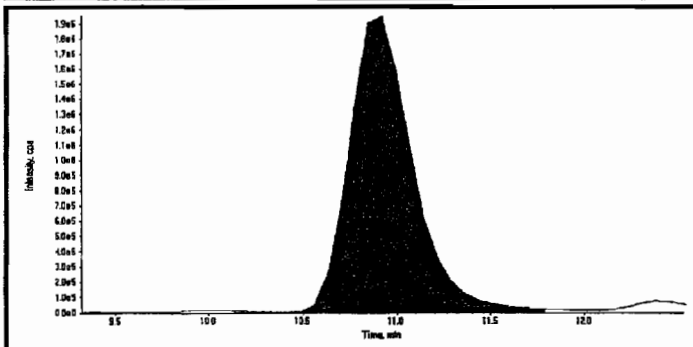

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	4.55e+007
Manual Modification	No
Amount:	387. (ng/mL)
% Accuracy:	96.90

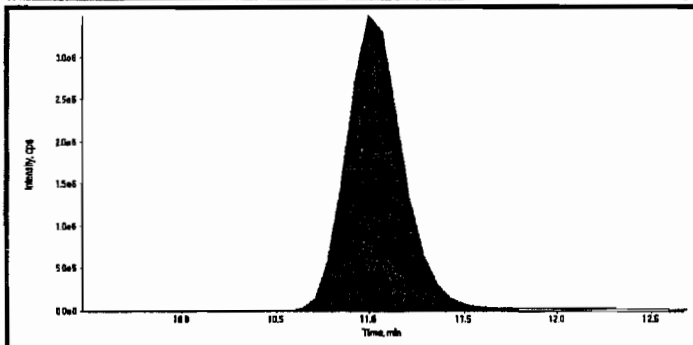

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.0
Area Counts:	7.26e+007
Manual Modification	No
Amount:	385. (ng/mL)
% Accuracy:	96.20

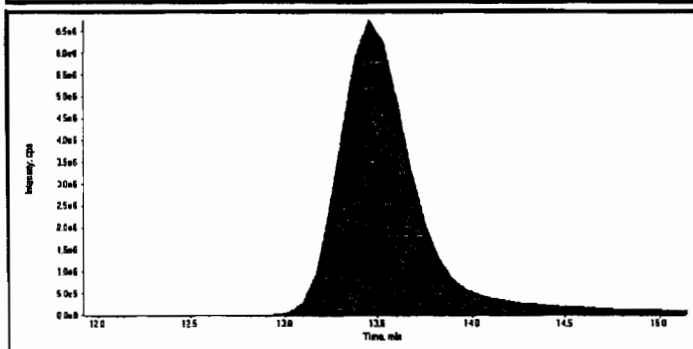

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.95e+008
Manual Modification	No
Amount:	369. (ng/mL)
% Accuracy:	92.30

Before Han 3/28/10

mple Name: "WXX100322-53" Sample ID: "[1]LER" File: "EXP0322006.wiff"
ak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
mment: "LCMSEXP_I" Annotation: ""
le Index: 1
le Type: Standard
entration: 400. ng/mL
ulated Conc: 0.00 ng/mL
Date: 3/22/2010
Time: 5:44:50 PM

fied: No

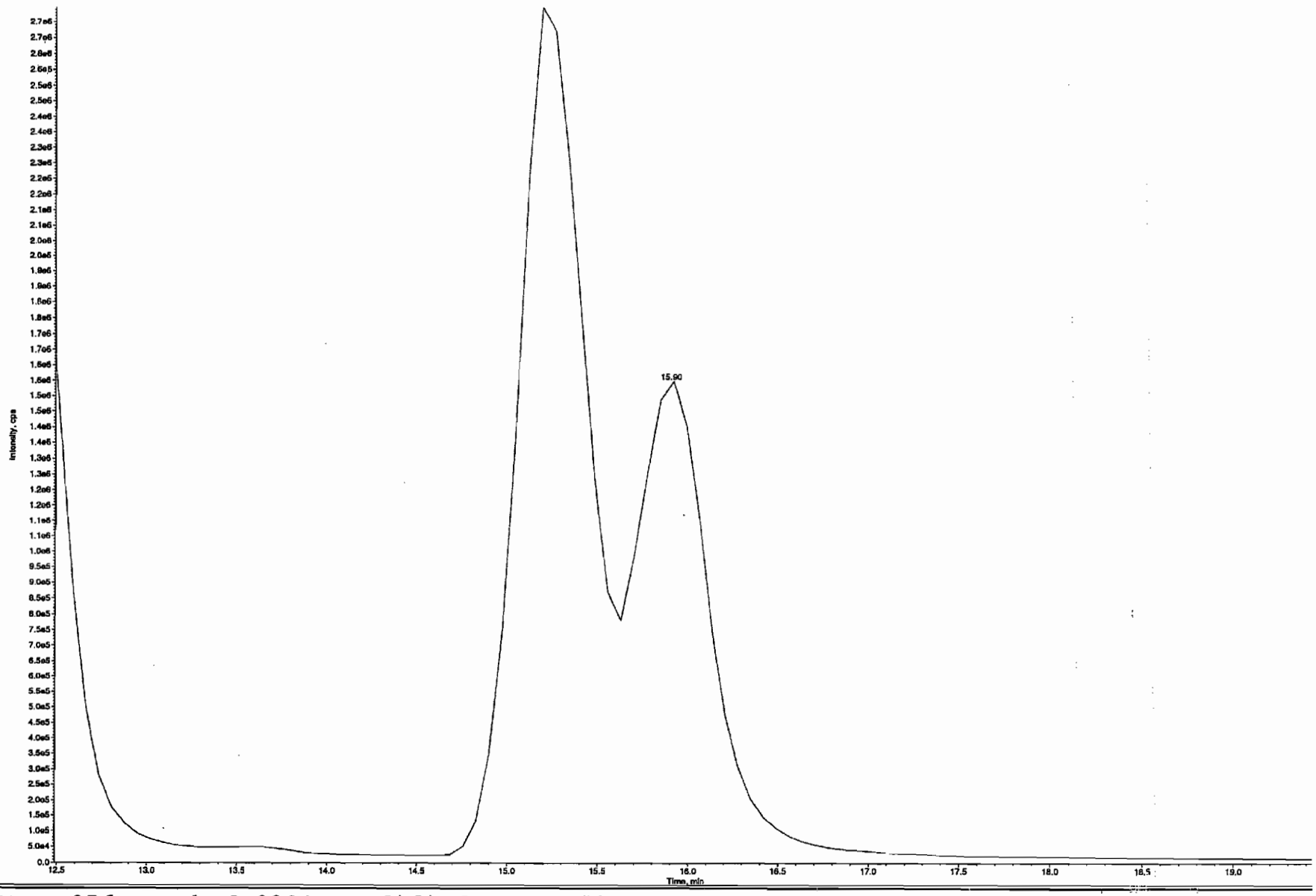

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Data File	EXP0322006.wiff	Acquisition Date	3/22/2010 5:44:50 PM
Sample Name	WXX100322-53	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	1|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_I	Sample Type	Standard

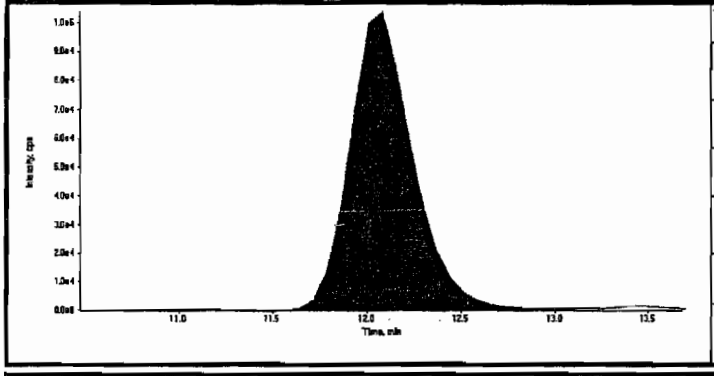

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	2.40e+006
Manual Modification	No
Amount:	402. (ng/mL)
% Accuracy:	101.00

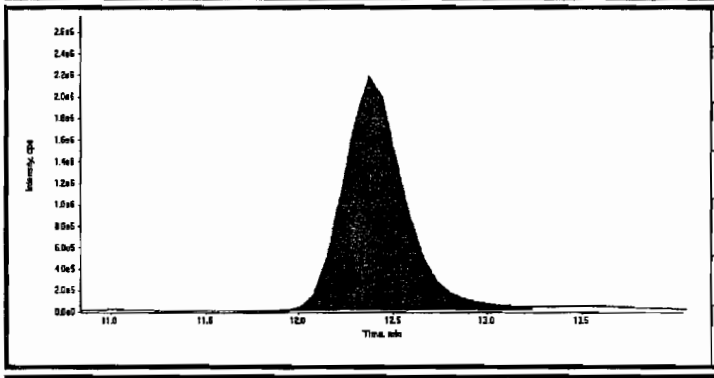

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	4.89e+007
Manual Modification	No
Amount:	193. (ng/mL)
% Accuracy:	96.50

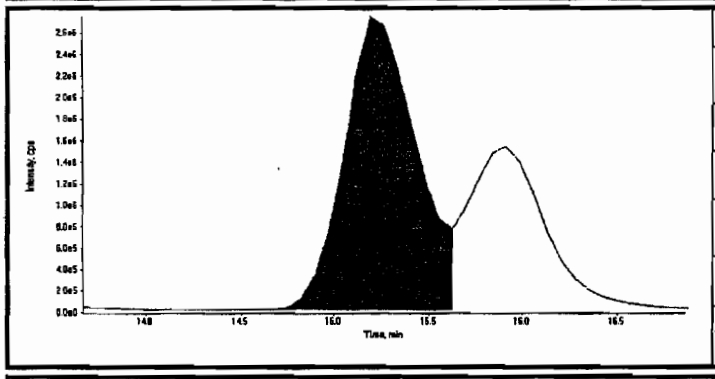

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.2
Area Counts:	7.34e+007
Manual Modification	No
Amount:	385. (ng/mL)
% Accuracy:	96.40

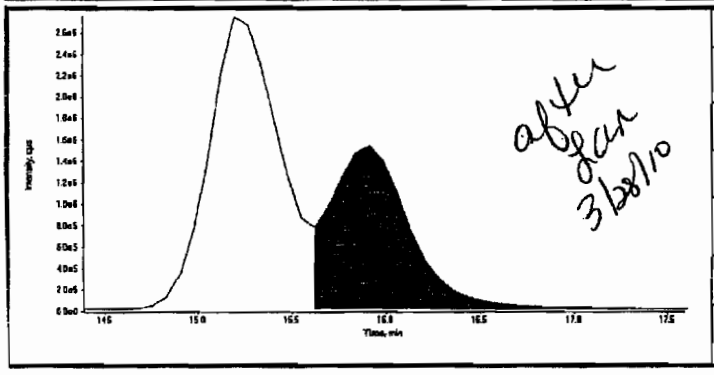

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	15.9
Area Counts:	4.42e+007
Manual Modification	Yes
Amount:	386. (ng/mL)
% Accuracy:	96.40

Before Lan 3/28/10

ample Name: "WXX100322-53" Sample ID: "[1]LER" File: "EXP0322006.wiff"
'eak Name: "2-Amino-4&-dinitrotoluene" Mass(es): "197.0/180.0 amu"
'omment: "LCMSEXP_I" Annotation: ""

ple Index: 1
ple Type: Standard
:entration: 400. ng/mL
culated Conc: 311. ng/mL
. Date: 3/22/2010
. Time: 5:44:50 PM

lfied: No
:. Algorithm: IntelliQuan - IQA
. Peak Height: 1000.00 cps
. Peak Width: 0.00 sec
:thing Width: 3 points
/Indow: 30.0 sec
:cted RT: 14.6 min
Relative RT: No

Type: Valley
ntion Time: 14.5 min
: 3.73e+006 counts
ht: 1.00e+005 cps
t Time: 14.1 min
Time: 15.2 min

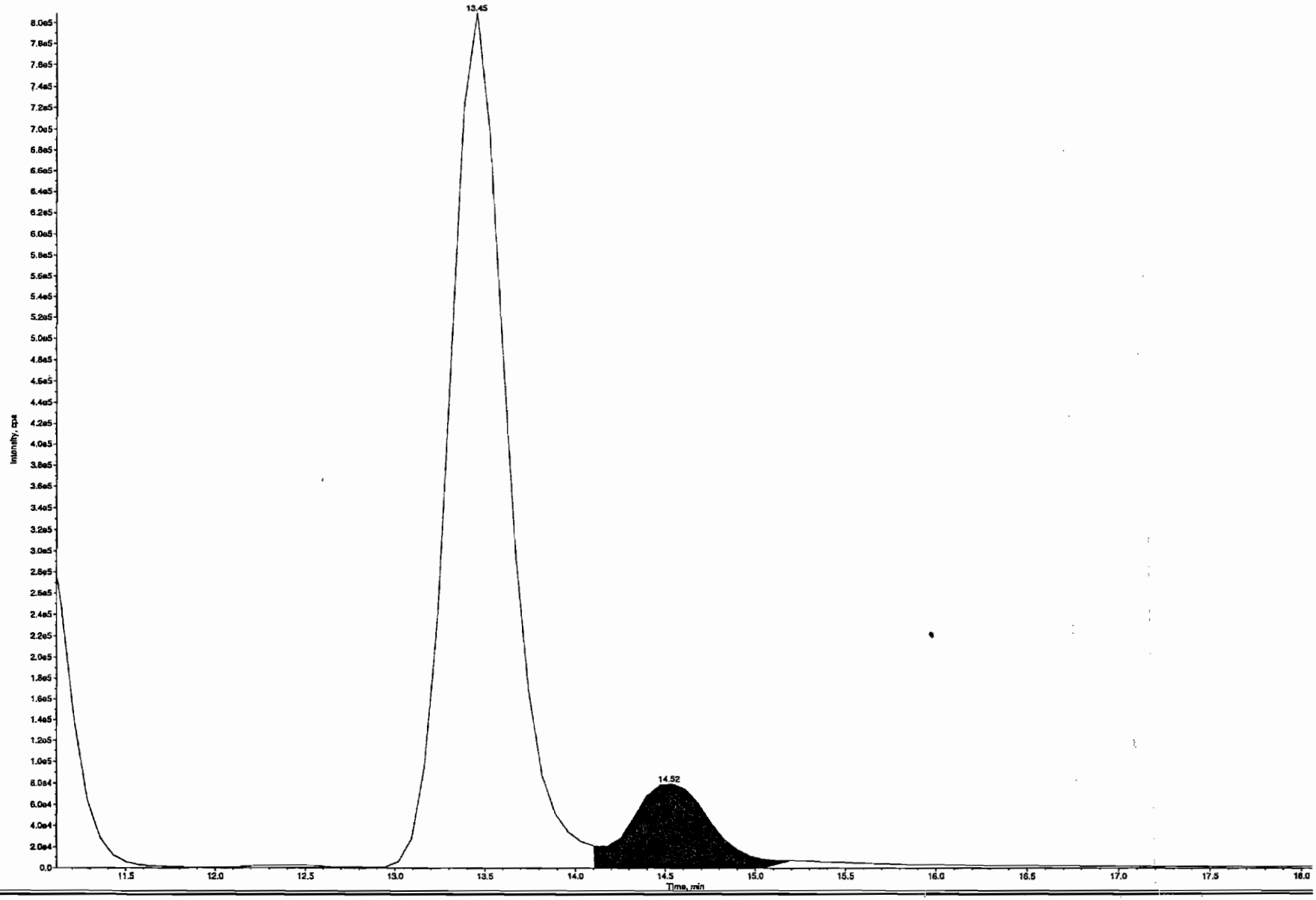

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322006.wiff	Acquisition Date	3/22/2010 5:44:50 PM
Sample Name	WXX100322-53	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_I	Sample Type	Standard

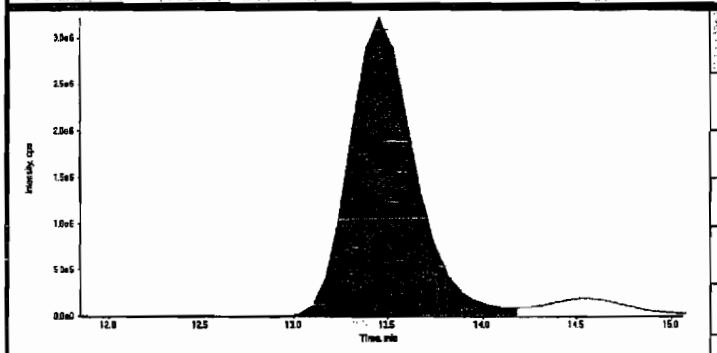

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	7.84e+007
Manual Modification	No
Amount:	379. (ng/mL)
% Accuracy:	94.80

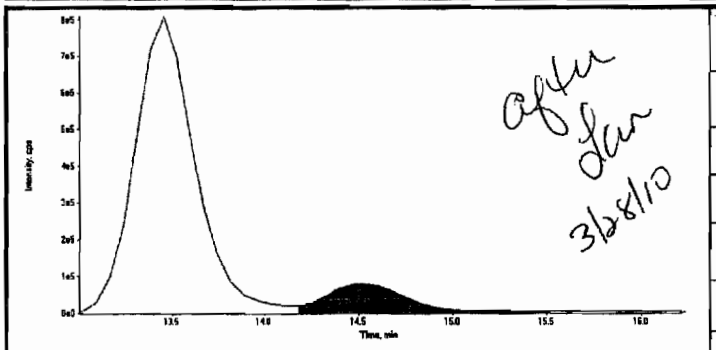

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.5
Area Counts:	2.39e+006
Manual Modification	Yes
Amount:	366. (ng/mL)
% Accuracy:	91.50

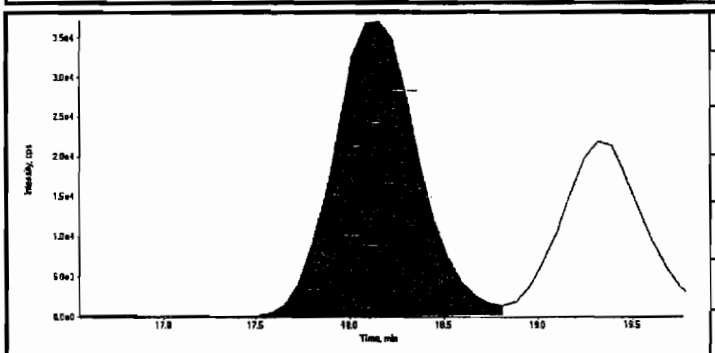

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.2
Area Counts:	1.17e+006
Manual Modification	No
Amount:	381. (ng/mL)
% Accuracy:	95.30

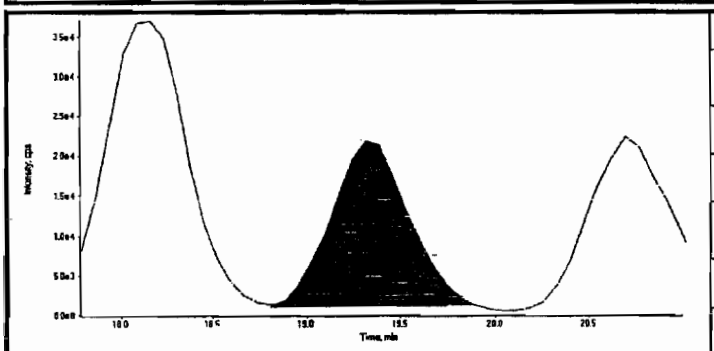

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.3
Area Counts:	5.96e+005
Manual Modification	No
Amount:	390. (ng/mL)
% Accuracy:	97.40

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Data File	EXP0322006.wiff	Acquisition Date	3/22/2010 5:44:50 PM
Sample Name	WXX100322-53	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	1|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_I	Sample Type	Standard

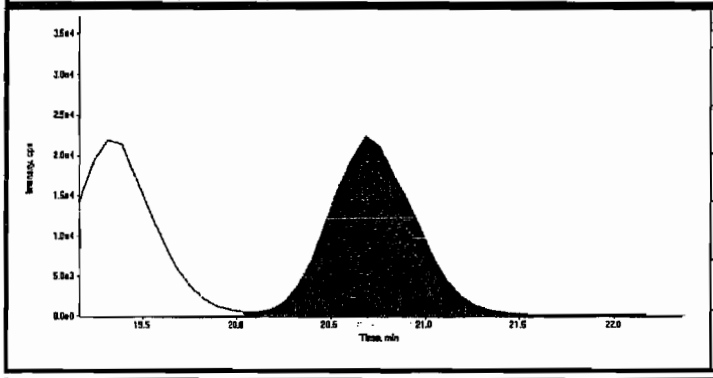

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.7
Area Counts:	7.11e+005
Manual Modification	No
Amount:	391. (ng/mL)
% Accuracy:	97.90

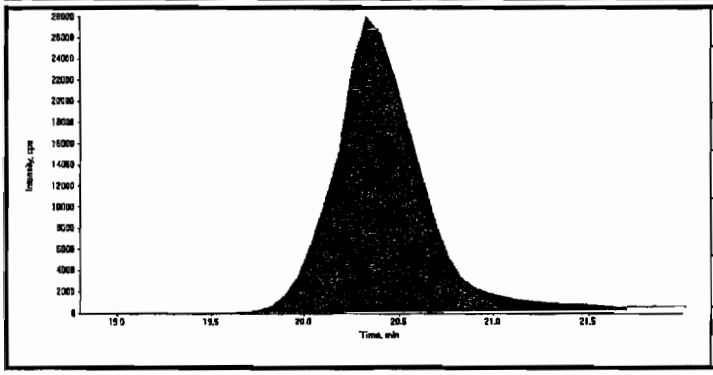

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.3
Area Counts:	8.51e+005
Manual Modification	No
Amount:	364. (ng/mL)
% Accuracy:	90.90

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322007.wiff	Acquisition Date	3/22/2010 6:11:20 PM
Sample Name	WXX100322-54	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_I	Sample Type	Standard

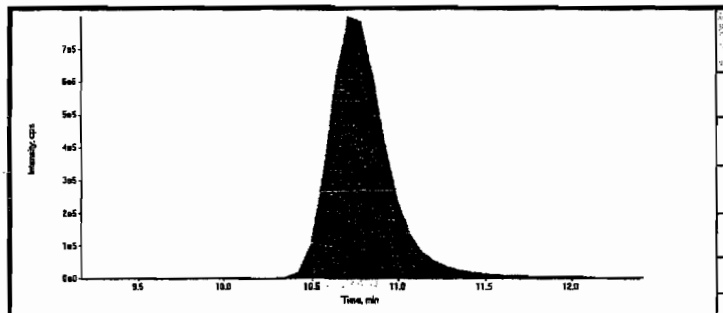

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.70
Area Counts:	18800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

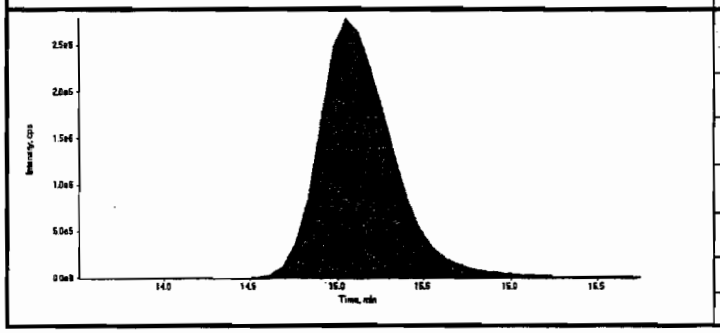

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.00
Area Counts:	82400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

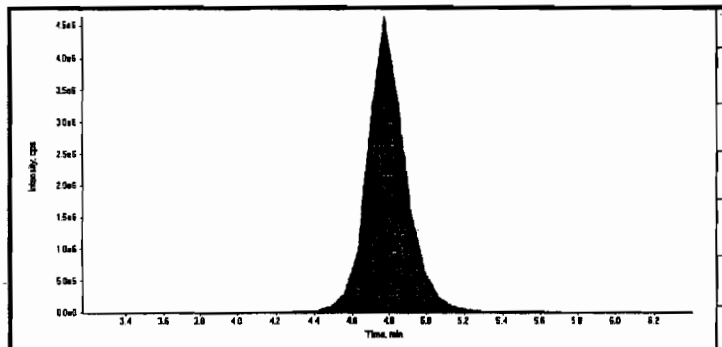

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	6.59e+007
Manual Modification	No
Amount:	812. (ng/mL)
% Accuracy:	102.00

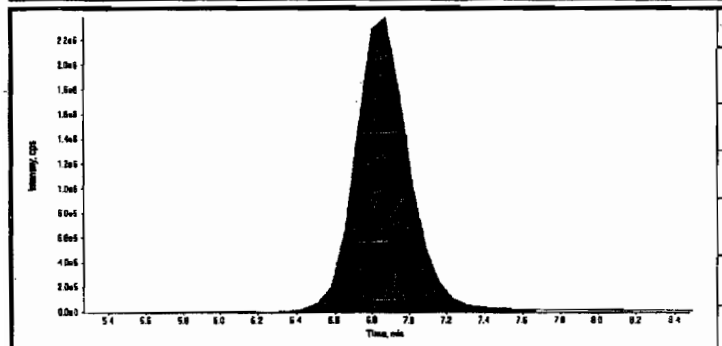

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	4.79e+007
Manual Modification	No
Amount:	834. (ng/mL)
% Accuracy:	104.00

dmu 03/28/10
Lan 3/28/10

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Data File	EXP0322007.wiff	Acquisition Date	3/22/2010 6:11:20 PM
Sample Name	WXX100322-54	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_I	Sample Type	Standard

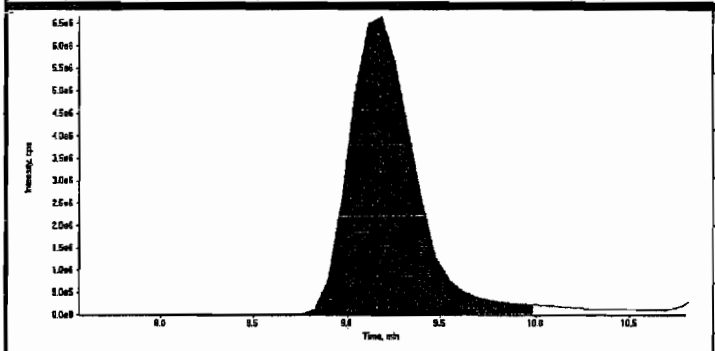

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.19
Area Counts:	1.65e+008
Manual Modification	No
Amount:	676. (ng/mL)
% Accuracy:	84.50

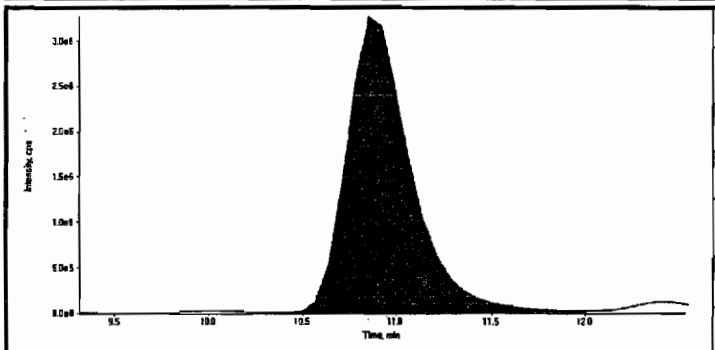

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	7.92e+007
Manual Modification	No
Amount:	793. (ng/mL)
% Accuracy:	99.10

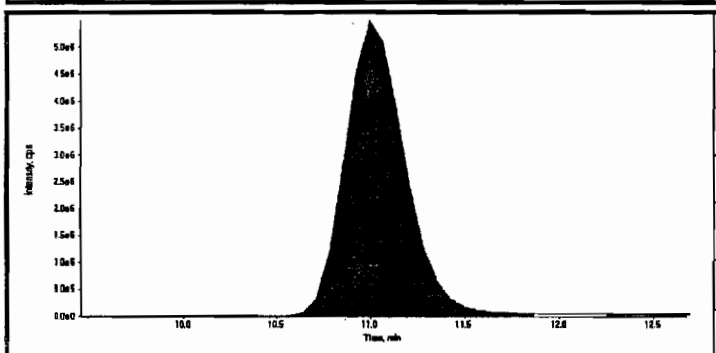

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.0
Area Counts:	1.24e+008
Manual Modification	No
Amount:	770. (ng/mL)
% Accuracy:	96.30

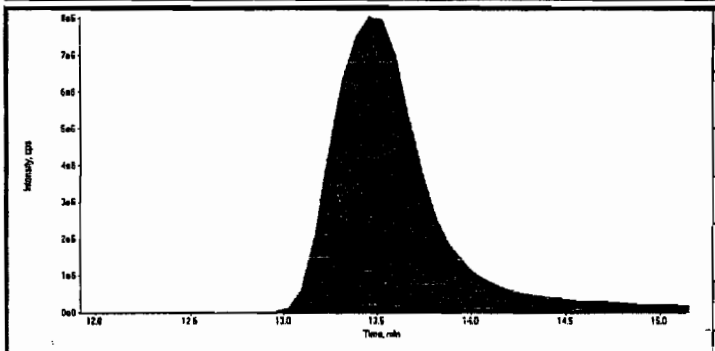

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	3.01e+008
Manual Modification	No
Amount:	866. (ng/mL)
% Accuracy:	108.00

Before Lan 3/28/10

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nple Name: "WXX100322-54" Sample ID: "[1]LER" File: "EXP0322007.wiff"
k Name: "24-dinitrotoluene" Mass(es): "182.0/45.0 amu"
nment: "LCMSEXP_I" Annotation: ""
e Index: 1
e Type: Standard
ntration: 800. ng/mL
lated Conc: 0.00 ng/mL
Date: 3/22/2010
Time: 6:11:20 PM

ied: No

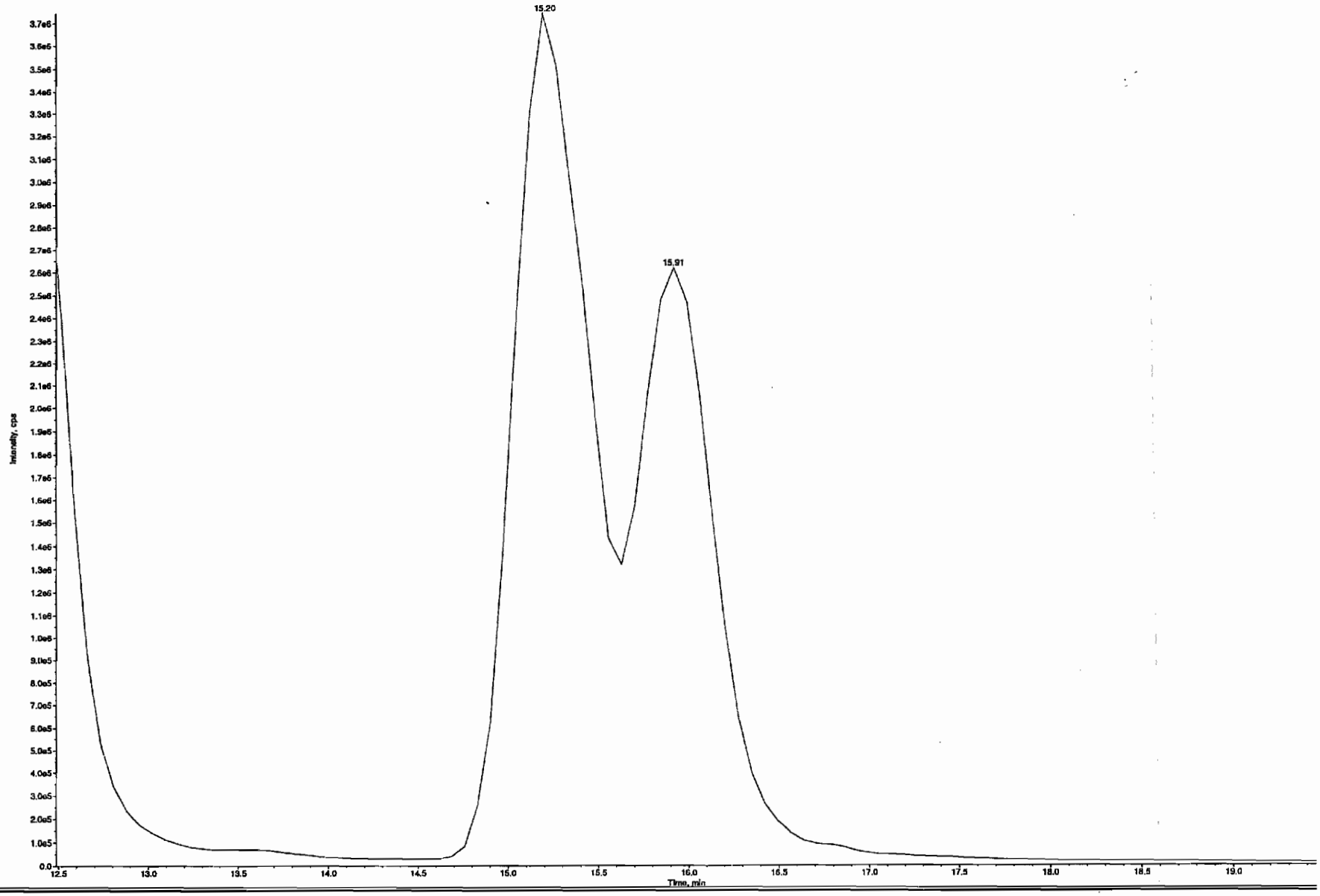

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Data File	EXP0322007.wiff	Acquisition Date	3/22/2010 6:11:20 PM
Sample Name	WXX100322-54	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_I	Sample Type	Standard

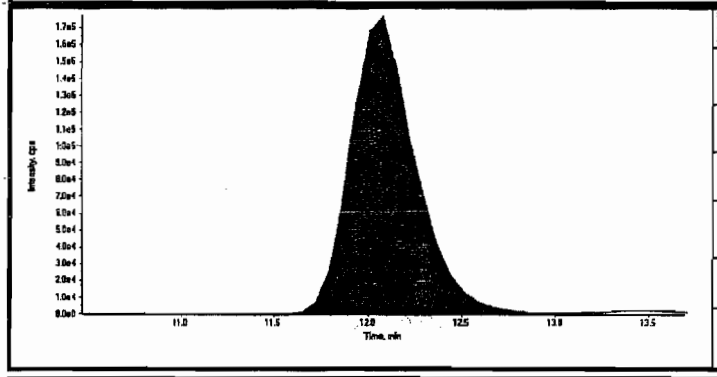

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	4.30e+006
Manual Modification	No
Amount:	847. (ng/mL)
% Accuracy:	106.00

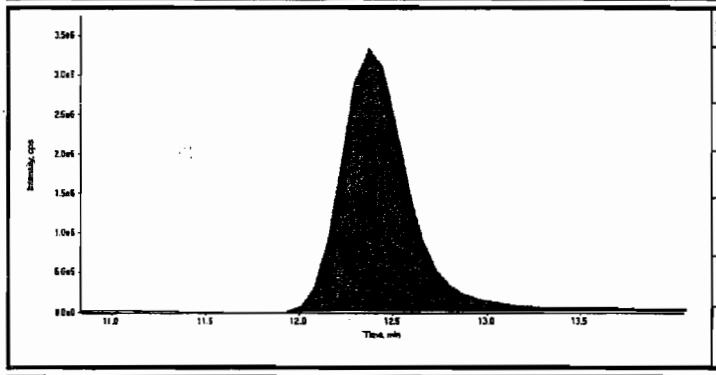

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	8.43e+007
Manual Modification	No
Amount:	396. (ng/mL)
% Accuracy:	98.90

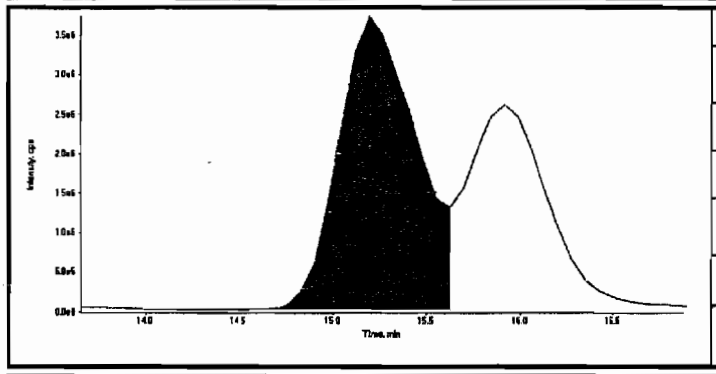

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.2
Area Counts:	1.10e+008
Manual Modification	No
Amount:	684. (ng/mL)
% Accuracy:	85.50

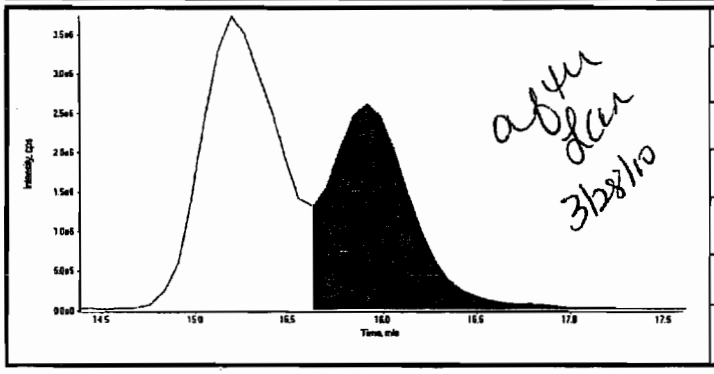

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	15.9
Area Counts:	7.89e+007
Manual Modification	Yes
Amount:	819. (ng/mL)
% Accuracy:	102.00

Before Lan 3/28/10

nple Name: "WXX100322-54" Sample ID: "[1]LER" File: "EXP0322007.wiff"
ik Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
nment: "LCMSEXP_I" Annotation: ""

e Index:	1	
e Type:	Standard	
ntration:	800.	ng/mL
lated Conc:	1520.	ng/mL
Date:	3/22/2010	
Time:	6:11:20 PM	
ied:	No	
Algorithm:	IntelliQuan - IQA	
Peak Height:	1000.00	cps
Peak Width:	0.00	sec
hing Width:	3	points
ndow:	30.0	sec
ted RT:	14.6	min
elative RT:	No	
Type:	Valley	
tion Time:	14.5	min
	1.45e+007	counts
t:	2.14e+005	cps
Time:	14.1	min
lme:	17.9	min

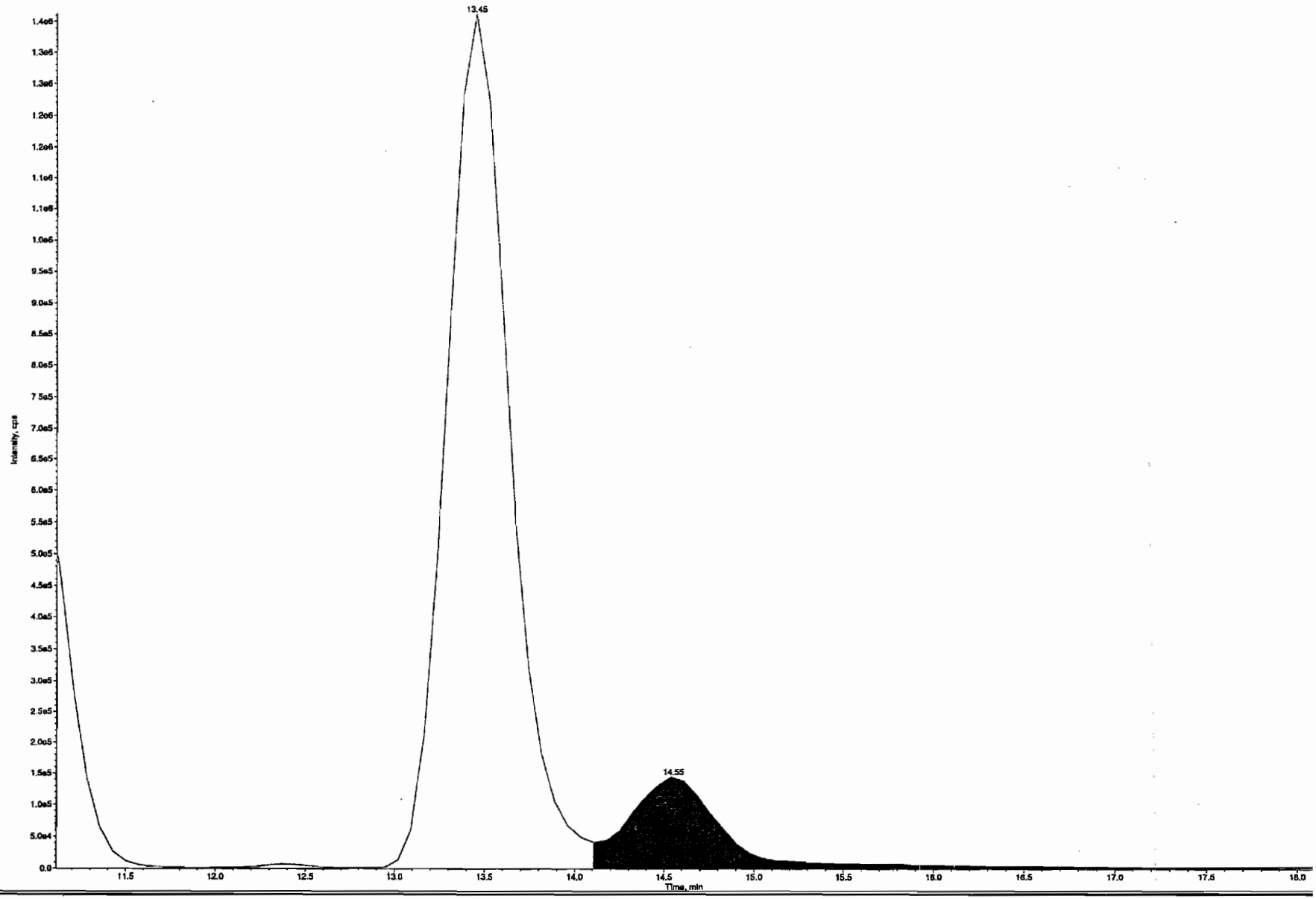

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322007.wiff	**Acquisition Date**	3/22/2010 6:11:20 PM
Sample Name	WXX100322-54	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

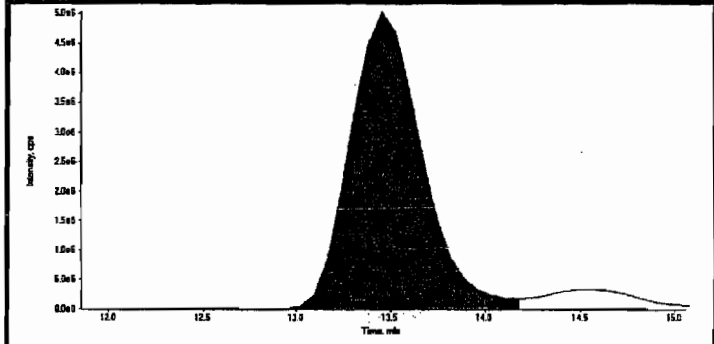

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.33e+008
Manual Modification	No
Amount:	762. (ng/mL)
% Accuracy:	95.30

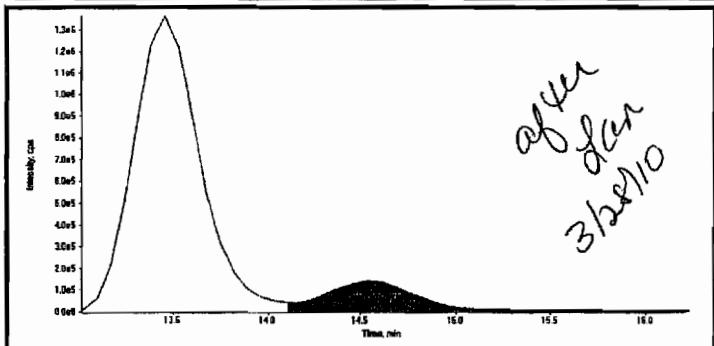

after LER 3/28/10

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.6
Area Counts:	4.95e+006
Manual Modification	Yes
Amount:	901. (ng/mL)
% Accuracy:	113.00

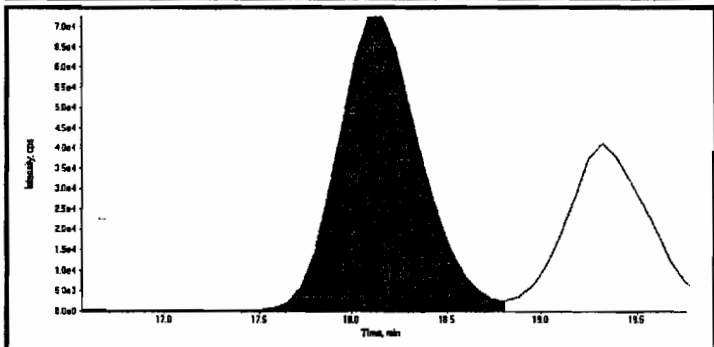

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.2
Area Counts:	2.20e+006
Manual Modification	No
Amount:	857. (ng/mL)
% Accuracy:	107.00

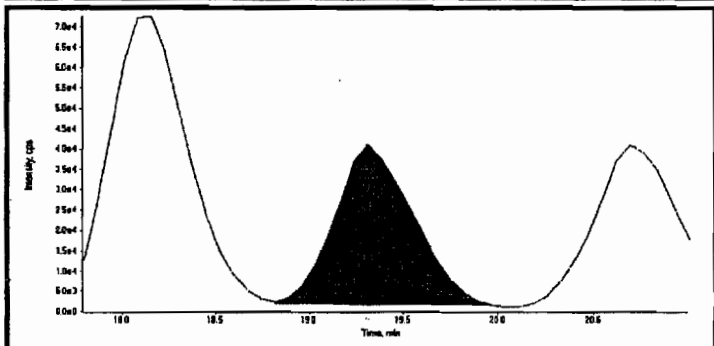

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.3
Area Counts:	1.14e+006
Manual Modification	No
Amount:	888. (ng/mL)
% Accuracy:	111.00

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Data File	EXP0322007.wiff	**Acquisition Date**	3/22/2010 6:11:20 PM
Sample Name	WXX100322-54	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

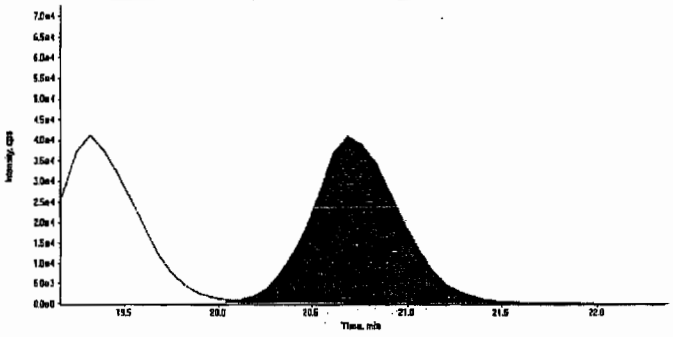

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.7
Area Counts:	1.33e+006
Manual Modification	No
Amount:	868. (ng/mL)
% Accuracy:	109.00

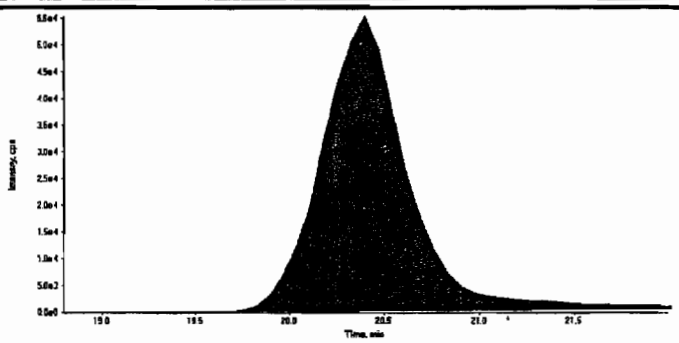

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.4
Area Counts:	1.74e+006
Manual Modification	No
Amount:	887. (ng/mL)
% Accuracy:	111.00

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322008.wiff	Acquisition Date	3/22/2010 6:37:39 PM
Sample Name	WXX100322-55	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_I	Sample Type	Standard

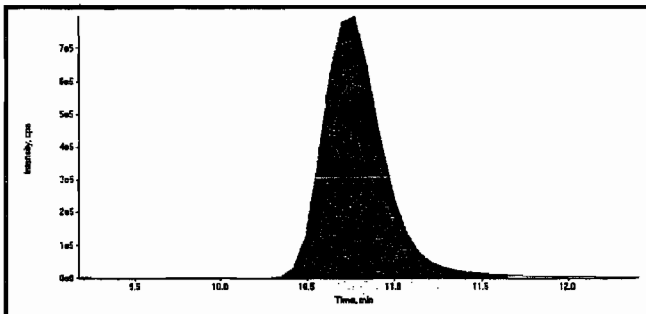

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	19300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

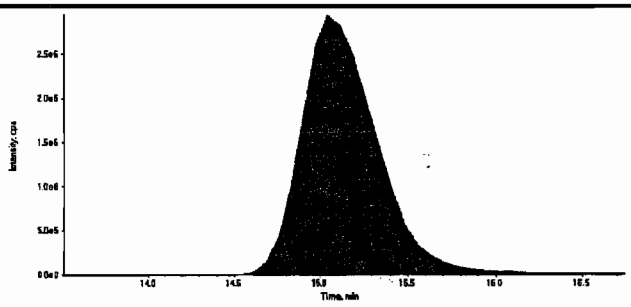

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.00
Area Counts:	89800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

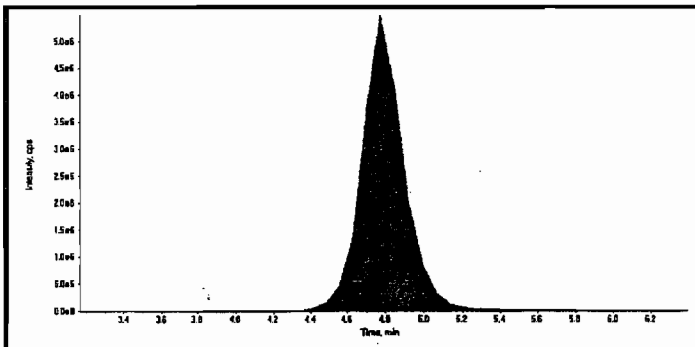

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	8.20e+007
Manual Modification	No
Amount:	988. (ng/mL)
% Accuracy:	98.80

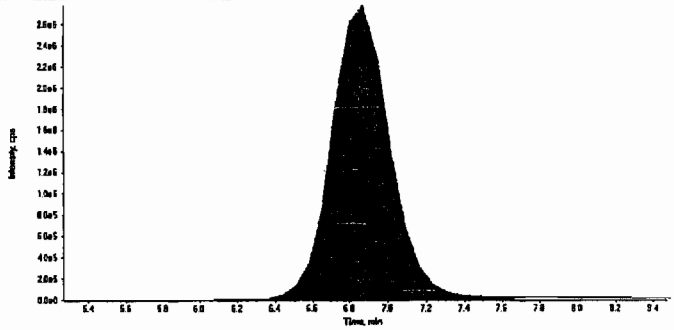

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	5.94e+007
Manual Modification	No
Amount:	1010. (ng/mL)
% Accuracy:	101.00

3/28/10 Tan 3/28/10

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Data File	EXP0322008.wiff	Acquisition Date	3/22/2010 6:37:39 PM
Sample Name	WXX100322-55	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_I	Sample Type	Standard

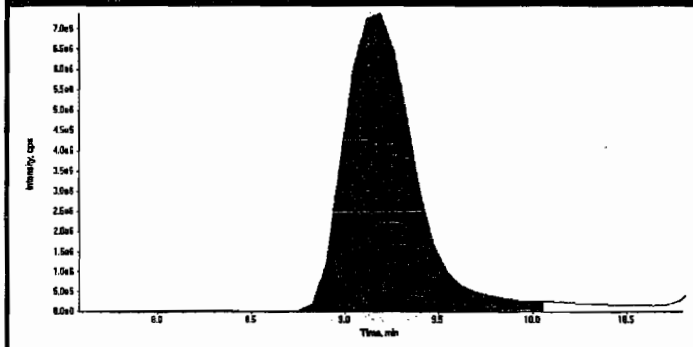

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.19
Area Counts:	1.95e+008
Manual Modification	No
Amount:	781. (ng/mL)
% Accuracy:	78.10

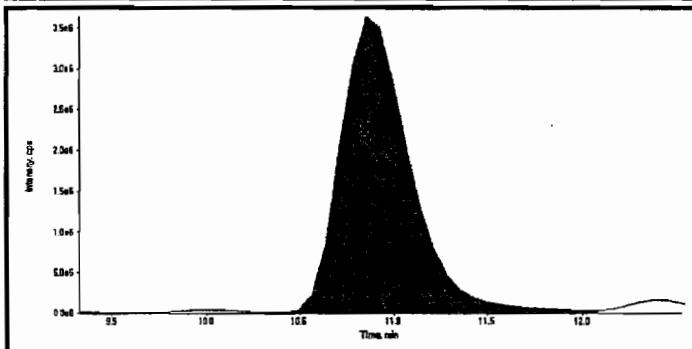

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	9.38e+007
Manual Modification	No
Amount:	916. (ng/mL)
% Accuracy:	91.60

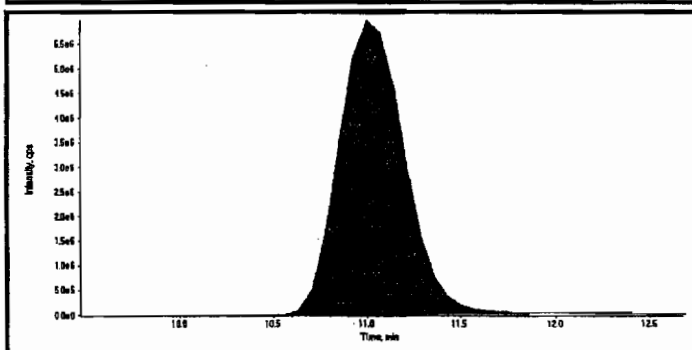

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.0
Area Counts:	1.47e+008
Manual Modification	No
Amount:	890. (ng/mL)
% Accuracy:	89.00

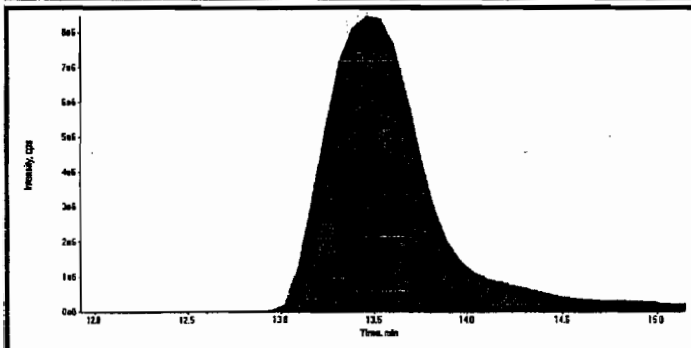

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	3.45e+008
Manual Modification	No
Amount:	953. (ng/mL)
% Accuracy:	95.30

Before Ran 3/28/10

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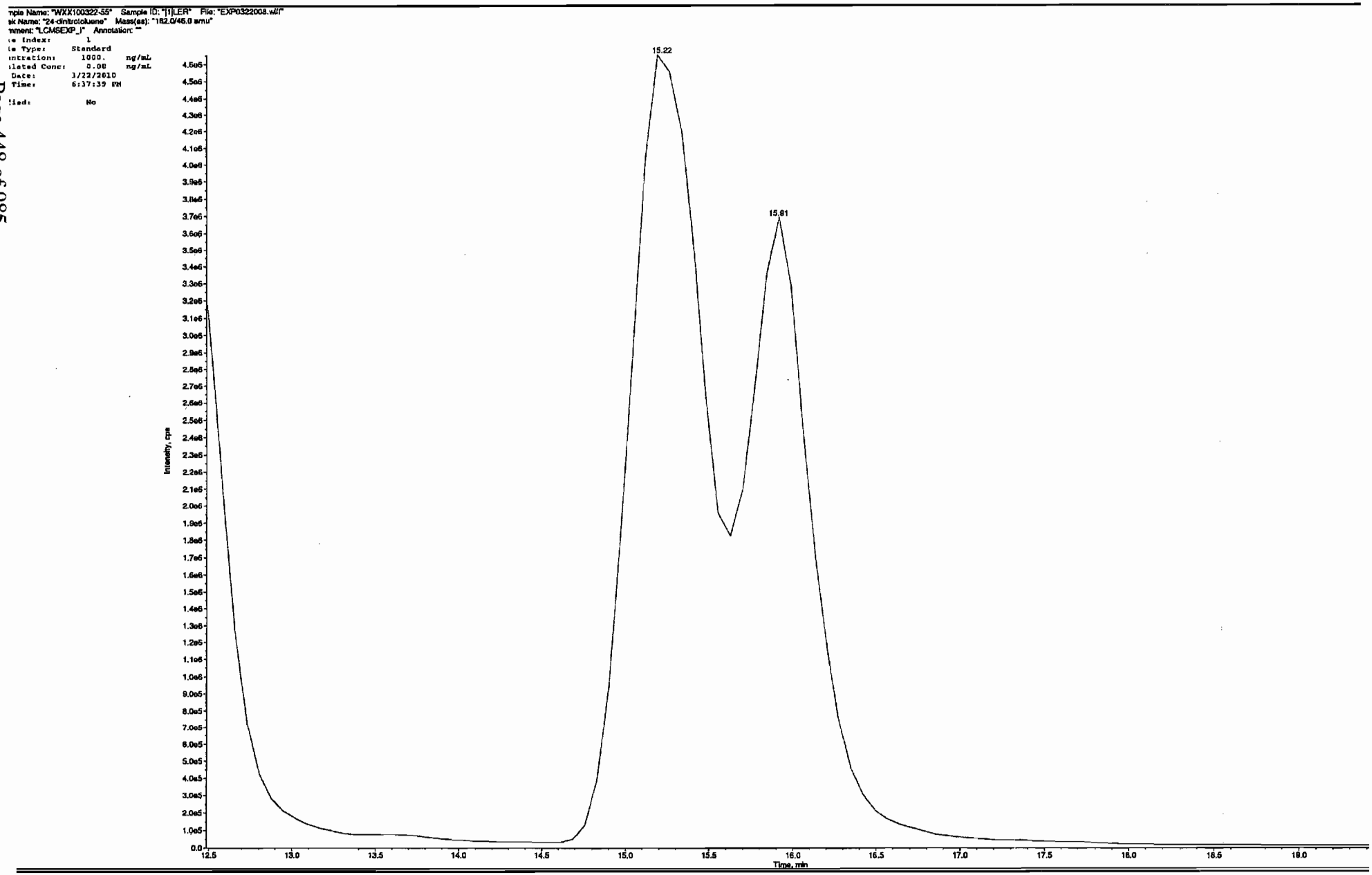

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322008.wiff	Acquisition Date	3/22/2010 6:37:39 PM
Sample Name	WXX100322-55	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_I	Sample Type	Standard

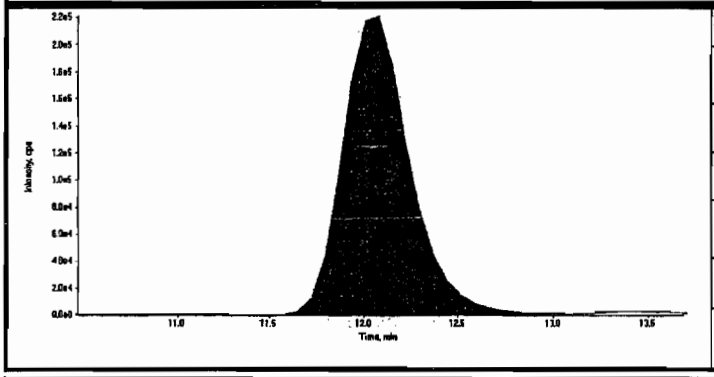

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	5.53e+006
Manual Modification	No
Amount:	1060. (ng/mL)
% Accuracy:	106.00

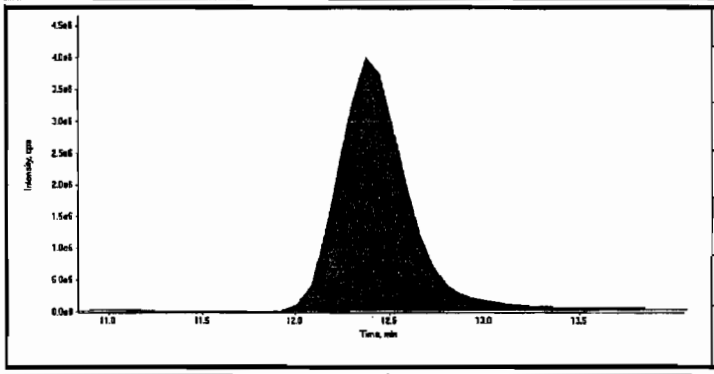

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	1.03e+008
Manual Modification	No
Amount:	442. (ng/mL)
% Accuracy:	88.30

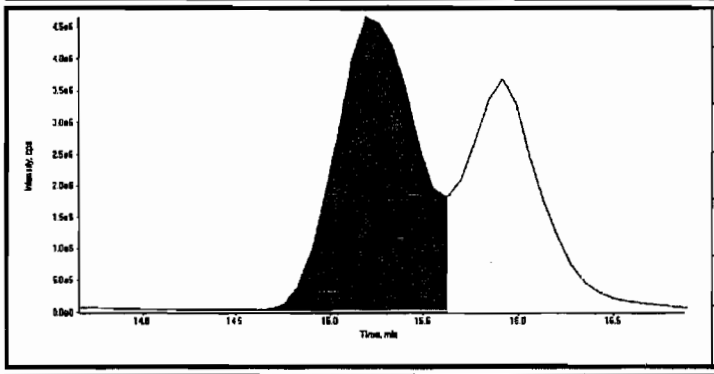

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.2
Area Counts:	1.44e+008
Manual Modification	No
Amount:	824. (ng/mL)
% Accuracy:	82.40

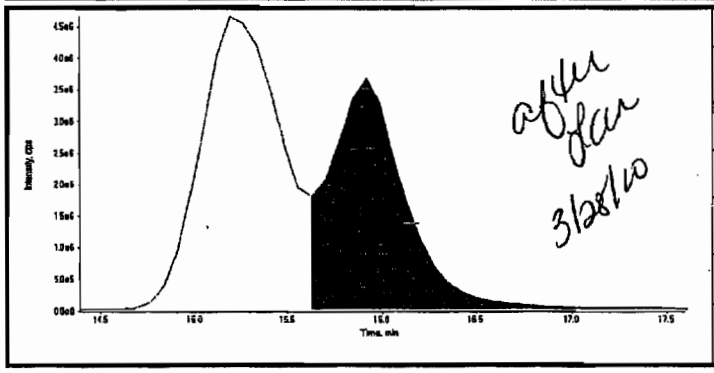

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	15.9
Area Counts:	1.01e+008
Manual Modification	Yes
Amount:	958. (ng/mL)
% Accuracy:	95.80

Before Lan 3/28/10

ample Name: "WXX100322-55" Sample ID: "[1]LER" File: "EXP0322008.wif"
ask Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/160.0 amu"
omment: "LCMSEXP_J" Annotation: ""

le Index:	1	
le Type:	Standard	
entration:	1000.	ng/mL
culated Conc:	2370.	ng/mL
Date:	3/22/2010	
Time:	6:37:39 PM	
fied:	No	
. Algorithm:	IntelliQuan - IQA	
Peak Height:	1000.00	cps
Peak Width:	0.00	sec
thing Width:	3	points
indow:	30.0	sec
cted RT:	14.6	min
Relative RT:	No	
Type:	Valley	
ntion Time:	14.5	min
:	1.96e+007	counts
ht:	2.80e+005	cps
t Time:	14.1	min
Time:	17.9	min

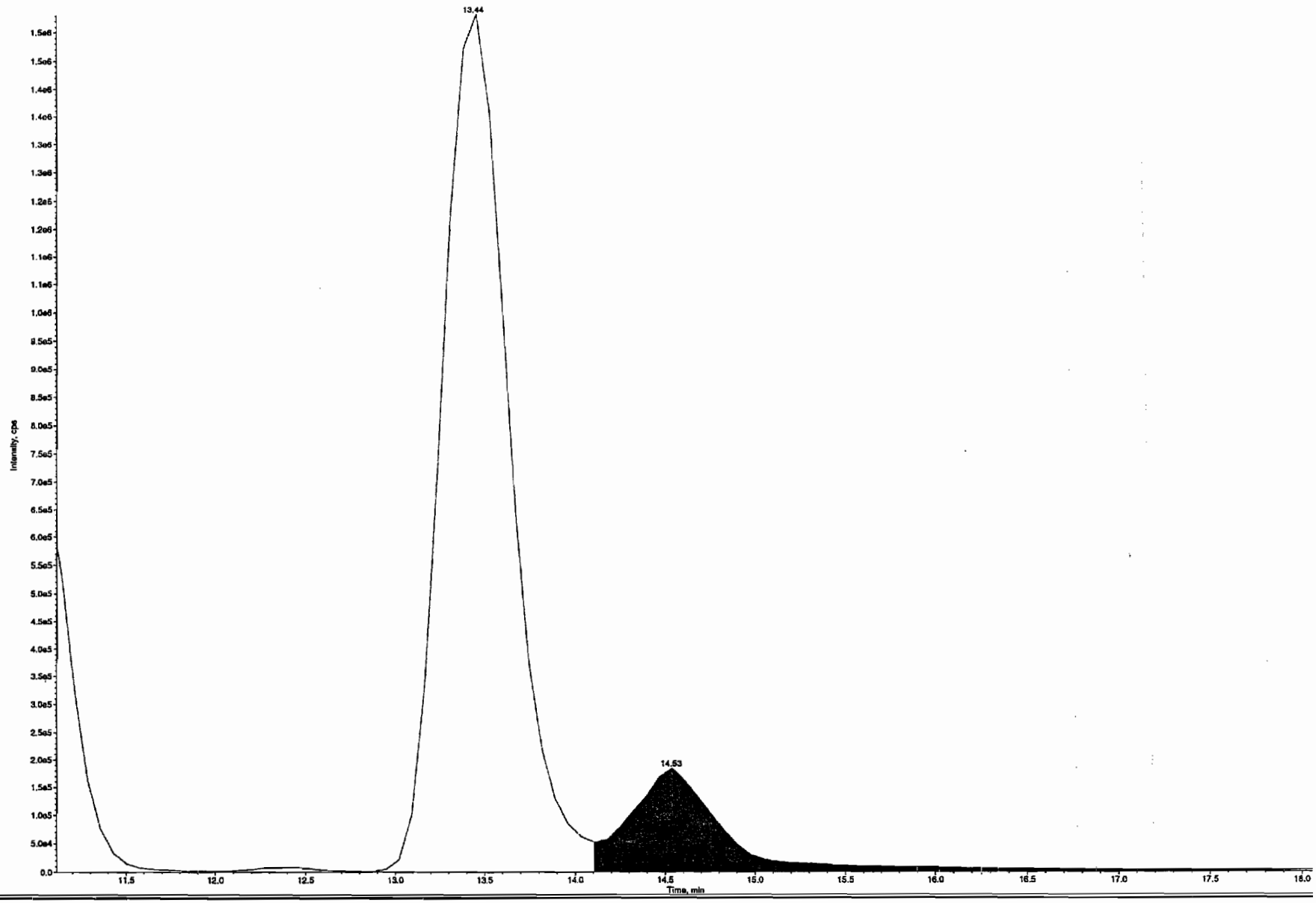

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322008.wiff	**Acquisition Date**	3/22/2010 6:37:39 PM
Sample Name	WXX100322-55	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

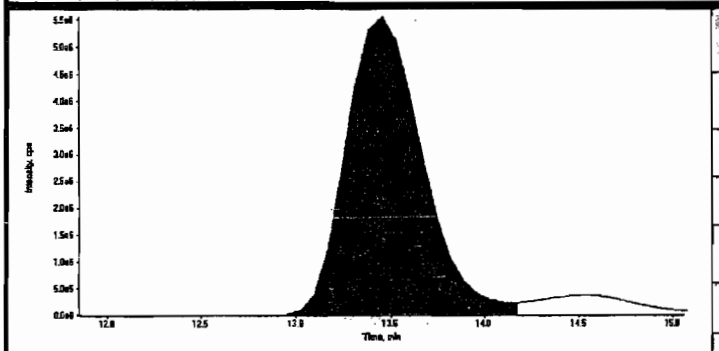

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.58e+008
Manual Modification	No
Amount:	833. (ng/mL)
% Accuracy:	83.30

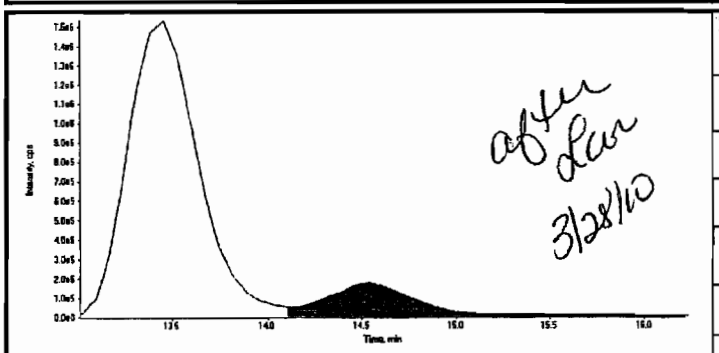

after Lar 3/28/10

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.5
Area Counts:	6.06e+006
Manual Modification	Yes
Amount:	1010. (ng/mL)
% Accuracy:	101.00

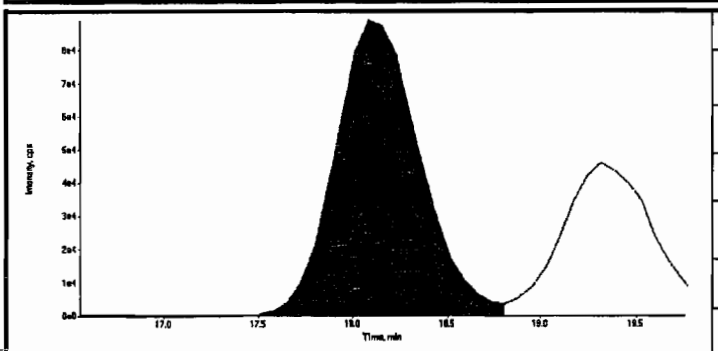

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.1
Area Counts:	2.78e+006
Manual Modification	No
Amount:	989. (ng/mL)
% Accuracy:	98.90

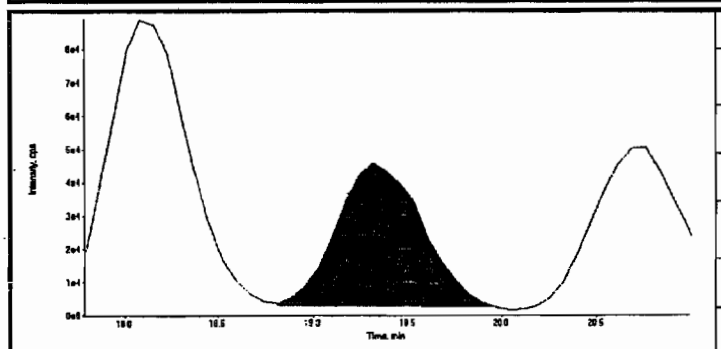

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.3
Area Counts:	1.38e+006
Manual Modification	No
Amount:	981. (ng/mL)
% Accuracy:	98.10

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Data File	EXP0322008.wiff	Acquisition Date	3/22/2010 6:37:39 PM
Sample Name	WXX100322-55	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_I	Sample Type	Standard

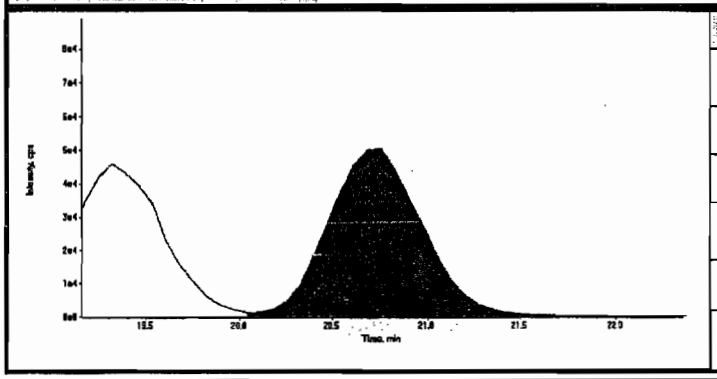

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.8
Area Counts:	1.73e+006
Manual Modification	No
Amount:	1040. (ng/mL)
% Accuracy:	104.00

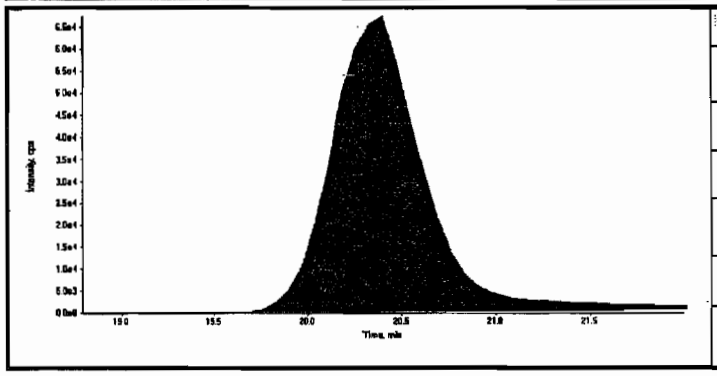

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.4
Area Counts:	2.29e+006
Manual Modification	No
Amount:	1070. (ng/mL)
% Accuracy:	107.00

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2000

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0322010.wiff

Analysis Date: 22–MAR–10 19:30

LCMSMS ID: 1189

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	514	86	
2,4,6–Trinitrotoluene	600	517	86	
2,4–Dinitrotoluene	600	571	95	
2,6–Dinitrotoluene	600	492	82	
2–Amino–4,6–dinitrotoluene	600	570	95	
3,4–Dinitrotoluene	300	265	88	
4–Amino–2,6–dinitrotoluene	600	540	90	
HMX	600	521	87	
Nitrobenzene	600	595	99	
PETN	600	570	95	
RDX	600	578	96	
Tetryl	600	571	95	
m–Dinitrobenzene	600	559	93	
m–Nitrotoluene	600	588	98	
o–Nitrotoluene	600	563	94	
p–Nitrotoluene	600	571	95	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322010.wiff	Acquisition Date	3/22/2010 7:30:24 PM
Sample Name	WXX100322-56ICV	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

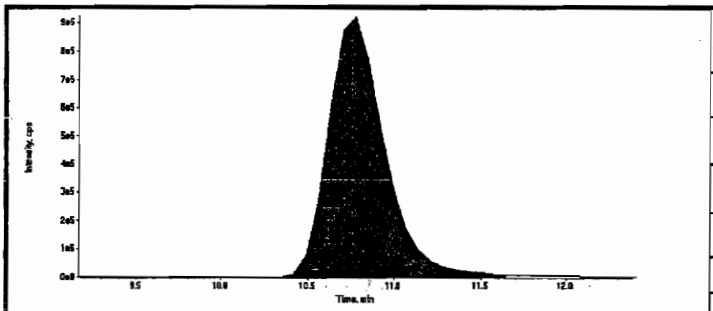

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	21000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

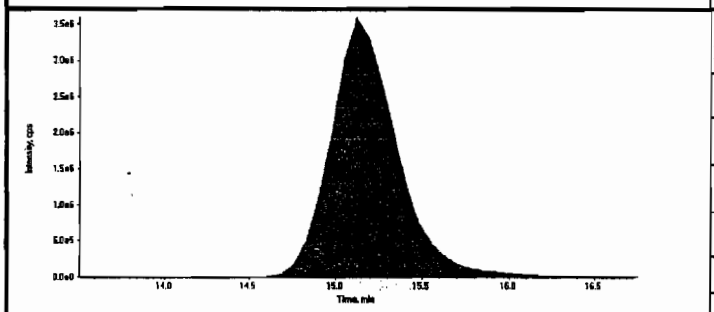

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.10
Area Counts:	96500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

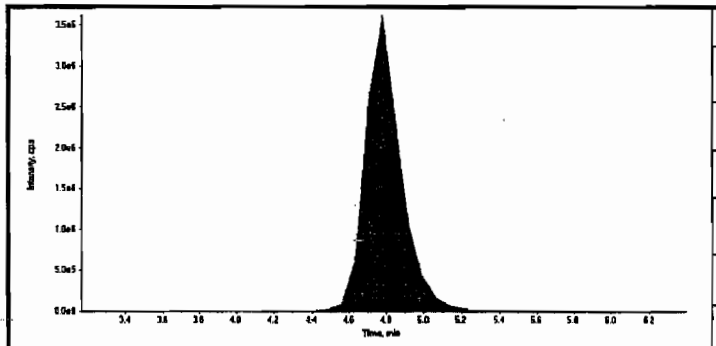

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	4.77e+007
Manual Modification	No
Amount:	521. (ng/mL)
% Accuracy:	86.90

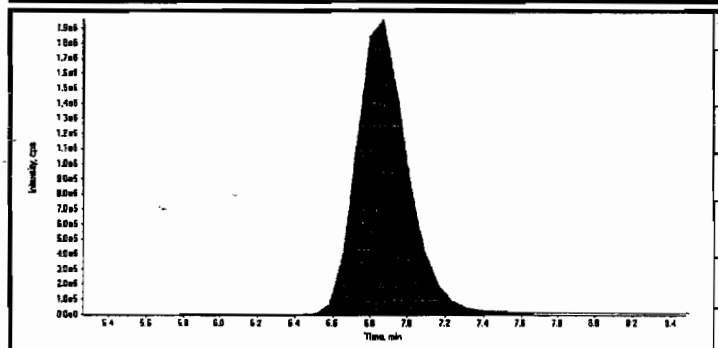

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	3.72e+007
Manual Modification	No
Amount:	578. (ng/mL)
% Accuracy:	96.30

Lcr 3/28/10

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Data File	EXP0322010.wiff	**Acquisition Date**	3/22/2010 7:30:24 PM
Sample Name	WXX100322-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

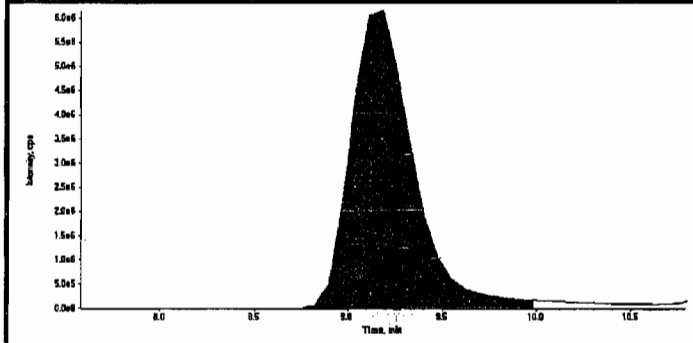

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.19
Area Counts:	1.40e+008
Manual Modification	No
Amount:	514. (ng/mL)
% Accuracy:	85.60

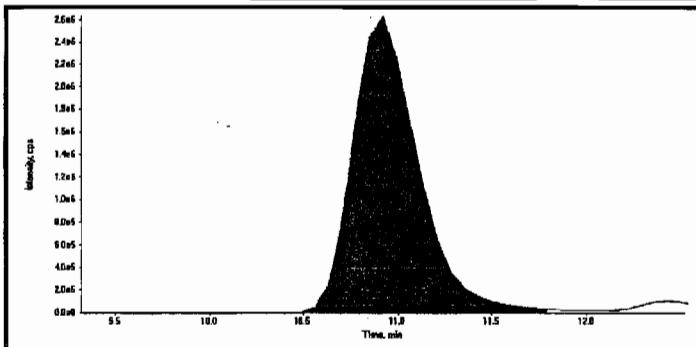

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	6.25e+007
Manual Modification	No
Amount:	559. (ng/mL)
% Accuracy:	93.10

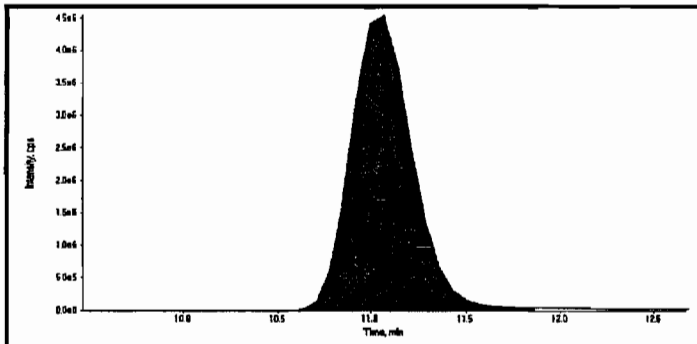

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.1
Area Counts:	1.03e+008
Manual Modification	No
Amount:	571. (ng/mL)
% Accuracy:	95.10

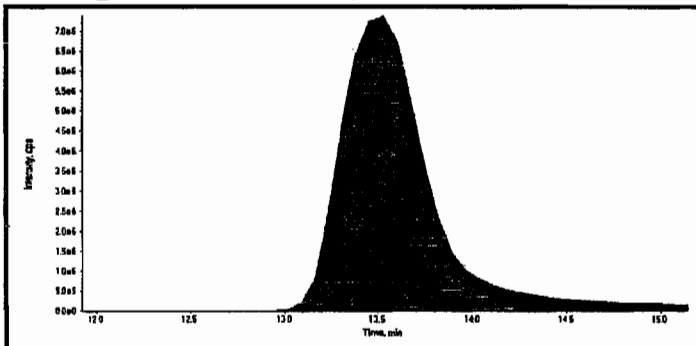

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	2.51e+008
Manual Modification	No
Amount:	517. (ng/mL)
% Accuracy:	86.20

Before RCN 3/28/10

ample Name: "WXX100322-56ICV" Sample ID: "[1]LER" File: "EXP0322010.wiff"
eak Name: "26-dinitrotoluene" Mass(us): "182.0/48.0 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
entration:	600.	ng/mL
culated Conc:	352.	ng/mL
Date:	3/22/2010	
Time:	7:30:24 PM	
fied:	No	
Algorithm:	IntelliQuan - IQA	
Peak Height:	1.00e4	cps
Peak Width:	0.00	sec
thing Width:	3	points
Window:	30.0	sec
cted RT:	15.3	min
Relative RT:	No	
Type:	Valley	
ntion Time:	15.3	min
:	6.61e+007	counts
ht:	2.78e+006	cps
t Time:	14.8	min
Time:	15.6	min

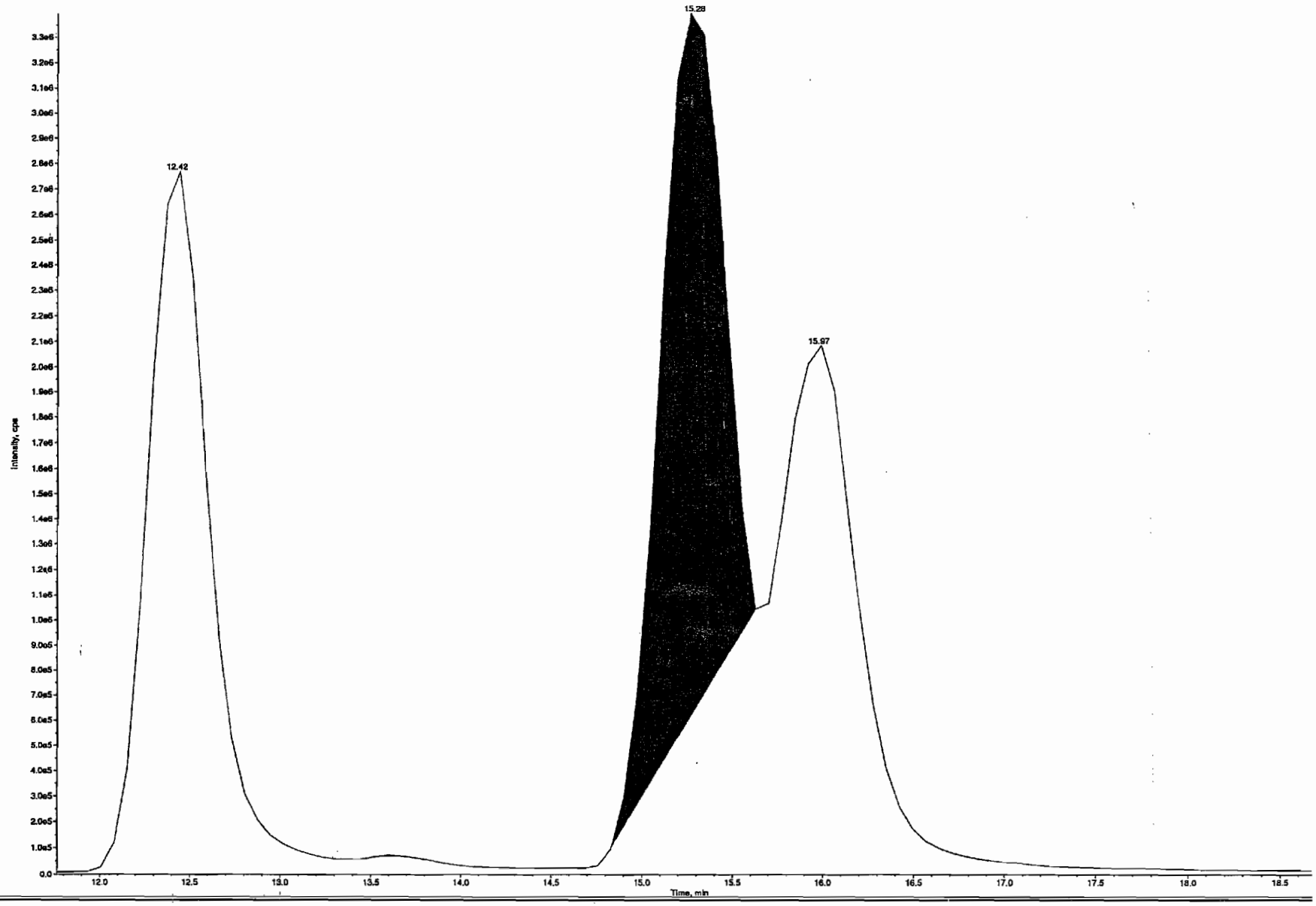

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Before Lar 3/28/10

Sample Name: "WXX100322-56IF:V" Sample ID: "[1]LER" File: "EXP0322010.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	600.	ng/mL
culated Conc:	0.00	ng/mL
. Date:	3/22/2010	
. Time:	7:30:24 PM	
ified:	No	

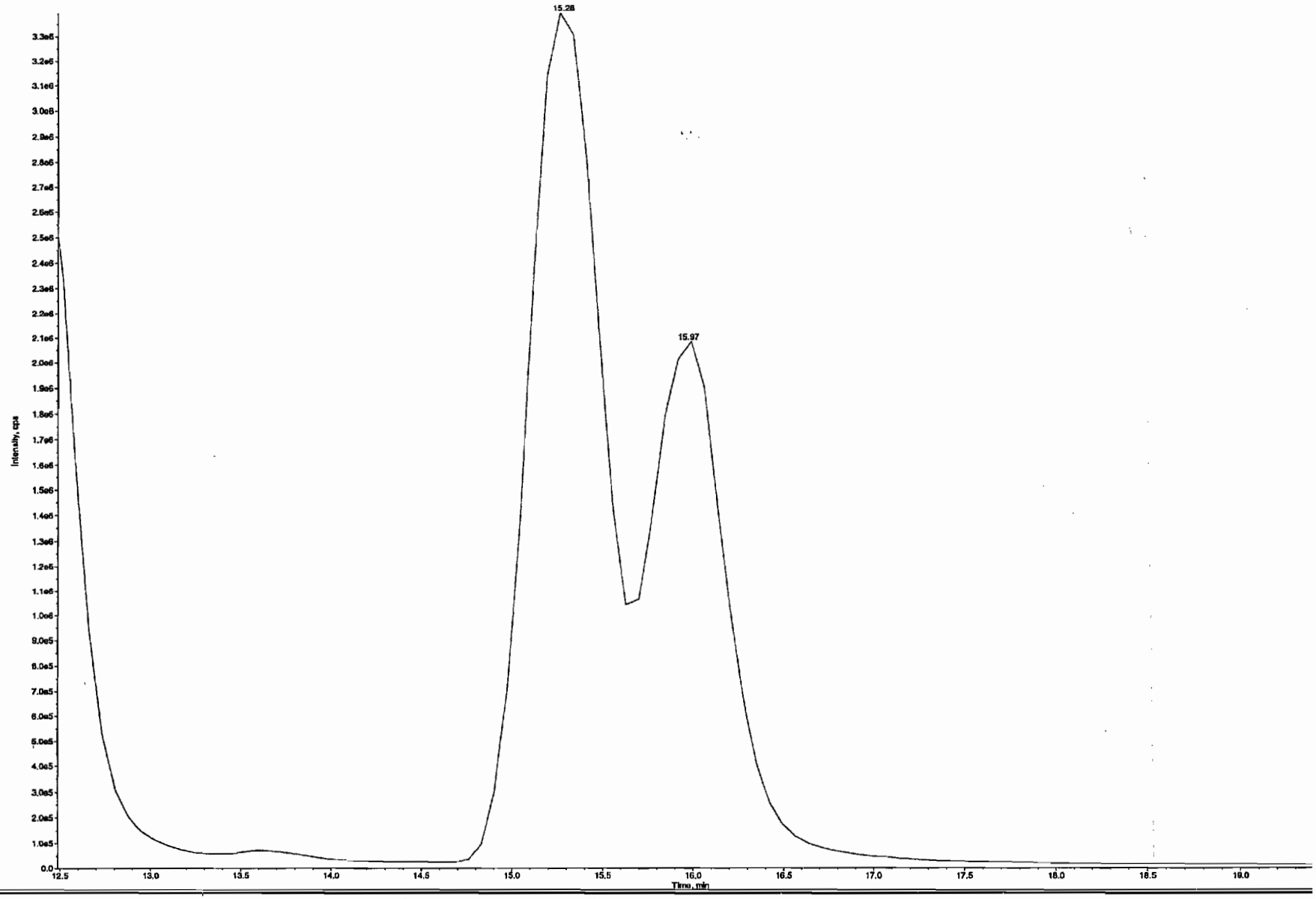

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322010.wiff	Acquisition Date	3/22/2010 7:30:24 PM
Sample Name	WXX100322-56ICV	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

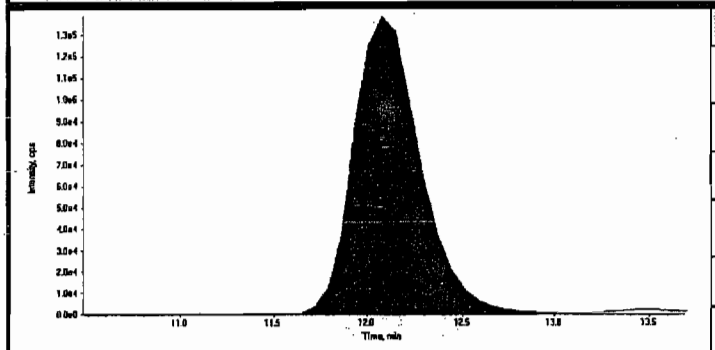

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	3.39e+006
Manual Modification	No
Amount:	595. (ng/mL)
% Accuracy:	99.20

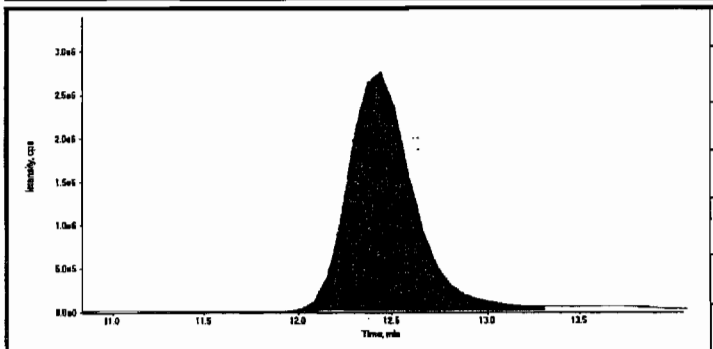

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	6.61e+007
Manual Modification	No
Amount:	265. (ng/mL)
% Accuracy:	88.30

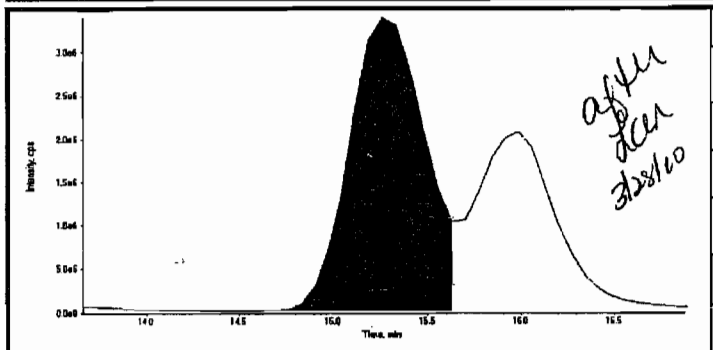

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	9.23e+007
Manual Modification	Yes
Amount:	492. (ng/mL)
% Accuracy:	82.10

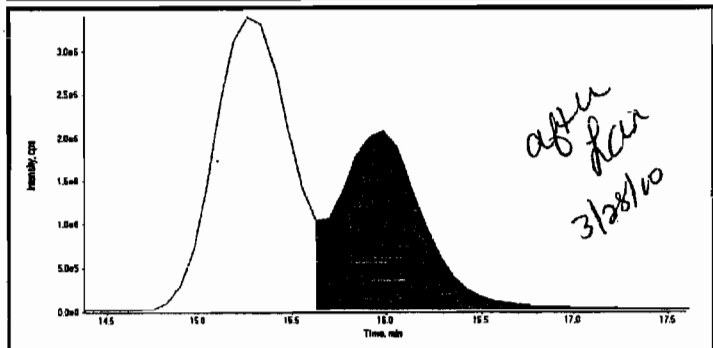

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	16.0
Area Counts:	6.45e+007
Manual Modification	Yes
Amount:	571. (ng/mL)
% Accuracy:	95.20

Before Ran 3/28/10

ample Name: "WXX100322-56ICV" Sample ID: "1]LER" File: "EXP0322010.wiff"
eak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
entration:	600.	ng/mL
culated Conc:	1940.	ng/mL
. Date:	3/22/2010	
. Time:	7:10:24 PM	
ified:	No	
:. Algorithm:	IntelliQuan - IQA	
. Peak Height:	1000.00	cps
. Peak Width:	0.00	sec
ching Width:	3	points
/indow:	10.0	sec
oted RT:	14.6	min
Relative RT:	No	
. Type:	Valley	
ntion Time:	14.6	min
:	1.24e+007	counts
ht:	1.88e+005	cps
t Time:	14.2	min
Time:	17.8	min

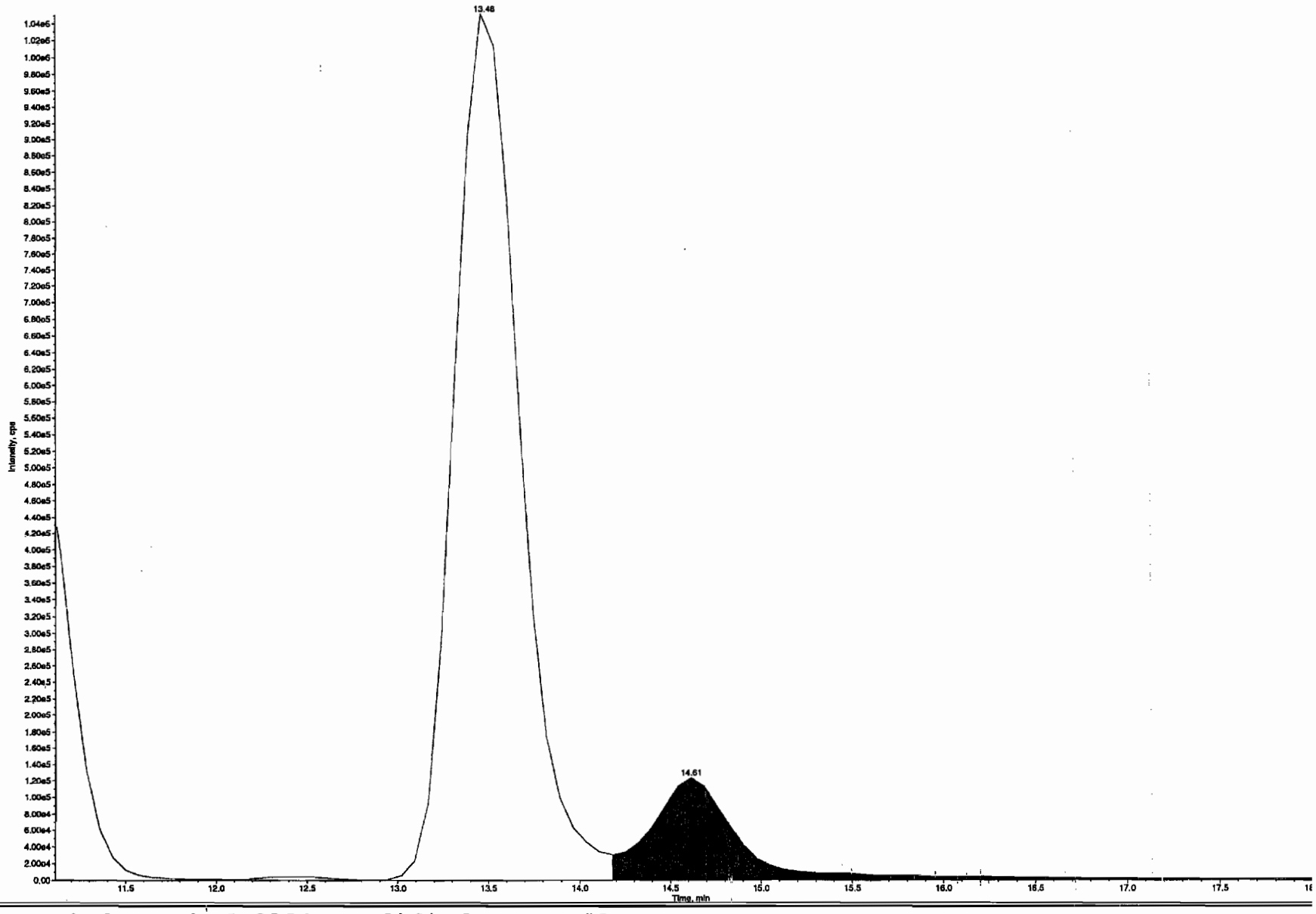

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322010.wiff	**Acquisition Date**	3/22/2010 7:30:24 PM
Sample Name	WXX100322-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

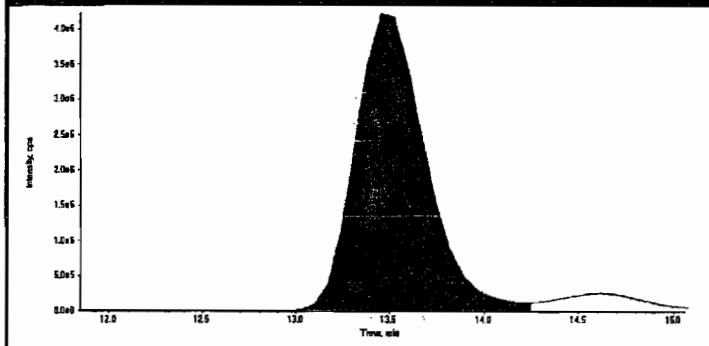

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.10e+008
Manual Modification	No
Amount:	540. (ng/mL)
% Accuracy:	90.00

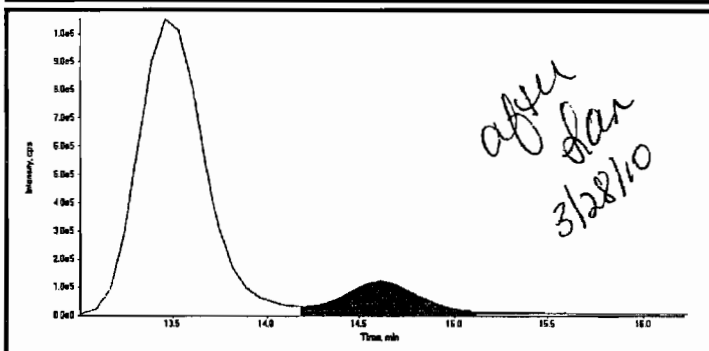

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.6
Area Counts:	3.66e+006
Manual Modification	Yes
Amount:	570. (ng/mL)
% Accuracy:	95.00

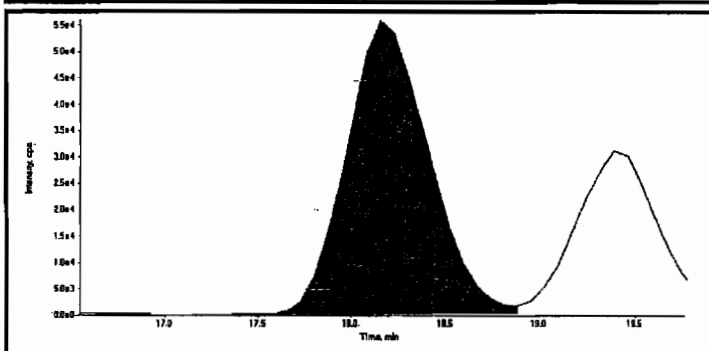

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.2
Area Counts:	1.70e+006
Manual Modification	No
Amount:	563. (ng/mL)
% Accuracy:	93.90

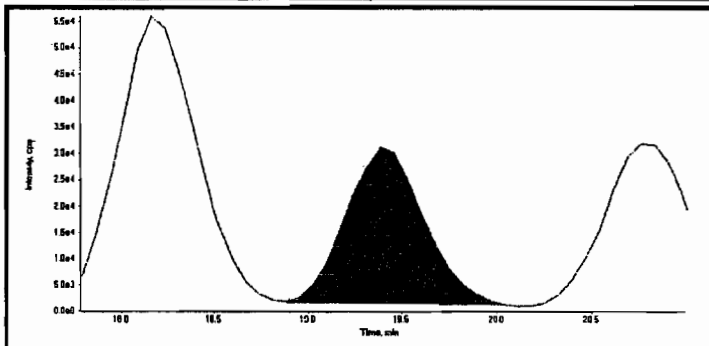

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.4
Area Counts:	8.60e+005
Manual Modification	No
Amount:	571. (ng/mL)
% Accuracy:	95.20

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Data File	EXP0322010.wiff	**Acquisition Date**	3/22/2010 7:30:24 PM
Sample Name	WXX100322-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

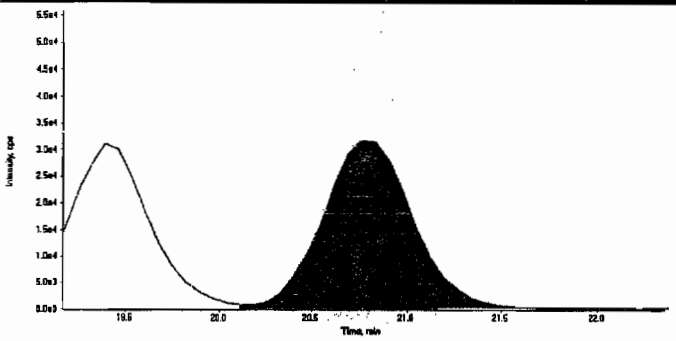

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.8
Area Counts:	1.05e+006
Manual Modification	No
Amount:	588. (ng/mL)
% Accuracy:	97.90

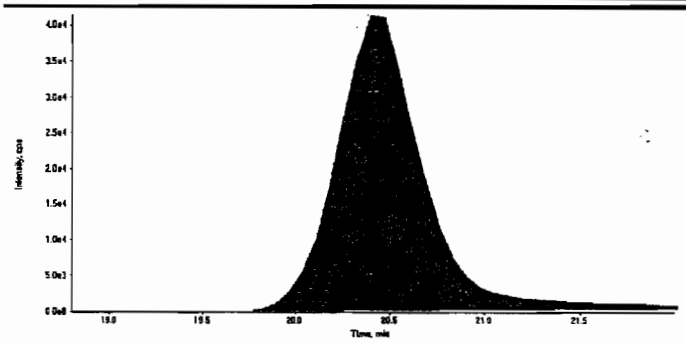

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.4
Area Counts:	1.31e+006
Manual Modification	No
Amount:	570. (ng/mL)
% Accuracy:	95.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/22/10
Time of Injection 1930
Standard Number WXX100322-56ICV
Data File EXP0322010a

HMX	86.9
RDX	96.3
135-Trinitrobenzene	85.6
13-Dinitrobenzene	93.1
Tetryl	95.1
246-Trinitrotoluene	86.2
Nitrobenzene	99.2
34-dinitrotoluene	88.3
26-dinitrotoluene	82.1
24-dinitrotoluene	95.2
4-Amino-26-dinitrotoluene	90.0
2-Amino-46-dinitrotoluene	95.0
2-Nitrotoluene	93.9
4-Nitrotoluene	95.2
3-Nitrotoluene	97.9
PETN	95.0
	✓
TOTAL	1475.0
AVERAGE	✓ 92.2

HAM 03/28/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lcn 3/28/10

Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2000

Lab Code: GEL

Run Date: 22-MAR-10,31-MAR-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8O

Calibration Type: Linear

Calibration Level:	19	20	21	22	23	24	25	Slope	Intercept	COD	Q
Data File:	EXS03310003.w	EXS03310004.w	EXS03310005.w	EXS03310006.w	EXS03310007.w	EXS03310008.w	EXS03310009.w				
Parmname											
2,6-Diamino-4-nitrotoluene	116000	252000	620000	1100000	1520000	2110000	4370000	2150	10600	.9991	

Linear fit : Y=mx +b
where b is Intercept and m is slope

COD is Coefficient of Determination

Q column used to flag COD values outside of Limit (<0.990)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2000

Lab Code: GEL

Run Date: 22-MAR-10,31-MAR-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8O

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS03310003.wifl	EXS03310004.wifl	EXS03310005.wifl	EXS03310006.wifl	EXS03310007.wifl	EXS03310008.wifl	EXS03310009.wifl					
Parmname:												
2,4-Diamino-6-nitrotoluene	100000	212000	510000	954000	1540000	1660000	3440000	36100	1860	-.085	.997	
3,4-Dinitrotoluene	197000	416000	981000	1900000	2870000	3740000	6880000	-24900	8650	-1.76	.9984	
3,5-Dinitroaniline	327000	689000	1570000	2920000	4950000	5840000	10100000	-47600	6910	-.908	.9987	
TATB	33600	68300	180000	356000	588000	726000	1480000	-6740	757	-.007	.9995	
tris(o-cresyl) phosphate	1070000	2110000	4990000	9200000	13600000	16900000	28300000	146000	19800	-2.85	.9999	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-6.74e+003			
a1	757			
a2	-0.00697			

Correlation coefficient 0.9995
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-4.76e+004			
a1	6.91e+003			
a2	-0.908			

Correlation coefficient 0.9987
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-2.49e+004			
a1	8.65e+003			
a2	-1.76			

Correlation coefficient 0.9984
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Linear	Weighting	None	Iterate No
Intercept	1.06e+004			
Slope	2.15e+003			

Correlation coefficient 0.9991
Use Area

Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Lan 4/5/10

kmm 04/05/10

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Fit	Quadratic	Weighting	None	Iterate No
a0	3.61e+004			
a1	1.86e+003			
a2	-0.0854			

Correlation coefficient 0.9970
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	1.46e+005			
a1	1.98e+004			
a2	-2.85			

Correlation coefficient 0.9999
Use Area

33110.rdb (TATB): "Quadratic" Regression ("No" weighting): y = -0.00697 x^2 + 757 x + -6.74e+003 (r = 0.9995)

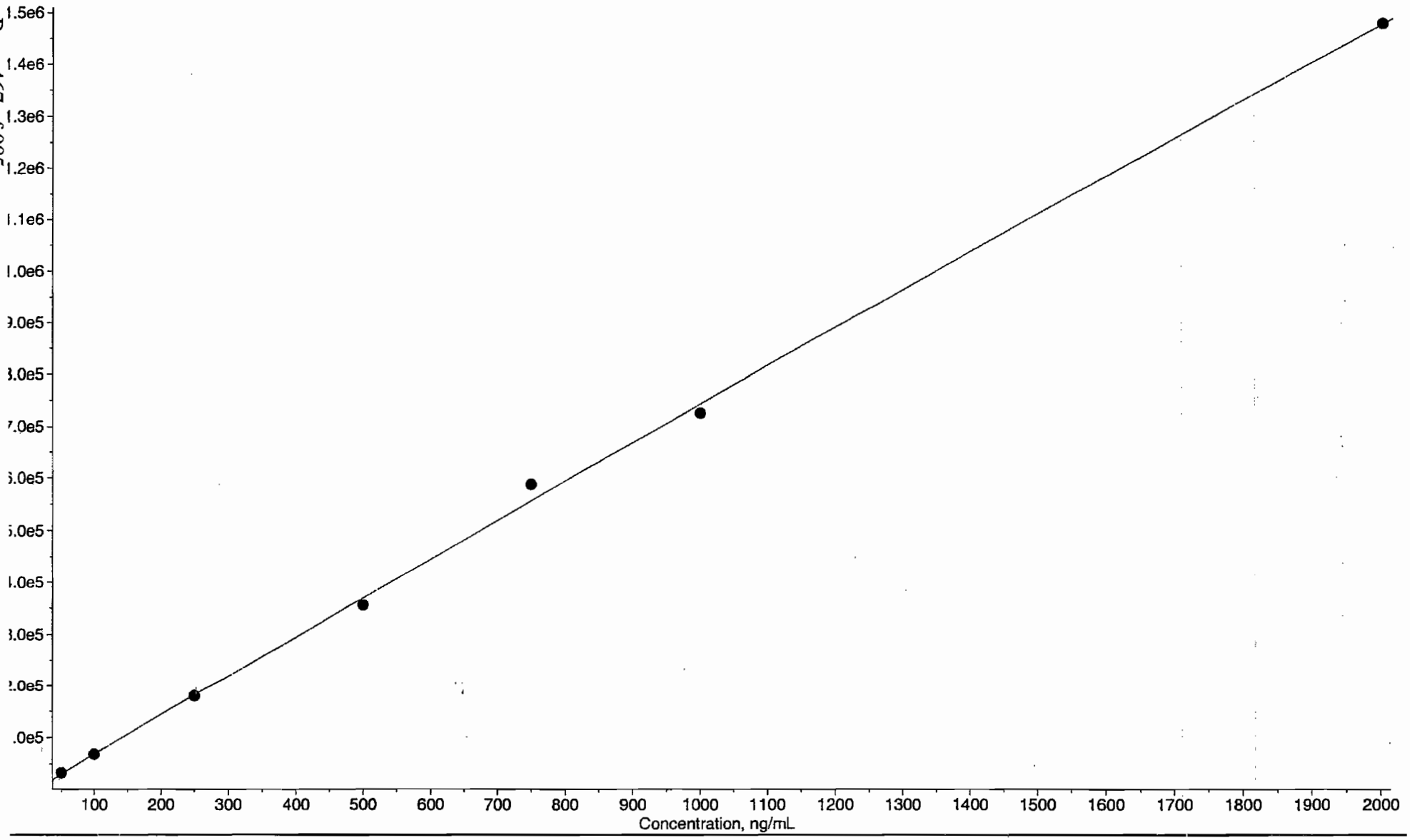

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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)33110.rdb (35-Dinitroaniline): "Quadratic" Regression ("No" weighting): y = -0.908 x^2 + 6.91e+003 x + -4.76e+004 (r = 0.9987)

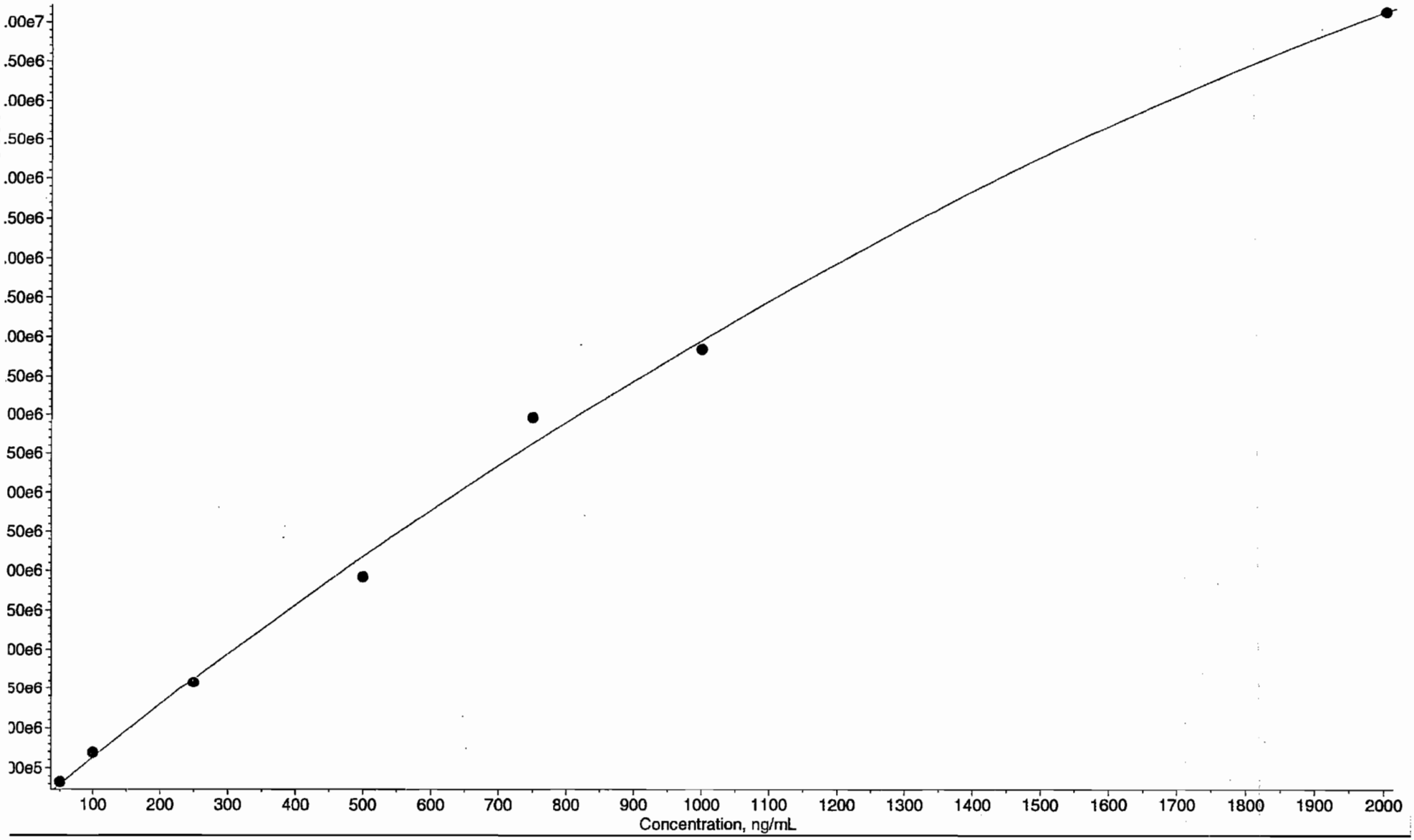

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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33110.rdb (34-Dinitrotoluene): "Quadratic" Regression ("No" weighting): y = -1.76 x^2 + 8.65e+003 x + -2.49e+004 (r = 0.9984)

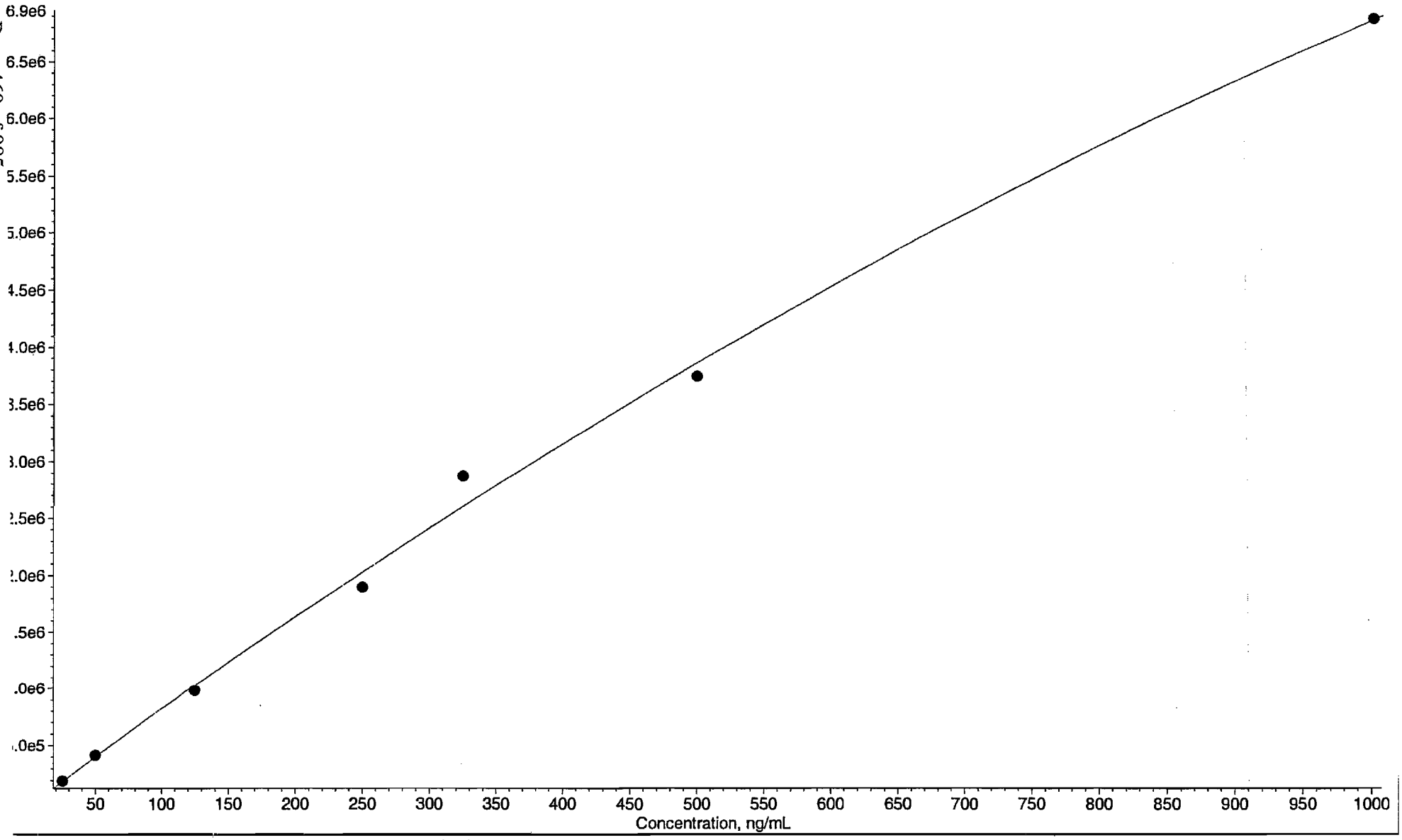

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

)33110.rdb (26-Diamino-4-nitrotoluene): "Linear" Regression ("No" weighting): y = 2.15e+003 x + 1.06e+004 (r = 0.9991)

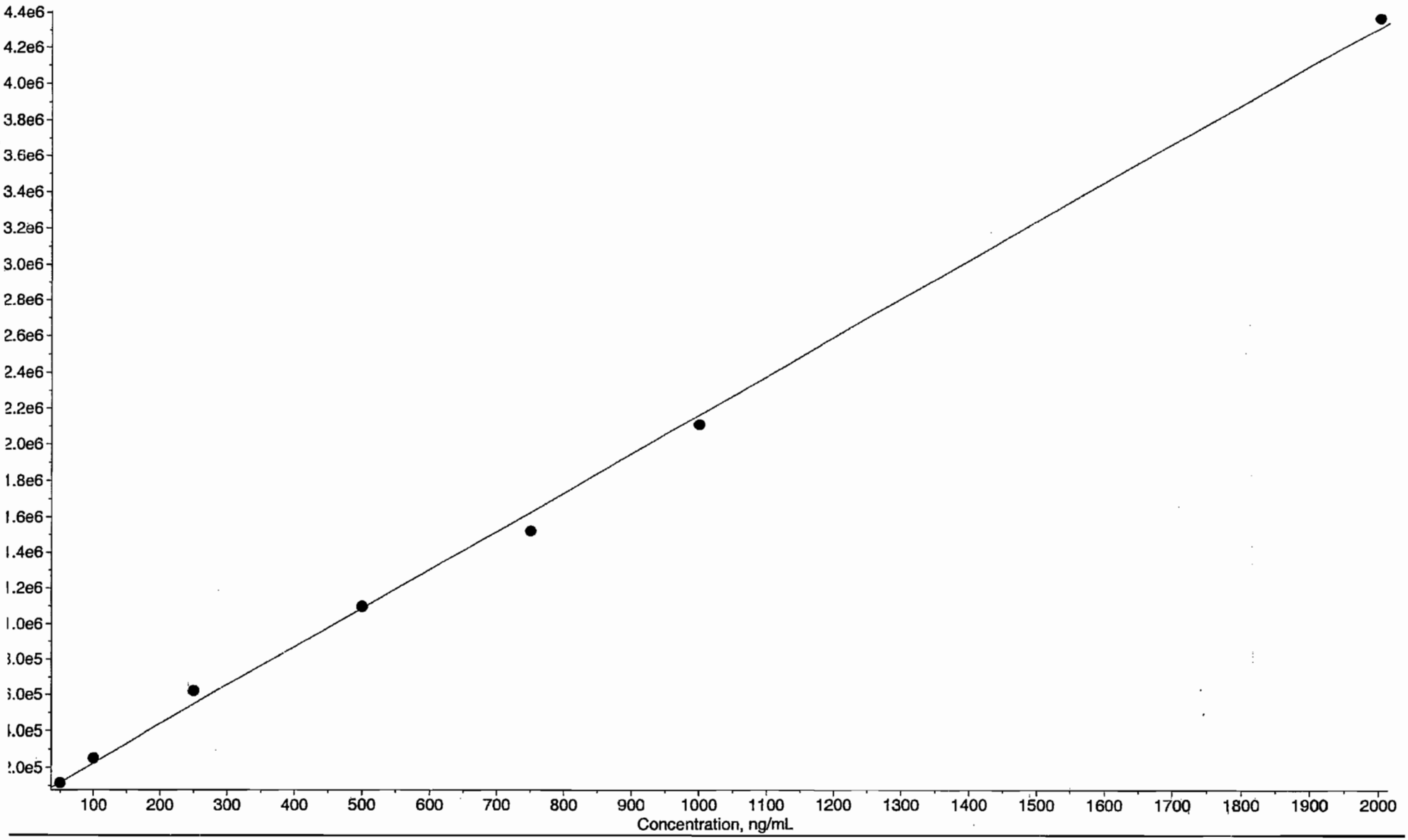

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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)33110.rdb (24-Diamino-6-nitrotoluene): "Quadratic" Regression ("No" weighting): y = -0.0854 x^2 + 1.86e+003 x + 3.61e+004 (r = 0.9970)

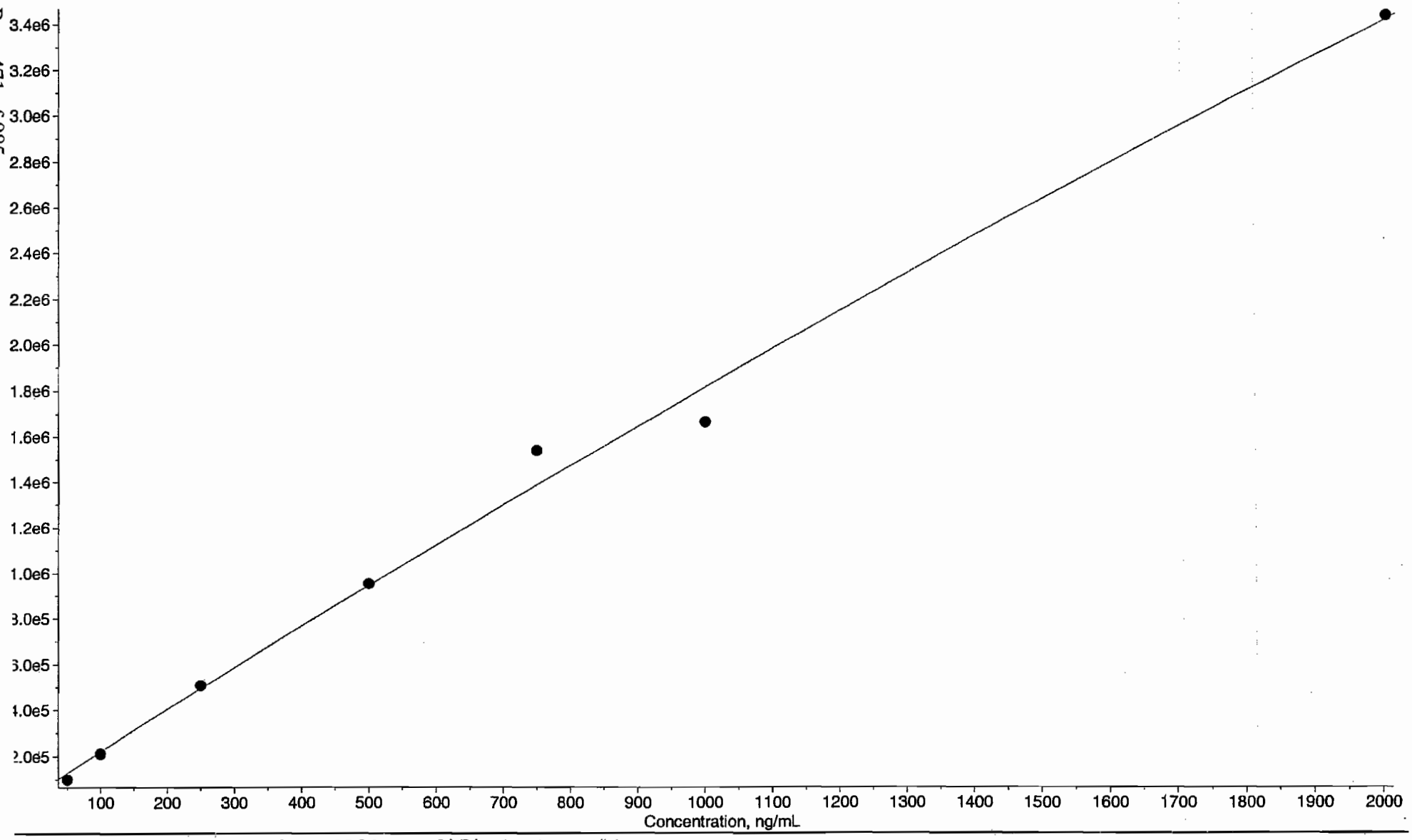

)33110.rdb (tris(o-cresyl) phosphate): "Quadratic" Regression ("No" weighting): y = -2.85 x^2 + 1.98e+004 x + 1.46e+005 (r = 0.9999)

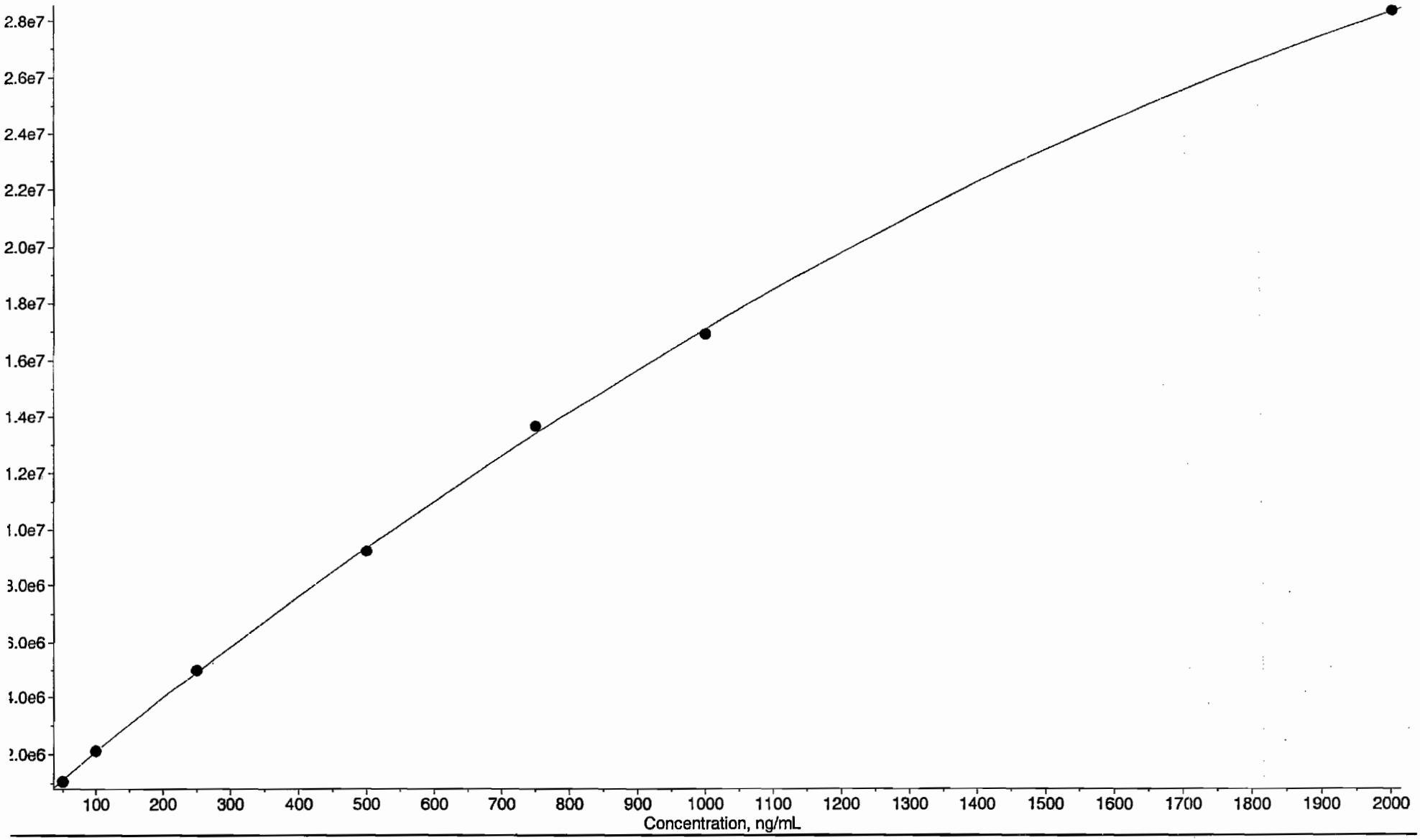

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Ken 4/5/10

e Name: "WXX100331-19" Sample ID: "|1|LER" File: "EXS03310003.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_I" Annotation: ""

Index:	1	
Type:	Standard	
tration:	50.0	ng/mL
ated Conc:	53.3	ng/mL
ate:	3/31/2010	
ime:	9:12:01 AM	
ed:	No	
algorithm:	IntelliQuan - IQA	
eak Height:	2500.00	cps
eak Width:	0.00	sec
ing Width:	3	points
dow:	30.0	sec
ed RT:	6.90	min
lative RT:	No	
/pe:	Valley	
ion Time:	6.90	min
	3.36e+004	counts
:	8035.092	cps
Time:	6.82	min
ne:	7.34	min

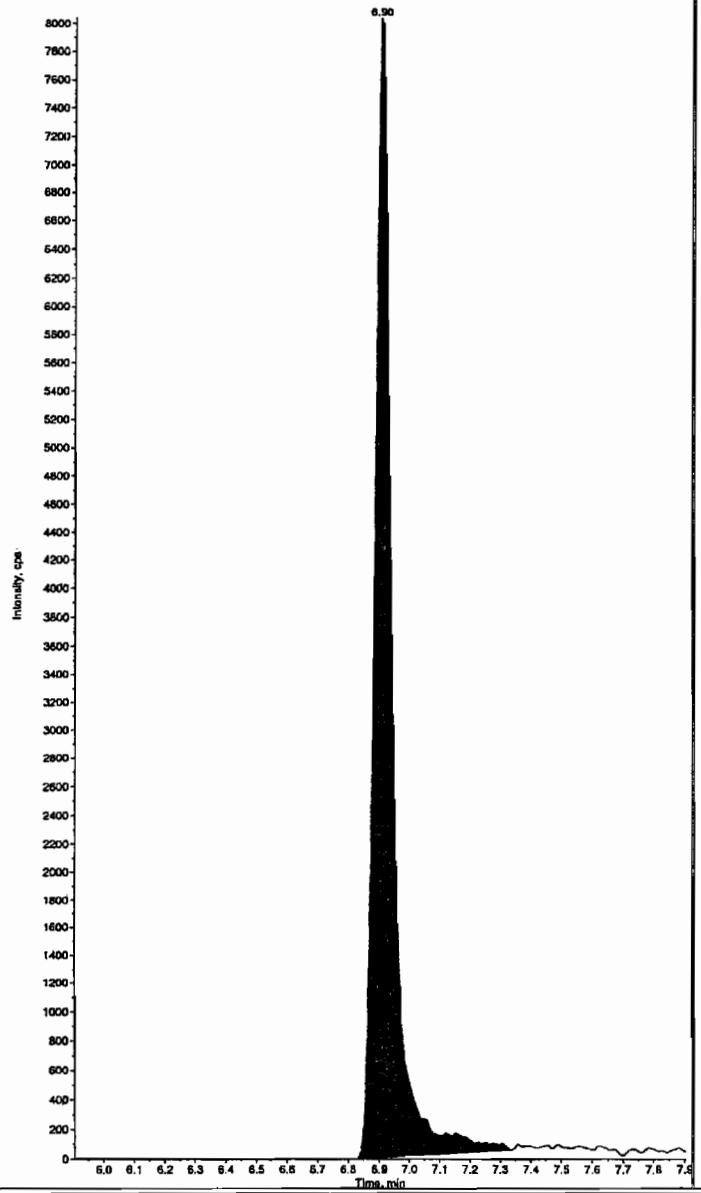

Sample Name: "WXX100331-19" Sample ID: "|1|LER" File: "EXS03310003.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	50.0	ng/mL
Calculated Conc:	54.6	ng/mL
Acq. Date:	3/31/2010	
Acq. Time:	9:12:01 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.14	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.14	min
Area:	3.27e+005	counts
Height:	79705.101	cps
Start Time:	8.04	min
End Time:	8.27	min

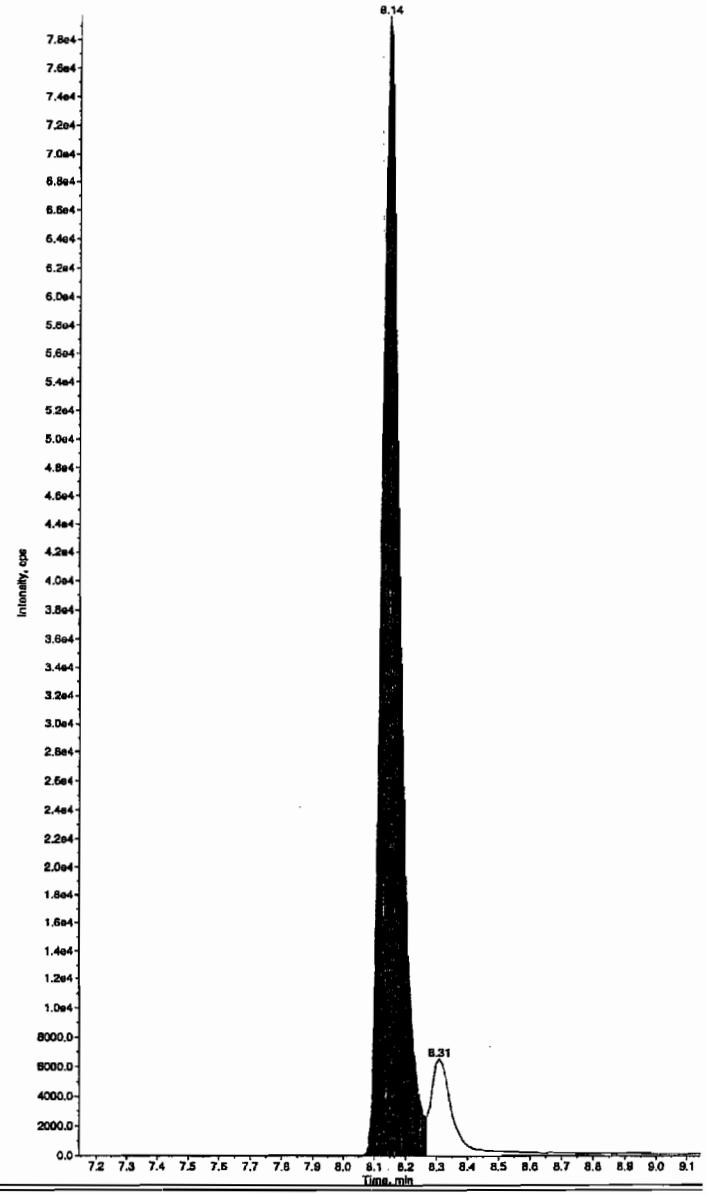

Hmm 04/05/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

e Name: "WXX100331-19" Sample ID: "[1]LER" File: "EXS03310003.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ent: "LCMSEXP_I" Annotation: ""

Index: 1
Type: Standard
tration: 25.0 ng/mL
ated Conc: 25.8 ng/mL
ate: 3/31/2010
ime: 9:12:01 AM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 1460.00 cps
eak Width: 0.00 sec
ing Width: 3 points
ow: 15.0 sec
ed RT: 8.31 min
ative RT: No

ype: Valley
on Time: 8.31 min
1.97e+005 counts
49695.324 cps
Time: 8.23 min
e: 8.61 min

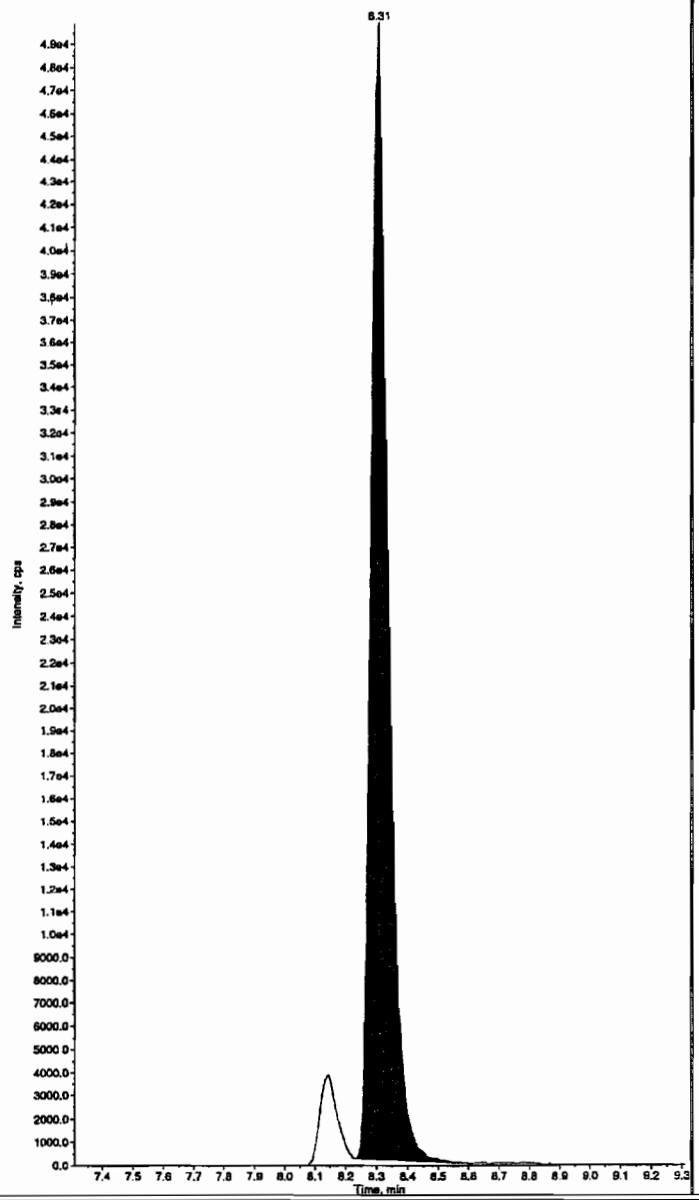

Sample Name: "WXX100331-19" Sample ID: "[1]LER" File: "EXS03310003.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 50.0 ng/mL
Calculated Conc: 49.1 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:12:01 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.96 min
Area: 1.16e+005 counts
Height: 25917.850 cps
Start Time: 4.85 min
End Time: 5.25 min

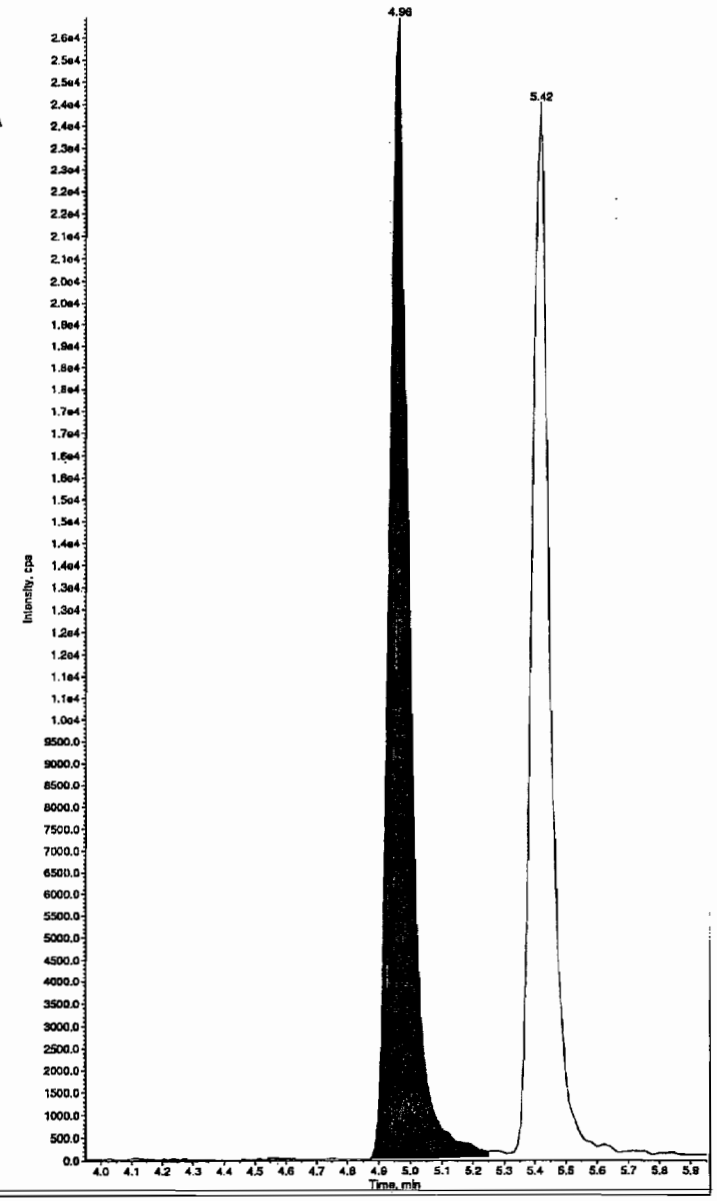

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e Name: "WXX100331-19" Sample ID: "|1|LER" File: "EXS03310003.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ent: "LCMSEXP_I" Annotation: ""

Index: 1
Type: Standard
ration: 50.0 ng/mL
ated Conc: 34.4 ng/mL
ate: 3/31/2010
ime: 9:12:01 AM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 350.00 cps
eak Width: 0.00 sec
ing Width: 3 points
low: 30.0 sec
ed RT: 5.41 min
ative RT: No

ype: Valley
on Time: 5.42 min
1.00e+005 counts
23869.471 cps
Time: 5.31 min
e: 5.66 min

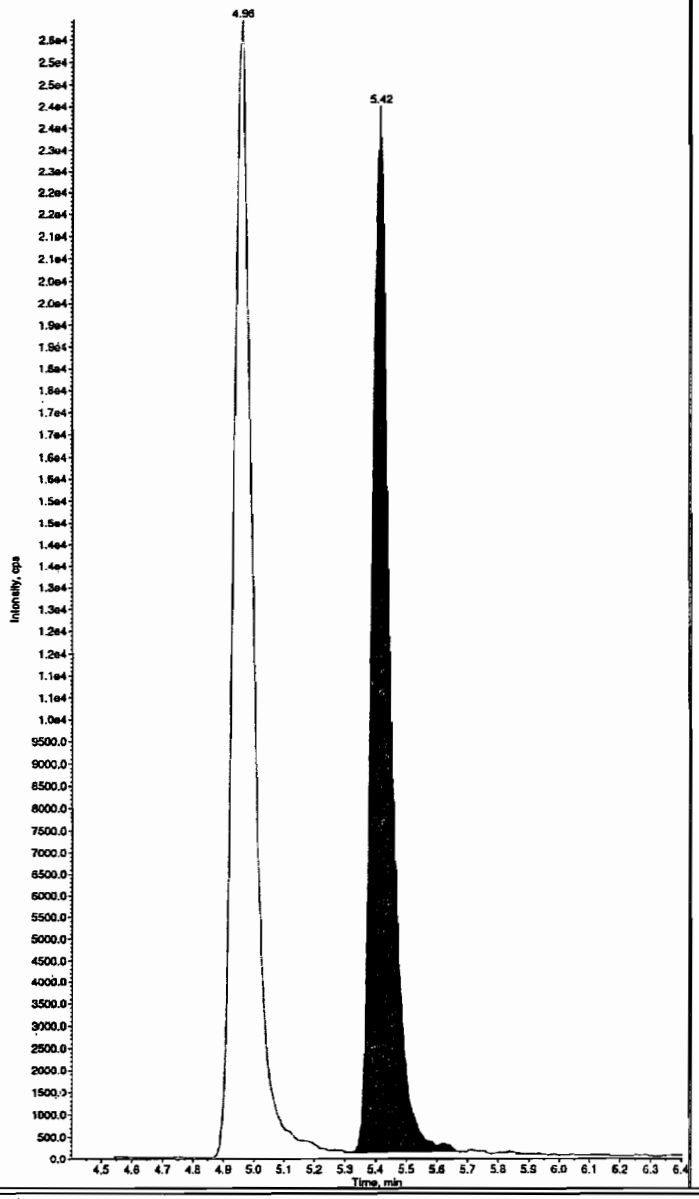

Sample Name: "WXX100331-19" Sample ID: "|1|LER" File: "EXS03310003.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 50.0 ng/mL
Calculated Conc: 47.0 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:12:01 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.07e+006 counts
Height: 261024.902 cps
Start Time: 10.7 min
End Time: 11.2 min

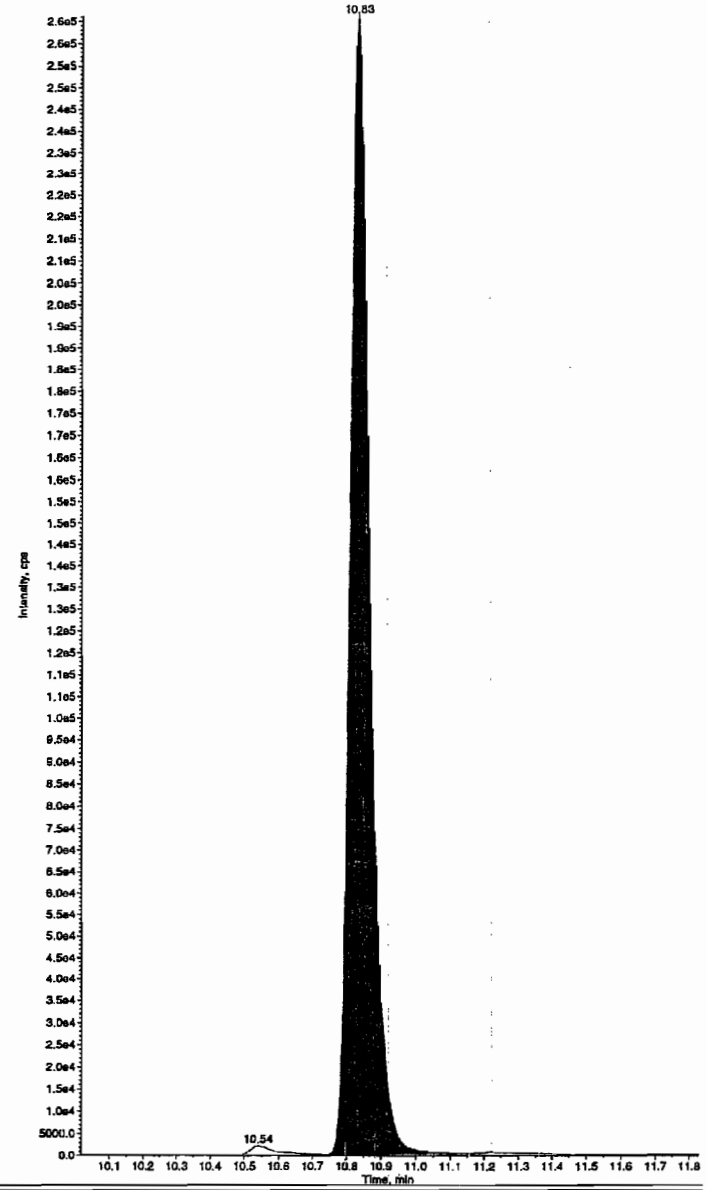

Rcvn 4/5/10

le Name: "WXX100331-20" Sample ID: "[1]LER" File: "EXS03310004.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_I" Annotation: ""

Index:	1	
Type:	Standard	
tration:	100.	ng/mL
ated Conc:	99.2	ng/mL
ate:	3/31/2010	
ime:	9:27:45 AM	
ed:	No	
Algorithm:	IntelliQuan - IQA	
eak Height:	2500.00	cps
eak Width:	0.00	sec
ing Width:	3	points
dow:	30.0	sec
ed RT:	6.90	min
lative RT:	No	
ype:	Valley	
ion Time:	6.91	min
	6.83e+004	counts
:	15598.828	cps
Time:	6.82	min
me:	7.47	min

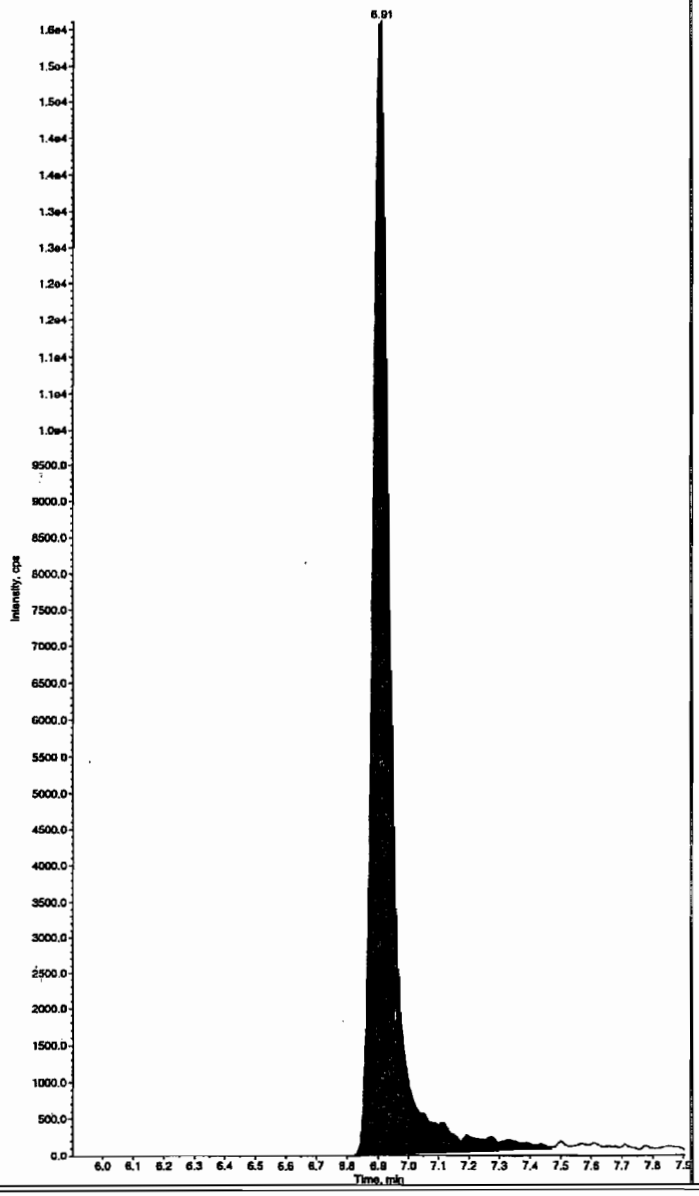

Sample Name: "WXX100331-20" Sample ID: "[1]LER" File: "EXS03310004.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	100.	ng/mL
Calculated Conc:	108.	ng/mL
Acq. Date:	3/31/2010	
Acq. Time:	9:27:45 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.14	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.13	min
Area:	6.89e+005	counts
Height:	162359.406	cps
Start Time:	8.05	min
End Time:	8.27	min

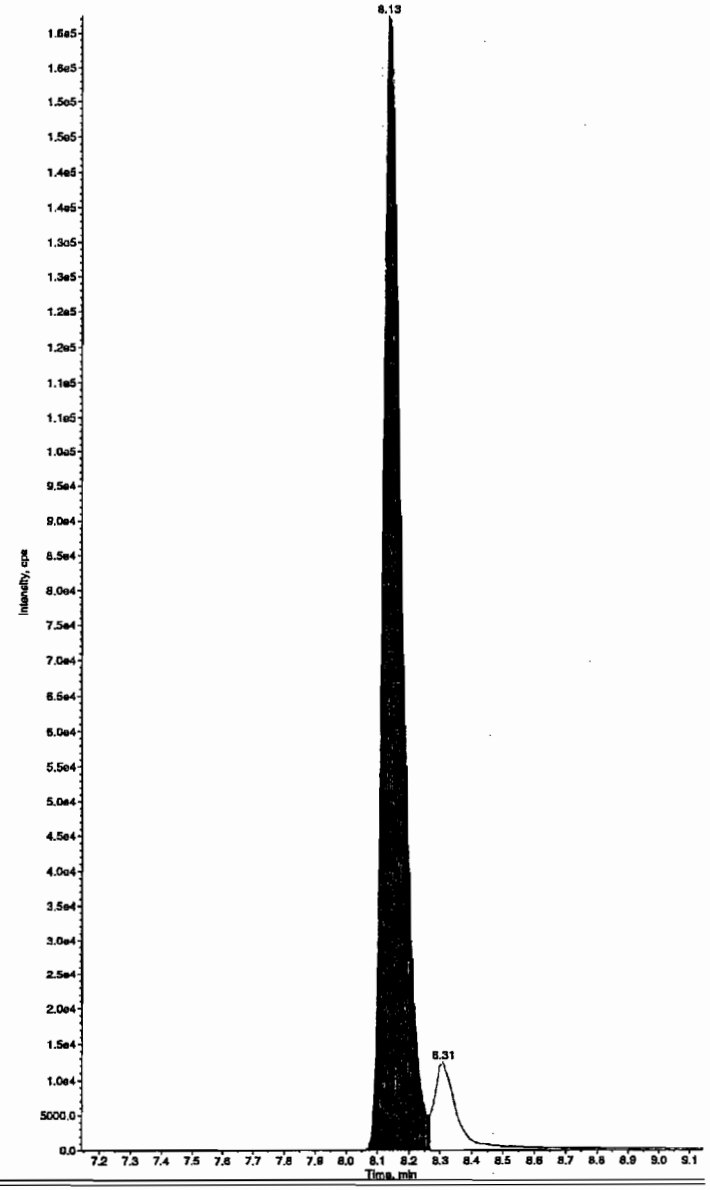

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SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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le Name: "WXX100331-20" Sample ID: "[1]LER" File: "EXS03310004.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_I" Annotation: ""

Index:	1	
Type:	Standard	
tration:	50.0	ng/mL
ated Conc:	51.5	ng/mL
ate:	3/31/2010	
ime:	9:27:45 AM	
ed:	No	
Algorithm:	IntelliQuan - IQA	
eak Height:	1460.00	cps
eak Width:	0.00	sec
ing Width:	3	points
dow:	15.0	sec
ed RT:	8.31	min
lative RT:	No	
ype:	Valley	
ion Time:	8.31	min
	4.16e+005	counts
:	105767.097	cps
Time:	8.24	min
me:	8.57	min

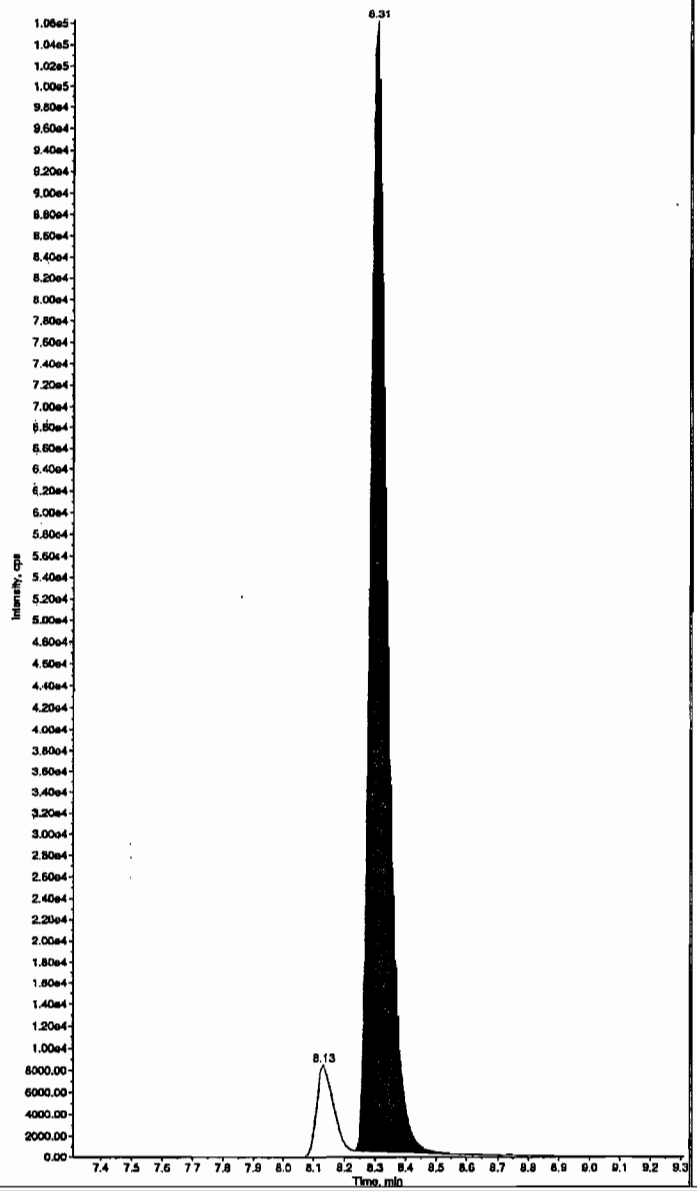

Sample Name: "WXX100331-20" Sample ID: "[1]LER" File: "EXS03310004.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	100.	ng/mL
Calculated Conc:	112.	ng/mL
Acq. Date:	3/31/2010	
Acq. Time:	9:27:45 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	4.95	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	4.96	min
Area:	2.52e+005	counts
Height:	60433.033	cps
Start Time:	4.87	min
End Time:	5.22	min

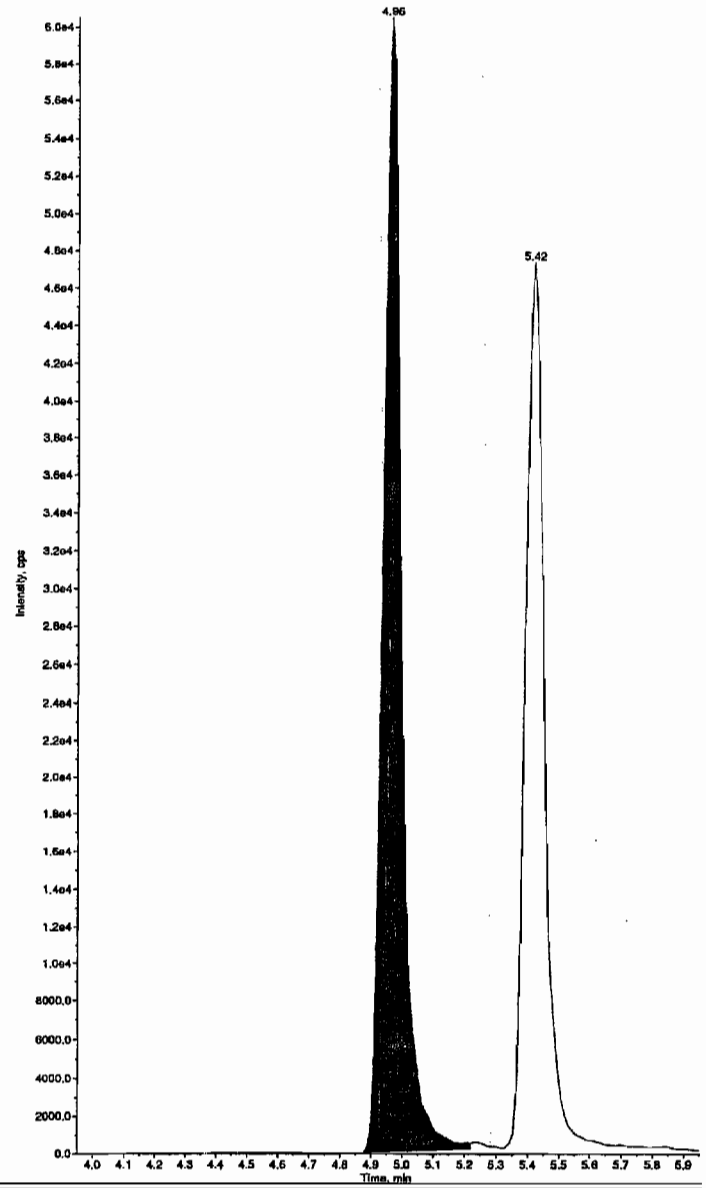

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

le Name: "WXX100331-20" Sample ID: "|1|LER" File: "EXS03310004.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nent: "LCMSEXP_I" Annotation: ""

Index: 1
Type: Standard
ıtration: 100. ng/mL
ated Conc: 94.6 ng/mL
ıate: 3/31/2010
ime: 9:27:45 AM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 350.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 5.41 min
lative RT: No

ype: Valley
ion Time: 5.42 min
2.12e+005 counts
: 47300.957 cps
Time: 5.32 min
me: 6.07 min

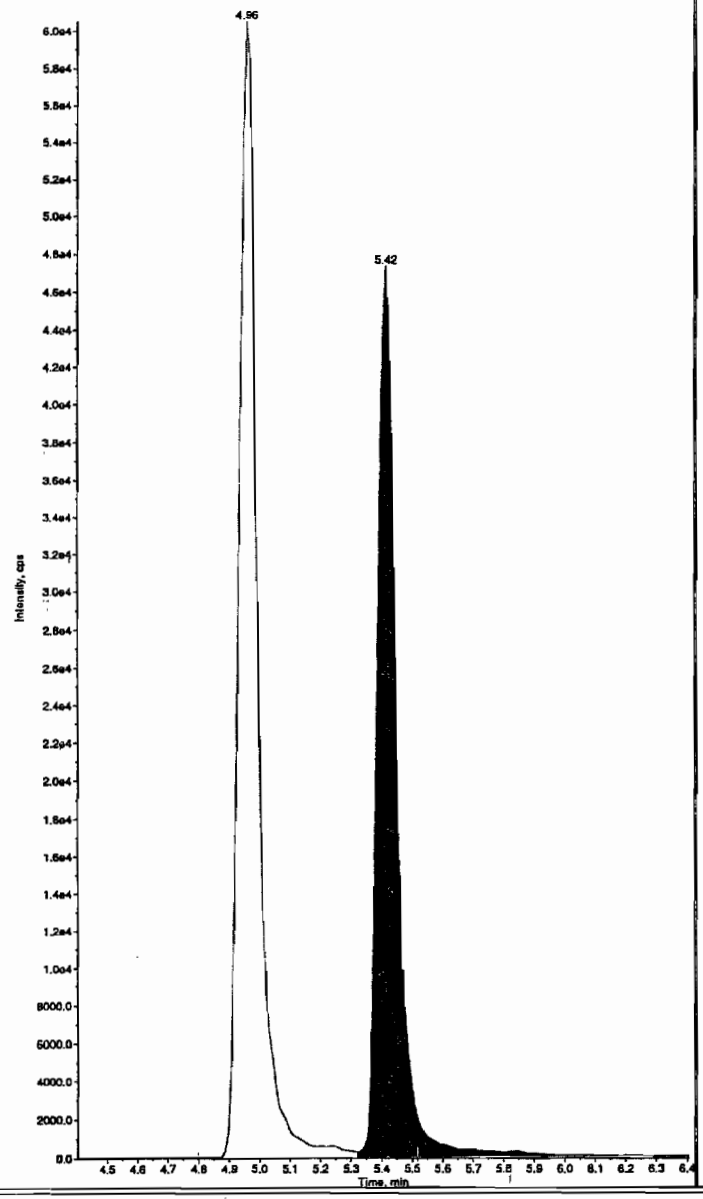

Sample Name: "WXX100331-20" Sample ID: "|1|LER" File: "EXS03310004.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 100. ng/mL
Calculated Conc: 101. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:27:45 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 2.11e+006 counts
Height: 520613.831 cps
Start Time: 10.7 min
End Time: 11.2 min

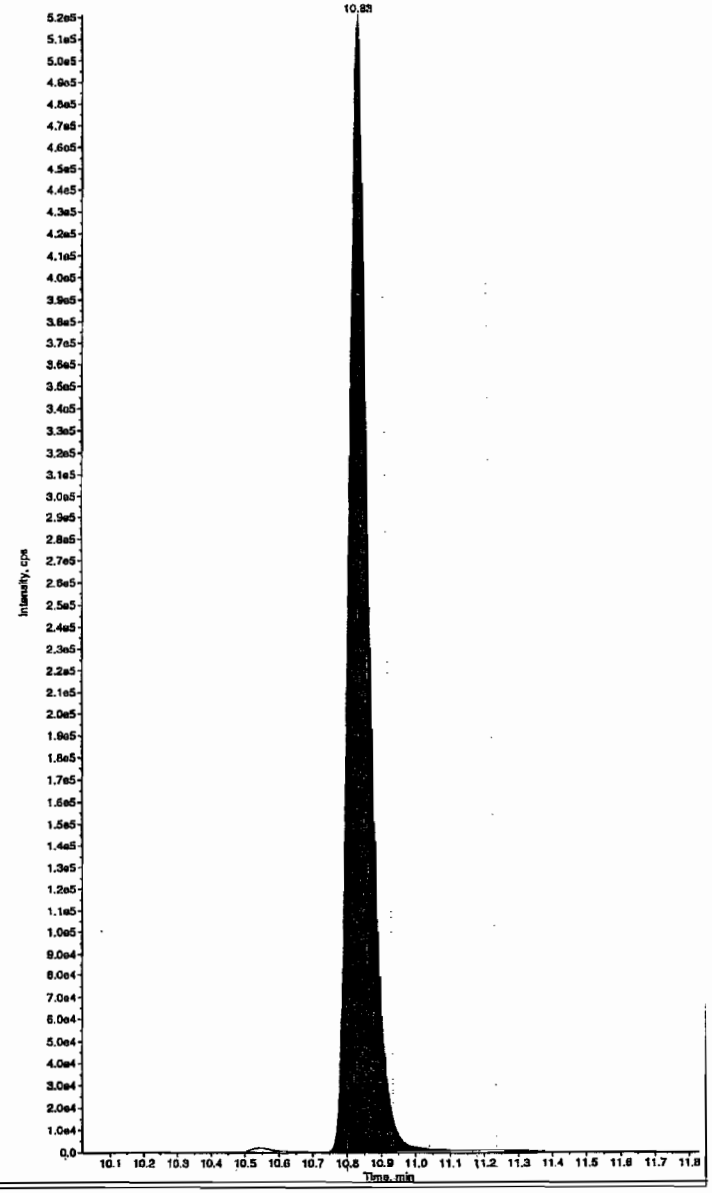

Before ALER 4/5/10

e Name: "WXX100331-21" Sample ID: "|1|LER" File: "EXS03310005.wiff"
lame: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_I" Annotation: ""

Index: 1
Type: Standard
ration: 250. ng/mL
ated Conc: 247. ng/mL
ate: 3/31/2010
ime: 9:43:27 AM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 2500.00 cps
eak Width: 0.00 sec
ing Width: 3 points
low: 30.0 sec
ed RT: 6.90 min
ative RT: No

ype: Valley
ion Time: 6.91 min
1.80e+005 counts
38235.210 cps
Time: 6.83 min
e: 7.68 min

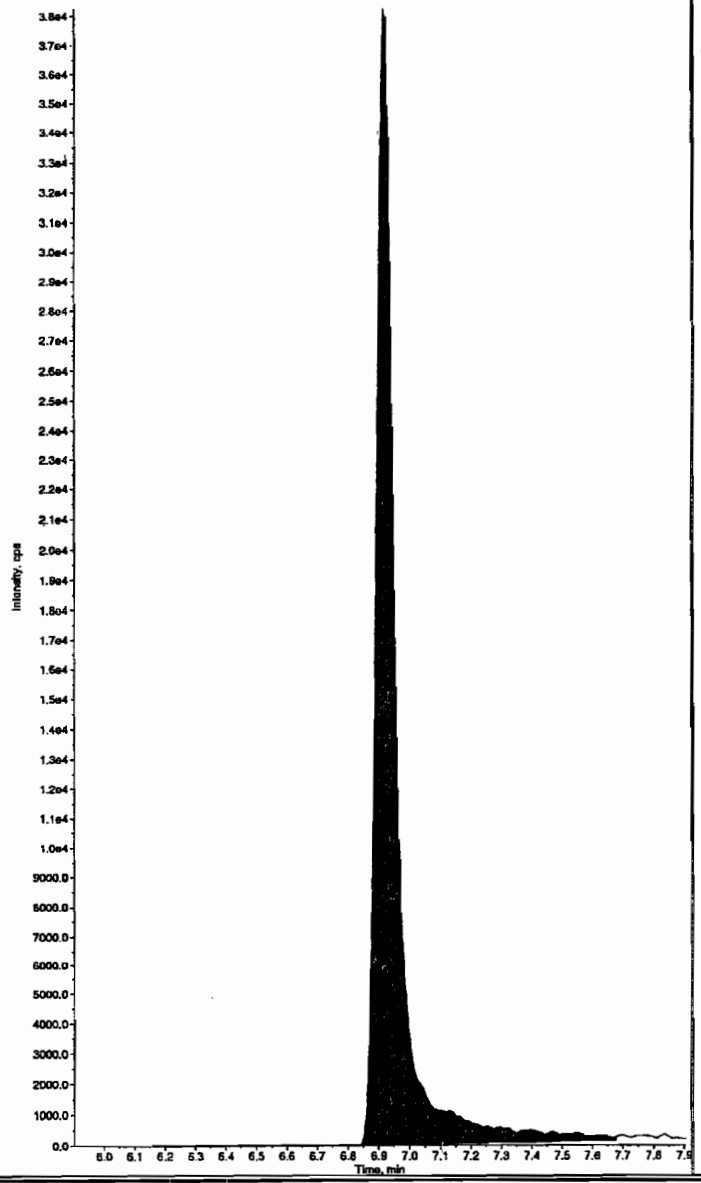

Sample Name: "WXX100331-21" Sample ID: "|1|LER" File: "EXS03310005.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 250. ng/mL
Calculated Conc: 238. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:43:27 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.15 min
Area: 1.51e+006 counts
Height: 396105.865 cps
Start Time: 8.08 min
End Time: 8.28 min

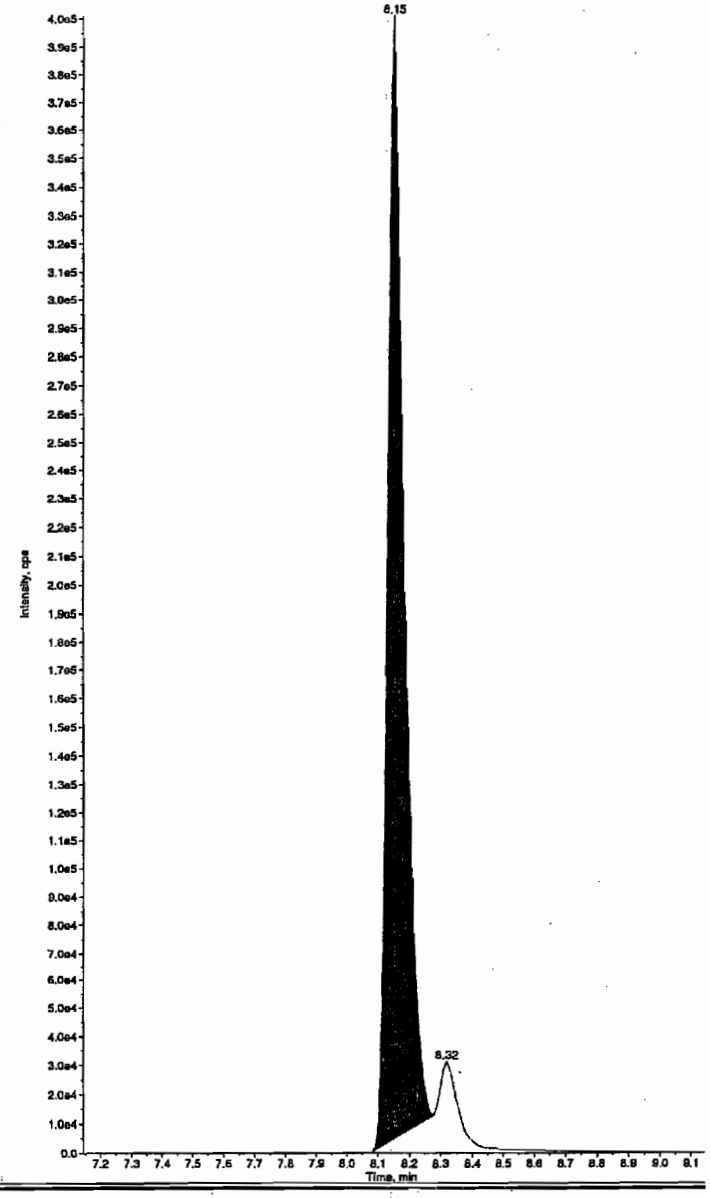

HMM 04/05/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

after Rec 4/5/10

le Name: "WXX100331-21" Sample ID: "|1|LER" File: "EXS03310005.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_|" Annotation: ""

Index:	1	
Type:	Standard	
tration:	250.	ng/mL
ated Conc:	247.	ng/mL
ate:	3/31/2010	
ime:	9:43:27 AM	
ed:	No	
Algorithm:	IntelliQuan - IQA	
eak Height:	2500.00	cps
eak Width:	0.00	sec
ing Width:	3	points
dow:	30.0	sec
ed RT:	6.90	min
lative RT:	No	
ype:	Valley	
ion Time:	6.91	min
	1.80e+005	counts
:	38235.210	cps
Time:	6.83	min
me:	7.68	min

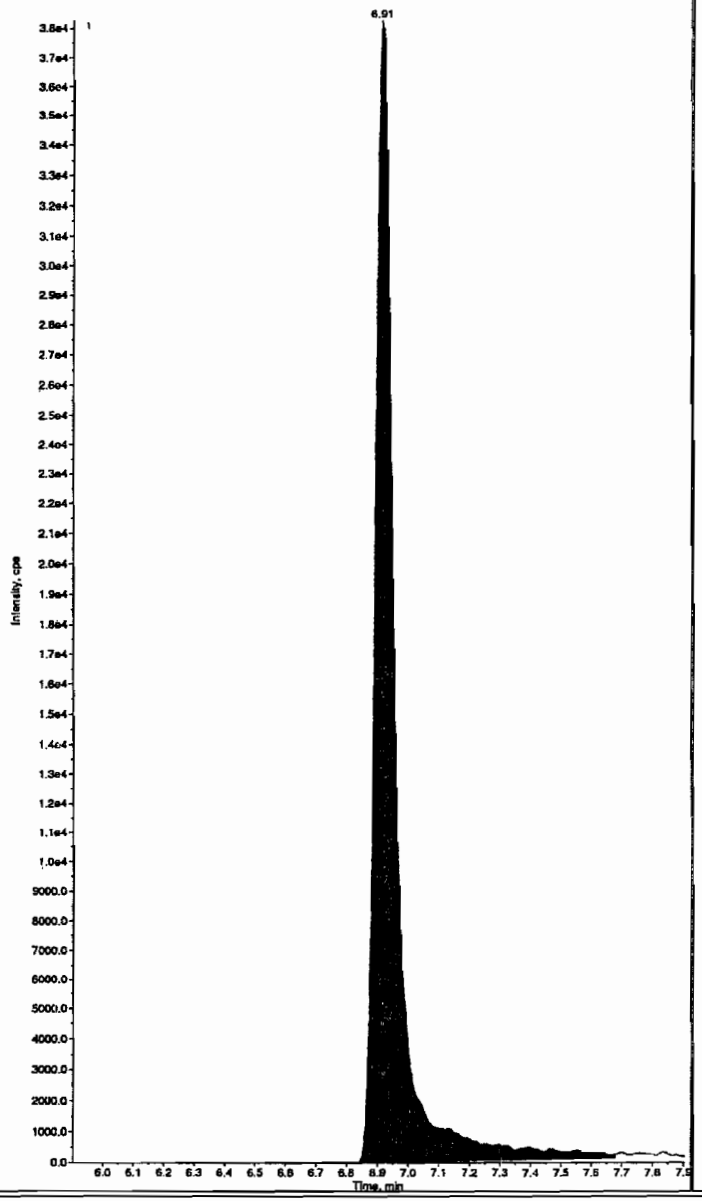

Sample Name: "WXX100331-21" Sample ID: "|1|LER" File: "EXS03310005.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_|" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	250.	ng/mL
Calculated Conc:	242.	ng/mL
Acq. Date:	3/31/2010	
Acq. Time:	9:43:27 AM	
Modified:	Yes	
RT Window:	15.0	sec
Expected RT:	8.14	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	8.15	min
Area:	1.57e+006	counts
Height:	401032.655	cps
Start Time:	8.08	min
End Time:	8.28	min

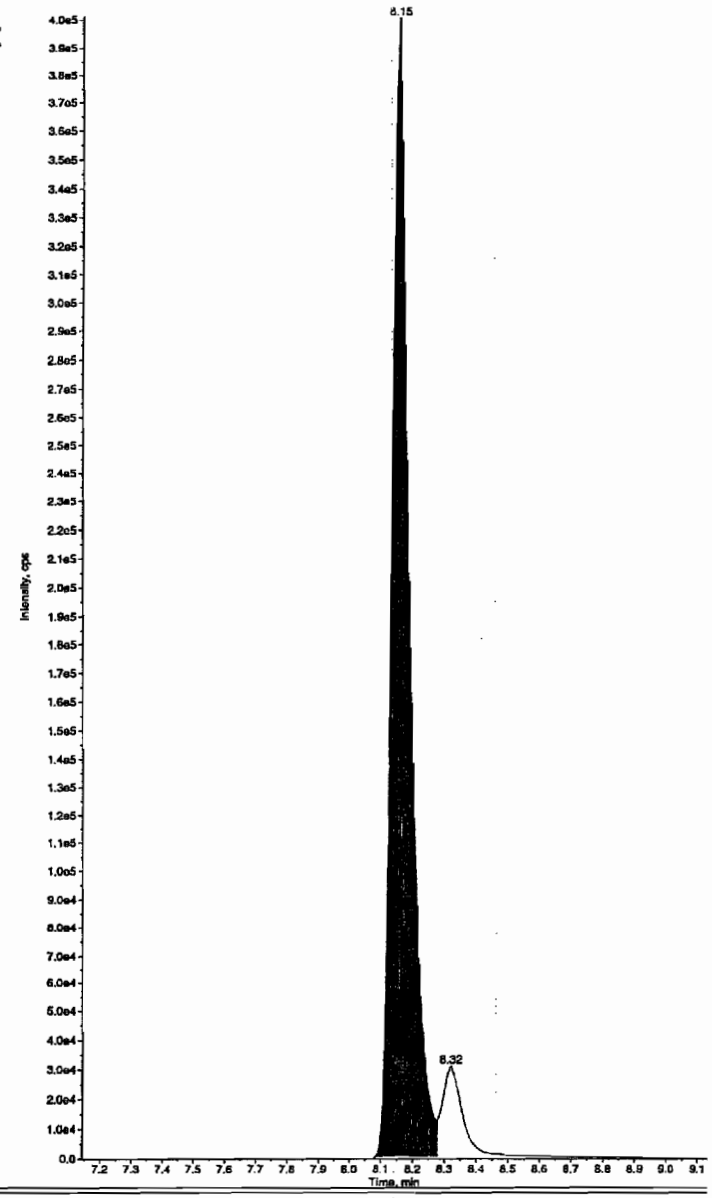

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

e Name: "WXX100331-21" Sample ID: "|1|LER" File: "EXS03310005.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ent: "LCMSEXP_I" Annotation: ""

Index: 1
Type: Standard
tration: 125. ng/mL
ated Conc: 119. ng/mL
ate: 3/31/2010
ime: 9:43:27 AM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 1460.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 15.0 sec
ed RT: 8.31 min
lative RT: No

ype: Valley
ion Time: 8.31 min
9.81e+005 counts
: 250643.387 cps
Time: 8.24 min
me: 8.61 min

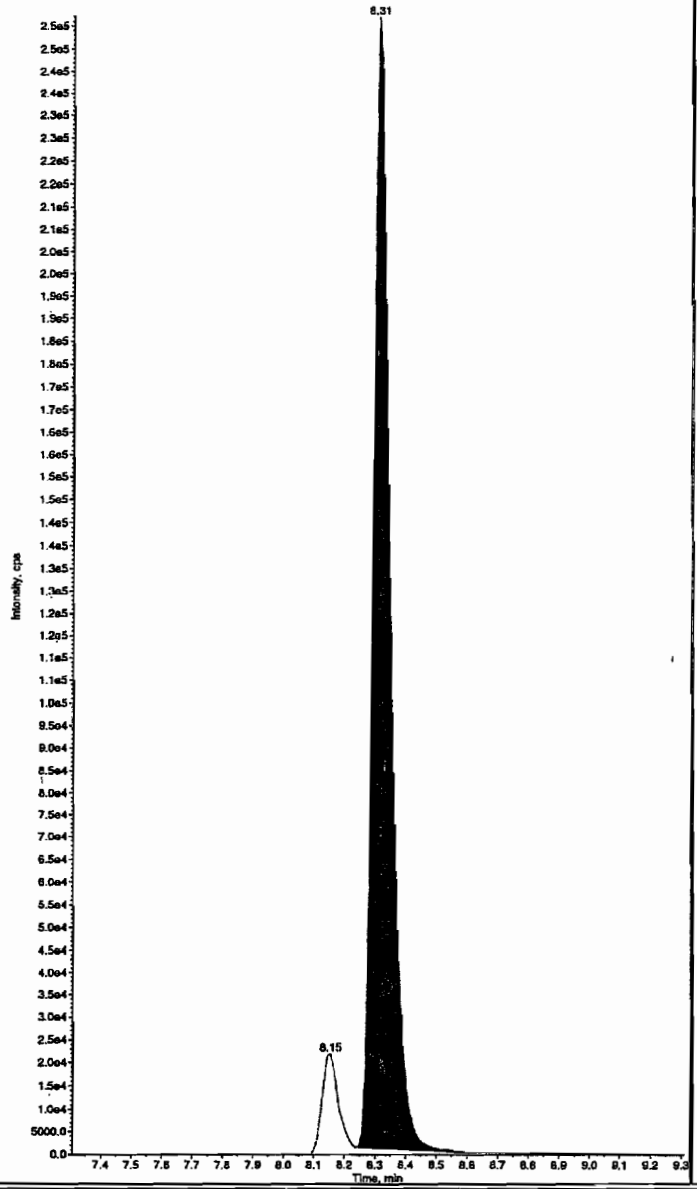

Sample Name: "WXX100331-21" Sample ID: "|1|LER" File: "EXS03310005.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 250. ng/mL
Calculated Conc: 283. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:43:27 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.97 min
Area: 6.20e+005 counts
Height: 135986.526 cps
Start Time: 4.87 min
End Time: 5.26 min

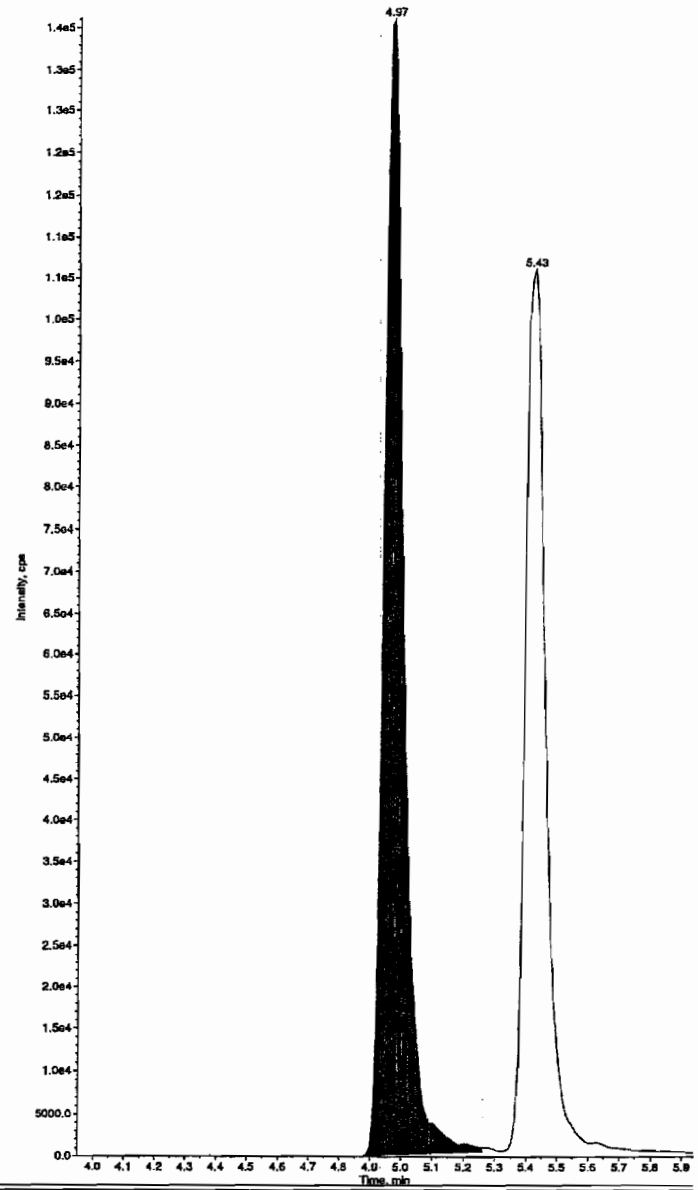

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

le Name: "WXX100331-21" Sample ID: "[1]LER" File: "EXS03310005.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nent: "LCMSEXP_I" Annotation: ""
: Index: 1
: Type: Standard
ıtration: 250. ng/mL
.ated Conc: 257. ng/mL
)ate: 3/31/2010
'ime: 9:43:27 AM

.ed: No
Algorithm: IntelliQuan - IQA
'eak Height: 350.00 cps
'eak Width: 0.00 sec
ıing Width: 3 points
ıdow: 30.0 sec
.ed RT: 5.41 min
:lative RT: No

ype: Valley
.ion Time: 5.43 min
5.10e+005 counts
.: 106060.982 cps
Time: 5.32 min
me: 6.12 min

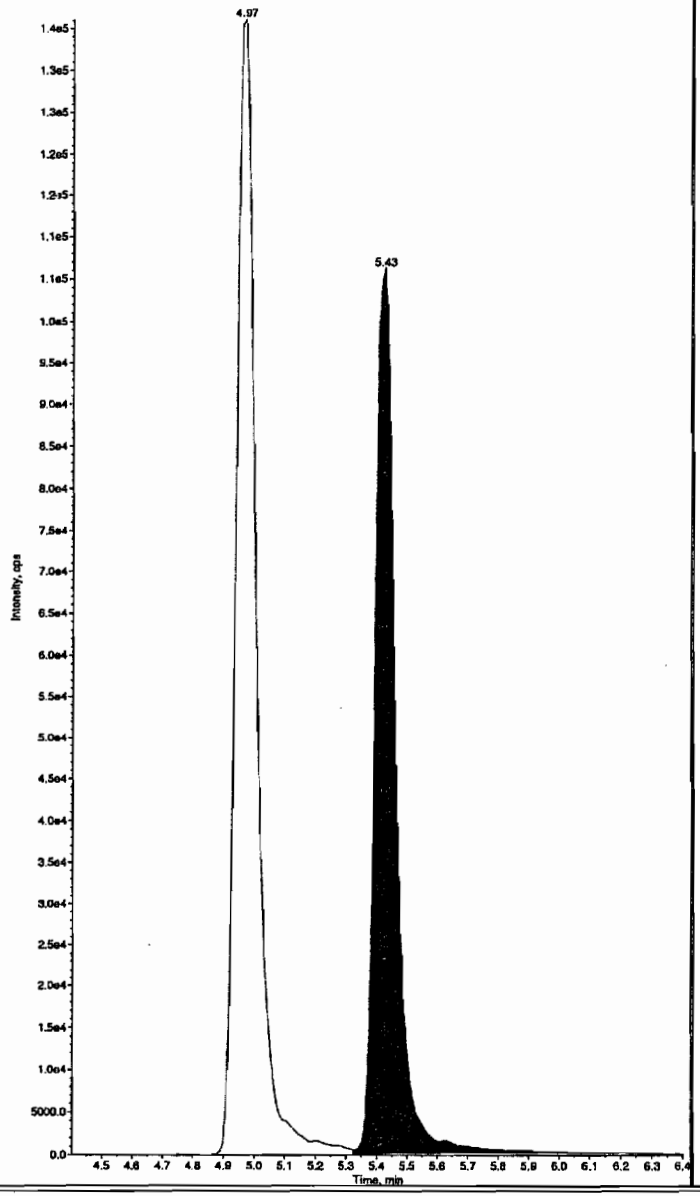

Sample Name: "WXX100331-21" Sample ID: "[1]LER" File: "EXS03310005.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 250. ng/mL
Calculated Conc: 254. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:43:27 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 4.99e+006 counts
Height: 1199644.897 cps
Start Time: 10.7 min
End Time: 11.2 min

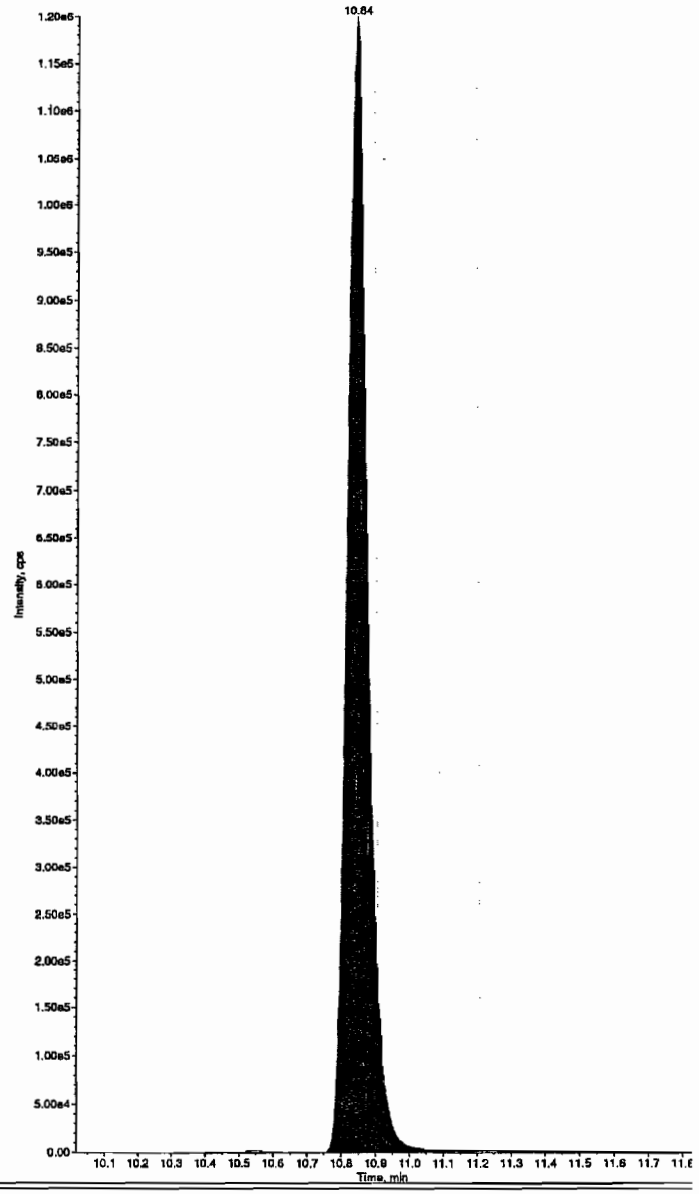

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Ran 415710

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

le Name: "WXX100331-22" Sample ID: "[1]LER" File: "EXS03310006.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
nent: "LCMSEXP_J" Annotation: ""
: Index: 1
: Type: Standard
tration: 500. ng/mL
ated Conc: 481. ng/mL
ate: 3/31/2010
ime: 9:59:11 AM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 2500.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 6.90 min
lative RT: No

ype: Valley
ion Time: 6.92 min
3.56e+005 counts
: 75339.767 cps
Time: 6.83 min
me: 7.61 min

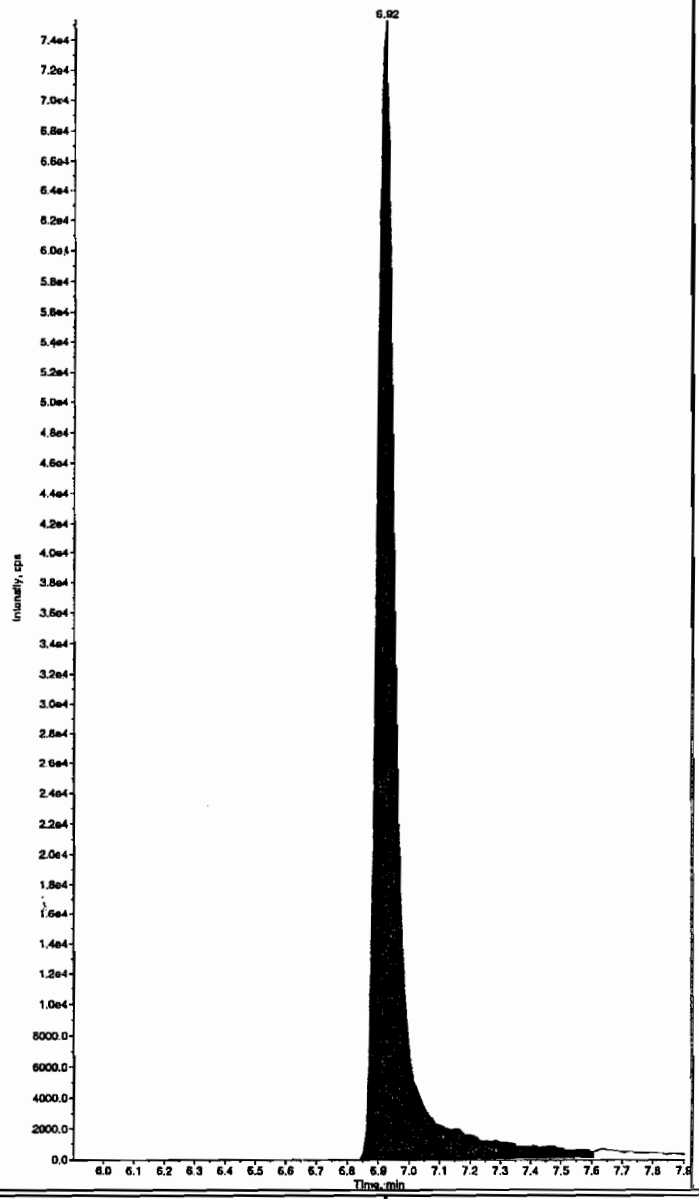

Sample Name: "WXX100331-22" Sample ID: "[1]LER" File: "EXS03310006.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_J" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 500. ng/mL
Calculated Conc: 458. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:59:11 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.16 min
Area: 2.92e+006 counts
Height: 701956.360 cps
Start Time: 8.06 min
End Time: 8.28 min

Hmm 04/05/10

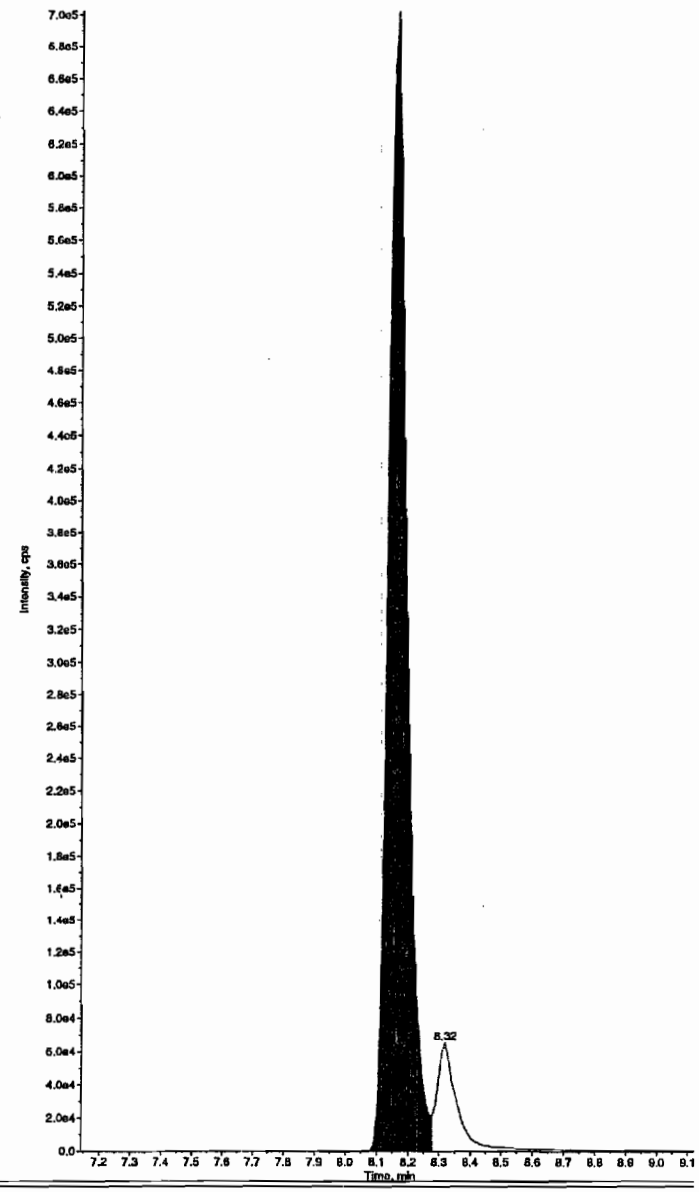

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION -- No unauthorized reproduction without written permission from GEL.

e Name: "WXX100331-22" Sample ID: "[1]LER" File: "EXS03310006.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ent: "LCMSEXP_I" Annotation: ""

Index: 1
Type: Standard
tration: 250. ng/mL
ated Conc: 233. ng/mL
ate: 3/31/2010
ime: 9:59:11 AM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 1460.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 15.0 sec
ed RT: 8.31 min
lative RT: No

ype: Valley
ion Time: 8.31 min
1.90e+006 counts
: 482038.208 cps
Time: 8.24 min
ne: 8.61 min

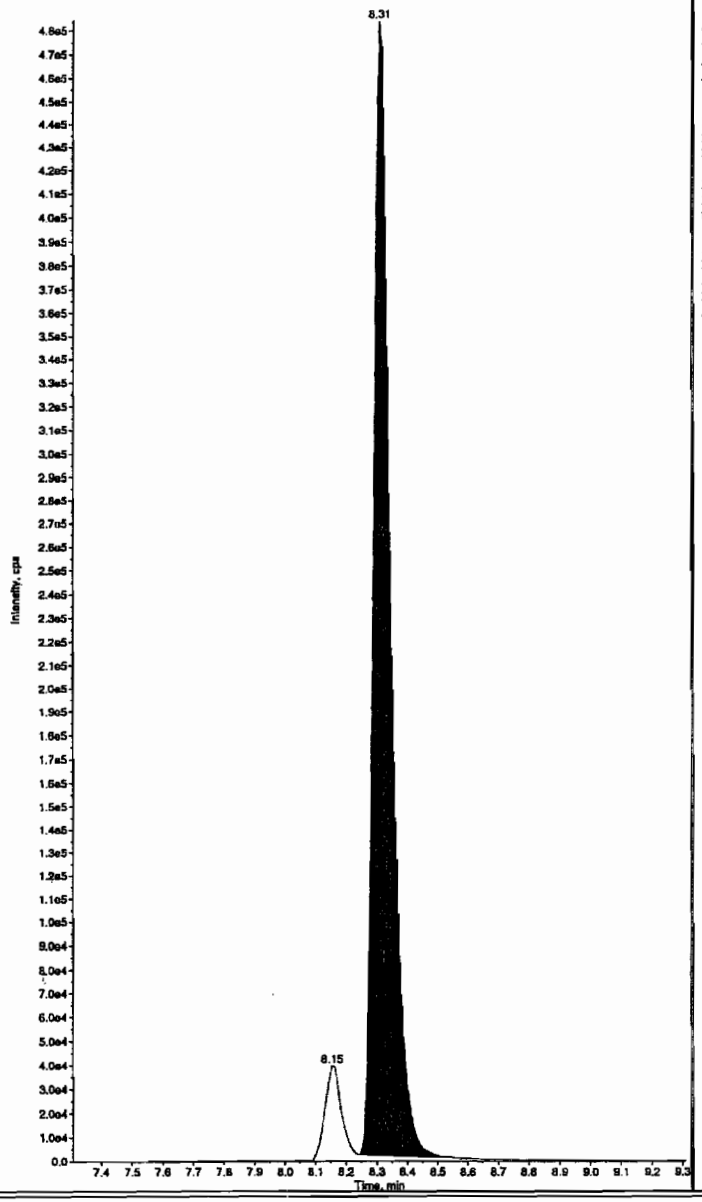

Sample Name: "WXX100331-22" Sample ID: "[1]LER" File: "EXS03310006.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 500. ng/mL
Calculated Conc: 504. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:59:11 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: . Valley
Retention Time: 4.97 min
Area: 1.10e+006 counts
Height: 255418.564 cps
Start Time: 4.87 min
End Time: 5.26 min

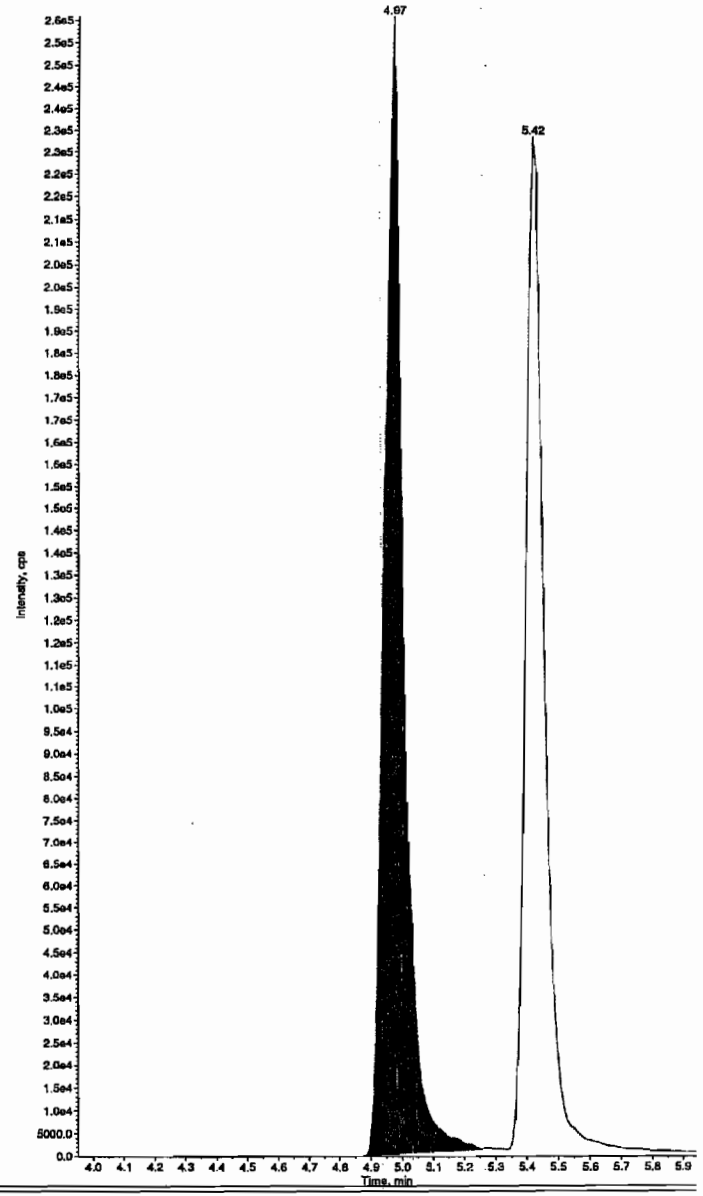

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le Name: "WXX100331-22" Sample ID: "|1|LER" File: "EXS03310006.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nent: "LCMSEXP_I" Annotation: ""

: Index: 1
: Type: Standard
ıtration: 500. ng/mL
ıated Conc: 504. ng/mL
ıate: 3/31/2010
'ime: 9:59:11 AM

ed: No
Algorithm: IntelliQuan - IQA
'eak Height: 350.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 5.41 min
lative RT: No

ype: Valley
ion Time: 5.42 min
9.54e+005 counts
: 227216.736 cps
Time: 5.33 min
me: 5.81 min

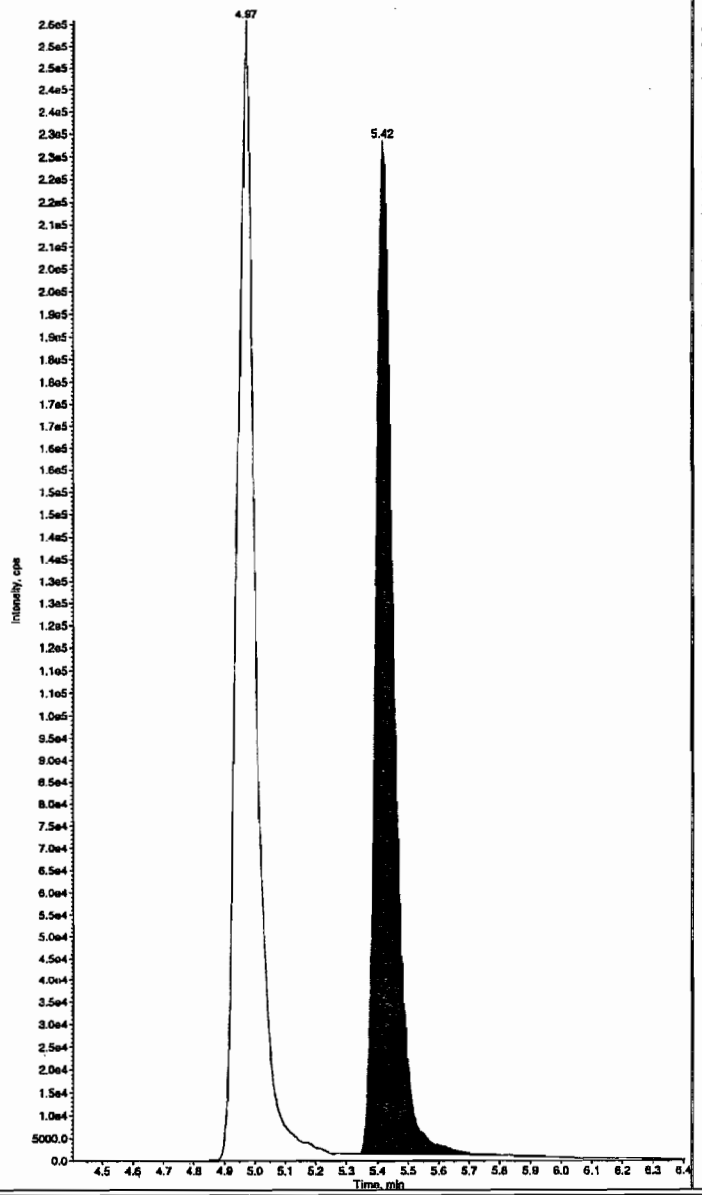

Sample Name: "WXX100331-22" Sample ID: "|1|LER" File: "EXS03310006.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 500. ng/mL
Calculated Conc: 493. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:59:11 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10 8 min
Area: 9.20e+006 counts
Height: 2143457.520 cps
Start Time: 10.7 min
End Time: 11.2 min

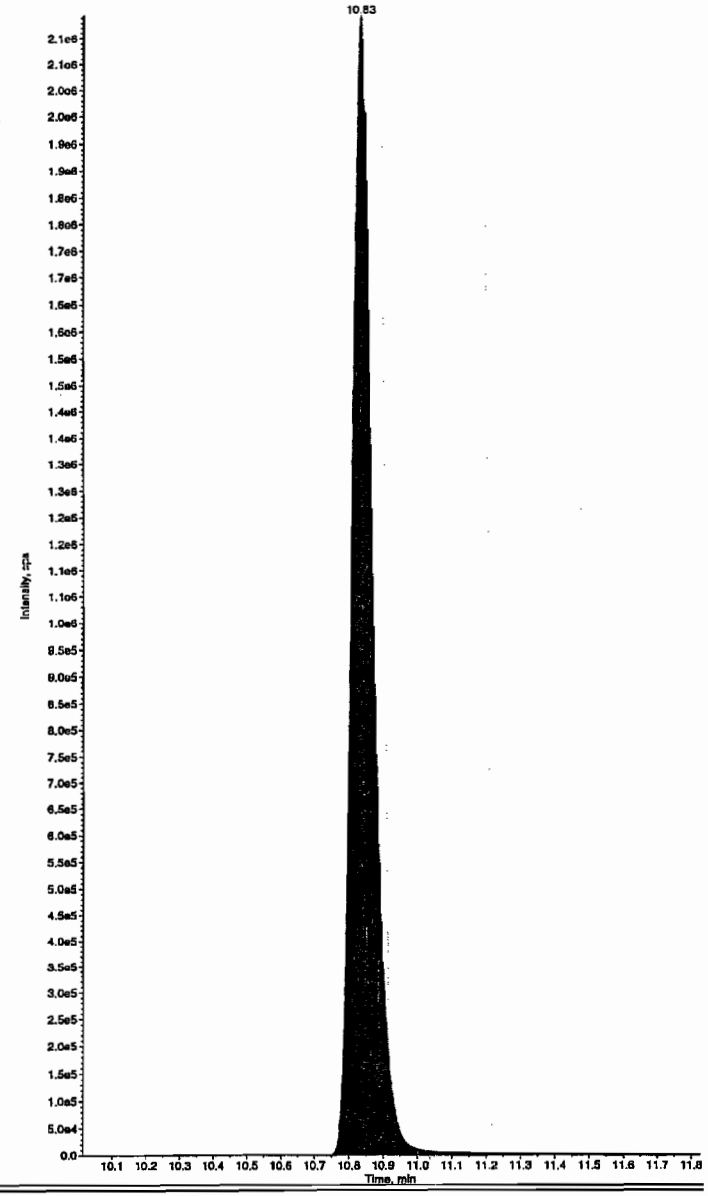

Before RCA 4/5/10

e Name: "WXX100331-23" Sample ID: "|1|LER" File: "EXS03310007.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_I" Annotation: ""

Index: 1
Type: Standard
tration: 750. ng/mL
ated Conc: 791. ng/mL
ate: 3/31/2010
ime: 10:14:53 AM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 2500.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 6.90 min
lative RT: No

ype: Valley
ion Time: 6.91 min
5.88e+005 counts
: 122479.515 cps
Time: 6.81 min
me: 8.07 min

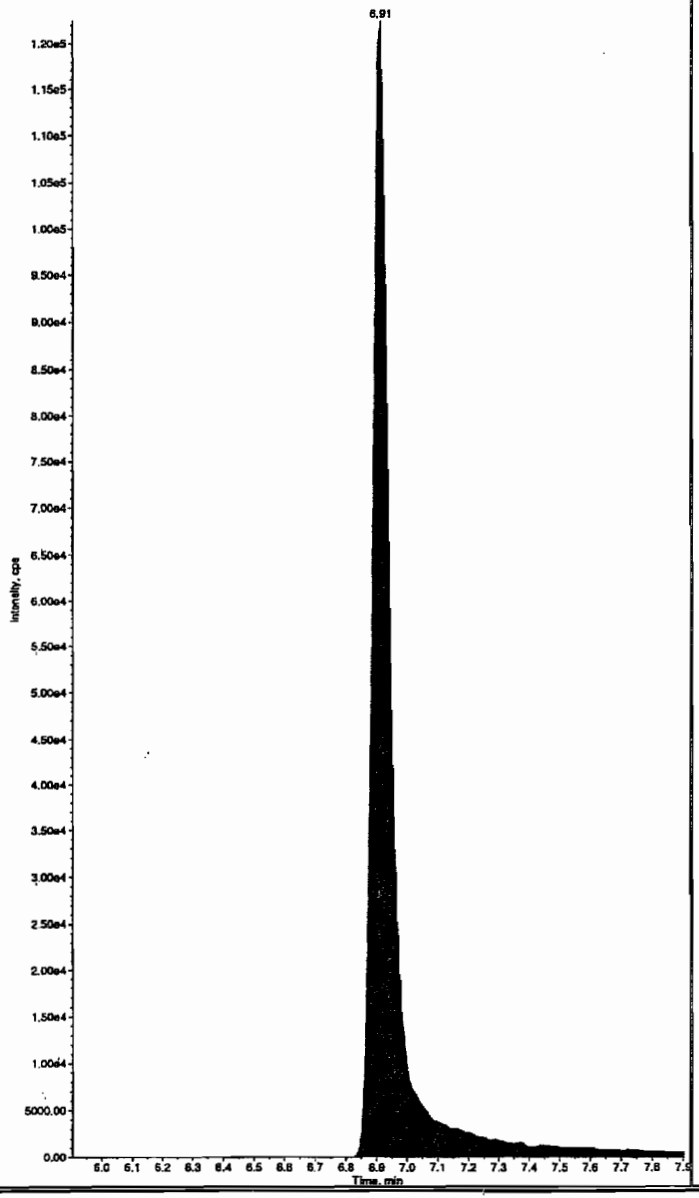

Sample Name: "WXX100331-23" Sample ID: "|1|LER" File: "EXS03310007.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 750. ng/mL
Calculated Conc: 806. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 10:14:53 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.15 min
Area: 4.79e+006 counts
Height: 1219317.627 cps
Start Time: 8.07 min
End Time: 8.27 min

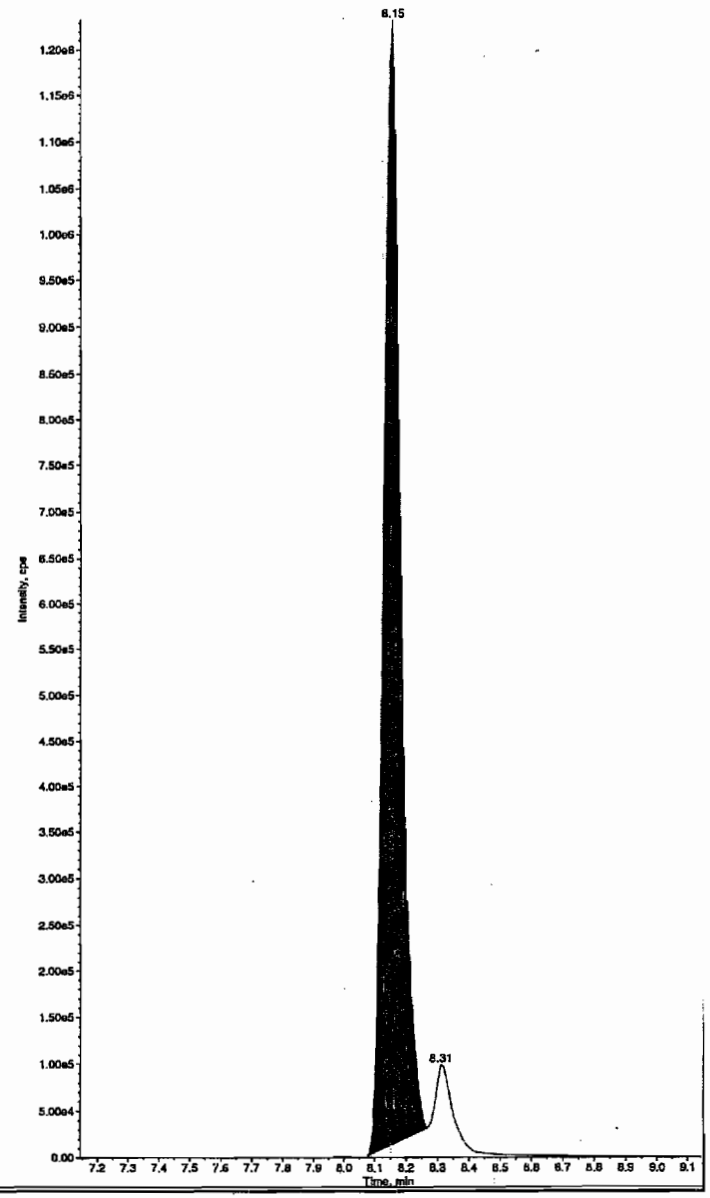

HMM 04/05/10

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after Scan 4/5/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

le Name: "WXX100331-23" Sample ID: "|1|LER" File: "EXS03310007.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_I" Annotation: ""

: Index: 1
: Type: Standard
tration: 750. ng/mL
ated Conc: 791. ng/mL
ate: 3/31/2010
ime: 10:14:53 AM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 2500.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 6.90 min
lative RT: No

ype: Valley
ion Time: 6.91 min
5.88e+005 counts
: 122479.515 cps
Time: 6.81 min
me: 8.07 min

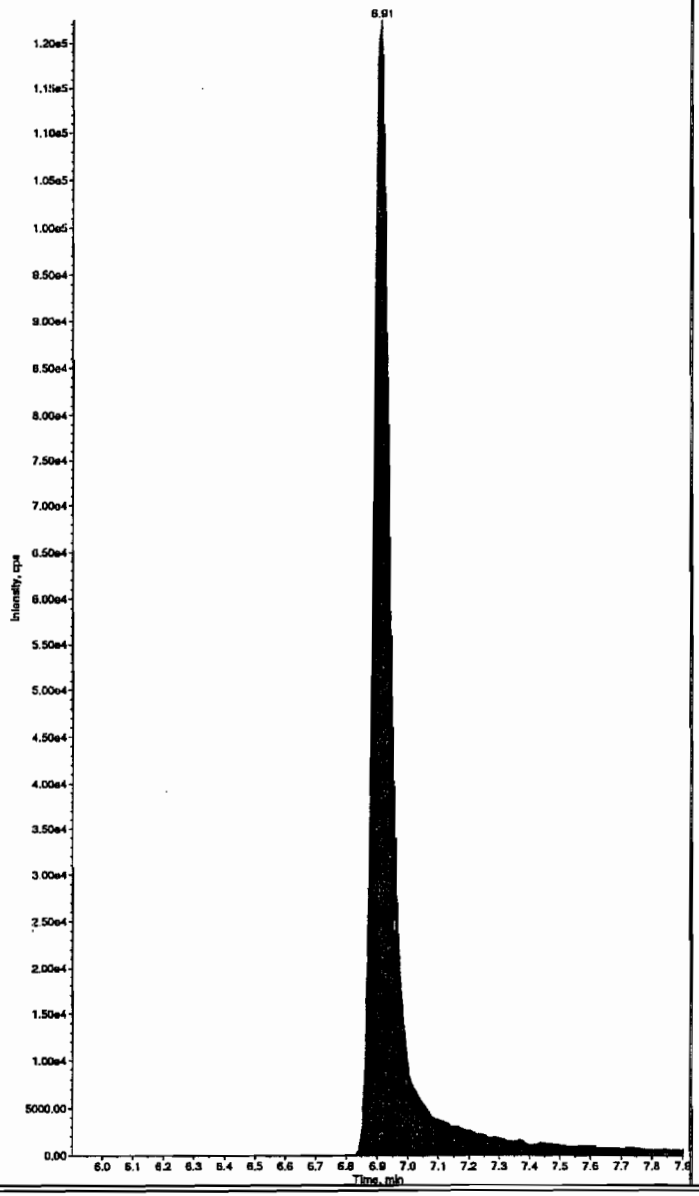

Sample Name: "WXX100331-23" Sample ID: "|1|LER" File: "EXS03310007.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 750. ng/mL
Calculated Conc: 811. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 10:14:53 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.15 min
Area: 4.95e+006 counts
Height: 1234871.295 cps
Start Time: 8.07 min
End Time: 8.27 min

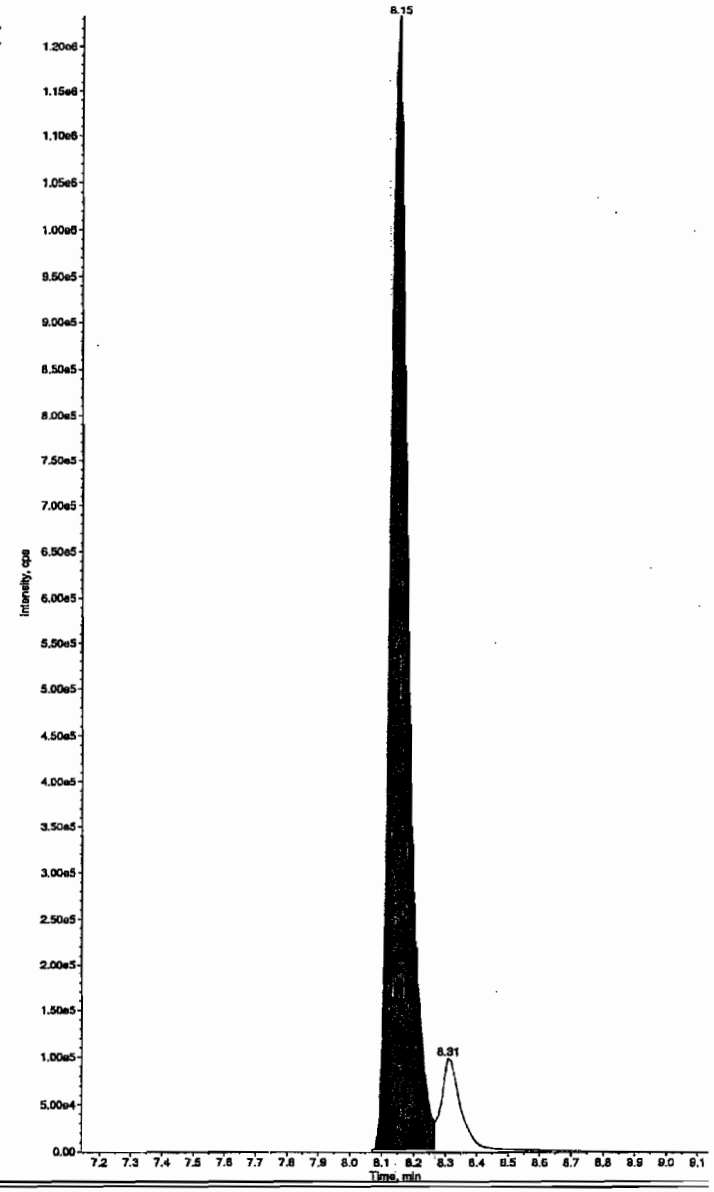

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100331-23" Sample ID: "|1|LER" File: "EXS03310007.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_I" Annotation: ""

e Index:	1	
e Type:	Standard	
ntration:	325.	ng/mL
lated Conc:	361.	ng/mL
Date:	3/31/2010	
Time:	10:14:53 AM	
led:	No	
Algorithm:	IntelliQuan - IQA	
Peak Height:	1460.00	cps
Peak Width:	0.00	sec
ning Width:	3	points
ndow:	15.0	sec
ted RT:	8.31	min
elative RT:	No	
Type:	Valley	
tion Time:	8.31	min
	2.87e+006	counts
::	743916.748	cps
Time:	8.24	min
me:	8.65	min

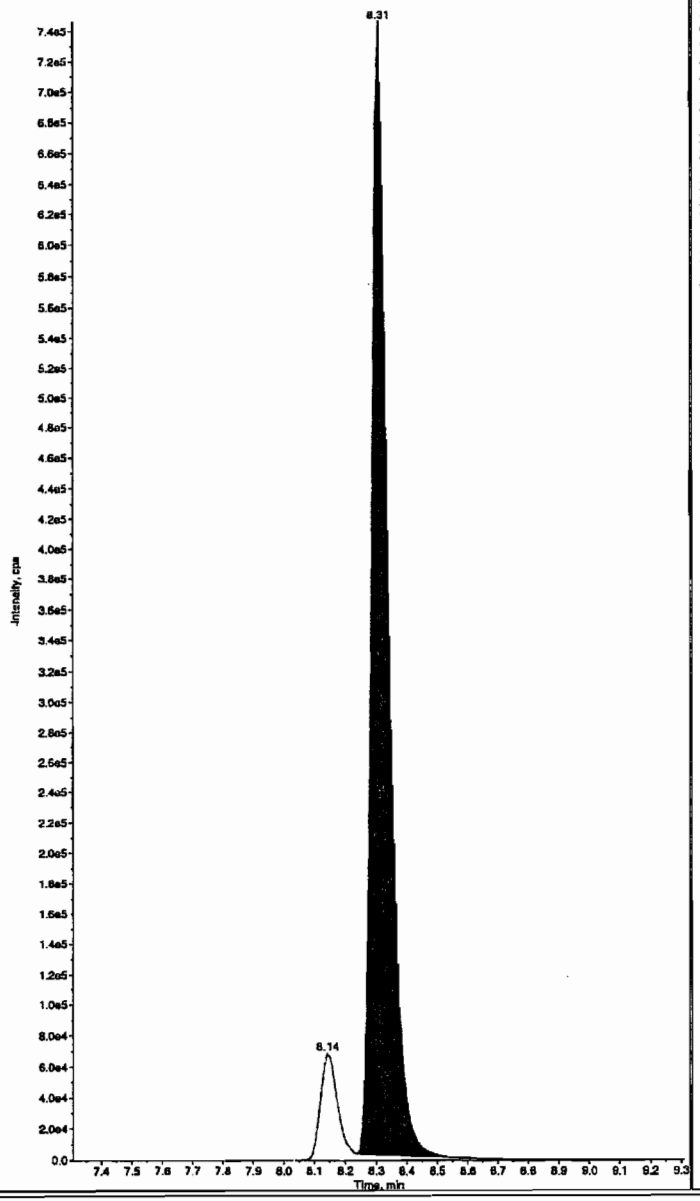

Sample Name: "WXX100331-23" Sample ID: "|1|LER" File: "EXS03310007.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	750.	ng/mL
Calculated Conc:	701.	ng/mL
Acq. Date:	3/31/2010	
Acq. Time:	10:14:53 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	4.95	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	4.96	min
Area:	1.52e+006	counts
Height:	317959.747	cps
Start Time:	4.87	min
End Time:	5.26	min

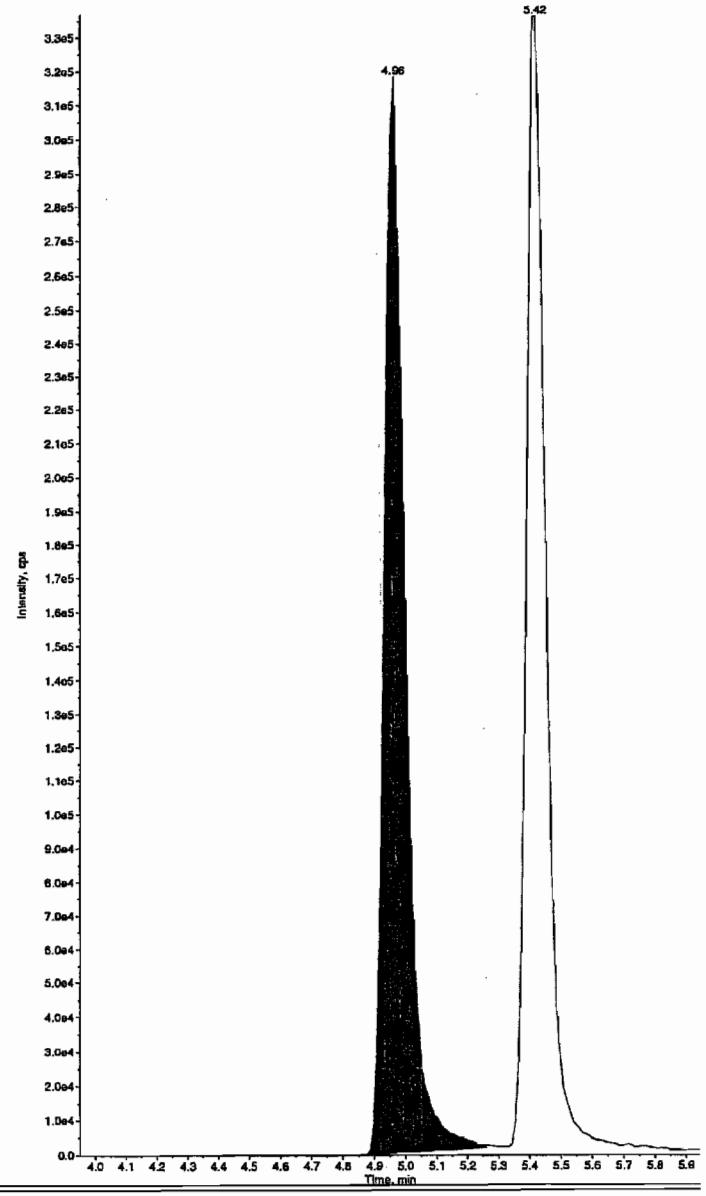

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le Name: "WXX100331-23" Sample ID: "[1]LER" File: "EXS03310007.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nent: "LCMSEXP_I" Annotation: ""

: Index: 1
: Type: Standard
itration: 750. ng/mL
.ated Conc: 839. ng/mL
)ate: 3/31/2010
'ime: 10:14:53 AM

.ed: No
Algorithm: IntelliQuan - IQA
'eak Height: 350.00 cps
'eak Width: 0.00 sec
iing Width: 3 points
idow: 30.0 sec
.ed RT: 5.41 min
:lative RT: No

'ype: Valley
ion Time: 5.42 min
1.54e+006 counts
: 336368.866 cps
Time: 5.32 min
me: 6.16 min

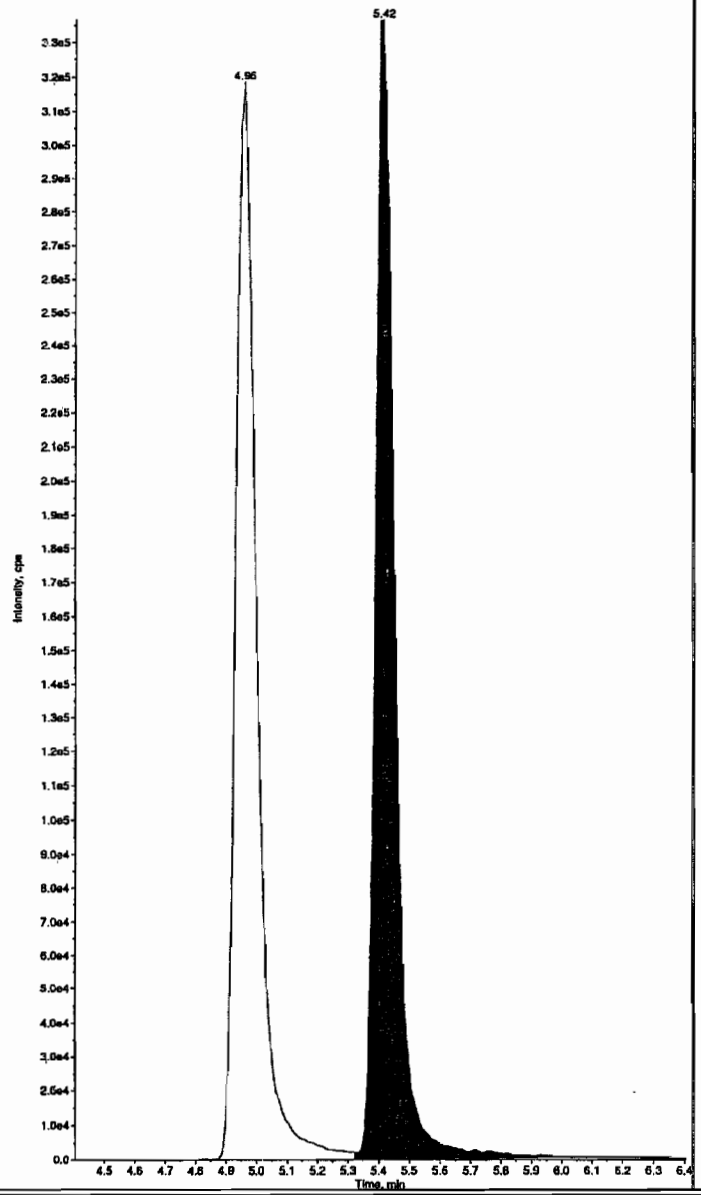

Sample Name: "WXX100331-23" Sample ID: "[1]LER" File: "EXS03310007.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 750. ng/mL
Calculated Conc: 767. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 10:14:53 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.36e+007 counts
Height: 3160048.096 cps
Start Time: 10.7 min
End Time: 11.2 min

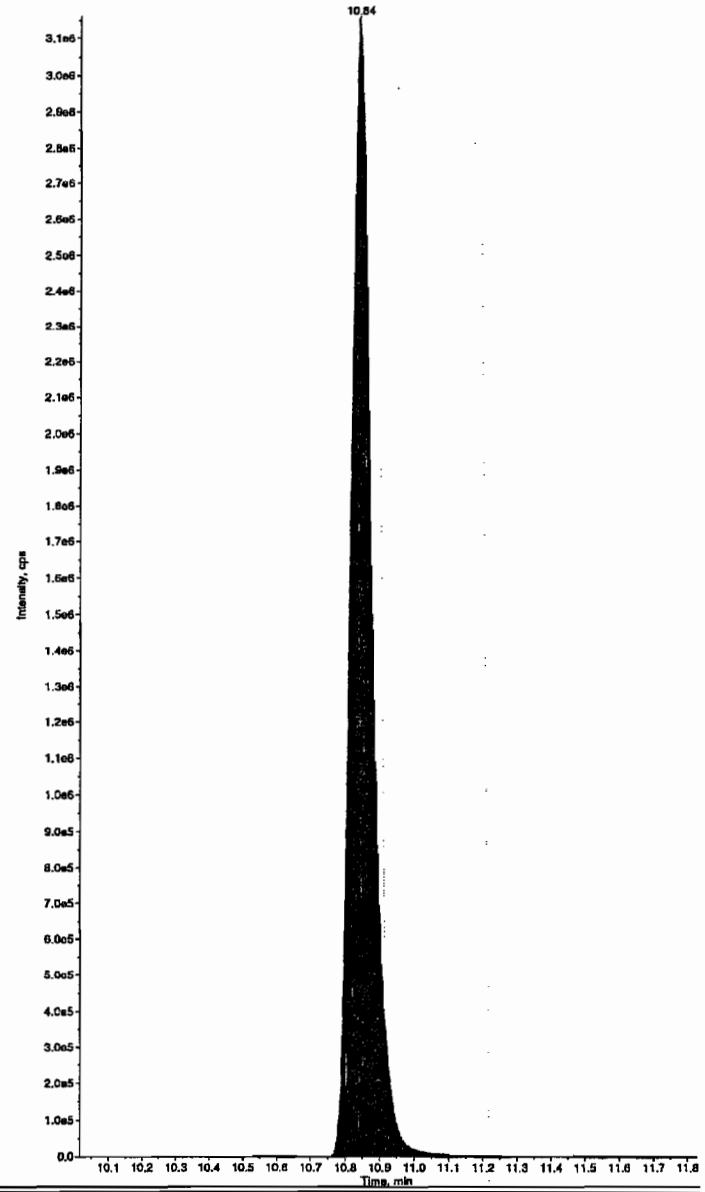

Before Tcen 4/15/10

le Name: "WXX100331-24" Sample ID: "[1]LER" File: "EXS03310008.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
nent: "LCMSEXP_I" Annotation: ""

Index:	1	
Type:	Standard	
itration:	1000.	ng/mL
ated Conc:	975.	ng/mL
ate:	3/31/2010	
ime:	10:30:35 AM	
ed:	No	
Algorithm:	IntelliQuan - IQA	
eak Height:	2500.00	cps
eak Width:	0.00	sec
ing Width:	3	points
dow:	30.0	sec
ed RT:	6.90	min
lative RT:	No	
ype:	Valley	
ion Time:	6.91	min
	7.26e+005	counts
:	155412.201	cps
Time:	6.81	min
me:	7.92	min

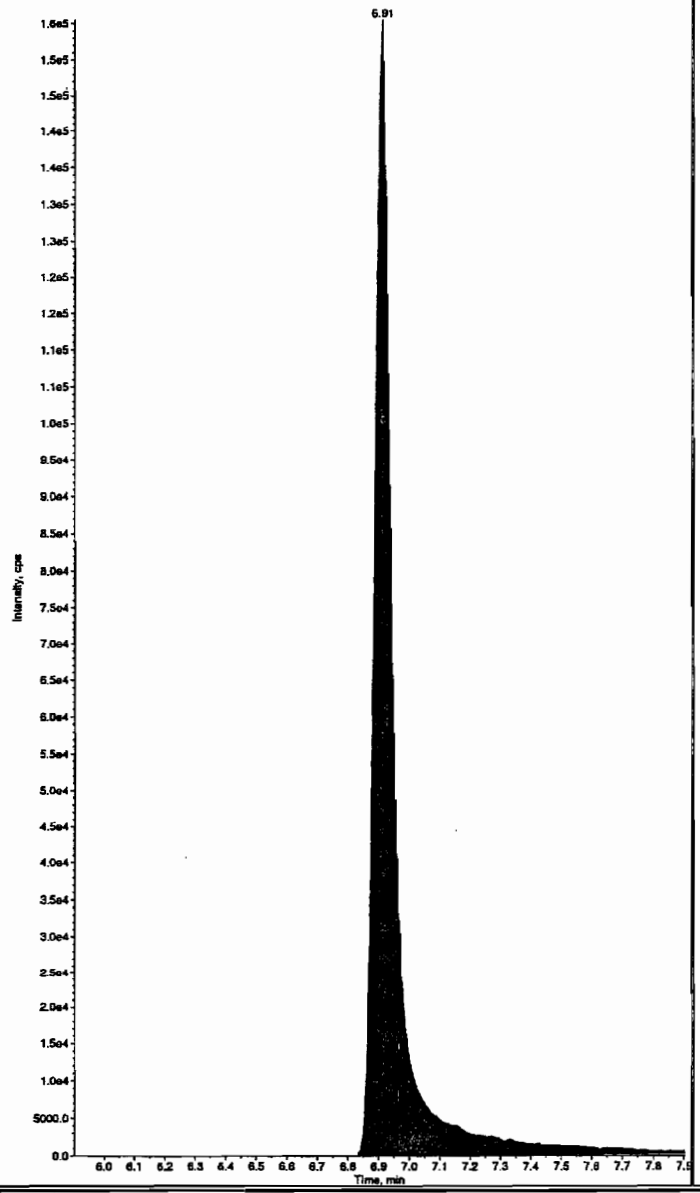

Sample Name: "WXX100331-24" Sample ID: "[1]LER" File: "EXS03310008.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	1000.	ng/mL
Calculated Conc:	958.	ng/mL
Acq. Date:	3/31/2010	
Acq. Time:	10:30:35 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.14	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.14	min
Area:	5.65e+006	counts
Height:	1389077.515	cps
Start Time:	8.07	min
End Time:	8.27	min

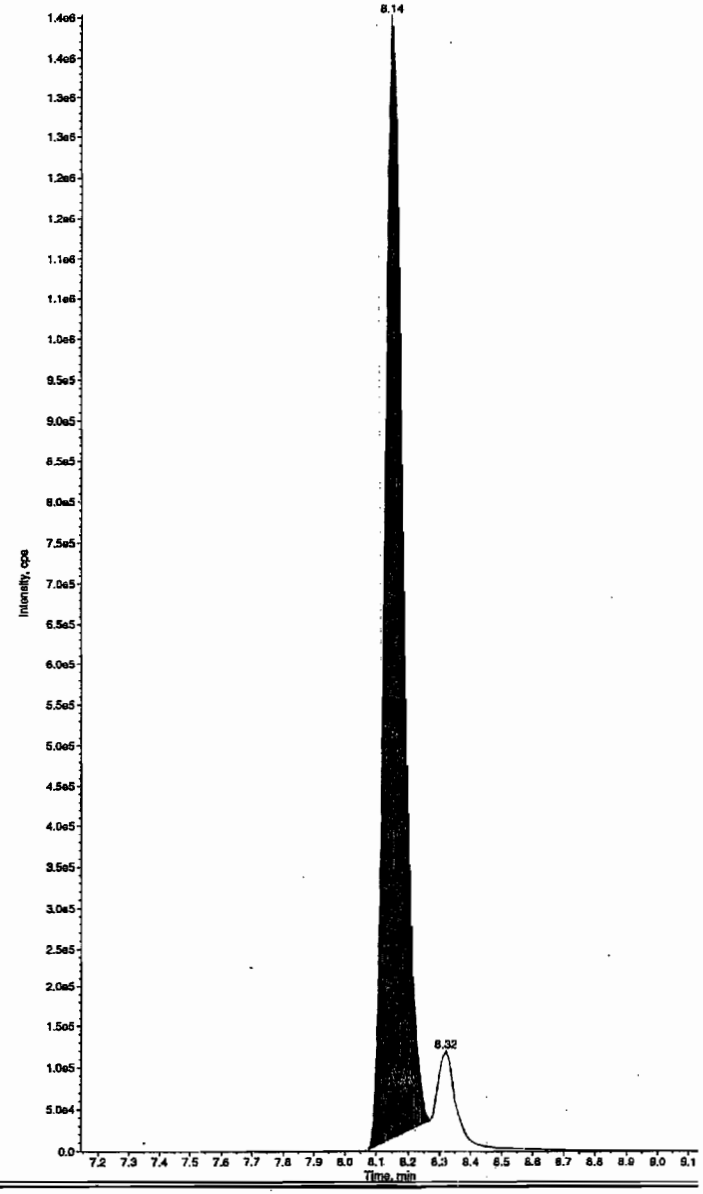

Hnm 104/05/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Lan 4/5/10

ple Name: "WXX100331-24" Sample ID: "|1|LER" File: "EXS03310008.wiff"
: Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_I" Annotation: ""
e Index: 1
e Type: Standard
ntration: 1000. ng/mL
lated Conc: 976. ng/mL
Date: 3/31/2010
Time: 10:30:35 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 6.90 min
elative RT: No

Type: Valley
tion Time: 6.91 min
7.26e+005 counts
t: 155412.201 cps
Time: 6.81 min
ime: 7.92 min

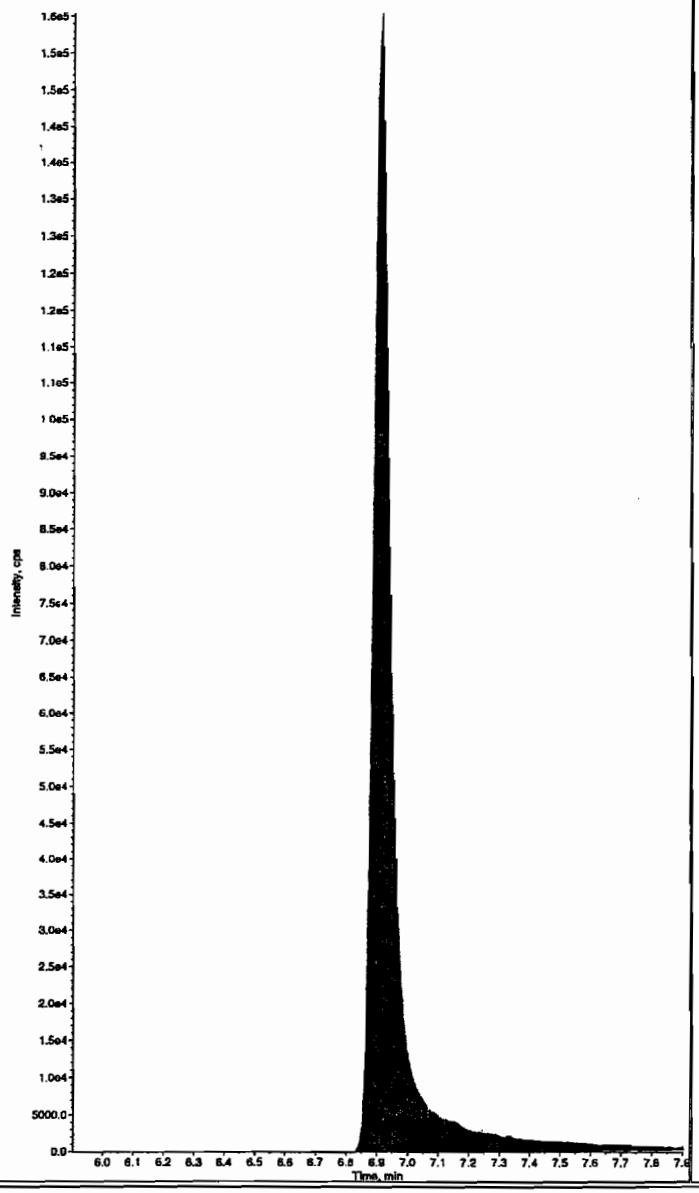

Sample Name: "WXX100331-24" Sample ID: "|1|LER" File: "EXS03310008.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 1000. ng/mL
Calculated Conc: 978. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 10:30:35 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.15 min
Area: 5.84e+006 counts
Height: 1411524.619 cps
Start Time: 8.07 min
End Time: 8.27 min

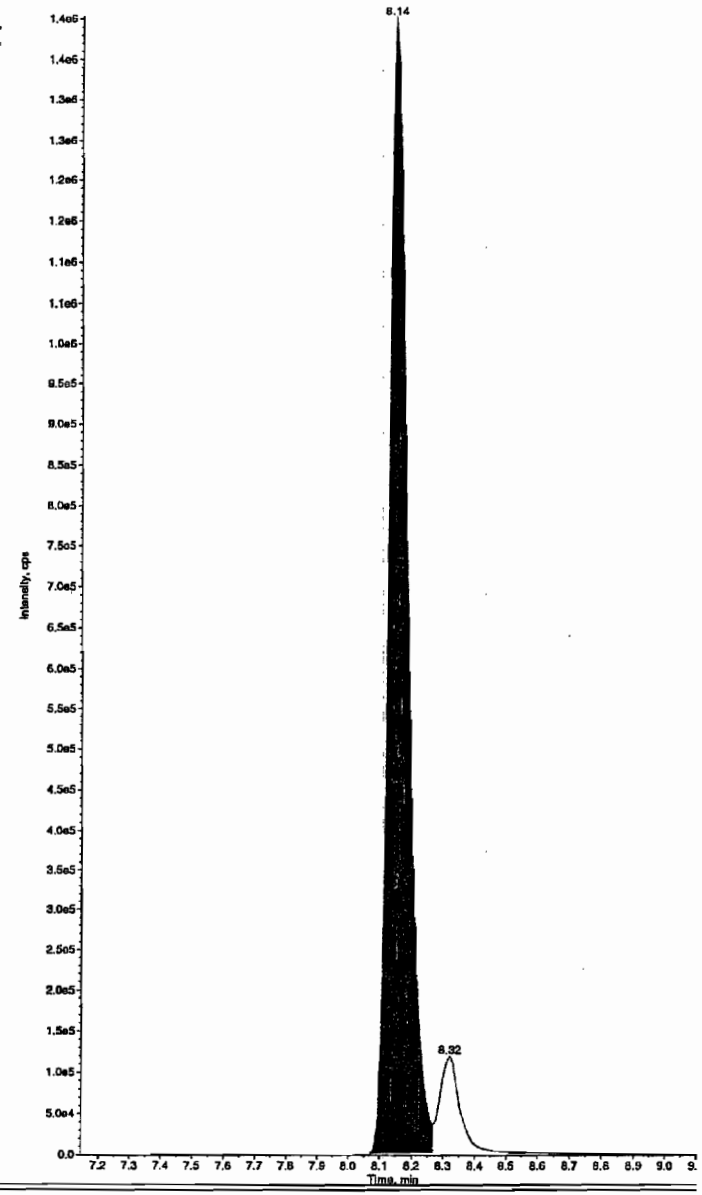

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100331-24" Sample ID: "|1|LER" File: "EXS03310008.wiff"
: Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_I" Annotation: ""
e Index: 1
e Type: Standard
ntration: 500. ng/mL
lated Conc: 483. ng/mL
Date: 3/31/2010
Time: 10:30:35 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 15.0 sec
ted RT: 8.31 min
elative RT: No

Type: Valley
tion Time: 8.31 min
3.74e+006 counts
t: 915284.363 cps
Time: 8.24 min
ime: 8.77 min

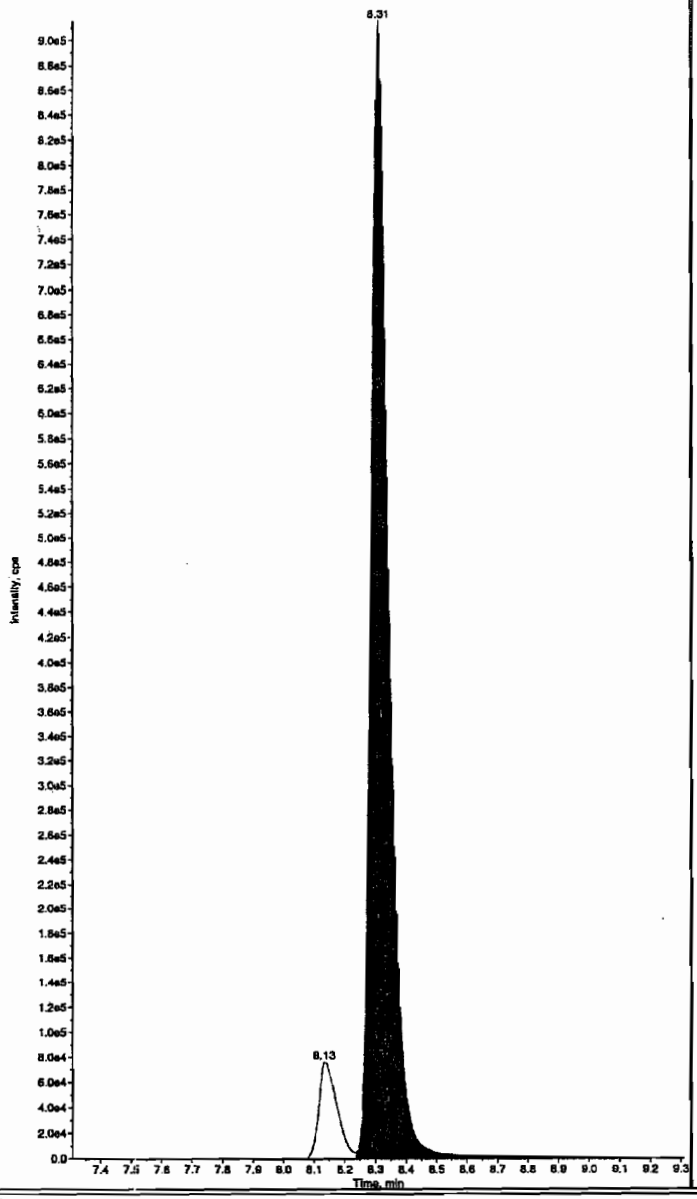

Sample Name: "WXX100331-24" Sample ID: "|1|LER" File: "EXS03310008.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 1000. ng/mL
Calculated Conc: 975. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 10:30:35 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.96 min
Area: 2.11e+006 counts
Height: 477272.064 cps
Start Time: 4.87 min
End Time: 5.23 min

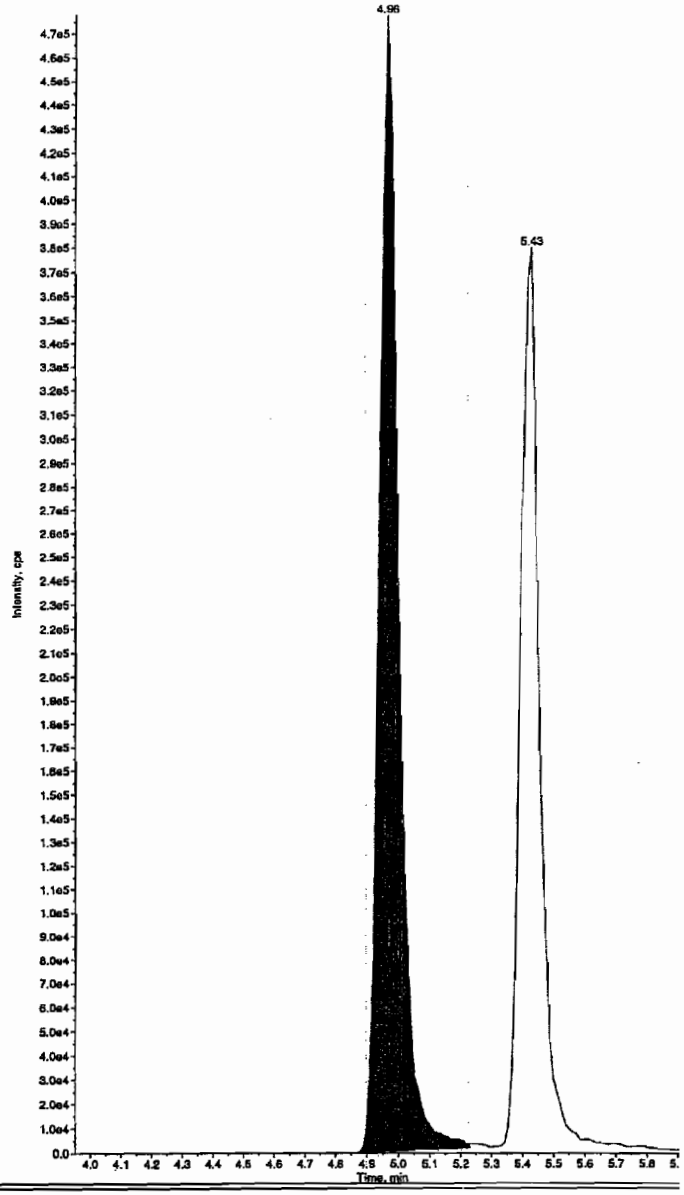

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100331-24" Sample ID: "[1]LER" File: "EXS03310008.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_I" Annotation: ""

.e Index: 1
:e Type: Standard
entration: 1000. ng/mL
ilated Conc: 912. ng/mL
Date: 3/31/2010
Time: 10:30:35 AM

fied: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
ndow: 30.0 sec
ted RT: 5.41 min
elative RT: No

Type: Valley
tion Time: 5.43 min
1.66e+006 counts
t: 377902.924 cps
Time: 5.30 min
ime: 5.93 min

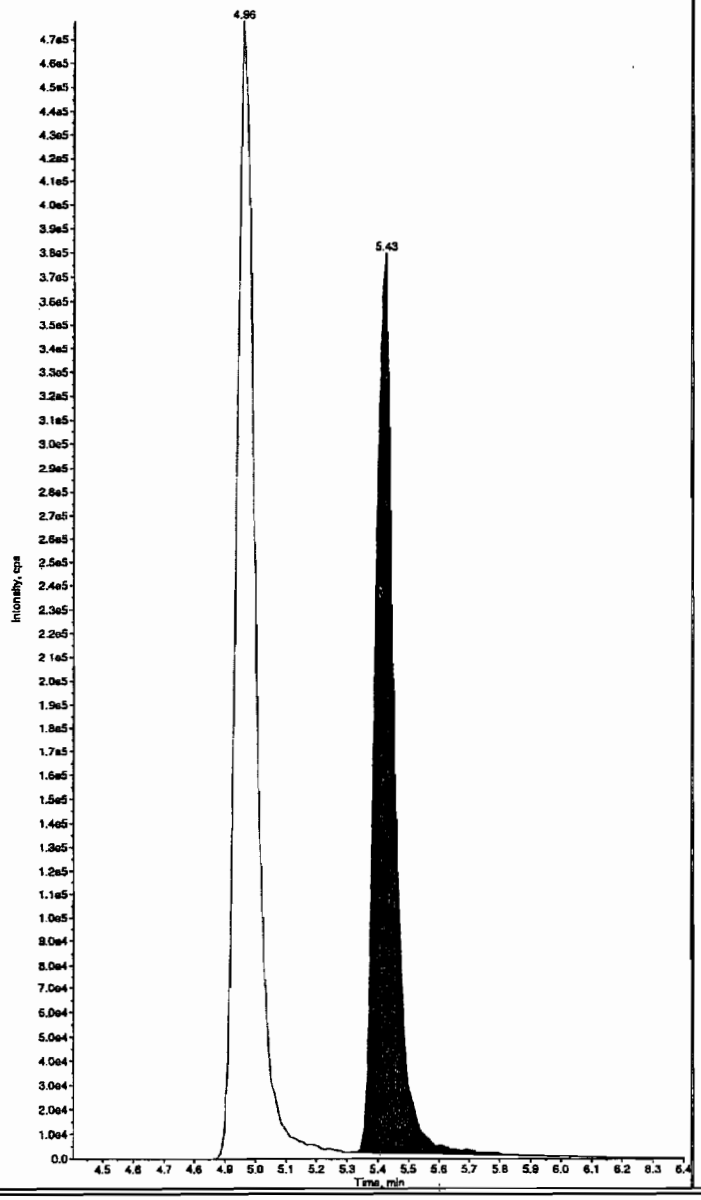

Sample Name: "WXX100331-24" Sample ID: "[1]LER" File: "EXS03310008.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 1000. ng/mL
Calculated Conc: 988. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 10:30:35 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.69e+007 counts
Height: 3762874.268 cps
Start Time: 10.7 min
End Time: 11.2 min

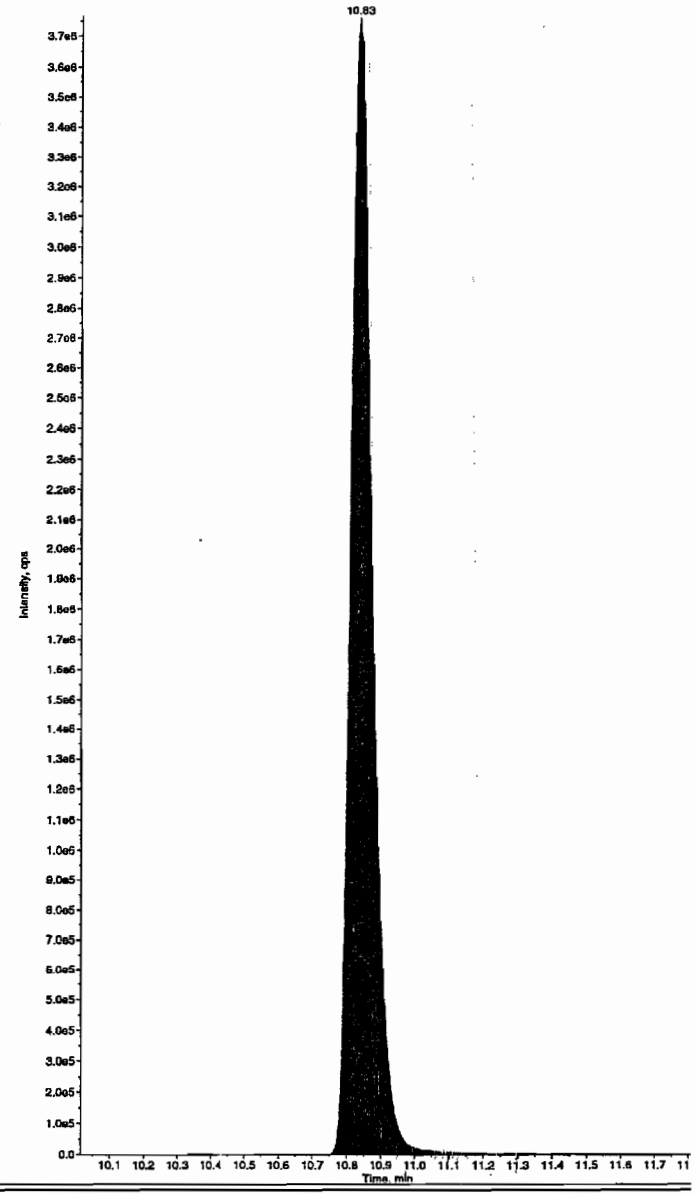

LCR 4/5/10

ple Name: "WXX100331-25" Sample ID: "[1]LER" File: "EXS03310009.wiff"
: Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_I" Annotation: ""
e Index: 1
e Type: Standard
ntration: 2000. ng/mL
lated Conc: 2000. ng/mL
Date: 3/31/2010
Time: 10:46:17 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 6.90 min
elative RT: No

Type: Valley
tion Time: 6.90 min
1.48e+006 counts
: 294447.876 cps
Time: 6.80 min
ime: 7.85 min

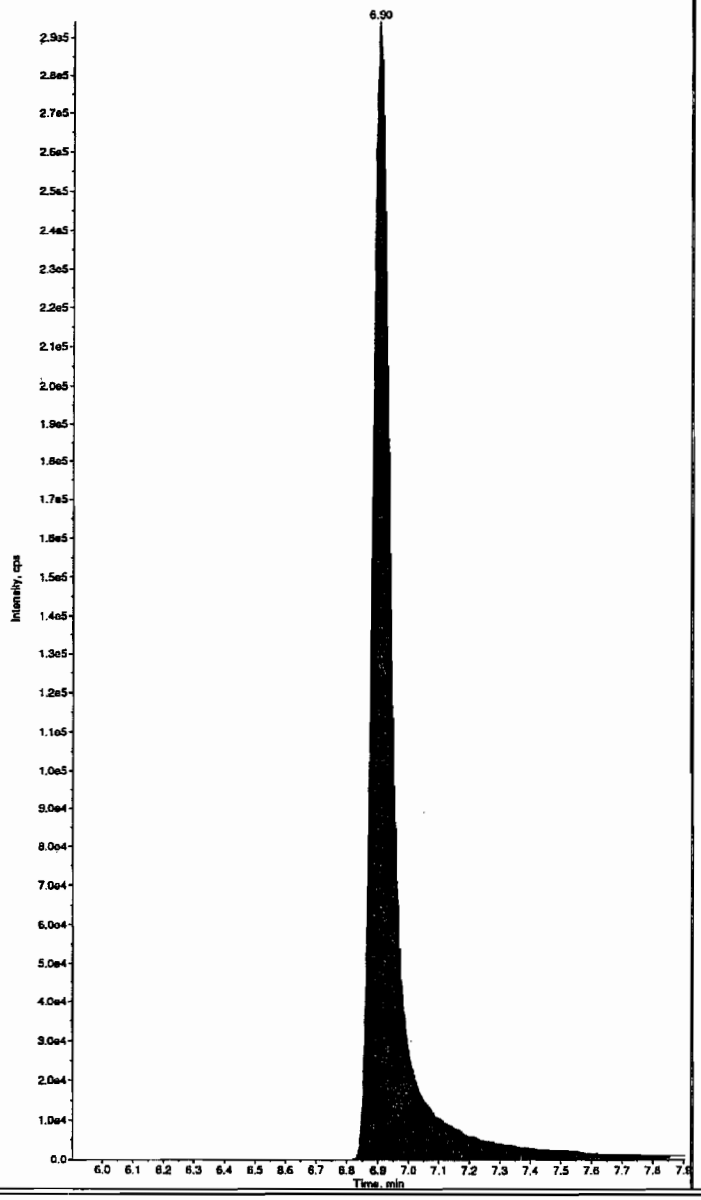

Sample Name: "WXX100331-25" Sample ID: "[1]LER" File: "EXS03310009.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 2000. ng/mL
Calculated Conc: 2000. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 10:46:17 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.14 min
Area: 1.01e+007 counts
Height: 2261494.873 cps
Start Time: 8.05 min
End Time: 8.27 min

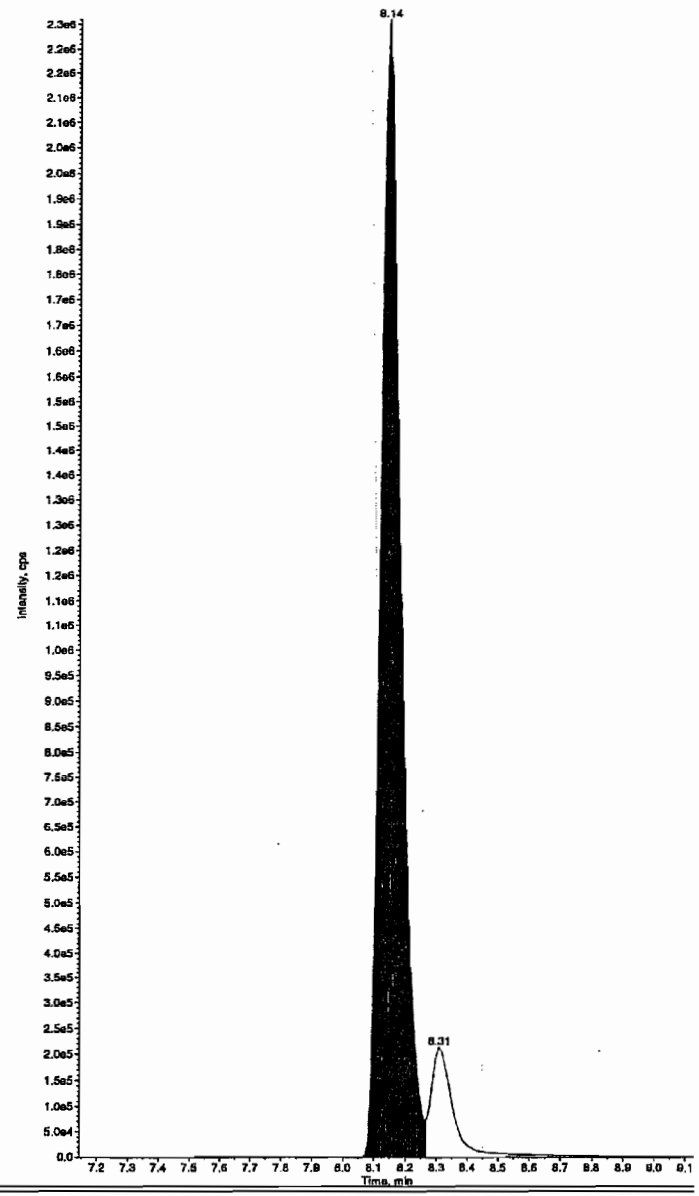

HMM 04/05/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ole Name: "WXX100331-25" Sample ID: "[1]LER" File: "EXS03310009.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_I" Annotation: ""

```
e Index:        1
e Type:      Standard
ntration:     1000.     ng/mL
lated Conc:   1000.     ng/mL
Date:       3/31/2010
Time:       10:46:17 AM

ied:            No
Algorithm: IntelliQuan - IQA
Peak Height:1460.00    cps
Peak Width:    0.00    sec
ning Width:  3         points
ndow:         15.0     sec
ed RT:         8.31    min
elative RT:    No

ype:         Valley
ion Time:      8.31    min
          6.88e+006    counts
          1623690.918  cps
Time:          8.24    min
me:            8.84    min
```

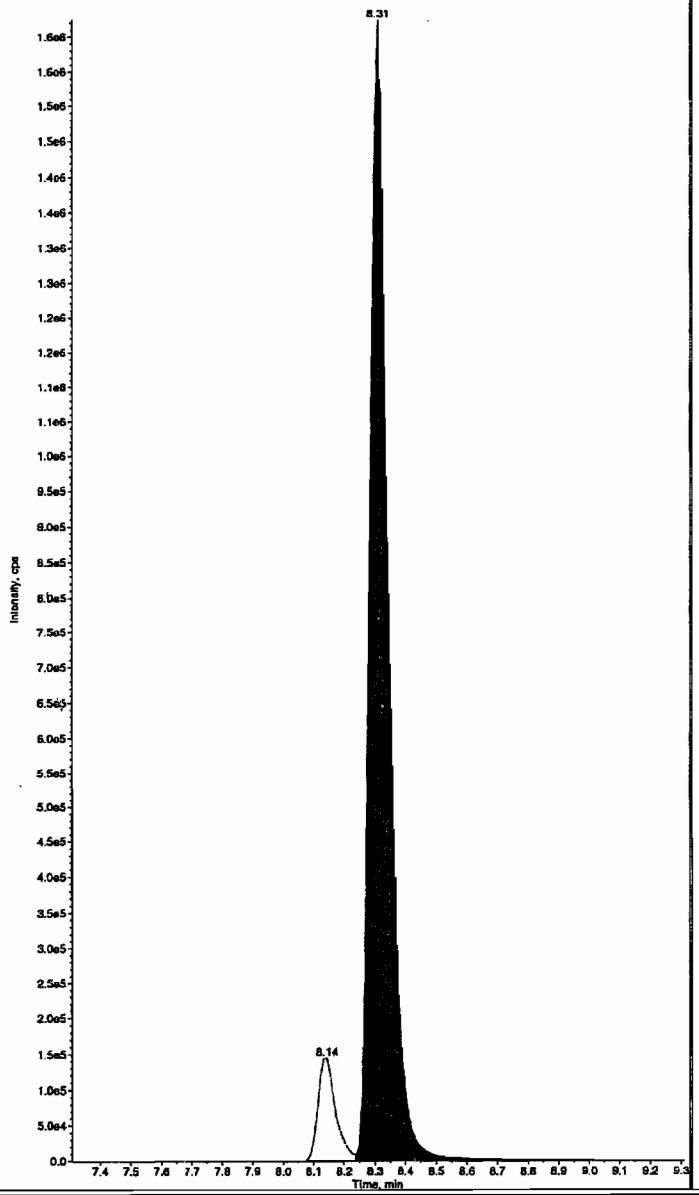

Sample Name: "WXX100331-25" Sample ID: "[1]LER" File: "EXS03310009.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:     2000.     ng/mL
Calculated Conc:   2030.     ng/mL
Acq. Date:       3/31/2010
Acq. Time:       10:46:17 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:        4.95    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     4.95    min
Area:         4.37e+006    counts
Height:        956404.480  cps
Start Time:         4.87    min
End Time:           5.26    min
```

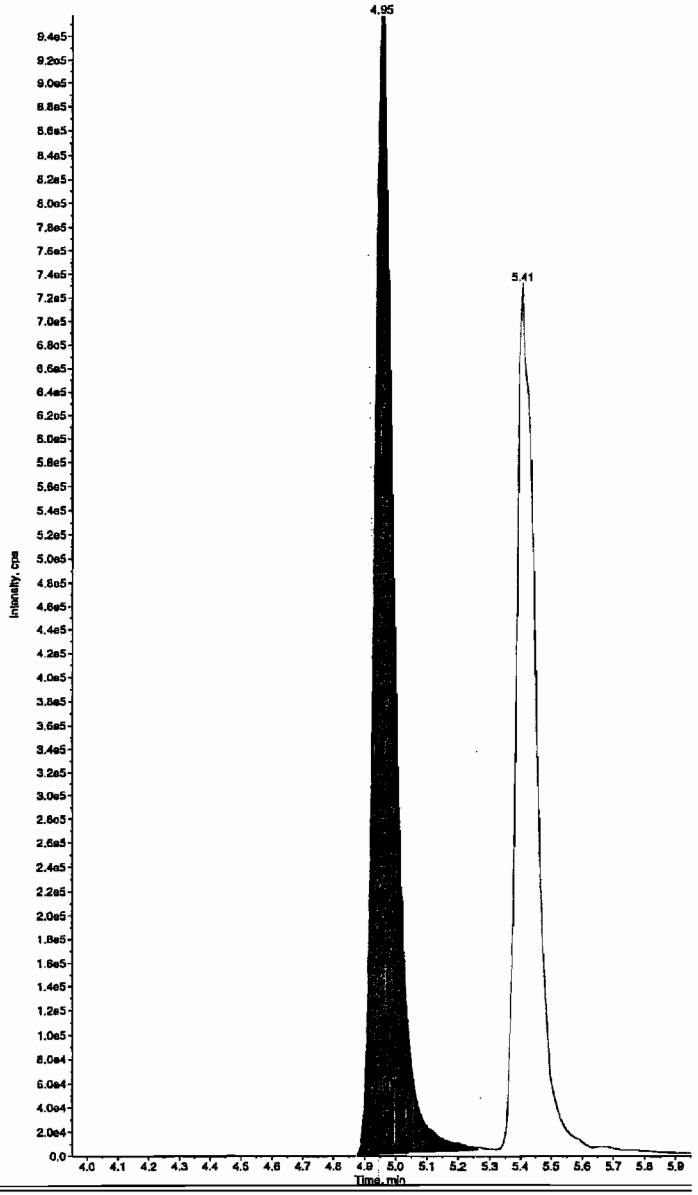

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100331-25" Sample ID: "|1|LER" File: "EXS03310009.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_I" Annotation: ""

e Index: 1
e Type: Standard
ntration: 2000. ng/mL
lated Conc: 2010. ng/mL
Date: 3/31/2010
Time: 10:46:17 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 5.41 min
elative RT: No

Type: Valley
tion Time: 5.41 min
3.44e+006 counts
t: 730733.459 cps
Time: 5.31 min
ime: 5.97 min

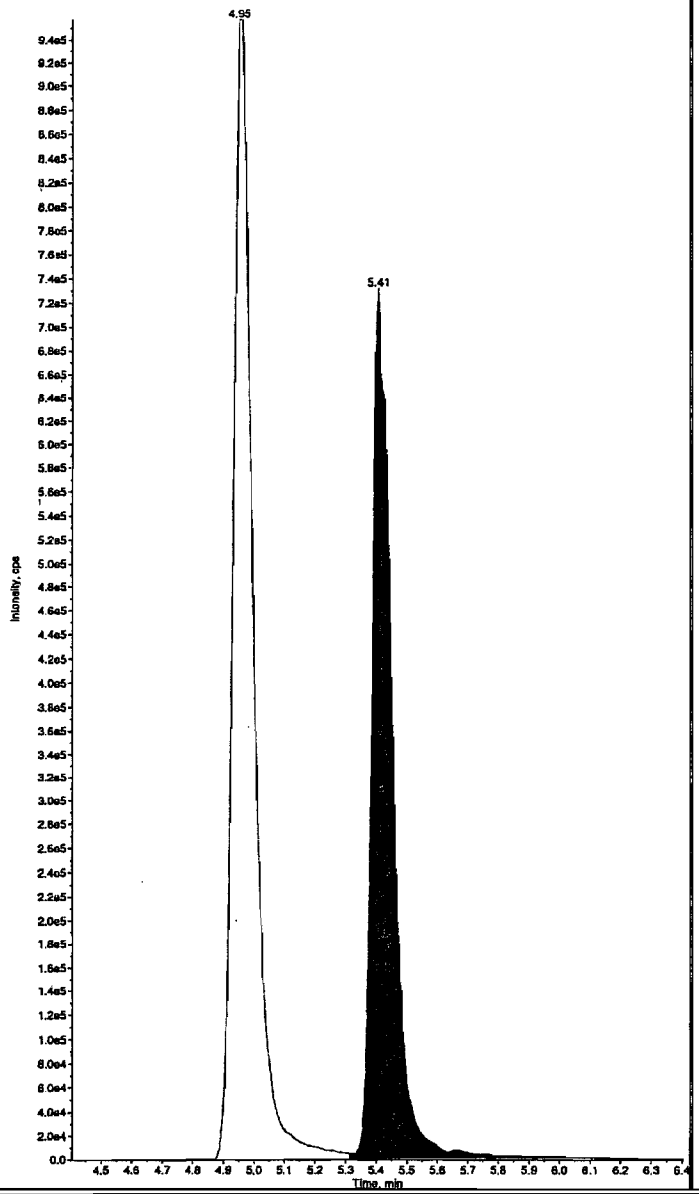

Sample Name: "WXX100331-25" Sample ID: "|1|LER" File: "EXS03310009.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 2000. ng/mL
Calculated Conc: 2000. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 10:46:17 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 2.83e+007 counts
Height: 5603803.223 cps
Start Time: 10.7 min
End Time: 11.2 min

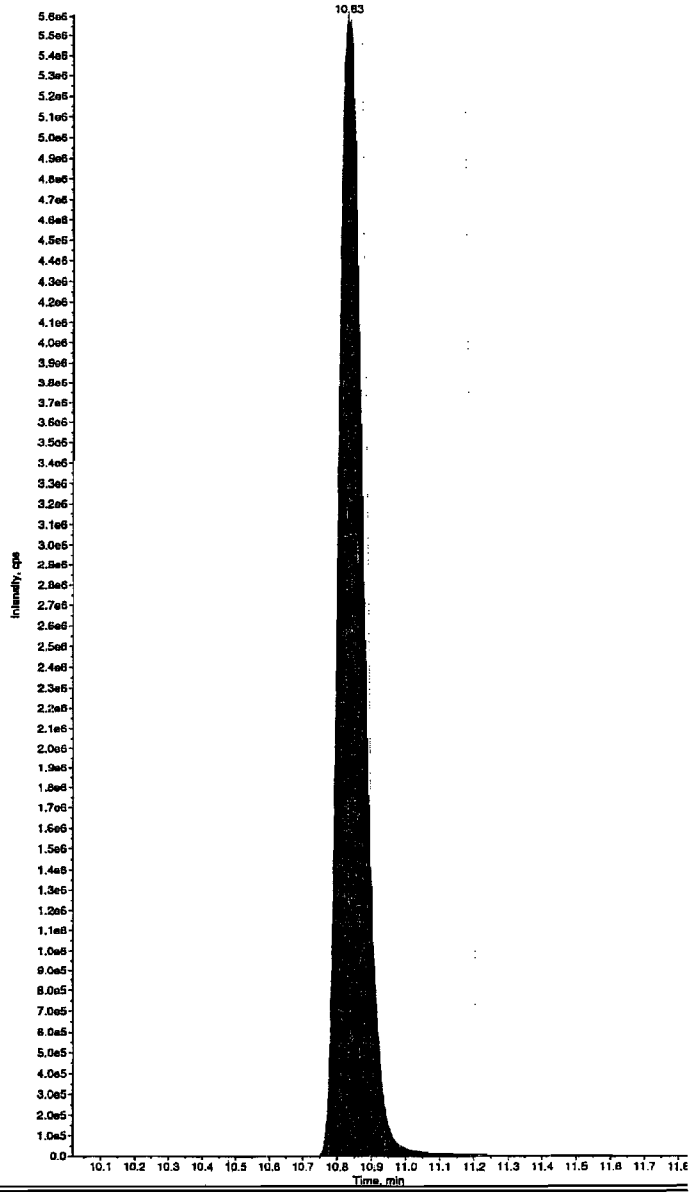

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2000

Lab Code: GEI

GEL Sample ID: WXXICV

GEL Data File EXS03310011.wiff

Analysis Date: 31–MAR–10 11:17

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	461	92	
2,6–Diamino–4–nitrotoluene	500	505	101	
3,4–Dinitrotoluene	250	221	88	
3,5–Dinitroaniline	500	463	93	
TATB	500	483	97	
tris(o–cresyl) phosphate	500	481	96	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Rcn 4/5/10

ple Name: "WXX100331-26ICV" Sample ID: "|1|LER" File: "EXS03310011.wiff"
: Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 500. ng/mL
lated Conc: 483. ng/mL
Date: 3/31/2010
Time: 11:17:44 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
ning Width: 3 points
ndow: 30.0 sec
ted RT: 6.90 min
elative RT: No

Type: Valley
tion Time: 6.90 min
3.57e+005 counts
:: 79815.063 cps
Time: 6.80 min
me: 7.87 min

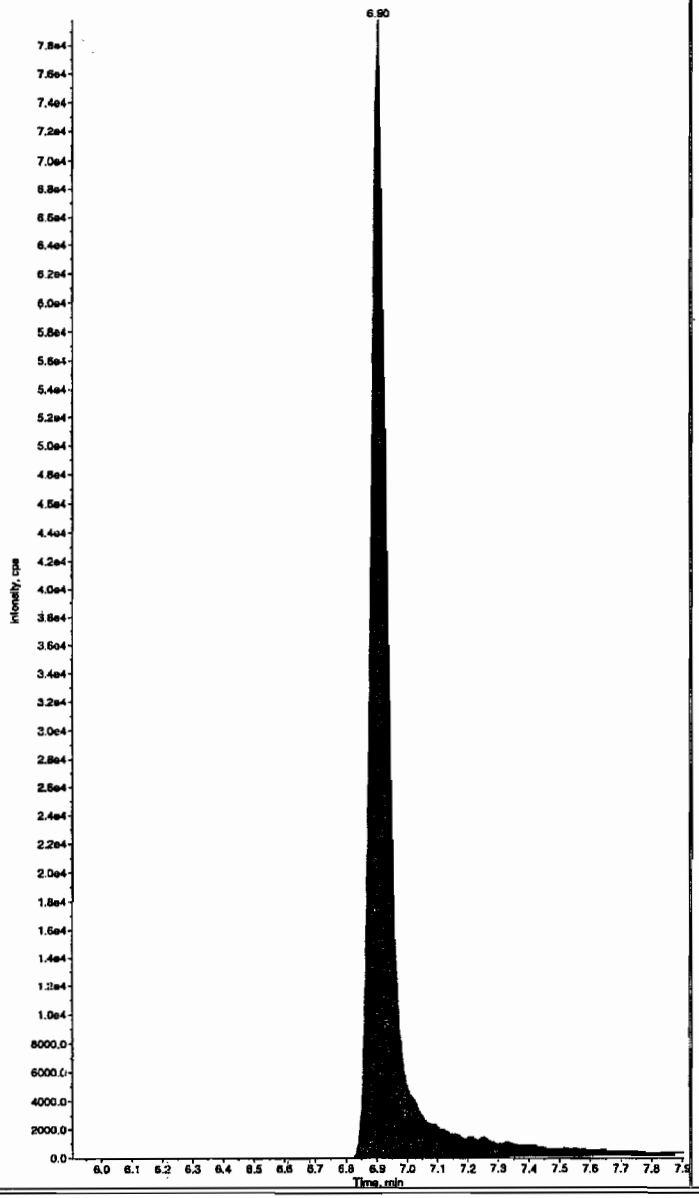

Sample Name: "WXX100331-26ICV" Sample ID: "|1|LER" File: "EXS03310011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 463. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 11:17:44 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.14 min
Area: 2.96e+006 counts
Height: 701807.678 cps
Start Time: 8.05 min
End Time: 8.27 min

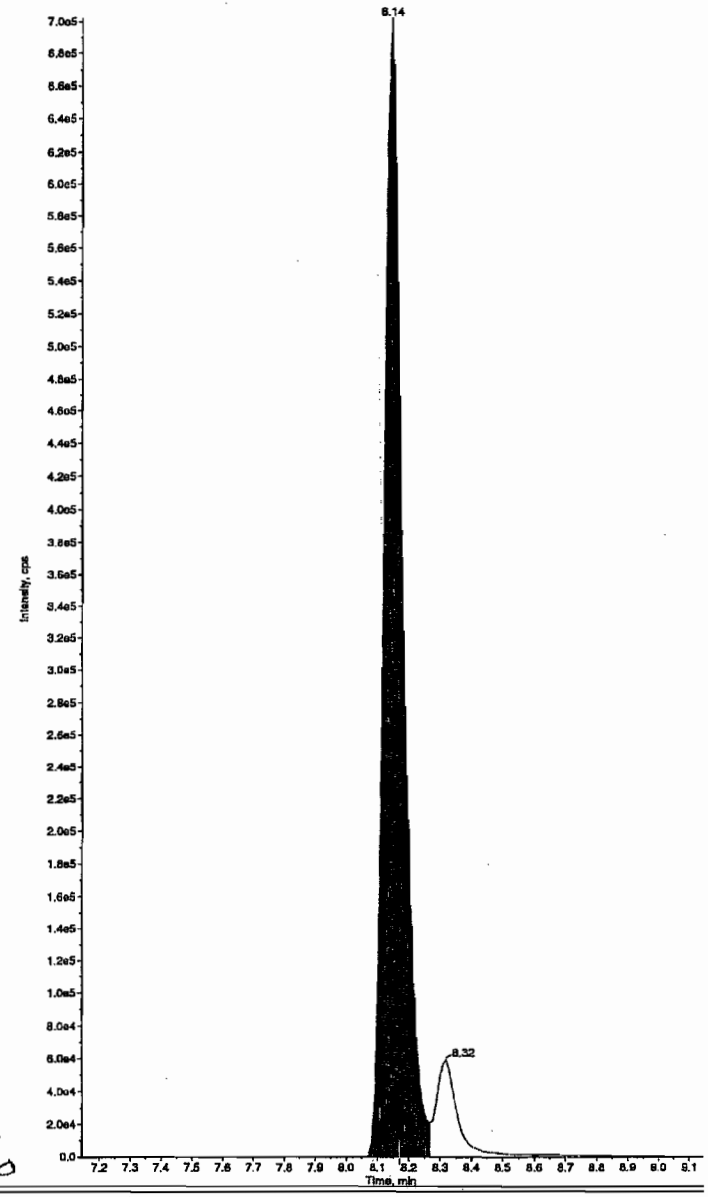

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SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100331-26ICV" Sample ID: "1|LER" File: "EXS03310011.wiff"
: Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index: 1
e Type: QC
ntration: 250. ng/mL
lated Conc: 221. ng/mL
Date: 3/31/2010
Time: 11:17:44 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
ning Width: 3 points
ndow: 15.0 sec
ed RT: 8.31 min
lative RT: No

ype: Valley
ion Time: 8.31 min
1.80e+006 counts
: 447898.987 cps
Time: 8.24 min
me: 8.61 min

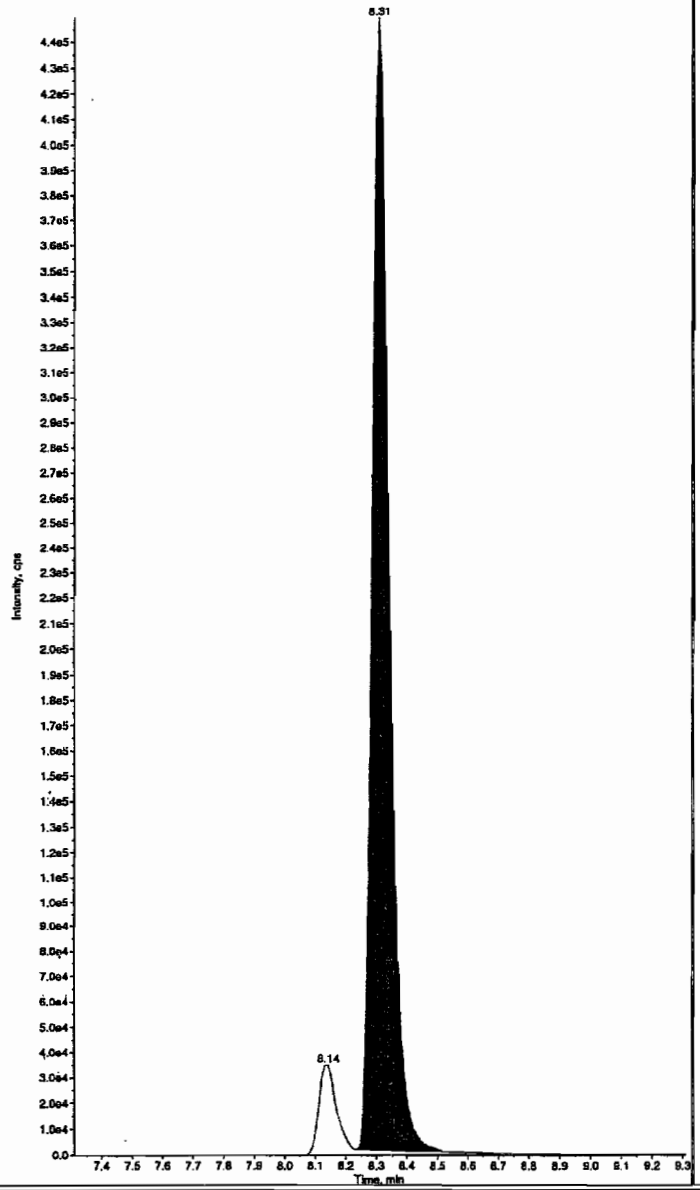

Sample Name: "WXX100331-26ICV" Sample ID: "1|LER" File: "EXS03310011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 505. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 11:17:44 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.95 min
Area: 1.10e+006 counts
Height: 261479.004 cps
Start Time: 4.86 min
End Time: 5.25 min

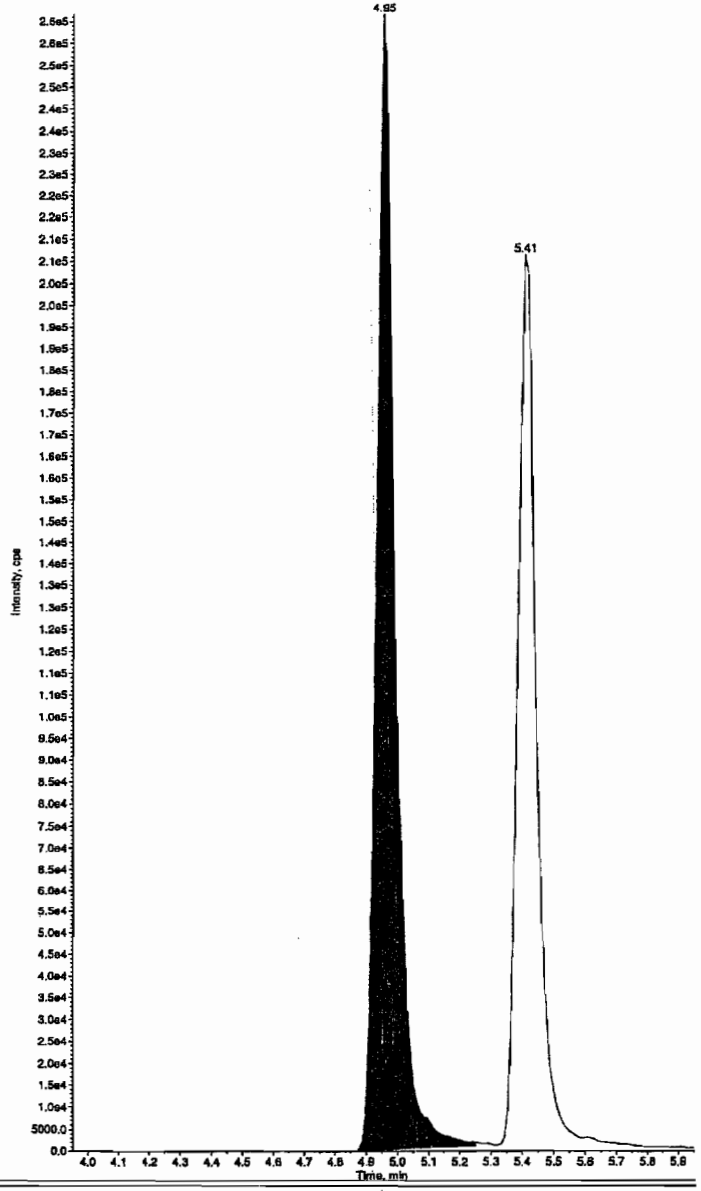

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ple Name: "WXX100331-26ICV" Sample ID: "[1]LER" File: "EXS03310011.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""

.e Index: 1
.e Type: QC
ntration: 500. ng/mL
ilated Conc: 461. ng/mL
Date: 3/31/2010
Time: 11:17:44 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 5.41 min
elative RT: No

Type: Valley
tion Time: 5.41 min
8.77e+005 counts
t: 205358.368 cps
Time: 5.31 min
ime: 5.81 min

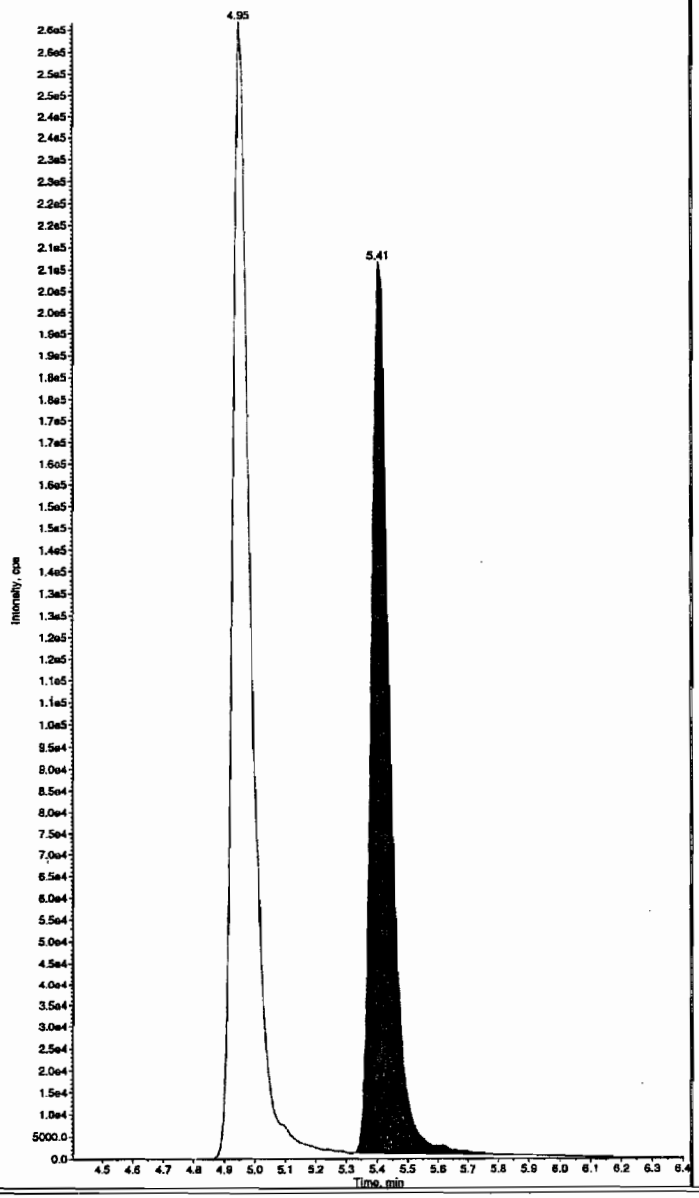

Sample Name: "WXX100331-26ICV" Sample ID: "[1]LER" File: "EXS03310011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 481. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 11:17:44 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 9.01e+006 counts
Height: 2076318.604 cps
Start Time: 10.7 min
End Time: 11.2 min

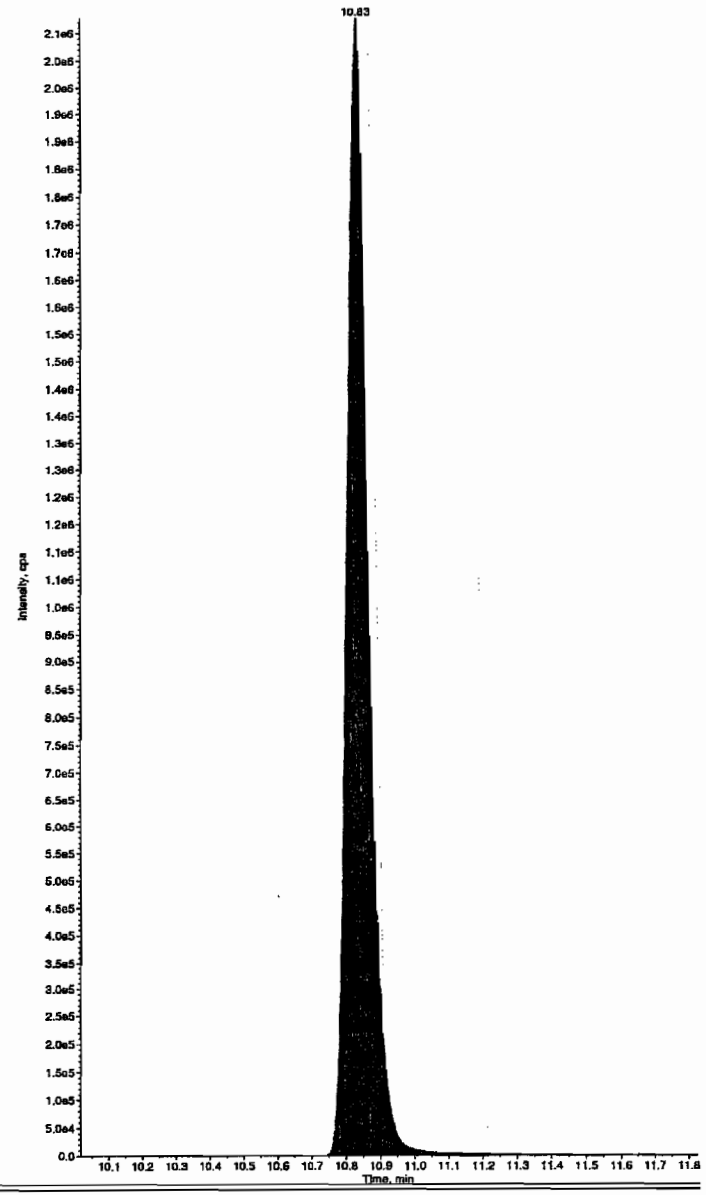

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2000

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0322012.wiff

Analysis Date: 22–MAR–10 20:23

LCMSMS ID: 1189

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	44.6	112	
2,4,6–Trinitrotoluene	40	37.6	94	
2,4–Dinitrotoluene	40	45.1	113	
2,6–Dinitrotoluene	40	44.6	112	
2–Amino–4,6–dinitrotoluene	40	41.8	104	
3,4–Dinitrotoluene	20	22	110	
4–Amino–2,6–dinitrotoluene	40	45.4	113	
HMX	40	47.1	118	
Nitrobenzene	40	39.5	99	
PETN	40	40.6	102	
RDX	40	42	105	
Tetryl	40	33.7	84	
m–Dinitrobenzene	40	44.7	112	
m–Nitrotoluene	40	37.6	94	
o–Nitrotoluene	40	40.8	102	
p–Nitrotoluene	40	35.6	89	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Data File	EXP0322012.wiff	**Acquisition Date**	3/22/2010 8:23:14 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

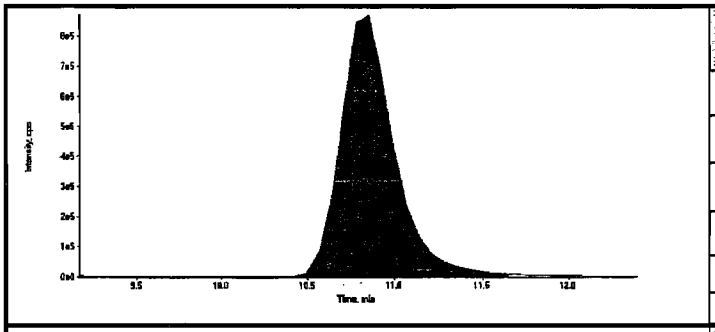

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	18800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

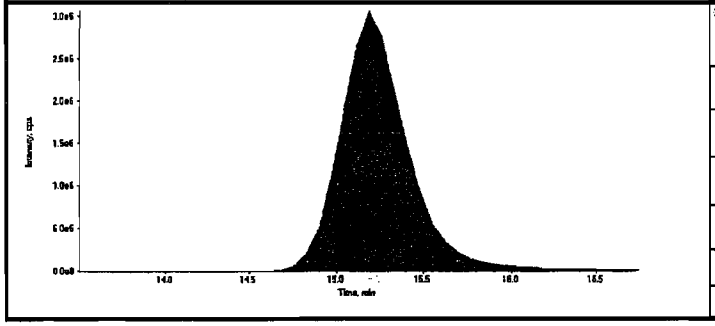

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.20
Area Counts:	81200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

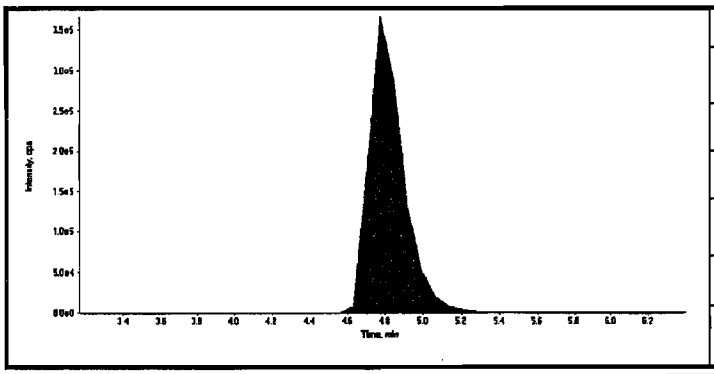

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	4.58e+006
Manual Modification	No
Amount:	47.1 (ng/mL)
% Accuracy:	118.00

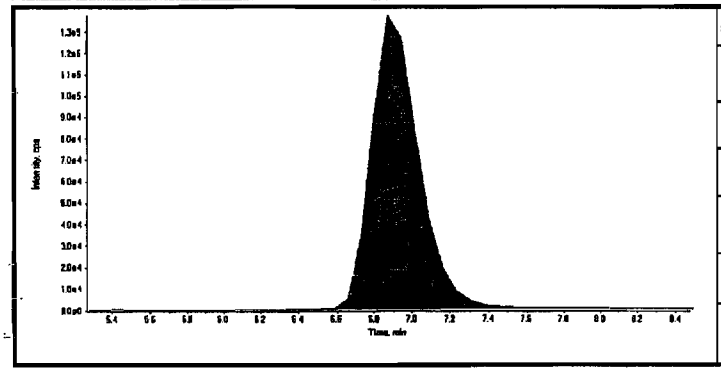

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	2.42e+006
Manual Modification	No
Amount:	42.0 (ng/mL)
% Accuracy:	105.00

Anne 03/25/10
Lan 3/28/10

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Data File	EXP0322012.wiff	Acquisition Date	3/22/2010 8:23:14 PM
Sample Name	WXX100322-57CRI	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

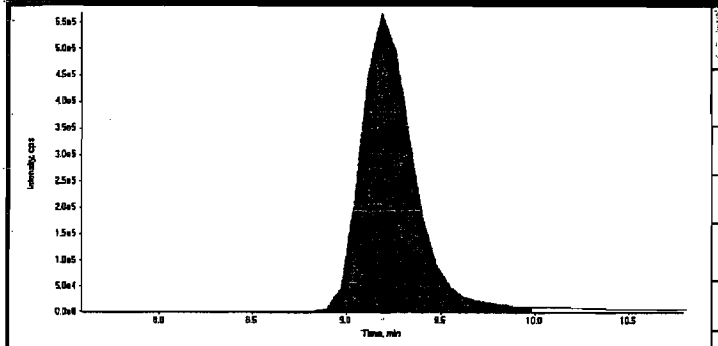

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.19
Area Counts:	1.09e+007
Manual Modification	No
Amount:	44.6 (ng/mL)
% Accuracy:	112.00

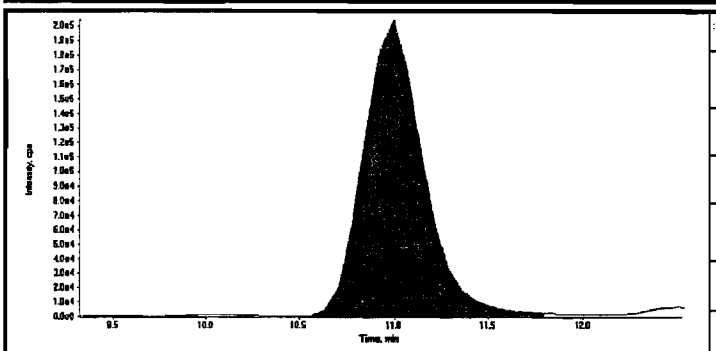

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	11.0
Area Counts:	4.47e+006
Manual Modification	No
Amount:	44.7 (ng/mL)
% Accuracy:	112.00

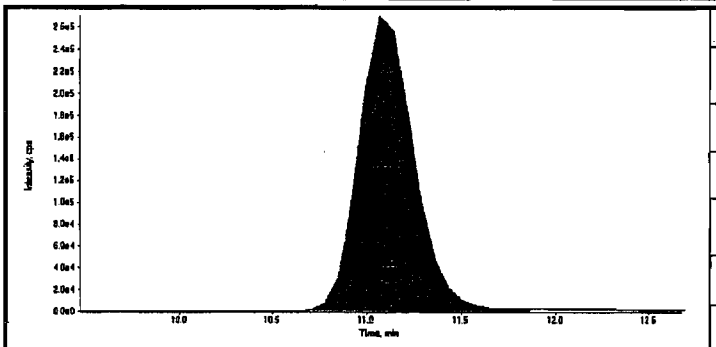

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.1
Area Counts:	5.43e+006
Manual Modification	No
Amount:	33.7 (ng/mL)
% Accuracy:	84.30

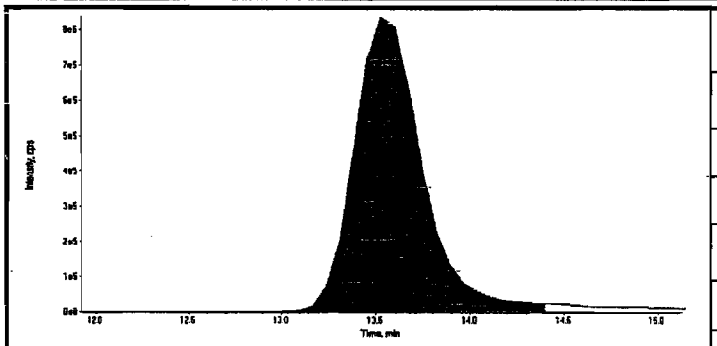

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	2.08e+007
Manual Modification	No
Amount:	37.6 (ng/mL)
% Accuracy:	93.90

Before Lar 3/28/10

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ple Name: "WXX100322-57CRI" Sample ID: "[1]LER" File: "EXP0322012.wiff"
k Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 40.0 ng/mL
lated Conc: 0.00 ng/mL
Date: 3/22/2010
Time: 8:23:14 PM
lled: No

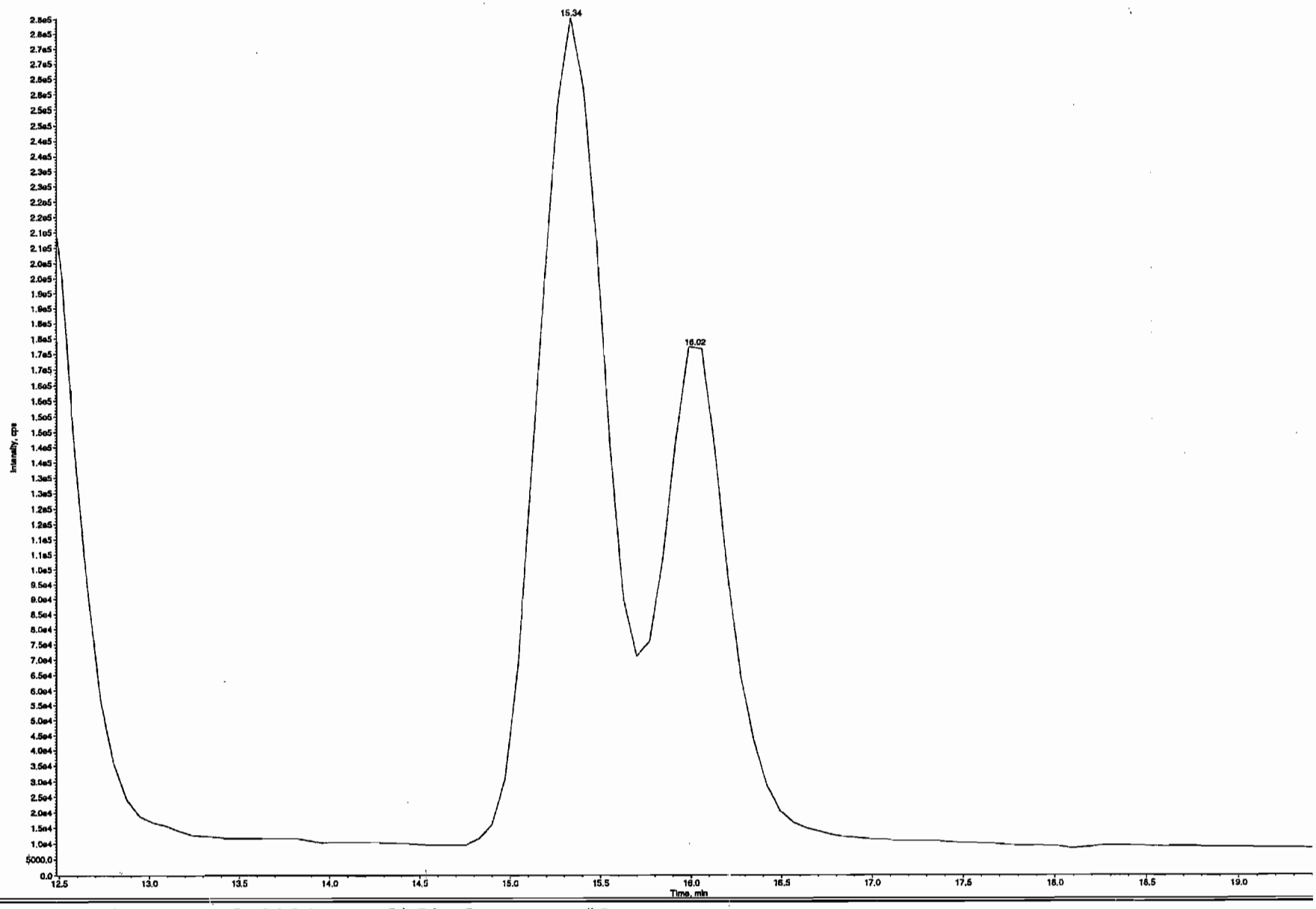

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Data File	EXP0322012.wiff	Acquisition Date	3/22/2010 8:23:14 PM
Sample Name	WXX100322-57CRI	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

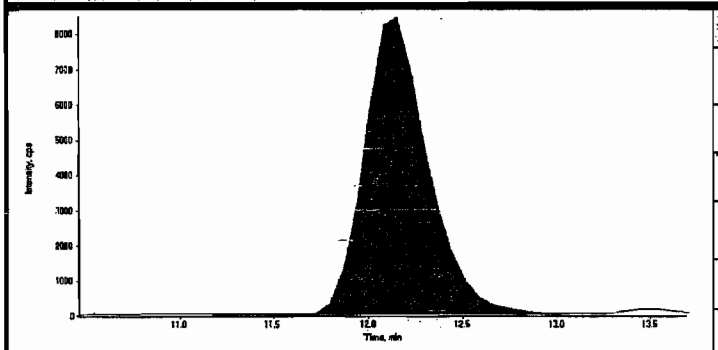

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	2.01e+005
Manual Modification	No
Amount:	39.5 (ng/mL)
% Accuracy:	98.60

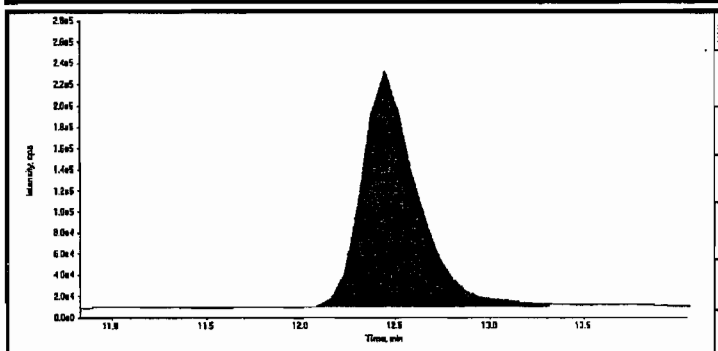

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	4.62e+006
Manual Modification	No
Amount:	22.0 (ng/mL)
% Accuracy:	110.00

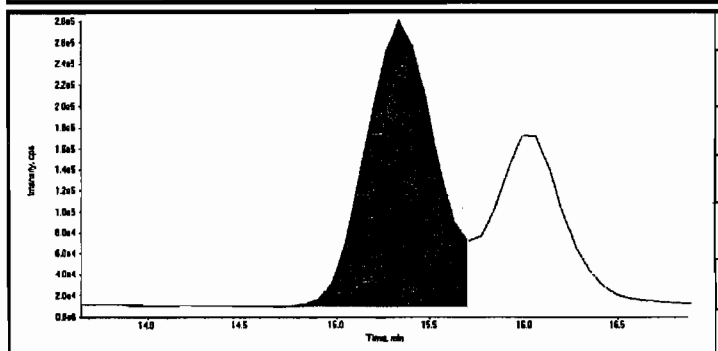

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	7.05e+006
Manual Modification	No
Amount:	44.6 (ng/mL)
% Accuracy:	112.00

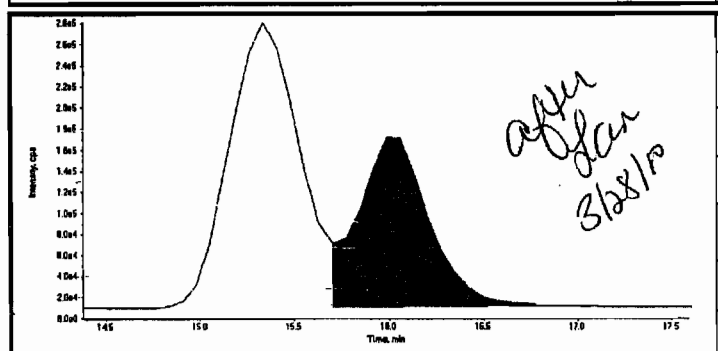

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	16.0
Area Counts:	4.28e+006
Manual Modification	Yes
Amount:	45.1 (ng/mL)
% Accuracy:	113.00

Before Lab 3/28/10

mple Name: "WXX100322-57CRI" Sample ID: "1)LER" File: "EXP0322012.wiff"
ak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/150.0 amu"
mment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
ntration: 40.0 ng/mL
lated Conc: 98.1 ng/mL
Date: 3/22/2010
Time: 8:23:14 PM

fied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1000.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 14.6 min
Relative RT: No

Type: Valley
tion Time: 14.7 min
5.31e+005 counts
t: 1.16e+004 cps
Time: 14.3 min
ime: 15.3 min

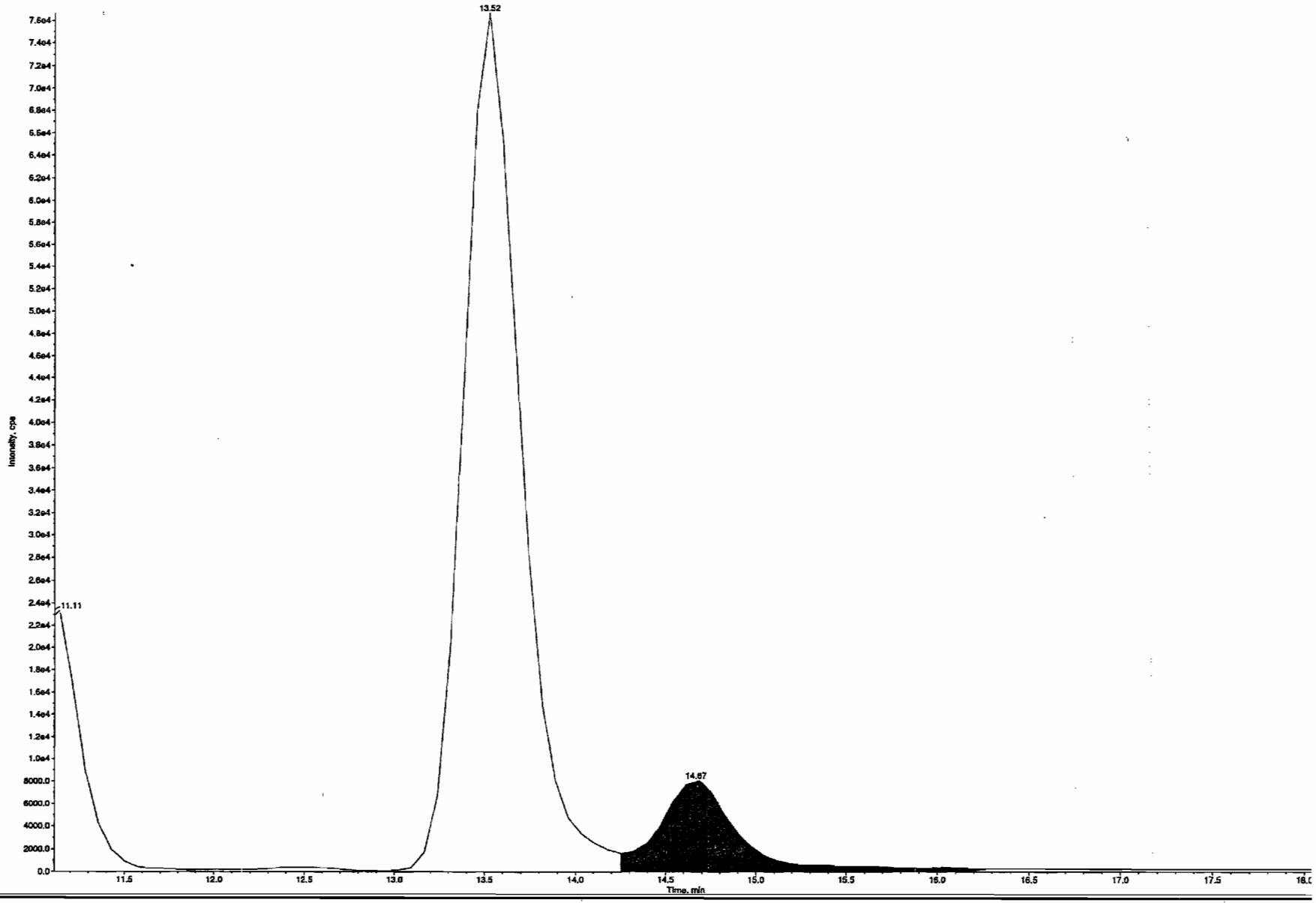

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Data File	EXP0322012.wiff	Acquisition Date	3/22/2010 8:23:14 PM
Sample Name	WXX100322-57CRI	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

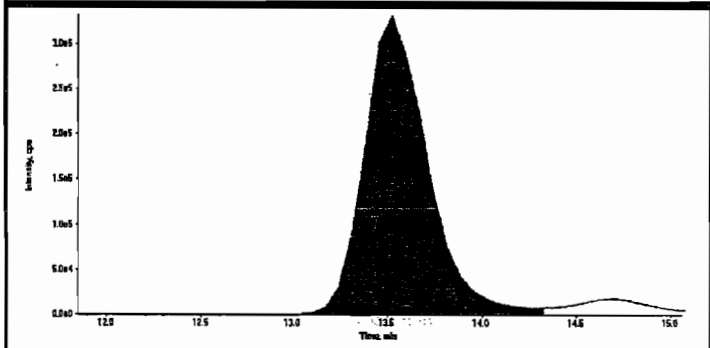

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	7.78e+006
Manual Modification	No
Amount:	45.4 (ng/mL)
% Accuracy:	113.00

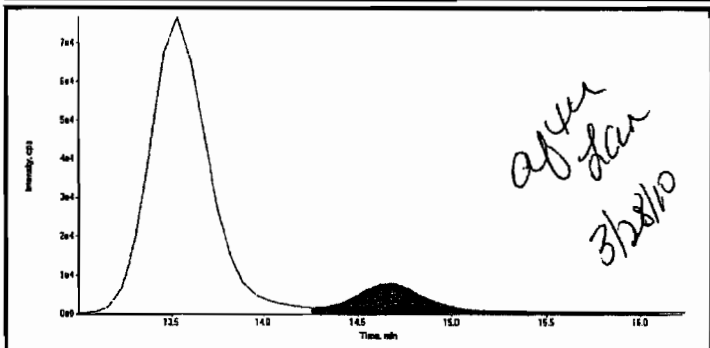

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.7
Area Counts:	2.26e+005
Manual Modification	Yes
Amount:	41.8 (ng/mL)
% Accuracy:	104.00

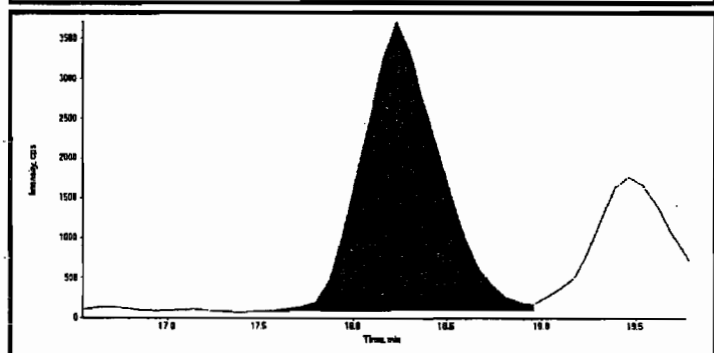

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.2
Area Counts:	1.04e+005
Manual Modification	No
Amount:	40.8 (ng/mL)
% Accuracy:	102.00

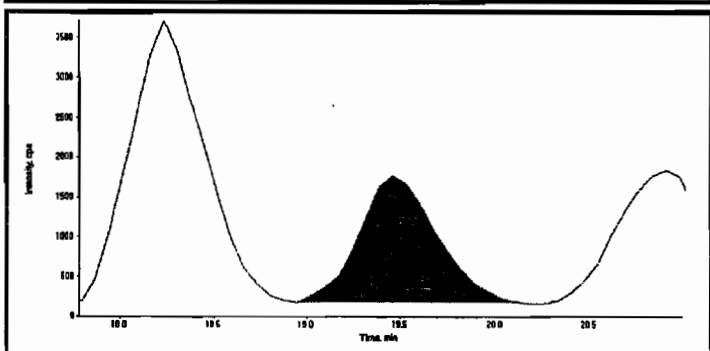

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.5
Area Counts:	4.51e+004
Manual Modification	No
Amount:	35.6 (ng/mL)
% Accuracy:	89.10

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Data File	EXP0322012.wiff	**Acquisition Date**	3/22/2010 8:23:14 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

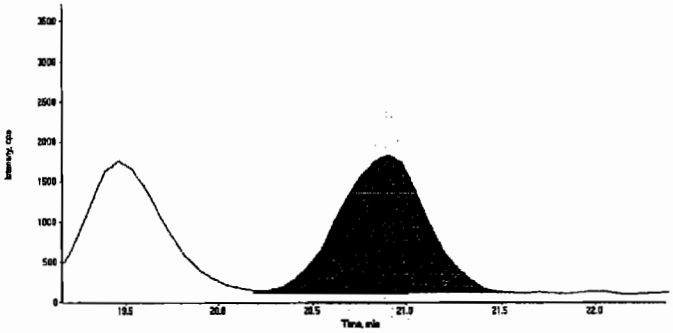

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.9
Area Counts:	5.66e+004
Manual Modification	No
Amount:	37.6 (ng/mL)
% Accuracy:	93.90

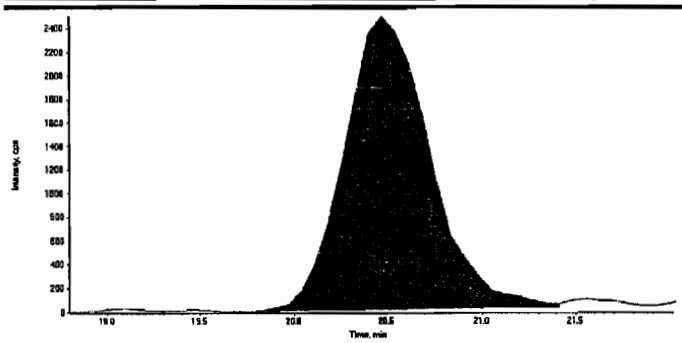

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.5
Area Counts:	7.88e+004
Manual Modification	No
Amount:	40.6 (ng/mL)
% Accuracy:	102.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/22/10
Time of Injection 2023
Standard Number WXX100322-57CRI
Data File EXP0322012a

HMX	118.0
RDX	105.0
135-Trinitrobenzene	112.0
13-Dinitrobenzene	112.0
Tetryl	84.3
246-Trinitrotoluene	93.9
Nitrobenzene	98.6
34-dinitrotoluene	110.0
26-dinitrotoluene	112.0
24-dinitrotoluene	113.0
4-Amino-26-dinitrotoluene	113.0
2-Amino-46-dinitrotoluene	104.0
2-Nitrotoluene	102.0
4-Nitrotoluene	89.1
3-Nitrotoluene	93.9
PETN	102.0
	✓
TOTAL	1662.8
AVERAGE	✓ 103.9

Hmw 03/28/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lcr 3/28/10

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2000

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0322018.wiff

Analysis Date: 22-MAR-10 23:01

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	571	95	
2,4,6-Trinitrotoluene	600	550	92	
2,4-Dinitrotoluene	600	626	104	
2,6-Dinitrotoluene	600	530	88	
2-Amino-4,6-dinitrotoluene	600	633	105	
3,4-Dinitrotoluene	300	278	93	
4-Amino-2,6-dinitrotoluene	600	583	97	
HMX	600	582	97	
Nitrobenzene	600	648	108	
PETN	600	697	116	
RDX	600	617	103	
Tetryl	600	666	111	
m-Dinitrobenzene	600	595	99	
m-Nitrotoluene	600	647	108	
o-Nitrotoluene	600	619	103	
p-Nitrotoluene	600	676	113	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322018.wiff	Acquisition Date	3/22/2010 11:01:27 PM
Sample Name	WXX100322-56CCV	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

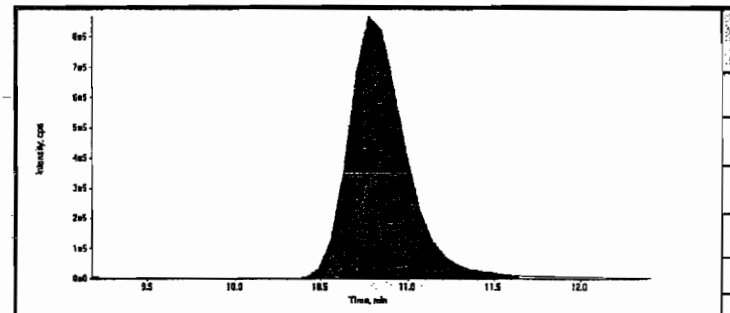

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	19500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

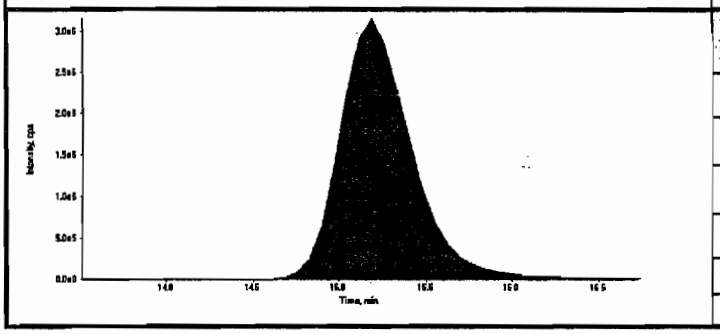

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.20
Area Counts:	89700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

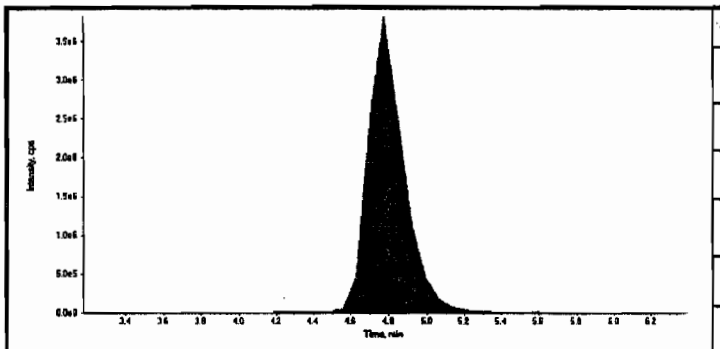

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	4.92e+007
Manual Modification	No
Amount:	582. (ng/mL)
% Accuracy:	97.00

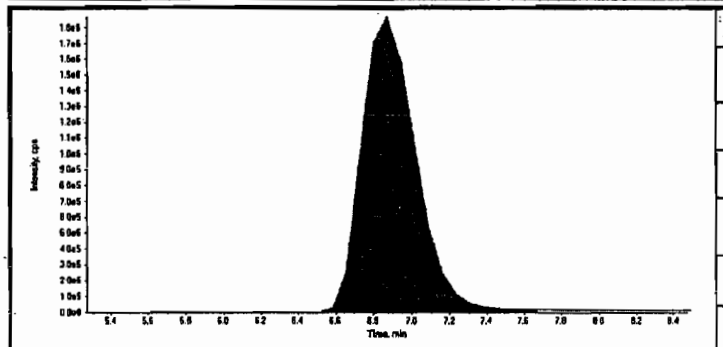

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	3.68e+007
Manual Modification	No
Amount:	617. (ng/mL)
% Accuracy:	103.00

Lar 3/28/10

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Data File	EXP0322018.wiff	**Acquisition Date**	3/22/2010 11:01:27 PM
Sample Name	WXX100322-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

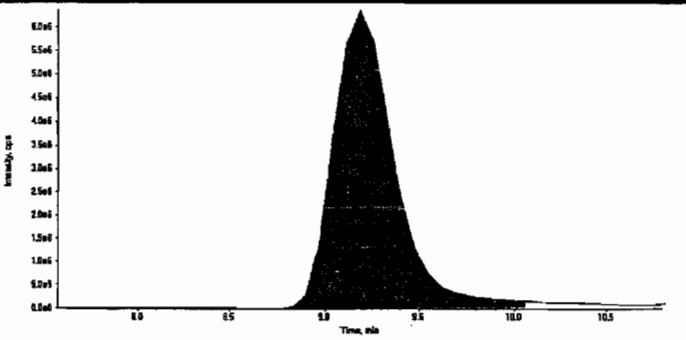

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.19
Area Counts:	1.44e+008
Manual Modification	No
Amount:	571. (ng/mL)
% Accuracy:	95.20

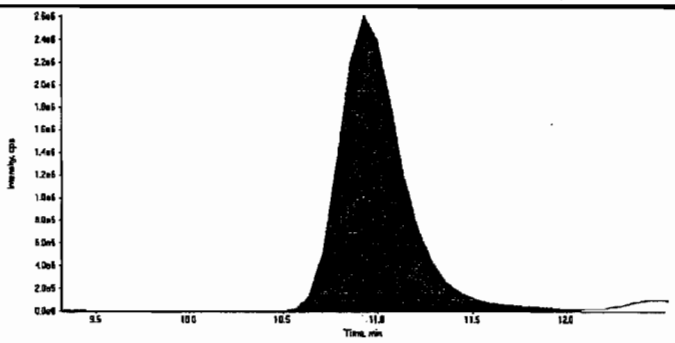

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	6.16e+007
Manual Modification	No
Amount:	595. (ng/mL)
% Accuracy:	99.10

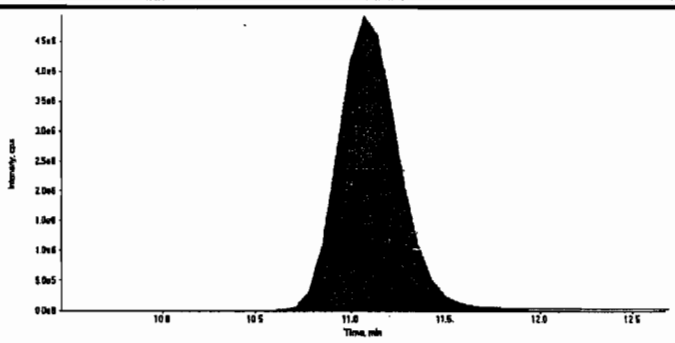

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.1
Area Counts:	1.11e+008
Manual Modification	No
Amount:	666. (ng/mL)
% Accuracy:	111.00

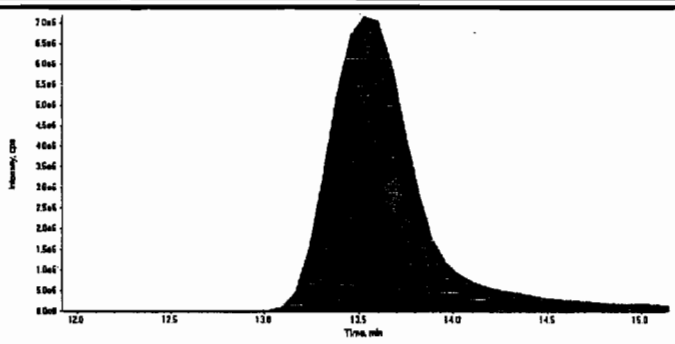

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	2.45e+008
Manual Modification	No
Amount:	550. (ng/mL)
% Accuracy:	91.70

Before Run 3/28/10

ple Name: "WXX100322-58CCV" Sample ID: "11LER" File: "EXP0322018.wiff"
: Name: "26-dinitrotoluene" Mass(es): "182.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""

Index:	1	
Type:	QC	
tration:	400.	ng/mL
ated Conc:	365.	ng/mL
ate:	3/22/2010	
ime:	11:01:27 PM	
ed:	No	
Algorithm:	IntelliQuan - IQA	
eak Height:	1.00e4	cps
eak Width:	0.00	sec
ing Width:	3	points
dow:	30.0	sec
ed RT:	15.3	min
lative RT:	No	
ype:	Valley	
ion Time:	15.3	min
	6.37e+007	counts
:	2.74e+006	cps
Time:	14.9	min
me:	15.7	min

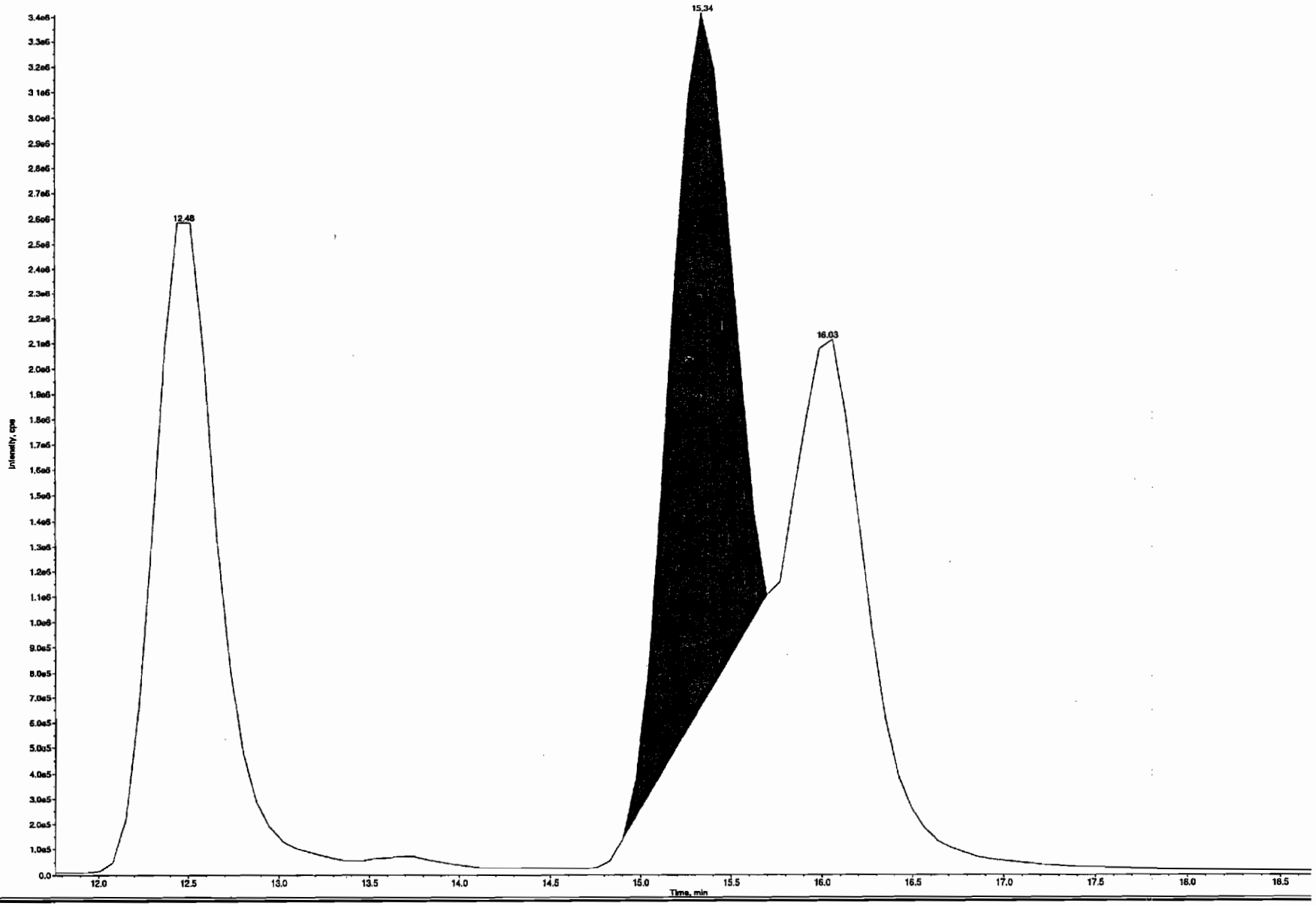

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Before acer sicon

ple Name: "WXX100322-56CCV" Sample ID: "1]LER" File: "E:\P0322018.wlf"
: Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""
: Index: 1
: Type: QC
ntration: 600. ng/mL
ected Conc: 0.00 ng/mL
Date: 3/22/2010
Time: 11:01:27 PM

ied: No

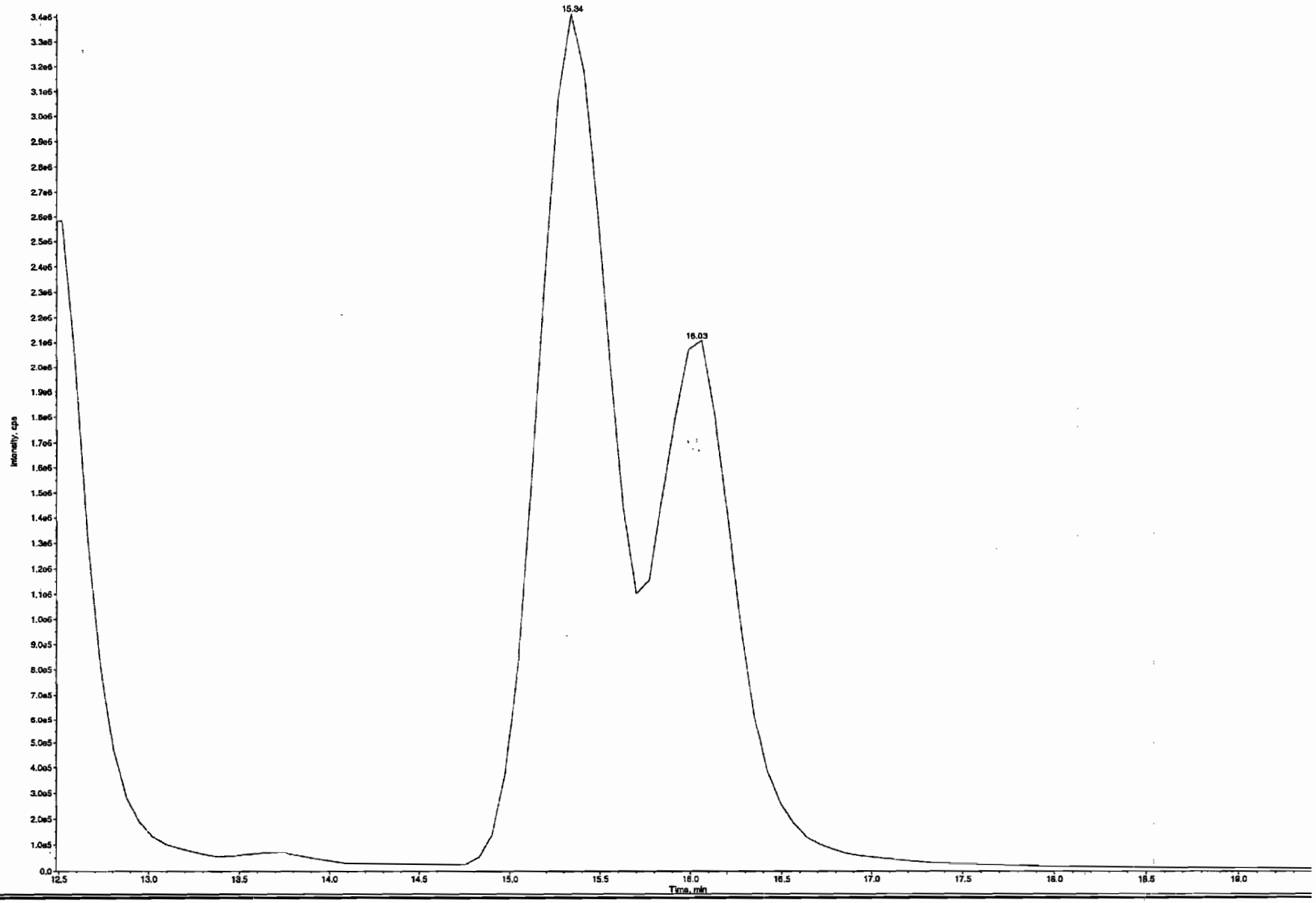

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322018.wiff	Acquisition Date	3/22/2010 11:01:27 PM
Sample Name	WXX100322-56CCV	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

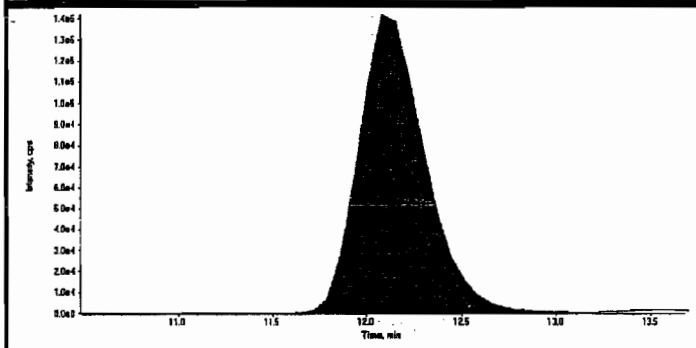

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	3.42e+006
Manual Modification	No
Amount:	648. (ng/mL)
% Accuracy:	108.00

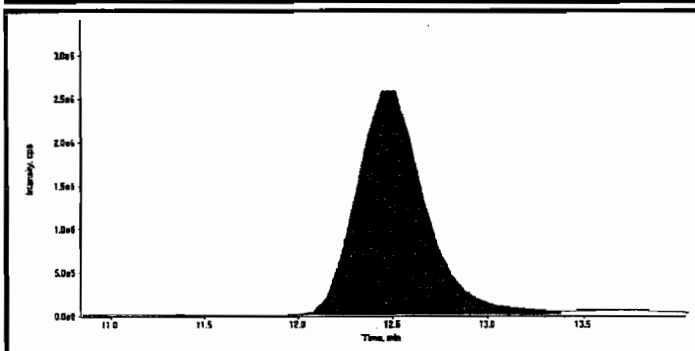

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	6.44e+007
Manual Modification	No
Amount:	278. (ng/mL)
% Accuracy:	92.60

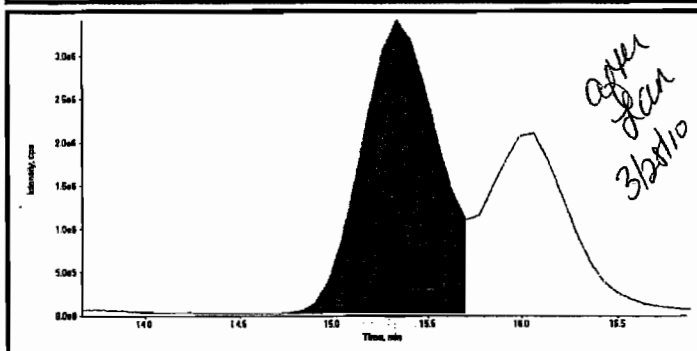

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	9.24e+007
Manual Modification	Yes
Amount:	530. (ng/mL)
% Accuracy:	88.30

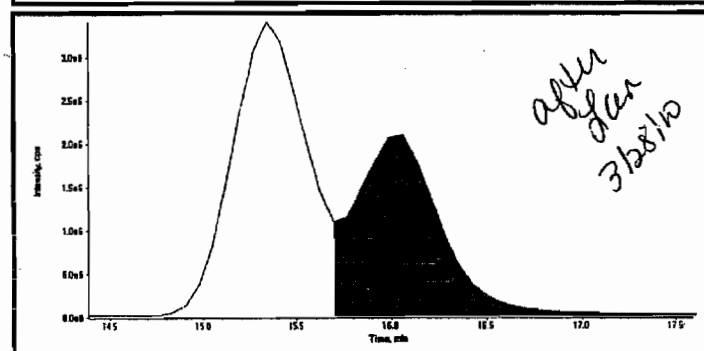

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	16.0
Area Counts:	6.58e+007
Manual Modification	Yes
Amount:	626. (ng/mL)
% Accuracy:	104.00

Before Lar 3/28/10

ple Name: "WXX100322-56CCV" Sample ID: "1ILER" File: "EXP0322018.wiff"
: Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
ment: "LCMSEXP_C" Annotation: ""

: Index:	1	
: Type:	QC	
ıtration:	600.	ng/mL
ıated Conc:	2130.	ng/mL
ıate:	3/22/2010	
'ime:	11:01:27 PM	
ed:	No	
Algorithm:	IntelliQuan - IQA	
'eak Height:	1000.00	cps
'eak Width:	0.00	sec
ıing Width:	3	points
ıdow:	30.0	sec
ed RT:	14.6	min
lative RT:	No	
ype:	Valley	
ion Time:	14.7	min
	1.27e+007	counts
:	1.84e+005	cps
Time:	14.3	min
me:	17.9	min

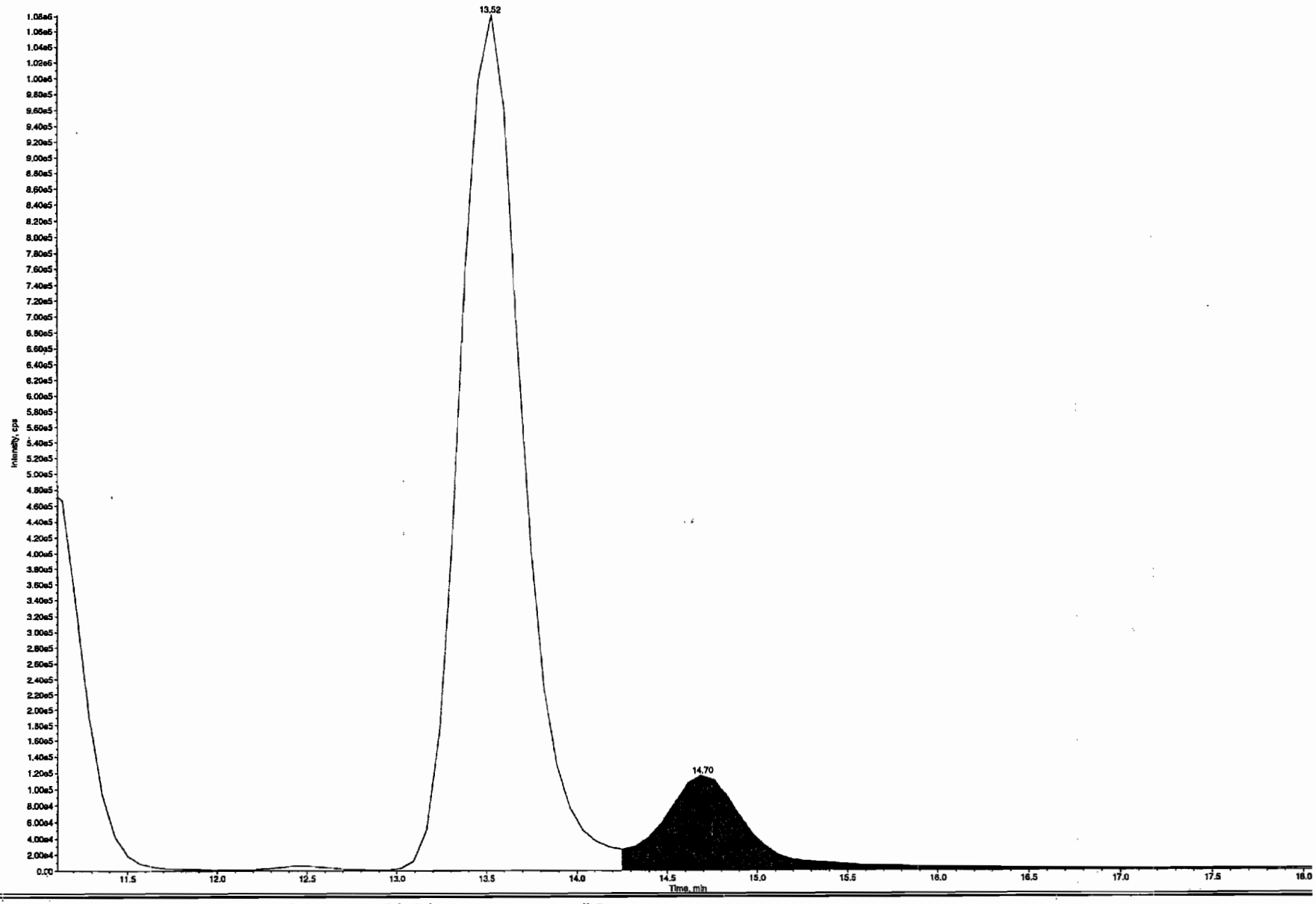

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322018.wiff	**Acquisition Date**	3/22/2010 11:01:27 PM
Sample Name	WXX100322-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

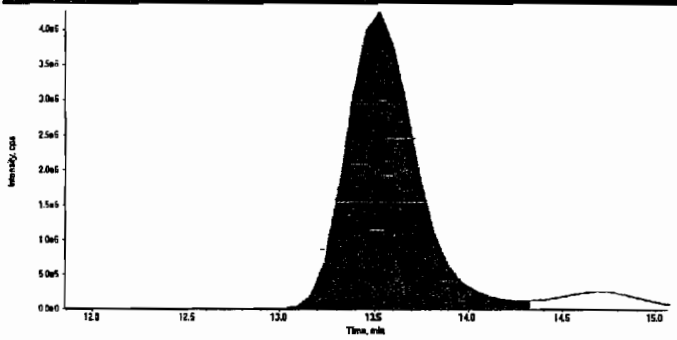

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.10e+008
Manual Modification	No
Amount:	583. (ng/mL)
% Accuracy:	97.20

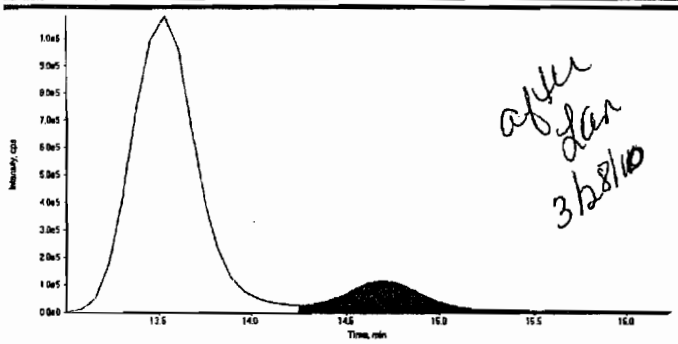

after dan 3/28/10

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.7
Area Counts:	3.78e+006
Manual Modification	Yes
Amount:	633. (ng/mL)
% Accuracy:	105.00

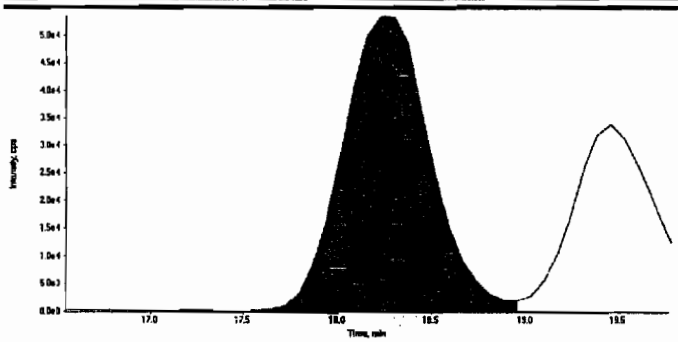

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.2
Area Counts:	1.74e+006
Manual Modification	No
Amount:	619. (ng/mL)
% Accuracy:	103.00

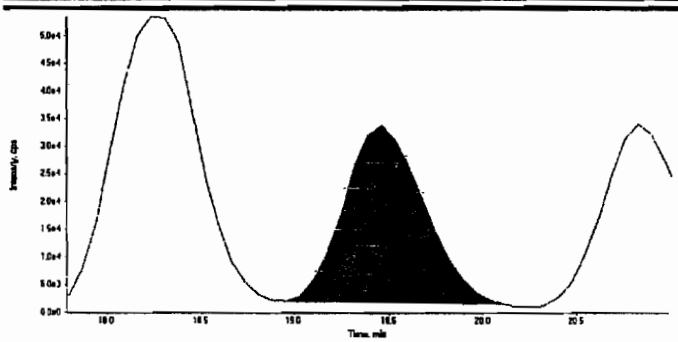

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.5
Area Counts:	9.46e+005
Manual Modification	No
Amount:	676. (ng/mL)
% Accuracy:	113.00

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Data File	EXP0322018.wiff	**Acquisition Date**	3/22/2010 11:01:27 PM
Sample Name	WXX100322-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

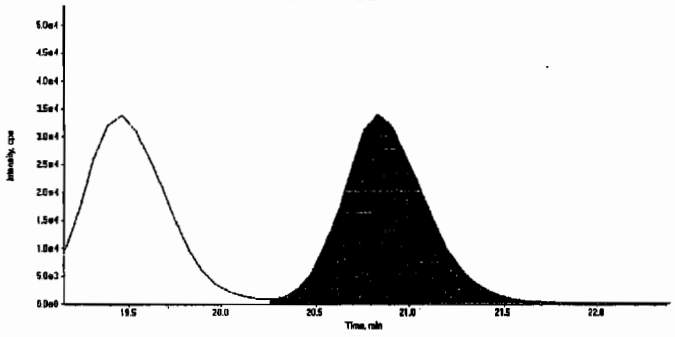

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.8
Area Counts:	1.08e+006
Manual Modification	No
Amount:	647. (ng/mL)
% Accuracy:	108.00

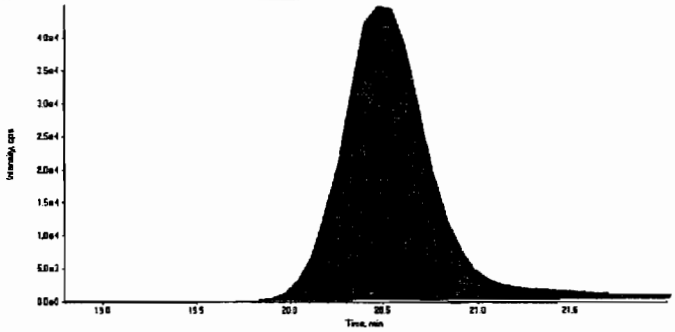

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.5
Area Counts:	1.49e+006
Manual Modification	No
Amount:	697. (ng/mL)
% Accuracy:	116.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/22/10
Time of Injection 2301
Standard Number WXX100322-56CCV
Data File EXP0322018a

HMX	97.0
RDX	103.0
135-Trinitrobenzene	95.2
13-Dinitrobenzene	99.1
Tetryl	111.0
246-Trinitrotoluene	91.7
Nitrobenzene	108.0
34-dinitrotoluene	92.6
26-dinitrotoluene	88.3
24-dinitrotoluene	104.0
4-Amino-26-dinitrotoluene	97.2
2-Amino-46-dinitrotoluene	105.0
2-Nitrotoluene	103.0
4-Nitrotoluene	113.0
3-Nitrotoluene	108.0
PETN	116.0
TOTAL	1632.1
AVERAGE	102.0

HMM 03/28/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

LCM 3/28/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2000

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0322020.wiff

Analysis Date: 22–MAR–10 23:54

LCMSMS ID: 1189

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	42.3	106	
2,4,6–Trinitrotoluene	40	33.9	85	
2,4–Dinitrotoluene	40	42.4	106	
2,6–Dinitrotoluene	40	43.5	109	
2–Amino–4,6–dinitrotoluene	40	35.7	89	
3,4–Dinitrotoluene	20	19.9	100	
4–Amino–2,6–dinitrotoluene	40	40.7	102	
HMX	40	36.7	92	
Nitrobenzene	40	40.2	100	
PETN	40	37.3	93	
RDX	40	39	97	
Tetryl	40	27.5	69	
m–Dinitrobenzene	40	42.2	106	
m–Nitrotoluene	40	36.3	91	
o–Nitrotoluene	40	35.8	90	
p–Nitrotoluene	40	38.3	96	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Data File	EXP0322020.wiff	**Acquisition Date**	3/22/2010 11:54:20 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

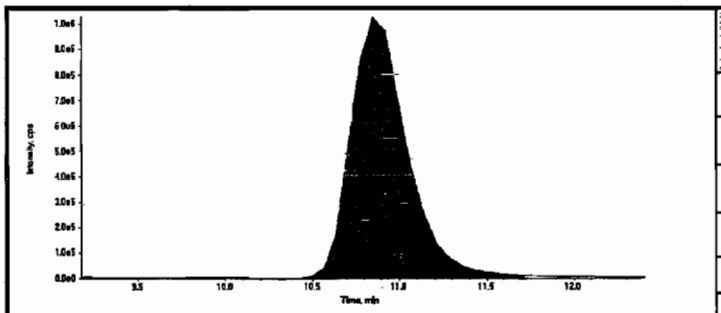

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	23000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

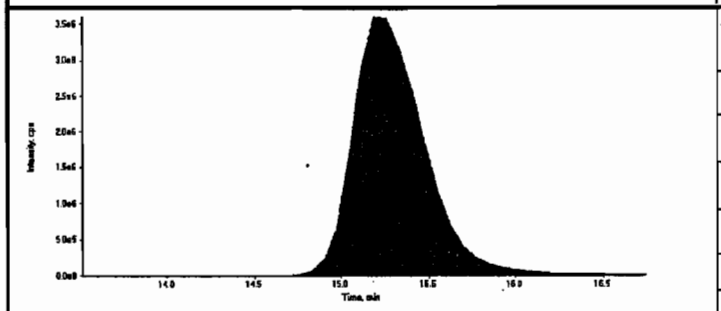

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.20
Area Counts:	102000000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

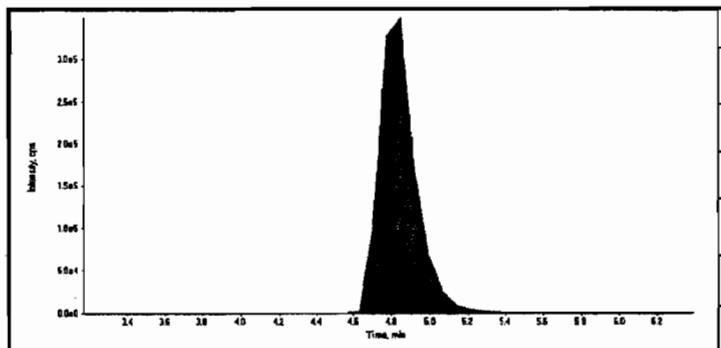

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.85
Area Counts:	4.58e+006
Manual Modification	No
Amount:	36.7 (ng/mL)
% Accuracy:	91.70

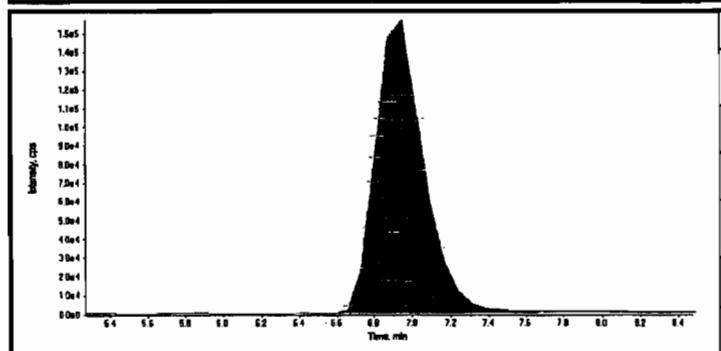

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.94
Area Counts:	2.74e+006
Manual Modification	No
Amount:	39.0 (ng/mL)
% Accuracy:	97.40

HMM 03/28/10

SCW 3/28/10

Before Lab 3/28/10

le Name: "WXX100322-57CRI" Sample ID: "[1]LER" File: "EXP0322020.wiff"
Name: "246-Trinitrotoluene" Mass(es): "227.1/209.6 amu"
vent: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
:ration: 40.0 ng/mL
ated Conc: 32.6 ng/mL
ate: 3/22/2010
ime: 11:54:20 PM

id: No
lgorithm: IntelliQuan - IQA
eak Height: 1.00e4 cps
eak Width: 0.00 sec
ing Width: 3 points
low: 60.0 sec
id RT: 13.5 min
ative RT: No

pe: Valley
on Time: 13.6 min
2.32e+007 counts
9.61e+005 cps
time: 13.0 min
e: 14.5 min

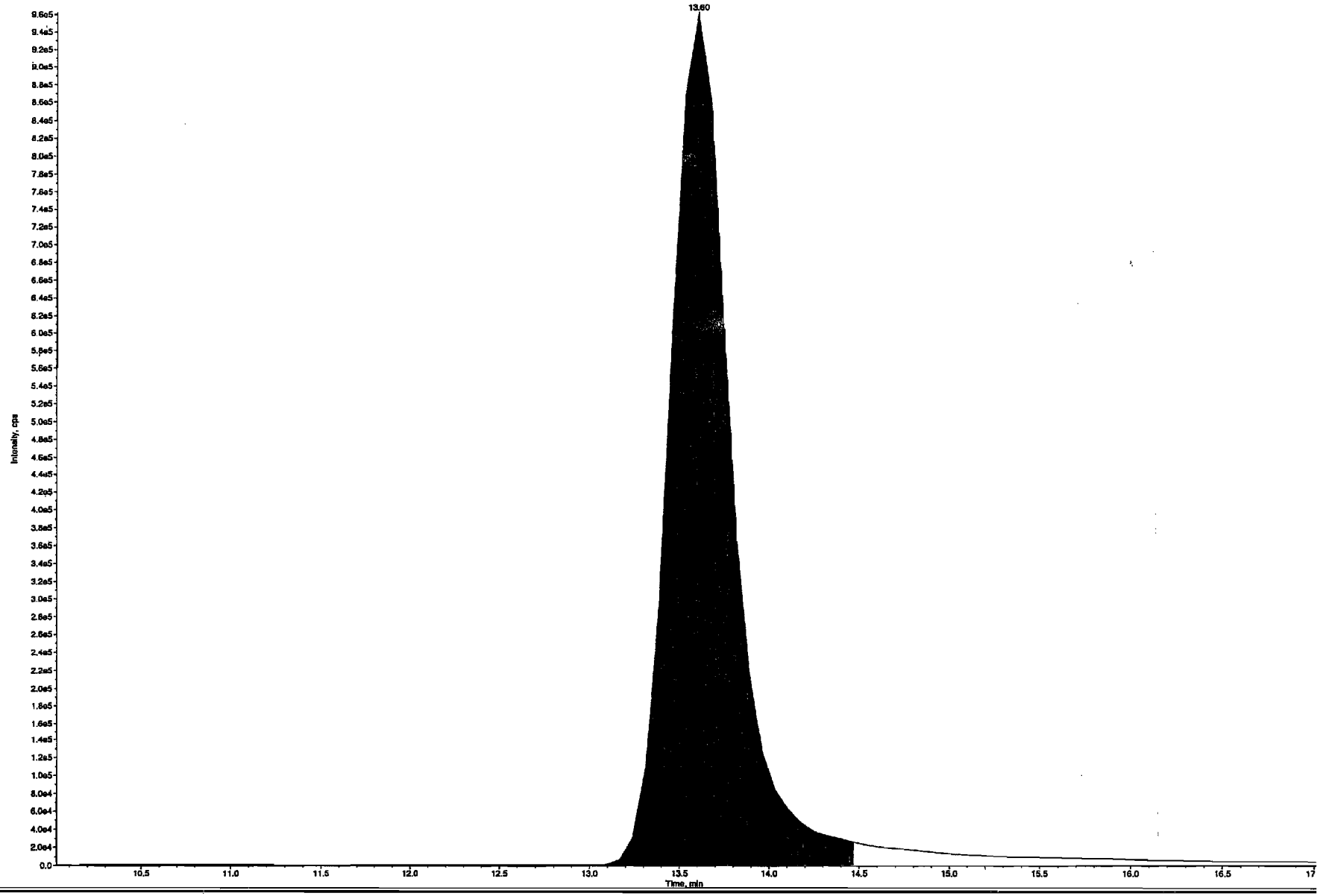

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322020.wiff	**Acquisition Date**	3/22/2010 11:54:20 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

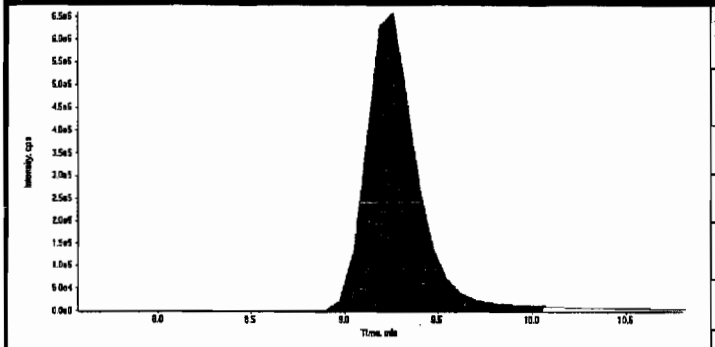

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.26
Area Counts:	1.26e+007
Manual Modification	No
Amount:	42.3 (ng/mL)
% Accuracy:	106.00

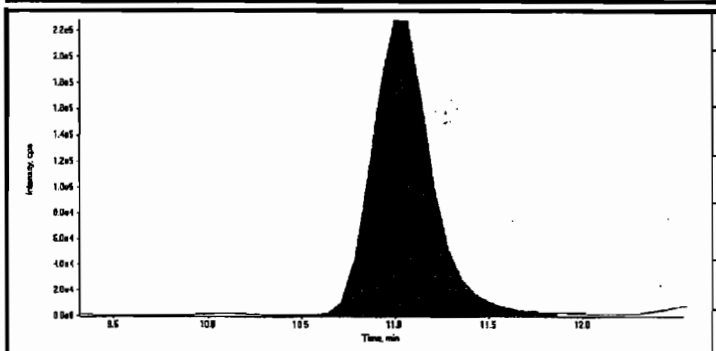

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	11.0
Area Counts:	5.17e+006
Manual Modification	No
Amount:	42.2 (ng/mL)
% Accuracy:	106.00

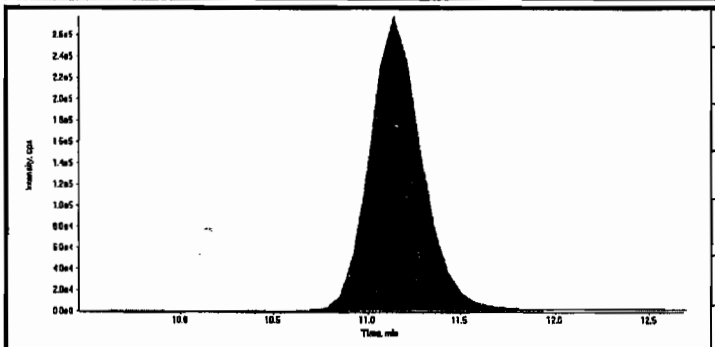

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.1
Area Counts:	5.41e+006
Manual Modification	No
Amount:	27.5 (ng/mL)
% Accuracy:	68.70

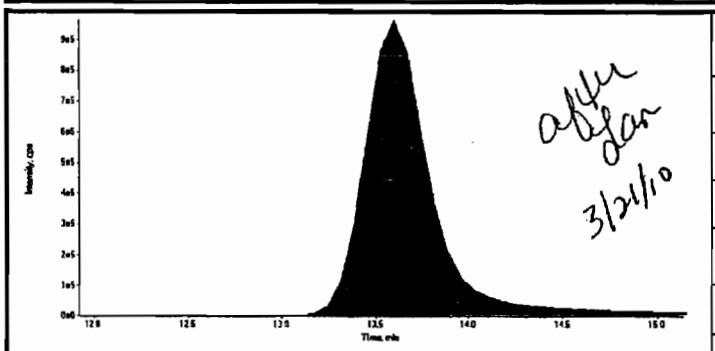

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	2.40e+007
Manual Modification	Yes
Amount:	33.9 (ng/mL)
% Accuracy:	84.80

Before Lar 3/28/10

ple Name: "WXX100322-57CRI" Sample ID: "[1]LER" File: "EXP0322020.wiff"
(Name: "24-dinitrotoluene" Mass(es): "182.0/48.0 amu"
ment: "LCMSEXP_C" Annotation: ""
: Index: 1
: Type: QC
ration: 40.0 ng/mL
ated Conc: 0.00 ng/mL
ate: 3/22/2010
Time: 11:54:20 PM
ed: No

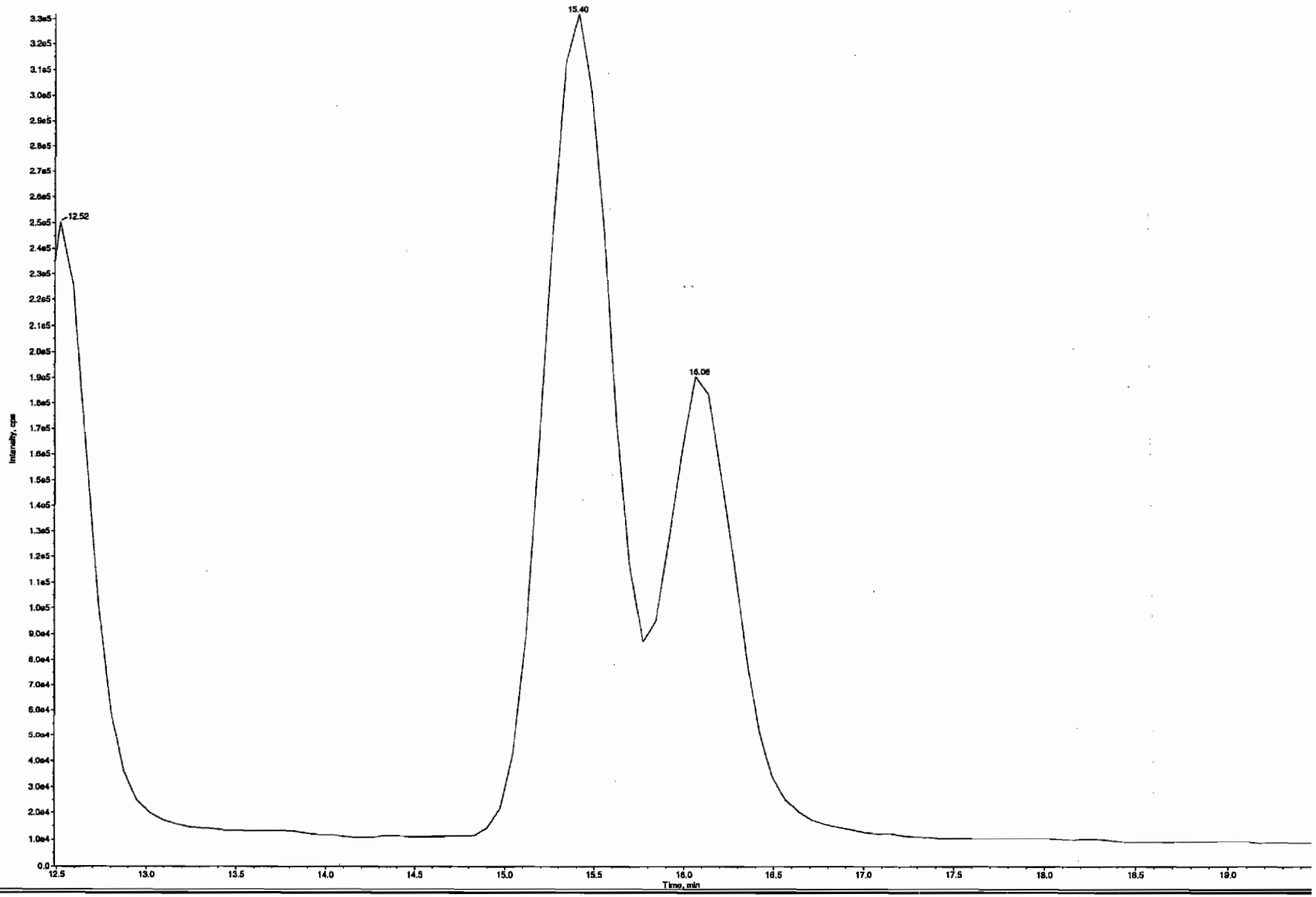

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Data File	EXP0322020.wiff	**Acquisition Date**	3/22/2010 11:54:20 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

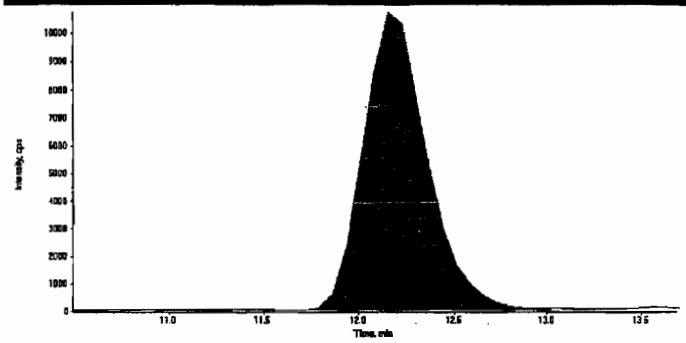

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	2.50e+005
Manual Modification	No
Amount:	40.2 (ng/mL)
% Accuracy:	100.00

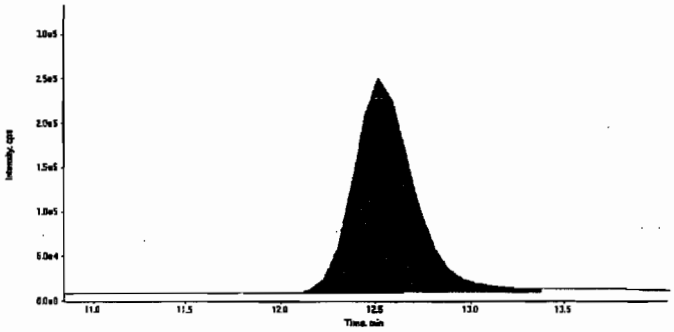

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.5
Area Counts:	5.27e+006
Manual Modification	No
Amount:	19.9 (ng/mL)
% Accuracy:	99.60

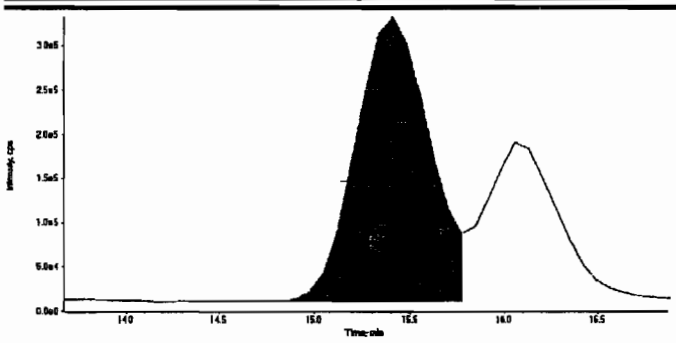

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.4
Area Counts:	8.66e+006
Manual Modification	No
Amount:	43.5 (ng/mL)
% Accuracy:	109.00

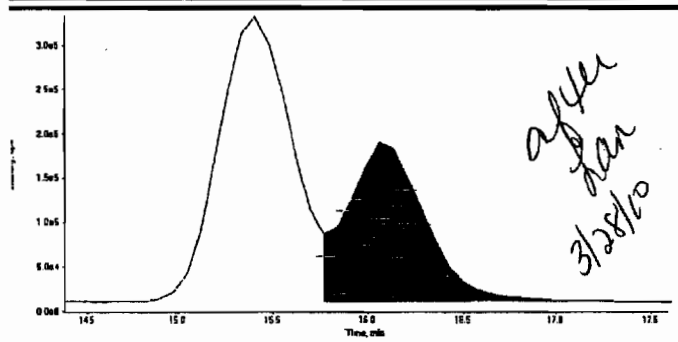

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	16.1
Area Counts:	5.07e+006
Manual Modification	Yes
Amount:	42.4 (ng/mL)
% Accuracy:	106.00

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Data File	EXP0322020.wiff	**Acquisition Date**	3/22/2010 11:54:20 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

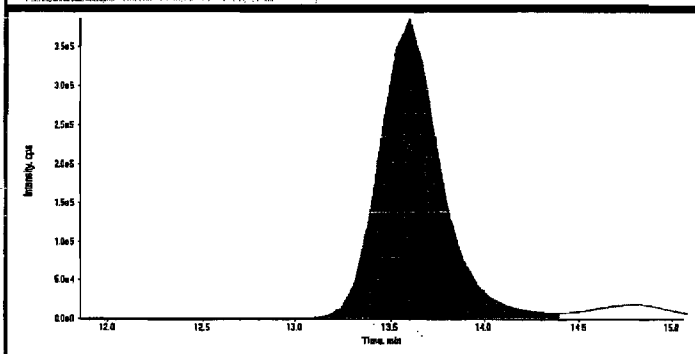

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	8.80e+006
Manual Modification	No
Amount:	40.7 (ng/mL)
% Accuracy:	102.00

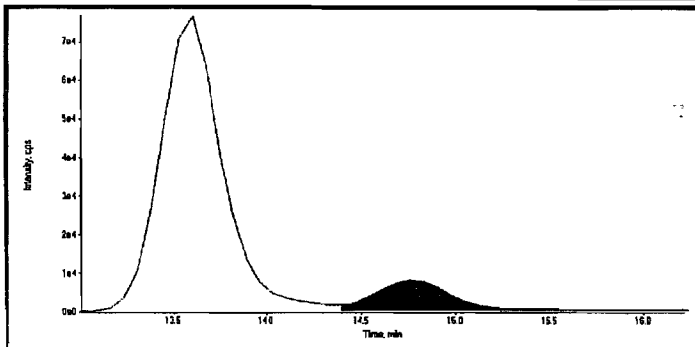

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.8
Area Counts:	2.44e+005
Manual Modification	No
Amount:	35.7 (ng/mL)
% Accuracy:	89.30

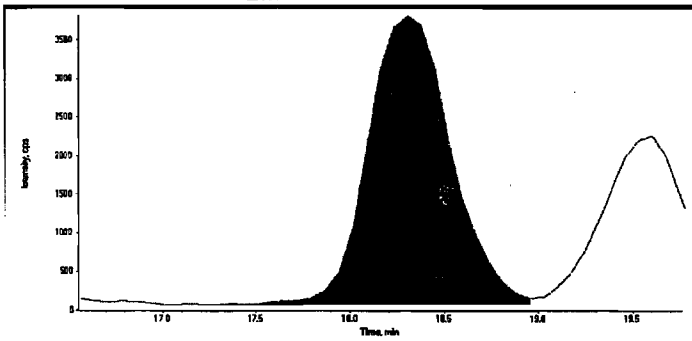

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.3
Area Counts:	1.15e+005
Manual Modification	No
Amount:	35.8 (ng/mL)
% Accuracy:	89.50

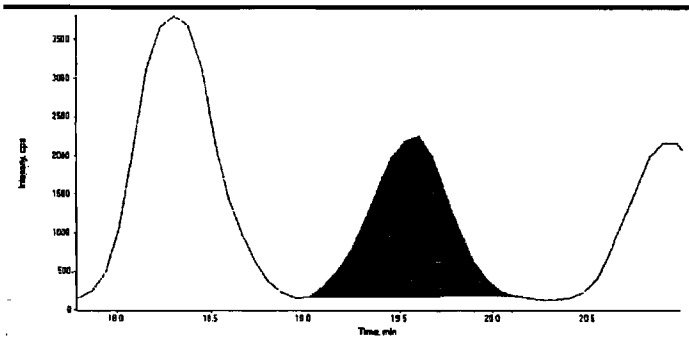

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.6
Area Counts:	6.12e+004
Manual Modification	No
Amount:	38.3 (ng/mL)
% Accuracy:	95.80

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Data File	EXP0322020.wiff	**Acquisition Date**	3/22/2010 11:54:20 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

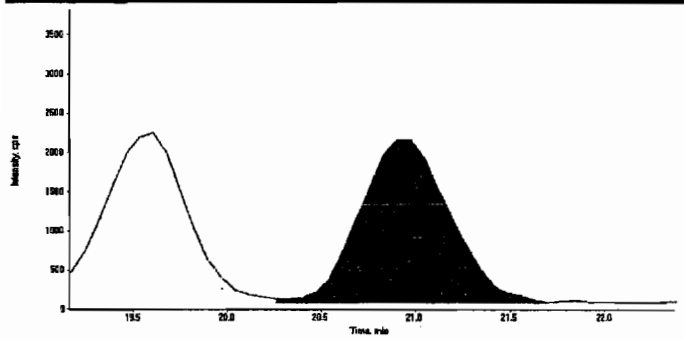

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	21.0
Area Counts:	6.89e+004
Manual Modification	No
Amount:	36.3 (ng/mL)
% Accuracy:	90.70

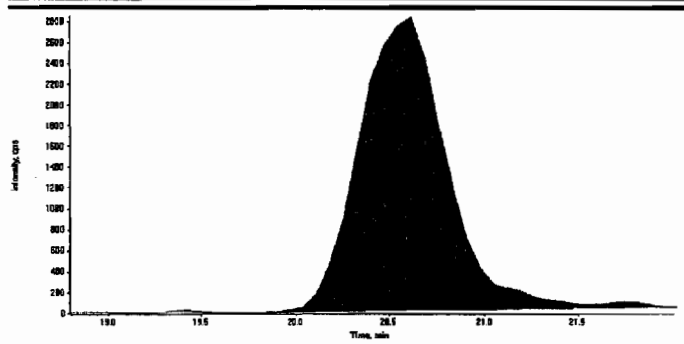

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.6
Area Counts:	9.12e+004
Manual Modification	No
Amount:	37.3 (ng/mL)
% Accuracy:	93.40

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/22/10
Time of Injection 2354
Standard Number WXX100322-57CRI
Data File EXP0322020a

HMX	91.7
RDX	97.4
135-Trinitrobenzene	106.0
13-Dinitrobenzene	106.0
Tetryl	68.7
246-Trinitrotoluene	84.8
Nitrobenzene	100.0
34-dinitrotoluene	99.6
26-dinitrotoluene	109.0
24-dinitrotoluene	106.0
4-Amino-26-dinitrotoluene	102.0
2-Amino-46-dinitrotoluene	89.3
2-Nitrotoluene	89.5
4-Nitrotoluene	95.8
3-Nitrotoluene	90.7
PETN	93.4
	✓
TOTAL	1529.9
	✓
AVERAGE	✓ 95.6

HMC 03/28/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

LCU 3/28/10

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2000

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0322030.wiff

Analysis Date: 23–MAR–10 04:18

LCMSMS ID: 1189

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4,6–Trinitrotoluene	600	595	99	
2,4–Dinitrotoluene	600	606	101	
2,6–Dinitrotoluene	600	522	87	
2–Amino–4,6–dinitrotoluene	600	601	100	
3,4–Dinitrotoluene	300	273	91	
4–Amino–2,6–dinitrotoluene	600	594	99	
HMX	600	636	106	
Nitrobenzene	600	630	105	
PETN	600	673	112	
RDX	600	665	111	
Tetryl	600	635	106	
m–Dinitrobenzene	600	595	99	
m–Nitrotoluene	600	586	98	
o–Nitrotoluene	600	593	99	
p–Nitrotoluene	600	603	101	
1,3,5–Trinitrobenzene	600	569	95	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Data File	EXP0322030.wiff	**Acquisition Date**	3/23/2010 4:18:30 AM
Sample Name	WXX100322-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

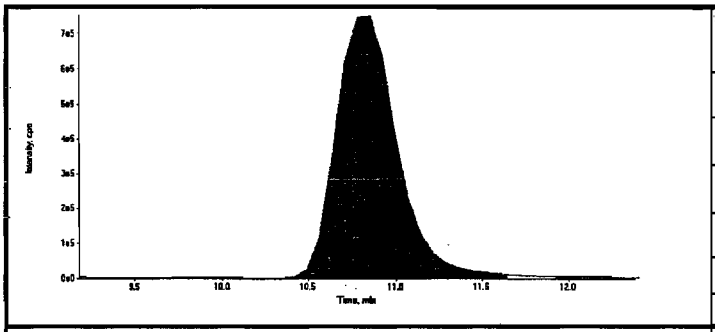

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	18300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

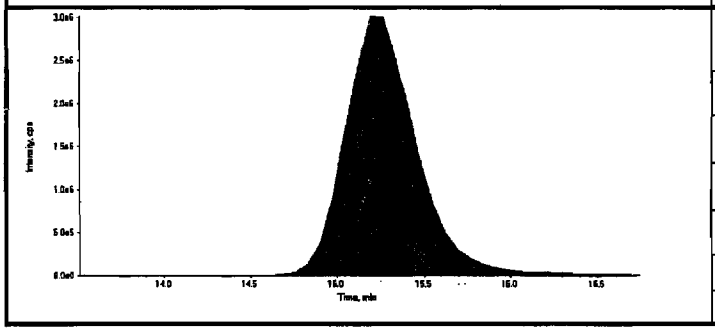

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.20
Area Counts:	85800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

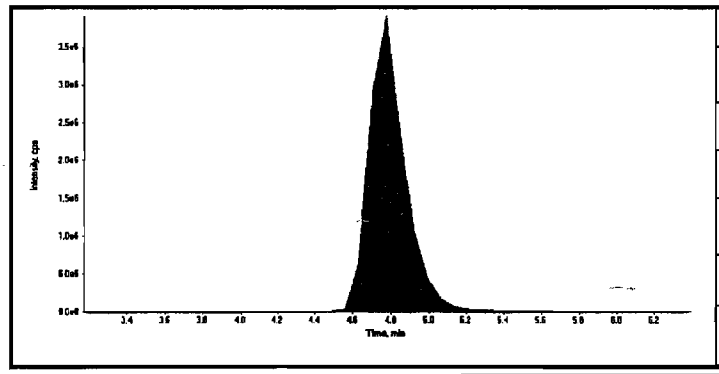

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	5.05e+007
Manual Modification	No
Amount:	636. (ng/mL)
% Accuracy:	106.00

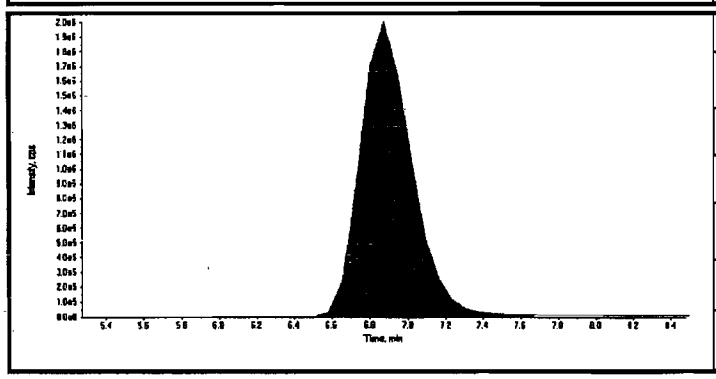

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	3.73e+007
Manual Modification	No
Amount:	665. (ng/mL)
% Accuracy:	111.00

Hmw 03/26/10

Lcr 3/28/10

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Data File	EXP0322030.wiff	**Acquisition Date**	3/23/2010 4:18:30 AM
Sample Name	WXX100322-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

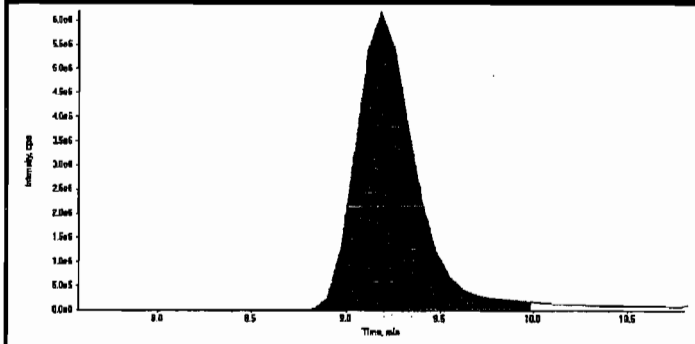

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.19
Area Counts:	1.35e+008
Manual Modification	No
Amount:	569. (ng/mL)
% Accuracy:	94.80

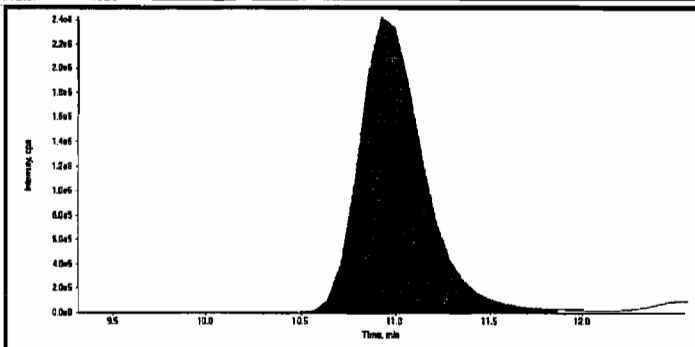

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	5.80e+007
Manual Modification	No
Amount:	595. (ng/mL)
% Accuracy:	99.20

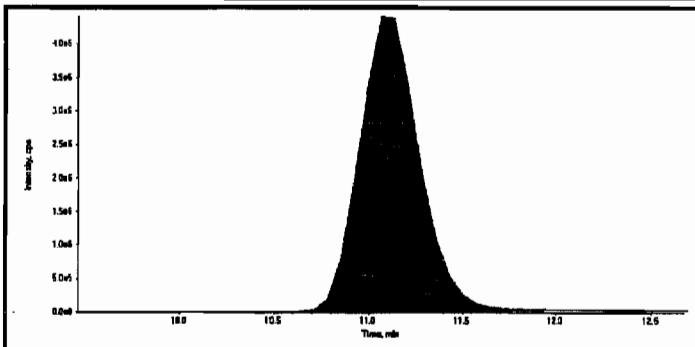

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.1
Area Counts:	9.93e+007
Manual Modification	No
Amount:	635. (ng/mL)
% Accuracy:	106.00

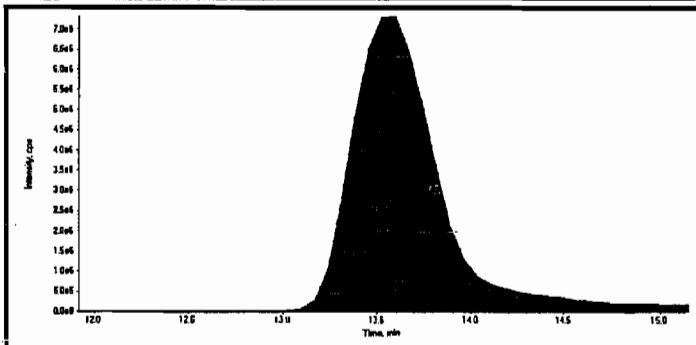

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	2.48e+008
Manual Modification	No
Amount:	595. (ng/mL)
% Accuracy:	99.20

Before Lab 3/28/10

PROPRIETARY INFORMATION -- No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100322-56CCV" Sample ID: "[1]LER" File: "EXP0322030.wiff"
k Name: "26-dinitrotoluene" Mass(es): "182.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 600. ng/mL
lated Conc: 352. ng/mL
Date: 3/23/2010
Time: 4:18:10 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1.00e4 cps
Peak Width: 0.00 sec
ning Width: 3 points
dow: 30.0 sec
ted RT: 15.3 min
elative RT: No

Type: Valley
tion Time: 15.3 min
5.87e+007 counts
: 2.36e+006 cps
Time: 15.0 min
me: 15.8 min

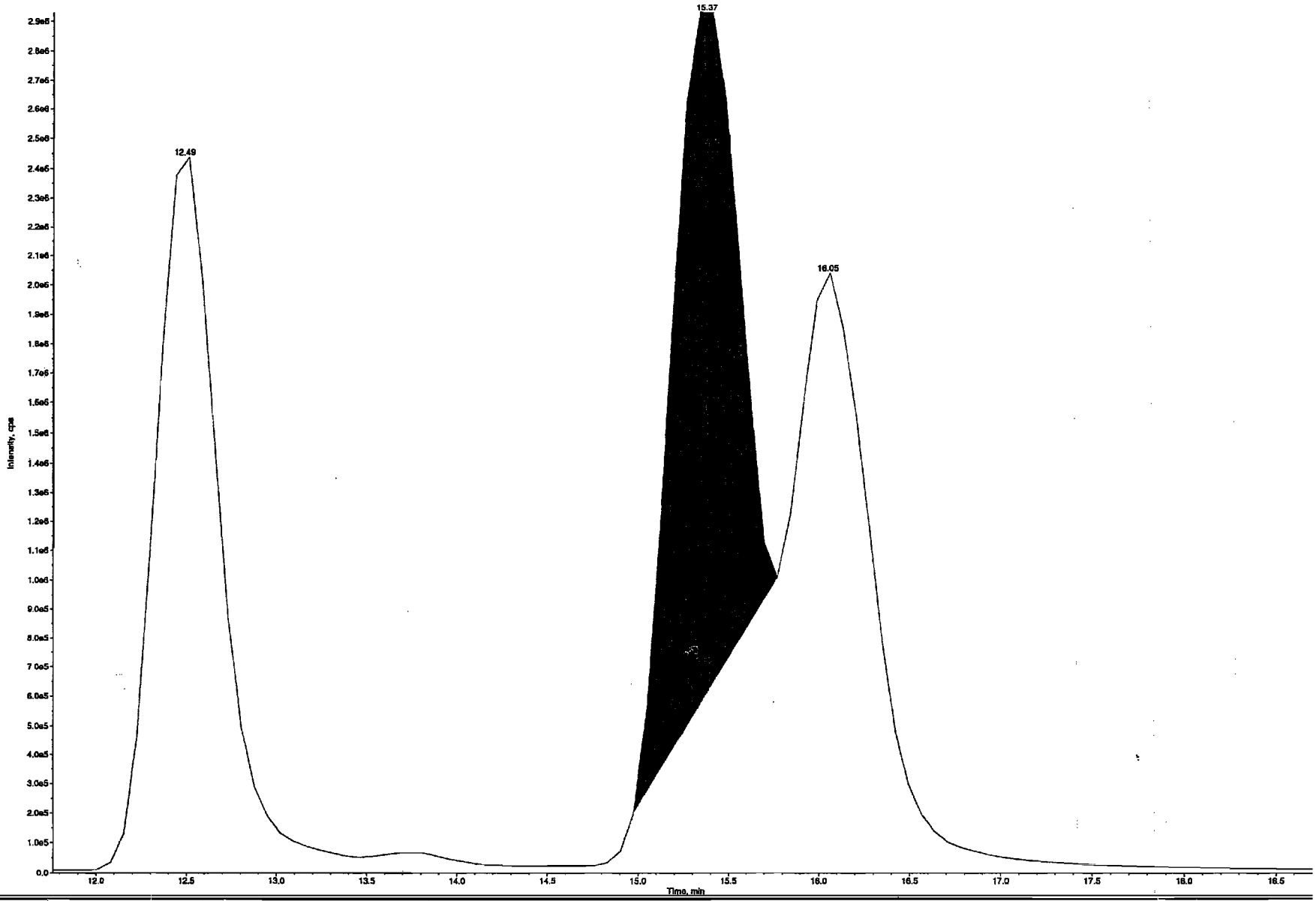

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

Before Lcn 3/28/10

ple Name: "WXX100322-56CCV" Sample ID: "[1]LER" File: "EXP0322030.wif"
k Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 600. ng/mL
lated Conc: 0.00 ng/mL
Date: 3/23/2010
Time: 4:18:10 AM

ied: No

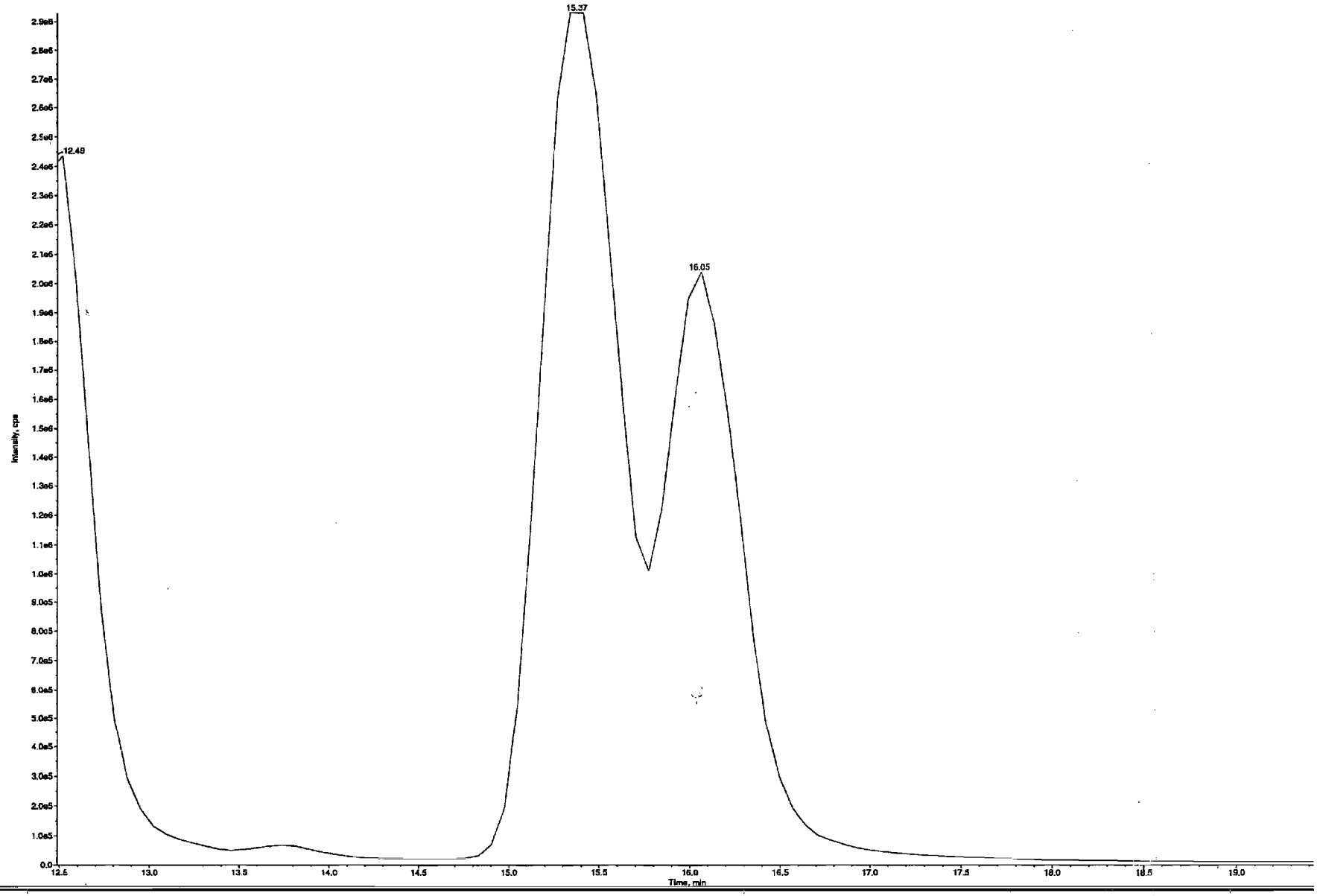

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Data File	EXP0322030.wiff	Acquisition Date	3/23/2010 4:18:30 AM
Sample Name	WXX100322-56CCV	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

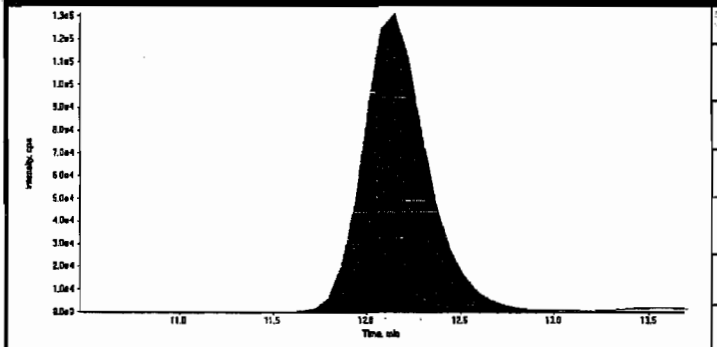

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	3.12e+006
Manual Modification	No
Amount:	630. (ng/mL)
% Accuracy:	105.00

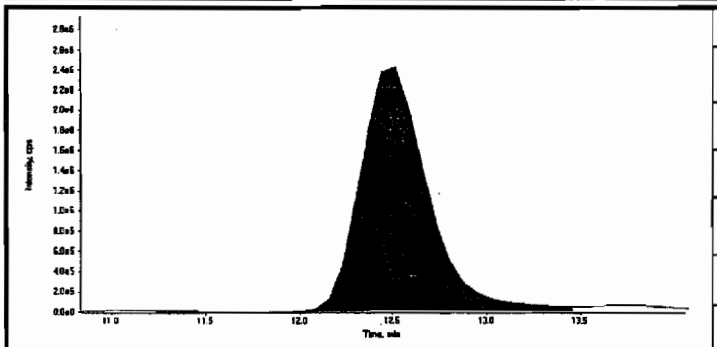

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.5
Area Counts:	6.07e+007
Manual Modification	No
Amount:	273. (ng/mL)
% Accuracy:	91.10

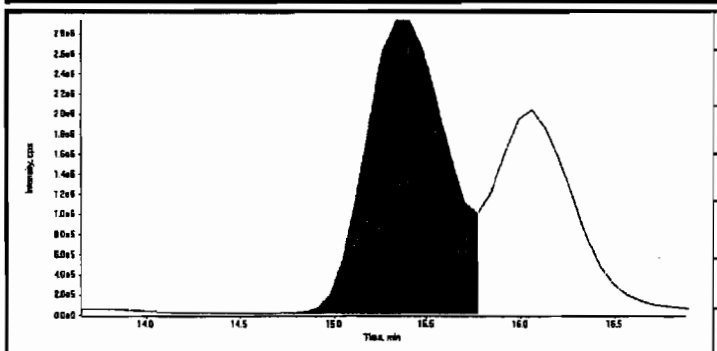

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.4
Area Counts:	8.72e+007
Manual Modification	Yes
Amount:	522. (ng/mL)
% Accuracy:	87.10

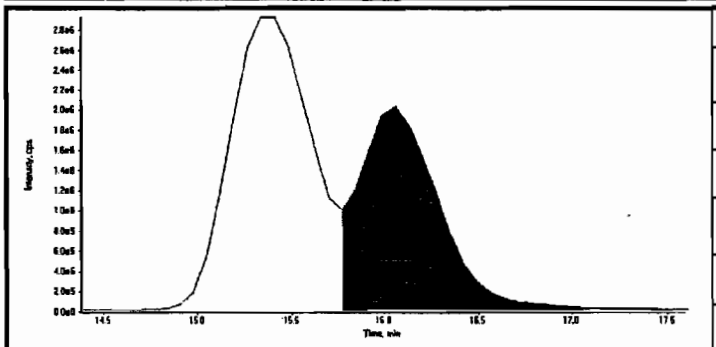

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	16.0
Area Counts:	6.08e+007
Manual Modification	Yes
Amount:	606. (ng/mL)
% Accuracy:	101.00

Before Lab 3/28/10

mple Name: "WXX100322-56CCV" Sample ID: "[1(LER" File: "EXP0322030.wiff"
ak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: CC
entration: 600. ng/mL
alated Conc: 2360. ng/mL
Date: 3/23/2010
Time: 4:18:30 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1000.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
ted RT: 14.6 min
telative RT: No

Type: Valley
tion Time: 14.8 min
: 1.35e+007 counts
t: 1.73e+005 cps
Time: 14.3 min
ime: 18.2 min

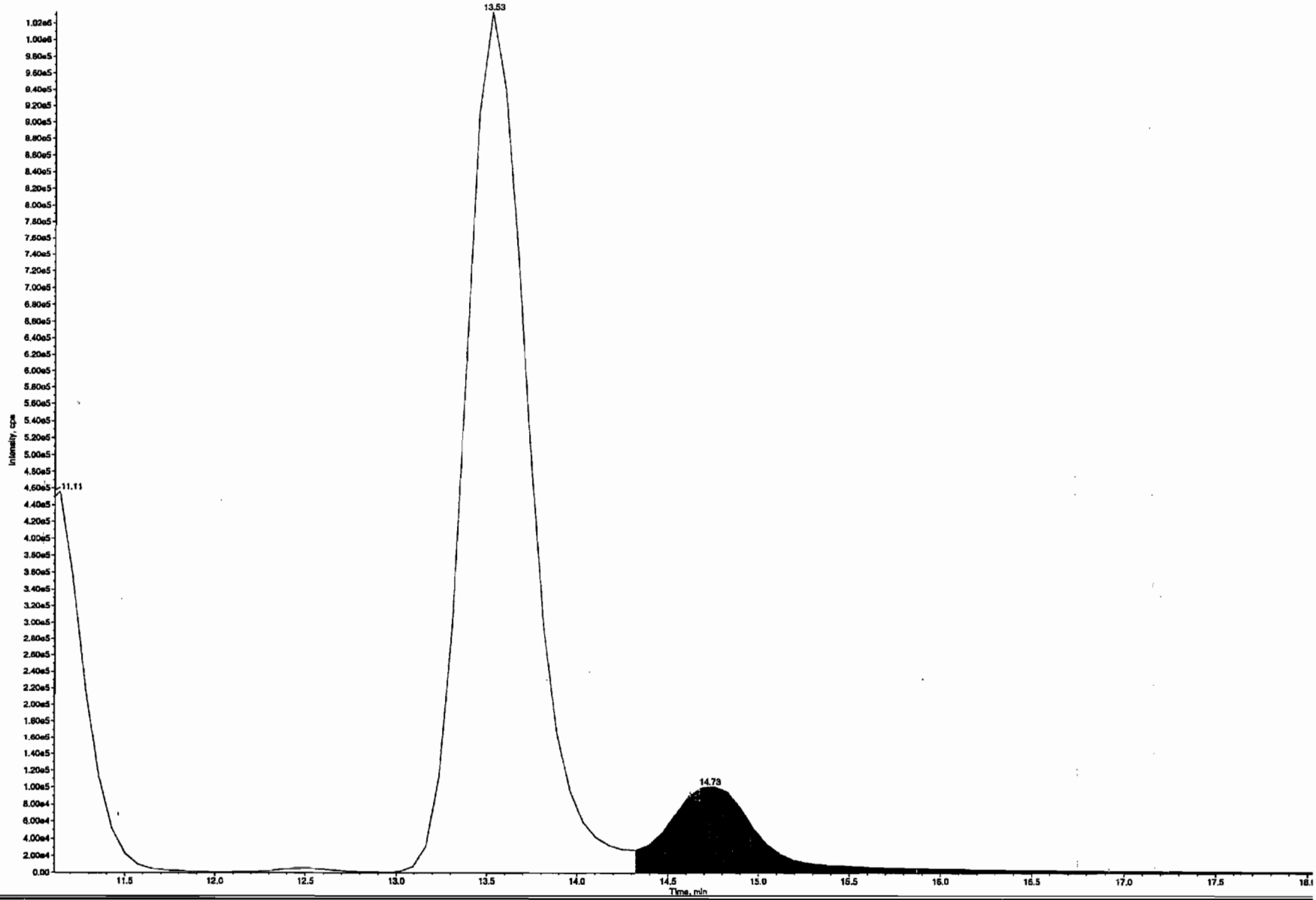

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322030.wiff	Acquisition Date	3/23/2010 4:18:30 AM
Sample Name	WXX100322-56CCV	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

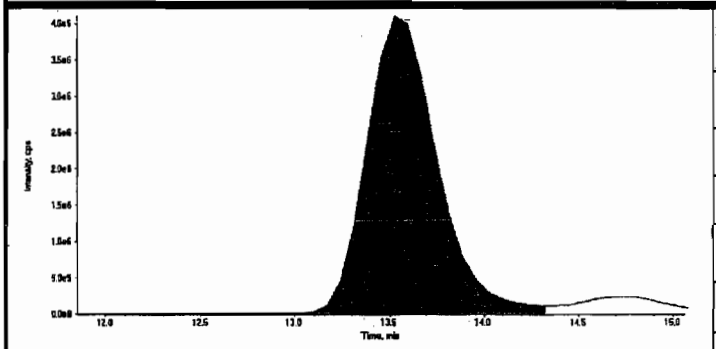

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.08e+008
Manual Modification	No
Amount:	594. (ng/mL)
% Accuracy:	99.00

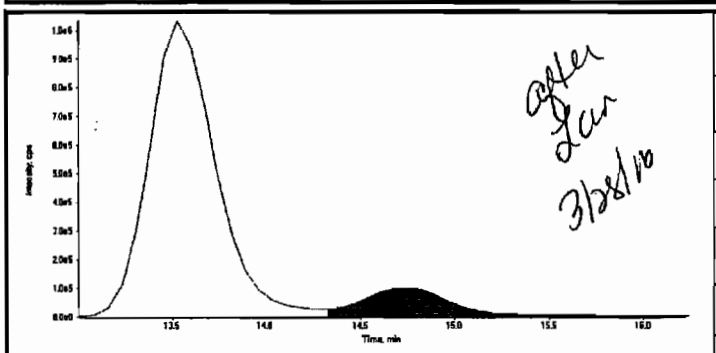

after Lcm 3/28/10

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.7
Area Counts:	3.43e+006
Manual Modification	Yes
Amount:	601. (ng/mL)
% Accuracy:	100.00

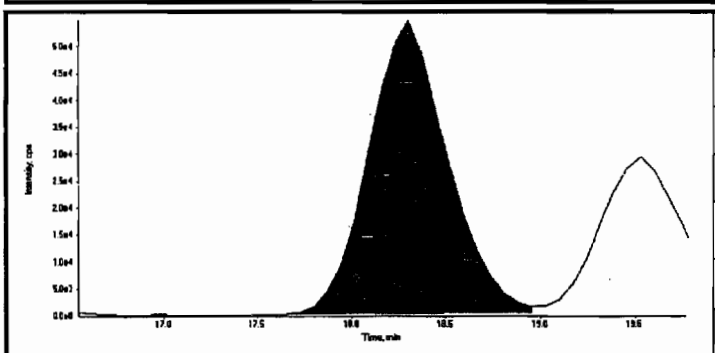

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.3
Area Counts:	1.59e+006
Manual Modification	No
Amount:	593. (ng/mL)
% Accuracy:	98.90

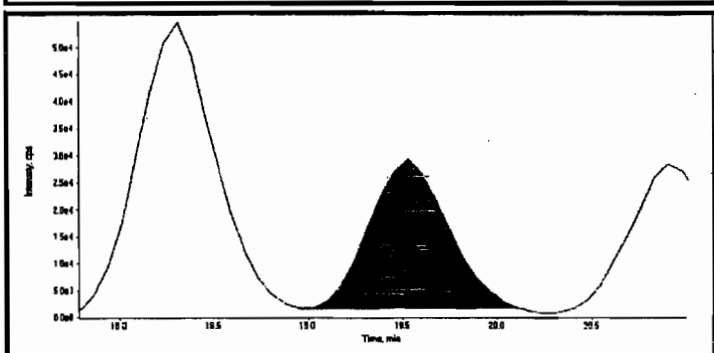

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.5
Area Counts:	8.08e+005
Manual Modification	No
Amount:	603. (ng/mL)
% Accuracy:	101.00

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Data File	EXP0322030.wiff	**Acquisition Date**	3/23/2010 4:18:30 AM
Sample Name	WXX100322-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

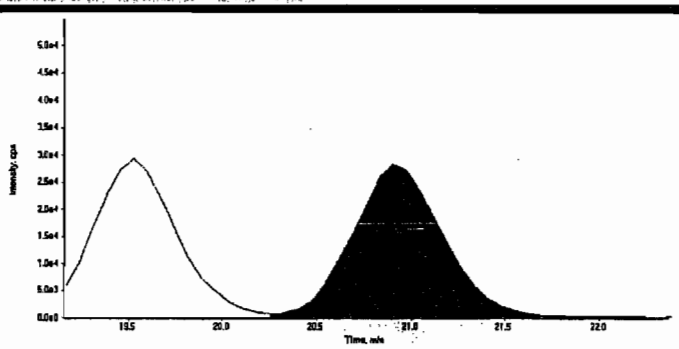

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.9
Area Counts:	9.34e+005
Manual Modification	No
Amount:	586. (ng/mL)
% Accuracy:	97.70

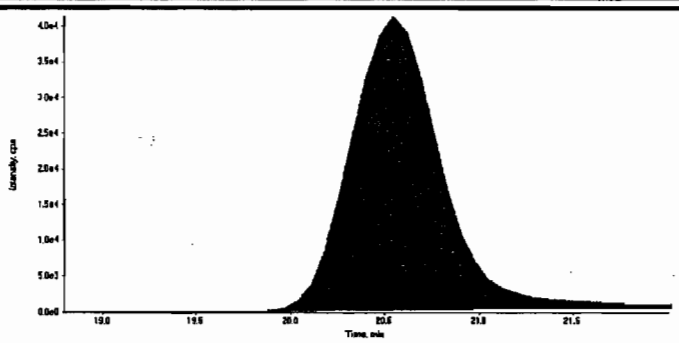

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.5
Area Counts:	1.38e+006
Manual Modification	No
Amount:	673. (ng/mL)
% Accuracy:	112.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/23/10
Time of Injection 0418
Standard Number WXX100322-56CCV
Data File EXP0322030a

HMX	106.0
RDX	111.0
135-Trinitrobenzene	94.8
13-Dinitrobenzene	99.2
Tetryl	106.0
246-Trinitrotoluene	99.2
Nitrobenzene	105.0
34-dinitrotoluene	91.1
26-dinitrotoluene	87.1
24-dinitrotoluene	101.0
4-Amino-26-dinitrotoluene	99.0
2-Amino-46-dinitrotoluene	100.0
2-Nitrotoluene	98.9
4-Nitrotoluene	101.0
3-Nitrotoluene	97.7
PETN	112.0
TOTAL	1609.0
AVERAGE	100.6

HMM 03/28/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

LCM 3/28/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2000

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0322032.wiff

Analysis Date: 23–MAR–10 05:11

LCMSMS ID: 1189

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	44.9	112	
2,4,6–Trinitrotoluene	40	37	93	
2,4–Dinitrotoluene	40	42.9	107	
2,6–Dinitrotoluene	40	46.6	116	
2–Amino–4,6–dinitrotoluene	40	37.6	94	
3,4–Dinitrotoluene	20	19.9	99	
4–Amino–2,6–dinitrotoluene	40	44.2	110	
HMX	40	46.2	116	
Nitrobenzene	40	42.5	106	
PETN	40	44.7	112	
RDX	40	43.9	110	
Tetryl	40	25.4	64	
m–Dinitrobenzene	40	42.8	107	
m–Nitrotoluene	40	44.2	111	
o–Nitrotoluene	40	41	102	
p–Nitrotoluene	40	41.3	103	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Data File	EXP0322032.wiff	Acquisition Date	3/23/2010 5:11:16 AM
Sample Name	WXX100322-57CRI	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

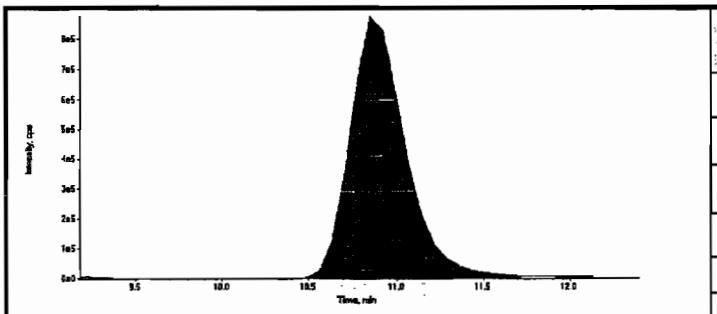

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	19000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

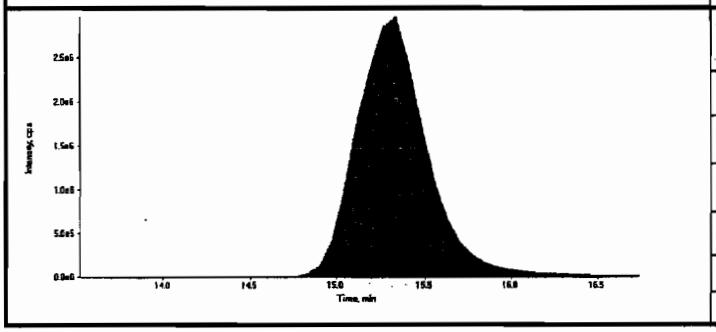

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.30
Area Counts:	82000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

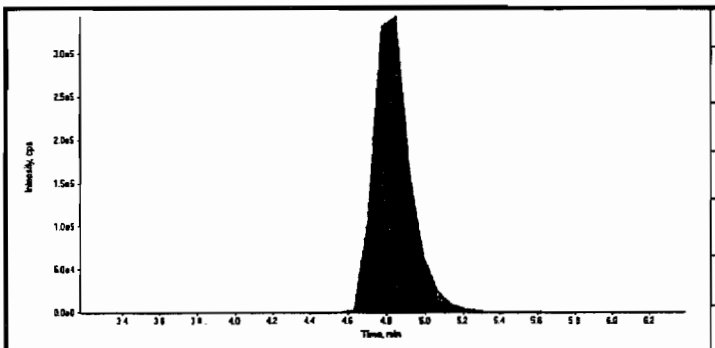

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.85
Area Counts:	4.56e+006
Manual Modification	No
Amount:	46.2 (ng/mL)
% Accuracy:	116.00

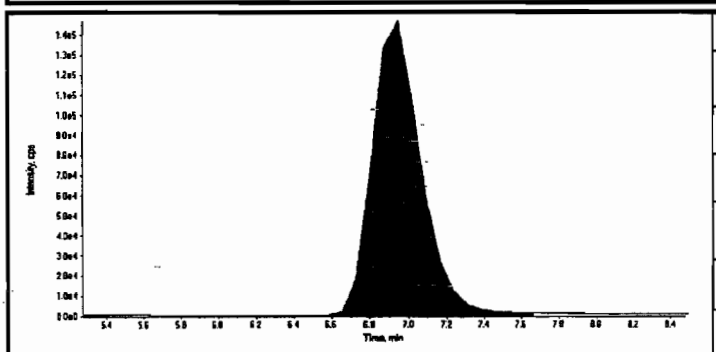

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.94
Area Counts:	2.56e+006
Manual Modification	No
Amount:	43.9 (ng/mL)
% Accuracy:	110.00

Rev 3/28/10 thme 03/26/10

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Data File	EXP0322032.wiff	Acquisition Date	3/23/2010 5:11:16 AM
Sample Name	WXX100322-57CRI	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

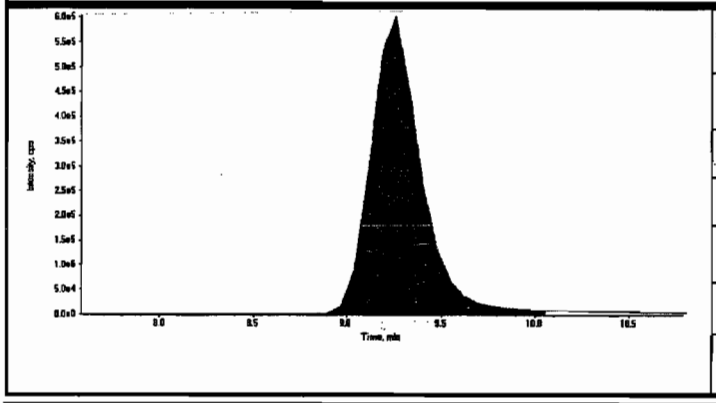

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.26
Area Counts:	1.11e+007
Manual Modification	No
Amount:	44.9 (ng/mL)
% Accuracy:	112.00

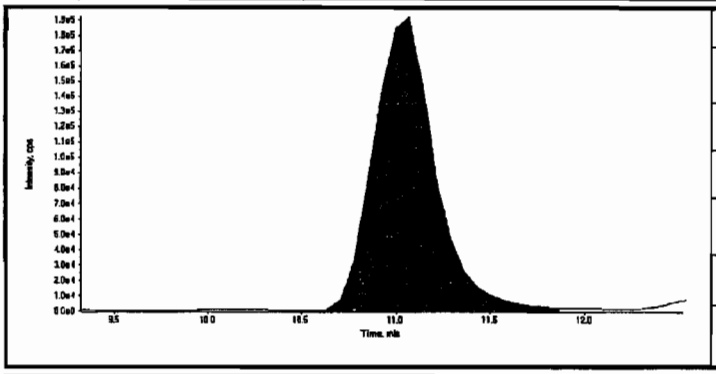

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	11.1
Area Counts:	4.33e+006
Manual Modification	No
Amount:	42.8 (ng/mL)
% Accuracy:	107.00

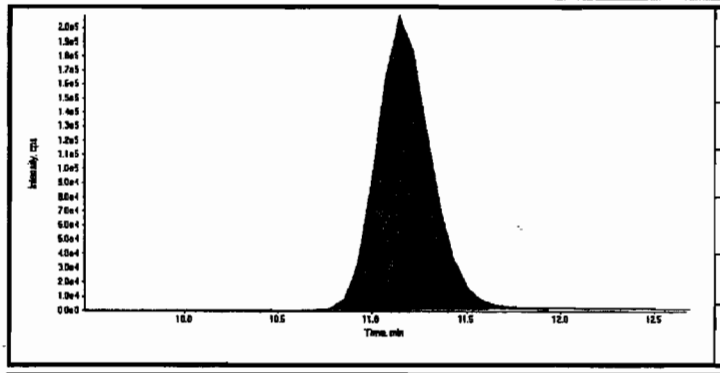

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.1
Area Counts:	4.13e+006
Manual Modification	No
Amount:	25.4 (ng/mL)
% Accuracy:	63.50

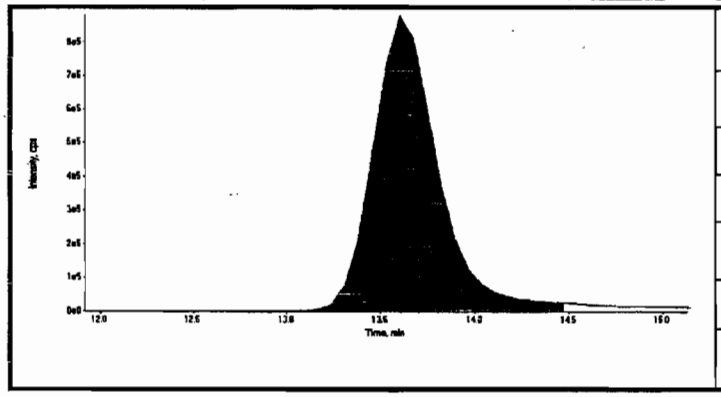

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	2.08e+007
Manual Modification	No
Amount:	37.0 (ng/mL)
% Accuracy:	92.50

Before Lax 3/28/10

Sample Name: "WXX100322-37CRI" Sample ID: "[1]LER" File: "EXP0322032.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index: 1
mple Type: QC
ncentration: 40.0 ng/mL
lculated Conc: 0.00 ng/mL
q. Date: 3/23/2010
q. Time: 5:11:16 AM

dified: No

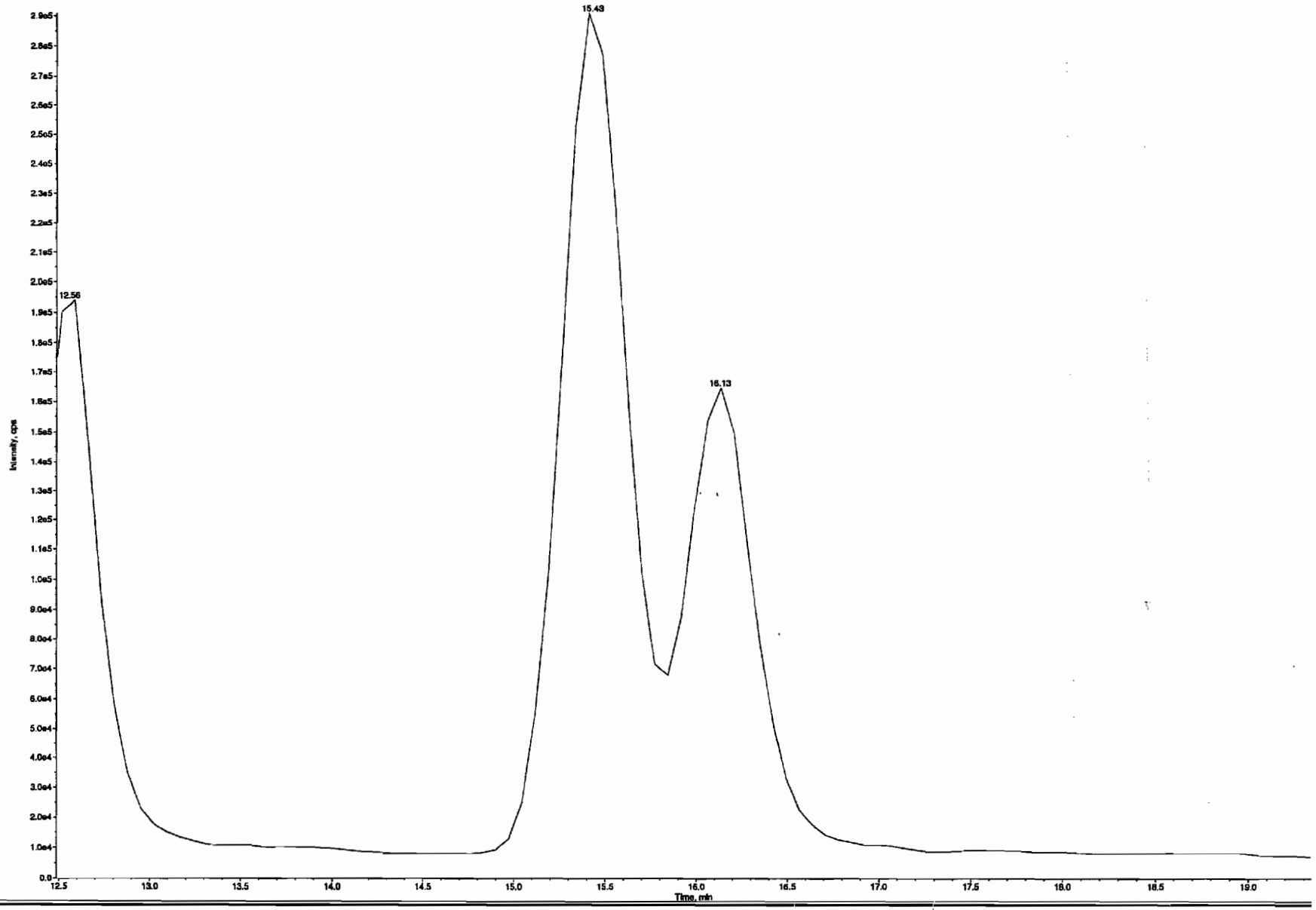

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322032.wiff	**Acquisition Date**	3/23/2010 5:11:16 AM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

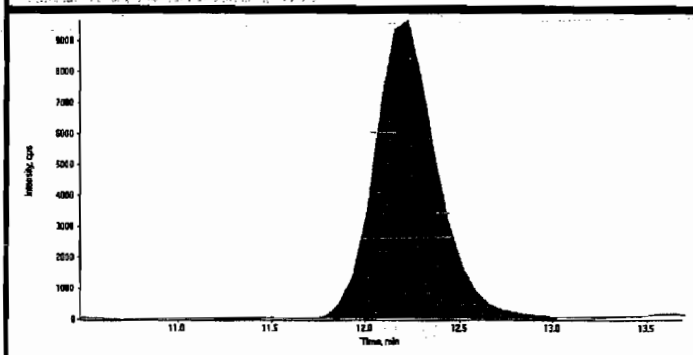

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	2.19e+005
Manual Modification	No
Amount:	42.5 (ng/mL)
% Accuracy:	106.00

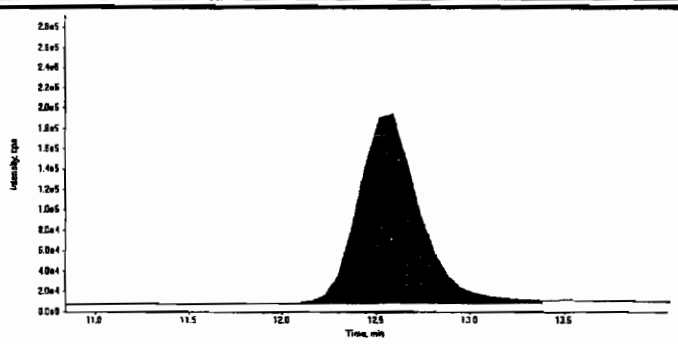

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.6
Area Counts:	4.21e+006
Manual Modification	No
Amount:	19.9 (ng/mL)
% Accuracy:	99.40

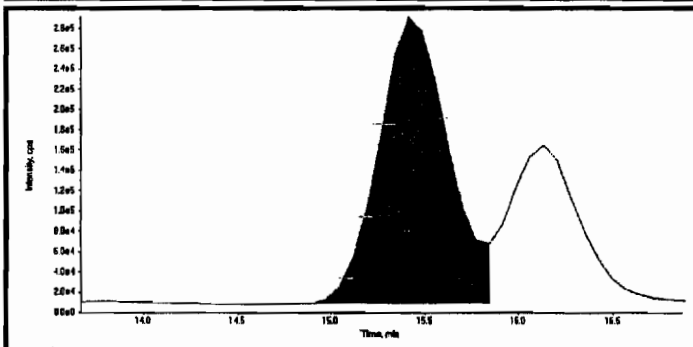

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.4
Area Counts:	7.43e+006
Manual Modification	No
Amount:	46.6 (ng/mL)
% Accuracy:	116.00

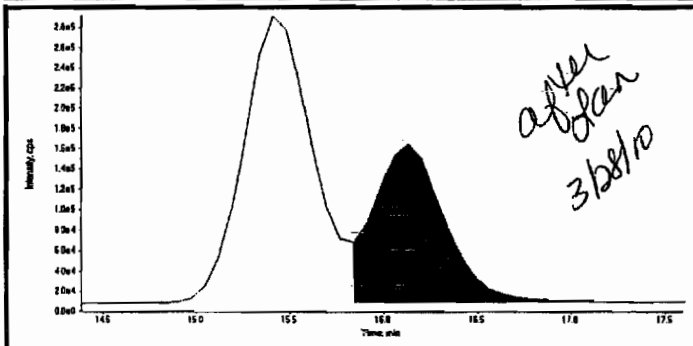

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	16.1
Area Counts:	4.11e+006
Manual Modification	Yes
Amount:	42.9 (ng/mL)
% Accuracy:	107.00

Before Lcu 3/28/10

Sample Name: "WXX100322-57CRI" Sample ID: "[1]LER" File: "EXP0322032.wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index: 1
ample Type: QC
oncentration: 40.0 ng/mL
alculated Conc: 34.3 ng/mL
cq. Date: 3/23/2010
cq. Time: 5:11:16 AM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 1000.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 30.0 sec
xpected RT: 14.5 min
se Relative RT: No

at. Type: Valley
etention Time: 14.8 min
rea: 1.87e+005 counts
eight: 7.01e+003 cps
tart Time: 14.4 min
nd Time: 15.4 min

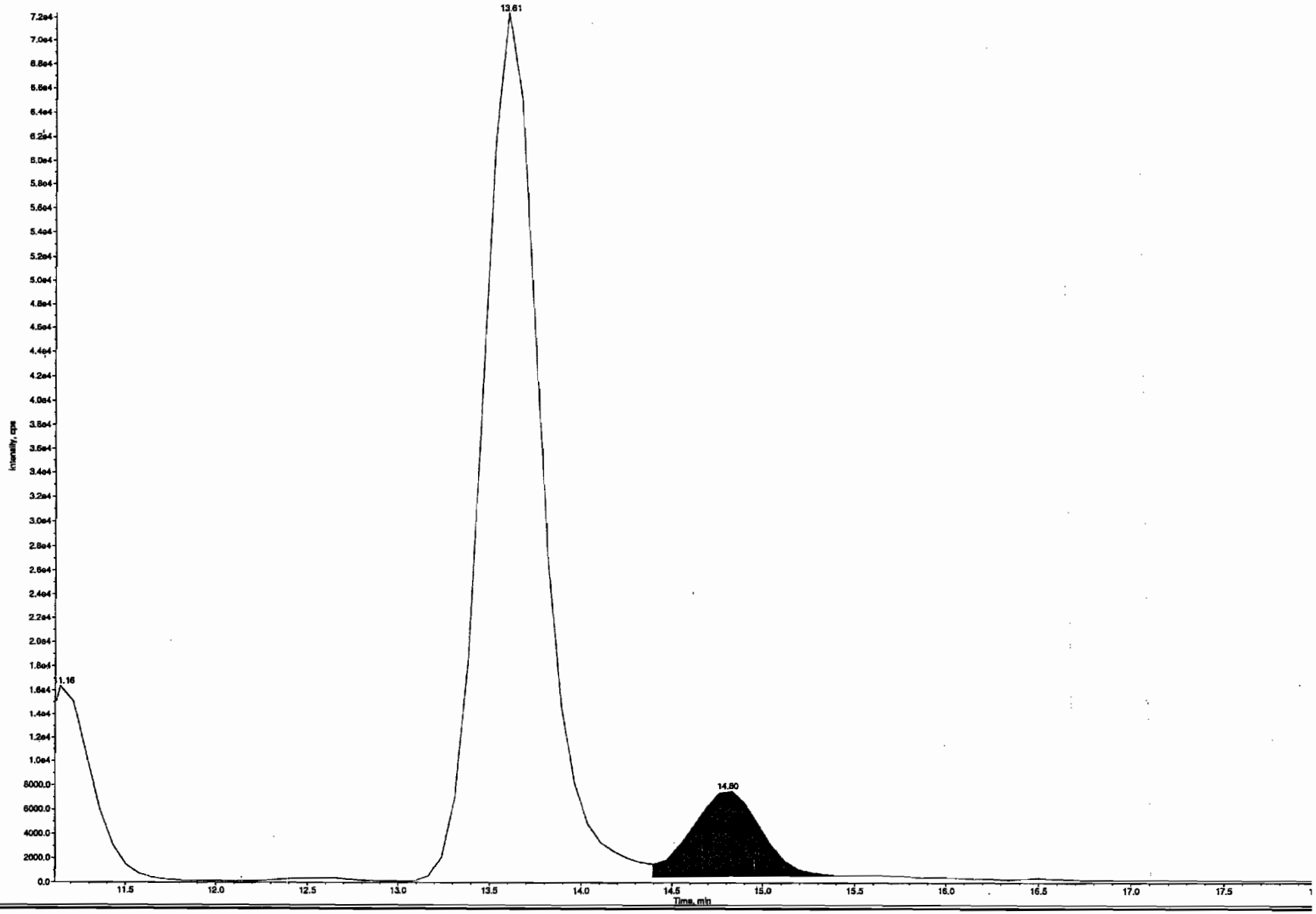

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322032.wiff	Acquisition Date	3/23/2010 5:11:16 AM
Sample Name	WXX100322-57CRI	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

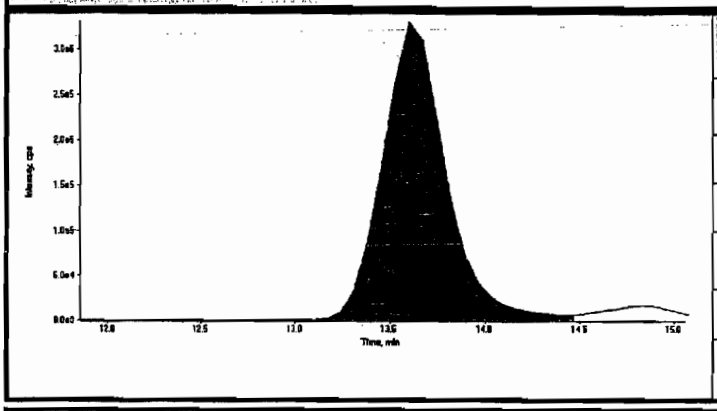

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	7.64e+006
Manual Modification	No
Amount:	44.2 (ng/mL)
% Accuracy:	110.00

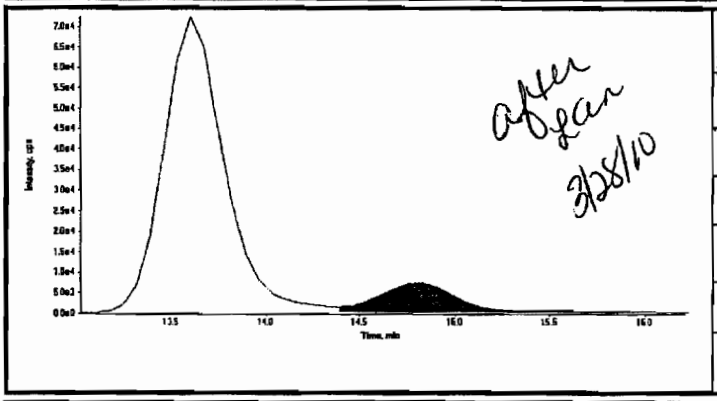

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.8
Area Counts:	2.06e+005
Manual Modification	Yes
Amount:	37.6 (ng/mL)
% Accuracy:	94.10

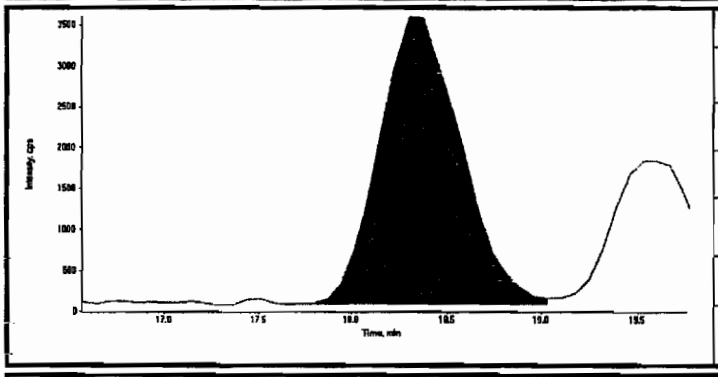

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.3
Area Counts:	1.05e+005
Manual Modification	No
Amount:	41.0 (ng/mL)
% Accuracy:	102.00

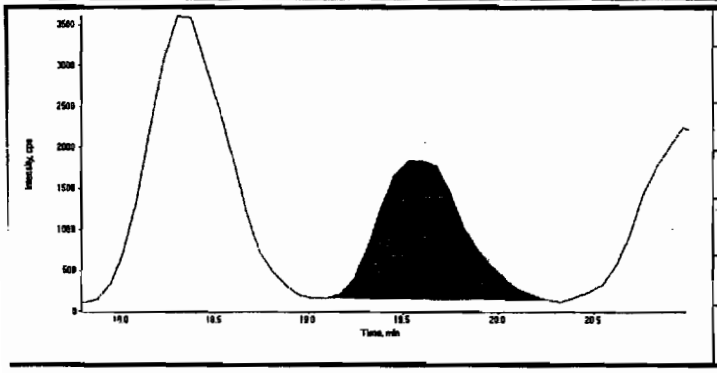

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.6
Area Counts:	5.28e+004
Manual Modification	No
Amount:	41.3 (ng/mL)
% Accuracy:	103.00

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Data File	EXP0322032.wiff	Acquisition Date	3/23/2010 5:11:16 AM
Sample Name	WXX100322-57CRI	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

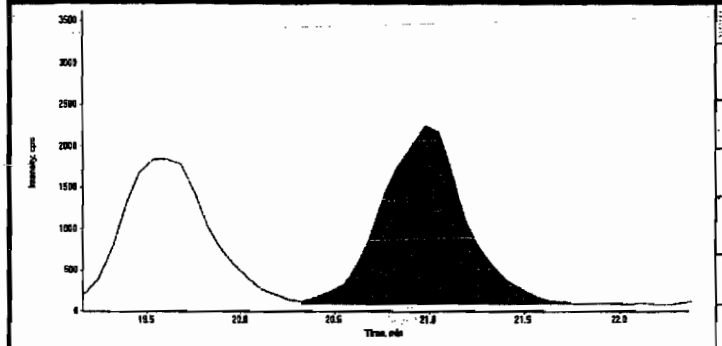

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	21.0
Area Counts:	6.73e+004
Manual Modification	No
Amount:	44.2 (ng/mL)
% Accuracy:	111.00

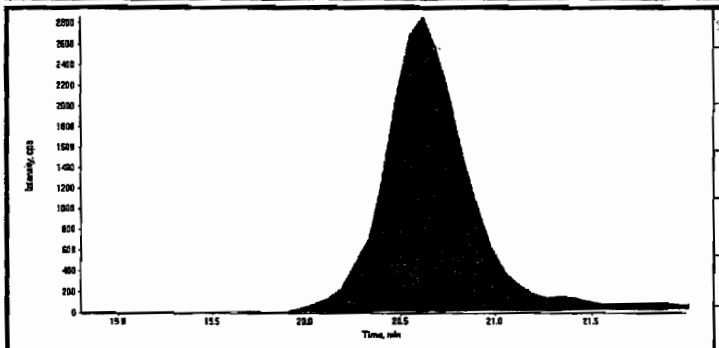

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.6
Area Counts:	8.75e+004
Manual Modification	No
Amount:	44.7 (ng/mL)
% Accuracy:	112.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/23/10
Time of Injection 0511
Standard Number WXX100322-57CRI
Data File EXP0322032a

HMX	116.0
RDX	110.0
135-Trinitrobenzene	112.0
13-Dinitrobenzene	107.0
Tetryl	63.5
246-Trinitrotoluene	92.5
Nitrobenzene	106.0
34-dinitrotoluene	99.4
26-dinitrotoluene	116.0
24-dinitrotoluene	107.0
4-Amino-26-dinitrotoluene	110.0
2-Amino-46-dinitrotoluene	94.1
2-Nitrotoluene	102.0
4-Nitrotoluene	103.0
3-Nitrotoluene	111.0
PETN	112.0
TOTAL	1661.5
AVERAGE	103.8

HMC 03/25/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

RCA 3/28/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2000

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03310013.wiff

Analysis Date: 31-MAR-10 11:49

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	82.3	82	
2,6-Diamino-4-nitrotoluene	100	94.8	95	
3,4-Dinitrotoluene	50	49.1	98	
3,5-Dinitroaniline	100	96.6	97	
TATB	100	94.1	94	
tris(o-cresyl) phosphate	100	99.5	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

LCR 415110

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

le Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310013.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_C" Annotation: ""

: Index: 1
: Type: QC
tration: 100. ng/mL
ated Conc: 94.1 ng/mL
ate: 3/31/2010
ime: 11:49:08 AM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 2500.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 6.90 min
lative RT: No

ype: Valley
ion Time: 6.91 min
6.44e+004 counts
: 15590.504 cps
Time: 6.82 min
me: 7.19 min

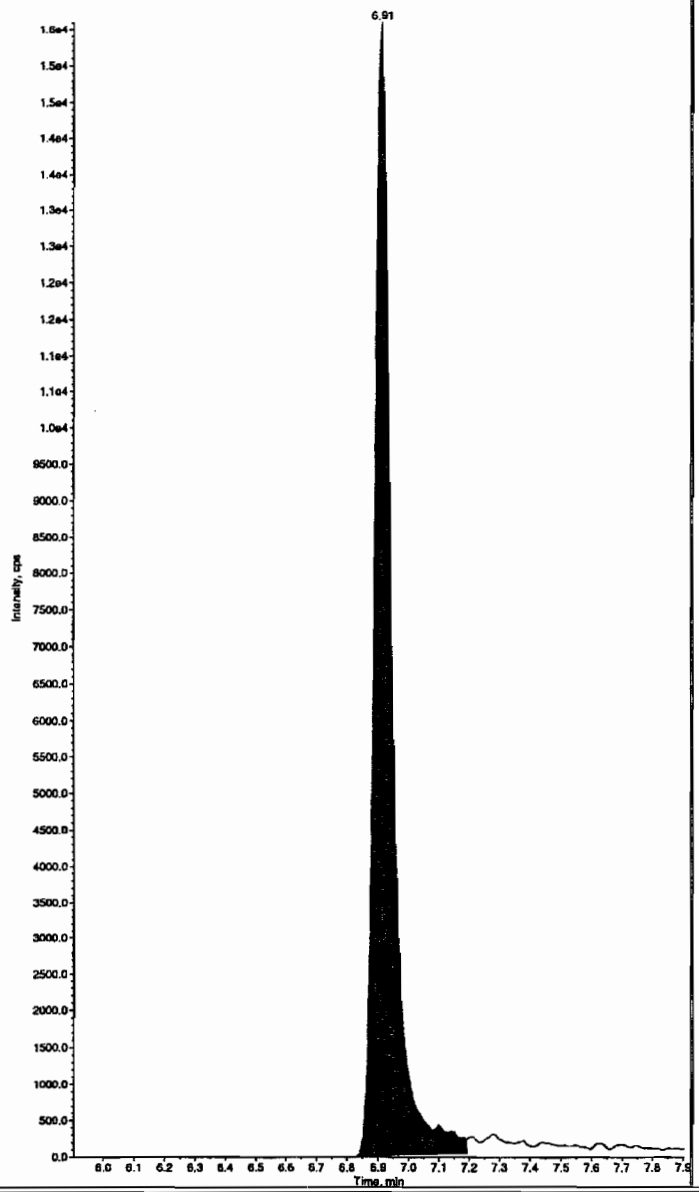

Sample Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 96.6 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 11:49:08 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.15 min
Area: 6.11e+005 counts
Height: 139893.921 cps
Start Time: 8.03 min
End Time: 8.28 min

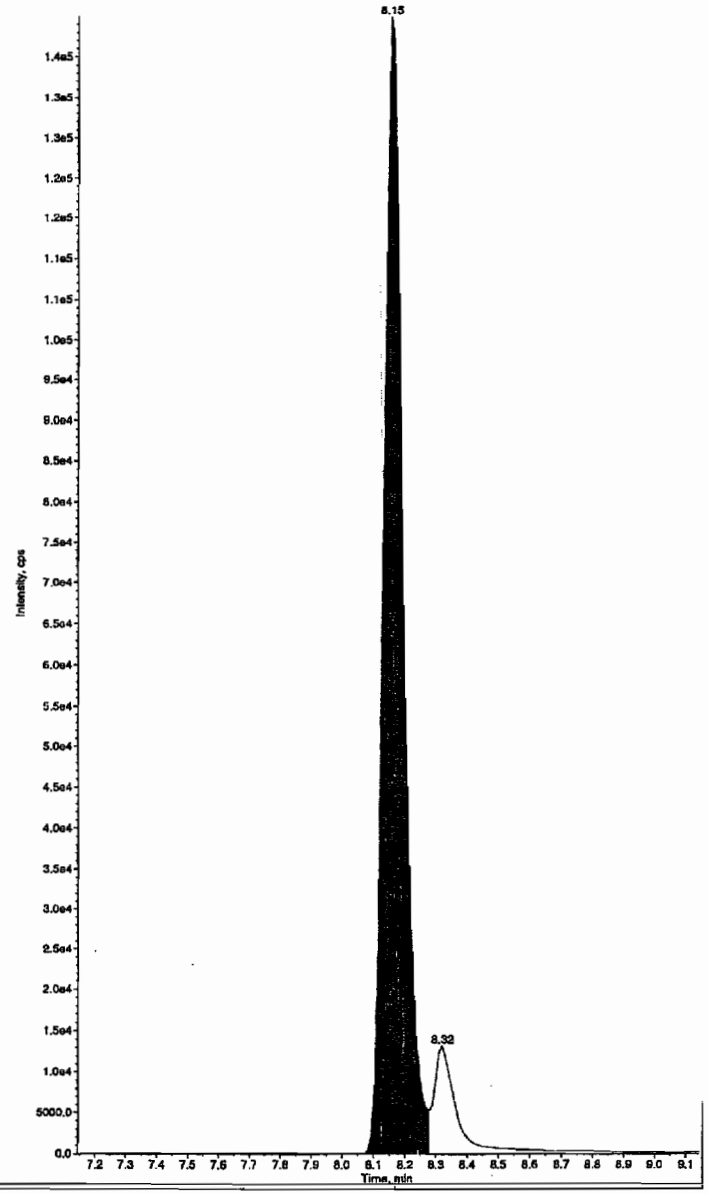

Hnm 04/05/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310013.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index:	1	
e Type:	QC	
ntration:	50.0	ng/mL
lated Conc:	49.1	ng/mL
Date:	3/31/2010	
Time:	11:49:08 AM	
ied:	No	
Algorithm:	IntelliQuan - IQA	
Peak Height:	1460.00	cps
Peak Width:	0.00	sec
hing Width:	3	points
ndow:	15.0	sec
ted RT:	8.31	min
elative RT:	No	
Type:	Valley	
tion Time:	8.32	min
	3.96e+005	counts
t:	103385.399	cps
Time:	8.25	min
ime:	8.61	min

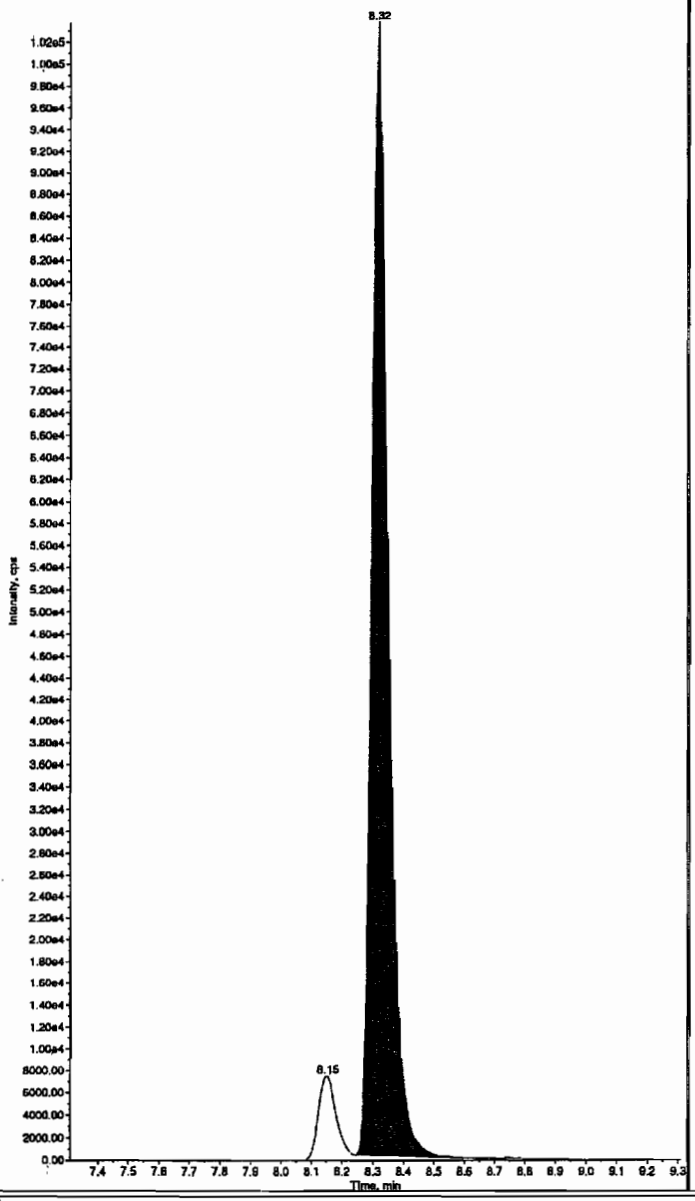

Sample Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	94.8	ng/mL
Acq. Date:	3/31/2010	
Acq. Time:	11:49:08 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	4.95	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	4.96	min
Area:	2.15e+005	counts
Height:	48890.671	cps
Start Time:	4.87	min
End Time:	5.23	min

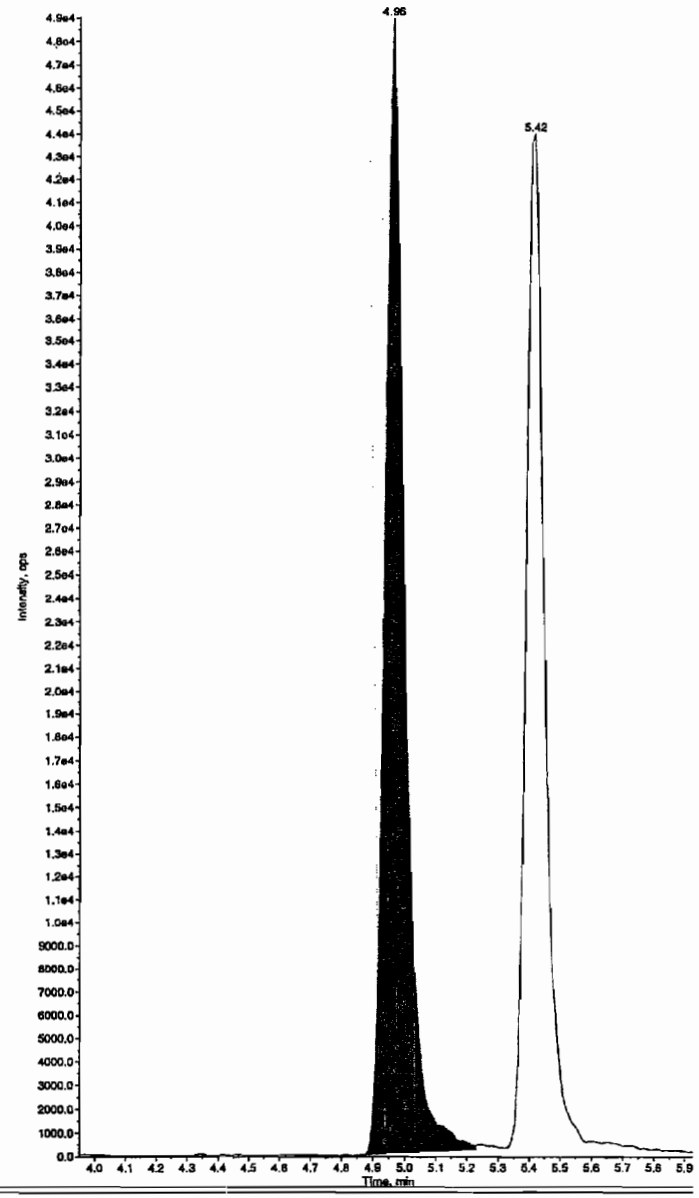

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310013.wiff"
: Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index: 1
e Type: QC
ntration: 100. ng/mL
lated Conc: 82.3 ng/mL
Date: 3/31/2010
Time: 11:49:08 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
ning Width: 3 points
ndow: 30.0 sec
ted RT: 5.41 min
elative RT: No

Type: Valley
tion Time: 5.42 min
1.89e+005 counts
: 43698.002 cps
Time: 5.32 min
me: 5.79 min

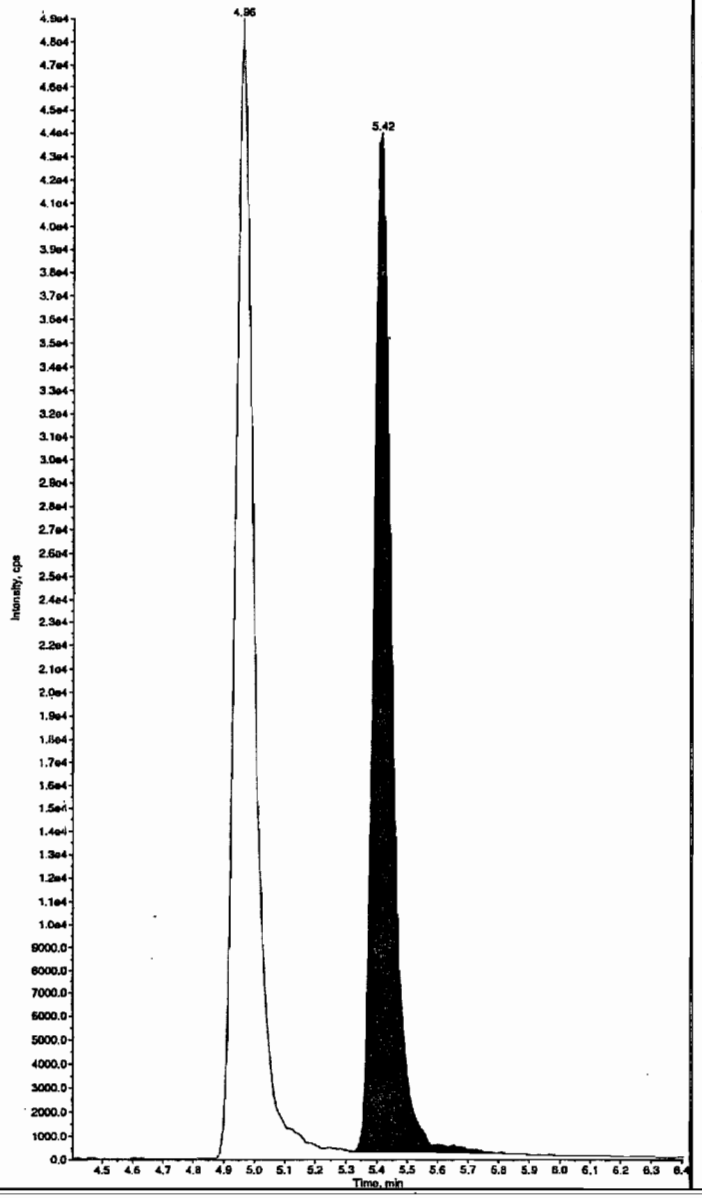

Sample Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 99.5 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 11:49:08 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 2.09e+006 counts
Height: 514991.211 cps
Start Time: 10.7 min
End Time: 11.1 min

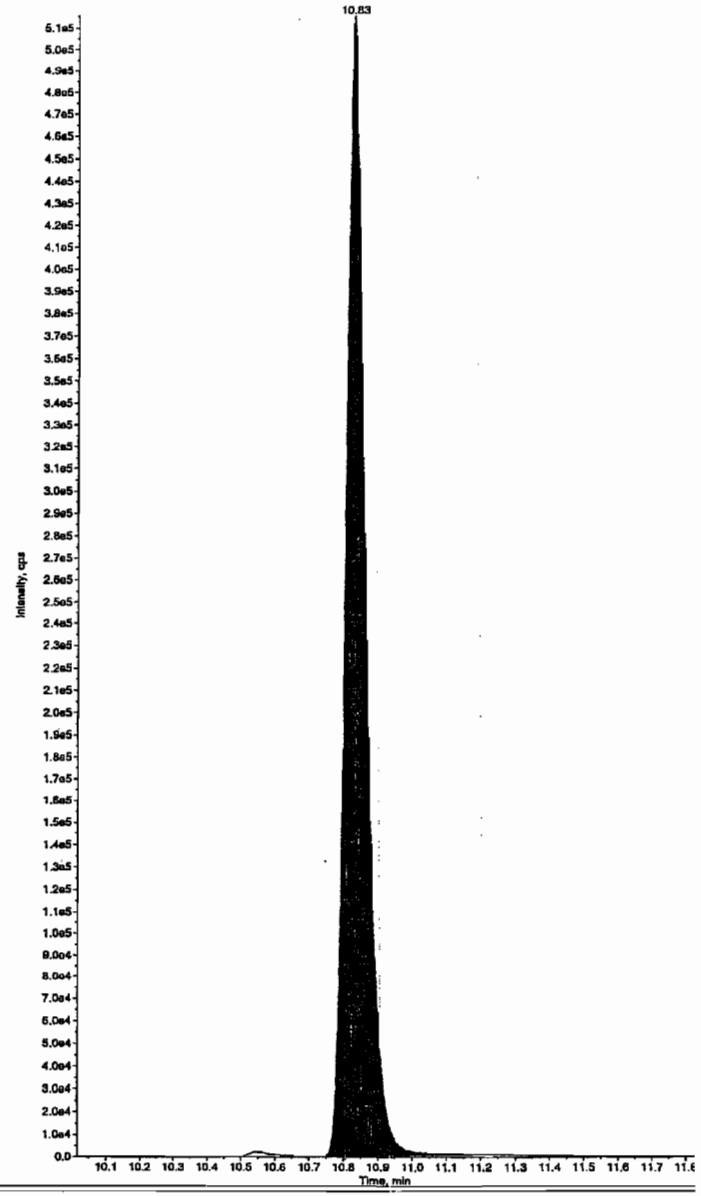

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2000

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03310024.wiff

Analysis Date: 31–MAR–10 14:41

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	455	91	
2,6–Diamino–4–nitrotoluene	500	496	99	
3,4–Dinitrotoluene	250	217	87	
3,5–Dinitroaniline	500	439	88	
TATB	500	467	93	
tris(o–cresyl) phosphate	500	479	96	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lcn 4/5/10

ple Name: "WXX100331-26CCV" Sample ID: "[1]LER" File: "EXS03310024.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index: 1
e Type: QC
ntration: 500. ng/mL
lated Conc: 467. ng/mL
Date: 3/31/2010
Time: 2:41:55 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 6.90 min
elative RT: No

Type: Valley
tion Time: 6.89 min
3.45e+005 counts
t: 71980.743 cps
Time: 6.79 min
ime: 7.67 min

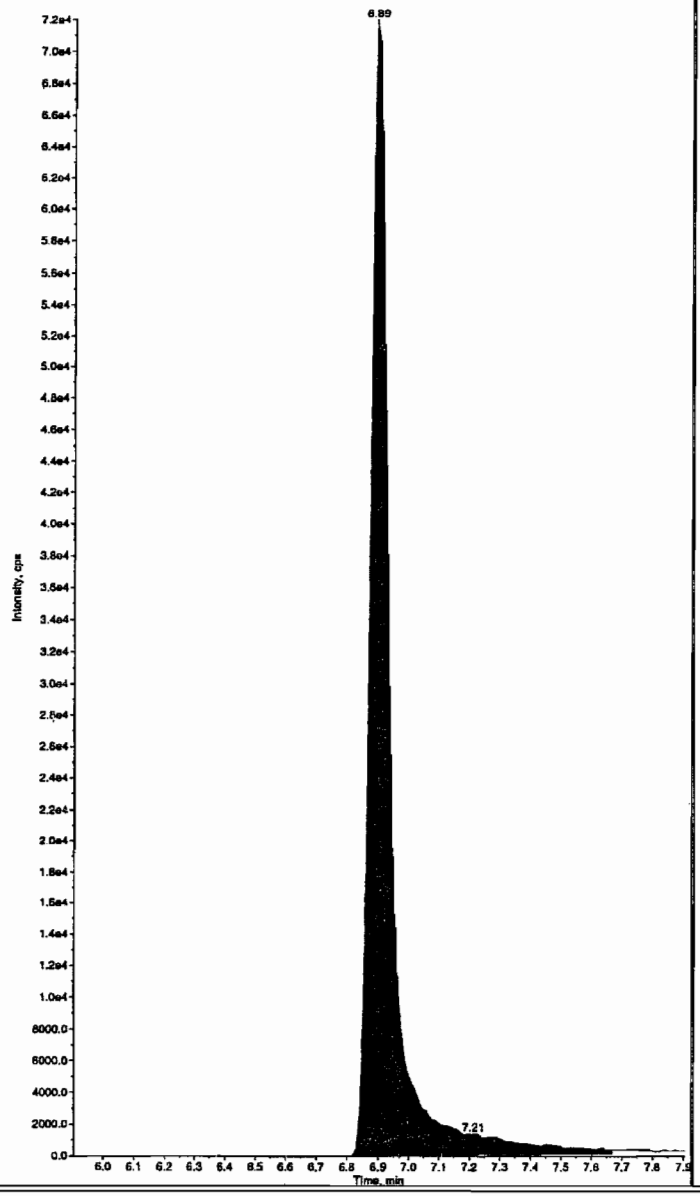

Sample Name: "WXX100331-26CCV" Sample ID: "[1]LER" File: "EXS03310024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 439. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 2:41:55 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.14 min
Area: 2.81e+006 counts
Height: 635022.827 cps
Start Time: 8.03 min
End Time: 8.26 min

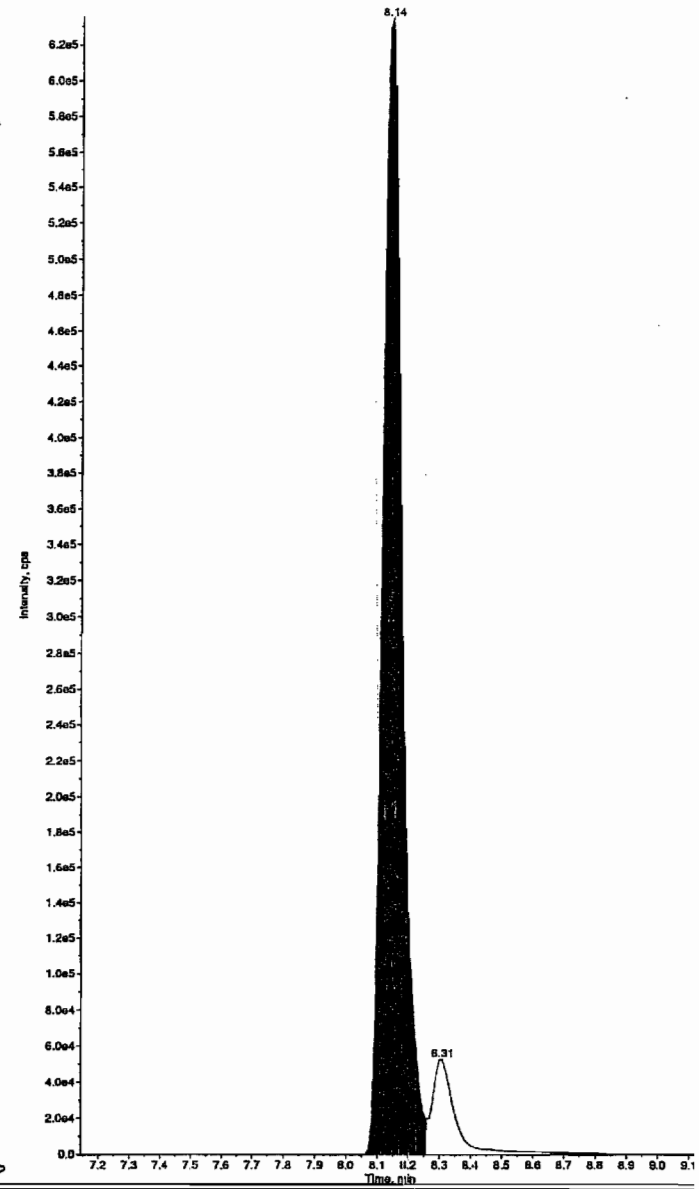

HMM 04/05/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100331-26CCV" Sample ID: "[1]LER" File: "EXS03310024.wiff"
(Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: "

e Index: 1
e Type: QC
ntration: 250. ng/mL
lated Conc: 217. ng/mL
Date: 3/31/2010
Time: 2:41:55 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 15.0 sec
ted RT: 8.31 min
elative RT: No

Type: Valley
tion Time: 8.30 min
1.77e+006 counts
t: 424537.872 cps
Time: 8.23 min
ime: 8.55 min

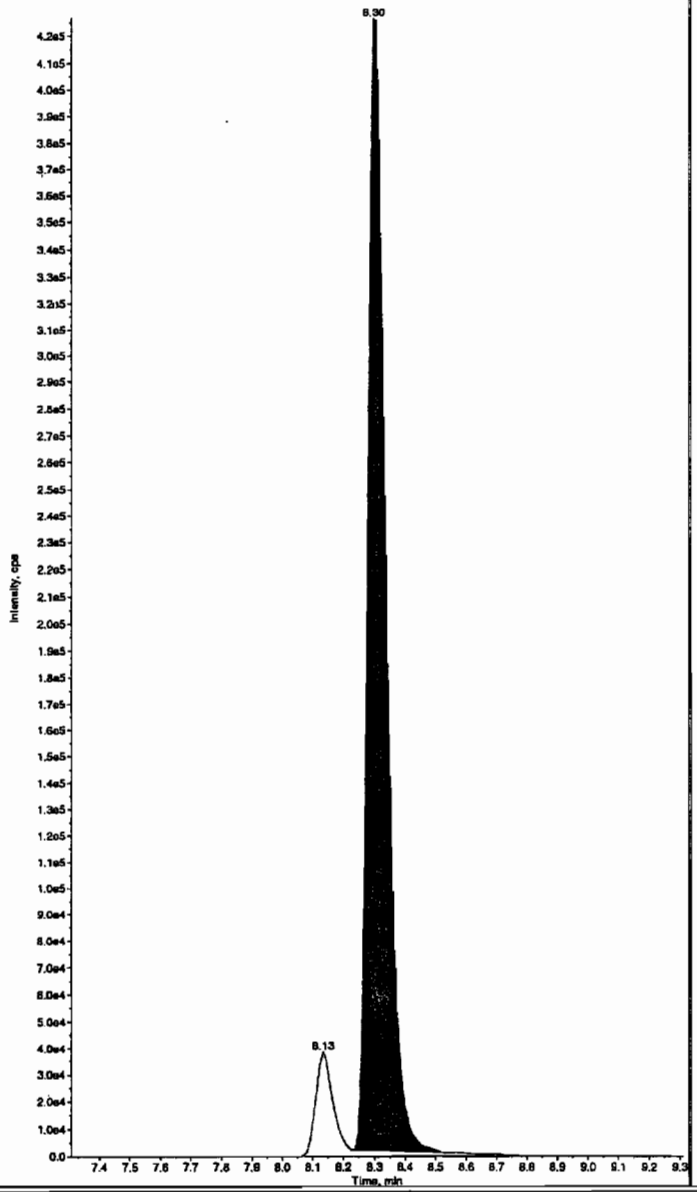

Sample Name: "WXX100331-26CCV" Sample ID: "[1]LER" File: "EXS03310024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 496. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 2:41:55 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.95 min
Area: 1.08e+006 counts
Height: 269448.151 cps
Start Time: 4.84 min
End Time: 5.24 min

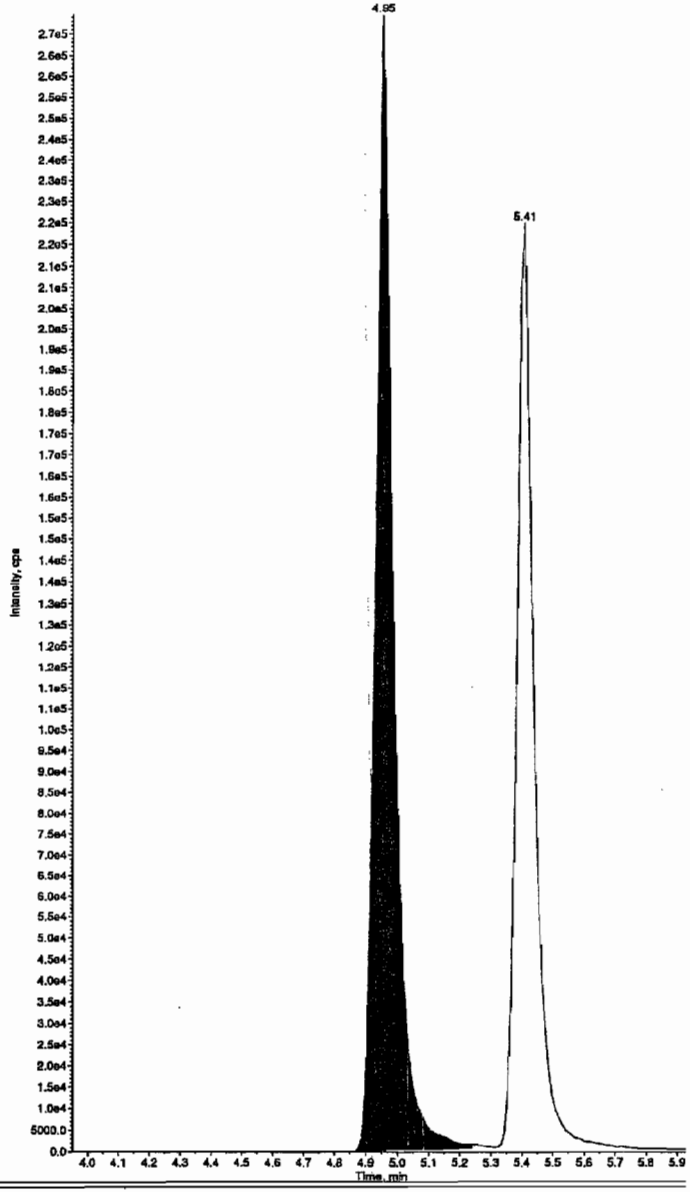

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100331-26CCV" Sample ID: "|1|LER" File: "EXS03310024.wiff"
(Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index: 1
e Type: QC
ntration: 500. ng/mL
lated Conc: 455. ng/mL
Date: 3/31/2010
Time: 2:41:55 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 5.41 min
elative RT: No

Type: Valley
tion Time: 5.41 min
8.67e+005 counts
t: 218858.749 cps
Time: 5.31 min
ime: 5.81 min

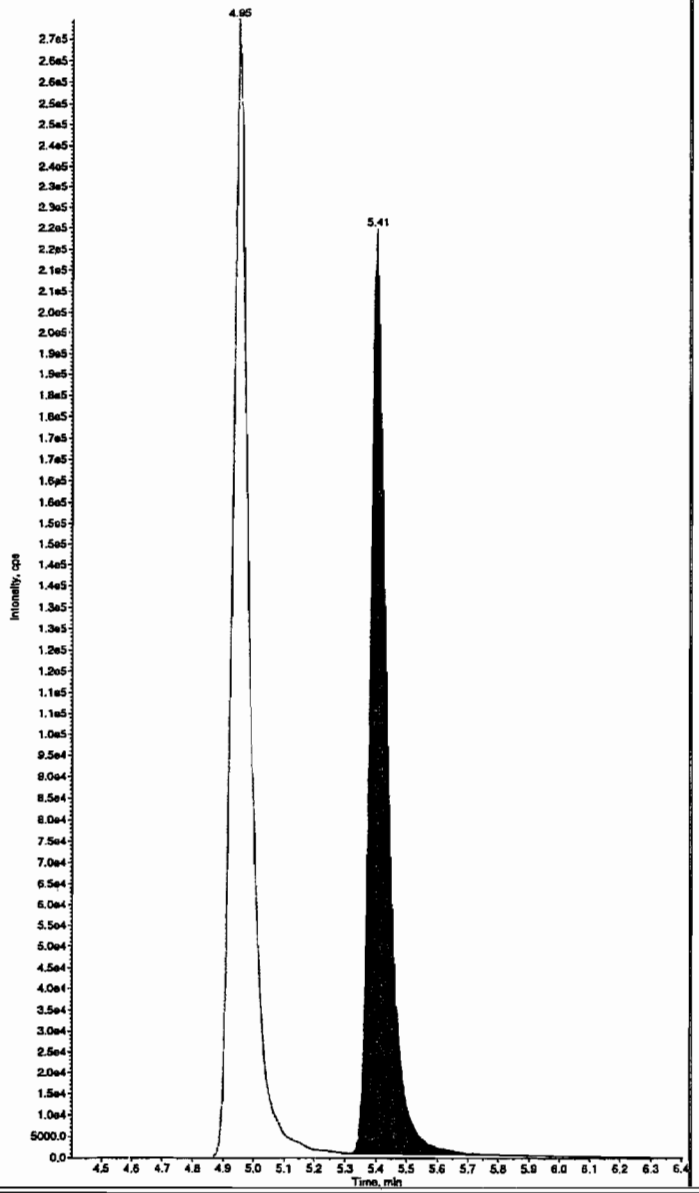

Sample Name: "WXX100331-26CCV" Sample ID: "|1|LER" File: "EXS03310024.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 479. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 2:41:55 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 8.97e+006 counts
Height: 2088793.945 cps
Start Time: 10.7 min
End Time: 11.2 min

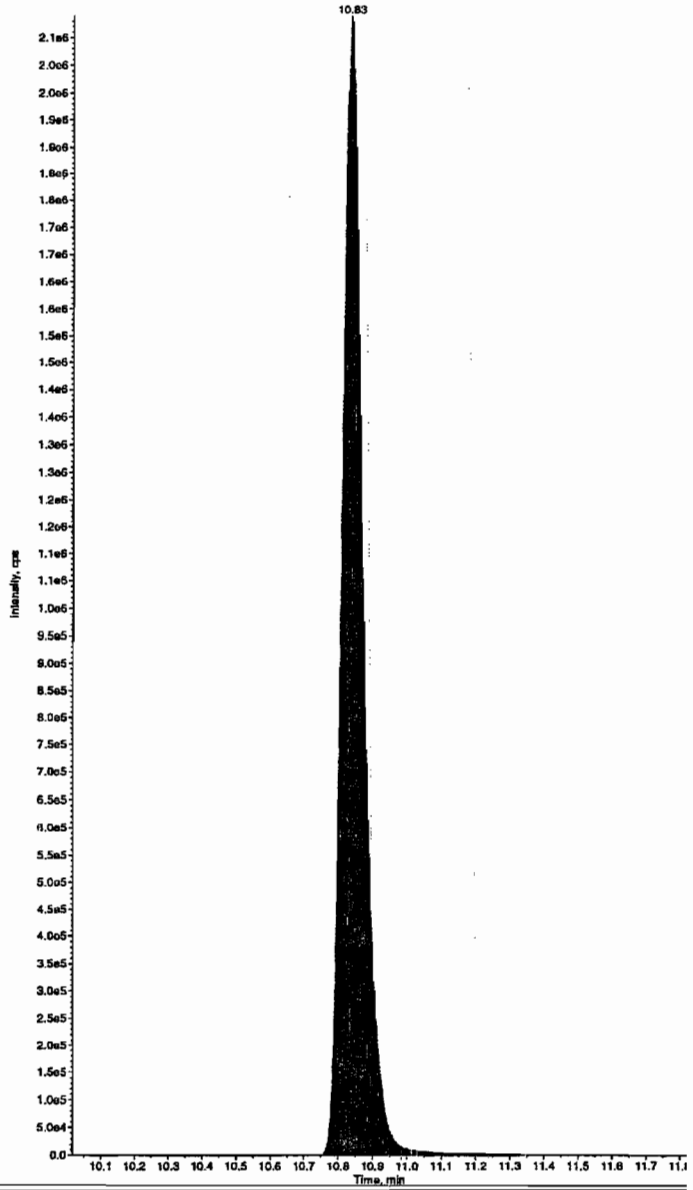

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2000

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03310026.wiff

Analysis Date: 31–MAR–10 15:13

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	75.4	75	
2,6–Diamino–4–nitrotoluene	100	92.1	92	
3,4–Dinitrotoluene	50	49.5	99	
3,5–Dinitroaniline	100	104	104	
TATB	100	96	96	
tris(o–cresyl) phosphate	100	97.6	98	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Rcn 4/5/10

ple Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310026.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 100. ng/mL
lated Conc: 96.0 ng/mL
Date: 3/31/2010
Time: 3:13:21 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
ning Width: 3 points
ndow: 30.0 sec
ted RT: 6.90 min
elative RT: No

Type: Valley
tion Time: 6.89 min
6.58e+004 counts
:: 15405.108 cps
Time: 6.76 min
ime: 7.32 min

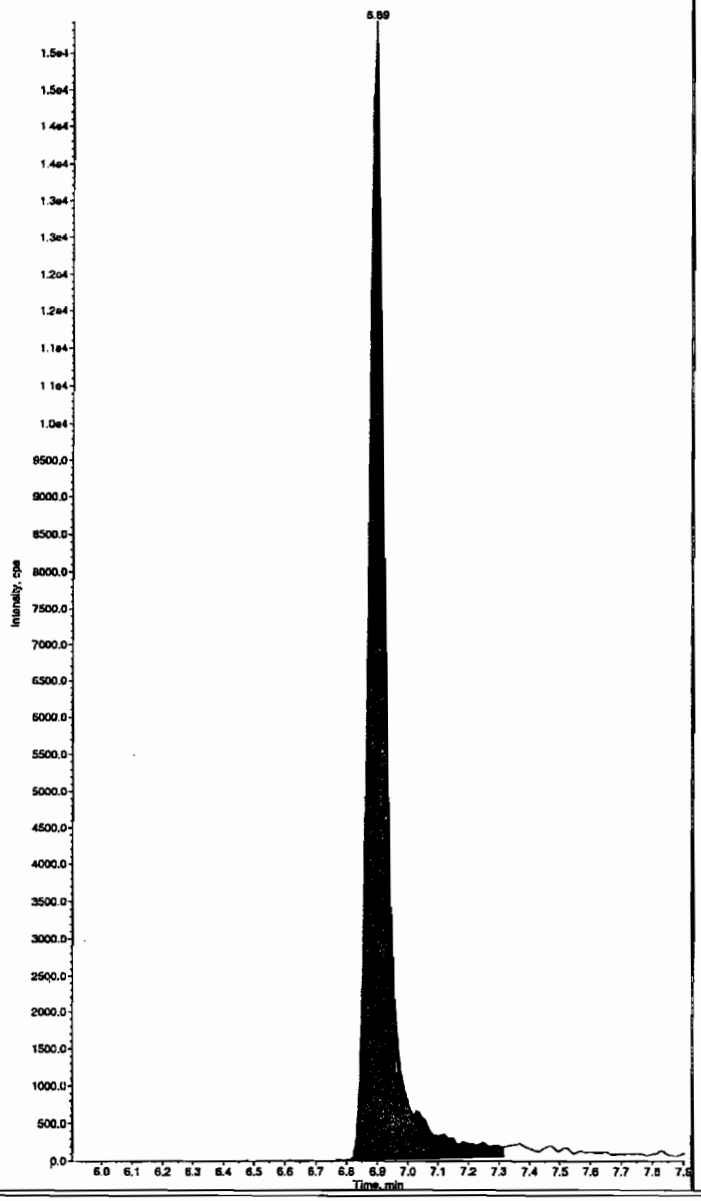

Sample Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 3:13:21 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.12 min
Area: 6.59e+005 counts
Height: 159022.293 cps
Start Time: 7.97 min
End Time: 8.26 min

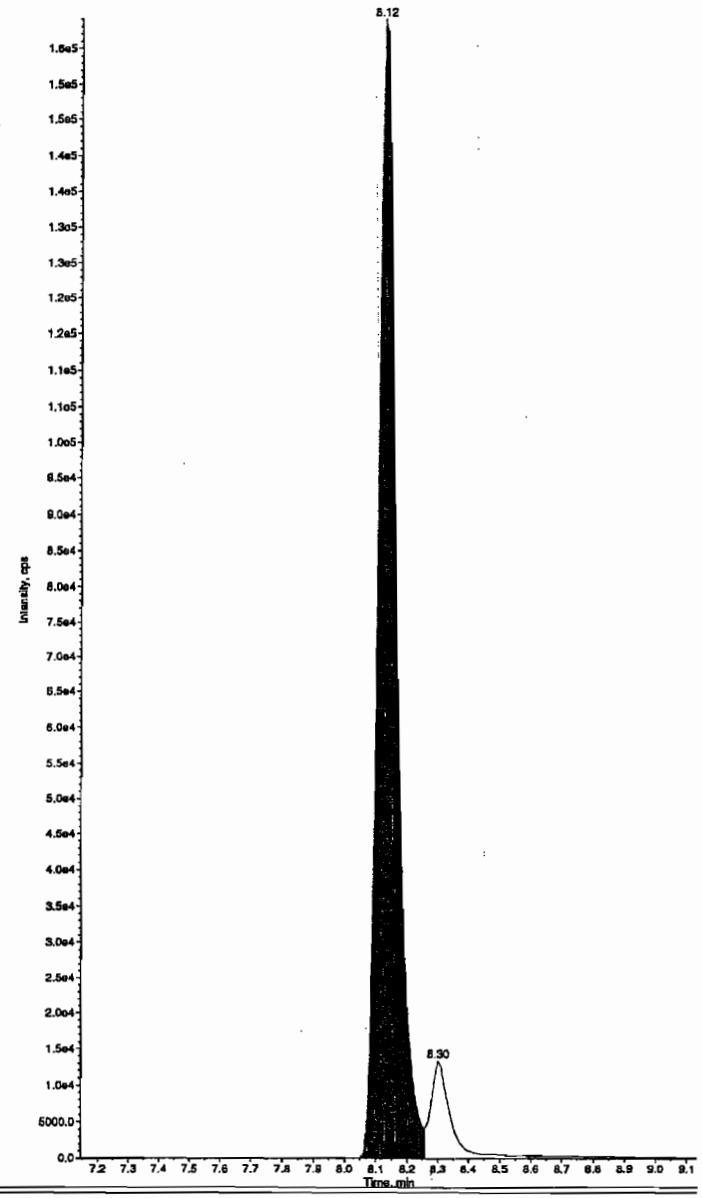

Hnm 04/05/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310026.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index:	1	
e Type:	QC	
ntration:	50.0	ng/mL
lated Conc:	49.5	ng/mL
Date:	3/31/2010	
Time:	3:13:21 PM	
ied:	No	
Algorithm:	IntelliQuan - IQA	
Peak Height:	1460.00	cps
Peak Width:	0.00	sec
ing Width:	3	points
dow:	15.0	sec
ed RT:	8.31	min
elative RT:	No	
ype:	Valley	
ion Time:	8.30	min
	3.99e+005	counts
:	105955.788	cps
Time:	8.23	min
me:	8.62	min

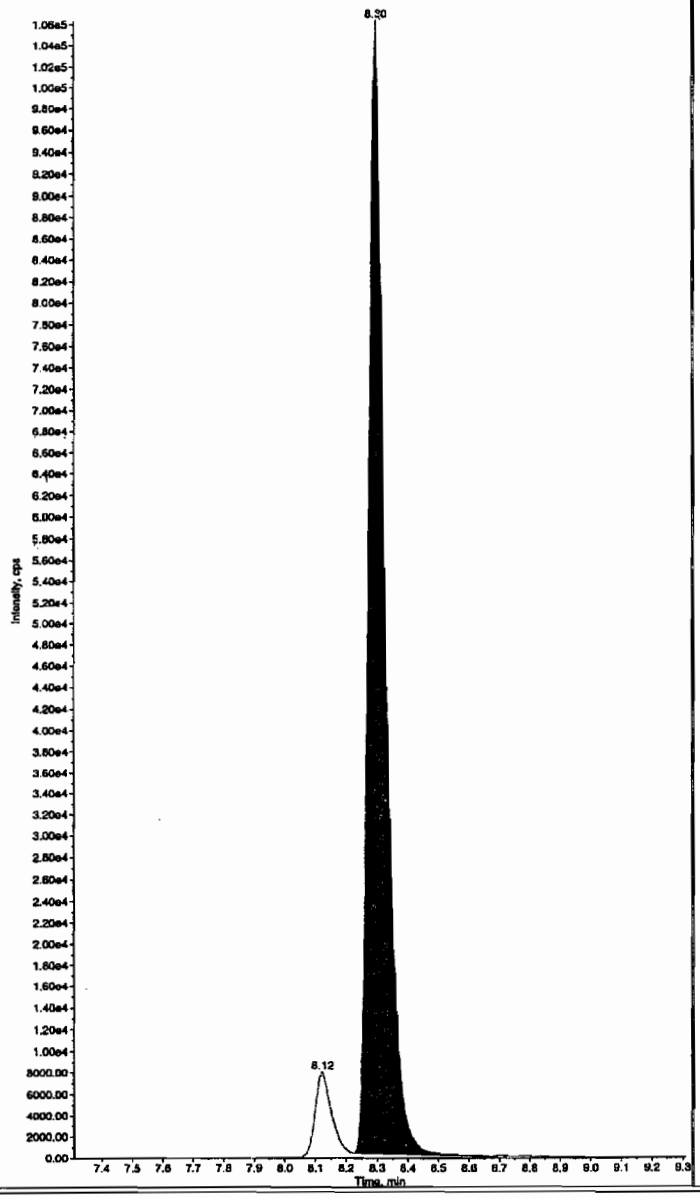

Sample Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310026.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	92.1	ng/mL
Acq. Date:	3/31/2010	
Acq. Time:	3:13:21 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	4.95	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	4.95	min
Area:	2.09e+005	counts
Height:	44680.908	cps
Start Time:	4.76	min
End Time:	5.25	min

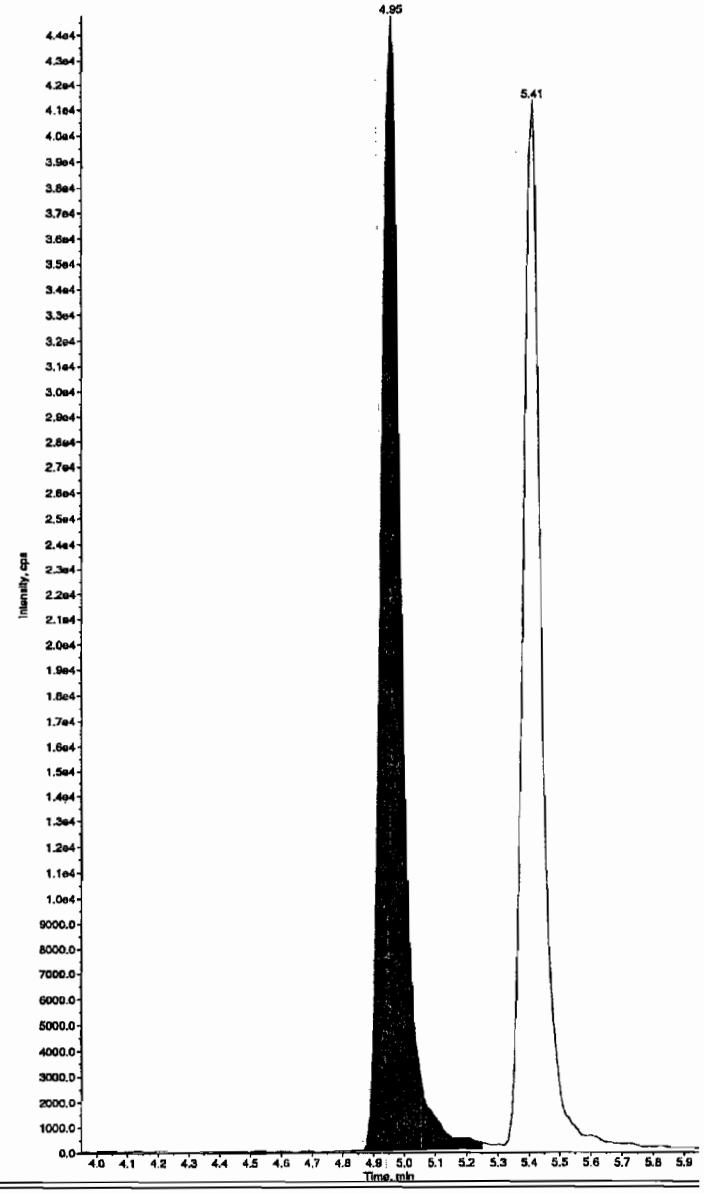

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ple Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310026.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""

.e Index: 1
.e Type: QC
ntration: 100. ng/mL
lated Conc: 75.4 ng/mL
Date: 3/31/2010
Time: 3:13:21 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 5.41 min
elative RT: No

Type: Valley
tion Time: 5.41 min
1.76e+005 counts
t: 41078.697 cps
Time: 5.32 min
ime: 5.77 min

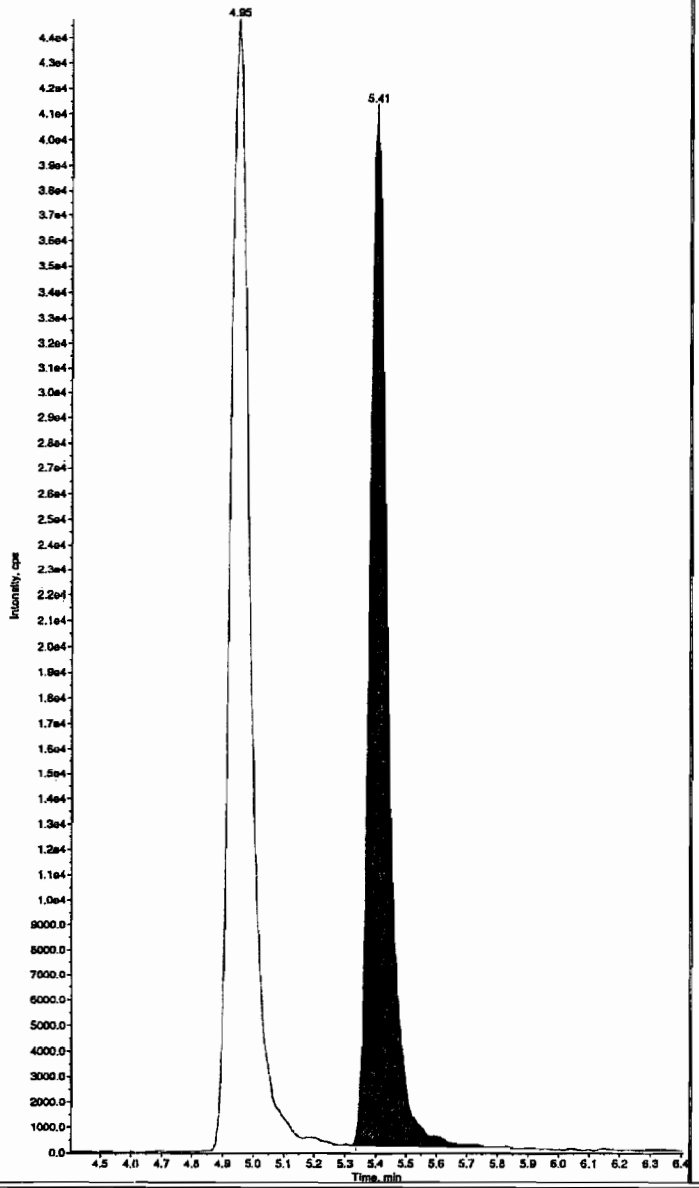

Sample Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310026.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 97.6 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 3:13:21 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 2.05e+006 counts
Height: 505720.428 cps
Start Time: 10.7 min
End Time: 11.1 min

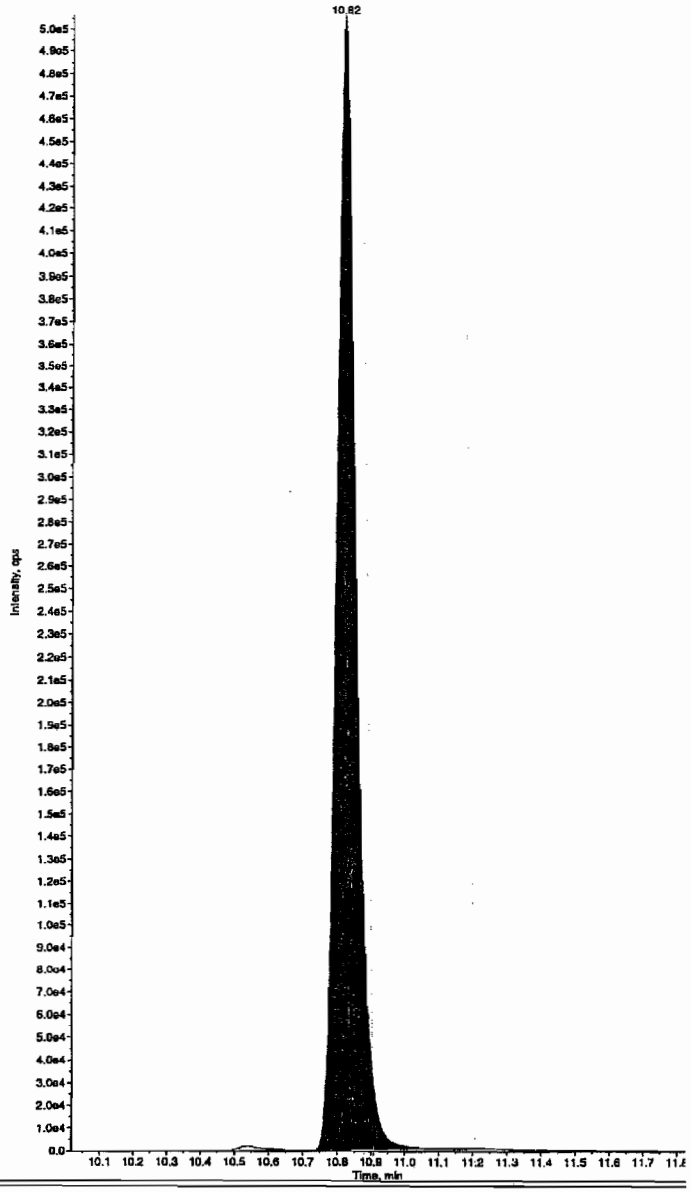

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2000

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03310036.wiff

Analysis Date: 31-MAR-10 17:50

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
tris(o-cresyl) phosphate	500	483	97	
2,4-Diamino-6-nitrotoluene	500	519	104	
2,6-Diamino-4-nitrotoluene	500	489	98	
3,4-Dinitrotoluene	250	227	91	
3,5-Dinitroaniline	500	496	99	
TATB	500	488	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dan 4/5/10

ple Name: "WXX100331-26CCV" Sample ID: "[1]LER" File: "EXS03310036.wiff"
(Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index: 1
e Type: QC
ntration: 500. ng/mL
lated Conc: 488. ng/mL
Date: 3/31/2010
Time: 5:50:31 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 6.90 min
elative RT: No

Type: Valley
tion Time: 6.89 min
3.61e+005 counts
t: 74238.579 cps
Time: 6.79 min
ime: 7.64 min

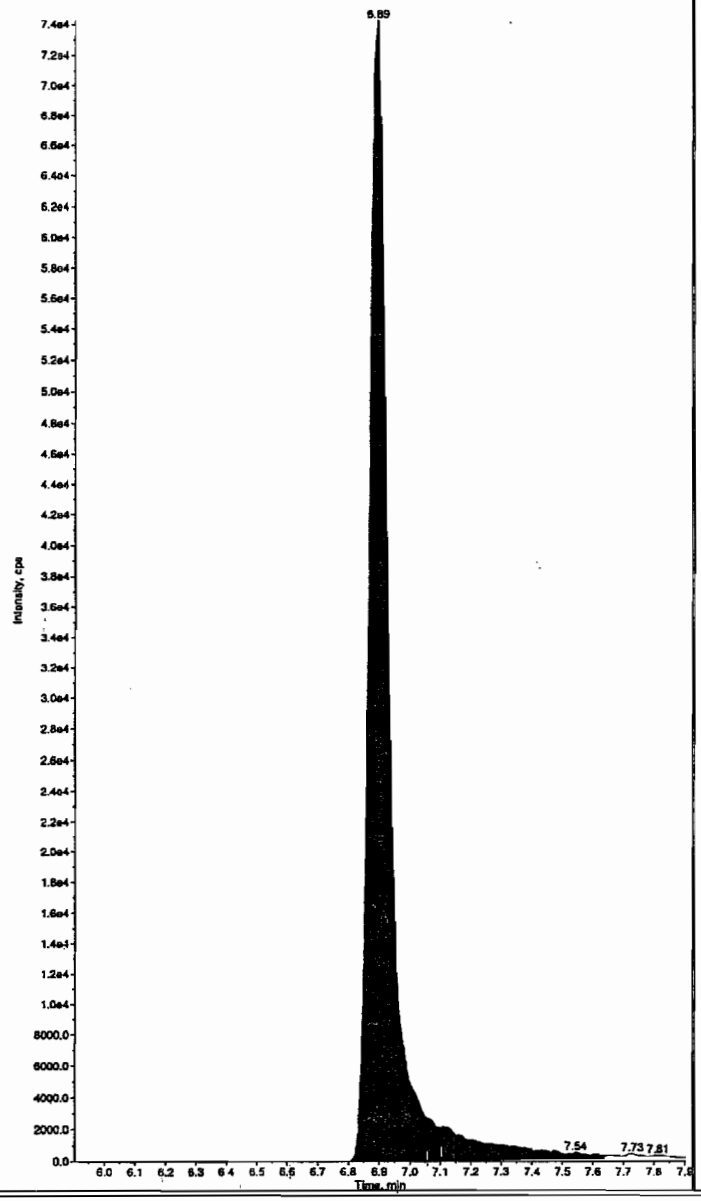

Sample Name: "WXX100331-26CCV" Sample ID: "[1]LER" File: "EXS03310036.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 496. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 5:50:31 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.13 min
Area: 3.15e+006 counts
Height: 758404.663 cps
Start Time: 8.02 min
End Time: 8.26 min

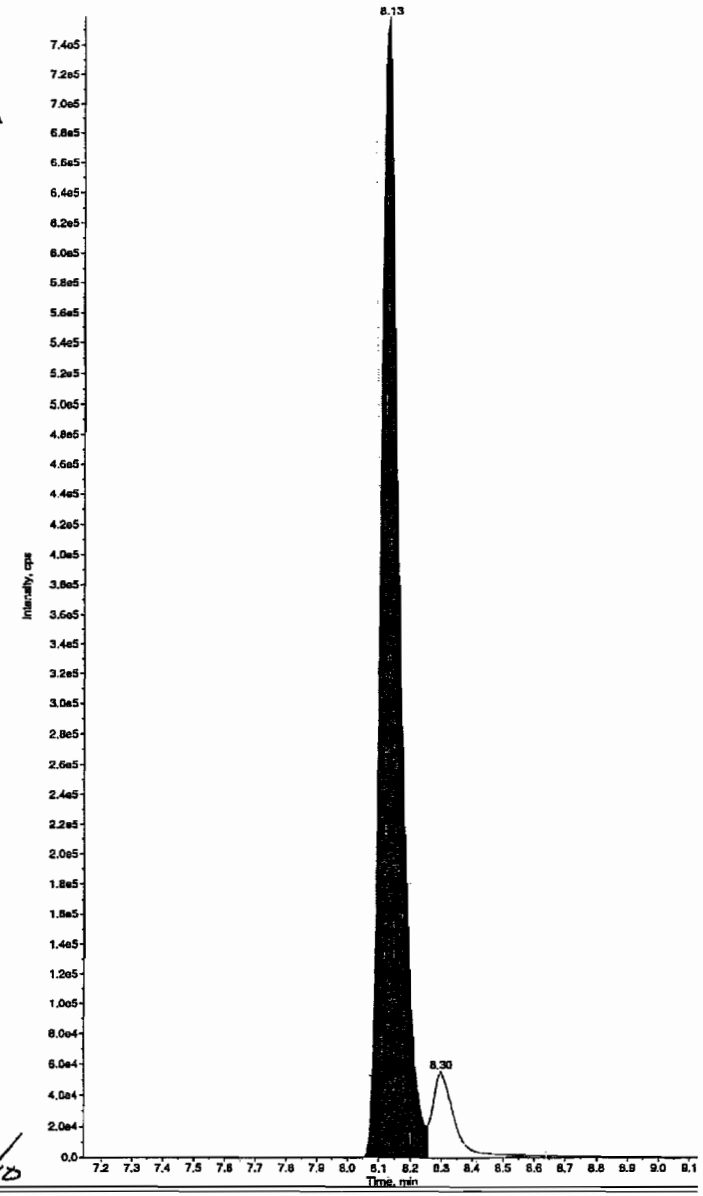

Hmm 04/05/10

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100331-26CCV" Sample ID: "|1|LER" File: "EXS03310036.wiff"
(Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index: 1
e Type: QC
ntration: 250. ng/mL
lated Conc: 227. ng/mL
Date: 3/31/2010
Time: 5:50:31 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 15.0 sec
ted RT: 8.31 min
elative RT: No

Type: Valley
tion Time: 8.30 min
1.85e+006 counts
t: 465641.815 cps
Time: 8.23 min
ime: 8.59 min

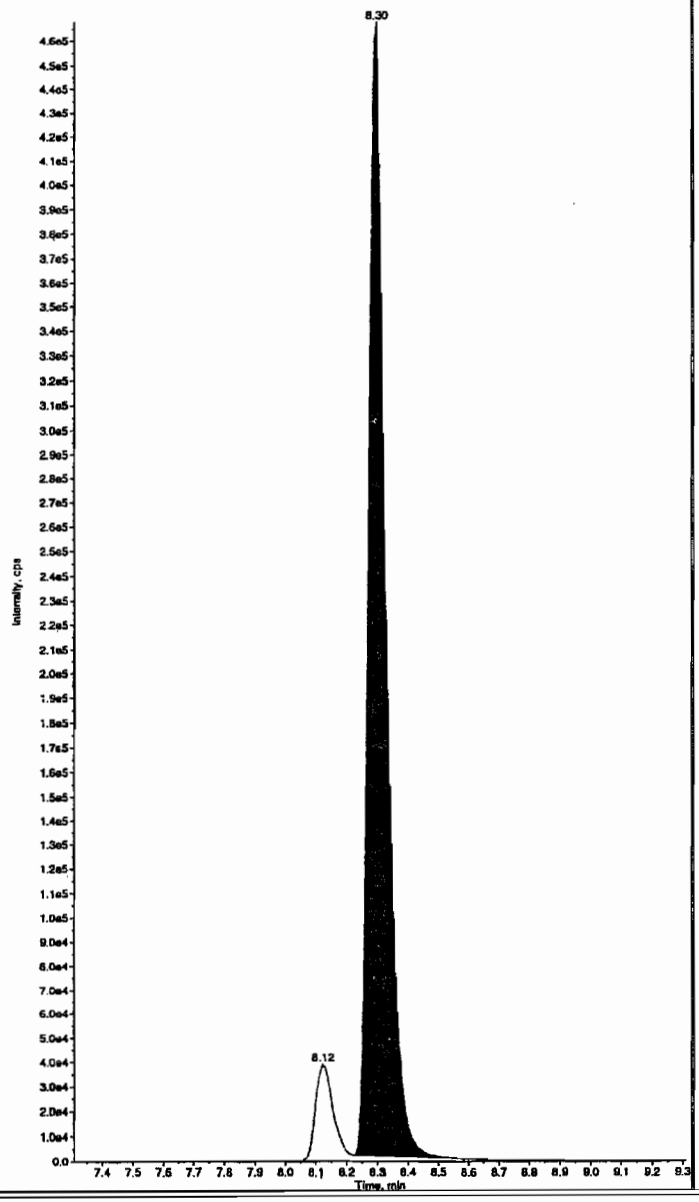

Sample Name: "WXX100331-26CCV" Sample ID: "|1|LER" File: "EXS03310036.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 489. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 5:50:31 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.94 min
Area: 1.06e+006 counts
Height: 250535.065 cps
Start Time: 4.85 min
End Time: 5.21 min

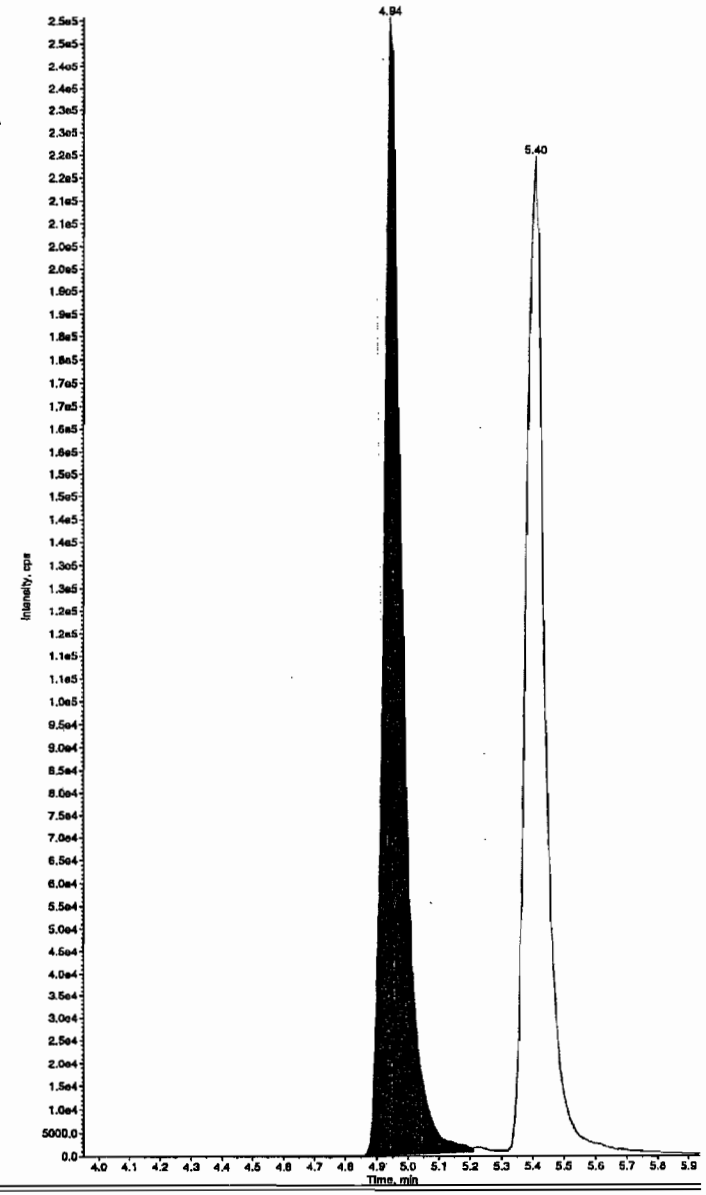

PROPRIETARY INFORMATION - NO unauthorized reproduction without written permission from GEL.

ple Name: "WXX100331-26CCV" Sample ID: "|1|LER" File: "EXS03310036.wiff"
(Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 500. ng/mL
lated Conc: 519. ng/mL
Date: 3/31/2010
Time: 5:50:31 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 5.41 min
elative RT: No

Type: Valley
tion Time: 5.40 min
9.80e+005 counts
: 219543.869 cps
Time: 5.31 min
ime: 6.00 min

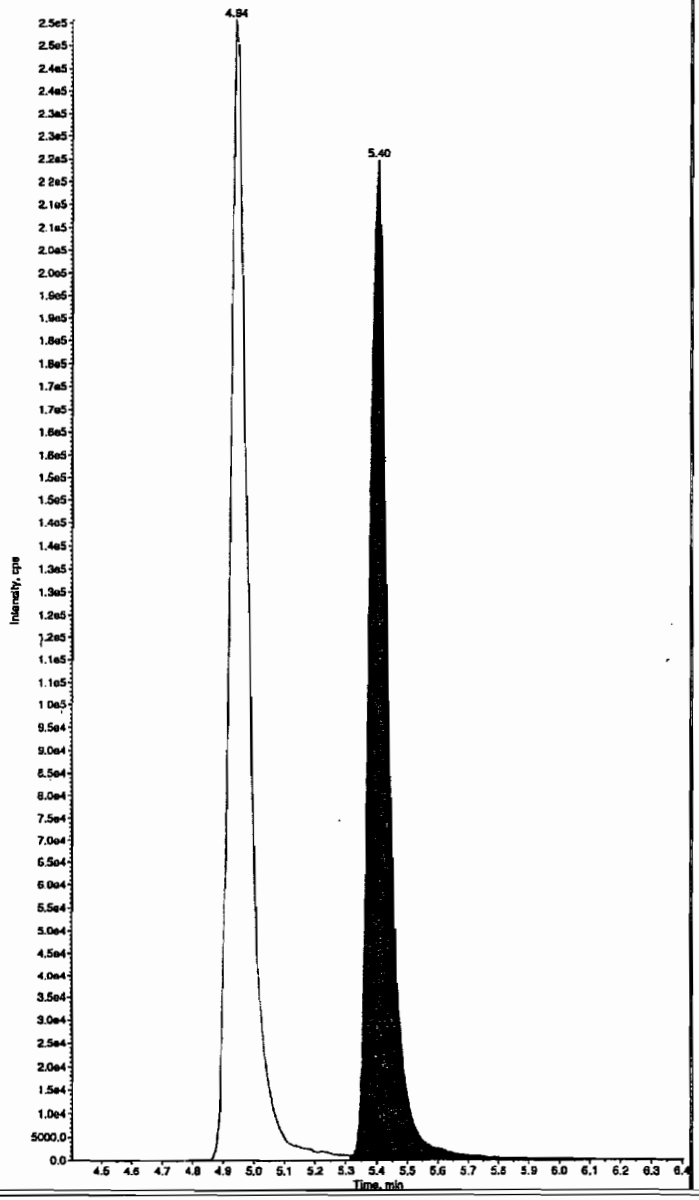

Sample Name: "WXX100331-26CCV" Sample ID: "|1|LER" File: "EXS03310036.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 483. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 5:50:31 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 9.03e+006 counts
Height: 2053610.107 cps
Start Time: 10.7 min
End Time: 11.2 min

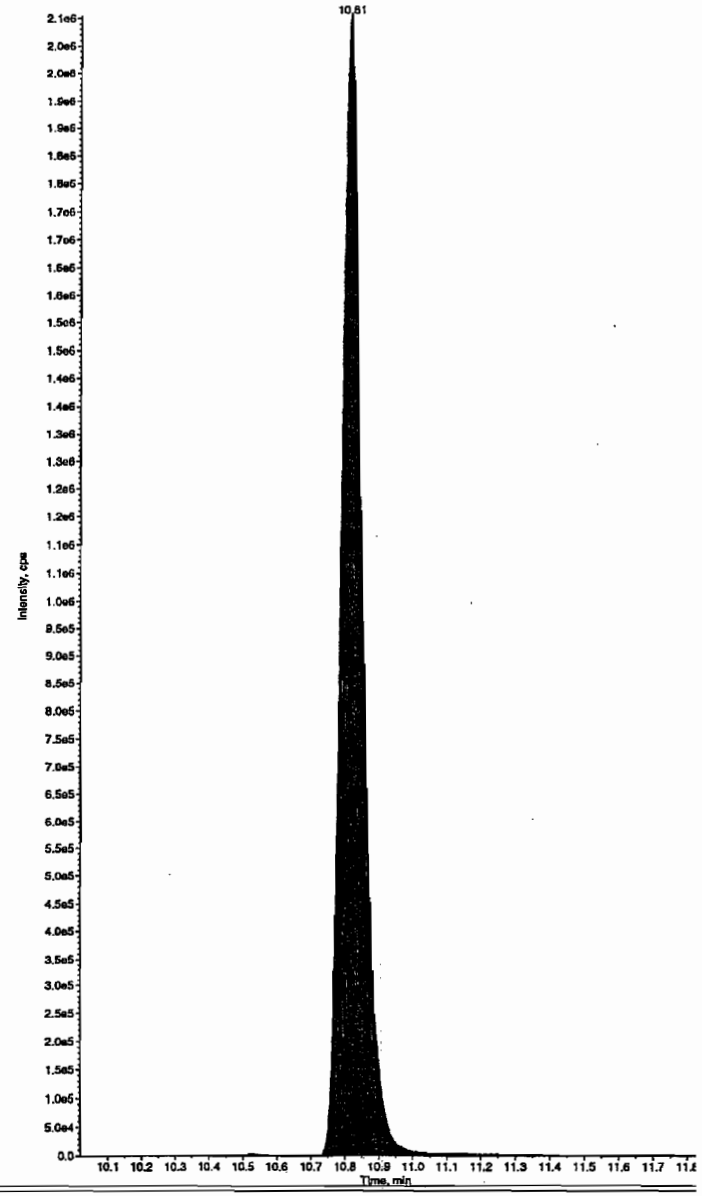

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2000

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03310038.wiff

Analysis Date: 31–MAR–10 18:21

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
TATB	100	97.2	97	
tris(o–cresyl) phosphate	100	99.6	100	
2,4–Diamino–6–nitrotoluene	100	82.4	82	
2,6–Diamino–4–nitrotoluene	100	100	100	
3,4–Dinitrotoluene	50	46.8	94	
3,5–Dinitroaniline	100	100	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 4/5/10

ple Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310038.wiff"
. Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index: 1
e Type: QC
ntration: 100. ng/mL
lated Conc: 97.2 ng/mL
Date: 3/31/2010
Time: 6:21:56 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
ning Width: 3 points
ndow: 30.0 sec
ed RT: 6.90 min
elative RT: No

Type: Valley
ion Time: 6.89 min
6.68e+004 counts
: 14508.543 cps
Time: 6.79 min
me: 7.39 min

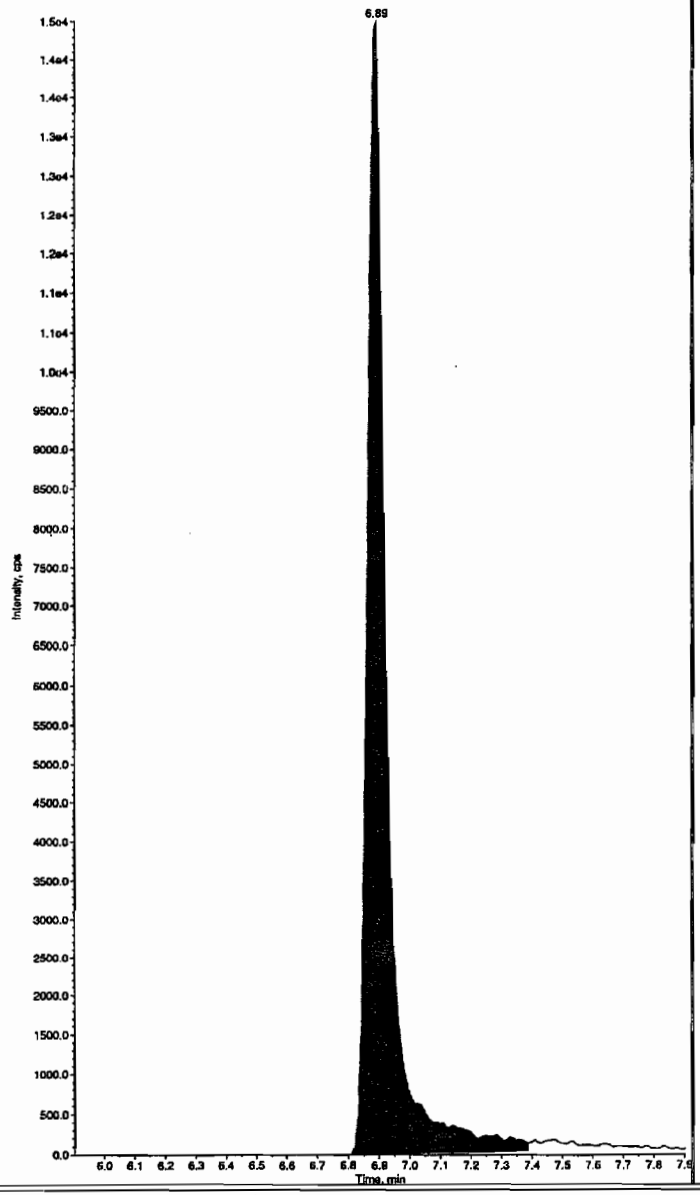

Sample Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310038.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 100. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 6:21:56 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.13 min
Area: 6.35e+006 counts
Height: 152399.063 cps
Start Time: 7.99 min
End Time: 8.26 min

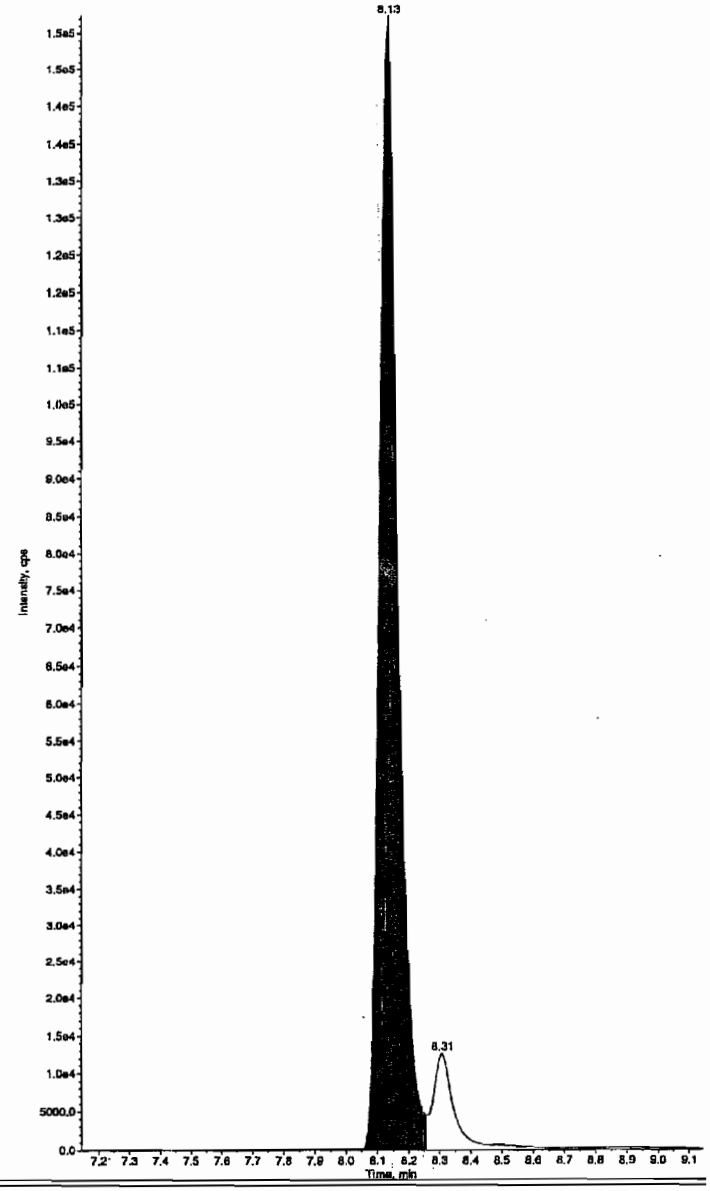

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310038.wiff"
(Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index: 1
e Type: QC
ntration: 50.0 ng/mL
lated Conc: 46.8 ng/mL
Date: 3/31/2010
Time: 6:21:56 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 15.0 sec
ted RT: 8.31 min
elative RT: No

Type: Valley
tion Time: 8.30 min
3.76e+005 counts
: 97259.399 cps
Time: 8.23 min
ime: 8.69 min

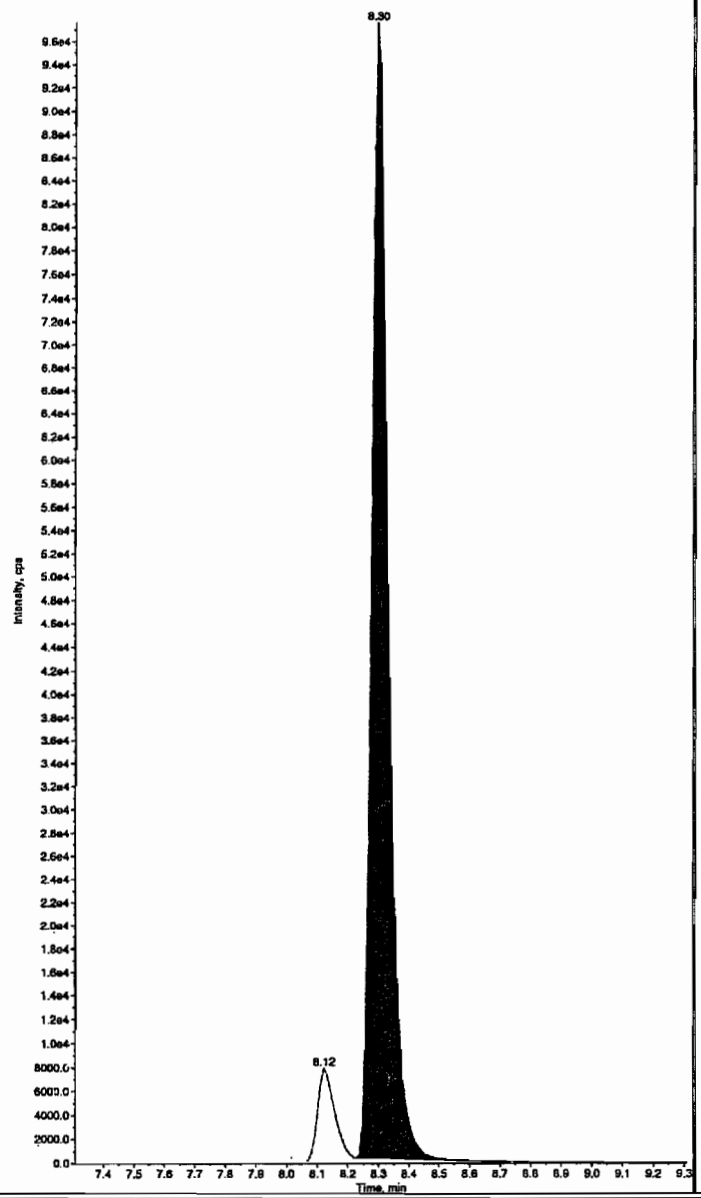

Sample Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310038.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 100. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 6:21:56 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.95 min
Area: 2.26e+005 counts
Height: 50691.868 cps
Start Time: 4.86 min
End Time: 5.23 min

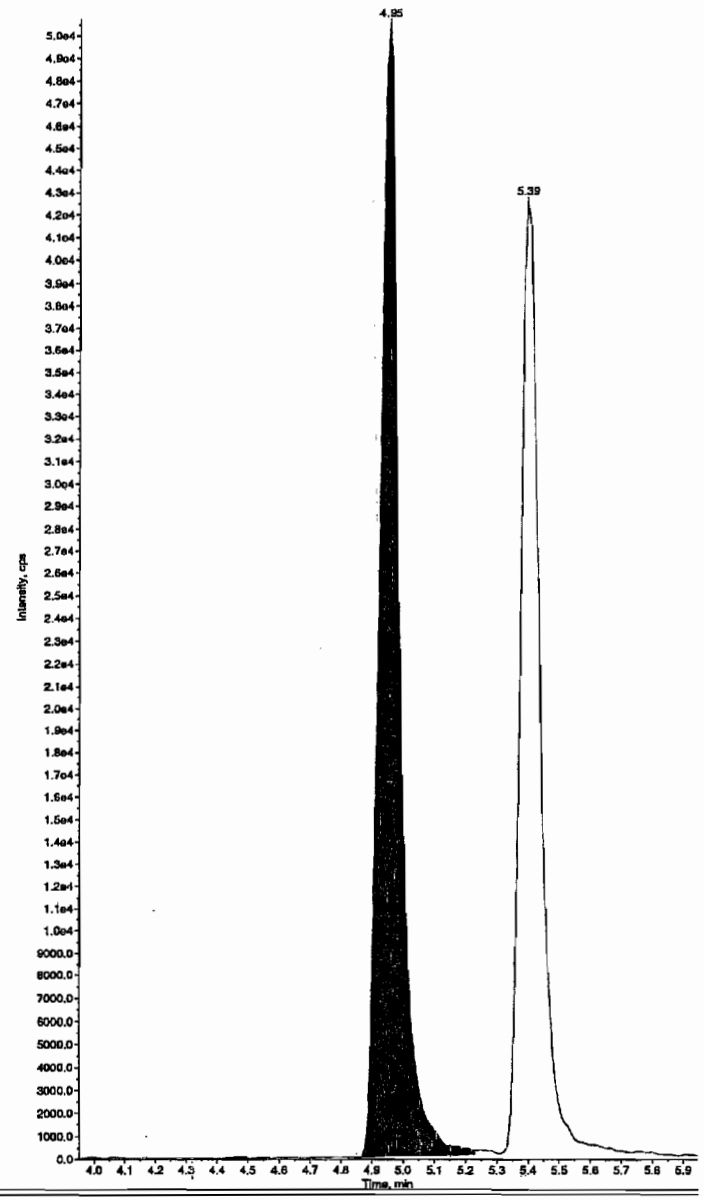

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

de Name: "WXX100331-27CRI" Sample ID: "|1|LER" File: "EXS03310038.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nent: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 100. ng/mL
lated Conc: 82.4 ng/mL
Date: 3/31/2010
Time: 6:21:56 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
ning Width: 3 points
dow: 30.0 sec
ied RT: 5.41 min
elative RT: No

ype: Valley
tion Time: 5.39 min
1.89e+005 counts
: 42569.608 cps
Time: 5.31 min
me: 5.74 min

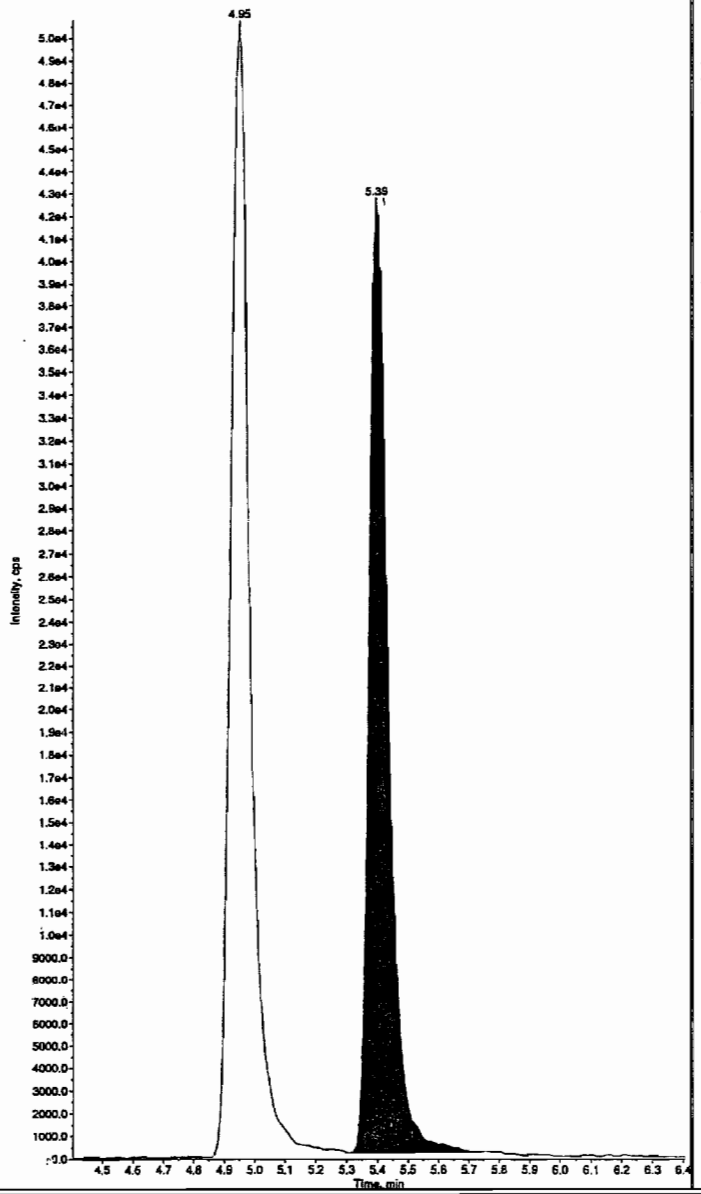

Sample Name: "WXX100331-27CRI" Sample ID: "|1|LER" File: "EXS03310038.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 99.6 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 6:21:56 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 2.09e+006 counts
Height: 515698.853 cps
Start Time: 10.7 min
End Time: 11.1 min

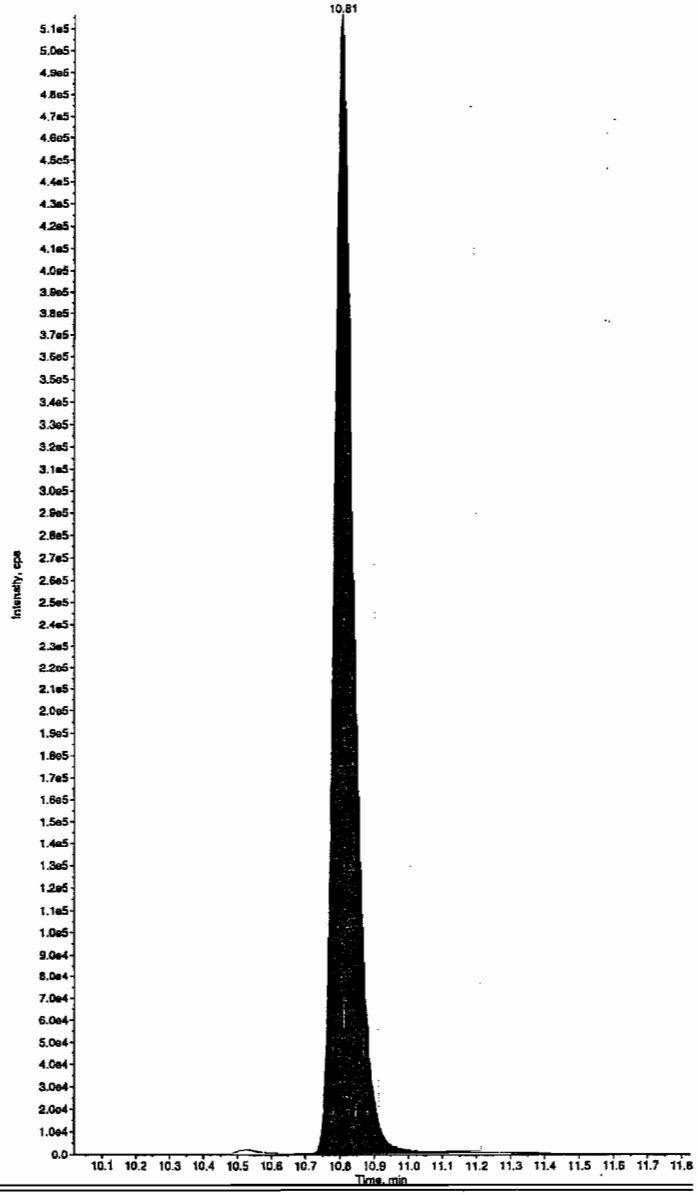

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2000

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03310048.wiff

Analysis Date: 31–MAR–10 20:59

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	535	107	
2,6–Diamino–4–nitrotoluene	500	524	105	
3,4–Dinitrotoluene	250	243	97	
3,5–Dinitroaniline	500	487	97	
TATB	500	483	97	
tris(o–cresyl) phosphate	500	498	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ran 4/5/10

ple Name: "WXX100331-26CCV" Sample ID: "|1|LER" File: "EXS03310048.wiff"
(Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 500. ng/mL
lated Conc: 483. ng/mL
Date: 3/31/2010
Time: 8:59:07 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 6.90 min
elative RT: No

Type: Valley
tion Time: 6.91 min
3.57e+005 counts
t: 73020.370 cps
Time: 6.80 min
ime: 7.94 min

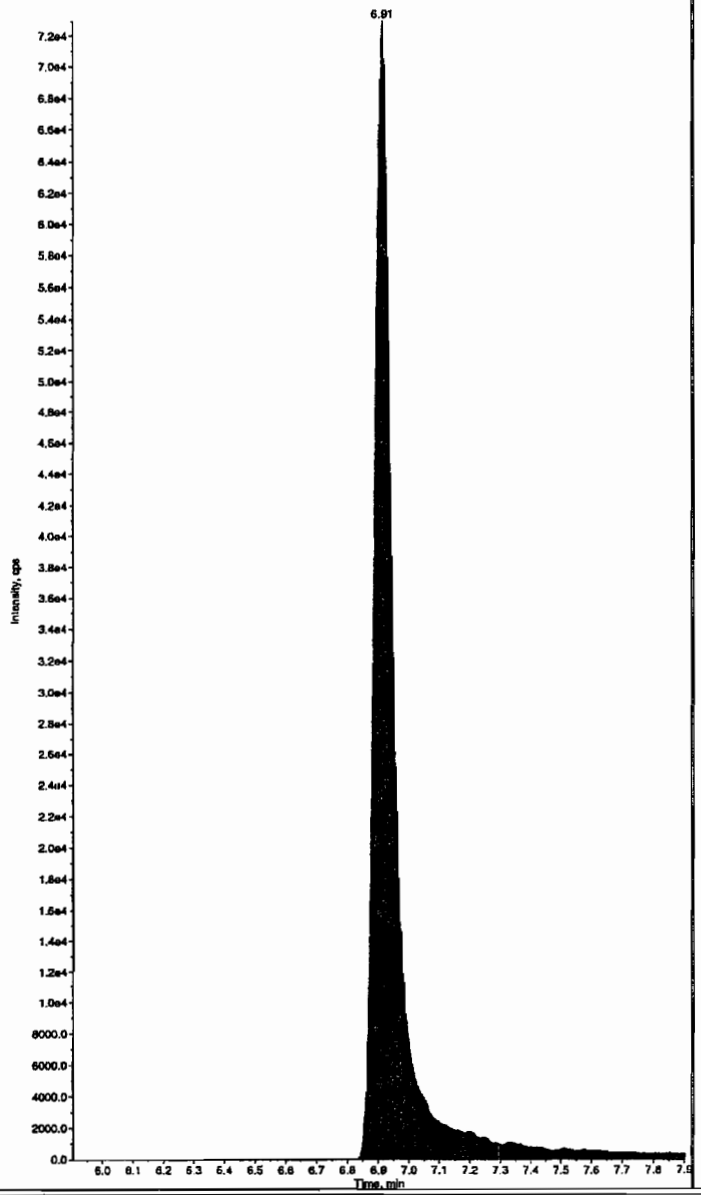

Sample Name: "WXX100331-26CCV" Sample ID: "|1|LER" File: "EXS03310048.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 487. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 8:59:07 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.15 min
Area: 3.10e+006 counts
Height: 766689.026 cps
Start Time: 8.06 min
End Time: 8.27 min

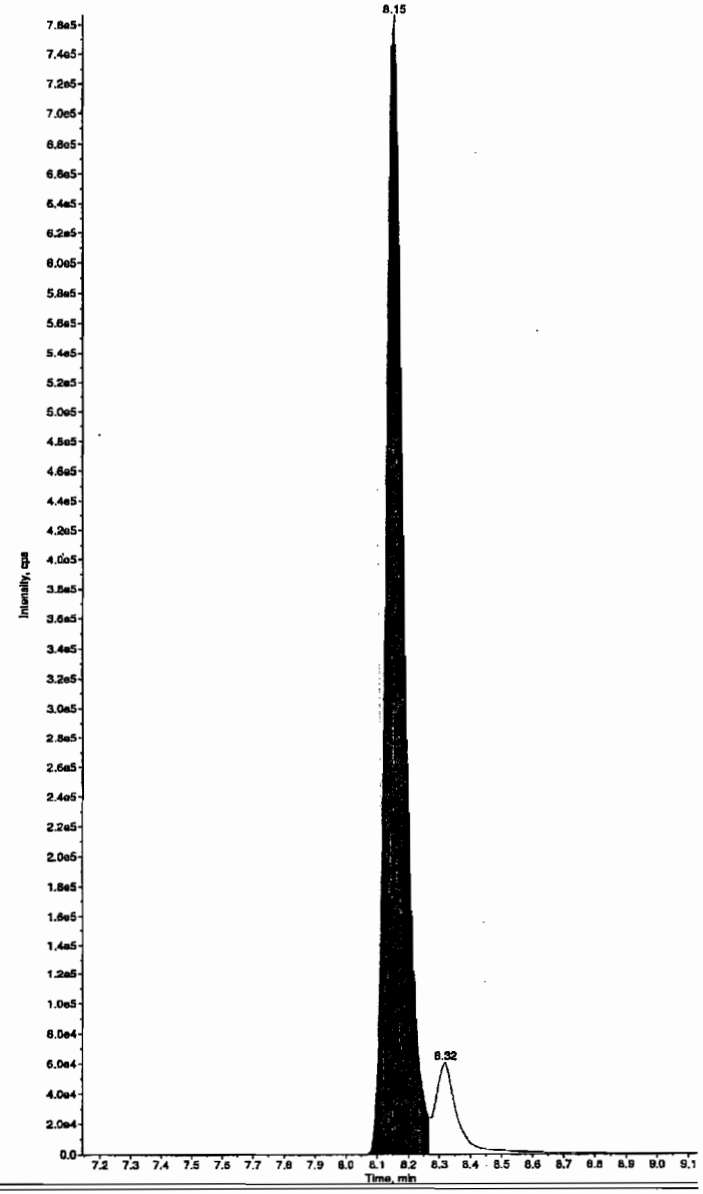

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nple Name: "WXX100331-26CCV" Sample ID: "[1]LER" File: "EXS03310048.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 250. ng/mL
lated Conc: 243. ng/mL
Date: 3/31/2010
Time: 8:59:07 PM

fied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 15.0 sec
ted RT: 8.31 min
elative RT: No

Type: Valley
tion Time: 8.31 min
1.98e+006 counts
t: 516746.094 cps
Time: 8.24 min
ime: 8.64 min

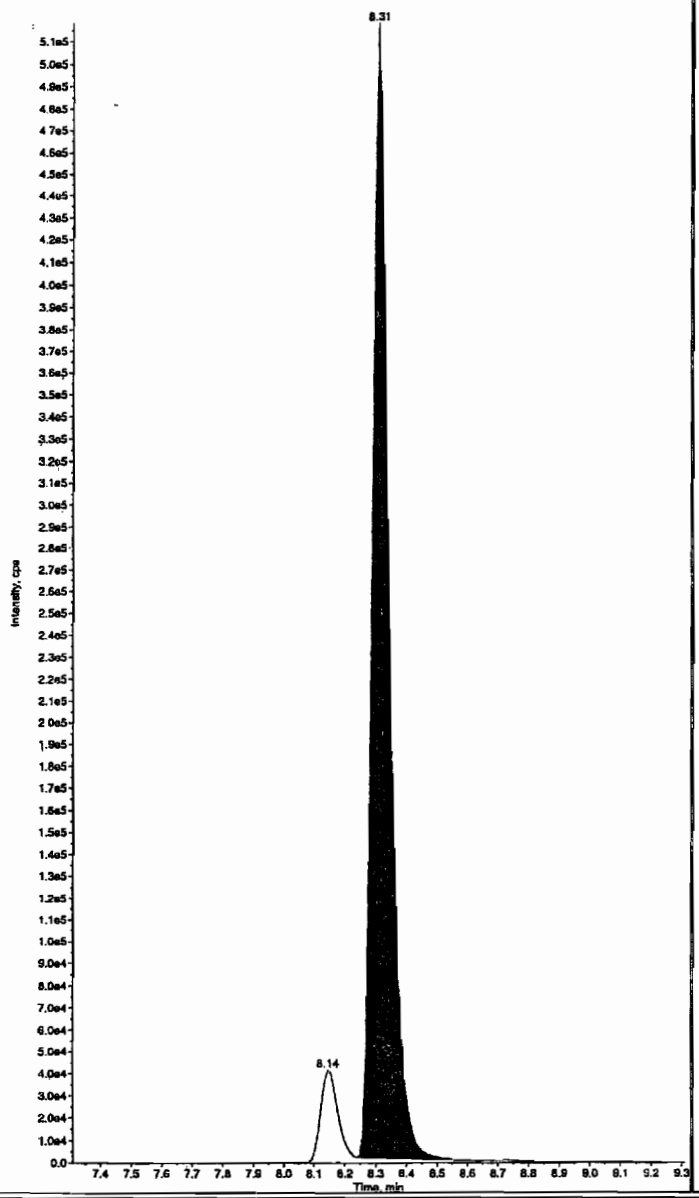

Sample Name: "WXX100331-26CCV" Sample ID: "[1]LER" File: "EXS03310048.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 524. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 8:59:07 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.97 min
Area: 1.14e+006 counts
Height: 240951.859 cps
Start Time: 4.86 min
End Time: 5.26 min

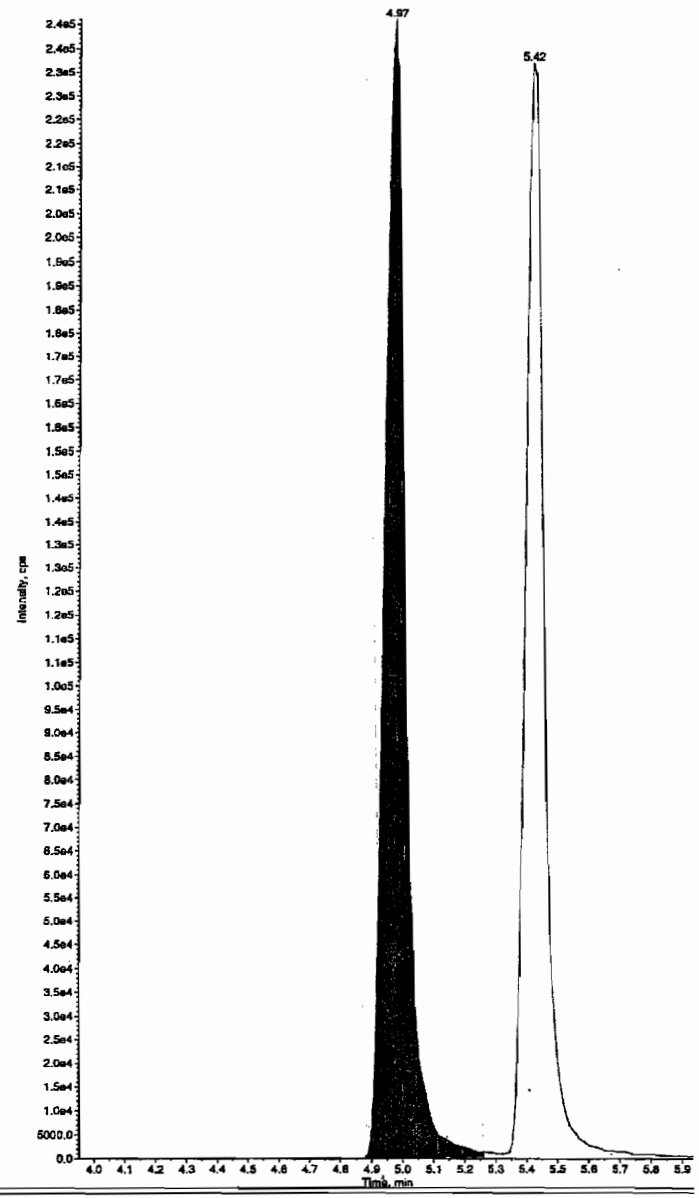

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ple Name: "WXX100331-26CCV" Sample ID: "|1|LER" File: "EXS03310|48.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index:	1	
e Type:	QC	
ntration:	500.	ng/mL
lated Conc:	535.	ng/mL
Date:	3/31/2010	
Time:	8:59:07 PM	
ied:	No	
Algorithm:	IntelliQuan - IQA	
Peak Height:	350.00	cps
Peak Width:	0.00	sec
hing Width:	3	points
ndow:	30.0	sec
ted RT:	5.41	min
elative RT:	No	
Type:	Valley	
tion Time:	5.42	min
	1.01e+006	counts
t:	231794.510	cps
Time:	5.31	min
ime:	5.95	min

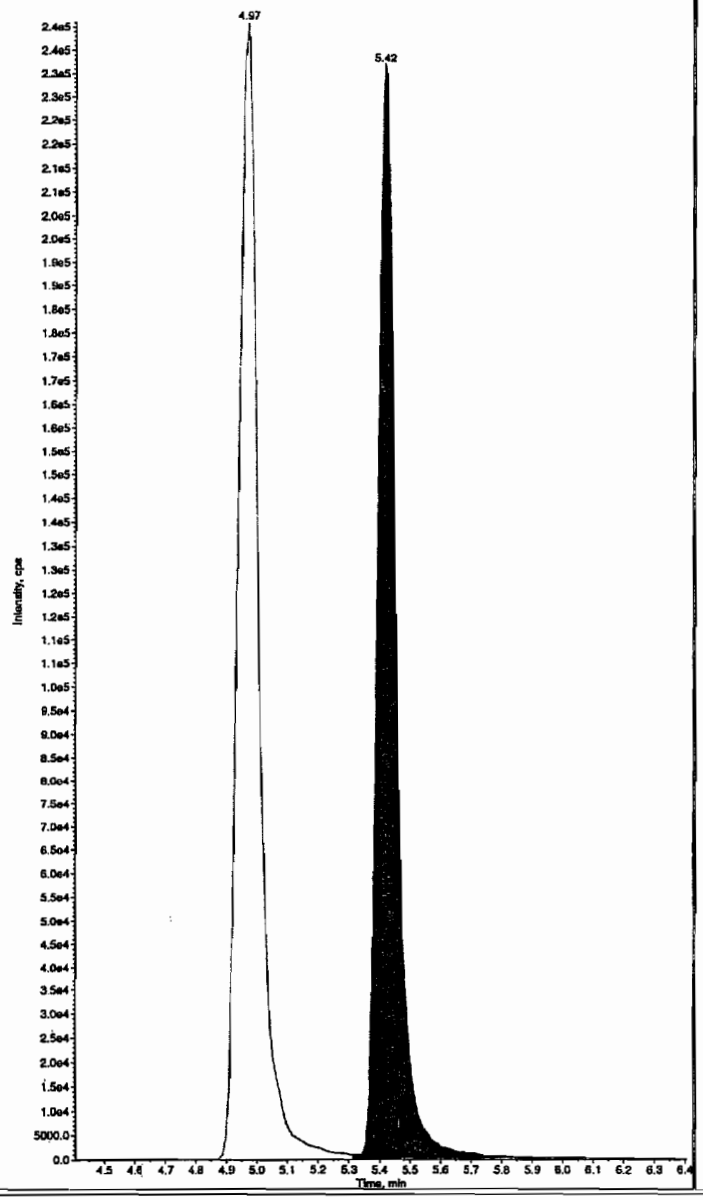

Sample Name: "WXX100331-26CCV" Sample ID: "|1|LER" File: "EXS03310048.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	498.	ng/mL
Acq. Date:	3/31/2010	
Acq. Time:	8:59:07 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.8	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.8	min
Area:	9.28e+006	counts
Height:	2156669.189	cps
Start Time:	10.7	min
End Time:	11.2	min

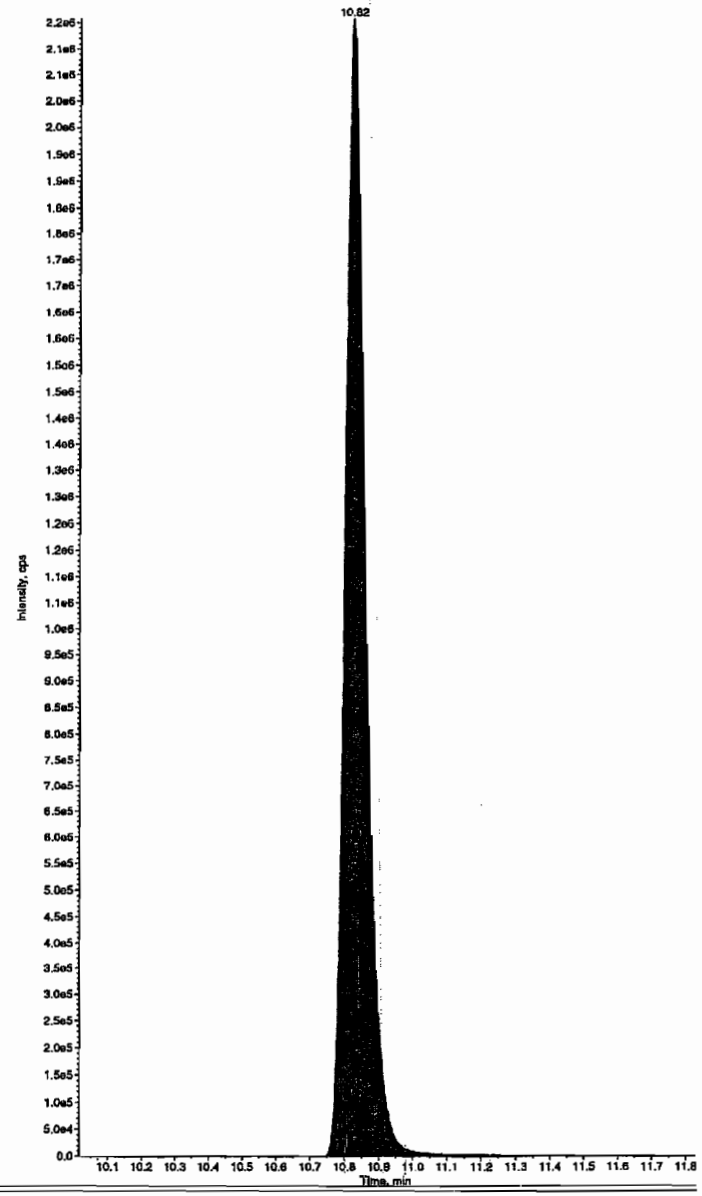

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2000

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03310050.wiff

Analysis Date: 31-MAR-10 21:30

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	88.6	89	
2,6-Diamino-4-nitrotoluene	100	103	103	
3,4-Dinitrotoluene	50	48.4	97	
3,5-Dinitroaniline	100	106	106	
TATB	100	98.5	99	
tris(o-cresyl) phosphate	100	101	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 4/5/10

nple Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310050.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 98.5 ng/mL
Date: 3/31/2010
Time: 9:30:32 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.90 min
elative RT: No

Type: Valley
ntion Time: 6.90 min
: 6.77e+004 counts
t: 14271.482 cps
: Time: 6.80 min
ime: 7.39 min

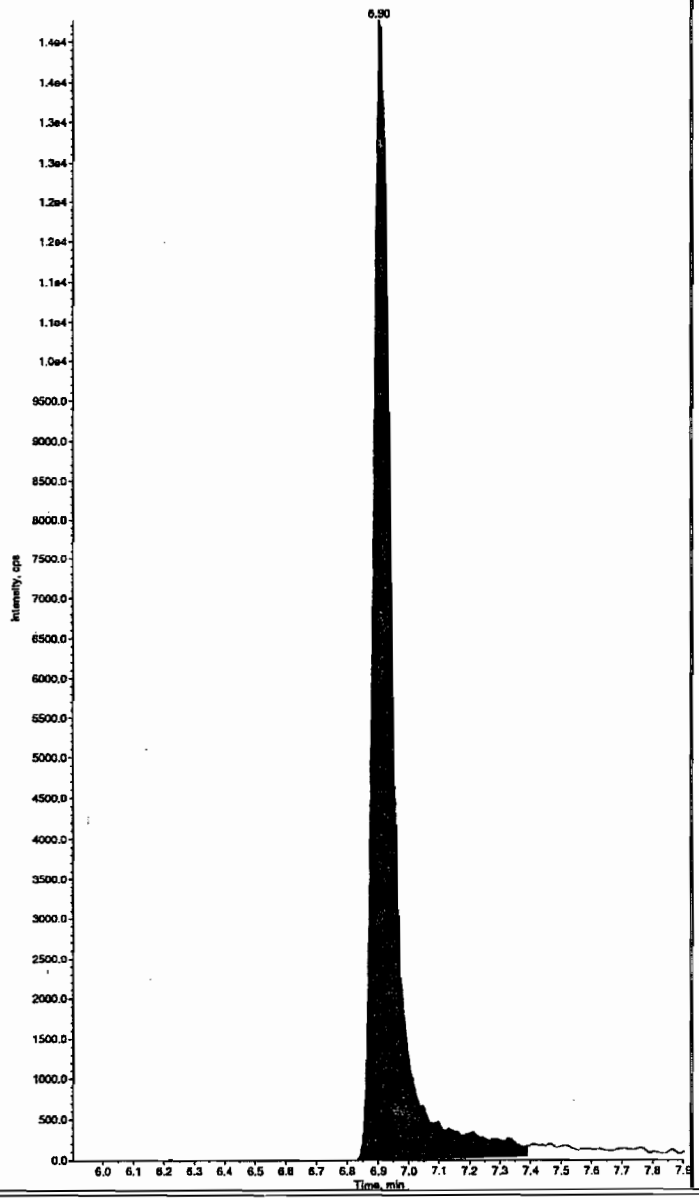

Sample Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310050.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 106. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:30:32 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.15 min
Area: 6.78e+005 counts
Height: 169699.051 cps
Start Time: 8.03 min
End Time: 8.27 min

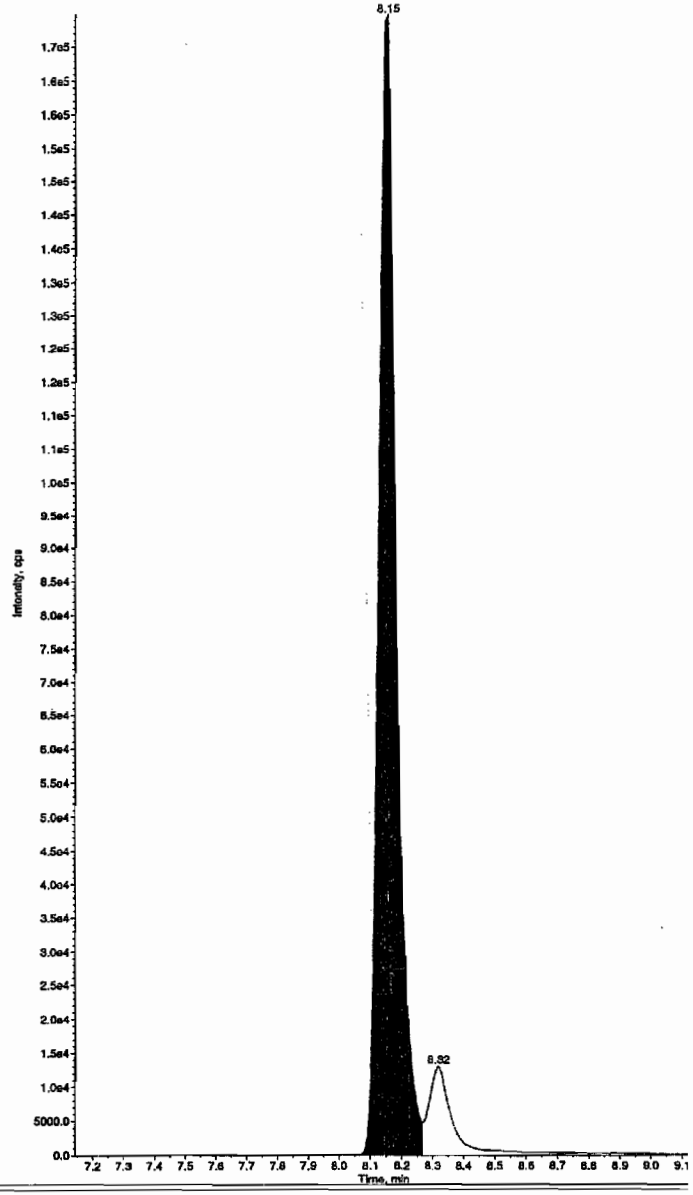

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ple Name: "WXX100331-27CRI" Sample ID: "|1|LER" File: "EXS03310050.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index:	1	
e Type:	QC	
ntration:	50.0	ng/mL
lated Conc:	48.4	ng/mL
Date:	3/31/2010	
Time:	9:30:32 PM	
ied:	No	
Algorithm:	IntelliQuan - IQA	
Peak Height:	1460.00	cps
Peak Width:	0.00	sec
hing Width:	3	points
ndow:	15.0	sec
ted RT:	8.31	min
elative RT:	No	
Type:	Valley	
tion Time:	8.31	min
	3.89e+005	counts
t:	99726.997	cps
Time:	8.24	min
ime:	8.59	min

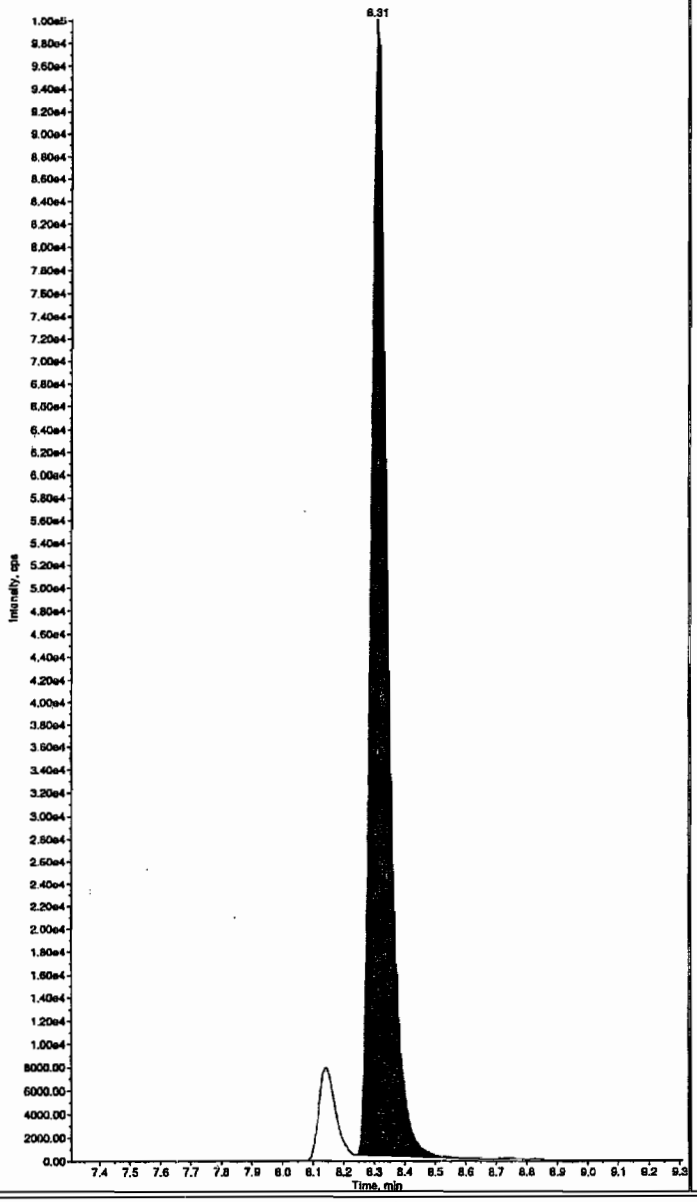

Sample Name: "WXX100331-27CRI" Sample ID: "|1|LER" File: "EXS03310050.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	103.	ng/mL
Acq. Date:	3/31/2010	
Acq. Time:	9:30:32 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	4.95	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	4.96	min
Area:	2.33e+005	counts
Height:	53019.333	cps
Start Time:	4.86	min
End Time:	5.25	min

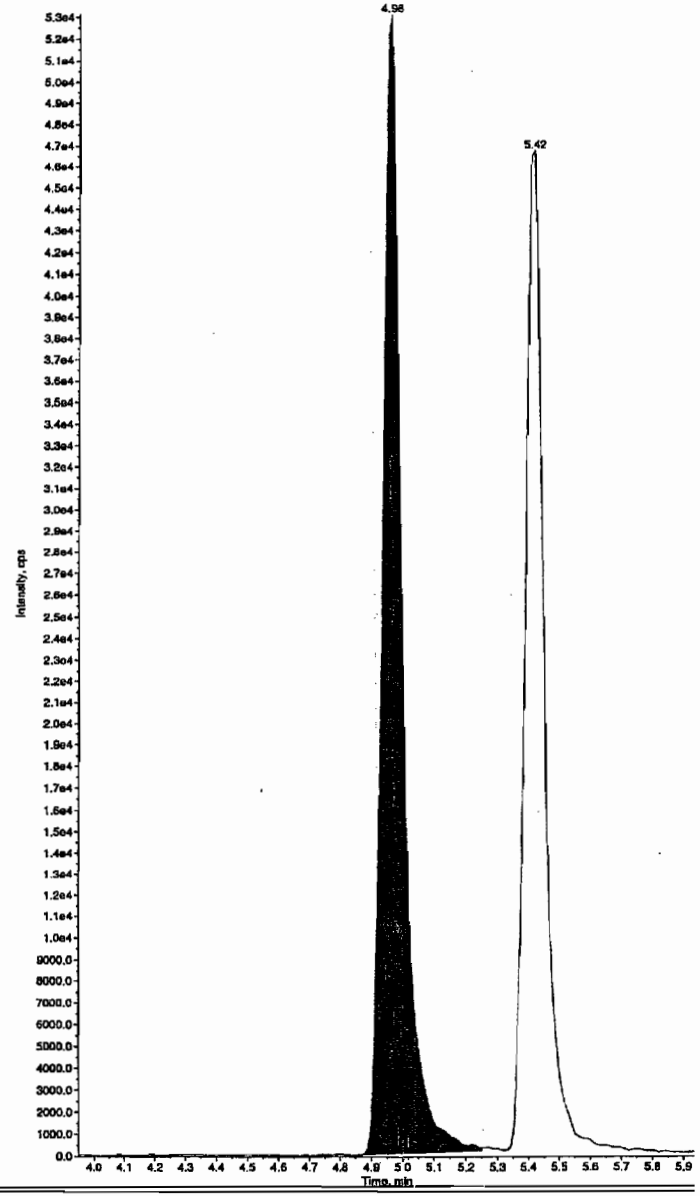

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ple Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310050.wiff"
(Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""

```
e Index:          1
e Type:          QC
ntration:      100.    ng/mL
lated Conc:     88.6    ng/mL
Date:       3/31/2010
Time:       9:30:32 PM

ied:            No
 Algorithm: IntelliQuan - IQA
Peak Height: 350.00   cps
Peak Width:    0.00   sec
hing Width:  3        points
ndow:         30.0    sec
ted RT:        5.41   min
elative RT:    No

Type:         Valley
tion Time:     5.42   min
          2.00e+005   counts
t:        46521.076   cps
 Time:         5.32   min
ime:           5.73   min
```

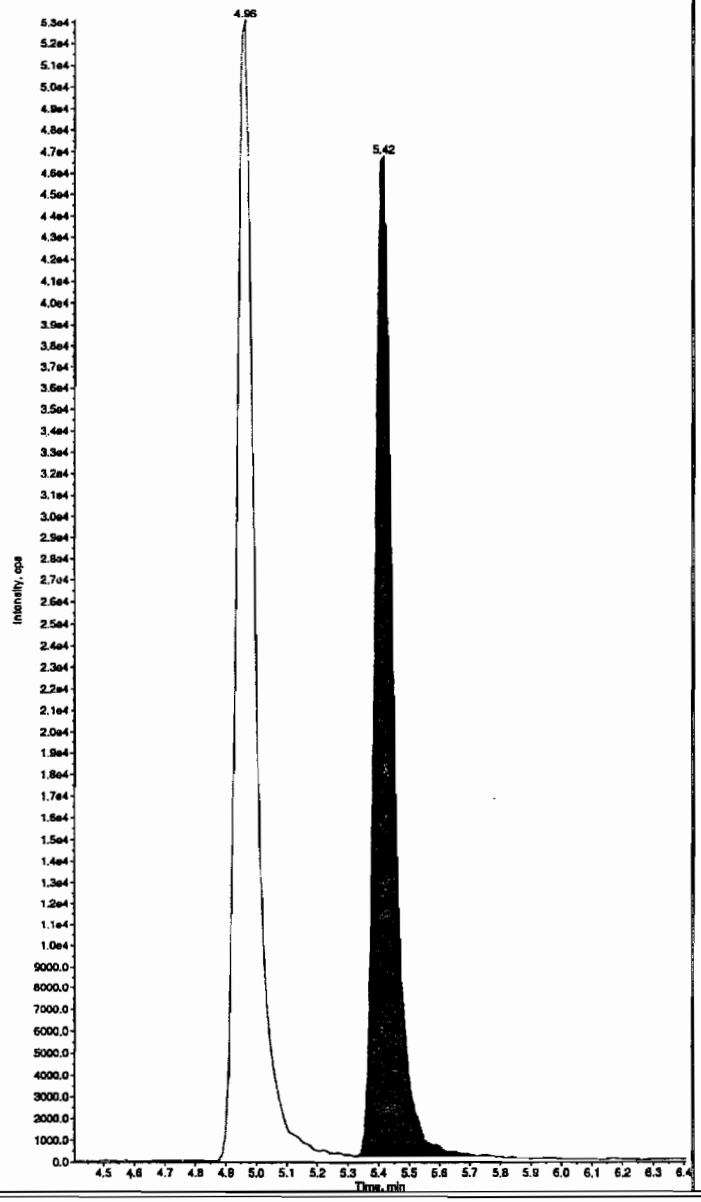

Sample Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310050.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:      100.    ng/mL
Calculated Conc:    101.    ng/mL
Acq. Date:       3/31/2010
Acq. Time:       9:30:32 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:       10.8    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:    10.8    min
Area:        2.11e+006   counts
Height:     515767.212   cps
Start Time:        10.7    min
End Time:          11.2    min
```

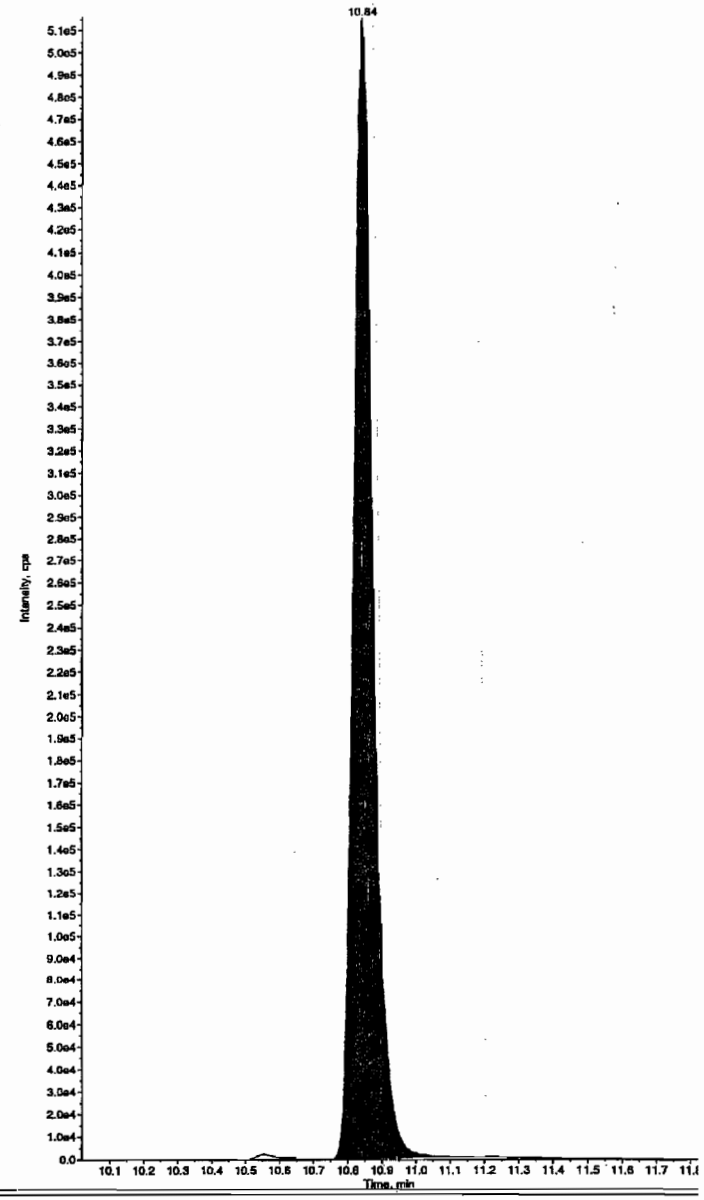

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QUALITY CONTROL DATA

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 957190

Lab Code: GEL

GEL Job No (SDG) 10-2000

Matrix: GROUND WATER

GEL Sample ID: 1202052389

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 24-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 957190

Concentrated Extract Volume (mL) 5

Date Extracted: 25-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0322021.wiff

Date Analyzed: 23-MAR-10 00:20

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	U
121-14-2	2,4-Dinitrotoluene	0.325	U
121-82-4	RDX	0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	U
2691-41-0	HMX	0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	U
479-45-8	Tetryl	0.649	U
606-20-2	2,6-Dinitrotoluene	0.084	J
78-11-5	PETN	1.3	U
88-72-2	o-Nitrotoluene	0.325	U
98-95-3	Nitrobenzene	0.325	U
99-08-1	m-Nitrotoluene	0.325	U
99-35-4	1,3,5-Trinitrobenzene	0.325	U
99-65-0	m-Dinitrobenzene	0.325	U
99-99-0	p-Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322021.wiff	Acquisition Date	3/23/2010 12:20:50 AM
Sample Name	1202052389	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

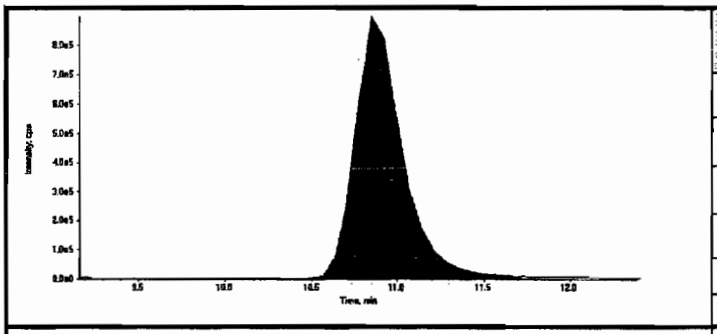

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	17300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

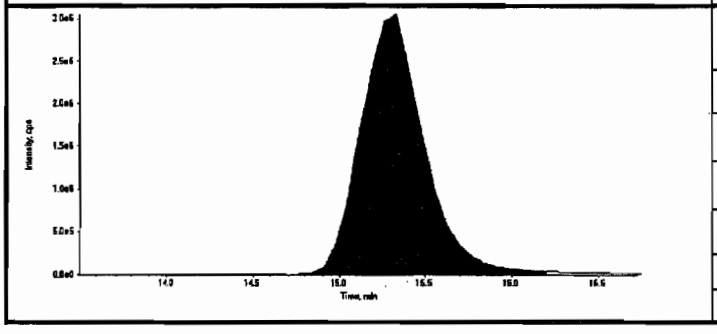

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.30
Area Counts:	78100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

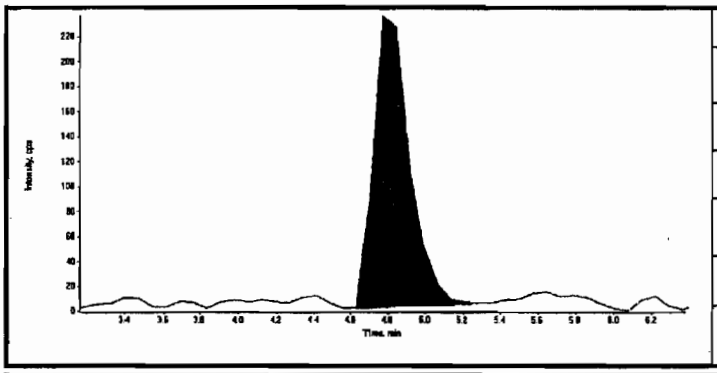

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	3.13e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

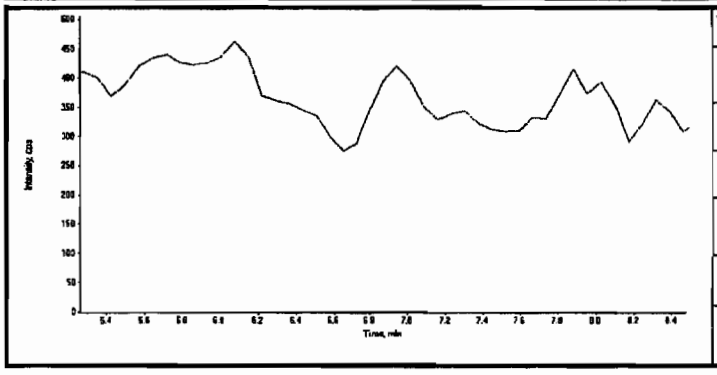

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

LCW 3/28/10

HMW 03/30/10

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Data File	EXP0322021.wiff	Acquisition Date	3/23/2010 12:20:50 AM
Sample Name	1202052389	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	**Unknown**

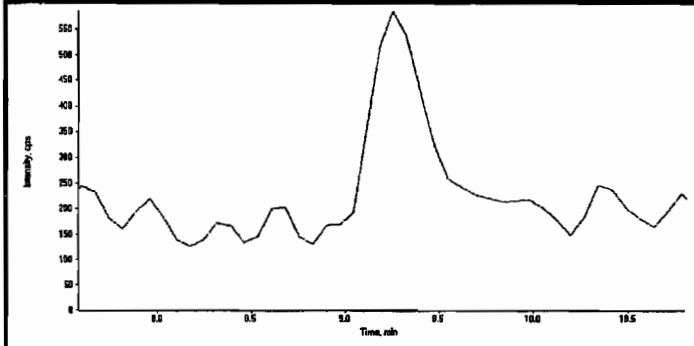

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

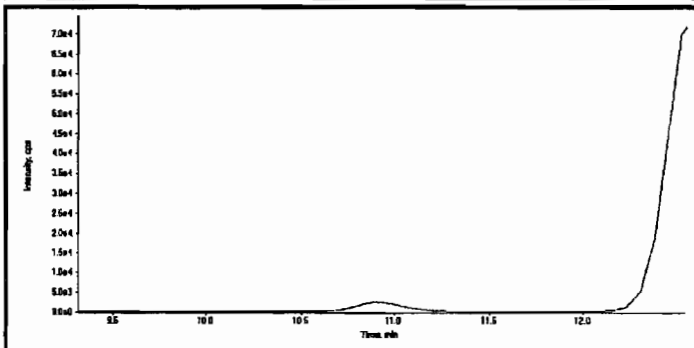

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

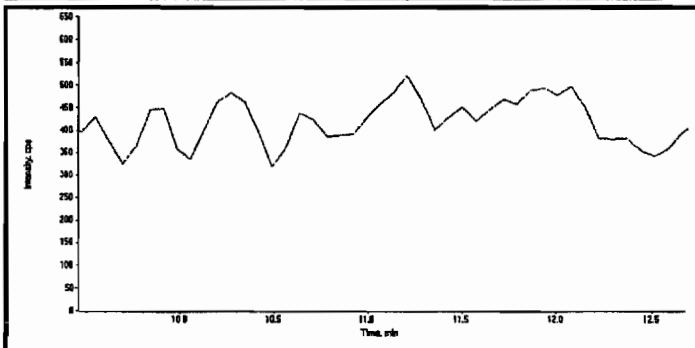

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

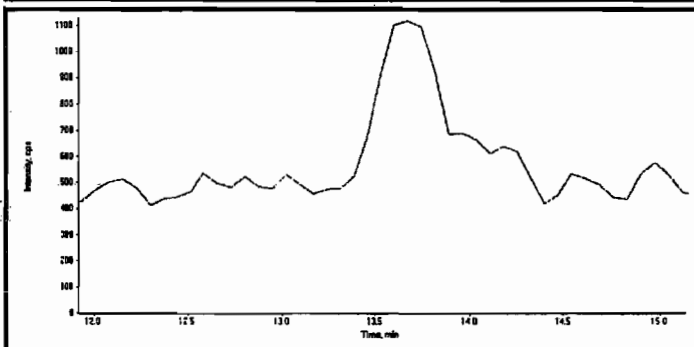

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322021.wiff	Acquisition Date	3/23/2010 12:20:50 AM
Sample Name	1202052389	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

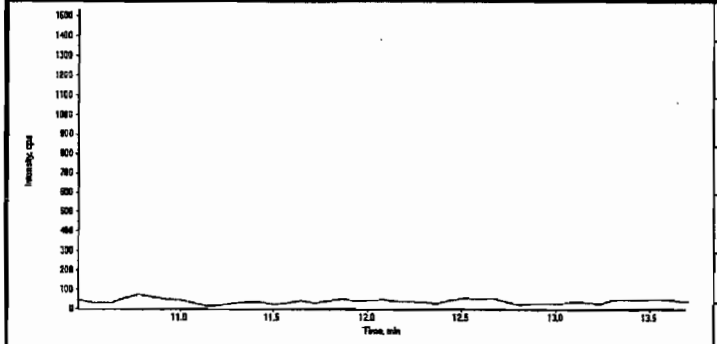

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

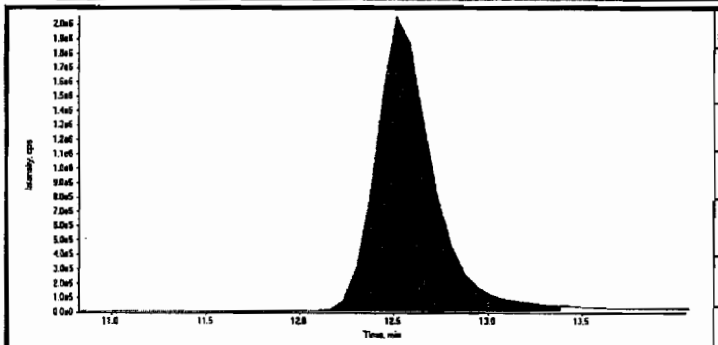

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.5
Area Counts:	4.35e+007
Manual Modification	No
Amount:	2.79 215. (ng/mL)
% Accuracy:	N/A

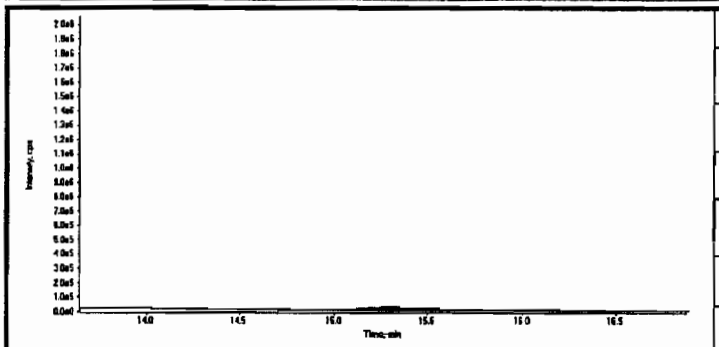

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	9.87e+005
Manual Modification	No
Amount:	6.49 (ng/mL)
% Accuracy:	N/A

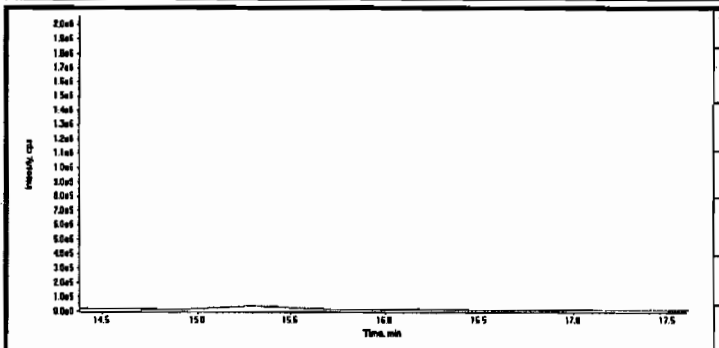

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322021.wiff	Acquisition Date	3/23/2010 12:20:50 AM
Sample Name	1202052389	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

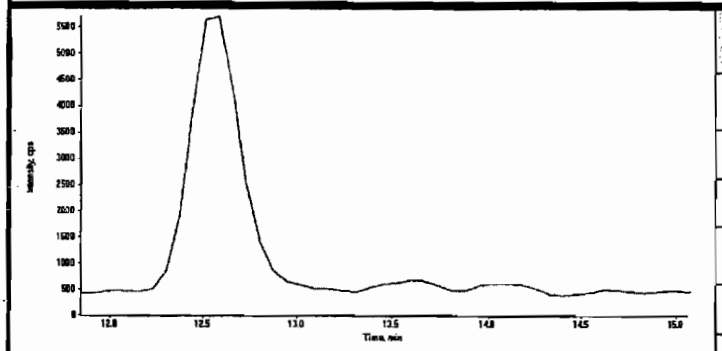

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

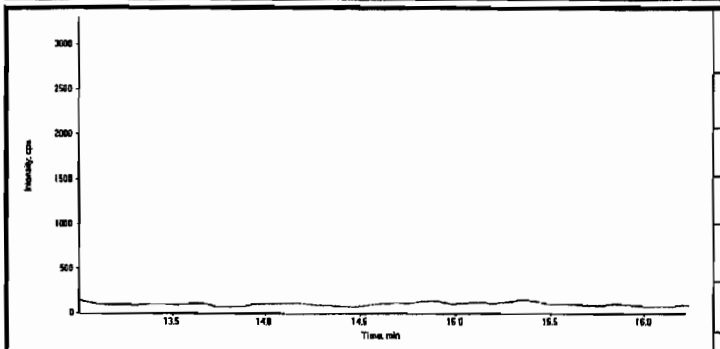

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

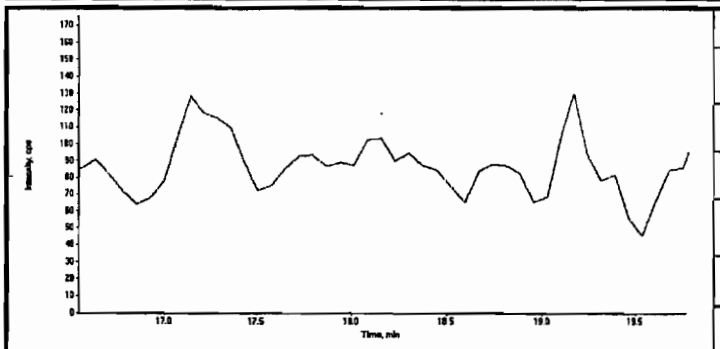

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

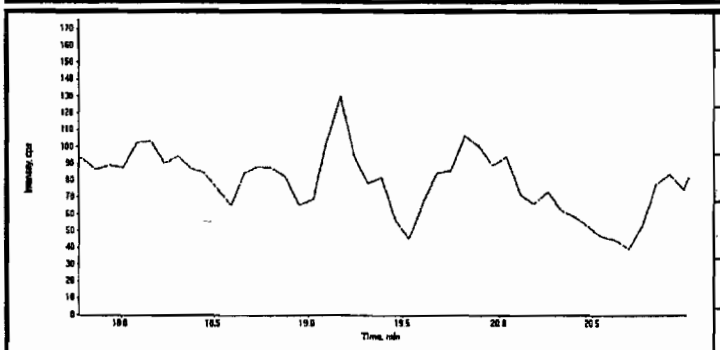

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322021.wiff	**Acquisition Date**	3/23/2010 12:20:50 AM
Sample Name	1202052389	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

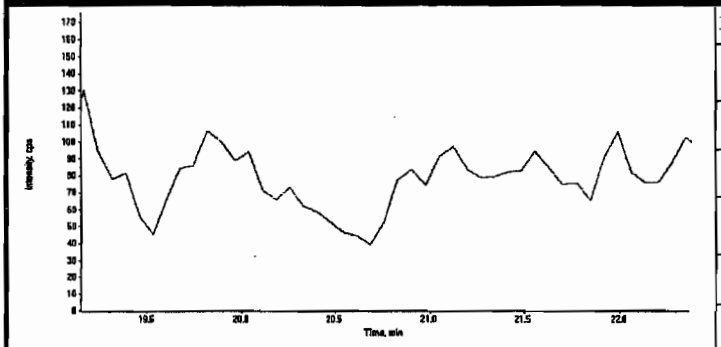

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

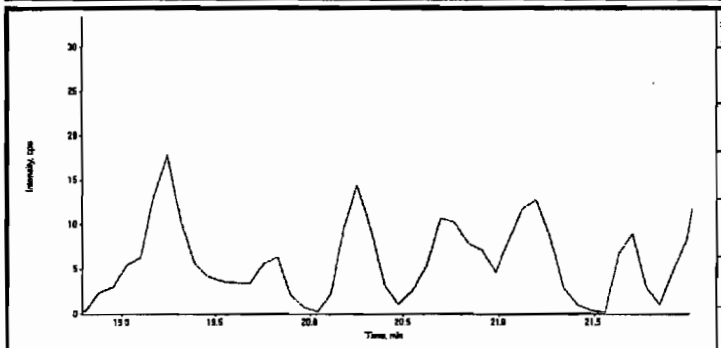

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 957190

Lab Code: GEL

GEL Job No (SDG) 10–2000

Matrix: GROUND WATER

GEL Sample ID: 1202052389

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 24–FEB–10

Extraction Type Sol Exchange

Extraction Batch ID: 957190

Concentrated Extract Volume (mL) 5

Date Extracted: 25–FEB–10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310039.wiff

Date Analyzed: 31–MAR–10 18:37

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058–38–6	TATB	1.3	U
59229–75–3	2,6–Diamino–4–nitrotoluene	1.3	U
618–87–1	3,5–Dinitroaniline	1.3	U
6629–29–4	2,4–Diamino–6–nitrotoluene	1.3	U
78–30–8	tris(o–cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ycan 415110

ample Name: "1202052389" Sample ID: "957192|2|LER" File: "EXS03310039.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/31/2010
. Time: 6:37:38 PM

ified: No

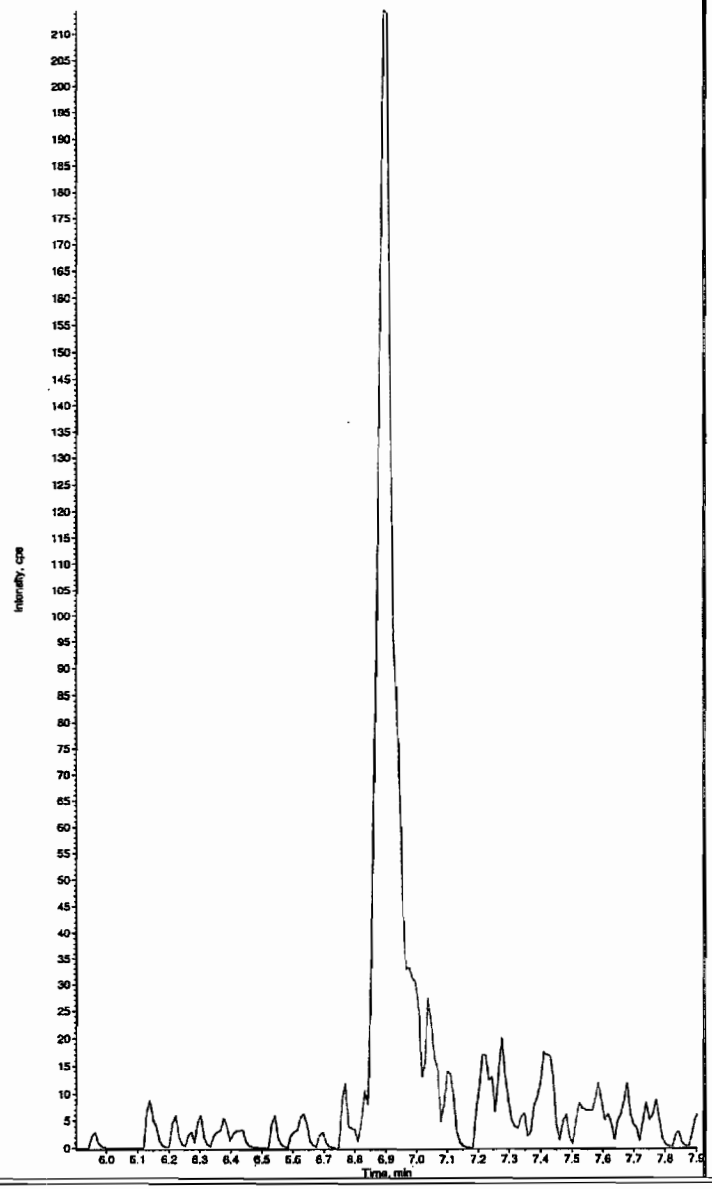

Sample Name: "1202052389" Sample ID: "957192|2|LER" File: "EXS03310039.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 6:37:38 PM

Modified: No

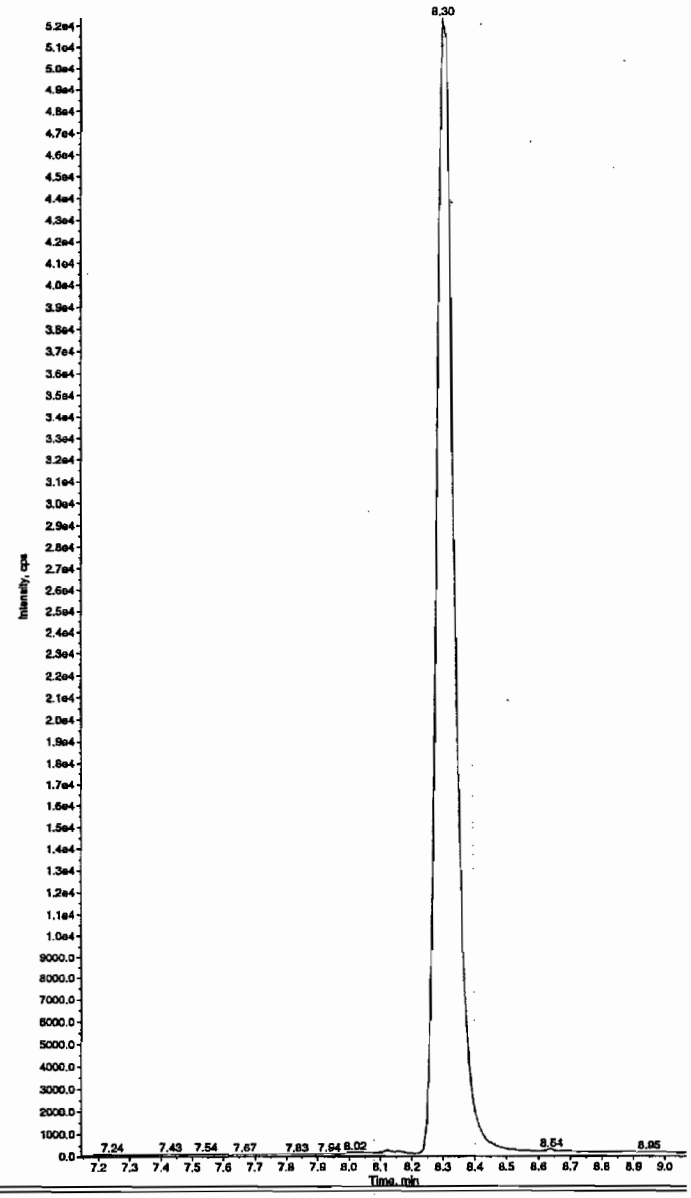

HMW 04/07/10

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ample Name: "1202052389" Sample ID: "957192[2]LER" File: "EXS03310039.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212S" Annotation: ""

ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 229. ng/mL
. Date: 3/31/2010
. Time: 6:37:38 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.31 min
Relative RT: No

. Type: Valley
ention Time: 8.30 min
a: 1.87e+006 counts
ght: 465888.794 cps
rt Time: 8.21 min
Time: 8.73 min

2.97

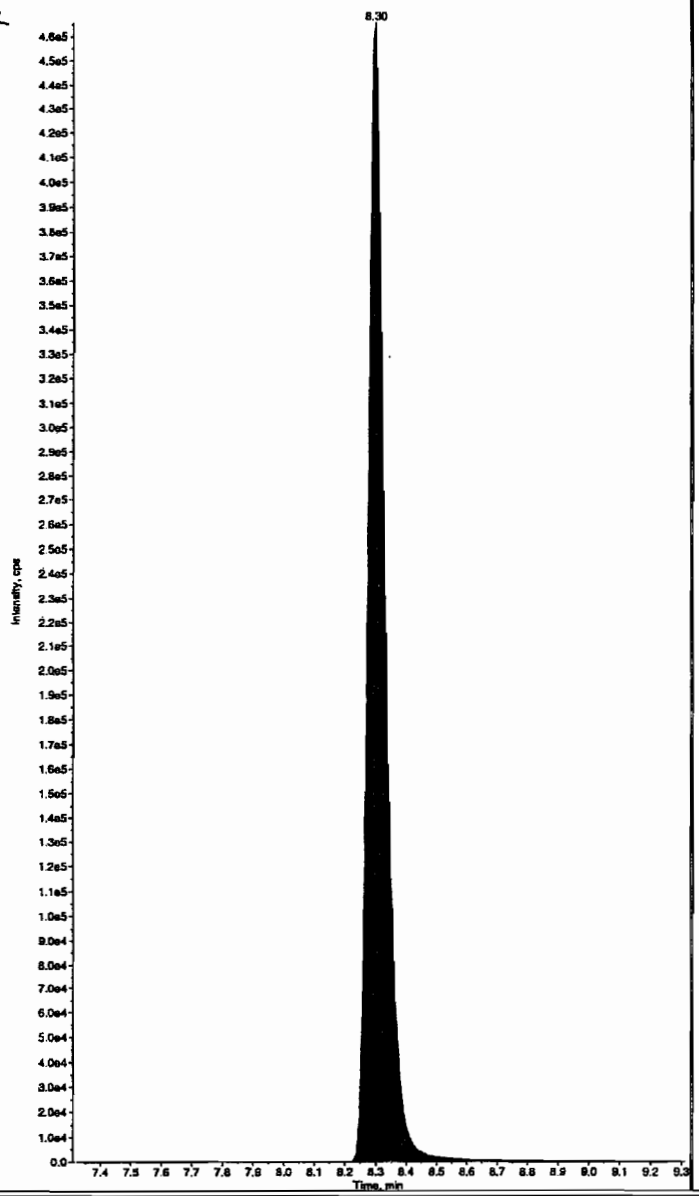

Sample Name: "1202052389" Sample ID: "957192[2]LER" File: "EXS03310039.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 6:37:38 PM

Modified: No

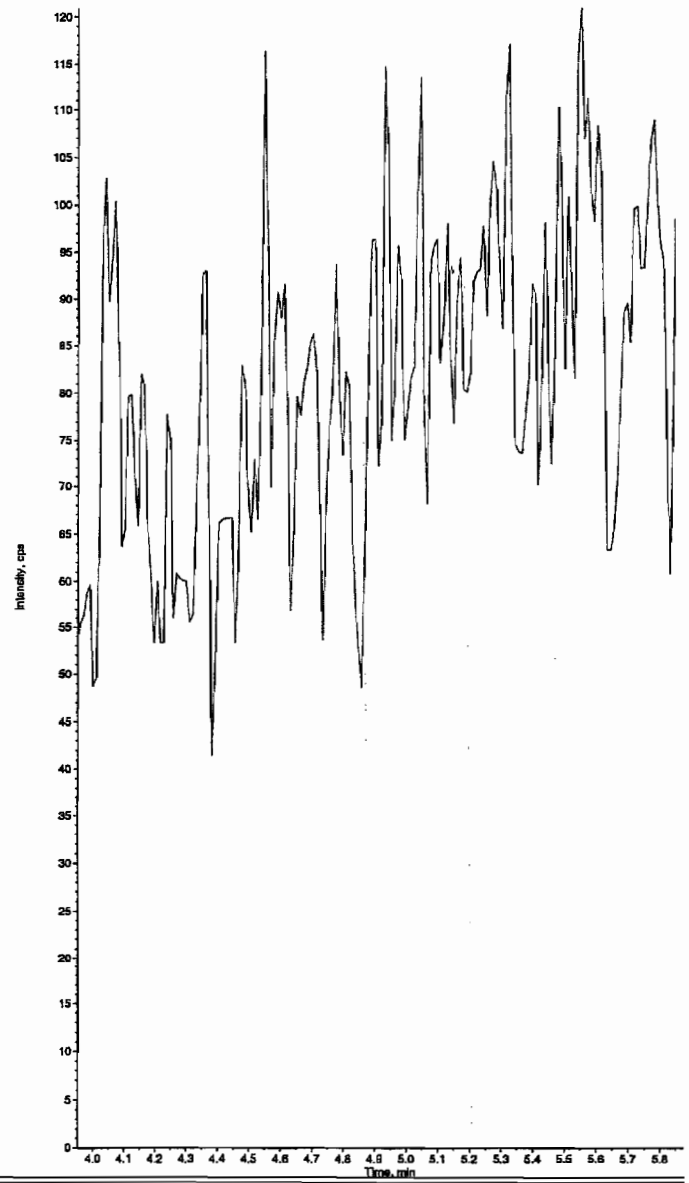

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

mple Name: "1202052389" Sample ID: "957192|2|LER" File: "EXS03310039.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 3/31/2010
Time: 6:37:38 PM

fied: No

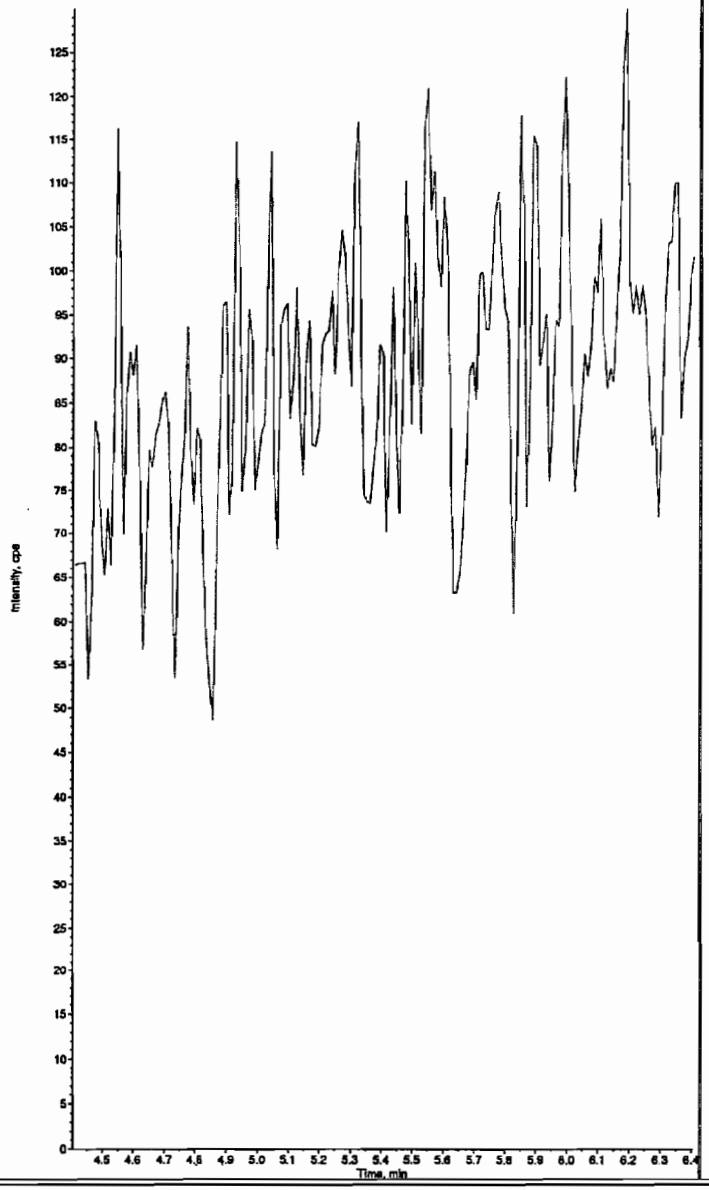

Sample Name: "1202052389" Sample ID: "957192|2|LER" File: "EXS03310039.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/31/2010
Acq. Time: 6:37:38 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 4.67e+004 counts
Height: 11740.528 cps
Start Time: 10.7 min
End Time: 11.0 min

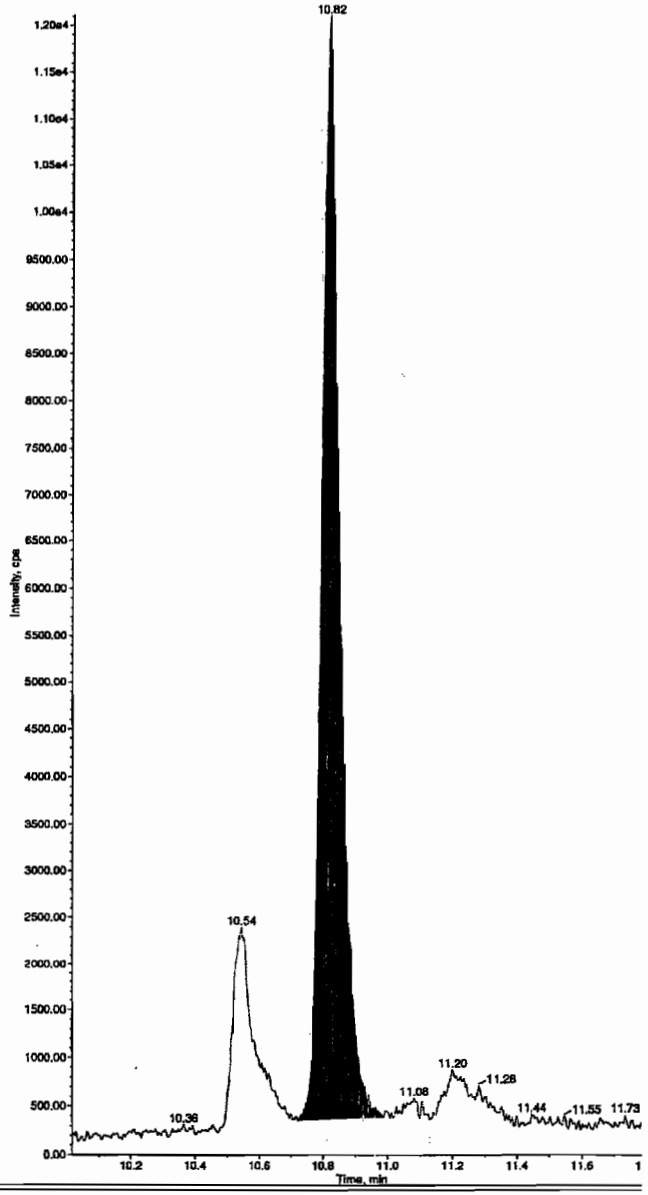

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 957190

Lab Code: GEL

GEL Job No (SDG) 10–2000

Matrix: GROUND WATER

GEL Sample ID: 1202052390

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 24–FEB–10

Extraction Type Sol Exchange

Extraction Batch ID: 957190

Concentrated Extract Volume (mL) 5

Date Extracted: 25–FEB–10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0322022.wiff

Date Analyzed: 23–MAR–10 00:47

Units: ug/L

Cas No.	Compound	Concentration*	Q
118–96–7	2,4,6–Trinitrotoluene	5.55	
121–14–2	2,4–Dinitrotoluene	6.22	
121–82–4	RDX	5.75	
19406–51–0	4–Amino–2,6–dinitrotoluene	5.97	
2691–41–0	HMX	5.52	
35572–78–2	2–Amino–4,6–dinitrotoluene	6.18	
479–45–8	Tetryl	5.9	
606–20–2	2,6–Dinitrotoluene	5.38	B
78–11–5	PETN	6.81	
88–72–2	o–Nitrotoluene	5.55	
98–95–3	Nitrobenzene	5.66	
99–08–1	m–Nitrotoluene	5.71	
99–35–4	1,3,5–Trinitrobenzene	5.31	
99–65–0	m–Dinitrobenzene	5.69	
99–99–0	p–Nitrotoluene	5.96	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322022.wiff	**Acquisition Date**	3/23/2010 12:47:14 AM
Sample Name	1202052390	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

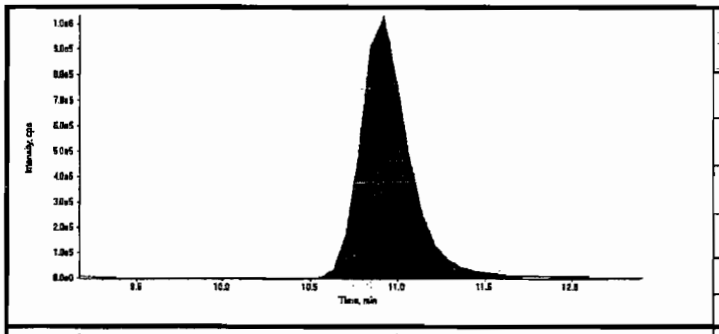

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	19400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

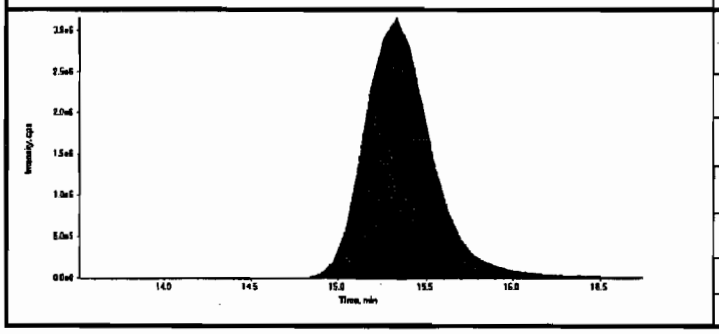

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.30
Area Counts:	83800000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

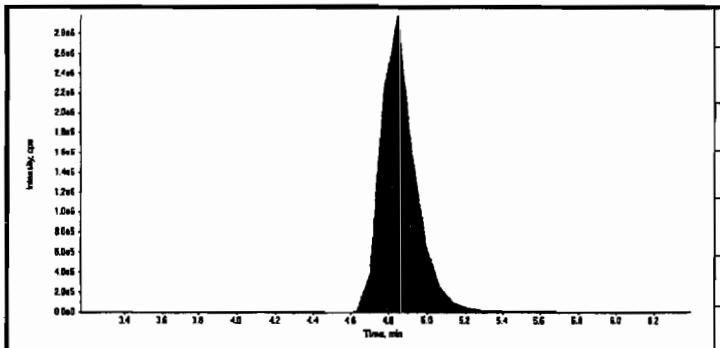

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.85
Area Counts:	3.61e+007
Manual Modification	No
Amount:	425. (ng/mL)
% Accuracy:	N/A

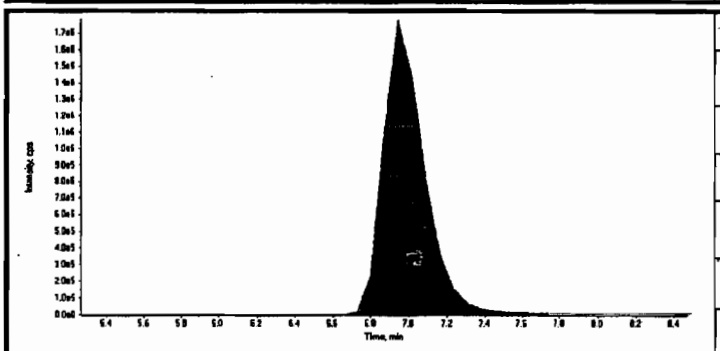

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.94
Area Counts:	2.64e+007
Manual Modification	No
Amount:	443. (ng/mL)
% Accuracy:	N/A

Lan 3/28/10

Hm 03/30/10

Before Ken 3/28/10

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ple Name: "12020523S0" Sample ID: "957192(2)LER" File: "EXP0322022.wiff"
k Name: "248-Trinitrotoluene" Mass(es): "227.1/209.8 amu"
ment: "LCX3521_L" Annotation: ""

e Index:	1	
e Type:	Unknown	
ntration:	N/A	
lated Conc:	382.	ng/mL
Date:	3/23/2010	
Time:	12:47:14 AM	
lad:	No	
Algorithm:	IntelliQuan - IQA	
Peak Height:	1.00e4	cps
Peak Width:	0.00	sec
hing Width:	3	points
ndow:	60.0	sec
ted RT:	13.5	min
elative RT:	No	
Type:	Valley	
tion Time:	13.7	min
	1.71e+008	counts
t:	6.87e+006	cps
Time:	13.2	min
ime:	14.5	min

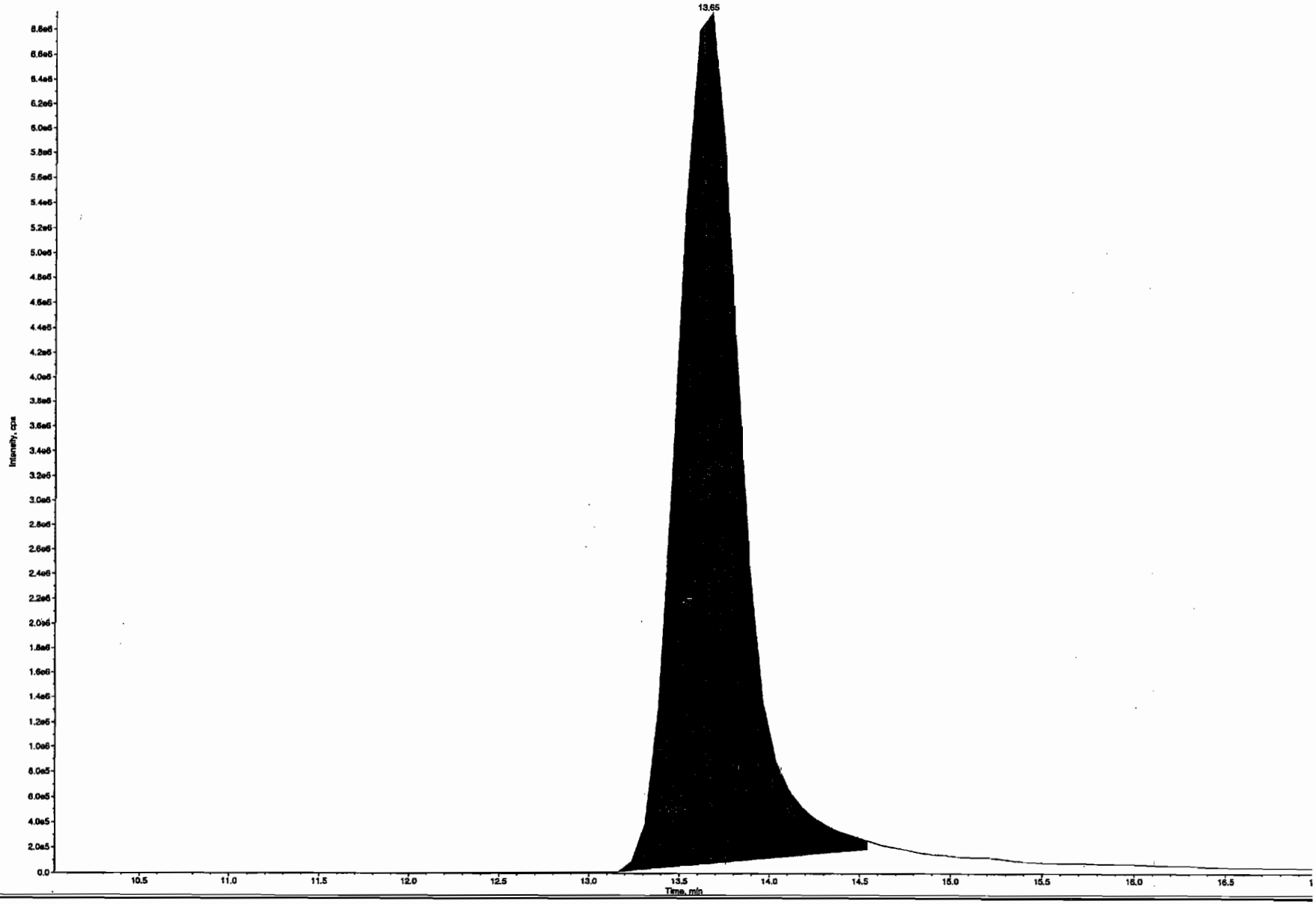

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Data File	EXP0322022.wiff	Acquisition Date	3/23/2010 12:47:14 AM
Sample Name	1202052390	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

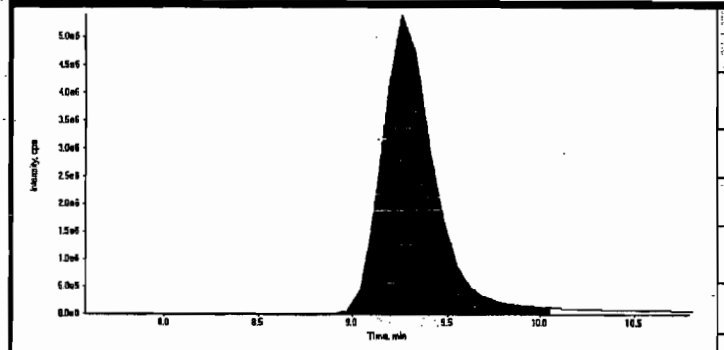

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.26
Area Counts:	1.03e+008
Manual Modification	No
Amount:	409. (ng/mL)
% Accuracy:	N/A

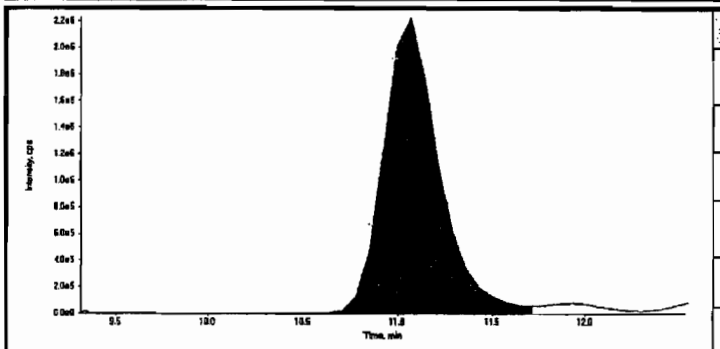

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	11.1
Area Counts:	4.53e+007
Manual Modification	No
Amount:	438. (ng/mL)
% Accuracy:	N/A

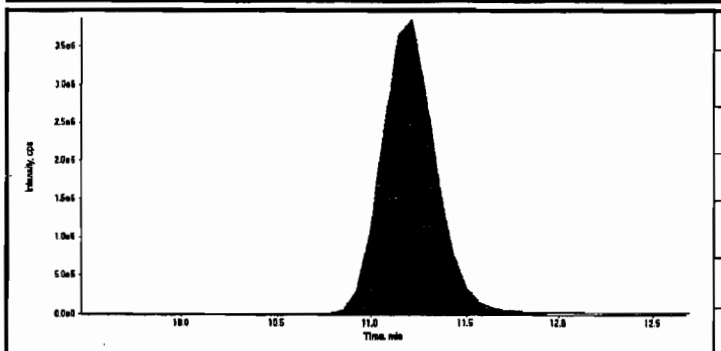

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.2
Area Counts:	7.54e+007
Manual Modification	No
Amount:	454. (ng/mL)
% Accuracy:	N/A

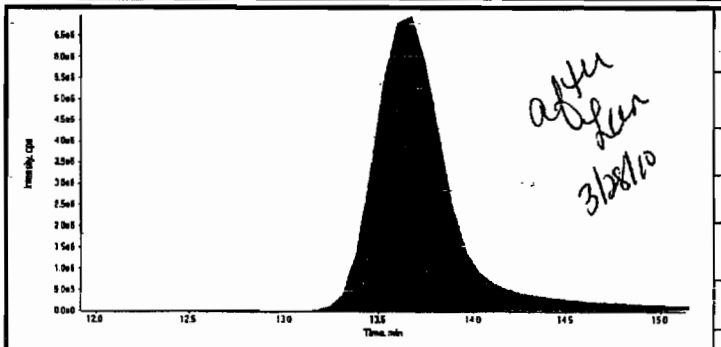

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	1.88e+008
Manual Modification	Yes
Amount:	427. (ng/mL)
% Accuracy:	N/A

Before Lab 3/28/10

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ple Name: "1202052390" Sample ID: "557192[2]LER" File: "EXP0322022.wiff"
k Name: "24-dinitrotoluene" Mass(es): "182.0/48.0 amu"
ument: "LCX3521_L" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/23/2010
Time: 12:47:14 AM

ied: No

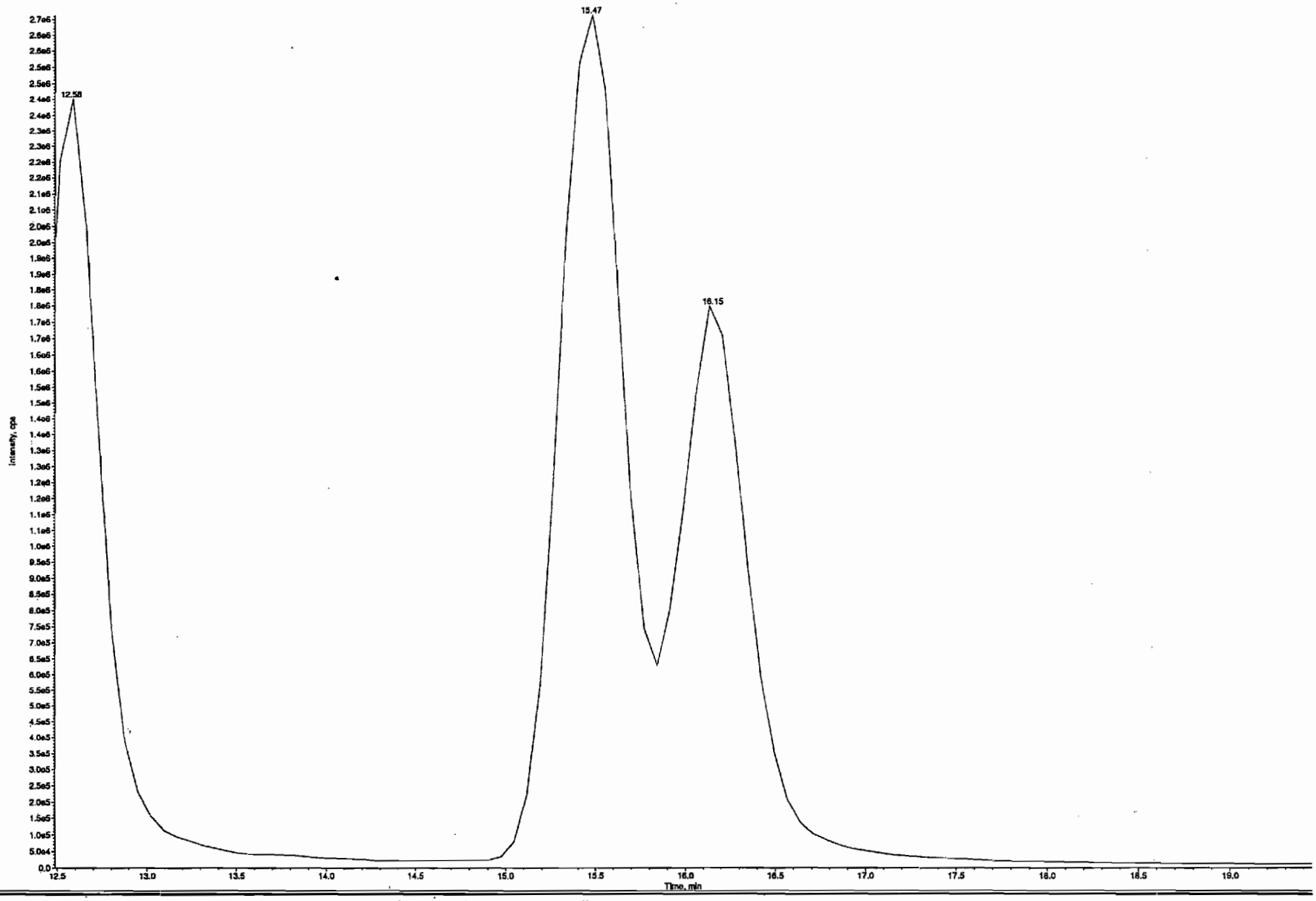

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Data File	EXP0322022.wiff	**Acquisition Date**	3/23/2010 12:47:14 AM
Sample Name	1202052390	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

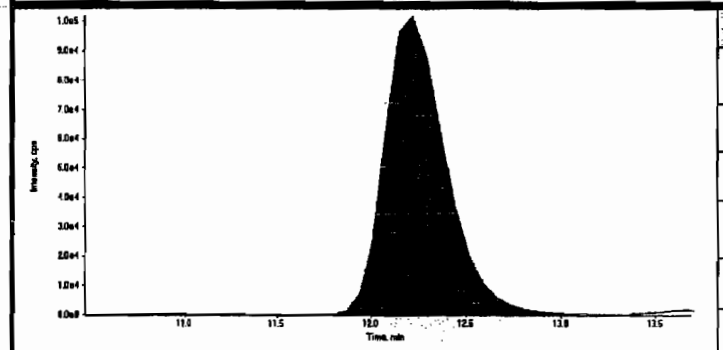

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	2.29e+006
Manual Modification	No
Amount:	436. (ng/mL)
% Accuracy:	N/A

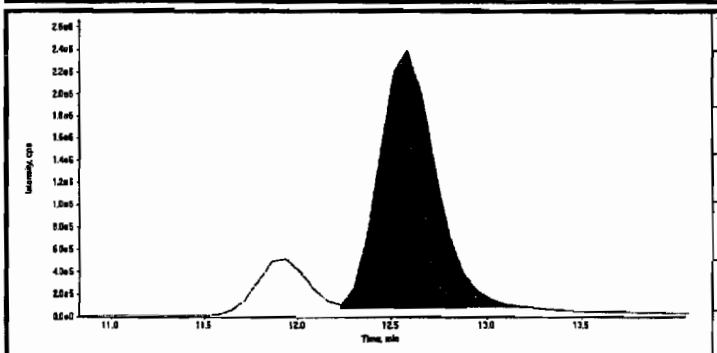

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.6
Area Counts:	4.82e+007
Manual Modification	No
Amount:	2.88 222. (ng/mL)
% Accuracy:	N/A

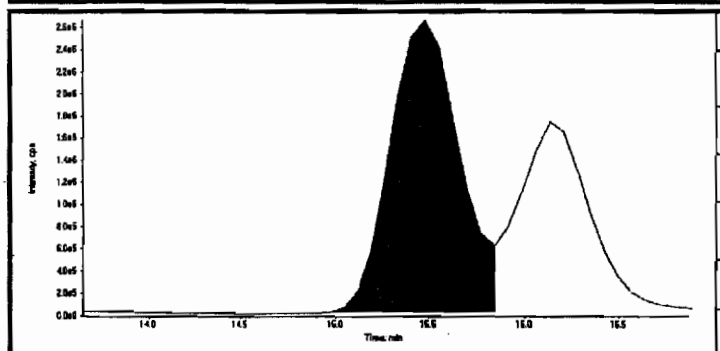

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.5
Area Counts:	6.75e+007
Manual Modification	No
Amount:	414. (ng/mL)
% Accuracy:	N/A

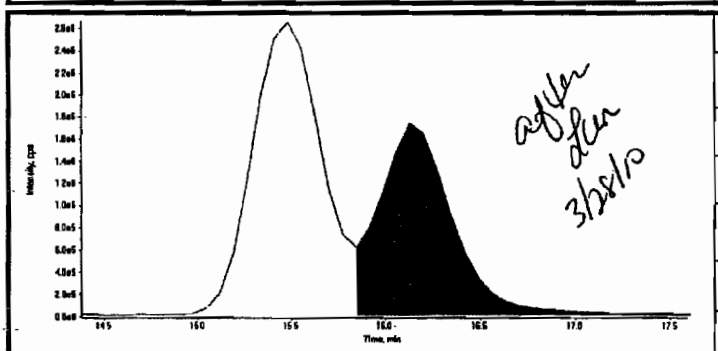

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	16.1
Area Counts:	4.70e+007
Manual Modification	Yes
Amount:	479. (ng/mL)
% Accuracy:	N/A

Before Lab 3/28/10

ample Name: "1202052360" Sample ID: "957192|2|LER" File: "EXP0322022.wiff"
eak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
omment: "LCX3521_L" Annotation: ""

le Index:	1
le Type:	Unknown
entration:	N/A
ulated Conc:	727. ng/mL
Date:	3/23/2010
Time:	12:47:14 AM
fied:	No
. Algorithm:	IntelliQuan - IQA
Peak Height:	1000.00 cps
Peak Width:	0.00 sec
thing Width:	3 points
indow:	30.0 sec
cted RT:	14.6 min
Relative RT:	No
Type:	Valley
ntion Time:	14.8 min
:	4.06e+006 counts
ht:	1.28e+005 cps
t Time:	14.5 min
Time:	15.6 min

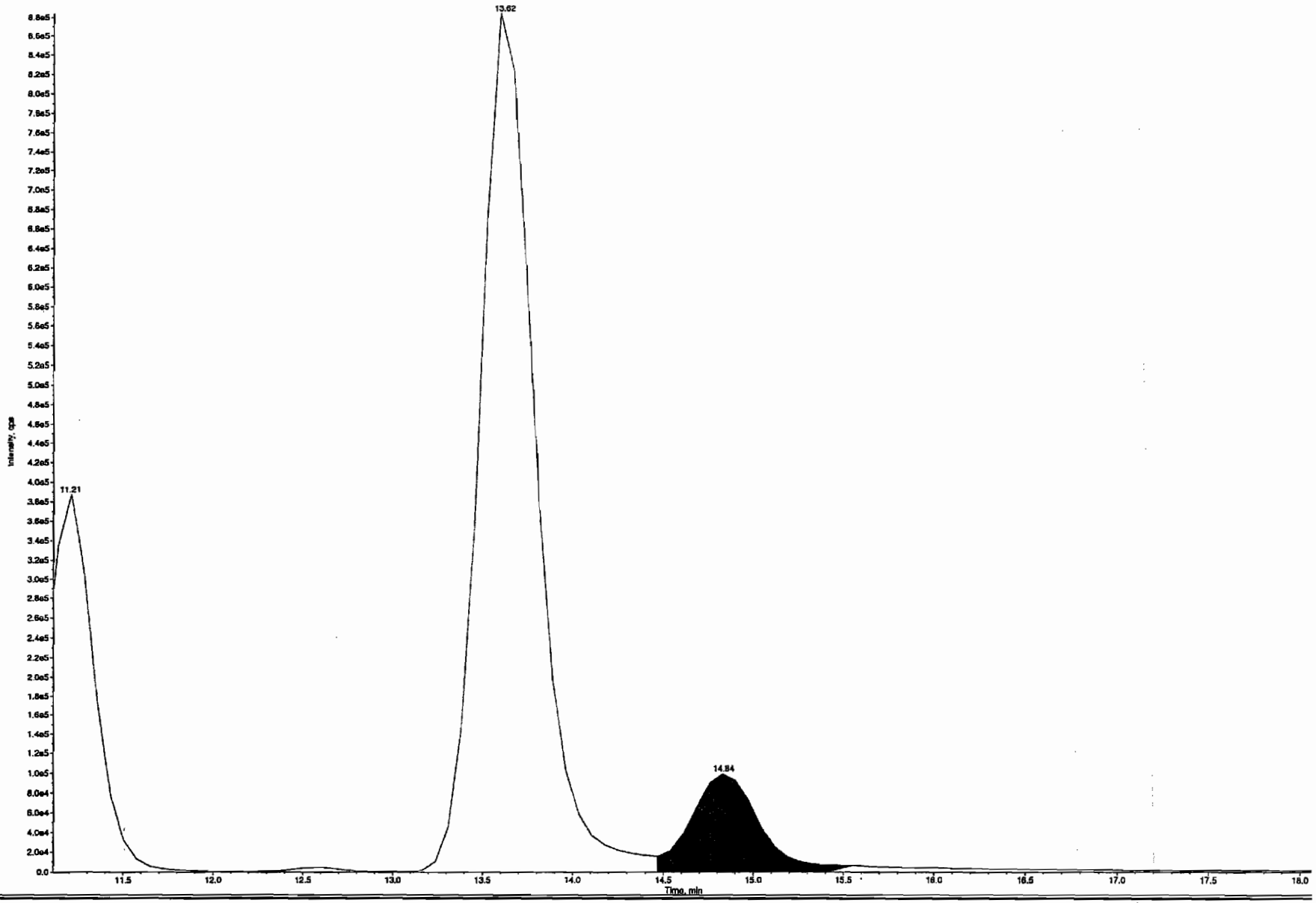

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322022.wiff	Acquisition Date	3/23/2010 12:47:14 AM
Sample Name	1202052390	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

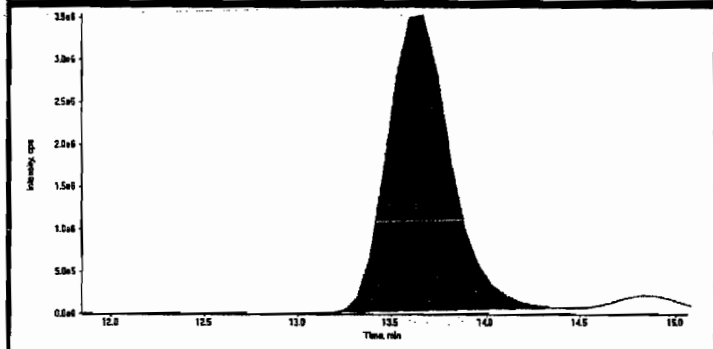

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.7
Area Counts:	8.14e+007
Manual Modification	No
Amount:	460. (ng/mL)
% Accuracy:	N/A

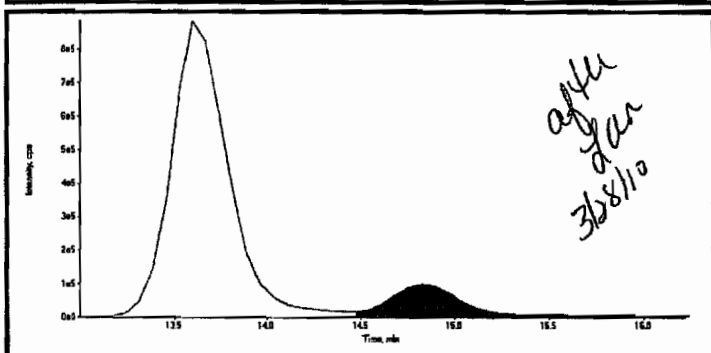

after gen 3/28/10

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.8
Area Counts:	2.66e+006
Manual Modification	Yes
Amount:	476. (ng/mL)
% Accuracy:	N/A

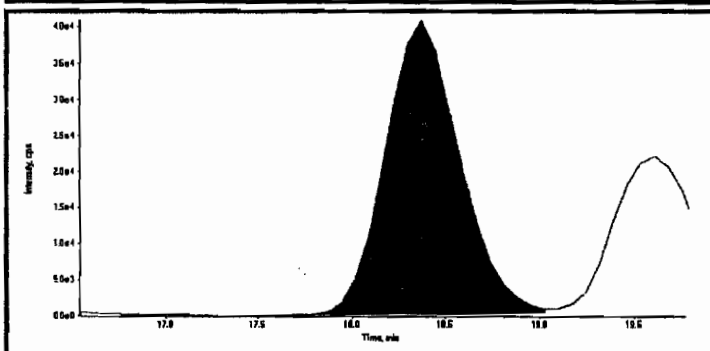

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.4
Area Counts:	1.12e+006
Manual Modification	No
Amount:	427. (ng/mL)
% Accuracy:	N/A

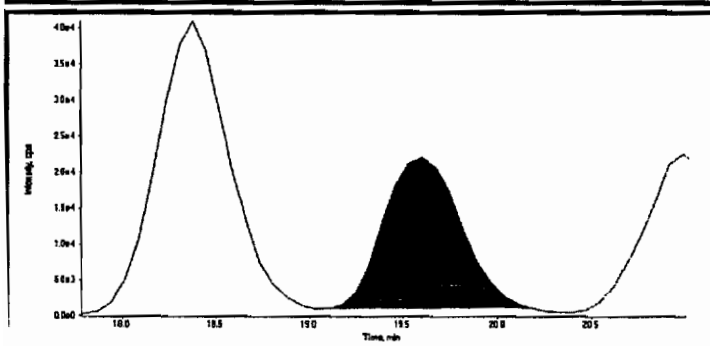

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.6
Area Counts:	6.00e+005
Manual Modification	No
Amount:	459. (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322022.wiff	Acquisition Date	3/23/2010 12:47:14 AM
Sample Name	1202052390	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	**Unknown**

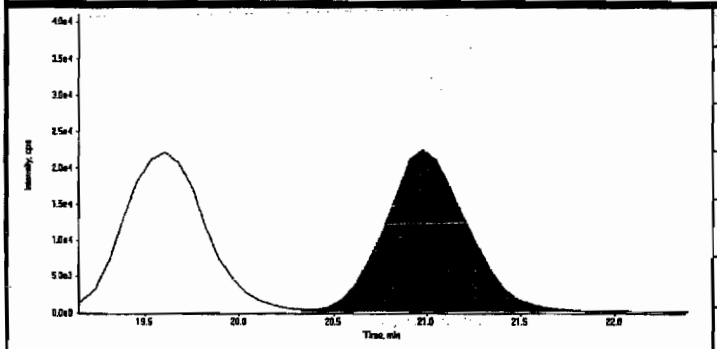

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	21.0
Area Counts:	6.85e+005
Manual Modification	No
Amount:	440. (ng/mL)
% Accuracy:	N/A

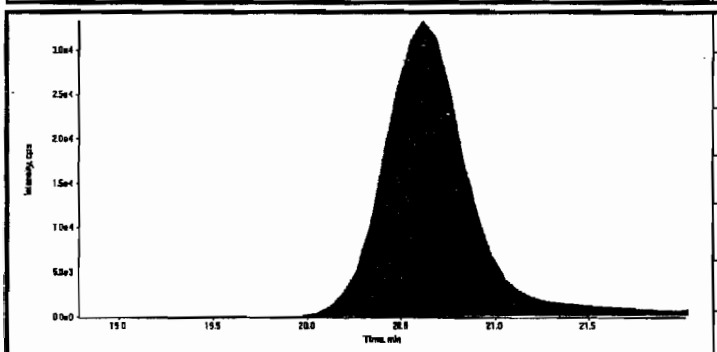

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.6
Area Counts:	1.05e+006
Manual Modification	No
Amount:	524. (ng/mL)
% Accuracy:	N/A

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 957190

Lab Code: GEL

GEL Job No (SDG) 10–2000

Matrix: GROUND WATER

GEL Sample ID: 1202052390

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 24–FEB–10

Extraction Type Sol Exchange

Extraction Batch ID: 957190

Concentrated Extract Volume (mL) 5

Date Extracted: 25–FEB–10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310040.wiff

Date Analyzed: 31–MAR–10 18:53

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058–38–6	TATB	5.03	
59229–75–3	2,6–Diamino–4–nitrotoluene	5.88	
618–87–1	3,5–Dinitroaniline	5.22	
6629–29–4	2,4–Diamino–6–nitrotoluene	4.56	
78–30–8	tris(o–cresyl) phosphate	2.13	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 4/5/10

Sample Name: "1202052390" Sample ID: "957192|2|LER" File: "EXS03310040.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 387. ng/mL
cq. Date: 3/31/2010
cq. Time: 6:53:22 PM

odified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 2500.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 6.90 min
e Relative RT: No

t. Type: Valley
tention Time: 6.90 min
ea: 2.85e+005 counts
ight: 62495.216 cps
art Time: 6.80 min
d Time: 7.53 min

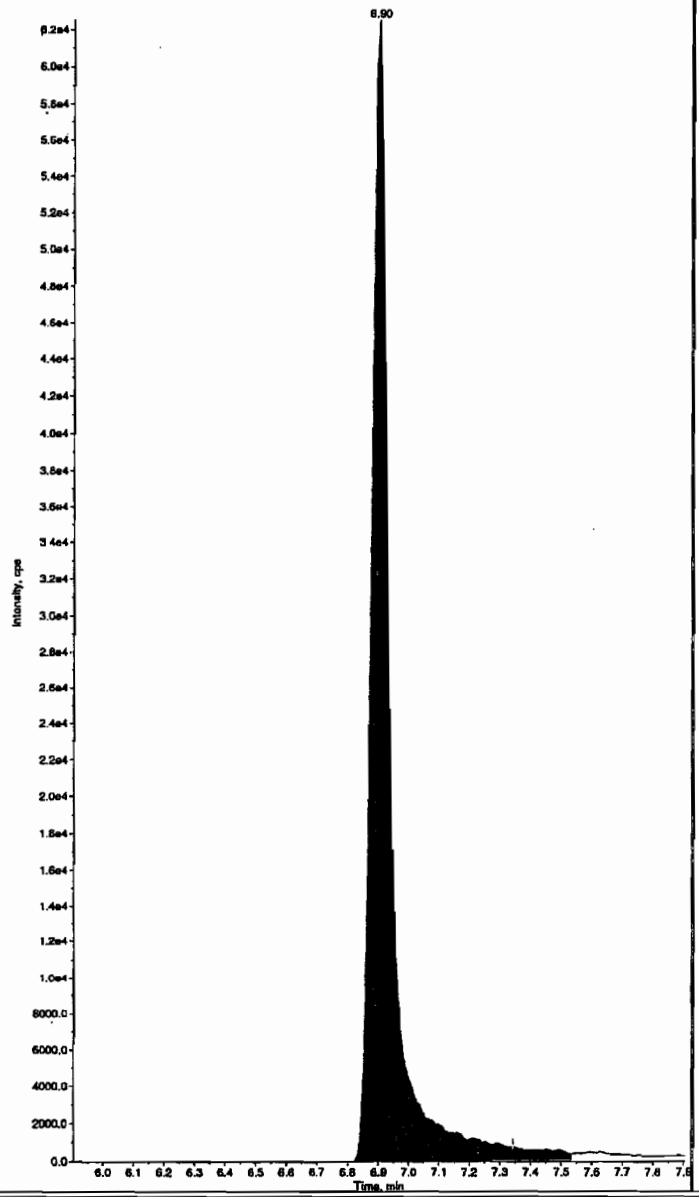

Sample Name: "1202052390" Sample ID: "957192|2|LER" File: "EXS03310040.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 402. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 6:53:22 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.13 min
Area: 2.58e+006 counts
Height: 588082.275 cps
Start Time: 8.06 min
End Time: 8.26 min

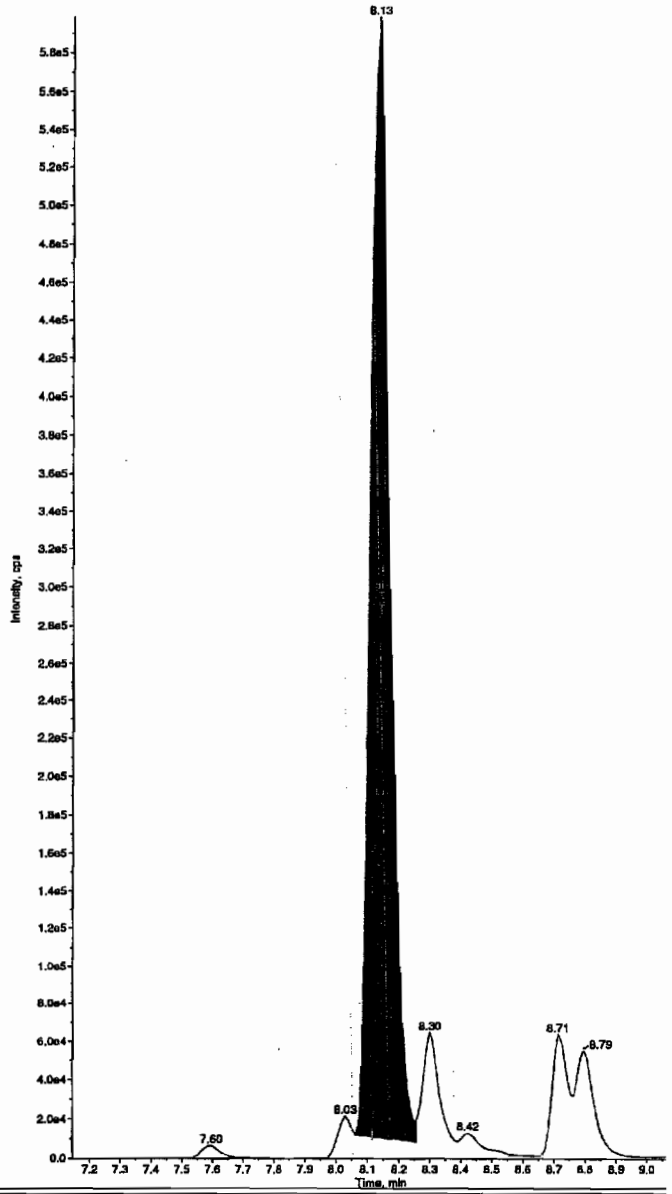

HMM 04/07/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "1202052390" Sample ID: "957192|2|LER" File: "EXS03310040.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

mple Index: 1 3.01
mple Type: Unknown
ncentration: N/A
lculated Conc: 232. ng/mL
q. Date: 3/31/2010
q. Time: 6:53:22 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.31 min
e Relative RT: No

:. Type: Valley
:ention Time: 8.30 min
ea: 1.89e+006 counts
ight: 489089.447 cps
rt Time: 8.23 min
1 Time: 8.54 min

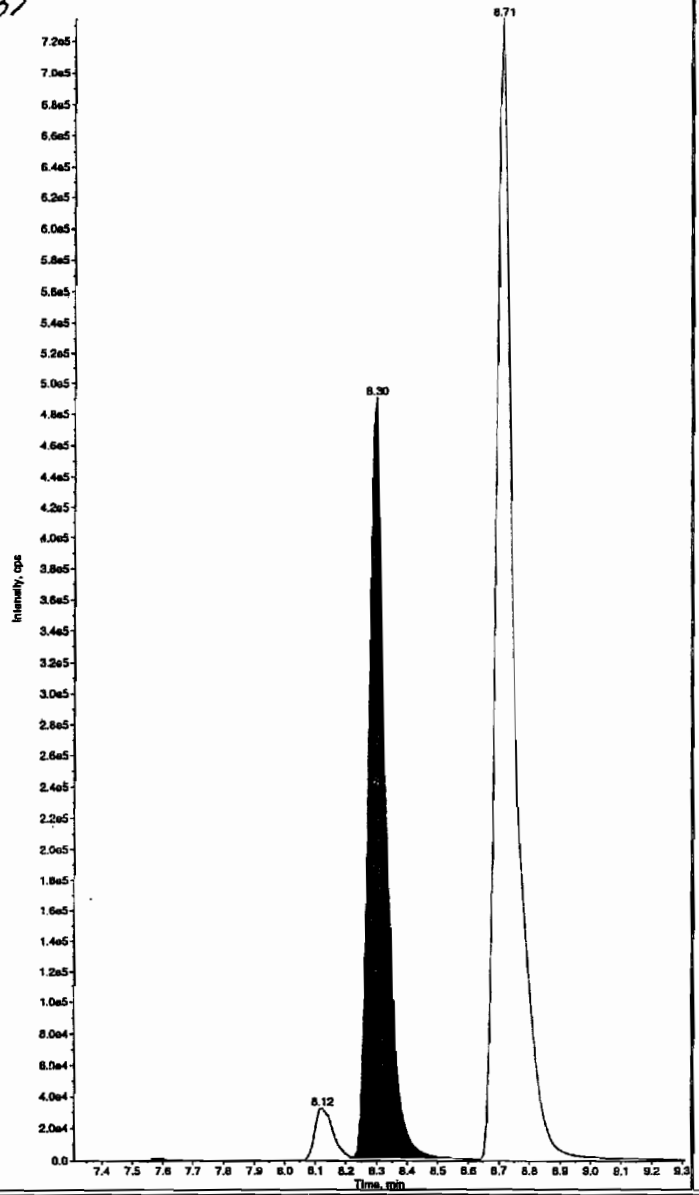

Sample Name: "1202052390" Sample ID: "957192|2|LER" File: "EXS03310040.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 453. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 6:53:22 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.95 min
Area: 9.85e+005 counts
Height: 223423.416 cps
Start Time: 4.84 min
End Time: 5.25 min

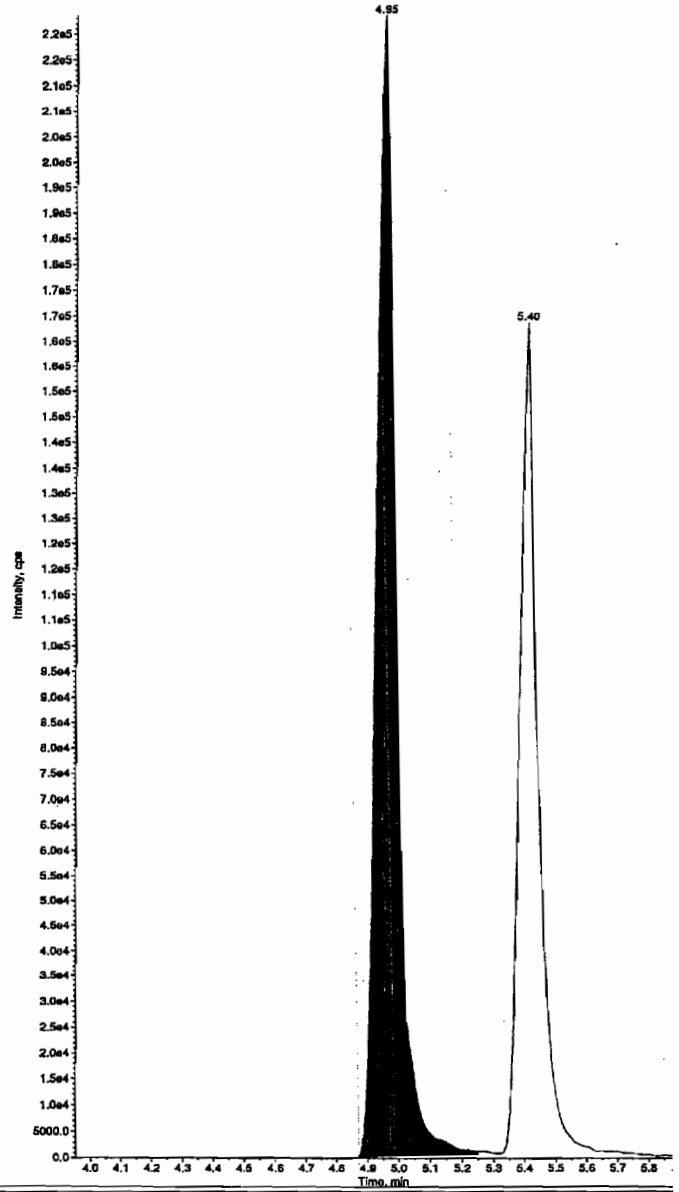

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202052390" Sample ID: "957192|2|LER" File: "EXS03310040.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 351. ng/mL
cq. Date: 3/31/2010
cq. Time: 6:53:22 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 350.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
' Window: 30.0 sec
xpected RT: 5.41 min
se Relative RT: No

nt. Type: Valley
etention Time: 5.40 min
rea: 6.79e+005 counts
eight: 163338.806 cps
art Time: 5.32 min
d Time: 5.83 min

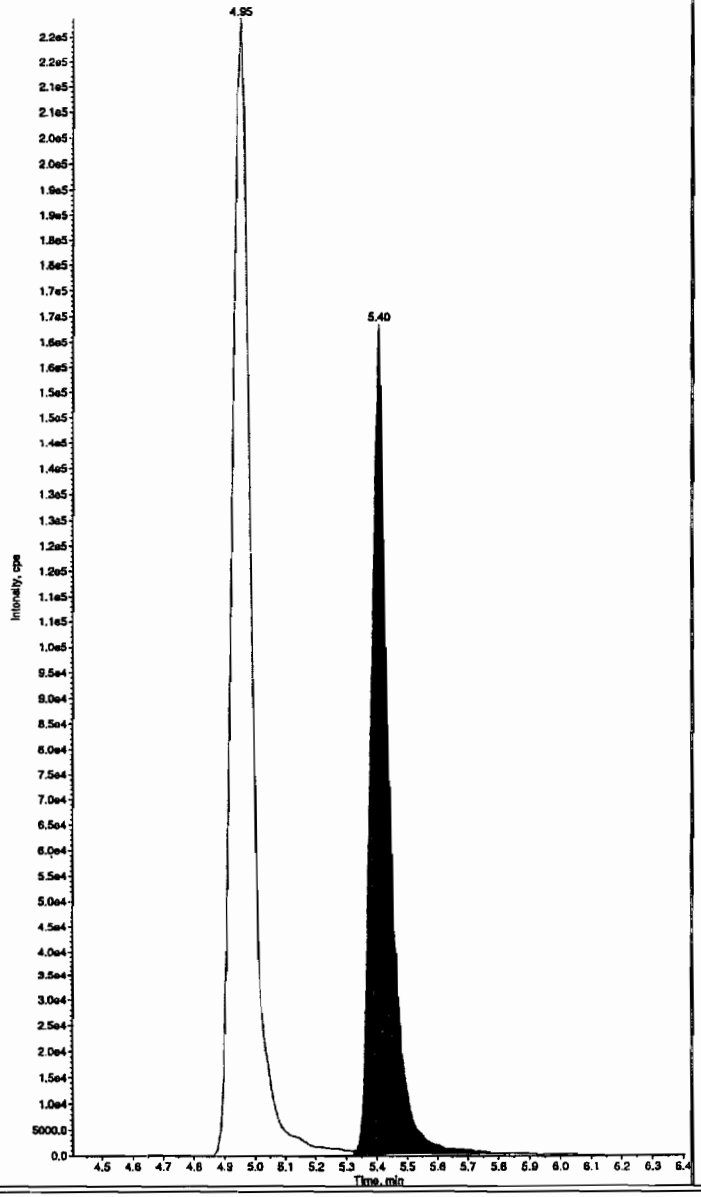

Sample Name: "1202052390" Sample ID: "957192|2|LER" File: "EXS03310040.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 164. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 6:53:22 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 3.31e+006 counts
Height: 790928.284 cps
Start Time: 10.7 min
End Time: 11.2 min

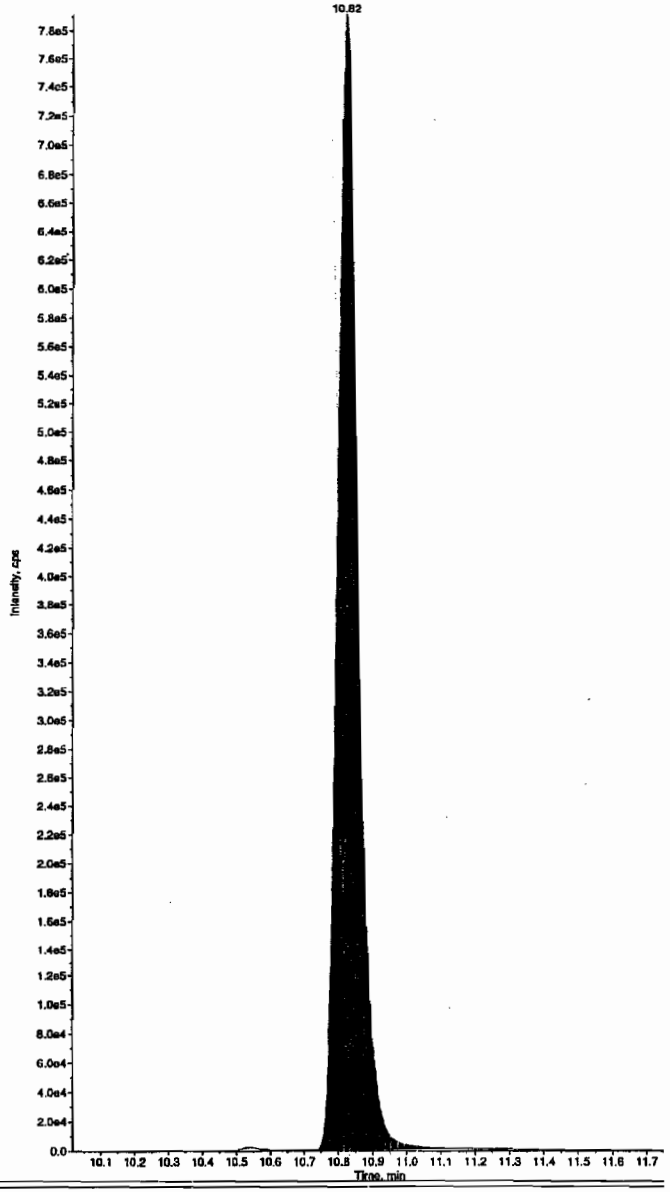

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13095(247828003MS)

Lab Code: GEL

GEL Job No (SDG) 10-2000

Matrix: GROUND WATER

GEL Sample ID: 1202052393

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 23-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 957190

Concentrated Extract Volume (mL) 5

Date Extracted: 25-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310043.wiff

Date Analyzed: 31-MAR-10 19:40

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5.6	
59229-75-3	2,6-Diamino-4-nitrotoluene	5.99	
618-87-1	3,5-Dinitroaniline	5.96	
6629-29-4	2,4-Diamino-6-nitrotoluene	5.48	
78-30-8	tris(o-cresyl) phosphate	2.17	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Before Kan 4/5/10

Sample Name: "1202052393" Sample ID: "957192|2|LER" File: "EXS03310043.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 431. ng/mL
q. Date: 3/31/2010
q. Time: 7:40:31 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 2500.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 6.90 min
e Relative RT: No

t. Type: Valley
etention Time: 6.90 min
ea: 3.18e+005 counts
ight: 68626.816 cps
art Time: 6.79 min
d Time: 7.82 min

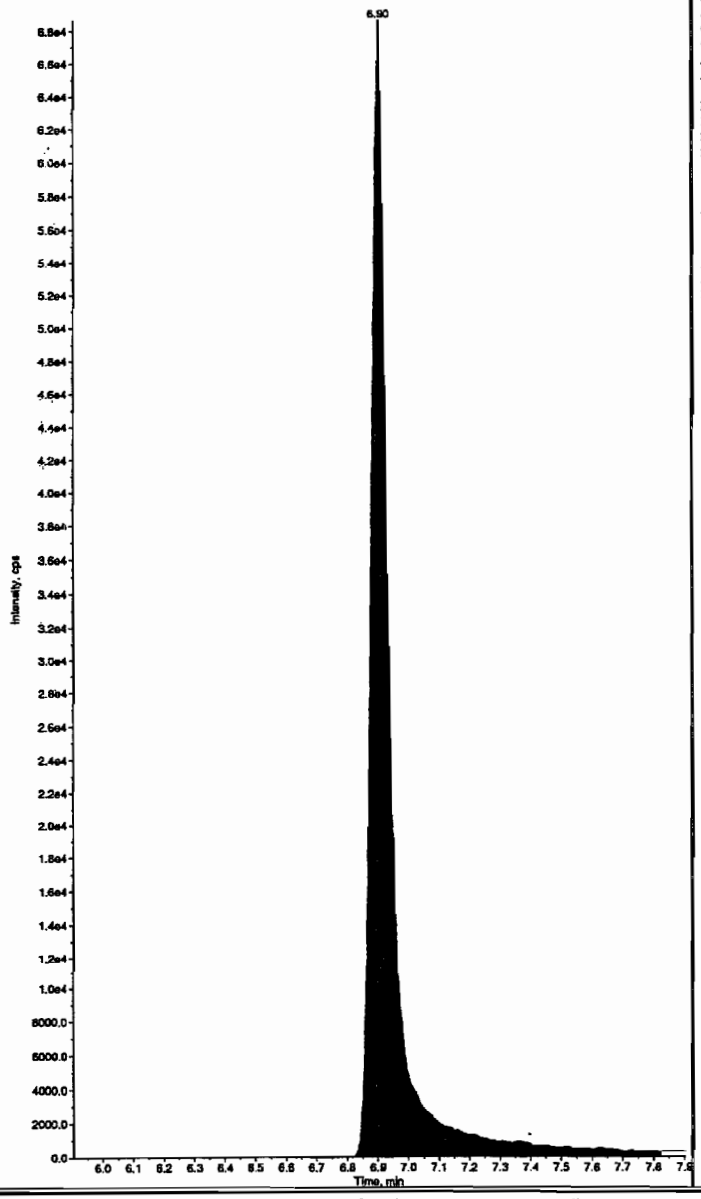

Sample Name: "1202052393" Sample ID: "957192|2|LER" File: "EXS03310043.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 467. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 7:40:31 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.14 min
Area: 2.98e+006 counts
Height: 669943.665 cps
Start Time: 7.97 min
End Time: 8.27 min

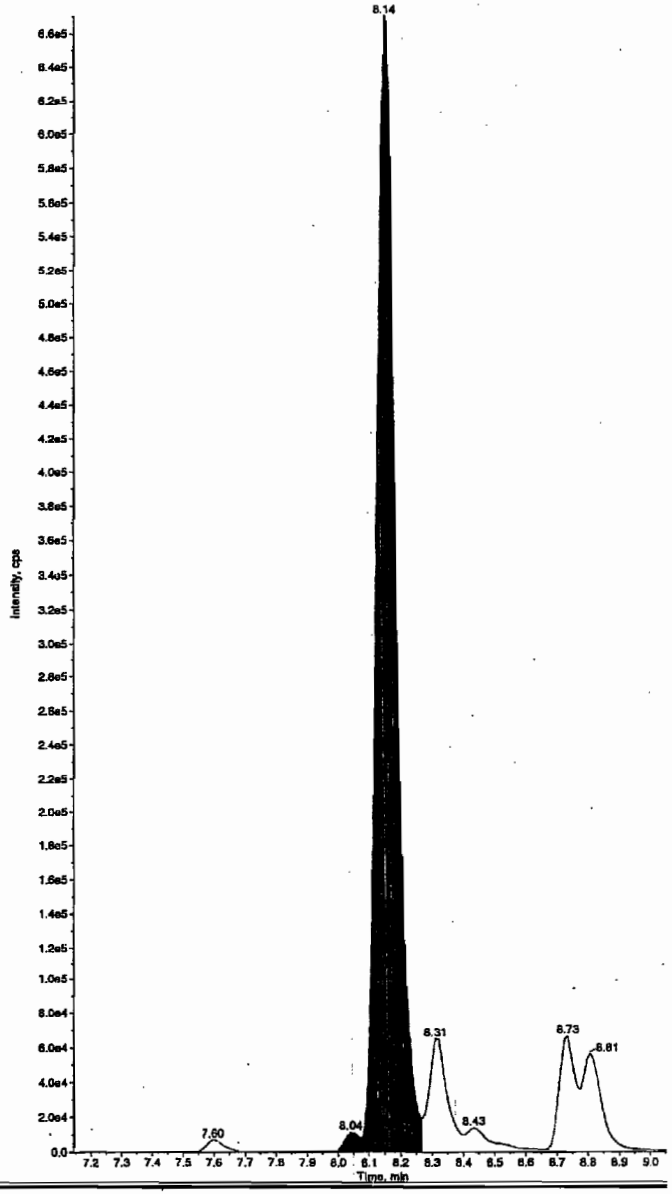

HNM 04/07/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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apu Lar 4/5/10

Sample Name: "1202052393" Sample ID: "957192|2|LER" File: "EXS03310043.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

5.59

```
ample Index:        1
ample Type:      Unknown
oncentration:      N/A
alculated Conc:    431.     ng/mL
cq. Date:        3/31/2010
cq. Time:        7:40:31 PM

odified:           No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height:2500.00    cps
n. Peak Width:     0.00    sec
oothing Width:  3        points
 Window:          30.0    sec
pected RT:         6.90    min
e Relative RT:     No

t. Type:         Valley
tention Time:      6.90    min
ea:          3.18e+005    counts
ight:        68626.816    cps
art Time:          6.79    min
d Time:            7.82    min
```

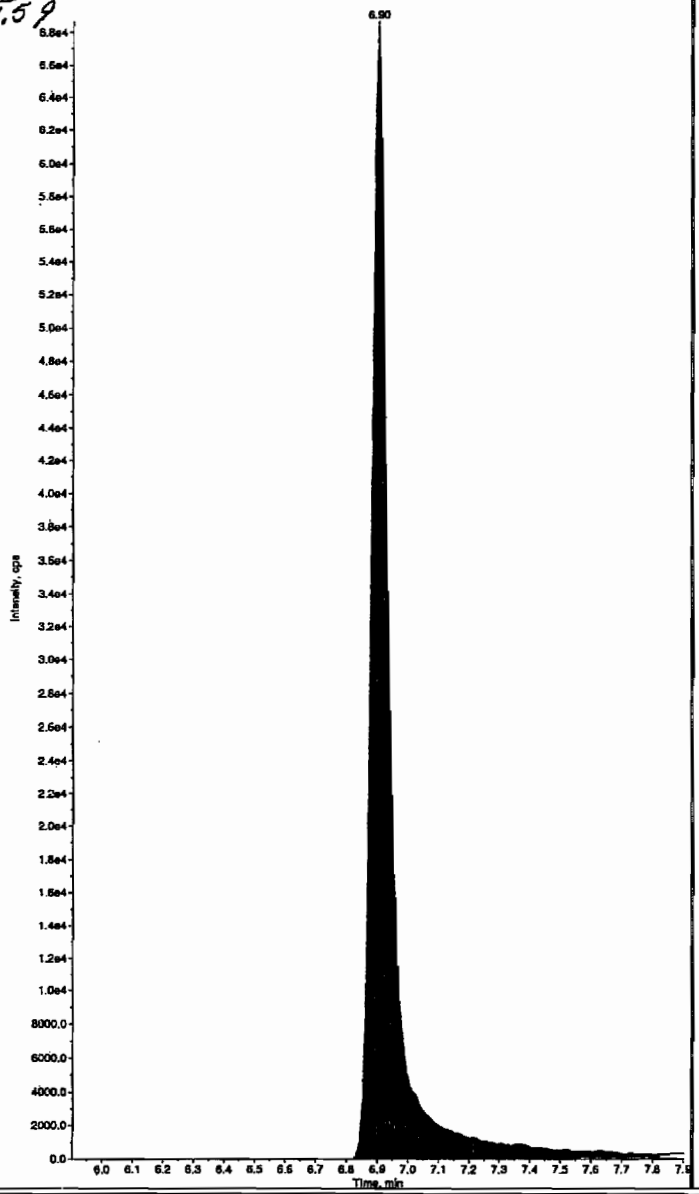

Sample Name: "1202052393" Sample ID: "957192|2|LER" File: "EXS03310043.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:      N/A
Calculated Conc:    459.     ng/mL
Acq. Date:        3/31/2010
Acq. Time:        7:40:31 PM

Modified:           Yes
RT Window:         15.0     sec
Expected RT:        8.14    min
Use Relative RT:    No

Int. Type:        Manual
Retention Time:     8.15    min
Area:         2.93e+006    counts
Height:        674652.570  cps
Start Time:         8.07    min
End Time:           8.27    min
```

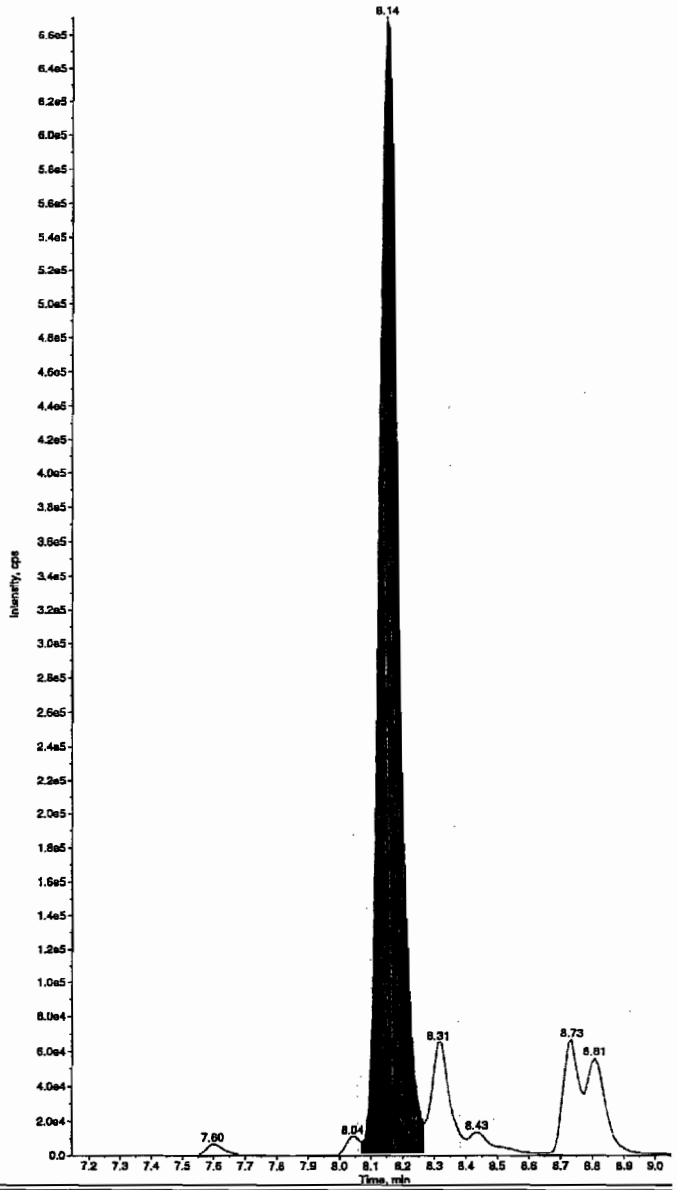

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202052393" Sample ID: "957192|2|LER" File: "EXS03310043.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

3.06

```
Sample Index:        1
Sample Type:     Unknown
Concentration:     N/A
Calculated Conc:   236.     ng/mL
Acq. Date:       3/31/2010
Acq. Time:       7:40:31 PM

Modified:          No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:1460.00   cps
Min. Peak Width:   0.00    sec
Smoothing Width:  3        points
RT Window:        15.0     sec
Expected RT:       8.31    min
Use Relative RT:   No

Int. Type:       Valley
Retention Time:    8.31    min
Area:        1.92e+006   counts
Height:        502553.314  cps
Start Time:        8.24    min
End Time:          8.55    min
```

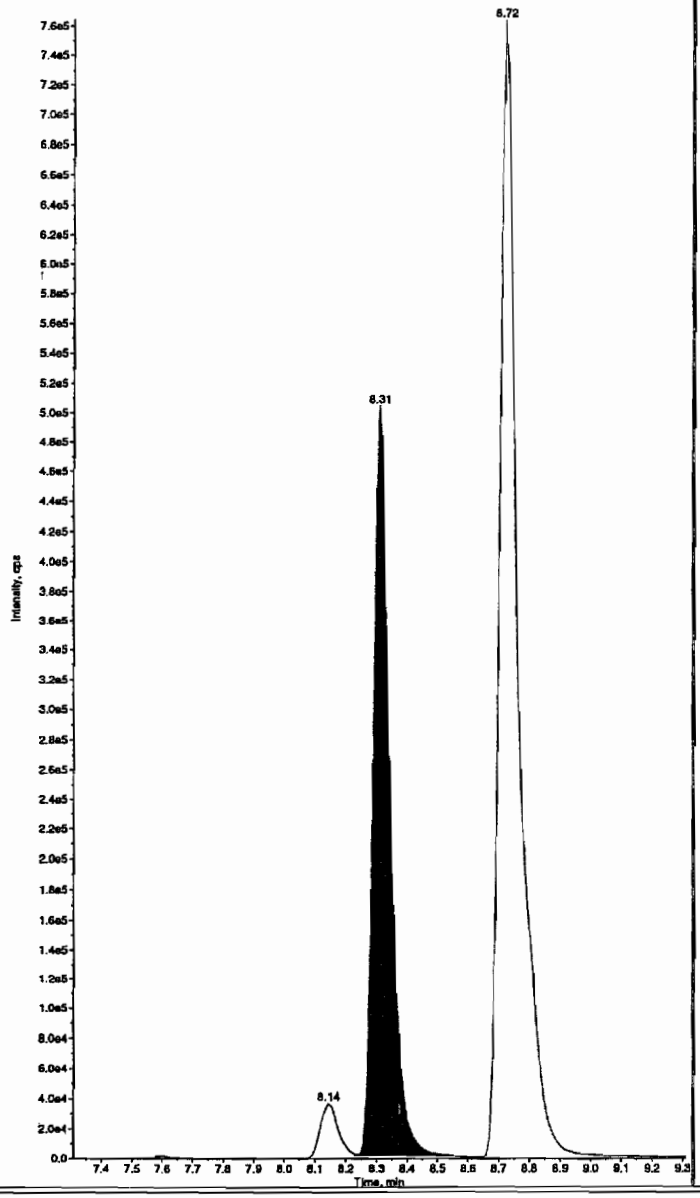

Sample Name: "1202052393" Sample ID: "957192|2|LER" File: "EXS03310043.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:     Unknown
Concentration:     N/A
Calculated Conc:   461.     ng/mL
Acq. Date:       3/31/2010
Acq. Time:       7:40:31 PM

Modified:          No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:   0.00    sec
Smoothing Width:  3        points
RT Window:        30.0     sec
Expected RT:       4.95    min
Use Relative RT:   No

Int. Type:       Valley
Retention Time:    4.95    min
Area:        1.00e+006   counts
Height:        216585.022  cps
Start Time:        4.85    min
End Time:          5.26    min
```

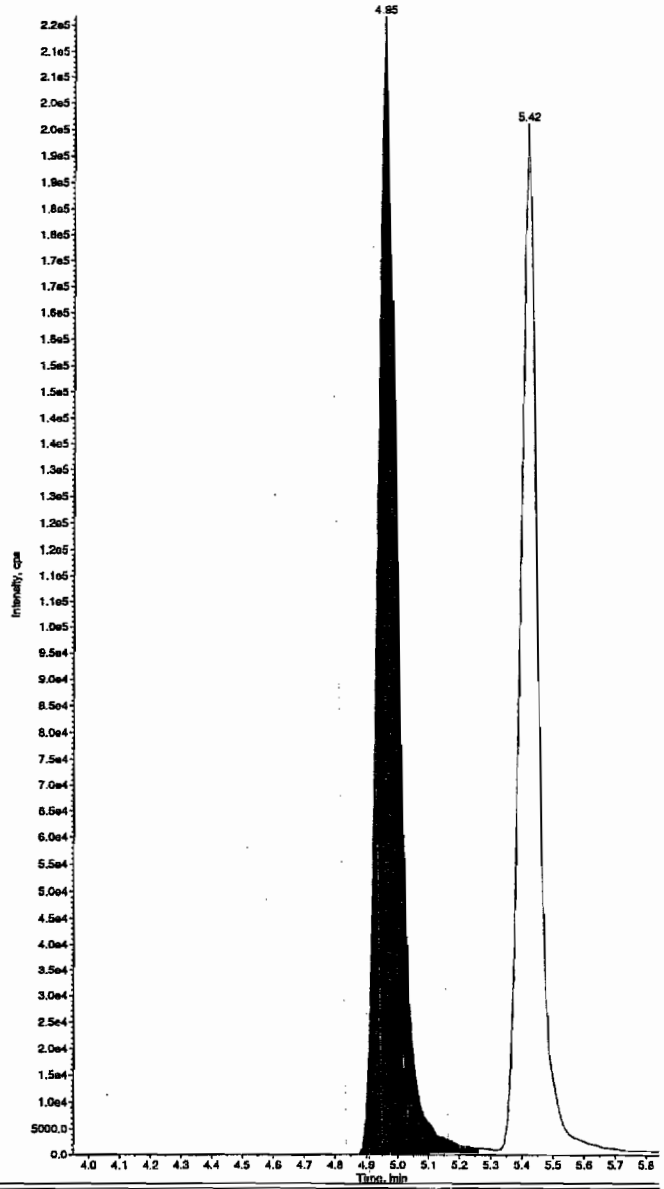

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Sample Name: "1202052393" Sample ID: "957192|2|LER" File: "EXS03310043.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: "

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 422. ng/mL
cq. Date: 3/31/2010
cq. Time: 7:40:31 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 350.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 30.0 sec
xpected RT: 5.41 min
se Relative RT: No

nt. Type: Valley
etention Time: 5.42 min
rea: 8.08e+005 counts
eight: 196054.260 cps
tart Time: 5.31 min
nd Time: 6.09 min

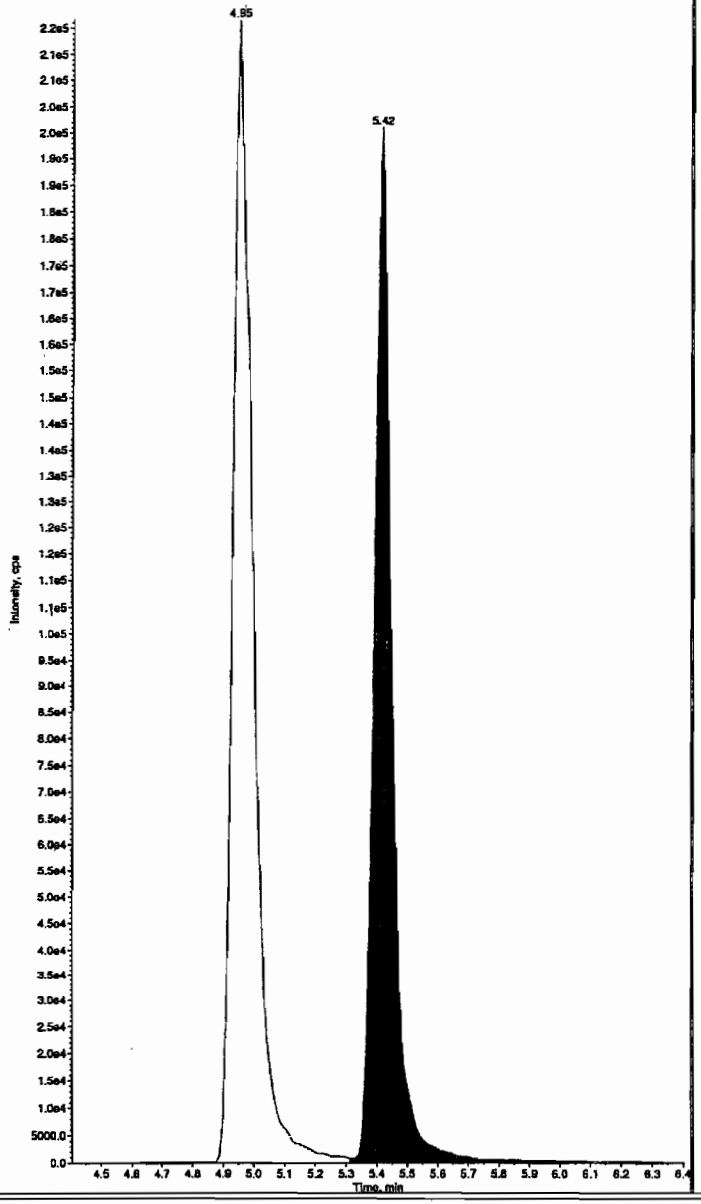

Sample Name: "1202052393" Sample ID: "957192|2|LER" File: "EXS03310043.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 167. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 7:40:31 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 3.37e+006 counts
Height: 799223.022 cps
Start Time: 10.7 min
End Time: 11.2 min

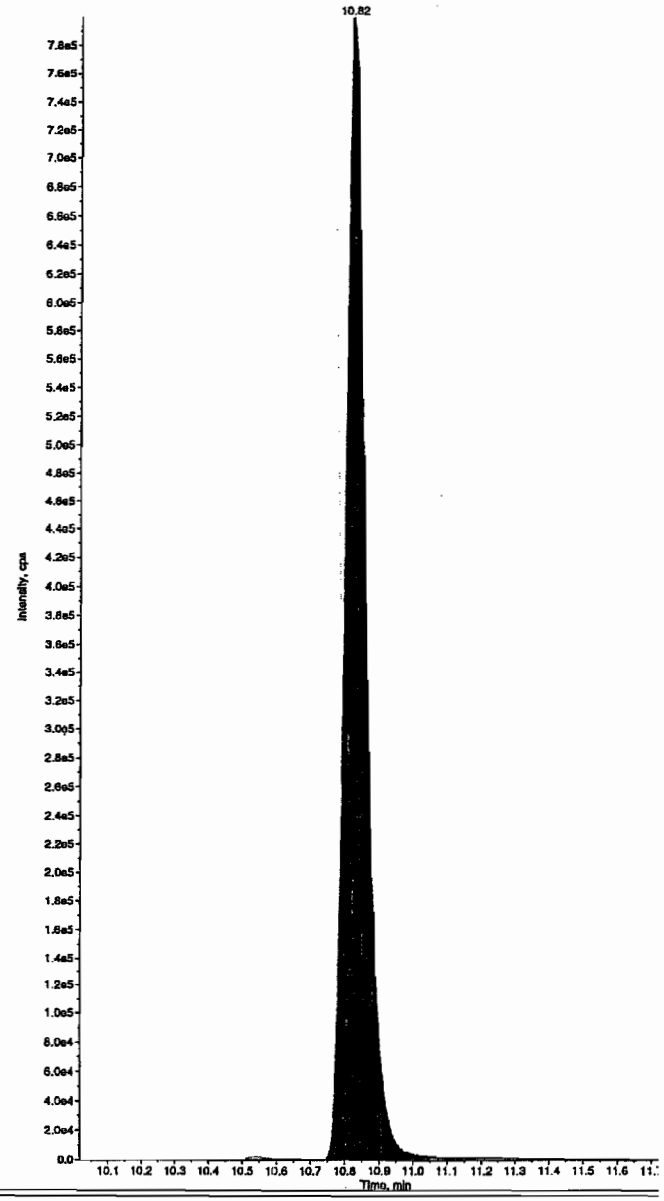

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13095(247828003MS)

Lab Code: GEL

GEL Job No (SDG) 10-2000

Matrix: GROUND WATER

GEL Sample ID: 1202052393

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 23-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 957190

Concentrated Extract Volume (mL) 5

Date Extracted: 25-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0322025.wiff

Date Analyzed: 23-MAR-10 02:06

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5.75	
121-14-2	2,4-Dinitrotoluene	6.62	
121-82-4	RDX	6.74	
19406-51-0	4-Amino-2,6-dinitrotoluene	6.43	
2691-41-0	HMX	6.12	
35572-78-2	2-Amino-4,6-dinitrotoluene	5.81	
479-45-8	Tetryl	4.57	
606-20-2	2,6-Dinitrotoluene	5.71	B
78-11-5	PETN	7.01	
88-72-2	o-Nitrotoluene	6.03	
98-95-3	Nitrobenzene	6.19	
99-08-1	m-Nitrotoluene	5.92	
99-35-4	1,3,5-Trinitrobenzene	6.13	
99-65-0	m-Dinitrobenzene	6.55	
99-99-0	p-Nitrotoluene	6.6	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322025.wiff	Acquisition Date	3/23/2010 2:06:28 AM
Sample Name	1202052393	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

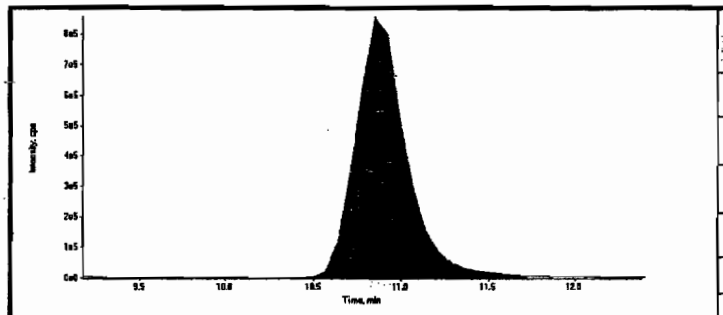

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	17400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

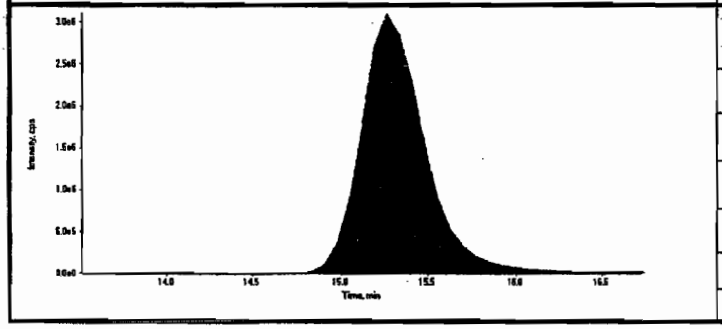

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.30
Area Counts:	79300000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

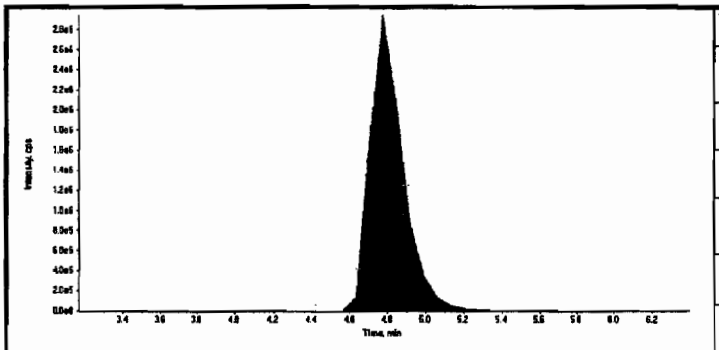

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	3.57e+007
Manual Modification	No
Amount:	471. (ng/mL)
% Accuracy:	N/A

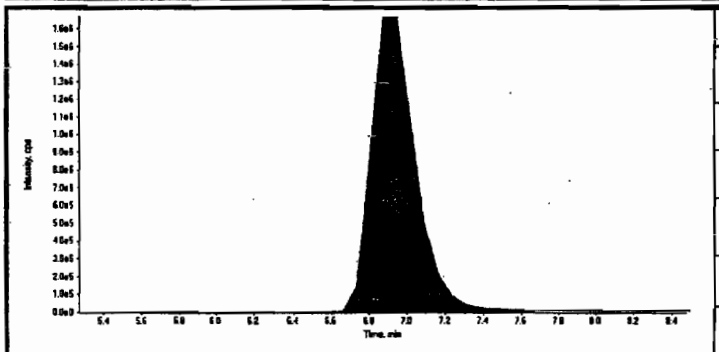

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.94
Area Counts:	2.76e+007
Manual Modification	No
Amount:	519. (ng/mL)
% Accuracy:	N/A

Hmm 03/30/10

Kar 3/28/10

Before Lab 3/28/10

s Name: "1202052393" Sample ID: "957192[2]LER" File: "EXP0322025.wiff"
Name: "246-Trinitrotoluene" Mass(es): "227.1/209.8 amu"
ent: "LCX3521_L" Annotation: ""

Index: 1
Type: Unknown
ration: N/A
ted Conc: 417. ng/mL
te: 3/23/2010
me: 2:06:28 AM

d: No
lgorithm: IntelliQuan - IQA
ak Height: 1.00e4 cps
ak Width: 0.00 sec
ng Width: 3 points
ow: 60.0 sec
l RT: 11.5 min
ctive RT: No

e: Valley
n Time: 13.6 min
1.75e+008 counts
6.68e+006 cps
m: 12.9 min
: 14.5 min

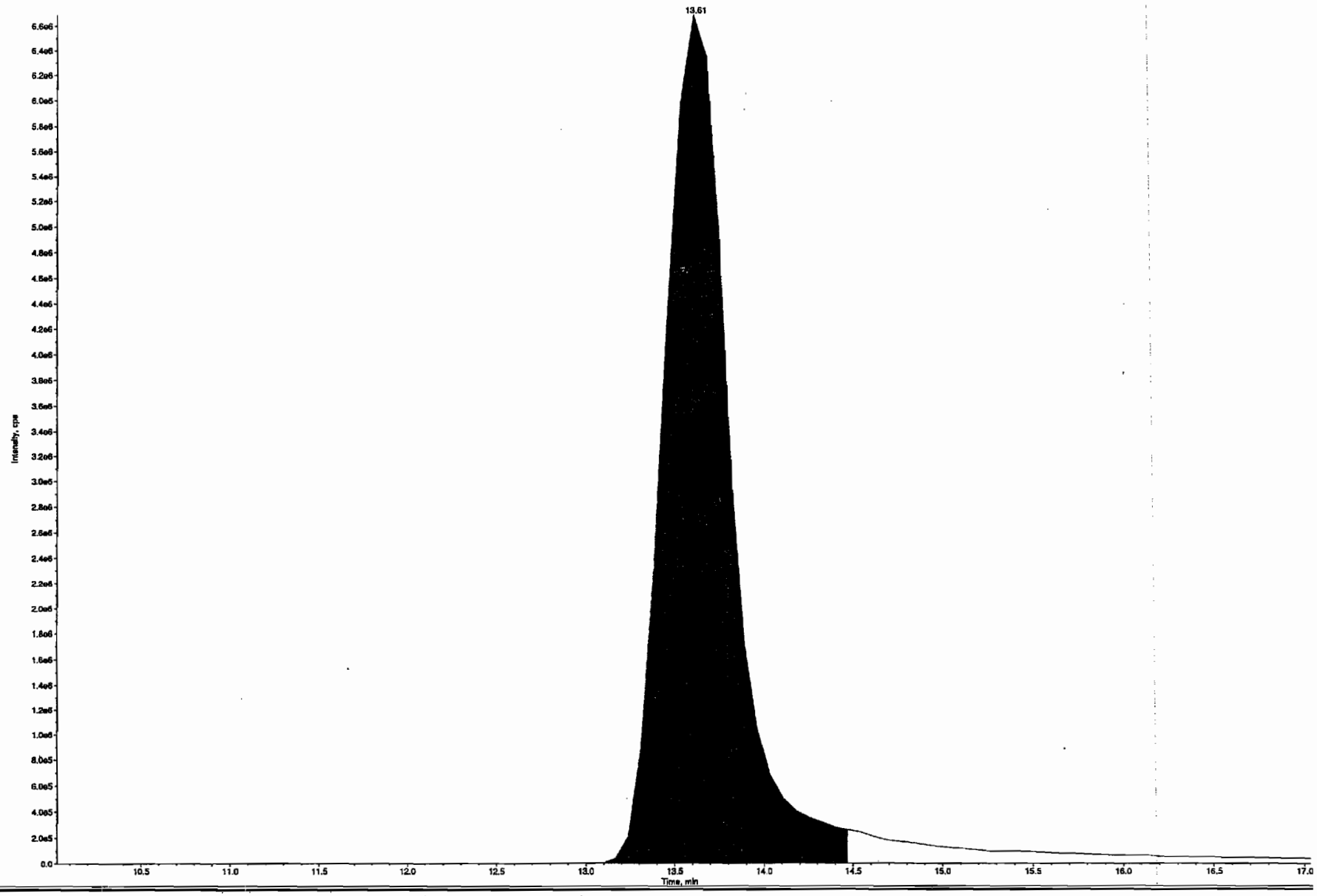

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322025.wiff	Acquisition Date	3/23/2010 2:06:28 AM
Sample Name	1202052393	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

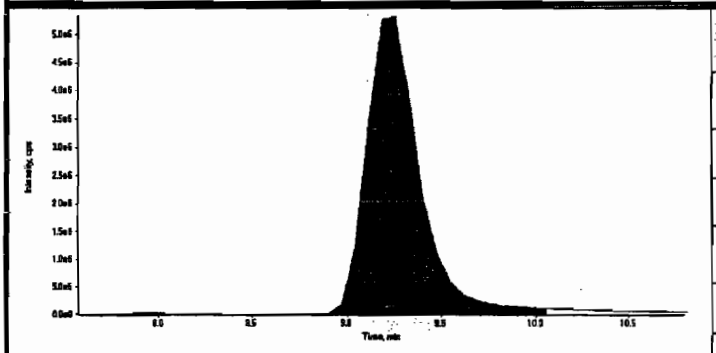

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.26
Area Counts:	1.06e+008
Manual Modification	No
Amount:	472. (ng/mL)
% Accuracy:	N/A

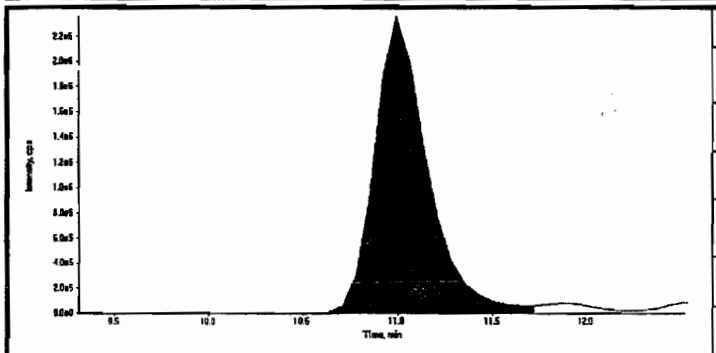

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	11.0
Area Counts:	4.65e+007
Manual Modification	No
Amount:	504. (ng/mL)
% Accuracy:	N/A

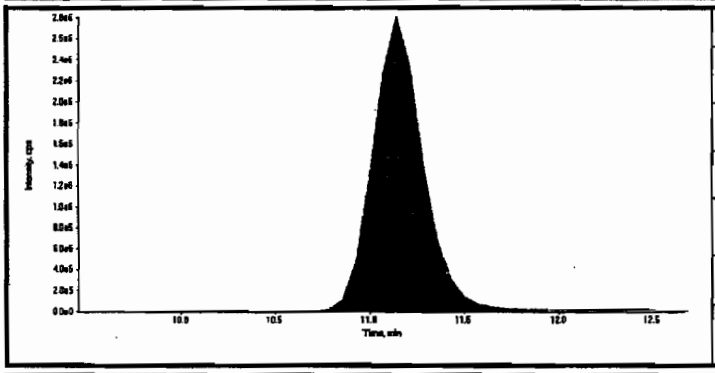

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.1
Area Counts:	5.22e+007
Manual Modification	No
Amount:	352. (ng/mL)
% Accuracy:	N/A

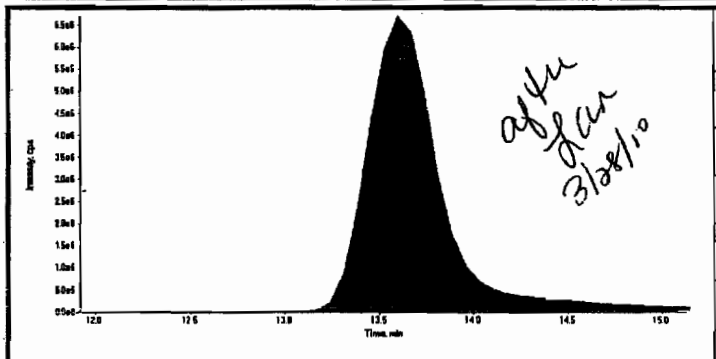

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	1.83e+008
Manual Modification	Yes
Amount:	443. (ng/mL)
% Accuracy:	N/A

Before LCer 3/28/10

le Name: "1202052383" Sample ID: "957192[2]LER" File: "EXP0322025.wiff"
Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
ent: "LCX3521_L" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 3/23/2010
me: 2:06:28 AM
d: No

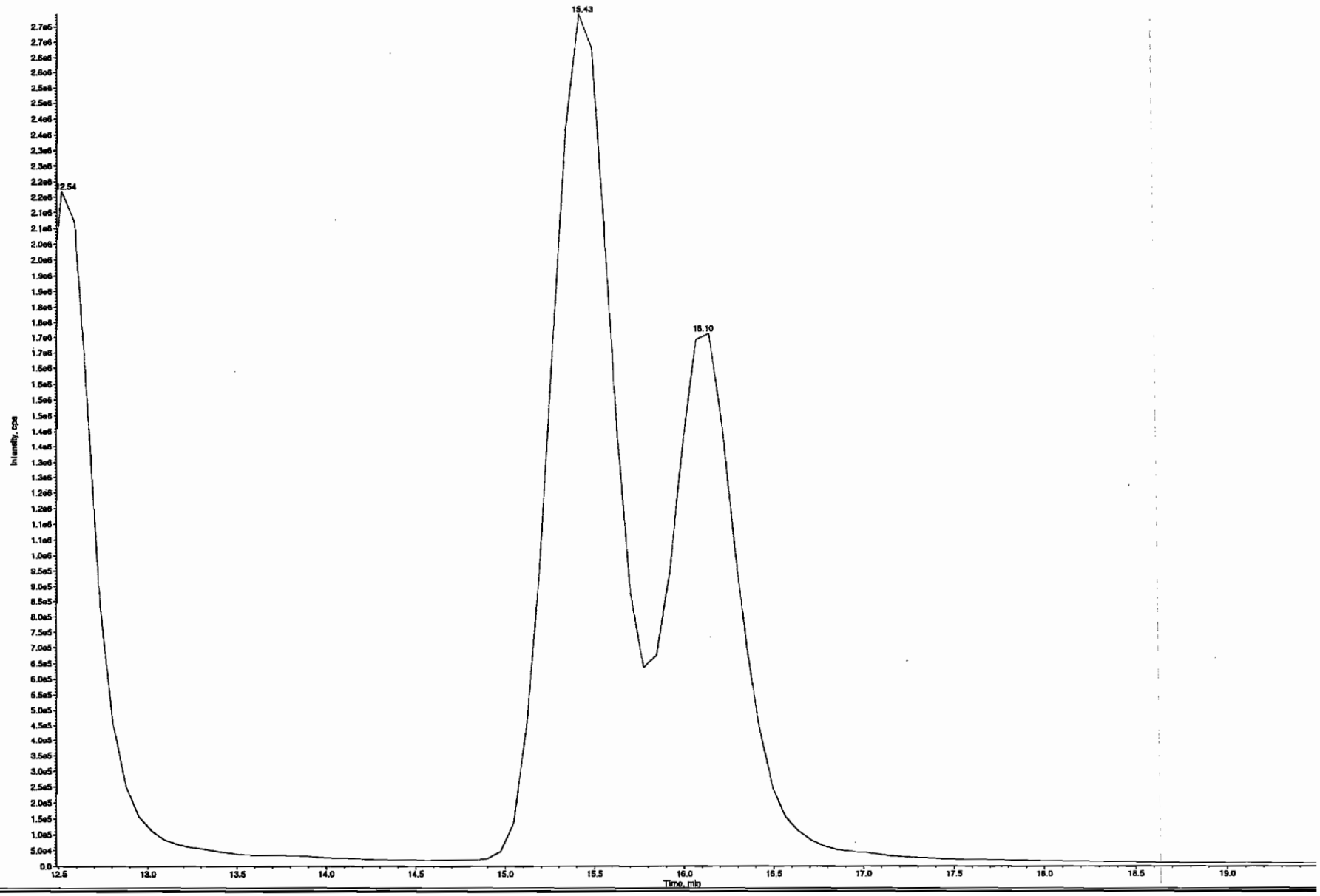

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322025.wiff	Acquisition Date	3/23/2010 2:06:28 AM
Sample Name	1202052393	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

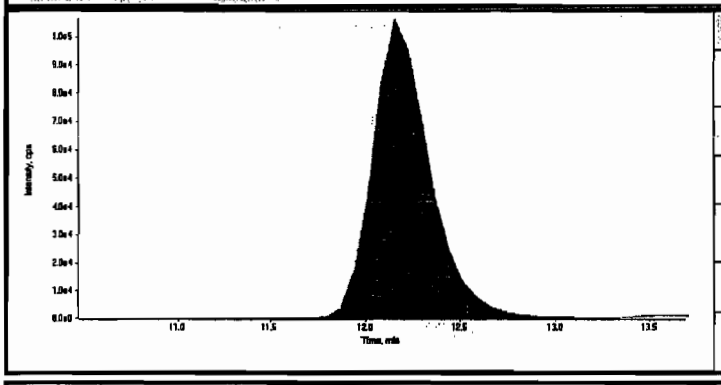

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	2.24e+006
Manual Modification	No
Amount:	477. (ng/mL)
% Accuracy:	N/A

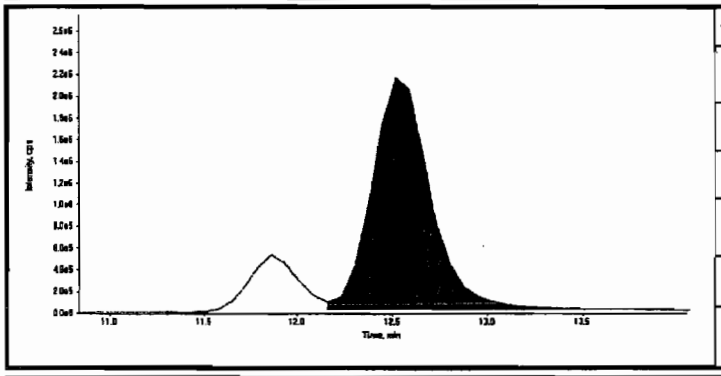

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.5
Area Counts:	4.65e+007
Manual Modification	No
Amount:	2.95 227. (ng/mL)
% Accuracy:	N/A

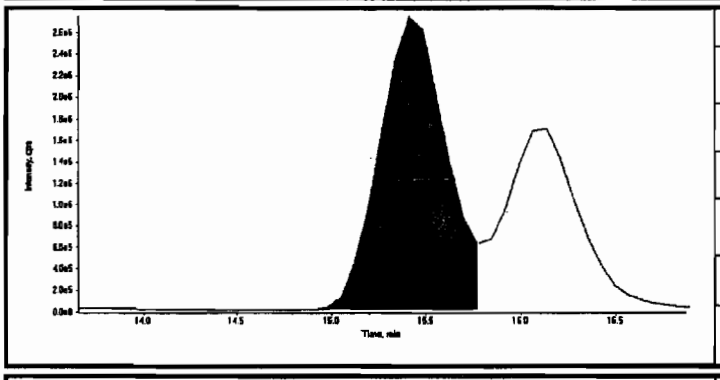

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.4
Area Counts:	6.79e+007
Manual Modification	No
Amount:	440. (ng/mL)
% Accuracy:	N/A

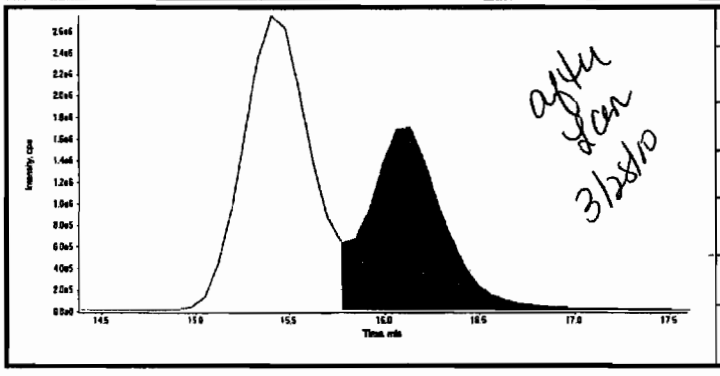

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	16.1
Area Counts:	4.73e+007
Manual Modification	Yes
Amount:	510. (ng/mL)
% Accuracy:	N/A

Before Lab 3/28/10

Name: "1202052393" Sample ID: "957162|2|LER" File: "EXP0322025.wiff"
Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Int: "LCX3521_L" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ed Conc: 0.00 ng/mL
e: 3/23/2010
e: 2:06:28 AM
: Yes

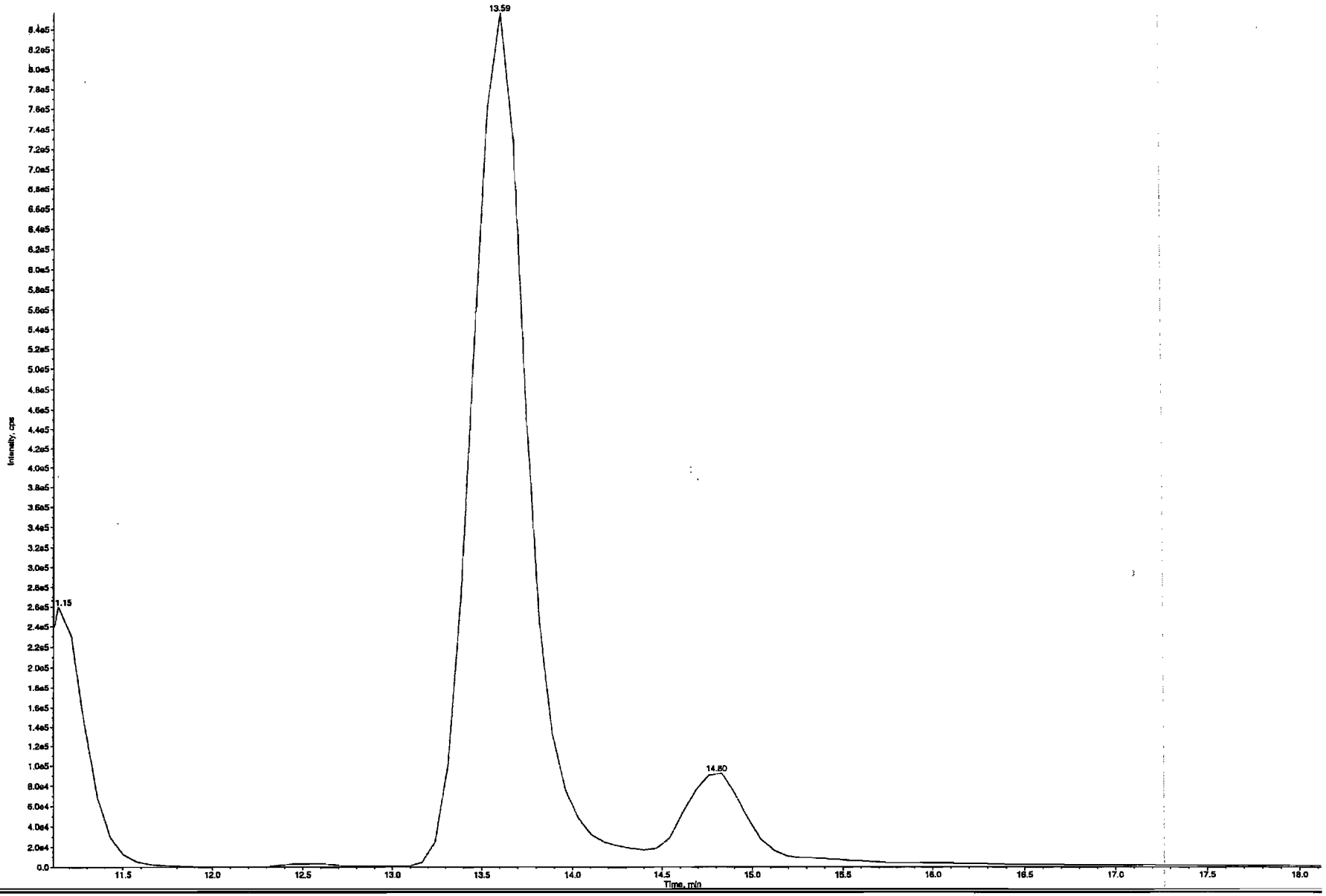

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322025.wiff	Acquisition Date	3/23/2010 2:06:28 AM
Sample Name	1202052393	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

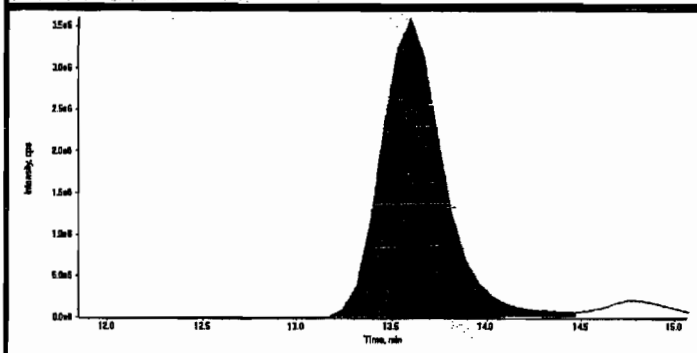

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	8.30e+007
Manual Modification	No
Amount:	495. (ng/mL)
% Accuracy:	N/A

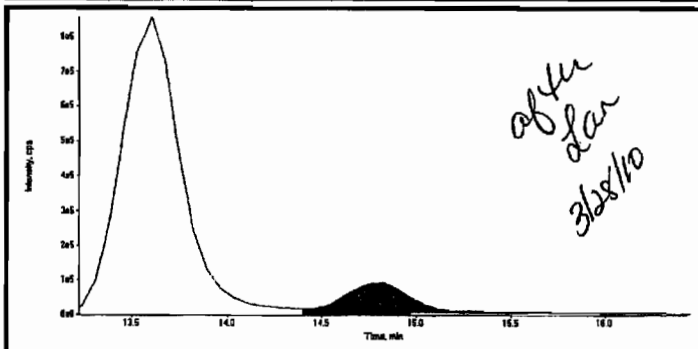

after Lan 3/28/10

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.8
Actual RT:	14.8
Area Counts:	2.36e+006
Manual Modification	Yes
Amount:	447. (ng/mL)
% Accuracy:	N/A

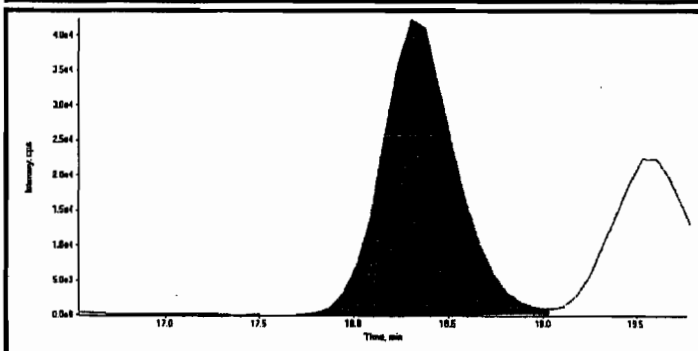

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.3
Area Counts:	1.15e+006
Manual Modification	No
Amount:	464. (ng/mL)
% Accuracy:	N/A

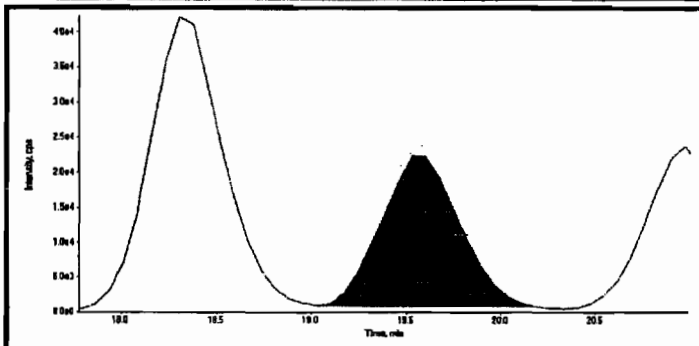

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.5
Area Counts:	6.29e+005
Manual Modification	No
Amount:	508. (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322025.wiff	Acquisition Date	3/23/2010 2:06:28 AM
Sample Name	1202052393	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

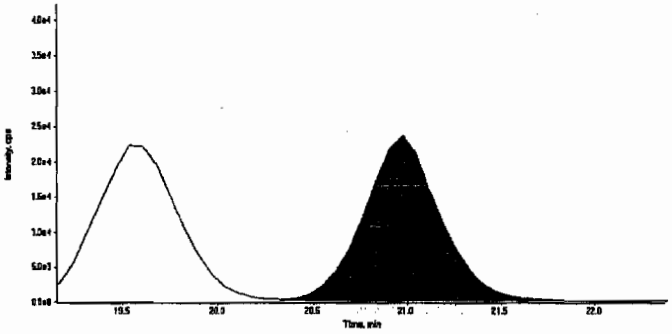

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	21.0
Area Counts:	6.71e+005
Manual Modification	No
Amount:	456. (ng/mL)
% Accuracy:	N/A

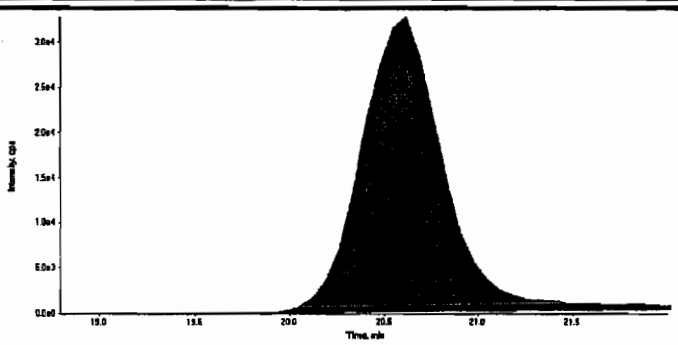

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.6
Area Counts:	1.02e+006
Manual Modification	No
Amount:	540. (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13095(247828003MSD)

Lab Code: GEL

GEL Job No (SDG) 10-2000

Matrix: GROUND WATER

GEL Sample ID: 1202052394

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 23-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 957190

Concentrated Extract Volume (mL) 5

Date Extracted: 25-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310044.wiff

Date Analyzed: 31-MAR-10 19:56

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5.43	
59229-75-3	2,6-Diamino-4-nitrotoluene	6.16	
618-87-1	3,5-Dinitroaniline	5.39	
6629-29-4	2,4-Diamino-6-nitrotoluene	5.23	
78-30-8	tris(o-cresyl) phosphate	1.9	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Before Lan 4/5/10

le Name: "1202052394" Sample ID: "957192|2|LER" File: "EXS03310044.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCX83212S" Annotation: ""

Index: 1
Type: Unknown 5.4/2
tration: N/A
ated Conc: 418. ng/mL
ate: 3/31/2010
ime: 7:56:15 PM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 2500.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 6.90 min
lative RT: No

ype: Valley
ion Time: 6.90 min
3.08e+005 counts
: 61993.492 cps
Time: 6.81 min
ne: 7.78 min

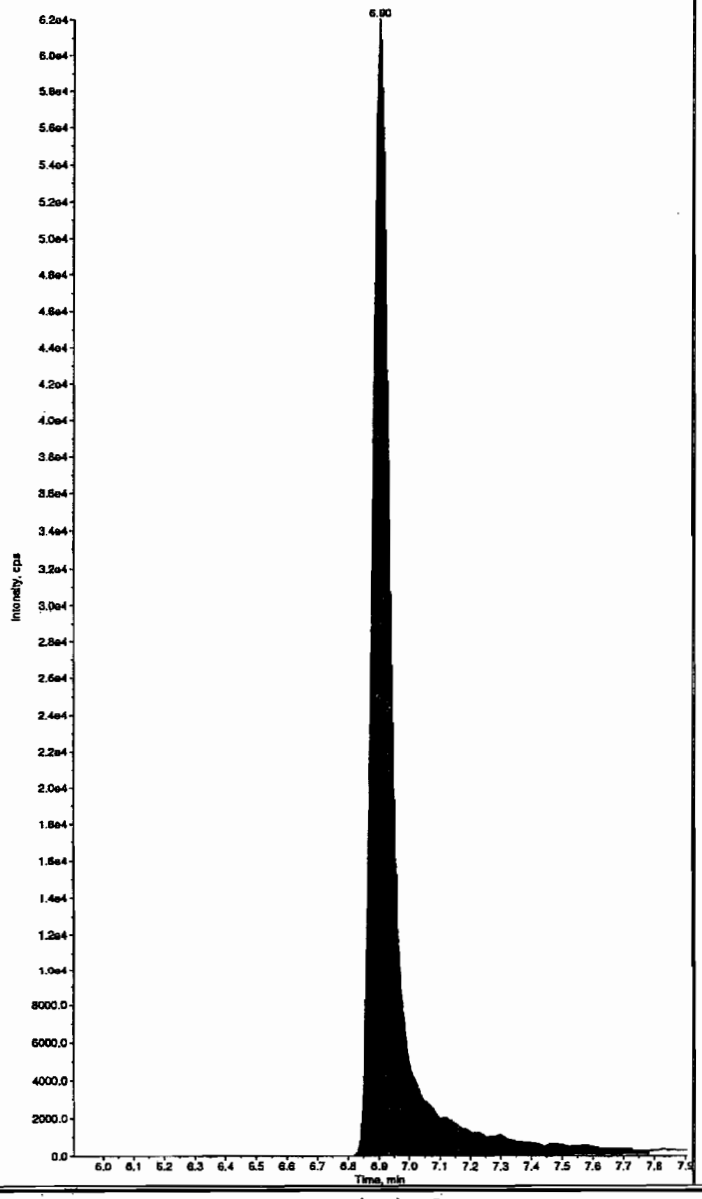

Sample Name: "1202052394" Sample ID: "957192|2|LER" File: "EXS03310044.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 422. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 7:56:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.14 min
Area: 2.71e+006 counts
Height: 607062.805 cps
Start Time: 7.96 min
End Time: 8.26 min

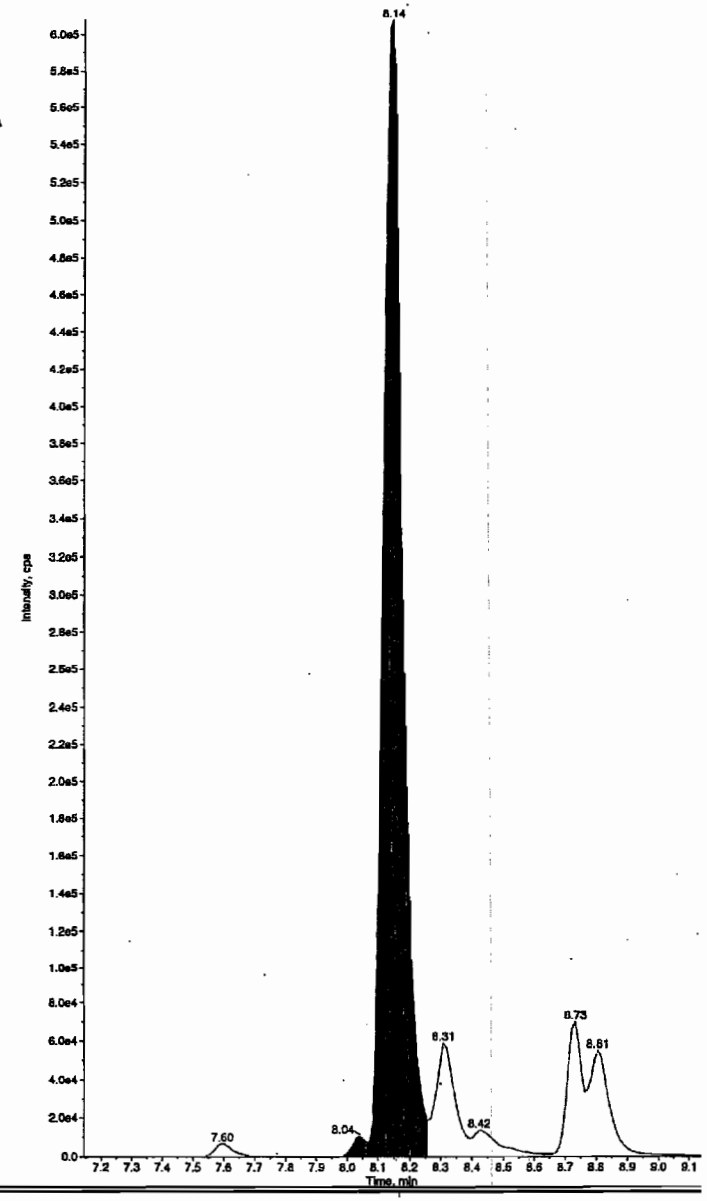

HMM 04/07/10

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after Ran 45%0

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ple Name: "1202052394" Sample ID: "957192|2|LER" File: "EXS03310044.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCX83212S" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 418. ng/mL
Date: 3/31/2010
Time: 7:56:15 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
ning Width: 3 points
ndow: 30.0 sec
ted RT: 6.90 min
elative RT: No

Type: Valley
tion Time: 6.90 min
3.08e+005 counts
: 61993.492 cps
Time: 6.81 min
me: 7.78 min

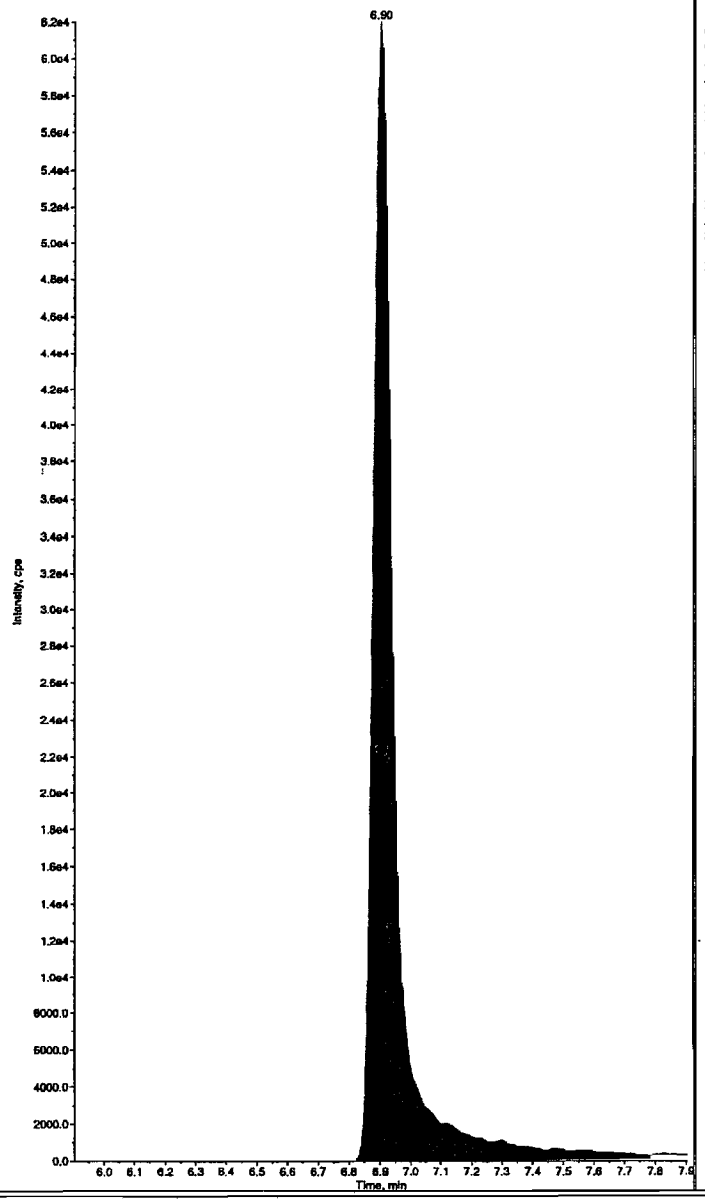

Sample Name: "1202052394" Sample ID: "957192|2|LER" File: "EXS03310044.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 415. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 7:56:15 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.14 min
Area: 2.66e+006 counts
Height: 609755.844 cps
Start Time: 8.07 min
End Time: 8.26 min

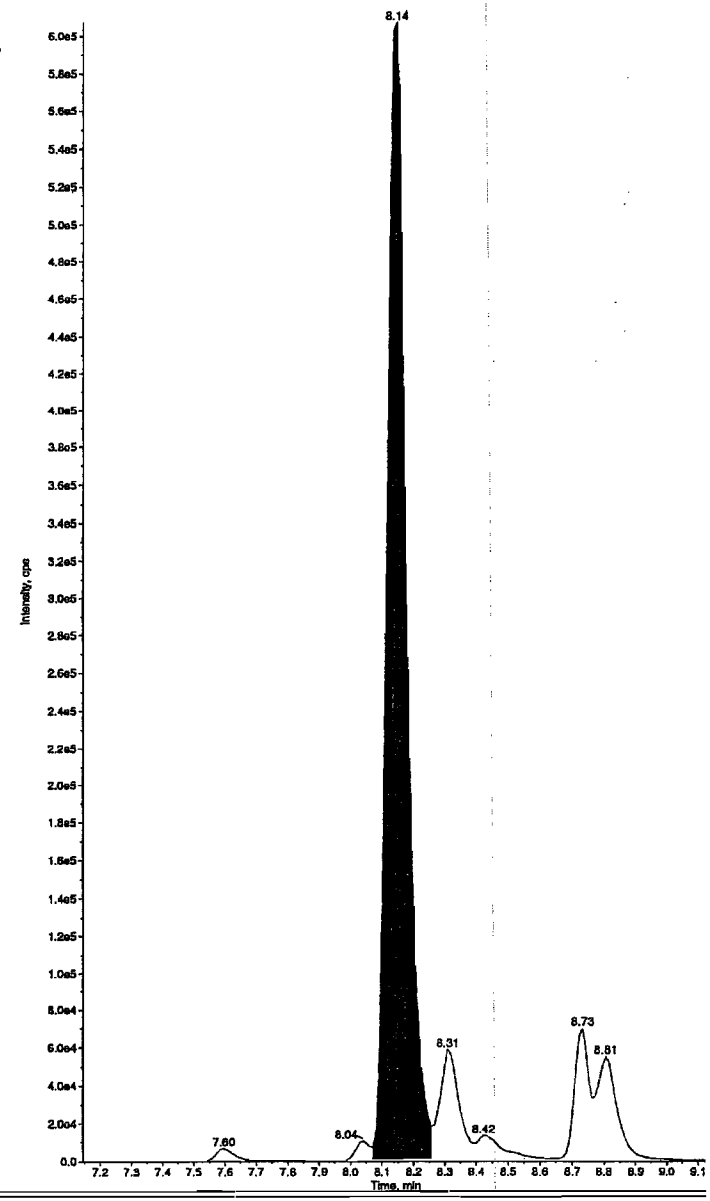

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ie Name: "1202052394" Sample ID: "957192|2|LER" File: "EXS03310044.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nent: "LCX83212S" Annotation: ""

e Index:	1
e Type:	Unknown
ntration:	N/A
lated Conc:	227. ng/mL
Date:	3/31/2010
Time:	7:56:15 PM
ed:	No
Algorithm:	IntelliQuan - IQA
eak Height:	1460.00 cps
eak Width:	0.00 sec
ing Width:	3 points
dow:	15.0 sec
ed RT:	8.31 min
lative RT:	No
ype:	Valley
ion Time:	8.31 min
	1.85e+006 counts
	452626.434 cps
Time:	8.24 min
me:	8.55 min

1.95

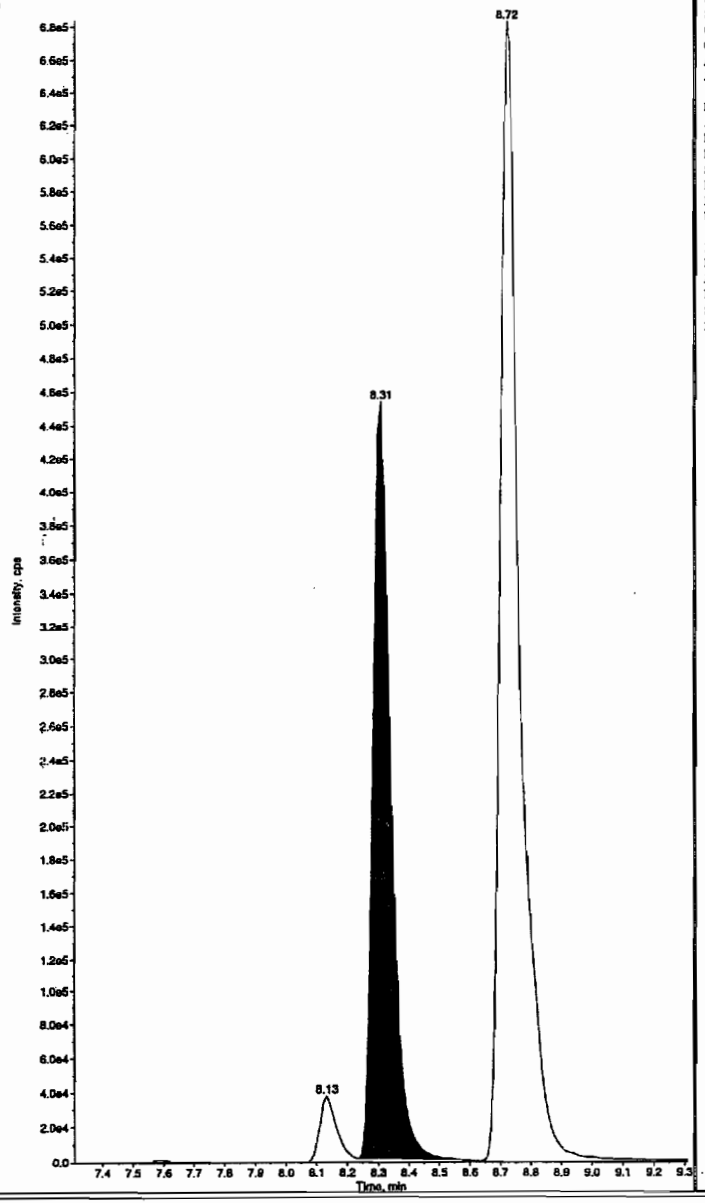

Sample Name: "1202052394" Sample ID: "957192|2|LER" File: "EXS03310044.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	474. ng/mL
Acq. Date:	3/31/2010
Acq. Time:	7:56:15 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	450.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	4.95 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	4.96 min
Area:	1.03e+006 counts
Height:	237012.512 cps
Start Time:	4.87 min
End Time:	5.26 min

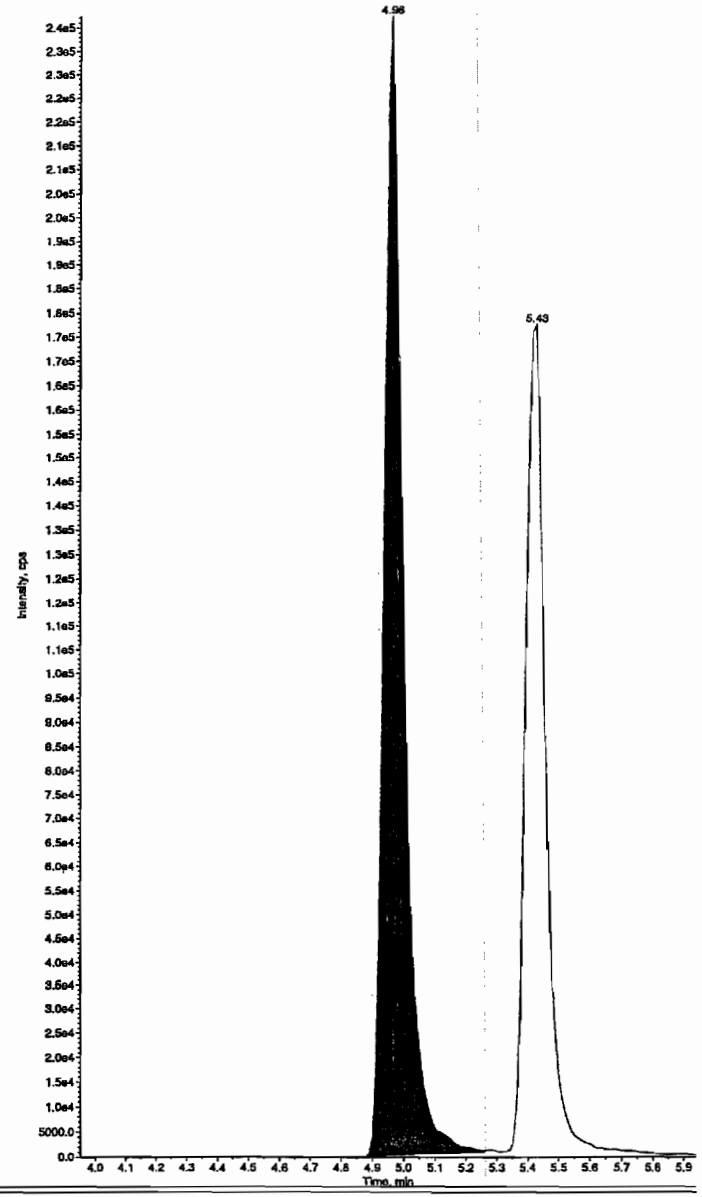

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

e Name: "1202052394" Sample ID: "957192|2|LER" File: "EXS03310044.wiff"
lame: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ent: "LCX83212S" Annotation: ""

Index: 1
Type: Unknown
tration: N/A
ated Conc: 403. ng/mL
ate: 3/31/2010
ime: 7:56:15 PM

ed: No
algorithm: IntelliQuan - IQA
eak Height: 350.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 5.41 min
lative RT: No

ype: Valley
ion Time: 5.43 min
7.73e+005 counts
171465.240 cps
Time: 5.33 min
e: 5.85 min

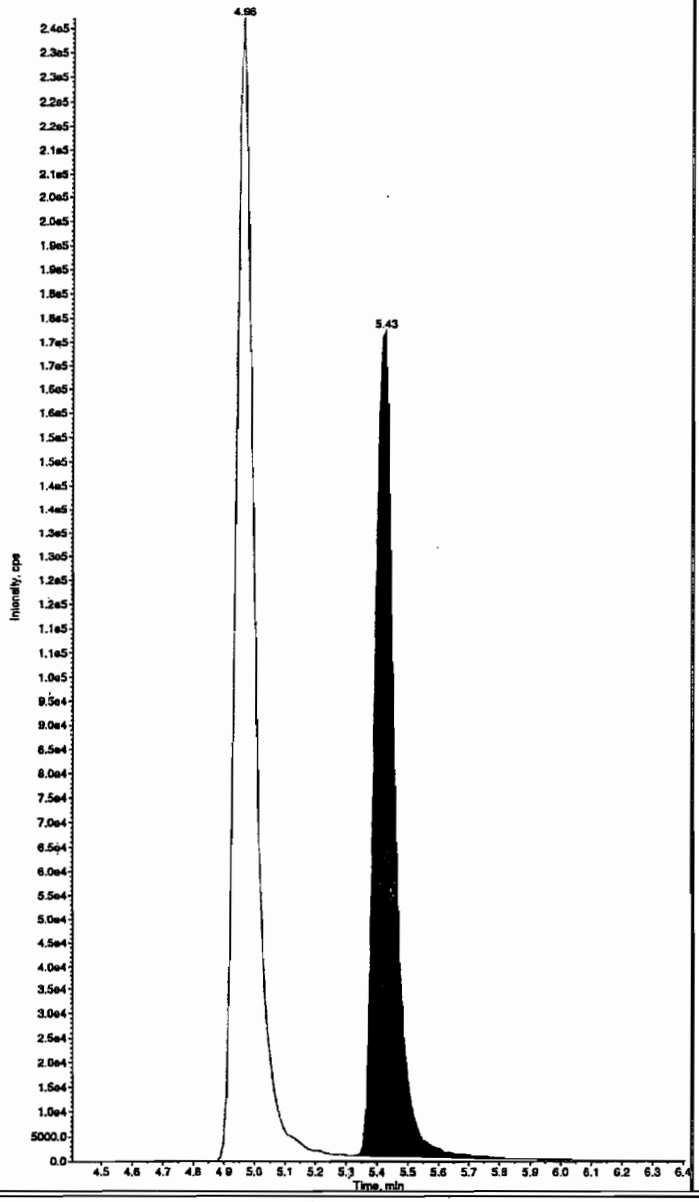

Sample Name: "1202052394" Sample ID: "957192|2|LER" File: "EXS03310044.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 146. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 7:56:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 2.97e+006 counts
Height: 717737.061 cps
Start Time: 10.7 min
End Time: 11.2 min

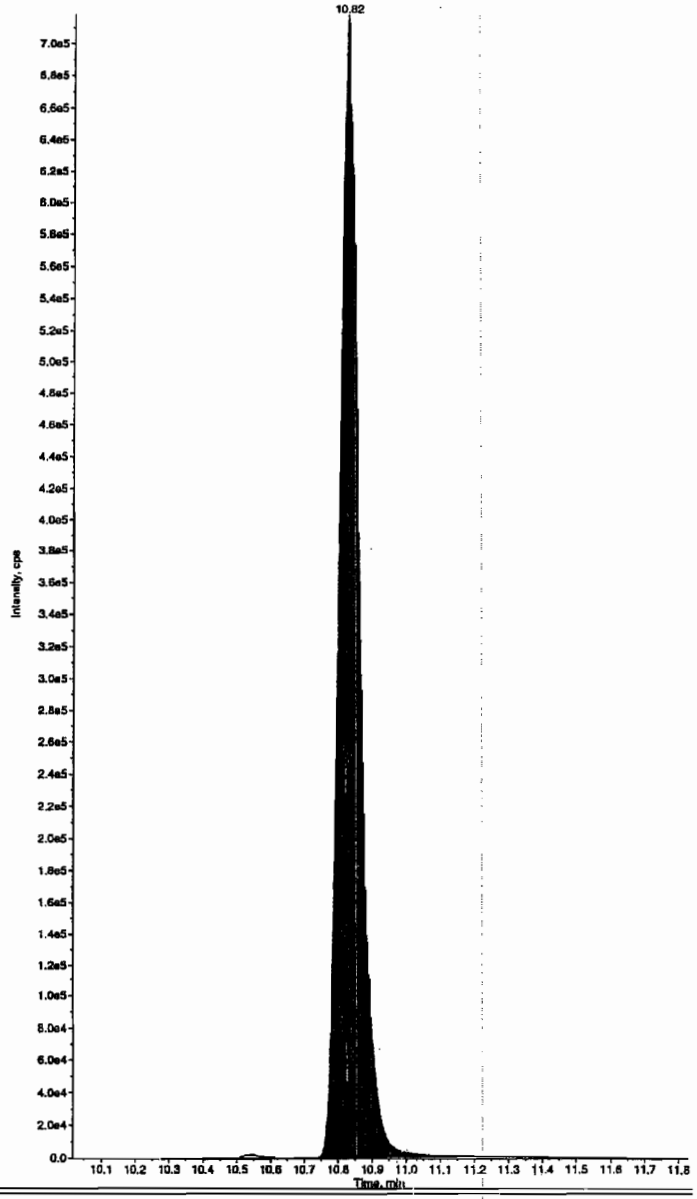

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13095(247828003MSD)

Lab Code: GEL

GEL Job No (SDG) 10-2000

Matrix: GROUND WATER

GEL Sample ID: 1202052394

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 23-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 957190

Concentrated Extract Volume (mL) 5

Date Extracted: 25-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0322026.wiff

Date Analyzed: 23-MAR-10 02:32

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5.52	
121-14-2	2,4-Dinitrotoluene	6.08	
121-82-4	RDX	6.81	
19406-51-0	4-Amino-2,6-dinitrotoluene	6.13	
2691-41-0	HMX	6.65	
35572-78-2	2-Amino-4,6-dinitrotoluene	5.77	
479-45-8	Tetryl	4.38	
606-20-2	2,6-Dinitrotoluene	5.7	B
78-11-5	PETN	6.34	
88-72-2	o-Nitrotoluene	5.69	
98-95-3	Nitrobenzene	6.38	
99-08-1	m-Nitrotoluene	6.03	
99-35-4	1,3,5-Trinitrobenzene	5.99	
99-65-0	m-Dinitrobenzene	6.25	
99-99-0	p-Nitrotoluene	5.86	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322026.wiff	Acquisition Date	3/23/2010 2:32:59 AM
Sample Name	1202052394	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

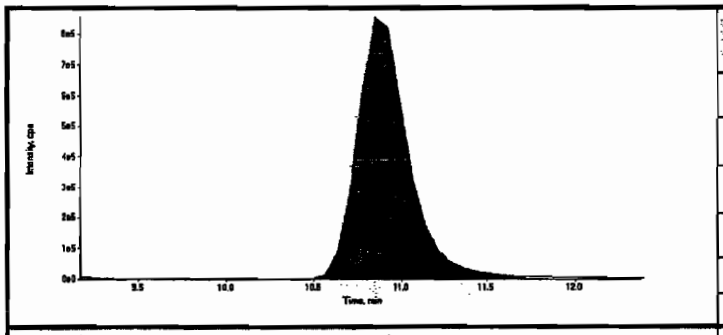

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	17500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

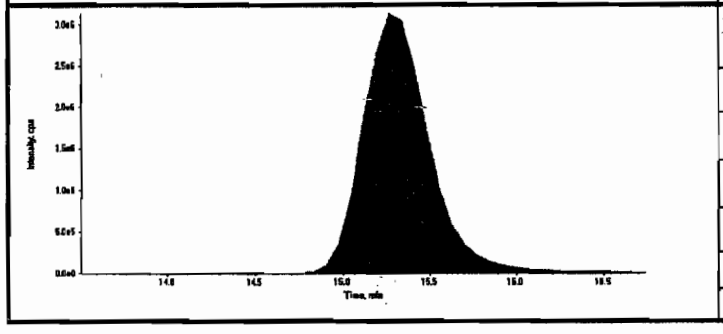

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.30
Area Counts:	83400000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

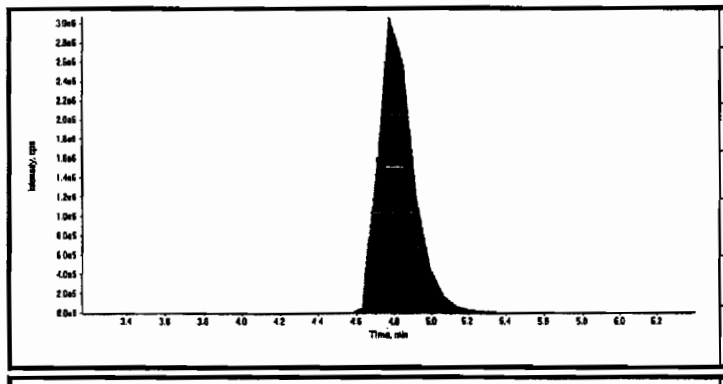

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	3.90e+007
Manual Modification	No
Amount:	512. (ng/mL)
% Accuracy:	N/A

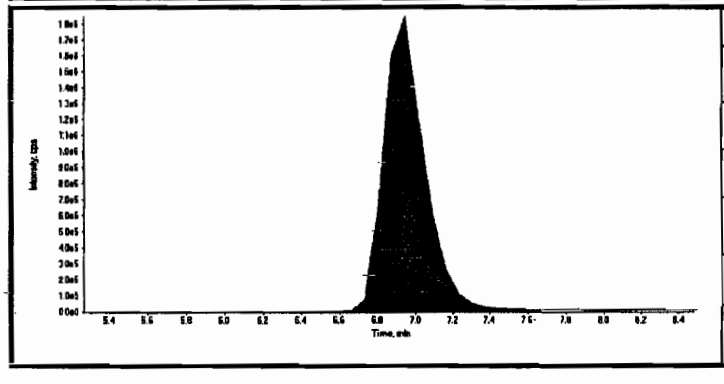

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.94
Area Counts:	2.81e+007
Manual Modification	No
Amount:	524. (ng/mL)
% Accuracy:	N/A

HMC 03/30/10

KCW 3/25/10

Before Lar 3/28/10

Name: "1202052394" Sample ID: "257 [8212]LER" File: "EXP0322028.wiff"
ame: "246-Trinitrotoluene" Mass(es): "227.1/209.8 amu"
nt: "LCX3521_L" Annotation: ""
ndex: 1
ype: Unknown
ation: N/A
ed Conc: 399. ng/mL
e: 3/23/2010
e: 2:32:59 AM

: No
gorithm: IntelliQuan - IQA
k Height: 1.00e4 cps
k Width: 0.00 sec
g Width: 3 points
w: 60.0 sec
RT: 13.5 min
tive RT: No

e: Valley
n Time: 13.6 min
1.77e+008 counts
6.72e+006 cps
ne: 13.0 min
: 14.5 min

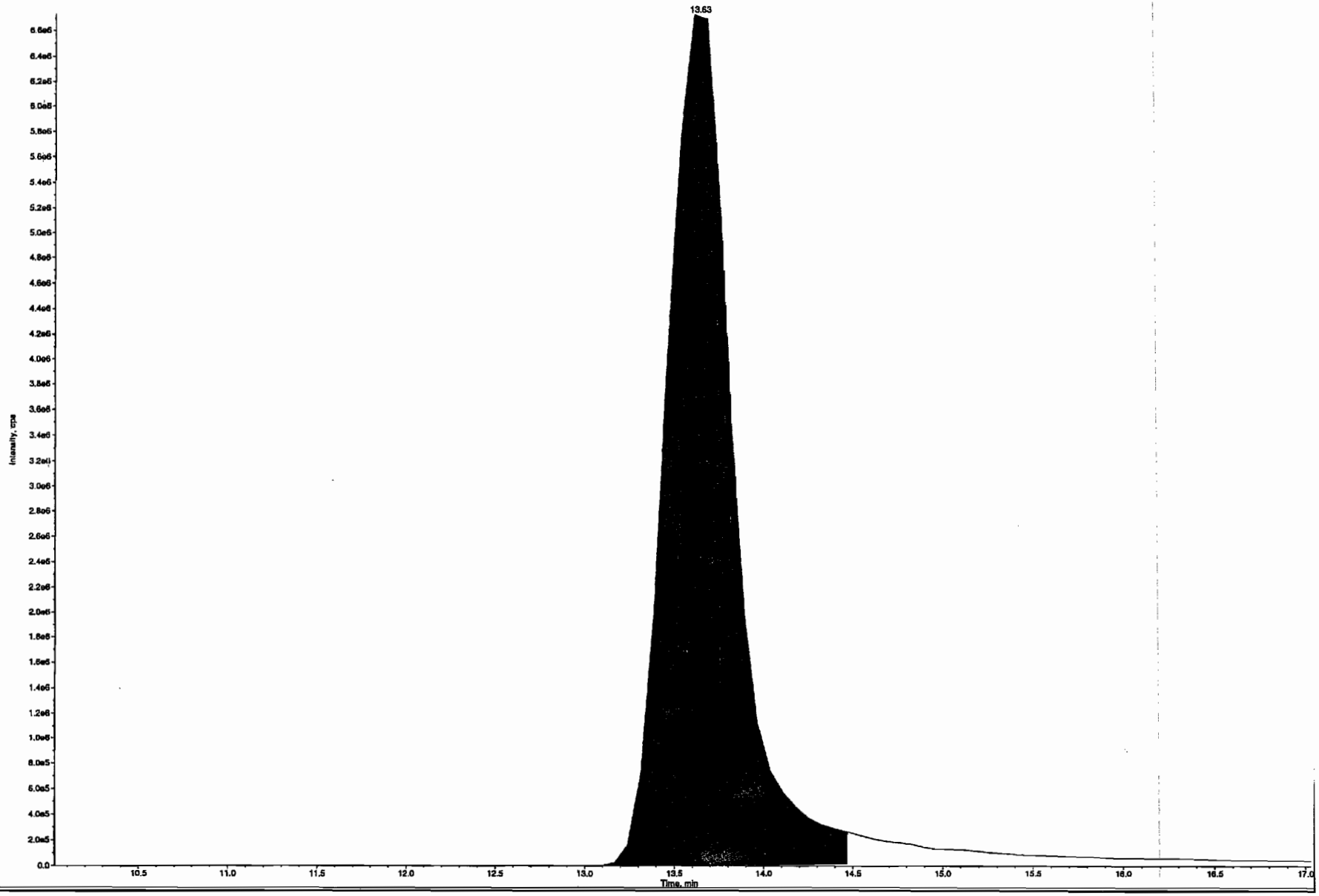

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322026.wiff	**Acquisition Date**	3/23/2010 2:32:59 AM
Sample Name	1202052394	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

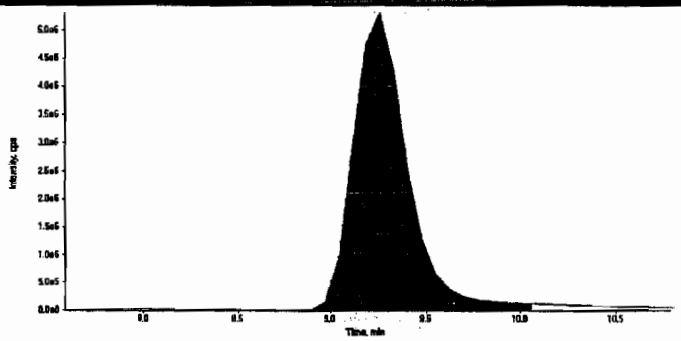

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.26
Area Counts:	1.05e+008
Manual Modification	No
Amount:	461. (ng/mL)
% Accuracy:	N/A

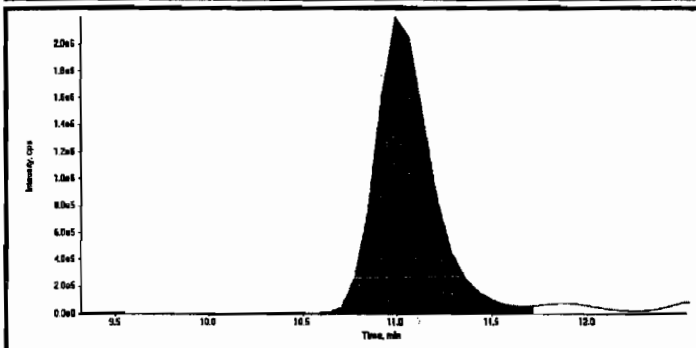

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	11.0
Area Counts:	4.48e+007
Manual Modification	No
Amount:	481. (ng/mL)
% Accuracy:	N/A

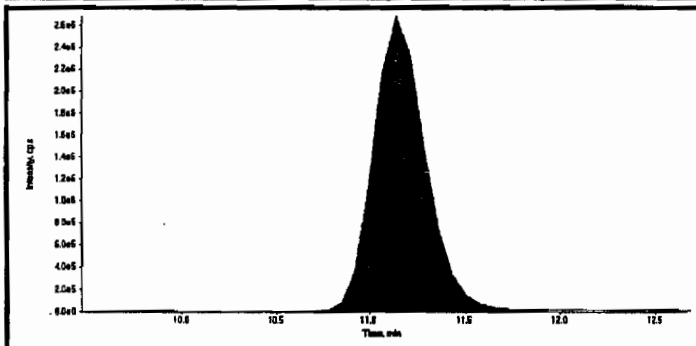

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.1
Area Counts:	5.05e+007
Manual Modification	No
Amount:	337. (ng/mL)
% Accuracy:	N/A

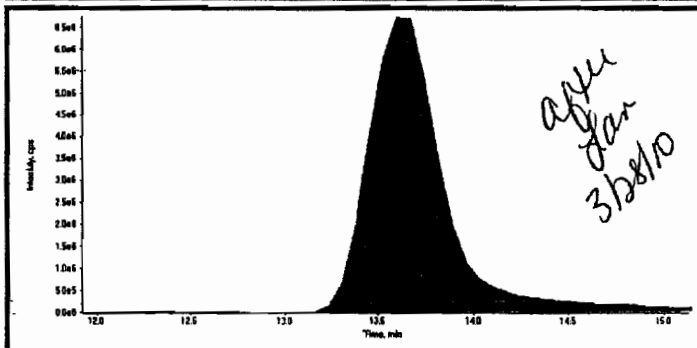

agree Jan 3/28/10

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	1.86e+008
Manual Modification	Yes
Amount:	425. (ng/mL)
% Accuracy:	N/A

Before Lcz 3/28/10

) Name: "1202052394" Sample ID: "957192|2|LER" File: "EXP0322026.wiff"
lame: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
ent: "LCX3521_L" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 3/23/2010
me: 2:32:53 AM
s: No

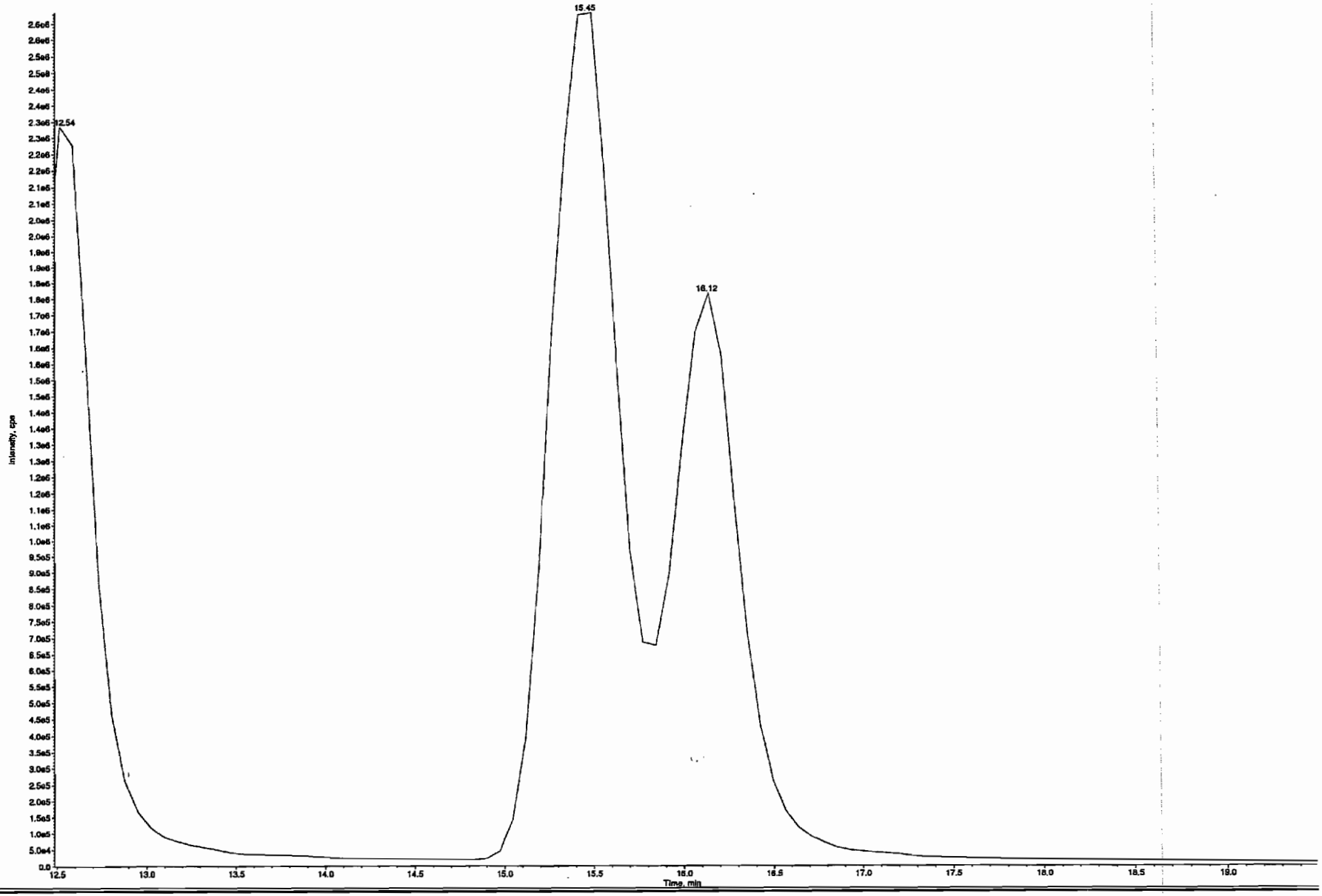

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322026.wiff	Acquisition Date	3/23/2010 2:32:59 AM
Sample Name	1202052394	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

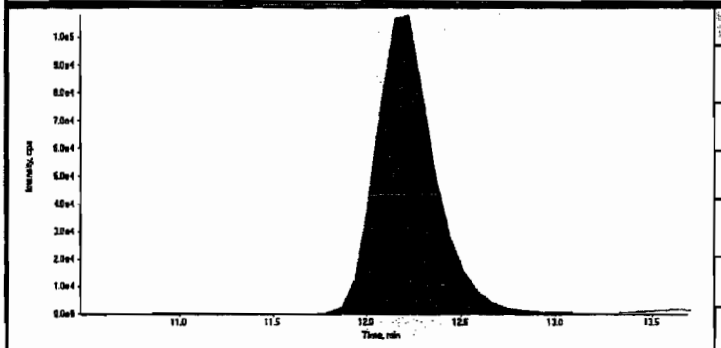

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	2.33e+006
Manual Modification	No
Amount:	491. (ng/mL)
% Accuracy:	N/A

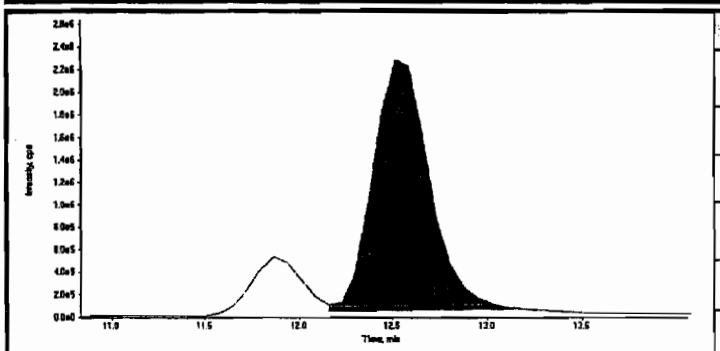

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.5
Area Counts:	4.68e+007
Manual Modification	No
Amount:	2.82 217. (ng/mL)
% Accuracy:	N/A

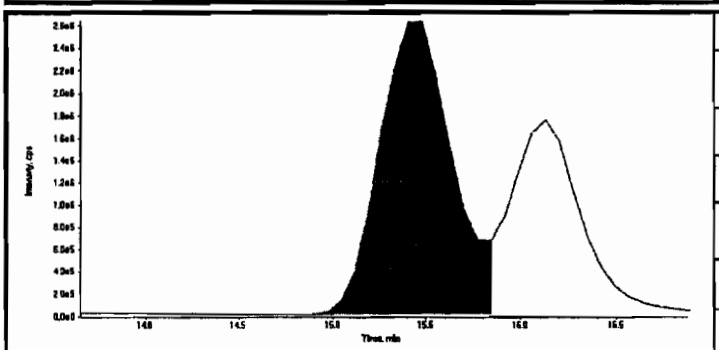

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.5
Area Counts:	7.12e+007
Manual Modification	No
Amount:	439. (ng/mL)
% Accuracy:	N/A

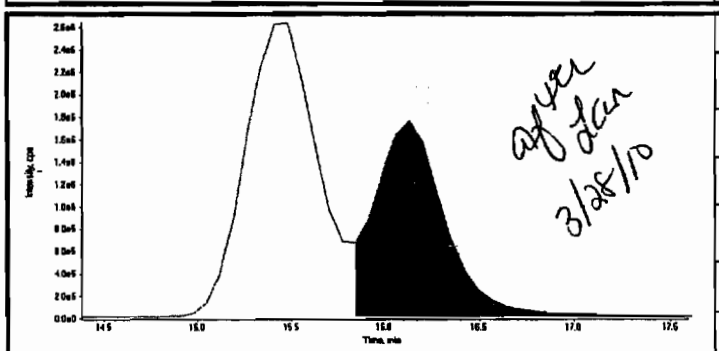

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	16.1
Area Counts:	4.57e+007
Manual Modification	Yes
Amount:	468. (ng/mL)
% Accuracy:	N/A

Before Lan 3/28/10

Name: "1202052394" Sample ID: "957192[2]LER" File: "EXP0322026.wiff"
ame: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
nit: "LCX3521_L" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 733. ng/mL
e: 3/23/2010
e: 2:32:59 AM

: No
gorithm: IntelliQuan - IQA
k Height: 1000.00 cps
k Width: 0.00 sec
g Width: 3 points
w: 30.0 sec
RT: 14.6 min
tive RT: No

e: Valley
n Time: 14.8 min
4.07e+006 counts
1.23e+005 cps
me: 14.4 min
: 15.5 min

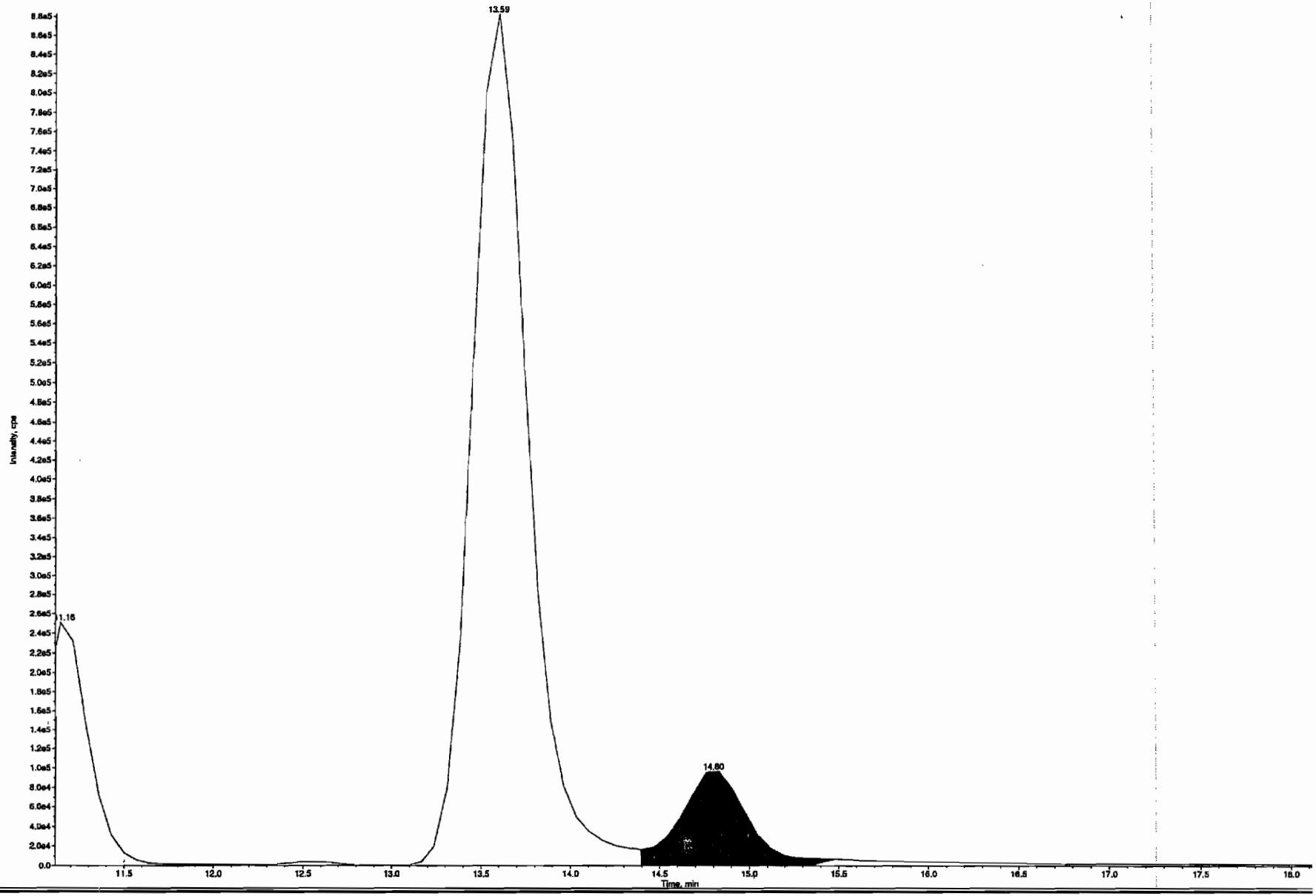

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322026.wiff	Acquisition Date	3/23/2010 2:32:59 AM
Sample Name	1202052394	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

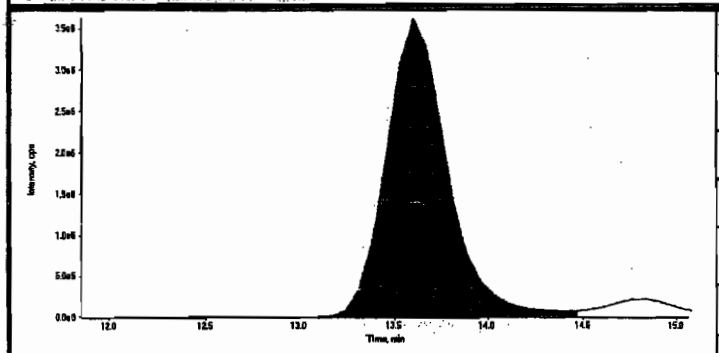

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	8.32e+007
Manual Modification	No
Amount:	472. (ng/mL)
% Accuracy:	N/A

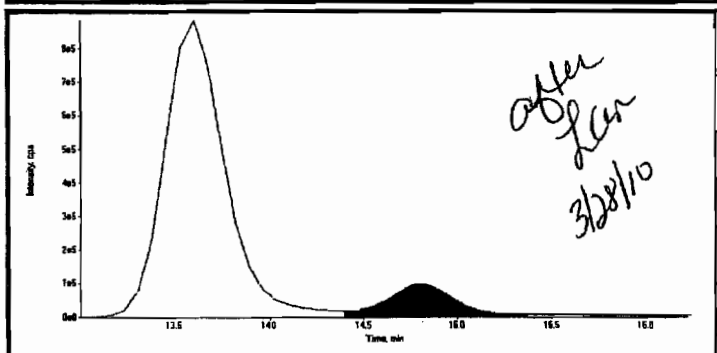

after LER 3/28/10

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.8
Area Counts:	2.47e+006
Manual Modification	Yes
Amount:	444. (ng/mL)
% Accuracy:	N/A

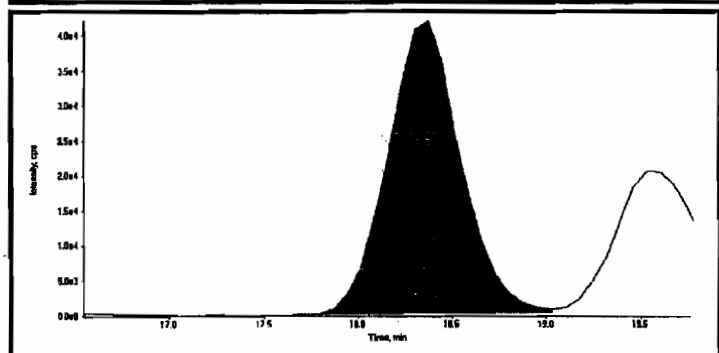

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.4
Area Counts:	1.14e+006
Manual Modification	No
Amount:	438. (ng/mL)
% Accuracy:	N/A

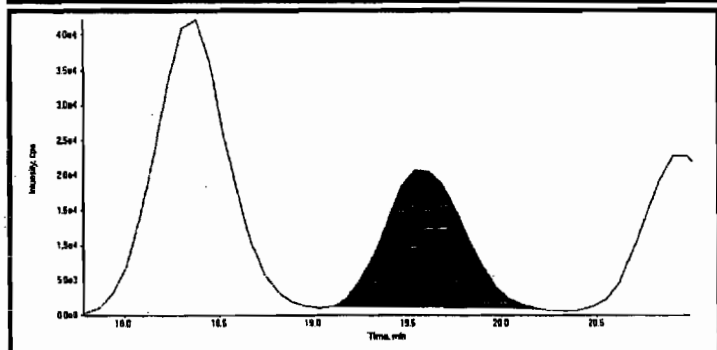

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.5
Area Counts:	5.87e+005
Manual Modification	No
Amount:	451. (ng/mL)
% Accuracy:	N/A

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ata File	EXP0322026.wiff	Acquisition Date	3/23/2010 2:32:59 AM
ample Name	1202052394	Acquisition Method	8321_pntx.dam
atch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
rocedure Code	LCX3521_L	Sample Type	Unknown

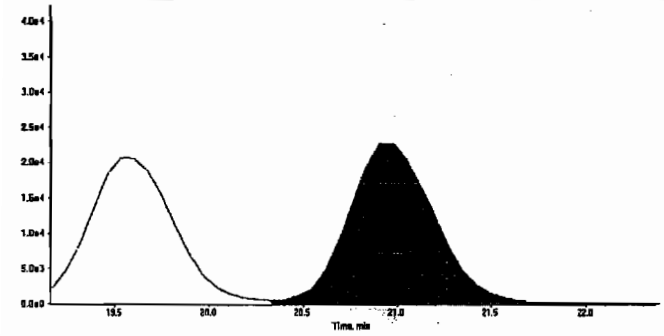

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	21.0
Area Counts:	7.19e+005
Manual Modification	No
Amount:	464. (ng/mL)
% Accuracy:	N/A

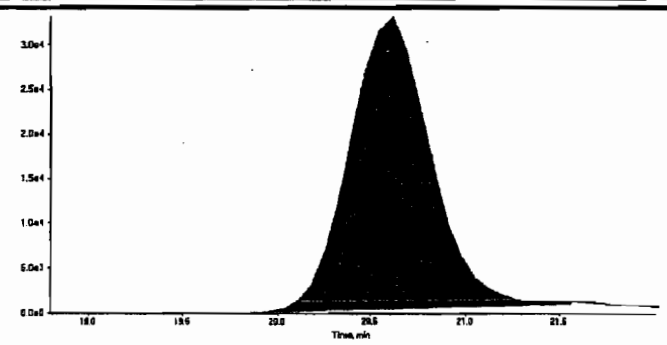

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.6
Area Counts:	9.73e+005
Manual Modification	No
Amount:	488. (ng/mL)
% Accuracy:	N/A

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MISCELLANEOUS DATA

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 957190 **Verified by:** _____
Analyst: Sirena White
Method: SW846 Method 3535

Lab SOP: GL-OA-E-033 REV# 17
Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Ph 1	Final Volume (mL)	Prepped Factor (mL/mL)
1202052389 MB	25-FEB-2010 09:29:00	770	5	5	0.00649
1202052390 LCS	25-FEB-2010 09:29:00	770	5	5	0.00649
247824003	25-FEB-2010 09:29:00	770	6	5	0.00649
247828003	25-FEB-2010 09:29:00	770	6	5	0.00649
1202052393 MS (247828003)	25-FEB-2010 09:29:00	770	6	5	0.00649
1202052394 MSD (247828003)	25-FEB-2010 09:29:00	770	6	5	0.00649
247830002	25-FEB-2010 09:29:00	77	6	5	0.06494
1202052391 MS (247830002)	25-FEB-2010 09:29:00	77	6	5	0.06494
1202052392 MSD (247830002)	25-FEB-2010 09:29:00	77	6	5	0.06494

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202052390	8321 Explosives LCS	IXX100208-03	.05	mL
LCS	1202052390	8321 LANL Explosives Mix 10mg/L	UXX100122-01.4	.5	mL
MS	1202052391	8321 Explosives LCS	IXX100208-03	.05	mL
MS	1202052391	8321 LANL Explosives Mix 10mg/L	UXX100122-01.4	.5	mL
MS	1202052393	8321 Explosives LCS	IXX100208-03	.05	mL
MS	1202052393	8321 LANL Explosives Mix 10mg/L	UXX100122-01.4	.5	mL
MSD	1202052392	8321 Explosives LCS	IXX100208-03	.05	mL
MSD	1202052392	8321 LANL Explosives Mix 10mg/L	UXX100122-01.4	.5	mL
MSD	1202052394	8321 Explosives LCS	IXX100208-03	.05	mL
MSD	1202052394	8321 LANL Explosives Mix 10mg/L	UXX100122-01.4	.5	mL
SURR	All	3,4-Dinitrotoluene (8330 Surr.) 100ppm	IXP100223-02	.025	mL

Comments:

SPE Cartridge: 003339260A

Sample 247830002 was extremely murky. Sample was filtered and was still murky so sample was diluted in a 1:10 dilution to prevent clogging the cartridge.

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS#3

Date: 03/22/10
Extr. Injection Volume: 10uL
Sequence Number: 032210
Initial Calibration Date: 032210

Method: 8321A-Modified
Int. Std.: UXX1003090-01.3
Mobile Phase Lot#:1290941, 1281642
Standard-Samp Reagent Lot#:1284736, 1283379

Reviewed BY: Hmm
Date: 03/30/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100322-56

1°

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXP0322001.wiff	XIBLK01	LER	3/22/2010 15:33			1		USE	B
EXP0322002.wiff	XIBLK01	LER	3/22/2010 15:59			1		USE	B
EXP0322003.wiff	WXXICAL-50	LER	3/22/2010 16:25			1		USE	I
EXP0322004.wiff	WXXICAL-51	LER	3/22/2010 16:52			1		USE	I
EXP0322005.wiff	WXXICAL-52	LER	3/22/2010 17:18			1		USE	I
EXP0322006.wiff	WXXICAL-53	LER	3/22/2010 17:44			1		USE	I
EXP0322007.wiff	WXXICAL-54	LER	3/22/2010 18:11			1		USE	I
EXP0322008.wiff	WXXICAL-55	LER	3/22/2010 18:37			1		USE	I
EXP0322009.wiff	XIBLK02	LER	3/22/2010 19:04			1		USE	B
EXP0322010.wiff	WXXICV	LER	3/22/2010 19:30			1		USE	C
EXP0322011.wiff	XIBLK03	LER	3/22/2010 19:56			1		USE	B
EXP0322012.wiff	WXXCRI	LER	3/22/2010 20:23			1		USE	C
EXP0322013.wiff	1202047270	LER	3/22/2010 20:49	954941	10-1886	2	LANL	USE	S
EXP0322014.wiff	1202047271	LER	3/22/2010 21:16	954941	10-1886	2	LANL	USE	S
EXP0322015.wiff	247261003	LER	3/22/2010 21:42	954941	10-1886	2	LANL	USE	S
EXP0322016.wiff	1202047272	LER	3/22/2010 22:08	954941	10-1886	2	LANL	USE	S
EXP0322017.wiff	1202047273	LER	3/22/2010 22:35	954941	10-1886	2	LANL	USE	S
EXP0322018.wiff	WXXCCV	LER	3/22/2010 23:01			1		USE	C
EXP0322019.wiff	XIBLK04	LER	3/22/2010 23:27			1		USE	B
EXP0322020.wiff	WXXCRI	LER	3/22/2010 23:54			1		USE	C
EXP0322021.wiff	1202052389	LER	3/23/2010 0:20	957192	VARIOUS	2	LANL	USE	S
EXP0322022.wiff	1202052390	LER	3/23/2010 0:47	957192	VARIOUS	2	LANL	USE	S
EXP0322023.wiff	247824003	LER	3/23/2010 1:13	957192	10-2005	2	LANL	USE	S
EXP0322024.wiff	247828003	LER	3/23/2010 1:40	957192	10-2000	2	LANL	USE	S
EXP0322025.wiff	1202052393	LER	3/23/2010 2:06	957192	10-2000	2	LANL	USE	S
EXP0322026.wiff	1202052394	LER	3/23/2010 2:32	957192	10-2000	2	LANL	USE	S
EXP0322027.wiff	247830002	LER	3/23/2010 2:59	957192	10-2007	2	LANL	~~DUSE RA~~ USE 4/7/10	S
EXP0322028.wiff	1202052391	LER	3/23/2010 3:25	957192	10-2007	2	LANL	USE	S
EXP0322029.wiff	1202052392	LER	3/23/2010 3:52	957192	10-2007	2	LANL	USE	S

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EXP0322030.wiff	WXXCCV	LER	3/23/2010 4:18			1		USE	C
EXP0322031.wiff	XIBLK05	LER	3/23/2010 4:44			1		USE	B
EXP0322032.wiff	WXXCRI	LER	3/23/2010 5:11			1		USE	C
EXP0322033.wiff	1202073689	LER	3/23/2010 5:37	966289	VARIOUS	2	LANL	USE	S
EXP0322034.wiff	1202073690	LER	3/23/2010 6:04	966289	VARIOUS	2	LANL	USE	S
EXP0322035.wiff	249327010	LER	3/23/2010 6:30	966289	10-2428	2	LANL	USE	S
EXP0322036.wiff	1202073691	LER	3/23/2010 6:57	966289	10-2428	2	LANL	DUSE-RA	S
EXP0322037.wiff	1202073692	LER	3/23/2010 7:23	966289	10-2428	2	LANL	USE	S
EXP0322038.wiff	249373002	LER	3/23/2010 7:49	966289	10-2453	2	LANL	USE	S
EXP0322039.wiff	249375003	LER	3/23/2010 8:16	966289	10-2445	2	LANL	USE	S
EXP0322040.wiff	249375009	LER	3/23/2010 8:42	966289	10-2445	2	LANL	USE	S
EXP0322041.wiff	WXXCCV	LER	3/23/2010 9:09			1		USE	C
EXP0322042.wiff	XIBLK06	LER	3/23/2010 9:35			1		USE	B
EXP0322043.wiff	WXXCRI	LER	3/23/2010 10:02			1		USE	C
EXP0322044.wiff	XIBLK07	LER	3/23/2010 11:36			1		USE	B
EXP0322045.wiff	WXXCCV	LER	3/23/2010 12:02			1		USE	C
EXP0322046.wiff	XIBLK08	LER	3/23/2010 12:29			1		USE	B
EXP0322047.wiff	WXXCRI	LER	3/23/2010 12:55			1		USE	C
EXP0322048.wiff	1202041953	LER	3/23/2010 13:22	952706	10-1758	2	LANL	USE	S
EXP0322049.wiff	1202041954	LER	3/23/2010 13:48	952706	10-1758	2	LANL	DUSE-RA	S
EXP0322050.wiff	246866002	LER	3/23/2010 14:14	952706	10-1758	2	LANL	USE	S
EXP0322051.wiff	1202041955	LER	3/23/2010 14:41	952706	10-1758	2	LANL	USE	S
EXP0322052.wiff	1202041956	LER	3/23/2010 15:07	952706	10-1758	2	LANL	USE	S
EXP0322053.wiff	246866003	LER	3/23/2010 15:33	952706	10-1758	2	LANL	USE	S
EXP0322054.wiff	246866004	LER	3/23/2010 16:00	952706	10-1758	2	LANL	USE	S
EXP0322055.wiff	246866005	LER	3/23/2010 16:26	952706	10-1758	2	LANL	USE	S
EXP0322056.wiff	246866006	LER	3/23/2010 16:53	952706	10-1758	2	LANL	USE	S
EXP0322057.wiff	246866007	LER	3/23/2010 17:19	952706	10-1758	2	LANL	USE	S
EXP0322058.wiff	WXXCCV	LER	3/23/2010 17:46			1		USE	C
EXP0322059.wiff	XIBLK09	LER	3/23/2010 18:12			1		USE	B
EXP0322060.wiff	WXXCRI	LER	3/23/2010 18:39			1		USE	C
EXP0322061.wiff	246866008	LER	3/23/2010 19:05	952706	10-1758	2	LANL	USE	S
EXP0322062.wiff	246866009	LER	3/23/2010 19:31	952706	10-1758	2	LANL	USE	S
EXP0322063.wiff	WXXCCV	LER	3/23/2010 19:58			1		USE	C
EXP0322064.wiff	XIBLK10	LER	3/23/2010 20:24			1		USE	B
EXP0322065.wiff	WXXCRI	LER	3/23/2010 20:51			1		USE	C
EXP0322066.wiff	1202045643	LER	3/23/2010 21:17	954271	VARIOUS	2	LANL	DUSE-RA	S

EXP0322067.wiff	1202045644	LER	3/23/2010 21:43	954271	VARIOUS	2	LANL	DUSE-RA	S
EXP0322068.wiff	247172001	LER	3/23/2010 22:10	954271	10-1866	2	LANL	DUSE-RA	S
EXP0322069.wiff	247172002	LER	3/23/2010 22:36	954271	10-1866	2	LANL	DUSE-RA	S
EXP0322070.wiff	247175001	LER	3/23/2010 23:03	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322071.wiff	247175002	LER	3/23/2010 23:29	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322072.wiff	247175003	LER	3/23/2010 23:56	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322073.wiff	247175004	LER	3/24/2010 0:22	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322074.wiff	247175005	LER	3/24/2010 0:48	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322075.wiff	247175006	LER	3/24/2010 1:15	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322076.wiff	WXXCCV	LER	3/24/2010 1:41			1		DUSE	C
EXP0322077.wiff	XIBLK11	LER	3/24/2010 2:08			1		DUSE	B
EXP0322078.wiff	WXXCRI	LER	3/24/2010 2:34			1		DUSE	C
EXP0322079.wiff	247175007	LER	3/24/2010 3:01	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322080.wiff	247175008	LER	3/24/2010 3:27	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322081.wiff	247175009	LER	3/24/2010 3:54	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322082.wiff	247175010	LER	3/24/2010 4:20	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322083.wiff	247181001	LER	3/24/2010 4:46	954271	10-1871-1	2	LANL	DUSE-RA	S
EXP0322084.wiff	247181002	LER	3/24/2010 5:13	954271	10-1871-1	2	LANL	DUSE-RA	S
EXP0322085.wiff	247187001	LER	3/24/2010 5:39	954271	10-1867	2	LANL	DUSE-RA	S
EXP0322086.wiff	247187002	LER	3/24/2010 6:06	954271	10-1867	2	LANL	DUSE-RA	S
EXP0322087.wiff	247187003	LER	3/24/2010 6:32	954271	10-1867	2	LANL	DUSE-RA	S
EXP0322088.wiff	WXXCCV	LER	3/24/2010 6:59			1		DUSE	C
EXP0322089.wiff	XIBLK12	LER	3/24/2010 7:25			1		DUSE	B
EXP0322090.wiff	WXXCRI	LER	3/24/2010 7:52			1		DUSE	C

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS4

Date: 03/31/10
Extr. Injection Volume: 10uL
Sequence Number: 033110exs
Initial Calibration Date: 033110

Method: 8321A-Modified
Int. Std.: N/A
Mobile Phase Lot#:1268566, 1268568
Standard-Samp Reagent Lot# :1292884, 1284736

Reviewed By: Hnm
Date: 04/07/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100331-26

2°

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS03310001.wiff	XIBLK01	LER	3/31/2010 8:40			1		USE	B
EXS03310002.wiff	XIBLK01	LER	3/31/2010 8:56			1		USE	B
EXS03310003.wiff	WXXICAL-19	LER	3/31/2010 9:12			1		USE	I
EXS03310004.wiff	WXXICAL-20	LER	3/31/2010 9:27			1		USE	I
EXS03310005.wiff	WXXICAL-21	LER	3/31/2010 9:43			1		USE	I
EXS03310006.wiff	WXXICAL-22	LER	3/31/2010 9:59			1		USE	I
EXS03310007.wiff	WXXICAL-23	LER	3/31/2010 10:14			1		USE	I
EXS03310008.wiff	WXXICAL-24	LER	3/31/2010 10:30			1		USE	I
EXS03310009.wiff	WXXICAL-25	LER	3/31/2010 10:46			1		USE	I
EXS03310010.wiff	XIBLK02	LER	3/31/2010 11:01			1		USE	B
EXS03310011.wiff	WXXICV	LER	3/31/2010 11:17			1		USE	C
EXS03310012.wiff	XIBLK03	LER	3/31/2010 11:33			1		USE	B
EXS03310013.wiff	WXXCRI	LER	3/31/2010 11:49			1		USE	C
EXS03310014.wiff	1202061351	LER	3/31/2010 12:04	961045	10-2210	2	LANL	USE	S
EXS03310015.wiff	1202061352	LER	3/31/2010 12:20	961045	10-2210	2	LANL	USE	S
EXS03310016.wiff	248541002	LER	3/31/2010 12:36	961045	10-2210	2	LANL	USE	S
EXS03310017.wiff	1202061353	LER	3/31/2010 12:52	961045	10-2210	2	LANL	USE	S
EXS03310018.wiff	1202061354	LER	3/31/2010 13:07	961045	10-2210	2	LANL	USE	S
EXS03310019.wiff	248541003	LER	3/31/2010 13:23	961045	10-2210	2	LANL	USE	S
EXS03310020.wiff	248541004	LER	3/31/2010 13:39	961045	10-2210	2	LANL	USE	S
EXS03310021.wiff	248541005	LER	3/31/2010 13:54	961045	10-2210	2	LANL	USE	S
EXS03310022.wiff	248541006	LER	3/31/2010 14:10	961045	10-2210	2	LANL	USE	S
EXS03310023.wiff	248541007	LER	3/31/2010 14:26	961045	10-2210	2	LANL	USE	S
EXS03310024.wiff	WXXCCV	LER	3/31/2010 14:41			1		USE	C
EXS03310025.wiff	XIBLK04	LER	3/31/2010 14:57			1		USE	B
EXS03310026.wiff	WXXCRI	LER	3/31/2010 15:13			1		USE	C
EXS03310027.wiff	248541008	LER	3/31/2010 15:29	961045	10-2210	2	LANL	USE	S
EXS03310028.wiff	248541009	LER	3/31/2010 15:44	961045	10-2210	2	LANL	USE	S
EXS03310029.wiff	248541010	LER	3/31/2010 16:00	961045	10-2210	2	LANL	USE	S
EXS03310030.wiff	248541011	LER	3/31/2010 16:16	961045	10-2210	2	LANL	USE	S

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EXS03310031.wiff	248541012	LER	3/31/2010 16:31	961045	10-2210	2	LANL	USE	S
EXS03310032.wiff	248541013	LER	3/31/2010 16:47	961045	10-2210	2	LANL	USE	S
EXS03310033.wiff	248541014	LER	3/31/2010 17:03	961045	10-2210	2	LANL	USE	S
EXS03310034.wiff	248541015	LER	3/31/2010 17:19	961045	10-2210	2	LANL	USE	S
EXS03310035.wiff	248541016	LER	3/31/2010 17:34	961045	10-2210	2	LANL	USE	S
EXS03310036.wiff	WXXCCV	LER	3/31/2010 17:50			1		USE	C
EXS03310037.wiff	XIBLK05	LER	3/31/2010 18:06			1		USE	B
EXS03310038.wiff	WXXCRI	LER	3/31/2010 18:21			1		USE	C
EXS03310039.wiff	1202052389	LER	3/31/2010 18:37	957192	VARIOUS	2	LANL	USE	S
EXS03310040.wiff	1202052390	LER	3/31/2010 18:53	957192	VARIOUS	2	LANL	USE	S
EXS03310041.wiff	247824003	LER	3/31/2010 19:09	957192	10-2005	2	LANL	USE	S
EXS03310042.wiff	247828003	LER	3/31/2010 19:24	957192	10-2000	2	LANL	USE	S
EXS03310043.wiff	1202052393	LER	3/31/2010 19:40	957192	10-2000	2	LANL	USE	S
EXS03310044.wiff	1202052394	LER	3/31/2010 19:56	957192	10-2000	2	LANL	USE	S
EXS03310045.wiff	247830002	LER	3/31/2010 20:11	957192	10-2007	2	LANL	USE	S
EXS03310046.wiff	1202052391	LER	3/31/2010 20:27	957192	10-2007	2	LANL	USE	S
EXS03310047.wiff	1202052392	LER	3/31/2010 20:43	957192	10-2007	2	LANL	USE	S
EXS03310048.wiff	WXXCCV	LER	3/31/2010 20:59			1		USE	C
EXS03310049.wiff	XIBLK06	LER	3/31/2010 21:14			1		USE	B
EXS03310050.wiff	WXXCRI	LER	3/31/2010 21:30			1		USE	C
EXS03310051.wiff	1202055003	LER	3/31/2010 21:46	958247	VARIOUS	2	LANL	USE	S
EXS03310052.wiff	1202055004	LER	3/31/2010 22:02	958247	VARIOUS	2	LANL	USE	S
EXS03310053.wiff	248004002	LER	3/31/2010 22:17	958247	10-2024	2	LANL	USE	S
EXS03310054.wiff	1202055005	LER	3/31/2010 22:33	958247	10-2024	2	LANL	USE	S
EXS03310055.wiff	1202055006	LER	3/31/2010 22:49	958247	10-2024	2	LANL	USE	S
EXS03310056.wiff	248004003	LER	3/31/2010 23:04	958247	10-2024	2	LANL	USE	S
EXS03310057.wiff	248004004	LER	3/31/2010 23:20	958247	10-2024	2	LANL	USE	S
EXS03310058.wiff	248004005	LER	3/31/2010 23:36	958247	10-2024	2	LANL	USE	S
EXS03310059.wiff	248004006	LER	3/31/2010 23:51	958247	10-2024	2	LANL	USE	S
EXS03310060.wiff	248012002	LER	4/1/2010 0:07	958247	10-2027	2	LANL	USE	S
EXS03310061.wiff	WXXCCV	LER	4/1/2010 0:23			1		USE	C
EXS03310062.wiff	XIBLK07	LER	4/1/2010 0:39			1		USE	B
EXS03310063.wiff	WXXCRI	LER	4/1/2010 0:54			1		USE	C
EXS03310064.wiff	248012003	LER	4/1/2010 1:10	958247	10-2027	2	LANL	USE	S
EXS03310065.wiff	248012004	LER	4/1/2010 1:26	958247	10-2027	2	LANL	USE	S
EXS03310066.wiff	248012005	LER	4/1/2010 1:42	958247	10-2027	2	LANL	USE	S
EXS03310067.wiff	248012006	LER	4/1/2010 1:57	958247	10-2027	2	LANL	USE	S

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EXS03310068.wiff	248012007	LER	4/1/2010 2:13	958247	10-2027	2	LANL	USE	S
EXS03310069.wiff	248012008	LER	4/1/2010 2:29	958247	10-2027	2	LANL	USE	S
EXS03310070.wiff	248012009	LER	4/1/2010 2:44	958247	10-2027	2	LANL	USE	S
EXS03310071.wiff	248013001	LER	4/1/2010 3:00	958247	10-2034	2	LANL	USE	S
EXS03310072.wiff	248013002	LER	4/1/2010 3:16	958247	10-2034	2	LANL	USE	S
EXS03310073.wiff	248013003	LER	4/1/2010 3:31	958247	10-2034	2	LANL	USE	S
EXS03310074.wiff	WXXCCV	LER	4/1/2010 3:47			1		USE	C
EXS03310075.wiff	XIBLK08	LER	4/1/2010 4:03			1		USE	B
EXS03310076.wiff	WXXCRI	LER	4/1/2010 4:19			1		USE	C
EXS03310077.wiff	248013004	LER	4/1/2010 4:34	958247	10-2034	2	LANL	USE	S
EXS03310078.wiff	XIBLK09	LER	4/1/2010 4:50			1		USE	B
EXS03310079.wiff	1202073689	LER	4/1/2010 5:06	966289	VARIOUS	2	LANL	USE	S
EXS03310080.wiff	1202073690	LER	4/1/2010 5:21	966289	VARIOUS	2	LANL	USE	S
EXS03310081.wiff	249327010	LER	4/1/2010 5:37	966289	10-2428	2	LANL	USE	S
EXS03310082.wiff	1202073691	LER	4/1/2010 5:53	966289	10-2428	2	LANL	USE	S
EXS03310083.wiff	1202073692	LER	4/1/2010 6:09	966289	10-2428	2	LANL	USE	S
EXS03310084.wiff	249373002	LER	4/1/2010 6:24	966289	10-2453	2	LANL	USE	S
EXS03310085.wiff	249375003	LER	4/1/2010 6:40	966289	10-2445	2	LANL	USE	S
EXS03310086.wiff	249375009	LER	4/1/2010 6:56	966289	10-2445	2	LANL	USE	S
EXS03310087.wiff	WXXCCV	LER	4/1/2010 7:11			1		USE	C
EXS03310088.wiff	XIBLK10	LER	4/1/2010 7:27			1		USE	B
EXS03310089.wiff	WXXCRI	LER	4/1/2010 7:43			1		USE	C
EXS03310090.wiff	1202055034	LER	4/1/2010 7:59	958262	10-2074	2	LANL	USE	S
EXS03310091.wiff	1202055035	LER	4/1/2010 8:14	958262	10-2074	2	LANL	USE	S
EXS03310092.wiff	248043001	LER	4/1/2010 8:30	958262	10-2074	2	LANL	USE	S
EXS03310093.wiff	1202055036	LER	4/1/2010 8:46	958262	10-2074	2	LANL	USE	S
EXS03310094.wiff	1202055037	LER	4/1/2010 9:01	958262	10-2074	2	LANL	USE	S
EXS03310095.wiff	248043002	LER	4/1/2010 9:17	958262	10-2074	2	LANL	USE	S
EXS03310096.wiff	248043003	LER	4/1/2010 9:33	958262	10-2074	2	LANL	USE	S
EXS03310097.wiff	248043004	LER	4/1/2010 9:49	958262	10-2074	2	LANL	USE	S
EXS03310098.wiff	248043005	LER	4/1/2010 10:04	958262	10-2074	2	LANL	USE	S
EXS03310099.wiff	248043006	LER	4/1/2010 10:20	958262	10-2074	2	LANL	USE	S
EXS03310100.wiff	WXXCCV	LER	4/1/2010 10:36			1		USE	C
EXS03310101.wiff	XIBLK11	LER	4/1/2010 10:52			1		USE	B
EXS03310102.wiff	WXXCRI	LER	4/1/2010 11:07			1		USE	C
EXS03310103.wiff	248043007	LER	4/1/2010 11:23	958262	10-2074	2	LANL	USE	S
EXS03310104.wiff	248043008	LER	4/1/2010 11:39	958262	10-2074	2	LANL	USE	S

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EXS03310105.wiff	248043009	LER	4/1/2010 11:54	958262	10-2074	2	LANL	USE	S
EXS03310106.wiff	248043010	LER	4/1/2010 12:10	958262	10-2074	2	LANL	USE	S
EXS03310107.wiff	248043011	LER	4/1/2010 12:26	958262	10-2074	2	LANL	USE	S
EXS03310108.wiff	248043012	LER	4/1/2010 12:41	958262	10-2074	2	LANL	USE	S
EXS03310109.wiff	248043013	LER	4/1/2010 12:57	958262	10-2074	2	LANL	USE	S
EXS03310110.wiff	248043014	LER	4/1/2010 13:13	958262	10-2074	2	LANL	USE	S
EXS03310111.wiff	248043015	LER	4/1/2010 13:29	958262	10-2074	2	LANL	USE	S
EXS03310112.wiff	248043016	LER	4/1/2010 13:44	958262	10-2074	2	LANL	USE	S
EXS03310113.wiff	WXXCCV	LER	4/1/2010 14:00			1		USE	C
EXS03310114.wiff	XIBLK12	LER	4/1/2010 14:16			1		USE	B
EXS03310115.wiff	WXXCRI	LER	4/1/2010 14:31			1		USE	C
EXS03310116.wiff	248043017	LER	4/1/2010 14:47	958262	10-2074	2	LANL	USE	S
EXS03310117.wiff	248043018	LER	4/1/2010 15:03	958262	10-2074	2	LANL	USE	S
EXS03310118.wiff	XIBLK13	LER	4/1/2010 15:19			1		USE	B
EXS03310119.wiff	1202064537	LER	4/1/2010 15:34	962415	10-2233	2	LANL	USE	S
EXS03310120.wiff	1202064538	LER	4/1/2010 15:50	962415	10-2233	2	LANL	USE	S
EXS03310121.wiff	248628002	LER	4/1/2010 16:06	962415	10-2233	2	LANL	USE	S
EXS03310122.wiff	1202064539	LER	4/1/2010 16:21	962415	10-2233	2	LANL	USE	S
EXS03310123.wiff	1202064540	LER	4/1/2010 16:37	962415	10-2233	2	LANL	USE	S
EXS03310124.wiff	248628003	LER	4/1/2010 16:53	962415	10-2233	2	LANL	USE	S
EXS03310125.wiff	248628004	LER	4/1/2010 17:08	962415	10-2233	2	LANL	USE	S
EXS03310126.wiff	WXXCCV	LER	4/1/2010 17:24			1		USE	C
EXS03310127.wiff	XIBLK14	LER	4/1/2010 17:40			1		USE	B
EXS03310128.wiff	WXXCRI	LER	4/1/2010 17:56			1		USE	C
EXS03310129.wiff	248628005	LER	4/1/2010 18:11	962415	10-2233	2	LANL	USE	S
EXS03310130.wiff	248628006	LER	4/1/2010 18:27	962415	10-2233	2	LANL	USE	S
EXS03310131.wiff	248628007	LER	4/1/2010 18:43	962415	10-2233	2	LANL	USE	S
EXS03310132.wiff	248628008	LER	4/1/2010 18:58	962415	10-2233	2	LANL	USE	S
EXS03310133.wiff	248628009	LER	4/1/2010 19:14	962415	10-2233	2	LANL	USE	S
EXS03310134.wiff	248628010	LER	4/1/2010 19:30	962415	10-2233	2	LANL	USE	S
EXS03310135.wiff	248628011	LER	4/1/2010 19:46	962415	10-2233	2	LANL	USE	S
EXS03310136.wiff	248628012	LER	4/1/2010 20:01	962415	10-2233	2	LANL	USE	S
EXS03310137.wiff	248628013	LER	4/1/2010 20:17	962415	10-2233	2	LANL	USE	S
EXS03310138.wiff	248628014	LER	4/1/2010 20:33	962415	10-2233	2	LANL	USE	S
EXS03310139.wiff	WXXCCV	LER	4/1/2010 20:48			1		USE	C
EXS03310140.wiff	XIBLK15	LER	4/1/2010 21:04			1		USE	B
EXS03310141.wiff	WXXCRI	LER	4/1/2010 21:20			1		USE	C

EXS03310142.wiff	248628015	LER	4/1/2010 21:36	962415	10-2233	2	LANL	USE	S
EXS03310143.wiff	XIBLK16	LER	4/1/2010 21:51			1		USE	B
EXS03310144.wiff	248541007	LER	4/1/2010 22:07	961045	10-2210	10	LANL	USE	S
EXS03310145.wiff	WXXCCV	LER	4/1/2010 22:23			1		USE	C
EXS03310146.wiff	XIBLK17	LER	4/1/2010 22:39			1		USE	B
EXS03310147.wiff	WXXCR|	LER	4/1/2010 22:54			1		USE	C

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DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
07-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LC-MS/MS	SW846 3535/8321A Modified	Liquid	LANL
Batch ID:	**Sample Numbers:**		
957192	See Below		

Potentially affected work order(s)(SDG): 247824(10-2005),247828(10-2000),247830(10-2007)

Application Issues:

Failed Recovery for Surrogate or Tracer

Specification and Requirements Exception Description:	DER Disposition:
1.The MB(1202052389) contained a detect of 2,6-Dinitrotoluene above the MDL but below the PQL.	1. The analyte was not detected in any of the samples. The data are considered unaffected and are reported.
2. Sample 247830002 did not meet acceptance criteria for surrogate recovery at 65.2% in the Secondary analyte analysis and at 61.6% in the Primary analyte analysis. The limits are 67-134%.	2. The MS(1202052391) and MSD(1202052392) did not confirm the low recoveries. The sample was more than two times out of holding so a re-extract was not performed. The data are reported.

Originator's Name:

Lynne Russell 07-APR-10

Data Validator/Group Leader:

Herbert Maier 07-APR-10

GC SEMIVOLATILE PESTICIDE ANALYSIS

Pesticide Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2000

Method/Analysis Information

Procedure:	**Analysis of Organochlorine Pesticides and Chlorinated Hydrocarbons by ECD**
Analytical Method:	SW846 8081A
Prep Method:	SW846 3510C
Analytical Batch Number:	957867
Prep Batch Number:	957866

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8081A:

Sample ID	Client ID
247828004	CAPA-10-13095
1202054045	Method Blank (MB)
1202054046	Laboratory Control Sample (LCS)
1202054049	Laboratory Control Sample (LCS)-Toxaphene LCS Only
1202054047	247922002(WST29-10-13281) Matrix Spike (MS)
1202054048	247922002(WST29-10-13281) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-041 REV# 10.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

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

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
The calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

Alpha-Chlordane recovered below the acceptance limits on one analytical column in the standard bracketing the sample in this SDG. The negative bias for the analytical data is a result of instrument response decreasing after the initial calibration. The instrument response never decreased to a point where the target analytes would not be detected. Alpha-Chlordane was not detected on either analytical column in the associated samples; therefore, the non-compliance has no adverse effects on the data.

Quality Control (QC) Information

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

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-2022) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information:

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

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. Florisil was used during sample preparation.

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

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information:

Electronic Package Comment

This package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this pesticide fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The lower results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-Pesticide analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD7A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide I)
ECD7A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

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

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: Jimmi Cao Date: 3/24/10

Roadmap for LANL 10-2000 PEST

This roadmap was analyzed by hea01125 on 02-28-2010, 22:00.
This roadmap was reviewed by jim01140 on 03-01-2010, 16:15.
This roadmap was packaged by yml on 03-24-2010, 12:10.
This roadmap was validated by jim01140 on 03-24-2010, 13:37.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd7a.i/022610.b/039f3901.d	247828004	sample	27-FEB-2010	02:09	10-2000.sub	CAPA-10-13095	1.00000	957867	USE, uploaded both columns, reporting lower result

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd7a.i/022610.b/039b3901.d	247828004	sample	27-FEB-2010	02:09	10-2000.sub	CAPA-10-13095	1.00000	957867	USE, uploaded both columns, reporting lower result

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd7a.i/022610.b/033f330110-2000.d	1202054045	mb	27-FEB-2010	00:27	10-2000.sub	PBLK01	1.00000	957867	
☐	N	/chem/ecd7a.i/022610.b/034f340110-2000.d	1202054046	lcs	27-FEB-2010	00:44	10-2000.sub	PBLK01LCS	1.00000	957867	
☐	N	/chem/ecd7a.i/022610.b/035f350110-2000.d	1202054049	lcs	27-FEB-2010	01:01	10-2000.sub	PBLK01TLCS	1.00000	957867	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd7a.i/022610.b/033b330110-2000.d	1202054045	mb	27-FEB-2010	00:27	10-2000.sub	PBLK01	1.00000	957867	
☐	N	/chem/ecd7a.i/022610.b/034b340110-2000.d	1202054046	lcs	27-FEB-2010	00:44	10-2000.sub	PBLK01LCS	1.00000	957867	
☐	N	/chem/ecd7a.i/022610.b/035b350110-2000.d	1202054049	lcs	27-FEB-2010	01:01	10-2000.sub	PBLK01TLCS	1.00000	957867	

SAMPLE DATA SUMMARY

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**	**Date Collected:**	**02/21/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247828004**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13095**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**957867**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 02:09**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/26/2010 14:34**	**Aliquot:**	**900 mL**	**Final Volume:**	**5 mL**
Data File:	**039f3901.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	039b3901.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.0222	ug/L	0.00556	0.0222	1
58-89-9	gamma-BHC (Lindane)	U	0.0222	ug/L	0.00556	0.0222	1
319-85-7	beta-BHC	U	0.0222	ug/L	0.00667	0.0222	1
319-86-8	delta-BHC	U	0.0222	ug/L	0.00556	0.0222	1
76-44-8	Heptachlor	U	0.0222	ug/L	0.00556	0.0222	1
309-00-2	Aldrin	U	0.0222	ug/L	0.00556	0.0222	1
1024-57-3	Heptachlor epoxide	U	0.0222	ug/L	0.00556	0.0222	1
5103-74-2	gamma-Chlordane	U	0.0222	ug/L	0.00556	0.0222	1
5103-71-9	alpha-Chlordane	U	0.0222	ug/L	0.00556	0.0222	1
959-98-8	Endosulfan I	U	0.0222	ug/L	0.00556	0.0222	1
72-55-9	4,4'-DDE	U	0.0444	ug/L	0.00556	0.0444	1
60-57-1	Dieldrin	U	0.0444	ug/L	0.0111	0.0444	1
72-20-8	Endrin	U	0.0444	ug/L	0.0111	0.0444	1
72-54-8	4,4'-DDD	U	0.0444	ug/L	0.0111	0.0444	1
33213-65-9	Endosulfan II	U	0.0444	ug/L	0.0111	0.0444	1
7421-93-4	Endrin aldehyde	U	0.0444	ug/L	0.00556	0.0444	1
50-29-3	4,4'-DDT	U	0.0444	ug/L	0.0111	0.0444	1
1031-07-8	Endosulfan sulfate	U	0.0444	ug/L	0.0111	0.0444	1
72-43-5	Methoxychlor	U	0.222	ug/L	0.0556	0.222	1
53494-70-5	Endrin ketone	U	0.0444	ug/L	0.0111	0.0444	1
8001-35-2	Toxaphene	U	0.556	ug/L	0.167	0.556	1

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
4cmx	0.623	1.11	ug/L	56.1	(30%-105%)
Decachlorobiphenyl	0.669	1.11	ug/L	60.2	(30%-126%)

QUALITY CONTROL SUMMARY

Pesticide

Surrogate Recovery Report

SDG Number: 10–2000

Matrix Type: LIQUID

CAP Column (1) : CLP–1 **CAP Column (2) : CLP–2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202054045	MB for batch 957866	54	56	59	57
1202054046	LCS for batch 957866	45	47	70	68
1202054049	LCS for batch 957866	45	48	61	59
247828004	CAPA–10–13095	56	58	62	60

Surrogate	Acceptance Limits
4CMX = 4cmx	(30%–105%)
DCB = Decachlorobiphenyl	(30%–126%)

* Recovery outside Acceptance Limits

Column to be used to flag recovery values

D Sample Diluted

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2000**
Client ID: **LCS for batch 957866**
Lab Sample ID: **1202054046**
Instrument: **ECD7A.I**
Analyst: **HXJ1**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **WATER**
Analysis Date: **02/27/2010 00:44**
Dilution: **1**
Prep Batch ID: **957866**
Batch ID: **957867**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
319-84-6	LCS	alpha-BHC	0.500	0.0	0.387	77	43-132
58-89-9	LCS	gamma-BHC (Lindane)	0.500	0.0	0.393	79	41-133
319-85-7	LCS	beta-BHC	0.500	0.0	0.376	75	44-130
319-86-8	LCS	delta-BHC	0.500	0.0	0.391	78	45-132
76-44-8	LCS	Heptachlor	0.500	0.0	0.327	65	31-118
309-00-2	LCS	Aldrin	0.500	0.0	0.277	55	30-113
1024-57-3	LCS	Heptachlor epoxide	0.500	0.0	0.369	74	42-121
5103-74-2	LCS	gamma-Chlordane	0.500	0.0	0.339	68	40-128
5103-71-9	LCS	alpha-Chlordane	0.500	0.0	0.353	71	45-127
959-98-8	LCS	Endosulfan I	0.500	0.0	0.372	74	40-128
72-55-9	LCS	4,4'-DDE	1.25	0.0	0.890	71	43-130
60-57-1	LCS	Dieldrin	1.25	0.0	0.893	71	44-129
72-20-8	LCS	Endrin	1.25	0.0	1.04	83	53-141
72-54-8	LCS	4,4'-DDD	1.25	0.0	1.02	81	48-138
33213-65-9	LCS	Endosulfan II	1.25	0.0	0.935	75	42-133
7421-93-4	LCS	Endrin aldehyde	1.25	0.0	0.863	69	39-128
50-29-3	LCS	4,4'-DDT	1.25	0.0	0.976	78	43-157
1031-07-8	LCS	Endosulfan sulfate	1.25	0.0	0.955	76	51-140
72-43-5	LCS	Methoxychlor	5.00	0.0	3.79	76	55-142
53494-70-5	LCS	Endrin ketone	1.25	0.0	0.903	72	47-140

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2000
Client ID: LCS for batch 957866
Lab Sample ID: 1202054049
Instrument: ECD7A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: WATER
Analysis Date: 02/27/2010 01:01
Dilution: 1
Prep Batch ID: 957866
Batch ID: 957867

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
8001–35–2	LCS Toxaphene	4.00	0.0	1.95	49	33–136

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2022
Client ID: WST29–10–13281MS
Lab Sample ID: 1202054047
Instrument: ECD7A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: W
Analysis Date: 02/27/2010 02:43
Prep Batch ID: 957866
Batch ID: 957867
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
319–84–6	MS	alpha–BHC	0.500	0.00	U	0.343	69	33–129
58–89–9	MS	gamma–BHC (Lindane)	0.500	0.00	U	0.296	59	38–125
319–85–7	MS	beta–BHC	0.500	0.00	U	0.266	53	33–131
319–86–8	MS	delta–BHC	0.500	0.00	U	0.284	57	31–130
76–44–8	MS	Heptachlor	0.500	0.00	U	0.298	60	27–118
309–00–2	MS	Aldrin	0.500	0.00	U	0.266	53	29–115
1024–57–3	MS	Heptachlor epoxide	0.500	0.00	U	0.278	56	33–118
5103–74–2	MS	gamma–Chlordane	0.500	0.00	U	0.275	55	31–128
5103–71–9	MS	alpha–Chlordane	0.500	0.00	U	0.267	53	31–129
959–98–8	MS	Endosulfan I	0.500	0.00	U	0.375	75	26–132
72–55–9	MS	4,4'–DDE	1.25	0.00	U	0.754	60	31–129
60–57–1	MS	Dieldrin	1.25	0.00	U	0.706	57	31–127
72–20–8	MS	Endrin	1.25	0.00	U	0.856	68	43–139
72–54–8	MS	4,4'–DDD	1.25	0.00	U	0.820	66	38–137
33213–65–9	MS	Endosulfan II	1.25	0.00	U	0.724	58	31–132
7421–93–4	MS	Endrin aldehyde	1.25	0.00	U	0.644	52	25–125
50–29–3	MS	4,4'–DDT	1.25	0.00	U	0.814	65	31–157
1031–07–8	MS	Endosulfan sulfate	1.25	0.00	U	0.761	61	31–143
72–43–5	MS	Methoxychlor	5.00	0.00	U	3.67	73	42–156
53494–70–5	MS	Endrin ketone	1.25	0.00	U	0.736	59	32–141

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2022
Client ID: WST29-10-13281MSD
Lab Sample ID: 1202054048
Instrument: ECD7A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: W
Analysis Date: 02/27/2010 03:00
Dilution: 1
Prep Batch ID: 957866
Batch ID: 957867

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
319-84-6	MSD alpha-BHC	0.500	0.00	U	0.288	58	33-129	18	0-28
58-89-9	MSD gamma-BHC (Lindane)	0.500	0.00	U	0.266	53	38-125	10	0-22
319-85-7	MSD beta-BHC	0.500	0.00	U	0.254	51	33-131	5	0-28
319-86-8	MSD delta-BHC	0.500	0.00	U	0.257	51	31-130	10	0-29
76-44-8	MSD Heptachlor	0.500	0.00	U	0.266	53	27-118	11	0-23
309-00-2	MSD Aldrin	0.500	0.00	U	0.233	47	29-115	13	0-28
1024-57-3	MSD Heptachlor epoxide	0.500	0.00	U	0.242	48	33-118	14	0-23
5103-74-2	MSD gamma-Chlordane	0.500	0.00	U	0.237	47	31-128	15	0-29
5103-71-9	MSD alpha-Chlordane	0.500	0.00	U	0.235	47	31-129	13	0-30
959-98-8	MSD Endosulfan I	0.500	0.00	U	0.346	69	26-132	8	0-27
72-55-9	MSD 4,4'-DDE	1.25	0.00	U	0.663	53	31-129	13	0-27
60-57-1	MSD Dieldrin	1.25	0.00	U	0.619	50	31-127	13	0-29
72-20-8	MSD Endrin	1.25	0.00	U	0.757	61	43-139	12	0-22
72-54-8	MSD 4,4'-DDD	1.25	0.00	U	0.728	58	38-137	12	0-28
33213-65-9	MSD Endosulfan II	1.25	0.00	U	0.646	52	31-132	11	0-28
7421-93-4	MSD Endrin aldehyde	1.25	0.00	U	0.575	46	25-125	11	0-31
50-29-3	MSD 4,4'-DDT	1.25	0.00	U	0.727	58	31-157	11	0-29
1031-07-8	MSD Endosulfan sulfate	1.25	0.00	U	0.705	56	31-143	8	0-29
72-43-5	MSD Methoxychlor	5.00	0.00	U	3.31	66	42-156	11	0-23
53494-70-5	MSD Endrin ketone	1.25	0.00	U	0.681	55	32-141	8	0-30

Method Blank Summary

SDG Number:	10–2000	Client:	LANL010	Matrix:	WATER
Client ID:	MB for batch 957866	Instrument ID:	ECD7A.I_2 ECD7A.I_1	Data File:	033b3301.d 033f3301.d
Lab Sample ID:	1202054045				
Column:	CLP–2 CLP–1	Prep Date:	02/26/2010 14:34	Analyzed:	02/27/10 00:27
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 957866	1202054046	034f3401.d 034b3401.d	02/27/10	0044
02 LCS for batch 957866	1202054049	035f3501.d 035b3501.d	02/27/10	0101
03 CAPA–10–13095	247828004	039f3901.d 039b3901.d	02/27/10	0209

SAMPLE DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**	**Date Collected:**	**02/21/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247828004**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13095**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**957867**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 02:09**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/26/2010 14:34**	**Aliquot:**	**900 mL**	**Final Volume:**	**5 mL**
Data File:	**039f3901.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	039b3901.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.0222	ug/L	0.00556	0.0222	1
58-89-9	gamma-BHC (Lindane)	U	0.0222	ug/L	0.00556	0.0222	1
319-85-7	beta-BHC	U	0.0222	ug/L	0.00667	0.0222	1
319-86-8	delta-BHC	U	0.0222	ug/L	0.00556	0.0222	1
76-44-8	Heptachlor	U	0.0222	ug/L	0.00556	0.0222	1
309-00-2	Aldrin	U	0.0222	ug/L	0.00556	0.0222	1
1024-57-3	Heptachlor epoxide	U	0.0222	ug/L	0.00556	0.0222	1
5103-74-2	gamma-Chlordane	U	0.0222	ug/L	0.00556	0.0222	1
5103-71-9	alpha-Chlordane	U	0.0222	ug/L	0.00556	0.0222	1
959-98-8	Endosulfan I	U	0.0222	ug/L	0.00556	0.0222	1
72-55-9	4,4'-DDE	U	0.0444	ug/L	0.00556	0.0444	1
60-57-1	Dieldrin	U	0.0444	ug/L	0.0111	0.0444	1
72-20-8	Endrin	U	0.0444	ug/L	0.0111	0.0444	1
72-54-8	4,4'-DDD	U	0.0444	ug/L	0.0111	0.0444	1
33213-65-9	Endosulfan II	U	0.0444	ug/L	0.0111	0.0444	1
7421-93-4	Endrin aldehyde	U	0.0444	ug/L	0.00556	0.0444	1
50-29-3	4,4'-DDT	U	0.0444	ug/L	0.0111	0.0444	1
1031-07-8	Endosulfan sulfate	U	0.0444	ug/L	0.0111	0.0444	1
72-43-5	Methoxychlor	U	0.222	ug/L	0.0556	0.222	1
53494-70-5	Endrin ketone	U	0.0444	ug/L	0.0111	0.0444	1
8001-35-2	Toxaphene	U	0.556	ug/L	0.167	0.556	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.623	1.11	ug/L	56.1	(30%-105%)
Decachlorobiphenyl	0.669	1.11	ug/L	60.2	(30%-126%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022610.b/039f3901.d
Lab Smp Id: 247828004 Client Smp ID: CAPA-10-13095
Inj Date : 27-FEB-2010 02:09
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |247828004|1|
Misc Info : |ECD81A_1L|957867|SVP|LANL|GROUND WATER|CAPA-10-13095||
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 39
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2000.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	900.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.881	2.879	0.002	91605661	112.162	0.623	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.101	8.102	-0.001	73373284	123.338	0.685	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/039f3901.d

Date : 27-FEB-2010 02:09

Client ID: CAPA-10-13095

Sample Info: |247828004|1|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

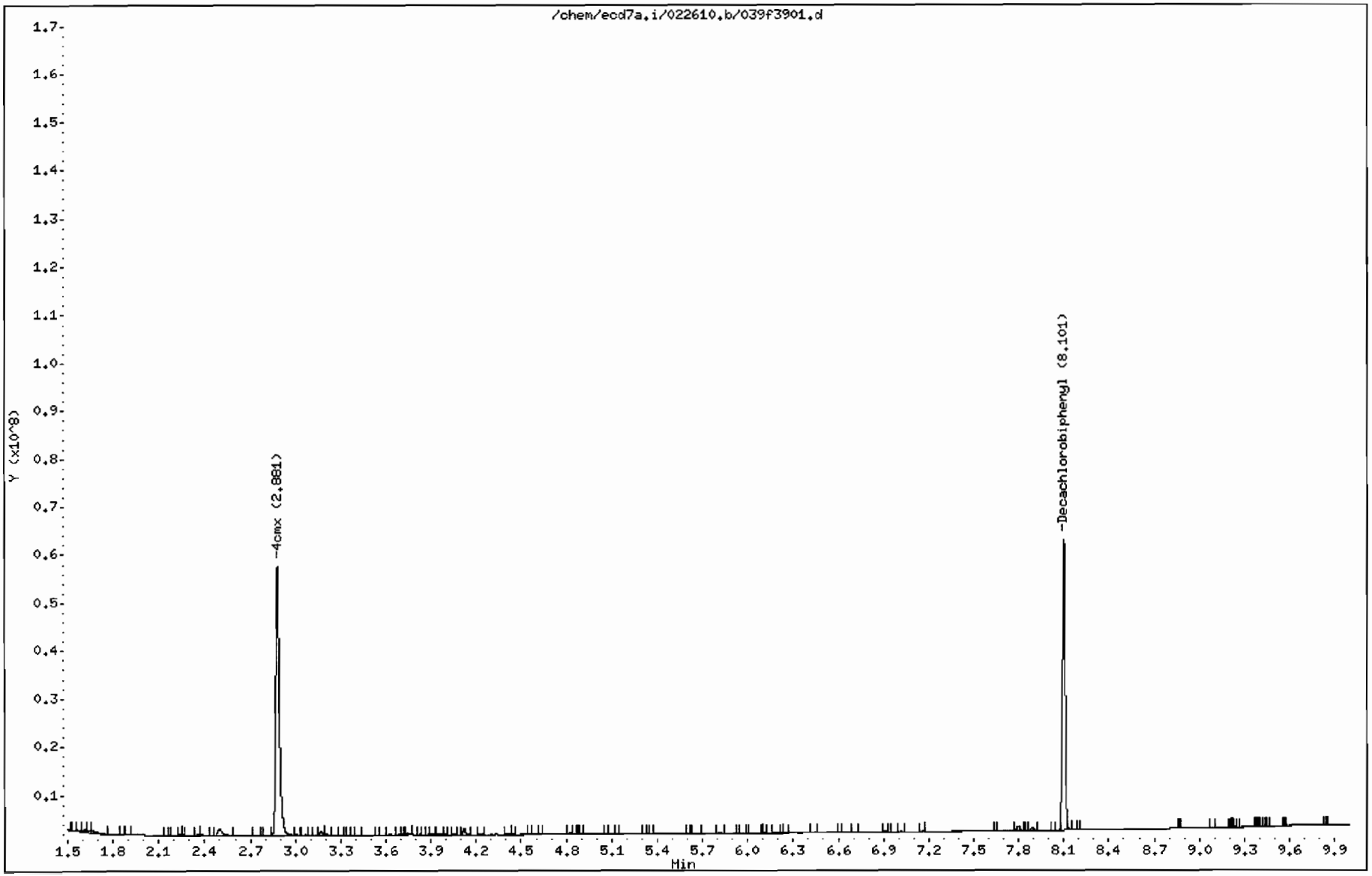

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022610.b/039b3901.d
Lab Smp Id: 247828004 Client Smp ID: CAPA-10-13095
Inj Date : 27-FEB-2010 02:09
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |247828004|1|
Misc Info : |ECD81A_1L|957867|SVP|LANL|GROUND WATER|CAPA-10-13095||
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 39
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2000.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	900.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.196	3.195	0.001	69605937	116.253	0.646	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.299	9.300	-0.001	45107889	120.458	0.669	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/039b3901.d
Date : 27-FEB-2010 02:09
Client ID: CAPA-10-13095
Sample Info: |24782800411|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

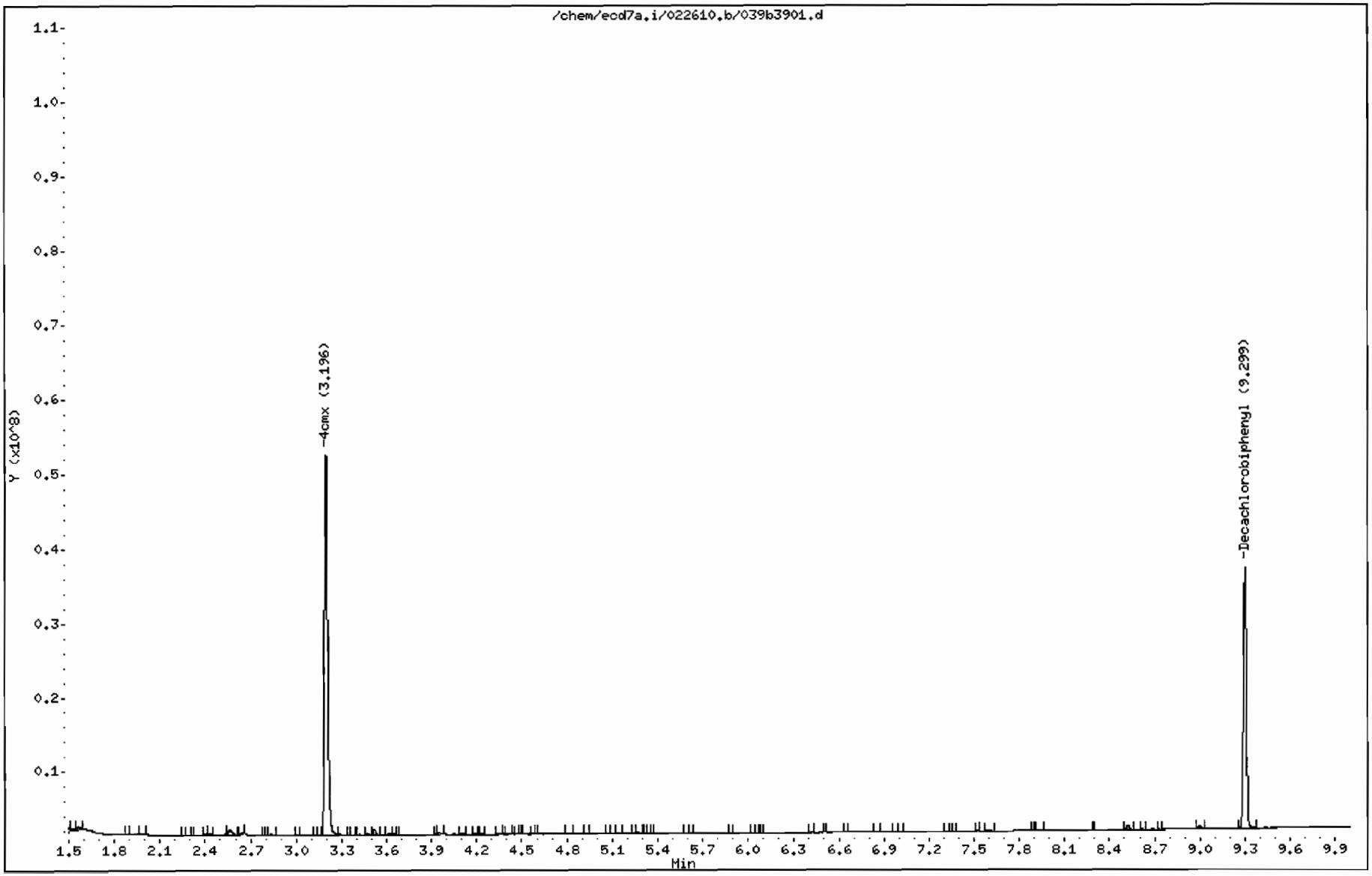

STANDARDS DATA

Report Date: 28-Feb-2010 18:33

Calibration History

Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Start Cal Date: 23-FEB-2010 13:01
End Cal Date : 25-FEB-2010 12:48

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
23-FEB-2010 18:09	gapa	/chem/ecd7a.i/022310a.b/021f2101.d
24-FEB-2010 19:06	chlor	/chem/ecd7a.i/022410.b/019f1901.d
24-FEB-2010 17:24	tox	/chem/ecd7a.i/022410.b/013f1301.d
25-FEB-2010 11:40	indab	/chem/ecd7a.i/022510.b/007f0701.d
Cal Level: 2 , Cal Amount: 10.00000		
23-FEB-2010 18:26	gapa	/chem/ecd7a.i/022310a.b/022f2201.d
24-FEB-2010 19:23	chlor	/chem/ecd7a.i/022410.b/020f2001.d
24-FEB-2010 17:41	tox	/chem/ecd7a.i/022410.b/014f1401.d
25-FEB-2010 11:57	indab	/chem/ecd7a.i/022510.b/008f0801.d
Cal Level: 3 , Cal Amount: 50.00000		
23-FEB-2010 18:43	gapa	/chem/ecd7a.i/022310a.b/023f2301.d
24-FEB-2010 19:40	chlor	/chem/ecd7a.i/022410.b/021f2101.d
24-FEB-2010 17:58	tox	/chem/ecd7a.i/022410.b/015f1501.d
25-FEB-2010 12:14	indab	/chem/ecd7a.i/022510.b/009f0901.d
Cal Level: 4 , Cal Amount: 100.00000		
23-FEB-2010 19:00	gapa	/chem/ecd7a.i/022310a.b/024f2401.d
24-FEB-2010 19:57	chlor	/chem/ecd7a.i/022410.b/022f2201.d
24-FEB-2010 18:15	tox	/chem/ecd7a.i/022410.b/016f1601.d
25-FEB-2010 12:31	indab	/chem/ecd7a.i/022510.b/010f1001.d
Cal Level: 5 , Cal Amount: 200.00000		
23-FEB-2010 19:17	gapa	/chem/ecd7a.i/022310a.b/025f2501.d
24-FEB-2010 20:14	chlor	/chem/ecd7a.i/022410.b/023f2301.d
24-FEB-2010 18:32	tox	/chem/ecd7a.i/022410.b/017f1701.d
25-FEB-2010 12:48	indab	/chem/ecd7a.i/022510.b/011f1101.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
27-FEB-2010 11:14	indab	/chem/ecd7a.i/022610.b/071f7101.d

27-FEB-2010 08:06	indab	/chem/ecd7a.i/022610.b/060f6001.d
Ccal Level: 4 , Ccal Amount: 100		
27-FEB-2010 05:50	indab	/chem/ecd7a.i/022610.b/052f5201.d
Ccal Level: 4 , Ccal Amount: 100		
27-FEB-2010 03:34	indab	/chem/ecd7a.i/022610.b/044f4401.d
Ccal Level: 4 , Ccal Amount: 100		
26-FEB-2010 23:35	indab	/chem/ecd7a.i/022610.b/030f3001.d
Ccal Level: 4 , Ccal Amount: 100		
26-FEB-2010 20:11	indab	/chem/ecd7a.i/022610.b/018f1801.d
Ccal Level: 4 , Ccal Amount: 100		
26-FEB-2010 16:46	gapa	/chem/ecd7a.i/022610.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 100		
26-FEB-2010 16:29	chlor	/chem/ecd7a.i/022610.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 100		
26-FEB-2010 16:12	tox	/chem/ecd7a.i/022610.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 100		
26-FEB-2010 15:55	indab	/chem/ecd7a.i/022610.b/003f0301.d

Report Date: 28-Feb-2010 18:33

Calibration History

Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Start Cal Date: 23-FEB-2010 13:01
End Cal Date : 25-FEB-2010 12:48

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
23-FEB-2010 18:09	gapa	/chem/ecd7a.i/022310a.b/021b2101.d
24-FEB-2010 19:06	chlor	/chem/ecd7a.i/022410.b/019b1901.d
24-FEB-2010 17:24	tox	/chem/ecd7a.i/022410.b/013b1301.d
25-FEB-2010 11:40	indab	/chem/ecd7a.i/022510.b/007b0701.d
Cal Level: 2 , Cal Amount: 10.00000		
23-FEB-2010 18:26	gapa	/chem/ecd7a.i/022310a.b/022b2201.d
24-FEB-2010 19:23	chlor	/chem/ecd7a.i/022410.b/020b2001.d
24-FEB-2010 17:41	tox	/chem/ecd7a.i/022410.b/014b1401.d
25-FEB-2010 11:57	indab	/chem/ecd7a.i/022510.b/008b0801.d
Cal Level: 3 , Cal Amount: 50.00000		
23-FEB-2010 18:43	gapa	/chem/ecd7a.i/022310a.b/023b2301.d
24-FEB-2010 19:40	chlor	/chem/ecd7a.i/022410.b/021b2101.d
24-FEB-2010 17:58	tox	/chem/ecd7a.i/022410.b/015b1501.d
25-FEB-2010 12:14	indab	/chem/ecd7a.i/022510.b/009b0901.d
Cal Level: 4 , Cal Amount: 100.00000		
23-FEB-2010 19:00	gapa	/chem/ecd7a.i/022310a.b/024b2401.d
24-FEB-2010 19:57	chlor	/chem/ecd7a.i/022410.b/022b2201.d
24-FEB-2010 18:15	tox	/chem/ecd7a.i/022410.b/016b1601.d
25-FEB-2010 12:31	indab	/chem/ecd7a.i/022510.b/010b1001.d
Cal Level: 5 , Cal Amount: 200.00000		
23-FEB-2010 19:17	gapa	/chem/ecd7a.i/022310a.b/025b2501.d
24-FEB-2010 20:14	chlor	/chem/ecd7a.i/022410.b/023b2301.d
24-FEB-2010 18:32	tox	/chem/ecd7a.i/022410.b/017b1701.d
25-FEB-2010 12:48	indab	/chem/ecd7a.i/022510.b/011b1101.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
27-FEB-2010 11:14	indab	/chem/ecd7a.i/022610.b/071b7101.d
Ccal Level: 4 , Ccal Amount: 100		
27-FEB-2010 08:06	indab	/chem/ecd7a.i/022610.b/060b6001.d
Ccal Level: 4 , Ccal Amount: 100		

27-FEB-2010 05:50	indab	/chem/ecd7a.i/022610.b/052b5201.d
Ccal Level: 4 , Ccal Amount: 100		
27-FEB-2010 03:34	indab	/chem/ecd7a.i/022610.b/044b4401.d
Ccal Level: 4 , Ccal Amount: 100		
26-FEB-2010 23:35	indab	/chem/ecd7a.i/022610.b/030b3001.d
Ccal Level: 4 , Ccal Amount: 100		
26-FEB-2010 20:11	indab	/chem/ecd7a.i/022610.b/018b1801.d
Ccal Level: 4 , Ccal Amount: 100		
26-FEB-2010 16:46	gapa	/chem/ecd7a.i/022610.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 100		
26-FEB-2010 16:29	chlor	/chem/ecd7a.i/022610.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 100		
26-FEB-2010 16:12	tox	/chem/ecd7a.i/022610.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 100		
26-FEB-2010 15:55	indab	/chem/ecd7a.i/022610.b/003b0301.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Quant Method : ESTD Target Version : 3.50
Last Update : 28-Feb-2010 18:32 Number of Cpnds : 42
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1814.000000
Initial:End Threshold	907.000000
Initial:Area Threshold	18140.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	4.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.879	2.849-2.909	8.167e+05
61 2,4,5-TCP	2.900	2.800-3.000	
59 Hexachlorobenzene	3.171	3.071-3.271	9.401e+05
2 Aroclor-1221	3.011	2.981-3.041	
	3.120	3.090-3.150	
	3.152	3.122-3.182	
3 Aroclor-1016	3.421	3.391-3.451	
	3.794	3.764-3.824	
	3.905	3.875-3.935	
	3.958	3.928-3.988	
	4.250	4.220-4.280	
4 Aroclor-1232	3.421	3.391-3.451	
	3.904	3.874-3.934	
	3.956	3.926-3.986	
	4.248	4.218-4.278	
	4.651	4.621-4.681	
5 alpha-BHC	3.298	3.268-3.328	1.163e+06
6 Aroclor-1242	3.422	3.322-3.522	
	3.903	3.803-4.003	
	3.956	3.856-4.056	
	4.247	4.147-4.347	
	4.623	4.523-4.723	
7 gamma-BHC (Lindane)	3.549	3.519-3.579	1.046e+06

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.876	3.776-3.976	3.333e+04
	4.697	4.597-4.797	2.026e+04
	4.874	4.774-4.974	1.083e+05
	4.999	4.899-5.099	8.838e+04
	5.759	5.659-5.859	2.539e+04
9 Aroclor-1248	3.794	3.694-3.894	
	4.051	3.951-4.151	
	4.248	4.148-4.348	
	4.623	4.523-4.723	
	4.652	4.552-4.752	
10 Heptachlor	3.945	3.915-3.975	8.348e+05
11 Aldrin	4.210	4.180-4.240	9.924e+05
12 beta-BHC	3.614	3.584-3.644	4.707e+05
13 delta-BHC	3.768	3.738-3.798	1.046e+06
14 Heptachlor epoxide	4.757	4.727-4.787	8.811e+05
15 Aroclor-1254	4.584	4.554-4.614	
	4.819	4.789-4.849	
	5.086	5.056-5.116	
	5.202	5.172-5.232	
	5.472	5.442-5.502	
16 Endosulfan I	5.135	5.105-5.165	7.958e+05
17 gamma-Chlordane	4.874	4.844-4.904	8.757e+05
18 alpha-Chlordane	4.999	4.969-5.029	8.740e+05
19 4,4'-DDE	5.062	5.032-5.092	8.047e+05
20 Dieldrin	5.367	5.337-5.397	8.481e+05
21 Aroclor-1260	5.379	5.279-5.479	
	5.651	5.551-5.751	
	6.311	6.211-6.411	
	6.633	6.533-6.733	
	6.939	6.839-7.039	
22 Endrin	5.600	5.570-5.630	6.781e+05
23 Toxaphene	5.266	5.236-5.296	7.335e+03
	5.371	5.341-5.401	1.043e+04
	5.459	5.429-5.489	1.217e+04
	5.519	5.489-5.549	1.589e+04
	5.621	5.591-5.651	1.554e+04
24 Endosulfan II	5.826	5.796-5.856	7.313e+05
25 4,4'-DDD	5.653	5.623-5.683	6.354e+05
26 4,4'-DDT	5.937	5.907-5.967	5.955e+05
27 Endrin aldehyde	6.255	6.225-6.285	6.231e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m

Compound	RT	RT Window	RF
28 Methoxychlor	6.438	6.408-6.468	2.669e+05
29 Endosulfan sulfate	6.711	6.681-6.741	6.463e+05
30 Aroclor-1268	13.480	13.380-13.580	
	13.587	13.487-13.687	
	13.984	13.884-14.084	
	14.586	14.486-14.686	
	15.182	15.082-15.282	
31 Endrin ketone	7.014	6.984-7.044	8.275e+05
51 Mirex	6.603	6.573-6.633	5.726e+05
52 C-Nonachlor	5.628	5.598-5.658	8.841e+05
53 O-Chlordane	4.662	4.632-4.692	6.747e+05
54 T-Nonachlor	4.981	4.951-5.011	8.527e+05
55 1,2-Dichlorobenzene	6.525	6.495-6.555	
56 2,4-DDE	4.737	4.707-4.767	5.210e+05
58 2,4-DDD	5.233	5.203-5.263	4.258e+05
57 2,4-DDT	5.483	5.453-5.513	4.439e+05
$ 32 Decachlorobiphenyl	8.102	8.072-8.132	5.949e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Quant Method : ESTD Target Version : 3.50
Last Update : 28-Feb-2010 18:21 Number of Cpnds : 42
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1475.000000
Initial:End Threshold	737.500000
Initial:Area Threshold	14750.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	4.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	3.195	3.165-3.225	5.987e+05
60 2,4,5-TCP	3.116	3.016-3.216	
59 Hexachlorobenzene	3.609	3.579-3.639	5.280e+05
2 Aroclor-1221	3.435	3.405-3.465	
	3.555	3.525-3.585	
	3.609	3.579-3.639	
3 Aroclor-1016	3.965	3.935-3.995	
	4.391	4.361-4.421	
	4.518	4.488-4.548	
	4.618	4.588-4.648	
	4.970	4.940-5.000	
4 Aroclor-1232	4.193	4.163-4.223	
	4.388	4.358-4.418	
	4.515	4.485-4.545	
	4.614	4.584-4.644	
	4.966	4.936-4.996	
5 alpha-BHC	3.721	3.691-3.751	7.857e+05
6 Aroclor-1242	3.962	3.932-3.992	
	4.387	4.357-4.417	
	4.514	4.484-4.544	
	4.615	4.585-4.645	
	4.966	4.936-4.996	
7 gamma-BHC (Lindane)	4.050	4.020-4.080	6.881e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	4.344	4.314-4.374	2.312e+04
	5.343	5.313-5.373	1.500e+04
	5.583	5.553-5.613	6.466e+04
	5.734	5.704-5.764	5.550e+04
	6.703	6.673-6.733	1.601e+04
9 Aroclor-1248	4.695	4.665-4.725	
	4.966	4.936-4.996	
	5.091	5.061-5.121	
	5.342	5.312-5.372	
	5.393	5.363-5.423	
10 Heptachlor	4.486	4.456-4.516	4.991e+05
11 Aldrin	4.817	4.787-4.847	6.730e+05
12 beta-BHC	4.114	4.084-4.144	3.239e+05
13 delta-BHC	4.404	4.374-4.434	6.888e+05
14 Heptachlor epoxide	5.386	5.356-5.416	5.739e+05
15 Aroclor-1254	5.387	5.357-5.417	
	5.573	5.543-5.603	
	5.941	5.911-5.971	
	6.065	6.035-6.095	
	6.301	6.271-6.331	
16 Endosulfan I	5.804	5.774-5.834	5.282e+05
17 gamma-Chlordane	5.583	5.553-5.613	5.881e+05
18 alpha-Chlordane	5.734	5.704-5.764	5.881e+05
19 4,4'-DDE	5.884	5.854-5.914	5.214e+05
20 Dieldrin	6.092	6.062-6.122	5.179e+05
21 Aroclor-1260	6.274	6.244-6.304	
	6.490	6.460-6.520	
	7.316	7.286-7.346	
	7.586	7.556-7.616	
	8.006	7.976-8.036	
22 Endrin	6.422	6.392-6.452	4.036e+05
23 Toxaphene	6.054	6.024-6.084	9.735e+03
	6.123	6.093-6.153	4.393e+03
	6.187	6.157-6.217	4.991e+03
	6.249	6.219-6.279	5.740e+03
	6.381	6.351-6.411	7.716e+03
24 Endosulfan II	6.647	6.617-6.677	4.767e+05
25 4,4'-DDD	6.504	6.474-6.534	3.796e+05
26 4,4'-DDT	6.850	6.820-6.880	3.192e+05
27 Endrin aldehyde	7.008	6.978-7.038	3.838e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m

Compound	RT	RT Window	RF
28 Methoxychlor	7.596	7.566-7.626	1.357e+05
29 Endosulfan sulfate	7.313	7.283-7.343	4.169e+05
30 Aroclor-1268	13.562	13.532-13.592	
	13.571	13.541-13.601	
	13.999	13.969-14.029	
	14.579	14.549-14.609	
	15.083	15.053-15.113	
31 Endrin ketone	7.924	7.894-7.954	5.022e+05
51 Mirex	7.900	7.870-7.930	2.898e+05
52 C-Nonachlor	6.498	6.468-6.528	5.805e+05
53 O-Chlordane	5.293	5.263-5.323	3.342e+05
54 T-Nonachlor	5.677	5.647-5.707	5.521e+05
55 1,2-Dichlorobenzene	6.621	6.591-6.651	
56 2,4-DDE	5.561	5.531-5.591	2.577e+05
58 2,4-DDD	6.101	6.071-6.131	1.980e+05
57 2,4-DDT	6.434	6.404-6.464	2.542e+05
$ 32 Decachlorobiphenyl	9.300	9.270-9.330	3.745e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 25-FEB-2010 12:48
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Cal Date : 28-Feb-2010 18:32 hea01125
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd7a.i/022310a.b/021f2101.d
Level 2: /chem/ecd7a.i/022310a.b/022f2201.d
Level 3: /chem/ecd7a.i/022310a.b/023f2301.d
Level 4: /chem/ecd7a.i/022310a.b/024f2401.d
Level 5: /chem/ecd7a.i/022310a.b/025f2501.d

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
61 2,4,5-TCP	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Hexachlorobenzene	1129401	1000386	891531	860661	818675	940131	13.337
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Aroclor-1016(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 alpha-BHC	1120729	1156275	1199061	1188051	1153097	1163443	2.669
6 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 gamma-BHC (Lindane)	1041652	1052023	1067718	1052626	1015007	1045805	1.871
8 Chlordane (tech.)(1)	34622	33771	32986	33199	32077	33331	2.834
(2)	21744	21010	19842	19723	18997	20263	5.418
(3)	112269	112390	110378	107641	98782	108292	5.220
(4)	95313	91465	90506	86624	77994	88380	7.442
(5)	26568	25613	25637	25419	23729	25393	4.063

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 25-FEB-2010 12:48
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Cal Date : 28-Feb-2010 18:32 hea01125
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
9 Aroclor-1248(1)	#####	#####	#####	#####	#####	#####	#####
(2)	#####	#####	#####	#####	#####	#####	#####
(3)	#####	#####	#####	#####	#####	#####	#####
(4)	#####	#####	#####	#####	#####	#####	#####
(5)	#####	#####	#####	#####	#####	#####	#####
10 Heptachlor	876378	854549	839700	816763	786605	834799	4.146
11 Aldrin	1012810	1019357	1013815	984391	931738	992422	3.684
12 beta-BHC	530626	496453	458220	445320	422642	470652	9.116
13 delta-BHC	1053604	1038543	1080006	1044553	1012744	1045890	2.331
14 Heptachlor epoxide	924356	918389	893039	858924	810638	881069	5.342
15 Aroclor-1254(1)	#####	#####	#####	#####	#####	#####	#####
(2)	#####	#####	#####	#####	#####	#####	#####
(3)	#####	#####	#####	#####	#####	#####	#####
(4)	#####	#####	#####	#####	#####	#####	#####
(5)	#####	#####	#####	#####	#####	#####	#####
16 Endosulfan I	845536	836191	796118	771471	729571	795777	5.988
17 gamma-Chlordane	895708	892053	891634	871132	828217	875749	3.228
18 alpha-Chlordane	918880	903578	880072	854629	812897	874011	4.798
19 4,4'-DDE	860332	870338	809320	766366	717150	804701	7.996
20 Dieldrin	894879	904132	858003	815229	768145	848078	6.696
21 Aroclor-1260(1)	#####	#####	#####	#####	#####	#####	#####
(2)	#####	#####	#####	#####	#####	#####	#####
(3)	#####	#####	#####	#####	#####	#####	#####
(4)	#####	#####	#####	#####	#####	#####	#####
(5)	#####	#####	#####	#####	#####	#####	#####
22 Endrin	721381	722457	677507	646273	622851	678094	6.557
23 Toxaphene(1)	7957	7295	7283	7045	7094	7335	4.980
(2)	11571	10418	10358	9779	10028	10431	6.595
(3)	12288	12015	12280	12047	12234	12173	1.079
(4)	16641	15882	16067	15356	15514	15892	3.181
(5)	15812	15134	15478	15587	15695	15541	1.667
24 Endosulfan II	797630	784877	731327	692190	650488	731302	8.465
25 4,4'-DDD	670149	671091	647310	610647	577688	635377	6.377

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 25-FEB-2010 12:48
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Cal Date : 28-Feb-2010 18:32 hea01125
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
26 4,4'-DDT	610616	615308	603861	586275	561656	595543	3.680
27 Endrin aldehyde	707402	676606	618348	580715	532408	623096	11.352
28 Methoxychlor	318899	294242	250680	238458	232045	266865	14.193
29 Endosulfan sulfate	704279	684879	642876	617006	582601	646328	7.649
30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Endrin ketone	947489	905726	812779	762898	708390	827456	11.948
51 Mirex	707843	605806	537595	517866	494032	572628	15.070
52 C-Nonachlor	990298	937215	873288	833591	785863	884051	9.193
53 O-Chlordane	804507	729313	648327	615262	576312	674744	13.612
54 T-Nonachlor	977240	915229	830723	794583	745732	852701	10.926
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 2,4-DDE	627075	571273	502019	471483	432927	520955	14.976
58 2,4-DDD	525722	465282	405634	380713	351639	425798	16.390
57 2,4-DDT	509524	462465	434205	418130	395126	443890	9.941
$ 1 4cmx	902735	866424	810577	775474	728429	816728	8.528
$ 32 Decachlorobiphenyl	695265	641948	574809	547872	514583	594895	12.282

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 25-FEB-2010 12:48
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Cal Date : 28-Feb-2010 18:21 hea01125

Calibration File Names:
Level 1: /chem/ecd7a.i/022310a.b/021b2101.d
Level 2: /chem/ecd7a.i/022310a.b/022b2201.d
Level 3: /chem/ecd7a.i/022310a.b/023b2301.d
Level 4: /chem/ecd7a.i/022310a.b/024b2401.d
Level 5: /chem/ecd7a.i/022310a.b/025b2501.d

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
60 2,4,5-TCP	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
59 Hexachlorobenzene	3534732	14953267	61966341	116772758	212736548	LINR	-10.49049	527996		0.99731
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
3 Aroclor-1016(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
5 alpha-BHC	822650	820717	796110	768528	720263	AVRG		785654		5.42881
6 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 25-FEB-2010 12:48
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Cal Date : 28-Feb-2010 18:21 hea01125

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
7 gamma-BHC (Lindane)	740741	725258	690370	662924	621138	AVRG		688086		6.99805
8 Chlordane (tech.) (1)	25554	24460	22809	22245	20552	AVRG		23124		8.42473
(2)	17050	16566	14462	14002	12919	AVRG		15000		11.67570
(3)	71986	70600	65114	61817	53803	AVRG		64664		11.34100
(4)	62754	60569	55337	52956	45860	AVRG		55495		12.01192
(5)	18359	17195	15539	14974	13959	AVRG		16005		11.01051
9 Aroclor-1248 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
10 Heptachlor	556994	527888	495277	473192	442233	AVRG		499117		9.01601
11 Aldrin	726856	716726	680871	646926	593606	AVRG		672997		8.09011
12 beta-BHC	384860	351763	310277	295747	277041	AVRG		323937		13.51471
13 delta-BHC	739778	726671	691827	664284	621661	AVRG		688844		6.94351
14 Heptachlor epoxide	638080	618014	571287	542822	499294	AVRG		573900		9.78110
15 Aroclor-1254 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
16 Endosulfan I	589867	563753	524378	500645	462126	AVRG		528154		9.56417
17 gamma-Chlordane	641305	619473	588838	562812	527921	AVRG		588070		7.64107
18 alpha-Chlordane	658247	625554	581316	557852	517377	AVRG		588069		9.42428

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 25-FEB-2010 12:48
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Cal Date : 28-Feb-2010 18:21 hea01125

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
19 4,4'-DDE	586847	576550	522638	483917	437036	AVRG		521398		12.07248
20 Dieldrin	583377	567062	516410	482078	440674	AVRG		517920		11.40381
21 Aroclor-1260(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
22 Endrin	463065	445736	393404	370176	345742	AVRG		403624		12.31331
23 Toxaphene(1)	11160	9968	9728	8931	8887	AVRG		9735		9.53987
(2)	4748	4921	4254	4179	3865	AVRG		4393		9.84663
(3)	5497	5059	4969	4777	4652	AVRG		4991		6.50824
(4)	6075	5866	5949	5498	5312	AVRG		5740		5.60471
(5)	8372	7798	7678	7446	7287	AVRG		7716		5.40292
24 Endosulfan II	545985	521563	472705	441324	402057	AVRG		476727		12.25462
25 4,4'-DDD	438157	415983	379191	347469	317320	AVRG		379624		12.94777
26 4,4'-DDT	337338	326028	318857	313543	300162	AVRG		319186		4.34724
27 Endrin aldehyde	466743	423267	375582	345973	307417	AVRG		383797		16.36004
28 Methoxychlor	164518	149680	128263	121869	114016	AVRG		135669		15.38510
29 Endosulfan sulfate	473171	448087	411452	394994	356707	AVRG		416882		10.90825
30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 25-FEB-2010 12:48
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Cal Date : 28-Feb-2010 18:21 hea01125

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
31 Endrin ketone	611870	561527	483881	449712	404180	AVRG		502234		16.73168
51 Mirex	1967628	7984153	33372685	63134808	116876543	LINR	-9.32687	289808		0.99821
52 C-Nonachlor	732794	648092	549502	510459	461589	AVRG		580487		18.82559
53 O-Chlordane	2279545	9683402	40637135	74751518	134708141	LINR	-12.01542	334227		0.99620
54 T-Nonachlor	705195	614513	523390	481961	435531	AVRG		552118		19.56304
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
56 2,4-DDE	1821857	7770505	32067536	58513265	103872394	LINR	-13.53426	257740		0.99496
58 2,4-DDD	1489772	6031823	24578358	44052303	80168461	LINR	-13.12656	197966		0.99644
57 2,4-DDT	316646	275217	240561	227383	211109	AVRG		254183		16.57864
$ 1 4cmx	702796	662538	586912	546190	495296	AVRG		598746		14.09771
$ 32 Decachlorobiphenyl	467024	411570	354373	332141	307247	AVRG		374471		17.23265

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 25-FEB-2010 12:48
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Cal Date : 28-Feb-2010 18:21 hea01125

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 02/25/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :02/26/10

Lab Sample ID (PEM): WPE100211-99 Time Analyzed :1538

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.21	4.18	4.24	115	100	15.0
4,4'-DDE						
Endrin	5.60	5.57	5.63	114	100	14.0
4,4'-DDD						
4,4'-DDT	5.94	5.91	5.97	107	100	7.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 4.30 Endrin % breakdown (1): 4.60

Combined % breakdown (1): 8.90

FORM VII PEST-1 OLM03.0

7D
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 02/25/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :02/26/10

Lab Sample ID (PEM): WPE100211-99 Time Analyzed :1538

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.82	4.79	4.85	114	100	14.0
4,4'-DDE						
Endrin	6.42	6.39	6.45	114	100	14.0
4,4'-DDD						
4,4'-DDT	6.85	6.82	6.88	114	100	14.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 5.30 Endrin % breakdown (1): 5.20

Combined % breakdown (1): 10.50

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 02/25/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM02 Date Analyzed :02/27/10

Lab Sample ID (PEM): WPE100211-99 Time Analyzed :0010

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.21	4.18	4.24	116	100	16.0
4,4'-DDE						
Endrin	5.60	5.57	5.63	113	100	13.0
4,4'-DDD						
4,4'-DDT	5.94	5.91	5.97	95.0	100	-5.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 8.40 Endrin % breakdown (1): 6.70

Combined % breakdown (1): 15.10

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 02/25/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM02 Date Analyzed :02/27/10

Lab Sample ID (PEM): WPE100211-99 Time Analyzed :0010

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.82	4.79	4.85	114	100	14.0
4,4'-DDE						
Endrin	6.42	6.39	6.45	114	100	14.0
4,4'-DDD						
4,4'-DDT	6.85	6.82	6.88	98.7	100	-1.3
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 9.30 Endrin % breakdown (1): 7.20

Combined % breakdown (1): 16.50

FORM VII PEST-1 OLM03.0

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2000

Instrument ID: ECD7A Calibration Date: 02/26/10 Time: 1555

Lab File ID: 003F0301 Init. Calib. Date(s): 02/25/10 02/25/10

Heated Purge: (Y/N) N Init. Calib. Times: 1140 1248

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	1163442.7	1191882.1	0.01	2.4	15.0
beta-BHC	470652.05	456751.26	0.01	-3.0	15.0
delta-BHC	1045890.0	1053434.7	0.01	0.7	15.0
gamma-BHC (Lindane)	1045805.0	1094827.2	0.01	4.7	15.0
Heptachlor	834798.88	835664.11	0.01	0.1	15.0
Aldrin	992422.11	948197.97	0.01	-4.4	15.0
Heptachlor epoxide	881069.13	878977.14	0.01	-0.2	15.0
Endosulfan I	795777.38	803170.97	0.01	0.9	15.0
Dieldrin	848077.81	819801.08	0.01	-3.3	15.0
4,4'-DDE	804701.36	826740.91	0.01	2.7	15.0
Endrin	678093.95	718332.31	0.01	5.9	15.0
Endosulfan II	731302.32	707420.70	0.01	-3.3	15.0
4,4'-DDD	635376.94	650137.39	0.01	2.3	15.0
Endosulfan sulfate	646327.96	610300.32	0.01	-5.6	15.0
4,4'-DDT	595543.22	649393.04	0.01	9.0	15.0
Methoxychlor	266864.82	267070.98	0.01	0.1	15.0
Endrin ketone	827456.43	742054.51	0.01	-10.3	15.0
Endrin aldehyde	623096.00	564610.20	0.01	-9.4	15.0
gamma-Chlordane	875748.57	918248.72	0.01	4.8	15.0
alpha-Chlordane	874010.96	805882.88	0.01	-7.8	15.0
4cmx	816727.82	791016.51	0.01	-3.1	15.0
Decachlorobiphenyl	594895.40	554175.81	0.01	-6.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2000

Instrument ID: ECD7A Calibration Date: 02/26/10 Time: 1555

Lab File ID: 003B0301 Init. Calib. Date(s): 02/25/10 02/25/10

Heated Purge: (Y/N) N Init. Calib. Times: 1140 1248

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	785653.59	805726.51	0.01	2.6	15.0
beta-BHC	323937.47	315765.99	0.01	-2.5	15.0
delta-BHC	688844.25	697958.33	0.01	1.3	15.0
gamma-BHC (Lindane)	688086.08	719940.21	0.01	4.6	15.0
Heptachlor	499116.78	493997.38	0.01	-1.0	15.0
Aldrin	672997.04	643170.94	0.01	-4.4	15.0
Heptachlor epoxide	573899.55	562481.12	0.01	-2.0	15.0
Endosulfan I	528153.96	531722.90	0.01	0.7	15.0
Dieldrin	517920.12	502729.57	0.01	-2.9	15.0
4,4'-DDE	521397.52	546989.01	0.01	4.9	15.0
Endrin	403624.31	427438.86	0.01	5.9	15.0
Endosulfan II	476726.88	456306.57	0.01	-4.3	15.0
4,4'-DDD	379623.95	383884.73	0.01	1.1	15.0
Endosulfan sulfate	416882.23	396789.73	0.01	-4.8	15.0
4,4'-DDT	319185.63	366771.39	0.01	14.9	15.0
Methoxychlor	135669.33	143414.35	0.01	5.7	15.0
Endrin ketone	502234.13	450822.96	0.01	-10.2	15.0
Endrin aldehyde	383796.57	349333.50	0.01	-9.0	15.0
gamma-Chlordane	588069.92	615548.45	0.01	4.7	15.0
alpha-Chlordane	588069.02	539945.53	0.01	-8.2	15.0
4cmx	598746.48	580726.80	0.01	-3.0	15.0
Decachlorobiphenyl	374471.04	351571.44	0.01	-6.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2000

Instrument ID: ECD7A Calibration Date: 02/26/10 Time: 1612

Lab File ID: 004F0401 Init. Calib. Date(s): 02/24/10 02/24/10

Heated Purge: (Y/N) N Init. Calib. Times: 1724 1832

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D
Toxaphene	7334.695	7890.098	0.01	7.6	15.0
(2)	10430.832	11622.422	0.01	11.4	15.0
(3)	12172.864	13514.986	0.01	11.0	15.0
(4)	15891.838	17579.674	0.01	10.6	15.0
(5)	15541.028	15146.618	0.01	-2.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2000

Instrument ID: ECD7A Calibration Date: 02/26/10 Time: 1612

Lab File ID: 004B0401 Init. Calib. Date(s): 02/24/10 02/24/10

Heated Purge: (Y/N) N Init. Calib. Times: 1724 1832

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
Toxaphene	9734.966	10748.932	0.01	10.4	15.0
(2)	4393.318	4108.624	0.01	-6.5	15.0
(3)	4991.011	5667.124	0.01	13.5	15.0
(4)	5740.025	6076.760	0.01	5.9	15.0
(5)	7715.898	8339.040	0.01	8.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2000

Instrument ID: ECD7A Calibration Date: 02/26/10 Time: 2335

Lab File ID: 030F3001 Init. Calib. Date(s): 02/25/10 02/25/10

Heated Purge: (Y/N) N Init. Calib. Times: 1140 1248

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	1163442.7	1199304.3	0.01	3.1	15.0
beta-BHC	470652.05	453531.08	0.01	-3.6	15.0
delta-BHC	1045890.0	1075576.6	0.01	2.8	15.0
gamma-BHC (Lindane)	1045805.0	1103002.9	0.01	5.5	15.0
Heptachlor	834798.88	849466.22	0.01	1.8	15.0
Aldrin	992422.11	935556.44	0.01	-5.7	15.0
Heptachlor epoxide	881069.13	869775.22	0.01	-1.3	15.0
Endosulfan I	795777.38	809339.66	0.01	1.7	15.0
Dieldrin	848077.81	826960.96	0.01	-2.5	15.0
4,4'-DDE	804701.36	801898.29	0.01	-0.3	15.0
Endrin	678093.95	727439.03	0.01	7.3	15.0
Endosulfan II	731302.32	715064.17	0.01	-2.2	15.0
4,4'-DDD	635376.94	670187.87	0.01	5.5	15.0
Endosulfan sulfate	646327.96	622803.51	0.01	-3.6	15.0
4,4'-DDT	595543.22	620415.88	0.01	4.2	15.0
Methoxychlor	266864.82	262231.95	0.01	-1.7	15.0
Endrin ketone	827456.43	763180.93	0.01	-7.8	15.0
Endrin aldehyde	623096.00	571215.65	0.01	-8.3	15.0
gamma-Chlordane	875748.57	895024.66	0.01	2.2	15.0
alpha-Chlordane	874010.96	786270.30	0.01	-10.0	15.0
4cmx	816727.82	778518.93	0.01	-4.7	15.0
Decachlorobiphenyl	594895.40	548600.91	0.01	-7.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2000

Instrument ID: ECD7A Calibration Date: 02/26/10 Time: 2335

Lab File ID: 030B3001 Init. Calib. Date(s): 02/25/10 02/25/10

Heated Purge: (Y/N) N Init. Calib. Times: 1140 1248

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	785653.59	816978.41	0.01	4.0	15.0
beta-BHC	323937.47	314420.78	0.01	-2.9	15.0
delta-BHC	688844.25	718032.11	0.01	4.2	15.0
gamma-BHC (Lindane)	688086.08	726874.11	0.01	5.6	15.0
Heptachlor	499116.78	499206.35	0.01	0.0	15.0
Aldrin	672997.04	626635.31	0.01	-6.9	15.0
Heptachlor epoxide	573899.55	562836.17	0.01	-1.9	15.0
Endosulfan I	528153.96	529617.29	0.01	0.3	15.0
Dieldrin	517920.12	508871.96	0.01	-1.7	15.0
4,4'-DDE	521397.52	526528.98	0.01	1.0	15.0
Endrin	403624.31	434747.79	0.01	7.7	15.0
Endosulfan II	476726.88	462285.82	0.01	-3.0	15.0
4,4'-DDD	379623.95	399464.71	0.01	5.2	15.0
Endosulfan sulfate	416882.23	404787.22	0.01	-2.9	15.0
4,4'-DDT	319185.63	340771.62	0.01	6.8	15.0
Methoxychlor	135669.33	140006.90	0.01	3.2	15.0
Endrin ketone	502234.13	455554.56	0.01	-9.3	15.0
Endrin aldehyde	383796.57	355402.22	0.01	-7.4	15.0
gamma-Chlordane	588069.92	594013.09	0.01	1.0	15.0
alpha-Chlordane	588069.02	520616.93	0.01	-11.5	15.0
4cmx	598746.48	568838.23	0.01	-5.0	15.0
Decachlorobiphenyl	374471.04	329824.09	0.01	-11.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2000

Instrument ID: ECD7A Calibration Date: 02/27/10 Time: 0334

Lab File ID: 044F4401 Init. Calib. Date(s): 02/25/10 02/25/10

Heated Purge: (Y/N) N Init. Calib. Times: 1140 1248

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	1163442.7	1150611.4	0.01	-1.1	15.0
beta-BHC	470652.05	431985.85	0.01	-8.2	15.0
delta-BHC	1045890.0	1029890.9	0.01	-1.5	15.0
gamma-BHC (Lindane)	1045805.0	1054685.0	0.01	0.8	15.0
Heptachlor	834798.88	811037.81	0.01	-2.8	15.0
Aldrin	992422.11	895508.68	0.01	-9.8	15.0
Heptachlor epoxide	881069.13	824085.45	0.01	-6.5	15.0
Endosulfan I	795777.38	776875.97	0.01	-2.4	15.0
Dieldrin	848077.81	794148.05	0.01	-6.4	15.0
4,4'-DDE	804701.36	775768.54	0.01	-3.6	15.0
Endrin	678093.95	685383.22	0.01	1.1	15.0
Endosulfan II	731302.32	690738.08	0.01	-5.5	15.0
4,4'-DDD	635376.94	678867.69	0.01	6.8	15.0
Endosulfan sulfate	646327.96	604239.50	0.01	-6.5	15.0
4,4'-DDT	595543.22	554744.56	0.01	-6.8	15.0
Methoxychlor	266864.82	251017.03	0.01	-5.9	15.0
Endrin ketone	827456.43	750819.82	0.01	-9.3	15.0
Endrin aldehyde	623096.00	555315.04	0.01	-10.9	15.0
gamma-Chlordane	875748.57	843783.22	0.01	-3.6	15.0
alpha-Chlordane	874010.96	745226.04	0.01	-14.7	15.0
4cmx	816727.82	757065.66	0.01	-7.3	15.0
Decachlorobiphenyl	594895.40	545545.69	0.01	-8.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2000

Instrument ID: ECD7A Calibration Date: 02/27/10 Time: 0334

Lab File ID: 044B4401 Init. Calib. Date(s): 02/25/10 02/25/10

Heated Purge: (Y/N) N Init. Calib. Times: 1140 1248

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D	
alpha-BHC	785653.59	770158.74	0.01	-2.0	15.0	
beta-BHC	323937.47	292816.57	0.01	-9.6	15.0	
delta-BHC	688844.25	671081.26	0.01	-2.6	15.0	
gamma-BHC (Lindane)	688086.08	683397.37	0.01	-0.7	15.0	
Heptachlor	499116.78	472568.55	0.01	-5.3	15.0	
Aldrin	672997.04	587933.93	0.01	-12.6	15.0	
Heptachlor epoxide	573899.55	524013.07	0.01	-8.7	15.0	
Endosulfan I	528153.96	493093.24	0.01	-6.6	15.0	
Dieldrin	517920.12	476781.95	0.01	-7.9	15.0	
4,4'-DDE	521397.52	496956.81	0.01	-4.7	15.0	
Endrin	403624.31	406435.36	0.01	0.7	15.0	
Endosulfan II	476726.88	432958.16	0.01	-9.2	15.0	
4,4'-DDD	379623.95	402513.01	0.01	6.0	15.0	
Endosulfan sulfate	416882.23	382253.00	0.01	-8.3	15.0	
4,4'-DDT	319185.63	299904.30	0.01	-6.0	15.0	
Methoxychlor	135669.33	133187.84	0.01	-1.8	15.0	
Endrin ketone	502234.13	439541.19	0.01	-12.5	15.0	
Endrin aldehyde	383796.57	339156.60	0.01	-11.6	15.0	
gamma-Chlordane	588069.92	549638.78	0.01	-6.5	15.0	
alpha-Chlordane	588069.02	480022.09	0.01	-18.4	15.0	<-
4cmx	598746.48	545254.80	0.01	-8.9	15.0	
Decachlorobiphenyl	374471.04	325289.31	0.01	-13.1	15.0	

FORM VII PEST

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022610.b/002f0201.d
Lab Smp Id: WPE100211-99DG Client Smp ID: PEM01
Inj Date : 26-FEB-2010 15:38
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.209	4.210	-0.001	113892948	114.763	115	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.065	5.062	0.003	1920371	2.38644	2.39	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.600	5.600	0.000	77046739	113.623	114	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.654	5.653	0.001	952645	1.49934	1.50	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
6.257	6.255	0.002	1646363	2.64223	2.64	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.937	5.937	0.000	63956175	107.391	107	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.015	7.014	0.001	1968147	2.37855	2.38	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.877	2.879	-0.002	153309057	187.711	188	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.101	8.102	-0.001	109108681	183.408	183	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022610.b/002f0201.d
Date : 26-FEB-2010 15:38
Client ID: PEHC1
Sample Info: IWPE100211-99DC
Column phase: CLP-1

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

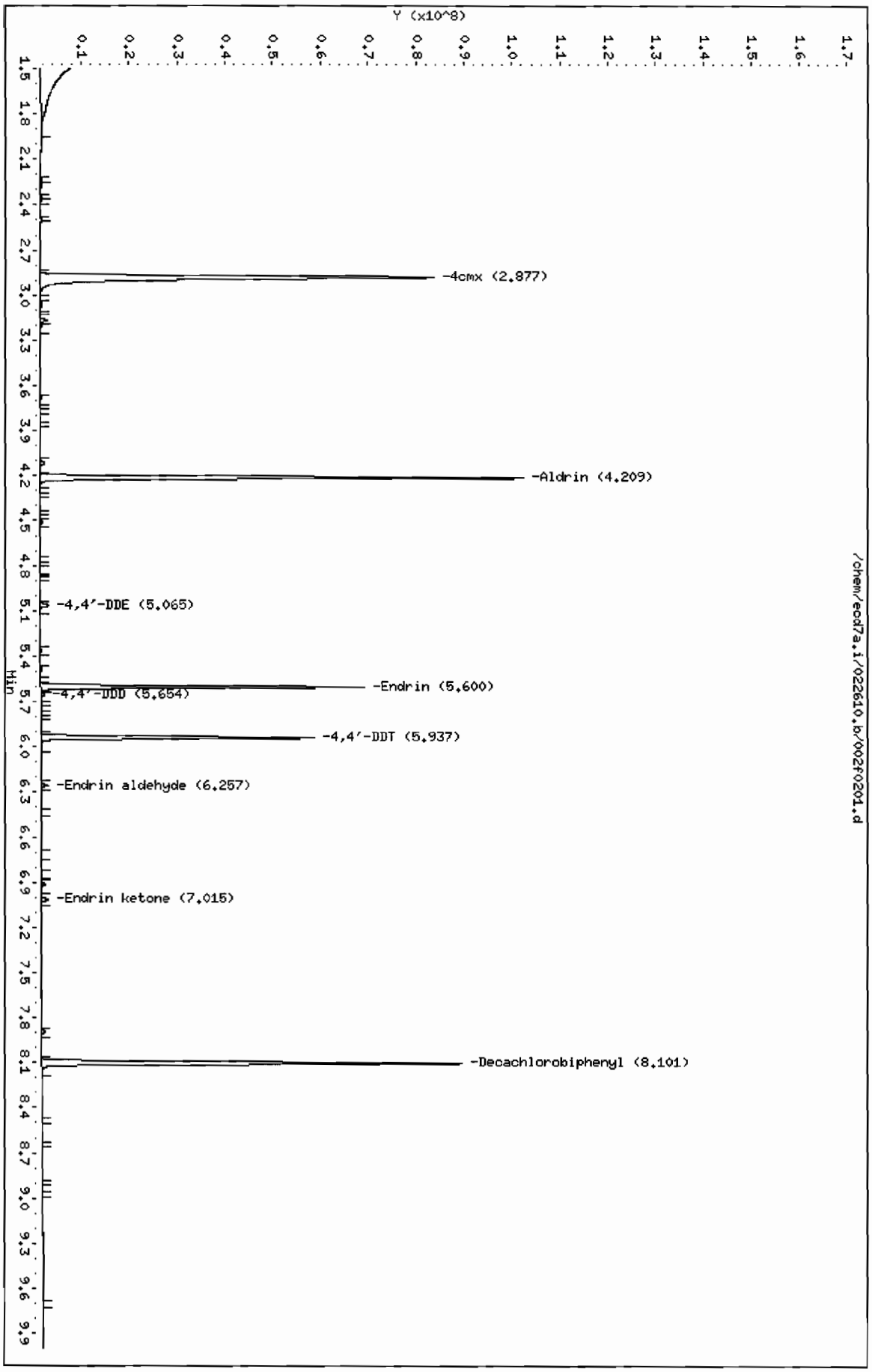

Page 1

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022610.b/002b0201.d
Lab Smp Id: WPE100211-99DG Client Smp ID: PEM01
Inj Date : 26-FEB-2010 15:38
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.816	4.817	-0.001	76456188	113.606	114	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.884	5.884	0.000	1396308	2.67801	2.68	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.421	6.422	-0.001	46220874	114.515	114	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.504	6.504	0.000	639078	1.68345	1.68	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
7.009	7.008	0.001	1132823	2.95162	2.95	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.849	6.850	-0.001	36463532	114.239	114	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.924	7.924	0.000	1366707	2.72125	2.72	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.194	3.195	-0.001	112596374	188.054	188	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.298	9.300	-0.002	68067831	181.771	182	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022610.b/002b0201.d

Date : 26-FEB-2010 15:38

Client ID: PEM01

Sample Info: IWPE100211-99DG

Column phase: CLP-2

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

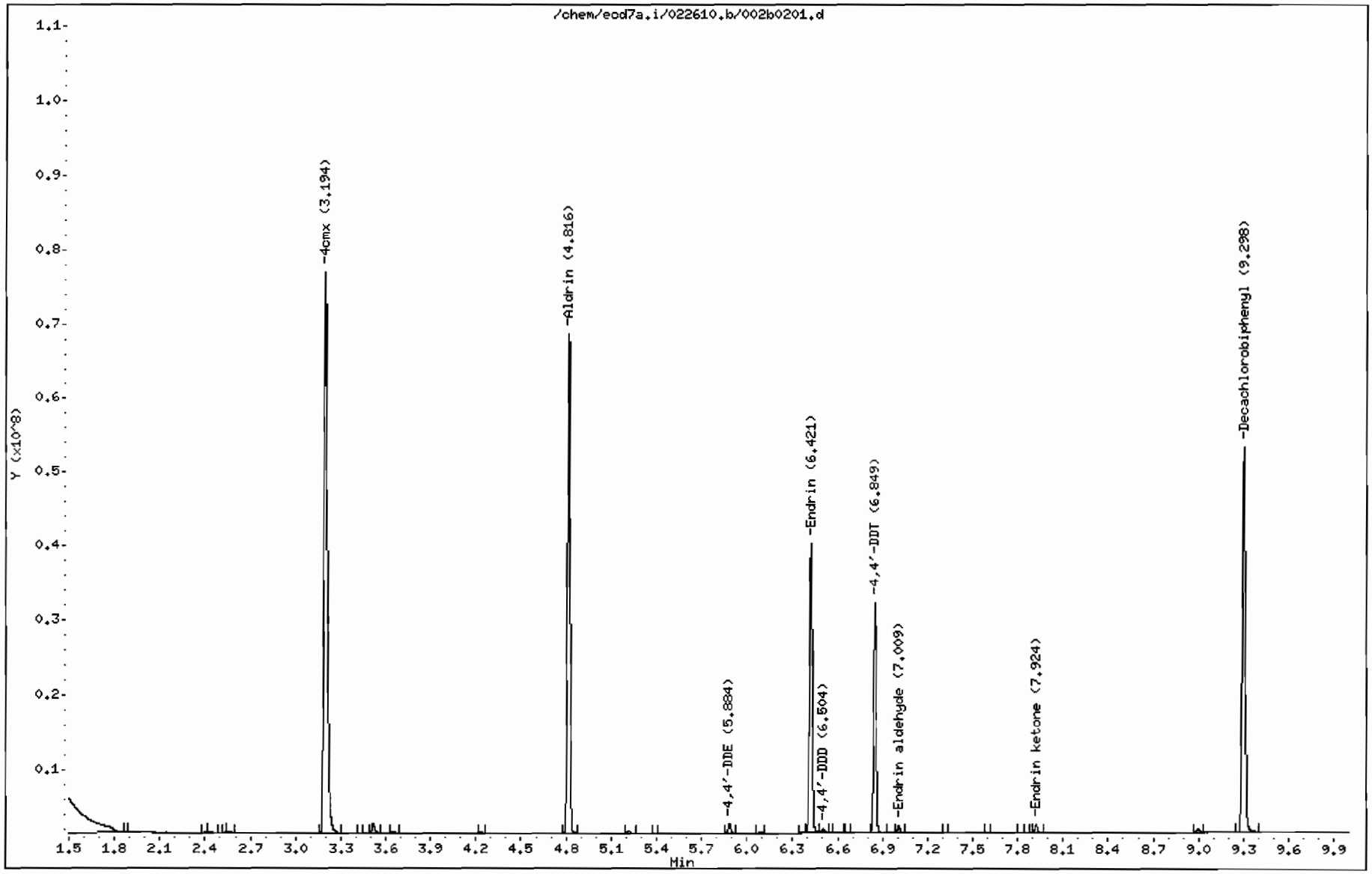

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022610.b/032f3201.d
Lab Smp Id: WPE100211-99DG Client Smp ID: PEM02
Inj Date : 27-FEB-2010 00:10
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 32 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.208	4.210	-0.002	114795865	115.672	116	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.062	5.062	0.000	393094	0.48850	0.488	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.599	5.600	-0.001	76821478	113.290	113	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.653	5.653	0.000	4802618	7.55869	7.56	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.255	6.255	0.000	1517675	2.43570	2.44	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.936	5.937	-0.001	56597043	95.0343	95.0	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.015	7.014	0.001	3969858	4.79766	4.80	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.876	2.879	-0.003	158911021	194.570	194	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.100	8.102	-0.002	111522815	187.466	187	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022610.b/032f3201.d

Date : 27-FEB-2010 00:10

Client ID: PEM02

Sample Info: IWPE100211-99DG

Column phase: CLP-1

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

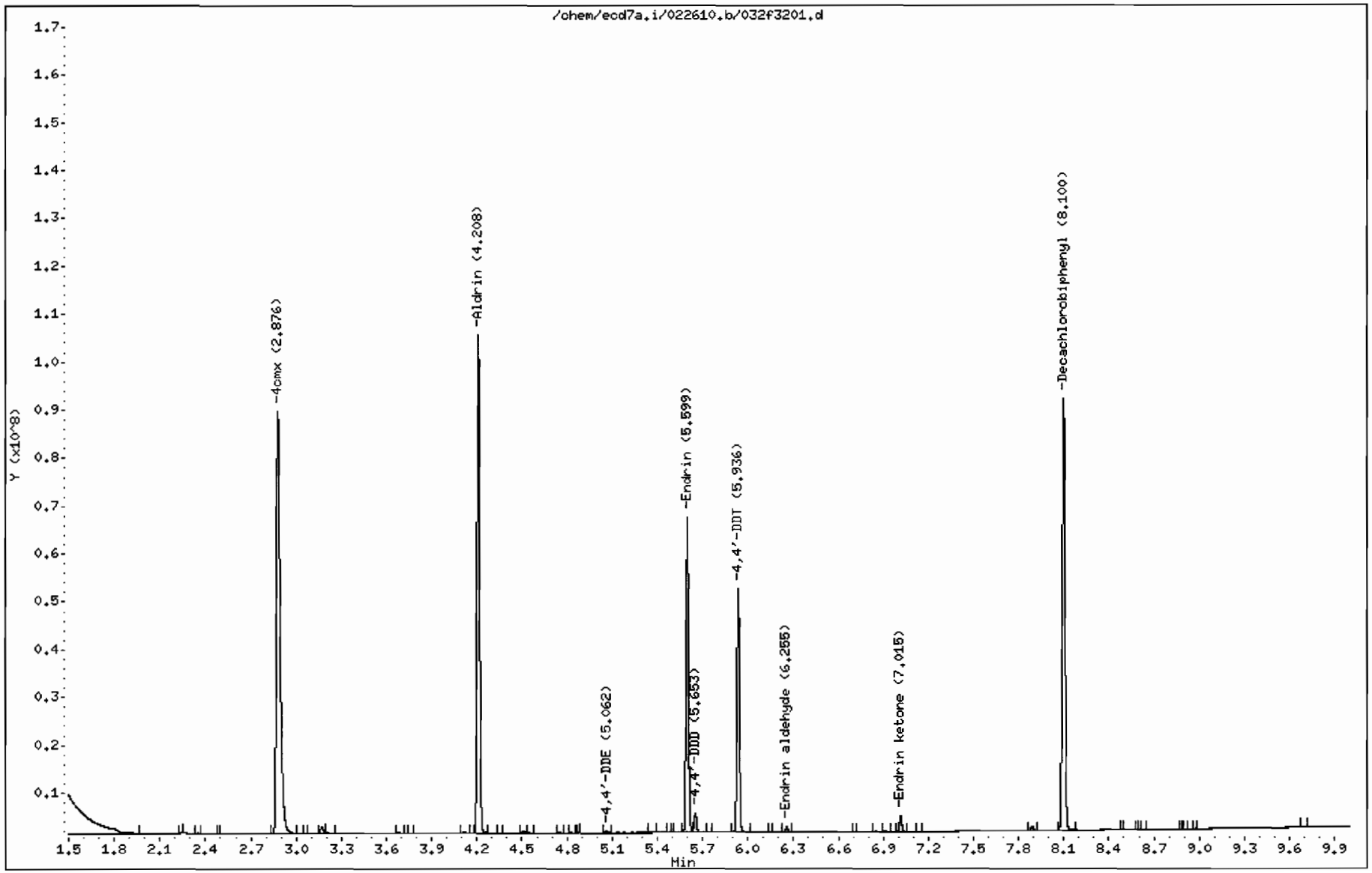

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022610.b/032b3201.d
Lab Smp Id: WPE100211-99DG Client Smp ID: PEM02
Inj Date : 27-FEB-2010 00:10
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 32 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.816	4.817	-0.001	77053841	114.494	114	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.882	5.884	-0.002	278388	0.53393	0.534	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
6.420	6.422	-0.002	45978462	113.914	114	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.504	6.504	0.000	2970103	7.82380	7.82	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.009	7.008	0.001	1024850	2.67029	2.67	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.849	6.850	-0.001	31500095	98.6890	98.7	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.923	7.924	-0.001	2533967	5.04539	5.04	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.193	3.195	-0.002	116212210	194.093	194	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.298	9.300	-0.002	67669580	180.707	181	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022610.b/032b3201.d
Date : 27-FEB-2010 00:10
Client ID: PEM02
Sample Info: IWPE100211-99DG

Column phase: CLP-2

Instrument: ecd7a.i

Operator: HXJ1
Column diameter: 0.25

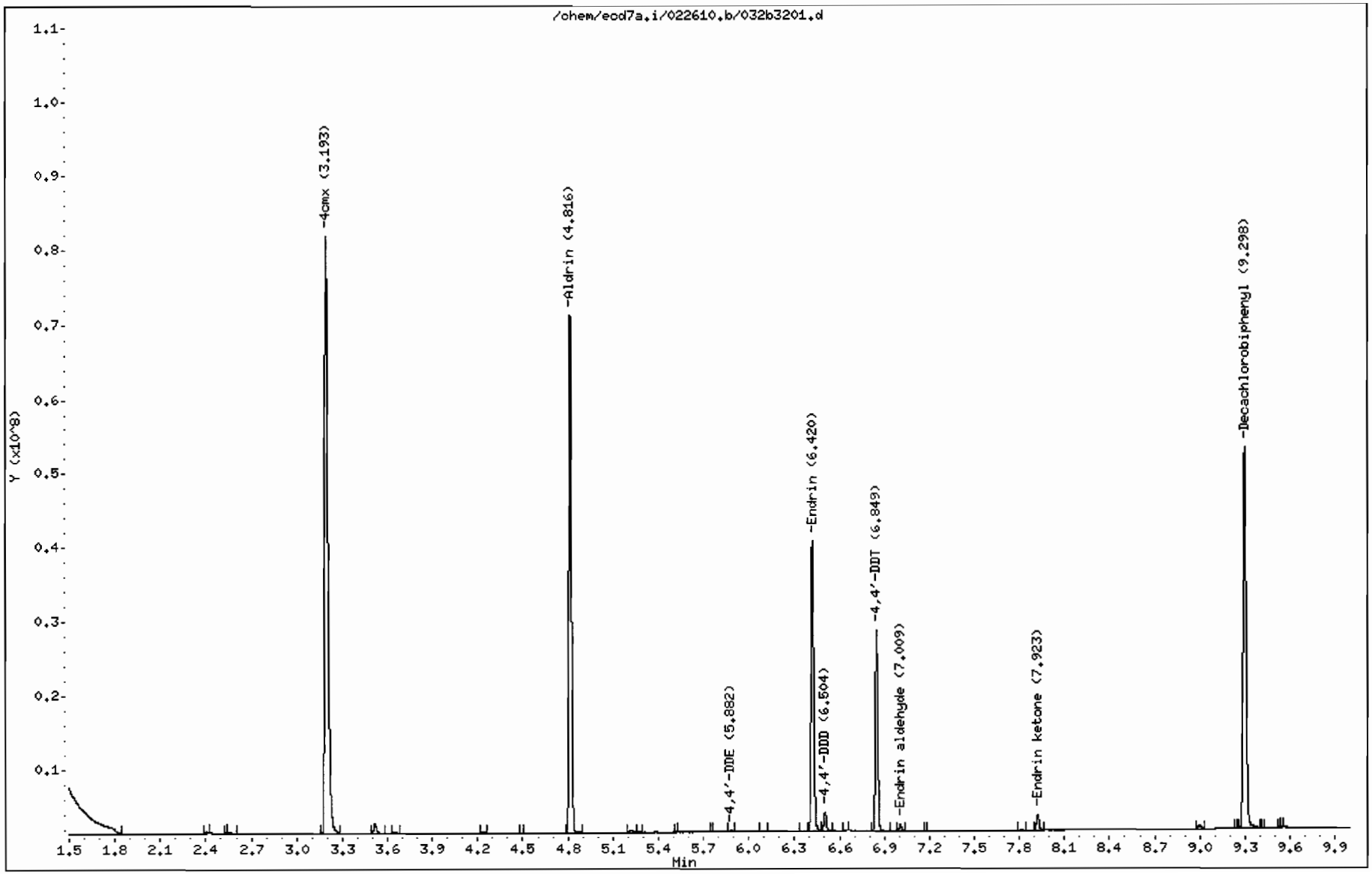

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CLP-1

Data file : /chem/ecd7a.i/022610.b/003f0301.d
Lab Smp Id: WPE100211-10AB Client Smp ID: INDAB01
Inj Date : 26-FEB-2010 15:55
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.298	3.298	0.000	119188206	100.000	102	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.549	3.549	0.000	109482718	100.000	105	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.614	3.614	0.000	45675126	100.000	97.0	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.945	3.945	0.000	83566411	100.000	100	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.768	3.768	0.000	105343474	100.000	101	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.210	4.210	0.000	94819797	100.000	95.5	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.757	4.757	0.000	87897714	100.000	99.8	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.874	4.874	0.000	91824872	100.000	105	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.999	4.999	0.000	80588288	100.000	92.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.135	5.135	0.000	80317097	100.000	101	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.062	5.062	0.000	165348181	200.000	205	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.367	5.367	0.000	163960217	200.000	193	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.600	5.600	0.000	143666463	200.000	212	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.653	5.653	0.000	130027477	200.000	205	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.826	5.826	0.000	141484140	200.000	193	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.255	6.255	0.000	112922040	200.000	181	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.937	5.937	0.000	129878608	200.000	218	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.711	6.711	0.000	122060064	200.000	189	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.438	6.438	0.000	267070978	1000.00	1000	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.014	7.014	0.000	148410901	200.000	179	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.879	2.879	0.000	158203301	200.000	194	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.102	8.102	0.000	110835161	200.000	186	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/003f0301.d
Date : 26-FEB-2010 15:55
Client ID: INDAB01
Sample Info: IWPE100211-100B
Column phase: CLP-1

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

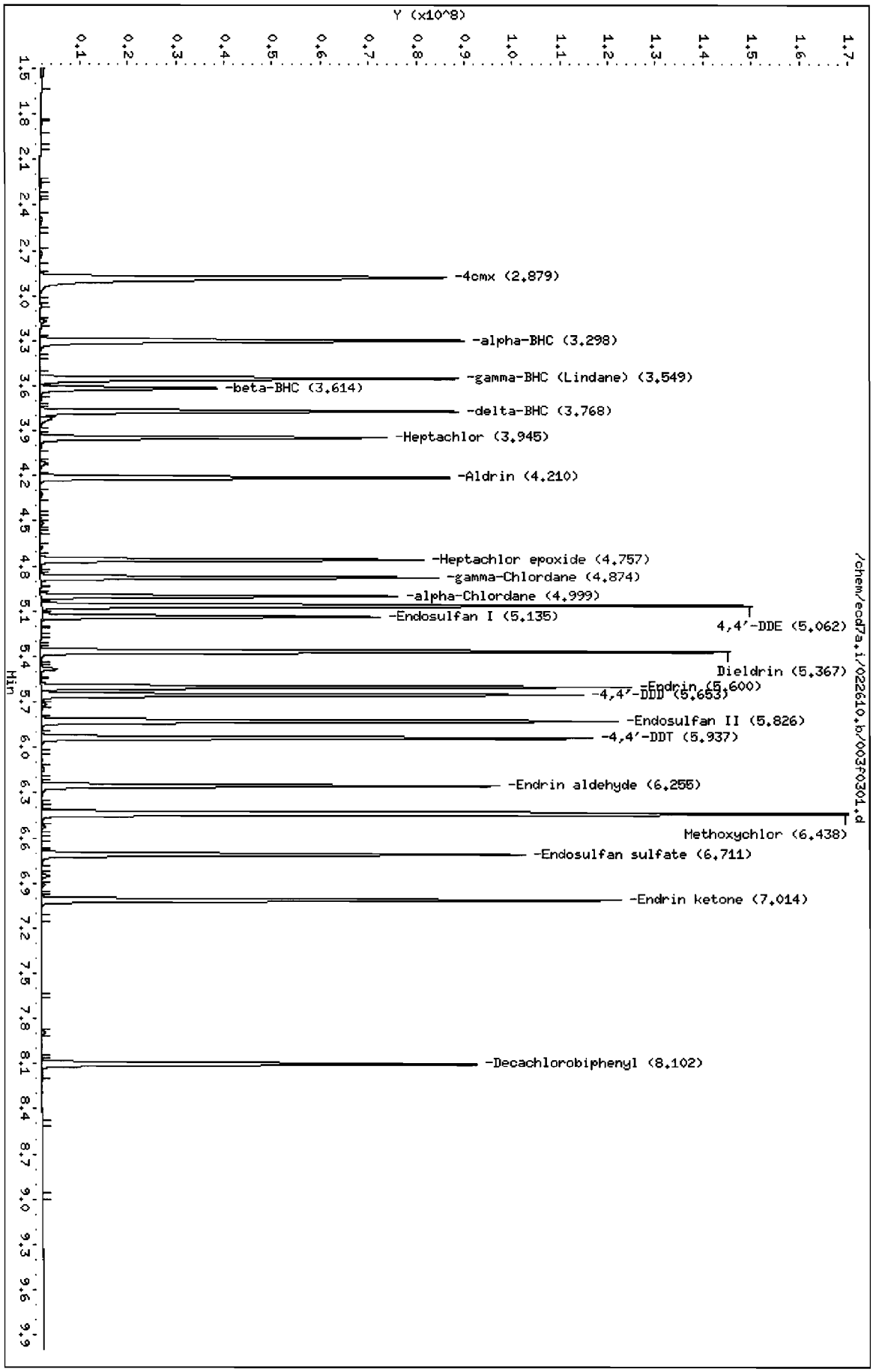

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022610.b/003b0301.d
Lab Smp Id: WPE100211-10AB Client Smp ID: INDAB01
Inj Date : 26-FEB-2010 15:55
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.721	3.721	0.000	80572651	100.000	102	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.050	4.050	0.000	71994021	100.000	105	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.114	4.114	0.000	31576599	100.000	97.5	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.486	4.486	0.000	49399738	100.000	99.0	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.404	4.404	0.000	69795833	100.000	101	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.817	4.817	0.000	64317094	100.000	95.6	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.386	5.386	0.000	56248112	100.000	98.0	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.583	5.583	0.000	61554845	100.000	105	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.734	5.734	0.000	53994553	100.000	91.8	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.804	5.804	0.000	53172290	100.000	101	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.884	5.884	0.000	109397801	200.000	210	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.092	6.092	0.000	100545914	200.000	194	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.422	6.422	0.000	85487773	200.000	212	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.504	6.504	0.000	76776947	200.000	202	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.647	6.647	0.000	91261314	200.000	191	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.008	7.008	0.000	69866700	200.000	182	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.850	6.850	0.000	73354277	200.000	230	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.313	7.313	0.000	79357946	200.000	190	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.596	7.596	0.000	143414350	1000.00	1060	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.924	7.924	0.000	90164592	200.000	180	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.195	3.195	0.000	116145360	200.000	194	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.300	9.300	0.000	70314288	200.000	188	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/003b0301.d
Date : 26-FEB-2010 15:55
Client ID: INDAB01
Sample Info: IWPE100211-10AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

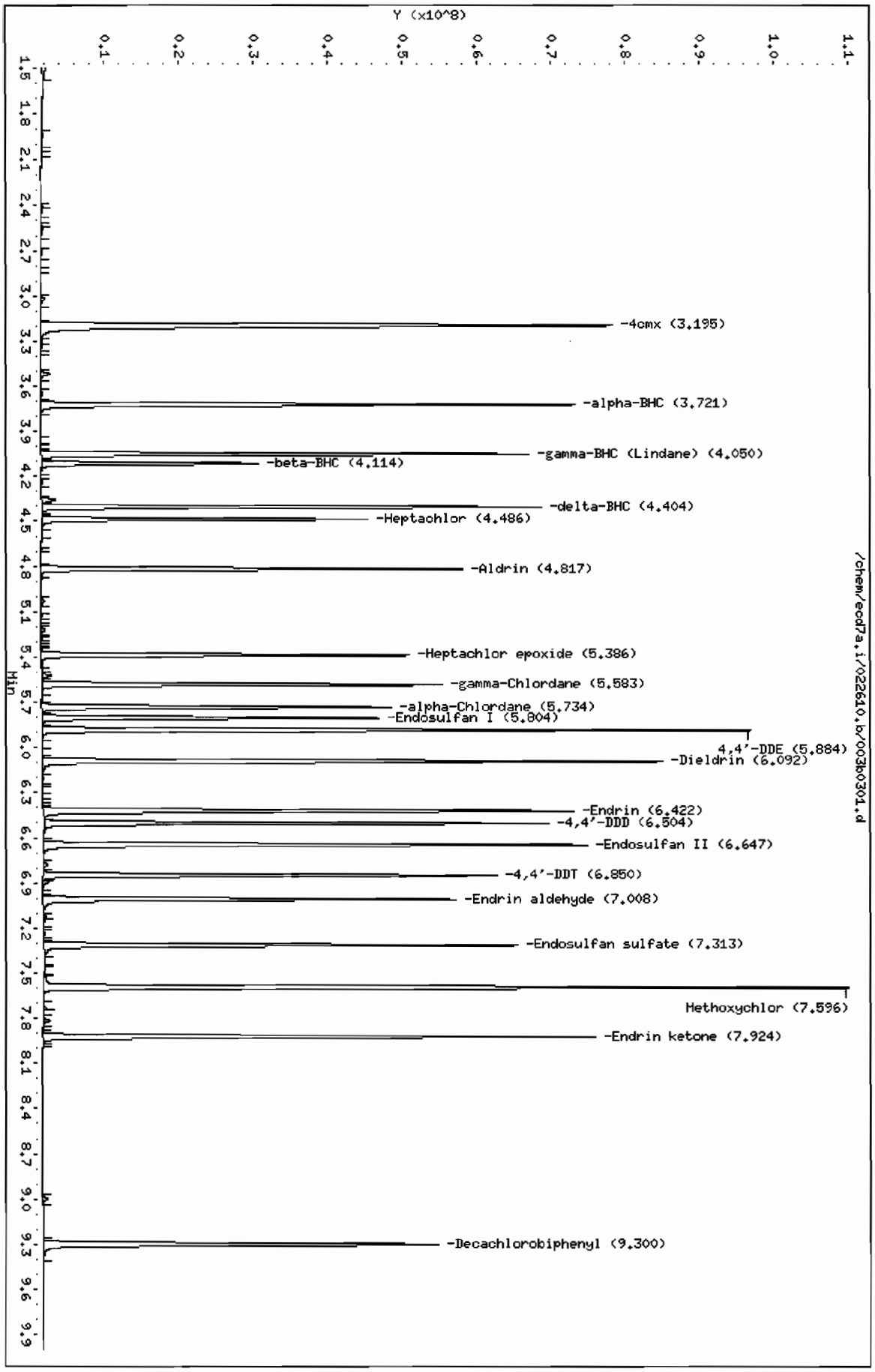

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CLP-1

Data file : /chem/ecd7a.i/022610.b/004f0401.d
Lab Smp Id: WPE100125-52TX Client Smp ID: TOXAPH01
Inj Date : 26-FEB-2010 16:12
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100125-52TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.266	5.266	0.000	15780196	2000.00	2150	80.00- 120.00	100.00(M)
5.371	5.371	0.000	23244843	2000.00	2230	127.30- 167.30	147.30
5.459	5.459	0.000	27029972	2000.00	2220	151.29- 191.29	171.29
5.519	5.519	0.000	35159349	2000.00	2210	202.81- 242.81	222.81
5.621	5.621	0.000	30293237	2000.00	1950	171.97- 211.97	191.97

Average of Peak Amounts = 2.15e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022610.b/004f0401.d

Page 1

Date : 26-FEB-2010 16:12

Client ID: TOXAPH01

Instrument: ecd7a.i

Sample Info: IWPE100125-52TX

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

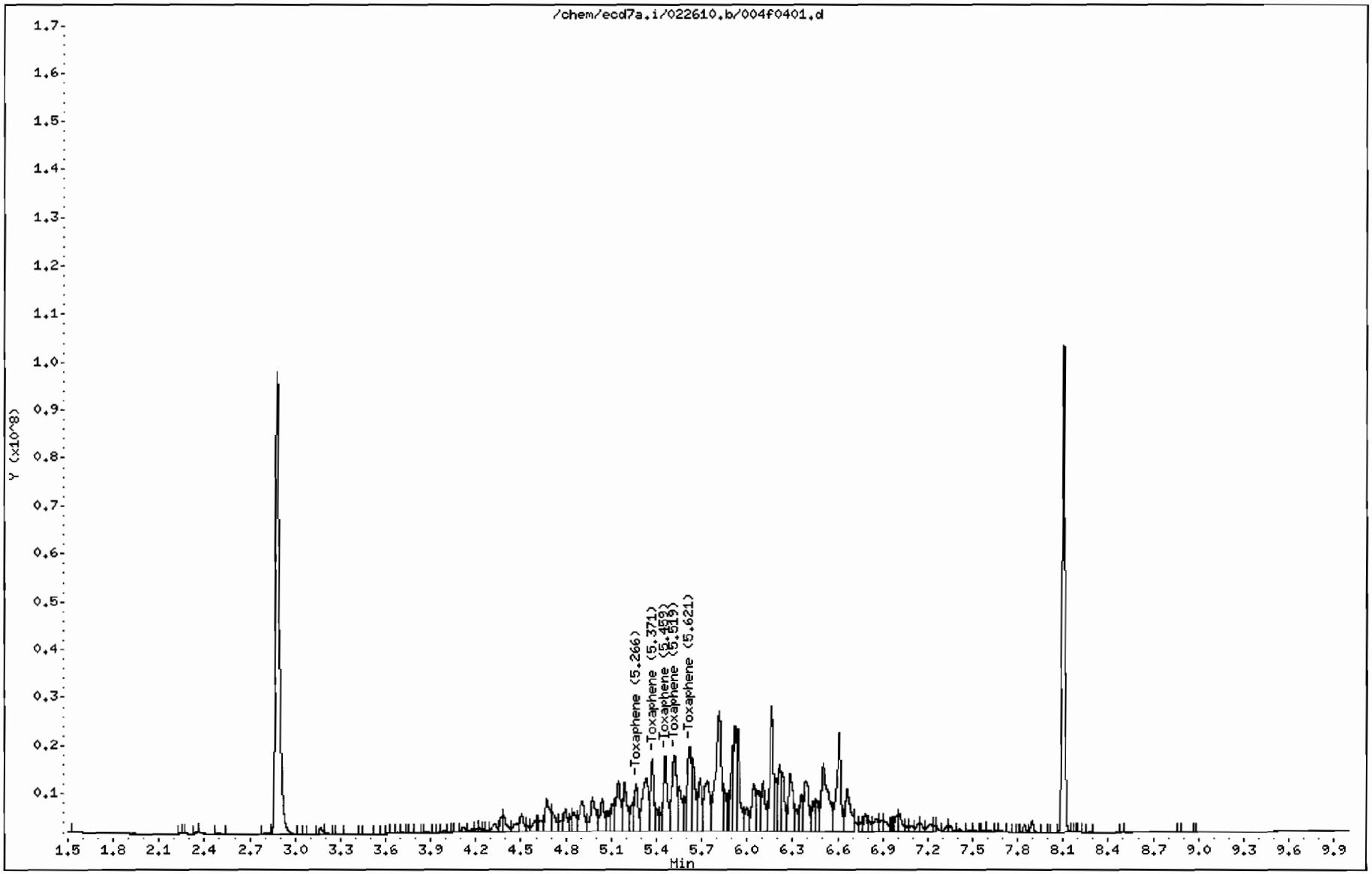

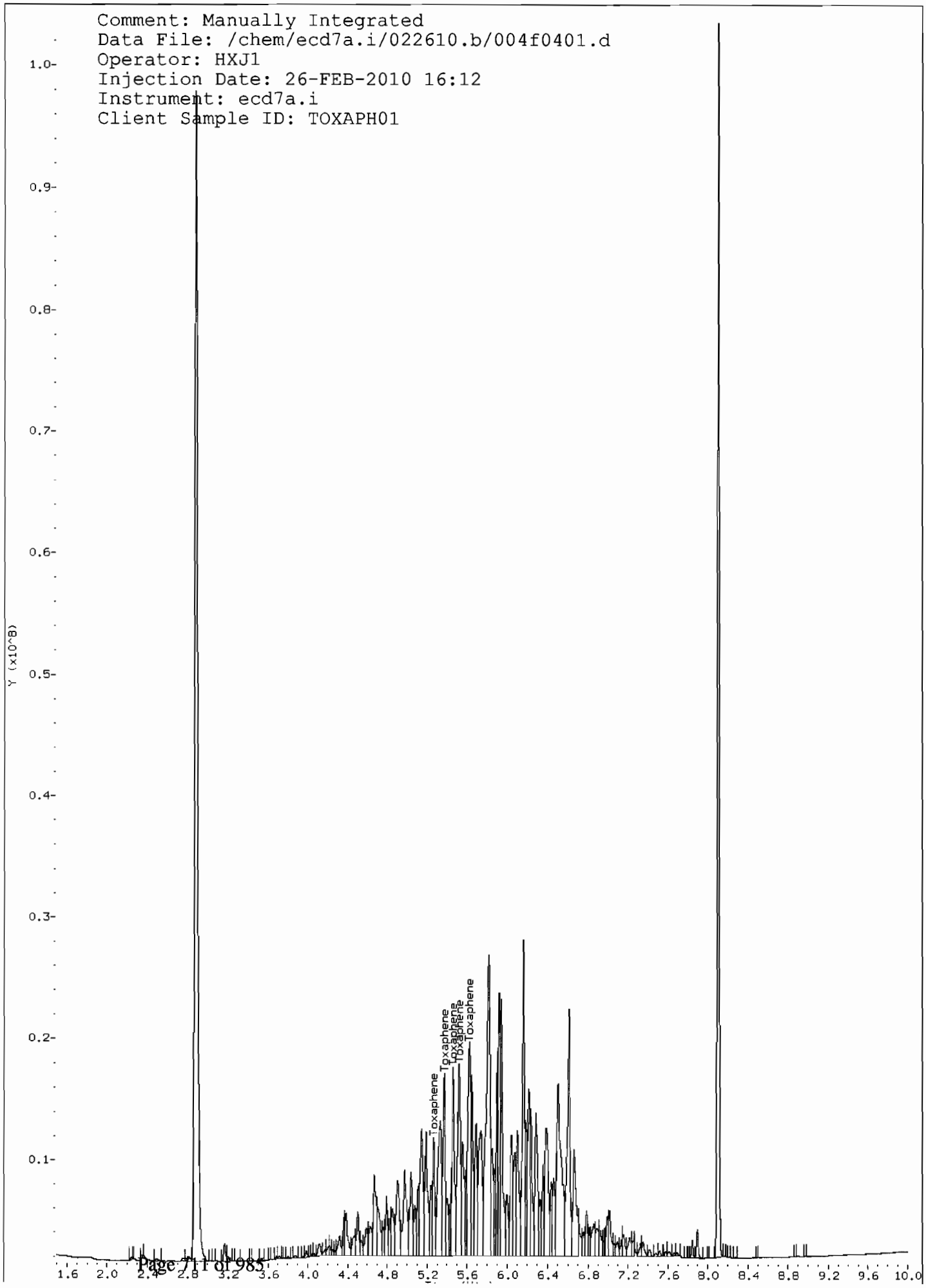
Comment: Manually Integrated
Data File: /chem/ecd7a.i/022610.b/004f0401.d
Operator: HXJ1
Injection Date: 26-FEB-2010 16:12
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
Y (x10^8)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
1.6
2.0
2.4
2.8
3.2
3.6
4.0
4.4
4.8
5.2
5.6
6.0
6.4
6.8
7.2
7.6
8.0
8.4
8.8
9.2
9.6
10.0

Comment: Before manual integration
Data File: /chem/ecd7a.i/022610.b/orig-004f0401.d
Operator: HXJ1
Injection Date: 26-FEB-2010 16:12
Instrument: ecd7a.i
Client Sample ID: TOXAPH01

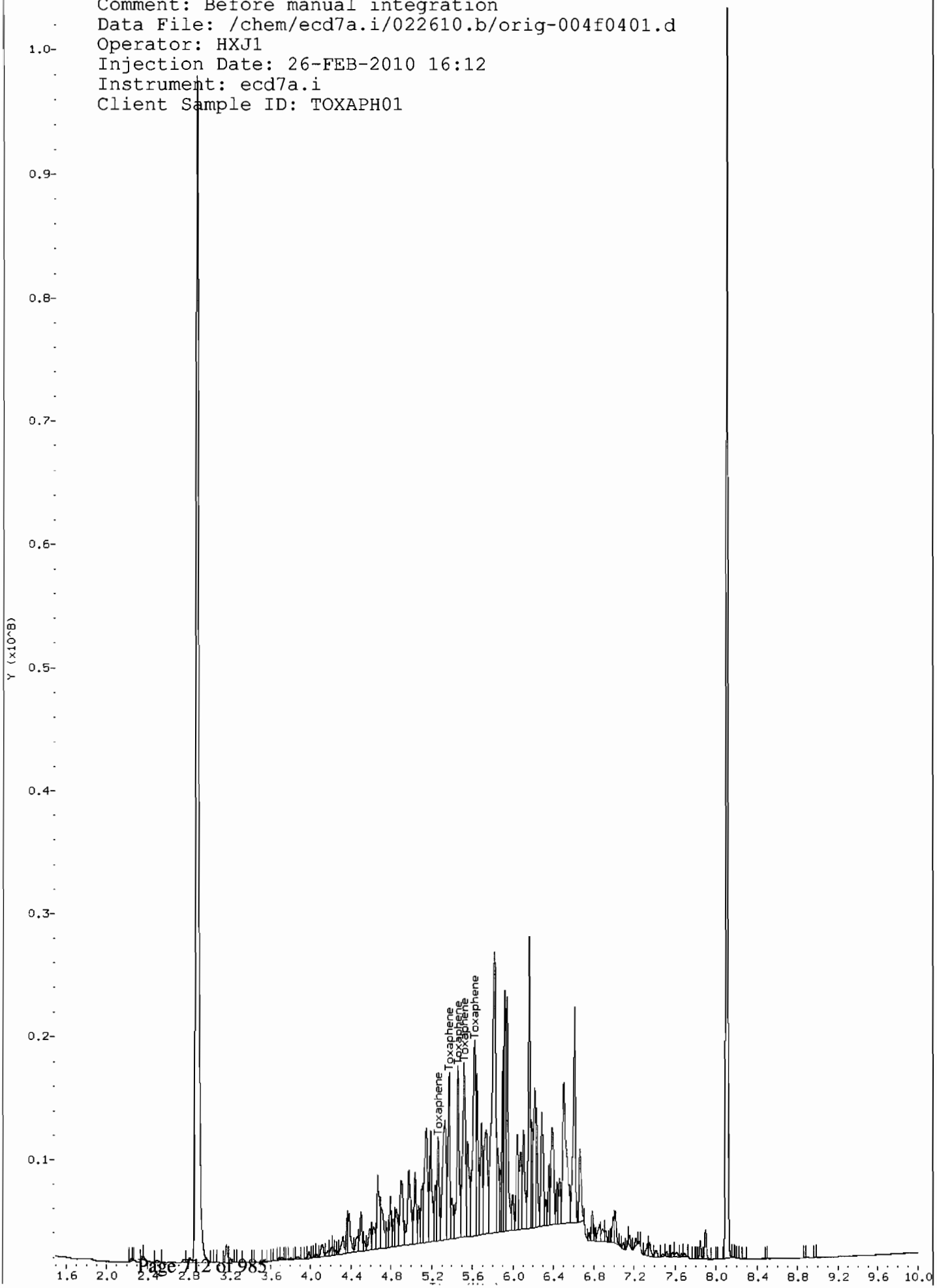

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022610.b/004b0401.d
Lab Smp Id: WPE100125-52TX Client Smp ID: TOXAPH01
Inj Date : 26-FEB-2010 16:12
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100125-52TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
6.054	6.054	0.000	21497865	2000.00	2210	80.00- 120.00	100.00(M)
6.123	6.123	0.000	8217249	2000.00	1870	18.22- 58.22	38.22
6.187	6.187	0.000	11334248	2000.00	2270	32.72- 72.72	52.72
6.249	6.249	0.000	12153520	2000.00	2120	36.53- 76.53	56.53
6.381	6.381	0.000	16678081	2000.00	2160	57.58- 97.58	77.58

Average of Peak Amounts = 2.13e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022610.b/004b0401.d

Date : 26-FEB-2010 16:12

Client ID: TOXAPH01

Sample Info: IWPE100125-52TX

Column phase: CLP-2

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

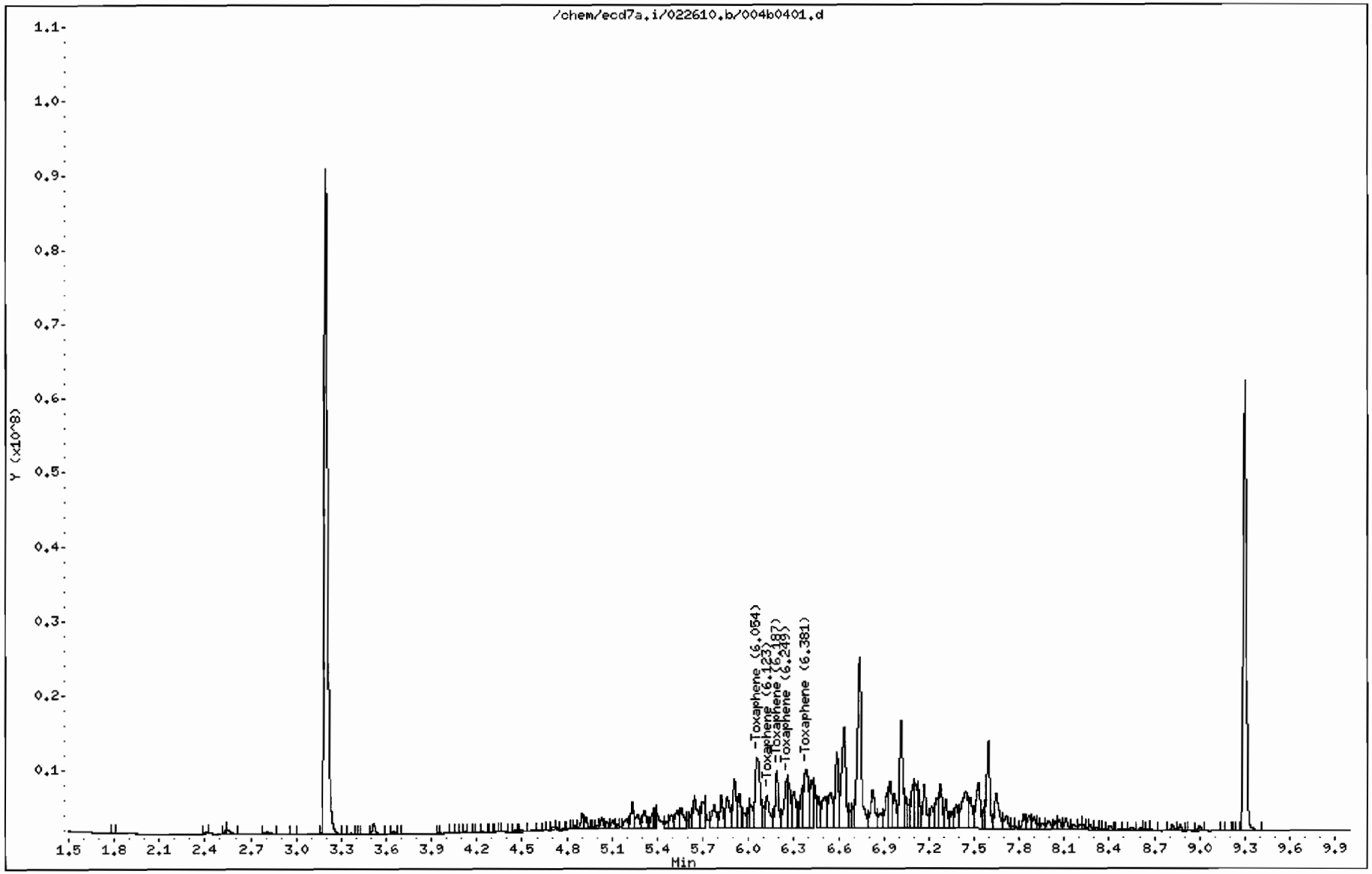

Comment: Manually Integrated
Data File: /chem/ecd7a.i/022610.b/004b0401.d
Operator: HXJ1
Injection Date: 26-FEB-2010 16:12
Instrument: ecd7a.i
Client Sample ID: TOXAPH01

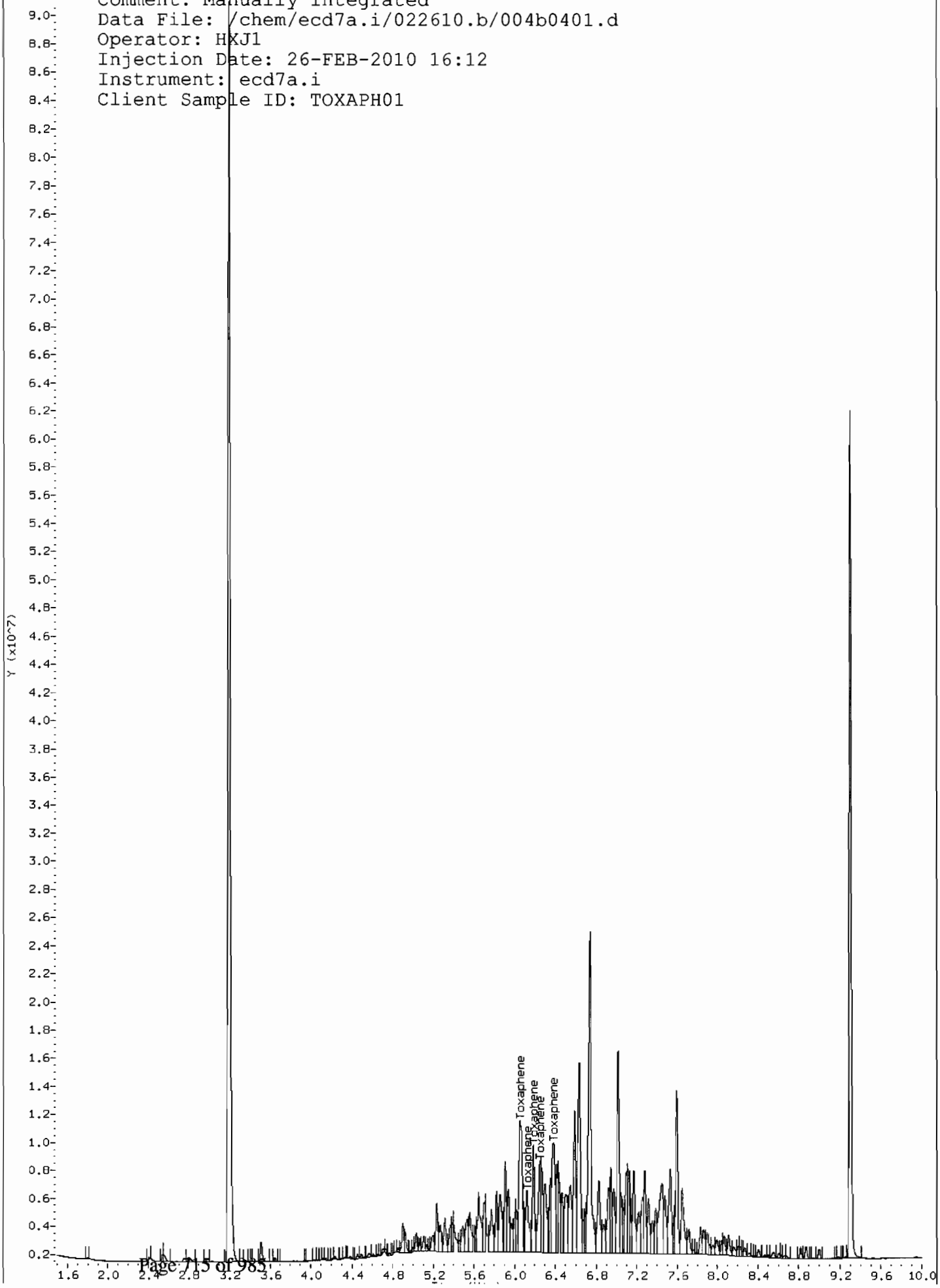

Comment: Before manual integration
Data File: /chem/ecd7a.i/022610.b/orig-004b0401.d
Operator: HXJ1
Injection Date: 26-FEB-2010 16:12
Instrument: ecd7a.i
Client Sample ID: TOXAPH01

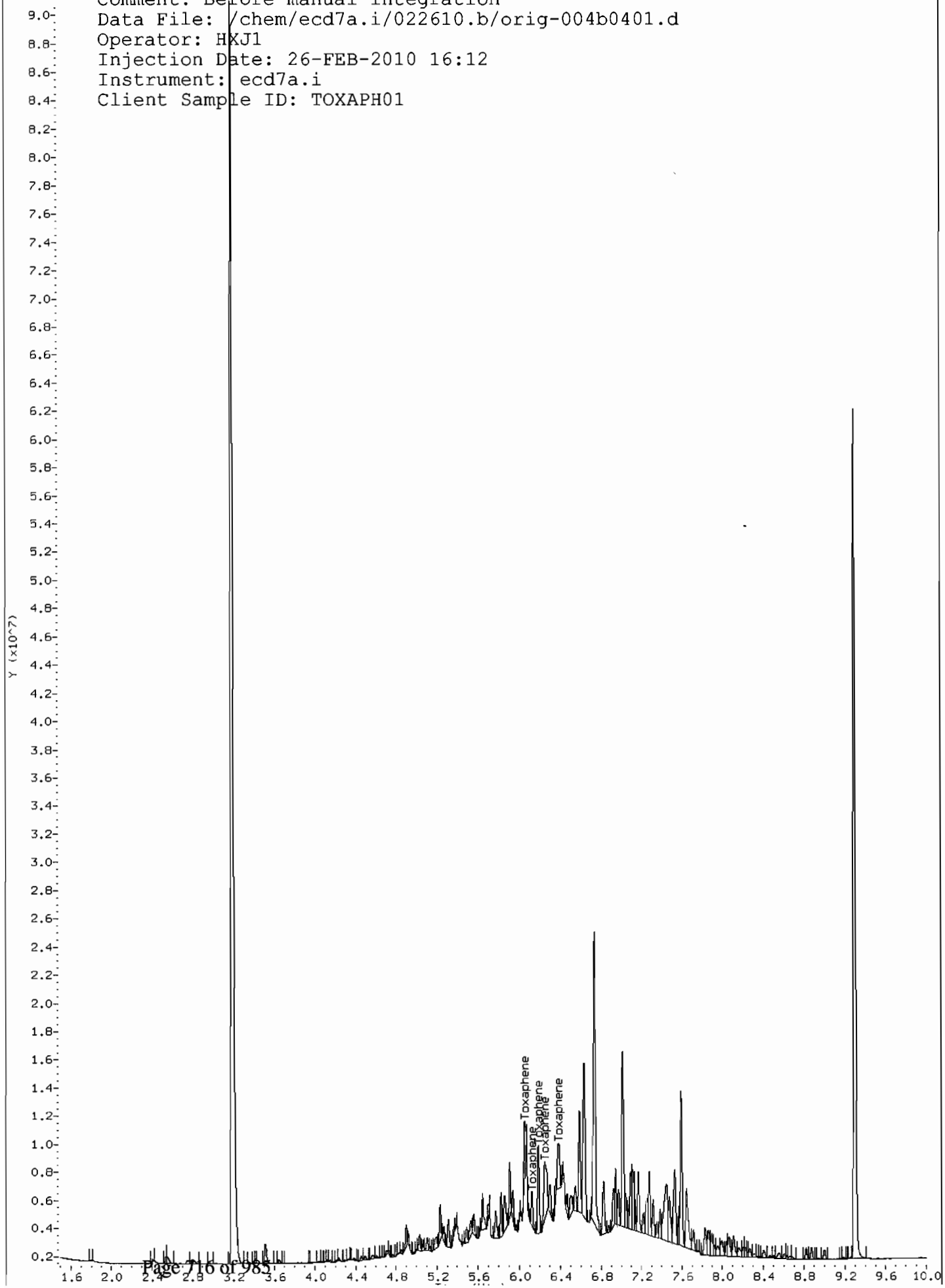

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CLP-1

Data file : /chem/ecd7a.i/022610.b/030f3001.d
Lab Smp Id: WPE100211-10AB Client Smp ID: INDAB03
Inj Date : 26-FEB-2010 23:35
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.296	3.298	-0.002	119930426	100.000	103	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.549	3.549	0.000	110300285	100.000	105	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.613	3.614	-0.001	45353107	100.000	96.4	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.943	3.945	-0.002	84946622	100.000	102	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.767	3.768	-0.001	107557660	100.000	103	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.208	4.210	-0.002	93555643	100.000	94.3	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.755	4.757	-0.002	86977521	100.000	98.7	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.873	4.874	-0.001	89502466	100.000	102	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.998	4.999	-0.001	78627030	100.000	90.0	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.134	5.135	-0.001	80933965	100.000	102	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.061	5.062	-0.001	160379658	200.000	199	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.366	5.367	-0.001	165392191	200.000	195	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.599	5.600	-0.001	145487806	200.000	214	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.651	5.653	-0.002	134037574	200.000	211	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.824	5.826	-0.002	143012833	200.000	196	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.252	6.255	-0.003	114243129	200.000	183	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.935	5.937	-0.002	124083176	200.000	208	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.708	6.711	-0.003	124560702	200.000	193	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.436	6.438	-0.002	262231954	1000.00	983	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.012	7.014	-0.002	152636185	200.000	184	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.878	2.879	-0.001	155703785	200.000	191	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.101	8.102	-0.001	109720182	200.000	184	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/030f3001.d
Date : 26-FEB-2010 23:35
Client ID: INDAB03
Sample Info: IWPE100211-10AB

Column phase: CLP-1

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

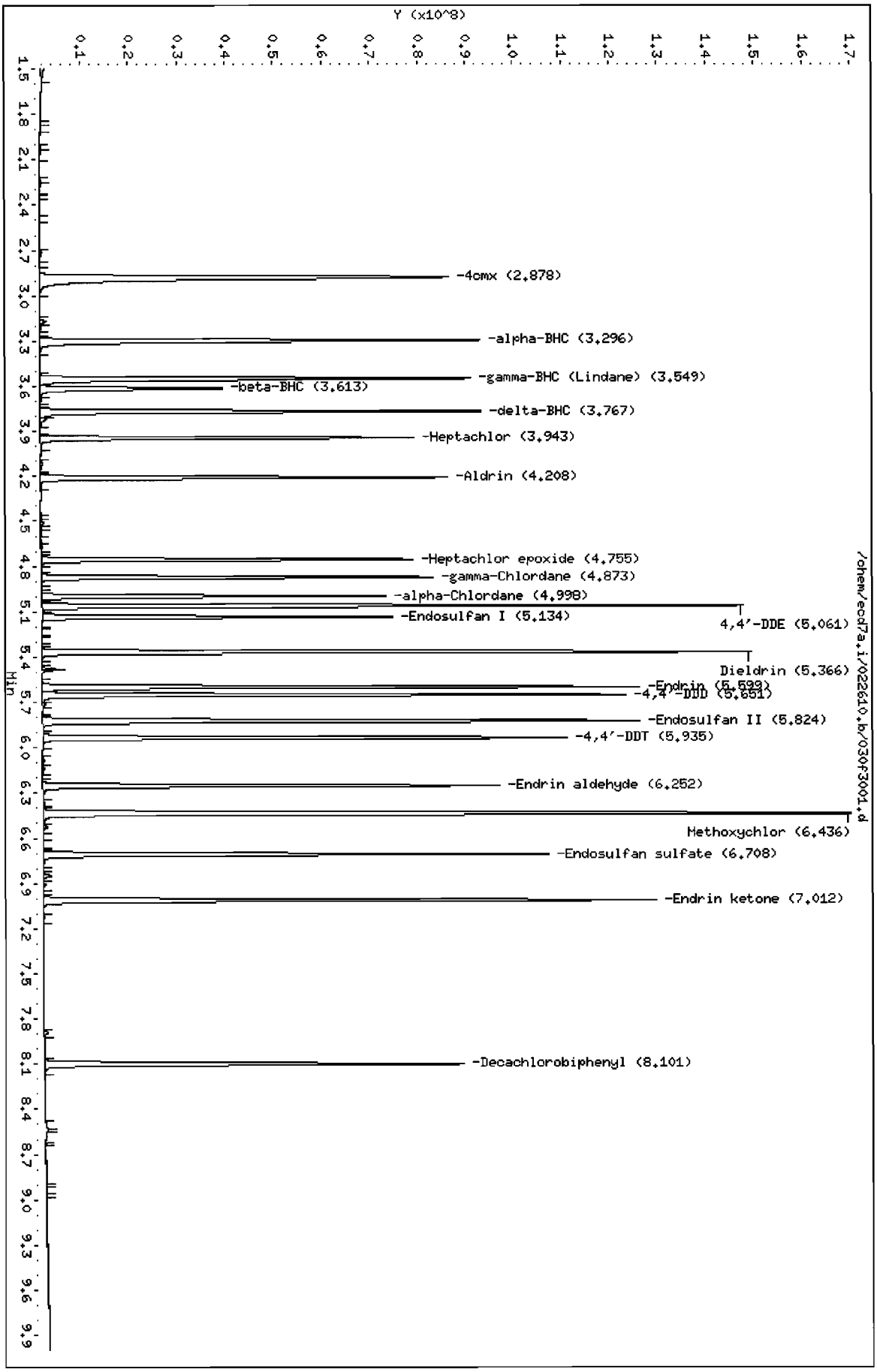

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CLP-2

Data file : /chem/ecd7a.i/022610.b/030b3001.d
Lab Smp Id: WPE100211-10AB Client Smp ID: INDAB03
Inj Date : 26-FEB-2010 23:35
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.720	3.721	-0.001	81697840	100.000	104	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.049	4.050	-0.001	72687411	100.000	106	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.112	4.114	-0.002	31442078	100.000	97.1	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.486	4.486	0.000	49920634	100.000	100	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.403	4.404	-0.001	71803210	100.000	104	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.817	4.817	0.000	62663530	100.000	93.1	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.386	5.386	0.000	56283616	100.000	98.1	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.582	5.583	-0.001	59401309	100.000	101	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.733	5.734	-0.001	52061692	100.000	88.5	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.802	5.804	-0.002	52961728	100.000	100	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.883	5.884	-0.001	105305796	200.000	202	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.091	6.092	-0.001	101774391	200.000	196	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.421	6.422	-0.001	86949557	200.000	215	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.503	6.504	-0.001	79892941	200.000	210	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.646	6.647	-0.001	92457163	200.000	194	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.007	7.008	-0.001	71080444	200.000	185	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.848	6.850	-0.002	68154323	200.000	214	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.313	7.313	0.000	80957443	200.000	194	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.594	7.596	-0.002	140006902	1000.00	1030	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.923	7.924	-0.001	91110911	200.000	181	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.194	3.195	-0.001	113767646	200.000	190	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.299	9.300	-0.001	65964817	200.000	176	80.00- 120.00	100.00

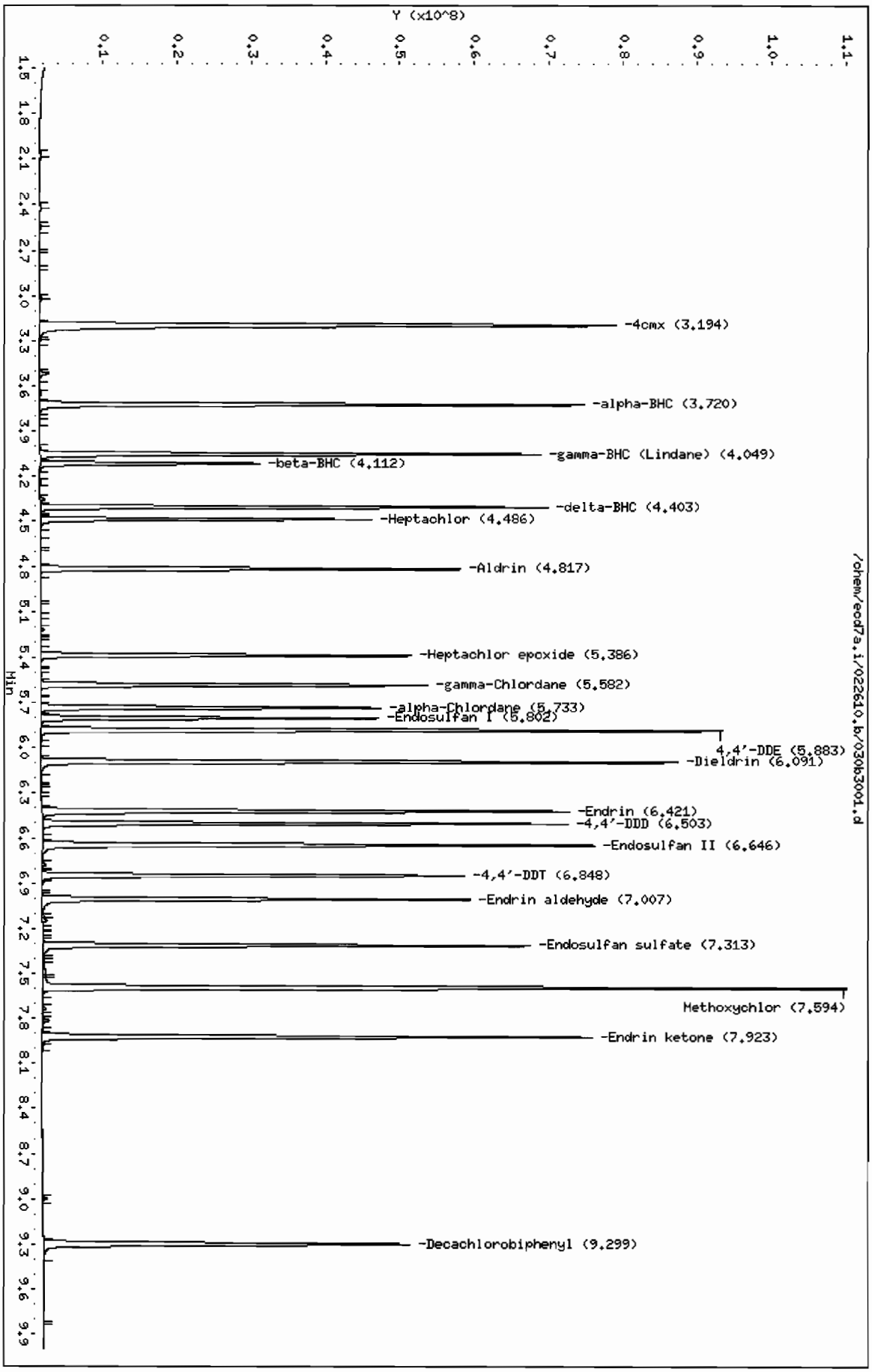
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Client ID: INDAB03
Sample Info: IWPE100211-106B
Column phase: CLP-2
Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25
Y (x10^8)
Min
-4cmx (3.194)
-alpha-BHC (3.720)
-gamma-BHC (Lindane) (4.049)
-beta-BHC (4.112)
-delta-BHC (4.403)
-Heptachlor (4.486)
-Aldrin (4.817)
-Heptachlor epoxide (5.386)
-gamma-Chlordane (5.582)
-alpha-Chlordane (5.733)
-Endosulfan I (5.802)
4,4'-DDE (5.883)
-Dieldrin (6.091)
-Endrin (6.421)
-4,4'-DDD (6.503)
-Endosulfan II (6.646)
-4,4'-DDT (6.848)
-Endrin aldehyde (7.007)
-Endosulfan sulfate (7.313)
Methoxychlor (7.594)
-Endrin ketone (7.923)
-Decachlorobiphenyl (9.299)
/chem/ecd7a.i/022610.b/030b3001.d

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CLP-1

Data file : /chem/ecd7a.i/022610.b/044f4401.d
Lab Smp Id: WPE100211-10AB Client Smp ID: INDAB04
Inj Date : 27-FEB-2010 03:34
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 44 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.298	3.298	0.000	115061139	100.000	98.9	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.550	3.549	0.001	105468496	100.000	101	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.615	3.614	0.001	43198585	100.000	91.8	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.944	3.945	-0.001	81103781	100.000	97.2	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.768	3.768	0.000	102989088	100.000	98.5	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.210	4.210	0.000	89550868	100.000	90.2	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.757	4.757	0.000	82408544	100.000	93.5	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.874	4.874	0.000	84378321	100.000	96.3	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.999	4.999	0.000	74522603	100.000	85.3	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.135	5.135	0.000	77687597	100.000	97.6	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.062	5.062	0.000	155153707	200.000	193	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.366	5.367	-0.001	158829609	200.000	187	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.600	5.600	0.000	137076644	200.000	202	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.653	5.653	0.000	135773537	200.000	214	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.826	5.826	0.000	138147616	200.000	189	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.253	6.255	-0.002	111063007	200.000	178	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.936	5.937	-0.001	110948911	200.000	186	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.710	6.711	-0.001	120847899	200.000	187	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.437	6.438	-0.001	251017032	1000.00	941	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.014	7.014	0.000	150163964	200.000	181	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.881	2.879	0.002	151413131	200.000	185	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.102	8.102	0.000	109109137	200.000	183	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/044f4401.d
Date : 27-FEB-2010 03:34
Client ID: INDAB04
Sample Info: IWPE100211-10AB

Column phase: CLP-1

Instrument: ecd7a.i

Operator: HXJ1
Column diameter: 0.25

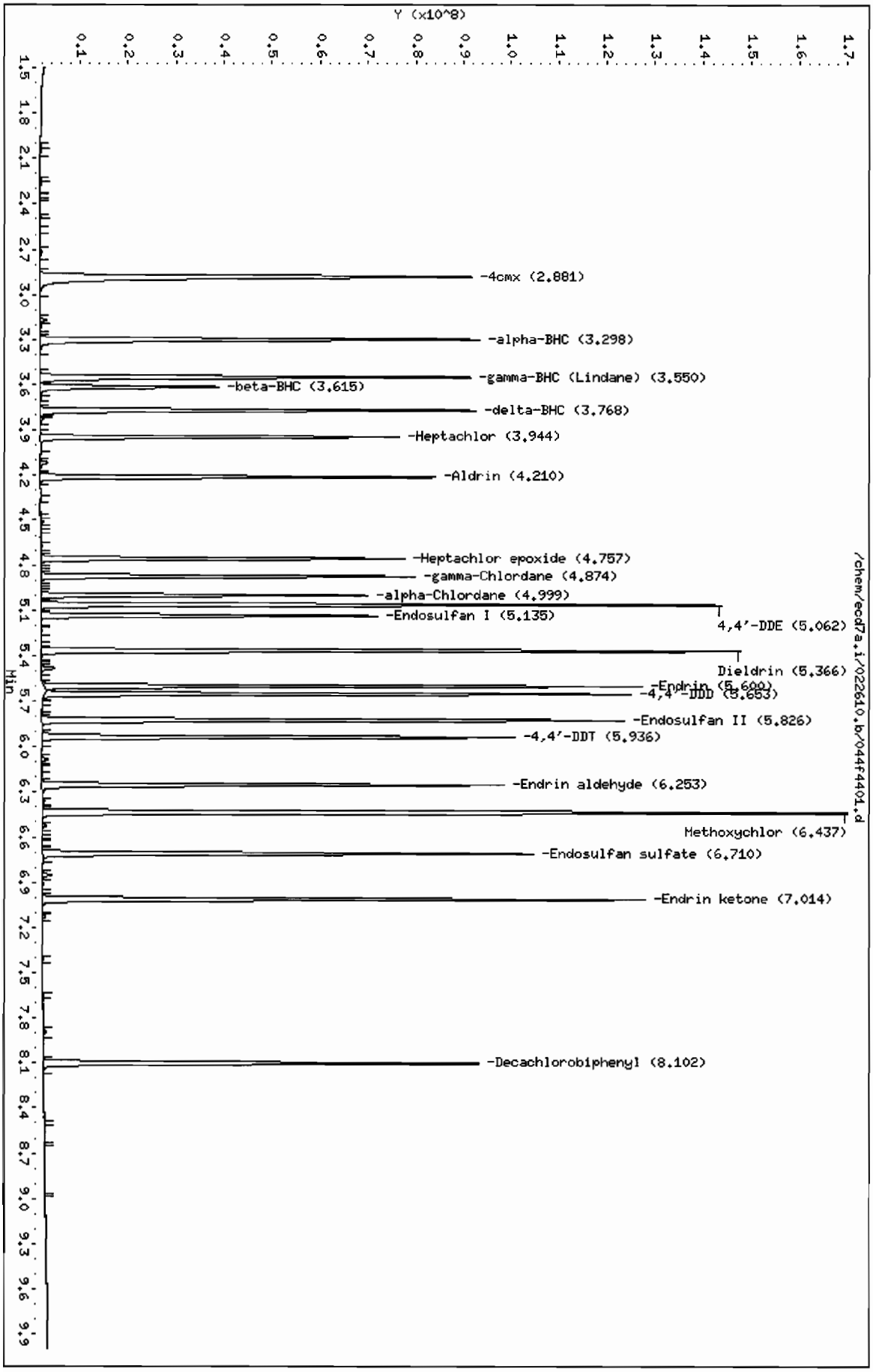

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022610.b/044b4401.d
Lab Smp Id: WPE100211-10AB Client Smp ID: INDAB04
Inj Date : 27-FEB-2010 03:34
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 44 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.721	3.721	0.000	77015873	100.000	98.0	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.050	4.050	0.000	68339736	100.000	99.3	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.115	4.114	0.001	29281656	100.000	90.4	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.487	4.486	0.001	47256854	100.000	94.7	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.404	4.404	0.000	67108126	100.000	97.4	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.817	4.817	0.000	58793393	100.000	87.4	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.387	5.386	0.001	52401306	100.000	91.3	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.583	5.583	0.000	54963877	100.000	93.5	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.733	5.734	-0.001	48002208	100.000	81.6	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.804	5.804	0.000	49309323	100.000	93.4	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.884	5.884	0.000	99391361	200.000	191	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.092	6.092	0.000	95356390	200.000	184	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.422	6.422	0.000	81287072	200.000	201	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.504	6.504	0.000	80502601	200.000	212	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.647	6.647	0.000	86591631	200.000	182	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.008	7.008	0.000	67831319	200.000	177	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.850	6.850	0.000	59980860	200.000	188	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.314	7.313	0.001	76450599	200.000	183	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.596	7.596	0.000	133187840	1000.00	982	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.924	7.924	0.000	87908237	200.000	175	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.196	3.195	0.001	109050960	200.000	182	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.300	9.300	0.000	65057862	200.000	174	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/044b4401.d
Date : 27-FEB-2010 03:34
Client ID: INDAB04
Sample Info: IWPE100211-10AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

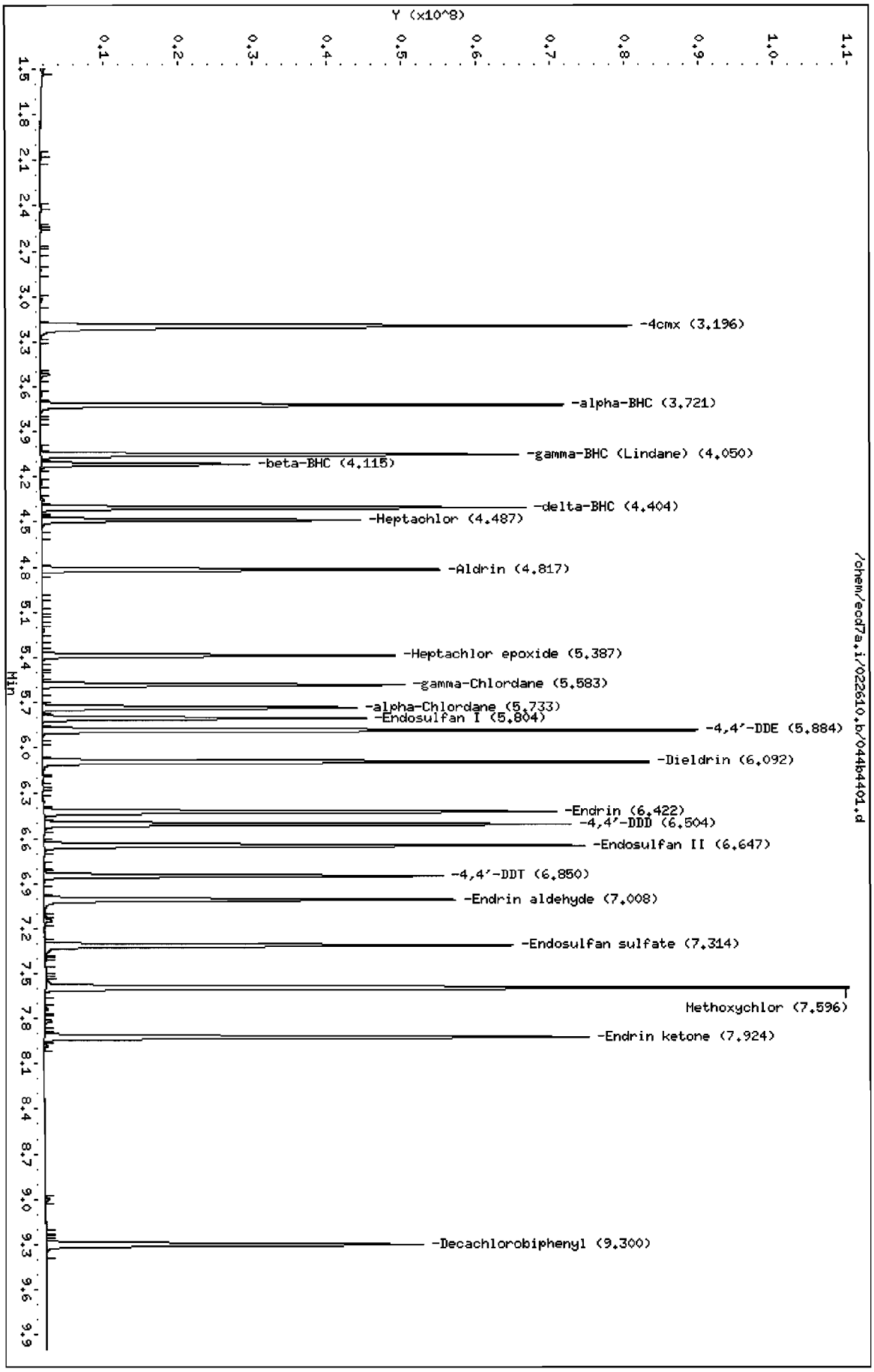

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8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 02/24/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.88 DCB: 8.10

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/24/10	1359	2.88	8.10
02	PEM01	WPE100211-99	02/24/10	1416	2.87	8.10
03	ZZZZZ	ZZZZZ	02/24/10	1433	2.88	8.10
04	ZZZZZ	ZZZZZ	02/24/10	1450		
05	GAPA01	WPE100114-05	02/24/10	1507	2.88	8.10
06	ZZZZZ	ZZZZZ	02/24/10	1524	2.88	8.10
07	INDAB01	WPE100224-01	02/24/10	1541	2.88	8.10
08	INDAB02	WPE100224-02	02/24/10	1558	2.88	8.10
09	INDAB03	WPE100224-03	02/24/10	1615	2.88	8.10
10	INDAB04	WPE100224-04	02/24/10	1632	2.88	8.10
11	INDAB05	IPE100204-02	02/24/10	1649	2.88	8.10
12	INDAB01	WPE100211-10	02/24/10	1706	2.88	8.10
13	TOXAPH01	WPE100224-11	02/24/10	1724		
14	TOXAPH02	WPE100224-12	02/24/10	1741		
15	TOXAPH03	WPE100224-13	02/24/10	1758		
16	TOXAPH04	WPE100224-14	02/24/10	1815		
17	TOXAPH05	IPE100204-40	02/24/10	1832		
18	TOXAPH01	WPE100125-52	02/24/10	1849		
19	CHLOR01	WPE100224-21	02/24/10	1906	2.87	8.10
20	CHLOR02	WPE100224-22	02/24/10	1923	2.87	8.10
21	CHLOR03	WPE100224-23	02/24/10	1940	2.87	8.10
22	CHLOR04	WPE100224-24	02/24/10	1957	2.88	8.10
23	CHLOR05	IPE100116-06	02/24/10	2014	2.88	8.10
24	CHLOR01	WPE100116-00	02/24/10	2031	2.88	8.10
25	PIBLK02	WAR100219-99	02/24/10	2048	2.88	8.10
26	PEM02	WPE100211-99	02/24/10	2105	2.87	8.10
27	ZZZZZ	ZZZZZ	02/24/10	2122	2.88	8.10
28	ZZZZZ	ZZZZZ	02/24/10	2139	2.88	8.10
29	ZZZZZ	ZZZZZ	02/24/10	2156	2.88	8.10
30	ZZZZZ	ZZZZZ	02/24/10	2214	2.88	8.10
31	PIBLK03	WAR100219-99	02/24/10	2231	2.88	8.10
32	INDAB02	WPE100211-10	02/24/10	2248	2.88	8.10

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

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FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 02/24/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.19 DCB: 9.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/24/10	1359	3.20	9.29
02	PEM01	WPE100211-99	02/24/10	1416	3.19	9.30
03	ZZZZZ	ZZZZZ	02/24/10	1433	3.19	9.30
04	ZZZZZ	ZZZZZ	02/24/10	1450		
05	GAPA01	WPE100114-05	02/24/10	1507	3.19	9.30
06	ZZZZZ	ZZZZZ	02/24/10	1524	3.19	9.30
07	INDAB01	WPE100224-01	02/24/10	1541	3.19	9.30
08	INDAB02	WPE100224-02	02/24/10	1558	3.19	9.30
09	INDAB03	WPE100224-03	02/24/10	1615	3.19	9.30
10	INDAB04	WPE100224-04	02/24/10	1632	3.19	9.30
11	INDAB05	IPE100204-02	02/24/10	1649	3.19	9.30
12	INDAB01	WPE100211-10	02/24/10	1706	3.19	9.30
13	TOXAPH01	WPE100224-11	02/24/10	1724		
14	TOXAPH02	WPE100224-12	02/24/10	1741		
15	TOXAPH03	WPE100224-13	02/24/10	1758		
16	TOXAPH04	WPE100224-14	02/24/10	1815		
17	TOXAPH05	IPE100204-40	02/24/10	1832		
18	TOXAPH01	WPE100125-52	02/24/10	1849		
19	CHLOR01	WPE100224-21	02/24/10	1906	3.19	9.30
20	CHLOR02	WPE100224-22	02/24/10	1923	3.19	9.30
21	CHLOR03	WPE100224-23	02/24/10	1940	3.19	9.30
22	CHLOR04	WPE100224-24	02/24/10	1957	3.19	9.30
23	CHLOR05	IPE100116-06	02/24/10	2014	3.19	9.30
24	CHLOR01	WPE100116-00	02/24/10	2031	3.19	9.30
25	PIBLK02	WAR100219-99	02/24/10	2048	3.19	9.30
26	PEM02	WPE100211-99	02/24/10	2105	3.19	9.30
27	ZZZZZ	ZZZZZ	02/24/10	2122	3.20	9.30
28	ZZZZZ	ZZZZZ	02/24/10	2139	3.20	9.30
29	ZZZZZ	ZZZZZ	02/24/10	2156	3.20	9.30
30	ZZZZZ	ZZZZZ	02/24/10	2214	3.20	9.30
31	PIBLK03	WAR100219-99	02/24/10	2231	3.19	9.30
32	INDAB02	WPE100211-10	02/24/10	2248	3.19	9.30

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

page 1 of 1

FORM VIII SV OLM03.0

FORM 8
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GEL LABORATORIES LLC Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/25/10 02/25/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.88 DCB: 8.10

	GOSS SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/25/10	0958	2.89	8.10
02	PEM01	WPE100211-99	02/25/10	1015	2.87	8.10
03	ZZZZZ	ZZZZZ	02/25/10	1032	2.87	8.10
04	TOXAPH01	WPE100125-52	02/25/10	1049		
05	CHLOR01	WPE100116-00	02/25/10	1106	2.88	8.10
06	GAPA01	WPE100114-05	02/25/10	1123	2.88	8.10
07	INDAB01	WPE100225-01	02/25/10	1140	2.88	8.10
08	INDAB02	WPE100225-02	02/25/10	1157	2.88	8.10
09	INDAB03	WPE100225-03	02/25/10	1214	2.88	8.10
10	INDAB04	WPE100225-04	02/25/10	1231	2.88	8.10
11	INDAB05	IPE100204-02	02/25/10	1248	2.88	8.10
12	INDAB01	WPE100211-10	02/25/10	1305	2.88	8.10
13	PIBLK02	WAR100219-99	02/25/10	1322	2.88	8.10
14	ZZZZZ	ZZZZZ	02/25/10	1339	2.88	8.10
15	ZZZZZ	ZZZZZ	02/25/10	1356	2.88	8.10
16	ZZZZZ	ZZZZZ	02/25/10	1413	2.88	8.10
17	ZZZZZ	ZZZZZ	02/25/10	1430	2.88	8.10
18	ZZZZZ	ZZZZZ	02/25/10	1447	2.88	8.10
19	ZZZZZ	ZZZZZ	02/25/10	1504	2.88	8.10
20	ZZZZZ	ZZZZZ	02/25/10	1521	2.88	8.10
21	ZZZZZ	ZZZZZ	02/25/10	1538	2.88	8.10
22	ZZZZZ	ZZZZZ	02/25/10	1555	2.88	8.10
23	ZZZZZ	ZZZZZ	02/25/10	1612	2.88	8.09
24	INDAB02	WPE100211-10	02/25/10	1629	2.88	8.10
25	PIBLK03	WAR100219-99	02/25/10	1646	2.88	8.10
26	ZZZZZ	ZZZZZ	02/25/10	1703	2.88	8.10
27	ZZZZZ	ZZZZZ	02/25/10	1720	2.88	8.10
28	ZZZZZ	ZZZZZ	02/25/10	1738	2.88	8.10
29	ZZZZZ	ZZZZZ	02/25/10	1755	2.88	8.10
30	ZZZZZ	ZZZZZ	02/25/10	1812	2.88	8.10
31	ZZZZZ	ZZZZZ	02/25/10	1829	2.88	8.10
32	PIBLK04	WAR100219-99	02/25/10	1846	2.88	8.10

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

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FORM VIII PEST

FORM 8
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GEL LABORATORIES LLC Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/25/10 02/25/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.19 DCB: 9.30

	GOSS SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/25/10	0958	3.20	9.30
02	PEM01	WPE100211-99	02/25/10	1015	3.19	9.30
03	ZZZZZ	ZZZZZ	02/25/10	1032	3.19	9.30
04	TOXAPH01	WPE100125-52	02/25/10	1049		
05	CHLOR01	WPE100116-00	02/25/10	1106	3.19	9.30
06	GAPA01	WPE100114-05	02/25/10	1123	3.20	9.30
07	INDAB01	WPE100225-01	02/25/10	1140	3.19	9.30
08	INDAB02	WPE100225-02	02/25/10	1157	3.19	9.30
09	INDAB03	WPE100225-03	02/25/10	1214	3.19	9.30
10	INDAB04	WPE100225-04	02/25/10	1231	3.20	9.30
11	INDAB05	IPE100204-02	02/25/10	1248	3.19	9.30
12	INDAB01	WPE100211-10	02/25/10	1305	3.19	9.30
13	PIBLK02	WAR100219-99	02/25/10	1322	3.19	9.30
14	ZZZZZ	ZZZZZ	02/25/10	1339	3.20	9.30
15	ZZZZZ	ZZZZZ	02/25/10	1339	3.20	9.30
16	ZZZZZ	ZZZZZ	02/25/10	1339	3.20	9.30
17	ZZZZZ	ZZZZZ	02/25/10	1339	3.20	9.30
18	ZZZZZ	ZZZZZ	02/25/10	1339	3.20	9.30
19	ZZZZZ	ZZZZZ	02/25/10	1356	3.20	9.30
20	ZZZZZ	ZZZZZ	02/25/10	1413	3.19	9.30
21	ZZZZZ	ZZZZZ	02/25/10	1430	3.19	9.30
22	ZZZZZ	ZZZZZ	02/25/10	1447	3.20	9.30
23	ZZZZZ	ZZZZZ	02/25/10	1504	3.20	9.30
24	ZZZZZ	ZZZZZ	02/25/10	1521	3.19	9.30
25	ZZZZZ	ZZZZZ	02/25/10	1538	3.20	9.30
26	ZZZZZ	ZZZZZ	02/25/10	1555	3.20	9.30
27	ZZZZZ	ZZZZZ	02/25/10	1612	3.20	9.32
28	INDAB02	WPE100211-10	02/25/10	1629	3.20	9.30
29	PIBLK03	WAR100219-99	02/25/10	1646	3.19	9.30
30	ZZZZZ	ZZZZZ	02/25/10	1703	3.20	9.30
31	ZZZZZ	ZZZZZ	02/25/10	1720	3.20	9.30
32	ZZZZZ	ZZZZZ	02/25/10	1738	3.20	9.30

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

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FORM VIII PEST

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 02/25/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.88 DCB: 8.10

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/26/10	1521	2.88	8.10
02	PEM01	WPE100211-99	02/26/10	1538	2.88	8.10
03	INDAB01	WPE100211-10	02/26/10	1555	2.88	8.10
04	TOXAPH01	WPE100125-52	02/26/10	1612		
05	CHLOR01	WPE100116-00	02/26/10	1629	2.88	8.10
06	GAPA01	WPE100114-05	02/26/10	1646	2.88	8.10
07	PIBLK02	WAR100219-99	02/26/10	1703	2.88	8.10
08	ZZZZZ	ZZZZZ	02/26/10	1720	2.88	8.10
09	ZZZZZ	ZZZZZ	02/26/10	1737	2.88	8.10
10	ZZZZZ	ZZZZZ	02/26/10	1754	2.88	8.10
11	ZZZZZ	ZZZZZ	02/26/10	1811	2.88	8.10
12	ZZZZZ	ZZZZZ	02/26/10	1828	2.88	8.10
13	ZZZZZ	ZZZZZ	02/26/10	1846	2.88	8.10
14	ZZZZZ	ZZZZZ	02/26/10	1903	2.88	8.10
15	ZZZZZ	ZZZZZ	02/26/10	1920	2.88	8.10
16	ZZZZZ	ZZZZZ	02/26/10	1937	2.88	8.10
17	ZZZZZ	ZZZZZ	02/26/10	1954	2.88	8.10
18	INDAB02	WPE100211-10	02/26/10	2011	2.88	8.10
19	PIBLK03	WAR100219-99	02/26/10	2028	2.88	8.10
20	ZZZZZ	ZZZZZ	02/26/10	2045	2.88	8.10
21	ZZZZZ	ZZZZZ	02/26/10	2102	2.88	8.10
22	ZZZZZ	ZZZZZ	02/26/10	2119	2.88	8.10
23	ZZZZZ	ZZZZZ	02/26/10	2136	2.88	8.10
24	ZZZZZ	ZZZZZ	02/26/10	2153	2.88	8.10
25	ZZZZZ	ZZZZZ	02/26/10	2210	2.88	8.10
26	ZZZZZ	ZZZZZ	02/26/10	2227	2.88	8.10
27	ZZZZZ	ZZZZZ	02/26/10	2244	2.88	8.10
28	ZZZZZ	ZZZZZ	02/26/10	2301	2.88	8.10
29	ZZZZZ	ZZZZZ	02/26/10	2318	2.88	8.10
30	INDAB03	WPE100211-10	02/26/10	2335	2.88	8.10
31	PIBLK04	WAR100219-99	02/26/10	2353	2.88	8.10
32	PEM02	WPE100211-99	02/27/10	0010	2.88	8.10

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

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PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 02/25/10

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THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.88 DCB: 8.10

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PBLK01	1202054045	02/27/10	0027	2.88	8.10
02	PBLK01LCS	1202054046	02/27/10	0044	2.88	8.10
03	PBLK01TLCS	1202054049	02/27/10	0101	2.88	8.10
04	ZZZZZ	ZZZZZ	02/27/10	0118	2.88	8.10
05	ZZZZZ	ZZZZZ	02/27/10	0135	2.88	8.10
06	ZZZZZ	ZZZZZ	02/27/10	0152	2.88	8.10
07	CAPA-10-13095	247828004	02/27/10	0209	2.88	8.10
08	ZZZZZ	ZZZZZ	02/27/10	0226	2.88	8.11
09	ZZZZZ	ZZZZZ	02/27/10	0243	2.88	8.11
10	ZZZZZ	ZZZZZ	02/27/10	0300	2.88	8.11
11	PIBLK05	WAR100219-99	02/27/10	0317	2.88	8.10
12	INDAB04	WPE100211-10	02/27/10	0334	2.88	8.10
13	PIBLK06	WAR100219-99	02/27/10	0351	2.88	8.10
14	ZZZZZ	ZZZZZ	02/27/10	0408	2.88	8.10
15	ZZZZZ	ZZZZZ	02/27/10	0425	2.88	8.10
16	ZZZZZ	ZZZZZ	02/27/10	0442	2.88	8.10
17	ZZZZZ	ZZZZZ	02/27/10	0459	2.88	8.10
18	ZZZZZ	ZZZZZ	02/27/10	0516	2.88	8.10
19	ZZZZZ	ZZZZZ	02/27/10	0533	2.88	8.10
20	INDAB05	WPE100211-10	02/27/10	0550	2.88	8.10
21	PIBLK07	WAR100219-99	02/27/10	0607	2.88	8.10
22	ZZZZZ	ZZZZZ	02/27/10	0624	2.88	8.10
23	ZZZZZ	ZZZZZ	02/27/10	0641	2.88	8.10
24	ZZZZZ	ZZZZZ	02/27/10	0658	2.88	8.10
25	ZZZZZ	ZZZZZ	02/27/10	0715	2.88	8.10
26	ZZZZZ	ZZZZZ	02/27/10	0732	2.88	8.10
27	ZZZZZ	ZZZZZ	02/27/10	0749	2.88	8.10
28	INDAB06	WPE100211-10	02/27/10	0806	2.88	8.10
29	PIBLK08	WAR100219-99	02/27/10	0823	2.88	8.10
30	ZZZZZ	ZZZZZ	02/27/10	0840	2.88	8.10
31	ZZZZZ	ZZZZZ	02/27/10	0857	2.88	8.10
32	ZZZZZ	ZZZZZ	02/27/10	0914	2.88	8.10

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 02/25/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.19 DCB: 9.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/26/10	1521	3.20	9.30
02	PEM01	WPE100211-99	02/26/10	1538	3.19	9.30
03	INDAB01	WPE100211-10	02/26/10	1555	3.19	9.30
04	TOXAPH01	WPE100125-52	02/26/10	1612		
05	CHLOR01	WPE100116-00	02/26/10	1629	3.19	9.30
06	GAPA01	WPE100114-05	02/26/10	1646	3.20	9.30
07	PIBLK02	WAR100219-99	02/26/10	1703	3.19	9.30
08	ZZZZZ	ZZZZZ	02/26/10	1720	3.20	9.30
09	ZZZZZ	ZZZZZ	02/26/10	1737	3.20	9.30
10	ZZZZZ	ZZZZZ	02/26/10	1754	3.20	9.30
11	ZZZZZ	ZZZZZ	02/26/10	1811	3.20	9.30
12	ZZZZZ	ZZZZZ	02/26/10	1828	3.20	9.30
13	ZZZZZ	ZZZZZ	02/26/10	1846	3.20	9.30
14	ZZZZZ	ZZZZZ	02/26/10	1903	3.20	9.30
15	ZZZZZ	ZZZZZ	02/26/10	1920	3.20	9.30
16	ZZZZZ	ZZZZZ	02/26/10	1937	3.20	9.30
17	ZZZZZ	ZZZZZ	02/26/10	1954	3.20	9.30
18	INDAB02	WPE100211-10	02/26/10	2011	3.19	9.30
19	PIBLK03	WAR100219-99	02/26/10	2028	3.19	9.30
20	ZZZZZ	ZZZZZ	02/26/10	2045	3.20	9.30
21	ZZZZZ	ZZZZZ	02/26/10	2102	3.20	9.30
22	ZZZZZ	ZZZZZ	02/26/10	2119	3.20	9.30
23	ZZZZZ	ZZZZZ	02/26/10	2136	3.20	9.30
24	ZZZZZ	ZZZZZ	02/26/10	2153	3.19	9.30
25	ZZZZZ	ZZZZZ	02/26/10	2210	3.20	9.30
26	ZZZZZ	ZZZZZ	02/26/10	2227	3.20	9.30
27	ZZZZZ	ZZZZZ	02/26/10	2244	3.20	9.30
28	ZZZZZ	ZZZZZ	02/26/10	2301	3.20	9.30
29	ZZZZZ	ZZZZZ	02/26/10	2318	3.20	9.30
30	INDAB03	WPE100211-10	02/26/10	2335	3.19	9.30
31	PIBLK04	WAR100219-99	02/26/10	2353	3.19	9.30
32	PEM02	WPE100211-99	02/27/10	0010	3.19	9.30

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 02/25/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.19 DCB: 9.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PBLK01	1202054045	02/27/10	0027	3.19	9.30
02	PBLK01LCS	1202054046	02/27/10	0044	3.19	9.30
03	PBLK01TLCS	1202054049	02/27/10	0101	3.19	9.30
04	ZZZZZ	ZZZZZ	02/27/10	0118	3.20	9.30
05	ZZZZZ	ZZZZZ	02/27/10	0135	3.20	9.32
06	ZZZZZ	ZZZZZ	02/27/10	0152	3.20	9.30
07	CAPA-10-13095	247828004	02/27/10	0209	3.20	9.30
08	ZZZZZ	ZZZZZ	02/27/10	0226	3.20	9.31
09	ZZZZZ	ZZZZZ	02/27/10	0243	3.20	9.31
10	ZZZZZ	ZZZZZ	02/27/10	0300	3.20	9.31
11	PIBLK05	WAR100219-99	02/27/10	0317	3.20	9.30
12	INDAB04	WPE100211-10	02/27/10	0334	3.20	9.30
13	PIBLK06	WAR100219-99	02/27/10	0351	3.20	9.30
14	ZZZZZ	ZZZZZ	02/27/10	0408	3.19	9.30
15	ZZZZZ	ZZZZZ	02/27/10	0425	3.19	9.30
16	ZZZZZ	ZZZZZ	02/27/10	0442	3.20	9.30
17	ZZZZZ	ZZZZZ	02/27/10	0459	3.20	9.30
18	ZZZZZ	ZZZZZ	02/27/10	0516	3.19	9.30
19	ZZZZZ	ZZZZZ	02/27/10	0533	3.19	9.30
20	INDAB05	WPE100211-10	02/27/10	0550	3.19	9.30
21	PIBLK07	WAR100219-99	02/27/10	0607	3.19	9.30
22	ZZZZZ	ZZZZZ	02/27/10	0624	3.19	9.30
23	ZZZZZ	ZZZZZ	02/27/10	0641	3.20	9.30
24	ZZZZZ	ZZZZZ	02/27/10	0658	3.19	9.30
25	ZZZZZ	ZZZZZ	02/27/10	0715	3.19	9.30
26	ZZZZZ	ZZZZZ	02/27/10	0732	3.19	9.30
27	ZZZZZ	ZZZZZ	02/27/10	0749	3.19	9.30
28	INDAB06	WPE100211-10	02/27/10	0806	3.20	9.30
29	PIBLK08	WAR100219-99	02/27/10	0823	3.19	9.30
30	ZZZZZ	ZZZZZ	02/27/10	0840	3.20	9.30
31	ZZZZZ	ZZZZZ	02/27/10	0857	3.19	9.30
32	ZZZZZ	ZZZZZ	02/27/10	0914	3.19	9.30

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10-2000 **Client ID:** LCS for batch 957866

Lab Sample ID: 1202054046

Data File: 034f3401.d **Data File:** 034b3401.d

Inst: ECD7A.I_1 **Inst:** ECD7A.I_2

Column: CLP-1 **Column:** CLP-2

Analyzed: 27-FEB-10 00:44 **Analyzed:** 27-FEB-10 00:44

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha-BHC							2.25
Column 1	1	3.3	3.27 – 3.33	.387		ug/L	
Column 2	1	3.72	3.69 – 3.75	.396		ug/L	
gamma-BHC (Lindane)							1.79
Column 1	1	3.55	3.52 – 3.58	.393		ug/L	
Column 2	1	4.05	4.02 – 4.08	.4		ug/L	
beta-BHC							2.05
Column 1	1	3.61	3.58 – 3.64	.376		ug/L	
Column 2	1	4.11	4.08 – 4.14	.384		ug/L	
delta-BHC							4.04
Column 1	1	3.77	3.74 – 3.8	.391		ug/L	
Column 2	1	4.4	4.37 – 4.43	.408		ug/L	
Heptachlor							1.03
Column 1	1	3.94	3.91 – 3.97	.327		ug/L	
Column 2	1	4.48	4.46 – 4.52	.331		ug/L	

Identification Summary

SDG Number: 10–2000 **Client ID:** LCS for batch 957866

Lab Sample ID: 1202054046

Data File:	034f3401.d	**Data File:**	034b3401.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	27–FEB–10 00:44	**Analyzed:**	27–FEB–10 00:44

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							.311
Column 1	1	4.21	4.18 – 4.24	.277		ug/L	
Column 2	1	4.82	4.79 – 4.85	.278		ug/L	
Heptachlor epoxide							.488
Column 1	1	4.76	4.73 – 4.79	.371		ug/L	
Column 2	1	5.39	5.36 – 5.42	.369		ug/L	
gamma–Chlordane							2.35
Column 1	1	4.87	4.84 – 4.9	.339		ug/L	
Column 2	1	5.58	5.55 – 5.61	.348		ug/L	
alpha–Chlordane							.523
Column 1	1	5	4.97 – 5.03	.353		ug/L	
Column 2	1	5.73	5.7 – 5.76	.354		ug/L	
Endosulfan I							.235
Column 1	1	5.13	5.11 – 5.17	.372		ug/L	
Column 2	1	5.8	5.77 – 5.83	.373		ug/L	

Identification Summary

SDG Number: 10–2000

Lab Sample ID: 1202054046

Client ID: LCS for batch 957866

Data File:	034f3401.d	**Data File:**	034b3401.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	27–FEB–10 00:44	**Analyzed:**	27–FEB–10 00:44

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE								2.81
	Column 1	1	5.06	5.03 – 5.09	.89		ug/L	
	Column 2	1	5.88	5.85 – 5.91	.915		ug/L	
Dieldrin								2.1
	Column 1	1	5.37	5.34 – 5.4	.893		ug/L	
	Column 2	1	6.09	6.06 – 6.12	.912		ug/L	
Endrin								.273
	Column 1	1	5.6	5.57 – 5.63	1.04		ug/L	
	Column 2	1	6.42	6.39 – 6.45	1.04		ug/L	
4,4'–DDD								.546
	Column 1	1	5.65	5.62 – 5.68	1.02		ug/L	
	Column 2	1	6.5	6.47 – 6.53	1.02		ug/L	
Endosulfan II								.439
	Column 1	1	5.82	5.8 – 5.86	.935		ug/L	
	Column 2	1	6.65	6.62 – 6.68	.939		ug/L	

Identification Summary

SDG Number: 10–2000 **Client ID:** LCS for batch 957866

Lab Sample ID: 1202054046

Data File:	034f3401.d	**Data File:**	034b3401.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	27–FEB–10 00:44	**Analyzed:**	27–FEB–10 00:44

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							2.46
Column 1	1	6.25	6.22 – 6.28	.863		ug/L	
Column 2	1	7.01	6.98 – 7.04	.885		ug/L	
4,4'–DDT							1.08
Column 1	1	5.93	5.91 – 5.97	.976		ug/L	
Column 2	1	6.85	6.82 – 6.88	.987		ug/L	
Endosulfan sulfate							.887
Column 1	1	6.71	6.68 – 6.74	.964		ug/L	
Column 2	1	7.31	7.28 – 7.34	.955		ug/L	
Methoxychlor							6.37
Column 1	1	6.44	6.41 – 6.47	3.79		ug/L	
Column 2	1	7.59	7.57 – 7.63	4.03		ug/L	
Endrin ketone							.753
Column 1	1	7.01	6.98 – 7.04	.909		ug/L	
Column 2	1	7.92	7.89 – 7.95	.903		ug/L	

Identification Summary

SDG Number: **10–2000**

Lab Sample ID: **1202054049**

Client ID: **LCS for batch 957866**

Data File: **035f3501.d**
Inst: **ECD7A.I_1**
Column: **CLP–1**
Analyzed: **27–FEB–10 01:01**

Data File: **035b3501.d**
Inst: **ECD7A.I_2**
Column: **CLP–2**
Analyzed: **27–FEB–10 01:01**

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Toxaphene							25.7
Column 1	1	5.26	5.24 – 5.3	1.73		ug/L	
	2	5.37	5.34 – 5.4	2.02		ug/L	
	3	5.46	5.43 – 5.49	1.92		ug/L	
	4	5.52	5.49 – 5.55	2.02		ug/L	
	5	5.62	5.59 – 5.65	2.04		ug/L	
					1.95		
Column 2	1	6.06	6.02 – 6.08	2.92		ug/L	
	2	6.12	6.09 – 6.15	2.41		ug/L	
	3	6.19	6.16 – 6.22	2.56		ug/L	
	4	6.25	6.22 – 6.28	2.27		ug/L	
	5	6.38	6.35 – 6.41	2.45		ug/L	
					2.52		

QUALITY CONTROL DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2000**			**Matrix:**	**WATER**
Lab Sample ID:	**1202054045**				
Client Sample:	**QC for batch 957866**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 957866**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**957867**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 00:27**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/26/2010 14:34**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**033f3301.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	033b3301.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.020	ug/L	0.005	0.020	1
58–89–9	gamma–BHC (Lindane)	U	0.020	ug/L	0.005	0.020	1
319–85–7	beta–BHC	U	0.020	ug/L	0.006	0.020	1
319–86–8	delta–BHC	U	0.020	ug/L	0.005	0.020	1
76–44–8	Heptachlor	U	0.020	ug/L	0.005	0.020	1
309–00–2	Aldrin	U	0.020	ug/L	0.005	0.020	1
1024–57–3	Heptachlor epoxide	U	0.020	ug/L	0.005	0.020	1
5103–74–2	gamma–Chlordane	U	0.020	ug/L	0.005	0.020	1
5103–71–9	alpha–Chlordane	U	0.020	ug/L	0.005	0.020	1
959–98–8	Endosulfan I	U	0.020	ug/L	0.005	0.020	1
72–55–9	4,4'–DDE	U	0.040	ug/L	0.005	0.040	1
60–57–1	Dieldrin	U	0.040	ug/L	0.010	0.040	1
72–20–8	Endrin	U	0.040	ug/L	0.010	0.040	1
72–54–8	4,4'–DDD	U	0.040	ug/L	0.010	0.040	1
33213–65–9	Endosulfan II	U	0.040	ug/L	0.010	0.040	1
7421–93–4	Endrin aldehyde	U	0.040	ug/L	0.005	0.040	1
50–29–3	4,4'–DDT	U	0.040	ug/L	0.010	0.040	1
1031–07–8	Endosulfan sulfate	U	0.040	ug/L	0.010	0.040	1
72–43–5	Methoxychlor	U	0.200	ug/L	0.050	0.200	1
53494–70–5	Endrin ketone	U	0.040	ug/L	0.010	0.040	1
8001–35–2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.544	1.00	ug/L	54.4	(30%–105%)
Decachlorobiphenyl	0.566	1.00	ug/L	56.6	(30%–126%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022610.b/033f330110-2000.d
Lab Smp Id: 1202054045 Client Smp ID: PBLK01
Inj Date : 27-FEB-2010 00:27
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202054045|1|
Misc Info : |ECD81A_1L|957867|SVP|MB|WATER|MB|||
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 33 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2000.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.877	2.879	-0.002	88865264	108.806	0.544	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.101	8.102	-0.001	69727684	117.210	0.586	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/033f330110-2000.d

Page 1

Date : 27-FEB-2010 00:27

Client ID: PBLK01

Instrument: ecd7a.i

Sample Info: |1202054045|1|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

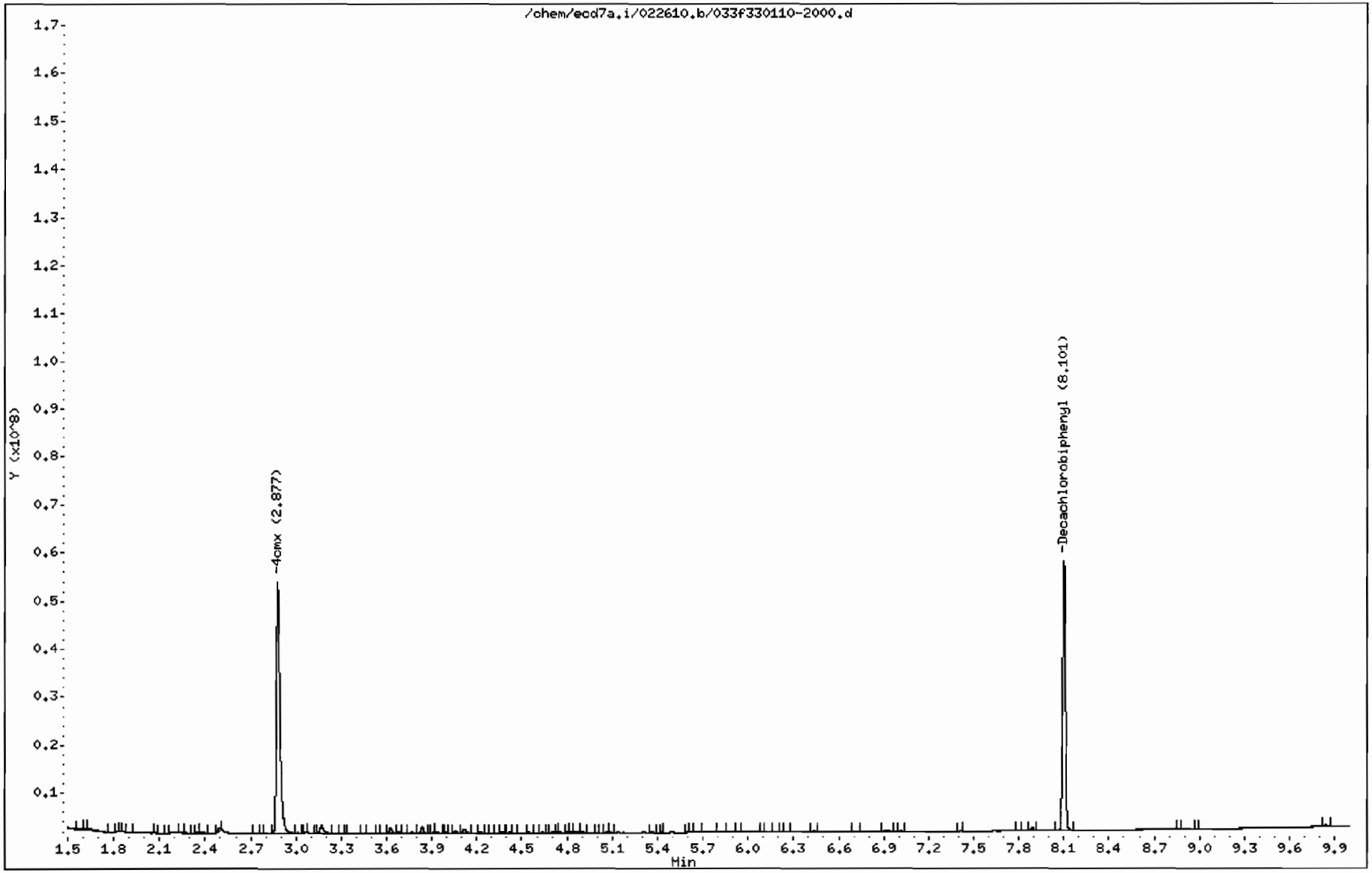

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022610.b/033b330110-2000.d
Lab Smp Id: 1202054045 Client Smp ID: PBLK01
Inj Date : 27-FEB-2010 00:27
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202054045|1|
Misc Info : |ECD81A_1L|957867|SVP|MB|WATER|MB|||
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 33 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2000.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.193	3.195	-0.002	67504688	112.743	0.564	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.299	9.300	-0.001	42394352	113.211	0.566	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/033b330110-2000.d

Page 1

Date : 27-FEB-2010 00:27

Client ID: PBLK01

Instrument: ecd7a.i

Sample Info: |120205404511|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

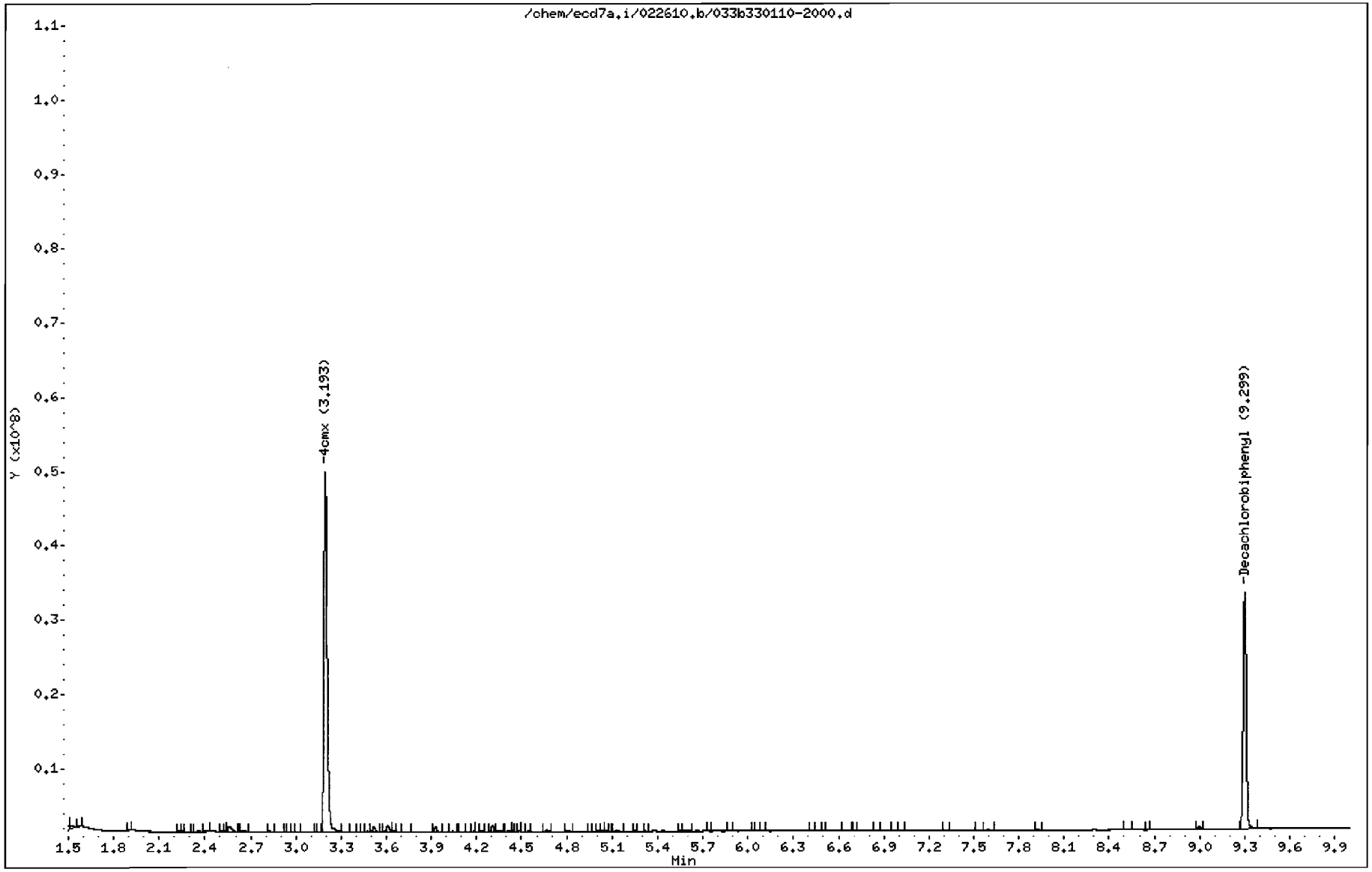

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**			**Matrix:**	**WATER**
Lab Sample ID:	**1202054046**				
Client Sample:	**QC for batch 957866**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 957866**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**957867**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 00:44**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/26/2010 14:34**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**034f3401.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	034b3401.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC		0.387	ug/L	0.005	0.020	1
58-89-9	gamma-BHC (Lindane)		0.393	ug/L	0.005	0.020	1
319-85-7	beta-BHC		0.376	ug/L	0.006	0.020	1
319-86-8	delta-BHC		0.391	ug/L	0.005	0.020	1
76-44-8	Heptachlor		0.327	ug/L	0.005	0.020	1
309-00-2	Aldrin		0.277	ug/L	0.005	0.020	1
1024-57-3	Heptachlor epoxide		0.369	ug/L	0.005	0.020	2
5103-74-2	gamma-Chlordane		0.339	ug/L	0.005	0.020	1
5103-71-9	alpha-Chlordane		0.353	ug/L	0.005	0.020	1
959-98-8	Endosulfan I		0.372	ug/L	0.005	0.020	1
72-55-9	4,4'-DDE		0.890	ug/L	0.005	0.040	1
60-57-1	Dieldrin		0.893	ug/L	0.010	0.040	1
72-20-8	Endrin		1.04	ug/L	0.010	0.040	2
72-54-8	4,4'-DDD		1.02	ug/L	0.010	0.040	2
33213-65-9	Endosulfan II		0.935	ug/L	0.010	0.040	1
7421-93-4	Endrin aldehyde		0.863	ug/L	0.005	0.040	1
50-29-3	4,4'-DDT		0.976	ug/L	0.010	0.040	1
1031-07-8	Endosulfan sulfate		0.955	ug/L	0.010	0.040	2
72-43-5	Methoxychlor		3.79	ug/L	0.050	0.200	1
53494-70-5	Endrin ketone		0.903	ug/L	0.010	0.040	2
8001-35-2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
4cmx	0.449	1.00	ug/L	44.9	(30%-105%)
Decachlorobiphenyl	0.679	1.00	ug/L	67.9	(30%-126%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022610.b/034f340110-2000.d
Lab Smp Id: 1202054046 Client Smp ID: PBLK01LCS
Inj Date : 27-FEB-2010 00:44
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202054046|1|
Misc Info : |ECD81A_1L|957867|SVP|LCS|WATER|LCS|||
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 34 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2000.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.877	2.879	-0.002	73326138	89.7804	0.449	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.101	8.102	-0.001	83665130	140.638	0.703	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.296	3.298	-0.002	90117062	77.4572	0.387	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.548	3.549	-0.001	82199280	78.5991	0.393	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.613	3.614	-0.001	35399356	75.2134	0.376	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.767	3.768	-0.001	81877445	78.2849	0.391	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.943	3.945	-0.002	54673163	65.4926	0.327	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.208	4.210	-0.002	54925178	55.3446	0.277	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.755	4.757	-0.002	65300936	74.1156	0.370	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.872	4.874	-0.002	59458072	67.8940	0.339	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.997	4.999	-0.002	61639567	70.5249	0.353	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.134	5.135	-0.001	59192473	74.3832	0.372	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.060	5.062	-0.002	143175758	177.924	0.890	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.365	5.367	-0.002	151528691	178.673	0.893	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.598	5.600	-0.002	140991538	207.923	1.04	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.650	5.653	-0.003	130035651	204.659	1.02	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.824	5.826	-0.002	136802807	187.067	0.935	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.252	6.255	-0.003	107603559	172.692	0.863	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.934	5.937	-0.003	116256125	195.210	0.976	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.708	6.711	-0.003	124583655	192.756	0.964	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.435	6.438	-0.003	202043863	757.102	3.78	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.012	7.014	-0.002	150511485	181.897	0.909	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/034f340110-2000.d
Date : 27-FEB-2010 00:44
Client ID: PBLK01LCS
Sample Info: 1120205404611
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

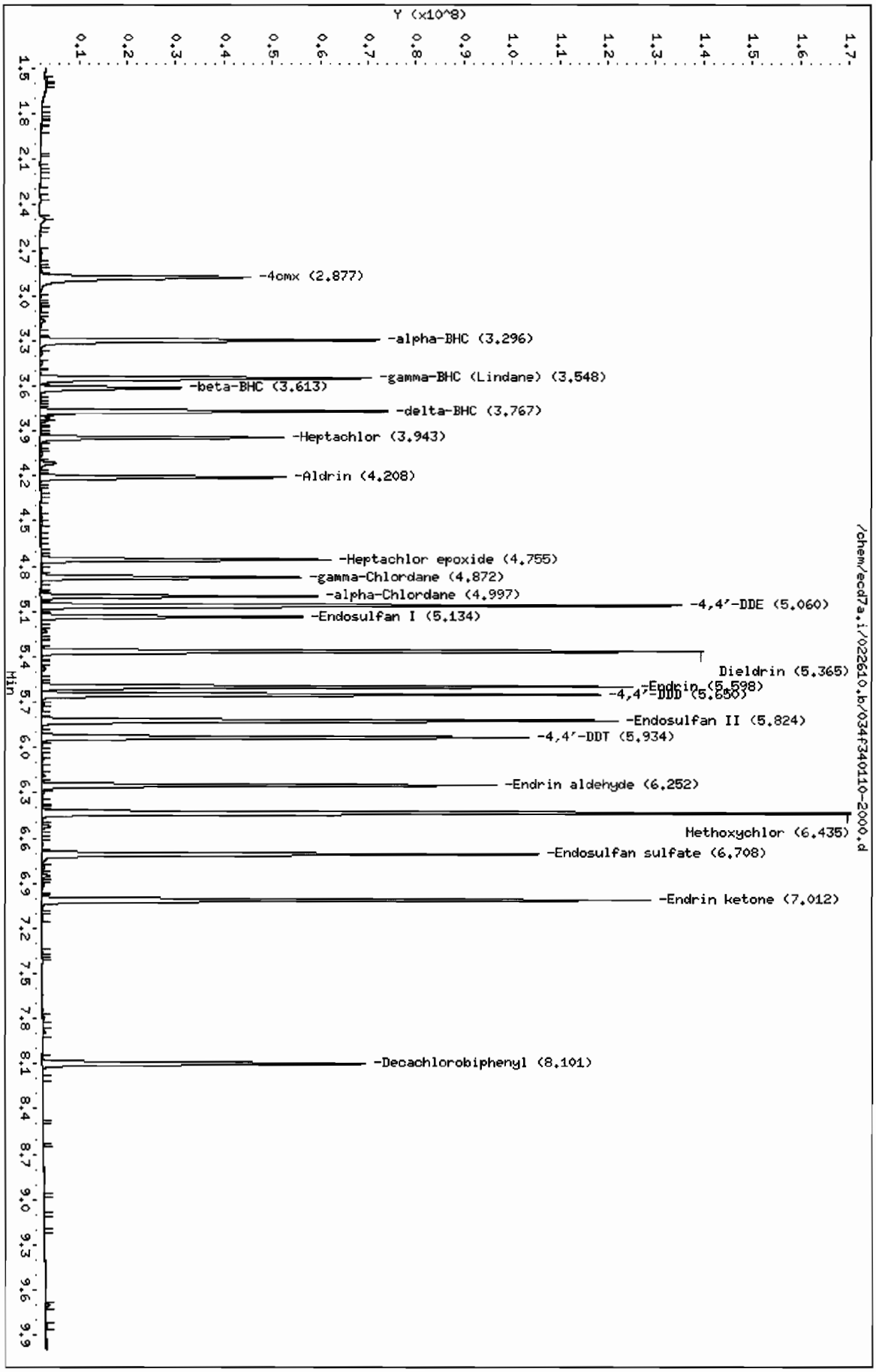

Page 1

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022610.b/034b340110-2000.d
Lab Smp Id: 1202054046 Client Smp ID: PBLK01LCS
Inj Date : 27-FEB-2010 00:44
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202054046|1|
Misc Info : |ECD81A_1L|957867|SVP|LCS|WATER|LCS|||
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 34 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2000.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.193	3.195	-0.002	56160143	93.7962	0.469	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.299	9.300	-0.001	50821786	135.716	0.678	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.720	3.721	-0.001	62241147	79.2221	0.396	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.049	4.050	-0.001	55057785	80.0158	0.400	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
4.113	4.114	-0.001	24869437	76.7723	0.384	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.403	4.404	-0.001	56150326	81.5138	0.408	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.485	4.486	-0.001	33027514	66.1719	0.331	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.816	4.817	-0.001	37362733	55.5169	0.278	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.385	5.386	-0.001	42328029	73.7551	0.369	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.582	5.583	-0.001	40874785	69.5067	0.348	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.732	5.734	-0.002	41691045	70.8948	0.354	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.802	5.804	-0.002	39378298	74.5584	0.373	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.883	5.884	-0.001	95413083	182.995	0.915	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.091	6.092	-0.001	94500771	182.462	0.912	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.421	6.422	-0.001	83693936	207.356	1.04	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.503	6.504	-0.001	77270233	203.544	1.02	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.646	6.647	-0.001	89572359	187.890	0.939	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.007	7.008	-0.001	67932028	177.000	0.885	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.849	6.850	-0.001	62983279	197.325	0.987	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.313	7.313	0.000	79647320	191.055	0.955	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.594	7.596	-0.002	109478029	806.948	4.03	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.924	7.924	0.000	90669375	180.532	0.903	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/034b340110-2000.d
Date : 27-FEB-2010 00:44
Client ID: PBLK01LCS
Sample Info: 1120205404611
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

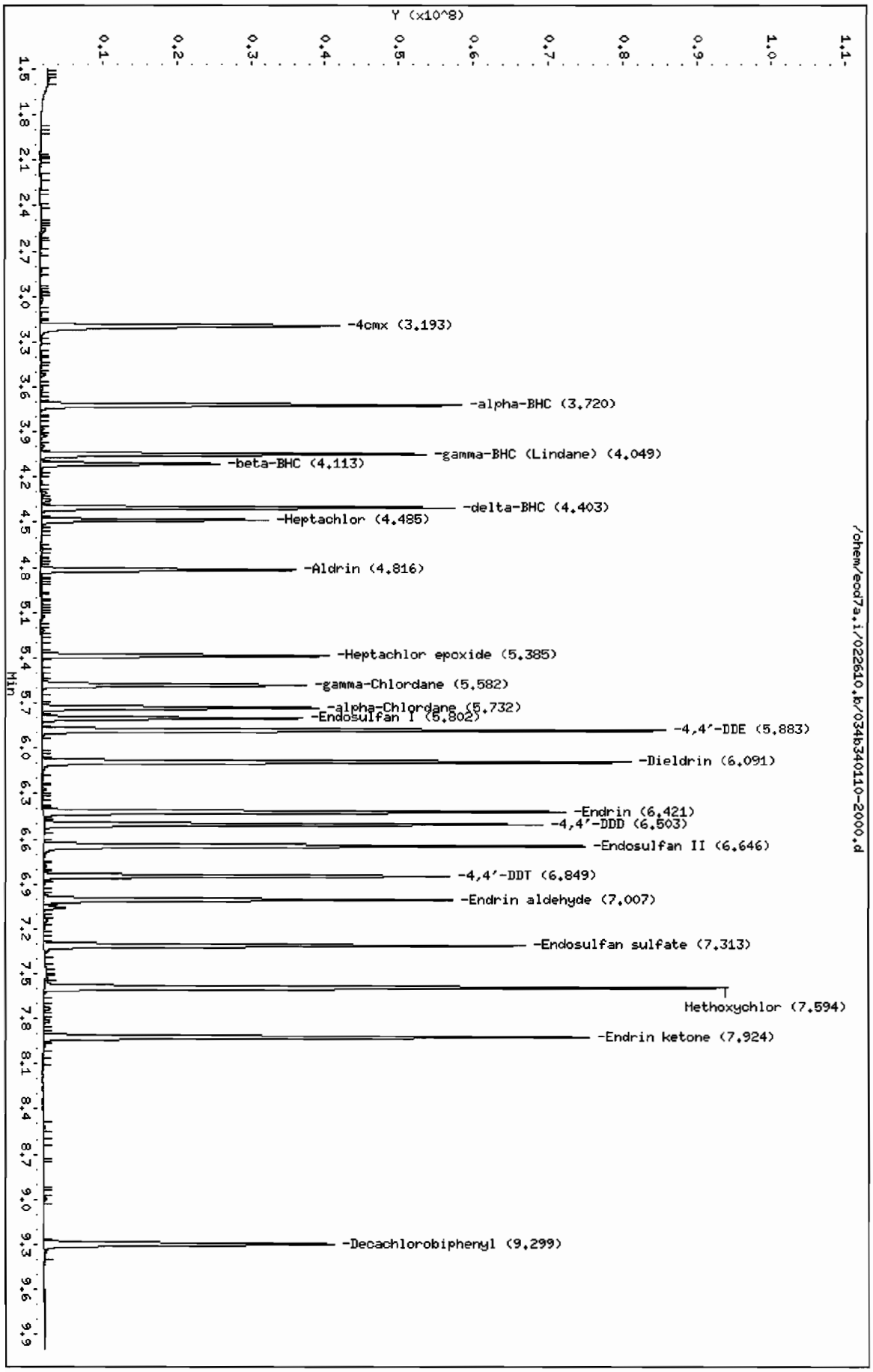

Page 1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-2000			**Matrix:**	WATER
Lab Sample ID:	1202054049				
Client Sample:	QC for batch 957866	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 957866	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	957867	**Inst:**	ECD7A.I	**Dilution:**	1
Run Date:	02/27/2010 01:01	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	02/26/2010 14:34	**Aliquot:**	1000 mL	**Final Volume:**	5 mL
Data File:	035f3501.d	**Column:**	1 CLP-1	**Level:**	LOW
	035b3501.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.020	ug/L	0.005	0.020	1
58-89-9	gamma-BHC (Lindane)	U	0.020	ug/L	0.005	0.020	1
319-85-7	beta-BHC	U	0.020	ug/L	0.006	0.020	1
319-86-8	delta-BHC	U	0.020	ug/L	0.005	0.020	1
76-44-8	Heptachlor	U	0.020	ug/L	0.005	0.020	1
309-00-2	Aldrin	U	0.020	ug/L	0.005	0.020	1
1024-57-3	Heptachlor epoxide	U	0.020	ug/L	0.005	0.020	1
5103-74-2	gamma-Chlordane	U	0.020	ug/L	0.005	0.020	1
5103-71-9	alpha-Chlordane	U	0.020	ug/L	0.005	0.020	1
959-98-8	Endosulfan I	U	0.020	ug/L	0.005	0.020	1
72-55-9	4,4'-DDE	U	0.040	ug/L	0.005	0.040	1
60-57-1	Dieldrin	U	0.040	ug/L	0.010	0.040	1
72-20-8	Endrin	U	0.040	ug/L	0.010	0.040	1
72-54-8	4,4'-DDD	U	0.040	ug/L	0.010	0.040	1
33213-65-9	Endosulfan II	U	0.040	ug/L	0.010	0.040	1
7421-93-4	Endrin aldehyde	U	0.040	ug/L	0.005	0.040	1
50-29-3	4,4'-DDT	U	0.040	ug/L	0.010	0.040	1
1031-07-8	Endosulfan sulfate	U	0.040	ug/L	0.010	0.040	1
72-43-5	Methoxychlor	U	0.200	ug/L	0.050	0.200	1
53494-70-5	Endrin ketone	U	0.040	ug/L	0.010	0.040	1
8001-35-2	Toxaphene		1.95	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.452	1.00	ug/L	45.2	(30%-105%)
Decachlorobiphenyl	0.594	1.00	ug/L	59.4	(30%-126%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022610.b/035f350110-2000.d
Lab Smp Id: 1202054049 Client Smp ID: PBLK01TLCS
Inj Date : 27-FEB-2010 01:01
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202054049|1|
Misc Info : |ECD81A_1L|957867|SVP|TLCS|WATER|TLCS|||
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 35 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2000.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.876	2.879	-0.003	73907243	90.4919	0.452	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.100	8.102	-0.002	72255756	121.460	0.607	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.265	5.266	-0.001	2539928	346.289	1.73	80.00- 120.00	100.00
5.370	5.371	-0.001	4206124	403.240	2.02	127.30- 167.30	165.60
5.458	5.459	-0.001	4675841	384.120	1.92	151.29- 191.29	184.09
5.520	5.519	0.001	6435127	404.933	2.02	202.81- 242.81	253.36
5.618	5.621	-0.003	6342807	408.133	2.04	171.97- 211.97	249.72

Average of Peak Concentrations = 1.95

Data File: /chem/ecd7a.i/022610.b/035f350110-2000.d

Date : 27-FEB-2010 01:01

Client ID: PBLK01TLCS

Instrument: ecd7a.i

Sample Info: |120205404911|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

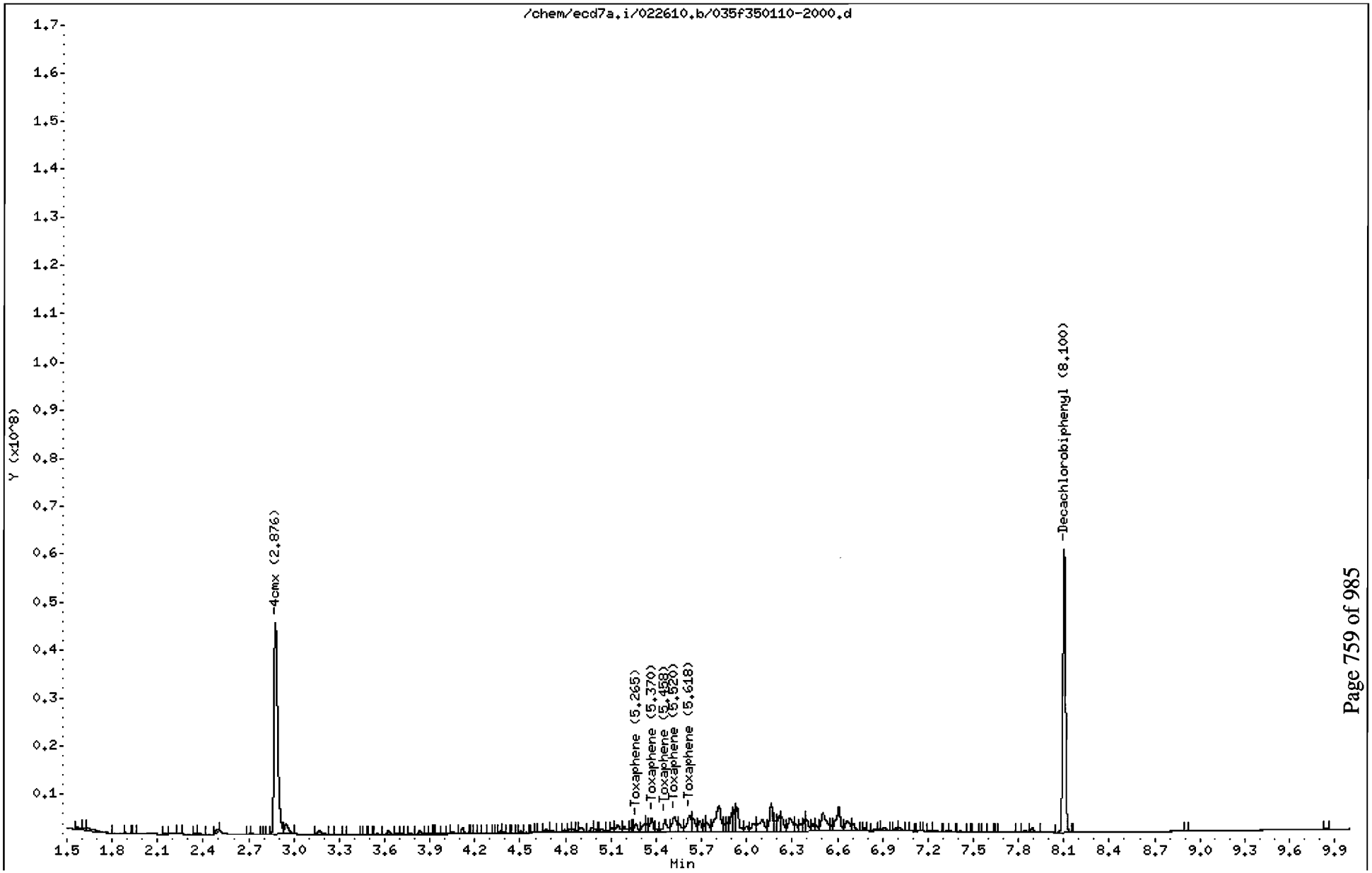

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022610.b/035b350110-2000.d
Lab Smp Id: 1202054049 Client Smp ID: PBLK01TLCS
Inj Date : 27-FEB-2010 01:01
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202054049|1|
Misc Info : |ECD81A_1L|957867|SVP|TLCS|WATER|TLCS|||
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 35 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2000.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.193	3.195	-0.002	57140829	95.4341	0.477	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.299	9.300	-0.001	44451932	118.706	0.594	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
6.057	6.054	0.003	5694038	584.906	2.92	80.00- 120.00	100.00(M)
6.123	6.123	0.000	2116915	481.849	2.41	18.22- 58.22	37.18
6.186	6.187	-0.001	2551923	511.304	2.56	32.72- 72.72	44.82
6.249	6.249	0.000	2604671	453.773	2.27	36.53- 76.53	45.74
6.380	6.381	-0.001	3773728	489.085	2.44	57.58- 97.58	66.28

Average of Peak Concentrations = 2.52

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022610.b/035b350110-2000.d

Page 1

Date : 27-FEB-2010 01:01

Client ID: PBLK01TLCS

Instrument: ecd7a.i

Sample Info: |120205404911|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

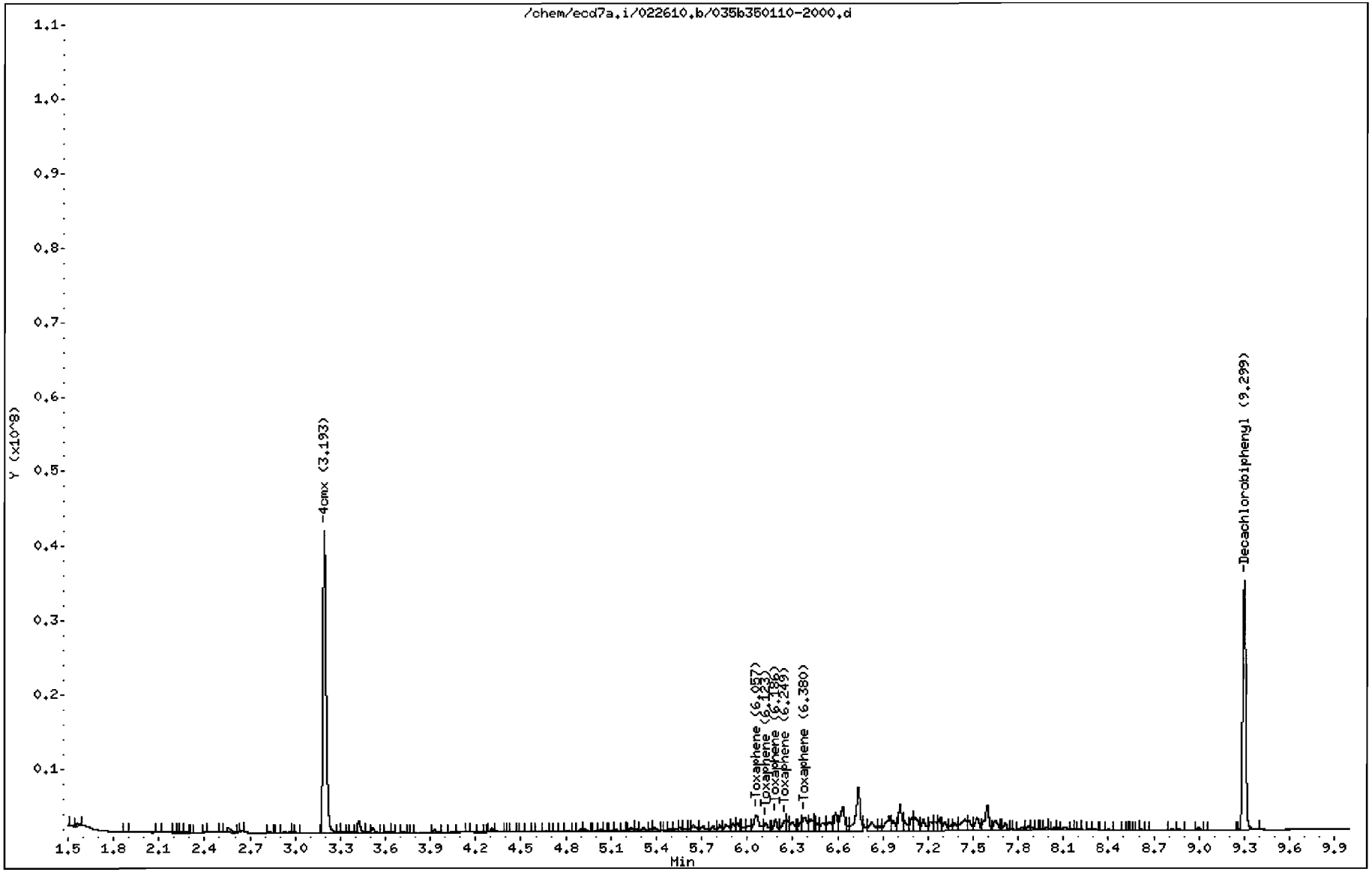

Comment: Manually Integrated
Data File: /chem/ecd7a.i/022610.b/035b350110-2000.d
Operator: HXJ1
Injection Date: 27-FEB-2010 01:01
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS

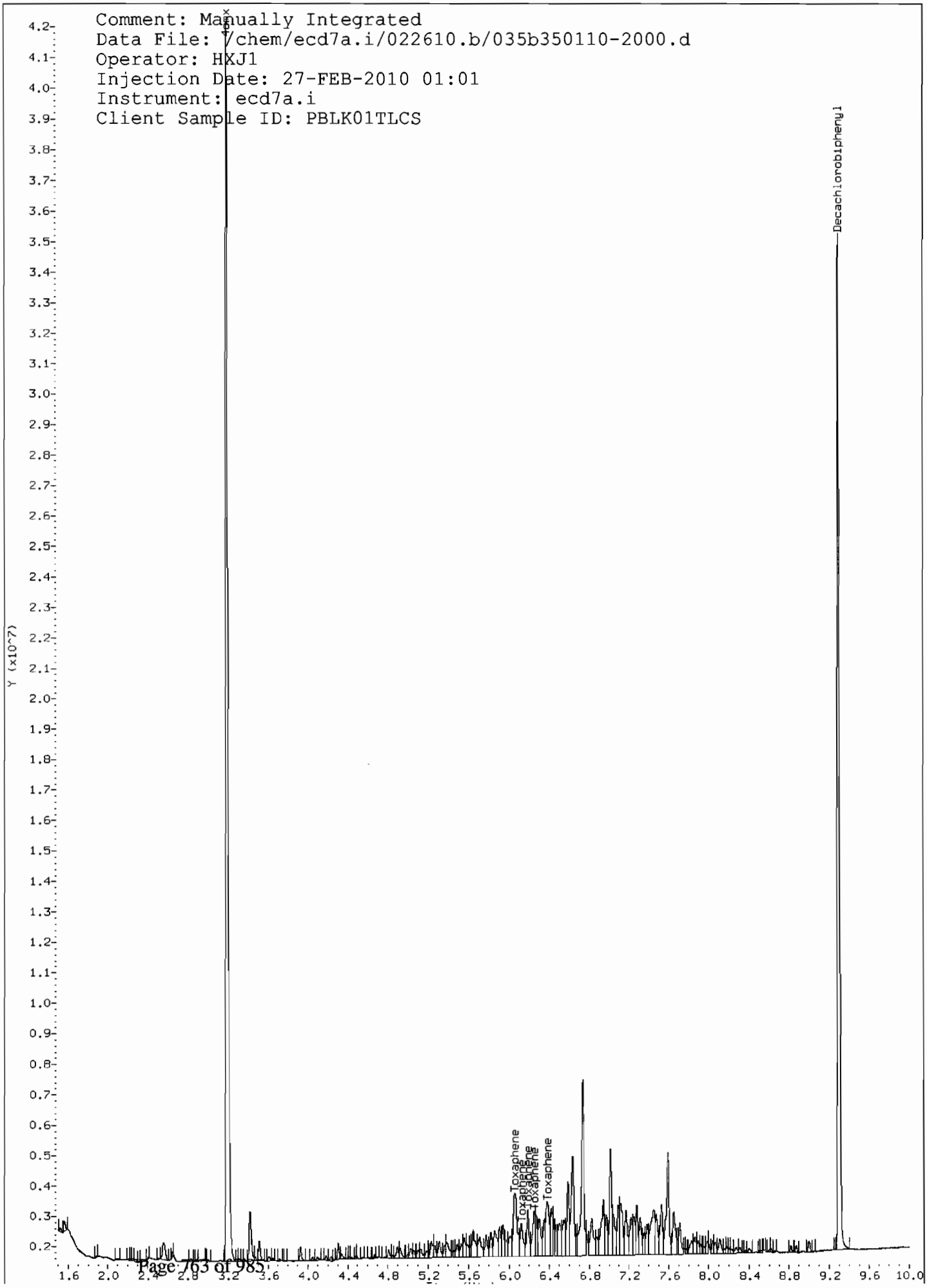

Comment: Before manual integration
Data File: /chem/ecd7a.i/022610.b/orig-035b350110-2000.d
Operator: HXJ1
Injection Date: 27-FEB-2010 01:01
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS

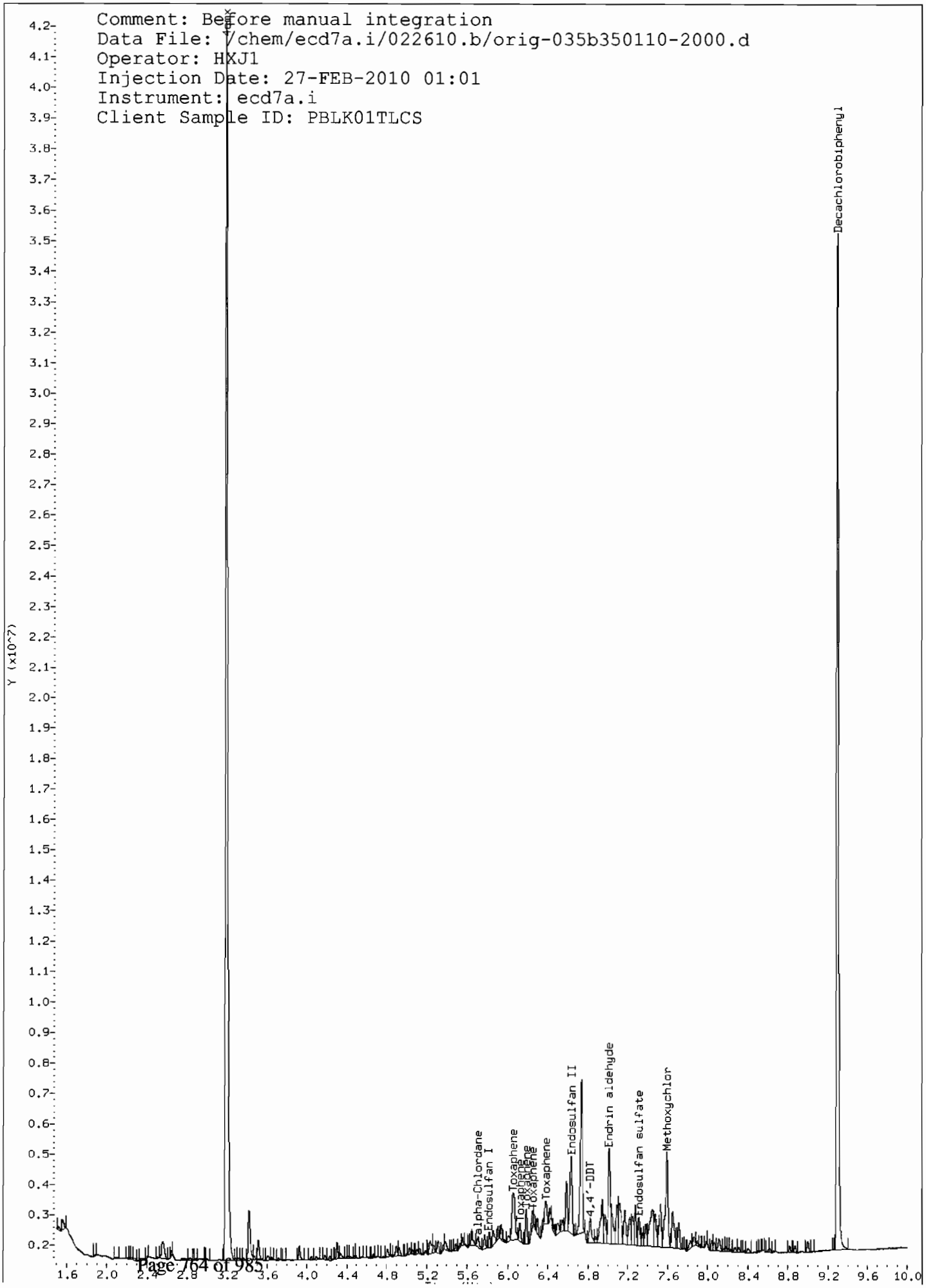

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD7

DATE: 02/24/2010 METHOD: ECD7-B-8081-022310.m OPERATOR:JXM REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT
MERCURY LOT

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-041 Organochlorine Pesticides and Chlorinated Hydrocarbons: EPA 8081
8121
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, BD-Percent Endrin and 4,4'-DDT Breakdown, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd7a.i/022410.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR100219-99IB	JXM	24-FEB-2010 13:59		022410	1.0		CLEAN
002b0201.d	WPE100211-99DG	JXM	24-FEB-2010 14:16		022410	1.0		(B)DDT 5.2, ENDRIN 5.8 (F)DDT 2.7, ENDRIN 4.9
003b0301.d	WPE100211-10AB	JXM	24-FEB-2010 14:33		022410	1.0		DUSE
004b0401.d	WPE100125-52TX	JXM	24-FEB-2010 14:50		022410	1.0		DUSE
005b0501.d	WPE100114-05GA	JXM	24-FEB-2010 15:07		022410	1.0		PASSES FOR CARE
006b0601.d	WPE100116-00CL	JXM	24-FEB-2010 15:24		022410	1.0		DUSE
007b0701.d	WPE100224-01AB	JXM	24-FEB-2010 15:41		022410	1.0		INDAB LEVEL 1
008b0801.d	WPE100224-02AB	JXM	24-FEB-2010 15:58		022410	1.0		INDAB LEVEL 2
009b0901.d	WPE100224-03AB	JXM	24-FEB-2010 16:15		022410	1.0		INDAB LEVEL 3
010b1001.d	WPE100224-04AB	JXM	24-FEB-2010 16:32		022410	1.0		INDAB LEVEL 4
011b1101.d	IPE100204-02AB	JXM	24-FEB-2010 16:49		022410	1.0		INDAB LEVEL 5
012b1201.d	WPE100211-10AB	JXM	24-FEB-2010 17:06		022410	1.0		PASSES BOTH COLUMNS
013b1301.d	WPE100224-11TX	JXM	24-FEB-2010 17:24		022410	1.0		TOXAPH LEVEL 1
014b1401.d	WPE100224-12TX	JXM	24-FEB-2010 17:41		022410	1.0		TOXAPH LEVEL 2
015b1501.d	WPE100224-13TX	JXM	24-FEB-2010 17:58		022410	1.0		TOXAPH LEVEL 3

Instrument Batch: /chem/ecd7a.i/022410.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016b1601.d	WPE100224-14TX	JXM	24-FEB-2010 18:15		022410		1.0		TOXAPH LEVEL 4
017b1701.d	IPE100204-40TX	JXM	24-FEB-2010 18:32		022410		1.0		TOXAPH LEVEL 5
018b1801.d	WPE100125-52TX	JXM	24-FEB-2010 18:49		022410		1.0		PASSES BOTH COLUMNS
019b1901.d	WPE100224-21CL	JXM	24-FEB-2010 19:06		022410		1.0		CHLOR LEVEL 1
020b2001.d	WPE100224-22CL	JXM	24-FEB-2010 19:23		022410		1.0		CHLOR LEVEL 2
021b2101.d	WPE100224-23CL	JXM	24-FEB-2010 19:40		022410		1.0		CHLOR LEVEL 3
022b2201.d	WPE100224-24CL	JXM	24-FEB-2010 19:57		022410		1.0		CHLOR LEVEL 4
023b2301.d	IPE100116-06CL	JXM	24-FEB-2010 20:14		022410		1.0		CHLOR LEVEL 5
024b2401.d	WPE100116-00CL	JXM	24-FEB-2010 20:31		022410		1.0		PASSES BOTH COLUMNS
025b2501.d	WAR100219-99IB	JXM	24-FEB-2010 20:48		022410		1.0		CLEAN
026b2601.d	WPE100211-99DG	JXM	24-FEB-2010 21:05		022410		1.0		(B)DDT 8.0, ENDRIN 7.7 (F)DDT 6.0, ENDRIN 6.5
027b2701.d	1202050661	JXM	24-FEB-2010 21:22	956349	EUI-7516		1.0	MB	USE: HIGHER
028b2801.d	1202050662	JXM	24-FEB-2010 21:39	956349	EUI-7516		1.0	LCS	USE: HIGHER
029b2901.d	1202050663	JXM	24-FEB-2010 21:56	956349	EUI-7516		1.0	LCSD	USE: HIGHER
030b3001.d	247409001	JXM	24-FEB-2010 22:14	956349	EUI-7516		1.0	CARE	USE: HIGHER
031b3101.d	WAR100219-99IB	JXM	24-FEB-2010 22:31		022410		1.0		CLEAN
032b3201.d	WPE100211-10AB	JXM	24-FEB-2010 22:48		022410		1.0		PASSES BOTH COLUMNS
033b3301.d	WAR100219-99IB	JXM	24-FEB-2010 23:05		022410		1.0		CLEAN
034b3401.d	1202048141	JXM	24-FEB-2010 23:22	955272	247009		1.0	MB	USE: HIGHER
035b3501.d	1202048142	JXM	24-FEB-2010 23:39	955272	247009		1.0	LCS	USE: HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	247009002	JXM	24-FEB-2010 23:56	955272	247009	1.0	CLSS	USE: HIGHER
037b3701.d	1202048143	JXM	25-FEB-2010 00:13	955272	247009	1.0	MS	USE: HIGHER
038b3801.d	1202048144	JXM	25-FEB-2010 00:30	955272	247009	1.0	MSD	USE: HIGHER
039b3901.d	247009003	JXM	25-FEB-2010 00:47	955272	247009	1.0	CLSS	USE: HIGHER
040b4001.d	WAR100219-99IB	JXM	25-FEB-2010 01:04		022410	1.0		MATRIX CARRYOVER

041b4101.d	WPE100211-10AB	JXM	25-FEB-2010 01:21		022410		1.0		PASSES BOTH COLUMNS
042b4201.d	WAR100219-99IB	JXM	25-FEB-2010 01:38		022410		1.0		SLIGHT MATRIX CARRYOVER
043b4301.d	245420001	JXM	25-FEB-2010 01:55	955536	NY-330_SHW		5.0	PTQA	USE: HIGHER
044b4401.d	1202048594	JXM	25-FEB-2010 02:12	955536	NY-330_SHW		5.0	DUP	USE: HIGHER
045b4501.d	WAR100219-99IB	JXM	25-FEB-2010 02:29		022410		1.0		SLIGHT MATRIX CARRYOVER
046b4601.d	245420001	JXM	25-FEB-2010 02:46	955536	NY-330_SHW		10.0	SVP	DUSE: WRONG SAMPLE DILUTED AND ANALYZED
047b4701.d	1202048594	JXM	25-FEB-2010 03:03	955536	NY-330_SHW		10.0	SVP	DUSE: WRONG SAMPLE DILUTED AND ANALYZED
048b4801.d	WAR100219-99IB	JXM	25-FEB-2010 03:20		022410		1.0		MATRIX CARRYOVER
049b4901.d	WPE100211-10AB	JXM	25-FEB-2010 03:37		022410		1.0		DDT AND METH. LOW ON FRONT
050b5001.d	WAR100219-99IB	JXM	25-FEB-2010 03:54		022410		1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD7

DATE: 02/25/2010 METHOD: ECD7-B-8081-022310.m OPERATOR:JXM REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT
MERCURY LOT

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-041 Organochlorine Pesticides and Chlorinated Hydrocarbons: EPA 8081
8121
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, BD-Percent Endrin and 4,4'-DDT Breakdown, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd7a.i/022510.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR100219-99IB	JXM	25-FEB-2010 09:58		022510	1.0		CLEAN
002b0201.d	WPE100211-99DG	JXM	25-FEB-2010 10:15		022510	1.0		(B)DDT 4.8, ENDRIN 4.8 (F)DDT 2.3, ENDRIN 3.8
003b0301.d	WPE100211-10AB	JXM	25-FEB-2010 10:32		022510	1.0		DUSE
004b0401.d	WPE100125-52TX	JXM	25-FEB-2010 10:49		022510	1.0		PASSES BOTH COLUMNS
005b0501.d	WPE100116-00CL	JXM	25-FEB-2010 11:06		022510	1.0		PASSES AVERAGE
006b0601.d	WPE100114-05GA	JXM	25-FEB-2010 11:23		022510	1.0		DUSE
007b0701.d	WPE100225-01AB	JXM	25-FEB-2010 11:40		022510	1.0		INDAB LEVEL 1
008b0801.d	WPE100225-02AB	JXM	25-FEB-2010 11:57		022510	1.0		INDAB LEVEL 2
009b0901.d	WPE100225-03AB	JXM	25-FEB-2010 12:14		022510	1.0		INDAB LEVEL 3
010b1001.d	WPE100225-04AB	JXM	25-FEB-2010 12:31		022510	1.0		INDAB LEVEL 4
011b1101.d	IPE100204-02AB	JXM	25-FEB-2010 12:48		022510	1.0		INDAB LEVEL 5
012b1201.d	WPE100211-10AB	JXM	25-FEB-2010 13:05		022510	1.0		PASSES BOTH COLUMNS
013b1301.d	WAR100219-99IB	JXM	25-FEB-2010 13:22		022510	1.0		CLEAN
014b1401.d	1202051332	JXM	25-FEB-2010 13:39	956713	10-1926	1.0	MB	USE: LOWER
015b1501.d	1202051333	JXM	25-FEB-2010 13:56	956713	10-1926	1.0	LCS	USE: LOWER

Instrument Batch: /chem/ecd7a.i/022510.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016b1601.d	1202051336	JXM	25-FEB-2010 14:13	956713	10-1926	1.0	TLCS	USE: LOWER
017b1701.d	247429001	JXM	25-FEB-2010 14:30	956713	10-1926	1.0	LANL	USE: LOWER
018b1801.d	1202051334	JXM	25-FEB-2010 14:47	956713	10-1926	1.0	MS	USE: LOWER
019b1901.d	1202051335	JXM	25-FEB-2010 15:04	956713	10-1926	1.0	MSD	USE: LOWER
020b2001.d	247432002	JXM	25-FEB-2010 15:21	956713	10-1928	1.0	LANL	USE: LOWER, SURR. FAILURE CONFIRMS IN PCB BATCH 956749
021b2101.d	247437002	JXM	25-FEB-2010 15:38	956713	10-1931	1.0	LANL	USE: LOWER
022b2201.d	247440002	JXM	25-FEB-2010 15:55	956713	10-1933	1.0	LANL	USE: LOWER, SURR. FAILS, REEXTRACTED
023b2301.d	247443002	JXM	25-FEB-2010 16:12	956713	10-1935	1.0	LANL	USE: LOWER, SURR. FAILS, REEXTRACTED
024b2401.d	WPE100211-10AB	JXM	25-FEB-2010 16:29		022510	1.0		ALPHA-CHL., ALDEHYDE AND KETONE FAILS BOTH COLUMNS
025b2501.d	WAR100219-99IB	JXM	25-FEB-2010 16:46		022510	1.0		CLEAN
026b2601.d	1202045739	JXM	25-FEB-2010 17:03	956706	10-1706-1	1.0	TB	USE: LOWER
027b2701.d	1202048692	JXM	25-FEB-2010 17:20	956706	10-1706-1	1.0	TB	USE: LOWER
028b2801.d	1202051309	JXM	25-FEB-2010 17:38	956706	10-1706-1	1.0	MB	USE: LOWER
029b2901.d	1202051316	JXM	25-FEB-2010 17:55	956706	10-1706-1	1.0	LCS	USE: LOWER
030b3001.d	1202051317	JXM	25-FEB-2010 18:12	956706	10-1706-1	1.0	TLCS	USE: LOWER
031b3101.d	1202051318	JXM	25-FEB-2010 18:29	956706	10-1706-1	1.0	CLCS	USE: LOWER
032b3201.d	WAR100219-99IB	JXM	25-FEB-2010 18:46		022510	1.0		CLEAN
033b3301.d	WPE100211-10AB	JXM	25-FEB-2010 19:03		022510	1.0		PASSES BOTH COLUMNS
034b3401.d	WAR100219-99IB	JXM	25-FEB-2010 19:20		022510	1.0		CLEAN
035b3501.d	WPE100211-99DG	JXM	25-FEB-2010 19:37		022510	1.0		(B)DDT 8.5, ENDRIN 5.4 (F)DDT 7.0, ENDRIN 4.5

Instrument Batch: /chem/ecd7a.i/022510.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	246683001	JXM	25-FEB-2010 19:54	956706	10-1706-1	1.0	LANL	USE: LOWER
037b3701.d	1202051310	JXM	25-FEB-2010 20:11	956706	10-1706-1	1.0	MS	USE: LOWER
038b3801.d	1202051313	JXM	25-FEB-2010 20:28	956706	10-1706-1	1.0	MSD	USE: LOWER
039b3901.d	1202051311	JXM	25-FEB-2010 20:45	956706	10-1706-1	1.0	TMS	USE: LOWER
040b4001.d	1202051314	JXM	25-FEB-2010 21:02	956706	10-1706-1	1.0	TMSD	USE: LOWER

041b4101.d	1202051312	JXM	25-FEB-2010 21:19	956706	10-1706-1	1.0	CMS	USE: LOWER
042b4201.d	1202051315	JXM	25-FEB-2010 21:36	956706	10-1706-1	1.0	CMSD	USE: LOWER
043b4301.d	246683002	JXM	25-FEB-2010 21:53	956706	10-1706-1	1.0	LANL	USE: LOWER
044b4401.d	246683003	JXM	25-FEB-2010 22:10	956706	10-1706-1	1.0	LANL	USE: LOWER
045b4501.d	246683004	JXM	25-FEB-2010 22:27	956706	10-1706-1	1.0	LANL	USE: LOWER
046b4601.d	WAR100219-99IB	JXM	25-FEB-2010 22:44		022510	1.0		CLEAN
047b4701.d	WPE100211-10AB	JXM	25-FEB-2010 23:01		022510	1.0		PASSES BOTH COLUMNS
048b4801.d	WAR100219-99IB	JXM	25-FEB-2010 23:18		022510	1.0		CLEAN
049b4901.d	246683005	JXM	25-FEB-2010 23:35	956706	10-1706-1	1.0	LANL	USE: LOWER
050b5001.d	246683006	JXM	25-FEB-2010 23:52	956706	10-1706-1	1.0	LANL	USE: LOWER
051b5101.d	246683007	JXM	26-FEB-2010 00:09	956706	10-1706-1	1.0	LANL	USE: LOWER
052b5201.d	246683008	JXM	26-FEB-2010 00:26	956706	10-1706-1	1.0	LANL	USE: LOWER
053b5301.d	WAR100219-99IB	JXM	26-FEB-2010 00:43		022510	1.0		CLEAN
054b5401.d	WPE100211-10AB	JXM	26-FEB-2010 01:00		022510	1.0		PASSES BOTH COLUMNS
055b5501.d	WAR100219-99IB	JXM	26-FEB-2010 01:17		022510	1.0		CLEAN

Instrument Batch: /chem/ecd7a.i/022510.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056b5601.d	1202051535	JXM	26-FEB-2010 01:34	956820	247311	1.0	MB	USE: HIGHER
057b5701.d	1202051536	JXM	26-FEB-2010 01:51	956820	247311	1.0	LCS	USE: HIGHER
058b5801.d	1202051539	JXM	26-FEB-2010 02:08	956820	247311	1.0	TLCS	USE: HIGHER
059b5901.d	247311005	JXM	26-FEB-2010 02:25	956820	247311	10.0	BY12	USE: HIGHER
060b6001.d	247311006	JXM	26-FEB-2010 02:42	956820	247311	10.0	BY12	USE: HIGHER
061b6101.d	247311010	JXM	26-FEB-2010 02:59	956820	247311	10.0	BY12	USE: HIGHER
062b6201.d	247311014	JXM	26-FEB-2010 03:16	956820	247311	10.0	BY12	USE: HIGHER
063b6301.d	247311019	JXM	26-FEB-2010 03:33	956820	247311	10.0	BY12	USE: HIGHER
064b6401.d	247311020	JXM	26-FEB-2010 03:50	956820	247311	10.0	BY12	USE: HIGHER

065b6501.d	247311024	JXM	26-FEB-2010 04:07	956820	247311		10.0	BY12	USE: HIGHER
066b6601.d	WAR100219-99IB	JXM	26-FEB-2010 04:24		022510		1.0		MATRIX CARRYOVER
067b6701.d	WPE100211-10AB	JXM	26-FEB-2010 04:41		022510		1.0		PASSES BOTH COLUMNS
068b6801.d	WAR100219-99IB	JXM	26-FEB-2010 04:58		022510		1.0		CLEAN
069b6901.d	247311027	JXM	26-FEB-2010 05:15	956820	247311		10.0	BY12	USE: HIGHER
070b7001.d	247311031	JXM	26-FEB-2010 05:32	956820	247311		10.0	BY12	USE: HIGHER
071b7101.d	1202051544	JXM	26-FEB-2010 05:49	956820	247311		10.0	MS	USE: HIGHER
072b7201.d	1202051545	JXM	26-FEB-2010 06:06	956820	247311		10.0	MSD	USE: HIGHER
073b7301.d	WAR100219-99IB	JXM	26-FEB-2010 06:23		022510		1.0		CLEAN
074b7401.d	WPE100211-10AB	JXM	26-FEB-2010 06:40		022510		1.0		PASSES BOTH COLUMNS
075b7501.d	WAR100219-99IB	JXM	26-FEB-2010 06:57		022510		1.0		CLEAN

Instrument Batch: /chem/ecd7a.i/022510.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076b7601.d	245420001	JXM	26-FEB-2010 07:14	955536	NY-330_SHW	10.0	SVP	USE: HIGHER
077b7701.d	1202048594	JXM	26-FEB-2010 07:31	955536	NY-330_SHW	10.0	SVP	USE: HIGHER
078b7801.d	WAR100219-99IB	JXM	26-FEB-2010 07:48		022510	1.0		CLEAN
079b7901.d	WPE100211-10AB	JXM	26-FEB-2010 08:05		022510	1.0		PASSES BOTH COLUMNS
080b8001.d	WAR100219-99IB	JXM	26-FEB-2010 08:22		022510	1.0		CLEAN
081b8101.d	247429001	JXM	26-FEB-2010 09:24	956713	10-1926	1.0	LANL	DUSE: CONFIRMS CHECK FAILURE
082b8201.d	1202051334	JXM	26-FEB-2010 09:41	956713	10-1926	1.0	MS	DUSE: CONFIRMS CHECK FAILURE
083b8301.d	1202051335	JXM	26-FEB-2010 09:58	956713	10-1926	1.0	MSD	DUSE: CONFIRMS CHECK FAILURE
084b8401.d	247432002	JXM	26-FEB-2010 10:15	956713	10-1928	1.0	LANL	DUSE: CONFIRMS CHECK FAILURE
085b8501.d	247437002	JXM	26-FEB-2010 10:32	956713	10-1931	1.0	LANL	DUSE: CONFIRMS CHECK FAILURE
086b8601.d	247440002	JXM	26-FEB-2010 10:49	956713	10-1933	1.0	LANL	DUSE: CONFIRMS CHECK FAILURE
087b8701.d	247443002	JXM	26-FEB-2010 11:23	956713	10-1935	1.0	LANL	DUSE: CONFIRMS CHECK FAILURE
088b8801.d	WPE100211-10AB	JXM	26-FEB-2010 11:40		022510	1.0		ALPHA-CHL. LOW ON BOTH COLUMNS, CONFIRMS CHECK FAILURE

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD7

DATE: 02/28/2010 METHOD: ECD7-B-8081-022310.m OPERATOR:HXJ1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA936
COPPER LOT 1016110

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-041 Organochlorine Pesticides and Chlorinated Hydrocarbons: EPA 8081
8121
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, BD-Percent Endrin and 4,4'-DDT Breakdown, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd7a.i/022610.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR100219-99IB	HXJ1	26-FEB-2010 15:21		022610	1.0		Clean
002b0201.d	WPE100211-99DG	HXJ1	26-FEB-2010 15:38		022610	1.0		(b) DDT 5.3%, Endrin 5.2%; (f) DDT 4.3%, Endrin 4.6%
003b0301.d	WPE100211-10AB	HXJ1	26-FEB-2010 15:55		022610	1.0		All okay
004b0401.d	WPE100125-52TX	HXJ1	26-FEB-2010 16:12		022610	1.0		All okay
005b0501.d	WPE100116-00CL	HXJ1	26-FEB-2010 16:29		022610	1.0		(b) All okay; (f) Passes on average
006b0601.d	WPE100114-05GA	HXJ1	26-FEB-2010 16:46		022610	1.0		DUSE - not target
007b0701.d	WAR100219-99IB	HXJ1	26-FEB-2010 17:03		022610	1.0		Clean
008b0801.d	1202049878	HXJ1	26-FEB-2010 17:20	957780	247381	1.0	TB	USE, uploaded both columns, reporting higher result
009b0901.d	1202052739	HXJ1	26-FEB-2010 17:37	957780	247840	1.0	TB	USE, uploaded both columns, reporting higher result
010b1001.d	1202053797	HXJ1	26-FEB-2010 17:54	957780	247840	1.0	MB	USE, uploaded both columns, reporting higher result
011b1101.d	1202053804	HXJ1	26-FEB-2010 18:11	957780	247840	1.0	LCS	USE, uploaded both columns, reporting higher result
012b1201.d	1202053805	HXJ1	26-FEB-2010 18:28	957780	247840	1.0	TLCS	USE, uploaded both columns, reporting higher result
013b1301.d	1202053806	HXJ1	26-FEB-2010 18:46	957780	247840	1.0	CLCS	USE, uploaded both columns, reporting higher result
014b1401.d	247842001	HXJ1	26-FEB-2010 19:03	957780	247842	1.0	MECP	USE, uploaded both columns, reporting higher result
015b1501.d	247842002	HXJ1	26-FEB-2010 19:20	957780	247842	1.0	MECP	USE, uploaded both columns, reporting higher result

Instrument Batch: /chem/ecd7a.i/022610.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016b1601.d	247842003	HXJ1	26-FEB-2010 19:37	957780	247842	1.0	MECP	USE, uploaded both columns, reporting higher result
017b1701.d	247842004	HXJ1	26-FEB-2010 19:54	957780	247842	1.0	MECP	USE, uploaded both columns, reporting higher result
018b1801.d	WPE100211-10AB	HXJ1	26-FEB-2010 20:11		022610	1.0		All okay
019b1901.d	WAR100219-99IB	HXJ1	26-FEB-2010 20:28		022610	1.0		Clean
020b2001.d	247381001	HXJ1	26-FEB-2010 20:45	957780	247381	1.0	MECP	USE, uploaded both columns, reporting higher result DER - DCB low - matrix interference - confirmed in MS/MSD
021b2101.d	1202053798	HXJ1	26-FEB-2010 21:02	957780	247381	1.0	MS	USE, uploaded both columns, reporting higher result DER - spike, DCB low - matrix - confirmed in sample/MSD
022b2201.d	1202053801	HXJ1	26-FEB-2010 21:19	957780	247381	1.0	MSD	USE, uploaded both columns, reporting higher result DER - spike, DCB low - matrix - confirmed in sample/MS
023b2301.d	1202053799	HXJ1	26-FEB-2010 21:36	957780	247381	1.0	TMS	USE, uploaded both columns, reporting higher result
024b2401.d	1202053802	HXJ1	26-FEB-2010 21:53	957780	247381	1.0	TMSD	USE, uploaded both columns, reporting higher result DER - DCB low - matrix interference - confirmed in parent
025b2501.d	1202053800	HXJ1	26-FEB-2010 22:10	957780	247381	1.0	CMS	USE, uploaded both columns, reporting higher result DER - DCB low - matrix interference - confirmed in parent
026b2601.d	1202053803	HXJ1	26-FEB-2010 22:27	957780	247381	1.0	CMSD	USE, uploaded both columns, reporting higher result DER - DCB low - matrix interference - confirmed in parent
027b2701.d	247840001	HXJ1	26-FEB-2010 22:44	957780	247840	1.0	MECP	USE, uploaded both columns, reporting higher result
028b2801.d	247840002	HXJ1	26-FEB-2010 23:01	957780	247840	1.0	MECP	USE, uploaded both columns, reporting higher result
029b2901.d	247840003	HXJ1	26-FEB-2010 23:18	957780	247840	1.0	MECP	USE, uploaded both columns, reporting higher result
030b3001.d	WPE100211-10AB	HXJ1	26-FEB-2010 23:35		022610	1.0		All okay
031b3101.d	WAR100219-99IB	HXJ1	26-FEB-2010 23:53		022610	1.0		Clean
032b3201.d	WPE100211-99DG	HXJ1	27-FEB-2010 00:10		022610	1.0		(b) DDT 9.3%, Endrin 7.2%; (f) DDT 8.4%, Endrin 6.7%
033b3301.d	1202054045	HXJ1	27-FEB-2010 00:27	957867	10-2005	1.0	MB	USE, uploaded both columns, reporting lower result
034b3401.d	1202054046	HXJ1	27-FEB-2010 00:44	957867	10-2005	1.0	LCS	USE, uploaded both columns, reporting lower result
035b3501.d	1202054049	HXJ1	27-FEB-2010 01:01	957867	10-2005	1.0	TLCS	USE, uploaded both columns, reporting lower result

Instrument Batch: /chem/ecd7a.i/022610.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	247440002	HXJ1	27-FEB-2010 01:18	957867	10-1933	1.0	LANL	DUSE - surrogate failure confirmed - see original extraction
037b3701.d	247443002	HXJ1	27-FEB-2010 01:35	957867	10-1935	1.0	LANL	DUSE - surrogate failure confirmed - see original extraction

038b3801.d	247824004	HXJ1	27-FEB-2010 01:52	957867	10-2005		1.0	LANL	USE, uploaded both columns, reporting lower result
039b3901.d	247828004	HXJ1	27-FEB-2010 02:09	957867	10-2000		1.0	LANL	USE, uploaded both columns, reporting lower result
040b4001.d	247922002	HXJ1	27-FEB-2010 02:26	957867	10-2022		1.0	LANL	USE, uploaded both columns, reporting lower result DER - DCB low - matrix interference - confirmed in MS/MSD
041b4101.d	1202054047	HXJ1	27-FEB-2010 02:43	957867	10-2022		1.0	MS	USE, uploaded both columns, reporting lower result DER - spike low - matrix - confirmed in sample/MSD
042b4201.d	1202054048	HXJ1	27-FEB-2010 03:00	957867	10-2022		1.0	MSD	USE, uploaded both columns, reporting lower result DER - spike, DCB low - matrix - confirmed in sample/MS
043b4301.d	WAR100219-99IB	HXJ1	27-FEB-2010 03:17		022610		1.0		Clean
044b4401.d	WPE100211-10AB	HXJ1	27-FEB-2010 03:34		022610		1.0		(b) alpha-CHL low; (f) All okay
045b4501.d	WAR100219-99IB	HXJ1	27-FEB-2010 03:51		022610		1.0		Clean
046b4601.d	1202054035	HXJ1	27-FEB-2010 04:08	957861	10-1818		1.0	MB	USE, uploaded both columns, reporting lower result
047b4701.d	1202054036	HXJ1	27-FEB-2010 04:25	957861	10-1818		1.0	LCS	USE, uploaded both columns, reporting lower result
048b4801.d	1202054043	HXJ1	27-FEB-2010 04:42	957861	10-1818		1.0	TLCS	USE, uploaded both columns, reporting lower result
049b4901.d	247043003	HXJ1	27-FEB-2010 04:59	957861	10-1818		10.0	LANL	USE, uploaded both columns, reporting lower result
050b5001.d	1202054037	HXJ1	27-FEB-2010 05:16	957861	10-1818		10.0	MS	USE, uploaded both columns, reporting lower result
051b5101.d	1202054038	HXJ1	27-FEB-2010 05:33	957861	10-1818		10.0	MSD	USE, uploaded both columns, reporting lower result
052b5201.d	WPE100211-10AB	HXJ1	27-FEB-2010 05:50		022610		1.0		All okay
053b5301.d	WAR100219-99IB	HXJ1	27-FEB-2010 06:07		022610		1.0		Clean
054b5401.d	247043004	HXJ1	27-FEB-2010 06:24	957861	10-1818		10.0	LANL	USE, uploaded both columns, reporting lower result
055b5501.d	247043005	HXJ1	27-FEB-2010 06:41	957861	10-1818		10.0	LANL	USE, uploaded both columns, reporting lower result

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056b5601.d	247043006	HXJ1	27-FEB-2010 06:58	957861	10-1818	10.0	LANL	USE, uploaded both columns, reporting lower result
057b5701.d	247043007	HXJ1	27-FEB-2010 07:15	957861	10-1818	10.0	LANL	USE, uploaded both columns, reporting lower result
058b5801.d	247043008	HXJ1	27-FEB-2010 07:32	957861	10-1818	10.0	LANL	USE, uploaded both columns, reporting lower result
059b5901.d	247043009	HXJ1	27-FEB-2010 07:49	957861	10-1818	10.0	LANL	USE, uploaded both columns, reporting lower result
060b6001.d	WPE100211-10AB	HXJ1	27-FEB-2010 08:06		022610	1.0		All okay

061b6101.d	WAR100219-99IB	HXJ1	27-FEB-2010 08:23		022610	1.0		Clean
062b6201.d	247043010	HXJ1	27-FEB-2010 08:40	957861	10-1818	10.0	LANL	USE, uploaded both columns, reporting lower result
063b6301.d	247043011	HXJ1	27-FEB-2010 08:57	957861	10-1818	10.0	LANL	USE, uploaded both columns, reporting lower result
064b6401.d	247043012	HXJ1	27-FEB-2010 09:14	957861	10-1818	10.0	LANL	USE, uploaded both columns, reporting lower result
065b6501.d	247043013	HXJ1	27-FEB-2010 09:31	957861	10-1818	10.0	LANL	USE, uploaded both columns, reporting lower result
066b6601.d	247043014	HXJ1	27-FEB-2010 09:48	957861	10-1818	10.0	LANL	USE, uploaded both columns, reporting lower result
067b6701.d	247043015	HXJ1	27-FEB-2010 10:05	957861	10-1818	10.0	LANL	USE, uploaded both columns, reporting lower result
068b6801.d	247043016	HXJ1	27-FEB-2010 10:22	957861	10-1818	10.0	LANL	USE, uploaded both columns, reporting lower result
069b6901.d	247043017	HXJ1	27-FEB-2010 10:39	957861	10-1818	10.0	LANL	USE, uploaded both columns, reporting lower result
070b7001.d	247043018	HXJ1	27-FEB-2010 10:57	957861	10-1818	10.0	LANL	USE, uploaded both columns, reporting lower result
071b7101.d	WPE100211-10AB	HXJ1	27-FEB-2010 11:14		022610	1.0		All okay
072b7201.d	WAR100219-99IB	HXJ1	27-FEB-2010 11:31		022610	1.0		Clean

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022610.b/001b0101.d
Lab Smp Id: WAR100219-99IB Client Smp ID: PIBLK01
Inj Date : 26-FEB-2010 15:21
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WAR100219-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.199	3.195	0.004	116674011	194.864	195	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.300	9.300	0.000	70622606	188.593	188	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/022610.b/001b0101.d

Date : 26-FEB-2010 15:21

Client ID: PIBLK01

Sample Info: IWAR100219-99IB

Column phase: CLP-2

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

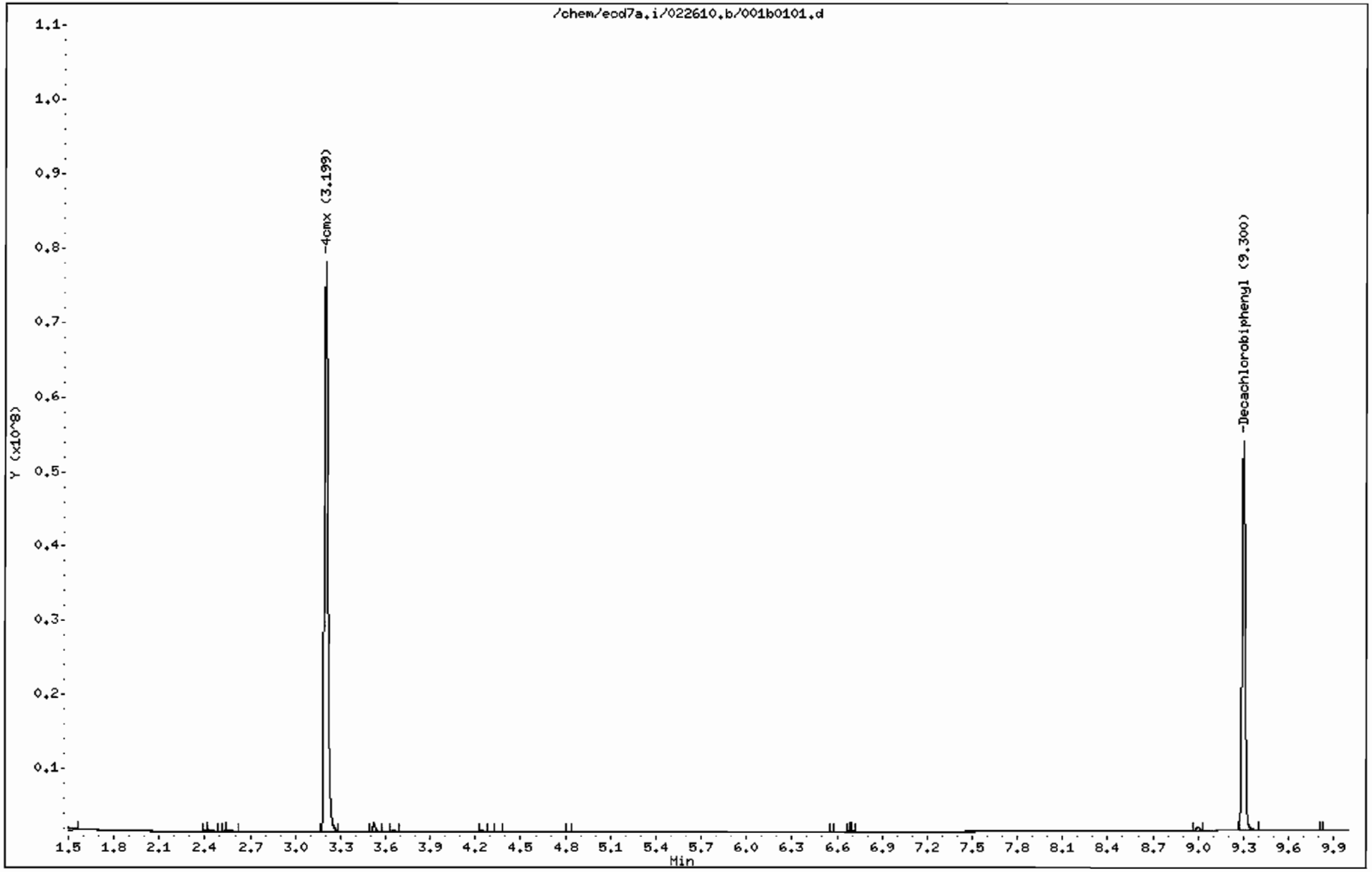

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CLP-1

Data file : /chem/ecd7a.i/022610.b/001f0101.d
Lab Smp Id: WAR100219-99IB Client Smp ID: PIBLK01
Inj Date : 26-FEB-2010 15:21
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WAR100219-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.884	2.879	0.005	157690879	193.076	193	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.105	8.102	0.003	115365983	193.927	194	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/022610.b/001f0101.d

Date : 26-FEB-2010 15:21

Client ID: PIBLK01

Sample Info: IWAR100219-99IB

Column phase: CLP-1

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

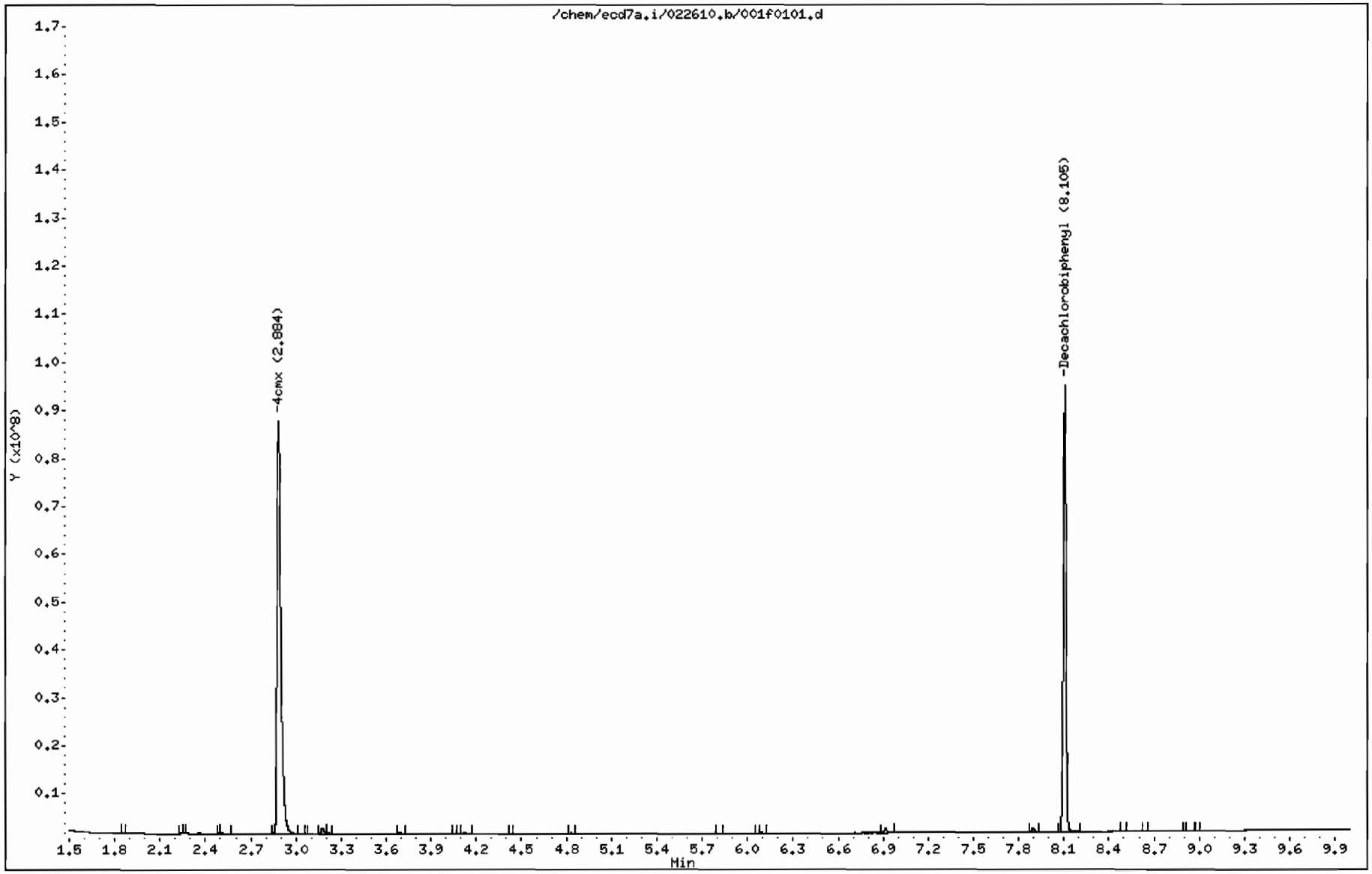

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022610.b/031b3101.d
Lab Smp Id: WAR100219-99IB Client Smp ID: PIBLK04
Inj Date : 26-FEB-2010 23:53
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WAR100219-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 31 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.194	3.195	-0.001	117343686	195.982	196	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.298	9.300	-0.002	67327229	179.793	180	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/022610.b/031b3101.d

Page 1

Date : 26-FEB-2010 23:53

Client ID: PIBLK04

Instrument: ecd7a.i

Sample Info: IWAR100219-99IB

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

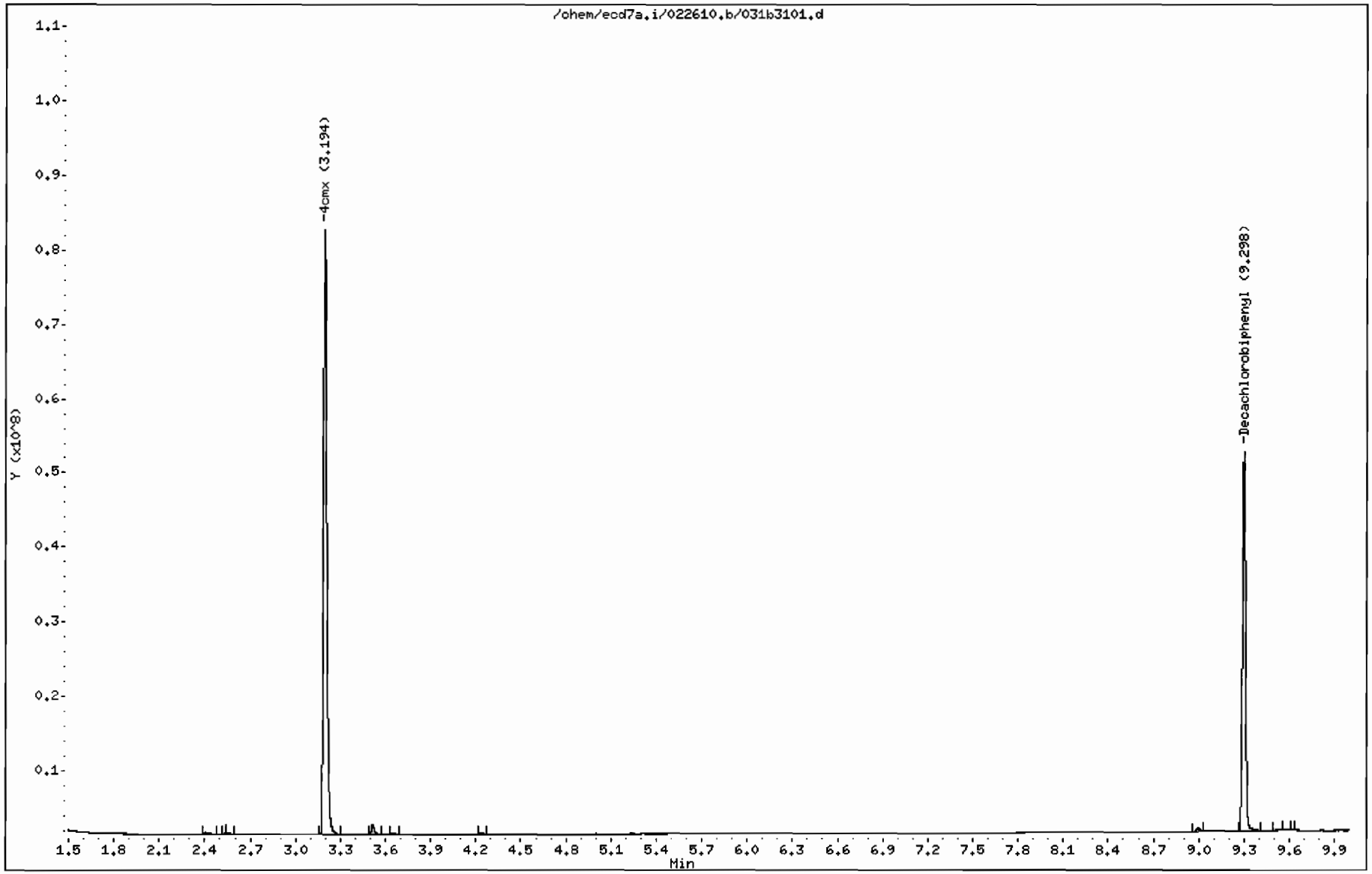

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CLP-1

Data file : /chem/ecd7a.i/022610.b/031f3101.d
Lab Smp Id: WAR100219-99IB Client Smp ID: PIBLK04
Inj Date : 26-FEB-2010 23:53
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WAR100219-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 31 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.876	2.879	-0.003	160357601	196.342	196	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.101	8.102	-0.001	111297861	187.088	187	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/022610.b/031f3101.d

Page 1

Date : 26-FEB-2010 23:53

Client ID: PIBLK04

Instrument: ecd7a.i

Sample Info: IWAR100219-99IB

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

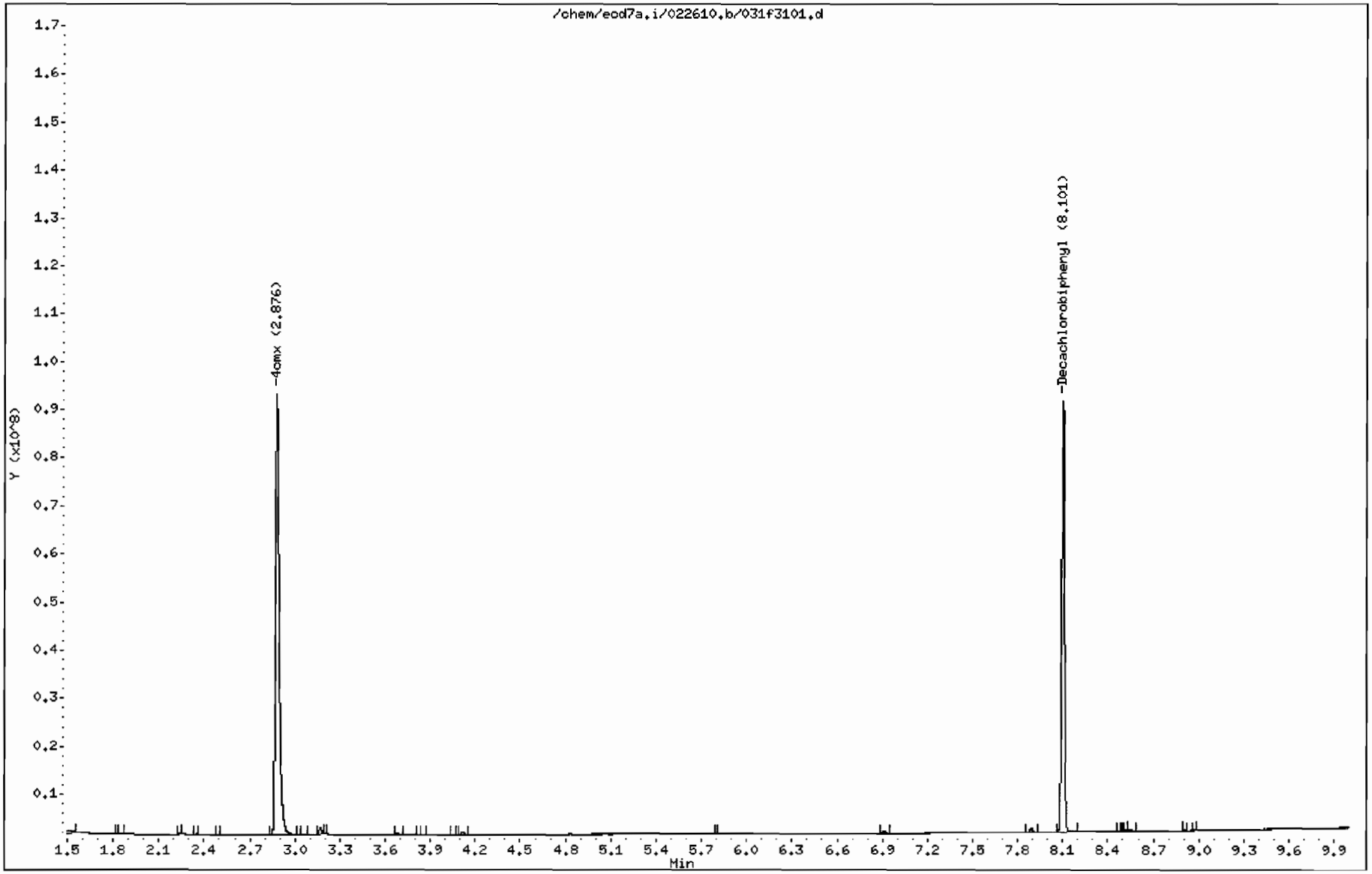

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CLP-2

Data file : /chem/ecd7a.i/022610.b/041b4101.d
Lab Smp Id: 1202054047 Client Smp ID: WST29-10-13281MS
Inj Date : 27-FEB-2010 02:43
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202054047|1|
Misc Info : |ECD81A_1L|957867|SVP|MS|WATER|MS|||
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 41 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2022.sub
Target Version: 3.50 Sample Matrix: Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.198	3.195	0.003	66184122	110.538	0.553	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.306	9.300	0.006	24792202	66.2059	0.331	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.723	3.721	0.002	46441808	59.1123	0.296	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.052	4.050	0.002	41227772	59.9166	0.300	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.116	4.114	0.002	17356807	53.5807	0.268	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
13 delta-BHC					CAS #: 319-86-8		
4.407	4.404	0.003	40115008	58.2352	0.291	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.489	4.486	0.003	30067759	60.2419	0.301	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.819	4.817	0.002	36055599	53.5747	0.268	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.389	5.386	0.003	30983492	53.9877	0.270	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.585	5.583	0.002	31822124	54.1128	0.270	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.736	5.734	0.002	30546030	51.9429	0.260	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.806	5.804	0.002	29261339	55.4030	0.277	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.887	5.884	0.003	77956913	149.515	0.748	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.094	6.092	0.002	73742622	142.382	0.712	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.424	6.422	0.002	68591523	169.939	0.850	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.507	6.504	0.003	62549844	164.768	0.824	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.649	6.647	0.002	67902893	142.436	0.712	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.009	7.008	0.001	49177142	128.133	0.641	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.853	6.850	0.003	52140429	163.355	0.817	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.316	7.313	0.003	62193378	149.187	0.746	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.600	7.596	0.004	108057494	796.477	3.98	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.926	7.924	0.002	72739573	144.832	0.724	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/041b4101.d
Date : 27-FEB-2010 02:43
Client ID: WST29-10-13281HS
Sample Info: 1120205404711
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

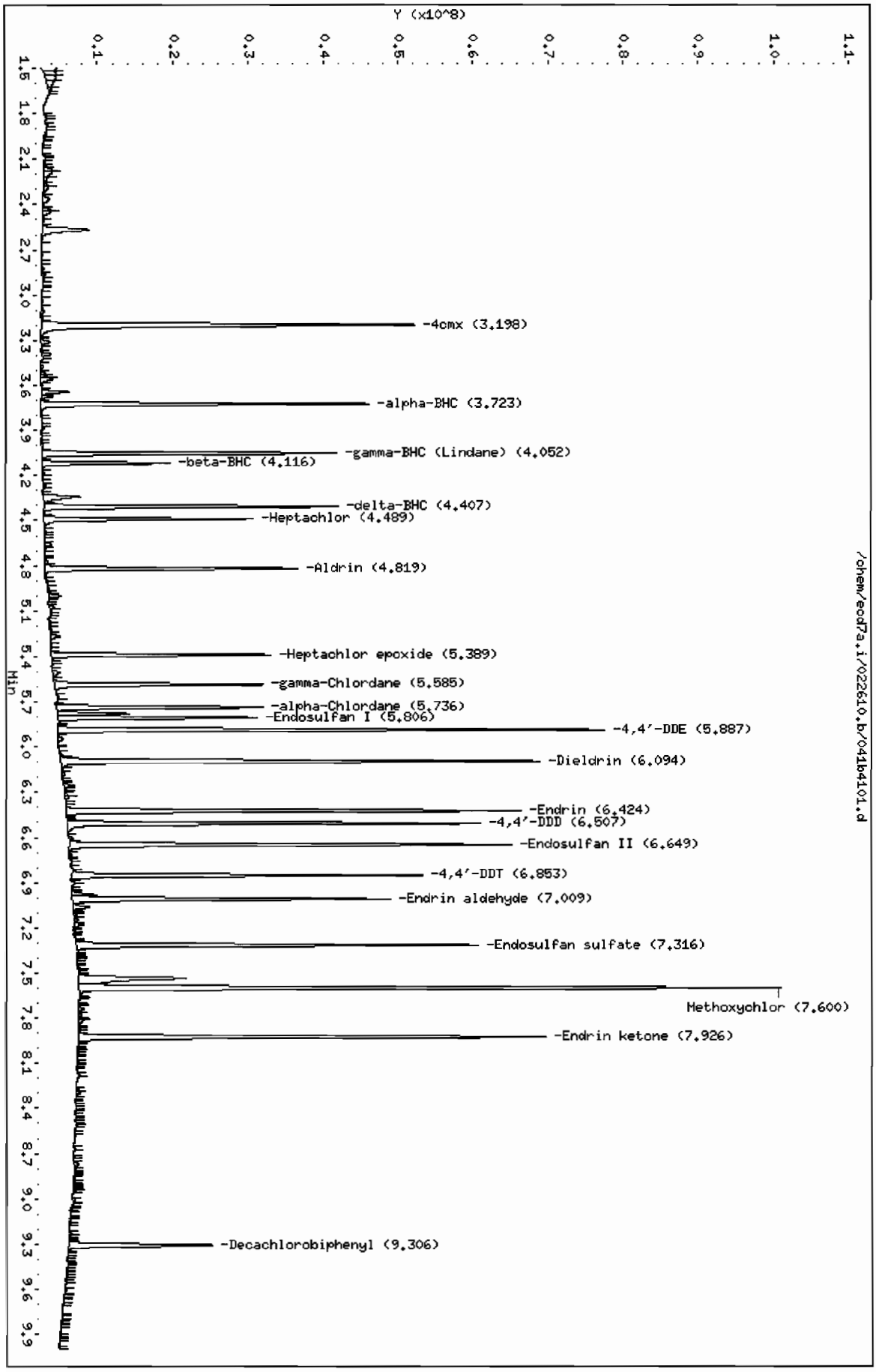

Page 1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022610.b/041f4101.d
Lab Smp Id: 1202054047 Client Smp ID: WST29-10-13281MS
Inj Date : 27-FEB-2010 02:43
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202054047|1|
Misc Info : |ECD81A_1L|957867|SVP|MS|WATER|MS|||
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 41 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2022.sub
Target Version: 3.50 Sample Matrix: Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.883	2.879	0.004	92541427	113.308	0.566	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.112	8.102	0.010	41377015	69.5534	0.348	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.300	3.298	0.002	79764073	68.5587	0.343	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.551	3.549	0.002	61811352	59.1041	0.296	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.617	3.614	0.003	25036357	53.1950	0.266	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
13 delta-BHC					CAS #: 319-86-8		
3.771	3.768	0.003	59369485	56.7646	0.284	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.946	3.945	0.001	49784933	59.6370	0.298	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.212	4.210	0.002	52796933	53.2001	0.266	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.759	4.757	0.002	48985109	55.5973	0.278	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.876	4.874	0.002	48146172	54.9772	0.275	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.002	4.999	0.003	46629165	53.3508	0.267	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.138	5.135	0.003	59713796	75.0383	0.375	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.065	5.062	0.003	121312342	150.754	0.754	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.369	5.367	0.002	119809636	141.272	0.706	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.603	5.600	0.003	116114458	171.237	0.856	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.656	5.653	0.003	104212281	164.016	0.820	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.827	5.826	0.001	105878794	144.781	0.724	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.254	6.255	-0.001	80239060	128.775	0.644	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.940	5.937	0.003	96901930	162.712	0.814	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.711	6.711	0.000	98387774	152.226	0.761	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.440	6.438	0.002	195974163	734.357	3.67	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.015	7.014	0.001	121732482	147.116	0.736	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/041f4101.d
Date : 27-FEB-2010 02:43
Client ID: WST29-10-13281MS
Sample Info: |1202054047|1|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

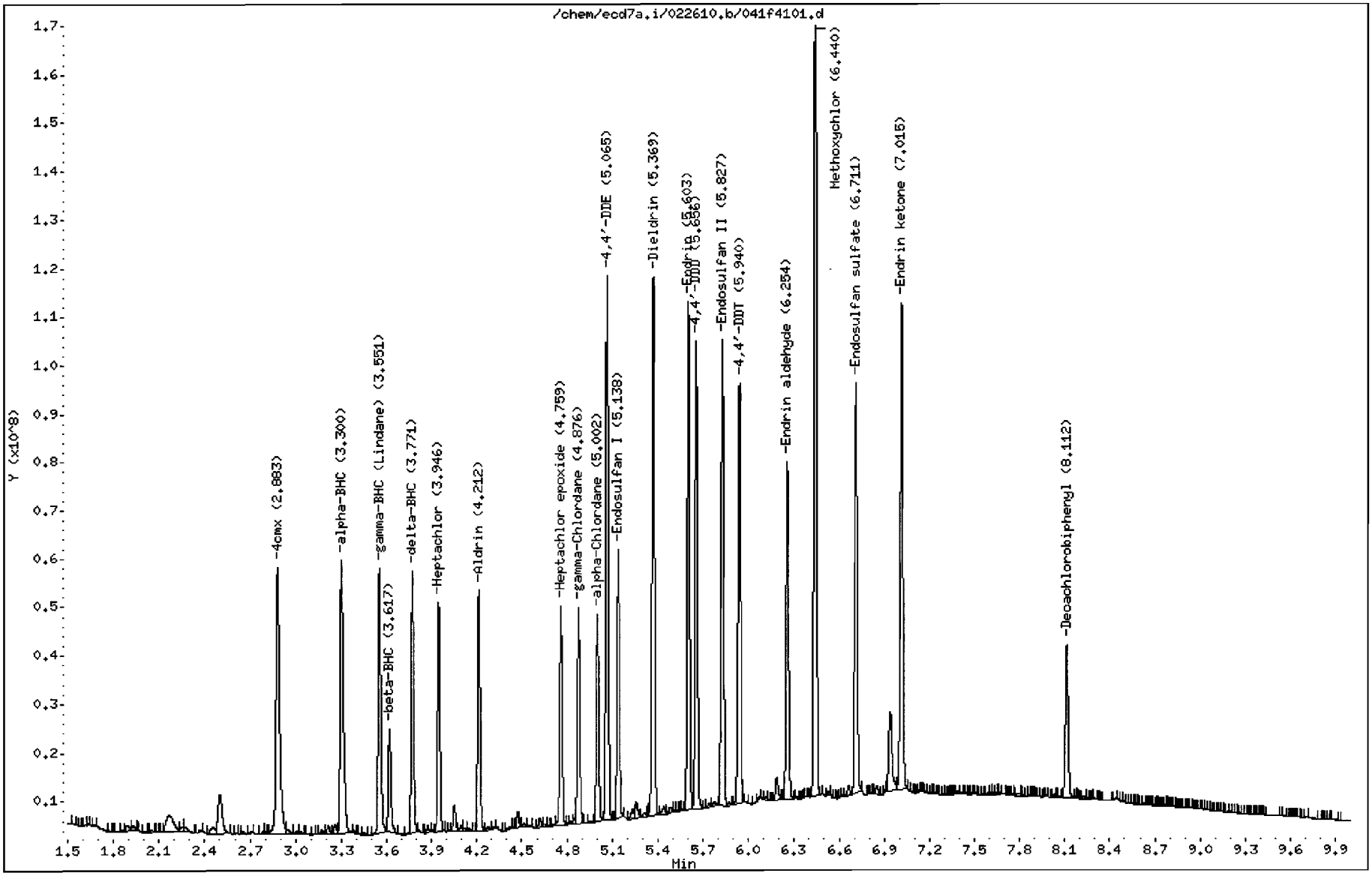

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022610.b/042b4201.d
Lab Smp Id: 1202054048 Client Smp ID: WST29-10-13281MSD
Inj Date : 27-FEB-2010 03:00
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202054048|1|
Misc Info : |ECD81A_1L|957867|SVP|MSD|WATER|MSD|||
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 42 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2022.sub
Target Version: 3.50 Sample Matrix: Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.195	0.002	59573944	99.4978	0.497	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.305	9.300	0.005	22070585	58.9380	0.295	80.00- 120.00	100.00(R)
5 alpha-BHC					CAS #: 319-84-6		
3.722	3.721	0.001	41588867	52.9354	0.265	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.052	4.050	0.002	36918594	53.6540	0.268	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.116	4.114	0.002	15613789	48.2000	0.241	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
13 delta-BHC					CAS #: 319-86-8		
4.406	4.404	0.002	36035982	52.3137	0.262	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.489	4.486	0.003	26517793	53.1294	0.266	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.819	4.817	0.002	31559194	46.8935	0.234	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.388	5.386	0.002	27297864	47.5656	0.238	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.585	5.583	0.002	28136007	47.8447	0.239	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.736	5.734	0.002	26887020	45.7209	0.229	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.806	5.804	0.002	26289950	49.7771	0.249	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.886	5.884	0.002	68551956	131.477	0.657	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.094	6.092	0.002	64802873	125.121	0.626	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.423	6.422	0.001	60614641	150.176	0.751	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.506	6.504	0.002	55634237	146.551	0.733	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.648	6.647	0.001	61196311	128.368	0.642	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.009	7.008	0.001	44101390	114.908	0.574	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.853	6.850	0.003	46582028	145.940	0.730	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.315	7.313	0.002	56565848	135.688	0.678	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.598	7.596	0.002	96366662	710.305	3.55	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.925	7.924	0.001	65906909	131.227	0.656	80.00- 120.00	100.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/022610.b/042b4201.d
Date : 27-FEB-2010 03:00
Client ID: WST29-10-13281MSD
Sample Info: 1120205404811
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

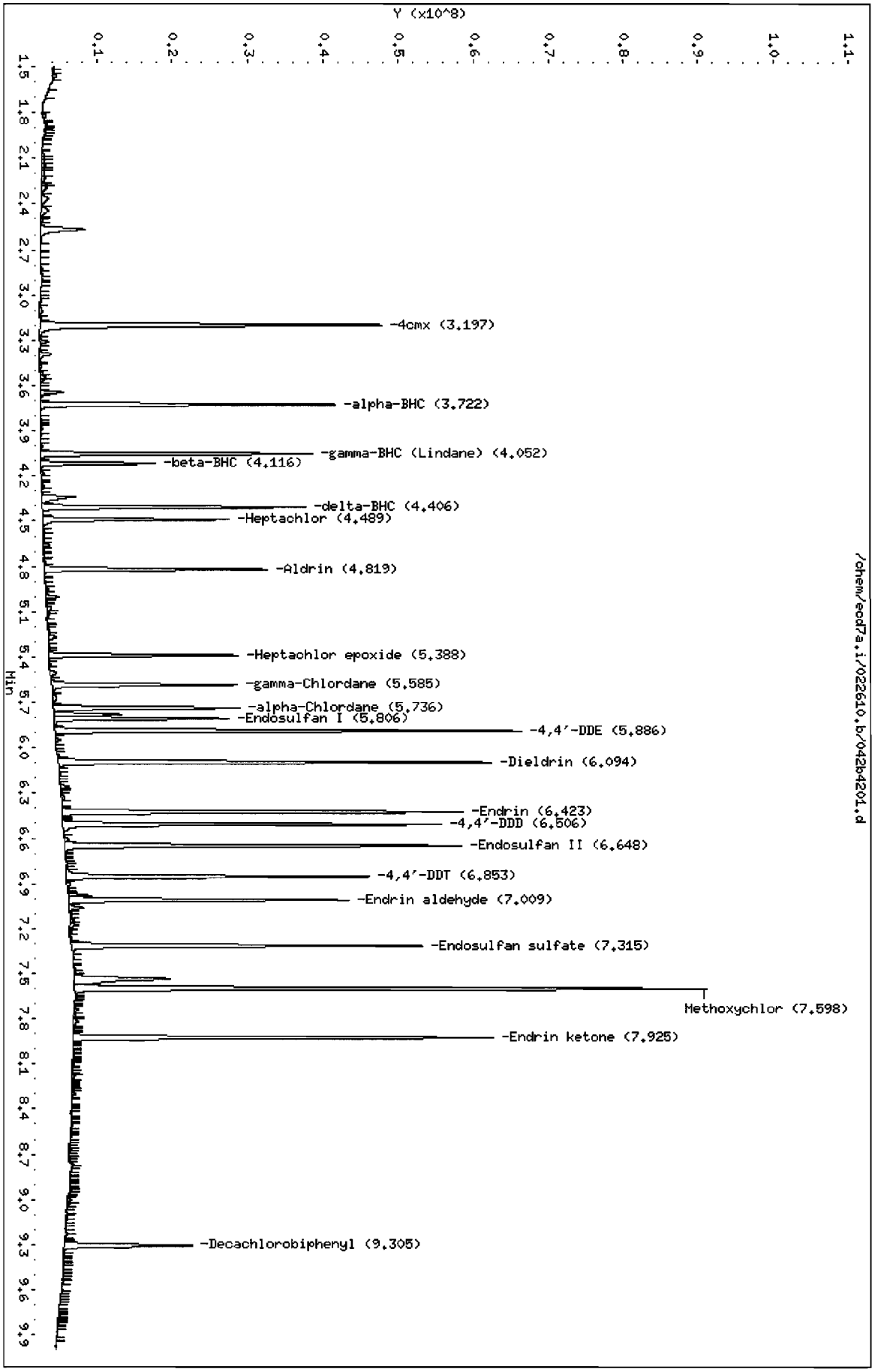

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GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022610.b/042f4201.d
Lab Smp Id: 1202054048 Client Smp ID: WST29-10-13281MSD
Inj Date : 27-FEB-2010 03:00
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202054048|1|
Misc Info : |ECD81A_1L|957867|SVP|MSD|WATER|MSD|||
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 42 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2022.sub
Target Version: 3.50 Sample Matrix: Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.882	2.879	0.003	82481533	100.990	0.505	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.111	8.102	0.009	35785692	60.1546	0.301	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.299	3.298	0.001	66912515	57.5125	0.288	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.552	3.549	0.003	55717660	53.2773	0.266	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.617	3.614	0.003	23864259	50.7047	0.254	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
13 delta-BHC					CAS #: 319-86-8		
3.771	3.768	0.003	53816983	51.4557	0.257	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.947	3.945	0.002	44399371	53.1857	0.266	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.212	4.210	0.002	46227955	46.5809	0.233	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.758	4.757	0.001	42666819	48.4262	0.242	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.876	4.874	0.002	41488080	47.3744	0.237	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.002	4.999	0.003	41111846	47.0381	0.235	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.138	5.135	0.003	55057439	69.1870	0.346	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.065	5.062	0.003	106689776	132.583	0.663	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.369	5.367	0.002	104981135	123.787	0.619	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.602	5.600	0.002	102683727	151.430	0.757	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.655	5.653	0.002	92567555	145.689	0.728	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.827	5.826	0.001	94495445	129.215	0.646	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.254	6.255	-0.001	71702656	115.075	0.575	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.939	5.937	0.002	86586431	145.391	0.727	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.711	6.711	0.000	91112690	140.970	0.705	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.439	6.438	0.001	176440467	661.160	3.30	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.015	7.014	0.001	112750386	136.261	0.681	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/042f4201.d
Date : 27-FEB-2010 03:00
Client ID: WST29-10-13281MSD
Sample Info: 1120205404811
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

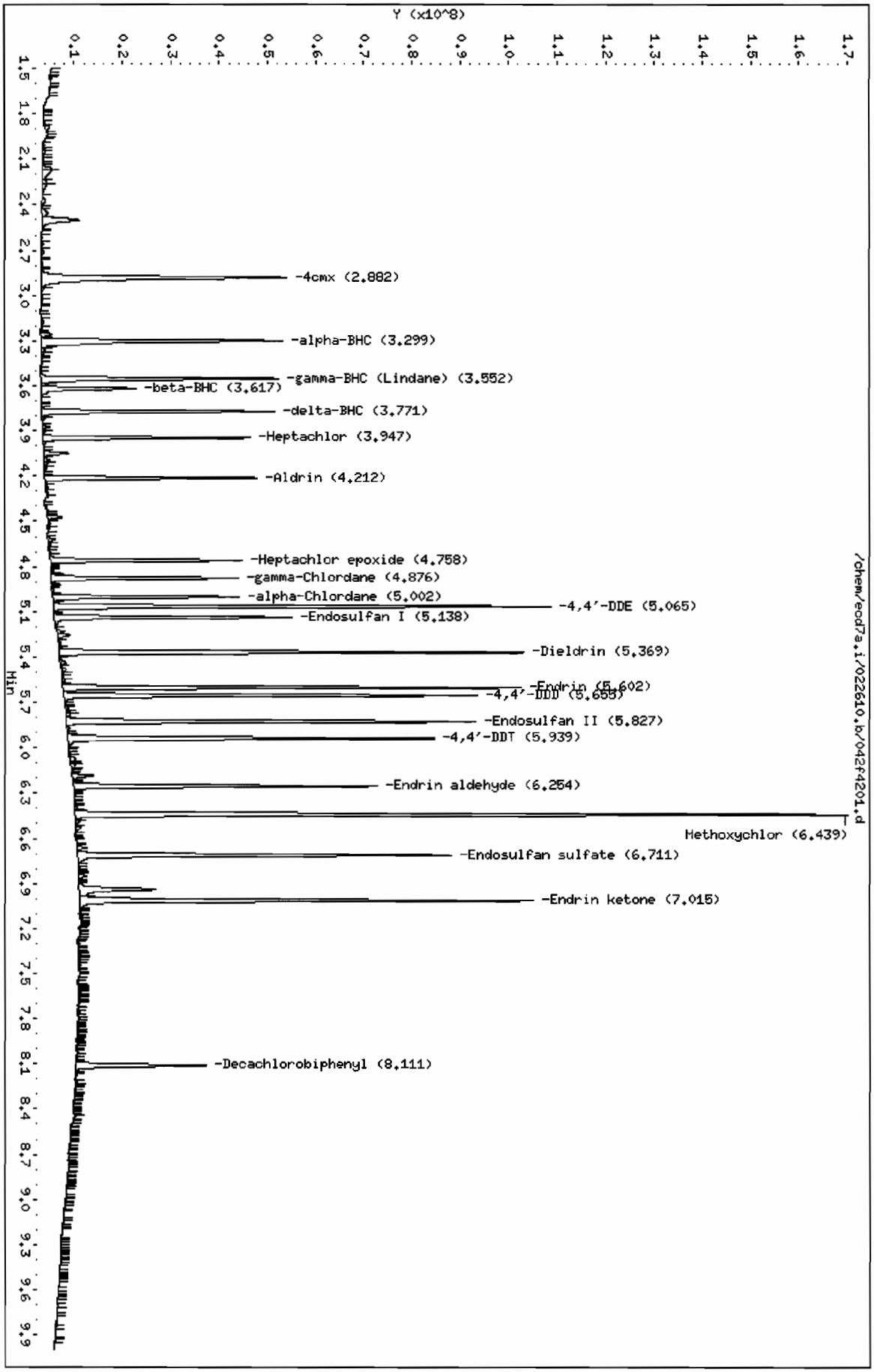

Page 1

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 957866 **Verified by:** _____

Analyst: Terry Allison

Method: SW846 3510C

Lab SOP: GL–OA–E–013 REV# 21

Instrument: Semi–Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202054045 MB	26–FEB–2010 14:34:00	1000	5	5	Florisil	5	1	10	5	0.005
1202054046 LCS	26–FEB–2010 14:34:00	1000	5	5	Florisil	5	1	10	5	0.005
1202054049 LCS	26–FEB–2010 14:34:00	1000	5	5	Florisil	5	1	10	5	0.005
247440002 – 2	26–FEB–2010 14:34:00	950	5	5	Florisil	5	1	10	5	0.00526
247443002 – 2	26–FEB–2010 14:34:00	920	6	6	Florisil	5	1	10	5	0.00543
247824004	26–FEB–2010 14:34:00	930	5	5	Florisil	5	1	10	5	0.00538
247828004	26–FEB–2010 14:34:00	900	5	5	Florisil	5	1	10	5	0.00556
247922002	26–FEB–2010 14:34:00	920	6	6	Florisil	5	1	10	5	0.00543
1202054047 MS (247922002)	26–FEB–2010 14:34:00	500	6	6	Florisil	2.5	1	10	2.5	0.005
1202054048 MSD (247922002)	26–FEB–2010 14:34:00	500	6	6	Florisil	2.5	1	10	2.5	0.005

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202054046	PESTSPIKE	UE100218–04	1	mL
LCS	1202054049	Toxaphene TCLP LCS	WE100206–11	2	mL
MS	1202054047	PESTSPIKE	UE100218–04	.5	mL
MSD	1202054048	PESTSPIKE	UE100218–04	.5	mL
SURR	All	PEST SURROGATE 1000 UG/L	UE100217–08	.5	mL
SURR	All	PEST SURROGATE 1000 UG/L	UE100217–08	1	mL
REGNT	All	Hexane	1256896–B2	5	mL
REGNT	All	Methylene Chloride	1269262–D	180	mL
REGNT	All	Florisil cartridge 1000mg per cartridge	1269340–28	1	g
SOURC	All	SODIUM SULFATE	1269268	30	g

Comments:

Samples '0002 and '3002 were emulsive during the extraction. Sample '3002 took an additional 480mL of CH2Cl2 to break the emulsion.

Clean up Date: 2–26–10

Clean up Initials: TA

Verified By: SCC

Final Solvent: Hexane

Clean Up SOP: GL–OA–E–036

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2000

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3510C
Analytical Batch Number:	961887
Prep Batch Number:	961885

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
247828001	CAPA-10-13095
1202063177	Method Blank (MB)
1202063178	Laboratory Control Sample (LCS)
1202064344	247824001(CAPA-10-13498) Matrix Spike (MS)
1202064345	247824001(CAPA-10-13498) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

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

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

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

Quality Control (QC) Information

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

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-2005) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

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

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

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

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports (DERs) are for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integrations
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

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

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: Andy Whittock Date: 3-23-2010

Roadmap for LANL 10-2000 PCB

This roadmap was analyzed by yip00818 on 03-10-2010, 07:18.
This roadmap was reviewed by jim01140 on 03-10-2010, 11:38.
This roadmap was packaged by yml on 03-23-2010, 12:45.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/030910.b/032f3201.d	247828001	sample	09-MAR-2010	11:35	10-2000.sub	CAPA-10-13095	1.00000	961887	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/030910.b/032b3201.d	247828001	sample	09-MAR-2010	11:35	10-2000.sub	CAPA-10-13095	1.00000	961887	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/030910.b/027f2701-5.d	1202063177	mb	09-MAR-2010	10:42	10-2000.sub	PBLK01	1.00000	961887	
☐	N	/chem/ecd1a.i/030910.b/028f2801-5.d	1202063178	lcs	09-MAR-2010	10:53	10-2000.sub	PBLK01LCS	1.00000	961887	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/030910.b/027b2701-5.d	1202063177	mb	09-MAR-2010	10:42	10-2000.sub	PBLK01	1.00000	961887	
☐	N	/chem/ecd1a.i/030910.b/028b2801-5.d	1202063178	lcs	09-MAR-2010	10:53	10-2000.sub	PBLK01LCS	1.00000	961887	

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**	**Date Collected:**	**02/21/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247828001**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13095**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**961887**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 11:35**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/08/2010 14:29**	**Aliquot:**	**920 mL**	**Final Volume:**	**1 mL**
Data File:	**032f3201.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	032b3201.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.109	ug/L	0.0362	0.109	1
11104-28-2	Aroclor-1221	U	0.109	ug/L	0.0362	0.109	1
11141-16-5	Aroclor-1232	U	0.109	ug/L	0.0362	0.109	1
53469-21-9	Aroclor-1242	U	0.109	ug/L	0.0362	0.109	1
12672-29-6	Aroclor-1248	U	0.109	ug/L	0.0362	0.109	1
11097-69-1	Aroclor-1254	U	0.109	ug/L	0.0362	0.109	1
11096-82-5	Aroclor-1260	U	0.109	ug/L	0.0362	0.109	1
37324-23-5	Aroclor-1262	U	0.109	ug/L	0.0362	0.109	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.119	0.217	ug/L	54.8	(30%-105%)
Decachlorobiphenyl	0.161	0.217	ug/L	74.1	(30%-126%)

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10-2000

Matrix Type: LIQUID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202063177	MB for batch 961885	48	47	64	59
1202063178	LCS for batch 961885	48	47	67	63
247828001	CAPA-10-13095	55	54	74	69

Surrogate	Acceptance Limits
4CMX = 4cmx	(30%-105%)
DCB = Decachlorobiphenyl	(30%-126%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2000
Sample Type: Laboratory Control Sample
Client ID: LCS for batch 961885
Matrix: WATER
Lab Sample ID: 1202063178
Instrument: ECD1A.I
Analysis Date: 03/09/2010 10:53
Dilution: 1
Analyst: YS1
Prep Batch ID: 961885
Inj. Vol: 1 uL
Batch ID: 961887

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
12674–11–2	LCS Aroclor–1016	1.00	0.0	0.660	66	40–110
11096–82–5	LCS Aroclor–1260	1.00	0.0	0.840	84	48–110

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2005
Client ID: CAPA-10-13498MS
Lab Sample ID: 1202064344
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 03/09/2010 11:14
Prep Batch ID: 961885
Batch ID: 961887
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	1.00	0.00	U	0.690	69	25-116
11096-82-5	MS	Aroclor-1260	1.00	0.00	U	0.880	88	34-116

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2005
Sample Type: Matrix Spike Duplicate
Client ID: CAPA–10–13498MSD
Matrix: GROUND WATER
Lab Sample ID: 1202064345
Instrument: ECD1A.I
Analysis Date: 03/09/2010 11:24
Dilution: 1
Analyst: YS1
Prep Batch ID: 961885
Inj. Vol: 1 uL
Batch ID: 961887

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674–11–2	MSD Aroclor–1016	1.00	0.00	U	0.660	66	25–116	4	0–31
11096–82–5	MSD Aroclor–1260	1.00	0.00	U	0.840	84	34–116	5	0–29

Method Blank Summary

SDG Number:	10-2000	Client:	LANL010	Matrix:	WATER
Client ID:	MB for batch 961885	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	027b2701-1.d 027f2701-1.d
Lab Sample ID:	1202063177				
Column:	CLP2 CLP1	Prep Date:	03/08/2010 14:29	Analyzed:	03/09/10 10:42
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 961885	1202063178	028f2801-1.d 028b2801-1.d	03/09/10	1053
04 CAPA-10-13095	247828001	032f3201.d 032b3201.d	03/09/10	1135

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**	**Date Collected:**	**02/21/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247828001**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13095**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**961887**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 11:35**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/08/2010 14:29**	**Aliquot:**	**920 mL**	**Final Volume:**	**1 mL**
Data File:	**032f3201.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	032b3201.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.109	ug/L	0.0362	0.109	1
11104-28-2	Aroclor-1221	U	0.109	ug/L	0.0362	0.109	1
11141-16-5	Aroclor-1232	U	0.109	ug/L	0.0362	0.109	1
53469-21-9	Aroclor-1242	U	0.109	ug/L	0.0362	0.109	1
12672-29-6	Aroclor-1248	U	0.109	ug/L	0.0362	0.109	1
11097-69-1	Aroclor-1254	U	0.109	ug/L	0.0362	0.109	1
11096-82-5	Aroclor-1260	U	0.109	ug/L	0.0362	0.109	1
37324-23-5	Aroclor-1262	U	0.109	ug/L	0.0362	0.109	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.119	0.217	ug/L	54.8	(30%-105%)
Decachlorobiphenyl	0.161	0.217	ug/L	74.1	(30%-126%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/032f3201.d
Lab Smp Id: 247828001 Client Smp ID: CAPA-10-13095
Inj Date : 09-MAR-2010 11:35
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |247828001|1|
Misc Info : |ECD82P_1L|961887|SVA|LANL|GROUND WATER|CAPA-10-13095||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 14:23 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 32
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2000.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	920.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.918	1.916	0.002	47229232	109.673	0.12	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.222	5.223	-0.001	45514297	148.115	0.16	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/032f3201.d
Date : 09-MAR-2010 11:35
Client ID: CAPA-10-13095
Sample Info: |247828001|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

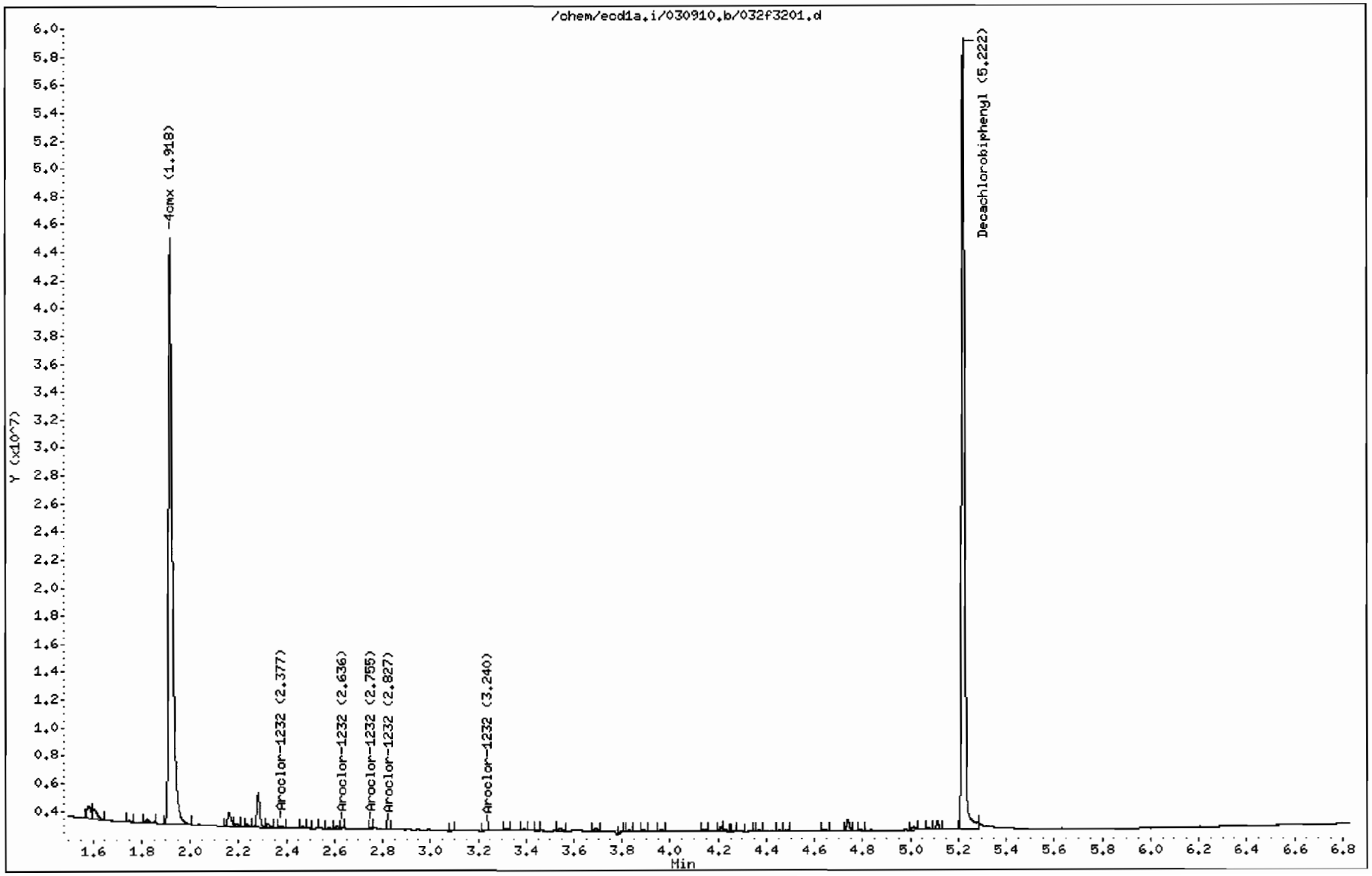

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/032b3201.d
Lab Smp Id: 247828001 Client Smp ID: CAPA-10-13095
Inj Date : 09-MAR-2010 11:35
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |247828001|1|
Misc Info : |ECD82P_1L|961887|SVA|LANL|GROUND WATER|CAPA-10-13095||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 14:09 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 32
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2000.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	920.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.276	2.276	0.000	32210585	108.308	0.12	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.916	5.918	-0.002	29327528	138.666	0.15	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/032b3201.d
Date : 09-MAR-2010 11:35
Client ID: CAPA-10-13095
Sample Info: |2478280011|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

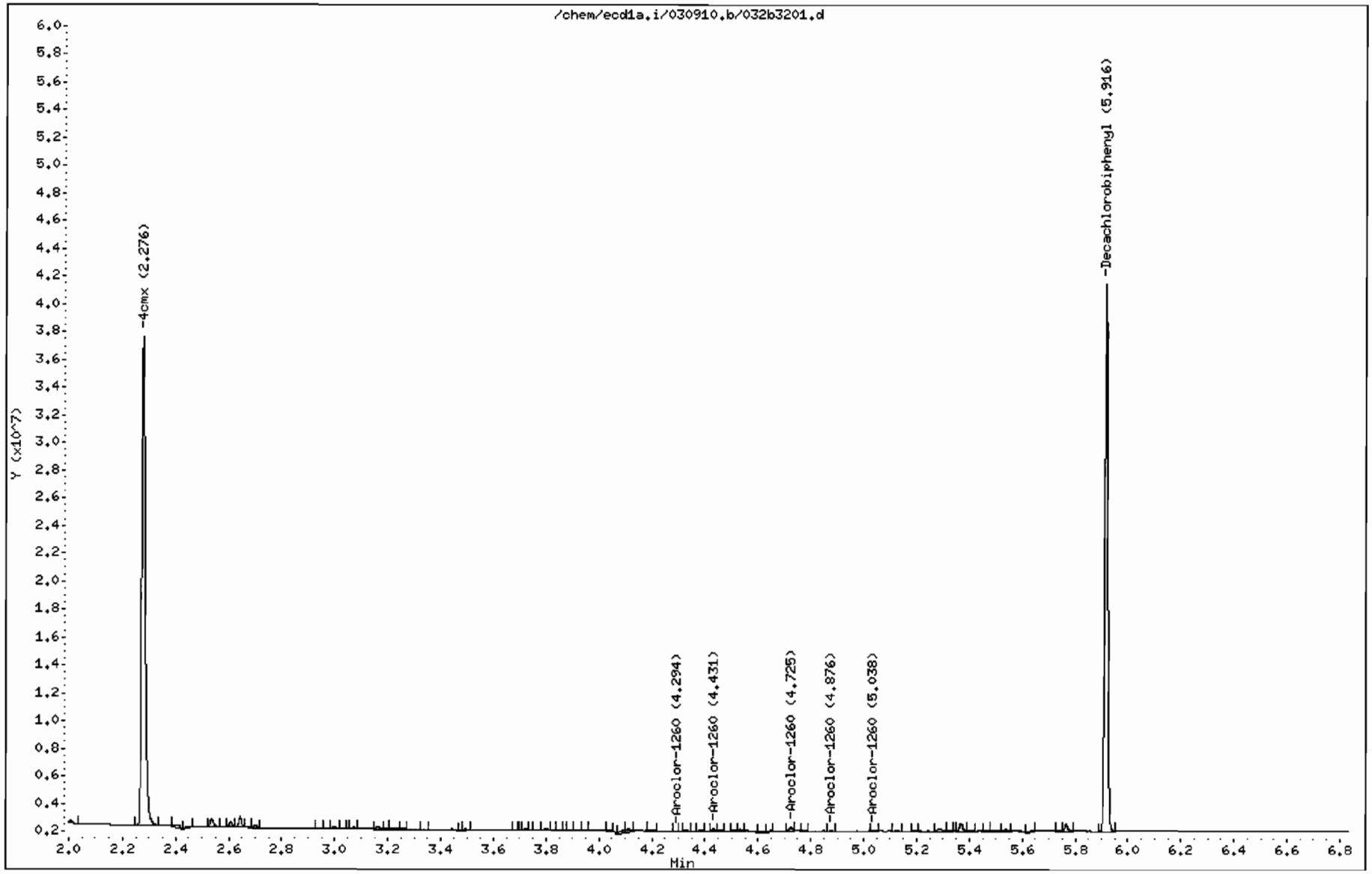

STANDARDS DATA

Report Date: 09-Mar-2010 14:38

Calibration History

Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032f3201.d
22-FEB-2010 10:23	AR1248	/chem/ecd1a.i/022210.b/026f2601.d
22-FEB-2010 09:20	AR1242	/chem/ecd1a.i/022210.b/020f2001.d
22-FEB-2010 08:16	AR1254	/chem/ecd1a.i/022210.b/014f1401.d
22-FEB-2010 07:13	AR1660	/chem/ecd1a.i/022210.b/008f0801.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033f3301.d
22-FEB-2010 10:33	AR1248	/chem/ecd1a.i/022210.b/027f2701.d
22-FEB-2010 09:30	AR1242	/chem/ecd1a.i/022210.b/021f2101.d
22-FEB-2010 08:27	AR1254	/chem/ecd1a.i/022210.b/015f1501.d
22-FEB-2010 07:24	AR1660	/chem/ecd1a.i/022210.b/009f0901.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034f3401.d
22-FEB-2010 10:44	AR1248	/chem/ecd1a.i/022210.b/028f2801.d
22-FEB-2010 09:41	AR1242	/chem/ecd1a.i/022210.b/022f2201.d
22-FEB-2010 08:37	AR1254	/chem/ecd1a.i/022210.b/016f1601.d
22-FEB-2010 07:34	AR1660	/chem/ecd1a.i/022210.b/010f1001.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035f3501.d
22-FEB-2010 11:05	AR1248	/chem/ecd1a.i/022210.b/030f3001.d
22-FEB-2010 09:51	AR1242	/chem/ecd1a.i/022210.b/023f2301.d
22-FEB-2010 08:48	AR1254	/chem/ecd1a.i/022210.b/017f1701.d
22-FEB-2010 07:45	AR1660	/chem/ecd1a.i/022210.b/011f1101.d
22-FEB-2010 07:03	AR1262	/chem/ecd1a.i/022210.b/007f0701.d
22-FEB-2010 06:52	AR1221	/chem/ecd1a.i/022210.b/006f0601.d
22-FEB-2010 06:41	AR1232	/chem/ecd1a.i/022210.b/005f0501.d
22-FEB-2010 06:31	DDTANALOGSTD	/chem/ecd1a.i/022210.b/004f0401.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036f3601.d
22-FEB-2010 10:54	AR1248	/chem/ecd1a.i/022210.b/029f2901.d
22-FEB-2010 10:02	AR1242	/chem/ecd1a.i/022210.b/024f2401.d
22-FEB-2010 08:59	AR1254	/chem/ecd1a.i/022210.b/018f1801.d
22-FEB-2010 07:55	AR1660	/chem/ecd1a.i/022210.b/012f1201.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:58	AR1232	/chem/ecd1a.i/030910.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 13:35	AR1660	/chem/ecd1a.i/030910.b/042f4201.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 12:23	AR1660	/chem/ecd1a.i/030910.b/036f3601.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 10:21	AR1660	/chem/ecd1a.i/030910.b/025f2501.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 09:12	AR1660	/chem/ecd1a.i/030910.b/019f1901.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 07:19	AR1262	/chem/ecd1a.i/030910.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 07:08	AR1221	/chem/ecd1a.i/030910.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:47	AR1268	/chem/ecd1a.i/030910.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:37	AR1248	/chem/ecd1a.i/030910.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:26	AR1242	/chem/ecd1a.i/030910.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:16	AR1254	/chem/ecd1a.i/030910.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:05	AR1660	/chem/ecd1a.i/030910.b/002f0201.d

Report Date: 09-Mar-2010 14:37

Calibration History

Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032b3201.d
22-FEB-2010 10:23	AR1248	/chem/ecd1a.i/022210.b/026b2601.d
22-FEB-2010 09:20	AR1242	/chem/ecd1a.i/022210.b/020b2001.d
22-FEB-2010 08:16	AR1254	/chem/ecd1a.i/022210.b/014b1401.d
22-FEB-2010 07:13	AR1660	/chem/ecd1a.i/022210.b/008b0801.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033b3301.d
22-FEB-2010 10:33	AR1248	/chem/ecd1a.i/022210.b/027b2701.d
22-FEB-2010 09:30	AR1242	/chem/ecd1a.i/022210.b/021b2101.d
22-FEB-2010 08:27	AR1254	/chem/ecd1a.i/022210.b/015b1501.d
22-FEB-2010 07:24	AR1660	/chem/ecd1a.i/022210.b/009b0901.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034b3401.d
22-FEB-2010 10:44	AR1248	/chem/ecd1a.i/022210.b/028b2801.d
22-FEB-2010 09:41	AR1242	/chem/ecd1a.i/022210.b/022b2201.d
22-FEB-2010 08:37	AR1254	/chem/ecd1a.i/022210.b/016b1601.d
22-FEB-2010 07:34	AR1660	/chem/ecd1a.i/022210.b/010b1001.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035b3501.d
22-FEB-2010 11:05	AR1248	/chem/ecd1a.i/022210.b/030b3001.d
22-FEB-2010 09:51	AR1242	/chem/ecd1a.i/022210.b/023b2301.d
22-FEB-2010 08:48	AR1254	/chem/ecd1a.i/022210.b/017b1701.d
22-FEB-2010 07:45	AR1660	/chem/ecd1a.i/022210.b/011b1101.d
22-FEB-2010 07:03	AR1262	/chem/ecd1a.i/022210.b/007b0701.d
22-FEB-2010 06:52	AR1221	/chem/ecd1a.i/022210.b/006b0601.d
22-FEB-2010 06:41	AR1232	/chem/ecd1a.i/022210.b/005b0501.d
22-FEB-2010 06:31	DDTANALOGSTD	/chem/ecd1a.i/022210.b/004b0401.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036b3601.d
22-FEB-2010 10:54	AR1248	/chem/ecd1a.i/022210.b/029b2901.d
22-FEB-2010 10:02	AR1242	/chem/ecd1a.i/022210.b/024b2401.d
22-FEB-2010 08:59	AR1254	/chem/ecd1a.i/022210.b/018b1801.d
22-FEB-2010 07:55	AR1660	/chem/ecd1a.i/022210.b/012b1201.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

09-MAR-2010 13:35	AR1660	/chem/ecd1a.i/030910.b/042b4201.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 12:23	AR1660	/chem/ecd1a.i/030910.b/036b3601.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 10:21	AR1660	/chem/ecd1a.i/030910.b/025b2501.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 09:12	AR1660	/chem/ecd1a.i/030910.b/019b1901.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 07:19	AR1262	/chem/ecd1a.i/030910.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 07:08	AR1221	/chem/ecd1a.i/030910.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:58	AR1232	/chem/ecd1a.i/030910.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:47	AR1268	/chem/ecd1a.i/030910.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:37	AR1248	/chem/ecd1a.i/030910.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:26	AR1242	/chem/ecd1a.i/030910.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:16	AR1254	/chem/ecd1a.i/030910.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:05	AR1660	/chem/ecd1a.i/030910.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Quant Method : ESTD Target Version : 3.50
Last Update : 09-Mar-2010 14:23 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.370	2.340-2.400	1.538e+04
	2.656	2.626-2.686	1.824e+04
	2.736	2.706-2.766	1.207e+04
	2.774	2.744-2.804	7.096e+03
	2.984	2.954-3.014	8.912e+03
63 4,4-DDD	3.900	3.880-3.920	3.060e+05
64 4,4-DDE	3.551	3.531-3.571	3.552e+05
62 4,4-DDT	4.064	4.044-4.084	2.080e+05
2 Aroclor-1221	2.030	2.000-2.060	4.398e+03
	2.123	2.093-2.153	2.431e+03
	2.148	2.118-2.178	1.042e+04
3 Aroclor-1232	2.370	2.340-2.400	6.218e+03
	2.656	2.626-2.686	7.488e+03
	2.737	2.707-2.767	4.887e+03
	2.851	2.821-2.881	2.191e+03
	3.238	3.208-3.268	2.731e+03
4 Aroclor-1242	2.370	2.340-2.400	1.256e+04
	2.658	2.628-2.688	1.461e+04
	2.775	2.745-2.805	5.629e+03
	2.985	2.955-3.015	7.310e+03
	3.238	3.208-3.268	6.183e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m

Compound	RT	RT Window	RF
5 Aroclor-1248	2.851	2.821-2.881	9.301e+03
	2.985	2.955-3.015	1.241e+04
	3.238	3.208-3.268	1.220e+04
	3.370	3.340-3.400	1.042e+04
	3.603	3.573-3.633	6.820e+03
6 Aroclor-1254	3.213	3.183-3.243	1.201e+04
	3.368	3.338-3.398	1.583e+04
	3.602	3.572-3.632	1.952e+04
	3.764	3.734-3.794	1.381e+04
	3.874	3.844-3.904	1.428e+04
7 Aroclor-1260	3.710	3.680-3.740	1.707e+04
	3.873	3.843-3.903	2.364e+04
	4.035	4.005-4.065	2.497e+04
	4.102	4.072-4.132	1.441e+04
	4.246	4.216-4.276	1.443e+04
8 Aroclor-1262	3.711	3.681-3.741	1.261e+04
	3.874	3.844-3.904	1.569e+04
	4.104	4.074-4.134	1.995e+04
	4.246	4.216-4.276	1.798e+04
	4.425	4.395-4.455	3.725e+04
9 Aroclor-1268	4.609	4.579-4.639	4.848e+04
	4.632	4.602-4.662	5.448e+04
	4.745	4.715-4.775	3.862e+04
	4.947	4.917-4.977	1.635e+04
	5.113	5.083-5.143	1.121e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.916	1.886-1.946	4.306e+05
$ 12 Decachlorobiphenyl	5.223	5.193-5.253	3.073e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Quant Method : ESTD Target Version : 3.50
Last Update : 09-Mar-2010 14:09 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.170	3.140-3.200	1.279e+04
	3.253	3.223-3.283	8.918e+03
	3.316	3.286-3.346	5.406e+03
	3.544	3.514-3.574	6.916e+03
	3.619	3.589-3.649	6.425e+03
62 4,4-DDT	4.660	4.640-4.680	1.000e+05
63 4,4-DDE	4.128	4.108-4.148	2.505e+05
64 4,4-DDD	4.473	4.453-4.493	2.085e+05
2 Aroclor-1221	2.473	2.443-2.503	3.431e+03
	2.567	2.537-2.597	2.152e+03
	2.607	2.577-2.637	7.328e+03
3 Aroclor-1232	2.873	2.843-2.903	4.920e+03
	3.171	3.141-3.201	5.252e+03
	3.254	3.224-3.284	3.768e+03
	3.544	3.514-3.574	2.699e+03
	3.778	3.748-3.808	2.631e+03
4 Aroclor-1242	3.171	3.141-3.201	1.035e+04
	3.254	3.224-3.284	7.279e+03
	3.544	3.514-3.574	5.768e+03
	3.778	3.748-3.808	5.788e+03
	3.805	3.775-3.835	6.641e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.380	3.350-3.410	7.602e+03
	3.545	3.515-3.575	9.360e+03
	3.778	3.748-3.808	1.065e+04
	3.805	3.775-3.835	1.210e+04
	3.942	3.912-3.972	1.150e+04
6 Aroclor-1254	3.378	3.348-3.408	6.068e+03
	3.801	3.771-3.831	1.074e+04
	3.918	3.888-3.948	1.164e+04
	4.193	4.163-4.223	1.590e+04
	4.329	4.299-4.359	1.198e+04
7 Aroclor-1260	4.309	4.279-4.339	1.321e+04
	4.435	4.405-4.465	1.557e+04
	4.700	4.670-4.730	1.184e+04
	4.873	4.843-4.903	1.220e+04
	5.021	4.991-5.051	2.653e+04
8 Aroclor-1262	4.434	4.404-4.464	1.126e+04
	4.700	4.670-4.730	1.550e+04
	4.874	4.844-4.904	1.407e+04
	5.020	4.990-5.050	2.845e+04
	5.234	5.204-5.264	1.972e+04
9 Aroclor-1268	5.231	5.201-5.261	3.730e+04
	5.260	5.230-5.290	3.492e+04
	5.409	5.379-5.439	2.658e+04
	5.574	5.544-5.604	1.223e+04
	5.766	5.736-5.796	7.433e+04
10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.276	2.246-2.306	2.974e+05
$ 12 Decachlorobiphenyl	5.918	5.888-5.948	2.115e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Cal Date : 09-Mar-2010 14:23 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032f3201.d
Level 2: /chem/ecd1a.i/022210.b/033f3301.d
Level 3: /chem/ecd1a.i/022210.b/034f3401.d
Level 4: /chem/ecd1a.i/022210.b/035f3501.d
Level 5: /chem/ecd1a.i/022210.b/036f3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	18473	16312	15150	14238	12749	15384	14.060
(2)	20194	18537	17759	17625	17070	18237	6.651
(3)	14170	12473	11875	11163	10646	12065	11.317
(4)	8163	7198	6933	6624	6564	7096	9.135
(5)	10345	9178	8623	8273	8142	8912	10.051
63 4,4-DDD	+++++	+++++	+++++	305990	+++++	305990	0.000
64 4,4-DDE	+++++	+++++	+++++	355239	+++++	355239	0.000
62 4,4-DDT	+++++	+++++	+++++	208015	+++++	208015	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4398	+++++	4398	0.000
(2)	+++++	+++++	+++++	2431	+++++	2431	0.000
(3)	+++++	+++++	+++++	10418	+++++	10418	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6218	+++++	6218	0.000
(2)	+++++	+++++	+++++	7488	+++++	7488	0.000
(3)	+++++	+++++	+++++	4887	+++++	4887	0.000
(4)	+++++	+++++	+++++	2191	+++++	2191	0.000
(5)	+++++	+++++	+++++	2731	+++++	2731	0.000
4 Aroclor-1242(1)	14895	13406	12308	11554	10624	12557	13.200
(2)	15940	15326	14418	13613	13761	14612	6.870
(3)	6066	5934	5542	5337	5267	5629	6.326
(4)	8523	7616	7127	6725	6562	7310	10.814
(5)	6824	6256	5999	5817	6020	6183	6.317
5 Aroclor-1248(1)	10594	9810	9017	8885	8199	9301	9.911
(2)	14228	12736	11895	11712	11476	12409	9.043
(3)	12841	12156	11815	11785	12410	12201	3.615
(4)	11297	10503	10013	9956	10333	10420	5.179
(5)	7445	6917	6453	6460	6824	6820	5.977

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Cal Date : 09-Mar-2010 14:23 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	13496	12213	11744	11466	11117	12007	7.694
(2)	16789	15969	15727	15423	15253	15832	3.802
(3)	20267	19353	19208	19481	19310	19524	2.185
(4)	14142	13669	13487	13772	13976	13809	1.858
(5)	15228	14234	13851	14228	13864	14281	3.932
7 Aroclor-1260(1)	19445	17307	16758	16208	15645	17072	8.574
(2)	25625	23757	23316	22992	22528	23643	5.056
(3)	27164	24948	24176	24127	24442	24971	5.079
(4)	16166	14596	13941	13551	13775	14406	7.345
(5)	15672	14437	13986	13647	14411	14431	5.316
8 Aroclor-1262(1)	+++++	+++++	+++++	12612	+++++	12612	0.000
(2)	+++++	+++++	+++++	15693	+++++	15693	0.000
(3)	+++++	+++++	+++++	19946	+++++	19946	0.000
(4)	+++++	+++++	+++++	17981	+++++	17981	0.000
(5)	+++++	+++++	+++++	37250	+++++	37250	0.000
9 Aroclor-1268(1)	49163	48928	48151	48132	48019	48478	1.086
(2)	55254	54719	54718	54649	53075	54483	1.512
(3)	39937	38826	38121	38191	38006	38616	2.083
(4)	16234	16191	16152	16347	16815	16348	1.657
(5)	114910	115297	111446	111050	107804	112101	2.753
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	457836	439032	431646	423676	400995	430637	4.841
$ 12 Decachlorobiphenyl	331580	312081	303953	298909	289924	307289	5.135

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Cal Date : 09-Mar-2010 14:09 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032b3201.d
Level 2: /chem/ecd1a.i/022210.b/033b3301.d
Level 3: /chem/ecd1a.i/022210.b/034b3401.d
Level 4: /chem/ecd1a.i/022210.b/035b3501.d
Level 5: /chem/ecd1a.i/022210.b/036b3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14790	13406	12599	11956	11198	12790	10.807
(2)	11020	9550	8735	8081	7204	8918	16.336
(3)	6667	5702	5261	4923	4477	5406	15.464
(4)	8469	7466	6811	6206	5627	6916	15.991
(5)	7861	6755	6366	5845	5300	6425	15.123
62 4,4-DDT	+++++	+++++	+++++	100019	+++++	100019	0.000
63 4,4-DDE	+++++	+++++	+++++	250510	+++++	250510	0.000
64 4,4-DDD	+++++	+++++	+++++	208527	+++++	208527	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3431	+++++	3431	0.000
(2)	+++++	+++++	+++++	2152	+++++	2152	0.000
(3)	+++++	+++++	+++++	7328	+++++	7328	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	4920	+++++	4920	0.000
(2)	+++++	+++++	+++++	5252	+++++	5252	0.000
(3)	+++++	+++++	+++++	3768	+++++	3768	0.000
(4)	+++++	+++++	+++++	2699	+++++	2699	0.000
(5)	+++++	+++++	+++++	2631	+++++	2631	0.000
4 Aroclor-1242(1)	12162	10602	10267	9852	8873	10351	11.615
(2)	8972	7860	7095	6551	5917	7279	16.286
(3)	7172	6222	5595	5138	4714	5768	16.707
(4)	7092	6149	5608	5215	4876	5788	15.018
(5)	8262	7049	6439	5944	5512	6641	16.138
5 Aroclor-1248(1)	9375	8130	7334	6873	6297	7602	15.743
(2)	11273	9902	9059	8609	7955	9360	13.704
(3)	12356	11118	10348	9982	9432	10647	10.657
(4)	14147	12783	11698	11327	10532	12097	11.596
(5)	13387	12032	11069	10719	10286	11499	10.750

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Cal Date : 09-Mar-2010 14:09 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7593	6474	5915	5463	4897	6068	16.986
(2)	13079	11278	10543	9836	8978	10743	14.511
(3)	14023	12144	11373	10769	9907	11643	13.419
(4)	18579	16173	15683	15087	13972	15899	10.745
(5)	14693	12059	11530	11303	10291	11975	13.772
7 Aroclor-1260(1)	16156	14478	12627	11898	10869	13206	15.988
(2)	18308	16389	15401	14483	13254	15567	12.332
(3)	14169	12468	11644	10875	10061	11844	13.319
(4)	14677	12787	11930	11182	10430	12201	13.416
(5)	30570	27429	26347	25126	23163	26527	10.405
8 Aroclor-1262(1)	+++++	+++++	+++++	11265	+++++	11265	0.000
(2)	+++++	+++++	+++++	15504	+++++	15504	0.000
(3)	+++++	+++++	+++++	14070	+++++	14070	0.000
(4)	+++++	+++++	+++++	28448	+++++	28448	0.000
(5)	+++++	+++++	+++++	19723	+++++	19723	0.000
9 Aroclor-1268(1)	41829	39003	36612	35751	33294	37298	8.721
(2)	39747	36378	33891	33096	31474	34917	9.246
(3)	30202	27679	25801	25188	24032	26580	9.093
(4)	14370	12834	11677	11309	10971	12232	11.329
(5)	81955	77588	73073	71224	67792	74326	7.452
10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	335261	308362	295849	285028	262485	297397	9.098
$ 12 Decachlorobiphenyl	252219	220293	206273	196840	181867	211498	12.633

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

Instrument ID: ECD1A Calibration Date: 03/09/10 Time: 0605

Lab File ID: 002F0201 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15384.345	13476.079	0.01	-12.4	15.0
(2)	18237.012	17118.774	0.01	-6.1	15.0
(3)	12065.482	10856.453	0.01	-10.0	15.0
(4)	7096.105	6531.897	0.01	-8.0	15.0
(5)	8912.192	8268.348	0.01	-7.2	15.0
Aroclor-1260	17072.421	16301.721	0.01	-4.5	15.0
(2)	23643.449	24329.087	0.01	2.9	15.0
(3)	24971.335	26072.574	0.01	4.4	15.0
(4)	14405.675	14699.904	0.01	2.0	15.0
(5)	14430.527	15333.852	0.01	6.2	15.0
4cmx	430636.91	381155.79	0.01	-11.5	15.0
Decachlorobiphenyl	307289.35	296054.84	0.01	-3.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

Instrument ID: ECD1A Calibration Date: 03/09/10 Time: 0605

Lab File ID: 002B0201 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	12184.528	0.01	-4.7	15.0
(2)	8917.926	7823.059	0.01	-12.3	15.0
(3)	5406.011	4862.200	0.01	-10.0	15.0
(4)	6915.638	6333.733	0.01	-8.4	15.0
(5)	6425.213	5855.276	0.01	-8.9	15.0
Aroclor-1260	13205.642	11874.381	0.01	-10.1	15.0
(2)	15566.814	14523.516	0.01	-6.7	15.0
(3)	11843.501	10940.143	0.01	-7.6	15.0
(4)	12201.193	11358.948	0.01	-6.9	15.0
(5)	26527.172	25417.207	0.01	-4.2	15.0
4cmx	297396.93	265127.64	0.01	-10.8	15.0
Decachlorobiphenyl	211498.34	189933.73	0.01	-10.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

Instrument ID: ECD1A Calibration Date: 03/09/10 Time: 1021

Lab File ID: 025F2501 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15384.345	14060.684	0.01	-8.6	15.0
(2)	18237.012	17777.120	0.01	-2.5	15.0
(3)	12065.482	11271.847	0.01	-6.6	15.0
(4)	7096.105	6815.126	0.01	-4.0	15.0
(5)	8912.192	8730.276	0.01	-2.0	15.0
Aroclor-1260	17072.421	17016.414	0.01	-0.3	15.0
(2)	23643.449	25400.273	0.01	7.4	15.0
(3)	24971.335	27114.496	0.01	8.6	15.0
(4)	14405.675	15286.706	0.01	6.1	15.0
(5)	14430.527	15918.474	0.01	10.3	15.0
4cmx	430636.91	396802.26	0.01	-7.8	15.0
Decachlorobiphenyl	307289.35	309415.76	0.01	0.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

Instrument ID: ECD1A Calibration Date: 03/09/10 Time: 1021

Lab File ID: 025B2501 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	12193.531	0.01	-4.7	15.0
(2)	8917.926	7901.532	0.01	-11.4	15.0
(3)	5406.011	4934.564	0.01	-8.7	15.0
(4)	6915.638	6203.624	0.01	-10.3	15.0
(5)	6425.213	5825.015	0.01	-9.3	15.0
Aroclor-1260	13205.642	11974.228	0.01	-9.3	15.0
(2)	15566.814	14696.750	0.01	-5.6	15.0
(3)	11843.501	11082.986	0.01	-6.4	15.0
(4)	12201.193	11537.123	0.01	-5.4	15.0
(5)	26527.172	25747.290	0.01	-2.9	15.0
4cmx	297396.93	267436.61	0.01	-10.1	15.0
Decachlorobiphenyl	211498.34	193873.52	0.01	-8.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

Instrument ID: ECD1A Calibration Date: 03/09/10 Time: 1223

Lab File ID: 036F3601 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15384.345	14278.137	0.01	-7.2	15.0
(2)	18237.012	18701.586	0.01	2.5	15.0
(3)	12065.482	11479.585	0.01	-4.8	15.0
(4)	7096.105	6956.938	0.01	-2.0	15.0
(5)	8912.192	8887.593	0.01	-0.3	15.0
Aroclor-1260	17072.421	17231.278	0.01	0.9	15.0
(2)	23643.449	25747.342	0.01	8.9	15.0
(3)	24971.335	27594.766	0.01	10.5	15.0
(4)	14405.675	15539.148	0.01	7.9	15.0
(5)	14430.527	16196.327	0.01	12.2	15.0
4cmx	430636.91	404714.44	0.01	-6.0	15.0
Decachlorobiphenyl	307289.35	318067.20	0.01	3.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

Instrument ID: ECD1A Calibration Date: 03/09/10 Time: 1223

Lab File ID: 036B3601 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	12542.512	0.01	-1.9	15.0
(2)	8917.926	8094.605	0.01	-9.2	15.0
(3)	5406.011	5066.938	0.01	-6.3	15.0
(4)	6915.638	6566.448	0.01	-5.0	15.0
(5)	6425.213	6086.252	0.01	-5.3	15.0
Aroclor-1260	13205.642	12295.985	0.01	-6.9	15.0
(2)	15566.814	15078.122	0.01	-3.1	15.0
(3)	11843.501	11370.329	0.01	-4.0	15.0
(4)	12201.193	11877.501	0.01	-2.6	15.0
(5)	26527.172	26534.899	0.01	0.0	15.0
4cmx	297396.93	275451.91	0.01	-7.4	15.0
Decachlorobiphenyl	211498.34	199844.80	0.01	-5.5	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/002f0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 09-MAR-2010 06:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.916	1.916	0.000	38115579	100.000	88.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.223	5.223	0.000	29605484	100.000	96.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.370	2.370	0.000	13476078	1000.00	876	80.00- 120.00	100.00
2.656	2.656	0.000	17118773	1000.00	939	107.03- 147.03	127.03
2.736	2.736	0.000	10856452	1000.00	900	60.56- 100.56	80.56
2.774	2.774	0.000	6531897	1000.00	920	28.47- 68.47	48.47
2.984	2.984	0.000	8268347	1000.00	928	41.36- 81.36	61.36
Average of Peak Amounts =					913		
7 Aroclor-1260					CAS #: 11096-82-5		
3.710	3.710	0.000	16301721	1000.00	955	80.00- 120.00	100.00
3.873	3.873	0.000	24329086	1000.00	1030	129.24- 169.24	149.24
4.035	4.035	0.000	26072574	1000.00	1040	139.94- 179.94	159.94
4.102	4.102	0.000	14699904	1000.00	1020	70.17- 110.17	90.17
4.246	4.246	0.000	15333852	1000.00	1060	74.06- 114.06	94.06
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecd1a.i/030910.b/002f0201.d

Page 1

Date : 09-MAR-2010 06:05

Client ID: AR166001

Instrument: ecd1a.i

Sample Info: IWAR100222-60 01

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

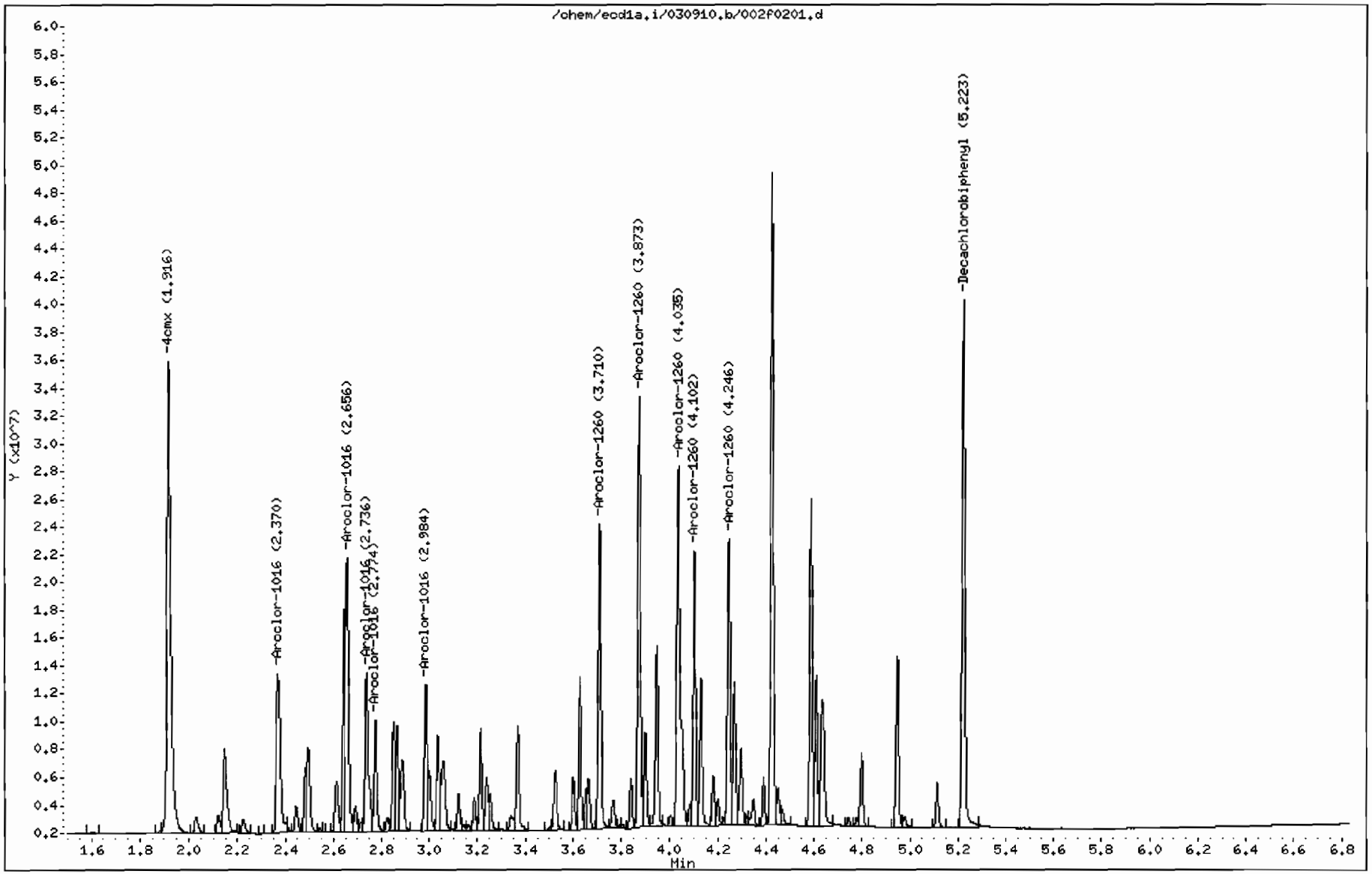

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/002b0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 09-MAR-2010 06:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.276	2.276	0.000	26512764	100.000	89.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.918	5.918	0.000	18993373	100.000	89.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.170	3.170	0.000	12184528	1000.00	953	80.00- 120.00	100.00
3.253	3.253	0.000	7823059	1000.00	877	44.20- 84.20	64.20
3.316	3.316	0.000	4862199	1000.00	899	19.90- 59.90	39.90
3.544	3.544	0.000	6333733	1000.00	916	31.98- 71.98	51.98
3.619	3.619	0.000	5855276	1000.00	911	28.06- 68.06	48.06
Average of Peak Amounts =					911		
7 Aroclor-1260					CAS #: 11096-82-5		
4.309	4.309	0.000	11874381	1000.00	899	80.00- 120.00	100.00
4.435	4.435	0.000	14523516	1000.00	933	102.31- 142.31	122.31
4.700	4.700	0.000	10940143	1000.00	924	72.13- 112.13	92.13
4.873	4.873	0.000	11358947	1000.00	931	75.66- 115.66	95.66
5.021	5.021	0.000	25417206	1000.00	958	194.05- 234.05	214.05
Average of Peak Amounts =					929		

Data File: /chem/ecd1a.i/030910.b/002b0201.d

Page 1

Date : 09-MAR-2010 06:05

Client ID: AR166001

Instrument: ecd1a.i

Sample Info: IWAR100222-60 01

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

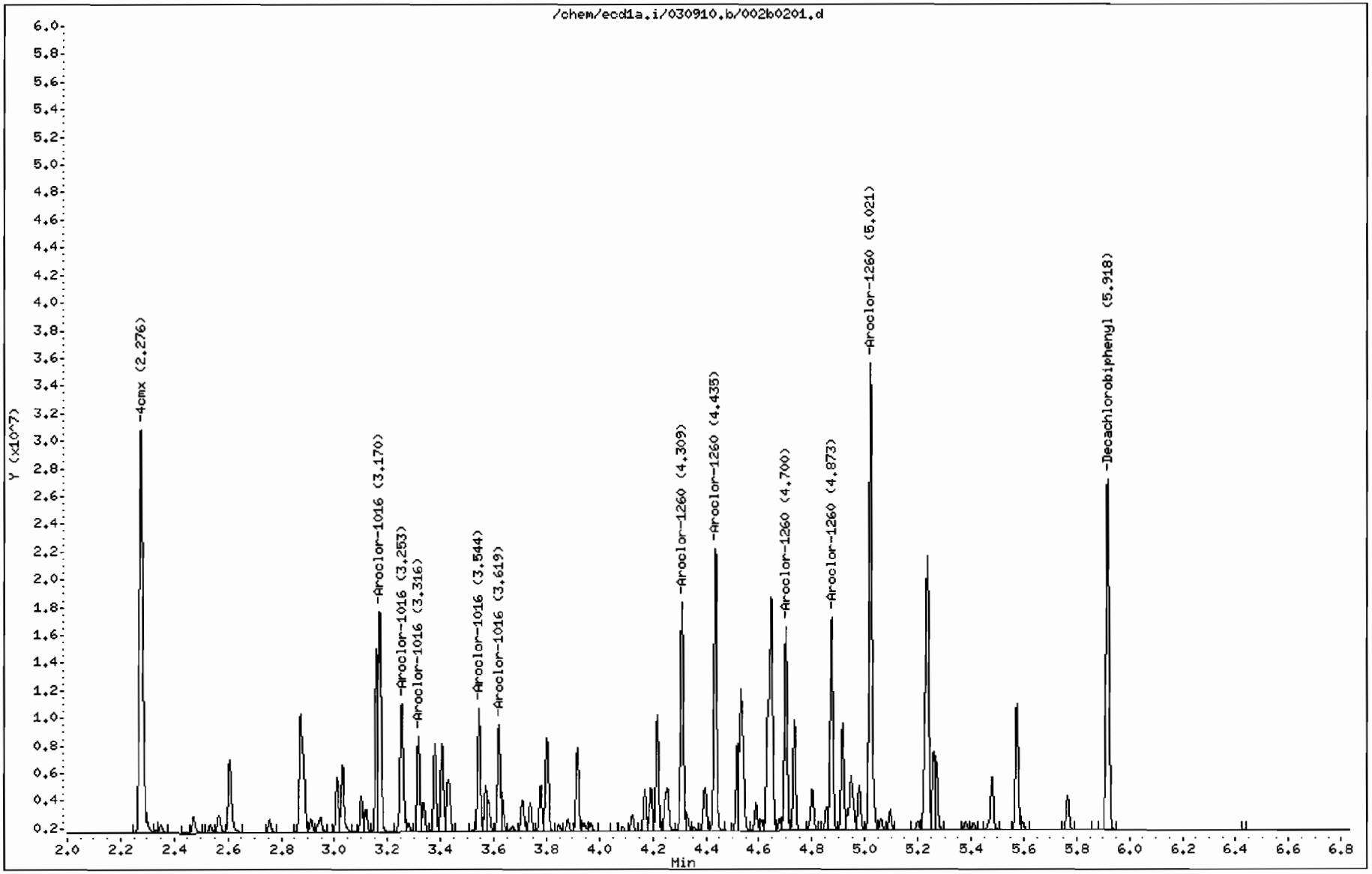

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/003f0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 09-MAR-2010 06:16
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.213	3.213	0.000	11735254	1000.00	977	80.00- 120.00	100.00
3.368	3.368	0.000	15987053	1000.00	1010	116.23- 156.23	136.23
3.602	3.602	0.000	20709681	1000.00	1060	156.47- 196.47	176.47
3.764	3.764	0.000	15509457	1000.00	1120	112.16- 152.16	132.16
3.874	3.874	0.000	15125872	1000.00	1060	108.89- 148.89	128.89

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/030910.b/003f0301.d

Date : 09-MAR-2010 06:16

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

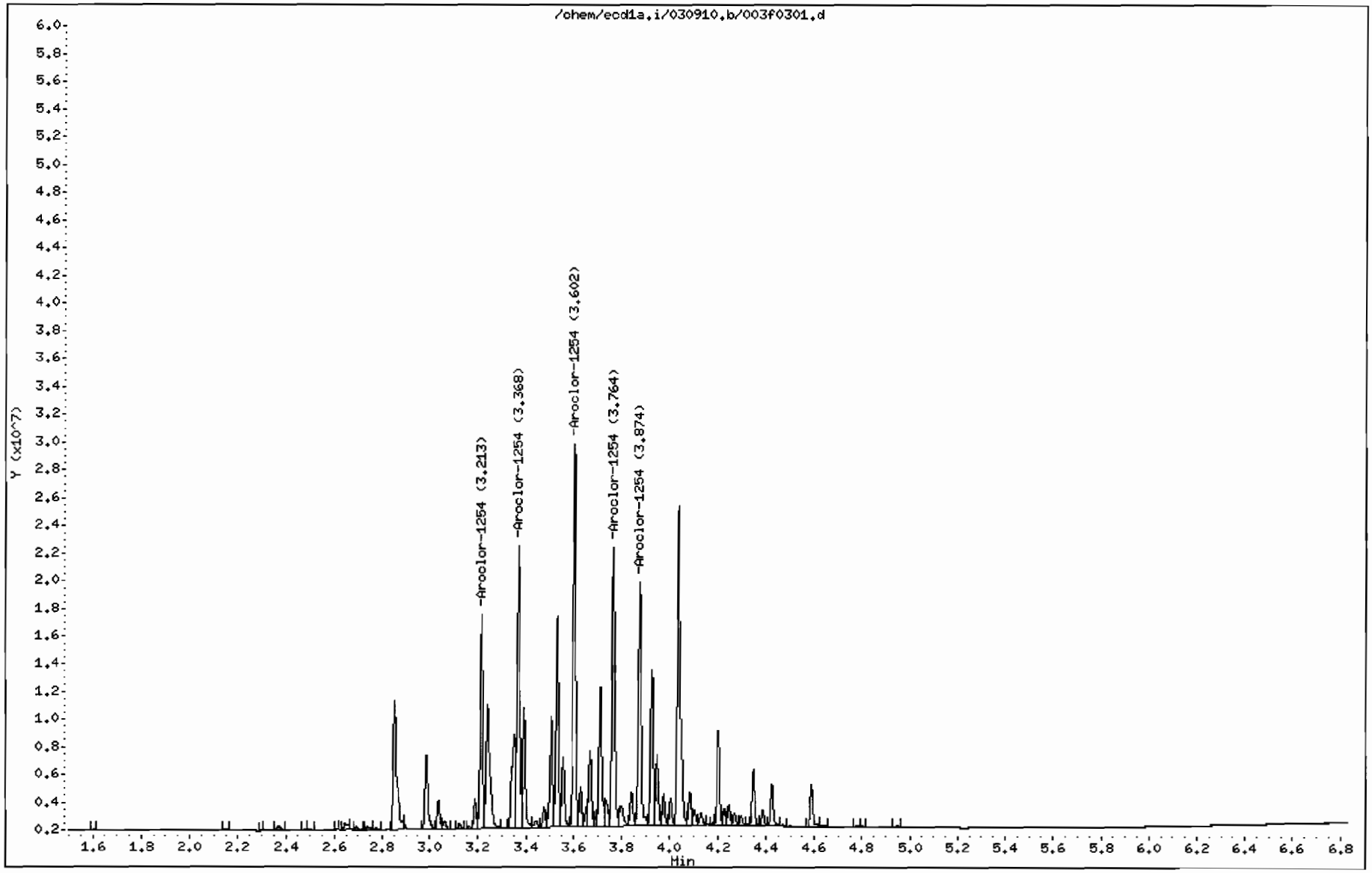

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/003b0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 09-MAR-2010 06:16
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.378	3.378	0.000	5407963	1000.00	891	80.00- 120.00	100.00
3.801	3.801	0.000	9772511	1000.00	910	160.71- 200.71	180.71
3.918	3.918	0.000	10919160	1000.00	938	181.91- 221.91	201.91
4.193	4.193	0.000	15360930	1000.00	966	264.04- 304.04	284.04
4.329	4.329	0.000	11283940	1000.00	942	188.65- 228.65	208.65
Average of Peak Amounts =					929		

Data File: /chem/ecd1a.i/030910.b/003b0301.d

Page 1

Date : 09-MAR-2010 06:16

Client ID: AR125401

Instrument: ecd1a.i

Sample Info: IWAR100219-54

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

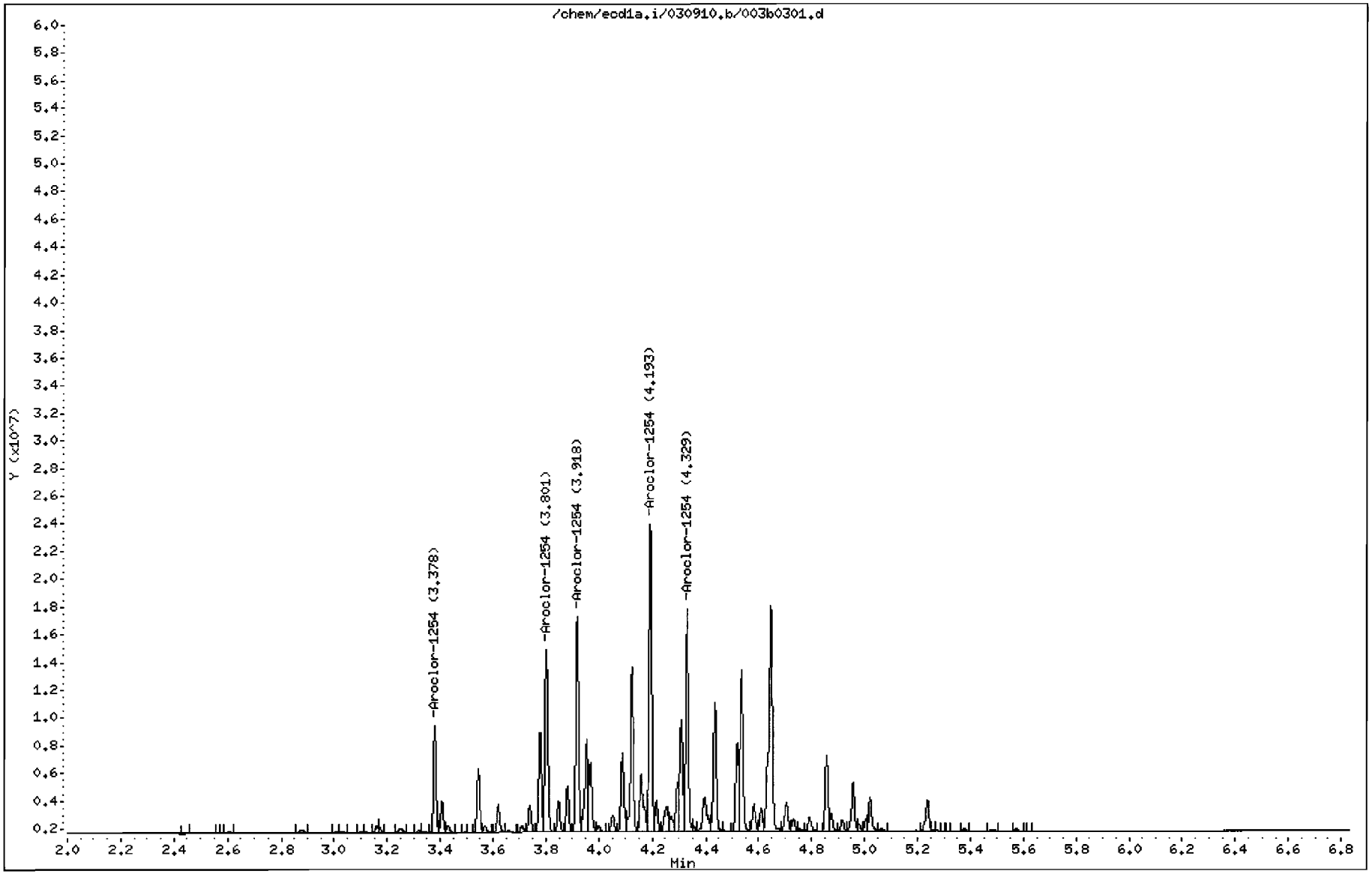

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/004f0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 09-MAR-2010 06:26
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.370	2.370	0.000	11459185	1000.00	912	80.00- 120.00	100.00
2.658	2.658	0.000	14227469	1000.00	974	104.16- 144.16	124.16
2.775	2.775	0.000	5440640	1000.00	966	27.48- 67.48	47.48
2.985	2.985	0.000	7044792	1000.00	964	41.48- 81.48	61.48
3.238	3.238	0.000	6798015	1000.00	1100	39.32- 79.32	59.32
			Average of Peak Amounts =		983		

Data File: /chem/ecd1a.i/030910.b/004f0401.d
Date : 09-MAR-2010 06:26
Client ID: AR124201
Sample Info: IWAR100219-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

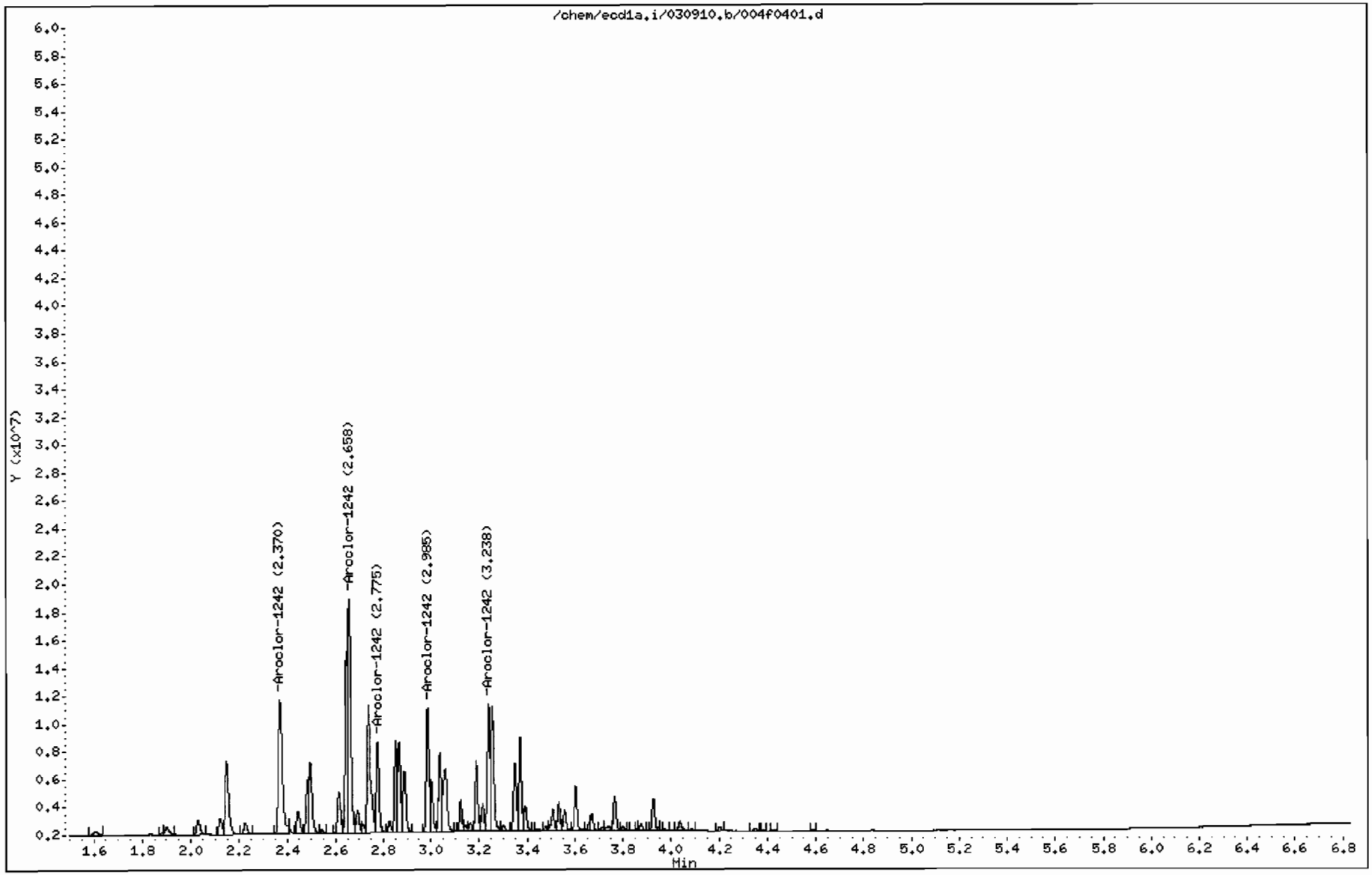

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/004b0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 09-MAR-2010 06:26
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.171	3.171	0.000	9957580	1000.00	962	80.00- 120.00	100.00
3.254	3.254	0.000	6501639	1000.00	893	45.29- 85.29	65.29
3.544	3.544	0.000	5151963	1000.00	893	31.74- 71.74	51.74
3.778	3.778	0.000	5458701	1000.00	943	34.82- 74.82	54.82
3.805	3.805	0.000	6051465	1000.00	911	40.77- 80.77	60.77
			Average of Peak Amounts =		921		

Data File: /chem/ecd1a.i/030910.b/004b0401.d

Date : 09-MAR-2010 06:26

Client ID: AR124201

Sample Info: IWAR100219-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

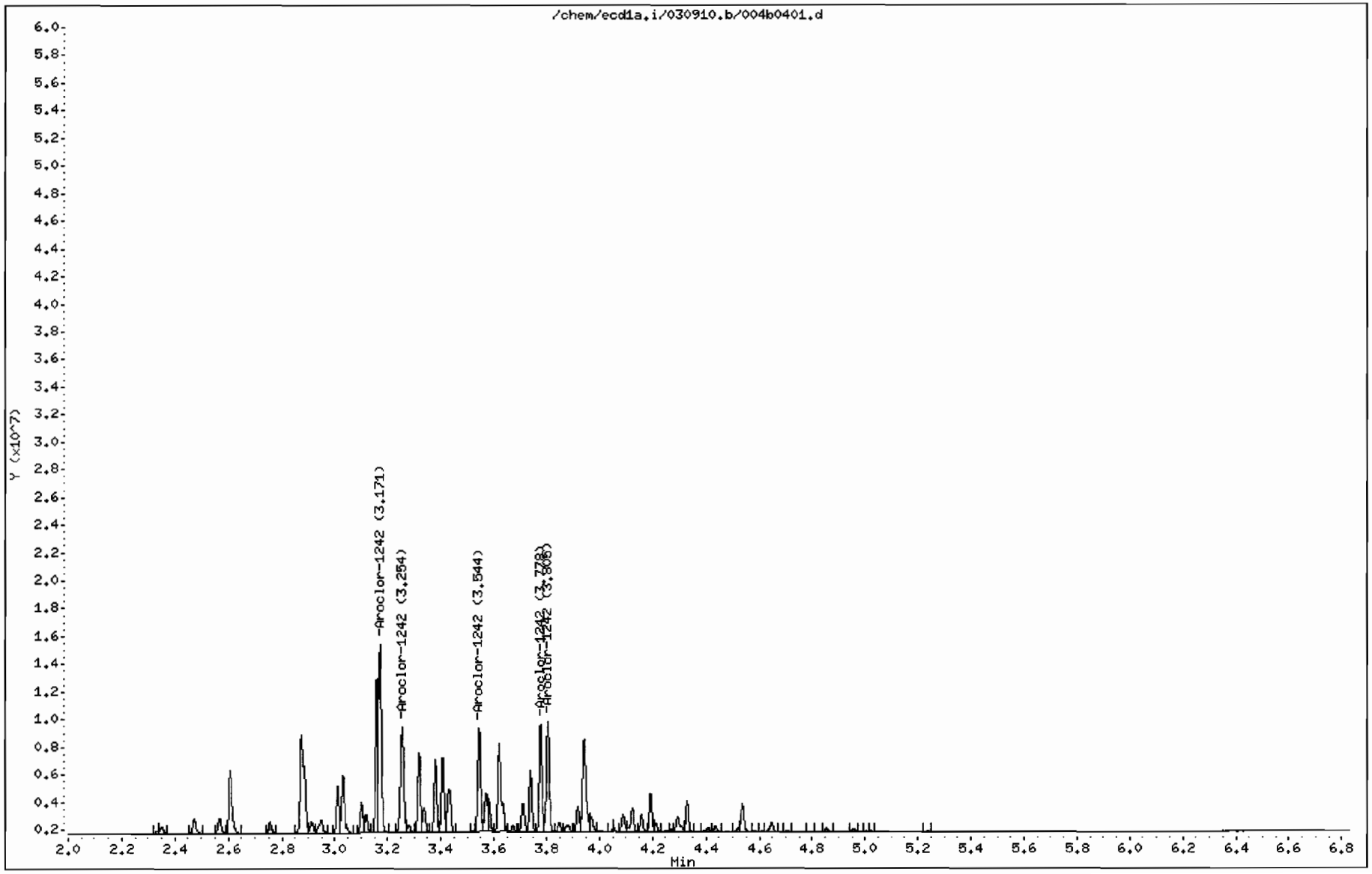

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/005f0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 09-MAR-2010 06:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
2.851	2.851	0.000	9046016	1000.00	972	80.00- 120.00	100.00
2.985	2.985	0.000	12081884	1000.00	974	113.56- 153.56	133.56
3.238	3.238	0.000	13581353	1000.00	1110	130.14- 170.14	150.14
3.370	3.370	0.000	10896732	1000.00	1040	100.46- 140.46	120.46
3.603	3.603	0.000	7304707	1000.00	1070	60.75- 100.75	80.75

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd1a.i/030910.b/005f0501.d

Page 1

Date : 09-MAR-2010 06:37

Client ID: AR124801

Instrument: ecd1a.i

Sample Info: IWAR100223-48

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

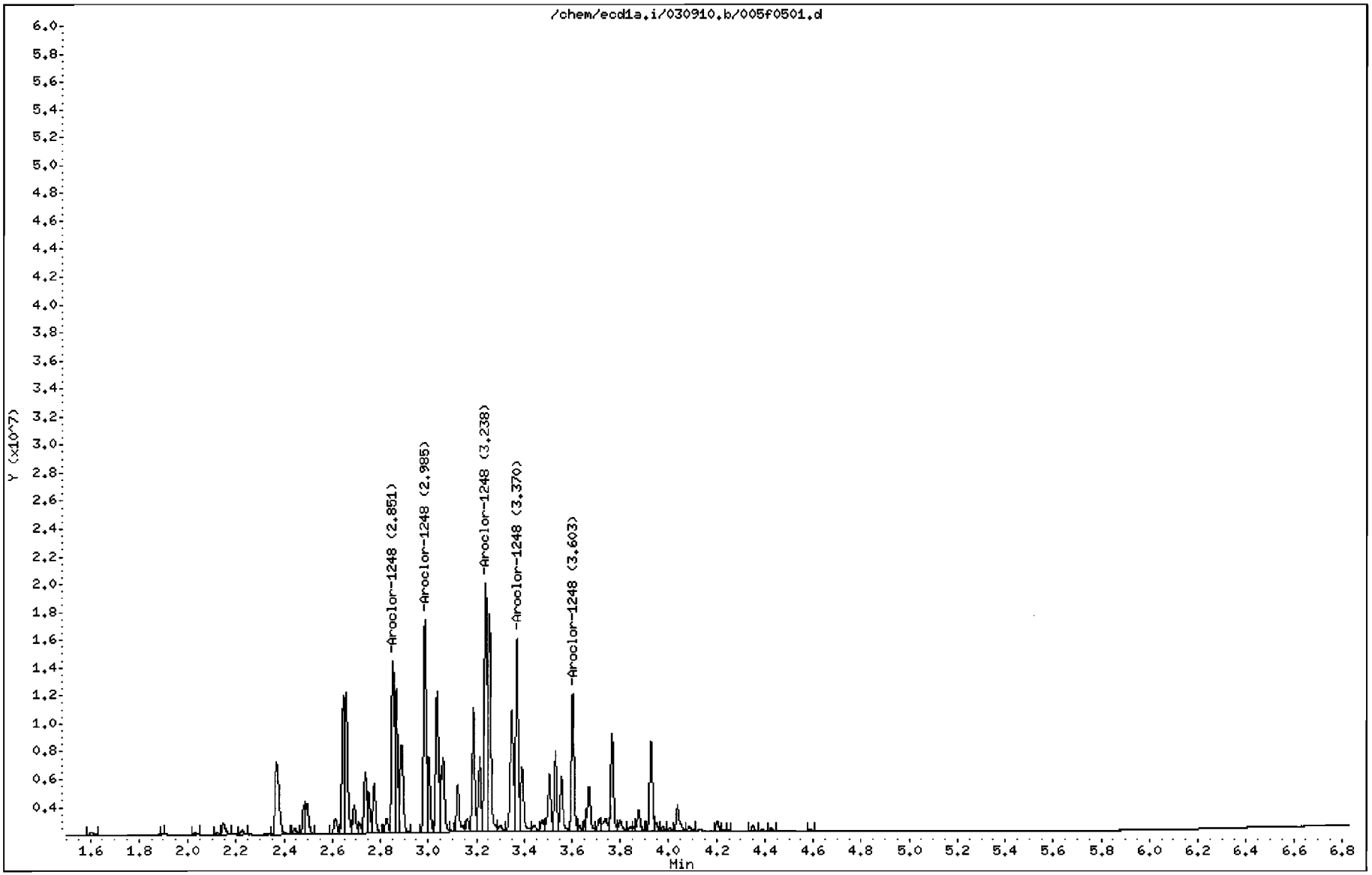

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/005b0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 09-MAR-2010 06:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.380	3.380	0.000	6929850	1000.00	912	80.00- 120.00	100.00
3.545	3.545	0.000	8715802	1000.00	931	105.77- 145.77	125.77
3.778	3.778	0.000	10291134	1000.00	966	128.50- 168.50	148.50
3.805	3.805	0.000	11463962	1000.00	948	145.43- 185.43	165.43
3.942	3.942	0.000	11102138	1000.00	966	140.21- 180.21	160.21
Average of Peak Amounts =					945		

Data File: /chem/ecd1a.i/030910.b/005b0501.d

Date : 09-MAR-2010 06:37

Client ID: AR124801

Sample Info: IWAR100223-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

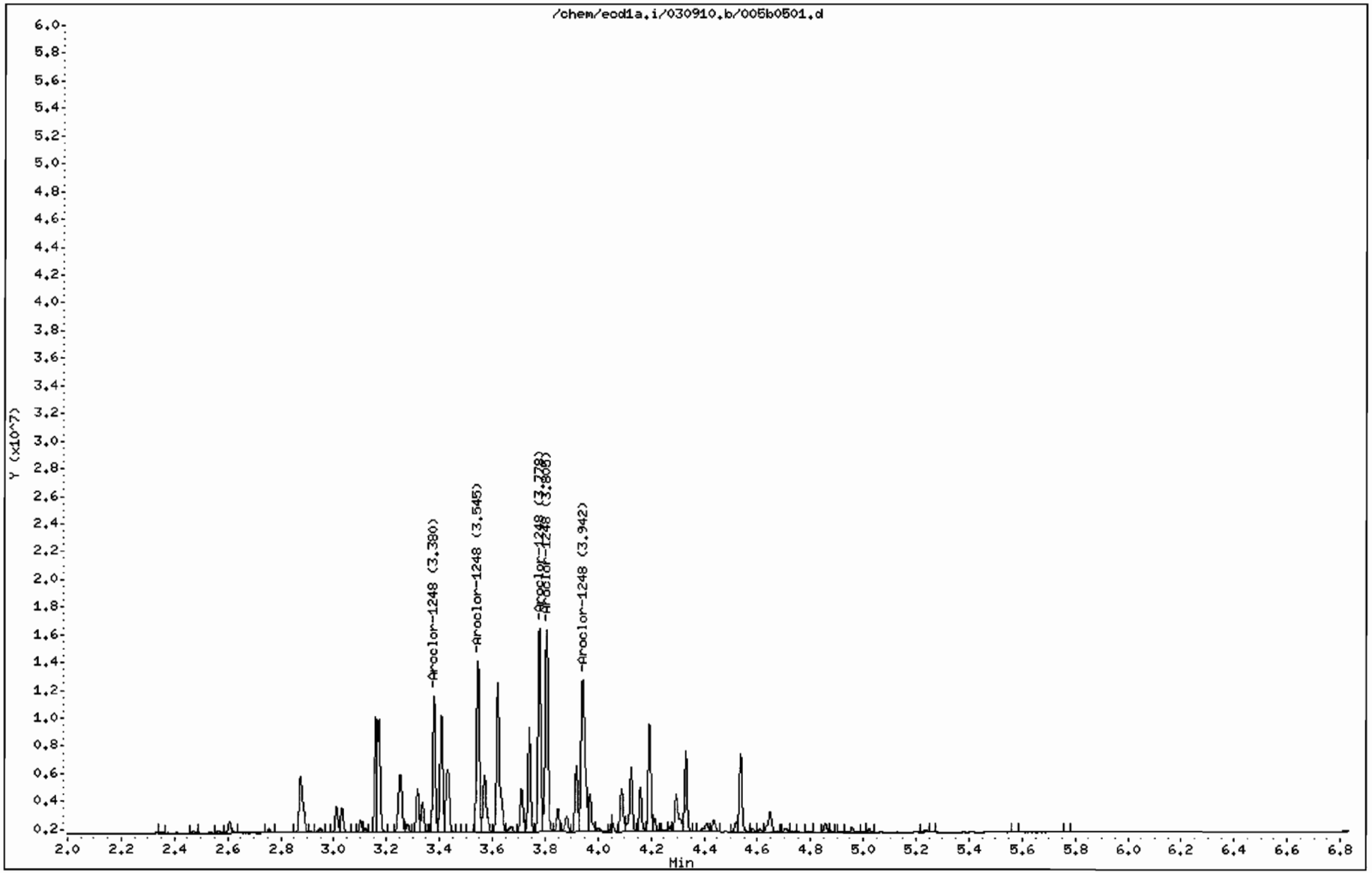

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/007f0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 09-MAR-2010 06:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 14:23 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.370	2.370	0.000	7033576	1000.00	1130	80.00- 120.00	100.00
2.656	2.656	0.000	9006580	1000.00	1200	108.05- 148.05	128.05
2.737	2.737	0.000	5844017	1000.00	1200	63.09- 103.09	83.09
2.851	2.851	0.000	2829786	1000.00	1290	20.23- 60.23	40.23
3.238	3.238	0.000	3889364	1000.00	1420	35.30- 75.30	55.30

Average of Peak Amounts = 1.25e+03

Data File: /chem/ecd1a.i/030910.b/007f0701.d

Date : 09-MAR-2010 06:58

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

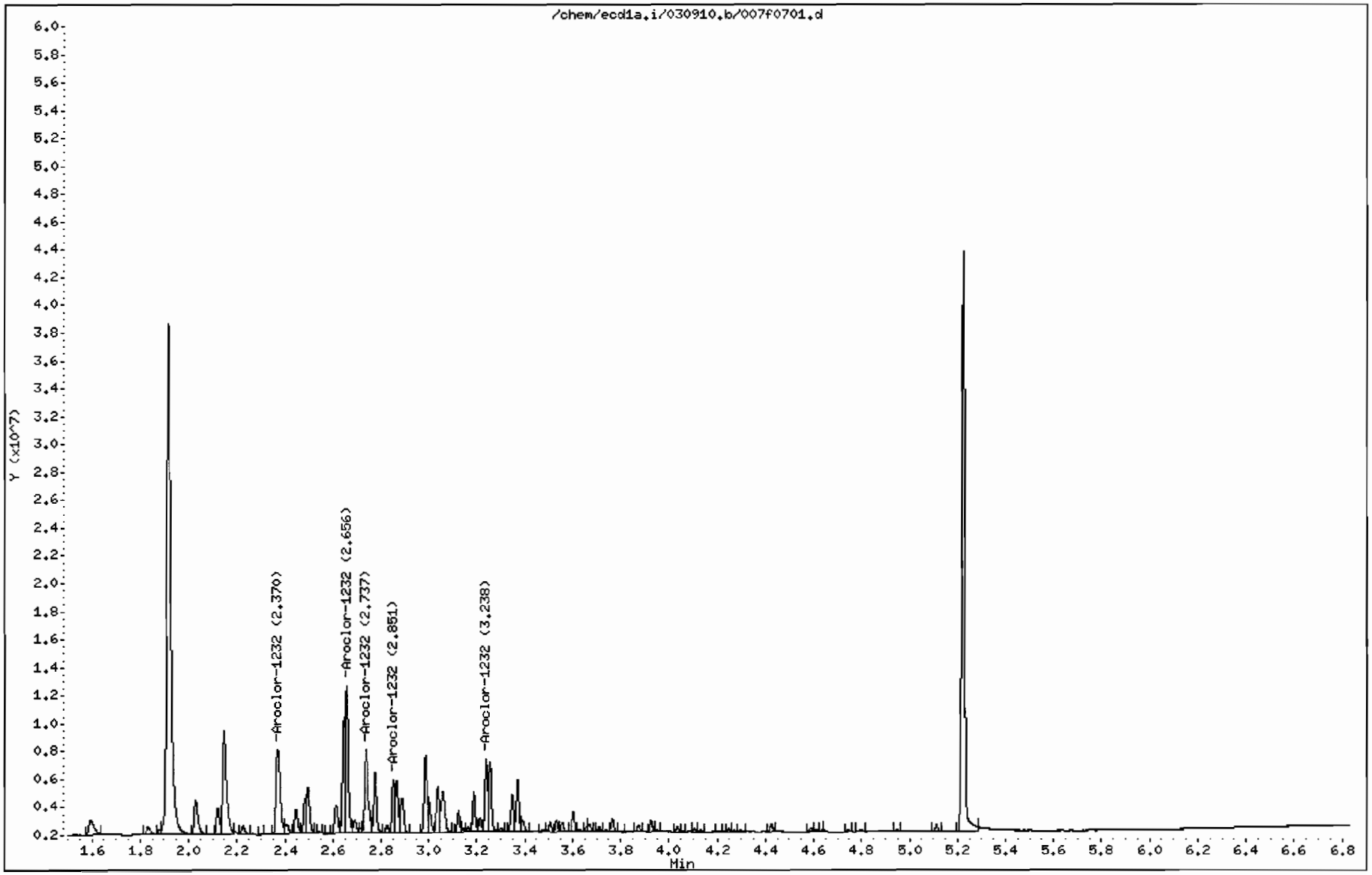

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/007b0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 09-MAR-2010 06:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.873	2.873	0.000	5540248	1000.00	1120	80.00- 120.00	100.00
3.171	3.171	0.000	6241262	1000.00	1190	92.65- 132.65	112.65
3.254	3.254	0.000	4271702	1000.00	1130	57.10- 97.10	77.10
3.544	3.544	0.000	3194463	1000.00	1180	37.66- 77.66	57.66
3.778	3.778	0.000	3209215	1000.00	1220	37.93- 77.93	57.93

Average of Peak Amounts = 1.17e+03

Data File: /chem/ecd1a.i/030910.b/007b0701.d
Date : 09-MAR-2010 06:58
Client ID: AR123201
Sample Info: IWAR100104-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

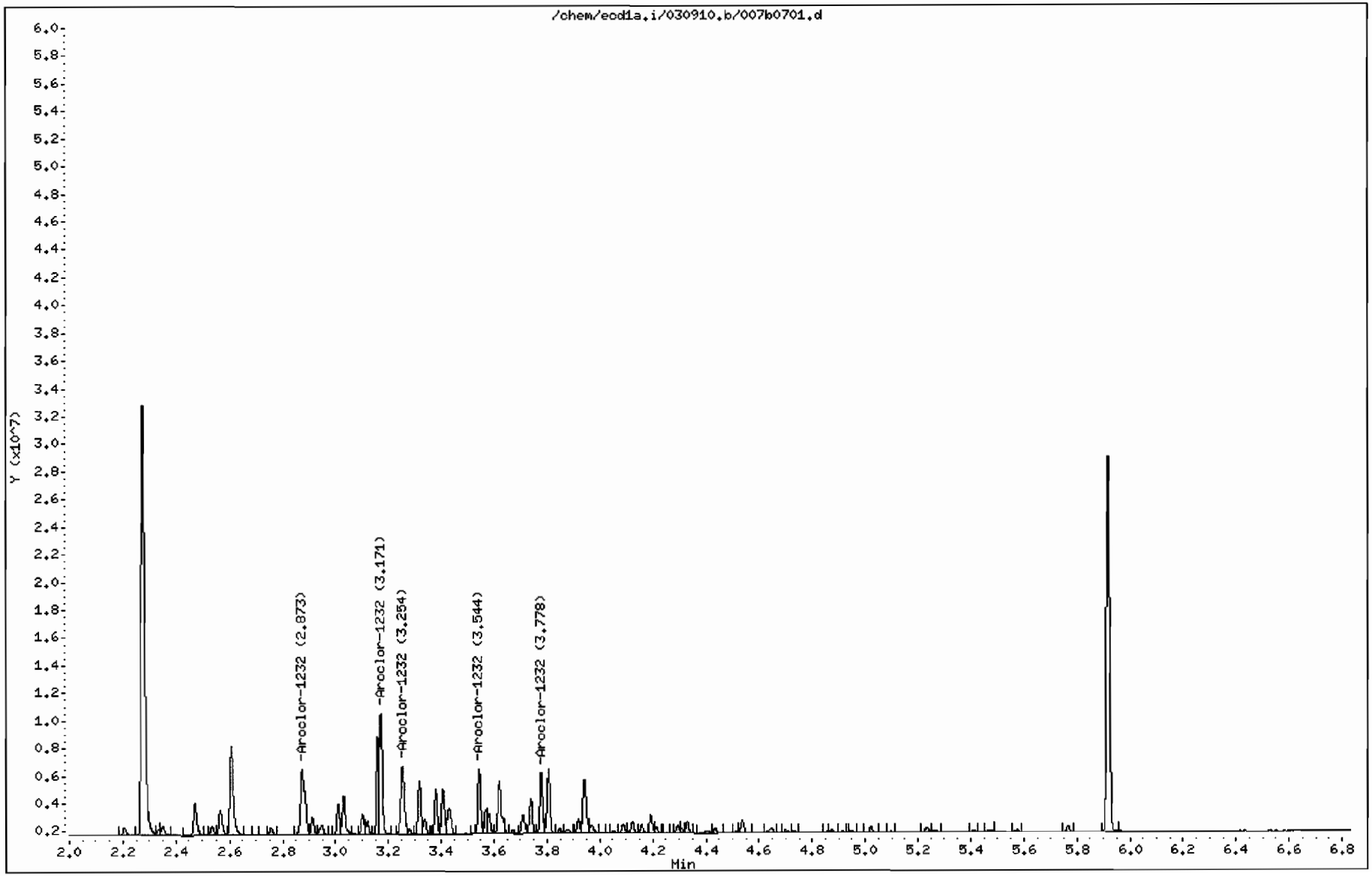

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/008f0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 09-MAR-2010 07:08
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.030	2.030	0.000	4834593	1000.00	1100	80.00- 120.00	100.00
2.123	2.123	0.000	2705775	1000.00	1110	35.97- 75.97	55.97
2.148	2.148	0.000	11738563	1000.00	1130	222.80- 262.80	242.80

Average of Peak Amounts = 1.11e+03

Data File: /chem/ecd1a.i/030910.b/008f0801.d

Date : 09-MAR-2010 07:08

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

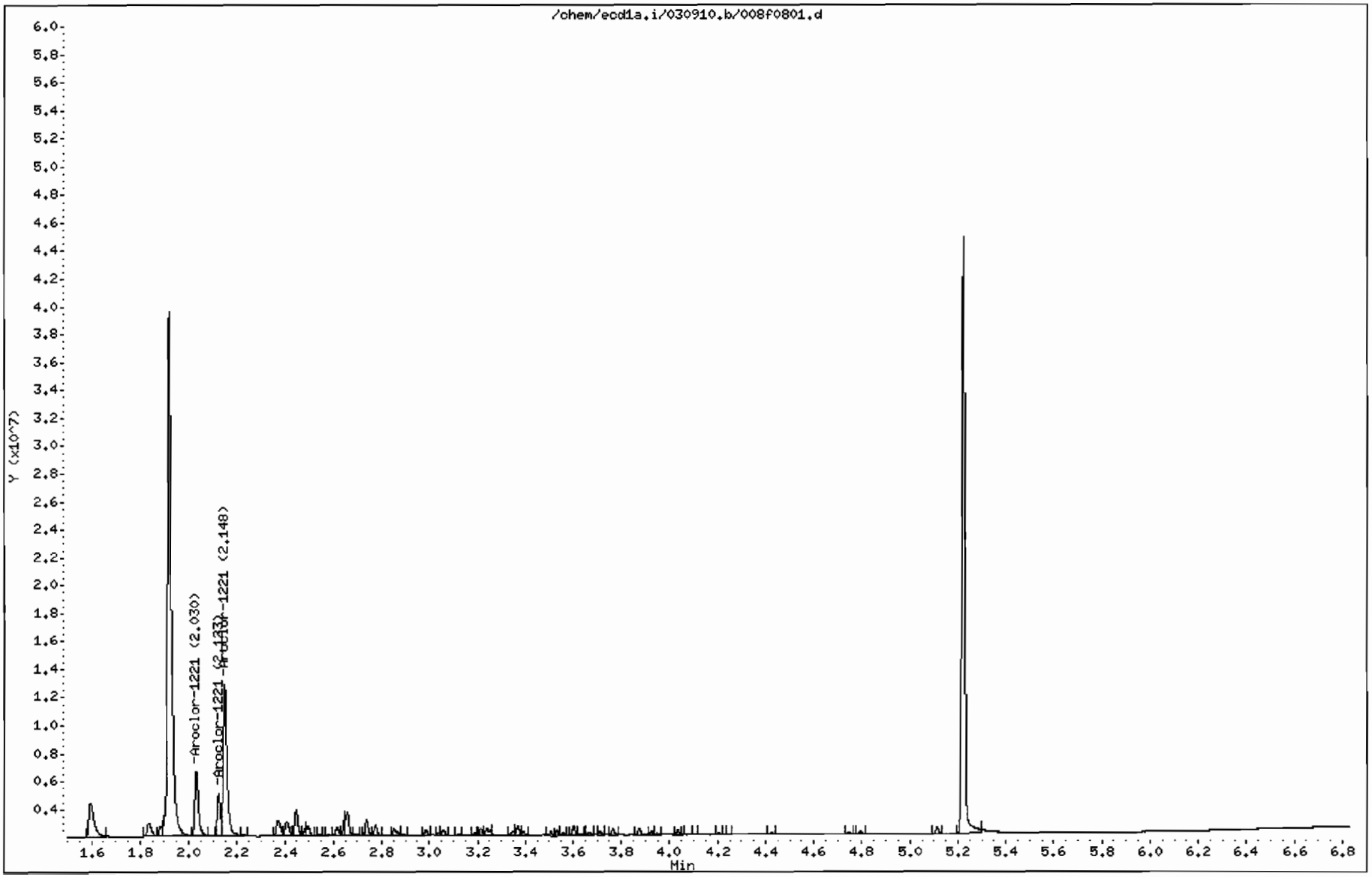

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/008b0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 09-MAR-2010 07:08
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.473	2.473	0.000	3800281	1000.00	1110	80.00- 120.00	100.00
2.567	2.567	0.000	2374760	1000.00	1100	42.49- 82.49	62.49
2.607	2.607	0.000	8102035	1000.00	1100	193.20- 233.20	213.20

Average of Peak Amounts = 1.11e+03

Data File: /chem/ecd1a.i/030910.b/008b0801.d

Page 1

Date : 09-MAR-2010 07:08

Client ID: AR122101

Instrument: ecd1a.i

Sample Info: IWAR100104-21

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

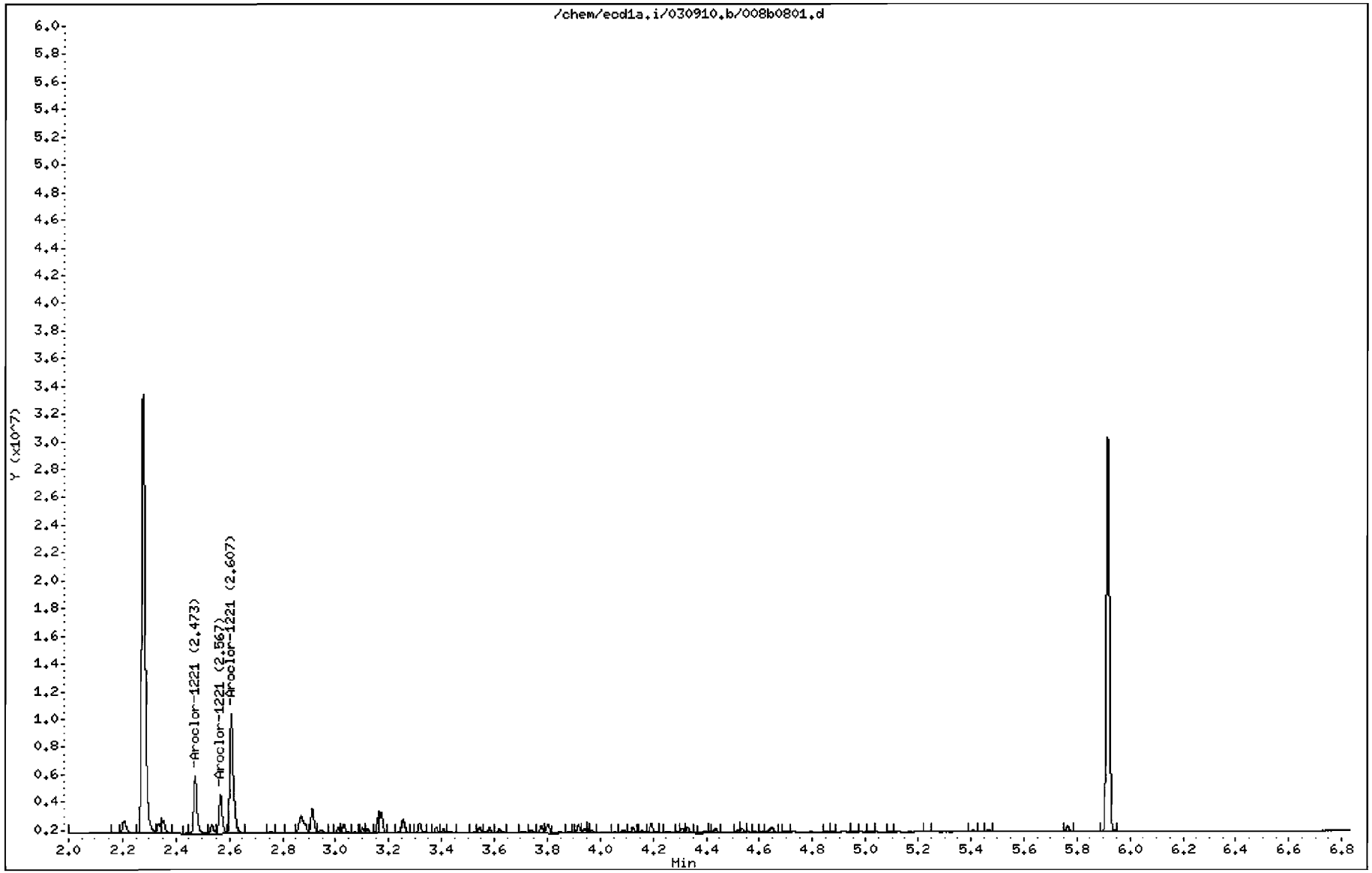

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/009f0901.d
Lab Smp Id: WAR100104-62 Client Smp ID: AR126201
Inj Date : 09-MAR-2010 07:19
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-62
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1262.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
8 Aroclor-1262					CAS #: 37324-23-5		
3.711	3.711	0.000	15005429	1000.00	1190	80.00- 120.00	100.00
3.874	3.874	0.000	19920997	1000.00	1270	112.76- 152.76	132.76
4.104	4.104	0.000	24923261	1000.00	1250	146.09- 186.09	166.09
4.246	4.246	0.000	22573182	1000.00	1260	130.43- 170.43	150.43
4.425	4.425	0.000	46923136	1000.00	1260	292.71- 332.71	312.71

Average of Peak Amounts = 1.24e+03

Data File: /chem/ecd1a.i/030910.b/009f0901.d
Date : 09-MAR-2010 07:19
Client ID: AR126201
Sample Info: IWAR100104-62

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

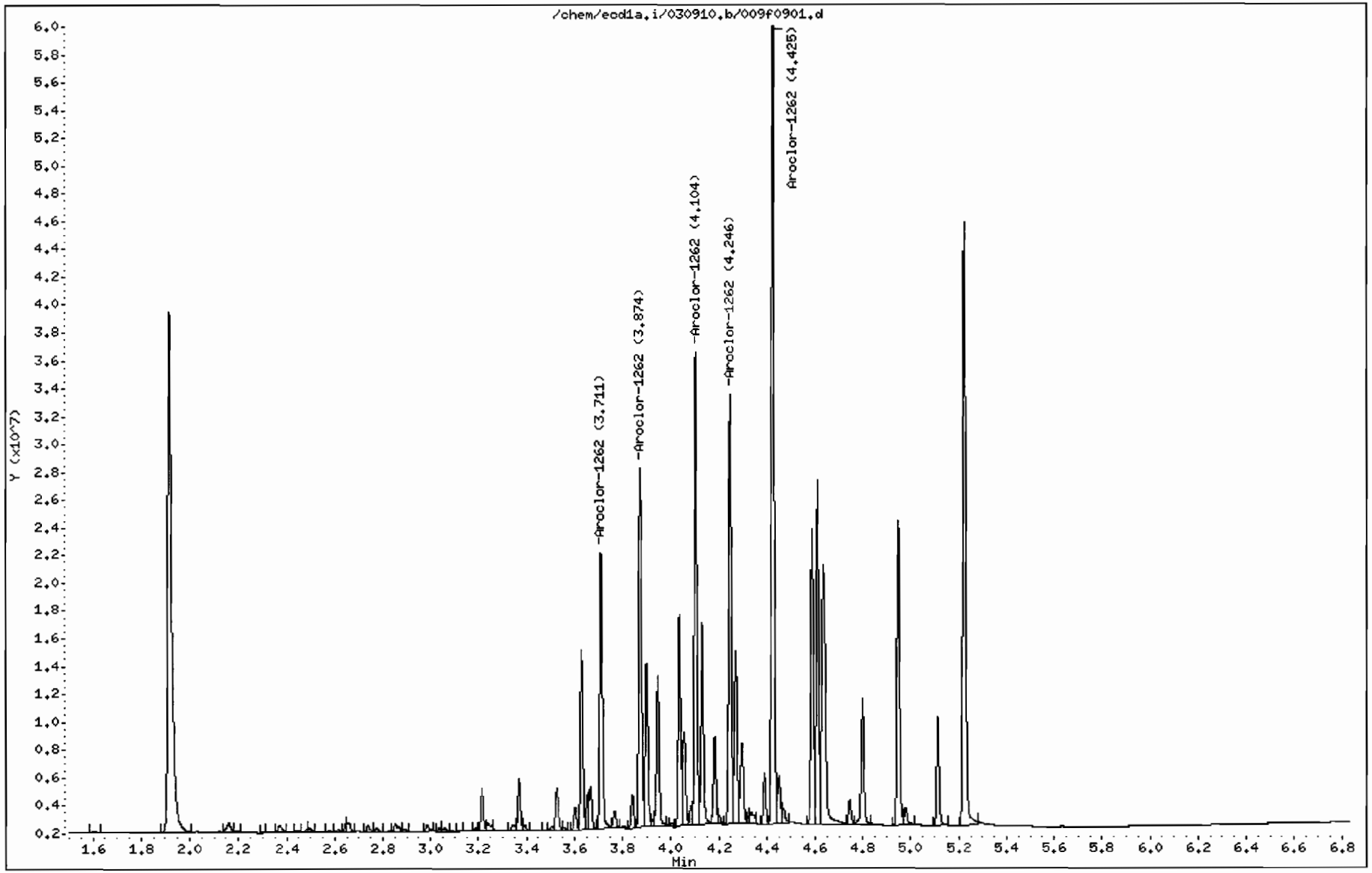

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/009b0901.d
Lab Smp Id: WAR100104-62 Client Smp ID: AR126201
Inj Date : 09-MAR-2010 07:19
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-62
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1262.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
8 Aroclor-1262					CAS #: 37324-23-5		
4.434	4.434	0.000	12789626	1000.00	1140	80.00- 120.00	100.00
4.700	4.700	0.000	17676136	1000.00	1140	118.21- 158.21	138.21
4.874	4.874	0.000	16181286	1000.00	1150	106.52- 146.52	126.52
5.020	5.020	0.000	32756762	1000.00	1150	236.12- 276.12	256.12
5.234	5.234	0.000	23091642	1000.00	1170	160.55- 200.55	180.55

Average of Peak Amounts = 1.15e+03

Data File: /chem/ecd1a.i/030910.b/009b0901.d

Page 1

Date : 09-MAR-2010 07:19

Client ID: AR126201

Instrument: ecd1a.i

Sample Info: IWAR100104-62

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

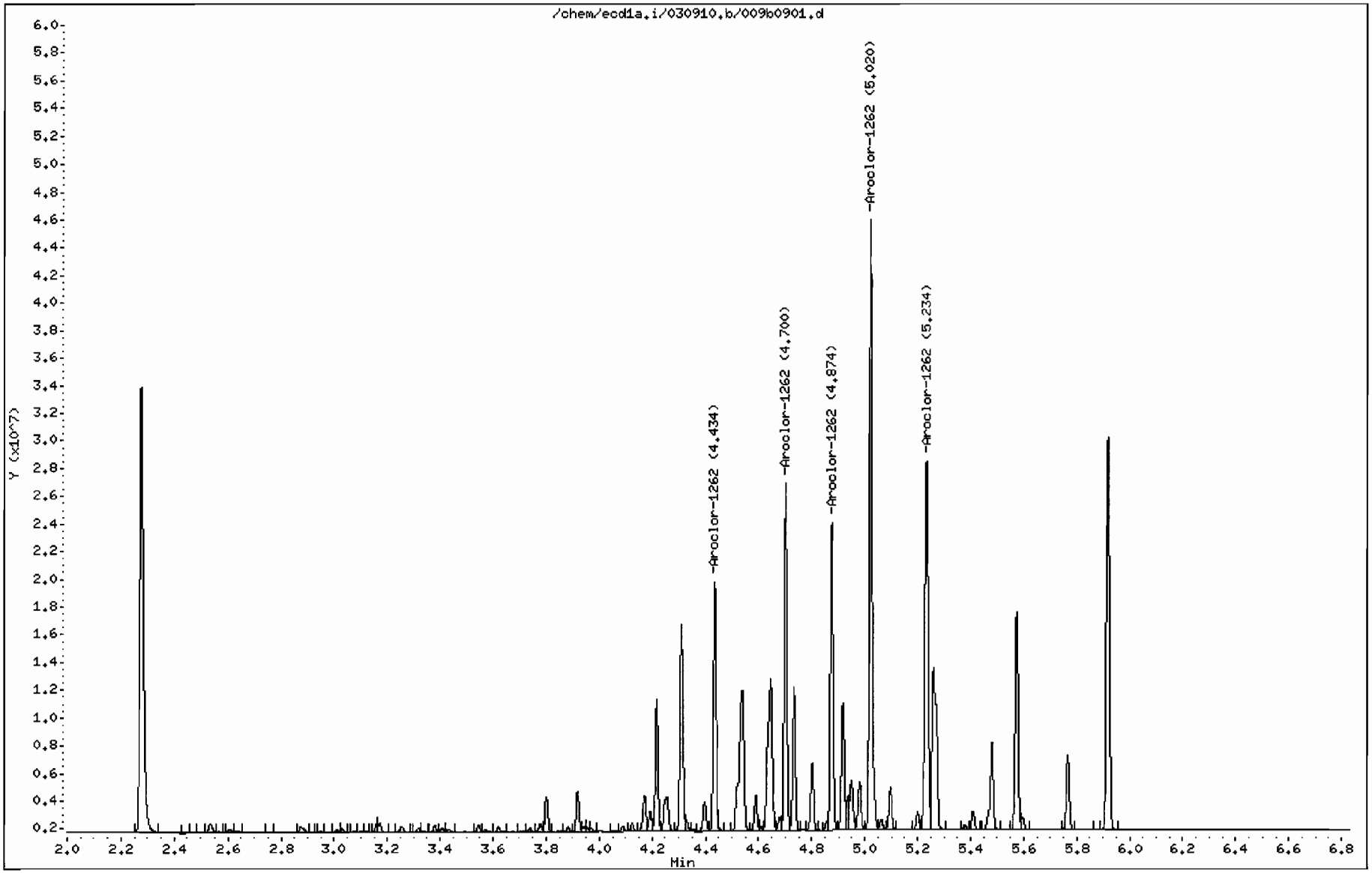

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/025f2501.d
Lab Smp Id: WAR100222-60 03 Client Smp ID: AR166003
Inj Date : 09-MAR-2010 10:21
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 10:55 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.917	1.916	0.001	39680226	100.000	92.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.220	5.223	-0.003	30941576	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.369	2.370	-0.001	14060683	1000.00	914	80.00- 120.00	100.00
2.656	2.656	0.000	17777120	1000.00	975	106.43- 146.43	126.43
2.736	2.736	0.000	11271846	1000.00	934	60.17- 100.17	80.17
2.773	2.774	-0.001	6815125	1000.00	960	28.47- 68.47	48.47
2.983	2.984	-0.001	8730275	1000.00	980	42.09- 82.09	62.09
Average of Peak Amounts =					953		
7 Aroclor-1260					CAS #: 11096-82-5		
3.708	3.710	-0.002	17016413	1000.00	997	80.00- 120.00	100.00
3.871	3.873	-0.002	25400273	1000.00	1070	129.27- 169.27	149.27
4.033	4.035	-0.002	27114495	1000.00	1080	139.34- 179.34	159.34
4.102	4.102	0.000	15286706	1000.00	1060	69.84- 109.84	89.84
4.244	4.246	-0.002	15918473	1000.00	1100	73.55- 113.55	93.55
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecd1a.i/030910.b/025f2501.d

Date : 09-MAR-2010 10:21

Client ID: AR166003

Sample Info: IWAR100222-60 03

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

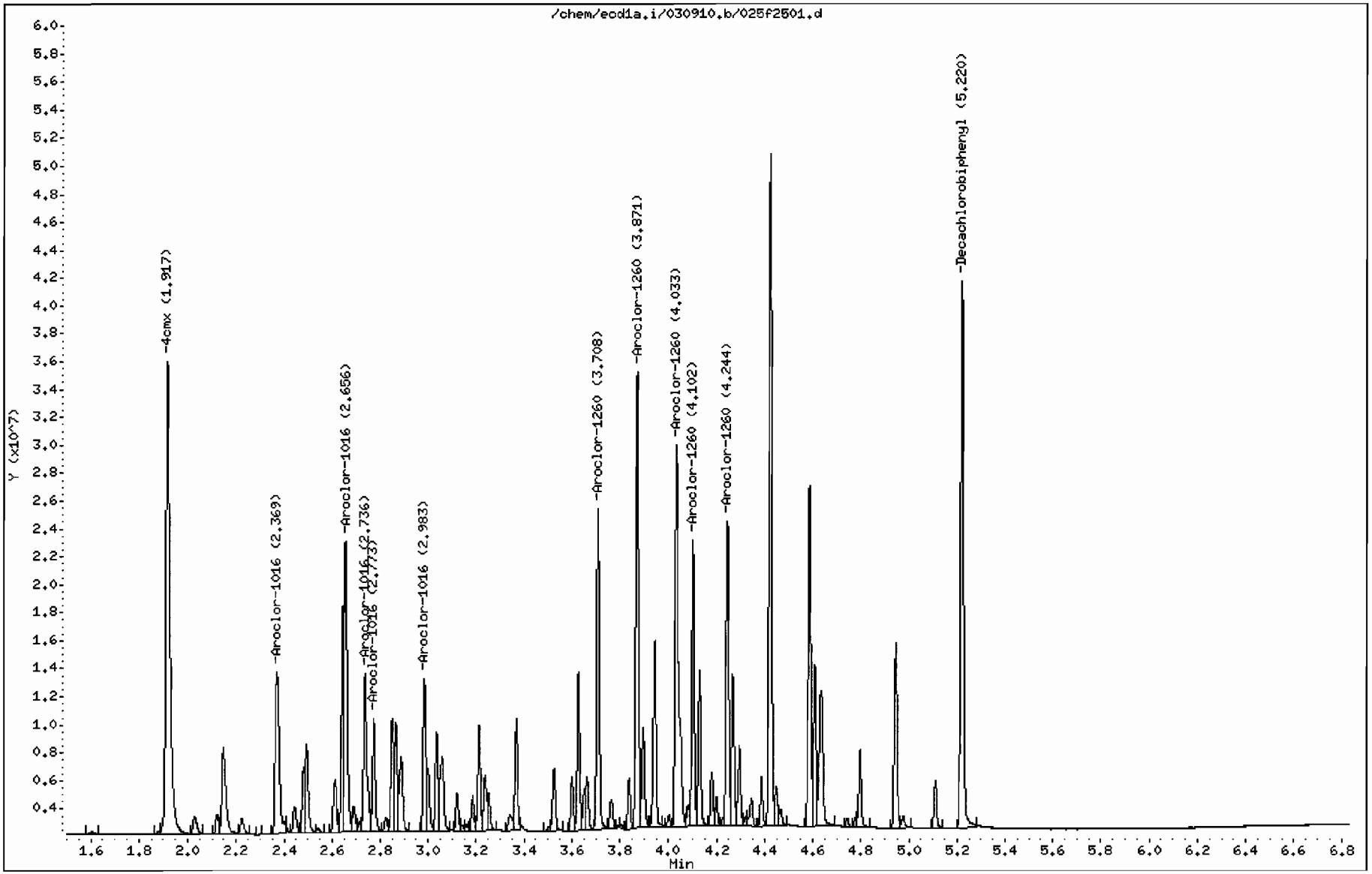

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/025b2501.d
Lab Smp Id: WAR100222-60 03 Client Smp ID: AR166003
Inj Date : 09-MAR-2010 10:21
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 10:54 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.275	2.276	-0.001	26743661	100.000	89.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.916	5.918	-0.002	19387352	100.000	91.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.169	3.170	-0.001	12193531	1000.00	953	80.00- 120.00	100.00(M)
3.252	3.253	-0.001	7901532	1000.00	886	44.80- 84.80	64.80
3.316	3.316	0.000	4934564	1000.00	913	20.47- 60.47	40.47
3.542	3.544	-0.002	6203624	1000.00	897	30.88- 70.88	50.88
3.617	3.619	-0.002	5825015	1000.00	906	37.60- 77.60	57.60
Average of Peak Amounts =					911		
7 Aroclor-1260					CAS #: 11096-82-5		
4.307	4.309	-0.002	11974228	1000.00	907	80.00- 120.00	100.00
4.432	4.435	-0.003	14696750	1000.00	944	102.74- 142.74	122.74
4.697	4.700	-0.003	11082986	1000.00	936	72.56- 112.56	92.56
4.871	4.873	-0.002	11537123	1000.00	946	76.35- 116.35	96.35
5.018	5.021	-0.003	25747290	1000.00	971	195.02- 235.02	215.02
Average of Peak Amounts =					941		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/030910.b/025b2501.d
Date : 09-MAR-2010 10:21
Client ID: AR166003
Sample Info: IWAR100222-60 03

Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

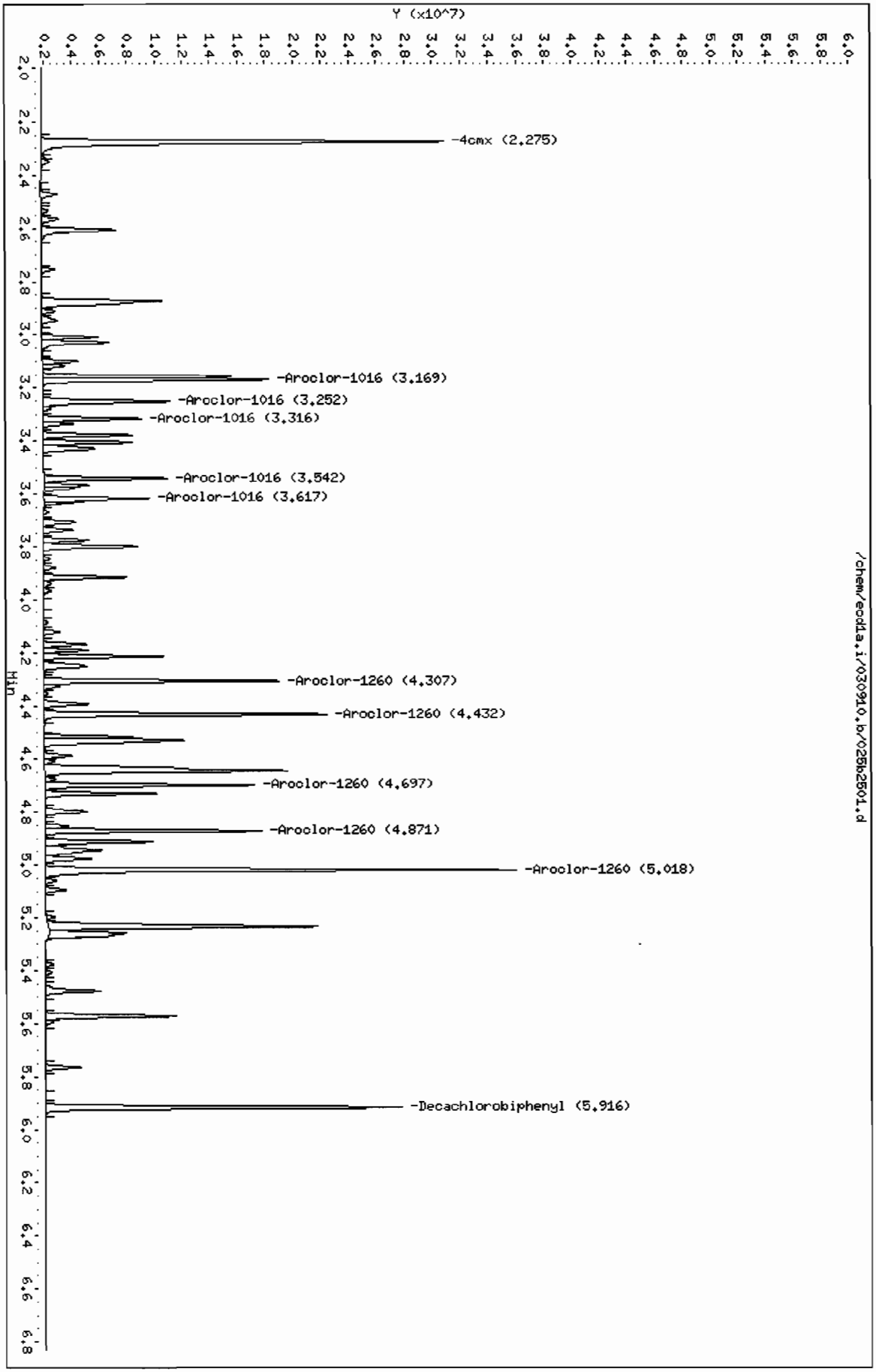

Page 1

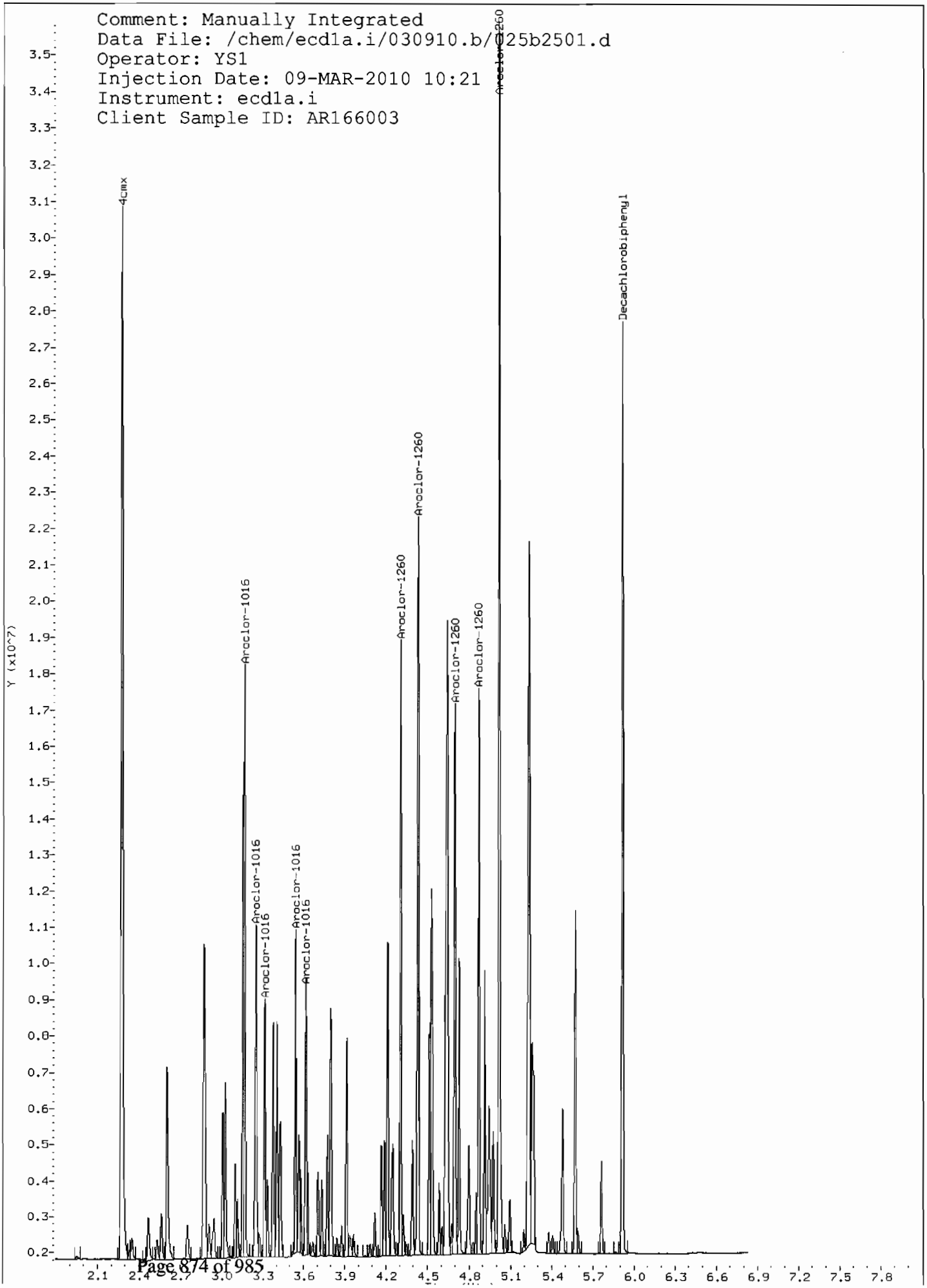
Comment: Manually Integrated
Data File: /chem/ecd1a.i/030910.b/025b2501.d
Operator: YS1
Injection Date: 09-MAR-2010 10:21
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
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Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)

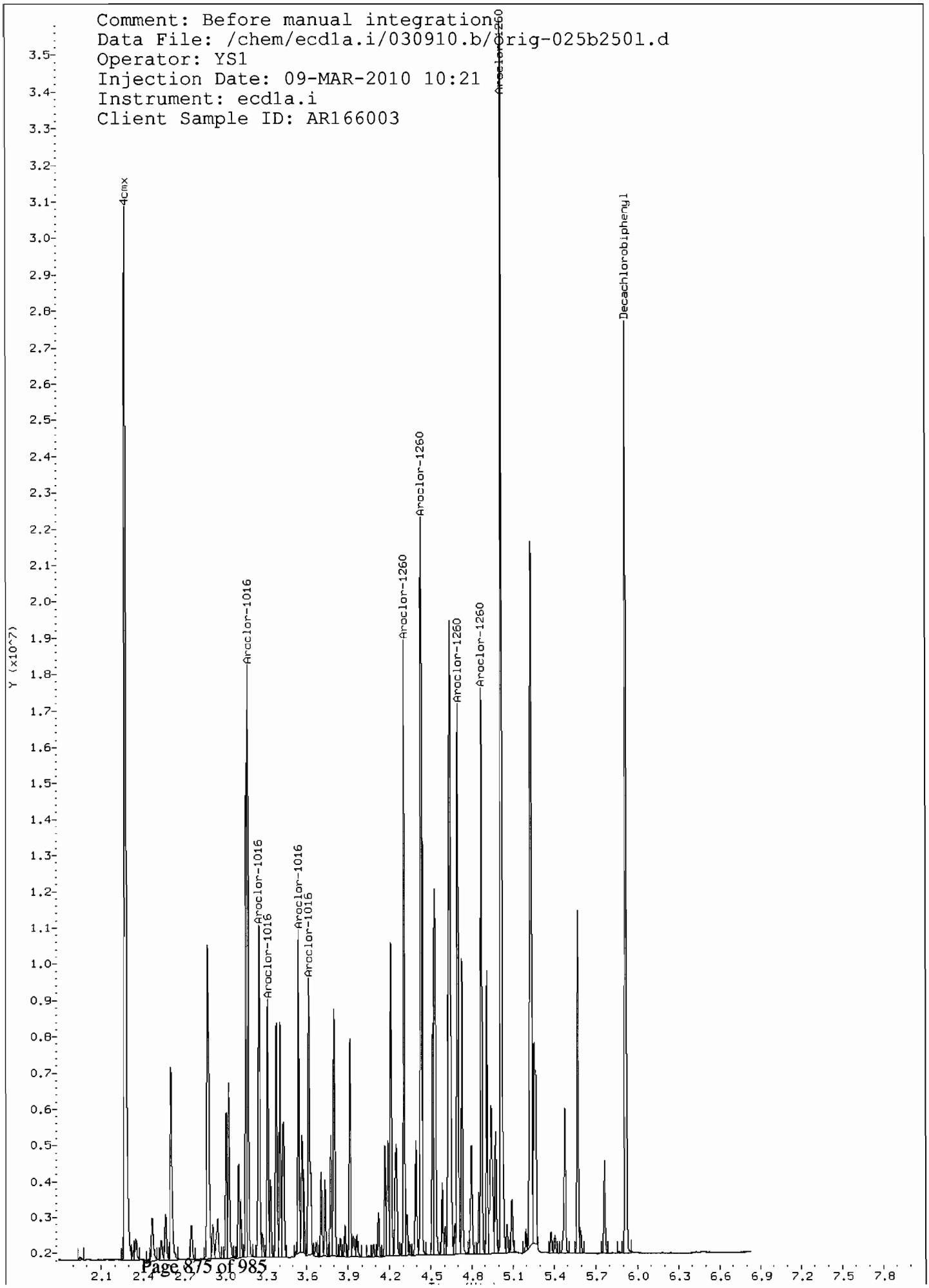
Comment: Before manual integration
Data File: /chem/ecd1a.i/030910.b/orig-025b2501.d
Operator: YS1
Injection Date: 09-MAR-2010 10:21
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/036f3601.d
Lab Smp Id: WAR100222-60 04 Client Smp ID: AR166004
Inj Date : 09-MAR-2010 12:23
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 36 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.916	1.916	0.000	40471444	100.000	94.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.220	5.223	-0.003	31806720	100.000	104	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.368	2.370	-0.002	14278137	1000.00	928	80.00- 120.00	100.00
2.656	2.656	0.000	18701586	1000.00	1020	110.98- 150.98	130.98
2.736	2.736	0.000	11479585	1000.00	951	60.40- 100.40	80.40
2.773	2.774	-0.001	6956937	1000.00	980	28.72- 68.72	48.72
2.983	2.984	-0.001	8887592	1000.00	997	42.25- 82.25	62.25
Average of Peak Amounts =					977		
7 Aroclor-1260					CAS #: 11096-82-5		
3.708	3.710	-0.002	17231278	1000.00	1010	80.00- 120.00	100.00
3.871	3.873	-0.002	25747341	1000.00	1090	129.42- 169.42	149.42
4.032	4.035	-0.003	27594765	1000.00	1100	140.14- 180.14	160.14
4.101	4.102	-0.001	15539147	1000.00	1080	70.18- 110.18	90.18
4.243	4.246	-0.003	16196326	1000.00	1120	73.99- 113.99	93.99
Average of Peak Amounts =					1.08e+03		

Data File: /chem/ecdia.i/030910.b/036f3601.d
Date : 09-MAR-2010 12:23
Client ID: AR166004
Sample Info: IWAR100222-60 04

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

Column phase: CLP1

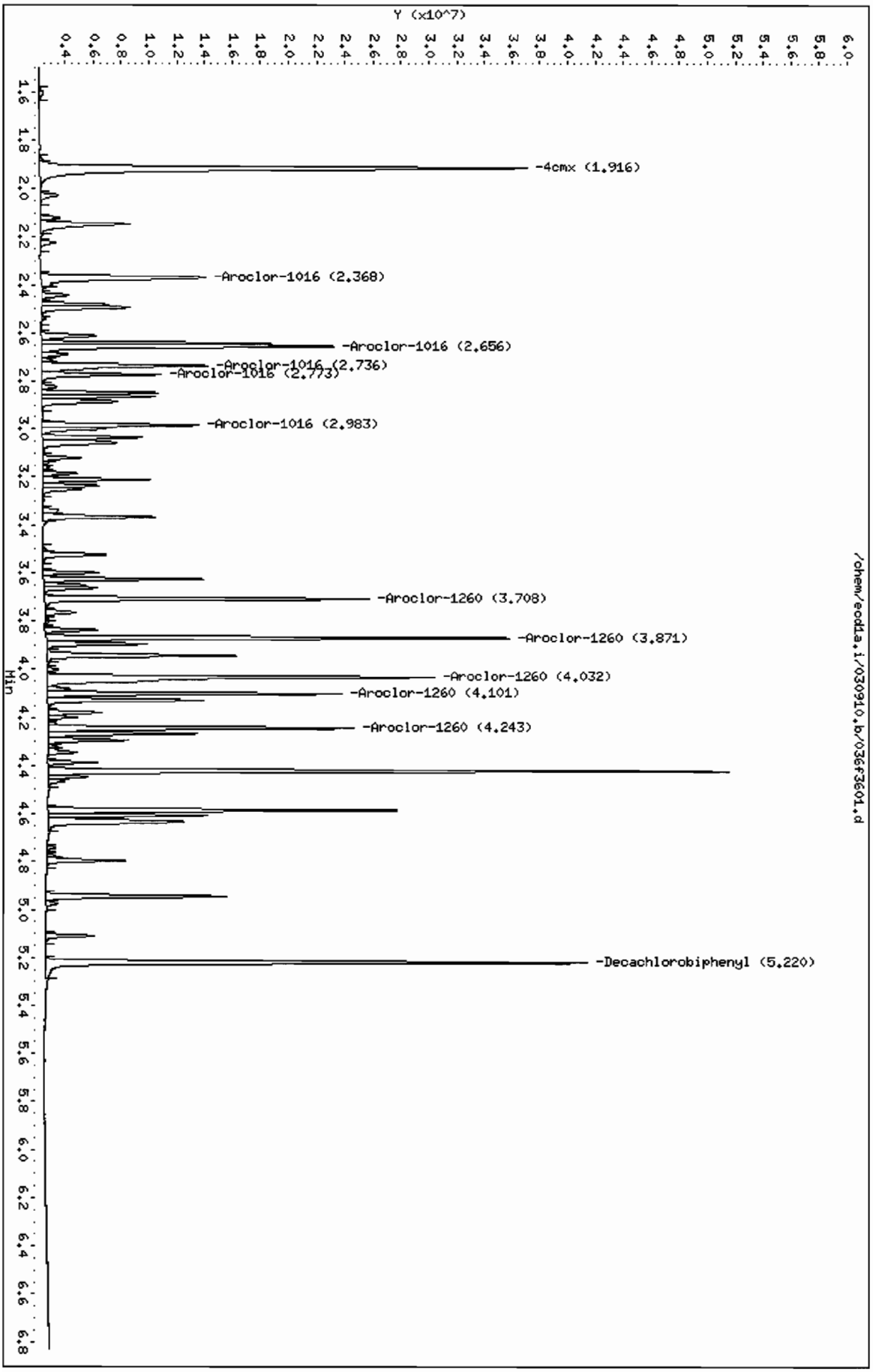

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/036b3601.d
Lab Smp Id: WAR100222-60 04 Client Smp ID: AR166004
Inj Date : 09-MAR-2010 12:23
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 36 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.275	2.276	-0.001	27545191	100.000	92.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.915	5.918	-0.003	19984480	100.000	94.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.169	3.170	-0.001	12542512	1000.00	981	80.00- 120.00	100.00(M)
3.252	3.253	-0.001	8094605	1000.00	908	44.54- 84.54	64.54
3.316	3.316	0.000	5066938	1000.00	937	20.40- 60.40	40.40
3.542	3.544	-0.002	6566448	1000.00	950	30.67- 70.67	52.35
3.617	3.619	-0.002	6086252	1000.00	947	37.45- 77.45	48.52
Average of Peak Amounts =					944		
7 Aroclor-1260					CAS #: 11096-82-5		
4.307	4.309	-0.002	12295985	1000.00	931	80.00- 120.00	100.00
4.432	4.435	-0.003	15078122	1000.00	969	102.63- 142.63	122.63
4.697	4.700	-0.003	11370329	1000.00	960	72.47- 112.47	92.47
4.871	4.873	-0.002	11877501	1000.00	973	76.60- 116.60	96.60
5.018	5.021	-0.003	26534899	1000.00	1000	195.80- 235.80	215.80
Average of Peak Amounts =					967		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/030910.b/036b3601.d
Date : 09-MAR-2010 12:23
Client ID: AR166004
Sample Info: IWAR100222-60 04

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

Column phase: CLP2

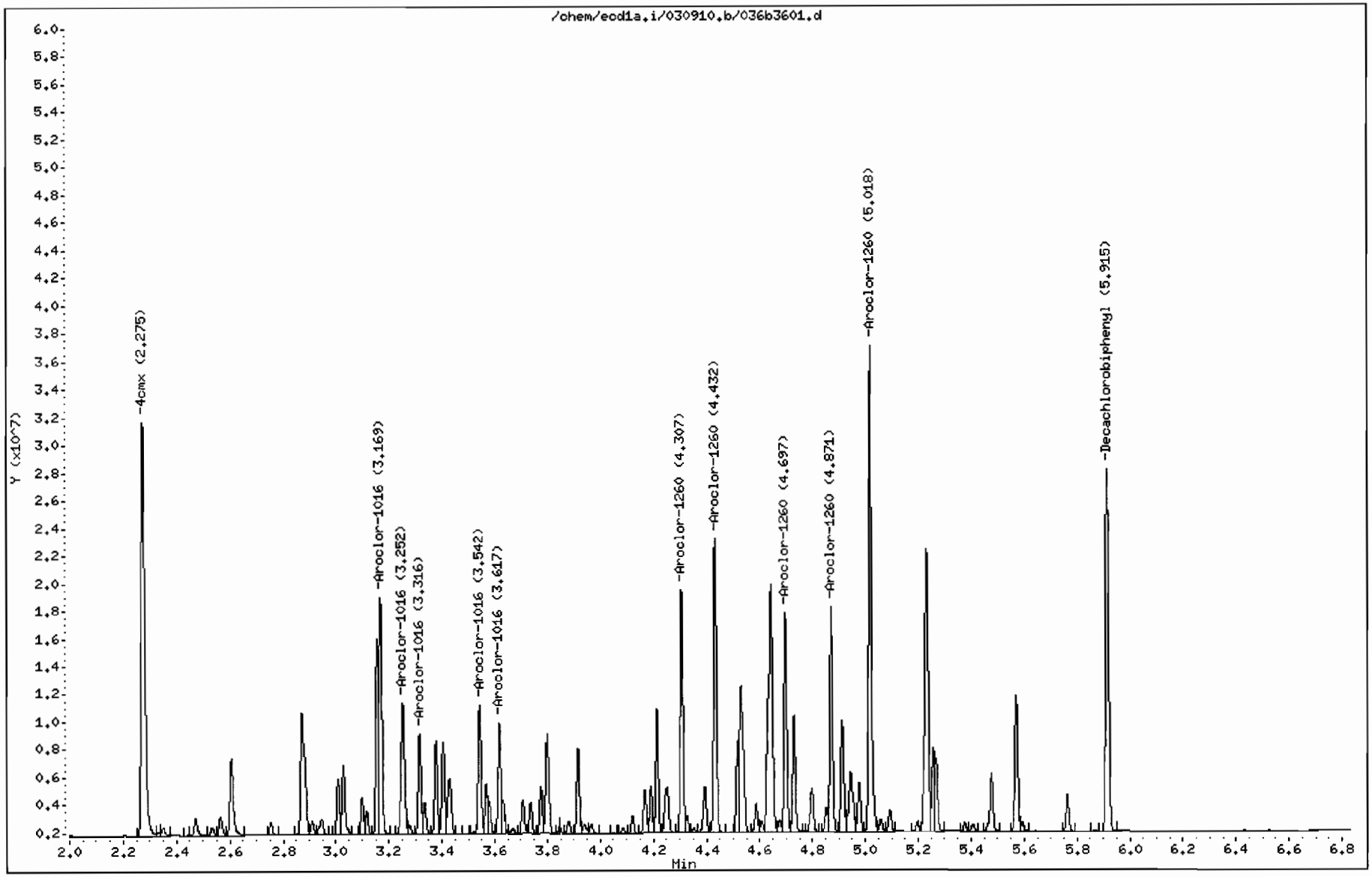

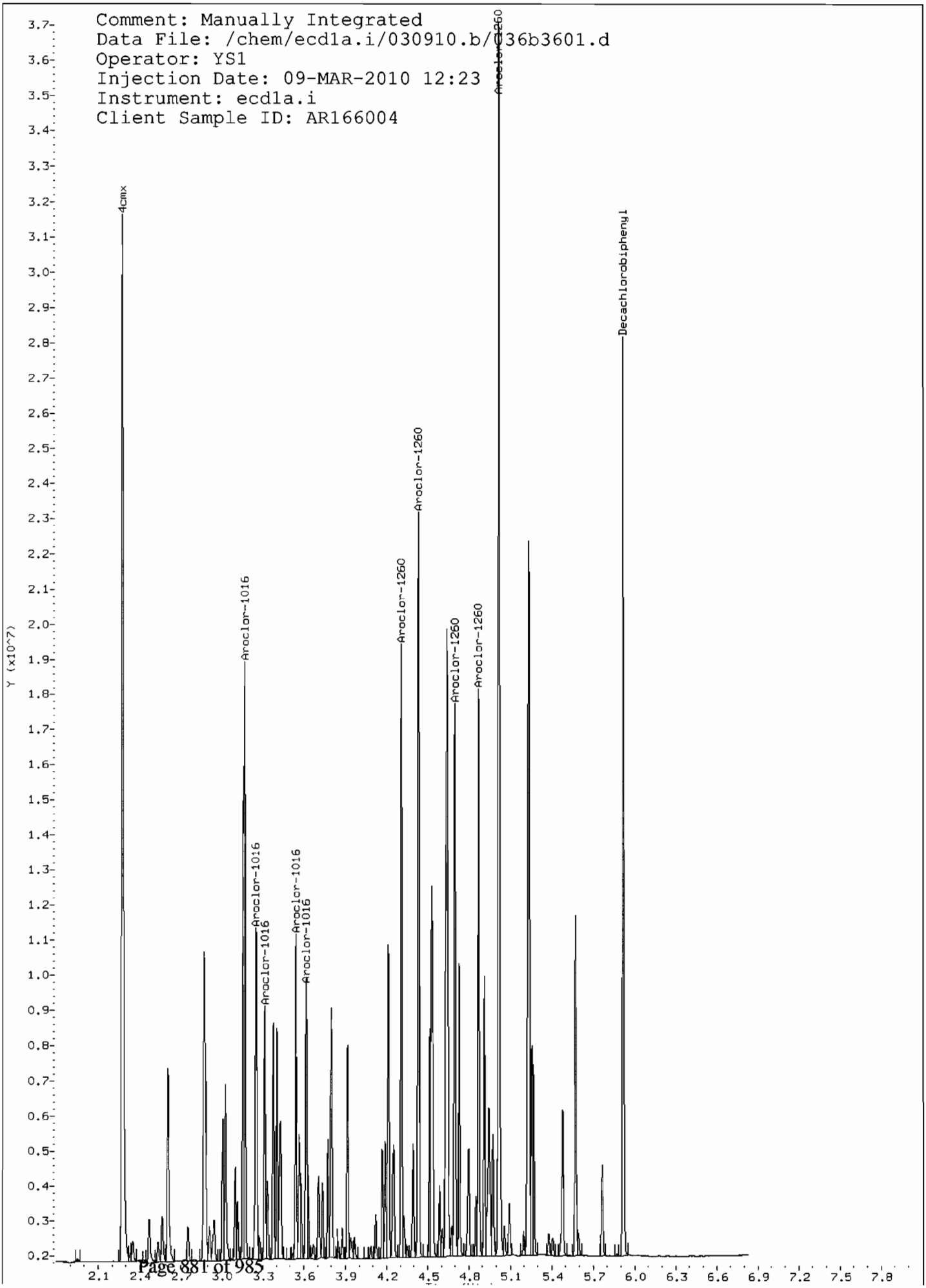
Comment: Manually Integrated
Data File: /chem/ecd1a.i/030910.b/036b3601.d
Operator: YS1
Injection Date: 09-MAR-2010 12:23
Instrument: ecd1a.i
Client Sample ID: AR166004
Y (x10^7)
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
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Aroclor-1260
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Decachlorobiphenyl

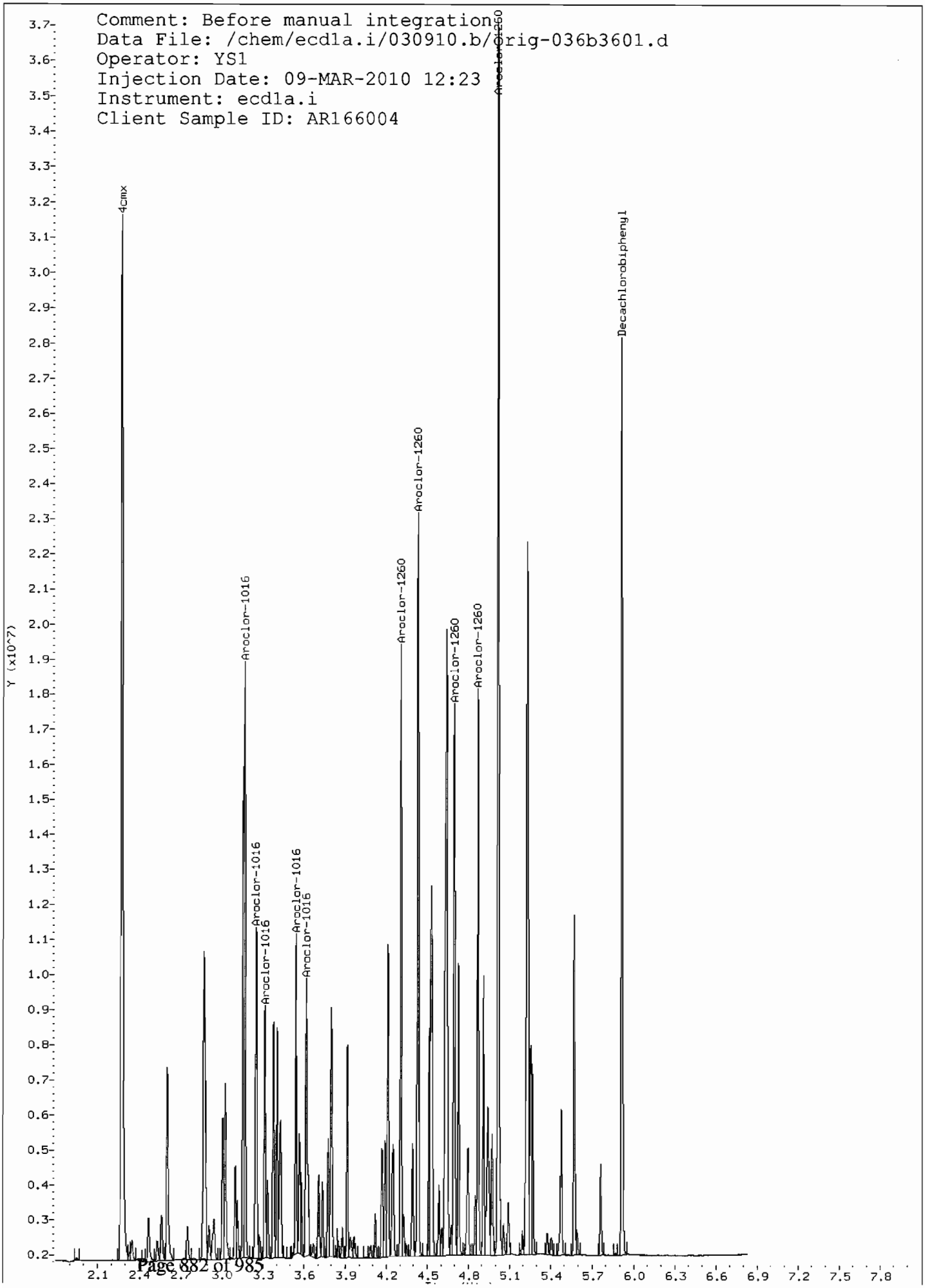
Comment: Before manual integration
Data File: /chem/ecd1a.i/030910.b/orig-036b3601.d
Operator: YS1
Injection Date: 09-MAR-2010 12:23
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.92 DCB: 5.23

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/22/10	0559	1.92	5.23
02	ZZZZZ	ZZZZZ	02/22/10	0610	1.92	5.23
03	ZZZZZ	ZZZZZ	02/22/10	0620	1.92	5.23
04	DDTANALOGSTD	WAR091219-DD	02/22/10	0631		
05	AR123201	WAR100104-32	02/22/10	0641		
06	AR122101	WAR100104-21	02/22/10	0652		
07	AR126201	WAR100104-62	02/22/10	0703		
08	AR166001	WAR100222-01	02/22/10	0713	1.92	5.23
09	AR166002	WAR100222-02	02/22/10	0724	1.92	5.23
10	AR166003	WAR100222-03	02/22/10	0734	1.92	5.23
11	AR166004	WAR100222-04	02/22/10	0745	1.92	5.23
12	AR166005	IAR100104-01	02/22/10	0755	1.92	5.23
13	AR166001	WAR100203-60	02/22/10	0806	1.92	5.23
14	AR125401	WAR100222-05	02/22/10	0816		
15	AR125402	WAR100222-06	02/22/10	0827		
16	AR125403	WAR100222-07	02/22/10	0837		
17	AR125404	WAR100222-08	02/22/10	0848		
18	AR125405	IAR100219-02	02/22/10	0859		
19	AR125401	WAR100219-54	02/22/10	0909		
20	AR124201	WAR100222-09	02/22/10	0920		
21	AR124202	WAR100222-10	02/22/10	0930		
22	AR124203	WAR100222-11	02/22/10	0941		
23	AR124204	WAR100222-12	02/22/10	0951		
24	AR124205	IAR100219-01	02/22/10	1002		
25	AR124201	WAR100219-42	02/22/10	1012		
26	AR124801	WAR100222-13	02/22/10	1023		
27	AR124802	WAR100222-14	02/22/10	1033		
28	AR124803	WAR100222-15	02/22/10	1044		
29	AR124805	IAR100211-01	02/22/10	1054		
30	AR124804	WAR100222-16	02/22/10	1105		
31	AR124801	WAR091217-48	02/22/10	1116		
32	AR126801	WAR100222-17	02/22/10	1126		

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.92 DCB: 5.23

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR126802	WAR100222-18	02/22/10	1137		
02	AR126803	WAR100222-19	02/22/10	1147		
03	AR126804	WAR100222-20	02/22/10	1158		
04	AR126805	IAR100104-05	02/22/10	1208		
05	AR126801	WAR100107-68	02/22/10	1219		
06	PIBLK02	WAR100219-99	02/22/10	1229	1.92	5.23
07	ZZZZZ	ZZZZZ	02/22/10	1240	1.92	5.23
08	ZZZZZ	ZZZZZ	02/22/10	1250	1.93	5.23
09	ZZZZZ	ZZZZZ	02/22/10	1301	1.92	5.23
10	ZZZZZ	ZZZZZ	02/22/10	1314	1.92	5.23
11	ZZZZZ	ZZZZZ	02/22/10	1326	1.92	5.23
12	ZZZZZ	ZZZZZ	02/22/10	1339	1.92	5.23
13	ZZZZZ	ZZZZZ	02/22/10	1351	1.92	5.23
14	ZZZZZ	ZZZZZ	02/22/10	1404	1.92	5.23
15	ZZZZZ	ZZZZZ	02/22/10	1417	1.92	5.23
16	ZZZZZ	ZZZZZ	02/22/10	1430	1.92	5.23
17	AR166002	WAR100203-60	02/22/10	1442	1.92	5.23
18	PIBLK03	WAR100219-99	02/22/10	1453	1.92	5.23
19	ZZZZZ	ZZZZZ	02/22/10	1503	1.92	5.23
20	ZZZZZ	ZZZZZ	02/22/10	1516	1.92	5.23
21	ZZZZZ	ZZZZZ	02/22/10	1528	1.92	5.23
22	ZZZZZ	ZZZZZ	02/22/10	1541	1.92	5.23
23	ZZZZZ	ZZZZZ	02/22/10	1554	1.92	5.23
24	ZZZZZ	ZZZZZ	02/22/10	1606	1.92	5.23
25	ZZZZZ	ZZZZZ	02/22/10	1619	1.92	5.23
26	ZZZZZ	ZZZZZ	02/22/10	1632	1.92	5.23
27	ZZZZZ	ZZZZZ	02/22/10	1644	1.92	5.23
28	ZZZZZ	ZZZZZ	02/22/10	1657	1.92	5.23
29	AR166003	WAR100203-60	02/22/10	1710	1.92	5.23
30	PIBLK04	WAR100219-99	02/22/10	1722	1.92	5.23
31	ZZZZZ	ZZZZZ	02/22/10	1735	1.92	5.23
32	ZZZZZ	ZZZZZ	02/22/10	1748	1.92	5.23

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/22/10	0559	2.29	5.93
02	ZZZZZ	ZZZZZ	02/22/10	0610	2.29	5.94
03	ZZZZZ	ZZZZZ	02/22/10	0620	2.29	5.94
04	DDTANALOGSTD	WAR091219-DD	02/22/10	0631		
05	AR123201	WAR100104-32	02/22/10	0641		
06	AR122101	WAR100104-21	02/22/10	0652		
07	AR126201	WAR100104-62	02/22/10	0703		
08	AR166001	WAR100222-01	02/22/10	0713	2.29	5.94
09	AR166002	WAR100222-02	02/22/10	0724	2.29	5.94
10	AR166003	WAR100222-03	02/22/10	0734	2.29	5.94
11	AR166004	WAR100222-04	02/22/10	0745	2.29	5.94
12	AR166005	IAR100104-01	02/22/10	0755	2.29	5.94
13	AR166001	WAR100203-60	02/22/10	0806	2.29	5.94
14	AR125401	WAR100222-05	02/22/10	0816		
15	AR125402	WAR100222-06	02/22/10	0827		
16	AR125403	WAR100222-07	02/22/10	0837		
17	AR125404	WAR100222-08	02/22/10	0848		
18	AR125405	IAR100219-02	02/22/10	0859		
19	AR125401	WAR100219-54	02/22/10	0909		
20	AR124201	WAR100222-09	02/22/10	0920		
21	AR124202	WAR100222-10	02/22/10	0930		
22	AR124203	WAR100222-11	02/22/10	0941		
23	AR124204	WAR100222-12	02/22/10	0951		
24	AR124205	IAR100219-01	02/22/10	1002		
25	AR124201	WAR100219-42	02/22/10	1012		
26	AR124801	WAR100222-13	02/22/10	1023		
27	AR124802	WAR100222-14	02/22/10	1033		
28	AR124803	WAR100222-15	02/22/10	1044		
29	AR124805	IAR100211-01	02/22/10	1054		
30	AR124804	WAR100222-16	02/22/10	1105		
31	AR124801	WAR091217-48	02/22/10	1116		
32	AR126801	WAR100222-17	02/22/10	1126		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR126802	WAR100222-18	02/22/10	1137		
02	AR126803	WAR100222-19	02/22/10	1147		
03	AR126804	WAR100222-20	02/22/10	1158		
04	AR126805	IAR100104-05	02/22/10	1208		
05	AR126801	WAR100107-68	02/22/10	1219		
06	PIBLK02	WAR100219-99	02/22/10	1229	2.29	5.94
07	ZZZZZ	ZZZZZ	02/22/10	1240	2.29	5.94
08	ZZZZZ	ZZZZZ	02/22/10	1250	2.29	5.94
09	ZZZZZ	ZZZZZ	02/22/10	1301	2.29	5.94
10	ZZZZZ	ZZZZZ	02/22/10	1314	2.29	5.94
11	ZZZZZ	ZZZZZ	02/22/10	1326	2.29	5.94
12	ZZZZZ	ZZZZZ	02/22/10	1339	2.29	5.93
13	ZZZZZ	ZZZZZ	02/22/10	1351	2.29	5.93
14	ZZZZZ	ZZZZZ	02/22/10	1404	2.29	5.94
15	ZZZZZ	ZZZZZ	02/22/10	1417	2.29	5.93
16	ZZZZZ	ZZZZZ	02/22/10	1430	2.29	5.93
17	AR166002	WAR100203-60	02/22/10	1442	2.29	5.94
18	PIBLK03	WAR100219-99	02/22/10	1453	2.29	5.94
19	ZZZZZ	ZZZZZ	02/22/10	1503	2.29	5.94
20	ZZZZZ	ZZZZZ	02/22/10	1516	2.29	5.93
21	ZZZZZ	ZZZZZ	02/22/10	1528	2.29	5.93
22	ZZZZZ	ZZZZZ	02/22/10	1541	2.29	5.94
23	ZZZZZ	ZZZZZ	02/22/10	1554	2.29	5.93
24	ZZZZZ	ZZZZZ	02/22/10	1606	2.29	5.93
25	ZZZZZ	ZZZZZ	02/22/10	1619	2.29	5.94
26	ZZZZZ	ZZZZZ	02/22/10	1632	2.29	5.93
27	ZZZZZ	ZZZZZ	02/22/10	1644	2.29	5.93
28	ZZZZZ	ZZZZZ	02/22/10	1657	2.29	5.93
29	AR166003	WAR100203-60	02/22/10	1710	2.29	5.93
30	PIBLK04	WAR100219-99	02/22/10	1722	2.29	5.93
31	ZZZZZ	ZZZZZ	02/22/10	1735	2.29	5.93
32	ZZZZZ	ZZZZZ	02/22/10	1748	2.29	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.92 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/09/10	0555	1.91	5.22
02	AR166001	WAR100222-60	03/09/10	0605	1.92	5.22
03	AR125401	WAR100219-54	03/09/10	0616		
04	AR124201	WAR100219-42	03/09/10	0626		
05	AR124801	WAR100223-48	03/09/10	0637		
06	AR126801	WAR100107-68	03/09/10	0647		
07	AR123201	WAR100104-32	03/09/10	0658		
08	AR122101	WAR100104-21	03/09/10	0708		
09	AR126201	WAR100104-62	03/09/10	0719		
10	DDTANALOGSTD	WAR091219-DD	03/09/10	0729		
11	PIBLK02	WAR100219-99	03/09/10	0740	1.92	5.22
12	ZZZZZ	ZZZZZ	03/09/10	0750	1.92	5.22
13	ZZZZZ	ZZZZZ	03/09/10	0801	1.92	5.22
14	ZZZZZ	ZZZZZ	03/09/10	0811	1.92	5.22
15	ZZZZZ	ZZZZZ	03/09/10	0822	1.92	5.22
16	ZZZZZ	ZZZZZ	03/09/10	0834	1.92	5.22
17	ZZZZZ	ZZZZZ	03/09/10	0847	1.92	5.22
18	ZZZZZ	ZZZZZ	03/09/10	0859	1.92	5.22
19	AR166002	WAR100222-60	03/09/10	0912	1.92	5.22
20	PIBLK03	WAR100219-99	03/09/10	0923	1.92	5.22
21	ZZZZZ	ZZZZZ	03/09/10	0933	1.92	5.22
22	ZZZZZ	ZZZZZ	03/09/10	0944	1.92	5.22
23	ZZZZZ	ZZZZZ	03/09/10	0956	1.92	5.22
24	ZZZZZ	ZZZZZ	03/09/10	1009	1.92	5.22
25	AR166003	WAR100222-60	03/09/10	1021	1.92	5.22
26	PIBLK04	WAR100219-99	03/09/10	1032	1.92	5.22
27	PBLK01	1202063177	03/09/10	1042	1.92	5.22
28	PBLK01LCS	1202063178	03/09/10	1053	1.92	5.22
29	ZZZZZ	ZZZZZ	03/09/10	1103	1.92	5.22
30	ZZZZZ	ZZZZZ	03/09/10	1114	1.92	5.22
31	ZZZZZ	ZZZZZ	03/09/10	1124	1.92	5.22
32	CAPA-10-13095	247828001	03/09/10	1135	1.92	5.22

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.92 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/09/10	1146	1.92	5.22
02	ZZZZZ	ZZZZZ	03/09/10	1158	1.92	5.22
03	ZZZZZ	ZZZZZ	03/09/10	1211	1.92	5.22
04	AR166004	WAR100222-60	03/09/10	1223	1.92	5.22
05	PIBLK05	WAR100219-99	03/09/10	1234	1.92	5.22
06	ZZZZZ	ZZZZZ	03/09/10	1244	1.92	5.22
07	ZZZZZ	ZZZZZ	03/09/10	1257	1.92	5.22
08	ZZZZZ	ZZZZZ	03/09/10	1309	1.92	5.22
09	ZZZZZ	ZZZZZ	03/09/10	1322	1.92	5.22
10	AR166005	WAR100222-60	03/09/10	1335	1.92	5.22
11	PIBLK06	WAR100219-99	03/09/10	1345	1.92	5.22
12	ZZZZZ	ZZZZZ	03/09/10	1404	1.92	5.23
13	ZZZZZ	ZZZZZ	03/09/10	1431	1.92	5.23
14	ZZZZZ	ZZZZZ	03/09/10	1442	1.92	5.22
15						
16						
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27						
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29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.28 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/09/10	0555	2.27	5.92
02	AR166001	WAR100222-60	03/09/10	0605	2.28	5.92
03	AR125401	WAR100219-54	03/09/10	0616		
04	AR124201	WAR100219-42	03/09/10	0626		
05	AR124801	WAR100223-48	03/09/10	0637		
06	AR126801	WAR100107-68	03/09/10	0647		
07	AR123201	WAR100104-32	03/09/10	0658		
08	AR122101	WAR100104-21	03/09/10	0708		
09	AR126201	WAR100104-62	03/09/10	0719		
10	DDTANALOGSTD	WAR091219-DD	03/09/10	0729		
11	PIBLK02	WAR100219-99	03/09/10	0740	2.28	5.92
12	ZZZZZ	ZZZZZ	03/09/10	0750	2.28	5.92
13	ZZZZZ	ZZZZZ	03/09/10	0801	2.27	5.92
14	ZZZZZ	ZZZZZ	03/09/10	0811	2.28	5.92
15	ZZZZZ	ZZZZZ	03/09/10	0822	2.28	5.92
16	ZZZZZ	ZZZZZ	03/09/10	0834	2.28	5.92
17	ZZZZZ	ZZZZZ	03/09/10	0847	2.27	5.92
18	ZZZZZ	ZZZZZ	03/09/10	0859	2.27	5.92
19	AR166002	WAR100222-60	03/09/10	0912	2.28	5.92
20	PIBLK03	WAR100219-99	03/09/10	0923	2.28	5.92
21	ZZZZZ	ZZZZZ	03/09/10	0933	2.28	5.92
22	ZZZZZ	ZZZZZ	03/09/10	0944	2.28	5.92
23	ZZZZZ	ZZZZZ	03/09/10	0956	2.28	5.91
24	ZZZZZ	ZZZZZ	03/09/10	1009	2.27	5.91
25	AR166003	WAR100222-60	03/09/10	1021	2.27	5.92
26	PIBLK04	WAR100219-99	03/09/10	1032	2.28	5.92
27	PBLK01	1202063177	03/09/10	1042	2.28	5.92
28	PBLK01LCS	1202063178	03/09/10	1053	2.28	5.92
29	ZZZZZ	ZZZZZ	03/09/10	1103	2.28	5.92
30	ZZZZZ	ZZZZZ	03/09/10	1114	2.28	5.92
31	ZZZZZ	ZZZZZ	03/09/10	1124	2.28	5.92
32	CAPA-10-13095	247828001	03/09/10	1135	2.28	5.92

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2000

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.28 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/09/10	1146	2.28	5.92
02	ZZZZZ	ZZZZZ	03/09/10	1158	2.28	5.92
03	ZZZZZ	ZZZZZ	03/09/10	1211	2.28	5.92
04	AR166004	WAR100222-60	03/09/10	1223	2.27	5.91
05	PIBLK05	WAR100219-99	03/09/10	1234	2.28	5.92
06	ZZZZZ	ZZZZZ	03/09/10	1244	2.28	5.92
07	ZZZZZ	ZZZZZ	03/09/10	1257	2.28	5.92
08	ZZZZZ	ZZZZZ	03/09/10	1309	2.28	5.92
09	ZZZZZ	ZZZZZ	03/09/10	1322	2.27	5.92
10	AR166005	WAR100222-60	03/09/10	1335	2.27	5.91
11	PIBLK06	WAR100219-99	03/09/10	1345	2.28	5.92
12	ZZZZZ	ZZZZZ	03/09/10	1404	2.27	5.92
13	ZZZZZ	ZZZZZ	03/09/10	1431	2.28	5.92
14	ZZZZZ	ZZZZZ	03/09/10	1442	2.28	5.92
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32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10–2000

Lab Sample ID: 1202063178

Client ID: LCS for batch 961885

Data File: 028f2801.d
Inst: ECD1A.I_1
Column: CLP1
Analyzed: 09–MAR–10 10:53

Data File: 028b2801.d
Inst: ECD1A.I_2
Column: CLP2
Analyzed: 09–MAR–10 10:53

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							2.7
Column 1	1	2.37	2.34 – 2.4	.604		ug/L	
	2	2.66	2.63 – 2.69	.671		ug/L	
	3	2.74	2.71 – 2.77	.648		ug/L	
	4	2.77	2.74 – 2.8	.694		ug/L	
	5	2.98	2.95 – 3.01	.674		ug/L	
					.658		
Column 2	1	3.17	3.14 – 3.2	.64		ug/L	
	2	3.25	3.22 – 3.28	.607		ug/L	
	3	3.32	3.29 – 3.35	.609		ug/L	
	4	3.54	3.51 – 3.57	.672		ug/L	
	5	3.62	3.59 – 3.65	.675		ug/L	
					.641		
Aroclor–1260							9.9
Column 1	1	3.71	3.68 – 3.74	.78		ug/L	
	2	3.87	3.84 – 3.9	.859		ug/L	
	3	4.03	4 – 4.06	.879		ug/L	
	4	4.1	4.07 – 4.13	.856		ug/L	
	5	4.24	4.22 – 4.28	.803		ug/L	
					.835		
Column 2	1	4.31	4.28 – 4.34	.725		ug/L	
	2	4.43	4.4 – 4.46	.761		ug/L	
	3	4.7	4.67 – 4.73	.75		ug/L	
	4	4.87	4.84 – 4.9	.758		ug/L	
	5	5.02	4.99 – 5.05	.789		ug/L	
					.757		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**			**Matrix:**	**WATER**
Lab Sample ID:	**1202063177**				
Client Sample:	**QC for batch 961885**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 961885**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**961887**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 10:42**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/08/2010 14:29**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**027f2701-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	027b2701-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.100	ug/L	0.0333	0.100	1
11104-28-2	Aroclor-1221	U	0.100	ug/L	0.0333	0.100	1
11141-16-5	Aroclor-1232	U	0.100	ug/L	0.0333	0.100	1
53469-21-9	Aroclor-1242	U	0.100	ug/L	0.0333	0.100	1
12672-29-6	Aroclor-1248	U	0.100	ug/L	0.0333	0.100	1
11097-69-1	Aroclor-1254	U	0.100	ug/L	0.0333	0.100	1
11096-82-5	Aroclor-1260	U	0.100	ug/L	0.0333	0.100	1
37324-23-5	Aroclor-1262	U	0.100	ug/L	0.0333	0.100	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.096	0.200	ug/L	48.0	(30%-105%)
Decachlorobiphenyl	0.127	0.200	ug/L	63.6	(30%-126%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/027f2701-5.d
Lab Smp Id: 1202063177 Client Smp ID: PBLK01
Inj Date : 09-MAR-2010 10:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202063177|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|WATER|MB|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 14:23 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 27 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2000.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.918	1.916	0.002	41338476	95.9938	0.096	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.222	5.223	-0.001	39087168	127.200	0.13	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/027f2701-5.d

Page 1

Date : 09-MAR-2010 10:42

Client ID: PBLK01

Instrument: ecd1a.i

Sample Info: |120206317|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

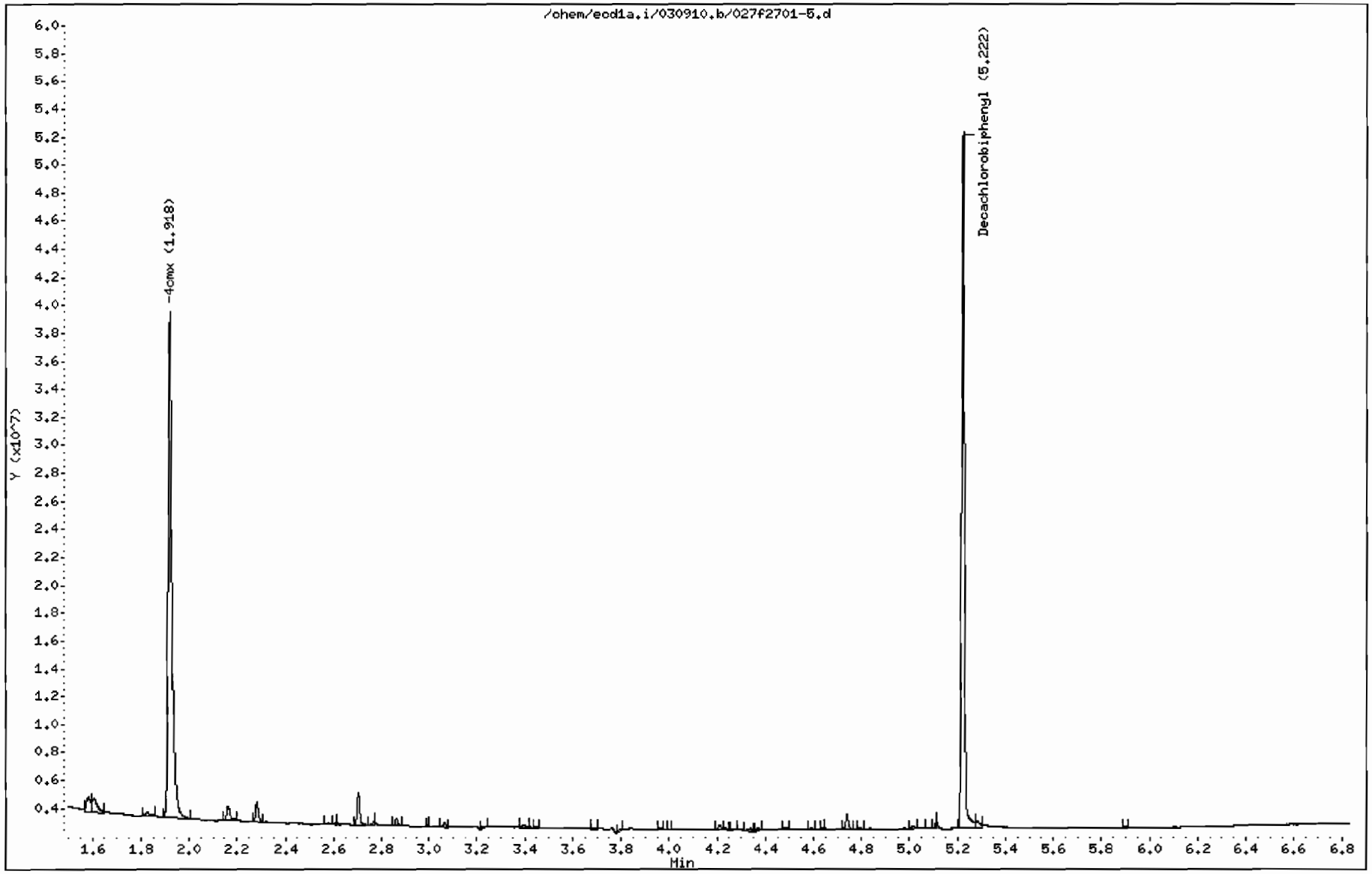

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/027b2701-5.d
Lab Smp Id: 1202063177 Client Smp ID: PBLK01
Inj Date : 09-MAR-2010 10:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202063177|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|WATER|MB|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 14:09 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 27 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2000.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.277	2.276	0.001	27948784	93.9781	0.094	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.917	5.918	-0.001	25157063	118.947	0.12	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/027b2701-5.d

Page 1

Date : 09-MAR-2010 10:42

Client ID: PBLK01

Instrument: ecd1a.i

Sample Info: |1202063177|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

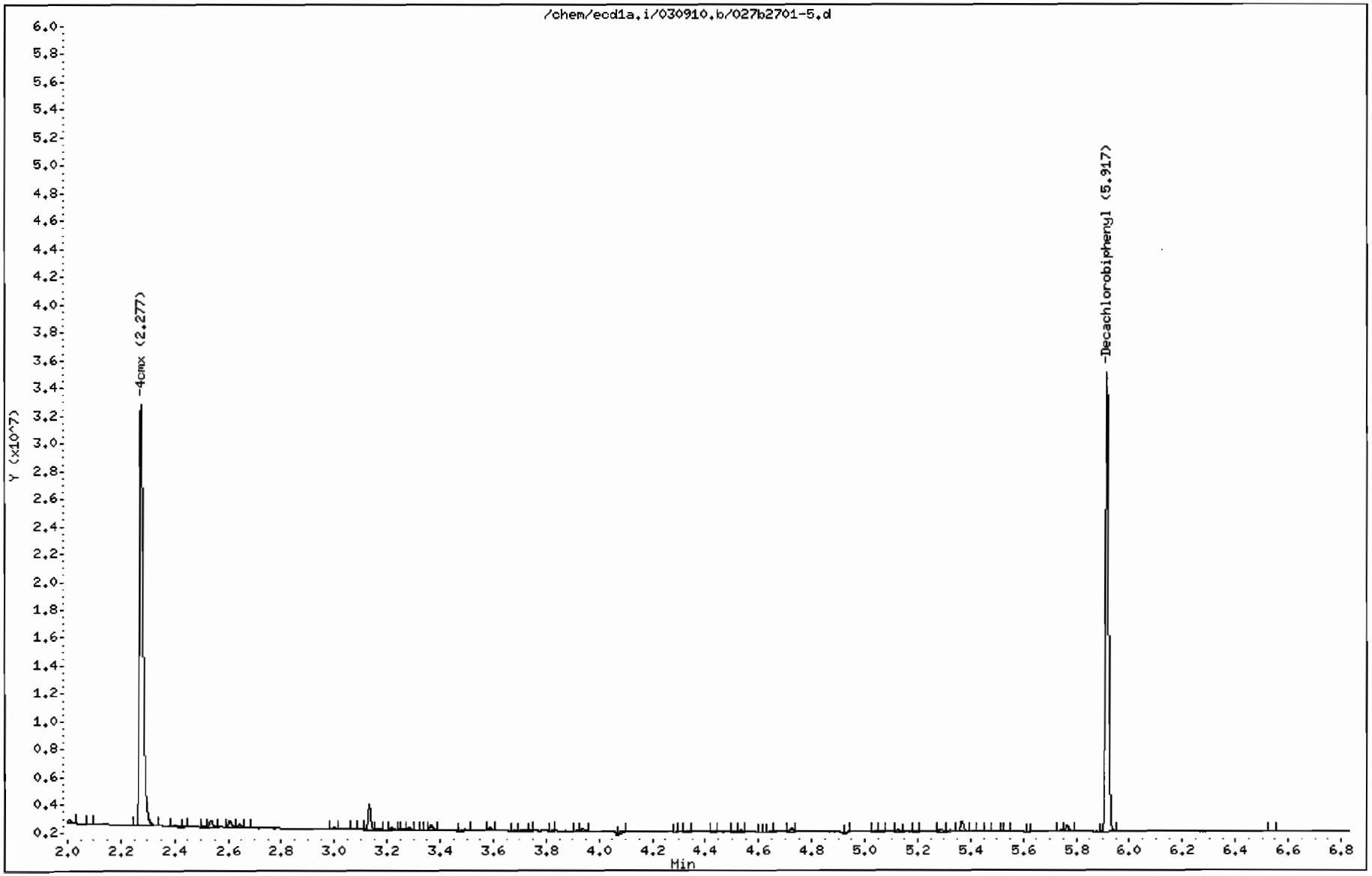

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2000**			**Matrix:**	**WATER**
Lab Sample ID:	**1202063178**				
Client Sample:	**QC for batch 961885**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961885**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**961887**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 10:53**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/08/2010 14:29**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**028f2801-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	028b2801-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		0.660	ug/L	0.0333	0.100	1
11104-28-2	Aroclor-1221	U	0.100	ug/L	0.0333	0.100	1
11141-16-5	Aroclor-1232	U	0.100	ug/L	0.0333	0.100	1
53469-21-9	Aroclor-1242	U	0.100	ug/L	0.0333	0.100	1
12672-29-6	Aroclor-1248	U	0.100	ug/L	0.0333	0.100	1
11097-69-1	Aroclor-1254	U	0.100	ug/L	0.0333	0.100	1
11096-82-5	Aroclor-1260		0.840	ug/L	0.0333	0.100	1
37324-23-5	Aroclor-1262	U	0.100	ug/L	0.0333	0.100	1

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
4cmx	0.0958	0.200	ug/L	47.9	(30%-105%)
Decachlorobiphenyl	0.133	0.200	ug/L	66.6	(30%-126%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/028f2801-5.d
Lab Smp Id: 1202063178 Client Smp ID: PBLK01LCS
Inj Date : 09-MAR-2010 10:53
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202063178|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|WATER|LCS|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 14:23 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 28 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2000.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.918	1.916	0.002	41264077	95.8210	0.096	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.221	5.223	-0.002	40956540	133.283	0.13	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.371	2.370	0.001	9296537	604.286	0.60	80.00- 120.00	100.00
2.657	2.656	0.001	12229349	670.579	0.67	106.89- 146.89	131.55
2.737	2.736	0.001	7813553	647.596	0.65	60.41- 100.41	84.05
2.775	2.774	0.001	4924710	694.002	0.69	28.38- 68.38	52.97
2.985	2.984	0.001	6007674	674.096	0.67	42.93- 82.93	64.62

Average of Peak Concentrations = 0.66

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.711	3.710	0.001	13319133	780.155	0.78	80.00- 120.00	100.00
3.872	3.873	-0.001	20308318	858.941	0.86	123.18- 163.18	152.47
4.035	4.035	0.000	21944681	878.795	0.88	125.08- 165.08	164.76
4.102	4.102	0.000	12330186	855.926	0.86	68.08- 108.08	92.57
4.245	4.246	-0.001	11594596	803.477	0.80	72.42- 112.42	87.05
Average of Peak Concentrations =					0.84		

Data File: /chem/ecd1a.i/030910.b/028f2801-5.d

Page 1

Date : 09-MAR-2010 10:53

Client ID: PBLK01LCS

Instrument: ecd1a.i

Sample Info: |120206317811|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

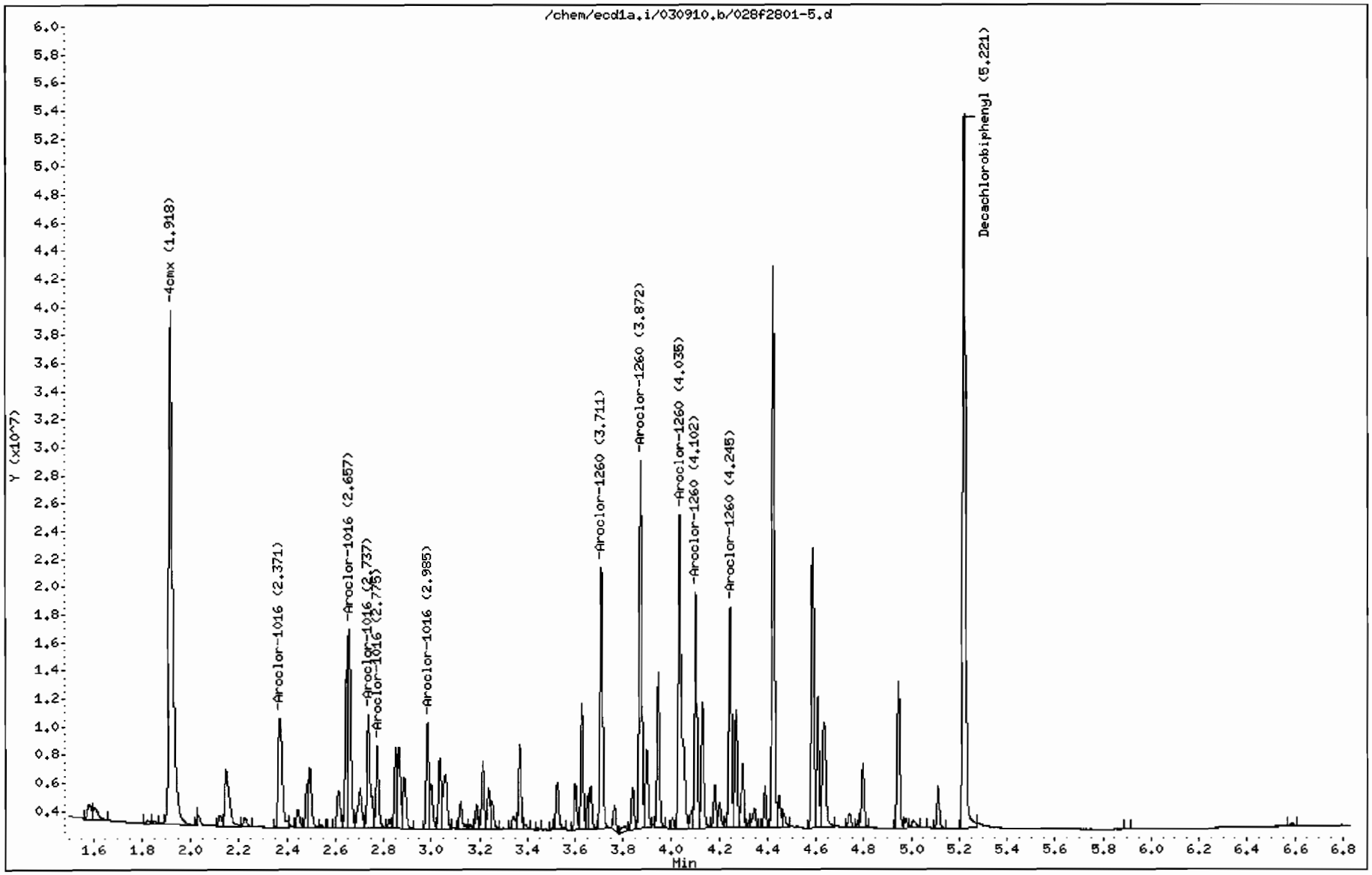

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/028b2801-5.d
Lab Smp Id: 1202063178 Client Smp ID: PBLK01LCS
Inj Date : 09-MAR-2010 10:53
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202063178|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|WATER|LCS|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 14:09 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 28 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2000.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.276	2.276	0.000	27998758	94.1461	0.094	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.916	5.918	-0.002	26852663	126.964	0.13	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.171	3.170	0.001	8185562	640.008	0.64	80.00- 120.00	100.00(M)
3.253	3.253	0.000	5415527	607.263	0.61	46.14- 86.14	66.16
3.316	3.316	0.000	3290453	608.666	0.61	21.09- 61.09	40.20
3.544	3.544	0.000	4644758	671.631	0.67	31.66- 71.66	56.74
3.619	3.619	0.000	4340137	675.485	0.68	29.28- 69.28	53.02
			Average of Peak Concentrations =		0.64		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.309	4.309	0.000	9579346	725.398	0.72	80.00- 120.00	100.00
4.433	4.435	-0.002	11851829	761.352	0.76	102.28- 142.28	123.72
4.699	4.700	-0.001	8879850	749.766	0.75	71.92- 111.92	92.70
4.872	4.873	-0.001	9243424	757.584	0.76	75.56- 115.56	96.49
5.020	5.021	-0.001	20935579	789.213	0.79	194.53- 234.53	218.55
			Average of Peak Concentrations =		0.76		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/030910.b/028b2801-5.d

Page 1

Date : 09-MAR-2010 10:53

Client ID: PBLK01LCS

Instrument: ecd1a.i

Sample Info: |1202063178|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

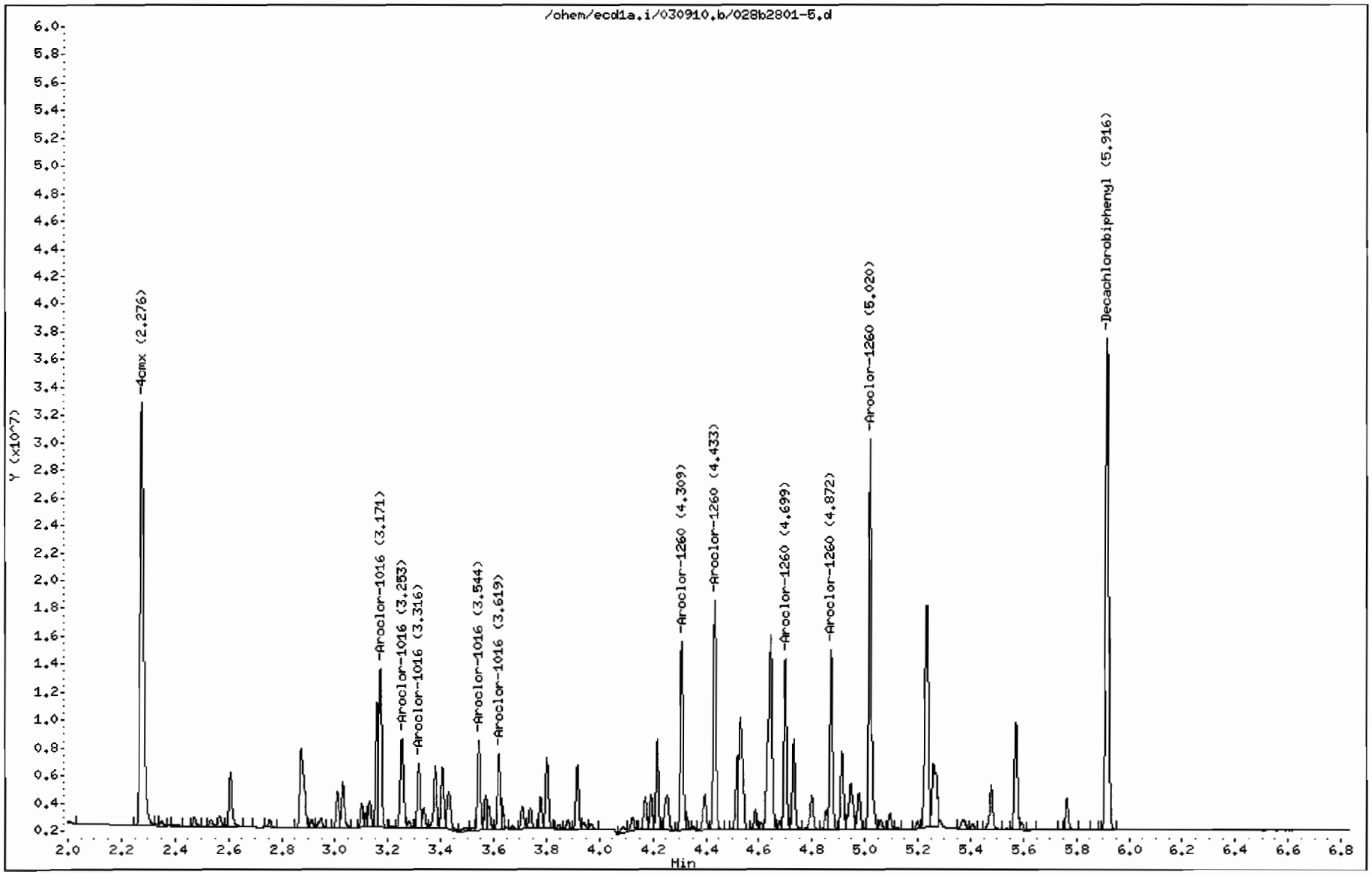

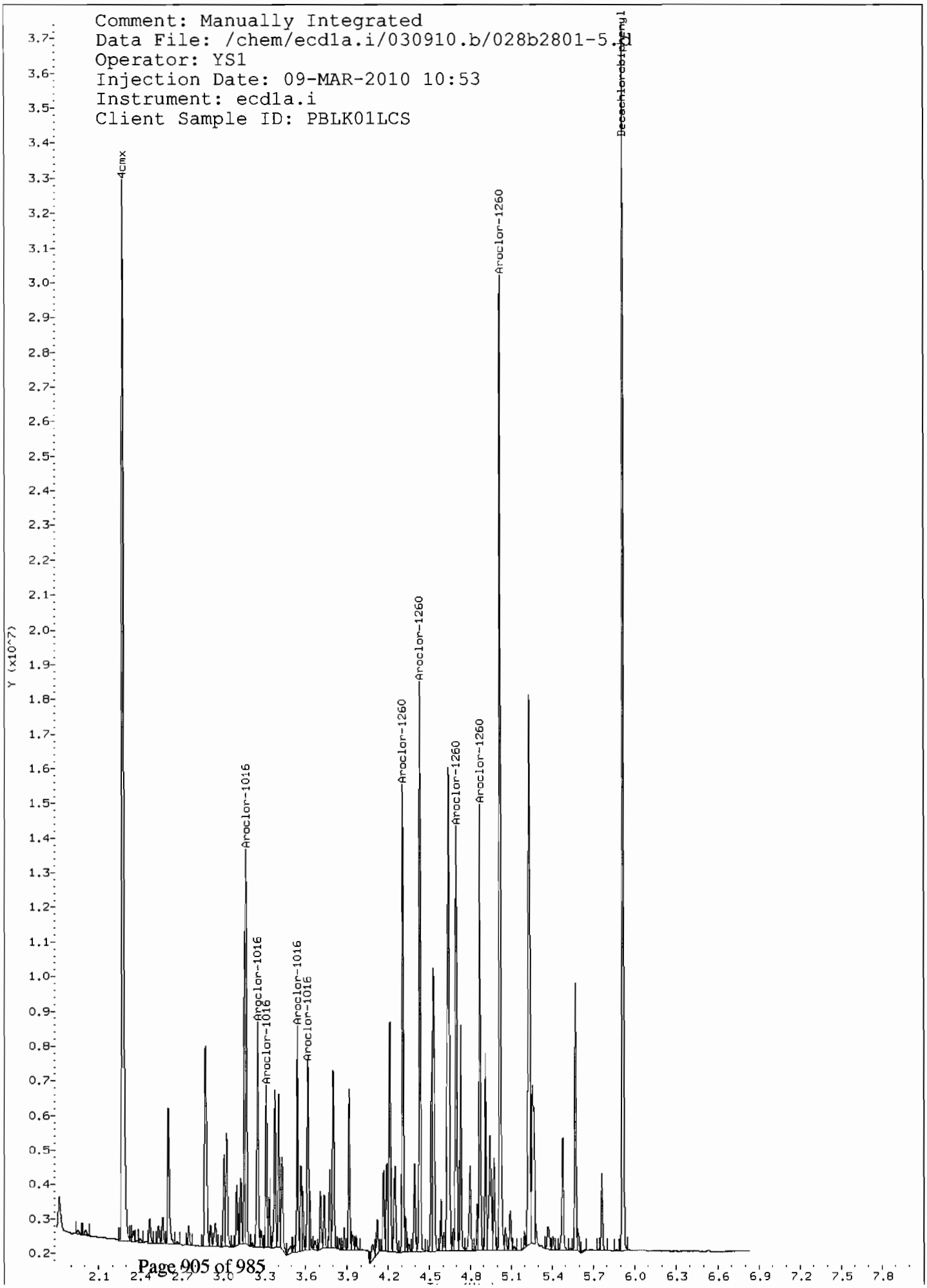
Comment: Manually Integrated
Data File: /chem/ecd1a.i/030910.b/028b2801-5.d
Operator: YS1
Injection Date: 09-MAR-2010 10:53
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)

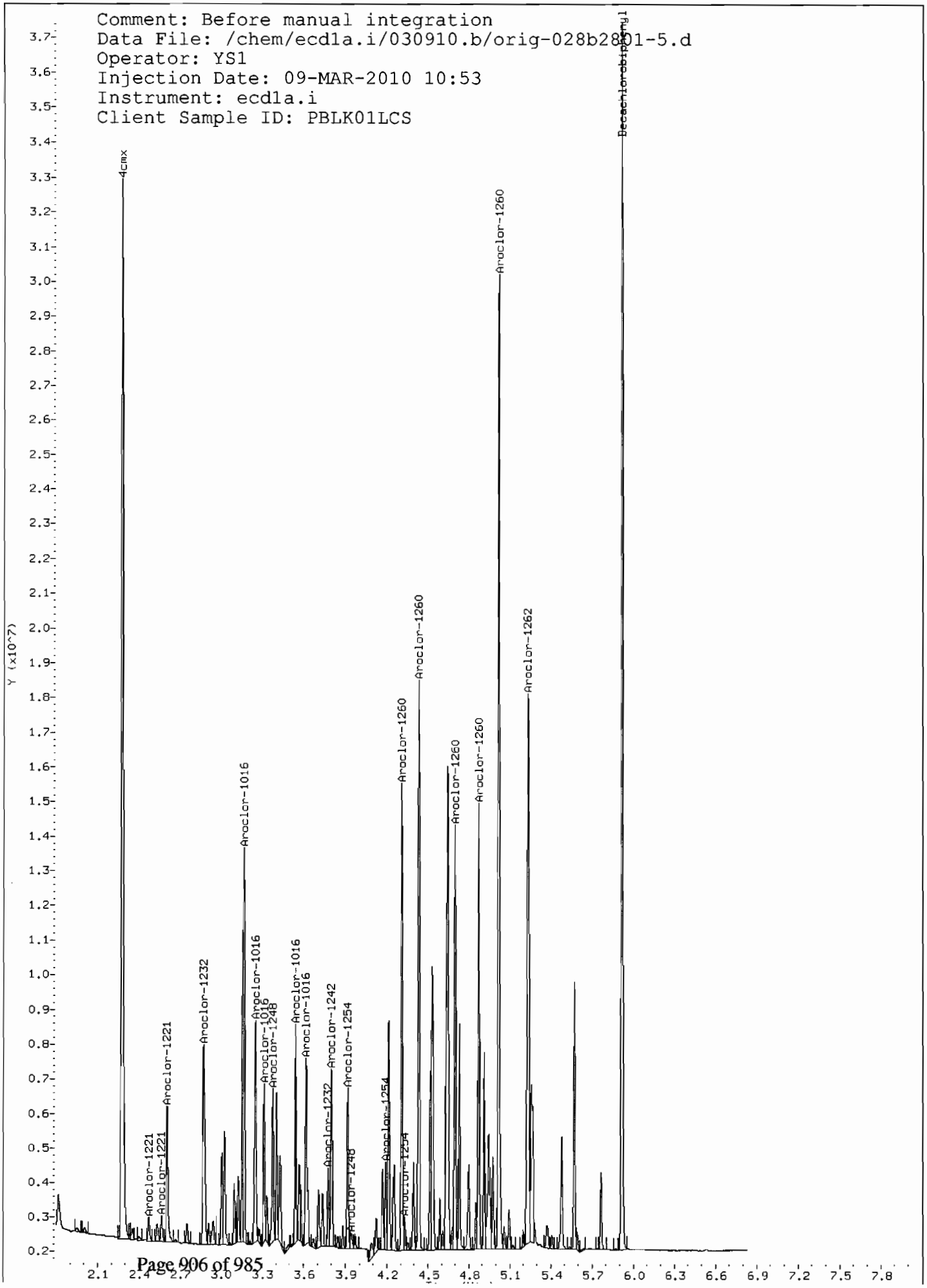
Comment: Before manual integration
Data File: /chem/ecd1a.i/030910.b/orig-028b2801-5.d
Operator: YS1
Injection Date: 09-MAR-2010 10:53
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Y (x10^7)
4cmx
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1232
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1016
Aroclor-1016
Aroclor-1232
Aroclor-1242
Aroclor-1254
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1262
Decachlorobiphenyl

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 02/23/2010 METHOD: ECD1-F-8082-022210.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/022210.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	22-FEB-2010 05:59		022210	1.0		CLEAN
002f0201.d	WAR100203-60 01	YS1	22-FEB-2010 06:10		022210	1.0		DUSE RE-ICAL
003f0301.d	AR1660-4	YS1	22-FEB-2010 06:20		022210	1.0		DUSE SCREEN
004f0401.d	WAR091219-DDT	YS1	22-FEB-2010 06:31		022210	1.0		DDT ANALOG STANDARD
005f0501.d	WAR100104-32	YS1	22-FEB-2010 06:41		022210	1.0		PATTERN ONLY
006f0601.d	WAR100104-21	YS1	22-FEB-2010 06:52		022210	1.0		PATTERN ONLY
007f0701.d	WAR100104-62	YS1	22-FEB-2010 07:03		022210	1.0		PATTERN ONLY
008f0801.d	WAR100222-01 60	YS1	22-FEB-2010 07:13		022210	1.0		AR1660 I-CAL LEVEL 1
009f0901.d	WAR100222-02 60	YS1	22-FEB-2010 07:24		022210	1.0		AR1660 I-CAL LEVEL 2
010f1001.d	WAR100222-03 60	YS1	22-FEB-2010 07:34		022210	1.0		AR1660 I-CAL LEVEL 3
011f1101.d	WAR100222-04 60	YS1	22-FEB-2010 07:45		022210	1.0		AR1660 I-CAL LEVEL 4
012f1201.d	IAR100104-01	YS1	22-FEB-2010 07:55		022210	1.0		AR1660 I-CAL LEVEL 5
013f1301.d	WAR100203-60 01	YS1	22-FEB-2010 08:06		022210	1.0		PASSED ON BOTH COLUMNS
014f1401.d	WAR100222-05 54	YS1	22-FEB-2010 08:16		022210	1.0		AR1254 I-CAL LEVEL 1
015f1501.d	WAR100222-06 54	YS1	22-FEB-2010 08:27		022210	1.0		AR1254 I-CAL LEVEL 2

Instrument Batch: /chem/ecd1a.i/022210.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR100222-07 54	YS1	22-FEB-2010 08:37		022210	1.0		AR1254 I-CAL LEVEL 3
017f1701.d	WAR100222-08 54	YS1	22-FEB-2010 08:48		022210	1.0		AR1254 I-CAL LEVEL 4
018f1801.d	IAR100219-02	YS1	22-FEB-2010 08:59		022210	1.0		AR1254 I-CAL LEVEL 5
019f1901.d	WAR100219-54	YS1	22-FEB-2010 09:09		022210	1.0		PASSED ON BOTH COLUMNS
020f2001.d	WAR100222-09 42	YS1	22-FEB-2010 09:20		022210	1.0		AR1242 I-CAL LEVEL 1
021f2101.d	WAR100222-10 42	YS1	22-FEB-2010 09:30		022210	1.0		AR1242 I-CAL LEVEL 2
022f2201.d	WAR100222-11 42	YS1	22-FEB-2010 09:41		022210	1.0		AR1242 I-CAL LEVEL 3
023f2301.d	WAR100222-12 42	YS1	22-FEB-2010 09:51		022210	1.0		AR1242 I-CAL LEVEL 4
024f2401.d	IAR100219-01	YS1	22-FEB-2010 10:02		022210	1.0		AR1242 I-CAL LEVEL 5
025f2501.d	WAR100219-42	YS1	22-FEB-2010 10:12		022210	1.0		PASSED ON BOTH COLUMNS
026f2601.d	WAR100222-13 48	YS1	22-FEB-2010 10:23		022210	1.0		AR1248 I-CAL LEVEL 1
027f2701.d	WAR100222-14 48	YS1	22-FEB-2010 10:33		022210	1.0		AR1248 I-CAL LEVEL 2
028f2801.d	WAR100222-15 48	YS1	22-FEB-2010 10:44		022210	1.0		AR1248 I-CAL LEVEL 3
029f2901.d	IAR100211-01	YS1	22-FEB-2010 10:54		022210	1.0		AR1248 I-CAL LEVEL 5
030f3001.d	WAR100222-16	YS1	22-FEB-2010 11:05		022210	1.0		AR1248 I-CAL LEVEL 4
031f3101.d	WAR091217-48	YS1	22-FEB-2010 11:16		022210	1.0		PASSED ON BOTH COLUMNS
032f3201.d	WAR100222-17 68	YS1	22-FEB-2010 11:26		022210	1.0		AR1268 I-CAL LEVEL 1
033f3301.d	WAR100222-18 68	YS1	22-FEB-2010 11:37		022210	1.0		AR1268 I-CAL LEVEL 2
034f3401.d	WAR100222-19 68	YS1	22-FEB-2010 11:47		022210	1.0		AR1268 I-CAL LEVEL 3
035f3501.d	WAR100222-20 68	YS1	22-FEB-2010 11:58		022210	1.0		AR1268 I-CAL LEVEL 4

Instrument Batch: /chem/ecd1a.i/022210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	IAR100104-05	YS1	22-FEB-2010 12:08		022210	1.0		AR1268 I-CAL LEVEL 5
037f3701.d	WAR100107-68	YS1	22-FEB-2010 12:19		022210	1.0		PASSED ON BOTH COLUMNS
038f3801.d	WAR100219-99 02	YS1	22-FEB-2010 12:29		022210	1.0		CLEAN
039f3901-1.d	1202046866	YS1	22-FEB-2010 12:40	954781	10-1846	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901-2.d	1202046866	YS1	22-FEB-2010 12:40	954781	10-1848	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

039f3901.d	1202046866	YS1	22-FEB-2010 12:40	954781	10-1808	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001-1.d	1202046867	YS1	22-FEB-2010 12:50	954781	10-1846	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001-2.d	1202046867	YS1	22-FEB-2010 12:50	954781	10-1848	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	1202046867	YS1	22-FEB-2010 12:50	954781	10-1808	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
041f4101.d	246968001	YS1	22-FEB-2010 13:01	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
042f4201.d	246968002	YS1	22-FEB-2010 13:14	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
043f4301.d	246968003	YS1	22-FEB-2010 13:26	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
044f4401.d	246968004	YS1	22-FEB-2010 13:39	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	246968005	YS1	22-FEB-2010 13:51	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
046f4601.d	246968006	YS1	22-FEB-2010 14:04	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
047f4701.d	246968007	YS1	22-FEB-2010 14:17	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
048f4801.d	246968008	YS1	22-FEB-2010 14:30	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	WAR100203-60 02	YS1	22-FEB-2010 14:42		022210	1.0		PASSED ON BOTH COLUMNS
050f5001.d	WAR100219-99 03	YS1	22-FEB-2010 14:53		022210	1.0		CLEAN
051f5101.d	246968009	YS1	22-FEB-2010 15:03	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/022210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
052f5201.d	246968010	YS1	22-FEB-2010 15:16	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	246968011	YS1	22-FEB-2010 15:28	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	246968012	YS1	22-FEB-2010 15:41	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	246968013	YS1	22-FEB-2010 15:54	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
056f5601.d	246968014	YS1	22-FEB-2010 16:06	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	246968015	YS1	22-FEB-2010 16:19	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	246968016	YS1	22-FEB-2010 16:32	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	246968017	YS1	22-FEB-2010 16:44	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
060f6001.d	247121002	YS1	22-FEB-2010 16:57	954781	10-1846	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

061f6101.d	WAR100203-60 03	YS1	22-FEB-2010 17:10		022210	1.0		PASSED ON BOTH COLUMNS
062f6201.d	WAR100219-99 04	YS1	22-FEB-2010 17:22		022210	1.0		CLEAN
063f6301.d	247123001	YS1	22-FEB-2010 17:35	954781	10-1848	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	1202046868	YS1	22-FEB-2010 17:48	954781	10-1848	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
065f6501.d	1202046869	YS1	22-FEB-2010 18:00	954781	10-1848	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	WAR100203-60 04	YS1	22-FEB-2010 18:13		022210	1.0		PASSED ON BOTH COLUMNS
067f6701.d	WAR100219-99 05	YS1	22-FEB-2010 18:26		022210	1.0		CLEAN
068f6801.d	1202048527	YS1	22-FEB-2010 18:38	955479	10-1818	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	1202048528	YS1	22-FEB-2010 18:51	955479	10-1818	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	247043003	YS1	22-FEB-2010 19:04	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
071f7101.d	1202048529	YS1	22-FEB-2010 19:16	955479	10-1818	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
072f7201.d	1202048530	YS1	22-FEB-2010 19:29	955479	10-1818	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	247043004	YS1	22-FEB-2010 19:42	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	247043005	YS1	22-FEB-2010 19:54	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	247043006	YS1	22-FEB-2010 20:07	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
076f7601.d	247043007	YS1	22-FEB-2010 20:20	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	247043008	YS1	22-FEB-2010 20:32	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	WAR100203-60 05	YS1	22-FEB-2010 20:45		022210	1.0		PASSED ON BOTH COLUMNS
079f7901.d	WAR100219-99 06	YS1	22-FEB-2010 20:58		022210	1.0		CLEAN
080f8001.d	247043009	YS1	22-FEB-2010 21:10	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
081f8101.d	247043010	YS1	22-FEB-2010 21:23	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
082f8201.d	247043011	YS1	22-FEB-2010 21:35	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
083f8301.d	247043012	YS1	22-FEB-2010 21:48	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
084f8401.d	247043013	YS1	22-FEB-2010 22:01	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
085f8501.d	247043014	YS1	22-FEB-2010 22:13	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

086f8601.d	247043015	YS1	22-FEB-2010 22:26	955479	10-1818		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	247043016	YS1	22-FEB-2010 22:39	955479	10-1818		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
088f8801.d	247043017	YS1	22-FEB-2010 22:51	955479	10-1818		1.0	LANL	SURROGATE LOW RE
089f8901.d	247043018	YS1	22-FEB-2010 23:04	955479	10-1818		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
090f9001.d	WAR100203-60 06	YS1	22-FEB-2010 23:17		022210		1.0		PASSED ON BOTH COLUMNS
091f9101.d	WAR100219-99 07	YS1	22-FEB-2010 23:29		022210		1.0		CLEAN

Instrument Batch: /chem/ecd1a.i/022210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
092f9201.d	1660	YS1	22-FEB-2010 23:42		022210		1.0	DUSE SCREEN
093f9301.d	1660-4	YS1	22-FEB-2010 23:55		022210		1.0	DUSE SCREEN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 03/09/2010 METHOD: ECD1-F-8082-022210.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA936
ALUMINA LOT 1273992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/030910.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	09-MAR-2010 05:55		030910	1.0		CLEAN
002f0201.d	WAR100222-60 01	YS1	09-MAR-2010 06:05		030910	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR100219-54	YS1	09-MAR-2010 06:16		030910	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR100219-42	YS1	09-MAR-2010 06:26		030910	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR100223-48	YS1	09-MAR-2010 06:37		030910	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100107-68	YS1	09-MAR-2010 06:47		030910	1.0		PASSED ON BOTH COLUMNS
007f0701.d	WAR100104-32	YS1	09-MAR-2010 06:58		030910	1.0		PATTERN ONLY
008f0801.d	WAR100104-21	YS1	09-MAR-2010 07:08		030910	1.0		PATTERN ONLY
009f0901.d	WAR100104-62	YS1	09-MAR-2010 07:19		030910	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	YS1	09-MAR-2010 07:29		030910	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100219-99 02	YS1	09-MAR-2010 07:40		030910	1.0		CLEAN
012f1201.d	1202065484	YS1	09-MAR-2010 07:50	962782	EUI-7541	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
013f1301.d	1202065485	YS1	09-MAR-2010 08:01	962782	EUI-7541	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
014f1401.d	1202065498	YS1	09-MAR-2010 08:11	962782	EUI-7541	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
015f1501.d	248721001	YS1	09-MAR-2010 08:22	962782	EUI-7541	1.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
016f1601.d	1202065486	YS1	09-MAR-2010 08:34	962782	EUI-7541	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/030910.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
017f1701.d	1202065487	YS1	09-MAR-2010 08:47	962782	EUI-7541	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
018f1801.d	248721002	YS1	09-MAR-2010 08:59	962782	EUI-7541	1.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
019f1901.d	WAR100222-60 02	YS1	09-MAR-2010 09:12		030910	1.0		PASSED ON BOTH COLUMNS
020f2001.d	WAR100219-99 03	YS1	09-MAR-2010 09:23		030910	1.0		CLEAN
021f2101.d	018004	YS1	09-MAR-2010 09:33		030910	1.0		DUSE SCERRN
022f2201.d	018005	YS1	09-MAR-2010 09:44		030910	1.0		DUSE SCERRN
023f2301.d	018007	YS1	09-MAR-2010 09:56		030910	1.0		DUSE SCERRN
024f2401.d	018008	YS1	09-MAR-2010 10:09		030910	1.0		DUSE SCERRN
025f2501.d	WAR100222-60 03	YS1	09-MAR-2010 10:21		030910	1.0		PASSED ON BOTH COLUMNS
026f2601.d	WAR100219-99 04	YS1	09-MAR-2010 10:32		030910	1.0		CLEAN
027f2701.d	1202063177	YS1	09-MAR-2010 10:42	961887	10-2057	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	1202063178	YS1	09-MAR-2010 10:53	961887	10-2057	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	247824001	YS1	09-MAR-2010 11:03	961887	10-2005	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
030f3001.d	1202064344	YS1	09-MAR-2010 11:14	961887	10-2005	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
031f3101.d	1202064345	YS1	09-MAR-2010 11:24	961887	10-2005	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	247828001	YS1	09-MAR-2010 11:35	961887	10-2000	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	248017005	YS1	09-MAR-2010 11:46	961887	10-2039	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	248042004	YS1	09-MAR-2010 11:58	961887	10-2057	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	248042012	YS1	09-MAR-2010 12:11	961887	10-2057	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
036f3601.d	WAR100222-60 04	YS1	09-MAR-2010 12:23		030910	1.0		PASSED ON BOTH COLUMNS

Instrument Batch: /chem/ecd1a.i/030910.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
037f3701.d	WAR100219-99 05	YS1	09-MAR-2010 12:34		030910	1.0		CLEAN
038f3801.d	248047005	YS1	09-MAR-2010 12:44	961887	10-2045	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	248047009	YS1	09-MAR-2010 12:57	961887	10-2045	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	248047011	YS1	09-MAR-2010 13:09	961887	10-2045	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

041f4101.d	248254001	YS1	09-MAR-2010 13:22	961887	10-2144	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
042f4201.d	WAR100222-60 05	YS1	09-MAR-2010 13:35		030910	1.0		PASSED ON BOTH COLUMNS
043f4301.d	WAR100219-99 06	YS1	09-MAR-2010 13:45		030910	1.0		CLEAN

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/001b0101.d
Lab Smp Id: WAR100219-99 01 Client Smp ID: PIBLK01
Inj Date : 09-MAR-2010 05:55
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-99 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.273	2.276	-0.003	56445477	189.798	190	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.915	5.918	-0.003	40227061	190.200	190	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/001b0101.d
Date : 09-MAR-2010 05:55
Client ID: PIBLK01
Sample Info: IWAR100219-99 01

Instrument: ecd1a.i

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

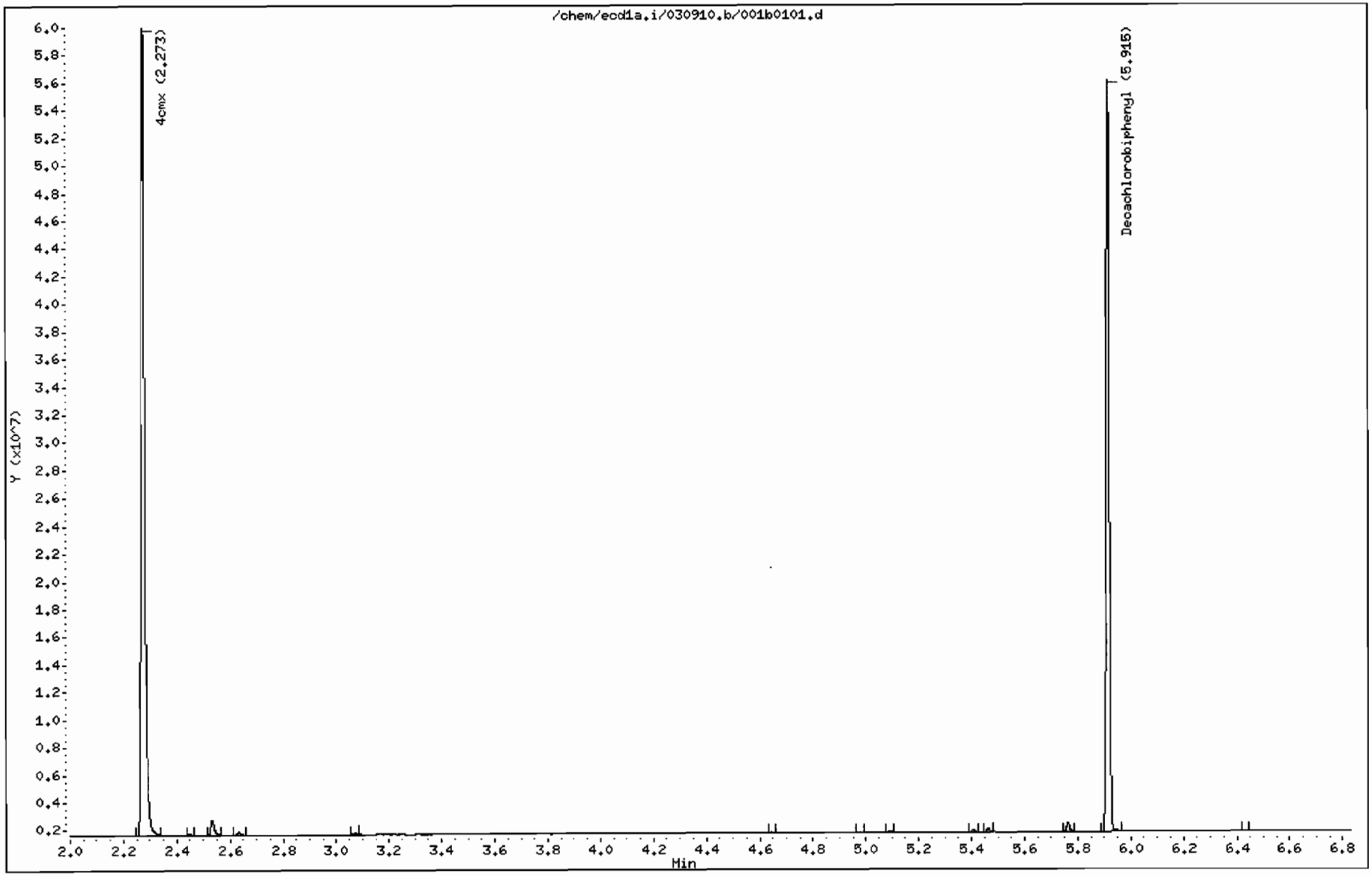

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/001f0101.d
Lab Smp Id: WAR100219-99 01 Client Smp ID: PIBLK01
Inj Date : 09-MAR-2010 05:55
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-99 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.914	1.916	-0.002	81368399	188.949	189	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.218	5.223	-0.005	63194167	205.650	206	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/001f0101.d

Page 1

Date : 09-MAR-2010 05:55

Client ID: PIBLK01

Instrument: ecd1a.i

Sample Info: IWAR100219-99 01

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

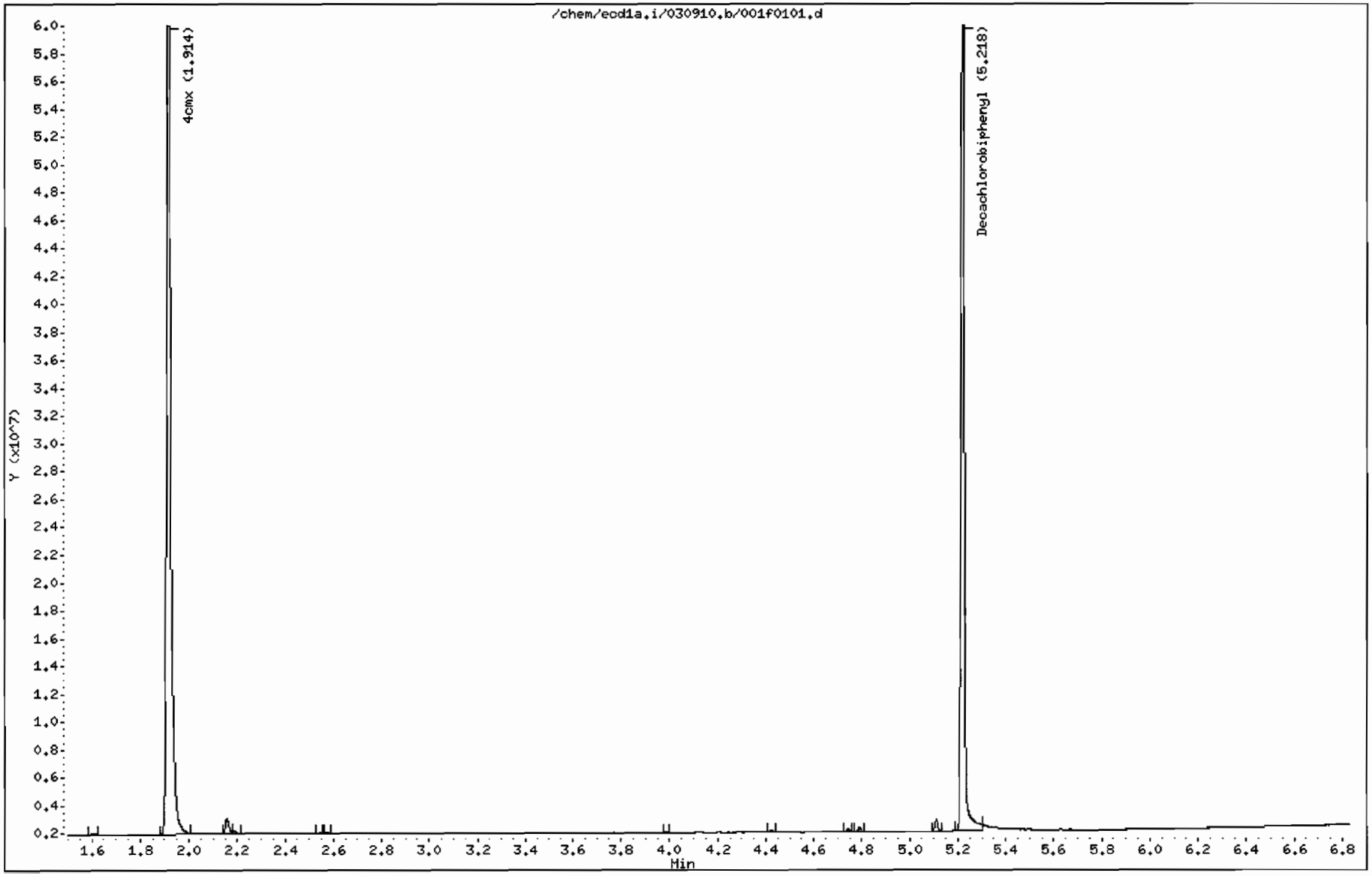

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/026b2601.d
Lab Smp Id: WAR100219-99 04 Client Smp ID: PIBLK04
Inj Date : 09-MAR-2010 10:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-99 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 10:54 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 26 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.275	2.276	-0.001	57829684	194.453	194	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.916	5.918	-0.002	42028829	198.719	199	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd1a.i/030910.b/026b2601.d

Page 1

Date : 09-MAR-2010 10:32

Client ID: PIBLK04

Instrument: ecd1a.i

Sample Info: IWAR100219-99 04

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

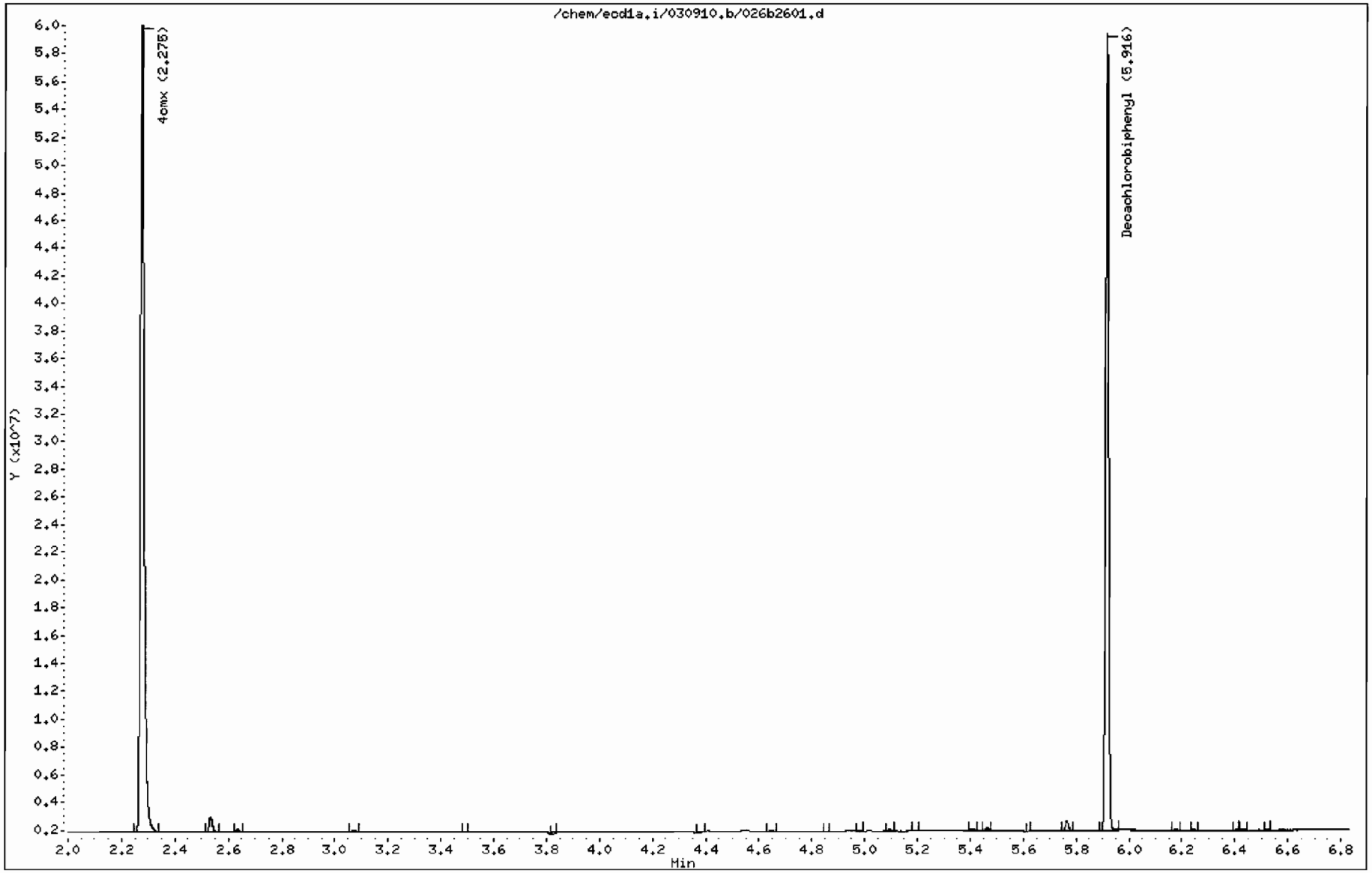

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/026f2601.d
Lab Smp Id: WAR100219-99 04 Client Smp ID: PIBLK04
Inj Date : 09-MAR-2010 10:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-99 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 10:55 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 26 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.917	1.916	0.001	86693797	201.315	201	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.221	5.223	-0.002	65245841	212.327	212	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd1a.i/030910.b/026f2601.d

Page 1

Date : 09-MAR-2010 10:32

Client ID: PIBLK04

Instrument: ecd1a.i

Sample Info: IWAR100219-99 04

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

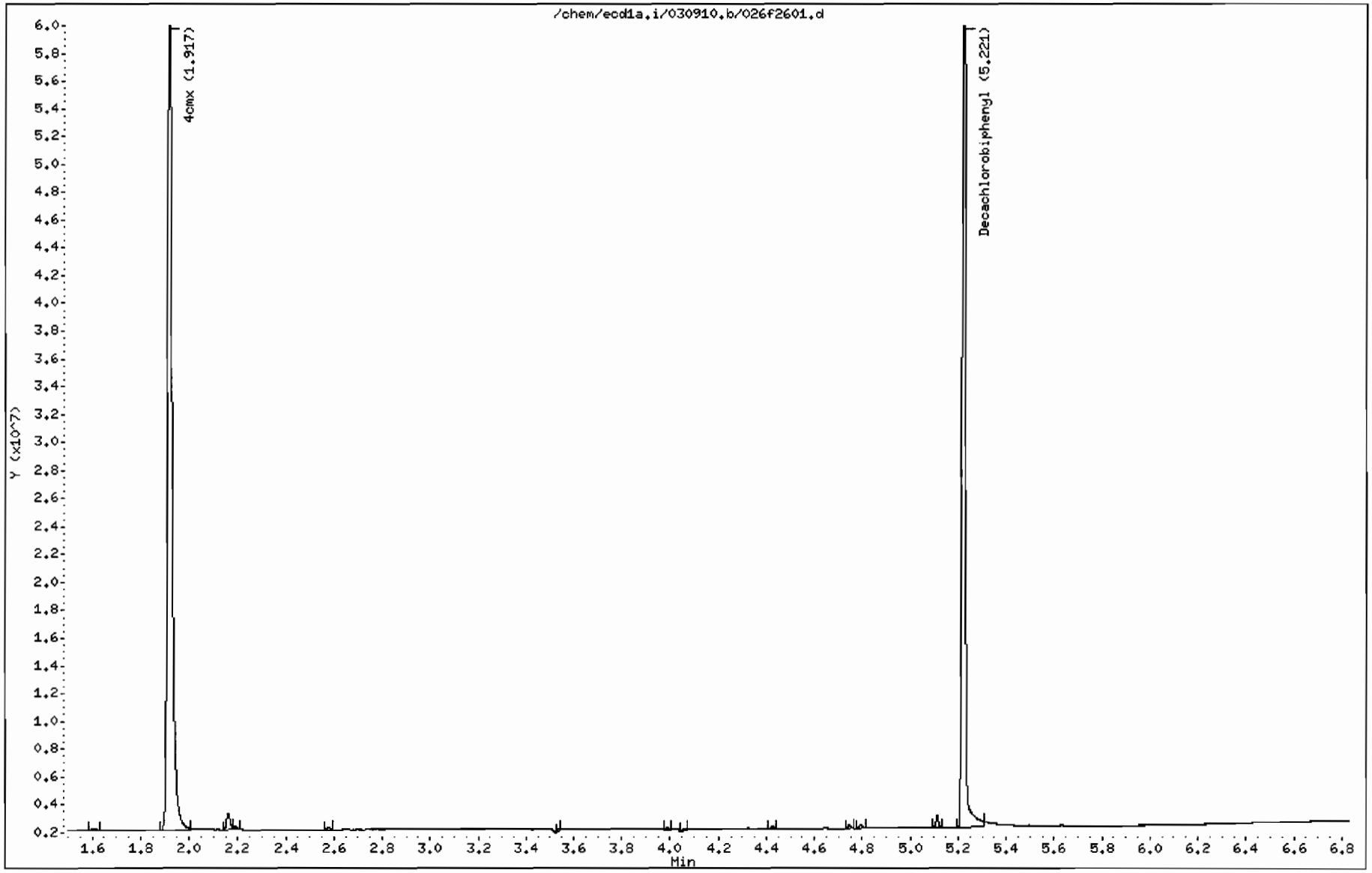

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/030b3001.d
Lab Smp Id: 1202064344 Client Smp ID: CAPA-10-13498MS
Inj Date : 09-MAR-2010 11:14
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202064344|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|GROUND WATER|MS|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 30 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.275	2.276	-0.001	32057930	107.795	0.11	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.918	5.918	0.000	22696873	107.315	0.11	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.170	3.170	0.000	9193222	718.794	0.72	80.00- 120.00	100.00(M)
3.254	3.253	0.001	6030752	676.251	0.68	44.54- 84.54	65.60
3.316	3.316	0.000	3462212	640.438	0.64	20.40- 60.40	37.66
3.544	3.544	0.000	4661986	674.122	0.67	30.67- 70.67	50.71
3.619	3.619	0.000	4326553	673.371	0.67	37.45- 77.45	56.81
			Average of Peak Concentrations =		0.68		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.309	4.309	0.000	9367882	709.385	0.71	80.00- 120.00	100.00
4.434	4.435	-0.001	11434085	734.517	0.73	102.63- 142.63	122.06
4.699	4.700	-0.001	8226890	694.633	0.69	72.47- 112.47	87.82
4.873	4.873	0.000	8742121	716.497	0.72	76.60- 116.60	93.32
5.019	5.021	-0.002	20141504	759.278	0.76	195.80- 235.80	215.01
			Average of Peak Concentrations =		0.72		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/030910.b/030b3001.d

Date : 09-MAR-2010 11:14

Client ID: CAPA-10-13498MS

Sample Info: |1202064344|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

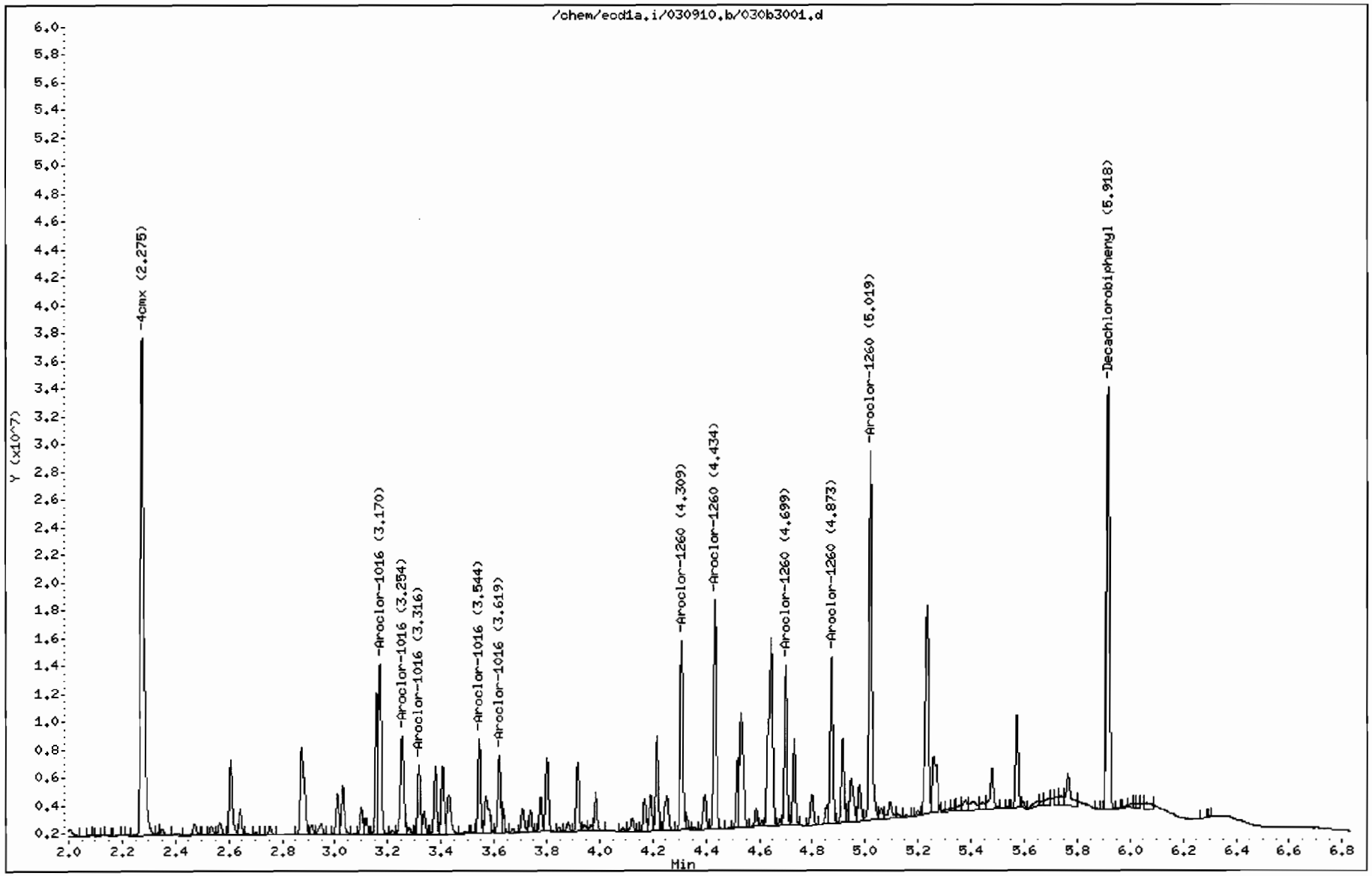

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/030f3001.d
Lab Smp Id: 1202064344 Client Smp ID: CAPA-10-13498MS
Inj Date : 09-MAR-2010 11:14
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202064344|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|GROUND WATER|MS|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 30 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.917	1.916	0.001	47591284	110.514	0.11	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.222	5.223	-0.001	33398484	108.687	0.11	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.370	2.370	0.000	9893183	643.068	0.64	80.00- 120.00	100.00
2.657	2.656	0.001	12749305	699.090	0.70	110.98- 150.98	128.87
2.737	2.736	0.001	8295359	687.528	0.69	60.40- 100.40	83.85
2.774	2.774	0.000	5055397	712.419	0.71	28.72- 68.72	51.10
2.984	2.984	0.000	6380526	715.932	0.72	42.25- 82.25	64.49
			Average of Peak Concentrations =		0.69		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.709	3.710	-0.001	17819358	1043.75	1.0	80.00- 120.00	100.00
3.873	3.873	0.000	20518802	867.843	0.87	129.42- 169.42	115.15
4.034	4.035	-0.001	21815926	873.639	0.87	140.14- 180.14	122.43
4.103	4.102	0.001	11791923	818.561	0.82	70.18- 110.18	66.17
4.245	4.246	-0.001	12434935	861.710	0.86	73.99- 113.99	69.78
			Average of Peak Concentrations =		0.88		

Data File: /chem/ecd1a.i/030910.b/030f3001.d

Date : 09-MAR-2010 11:14

Client ID: CAPA-10-13498MS

Sample Info: |120206434|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

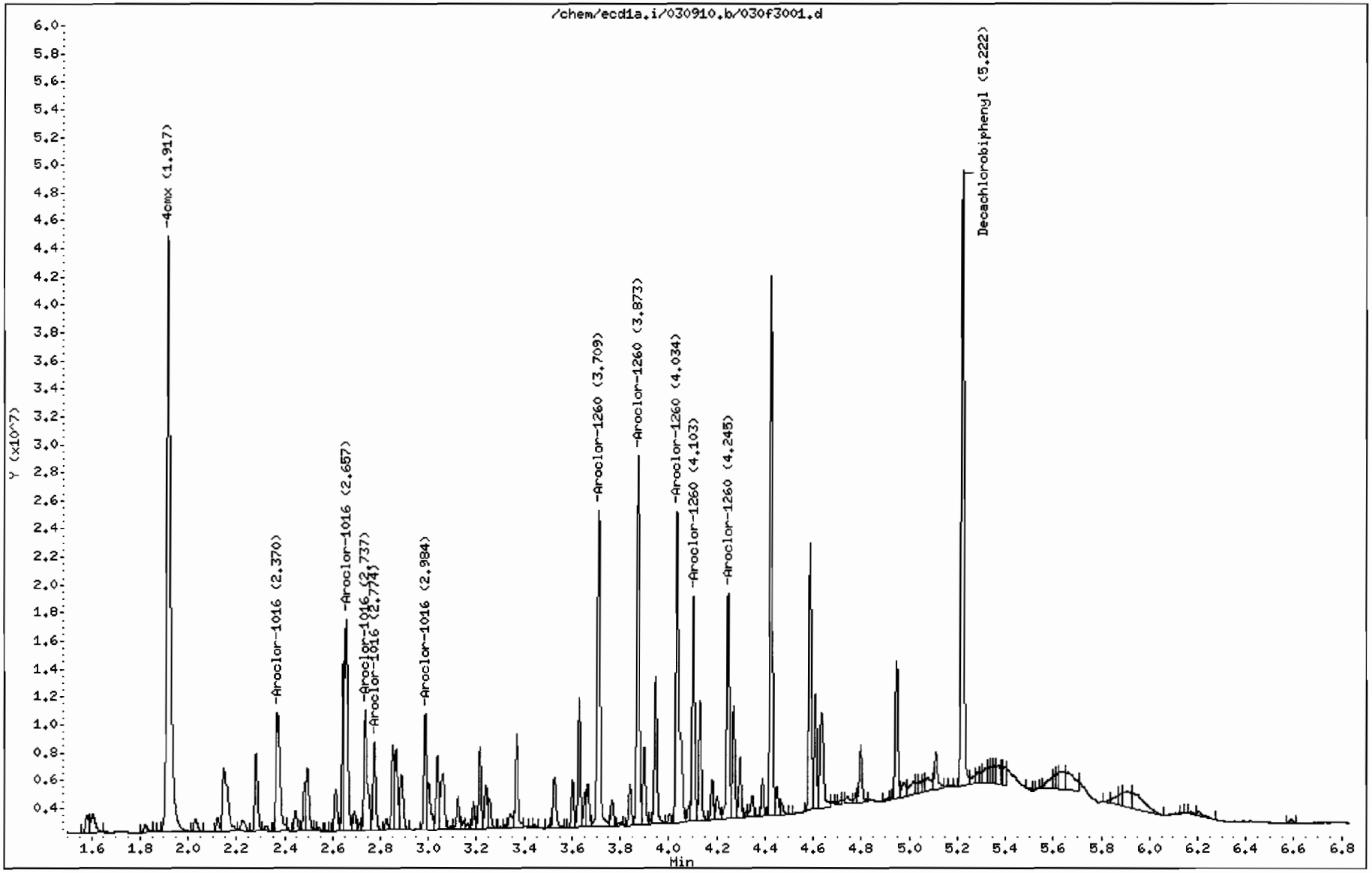

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/031b3101.d
Lab Smp Id: 1202064345 Client Smp ID: CAPA-10-134980MSD
Inj Date : 09-MAR-2010 11:24
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202064345|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|GROUND WATER|MSD|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 31 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.276	2.276	0.000	29887809	100.498	0.10	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.916	5.918	-0.002	21350593	100.949	0.10	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.171	3.170	0.001	8522856	666.380	0.67	80.00- 120.00	100.00(M)
3.253	3.253	0.000	5675559	636.421	0.64	44.54- 84.54	66.59
3.316	3.316	0.000	3224988	596.556	0.60	20.40- 60.40	37.84
3.544	3.544	0.000	4514145	652.745	0.65	30.67- 70.67	52.97
3.619	3.619	0.000	4079951	634.991	0.63	37.45- 77.45	57.99
			Average of Peak Concentrations =		0.64		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.309	4.309	0.000	9059472	686.030	0.69	80.00- 120.00	100.00
4.434	4.435	-0.001	11045449	709.551	0.71	102.63- 142.63	121.92
4.699	4.700	-0.001	7633008	644.489	0.64	72.47- 112.47	84.25
4.872	4.873	-0.001	8050204	659.788	0.66	76.60- 116.60	88.86
5.020	5.021	-0.001	18819313	709.435	0.71	195.80- 235.80	207.73
			Average of Peak Concentrations =		0.68		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/030910.b/031b3101.d

Date : 09-MAR-2010 11:24

Client ID: CAPA-10-134980MSD

Sample Info: |1202064345|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

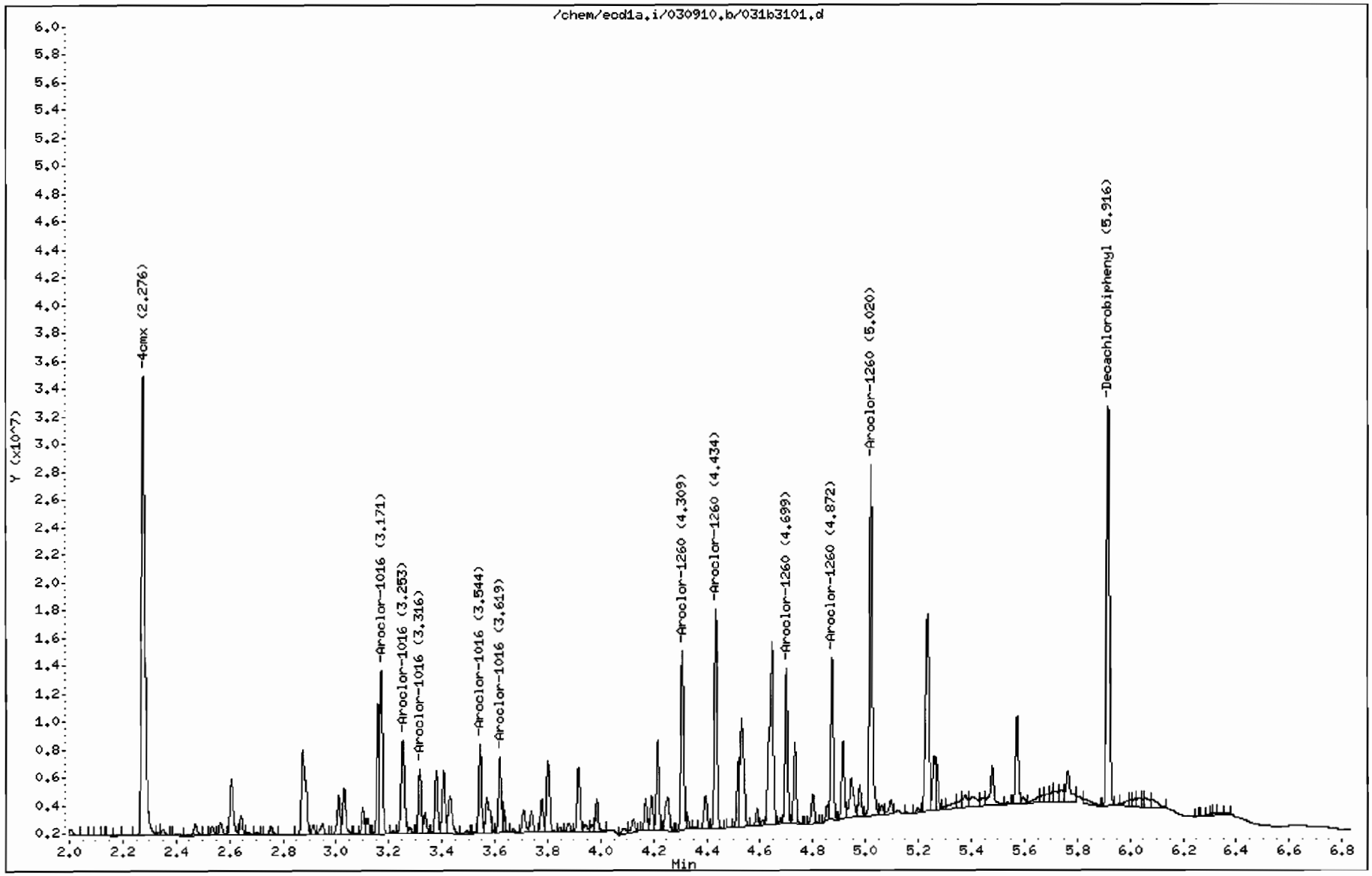

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/031f3101.d
Lab Smp Id: 1202064345 Client Smp ID: CAPA-10-13498MSD
Inj Date : 09-MAR-2010 11:24
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202064345|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|GROUND WATER|MSD|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 31 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.917	1.916	0.001	44063297	102.321	0.10	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.221	5.223	-0.002	32570646	105.993	0.10	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.370	2.370	0.000	9475701	615.931	0.62	80.00- 120.00	100.00
2.656	2.656	0.000	12057560	661.159	0.66	110.98- 150.98	127.25
2.737	2.736	0.001	8070058	668.855	0.67	60.40- 100.40	85.17
2.774	2.774	0.000	4866560	685.807	0.68	28.72- 68.72	51.36
2.985	2.984	0.001	6133904	688.260	0.69	42.25- 82.25	64.73
			Average of Peak Concentrations =		0.66		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.709	3.710	-0.001	16433416	962.571	0.96	80.00- 120.00	100.00
3.872	3.873	-0.001	19617120	829.706	0.83	129.42- 169.42	119.37
4.034	4.035	-0.001	20750712	830.981	0.83	140.14- 180.14	126.27
4.102	4.102	0.000	11220565	778.899	0.78	70.18- 110.18	68.28
4.244	4.246	-0.002	11430386	792.098	0.79	73.99- 113.99	69.56
			Average of Peak Concentrations =		0.84		

Data File: /chem/ecd1a.i/030910.b/031f3101.d

Page 1

Date : 09-MAR-2010 11:24

Client ID: CAPA-10-13498MSD

Instrument: ecd1a.i

Sample Info: |1202064345|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

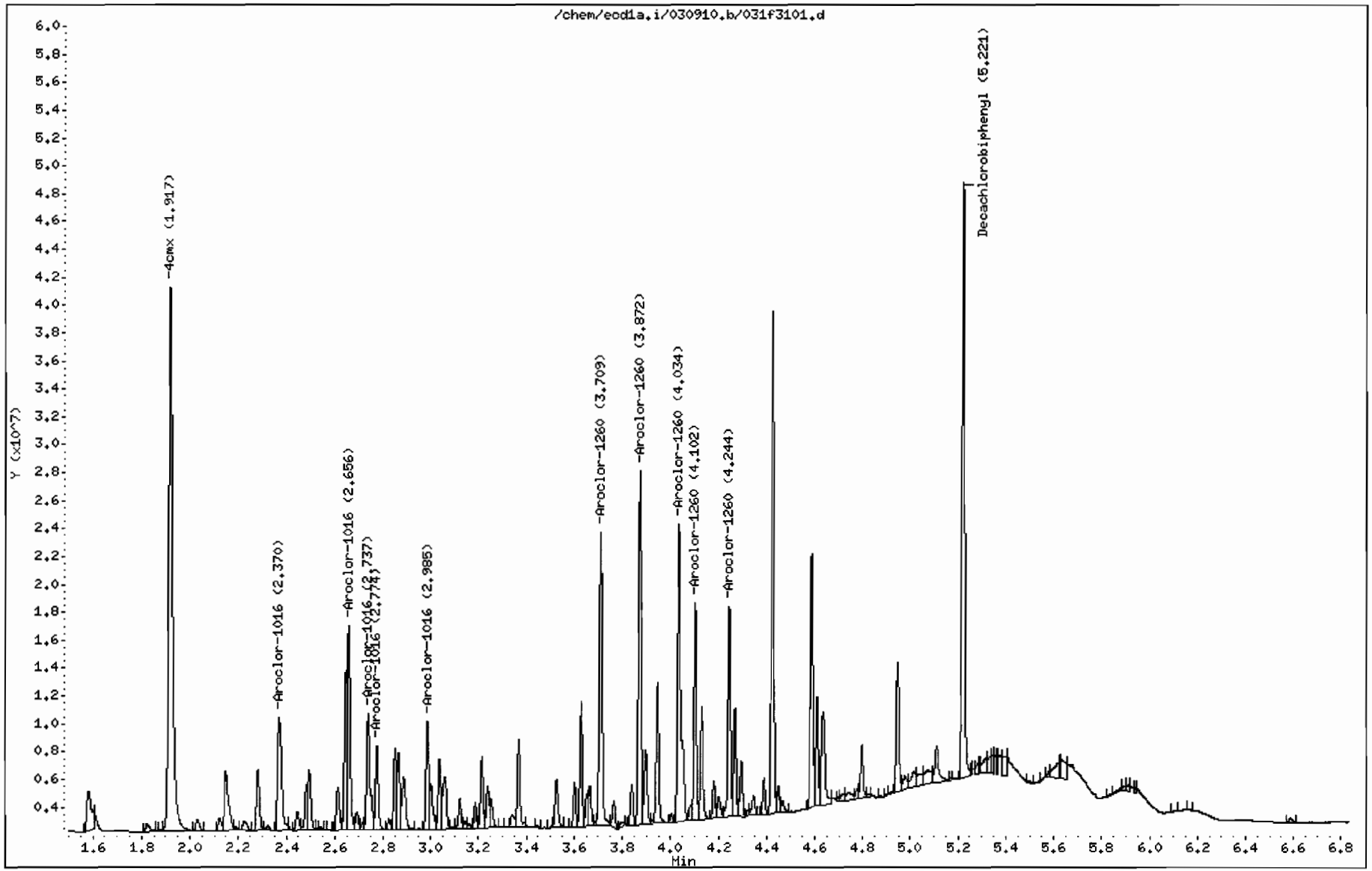

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 961885 **Verified by:** _____

Analyst: Sophia Cox

Method: SW846 3510C

Lab SOP: GL–OA–E–013 REV# 21

Instrument: Semi–Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202063177 MB	08–MAR–2010 14:29:00	1000	5	5	H2SO4/KMi2		2	8	1	0.001
1202063178 LCS	08–MAR–2010 14:29:00	1000	5	5	H2SO4/KMi2		2	8	1	0.001
247824001	08–MAR–2010 14:29:00	900	5	5	H2SO4/KMi2		2	8	1	0.00111
1202064344 MS (247824001)	08–MAR–2010 14:29:00	500	5	5	H2SO4/KMi2		2	8	0.5	0.001
1202064345 MSD (247824001)	08–MAR–2010 14:29:00	500	5	5	H2SO4/KMi2		2	8	0.5	0.001
247828001	08–MAR–2010 14:29:00	920	5	5	H2SO4/KMi2		2	8	1	0.00109
248017005	08–MAR–2010 14:29:00	940	5	5	H2SO4/KMi2		2	8	1	0.00106
248042004	08–MAR–2010 14:29:00	860	5	5	H2SO4/KMi2		2	8	1	0.00116
248042012	08–MAR–2010 14:29:00	870	5	5	H2SO4/KMi2		2	8	1	0.00115
248047005	08–MAR–2010 14:29:00	860	5	5	H2SO4/KMi2		2	8	1	0.00116
248047009	08–MAR–2010 14:29:00	920	6	6	H2SO4/KMi2		2	8	1	0.00109
248047011	08–MAR–2010 14:29:00	850	5	5	H2SO4/KMi2		2	8	1	0.00118
248254001	08–MAR–2010 14:29:00	980	5	5	H2SO4/KMi2		2	8	1	0.00102

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202063178	PCB Laboratory Control	WE100224–07	1	mL
MS	1202064344	PCB Laboratory Control	WE100224–07	.5	mL
MSD	1202064345	PCB Laboratory Control	WE100224–07	.5	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100222–15	.5	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100222–15	1	mL
REGNT	All	Hexane	100211–B2	5	mL
REGNT	All	Methylene Chloride	100301–D	180	mL
REGNT	All	Sulfuric Acid Sol., 1:1	1271216	5	mL
REGNT	All	5% Potassium Permanganate	B1275177–F	5	mL
SOURC	All	SODIUM SULFATE	1269268	30	g

Comments:

Clean up Date: 03–08–10

Clean up Initials: SCC

Verified By: JAC

Final Solvent: HEXANE

Clean Up SOP: GL–OA–E–037

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2000

Method/Analysis Information

Product: **Carbon, Total Organic**

Analytical Batch: 959246 **Method:** SW 9060 Total Organic Carbon

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9060:

Sample ID	Client ID
247828003	CAPA-10-13095
1202057266	Method Blank (MB)
1202057267	246959005(CAMO-10-9370) Sample Duplicate (DUP)
1202057268	248126003(WSTPU-10-13398) Sample Duplicate (DUP)
1202057269	246959005(CAMO-10-9370) Post Spike (PS)
1202057270	248126003(WSTPU-10-13398) Post Spike (PS)
1202057271	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-093 REV# 9.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Carbon analysis was performed on a O-I Analytical Model 1010 Total Organic Carbon Analyzer.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

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

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 246959005 (CAMO-10-9370) and 248126003 (WSTPU-10-13398).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202057267 (CAMO-10-9370).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1202057268 (WSTPU-10-13398) and 1202057270 (WSTPU-10-13398).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
A 15 mg/L Total Inorganic Carbon check standard is analyzed with each analytical run to prove that the instrument is effectively sparging away the inorganic carbon.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will

always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Total Kjeldahl Nitrogen**		
Analytical Batch:	956923	**Method:**	Nitrogen and Total Kjeldahl (TKN)
Prep Batch :	956922	**Method:**	EEPA 351.2 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 351.2:

Sample ID	Client ID
247828003	CAPA-10-13095
1202051770	Method Blank (MB)
1202051771	247824003(CAPA-10-13498) Sample Duplicate (DUP)
1202051772	247824003(CAPA-10-13498) Matrix Spike (MS)
1202051773	247824003(CAPA-10-13498) Matrix Spike Duplicate (MSD)
1202051774	Laboratory Control Sample (LCS)
1202053335	247913001(50FWC-10-9942) Sample Duplicate (DUP)
1202053336	247913001(50FWC-10-9942) Matrix Spike (MS)
1202053337	247913001(50FWC-10-9942) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-104 REV# 8.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

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

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 247824003 (CAPA-10-13498) and 247913001 (50FWC-10-9942).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202053336 (50FWC-10-9942).

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202051773 (CAPA-10-13498) and 1202053337 (50FWC-10-9942).

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

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

Sample Re-analysis
The following samples were re-analyzed to verify the results: 1202051771 (CAPA-10-13498), 1202051772 (CAPA-10-13498), 1202051773 (CAPA-10-13498), 1202053335 (50FWC-10-9942), 1202053336 (50FWC-10-9942) and 1202053337 (50FWC-10-9942).

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 797199 1202051773 (CAPA-10-13498), 1202053336 (50FWC-10-9942) and 1202053337 (50FWC-10-9942).

Additional Comments
Additional comments were not required for this SDG.

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

Certification Statement

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

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: Nick Cole A. Elmore **Date:** 3.23.10

Sample Data Summary

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

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

Client SDG: 10-2000 GEL Work Order: 247828

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____ 3-23-10

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 23, 2010

Client SDG: 10-2000

Client Sample ID:	CAPA-10-13095	Project:	ESHL01000
Sample ID:	247828003	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	21-FEB-10 12:00		
Receive Date:	23-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis											
SW 9060 Total Organic Carbon "As Received"											
Total Organic Carbon Average	J	0.766	0.330	1.00	mg/L	1	TSM	03/02/10	1747	959246	1
Nutrient Analysis											
Nitrogen, Total Kjeldahl (TKN) "As Received"											
Nitrogen, Total Kjeldahl	U	ND	0.033	0.100	mg/L	1	AXH3	03/01/10	1008	956923	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 351.2 Prep	EPA 351.2 Total Kjeldahl Nitrogen Prep	SXJ1	02/25/10	1330	956922

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9060	
2	EPA 351.2	

Quality Control Summary

GEL LABORATORIES LLC

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

QC Summary

Report Date: March 23, 2010
Page 1 of 2

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

Contact: Ms. Joylene Valdez

Workorder: 247828

Parmname	NOM		Sample	Qual	QC	Units	RPD %	REC %	Range	Anlst	Date Time
Carbon Analysis											
Batch 959246											
QC1202057267 246959005 DUP											
Total Organic Carbon Average		J	0.346	J	0.491	mg/L	34.6 ^		(+/-1.00)	TSM	03/02/10 16:11
QC1202057268 248126003 DUP											
Total Organic Carbon Average			28.5		27.7	mg/L	2.67		(0%-20%)		03/03/10 15:00
QC1202057271 LCS											
Total Organic Carbon Average	10.0				9.94	mg/L		99.4	(85%-115%)		03/02/10 15:29
QC1202057266 MB											
Total Organic Carbon Average				U	ND	mg/L					03/02/10 15:20
QC1202057269 246959005 PS											
Total Organic Carbon Average	10.0	J	0.346		10.0	mg/L		96.8	(65%-121%)		03/02/10 16:31
QC1202057270 248126003 PS											
Total Organic Carbon Average	10.0		14.2		22.6	mg/L		84.2	(65%-121%)		03/03/10 15:20
Nutrient Analysis											
Batch 956923											
QC1202051771 247824003 DUP											
Nitrogen, Total Kjeldahl		U	ND	U	ND	mg/L	N/A			AXH3	03/01/10 10:11
QC1202053335 247913001 DUP											
Nitrogen, Total Kjeldahl			1.01		0.996	mg/L	1.49		(0%-20%)		03/01/10 10:15
QC1202051774 LCS											
Nitrogen, Total Kjeldahl	1.00				0.932	mg/L		93.2	(90%-110%)		03/01/10 09:56
QC1202051770 MB											
Nitrogen, Total Kjeldahl				U	ND	mg/L					03/01/10 09:55
QC1202051772 247824003 MS											
Nitrogen, Total Kjeldahl	1.00	U	ND		1.03	mg/L		103	(90%-110%)		03/01/10 10:12
QC1202053336 247913001 MS											
Nitrogen, Total Kjeldahl	1.00		1.01		1.89	mg/L		87.6*	(90%-110%)		03/01/10 10:19
QC1202051773 247824003 MSD											
Nitrogen, Total Kjeldahl	1.00	U	ND		1.14	mg/L	10.0	114*	(0%-20%)		03/01/10 10:13
QC1202053337 247913001 MSD											
Nitrogen, Total Kjeldahl	1.00		1.01		1.86	mg/L	1.60	84.6*	(0%-20%)		03/01/10 10:20

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

QC Summary

Workorder: 247828

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
JNX	Non Calibrated Compound
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UJ	Compound cannot be extracted
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 23-MAR-2010 12:47

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-2000

Carbon Analysis

Method: SW846 9060 Concentration Units:mg/L

Instrument: O-I Analytical Model 1010 Total Organic Carbon Analyzer

Parmname: Total Organic Carbon
Average

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limi
ICV	**02-MAR-2010 11:24:00**	**XQ054.rlt**	**9.934**	**10**	**99.3**	**(90%-110%)**	**Yes**
CCV	02-MAR-2010 15:02:00	XQ063.rlt	9.939	10	99.4	(90%-110%)	Yes
CCV	02-MAR-2010 19:28:00	XQ075.rlt	10.244	10	102	(90%-110%)	Yes
CCV	03-MAR-2010 00:09:00	XQ086.rlt	10.78	10	108	(90%-110%)	Yes
ICV	**03-MAR-2010 12:17:00**	**XQ111.rlt**	**9.898**	**10**	**99**	**(90%-110%)**	**Yes**
CCV	03-MAR-2010 13:35:00	XQ114.rlt	10.333	10	103	(90%-110%)	Yes
CCV	03-MAR-2010 15:29:00	XQ120.rlt	10.662	10	107	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**02-MAR-2010 11:33:00**	**XQ055.rlt**	**0.084**	**1**	**Yes**
CCB	02-MAR-2010 15:11:00	XQ064.rlt	0.023	1	Yes
CCB	02-MAR-2010 19:37:00	XQ076.rlt	0.054	1	Yes
CCB	03-MAR-2010 00:18:00	XQ087.rlt	0.053	1	Yes
ICB	**03-MAR-2010 12:26:00**	**XQ112.rlt**	**0.186**	**1**	**Yes**
CCB	03-MAR-2010 13:44:00	XQ115.rlt	0.167	1	Yes
CCB	03-MAR-2010 15:38:00	XQ121.rlt	0.256	1	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 23-MAR-2010 12:47

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-2000

Nutrient Analysis

Method: EPA 351.2 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Nitrogen, Total Kjeldahl

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limi
ICV	**01-MAR-2010 09:51:54**	**OM_3-1-2010_09-44-53**	**1.022**	**1**	**102**	**(90%-110%)**	**Yes**
CCV	01-MAR-2010 10:04:00	OM_3-1-2010_09-44-53	1.052	1	105	(90%-110%)	Yes
CCV	01-MAR-2010 10:16:03	OM_3-1-2010_09-44-53	1.047	1	105	(90%-110%)	Yes
CCV	01-MAR-2010 10:28:10	OM_3-1-2010_09-44-53	1.076	1	108	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**01-MAR-2010 09:53:50**	**OM_3-1-2010_09-44-53**	**-0.026**	**0.1**	**Yes**
CCB	01-MAR-2010 10:05:56	OM_3-1-2010_09-44-53	-0.026	0.1	Yes
CCB	01-MAR-2010 10:17:59	OM_3-1-2010_09-44-53	-0.026	0.1	Yes
CCB	01-MAR-2010 10:30:05	OM_3-1-2010_09-44-53	-0.049	0.1	Yes

Carbon, Total Organic

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
ICAL-01		1	TSM	2-Mar-10 10:39	XQ049.rlt
ICAL-02		1	TSM	2-Mar-10 10:48	XQ050.rlt
ICAL-03		1	TSM	2-Mar-10 10:57	XQ051.rlt
ICAL-04		1	TSM	2-Mar-10 11:06	XQ052.rlt
ICAL-05		1	TSM	2-Mar-10 11:15	XQ053.rlt
ICV		1	TSM	2-Mar-10 11:24	XQ054.rlt
ICB		1	TSM	2-Mar-10 11:33	XQ055.rlt
TIC	959246	1	TSM	2-Mar-10 11:43	XQ056.rlt
CCV		1	TSM	2-Mar-10 15:02	XQ063.rlt
CCB		1	TSM	2-Mar-10 15:11	XQ064.rlt
1202057266	959246	1	TSM	2-Mar-10 15:20	XQ065.rlt
1202057271	959246	1	TSM	2-Mar-10 15:29	XQ066.rlt
246959005	959246	1	TSM	2-Mar-10 15:38	XQ067.rlt
1202057267	959246	1	TSM	2-Mar-10 16:11	XQ068.rlt
1202057269	959246	1	TSM	2-Mar-10 16:31	XQ069.rlt
246959010	959246	1	TSM	2-Mar-10 16:40	XQ070.rlt
247824003	959246	1	TSM	2-Mar-10 17:13	XQ071.rlt
247828003	959246	1	TSM	2-Mar-10 17:47	XQ072.rlt
24817003	959246	1	TSM	2-Mar-10 18:20	XQ073.rlt
248042002	959246	1	TSM	2-Mar-10 18:54	XQ074.rlt
CCV		1	TSM	2-Mar-10 19:28	XQ075.rlt
CCB		1	TSM	2-Mar-10 19:37	XQ076.rlt
248042010	959246	1	TSM	2-Mar-10 19:45	XQ077.rlt
248042013	959246	1	TSM	2-Mar-10 20:19	XQ078.rlt
248047003	959246	1	TSM	2-Mar-10 20:52	XQ079.rlt
248047007	959246	1	TSM	2-Mar-10 21:26	XQ080.rlt
248126003	959246	1	TSM	2-Mar-10 21:59	XQ081.rlt
1202057268	959246	1	TSM	2-Mar-10 22:33	XQ082.rlt
1202057270	959246	1	TSM	2-Mar-10 22:53	XQ083.rlt
248170003	959246	1	TSM	2-Mar-10 23:01	XQ084.rlt
248170004	959246	1	TSM	2-Mar-10 23:35	XQ085.rlt
CCV		1	TSM	3-Mar-10 0:09	XQ086.rlt
CCB		1	TSM	3-Mar-10 0:18	XQ087.rlt
CCV		1	TSM	3-Mar-10 0:27	XQ088.rlt
CCB		1	TSM	3-Mar-10 0:36	XQ089.rlt
1202058021	959561	1	TSM	3-Mar-10 0:45	XQ090.rlt
1202058024	959561	1	TSM	3-Mar-10 0:53	XQ091.rlt
248133001	959561	1	TSM	3-Mar-10 1:02	XQ092.rlt
1202058022	959561	1	TSM	3-Mar-10 1:35	XQ093.rlt
1202058023	959561	1	TSM	3-Mar-10 1:55	XQ094.rlt
248133004	959561	1	TSM	3-Mar-10 2:04	XQ095.rlt
248133005	959561	1	TSM	3-Mar-10 2:37	XQ096.rlt
248139001	959561	1	TSM	3-Mar-10 3:11	XQ097.rlt
248139002	959561	1	TSM	3-Mar-10 3:44	XQ098.rlt
248139003	959561	1	TSM	3-Mar-10 4:18	XQ099.rlt
CCV		1	TSM	3-Mar-10 4:52	XQ100.rlt
CCB		1	TSM	3-Mar-10 5:01	XQ101.rlt
248139004	959561	1	TSM	3-Mar-10 5:09	XQ102.rlt
CCV		1	TSM	3-Mar-10 5:43	XQ103.rlt
CCB		1	TSM	3-Mar-10 5:52	XQ104.rlt

```
*****************************************************************
*                          CONFIGURATION                        **
*****************************************************************

nalysis Mode:  TOC          Spl Intro:  Autosampler 53
emote Start :  OFF

oop Size:  5 mL        Actual Volume  1mL   5mL   10mL   25mL
                       -------------  ----  ----  -----  -----
                        Loop A (uL):  1000  4900  10000  25000
                        Loop B (uL):  1000  4900  10000  25000

ray Type:              53 Vial  Vial Option:                 Neither
eedle Depth:           97 %     Preacid Volume (uL):             200
ash Needle Depth:      94 %     Preacid Purge Time (min:sec):   0:30

            TIC    TOC    TC
lank       ----   ----   ----            Linearization Coeff:  53000
Average:    141    788   2269

                         Sample Transfer Times (sec)
         Initial Fill      |        Loop Fill        | Sample Inject
    Non-AS    AS  AS w/Sep | Non-AS    AS  AS w/Sep |    (all)
    ------  ----- -------- | ------  ----- -------- | -------------
 mL:    6.0    4.5      3.5 |    1.2    1.2      1.0 |       4.5
mL:    8.1    7.0      8.0 |    5.1    3.0      5.5 |      10.3
 0mL:  14.2   12.2     11.0 |   10.5   10.5     11.0 |      16.5
 5mL:  35.0   35.0     32.0 |    n/a    n/a      n/a |      38.0

nalog Concentration Signal indicates TOC
nalog Conc. Signal Timer is OFF, Timer duration (h:m:s): 00:00:00
in Signal Range:   0.000 ppmC,  Max Signal Range:   0.000 ppmC

larms DISABLED
larm Relay Timer is OFF, Timer duration (h:m:s): 00:00:00
      Conc. Alarm Setpoints (ppm C)
         Low      |    High
     ----------   | ----------
IC:     0.000          0.000
OC:     0.000          0.000
C:      0.000          0.000
```

```
*****************************************************************
*                          CALIBRATION                          **
*****************************************************************
```

3/02/10 Tue Mar 02 11:15:21 2010

td. #	Used	Conc. (ppm)	Volume (mL)
1	Yes	20.000	5.000
2	Yes	10.000	5.000
3	Yes	1.000	5.000
4	Yes	0.200	5.000
5	Yes	0.000	5.000

RF (ugC/k-cts):	1.156
R-Squared:	0.9998
Offset (cts):	1069
Offset (ugC):	-1.237
Calibration Mode:	TOC
Allow Editing:	No

ep	Std. 1	Std. 2	Std. 3	Std. 4	Std. 5
1	86301	42467	5320	2063	1420
2	-	-	-	-	-
3	-	-	-	-	-
4	-	-	-	-	-
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	-
9	-	-	-	-	-
0	-	-	-	-	-

(* = unused)

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
1	Blk	1	02Mar2010	10:08	-	-	-	590	-	-	-	-	-
1	Blk	2	02Mar2010	10:15	-	-	-	974	-	-	-	-	-
1	Blk	3	02Mar2010	10:21	-	-	-	1016	-	-	-	-	-
1	Blk	4	02Mar2010	10:30	-	-	-	615	-	-	-	-	-

** Std1 Name: ICAL-01 Data File: XQ049
Remarks: 959246|1|1| WTC100302-01 ID:TOC267

1	Std1	1	02Mar2010	10:39	-	-	-	86301	98.000	20.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.147
R-Squared: 1.0000
Offset (cts): 0
Offset (ugC): 0.000

** Std2 Name: ICAL-02 Data File: XQ050
Remarks: 959246|1|1| WTC100302-02 ID:TOC267

2	Std2	1	02Mar2010	10:48	-	-	-	42467	49.000	10.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.118
R-Squared: 1.0000
Offset (cts): -1367
Offset (ugC): 1.528

** Std3 Name: ICAL-03 Data File: XQ051
Remarks: 959246|1|1| WTC100302-03 ID:TOC267

3	Std3	1	02Mar2010	10:57	-	-	-	5320	4.900	1.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.149
R-Squared: 0.9997
Offset (cts): 617
Offset (ugC): -0.709

** Std4 Name: ICAL-04 Data File: XQ052
Remarks: 959246|1|1| WTC100302-04 ID:TOC267

4	Std4	1	02Mar2010	11:06	-	-	-	2063	0.980	0.200	-	-	-

** Calibration: RF (ugC/k-cts): 1.153
R-Squared: 0.9998
Offset (cts): 900
Offset (ugC): -1.039

** Std5 Name: ICAL-05 Data File: XQ053
Remarks: 959246|1|1| ID:TOC267

5	Std5	1	02Mar2010	11:15	-	-	-	1420	0.000	0.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.156
R-Squared: 0.9998
Offset (cts): 1069
Offset (ugC): -1.237

```
** Chk2      Name:     ICV                          Data File: XQ054
             Remarks: 959246|1|1| WTC100302-05 ID:TOC267

6    Chk2    1 02Mar2010 11:24      -       -          -     43167  48.674      9.934      -       -          -


** Chk5      Name:     ICB                          Data File: XQ055
             Remarks: 959246|1|1| ID:TOC267

7    Chk5    1 02Mar2010 11:33      -       -          -      1424   0.410      0.084      -       -          -


** Spl       Name:     TIC                          Data File: XQ056
             Remarks: 959246|1|1| WIC100302-01 ID:TOC267

8    Spl     1 02Mar2010 11:43      -       -          -      1892   1.184      0.242      -       -          -
```

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
9	Blk	1	02Mar2010	14:54	-	-	-	465	-	-	-	-	-
** Chk2	Name: CCV						Data File: XQ063						
	Remarks: 959246|1|1| WTC100302-02 ID:TOC267												
9	Chk2	1	02Mar2010	15:02	-	-	-	43189	48.700	9.939	-	-	-
** Chk5	Name: CCB						Data File: XQ064						
	Remarks: 959246|1|1| ID:TOC267												
10	Chk5	1	02Mar2010	15:11	-	-	-	1168	0.114	0.023	-	-	-
** Chk5	Name: 1202057266						Data File: XQ065						
	Remarks: 959246|1|1| MB ID:TOC267												
11	Chk5	1	02Mar2010	15:20	-	-	-	1249	0.207	0.042	-	-	-
** Chk2	Name: 1202057271						Data File: XQ066						
	Remarks: 959246|1|1| WTC100302-05:LCS ID:TOC267												
12	Chk2	1	02Mar2010	15:29	-	-	-	43186	48.696	9.938	-	-	-
** Spl	Name: 246959005						Data File: XQ067						
	Remarks: 959246|1|1| ID:TOC267												
13	Spl	1	02Mar2010	15:38	-	-	-	2158	1.688	0.345	-	-	-
13	Spl	2	02Mar2010	15:46	-	-	-	2164	1.695	0.346	-	-	-
13	Spl	3	02Mar2010	15:53	-	-	-	2131	1.657	0.338	-	-	-
13	Spl	4	02Mar2010	16:03	-	-	-	2207	1.745	0.356	-	-	-
13	Spl	Avg						2165	1.696	0.346			
13	Spl	SDev						31.464					
13	Spl	%RSD						1.45					
** Spl	Name: 1202057267						Data File: XQ068						
	Remarks: 959246|1|1| 246959005:DUP ID:TOC267												
14	Spl	1	02Mar2010	16:11	-	-	-	2723	2.341	0.478	-	-	-
14	Spl	2	02Mar2010	16:21	-	-	-	2834	2.470	0.504	-	-	-
14	Spl	Avg						2778	2.406	0.491			
14	Spl	SDev						78.489					
14	Spl	%RSD						2.82					
** Spl	Name: 1202057269						Data File: XQ069						
	Remarks: 959246|1|1| 246959005:PS ID:TOC267												
15	Spl	1	02Mar2010	16:31	-	-	-	43192	49.133	10.027	-	-	-
** Spl	Name: 246959010						Data File: XQ070						
	Remarks: 959246|1|1| ID:TOC267												
16	Spl	1	02Mar2010	16:40	-	-	-	3328	3.041	0.621	-	-	-
16	Spl	2	02Mar2010	16:47	-	-	-	3561	3.310	0.676	-	-	-
16	Spl	3	02Mar2010	16:55	-	-	-	3373	3.093	0.631	-	-	-

16	Spl	4 02Mar2010 17:05	-	-	-	3339	3.054	0.623	-	-	-
16	Spl	Avg				3400	3.124	0.638			
16	Spl	SDev				108.865					
16	Spl	%RSD				3.20					

** Spl Name: 247824003 Data File: XQ071
Remarks: 959246|1|1| ID:TOC267

17	Spl	1 02Mar2010 17:13	-	-	-	4436	4.322	0.882	-	-	-
17	Spl	2 02Mar2010 17:21	-	-	-	4801	4.744	0.968	-	-	-
17	Spl	3 02Mar2010 17:29	-	-	-	4840	4.789	0.977	-	-	-
17	Spl	4 02Mar2010 17:38	-	-	-	4876	4.831	0.986	-	-	-
17	Spl	Avg				4738	4.671	0.953			
17	Spl	SDev				203.814					
17	Spl	%RSD				4.30					

** Spl Name: 247828003 Data File: XQ072
Remarks: 959246|1|1| ID:TOC267

18	Spl	1 02Mar2010 17:47	-	-	-	3737	3.514	0.717	-	-	-
18	Spl	2 02Mar2010 17:54	-	-	-	4117	3.953	0.807	-	-	-
18	Spl	3 02Mar2010 18:02	-	-	-	3974	3.788	0.773	-	-	-
18	Spl	4 02Mar2010 18:12	-	-	-	3940	3.748	0.765	-	-	-
18	Spl	Avg				3942	3.751	0.766			
18	Spl	SDev				156.714					
18	Spl	%RSD				3.98					

** Spl Name: 24817003 Data File: XQ073
Remarks: 959246|1|1| ID:TOC267

19	Spl	1 02Mar2010 18:20	-	-	-	4667	4.589	0.937	-	-	-
19	Spl	2 02Mar2010 18:28	-	-	-	5120	5.113	1.043	-	-	-
19	Spl	3 02Mar2010 18:36	-	-	-	4870	4.824	0.984	-	-	-
19	Spl	4 02Mar2010 18:45	-	-	-	4985	4.957	1.012	-	-	-
19	Spl	Avg				4910	4.871	0.994			
19	Spl	SDev				191.810					
19	Spl	%RSD				3.91					

** Spl Name: 248042002 Data File: XQ074
Remarks: 959246|1|1| ID:TOC267

20	Spl	1 02Mar2010 18:54	-	-	-	8401	8.906	1.818	-	-	-
20	Spl	2 02Mar2010 19:01	-	-	-	9249	9.887	2.018	-	-	-
20	Spl	3 02Mar2010 19:09	-	-	-	9185	9.813	2.003	-	-	-
20	Spl	4 02Mar2010 19:19	-	-	-	9324	9.974	2.035	-	-	-
20	Spl	Avg				9039	9.645	1.968			
20	Spl	SDev				429.606					
20	Spl	%RSD				4.75					

** Chk2 Name: CCV Data File: XQ075
Remarks: 959246|1|1| WTC100302-02 ID:TOC267

21	Chk2	1 02Mar2010 19:28	-	-	-	44483	50.196	10.244	-	-	-

** Chk5 Name: CCB Data File: XQ076
Remarks: 959246|1|1| ID:TOC267

22	Chk5	1 02Mar2010 19:37	-	-	-	1300	0.266	0.054	-	-	-

```
** Spl      Name:    248042010                    Data File: XQ077
            Remarks: 959246|1|1| ID:TOC267

23   Spl    1 02Mar2010 19:45      -       -          -     4053   3.879      0.792      -       -          -
23   Spl    2 02Mar2010 19:53      -       -          -     4437   4.323      0.882      -       -          -
23   Spl    3 02Mar2010 20:01      -       -          -     4379   4.256      0.869      -       -          -
23   Spl    4 02Mar2010 20:10      -       -          -     4376   4.253      0.868      -       -          -
23   Spl  Avg                                             4311   4.178      0.853
23   Spl  SDev                                         174.441
23   Spl  %RSD                                            4.05

** Spl      Name:    248042013                    Data File: XQ078
            Remarks: 959246|1|1| ID:TOC267

24   Spl    1 02Mar2010 20:19      -       -          -     3952   3.762      0.768      -       -          -
24   Spl    2 02Mar2010 20:26      -       -          -     3951   3.761      0.768      -       -          -
24   Spl    3 02Mar2010 20:34      -       -          -     4122   3.959      0.808      -       -          -
24   Spl    4 02Mar2010 20:44      -       -          -     4004   3.822      0.780      -       -          -
24   Spl  Avg                                             4007   3.826      0.781
24   Spl  SDev                                          80.405
24   Spl  %RSD                                            2.01

** Spl      Name:    248047003                    Data File: XQ079
            Remarks: 959246|1|1| ID:TOC267

25   Spl    1 02Mar2010 20:52      -       -          -     8014   8.459      1.726      -       -          -
25   Spl    2 02Mar2010 21:00      -       -          -     8665   9.212      1.880      -       -          -
25   Spl    3 02Mar2010 21:08      -       -          -     8638   9.180      1.874      -       -          -
25   Spl    4 02Mar2010 21:17      -       -          -     8637   9.179      1.873      -       -          -
25   Spl  Avg                                             8488   9.008      1.838
25   Spl  SDev                                         316.599
25   Spl  %RSD                                            3.73

** Spl      Name:    248047007                    Data File: XQ080
            Remarks: 959246|1|1| ID:TOC267

26   Spl    1 02Mar2010 21:26      -       -          -     7428   7.781      1.588      -       -          -
26   Spl    2 02Mar2010 21:34      -       -          -     8195   8.668      1.769      -       -          -
26   Spl    3 02Mar2010 21:41      -       -          -     8062   8.514      1.738      -       -          -
26   Spl    4 02Mar2010 21:51      -       -          -     8059   8.511      1.737      -       -          -
26   Spl  Avg                                             7936   8.369      1.708
26   Spl  SDev                                         344.553
26   Spl  %RSD                                            4.34

** Spl      Name:    248126003                    Data File: XQ081
            Remarks: 959246|1|1| ID:TOC267

27   Spl    1 02Mar2010 21:59      -       -          -   102842 118.102     24.102      -       -          -
27   Spl    2 02Mar2010 22:07      -       -          -   121676 139.878     28.547      -       -          -
27   Spl    3 02Mar2010 22:15      -       -          -   122928 141.326     28.842      -       -          -
27   Spl    4 02Mar2010 22:24      -       -          -   123832 142.371     29.055      -       -          -
27   Spl  Avg                                           117819 135.419     27.637
27   Spl  SDev                                        10024.055
27   Spl  %RSD                                            8.51

** Spl      Name:    1202057268                   Data File: XQ082
            Remarks: 959246|1|1| 248126003:DUP ID:TOC267

28   Spl    1 02Mar2010 22:33      -       -          -   106870 122.759     25.053      -       -          -
```

```
28   Spl    2 02Mar2010 22:42      -       -          -   122243 140.534     28.680      -       -         -
28   Spl  Avg                                             114556 131.646     26.867
28   Spl  SDev                                          10870.353
28   Spl  %RSD                                               9.49

** Spl      Name:    1202057270                   Data File: XQ083
            Remarks: 959246|1|1| 248126003:PS ID:TOC267

29   Spl    1 02Mar2010 22:53      -       -          -   158372 182.307     37.206      -       -         -

** Spl      Name:    248170003                    Data File: XQ084
            Remarks: 959246|1|1|  ID:TOC267

30   Spl    1 02Mar2010 23:01      -       -          -     9913  10.655      2.174      -       -         -
30   Spl    2 02Mar2010 23:09      -       -          -    10393  11.210      2.288      -       -         -
30   Spl    3 02Mar2010 23:17      -       -          -    10007  10.763      2.197      -       -         -
30   Spl    4 02Mar2010 23:26      -       -          -    10092  10.862      2.217      -       -         -
30   Spl  Avg                                             10101  10.872      2.219
30   Spl  SDev                                           207.786
30   Spl  %RSD                                              2.06

** Spl      Name:    248170004                    Data File: XQ085
            Remarks: 959246|1|1|  ID:TOC267

31   Spl    1 02Mar2010 23:35      -       -          -     9442  10.110      2.063      -       -         -
31   Spl    2 02Mar2010 23:42      -       -          -    10397  11.214      2.289      -       -         -
31   Spl    3 02Mar2010 23:50      -       -          -    10365  11.177      2.281      -       -         -
31   Spl    4 03Mar2010 00:00      -       -          -    10415  11.235      2.293      -       -         -
31   Spl  Avg                                             10154  10.934      2.231
31   Spl  SDev                                           475.616
31   Spl  %RSD                                              4.68

** Chk2     Name:    CCV                          Data File: XQ086
            Remarks: 959246|1|1| WTC100302-02  ID:TOC267

32   Chk2   1 03Mar2010 00:09      -       -          -    46755  52.823     10.780      -       -         -

** Chk5     Name:    CCB                          Data File: XQ087
            Remarks: 959246|1|1|  ID:TOC267

33   Chk5   1 03Mar2010 00:18      -       -          -     1295   0.261      0.053      -       -         -

** Chk2     Name:    CCV                          Data File: XQ088
            Remarks: 959561|1|1| WTC100302-02  ID:TOC267

34   Chk2   1 03Mar2010 00:27      -       -          -    46162  52.137     10.640      -       -         -

** Chk5     Name:    CCB                          Data File: XQ089
            Remarks: 959561|1|1|  ID:TOC267

35   Chk5   1 03Mar2010 00:36      -       -          -     1291   0.256      0.052      -       -         -

** Chk5     Name:    1202058021                   Data File: XQ090
            Remarks: 959561|1|1| MB ID:TOC267

36   Chk5   1 03Mar2010 00:45      -       -          -     1176   0.123      0.025      -       -         -
```

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** Chk2      Name:    1202058024                    Data File: XQ091
             Remarks: 959561|1|1| WTC100302-05:LCS ID:TOC267

37   Chk2    1 03Mar2010 00:53      -       -          -    45800  51.719     10.555      -       -          -


** Spl       Name:    248133001                     Data File: XQ092
             Remarks: 959561|1|1|  ID:TOC267

38   Spl     1 03Mar2010 01:02      -       -          -     7480   7.842      1.600      -       -          -
38   Spl     2 03Mar2010 01:10      -       -          -     9683  10.389      2.120      -       -          -
38   Spl     3 03Mar2010 01:17      -       -          -     9732  10.445      2.132      -       -          -
38   Spl     4 03Mar2010 01:27      -       -          -     9545  10.229      2.088      -       -          -
38   Spl   Avg                                           9110   9.726      1.985
38   Spl   SDev                                       1089.547
38   Spl   %RSD                                          11.96


** Spl       Name:    1202058022                    Data File: XQ093
             Remarks: 959561|1|1| 248133001:DUP ID:TOC267

39   Spl     1 03Mar2010 01:35      -       -          -     7746   8.149      1.663      -       -          -
39   Spl     2 03Mar2010 01:45      -       -          -     9965  10.715      2.187      -       -          -
39   Spl   Avg                                           8855   9.432      1.925
39   Spl   SDev                                       1569.070
39   Spl   %RSD                                          17.72


** Spl       Name:    1202058023                    Data File: XQ094
             Remarks: 959561|1|1| 248133001:PS ID:TOC267

40   Spl     1 03Mar2010 01:55      -       -          -    49264  56.153     11.460      -       -          -


** Spl       Name:    248133004                     Data File: XQ095
             Remarks: 959561|1|1| ID:TOC267

41   Spl     1 03Mar2010 02:04      -       -          -    24806  27.874      5.689      -       -          -
41   Spl     2 03Mar2010 02:11      -       -          -    30691  34.679      7.077      -       -          -
41   Spl     3 03Mar2010 02:19      -       -          -    30709  34.700      7.082      -       -          -
41   Spl     4 03Mar2010 02:29      -       -          -    30703  34.693      7.080      -       -          -
41   Spl   Avg                                          29227  32.986      6.732
41   Spl   SDev                                       2947.509
41   Spl   %RSD                                          10.08


** Spl       Name:    248133005                     Data File: XQ096
             Remarks: 959561|1|1| ID:TOC267

42   Spl     1 03Mar2010 02:37      -       -          -    13693  15.025      3.066      -       -          -
42   Spl     2 03Mar2010 02:45      -       -          -    17344  19.247      3.928      -       -          -
42   Spl     3 03Mar2010 02:53      -       -          -    16857  18.684      3.813      -       -          -
42   Spl     4 03Mar2010 03:02      -       -          -    16419  18.177      3.710      -       -          -
42   Spl   Avg                                          16078  17.783      3.629
42   Spl   SDev                                       1634.432
42   Spl   %RSD                                          10.17


** Spl       Name:    248139001                     Data File: XQ097
             Remarks: 959561|1|1| ID:TOC267

43   Spl     1 03Mar2010 03:11      -       -          -    70702  80.941     16.518      -       -          -
43   Spl     2 03Mar2010 03:18      -       -          -    84712  97.139     19.824      -       -          -
43   Spl     3 03Mar2010 03:26      -       -          -    85989  98.616     20.126      -       -          -
```

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43   Spl    4 03Mar2010 03:36      -       -          -    87955 100.889     20.590      -       -         -
43   Spl  Avg                                             82339  94.396     19.264
43   Spl  SDev                                          7872.163
43   Spl  %RSD                                             9.56

** Spl      Name:    248139002                    Data File: XQ098
            Remarks: 959561|1|1| ID:TOC267

44   Spl    1 03Mar2010 03:44      -       -          -    12982  14.203      2.899      -       -         -
44   Spl    2 03Mar2010 03:52      -       -          -    13647  14.972      3.056      -       -         -
44   Spl    3 03Mar2010 04:00      -       -          -    13377  14.660      2.992      -       -         -
44   Spl    4 03Mar2010 04:09      -       -          -    13397  14.683      2.997      -       -         -
44   Spl  Avg                                             13350  14.629      2.986
44   Spl  SDev                                           274.814
44   Spl  %RSD                                              2.06

** Spl      Name:    248139003                    Data File: XQ099
            Remarks: 959561|1|1| ID:TOC267

45   Spl    1 03Mar2010 04:18      -       -          -     9371  10.028      2.046      -       -         -
45   Spl    2 03Mar2010 04:26      -       -          -    10393  11.210      2.288      -       -         -
45   Spl    3 03Mar2010 04:33      -       -          -    10243  11.036      2.252      -       -         -
45   Spl    4 03Mar2010 04:43      -       -          -    10309  11.113      2.268      -       -         -
45   Spl  Avg                                             10079  10.847      2.214
45   Spl  SDev                                           475.975
45   Spl  %RSD                                              4.72

** Chk2     Name:    CCV                          Data File: XQ100
            Remarks: 959561|1|1| WTC100302-02 ID:TOC267

46   Chk2   1 03Mar2010 04:52      -       -          -    45520  51.395     10.489      -       -         -

** Chk5     Name:    CCB                          Data File: XQ101
            Remarks: 959561|1|1| ID:TOC267

47   Chk5   1 03Mar2010 05:01      -       -          -     1397   0.379      0.077      -       -         -

** Spl      Name:    248139004                    Data File: XQ102
            Remarks: 959561|1|1| ID:TOC267

48   Spl    1 03Mar2010 05:09      -       -          -    21982  24.609      5.022      -       -         -
48   Spl    2 03Mar2010 05:17      -       -          -    26719  30.086      6.140      -       -         -
48   Spl    3 03Mar2010 05:25      -       -          -    27225  30.671      6.259      -       -         -
48   Spl    4 03Mar2010 05:34      -       -          -    27179  30.618      6.249      -       -         -
48   Spl  Avg                                             25776  28.996      5.918
48   Spl  SDev                                          2539.796
48   Spl  %RSD                                              9.85

** Chk2     Name:    CCV                          Data File: XQ103
            Remarks: 959561|1|1| WTC100302-02 ID:TOC267

49   Chk2   1 03Mar2010 05:43      -       -          -    47890  54.135     11.048      -       -         -

** Chk5     Name:    CCB                          Data File: XQ104
            Remarks: 959561|1|1| ID:TOC267

50   Chk5   1 03Mar2010 05:52      -       -          -     1615   0.631      0.129      -       -         -
```

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
ICAL-01		1	TSM	3-Mar-10 11:32	XQ106.rlt
ICAL-02		1	TSM	3-Mar-10 11:41	XQ107.rlt
ICAL-03		1	TSM	3-Mar-10 11:50	XQ108.rlt
ICAL-04		1	TSM	3-Mar-10 11:59	XQ109.rlt
ICAL-05		1	TSM	3-Mar-10 12:08	XQ110.rlt
ICV		1	TSM	3-Mar-10 12:17	XQ111.rlt
ICB		1	TSM	3-Mar-10 12:26	XQ112.rlt
TIC	960019	1	TSM	3-Mar-10 12:36	XQ113.rlt
CCV		1	TSM	3-Mar-10 13:35	XQ114.rlt
CCB		1	TSM	3-Mar-10 13:44	XQ115.rlt
248139001	959561	2	TSM	3-Mar-10 13:53	XQ116.rlt
248126003	959246	2	TSM	3-Mar-10 14:26	XQ117.rlt
1202057268	959246	2	TSM	3-Mar-10 15:00	XQ118.rlt
1202057270	959246	2	TSM	3-Mar-10 15:20	XQ119.rlt
CCV		1	TSM	3-Mar-10 15:29	XQ120.rlt
CCB		1	TSM	3-Mar-10 15:38	XQ121.rlt
CCV		1	TSM	3-Mar-10 15:47	XQ122.rlt
CCB		1	TSM	3-Mar-10 15:55	XQ123.rlt
1202059114	960019	1	TSM	3-Mar-10 16:04	XQ124.rlt
1202059117	960019	1	TSM	3-Mar-10 16:13	XQ125.rlt
248157002	960019	1	TSM	3-Mar-10 16:22	XQ126.rlt
248157003	960019	1	TSM	3-Mar-10 16:55	XQ127.rlt
248157004	960019	1	TSM	3-Mar-10 17:29	XQ128.rlt
248157005	960019	1	TSM	3-Mar-10 18:02	XQ129.rlt
248157006	960019	1	TSM	3-Mar-10 18:36	XQ130.rlt
248157007	960019	1	TSM	3-Mar-10 19:09	XQ131.rlt
248268003	960019	1	TSM	3-Mar-10 19:43	XQ132.rlt
248298001	960019	1	TSM	3-Mar-10 20:16	XQ133.rlt
CCV		1	TSM	3-Mar-10 20:51	XQ134.rlt
CCB		1	TSM	3-Mar-10 20:59	XQ135.rlt
248298002	960019	1	TSM	3-Mar-10 21:08	XQ136.rlt
248298003	960019	1	TSM	3-Mar-10 21:41	XQ137.rlt
1202059115	960019	1	TSM	3-Mar-10 22:15	XQ138.rlt
1202059116	960019	1	TSM	3-Mar-10 22:35	XQ139.rlt
CCV		1	TSM	3-Mar-10 22:44	XQ140.rlt
CCB		1	TSM	3-Mar-10 22:53	XQ141.rlt

```
*****************************************************************
*                          CALIBRATION                          **
*****************************************************************
```

3/03/10 Wed Mar 03 12:08:15 2010

td. #	Used	Conc. (ppm)	Volume (mL)
1	Yes	20.000	5.000
2	Yes	10.000	5.000
3	Yes	1.000	5.000
4	Yes	0.200	5.000
5	Yes	0.000	5.000

RF (ugC/k-cts):	1.186
R-Squared:	0.9977
Offset (cts):	555
Offset (ugC):	-0.660
Calibration Mode:	TOC
Allow Editing:	No

ep	Std. 1	Std. 2	Std. 3	Std. 4	Std. 5
1	84504	38786	5246	1950	1143
2	-	-	-	-	-
3	-	-	-	-	-
4	-	-	-	-	-
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	-
9	-	-	-	-	-
0	-	-	-	-	-

(* = unused)

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
1	Blk	1	03Mar2010	10:48	-	-	-	659	-	-	-	-	-
1	Blk	2	03Mar2010	10:54	-	-	-	545	-	-	-	-	-
1	Blk	3	03Mar2010	11:01	-	-	-	1019	-	-	-	-	-
1	Blk	4	03Mar2010	11:08	-	-	-	518	-	-	-	-	-
1	Blk	5	03Mar2010	11:14	-	-	-	411	-	-	-	-	-
1	Blk	6	03Mar2010	11:23	-	-	-	405	-	-	-	-	-

** Std1 Name: ICAL-01 Data File: XQ106
Remarks: 960019|1|1| WTC100303-01 ID:TOC267

1	Std1	1	03Mar2010	11:32	-	-	-	84504	98.000	20.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.166
R-Squared: 1.0000
Offset (cts): 0
Offset (ugC): 0.000

** Std2 Name: ICAL-02 Data File: XQ107
Remarks: 960019|1|1| WTC100303-02 ID:TOC267

2	Std2	1	03Mar2010	11:41	-	-	-	38786	49.000	10.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.072
R-Squared: 1.0000
Offset (cts): -6932
Offset (ugC): 7.430

** Std3 Name: ICAL-03 Data File: XQ108
Remarks: 960019|1|1| WTC100303-03 ID:TOC267

3	Std3	1	03Mar2010	11:50	-	-	-	5246	4.900	1.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.169
R-Squared: 0.9966
Offset (cts): -482
Offset (ugC): 0.564

** Std4 Name: ICAL-04 Data File: XQ109
Remarks: 960019|1|1| WTC100303-04 ID:TOC267

4	Std4	1	03Mar2010	11:59	-	-	-	1950	0.980	0.200	-	-	-

** Calibration: RF (ugC/k-cts): 1.182
R-Squared: 0.9973
Offset (cts): 273
Offset (ugC): -0.324

** Std5 Name: ICAL-05 Data File: XQ110
Remarks: 960019|1|1| WTC100303-05 ID:TOC267

5	Std5	1	03Mar2010	12:08	-	-	-	1143	0.000	0.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.186
R-Squared: 0.9977
Offset (cts): 555
Offset (ugC): -0.660

```
** Chk2      Name:     ICV                          Data File: XQ111
             Remarks: 960019|1|1| WIC100303-05 ID:TOC267

6    Chk2    1 03Mar2010 12:17      -       -          -     41433  48.501      9.898      -       -          -


** Chk5      Name:     ICB                          Data File: XQ112
             Remarks: 960019|1|1| ID:TOC267

7    Chk5    1 03Mar2010 12:26      -       -          -      1325   0.913      0.186      -       -          -


** Sp1       Name:     TIC                          Data File: XQ113
             Remarks: 960019|1|1| WIC100303-01 ID:TOC267

8    Sp1     1 03Mar2010 12:36      -       -          -      1281   0.993      0.203      -       -          -
```

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Chk2		Name: CCV					Data File: XQ114						
		Remarks: 959561|1|2| WTC100303-02 ID:TOC267											
9	Chk2	1	03Mar2010	13:35	-	-	-	43228	50.630	10.333	-	-	-
** Chk5		Name: CCB					Data File: XQ115						
		Remarks: 959561|1|2| ID:TOC267											
10	Chk5	1	03Mar2010	13:44	-	-	-	1244	0.816	0.167	-	-	-
** Spl		Name: 248139001					Data File: XQ116						
		Remarks: 959561|2|2| ID:TOC267											
11	Spl	1	03Mar2010	13:53	-	-	-	35336	41.399	8.449	-	-	-
11	Spl	2	03Mar2010	14:00	-	-	-	41116	48.257	9.848	-	-	-
11	Spl	3	03Mar2010	14:08	-	-	-	41760	49.021	10.004	-	-	-
11	Spl	4	03Mar2010	14:18	-	-	-	42168	49.506	10.103	-	-	-
11	Spl	Avg						40095	47.046	9.601			
11	Spl	SDev						3202.087					
11	Spl	%RSD						7.99					
** Spl		Name: 248126003					Data File: XQ117						
		Remarks: 959246|2|2| ID:TOC267											
12	Spl	1	03Mar2010	14:26	-	-	-	53261	62.667	12.789	-	-	-
12	Spl	2	03Mar2010	14:34	-	-	-	61591	72.551	14.806	-	-	-
12	Spl	3	03Mar2010	14:42	-	-	-	61016	71.869	14.667	-	-	-
12	Spl	4	03Mar2010	14:51	-	-	-	60945	71.784	14.650	-	-	-
12	Spl	Avg						59203	69.718	14.228			
12	Spl	SDev						3972.046					
12	Spl	%RSD						6.71					
** Spl		Name: 1202057268					Data File: XQ118						
		Remarks: 959246|2|2| 248126003:DUP ID:TOC267											
13	Spl	1	03Mar2010	15:00	-	-	-	53909	63.436	12.946	-	-	-
13	Spl	2	03Mar2010	15:09	-	-	-	61397	72.321	14.759	-	-	-
13	Spl	Avg						57653	67.878	13.853			
13	Spl	SDev						5294.816					
13	Spl	%RSD						9.18					
** Spl		Name: 1202057270					Data File: XQ119						
		Remarks: 959246|2|2| 248126003:PS ID:TOC267											
14	Spl	1	03Mar2010	15:20	-	-	-	93980	110.980	22.649	-	-	-
** Chk2		Name: CCV					Data File: XQ120						
		Remarks: 959246|1|2| WTC100303-02 ID:TOC267											
15	Chk2	1	03Mar2010	15:29	-	-	-	44589	52.245	10.662	-	-	-
** Chk5		Name: CCB					Data File: XQ121						
		Remarks: 959246|1|2| ID:TOC267											

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16   Chk5   1 03Mar2010 15:38      -       -          -     1613   1.254      0.256      -       -          -

** Chk2     Name:    CCV                          Data File: XQ122
            Remarks: 960019|1|1| WTC100303-02 ID:TOC267

17   Chk2   1 03Mar2010 15:47      -       -          -    42982  50.339     10.273      -       -          -

** Chk5     Name:    CCB                          Data File: XQ123
            Remarks: 960019|1|1| ID:TOC267

18   Chk5   1 03Mar2010 15:55      -       -          -     1257   0.832      0.170      -       -          -

** Chk5     Name:    1202059114                   Data File: XQ124
            Remarks: 960019|1|1| MB ID:TOC267

19   Chk5   1 03Mar2010 16:04      -       -          -     1360   0.954      0.195      -       -          -

** Chk2     Name:    1202059117                   Data File: XQ125
            Remarks: 960019|1|1| WTC100303-05:LCS ID:TOC267

20   Chk2   1 03Mar2010 16:13      -       -          -    42389  49.635     10.130      -       -          -

** Spl      Name:    248157002                    Data File: XQ126
            Remarks: 960019|1|1| ID:TOC267

21   Spl    1 03Mar2010 16:22      -       -          -    85357 100.749     20.561      -       -          -
21   Spl    2 03Mar2010 16:29      -       -          -   104991 124.045     25.315      -       -          -
21   Spl    3 03Mar2010 16:37      -       -          -   102889 121.551     24.806      -       -          -
21   Spl    4 03Mar2010 16:47      -       -          -   106367 125.678     25.649      -       -          -
21   Spl  Avg                                          99901 118.006     24.083
21   Spl  SDev                                      9800.907
21   Spl  %RSD                                          9.81

** Spl      Name:    248157003                    Data File: XQ127
            Remarks: 960019|1|1| ID:TOC267

22   Spl    1 03Mar2010 16:55      -       -          -     8699   9.795      1.999      -       -          -
22   Spl    2 03Mar2010 17:03      -       -          -     9627  10.896      2.224      -       -          -
22   Spl    3 03Mar2010 17:11      -       -          -     9203  10.393      2.121      -       -          -
22   Spl    4 03Mar2010 17:20      -       -          -     9306  10.515      2.146      -       -          -
22   Spl  Avg                                           9208  10.399      2.122
22   Spl  SDev                                        384.824
22   Spl  %RSD                                           4.18

** Spl      Name:    248157004                    Data File: XQ128
            Remarks: 960019|1|1| ID:TOC267

23   Spl    1 03Mar2010 17:29      -       -          -    12729  14.576      2.975      -       -          -
23   Spl    2 03Mar2010 17:37      -       -          -    14436  16.602      3.388      -       -          -
23   Spl    3 03Mar2010 17:44      -       -          -    14492  16.668      3.402      -       -          -
23   Spl    4 03Mar2010 17:54      -       -          -    14379  16.534      3.374      -       -          -
23   Spl  Avg                                          14009  16.095      3.285
23   Spl  SDev                                        854.579
23   Spl  %RSD                                           6.10

** Spl      Name:    248157005                    Data File: XQ129
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            Remarks: 960019|1|1| ID:TOC267

24   Spl    1 03Mar2010 18:02      -       -          -    10666  12.128      2.475      -       -          -
24   Spl    2 03Mar2010 18:10      -       -          -    11929  13.627      2.781      -       -          -
24   Spl    3 03Mar2010 18:18      -       -          -    11664  13.313      2.717      -       -          -
24   Spl    4 03Mar2010 18:28      -       -          -    11571  13.202      2.694      -       -          -
24   Spl  Avg                                             11457  13.068      2.667
24   Spl  SDev                                          549.032
24   Spl  %RSD                                             4.79

** Spl      Name:    248157006                    Data File: XQ130
            Remarks: 960019|1|1| ID:TOC267

25   Spl    1 03Mar2010 18:36      -       -          -    15997  18.454      3.766      -       -          -
25   Spl    2 03Mar2010 18:44      -       -          -    18532  21.461      4.380      -       -          -
25   Spl    3 03Mar2010 18:51      -       -          -    18173  21.035      4.293      -       -          -
25   Spl    4 03Mar2010 19:01      -       -          -    18060  20.901      4.266      -       -          -
25   Spl  Avg                                             17690  20.463      4.176
25   Spl  SDev                                         1146.793
25   Spl  %RSD                                             6.48

** Spl      Name:    248157007                    Data File: XQ131
            Remarks: 960019|1|1| ID:TOC267

26   Spl    1 03Mar2010 19:09      -       -          -    19688  22.833      4.660      -       -          -
26   Spl    2 03Mar2010 19:17      -       -          -    22501  26.171      5.341      -       -          -
26   Spl    3 03Mar2010 19:25      -       -          -    21733  25.259      5.155      -       -          -
26   Spl    4 03Mar2010 19:35      -       -          -    21926  25.488      5.202      -       -          -
26   Spl  Avg                                             21462  24.938      5.089
26   Spl  SDev                                         1226.830
26   Spl  %RSD                                             5.72

** Spl      Name:    248268003                    Data File: XQ132
            Remarks: 960019|1|1| ID:TOC267

27   Spl    1 03Mar2010 19:43      -       -          -     5501   6.000      1.224      -       -          -
27   Spl    2 03Mar2010 19:51      -       -          -     5928   6.507      1.328      -       -          -
27   Spl    3 03Mar2010 19:58      -       -          -     5763   6.311      1.288      -       -          -
27   Spl    4 03Mar2010 20:08      -       -          -     5695   6.230      1.271      -       -          -
27   Spl  Avg                                              5721   6.262      1.278
27   Spl  SDev                                          176.717
27   Spl  %RSD                                             3.09

** Spl      Name:    248298001                    Data File: XQ133
            Remarks: 960019|1|1| ID:TOC267

28   Spl    1 03Mar2010 20:16      -       -          -     3194   3.263      0.666      -       -          -
28   Spl    2 03Mar2010 20:24      -       -          -     3344   3.441      0.702      -       -          -
28   Spl    3 03Mar2010 20:32      -       -          -     3131   3.188      0.651      -       -          -
28   Spl    4 03Mar2010 20:42      -       -          -     3210   3.282      0.670      -       -          -
28   Spl  Avg                                              3219   3.293      0.672
28   Spl  SDev                                           89.578
28   Spl  %RSD                                             2.78

** Chk2     Name:    CCV                          Data File: XQ134
            Remarks: 960019|1|1| WTC100303-02 ID:TOC267

29   Chk2   1 03Mar2010 20:51      -       -          -    44961  52.687     10.752      -       -          -
```

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** Chk5     Name:    CCB                          Data File: XQ135
            Remarks: 960019|1|1| ID:TOC267

30   Chk5   1 03Mar2010 20:59      -       -          -     1208   0.774      0.158      -       -          -

** Spl      Name:    248298002                    Data File: XQ136
            Remarks: 960019|1|1| ID:TOC267

31   Spl    1 03Mar2010 21:08      -       -          -     4413   4.709      0.961      -       -          -
31   Spl    2 03Mar2010 21:16      -       -          -     4399   4.693      0.958      -       -          -
31   Spl    3 03Mar2010 21:23      -       -          -     4489   4.799      0.979      -       -          -
31   Spl    4 03Mar2010 21:33      -       -          -     4639   4.977      1.016      -       -          -
31   Spl  Avg                                           4485   4.795      0.979
31   Spl  SDev                                       110.018
31   Spl  %RSD                                          2.45

** Spl      Name:    248298003                    Data File: XQ137
            Remarks: 960019|1|1| ID:TOC267

32   Spl    1 03Mar2010 21:41      -       -          -     3180   3.246      0.663      -       -          -
32   Spl    2 03Mar2010 21:49      -       -          -     3475   3.596      0.734      -       -          -
32   Spl    3 03Mar2010 21:57      -       -          -     3271   3.354      0.684      -       -          -
32   Spl    4 03Mar2010 22:06      -       -          -     3472   3.593      0.733      -       -          -
32   Spl  Avg                                           3349   3.447      0.703
32   Spl  SDev                                       147.929
32   Spl  %RSD                                          4.42

** Spl      Name:    1202059115                   Data File: XQ138
            Remarks: 960019|1|1| 248298003:DUP ID:TOC267

33   Spl    1 03Mar2010 22:15      -       -          -     3470   3.590      0.733      -       -          -
33   Spl    2 03Mar2010 22:24      -       -          -     3725   3.893      0.794      -       -          -
33   Spl  Avg                                           3597   3.742      0.764
33   Spl  SDev                                       180.312
33   Spl  %RSD                                          5.01

** Spl      Name:    1202059116                   Data File: XQ139
            Remarks: 960019|1|1| 248298003:PS ID:TOC267

34   Spl    1 03Mar2010 22:35      -       -          -    44281  52.013     10.615      -       -          -

** Chk2     Name:    CCV                          Data File: XQ140
            Remarks: 960019|1|1| WTC100303-02 ID:TOC267

35   Chk2   1 03Mar2010 22:44      -       -          -    47858  56.124     11.454      -       -          -

** Chk5     Name:    CCB                          Data File: XQ141
            Remarks: 960019|1|1|  ID:TOC267

36   Chk5   1 03Mar2010 22:53      -       -          -     1192   0.755      0.154      -       -          -
```

Total Kjeldahl Nitrogen

Total Phosphorous and Total Kjeldahl Nitrogen Sample Preparation

Batch ID: **956922.0** Verified by: _____

Analyst: Stephanie Jackson

Method: EPA 351.2 Prep

Lab SOP: GL-GC-E-071 REV# 10

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202051774	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202051772	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202053336	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202051773	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202053337	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202051770 MB	25-FEB-2010 13:30:00	Storm Water	20	20	1	<2
1202051774 LCS	25-FEB-2010 13:30:00	Storm Water	20	20	1	<2
247824003	25-FEB-2010 13:30:00	Ground Water	20	20	1	<2
1202051771 DUP (247824003)	25-FEB-2010 13:30:00	Ground Water	20	20	1	<2
1202051772 MS (247824003)	25-FEB-2010 13:30:00	Ground Water	20	20	1	<2
1202051773 MSD (247824003)	25-FEB-2010 13:30:00	Ground Water	20	20	1	<2
247828003	25-FEB-2010 13:30:00	Ground Water	20	20	1	<2
247852013	25-FEB-2010 13:30:00	Storm Water	20	20	1	<2
247852014	25-FEB-2010 13:30:00	Storm Water	20	20	1	<2
247913001	25-FEB-2010 13:30:00	Waste Water	20	20	1	<2
1202053335 DUP (247913001)	25-FEB-2010 13:30:00	Waste Water	20	20	1	<2
1202053336 MS (247913001)	25-FEB-2010 13:30:00	Waste Water	20	20	1	<2
1202053337 MSD (247913001)	25-FEB-2010 13:30:00	Waste Water	20	20	1	<2
247913002	25-FEB-2010 13:30:00	Waste Water	20	20	1	<2

Reagent/Solvent Lot ID	Description	Amount
1269276-C	TKN/PO4 Digestion Solution	4 mL

Comments:

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
5.0 ppm Std.		1	axh3	3/1/2010 9:45:51	OM_3-1-2010_09-44-53
3.0 ppm Std.		1	axh3	3/1/2010 9:46:39	OM_3-1-2010_09-44-53
1.0 ppm Std.		1	axh3	3/1/2010 9:47:27	OM_3-1-2010_09-44-53
0.5 ppm Std		1	axh3	3/1/2010 9:48:16	OM_3-1-2010_09-44-53
0.1 ppm Std		1	axh3	3/1/2010 9:49:07	OM_3-1-2010_09-44-53
ICAL-00		1	axh3	3/1/2010 9:49:58	OM_3-1-2010_09-44-53
ICV		1	axh3	3/1/2010 9:51:54	OM_3-1-2010_09-44-53
ICB		1	axh3	3/1/2010 9:53:50	OM_3-1-2010_09-44-53
1202051770	956923	1	axh3	3/1/2010 9:55:45	OM_3-1-2010_09-44-53
1202051774	956923	1	axh3	3/1/2010 9:56:35	OM_3-1-2010_09-44-53
247824003*	956923	1	axh3	3/1/2010 9:57:26	OM_3-1-2010_09-44-53
1202051771*	956923	1	axh3	3/1/2010 9:58:17	OM_3-1-2010_09-44-53
1202051772*	956923	1	axh3	3/1/2010 9:59:08	OM_3-1-2010_09-44-53
1202051773*	956923	1	axh3	3/1/2010 9:59:57	OM_3-1-2010_09-44-53
247913001*	956923	1	axh3	3/1/2010 10:00:47	OM_3-1-2010_09-44-53
1202053335*	956923	1	axh3	3/1/2010 10:01:35	OM_3-1-2010_09-44-53
1202053336*	956923	1	axh3	3/1/2010 10:02:24	OM_3-1-2010_09-44-53
1202053337*	956923	1	axh3	3/1/2010 10:03:12	OM_3-1-2010_09-44-53
CCV		1	axh3	3/1/2010 10:04:00	OM_3-1-2010_09-44-53
CCB		1	axh3	3/1/2010 10:05:56	OM_3-1-2010_09-44-53
247913002	956923	1	axh3	3/1/2010 10:07:49	OM_3-1-2010_09-44-53
247828003	956923	1	axh3	3/1/2010 10:08:38	OM_3-1-2010_09-44-53
247852013	956923	1	axh3	3/1/2010 10:09:27	OM_3-1-2010_09-44-53
247852014	956923	1	axh3	3/1/2010 10:10:16	OM_3-1-2010_09-44-53
247824003	956923	1	axh3	3/1/2010 10:11:06	OM_3-1-2010_09-44-53
1202051771	956923	1	axh3	3/1/2010 10:11:56	OM_3-1-2010_09-44-53
1202051772	956923	1	axh3	3/1/2010 10:12:47	OM_3-1-2010_09-44-53
1202051773	956923	1	axh3	3/1/2010 10:13:37	OM_3-1-2010_09-44-53
247913001	956923	1	axh3	3/1/2010 10:14:26	OM_3-1-2010_09-44-53
1202053335	956923	1	axh3	3/1/2010 10:15:15	OM_3-1-2010_09-44-53
CCV		1	axh3	3/1/2010 10:16:03	OM_3-1-2010_09-44-53
CCB		1	axh3	3/1/2010 10:17:59	OM_3-1-2010_09-44-53
1202053336	956923	1	axh3	3/1/2010 10:19:53	OM_3-1-2010_09-44-53
1202053337	956923	1	axh3	3/1/2010 10:20:40	OM_3-1-2010_09-44-53
1202042793	953065	1	axh3	3/1/2010 10:21:28	OM_3-1-2010_09-44-53
1202042797	953065	1	axh3	3/1/2010 10:22:17	OM_3-1-2010_09-44-53
246859003*	953065	1	axh3	3/1/2010 10:23:09	OM_3-1-2010_09-44-53
1202042794	953065	1	axh3	3/1/2010 10:24:00	OM_3-1-2010_09-44-53
1202042795	953065	1	axh3	3/1/2010 10:24:51	OM_3-1-2010_09-44-53
1202042796	953065	1	axh3	3/1/2010 10:25:42	OM_3-1-2010_09-44-53
246965002	953065	1	axh3	3/1/2010 10:26:32	OM_3-1-2010_09-44-53
1202043618	953065	1	axh3	3/1/2010 10:27:21	OM_3-1-2010_09-44-53
CCV		1	axh3	3/1/2010 10:28:10	OM_3-1-2010_09-44-53
CCB		1	axh3	3/1/2010 10:30:05	OM_3-1-2010_09-44-53
1202043619	953065	1	axh3	3/1/2010 10:31:59	OM_3-1-2010_09-44-53
1202043620	953065	1	axh3	3/1/2010 10:32:48	OM_3-1-2010_09-44-53
246859003	953065	1	axh3	3/1/2010 10:33:38	OM_3-1-2010_09-44-53
246879003	953065	1	axh3	3/1/2010 10:34:28	OM_3-1-2010_09-44-53
246879010*	953065	1	axh3	3/1/2010 10:35:19	OM_3-1-2010_09-44-53
246888004	953065	1	axh3	3/1/2010 10:36:08	OM_3-1-2010_09-44-53
246888008	953065	1	axh3	3/1/2010 10:36:58	OM_3-1-2010_09-44-53
246965011	953065	1	axh3	3/1/2010 10:37:46	OM_3-1-2010_09-44-53
247035003	953065	1	axh3	3/1/2010 10:38:34	OM_3-1-2010_09-44-53
247035009	953065	1	axh3	3/1/2010 10:39:24	OM_3-1-2010_09-44-53
CCV		1	axh3	3/1/2010 10:40:15	OM_3-1-2010_09-44-53
CCB		1	axh3	3/1/2010 10:42:11	OM_3-1-2010_09-44-53
247035012	953065	1	axh3	3/1/2010 10:44:06	OM_3-1-2010_09-44-53
247037002	953065	1	axh3	3/1/2010 10:44:57	OM_3-1-2010_09-44-53

247041001	953065	1	axh3	3/1/2010	10:45:48	OM_3-1-2010_09-44-53
247041008	953065	1	axh3	3/1/2010	10:46:39	OM_3-1-2010_09-44-53
247041013	953065	1	axh3	3/1/2010	10:47:30	OM_3-1-2010_09-44-53
246879010	953065	1	axh3	3/1/2010	10:48:20	OM_3-1-2010_09-44-53
1202050861	956485	1	axh3	3/1/2010	10:49:10	OM_3-1-2010_09-44-53
1202050865	956485	1	axh3	3/1/2010	10:50:00	OM_3-1-2010_09-44-53
247763001*	956485	1	axh3	3/1/2010	10:50:50	OM_3-1-2010_09-44-53
1202050862*	956485	1	axh3	3/1/2010	10:51:39	OM_3-1-2010_09-44-53
CCV		1	axh3	3/1/2010	10:52:28	OM_3-1-2010_09-44-53
CCB		1	axh3	3/1/2010	10:54:24	OM_3-1-2010_09-44-53
1202050863*	956485	1	axh3	3/1/2010	10:56:18	OM_3-1-2010_09-44-53
1202050864*	956485	1	axh3	3/1/2010	10:57:07	OM_3-1-2010_09-44-53
247850001	956485	1	axh3	3/1/2010	10:57:55	OM_3-1-2010_09-44-53
1202051751	956485	1	axh3	3/1/2010	10:58:43	OM_3-1-2010_09-44-53
1202051752	956485	1	axh3	3/1/2010	10:59:33	OM_3-1-2010_09-44-53
1202051753	956485	1	axh3	3/1/2010	11:00:26	OM_3-1-2010_09-44-53
247763002	956485	1	axh3	3/1/2010	11:01:16	OM_3-1-2010_09-44-53
247850002	956485	1	axh3	3/1/2010	11:02:06	OM_3-1-2010_09-44-53
247850003	956485	1	axh3	3/1/2010	11:02:57	OM_3-1-2010_09-44-53
247850004	956485	1	axh3	3/1/2010	11:03:48	OM_3-1-2010_09-44-53
CCV		1	axh3	3/1/2010	11:04:38	OM_3-1-2010_09-44-53
CCB		1	axh3	3/1/2010	11:06:34	OM_3-1-2010_09-44-53
247850005	956485	1	axh3	3/1/2010	11:08:29	OM_3-1-2010_09-44-53
247850006	956485	1	axh3	3/1/2010	11:09:20	OM_3-1-2010_09-44-53
247850007	956485	1	axh3	3/1/2010	11:10:10	OM_3-1-2010_09-44-53
247850008	956485	1	axh3	3/1/2010	11:11:00	OM_3-1-2010_09-44-53
247852001	956485	1	axh3	3/1/2010	11:11:50	OM_3-1-2010_09-44-53
247852002	956485	1	axh3	3/1/2010	11:12:40	OM_3-1-2010_09-44-53
247852003	956485	1	axh3	3/1/2010	11:13:29	OM_3-1-2010_09-44-53
247852004	956485	1	axh3	3/1/2010	11:14:18	OM_3-1-2010_09-44-53
247852005	956485	1	axh3	3/1/2010	11:15:07	OM_3-1-2010_09-44-53
247852006	956485	1	axh3	3/1/2010	11:15:55	OM_3-1-2010_09-44-53
CCV		1	axh3	3/1/2010	11:16:44	OM_3-1-2010_09-44-53
CCB		1	axh3	3/1/2010	11:18:39	OM_3-1-2010_09-44-53
247852007	956485	1	axh3	3/1/2010	11:20:35	OM_3-1-2010_09-44-53
247852008	956485	1	axh3	3/1/2010	11:21:27	OM_3-1-2010_09-44-53
247852009	956485	1	axh3	3/1/2010	11:22:19	OM_3-1-2010_09-44-53
247852010	956485	1	axh3	3/1/2010	11:23:11	OM_3-1-2010_09-44-53
247763001	956485	1	axh3	3/1/2010	11:24:02	OM_3-1-2010_09-44-53
1202050862	956485	1	axh3	3/1/2010	11:24:51	OM_3-1-2010_09-44-53
1202050863	956485	1	axh3	3/1/2010	11:25:40	OM_3-1-2010_09-44-53
1202050864	956485	1	axh3	3/1/2010	11:26:28	OM_3-1-2010_09-44-53
CCV		1	axh3	3/1/2010	11:28:22	OM_3-1-2010_09-44-53
CCB		1	axh3	3/1/2010	11:30:18	OM_3-1-2010_09-44-53

Author: axh3 Date : 3/1/2010

Original Run Filename: OM_3-1-2010_09-44-53.OMN created 3/1/2010 9:44:53
Original Run Author's Signature: [axh3]
Current Run Filename: OM_3-1-2010_09-44-53.OMN last modified 3/1/2010 11:31:28
Current Run Author's Signature: [axh3]
Description: TKN EPA Method 351.2 GEL SOP: GL-GC-E-104
Detection 660 nM
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TKN Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100301-12	1	S1	5.000	7.682	3/1/2010@9:45:51			5.0 ppm Std.
WTR100301-13	1	S2	3.000	4.703	3/1/2010@9:46:39			3.0 ppm Std.
WTR100301-14	1	S3	1.000	1.554	3/1/2010@9:47:27			1.0 ppm Std.
WTR100301-15	1	S4	0.500	0.824	3/1/2010@9:48:16			0.5 ppm Std
WTR100301-16	1	S5	0.100	0.176	3/1/2010@9:49:07			0.1 ppm Std
WTR100301-19 0.0 ppm	1	S7	0.000	0.036	3/1/2010@9:49:58			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99994 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR100301-18 ICV	1	S8	1.022	1.609	3/1/2010@9:51:54			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.022 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.022 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR100301-19 ICB	1	S7	-0.026	-3.082e-4	3/1/2010@9:53:50			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.026 < 0.100					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.026 > -0.100					
		Message	ICB Passed					
		Action	Continue					
1202051770|956923|MB	1	1	-0.005	0.032	3/1/2010@9:55:45			
1202051774||LCS	1	2	0.932	1.470	3/1/2010@9:56:35			
247824003	1	3	-0.107	-0.125	3/1/2010@9:57:26			
1202051771||DUP	1	4	-0.106	-0.123	3/1/2010@9:58:17			
1202051772||MS	1	5	0.107	0.204	3/1/2010@9:59:08			
1202051773||MSD	1	6	0.141	0.257	3/1/2010@9:59:57			
247913001	1	10	1.655	2.580	3/1/2010@10:00:47			
1202053335||DUP	1	11	0.998	1.572	3/1/2010@10:01:35			
1202053336||MS	1	12	1.491	2.328	3/1/2010@10:02:24			
1202053337||MSD	1	13	1.827	2.844	3/1/2010@10:03:12			
WTR100301-14 CCV	1	S3	1.052	1.654	3/1/2010@10:04:00			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.052 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.052 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-19 CCB	1	S7	-0.026	-4.225e-5	3/1/2010@10:05:56			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.026 < 0.099					
		Message	CCB Passed					

		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.026 > -0.100					
		Message	CCB Passed					
		Action	Continue					
247913002	1	14	1.216	1.907	3/1/2010@10:07:49			
247828003	1	7	0.009	0.053	3/1/2010@10:08:38			
247852013	1	8	0.824	1.305	3/1/2010@10:09:27			
247852014	1	9	0.691	1.100	3/1/2010@10:10:16			
247824003	1	3	-0.034	-0.012	3/1/2010@10:11:06			
1202051771||DUP	1	4	-0.030	-0.006	3/1/2010@10:11:56			
1202051772||MS	1	5	1.032	1.625	3/1/2010@10:12:47			
1202051773||MSD	1	6	1.141	1.791	3/1/2010@10:13:37			
247913001	1	10	1.011	1.591	3/1/2010@10:14:26			
1202053335||DUP	1	11	0.996	1.569	3/1/2010@10:15:15			
WTR100301-14 CCV	1	S3	1.047	1.646	3/1/2010@10:16:03			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.047 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.047 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-19 CCB	1	S7	-0.026	-1.129e-4	3/1/2010@10:17:59			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.026 < 0.099					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.026 > -0.100					
		Message	CCB Passed					
		Action	Continue					
1202053336||MS	1	12	1.887	2.937	3/1/2010@10:19:53			
1202053337||MSD	1	13	1.857	2.891	3/1/2010@10:20:40			
1202042793|953065|MB	1	15	0.004	0.047	3/1/2010@10:21:28			
1202042797||LCS	1	16	1.094	1.719	3/1/2010@10:22:17			
246859003	1	17	-0.108	-0.126	3/1/2010@10:23:09			
1202042794||DUP	1	18	-0.093	-0.103	3/1/2010@10:24:00			
1202042795||MS	1	19	0.551	0.886	3/1/2010@10:24:51			
1202042796||MSD	1	20	0.552	0.887	3/1/2010@10:25:42			
246965002	1	25	-0.096	-0.107	3/1/2010@10:26:32			
1202043618||DUP	1	26	0.002	0.043	3/1/2010@10:27:21			
WTR100301-14 CCV	1	S3	1.076	1.691	3/1/2010@10:28:10			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.076 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.076 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-19 CCB	1	S7	-0.049	-0.036	3/1/2010@10:30:05			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.049 < 0.099					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.049 > -0.100					
		Message	CCB Passed					
		Action	Continue					
1202043619||MS	1	27	0.660	1.053	3/1/2010@10:31:59			
1202043620||MSD	1	28	0.655	1.045	3/1/2010@10:32:48			
246859003	1	17	-0.052	-0.040	3/1/2010@10:33:38			

246879003	1	21	-0.088	-0.095	3/1/2010@10:34:28			
246879010	1	22	-0.115	-0.136	3/1/2010@10:35:19			
246888004	1	23	0.045	0.108	3/1/2010@10:36:08			
246888008	1	24	-0.086	-0.092	3/1/2010@10:36:58			
246965011	1	29	0.345	0.570	3/1/2010@10:37:46			
247035003	1	30	-0.056	-0.045	3/1/2010@10:38:34			
247035009	1	31	-0.069	-0.065	3/1/2010@10:39:24			
WTR100301-14 CCV	1	S3	1.063	1.671	3/1/2010@10:40:15			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.063 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.063 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-19 CCB	1	S7	-0.026	-4.06e-5	3/1/2010@10:42:11			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.026 < 0.099					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.026 > -0.100					
		Message	CCB Passed					
		Action	Continue					
247035012	1	32	-0.086	-0.091	3/1/2010@10:44:06			
247037002	1	33	-0.052	-0.039	3/1/2010@10:44:57			
247041001	1	34	-0.091	-0.100	3/1/2010@10:45:48			
247041008	1	35	-0.054	-0.042	3/1/2010@10:46:39			
247041013	1	36	-0.063	-0.057	3/1/2010@10:47:30			
246879010	1	22	-0.018	0.013	3/1/2010@10:48:20			
1202050861|956485|MB	1	37	-0.075	-0.076	3/1/2010@10:49:10			
1202050865||LCS	1	38	0.919	1.450	3/1/2010@10:50:00			
247763001	1	39	0.093	0.183	3/1/2010@10:50:50			
1202050862||DUP	1	40	0.417	0.680	3/1/2010@10:51:39			
WTR100301-14 CCV	1	S3	1.042	1.639	3/1/2010@10:52:28			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.042 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.042 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-19 CCB	1	S7	-0.026	-1.348e-4	3/1/2010@10:54:24			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.026 < 0.099					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.026 > -0.100					
		Message	CCB Passed					
		Action	Continue					
1202050863||MS	1	41	0.157	0.280	3/1/2010@10:56:18			
1202050864||MSD	1	42	0.470	0.762	3/1/2010@10:57:07			
247850001	1	44	0.070	0.147	3/1/2010@10:57:55			
1202051751||DUP	1	45	0.387	0.634	3/1/2010@10:58:43			
1202051752||MS	1	46	1.085	1.705	3/1/2010@10:59:33			
1202051753||MSD	1	47	1.372	2.145	3/1/2010@11:00:26			
247763002	1	43	0.214	0.368	3/1/2010@11:01:16			
247850002	1	48	0.531	0.855	3/1/2010@11:02:06			
247850003	1	49	0.354	0.583	3/1/2010@11:02:57			
247850004	1	50	0.548	0.881	3/1/2010@11:03:48			
WTR100301-14 CCV	1	S3	1.057	1.662	3/1/2010@11:04:38			CCV

		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.057 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.057 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-19 CCB	1	S7	-0.025	8.996e-4	3/1/2010@11:06:34			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.025 < 0.099					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.025 > -0.100					
		Message	CCB Passed					
		Action	Continue					
247850005	1	51	2.299	3.568	3/1/2010@11:08:29			
247850006	1	52	2.095	3.255	3/1/2010@11:09:20			
247850007	1	53	0.520	0.837	3/1/2010@11:10:10			
247850008	1	54	0.545	0.876	3/1/2010@11:11:00			
247852001	1	55	0.472	0.765	3/1/2010@11:11:50			
247852002	1	56	0.309	0.514	3/1/2010@11:12:40			
247852003	1	57	0.479	0.776	3/1/2010@11:13:29			
247852004	1	58	0.551	0.886	3/1/2010@11:14:18			
247852005	1	59	1.523	2.378	3/1/2010@11:15:07			
247852006	1	60	2.057	3.198	3/1/2010@11:15:55			
WTR100301-14 CCV	1	S3	1.061	1.668	3/1/2010@11:16:44			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.061 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.061 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-19 CCB	1	S7	-0.026	-1.225e-4	3/1/2010@11:18:39			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.026 < 0.099					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.026 > -0.100					
		Message	CCB Passed					
		Action	Continue					
247852007	1	61	1.640	2.557	3/1/2010@11:20:35			
247852008	1	62	0.637	1.017	3/1/2010@11:21:27			
247852009	1	63	0.418	0.681	3/1/2010@11:22:19			
247852010	1	64	0.455	0.739	3/1/2010@11:23:11			
247763001	1	39	0.092	0.182	3/1/2010@11:24:02			
1202050862||DUP	1	40	-0.058	-0.049	3/1/2010@11:24:51			
1202050863||MS	1	41	0.411	0.670	3/1/2010@11:25:40			
1202050864||MSD	1	42	0.463	0.750	3/1/2010@11:26:28			
WTR100301-14 CCV	1	S3	1.041	1.637	3/1/2010@11:28:22			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.041 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.041 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-19 CCB	1	S7	-0.027	-0.002	3/1/2010@11:30:18			CCB

Author: axh3 Date : 3/1/2010

Known Conc:	0.000					
DQM Test: > + Concentration Limit						
Result:	-0.027 < 0.099					
Message	CCB Passed					
Action	Continue					
DQM Test: < - Concentration Limit						
Result:	-0.027 > -0.100					
Message	CCB Passed					
Action	Continue					

Channel 1 (TKN) : Current View

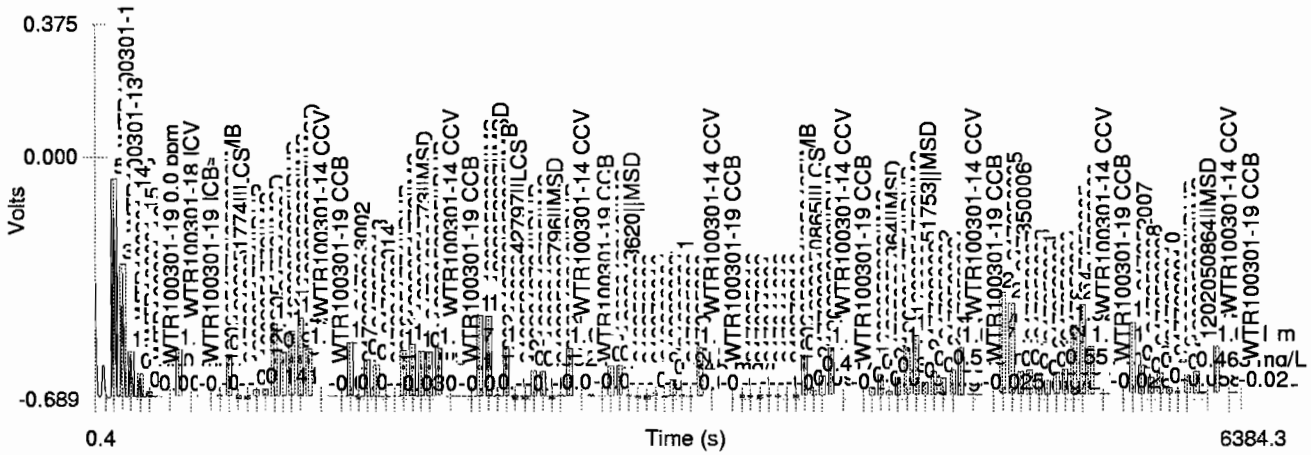

Table 1: TKN

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	5.000	1	7.682	0.614	0.4	3/1/2010	9:46:59
2	3.000	1	4.703	0.374	-1.3	3/1/2010	9:47:47
3	1.000	1	1.554	0.125	1.3	3/1/2010	9:48:35
4	0.500	1	0.824	0.064	-2.0	3/1/2010	9:49:24
5	0.100	1	0.176	0.014	9.0	3/1/2010	9:50:15
6	0.000	1	0.036	6.499e-4		3/1/2010	9:51:06

Figure 1: TKN

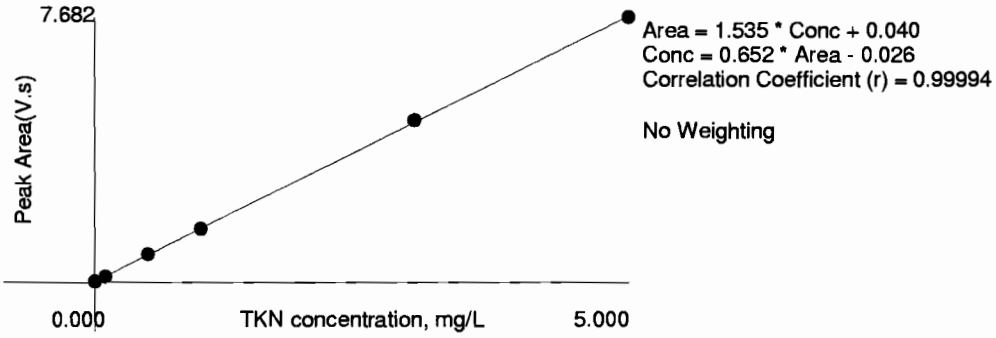

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
01-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 351.2	Liquid	BECY, ESHL
Batch ID:	**Sample Numbers:**		
956923	See Below		

Potentially affected work order(s)(SDG): 247824(10-2005),247828(10-2000),247852,247913(10-2019)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS: QC 1202053336MS	1. The spike recoveries fall outside of the GEL acceptance limits but within the client specified limits.
2.Failed Recovery for MSD: 202051773MSD,1202053337MSD	2.The spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits.

Originator's Name:

Aubrey Kingsbury 01-MAR-10

Data Validator/Group Leader:

Elzbieta Szulc 02-MAR-10

Wednesday, February 17, 2010

REQUEST NUMBER: 10-1899

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Danny Coleman
American Radiation Services - Primary
1726 Wooddale Court
Baton Rouge, LA 70806

These Samples are on:
LANL Request Number:10-1899
Per Agreement Number:126310041
Project Cost Code: MR54045HHG00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/17/2010
TURNAROUND/REPORT DUE: 3/19/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	MD54-10-10657	GAS	2/17/2010	
		1	MD54-10-10658	GAS	2/17/2010	
		1	MD54-10-10659	GAS	2/17/2010	

Final Page of REQUEST NUMBER 10-1899

Wednesday, February 17, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1899

REQUEST NUMBER: 10-1899

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Danny Coleman

American Radiation Services - Primary

1726 Wooddale Court

Baton Rouge, LA 70806

TURNAROUND/REPORT DUE: 3/19/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
MD54-10-10659	1	SILICA GEL TUBE	H3	None	GAS
MD54-10-10658	1	SILICA GEL TUBE	H3	None	GAS
MD54-10-10657	1	SILICA GEL TUBE	H3	None	GAS

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		2/17/10	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2568 **EVENT NAME:** 2nd Qtr. FY10 - MDA L - Tritium Sampling - 54-006

SAMPLE ID: MD54-10-10657 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/17/2010	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		0805	SUB-MEDIA:	OTHER	
PRS ID:	54-006	OK	SAMPLE TECH CODE:	VOST	
LOCATION ID:	54-02027		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	20		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	20		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	GAS		EXCAVATED: YES / NO / NA		

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

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** 90° **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		H3	1 EA SILICA GEL TUBE	None	Y	

SAMPLE DESC: SILICA: 136.55
START: 586.03
END: 598.01

MPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J. SMITH **REVIEWED BY (PRINT)** E. Norris

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) E. Norris (Signature) Elizabeth W. Ho	2/17/10 1042	(Printed Name) (Signature)	2/17/10 1042
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2568 **EVENT NAME:** 2nd Qtr. FY10 - MDA L - Tritium Sampling - 54-006

SAMPLE ID: MD54-10-10658 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/17/2010	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		0925	SUB-MEDIA:	OTHER	
PRS ID:	54-006	OK	SAMPLE TECH CODE:	VOST	
LOCATION ID:	54-02027		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	100		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	100		SCREEN/PORT DESC:	N/A	
FIELD MATRIX:	GAS		EXCAVATED: YES / NO (NA)		

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

BOREHOLE: (YES) / NO / NA BOREHOLE DECLINATION: 90° BOREHOLE DIRECTION: N/A

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		H3	1 EA SILICA GEL TUBE	None	Y	

SAMPLE DESC:

silica = 137.36
initial = 561.86
final = 569.07

MPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) E. Norris REVIEWED BY (PRINT) A Trujillo

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) E. Norris (Signature) Elizabeth Norris	2/17/10 1042	(Printed Name) (Signature)	2/17/10 1042
RELINQUISHED BY (Printed Name) (Signature)	Date/Time	RECEIVED BY (Printed Name) (Signature)	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2568 **EVENT NAME:** 2nd Qtr. FY10 - MDA L - Tritium Sampling - 54-006

SAMPLE ID: MD54-10-10659 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/17/2010	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		0925	SUB-MEDIA:	OTHER	
PRS ID:	54-006	OK	SAMPLE TECH CODE:	VOST	
LOCATION ID:	54-02027		FIELD QC TYPE:	NA	
LOCATION TYPE:	BH		FIELD PREP:	NA	
TOP DEPTH:	200		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	200		SCREEN/PORT DESC:	N/A	
FIELD MATRIX:	GAS		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: N/A COMPOSITE TIME INTERVAL: N/A WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: 90° BOREHOLE DIRECTION: N/A

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		H3	1 EA SILICA GEL TUBE	None	Y	

SAMPLE DESC:

silica = 136.42
initials = 574.14
final = 580.72

MPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) E. Norris **REVIEWED BY (PRINT)** A Trujillo

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) E. Norris (Signature) Elizabeth Norris	2/17/10 1042	(Printed Name) (Signature)	2/17/10 1042
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1899 VALIDATION DATE: 04/02/10 LAB CODE: ARS

CONTRACT LABORATORY NAME: American Radiation Services

VALIDATOR: Kris Chupka ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. It should be noted that no MS or duplicate samples were analyzed. However, an LCS and LCSD were analyzed and met acceptance criteria and, thus, no sample data were qualified, based on professional judgment.

Reviewed By: Charissa Lewis **Level:** II **Date:** 4/2/10

VALIDATOR'S SIGNATURE: DATE: 04/02/10

DATA VALIDATION COVER SHEET	
5119-1 Data Validation Cover Sheet	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943
Form 5119-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☐	☐	☒	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☐	☒	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
			Gamma Spectroscopy.		
☐	☐	☒	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☐	☒	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☐	☒	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☒	☐	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
			SMO or external laboratory for information.		
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☒	☐	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group:	ARS1-10-00283	**Request or PO Number:**	10-1899
Client Sample ID:	MD54-10-10657	**ARS Sample ID:**	ARS1-10-00283-001
Sample Collection Date:	02/17/10	**Date Received:**	02/18/10
Sample Matrix:	Silica	**Report Date:**	03/22/10

Analysis Description	Analysis Results	Analysis Error +/- 1 s	MDC	DLC	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
H-3	639.162	76.706	208.935	102.610		pCi/L	ARS-054/EPA 906.0	03/20/10 10:27	BJS	N/A

NOTES: Project Cost Code MR5404SHHG00

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the American Radiation Services, Inc.

LELAP Certificate# 01949 NELAP Certificate # E87558

KWC
04/02/10

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-10-00283
Client Sample ID: MD54-10-10658
Sample Collection Date: 02/17/10
Sample Matrix: Silica

Request or PO Number: 10-1899
ARS Sample ID: ARS1-10-00283-002
Date Received: 02/18/10
Report Date: 03/22/10

Analysis Description	Analysis Results	Analysis Error +/- 1 s	MDC	DLC	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
H-3	145.528	64.376	208.831	102.559	U	pCi/L	ARS-054/EPA 906.0	03/20/10 13:34	BJS	N/A

NOTES: Project Cost Code MR54045HH600

Project Manager Review

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LELAP Certificate# 01949 NELAP Certificate # E87558

KWC
04/02/10

2600 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4177 FAX (225) 381-2996

ARS Sample Delivery Group:	ARS1-10-00283	**Request or PO Number:**	10-1899
Client Sample ID:	MD54-10-10659	**ARS Sample ID:**	ARS1-10-00283-003
Sample Collection Date:	02/17/10	**Date Received:**	02/18/10
Sample Matrix:	Silica	**Report Date:**	03/22/10

Analysis Description	Analysis Results	Analysis Error +/- 1 σ	MDC	DLC	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
H-3	296.788	68.014	211.155	103.700		pCi/L	ARS-054/EPA 906.0	03/20/10 16:43	BJS	N/A

NOTES: Project Cost Code MR54045HHG00

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the American Radiation Services, Inc.

LELAP Certificate# 01949 NELAP Certificate # E87558

KWC
04/02/10

Wednesday, February 17, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1899

REQUEST NUMBER: 10-1899

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Danny Coleman

American Radiation Services - Primary

1726 Wooddale Court

Baton Rouge, LA 70806

TURNAROUND/REPORT DUE: 3/19/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
MD54-10-10659	1	SILICA GEL TUBE	H3	None	GAS
MD54-10-10658	1	SILICA GEL TUBE	H3	None	GAS
MD54-10-10657	1	SILICA GEL TUBE	H3	None	GAS

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		2/17/10	1400	William Stickle	[illegible]	2-18-10	10:00
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

Wednesday, February 17, 2010

REQUEST NUMBER: 10-1899

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Danny Coleman
American Radiation Services - Primary
1726 Wooddale Court
Baton Rouge, LA 70806

These Samples are on:
LANL Request Number:10-1899
Per Agreement Number:126310041
Project Cost Code: MR54045HHG00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/17/2010
TURNAROUND/REPORT DUE: 3/19/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	MD54-10-10657	GAS	2/17/2010	
		1	MD54-10-10658	GAS	2/17/2010	
		1	MD54-10-10659	GAS	2/17/2010	

Final Page of REQUEST NUMBER 10-1899

2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

American Radiation Services Analytical Reports

for

Los Alamos National Laboratory

Request Number: 10-1899

2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

American Radiation Services Analytical Reports

for

Los Alamos National Laboratory Request Number: 10-1899

Original COC

Wednesday, February 17, 2010

REQUEST NUMBER: 10-1899

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Danny Coleman
American Radiation Services - Primary
1726 Wooddale Court
Baton Rouge, LA 70806

These Samples are on:
LANL Request Number:10-1899
Per Agreement Number:126310041
Project Cost Code: MR54045HHG00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/17/2010
TURNAROUND/REPORT DUE: 3/19/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	MD54-10-10657	GAS	2/17/2010	
		1	MD54-10-10658	GAS	2/17/2010	
		1	MD54-10-10659	GAS	2/17/2010	

Final Page of REQUEST NUMBER 10-1899

Wednesday, February 17, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1899

REQUEST NUMBER: 10-1899

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Danny Coleman

American Radiation Services - Primary

1726 Wooddale Court

Baton Rouge, LA 70806

TURNAROUND/REPORT DUE: 3/19/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
MD54-10-10659	1	SILICA GEL TUBE	H3	None	GAS
MD54-10-10658	1	SILICA GEL TUBE	H3	None	GAS
MD54-10-10657	1	SILICA GEL TUBE	H3	None	GAS

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		2/17/10	1400	William Stickle	[illegible]	2-18-10	10:00
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

American Radiation Services Analytical Reports

for

Los Alamos National Laboratory Request Number: 10-1899

Case Narrative

ARS INTERNATIONAL

2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

March 18, 2010

LANL
Keith Greene
Drop Point MS H865
Los Alamos, NM 87545

Request Number: 10-1899
LANL Sample ID: MD54-10-10657; MD54-10-10658; MD54-10-10659.

Dear Mr. Greene;

On February 18, 2010, ARS International received three (3) Silica Gel sample(s) to be analyzed for Tritium.

The samples were processed and counted using the appropriate counting equipment and QA/QC for this type of analysis. Results of the analysis and QA/QC are attached in the data package.

The client and QA/QC samples were counted with a count time sufficient to meet quality control parameters for counting equipment and were within acceptance criteria and statistical sound detection limits.

If you have any questions please do not hesitate to call at 225.381.2991 or email ProjectManagers@amrad.com.

Sincerely,

Eugene Mulligan
Laboratory Management
ARS International

2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

COVER PAGE

18980SOW0-8S
Statement of Work for Analytical Laboratories

PROJECT SAMPLE IDENTIFICATION CROSS-REFERENCE TO ARS SAMPLE LABORATORY IDs

Subcontract (LANL Agreement Number) 126310041

Request Number	LANL PROJECT SAMPLE ID NUMBER	American Radiation Services SAMPLE ID NUMBER(S)
10-1899	MD54-10-10657	ARS1-10-00283-001
10-1899	MD54-10-10658	ARS1-10-00283-002
10-1899	MD54-10-10659	ARS1-10-00283-003

ANALYTICAL METHODS

Tritium analyses were performed using **EPA 906.0.**

ANALYTICAL RESULTS

The result data that are flagged with "U" indicate that the activity is below the MDC.

American Radiation Services Project Manager/Laboratory Director's Comments:
"I certify that this sample data package is in compliance with SOW requirements, both technically and for completeness, other than the conditions detailed above. Release of the data contained in this sample data package and the computer-readable EDD, as applicable, submitted on diskette or by modem, has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature."

"I certify that this electronic image and all hardcopies produced from this image accurately represent the data and is in compliance with the LANL specific requirements, both technically and for completeness, other than the conditions detailed above or in the sample data package narrative. Release, by submission through email, the data contained in this electronic image and the computer-readable EDD (as applicable), has been authorized by the laboratory Manager/Technical Director or the Manager's designee."

Signature	Title	Date
Virginia Hulkyan	Laboratory Management, ARS International	3-22-10

2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

American Radiation Services Analytical Reports

for

Los Alamos National Laboratory

Tritium by Low Level Liquid Scintillation Counting

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-10-00283
Client Sample ID: MD54-10-10657
Sample Collection Date: 02/17/10
Sample Matrix: Silica

Request or PO Number: 10-1899
ARS Sample ID: ARS1-10-00283-001
Date Received: 02/18/10
Report Date: 03/22/10

Analysis Description	Analysis Results	Analysis Error +/- 1 s	MDC	DLC	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
H-3	639.162	76.706	208.935	102.610		pCi/L	ARS-054/EPA 906.0	03/20/10 10:27	BJS	N/A

NOTES: Project Cost Code MR54045HHG00

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the American Radiation Services, Inc.

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group:	ARS1-10-00283	**Request or PO Number:**	10-1899
Client Sample ID:	MD54-10-10658	**ARS Sample ID:**	ARS1-10-00283-002
Sample Collection Date:	02/17/10	**Date Received:**	02/18/10
Sample Matrix:	Silica	**Report Date:**	03/22/10

Analysis Description	Analysis Results	Analysis Error +/- 1 s	MDC	DLC	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
H-3	145.528	64.376	208.831	102.559	U	pCi/L	ARS-054/EPA 906.0	03/20/10 13:34	BJS	N/A

NOTES: Project Cost Code MR54045HHG00

Project Manager Review

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LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group:	ARS1-10-00283	**Request or PO Number:**	10-1899
Client Sample ID:	MD54-10-10659	**ARS Sample ID:**	ARS1-10-00283-003
Sample Collection Date:	02/17/10	**Date Received:**	02/18/10
Sample Matrix:	Silica	**Report Date:**	03/22/10

Analysis Description	Analysis Results	Analysis Error +/- 1 σ	MDC	DLC	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
H-3	296.788	68.014	211.155	103.700		pCi/L	ARS-054/EPA 906.0	03/20/10 16:43	BJS	N/A

NOTES: Project Cost Code MR54045HHG00

Project Manager Review

Notes: *American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the American Radiation Services, Inc.*

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

QC Results Report

Sample Delivery Group: ARS1-10-00283
Date Received: 2/18/2010

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (1s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B10-01437	LCS	H3	1253.800	98.440	204.139	1213.37		pCi/L	ARS-054/EPA 906.0	3/19/10 6:24	BJS	103	50%-150%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (1s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B10-01437	MBL	H3	88.412	61.536	202.308	N/A	U	pCi/L	ARS-054/EPA 906.0	3/19/10 12:38	BJS

RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (1s)	Result 2	CSU 1 (1s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B10-01437	DUP	H3	1253.800	98.440	1267.354	98.453		pCi/L	ARS-054/EPA 906.0	3/19/10 9:31	BJS	0.07	< 1

DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (1s)	Result 2	CSU 1 (1s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B10-01437	DUP	H3	1253.800	98.440	1267.354	98.453		pCi/L	ARS-054/EPA 906.0	3/19/10 9:31	BJS	0.19	< 3

Project Manager Review

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American Radiation Services Analytical Reports

for

Los Alamos National Laboratory

Tritium by Low Level Liquid Scintillation Counting Samples

LSC Instrument Data Transfer Report

\\PACKARD3170_NEW\Results\ARS\H-3 Normal Lvl\

Batch Sample ID	Non-BKG Samples Transferred	Samples Eligible To Save	
ARS1-B10-01437	19	19	LSC 2

LIMS Batch Sample ID	LSC P#	LSC PID	LSC S#	LSC SMPL_ID	LSC Count Date	LSC CPMA	LSC tSIE	LSC EFF	LSC Count Dur	Analysis Batch	LIMS SDG	LIMS Run
BKG	44		1	BACKGROUND	03/19/10 03:17	5.75	412.39	36.3200	180.00	ARS1-B10-01437		
ARS1-B10-01437-01	44		2	B10-01437-01	03/19/10 06:24	10.95	426.32	37.0600	180.00	ARS1-B10-01437		
ARS1-B10-01437-02	44		3	B10-01437-02	03/19/10 09:31	11.07	434.18	37.4800	180.00	ARS1-B10-01437		
ARS1-B10-01437-03	44		4	B10-01437-03	03/19/10 12:38	6.12	433.42	37.4400	180.00	ARS1-B10-01437		
ARS1-B10-01437-04	44		5	B10-01437-04	03/19/10 15:45	25.66	430.38	37.2800	180.00	ARS1-B10-01437	ARS1-10-00272	1
ARS1-B10-01437-05	44		6	B10-01437-05	03/19/10 18:52	354.45	429.25	37.2200	180.00	ARS1-B10-01437	ARS1-10-00272	1
ARS1-B10-01437-06	44		7	B10-01437-06	03/19/10 21:59	203.14	429.77	37.2400	180.00	ARS1-B10-01437	ARS1-10-00272	1
ARS1-B10-01437-07	44		8	B10-01437-07	03/20/10 01:06	10.62	428.84	37.1900	180.00	ARS1-B10-01437	ARS1-10-00272	1
ARS1-B10-01437-08	44		9	B10-01437-08	03/20/10 04:12	9.82	430.82	37.3000	180.00	ARS1-B10-01437	ARS1-10-00272	1
ARS1-B10-01437-09	44		10	B10-01437-09	03/20/10 07:19	6.82	425.22	37.0000	180.00	ARS1-B10-01437	ARS1-10-00272	1
ARS1-B10-01437-10	44		11	B10-01437-10	03/20/10 10:26	8.34	414.50	36.4400	180.00	ARS1-B10-01437	ARS1-10-00283	1
ARS1-B10-01437-11	44		12	B10-01437-11	03/20/10 13:33	6.34	414.54	36.4300	180.00	ARS1-B10-01437	ARS1-10-00283	1
ARS1-B10-01437-12	44		13	B10-01437-12	03/20/10 16:43	6.94	407.82	36.0600	180.00	ARS1-B10-01437	ARS1-10-00283	1
ARS1-B10-01437-13	44		14	B10-01437-13	03/20/10 19:52	8.55	424.58	36.9700	180.00	ARS1-B10-01437	ARS1-10-00284	1
ARS1-B10-01437-14	44		15	B10-01437-14	03/20/10 22:59	6.74	429.60	37.2400	180.00	ARS1-B10-01437	ARS1-10-00284	1
ARS1-B10-01437-15	44		16	B10-01437-15	03/21/10 02:06	8.63	423.38	36.9000	180.00	ARS1-B10-01437	ARS1-10-00284	1
ARS1-B10-01437-16	44		17	B10-01437-16	03/21/10 05:13	6.40	428.35	37.1700	180.00	ARS1-B10-01437	ARS1-10-00284	1
ARS1-B10-01437-17	44		18	B10-01437-17	03/21/10 08:20	6.65	421.94	36.8300	180.00	ARS1-B10-01437	ARS1-10-00284	1
ARS1-B10-01437-18	44		19	B10-01437-18	03/21/10 11:27	6.57	426.17	37.0500	180.00	ARS1-B10-01437	ARS1-10-00284	1
ARS1-B10-01437-19	44		20	B10-01437-19	03/21/10 14:34	6.49	426.46	37.0700	180.00	ARS1-B10-01437	ARS1-10-00284	1

Procedure	ARS-054
Variable	**Value**
Gross Count Rate	10.950000
Sample Count Mins	180.000000
BKG Count Rate	5.750000
BKG Count Mins	180.000000
Instrument Efficiency	0.370600
Sample Aliquot	5.041000
Dilution Factor	1.000000
Aliquot Conversion Factor	0.001000
Sample Collection Date (t1)	3/19/10 6:24 AM
Count Date (t2)	3/19/10 6:24 AM
Activity Units = pCi --- UCF =	2.2200
CF	1.0000
Nuclide Abundance	1.000000
Halflife Days 1 - Result Isotope	4499.800000
TPUF_Calibration Factor	0.041330
TPUF_Aliquoting Factor	0.020000
TPUF_Yield Factor	0.000000
TPUF_Decay Ingrowth Factor	0.025000
TPUF_Analysis Factor	0.000000
TPUF_Unassigned Factor	0.000000
Activity Units	pCi
Aliquot Units	L
0 **Variables Intact Test**	OK

Isotope	H-3		
Calculated Values	**Excel**	**VBA**	**V/V**
ACT	1253.799975	1253.799975	OK
CU	73.442406	73.442406	OK
TPU	98.439666	98.439666	OK
MDA	204.138945	204.138945	OK
DL	100.254409	100.254409	OK
Net Count Rate	5.200000	5.200000	OK
D t 1 (t2 - t1)	0.000000	0.000000	OK
DF	1.000000	1.000000	OK
Sys Err	0.052280	0.052280	OK
K	0.004147	0.004147	OK
K MDA	0.746531	0.746531	OK

Batch Identifiers and Other Related Information	
Batch	ARS1-B10-01437
Batch ID	ARS1-B10-01437-01
Analysis Code	
SDG	QC Sample
Fraction	N/A QC Sample
Run Number	
Client	QC Sample
Client Profile	
Client ID	N/A QC Sample
Instr File Name	73
Instr Detector	P-44-S-2
Instr keV	
Version/Date	1.0 -- 11/18/2005

Reviewed by: KW Date: 3-22-10

Calculation Verification

Procedure	ARS-054
Variable	**Value**
Gross Count Rate	11.070000
Sample Count Mins	180.000000
BKG Count Rate	5.750000
BKG Count Mins	180.000000
Instrument Efficiency	0.374800
Sample Aliquot	5.045000
Dilution Factor	1.000000
Aliquot Conversion Factor	0.001000
Sample Collection Date (t1)	3/19/10 9:31 AM
Count Date (t2)	3/19/10 9:31 AM
Activity Units = pCi --- UCF =	2.2200
CF	1.9600
Nuclide Abundance	1.000000
Halflife Days 1 - Result Isotope	4499.800000
TPUF_Calibration Factor	0.041330
TPUF_Aliquoting Factor	0.020000
TPUF_Yield Factor	0.000000
TPUF_Decay Ingrowth Factor	0.025000
TPUF_Analysis Factor	0.000000
TPUF_Unassigned Factor	0.000000
Activity Units	pCi
Aliquot Units	L
Variables Intact Test	OK

Isotope	H-3		
Calculated Values	**Excel**	**VBA**	**V/V**
ACT	1267.353898	1267.353898	OK
CU	142.781256	142.781256	OK
TPU	192.968258	192.968258	OK
MDA	201.691328	201.691328	OK
DL	99.052363	99.052363	OK
Net Count Rate	5.320000	5.320000	OK
D t 1 (t2 - t1)	0.000000	0.000000	OK
DF	1.000000	1.000000	OK
Sys Err	0.052280	0.052280	OK
K	0.004198	0.004198	OK
K MDA	0.755590	0.755590	OK

Batch Identifiers and Other Related Information	
Batch	ARS1-B10-01437
Batch ID	ARS1-B10-01437-02
Analysis Code	
SDG	QC Sample
Fraction	N/A QC Sample
Run Number	
Client	QC Sample
Client Profile	
Client ID	N/A QC Sample
Instr File Name	73
Instr Detector	P-44-$S_1$3
Instr keV	
Version/Date	1.0 -- 11/18/2005

Reviewed by: _____ Date: 3-22-10

Calculation Verification

Procedure	ARS-054
Variable	**Value**
Gross Count Rate	6.120000
Sample Count Mins	180.000000
BKG Count Rate	5.750000
BKG Count Mins	180.000000
Instrument Efficiency	0.374400
Sample Aliquot	5.035000
Dilution Factor	1.000000
Aliquot Conversion Factor	0.001000
Sample Collection Date (t1)	3/19/10 12:38 PM
Count Date (t2)	3/19/10 12:38 PM
Activity Units = pCi --- UCF =	2.2200
CF	1.9600
Nuclide Abundance	1.000000
Halflife Days 1 - Result Isotope	4499.800000
TPUF_Calibration Factor	0.041330
TPUF_Aliquoting Factor	0.020000
TPUF_Yield Factor	0.000000
TPUF_Decay Ingrowth Factor	0.025000
TPUF_Analysis Factor	0.000000
TPUF_Unassigned Factor	0.000000
Activity Units	pCi
Aliquot Units	L
Variables Intact Test	**OK**

Isotope	H-3		
Calculated Values	**Excel**	**VBA**	**V/V**
ACT	88.412452	88.412452	OK
CU	120.760883	120.760883	OK
TPU	120.610608	120.610608	OK
MDA	202.307817	202.307817	OK
DL	99.355126	99.355126	OK
Net Count Rate	0.370000	0.370000	OK
D t 1 (t2 - t1)	0.000000	0.000000	OK
DF	1.000000	1.000000	OK
Sys Err	0.052280	0.052280	OK
K	0.004185	0.004185	OK
K MDA	0.753288	0.753288	OK

Batch Identifiers and Other Related Information	
Batch	ARS1-B10-01437
Batch ID	ARS1-B10-01437-03
Analysis Code	
SDG	QC Sample
Fraction	N/A QC Sample
Run Number	
Client	QC Sample
Client Profile	
Client ID	N/A QC Sample
Instr File Name	73
Instr Detector	P-44-S-4
Instr keV	
Version/Date	1.0 -- 11/18/2005

Reviewed by: JRW Date: 3-22-10

Procedure	ARS-054
Variable	**Value**
Gross Count Rate	8.340000
Sample Count Mins	180.000000
BKG Count Rate	5.750000
BKG Count Mins	180.000000
Instrument Efficiency	0.364400
Sample Aliquot	5.033000
Dilution Factor	1.000000
Aliquot Conversion Factor	0.001000
Sample Collection Date (t1)	2/17/10 12:00 PM
Count Date (t2)	3/20/10 10:27 AM
Activity Units = pCi --- UCF =	2.2200
CF	1.0000
Nuclide Abundance	1.000000
Halflife Days 1 - Result Isotope	4499.800000
TPUF_Calibration Factor	0.041330
TPUF_Aliquoting Factor	0.020000
TPUF_Yield Factor	0.000000
TPUF_Decay Ingrowth Factor	0.025000
TPUF_Analysis Factor	0.000000
TPUF_Unassigned Factor	0.000000
Activity Units	pCi
Aliquot Units	L

Calculation Verification

Procedure	ARS-054
Variable	**Value**
Gross Count Rate	6.340000
Sample Count Mins	180.000000
BKG Count Rate	5.750000
BKG Count Mins	180.000000
Instrument Efficiency	0.364300
Sample Aliquot	5.037000
Dilution Factor	1.000000
Aliquot Conversion Factor	0.001000
Sample Collection Date (t1)	2/17/10 12:00 PM
Count Date (t2)	3/20/10 1:34 PM
Activity Units = pCi --- UCF =	2.2200
CF	1.0000
Nuclide Abundance	1.000000
Halflife Days 1 - Result Isotope	4499.800000
TPUF_Calibration Factor	0.041330
TPUF_Aliquoting Factor	0.020000
TPUF_Yield Factor	0.000000
TPUF_Decay Ingrowth Factor	0.025000
TPUF_Analysis Factor	0.000000
TPUF_Unassigned Factor	0.000000
Activity Units	pCi
Aliquot Units	L
Variables Intact Test	**OK**

Isotope	H-3		
Calculated Values	**Excel**	**VBA**	**V/V**
ACT	145.527858	145.527858	OK
CU	63.925042	63.925042	OK
TPU	64.376199	64.376199	OK
MDA	208.831058	208.831058	OK
DL	102.558744	102.558744	OK
Net Count Rate	0.590000	0.590000	OK
D t 1 (t2 - t1)	31.065278	31.065278	OK
DF	0.995226	0.995226	OK
Sys Err	0.052280	0.052280	OK
K	0.004054	0.004054	OK
K MDA	0.729757	0.729757	OK

Batch Identifiers and Other Related Information

Batch	ARS1-B10-01437
Batch ID	ARS1-B10-01437-11
Analysis Code	LSC-A-001
SDG	ARS1-10-00283
Fraction	002
Run Number	1
Client	Los Alamos National Laboratory
Client Profile	Keith Greene
Client ID	MDS4-10-10658
Instr File Name	73
Instr Detector	P-44-S-12
Instr keV	
Version/Date	1.0 -- 11/18/2005

Reviewed by: RLJ Date: 3-22-10

Calculation Verification

Procedure	ARS-054
Variable	**Value**
Gross Count Rate	6.940000
Sample Count Mins	180.000000
BKG Count Rate	5.750000
BKG Count Mins	180.000000
Instrument Efficiency	0.360800
Sample Aliquot	5.030000
Dilution Factor	1.000000
Aliquot Conversion Factor	0.001000
Sample Collection Date (t1)	2/17/10 12:00 PM
Count Date (t2)	3/20/10 4:43 PM
Activity Units = pCi --- UCF =	2.2200
CF	1.0000
Nuclide Abundance	1.000000
Halflife Days 1 - Result Isotope	4499.800000
TPUF_Calibration Factor	0.041330
TPUF_Aliquoting Factor	0.020000
TPUF_Yield Factor	0.000000
TPUF_Decay Ingrowth Factor	0.025000
TPUF_Analysis Factor	0.000000
TPUF_Unassigned Factor	0.000000
Activity Units	pCi
Aliquot Units	L
0 Variables Intact Test	OK

Isotope	H-3		
Calculated Values	**Excel**	**VBA**	**V/V**
ACT	296.788094	296.788094	OK
CU	68.120746	68.120746	OK
TPU	68.014215	68.014215	OK
MDA	211.154561	211.154561	OK
DL	103.699839	103.699839	OK
Net Count Rate	1.190000	1.190000	OK
D t 1 (t2 - t1)	31.196528	31.196528	OK
DF	0.995206	0.995206	OK
Sys Err	0.052280	0.052280	OK
K	0.004010	0.004010	OK
K MDA	0.721727	0.721727	OK

Batch Identifiers and Other Related Information	
Batch	ARS1-B10-01437
Batch ID	ARS1-B10-01437-12
Analysis Code	LSC-A-001
SDG	ARS1-10-00283
Fraction	003
Run Number	1
Client	Los Alamos National Laboratory
Client Profile	Keith Greene
Client ID	MD54-10-10699
Instr File Name	73
Instr Detector	P-44-S-13
Instr keV	
Version/Date	1.0 -- 11/18/2005

Reviewed by: DW Date: 3-22-10

Expected Value Calculations

LANL

ARS Batch Number: ARS1-B10 - 01437

LCS	**CALCULATED EXPECTED VALUE**	=	1213.366			
			Range	606.683	-	1820.049
LCSD	**CALCULATED EXPECTED VALUE**	=	1213.366			
			Range	606.683	-	1820.049

QC Evaluation

EPA Method: EPA 906.0
Batch ID: ARS1-B10-01437
SDG's: ARS1-10-00272, 00283, 00284

LCS	1253.8000	**CSU (2s)**	192.9417
LCSD	1267.3539	**CSU-D (2s)**	192.9683

DER = $\frac{\text{abs(LSC-LSCD)}}{\text{sqr((2s CSU/2)^2)+((2s CSU-D/2)^2)}}$ *at 1 sigma* = **< 3**

DER $\frac{13.553923}{136.43979}$ = 0.09934 **< 3**

% RPD= $\frac{\text{ABS(LCS - LSCD)}}{\text{(LCS+LCSD)/2}}$ * 100 = **< 25%**

%RPD $\frac{13.553923}{1260.5769}$ *100 = 1.075216 **< 25%**

The *RPD* shall be less than 25% or other client-applied criteria

RER= $\frac{\text{abs((LCS-LCSD))}}{\text{(CSU)+(CSD)}}$ *at 2 sigma* = **<1** ***<--LANL Requirement***

RER = $\frac{13.553923}{385.9100}$ 0.035121979 **<1**

Blank Information

	Act	CSU(2s)	MDA	Act>MDA
AM-241				
U-234				
U-235				
U-238				
Pu-238				
Pu-239/240				
Th-228				
Th-230				
Th-232				
H3	88.41245	120.61061	202.3078	
Ra-226				
Ra-228				
Total U				
Pb-210				
Po-209				
Sr-90				
TC-99				
NI-63				

*MDA should be below RDL
*Blank activity must be below MDA
*Blank activity must be < 1.65*CSU (DOE only)

ACT = 88.41245
CSU = 120.6106
Is ACT<1.65*CSU? YES

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American Radiation Services Analytical Reports

for

Los Alamos National Laboratory

Tritium by Low Level Liquid Scintillation Counting

Laboratory Records

Analysis Batch Report

ARS INTERNATIONAL

Analysis Batch ID ARS1-B10-01437

Method ARS-054 **Analysis** LSC-A-001 **Matrix** SI

Description TRITIUM IN WATER

ABatch Sample ID	Type	Blind Iso1	Blind Iso2	Blind Iso3	SDG	FR	Run	Client ID	Isotope Group	Lab Deadline
ARS1-B10-01437-01	LCS	B-09430								
ARS1-B10-01437-02	LCSD	B-09431								
ARS1-B10-01437-03	MBL									
ARS1-B10-01437-04	TRG				ARS1-10-00272	001	1	MD21-10-12271	STD	03/15/10
ARS1-B10-01437-05	TRG				ARS1-10-00272	002	1	MD21-10-12272	STD	03/15/10
ARS1-B10-01437-06	TRG				ARS1-10-00272	003	1	MD21-10-12273	STD	03/15/10
ARS1-B10-01437-07	TRG				ARS1-10-00272	004	1	MD21-10-12274	STD	03/15/10
ARS1-B10-01437-08	TRG				ARS1-10-00272	005	1	MD21-10-12275	STD	03/15/10
ARS1-B10-01437-09	TRG				ARS1-10-00272	006	1	MD21-10-12299	STD	03/15/10
ARS1-B10-01437-10	TRG				ARS1-10-00283	001	1	MD54-10-10657	STD	03/16/10
ARS1-B10-01437-11	TRG				ARS1-10-00283	002	1	MD54-10-10658	STD	03/16/10
ARS1-B10-01437-12	TRG				ARS1-10-00283	003	1	MD54-10-10659	STD	03/16/10
ARS1-B10-01437-13	TRG				ARS1-10-00284	001	1	MD49-10-12120	STD	03/16/10
ARS1-B10-01437-14	TRG				ARS1-10-00284	002	1	MD49-10-12121	STD	03/16/10
ARS1-B10-01437-15	TRG				ARS1-10-00284	003	1	MD49-10-12155	STD	03/16/10
ARS1-B10-01437-16	TRG				ARS1-10-00284	004	1	MD49-10-12157	STD	03/16/10
ARS1-B10-01437-17	TRG				ARS1-10-00284	005	1	MD49-10-12158	STD	03/16/10
ARS1-B10-01437-18	TRG				ARS1-10-00284	006	1	MD49-10-12159	STD	03/16/10
ARS1-B10-01437-19	TRG				ARS1-10-00284	007	1	MD49-10-12168	STD	03/16/10

52065 10-00272-001-1 WRAD
52067 10-00272-002-12 WRAD
52068 10-00272-003-12 WRAD
52069 10-00272-004-12 WRAD
52070 10-00272-005-12 WRAD
52071 10-00272-006-12 WRAD
52072 10-00283-001-12 WRAD
52073 10-00283-002-12 WRAD
52074 10-00283-003-12 WRAD
52075 10-00284-001-12 WRAD
52076 10-00284-002-12 WRAD
52077 10-00284-003-12 WRAD
52078 10-00284-004-12 WRAD
52079 10-00284-005-12 WRAD
52080 10-00284-006-12 WRAD
52081 10-00284-007-12 WRAD

American Radiation Services
Baton Rouge Laboratory

LCS Report
Analytical Batch: ARS1-B10-01437

BatchID	ABatch	WorkSampleID	BlankGroup	AnID	Isotope	ExpectedAddition	ExpectedValue	EmptyWt	GrossWt	NetWt	UserID	MeasDate	ExpectedValue CF	MdPrepCompDate	KnownValue
B-09430	ARS1-B10-01437	ARS1-B10-01437-01	B-H3	S-0217	H-3	2	1.214113596	0	1	1	BSTEFFENS	3/15/2010	1.213365741	3/19/2010	1.213365741
B-09431	ARS1-B10-01437	ARS1-B10-01437-02	B-H3	S-0217	H-3	2	1.214113596	0	1	1	BSTEFFENS	3/15/2010	1.213365741	3/19/2010	1.213365741

American Radiation Services
Baton Rouge Laboratory

ARS-054

ID_31001_054	ABatch	ABatchSampleID	ClientID	Aliquot1	AliquotUnits1	IC_ID1	Aliquot2	AliquotUnits2	IC_ID2	UserID	ModDate
4879	ARS1-B10-01437	ARS1-B10-01437-01					5.041	g		BSTEFFENS	03/18/2010 17:23:46
4880	ARS1-B10-01437	ARS1-B10-01437-02					5.045	g		BSTEFFENS	03/18/2010 17:23:46
4881	ARS1-B10-01437	ARS1-B10-01437-03					5.035	g		BSTEFFENS	03/18/2010 17:23:46
4882	ARS1-B10-01437	ARS1-B10-01437-04	MD21-10-12271				5.03	g	52065	BSTEFFENS	03/18/2010 17:23:46
4883	ARS1-B10-01437	ARS1-B10-01437-05	MD21-10-12272				5.016	g	52067	BSTEFFENS	03/18/2010 17:23:46
4884	ARS1-B10-01437	ARS1-B10-01437-06	MD21-10-12273				5.024	g	52068	BSTEFFENS	03/18/2010 17:23:47
4885	ARS1-B10-01437	ARS1-B10-01437-07	MD21-10-12274				5.021	g	52069	BSTEFFENS	03/18/2010 17:23:47
4886	ARS1-B10-01437	ARS1-B10-01437-08	MD21-10-12275				5.038	g	52070	BSTEFFENS	03/18/2010 17:23:47
4887	ARS1-B10-01437	ARS1-B10-01437-09	MD21-10-12299				5.018	g	52071	BSTEFFENS	03/18/2010 17:23:47
4888	ARS1-B10-01437	ARS1-B10-01437-10	MD54-10-10657				5.033	g	52072	BSTEFFENS	03/18/2010 17:23:47
4889	ARS1-B10-01437	ARS1-B10-01437-11	MD54-10-10658				5.037	g	52073	BSTEFFENS	03/18/2010 17:23:47
4890	ARS1-B10-01437	ARS1-B10-01437-12	MD54-10-10659				5.03	g	52074	BSTEFFENS	03/18/2010 17:23:47
4891	ARS1-B10-01437	ARS1-B10-01437-13	MD49-10-12120				5.029	g	52075	BSTEFFENS	03/18/2010 17:23:47
4892	ARS1-B10-01437	ARS1-B10-01437-14	MD49-10-12121				5.031	g	52076	BSTEFFENS	03/18/2010 17:23:47
4893	ARS1-B10-01437	ARS1-B10-01437-15	MD49-10-12155				5.021	g	52077	BSTEFFENS	03/18/2010 17:23:47
4894	ARS1-B10-01437	ARS1-B10-01437-16	MD49-10-12157				5.031	g	52078	BSTEFFENS	03/18/2010 17:23:47
4895	ARS1-B10-01437	ARS1-B10-01437-17	MD49-10-12158				5.024	g	52079	BSTEFFENS	03/18/2010 17:23:47
4896	ARS1-B10-01437	ARS1-B10-01437-18	MD49-10-12159				5.024	g	52080	BSTEFFENS	03/18/2010 17:23:47
4897	ARS1-B10-01437	ARS1-B10-01437-19	MD49-10-12168				5.03	g	52081	BSTEFFENS	03/18/2010 17:23:47

American Radiation Services
Baton Rouge Laboratory

Batch Result Verification Report

ABatchSampleID	SDG	Fraction	ClientID	Run	Isotope	ACT	TPU	TPU1s	TPU2s	MDA	DL	CU	CU1s	CU2s	ActivityReportUnits
ARS1-B10-01437-01				1	H-3	1253.799975	98.43966582	98.43966582	192.941745	204.1389449	100.2544094	73.44240601	73.44240601	143.9471158	pCi
ARS1-B10-01437-02				1	H-3	1267.353898	192.9682576	98.45319266	192.9682576	201.6913279	99.05236348	142.7312559	72.82206935	142.7312559	pCi
ARS1-B10-01437-03				1	H-3	88.41245187	120.610608	61.53602449	120.610608	202.3078167	99.35512647	120.2698831	61.36218526	120.2698831	pCi
ARS1-B10-01437-04	ARS1-10-00272	001	MD21-10-12271	1	H-3	4805.722661	270.7192785	270.7192785	530.6097858	204.356472	100.3612389	100.8289303	100.8289303	197.6247033	pCi
ARS1-B10-01437-05	ARS1-10-00272	002	MD21-10-12272	1	H-3	84539.18777	4432.971363	4432.971363	8688.623871	205.2613005	100.805608	342.9586218	342.9586218	672.1988987	pCi
ARS1-B10-01437-06	ARS1-10-00272	003	MD21-10-12273	1	H-3	47754.52743	2510.15972	2510.15972	4919.913051	204.8284871	100.5930496	260.6225424	260.6225424	510.8201831	pCi
ARS1-B10-01437-07	ARS1-10-00272	004	MD21-10-12274	1	H-3	1180.510779	95.67056923	95.67056923	187.5143157	205.2305212	100.7904921	73.10197032	73.10197032	143.2798618	pCi
ARS1-B10-01437-08	ARS1-10-00272	005	MD21-10-12275	1	H-3	980.3778646	87.44098791	87.44098791	171.3843363	203.9388849	100.1561582	70.84466345	70.84466345	138.8555404	pCi
ARS1-B10-01437-09	ARS1-10-00272	006	MD21-10-12299	1	H-3	260.8712186	65.85554629	65.85554629	129.0768707	206.4159923	101.3726872	64.42787027	64.42787027	126.2786257	pCi
ARS1-B10-01437-10	ARS1-10-00283	001	MD54-10-10657	1	H-3	639.1621142	76.7056103	76.7056103	150.3429962	206.9354886	102.6100338	69.04472506	69.04472506	135.3276611	pCi
ARS1-B10-01437-11	ARS1-10-00283	002	MD54-10-10658	1	H-3	145.5278577	64.37619927	64.37619927	126.1773506	208.8310525	102.5587442	63.92504208	63.92504208	125.2930825	pCi
ARS1-B10-01437-12	ARS1-10-00283	003	MD54-10-10659	1	H-3	296.788094	68.01421503	68.01421503	133.3078615	211.1545606	103.6998393	66.22074643	66.22074643	129.792663	pCi
ARS1-B10-01437-13	ARS1-10-00284	001	MD49-10-12120	1	H-3	682.1883395	77.38069539	77.38069539	151.666163	206.2752932	101.3035887	68.67173605	68.67173605	134.5966027	pCi
ARS1-B10-01437-14	ARS1-10-00284	002	MD49-10-12121	1	H-3	239.3631212	64.90711087	64.90711087	127.2179373	204.7024295	100.5311416	63.68937854	63.68937854	124.8311819	pCi
ARS1-B10-01437-15	ARS1-10-00284	003	MD49-10-12155	1	H-3	704.1587423	78.30053566	78.30053566	153.4690499	207.0041443	101.6615338	69.10687874	69.10687874	135.4494823	pCi
ARS1-B10-01437-16	ARS1-10-00284	004	MD49-10-12157	1	H-3	157.4598528	63.47340891	63.47340891	124.4078815	205.0961164	100.7244847	62.93733811	62.93733811	123.3571827	pCi
ARS1-B10-01437-17	ARS1-10-00284	005	MD49-10-12158	1	H-3	220.3450051	65.28357324	65.26357324	127.9558036	207.28203	101.7980059	64.25919649	64.25919649	125.9480251	pCi
ARS1-B10-01437-18	ARS1-10-00284	006	MD49-10-12159	1	H-3	199.5706846	64.52167787	64.52167787	126.4624886	206.0553274	101.1955615	63.67251379	63.67251379	124.798127	pCi
ARS1-B10-01437-19	ARS1-10-00284	007	MD49-10-12168	1	H-3	179.7920671	64.05025948	64.05025948	125.5385086	205.7026122	101.0223401	63.35681118	63.35681118	124.1793499	pCi

Batch Result Verification Report

ABatchSampleID	SDG	Fraction	AliquotReportUnits	ChemRecovery	TracerRecovery	SampleCounts	SampleCountMins	BKG_Counts	BKG_CountMins	EFF	ALIQ	SampleCollDate	MidPointCountDate	BP_DL
ARS1-B10-01437-01			L			0.060833333	180	0.031944444	180	0.3706	5.041	3/22/2010	3/19/2010	
ARS1-B10-01437-02			L			0.0615	180	0.031944444	180	0.3748	5.045	3/22/2010	3/19/2010	
ARS1-B10-01437-03			L			0.034	180	0.031944444	180	0.3744	5.035	3/22/2010	3/19/2010	
ARS1-B10-01437-04	ARS1-10-00272	001	L			0.142555556	180	0.031944444	180	0.3728	5.03	2/16/2010	3/19/2010	
ARS1-B10-01437-05	ARS1-10-00272	002	L			1.969166667	180	0.031944444	180	0.3722	5.016	2/16/2010	3/19/2010	
ARS1-B10-01437-06	ARS1-10-00272	003	L			1.128555556	180	0.031944444	180	0.3724	5.024	2/16/2010	3/19/2010	
ARS1-B10-01437-07	ARS1-10-00272	004	L			0.059	180	0.031944444	180	0.3719	5.021	2/16/2010	3/20/2010	
ARS1-B10-01437-08	ARS1-10-00272	005	L			0.054555556	180	0.031944444	180	0.373	5.038	2/16/2010	3/20/2010	
ARS1-B10-01437-09	ARS1-10-00272	006	L			0.037888889	180	0.031944444	180	0.37	5.018	2/16/2010	3/20/2010	
ARS1-B10-01437-10	ARS1-10-00283	001	L			0.046333333	180	0.031944444	180	0.3644	5.033	2/17/2010	3/20/2010	
ARS1-B10-01437-11	ARS1-10-00283	002	L			0.035222222	180	0.031944444	180	0.3643	5.037	2/17/2010	3/20/2010	
ARS1-B10-01437-12	ARS1-10-00283	003	L			0.038555556	180	0.031944444	180	0.3608	5.03	2/17/2010	3/20/2010	
ARS1-B10-01437-13	ARS1-10-00284	001	L			0.0475	180	0.031944444	180	0.3697	5.029	2/12/2010	3/20/2010	
ARS1-B10-01437-14	ARS1-10-00284	002	L			0.037444444	180	0.031944444	180	0.3724	5.031	2/12/2010	3/20/2010	
ARS1-B10-01437-15	ARS1-10-00284	003	L			0.047944444	180	0.031944444	180	0.369	5.021	2/12/2010	3/21/2010	
ARS1-B10-01437-16	ARS1-10-00284	004	L			0.035555556	180	0.031944444	180	0.3717	5.031	2/12/2010	3/21/2010	
ARS1-B10-01437-17	ARS1-10-00284	005	L			0.036944444	180	0.031944444	180	0.3683	5.024	2/12/2010	3/21/2010	
ARS1-B10-01437-18	ARS1-10-00284	006	L			0.0365	180	0.031944444	180	0.3705	5.024	2/12/2010	3/21/2010	
ARS1-B10-01437-19	ARS1-10-00284	007	L			0.036055556	180	0.031944444	180	0.3707	5.03	2/12/2010	3/21/2010	

Batch Result Verification Report

ABatchSampleID	SDG	Fraction	BP_MDA	Sb_Val	UCF	CF	GrossCountRate	BKGCountRate	NetCountRate	PlatingRecovery	InstFileName	DetectorID	InstrumentkeV	NuclideAbd	TracerMeasACT
ARS1-B10-01437-01					2.22	1	10.95	5.75	5.2		73	P-44-S-2			
ARS1-B10-01437-02					2.22	1.96	11.07	5.75	5.32		73	P-44-S-3			
ARS1-B10-01437-03					2.22	1.96	6.12	5.75	0.37		73	P-44-S-4			
ARS1-B10-01437-04	ARS1-10-00272	001			2.22	1	25.66	5.75	19.91		73	P-44-S-5			
ARS1-B10-01437-05	ARS1-10-00272	002			2.22	1	354.45	5.75	348.7		73	P-44-S-6			
ARS1-B10-01437-06	ARS1-10-00272	003			2.22	1	203.14	5.75	197.39		73	P-44-S-7			
ARS1-B10-01437-07	ARS1-10-00272	004			2.22	1	10.62	5.75	4.87		73	P-44-S-8			
ARS1-B10-01437-08	ARS1-10-00272	005			2.22	1	9.82	5.75	4.07		73	P-44-S-9			
ARS1-B10-01437-09	ARS1-10-00272	006			2.22	1	6.82	5.75	1.07		73	P-44-S-10			
ARS1-B10-01437-10	ARS1-10-00283	001			2.22	1	8.34	5.75	2.59		73	P-44-S-11			
ARS1-B10-01437-11	ARS1-10-00283	002			2.22	1	6.34	5.75	0.59		73	P-44-S-12			
ARS1-B10-01437-12	ARS1-10-00283	003			2.22	1	6.94	5.75	1.19		73	P-44-S-13			
ARS1-B10-01437-13	ARS1-10-00284	001			2.22	1	8.55	5.75	2.8		73	P-44-S-14			
ARS1-B10-01437-14	ARS1-10-00284	002			2.22	1	6.74	5.75	0.99		73	P-44-S-15			
ARS1-B10-01437-15	ARS1-10-00284	003			2.22	1	8.63	5.75	2.88		73	P-44-S-16			
ARS1-B10-01437-16	ARS1-10-00284	004			2.22	1	6.4	5.75	0.65		73	P-44-S-17			
ARS1-B10-01437-17	ARS1-10-00284	005			2.22	1	6.65	5.75	0.9		73	P-44-S-18			
ARS1-B10-01437-18	ARS1-10-00284	006			2.22	1	6.57	5.75	0.82		73	P-44-S-19			
ARS1-B10-01437-19	ARS1-10-00284	007			2.22	1	6.49	5.75	0.74		73	P-44-S-20			

Batch Result Verification Report

ABatchSampleID	SDG	Fraction	TracerKnownACT	TracerIsotope	TracerRefDate	TracerRefACT	TracerKnown	Halflife1	Halflife2	Halflife3	TPUF_1	TPUF_2	TPUF_3	TPUF_4	TPUF_5	TPUF_6	DeltaT1	DeltaT2
ARS1-B10-01437-01								4499.8			0.04133	0.02	0	0.025	0	0	0	
ARS1-B10-01437-02								4499.8			0.04133	0.02	0	0.025	0	0	0	
ARS1-B10-01437-03								4499.8			0.04133	0.02	0	0.025	0	0	0	
ARS1-B10-01437-04	ARS1-10-00272	001						4499.8			0.04133	0.02	0	0.025	0	0	31.15625	
ARS1-B10-01437-05	ARS1-10-00272	002						4499.8			0.04133	0.02	0	0.025	0	0	31.28611111	
ARS1-B10-01437-06	ARS1-10-00272	003						4499.8			0.04133	0.02	0	0.025	0	0	31.41597222	
ARS1-B10-01437-07	ARS1-10-00272	004						4499.8			0.04133	0.02	0	0.025	0	0	31.54583333	
ARS1-B10-01437-08	ARS1-10-00272	005						4499.8			0.04133	0.02	0	0.025	0	0	31.67569444	
ARS1-B10-01437-09	ARS1-10-00272	006						4499.8			0.04133	0.02	0	0.025	0	0	31.80555556	
ARS1-B10-01437-10	ARS1-10-00283	001						4499.8			0.04133	0.02	0	0.025	0	0	30.93541667	
ARS1-B10-01437-11	ARS1-10-00283	002						4499.8			0.04133	0.02	0	0.025	0	0	31.06527778	
ARS1-B10-01437-12	ARS1-10-00283	003						4499.8			0.04133	0.02	0	0.025	0	0	31.19652778	
ARS1-B10-01437-13	ARS1-10-00284	001						4499.8			0.04133	0.02	0	0.025	0	0	36.32847222	
ARS1-B10-01437-14	ARS1-10-00284	002						4499.8			0.04133	0.02	0	0.025	0	0	36.45833333	
ARS1-B10-01437-15	ARS1-10-00284	003						4499.8			0.04133	0.02	0	0.025	0	0	36.5875	
ARS1-B10-01437-16	ARS1-10-00284	004						4499.8			0.04133	0.02	0	0.025	0	0	36.71736111	
ARS1-B10-01437-17	ARS1-10-00284	005						4499.8			0.04133	0.02	0	0.025	0	0	36.84722222	
ARS1-B10-01437-18	ARS1-10-00284	006						4499.8			0.04133	0.02	0	0.025	0	0	36.97708333	
ARS1-B10-01437-19	ARS1-10-00284	007						4499.8			0.04133	0.02	0	0.025	0	0	37.10694444	

ABatchSampleID	SDG	Fraction	DeltaT3	DeltaT4	DeltaT5	DeltaT6	DF1	DF2	DF3	IF1	IF2	SysErr	K_Val	K_MDA	AnalysisCode	UserID	ModDate
ARS1-B10-01437-01							1					0.052279718	0.004147392	0.746530562		BSTEFFENS	3/22/2010
ARS1-B10-01437-02							1					0.052279718	0.004197723	0.755590054		BSTEFFENS	3/22/2010
ARS1-B10-01437-03							1					0.052279718	0.004184931	0.753287558		BSTEFFENS	3/22/2010
ARS1-B10-01437-04	ARS1-10-00272	001					0.995212204					0.052279718	0.004142977	0.745735918	LSC-A-001	BSTEFFENS	3/22/2010
ARS1-B10-01437-05	ARS1-10-00272	002					0.995192296					0.052279718	0.004124714	0.742448581	LSC-A-001	BSTEFFENS	3/22/2010
ARS1-B10-01437-06	ARS1-10-00272	003					0.995172389					0.052279718	0.00413343	0.744017414	LSC-A-001	BSTEFFENS	3/22/2010
ARS1-B10-01437-07	ARS1-10-00272	004					0.995152482					0.052279718	0.004125333	0.742559929	LSC-A-001	BSTEFFENS	3/22/2010
ARS1-B10-01437-08	ARS1-10-00272	005					0.995132575					0.052279718	0.004151461	0.747262894	LSC-A-001	BSTEFFENS	3/22/2010
ARS1-B10-01437-09	ARS1-10-00272	006					0.995112669					0.052279718	0.004101641	0.738295321	LSC-A-001	BSTEFFENS	3/22/2010
ARS1-B10-01437-10	ARS1-10-00283	001					0.995246058					0.052279718	0.00405218	0.729392418	LSC-A-001	BSTEFFENS	3/22/2010
ARS1-B10-01437-11	ARS1-10-00283	002					0.99522815					0.052279718	0.004054207	0.729757186	LSC-A-001	BSTEFFENS	3/22/2010
ARS1-B10-01437-12	ARS1-10-00283	003					0.995206029					0.052279718	0.004009595	0.721727065	LSC-A-001	BSTEFFENS	3/22/2010
ARS1-B10-01437-13	ARS1-10-00284	001					0.994419607					0.052279718	0.004104438	0.738798908	LSC-A-001	BSTEFFENS	3/22/2010
ARS1-B10-01437-14	ARS1-10-00284	002					0.994399715					0.052279718	0.004135975	0.744475586	LSC-A-001	BSTEFFENS	3/22/2010
ARS1-B10-01437-15	ARS1-10-00284	003					0.99437993					0.052279718	0.004089987	0.736197634	LSC-A-001	BSTEFFENS	3/22/2010
ARS1-B10-01437-16	ARS1-10-00284	004					0.994360039					0.052279718	0.004128036	0.743046548	LSC-A-001	BSTEFFENS	3/22/2010
ARS1-B10-01437-17	ARS1-10-00284	005					0.994340148					0.052279718	0.004084504	0.735210675	LSC-A-001	BSTEFFENS	3/22/2010
ARS1-B10-01437-18	ARS1-10-00284	006					0.994320258					0.052279718	0.00410882	0.739587582	LSC-A-001	BSTEFFENS	3/22/2010
ARS1-B10-01437-19	ARS1-10-00284	007					0.994300368					0.052279718	0.004115865	0.740855741	LSC-A-001	BSTEFFENS	3/22/2010

Assay Definition-

Assay Description:
H3 Normal Lvl

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\ARS\H-3 Normal Lvl\20100319_0312
Raw Results Path: C:\Packard\Tricarb\Results\ARS\H-3 Normal Lvl\20100319_0312\20100319_0312.results
RTF File Name: C:\Packard\Tricarb\Results\ARS\H-3 Normal Lvl\20100319_0312\H3 Results.rtf
Comma-Delimited File Name: C:\Packard\Tricarb\Results\ARS\H-3 Normal Lvl\20100319_0312\H3 Results.csv
Assay File Name: C:\Packard\TriCarb\Assays\H-3 Normal Lvl.lsa

Count Conditions-

Nuclide: H-3 Normal
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: UG STD H-3
Count Time (min): 180.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: Off
Low CPM Threshold: Off
2 Sigma % Terminator: On - Any Region

Regions	LL	UL	2Sigma % Terminator
A	2.0	18.6	0.50
B	0.0	2000.0	0.00
C	0.0	2000.0	0.00

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time

33 of 94
B
C

Cycle 1 Results
Quench Curve Block Data

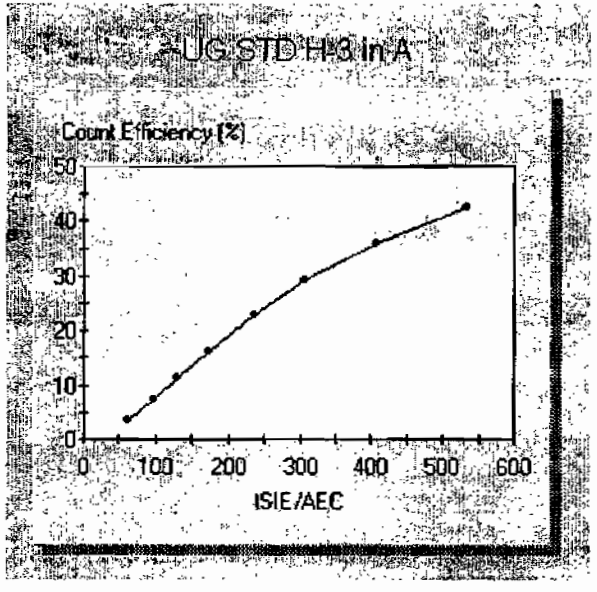

Date Acquired: 05/05/2009
Date Modified:
UG STD H-3 in A

tSIE/AEC	Count Efficiency (%)
533.53	42.76
406.26	35.99
306.93	29.10
237.55	22.83
174.55	16.30
131.14	11.32
97.13	7.31
62.75	3.54

P#	S#	SMPL_ID	CPMA	DPM1	tSIE	Eff Nucl In A	Count Time	DATE	TIME	MESSAGES
44	1	BACKGROUND	5.75	15.83	412.39	36.32	180.00	3/19/2010	3:17:37 AM	
44	2	B10-01437-01	10.95	29.53	426.32	37.06	180.00	3/19/2010	6:24:27 AM	
44	3	B10-01437-02	11.07	29.53	434.18	37.48	180.00	3/19/2010	9:31:22 AM	
44	4	B10-01437-03	6.12	16.33	433.42	37.44	180.00	3/19/2010	12:38:12 PM	
44	5	B10-01437-04	25.66	68.83	430.38	37.28	180.00	3/19/2010	3:45:06 PM	
44	6	B10-01437-05	354.45	952.39	429.25	37.22	180.00	3/19/2010	6:52:05 PM	
44	7	B10-01437-06	203.14	545.42	429.77	37.24	180.00	3/19/2010	9:59:05 PM	
44	8	B10-01437-07	10.62	28.54	428.84	37.19	180.00	3/20/2010	1:06:04 AM	
44	9	B10-01437-08	9.82	26.33	430.82	37.30	180.00	3/20/2010	4:12:57 AM	
44	10	B10-01437-09	6.82	18.42	425.22	37.00	180.00	3/20/2010	7:19:50 AM	
44	11	B10-01437-10	8.34	22.90	414.60	36.44	180.00	3/20/2010	10:26:41 AM	
44	12	B10-01437-11	6.34	17.40	414.54	36.43	180.00	3/20/2010	1:33:52 PM	
44	13	B10-01437-12	6.94	19.24	407.82	36.08	180.00	3/20/2010	4:43:06 PM	
44	14	B10-01437-13	8.55	23.13	424.58	36.97	180.00	3/20/2010	7:52:38 PM	
44	15	B10-01437-14	6.74	18.09	429.60	37.24	180.00	3/20/2010	10:59:31 PM	
44	16	B10-01437-15	8.63	23.39	423.38	36.90	180.00	3/21/2010	2:06:22 AM	
44	17	B10-01437-16	6.40	17.23	428.35	37.17	180.00	3/21/2010	5:13:18 AM	
44	18	B10-01437-17	6.65	18.05	421.94	36.83	180.00	3/21/2010	8:20:15 AM	
44	19	B10-01437-18	6.57	17.74	426.17	37.05	180.00	3/21/2010	11:27:10 AM	
44	20	B10-01437-19	6.49	17.50	426.46	37.07	180.00	3/21/2010	2:34:03 PM	

Beta Liquid Scintillation Counter Log Book

Date	Time	ARS Sample I.D. Number	Batch Number	Liquid Scintillation File Number	Technician Initials
3-16-10	1537	B10-01413-13	B10-01413	2242	[illegible]
3-18-10	1643	Background	B10-01437 ~~01413~~	0312	[illegible]
↓	↓	B10-01437-01	↓	↓	[illegible]
↓	↓	B10-01437-02	↓	↓	[illegible]
↓	↓	B10-01437-03	↓	↓	[illegible]
↓	↓	B10-01437-04	↓	↓	[illegible]
↓	↓	B10-01437-05	↓	↓	[illegible]
↓	↓	B10-01437-06	↓	↓	[illegible]
↓	↓	B10-01437-07	↓	↓	[illegible]
↓	↓	B10-01437-08	↓	↓	[illegible]
↓	↓	B10-01437-09	↓	↓	[illegible]
↓	↓	B10-01437-10	↓	↓	[illegible]
↓	↓	B10-01437-11	↓	↓	[illegible]
↓	↓	B10-01437-12	↓	↓	[illegible]
↓	↓	B10-01437-13	↓	↓	[illegible]
↓	↓	B10-01437-14	↓	↓	[illegible]
↓	↓	B10-01437-15	↓	↓	[illegible]
↓	↓	B10-01437-16	↓	↓	[illegible]
↓	↓	B10-01437-17	↓	↓	[illegible]
↓	↓	B10-01437-18	↓	↓	[illegible]

Reviewed By: [illegible] Date: 3-22-10
Initials

Beta Liquid Scintillation Counter Log Book

Date	Time	ARS Sample I.D. Number	Batch Number	Liquid Scintillation File Number	Technician Initials
3-18-10	1643	B10-01437-19	B10 01437	0312	JK

JK 3-22-10

Reviewed By: NB Date: 3-22-10
Initials

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American Radiation Services Analytical Reports

for

Los Alamos National Laboratory

Tritium by Low Level Liquid Scintillation Counting

Control Charts

3H Efficiency
Total # pts : 1384
Valid # pts : 50
Mean : 65.12
SD : 0.19

Date	Value	Valid Pt
Dec 15, 2009	65.40	X
Dec 16, 2009	65.21	X
Dec 21, 2009	65.24	X
Dec 25, 2009	64.94	X
Dec 26, 2009	65.32	X
Dec 27, 2009	65.25	X
Dec 27, 2009	65.08	X
Dec 27, 2009	64.77	X
Dec 27, 2009	65.26	X
Dec 27, 2009	65.32	X
Dec 27, 2009	65.09	X
Dec 27, 2009	65.09	X
Dec 27, 2009	64.82	X
Dec 27, 2009	65.20	X
Dec 27, 2009	65.21	X
Dec 27, 2009	65.19	X
Dec 27, 2009	64.96	X
Dec 27, 2009	65.04	X
Dec 27, 2009	65.44	X
Dec 28, 2009	65.06	X
Dec 28, 2009	64.67	X
Dec 28, 2009	65.20	X
Dec 28, 2009	64.99	X
Dec 28, 2009	64.94	X
Dec 28, 2009	65.07	X
Dec 28, 2009	65.13	X
Jan 02, 2010	65.14	X
Jan 04, 2010	65.51	X
Jan 08, 2010	65.27	X
Jan 19, 2010	64.64	X
Jan 22, 2010	65.25	X
Jan 25, 2010	65.10	X
Jan 28, 2010	65.24	X
Feb 02, 2010	65.13	X
Feb 03, 2010	65.04	X
Feb 05, 2010	64.94	X
Feb 05, 2010	65.06	X
Feb 09, 2010	65.13	X
Feb 12, 2010	65.20	X
Feb 15, 2010	65.11	X
Feb 18, 2010	64.84	X
Feb 24, 2010	65.23	X
Feb 27, 2010	65.01	X
Mar 02, 2010	65.14	X
Mar 05, 2010	65.20	X
Mar 08, 2010	65.20	X
[illegible]	[illegible]	X

Mar 12, 2010	65.54	X
Mar 16, 2010	65.04	X
Mar 19, 2010	65.17	X

3H Efficiency
Total # pts : 1384
Valid # pts : 50
Mean : 65.12
SD : 0.19

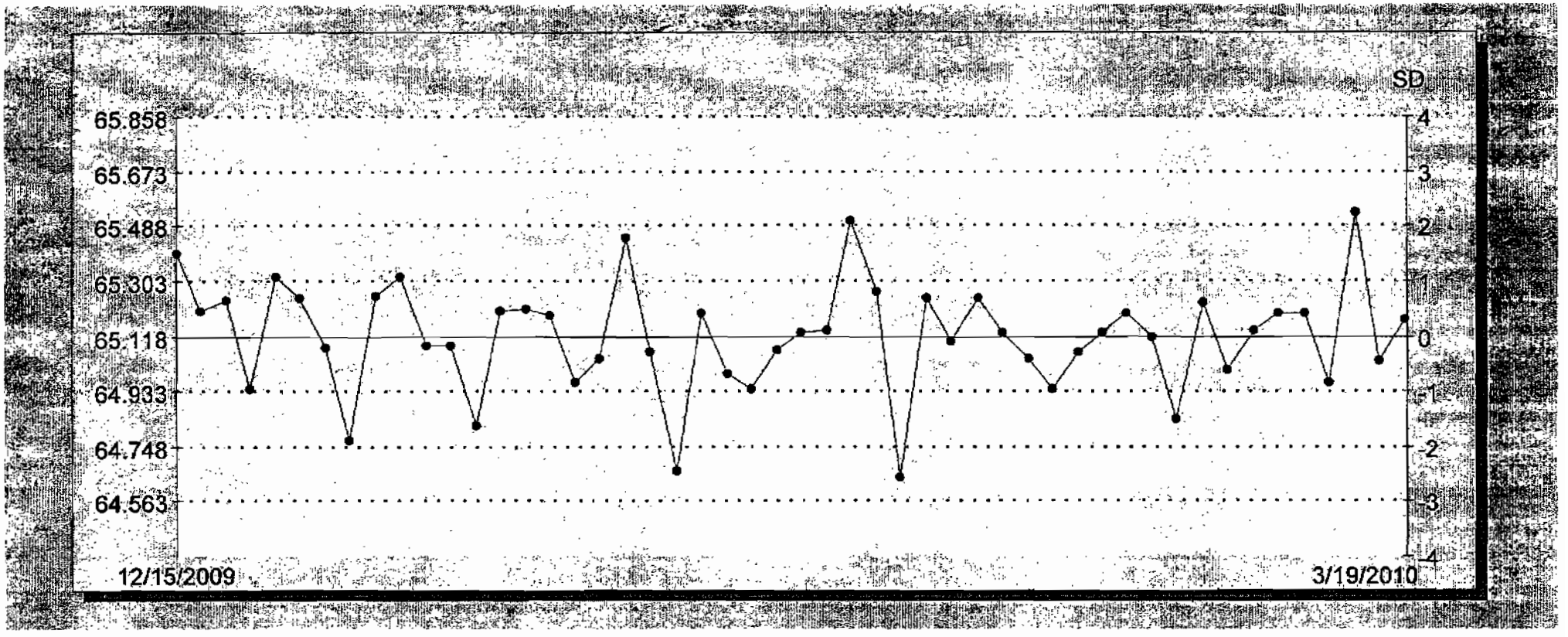

3H Background
Total # pts : 1347
Valid # pts : 48
Mean : 2.86
SD : 1.42

Date	Value	Valid Pt
Dec 15, 2009	2.66	X
Dec 16, 2009	2.20	X
Dec 21, 2009	2.76	X
Dec 25, 2009	2.29	X
Dec 26, 2009	2.48	X
Dec 27, 2009	2.17	X
Dec 27, 2009	2.58	X
Dec 27, 2009	2.48	X
Dec 27, 2009	2.54	X
Dec 27, 2009	2.24	X
Dec 27, 2009	1.90	X
Dec 27, 2009	2.37	X
Dec 27, 2009	2.79	X
Dec 27, 2009	2.14	X
Dec 27, 2009	2.27	X
Dec 27, 2009	2.40	X
Dec 27, 2009	2.20	X
Dec 27, 2009	2.31	X
Dec 27, 2009	2.42	X
Dec 28, 2009	2.33	X
Dec 28, 2009	2.12	X
Dec 28, 2009	2.36	X
Dec 28, 2009	2.42	X
Dec 28, 2009	2.58	X
Dec 28, 2009	2.00	X
Dec 28, 2009	2.01	X
Jan 02, 2010	2.39	X
Jan 04, 2010	2.48	X
Jan 08, 2010	2.52	X
Jan 19, 2010	2.08	X
Jan 22, 2010	8.28	X
Jan 25, 2010	3.59	X
Jan 28, 2010	7.73	X
Feb 02, 2010	7.52	X
Feb 03, 2010	5.64	X
Feb 05, 2010	1.89	X
Feb 09, 2010	1.94	X
Feb 12, 2010	2.68	X
Feb 15, 2010	2.25	X
Feb 18, 2010	2.72	X
Feb 24, 2010	2.73	X
Feb 27, 2010	3.31	X
Mar 02, 2010	2.80	X
Mar 05, 2010	3.12	X
Mar 08, 2010	2.71	X
Mar 12, 2010	2.39	X
Mar 16, 2010	2.85	X

Mar 19, 2010 2.60 x

3H Background
Total # pts : 1347
Valid # pts : 48
Mean : 2.86
SD : 1.42

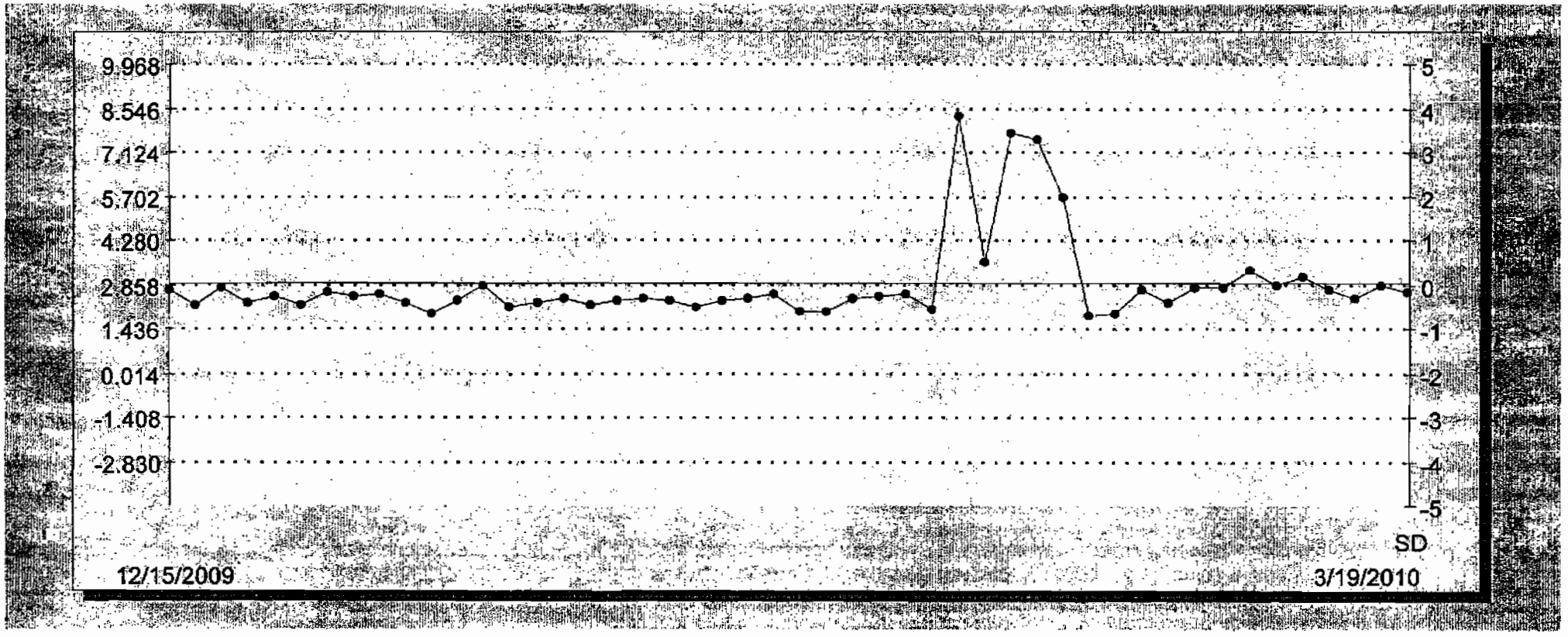

Tony Byrd

Modified: Fri 2/19/2010 2:10 PM

Tritium Background Control Chart
IPA - Serial# 061533

The Background point outside 3 standard deviation (SD) on 1-22-10 (8.28) was caused by a fingerprint smudge on the liquid scintillation vial. Once vial was cleaned with a chem-wipe and re-ran, the background was acceptable.

American Radiation Services
Baton Rouge Laboratory

QC Chart

H-3 LCS

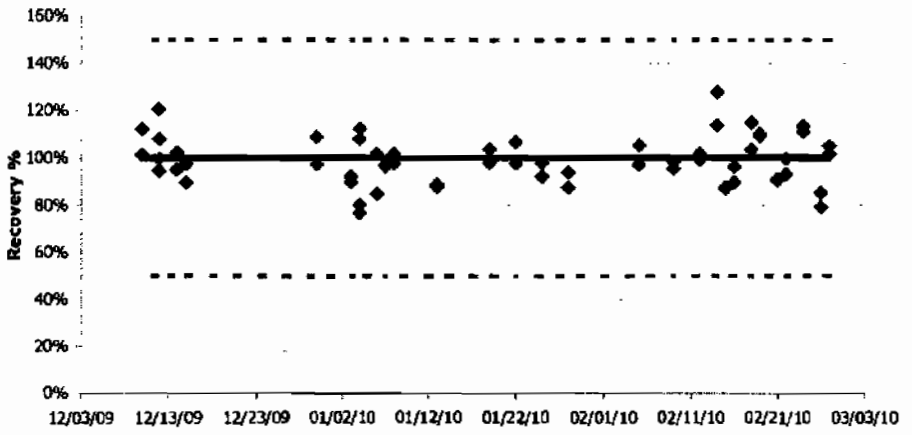

Average	STDEV	n	UCL	LCL
0.9877	0.1016	30	1.5000	0.5000

H-3 RER

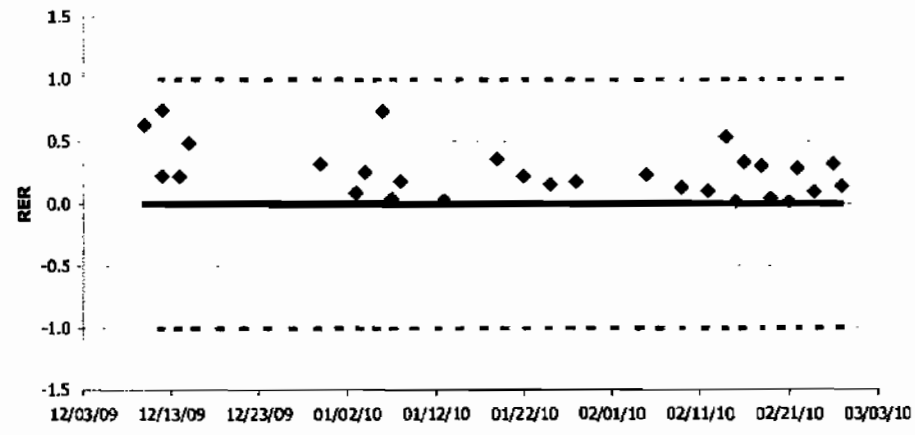

		n	UCL	LCL
		30	1.0000	-1.0000

H-3 Blank

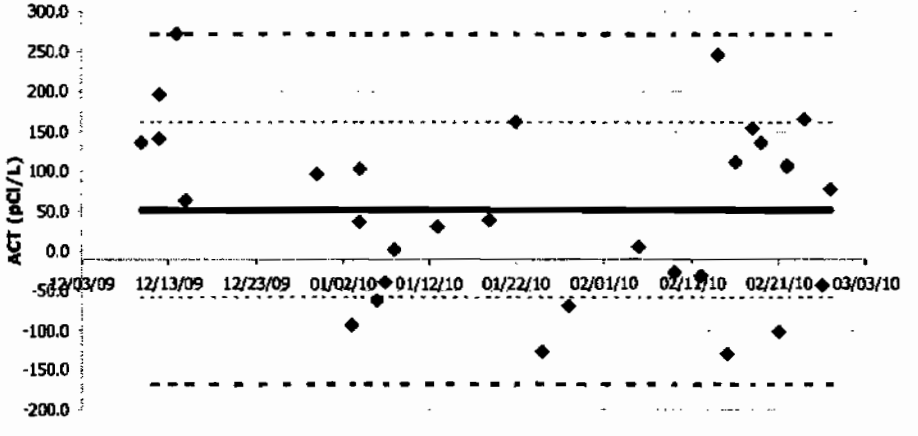

Average	STDEV	n	UCL	LCL
52.0266	109.9066	30	271.8398	-167.7866

H-3 DER

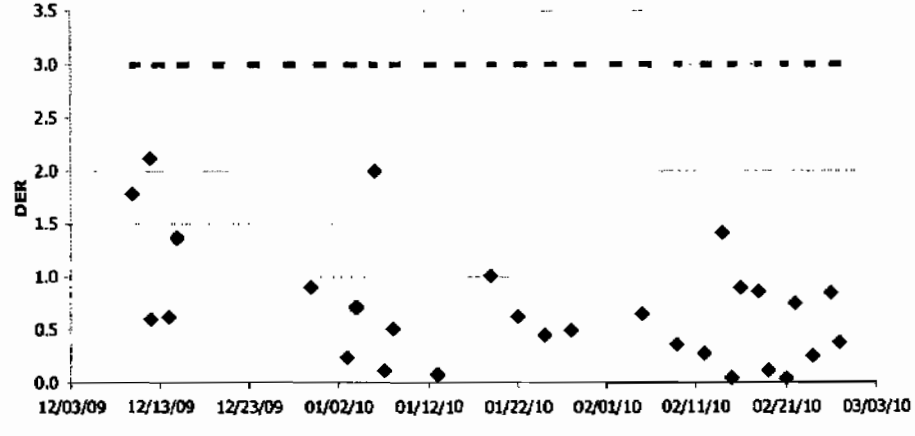

		n	UCL	
		30	3.0000	

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American Radiation Services Analytical Reports

for

Los Alamos National Laboratory

Low Level Liquid Scintillation Counting

Calibration Information

STD ID: S-0209

ARS INTERNATIONAL	Add/Edit *Secondary Stds*	Parent Standard Data	
Planning		Parent Solution Reference #	[illegible]
Planning Comments	Create an intermediate level standard for use in creating LCS stock solutions and MSs.	Parent Solution #	[illegible]
Target dpm/g (on dil. date)	3443	Parent Principal Radionuclide	H-3
		Half Life (Days)	[illegible]
Target Final volume mL	200	Parent Reference Date	[illegible]
Appx mass g of Parent Sol'n	[illegible]	Parent Certified Act	[illegible]
		Certi Act/Vol Units	dpm/g
Appx vol ml of Parent Sol'n	[illegible]	Parent Cert Act Uncert 1 Sigma	[illegible]
Expected Addition for Analysis g	1	Parent Sp. Gravity G/Ml	[illegible]
Standards Preparation / Dilution		Parent Supplier	[illegible]
Secondary Solution #	[illegible]	Parent Date Recvd	[illegible]
Dilution Date (New Ref Date)	05/04/2009 14:28	Parent Received By	[illegible]
Ampoule, Empty (g)		Parent Cert Exp Date	[illegible]
Ampoule /Solution Gross (g)		Parent Matrix	H2O
Net Wt Removed (g)	[illegible]	Certified dpm/g At Ref Date	[illegible]
Transfer Container, empty (g)	13.126	Certified dpm/g on 05/04/2009 14:28	[illegible]
Container Plus Solution (g)	14.583	Parent Comments	[illegible]
Net Wt Transferred (g)	[illegible]		
DPM Xferred on 05/04/2009 14:28	[illegible]		
Diluent/matrix	DI H2O	Parent Tech	[illegible]
Diluent Density Cont, empty (g)		Is_Primary	FALSE
Test Mass of 5 ml of Diluent (g)		Is_LCS	FALSE
Diluent Density Test - (g/mL)	[illegible]	Is_Tracer	FALSE
Dilution Empty Container Mass (g)	68.127	Is_Calib	FALSE
Dilution Full Cont g (if measured)	270.479		
Dilution Final Volume ml (if measured)	200		
Final Dilution Density (g/mL)	[illegible]		
Final Dilution Measured Mass g	[illegible]		
Comments	Intermediate level H3 standard. Dilution performed as stated above by B Steffens. -BJS 5/4/09		
Final Dilution dpm/g	[illegible]		
Final Dil New Ref Date/Time	[illegible]		

ARS INTERNATIONAL

QUALITY CONTROL PROGRAM

AMERICAN RADIATION SERVICES
RADIOACTIVE REFERENCE SOLUTIONS

ANNUAL ACTIVITY VERIFICATION

VERIFICATION DATE: 5/5/2009 23:42 *date counted*
STANDARD REFERENCE #: S-0209

Principal Radionuclide		Half Life, Years		Half Life, Days
H-3	*ENTER -->*		*OR -->*	4.4998E+03
		1.232E+01		4.4998E+03

Radionuclide: H-3 Dilution Reference Date: 5/4/2009 14:28

Dilution Activity	1616.63	pCi per gram ===> dpm/g	3588.91
Verif. Date Decay Corrected	1616.28	pCi per gram ===> dpm/g	3588.15

Minimum of 3 Required

Trial ID	Sample Counts	Count Time (min)	Detector	Efficiency	Bkg. (cpm)	Net Weight	Decay Corrected Activity Result (dpm/g)	Decay Corrected Activity Result (pCi/g)
S-0209-V1	6740.26	1	LSC	0.3632	5.88	5.042	3677.47	1656.52
S-0209-V2	6726.63	1	LSC	0.3611	5.88	5.041	3692.10	1663.11
S-0209-V3	6748.40	1	LSC	0.3635	5.88	5.043	3678.15	1656.82
S-0209-V4	6748.92	1	LSC	0.3651	5.88	5.038	3665.94	1651.33
S-0209-V5	6771.51	1	LSC	0.3603	5.88	5.054	3715.43	1673.62

		Average	3685.82	1660.28
		Two Sigma Uncertainty	37.19	16.75
10% Max	*PASS*	Standard Deviation percent of known concentration	0.53%	0.53%
		Target Activity	3588.15	1616.28
5% Max	*PASS*	% Diff	2.72%	2.72%

Verification Expiration Date: May 5, 2010

Prepared & Counted By: [signature] Date: 5/5/2009 23:42

Verified & Approved By: [signature] Date: 5/6/09 15:51

QC Approval: [signature] Date: 5/6/09

STD ID: S-0217

ARS INTERNATIONAL	Add/Edit *Secondary Stds*	Parent Standard Data	
Planning		Parent Solution Reference #	[illegible]
Planning Comments	H-3 Normal Level LCS	Parent Solution #	[illegible]
Target dpm/g (on dil. date)	2.6	Parent Principal Radionuclide	[illegible] Half Life (Days) [illegible]
Target Final volume mL	2000	Parent Reference Date	[illegible]
Appx mass g of Parent Sol'n	[illegible]	Parent Certified Act	[illegible] Certi Act/Vol Units [illegible]
Appx vol ml of Parent Sol'n	[illegible]	Parent Cert Act Uncert 1 Sigma	[illegible]
Expected Addition for Analysis g	2	Parent Sp. Gravity G/Ml	[illegible]
Standards Preparation / Dilution		Parent Supplier	[illegible]
Secondary Solution #	[illegible]	Parent Date Recvd	[illegible]
Dilution Date (New Ref Date)	07/19/2009 12:40	Parent Received By	[illegible]
Ampoule, Empty (g)		Parent Cert Exp Date	[illegible]
Ampoule /Solution Gross (g)		Parent Matrix	[illegible]
Net Wt Removed (g)	[illegible]	Certified dpm/g At Ref Date	[illegible]
Transfer Container, empty (g)	0	Certified dpm/g on 07/19/2009 12:40	[illegible]
Container Plus Solution (g)	1.579	Parent Comments	[illegible]
Net Wt Transferred (g)	[illegible]		
DPM Xferred on 07/19/2009 12:40	[illegible]		
Diluent/matrix	H2O	Parent Tech	[illegible]
Diluent Density Cont. empty (g)		Is_Primary	[illegible]
Test Mass of 5 ml of Diluent (g)		Is_LCS	FALSE
Diluent Density Test - (g/mL)	[illegible]	Is_Tracer	FALSE
Dilution Empty Container Mass (g)	1	Is_Calib	FALSE
Dilution Full Cont g (if measured)	2003		
Dilution Final Volume ml (if measured)			
Final Dilution Density (g/mL)	[illegible]		
Final Dilution Measured Mass g	[illegible]		
Comments	H-3 Normal LCS: New Mix to replace expended S-0204		
Final Dilution dpm/g	[illegible]		
Final Dil New Ref Date/Time	[illegible]		

ARS INTERNATIONAL

QUALITY CONTROL PROGRAM

AMERICAN RADIATION SERVICES
RADIOACTIVE REFERENCE SOLUTIONS

ANNUAL ACTIVITY VERIFICATION

VERIFICATION DATE 7/30/2009 10:56 *date counted*
STANDARD REFERENCE # S-0217

Principal Radionuclide		Half Life, Years		Half Life, Days
H-3	*ENTER -->*		*OR -->*	4.4998E+03
		1.232E+01		4.4998E+03

Radionuclide H-3 Dilution Reference Date 7/19/2009 12:40

Dilution Activity	1.26	pCi per gram ===> dpm/g	2.80
Verif. Date Decay Corrected	1.26	pCi per gram ===> dpm/g	2.79

Minimum of 3 Required

Trial ID	Sample Counts	Count Time (min)	Detector	Efficiency	Bkg. (cpm)	Net Weight	Decay Corrected Activity Result (dpm/g)	Decay Corrected Activity Result (pCi/g)
S-0217-V1(5)	10.72	1	LSC	0.3631	5.47	5.031	2.87	1.29
S-0217-V2(5)	10.62	1	LSC	0.3621	5.47	5.011	2.84	1.28
S-0217-V3(5)	10.44	1	LSC	0.3636	5.47	5.000	2.73	1.23

	Average	2.82	1.27
	Two Sigma Uncertainty	0.14	0.06
10% Max *PASS*	Standard Deviation percent of known concentration	2.61%	2.61%
	Target Activity	2.79	1.26
5% Max *PASS*	% Diff	0.86%	0.86%

Verification Expiration Date: July 30, 2010

Prepared & Counted By Halley Dm Date: 7/30/2009 10:56
Verified & Approved By Virginia Mullinger Date: 8-6-09
QC Approval [illegible] Date: 7-30-09

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American Radiation Services Analytical Reports

for

Los Alamos National Laboratory

Percent Moisture

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ARS Sample Delivery Group:	ARS1-10-00283	**Request or PO Number:**	10-1899
Client Sample ID:	MD54-10-10657	**ARS Sample ID:**	ARS1-10-00283-001
Sample Collection Date:	02/17/10	**Date Received:**	02/18/10
Sample Matrix:	Silica	**Report Date:**	03/22/10

Analysis Description	Analysis Results	Analysis Error +/- 1 s	MDC	DLC	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Percent Moisture	9.792	N/A	N/A	N/A		%	Percent Moisture	03/18/10 00:00	BJS	N/A

NOTES: Project Cost Code MRS4045HHG00

Project Manager Review

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LELAP Certificate# 01949 NELAP Certificate # E87558

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ARS Sample Delivery Group:	ARS1-10-00283	**Request or PO Number:**	10-1899
Client Sample ID:	MD54-10-10658	**ARS Sample ID:**	ARS1-10-00283-002
Sample Collection Date:	02/17/10	**Date Received:**	02/18/10
Sample Matrix:	Silica	**Report Date:**	03/22/10

Analysis Description	Analysis Results	Analysis Error +/- 1 s	MDC	DLC	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Percent Moisture	6.615	N/A	N/A	N/A		%	Percent Moisture	03/18/10 00:00	BJS	N/A

NOTES: Project Cost Code MR54045HHG00

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ARS Sample Delivery Group:	ARS1-10-00283	**Request or PO Number:**	10-1899
Client Sample ID:	MD54-10-10659	**ARS Sample ID:**	ARS1-10-00283-003
Sample Collection Date:	02/17/10	**Date Received:**	02/18/10
Sample Matrix:	Silica	**Report Date:**	03/22/10

Analysis Description	Analysis Results	Analysis Error +/- 1 s	MDC	DLC	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Percent Moisture	7.051	N/A	N/A	N/A		%	Percent Moisture	03/18/10 00:00	BJS	N/A

NOTES: Project Cost Code MR54045HHG00

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the American Radiation Services, Inc.

LELAP Certificate# 01949 NELAP Certificate # E87558

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American Radiation Services Analytical Reports

for

Los Alamos National Laboratory

Percent Moisture Laboratory Records

AMERICAN RADIATION SERVICES
Port Allen, LA
PERCENT MOISTURE DETERMINATION IN SOILS

SDG Number ARS1-10-00272, 00283, 00284
Client LANL

LANL ID	ARS ID	weight of cylinder with gel (g)	weight of empty cylinder (g)	Weight of gel (g)	amount of liquid collected (ml)	amount of liquid tested (ml)	% moisture
MD21-10-12271	ARS1-10-00272-001	607	438	169	23.72	5.03	14.035503
MD21-10-12272	ARS1-10-00272-002	605	438	168	23.343	5.016	13.8946429
MD21-10-12273	ARS1-10-00272-003	604	440	164	21.182	5.024	12.9158537
MD21-10-12274	ARS1-10-00272-004	618	449	169	20.487	5.021	12.1224852
MD21-10-12275	ARS1-10-00272-005	603	439	163	21.563	5.038	13.2288344
MD21-10-12299	ARS1-10-00272-006	619	444	174	32.083	5.018	18.4385057
MD54-10-10657	ARS1-10-00283-001	598	449	148	14.492	5.033	9.79189189
MD54-10-10658	ARS1-10-00283-002	569	433	136	8.996	5.037	6.61470588
MD54-10-10659	ARS1-10-00283-003	581	438	143	10.083	5.03	7.05104895
MD49-10-12120	ARS1-10-00284-001	599	447	152	9.751	5.029	6.41513158
MD49-10-12121	ARS1-10-00284-002	598	452	146	12.469	5.031	8.54041096
MD49-10-12155	ARS1-10-00284-003	608	451	156	10.716	5.021	6.86923077
MD49-10-12157	ARS1-10-00284-004	584	432	151	9.677	5.031	6.40860927
MD49-10-12158	ARS1-10-00284-005	582	435	146	9.581	5.024	6.56232877
MD49-10-12159	ARS1-10-00284-006	593	451	143	10.685	5.024	7.47202797

MD49-10-12168	ARS1-10-00284-007	599	453	146	10.507	5.03	7.19657534

Balance ID: 0102/H1331122173560P

Pipettor ID: FJ40469

Signature

Date 3-18-10

AMERICAN RADIATION SERVICES
Port Allen, LA
PERCENT MOISTURE DETERMINATION IN SOILS

SDG Number ARS1-10-00272, 00283, 00284
Client LANL

LCS- 5.041
LCSD- 5.045
BLK- 5.035

LANL ID	ARS ID	weight of cylinder with gel (g)	weight of empty cylinder (g)	Weight of gel (g)	amount of liquid collected (ml)	amount of liquid tested (ml)	% moisture
MD21-10-12271	ARS1-10-00272-001	607	438	169	23.720	5.030	#DIV/0!
MD21-10-12272	ARS1-10-00272-002	605	438	168	23.343	5.016	#DIV/0!
MD21-10-12273	ARS1-10-00272-003	604	440	164	21.182	5.024	#DIV/0!
MD21-10-12274	ARS1-10-00272-004	618	449	169	20.487	5.021	#DIV/0!
MD21-10-12275	ARS1-10-00272-005	603	439	163	21.563	5.038	#DIV/0!
MD21-10-12299	ARS1-10-00272-006	619	444	174	32.083	5.018	#DIV/0!
MD54-10-10657	ARS1-10-00283-001	598	449	148	14.492	5.033	#DIV/0!
MD54-10-10658	ARS1-10-00283-002	569	433	136	8.996	5.037	#DIV/0!
MD54-10-10659	ARS1-10-00283-003	581	438	143	10.083	5.030	#DIV/0!
MD49-10-12120	ARS1-10-00284-001	599	447	152	9.751	5.029	#DIV/0!
MD49-10-12121	ARS1-10-00284-002	598	452	146	12.469	5.031	#DIV/0!
MD49-10-12155	ARS1-10-00284-003	608	451	156	10.716	5.021	#DIV/0!
MD49-10-12157	ARS1-10-00284-004	584	432	151	9.677	5.031	#DIV/0!
MD49-10-12158	ARS1-10-00284-005	582	435	146	9.581	5.024	#DIV/0!
MD49-10-12159	ARS1-10-00284-006	593	451	143	10.685	5.024	#DIV/0!

MD49-10-12168	ARS1-10-00284-007	599	453	146	10.507	5.030	#DIV/0!

Balance ID: 0102/H1331122173560P

Pipettor ID: FJ40469

Signature

Date 3-18-10

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American Radiation Services Analytical Reports

for

Los Alamos National Laboratory

Folder Duplicate

ARS INTERNATIONAL

Report Compilation Checklist

ARS SDG:	10-00283	Client Name:	LANL	Sample Matrix:	SI

LEVEL 1 COMPONENTS	1st Reviewer	
1) Cover Page Complete and Accurate (see ARS-059)?	~~Yes~~ No N/A	
2) Technical Review Checklist(s) Complete and Accurate?	~~Yes~~ No N/A	
3) Case Narrative Complete and Accurate (see ARS-059)?	~~Yes~~ No N/A	
4) Form 1s Present for all Samples and Tests?	~~Yes~~ No N/A	
5) Client Specific Components are Present and Complete?	~~Yes~~ No N/A	

LEVEL 2 COMPONENTS	1st Reviewer	
6) Batch Quality Control Report is Present and Accurate?	~~Yes~~ No N/A	
7) DQO Report is Present and Accurate?	~~Yes~~ No N/A	
8) Client Specific Batch QC Components are Present and Complete?	~~Yes~~ No N/A	

LEVEL 3 COMPONENTS	1st Reviewer	
9) Efficiencies are Present?	~~Yes~~ No N/A	
10) Calibrations are Present?	~~Yes~~ No N/A	
11) Backgrounds are Present?	~~Yes~~ No N/A	
12) Spectrum Analysis is Present?	~~Yes~~ No N/A	
13) Spectral Plots are Present?	~~Yes~~ No N/A	
14) Plateaus are Present?	~~Yes~~ No N/A	
15) Control Charts are Present?	~~Yes~~ No N/A	
16) Other:	~~Yes~~ No N/A	

LEVEL 4 COMPONENTS	1st Reviewer	
17) Preparation Raw Data Present and Complete?	~~Yes~~ No N/A	
18) Instrument Raw Data Present and Complete?	~~Yes~~ No N/A	
19) Calibration Certificates Present?	~~Yes~~ No N/A	
20) Copies of Log Book Pages Present?	~~Yes~~ No N/A	
21) Sample Receiving Documentation Present?	~~Yes~~ No N/A	
22) LIMS Reports Present?	~~Yes~~ No N/A	
23) Applicable Correspondence Present?	~~Yes~~ No N/A	
24) Other:	~~Yes~~ No N/A	

Report Generator Signature: [signature] Date: 3-22-10

Management Review Signature: [signature] Date: 3-22-10

LSC
Technical Review Checklist

ARS SDG 10-00283

Sample Matrix: Silica Gel **Aliquot** (Circle One) : Dry As Received Filtered Other: _____

Required QC Samples (Mark all that apply): Blank LCS LCSD Sample Dup MS MSD

ARS A. Batch ID(s): **Batch A:** B10-01437 **Batch B:** N/A **Batch C:** N/A

Test Method(s): LSC-A-001 N/A N/A

A. RADIOCHEMICAL PREPARATION REVIEW

	Chemist Review	Verifier Review
1) 100% of Manual Transcriptions Verified?	Yes No N/A	Yes No N/A
2) 100% of Manual Calculations Verified?	Yes No N/A	Yes No N/A
3) Blank Composition/Configuration Matches Calibration?	Yes No N/A	Yes No N/A
4) Deviations from procedure are documented and verified?	Yes No N/A	Yes No N/A
5) Appropriate Cocktail Selected?	Yes No N/A	Yes No N/A

6) Sample Prep Anomaly? ☒ No ☐ Yes (See Tech Notes) NCR # (If initiated): _____

Chemist Signature: [signature] Date: 3-22-10 Verifier Review Signature: Jamal Brown Date: 3-22-10

B. ANALYSIS REVIEW

	Analyst Review	QA Officer Review
1) Calibrations Valid and Current?	Yes No N/A	Yes No N/A
2) Backgrounds Valid and Current?	Yes No N/A	Yes No N/A
3) Source Checks Completed and Acceptable?	Yes No N/A	Yes No N/A

QA Officer Signature: [signature] Date: 3-22-10 3-22-10

	Analyst Review	Technicial Review
4) Background Checks Complete and Acceptable?	Yes No N/A	Yes No N/A
5) 100% of Manually Entered Parameters Verified Accurate?	Yes No N/A	Yes No N/A
6) Appropriate QC samples initiated at required frequency?	Yes No N/A	Yes No N/A
6) Test/Sample Specific Parameters (See ARS-059 for details)		
a) Analysis Parameters Checked and Correct and Peak Shapes are Acceptable?	Yes No N/A	Yes No N/A
b) Spectra show no Evidence of Interferences?	Yes No N/A	Yes No N/A
c) Sample Quench for All Samples within Range of Quench Curve?	Yes No N/A	Yes No N/A

7) Analysis Anomaly? ☒ No ☐ Yes (See Comments) NCR # (If initiated): _____

Analyst Signature: [signature] Date: 3-22-10 Technicial Reviewer Signature: N/A Date: _____

ARS INTERNATIONAL

Batch A: B10-01437

LSC
Technical Review Checklist

C. BATCH QC VALIDATION

	Proj. Mgr. Review			QA Officer Review		
1) Activity + 3xCSU a Negative Number?	Yes	No	N/A	Yes	No	N/A
2) RDL Criteria are Met?	Yes	No	N/A	Yes	No	N/A
3) Method Blank Criterion Met?	Yes	No	N/A	Yes	No	N/A
4) LCS/LCD Criteria Met?	Yes	No	N/A	Yes	No	N/A
5) Duplicate (Sample Duplicate, LCSD, MSD) Criteria Met?	Yes	No	N/A	Yes	No	N/A
6) MS/MSD Criteria Met?	Yes	No	N/A	Yes	No	N/A

7) Batch QC Anomaly? ☑ No ☐ Yes (See Tech Notes) NCR # (If initiated): _____

Project Manager Signature _____ Date 3-22-10

QA Officer Signature _____ Date 3-22-10

GENERAL COMMENTS

DQO Report for SDG
ARS1-10-00283

64 of 68

AnalysisCode	Group	Isotope	Activity Units	Aliquot Units	ProcedureNo	RDL	LCS_LL	LCS_UL	MS_LL	MS_UL	RadY_LL	RadY_UL	GravY_LL	GravY_UL	RER	RPD	DilutionReq	RoughPrepReq	BlankCorrectionMDA	BlankCorrectionAll	CountTimeReq	AliquotRequired
LSC-A-001	STD	H-3	pCi	L	ARS-054	2.50E+02	75	125	60	140	30	110	40	110	1.00	25	FALSE	FALSE	FALSE	FALSE		

65

SDG Report - Samples and Containers

SDG Specific Data

SDG	ARS1-10-00283	TAT Days	30	Project Type	Environmental
Sample Count	Rpt Level 4	Date Received	2/18/2010	COC Number	10-1899
Client	Los Alamos National Laboratory	Client Deadline	3/19/2010	PO Number	MR54045HHG00
Client Code	114	Internal Deadline	3/18/2010	Job Number	126310041
Profile Number	PN-00094	Lab Deadline	3/16/2010	Job Location	
Comments					

Samples and Containers (→) Checked In Thus Far

FR	ClientID	Matrix	SampleStartDate	SampleEndDate	Disp	Hold	Arch	Storage	X	Units	Y	Units	Z	Units	Comments
001	MD54-10-10657	SI	02/17/10 12:00 PM	02/17/10 12:00 PM	H	90	5	O6							
→	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	47590	1		1.00			70	22		N	N/A				
002	MD54-10-10658	SI	02/17/10 12:00 PM	02/17/10 12:00 PM	H	90	5	O6							
→	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	47591	1		1.00			70	22		N	N/A				
003	MD54-10-10659	SI	02/17/10 12:00 PM	02/17/10 12:00 PM	H	90	5	O6							
→	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	47592	1		1.00			70	22		N	N/A				

SDG Report - Analysis Assignments

Temp SDG	ARS1-10-00283	Sample Count	
Client	Los Alamos National Laboratory	Analysis Count	1-3

Samples Count Totals per Analysis

Analysis Code	Analysis Description	Samples Count
LSC-A-001	Tritium in (Water [Aqueous, AQ])	3

Analyses Assigned Per Fraction

Fraction	Analysis Code	X = Assigned
001	LSC-A-001	X
002	LSC-A-001	X
003	LSC-A-001	X

ARS FILE TRACKING SHEET

SDG: 10-00283

Task	Date / Time	Initials
Date & Time Samples Received	2-18-10 / 10:00	[illegible]
ICOC Initiated / Storage Location: O6	2-18-10 / 14:17	[illegible]
Technical Checks Performed	All batch	
Report Written	3-22-10 / 1441	[illegible]
Quality Assurance Checks Performed on Report	3-22-10 / 1555	JB
Management Check Performed on Report	3-22-10 / 1611	[illegible]
Preliminary Report Sent		
Report E-mailed		
Report Faxed		
Report Reviewed		
Report Mailed		
Invoice Completed Invoice #:_____		
Report Imaged		

SPECIAL REQUIREMENTS

Requirement	Yes	No
3 Hour Rush		✓
24 Hour Rush		✓
48 Hour Rush		✓
Special Invoicing *see notes* Mgmt. Approval:_____		✓

NOTES:

ARS-062
07/03/2009

COMPANY NAME: LANL **SDG:** 10-00283

SHIPPING CONTAINER

Good Condition	☑ Yes	☐ No
Radioactive	☐ Yes	☑ No
UN2910	☐ Yes	☑ No
Sec. Seals	☑ Yes	☐ No
Seals Intact	☑ Yes ☐ No	☐ N/A
Air Bill	☐ Yes	☑ No

COC PRESENT WITH SAMPLES

COC	☑ Yes	☐ No

SAMPLE CONTAINER(S)

Good Condition	☑ Yes	☐ No
Sec. Seals	☐ Yes	☑ No
Seal Intact	☐ Yes ☐ No	☑ N/A
Marked Radioactive	☐ Yes	☑ No

Samples Rcv 3

Matrix [AF , AQ , BI , FE , LT , SI , SO , UR , VG]

External and Internal Surveys

Exposure Rate Meter: M3242961 Serial No.: 44-28826266 Calibration Due Date: 4-20-10

Count Rate Meter: M2154369 Serial No.: 44-28826654 Calibration Due Date: 4-6-10

Background Exposure Rate (µR/hr) 22 Max. Exposure Rate on Shipping Containers Externals (Plus Bkgd) 22 µR/hr

Background Count Rate (cpm) 70 Max. Removable Count Rate on Shipping Containers Externals (Plus Bkgd) 70 cpm

Max. Removable Count Rate on Shipping Containers Internals (Plus Bkgd) 70 cpm

Sample Label/Comments/Notes	pH Orig	pH Final (pH ≤ 2 is Acceptable)	Mark if Preserve	Acid Lot #	Weight(s) / Volume(mL)	µR/hr (Acceptance Limits <500 µR/hr)	cpm (Acceptance Limits <100 cpm/cm²)
MD54-10-10657		N/A				22	70
10658				N/A		22	70
10659						22	70

Surveyors' Name: William Stickler Date/Time Surveyed: 2-18-10 13:04

SAMPLE CHECK-IN COMMENT SHEET

SDG: 10-00283

ARS-062
07/03/2009

Wednesday, February 17, 2010

REQUEST NUMBER: 10-1898

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1898

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/17/2010

TURNAROUND/REPORT DUE: 3/10/2010

TURNAROUND REQ'D: 21 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	WST15-10-8941	D	2/16/2010	
	HASL-300:ISOPU	1	WST15-10-8941	D	2/16/2010	
	HASL-300:ISOU	1	WST15-10-8941	D	2/16/2010	
	SW-846:6010B	1	WST15-10-8941	D	2/16/2010	
	SW-846:8082	1	WST15-10-8941	D	2/16/2010	
	SW-846:8260B	1	WST15-10-8941	D	2/16/2010	
		1	WST15-10-8945	S	2/16/2010	
	SW-846:8270C	1	WST15-10-8941	D	2/16/2010	
	SW-846:8321A_MOD	1	WST15-10-8941	D	2/16/2010	

Final Page of REQUEST NUMBER 10-1898

Wednesday, February 17, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1898

REQUEST NUMBER: 10-1898

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/10/2010

TURNAROUND REQ'D: 21

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
WST15-10-8945	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
WST15-10-8941	1	SEPTUM AMBER GLASS	8260B	Ice	D
WST15-10-8941	1	AMBER GLASS	8270C+8082	Ice	D
WST15-10-8941	1	POLY	AM-241+ISOPU+ISOU+SR90	None	D
WST15-10-8941	1	POLY	H3	Ice	D
WST15-10-8941	1	AMBER GLASS	NMED Explosives list	Ice	D
WST15-10-8941	1	POLY	TAL metals + TCLP metals	Ice	D

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		2/17/10	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2532 **EVENT NAME:** 1st Qtr. FY10 - Threemile Cyn. - TA-12, 14, 15 and 36 Waste Samples

SAMPLE ID: WST15-10-8945 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/16/2010	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		11:10	SUB-MEDIA:	OTHER	
PRS ID:	TA-15	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	WST-600902		FIELD QC TYPE:	FTB	
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0		SCREEN/PORT DESC:	NA	
FIELD MATRIX:	S		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: ~~NA~~ SC JR 2/16/10 **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
JR 2/1	21day validated data	8260B Trip Blank	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of WST15-10-8941

SAMPLE COMMENTS: none

LOCATION DESC: ector septic tank

FIELD SCREENING/MEASUREMENT RESULTS:

NA

COLLECTED BY (PRINT) Jon Roberson

REVIEWED BY (PRINT) JR 2/16/10 ~~Jon Roberson~~ Nickolas Gallegos

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Rolenda Saunders	2/17/10	(Printed Name)	2/17/10
(Signature) Rolenda Saunders	7:40	(Signature)	805
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2532 **EVENT NAME:** 1st Qtr. FY10 - Threemile Cyn. - TA-12, 14, 15 and 36 Waste Samples

SAMPLE ID: WST15-10-8941 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/16/2010	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		11:04	SUB-MEDIA:	OTHER	OK
PRS ID:	TA-15	OK	SAMPLE TECH CODE:	DC	OK
LOCATION ID:	WST-600902	OK	FIELD QC TYPE:	NA	OK
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	OK
TOP DEPTH:	0	OK	SAMPLE USAGE:	WST	OK
BOTTOM DEPTH:	0	OK	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	D	OK	EXCAVATED: YES / NO (NA)		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	21dAY validated data	8260B	125 ML SEPTUM AMBER GLASS	Ice	Y	
1		8270C+8082	250 ML AMBER GLASS	Ice	Y	
1		AM-241+ISOPU+ISOU+SR90	1 LITER POLY	None	Y	
2		ASBESTOS	125 ML GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		NMED Explosives list	250 ML AMBER GLASS	Ice	Y	
1		TAL metals + TCLP metals	1 LITER POLY	Ice	Y	

SAMPLE DESC: Asphalt from potholing @ FTB collected: WST15-10-8945

SAMPLE COMMENTS: none

LOCATION DESC: ector septic tank

FIELD SCREENING/MEASUREMENT RESULTS:

$\alpha \leq 22$ dpm

$\beta\gamma \leq 1831$ dpm

PID = reading / ambient = 2.8 / 0.0 ppm

COLLECTED BY (PRINT) Larry A Lopez **REVIEWED BY (PRINT)** Jon Robinson

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Rolenda Saunders	2/17/10	(Printed Name)	2/17/10
(Signature) Rolenda Saunders	740	(Signature)	808
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1898 VALIDATION DATE: 03/30/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. In the FTB, sample WST15-10-8945, associated with the field sample, acetone was detected. The associated sample result was an ND and, thus, was not qualified.
2. The CCV %D for 2-hexanone was >20%. The associated sample results were NDs and, thus, were qualified UJ,V7c.
3. The MS/MSD RPDs for 18 compounds were outside laboratory acceptance limits. The parent QC sample was from another LANL RN. In addition, trichlorotrifluoroethane was not represented in the spiking solution. Since the analysis of an MS/MSD pair was not a client requirement, no sample results were qualified.

Reviewed by: ETM Level: 1 Date: 3/31/10

VALIDATOR'S SIGNATURE: DATE: 03/30/10

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2 Volatile Organic Compound (VOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

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

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

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

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2 Volatile Organic Compound (VOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

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

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

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

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**	**Date Collected:**	**02/16/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**247327001**	**Date Received:**	**02/18/2010 08:45**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST15-10-8945**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**957850**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 04:52**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/26/2010 15:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**022610V6\6Z541.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00	
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00	
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00	
67-64-1	Acetone	J	2.11	ug/kg	1.66	5.00	
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00	
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00	
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00	
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00	
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00	
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00	
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00	

SEB
3/30/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**	**Date Collected:**	**02/16/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**247327001**	**Date Received:**	**02/18/2010 08:45**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST15-10-8945**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**957850**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 04:52**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/26/2010 15:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**022610V6\6Z541.D**	**Column:**	**DB-624**		

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

Tentatively Identified Compound Summary

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

SEB
3/30/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**	**Date Collected:**	**02/16/2010 12:00**	**Matrix:**	**D**
Lab Sample ID:	**247327002**	**Date Received:**	**02/18/2010 08:45**	**%Moisture:**	**7.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST15-10-8941**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**957850**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 05:19**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/26/2010 15:32**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**022610V6\6Z542.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.369	1.09	
74-87-3	Chloromethane	U	1.09	ug/kg	0.326	1.09	
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.326	1.09	
74-83-9	Bromomethane	U	1.09	ug/kg	0.326	1.09	
75-00-3	Chloroethane	U	1.09	ug/kg	0.326	1.09	
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.326	1.09	
67-64-1	Acetone	U	5.43	ug/kg	1.80	5.43	
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.326	1.09	
74-88-4	Iodomethane	U	5.43	ug/kg	1.74	5.43	
75-09-2	Methylene chloride	J	2.96	ug/kg	2.17	5.43	
75-15-0	Carbon disulfide	U	5.43	ug/kg	1.36	5.43	
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09	
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.326	1.09	
78-93-3	2-Butanone	U	5.43	ug/kg	1.63	5.43	
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09	
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09	
67-66-3	Chloroform	U	1.09	ug/kg	0.326	1.09	
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.358	1.09	
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.326	1.09	
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.326	1.09	
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.326	1.09	
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.326	1.09	
71-43-2	Benzene	U	1.09	ug/kg	0.326	1.09	
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.358	1.09	
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09	
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.326	1.09	
74-95-3	Dibromomethane	U	1.09	ug/kg	0.326	1.09	
108-10-1	4-Methyl-2-pentanone	U	5.43	ug/kg	1.36	5.43	
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09	
108-88-3	Toluene	U	1.09	ug/kg	0.326	1.09	
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09	
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.326	1.09	
591-78-6	2-Hexanone	U	5.43	ug/kg	1.63	5.43	UJ,V7c
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.326	1.09	
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.326	1.09	
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.326	1.09	
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.326	1.09	
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.326	1.09	

SEB
3/30/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**	**Date Collected:**	**02/16/2010 12:00**	**Matrix:**	**D**
Lab Sample ID:	**247327002**	**Date Received:**	**02/18/2010 08:45**	**%Moisture:**	**7.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST15-10-8941**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**957850**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 05:19**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/26/2010 15:32**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**022610V6\6Z542.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.326	1.09
179601-23-1	m,p-Xylenes	U	2.17	ug/kg	0.326	2.17
95-47-6	o-Xylene	U	1.09	ug/kg	0.326	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.326	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.326	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.326	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.326	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.326	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.326	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.326	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.326	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.326	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.326	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.326	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.43	ug/kg	1.74	5.43
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09

Tentatively Identified Compound Summary

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

SEB
3/30/10

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1898 VALIDATION DATE: 03/30/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. The ICV and/or CCV %Ds were >20% for pyridine; benzyl alcohol; 2,4-dinitrophenol; 2-methyl-4,6-dinitrophenol; 4-nitroaniline; indeno(1,2,3-cd)pyrene; dibenzo(a,h)anthracene; and benzo(ghi)perylene. The associated sample results were NDs and, thus, were qualified UJ,SV7c.
2. All surrogate %Rs for the sample were <10%. The sample was diluted and, thus, no sample results were qualified.
3. The MS and MSD %Rs for benzyl alcohol, the MSD %R for 2,4,5-trichlorophenol, and the MS/MSD RPD for 4-nitrophenol were outside the laboratory acceptance criteria. In addition, the parent QC sample was from another LANL RN, and the raw data for the parent sample were not included in the data package. Since the analysis of an MS/MSD pair was not a client requirement, no sample results were qualified.

Reviewed by: ETM Level: 1 Date: 3/31/10

VALIDATOR'S SIGNATURE: DATE: 03/30/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

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

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

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

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

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

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1898	Date Collected:	02/16/2010 12:00	Matrix:	D
Lab Sample ID:	247327002	Date Received:	02/18/2010 08:45	%Moisture:	7.8
		Client:	LANL010	Project:	LANL01004
Client ID:	WST15-10-8941	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	957017	Inst:	MSD7.I	Dilution:	500
Run Date:	03/03/2010 17:30	Analyst:	JMB3	Inj. Vol:	.5 uL
Prep Date:	02/24/2010 19:49	Aliquot:	30.02 g	Final Volume:	1 mL
Data File:	s7c0316.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	181000	ug/kg	36100	181000	
108-95-2	Phenol	U	181000	ug/kg	36100	181000	
95-57-8	2-Chlorophenol	U	181000	ug/kg	36100	181000	
106-46-7	1,4-Dichlorobenzene	U	181000	ug/kg	36100	181000	
621-64-7	N-Nitrosodipropylamine	U	181000	ug/kg	36100	181000	
59-50-7	4-Chloro-3-methylphenol	U	181000	ug/kg	36100	181000	
83-32-9	Acenaphthene	U	18100	ug/kg	5960	18100	
121-14-2	2,4-Dinitrotoluene	U	181000	ug/kg	18100	181000	
100-02-7	4-Nitrophenol	U	181000	ug/kg	59600	181000	
87-86-5	Pentachlorophenol	U	181000	ug/kg	45200	181000	
129-00-0	Pyrene	U	18100	ug/kg	5420	18100	
110-86-1	Pyridine	U	181000	ug/kg	36100	181000	UJ,SV7c
62-53-3	Aniline	U	181000	ug/kg	54200	181000	
111-44-4	bis(2-Chloroethyl) ether	U	181000	ug/kg	36100	181000	
541-73-1	1,3-Dichlorobenzene	U	181000	ug/kg	36100	181000	
100-51-6	Benzyl alcohol	U	181000	ug/kg	54200	181000	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	181000	ug/kg	36100	181000	
108-60-1	bis(2-Chloroisopropyl)ether	U	181000	ug/kg	36100	181000	
95-48-7	o-Cresol	U	181000	ug/kg	36100	181000	
65794-96-9	m,p-Cresols	U	181000	ug/kg	54200	181000	
67-72-1	Hexachloroethane	U	181000	ug/kg	36100	181000	
98-95-3	Nitrobenzene	U	181000	ug/kg	36100	181000	
78-59-1	Isophorone	U	181000	ug/kg	36100	181000	
88-75-5	2-Nitrophenol	U	181000	ug/kg	36100	181000	
105-67-9	2,4-Dimethylphenol	U	181000	ug/kg	63300	181000	
111-91-1	bis(2-Chloroethoxy)methane	U	181000	ug/kg	36100	181000	
120-83-2	2,4-Dichlorophenol	U	181000	ug/kg	36100	181000	
65-85-0	Benzoic acid	U	361000	ug/kg	90400	361000	
91-20-3	Naphthalene	U	18100	ug/kg	5420	18100	
106-47-8	4-Chloroaniline	U	181000	ug/kg	36100	181000	
87-68-3	Hexachlorobutadiene	U	181000	ug/kg	36100	181000	
91-57-6	2-Methylnaphthalene	U	18100	ug/kg	3610	18100	
77-47-4	Hexachlorocyclopentadiene	U	181000	ug/kg	36100	181000	
88-06-2	2,4,6-Trichlorophenol	U	181000	ug/kg	36100	181000	
95-95-4	2,4,5-Trichlorophenol	U	181000	ug/kg	36100	181000	
91-58-7	2-Chloronaphthalene	U	18100	ug/kg	5960	18100	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	181000	ug/kg	36100	181000	
99-09-2	3-Nitroaniline	U	181000	ug/kg	36100	181000	

SEB
3/30/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**	**Date Collected:**	**02/16/2010 12:00**	**Matrix:**	**D**
Lab Sample ID:	**247327002**	**Date Received:**	**02/18/2010 08:45**	**%Moisture:**	**7.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST15-10-8941**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**957017**	**Inst:**	**MSD7.I**	**Dilution:**	**500**
Run Date:	**03/03/2010 17:30**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/24/2010 19:49**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s7c0316.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	181000	ug/kg	36100	181000	
606-20-2	2,6-Dinitrotoluene	U	181000	ug/kg	18100	181000	
208-96-8	Acenaphthylene	U	18100	ug/kg	5420	18100	
51-28-5	2,4-Dinitrophenol	U	361000	ug/kg	68700	361000	UJ,SV7c
132-64-9	Dibenzofuran	U	181000	ug/kg	36100	181000	
84-66-2	Diethylphthalate	U	181000	ug/kg	36100	181000	
86-73-7	Fluorene	U	18100	ug/kg	5420	18100	
7005-72-3	4-Chlorophenylphenylether	U	181000	ug/kg	36100	181000	
534-52-1	2-Methyl-4,6-dinitrophenol	U	181000	ug/kg	36100	181000	UJ,SV7c
100-01-6	4-Nitroaniline	U	181000	ug/kg	54200	181000	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	181000	ug/kg	36100	181000	
122-66-7	Azobenzene	U	181000	ug/kg	36100	181000	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	181000	ug/kg	36100	181000	
118-74-1	Hexachlorobenzene	U	181000	ug/kg	36100	181000	
85-01-8	Phenanthrene	U	18100	ug/kg	5420	18100	
120-12-7	Anthracene	U	18100	ug/kg	3610	18100	
84-74-2	Di-n-butylphthalate	U	181000	ug/kg	36100	181000	
206-44-0	Fluoranthene	U	18100	ug/kg	5420	18100	
85-68-7	Butylbenzylphthalate	U	181000	ug/kg	36100	181000	
56-55-3	Benzo(a)anthracene	U	18100	ug/kg	5420	18100	
91-94-1	3,3'-Dichlorobenzidine	U	181000	ug/kg	54200	181000	
218-01-9	Chrysene	U	18100	ug/kg	5420	18100	
117-81-7	bis(2-Ethylhexyl)phthalate	U	181000	ug/kg	36100	181000	
117-84-0	Di-n-octylphthalate	U	181000	ug/kg	36100	181000	
205-99-2	Benzo(b)fluoranthene	U	18100	ug/kg	5420	18100	
207-08-9	Benzo(k)fluoranthene	U	18100	ug/kg	5420	18100	
50-32-8	Benzo(a)pyrene	U	18100	ug/kg	5420	18100	
193-39-5	Indeno(1,2,3-cd)pyrene	U	18100	ug/kg	5420	18100	UJ,SV7c
53-70-3	Dibenzo(a,h)anthracene	U	18100	ug/kg	5420	18100	
191-24-2	Benzo(ghi)perylene	U	18100	ug/kg	5420	18100	
120-82-1	1,2,4-Trichlorobenzene	U	181000	ug/kg	36100	181000	

Tentatively Identified Compound Summary

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

SEB
3/30/10

DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1898 VALIDATION DATE: 03/31/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. It should be noted that the raw ICAL data from the instrument used for the secondary HE analysis were not reported in the data package. Thus, the surrogate RT criteria could not be evaluated. No sample data were qualified as a result.
2. The CCV %Ds for HMX and RDX were >20% with positive bias. The HMX result was a detect and, thus, was qualified J,HE7c. The RDX result was a ND and, thus, was not qualified.
3. The LCS %R for tetryl was < the laboratory LAL but ≥10%. The tetryl result was an ND and, thus, was qualified UJ,HE12a.
4. The MS %R for TATB was > the laboratory UAL. The TATB result was an ND and, thus, was not qualified. The MSD %R for tetryl was < the laboratory LAL but ≥10%. The tetryl result was an ND and, thus, was qualified UJ,HE12e. The MS/MSD RPDs for tetryl and TATB were > the laboratory UAL. The associated sample results were NDs and, thus, were qualified UJ,HE12g.

Reviewed by: ETM Level: 1 Date: 3/31/10

VALIDATOR'S SIGNATURE: DATE: 03/31/10

DATA VALIDATION COVER SHEET

5122-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY
Form 5122-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
☐	☐	☒	3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
☐	☐	☒	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
☐	☐	☒	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
☐	☒	☐	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
☐	☒	☐	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
☐	☒	☐	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
☐	☐	☒	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	11. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE3d	R, HE3d
☐	☒	☐	12. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, HE4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, HE4a
☐	☐	☒	14. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, HE4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE4e	R, HE4e
☐	☒	☐	16. The absence of sample carry-over must be determined and verified.	N/A	R, N, HE4f
☐	☒	☐	17. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, HE7	J, HE7
☐	☒	☐	18. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less < 0.99.	UJ, R, HE7a	J, HE7a
☐	☒	☐	19. The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV.	UJ, R, HE7b	J, HE7b
☒	☐	☐	20. The ICV and/or CCV were recovered outside the method limits.	UJ, R, HE7c	J, HE7c
☐	☒	☐	21. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, HE7d	J, HE7d
☐	☒	☐	22. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, HE7f	R, HE7f

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
☐	☒	☐	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
☐	☒	☐	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
☐	☒	☐	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
☒	☐	☐	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
☐	☒	☐	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
☐	☒	☐	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
☐	☒	☐	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
☒	☐	☐	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
☒	☐	☐	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
☒	☐	☐	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
☐	☐	☒	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, HE15	R, HE15
☐	☐	☒	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
☐	☐	☒	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: WST15-10-8941

Lab Code: GEL

GEL Job No (SDG) 10-1898

Matrix: SOIL

GEL Sample ID: 247327002

Sample Amount 2

Moisture: 7.8

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0314081a

Date Analyzed: 16-MAR-10 06:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX J,HE7c	228	J
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

SEB
3/31/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: WST15-10-8941

Lab Code: GEL

GEL Job No (SDG) 10-1898

Matrix: SOIL

GEL Sample ID: 247327002

Sample Amount 2

Moisture: 7.8

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03050100.wiff

Date Analyzed: 06-MAR-10 19:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB UJ,HE12g	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

SEB
3/31/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1898 VALIDATION DATE: 03/31/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. Surrogate %Rs for the sample were < the laboratory LAL but ≥10% on both columns. The sample was diluted and, thus, no sample results were qualified.
2. The parent QC sample was from another LANL RN, and the raw data for the parent QC sample were not included in the data package. Since the analysis of an MS/MSD pair is not a client requirement, no sample results were qualified.

Reviewed by: ETM Level: 1 Date: 3/31/10

VALIDATOR'S SIGNATURE: DATE: 03/31/10

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

5116-2

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

Records Use only

Los Alamos NATIONAL LABORATORY

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

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

5116-2

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

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

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

5116-2

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

Records Use only

Los Alamos NATIONAL LABORATORY

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

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

5116-2

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

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1898	**Date Collected:**	02/16/2010 12:00	**Matrix:**	D
Lab Sample ID:	247327002	**Date Received:**	02/18/2010 08:45	**%Moisture:**	7.8
		Client:	LANL010	**Project:**	LANL01004
Client ID:	WST15-10-8941	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	956143	**Inst:**	ECD1A.I	**Dilution:**	10
Run Date:	02/23/2010 15:57	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/22/2010 21:16	**Aliquot:**	30.12 g	**Final Volume:**	1 mL
Data File:	045f4501.d	**Column:**	1 CLP1	**Level:**	LOW
	045b4501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	36.0	ug/kg	12.0	36.0	1
11104-28-2	Aroclor-1221	U	36.0	ug/kg	12.0	36.0	1
11141-16-5	Aroclor-1232	U	36.0	ug/kg	12.0	36.0	1
53469-21-9	Aroclor-1242	U	36.0	ug/kg	12.0	36.0	1
12672-29-6	Aroclor-1248	U	36.0	ug/kg	12.0	36.0	1
11097-69-1	Aroclor-1254	U	36.0	ug/kg	12.0	36.0	1
11096-82-5	Aroclor-1260	U	36.0	ug/kg	12.0	36.0	1

SEB
3/31/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1898 VALIDATION DATE: 03/31/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. In the non-TCLP MB, Mg and V were detected. The associated sample results were detects >50X the MB concentrations and, thus, were not qualified, based on professional judgment.
2. In the non-TLCP ICB and/or CCBs, Sb and Mg were detected. The associated sample results were either NDs or detects >5X the greatest blank concentration and, thus, were not qualified.
3. The non-TCLP MS %Rs for Ca and K were < the laboratory LAL but ≥10%. The associated sample results were detects and, thus, were qualified J-,I6a. The non-TCLP MS %R for Mn was also < the laboratory LAL but ≥10% and the MS %R for Fe was <10%. The non-TCLP MS %R for Al was > the laboratory UAL. However, the parent sample concentrations were >4X the spike concentrations and, thus, the Al, Fe, and Mn sample results were not qualified, based on professional judgment.

   The TCLP MS %R for Hg was < the laboratory LAL but ≥10%. The associated sample result was an ND and, thus, was qualified UJ,I6a.
4. The non-TCLP duplicate RPD for Cu was >35%, and both the parent and the duplicate sample results were ≥5X the PQL. The associated sample result was a detect and, thus, was qualified J,I10a.
5. It should be noted that the non-TCLP parent QC sample for Hg analysis was from another LANL RN. No sample results were qualified.

Reviewed by: ETM Level: 1 Date: 3/31/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

VALIDATOR'S SIGNATURE: _____ DATE: 03/31/10

Form 5118-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2 Metals Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☒	☐	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☒	☐	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1898 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 247327002 **BASIS:** Dry Weight **DATE COLLECTED** 16-FEB-10

CLIENT ID: WST15-10-8941 **LEVEL:** Low **DATE RECEIVED** 18-FEB-10

MATRIX: SOIL **%SOLIDS:** 92.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3860000	ug/kg	*	7030	20700	20700	1	P	HSC	03/06/10 02:56	030510A-1	955119
7440-36-0	Antimony	1030	ug/kg	U	341	1030	1030	1	P	HSC	03/06/10 02:56	030510A-1	955119
7440-38-2	Arsenic	927	ug/kg	J	214	1070	1070	2	MS	BAJ	03/08/10 00:18	100307-2	955121
7440-39-3	Barium	103000	ug/kg	*N	103	517	517	1	P	HSC	03/06/10 02:56	030510A-1	955119
7440-41-7	Beryllium	329	ug/kg		21.4	107	107	2	MS	BAJ	03/08/10 00:18	100307-2	955121
7440-43-9	Cadmium	158	ug/kg	J	103	517	517	1	P	HSC	03/06/10 02:56	030510A-1	955119
7440-70-2	Calcium J-,I6a	1890000	ug/kg	*N	8270	25800	25800	1	P	HSC	03/06/10 02:56	030510A-1	955119
7440-47-3	Chromium	4500	ug/kg	*	155	517	517	1	P	HSC	03/06/10 02:56	030510A-1	955119
7440-48-4	Cobalt	2640	ug/kg		155	517	517	1	P	HSC	03/06/10 02:56	030510A-1	955119
7440-50-8	Copper J,I10a	5380	ug/kg	*	310	1030	1030	1	P	HSC	03/06/10 02:56	030510A-1	955119
7439-89-6	Iron	7010000	ug/kg		8270	25800	25800	1	P	HSC	03/06/10 02:56	030510A-1	955119
7439-92-1	Lead	6560	ug/kg	*	258	1030	1030	1	P	HSC	03/06/10 02:56	030510A-1	955119
7439-95-4	Magnesium	1170000	ug/kg		8780	31000	31000	1	P	HSC	03/06/10 02:56	030510A-1	955119
7439-96-5	Manganese	248000	ug/kg		207	1030	1030	1	P	HSC	03/06/10 02:56	030510A-1	955119
7439-97-6	Mercury	12.5	ug/kg	U	4.25	12.5	12.5	1	AV	JXL1	03/01/10 10:44	030110S1-3	958334
7440-02-0	Nickel	5730	ug/kg	N	107	429	429	2	MS	BAJ	03/08/10 00:18	100307-2	955121
7440-09-7	Potassium J-,I6a	788000	ug/kg	N	6610	25800	25800	1	P	HSC	03/06/10 02:56	030510A-1	955119
7782-49-2	Selenium	1070	ug/kg	U	536	1070	1070	2	MS	BAJ	03/08/10 00:18	100307-2	955121
7440-22-4	Silver	509	ug/kg	J	103	517	517	1	P	HSC	03/06/10 02:56	030510A-1	955119
7440-23-5	Sodium	125000	ug/kg		7230	25800	25800	1	P	HSC	03/06/10 02:56	030510A-1	955119
7440-28-0	Thallium	147	ug/kg	J	64.3	214	214	2	MS	BAJ	03/08/10 00:18	100307-2	955121
7440-62-2	Vanadium	14700	ug/kg	*	103	517	517	1	P	HSC	03/06/10 02:56	030510A-1	955119
7440-66-6	Zinc	18700	ug/kg		341	1030	1030	1	P	HSC	03/06/10 02:56	030510A-1	955119

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955119	955118	SW846 3050B	0.525	g	50	mL	02/22/10	AXG2
955121	955120	SW846 3050B	0.506	g	50	mL	02/22/10	AXG2
958334	958333	SW846 7471A Prep	0.521	g	30	mL	02/28/10	TXB3

SEB
3/31/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1898-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 247329001 **BASIS:** As Received **DATE COLLECTED** 16-FEB-10

CLIENT ID: WST15-10-8941 **LEVEL:** Low **DATE RECEIVED** 18-FEB-10

MATRIX: TCLP **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-38-2	Arsenic	0.050	mg/L	U	0.016	0.05	0.05	1	MS	BAJ	03/06/10 14:17	100306-1	960969
7440-39-3	Barium	0.443	mg/L		0.006	0.02	0.02	1	MS	BAJ	03/06/10 14:17	100306-1	960969
7440-43-9	Cadmium	0.010	mg/L	U	0.0011	0.01	0.01	1	MS	BAJ	03/06/10 14:17	100306-1	960969
7440-47-3	Chromium	0.10	mg/L	U	0.02	0.1	0.1	1	MS	BAJ	03/06/10 14:17	100306-1	960969
7439-92-1	Lead	0.020	mg/L	U	0.005	0.02	0.02	1	MS	BAJ	03/06/10 14:17	100306-1	960969
7439-97-6	Mercury UJ,I6a	0.002	mg/L	UN	0.00066	0.002	0.002	1	AV	JXL1	03/05/10 12:07	030510W5-2	961004
7782-49-2	Selenium	0.050	mg/L	U	0.01	0.05	0.05	1	MS	BAJ	03/06/10 14:17	100306-1	960969
7440-22-4	Silver	0.010	mg/L	U	0.002	0.01	0.01	1	MS	BAJ	03/06/10 14:17	100306-1	960969

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
960969	960967	SW846 3010A	5	mL	50	mL	03/04/10	BCD1
961004	961003	SW846 7470A Prep	2	mL	20	mL	03/04/10	TXB3

SEB
3/31/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1898 VALIDATION DATE: 03/31/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Susan Ball ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. An MS was not analyzed for tritium. However, an LCS was analyzed and met acceptance criteria, thus, no sample results were qualified.
2. It should be noted that the parent matrix QC samples for tritium and alpha spec analytes Am-241 and isotopic uranium were from another LANL RNs. No sample results were qualified.

Reviewed by: ETM Level: 1 Date: 3/31/10

VALIDATOR'S SIGNATURE: DATE: 03/31/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☐	☐	☒	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☒	☐	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID:	WST15-10-8941	Project:	LANL01004
Sample ID:	247327002	Client ID:	LANL010
Matrix:	D		
Collect Date:	16-FEB-10		
Receive Date:	18-FEB-10		
Collector:	Client		
Moisture:	7.84%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.000384	0.031	+/-0.00219	0.050	pCi/g		JXH2	03/06/10	1207	957096	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00156	0.0272	+/-0.00956	0.050	pCi/g		JXH2	03/09/10	0801	962738	3
Plutonium-239/240	U	0.00581	0.023	+/-0.00525	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.50	0.158	+/-0.155	0.100	pCi/g		JXH2	03/06/10	1214	957101	5
Uranium-235/236	U	0.101	0.103	+/-0.0318	0.100	pCi/g						
Uranium-238		2.43	0.109	+/-0.228	0.100	pCi/g						
Rad Gas Flow Proportional Counting												
SR90 "Dry Weight Corrected"												
Strontium-90	U	0.0407	0.163	+/-0.0459	0.500	pCi/g		MXB1	02/26/10	1042	955216	6
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	135	200	+/-62.1	250	pCi/L		KXK2	03/03/10	1746	956740	7

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	EPA 905.0 Modified
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	79.4	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	79.6	(50%-105%)

SEB
3/31/10

Wednesday, February 17, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1898

REQUEST NUMBER: 10-1898

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/10/2010

TURNAROUND REQ'D: 21

LAB REQUEST COMMENTS: 247327%. 247329%.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
WST15-10-8945	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
WST15-10-8941	1	SEPTUM AMBER GLASS	8260B	Ice	D
WST15-10-8941	1	AMBER GLASS	8270C+8082	Ice	D
WST15-10-8941	1	POLY	AM-241+ISOPU+ISOU+SR90	None	D
WST15-10-8941	1	POLY	H3	Ice	D
WST15-10-8941	1	AMBER GLASS	NMED Explosives list	Ice	D
WST15-10-8941	1	POLY	TAL metals + TCLP metals	Ice	D

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	2/17/10	1400	Mercedes Simmons	Mercedes Simmons	2/18/10	0845
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

Wednesday, February 17, 2010

REQUEST NUMBER: 10-1898

LOS ALAMOS
NATIONAL LABORATORY

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

These Samples are on:
LANL Request Number:10-1898
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/17/2010
TURNAROUND/REPORT DUE: 3/10/2010
TURNAROUND REQ'D: 21 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	WST15-10-8941	D	2/16/2010	
	HASL-300:ISOPU	1	WST15-10-8941	D	2/16/2010	
	HASL-300:ISOU	1	WST15-10-8941	D	2/16/2010	
	SW-846:6010B	1	WST15-10-8941	D	2/16/2010	
	SW-846:8082	1	WST15-10-8941	D	2/16/2010	
	SW-846:8260B	1	WST15-10-8941	D	2/16/2010	
		1	WST15-10-8945	S	2/16/2010	
	SW-846:8270C	1	WST15-10-8941	D	2/16/2010	
	SW-846:8321A_MOD	1	WST15-10-8941	D	2/16/2010	

Final Page of REQUEST NUMBER 10-1898

GEL Laboratories LLC

a member of The GEL Group INC

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

P 843.556.8171 F 843.766.1178

www.gel.com

February 22, 2010

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

Re: LANL ER Project
Work Orders: 247327 247329
SDG: 10-1898

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 18, 2010, and analyzed for Explosives by LCMSMS, GC Semivolatile PCB, GC/MS Semivolatile, GC/MS Volatile, Metals and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1898
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 247327 and 247329
SDG: 10-1898

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- Sample Data Summary 287
- Quality Control Summary 290
- Sample Data 400
- Standards Data 408
- Quality Control Data 574
- Miscellaneous Data 603

GC Semivolailte PCB Analysis **614**
- Sample Data Summary 621
- Quality Control Summary 623
- Sample Data 629
- Standards Data 635
- Quality Control Data 704
- Miscellaneous Data 719

Metals Analysis **743**
- Case Narrative 744

Sample Data Summary 750
Quality Control Summary..... 752
Standards 804
Raw Data..... 816
Miscellaneous 1044

Metals Analysis 1079
Case Narrative..... 1080
Sample Data Summary 1085
Quality Control Summary..... 1087
Standards 1108
Raw Data..... 1112
Miscellaneous 1193

Radiological Analysis..... 1219
Sample Data Summary 1230
Quality Control Data 1234
Raw Data..... 1238
Background and Efficiency Data 1301
Standards Data 1353
Runlogs 1382

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 247327 and 247329
SDG # : 10-1898

February 22, 2010

Laboratory Identification:

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

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 18, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The container for radiochemistry were received at 10C temperature. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
247327001	WST15-10-8945
247327002	WST15-10-8941
247329001	WST15-10-8941

Case Narrative

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

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Explosives by LCMSMS, GC Semivolatile PCB, GC/MS Semivolatile, GC/MS Volatile, Metals and Radiochemistry.

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

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 22 February 2010

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

Chain of Custody and Supporting Documentation

Wednesday, February 17, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1898

REQUEST NUMBER: 10-1898

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/10/2010

TURNAROUND REQ'D: 21

LAB REQUEST COMMENTS: 247327%. 247329%.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
WST15-10-8945	1	SEPTUM AMBER GLASS	8260B Trip Blank	Ice	S
WST15-10-8941	1	SEPTUM AMBER GLASS	8260B	Ice	D
WST15-10-8941	1	AMBER GLASS	8270C+8082	Ice	D
WST15-10-8941	1	POLY	AM-241+ISOPU+ISOU+SR90	None	D
WST15-10-8941	1	POLY	H3	Ice	D
WST15-10-8941	1	AMBER GLASS	NMED Explosives list	Ice	D
WST15-10-8941	1	POLY	TAL metals + TCLP metals	Ice	D

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	2/17/10	1400	Mercedes Simmons	Mercedes Simmons	2/18/10	0845
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

Wednesday, February 17, 2010

REQUEST NUMBER: 10-1898

LOS ALAMOS
NATIONAL LABORATORY

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

These Samples are on:
LANL Request Number:10-1898
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/17/2010
TURNAROUND/REPORT DUE: 3/10/2010
TURNAROUND REQ'D: 21 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	WST15-10-8941	D	2/16/2010	
	HASL-300:ISOPU	1	WST15-10-8941	D	2/16/2010	
	HASL-300:ISOU	1	WST15-10-8941	D	2/16/2010	
	SW-846:6010B	1	WST15-10-8941	D	2/16/2010	
	SW-846:8082	1	WST15-10-8941	D	2/16/2010	
	SW-846:8260B	1	WST15-10-8941	D	2/16/2010	
		1	WST15-10-8945	S	2/16/2010	
	SW-846:8270C	1	WST15-10-8941	D	2/16/2010	
	SW-846:8321A_MOD	1	WST15-10-8941	D	2/16/2010	

Final Page of REQUEST NUMBER 10-1898

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1898**
Received By: Mercedes Simmons	**Date Received: 2/18/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

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

Comments:
Fed Ex Tracking Numbers:
7209 7850 1047 1C
7209 7850 1014 2C
7209 7850 1036 2C
7209 7850 1025 2C
7209 7850 0990 10C
7209 7850 1003 10C

PM (or PMA) review: Initials MS Date 2/19/10

ORIGIN ID: SAFA (505) 665-9988
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 17FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

1°

FedEx Express

TRK# 0201 7209 7850 1047

THU - 18FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part# 156148-434 NRIT V3 06-09

TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

2°

FedEx Express

TRK# 0201 7209 7850 1014

THU - 18FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 06-09

LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 17FEB10
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

2°

FedEx Express

1 of 2
TRK# 0201 7209 7850 1025

THU - 18FEB A1
PRIORITY OVERNIGHT

MM MASTER MM

XX CHSA

29407
SC-US
CHS

NRIT V3 06-09

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

2°

FedEx Express

2 of 2
MPS# 0203 7209 7850 1036

THU - 18FEB A1
PRIORITY OVERNIGHT

Trk# 7209 7850 1025 0201

XX CHSA

29407
SC-US
CHS

V3 06-09

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DRU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 17FEB10
ACTWGT: 67.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

10°

FedEx Express

THU - 18FEB A1
PRIORITY OVERNIGHT

2 of 3
MPS# 0263 7209 7850 0990
MstrW 7209 7850 0989 0201

29407
SC-US
CHS

XX CHSA

Part # 156145-434 NRIT V3 09-09

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DRU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 17FEB10
ACTWGT: 42.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

10°

FedEx Express

THU - 18FEB A1
PRIORITY OVERNIGHT

3 of 3
MPS# 0263 7209 7850 1003
MstrW 7209 7850 0989 0201

29407
SC-US
CHS

XX CHSA

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

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

GC/MS Volatile Analysis

Case Narrative

ChemStation Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1898

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B
Prep Method:	SW846 5030
Analytical Batch Number:	957850
Prep Batch Number:	957849

Sample Analysis

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

Sample ID	Client ID
247327001	WST15-10-8945
247327002	WST15-10-8941
1202053926	Method Blank (MB)
1202053929	Laboratory Control Sample (LCS)
1202053930	Laboratory Control Sample (LCS)
1202053927	247325001(RE46-10-12661) Post Spike (PS)
1202053928	247325001(RE46-10-12661) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
Samples 247327 002 in this SDG were analyzed on an "dry weight" basis. Samples 247327 001 in this SDG were analyzed on a "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 14.

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

Calibration Information

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

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

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

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

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

Quality Control (QC) Information

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

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

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 247325001 (RE46-10-12661) was designated for spike analysis.

Matrix Spike (PS) Recovery Statement
The spike recoveries were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD between the matrix spike pair were not all within the acceptance limits. The results are reported. See DER 801807.

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

Technical Information

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

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

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

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

Miscellaneous Information

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

Data Exception (DER) Documentation
DER # 801807 was generated for this SDG.

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

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

Additional Comments
Additional comments were not required for this SDG.

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

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

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA6.I	Gas Chromatograph/Mass Spectrometer	HP6890N/HP5975	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

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

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

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

Client SDG: 10-1898 GEL Work Order: 247327

The Qualifiers in this report are defined as follows:

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

** Analyte is a surrogate compound

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

J Value is estimated

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

Review/Validation

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

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

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

Date: 10 MAR 2010 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**	**Date Collected:**	**02/16/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**247327001**	**Date Received:**	**02/18/2010 08:45**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST15-10-8945**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**957850**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 04:52**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/26/2010 15:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**022610V6\6Z541.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	2.11	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**	**Date Collected:**	**02/16/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**247327001**	**Date Received:**	**02/18/2010 08:45**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST15-10-8945**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**957850**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 04:52**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/26/2010 15:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**022610V6\6Z541.D**	**Column:**	**DB-624**		

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

Tentatively Identified Compound Summary

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

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**	**Date Collected:**	**02/16/2010 12:00**	**Matrix:**	**D**
Lab Sample ID:	**247327002**	**Date Received:**	**02/18/2010 08:45**	**%Moisture:**	**7.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST15-10-8941**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**957850**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 05:19**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/26/2010 15:32**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**022610V6\6Z542.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.369	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.326	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.326	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.326	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.326	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.326	1.09
67-64-1	Acetone	U	5.43	ug/kg	1.80	5.43
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
74-88-4	Iodomethane	U	5.43	ug/kg	1.74	5.43
75-09-2	Methylene chloride	J	2.96	ug/kg	2.17	5.43
75-15-0	Carbon disulfide	U	5.43	ug/kg	1.36	5.43
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.326	1.09
78-93-3	2-Butanone	U	5.43	ug/kg	1.63	5.43
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.326	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.358	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.326	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.326	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.326	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.326	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.326	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.358	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.326	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.326	1.09
108-10-1	4-Methyl-2-pentanone	U	5.43	ug/kg	1.36	5.43
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.326	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.326	1.09
591-78-6	2-Hexanone	U	5.43	ug/kg	1.63	5.43
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.326	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.326	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.326	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.326	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.326	1.09

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**	**Date Collected:**	**02/16/2010 12:00**	**Matrix:**	**D**
Lab Sample ID:	**247327002**	**Date Received:**	**02/18/2010 08:45**	**%Moisture:**	**7.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST15-10-8941**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**957850**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 05:19**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/26/2010 15:32**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**022610V6\6Z542.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.326	1.09
179601-23-1	m,p-Xylenes	U	2.17	ug/kg	0.326	2.17
95-47-6	o-Xylene	U	1.09	ug/kg	0.326	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.326	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.326	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.326	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.326	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.326	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.326	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.326	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.326	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.326	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.326	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.326	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.43	ug/kg	1.74	5.43
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09

Tentatively Identified Compound Summary

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

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-1898

Matrix Type: SOLID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202053929	LCS for batch 957849	102	96	99
1202053930	LCS for batch 957849	101	95	101
1202053926	MB for batch 957849	104	96	102
247327001	WST15-10-8945	103	95	103
247327002	WST15-10-8941	109	97	103

Surrogate	Acceptance Limits
DCED4 = 1,2-Dichloroethane-d4	(66%-134%)
TOL = Toluene-d8	(71%-128%)
BFB = Bromofluorobenzene	(65%-130%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1898
Client ID: RE46-10-12661PS
Lab Sample ID: 1202053927
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 17.4
Analysis Date: 03/02/2010 04:28
Prep Batch ID: 957849
Batch ID: 957850
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	34.1	68	39-148
74-87-3	PS	Chloromethane	50.0	0.00	U	39.3	79	42-131
75-01-4	PS	Vinyl chloride	50.0	0.00	U	42.1	84	50-127
74-83-9	PS	Bromomethane	50.0	0.00	U	43.5	87	26-135
75-00-3	PS	Chloroethane	50.0	0.00	U	43.3	87	54-128
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	45.6	91	55-138
67-64-1	PS	Acetone	250	0.00	U	215	86	20-144
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	42.8	86	55-128
74-88-4	PS	Iodomethane	250	0.00	U	204	81	47-132
75-09-2	PS	Methylene chloride	50.0	0.00	U	42.7	85	56-123
75-15-0	PS	Carbon disulfide	250	0.00	U	209	84	53-133
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	44.0	88	57-119
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	44.5	89	62-125
78-93-3	PS	2-Butanone	250	0.00	U	290	116	30-150
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	45.5	91	60-124
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	45.1	90	56-129
67-66-3	PS	Chloroform	50.0	0.00	U	44.8	90	62-120
74-97-5	PS	Bromochloromethane	50.0	0.00	U	44.1	88	51-135
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	46.6	93	58-129
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	45.3	91	59-126
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	46.7	93	55-132
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	45.3	91	54-121

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1898
Client ID: RE46-10-12661PS
Lab Sample ID: 1202053927
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 17.4
Analysis Date: 03/02/2010 04:28
Prep Batch ID: 957849
Batch ID: 957850

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	PS	Benzene	50.0	0.00	U	42.2	84	58-120
79-01-6	PS	Trichloroethylene	50.0	0.00	U	43.9	88	54-130
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	44.5	89	59-121
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	46.3	93	57-130
74-95-3	PS	Dibromomethane	50.0	0.00	U	45.1	90	57-124
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	285	114	40-137
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	41.2	82	50-131
108-88-3	PS	Toluene	50.0	1.95		45.3	87	54-119
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	45.2	90	47-133
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	47.1	94	60-130
591-78-6	PS	2-Hexanone	250	0.00	U	293	117	30-139
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	46.3	93	59-125
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	41.8	84	50-126
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	49.0	98	54-131
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	46.1	92	55-127
108-90-7	PS	Chlorobenzene	50.0	0.00	U	41.0	82	50-130
100-41-4	PS	Ethylbenzene	50.0	0.00	U	41.7	83	50-121
179601-23-1	PS	m,p-Xylenes	100	0.00	U	80.3	80	47-125
95-47-6	PS	o-Xylene	50.0	0.00	U	41.2	82	51-127
100-42-5	PS	Styrene	50.0	0.00	U	40.1	80	41-136
75-25-2	PS	Bromoform	50.0	0.00	U	61.9	124	48-143
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	56.2	112	52-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1898
Client ID: RE46-10-12661PS
Lab Sample ID: 1202053927
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: S
%Moisture: 17.4
Analysis Date: 03/02/2010 04:28
Prep Batch ID: 957849
Batch ID: 957850

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	61.9	124	56-139
108-86-1	PS	Bromobenzene	50.0	0.00	U	49.9	100	54-125
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	43.2	86	46-127
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	45.9	92	47-130
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	49.6	99	42-126
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	42.7	85	44-132
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	43.4	87	46-127
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	42.3	85	48-136
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	41.0	82	42-132
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	38.7	77	47-130
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	36.0	72	36-142
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	37.4	75	41-130
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	36.8	74	41-126
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	30.1	60	37-136
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	57.5	115	42-143
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	45.9	92	58-127
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	37.0	74	42-128

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1898
Client ID: RE46-10-12661PSD
Lab Sample ID: 1202053928
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 17.4
Analysis Date: 03/02/2010 04:55
Prep Batch ID: 957849
Batch ID: 957850
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	32.9	66	39-148	4	0-19
74-87-3	PSD	Chloromethane	50.0	0.00	U	37.2	74	42-131	5	0-23
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	39.4	79	50-127	6	0-23
74-83-9	PSD	Bromomethane	50.0	0.00	U	41.1	82	26-135	6	0-22
75-00-3	PSD	Chloroethane	50.0	0.00	U	40.9	82	54-128	6	0-25
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	42.6	85	55-138	7	0-21
67-64-1	PSD	Acetone	250	0.00	U	192	77	20-144	11	0-22
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	40.3	81	55-128	6	0-20
74-88-4	PSD	Iodomethane	250	0.00	U	193	77	47-132	6	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	40.1	80	56-123	6	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	196	78	53-133	7	0-22
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	41.0	82	57-119	7	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	42.7	85	62-125	4	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	266	106	30-150	9	0-21
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	42.2	84	60-124	7	0-20
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	42.5	85	56-129	6	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	41.3	83	62-120	8	0-25
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	42.6	85	51-135	3	0-20
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	43.0	86	58-129	8	0-20
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	41.6	83	59-126	9	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	43.0	86	55-132	8	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	42.1	84	54-121	7	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1898
Client ID: RE46-10-12661PSD
Lab Sample ID: 1202053928
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 17.4
Analysis Date: 03/02/2010 04:55
Prep Batch ID: 957849
Batch ID: 957850
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-43-2	PSD	Benzene	50.0	0.00	U	39.4	79	58-120	7	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	39.6	79	54-130	10	0-23
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	41.5	83	59-121	7	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	42.9	86	57-130	7	0-20
74-95-3	PSD	Dibromomethane	50.0	0.00	U	41.3	83	57-124	9	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	249	100	40-137	14	0-25
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	38.3	77	50-131	7	0-20
108-88-3	PSD	Toluene	50.0	1.95		38.3	73	54-119	17	0-23
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	38.8	78	47-133	15	0-24
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	40.9	82	60-130	14	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	258	103	30-139	13	0-21
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	40.9	82	59-125	12	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	34.4	69	50-126	19	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	42.3	85	54-131	15	0-23
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	40.2	80	55-127	14	0-23
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	34.5	69	50-130	17	0-24
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	34.7	69	50-121	18	0-24
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	65.7	66	47-125	20	0-25
95-47-6	PSD	o-Xylene	50.0	0.00	U	34.3	69	51-127	18	0-24
100-42-5	PSD	Styrene	50.0	0.00	U	32.6	65	41-136	21	0-24
75-25-2	PSD	Bromoform	50.0	0.00	U	45.6	91	48-143	30 *	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	42.0	84	52-129	29 *	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1898
Client ID: RE46-10-12661PSD
Lab Sample ID: 1202053928
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: S
%Moisture: 17.4
Analysis Date: 03/02/2010 04:55
Dilution: 1
Prep Batch ID: 957849
Batch ID: 957850

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	43.6	87	56-139	35 *	0-34
108-86-1	PSD	Bromobenzene	50.0	0.00	U	35.0	70	54-125	35 *	0-22
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	30.0	60	46-127	36 *	0-25
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	32.2	64	47-130	35 *	0-24
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	34.9	70	42-126	35 *	0-22
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	30.2	60	44-132	34 *	0-25
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	30.3	61	46-127	36 *	0-26
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	30.1	60	48-136	34 *	0-24
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	28.9	58	42-132	35 *	0-26
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	27.0	54	47-130	36 *	0-27
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	25.3	51	36-142	35 *	0-27
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	26.6	53	41-130	34 *	0-25
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	25.6	51	41-126	36 *	0-25
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	20.6	41	37-136	38 *	0-29
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	43.1	86	42-143	29 *	0-21
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	39.3	79	58-127	15	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	26.7	53	42-128	32 *	0-24

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1898
Client ID: LCS for batch 957849
Lab Sample ID: 1202053929
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: MISC SOLID
Analysis Date: 02/27/2010 02:33
Dilution: 1
Prep Batch ID: 957849
Batch ID: 957850

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	47.8	96	52-151
74-87-3	LCS	Chloromethane	50.0	0.0	45.3	91	56-130
75-01-4	LCS	Vinyl chloride	50.0	0.0	46.6	93	66-130
74-83-9	LCS	Bromomethane	50.0	0.0	47.5	95	70-126
75-00-3	LCS	Chloroethane	50.0	0.0	46.3	93	67-129
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	48.4	97	73-143
67-64-1	LCS	Acetone	250	0.0	229	92	30-140
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	46.5	93	71-129
74-88-4	LCS	Iodomethane	250	0.0	231	92	72-125
75-09-2	LCS	Methylene chloride	50.0	0.0	44.0	88	64-121
75-15-0	LCS	Carbon disulfide	250	0.0	236	94	70-133
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	47.7	95	73-120
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	48.5	97	73-120
78-93-3	LCS	2-Butanone	250	0.0	330	132	32-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	48.9	98	74-124
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	47.0	94	73-134
67-66-3	LCS	Chloroform	50.0	0.0	47.8	96	74-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	48.1	96	73-122
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	49.8	100	74-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	49.6	99	79-128
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	50.6	101	75-135
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	48.8	98	65-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1898
Client ID: LCS for batch 957849
Lab Sample ID: 1202053929
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: MISC SOLID
Analysis Date: 02/27/2010 02:33
Dilution: 1
Prep Batch ID: 957849
Batch ID: 957850

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
71-43-2	LCS	Benzene	50.0	0.0	46.1	92	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	48.3	97	77-124
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	48.1	96	73-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	51.1	102	75-128
74-95-3	LCS	Dibromomethane	50.0	0.0	49.3	99	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	282	113	63-133
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	49.6	99	78-127
108-88-3	LCS	Toluene	50.0	0.0	45.2	90	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	49.1	98	70-125
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	46.4	93	75-120
591-78-6	LCS	2-Hexanone	250	0.0	311	124	40-153
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	46.4	93	73-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	45.2	90	72-126
124-48-1	LCS	Dibromochloromethane	50.0	0.0	50.6	101	74-126
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	48.1	96	79-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	45.3	91	76-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	47.0	94	74-120
179601-23-1	LCS	m,p-Xylenes	100	0.0	93.6	94	76-120
95-47-6	LCS	o-Xylene	50.0	0.0	48.3	97	76-122
100-42-5	LCS	Styrene	50.0	0.0	51.2	102	75-125
75-25-2	LCS	Bromoform	50.0	0.0	51.9	104	68-135
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	47.2	94	72-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1898
Client ID: LCS for batch 957849
Lab Sample ID: 1202053929
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: MISC SOLID
Analysis Date: 02/27/2010 02:33
Dilution: 1
Prep Batch ID: 957849
Batch ID: 957850

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	47.8	96	72-129
108-86-1	LCS	Bromobenzene	50.0	0.0	45.9	92	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	45.2	90	70-120
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	46.1	92	70-120
98-82-8	LCS	Isopropylbenzene	50.0	0.0	47.3	95	60-121
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	47.4	95	71-121
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	46.0	92	71-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	47.2	94	75-123
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	47.0	94	73-120
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	47.2	94	74-123
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	48.1	96	76-127
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	43.7	87	75-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	43.3	87	73-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	46.1	92	73-128
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	57.9	116	69-136
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	49.4	99	75-124
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	45.2	90	75-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1898
Client ID: LCS for batch 957849
Lab Sample ID: 1202053930
Instrument: VOA6.I
Analyst: RXD1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: MISC SOLID
Analysis Date: 02/27/2010 03:01
Dilution: 1
Prep Batch ID: 957849
Batch ID: 957850

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
76-13-1	LCS	1,1,2-Trichloro-1,2,2-Trifluor *Trichlorotrifluoroethane*	250	0.0	228	91	67-140

Method Blank Summary

SDG Number:	10-1898	Client:	LANL010	Matrix:	MISC SOLID
Client ID:	MB for batch 957849	Instrument ID:	VOA6.I	Data File:	022610V6\6Z538BL.D
Lab Sample ID:	1202053926	Prep Date:	02/26/2010 09:32	Analyzed:	02/27/10 03:29
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 957849	1202053929	022610V6\6Z536LL.D	02/27/10	0233
02	LCS for batch 957849	1202053930	022610V6\6Z537SL.D	02/27/10	0301
03	WST15-10-8945	247327001	022610V6\6Z541.D	02/27/10	0452
04	WST15-10-8941	247327002	022610V6\6Z542.D	02/27/10	0519

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-1898

Instrument ID: VOA6.I **Injection Date/Time:** 10-FEB-10 12:23

Column Description: DB-624 **Lab File ID** 021010V6\6X302.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	24.7
75	30.0 - 60.0% of mass 95	55
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	1.3
174	50.0 - 100.0% of mass 95	83.7
175	5.0 -9.0% of mass 174	7.4
176	95.0 - 101.0% of mass 174	95.9
177	5.0 - 9.0% of mass 176	6.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W6VM100210-01	021010V6\6X303.D	10-FEB-10 12:51
ICALMIX[A]	W6VM100210-02	021010V6\6X304.D	10-FEB-10 13:19
ICALMIX[A]	W6VM100210-03	021010V6\6X305.D	10-FEB-10 13:47
ICALMIX[A]	W6VM100210-04	021010V6\6X306.D	10-FEB-10 14:14
ICALMIX[A]	W6VM100210-05	021010V6\6X307.D	10-FEB-10 14:42
ICALMIX[A]	W6VM100210-06	021010V6\6X308.D	10-FEB-10 15:10
ICALMIX[A]	W6VM100210-07	021010V6\6X309.D	10-FEB-10 15:38
ICALMIX[A]	W6VM100210-08	021010V6\6X311.D	10-FEB-10 16:33
ICVMIX[A]01	W6VM100210-09	021010V6\6X312.D	10-FEB-10 17:01
ICALMIX[B]	W6VM100210-11	021010V6\6X314.D	10-FEB-10 17:57
ICALMIX[B]	W6VM100210-12	021010V6\6X315.D	10-FEB-10 18:24
ICALMIX[B]	W6VM100210-13	021010V6\6X316.D	10-FEB-10 18:52
ICALMIX[B]	W6VM100210-14	021010V6\6X317.D	10-FEB-10 19:20
ICALMIX[B]	W6VM100210-15	021010V6\6X318.D	10-FEB-10 19:48
ICALMIX[B]	W6VM100210-16	021010V6\6X319.D	10-FEB-10 20:15
ICALMIX[B]	W6VM100210-17	021010V6\6X320.D	10-FEB-10 20:43
ICVMIX[B]02	W6VM100210-18	021010V6\6X322.D	10-FEB-10 21:38

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-1898

Instrument ID: VOA6.I **Injection Date/Time:** 27-FEB-10 02:06

Column Description: DB-624 **Lab File ID** 022610V6\6Z535BFB.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	24.7
75	30.0 - 60.0% of mass 95	55.6
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	1.2
174	50.0 - 100.0% of mass 95	85.3
175	5.0 -9.0% of mass 174	7.3
176	95.0 - 101.0% of mass 174	98
177	5.0 - 9.0% of mass 176	6.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]04	W6VM100226-05	022610V6\6Z535.D	27-FEB-10 02:06
BLK01LCS	1202053929	022610V6\6Z536LL.D	27-FEB-10 02:33
CCVMIX[B]05	W6VM100226-10	022610V6\6Z537.D	27-FEB-10 03:01
BLK01SLCS	1202053930	022610V6\6Z537SL.D	27-FEB-10 03:01
BLK01	1202053926	022610V6\6Z538BL.D	27-FEB-10 03:29
WST15-10-8945	247327001	022610V6\6Z541.D	27-FEB-10 04:52
WST15-10-8941	247327002	022610V6\6Z542.D	27-FEB-10 05:19

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA6.I

GC Column: DB-624

Client SDG: 10-1898

STD Analysis Time: 27-FEB-10 02:06

Data File: C:\msdchem\1\DATA\022610V6\6Z535.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1184833		9.97	929833		13.2	551546		15.6
Upper Limit	2369666		10.5	1859666		13.7	1103092		16.1
Lower Limit	592417		9.47	464917		12.7	275773		15.1
Sample ID									
BLK01LCS	1227106		9.97	943576		13.2	567822		15.6
BLK01SLCS	1285065		9.97	970598		13.2	587696		15.6
BLK01	1252495		9.97	937171		13.2	541491		15.6
WST15-10-8945	1181204		9.97	883425		13.2	507520		15.6
WST15-10-8941	1107742		9.97	810782		13.2	465460		15.6

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**	**Date Collected:**	**02/16/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**247327001**	**Date Received:**	**02/18/2010 08:45**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST15-10-8945**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**957850**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 04:52**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/26/2010 15:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**022610V6\6Z541.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/kg	0.340	1.00
74-87-3	Chloromethane	U	1.00	ug/kg	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/kg	0.300	1.00
74-83-9	Bromomethane	U	1.00	ug/kg	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/kg	0.300	1.00
67-64-1	Acetone	J	2.11	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/kg	1.60	5.00
75-09-2	Methylene chloride	U	5.00	ug/kg	2.00	5.00
75-15-0	Carbon disulfide	U	5.00	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/kg	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/kg	0.300	1.00
74-97-5	Bromochloromethane	U	1.00	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride	U	1.00	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/kg	0.300	1.00
71-43-2	Benzene	U	1.00	ug/kg	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/kg	0.300	1.00
74-95-3	Dibromomethane	U	1.00	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
108-88-3	Toluene	U	1.00	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/kg	0.300	1.00
591-78-6	2-Hexanone	U	5.00	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane	U	1.00	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/kg	0.300	1.00
108-90-7	Chlorobenzene	U	1.00	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**	**Date Collected:**	**02/16/2010 12:00**	**Matrix:**	**S**
Lab Sample ID:	**247327001**	**Date Received:**	**02/18/2010 08:45**		
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST15-10-8945**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**957850**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 04:52**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/26/2010 15:30**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**022610V6\6Z541.D**	**Column:**	**DB-624**		

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

Tentatively Identified Compound Summary

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

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z541.D
Acq On : 27 Feb 2010 4:52 am
Operator : RXD1
InstName : VOA6
Sample : |247327001|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Mar 01 10:16:55 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1181826	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	883425	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	507520	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1181204	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	883425	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	507520	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	457697	51.40	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 102.80%					
43) Toluene-d8	11.620	11.620	0.883	98	1142615	47.48	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 94.96%					
61) Bromofluorobenzene	14.351	14.357	0.922	95	486661	51.37	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 102.74%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.652	4.672	0.466	50	391	N.D.		
4) Vinyl chloride	0.000	4.914	0.000		0	N.D.		
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.706	6.706	0.672	43	13680	2.11	ug/L	87
10) 1,1-Dichloroethylene	0.000	6.706	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	0.000	7.072	0.000		0	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	7.078	7.078	0.710	76	268	N.D.		
15) Methylene chloride	7.279	7.285	0.730	84	7764	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	8.706	8.694	0.873	43	949	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z541.D
Acq On : 27 Feb 2010 4:52 am
Operator : RXD1
InstName : VOA6
Sample : |247327001|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Mar 01 10:16:55 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.	
44) Toluene	11.693	11.699	0.889	91	4354	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.260	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	13.254	13.248	1.007	91	802	N.D.	
55) m,p-Xylenes	13.351	13.357	1.015	106	464	N.D.	
56) o-Xylene	0.000	13.796	0.000		0	N.D.	
57) Styrene	0.000	13.802	0.000		0	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.156	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	14.589	14.583	0.937	91	1067	N.D.	
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	404	N.D.	
67) 2-Chlorotoluene	0.000	14.735	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	14.833	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.144	15.150	0.973	105	641	N.D.	
71) sec-Butylbenzene	15.333	15.333	0.985	105	500	N.D.	
72) 4-Isopropyltoluene	15.461	15.454	0.993	119	1068	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.601	0.000		0	N.D.	
75) n-Butylbenzene	15.881	15.887	1.020	91	640	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	18.277	18.283	1.174	128	1331	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.535	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.785	0.000		0	N.D.	
88) Allyl chloride	0.000	7.139	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.541	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	8.706	8.700	0.873	43	949	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z541.D
Acq On : 27 Feb 2010 4:52 am
Operator : RXD1
InstName : VOA6
Sample : |247327001|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Mar 01 10:16:55 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	8.773	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97)	Tetrahydrofuran	9.072	9.059	0.910	42	192	N.D.	
98)	Isobutyl alcohol	0.000	9.388	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	10.589	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102)	2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108)	Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110)	Pentachloroethane	0.000	15.174	0.000		0	N.D.	
111)	Benzyl chloride	0.000	15.717	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	0.000	16.113	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z541.D
Acq On : 27 Feb 2010 4:52 am
Operator : RXD1
InstName : VOA6
Sample : |247327001|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Mar 01 10:16:55 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

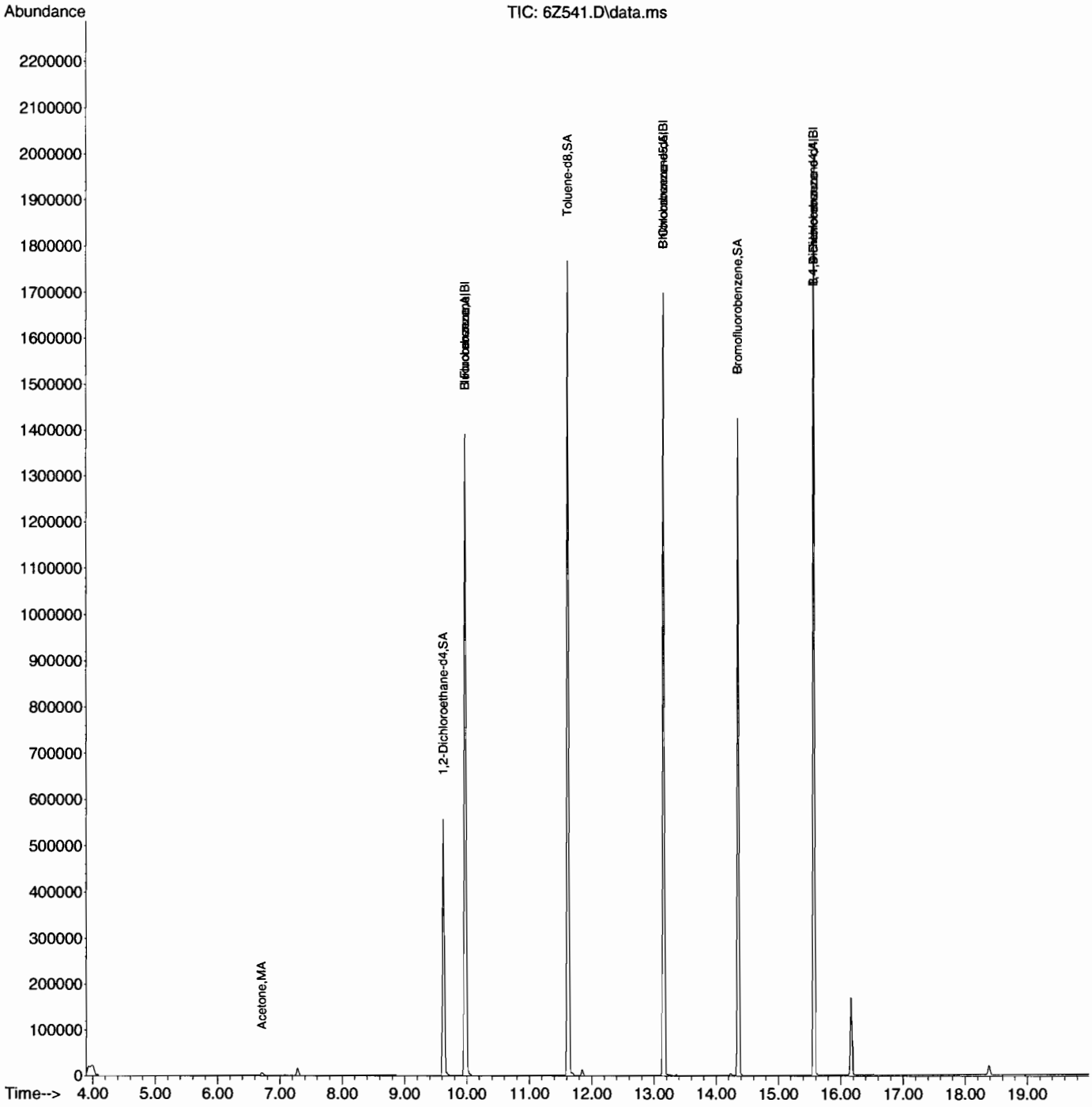

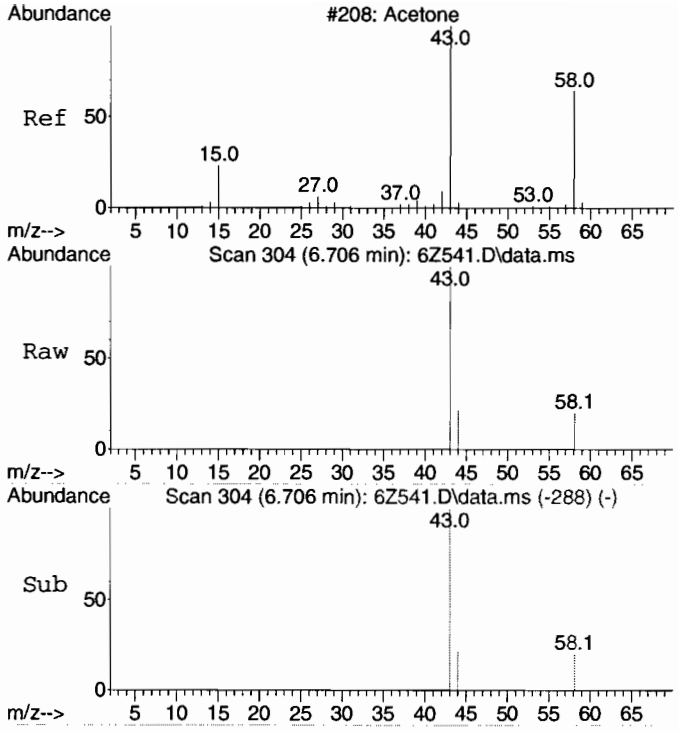

#9
Acetone
Concen: 2.11 ug/L
RT: 6.706 min Scan# 304
Delta R.T. 0.000 min
Lab File: 6Z541.D
Acq: 27 Feb 2010 4:52 am

Tgt Ion: 43 Resp: 13680

Ion	Ratio	Lower	Upper
43	100		
58	18.6	0.0	54.9

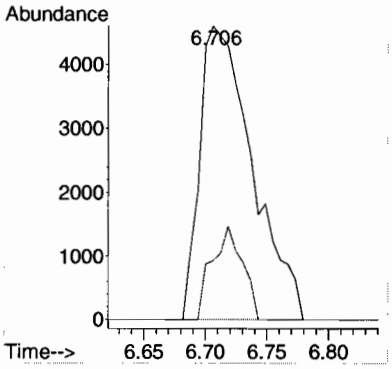

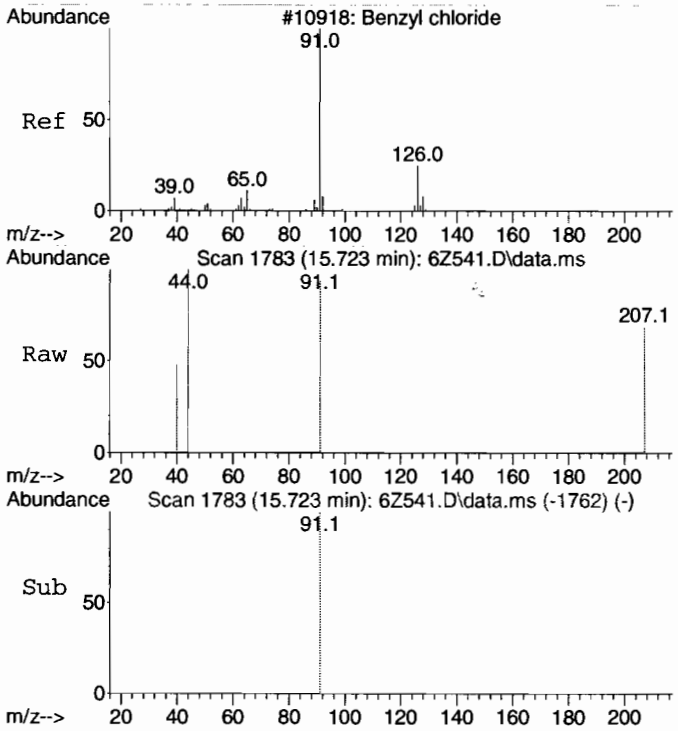

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 0.13 ug/L
RT: 15.723 min Scan# 1783
Delta R.T. 0.006 min
Lab File: 6Z541.D
Acq: 27 Feb 2010 4:52 am

Tgt Ion: 91 Resp: 1631

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	51.0
65	0.0	0.0	43.8

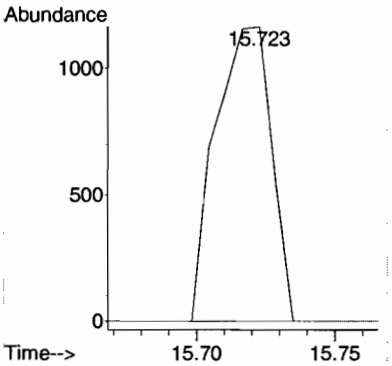

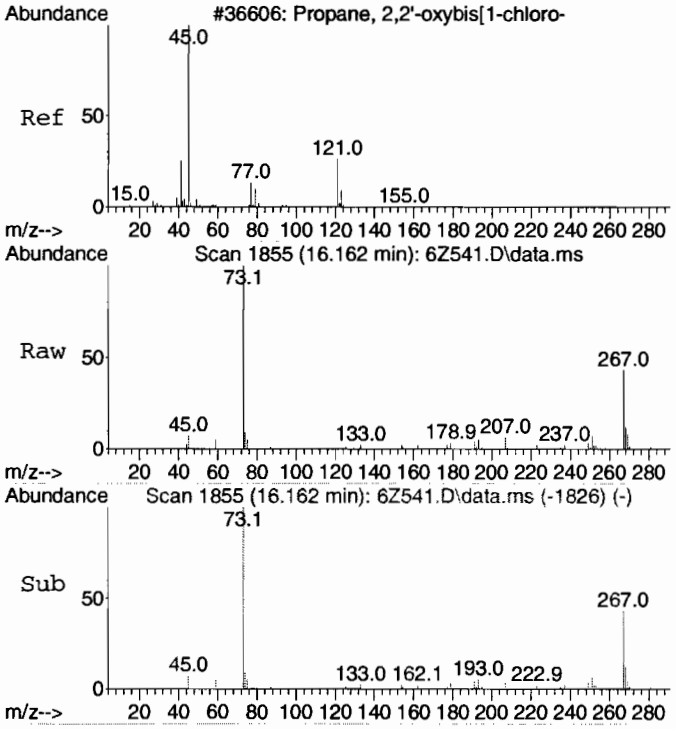

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 1.94 ug/L
RT: 16.162 min Scan# 1855
Delta R.T. 0.049 min
Lab File: 6Z541.D
Acq: 27 Feb 2010 4:52 am

Tgt Ion: 45 Resp: 7573

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	51.3

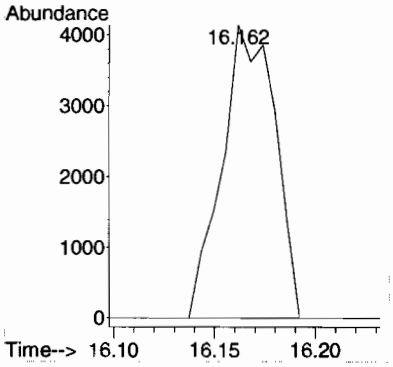

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z541.D
Acq On : 27 Feb 2010 4:52 am
Operator : RXD1
Sample : |247327001|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 41 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z541.D
Acq On : 27 Feb 2010 4:52 am
Operator : RXD1
Sample : |247327001|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 41 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**	**Date Collected:**	**02/16/2010 12:00**	**Matrix:**	**D**
Lab Sample ID:	**247327002**	**Date Received:**	**02/18/2010 08:45**	**%Moisture:**	**7.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST15-10-8941**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**957850**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 05:19**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/26/2010 15:32**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**022610V6\6Z542.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.09	ug/kg	0.369	1.09
74-87-3	Chloromethane	U	1.09	ug/kg	0.326	1.09
75-01-4	Vinyl chloride	U	1.09	ug/kg	0.326	1.09
74-83-9	Bromomethane	U	1.09	ug/kg	0.326	1.09
75-00-3	Chloroethane	U	1.09	ug/kg	0.326	1.09
75-69-4	Trichlorofluoromethane	U	1.09	ug/kg	0.326	1.09
67-64-1	Acetone	U	5.43	ug/kg	1.80	5.43
75-35-4	1,1-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
74-88-4	Iodomethane	U	5.43	ug/kg	1.74	5.43
75-09-2	Methylene chloride	J	2.96	ug/kg	2.17	5.43
75-15-0	Carbon disulfide	U	5.43	ug/kg	1.36	5.43
156-60-5	trans-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
75-34-3	1,1-Dichloroethane	U	1.09	ug/kg	0.326	1.09
78-93-3	2-Butanone	U	5.43	ug/kg	1.63	5.43
156-59-2	cis-1,2-Dichloroethylene	U	1.09	ug/kg	0.326	1.09
594-20-7	2,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09
67-66-3	Chloroform	U	1.09	ug/kg	0.326	1.09
74-97-5	Bromochloromethane	U	1.09	ug/kg	0.358	1.09
71-55-6	1,1,1-Trichloroethane	U	1.09	ug/kg	0.326	1.09
563-58-6	1,1-Dichloropropene	U	1.09	ug/kg	0.326	1.09
56-23-5	Carbon tetrachloride	U	1.09	ug/kg	0.326	1.09
107-06-2	1,2-Dichloroethane	U	1.09	ug/kg	0.326	1.09
71-43-2	Benzene	U	1.09	ug/kg	0.326	1.09
79-01-6	Trichloroethylene	U	1.09	ug/kg	0.358	1.09
78-87-5	1,2-Dichloropropane	U	1.09	ug/kg	0.326	1.09
75-27-4	Bromodichloromethane	U	1.09	ug/kg	0.326	1.09
74-95-3	Dibromomethane	U	1.09	ug/kg	0.326	1.09
108-10-1	4-Methyl-2-pentanone	U	5.43	ug/kg	1.36	5.43
10061-01-5	cis-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09
108-88-3	Toluene	U	1.09	ug/kg	0.326	1.09
10061-02-6	trans-1,3-Dichloropropylene	U	1.09	ug/kg	0.326	1.09
79-00-5	1,1,2-Trichloroethane	U	1.09	ug/kg	0.326	1.09
591-78-6	2-Hexanone	U	5.43	ug/kg	1.63	5.43
142-28-9	1,3-Dichloropropane	U	1.09	ug/kg	0.326	1.09
127-18-4	Tetrachloroethylene	U	1.09	ug/kg	0.326	1.09
124-48-1	Dibromochloromethane	U	1.09	ug/kg	0.326	1.09
106-93-4	1,2-Dibromoethane	U	1.09	ug/kg	0.326	1.09
108-90-7	Chlorobenzene	U	1.09	ug/kg	0.326	1.09

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**	**Date Collected:**	**02/16/2010 12:00**	**Matrix:**	**D**
Lab Sample ID:	**247327002**	**Date Received:**	**02/18/2010 08:45**	**%Moisture:**	**7.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST15-10-8941**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**957850**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 05:19**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/26/2010 15:32**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**022610V6\6Z542.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.09	ug/kg	0.326	1.09
179601-23-1	m,p-Xylenes	U	2.17	ug/kg	0.326	2.17
95-47-6	o-Xylene	U	1.09	ug/kg	0.326	1.09
100-42-5	Styrene	U	1.09	ug/kg	0.326	1.09
75-25-2	Bromoform	U	1.09	ug/kg	0.326	1.09
79-34-5	1,1,2,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
96-18-4	1,2,3-Trichloropropane	U	1.09	ug/kg	0.326	1.09
108-86-1	Bromobenzene	U	1.09	ug/kg	0.326	1.09
103-65-1	n-Propylbenzene	U	1.09	ug/kg	0.326	1.09
95-49-8	2-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-82-8	Isopropylbenzene	U	1.09	ug/kg	0.326	1.09
108-67-8	1,3,5-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
106-43-4	4-Chlorotoluene	U	1.09	ug/kg	0.326	1.09
98-06-6	tert-Butylbenzene	U	1.09	ug/kg	0.326	1.09
95-63-6	1,2,4-Trimethylbenzene	U	1.09	ug/kg	0.326	1.09
135-98-8	sec-Butylbenzene	U	1.09	ug/kg	0.326	1.09
99-87-6	4-Isopropyltoluene	U	1.09	ug/kg	0.326	1.09
541-73-1	1,3-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
106-46-7	1,4-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09
104-51-8	n-Butylbenzene	U	1.09	ug/kg	0.326	1.09
96-12-8	1,2-Dibromo-3-chloropropane	U	1.09	ug/kg	0.326	1.09
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.43	ug/kg	1.74	5.43
630-20-6	1,1,1,2-Tetrachloroethane	U	1.09	ug/kg	0.326	1.09
95-50-1	1,2-Dichlorobenzene	U	1.09	ug/kg	0.326	1.09

Tentatively Identified Compound Summary

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

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z542.D
Acq On : 27 Feb 2010 5:19 am
Operator : RXD1
InstName : VOA6
Sample : |247327002|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Mar 01 10:17:50 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1108067	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	810782	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	15.576	1.000	152	465460	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1107742	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	810782	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	15.576	1.000	152	465460	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	454654	54.45	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 108.90%					
43) Toluene-d8	11.620	11.620	0.883	98	1075152	48.68	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 97.36%					
61) Bromofluorobenzene	14.357	14.357	0.922	95	447144	51.47	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 102.94%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.652	4.672	0.466	50	322	N.D.		
4) Vinyl chloride	0.000	4.914	0.000		0	N.D.		
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.712	6.706	0.673	43	2884	Below Cal #		50
10) 1,1-Dichloroethylene	0.000	6.706	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	7.291	7.072	0.731	41	226	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	7.066	7.078	0.708	76	447	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	17048	2.73	ug/L	97
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	0.000	8.694	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z542.D
Acq On : 27 Feb 2010 5:19 am
Operator : RXD1
InstName : VOA6
Sample : |247327002|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Mar 01 10:17:50 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.	
44) Toluene	11.693	11.699	0.889	91	2690	N.D.	
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.	
47) 2-Hexanone	0.000	12.260	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.	
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.	
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.	
54) Ethylbenzene	13.248	13.248	1.007	91	733	N.D.	
55) m,p-Xylenes	13.357	13.357	1.015	106	698	N.D.	
56) o-Xylene	0.000	13.796	0.000		0	N.D.	
57) Styrene	13.790	13.802	1.048	104	187	N.D.	
59) Bromoform	0.000	14.058	0.000		0	N.D.	
60) Isopropylbenzene	0.000	14.156	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.	
64) Bromobenzene	0.000	14.564	0.000		0	N.D.	
65) n-Propylbenzene	14.577	14.583	0.936	91	264	N.D.	
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	237	N.D.	
67) 2-Chlorotoluene	0.000	14.735	0.000		0	N.D.	
68) 4-Chlorotoluene	0.000	14.833	0.000		0	N.D.	
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	534	N.D.	
71) sec-Butylbenzene	15.333	15.333	0.984	105	208	N.D.	
72) 4-Isopropyltoluene	15.454	15.454	0.992	119	271	N.D.	
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.	
74) 1,4-Dichlorobenzene	0.000	15.601	0.000		0	N.D.	
75) n-Butylbenzene	0.000	15.887	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	17.911	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.	
80) Naphthalene	18.283	18.283	1.174	128	946	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.	
85) Acrolein	0.000	6.535	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	6.785	0.000		0	N.D.	
88) Allyl chloride	7.291	7.139	0.731	41	226	N.D.	
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.	
90) Acrylonitrile	0.000	7.541	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.	
94) Ethyl acetate	0.000	8.700	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z542.D
Acq On : 27 Feb 2010 5:19 am
Operator : RXD1
InstName : VOA6
Sample : |247327002|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Mar 01 10:17:50 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	8.773	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97)	Tetrahydrofuran	9.072	9.059	0.910	42	369	N.D.	
98)	Isobutyl alcohol	0.000	9.388	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	10.589	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102)	2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108)	Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110)	Pentachloroethane	0.000	15.174	0.000		0	N.D.	
111)	Benzyl chloride	0.000	15.717	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.168	16.113	1.038	45	1401	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z542.D
Acq On : 27 Feb 2010 5:19 am
Operator : RXD1
InstName : VOA6
Sample : |247327002|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Mar 01 10:17:50 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

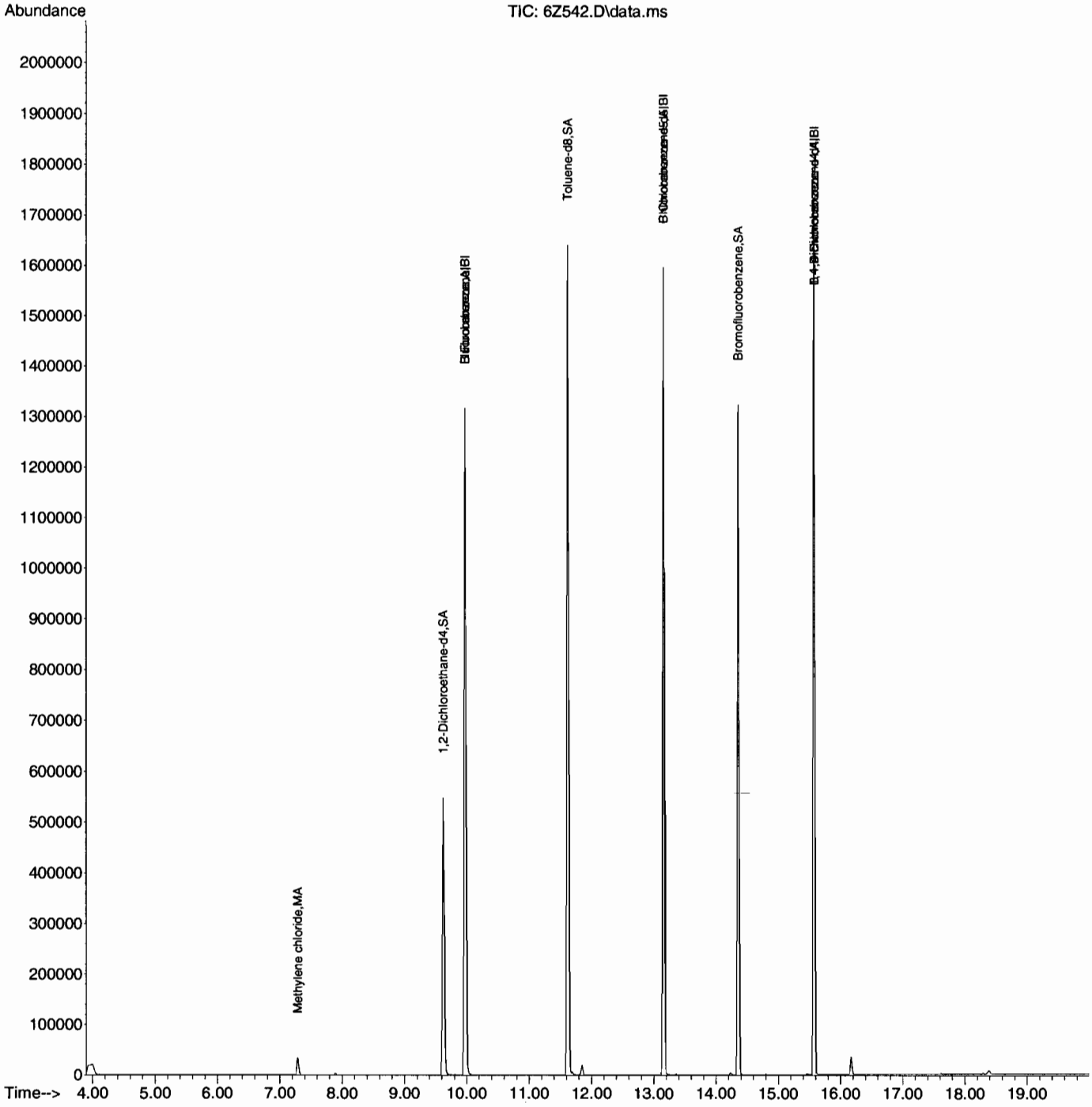

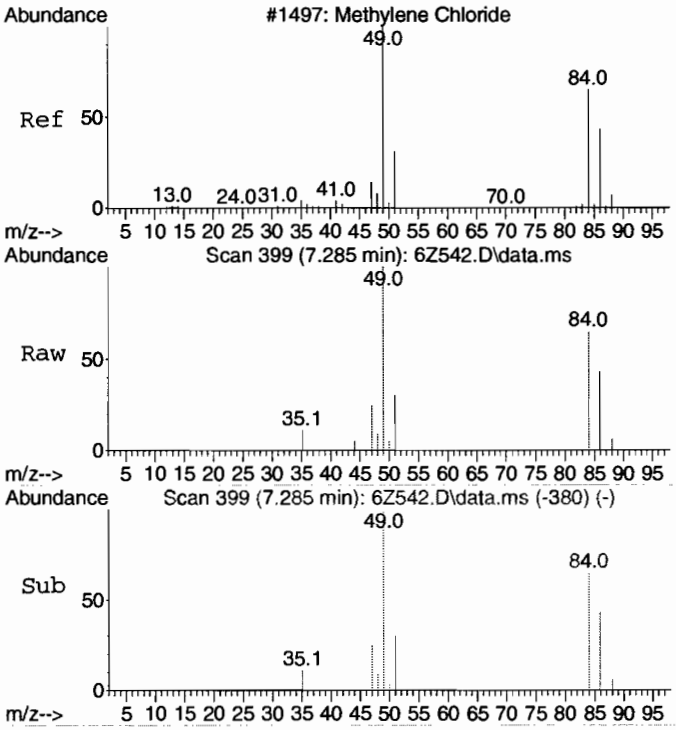

#15
Methylene chloride
Concen: 2.73 ug/L
RT: 7.285 min Scan# 399
Delta R.T. 0.000 min
Lab File: 6Z542.D
Acq: 27 Feb 2010 5:19 am

Tgt Ion: 84 Resp: 17048

Ion	Ratio	Lower	Upper
84	100		
86	62.8	33.5	93.5
49	165.5	141.2	201.2

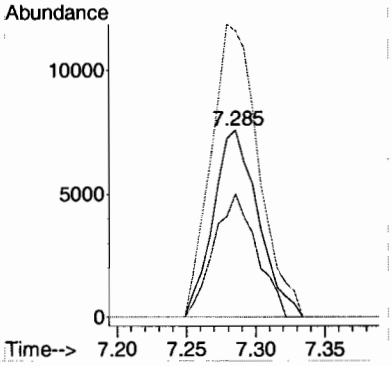

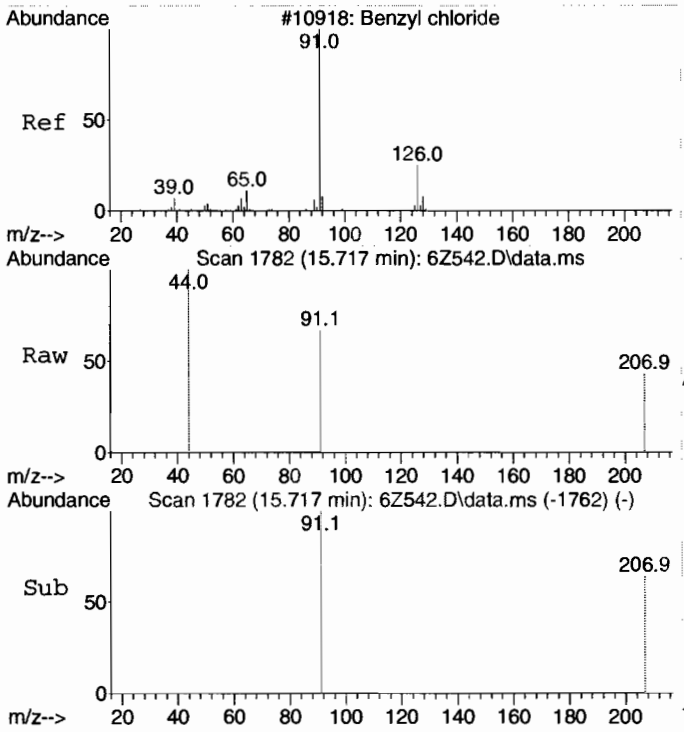

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 0.10 ug/L
RT: 15.717 min Scan# 1782
Delta R.T. -0.000 min
Lab File: 6Z542.D
Acq: 27 Feb 2010 5:19 am

Tgt Ion: 91 Resp: 1162

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	51.0
65	0.0	0.0	43.8

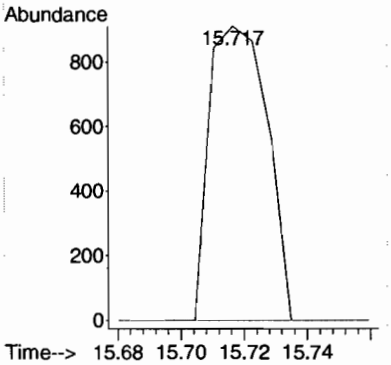

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z542.D
Acq On : 27 Feb 2010 5:19 am
Operator : RXD1
Sample : |247327002|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 42 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z542.D
Acq On : 27 Feb 2010 5:19 am
Operator : RXD1
Sample : |247327002|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 42 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc

Standards

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Last Update : Thu Feb 11 09:38:02 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\021010V6\6X311.D

Injection Date	Mix	Calibration File
10 Feb 2010 4:33 pm	A	C:\msdchem\1\DATA\021010V6\6X311.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\021010V6\6X314.D

Injection Date	Mix	Calibration File
10 Feb 2010 12:51 pm	A	C:\msdchem\1\DATA\021010V6\6X303.D
10 Feb 2010 5:57 pm	B	C:\msdchem\1\DATA\021010V6\6X314.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\021010V6\6X315.D

Injection Date	Mix	Calibration File
10 Feb 2010 1:19 pm	A	C:\msdchem\1\DATA\021010V6\6X304.D
10 Feb 2010 6:24 pm	B	C:\msdchem\1\DATA\021010V6\6X315.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\021010V6\6X316.D

Injection Date	Mix	Calibration File
10 Feb 2010 1:47 pm	A	C:\msdchem\1\DATA\021010V6\6X305.D
10 Feb 2010 6:52 pm	B	C:\msdchem\1\DATA\021010V6\6X316.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\021010V6\6X317.D

Injection Date	Mix	Calibration File
10 Feb 2010 2:14 pm	A	C:\msdchem\1\DATA\021010V6\6X306.D
10 Feb 2010 7:20 pm	B	C:\msdchem\1\DATA\021010V6\6X317.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\021010V6\6X318.D

Injection Date	Mix	Calibration File
10 Feb 2010 2:42 pm	A	C:\msdchem\1\DATA\021010V6\6X307.D
10 Feb 2010 7:48 pm	B	C:\msdchem\1\DATA\021010V6\6X318.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\021010V6\6X319.D

Injection Date	Mix	Calibration File
10 Feb 2010 3:10 pm	A	C:\msdchem\1\DATA\021010V6\6X308.D
10 Feb 2010 8:15 pm	B	C:\msdchem\1\DATA\021010V6\6X319.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\021010V6\6X320.D

Injection Date	Mix	Calibration File
10 Feb 2010 3:38 pm	A	C:\msdchem\1\DATA\021010V6\6X309.D
10 Feb 2010 8:43 pm	B	C:\msdchem\1\DATA\021010V6\6X320.D

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Last Update : Thu Feb 11 09:38:02 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane	0.2179610	0.2237420 0.2260326	0.2559162	0.2814446	0.2289998	0.2302619	0.2378	AVRG		9.5553
3)MPA Chloromethane	0.3676927	0.4117955 0.3744244	0.4184848	0.4053040	0.3672500	0.3722326	0.3882	AVRG		5.8280
4)MCA Vinyl chloride	0.3223203	0.3728066 0.3214796	0.3628792	0.3591428	0.3334717	0.3343333	0.3438	AVRG		6.0514
5)MA Bromomethane	0.2090649	0.1974108 0.2057782	0.2037236	0.2089845	0.2117853	0.2138069	0.2072	AVRG		2.6525
6)MA Chloroethane	0.2116347	0.2135142 0.2127040	0.2181923	0.2264573	0.2163993	0.2194970	0.2169	AVRG		2.3567
7)MA Trichlorofluoromethane	0.4724165	0.4860013 0.4666453	0.4991791	0.5099254	0.4795290	0.4906985	0.4863	AVRG		3.1051
8)MA Ethyl ether	0.2705201	0.2657049 0.2487887	0.2750323	0.2752591	0.2672479	0.2754098	0.2683	AVRG		3.5288
9)MA Acetone 0.0073 | 0.1022 | 0.00	808675	21019 1638034	35690	79215	158736	305817		LINR		0.9999
10)MCA 1,1-Dichloroethylene	0.4567766	0.4532144 0.4603065	0.4324089	0.4431557	0.4470308	0.4468719	0.4485	AVRG		2.0803
11)MA Iodomethane	0.4256667	0.4320842 0.4178366	0.4137067	0.4239894	0.4358722	0.4266971	0.4251	AVRG		1.8004
12)MA Acetonitrile	0.0401942	0.0416699 0.0398811	0.0405632	0.0400535	0.0405661	0.0401081	0.0404	AVRG		1.4893
13)MA Methyl acetate	0.2431766	0.2490938 0.2305202	0.2250000	0.2316611	0.2352786	0.2197728	0.2335	AVRG		4.3285
14)MA Carbon disulfide	0.7789707	0.7923998 0.7576769	0.7739972	0.7886159	0.7998178	0.7811941	0.7818	AVRG		1.7589
15)MA Methylene chloride	0.2669665	0.2622391	0.3343049	0.2807772	0.2818881	0.2666515	0.2821	AVRG		9.4964
16)MA tert-Butyl methyl ether	0.7776969	0.7379241 0.7697732	0.7458004	0.7029943	0.7516617	0.7551586	0.7487	AVRG		3.2483

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Last Update : Thu Feb 11 09:38:02 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
17)MA trans-1,2-Dichloroethyle	0.4196235	0.4242357 0.4260549	0.4017105	0.4100256	0.4299008	0.4237436	0.4193	AVRG		2.3800
18)MA Vinyl acetate	0.6117120	0.5099968 0.5786140	0.5441609	0.5977801	0.5938689	0.6571932	0.5848	AVRG		8.1120
19)MPA 1,1-Dichloroethane	0.5054201	0.4991306 0.5110482	0.5216537	0.5073924	0.5211708	0.5163005	0.5117	AVRG		1.6472
20)MA 2-Butanone	0.1085529	0.1046571 0.1021868	0.1078562	0.1095640	0.1082897	0.1084021	0.1071	AVRG		2.4700
21)MA cis-1,2-Dichloroethylene	0.4698247	0.4692452 0.4717481	0.4360397	0.4552682	0.4694360	0.4801393	0.4645	AVRG		3.1289
22)MA 2,2-Dichloropropane	0.4465032	0.4440021 0.4581629	0.4107149	0.4298089	0.4424626	0.4538992	0.4408	AVRG		3.6399
23)MA Bromochloromethane	0.1317197	0.1323447 0.1326731	0.1247539	0.1263566	0.1327922	0.1322187	0.1304	AVRG		2.5805
24)MCA Chloroform	0.4912422	0.5390263 0.4899114	0.5076025	0.4898048	0.4958256	0.5051574	0.5027	AVRG		3.5009
25)MA 1,1,1-Trichloroethane	0.4778231	0.4676131 0.4800535	0.4376190	0.4615326	0.4680187	0.4738024	0.4666	AVRG		3.0651
26)MA Cyclohexane	0.5254499	0.4655095 0.5346546	0.4666291	0.4796369	0.5000668	0.5142121	0.4980	AVRG		5.6444
27)MA 1,1-Dichloropropene	0.3680153	0.3370456 0.3746078	0.3355394	0.3522757	0.3591087	0.3630960	0.3557	AVRG		4.2043
28)MA Carbon tetrachloride	0.4410733	0.4219507 0.4496629	0.4104970	0.4149050	0.4279630	0.4357636	0.4288	AVRG		3.3116
29)SA 1,2-Dichloroethane-d4	0.3749375	0.3844539 0.3595192	0.3848644	0.3793007	0.3819781	0.3721629	0.3767	AVRG		2.3747
30)MA 1,2-Dichloroethane	0.4512634	0.4621728 0.4417139	0.4611103	0.4529577	0.4540432	0.4572777	0.4544	AVRG		1.5214
31)MA Benzene	1.0450600 0.9806889	1.0763842 0.9774817	0.9701106	0.9517895	1.0045542	0.9785327	0.9981	AVRG		4.2194

Response Factor Report VOA6
GEL Laboratories, LLC

Method File : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Last Update : Thu Feb 11 09:38:02 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene	0.5328123	0.4677219 0.5394205	0.4549561	0.4735949	0.4990188	0.5196860	0.4982	AVRG		6.7397
33)MA n-Butyl alcohol	0.0065375 0.0087009	0.0061338 0.0085995	0.0066777	0.0072529	0.0074903	0.0081689	0.0074	AVRG	#	13.0468
34)MA Trichloroethylene	0.2648621	0.2443789 0.2690487	0.2685332	0.2554471	0.2686968	0.2666480	0.2625	AVRG		3.5414
35)MCA 1,2-Dichloropropane	0.2738125	0.2871398 0.2746695	0.2562974	0.2516583	0.2684049	0.2753366	0.2696	AVRG		4.5027
36)MA Methylcyclohexane	0.4603450	0.3939150 0.4651263	0.3823947	0.4247501	0.4346695	0.4547150	0.4308	AVRG		7.5675
37)MA Dibromomethane	0.1552585	0.1497174 0.1547855	0.1428897	0.1447909	0.1537168	0.1541250	0.1508	AVRG		3.3733
38)MA Bromodichloromethane	0.3695012	0.3493044 0.3754041	0.3353034	0.3360874	0.3554372	0.3679267	0.3556	AVRG		4.5490
39)MA 2-Chloroethylvinyl ether	0.1722275	0.1310608 0.1645804	0.1363289	0.1922401	0.1576908	0.1662294	0.1601	AVRG		13.1353
40)MA cis-1,3-Dichloropropylen	0.4279547	0.3844126 0.4333932	0.3638596	0.3612955	0.3970755	0.4232154	0.3987	AVRG		7.5793
42)MA 4-Methyl-2-pentanone	0.1282017	0.1051043 0.1207667	0.1092914	0.1155644	0.1221612	0.1298264	0.1187	AVRG		7.7937
43)SA Toluene-d8	1.3411550	1.3592084 1.3577252	1.3501021	1.3833571	1.3700860	1.3721548	1.3620	AVRG		1.0499
44)MCA Toluene	1.3908592	1.4929714 1.3933189	1.4334030	1.3962960	1.4419124	1.4432364	1.4274	AVRG		2.5995
45)MA trans-1,3-Dichloropropyl	0.5531108	0.4523273 0.5619803	0.4641342	0.5083898	0.5284531	0.5572582	0.5180	AVRG		8.6789
46)MA 1,1,2-Trichloroethane	0.2296088	0.2266660 0.2327735	0.2435745	0.2228422	0.2317354	0.2339939	0.2316	AVRG		2.8177
47)MA 2-Hexanone	0.2497838	0.2107210 0.2307666	0.2054181	0.2198855	0.2345448	0.2508317	0.2289	AVRG		7.8077

Response Factor Report VOA6
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Method File : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Last Update : Thu Feb 11 09:38:02 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane		0.5324541	0.4882637	0.5067726	0.5095807	0.5238058				
	0.4960480	0.4950191					0.5074	AVRG		3.1679
49)MA Tetrachloroethylene		0.3150818	0.3182174	0.3130804	0.3090618	0.3193593				
	0.3004105	0.3034351					0.3112	AVRG		2.3306
50)MA Dibromochloromethane		0.3396976	0.3154180	0.3323683	0.3430572	0.3743309				
	0.3788319	0.3904085					0.3534	AVRG		7.8630
51)MA 1,2-Dibromoethane		0.2872509	0.2792981	0.2699109	0.2870328	0.3024351				
	0.2977367	0.3031873					0.2896	AVRG		4.2799
52)MPA Chlorobenzene		0.9987973	0.9487562	0.9469505	0.9702871	0.9872412				
	0.9283349	0.9417033					0.9603	AVRG		2.6843
53)MA 1,1,1,2-Tetrachloroethan		0.3397981	0.3495313	0.3607841	0.3697972	0.3871770				
	0.3753032	0.3800641					0.3661	AVRG		4.6415
54)MCA Ethylbenzene		1.6169545	1.5528615	1.6078671	1.6872593	1.7341888				
	1.6642385	1.6892670					1.6504	AVRG		3.7124
55)MA m,p-Xylenes		0.5902258	0.6174954	0.6471007	0.6491011	0.6897401				
	0.6442133	0.6517501					0.6414	AVRG		4.8199
56)MA o-Xylene		0.5496852	0.5742035	0.6123597	0.6375749	0.6574898				
	0.6319967	0.6344721					0.6140	AVRG		6.2775
57)MA Styrene		0.8316613	0.8063078	0.9017073	1.0033354	1.0578543				
	1.0368670	1.0500282					0.9554	AVRG		11.2089
59)MPA Bromoform		0.3264814	0.3518241	0.3527517	0.3788682	0.4019395				
	0.4268682	0.4477410					0.3838	AVRG		11.4414
60)MA Isopropylbenzene		2.7310757	2.6781947	2.8221673	2.9957693	3.1463292				
	3.0431055	3.0962235					2.9304	AVRG		6.3254
61)SA Bromofluorobenzene		0.9323470	0.9330661	0.9343819	0.9503856	0.9291362				
	0.9237938	0.9298796					0.9333	AVRG		0.8895
62)MPA 1,1,2,2-Tetrachloroethan		0.5953433	0.6365084	0.5959543	0.6145417	0.6383735				
	0.6269284	0.6285248					0.6195	AVRG		2.9063
63)MA 1,2,3-Trichloropropane		0.1767574	0.2012894	0.1931103	0.1925997	0.1965828				
	0.1968257	0.1953330					0.1932	AVRG		4.0384

Response Factor Report VOA6
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Last Update : Thu Feb 11 09:38:02 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA Bromobenzene	0.7338928	0.7336300 0.7338327	0.7322246	0.7277760	0.7336810	0.7705535	0.7379	AVRG		1.9712
65)MA n-Propylbenzene	3.4912355	3.4590737 3.5172675	3.3210583	3.3418875	3.5178074	3.6478199	3.4709	AVRG		3.2276
66)MA 1,3,5-Trimethylbenzene	2.6365879	2.2323425 2.6696061	2.3479868	2.5651833	2.6741377	2.8066862	2.5618	AVRG		7.8730
67)MA 2-Chlorotoluene	0.7276412	0.7021776 0.7147264	0.6598971	0.6979535	0.7321147	0.7683377	0.7147	AVRG		4.7064
68)MA 4-Chlorotoluene	2.1622937	2.0504729 2.1998271	2.0787363	2.1481471	2.1813486	2.2586605	2.1542	AVRG		3.2981
69)MA tert-Butylbenzene	0.5574441	0.5437024 0.5687178	0.4936691	0.4998785	0.5490943	0.5814281	0.5420	AVRG		6.1518
70)MA 1,2,4-Trimethylbenzene	2.7187224	2.3997421 2.7591278	2.4656649	2.6079312	2.7348203	2.8352561	2.6459	AVRG		6.1021
71)MA sec-Butylbenzene	3.4893559	3.1131837 3.5015356	3.1086150	3.2980439	3.4676357	3.6640796	3.3775	AVRG		6.2414
72)MA 4-Isopropyltoluene	2.8960557	2.3865720 2.9202274	2.5139986	2.7158710	2.8544542	3.0102079	2.7568	AVRG		8.3451
73)MA 1,3-Dichlorobenzene	1.4189281	1.5675959 1.4437178	1.4624173	1.4848610	1.4918543	1.5142991	1.4834	AVRG		3.2898
74)MA 1,4-Dichlorobenzene	1.4392831	1.6239156 1.4610345	1.5588253	1.4936777	1.4903539	1.5304738	1.5139	AVRG		4.1533
75)MA n-Butylbenzene	2.7538422	2.4372598 2.7819035	2.4450432	2.5645670	2.7219023	2.8713645	2.6537	AVRG		6.4691
76)MA 1,2-Dichlorobenzene	1.3625524	1.4033154 1.3708430	1.3906950	1.3752093	1.4211061	1.4371689	1.3944	AVRG		1.9799
77)MA 1,2-Dibromo-3-chloroprop	0.1326598	0.0887253	0.1065243	0.1050979	0.1183067	0.1249332	0.1127	AVRG		14.0297
78)MA 1,2,4-Trichlorobenzene	1.0055726	0.9775379 1.0108804	0.9367564	0.9467714	0.9980594	1.0327219	0.9869	AVRG		3.5489

Response Factor Report VOA6
GEL Laboratories, LLC

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
79)MA Hexachlorobutadiene	0.7059606	0.7326769 0.7055863	0.7361155	0.6956081	0.6838473	0.7412261	0.7144	AVRG		3.1093
80)MA Naphthalene	1.9872750	1.5825856 2.0268756	1.6366001	1.6912734	1.8424793	1.9524159	1.8171	AVRG		9.9297
81)MA 1,2,3-Trichlorobenzene	0.8514086	0.8026001 0.8570272	0.7852706	0.8054139	0.8277427	0.8704773	0.8286	AVRG		3.8715
83)B Chlorotrifluoroethylene	0.1889030	0.1717194 0.1592864	0.1859755	0.1768208	0.1715099	0.1778414	0.1760	AVRG		5.6239
84)B 2-Chloro-1,1,1-trifluoro	0.4017097	0.3696385 0.3861295	0.3705788	0.3778253	0.3817293	0.3829994	0.3815	AVRG		2.8425
85)B Acrolein	0.0282429	0.0265284 0.0183435	0.0258988	0.0266153	0.0281745	0.0271272	0.0258	AVRG		13.2295
86)B Trichlorotrifluoroethane	0.1033898	0.1405718 0.1045531	0.1108847	0.1119796	0.1141775	0.1114104	0.1139	AVRG		10.9248
87)B Isopropyl Alcohol	0.0239176	0.0215349 0.0265370	0.0218966	0.0216411	0.0248574	0.0244381	0.0235	AVRG		8.1312
88)B Allyl chloride	0.4884987	0.5265692 0.4738964	0.4840999	0.5154334	0.5206778	0.5131536	0.5032	AVRG		4.0889
89)B tert-Butyl Alcohol	0.0360065	0.0324846 0.0398015	0.0328504	0.0321783	0.0381322	0.0370843	0.0355	AVRG		8.5540
90)B Acrylonitrile	0.1003027	0.1026324 0.1037758	0.0937247	0.0971370	0.1053876	0.1013560	0.1006	AVRG		3.9973
91)B Isopropyl ether	1.1307623	0.9804059 1.1676887	1.0114375	1.0405820	1.0951882	1.1200311	1.0780	AVRG		6.3646
92)B 2-Chloro-1,3-butadiene	0.4320064	0.4153618 0.4498223	0.3748526	0.4045222	0.4216678	0.4319657	0.4186	AVRG		5.7410
93)B Ethyl tert-butyl ether	0.9644457	0.8080536 1.0064621	0.8475619	0.8504024	0.9215790	0.9507612	0.9070	AVRG		8.0322
94)B Ethyl acetate	0.2896072	0.3220651 0.3002178	0.2827252	0.2786296	0.3103078	0.2927766	0.2966	AVRG		5.2018

Response Factor Report VOA6
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Last Update : Thu Feb 11 09:38:02 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile	0.0389648	0.0378177 0.0412614	0.0360375	0.0360442	0.0400125	0.0393875	0.0385	AVRG		5.1374
96)B Methacrylonitrile	0.1812696	0.1666316 0.1860826	0.1701044	0.1718846	0.1900179	0.1842277	0.1786	AVRG		5.0374
97)B Tetrahydrofuran	0.0873828	0.0908501 0.0927119	0.0860312	0.0860915	0.0942770	0.0888769	0.0895	AVRG		3.6356
98)B Isobutyl alcohol	0.0120606	0.0104756 0.0125479	0.0108076	0.0107408	0.0125820	0.0119292	0.0116	AVRG		7.7267
99)B Methyl tert-amyl ether	0.7825306	0.6640006 0.8010907	0.6950337	0.7185198	0.7730566	0.7848593	0.7456	AVRG		7.0732
100)B Methyl methacrylate	0.1552899	0.1327940 0.1583911	0.1287508	0.1394817	0.1600007	0.1546266	0.1470	AVRG		8.8538
101)B 1,4-Dioxane	0.0023956	0.0021355 0.0025446	0.0022732	0.0022326	0.0025653	0.0024235	0.0024	AVRG	#	6.7958
102)B 2-Nitropropane	0.1046554	0.0860970 0.1105739	0.0746622	0.0835138	0.0958489	0.0980353	0.0933	AVRG		13.4897
104)B Ethyl methacrylate	0.3892142	0.3281959 0.3846397	0.3314592	0.3658252	0.4089067	0.4020548	0.3729	AVRG		8.7009
106)B 1-Chlorohexane	0.7710917	0.7446314 0.7789732	0.6932078	0.7603516	0.7520400	0.7865583	0.7553	AVRG		4.1139
107)B cis-1,4-Dichloro-2-buten	0.2810185	0.2487749 0.2832635	0.2474531	0.2566035	0.2790792	0.2788720	0.2679	AVRG		6.0291
108)B Cyclohexanone	0.0340879	0.0257420	0.0252405	0.0268718	0.0320032	0.0336280	0.0296	AVRG		13.8059
109)B trans-1,4-Dichloro-2-but	0.2641591	0.2258403 0.2679798	0.2400259	0.2568345	0.2763855	0.2673888	0.2569	AVRG		6.9522
110)B Pentachloroethane	0.3249720	0.3333091 0.3361209	0.3405849	0.3561341	0.3710328	0.2789964	0.3345	AVRG		8.6444
111)B Benzyl chloride	1.2730388	1.1881275 1.2094626	1.1801871	1.2639707	1.3488182	1.3101067	1.2534	AVRG		5.0846

Response Factor Report VOA6
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Method File : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Last Update : Thu Feb 11 09:38:02 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
112)B bis(2-Chloroisopropyl)et		0.3567635	0.3474746	0.3638014	0.4250964	0.3986649				
	0.3967158	0.4065660					0.3850	AVRG		7.5364

(#) = Out of Range

Continuing Calibration Summary

Client SDG: 10-1898

Instrument ID: VOA6.I **Injection Date** 10-FEB-10 17:01

Data File: 021010V6\6X312.D **Init. Cal. Date(s)** 10-FEB-10 12:51 - 10-FEB-10 20:43

Lab Sample ID W6VM100210-09 **Quant Type** ISTD **Method:** VOA6-8260-021010.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.3767	0.35357		.01		-6.14016	30		Averaged	
S	Toluene-d8	1.362	1.36035		.01		-0.12115	30		Averaged	
S	Bromofluorobenzene	0.9333	0.93291		.01		-0.04179	30		Averaged	
	Dichlorodifluoromethane	0.2378	0.21772		.01		-8.44407	30		Averaged	
	Chloromethane	0.3882	0.33875		.1		-12.73828	30		Averaged	spcc
	Vinyl chloride	0.3438	0.32618		.01		-5.12507	20		Averaged	ccc
	Bromomethane	0.2072	0.19918		.01		-3.87066	30		Averaged	
	Chloroethane	0.2169	0.20884		.01		-3.716	30		Averaged	
	Trichlorofluoromethane	0.4863	0.46834		.01		-3.69319	30		Averaged	
	Ethyl ether	0.2683	0.25491		.01		-4.99068	30		Averaged	
	1,1-Dichloroethylene	0.4485	0.42059		.01		-6.22297	20		Averaged	ccc
	Acetone	250	240.23	250			-3.908	40		Linear	
	Iodomethane	0.4251	0.39474		.01		-7.14185	30		Averaged	
	Acetonitrile	0.0404	0.04033		.01		-0.17327	30		Averaged	
	Carbon disulfide	0.7818	0.76602		.01		-2.01842	30		Averaged	
	Methyl acetate	0.2335	0.22426		.01		-3.95717	40		Averaged	
	Methylene chloride	0.2821	0.25685		.01		-8.95073	30		Averaged	
	tert-Butyl methyl ether	0.7487	0.72672		.01		-2.93576	30		Averaged	
	trans-1,2-Dichloroethylene	0.4193	0.40737		.01		-2.84522	30		Averaged	
	Vinyl acetate	0.5848	0.63796		.01		9.09029	40		Averaged	
	1,1-Dichloroethane	0.5117	0.49238		.1		-3.77565	30		Averaged	spcc
	2-Butanone	0.1071	0.12437		.01		16.12512	40		Averaged	
	cis-1,2-Dichloroethylene	0.4645	0.45641		.01		-1.74166	30		Averaged	
	2,2-Dichloropropane	0.4408	0.4413		.01		0.11343	30		Averaged	
	Bromochloromethane	0.1304	0.12597		.01		-3.39724	30		Averaged	
	Chloroform	0.5027	0.47056		.01		-6.39348	20		Averaged	ccc
	1,1,1-Trichloroethane	0.4666	0.45559		.01		-2.35962	30		Averaged	
	Cyclohexane	0.498	0.53091		.01		6.60843	30		Averaged	
	1,1-Dichloropropene	0.3557	0.36859		.01		3.62384	30		Averaged	
	Carbon tetrachloride	0.4288	0.42019		.01		-2.00793	30		Averaged	
	1,2-Dichloroethane	0.4544	0.41856		.01		-7.88732	30		Averaged	
	Benzene	0.9981	0.95035		.01		-4.78409	30		Averaged	
	Cyclohexene	0.4982	0.50919		.01		2.20594	30		Averaged	
	n-Butyl alcohol	0.0074	0.00854		.01		15.40541	40		Averaged	
	Trichloroethylene	0.2625	0.2577		.01		-1.82857	30		Averaged	
	Methylcyclohexane	0.4308	0.46396		.01		7.69731	30		Averaged	
	1,2-Dichloropropane	0.2696	0.26447		.01		-1.90282	20		Averaged	ccc

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Date** 10-FEB-10 17:01

Data File: 021010V6\6X312.D **Init. Cal. Date(s)** 10-FEB-10 12:51 10-FEB-10 20:43

Lab Sample ID W6VM100210-09 **Quant Type** ISTD **Method:** VOA6-8260-021010.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1508	0.14539		.01		-3.58753	30		Averaged	
Bromodichloromethane	0.3556	0.35129		.01		-1.21204	30		Averaged	
2-Chloroethylvinyl ether	0.1601	0.15761		.01		-1.55528	30		Averaged	
cis-1,3-Dichloropropylene	0.3987	0.40693		.01		2.06421	30		Averaged	
4-Methyl-2-pentanone	0.1187	0.13521		.01		13.90901	40		Averaged	
Toluene	1.4274	1.40288		.01		-1.71781	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.518	0.54425		.01		5.06757	30		Averaged	
1,1,2-Trichloroethane	0.2316	0.22594		.01		-2.44387	30		Averaged	
2-Hexanone	0.2289	0.26717		.01		16.71909	40		Averaged	
1,3-Dichloropropane	0.5074	0.49311		.01		-2.81632	30		Averaged	
Tetrachloroethylene	0.3112	0.30557		.01		-1.80913	30		Averaged	
Dibromochloromethane	0.3534	0.36123		.01		2.21562	30		Averaged	
1,2-Dibromoethane	0.2896	0.28822		.01		-0.47652	30		Averaged	
Chlorobenzene	0.9603	0.93212		.3		-2.9345	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3661	0.36567		.01		-0.11745	30		Averaged	
Ethylbenzene	1.6504	1.66413		.01		0.83192	20		Averaged	ccc
m,p-Xylenes	0.6414	0.64647		.01		0.79046	30		Averaged	
o-Xylene	0.614	0.6311		.01		2.78502	30		Averaged	
Styrene	0.9554	1.0243		.01		7.21164	30		Averaged	
Bromoform	0.3838	0.40994		.1		6.81084	30		Averaged	spcc
Isopropylbenzene	2.9304	3.07318		.01		4.87237	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6195	0.62157		.3		0.33414	30		Averaged	spcc
1,2,3-Trichloropropane	0.1932	0.19341		.01		0.1087	30		Averaged	
Bromobenzene	0.7379	0.73907		.01		0.15856	30		Averaged	
n-Propylbenzene	3.4709	3.53943		.01		1.97442	30		Averaged	
2-Chlorotoluene	0.7147	0.73038		.01		2.19393	30		Averaged	
1,3,5-Trimethylbenzene	2.5618	2.65178		.01		3.51237	30		Averaged	
4-Chlorotoluene	2.1542	2.19877		.01		2.06898	30		Averaged	
tert-Butylbenzene	0.542	0.57422		.01		5.94465	30		Averaged	
1,2,4-Trimethylbenzene	2.6459	2.72594		.01		3.02506	30		Averaged	
sec-Butylbenzene	3.3775	3.54129		.01		4.84944	30		Averaged	
4-Isopropyltoluene	2.7568	2.94387		.01		6.78577	30		Averaged	
1,3-Dichlorobenzene	1.4834	1.43877		.01		-3.00863	30		Averaged	
1,4-Dichlorobenzene	1.5139	1.45913		.01		-3.61781	30		Averaged	
n-Butylbenzene	2.6537	2.83362		.01		6.77997	30		Averaged	
1,2-Dichlorobenzene	1.3944	1.38938		.01		-0.36001	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1127	0.13292		.01		17.94144	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Dat** 10-FEB-10 17:01

Data File: 021010V6\6X312.D **Init. Cal. Date(s)** 10-FEB-10 12:51 10-FEB-10 20:43

Lab Sample ID W6VM100210-09 **Quant Type** ISTD **Method:** VOA6-8260-021010.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.9869	1.04276		.01		5.66015	30		Averaged
Hexachlorobutadiene	0.7144	0.73092		.01		2.31243	30		Averaged
Naphthalene	1.8171	1.97648		.01		8.77112	30		Averaged
1,2,3-Trichlorobenzene	0.8286	0.88738		.01		7.09389	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\021010V6\
Data File : 6X312.D
Acq On : 10 Feb 2010 5:01 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100210-09|ICV|1|VOAF|1|VOA8260BS|
Misc : ICV 5uL N/A MIX[A] 0126-01C+0210-01
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 11 09:39:41 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1591691	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	1155507	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	15.576	1.000	152	660829	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1589507	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	1155507	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	15.576	1.000	152	660829	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	562772	46.92	ug/L	0.00
43) Toluene-d8	11.620	11.620	0.883	98	1571892	49.94	ug/L	0.00
61) Bromofluorobenzene	14.357	14.357	0.922	95	616491	49.98	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.360	4.360	0.437	85	346540	45.78	ug/L	98
3) Chloromethane	4.672	4.672	0.468	50	539186	43.63	ug/L	99
4) Vinyl chloride	4.914	4.914	0.493	62	519180	47.44	ug/L	100
5) Bromomethane	5.468	5.468	0.548	94	317040	48.06	ug/L	100
6) Chloroethane	5.609	5.619	0.562	64	332403	48.14	ug/L	100
7) Trichlorofluoromethane	6.022	6.032	0.604	101	745457	48.15	ug/L	100
8) Ethyl ether	6.328	6.328	0.634	59	405739	47.51	ug/L	100
9) Acetone	6.706	6.706	0.672	43	793168	240.23	ug/L	99
10) 1,1-Dichloroethylene	6.706	6.706	0.672	61	669443	46.88	ug/L	99
11) Iodomethane	6.950	6.956	0.697	142	3141527	232.13	ug/L	98
12) Acetonitrile	7.072	7.072	0.709	41	1604787	1246.77	ug/L	99
13) Methyl acetate	7.096	7.096	0.711	43	1784745	240.10	ug/L	100
14) Carbon disulfide	7.078	7.078	0.710	76	6096369	244.95	ug/L	100
15) Methylene chloride	7.285	7.285	0.730	84	408822	45.52	ug/L	99
16) tert-Butyl methyl ether	7.572	7.572	0.759	73	1156713	48.53	ug/L	99
17) trans-1,2-Dichloroethy...	7.620	7.615	0.764	61	648408	48.57	ug/L	99
18) Vinyl acetate	8.059	8.060	0.808	43	5077153	272.74	ug/L	95
19) 1,1-Dichloroethane	8.102	8.102	0.812	63	783709	48.11	ug/L	100
20) 2-Butanone	8.687	8.694	0.871	43	989782	290.38	ug/L	100
21) cis-1,2-Dichloroethylene	8.742	8.742	0.877	61	726471	49.13	ug/L	99
22) 2,2-Dichloropropane	8.767	8.767	0.879	77	702409	50.06	ug/L	99
23) Bromochloromethane	9.017	9.017	0.904	128	200502	48.30	ug/L	98
24) Chloroform	9.053	9.053	0.908	83	748993	46.81	ug/L	99
25) 1,1,1-Trichloroethane	9.321	9.322	0.935	97	725157	48.82	ug/L	100
26) Cyclohexane	9.413	9.413	0.944	56	845046	53.30	ug/L	99
27) 1,1-Dichloropropene	9.480	9.480	0.950	75	586677	51.82	ug/L	97
28) Carbon tetrachloride	9.510	9.510	0.954	117	668811	48.99	ug/L	98
30) 1,2-Dichloroethane	9.705	9.706	0.973	62	666217	46.06	ug/L	100
31) Benzene	9.724	9.724	0.975	78	1512665	47.61	ug/L	100
32) Cyclohexene	9.827	9.828	0.985	67	810473	51.11	ug/L	100
33) n-Butyl alcohol	10.077	10.077	1.010	56	1359848	5737.54	ug/L	99
34) Trichloroethylene	10.364	10.364	1.039	95	410179	49.08	ug/L	98
35) 1,2-Dichloropropane	10.614	10.614	1.064	63	420954	49.05	ug/L	99
36) Methylcyclohexane	10.602	10.602	1.063	83	738474	53.84	ug/L	99
37) Dibromomethane	10.748	10.748	1.078	93	231418	48.22	ug/L	99
38) Bromodichloromethane	10.864	10.864	1.089	83	559141	49.40	ug/L	100
39) 2-Chloroethylvinyl ether	11.089	11.089	1.112	63	1254306	246.18	ug/L	99
40) cis-1,3-Dichloropropylene	11.315	11.315	1.134	75	647712	51.03	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\021010V6\
Data File : 6X312.D
Acq On : 10 Feb 2010 5:01 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100210-09|ICV|1|VOAF|1|VOA8260BS|
Misc : ICV 5uL N/A MIX[A] 0126-01C+0210-01
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 11 09:39:41 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
42) 4-Methyl-2-pentanone	11.406	11.406	0.867	58	781198	284.77	ug/L		98
44) Toluene	11.699	11.699	0.889	91	1621038	49.14	ug/L		100
45) trans-1,3-Dichloroprop...	11.857	11.858	0.901	75	628883	52.54	ug/L		99
46) 1,1,2-Trichloroethane	12.077	12.077	0.918	83	261072	48.78	ug/L		99
47) 2-Hexanone	12.260	12.260	0.932	43	1543566	291.86	ug/L		94
48) 1,3-Dichloropropane	12.272	12.272	0.933	76	569797	48.59	ug/L		97
49) Tetrachloroethylene	12.290	12.290	0.934	164	353089	49.09	ug/L		100
50) Dibromochloromethane	12.534	12.534	0.953	129	417400	51.10	ug/L		99
51) 1,2-Dibromoethane	12.705	12.705	0.966	107	333041	49.77	ug/L		100
52) Chlorobenzene	13.186	13.187	1.002	112	1077067	48.53	ug/L		99
53) 1,1,1,2-Tetrachloroethane	13.241	13.241	1.006	131	422540	49.95	ug/L		99
54) Ethylbenzene	13.254	13.248	1.007	91	1922912	50.42	ug/L		100
55) m,p-Xylenes	13.363	13.357	1.016	106	1493998	100.79	ug/L		98
56) o-Xylene	13.796	13.796	1.049	106	729235	51.39	ug/L		97
57) Styrene	13.796	13.802	1.049	104	1183589	53.61	ug/L		99
59) Bromoform	14.058	14.058	0.903	173	270903	53.41	ug/L		99
60) Isopropylbenzene	14.156	14.156	0.909	105	2030847	52.44	ug/L		100
62) 1,1,2,2-Tetrachloroethane	14.436	14.436	0.927	83	410754	50.17	ug/L		99
63) 1,2,3-Trichloropropane	14.528	14.528	0.933	110	127809	50.05	ug/L		97
64) Bromobenzene	14.564	14.564	0.935	156	488400	50.08	ug/L		99
65) n-Propylbenzene	14.583	14.583	0.936	91	2338957	50.99	ug/L		100
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	1752374	51.76	ug/L		100
67) 2-Chlorotoluene	14.729	14.735	0.946	126	482655	51.10	ug/L		98
68) 4-Chlorotoluene	14.832	14.833	0.952	91	1453013	51.03	ug/L		99
69) tert-Butylbenzene	15.107	15.107	0.970	134	379461	52.97	ug/L	#	89
70) 1,2,4-Trimethylbenzene	15.149	15.150	0.973	105	1801380	51.51	ug/L		100
71) sec-Butylbenzene	15.332	15.333	0.984	105	2340187	52.42	ug/L		99
72) 4-Isopropyltoluene	15.454	15.454	0.992	119	1945393	53.39	ug/L		100
73) 1,3-Dichlorobenzene	15.515	15.515	0.996	146	950779	48.50	ug/L		99
74) 1,4-Dichlorobenzene	15.601	15.601	1.002	146	964235	48.19	ug/L		99
75) n-Butylbenzene	15.887	15.887	1.020	91	1872540	53.39	ug/L		100
76) 1,2-Dichlorobenzene	16.021	16.021	1.029	146	918142	49.82	ug/L		100
77) 1,2-Dibromo-3-chloropr...	16.881	16.881	1.084	157	87837	58.97	ug/L		98 E
78) 1,2,4-Trichlorobenzene	17.911	17.911	1.150	180	689083	52.83	ug/L		100
79) Hexachlorobutadiene	18.076	18.076	1.160	225	483014	51.15	ug/L		99
80) Naphthalene	18.289	18.283	1.174	128	1306117	54.39	ug/L		100
81) 1,2,3-Trichlorobenzene	18.618	18.618	1.195	180	586405	53.55	ug/L		100
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.			
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.			
85) Acrolein	6.468	6.535	0.649		0m	N.D.	d		
86) Trichlorotrifluoroethane	6.688	6.682	0.671		0m	N.D.	d		
87) Isopropyl Alcohol	6.700	6.785	0.672		0m	N.D.	d		
88) Allyl chloride	7.072	7.139	0.709		0m	N.D.	d		
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.			
90) Acrylonitrile	7.578	7.541	0.760		0m	N.D.	d		
91) Isopropyl ether	8.066	8.078	0.809		0m	N.D.	d		
92) 2-Chloro-1,3-butadiene	8.212	8.206	0.823		0m	N.D.	d		
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.			
94) Ethyl acetate	8.687	8.700	0.871		0m	N.D.	d		
95) Propionitrile	8.693	8.773	0.872		0m	N.D.	d		
96) Methacrylonitrile	8.968	8.950	0.899		0m	N.D.	d		
97) Tetrahydrofuran	9.047	9.059	0.907		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\021010V6\
Data File : 6X312.D
Acq On : 10 Feb 2010 5:01 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100210-09|ICV|1|VOAF|1|VOA8260BS|
Misc : ICV 5uL N/A MIX[A] 0126-01C+0210-01
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 11 09:39:41 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98)	Isobutyl alcohol	9.413	9.388	0.944		0m	N.D.	d
99)	Methyl tert-amyl ether	9.718	9.736	0.974		0m	N.D.	d
100)	Methyl methacrylate	10.602	10.589	1.063		0m	N.D.	d
101)	1,4-Dioxane	10.742	10.699	1.077		0m	N.D.	d
102)	2-Nitropropane	11.089	11.071	1.112		0m	N.D.	d
104)	Ethyl methacrylate	11.864	11.858	0.902		0m	N.D.	d
106)	1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156	14.199	0.909		0m	N.D.	d
108)	Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110)	Pentachloroethane	15.174	15.174	0.974		0m	N.D.	d
111)	Benzyl chloride	15.716	15.717	1.009		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.113	16.113	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\021010V6\
Data File : 6X312.D
Acq On : 10 Feb 2010 5:01 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100210-09|ICV|1|VOAF|1|VOA8260BS|
Misc : ICV 5uL N/A MIX[A] 0126-01C+0210-01
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Feb 11 09:39:41 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

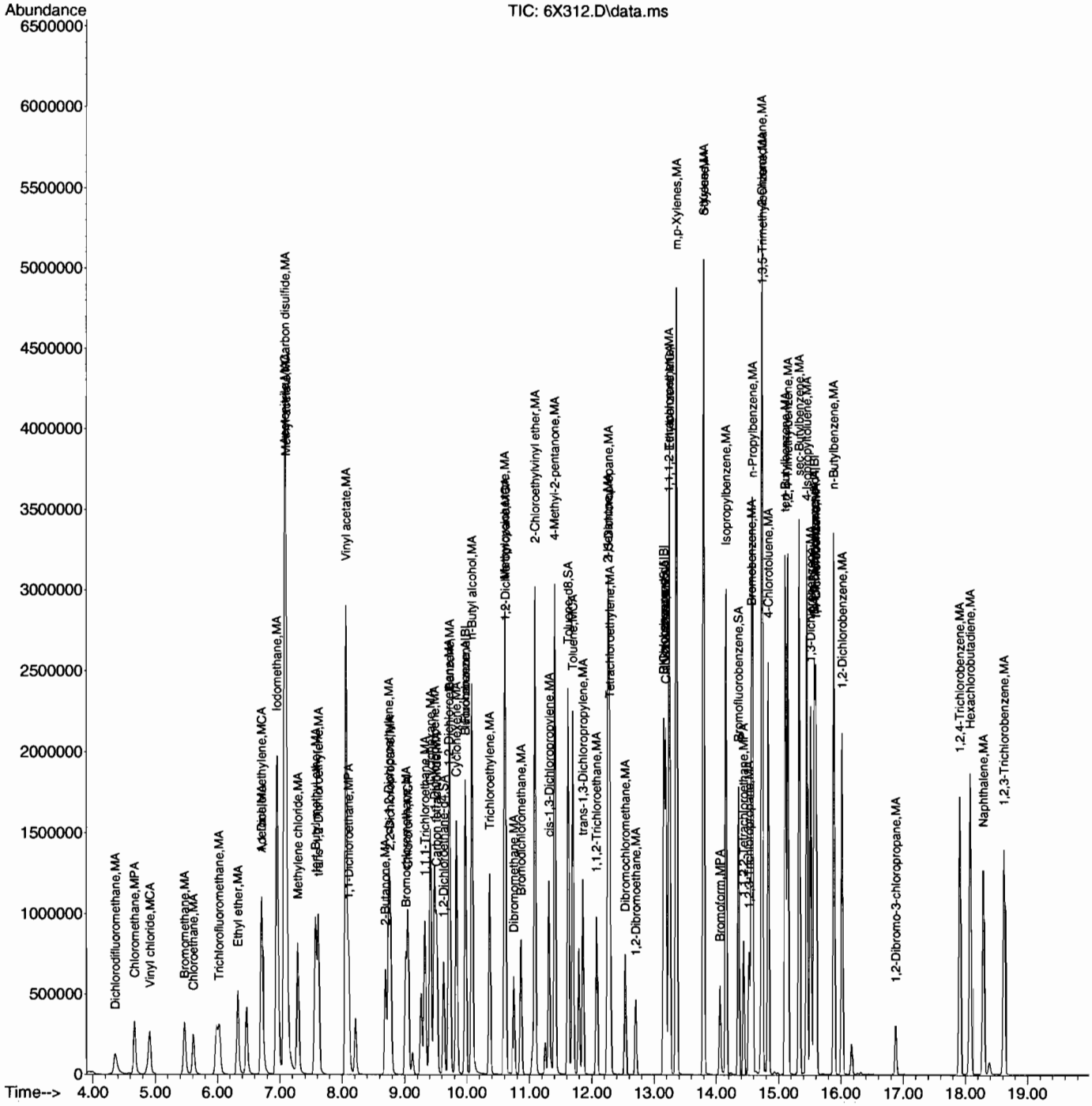

Continuing Calibration Summary

Client SDG: 10-1898

Instrument ID: VOA6.I **Injection Date** 10-FEB-10 21:38

Data File: 021010V6\6X322.D **Init. Cal. Date(s)** 10-FEB-10 12:51 - 10-FEB-10 20:43

Lab Sample ID W6VM100210-18 **Quant Type** ISTD **Method:** VOA6-8260-021010.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.3767	0.35354		.01		-6.14813	30		Averaged
S	Toluene-d8	1.362	1.32182		.01		-2.95007	30		Averaged
S	Bromofluorobenzene	0.9333	0.93856		.01		0.56359	30		Averaged
	Chlorotrifluoroethylene	0.176	0.12792		.01		-27.31818	30		Averaged
	2-Chloro-1,1,1-trifluoroethane	0.3815	0.35812		.01		-6.12844	30		Averaged
	Acrolein	0.0258	0.03275		.01		26.93798	30		Averaged
	Trichlorotrifluoroethane	0.1139	0.0957		.01		-15.97893	30		Averaged
	Isopropyl Alcohol	0.0235	0.02446		.01		4.08511	40		Averaged
	Allyl chloride	0.5032	0.42345		.01		-15.84857	30		Averaged
	tert-Butyl Alcohol	0.0355	0.03666		.01		3.26761	40		Averaged
	Acrylonitrile	0.1006	0.08597		.01		-14.54274	30		Averaged
	Isopropyl ether	1.078	1.0768		.01		-0.11132	30		Averaged
	2-Chloro-1,3-butadiene	0.4186	0.40612		.01		-2.98137	30		Averaged
	Ethyl tert-butyl ether	0.907	0.91365		.01		0.73319	30		Averaged
	Ethyl acetate	0.2966	0.24167		.01		-18.51989	40		Averaged
	Propionitrile	0.0385	0.03357		.01		-12.80519	30		Averaged
	Methacrylonitrile	0.1786	0.15417		.01		-13.67861	30		Averaged
	Tetrahydrofuran	0.0895	0.07791		.01		-12.94972	30		Averaged
	Isobutyl alcohol	0.0116	0.01007		.01		-13.18966	40		Averaged
	Methyl tert-amyl ether	0.7456	0.74221		.01		-0.45467	30		Averaged
	Methyl methacrylate	0.147	0.13272		.01		-9.71429	30		Averaged
	1,4-Dioxane	0.0024	0.00207		.01		-13.75	40		Averaged
	2-Nitropropane	0.0933	0.08838		.01		-5.27331	30		Averaged
	Ethyl methacrylate	0.3729	0.341		.01		-8.55457	30		Averaged
	1-Chlorohexane	0.7553	0.76137		.01		0.80365	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2679	0.25319		.01		-5.49085	30		Averaged
	Cyclohexanone	0.0296	0.01905		.01		-35.64189	40		Averaged
	trans-1,4-Dichloro-2-butene	0.2569	0.24039		.01		-6.42663	30		Averaged
	Pentachloroethane	0.3345	0.29298		.01		-12.41256	30		Averaged
	Benzyl chloride	1.2534	1.00976		.01		-19.43833	30		Averaged
	bis(2-Chloroisopropyl)ether	0.385	0.33446		.01		-13.12727	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\021010V6\
Data File : 6X322.D
Acq On : 10 Feb 2010 9:38 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100210-18|ICV|1|VOAF|1|VOA8260BS|
Misc : ICV 5uL N/A MIX[B] 1023-08B+0125-08B
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 11 09:40:02 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1666633	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	1236503	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	722559	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1664875	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	1236503	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	722559	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	589222	46.92	ug/L	0.00
43) Toluene-d8	11.620	11.620	0.883	98	1634438	48.53	ug/L	0.00
61) Bromofluorobenzene	14.351	14.357	0.922	95	678164	50.28	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.280	4.360	0.429		0m	N.D.	d	
3) Chloromethane	4.652	4.672	0.466		0m	N.D.	d	
4) Vinyl chloride	4.884	4.914	0.490		0m	N.D.	d	
5) Bromomethane	5.448	5.468	0.546		0m	N.D.	d	
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	6.032	6.032	0.605		0m	N.D.	d	
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.682	6.706	0.670		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.682	6.706	0.670		0m	N.D.	d	
11) Iodomethane	6.944	6.956	0.696		0m	N.D.	d	
12) Acetonitrile	7.139	7.072	0.716		0m	N.D.	d	
13) Methyl acetate	7.096	7.096	0.711		0m	N.D.	d	
14) Carbon disulfide	7.139	7.078	0.716		0m	N.D.	d	
15) Methylene chloride	7.291	7.285	0.731		0m	N.D.	d	
16) tert-Butyl methyl ether	7.584	7.572	0.760		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	7.615	7.615	0.763		0m	N.D.	d	
18) Vinyl acetate	8.078	8.060	0.810		0m	N.D.	d	
19) 1,1-Dichloroethane	8.200	8.102	0.822		0m	N.D.	d	
20) 2-Butanone	8.700	8.694	0.872		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	8.700	8.742	0.872		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	9.047	9.053	0.907		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	9.389	9.413	0.941		0m	N.D.	d	
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	9.712	9.706	0.974		0m	N.D.	d	
31) Benzene	9.712	9.724	0.974		0m	N.D.	d	
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	10.090	10.077	1.012		0m	N.D.	d	
34) Trichloroethylene	10.370	10.364	1.040		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	10.590	10.602	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	11.096	11.089	1.112		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	11.315	11.315	1.134		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\021010V6\
Data File : 6X322.D
Acq On : 10 Feb 2010 9:38 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100210-18|ICV|1|VOAF|1|VOA8260BS|
Misc : ICV 5uL N/A MIX[B] 1023-08B+0125-08B
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 11 09:40:02 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42)	4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.		
44)	Toluene	11.687	11.699	0.888		0m	N.D.	d	
45)	trans-1,3-Dichloroprop...	11.851	11.858	0.901		0m	N.D.	d	
46)	1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.		
47)	2-Hexanone	12.266	12.260	0.932		0m	N.D.	d	
48)	1,3-Dichloropropane	12.309	12.272	0.936		0m	N.D.	d	
49)	Tetrachloroethylene	12.290	12.290	0.934		0m	N.D.	d	
50)	Dibromochloromethane	0.000	12.534	0.000		0	N.D.		
51)	1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.		
52)	Chlorobenzene	13.187	13.187	1.002		0m	N.D.	d	
53)	1,1,1,2-Tetrachloroethane	13.241	13.241	1.006		0m	N.D.	d	
54)	Ethylbenzene	13.254	13.248	1.007		0m	N.D.	d	
55)	m,p-Xylenes	13.369	13.357	1.016		0m	N.D.	d	
56)	o-Xylene	0.000	13.796	0.000		0	N.D.		
57)	Styrene	13.790	13.802	1.048		0m	N.D.	d	
59)	Bromoform	0.000	14.058	0.000		0	N.D.		
60)	Isopropylbenzene	14.162	14.156	0.910		0m	N.D.	d	
62)	1,1,2,2-Tetrachloroethane	14.436	14.436	0.927		0m	N.D.	d	
63)	1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.		
64)	Bromobenzene	14.564	14.564	0.935		0m	N.D.	d	
65)	n-Propylbenzene	14.577	14.583	0.936		0m	N.D.	d	
66)	1,3,5-Trimethylbenzene	14.735	14.735	0.946		0m	N.D.	d	
67)	2-Chlorotoluene	14.735	14.735	0.946		0m	N.D.	d	
68)	4-Chlorotoluene	14.833	14.833	0.953		0m	N.D.	d	
69)	tert-Butylbenzene	15.180	15.107	0.975		0m	N.D.	d	
70)	1,2,4-Trimethylbenzene	15.150	15.150	0.973		0m	N.D.	d	
71)	sec-Butylbenzene	15.333	15.333	0.985		0m	N.D.	d	
72)	4-Isopropyltoluene	15.454	15.454	0.993		0m	N.D.	d	
73)	1,3-Dichlorobenzene	15.515	15.515	0.996		0m	N.D.	d	
74)	1,4-Dichlorobenzene	15.601	15.601	1.002		0m	N.D.	d	
75)	n-Butylbenzene	0.000	15.887	0.000		0	N.D.		
76)	1,2-Dichlorobenzene	16.021	16.021	1.029		0m	N.D.	d	
77)	1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.		
78)	1,2,4-Trichlorobenzene	17.911	17.911	1.150		0m	N.D.	d	
79)	Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.		
80)	Naphthalene	18.289	18.283	1.175		0m	N.D.	d	
81)	1,2,3-Trichlorobenzene	0.000	18.618	0.000		0	N.D.		
83)	Chlorotrifluoroethylene	4.290	4.279	0.430	116	638914	109.02	ug/L	100
84)	2-Chloro-1,1,1-trifluo...	5.035	5.035	0.505	118	1788654	140.80	ug/L	100
85)	Acrolein	6.535	6.535	0.655	56	272634	316.78	ug/L	98
86)	Trichlorotrifluoroethane	6.682	6.682	0.670	85	796647	210.14	ug/L	99
87)	Isopropyl Alcohol	6.785	6.785	0.680	45	2036163	2597.06	ug/L	99
88)	Allyl chloride	7.139	7.139	0.716	41	3524979	210.38	ug/L	100
89)	tert-Butyl Alcohol	7.285	7.285	0.730	59	3051808	2581.37	ug/L	99
90)	Acrylonitrile	7.541	7.541	0.756	53	715686	213.62	ug/L	99
91)	Isopropyl ether	8.078	8.078	0.810	45	1792742	49.94	ug/L	99
92)	2-Chloro-1,3-butadiene	8.206	8.206	0.823	53	676140	48.51	ug/L	99
93)	Ethyl tert-butyl ether	8.486	8.486	0.851	59	1521110	50.36	ug/L	100
94)	Ethyl acetate	8.700	8.700	0.872	43	2011792	203.69	ug/L	100
95)	Propionitrile	8.773	8.773	0.880	54	279481	217.99	ug/L	99
96)	Methacrylonitrile	8.950	8.950	0.897	41	1283383	215.80	ug/L	100
97)	Tetrahydrofuran	9.059	9.059	0.908	42	648532	217.72	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\021010V6\
Data File : 6X322.D
Acq On : 10 Feb 2010 9:38 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100210-18|ICV|1|VOAF|1|VOA8260BS|
Misc : ICV 5uL N/A MIX[B] 1023-08B+0125-08B
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 11 09:40:02 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
98)	Isobutyl alcohol	9.389	9.388	0.941	41	838264	2171.76	ug/L	100
99)	Methyl tert-amyl ether	9.736	9.736	0.976	73	1235685	49.77	ug/L	93
100)	Methyl methacrylate	10.590	10.589	1.062	69	1104810	225.64	ug/L	100
101)	1,4-Dioxane	10.699	10.699	1.073	88	172677	2190.75	ug/L	100
102)	2-Nitropropane	11.071	11.071	1.110	43	735697	236.71	ug/L	97
104)	Ethyl methacrylate	11.858	11.858	0.901	69	2108227	228.61	ug/L	100
106)	1-Chlorohexane	13.052	13.052	0.838	55	550138	50.40	ug/L	99
107)	cis-1,4-Dichloro-2-butene	14.199	14.199	0.912	53	914739	236.31	ug/L	99
108)	Cyclohexanone	14.314	14.314	0.919	42	344167	804.71	ug/L	98
109)	trans-1,4-Dichloro-2-b...	14.485	14.485	0.930	53	868481	233.89	ug/L	99
110)	Pentachloroethane	15.180	15.174	0.975	167	1058491	219.00	ug/L	99
111)	Benzyl chloride	15.717	15.717	1.009	91	3648041	201.41	ug/L	100
112)	bis(2-Chloroisopropyl)...	16.113	16.113	1.035	45	1208350	217.18	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\021010V6\
Data File : 6X322.D
Acq On : 10 Feb 2010 9:38 pm
Operator : RXD1
InstName : VOA6
Sample : |W6VM100210-18|ICV|1|VOAF|1|VOA8260BS|
Misc : ICV 5uL N/A MIX[B] 1023-08B+0125-08B
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 11 09:40:02 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

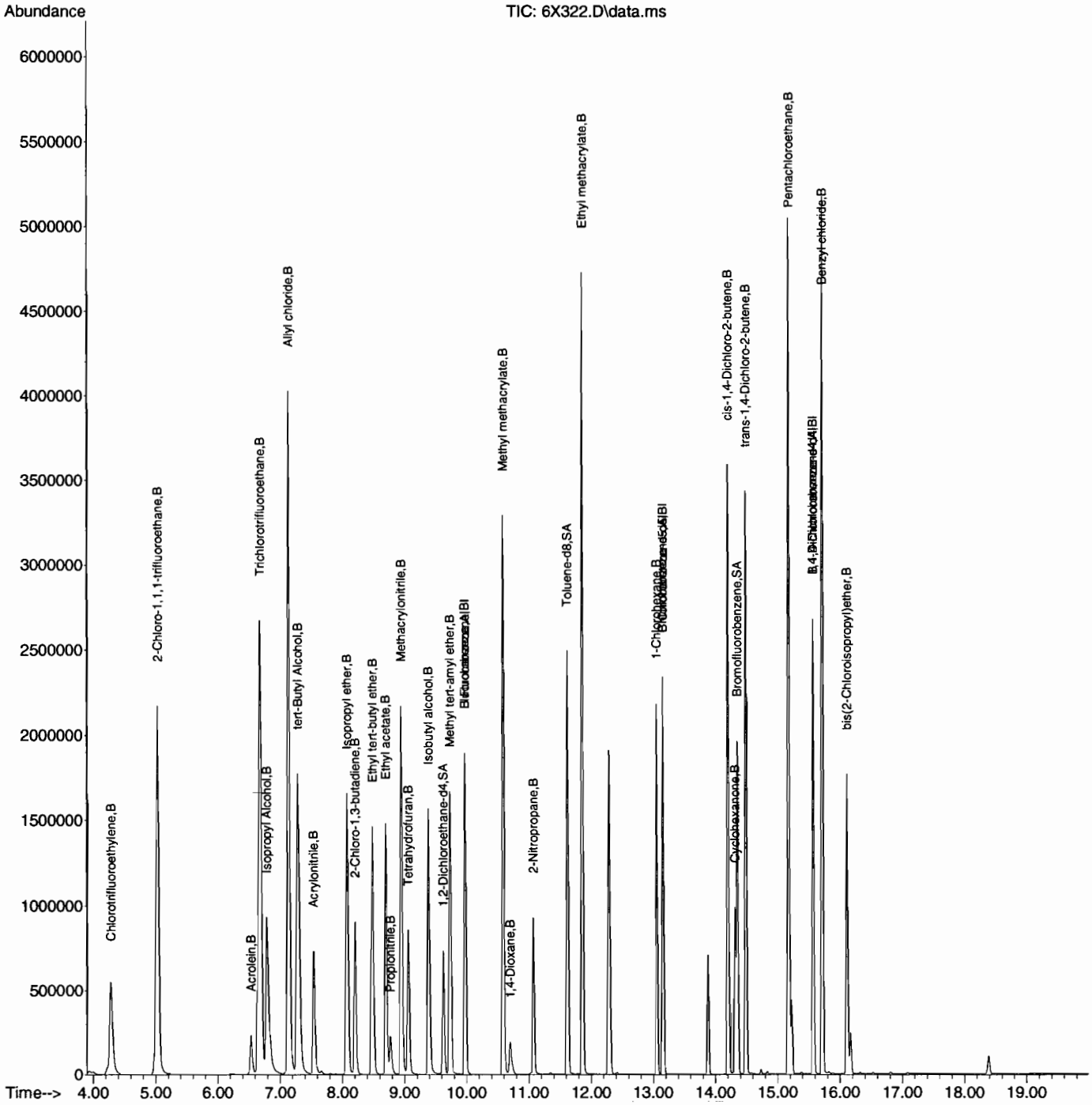

Continuing Calibration Summary

Client SDG: 10-1898

Instrument ID: VOA6.I **Injection Date** 27-FEB-10 02:06

Data File: 022610V6\6Z535.D **Init. Cal. Date(s)** 10-FEB-10 12:51 - 10-FEB-10 20:43

Lab Sample ID W6VM100226-05 **Quant Type** ISTD **Method:** VOA6-8260-021010.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.3767	0.3877		.01		2.9201	30		Averaged	
S	Toluene-d8	1.362	1.30072		.01		-4.49927	30		Averaged	
S	Bromofluorobenzene	0.9333	0.94622		.01		1.38434	30		Averaged	
	Dichlorodifluoromethane	0.2378	0.21285		.01		-10.49201	30		Averaged	
	Chloromethane	0.3882	0.35494		.1		-8.56775	30		Averaged	spcc
	Vinyl chloride	0.3438	0.3109		.01		-9.56952	20		Averaged	ccc
	Bromomethane	0.2072	0.2031		.01		-1.97876	30		Averaged	
	Chloroethane	0.2169	0.19973		.01		-7.91609	30		Averaged	
	Trichlorofluoromethane	0.4863	0.46326		.01		-4.73782	30		Averaged	
	Ethyl ether	0.2683	0.25931		.01		-3.35073	30		Averaged	
	1,1-Dichloroethylene	0.4485	0.41021		.01		-8.53735	20		Averaged	ccc
	Acetone	250	278.55	250			11.42	40		Linear	
	Iodomethane	0.4251	0.38564		.01		-9.28252	30		Averaged	
	Acetonitrile	0.0404	0.03668		.01		-9.20792	30		Averaged	
	Carbon disulfide	0.7818	0.67132		.01		-14.13149	30		Averaged	
	Methyl acetate	0.2335	0.21957		.01		-5.96574	40		Averaged	
	Methylene chloride	0.2821	0.23436		.01		-16.92308	30		Averaged	
	tert-Butyl methyl ether	0.7487	0.71744		.01		-4.17524	30		Averaged	
	trans-1,2-Dichloroethylene	0.4193	0.3802		.01		-9.32507	30		Averaged	
	Vinyl acetate	0.5848	0.47403		.01		-18.94152	40		Averaged	
	1,1-Dichloroethane	0.5117	0.47346		.1		-7.47313	30		Averaged	spcc
	2-Butanone	0.1071	0.12466		.01		16.39589	40		Averaged	
	cis-1,2-Dichloroethylene	0.4645	0.43525		.01		-6.29709	30		Averaged	
	2,2-Dichloropropane	0.4408	0.39713		.01		-9.90699	30		Averaged	
	Bromochloromethane	0.1304	0.11993		.01		-8.02914	30		Averaged	
	Chloroform	0.5027	0.4579		.01		-8.91188	20		Averaged	ccc
	1,1,1-Trichloroethane	0.4666	0.44114		.01		-5.45649	30		Averaged	
	Cyclohexane	0.498	0.44007		.01		-11.63253	30		Averaged	
	1,1-Dichloropropene	0.3557	0.32432		.01		-8.82204	30		Averaged	
	Carbon tetrachloride	0.4288	0.40921		.01		-4.56856	30		Averaged	
	1,2-Dichloroethane	0.4544	0.4378		.01		-3.65317	30		Averaged	
	Benzene	0.9981	0.87022		.01		-12.81234	30		Averaged	
	Cyclohexene	0.4982	0.46202		.01		-7.26214	30		Averaged	
	n-Butyl alcohol	0.0074	0.00859		.01		16.08108	40		Averaged	
	Trichloroethylene	0.2625	0.24546		.01		-6.49143	30		Averaged	
	Methylcyclohexane	0.4308	0.38441		.01		-10.76834	30		Averaged	
	1,2-Dichloropropane	0.2696	0.24811		.01		-7.97107	20		Averaged	ccc

Continuing Calibration Summary

Instrument ID: VOA6.1 **Injection Dat** 27-FEB-10 02:06

Data File: 022610V6\6Z535.D **Init. Cal. Date(s)** 10-FEB-10 12:51 10-FEB-10 20:43

Lab Sample ID W6VM100226-05 **Quant Type** ISTD **Method:** VOA6-8260-021010.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1508	0.14272		.01		-5.35809	30		Averaged	
Bromodichloromethane	0.3556	0.35274		.01		-0.80427	30		Averaged	
2-Chloroethylvinyl ether	0.1601	0.16822		.01		5.07183	30		Averaged	
cis-1,3-Dichloropropylene	0.3987	0.38007		.01		-4.67269	30		Averaged	
4-Methyl-2-pentanone	0.1187	0.123		.01		3.62258	40		Averaged	
Toluene	1.4274	1.2119		.01		-15.09738	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.518	0.49214		.01		-4.99228	30		Averaged	
1,1,2-Trichloroethane	0.2316	0.20871		.01		-9.88342	30		Averaged	
2-Hexanone	0.2289	0.30236		.01		32.09262	40		Averaged	
1,3-Dichloropropane	0.5074	0.45335		.01		-10.65235	30		Averaged	
Tetrachloroethylene	0.3112	0.2564		.01		-17.60925	30		Averaged	
Dibromochloromethane	0.3534	0.34901		.01		-1.24222	30		Averaged	
1,2-Dibromoethane	0.2896	0.2693		.01		-7.00967	30		Averaged	
Chlorobenzene	0.9603	0.8188		.3		-14.73498	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.3661	0.34261		.01		-6.41628	30		Averaged	
Ethylbenzene	1.6504	1.45955		.01		-11.56386	20		Averaged	ccc
m,p-Xylenes	0.6414	0.56785		.01		-11.4671	30		Averaged	
o-Xylene	0.614	0.56227		.01		-8.42508	30		Averaged	
Styrene	0.9554	0.9496		.01		-0.60708	30		Averaged	
Bromoform	0.3838	0.3929		.1		2.37103	30		Averaged	spcc
Isopropylbenzene	2.9304	2.61708		.01		-10.69206	30		Averaged	
1,1,2,2-Tetrachloroethane	0.6195	0.55193		.3		-10.90718	30		Averaged	spcc
1,2,3-Trichloropropane	0.1932	0.18202		.01		-5.78675	30		Averaged	
Bromobenzene	0.7379	0.65839		.01		-10.77517	30		Averaged	
n-Propylbenzene	3.4709	2.94234		.01		-15.22833	30		Averaged	
2-Chlorotoluene	0.7147	0.6206		.01		-13.16636	30		Averaged	
1,3,5-Trimethylbenzene	2.5618	2.28911		.01		-10.64447	30		Averaged	
4-Chlorotoluene	2.1542	1.85555		.01		-13.86362	30		Averaged	
tert-Butylbenzene	0.542	0.46938		.01		-13.39852	30		Averaged	
1,2,4-Trimethylbenzene	2.6459	2.35447		.01		-11.0144	30		Averaged	
sec-Butylbenzene	3.3775	2.94304		.01		-12.86336	30		Averaged	
4-Isopropyltoluene	2.7568	2.4309		.01		-11.82168	30		Averaged	
1,3-Dichlorobenzene	1.4834	1.20879		.01		-18.5122	30		Averaged	
1,4-Dichlorobenzene	1.5139	1.22406		.01		-19.14525	30		Averaged	
n-Butylbenzene	2.6537	2.23003		.01		-15.96526	30		Averaged	
1,2-Dichlorobenzene	1.3944	1.18951		.01		-14.69378	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1127	0.11756		.01		4.31233	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA6.I **Injection Dat** 27-FEB-10 02:06

Data File: 022610V6\6Z535.D **Init. Cal. Date(s)** 10-FEB-10 12:51 10-FEB-10 20:43

Lab Sample ID W6VM100226-05 **Quant Type** ISTD **Method:** VOA6-8260-021010.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.9869	0.77442		.01		-21.53004	30		Averaged
Hexachlorobutadiene	0.7144	0.56612		.01		-20.75588	30		Averaged
Naphthalene	1.8171	1.63953		.01		-9.77216	30		Averaged
1,2,3-Trichlorobenzene	0.8286	0.67268		.01		-18.81728	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z535.D
Acq On : 27 Feb 2010 2:06 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM100226-08|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 0106-08C+0202-08D
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Mar 01 08:58:35 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1185510	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	929833	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	551546	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1184833	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	929833	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	551546	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	459622	51.45	ug/L	0.00
43) Toluene-d8	11.626	11.620	0.884	98	1209451	47.75	ug/L	0.00
61) Bromofluorobenzene	14.357	14.357	0.922	95	521885	50.69	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.360	4.360	0.437	85	252337	44.76	ug/L	100
3) Chloromethane	4.672	4.672	0.468	50	420789	45.72	ug/L	100
4) Vinyl chloride	4.914	4.914	0.493	62	368574	45.22	ug/L	100
5) Bromomethane	5.478	5.468	0.549	94	240772	49.00	ug/L	100
6) Chloroethane	5.619	5.619	0.563	64	236781	46.04	ug/L	100
7) Trichlorofluoromethane	6.032	6.032	0.605	101	549204	47.63	ug/L	100
8) Ethyl ether	6.328	6.328	0.634	59	307411	48.33	ug/L	99
9) Acetone	6.706	6.706	0.672	43	683611	278.55	ug/L	99
10) 1,1-Dichloroethylene	6.712	6.706	0.673	61	486307	45.73	ug/L	98
11) Iodomethane	6.956	6.956	0.697	142	2285895	226.78	ug/L	98
12) Acetonitrile	7.072	7.072	0.709	41	1087009	1133.85	ug/L	99
13) Methyl acetate	7.096	7.096	0.711	43	1301487	235.08	ug/L	100
14) Carbon disulfide	7.078	7.078	0.710	76	3979296	214.67	ug/L	100
15) Methylene chloride	7.285	7.285	0.730	84	277837	41.53	ug/L	97
16) tert-Butyl methyl ether	7.572	7.572	0.759	73	850537	47.91	ug/L	100
17) trans-1,2-Dichloroethy...	7.621	7.615	0.764	61	450726	45.33	ug/L	97
18) Vinyl acetate	8.060	8.060	0.808	43	2809837	202.66	ug/L	99
19) 1,1-Dichloroethane	8.102	8.102	0.812	63	561287	46.26	ug/L	100
20) 2-Butanone	8.694	8.694	0.872	43	738923	291.06	ug/L	99
21) cis-1,2-Dichloroethylene	8.742	8.742	0.877	61	515990	46.85	ug/L	98
22) 2,2-Dichloropropane	8.767	8.767	0.879	77	470798	45.05	ug/L	100
23) Bromochloromethane	9.017	9.017	0.904	128	142179	45.98	ug/L	99
24) Chloroform	9.053	9.053	0.908	83	542846	45.55	ug/L	100
25) 1,1,1-Trichloroethane	9.322	9.322	0.935	97	522974	47.27	ug/L	99
26) Cyclohexane	9.413	9.413	0.944	56	521705	44.18	ug/L	99
27) 1,1-Dichloropropene	9.480	9.480	0.950	75	384480	45.59	ug/L	98
28) Carbon tetrachloride	9.511	9.510	0.954	117	485119	47.71	ug/L	100
30) 1,2-Dichloroethane	9.706	9.706	0.973	62	519012	48.18	ug/L	99
31) Benzene	9.724	9.724	0.975	78	1031656	43.59	ug/L	99
32) Cyclohexene	9.828	9.828	0.985	67	547735	46.37	ug/L	98
33) n-Butyl alcohol	10.078	10.077	1.010	56	1018513	5769.73	ug/L	99
34) Trichloroethylene	10.364	10.364	1.039	95	290995	46.75	ug/L	99
35) 1,2-Dichloropropane	10.614	10.614	1.064	63	294137	46.01	ug/L	98
36) Methylcyclohexane	10.602	10.602	1.063	83	455719	44.61	ug/L	99
37) Dibromomethane	10.748	10.748	1.078	93	169196	47.34	ug/L	99
38) Bromodichloromethane	10.864	10.864	1.089	83	418181	49.60	ug/L	100
39) 2-Chloroethylvinyl ether	11.090	11.089	1.112	63	997113	262.75	ug/L	99
40) cis-1,3-Dichloropropylene	11.315	11.315	1.134	75	450582	47.66	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z535.D
Acq On : 27 Feb 2010 2:06 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM100226-08|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 0106-08C+0202-08D
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Mar 01 08:58:35 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
42) 4-Methyl-2-pentanone	11.407	11.406	0.867	58	571859	259.06	ug/L		99
44) Toluene	11.693	11.699	0.889	91	1126867	42.45	ug/L		100
45) trans-1,3-Dichloroprop...	11.858	11.858	0.901	75	457606	47.51	ug/L		100
46) 1,1,2-Trichloroethane	12.077	12.077	0.918	83	194063	45.06	ug/L		99
47) 2-Hexanone	12.260	12.260	0.932	43	1405707	330.30	ug/L		96
48) 1,3-Dichloropropane	12.272	12.272	0.933	76	421543	44.67	ug/L		91
49) Tetrachloroethylene	12.291	12.290	0.934	164	238405	41.19	ug/L		99
50) Dibromochloromethane	12.540	12.534	0.953	129	324522	49.37	ug/L		100
51) 1,2-Dibromoethane	12.705	12.705	0.966	107	250405	46.50	ug/L		99
52) Chlorobenzene	13.187	13.187	1.002	112	761348	42.63	ug/L		99
53) 1,1,1,2-Tetrachloroethane	13.242	13.241	1.006	131	318572	46.80	ug/L		98
54) Ethylbenzene	13.248	13.248	1.007	91	1357138	44.22	ug/L		99
55) m,p-Xylenes	13.363	13.357	1.016	106	1056004	88.54	ug/L		99
56) o-Xylene	13.796	13.796	1.049	106	522816	45.79	ug/L		99
57) Styrene	13.802	13.802	1.049	104	882969	49.70	ug/L		100
59) Bromoform	14.058	14.058	0.903	173	216702	51.19	ug/L		98
60) Isopropylbenzene	14.156	14.156	0.909	105	1443442	44.65	ug/L		100
62) 1,1,2,2-Tetrachloroethane	14.436	14.436	0.927	83	304413	44.55	ug/L		99
63) 1,2,3-Trichloropropane	14.522	14.528	0.933	110	100392	47.10	ug/L	#	93
64) Bromobenzene	14.564	14.564	0.935	156	363132	44.61	ug/L		98
65) n-Propylbenzene	14.583	14.583	0.937	91	1622835	42.39	ug/L		100
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	1262547	44.68	ug/L		98
67) 2-Chlorotoluene	14.729	14.735	0.946	126	342289	43.42	ug/L		96
68) 4-Chlorotoluene	14.833	14.833	0.953	91	1023419	43.07	ug/L		99
69) tert-Butylbenzene	15.107	15.107	0.970	134	258883	43.30	ug/L	#	92
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	1298601	44.49	ug/L		98
71) sec-Butylbenzene	15.333	15.333	0.985	105	1623221	43.57	ug/L		99
72) 4-Isopropyltoluene	15.455	15.454	0.993	119	1340751	44.09	ug/L		99
73) 1,3-Dichlorobenzene	15.515	15.515	0.996	146	666702	40.74	ug/L		99
74) 1,4-Dichlorobenzene	15.601	15.601	1.002	146	675127	40.43	ug/L		100
75) n-Butylbenzene	15.887	15.887	1.020	91	1229962	42.02	ug/L		99
76) 1,2-Dichlorobenzene	16.021	16.021	1.029	146	656068	42.65	ug/L		99
77) 1,2-Dibromo-3-chloropr...	16.881	16.881	1.084	157	64842	52.15	ug/L		99 E
78) 1,2,4-Trichlorobenzene	17.911	17.911	1.150	180	427128	39.23	ug/L		99
79) Hexachlorobutadiene	18.076	18.076	1.161	225	312240	39.62	ug/L		100
80) Naphthalene	18.289	18.283	1.175	128	904274	45.11	ug/L		100
81) 1,2,3-Trichlorobenzene	18.619	18.618	1.196	180	371015	40.59	ug/L		99
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.			
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.			
85) Acrolein	6.475	6.535	0.649		0m	N.D.	d		
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.			
87) Isopropyl Alcohol	6.725	6.785	0.674		0m	N.D.	d		
88) Allyl chloride	7.072	7.139	0.709		0m	N.D.	d		
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.			
90) Acrylonitrile	7.572	7.541	0.759		0m	N.D.	d		
91) Isopropyl ether	8.060	8.078	0.808		0m	N.D.	d		
92) 2-Chloro-1,3-butadiene	8.212	8.206	0.823		0m	N.D.	d		
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.			
94) Ethyl acetate	8.694	8.700	0.872		0m	N.D.	d		
95) Propionitrile	8.700	8.773	0.872		0m	N.D.	d		
96) Methacrylonitrile	0.000	8.950	0.000		0	N.D.			
97) Tetrahydrofuran	9.047	9.059	0.907		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z535.D
Acq On : 27 Feb 2010 2:06 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM100226-08|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 0106-08C+0202-08D
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Mar 01 08:58:35 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
98)	Isobutyl alcohol	9.413	9.388	0.944		0m	N.D.	d
99)	Methyl tert-amyl ether	9.724	9.736	0.975		0m	N.D.	d
100)	Methyl methacrylate	10.602	10.589	1.063		0m	N.D.	d
101)	1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102)	2-Nitropropane	11.090	11.071	1.112		0m	N.D.	d
104)	Ethyl methacrylate	11.797	11.858	0.897		0m	N.D.	d
106)	1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.150	14.199	0.909		0m	N.D.	d
108)	Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110)	Pentachloroethane	15.174	15.174	0.975		0m	N.D.	d
111)	Benzyl chloride	15.717	15.717	1.009		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.168	16.113	1.038		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z535.D
Acq On : 27 Feb 2010 2:06 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM100226-08|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5mL N/A MIX[A] 0106-08C+0202-08D
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Mar 01 08:58:35 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

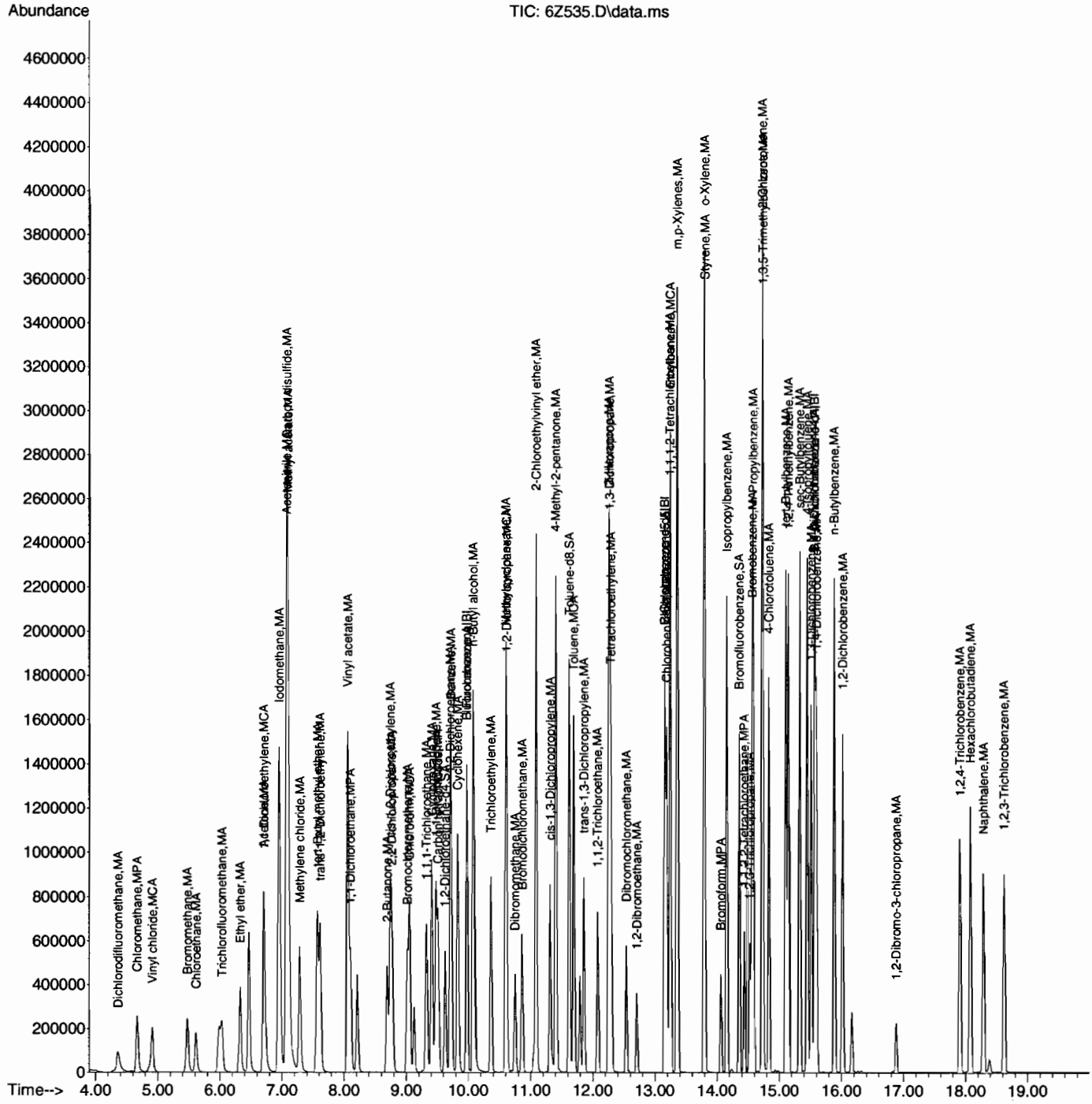

Continuing Calibration Summary

Client SDG: 10-1898

Instrument ID: VOA6.I **Injection Date** 27-FEB-10 03:01

Data File: 022610V6\6Z537.D **Init. Cal. Date(s)** 10-FEB-10 12:51 - 10-FEB-10 20:43

Lab Sample ID W6VM100226-10 **Quant Type** ISTD **Method:** VOA6-8260-021010.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.3767	0.38222		.01		1.46536	30		Averaged
S	Toluene-d8	1.362	1.29302		.01		-5.06461	30		Averaged
S	Bromofluorobenzene	0.9333	0.94675		.01		1.44112	30		Averaged
	Acrolein	0.0258	0.03413		.01		32.28682	30	*	Averaged
	Trichlorotrifluoroethane	0.1139	0.10401		.01		-8.68306	30		Averaged
	Allyl chloride	0.5032	0.45759		.01		-9.06399	30		Averaged
	Acrylonitrile	0.1006	0.10046		.01		-0.13917	30		Averaged
	2-Chloro-1,3-butadiene	0.4186	0.49707		.01		18.74582	30		Averaged
	Ethyl acetate	0.2966	0.27553		.01		-7.10384	40		Averaged
	Propionitrile	0.0385	0.04015		.01		4.28571	30		Averaged
	Methacrylonitrile	0.1786	0.18151		.01		1.62934	30		Averaged
	Tetrahydrofuran	0.0895	0.09365		.01		4.63687	30		Averaged
	Isobutyl alcohol	0.0116	0.01398		.01		20.51724	40		Averaged
	Methyl methacrylate	0.147	0.15572		.01		5.93197	30		Averaged
	1,4-Dioxane	0.0024	0.00278		.01		15.83333	40		Averaged
	2-Nitropropane	0.0933	0.11179		.01		19.81779	30		Averaged
	Ethyl methacrylate	0.3729	0.39953		.01		7.14132	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2679	0.28119		.01		4.96081	30		Averaged
	Cyclohexanone	0.0296	0.0335		.01		13.17568	40		Averaged
	trans-1,4-Dichloro-2-butene	0.2569	0.26947		.01		4.89295	30		Averaged
	Pentachloroethane	0.3345	0.18223		.01		-45.52167	30	*	Averaged
	Benzyl chloride	1.2534	0.9866		.01		-21.2861	30		Averaged
	bis(2-Chloroisopropyl)ether	0.385	0.41883		.01		8.78701	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z537.D
Acq On : 27 Feb 2010 3:01 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM100226-10|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5g N/A SOIL MIX[B] UVM100215-08A
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 01 09:02:17 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1285912	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	970598	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	587696	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1285065	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	970598	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	587696	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	491500	50.73	ug/L	0.00
43) Toluene-d8	11.620	11.620	0.883	98	1255000	47.47	ug/L	0.00
61) Bromofluorobenzene	14.351	14.357	0.922	95	556400	50.72	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.652	4.672	0.466		0m	N.D.	d	
4) Vinyl chloride	4.874	4.914	0.489		0m	N.D.	d	
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.682	6.706	0.670		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.682	6.706	0.670		0m	N.D.	d	
11) Iodomethane	6.944	6.956	0.696		0m	N.D.	d	
12) Acetonitrile	7.139	7.072	0.716		0m	N.D.	d	
13) Methyl acetate	7.103	7.096	0.712		0m	N.D.	d	
14) Carbon disulfide	7.139	7.078	0.716		0m	N.D.	d	
15) Methylene chloride	7.292	7.285	0.731		0m	N.D.	d	
16) tert-Butyl methyl ether	7.578	7.572	0.760		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	7.615	7.615	0.763		0m	N.D.	d	
18) Vinyl acetate	8.200	8.060	0.822		0m	N.D.	d	
19) 1,1-Dichloroethane	8.206	8.102	0.823		0m	N.D.	d	
20) 2-Butanone	8.700	8.694	0.872		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	8.700	8.742	0.872		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	9.047	9.053	0.907		0m	N.D.	d	
25) 1,1,1-Trichloroethane	9.328	9.322	0.935		0m	N.D.	d	
26) Cyclohexane	9.389	9.413	0.941		0m	N.D.	d	
27) 1,1-Dichloropropene	9.468	9.480	0.949		0m	N.D.	d	
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	9.730	9.724	0.976		0m	N.D.	d	
32) Cyclohexene	9.834	9.828	0.986		0m	N.D.	d	
33) n-Butyl alcohol	10.084	10.077	1.011		0m	N.D.	d	
34) Trichloroethylene	10.364	10.364	1.039		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	10.590	10.602	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	11.090	11.089	1.112		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	11.315	11.315	1.134		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z537.D
Acq On : 27 Feb 2010 3:01 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM100226-10|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5g N/A SOIL MIX[B] UVM100215-08A
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 01 09:02:17 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
42) 4-Methyl-2-pentanone	11.407	11.406	0.867		0m	N.D.	d	
44) Toluene	11.693	11.699	0.889		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	11.858	11.858	0.901		0m	N.D.	d	
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.		
47) 2-Hexanone	12.266	12.260	0.932		0m	N.D.	d	
48) 1,3-Dichloropropane	12.303	12.272	0.935		0m	N.D.	d	
49) Tetrachloroethylene	12.291	12.290	0.934		0m	N.D.	d	
50) Dibromochloromethane	12.534	12.534	0.953		0m	N.D.	d	
51) 1,2-Dibromoethane	12.711	12.705	0.966		0m	N.D.	d	
52) Chlorobenzene	13.187	13.187	1.002		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	13.242	13.241	1.006		0m	N.D.	d	
54) Ethylbenzene	13.254	13.248	1.007		0m	N.D.	d	
55) m,p-Xylenes	13.357	13.357	1.015		0m	N.D.	d	
56) o-Xylene	13.796	13.796	1.049		0m	N.D.	d	
57) Styrene	13.796	13.802	1.049		0m	N.D.	d	
59) Bromoform	14.052	14.058	0.903		0m	N.D.	d	
60) Isopropylbenzene	14.156	14.156	0.909		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	14.443	14.436	0.928		0m	N.D.	d	
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.		
64) Bromobenzene	14.558	14.564	0.935		0m	N.D.	d	
65) n-Propylbenzene	14.583	14.583	0.937		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	14.729	14.735	0.946		0m	N.D.	d	
67) 2-Chlorotoluene	14.729	14.735	0.946		0m	N.D.	d	
68) 4-Chlorotoluene	14.833	14.833	0.953		0m	N.D.	d	
69) tert-Butylbenzene	15.107	15.107	0.970		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973		0m	N.D.	d	
71) sec-Butylbenzene	15.327	15.333	0.984		0m	N.D.	d	
72) 4-Isopropyltoluene	15.448	15.454	0.992		0m	N.D.	d	
73) 1,3-Dichlorobenzene	15.516	15.515	0.996		0m	N.D.	d	
74) 1,4-Dichlorobenzene	15.601	15.601	1.002		0m	N.D.	d	
75) n-Butylbenzene	15.887	15.887	1.020		0m	N.D.	d	
76) 1,2-Dichlorobenzene	16.015	16.021	1.029		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	16.881	16.881	1.084		0m	N.D.	d	
78) 1,2,4-Trichlorobenzene	17.911	17.911	1.150		0m	N.D.	d	
79) Hexachlorobutadiene	18.076	18.076	1.161		0m	N.D.	d	
80) Naphthalene	18.289	18.283	1.175		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	18.619	18.618	1.196		0m	N.D.	d	
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.		
85) Acrolein	6.536	6.535	0.655	56	219314	330.14	ug/L	98
86) Trichlorotrifluoroethane	6.682	6.682	0.670	85	668326	228.40	ug/L	98
87) Isopropyl Alcohol	0.000	6.785	0.000		0m	N.D.	d	
88) Allyl chloride	7.139	7.139	0.716	41	2940187	227.35	ug/L	97
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.		
90) Acrylonitrile	7.541	7.541	0.756	53	645505	249.62	ug/L	100
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	8.206	8.206	0.823	53	638764	59.37	ug/L	98
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.		
94) Ethyl acetate	8.700	8.700	0.872	43	1770341	232.22	ug/L	100
95) Propionitrile	8.773	8.773	0.880	54	257996	260.71	ug/L	99
96) Methacrylonitrile	8.950	8.950	0.897	41	1166263	254.07	ug/L	98
97) Tetrahydrofuran	9.059	9.059	0.908	42	601757	261.72	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z537.D
Acq On : 27 Feb 2010 3:01 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM100226-10|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5g N/A SOIL MIX[B] UVM100215-08A
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 01 09:02:17 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
98)	Isobutyl alcohol	9.389	9.388	0.941	41	898009	3014.18	ug/L	98	
99)	Methyl tert-amyl ether	9.730	9.736	0.976	73	460	N.D.			
100)	Methyl methacrylate	10.590	10.589	1.062	69	1000566	264.75	ug/L	98	
101)	1,4-Dioxane	10.693	10.699	1.072	88	178342	2931.36	ug/L	99	
102)	2-Nitropropane	11.071	11.071	1.110	43	718292	299.42	ug/L	99	
104)	Ethyl methacrylate	11.858	11.858	0.901	69	1938930	267.86	ug/L	100	
106)	1-Chlorohexane	0.000	13.052	0.000		0	N.D.			
107)	cis-1,4-Dichloro-2-butene	14.199	14.199	0.912	53	826281	262.44	ug/L	98	
108)	Cyclohexanone	14.315	14.314	0.919	42	492146	1414.77	ug/L	95	E
109)	trans-1,4-Dichloro-2-b...	14.485	14.485	0.930	53	791843	262.19	ug/L	96	
110)	Pentachloroethane	15.174	15.174	0.975	167	535488	136.22	ug/L	98	
111)	Benzyl chloride	15.717	15.717	1.009	91	2899106	196.79	ug/L	100	
112)	bis(2-Chloroisopropyl)...	16.113	16.113	1.035	45	1230710	271.96	ug/L	99	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z537.D
Acq On : 27 Feb 2010 3:01 am
Operator : RXD1
InstName : VOA6
Sample : |W6VM100226-10|CCV|1|VOAF|1|VOA8260BS|
Misc : CCV 5g N/A SOIL MIX[B] UVM100215-08A
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 01 09:02:17 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

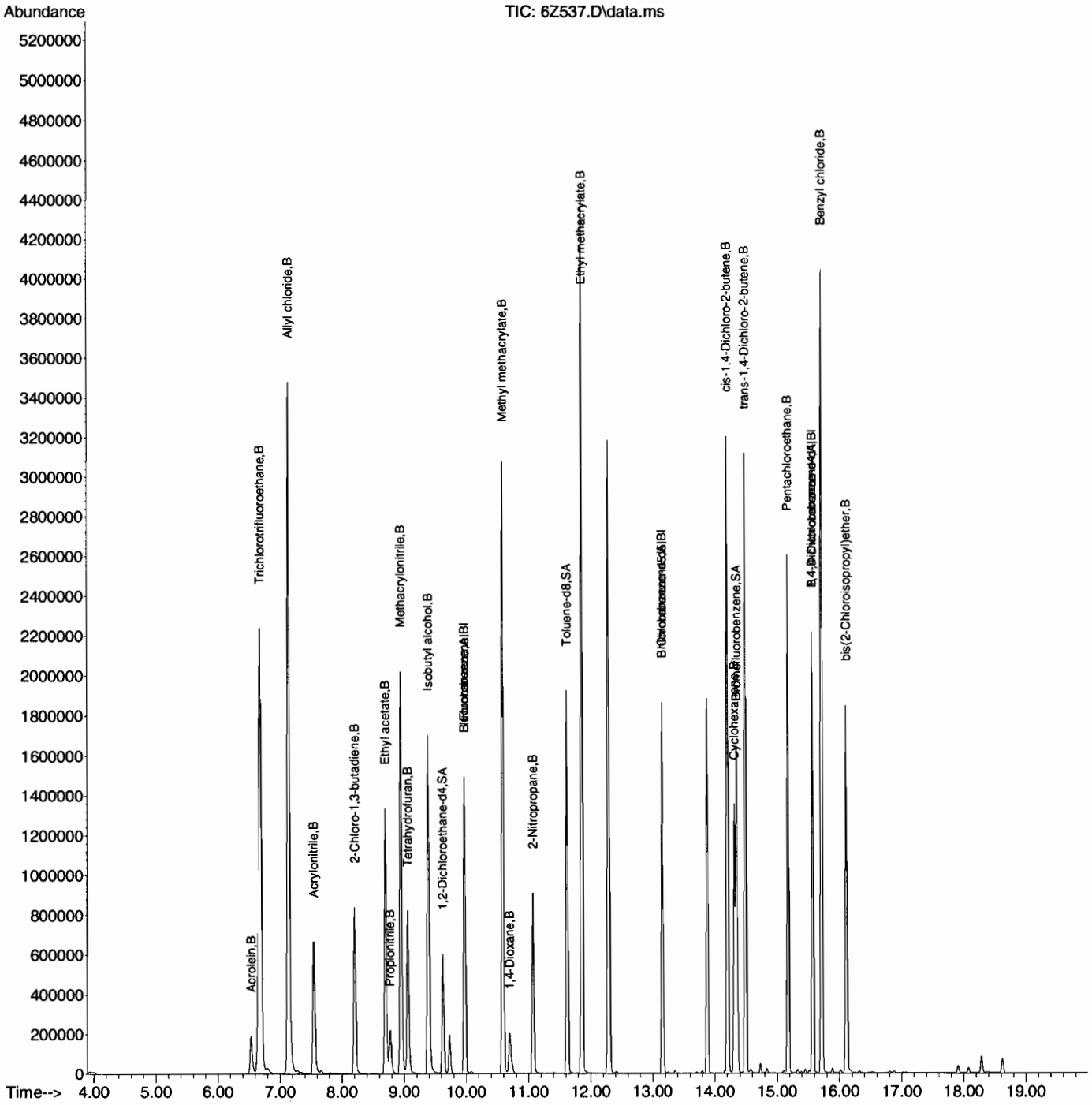

Quality Control Data

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\021010V6\
Data File : 6X302.D
Acq On : 10 Feb 2010 12:23 pm
Operator : RXD1
Sample : |UVM100114-02|BFB|1|VOAF|1|VOA8260BS|
Misc : BFB 5mL N/A
ALS Vial : 2 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Title : Volatile Organics 8260B SubList :
Last Update : Mon Dec 14 12:44:52 2009

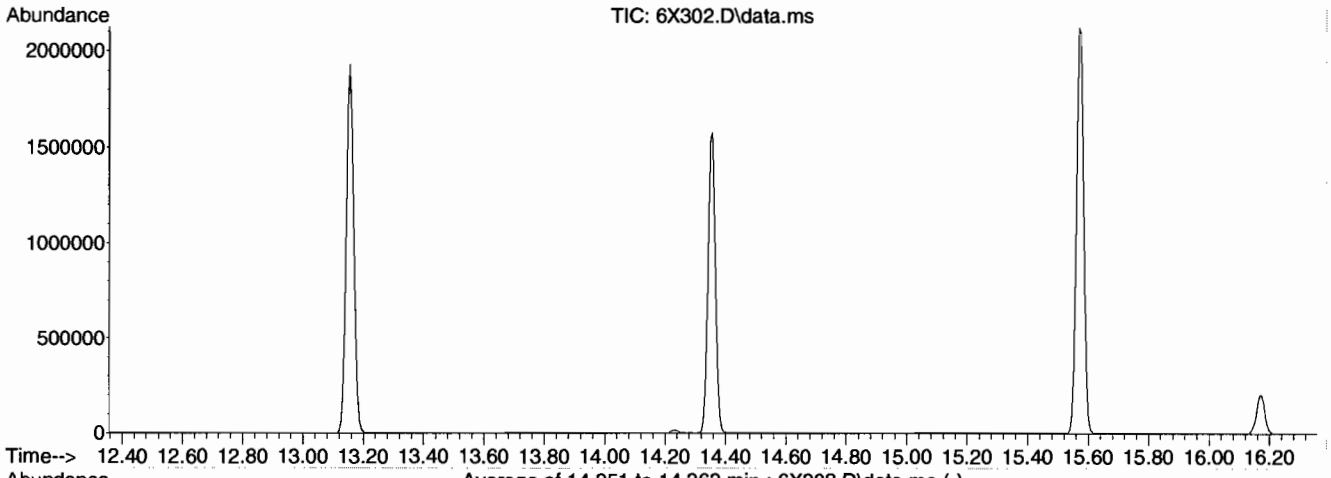

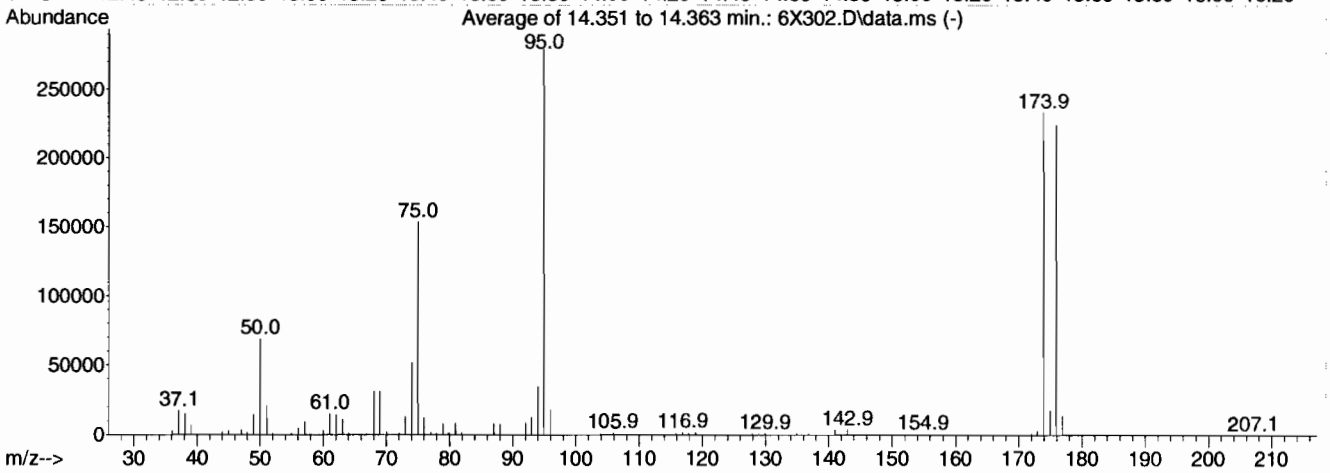

AutoFind: Scans 1558, 1559, 1560; Background Corrected with Scan 1549

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.7	68928	PASS
75	95	30	60	55.0	153651	PASS
95	95	100	100	100.0	279445	PASS
96	95	5	9	6.4	17904	PASS
173	174	0.00	2	1.3	3045	PASS
174	95	50	100	83.7	233771	PASS
175	174	5	9	7.4	17404	PASS
176	174	95	101	95.9	224192	PASS
177	176	5	9	6.2	14007	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z535BFB.D
Acq On : 27 Feb 2010 2:06 am
Operator : RXD1
Sample : |W6VM100226-08|BFB|1|VOAF|1|VOA8260BS|
Misc : BFB 5mL N/A MIX[A] 0106-08C+0202-08D
ALS Vial : 35 Sample Multiplier: 1

Integration File: default.P

Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Title : Volatile Organics 8260B SubList :
Last Update : Thu Feb 11 09:38:02 2010

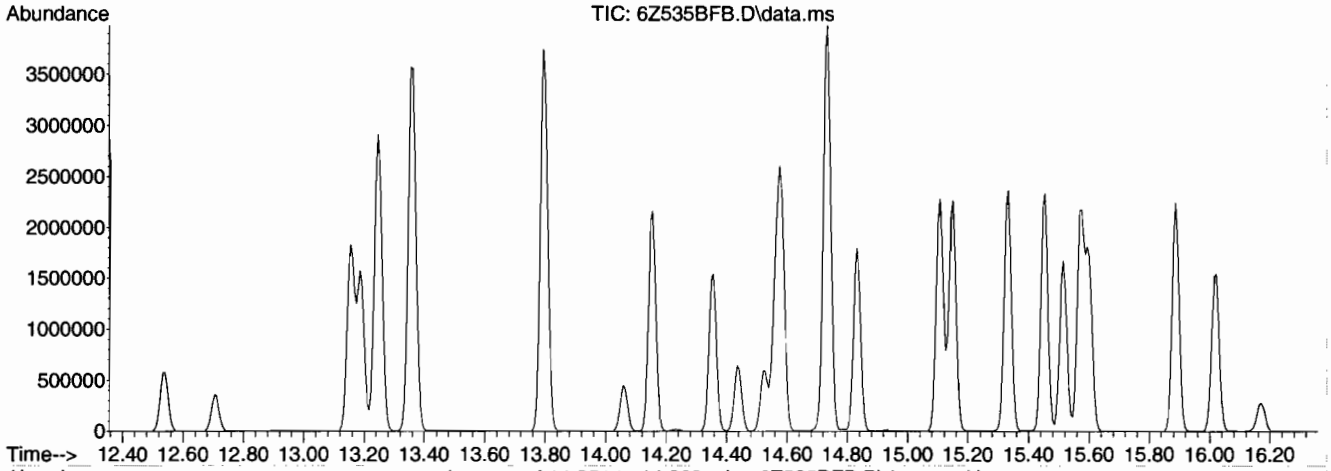

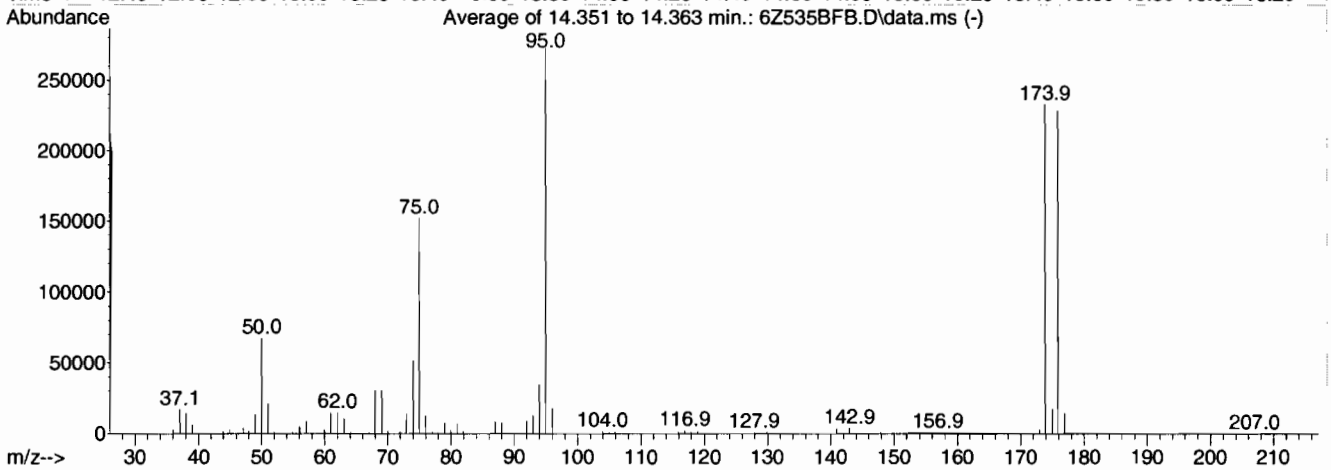

AutoFind: Scans 1558, 1559, 1560; Background Corrected with Scan 1549

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.7	67373	PASS
75	95	30	60	55.6	151861	PASS
95	95	100	100	100.0	272896	PASS
96	95	5	9	6.4	17439	PASS
173	174	0.00	2	1.2	2742	PASS
174	95	50	100	85.3	232704	PASS
175	174	5	9	7.3	16993	PASS
176	174	95	101	98.0	228160	PASS
177	176	5	9	6.3	14407	PASS

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**			**Matrix:**	**MISC SOLID**
Lab Sample ID:	**1202053926**				
Client Sample:	**QC for batch 957849**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 957849**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**957850**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 03:29**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/26/2010 09:32**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**022610V6\6Z538BL.D**	**Column:**	**DB-624**		

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

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**			**Matrix:**	**MISC SOLID**
Lab Sample ID:	**1202053926**				
Client Sample:	**QC for batch 957849**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 957849**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**957850**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 03:29**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/26/2010 09:32**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**022610V6\6Z538BL.D**	**Column:**	**DB-624**		

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

Tentatively Identified Compound Summary

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

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z538BL.D
Acq On : 27 Feb 2010 3:29 am
Operator : RXD1
InstName : VOA6
Sample : |1202053926|957850|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Mar 01 09:03:53 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1253461	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	937171	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	541491	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1252495	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	937171	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	541491	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	492599	52.16	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 104.32%					
43) Toluene-d8	11.620	11.620	0.883	98	1227336	48.08	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 96.16%					
61) Bromofluorobenzene	14.351	14.357	0.922	95	516843	51.14	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 102.28%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.652	4.672	0.466	50	699	N.D.		
4) Vinyl chloride	4.884	4.914	0.490	62	726	N.D.		
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.731	6.706	0.675	43	1649	Below Cal #		50
10) 1,1-Dichloroethylene	0.000	6.706	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	7.139	7.072	0.716	41	439	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	7.078	7.078	0.710	76	843	N.D.		
15) Methylene chloride	7.291	7.285	0.731	84	3951	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	8.700	8.694	0.872	43	2451	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	0.000	10.364	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	0.000	10.602	0.000		0	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z538BL.D
Acq On : 27 Feb 2010 3:29 am
Operator : RXD1
InstName : VOA6
Sample : |1202053926|957850|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Mar 01 09:03:53 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38)	Bromodichloromethane	0.000	10.864	0.000		0	N.D.		
39)	2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.		
40)	cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.		
42)	4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.		
44)	Toluene	11.699	11.699	0.889	91	723	N.D.		
45)	trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.		
46)	1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.		
47)	2-Hexanone	12.266	12.260	0.932	43	865	N.D.		
48)	1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.		
49)	Tetrachloroethylene	12.291	12.290	0.934	164	215	N.D.		
50)	Dibromochloromethane	0.000	12.534	0.000		0	N.D.		
51)	1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.		
52)	Chlorobenzene	0.000	13.187	0.000		0	N.D.		
53)	1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.		
54)	Ethylbenzene	13.248	13.248	1.007	91	1005	N.D.		
55)	m,p-Xylenes	13.357	13.357	1.015	106	247	N.D.		
56)	o-Xylene	0.000	13.796	0.000		0	N.D.		
57)	Styrene	13.802	13.802	1.049	104	770	N.D.		
59)	Bromoform	0.000	14.058	0.000		0	N.D.		
60)	Isopropylbenzene	14.156	14.156	0.909	105	1194	N.D.		
62)	1,1,2,2-Tetrachloroethane	14.351	14.436	0.922	83	192	N.D.		
63)	1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.		
64)	Bromobenzene	0.000	14.564	0.000		0	N.D.		
65)	n-Propylbenzene	14.577	14.583	0.936	91	2940	N.D.		
66)	1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	1740	N.D.		
67)	2-Chlorotoluene	0.000	14.735	0.000		0	N.D.		
68)	4-Chlorotoluene	14.839	14.833	0.953	91	1034	N.D.		
69)	tert-Butylbenzene	0.000	15.107	0.000		0	N.D.		
70)	1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	2385	N.D.		
71)	sec-Butylbenzene	15.326	15.333	0.984	105	2905	N.D.		
72)	4-Isopropyltoluene	15.455	15.454	0.993	119	1843	N.D.		
73)	1,3-Dichlorobenzene	15.522	15.515	0.997	146	716	N.D.		
74)	1,4-Dichlorobenzene	15.601	15.601	1.002	146	306	N.D.		
75)	n-Butylbenzene	15.887	15.887	1.020	91	2668	N.D.		
76)	1,2-Dichlorobenzene	16.021	16.021	1.029	146	766	N.D.		
77)	1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.		
78)	1,2,4-Trichlorobenzene	17.905	17.911	1.150	180	2162	N.D.		
79)	Hexachlorobutadiene	18.076	18.076	1.161	225	774	N.D.		
80)	Naphthalene	18.283	18.283	1.174	128	9200	0.47	ug/L	87
81)	1,2,3-Trichlorobenzene	0.000	18.618	0.000		0m	N.D.	d	
83)	Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.		
85)	Acrolein	0.000	6.535	0.000		0	N.D.		
86)	Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.		
87)	Isopropyl Alcohol	0.000	6.785	0.000		0	N.D.		
88)	Allyl chloride	7.139	7.139	0.716	41	439	N.D.		
89)	tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.		
90)	Acrylonitrile	0.000	7.541	0.000		0	N.D.		
91)	Isopropyl ether	0.000	8.078	0.000		0	N.D.		
92)	2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.		
93)	Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.		
94)	Ethyl acetate	8.700	8.700	0.872	43	2451	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z538BL.D
Acq On : 27 Feb 2010 3:29 am
Operator : RXD1
InstName : VOA6
Sample : |1202053926|957850|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Mar 01 09:03:53 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
95)	Propionitrile	0.000	8.773	0.000		0	N.D.		
96)	Methacrylonitrile	8.968	8.950	0.899	41	187	N.D.		
97)	Tetrahydrofuran	9.066	9.059	0.909	42	998	N.D.		
98)	Isobutyl alcohol	0.000	9.388	0.000		0m	N.D.	d	
99)	Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.		
100)	Methyl methacrylate	10.590	10.589	1.062	69	245	N.D.		
101)	1,4-Dioxane	0.000	10.699	0.000		0m	N.D.	d	
102)	2-Nitropropane	11.077	11.071	1.111	43	278	N.D.		
104)	Ethyl methacrylate	11.864	11.858	0.902	69	3016	N.D.		
106)	1-Chlorohexane	0.000	13.052	0.000		0	N.D.		
107)	cis-1,4-Dichloro-2-butene	14.199	14.199	0.912	53	1750	N.D.		
108)	Cyclohexanone	14.321	14.314	0.920	42	5642	17.60	ug/L	90
109)	trans-1,4-Dichloro-2-b...	14.485	14.485	0.930	53	3528	1.27	ug/L	81
110)	Pentachloroethane	15.180	15.174	0.975	167	1369	0.38	ug/L #	52
111)	Benzyl chloride	15.717	15.717	1.009	91	21362	1.57	ug/L	92
112)	bis(2-Chloroisopropyl)...	16.113	16.113	1.035	45	23682	5.68	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z538BL.D
Acq On : 27 Feb 2010 3:29 am
Operator : RXD1
InstName : VOA6
Sample : |1202053926|957850|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 38 Sample Multiplier: 1

Quant Time: Mar 01 09:03:53 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

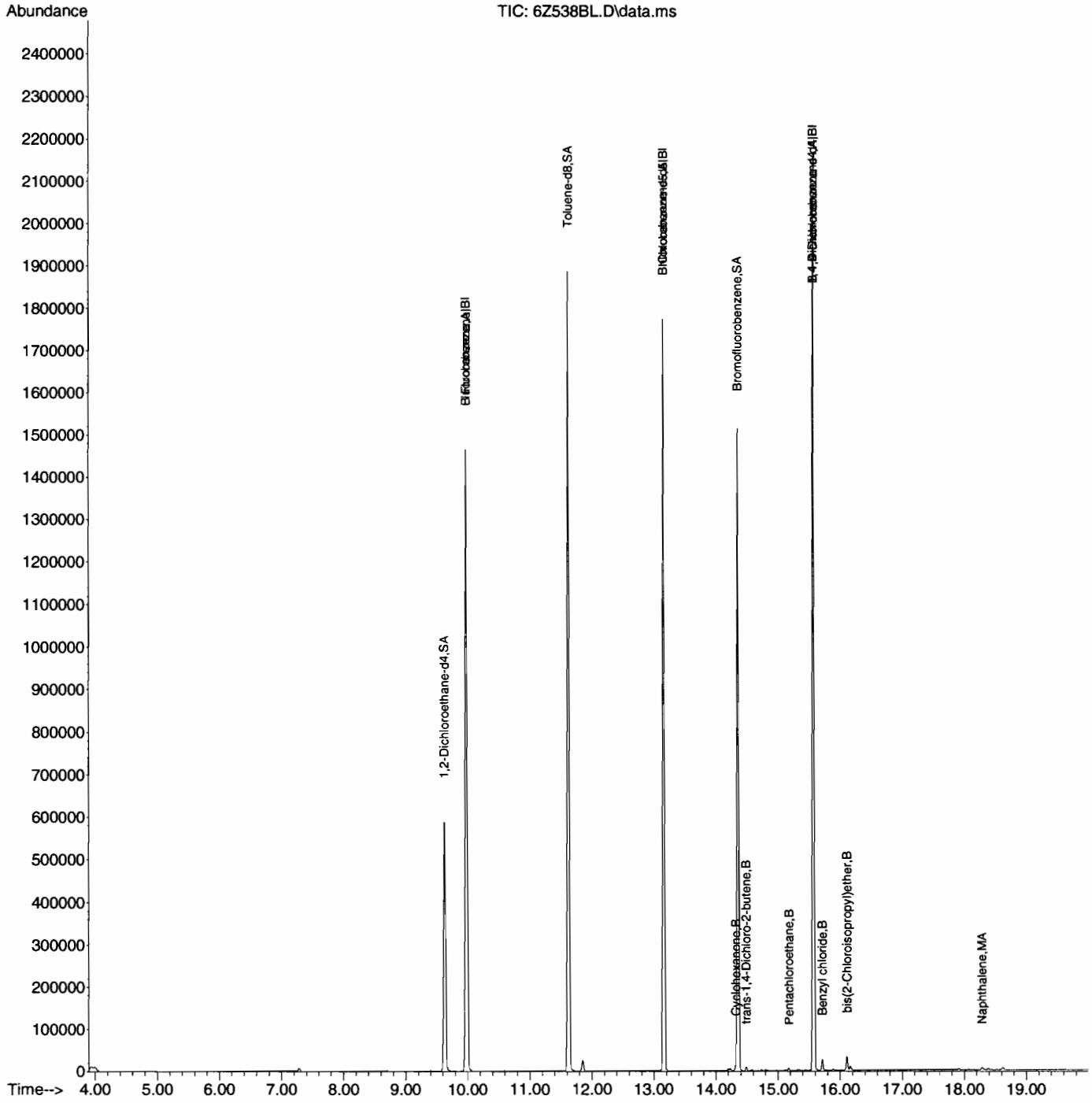

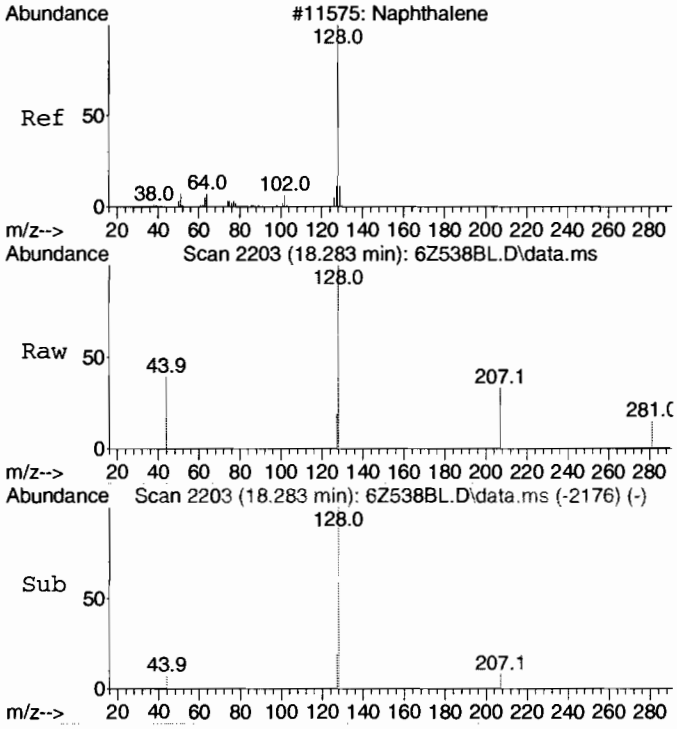

#80
Naphthalene
Concen: 0.47 ug/L
RT: 18.283 min Scan# 2203
Delta R.T. 0.000 min
Lab File: 6Z538BL.D
Acq: 27 Feb 2010 3:29 am

Tgt Ion:128 Resp: 9200

Ion	Ratio	Lower	Upper
128	100		
127	11.4	0.0	43.1
129	2.1	0.0	41.1

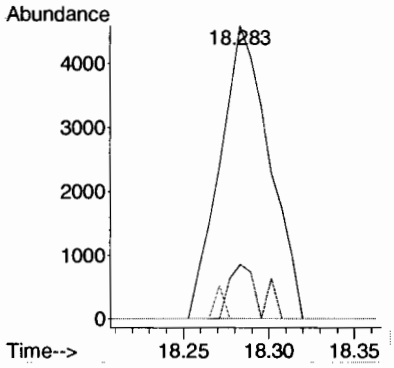

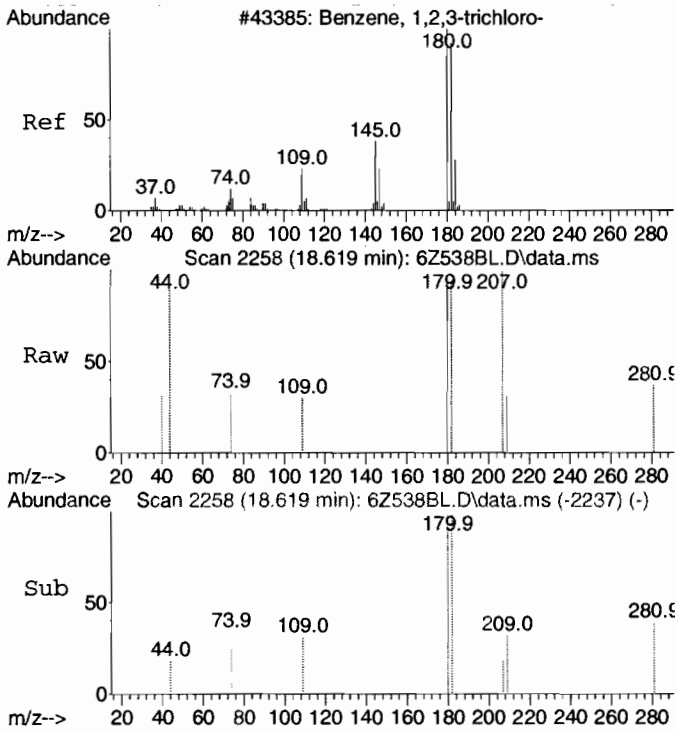

#81 BEFORE analyst DELETION
1,2,3-Trichlorobenzene
Concen: 0.41 ug/L
RT: 18.619 min Scan# 2258
Delta R.T. 0.001 min
Lab File: 6Z538BL.D
Acq: 27 Feb 2010 3:29 am

Tgt Ion:180 Resp: 3702

Ion	Ratio	Lower	Upper
180	100		
182	81.1	65.0	125.0
145	14.3	1.6	61.6

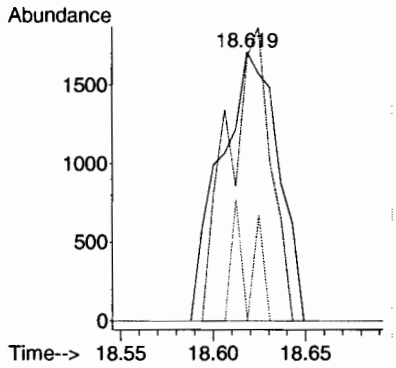

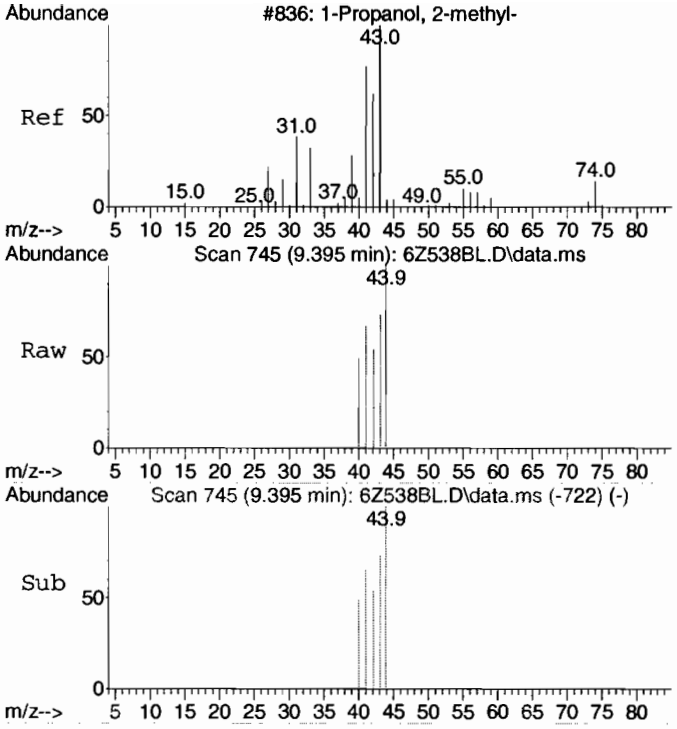

#98 BEFORE analyst DELETION
Isobutyl alcohol
Concen: 2.36 ug/L
RT: 9.395 min Scan# 745
Delta R.T. 0.007 min
Lab File: 6Z538BL.D
Acq: 27 Feb 2010 3:29 am

Tgt Ion: 41 Resp: 686

Ion	Ratio	Lower	Upper
41	100		
43	112.1	105.9	165.9

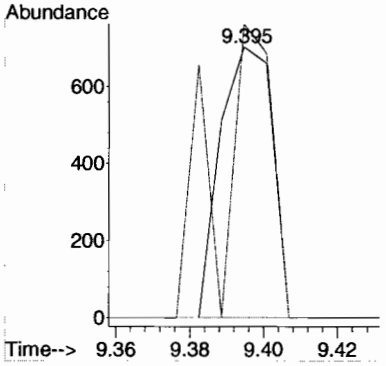

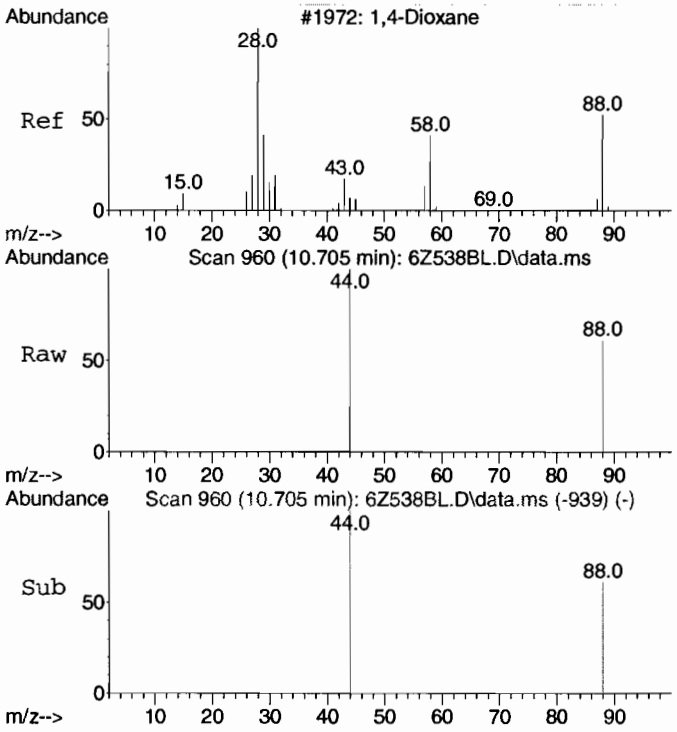

#101 BEFORE analyst DELETION
1,4-Dioxane
Concen: 3.36 ug/L
RT: 10.705 min Scan# 960
Delta R.T. 0.006 min
Lab File: 6Z538BL.D
Acq: 27 Feb 2010 3:29 am

Tgt Ion: 88 Resp: 199

Ion	Ratio	Lower	Upper
88	100		
58	0.0	49.2	109.2#

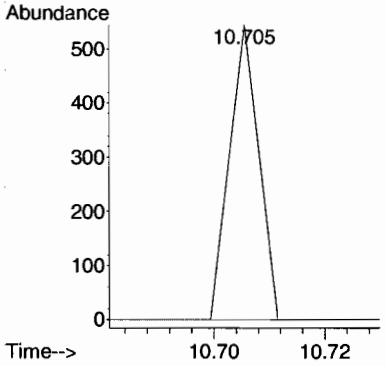

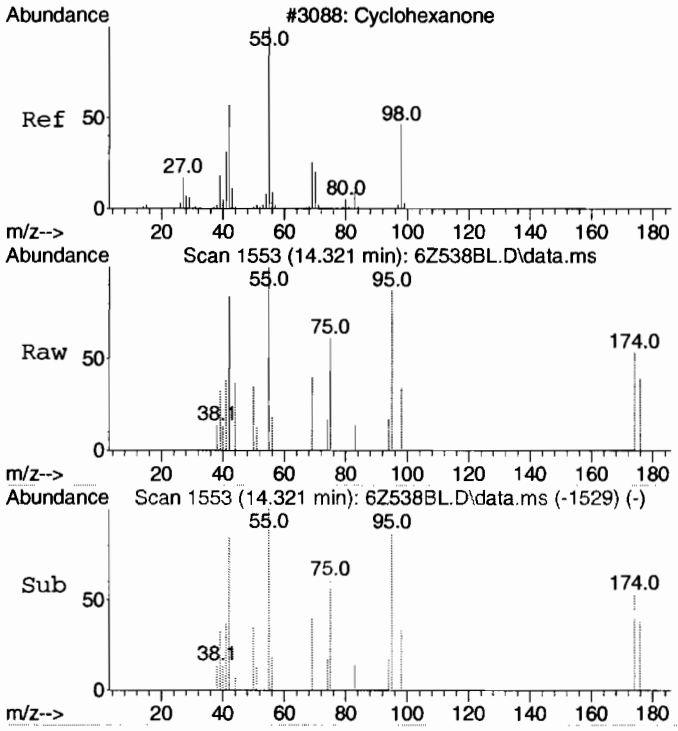

#108
Cyclohexanone
Concen: 17.60 ug/L
RT: 14.321 min Scan# 1553
Delta R.T. 0.007 min
Lab File: 6Z538BL.D
Acq: 27 Feb 2010 3:29 am

Tgt Ion: 42 Resp: 5642

Ion	Ratio	Lower	Upper
42	100		
55	144.8	101.9	161.9
98	51.9	17.0	77.0

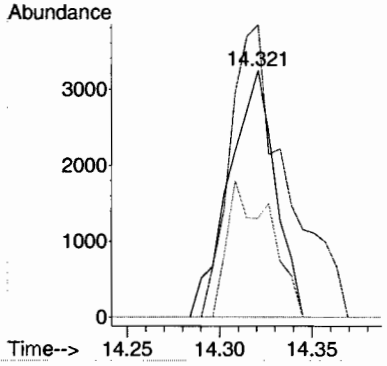

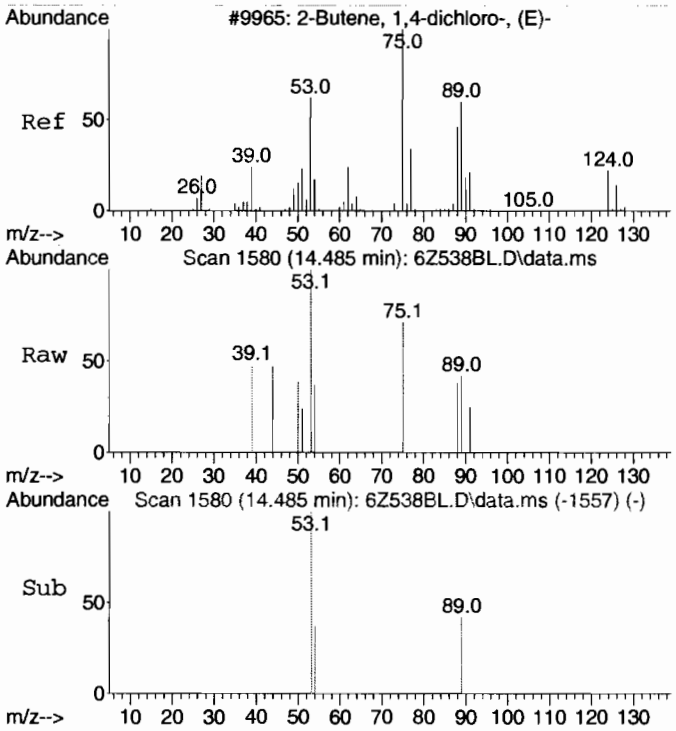

#109
trans-1,4-Dichloro-2-butene
Concen: 1.27 ug/L
RT: 14.485 min Scan# 1580
Delta R.T. 0.000 min
Lab File: 6Z538BL.D
Acq: 27 Feb 2010 3:29 am

Tgt Ion: 53 Resp: 3528

Ion	Ratio	Lower	Upper
53	100		
88	36.5	20.6	80.6
75	80.5	68.4	128.4

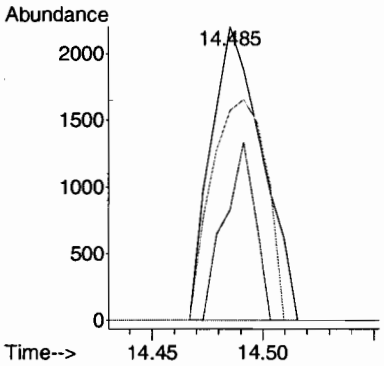

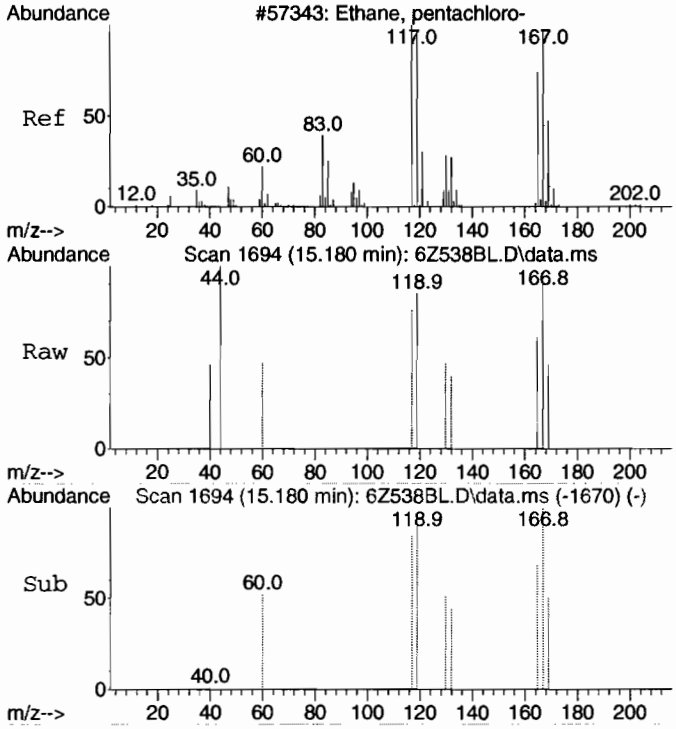

#110
Pentachloroethane
Concen: 0.38 ug/L
RT: 15.180 min Scan# 1694
Delta R.T. 0.006 min
Lab File: 6Z538BL.D
Acq: 27 Feb 2010 3:29 am

Tgt Ion:167 Resp: 1369

Ion	Ratio	Lower	Upper
167	100		
130	74.4	11.2	71.2#
132	63.8	8.3	68.3

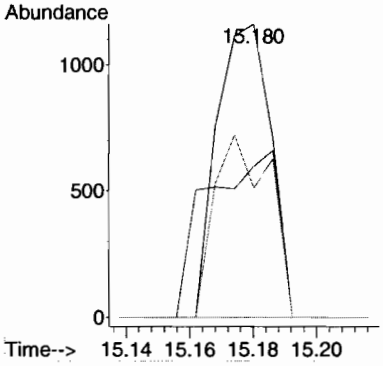

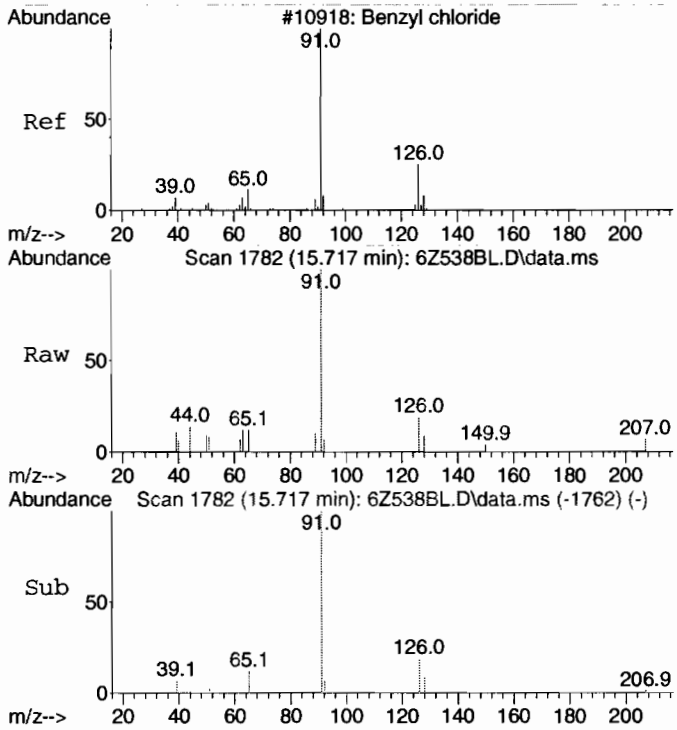

#111
Benzyl chloride
Concen: 1.57 ug/L
RT: 15.717 min Scan# 1782
Delta R.T. -0.000 min
Lab File: 6Z538BL.D
Acq: 27 Feb 2010 3:29 am

Tgt Ion: 91 Resp: 21362

Ion	Ratio	Lower	Upper
91	100		
126	17.4	0.0	51.0
65	10.7	0.0	43.8

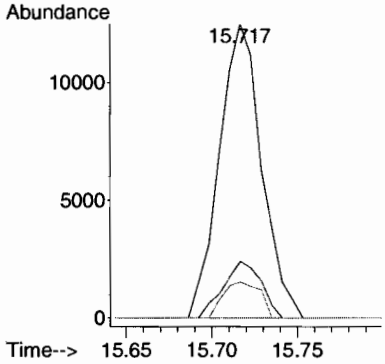

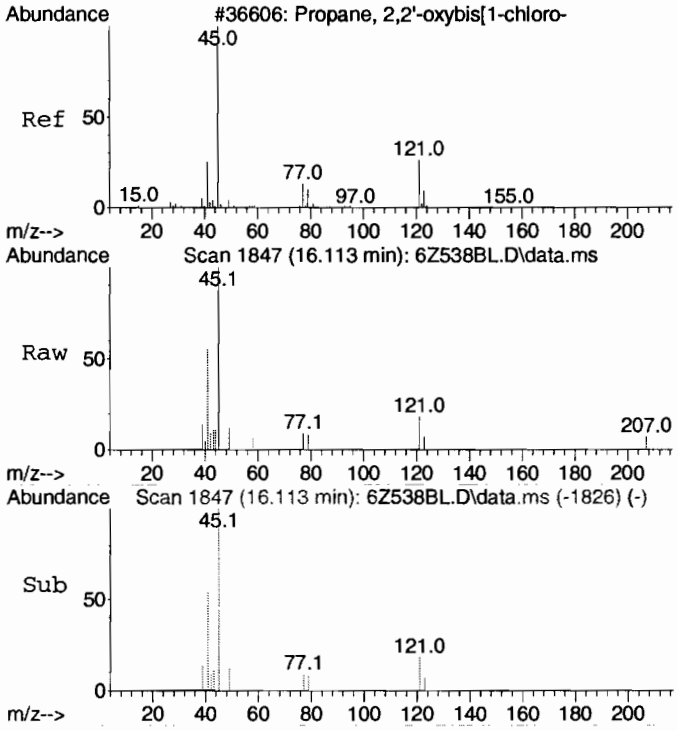

#112
bis(2-Chloroisopropyl)ether
Concen: 5.68 ug/L
RT: 16.113 min Scan# 1847
Delta R.T. -0.000 min
Lab File: 6Z538BL.D
Acq: 27 Feb 2010 3:29 am

Tgt Ion: 45 Resp: 23682

Ion	Ratio	Lower	Upper
45	100		
121	20.1	0.0	51.3

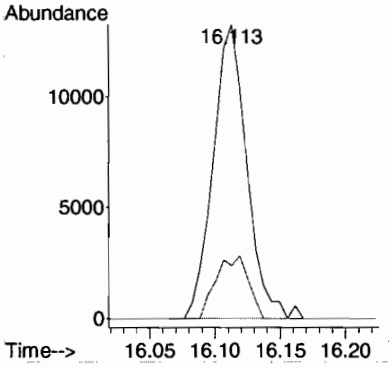

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z538BL.D
Acq On : 27 Feb 2010 3:29 am
Operator : RXD1
Sample : |1202053926|957850|1|VOAF|1|VOA8260BS|
Misc : BLANK 5g N/A SOIL
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z538BL.D
Acq On    : 27 Feb 2010   3:29 am
Operator  : RXD1
Sample    : |1202053926|957850|1|VOAF|1|VOA8260BS|
Misc      : BLANK 5g N/A SOIL
ALS Vial  : 38   Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library    : C:\Database\NIST05.L
TIC Integration Parameters: default.P

                                                  |--Internal Standard---|
TIC Top Hit name      RT  EstConc Units Response |#    RT     Resp  Conc|
-----------------------------------------------------------------------------
```

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**			**Matrix:**	**MISC SOLID**
Lab Sample ID:	**1202053929**				
Client Sample:	**QC for batch 957849**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 957849**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**957850**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 02:33**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/26/2010 09:28**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**022610V6\6Z536LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		47.8	ug/kg	0.340	1.00
74-87-3	Chloromethane		45.3	ug/kg	0.300	1.00
75-01-4	Vinyl chloride		46.6	ug/kg	0.300	1.00
74-83-9	Bromomethane		47.5	ug/kg	0.300	1.00
75-00-3	Chloroethane		46.3	ug/kg	0.300	1.00
75-69-4	Trichlorofluoromethane		48.4	ug/kg	0.300	1.00
67-64-1	Acetone		229	ug/kg	1.66	5.00
75-35-4	1,1-Dichloroethylene		46.5	ug/kg	0.300	1.00
74-88-4	Iodomethane		231	ug/kg	1.60	5.00
75-09-2	Methylene chloride		44.0	ug/kg	2.00	5.00
75-15-0	Carbon disulfide		236	ug/kg	1.25	5.00
156-60-5	trans-1,2-Dichloroethylene		47.7	ug/kg	0.300	1.00
75-34-3	1,1-Dichloroethane		48.5	ug/kg	0.300	1.00
78-93-3	2-Butanone		330	ug/kg	1.50	5.00
156-59-2	cis-1,2-Dichloroethylene		48.9	ug/kg	0.300	1.00
594-20-7	2,2-Dichloropropane		47.0	ug/kg	0.300	1.00
67-66-3	Chloroform		47.8	ug/kg	0.300	1.00
74-97-5	Bromochloromethane		48.1	ug/kg	0.330	1.00
71-55-6	1,1,1-Trichloroethane		49.8	ug/kg	0.300	1.00
563-58-6	1,1-Dichloropropene		49.6	ug/kg	0.300	1.00
56-23-5	Carbon tetrachloride		50.6	ug/kg	0.300	1.00
107-06-2	1,2-Dichloroethane		48.8	ug/kg	0.300	1.00
71-43-2	Benzene		46.1	ug/kg	0.300	1.00
79-01-6	Trichloroethylene		48.3	ug/kg	0.330	1.00
78-87-5	1,2-Dichloropropane		48.1	ug/kg	0.300	1.00
75-27-4	Bromodichloromethane		51.1	ug/kg	0.300	1.00
74-95-3	Dibromomethane		49.3	ug/kg	0.300	1.00
108-10-1	4-Methyl-2-pentanone		282	ug/kg	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		49.6	ug/kg	0.300	1.00
108-88-3	Toluene		45.2	ug/kg	0.300	1.00
10061-02-6	trans-1,3-Dichloropropylene		49.1	ug/kg	0.300	1.00
79-00-5	1,1,2-Trichloroethane		46.4	ug/kg	0.300	1.00
591-78-6	2-Hexanone		311	ug/kg	1.50	5.00
142-28-9	1,3-Dichloropropane		46.4	ug/kg	0.300	1.00
127-18-4	Tetrachloroethylene		45.2	ug/kg	0.300	1.00
124-48-1	Dibromochloromethane		50.6	ug/kg	0.300	1.00
106-93-4	1,2-Dibromoethane		48.1	ug/kg	0.300	1.00
108-90-7	Chlorobenzene		45.3	ug/kg	0.300	1.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**			**Matrix:**	**MISC SOLID**
Lab Sample ID:	**1202053929**				
Client Sample:	**QC for batch 957849**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 957849**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**957850**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 02:33**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/26/2010 09:28**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**022610V6\6Z536LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene		47.0	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes		93.6	ug/kg	0.300	2.00
95-47-6	o-Xylene		48.3	ug/kg	0.300	1.00
100-42-5	Styrene		51.2	ug/kg	0.300	1.00
75-25-2	Bromoform		51.9	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane		47.2	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane		47.8	ug/kg	0.300	1.00
108-86-1	Bromobenzene		45.9	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene		45.2	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene		46.1	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene		47.3	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene		47.4	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene		46.0	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene		47.2	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene		47.0	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene		47.2	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene		48.1	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene		43.7	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene		43.3	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene		46.1	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	E	57.9	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*	U	5.00	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane		49.4	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene		45.2	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z536LL.D
Acq On : 27 Feb 2010 2:33 am
Operator : RXD1
InstName : VOA6
Sample : |1202053929|957850|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[A] 0220-01B+0224-01
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Mar 01 09:00:46 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1227380	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	943576	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	567822	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1227106	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	943576	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	567822	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	473639	51.21	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 102.42%					
43) Toluene-d8	11.620	11.620	0.883	98	1235063	48.05	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 96.10%					
61) Bromofluorobenzene	14.351	14.357	0.922	95	526509	49.68	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 99.36%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.360	4.360	0.437	85	278817	47.77	ug/L	100
3) Chloromethane	4.682	4.672	0.469	50	431619	45.30	ug/L	99
4) Vinyl chloride	4.924	4.914	0.494	62	393034	46.57	ug/L	100
5) Bromomethane	5.478	5.468	0.549	94	241368	47.45	ug/L	98
6) Chloroethane	5.619	5.619	0.563	64	246678	46.33	ug/L	100
7) Trichlorofluoromethane	6.032	6.032	0.605	101	577859	48.40	ug/L	100
8) Ethyl ether	6.328	6.328	0.634	59	304522	46.24	ug/L	98
9) Acetone	6.706	6.706	0.672	43	584226	229.31	ug/L	99
10) 1,1-Dichloroethylene	6.706	6.706	0.672	61	511414	46.45	ug/L	99
11) Iodomethane	6.950	6.956	0.697	142	2412521	231.18	ug/L	99
12) Acetonitrile	7.072	7.072	0.709	41	1166392	1175.15	ug/L	100
13) Methyl acetate	7.096	7.096	0.711	43	1360421	237.34	ug/L	100
14) Carbon disulfide	7.078	7.078	0.710	76	4527677	235.92	ug/L	100
15) Methylene chloride	7.285	7.285	0.730	84	304386	43.95	ug/L	98
16) tert-Butyl methyl ether	7.572	7.572	0.759	73	930200	50.61	ug/L	100
17) trans-1,2-Dichloroethy...	7.621	7.615	0.764	61	490965	47.70	ug/L	98
18) Vinyl acetate	8.059	8.060	0.808	43	3999677	278.64	ug/L	90
19) 1,1-Dichloroethane	8.102	8.102	0.812	63	609298	48.50	ug/L	100
20) 2-Butanone	8.687	8.694	0.871	43	867722	330.14	ug/L	100
21) cis-1,2-Dichloroethylene	8.742	8.742	0.877	61	557182	48.86	ug/L	99
22) 2,2-Dichloropropane	8.767	8.767	0.879	77	508151	46.96	ug/L	100
23) Bromochloromethane	9.017	9.017	0.904	128	154095	48.14	ug/L	100
24) Chloroform	9.053	9.053	0.908	83	589343	47.76	ug/L	98
25) 1,1,1-Trichloroethane	9.321	9.322	0.935	97	569984	49.76	ug/L	99
26) Cyclohexane	9.413	9.413	0.944	56	613175	50.16	ug/L	99
27) 1,1-Dichloropropene	9.480	9.480	0.950	75	433037	49.60	ug/L	99
28) Carbon tetrachloride	9.510	9.510	0.954	117	532347	50.57	ug/L	100
30) 1,2-Dichloroethane	9.706	9.706	0.973	62	543742	48.75	ug/L	99
31) Benzene	9.718	9.724	0.974	78	1129082	46.08	ug/L	99
32) Cyclohexene	9.827	9.828	0.985	67	604136	49.40	ug/L	100
33) n-Butyl alcohol	10.077	10.077	1.010	56	1139368	6234.17	ug/L	98
34) Trichloroethylene	10.364	10.364	1.039	95	311263	48.30	ug/L	100
35) 1,2-Dichloropropane	10.614	10.614	1.064	63	318469	48.12	ug/L	100
36) Methylcyclohexane	10.602	10.602	1.063	83	531833	50.29	ug/L	98
37) Dibromomethane	10.748	10.748	1.078	93	182440	49.30	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z536LL.D
Acq On : 27 Feb 2010 2:33 am
Operator : RXD1
InstName : VOA6
Sample : |1202053929|957850|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[A] 0220-01B+0224-01
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Mar 01 09:00:46 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
38)	Bromodichloromethane	10.864	10.864	1.089	83	445944	51.09	ug/L	100	
39)	2-Chloroethylvinyl ether	11.089	11.089	1.112	63	966413	245.98	ug/L	99	
40)	cis-1,3-Dichloropropylene	11.309	11.315	1.134	75	485920	49.64	ug/L	100	
42)	4-Methyl-2-pentanone	11.406	11.406	0.867	58	630839	281.61	ug/L	99	
44)	Toluene	11.693	11.699	0.889	91	1217605	45.20	ug/L	100	
45)	trans-1,3-Dichloroprop...	11.858	11.858	0.901	75	480071	49.11	ug/L	99	
46)	1,1,2-Trichloroethane	12.077	12.077	0.918	83	202562	46.35	ug/L	99	
47)	2-Hexanone	12.260	12.260	0.932	43	1341050	310.52	ug/L	91	
48)	1,3-Dichloropropane	12.272	12.272	0.933	76	444549	46.42	ug/L	100	
49)	Tetrachloroethylene	12.284	12.290	0.934	164	265349	45.18	ug/L	99	
50)	Dibromochloromethane	12.534	12.534	0.953	129	337188	50.55	ug/L	98	
51)	1,2-Dibromoethane	12.705	12.705	0.966	107	263059	48.14	ug/L	100	
52)	Chlorobenzene	13.187	13.187	1.002	112	820626	45.28	ug/L	99	
53)	1,1,1,2-Tetrachloroethane	13.241	13.241	1.006	131	341092	49.37	ug/L	98	
54)	Ethylbenzene	13.248	13.248	1.007	91	1464631	47.03	ug/L	100	
55)	m,p-Xylenes	13.357	13.357	1.015	106	1133215	93.63	ug/L	100	
56)	o-Xylene	13.796	13.796	1.049	106	559127	48.26	ug/L	99	
57)	Styrene	13.796	13.802	1.049	104	922592	51.17	ug/L	99	
59)	Bromoform	14.058	14.058	0.903	173	226365	51.94	ug/L	98	
60)	Isopropylbenzene	14.156	14.156	0.909	105	1572618	47.26	ug/L	100	
62)	1,1,2,2-Tetrachloroethane	14.436	14.436	0.927	83	331678	47.15	ug/L	99	
63)	1,2,3-Trichloropropane	14.528	14.528	0.933	110	104789	47.76	ug/L	97	
64)	Bromobenzene	14.564	14.564	0.935	156	384323	45.86	ug/L	100	
65)	n-Propylbenzene	14.583	14.583	0.937	91	1781705	45.20	ug/L	100	
66)	1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	1379694	47.42	ug/L	99	
67)	2-Chlorotoluene	14.729	14.735	0.946	126	374451	46.14	ug/L	96	
68)	4-Chlorotoluene	14.833	14.833	0.953	91	1124495	45.96	ug/L	99	
69)	tert-Butylbenzene	15.107	15.107	0.970	134	290496	47.20	ug/L	99	
70)	1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	1412529	47.01	ug/L	99	
71)	sec-Butylbenzene	15.332	15.333	0.985	105	1809817	47.18	ug/L	100	
72)	4-Isopropyltoluene	15.454	15.454	0.993	119	1506080	48.11	ug/L	99	
73)	1,3-Dichlorobenzene	15.515	15.515	0.996	146	736803	43.74	ug/L	99	
74)	1,4-Dichlorobenzene	15.601	15.601	1.002	146	745019	43.33	ug/L	99	
75)	n-Butylbenzene	15.887	15.887	1.020	91	1388261	46.07	ug/L	99	
76)	1,2-Dichlorobenzene	16.015	16.021	1.029	146	715330	45.17	ug/L	100	
77)	1,2-Dibromo-3-chloropr...	16.881	16.881	1.084	157	74147	57.93	ug/L	99	E
78)	1,2,4-Trichlorobenzene	17.905	17.911	1.150	180	492612	43.95	ug/L	100	
79)	Hexachlorobutadiene	18.076	18.076	1.161	225	355995	43.88	ug/L	99	
80)	Naphthalene	18.283	18.283	1.174	128	1064485	51.59	ug/L	99	
81)	1,2,3-Trichlorobenzene	18.618	18.618	1.196	180	448497	47.66	ug/L	99	
83)	Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.			
84)	2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.			
85)	Acrolein	0.000	6.535	0.000		0	N.D.			
86)	Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.			
87)	Isopropyl Alcohol	0.000	6.785	0.000		0	N.D.			
88)	Allyl chloride	7.072	7.139	0.709		0m	N.D.	d		
89)	tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.			
90)	Acrylonitrile	7.572	7.541	0.759		0m	N.D.	d		
91)	Isopropyl ether	8.059	8.078	0.808		0m	N.D.	d		
92)	2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.			
93)	Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.			
94)	Ethyl acetate	8.687	8.700	0.871		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z536LL.D
Acq On : 27 Feb 2010 2:33 am
Operator : RXD1
InstName : VOA6
Sample : |1202053929|957850|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[A] 0220-01B+0224-01
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Mar 01 09:00:46 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	8.681	8.773	0.870		0m	N.D.	d
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97)	Tetrahydrofuran	9.065	9.059	0.909		0m	N.D.	d
98)	Isobutyl alcohol	9.407	9.388	0.943		0m	N.D.	d
99)	Methyl tert-amyl ether	9.724	9.736	0.975		0m	N.D.	d
100)	Methyl methacrylate	10.602	10.589	1.063		0m	N.D.	d
101)	1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102)	2-Nitropropane	11.083	11.071	1.111		0m	N.D.	d
104)	Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156	14.199	0.909		0m	N.D.	d
108)	Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110)	Pentachloroethane	15.174	15.174	0.975		0m	N.D.	d
111)	Benzyl chloride	15.717	15.717	1.009		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.174	16.113	1.039		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z536LL.D
Acq On : 27 Feb 2010 2:33 am
Operator : RXD1
InstName : VOA6
Sample : |1202053929|957850|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[A] 0220-01B+0224-01
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Mar 01 09:00:46 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

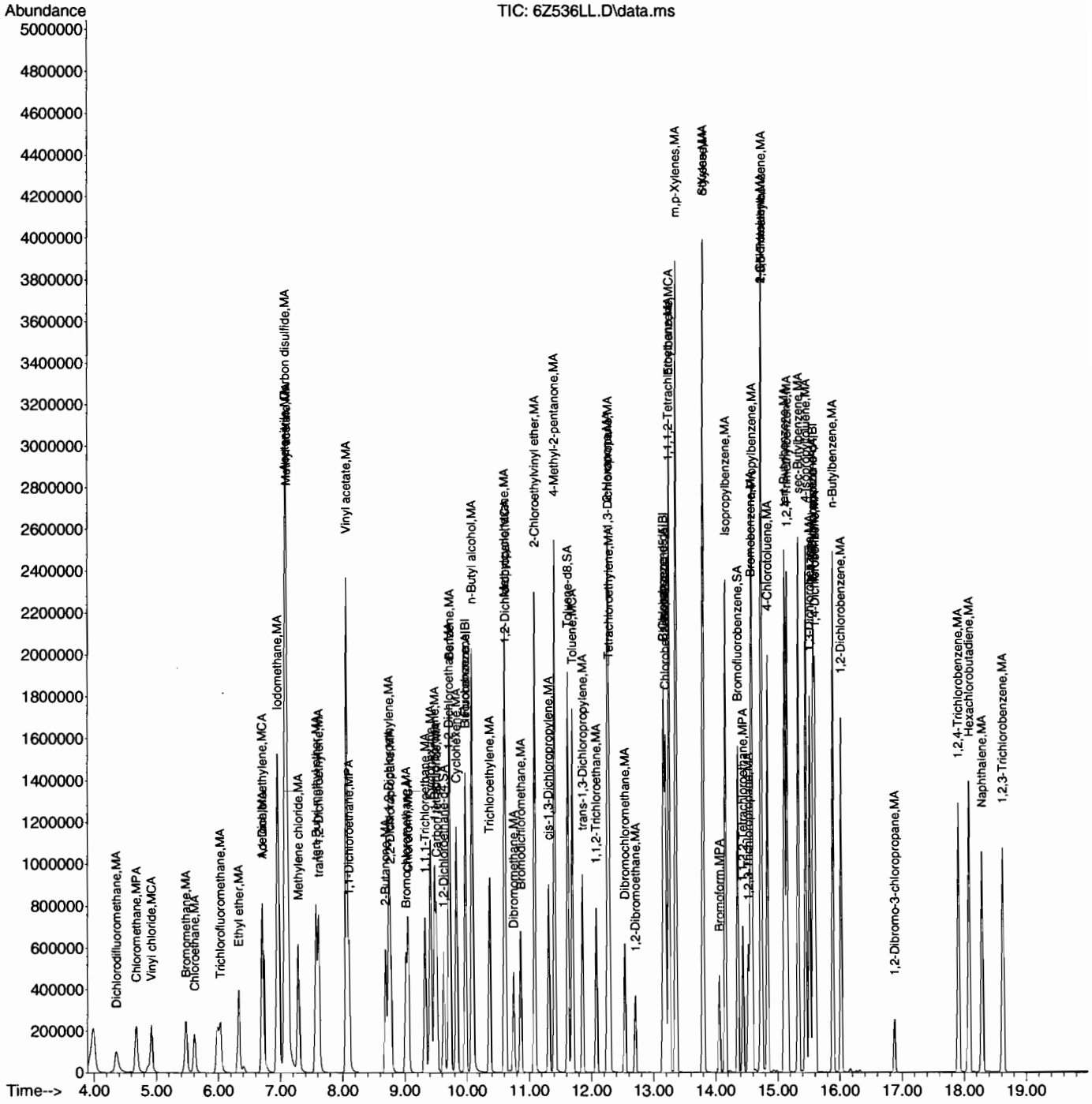

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**			**Matrix:**	**MISC SOLID**
Lab Sample ID:	**1202053930**				
Client Sample:	**QC for batch 957849**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 957849**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**957850**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 03:01**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/26/2010 09:27**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**022610V6\6Z537SL.D**	**Column:**	**DB-624**		

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

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**			**Matrix:**	**MISC SOLID**
Lab Sample ID:	**1202053930**				
Client Sample:	**QC for batch 957849**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 957849**	**Method:**	**SW846 8260B**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**957850**	**Inst:**	**VOA6.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 03:01**	**Analyst:**	**RXD1**	**Purge Vol:**	**5 mL**
Prep Date:	**02/26/2010 09:27**	**Aliquot:**	**5 g**	**Final Volume:**	**5 mL**
Data File:	**022610V6\6Z537SL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
100-41-4	Ethylbenzene	U	1.00	ug/kg	0.300	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/kg	0.300	2.00
95-47-6	o-Xylene	U	1.00	ug/kg	0.300	1.00
100-42-5	Styrene	U	1.00	ug/kg	0.300	1.00
75-25-2	Bromoform	U	1.00	ug/kg	0.300	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/kg	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/kg	0.300	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/kg	0.300	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/kg	0.300	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/kg	0.300	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/kg	0.300	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/kg	0.300	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/kg	0.300	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/kg	0.300	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/kg	0.300	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/kg	0.300	1.00
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroetha *Trichlorotrifluoroethane*		228	ug/kg	1.60	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/kg	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/kg	0.300	1.00

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z537SL.D
Acq On : 27 Feb 2010 3:01 am
Operator : RXD1
InstName : VOA6
Sample : |1202053930|957850|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[B] UVM100215-08A
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 01 09:02:17 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1285912	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	970598	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	587696	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1285065	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	970598	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	587696	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	491500	50.73	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 101.46%					
43) Toluene-d8	11.620	11.620	0.883	98	1255000	47.47	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 94.94%					
61) Bromofluorobenzene	14.351	14.357	0.922	95	556400	50.72	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 101.44%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.652	4.672	0.466		0m	N.D.	d	
4) Vinyl chloride	4.874	4.914	0.489		0m	N.D.	d	
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.682	6.706	0.670		0m	N.D.	d	
10) 1,1-Dichloroethylene	6.682	6.706	0.670		0m	N.D.	d	
11) Iodomethane	6.944	6.956	0.696		0m	N.D.	d	
12) Acetonitrile	7.139	7.072	0.716		0m	N.D.	d	
13) Methyl acetate	7.103	7.096	0.712		0m	N.D.	d	
14) Carbon disulfide	7.139	7.078	0.716		0m	N.D.	d	
15) Methylene chloride	7.292	7.285	0.731		0m	N.D.	d	
16) tert-Butyl methyl ether	7.578	7.572	0.760		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	7.615	7.615	0.763		0m	N.D.	d	
18) Vinyl acetate	8.200	8.060	0.822		0m	N.D.	d	
19) 1,1-Dichloroethane	8.206	8.102	0.823		0m	N.D.	d	
20) 2-Butanone	8.700	8.694	0.872		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	8.700	8.742	0.872		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	9.047	9.053	0.907		0m	N.D.	d	
25) 1,1,1-Trichloroethane	9.328	9.322	0.935		0m	N.D.	d	
26) Cyclohexane	9.389	9.413	0.941		0m	N.D.	d	
27) 1,1-Dichloropropene	9.468	9.480	0.949		0m	N.D.	d	
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	9.730	9.724	0.976		0m	N.D.	d	
32) Cyclohexene	9.834	9.828	0.986		0m	N.D.	d	
33) n-Butyl alcohol	10.084	10.077	1.011		0m	N.D.	d	
34) Trichloroethylene	10.364	10.364	1.039		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	10.590	10.602	1.062		0m	N.D.	d	
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z537SL.D
Acq On : 27 Feb 2010 3:01 am
Operator : RXD1
InstName : VOA6
Sample : |1202053930|957850|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[B] UVM100215-08A
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 01 09:02:17 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38)	Bromodichloromethane	0.000	10.864	0.000		0	N.D.		
39)	2-Chloroethylvinyl ether	11.090	11.089	1.112		0m	N.D.	d	
40)	cis-1,3-Dichloropropylene	11.315	11.315	1.134		0m	N.D.	d	
42)	4-Methyl-2-pentanone	11.407	11.406	0.867		0m	N.D.	d	
44)	Toluene	11.693	11.699	0.889		0m	N.D.	d	
45)	trans-1,3-Dichloroprop...	11.858	11.858	0.901		0m	N.D.	d	
46)	1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.		
47)	2-Hexanone	12.266	12.260	0.932		0m	N.D.	d	
48)	1,3-Dichloropropane	12.303	12.272	0.935		0m	N.D.	d	
49)	Tetrachloroethylene	12.291	12.290	0.934		0m	N.D.	d	
50)	Dibromochloromethane	12.534	12.534	0.953		0m	N.D.	d	
51)	1,2-Dibromoethane	12.711	12.705	0.966		0m	N.D.	d	
52)	Chlorobenzene	13.187	13.187	1.002		0m	N.D.	d	
53)	1,1,1,2-Tetrachloroethane	13.242	13.241	1.006		0m	N.D.	d	
54)	Ethylbenzene	13.254	13.248	1.007		0m	N.D.	d	
55)	m,p-Xylenes	13.357	13.357	1.015		0m	N.D.	d	
56)	o-Xylene	13.796	13.796	1.049		0m	N.D.	d	
57)	Styrene	13.796	13.802	1.049		0m	N.D.	d	
59)	Bromoform	14.052	14.058	0.903		0m	N.D.	d	
60)	Isopropylbenzene	14.156	14.156	0.909		0m	N.D.	d	
62)	1,1,2,2-Tetrachloroethane	14.443	14.436	0.928		0m	N.D.	d	
63)	1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.		
64)	Bromobenzene	14.558	14.564	0.935		0m	N.D.	d	
65)	n-Propylbenzene	14.583	14.583	0.937		0m	N.D.	d	
66)	1,3,5-Trimethylbenzene	14.729	14.735	0.946		0m	N.D.	d	
67)	2-Chlorotoluene	14.729	14.735	0.946		0m	N.D.	d	
68)	4-Chlorotoluene	14.833	14.833	0.953		0m	N.D.	d	
69)	tert-Butylbenzene	15.107	15.107	0.970		0m	N.D.	d	
70)	1,2,4-Trimethylbenzene	15.150	15.150	0.973		0m	N.D.	d	
71)	sec-Butylbenzene	15.327	15.333	0.984		0m	N.D.	d	
72)	4-Isopropyltoluene	15.448	15.454	0.992		0m	N.D.	d	
73)	1,3-Dichlorobenzene	15.516	15.515	0.996		0m	N.D.	d	
74)	1,4-Dichlorobenzene	15.601	15.601	1.002		0m	N.D.	d	
75)	n-Butylbenzene	15.887	15.887	1.020		0m	N.D.	d	
76)	1,2-Dichlorobenzene	16.015	16.021	1.029		0m	N.D.	d	
77)	1,2-Dibromo-3-chloropr...	16.881	16.881	1.084		0m	N.D.	d	
78)	1,2,4-Trichlorobenzene	17.911	17.911	1.150		0m	N.D.	d	
79)	Hexachlorobutadiene	18.076	18.076	1.161		0m	N.D.	d	
80)	Naphthalene	18.289	18.283	1.175		0m	N.D.	d	
81)	1,2,3-Trichlorobenzene	18.619	18.618	1.196		0m	N.D.	d	
83)	Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.		
85)	Acrolein	6.536	6.535	0.655	56	219314	330.14	ug/L	98
86)	Trichlorotrifluoroethane	6.682	6.682	0.670	85	668326	228.40	ug/L	98
87)	Isopropyl Alcohol	0.000	6.785	0.000		0m	N.D.	d	
88)	Allyl chloride	7.139	7.139	0.716	41	2940187	227.35	ug/L	97
89)	tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.		
90)	Acrylonitrile	7.541	7.541	0.756	53	645505	249.62	ug/L	100
91)	Isopropyl ether	0.000	8.078	0.000		0	N.D.		
92)	2-Chloro-1,3-butadiene	8.206	8.206	0.823	53	638764	59.37	ug/L	98
93)	Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.		
94)	Ethyl acetate	8.700	8.700	0.872	43	1770341	232.22	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z537SL.D
Acq On : 27 Feb 2010 3:01 am
Operator : RXD1
InstName : VOA6
Sample : |1202053930|957850|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[B] UVM100215-08A
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 01 09:02:17 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
95)	Propionitrile	8.773	8.773	0.880	54	257996	260.71	ug/L	99	
96)	Methacrylonitrile	8.950	8.950	0.897	41	1166263	254.07	ug/L	98	
97)	Tetrahydrofuran	9.059	9.059	0.908	42	601757	261.72	ug/L	99	
98)	Isobutyl alcohol	9.389	9.388	0.941	41	898009	3014.18	ug/L	98	
99)	Methyl tert-amyl ether	9.730	9.736	0.976	73	460	N.D.			
100)	Methyl methacrylate	10.590	10.589	1.062	69	1000566	264.75	ug/L	98	
101)	1,4-Dioxane	10.693	10.699	1.072	88	178342	2931.36	ug/L	99	
102)	2-Nitropropane	11.071	11.071	1.110	43	718292	299.42	ug/L	99	
104)	Ethyl methacrylate	11.858	11.858	0.901	69	1938930	267.86	ug/L	100	
106)	1-Chlorohexane	0.000	13.052	0.000		0	N.D.			
107)	cis-1,4-Dichloro-2-butene	14.199	14.199	0.912	53	826281	262.44	ug/L	98	
108)	Cyclohexanone	14.315	14.314	0.919	42	492146	1414.77	ug/L	95	E
109)	trans-1,4-Dichloro-2-b...	14.485	14.485	0.930	53	791843	262.19	ug/L	96	
110)	Pentachloroethane	15.174	15.174	0.975	167	535488	136.22	ug/L	98	
111)	Benzyl chloride	15.717	15.717	1.009	91	2899106	196.79	ug/L	100	
112)	bis(2-Chloroisopropyl)...	16.113	16.113	1.035	45	1230710	271.96	ug/L	99	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z537SL.D
Acq On : 27 Feb 2010 3:01 am
Operator : RXD1
InstName : VOA6
Sample : |1202053930|957850|1|VOAF|1|VOA8260BS|
Misc : LCS 5g N/A SOIL MIX[B] UVM100215-08A
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 01 09:02:17 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

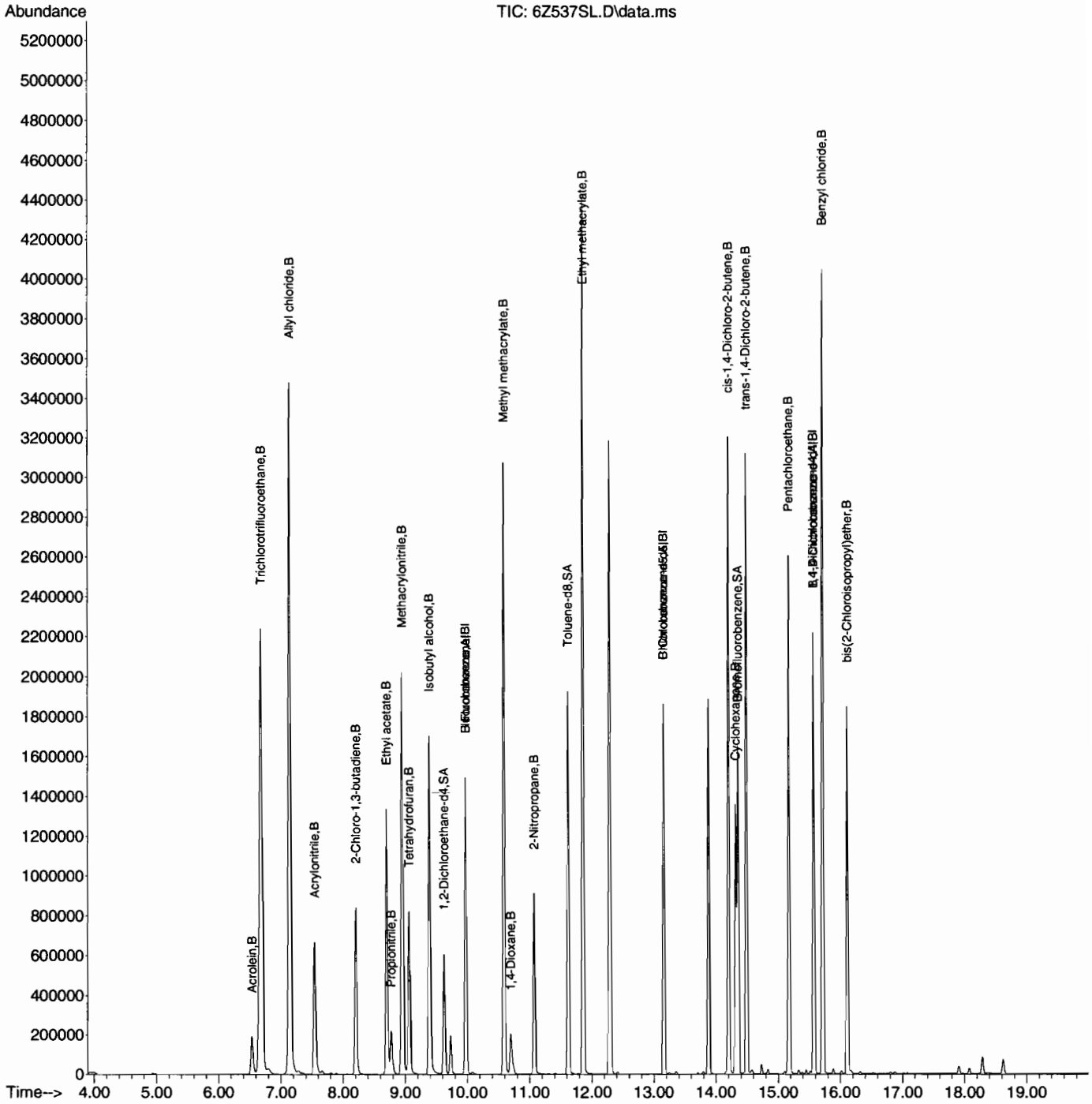

Miscellaneous

Prep Logbook

Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

Batch ID: **957849** Verified by: _____

Analyst: Ryan Dushak

Method: SW846 5030

Lab SOP: GL-OA-E-038 REV# 14

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202066179 LCS	01-MAR-2010 09:38:00	Misc Solid	5	5	1	
1202066180 LCS	01-MAR-2010 09:39:00	Misc Solid	5	5	1	
1202066178 MB	01-MAR-2010 09:41:00	Misc Solid	5	5	1	
1202053927 PS (247325001)	01-MAR-2010 15:52:00	Soil	5	5	1	
1202053928 PSD (247325001)	01-MAR-2010 15:54:00	Soil	5	5	1	
247325002	01-MAR-2010 15:56:00	Misc Solid	5	5	1	
247421006	01-MAR-2010 15:58:00	Soil	5	5	1	
1202053930 LCS	26-FEB-2010 09:27:00	Misc Solid	5	5	1	
1202053929 LCS	26-FEB-2010 09:28:00	Misc Solid	5	5	1	
1202053926 MB	26-FEB-2010 09:32:00	Misc Solid	5	5	1	
247325001	26-FEB-2010 15:22:00	Soil	5	5	1	
247327001	26-FEB-2010 15:30:00	Misc Solid	5	5	1	
247327002	26-FEB-2010 15:32:00	Soil	5	5	1	
247421002	26-FEB-2010 15:34:00	Soil	5	5	1	
247421003	26-FEB-2010 15:36:00	Soil	5	5	1	
247421004	26-FEB-2010 15:38:00	Soil	5	5	1	
247421005	26-FEB-2010 15:40:00	Soil	5	5	1	
247421007	26-FEB-2010 15:44:00	Soil	5	5	1	

Reagent/Solvent Lot ID	Description	Amount

Comments:

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V6\
Data File : 6A140.D
Acq On : 2 Mar 2010 4:28 am
Operator : RXD1
InstName : VOA6
Sample : |1202053927|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MS 247325001
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Mar 02 08:21:34 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	9.974	9.974	1.000	96	1214064	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	844442	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	384173	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1213367	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	844442	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	384173	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	465006	50.83	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 101.66%					
43) Toluene-d8	11.620	11.620	0.883	98	1170697	50.90	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 101.80%					
61) Bromofluorobenzene	14.351	14.357	0.922	95	420780	58.68	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 117.36%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.360	4.360	0.437	85	197003	34.12	ug/L	99
3) Chloromethane	4.672	4.672	0.468	50	369935	39.25	ug/L	99
4) Vinyl chloride	4.914	4.914	0.493	62	351180	42.07	ug/L	100
5) Bromomethane	5.468	5.468	0.548	94	218724	43.47	ug/L	100
6) Chloroethane	5.619	5.619	0.563	64	227928	43.28	ug/L	99
7) Trichlorofluoromethane	6.032	6.032	0.605	101	538046	45.56	ug/L	100
8) Ethyl ether	6.328	6.328	0.634	59	290322	44.57	ug/L	98
9) Acetone	6.706	6.706	0.672	43	542605	215.09	ug/L	99
10) 1,1-Dichloroethylene	6.706	6.706	0.672	61	466013	42.79	ug/L	98
11) Iodomethane	6.956	6.956	0.697	142	2100719	203.51	ug/L	99
12) Acetonitrile	7.072	7.072	0.709	41	1088082	1108.27	ug/L	99
13) Methyl acetate	7.096	7.096	0.711	43	1032213	182.06	ug/L	100
14) Carbon disulfide	7.078	7.078	0.710	76	3966151	208.93	ug/L	100
15) Methylene chloride	7.285	7.285	0.730	84	292557	42.70	ug/L	98
16) tert-Butyl methyl ether	7.572	7.572	0.759	73	855866	47.08	ug/L	99
17) trans-1,2-Dichloroethy...	7.614	7.615	0.763	61	448138	44.01	ug/L	99
18) Vinyl acetate	8.072	8.060	0.809	43	5891	N.D.		
19) 1,1-Dichloroethane	8.102	8.102	0.812	63	552629	44.48	ug/L	99
20) 2-Butanone	8.693	8.694	0.872	43	753204	289.71	ug/L	98
21) cis-1,2-Dichloroethylene	8.742	8.742	0.877	61	512639	45.45	ug/L	99
22) 2,2-Dichloropropane	8.767	8.767	0.879	77	482421	45.07	ug/L	99
23) Bromochloromethane	9.017	9.017	0.904	128	139614	44.09	ug/L	98
24) Chloroform	9.053	9.053	0.908	83	547114	44.83	ug/L	100
25) 1,1,1-Trichloroethane	9.321	9.322	0.935	97	528421	46.64	ug/L	100
26) Cyclohexane	9.407	9.413	0.943	56	513230	42.44	ug/L	99
27) 1,1-Dichloropropene	9.480	9.480	0.950	75	391593	45.34	ug/L	99
28) Carbon tetrachloride	9.510	9.510	0.954	117	486450	46.72	ug/L	100
30) 1,2-Dichloroethane	9.705	9.706	0.973	62	499387	45.27	ug/L	100
31) Benzene	9.724	9.724	0.975	78	1023347	42.23	ug/L	99
32) Cyclohexene	9.833	9.828	0.986	67	534292	44.17	ug/L	99
33) n-Butyl alcohol	10.077	10.077	1.010	56	866876	4795.23	ug/L	99
34) Trichloroethylene	10.364	10.364	1.039	95	279565	43.86	ug/L	99
35) 1,2-Dichloropropane	10.614	10.614	1.064	63	291202	44.48	ug/L	99
36) Methylcyclohexane	10.602	10.602	1.063	83	407339	38.94	ug/L	98
37) Dibromomethane	10.748	10.748	1.078	93	164913	45.05	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V6\
Data File : 6A140.D
Acq On : 2 Mar 2010 4:28 am
Operator : RXD1
InstName : VOA6
Sample : |1202053927|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MS 247325001
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Mar 02 08:21:34 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
38)	Bromodichloromethane	10.864	10.864	1.089	83	399408	46.26	ug/L		100
39)	2-Chloroethylvinyl ether	11.089	11.089	1.112	63	888161	228.54	ug/L		99
40)	cis-1,3-Dichloropropylene	11.315	11.315	1.134	75	398765	41.19	ug/L		99
42)	4-Methyl-2-pentanone	11.406	11.406	0.867	58	572219	285.43	ug/L		99
44)	Toluene	11.699	11.699	0.889	91	1093073	45.34	ug/L		99
45)	trans-1,3-Dichloroprop...	11.857	11.858	0.901	75	395007	45.16	ug/L		99
46)	1,1,2-Trichloroethane	12.077	12.077	0.918	83	184062	47.06	ug/L		99
47)	2-Hexanone	12.260	12.260	0.932	43	1132479	293.01	ug/L		92
48)	1,3-Dichloropropane	12.272	12.272	0.933	76	396611	46.28	ug/L		98
49)	Tetrachloroethylene	12.290	12.290	0.934	164	219660	41.79	ug/L		99
50)	Dibromochloromethane	12.534	12.534	0.953	129	292539	49.01	ug/L		99
51)	1,2-Dibromoethane	12.705	12.705	0.966	107	225617	46.14	ug/L		99
52)	Chlorobenzene	13.186	13.187	1.002	112	665542	41.04	ug/L		99
53)	1,1,1,2-Tetrachloroethane	13.241	13.241	1.006	131	283467	45.85	ug/L		100
54)	Ethylbenzene	13.247	13.248	1.007	91	1162017	41.69	ug/L		98
55)	m,p-Xylenes	13.363	13.357	1.016	106	869536	80.27	ug/L		99
56)	o-Xylene	13.796	13.796	1.049	106	427197	41.20	ug/L		100
57)	Styrene	13.802	13.802	1.049	104	646243	40.05	ug/L		100
59)	Bromoform	14.058	14.058	0.903	173	182594	61.92	ug/L		99
60)	Isopropylbenzene	14.156	14.156	0.909	105	1116594	49.59	ug/L		100
62)	1,1,2,2-Tetrachloroethane	14.436	14.436	0.927	83	267680	56.24	ug/L		98
63)	1,2,3-Trichloropropane	14.528	14.528	0.933	110	91864	61.88	ug/L	#	70
64)	Bromobenzene	14.564	14.564	0.935	156	282687	49.86	ug/L		99
65)	n-Propylbenzene	14.583	14.583	0.937	91	1152542	43.22	ug/L		100
66)	1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	840710	42.71	ug/L		99
67)	2-Chlorotoluene	14.729	14.735	0.946	126	251810	45.86	ug/L		99
68)	4-Chlorotoluene	14.833	14.833	0.953	91	718724	43.42	ug/L		99
69)	tert-Butylbenzene	15.107	15.107	0.970	134	175957	42.25	ug/L		99
70)	1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	833138	40.98	ug/L		99
71)	sec-Butylbenzene	15.332	15.333	0.985	105	1004407	38.70	ug/L		99
72)	4-Isopropyltoluene	15.454	15.454	0.993	119	762035	35.98	ug/L		99
73)	1,3-Dichlorobenzene	15.515	15.515	0.996	146	426096	37.39	ug/L		99
74)	1,4-Dichlorobenzene	15.601	15.601	1.002	146	427513	36.75	ug/L		99
75)	n-Butylbenzene	15.887	15.887	1.020	91	614541	30.14	ug/L		99
76)	1,2-Dichlorobenzene	16.021	16.021	1.029	146	396180	36.98	ug/L		100
77)	1,2-Dibromo-3-chloropr...	16.881	16.881	1.084	157	49753	57.45	ug/L		98 E
78)	1,2,4-Trichlorobenzene	17.905	17.911	1.150	180	137939	18.19	ug/L		97
79)	Hexachlorobutadiene	18.076	18.076	1.161	225	89621	16.33	ug/L		97
80)	Naphthalene	18.283	18.283	1.174	128	193234	13.84	ug/L		99
81)	1,2,3-Trichlorobenzene	18.618	18.618	1.196	180	103950	16.33	ug/L		99
83)	Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.			
84)	2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.			
85)	Acrolein	0.000	6.535	0.000		0	N.D.			
86)	Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.			
87)	Isopropyl Alcohol	6.791	6.785	0.681		0m	N.D.	d		
88)	Allyl chloride	7.072	7.139	0.709		0m	N.D.	d		
89)	tert-Butyl Alcohol	7.291	7.285	0.731		0m	N.D.	d		
90)	Acrylonitrile	7.572	7.541	0.759		0m	N.D.	d		
91)	Isopropyl ether	8.212	8.078	0.823		0m	N.D.	d		
92)	2-Chloro-1,3-butadiene	8.206	8.206	0.823		0m	N.D.	d		
93)	Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.			
94)	Ethyl acetate	8.693	8.700	0.872		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V6\
Data File : 6A140.D
Acq On : 2 Mar 2010 4:28 am
Operator : RXD1
InstName : VOA6
Sample : |1202053927|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MS 247325001
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Mar 02 08:21:34 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	8.687	8.773	0.871		0m	N.D.	d
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97)	Tetrahydrofuran	9.053	9.059	0.908		0m	N.D.	d
98)	Isobutyl alcohol	9.413	9.388	0.944		0m	N.D.	d
99)	Methyl tert-amyl ether	9.724	9.736	0.975		0m	N.D.	d
100)	Methyl methacrylate	10.602	10.589	1.063		0m	N.D.	d
101)	1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102)	2-Nitropropane	11.083	11.071	1.111		0m	N.D.	d
104)	Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156	14.199	0.909		0m	N.D.	d
108)	Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110)	Pentachloroethane	15.174	15.174	0.975		0m	N.D.	d
111)	Benzyl chloride	15.716	15.717	1.009		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.174	16.113	1.039		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V6\
Data File : 6A140.D
Acq On : 2 Mar 2010 4:28 am
Operator : RXD1
InstName : VOA6
Sample : |1202053927|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MS 247325001
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Mar 02 08:21:34 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

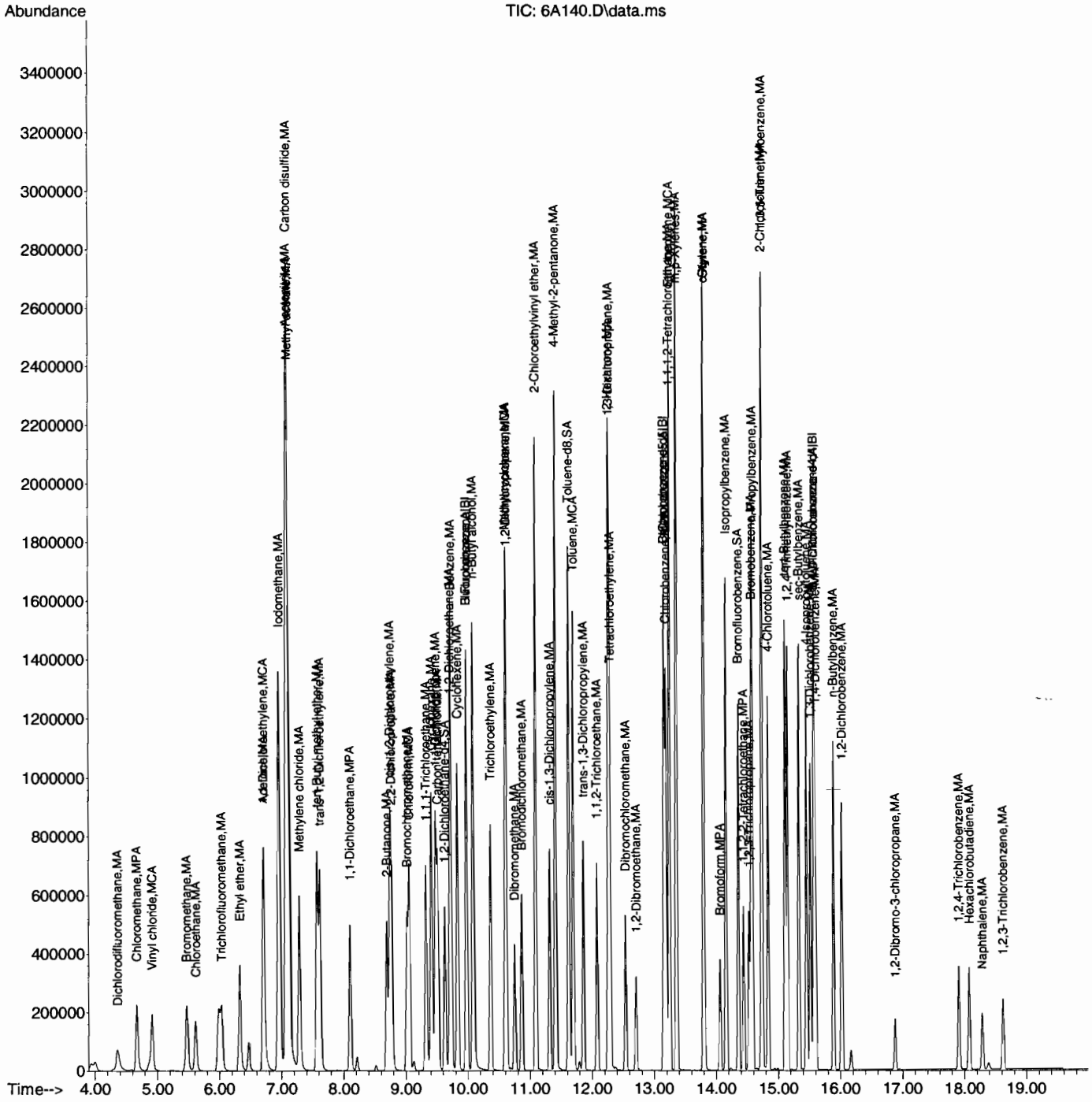

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V6\
Data File : 6A141.D
Acq On : 2 Mar 2010 4:55 am
Operator : RXD1
InstName : VOA6
Sample : |1202053928|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MSD 247325001
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Mar 02 08:21:37 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1309500	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	968531	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.576	15.576	1.000	152	515904	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1308932	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	968531	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.576	15.576	1.000	152	515904	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	494932	50.16	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 100.32%					
43) Toluene-d8	11.620	11.620	0.883	98	1277813	48.43	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 96.86%					
61) Bromofluorobenzene	14.357	14.357	0.922	95	513122	53.29	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 106.58%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.360	4.360	0.437	85	205118	32.94	ug/L	100
3) Chloromethane	4.672	4.672	0.468	50	378487	37.23	ug/L	99
4) Vinyl chloride	4.914	4.914	0.493	62	354984	39.43	ug/L	99
5) Bromomethane	5.468	5.468	0.548	94	223150	41.12	ug/L	100
6) Chloroethane	5.619	5.619	0.563	64	232598	40.94	ug/L	99
7) Trichlorofluoromethane	6.032	6.032	0.605	101	541911	42.55	ug/L	99
8) Ethyl ether	6.328	6.328	0.634	59	299038	42.56	ug/L	97
9) Acetone	6.706	6.706	0.672	43	523250	191.93	ug/L	100
10) 1,1-Dichloroethylene	6.712	6.706	0.673	61	473656	40.32	ug/L	99
11) Iodomethane	6.956	6.956	0.697	142	2143420	192.51	ug/L	99
12) Acetonitrile	7.072	7.072	0.709	41	1055889	997.10	ug/L	100
13) Methyl acetate	7.096	7.096	0.711	43	1009719	165.11	ug/L	100
14) Carbon disulfide	7.078	7.078	0.710	76	4006334	195.66	ug/L	100
15) Methylene chloride	7.285	7.285	0.730	84	296352	40.11	ug/L	100
16) tert-Butyl methyl ether	7.572	7.572	0.759	73	868116	44.27	ug/L	99
17) trans-1,2-Dichloroethy...	7.614	7.615	0.763	61	449956	40.97	ug/L	99
18) Vinyl acetate	8.072	8.060	0.809	43	2997	N.D.		
19) 1,1-Dichloroethane	8.102	8.102	0.812	63	572184	42.69	ug/L	99
20) 2-Butanone	8.693	8.694	0.872	43	745350	265.79	ug/L	100
21) cis-1,2-Dichloroethylene	8.742	8.742	0.877	61	513899	42.24	ug/L	98
22) 2,2-Dichloropropane	8.767	8.767	0.879	77	490125	42.46	ug/L	99
23) Bromochloromethane	9.017	9.017	0.904	128	145419	42.58	ug/L	97
24) Chloroform	9.053	9.053	0.908	83	543968	41.32	ug/L	99
25) 1,1,1-Trichloroethane	9.321	9.322	0.935	97	525699	43.02	ug/L	100
26) Cyclohexane	9.413	9.413	0.944	56	529273	40.58	ug/L	98
27) 1,1-Dichloropropene	9.480	9.480	0.950	75	387764	41.63	ug/L	100
28) Carbon tetrachloride	9.510	9.510	0.954	117	482572	42.97	ug/L	100
30) 1,2-Dichloroethane	9.705	9.706	0.973	62	501231	42.12	ug/L	100
31) Benzene	9.724	9.724	0.975	78	1029087	39.37	ug/L	99
32) Cyclohexene	9.834	9.828	0.986	67	534066	40.93	ug/L	99
33) n-Butyl alcohol	10.083	10.077	1.011	56	900617	4618.79	ug/L	99
34) Trichloroethylene	10.364	10.364	1.039	95	272118	39.58	ug/L	98
35) 1,2-Dichloropropane	10.614	10.614	1.064	63	293187	41.52	ug/L	100
36) Methylcyclohexane	10.602	10.602	1.063	83	433712	38.44	ug/L	99
37) Dibromomethane	10.748	10.748	1.078	93	163207	41.34	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V6\
Data File : 6A141.D
Acq On : 2 Mar 2010 4:55 am
Operator : RXD1
InstName : VOA6
Sample : |1202053928|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MSD 247325001
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Mar 02 08:21:37 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
38) Bromodichloromethane	10.864	10.864	1.089	83	399712	42.92	ug/L		99
39) 2-Chloroethylvinyl ether	11.089	11.089	1.112	63	915227	218.34	ug/L		99
40) cis-1,3-Dichloropropylene	11.315	11.315	1.134	75	400056	38.31	ug/L		99
42) 4-Methyl-2-pentanone	11.406	11.406	0.867	58	572860	249.14	ug/L		99
44) Toluene	11.699	11.699	0.889	91	1057739	38.25	ug/L		99
45) trans-1,3-Dichloroprop...	11.858	11.858	0.901	75	389536	38.83	ug/L		99
46) 1,1,2-Trichloroethane	12.077	12.077	0.918	83	183672	40.94	ug/L		99
47) 2-Hexanone	12.260	12.260	0.932	43	1142942	257.83	ug/L		92
48) 1,3-Dichloropropane	12.272	12.272	0.933	76	402443	40.94	ug/L		97
49) Tetrachloroethylene	12.290	12.290	0.934	164	207557	34.43	ug/L		99
50) Dibromochloromethane	12.540	12.534	0.953	129	289734	42.32	ug/L		99
51) 1,2-Dibromoethane	12.705	12.705	0.966	107	225574	40.22	ug/L		98
52) Chlorobenzene	13.193	13.187	1.003	112	642310	34.53	ug/L		99
53) 1,1,1,2-Tetrachloroethane	13.241	13.241	1.006	131	278749	39.31	ug/L		99
54) Ethylbenzene	13.254	13.248	1.007	91	1108814	34.68	ug/L		99
55) m,p-Xylenes	13.363	13.357	1.016	106	816543	65.72	ug/L		98
56) o-Xylene	13.796	13.796	1.049	106	408223	34.32	ug/L		99
57) Styrene	13.802	13.802	1.049	104	602989	32.58	ug/L		99
59) Bromoform	14.058	14.058	0.903	173	180459	45.57	ug/L		99
60) Isopropylbenzene	14.156	14.156	0.909	105	1054670	34.88	ug/L		99
62) 1,1,2,2-Tetrachloroethane	14.436	14.436	0.927	83	268545	42.02	ug/L		99
63) 1,2,3-Trichloropropane	14.528	14.528	0.933	110	86988	43.63	ug/L	#	72
64) Bromobenzene	14.564	14.564	0.935	156	266217	34.96	ug/L		100
65) n-Propylbenzene	14.583	14.583	0.936	91	1074643	30.01	ug/L		100
66) 1,3,5-Trimethylbenzene	14.735	14.735	0.946	105	797988	30.19	ug/L		99
67) 2-Chlorotoluene	14.729	14.735	0.946	126	237644	32.23	ug/L		100
68) 4-Chlorotoluene	14.833	14.833	0.952	91	673525	30.30	ug/L		98
69) tert-Butylbenzene	15.107	15.107	0.970	134	168034	30.05	ug/L		99
70) 1,2,4-Trimethylbenzene	15.150	15.150	0.973	105	787567	28.85	ug/L		99
71) sec-Butylbenzene	15.332	15.333	0.984	105	940673	26.99	ug/L		100
72) 4-Isopropyltoluene	15.454	15.454	0.992	119	718560	25.26	ug/L		99
73) 1,3-Dichlorobenzene	15.515	15.515	0.996	146	406791	26.58	ug/L		99
74) 1,4-Dichlorobenzene	15.601	15.601	1.002	146	399952	25.60	ug/L		99
75) n-Butylbenzene	15.887	15.887	1.020	91	564013	20.60	ug/L		99
76) 1,2-Dichlorobenzene	16.021	16.021	1.029	146	384582	26.73	ug/L		100
77) 1,2-Dibromo-3-chloropr...	16.881	16.881	1.084	157	50076	43.06	ug/L		98
78) 1,2,4-Trichlorobenzene	17.905	17.911	1.150	180	156993	15.42	ug/L		99
79) Hexachlorobutadiene	18.076	18.076	1.160	225	97299	13.20	ug/L		99
80) Naphthalene	18.283	18.283	1.174	128	182957	9.76	ug/L		99
81) 1,2,3-Trichlorobenzene	18.618	18.618	1.195	180	134590	15.74	ug/L		99
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.			
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.			
85) Acrolein	0.000	6.535	0.000		0	N.D.			
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.			
87) Isopropyl Alcohol	6.798	6.785	0.682		0m	N.D.	d		
88) Allyl chloride	7.072	7.139	0.709		0m	N.D.	d		
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.			
90) Acrylonitrile	7.572	7.541	0.759		0m	N.D.	d		
91) Isopropyl ether	8.206	8.078	0.823		0m	N.D.	d		
92) 2-Chloro-1,3-butadiene	8.218	8.206	0.824		0m	N.D.	d		
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.			
94) Ethyl acetate	8.693	8.700	0.872		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V6\
Data File : 6A141.D
Acq On : 2 Mar 2010 4:55 am
Operator : RXD1
InstName : VOA6
Sample : |1202053928|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MSD 247325001
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Mar 02 08:21:37 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	8.700	8.773	0.872		0m	N.D.	d
96)	Methacrylonitrile	8.907	8.950	0.893		0m	N.D.	d
97)	Tetrahydrofuran	9.035	9.059	0.906		0m	N.D.	d
98)	Isobutyl alcohol	9.413	9.388	0.944		0m	N.D.	d
99)	Methyl tert-amyl ether	9.724	9.736	0.975		0m	N.D.	d
100)	Methyl methacrylate	10.602	10.589	1.063		0m	N.D.	d
101)	1,4-Dioxane	10.742	10.699	1.077		0m	N.D.	d
102)	2-Nitropropane	11.089	11.071	1.112		0m	N.D.	d
104)	Ethyl methacrylate	0.000	11.858	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.156	14.199	0.909		0m	N.D.	d
108)	Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110)	Pentachloroethane	15.180	15.174	0.975		0m	N.D.	d
111)	Benzyl chloride	15.710	15.717	1.009		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.168	16.113	1.038		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V6\
Data File : 6A141.D
Acq On : 2 Mar 2010 4:55 am
Operator : RXD1
InstName : VOA6
Sample : |1202053928|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL MIX[A] MSD 247325001
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Mar 02 08:21:37 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Tit1e : Volati1e Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

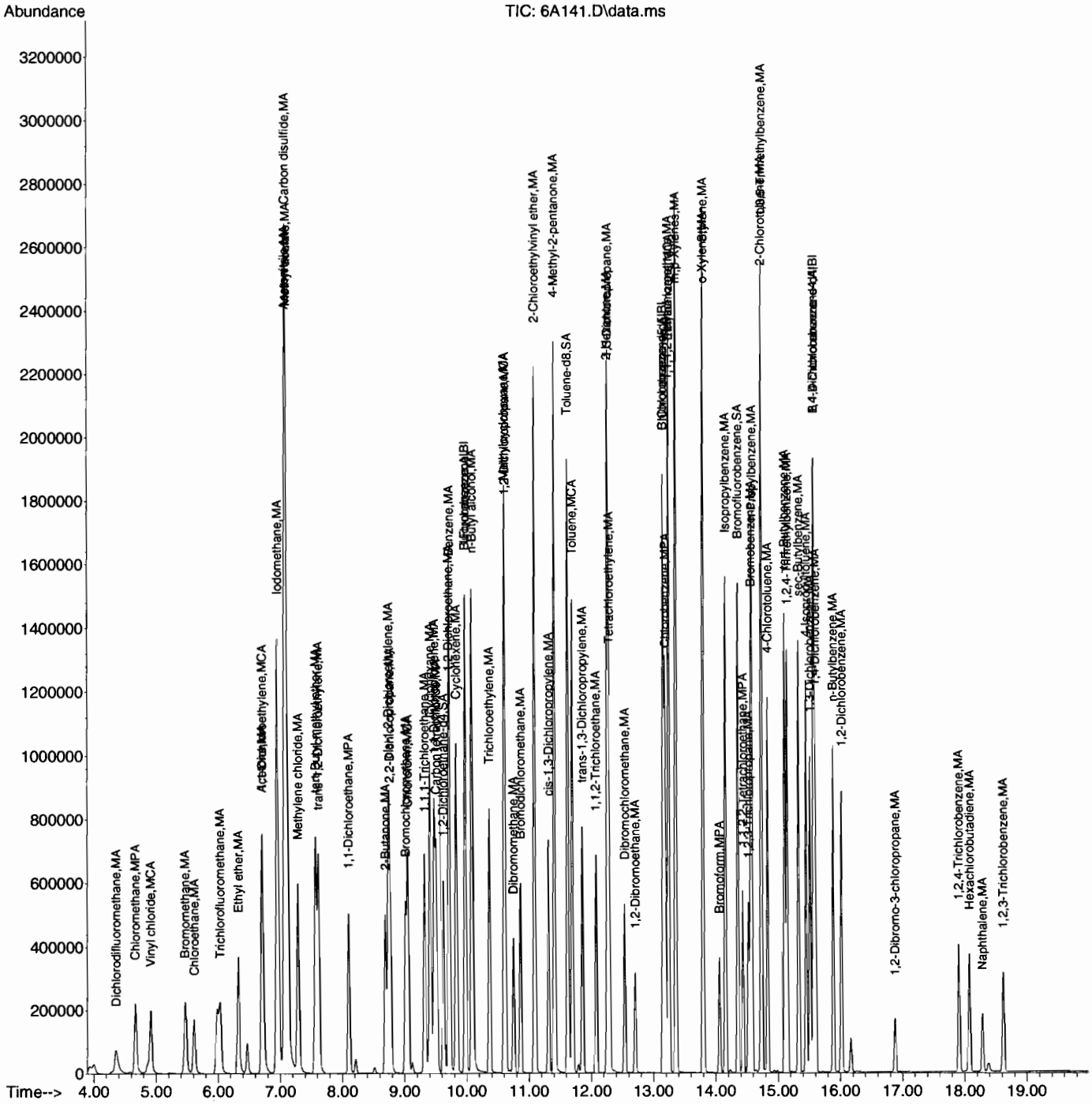

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z539.D
Acq On : 27 Feb 2010 3:56 am
Operator : RXD1
InstName : VOA6
Sample : |247325001|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Mar 01 10:15:41 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	9.974	9.974	1.000	96	1155251	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.156	13.156	1.000	117	808523	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	357943	50.00	ug/L	0.00
82) B Fluorobenzene	9.974	9.974	1.000	96	1154588	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.156	13.156	1.000	117	808523	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	15.570	15.576	1.000	152	357943	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	9.626	9.626	0.965	65	440923	50.65	ug/L	0.00
Spiked Amount 50.000	Range 66 - 134		Recovery = 101.30%					
43) Toluene-d8	11.620	11.620	0.883	98	1097558	49.84	ug/L	0.00
Spiked Amount 50.000	Range 71 - 128		Recovery = 99.68%					
61) Bromofluorobenzene	14.357	14.357	0.922	95	406733	60.88	ug/L	0.00
Spiked Amount 50.000	Range 65 - 130		Recovery = 121.76%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.360	0.000		0	N.D.		
3) Chloromethane	4.652	4.672	0.466	50	341	N.D.		
4) Vinyl chloride	0.000	4.914	0.000		0	N.D.		
5) Bromomethane	0.000	5.468	0.000		0	N.D.		
6) Chloroethane	0.000	5.619	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.032	0.000		0	N.D.		
8) Ethyl ether	0.000	6.328	0.000		0	N.D.		
9) Acetone	6.712	6.706	0.673	43	2555	Below Cal #		50
10) 1,1-Dichloroethylene	0.000	6.706	0.000		0	N.D.		
11) Iodomethane	0.000	6.956	0.000		0	N.D.		
12) Acetonitrile	7.285	7.072	0.730	41	194	N.D.		
13) Methyl acetate	0.000	7.096	0.000		0	N.D.		
14) Carbon disulfide	7.072	7.078	0.709	76	250	N.D.		
15) Methylene chloride	7.285	7.285	0.730	84	11975	N.D.		
16) tert-Butyl methyl ether	0.000	7.572	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	7.615	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.060	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.102	0.000		0	N.D.		
20) 2-Butanone	8.706	8.694	0.873	43	713	N.D.		
21) cis-1,2-Dichloroethylene	0.000	8.742	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	8.767	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.017	0.000		0	N.D.		
24) Chloroform	0.000	9.053	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.322	0.000		0	N.D.		
26) Cyclohexane	0.000	9.413	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	9.480	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	9.510	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	9.706	0.000		0	N.D.		
31) Benzene	0.000	9.724	0.000		0	N.D.		
32) Cyclohexene	0.000	9.828	0.000		0	N.D.		
33) n-Butyl alcohol	0.000	10.077	0.000		0	N.D.		
34) Trichloroethylene	10.352	10.364	1.038	95	427	N.D.		
35) 1,2-Dichloropropane	0.000	10.614	0.000		0	N.D.		
36) Methylcyclohexane	10.602	10.602	1.063	83	423	N.D.		
37) Dibromomethane	0.000	10.748	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z539.D
Acq On : 27 Feb 2010 3:56 am
Operator : RXD1
InstName : VOA6
Sample : |247325001|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Mar 01 10:15:41 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
38) Bromodichloromethane	0.000	10.864	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.089	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000	11.315	0.000		0	N.D.		
42) 4-Methyl-2-pentanone	0.000	11.406	0.000		0	N.D.		
44) Toluene	11.699	11.699	0.889	91	44973	1.95	ug/L	96
45) trans-1,3-Dichloroprop...	0.000	11.858	0.000		0	N.D.		
46) 1,1,2-Trichloroethane	0.000	12.077	0.000		0	N.D.		
47) 2-Hexanone	12.266	12.260	0.932	43	207	N.D.		
48) 1,3-Dichloropropane	0.000	12.272	0.000		0	N.D.		
49) Tetrachloroethylene	0.000	12.290	0.000		0	N.D.		
50) Dibromochloromethane	0.000	12.534	0.000		0	N.D.		
51) 1,2-Dibromoethane	0.000	12.705	0.000		0	N.D.		
52) Chlorobenzene	0.000	13.187	0.000		0	N.D.		
53) 1,1,1,2-Tetrachloroethane	0.000	13.241	0.000		0	N.D.		
54) Ethylbenzene	13.248	13.248	1.007	91	1249	N.D.		
55) m,p-Xylenes	13.357	13.357	1.015	106	715	N.D.		
56) o-Xylene	0.000	13.796	0.000		0	N.D.		
57) Styrene	13.802	13.802	1.049	104	200	N.D.		
59) Bromoform	0.000	14.058	0.000		0	N.D.		
60) Isopropylbenzene	14.162	14.156	0.910	105	402	N.D.		
62) 1,1,2,2-Tetrachloroethane	0.000	14.436	0.000		0	N.D.		
63) 1,2,3-Trichloropropane	0.000	14.528	0.000		0	N.D.		
64) Bromobenzene	0.000	14.564	0.000		0	N.D.		
65) n-Propylbenzene	14.583	14.583	0.937	91	1628	N.D.		
66) 1,3,5-Trimethylbenzene	14.741	14.735	0.947	105	968	N.D.		
67) 2-Chlorotoluene	0.000	14.735	0.000		0	N.D.		
68) 4-Chlorotoluene	14.833	14.833	0.953	91	466	N.D.		
69) tert-Butylbenzene	0.000	15.107	0.000		0	N.D.		
70) 1,2,4-Trimethylbenzene	15.144	15.150	0.973	105	1225	N.D.		
71) sec-Butylbenzene	15.333	15.333	0.985	105	1318	N.D.		
72) 4-Isopropyltoluene	15.454	15.454	0.993	119	1246	N.D.		
73) 1,3-Dichlorobenzene	0.000	15.515	0.000		0	N.D.		
74) 1,4-Dichlorobenzene	15.601	15.601	1.002	146	257	N.D.		
75) n-Butylbenzene	15.887	15.887	1.020	91	886	N.D.		
76) 1,2-Dichlorobenzene	0.000	16.021	0.000		0	N.D.		
77) 1,2-Dibromo-3-chloropr...	0.000	16.881	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	17.911	17.911	1.150	180	395	N.D.		
79) Hexachlorobutadiene	0.000	18.076	0.000		0	N.D.		
80) Naphthalene	0.000	18.283	0.000		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	18.612	18.618	1.195	180	439	N.D.		
83) Chlorotrifluoroethylene	0.000	4.279	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.035	0.000		0	N.D.		
85) Acrolein	0.000	6.535	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	6.682	0.000		0	N.D.		
87) Isopropyl Alcohol	0.000	6.785	0.000		0	N.D.		
88) Allyl chloride	7.285	7.139	0.730	41	194	N.D.		
89) tert-Butyl Alcohol	0.000	7.285	0.000		0	N.D.		
90) Acrylonitrile	0.000	7.541	0.000		0	N.D.		
91) Isopropyl ether	0.000	8.078	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	0.000	8.206	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	8.486	0.000		0	N.D.		
94) Ethyl acetate	8.706	8.700	0.873	43	713	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z539.D
Acq On : 27 Feb 2010 3:56 am
Operator : RXD1
InstName : VOA6
Sample : |247325001|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Mar 01 10:15:41 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
95)	Propionitrile	0.000	8.773	0.000		0	N.D.	
96)	Methacrylonitrile	0.000	8.950	0.000		0	N.D.	
97)	Tetrahydrofuran	9.059	9.059	0.908	42	587	N.D.	
98)	Isobutyl alcohol	0.000	9.388	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000	9.736	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	10.589	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	10.699	0.000		0	N.D.	
102)	2-Nitropropane	0.000	11.071	0.000		0	N.D.	
104)	Ethyl methacrylate	11.858	11.858	0.901	69	212	N.D.	
106)	1-Chlorohexane	0.000	13.052	0.000		0	N.D.	
107)	cis-1,4-Dichloro-2-butene	0.000	14.199	0.000		0	N.D.	
108)	Cyclohexanone	0.000	14.314	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	14.485	0.000		0	N.D.	
110)	Pentachloroethane	0.000	15.174	0.000		0	N.D.	
111)	Benzyl chloride	0.000	15.717	0.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.113	16.113	1.035	45	2192	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z539.D
Acq On : 27 Feb 2010 3:56 am
Operator : RXD1
InstName : VOA6
Sample : |247325001|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 39 Sample Multiplier: 1

Quant Time: Mar 01 10:15:41 2010
Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Thu Feb 11 09:38:02 2010
Response via : Initial Calibration
Integrator: RTE

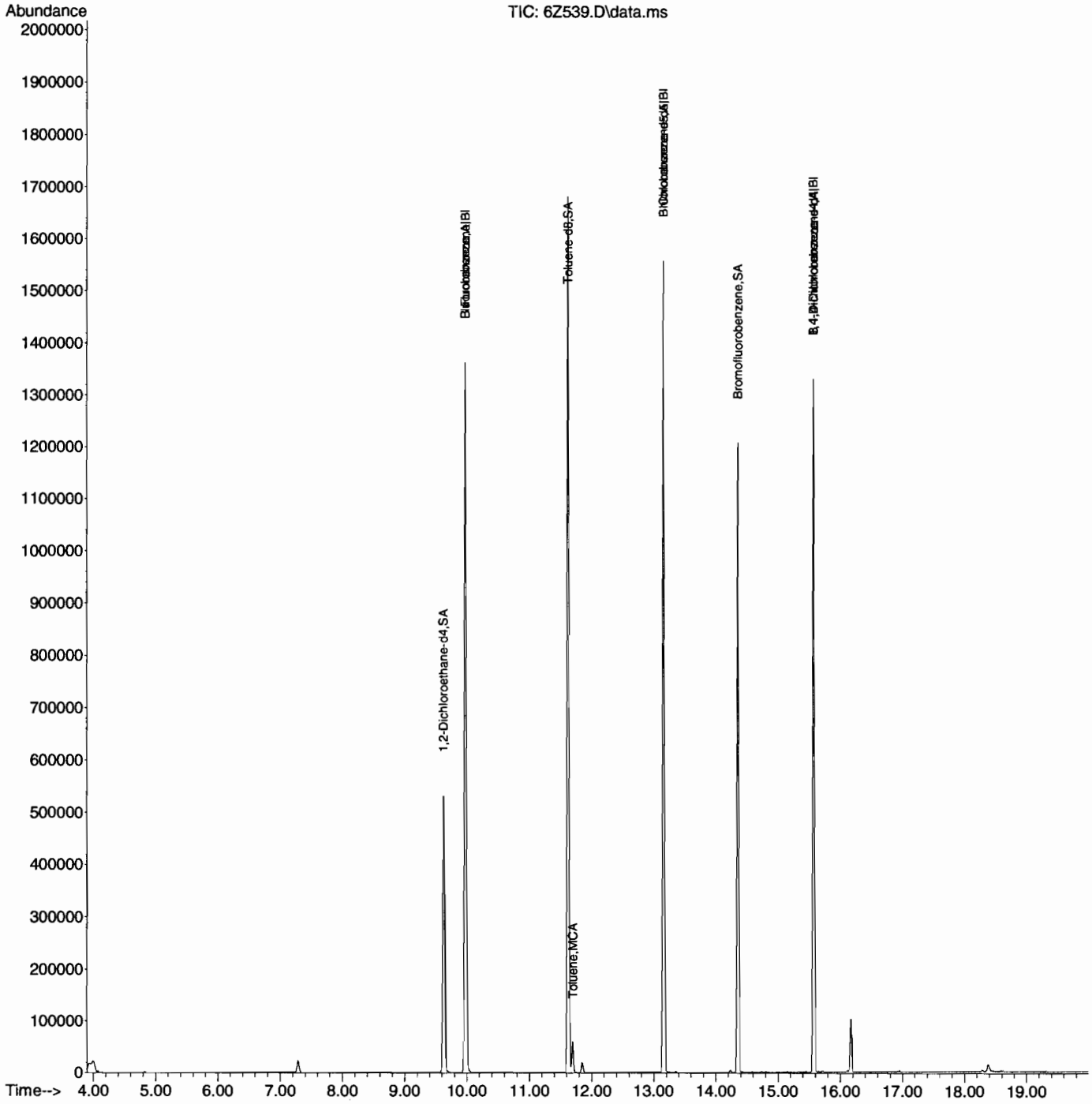

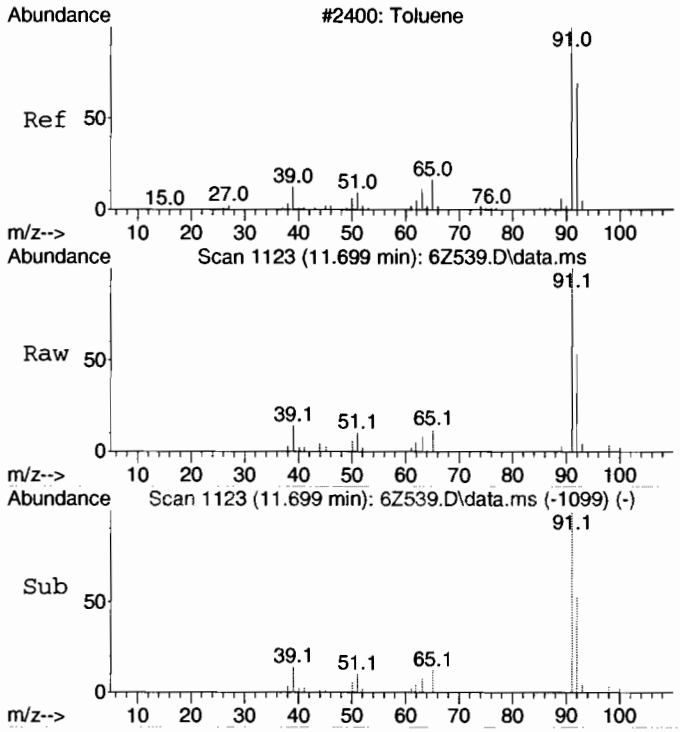

#44
Toluene
Concen: 1.95 ug/L
RT: 11.699 min Scan# 1123
Delta R.T. 0.000 min
Lab File: 6Z539.D
Acq: 27 Feb 2010 3:56 am

Tgt Ion: 91 Resp: 44973

Ion	Ratio	Lower	Upper
91	100		
92	56.5	29.2	89.2

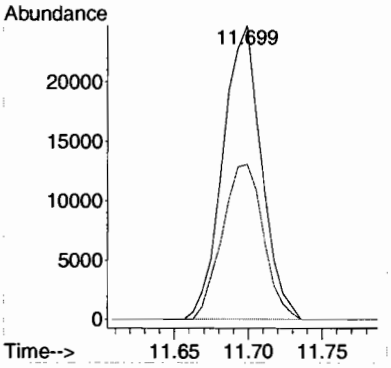

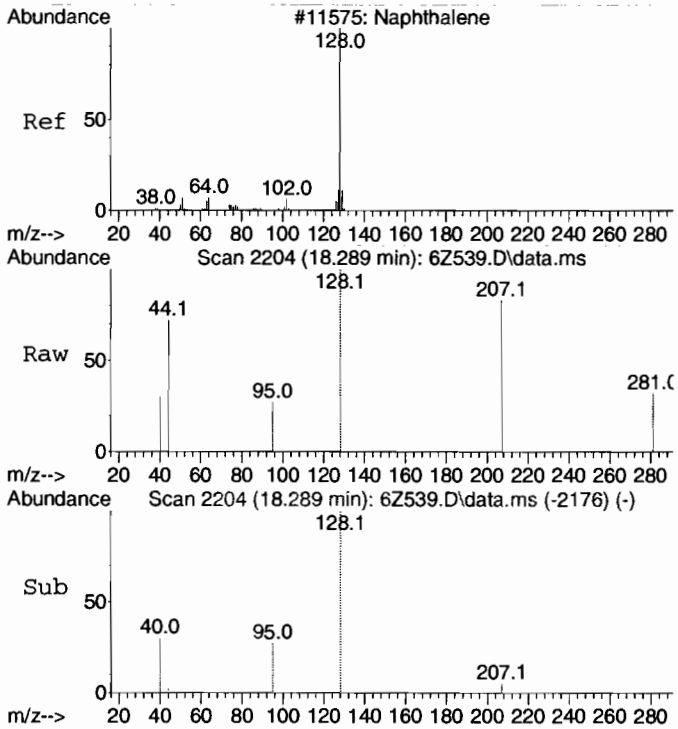

#80 BEFORE analyst DELETION
Naphthalene
Concen: 0.30 ug/L
RT: 18.289 min Scan# 2204
Delta R.T. 0.006 min
Lab File: 6Z539.D
Acq: 27 Feb 2010 3:56 am

Tgt Ion:128 Resp: 3919

Ion	Ratio	Lower	Upper
128	100		
127	5.4	0.0	43.1
129	0.0	0.0	41.1

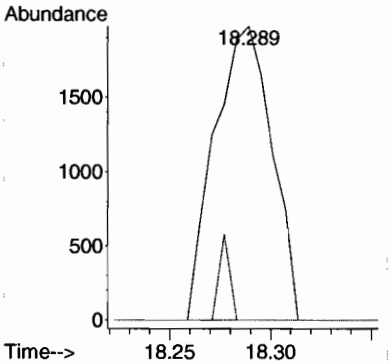

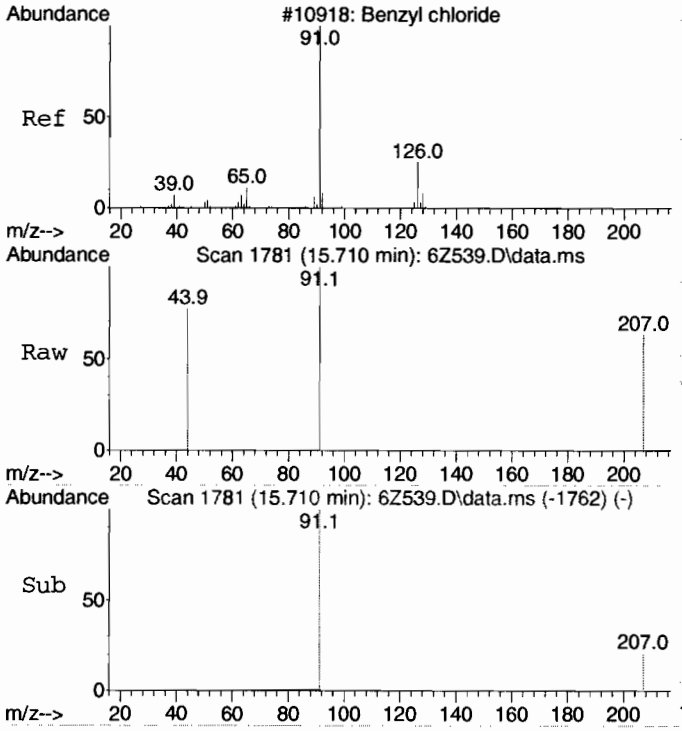

#111 BEFORE analyst DELETION
Benzyl chloride
Concen: 0.29 ug/L
RT: 15.710 min Scan# 1781
Delta R.T. -0.007 min
Lab File: 6Z539.D
Acq: 27 Feb 2010 3:56 am

Tgt Ion: 91 Resp: 2581

Ion	Ratio	Lower	Upper
91	100		
126	0.0	0.0	51.0
65	0.0	0.0	43.8

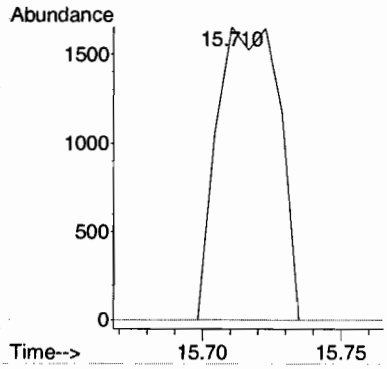

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z539.D
Acq On : 27 Feb 2010 3:56 am
Operator : RXD1
Sample : |247325001|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 39 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\022610V6\
Data File : 6Z539.D
Acq On : 27 Feb 2010 3:56 am
Operator : RXD1
Sample : |247325001|957850|1|VOAF|1|VOA8260BS|
Misc : LANL 5g N/A SOIL
ALS Vial : 39 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\VOA6-8260-021010.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA6

Date: 2/10/2010 Method 8260B/624 Operator: RXD1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 4

Daily Instrument Readings:
Multiplier Voltage: 1882

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 021010V6

(See pg. 30 for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a
Cl test lot # 72612
Sequence Number: 021010V6

Daily Standard — Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	ICV	MS/ LCS	BFB
L-ICV	W6VM100210-09		5+5		
IS	UVM100203-01	1	1		
SS	UVM100114-02	1	1		
S-ICV	W6VM100210-18		5+5		
BFB	UVM100114-02				1

Purge Amount

5	Water Purge Vol:ML
N/A	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
2/10/2010	11:55	6X301.D	12020--	BLANK	BLANK	5mL	1	N/A	1	w	RXD1	N/A	X	RINSE
2/10/2010	12:23	6X302.D	UVM100114-02	BFB	BFB	5mL	1	N/A	2	w	RXD1	N/A	O	BFB
2/10/2010	12:51	6X303.D	W6VM100210-01	ICAL	ICAL	5uL	1	N/A	3	w	RXD1	N/A	O	MIX[A] UVM100106-02C+UVM100202-02B
2/10/2010	13:19	6X304.D	W6VM100210-02	ICAL	ICAL	5uL	1	N/A	4	w	RXD1	N/A	O	MIX[A] UVM100106-03C+UVM100202-03B
2/10/2010	13:47	6X305.D	W6VM100210-03	ICAL	ICAL	5uL	1	N/A	5	w	RXD1	N/A	O	MIX[A] UVM100106-04C+UVM100202-04B
2/10/2010	14:14	6X306.D	W6VM100210-04	ICAL	ICAL	5uL	1	N/A	6	w	RXD1	N/A	O	MIX[A] UVM100106-05C+UVM100202-05B
2/10/2010	14:42	6X307.D	W6VM100210-05	ICAL	ICAL	5uL	1	N/A	7	w	RXD1	N/A	O	MIX[A] UVM100106-06C+UVM100202-06B
2/10/2010	15:10	6X308.D	W6VM100210-06	ICAL	ICAL	5uL	1	N/A	8	w	RXD1	N/A	O	MIX[A] UVM100106-07C+UVM100202-07B
2/10/2010	15:38	6X309.D	W6VM100210-07	ICAL	ICAL	5uL	1	N/A	9	w	RXD1	N/A	O	MIX[A] UVM100106-08C+UVM100202-08B
2/10/2010	16:05	6X310.D	12020--	BLANK	BLANK	5mL	1	N/A	10	w	RXD1	N/A	X	RINSE
2/10/2010	16:33	6X311.D	W6VM100210-08	ICAL	ICAL	5uL	1	N/A	11	w	RXD1	N/A	O	MIX[A] UVM100106-01C+UVM100202-01B
2/10/2010	17:01	6X312.D	W6VM100210-09	ICV	ICV	5uL	1	N/A	12	w	RXD1	N/A	O	MIX[A] UVM100126-01C+IVM100210-01
2/10/2010	17:29	6X313.D	W6VM100210-10	ICV	ICV	5uL	1	N/A	13	w	RXD1	N/A	X	MIX[A] UVM100126-02B+IVM100210-01
2/10/2010	17:57	6X314.D	W6VM100210-11	ICAL	ICAL	5uL	1	N/A	14	w	RXD1	N/A	O	MIX[B] UVM100118-01+UVM100125-01C
2/10/2010	18:24	6X315.D	W6VM100210-12	ICAL	ICAL	5uL	1	N/A	15	w	RXD1	N/A	O	MIX[B] UVM100118-02+UVM100125-02C
2/10/2010	18:52	6X316.D	W6VM100210-13	ICAL	ICAL	5uL	1	N/A	16	w	RXD1	N/A	O	MIX[B] UVM100118-03+UVM100125-03C
2/10/2010	19:20	6X317.D	W6VM100210-14	ICAL	ICAL	5uL	1	N/A	17	w	RXD1	N/A	O	MIX[B] UVM100118-04+UVM100125-04C
2/10/2010	19:48	6X318.D	W6VM100210-15	ICAL	ICAL	5uL	1	N/A	18	w	RXD1	N/A	O	MIX[B] UVM100118-05+UVM100125-05C
2/10/2010	20:15	6X319.D	W6VM100210-16	ICAL	ICAL	5uL	1	N/A	19	w	RXD1	N/A	O	MIX[B] UVM100118-06+UVM100125-06C
2/10/2010	20:43	6X320.D	W6VM100210-17	ICAL	ICAL	5uL	1	N/A	20	w	RXD1	N/A	O	MIX[B] UVM100118-07+UVM100125-07C
2/10/2010	21:11	6X321.D	12020--	BLANK	BLANK	5mL	1	N/A	21	w	RXD1	N/A	X	RINSE
2/10/2010	21:38	6X322.D	W6VM100210-18	ICV	ICV	5uL	1	N/A	22	w	RXD1	N/A	O	MIX[B] UVM101023-08B+UVM100125-08B
2/10/2010	22:06	6X323.D	W6VM100210-19	ICV	ICV	5uL	1	N/A	23	w	RXD1	N/A	X	MIX[B] UVM100118-08B+UVM100125-08B
2/10/2010	22:33	6X324.D	12020--	BLANK	BLANK	5mL	1	N/A	24	w	RXD1	N/A	X	RINSE

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA6

Date: 2/26/2010 Method 8260B/624 Operator: RXD1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 4

Daily Instrument Readings:
Multiplier Voltage: 1906

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 2/10/2010

(See pg. 30 for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a
CI test lot # 72612
Sequence Number: 022610V6pm

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W6VM100226-08		5+5		
IS	UVM100203-01	1	1	1	
SS	UVM100114-02	1	1	1	
LCS/MS	W6VM100226-09			5+5	
BFB	W6VM100226-05				1
SHORT	W6VM100226-10		5	5	

Purge Amount	
5	Water Purge Vol:ML
5	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	CI test (Y/N)	Acceptable (O/X)	Comments
2/27/2010 2:06	6Z535.D	W6VM100226-08	GEL	BFB/CCV	5mL	1	N/A	36	w	RXD1	N/A	O	MIX[A] UVM100106-08C+UVM100202-08D
2/27/2010 2:33	6Z536.D	W6VM100226-09	GEL	LCS	5g	1	N/A	37	s	RXD1	N/A	O	SOIL MIX[A] UVM100220-01B+IVM100224-01
2/27/2010 3:01	6Z537.D	W6VM100226-10	GEL	CCV/LCS	5g	1	N/A	38	s	RXD1	N/A	O	SOIL MIX[B] UVM100215-08A
2/27/2010 3:29	6Z538.D	12020--	BLANK	BLANK	5g	1	N/A	39	s	RXD1	N/A	O	SOIL
2/27/2010 3:56	6Z539.D	247325001	LANL	957850	5g	1	N/A	40	s	RXD1	N/A	O	SOIL
2/27/2010 4:24	6Z540.D	247325002	LANL	957850	5g	1	N/A	41	s	RXD1	N/A	x	SOIL, IS low see 030110V6pm
2/27/2010 4:52	6Z541.D	247327001	LANL	957850	5g	1	N/A	42	s	RXD1	N/A	O	SOIL
2/27/2010 5:19	6Z542.D	247327002	LANL	957850	5g	1	N/A	43	s	RXD1	N/A	O	SOIL
2/27/2010 5:48	6Z543.D	247421002	LANL	957850	5g	1	N/A	44	s	RXD1	N/A	O	SOIL
2/27/2010 6:15	6Z544.D	247421003	LANL	957850	5g	1	N/A	45	s	RXD1	N/A	O	SOIL
2/27/2010 6:43	6Z545.D	247421004	LANL	957850	5g	1	N/A	46	s	RXD1	N/A	O	SOIL
2/27/2010 7:11	6Z546.D	247421005	LANL	957850	5g	1	N/A	47	s	RXD1	N/A	O	SOIL
2/27/2010 7:38	6Z547.D	247421006	LANL	957850	5g	1	N/A	48	s	RXD1	N/A	x	SOIL, IS low see 030110V6pm
2/27/2010 8:06	6Z548.D	247421007	LANL	957850	5g	1	N/A	49	s	RXD1	N/A	O	SOIL
2/27/2010 8:33	6Z549.D	1202053927	LANL	957850	5g	1	N/A	50	s	RXD1	N/A	x	MS 247325001, see 030110V6pm
2/27/2010 9:01	6Z550.D	1202053928	LANL	957850	5g	1	N/A	50	s	RXD1	N/A	x	MSD 247325001, see 030110V6pm
	6Z551.D	No MS or GC data present		**Archon error**									

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA6

Date: 3/1/2010 Method 8260B/624 Operator: RXD1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 4

Daily Instrument Readings:
Multiplier Voltage: 1906

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 2/10/2010

(See pg. 30 for ICAL Std. Sci. Ids)

NaHSO4 lot # n/a
Cl test lot # 72612
Sequence Number: 030110V6pm

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W6VM100301-05		5+5		
IS	UVM100217-01	1	1	1	
SS	UVM100203-02	1	1	1	
LCS/MS	W6VM100301-06			5+5	
BFB	UVM100203-02				1
SHORT	W6VM100301-07		5	5	

Purge Amount	
5	Water Purge Vol:ML
5	Soil Purge Wt.:G
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
1 Mar 2010 22:30	6A127.D	W6VM100301-05	GEL	BFB/CCV	5mL	1	N/A	27	w	RXD1	N/A	O	MIX[A] UVM100106-08C+UVM100202-08D
1 Mar 2010 22:58	6A128.D	W6VM100301-06	GEL	LCS	5g	1	N/A	28	s	RXD1	N/A	O	SOIL MIX[A] UVM100220-01B+IVM100301-01
1 Mar 2010 23:25	6A129.D	W6VM100301-07	GEL	CCV/LCS	5g	1	N/A	29	s	RXD1	N/A	O	SOIL MIX[B] UVM100215-08A
1 Mar 2010 23:53	6A130.D	12020--	BLANK	BLANK	5g	1	N/A	30	s	RXD1	N/A	O	SOIL
2 Mar 2010 00:21	6A131.D	247325002	LANL	957850	5g	1	N/A	31	s	RXD1	N/A	O	SOIL, RR of 6Z540
2 Mar 2010 00:48	6A132.D	247421006	LANL	957850	5g	1	N/A	32	s	RXD1	N/A	O	SOIL, RR of 6Z547
2 Mar 2010 01:16	6A133.D	247450001	LANL	959498	5g	1	N/A	33	s	RXD1	N/A	O	SOIL
2 Mar 2010 01:43	6A134.D	247450002	LANL	959498	5g	1	N/A	34	s	RXD1	N/A	O	SOIL
2 Mar 2010 02:11	6A135.D	247450003	LANL	959498	5g	1	N/A	35	s	RXD1	N/A	O	SOIL
2 Mar 2010 02:38	6A136.D	247450004	LANL	959498	5g	1	N/A	36	s	RXD1	N/A	O	SOIL
2 Mar 2010 03:05	6A137.D	247450005	LANL	959498	5g	1	N/A	37	s	RXD1	N/A	x	SOIL, IS low see 030210V6pm
2 Mar 2010 03:32	6A138.D	247450006	LANL	959498	5g	1	N/A	38	s	RXD1	N/A	O	SOIL
2 Mar 2010 04:00	6A139.D	247450007	LANL	959498	5g	1	N/A	39	s	RXD1	N/A	x	SOIL, IS low see 030210V6pm
2 Mar 2010 04:28	6A140.D	1202053927	LANL	957850	5g	1	N/A	40	s	RXD1	N/A	O	SOIL MIX[A] MS 247325001, RR of 6Z549
2 Mar 2010 04:55	6A141.D	1202053928	LANL	957850	5g	1	N/A	41	s	RXD1	N/A	O	SOIL MIX[A] MSD 247325001, RR of 6Z550
2 Mar 2010 05:22	6A142.D	1202057907	LANL	959498	5g	1	N/A	42	s	RXD1	N/A	x	SOIL MIX[A] MS 247450002
2 Mar 2010 05:50	6A143.D	1202057908	LANL	959498	5g	1	N/A	43	s	RXD1	N/A	x	SOIL MIX[A] MSD 247450002
2 Mar 2010 06:18	6A144.D	12020--	BLANK	BLANK	5mL	1	N/A	44	w	RXD1	N/A	X	RINSE

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
09-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
VOA GC/MS	SW846 8260B	Solid	LANL
Batch ID:	**Sample Numbers:**		
957850	See Below		

Potentially affected work order(s)(SDG): 247325(10-1896),247327(10-1898),247421(10-1920)

Application Issues:

Failed RPD for MS/MSD, or PS/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The relative percent differences (RPD) between the MS and MSD (1202053927 & 1202053928) recoveries were not within the acceptance limits.	1. The RPD values were not all within the acceptance limits. The MS/MSD passed recoveries for all analytes. The results are reported.

Originator's Name:

Ryan Dushak 09-MAR-10

Data Validator/Group Leader:

Kelle Bellamy 10-MAR-10

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1898

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3550B
Analytical Batch Number:	957017
Prep Batch Number:	957012

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
247327002	WST15-10-8941
1202051996	Method Blank (MB)
1202051997	Laboratory Control Sample (LCS)
1202051998	247552002(WST15-10-8894) Matrix Spike (MS)
1202051999	247552002(WST15-10-8894) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

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

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms. 2,4-Toluene diisocyanate rapidly hydrolyzes in water (half-life less than 30 minutes). Therefore, recoveries of this compound from aqueous matrices should not be expected. In addition, in solid matrices, 2,4-Toluene diisocynate often reacts with alcohols and amines to produce urethane and ureas and consequently cannot usually coexist in a solution containing these materials. 2,4-Toluene diisocyanate is reported as an estimated value.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

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

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

Quality Control (QC) Information

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

Surrogate Recoveries
The following sample, 247327002 (WST15-10-8941) ,was analyzed at a dilution. As a result, the surrogates were diluted out of the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
The non-SDG sample 247552002(WST15-10-8894) was selected for analysis as the matrix spike and matrix spike duplicate. Please see the associated raw data files located in the Miscellaneous Section of the data report.

Matrix Spike (MS) Recovery Statement
Some MS and MSD spike recoveries were not within their established acceptance limits. Please see the spike recovery report for the specific failures. Since similar recoveries were displayed for the failing analytes, matrix interference had been demonstrated and the data were reported.

Matrix Spike Duplicate (MSD) Recovery Statement
Some MS and MSD spike recoveries were not within their established acceptance limits. Please see the spike recovery report for the specific failures. Since similar recoveries were displayed for the failing analytes, matrix interference had been demonstrated and the data were reported.

MS/MSD Relative Percent Difference (RPD) Statement
The MS (1202051998)/MSD (1202051999) RPD value for 4-Nitrophenol was 49% (SPC limit: 25%). Since the individual spike recoveries for this analyte were within the acceptance limits in the MS/MSD, the data were reported un-qualified for the RPD value failure.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

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

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The indicated sample was analyzed at a dilution of 1:500. The extract was black and extremely viscous. The diluted extract still retain some color even at 1:500.

Parmname	**247327 002**
All	500X

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 799224. It is located in the Miscellaneous Section of the data report.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The

data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD7.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)

Certification Statement

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

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: Dan Bevelhymer **Date:** 3-10-10

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: Dan Beveheny **Date:** 3-10-10

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**	**Date Collected:**	**02/16/2010 12:00**	**Matrix:**	**D**
Lab Sample ID:	**247327002**	**Date Received:**	**02/18/2010 08:45**	**%Moisture:**	**7.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST15-10-8941**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**957017**	**Inst:**	**MSD7.I**	**Dilution:**	**500**
Run Date:	**03/03/2010 17:30**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/24/2010 19:49**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s7c0316.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	181000	ug/kg	36100	181000
108-95-2	Phenol	U	181000	ug/kg	36100	181000
95-57-8	2-Chlorophenol	U	181000	ug/kg	36100	181000
106-46-7	1,4-Dichlorobenzene	U	181000	ug/kg	36100	181000
621-64-7	N-Nitrosodipropylamine	U	181000	ug/kg	36100	181000
59-50-7	4-Chloro-3-methylphenol	U	181000	ug/kg	36100	181000
83-32-9	Acenaphthene	U	18100	ug/kg	5960	18100
121-14-2	2,4-Dinitrotoluene	U	181000	ug/kg	18100	181000
100-02-7	4-Nitrophenol	U	181000	ug/kg	59600	181000
87-86-5	Pentachlorophenol	U	181000	ug/kg	45200	181000
129-00-0	Pyrene	U	18100	ug/kg	5420	18100
110-86-1	Pyridine	U	181000	ug/kg	36100	181000
62-53-3	Aniline	U	181000	ug/kg	54200	181000
111-44-4	bis(2-Chloroethyl) ether	U	181000	ug/kg	36100	181000
541-73-1	1,3-Dichlorobenzene	U	181000	ug/kg	36100	181000
100-51-6	Benzyl alcohol	U	181000	ug/kg	54200	181000
95-50-1	1,2-Dichlorobenzene	U	181000	ug/kg	36100	181000
108-60-1	bis(2-Chloroisopropyl)ether	U	181000	ug/kg	36100	181000
95-48-7	o-Cresol	U	181000	ug/kg	36100	181000
65794-96-9	m,p-Cresols	U	181000	ug/kg	54200	181000
67-72-1	Hexachloroethane	U	181000	ug/kg	36100	181000
98-95-3	Nitrobenzene	U	181000	ug/kg	36100	181000
78-59-1	Isophorone	U	181000	ug/kg	36100	181000
88-75-5	2-Nitrophenol	U	181000	ug/kg	36100	181000
105-67-9	2,4-Dimethylphenol	U	181000	ug/kg	63300	181000
111-91-1	bis(2-Chloroethoxy)methane	U	181000	ug/kg	36100	181000
120-83-2	2,4-Dichlorophenol	U	181000	ug/kg	36100	181000
65-85-0	Benzoic acid	U	361000	ug/kg	90400	361000
91-20-3	Naphthalene	U	18100	ug/kg	5420	18100
106-47-8	4-Chloroaniline	U	181000	ug/kg	36100	181000
87-68-3	Hexachlorobutadiene	U	181000	ug/kg	36100	181000
91-57-6	2-Methylnaphthalene	U	18100	ug/kg	3610	18100
77-47-4	Hexachlorocyclopentadiene	U	181000	ug/kg	36100	181000
88-06-2	2,4,6-Trichlorophenol	U	181000	ug/kg	36100	181000
95-95-4	2,4,5-Trichlorophenol	U	181000	ug/kg	36100	181000
91-58-7	2-Chloronaphthalene	U	18100	ug/kg	5960	18100
88-74-4	2-Nitroaniline	U	181000	ug/kg	36100	181000
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	181000	ug/kg	36100	181000

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**	**Date Collected:**	**02/16/2010 12:00**	**Matrix:**	**D**
Lab Sample ID:	**247327002**	**Date Received:**	**02/18/2010 08:45**	**%Moisture:**	**7.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST15-10-8941**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**957017**	**Inst:**	**MSD7.I**	**Dilution:**	**500**
Run Date:	**03/03/2010 17:30**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/24/2010 19:49**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s7c0316.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	181000	ug/kg	36100	181000
606-20-2	2,6-Dinitrotoluene	U	181000	ug/kg	18100	181000
208-96-8	Acenaphthylene	U	18100	ug/kg	5420	18100
51-28-5	2,4-Dinitrophenol	U	361000	ug/kg	68700	361000
132-64-9	Dibenzofuran	U	181000	ug/kg	36100	181000
84-66-2	Diethylphthalate	U	181000	ug/kg	36100	181000
86-73-7	Fluorene	U	18100	ug/kg	5420	18100
7005-72-3	4-Chlorophenylphenylether	U	181000	ug/kg	36100	181000
534-52-1	2-Methyl-4,6-dinitrophenol	U	181000	ug/kg	36100	181000
100-01-6	4-Nitroaniline	U	181000	ug/kg	54200	181000
	p-Nitroaniline					
122-39-4	Diphenylamine	U	181000	ug/kg	36100	181000
122-66-7	Azobenzene	U	181000	ug/kg	36100	181000
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	181000	ug/kg	36100	181000
118-74-1	Hexachlorobenzene	U	181000	ug/kg	36100	181000
85-01-8	Phenanthrene	U	18100	ug/kg	5420	18100
120-12-7	Anthracene	U	18100	ug/kg	3610	18100
84-74-2	Di-n-butylphthalate	U	181000	ug/kg	36100	181000
206-44-0	Fluoranthene	U	18100	ug/kg	5420	18100
85-68-7	Butylbenzylphthalate	U	181000	ug/kg	36100	181000
56-55-3	Benzo(a)anthracene	U	18100	ug/kg	5420	18100
91-94-1	3,3'-Dichlorobenzidine	U	181000	ug/kg	54200	181000
218-01-9	Chrysene	U	18100	ug/kg	5420	18100
117-81-7	bis(2-Ethylhexyl)phthalate	U	181000	ug/kg	36100	181000
117-84-0	Di-n-octylphthalate	U	181000	ug/kg	36100	181000
205-99-2	Benzo(b)fluoranthene	U	18100	ug/kg	5420	18100
207-08-9	Benzo(k)fluoranthene	U	18100	ug/kg	5420	18100
50-32-8	Benzo(a)pyrene	U	18100	ug/kg	5420	18100
193-39-5	Indeno(1,2,3-cd)pyrene	U	18100	ug/kg	5420	18100
53-70-3	Dibenzo(a,h)anthracene	U	18100	ug/kg	5420	18100
191-24-2	Benzo(ghi)perylene	U	18100	ug/kg	5420	18100
120-82-1	1,2,4-Trichlorobenzene	U	181000	ug/kg	36100	181000

Tentatively Identified Compound Summary

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

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-1898

Matrix Type: SOLID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202051996	MB for batch 957012	73	69	79	86	79	96
1202051997	LCS for batch 957012	85	84	87	90	101	94
247327002	WST15-10-8941	0 * D	0 * D	0 * D	0 * D	0 * D	0 * D

Surrogate			Acceptance Limits
2FP	=	2-Fluorophenol	(29%-99%)
PHL	=	Phenol-d5	(33%-98%)
NBZ	=	Nitrobenzene-d5	(31%-105%)
FBP	=	2-Fluorobiphenyl	(25%-109%)
TBP	=	2,4,6-Tribromophenol	(37%-106%)
TPH	=	p-Terphenyl-d14	(13%-150%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1898
Client ID: LCS for batch 957012
Lab Sample ID: 1202051997
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/03/2010 16:03
Dilution: 1
Prep Batch ID: 957012
Batch ID: 957017

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	1670	0.0	1280	77	22-114
108-95-2	LCS	Phenol	1670	0.0	1360	82	39-104
95-57-8	LCS	2-Chlorophenol	1670	0.0	1560	94	40-107
106-46-7	LCS	1,4-Dichlorobenzene	1670	0.0	1370	82	33-108
621-64-7	LCS	N-Nitrosodipropylamine	1670	0.0	1550	93	34-113
59-50-7	LCS	4-Chloro-3-methylphenol	1670	0.0	1470	88	42-114
83-32-9	LCS	Acenaphthene	1670	0.0	1510	91	40-105
121-14-2	LCS	2,4-Dinitrotoluene	1670	0.0	1620	97	49-112
100-02-7	LCS	4-Nitrophenol	1670	0.0	1380	83	24-113
87-86-5	LCS	Pentachlorophenol	1670	0.0	1820	109	27-116
129-00-0	LCS	Pyrene	1670	0.0	1300	78	42-113
110-86-1	LCS	Pyridine	1670	0.0	1310	78	8-125
62-53-3	LCS	Aniline	1670	0.0	1420	85	18-126
111-44-4	LCS	bis(2-Chloroethyl) ether	1670	0.0	1220	73	32-103
541-73-1	LCS	1,3-Dichlorobenzene	1670	0.0	1370	82	32-108
100-51-6	LCS	Benzyl alcohol	1670	0.0	617	37	27-108
95-50-1	LCS	1,2-Dichlorobenzene	1670	0.0	1450	87	35-111
108-60-1	LCS	bis(2-Chloroisopropyl)ether	1670	0.0	1350	81	28-117
95-48-7	LCS	o-Cresol	1670	0.0	1630	98	39-111
65794-96-9	LCS	m,p-Cresols	1670	0.0	1770	106	45-121
67-72-1	LCS	Hexachloroethane	1670	0.0	1340	80	30-109
98-95-3	LCS	Nitrobenzene	1670	0.0	1450	87	33-116

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1898 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 957012 **Matrix:** SOIL

Lab Sample ID: 1202051997

Instrument: MSD7.I **Analysis Date:** 03/03/2010 16:03 **Dilution:** 1

Analyst: JMB3 **Prep Batch ID** 957012

Inj. Vol: .5 uL **Batch ID:** 957017

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	1670	0.0	1430	86	35-113
88-75-5	LCS	2-Nitrophenol	1670	0.0	1630	98	31-117
105-67-9	LCS	2,4-Dimethylphenol	1670	0.0	1530	92	32-112
111-91-1	LCS	bis(2-Chloroethoxy)methane	1670	0.0	1420	85	34-110
120-83-2	LCS	2,4-Dichlorophenol	1670	0.0	1550	93	34-116
65-85-0	LCS	Benzoic acid	3330	0.0	4490	135	22-138
91-20-3	LCS	Naphthalene	1670	0.0	1430	86	35-103
106-47-8	LCS	4-Chloroaniline	1670	0.0	1430	86	20-118
87-68-3	LCS	Hexachlorobutadiene	1670	0.0	1400	84	31-117
91-57-6	LCS	2-Methylnaphthalene	1670	0.0	1480	89	38-115
77-47-4	LCS	Hexachlorocyclopentadiene	1670	0.0	1720	103	22-140
88-06-2	LCS	2,4,6-Trichlorophenol	1670	0.0	1630	98	40-110
95-95-4	LCS	2,4,5-Trichlorophenol	1670	0.0	1870	112	43-113
91-58-7	LCS	2-Chloronaphthalene	1670	0.0	1440	87	37-111
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	1670	0.0	1500	90	41-113
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	1670	0.0	1540	92	34-125
131-11-3	LCS	Dimethylphthalate	1670	0.0	1610	97	48-122
606-20-2	LCS	2,6-Dinitrotoluene	1670	0.0	1630	98	47-107
208-96-8	LCS	Acenaphthylene	1670	0.0	1570	94	44-110
51-28-5	LCS	2,4-Dinitrophenol	1670	0.0	1870	112	18-127
132-64-9	LCS	Dibenzofuran	1670	0.0	1560	93	49-115
84-66-2	LCS	Diethylphthalate	1670	0.0	1640	98	51-126

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-1898
Client ID: LCS for batch 957012
Lab Sample ID: 1202051997
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/03/2010 16:03
Prep Batch ID: 957012
Batch ID: 957017
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	LCS	Fluorene	1670	0.0	1480	89	43-109
7005-72-3	LCS	4-Chlorophenylphenylether	1670	0.0	1590	96	45-115
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	1670	0.0	1710	103	32-117
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	1670	0.0	1890	114	33-148
122-39-4	LCS	Diphenylamine	1670	0.0	1660	99	46-114
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	1670	0.0	1540	92	38-123
101-55-3	LCS	4-Bromophenylphenylether	1670	0.0	1580	95	40-119
118-74-1	LCS	Hexachlorobenzene	1670	0.0	1530	92	43-111
85-01-8	LCS	Phenanthrene	1670	0.0	1490	90	46-107
120-12-7	LCS	Anthracene	1670	0.0	1510	90	46-110
84-74-2	LCS	Di-n-butylphthalate	1670	0.0	1620	97	52-132
206-44-0	LCS	Fluoranthene	1670	0.0	1570	94	51-115
85-68-7	LCS	Butylbenzylphthalate	1670	0.0	1490	90	47-137
56-55-3	LCS	Benzo(a)anthracene	1670	0.0	1450	87	50-108
91-94-1	LCS	3,3'-Dichlorobenzidine	1670	0.0	1430	86	36-103
218-01-9	LCS	Chrysene	1670	0.0	1530	92	48-111
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	1670	0.0	1610	97	48-139
117-84-0	LCS	Di-n-octylphthalate	1670	0.0	1390	83	42-141
205-99-2	LCS	Benzo(b)fluoranthene	1670	0.0	1460	87	49-114
207-08-9	LCS	Benzo(k)fluoranthene	1670	0.0	1390	84	50-116
50-32-8	LCS	Benzo(a)pyrene	1670	0.0	1520	91	54-114
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	1670	0.0	1840	111	53-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1898
Client ID: LCS for batch 957012
Lab Sample ID: 1202051997
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 03/03/2010 16:03
Dilution: 1
Prep Batch ID: 957012
Batch ID: 957017

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	LCS	Dibenzo(a,h)anthracene	1670	0.0	1900	114	53-121
191-24-2	LCS	Benzo(ghi)perylene	1670	0.0	1800	108	50-121
120-82-1	LCS	1,2,4-Trichlorobenzene	1670	0.0	1430	86	32-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1898
Client ID: WST15-10-8894MS
Lab Sample ID: 1202051998
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: R
%Moisture: 2.4
Analysis Date: 03/03/2010 16:46
Prep Batch ID: 957012
Batch ID: 957017
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	1700	0.00	U	1050	62	27-98
108-95-2	MS	Phenol	1700	0.00	U	1150	68	33-94
95-57-8	MS	2-Chlorophenol	1700	0.00	U	1350	79	29-96
106-46-7	MS	1,4-Dichlorobenzene	1700	0.00	U	1160	69	27-96
621-64-7	MS	N-Nitrosodipropylamine	1700	0.00	U	1330	79	29-102
59-50-7	MS	4-Chloro-3-methylphenol	1700	0.00	U	1260	74	29-110
83-32-9	MS	Acenaphthene	1700	0.00	U	1240	73	17-109
121-14-2	MS	2,4-Dinitrotoluene	1700	0.00	U	1350	79	33-107
100-02-7	MS	4-Nitrophenol	1700	0.00	U	1070	63	15-110
87-86-5	MS	Pentachlorophenol	1700	0.00	U	1470	87	23-110
129-00-0	MS	Pyrene	1700	0.00	U	1100	65	24-118
110-86-1	MS	Pyridine	1700	0.00	U	1070	63	25-102
62-53-3	MS	Aniline	1700	0.00	U	1080	64	18-109
111-44-4	MS	bis(2-Chloroethyl) ether	1700	0.00	U	1060	62	29-96
541-73-1	MS	1,3-Dichlorobenzene	1700	0.00	U	1160	68	26-97
100-51-6	MS	Benzyl alcohol	1700	0.00	U	0.00	0 *	19-112
95-50-1	MS	1,2-Dichlorobenzene	1700	0.00	U	1260	74	30-97
108-60-1	MS	bis(2-Chloroisopropyl)ether	1700	0.00	U	1190	70	28-103
95-48-7	MS	o-Cresol	1700	0.00	U	1640	97	32-107
65794-96-9	MS	m,p-Cresols	1700	0.00	U	1650	97	33-115
67-72-1	MS	Hexachloroethane	1700	0.00	U	1160	68	25-100
98-95-3	MS	Nitrobenzene	1700	0.00	U	1260	74	27-106

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1898
Client ID: WST15-10-8894MS
Lab Sample ID: 1202051998
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: R
%Moisture: 2.4
Analysis Date: 03/03/2010 16:46
Prep Batch ID: 957012
Batch ID: 957017
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	1700	0.00	U	1210	71	29-104
88-75-5	MS	2-Nitrophenol	1700	0.00	U	1370	81	26-102
105-67-9	MS	2,4-Dimethylphenol	1700	0.00	U	1300	76	22-104
111-91-1	MS	bis(2-Chloroethoxy)methane	1700	0.00	U	1220	72	27-101
120-83-2	MS	2,4-Dichlorophenol	1700	0.00	U	1300	77	26-103
65-85-0	MS	Benzoic acid	3400	0.00	U	3510	103	13-131
91-20-3	MS	Naphthalene	1700	0.00	U	1210	71	23-103
106-47-8	MS	4-Chloroaniline	1700	0.00	U	1120	66	26-103
87-68-3	MS	Hexachlorobutadiene	1700	0.00	U	1210	71	28-101
91-57-6	MS	2-Methylnaphthalene	1700	0.00	U	1260	74	27-106
77-47-4	MS	Hexachlorocyclopentadiene	1700	0.00	U	1360	80	24-117
88-06-2	MS	2,4,6-Trichlorophenol	1700	0.00	U	1300	77	26-105
95-95-4	MS	2,4,5-Trichlorophenol	1700	0.00	U	1640	96	30-110
91-58-7	MS	2-Chloronaphthalene	1700	0.00	U	1230	72	28-102
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	1700	0.00	U	1250	73	33-106
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	1700	0.00	U	1250	74	33-116
131-11-3	MS	Dimethylphthalate	1700	0.00	U	1370	81	38-113
606-20-2	MS	2,6-Dinitrotoluene	1700	0.00	U	1380	81	29-107
208-96-8	MS	Acenaphthylene	1700	0.00	U	1300	77	25-108
51-28-5	MS	2,4-Dinitrophenol	1700	0.00	U	1280	75	14-102
132-64-9	MS	Dibenzofuran	1700	0.00	U	1310	77	35-112
84-66-2	MS	Diethylphthalate	1700	0.00	U	1380	81	36-122

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-1898**	**Sample Type:**	**Matrix Spike**
Client ID:	**WST15-10-8894MS**	**Matrix:**	**R**
Lab Sample ID:	**1202051998**	**%Moisture:**	**2.4**
Instrument:	**MSD7.I**	**Analysis Date:**	**03/03/2010 16:46**
Analyst:	**JMB3**	**Prep Batch ID:**	**957012**
Inj. Vol:	**.5 uL**	**Batch ID:**	**957017**

Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
86-73-7	MS	Fluorene	1700	0.00	U	1250	74	33-105
7005-72-3	MS	4-Chlorophenylphenylether	1700	0.00	U	1360	80	30-110
534-52-1	MS	2-Methyl-4,6-dinitrophenol	1700	0.00	U	1340	79	26-97
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	1700	0.00	U	1560	92	28-135
122-39-4	MS	Diphenylamine	1700	0.00	U	1410	83	33-109
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	1700	0.00	U	1320	78	31-113
101-55-3	MS	4-Bromophenylphenylether	1700	0.00	U	1340	79	31-109
118-74-1	MS	Hexachlorobenzene	1700	0.00	U	1330	78	37-99
85-01-8	MS	Phenanthrene	1700	0.00	U	1270	75	29-109
120-12-7	MS	Anthracene	1700	0.00	U	1270	75	19-118
84-74-2	MS	Di-n-butylphthalate	1700	0.00	U	1400	82	39-123
206-44-0	MS	Fluoranthene	1700	0.00	U	1320	78	33-114
85-68-7	MS	Butylbenzylphthalate	1700	0.00	U	1260	74	35-131
56-55-3	MS	Benzo(a)anthracene	1700	0.00	U	1270	75	30-111
91-94-1	MS	3,3'-Dichlorobenzidine	1700	0.00	U	1220	72	30-124
218-01-9	MS	Chrysene	1700	0.00	U	1310	77	32-108
117-81-7	MS	bis(2-Ethylhexyl)phthalate	1700	0.00	U	1390	82	37-129
117-84-0	MS	Di-n-octylphthalate	1700	0.00	U	1180	70	31-143
205-99-2	MS	Benzo(b)fluoranthene	1700	0.00	U	1190	70	29-118
207-08-9	MS	Benzo(k)fluoranthene	1700	0.00	U	1230	72	32-118
50-32-8	MS	Benzo(a)pyrene	1700	0.00	U	1300	76	33-115
193-39-5	MS	Indeno(1,2,3-cd)pyrene	1700	0.00	U	1650	97	29-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1898
Client ID: WST15-10-8894MS
Lab Sample ID: 1202051998
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: R
%Moisture: 2.4
Analysis Date: 03/03/2010 16:46
Prep Batch ID: 957012
Batch ID: 957017
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
53-70-3	MS	Dibenzo(a,h)anthracene	1700	0.00	U	1700	100	27-119
191-24-2	MS	Benzo(ghi)perylene	1700	0.00	U	1630	96	28-112
120-82-1	MS	1,2,4-Trichlorobenzene	1700	0.00	U	1220	72	28-99

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-1898
Client ID: WST15-10-8894MSD
Lab Sample ID: 1202051999
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: R
%Moisture: 2.4
Analysis Date: 03/03/2010 17:08
Prep Batch ID: 957012
Batch ID: 957017
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD	N-Methyl-N-nitrosomethylam	1710	0.00	U	1120	66	27-98	7	0-30
108-95-2	MSD	Phenol	1710	0.00	U	1210	71	33-94	5	0-30
95-57-8	MSD	2-Chlorophenol	1710	0.00	U	1450	85	29-96	7	0-30
106-46-7	MSD	1,4-Dichlorobenzene	1710	0.00	U	1270	74	27-96	9	0-30
621-64-7	MSD	N-Nitrosodipropylamine	1710	0.00	U	1410	83	29-102	6	0-30
59-50-7	MSD	4-Chloro-3-methylphenol	1710	0.00	U	1220	72	29-110	3	0-30
83-32-9	MSD	Acenaphthene	1710	0.00	U	1360	80	17-109	10	0-30
121-14-2	MSD	2,4-Dinitrotoluene	1710	0.00	U	1500	88	33-107	10	0-30
100-02-7	MSD	4-Nitrophenol	1710	0.00	U	646	38	15-110	49 *	0-30
87-86-5	MSD	Pentachlorophenol	1710	0.00	U	1710	100	23-110	15	0-30
129-00-0	MSD	Pyrene	1710	0.00	U	1300	76	24-118	16	0-30
110-86-1	MSD	Pyridine	1710	0.00	U	1120	66	25-102	5	0-30
62-53-3	MSD	Aniline	1710	0.00	U	1330	78	18-109	21	0-30
111-44-4	MSD	bis(2-Chloroethyl) ether	1710	0.00	U	1160	68	29-96	9	0-30
541-73-1	MSD	1,3-Dichlorobenzene	1710	0.00	U	1260	74	26-97	9	0-30
100-51-6	MSD	Benzyl alcohol	1710	0.00	U	0.00	0 *	19-112	0	0-30
95-50-1	MSD	1,2-Dichlorobenzene	1710	0.00	U	1370	80	30-97	9	0-30
108-60-1	MSD	bis(2-Chloroisopropyl)ether	1710	0.00	U	1310	77	28-103	10	0-30
95-48-7	MSD	o-Cresol	1710	0.00	U	1510	88	32-107	9	0-30
65794-96-9	MSD	m,p-Cresols	1710	0.00	U	1870	110	33-115	12	0-30
67-72-1	MSD	Hexachloroethane	1710	0.00	U	1250	73	25-100	8	0-30
98-95-3	MSD	Nitrobenzene	1710	0.00	U	1350	79	27-106	7	0-30

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-1898

Client ID: WST15-10-8894MSD

Lab Sample ID: 1202051999

Instrument: MSD7.I

Analyst: JMB3

Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate

Matrix: R

%Moisture: 2.4

Analysis Date: 03/03/2010 17:08

Dilution: 1

Prep Batch ID: 957012

Batch ID: 957017

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	1710	0.00	U	1280	75	29-104	6	0-30
88-75-5	MSD 2-Nitrophenol	1710	0.00	U	1470	86	26-102	7	0-30
105-67-9	MSD 2,4-Dimethylphenol	1710	0.00	U	1520	89	22-104	16	0-30
111-91-1	MSD bis(2-Chloroethoxy)methane	1710	0.00	U	1300	76	27-101	6	0-30
120-83-2	MSD 2,4-Dichlorophenol	1710	0.00	U	1380	81	26-103	6	0-30
65-85-0	MSD Benzoic acid	3410	0.00	U	3650	107	13-131	4	0-30
91-20-3	MSD Naphthalene	1710	0.00	U	1310	77	23-103	8	0-30
106-47-8	MSD 4-Chloroaniline	1710	0.00	U	1270	74	26-103	13	0-30
87-68-3	MSD Hexachlorobutadiene	1710	0.00	U	1320	77	28-101	8	0-30
91-57-6	MSD 2-Methylnaphthalene	1710	0.00	U	1350	79	27-106	7	0-30
77-47-4	MSD Hexachlorocyclopentadiene	1710	0.00	U	1330	78	24-117	2	0-30
88-06-2	MSD 2,4,6-Trichlorophenol	1710	0.00	U	1150	68	26-105	12	0-30
95-95-4	MSD 2,4,5-Trichlorophenol	1710	0.00	U	2000	117 *	30-110	20	0-30
91-58-7	MSD 2-Chloronaphthalene	1710	0.00	U	1340	78	28-102	9	0-30
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	1710	0.00	U	1340	79	33-106	8	0-30
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	1710	0.00	U	1380	81	33-116	10	0-30
131-11-3	MSD Dimethylphthalate	1710	0.00	U	1500	88	38-113	9	0-30
606-20-2	MSD 2,6-Dinitrotoluene	1710	0.00	U	1500	88	29-107	9	0-30
208-96-8	MSD Acenaphthylene	1710	0.00	U	1410	83	25-108	8	0-30
51-28-5	MSD 2,4-Dinitrophenol	1710	0.00	U	1440	85	14-102	12	0-30
132-64-9	MSD Dibenzofuran	1710	0.00	U	1430	84	35-112	9	0-30
84-66-2	MSD Diethylphthalate	1710	0.00	U	1540	90	36-122	11	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1898
Client ID: WST15-10-8894MSD
Lab Sample ID: 1202051999
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: R
%Moisture: 2.4
Analysis Date: 03/03/2010 17:08
Prep Batch ID: 957012
Batch ID: 957017
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
86-73-7	MSD	Fluorene	1710	0.00	U	1360	80	33-105	8	0-30
7005-72-3	MSD	4-Chlorophenylphenylether	1710	0.00	U	1490	87	30-110	9	0-30
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	1710	0.00	U	1530	90	26-97	13	0-30
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	1710	0.00	U	1650	97	28-135	6	0-30
122-39-4	MSD	Diphenylamine	1710	0.00	U	1570	92	33-109	10	0-30
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	1710	0.00	U	1450	85	31-113	10	0-30
101-55-3	MSD	4-Bromophenylphenylether	1710	0.00	U	1480	86	31-109	10	0-30
118-74-1	MSD	Hexachlorobenzene	1710	0.00	U	1490	87	37-99	11	0-30
85-01-8	MSD	Phenanthrene	1710	0.00	U	1420	83	29-109	11	0-30
120-12-7	MSD	Anthracene	1710	0.00	U	1390	81	19-118	9	0-30
84-74-2	MSD	Di-n-butylphthalate	1710	0.00	U	1600	94	39-123	14	0-30
206-44-0	MSD	Fluoranthene	1710	0.00	U	1470	86	33-114	11	0-30
85-68-7	MSD	Butylbenzylphthalate	1710	0.00	U	1510	88	35-131	18	0-30
56-55-3	MSD	Benzo(a)anthracene	1710	0.00	U	1440	84	30-111	13	0-30
91-94-1	MSD	3,3'-Dichlorobenzidine	1710	0.00	U	1360	80	30-124	11	0-30
218-01-9	MSD	Chrysene	1710	0.00	U	1460	85	32-108	11	0-30
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	1710	0.00	U	1670	98	37-129	18	0-30
117-84-0	MSD	Di-n-octylphthalate	1710	0.00	U	1360	79	31-143	14	0-30
205-99-2	MSD	Benzo(b)fluoranthene	1710	0.00	U	1290	76	29-118	8	0-30
207-08-9	MSD	Benzo(k)fluoranthene	1710	0.00	U	1450	85	32-118	17	0-30
50-32-8	MSD	Benzo(a)pyrene	1710	0.00	U	1460	85	33-115	11	0-30
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	1710	0.00	U	1840	108	29-114	11	0-30

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1898
Client ID: WST15-10-8894MSD
Lab Sample ID: 1202051999
Instrument: MSD7.I
Analyst: JMB3
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: R
%Moisture: 2.4
Analysis Date: 03/03/2010 17:08
Prep Batch ID: 957012
Batch ID: 957017
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
53-70-3	MSD Dibenzo(a,h)anthracene	1710	0.00	U	1900	111	27-119	11	0-30
191-24-2	MSD Benzo(ghi)perylene	1710	0.00	U	1810	106	28-112	11	0-30
120-82-1	MSD 1,2,4-Trichlorobenzene	1710	0.00	U	1330	78	28-99	9	0-30

Method Blank Summary

SDG Number:	10-1898	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 957012	Instrument ID:	MSD7.I	Data File:	s7c0311-1.d
Lab Sample ID:	1202051996	Prep Date:	02/24/2010 19:49	Analyzed:	03/03/10 15:41
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 957012	1202051997	s7c0312-1.d	03/03/10	1603
04 WST15-10-8941	247327002	s7c0316.d	03/03/10	1730

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1898

Instrument ID: MSD7.I **Injection Date/Time:** 03-MAR-10 14:18

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD7.i/s030310.b/s7c0307.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	57.5
68	Less than 2% of mass 69	0
69	Mass 69 Relative Abundance	48.4
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	54.5
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	23.7
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	79
442	Greater than 40% of mass 198	69.2
443	17 - 23% of mass 442	19.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100225-05.5	s7c0309.d	03-MAR-10 14:55
APCVS	WBN100218-03.3	s7c0310.d	03-MAR-10 15:19
SBLK01	1202051996	s7c0311-1.d	03-MAR-10 15:41
SBLK01LCS	1202051997	s7c0312-1.d	03-MAR-10 16:03
WST15-10-8941	247327002	s7c0316.d	03-MAR-10 17:30

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1898

Instrument ID: MSD7.I **Injection Date/Time:** 26-FEB-10 10:23

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD7.i/s022610.b/s7b2601.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	59.4
68	Less than 2% of mass 69	0.6
69	Mass 69 Relative Abundance	48.9
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	54.1
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	23.2
365	Greater than 1% of mass 198	2.7
441	Present, but less than mass 443	79.7
442	Greater than 40% of mass 198	71.6
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN100225-08	s7b2603.d	26-FEB-10 11:07
MEGA040	WBN100225-05.1	s7b2606.d	26-FEB-10 12:19
MEGA050	WBN100225-04	s7b2607.d	26-FEB-10 12:43
MEGA080	WBN100225-03	s7b2608.d	26-FEB-10 13:07
MEGA100	WBN100225-02	s7b2609.d	26-FEB-10 13:32
MEGA120	WBN100225-01	s7b2610.d	26-FEB-10 13:56
MEGA010	WBN100225-07	s7b2612.d	26-FEB-10 14:44
MEGA020	WBN100225-06	s7b2613.d	26-FEB-10 15:08
MEGAICV	WBN100225-09.1	s7b2614.d	26-FEB-10 15:33

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1898

Instrument ID: MSD7.I **Injection Date/Time:** 26-FEB-10 16:00

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD7.i/s022610.b/s7b2615.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	59
68	Less than 2% of mass 69	0
69	Mass 69 Relative Abundance	49.2
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	55.5
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.3
365	Greater than 1% of mass 198	2.7
441	Present, but less than mass 443	78.7
442	Greater than 40% of mass 198	68.1
443	17 - 23% of mass 442	19.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP010	WBN100218-01	s7b2617.d	26-FEB-10 16:34
AP020	WBN100218-02	s7b2618.d	26-FEB-10 16:56
AP040	WBN100218-03.1	s7b2619.d	26-FEB-10 17:17
AP050	WBN100218-04	s7b2620.d	26-FEB-10 17:39
AP080	WBN100218-05	s7b2621.d	26-FEB-10 18:00
AP100	WBN100218-06	s7b2622.d	26-FEB-10 18:22
AP120	WBN100218-07	s7b2623.d	26-FEB-10 18:43
APICV	WBN100218-08.1	s7b2638.d	27-FEB-10 00:07

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-1898

Instrument: MSD7.I

STD Analysis Time: 03-MAR-10 14:55

GC Column: J&W DB-5MS

Data File: s7c0309.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	380170		3.93	1489232		4.79	784532		6.05	1364686		7.22	1118507		9.64	976271		11.3
Upper Limit	760340		4.43	2978464		5.29	1569064		6.55	2729372		7.72	2237014		10.1	1952542		11.8
Lower Limit	190085		3.43	744616		4.29	392266		5.55	682343		6.72	559254		9.14	488136		10.8
Sample ID																		
BLK01	378295		3.93	1412565		4.79	765983		6.05	1266949		7.22	926111		9.63	681959		11.3
BLK01LCS	428591		3.93	1684441		4.79	860810		6.05	1600747		7.22	1361986		9.64	1182594		11.3
WST15-10-8941	356468		3.93	1316802		4.79	710171		6.05	1231738		7.22	1068527		9.63	885566		11.3

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**	**Date Collected:**	**02/16/2010 12:00**	**Matrix:**	**D**
Lab Sample ID:	**247327002**	**Date Received:**	**02/18/2010 08:45**	**%Moisture:**	**7.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST15-10-8941**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**957017**	**Inst:**	**MSD7.I**	**Dilution:**	**500**
Run Date:	**03/03/2010 17:30**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/24/2010 19:49**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s7c0316.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	181000	ug/kg	36100	181000
108-95-2	Phenol	U	181000	ug/kg	36100	181000
95-57-8	2-Chlorophenol	U	181000	ug/kg	36100	181000
106-46-7	1,4-Dichlorobenzene	U	181000	ug/kg	36100	181000
621-64-7	N-Nitrosodipropylamine	U	181000	ug/kg	36100	181000
59-50-7	4-Chloro-3-methylphenol	U	181000	ug/kg	36100	181000
83-32-9	Acenaphthene	U	18100	ug/kg	5960	18100
121-14-2	2,4-Dinitrotoluene	U	181000	ug/kg	18100	181000
100-02-7	4-Nitrophenol	U	181000	ug/kg	59600	181000
87-86-5	Pentachlorophenol	U	181000	ug/kg	45200	181000
129-00-0	Pyrene	U	18100	ug/kg	5420	18100
110-86-1	Pyridine	U	181000	ug/kg	36100	181000
62-53-3	Aniline	U	181000	ug/kg	54200	181000
111-44-4	bis(2-Chloroethyl) ether	U	181000	ug/kg	36100	181000
541-73-1	1,3-Dichlorobenzene	U	181000	ug/kg	36100	181000
100-51-6	Benzyl alcohol	U	181000	ug/kg	54200	181000
95-50-1	1,2-Dichlorobenzene	U	181000	ug/kg	36100	181000
108-60-1	bis(2-Chloroisopropyl)ether	U	181000	ug/kg	36100	181000
95-48-7	o-Cresol	U	181000	ug/kg	36100	181000
65794-96-9	m,p-Cresols	U	181000	ug/kg	54200	181000
67-72-1	Hexachloroethane	U	181000	ug/kg	36100	181000
98-95-3	Nitrobenzene	U	181000	ug/kg	36100	181000
78-59-1	Isophorone	U	181000	ug/kg	36100	181000
88-75-5	2-Nitrophenol	U	181000	ug/kg	36100	181000
105-67-9	2,4-Dimethylphenol	U	181000	ug/kg	63300	181000
111-91-1	bis(2-Chloroethoxy)methane	U	181000	ug/kg	36100	181000
120-83-2	2,4-Dichlorophenol	U	181000	ug/kg	36100	181000
65-85-0	Benzoic acid	U	361000	ug/kg	90400	361000
91-20-3	Naphthalene	U	18100	ug/kg	5420	18100
106-47-8	4-Chloroaniline	U	181000	ug/kg	36100	181000
87-68-3	Hexachlorobutadiene	U	181000	ug/kg	36100	181000
91-57-6	2-Methylnaphthalene	U	18100	ug/kg	3610	18100
77-47-4	Hexachlorocyclopentadiene	U	181000	ug/kg	36100	181000
88-06-2	2,4,6-Trichlorophenol	U	181000	ug/kg	36100	181000
95-95-4	2,4,5-Trichlorophenol	U	181000	ug/kg	36100	181000
91-58-7	2-Chloronaphthalene	U	18100	ug/kg	5960	18100
88-74-4	2-Nitroaniline	U	181000	ug/kg	36100	181000
99-09-2	*o-Nitroaniline* 3-Nitroaniline	U	181000	ug/kg	36100	181000

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**	**Date Collected:**	**02/16/2010 12:00**	**Matrix:**	**D**
Lab Sample ID:	**247327002**	**Date Received:**	**02/18/2010 08:45**	**%Moisture:**	**7.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST15-10-8941**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**957017**	**Inst:**	**MSD7.I**	**Dilution:**	**500**
Run Date:	**03/03/2010 17:30**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/24/2010 19:49**	**Aliquot:**	**30.02 g**	**Final Volume:**	**1 mL**
Data File:	**s7c0316.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	181000	ug/kg	36100	181000
606-20-2	2,6-Dinitrotoluene	U	181000	ug/kg	18100	181000
208-96-8	Acenaphthylene	U	18100	ug/kg	5420	18100
51-28-5	2,4-Dinitrophenol	U	361000	ug/kg	68700	361000
132-64-9	Dibenzofuran	U	181000	ug/kg	36100	181000
84-66-2	Diethylphthalate	U	181000	ug/kg	36100	181000
86-73-7	Fluorene	U	18100	ug/kg	5420	18100
7005-72-3	4-Chlorophenylphenylether	U	181000	ug/kg	36100	181000
534-52-1	2-Methyl-4,6-dinitrophenol	U	181000	ug/kg	36100	181000
100-01-6	4-Nitroaniline	U	181000	ug/kg	54200	181000
	p-Nitroaniline					
122-39-4	Diphenylamine	U	181000	ug/kg	36100	181000
122-66-7	Azobenzene	U	181000	ug/kg	36100	181000
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	181000	ug/kg	36100	181000
118-74-1	Hexachlorobenzene	U	181000	ug/kg	36100	181000
85-01-8	Phenanthrene	U	18100	ug/kg	5420	18100
120-12-7	Anthracene	U	18100	ug/kg	3610	18100
84-74-2	Di-n-butylphthalate	U	181000	ug/kg	36100	181000
206-44-0	Fluoranthene	U	18100	ug/kg	5420	18100
85-68-7	Butylbenzylphthalate	U	181000	ug/kg	36100	181000
56-55-3	Benzo(a)anthracene	U	18100	ug/kg	5420	18100
91-94-1	3,3'-Dichlorobenzidine	U	181000	ug/kg	54200	181000
218-01-9	Chrysene	U	18100	ug/kg	5420	18100
117-81-7	bis(2-Ethylhexyl)phthalate	U	181000	ug/kg	36100	181000
117-84-0	Di-n-octylphthalate	U	181000	ug/kg	36100	181000
205-99-2	Benzo(b)fluoranthene	U	18100	ug/kg	5420	18100
207-08-9	Benzo(k)fluoranthene	U	18100	ug/kg	5420	18100
50-32-8	Benzo(a)pyrene	U	18100	ug/kg	5420	18100
193-39-5	Indeno(1,2,3-cd)pyrene	U	18100	ug/kg	5420	18100
53-70-3	Dibenzo(a,h)anthracene	U	18100	ug/kg	5420	18100
191-24-2	Benzo(ghi)perylene	U	18100	ug/kg	5420	18100
120-82-1	1,2,4-Trichlorobenzene	U	181000	ug/kg	36100	181000

Tentatively Identified Compound Summary

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

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s030310.b/s7c0316.d
Lab Smp Id: 247327002 Client Smp ID: WST15-10-8941
Inj Date : 03-MAR-2010 17:30
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |247327002|957017|500|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100227-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 04-Mar-2010 07:57 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 10
Dil Factor: 500.00000
Integrator: HP RTE Compound Sublist: 10-1898.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	500.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.02000	weight of sample
M	7.83650	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.927	3.932	(1.000)	356468	40.0000	
* 29 Naphthalene-d8	136	4.789	4.794	(1.000)	1316802	40.0000	
* 46 Acenaphthene-d10	164	6.046	6.051	(1.000)	710171	40.0000	
* 67 Phenanthrene-d10	188	7.216	7.221	(1.000)	1231738	40.0000	
* 91 Chrysene-d12	240	9.629	9.638	(1.000)	1068527	40.0000	
* 98 Perylene-d12	264	11.304	11.314	(1.000)	885566	40.0000	

ION RATIO REPORT

SV REPORT

Data file: s7c0316.d
Report Date: 03/04/2010 08:02
Lab. ID: 247327002 SampleType: SAMPLE
Injection Date: 03-MAR-2010 17:30
Operator: JMB3 Instrument: MSD7.i
Sample Info: |247327002|957017|500|SVM|1|LANL
Miscellaneous Info: |MSD8270_S|WBN100227-01|
Comment:
Method used: /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m
Dilution Factor= 500.0
Integrator: HP RTE Compound Sublist: 10-1898
Sample Matrix: SOIL

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
43 Dimethylphthalate				CAS#: 131-11-3		
163	129365	6.05	5.81	80-120	100	(T)
164	710171	6.05	5.81	0- 40	549	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	92034	6.05	5.87	80-120	100	(T)
63	1126	6.05	5.87	51-111	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	92034	6.05	6.17	80-120	100	(T)
89	957	6.05	6.17	38- 98	1	(QT)
63	1126	6.05	6.17	18- 78	1	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s030310.b/s7c0316.d
Lab Smp Id: 247327002 Client Smp ID: WST15-10-8941
Inj Date : 03-MAR-2010 17:30
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |247327002|957017|500|SVM|1|LANL
Misc Info : |MSD8270_S|WBN100227-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 04-Mar-2010 07:57 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 10
Dil Factor: 500.00000
Integrator: HP RTE Compound Sublist: 10-1898.sub
Target Version: 3.50
Processing Host: kilroy

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/MSD7.i/s030310.b/s7c0316.d

Date : 03-MAR-2010 17:30

Client ID: WST15-10-8941

Sample Info: |2473270021957017|500|SVM|1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD7.i

Operator: JMB3

Column diameter: 0.20

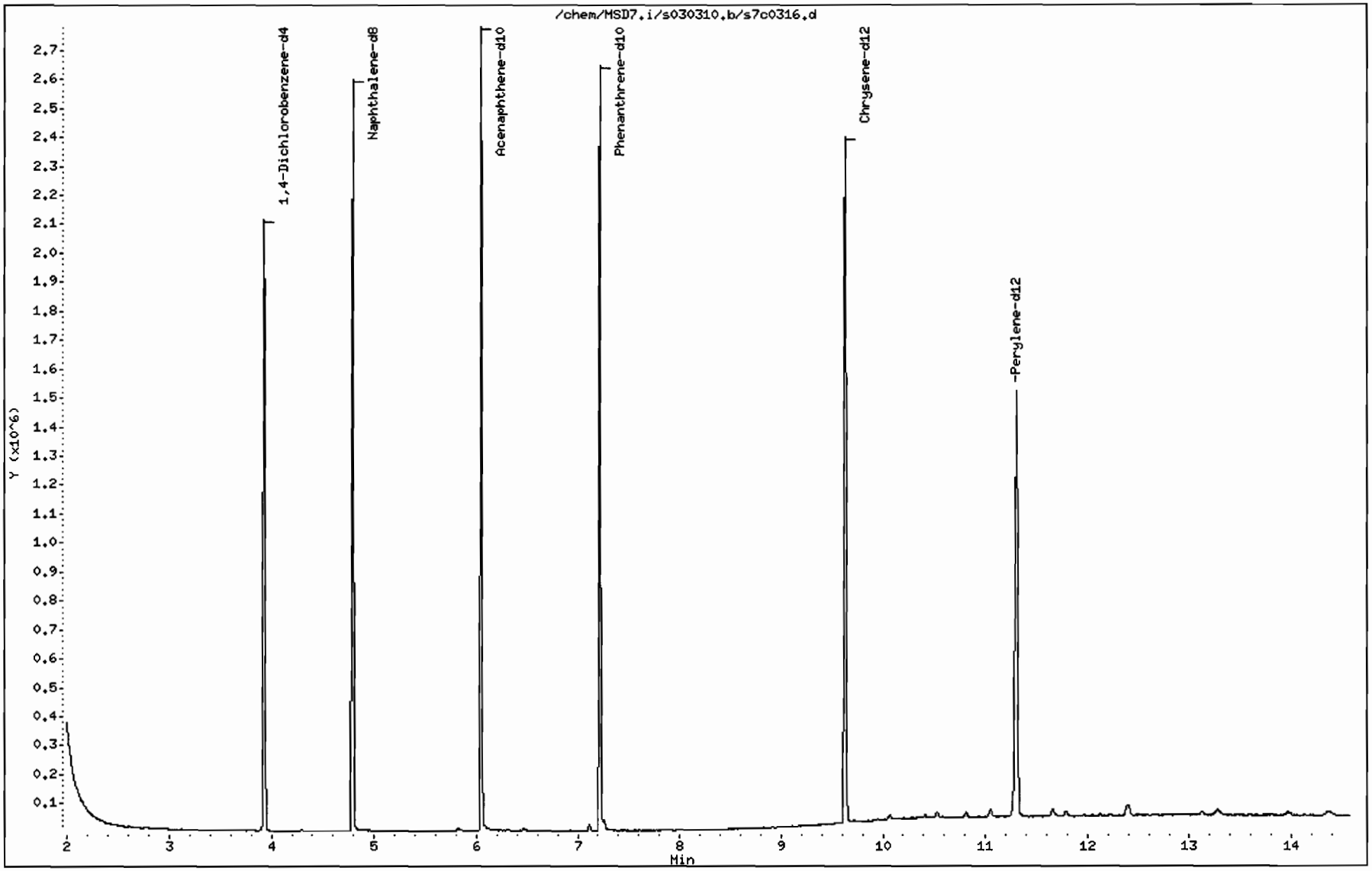

Standard Data

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate		10	20	40	50	80	100	120
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
4-Aminobiphenyl		10	20	40	50	80	100	120

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothioanisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120

SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.
(0210/Full list)

Report Date: 03-Mar-2010 16:20

Calibration History

Method : /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m
Start Cal Date: 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
26-FEB-2010 11:07	MEGA	/chem/MSD7.i/s022610.b/s7b2603.d
Cal Level: 2 , Cal Amount: 10.00000		
26-FEB-2010 21:36	NEV	/chem/MSD7.i/s022610.b/s7b2631.d
26-FEB-2010 19:05	PEST	/chem/MSD7.i/s022610.b/s7b2624.d
26-FEB-2010 16:34	AP12	/chem/MSD7.i/s022610.b/s7b2617.d
26-FEB-2010 14:44	MEGA	/chem/MSD7.i/s022610.b/s7b2612.d
Cal Level: 3 , Cal Amount: 20.00000		
26-FEB-2010 21:58	NEV	/chem/MSD7.i/s022610.b/s7b2632.d
26-FEB-2010 19:26	PEST	/chem/MSD7.i/s022610.b/s7b2625.d
26-FEB-2010 16:56	AP12	/chem/MSD7.i/s022610.b/s7b2618.d
26-FEB-2010 15:08	MEGA	/chem/MSD7.i/s022610.b/s7b2613.d
Cal Level: 4 , Cal Amount: 40.00000		
26-FEB-2010 22:19	NEV	/chem/MSD7.i/s022610.b/s7b2633.d
26-FEB-2010 19:48	PEST	/chem/MSD7.i/s022610.b/s7b2626.d
26-FEB-2010 17:17	AP12	/chem/MSD7.i/s022610.b/s7b2619.d
26-FEB-2010 12:19	MEGA	/chem/MSD7.i/s022610.b/s7b2606.d
Cal Level: 5 , Cal Amount: 50.00000		
26-FEB-2010 22:40	NEV	/chem/MSD7.i/s022610.b/s7b2634.d
26-FEB-2010 20:09	PEST	/chem/MSD7.i/s022610.b/s7b2627.d
26-FEB-2010 17:39	AP12	/chem/MSD7.i/s022610.b/s7b2620.d
26-FEB-2010 12:43	MEGA	/chem/MSD7.i/s022610.b/s7b2607.d
Cal Level: 6 , Cal Amount: 80.00000		
26-FEB-2010 23:02	NEV	/chem/MSD7.i/s022610.b/s7b2635.d
26-FEB-2010 20:31	PEST	/chem/MSD7.i/s022610.b/s7b2628.d
26-FEB-2010 18:00	AP12	/chem/MSD7.i/s022610.b/s7b2621.d
26-FEB-2010 13:07	MEGA	/chem/MSD7.i/s022610.b/s7b2608.d
Cal Level: 7 , Cal Amount: 100.00000		
26-FEB-2010 23:24	NEV	/chem/MSD7.i/s022610.b/s7b2636.d
26-FEB-2010 20:52	PEST	/chem/MSD7.i/s022610.b/s7b2629.d
26-FEB-2010 18:22	AP12	/chem/MSD7.i/s022610.b/s7b2622.d
26-FEB-2010 13:32	MEGA	/chem/MSD7.i/s022610.b/s7b2609.d

Cal Level: 8 , Cal Amount: 120.00000		
26-FEB-2010 23:46	NEV	/chem/MSD7.i/s022610.b/s7b2637.d
26-FEB-2010 21:14	PEST	/chem/MSD7.i/s022610.b/s7b2630.d
26-FEB-2010 18:43	AP12	/chem/MSD7.i/s022610.b/s7b2623.d
26-FEB-2010 13:56	MEGA	/chem/MSD7.i/s022610.b/s7b2610.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
03-MAR-2010 14:55	MEGA	/chem/MSD7.i/s030310.b/s7c0309-BOE.d
Ccal Level: 4 , Ccal Amount: 40.0		
03-MAR-2010 15:19	AP12	/chem/MSD7.i/s030310.b/s7c0310.d
Ccal Level: 4 , Ccal Amount: 40.0		
03-MAR-2010 14:31	MEGA	/chem/MSD7.i/s030310.b/s7c0308.d
Ccal Level: 4 , Ccal Amount: 40.0		
03-MAR-2010 11:44	AP12	/chem/MSD7.i/s030310.b/s7c0305.d
Ccal Level: 4 , Ccal Amount: 40.0		
03-MAR-2010 11:20	MEGA	/chem/MSD7.i/s030310.b/s7c0304.d
Ccal Level: 4 , Ccal Amount: 40.0		
03-MAR-2010 10:40	MEGA	/chem/MSD7.i/s030310.b/s7c0302.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 03-Mar-2010 16:19 jos00786

Calibration File Names:
Level 1: /chem/MSD7.i/s022610.b/s7b2603.d
Level 2: /chem/MSD7.i/s022610.b/s7b2631.d
Level 3: /chem/MSD7.i/s022610.b/s7b2632.d
Level 4: /chem/MSD7.i/s022610.b/s7b2633.d
Level 5: /chem/MSD7.i/s022610.b/s7b2634.d
Level 6: /chem/MSD7.i/s022610.b/s7b2635.d
Level 7: /chem/MSD7.i/s022610.b/s7b2636.d
Level 8: /chem/MSD7.i/s022610.b/s7b2637.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.70129	0.69307	0.69919	0.69205	0.70435					
	0.72207	0.68805					AVRG		0.70001		1.61027
2 Pyridine	+++++	0.94944	0.95786	0.97202	0.96726	0.96770					
	0.98956	0.94873					AVRG		0.96465		1.47919
4 Aniline	+++++	0.63884	0.62715	0.61554	0.61939	0.61456					
	0.63008	0.60716					AVRG		0.62182		1.73598
209 Benzaldehyde	+++++	0.95833	0.92226	0.84939	0.85637	0.79340					
	0.79412	0.72945					AVRG		0.84333		9.38003
6 Phenol	+++++	1.32624	1.33308	1.29840	1.28556	1.27125					
	1.30161	1.24826					AVRG		1.29492		2.29936

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
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Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 03-Mar-2010 16:19 jos00786

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
7 bis(2-Chloroethyl) ether	+++++	1.10103	1.14462	1.07089	1.07731	1.02082					
	1.03135	0.97582					AVRG		1.06026		5.26596
8 2-Chlorophenol	+++++	1.05514	1.03806	0.97770	0.97692	0.96049					
	0.98254	0.94585					AVRG		0.99096		4.06684
203 n-Decane	+++++	2.18082	2.07044	1.82788	1.73590	1.49542					
	+++++	+++++					AVRG		1.86209		14.62211
9 1,3-Dichlorobenzene	+++++	1.32145	1.29459	1.24409	1.22768	1.22115					
	1.22709	1.17739					AVRG		1.24478		3.88965
11 1,4-Dichlorobenzene	+++++	1.25354	1.24697	1.20326	1.18250	1.16238					
	1.17850	1.13378					AVRG		1.19442		3.65492
12 Benzyl alcohol	+++++	0.67067	0.67376	0.66588	0.67064	0.67714					
	0.69639	0.66876					AVRG		0.67475		1.51022
13 1,2-Dichlorobenzene	+++++	1.18780	1.16188	1.10021	1.10063	1.06192					
	1.06520	1.01341					AVRG		1.09872		5.47171
14 bis(2-Chloroisopropyl)ether	+++++	2.84346	2.77975	2.54436	2.49732	2.25102					
	2.22248	2.05488					AVRG		2.45618		12.00760
15 o-Cresol	+++++	0.82975	0.83763	0.79686	0.80251	0.77550					
	0.77566	0.73522					AVRG		0.79330		4.42431

GEL Laboratories LLC

INITIAL CALIBRATION DATA

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Quant Method : ISTD
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Integrator : HP RTE
Method file : /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 03-Mar-2010 16:19 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	++++++	1.19544	1.16930	1.11939	1.09905	1.06063					
	1.05199	1.05015					AVRG		1.10656		5.25990
17 N-Nitrosodipropylamine	++++++	0.78986	0.78126	0.76761	0.76071	0.69101					
	0.68312	0.68292					AVRG		0.73664		6.60276
18 m,p-Cresols	++++++	1.06688	1.08137	1.06240	1.06282	1.06806					
	1.09460	1.06712					AVRG		1.07190		1.10409
19 Hexachloroethane	++++++	0.47830	0.48853	0.45909	0.46017	0.45910					
	0.46127	0.44002					AVRG		0.46378		3.35369
21 Nitrobenzene	++++++	0.32599	0.31564	0.28441	0.27994	0.26223					
	0.25178	0.23906					AVRG		0.27987		11.47927
22 Isophorone	++++++	0.60055	0.58304	0.55409	0.54916	0.51583					
	0.50295	0.47946					AVRG		0.54073		8.06835
23 2-Nitrophenol	++++++	0.15519	0.14330	0.13006	0.13093	0.12549					
	0.12051	0.11450					AVRG		0.13143		10.52994
24 2,4-Dimethylphenol	++++++	114168	218277	376135	452448	745396					
	905563	998411					WLINR	-0.12517	0.21482		0.99550
25 bis(2-Chloroethoxy)methane	++++++	0.33736	0.32731	0.30205	0.29544	0.27901					
	0.27212	0.25761					AVRG		0.29584		9.81641

GEL Laboratories LLC

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Integrator : HP RTE
Method file : /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 03-Mar-2010 16:19 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.23284	0.23115	0.21499	0.21340	0.20610					
	0.19857	0.18877					AVRG		0.21226		7.61142
27 Benzoic acid	+++++	+++++	0.09399	0.10823	0.11656	0.13120					
	0.13489	0.14008					AVRG		0.12083		14.68354
28 1,2,4-Trichlorobenzene	+++++	0.29769	0.28901	0.26508	0.25660	0.24189					
	0.23181	0.21987					AVRG		0.25742		11.19881
30 Naphthalene	0.86793	0.85653	0.82594	0.76646	0.74263	0.69647					
	0.66692	0.62198					AVRG		0.75561		11.96904
204 alpha-Terpineol	+++++	0.36073	0.33018	0.30395	0.29238	0.25678					
	+++++	+++++					AVRG		0.30880		12.69973
31 4-Chloroaniline	+++++	0.39138	0.38394	0.36323	0.35125	0.34226					
	0.33031	0.31443					AVRG		0.35383		7.86879
189 Caprolactam	+++++	0.07270	0.07721	0.07751	0.07660	0.07453					
	0.07119	0.07132					AVRG		0.07444		3.68543
32 Hexachlorobutadiene	+++++	0.15432	0.14969	0.13784	0.13578	0.12669					
	0.12160	0.11448					AVRG		0.13434		10.80519
33 4-Chloro-3-methylphenol	+++++	0.23968	0.24055	0.23641	0.23018	0.22561					
	0.21618	0.20719					AVRG		0.22797		5.51338

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INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 03-Mar-2010 16:19 jos00786

Compound	1 Level 1 / 100 Level 7	10 Level 2 / 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
34 2-Methylnaphthalene	0.60775	0.60694	0.59172	0.55334	0.53860	0.50400					
	0.48115	0.45486					AVRG		0.54229		10.77312
35 1-Methylnaphthalene	0.59454	0.58640	0.56002	0.52389	0.50625	0.47447					
	0.45314	0.42590					AVRG		0.51558		12.04862
36 Hexachlorocyclopentadiene	+++++	0.17760	0.20342	0.20161	0.19061	0.22063					
	0.18724	0.17253					AVRG		0.19338		8.54937
208 1,1'-Biphenyl	+++++	1.26811	1.22170	1.13538	1.10081	1.02216					
	0.99895	0.96709					AVRG		1.10203		10.36141
205 2,3-Dichloroaniline	+++++	0.55167	0.53296	0.49182	0.48955	0.47670					
	0.46688	0.45276					AVRG		0.49462		7.19612
37 2,4,6-Trichlorophenol	+++++	0.28591	0.29017	0.28397	0.28642	0.27709					
	0.27579	0.26511					AVRG		0.28064		3.05262
38 2,4,5-Trichlorophenol	+++++	0.30067	0.30400	0.27441	0.27725	0.27297					
	0.27188	0.27453					AVRG		0.28225		4.90941
40 2-Chloronaphthalene	0.98968	0.98865	0.96920	0.92181	0.91661	0.88930					
	0.87923	0.85223					AVRG		0.92584		5.61667
42 o-Nitroaniline	+++++	0.32650	0.33651	0.32632	0.33065	0.32955					
	0.32556	0.31936					AVRG		0.32778		1.61097

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Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
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Target Version : 3.50
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Method file : /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 03-Mar-2010 16:19 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.22126	0.24562	0.23943	0.24325	0.24756					
	0.23907	0.23834					AVRG		0.23922		3.62078
43 Dimethylphthalate	+++++	1.14209	1.13350	1.05960	1.05899	1.02333					
	1.02706	0.99596					AVRG		1.06293		5.23993
44 2,6-Dinitrotoluene	+++++	0.26499	0.26039	0.24328	0.24493	0.23535					
	0.23967	0.22978					AVRG		0.24549		5.23468
45 Acenaphthylene	1.61531	1.62844	1.56002	1.45485	1.44949	1.39892					
	1.39129	1.34156					AVRG		1.47998		7.30956
47 Acenaphthene	0.94291	0.93284	0.92839	0.86375	0.86944	0.84726					
	0.85153	0.80716					AVRG		0.88041		5.54006
48 2,4-Dinitrophenol	+++++	+++++	22189	53016	65432	148984					
	192071	221189					LINR	0.35875	0.10576		0.99409
49 Dibenzofuran	+++++	1.35809	1.33389	1.22166	1.23984	1.19392					
	1.18290	1.13131					AVRG		1.23737		6.61916
50 2,4-Dinitrotoluene	+++++	0.32035	0.33058	0.31874	0.32457	0.32389					
	0.32862	0.31860					AVRG		0.32362		1.46117
51 Diethylphthalate	+++++	1.16778	1.15242	1.07866	1.08210	1.05762					
	1.05225	1.02521					AVRG		1.08801		4.86063

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	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	0.12189	0.15319	0.16924	0.16712	0.17578					
	0.17989	0.17224					AVRG		0.16277		12.22482
53 Fluorene	1.15003	1.14913	1.10994	1.00309	1.00564	0.97807					
	0.97276	0.93722					AVRG		1.03823		8.16853
54 4-Chlorophenylphenylether	+++++	0.55230	0.54732	0.51155	0.51708	0.50214					
	0.50180	0.47955					AVRG		0.51596		5.03023
55 2-Methyl-4,6-dinitrophenol	+++++	14243	47063	96235	119327	243903					
	311718	360208					LINR	0.20375	0.08692		0.99607
56 p-Nitroaniline	+++++	0.16936	0.20880	0.22482	0.21785	0.23101					
	0.23233	0.22347					AVRG		0.21538		10.12479
133 Diphenylamine	+++++	0.52306	0.50517	0.46428	0.46066	0.45126					
	0.45503	0.43996					AVRG		0.47134		6.50344
58 1,2-Diphenylhydrazine	+++++	0.65962	0.63737	0.59463	0.58510	0.56518					
	0.56834	0.54070					AVRG		0.59299		7.08469
59 Tributylphosphate	+++++	1.33867	1.16678	1.14080	1.10893	1.04610					
	1.01650	0.99882					AVRG		1.11666		10.42695
61 4-Bromophenylphenylether	+++++	0.17755	0.17375	0.16178	0.16189	0.15944					
	0.16098	0.15611					AVRG		0.16450		4.82846

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
63 Hexachlorobenzene	+++++	0.17131	0.16786	0.15738	0.15772	0.15513						
	0.15658	0.15273					AVRG		0.15982		4.34833	
207 Atrazine	+++++	0.04508	0.04317	0.03751	0.03999	0.03673						
	0.03600	0.03123					AVRG		0.03853		12.10180	
65 Pentachlorophenol	+++++	0.05499	0.07351	0.07546	0.07788	0.08148						
	0.08346	0.08259					AVRG		0.07563		12.99894	
206 n-Octadecane	+++++	0.66517	0.62877	0.54339	0.51312	0.41990						
	0.38282	0.35591					AVRG		0.50130		23.99535	<-
68 Phenanthrene	0.92440	0.87829	0.87153	0.80635	0.79576	0.77327						
	0.77180	0.74515					AVRG		0.82082		7.68182	
69 Anthracene	0.90440	0.90373	0.89117	0.81712	0.81109	0.79018						
	0.78315	0.74963					AVRG		0.83131		7.25516	
72 Di-n-butylphthalate	+++++	1.13584	1.12517	1.05910	1.04864	1.00051						
	0.99703	0.95438					AVRG		1.04581		6.45939	
76 Fluoranthene	0.90224	0.97031	0.96017	0.89278	0.88802	0.86786						
	0.84840	0.81005					AVRG		0.89248		6.00409	
77 Benzidine	+++++	0.40653	0.36246	0.36565	0.35403	0.36544						
	0.41263	0.35213					AVRG		0.37412		6.64046	

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	100 Level 7	120 Level 8									
79 Pyrene	1.32405	1.35159	1.31284	1.20723	1.21760	1.15073					
	1.26280	1.28250					AVRG		1.26367		5.36819
85 Butylbenzylphthalate	+++++	0.59662	0.60220	0.59072	0.60132	0.58013					
	0.61922	0.61621					AVRG		0.60092		2.27892
89 Benzo(a)anthracene	1.05093	0.96816	0.96328	0.93178	0.93105	0.93332					
	0.96025	0.93255					AVRG		0.95891		4.21524
90 3,3'-Dichlorobenzidine	+++++	0.26681	0.28620	0.29510	0.27316	0.27699					
	0.29106	0.26436					AVRG		0.27910		4.28355
92 Chrysene	0.89020	0.89976	0.89113	0.83925	0.84009	0.82315					
	0.84100	0.80174					AVRG		0.85329		4.21177
93 bis(2-Ethylhexyl)phthalate	+++++	0.80809	0.78600	0.73624	0.76057	0.74158					
	0.75155	0.74362					AVRG		0.76109		3.48672
94 Di-n-octylphthalate	+++++	1.52295	1.51090	1.49260	1.57749	1.70881					
	1.68585	1.74490					AVRG		1.60621		6.52248
95 Benzo(b)fluoranthene	1.02704	1.09919	1.10279	1.13249	1.13619	1.13403					
	1.17324	1.16918					AVRG		1.12177		4.15603
96 Benzo(k)fluoranthene	1.03689	1.14562	1.11676	0.99048	1.02425	1.04585					
	1.04682	1.02719					AVRG		1.05423		4.86067

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	0.82018	0.92251	0.95324	0.92574	0.93085	0.93108					
	0.94872	0.92614					AVRG		0.91981		4.54058
99 Indeno(1,2,3-cd)pyrene	0.61793	0.62224	0.69390	0.69944	0.67832	0.64625					
	0.68582	0.64752					AVRG		0.66143		4.85925
100 Dibenzo(a,h)anthracene	0.47565	0.47818	0.54251	0.56597	0.53673	0.52054					
	0.55040	0.52332					AVRG		0.52416		6.20836
101 Benzo(ghi)perylene	0.56533	0.53785	0.58606	0.57992	0.55056	0.51978					
	0.55186	0.52150					AVRG		0.55161		4.48630
102 1,4-Dioxane	+++++	0.36384	0.36610	0.33417	0.33077	0.31979					
	0.31717	0.31403					AVRG		0.33513		6.45342
103 Methyl methacrylate	+++++	0.21020	0.20726	0.19621	0.19212	0.18889					
	0.18592	0.18875					AVRG		0.19562		4.88183
104 Ethyl methacrylate	+++++	0.79610	0.79733	0.75341	0.75358	0.72166					
	0.71755	0.72015					AVRG		0.75140		4.58534
105 2-Picoline	+++++	1.22561	1.21665	1.13966	1.12899	1.08441					
	1.07670	1.07757					AVRG		1.13566		5.59082
106 N-Nitrosomethylethylamine	+++++	0.47452	0.46462	0.43928	0.44021	0.42769					
	0.42281	0.42081					AVRG		0.44142		4.71501

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	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.54758	0.54286	0.49884	0.51161	0.49538					
	0.49709	0.45892					AVRG		0.50747		6.00086
108 N-Nitrosodiethylamine	+++++	0.49539	0.49681	0.46847	0.46768	0.45500					
	0.45400	0.45358					AVRG		0.47013		3.99967
109 Ethyl Methanesulfonate	+++++	0.65591	0.64231	0.61640	0.62051	0.60576					
	0.60616	0.59583					AVRG		0.62041		3.46816
110 Pentachloroethane	+++++	0.33091	0.32767	0.30927	0.31189	0.29650					
	0.29355	0.28904					AVRG		0.30840		5.34098
111 N-Nitrosopyrrolidine	+++++	0.51068	0.50360	0.49590	0.49956	0.48726					
	0.47931	0.47906					AVRG		0.49363		2.46520
113 N-Nitrosomorpholine	+++++	0.93269	0.89548	0.84559	0.81841	0.76963					
	0.74142	0.69563					AVRG		0.81412		10.39747
114 o-Toluidine	+++++	1.66749	1.62690	1.57357	1.54322	1.47535					
	1.45788	1.43454					AVRG		1.53985		5.74695
115 N-Nitrosopiperidine	+++++	0.13839	0.13649	0.13206	0.12980	0.12760					
	0.12960	0.12740					AVRG		0.13162		3.26869
116 a,a-Dimethylphenethylamine	+++++	0.91907	0.96417	0.99553	0.99366	0.99806					
	1.00353	0.99978					AVRG		0.98197		3.12063

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	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.13478	0.13459	0.13266	0.13072	0.12464					
	0.12191	0.12398					AVRG		0.12904		4.19259
118 2,6-Dichlorophenol	+++++	0.20253	0.20749	0.20261	0.20410	0.20112					
	0.20199	0.19907					AVRG		0.20270		1.29027
119 Hexachloropropene	+++++	0.10438	0.10831	0.10725	0.10671	0.10478					
	0.10645	0.09827					AVRG		0.10516		3.16694
120 p-Phenylenediamine	+++++	0.25668	0.25068	0.22690	0.21252	0.19855					
	0.19547	+++++					AVRG		0.22347		11.63559
121 N-Nitrosodi-n-butylamine	+++++	0.23441	0.23451	0.20097	0.18967	0.18327					
	0.18394	0.17781					AVRG		0.20065		12.05548
122 Safrole	+++++	0.20181	0.19524	0.18624	0.18455	0.17874					
	0.17654	0.17363					AVRG		0.18525		5.52554
123 1,2,4,5-Tetrachlorobenzene	+++++	0.44061	0.42948	0.40210	0.39235	0.37114					
	0.36184	0.35421					AVRG		0.39310		8.45898
124 Isosafrole	+++++	0.35170	0.34949	0.33088	0.32487	0.31439					
	0.31016	0.30561					AVRG		0.32673		5.63612
125 1,4-Naphthoquinone	+++++	84638	151030	288344	333563	495061					
	+++++	+++++					LINR	-0.21821	0.24057		0.99067

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	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.16835	0.17531	0.16597	0.17132	0.16929					
	0.16971	0.16651					AVRG		0.16950		1.86258
127 Pentachlorobenzene	+++++	0.37874	0.37429	0.35898	0.35476	0.34124					
	0.33507	0.33064					AVRG		0.35339		5.31101
128 1-Naphthylamine	+++++	0.93808	0.91662	0.87727	0.86662	0.82419					
	0.81523	0.76509					AVRG		0.85758		7.04454
129 2-Naphthylamine	+++++	1.00958	0.98980	0.95445	0.92796	0.89640					
	0.87021	0.81954					AVRG		0.92399		7.28200
130 2,3,4,6-Tetrachlorophenol	+++++	0.21848	0.23607	0.22847	0.23258	0.23782					
	0.24128	0.23864					AVRG		0.23333		3.33623
131 5-Nitro-o-toluidine	+++++	0.26504	0.27296	0.28000	0.27202	0.27408					
	0.27596	0.26950					AVRG		0.27279		1.74037
132 Thionazin	+++++	0.15991	0.16333	0.16125	0.15716	0.15263					
	0.15093	0.15034					AVRG		0.15651		3.35420
134 Sulfotepp	+++++	0.08069	0.08457	0.08225	0.08109	0.08247					
	0.08302	0.08521					AVRG		0.08276		2.01929
135 Phorate	+++++	0.38094	0.39212	0.38013	0.37064	0.35768					
	0.35368	0.35136					AVRG		0.36950		4.24438

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	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	0.09043	0.10798	0.11736	0.11408	0.12051					
	0.12517	0.12301					AVRG		0.11408		10.44181
137 Phenacetin	+++++	0.25499	0.26014	0.25425	0.24643	0.24758					
	0.25182	0.24676					AVRG		0.25171		2.03791
138 Diallate	+++++	0.24308	0.23259	0.21969	0.22000	0.21354					
	0.20757	0.20177					AVRG		0.21975		6.48800
139 Dimethoate	+++++	0.19708	0.21294	0.21778	0.21356	0.21259					
	0.21588	0.21951					AVRG		0.21276		3.47043
140 4-Aminobiphenyl	+++++	0.52229	0.52744	0.56450	0.55560	0.53372					
	0.51979	0.49365					AVRG		0.53100		4.44590
141 Pentachloronitrobenzene	+++++	0.06861	0.06544	0.05979	0.05907	0.05327					
	0.04994	0.04776					AVRG		0.05770		13.49738
142 Pronamide	+++++	0.27668	0.26559	0.24232	0.23613	0.21408					
	0.19922	0.18795					AVRG		0.23171		14.29562
143 Dinoseb	+++++	21314	69548	148150	183225	380967					
	493335	540450					LINR	0.20422	0.13388		0.99412
144 Disulfoton	+++++	0.27927	0.28869	0.28141	0.27781	0.27141					
	0.26930	0.27042					AVRG		0.27690		2.53496

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	100 Level 7	120 Level 8									
145 Methyl parathion	+++++	0.16580	0.18496	0.19619	0.19321	0.19447					
	0.19781	0.20132					AVRG		0.19054		6.30793
146 4-Nitroquinoline-1-oxide	+++++	0.02797	0.02417	0.02069	0.01676	0.01596					
	0.01632	0.01115					AVRG		0.01900		29.85349 <-
147 Methapyrilene	+++++	0.53870	0.51095	0.46211	0.46851	0.42818					
	0.41014	0.36742					AVRG		0.45514		12.92653
148 Isodrin	+++++	0.11198	0.10591	0.10106	0.10099	0.09653					
	0.09427	0.09263					AVRG		0.10048		6.77327
149 Aramite	+++++	0.04288	0.04473	0.04328	0.04492	0.04294					
	0.04216	0.03955					AVRG		0.04292		4.18340
150 Kepone	+++++	0.06821	0.06688	0.06300	0.06292	0.06376					
	0.06429	0.06037					AVRG		0.06421		4.07909
151 p-(Dimethylamino)azobenzene	+++++	0.31886	0.31858	0.30561	0.32564	0.30896					
	0.29295	0.31135					AVRG		0.31171		3.43876
152 Chlorobenzilate	+++++	0.28015	0.27293	0.26692	0.28307	0.27552					
	0.25667	0.28081					AVRG		0.27373		3.40002
153 3,3'-Dimethylbenzidine	+++++	0.54411	0.53267	0.52587	0.52765	0.52481					
	0.53500	0.48082					AVRG		0.52442		3.87777

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 03-Mar-2010 16:19 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
154 Famphur	+++++	0.39508	0.41129	0.40963	0.41295	0.41166					
	0.40965	0.43249					AVRG		0.41182		2.65732
155 2-Acetylaminofluorene	+++++	0.26940	0.30220	0.33126	0.30846	0.31630					
	0.33855	0.30308					AVRG		0.30989		7.29418
157 7,12Dimethylbenz(a)anthracene	+++++	0.52071	0.52087	0.48902	0.53422	0.51784					
	0.48120	0.52556					AVRG		0.51277		3.85020
158 3-Methylcholanthrene	+++++	0.37699	0.38496	0.38662	0.36457	0.36689					
	0.36907	0.35258					AVRG		0.37167		3.24545
26 Phthalic anhydride	+++++	19947	70183	158750	199408	349686					
	444882	524437					LINR	0.08827	0.11204		0.99920
173 Carbazole	0.74030	0.66266	0.66768	0.67537	0.66904	0.68801					
	0.68838	0.65933					AVRG		0.68135		3.83434
174 Hexachlorophene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-
179 Dibenzo(a,e)pyrene	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 03-Mar-2010 16:19 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	0.19714	0.23527	0.25694	0.31440	0.23557					
	0.31801	0.30125					AVRG		0.26551		17.51997 <-
191 Parathion	+++++	0.05144	0.05751	0.06005	0.05987	0.06048					
	0.06192	0.06233					AVRG		0.05908		6.29535
192 Methoxychlor	+++++	0.56403	0.62279	0.57547	0.58466	0.59921					
	0.60284	0.57646					AVRG		0.58935		3.40697
210 m-Toluidine	+++++	1.18361	1.14196	1.27790	1.40428	1.45000					
	1.57819	1.58735					AVRG		1.37475		13.05381
211 p-Toluidine	+++++	1.19395	1.14859	1.22108	1.12140	1.12246					
	1.05038	0.88521					AVRG		1.10616		10.11699
212 Cis Diallate	+++++	0.24942	0.23954	0.22264	0.22308	0.21957					
	0.22207	0.21623					AVRG		0.22751		5.34742
213 Trans Diallate	+++++	0.28598	0.27364	0.25845	0.25883	0.25122					
	0.24420	0.23737					AVRG		0.25853		6.48800
214 1,4-Dinitrobenzene	+++++	0.18254	0.19379	0.19206	0.19366	0.19651					
	0.20200	0.19895					AVRG		0.19422		3.18627
215 2-Ethoxyethanol	+++++	0.93089	0.91998	0.93387	0.92416	0.93722					
	0.95789	0.91578					AVRG		0.93140		1.49848

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 03-Mar-2010 16:19 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	0.12024	0.12176	0.13402	0.13327	0.14612					
	0.14401	0.13627					AVRG		0.13367		7.42615
226 2,2'-Dichlorobenzil	+++++	0.74065	0.73565	0.70509	+++++	0.72929					
	0.68011	0.68665					AVRG		0.71291		3.64786
227 4-Chlorothioanisole	+++++	0.24526	0.24532	0.24448	+++++	0.24005					
	0.23939	0.23754					AVRG		0.24201		1.41023
228 4-Chlorothiophenol	+++++	44415	134478	332577	+++++	710506					
	861327	1051275					LINR	0.12298	0.22403		0.99993
229 bis(p-Chlorophenyl)sulfone	+++++	0.43969	0.42531	0.39518	+++++	0.40060					
	0.37609	0.37535					AVRG		0.40204		6.48066
230 bis(p-Chlorophenyl)disulfide	+++++	0.15840	0.15651	0.15172	+++++	0.15893					
	0.15153	0.15686					AVRG		0.15566		2.08939
231 Diphenyl disulfide	+++++	0.21133	0.20952	0.20464	+++++	0.20130					
	0.19738	0.19810					AVRG		0.20371		2.86119
232 Diphenyl sulfide	+++++	0.80314	0.78782	0.74734	+++++	0.71349					
	0.70255	0.67955					AVRG		0.73898		6.65171
233 Phenyl sulfone	+++++	0.41846	0.41107	0.39335	+++++	0.38576					
	0.38088	0.37013					AVRG		0.39328		4.68458

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
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Integrator : HP RTE
Method file : /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 03-Mar-2010 16:19 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
234 Hydroxymethyl phthalimide	+++++	34368	69527	111795	+++++	219245						
	238854	310774					LINR	-0.17168	0.10332		0.99434	
235 Phthalic acid	+++++	10272	35793	103964	+++++	317426						
	377273	+++++					LINR	0.28377	0.10603		0.99240	
236 Thiophenol	+++++	0.72677	0.87316	0.98094	+++++	1.05176						
	1.04045	1.04474					AVRG		0.95297		13.61346	
237 bis(Chloromethyl)ether	+++++	0.87445	0.86289	0.81012	+++++	0.81952						
	0.78408	0.78451					AVRG		0.82259		4.68064	
238 Octachlorostyrene	+++++	0.05791	0.05657	0.05363	+++++	0.05348						
	0.05255	0.05173					AVRG		0.05431		4.42948	
239 Dibenzo(a,h)pyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
240 Benzo(j)fluoranthene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
241 Dibenzo(a,j)acridine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
242 Dibenz(a,h)acridine	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 03-Mar-2010 16:19 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
243 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
244 2,4-Toluene Diisocyanate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
245 Dibenzo(a,i)pyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
246 1-Nitropyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
247 5-Methylchrysene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
248 Dibenzo(a,l)pyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
249 7H-Dibenzo(c,g)carbazole	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
250 1-Hexanol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
251 Propylene glycol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

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INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 03-Mar-2010 16:19 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
M 222 Trichlorophenols	+++++	0.29329	0.29709	0.27919	0.28184	0.27503						
	0.27383	0.26982					AVRG		0.28144		3.62457	
M 223 Tetrachlorophenols	+++++	0.21848	0.23607	0.22847	0.23258	0.23782						
	0.24128	0.23864					AVRG		0.23333		3.33623	
M 224 Benzo(b,k)fluoranthene	1.03196	1.12240	1.10977	1.06149	1.08022	1.08994						
	1.11003	1.09819					AVRG		1.08800		2.72527	
M 225 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 3 2-Fluorophenol	+++++	1.02520	1.04766	1.03008	1.03008	1.04425						
	1.06812	1.03245					AVRG		1.03969		1.43708	
$ 5 Phenol-d5	+++++	1.28367	1.32223	1.29638	1.30385	1.30539						
	1.33151	1.28181					AVRG		1.30355		1.41909	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.34547	0.33539	0.30609	0.30256	0.28769						
	0.27238	0.26228					AVRG		0.30169		10.19977	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 03-Mar-2010 16:19 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
$ 39 2-Fluorobiphenyl	+++++	1.14787	1.07616	0.99829	0.98540	0.94271					
	0.93181	0.89582					AVRG		0.99687		8.84048
$ 60 2,4,6-Tribromophenol	+++++	0.10553	0.11240	0.11152	0.11625	0.11870					
	0.12293	0.12210					AVRG		0.11563		5.40333
$ 81 p-Terphenyl-d14	+++++	0.74292	0.72004	0.68997	0.69903	0.67156					
	0.74275	0.74998					AVRG		0.71661		4.24404

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 26-FEB-2010 11:07
End Cal Date : 26-FEB-2010 23:46
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m
Cal Date : 03-Mar-2010 16:19 jos00786

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 26-FEB-2010 15:33
Lab File ID: s7b2614.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100225-09.1 Quant Type: ISTD
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3	2-Fluorophenol	1.03969	1.02471	1.02471	0.000	-1.44120	60.00000	Averaged
$ 5	Phenol-d5	1.30355	1.24864	1.24864	0.000	-4.21259	60.00000	Averaged
$ 20	Nitrobenzene-d5	0.30169	0.31799	0.31799	0.000	5.40220	60.00000	Averaged
$ 39	2-Fluorobiphenyl	0.99687	1.05207	1.05207	0.000	5.53779	60.00000	Averaged
$ 60	2,4,6-Tribromophenol	0.11563	0.11567	0.11567	0.000	0.03425	60.00000	Averaged
$ 81	p-Terphenyl-d14	0.71661	0.79589	0.79589	0.000	11.06334	60.00000	Averaged
1	N-Methyl-N-nitrosomethylami	0.70001	0.65798	0.65798	0.000	-6.00450	60.00000	Averaged
2	Pyridine	0.96465	0.72626	0.72626	0.000	-24.71254	60.00000	Averaged
4	Aniline	0.62182	0.56215	0.56215	0.000	-9.59489	60.00000	Averaged
6	Phenol	1.29492	1.27998	1.27998	0.001	-1.15360	20.00000	Averaged ccc
7	bis(2-Chloroethyl) ether	1.06026	0.99193	0.99193	0.000	-6.44459	60.00000	Averaged
8	2-Chlorophenol	0.99096	0.96977	0.96977	0.000	-2.13776	60.00000	Averaged
203	n-Decane	1.86209	1.65806	1.65806	0.000	-10.95712	60.00000	Averaged
9	1,3-Dichlorobenzene	1.24478	1.24430	1.24430	0.000	-0.03834	60.00000	Averaged
11	1,4-Dichlorobenzene	1.19442	1.15499	1.15499	0.001	-3.30123	20.00000	Averaged ccc
13	1,2-Dichlorobenzene	1.09872	1.05382	1.05382	0.000	-4.08631	60.00000	Averaged
14	bis(2-Chloroisopropyl)ether	2.45618	2.41690	2.41690	0.000	-1.59921	60.00000	Averaged
12	Benzyl alcohol	0.67475	0.65730	0.65730	0.000	-2.58575	60.00000	Averaged
15	o-Cresol	0.79330	0.75691	0.75691	0.000	-4.58754	60.00000	Averaged
18	m,p-Cresols	1.07190	1.06639	1.06639	0.000	-0.51397	60.00000	Averaged
17	N-Nitrosodipropylamine	0.73664	0.73992	0.73992	0.050	0.44576	60.00000	Averaged spcc
19	Hexachloroethane	0.46378	0.45091	0.45091	0.000	-2.77548	60.00000	Averaged
21	Nitrobenzene	0.27987	0.28434	0.28434	0.000	1.60052	60.00000	Averaged
22	Isophorone	0.54073	0.52607	0.52607	0.000	-2.71011	60.00000	Averaged
23	2-Nitrophenol	0.13143	0.13812	0.13812	0.001	5.09665	20.00000	Averaged ccc
24	2,4-Dimethylphenol	43.02153	40.00000	0.25793	0.000	7.55381	60.00000	Wt Linear
25	bis(2-Chloroethoxy)methane	0.29584	0.27846	0.27846	0.000	-5.87687	60.00000	Averaged
26	2,4-Dichlorophenol	0.21226	0.22457	0.22457	0.001	5.80057	20.00000	Averaged ccc
27	Benzoic acid	0.12083	0.13464	0.13464	0.000	11.43046	60.00000	Averaged
28	1,2,4-Trichlorobenzene	0.25742	0.26054	0.26054	0.000	1.21085	60.00000	Averaged
30	Naphthalene	0.75561	0.72974	0.72974	0.000	-3.42291	60.00000	Averaged
204	alpha-Terpineol	0.30880	0.27565	0.27565	0.000	-10.73794	60.00000	Averaged
31	4-Chloroaniline	0.35383	0.33113	0.33113	0.000	-6.41578	60.00000	Averaged
32	Hexachlorobutadiene	0.13434	0.14044	0.14044	0.001	4.53770	20.00000	Averaged ccc
33	4-Chloro-3-methylphenol	0.22797	0.23911	0.23911	0.001	4.88549	20.00000	Averaged ccc
34	2-Methylnaphthalene	0.54229	0.55783	0.55783	0.000	2.86468	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 26-FEB-2010 15:33
Lab File ID: s7b2614.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100225-09.1 Quant Type: ISTD
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.51558	0.51162	0.51162	0.000	-0.76796	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.19338	0.18004	0.18004	0.050	-6.89835	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.49462	0.48886	0.48886	0.000	-1.16475	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.28064	0.29372	0.29372	0.001	4.66295	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.28225	0.31248	0.31248	0.000	10.71318	60.00000	Averaged	
40	2-Chloronaphthalene	0.92584	0.93034	0.93034	0.000	0.48600	60.00000	Averaged	
42	o-Nitroaniline	0.32778	0.32450	0.32450	0.000	-1.00006	60.00000	Averaged	
41	m-Nitroaniline	0.23922	0.23795	0.23795	0.000	-0.52859	60.00000	Averaged	
43	Dimethylphthalate	1.06293	1.06181	1.06181	0.000	-0.10595	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.24549	0.24572	0.24572	0.000	0.09588	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.32362	0.32061	0.32061	0.000	-0.93059	60.00000	Averaged	
45	Acenaphthylene	1.47998	1.47925	1.47925	0.000	-0.04942	60.00000	Averaged	
47	Acenaphthene	0.88041	0.84456	0.84456	0.001	-4.07267	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	40.39092	40.00000	0.06885	0.050	0.97730	60.00000	Linear	spcc
49	Dibenzofuran	1.23737	1.25843	1.25843	0.000	1.70156	60.00000	Averaged	
51	Diethylphthalate	1.08801	1.08709	1.08709	0.000	-0.08413	60.00000	Averaged	
52	4-Nitrophenol	0.16277	0.17018	0.17018	0.050	4.55207	60.00000	Averaged	spcc
53	Fluorene	1.03823	0.98765	0.98765	0.000	-4.87233	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.51596	0.50557	0.50557	0.000	-2.01472	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	49.60025	40.00000	0.09008	0.000	24.00062	60.00000	Linear	
56	p-Nitroaniline	0.21538	0.21035	0.21035	0.000	-2.33542	60.00000	Averaged	
133	Diphenylamine	0.47134	0.46815	0.46815	0.001	-0.67705	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.59299	0.59852	0.59852	0.000	0.93248	60.00000	Averaged	
61	4-Bromophenylphenylether	0.16450	0.15861	0.15861	0.000	-3.58149	60.00000	Averaged	
63	Hexachlorobenzene	0.15982	0.15792	0.15792	0.000	-1.18714	60.00000	Averaged	
65	Pentachlorophenol	0.07563	0.08477	0.08477	0.001	12.08882	20.00000	Averaged	ccc
206	n-Octadecane	0.50130	0.54494	0.54494	0.000	8.70577	60.00000	Averaged	
68	Phenanthrene	0.82082	0.79129	0.79129	0.000	-3.59795	60.00000	Averaged	
69	Anthracene	0.83131	0.80745	0.80745	0.000	-2.86980	60.00000	Averaged	
72	Di-n-butylphthalate	1.04581	1.05484	1.05484	0.000	0.86325	60.00000	Averaged	
76	Fluoranthene	0.89248	0.89895	0.89895	0.001	0.72511	20.00000	Averaged	ccc
79	Pyrene	1.26367	1.20352	1.20352	0.000	-4.76014	60.00000	Averaged	
85	Butylbenzylphthalate	0.60092	0.60984	0.60984	0.000	1.48432	60.00000	Averaged	
89	Benzo(a)anthracene	0.95891	0.88471	0.88471	0.000	-7.73823	60.00000	Averaged	
92	Chrysene	0.85329	0.81713	0.81713	0.000	-4.23770	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	0.76109	0.74913	0.74913	0.000	-1.57123	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 26-FEB-2010 15:33
Lab File ID: s7b2614.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100225-09.1 Quant Type: ISTD
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.60621	1.58412	1.58412	0.001	-1.37539	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.12177	1.06463	1.06463	0.000	-5.09364	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.05423	1.04564	1.04564	0.000	-0.81471	60.00000	Averaged	
	97 Benzo(a)pyrene	0.91981	0.90053	0.90053	0.001	-2.09622	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.66143	0.60388	0.60388	0.000	-8.69961	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.52416	0.47011	0.47011	0.000	-10.31204	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.55161	0.49780	0.49780	0.000	-9.75514	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16950	0.17152	0.17152	0.000	1.19636	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.23333	0.23665	0.23665	0.000	1.42249	60.00000	Averaged	
	143 Dinoseb	41.77834	40.00000	0.11249	0.000	4.44585	60.00000	Linear	
	173 Carbazole	0.68135	0.69533	0.69533	0.000	2.05237	60.00000	Averaged	
	184 p-Benzoquinone	0.26551	0.19230	0.19230	0.000	-27.57330	60.00000	Averaged	
	192 Methoxychlor	0.58935	0.62587	0.62587	0.000	6.19688	60.00000	Averaged	
	211 p-Toluidine	1.10616	0.97036	0.97036	0.000	-12.27617	60.00000	Averaged	
	210 m-Toluidine	1.37475	1.21251	1.21251	0.000	-11.80169	60.00000	Averaged	
	215 2-Ethoxyethanol	0.93140	0.93581	0.93581	0.000	0.47324	60.00000	Averaged	
	26 Phthalic anhydride	51.56333	40.00000	0.13454	0.000	28.90832	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.19422	0.19244	0.19244	0.000	-0.91506	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.13367	0.13777	0.13777	0.000	3.06814	60.00000	Averaged	
M	222 Trichlorophenols	0.28144	0.30310	0.30310	0.000	7.69664	60.00000	Averaged	
M	223 Tetrachlorophenols	0.23333	0.23665	0.23665	0.000	1.42249	60.00000	Averaged	
M	224 Benzo(b,k)fluoranthene	1.08800	1.05514	1.05514	0.000	-3.02057	60.00000	Averaged	

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GEL Laboratories, LLC
Data file : /chem/MSD7.i/s022610.b/s7b2614.d
Lab Smp Id: WBN100225-09.1 Client Smp ID: MEGAICV
Inj Date : 26-FEB-2010 15:33
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100225-09.1|ICV|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN100217-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m
Meth Date : 27-Feb-2010 08:41 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 15:08 Cal File: s7b2613.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.951	3.947	(1.000)	398783	40.0000	
* 29 Naphthalene-d8	136	4.818	4.818	(1.000)	1519686	40.0000	
* 46 Acenaphthene-d10	164	6.075	6.070	(1.000)	819814	40.0000	
* 67 Phenanthrene-d10	188	7.250	7.245	(1.000)	1483884	40.0000	
* 91 Chrysene-d12	240	9.658	9.653	(1.000)	1119677	40.0000	
* 98 Perylene-d12	264	11.338	11.333	(1.000)	753913	40.0000	
$ 3 2-Fluorophenol	112	3.133	3.133	(0.793)	408636	40.0000	39.4
$ 5 Phenol-d5	99	3.663	3.658	(0.927)	497935	40.0000	38.3
$ 20 Nitrobenzene-d5	82	4.313	4.312	(0.895)	483245	40.0000	42.2
$ 39 2-Fluorobiphenyl	172	5.560	5.560	(0.915)	862503	40.0000	42.2
$ 60 2,4,6-Tribromophenol	329	6.672	6.672	(1.098)	94831	40.0000	40.0
$ 81 p-Terphenyl-d14	244	8.622	8.622	(0.893)	891139	40.0000	44.4
1 N-Methyl-N-nitrosomethylamine	74	2.444	2.444	(0.619)	262390	40.0000	37.6
2 Pyridine	79	2.473	2.478	(0.626)	289621	40.0000	30.1
4 Aniline	66	3.735	3.735	(0.945)	224177	40.0000	36.2
6 Phenol	94	3.672	3.667	(0.929)	510433	40.0000	39.5
7 bis(2-Chloroethyl) ether	63	3.749	3.749	(0.949)	395566	40.0000	37.4
8 2-Chlorophenol	128	3.817	3.812	(0.966)	386729	40.0000	39.1
203 n-Decane	43	3.802	3.802	(0.962)	661206	40.0000	35.6
9 1,3-Dichlorobenzene	146	3.918	3.918	(0.991)	496206	40.0000	40.0
11 1,4-Dichlorobenzene	146	3.966	3.961	(1.004)	460590	40.0000	38.7
13 1,2-Dichlorobenzene	146	4.067	4.067	(1.029)	420246	40.0000	38.4
14 bis(2-Chloroisopropyl)ether	45	4.096	4.096	(1.037)	963819	40.0000	39.4
12 Benzyl alcohol	108	4.014	4.014	(1.016)	262120	40.0000	39.0
15 o-Cresol	107	4.067	4.067	(1.029)	301843	40.0000	38.2
18 m,p-Cresols	107	4.168	4.168	(1.055)	425256	40.0000	39.8
17 N-Nitrosodipropylamine	70	4.192	4.192	(1.061)	295069	40.0000	40.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
19 Hexachloroethane	117	4.298	4.298	(1.088)	179815	40.0000	38.9
21 Nitrobenzene	77	4.327	4.327	(0.898)	432114	40.0000	40.6
22 Isophorone	82	4.481	4.486	(0.930)	799464	40.0000	38.9
23 2-Nitrophenol	139	4.544	4.544	(0.943)	209904	40.0000	42.0
24 2,4-Dimethylphenol	122	4.534	4.534	(0.941)	391978	40.0000	43.0
25 bis(2-Chloroethoxy)methane	93	4.601	4.601	(0.955)	423168	40.0000	37.6
26 2,4-Dichlorophenol	162	4.703	4.703	(0.976)	341282	40.0000	42.3
27 Benzoic acid	105	4.592	4.592	(0.953)	204606	40.0000	44.6
28 1,2,4-Trichlorobenzene	180	4.770	4.770	(0.990)	395939	40.0000	40.5
30 Naphthalene	128	4.837	4.837	(1.004)	1108980	40.0000	38.6
204 alpha-Terpineol	59	4.809	4.808	(0.998)	418894	40.0000	35.7
31 4-Chloroaniline	127	4.847	4.847	(1.006)	503209	40.0000	37.4
32 Hexachlorobutadiene	225	4.900	4.900	(1.017)	213421	40.0000	41.8
33 4-Chloro-3-methylphenol	107	5.155	5.155	(1.070)	363372	40.0000	42.0
34 2-Methylnaphthalene	142	5.314	5.314	(1.103)	847725	40.0000	41.1
35 1-Methylnaphthalene	142	5.391	5.391	(1.119)	777496	40.0000	39.7
36 Hexachlorocyclopentadiene	237	5.420	5.420	(0.892)	147596	40.0000	37.2
205 2,3-Dichloroaniline	161	5.512	5.512	(0.907)	400773	40.0000	39.5
37 2,4,6-Trichlorophenol	196	5.502	5.502	(0.906)	240799	40.0000	41.9
38 2,4,5-Trichlorophenol	196	5.526	5.526	(0.910)	256177	40.0000	44.3
40 2-Chloronaphthalene	162	5.670	5.670	(0.933)	762704	40.0000	40.2
42 o-Nitroaniline	65	5.723	5.723	(0.942)	266029	40.0000	39.6
41 m-Nitroaniline	138	6.022	6.022	(0.991)	195077	40.0000	39.8
43 Dimethylphthalate	163	5.839	5.839	(0.961)	870483	40.0000	40.0
44 2,6-Dinitrotoluene	165	5.892	5.892	(0.970)	201445	40.0000	40.0
50 2,4-Dinitrotoluene	165	6.186	6.186	(1.018)	262842	40.0000	39.6
45 Acenaphthylene	152	5.974	5.974	(0.983)	1212713	40.0000	40.0
47 Acenaphthene	154	6.099	6.099	(1.004)	692379	40.0000	38.4
48 2,4-Dinitrophenol	184	6.089	6.089	(1.002)	56443	40.0000	40.4
49 Dibenzofuran	168	6.224	6.224	(1.025)	1031677	40.0000	40.7
51 Diethylphthalate	149	6.345	6.345	(1.044)	891212	40.0000	40.0
52 4-Nitrophenol	139	6.104	6.104	(1.005)	139513	40.0000	41.8
53 Fluorene	166	6.489	6.489	(1.068)	809688	40.0000	38.0
54 4-Chlorophenylphenylether	204	6.460	6.460	(1.063)	414472	40.0000	39.2
55 2-Methyl-4,6-dinitrophenol	198	6.499	6.499	(0.896)	133661	40.0000	49.6
56 p-Nitroaniline	138	6.479	6.484	(1.067)	172445	40.0000	39.1
133 Diphenylamine	169	6.552	6.552	(0.904)	694684	40.0000	39.7
58 1,2-Diphenylhydrazine	77	6.590	6.585	(0.909)	888138	40.0000	40.4
61 4-Bromophenylphenylether	248	6.850	6.850	(0.945)	235353	40.0000	38.6
63 Hexachlorobenzene	284	6.922	6.922	(0.955)	234334	40.0000	39.5
65 Pentachlorophenol	266	7.072	7.067	(0.975)	125785	40.0000	44.8
206 n-Octadecane	57	7.062	7.062	(0.974)	808626	40.0000	43.5
68 Phenanthrene	178	7.269	7.269	(1.003)	1174179	40.0000	38.6
69 Anthracene	178	7.313	7.312	(1.009)	1198165	40.0000	38.8
72 Di-n-butylphthalate	149	7.669	7.669	(1.058)	1565255	40.0000	40.3
76 Fluoranthene	202	8.309	8.309	(1.146)	1333938	40.0000	40.3
79 Pyrene	202	8.526	8.526	(0.883)	1347549	40.0000	38.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
85 Butylbenzylphthalate	149	9.056	9.056	(0.938)	682818	40.0000	40.6
89 Benzo(a)anthracene	228	9.643	9.643	(0.998)	990591	40.0000	36.9
92 Chrysene	228	9.682	9.682	(1.002)	914923	40.0000	38.3
93 bis(2-Ethylhexyl)phthalate	149	9.581	9.580	(0.992)	838787	40.0000	39.4
94 Di-n-octylphthalate	149	10.235	10.240	(0.903)	1194290	40.0000	39.4
95 Benzo(b)fluoranthene	252	10.818	10.818	(0.954)	802637	40.0000	38.0
96 Benzo(k)fluoranthene	252	10.852	10.857	(0.957)	788325	40.0000	39.7
97 Benzo(a)pyrene	252	11.256	11.256	(0.993)	678918	40.0000	39.2
99 Indeno(1,2,3-cd)pyrene	276	13.091	13.096	(1.155)	455276	40.0000	36.5
100 Dibenzo(a,h)anthracene	278	13.105	13.110	(1.156)	354422	40.0000	35.9
101 Benzo(ghi)perylene	276	13.625	13.635	(1.202)	375295	40.0000	36.1
126 m-Dinitrobenzene	168	5.873	5.873	(0.967)	140617	40.0000	40.5
130 2,3,4,6-Tetrachlorophenol	232	6.301	6.301	(1.037)	194010	40.0000	40.6
143 Dinoseb	211	7.192	7.192	(0.992)	166919	40.0000	41.8
173 Carbazole	167	7.423	7.428	(1.024)	1031789	40.0000	40.8
184 p-Benzoquinone	54	3.431	3.431	(0.868)	76686	40.0000	29.0
192 Methoxychlor	227	9.528	9.527	(0.987)	700776	40.0000	42.5
211 p-Toluidine	106	4.226	4.226	(1.069)	386963	40.0000	35.1
210 m-Toluidine	106	4.250	4.250	(1.076)	483528	40.0000	35.3
215 2-Ethoxyethanol	59	2.290	2.290	(0.580)	373183	40.0000	40.2
26 Phthalic anhydride	104	5.348	5.348	(1.110)	204452	40.0000	51.6
214 1,4-Dinitrobenzene	75	5.815	5.815	(0.957)	157765	40.0000	39.6
216 Methylenebis(2-chloroaniline)	231	9.585	9.585	(0.993)	154259	40.0000	41.2
M 222 Trichlorophenols	196				496977	80.0000	86.2
M 223 Tetrachlorophenols	232				194010	40.0000	40.6
M 224 Benzo(b,k)fluoranthene	252				1590962	80.0000	77.6

Data File: /chem/HSD7.i/s022610.b/s7b2614.d
Date : 26-FEB-2010 15:33
Client ID: MECAICV
Sample Info: IWBN100226-09,1|ICV|1|SVMF|1|MECAICV
Column phase: J&W DB-5HS

Instrument: HSD7.i
Operator: JHB3
Column diameter: 0.20

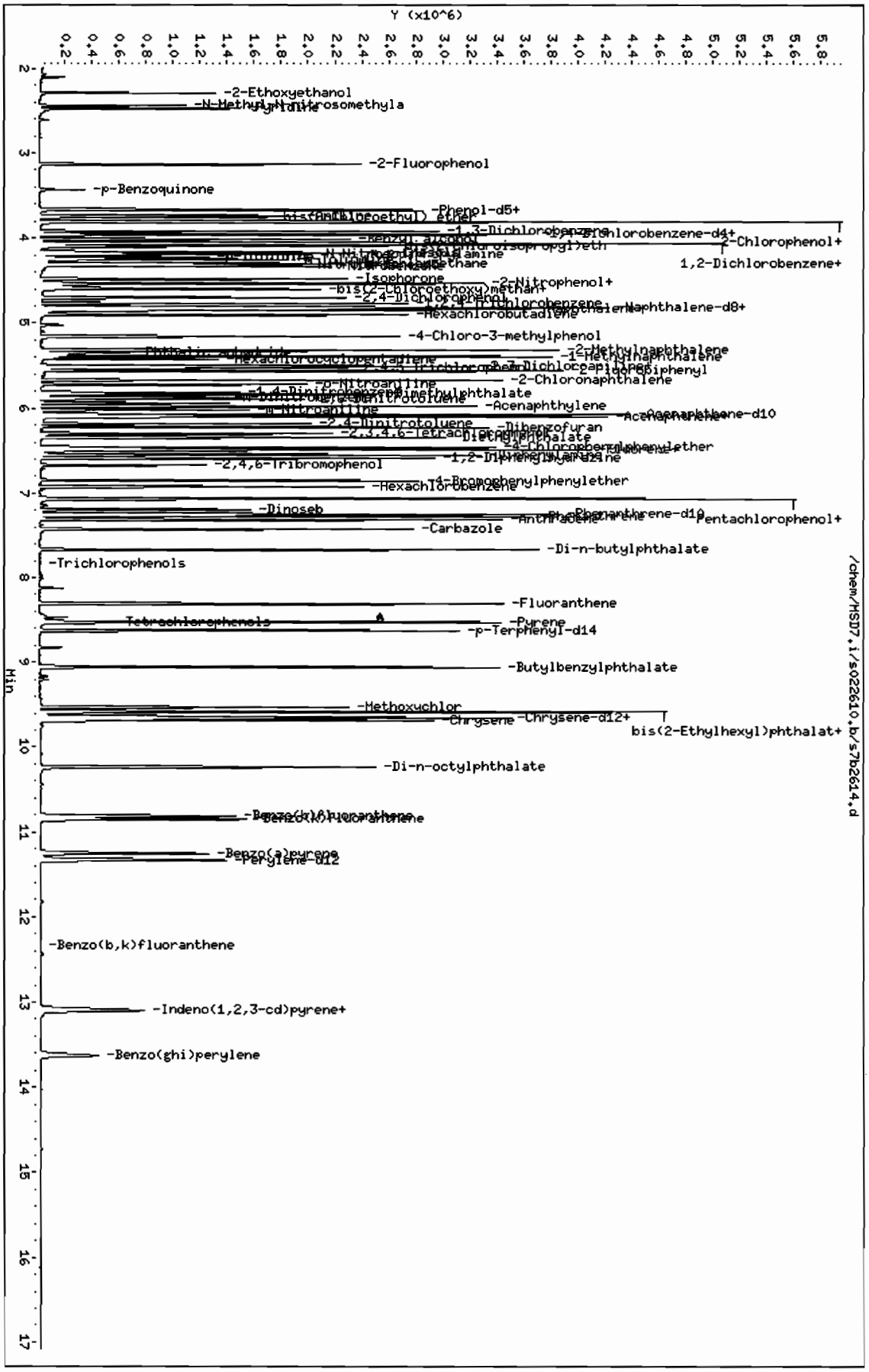

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 27-FEB-2010 00:07
Lab File ID: s7b2638.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.84333	0.72762	0.72762	0.000	-13.72062	60.00000	Averaged
16 Acetophenone	1.10656	1.09035	1.09035	0.000	-1.46517	60.00000	Averaged
189 Caprolactam	0.07444	0.08269	0.08269	0.000	11.09028	60.00000	Averaged
208 1,1'-Biphenyl	1.10203	1.18702	1.18702	0.000	7.71210	60.00000	Averaged
207 Atrazine	0.03853	0.04597	0.04597	0.000	19.30469	60.00000	Averaged
77 Benzidine	0.37412	0.37290	0.37290	0.000	-0.32808	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.27910	0.28354	0.28354	0.000	1.59226	60.00000	Averaged
102 1,4-Dioxane	0.33513	0.40939	0.40939	0.000	22.16131	60.00000	Averaged
103 Methyl methacrylate	0.19562	0.23961	0.23961	0.000	22.48803	60.00000	Averaged
104 Ethyl methacrylate	0.75140	0.90901	0.90901	0.000	20.97589	60.00000	Averaged
105 2-Picoline	1.13566	1.16769	1.16769	0.000	2.82042	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.44142	0.47438	0.47438	0.000	7.46654	60.00000	Averaged
107 Methyl methanesulfonate	0.50747	0.54617	0.54617	0.000	7.62707	60.00000	Averaged
108 N-Nitrosodiethylamine	0.47013	0.49911	0.49911	0.000	6.16504	60.00000	Averaged
109 Ethyl Methanesulfonate	0.62041	0.76141	0.76141	0.000	22.72687	60.00000	Averaged
110 Pentachloroethane	0.30840	0.42036	0.42036	0.000	36.30233	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.49363	0.51936	0.51936	0.000	5.21438	60.00000	Averaged
113 N-Nitrosomorpholine	0.81412	0.89271	0.89271	0.000	9.65373	60.00000	Averaged
114 o-Toluidine	1.53985	1.58233	1.58233	0.000	2.75855	60.00000	Averaged
115 N-Nitrosopiperidine	0.13162	0.14324	0.14324	0.000	8.82907	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.98197	1.03595	1.03595	0.000	5.49667	60.00000	Averaged
118 2,6-Dichlorophenol	0.20270	0.18717	0.18717	0.000	-7.66350	60.00000	Averaged
119 Hexachloropropene	0.10516	0.16353	0.16353	0.000	55.49743	60.00000	Averaged
120 p-Phenylenediamine	0.22347	0.22273	0.22273	0.000	-0.33095	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.20065	0.21517	0.21517	0.000	7.23239	60.00000	Averaged
122 Safrole	0.18525	0.22522	0.22522	0.000	21.57952	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.39310	0.44447	0.44447	0.000	13.06636	60.00000	Averaged
124 Isosafrole	0.32673	0.44824	0.44824	0.000	37.18926	60.00000	Averaged
125 1,4-Naphthoquinone	42.42497	40.00000	0.30765	0.000	6.06244	60.00000	Linear
127 Pentachlorobenzene	0.35339	0.38326	0.38326	0.000	8.45157	60.00000	Averaged
128 1-Naphthylamine	0.85758	0.95943	0.95943	0.000	11.87595	60.00000	Averaged
129 2-Naphthylamine	0.92399	1.06906	1.06906	0.000	15.70067	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27279	0.29252	0.29252	0.000	7.23152	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.11408	0.15190	0.15190	0.000	33.15347	60.00000	Averaged
137 Phenacetin	0.25171	0.26740	0.26740	0.000	6.23101	60.00000	Averaged
138 Diallate	0.21975	0.22151	0.22151	0.000	0.80197	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 27-FEB-2010 00:07
Lab File ID: s7b2638.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.22751	0.29963	0.29963	0.000	31.70163	60.00000	Averaged
213 Trans Diallate	0.25853	0.26060	0.26060	0.000	0.80197	60.00000	Averaged
140 4-Aminobiphenyl	0.53100	0.61459	0.61459	0.000	15.74304	60.00000	Averaged
141 Pentachloronitrobenzene	0.05770	0.06484	0.06484	0.000	12.37888	60.00000	Averaged
142 Pronamide	0.23171	0.26428	0.26428	0.000	14.05423	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.01900	0.02204	0.02204	0.000	15.97890	60.00000	Averaged
147 Methapyrilene	0.45514	0.56955	0.56955	0.000	25.13562	60.00000	Averaged
148 Isodrin	0.10048	0.10103	0.10103	0.000	0.54771	60.00000	Averaged
149 Aramite	0.04292	0.04771	0.04771	0.000	11.14909	60.00000	Averaged
150 Kepone	0.06421	0.06503	0.06503	0.000	1.28262	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31171	0.34212	0.34212	0.000	9.75602	60.00000	Averaged
152 Chlorobenzilate	0.27373	0.25521	0.25521	0.000	-6.76399	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52442	0.55141	0.55141	0.000	5.14612	60.00000	Averaged
155 2-Acetylaminofluorene	0.30989	0.30947	0.30947	0.000	-0.13679	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.51277	0.54729	0.54729	0.000	6.73130	60.00000	Averaged
158 3-Methylcholanthrene	0.37167	0.40941	0.40941	0.000	10.15366	60.00000	Averaged

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GEL Laboratories, LLC
Data file : /chem/MSD7.i/s022610.b/s7b2638.d
Lab Smp Id: WBN100218-08.1 Client Smp ID: APICV
Inj Date : 27-FEB-2010 00:07
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100218-08.1|ICV|1|SVMF|1|APICV
Misc Info : |MSD8270|WBN100217-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s022610.b/MSD7-M8270C-AQA-022610.m
Meth Date : 01-Mar-2010 10:44 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 38 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.952	3.952	(1.000)	457703	40.0000	
* 29 Naphthalene-d8	136	4.818	4.818	(1.000)	1628008	40.0000	
* 46 Acenaphthene-d10	164	6.070	6.070	(1.000)	931821	40.0000	
* 67 Phenanthrene-d10	188	7.245	7.245	(1.000)	1617850	40.0000	
* 91 Chrysene-d12	240	9.653	9.653	(1.000)	1288003	40.0000	
* 98 Perylene-d12	264	11.333	11.333	(1.000)	857015	40.0000	
209 Benzaldehyde	77	3.672	3.672	(0.929)	333034	40.0000	34.5
16 Acetophenone	105	4.202	4.202	(1.063)	499057	40.0000	39.4
189 Caprolactam	113	5.093	5.093	(1.057)	134623	40.0000	44.4
208 1,1'-Biphenyl	154	5.642	5.642	(0.929)	1106090	40.0000	43.1
207 Atrazine	173	6.947	6.947	(0.959)	74372	40.0000	47.7
77 Benzidine	184	8.396	8.396	(0.870)	480291	40.0000	39.9
90 3,3'-Dichlorobenzidine	252	9.590	9.590	(0.994)	365203	40.0000	40.6
102 1,4-Dioxane	88	2.290	2.290	(0.580)	187381	40.0000	48.9
103 Methyl methacrylate	100	2.285	2.285	(0.578)	109670	40.0000	49.0
104 Ethyl methacrylate	69	2.656	2.656	(0.672)	416056	40.0000	48.4
105 2-Picoline	93	2.844	2.844	(0.720)	534455	40.0000	41.1
106 N-Nitrosomethylethylamine	88	2.887	2.887	(0.731)	217124	40.0000	43.0
107 Methyl methanesulfonate	80	3.042	3.042	(0.770)	249986	40.0000	43.0
108 N-Nitrosodiethylamine	102	3.277	3.277	(0.829)	228446	40.0000	42.5
109 Ethyl Methanesulfonate	79	3.436	3.436	(0.870)	348500	40.0000	49.1
110 Pentachloroethane	167	3.773	3.773	(0.955)	192400	40.0000	54.5
111 N-Nitrosopyrrolidine	100	4.188	4.188	(1.060)	237715	40.0000	42.1
113 N-Nitrosomorpholine	56	4.212	4.212	(1.066)	408598	40.0000	43.9
114 o-Toluidine	106	4.226	4.226	(1.069)	724237	40.0000	41.1
115 N-Nitrosopiperidine	114	4.428	4.428	(0.919)	233195	40.0000	43.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.684	4.684	(0.972)	1686530	40.0000	42.2
118 2,6-Dichlorophenol	162	4.857	4.857	(1.008)	304708	40.0000	36.9
119 Hexachloropropene	213	4.891	4.891	(1.015)	266225	40.0000	62.2
120 p-Phenylenediamine	108	5.093	5.093	(1.057)	362600	40.0000	39.9
121 N-Nitrosodi-n-butylamine	84	5.064	5.064	(1.051)	350292	40.0000	42.9
122 Safrole	162	5.228	5.228	(1.085)	366667	40.0000	48.6
123 1,2,4,5-Tetrachlorobenzene	216	5.430	5.430	(0.894)	414165	40.0000	45.2
124 Isosafrole	162	5.598	5.598	(0.922)	417676	40.0000	54.9
125 1,4-Naphthoquinone	158	5.786	5.786	(0.953)	286671	40.0000	42.4
127 Pentachlorobenzene	250	6.191	6.191	(1.020)	357126	40.0000	43.4
128 1-Naphthylamine	143	6.277	6.277	(1.034)	894018	40.0000	44.8
129 2-Naphthylamine	143	6.335	6.335	(1.044)	996175	40.0000	46.3
131 5-Nitro-o-toluidine	152	6.475	6.475	(1.067)	272578	40.0000	42.9
136 1,3,5-Trinitrobenzene	75	6.720	6.720	(0.928)	245746	40.0000	53.3
137 Phenacetin	108	6.769	6.769	(0.934)	432605	40.0000	42.5(Q)
138 Diallate	86	6.759	6.759	(0.933)	358370	40.0000	40.3
212 Cis Diallate	86	6.836	6.836	(0.944)	72714	6.00000	7.9
213 Trans Diallate	86	6.759	6.759	(0.933)	358370	34.0000	34.3
140 4-Aminobiphenyl	169	7.062	7.062	(0.975)	994319	40.0000	46.3
141 Pentachloronitrobenzene	237	7.082	7.082	(0.977)	104897	40.0000	45.0(Q)
142 Pronamide	173	7.077	7.077	(0.977)	427557	40.0000	45.6
146 4-Nitroquinoline-1-oxide	101	7.910	7.910	(1.092)	35650	40.0000	46.4
147 Methapyrilene	58	7.948	7.948	(1.097)	921442	40.0000	50.0
148 Isodrin	193	8.175	8.175	(1.128)	163454	40.0000	40.2
149 Aramite	185	8.569	8.569	(1.183)	77182	40.0000	44.4
150 Kepone	272	9.162	9.162	(1.264)	105206	40.0000	40.5
151 p-(Dimethylamino)azobenzene	120	8.752	8.752	(0.907)	440648	40.0000	43.9
152 Chlorobenzilate	251	8.781	8.781	(0.910)	328712	40.0000	37.3
153 3,3'-Dimethylbenzidine	212	9.065	9.065	(0.939)	710215	40.0000	42.0
155 2-Acetylaminofluorene	181	9.311	9.311	(0.965)	398598	40.0000	39.9
157 7,12Dimethylbenz(a)anthracene	256	10.794	10.794	(0.952)	469035	40.0000	42.7
158 3-Methylcholanthrene	268	11.738	11.738	(1.036)	350866	40.0000	44.1

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD7.i/s022610.b/s7b2638.d
Date : 27-FEB-2010 00:07
Client ID: APICV
Sample Info: IWBN100218-08.1|ICV|1|SVMF|1|APICV
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

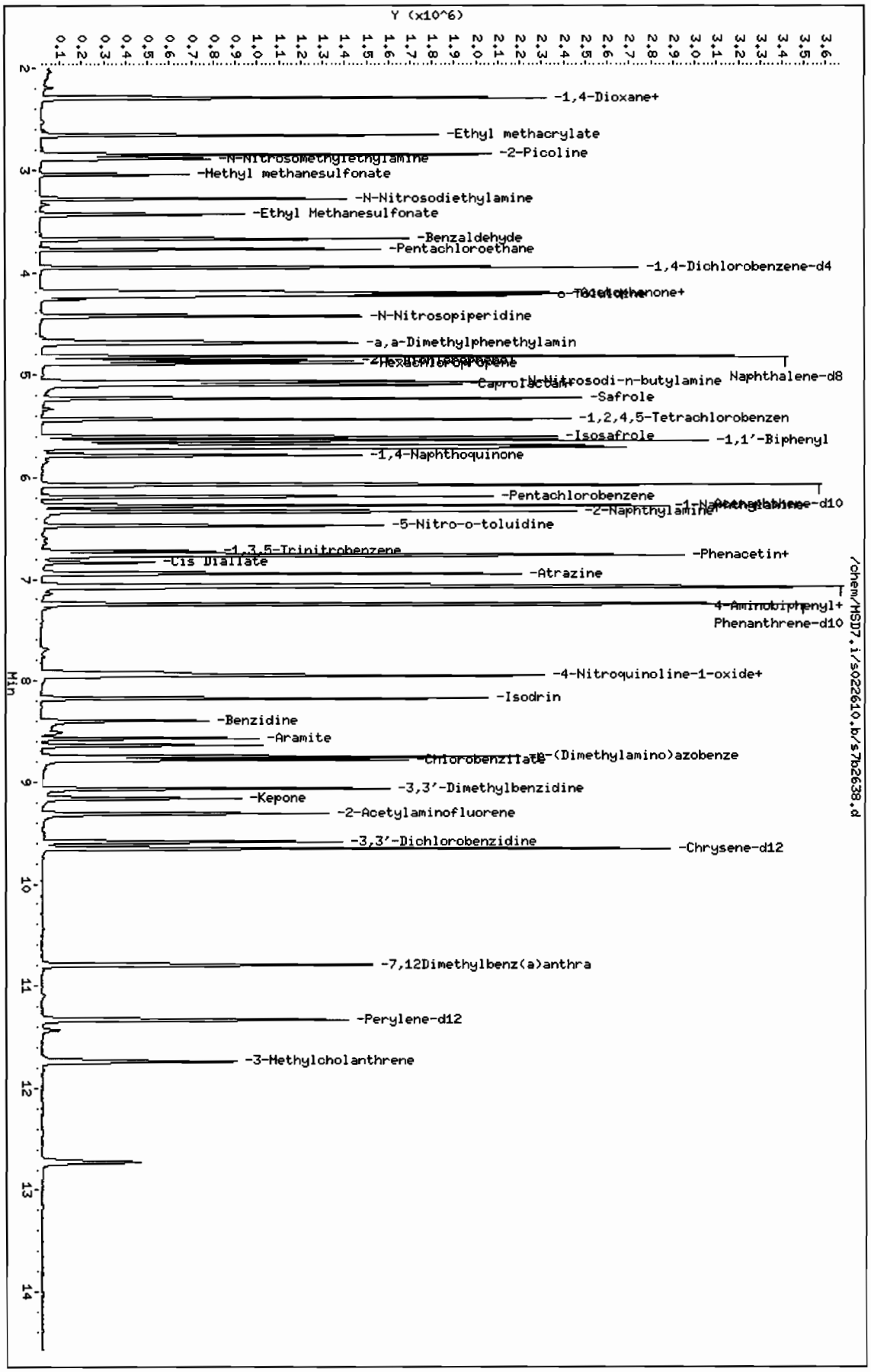

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 03-MAR-2010 14:55
Lab File ID: s7c0309.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100225-05.5 Quant Type: ISTD
Method: /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.03969	1.02130	1.02130	0.000	-1.76873	60.00000	Averaged
$ 5 Phenol-d5	1.30355	1.29543	1.29543	0.000	-0.62302	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.30169	0.27467	0.27467	0.000	-8.95832	60.00000	Averaged
$ 39 2-Fluorobiphenyl	0.99687	1.05103	1.05103	0.000	5.43383	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11563	0.12460	0.12460	0.000	7.74897	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.71661	0.67725	0.67725	0.000	-5.49181	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.70001	0.63897	0.63897	0.000	-8.72003	60.00000	Averaged
2 Pyridine	0.96465	0.95526	0.95526	0.000	-0.97396	60.00000	Averaged
4 Aniline	0.62182	0.56607	0.56607	0.000	-8.96453	60.00000	Averaged
6 Phenol	1.29492	1.27294	1.27294	0.001	-1.69719	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.06026	0.94116	0.94116	0.000	-11.23368	60.00000	Averaged
8 2-Chlorophenol	0.99096	1.01689	1.01689	0.000	2.61647	60.00000	Averaged
203 n-Decane	1.86209	1.80404	1.80404	0.000	-3.11794	60.00000	Averaged
9 1,3-Dichlorobenzene	1.24478	1.25240	1.25240	0.000	0.61247	60.00000	Averaged
11 1,4-Dichlorobenzene	1.19442	1.19454	1.19454	0.001	0.00974	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.09872	1.14055	1.14055	0.000	3.80718	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.45618	2.33245	2.33245	0.000	-5.03742	60.00000	Averaged
12 Benzyl alcohol	0.67475	0.38938	0.38938	0.000	-42.29285	60.00000	Averaged
15 o-Cresol	0.79330	0.91981	0.91981	0.000	15.94701	60.00000	Averaged
18 m,p-Cresols	1.07190	1.07138	1.07138	0.000	-0.04818	60.00000	Averaged
17 N-Nitrosodipropylamine	0.73664	0.72759	0.72759	0.050	-1.22853	60.00000	Averaged spcc
19 Hexachloroethane	0.46378	0.46406	0.46406	0.000	0.05956	60.00000	Averaged
21 Nitrobenzene	0.27987	0.27473	0.27473	0.000	-1.83429	60.00000	Averaged
22 Isophorone	0.54073	0.54564	0.54564	0.000	0.90847	60.00000	Averaged
23 2-Nitrophenol	0.13143	0.14238	0.14238	0.001	8.33771	20.00000	Averaged ccc
24 2,4-Dimethylphenol	43.69547	40.00000	0.26155	0.000	9.23868	60.00000	Wt Linear
25 bis(2-Chloroethoxy)methane	0.29584	0.30090	0.30090	0.000	1.70990	60.00000	Averaged
26 2,4-Dichlorophenol	0.21226	0.22606	0.22606	0.001	6.49925	20.00000	Averaged ccc
27 Benzoic acid	0.12083	0.12919	0.12919	0.000	6.92324	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.25742	0.26553	0.26553	0.000	3.14915	60.00000	Averaged
30 Naphthalene	0.75561	0.76528	0.76528	0.000	1.28051	60.00000	Averaged
204 alpha-Terpineol	0.30880	0.27274	0.27274	0.000	-11.67909	60.00000	Averaged
31 4-Chloroaniline	0.35383	0.30931	0.30931	0.000	-12.58298	60.00000	Averaged
32 Hexachlorobutadiene	0.13434	0.13999	0.13999	0.001	4.20313	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.22797	0.23221	0.23221	0.001	1.85670	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.54229	0.55699	0.55699	0.000	2.71000	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 03-MAR-2010 14:55
Lab File ID: s7c0309.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100225-05.5 Quant Type: ISTD
Method: /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.51558	0.52490	0.52490	0.000	1.80804	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.19338	0.21299	0.21299	0.050	10.14223	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.49462	0.51779	0.51779	0.000	4.68476	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.28064	0.30027	0.30027	0.001	6.99662	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.28225	0.33515	0.33515	0.000	18.74522	60.00000	Averaged	
40 2-Chloronaphthalene	0.92584	0.95987	0.95987	0.000	3.67586	60.00000	Averaged	
42 o-Nitroaniline	0.32778	0.31056	0.31056	0.000	-5.25161	60.00000	Averaged	
41 m-Nitroaniline	0.23922	0.21904	0.21904	0.000	-8.43548	60.00000	Averaged	
43 Dimethylphthalate	1.06293	1.08914	1.08914	0.000	2.46544	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.24549	0.25661	0.25661	0.000	4.53085	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.32362	0.32995	0.32995	0.000	1.95647	60.00000	Averaged	
45 Acenaphthylene	1.47998	1.49959	1.49959	0.000	1.32487	60.00000	Averaged	
47 Acenaphthene	0.88041	0.93151	0.93151	0.001	5.80384	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	57.54797	40.00000	0.11421	0.050	43.86992	60.00000	Linear	spcc
49 Dibenzofuran	1.23737	1.26042	1.26042	0.000	1.86298	60.00000	Averaged	
51 Diethylphthalate	1.08801	1.11734	1.11734	0.000	2.69593	60.00000	Averaged	
52 4-Nitrophenol	0.16277	0.17053	0.17053	0.050	4.77039	60.00000	Averaged	spcc
53 Fluorene	1.03823	1.06082	1.06082	0.000	2.17505	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.51596	0.53679	0.53679	0.000	4.03671	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	53.24499	40.00000	0.09800	0.000	33.11249	60.00000	Linear	
56 p-Nitroaniline	0.21538	0.15564	0.15564	0.000	-27.73685	60.00000	Averaged	
133 Diphenylamine	0.47134	0.48691	0.48691	0.001	3.30180	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.59299	0.60710	0.60710	0.000	2.37834	60.00000	Averaged	
61 4-Bromophenylphenylether	0.16450	0.17885	0.17885	0.000	8.72407	60.00000	Averaged	
63 Hexachlorobenzene	0.15982	0.17652	0.17652	0.000	10.44942	60.00000	Averaged	
65 Pentachlorophenol	0.07563	0.08933	0.08933	0.001	18.12717	20.00000	Averaged	ccc
206 n-Octadecane	0.50130	0.53154	0.53154	0.000	6.03347	60.00000	Averaged	
68 Phenanthrene	0.82082	0.85539	0.85539	0.000	4.21193	60.00000	Averaged	
69 Anthracene	0.83131	0.87434	0.87434	0.000	5.17589	60.00000	Averaged	
72 Di-n-butylphthalate	1.04581	1.14288	1.14288	0.000	9.28177	60.00000	Averaged	
76 Fluoranthene	0.89248	0.94696	0.94696	0.001	6.10484	20.00000	Averaged	ccc
79 Pyrene	1.26367	1.19328	1.19328	0.000	-5.57053	60.00000	Averaged	
85 Butylbenzylphthalate	0.60092	0.59252	0.59252	0.000	-1.39740	60.00000	Averaged	
89 Benzo(a)anthracene	0.95891	0.94691	0.94691	0.000	-1.25177	60.00000	Averaged	
92 Chrysene	0.85329	0.87840	0.87840	0.000	2.94232	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.76109	0.81610	0.81610	0.000	7.22700	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i
Lab File ID: s7c0309.d
Analysis Type:
Lab Sample ID: WBN100225-05.5 Quant Type: ISTD
Method: /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m

Injection Date: 03-MAR-2010 14:55
Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Init. Cal. Times: 11:07 23:46

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.60621	1.52021	1.52021	0.001	-5.35468	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.12177	1.04619	1.04619	0.000	-6.73727	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.05423	1.01749	1.01749	0.000	-3.48548	60.00000	Averaged	
	97 Benzo(a)pyrene	0.91981	0.94007	0.94007	0.001	2.20312	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.66143	0.82396	0.82396	0.000	24.57344	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.52416	0.66501	0.66501	0.000	26.87055	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.55161	0.68786	0.68786	0.000	24.70015	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16950	0.18318	0.18318	0.000	8.07090	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.23333	0.27777	0.27777	0.000	19.04651	60.00000	Averaged	
	143 Dinoseb	52.88959	40.00000	0.14968	0.000	32.22398	60.00000	Linear	
	173 Carbazole	0.68135	0.51542	0.51542	0.000	-24.35219	60.00000	Averaged	
	184 p-Benzoquinone	0.26551	0.07375	0.07375	0.000	-72.22202	60.00000	Averaged	<-
	192 Methoxychlor	0.58935	0.67371	0.67371	0.000	14.31406	60.00000	Averaged	
	211 p-Toluidine	1.10616	1.00312	1.00312	0.000	-9.31455	60.00000	Averaged	
	210 m-Toluidine	1.37475	1.27738	1.27738	0.000	-7.08292	60.00000	Averaged	
	215 2-Ethoxyethanol	0.93140	0.73254	0.73254	0.000	-21.35093	60.00000	Averaged	
	26 Phthalic anhydride	35.40480	40.00000	0.08928	0.000	-11.48799	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.19422	0.19832	0.19832	0.000	2.11064	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.13367	0.10822	0.10822	0.000	-19.04212	60.00000	Averaged	
M	222 Trichlorophenols	0.28144	0.31771	0.31771	0.000	12.88763	60.00000	Averaged	
M	223 Tetrachlorophenols	0.23333	0.27777	0.27777	0.000	19.04651	60.00000	Averaged	
M	224 Benzo(b,k)fluoranthene	1.08800	1.03184	1.03184	0.000	-5.16184	60.00000	Averaged	

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GEL Laboratories, LLC
Data file : /chem/MSD7.i/s030310.b/s7c0309.d
Lab Smp Id: WBN100225-05.5 Client Smp ID: MEGACVS
Inj Date : 03-MAR-2010 14:55
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100225-05.5|CVS|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN100227-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 04-Mar-2010 07:57 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.932	3.932	(1.000)	380170	40.0000	
* 29 Naphthalene-d8	136	4.794	4.794	(1.000)	1489232	40.0000	
* 46 Acenaphthene-d10	164	6.051	6.051	(1.000)	784532	40.0000	
* 67 Phenanthrene-d10	188	7.221	7.221	(1.000)	1364686	40.0000	
* 91 Chrysene-d12	240	9.638	9.638	(1.000)	1118507	40.0000	
* 98 Perylene-d12	264	11.314	11.314	(1.000)	976271	40.0000	
$ 3 2-Fluorophenol	112	3.128	3.128	(0.795)	388269	40.0000	39.3
$ 5 Phenol-d5	99	3.648	3.648	(0.928)	492483	40.0000	39.8
$ 20 Nitrobenzene-d5	82	4.293	4.293	(0.896)	409041	40.0000	36.4
$ 39 2-Fluorobiphenyl	172	5.536	5.536	(0.915)	824570	40.0000	42.2
$ 60 2,4,6-Tribromophenol	329	6.648	6.648	(1.099)	97749	40.0000	43.1
$ 81 p-Terphenyl-d14	244	8.603	8.603	(0.893)	757513	40.0000	37.8
1 N-Methyl-N-nitrosomethylamine	74	2.464	2.464	(0.626)	242917	40.0000	36.5
2 Pyridine	79	2.497	2.497	(0.635)	363160	40.0000	39.6
4 Aniline	66	3.716	3.716	(0.945)	215204	40.0000	36.4
6 Phenol	94	3.658	3.658	(0.930)	483933	40.0000	39.3
7 bis(2-Chloroethyl) ether	63	3.730	3.730	(0.949)	357800	40.0000	35.5
8 2-Chlorophenol	128	3.797	3.797	(0.966)	386590	40.0000	41.0
203 n-Decane	43	3.783	3.783	(0.962)	685840	40.0000	38.8
9 1,3-Dichlorobenzene	146	3.899	3.899	(0.991)	476126	40.0000	40.2
11 1,4-Dichlorobenzene	146	3.942	3.942	(1.002)	454127	40.0000	40.0
13 1,2-Dichlorobenzene	146	4.048	4.048	(1.029)	433603	40.0000	41.5
14 bis(2-Chloroisopropyl)ether	45	4.072	4.072	(1.036)	886729	40.0000	38.0
12 Benzyl alcohol	108	4.000	4.000	(1.017)	148030	40.0000	23.1
15 o-Cresol	107	4.048	4.048	(1.029)	349685	40.0000	46.4
18 m,p-Cresols	107	4.154	4.154	(1.056)	407306	40.0000	40.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.168	4.168	(1.060)	276608	40.0000	39.5
19 Hexachloroethane	117	4.274	4.274	(1.087)	176421	40.0000	40.0
21 Nitrobenzene	77	4.308	4.308	(0.899)	409139	40.0000	39.3
22 Isophorone	82	4.462	4.462	(0.931)	812583	40.0000	40.4
23 2-Nitrophenol	139	4.520	4.520	(0.943)	212042	40.0000	43.3
24 2,4-Dimethylphenol	122	4.510	4.510	(0.941)	389513	40.0000	43.7
25 bis(2-Chloroethoxy)methane	93	4.577	4.577	(0.955)	448114	40.0000	40.7
26 2,4-Dichlorophenol	162	4.683	4.683	(0.977)	336652	40.0000	42.6
27 Benzoic acid	105	4.573	4.573	(0.954)	192396	40.0000	42.8
28 1,2,4-Trichlorobenzene	180	4.746	4.746	(0.990)	395436	40.0000	41.2
30 Naphthalene	128	4.813	4.813	(1.004)	1139683	40.0000	40.5
204 alpha-Terpineol	59	4.789	4.789	(0.999)	406172	40.0000	35.3
31 4-Chloroaniline	127	4.823	4.823	(1.006)	460628	40.0000	35.0
32 Hexachlorobutadiene	225	4.876	4.876	(1.017)	208475	40.0000	41.7
33 4-Chloro-3-methylphenol	107	5.141	5.141	(1.072)	345808	40.0000	40.7
34 2-Methylnaphthalene	142	5.290	5.290	(1.103)	829488	40.0000	41.1
35 1-Methylnaphthalene	142	5.362	5.362	(1.119)	781694	40.0000	40.7
36 Hexachlorocyclopentadiene	237	5.391	5.391	(0.891)	167097	40.0000	44.0
205 2,3-Dichloroaniline	161	5.488	5.488	(0.907)	406224	40.0000	41.9
37 2,4,6-Trichlorophenol	196	5.478	5.478	(0.905)	235574	40.0000	42.8
38 2,4,5-Trichlorophenol	196	5.512	5.512	(0.911)	262938	40.0000	47.5
40 2-Chloronaphthalene	162	5.646	5.646	(0.933)	753049	40.0000	41.5
42 o-Nitroaniline	65	5.704	5.704	(0.943)	243647	40.0000	37.9
41 m-Nitroaniline	138	5.998	5.998	(0.991)	171843	40.0000	36.6
43 Dimethylphthalate	163	5.810	5.810	(0.960)	854463	40.0000	41.0
44 2,6-Dinitrotoluene	165	5.868	5.868	(0.970)	201317	40.0000	41.8
50 2,4-Dinitrotoluene	165	6.167	6.167	(1.019)	258860	40.0000	40.8
45 Acenaphthylene	152	5.950	5.950	(0.983)	1176478	40.0000	40.5
47 Acenaphthene	154	6.075	6.075	(1.004)	730799	40.0000	42.3
48 2,4-Dinitrophenol	184	6.075	6.075	(1.004)	89602	40.0000	57.5
49 Dibenzofuran	168	6.200	6.200	(1.025)	988843	40.0000	40.7
51 Diethylphthalate	149	6.321	6.321	(1.045)	876587	40.0000	41.1
52 4-Nitrophenol	139	6.099	6.099	(1.008)	133788	40.0000	41.9
53 Fluorene	166	6.460	6.460	(1.068)	832244	40.0000	40.9
54 4-Chlorophenylphenylether	204	6.436	6.436	(1.064)	421130	40.0000	41.6
55 2-Methyl-4,6-dinitrophenol	198	6.480	6.480	(0.897)	133733	40.0000	53.2
56 p-Nitroaniline	138	6.460	6.460	(1.068)	122103	40.0000	28.9
133 Diphenylamine	169	6.523	6.523	(0.903)	664475	40.0000	41.3
58 1,2-Diphenylhydrazine	77	6.561	6.561	(0.909)	828496	40.0000	41.0
61 4-Bromophenylphenylether	248	6.826	6.826	(0.945)	244072	40.0000	43.5
63 Hexachlorobenzene	284	6.898	6.898	(0.955)	240890	40.0000	44.2
65 Pentachlorophenol	266	7.048	7.048	(0.976)	121913	40.0000	47.2
206 n-Octadecane	57	7.033	7.033	(0.974)	725389	40.0000	42.4
68 Phenanthrene	178	7.240	7.240	(1.003)	1167342	40.0000	41.7
69 Anthracene	178	7.284	7.284	(1.009)	1193194	40.0000	42.1
72 Di-n-butylphthalate	149	7.645	7.645	(1.059)	1559669	40.0000	43.7
76 Fluoranthene	202	8.285	8.285	(1.147)	1292307	40.0000	42.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	8.502	8.502	(0.882)	1334687	40.0000	37.8
85 Butylbenzylphthalate	149	9.032	9.032	(0.937)	662736	40.0000	39.4
89 Benzo(a)anthracene	228	9.624	9.624	(0.998)	1059127	40.0000	39.5
92 Chrysene	228	9.662	9.662	(1.002)	982494	40.0000	41.2
93 bis(2-Ethylhexyl)phthalate	149	9.557	9.557	(0.992)	912809	40.0000	42.9
94 Di-n-octylphthalate	149	10.216	10.216	(0.903)	1484133	40.0000	37.8
95 Benzo(b)fluoranthene	252	10.799	10.799	(0.954)	1021366	40.0000	37.3
96 Benzo(k)fluoranthene	252	10.833	10.833	(0.957)	993344	40.0000	38.6
97 Benzo(a)pyrene	252	11.237	11.237	(0.993)	917764	40.0000	40.9
99 Indeno(1,2,3-cd)pyrene	276	13.072	13.072	(1.155)	804410	40.0000	49.8
100 Dibenzo(a,h)anthracene	278	13.086	13.086	(1.157)	649228	40.0000	50.7
101 Benzo(ghi)perylene	276	13.611	13.611	(1.203)	671533	40.0000	49.9
126 m-Dinitrobenzene	168	5.854	5.854	(0.967)	143707	40.0000	43.2
130 2,3,4,6-Tetrachlorophenol	232	6.282	6.282	(1.038)	217923	40.0000	47.6
143 Dinoseb	211	7.168	7.168	(0.993)	204261	40.0000	52.9
173 Carbazole	167	7.404	7.404	(1.025)	703391	40.0000	30.2
184 p-Benzoquinone	54	3.422	3.422	(0.870)	28039	40.0000	11.1
192 Methoxychlor	227	9.508	9.508	(0.986)	753552	40.0000	45.7
211 p-Toluidine	106	4.207	4.207	(1.070)	381357	40.0000	36.3
210 m-Toluidine	106	4.231	4.231	(1.076)	485622	40.0000	37.2
215 2-Ethoxyethanol	59	2.314	2.314	(0.589)	278488	40.0000	31.4
26 Phthalic anhydride	104	5.329	5.329	(1.111)	132954	40.0000	35.4
214 1,4-Dinitrobenzene	75	5.796	5.796	(0.958)	155586	40.0000	40.8
216 Methylenebis(2-chloroaniline)	231	9.566	9.566	(0.992)	121041	40.0000	32.4
M 222 Trichlorophenols	196				498512	80.0000	90.3
M 223 Tetrachlorophenols	232				217923	40.0000	47.6
M 224 Benzo(b,k)fluoranthene	252				2014710	80.0000	75.9

Data File: /chem/MSD7.i/s030310.b/s7c0309.d
Date : 03-MAR-2010 14:55
Client ID: MEGACVS
Sample Info: IWBN100225-05,5ICVS|1|SVHF|1|MEGACVS
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

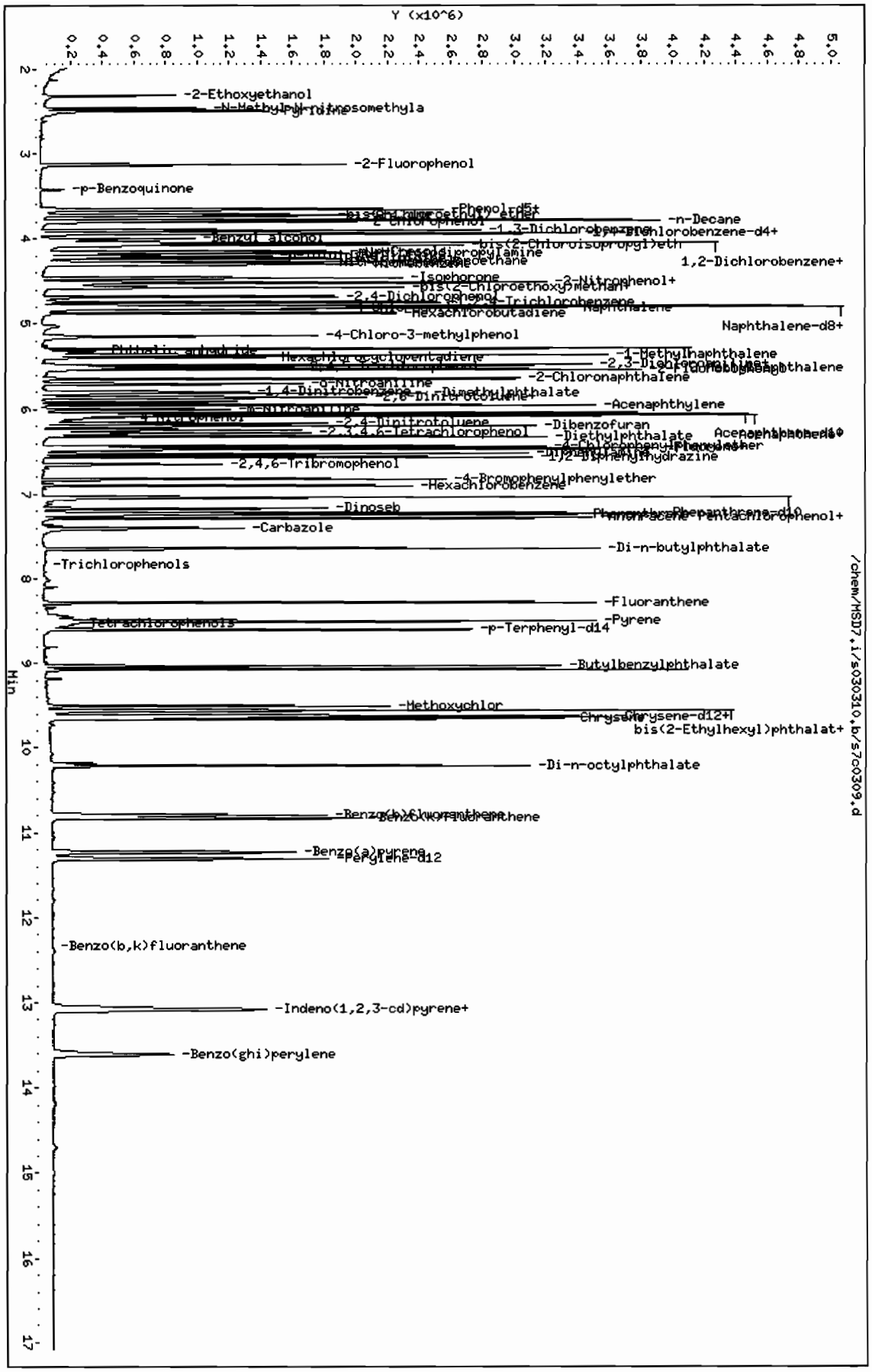

/chem/MSD7.i/s030310.b/s7c0309.d

Page 1

Data File: /chem/MSD7.i/s030310.b/s7c0310.d
Report Date: 03-Mar-2010 16:21

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i
Lab File ID: s7c0310.d
Analysis Type:
Lab Sample ID: WBN100218-03.3
Method: /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m

Injection Date: 03-MAR-2010 15:19
Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Init. Cal. Times: 11:07 23:46
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.84333	0.84621	0.84621	0.000	0.34176	60.00000	Averaged
16 Acetophenone	1.10656	1.08374	1.08374	0.000	-2.06282	60.00000	Averaged
189 Caprolactam	0.07444	0.07972	0.07972	0.000	7.09364	60.00000	Averaged
208 1,1'-Biphenyl	1.10203	1.14355	1.14355	0.000	3.76769	60.00000	Averaged
207 Atrazine	0.03853	0.04379	0.04379	0.000	13.65771	60.00000	Averaged
77 Benzidine	0.37412	0.31184	0.31184	0.000	-16.64713	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.27910	0.30975	0.30975	0.000	10.98422	60.00000	Averaged
102 1,4-Dioxane	0.33513	0.33432	0.33432	0.000	-0.24130	60.00000	Averaged
103 Methyl methacrylate	0.19562	0.18661	0.18661	0.000	-4.60665	60.00000	Averaged
104 Ethyl methacrylate	0.75140	0.74485	0.74485	0.000	-0.87074	60.00000	Averaged
105 2-Picoline	1.13566	1.14037	1.14037	0.000	0.41475	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.44142	0.42994	0.42994	0.000	-2.59961	60.00000	Averaged
107 Methyl methanesulfonate	0.50747	0.45772	0.45772	0.000	-9.80409	60.00000	Averaged
108 N-Nitrosodiethylamine	0.47013	0.45706	0.45706	0.000	-2.77927	60.00000	Averaged
109 Ethyl Methanesulfonate	0.62041	0.58586	0.58586	0.000	-5.56907	60.00000	Averaged
110 Pentachloroethane	0.30840	0.30585	0.30585	0.000	-0.82701	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.49363	0.48301	0.48301	0.000	-2.15120	60.00000	Averaged
113 N-Nitrosomorpholine	0.81412	0.69098	0.69098	0.000	-15.12625	60.00000	Averaged
114 o-Toluidine	1.53985	1.48411	1.48411	0.000	-3.61979	60.00000	Averaged
115 N-Nitrosopiperidine	0.13162	0.13283	0.13283	0.000	0.91769	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.98197	0.87098	0.87098	0.000	-11.30267	60.00000	Averaged
118 2,6-Dichlorophenol	0.20270	0.21015	0.21015	0.000	3.67306	60.00000	Averaged
119 Hexachloropropene	0.10516	0.10427	0.10427	0.000	-0.85280	60.00000	Averaged
120 p-Phenylenediamine	0.22347	0.21800	0.21800	0.000	-2.44718	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.20065	0.18273	0.18273	0.000	-8.93070	60.00000	Averaged
122 Safrole	0.18525	0.18939	0.18939	0.000	2.23659	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.39310	0.41702	0.41702	0.000	6.08467	60.00000	Averaged
124 Isosafrole	0.32673	0.33333	0.33333	0.000	2.02022	60.00000	Averaged
125 1,4-Naphthoquinone	41.49439	40.00000	0.30205	0.000	3.73598	60.00000	Linear
127 Pentachlorobenzene	0.35339	0.36681	0.36681	0.000	3.79650	60.00000	Averaged
128 1-Naphthylamine	0.85758	0.86216	0.86216	0.000	0.53328	60.00000	Averaged
129 2-Naphthylamine	0.92399	0.91645	0.91645	0.000	-0.81603	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27279	0.27688	0.27688	0.000	1.49626	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.11408	0.13436	0.13436	0.000	17.78426	60.00000	Averaged
137 Phenacetin	0.25171	0.24978	0.24978	0.000	-0.76731	60.00000	Averaged
138 Diallate	0.21975	0.23614	0.23614	0.000	7.45710	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD7.i Injection Date: 03-MAR-2010 15:19
Lab File ID: s7c0310.d Init. Cal. Date(s): 26-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 11:07 23:46
Lab Sample ID: WBN100218-03.3 Quant Type: ISTD
Method: /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.22751	0.23337	0.23337	0.000	2.57629	60.00000	Averaged
213 Trans Diallate	0.25853	0.27781	0.27781	0.000	7.45710	60.00000	Averaged
140 4-Aminobiphenyl	0.53100	0.56118	0.56118	0.000	5.68434	60.00000	Averaged
141 Pentachloronitrobenzene	0.05770	0.06242	0.06242	0.000	8.19021	60.00000	Averaged
142 Pronamide	0.23171	0.25167	0.25167	0.000	8.61380	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.01900	0.01342	0.01342	0.000	-29.39318	60.00000	Averaged
147 Methapyrilene	0.45514	0.40742	0.40742	0.000	-10.48459	60.00000	Averaged
148 Isodrin	0.10048	0.10841	0.10841	0.000	7.89519	60.00000	Averaged
149 Aramite	0.04292	0.05038	0.05038	0.000	17.38111	60.00000	Averaged
150 Kepone	0.06421	0.07214	0.07214	0.000	12.35732	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31171	0.30099	0.30099	0.000	-3.43922	60.00000	Averaged
152 Chlorobenzilate	0.27373	0.31200	0.31200	0.000	13.98165	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52442	0.49305	0.49305	0.000	-5.98121	60.00000	Averaged
155 2-Acetylaminofluorene	0.30989	0.36999	0.36999	0.000	19.39282	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.51277	0.50655	0.50655	0.000	-1.21399	60.00000	Averaged
158 3-Methylcholanthrene	0.37167	0.41271	0.41271	0.000	11.04294	60.00000	Averaged

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Data file : /chem/MSD7.i/s030310.b/s7c0310.d
Lab Smp Id: WBN100218-03.3 Client Smp ID: APCVS
Inj Date : 03-MAR-2010 15:19
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |WBN100218-03.3|CVS|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN100227-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 03-Mar-2010 16:21 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.932	3.932	(1.000)	443576	40.0000	
* 29 Naphthalene-d8	136	4.794	4.794	(1.000)	1607526	40.0000	
* 46 Acenaphthene-d10	164	6.046	6.046	(1.000)	915896	40.0000	
* 67 Phenanthrene-d10	188	7.221	7.221	(1.000)	1562178	40.0000	
* 91 Chrysene-d12	240	9.634	9.634	(1.000)	1315608	40.0000	
* 98 Perylene-d12	264	11.309	11.309	(1.000)	1090222	40.0000	
209 Benzaldehyde	77	3.658	3.658	(0.930)	375360	40.0000	40.1(H)
16 Acetophenone	105	4.178	4.178	(1.062)	480720	40.0000	39.2(H)
189 Caprolactam	113	5.074	5.074	(1.058)	128147	40.0000	42.8(H)
208 1,1'-Biphenyl	154	5.613	5.613	(0.928)	1047374	40.0000	41.5
207 Atrazine	173	6.923	6.923	(0.959)	68414	40.0000	45.5(H)
77 Benzidine	184	8.377	8.377	(0.870)	410263	40.0000	33.3(H)
90 3,3'-Dichlorobenzidine	252	9.571	9.571	(0.994)	407516	40.0000	44.4(H)
102 1,4-Dioxane	88	2.324	2.324	(0.591)	148295	40.0000	39.9
103 Methyl methacrylate	100	2.314	2.314	(0.589)	82775	40.0000	38.2
104 Ethyl methacrylate	69	2.666	2.666	(0.678)	330399	40.0000	39.6
105 2-Picoline	93	2.854	2.854	(0.726)	505840	40.0000	40.2
106 N-Nitrosomethylethylamine	88	2.892	2.892	(0.735)	190713	40.0000	39.0(H)
107 Methyl methanesulfonate	80	3.041	3.041	(0.773)	203032	40.0000	36.1
108 N-Nitrosodiethylamine	102	3.268	3.268	(0.831)	202743	40.0000	38.9
109 Ethyl Methanesulfonate	79	3.422	3.422	(0.870)	259873	40.0000	37.8(H)
110 Pentachloroethane	167	3.759	3.759	(0.956)	135669	40.0000	39.7
111 N-Nitrosopyrrolidine	100	4.168	4.168	(1.060)	214250	40.0000	39.1(H)
113 N-Nitrosomorpholine	56	4.188	4.188	(1.065)	306500	40.0000	33.9(H)
114 o-Toluidine	106	4.207	4.207	(1.070)	658316	40.0000	38.6(H)
115 N-Nitrosopiperidine	114	4.404	4.404	(0.919)	213523	40.0000	40.4(H)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.650	4.650	(0.970)	1400127	40.0000	35.5(H)
118 2,6-Dichlorophenol	162	4.838	4.838	(1.009)	337815	40.0000	41.5(H)
119 Hexachloropropene	213	4.862	4.862	(1.014)	167613	40.0000	39.6
120 p-Phenylenediamine	108	5.074	5.074	(1.058)	350437	40.0000	39.0(H)
121 N-Nitrosodi-n-butylamine	84	5.035	5.035	(1.050)	293750	40.0000	36.4(H)
122 Safrole	162	5.204	5.204	(1.085)	304453	40.0000	40.9(H)
123 1,2,4,5-Tetrachlorobenzene	216	5.406	5.406	(0.894)	381950	40.0000	42.4(H)
124 Isosafrole	162	5.574	5.574	(0.922)	305295	40.0000	40.8(H)
125 1,4-Naphthoquinone	158	5.762	5.762	(0.953)	276646	40.0000	41.5(H)
127 Pentachlorobenzene	250	6.167	6.167	(1.020)	335956	40.0000	41.5(H)
128 1-Naphthylamine	143	6.253	6.253	(1.034)	789647	40.0000	40.2(H)
129 2-Naphthylamine	143	6.311	6.311	(1.044)	839373	40.0000	39.7(H)
131 5-Nitro-o-toluidine	152	6.451	6.451	(1.067)	253590	40.0000	40.6
136 1,3,5-Trinitrobenzene	75	6.711	6.711	(0.929)	209901	40.0000	47.1(H)
137 Phenacetin	108	6.749	6.749	(0.935)	390200	40.0000	39.7(QH)
138 Diallate	86	6.730	6.730	(0.932)	368885	40.0000	43.0(H)
212 Cis Diallate	86	6.812	6.812	(0.943)	54685	6.00000	6.2(H)
213 Trans Diallate	86	6.730	6.730	(0.932)	368885	34.0000	36.5(H)
140 4-Aminobiphenyl	169	7.038	7.038	(0.975)	876665	40.0000	42.3(H)
141 Pentachloronitrobenzene	237	7.057	7.057	(0.977)	97513	40.0000	43.3(Q)
142 Pronamide	173	7.053	7.053	(0.977)	393152	40.0000	43.4
146 4-Nitroquinoline-1-oxide	101	7.890	7.890	(1.093)	20957	40.0000	28.2
147 Methapyrilene	58	7.924	7.924	(1.097)	636469	40.0000	35.8(H)
148 Isodrin	193	8.146	8.146	(1.128)	169363	40.0000	43.2(H)
149 Aramite	185	8.545	8.545	(1.183)	78705	40.0000	47.0(H)
150 Kepone	272	9.133	9.133	(1.265)	112694	40.0000	44.9(H)
151 p-(Dimethylamino)azobenzene	120	8.728	8.728	(0.906)	395981	40.0000	38.6
152 Chlorobenzilate	251	8.757	8.757	(0.909)	410465	40.0000	45.6
153 3,3'-Dimethylbenzidine	212	9.046	9.046	(0.939)	648666	40.0000	37.6(H)
155 2-Acetylaminofluorene	181	9.292	9.292	(0.964)	486763	40.0000	47.8(H)
157 7,12Dimethylbenz(a)anthracene	256	10.770	10.770	(0.952)	552250	40.0000	39.5(H)
158 3-Methylcholanthrene	268	11.714	11.714	(1.036)	449946	40.0000	44.4(H)

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD7.i/s030310.b/s7c0310.d
Date : 03-MAR-2010 15:19
Client ID: APCVS
Sample Info: IWBM100218-03,3|CVS|1|SVMF11|APCVS
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JWB3
Column diameter: 0.20

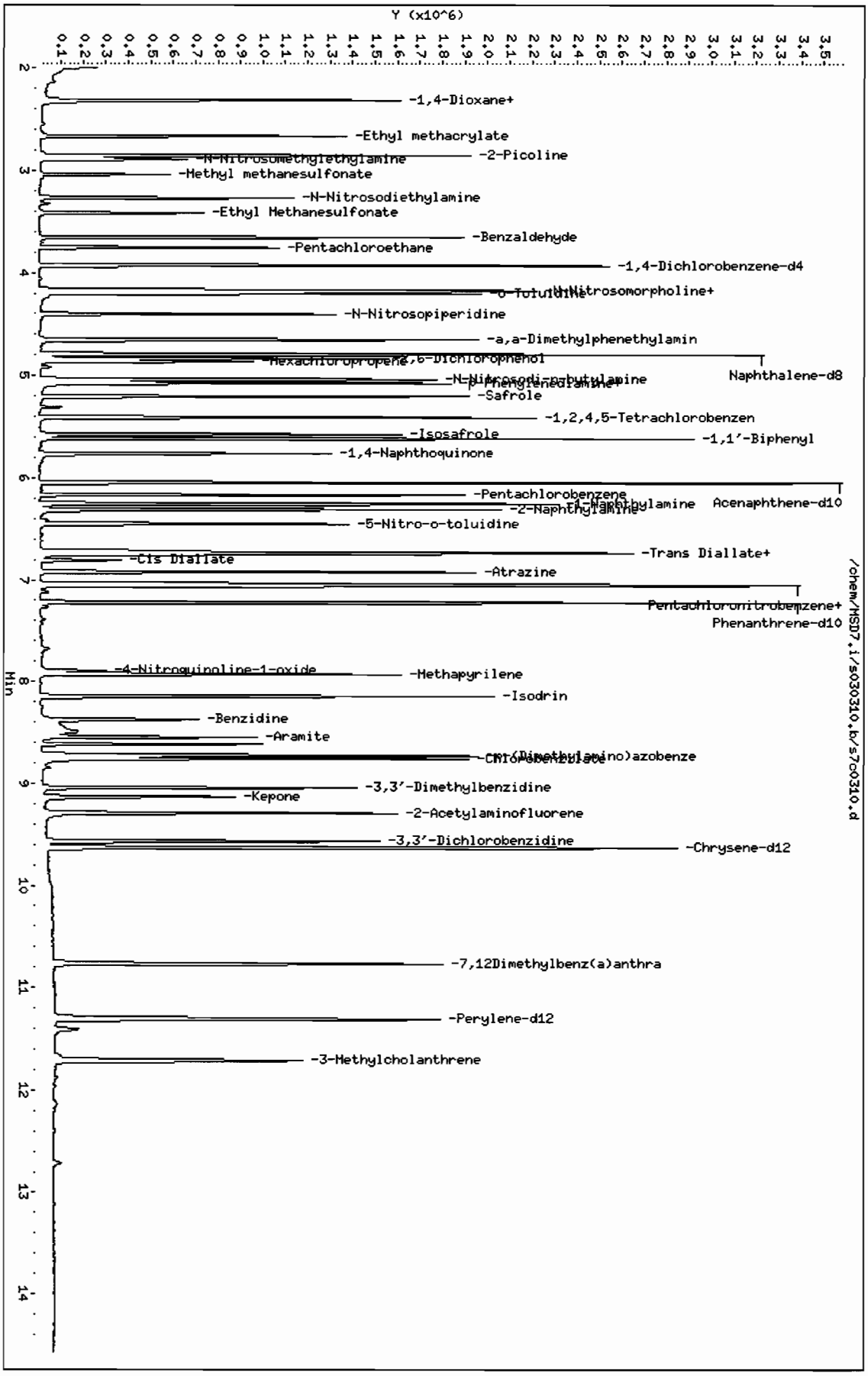

Page 1

QC Data

Data File: /chem/MSD7.i/s022610.b/s7b2601.d

Date : 26-FEB-2010 10:23

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

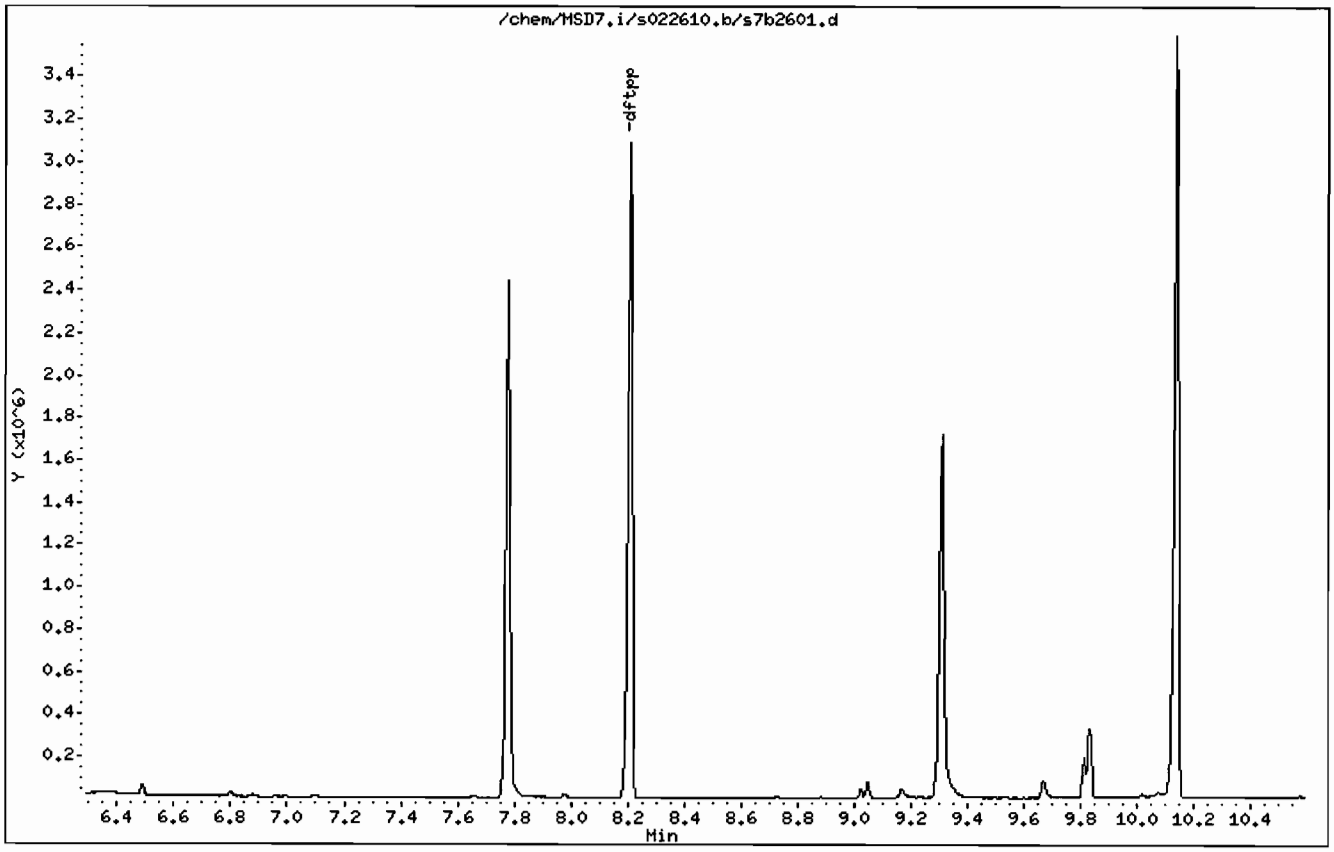

Data File: /chem/MSD7.i/s022610.b/s7b2601.d

Date : 26-FEB-2010 10:23

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

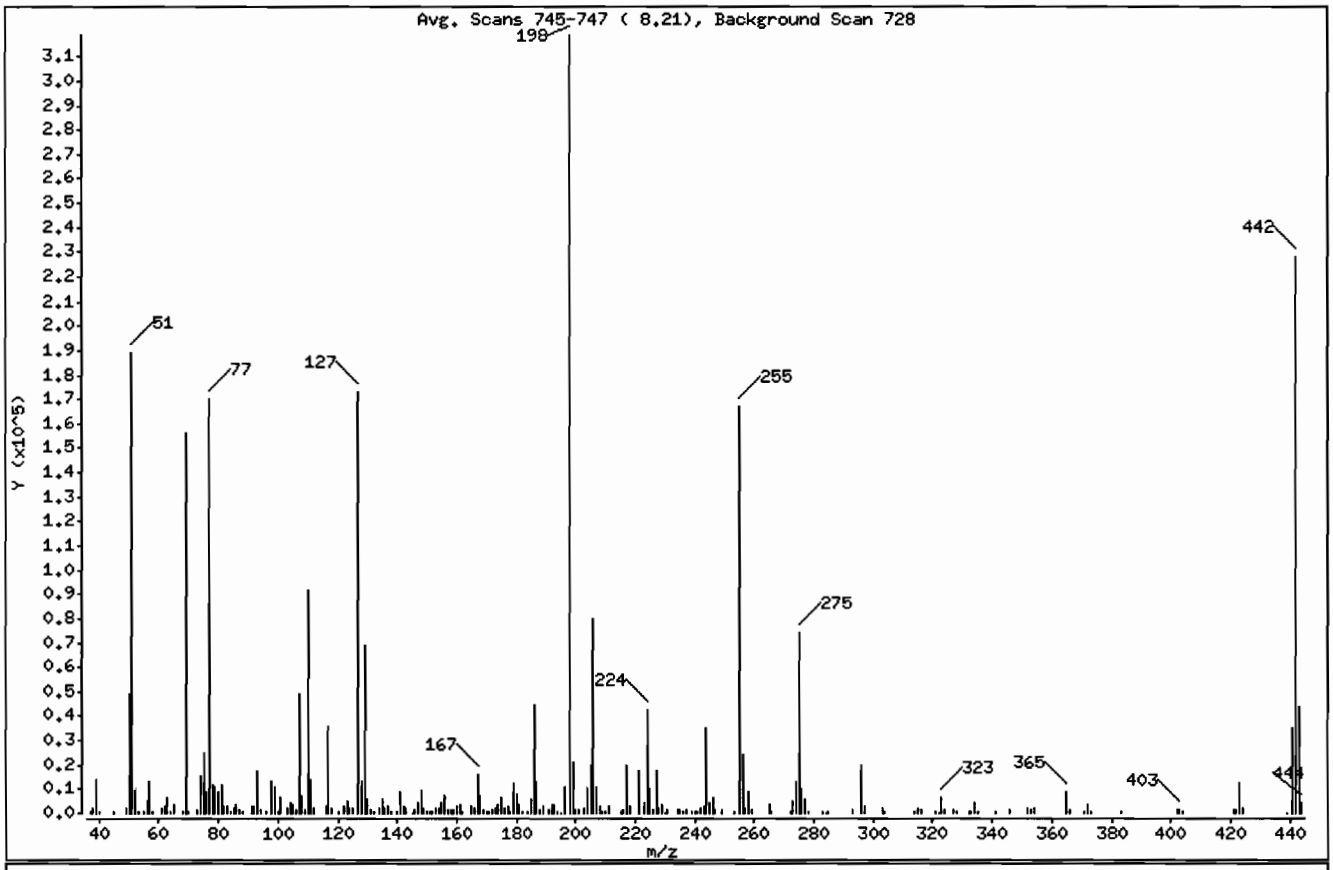

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	59.41
68	Less than 2.00% of mass 69	0.28 (0.57)
69	Mass 69 relative abundance	48.94
70	Less than 2.00% of mass 69	0.28 (0.58)
127	40.00 - 60.00% of mass 198	54.14
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.65
275	10.00 - 30.00% of mass 198	23.16
365	Greater than 1.00% of mass 198	2.69
441	Present, but less than mass 443	10.95
442	Greater than 40.00% of mass 198	71.59
443	17.00 - 23.00% of mass 442	13.73 (19.18)

Data File: /chem/MSD7.i/s022610.b/s7b2601.d

Date : 26-FEB-2010 10:23

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7b2601.d
Spectrum: Avg. Scans 745-747 (8.21), Background Scan 728
Location of Maximum: 198.00
Number of points: 228

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	852	117.00	35928	184.00	921	259.00	1456
38.00	2311	118.00	2505	185.00	5984	265.00	3673
39.00	13932	120.00	682	186.00	44920	266.00	602
40.00	778	122.00	3034	187.00	13079	272.00	686
45.00	617	123.00	4902	188.00	1326	273.00	5148
49.00	1836	124.00	2350	189.00	2753	274.00	13060
50.00	49024	125.00	2075	191.00	1303	275.00	73880
51.00	189504	127.00	172736	192.00	3677	276.00	10097
52.00	9606	128.00	13398	193.00	3924	277.00	5801
53.00	380	129.00	68952	194.00	852	278.00	937
55.00	641	130.00	5708	195.00	213	283.00	683
56.00	5212	131.00	1162	196.00	10681	284.00	363
57.00	12872	132.00	774	198.00	319040	285.00	980
58.00	597	134.00	2028	199.00	21208	293.00	1331
61.00	2326	135.00	5642	200.00	1647	296.00	19728
62.00	2698	136.00	2275	201.00	1773	297.00	2776
63.00	6781	137.00	2609	203.00	2366	303.00	2464
64.00	1046	138.00	715	204.00	10630	304.00	574
65.00	3631	140.00	969	205.00	19512	314.00	904
68.00	888	141.00	8721	206.00	79824	315.00	2209
69.00	156160	142.00	2698	207.00	10932	316.00	1138
70.00	900	143.00	1961	208.00	3049	321.00	715
73.00	1515	145.00	363	209.00	797	322.00	167
74.00	15266	146.00	1578	210.00	844	323.00	6440
75.00	24672	147.00	4519	211.00	3224	324.00	1313
76.00	8506	148.00	9607	215.00	827	327.00	1174
77.00	169984	149.00	1988	216.00	1701	328.00	565
78.00	11795	150.00	396	217.00	20024	332.00	397
79.00	11177	151.00	1094	218.00	2713	333.00	714
80.00	8792	152.00	647	221.00	17472	334.00	4276
81.00	12077	153.00	2565	223.00	4593	335.00	1100
82.00	3170	154.00	2159	224.00	42376	341.00	531
83.00	3008	155.00	4724	225.00	10621	346.00	1286
84.00	636	156.00	7141	226.00	1169	352.00	1989
85.00	2044	157.00	1513	227.00	17440	353.00	1401

Date : 26-FEB-2010 10:23

Client ID: DFTPP Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s7b2601.d
Spectrum: Avg. Scans 745-747 (8.21), Background Scan 728
Location of Maximum: 198.00
Number of points: 228

m/z	Y	m/z	Y	m/z	Y	m/z	Y
86.00	3508	158.00	1749	228.00	2469	354.00	2183
87.00	1630	159.00	1243	229.00	3883	365.00	8577
88.00	419	160.00	2579	230.00	356	366.00	1114
91.00	2741	161.00	3950	231.00	1525	371.00	644
92.00	3230	162.00	1019	234.00	1203	372.00	3384
93.00	17792	165.00	2876	235.00	1368	373.00	853
94.00	1291	166.00	2290	236.00	770	383.00	796
96.00	998	167.00	15920	237.00	1366	402.00	1481
98.00	13554	168.00	7335	239.00	754	403.00	1754
99.00	10824	169.00	1371	240.00	398	404.00	734
100.00	976	170.00	409	241.00	1037	421.00	1467
101.00	6705	171.00	753	242.00	2373	422.00	1498
103.00	2265	172.00	1523	243.00	2625	423.00	12418
104.00	4074	173.00	1979	244.00	35000	424.00	2370
105.00	3826	174.00	3403	245.00	4542	439.00	178
106.00	1433	175.00	6519	246.00	6439	441.00	34928
107.00	49056	176.00	1866	247.00	1293	442.00	228416
108.00	7671	177.00	3004	249.00	1244	443.00	43808
109.00	1301	178.00	1078	253.00	913	444.00	4114
110.00	91472	179.00	12442	255.00	167552		
111.00	13914	180.00	8233	256.00	24184		
112.00	1881	181.00	3774	257.00	1884		
116.00	2779	182.00	632	258.00	9098		

Data File: /chem/MSD7.i/s022610.b/s7b2615.d

Date : 26-FEB-2010 16:00

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

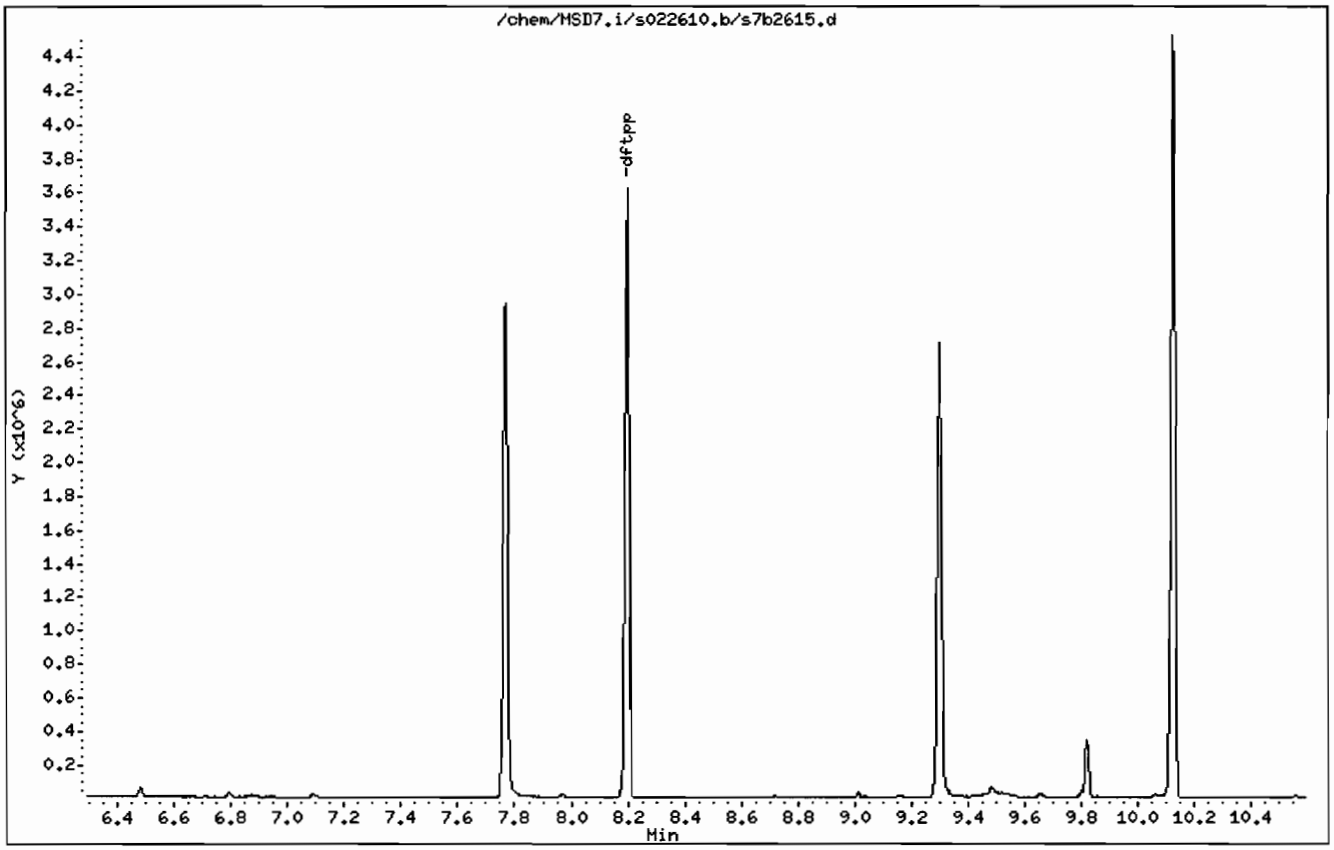

Data File: /chem/MSD7.i/s022610.b/s7b2615.d

Date : 26-FEB-2010 16:00

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

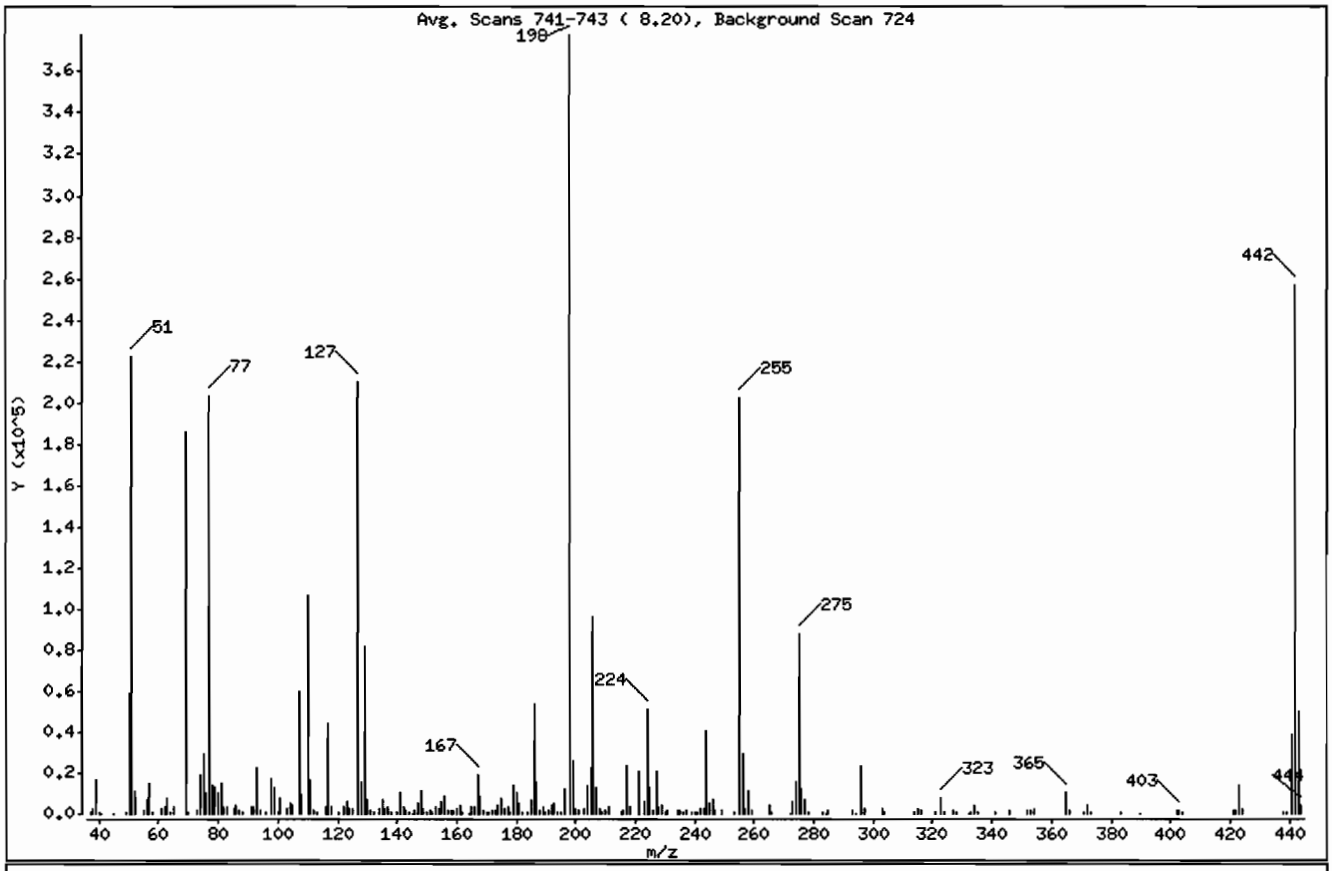

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	58.98
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	49.16
70	Less than 2.00% of mass 69	0.23 (0.48)
127	40.00 - 60.00% of mass 198	55.53
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.90
275	10.00 - 30.00% of mass 198	23.32
365	Greater than 1.00% of mass 198	2.65
441	Present, but less than mass 443	10.42
442	Greater than 40.00% of mass 198	68.13
443	17.00 - 23.00% of mass 442	13.23 (19.42)

Date : 26-FEB-2010 16:00

Client ID: DFTPP Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s7b2615.d
Spectrum: Avg. Scans 741-743 (8.20), Background Scan 724
Location of Maximum: 198.00
Number of points: 230

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	1029	122.00	3738	185.00	6817	259.00	1573
38.00	2784	123.00	5796	186.00	54064	265.00	4325
39.00	16736	124.00	2600	187.00	15706	266.00	746
40.00	804	125.00	2612	188.00	1673	272.00	197
41.00	215	127.00	209728	189.00	3494	273.00	6106
45.00	168	128.00	15827	190.00	586	274.00	15839
49.00	1187	129.00	81240	191.00	1632	275.00	88080
50.00	59008	130.00	6686	192.00	4589	276.00	11832
51.00	222720	131.00	1427	193.00	4997	277.00	7181
52.00	11067	132.00	774	194.00	1040	278.00	1002
55.00	1479	134.00	2449	195.00	704	283.00	768
56.00	6807	135.00	6597	196.00	12441	284.00	411
57.00	14992	136.00	2742	198.00	377728	285.00	1383
58.00	682	137.00	3143	199.00	26056	293.00	1754
61.00	2681	138.00	765	200.00	2198	294.00	170
62.00	3163	140.00	1042	201.00	1902	296.00	23352
63.00	8062	141.00	10317	203.00	2941	297.00	3003
64.00	939	142.00	3584	204.00	13735	303.00	2912
65.00	3873	143.00	2145	205.00	22256	304.00	698
69.00	185664	144.00	648	206.00	96224	314.00	1230
70.00	883	145.00	345	207.00	12868	315.00	2658
73.00	1613	146.00	1896	208.00	3012	316.00	1427
74.00	18712	147.00	5046	209.00	1028	321.00	683
75.00	29592	148.00	11656	210.00	1417	323.00	8017
76.00	10277	149.00	2428	211.00	3685	324.00	1216
77.00	203520	150.00	602	215.00	982	327.00	1441
78.00	14043	151.00	1527	216.00	2051	328.00	748
79.00	13422	152.00	713	217.00	23848	332.00	363
80.00	10653	153.00	3096	218.00	3211	333.00	806
81.00	14622	154.00	2344	221.00	20792	334.00	4623
82.00	3466	155.00	5720	223.00	5862	335.00	1233
83.00	3303	156.00	8256	224.00	50920	341.00	795
85.00	2661	157.00	1579	225.00	13061	346.00	1522
86.00	3911	158.00	1721	226.00	1598	352.00	1965
87.00	1716	159.00	1403	227.00	20944	353.00	1542

Data File: /chem/MSD7.i/s022610.b/s7b2615.d

Date : 26-FEB-2010 16:00

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7b2615.d

Spectrum: Avg. Scans 741-743 (8.20), Background Scan 724

Location of Maximum: 198.00

Number of points: 230

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	720	160.00	3002	228.00	3044	354.00	2372
91.00	3449	161.00	4728	229.00	4594	365.00	10014
92.00	3788	162.00	1233	230.00	617	366.00	1587
93.00	22184	164.00	176	231.00	1861	371.00	636
94.00	1680	165.00	3703	234.00	1383	372.00	3986
96.00	1049	166.00	3066	235.00	1556	373.00	896
98.00	17120	167.00	18856	236.00	1121	383.00	902
99.00	13353	168.00	9050	237.00	1622	390.00	167
100.00	1116	169.00	1603	239.00	883	402.00	1434
101.00	7543	170.00	665	240.00	677	403.00	2148
103.00	2685	171.00	809	241.00	1127	404.00	602
104.00	5030	172.00	1695	242.00	2573	421.00	1921
105.00	4545	173.00	2042	243.00	2934	422.00	1955
107.00	59544	174.00	4069	244.00	40392	423.00	14077
108.00	9676	175.00	7514	245.00	5448	424.00	2851
110.00	106720	176.00	2522	246.00	7235	438.00	613
111.00	16672	177.00	3771	247.00	1622	439.00	1021
112.00	2022	178.00	1302	249.00	1526	441.00	39344
113.00	647	179.00	14261	253.00	985	442.00	257344
116.00	3383	180.00	9998	255.00	202432	443.00	49984
117.00	44664	181.00	4790	256.00	29912	444.00	4586
118.00	3115	182.00	817	257.00	2724		
120.00	706	184.00	1225	258.00	11156		

Data File: /chem/MSD7.i/s030310.b/s7c0307.d

Date : 03-MAR-2010 14:18

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

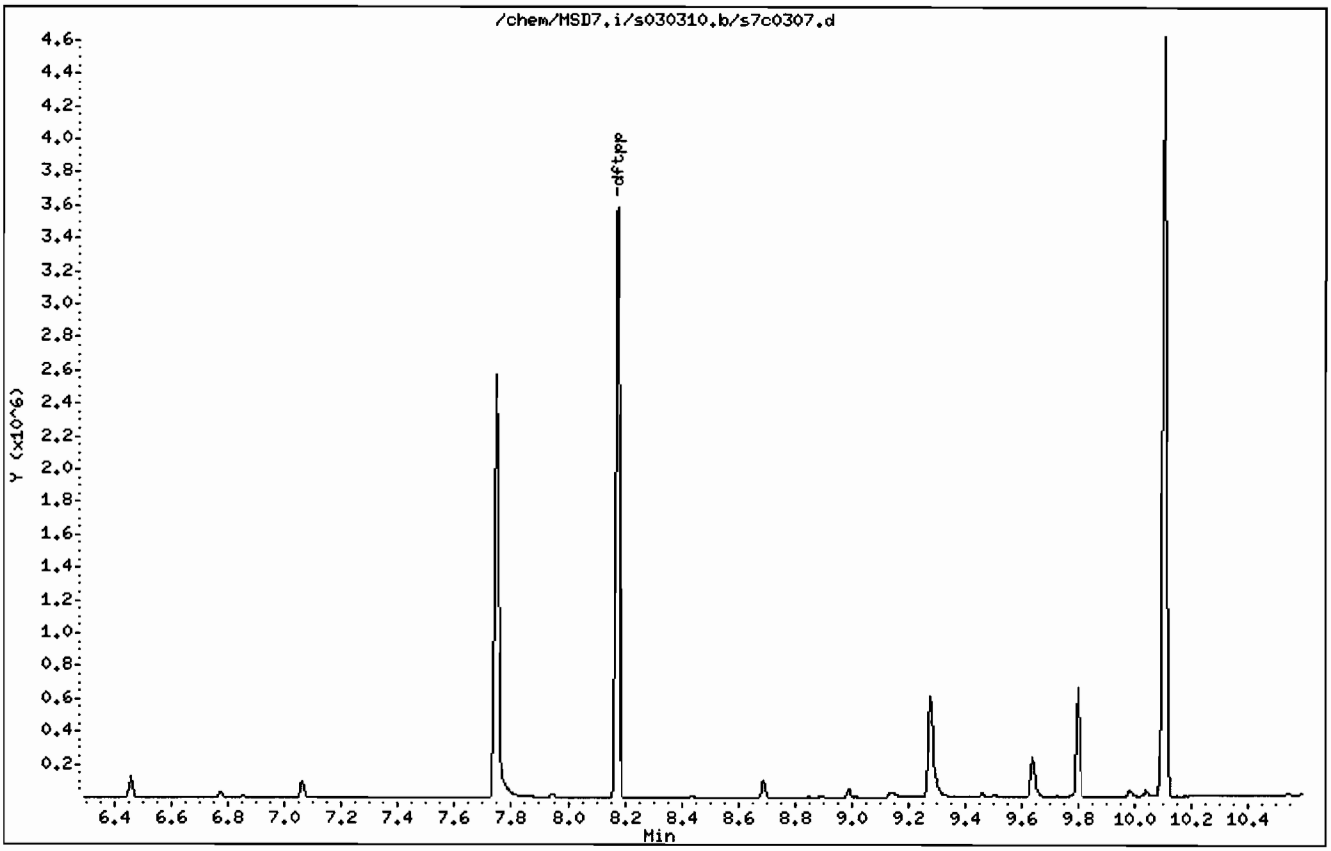

Data File: /chem/MSD7.i/s030310.b/s7c0307.d

Date : 03-MAR-2010 14:18

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

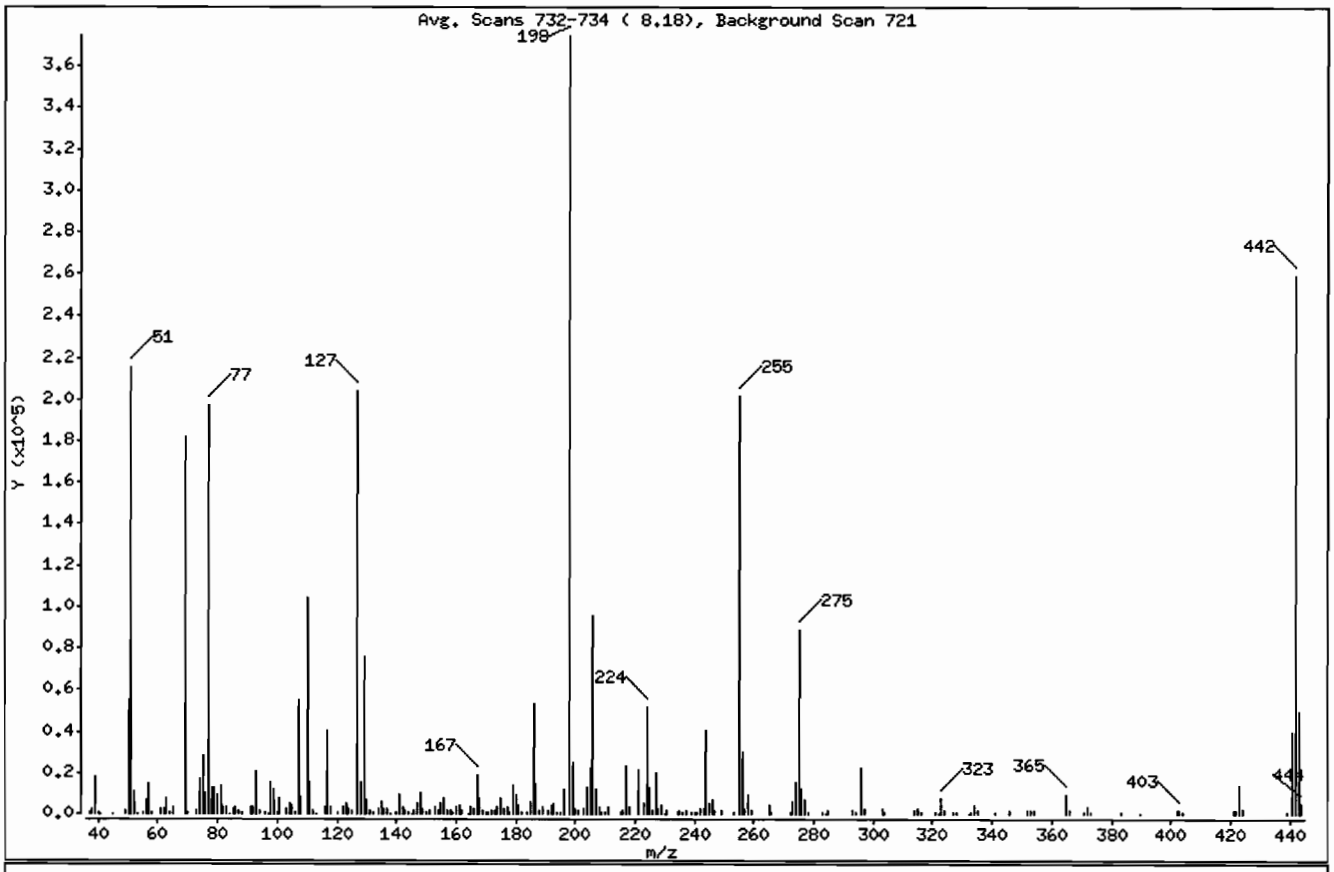

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	57.48
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	48.45
70	Less than 2.00% of mass 69	0.25 (0.53)
127	40.00 - 60.00% of mass 198	54.45
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.77
275	10.00 - 30.00% of mass 198	23.68
365	Greater than 1.00% of mass 198	2.58
441	Present, but less than mass 443	10.58
442	Greater than 40.00% of mass 198	69.24
443	17.00 - 23.00% of mass 442	13.40 (19.35)

Data File: /chem/MSD7.i/s030310.b/s7c0307.d

Date : 03-MAR-2010 14:18

Client ID: DFTPP

Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s7c0307.d
Spectrum: Avg. Scans 732-734 (8.18), Background Scan 721
Location of Maximum: 198.00
Number of points: 232

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	1059	117.00	40624	184.00	1118	265.00	4352
38.00	2716	118.00	3308	185.00	6422	266.00	647
39.00	17816	120.00	808	186.00	53176	272.00	670
40.00	902	122.00	3472	187.00	14529	273.00	6146
41.00	280	123.00	5489	188.00	1447	274.00	15257
45.00	356	124.00	2501	189.00	3163	275.00	88752
49.00	1740	125.00	2143	191.00	1557	276.00	12129
50.00	55544	127.00	204032	192.00	4557	277.00	6633
51.00	215360	128.00	15287	193.00	4890	278.00	1129
52.00	10770	129.00	76176	194.00	1039	283.00	796
53.00	349	130.00	6481	195.00	601	284.00	402
55.00	1286	131.00	1323	196.00	12239	285.00	1378
56.00	6646	132.00	766	198.00	374720	293.00	1666
57.00	14540	134.00	2218	199.00	25360	294.00	625
58.00	736	135.00	6296	200.00	2199	296.00	22392
61.00	2812	136.00	2487	201.00	2009	297.00	2803
62.00	2666	137.00	2932	203.00	2365	303.00	2606
63.00	7662	138.00	398	204.00	12789	304.00	653
64.00	1050	140.00	903	205.00	22368	314.00	1380
65.00	3800	141.00	9538	206.00	95216	315.00	2359
69.00	181568	142.00	3517	207.00	12187	316.00	1215
70.00	954	143.00	2082	208.00	3189	321.00	701
73.00	1646	144.00	584	209.00	1055	322.00	170
74.00	17576	145.00	347	210.00	469	323.00	7515
75.00	28752	146.00	1752	211.00	3774	324.00	1536
76.00	10112	147.00	4768	215.00	915	327.00	1245
77.00	197184	148.00	10683	216.00	2019	328.00	654
78.00	13302	149.00	2250	217.00	23536	332.00	396
79.00	12868	150.00	613	218.00	3169	333.00	841
80.00	9799	151.00	1942	221.00	21560	334.00	4547
81.00	13936	153.00	3029	223.00	5289	335.00	1294
82.00	3522	154.00	2117	224.00	51352	341.00	856
83.00	3204	155.00	5359	225.00	12973	346.00	1387
84.00	170	156.00	7653	226.00	1441	352.00	2034
85.00	2413	157.00	1636	227.00	19440	353.00	1643

Date : 03-MAR-2010 14:18

Client ID: DFTPP Instrument: MSD7.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s7c0307.d
Spectrum: Avg. Scans 732-734 (8.18), Background Scan 721
Location of Maximum: 198.00
Number of points: 232

m/z	Y	m/z	Y	m/z	Y	m/z	Y
86.00	3775	158.00	1802	228.00	2806	354.00	2071
87.00	1853	159.00	1120	229.00	4461	365.00	9680
88.00	646	160.00	3020	230.00	169	366.00	1439
91.00	3138	161.00	4224	231.00	1908	371.00	591
92.00	3504	162.00	1329	234.00	1287	372.00	3506
93.00	20512	164.00	419	235.00	1419	373.00	1057
94.00	1436	165.00	3753	236.00	993	383.00	1052
96.00	1189	166.00	2575	237.00	1661	390.00	175
97.00	356	167.00	18664	239.00	760	402.00	1516
98.00	15083	168.00	8173	240.00	655	403.00	1977
99.00	11947	169.00	1418	241.00	1152	404.00	801
100.00	1056	170.00	614	242.00	2639	421.00	1954
101.00	7395	171.00	779	243.00	2976	422.00	1930
103.00	2428	172.00	1564	244.00	40872	423.00	13980
104.00	4875	173.00	2069	245.00	5598	424.00	2731
105.00	4317	174.00	3475	246.00	7010	439.00	1011
106.00	605	175.00	7424	247.00	1573	441.00	39656
107.00	55360	176.00	2335	249.00	1386	442.00	259456
108.00	8753	177.00	3533	253.00	988	443.00	50216
110.00	103976	178.00	1116	255.00	201792	444.00	4762
111.00	15195	179.00	13894	256.00	30072		
112.00	1779	180.00	9298	257.00	2582		
113.00	428	181.00	4257	258.00	9810		
116.00	3331	182.00	734	259.00	1676		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202051996**				
Client Sample:	**QC for batch 957012**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 957012**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**957017**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 15:41**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/24/2010 19:49**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s7c0311-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	333	ug/kg	66.7	333
108-95-2	Phenol	U	333	ug/kg	66.7	333
95-57-8	2-Chlorophenol	U	333	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene	U	333	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine	U	333	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol	U	333	ug/kg	66.7	333
83-32-9	Acenaphthene	U	33.3	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene	U	333	ug/kg	33.3	333
100-02-7	4-Nitrophenol	U	333	ug/kg	110	333
87-86-5	Pentachlorophenol	U	333	ug/kg	83.3	333
129-00-0	Pyrene	U	33.3	ug/kg	10.0	33.3
110-86-1	Pyridine	U	333	ug/kg	66.7	333
62-53-3	Aniline	U	333	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether	U	333	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene	U	333	ug/kg	66.7	333
100-51-6	Benzyl alcohol	U	333	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene	U	333	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether	U	333	ug/kg	66.7	333
95-48-7	o-Cresol	U	333	ug/kg	66.7	333
65794-96-9	m,p-Cresols	U	333	ug/kg	100	333
67-72-1	Hexachloroethane	U	333	ug/kg	66.7	333
98-95-3	Nitrobenzene	U	333	ug/kg	66.7	333
78-59-1	Isophorone	U	333	ug/kg	66.7	333
88-75-5	2-Nitrophenol	U	333	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol	U	333	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane	U	333	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol	U	333	ug/kg	66.7	333
65-85-0	Benzoic acid	U	667	ug/kg	167	667
91-20-3	Naphthalene	U	33.3	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline	U	333	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene	U	333	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene	U	33.3	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene	U	333	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol	U	333	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol	U	333	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene	U	33.3	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	333	ug/kg	66.7	333
99-09-2	3-Nitroaniline	U	333	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202051996**				
Client Sample:	**QC for batch 957012**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 957012**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**957017**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 15:41**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/24/2010 19:49**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s7c0311-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	333	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene	U	333	ug/kg	33.3	333
208-96-8	Acenaphthylene	U	33.3	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol	U	667	ug/kg	127	667
132-64-9	Dibenzofuran	U	333	ug/kg	66.7	333
84-66-2	Diethylphthalate	U	333	ug/kg	66.7	333
86-73-7	Fluorene	U	33.3	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether	U	333	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol	U	333	ug/kg	66.7	333
100-01-6	4-Nitroaniline	U	333	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine	U	333	ug/kg	66.7	333
122-66-7	Azobenzene	U	333	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	333	ug/kg	66.7	333
118-74-1	Hexachlorobenzene	U	333	ug/kg	66.7	333
85-01-8	Phenanthrene	U	33.3	ug/kg	10.0	33.3
120-12-7	Anthracene	U	33.3	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate	U	333	ug/kg	66.7	333
206-44-0	Fluoranthene	U	33.3	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate	U	333	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene	U	33.3	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine	U	333	ug/kg	100	333
218-01-9	Chrysene	U	33.3	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate	U	333	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate	U	333	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene	U	33.3	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene	U	33.3	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene	U	33.3	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	33.3	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene	U	33.3	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene	U	33.3	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene	U	333	ug/kg	66.7	333

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.11	2040	ug/kg		J
	Unknown Aldol Condensate	2.98	546	ug/kg		J

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Data file : /chem/MSD7.i/s030310.b/s7c0311-3.d
Lab Smp Id: 1202051996 Client Smp ID: SBLK01
Inj Date : 03-MAR-2010 15:41
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202051996|957017|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100227-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 03-Mar-2010 16:22 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1898.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.932	3.932	(1.000)	378295	40.0000	
* 29 Naphthalene-d8	136	4.789	4.794	(1.000)	1412565	40.0000	
* 46 Acenaphthene-d10	164	6.046	6.051	(1.000)	765983	40.0000	
* 67 Phenanthrene-d10	188	7.216	7.221	(1.000)	1266949	40.0000	
* 91 Chrysene-d12	240	9.629	9.638	(1.000)	926111	40.0000	
* 98 Perylene-d12	264	11.305	11.314	(1.000)	681959	40.0000	
$ 3 2-Fluorophenol	112	3.138	3.128	(0.798)	721438	73.3708	2440
$ 5 Phenol-d5	99	3.648	3.648	(0.928)	853281	69.2140	2310
$ 20 Nitrobenzene-d5	82	4.289	4.293	(0.895)	420373	39.4568	1320
$ 39 2-Fluorobiphenyl	172	5.536	5.536	(0.916)	820658	42.9899	1430
$ 60 2,4,6-Tribromophenol	329	6.643	6.648	(1.099)	175363	79.1936	2640
$ 81 p-Terphenyl-d14	244	8.598	8.603	(0.893)	799708	48.1999	1610

GEL Laboratories LLC

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Data file : /chem/MSD7.i/s030310.b/s7c0311-3.d
Lab Smp Id: 1202051996 Client Smp ID: SBLK01
Inj Date : 03-MAR-2010 15:41
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202051996|957017|1|SVM|1|MB
Misc Info : |MSD8270_S|WBN100227-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 03-Mar-2010 16:22 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1898.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.932	2338251	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
2.112	3572913	61.1211034	2040	0		0	10
Unknown Aldol Condensate					CAS #:		
2.979	956800	16.3677910	546	0		0	10

Data File: /chem/MSD7.i/s030310.b/s7c0311-3.d

Date : 03-MAR-2010 15:41

Client ID: SBLK01

Sample Info: |1202051996|957017|1|SVMI1|MB

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Page 1

Instrument: MSD7.i

Operator: JMB3

Column diameter: 0.20

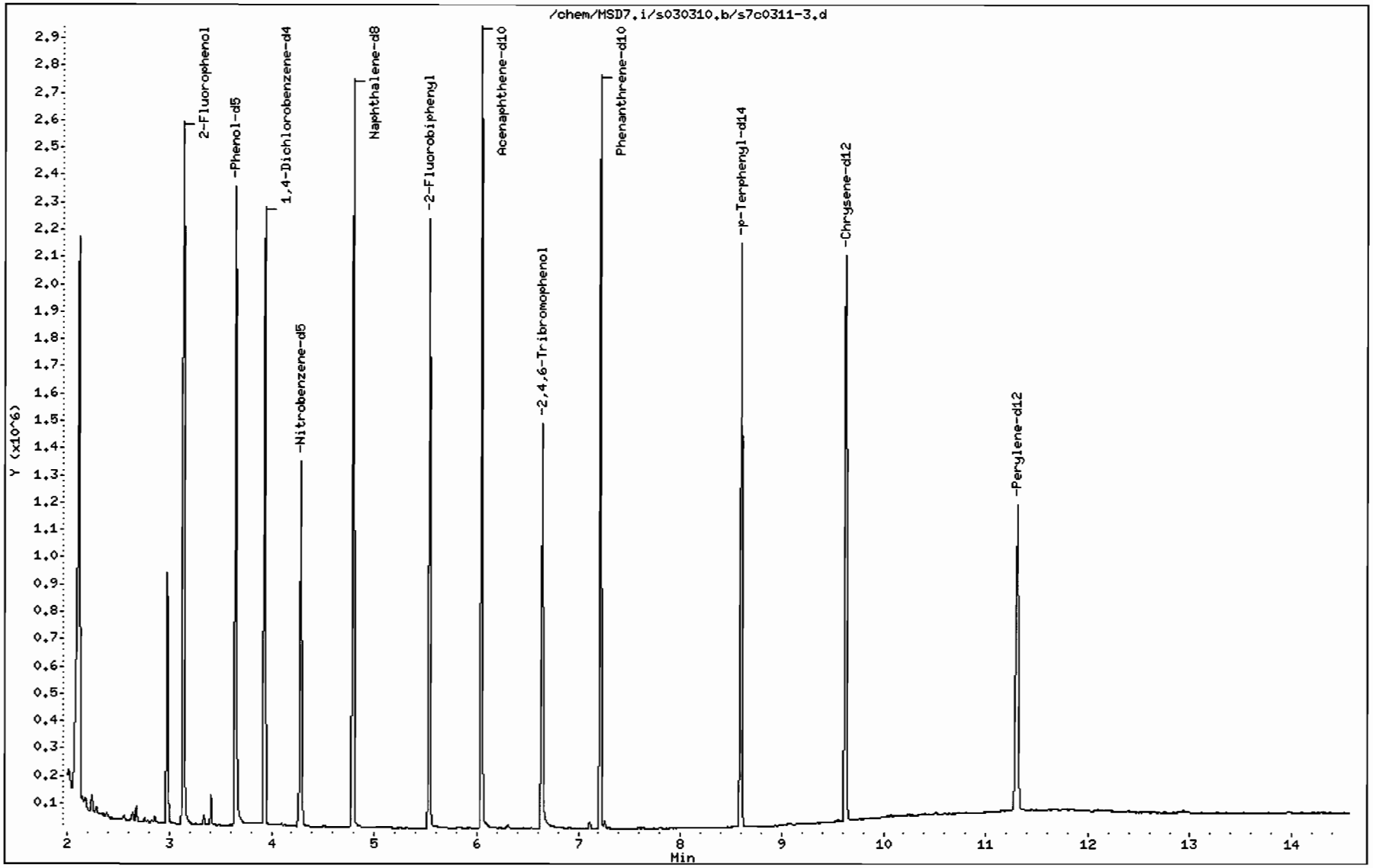

Data File: /chem/MSD7.i/s030310.b/s7c0311-3.d

Page 1

Date : 03-MAR-2010 15:41

Client ID: SBLK01

Instrument: MSD7.i

Sample Info: |1202051996|957017|1|SVM|1|MB

Volume Injected (uL): 0.5

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4662	50	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4663	42	C5H12O2	104
Propane, 2,2-dimethoxy-	77-76-9	NIST05.L	4658	33	C5H12O2	104

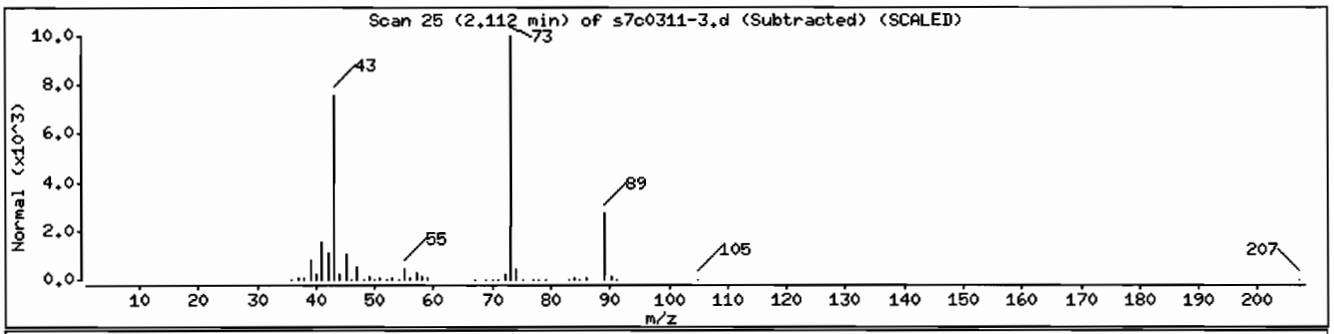

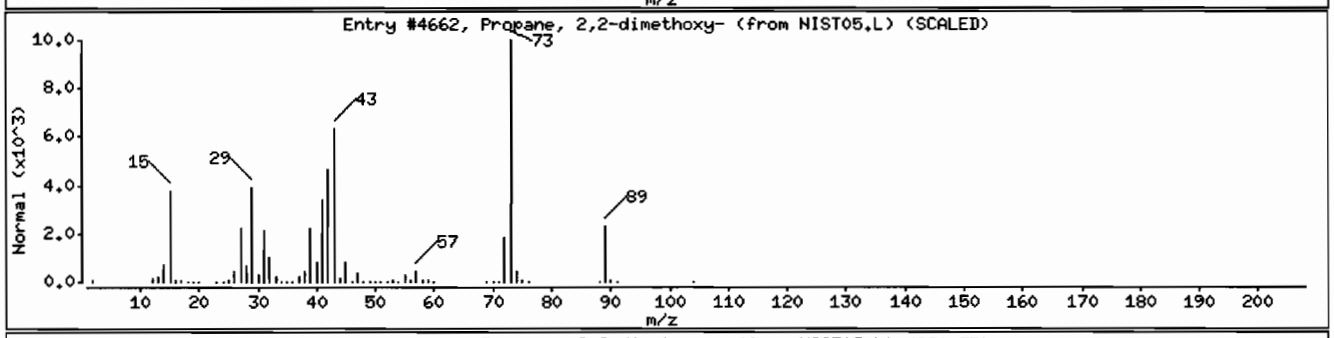

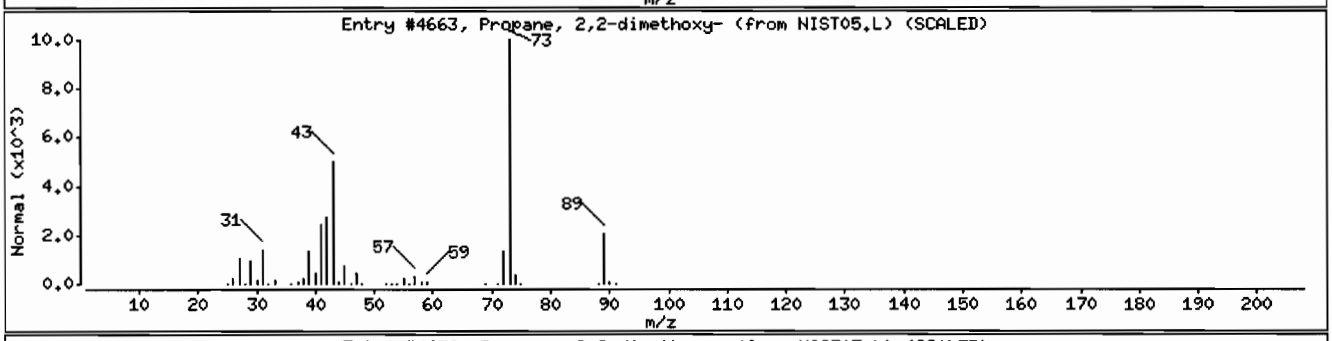

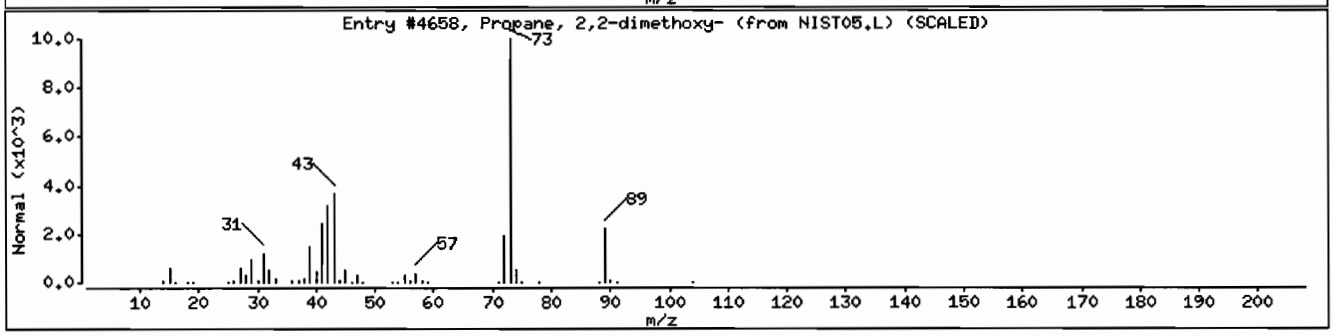

Data File: /chem/MSD7.i/s030310.b/s7c0311-3.d

Date : 03-MAR-2010 15:41

Client ID: SBLK01 Instrument: MSD7.i

Sample Info: |1202051996|957017|1|SVM|1|MB

Volume Injected (uL): 0.5 Operator: JMB3

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Aldol Condensate						
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7952	50	C6H12O2	116
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NIST05.L	7951	50	C6H12O2	116
1-Propen-2-ol, acetate	108-22-5	NIST05.L	3595	10	C5H8O2	100

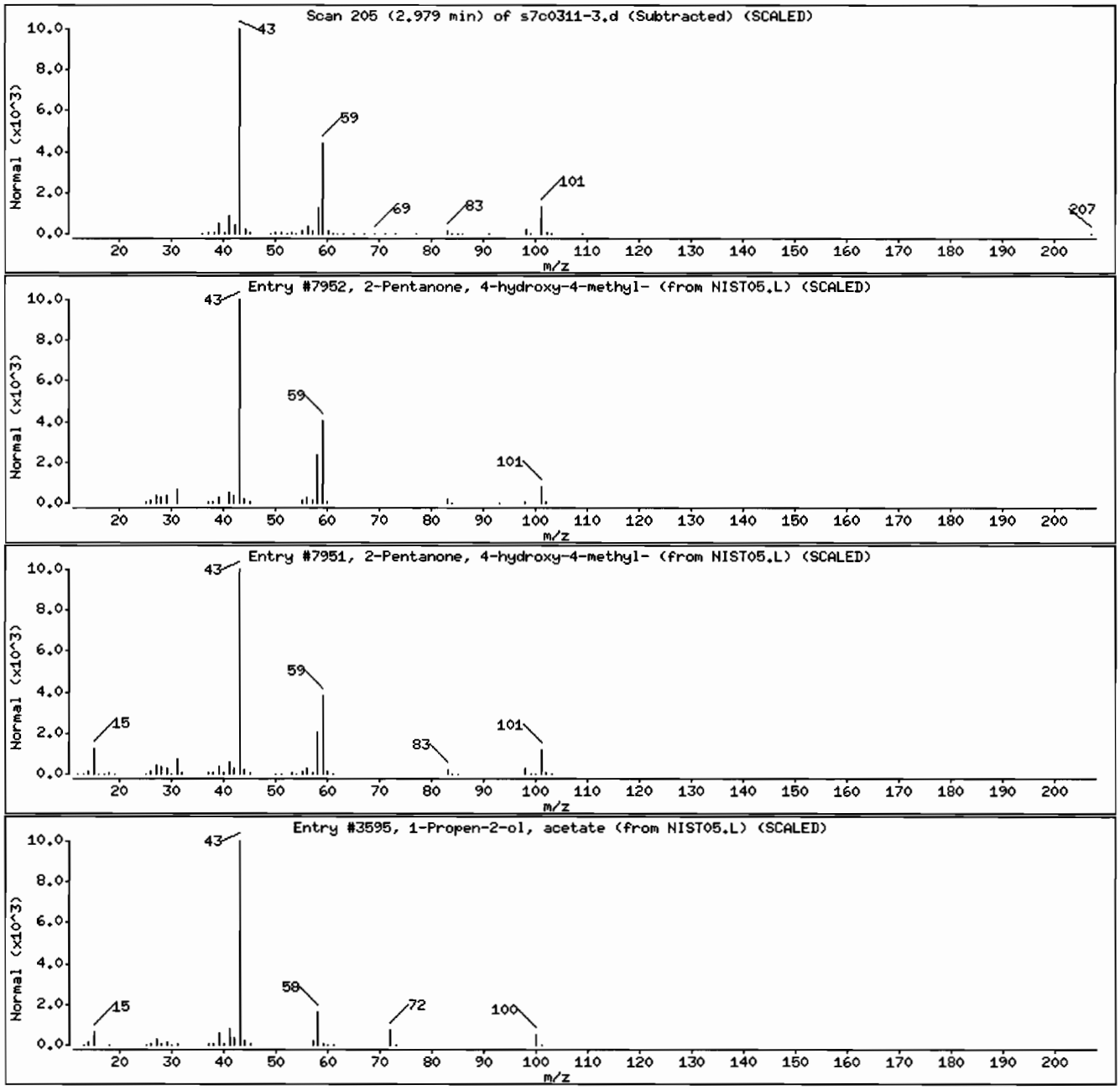

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202051997**				
Client Sample:	**QC for batch 957012**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 957012**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**957017**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 16:03**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/24/2010 19:49**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s7c0312-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		1280	ug/kg	66.7	333
108-95-2	Phenol		1360	ug/kg	66.7	333
95-57-8	2-Chlorophenol		1560	ug/kg	66.7	333
106-46-7	1,4-Dichlorobenzene		1370	ug/kg	66.7	333
621-64-7	N-Nitrosodipropylamine		1550	ug/kg	66.7	333
59-50-7	4-Chloro-3-methylphenol		1470	ug/kg	66.7	333
83-32-9	Acenaphthene		1510	ug/kg	11.0	33.3
121-14-2	2,4-Dinitrotoluene		1620	ug/kg	33.3	333
100-02-7	4-Nitrophenol		1380	ug/kg	110	333
87-86-5	Pentachlorophenol		1820	ug/kg	83.3	333
129-00-0	Pyrene		1300	ug/kg	10.0	33.3
110-86-1	Pyridine		1310	ug/kg	66.7	333
62-53-3	Aniline		1420	ug/kg	100	333
111-44-4	bis(2-Chloroethyl) ether		1220	ug/kg	66.7	333
541-73-1	1,3-Dichlorobenzene		1370	ug/kg	66.7	333
100-51-6	Benzyl alcohol		617	ug/kg	100	333
95-50-1	1,2-Dichlorobenzene		1450	ug/kg	66.7	333
108-60-1	bis(2-Chloroisopropyl)ether		1350	ug/kg	66.7	333
95-48-7	o-Cresol		1630	ug/kg	66.7	333
65794-96-9	m,p-Cresols		1770	ug/kg	100	333
67-72-1	Hexachloroethane		1340	ug/kg	66.7	333
98-95-3	Nitrobenzene		1450	ug/kg	66.7	333
78-59-1	Isophorone		1430	ug/kg	66.7	333
88-75-5	2-Nitrophenol		1630	ug/kg	66.7	333
105-67-9	2,4-Dimethylphenol		1530	ug/kg	117	333
111-91-1	bis(2-Chloroethoxy)methane		1420	ug/kg	66.7	333
120-83-2	2,4-Dichlorophenol		1550	ug/kg	66.7	333
65-85-0	Benzoic acid	E	4490	ug/kg	167	667
91-20-3	Naphthalene		1430	ug/kg	10.0	33.3
106-47-8	4-Chloroaniline		1430	ug/kg	66.7	333
87-68-3	Hexachlorobutadiene		1400	ug/kg	66.7	333
91-57-6	2-Methylnaphthalene		1480	ug/kg	6.67	33.3
77-47-4	Hexachlorocyclopentadiene		1720	ug/kg	66.7	333
88-06-2	2,4,6-Trichlorophenol		1630	ug/kg	66.7	333
95-95-4	2,4,5-Trichlorophenol		1870	ug/kg	66.7	333
91-58-7	2-Chloronaphthalene		1440	ug/kg	11.0	33.3
88-74-4	2-Nitroaniline		1500	ug/kg	66.7	333
99-09-2	*o-Nitroaniline* 3-Nitroaniline		1540	ug/kg	66.7	333

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202051997**				
Client Sample:	**QC for batch 957012**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 957012**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**957017**	**Inst:**	**MSD7.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 16:03**	**Analyst:**	**JMB3**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/24/2010 19:49**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**s7c0312-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
	m-Nitroaniline					
131-11-3	Dimethylphthalate		1610	ug/kg	66.7	333
606-20-2	2,6-Dinitrotoluene		1630	ug/kg	33.3	333
208-96-8	Acenaphthylene		1570	ug/kg	10.0	33.3
51-28-5	2,4-Dinitrophenol		1870	ug/kg	127	667
132-64-9	Dibenzofuran		1560	ug/kg	66.7	333
84-66-2	Diethylphthalate		1640	ug/kg	66.7	333
86-73-7	Fluorene		1480	ug/kg	10.0	33.3
7005-72-3	4-Chlorophenylphenylether		1590	ug/kg	66.7	333
534-52-1	2-Methyl-4,6-dinitrophenol		1710	ug/kg	66.7	333
100-01-6	4-Nitroaniline		1890	ug/kg	100	333
	p-Nitroaniline					
122-39-4	Diphenylamine		1660	ug/kg	66.7	333
122-66-7	Azobenzene		1540	ug/kg	66.7	333
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		1580	ug/kg	66.7	333
118-74-1	Hexachlorobenzene		1530	ug/kg	66.7	333
85-01-8	Phenanthrene		1490	ug/kg	10.0	33.3
120-12-7	Anthracene		1510	ug/kg	6.67	33.3
84-74-2	Di-n-butylphthalate		1620	ug/kg	66.7	333
206-44-0	Fluoranthene		1570	ug/kg	10.0	33.3
85-68-7	Butylbenzylphthalate		1490	ug/kg	66.7	333
56-55-3	Benzo(a)anthracene		1450	ug/kg	10.0	33.3
91-94-1	3,3'-Dichlorobenzidine		1430	ug/kg	100	333
218-01-9	Chrysene		1530	ug/kg	10.0	33.3
117-81-7	bis(2-Ethylhexyl)phthalate		1610	ug/kg	66.7	333
117-84-0	Di-n-octylphthalate		1390	ug/kg	66.7	333
205-99-2	Benzo(b)fluoranthene		1460	ug/kg	10.0	33.3
207-08-9	Benzo(k)fluoranthene		1390	ug/kg	10.0	33.3
50-32-8	Benzo(a)pyrene		1520	ug/kg	10.0	33.3
193-39-5	Indeno(1,2,3-cd)pyrene		1840	ug/kg	10.0	33.3
53-70-3	Dibenzo(a,h)anthracene		1900	ug/kg	10.0	33.3
191-24-2	Benzo(ghi)perylene		1800	ug/kg	10.0	33.3
120-82-1	1,2,4-Trichlorobenzene		1430	ug/kg	66.7	333

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD7.i/s030310.b/s7c0312-3.d
Lab Smp Id: 1202051997 Client Smp ID: SBLK01LCS
Inj Date : 03-MAR-2010 16:03
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202051997|957017|1|SVM|1|LCS
Misc Info : |MSD8270_S|WBN100227-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 03-Mar-2010 16:22 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1898.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.00000	weight of sample
M	0.00000	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.932	3.932	(1.000)	428591	40.0000	
* 29 Naphthalene-d8	136	4.794	4.794	(1.000)	1684441	40.0000	
* 46 Acenaphthene-d10	164	6.051	6.051	(1.000)	860810	40.0000	
* 67 Phenanthrene-d10	188	7.221	7.221	(1.000)	1600747	40.0000	
* 91 Chrysene-d12	240	9.638	9.638	(1.000)	1361986	40.0000	
* 98 Perylene-d12	264	11.314	11.314	(1.000)	1182594	40.0000	
$ 3 2-Fluorophenol	112	3.143	3.128	(0.799)	945333	84.8588	2830
$ 5 Phenol-d5	99	3.653	3.648	(0.929)	1177880	84.3316	2810
$ 20 Nitrobenzene-d5	82	4.293	4.293	(0.896)	552296	43.4722	1450
$ 39 2-Fluorobiphenyl	172	5.536	5.536	(0.915)	970107	45.2205	1510
$ 60 2,4,6-Tribromophenol	329	6.653	6.648	(1.099)	252502	101.468	3380
$ 81 p-Terphenyl-d14	244	8.603	8.603	(0.893)	1141917	46.7994	1560

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.663	3.658	(0.931)	567448	40.8980	1360
8 2-Chlorophenol	128	3.802	3.797	(0.967)	497585	46.8628	1560
11 1,4-Dichlorobenzene	146	3.947	3.942	(1.004)	524470	40.9808	1370
17 N-Nitrosodipropylamine	70	4.168	4.168	(1.060)	365953	46.3646	1540(Q)
28 1,2,4-Trichlorobenzene	180	4.746	4.746	(0.990)	466141	43.0005	1430
33 4-Chloro-3-methylphenol	107	5.151	5.141	(1.074)	424733	44.2422	1470
47 Acenaphthene	154	6.075	6.075	(1.004)	859777	45.3788	1510
50 2,4-Dinitrotoluene	165	6.167	6.167	(1.019)	337857	48.5117	1620
52 4-Nitrophenol	139	6.128	6.099	(1.013)	145469	41.5294	1380
65 Pentachlorophenol	266	7.053	7.048	(0.977)	165394	54.6499	1820
79 Pyrene	202	8.502	8.502	(0.882)	1671795	38.8541	1300
2 Pyridine	79	2.536	2.497	(0.645)	405072	39.1903	1310
4 Aniline	66	3.720	3.716	(0.946)	284178	42.6526	1420(Q)
7 bis(2-Chloroethyl) ether	63	3.735	3.730	(0.950)	417217	36.7252	1220(Q)
9 1,3-Dichlorobenzene	146	3.903	3.899	(0.993)	547430	41.0443	1370
12 Benzyl alcohol	108	4.005	4.000	(1.018)	133878	18.5176	617
13 1,2-Dichlorobenzene	146	4.048	4.048	(1.029)	513775	43.6418	1450
14 bis(2-Chloroisopropyl)ether	45	4.072	4.072	(1.036)	1066076	40.5083	1350
15 o-Cresol	107	4.053	4.048	(1.031)	414647	48.7816	1630
18 m,p-Cresols	107	4.154	4.154	(1.056)	610751	53.1776	1770
19 Hexachloroethane	117	4.274	4.274	(1.087)	199449	40.1361	1340
21 Nitrobenzene	77	4.308	4.308	(0.899)	512642	43.4980	1450
22 Isophorone	82	4.462	4.462	(0.931)	977192	42.9147	1430
23 2-Nitrophenol	139	4.520	4.520	(0.943)	271377	49.0340	1630
24 2,4-Dimethylphenol	122	4.515	4.510	(0.942)	461777	46.0397	1530
25 bis(2-Chloroethoxy)methane	93	4.578	4.577	(0.955)	529908	42.5345	1420
26 2,4-Dichlorophenol	162	4.684	4.683	(0.977)	415557	46.4903	1550
27 Benzoic acid	105	4.597	4.573	(0.959)	684826	134.593	4490(A)
30 Naphthalene	128	4.814	4.813	(1.004)	1366087	42.9326	1430
31 4-Chloroaniline	127	4.828	4.823	(1.007)	640839	43.0092	1430
32 Hexachlorobutadiene	225	4.876	4.876	(1.017)	238439	42.1474	1400
34 2-Methylnaphthalene	142	5.290	5.290	(1.103)	1012645	44.3431	1480
36 Hexachlorocyclopentadiene	237	5.391	5.391	(0.891)	214825	51.6218	1720
37 2,4,6-Trichlorophenol	196	5.483	5.478	(0.906)	295917	48.9977	1630
38 2,4,5-Trichlorophenol	196	5.521	5.512	(0.912)	340607	56.0763	1870
40 2-Chloronaphthalene	162	5.647	5.646	(0.933)	861762	43.2519	1440
42 o-Nitroaniline	65	5.704	5.704	(0.943)	316847	44.9183	1500
41 m-Nitroaniline	138	6.003	5.998	(0.992)	237656	46.1644	1540
43 Dimethylphthalate	163	5.810	5.810	(0.960)	1108234	48.4483	1610
44 2,6-Dinitrotoluene	165	5.868	5.868	(0.970)	258629	48.9559	1630
45 Acenaphthylene	152	5.950	5.950	(0.983)	1498320	47.0436	1570
48 2,4-Dinitrophenol	184	6.075	6.075	(1.004)	94766	55.9891	1870(Q)
49 Dibenzofuran	168	6.200	6.200	(1.025)	1242455	46.6587	1560
51 Diethylphthalate	149	6.321	6.321	(1.045)	1148609	49.0562	1640
53 Fluorene	166	6.460	6.460	(1.068)	993890	44.4832	1480
54 4-Chlorophenylphenylether	204	6.436	6.436	(1.064)	530758	47.8003	1590
55 2-Methyl-4,6-dinitrophenol	198	6.480	6.480	(0.897)	150133	51.3095	1710

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
56 p-Nitroaniline	138	6.465	6.460	(1.068)	263414	56.8320	1890
133 Diphenylamine	169	6.528	6.523	(0.904)	936676	49.6579	1660
58 1,2-Diphenylhydrazine	77	6.561	6.561	(0.909)	1096729	46.2154	1540
61 4-Bromophenylphenylether	248	6.826	6.826	(0.945)	313010	47.5484	1580
63 Hexachlorobenzene	284	6.899	6.898	(0.955)	293615	45.9085	1530
68 Phenanthrene	178	7.245	7.240	(1.003)	1470188	44.7571	1490
69 Anthracene	178	7.289	7.284	(1.009)	1504957	45.2376	1510
72 Di-n-butylphthalate	149	7.645	7.645	(1.059)	2039757	48.7376	1620
76 Fluoranthene	202	8.285	8.285	(1.147)	1678165	46.9866	1570
85 Butylbenzylphthalate	149	9.032	9.032	(0.937)	915667	44.7519	1490
89 Benzo(a)anthracene	228	9.624	9.624	(0.998)	1424105	43.6164	1450
90 3,3'-Dichlorobenzidine	252	9.576	9.571	(0.994)	406820	42.8088	1430
92 Chrysene	228	9.663	9.662	(1.002)	1333663	45.9025	1530
93 bis(2-Ethylhexyl)phthalate	149	9.561	9.557	(0.992)	1254671	48.4150	1610
94 Di-n-octylphthalate	149	10.216	10.216	(0.903)	1977800	41.6489	1390
95 Benzo(b)fluoranthene	252	10.799	10.799	(0.954)	1450948	43.7495	1460
96 Benzo(k)fluoranthene	252	10.837	10.833	(0.958)	1303672	41.8269	1390
97 Benzo(a)pyrene	252	11.237	11.237	(0.993)	1242151	45.6775	1520
99 Indeno(1,2,3-cd)pyrene	276	13.072	13.072	(1.155)	1081140	55.2872	1840
100 Dibenzo(a,h)anthracene	278	13.091	13.086	(1.157)	882377	56.9393	1900
101 Benzo(ghi)perylene	276	13.616	13.611	(1.203)	878889	53.8925	1800
1 N-Methyl-N-nitrosomethylamine	74	2.493	2.464	(0.634)	287176	38.2878	1280

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD7.i/s030310.b/s7c0312-3.d

Date : 03-MAR-2010 16:03

Client ID: SBLK01LCS

Sample Info: |12020519971957017|1|SVMI1|LCS

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD7.i

Operator: JMB3

Column diameter: 0.20

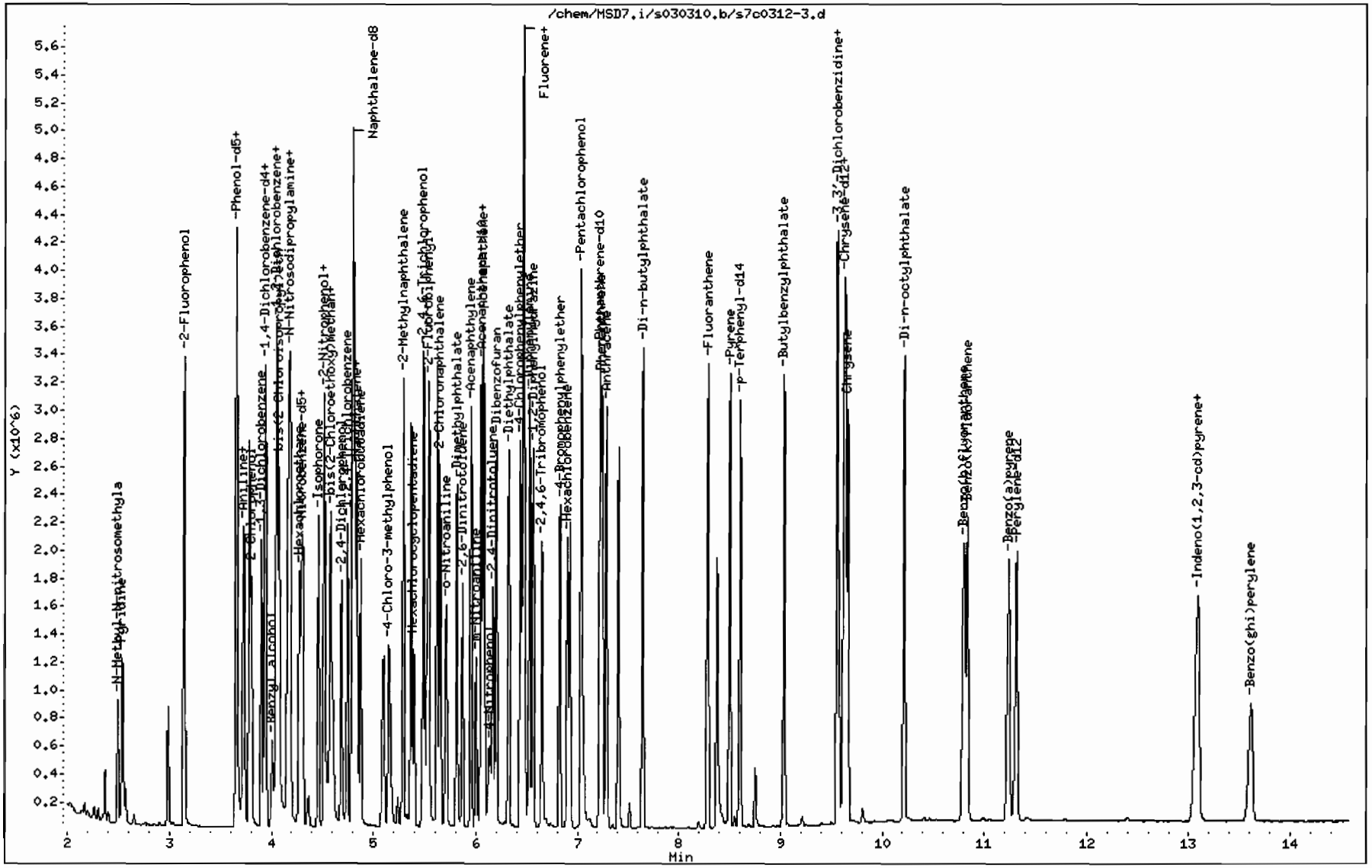

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 957012 **Verified by:** _____

Analyst: Alberto Velasco

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202051996 MB	24-FEB-2010 19:49:00	30	1	0.03333
1202051997 LCS	24-FEB-2010 19:49:00	30	1	0.03333
247319001	24-FEB-2010 19:49:00	30.18	1	0.03313
247319002	24-FEB-2010 19:49:00	30.17	1	0.03315
247319003	24-FEB-2010 19:49:00	30.19	1	0.03312
247319004	24-FEB-2010 19:49:00	30.02	1	0.03331
247319005	24-FEB-2010 19:49:00	30.13	1	0.03319
247319006	24-FEB-2010 19:49:00	30.02	1	0.03331
247319007	24-FEB-2010 19:49:00	30.02	1	0.03331
247325001	24-FEB-2010 19:49:00	30.05	1	0.03328
247327002	24-FEB-2010 19:49:00	30.02	1	0.03331
247421002	24-FEB-2010 19:49:00	30.15	1	0.03317
247421003	24-FEB-2010 19:49:00	30.03	1	0.0333
247421004	24-FEB-2010 19:49:00	30.02	1	0.03331
247421005	24-FEB-2010 19:49:00	30.02	1	0.03331
247421006	24-FEB-2010 19:49:00	30.12	1	0.0332
247421007	24-FEB-2010 19:49:00	30.12	1	0.0332
247467001	24-FEB-2010 19:49:00	30.17	1	0.03315
247467002	24-FEB-2010 19:49:00	30.02	1	0.03331
247467003	24-FEB-2010 19:49:00	30.15	1	0.03317
247552002	24-FEB-2010 19:49:00	30.18	1	0.03313
1202051998 MS (247552002)	24-FEB-2010 19:49:00	30.16	1	0.03316
1202051999 MSD (247552002)	24-FEB-2010 19:49:00	30.01	1	0.03332

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202051997	BNA LCS w/o Benzidine 50ppm	UE100217-14	1	mL
LCS	1202051997	BENZIDINE LCS	UE100217-22	1	mL
MS	1202051998	BNA LCS w/o Benzidine 50ppm	UE100217-14	1	mL
MS	1202051998	BENZIDINE LCS	UE100217-22	1	mL
MSD	1202051999	BNA LCS w/o Benzidine 50ppm	UE100217-14	1	mL
MSD	1202051999	BENZIDINE LCS	UE100217-22	1	mL
SURR	All	BNA for all Surrogate	UE100222-10	1	mL
REGNT	All	Acetone	1273823-B1	150	mL
REGNT	All	Methylene Chloride	1274843-D	150	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Verified By: AJS

Final Solvent: CH2Cl2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD7

DATE: 03/03/2010 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1965 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100227-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD7.i/s030310.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s7c0301.d	WBN100207-01	JMB3	03-MAR-2010 10:27	DFTPP	s030310	1.0	DFTPP	DUSE
s7c0302.d	WBN100225-05.5	JMB3	03-MAR-2010 10:40	CVS	s030310	1.0	MEGACVS	DUSE
s7c0303.d	WBN100207-01	JMB3	03-MAR-2010 11:07	DFTPP	s030310	1.0	DFTPP	DUSE
s7c0304.d	WBN100225-05.5	JMB3	03-MAR-2010 11:20	CVS	s030310	1.0	MEGACVS	DUSE
s7c0305.d	WBN100218-03.3	JMB3	03-MAR-2010 11:44	CVS	s030310	1.0	APCVS	DUSE
s7c0306.d	WBN100207-01	JMB3	03-MAR-2010 14:02	DFTPP	s030310	1.0	DFTPP	DUSE
s7c0307.d	WBN100207-01	JMB3	03-MAR-2010 14:18	DFTPP	s030310	1.0	DFTPP	8270c TUNE: PASSES
s7c0308.d	WBN100121-13.3	JMB3	03-MAR-2010 14:31	CVS	s030310	1.0	MEGACVS	DUSE: see s7c0309
s7c0309-BOE.d	WBN100225-05.5	JMB3	03-MAR-2010 14:55	CVS	s030310	1.0	MEGACVS	8270c MEGA BOE CVS (IS1: 380170)
s7c0309.d	WBN100225-05.5	JMB3	03-MAR-2010 14:55	CVS	s030310	1.0	MEGACVS	8270c MEGA CVS (IS1: 380170)
s7c0310.d	WBN100218-03.3	JMB3	03-MAR-2010 15:19	CVS	s030310	1.0	APCVS	8270c AP CVS
s7c0311-1.d	1202051996	JMB3	03-MAR-2010 15:41	957017	10-1892	1.0	MB	
s7c0311-2.d	1202051996	JMB3	03-MAR-2010 15:41	957017	10-1986	1.0	MB	
s7c0311-3.d	1202051996	JMB3	03-MAR-2010 15:41	957017	10-1898	1.0	MB	
s7c0311-4.d	1202051996	JMB3	03-MAR-2010 15:41	957017	10-1920	1.0	MB	
s7c0311-5.d	1202051996	JMB3	03-MAR-2010 15:41	957017	10-1943	1.0	MB	
s7c0311.d	1202051996	JMB3	03-MAR-2010 15:41	957017	10-1970	1.0	MB	
s7c0312-1.d	1202051997	JMB3	03-MAR-2010 16:03	957017	10-1892	1.0	LCS	
s7c0312-2.d	1202051997	JMB3	03-MAR-2010 16:03	957017	10-1896	1.0	LCS	

s7c0312-3.d	1202051997	JMB3	03-MAR-2010 16:03	957017	10-1898	1.0	LCS	
s7c0312-4.d	1202051997	JMB3	03-MAR-2010 16:03	957017	10-1920	1.0	LCS	
s7c0312-5.d	1202051997	JMB3	03-MAR-2010 16:03	957017	10-1943	1.0	LCS	
s7c0312.d	1202051997	JMB3	03-MAR-2010 16:03	957017	10-1970	1.0	LCS	
s7c0313.d	247552002	JMB3	03-MAR-2010 16:25	957017	10-1970	1.0	LANL	
s7c0314.d	1202051998	JMB3	03-MAR-2010 16:46	957017	10-1970	1.0	MS_LANL	
s7c0315.d	1202051999	JMB3	03-MAR-2010 17:08	957017	10-1970	1.0	MSD_LANL	
s7c0316.d	247327002	JMB3	03-MAR-2010 17:30	957017	10-1898	500.0	LANL	
s7c0317.d	247421002	JMB3	03-MAR-2010 17:51	957017	10-1920	1.0	LANL	
s7c0318.d	247421003	JMB3	03-MAR-2010 18:13	957017	10-1920	1.0	LANL	
s7c0319.d	247421004	JMB3	03-MAR-2010 18:35	957017	10-1920	1.0	LANL	
s7c0320.d	247421005	JMB3	03-MAR-2010 18:57	957017	10-1920	1.0	LANL	
s7c0321.d	247421006	JMB3	03-MAR-2010 19:18	957017	10-1920	1.0	LANL	
s7c0322.d	247421007	JMB3	03-MAR-2010 19:40	957017	10-1920	10.0	LANL	
s7c0323.d	247319001	JMB3	03-MAR-2010 20:02	957017	10-1892	1.0	LANL	
s7c0324.d	247319002	JMB3	03-MAR-2010 20:23	957017	10-1892	1.0	LANL	
s7c0325.d	247319003	JMB3	03-MAR-2010 20:45	957017	10-1892	1.0	LANL	
s7c0326.d	247319004	JMB3	03-MAR-2010 21:06	957017	10-1892	10.0	LANL	
s7c0327.d	247319005	JMB3	03-MAR-2010 21:28	957017	10-1892	10.0	LANL	
s7c0328.d	247319006	JMB3	03-MAR-2010 21:49	957017	10-1892	10.0	LANL	
s7c0329.d	247319007	JMB3	03-MAR-2010 22:11	957017	10-1892	10.0	LANL	
s7c0330.d	247325001	JMB3	03-MAR-2010 22:33	957017	10-1896	10.0	LANL	
s7c0331.d	247467001	JMB3	03-MAR-2010 22:54	957017	10-1943	1.0	LANL	
s7c0332.d	247467002	JMB3	03-MAR-2010 23:15	957017	10-1943	1.0	LANL	
s7c0333.d	247467003	JMB3	03-MAR-2010 23:37	957017	10-1943	1.0	LANL	
s7c0334.d	INSTBLANK	JMB3	03-MAR-2010 23:58	IB	s030310	1.0	INSTBLANK	
s7c0335.d	248192011	JMB3	04-MAR-2010 00:20	959758	248192H	200.0	SSFL	

s7c0336.d	248192011	JMB3	04-MAR-2010 00:41	959758	248192H		200.0	SSFL	DUSE: rerun not needed - see s7c0335
s7c0337.d	WBN090929-19.4	JMB3	04-MAR-2010 01:01	5 PPM	s030310		1.0	SIMCVS	SCREENING PURPOSES ONLY
s7c0338.d	UE100303-07	JMB3	04-MAR-2010 01:22	SCREEN	s030310		1.0	SIMSURR	SCREENING PURPOSES ONLY

Instrument Batch: /chem/MSD7.i/s030310.b

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD7

DATE: 02/25/2010 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1965 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100217-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD7.i/s022610.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s7b2601-D.d	WBN100207-01	JMB3	26-FEB-2010 10:23	DFTPP	s022610	1.0	DFTPP	8270d TUNE: MEGA
s7b2601.d	WBN100207-01	JMB3	26-FEB-2010 10:23	DFTPP	s022610	1.0	DFTPP	8270c TUNE: MEGA
s7b2602.d	INSTBLANK	JMB3	26-FEB-2010 10:35	IB	s022610	1.0	INSTBLANK	
s7b2603.d	WBN100225-08	JMB3	26-FEB-2010 11:07	ICAL	s022610	1.0	MEGA001	
s7b2604.d	WBN100225-07	JMB3	26-FEB-2010 11:31	ICAL	s022610	1.0	MEGA010	DUSE: see s7b2612
s7b2605.d	WBN100225-06	JMB3	26-FEB-2010 11:55	ICAL	s022610	1.0	MEGA020	DUSE: see s7b2613
s7b2606.d	WBN100225-05.1	JMB3	26-FEB-2010 12:19	ICAL	s022610	1.0	MEGA040	
s7b2607.d	WBN100225-04	JMB3	26-FEB-2010 12:43	ICAL	s022610	1.0	MEGA050	
s7b2608.d	WBN100225-03	JMB3	26-FEB-2010 13:07	ICAL	s022610	1.0	MEGA080	
s7b2609.d	WBN100225-02	JMB3	26-FEB-2010 13:32	ICAL	s022610	1.0	MEGA100	
s7b2610.d	WBN100225-01	JMB3	26-FEB-2010 13:56	ICAL	s022610	1.0	MEGA120	
s7b2611.d	INSTBLANK	JMB3	26-FEB-2010 14:19	IB	s022610	1.0	INSTBLANK	
s7b2612-D.d	WBN100225-07	JMB3	26-FEB-2010 14:44	ICAL	s022610	1.0	MEGA010	8270d
s7b2612.d	WBN100225-07	JMB3	26-FEB-2010 14:44	ICAL	s022610	1.0	MEGA010	
s7b2613-D.d	WBN100225-06	JMB3	26-FEB-2010 15:08	ICAL	s022610	1.0	MEGA020	8270d
s7b2613.d	WBN100225-06	JMB3	26-FEB-2010 15:08	ICAL	s022610	1.0	MEGA020	
s7b2614-625.d	WBN100225-09.1	JMB3	26-FEB-2010 15:33	ICV	s022610	1.0	MEGAICV	625 MEGA ICV
s7b2614-D.d	WBN100225-09.1	JMB3	26-FEB-2010 15:33	ICV	s022610	1.0	MEGAICV	8270d MEGA ICV
s7b2614.d	WBN100225-09.1	JMB3	26-FEB-2010 15:33	ICV	s022610	1.0	MEGAICV	8270c MEGA ICV

s7b2615-D.d	WBN100207-01	JMB3	26-FEB-2010 16:00	DFTPP	s022610	1.0	DFTPP	8270d TUNE: AP - PEST - NEV
s7b2615.d	WBN100207-01	JMB3	26-FEB-2010 16:00	DFTPP	s022610	1.0	DFTPP	8270c TUNE: AP - PEST - NEV
s7b2616.d	INSTBLANK	JMB3	26-FEB-2010 16:13	IB	s022610	1.0	INSTBLANK	
s7b2617-D.d	WBN100218-01	JMB3	26-FEB-2010 16:34	ICAL	s022610	1.0	AP010	8270d
s7b2617.d	WBN100218-01	JMB3	26-FEB-2010 16:34	ICAL	s022610	1.0	AP010	
s7b2618.d	WBN100218-02	JMB3	26-FEB-2010 16:56	ICAL	s022610	1.0	AP020	
s7b2619.d	WBN100218-03.1	JMB3	26-FEB-2010 17:17	ICAL	s022610	1.0	AP040	
s7b2620.d	WBN100218-04	JMB3	26-FEB-2010 17:39	ICAL	s022610	1.0	AP050	
s7b2621.d	WBN100218-05	JMB3	26-FEB-2010 18:00	ICAL	s022610	1.0	AP080	
s7b2622.d	WBN100218-06	JMB3	26-FEB-2010 18:22	ICAL	s022610	1.0	AP100	
s7b2623.d	WBN100218-07	JMB3	26-FEB-2010 18:43	ICAL	s022610	1.0	AP120	
s7b2624.d	WBN100205-25	JMB3	26-FEB-2010 19:05	ICAL	s022610	1.0	PEST010	
s7b2625.d	WBN100205-24	JMB3	26-FEB-2010 19:26	ICAL	s022610	1.0	PEST020	
s7b2626.d	WBN100205-23.1	JMB3	26-FEB-2010 19:48	ICAL	s022610	1.0	PEST040	
s7b2627.d	WBN100205-22	JMB3	26-FEB-2010 20:09	ICAL	s022610	1.0	PEST050	
s7b2628.d	WBN100205-21	JMB3	26-FEB-2010 20:31	ICAL	s022610	1.0	PEST080	
s7b2629.d	WBN100205-20	JMB3	26-FEB-2010 20:52	ICAL	s022610	1.0	PEST100	
s7b2630.d	WBN100205-19	JMB3	26-FEB-2010 21:14	ICAL	s022610	1.0	PEST120	
s7b2631.d	UBN100127-01	JMB3	26-FEB-2010 21:36	ICAL	s022610	1.0	NEV010	
s7b2632.d	UBN100127-02	JMB3	26-FEB-2010 21:58	ICAL	s022610	1.0	NEV020	
s7b2633.d	UBN100127-03	JMB3	26-FEB-2010 22:19	ICAL	s022610	1.0	NEV040	
s7b2634.d	UBN100127-04	JMB3	26-FEB-2010 22:40	ICAL	s022610	1.0	NEV050	
s7b2635.d	UBN100127-05	JMB3	26-FEB-2010 23:02	ICAL	s022610	1.0	NEV080	
s7b2636.d	UBN100127-06	JMB3	26-FEB-2010 23:24	ICAL	s022610	1.0	NEV100	
s7b2637.d	UBN100127-07	JMB3	26-FEB-2010 23:46	ICAL	s022610	1.0	NEV120	
s7b2638-625.d	WBN100218-08.1	JMB3	27-FEB-2010 00:07	ICV	s022610	1.0	APICV	625 AP ICV
s7b2638-D.d	WBN100218-08.1	JMB3	27-FEB-2010 00:07	ICV	s022610	1.0	APICV	8270d AP ICV

s7b2638.d	WBN100218-08.1	JMB3	27-FEB-2010 00:07	ICV	s022610	1.0	APICV	8270d AP ICV
s7b2639-625.d	WBN100205-26.1	JMB3	27-FEB-2010 00:29	ICV	s022610	1.0	PESTICV	625 PEST ICV
s7b2639-D.d	WBN100205-26.1	JMB3	27-FEB-2010 00:29	ICV	s022610	1.0	PESTICV	8270d PEST ICV
s7b2639.d	WBN100205-26.1	JMB3	27-FEB-2010 00:29	ICV	s022610	1.0	PESTICV	8270c PEST ICV
s7b2640-625.d	WBN100225-05.2	JMB3	27-FEB-2010 00:50	CVS	s022610	1.0	MEGACVS	DUSE: 625 MEGA CVS - fails some analytes >20%
s7b2641-625.d	WBN100218-03.1	JMB3	27-FEB-2010 01:15	CVS	s022610	1.0	APCVS	DUSE: 625 AP CVS
s7b2642-625.d	WBN100225-05.1	JMB3	27-FEB-2010 08:38	CVS	s022610	1.0	MEGACVS	DUSE: 625 MEGA CVS - fails some analytes >20%

Instrument Batch: /chem/MSD7.i/s022610.b

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
04-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Solid	LANL
Batch ID:	**Sample Numbers:**		
957017	See Below		

Potentially affected work order(s)(SDG): 247319(10-1892),247325(10-1896),247327(10-1898),247421(10-1920),247467(10-1943),247552(10-1970)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Yield for Surrogates

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Sample 247327002 recovered multiple surrogates outside of the established acceptance limits. Please see the QC summary report for specific failures.	1. The sample was analyzed at a 1:500 dilution due to the extract being black and extremely viscous. The diluted extract still retain some color even at at 1:500. As a result, some surrogates were diluted out of the acceptance limits and the data results have been reported.
2. The MS(1202051998) and MSD(1202051999) recovered spike analytes outside of the established acceptance limits. Please see the QC summary report for specific failures.	2. Since the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported.
3. The MS(1202051998)/MSD(1202051999) RPD for 4-Nitrophenol was 49%. The limit is 30%.	3. Since 4-Nitrophenol was individually within the acceptance limits for the MS and MSD, the data results have been reported.

Originator's Name:

Josh Brooks 04-MAR-10

Data Validator/Group Leader:

Barbara Bailey 05-MAR-10

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD7.i/s030310.b/s7c0314.d
Lab Smp Id: 1202051998 Client Smp ID: WST15-10-8894MS
Inj Date : 03-MAR-2010 16:46
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202051998|957017|1|SVM|1|MS_LANL
Misc Info : |MSD8270_S|WBN100227-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 04-Mar-2010 07:57 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 8 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1970.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.16000	weight of sample
M	2.37500	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.932	3.932	(1.000)	399607	40.0000	
* 29 Naphthalene-d8	136	4.794	4.794	(1.000)	1610851	40.0000	
* 46 Acenaphthene-d10	164	6.051	6.051	(1.000)	847387	40.0000	
* 67 Phenanthrene-d10	188	7.221	7.221	(1.000)	1554585	40.0000	
* 91 Chrysene-d12	240	9.638	9.638	(1.000)	1324003	40.0000	
* 98 Perylene-d12	264	11.314	11.314	(1.000)	1174468	40.0000	
$ 3 2-Fluorophenol	112	3.138	3.128	(0.798)	735432	70.8051	2400
$ 5 Phenol-d5	99	3.653	3.648	(0.929)	892255	68.5154	2330
$ 20 Nitrobenzene-d5	82	4.289	4.293	(0.895)	429105	35.3186	1200
$ 39 2-Fluorobiphenyl	172	5.536	5.536	(0.915)	775922	36.7417	1250
$ 60 2,4,6-Tribromophenol	329	6.648	6.648	(1.099)	199983	81.6362	2770
$ 81 p-Terphenyl-d14	244	8.598	8.603	(0.892)	909643	38.3495	1300

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.663	3.658	(0.931)	437757	33.8391	1150
8 2-Chlorophenol	128	3.802	3.797	(0.967)	393091	39.7067	1350
11 1,4-Dichlorobenzene	146	3.942	3.942	(1.002)	408994	34.2757	1160
17 N-Nitrosodipropylamine	70	4.168	4.168	(1.060)	288965	39.2660	1330(Q)
28 1,2,4-Trichlorobenzene	180	4.741	4.746	(0.989)	373774	36.0550	1220
33 4-Chloro-3-methylphenol	107	5.155	5.141	(1.075)	341509	37.1984	1260
47 Acenaphthene	154	6.075	6.075	(1.004)	679363	36.4246	1240
50 2,4-Dinitrotoluene	165	6.162	6.167	(1.018)	272308	39.7191	1350
52 4-Nitrophenol	139	6.133	6.099	(1.014)	108131	31.3589	1060
65 Pentachlorophenol	266	7.053	7.048	(0.977)	127226	43.2866	1470
79 Pyrene	202	8.497	8.502	(0.882)	1356817	32.4384	1100
2 Pyridine	79	2.526	2.497	(0.642)	303349	31.4774	1070
4 Aniline	66	3.716	3.716	(0.945)	197550	31.8011	1080(Q)
7 bis(2-Chloroethyl) ether	63	3.730	3.730	(0.949)	329080	31.0681	1060(Q)
9 1,3-Dichlorobenzene	146	3.899	3.899	(0.991)	424763	34.1571	1160
13 1,2-Dichlorobenzene	146	4.048	4.048	(1.029)	406319	37.0175	1260
14 bis(2-Chloroisopropyl)ether	45	4.072	4.072	(1.036)	859586	35.0313	1190
15 o-Cresol	107	4.048	4.048	(1.029)	383046	48.3324	1640
18 m,p-Cresols	107	4.149	4.154	(1.055)	520929	48.6467	1650
19 Hexachloroethane	117	4.274	4.274	(1.087)	158126	34.1284	1160
21 Nitrobenzene	77	4.303	4.308	(0.898)	419760	37.2441	1260
22 Isophorone	82	4.457	4.462	(0.930)	777007	35.6822	1210
23 2-Nitrophenol	139	4.515	4.520	(0.942)	213870	40.4087	1370
24 2,4-Dimethylphenol	122	4.515	4.510	(0.942)	373775	38.1992	1300
25 bis(2-Chloroethoxy)methane	93	4.578	4.577	(0.955)	427043	35.8437	1220
26 2,4-Dichlorophenol	162	4.684	4.683	(0.977)	327143	38.2710	1300
27 Benzoic acid	105	4.582	4.573	(0.956)	503504	103.478	3510
30 Naphthalene	128	4.809	4.813	(1.003)	1080121	35.4961	1200
31 4-Chloroaniline	127	4.828	4.823	(1.007)	468625	32.8880	1120
32 Hexachlorobutadiene	225	4.871	4.876	(1.016)	193348	35.7383	1210
34 2-Methylnaphthalene	142	5.290	5.290	(1.103)	810052	37.0922	1260
36 Hexachlorocyclopentadiene	237	5.391	5.391	(0.891)	163986	40.0296	1360
37 2,4,6-Trichlorophenol	196	5.483	5.478	(0.906)	227492	38.2646	1300
38 2,4,5-Trichlorophenol	196	5.521	5.512	(0.912)	288249	48.2080	1640
40 2-Chloronaphthalene	162	5.642	5.646	(0.932)	708967	36.1468	1230
42 o-Nitroaniline	65	5.700	5.704	(0.942)	254641	36.6714	1240
41 m-Nitroaniline	138	5.998	5.998	(0.991)	186335	36.7687	1250
43 Dimethylphthalate	163	5.806	5.810	(0.959)	909134	40.3739	1370
44 2,6-Dinitrotoluene	165	5.863	5.868	(0.969)	210886	40.5509	1380
45 Acenaphthylene	152	5.950	5.950	(0.983)	1202380	38.3498	1300
48 2,4-Dinitrophenol	184	6.075	6.075	(1.004)	52360	37.7209	1280(Q)
49 Dibenzofuran	168	6.196	6.200	(1.024)	1010200	38.5377	1310
51 Diethylphthalate	149	6.321	6.321	(1.045)	938305	40.7091	1380
53 Fluorene	166	6.460	6.460	(1.068)	812370	36.9349	1250
54 4-Chlorophenylphenylether	204	6.436	6.436	(1.064)	437671	40.0412	1360
55 2-Methyl-4,6-dinitrophenol	198	6.480	6.480	(0.897)	106214	39.5906	1340
56 p-Nitroaniline	138	6.460	6.460	(1.068)	209557	45.9284	1560

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133 Diphenylamine	169	6.523	6.523	(0.903)	761082	41.5469	1410
58 1,2-Diphenylhydrazine	77	6.561	6.561	(0.909)	895633	38.8621	1320
61 4-Bromophenylphenylether	248	6.826	6.826	(0.945)	252286	39.4620	1340
63 Hexachlorobenzene	284	6.899	6.898	(0.955)	243133	39.1441	1330
68 Phenanthrene	178	7.240	7.240	(1.003)	1195360	37.4711	1270
69 Anthracene	178	7.284	7.284	(1.009)	1210828	37.4771	1270
72 Di-n-butylphthalate	149	7.645	7.645	(1.059)	1671306	41.1197	1400
76 Fluoranthene	202	8.285	8.285	(1.147)	1352075	38.9806	1320
85 Butylbenzylphthalate	149	9.032	9.032	(0.937)	740263	37.2172	1260
89 Benzo(a)anthracene	228	9.624	9.624	(0.998)	1184184	37.3087	1270
90 3,3'-Dichlorobenzidine	252	9.571	9.571	(0.993)	331467	35.8802	1220
92 Chrysene	228	9.663	9.662	(1.002)	1090728	38.6180	1310
93 bis(2-Ethylhexyl)phthalate	149	9.557	9.557	(0.992)	1033102	41.0088	1390
94 Di-n-octylphthalate	149	10.211	10.216	(0.903)	1639564	34.7651	1180
95 Benzo(b)fluoranthene	252	10.794	10.799	(0.954)	1154663	35.0567	1190
96 Benzo(k)fluoranthene	252	10.833	10.833	(0.957)	1117916	36.1153	1230
97 Benzo(a)pyrene	252	11.232	11.237	(0.993)	1032293	38.2230	1300
99 Indeno(1,2,3-cd)pyrene	276	13.067	13.072	(1.155)	943187	48.5663	1650
100 Dibenzo(a,h)anthracene	278	13.086	13.086	(1.157)	771685	50.1410	1700
101 Benzo(ghi)perylene	276	13.606	13.611	(1.203)	778484	48.0661	1630
1 N-Methyl-N-nitrosomethylamine	74	2.483	2.464	(0.631)	215976	30.8836	1050

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD7.i/s030310.b/s7c0314.d
Date : 03-MAR-2010 16:46
Client ID: WST15-10-8894MS
Sample Info: 1120205199819570171|1|SVMI1|MS_LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

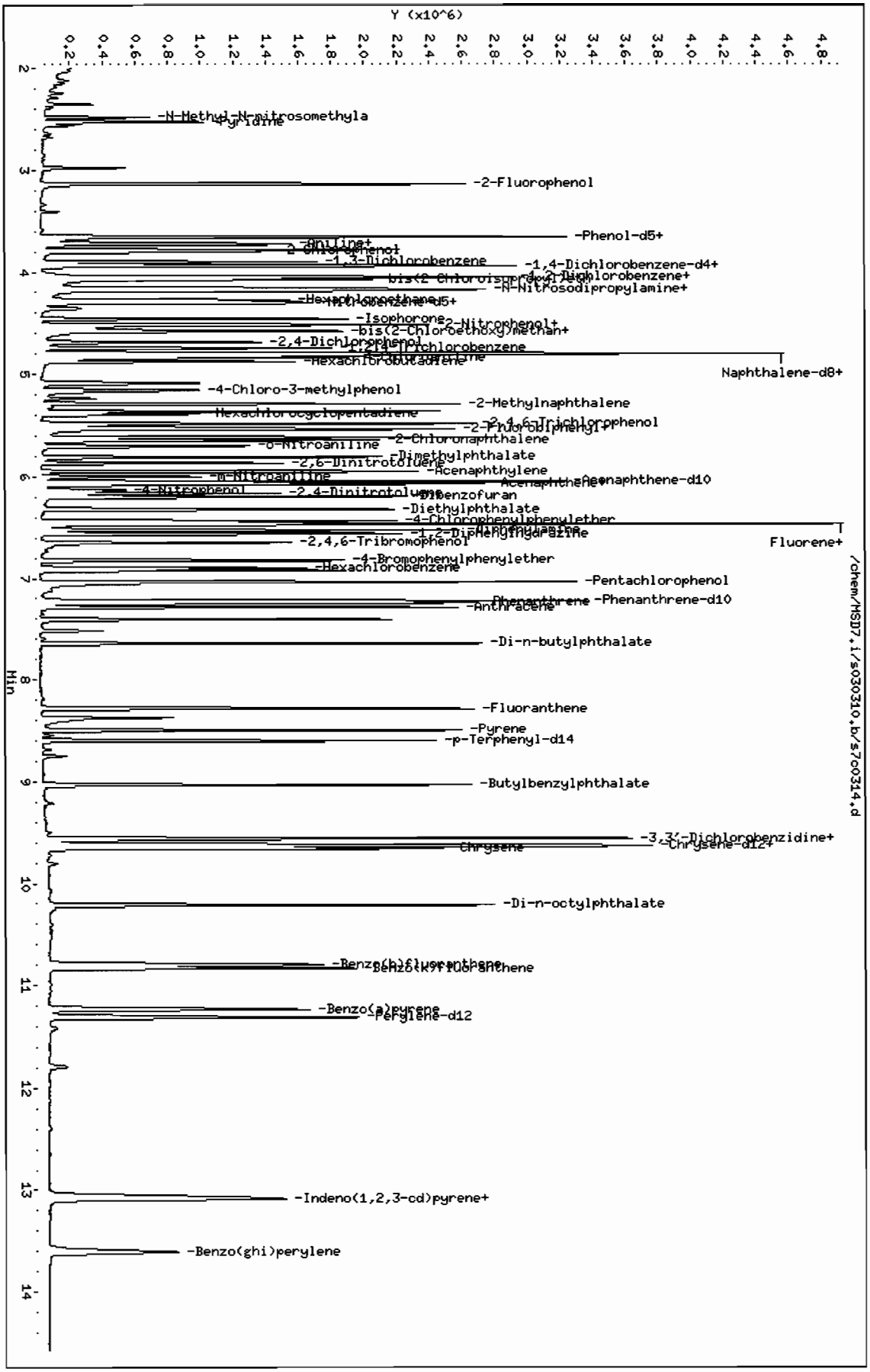

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Data file : /chem/MSD7.i/s030310.b/s7c0315.d
Lab Smp Id: 1202051999 Client Smp ID: WST15-10-8894MSD
Inj Date : 03-MAR-2010 17:08
Operator : JMB3 Inst ID: MSD7.i
Smp Info : |1202051999|957017|1|SVM|1|MSD_LANL
Misc Info : |MSD8270_S|WBN100227-01|
Comment : Column: J&W Scientific DB-5MS 25m x 0.2mm x 0.33um film thickness
Method : /chem/MSD7.i/s030310.b/MSD7-M8270C-AQA-022610.m
Meth Date : 04-Mar-2010 07:57 jos00786 Quant Type: ISTD
Cal Date : 26-FEB-2010 22:19 Cal File: s7b2633.d
Als bottle: 9 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1970.sub
Target Version: 3.50
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf *Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vi	0.50000	volume injected
Ws	30.01000	weight of sample
M	2.37500	% moisture

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
* 10 1,4-Dichlorobenzene-d4	152	3.932	3.932	(1.000)	318252	40.0000	
* 29 Naphthalene-d8	136	4.794	4.794	(1.000)	1299238	40.0000	
* 46 Acenaphthene-d10	164	6.046	6.051	(1.000)	673625	40.0000	
* 67 Phenanthrene-d10	188	7.221	7.221	(1.000)	1214697	40.0000	
* 91 Chrysene-d12	240	9.634	9.638	(1.000)	984638	40.0000	
* 98 Perylene-d12	264	11.309	11.314	(1.000)	875458	40.0000	
$ 3 2-Fluorophenol	112	3.133	3.128	(0.797)	634885	76.7501	2620
$ 5 Phenol-d5	99	3.648	3.648	(0.928)	755240	72.8193	2480
$ 20 Nitrobenzene-d5	82	4.289	4.293	(0.895)	373910	38.1570	1300
$ 39 2-Fluorobiphenyl	172	5.536	5.536	(0.916)	672253	40.0440	1370
$ 60 2,4,6-Tribromophenol	329	6.648	6.648	(1.100)	167131	85.8243	2930
$ 81 p-Terphenyl-d14	244	8.598	8.603	(0.893)	793414	44.9781	1540

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
6 Phenol	94	3.658	3.658	(0.930)	366168	35.5408	1210
8 2-Chlorophenol	128	3.797	3.797	(0.966)	333993	42.3614	1440
11 1,4-Dichlorobenzene	146	3.942	3.942	(1.002)	353019	37.1475	1270
17 N-Nitrosodipropylamine	70	4.163	4.168	(1.059)	242440	41.3655	1410(Q)
28 1,2,4-Trichlorobenzene	180	4.741	4.746	(0.989)	326956	39.1032	1330
33 4-Chloro-3-methylphenol	107	5.160	5.141	(1.076)	265051	35.7946	1220
47 Acenaphthene	154	6.070	6.075	(1.004)	591283	39.8796	1360
50 2,4-Dinitrotoluene	165	6.162	6.167	(1.019)	238942	43.8424	1500
52 4-Nitrophenol	139	6.142	6.099	(1.016)	51880	18.9267	646(Q)
65 Pentachlorophenol	266	7.053	7.048	(0.977)	114814	49.9942	1710
79 Pyrene	202	8.497	8.502	(0.882)	1181555	37.9843	1300
2 Pyridine	79	2.507	2.497	(0.638)	251990	32.8323	1120
4 Aniline	66	3.716	3.716	(0.945)	193093	39.0295	1330(Q)
7 bis(2-Chloroethyl) ether	63	3.730	3.730	(0.949)	286254	33.9333	1160(Q)
9 1,3-Dichlorobenzene	146	3.899	3.899	(0.991)	366826	37.0388	1260
13 1,2-Dichlorobenzene	146	4.043	4.048	(1.028)	350869	40.1372	1370
14 bis(2-Chloroisopropyl)ether	45	4.072	4.072	(1.036)	752828	38.5233	1310
15 o-Cresol	107	4.048	4.048	(1.029)	278674	44.1515	1510
18 m,p-Cresols	107	4.149	4.154	(1.055)	467487	54.8158	1870
19 Hexachloroethane	117	4.274	4.274	(1.087)	135270	36.6587	1250
21 Nitrobenzene	77	4.303	4.308	(0.898)	360739	39.6840	1350
22 Isophorone	82	4.457	4.462	(0.930)	660235	37.5917	1280
23 2-Nitrophenol	139	4.515	4.520	(0.942)	184444	43.2072	1470
24 2,4-Dimethylphenol	122	4.515	4.510	(0.942)	345714	44.5403	1520
25 bis(2-Chloroethoxy)methane	93	4.573	4.577	(0.954)	364933	37.9771	1300
26 2,4-Dichlorophenol	162	4.683	4.683	(0.977)	278946	40.4594	1380
27 Benzoic acid	105	4.577	4.573	(0.955)	419251	106.828	3650
30 Naphthalene	128	4.809	4.813	(1.003)	943134	38.4281	1310
31 4-Chloroaniline	127	4.823	4.823	(1.006)	426152	37.0804	1260
32 Hexachlorobutadiene	225	4.876	4.876	(1.017)	168414	38.5957	1320
34 2-Methylnaphthalene	142	5.290	5.290	(1.103)	696386	39.5354	1350
36 Hexachlorocyclopentadiene	237	5.391	5.391	(0.892)	127290	39.0870	1330
37 2,4,6-Trichlorophenol	196	5.483	5.478	(0.907)	159592	33.7681	1150
38 2,4,5-Trichlorophenol	196	5.521	5.512	(0.913)	278056	58.4989	2000(R)
40 2-Chloronaphthalene	162	5.642	5.646	(0.933)	610874	39.1795	1340
42 o-Nitroaniline	65	5.699	5.704	(0.943)	217223	39.3522	1340
41 m-Nitroaniline	138	5.998	5.998	(0.992)	162376	40.3060	1380
43 Dimethylphthalate	163	5.805	5.810	(0.960)	786605	43.9434	1500
44 2,6-Dinitrotoluene	165	5.863	5.868	(0.970)	181627	43.9336	1500
45 Acenaphthylene	152	5.950	5.950	(0.984)	1032850	41.4402	1410
48 2,4-Dinitrophenol	184	6.075	6.075	(1.005)	49791	42.3070	1440(Q)
49 Dibenzofuran	168	6.195	6.200	(1.025)	872090	41.8507	1430
51 Diethylphthalate	149	6.316	6.321	(1.045)	828019	45.1909	1540
53 Fluorene	166	6.460	6.460	(1.068)	696230	39.8198	1360
54 4-Chlorophenylphenylether	204	6.436	6.436	(1.064)	379526	43.6782	1490
55 2-Methyl-4,6-dinitrophenol	198	6.475	6.480	(0.897)	96857	44.8432	1530
56 p-Nitroaniline	138	6.460	6.460	(1.068)	175566	48.4042	1650

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/Kg)
133 Diphenylamine	169	6.523	6.523	(0.903)	656367	45.8565	1560
58 1,2-Diphenylhydrazine	77	6.561	6.561	(0.909)	767210	42.6046	1450
61 4-Bromophenylphenylether	248	6.821	6.826	(0.945)	215927	43.2254	1480
63 Hexachlorobenzene	284	6.894	6.898	(0.955)	211592	43.5982	1490
68 Phenanthrene	178	7.240	7.240	(1.003)	1036058	41.5650	1420
69 Anthracene	178	7.284	7.284	(1.009)	1028078	40.7245	1390
72 Di-n-butylphthalate	149	7.640	7.645	(1.058)	1487603	46.8411	1600
76 Fluoranthene	202	8.280	8.285	(1.147)	1169417	43.1483	1470
85 Butylbenzylphthalate	149	9.032	9.032	(0.938)	652525	44.1130	1500
89 Benzo(a)anthracene	228	9.624	9.624	(0.999)	993053	42.0703	1440
90 3,3'-Dichlorobenzidine	252	9.571	9.571	(0.994)	273793	39.8519	1360
92 Chrysene	228	9.658	9.662	(1.002)	897926	42.7491	1460
93 bis(2-Ethylhexyl)phthalate	149	9.557	9.557	(0.992)	917168	48.9548	1670
94 Di-n-octylphthalate	149	10.211	10.216	(0.903)	1396179	39.7157	1360
95 Benzo(b)fluoranthene	252	10.794	10.799	(0.954)	930722	37.9090	1290
96 Benzo(k)fluoranthene	252	10.828	10.833	(0.957)	978109	42.3912	1450
97 Benzo(a)pyrene	252	11.232	11.237	(0.993)	858341	42.6371	1460
99 Indeno(1,2,3-cd)pyrene	276	13.067	13.072	(1.155)	779763	53.8649	1840
100 Dibenzo(a,h)anthracene	278	13.081	13.086	(1.157)	638644	55.6695	1900
101 Benzo(ghi)perylene	276	13.601	13.611	(1.203)	641933	53.1722	1810
1 N-Methyl-N-nitrosomethylamine	74	2.468	2.464	(0.628)	183094	32.8744	1120

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD7.i/s030310.b/s7c0315.d
Date : 03-MAR-2010 17:08
Client ID: WST15-10-8894MSD
Sample Info: 1120205199919570417|1|SVM|1|MSD_LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD7.i
Operator: JMB3
Column diameter: 0.20

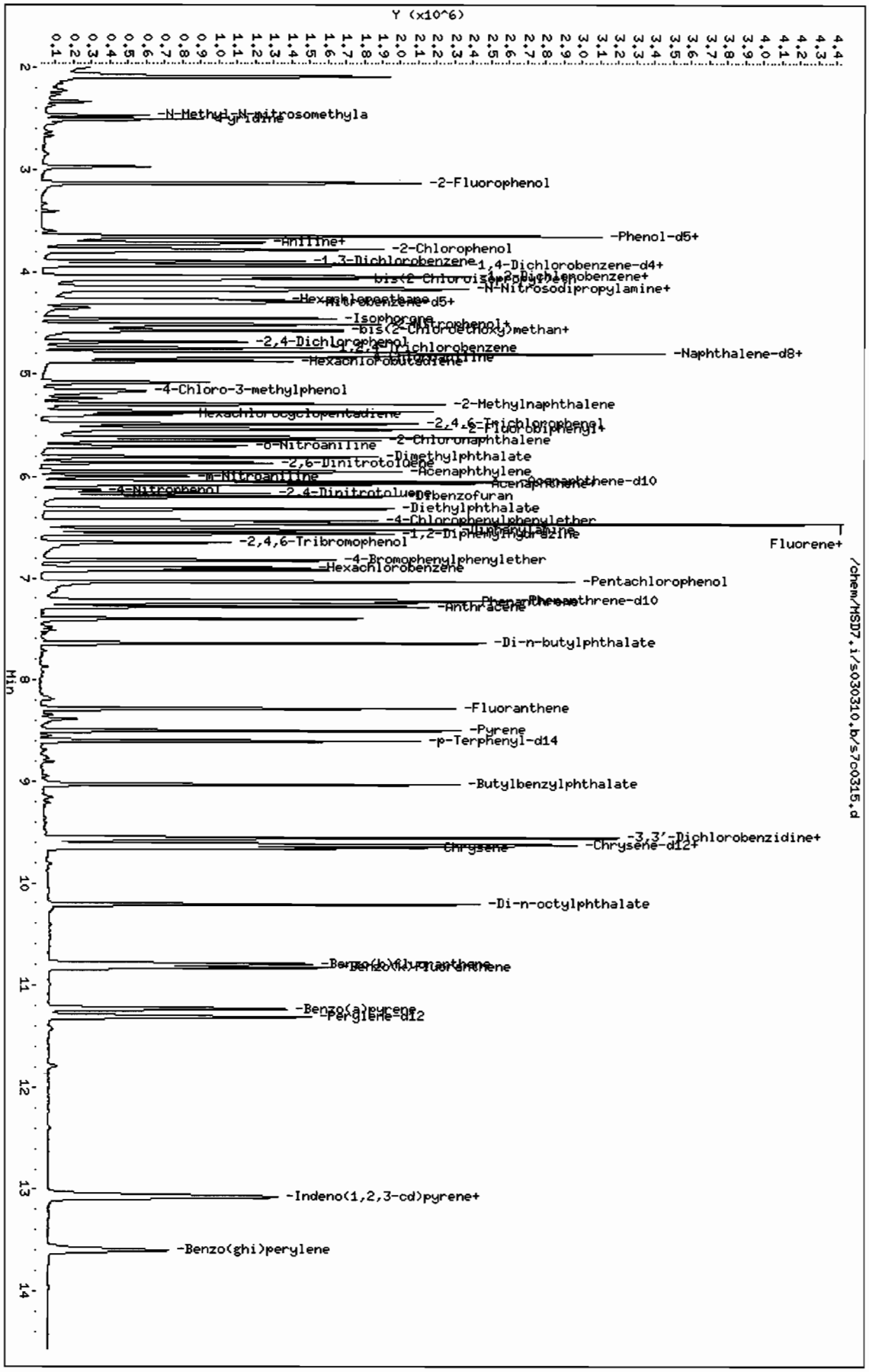

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LC/MS/MS EXPLOSIVES ANALYSIS

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LC/MS/MS Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1898

Method/Analysis Information

Procedure:	**Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)**
Analytical Method:	SW846 8321A Modified
Prep Method:	SW846 8330 PREP
Analytical Batch Number:	955065
Prep Batch Number:	955064

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8321A Modified:

Sample ID	Client ID
247327002	WST15-10-8941
1202047529	Method Blank (MB)
1202047530	Laboratory Control Sample (LCS)
1202047531	247327002(WST15-10-8941) Matrix Spike (MS)
1202047532	247327002(WST15-10-8941) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

Primary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

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Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

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

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS recovered Tetryl at 49.0%. The recovery limits are 51-112%. Since the MS met acceptance limits for Tetryl, method control was achieved. The samples have exceeded twice their hold time; therefore, the data are reported. Please see data exception report 807207.

QC Sample Designation
Sample 247327002 (WST15-10-8941) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovered Tetryl at 35.5%. The recovery limits are 36-124%. Since the MS met acceptance limits for Tetryl, method control was achieved. The data are reported. Please see data exception report 807207.

MS/MSD Relative Percent Difference (RPD) Statement
The MS/MSD RPD for Tetryl was 35.0%. The acceptance limits are 0-30%. Since all other RPD recoveries for this analysis met acceptance criteria, the noted exceptions are attributed to vagaries in the extraction process. The data are reported. Please see data exception report 807207.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC in this SDG.

Technical Information

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

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

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Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Secondary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

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

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Sample 247327002 (WST15-10-8941) was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recovered TATB at 276%. The recovery limits are 29-155%. Since the LCS met acceptance limits for TATB, the data are reported. Please see data exception report 807207.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

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MS/MSD Relative Percent Difference (RPD) Statement
The MS/MSD RPD for TATB was 85.6%. The acceptance limits are 0-30%. Since all other RPD recoveries for this analysis met acceptance criteria, the noted exceptions are attributed to vagaries in the extraction process. The data are reported. Please see data exception report 807207.

Internal Standard (ISTD) Acceptance
The internal standards were not added to the secondary analyte extracts.

Technical Information

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

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report 807209 was generated for this SDG.

The LCS recovered Tetryl at 49.0%. The recovery limits are 51-112%. Since the MS met acceptance limits for Tetryl, method control was achieved. The samples have exceeded twice their hold time; therefore, the data are reported.

The MS recovered TATB at 276%. The recovery limits are 29-155%. Since the LCS met acceptance limits for TATB, the data are reported.

The MSD recovered Tetryl at 35.5%. The recovery limits are 36-124%. Since the MS met acceptance limits for Tetryl, method control was achieved. The data are reported.

The MS/MSD RPD for Tetryl was 35.0%. The acceptance limits are 0-30%. The MS/MSD RPD for TATB was 85.6%. The acceptance limits are 0-30%. Since all other RPD recoveries met acceptance criteria, the noted exceptions are attributed to vagaries in the extraction process. The data are reported.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

Flagging Convention
The sample was not originally analyzed using SW-846 Method 8330.

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Additional Comments
Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

Certification Statement

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

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: Herbert M. Mauc **Date:** 03/24/10

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SAMPLE DATA SUMMARY

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: WST15-10-8941

Lab Code: GEL

GEL Job No (SDG) 10-1898

Matrix: SOIL

GEL Sample ID: 247327002

Sample Amount 2

Moisture: 7.8

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0314081a

Date Analyzed: 16-MAR-10 06:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	228	J
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: WST15-10-8941

Lab Code: GEL

GEL Job No (SDG) 10-1898

Matrix: SOIL

GEL Sample ID: 247327002

Sample Amount 2

Moisture: 7.8

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03050100.wiff

Date Analyzed: 06-MAR-10 19:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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QUALITY CONTROL SUMMARY

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

2

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1898

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
247327002	WST15–10–8941	103	70 – 144	
247327002	WST15–10–8941	93.6	70 – 144	
1202047529	MB for batch 955064	98.6	70 – 144	
1202047529	MB for batch 955064	96.8	70 – 144	
1202047530	LCS for batch 955064	101	70 – 144	
1202047530	LCS for batch 955064	94.4	70 – 144	
1202047531	WST15–10–8941(247327002MS)	116	70 – 144	
1202047531	WST15–10–8941(247327002MS)	99.2	70 – 144	
1202047532	WST15–10–8941(247327002MSD)	101	70 – 144	
1202047532	WST15–10–8941(247327002MSD)	104	70 – 144	

DNT = 3,4–Dinitrotoluene

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10–1898

Extract Batch Code: 955064

Date Extracted: 24–FEB–10

GEL LCS ID: 1202047530

GEL LCSDUP ID:

Analysis Date/Time: 16–MAR–10 05:19

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec	#	LCSD Conc	LCSD Rec	#	RPD	#	RPD	Recovery Limits
Nitrobenzene	5000	4500	90								71 – 122
PETN	5000	5360	107								64 – 137
RDX	5000	4870	97.4								81 – 137
2,4,6–Trinitrotoluene	5000	4760	95.2								73 – 149
4–Amino–2,6–dinitrotoluene	5000	4850	97								84 – 130
2–Amino–4,6–dinitrotoluene	5000	5160	103								90 – 130
2,6–Dinitrotoluene	5000	4980	99.6								89 – 120
2,4–Dinitrotoluene	5000	5540	111								87 – 137
1,3,5–Trinitrobenzene	5000	3920	78.4								69 – 126
HMX	5000	4520	90.4								58 – 138
Tetryl	5000	2450	49	*							51 – 112
m–Dinitrobenzene	5000	4500	90								83 – 122
m–Nitrotoluene	5000	5040	101								73 – 118
o–Nitrotoluene	5000	4860	97.2								72 – 119
p–Nitrotoluene	5000	4970	99.4								67 – 131

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10–1898

Extract Batch Code: 955064

Date Extracted: 24–FEB–10

GEL LCS ID: 1202047530

GEL LCSDUP ID:

Analysis Date/Time: 06–MAR–10 18:46

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
2,4–Diamino–6–nitrotoluene	5000	4450	89					52 – 114
2,6–Diamino–4–nitrotoluene	5000	4810	96.2					64 – 122
TATB	5000	5220	104					28 – 162
3,5–Dinitroaniline	5000	5060	101					70 – 127
tris(o–cresyl) phosphate	5000	5210	104					84 – 119

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: WST15-10-8941

Lab Code: GEL

GEL Job No (SDG) 10-1898

Extract Batch Code: 955064

Date Extracted: 24-FEB-10

GEL Spike ID: 1202047531

GEL SpikeDup ID: 1202047532

Analysis Date/Time: 16-MAR-10 06:48

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
1,3,5-Trinitrobenzene	5000	0	4420	88.4	4420	88.3	.09	30	50 – 140
2,4,6-Trinitrotoluene	5000	0	5700	114	4680	93.7	19.6	30	76 – 144
2,4-Dinitrotoluene	5000	0	4890	97.8	5320	106	8.34	30	86 – 135
2,6-Dinitrotoluene	5000	0	4850	97	4830	96.7	.35	30	90 – 118
2-Amino-4,6-dinitrotoluene	5000	0	5990	120	5200	104	14.1	30	85 – 137
4-Amino-2,6-dinitrotoluene	5000	0	5330	107	4830	96.6	9.86	30	72 – 143
HMX	5000	228	5810	112	5490	105	5.7	30	51 – 144
Nitrobenzene	5000	0	4740	94.7	4770	95.4	.672	30	70 – 122
PETN	5000	0	5150	103	5600	112	8.38	30	60 – 140
RDX	5000	0	5260	105	5990	120	13	30	59 – 152
Tetryl	5000	0	2530	50.5	1770	35.5 *	35 *	30	36 – 124
m-Dinitrobenzene	5000	0	4720	94.4	4510	90.1	4.66	30	85 – 118
m-Nitrotoluene	5000	0	4250	85.1	4010	80.2	5.87	30	70 – 120
o-Nitrotoluene	5000	0	4160	83.1	4060	81.2	2.29	30	69 – 123
p-Nitrotoluene	5000	0	3900	78	3990	79.7	2.18	30	65 – 133

#Column to be used to flag recovery and RPD values with an asterisk

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: WST15-10-8941

Lab Code: GEL

GEL Job No (SDG) 10-1898

Extract Batch Code: 955064

Date Extracted: 24-FEB-10

GEL Spike ID: 1202047531

GEL SpikeDup ID: 1202047532

Analysis Date/Time: 06-MAR-10 19:17

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec	#	MSD Conc	MSD Rec	#	RPD	#	RPD Limit	Rec Limits
2,4-Diamino-6-nitrotoluene	5000	0	3390	67.8		3310	66.2		2.39		26	34 – 135
2,6-Diamino-4-nitrotoluene	5000	0	4430	88.6		4440	88.8		.225		30	55 – 130
3,5-Dinitroaniline	5000	0	5100	102		5430	109		6.27		30	73 – 129
tris(o-cresyl) phosphate	5000	0	5110	102		5160	103		.974		30	72 – 127
TATB	5000	0	13800	276	*	5530	111		85.6	*	30	29 – 155

#Column to be used to flag recovery and RPD values with an asterisk

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1898

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 14-MAR-10 14:59

GEL Data File: EXP0314001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	451.034
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	427.53

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\031410expa.mdb, Time: Mon Mar 15 09:25:32 2010
Calibration: Untitled, Time: Mon Mar 15 10:15:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314001a
Date: 14-Mar-2010
Time: 14:59:01
ID: XIBLK01
Vial: 1:1,A

MMP 3/15/10

HMX

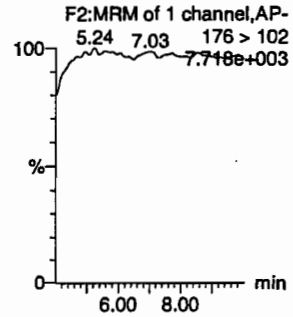

RDX

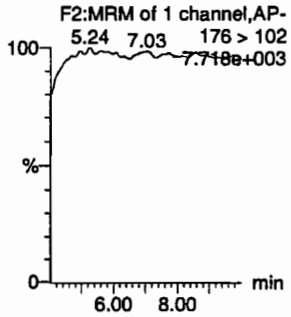

135-Trinitrobenzene

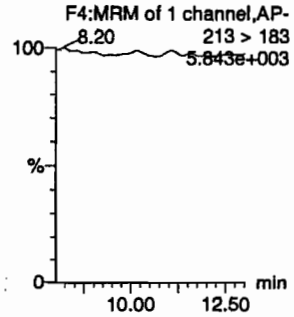

13-Dinitrobenzene-d4

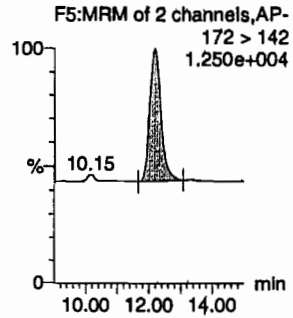

13-Dinitrobenzene

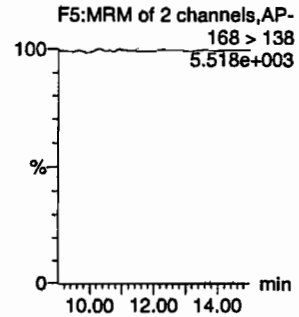

Tetryl

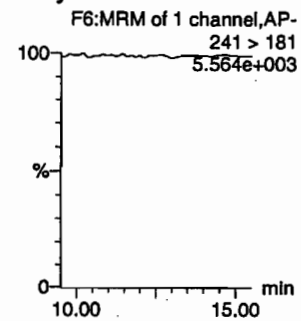

Nitrobenzene

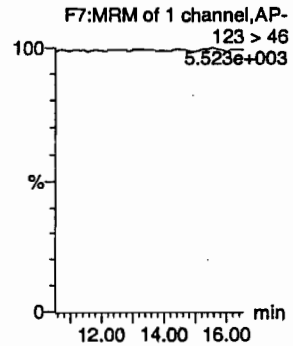

4-Amino-26-dinitrotoluene

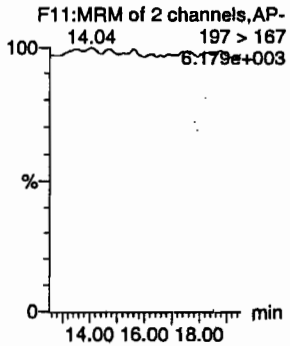

2-Amino-46-dinitrotoluene

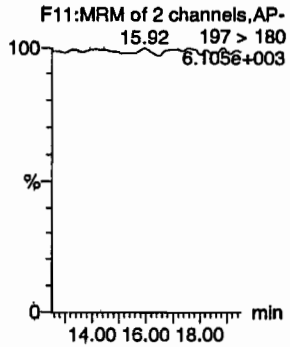

246-Trinitrotoluene

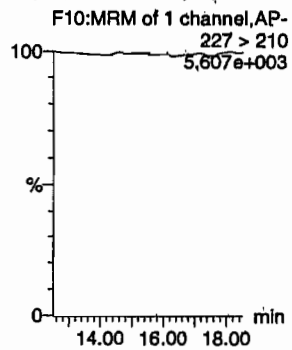

34-dinitrotoluene

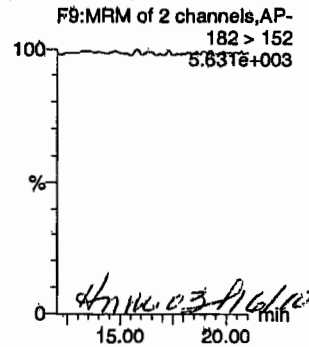

26-dinitrotoluene

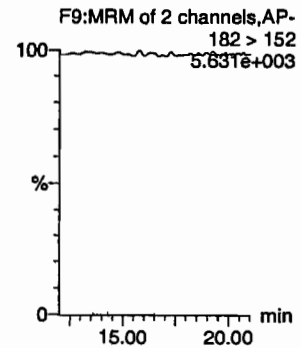

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

24-dinitrotoluene

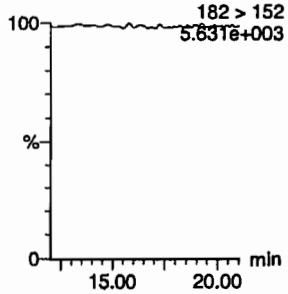

26-dinitrotoluene-d3

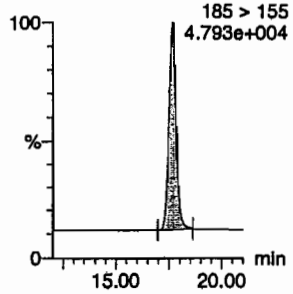

2-Nitrotoluene

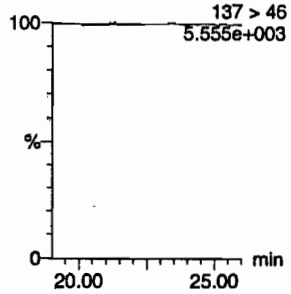

4-Nitrotoluene

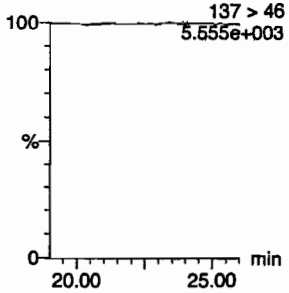

3-Nitrotoluene

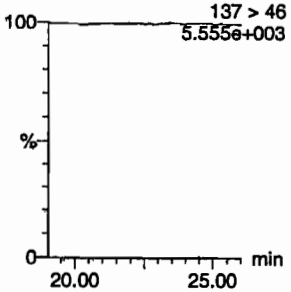

PETN

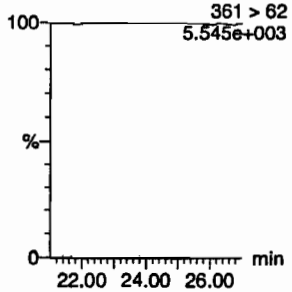

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			2876.799									
XIBLK01	RDX	176 > 102			2876.799									
XIBLK01	135-Trinitrobenzene	213 > 183			2876.799									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.17	2876.799		2876.799	2876.799	bb			427.5299	85.5	-14.5	57.7
XIBLK01	13-Dinitrobenzene	168 > 138			2876.799									
XIBLK01	Tetryl	241 > 181			2876.799									
XIBLK01	Nitrobenzene	123 > 46			2876.799									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			17189.488									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			17189.488									
XIBLK01	246-Trinitrotoluene	227 > 210			17189.488									
XIBLK01	34-dinitrotoluene	182 > 152			17189.488									
XIBLK01	26-dinitrotoluene	182 > 152			17189.488									
XIBLK01	24-dinitrotoluene	182 > 152			17189.488									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.64	17189.488		17189.488	17189.488	bb			451.0341	90.2	-9.8	926.4
XIBLK01	2-Nitrotoluene	137 > 46			17189.488									
XIBLK01	4-Nitrotoluene	137 > 46			17189.488									
XIBLK01	3-Nitrotoluene	137 > 46			17189.488									
XIBLK01	PETN	361 > 62			17189.488									

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1898

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 14–MAR–10 15:28

GEL Data File: EXP0314002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	439.79
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	459.668
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314002a
Date: 14-Mar-2010
Time: 15:28:30
ID: XIBLK01
Vial: 1:1,A

MMM 3/15/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
4.78 6.77 7.200e+003

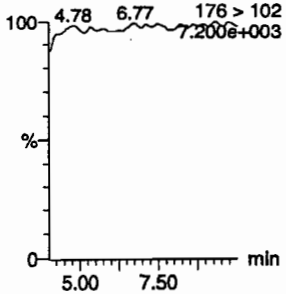

RDX
F2:MRM of 1 channel,AP-
176 > 102
4.78 6.77 7.200e+003

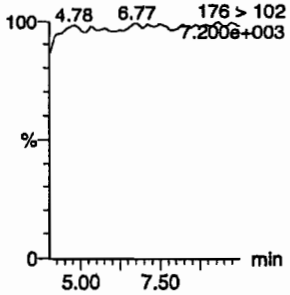

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.703e+003

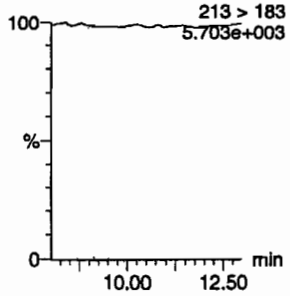

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.263e+004

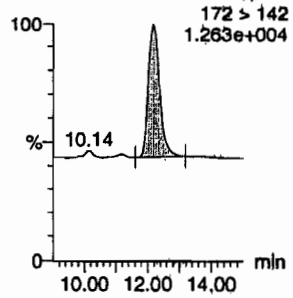

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.565e+003

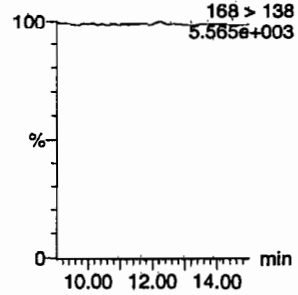

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
9.82 5.651e+003

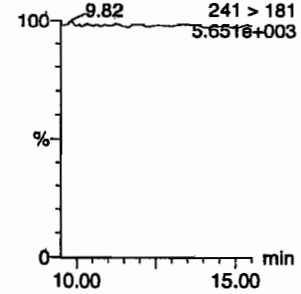

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.584e+003

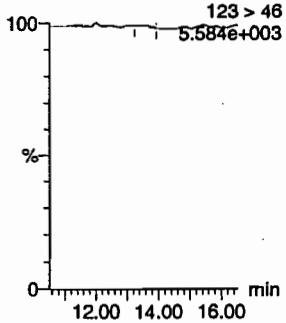

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
16.91 6.080e+003

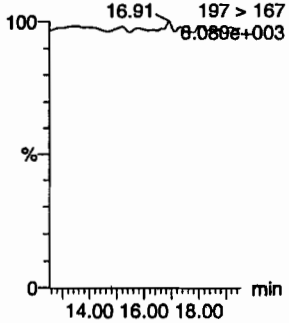

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.971e+003

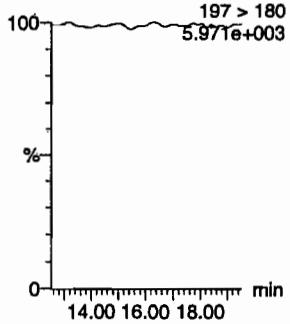

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.625e+003

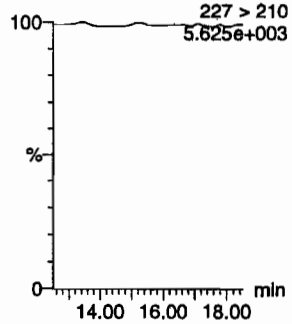

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.633e+003

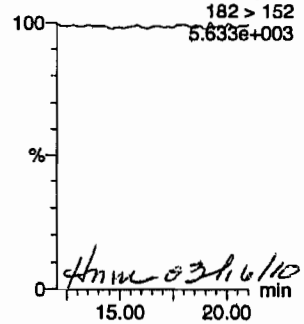

Hmm 03/16/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.633e+003

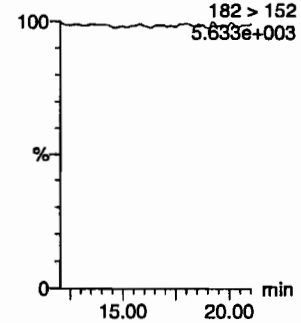

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.633e+003

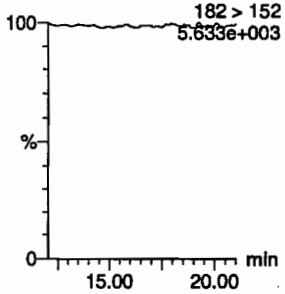

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
4.833e+004

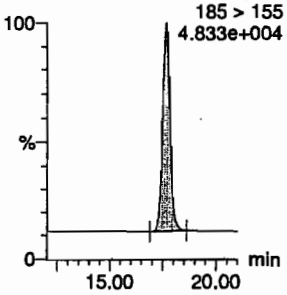

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.564e+003

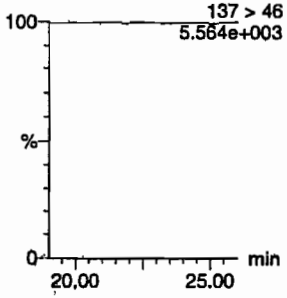

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.564e+003

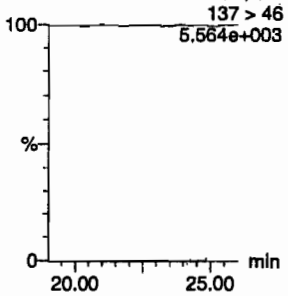

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.564e+003

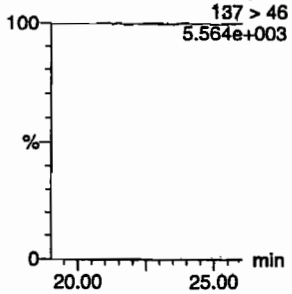

PETN
F13:MRM of 1 channel,AP-
361 > 62
5.556e+003

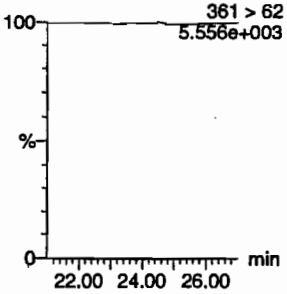

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			2959.295									
XIBLK01	RDX	176 > 102			2959.295									
XIBLK01	135-Trinitrobenzene	213 > 183			2959.295									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.18	2959.295		2959.295	2959.295	bb			439.7899	88.0	-12.0	244.4
XIBLK01	13-Dinitrobenzene	168 > 138			2959.295									
XIBLK01	Tetryl	241 > 181			2959.295									
XIBLK01	Nitrobenzene	123 > 46			2959.295			MM-	15-Mar-10	10:05:45				
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			17518.529									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			17518.529									
XIBLK01	246-Trinitrotoluene	227 > 210			17518.529									
XIBLK01	34-dinitrotoluene	182 > 152			17518.529									
XIBLK01	26-dinitrotoluene	182 > 152			17518.529									
XIBLK01	24-dinitrotoluene	182 > 152			17518.529									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.66	17518.529		17518.529	17518.529	bb			459.6677	91.9	-8.1	1474.8
XIBLK01	2-Nitrotoluene	137 > 46			17518.529									
XIBLK01	4-Nitrotoluene	137 > 46			17518.529									
XIBLK01	3-Nitrotoluene	137 > 46			17518.529									
XIBLK01	PETN	361 > 62			17518.529									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1898

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 05–MAR–10 17:07

GEL Data File: EXS03050001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

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Jan 3/9/10

e Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03050001.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
tration: N/A
ated Conc: 0.00 ng/mL
ate: 3/5/2010
ime: 5:07:39 PM

ed: No

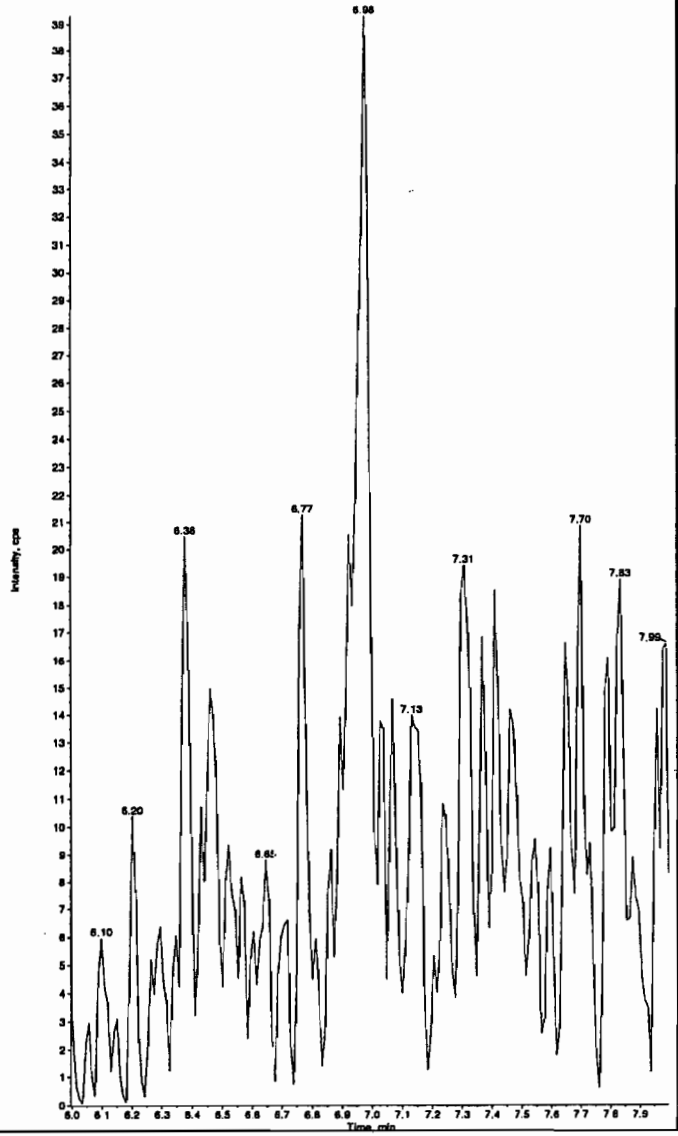

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03050001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/5/2010
Acq. Time: 5:07:39 PM

Modified: No

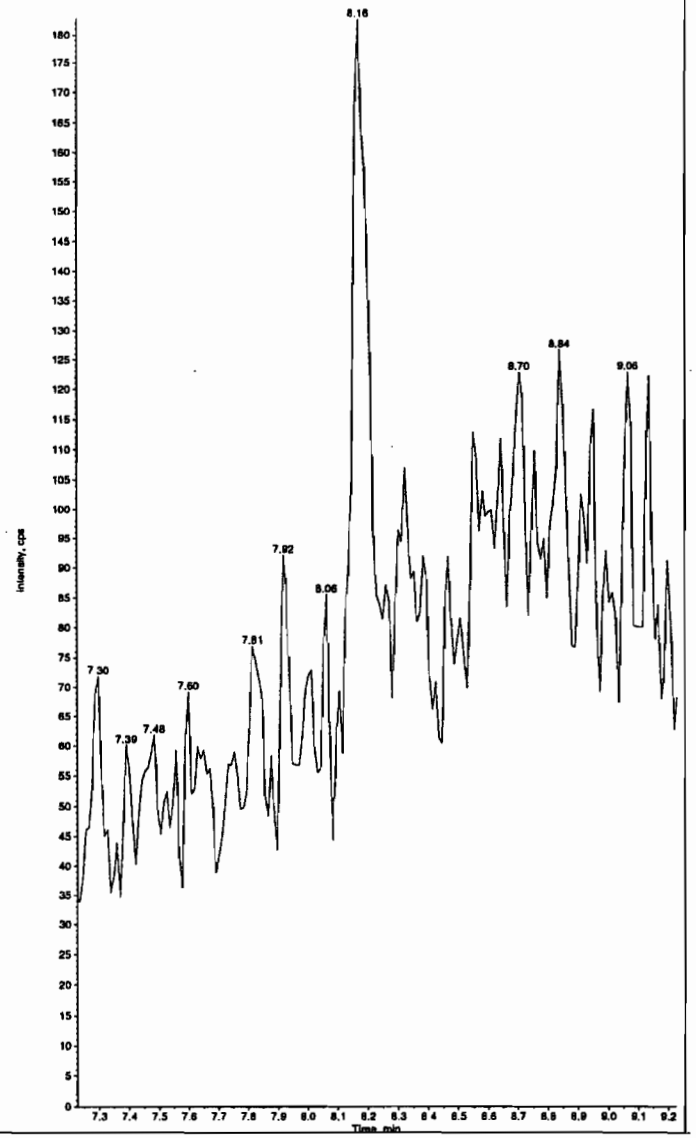

Hmm 03/09/10

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

e Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03050001.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ent: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
tration: N/A
ated Conc: 0.00 ng/mL
ate: 3/5/2010
ime: 5:07:39 PM

ed: No

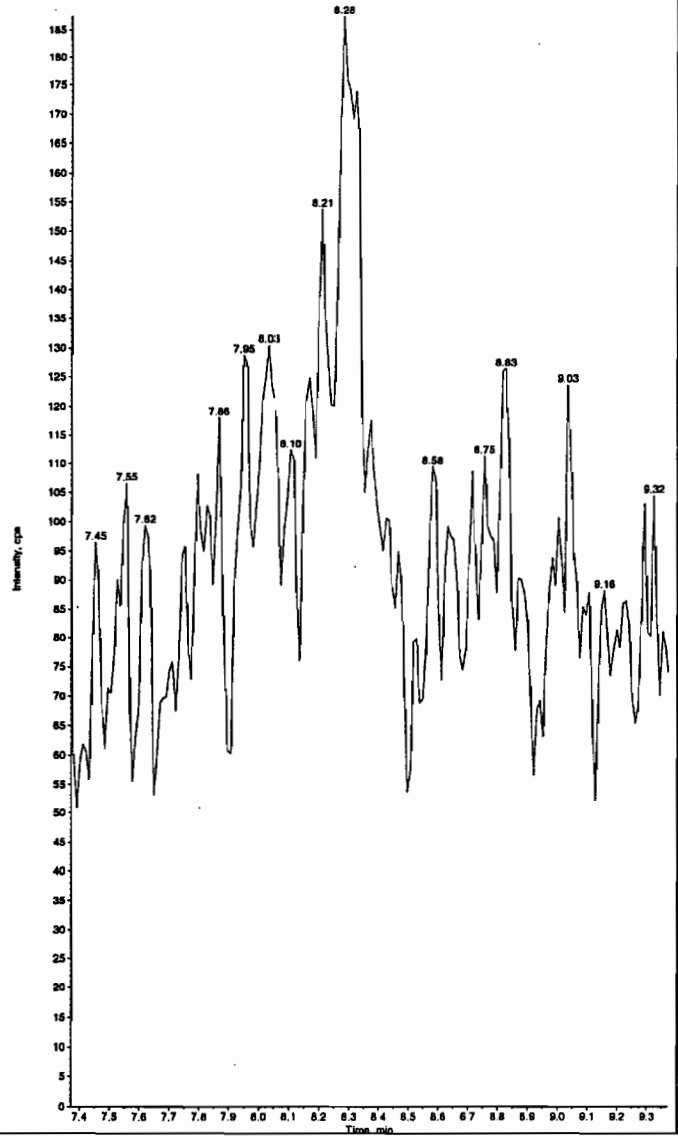

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03050001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/5/2010
Acq. Time: 5:07:39 PM

Modified: No

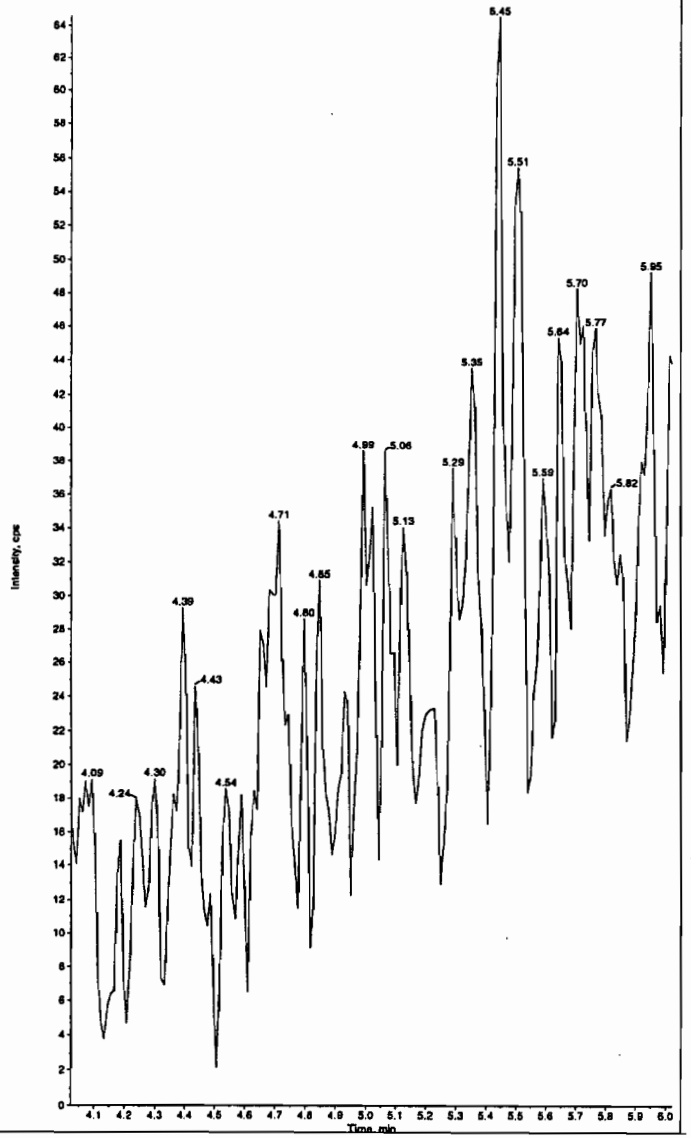

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03050001.wiff"
ame: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nt: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 3/5/2010
me: 5:07:39 PM
d: No

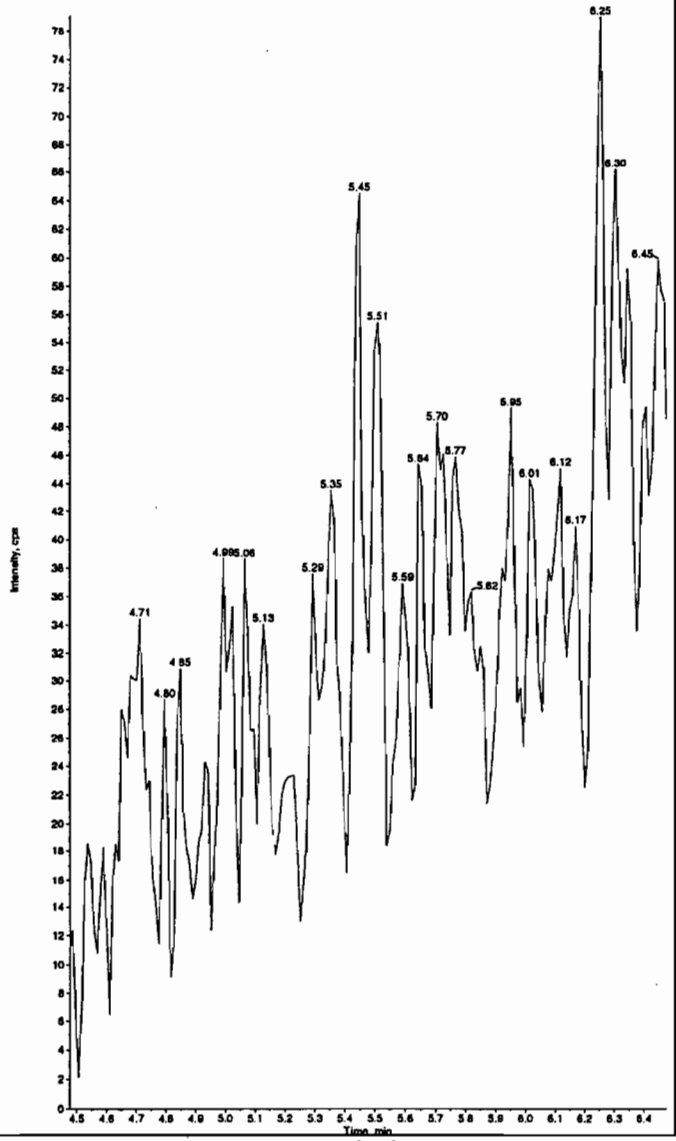

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03050001.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	No Intercept
Acq. Date:	3/5/2010
Acq. Time:	5:07:39 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.9 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.8 min
Area:	3.19e+004 counts
Height:	8918.386 cps
Start Time:	10.7 min
End Time:	11.0 min

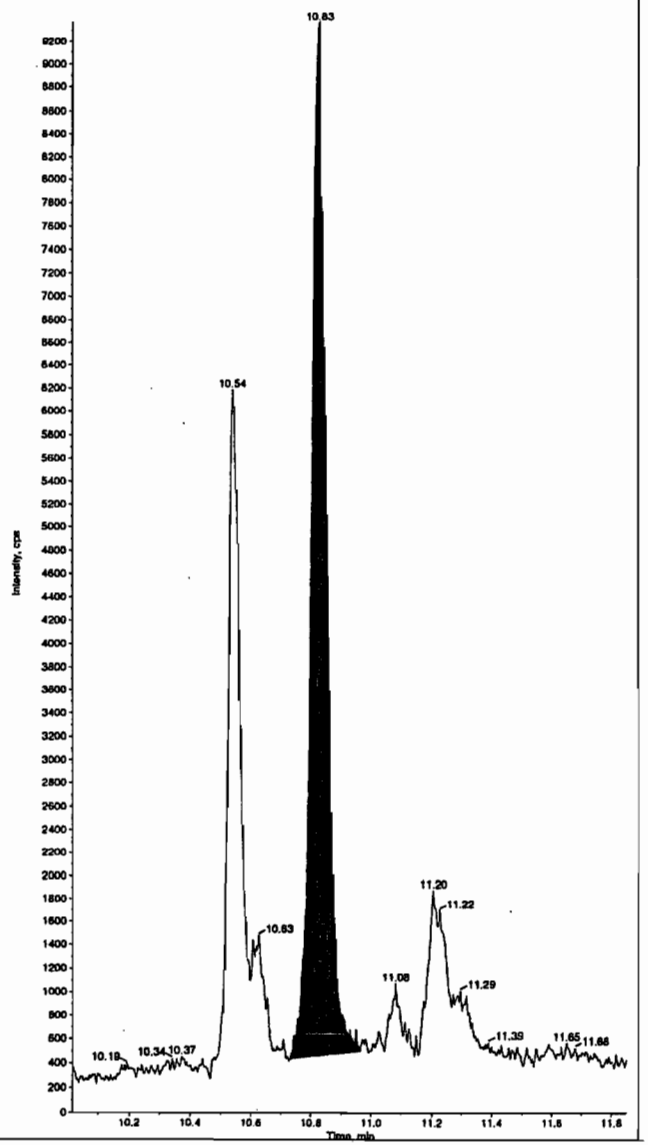

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1898

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 05–MAR–10 17:23

GEL Data File: EXS03050002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lan 3/9/10

Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03050002.wiff"
ame: "TATB" Mass(es): "257.2/204.9 amu"
nt: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 3/5/2010
me: 5:23:26 PM
d: No

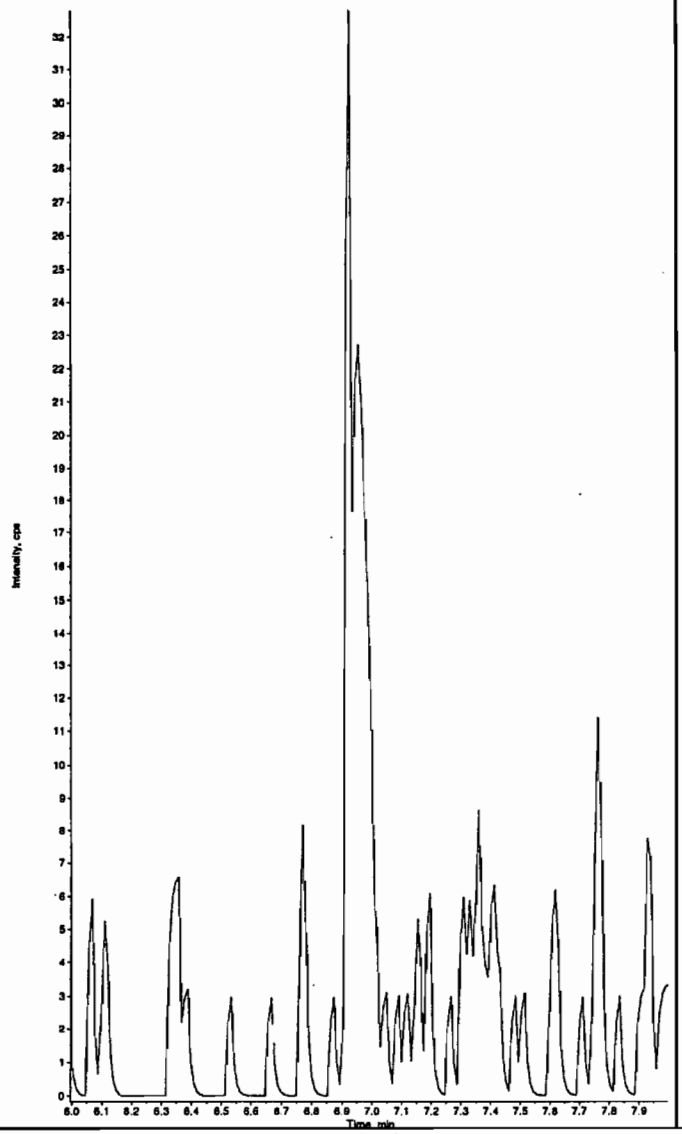

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03050002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/5/2010
Acq. Time: 5:23:26 PM

Modified: No

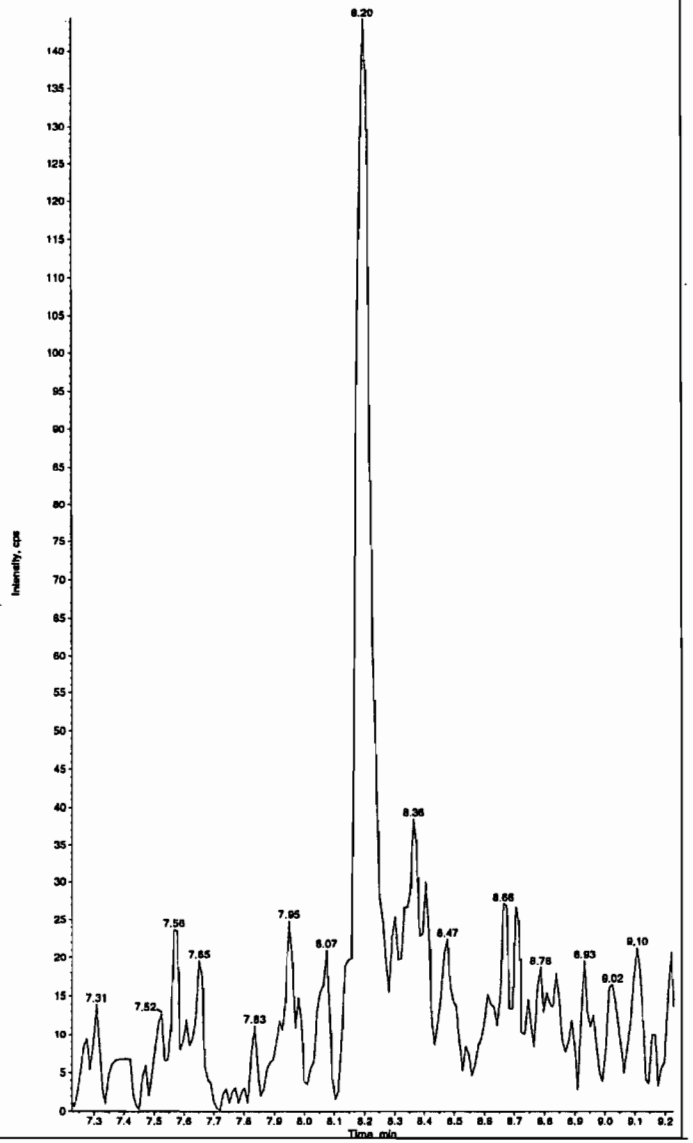

Hnm 03/09/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03050002.wiff"
lame: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ent: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ated Conc: 0.00 ng/mL
ate: 3/5/2010
ime: 5:23:26 PM

ed: No

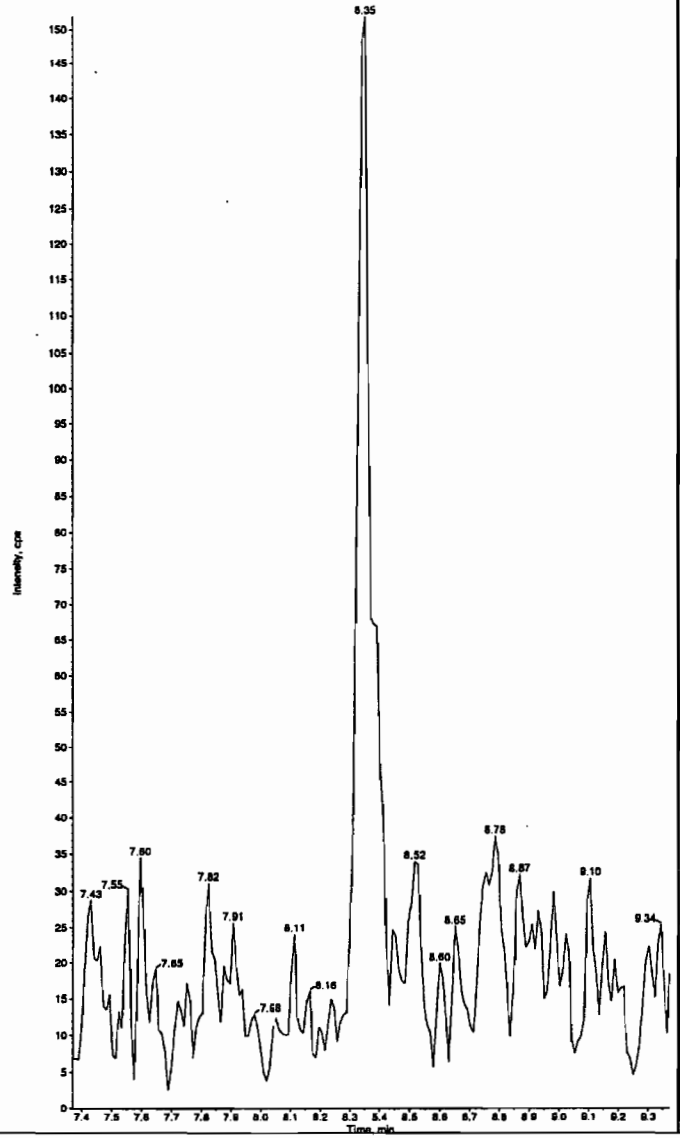

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03050002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/5/2010
Acq. Time: 5:23:26 PM

Modified: No

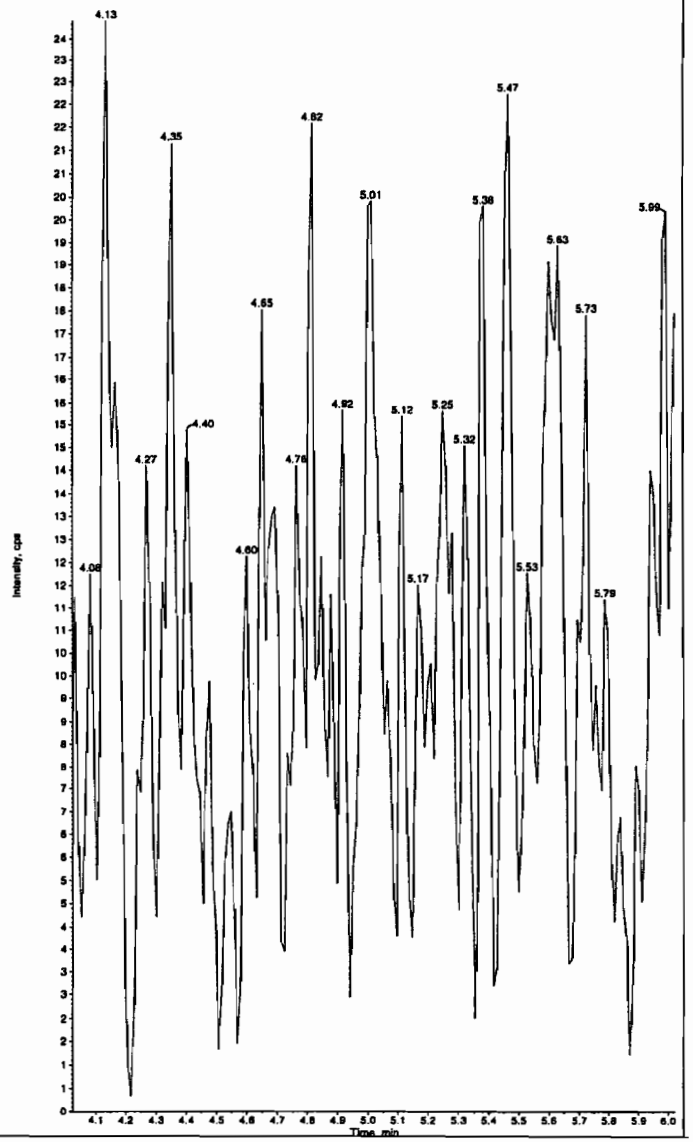

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03050002.wiff"
lame: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ent: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ated Conc: 0.00 ng/mL
ate: 3/5/2010
ime: 5:23:26 PM

ed: No

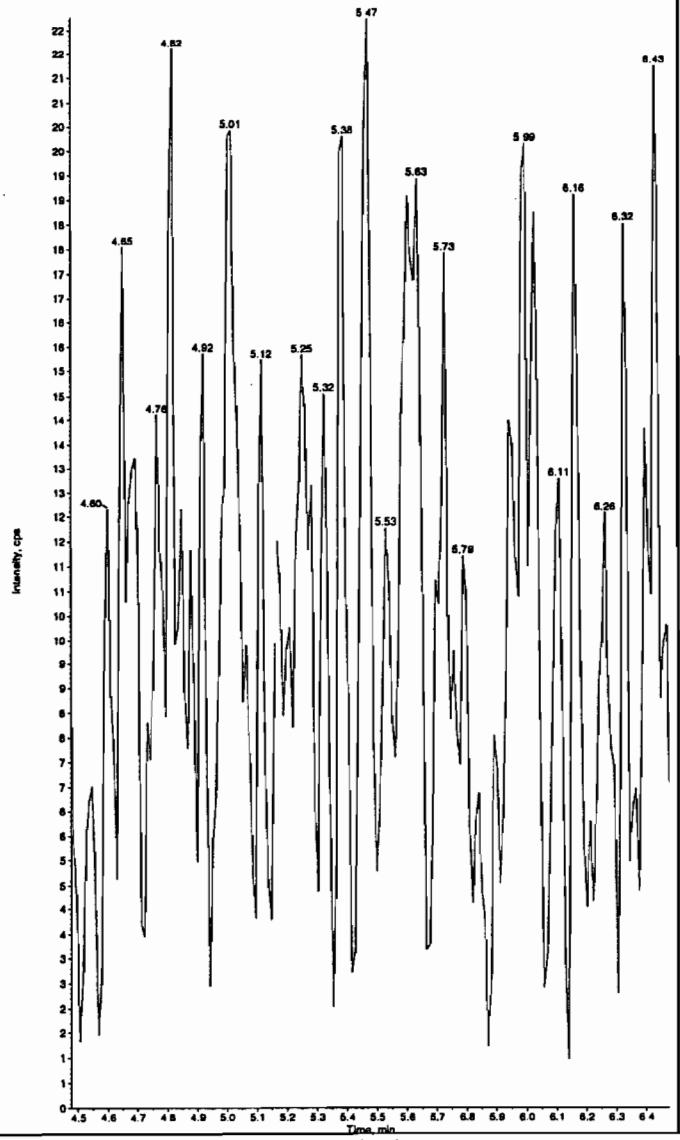

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03050002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/5/2010
Acq. Time: 5:23:26 PM

Modified: No

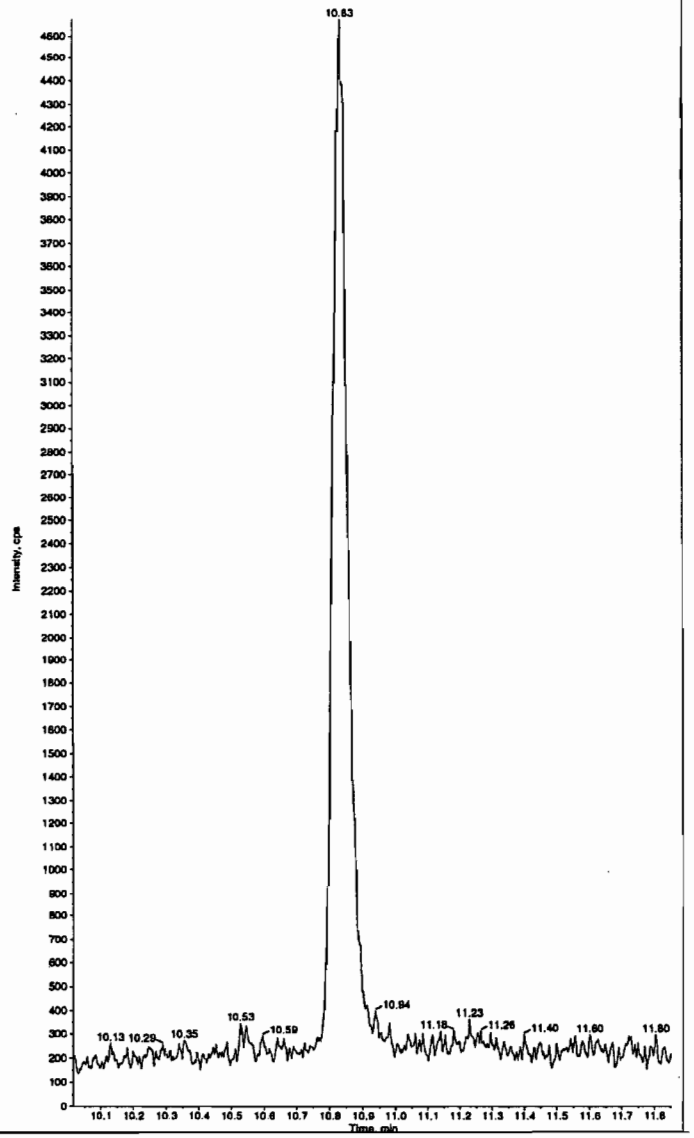

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1898

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 14–MAR–10 18:54

GEL Data File: EXP0314009a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	430.467
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	459.165
2–Amino–4,6–dinitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314009a
Date: 14-Mar-2010
Time: 18:54:49
ID: XIBLK02
Vial: 1:1,A

MM 3/15/10

HMX
F2:MRM of 1 channel,AP-
5.64 176 > 102
6.430e+003

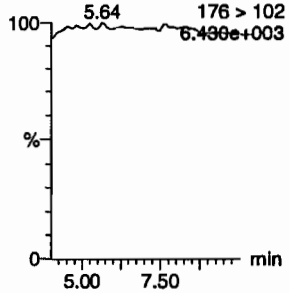

RDX
F2:MRM of 1 channel,AP-
5.64 176 > 102
6.430e+003

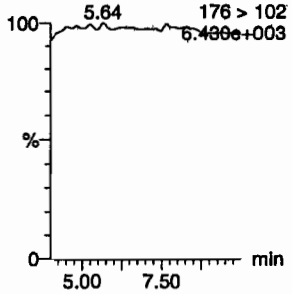

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.695e+003

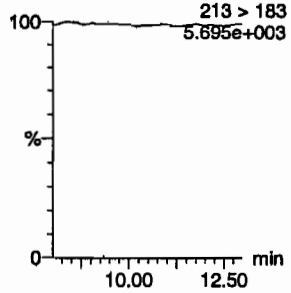

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.247e+004

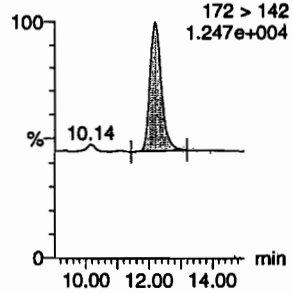

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.635e+003

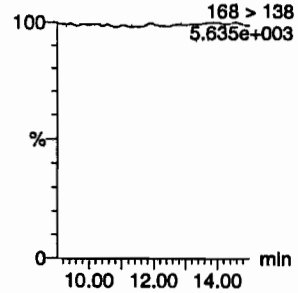

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.629e+003

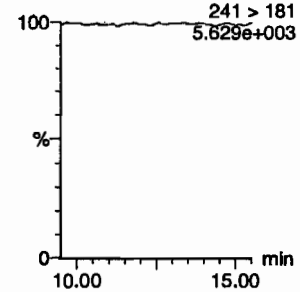

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.642e+003

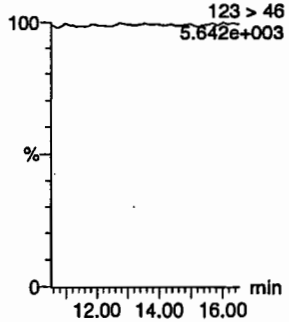

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.834e+003

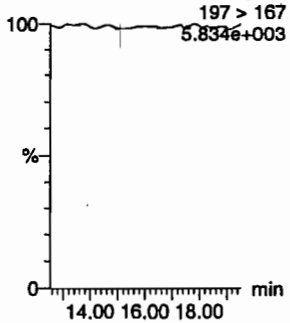

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.860e+003

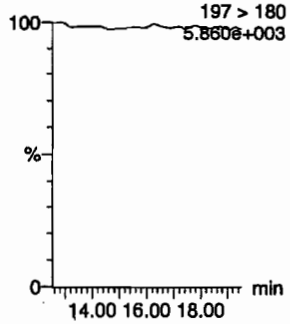

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.661e+003

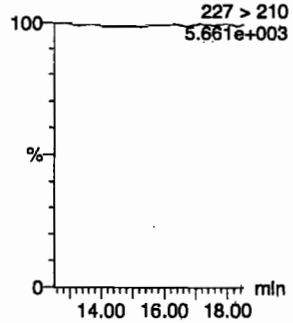

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.674e+003

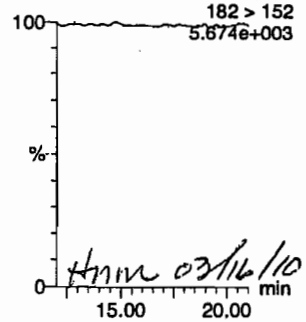

HMM 03/16/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.674e+003

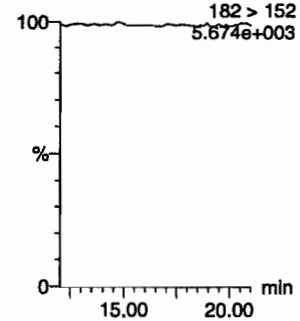

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

24-dinitrotoluene

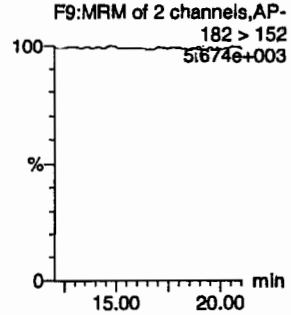

26-dinitrotoluene-d3

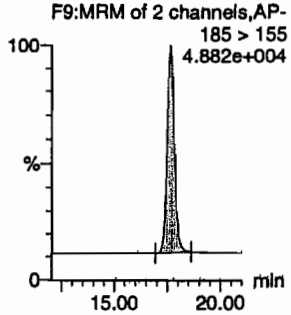

2-Nitrotoluene

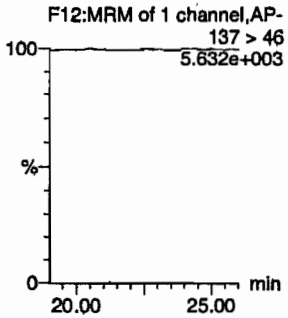

4-Nitrotoluene

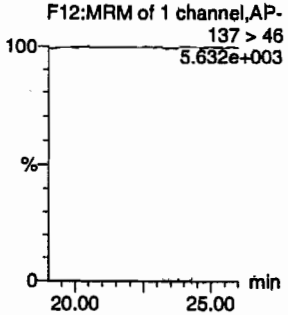

3-Nitrotoluene

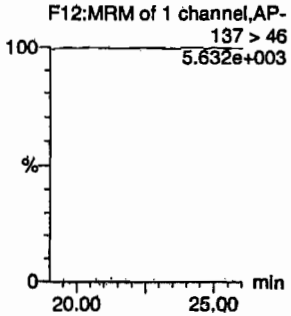

PETN

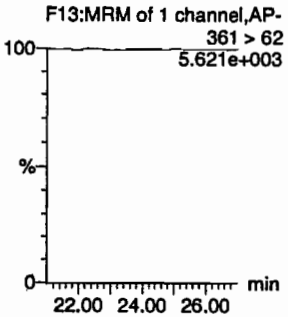

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK02	HMX	176 > 102			2896.564									
XIBLK02	RDX	176 > 102			2896.564									
XIBLK02	135-Trinitrobenzene	213 > 183			2896.564									
XIBLK02	13-Dinitrobenzene-d4	172 > 142	12.18	2896.564		2896.564	2896.564	bb			430.4672	86.1	-13.9	128.8
XIBLK02	13-Dinitrobenzene	168 > 138			2896.564									
XIBLK02	Tetryl	241 > 181			2896.564									
XIBLK02	Nitrobenzene	123 > 46			2896.564									
XIBLK02	4-Amino-26-dinitrotoluene	197 > 167			17499.357									
XIBLK02	2-Amino-46-dinitrotoluene	197 > 180			17499.357									
XIBLK02	246-Trinitrotoluene	227 > 210			17499.357									
XIBLK02	34-dinitrotoluene	182 > 152			17499.357									
XIBLK02	26-dinitrotoluene	182 > 152			17499.357									
XIBLK02	24-dinitrotoluene	182 > 152			17499.357			MM-	15-Mar-10	10:12:59				
XIBLK02	26-dinitrotoluene-d3	185 > 155	17.64	17499.357		17499.357	17499.357	bb			459.1647	91.8	-8.2	1234.5
XIBLK02	2-Nitrotoluene	137 > 46			17499.357									
XIBLK02	4-Nitrotoluene	137 > 46			17499.357									
XIBLK02	3-Nitrotoluene	137 > 46			17499.357									
XIBLK02	PETN	361 > 62			17499.357									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1898

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 14–MAR–10 19:53

GEL Data File: EXP0314011a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	441.78
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	488.086
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314011a
Date: 14-Mar-2010
Time: 19:53:46
ID: XIBLK03
Vial: 1:1,A

MMT 3/15/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.296e+003

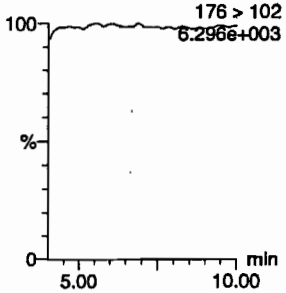

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.296e+003

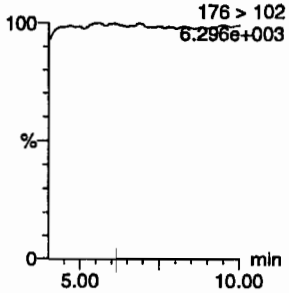

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.785e+003

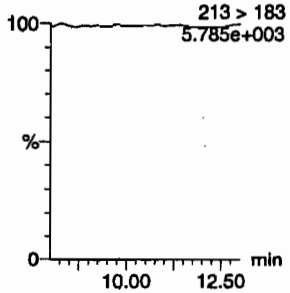

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.276e+004

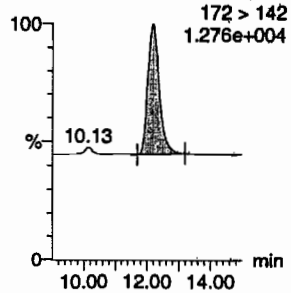

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.775e+003

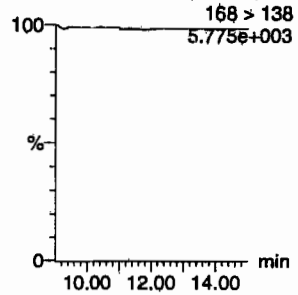

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.734e+003

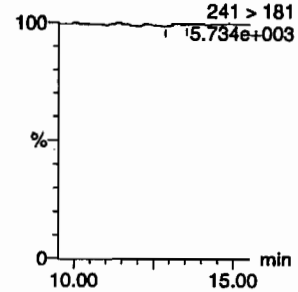

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.745e+003

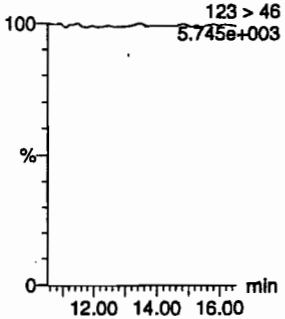

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.947e+003

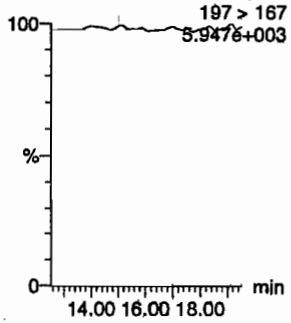

2-Amino-46-dinitrotoluene
F11;MRM of 2 channels,AP-
197 > 180
5.887e+003

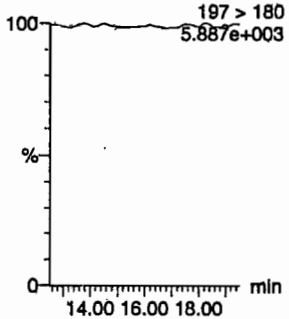

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.783e+003

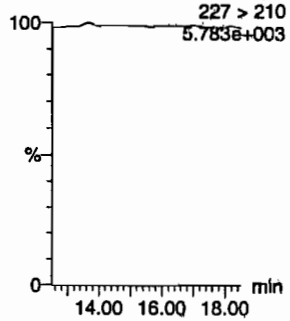

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.778e+003

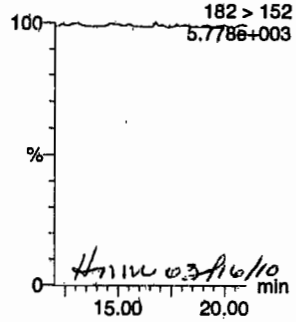

HMM 03/16/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.778e+003

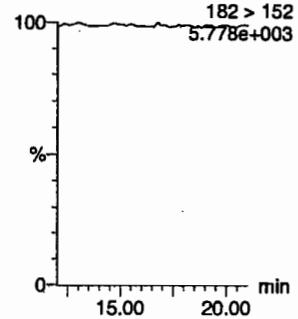

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.778e+003

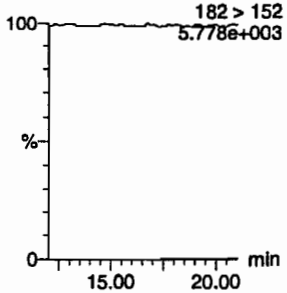

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.075e+004

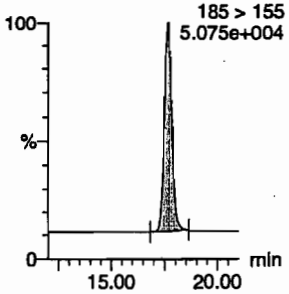

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.757e+003

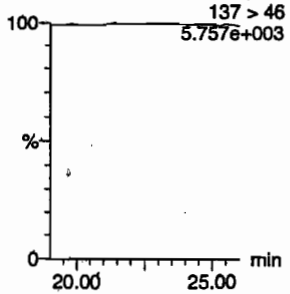

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.757e+003

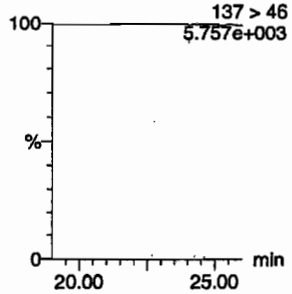

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.757e+003

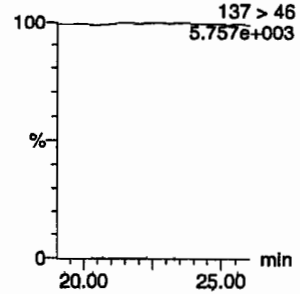

PETN
F13:MRM of 1 channel,AP-
361 > 62
5.737e+003

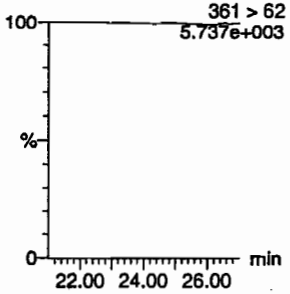

ID	Name	Trace	RT	Area	S/Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK03	HMX	176 > 102			2972.687									
XIBLK03	RDX	176 > 102			2972.687									
XIBLK03	135-Trinitrobenzene	213 > 183			2972.687									
XIBLK03	13-Dinitrobenzene-d4	172 > 142	12.17	2972.687		2972.687	2972.687	bb			441.7801	88.4	-11.6	597.8
XIBLK03	13-Dinitrobenzene	168 > 138			2972.687									
XIBLK03	Tetryl	241 > 181			2972.687			MM-	15-Mar-10	10:05:04				
XIBLK03	Nitrobenzene	123 > 46			2972.687									
XIBLK03	4-Amino-26-dinitrotoluene	197 > 167			18601.584									
XIBLK03	2-Amino-46-dinitrotoluene	197 > 180			18601.584									
XIBLK03	246-Trinitrotoluene	227 > 210			18601.584									
XIBLK03	34-dinitrotoluene	182 > 152			18601.584									
XIBLK03	26-dinitrotoluene	182 > 152			18601.584									
XIBLK03	24-dinitrotoluene	182 > 152			18601.584									
XIBLK03	26-dinitrotoluene-d3	185 > 155	17.66	18601.584		18601.584	18601.584	bb			488.0860	97.6	-2.4	1451.3
XIBLK03	2-Nitrotoluene	137 > 46			18601.584									
XIBLK03	4-Nitrotoluene	137 > 46			18601.584									
XIBLK03	3-Nitrotoluene	137 > 46			18601.584									
XIBLK03	PETN	361 > 62			18601.584									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1898

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 15–MAR–10 02:17

GEL Data File: EXP0314024a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	519.294
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	524.66

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314024a
Date: 15-Mar-2010
Time: 02:17:01
ID: XIBLK04
Vial: 1:1,A

MMT 3/15/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.887e+003

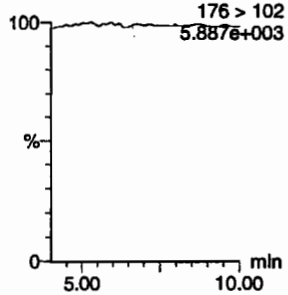

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.887e+003

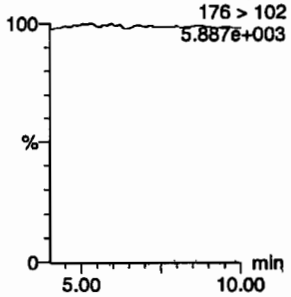

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.656e+003

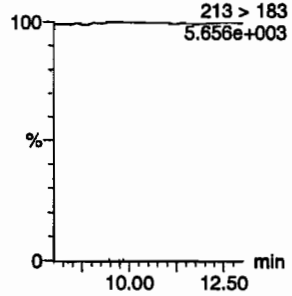

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.392e+004

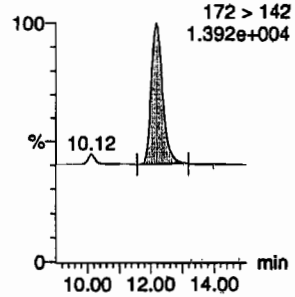

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.739e+003

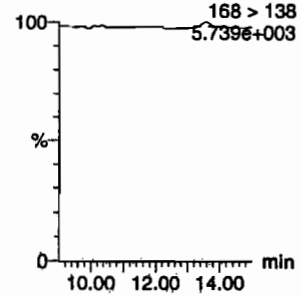

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.667e+003

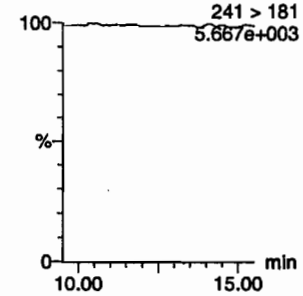

Nitrobenzene
F7:MRM of 1 channel,AP-
12.73
123 > 46
5.724e+003

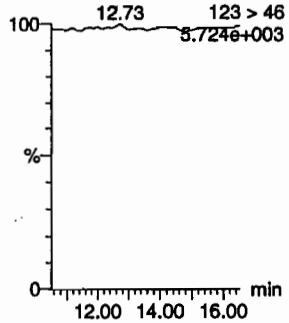

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.773e+003

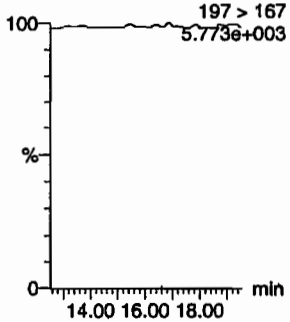

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.743e+003

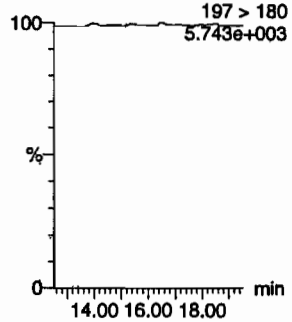

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.667e+003

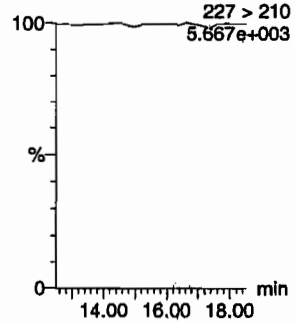

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.736e+003

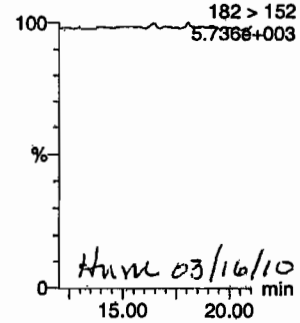

HMM 03/16/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.736e+003

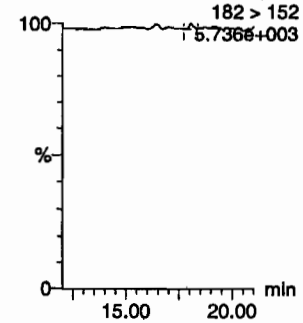

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

24-dinitrotoluene

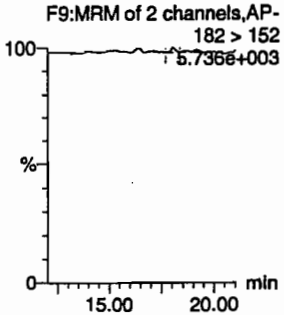

26-dinitrotoluene-d3

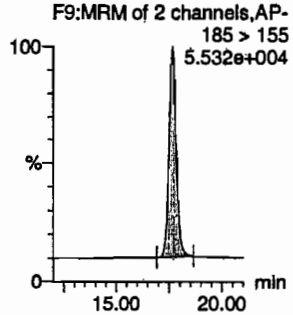

2-Nitrotoluene

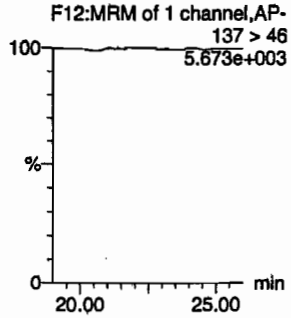

4-Nitrotoluene

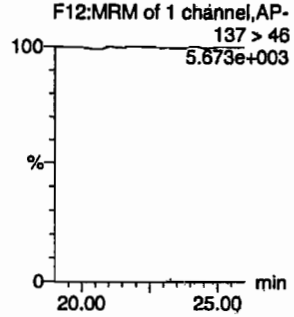

3-Nitrotoluene

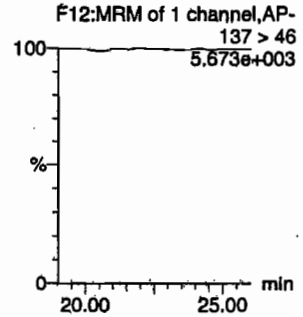

PETN

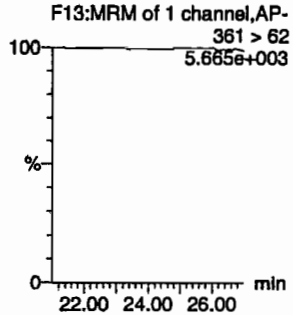

ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK04	HMX	176 > 102			3494.266									
XIBLK04	RDX	176 > 102			3494.266									
XIBLK04	135-Trinitrobenzene	213 > 183			3494.266									
XIBLK04	13-Dinitrobenzene-d4	172 > 142	12.17	3494.266		3494.266	3494.266	bb			519.2935	103.9	3.9	240.8
XIBLK04	13-Dinitrobenzene	168 > 138			3494.266									
XIBLK04	Tetryl	241 > 181			3494.266									
XIBLK04	Nitrobenzene	123 > 46			3494.266									
XIBLK04	4-Amino-26-dinitrotoluene	197 > 167			19995.482									
XIBLK04	2-Amino-46-dinitrotoluene	197 > 180			19995.482									
XIBLK04	246-Trinitrotoluene	227 > 210			19995.482									
XIBLK04	34-dinitrotoluene	182 > 152			19995.482									
XIBLK04	26-dinitrotoluene	182 > 152			19995.482			MM-	15-Mar-10	10:10:34				
XIBLK04	24-dinitrotoluene	182 > 152			19995.482			MM-	15-Mar-10	10:13:42				
XIBLK04	26-dinitrotoluene-d3	185 > 155	17.64	19995.482		19995.482	19995.482	bb			524.6604	104.9	4.9	1626.8
XIBLK04	2-Nitrotoluene	137 > 46			19995.482									
XIBLK04	4-Nitrotoluene	137 > 46			19995.482									
XIBLK04	3-Nitrotoluene	137 > 46			19995.482									
XIBLK04	PETN	361 > 62			19995.482									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1898

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 15–MAR–10 08:40

GEL Data File: EXP0314037a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	534.53
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	574.82
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314037a
Date: 15-Mar-2010
Time: 08:40:21
ID: XIBLK05
Vial: 1:1,A

MAP 3/15/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.752e+003

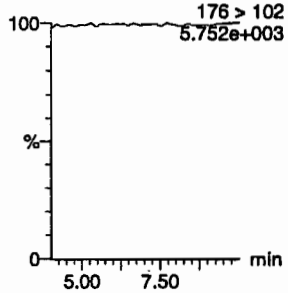

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.752e+003

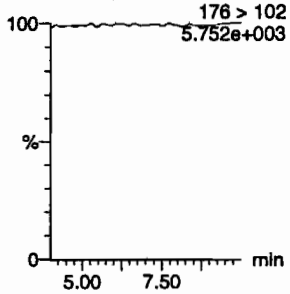

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.615e+003

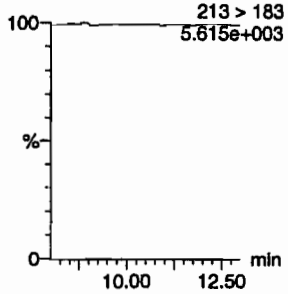

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.385e+004

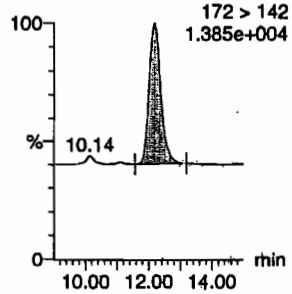

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.599e+003

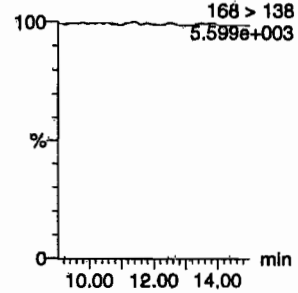

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.598e+003

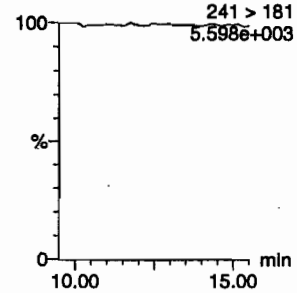

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.601e+003

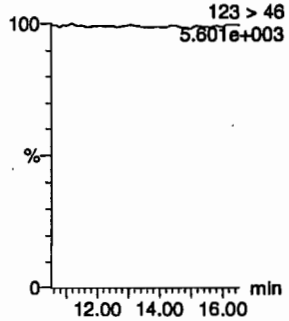

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.681e+003

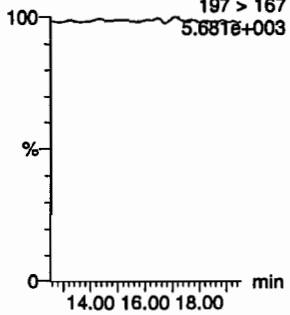

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.656e+003

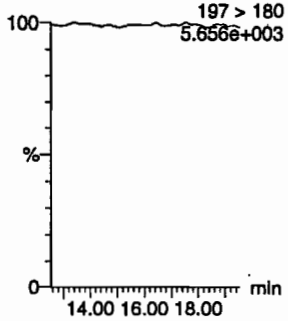

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.592e+003

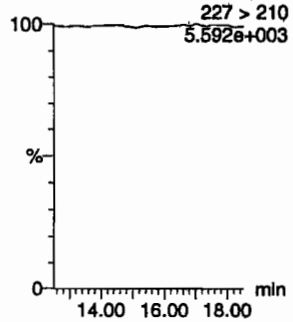

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.601e+003

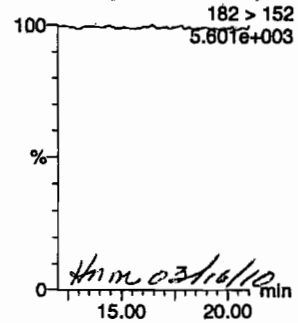

HMM 03/16/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.601e+003

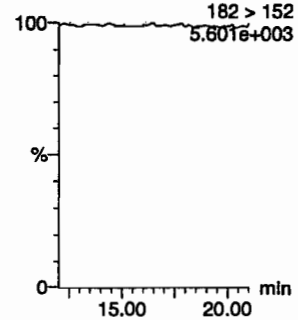

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

24-dinitrotoluene

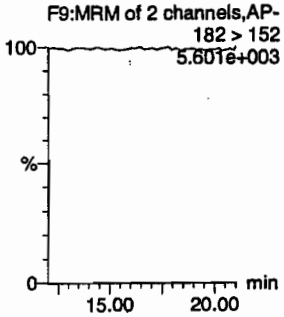

26-dinitrotoluene-d3

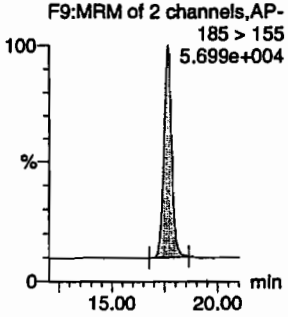

2-Nitrotoluene

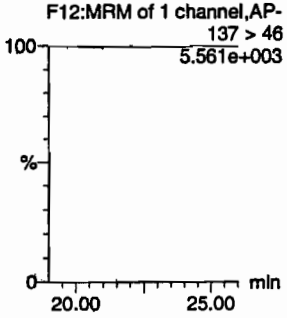

4-Nitrotoluene

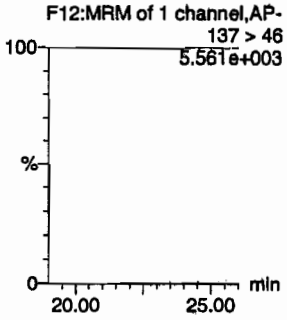

3-Nitrotoluene

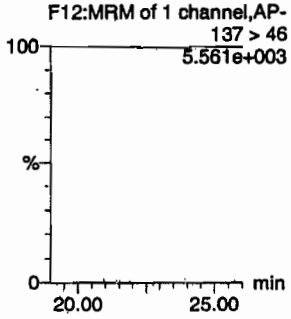

PETN

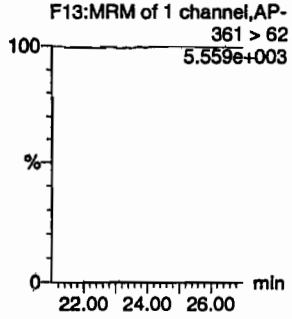

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK05	HMX	176 > 102			3596.789									
XIBLK05	RDX	176 > 102			3596.789									
XIBLK05	135-Trinitrobenzene	213 > 183			3596.789									
XIBLK05	13-Dinitrobenzene-d4	172 > 142	12.18	3596.789		3596.789	3596.789	bb			534.5298	106.9	6.9	476.3
XIBLK05	13-Dinitrobenzene	168 > 138			3596.789									
XIBLK05	Tetryl	241 > 181			3596.789									
XIBLK05	Nitrobenzene	123 > 46			3596.789									
XIBLK05	4-Amino-26-dinitrotoluene	197 > 167			21907.143									
XIBLK05	2-Amino-46-dinitrotoluene	197 > 180			21907.143									
XIBLK05	246-Trinitrotoluene	227 > 210			21907.143									
XIBLK05	34-dinitrotoluene	182 > 152			21907.143									
XIBLK05	26-dinitrotoluene	182 > 152			21907.143									
XIBLK05	24-dinitrotoluene	182 > 152			21907.143									
XIBLK05	26-dinitrotoluene-d3	185 > 155	17.64	21907.143		21907.143	21907.143	bb			574.8203	115.0	15.0	2964.3
XIBLK05	2-Nitrotoluene	137 > 46			21907.143									
XIBLK05	4-Nitrotoluene	137 > 46			21907.143									
XIBLK05	3-Nitrotoluene	137 > 46			21907.143									
XIBLK05	PETN	361 > 62			21907.143									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1898

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 15-MAR-10 10:38

GEL Data File: EXP0314041a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6-Dinitrotoluene-d3	500	525.528
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	517.575
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314041a
Date: 15-Mar-2010
Time: 10:38:21
ID: XIBLK06
Vial: 1:1,A

MMP 3/16/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.484e+003

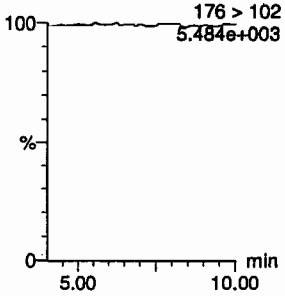

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.484e+003

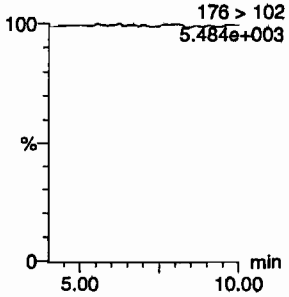

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.426e+003

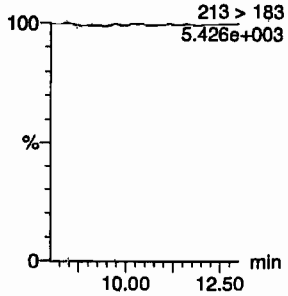

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.366e+004

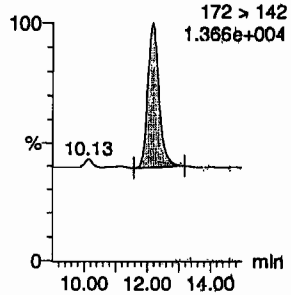

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.420e+003

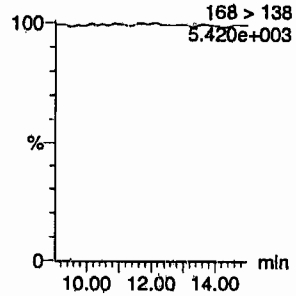

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.454e+003

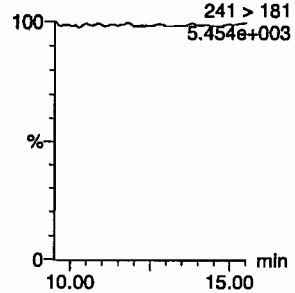

Nitrobenzene
F7:MRM of 1 channel,AP-
15.02 123 > 46
5.561e+003

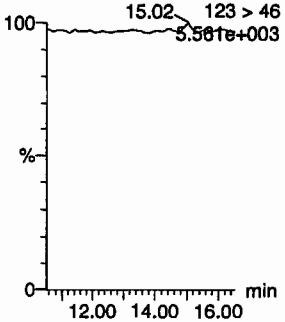

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.453e+003

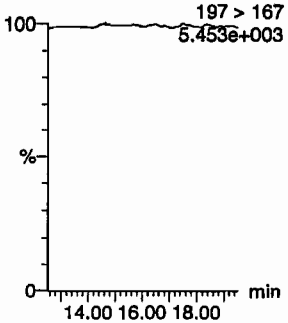

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.483e+003

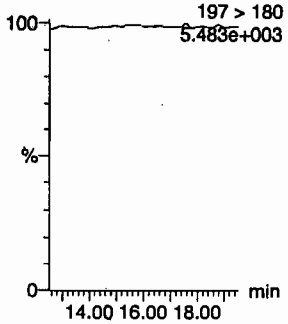

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.427e+003

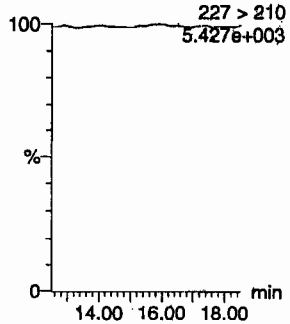

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.474e+003

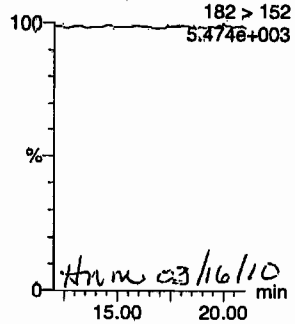

HMM 03/16/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.474e+003

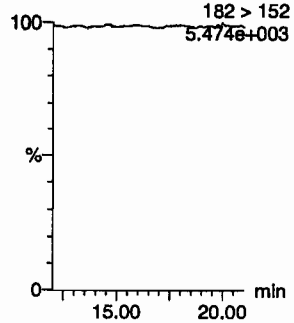

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

24-dinitrotoluene

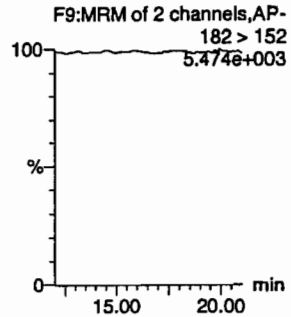

26-dinitrotoluene-d3

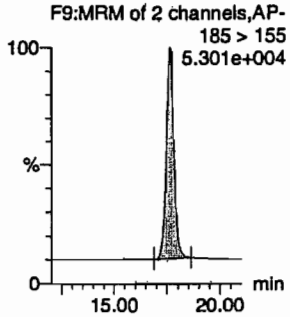

2-Nitrotoluene

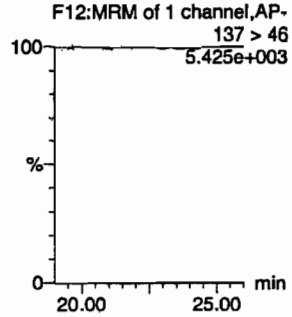

4-Nitrotoluene

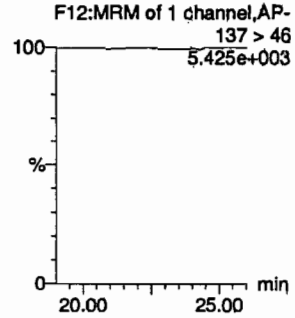

3-Nitrotoluene

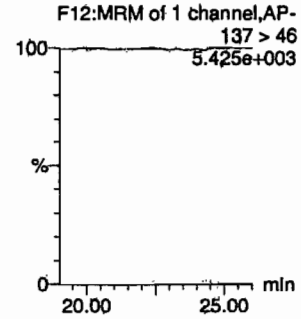

PETN

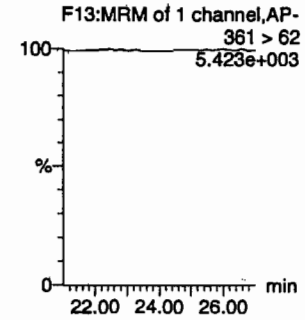

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK06	HMX	176 > 102			3482.703									
XIBLK06	RDX	176 > 102			3482.703									
XIBLK06	135-Trinitrobenzene	213 > 183			3482.703									
XIBLK06	13-Dinitrobenzene-d4	172 > 142	12.17	3482.703		3482.703	3482.703	bb			517.5751	103.5	3.5	341.1
XIBLK06	13-Dinitrobenzene	168 > 138			3482.703									
XIBLK06	Tetryl	241 > 181			3482.703									
XIBLK06	Nitrobenzene	123 > 46			3482.703									
XIBLK06	4-Amino-26-dinitrotoluene	197 > 167			20028.557									
XIBLK06	2-Amino-46-dinitrotoluene	197 > 180			20028.557									
XIBLK06	246-Trinitrotoluene	227 > 210			20028.557									
XIBLK06	34-dinitrotoluene	182 > 152			20028.557									
XIBLK06	26-dinitrotoluene	182 > 152			20028.557									
XIBLK06	24-dinitrotoluene	182 > 152			20028.557									
XIBLK06	26-dinitrotoluene-d3	185 > 155	17.64	20028.557		20028.557	20028.557	bb			525.5282	105.1	5.1	2016.3
XIBLK06	2-Nitrotoluene	137 > 46			20028.557									
XIBLK06	4-Nitrotoluene	137 > 46			20028.557									
XIBLK06	3-Nitrotoluene	137 > 46			20028.557									
XIBLK06	PETN	361 > 62			20028.557									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1898

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 15-MAR-10 15:04

GEL Data File: EXP0314050a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	458.313
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	508.096
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314050a
Date: 15-Mar-2010
Time: 15:04:04
ID: XIBLK07
Vial: 1:1,A

LMM 3/16/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.726e+003

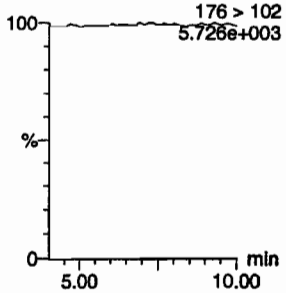

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.726e+003

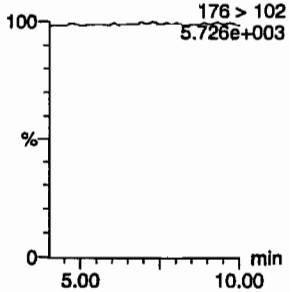

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.580e+003

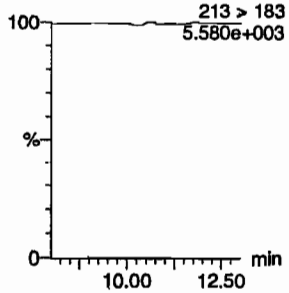

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.289e+004

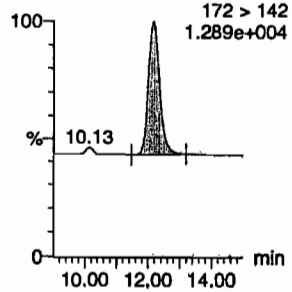

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.587e+003

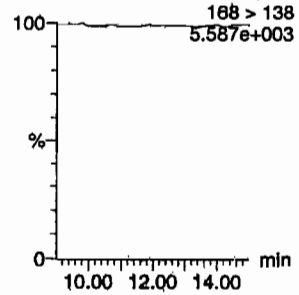

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.580e+003

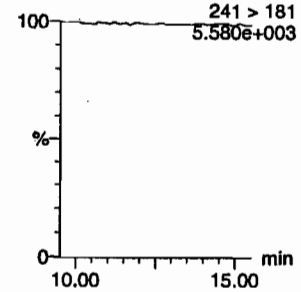

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.573e+003

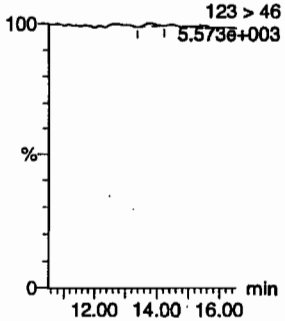

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.666e+003

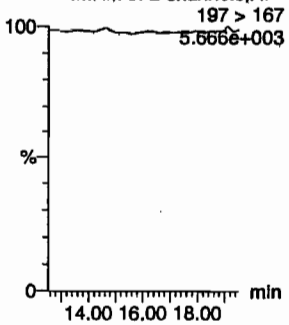

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.646e+003

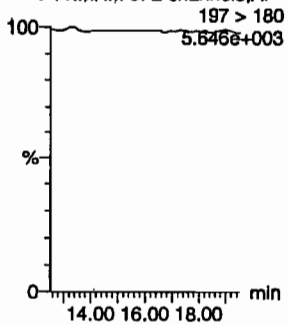

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.539e+003

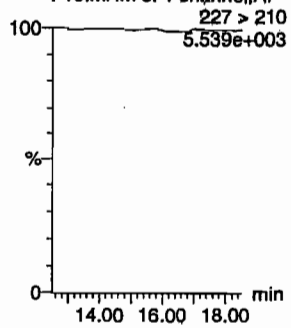

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.578e+003

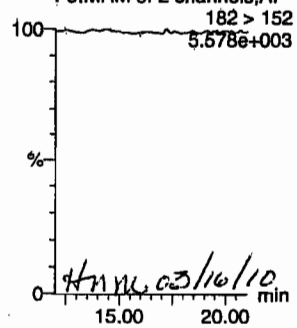

HMM 03/16/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.578e+003

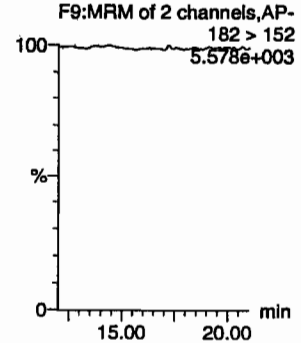

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

24-dinitrotoluene

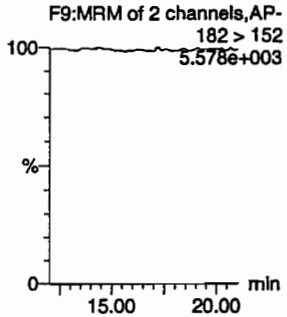

26-dinitrotoluene-d3

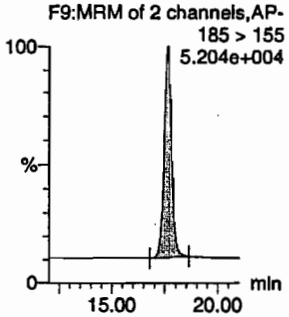

2-Nitrotoluene

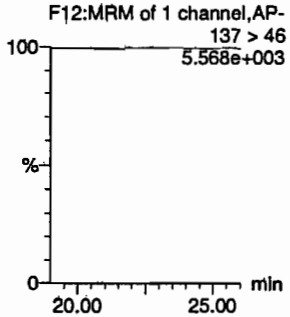

4-Nitrotoluene

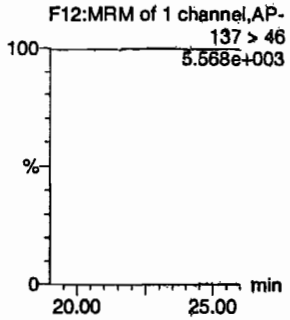

3-Nitrotoluene

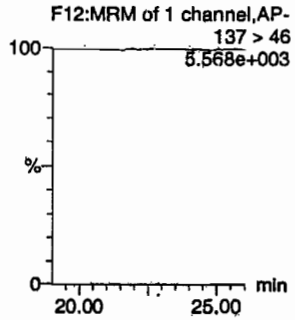

PETN

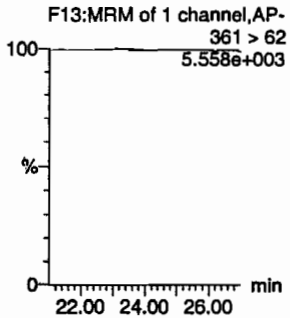

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK07	HMX	176 > 102			3083.932									
XIBLK07	RDX	176 > 102			3083.932									
XIBLK07	135-Trinitrobenzene	213 > 183			3083.932									
XIBLK07	13-Dinitrobenzene-d4	172 > 142	12.17	3083.932		3083.932	3083.932	bb			458.3126	91.7	-8.3	380.0
XIBLK07	13-Dinitrobenzene	168 > 138			3083.932									
XIBLK07	Tetryl	241 > 181			3083.932									
XIBLK07	Nitrobenzene	123 > 46			3083.932			MM-	16-Mar-10	09:18:44				
XIBLK07	4-Amino-26-dinitrotoluene	197 > 167			19364.199									
XIBLK07	2-Amino-46-dinitrotoluene	197 > 180			19364.199									
XIBLK07	246-Trinitrotoluene	227 > 210			19364.199									
XIBLK07	34-dinitrotoluene	182 > 152			19364.199									
XIBLK07	26-dinitrotoluene	182 > 152			19364.199									
XIBLK07	24-dinitrotoluene	182 > 152			19364.199									
XIBLK07	26-dinitrotoluene-d3	185 > 155	17.64	19364.199		19364.199	19364.199	bb			508.0962	101.6	1.6	1868.7
XIBLK07	2-Nitrotoluene	137 > 46			19364.199									
XIBLK07	4-Nitrotoluene	137 > 46			19364.199									
XIBLK07	3-Nitrotoluene	137 > 46			19364.199									
XIBLK07	PETN	361 > 62			19364.199									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10–1898
Lab Code: GEL
Lab Sample ID: XIBLK08
Analysis Date: 15–MAR–10 21:27
GEL Data File: EXP0314063a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	472.899
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	457.347
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314063a
Date: 15-Mar-2010
Time: 21:27:39
ID: XIBLK08
Vial: 1:1,A

MM 3/16/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.648e+003

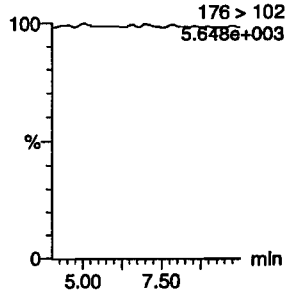

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.648e+003

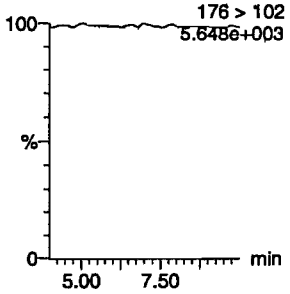

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.527e+003

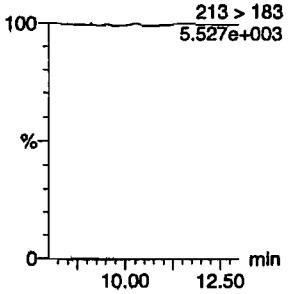

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.266e+004

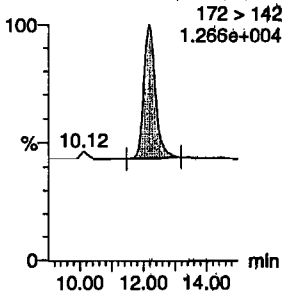

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.529e+003

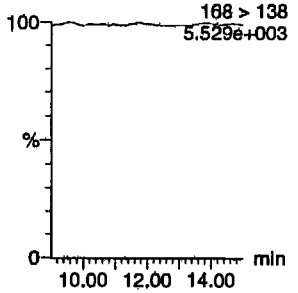

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.533e+003

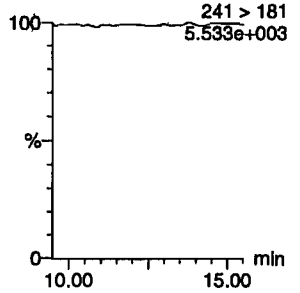

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.583e+003

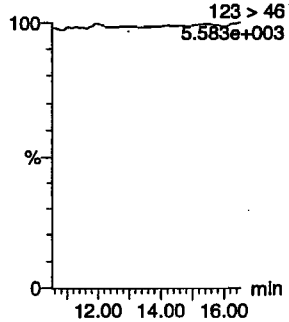

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.622e+003

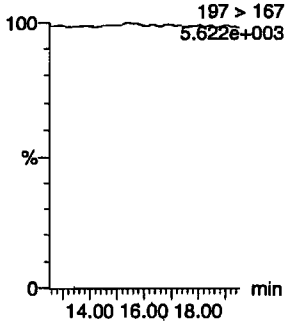

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.602e+003

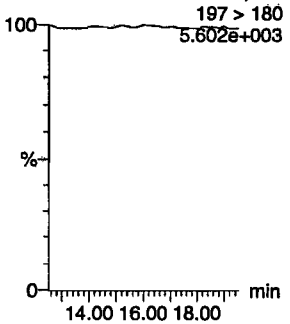

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.544e+003

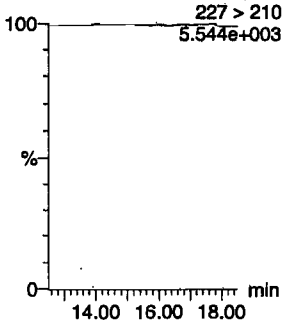

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.574e+003

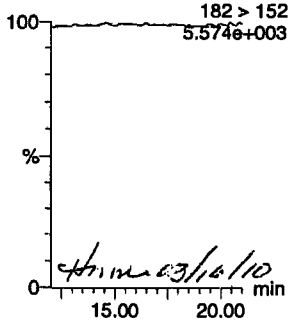

MM 03/16/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.574e+003

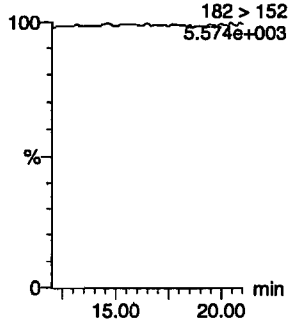

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

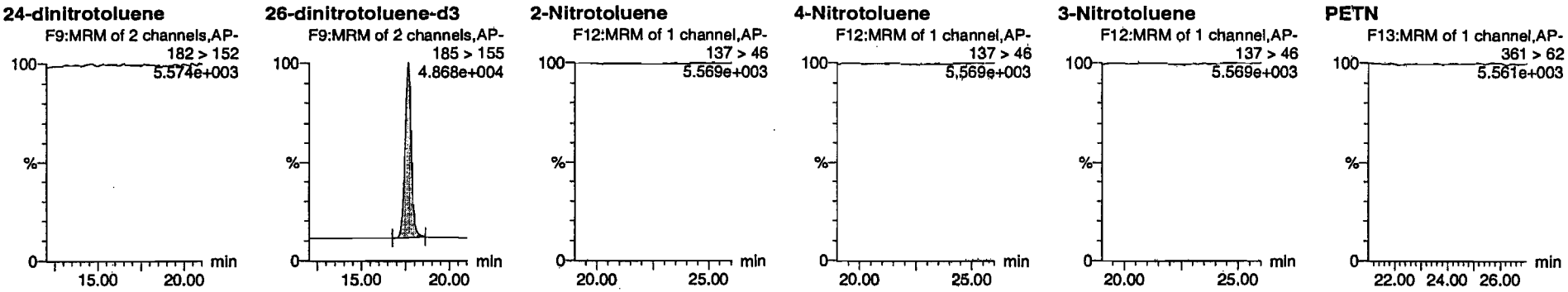

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
XIBLK08	HMX	176 > 102			3077.436									
XIBLK08	RDX	176 > 102			3077.436									
XIBLK08	135-Trinitrobenzene	213 > 183			3077.436									
XIBLK08	13-Dinitrobenzene-d4	172 > 142	12.18	3077.436		3077.436	3077.436	bb			457.3472	91.5	-8.5	277.0
XIBLK08	13-Dinitrobenzene	168 > 138			3077.436									
XIBLK08	Tetryl	241 > 181			3077.436									
XIBLK08	Nitrobenzene	123 > 46			3077.436									
XIBLK08	4-Amino-26-dinitrotoluene	197 > 167			18022.805									
XIBLK08	2-Amino-46-dinitrotoluene	197 > 180			18022.805									
XIBLK08	246-Trinitrotoluene	227 > 210			18022.805									
XIBLK08	34-dinitrotoluene	182 > 152			18022.805									
XIBLK08	26-dinitrotoluene	182 > 152			18022.805									
XIBLK08	24-dinitrotoluene	182 > 152			18022.805									
XIBLK08	26-dinitrotoluene-d3	185 > 155	17.64	18022.805		18022.805	18022.805	bb			472.8994	94.6	-5.4	805.3
XIBLK08	2-Nitrotoluene	137 > 46			18022.805									
XIBLK08	4-Nitrotoluene	137 > 46			18022.805									
XIBLK08	3-Nitrotoluene	137 > 46			18022.805									
XIBLK08	PETN	361 > 62			18022.805									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1898

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 15–MAR–10 23:55

GEL Data File: EXP0314068a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	462.466
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	497.279
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314068a
Date: 15-Mar-2010
Time: 23:55:16
ID: XIBLK09
Vial: 1:1,A

MMT 3/16/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.881e+003

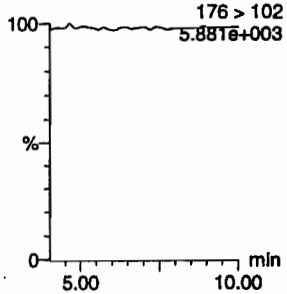

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.881e+003

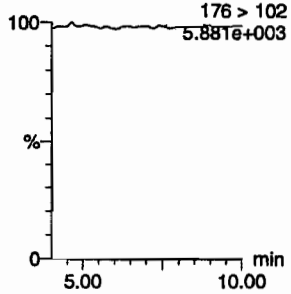

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.704e+003

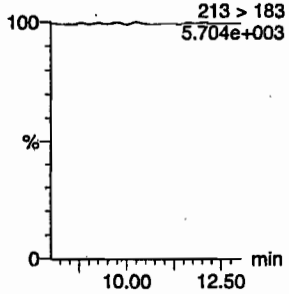

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.305e+004

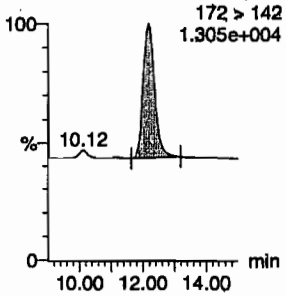

13-Dinitrobenzene
F5;MRM of 2 channels,AP-
168 > 138
5.706e+003

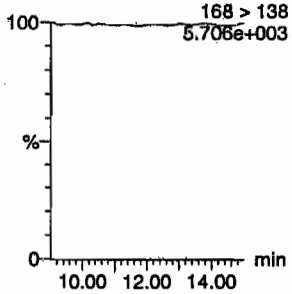

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.745e+003

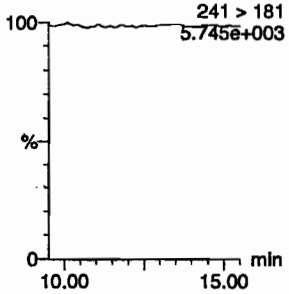

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.719e+003

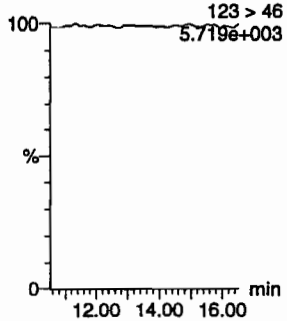

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.761e+003

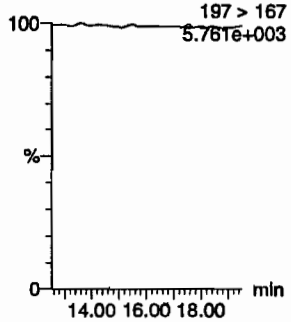

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.750e+003

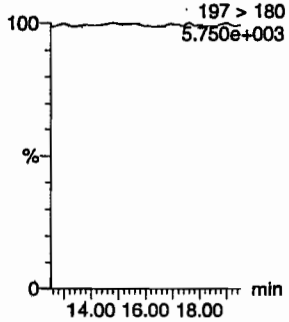

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.703e+003

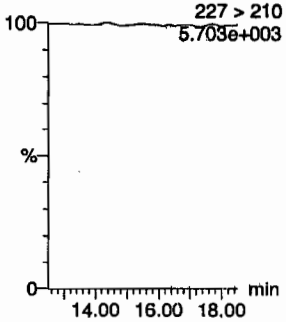

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.736e+003

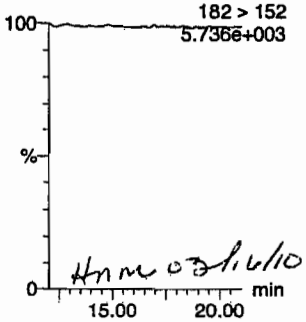

HMM 03/16/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.736e+003

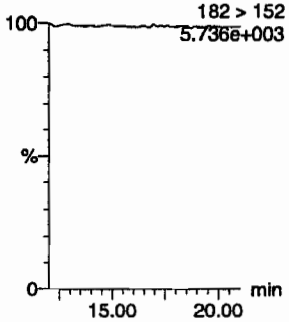

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

24-dinitrotoluene

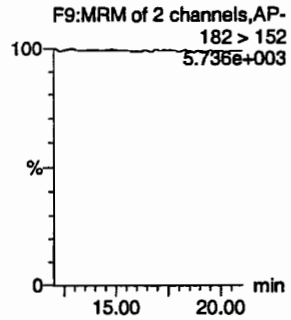

26-dinitrotoluene-d3

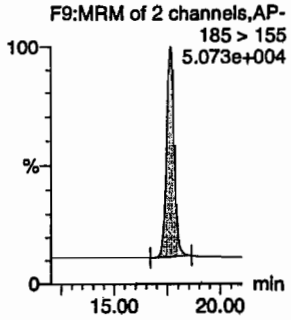

2-Nitrotoluene

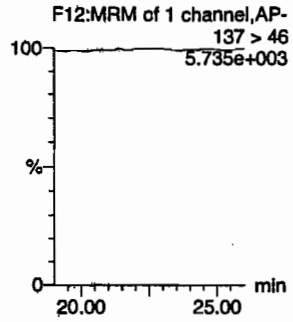

4-Nitrotoluene

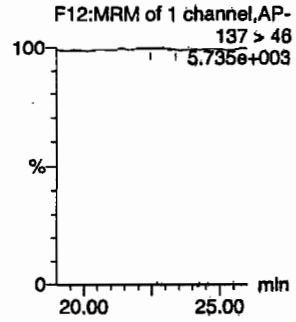

3-Nitrotoluene

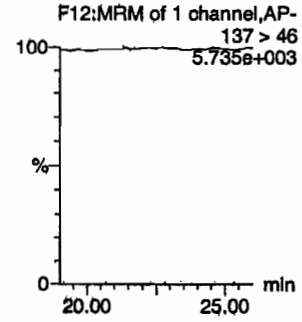

PETN

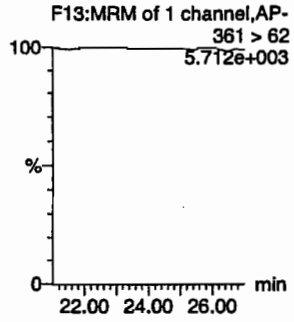

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK09	HMX	176 > 102			3111.877									
XIBLK09	RDX	176 > 102			3111.877									
XIBLK09	135-Trinitrobenzene	213 > 183			3111.877									
XIBLK09	13-Dinitrobenzene-d4	172 > 142	12.17	3111.877		3111.877	3111.877	bb			462.4655	92.5	-7.5	346.7
XIBLK09	13-Dinitrobenzene	168 > 138			3111.877									
XIBLK09	Tetryl	241 > 181			3111.877									
XIBLK09	Nitrobenzene	123 > 46			3111.877									
XIBLK09	4-Amino-26-dinitrotoluene	197 > 167			18951.932									
XIBLK09	2-Amino-46-dinitrotoluene	197 > 180			18951.932									
XIBLK09	246-Trinitrotoluene	227 > 210			18951.932									
XIBLK09	34-dinitrotoluene	182 > 152			18951.932									
XIBLK09	26-dinitrotoluene	182 > 152			18951.932									
XIBLK09	24-dinitrotoluene	182 > 152			18951.932									
XIBLK09	26-dinitrotoluene-d3	185 > 155	17.64	18951.932		18951.932	18951.932	bb			497.2787	99.5	-0.5	1349.8
XIBLK09	2-Nitrotoluene	137 > 46			18951.932									
XIBLK09	4-Nitrotoluene	137 > 46			18951.932			MM-	16-Mar-10	09:15:39				
XIBLK09	3-Nitrotoluene	137 > 46			18951.932									
XIBLK09	PETN	361 > 62			18951.932									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1898

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 16–MAR–10 03:51

GEL Data File: EXP0314076a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	500.195
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
2,4–Dinitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	472.447
2,4,6–Trinitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314076a
Date: 16-Mar-2010
Time: 03:51:15
ID: XIBLK10
Vial: 1:1,A

MMP 3/16/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.186e+003

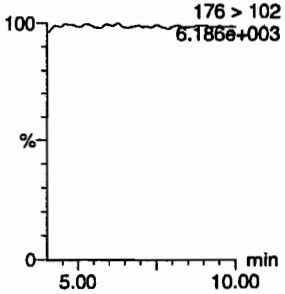

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.186e+003

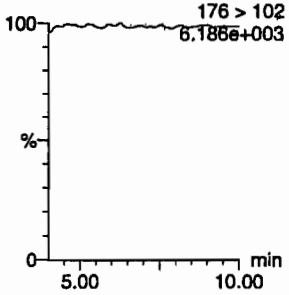

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.857e+003

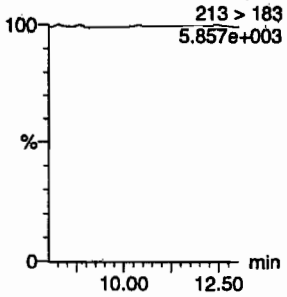

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.327e+004

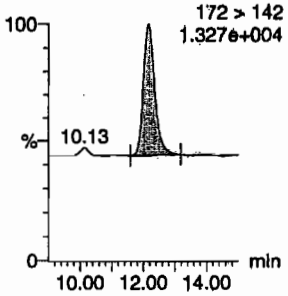

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.854e+003

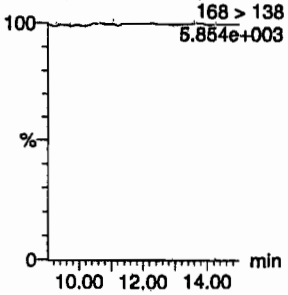

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.877e+003

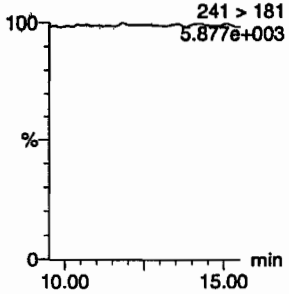

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.863e+003

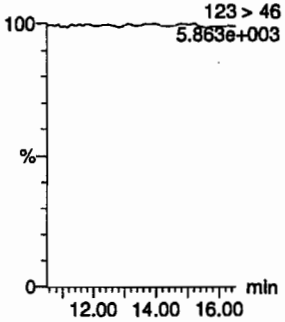

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.927e+003

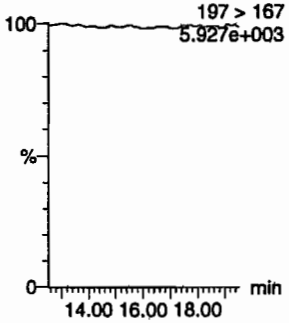

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.908e+003

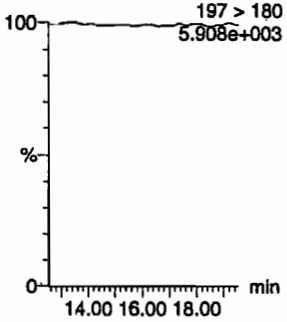

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.882e+003

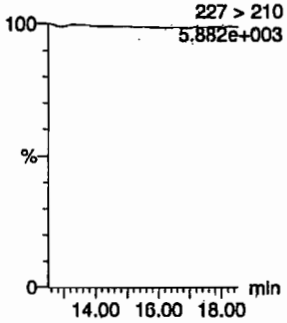

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.871e+003

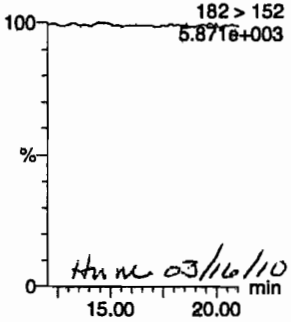

HM 03/16/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.871e+003

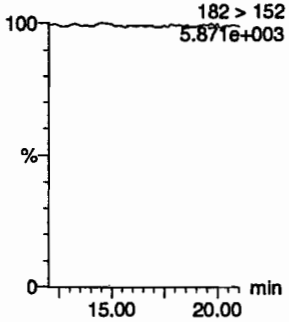

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

24-dinitrotoluene

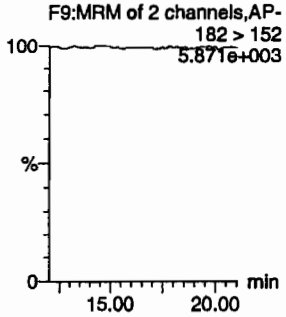

26-dinitrotoluene-d3

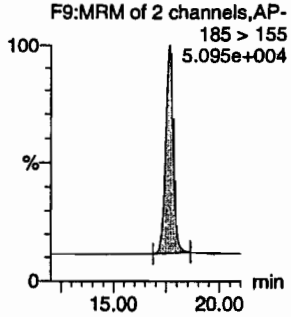

2-Nitrotoluene

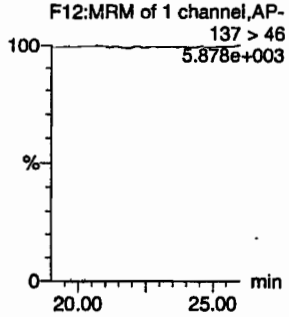

4-Nitrotoluene

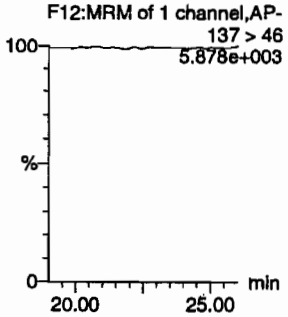

3-Nitrotoluene

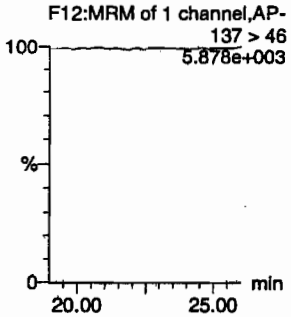

PETN

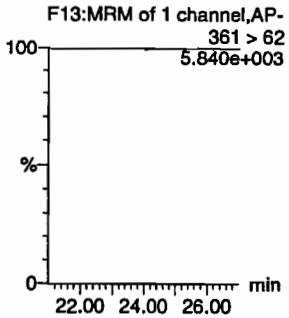

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK10	HMX	176 > 102			3179.039									
XIBLK10	RDX	176 > 102			3179.039									
XIBLK10	135-Trinitrobenzene	213 > 183			3179.039									
XIBLK10	13-Dinitrobenzene-d4	172 > 142	12.17	3179.039		3179.039	3179.039	bb			472.4467	94.5	-5.5	209.6
XIBLK10	13-Dinitrobenzene	168 > 138			3179.039									
XIBLK10	Tetryl	241 > 181			3179.039									
XIBLK10	Nitrobenzene	123 > 46			3179.039									
XIBLK10	4-Amino-26-dinitrotoluene	197 > 167			19063.061									
XIBLK10	2-Amino-46-dinitrotoluene	197 > 180			19063.061									
XIBLK10	246-Trinitrotoluene	227 > 210			19063.061									
XIBLK10	34-dinitrotoluene	182 > 152			19063.061									
XIBLK10	26-dinitrotoluene	182 > 152			19063.061									
XIBLK10	24-dinitrotoluene	182 > 152			19063.061									
XIBLK10	26-dinitrotoluene-d3	185 > 155	17.64	19063.061		19063.061	19063.061	bb			500.1946	100.0	0.0	1986.1
XIBLK10	2-Nitrotoluene	137 > 46			19063.061									
XIBLK10	4-Nitrotoluene	137 > 46			19063.061									
XIBLK10	3-Nitrotoluene	137 > 46			19063.061									
XIBLK10	PETN	361 > 62			19063.061									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1898
Lab Code: GEL
Lab Sample ID: XIBLK15
Analysis Date: 16-MAR-10 07:47
GEL Data File: EXP0314084a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	544.973
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	605.177
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314084a
Date: 16-Mar-2010
Time: 07:47:04
ID: XIBLK15
Vial: 1:1,A

HMM 3/17/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.597e+003

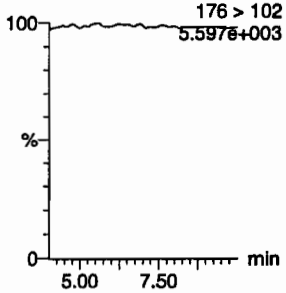

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.597e+003

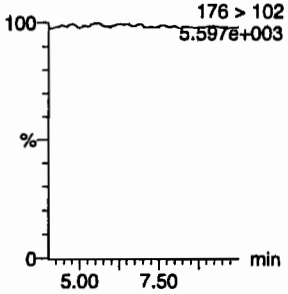

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.382e+003

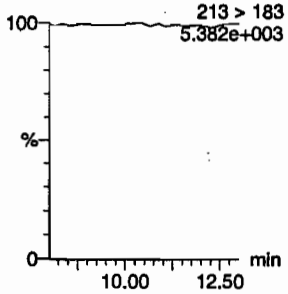

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.410e+004

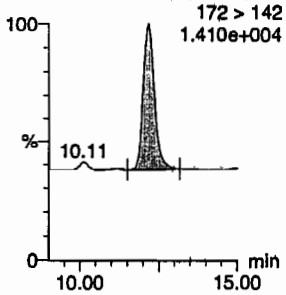

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.377e+003

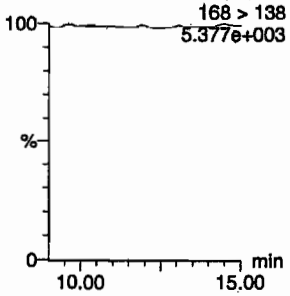

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.385e+003

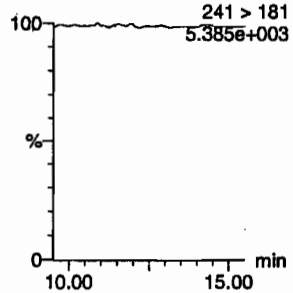

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.340e+003

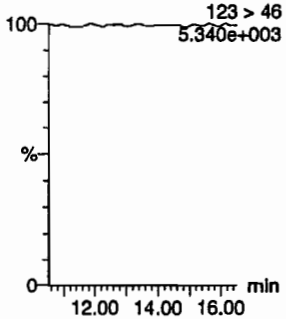

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.457e+003

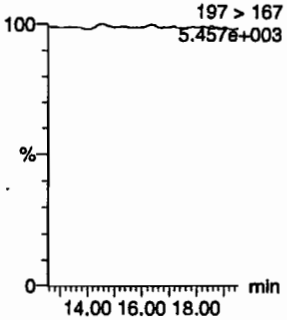

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.456e+003

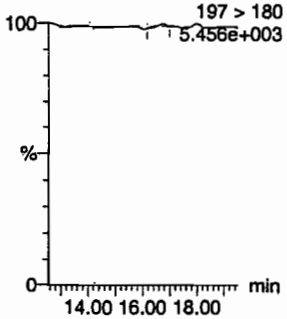

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.344e+003

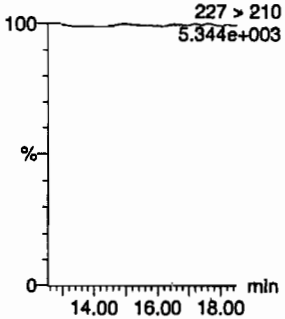

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.415e+003

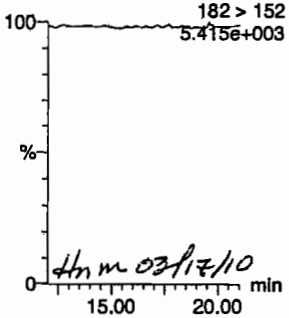

Hm m 03/17/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.415e+003

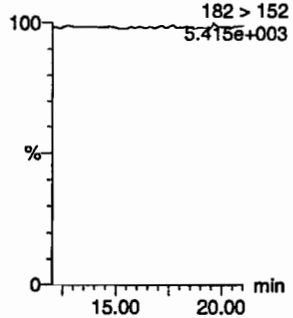

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.415e+003

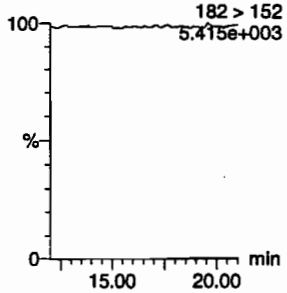

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
6.042e+004

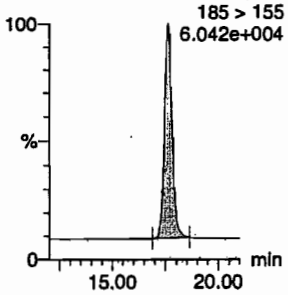

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.371e+003

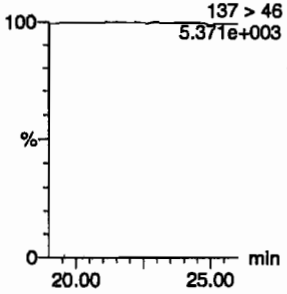

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.371e+003

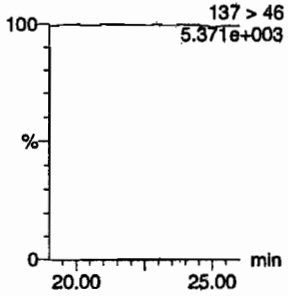

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.371e+003

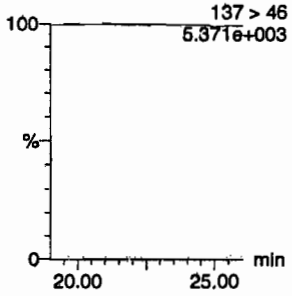

PETN
F13:MRM of 1 channel,AP-
361 > 62
5.363e+003

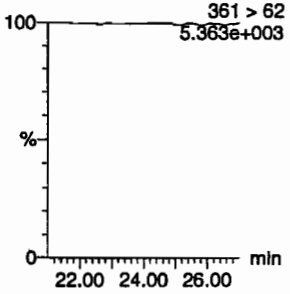

ID	Name	Trace	RT	Area	ISTArea	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK15	HMX	176 > 102			3667.060									
XIBLK15	RDX	176 > 102			3667.060									
XIBLK15	135-Trinitrobenzene	213 > 183			3667.060									
XIBLK15	13-Dinitrobenzene-d4	172 > 142	12.17	3667.060		3667.060	3667.060	bb			544.9730	109.0	9.0	139.4
XIBLK15	13-Dinitrobenzene	168 > 138			3667.060									
XIBLK15	Tetryl	241 > 181			3667.060									
XIBLK15	Nitrobenzene	123 > 46			3667.060									
XIBLK15	4-Amino-26-dinitrotoluene	197 > 167			23064.059									
XIBLK15	2-Amino-46-dinitrotoluene	197 > 180			23064.059			MM-	17-Mar-10	12:32:35				
XIBLK15	246-Trinitrotoluene	227 > 210			23064.059									
XIBLK15	34-dinitrotoluene	182 > 152			23064.059									
XIBLK15	26-dinitrotoluene	182 > 152			23064.059									
XIBLK15	24-dinitrotoluene	182 > 152			23064.059									
XIBLK15	26-dinitrotoluene-d3	185 > 155	17.63	23064.059		23064.059	23064.059	bb			605.1766	121.0	21.0	3350.5
XIBLK15	2-Nitrotoluene	137 > 46			23064.059									
XIBLK15	4-Nitrotoluene	137 > 46			23064.059									
XIBLK15	3-Nitrotoluene	137 > 46			23064.059									
XIBLK15	PETN	361 > 62			23064.059									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1898

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 16–MAR–10 10:14

GEL Data File: EXP0314089a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	542.414
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	553.984
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314089a
Date: 16-Mar-2010
Time: 10:14:44
ID: XIBLK11
Vial: 1:1,A

MMT 3/17/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.042e+003

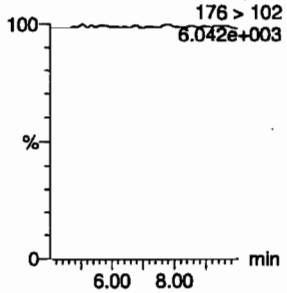

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.042e+003

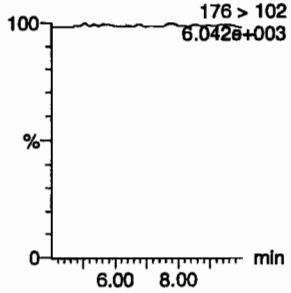

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.902e+003

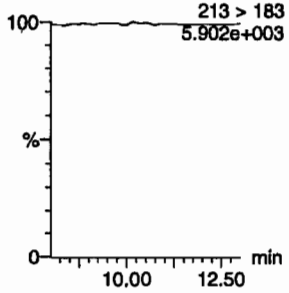

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.443e+004

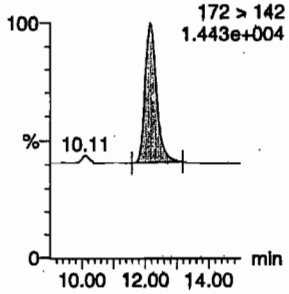

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.898e+003

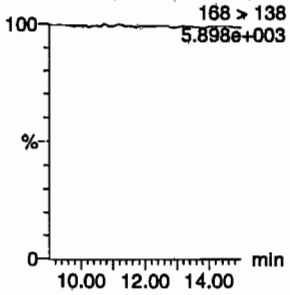

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.900e+003

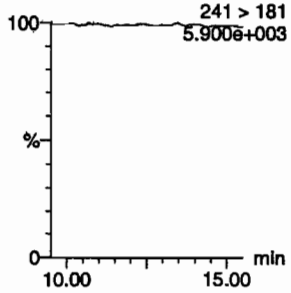

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.957e+003

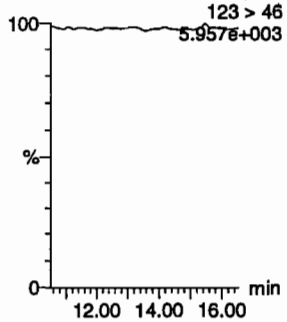

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.986e+003

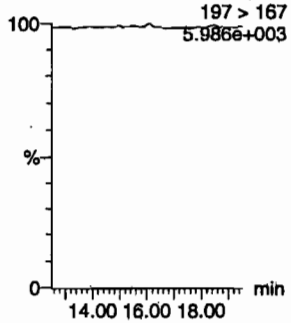

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.955e+003

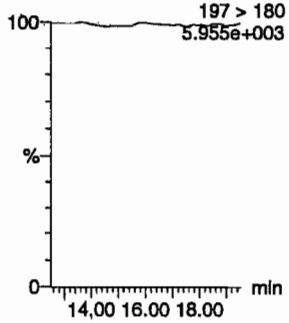

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.861e+003

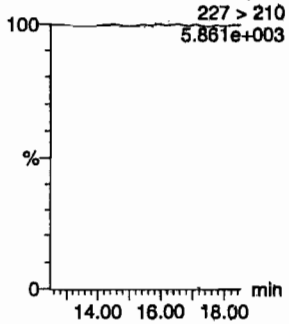

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.898e+003

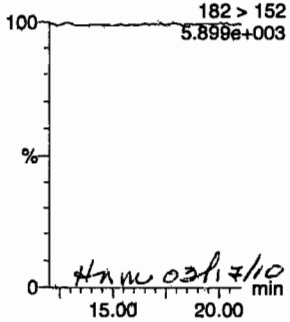

HNW 03/17/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.899e+003

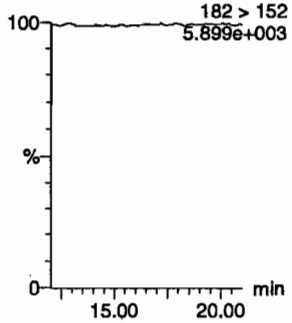

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.899e+003

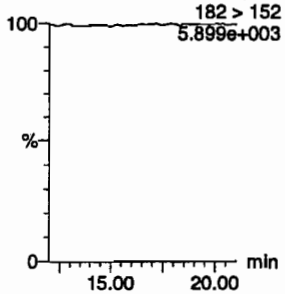

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.572e+004

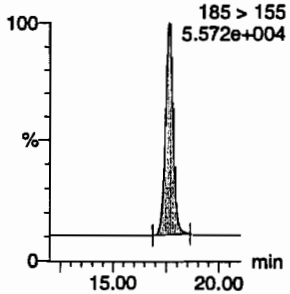

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.890e+003

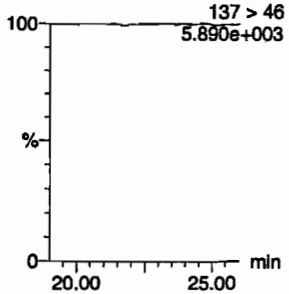

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.890e+003

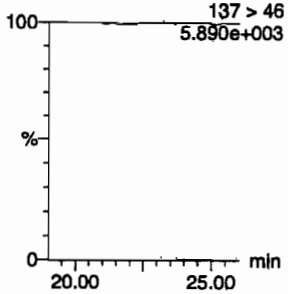

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.890e+003

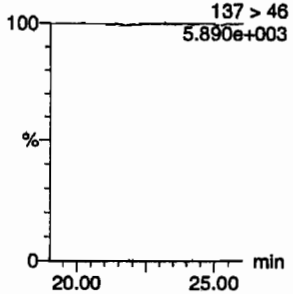

PETN
F13:MRM of 1 channel,AP-
361 > 62
5.871e+003

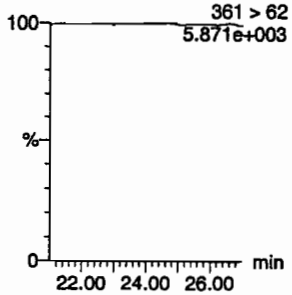

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK11	HMX	176 > 102			3649.838									
XIBLK11	RDX	176 > 102			3649.838									
XIBLK11	135-Trinitrobenzene	213 > 183			3649.838									
XIBLK11	13-Dinitrobenzene-d4	172 > 142	12.17	3649.838		3649.838	3649.838	bb			542.4136	108.5	8.5	412.2
XIBLK11	13-Dinitrobenzene	168 > 138			3649.838									
XIBLK11	Tetryl	241 > 181			3649.838									
XIBLK11	Nitrobenzene	123 > 46			3649.838									
XIBLK11	4-Amino-26-dinitrotoluene	197 > 167			21113.055									
XIBLK11	2-Amino-46-dinitrotoluene	197 > 180			21113.055									
XIBLK11	246-Trinitrotoluene	227 > 210			21113.055									
XIBLK11	34-dinitrotoluene	182 > 152			21113.055									
XIBLK11	26-dinitrotoluene	182 > 152			21113.055									
XIBLK11	24-dinitrotoluene	182 > 152			21113.055									
XIBLK11	26-dinitrotoluene-d3	185 > 155	17.64	21113.055		21113.055	21113.055	bb			553.9843	110.8	10.8	1960.2
XIBLK11	2-Nitrotoluene	137 > 46			21113.055									
XIBLK11	4-Nitrotoluene	137 > 46			21113.055									
XIBLK11	3-Nitrotoluene	137 > 46			21113.055									
XIBLK11	PETN	361 > 62			21113.055									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1898

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 05–MAR–10 19:29

GEL Data File: EXS03050010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	1.24
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

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Dan 3/9/10

le Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS03050010.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/5/2010
Time: 7:29:01 PM

ied: No

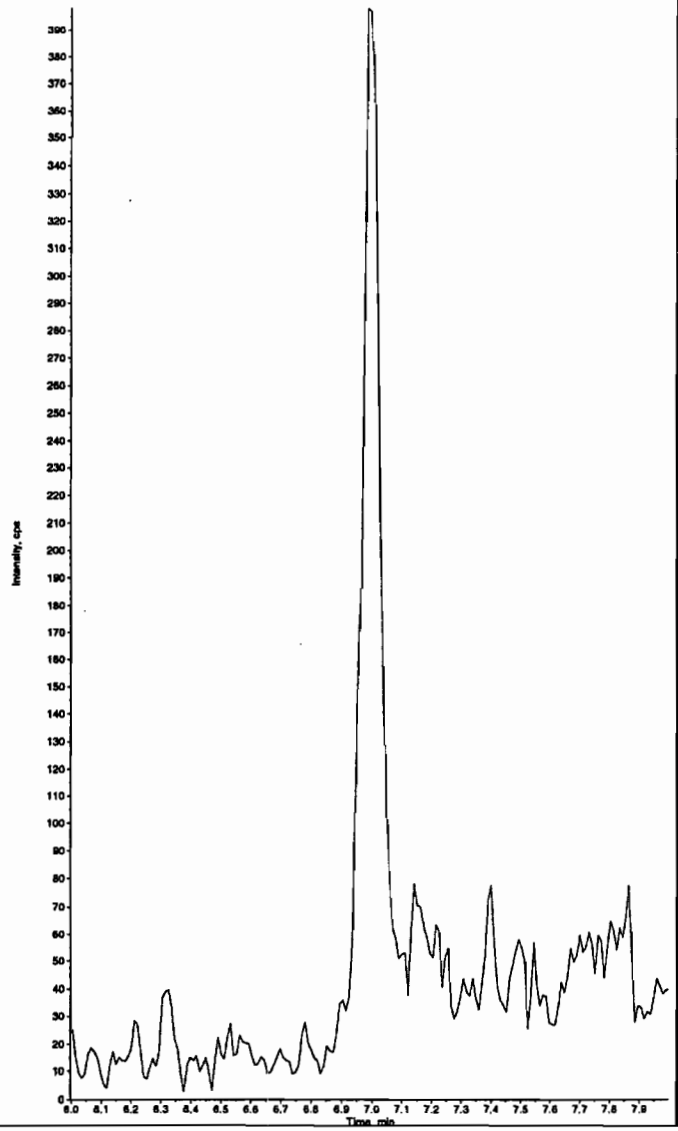

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS03050010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/5/2010
Acq. Time: 7:29:01 PM

Modified: No

dmm 03/09/10

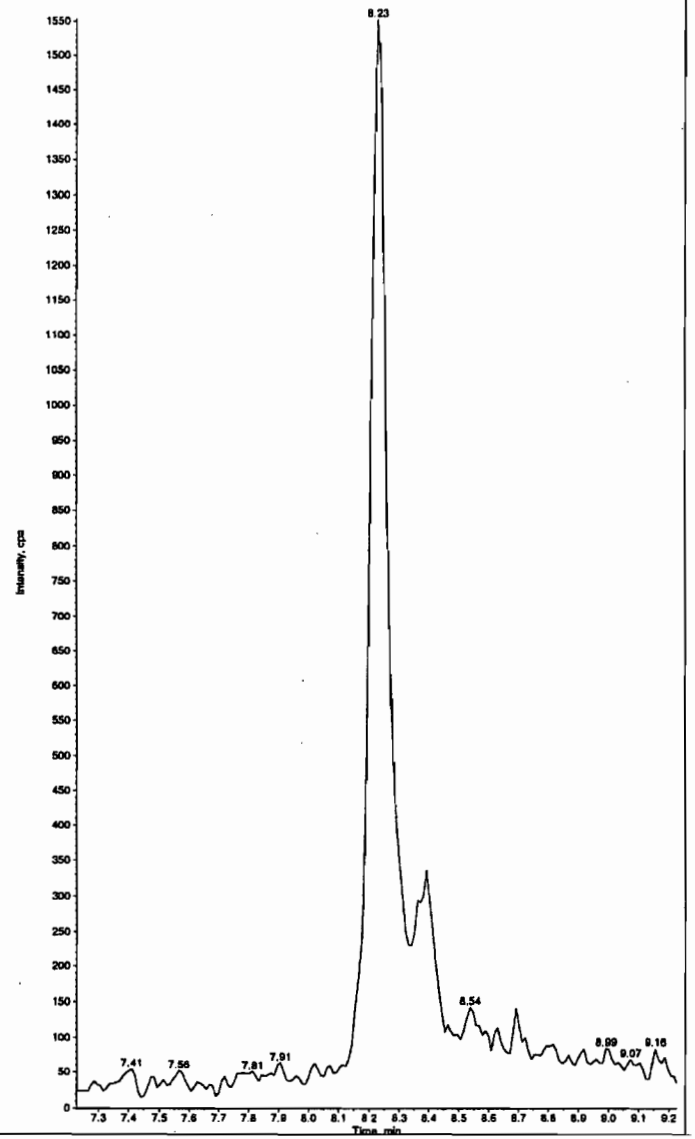

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ple Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS03050010.wiff"
: Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/5/2010
Time: 7:29:01 PM

ied: No

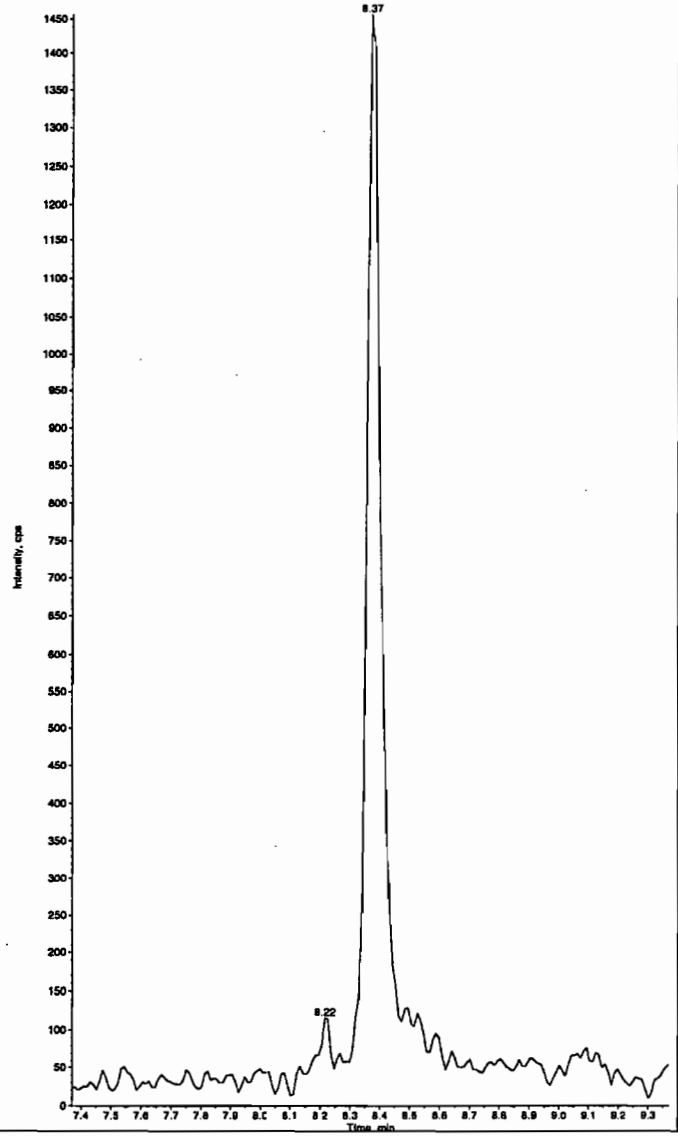

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS03050010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/5/2010
Acq. Time: 7:29:01 PM

Modified: No

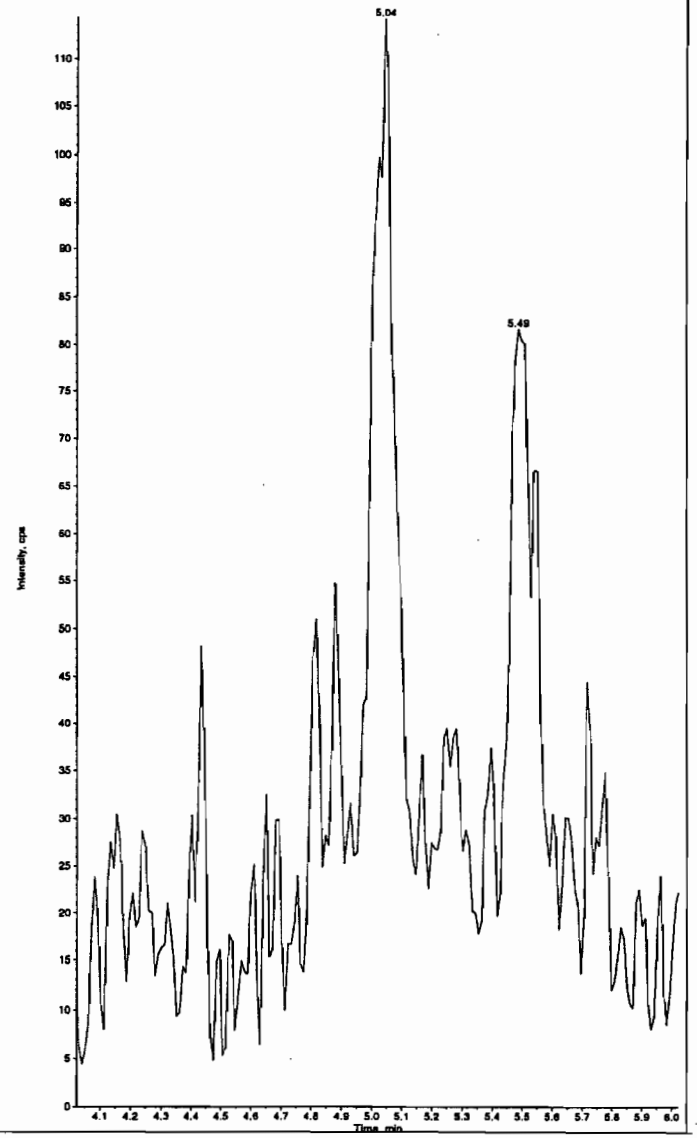

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

le Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS03050010.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "156.0/46.0 amu"
nent: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/5/2010
Time: 7:29:01 PM

ied: No

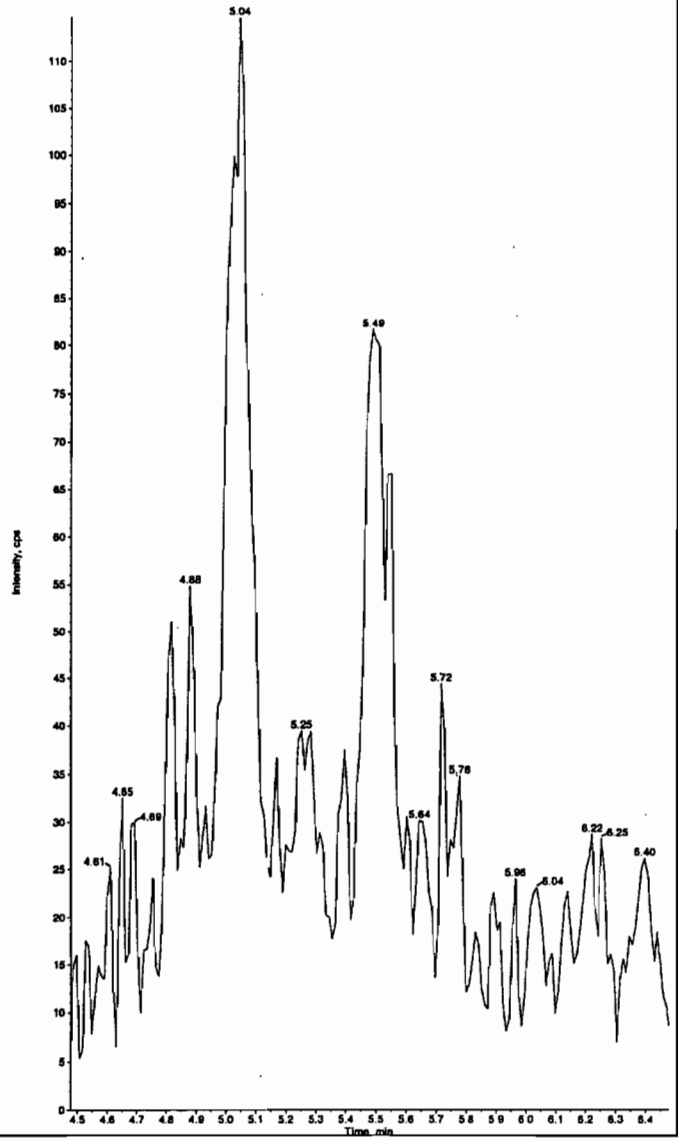

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS03050010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	1.24	ng/mL
Acq. Date:	3/5/2010	
Acq. Time:	7:29:01 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.8	min
Area:	1.45e+005	counts
Height:	44249.924	cps
Start Time:	10.7	min
End Time:	11.1	min

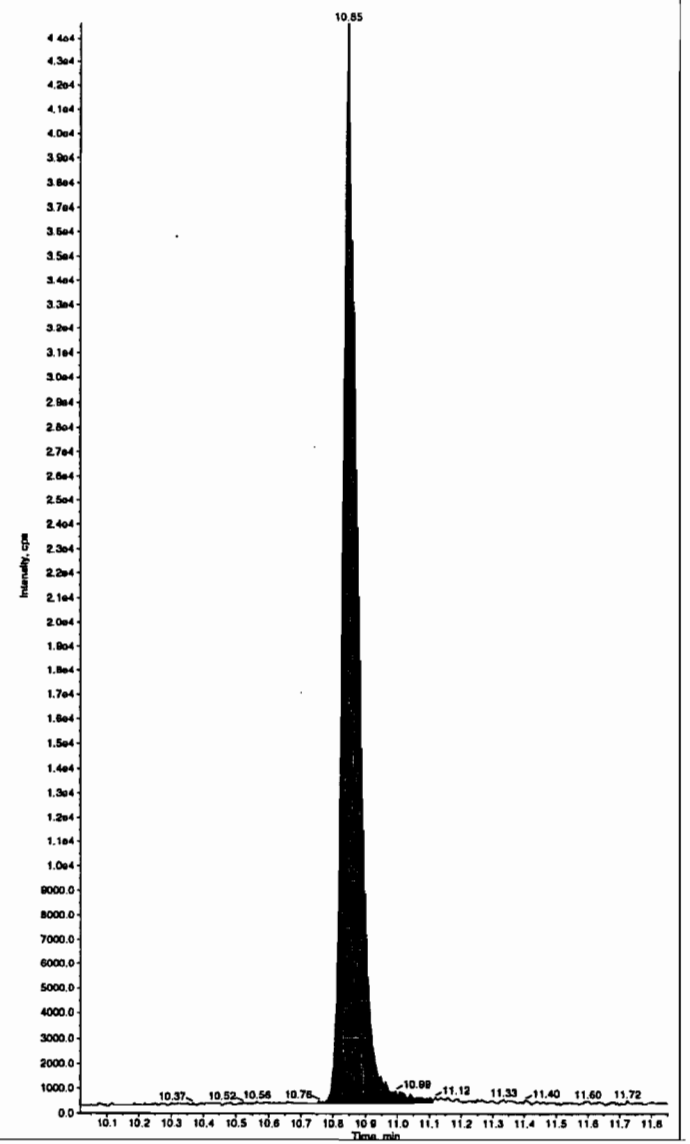

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1898

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 05–MAR–10 20:00

GEL Data File: EXS03050012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Scan 3/9/10

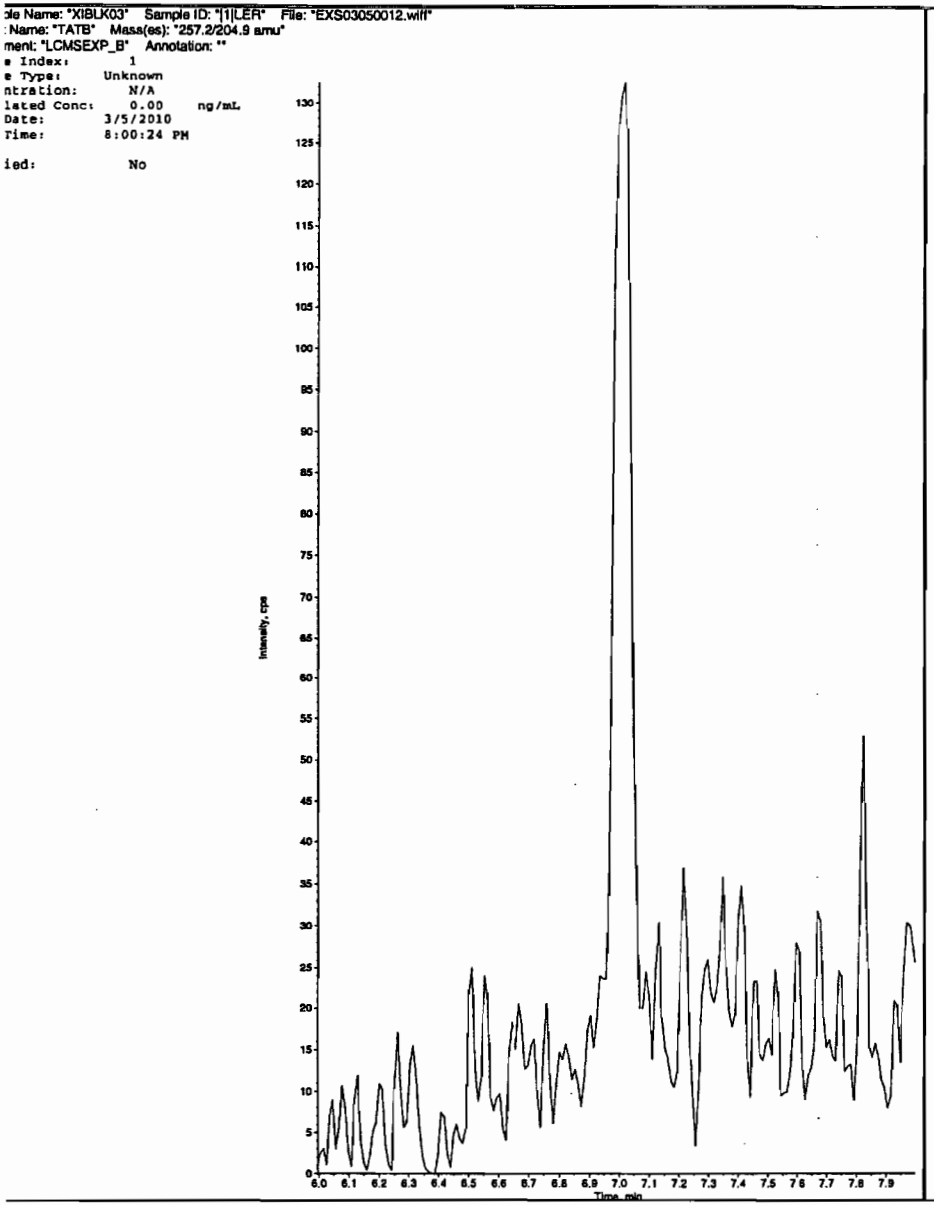

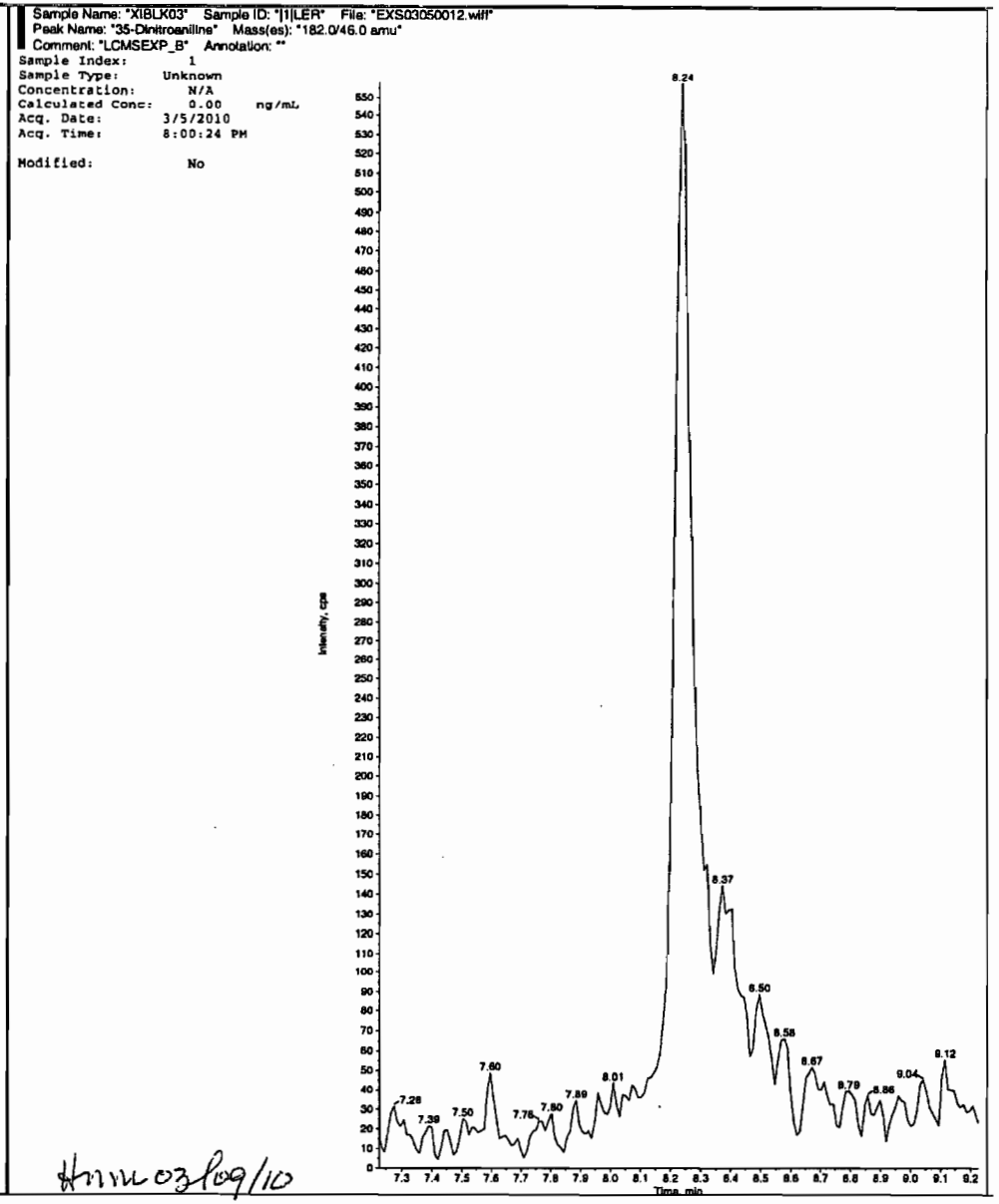

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

le Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS03050012.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
tration: N/A
ated Conc: 0.00 ng/mL
ate: 3/5/2010
ime: 8:00:24 PM

ed: No

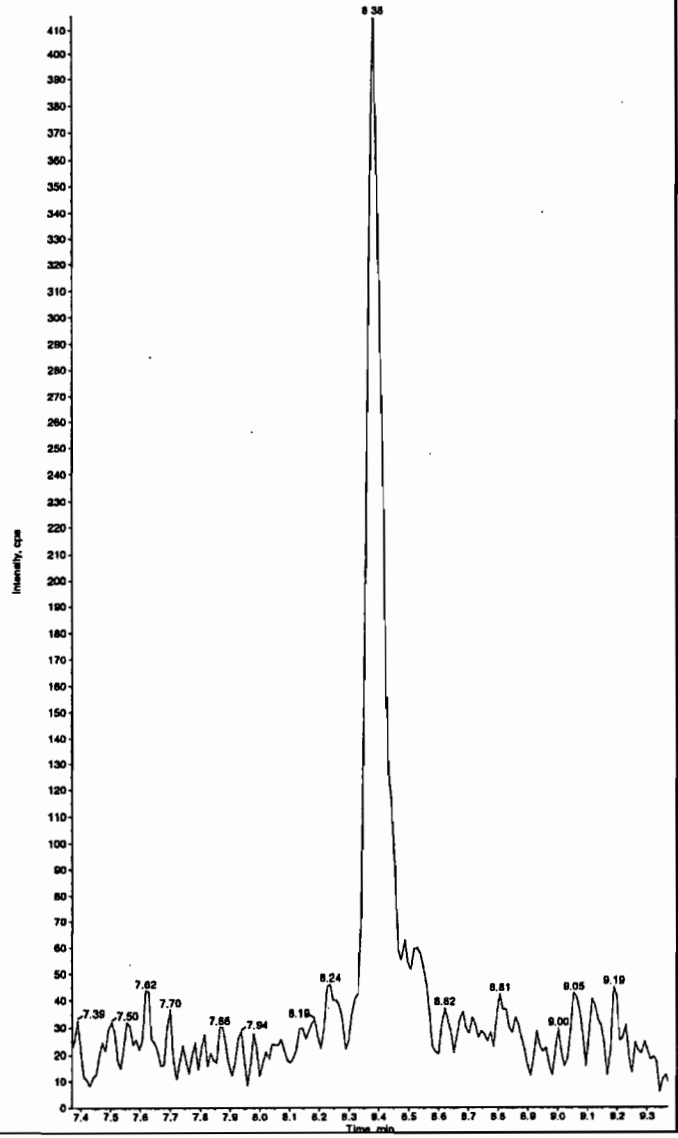

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS03050012.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/5/2010
Acq. Time: 8:00:24 PM

Modified: No

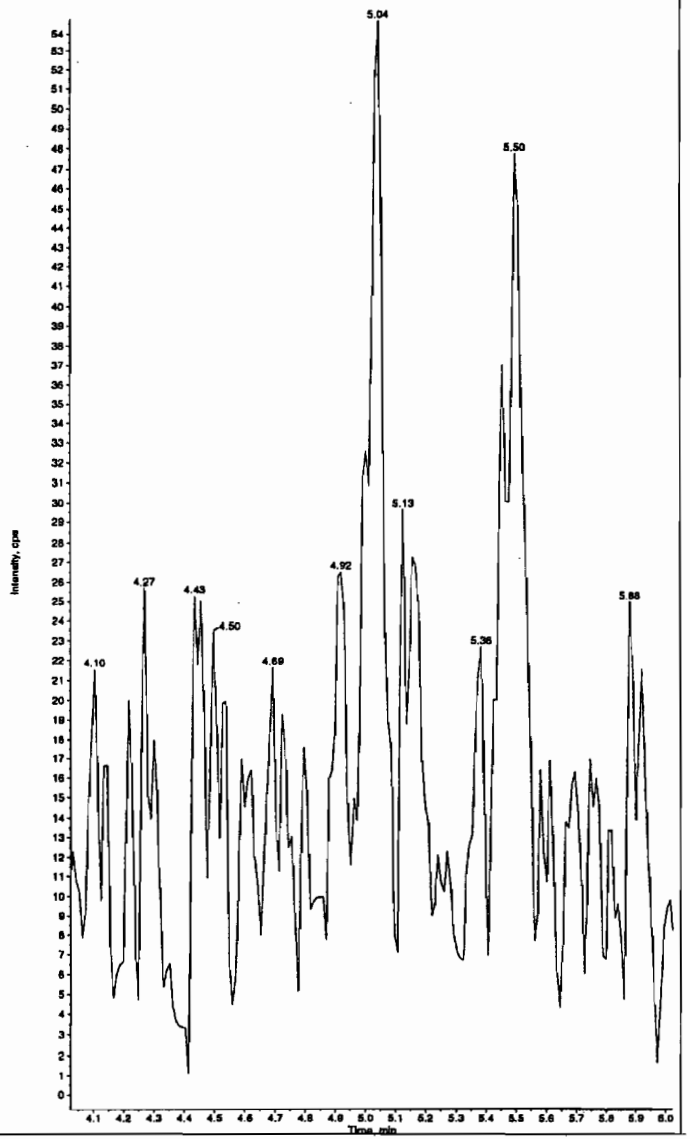

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

le Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS03050012.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "165.0/45.0 amu"
nent: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/5/2010
Time: 8:00:24 PM

led: No

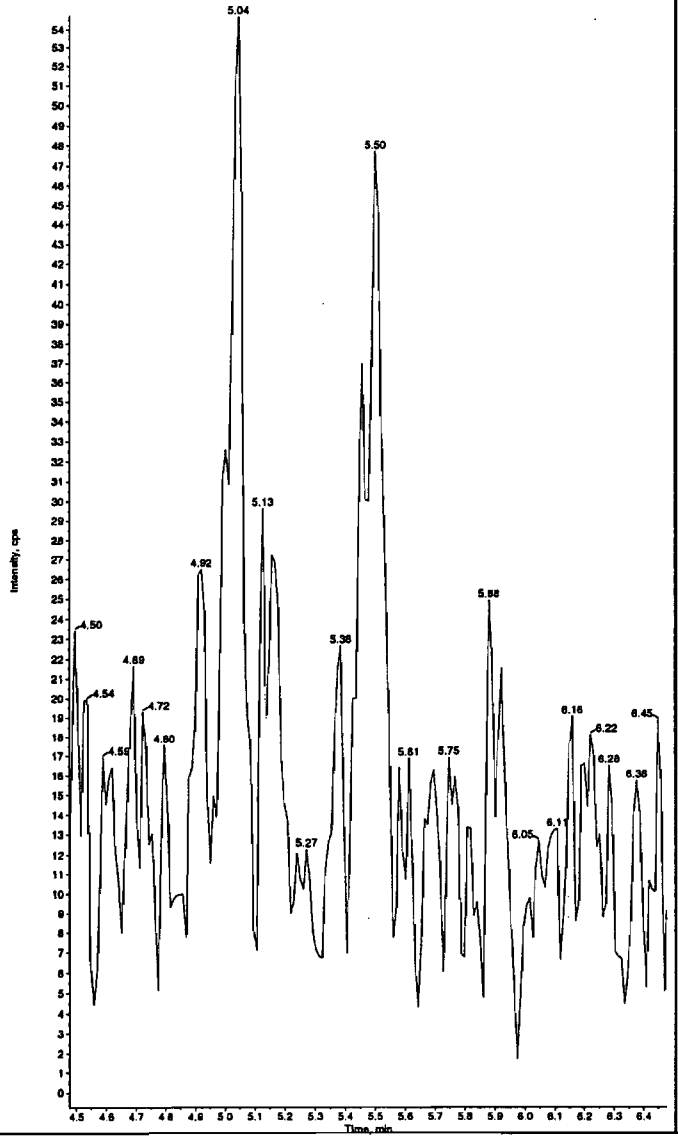

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS03050012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	No Intercept	
Acq. Date:	3/5/2010	
Acq. Time:	8:00:24 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	7.77e+004	counts
Height:	22798.788	cps
Start Time:	10.8	min
End Time:	11.1	min

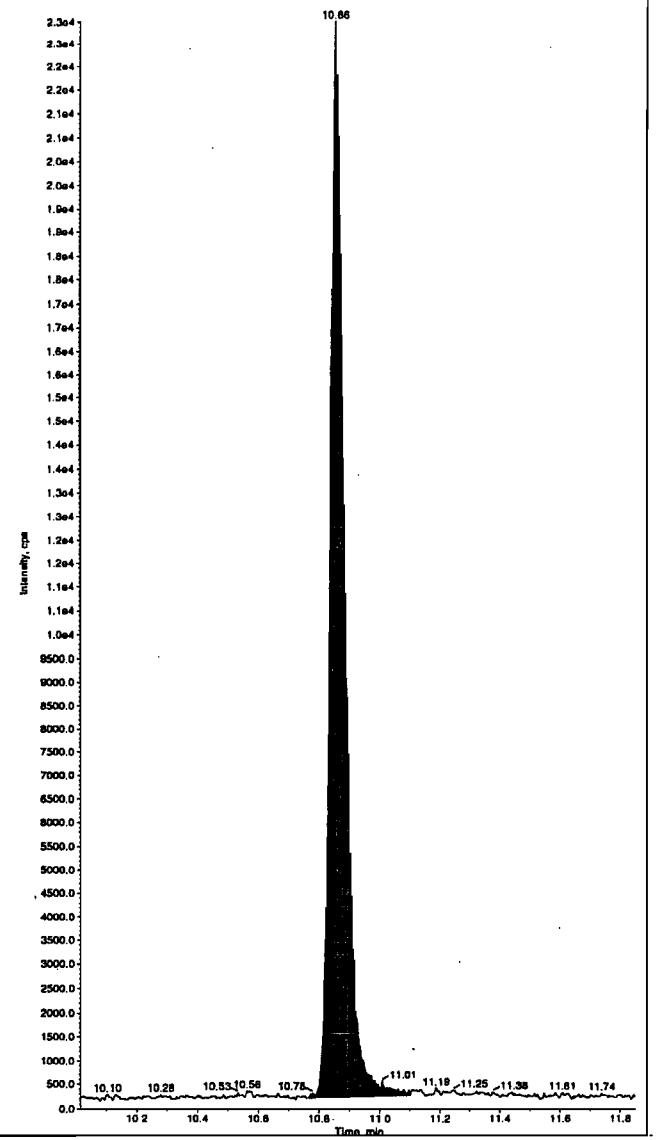

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1898

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 05-MAR-10 23:24

GEL Data File: EXS03050025.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

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ple Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS03050025.wiff"
(Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/5/2010
Time: 11:24:26 PM

ied: No

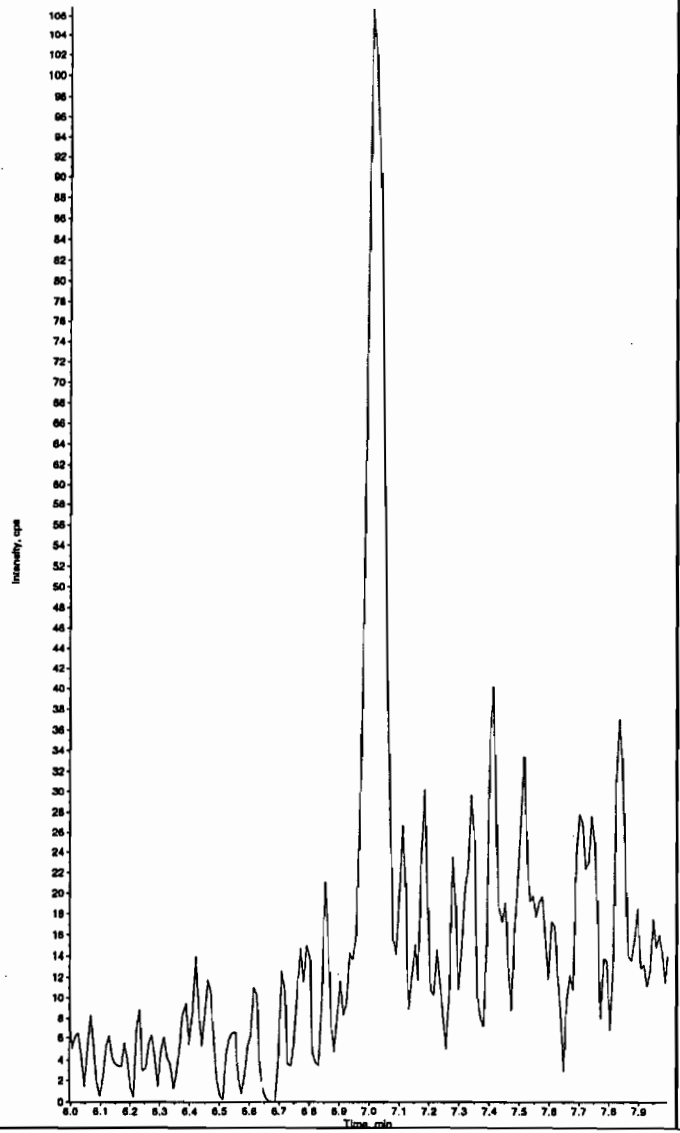

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS03050025.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/5/2010
Acq. Time: 11:24:26 PM

Modified: No

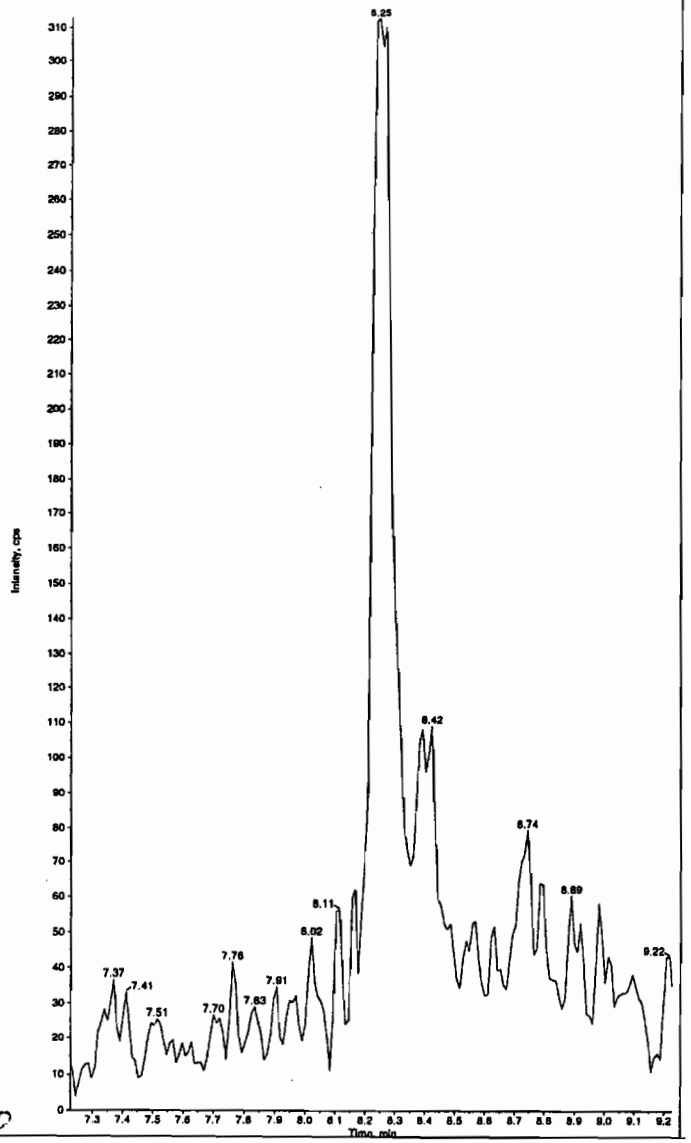

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

le Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS03050025.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nent: "LCMSEXP_B" Annotation: ""
: Index: 1
: Type: Unknown
ıtration: N/A
latad Conc: 0.00 ng/mL
Date: 3/5/2010
Time: 11:24:26 PM

ied: No

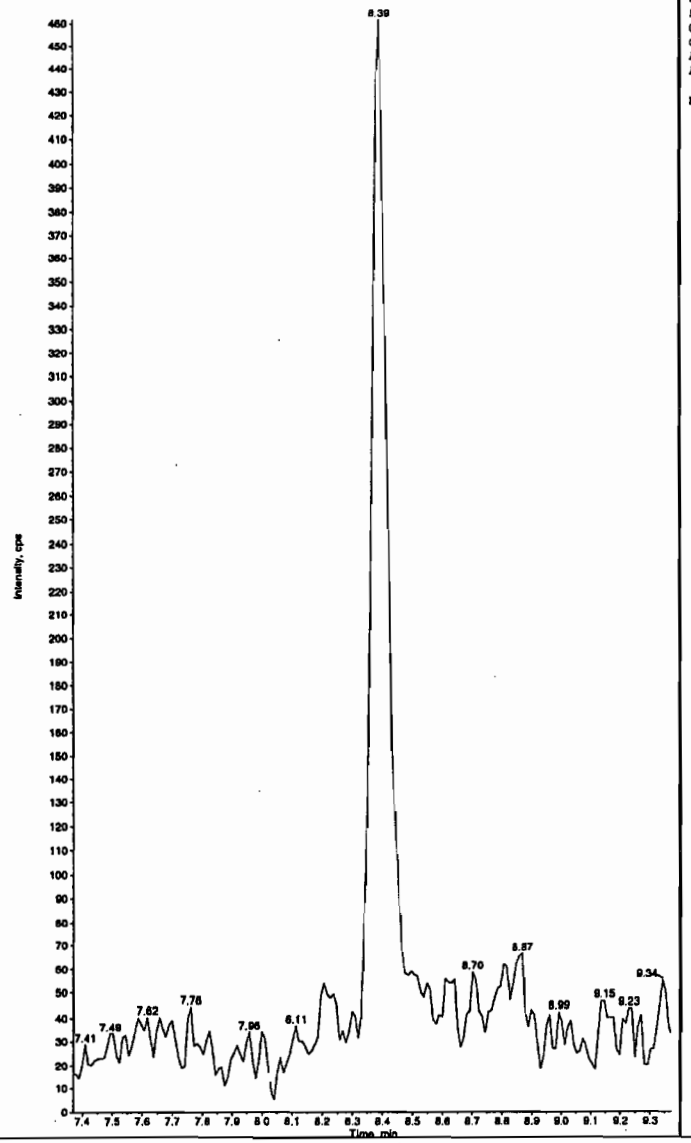

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS03050025.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/5/2010
Acq. Time: 11:24:26 PM

Modified: No

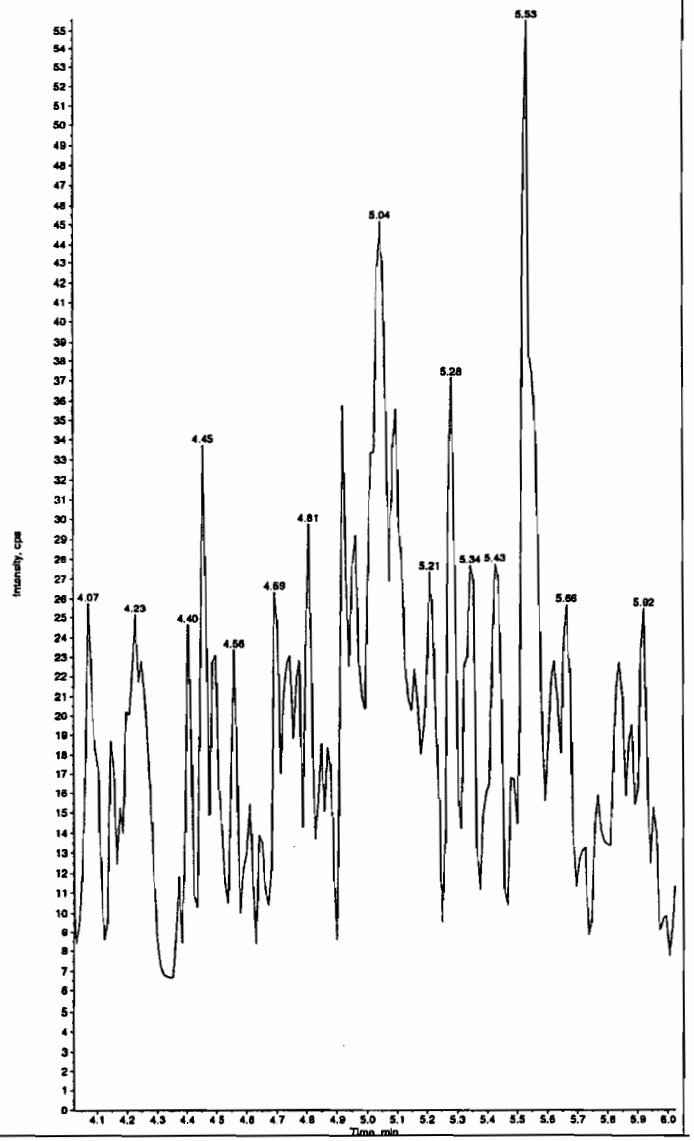

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS03050025.wiff"
(Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_8" Annotation: ""

```
e Index:        1
e Type:      Unknown
ntration:       N/A
lated Conc:     0.00     ng/mL
Date:        3/5/2010
Time:        11:24:26 PM

ied:            No
```

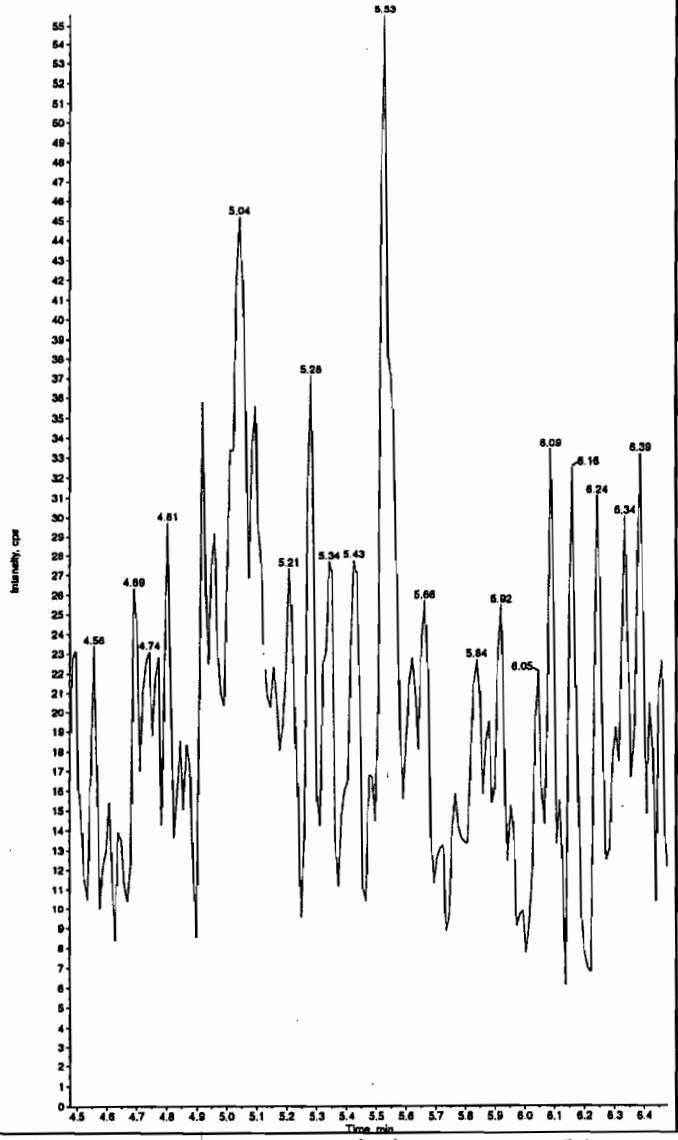

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS03050025.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_8" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:       N/A
Calculated Conc: No Intercept
Acq. Date:        3/5/2010
Acq. Time:        11:24:26 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:         10.9   min
Use Relative RT:     No

Int. Type:        Valley
Retention Time:      10.9   min
Area:          5.49e+004   counts
Height:         16220.448   cps
Start Time:          10.8   min
End Time:            11.1   min
```

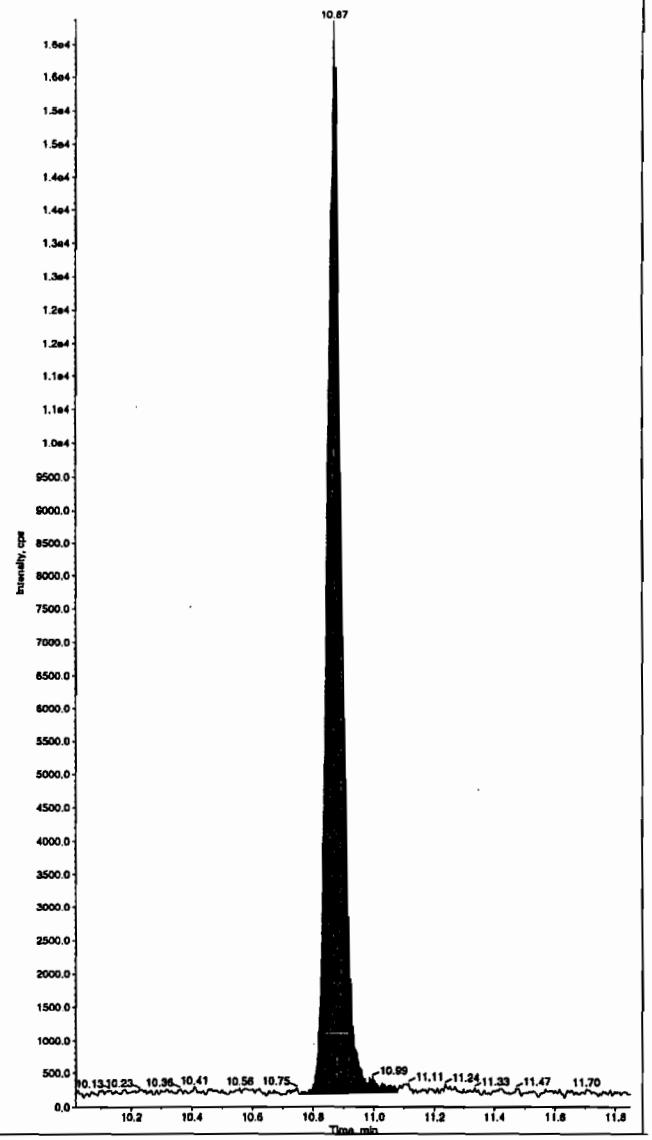

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1898

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 06-MAR-10 02:17

GEL Data File: EXS03050036.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Dan 3/9/10

ple Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS03050036.wiff"
: Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/6/2010
Time: 2:17:09 AM

ied: No

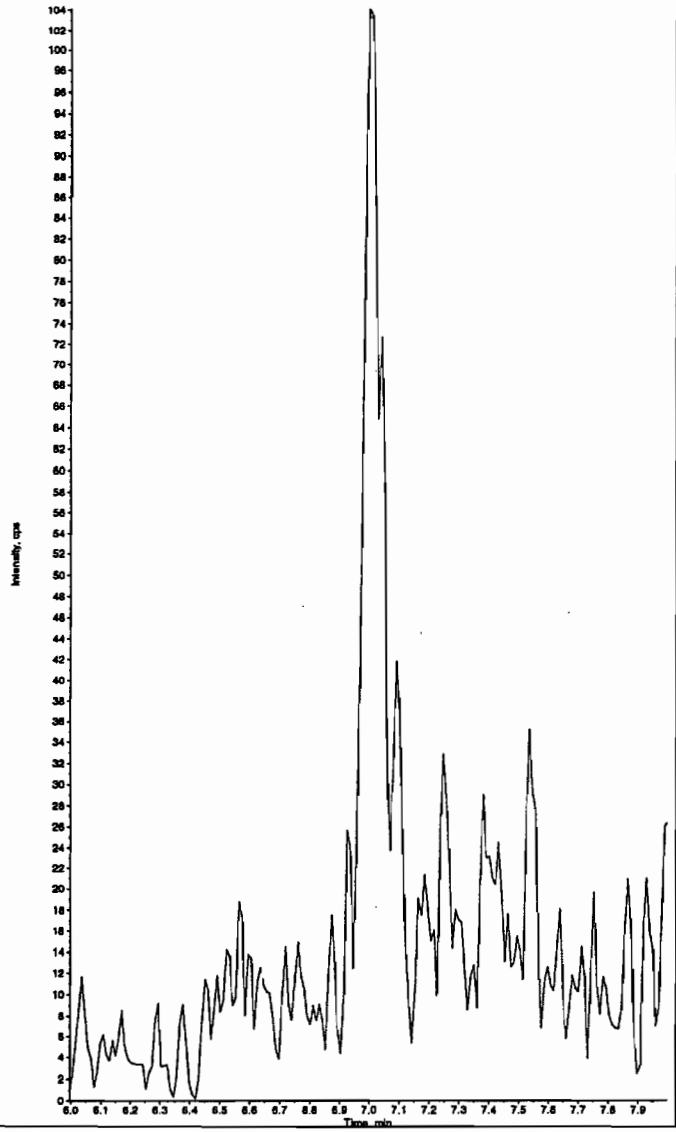

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS03050036.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/6/2010
Acq. Time: 2:17:09 AM

Modified: No

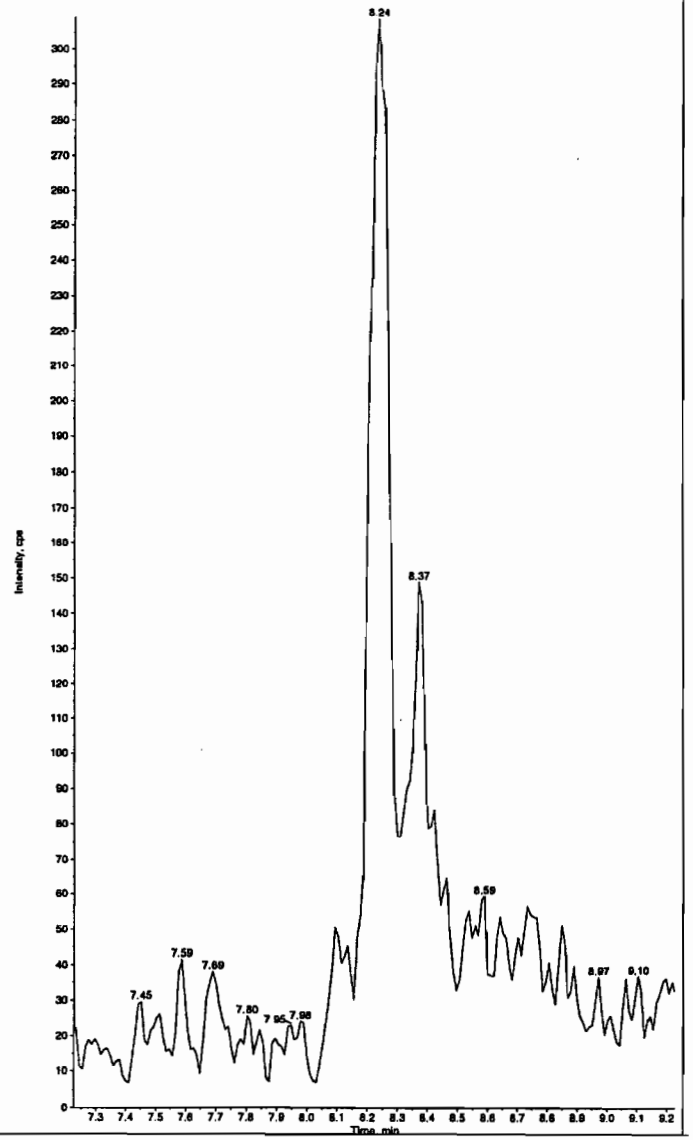

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; SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

le Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS03050036.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nent: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/6/2010
Time: 2:17:09 AM

ied: No

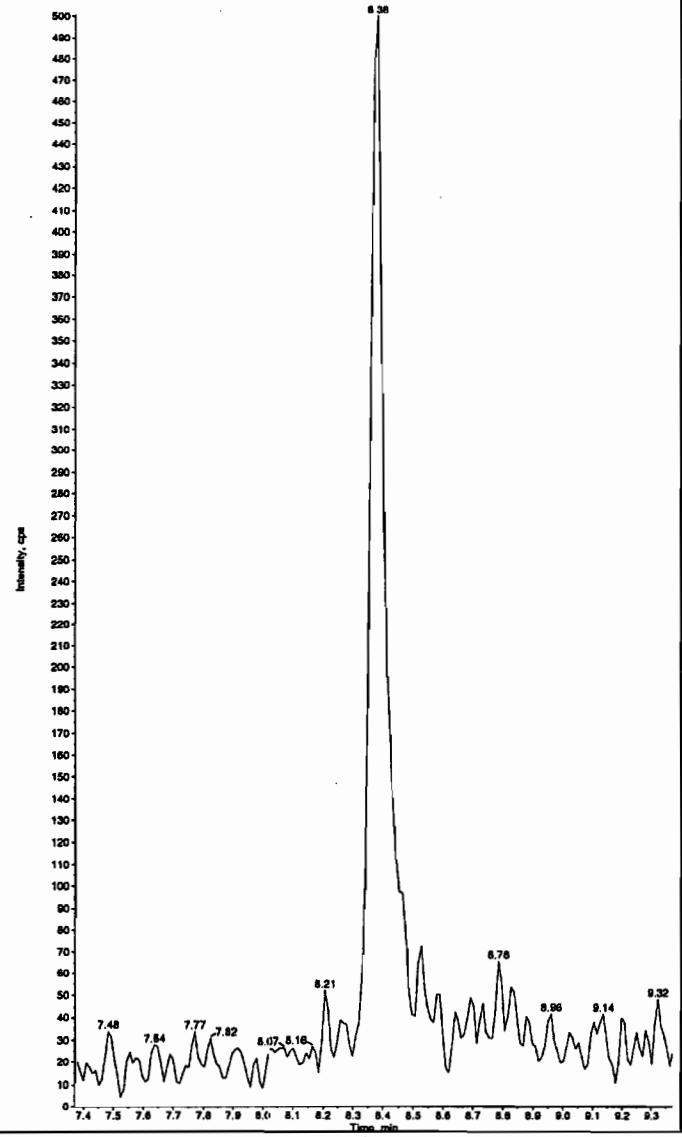

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS03050036.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/6/2010
Acq. Time: 2:17:09 AM

Modified: No

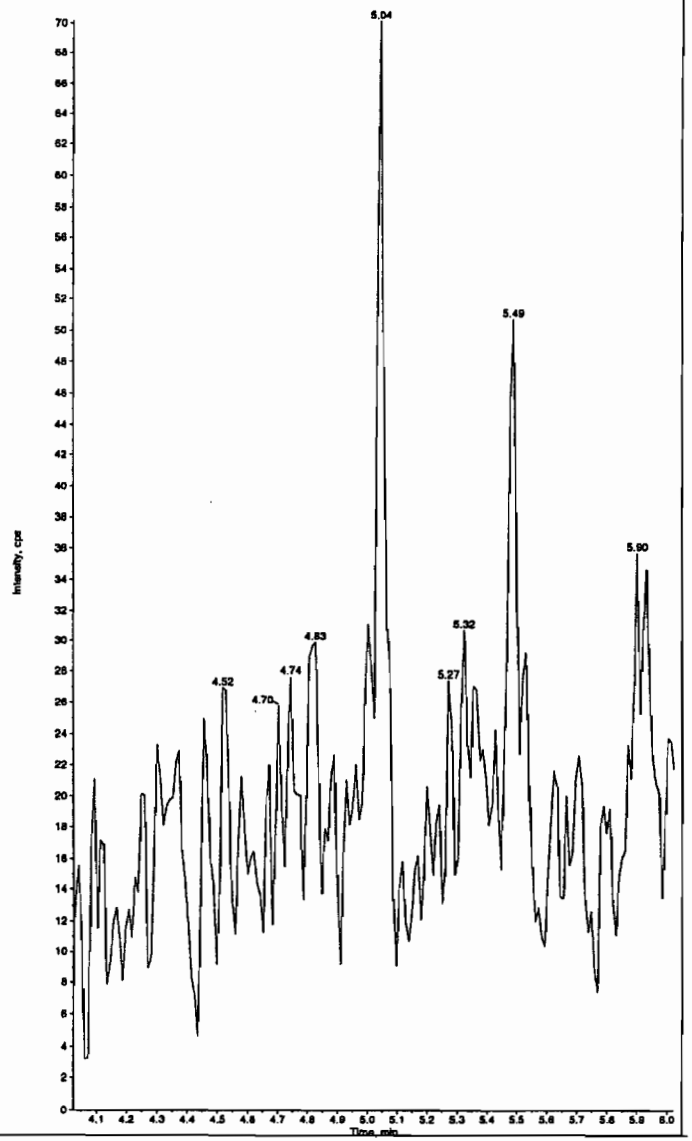

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

le Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS03050036.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ent: "LCMSEXP_B" Annotation: ""

Index: 1
Type: Unknown
tration: N/A
ated Conc: 0.00 ng/mL
ate: 3/6/2010
ime: 2:17:09 AM

ed: No

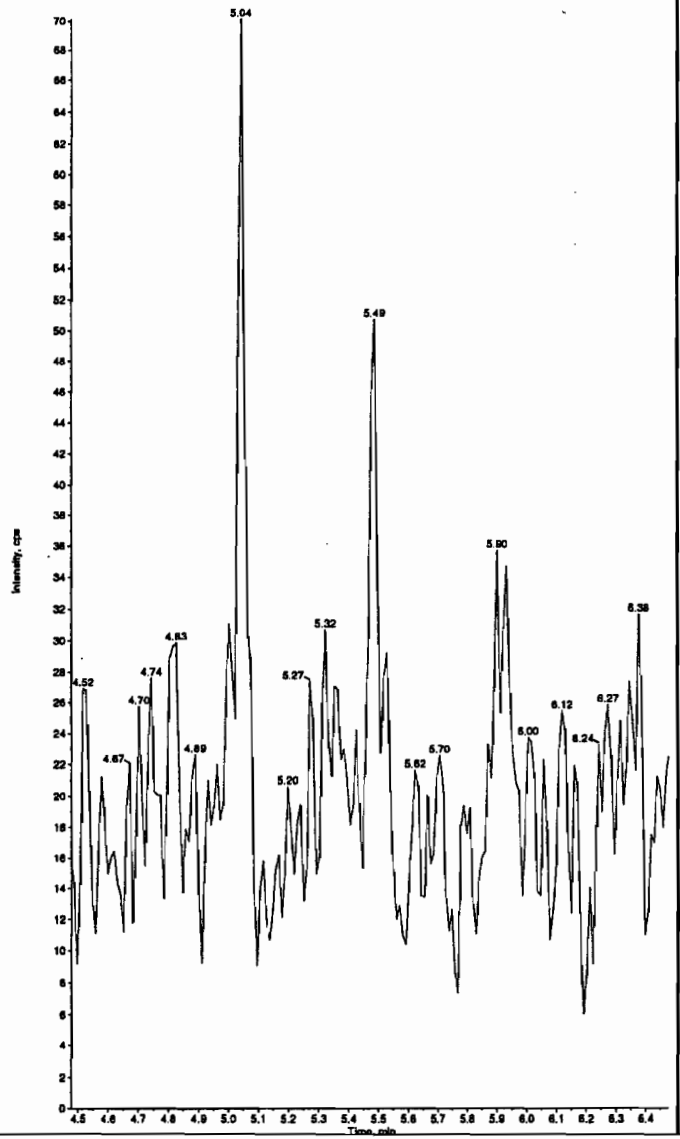

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS03050036.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/6/2010
Acq. Time: 2:17:09 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 4.56e+004 counts
Height: 13337.638 cps
Start Time: 10.8 min
End Time: 11.0 min

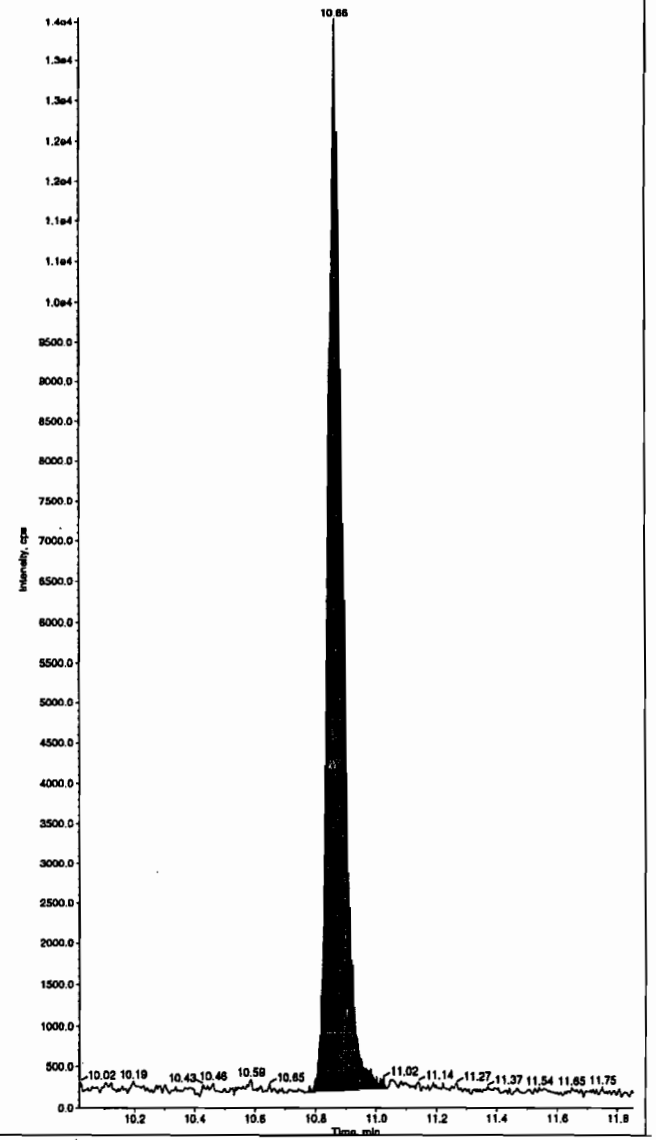

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1898

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 06–MAR–10 05:41

GEL Data File: EXS03050049.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lar 3/9/10

ple Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS03050049.wiff"
(Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/6/2010
Time: 5:41:16 AM

ied: No

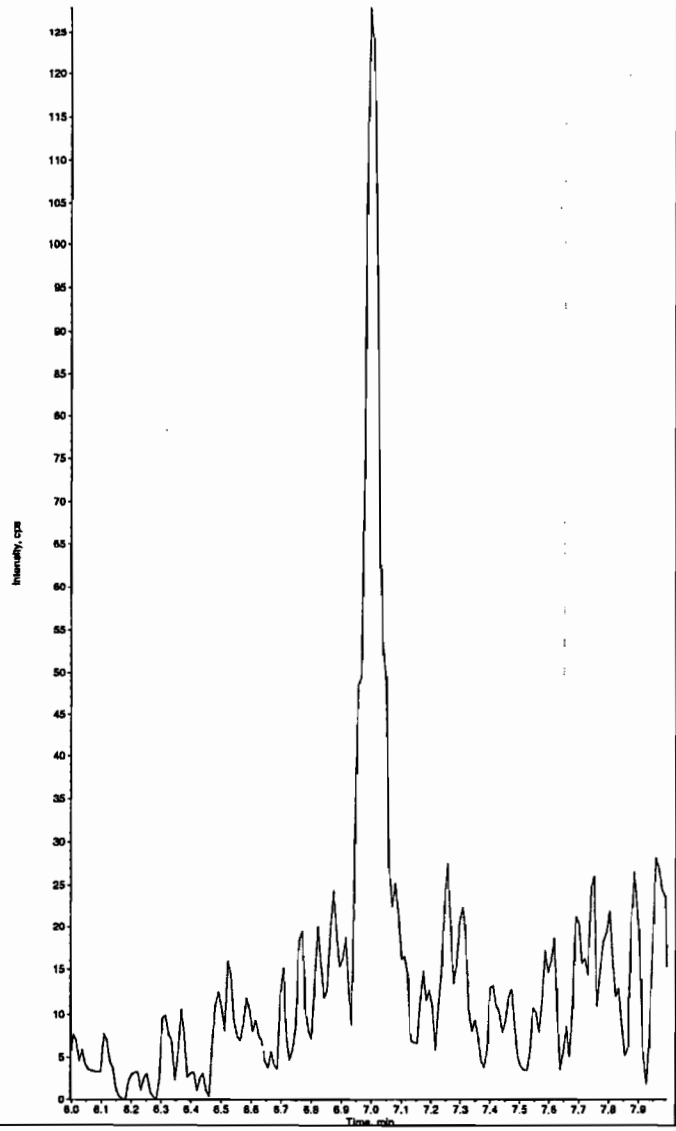

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS03050049.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/6/2010
Acq. Time: 5:41:16 AM

Modified: No

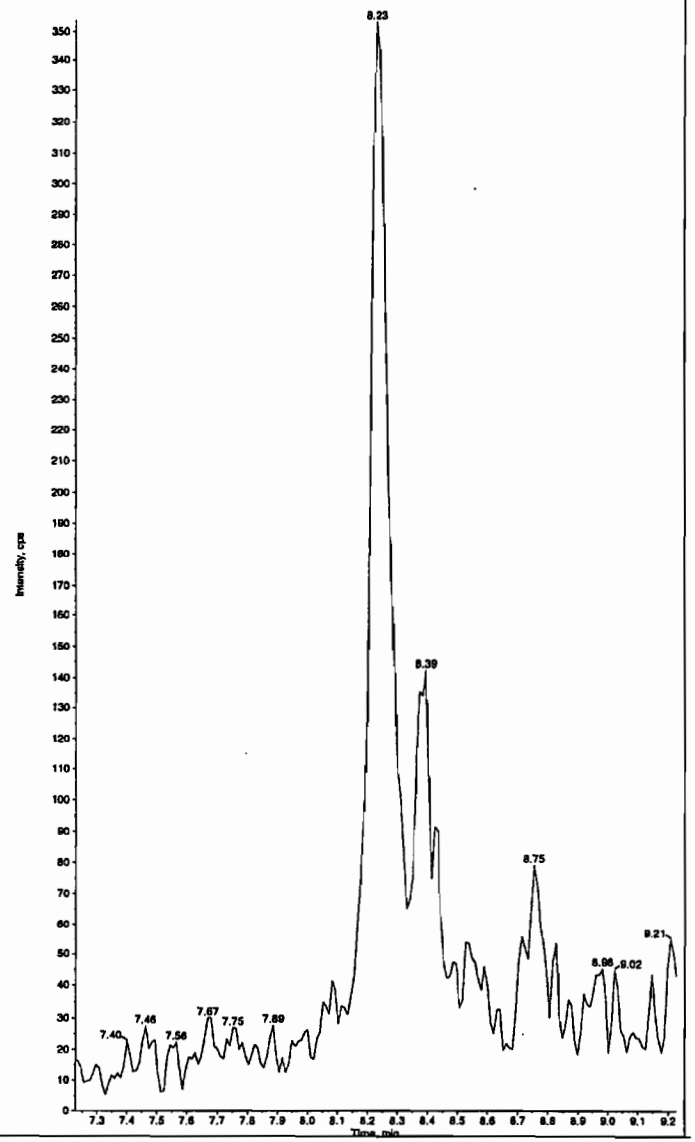

Hume 03/09/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS03050049.wiff"
k Name: "34-Dinitrotoluene" Mass(as): "182.1/151.9 amu"
nment: "LCMSEXP_B" Annotation: ""
.e Index: 1
.e Type: Unknown
ntration: N/A
ilated Conc: 0.00 ng/mL
Date: 3/6/2010
Time: 5:41:16 AM

fied: No

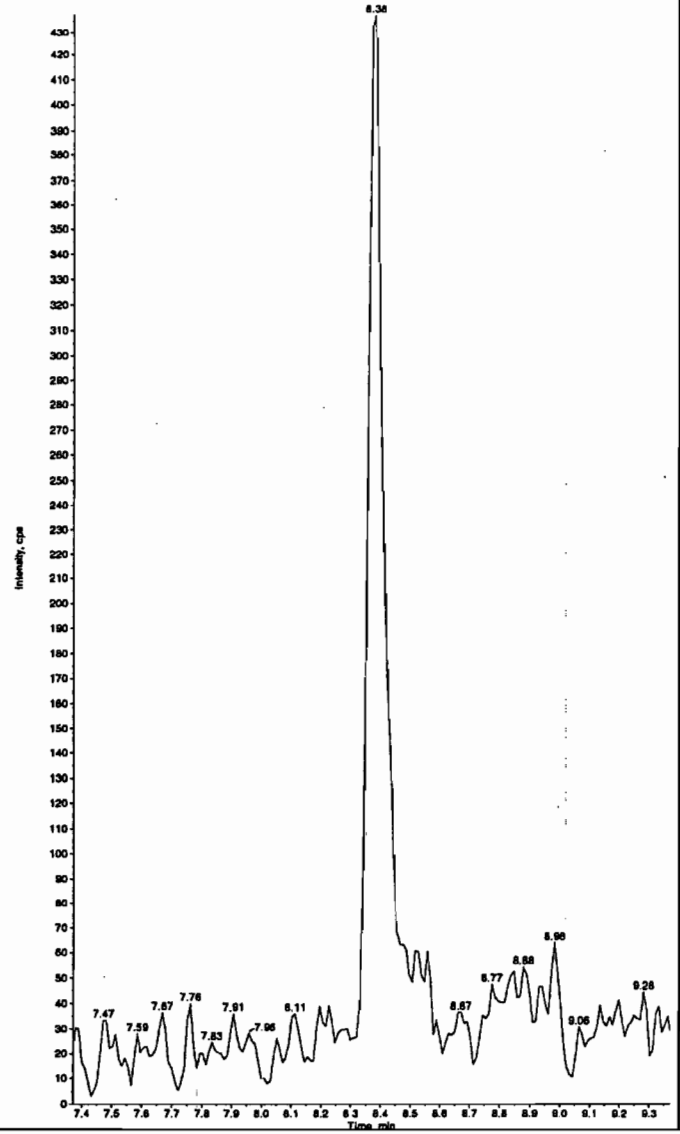

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS03050049.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/6/2010
Acq. Time: 5:41:16 AM

Modified: No

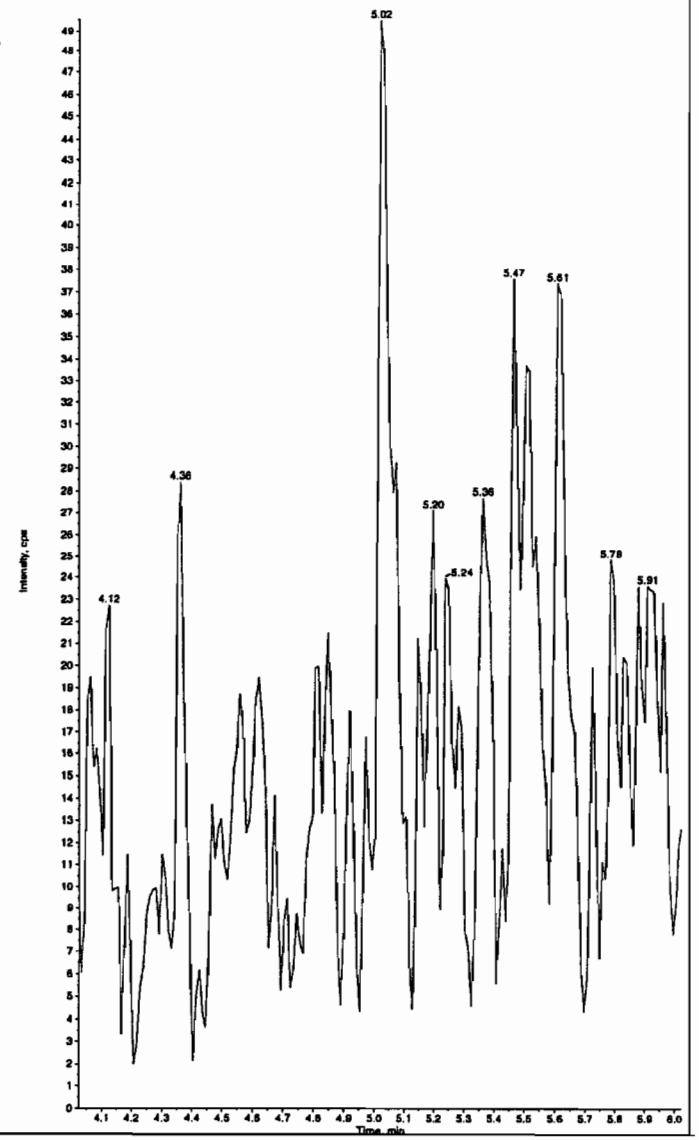

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

nple Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS03050049.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 3/6/2010
Time: 5:41:16 AM

fied: No

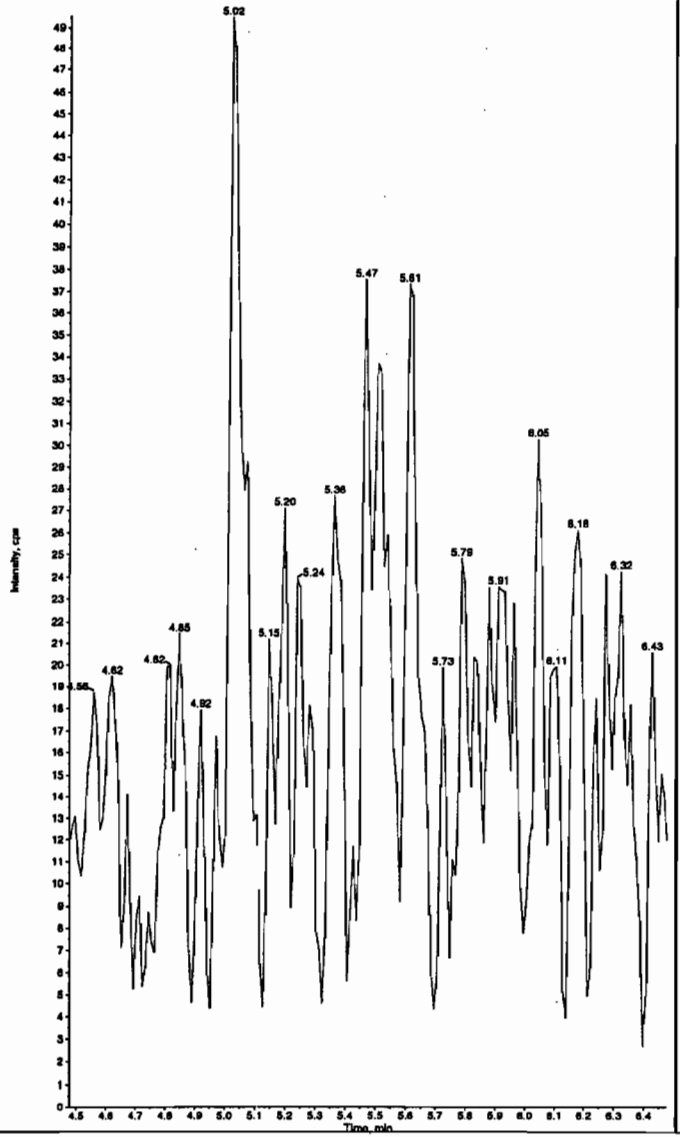

Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS03050049.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/6/2010
Acq. Time: 5:41:16 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 4.64e+004 counts
Height: 13920.753 cps
Start Time: 10.6 min
End Time: 11.1 min

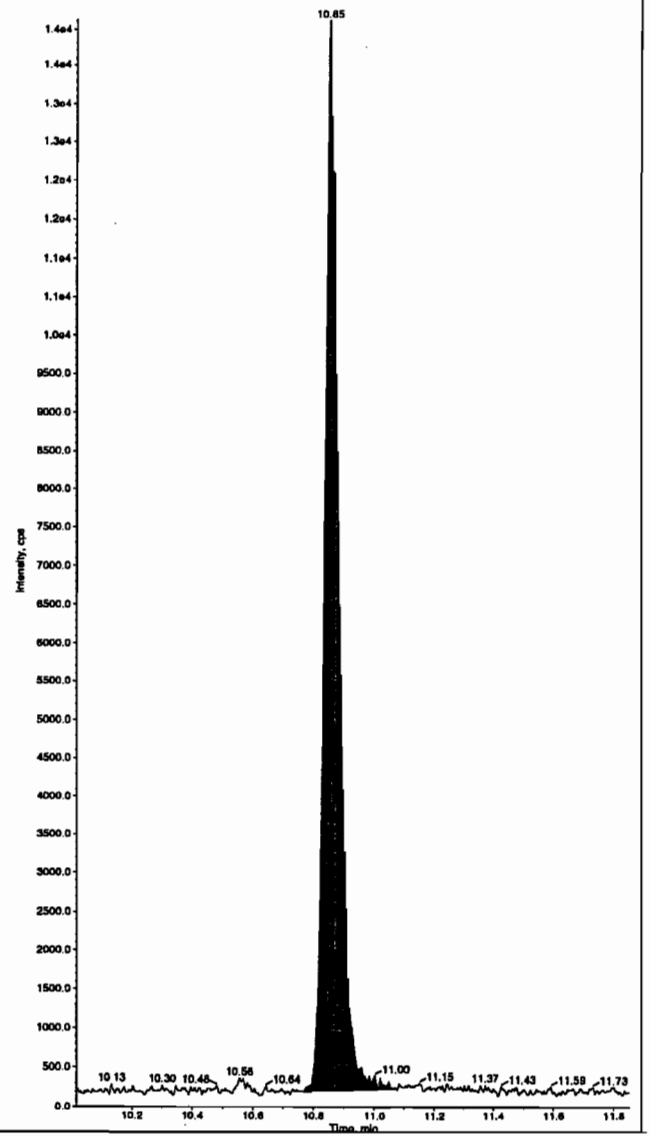

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1898

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 06–MAR–10 08:49

GEL Data File: EXS03050061.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lcn 3/9/10

ple Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS03050061.wiff"
(Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/6/2010
Time: 8:49:43 AM

ied: No

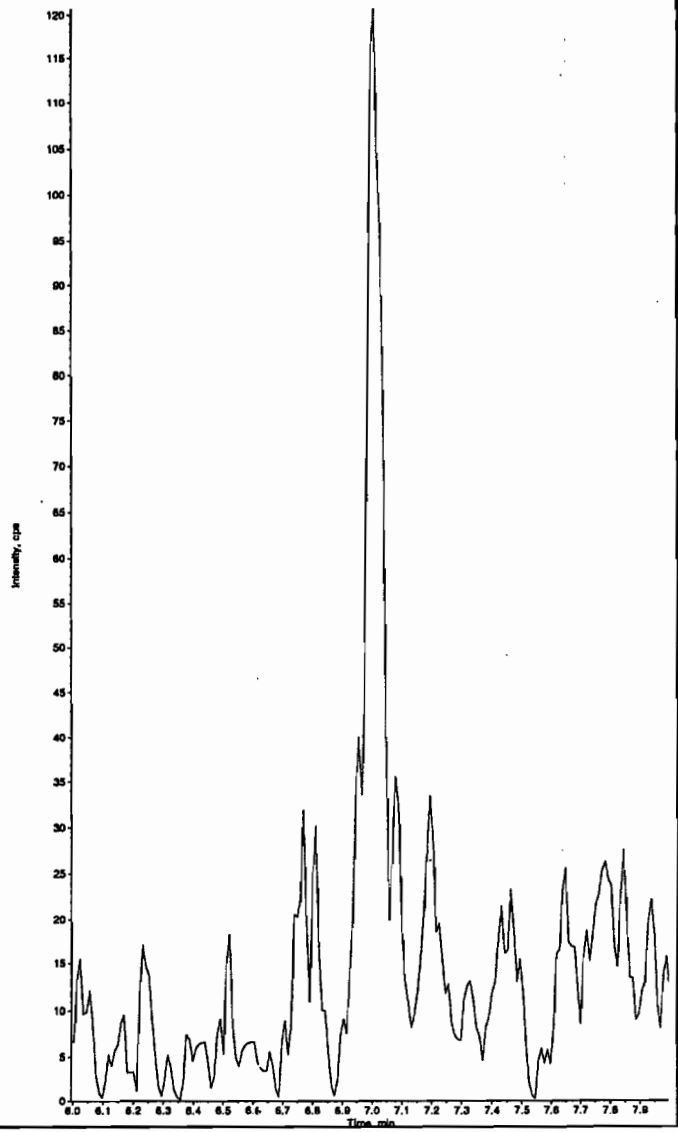

Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS03050061.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/6/2010
Acq. Time: 8:49:43 AM

Modified: No

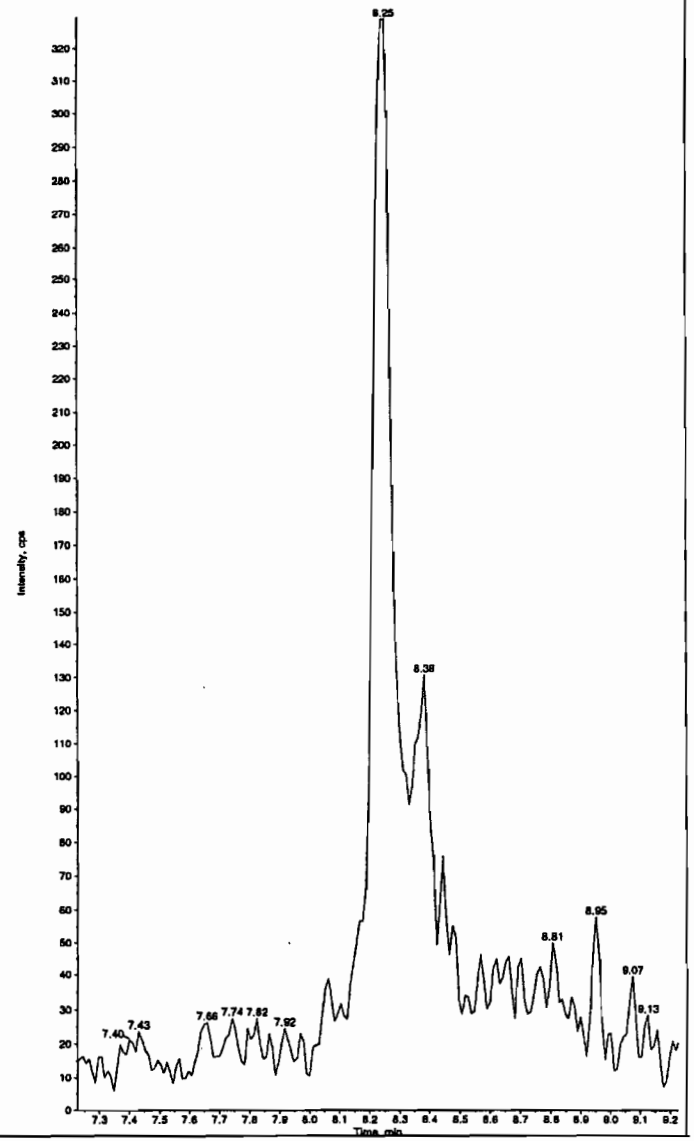

HMW 03/09/10

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

nple Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS03050061.wiff"
k Name: "34-Dinitrotoluene" Mass(as): "182.1/151.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 3/6/2010
Time: 8:49:43 AM

fied: No

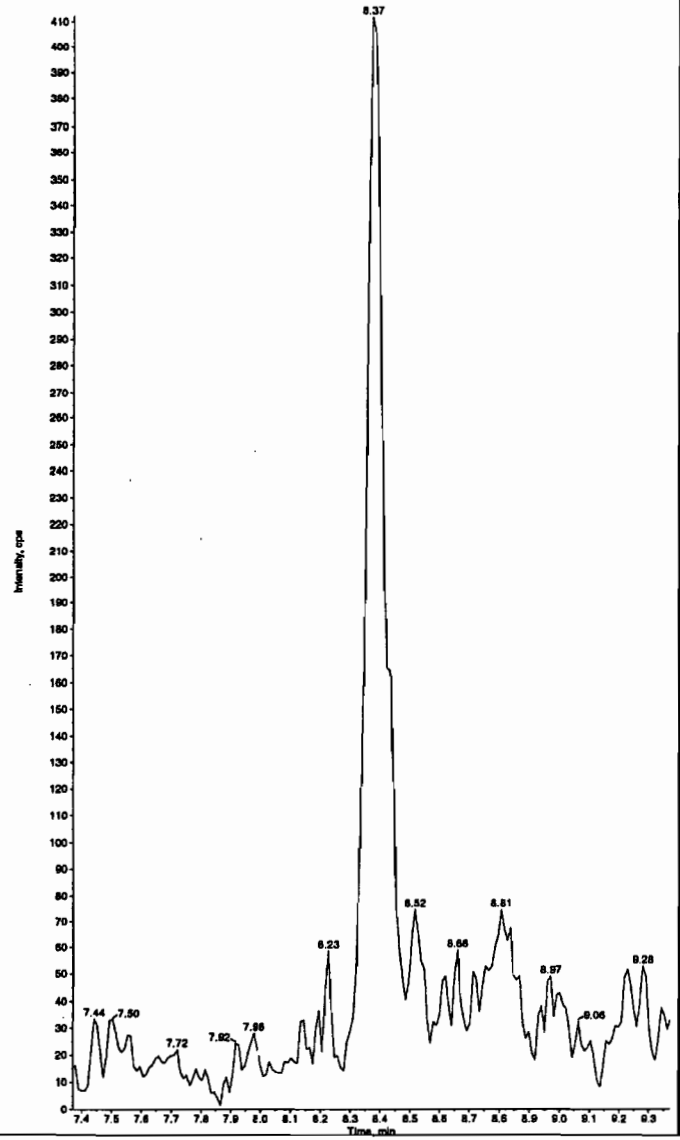

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS03050061.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/6/2010
Acq. Time: 8:49:43 AM

Modified: No

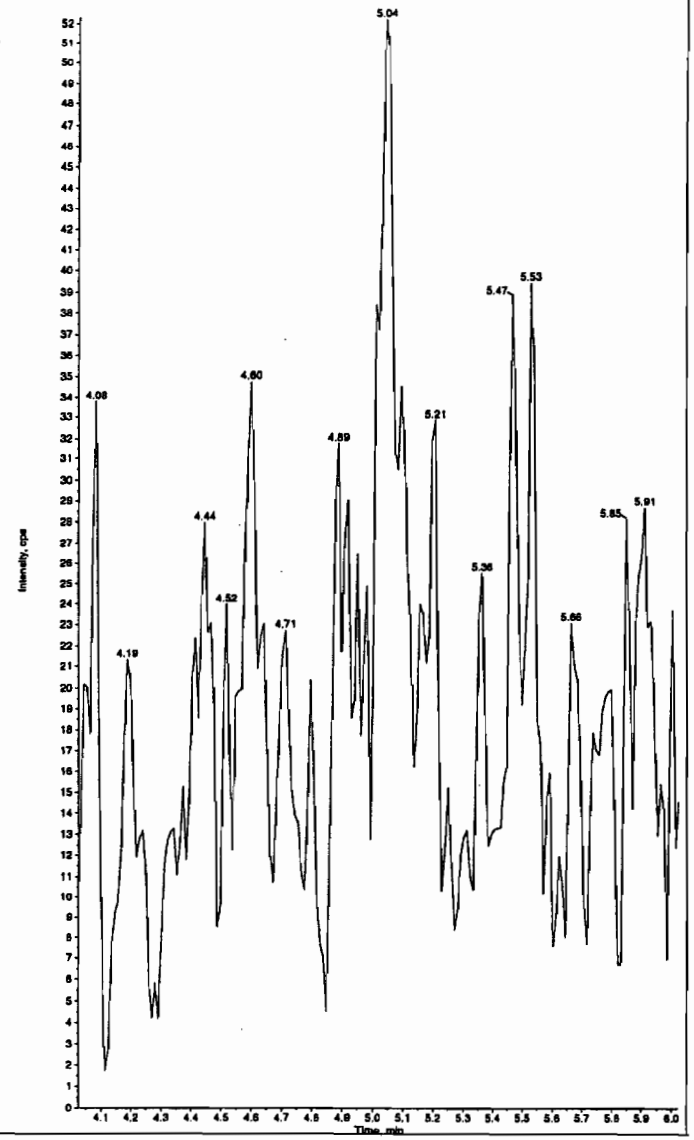

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS03050061.wiff"
(Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/6/2010
Time: 8:49:43 AM

ied: No

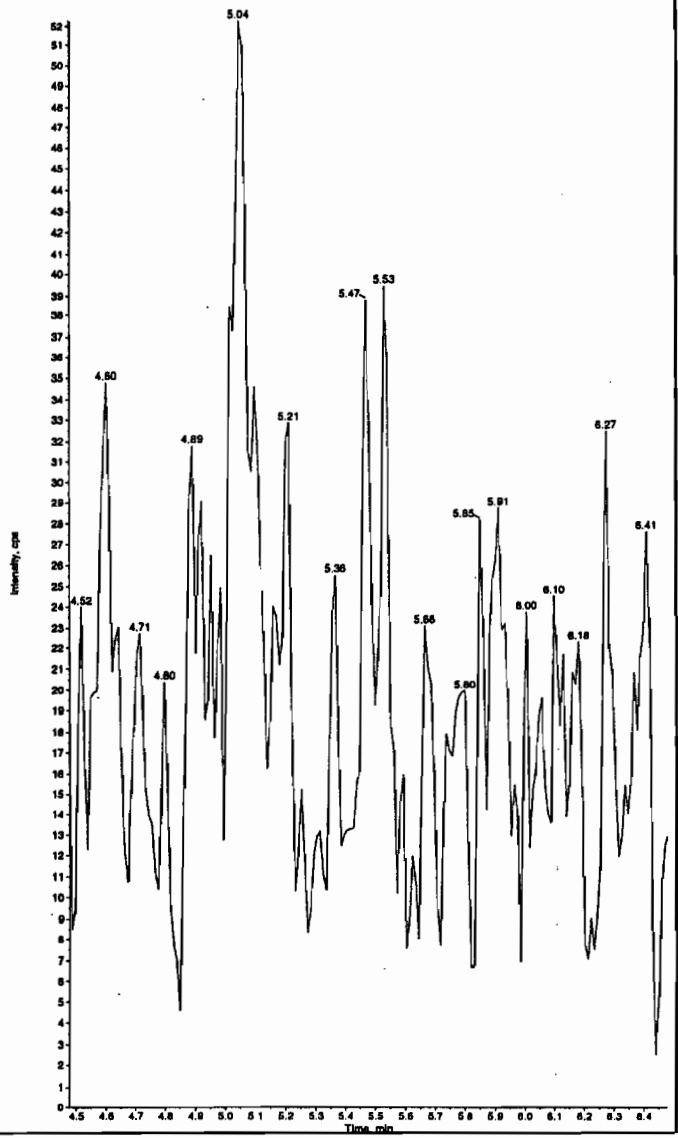

Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS03050061.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	No Intercept
Acq. Date:	3/6/2010
Acq. Time:	8:49:43 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.9 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.9 min
Area:	4.89e+004 counts
Height:	13667.697 cps
Start Time:	10.8 min
End Time:	11.1 min

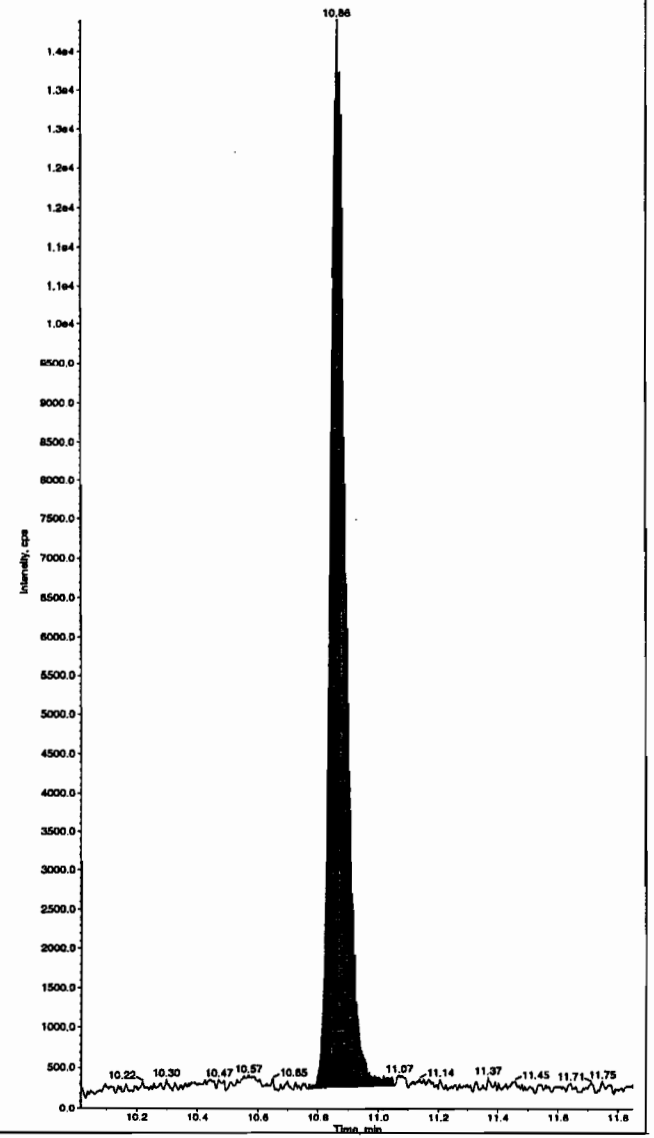

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1898

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 06–MAR–10 10:23

GEL Data File: EXS03050067.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

LCR 3/9/10

ple Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS03050067.wiff"
k Name: "TATB" Mass(as): "257.2/204.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/6/2010
Time: 10:23:57 AM

fied: No

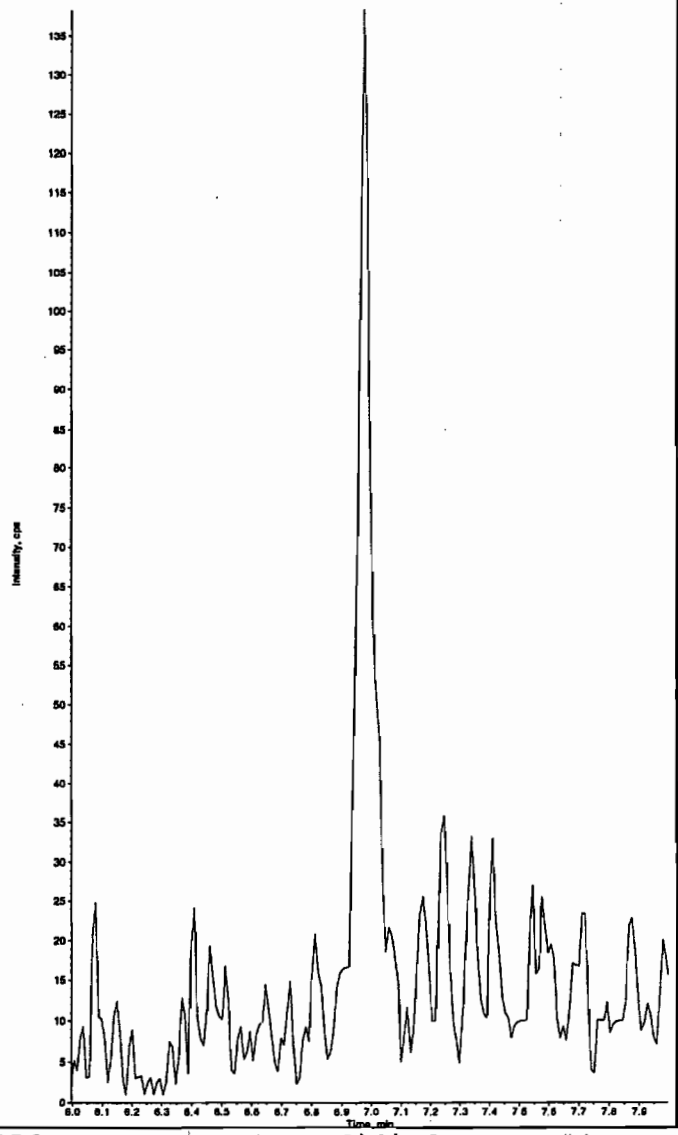

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS03050067.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/6/2010
Acq. Time: 10:23:57 AM

Modified: No

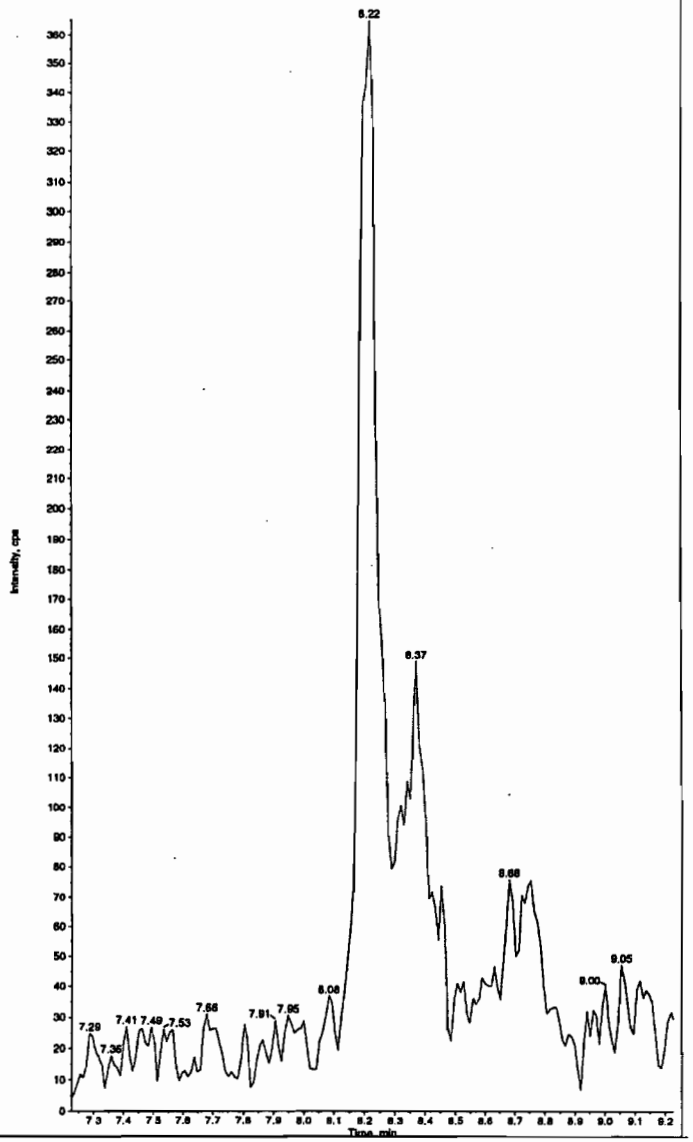

Hrm 03/09/10

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS03050067.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 3/6/2010
Time: 10:23:57 AM

fied: No

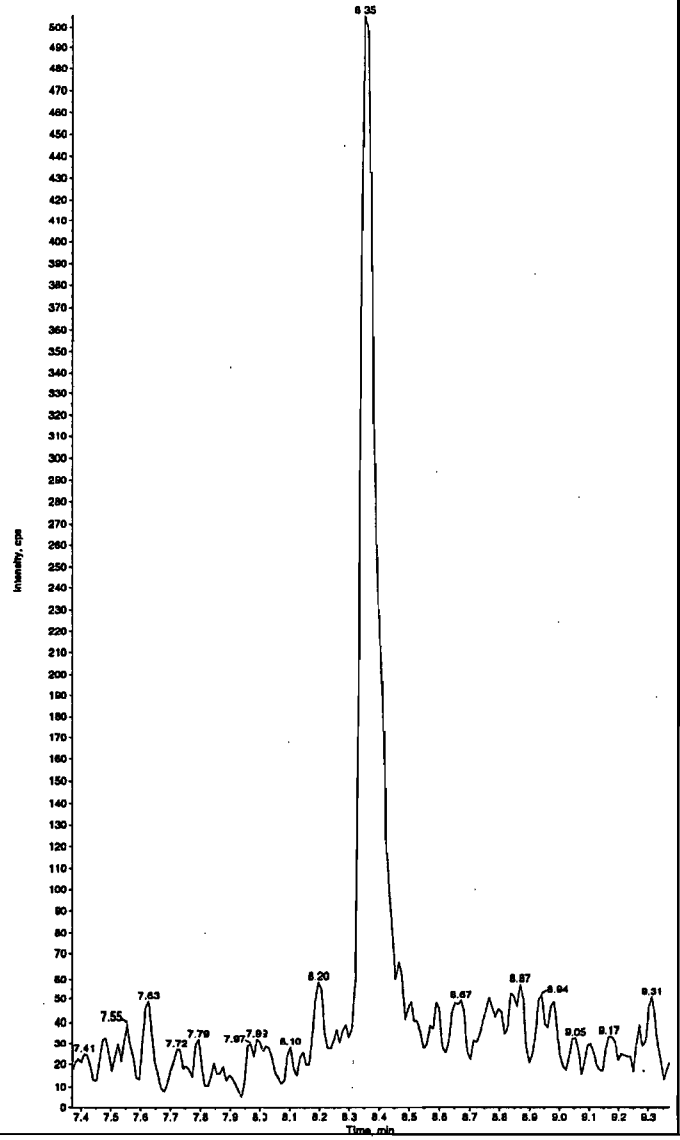

Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS03050067.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/6/2010
Acq. Time: 10:23:57 AM

Modified: No

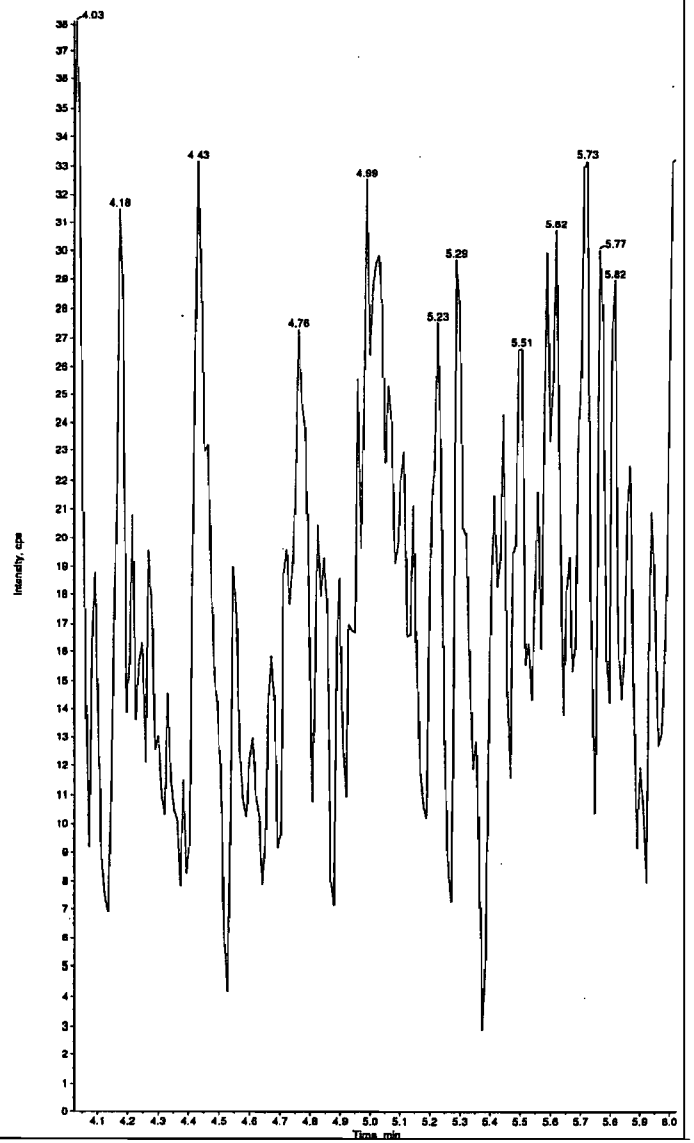

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

e Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS03050067.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ent: "LCMSEXP_B" Annotation: ""

Index:	1
Type:	Unknown
tration:	N/A
ated Conc:	0.00 ng/mL
ate:	3/6/2010
ime:	10:23:57 AM
ed:	No

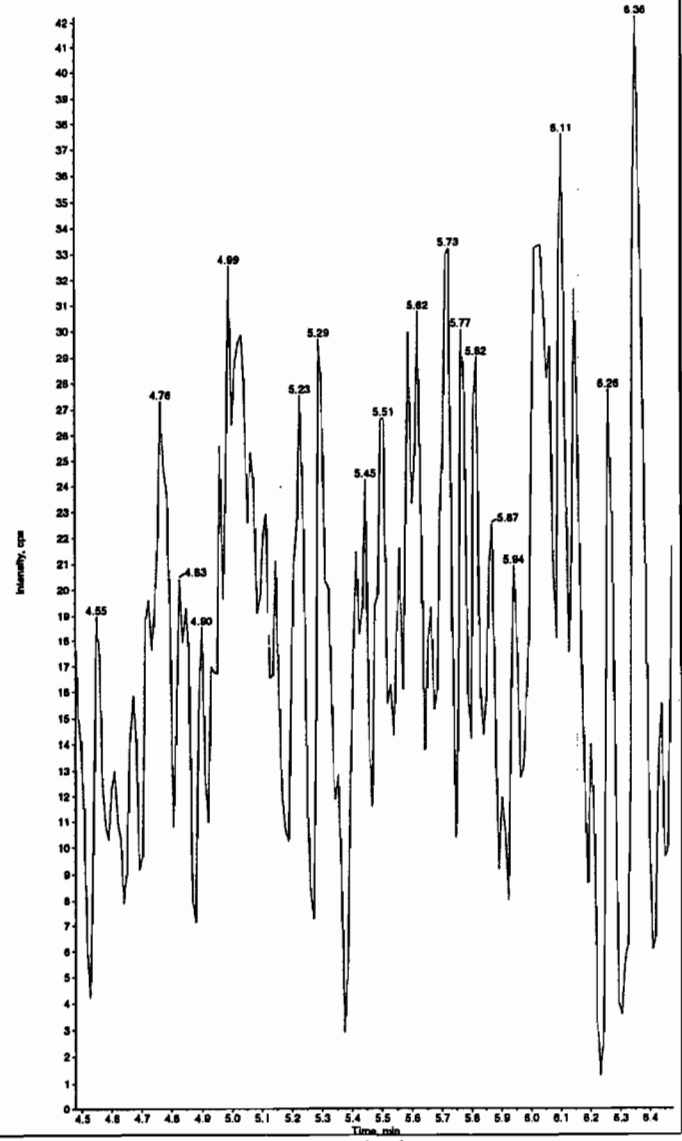

Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS03050067.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	No Intercept
Acq. Date:	3/6/2010
Acq. Time:	10:23:57 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.9 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.8 min
Area:	4.83e+004 counts
Height:	15628.639 cps
Start Time:	10.8 min
End Time:	11.1 min

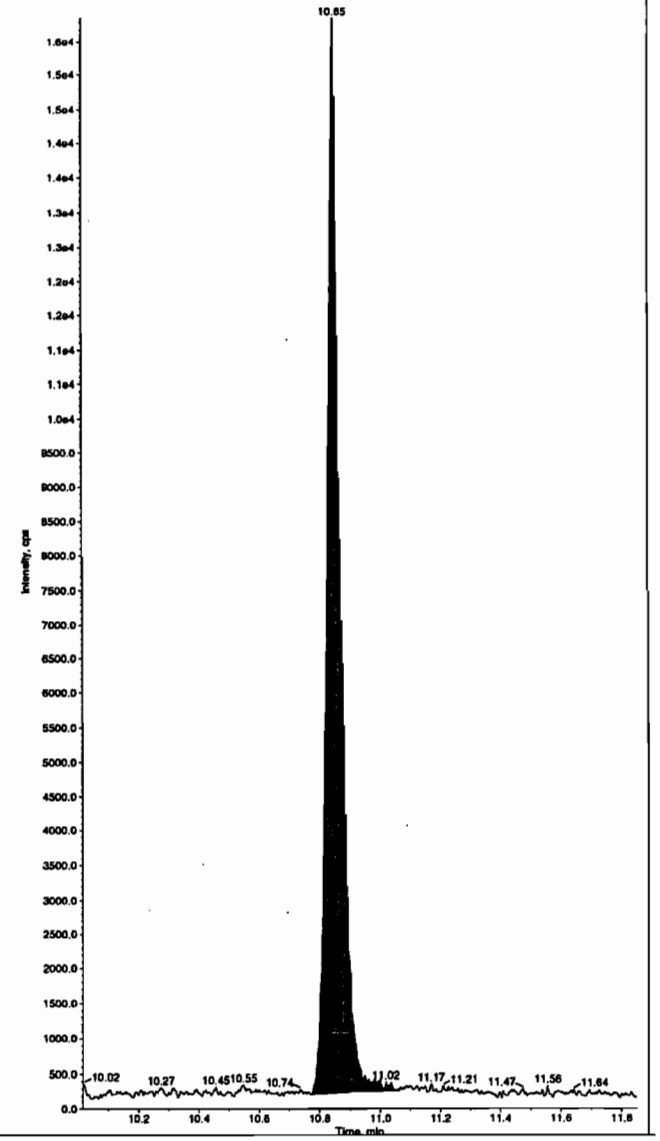

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1898

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 06–MAR–10 13:48

GEL Data File: EXS03050080.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Rev 3/9/10

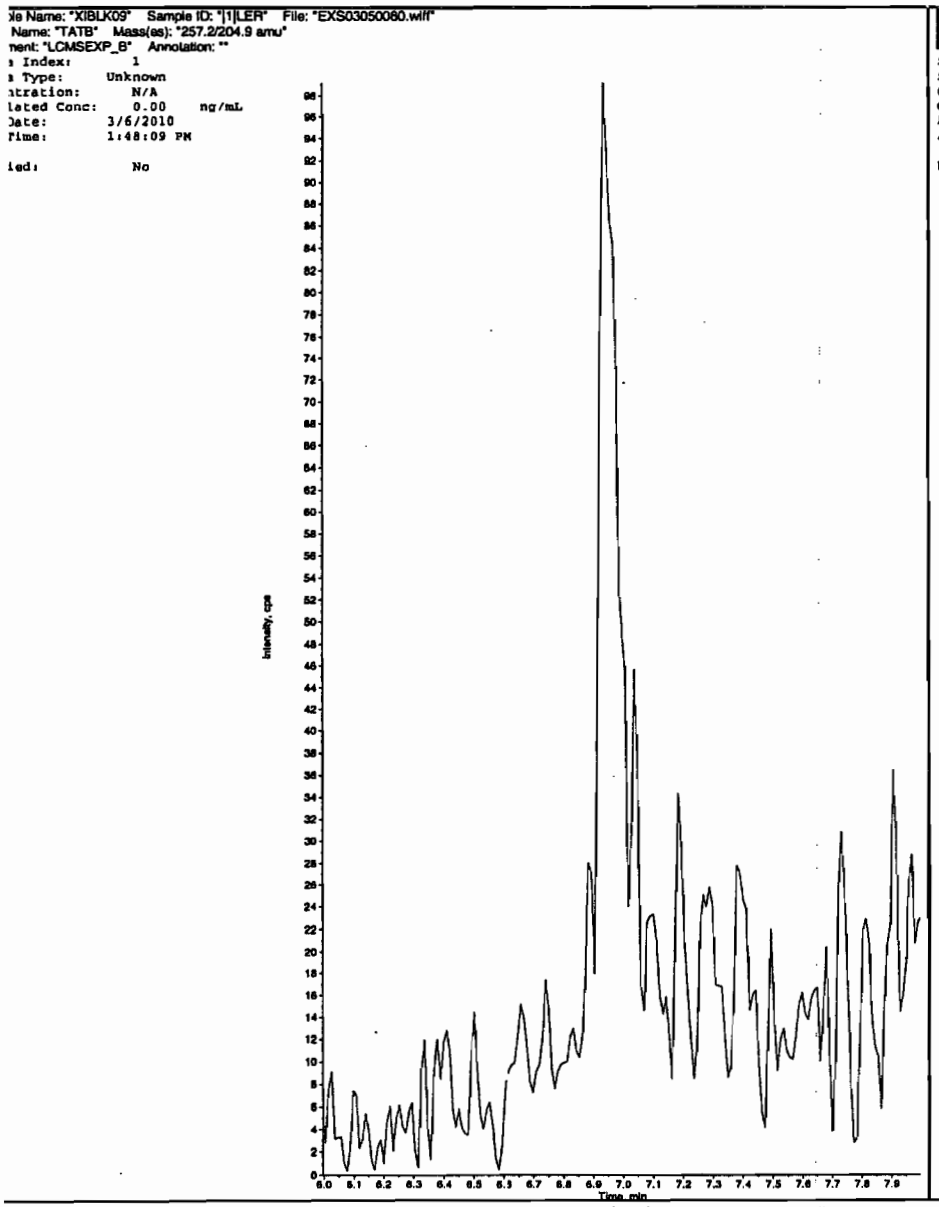

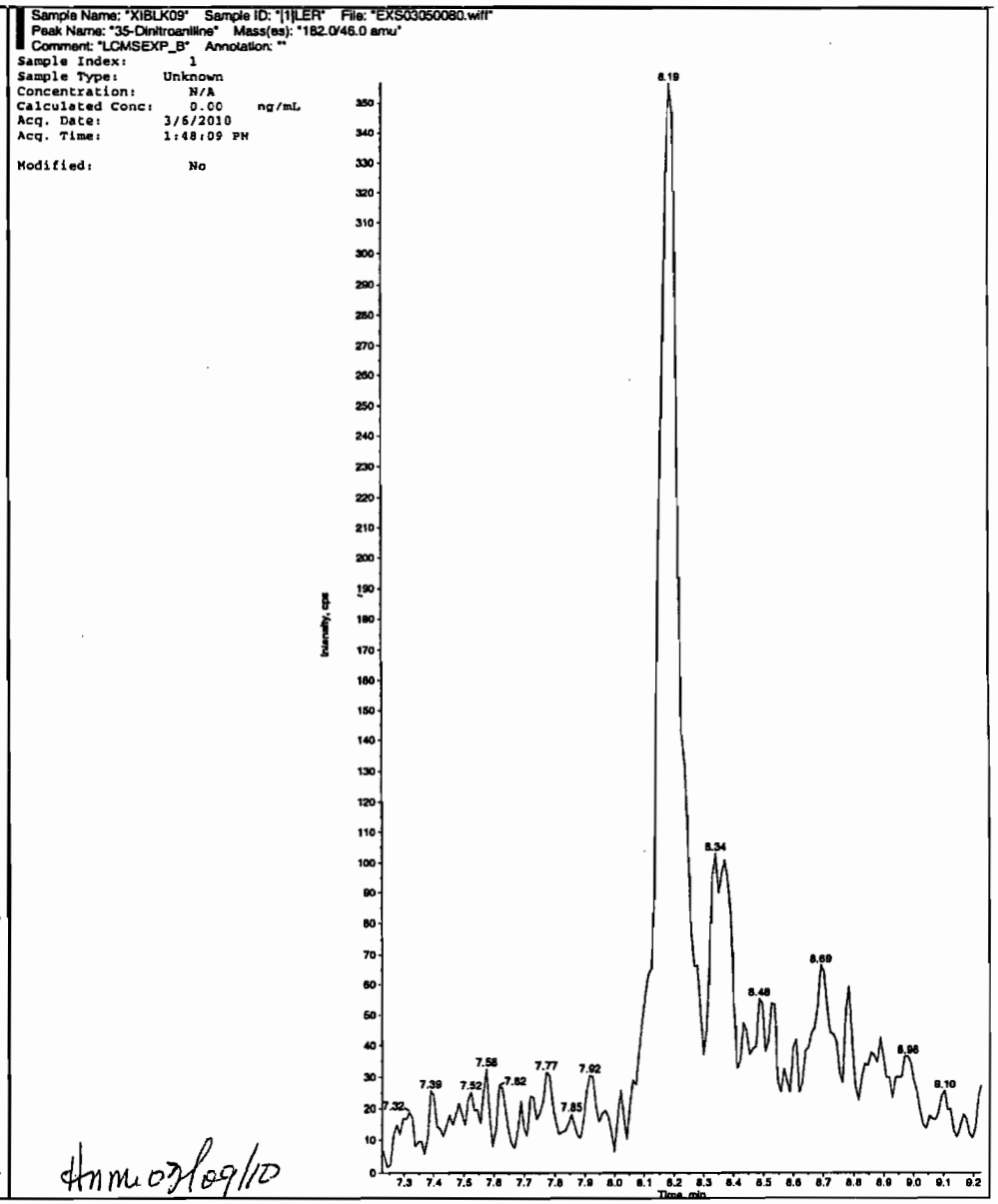

HMM 03/09/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

e Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS03050080.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ent: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
tration: N/A
ated Conc: 0.00 ng/mL
ate: 3/6/2010
ime: 1:48:09 PM

ed: No

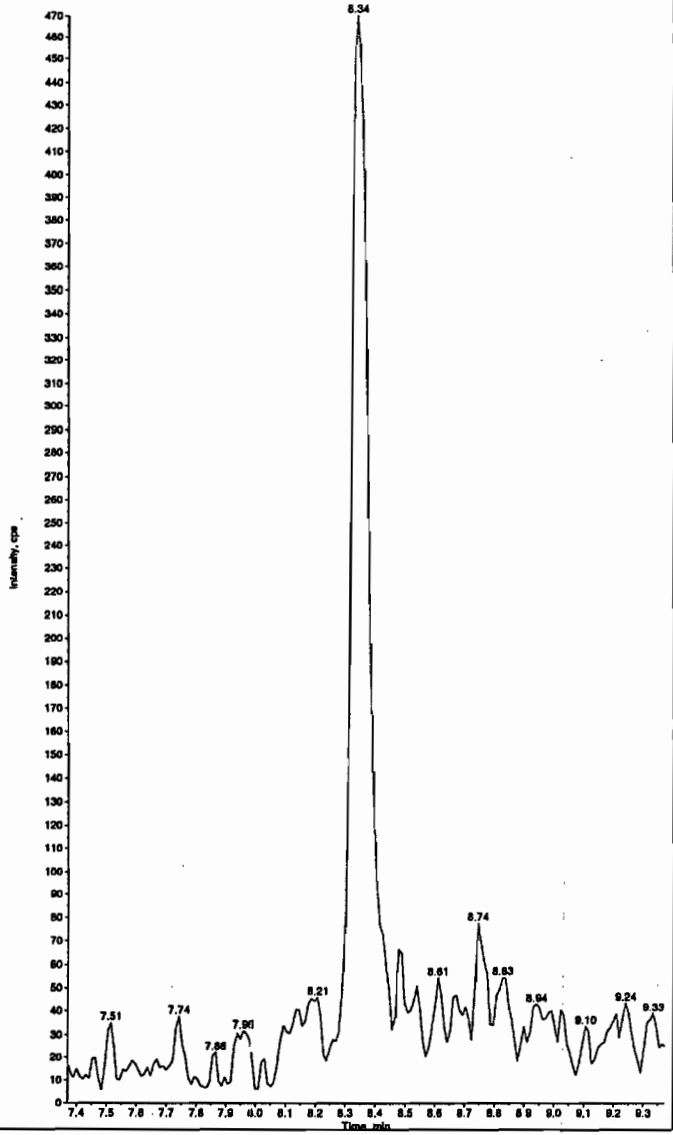

Sample Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS03050080.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/6/2010
Acq. Time: 1:48:09 PM

Modified: No

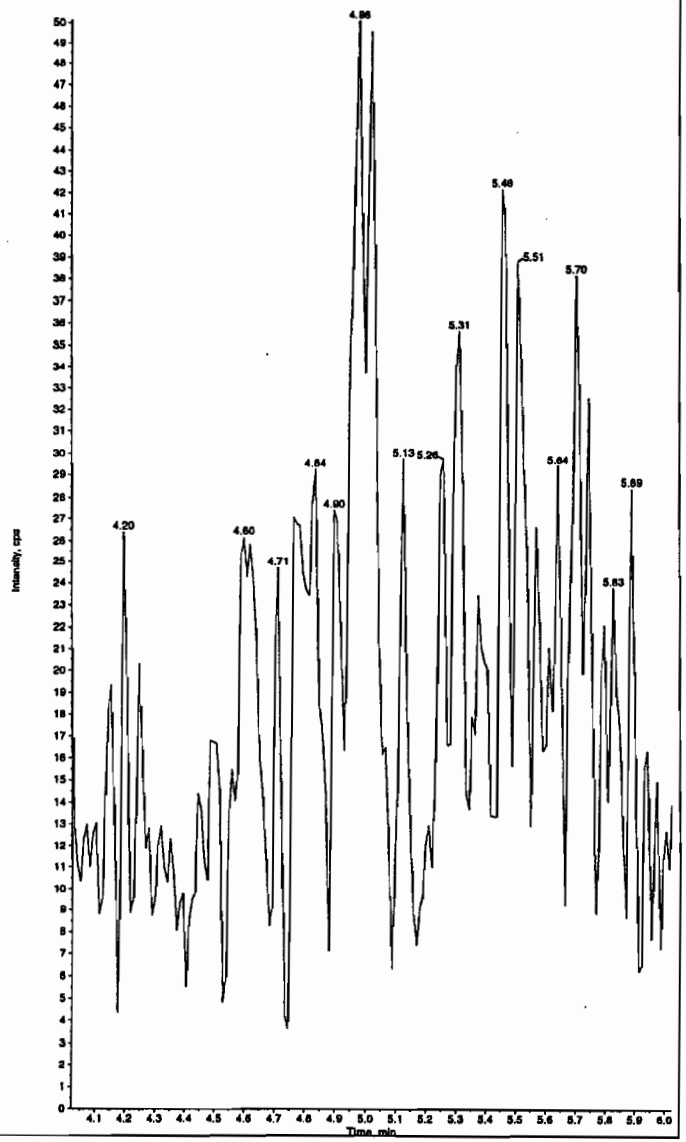

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

e Name: "XIBLK09" Sample ID: "1|LER" File: "EXS03050080.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ent: "LCMSEXP_B" Annotation: ""

Index: 1
Type: Unknown
tration: N/A
ated Conc: 0.00 ng/mL
ate: 3/6/2010
ime: 1:48:09 PM

ed: No

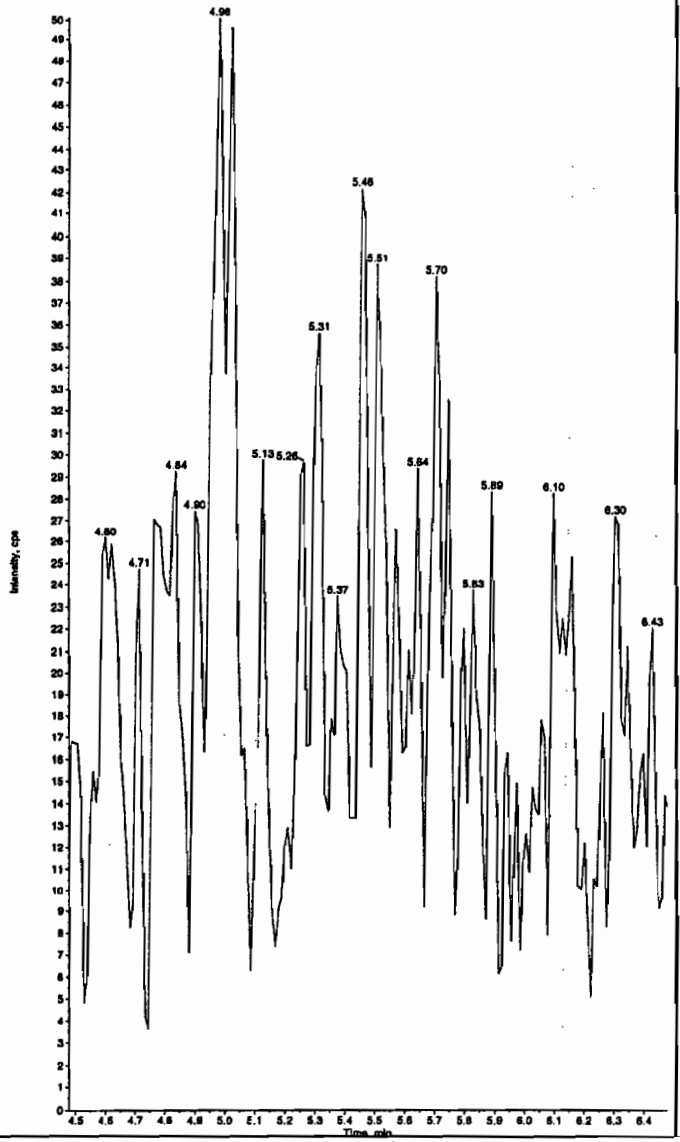

Sample Name: "XIBLK09" Sample ID: "1|LER" File: "EXS03050080.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/6/2010
Acq. Time: 1:48:09 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 5.03e+004 counts
Height: 14267.236 cps
Start Time: 10.7 min
End Time: 11.0 min

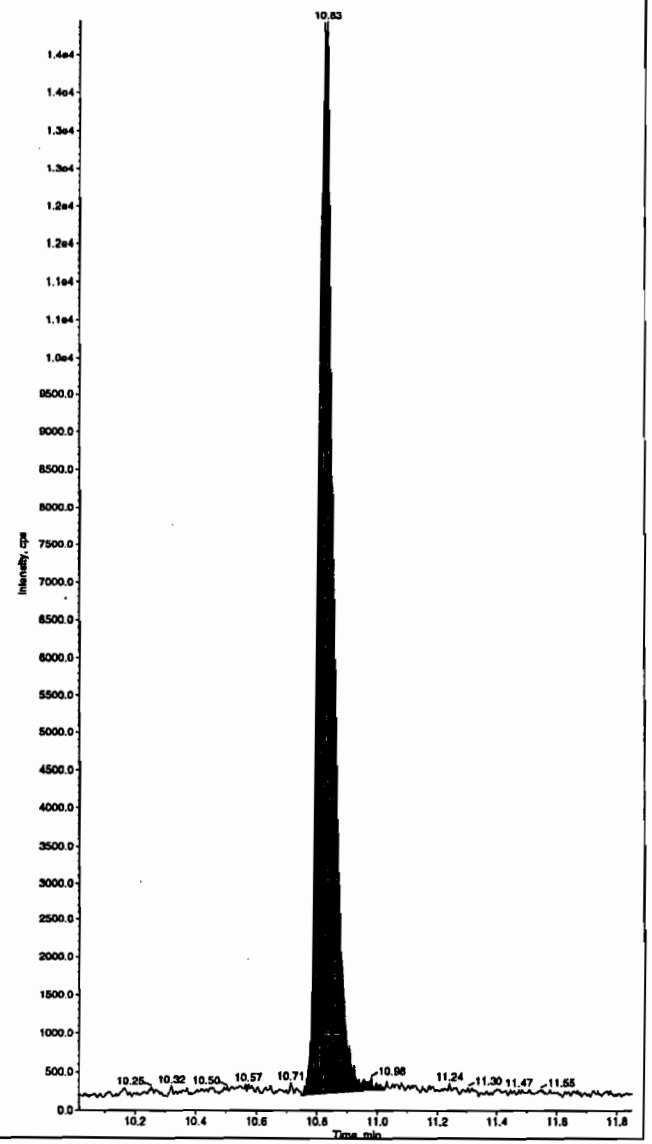

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1898

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 06–MAR–10 15:06

GEL Data File: EXS03050085.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lan 3/9/10

Name: "XIBLK10" Sample ID: "|1|LER" File: "EXS03050085.wiff"
lame: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ated Conc: 0.00 ng/mL
ate: 3/6/2010
me: 3:06:39 PM

d: No

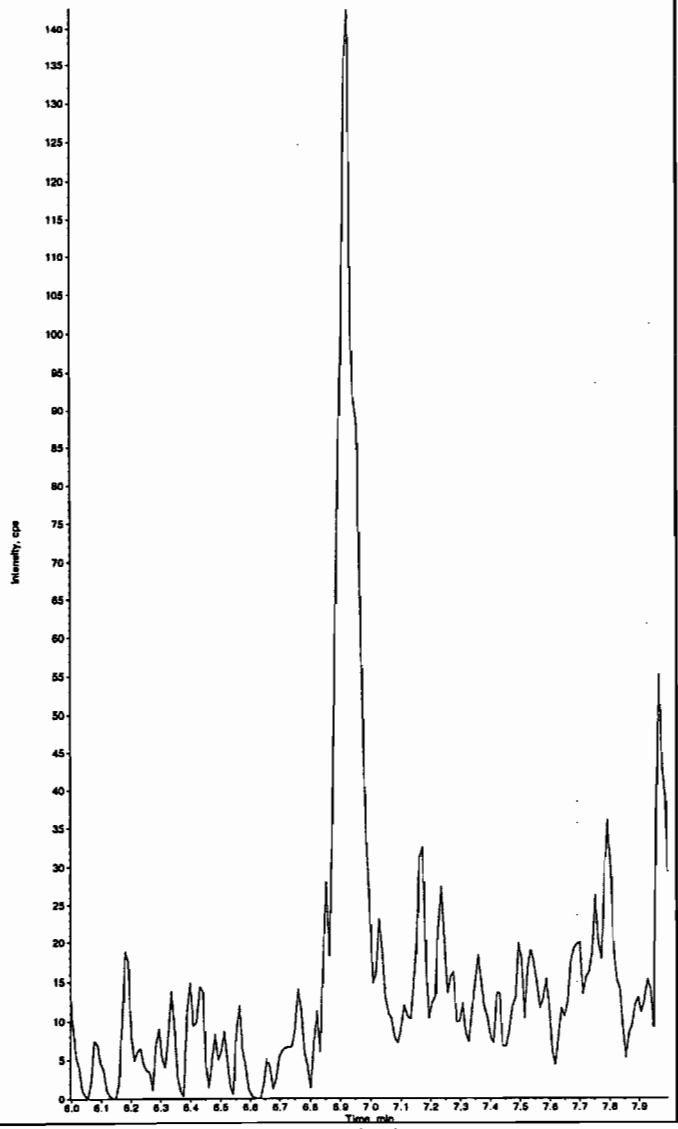

Sample Name: "XIBLK10" Sample ID: "|1|LER" File: "EXS03050085.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/6/2010
Acq. Time: 3:06:39 PM

Modified: No

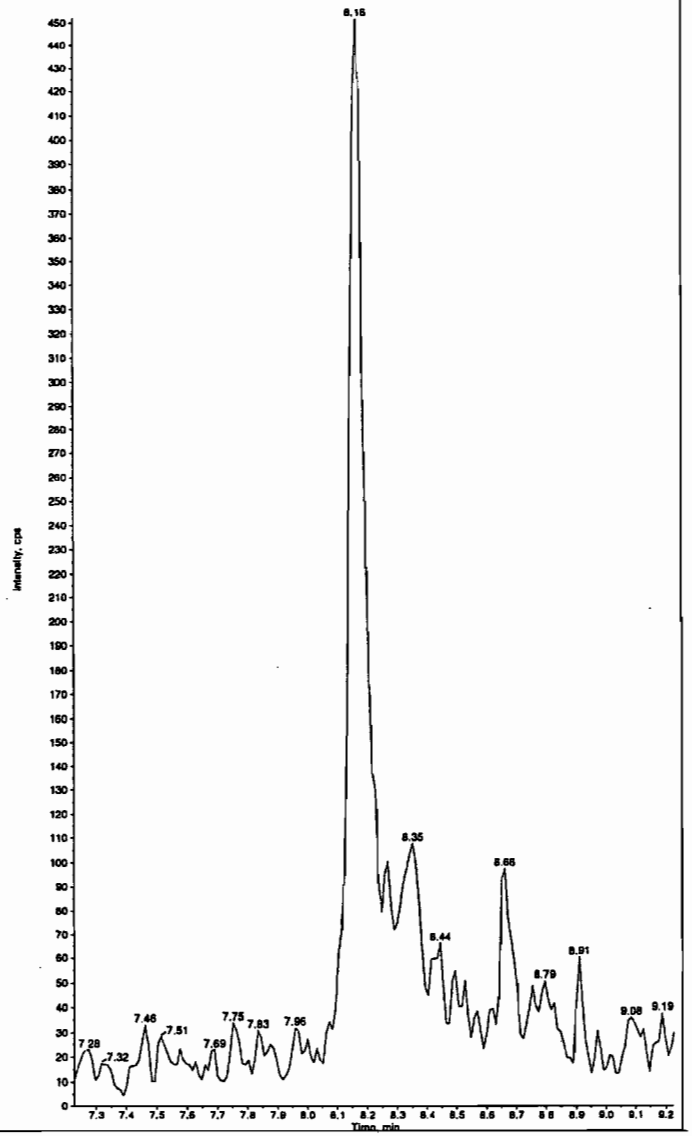

Hmm 03/09/10

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

e Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS03050085.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ent: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
tration: N/A
ated Conc: 0.00 ng/mL
ate: 3/6/2010
ime: 3:06:39 PM

ed: No

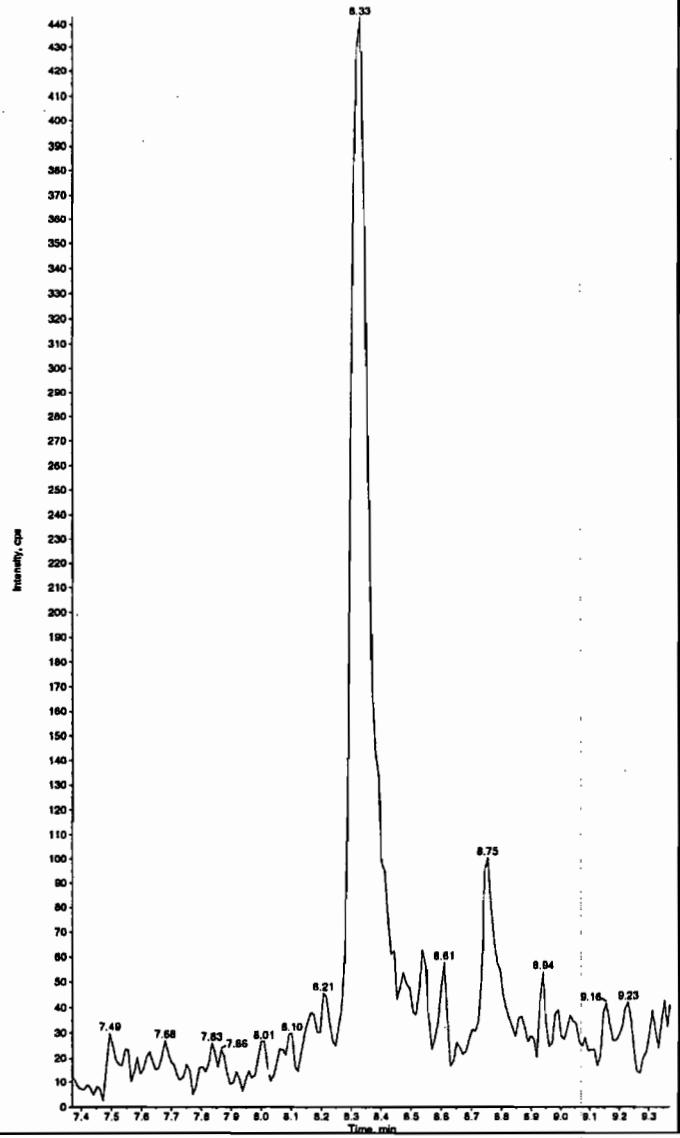

Sample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS03050085.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/6/2010
Acq. Time: 3:06:39 PM

Modified: No

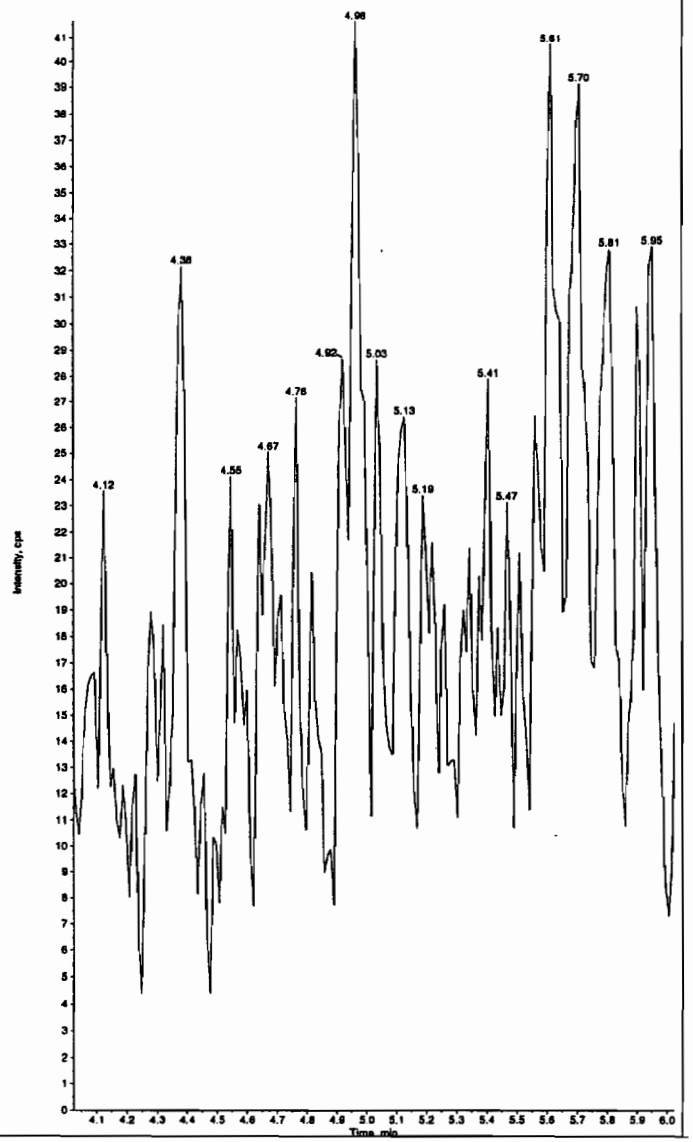

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "XIBLK10" Sample ID: "|1|LER" File: "EXS03050085.wiff"
ame: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nt: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 3/6/2010
me: 3:06:39 PM

d: No

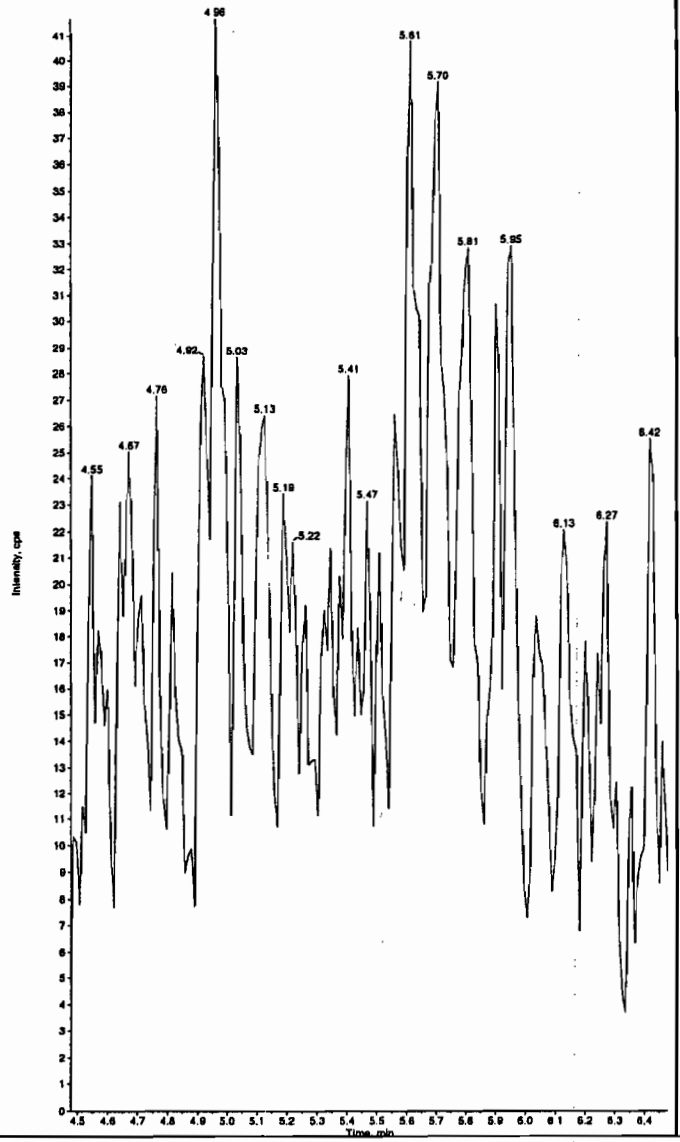

Sample Name: "XIBLK10" Sample ID: "|1|LER" File: "EXS03050085.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	No Intercept
Acq. Date:	3/6/2010
Acq. Time:	3:06:39 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.9 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.8 min
Area:	5.31e+004 counts
Height:	14427.697 cps
Start Time:	10.7 min
End Time:	11.0 min

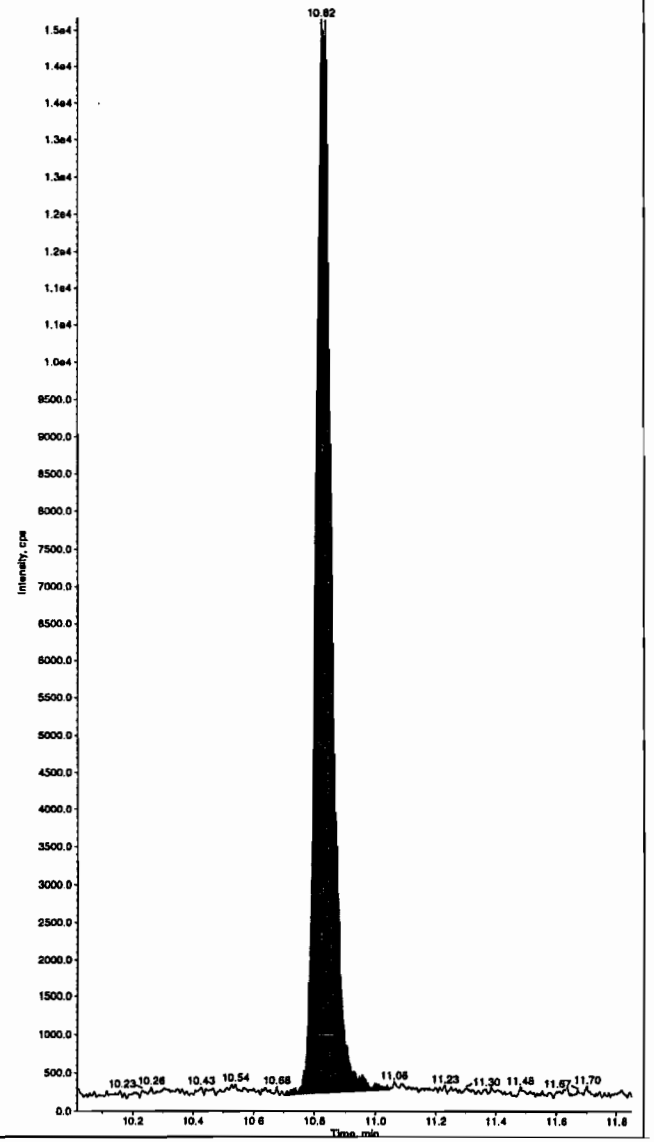

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1898

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 06–MAR–10 17:28

GEL Data File: EXS03050094.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lcer 3/9/10

ple Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS03050094.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_B" Annotation: ""
.e Index: 1
.e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/6/2010
Time: 5:28:02 PM

ied: No

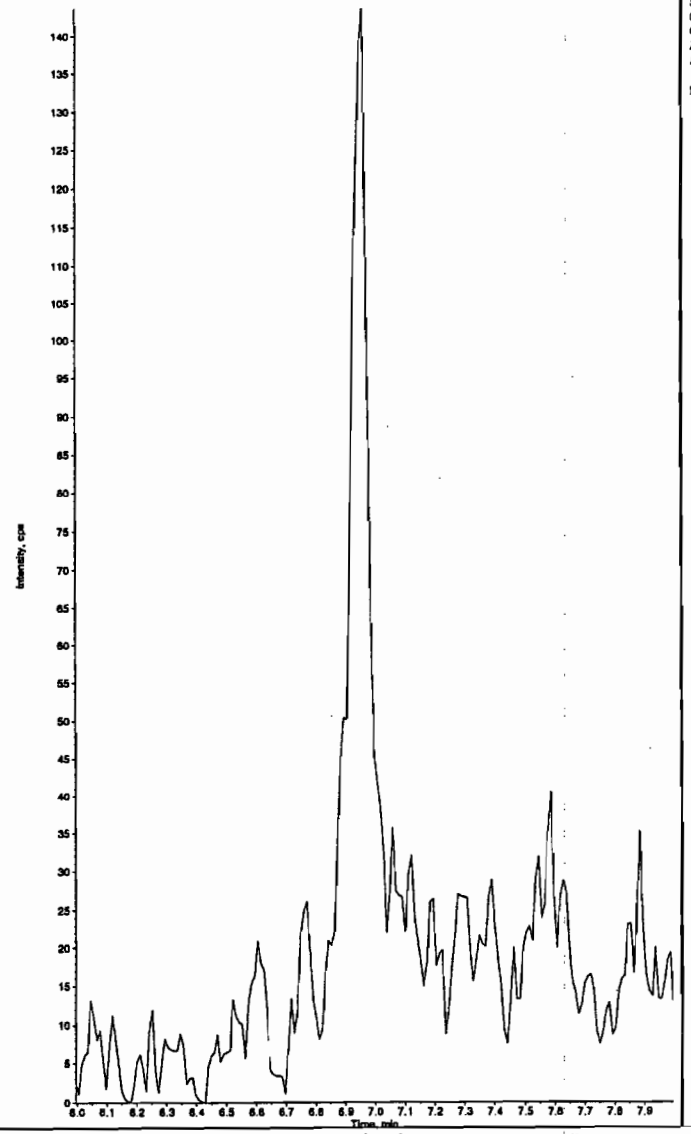

Sample Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS03050094.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/6/2010
Acq. Time: 5:28:02 PM

Modified: No

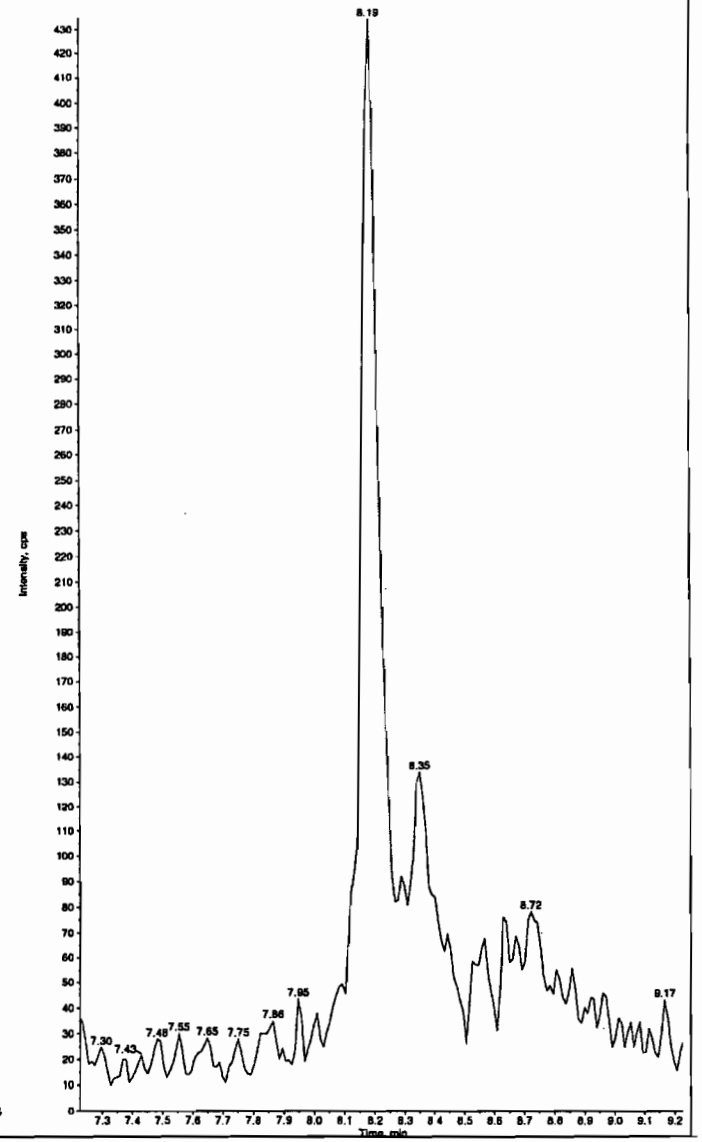

HMLC 3/09/10

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

de Name: "XIBLK11" Sample ID: "[1]LER" File: "EXS03050094.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
msnl: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/6/2010
Time: 5:28:02 PM

ied: No

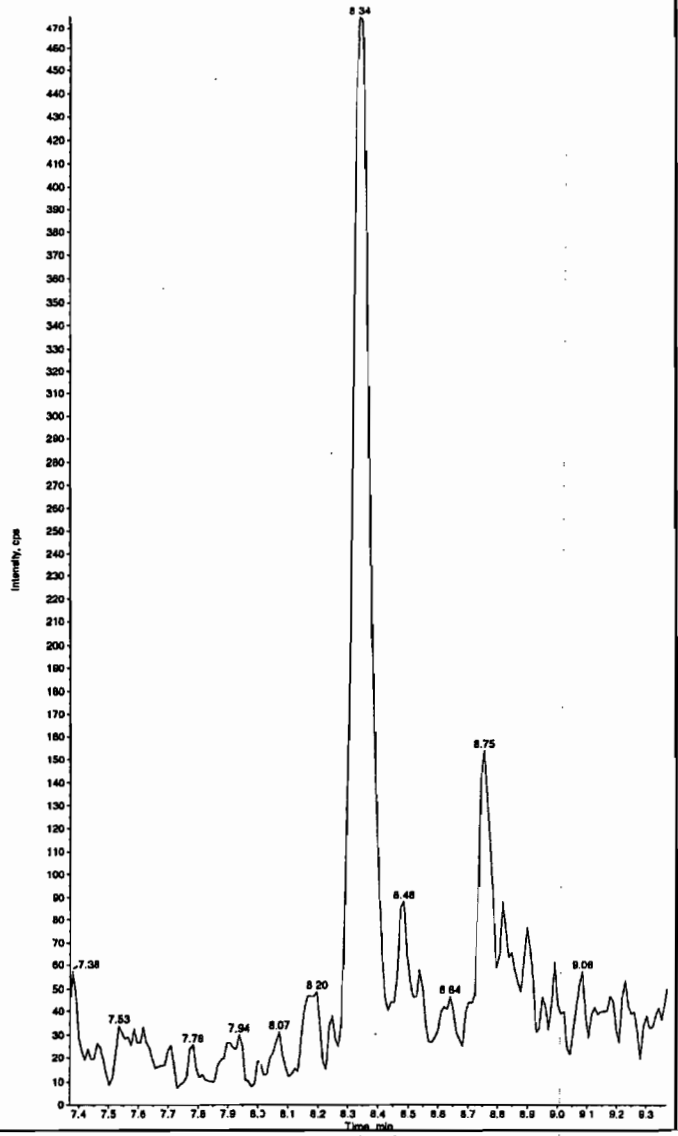

Sample Name: "XIBLK11" Sample ID: "[1]LER" File: "EXS03050094.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/6/2010
Acq. Time: 5:28:02 PM

Modified: No

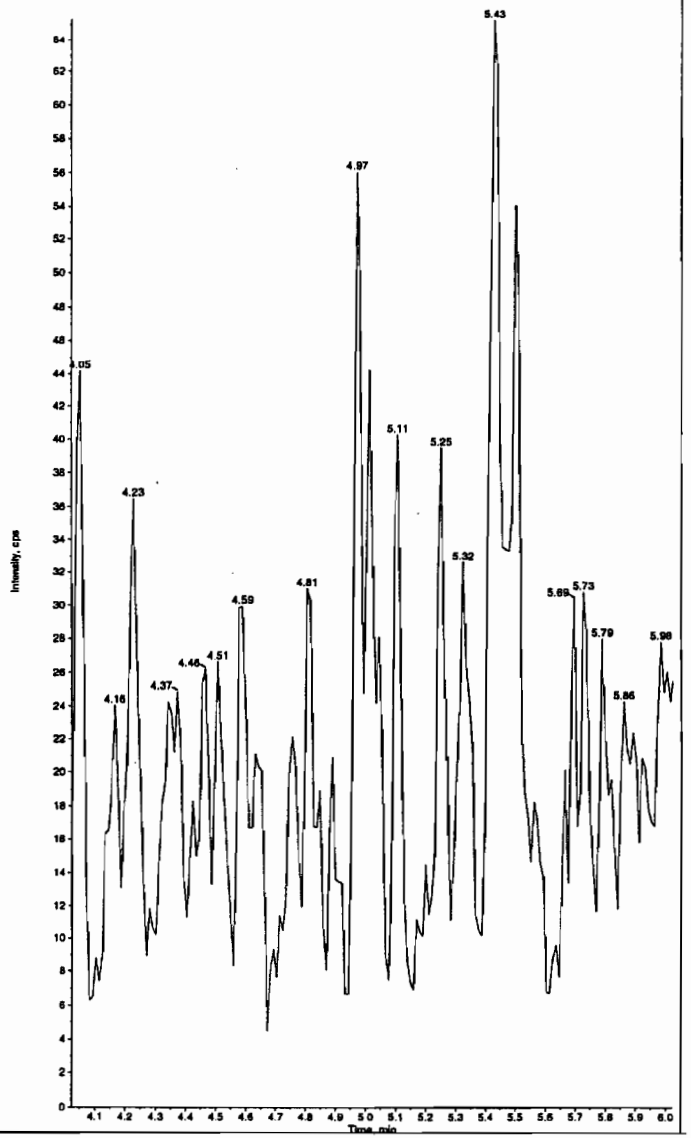

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ple Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS03050094.wiff"
: Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/6/2010
Time: 5:28:02 PM

ied: No

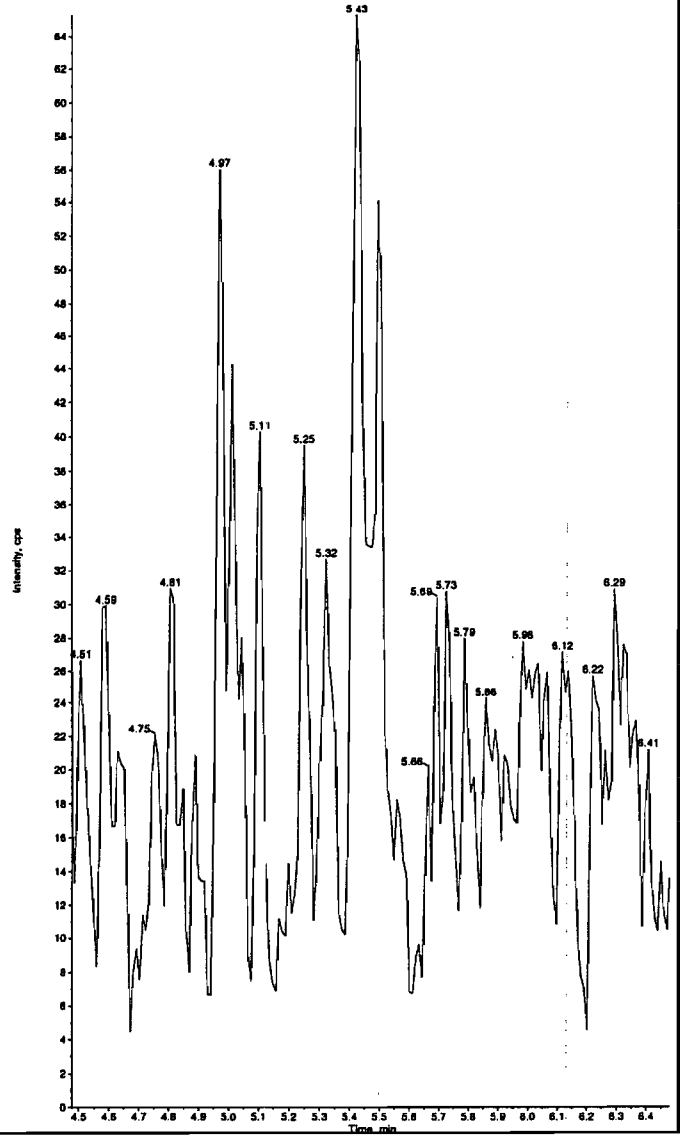

Sample Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS03050094.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	No Intercept
Acq. Date:	3/6/2010
Acq. Time:	5:28:02 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.9 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.8 min
Area:	6.59e+004 counts
Height:	17422.045 cps
Start Time:	10.7 min
End Time:	11.1 min

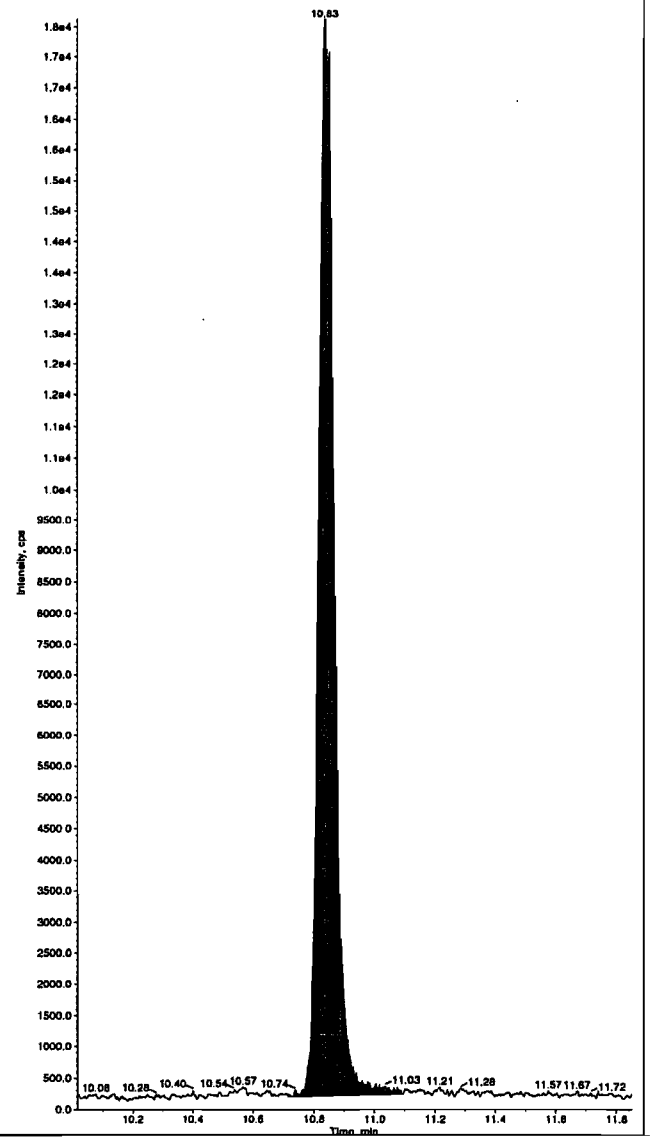

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1898

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 06–MAR–10 18:15

GEL Data File: EXS03050097.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Ken 3/9/10

ple Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS03050097.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_B" Annotation: ""
.e Index: 1
.e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/6/2010
Time: 6:15:06 PM

fied: No

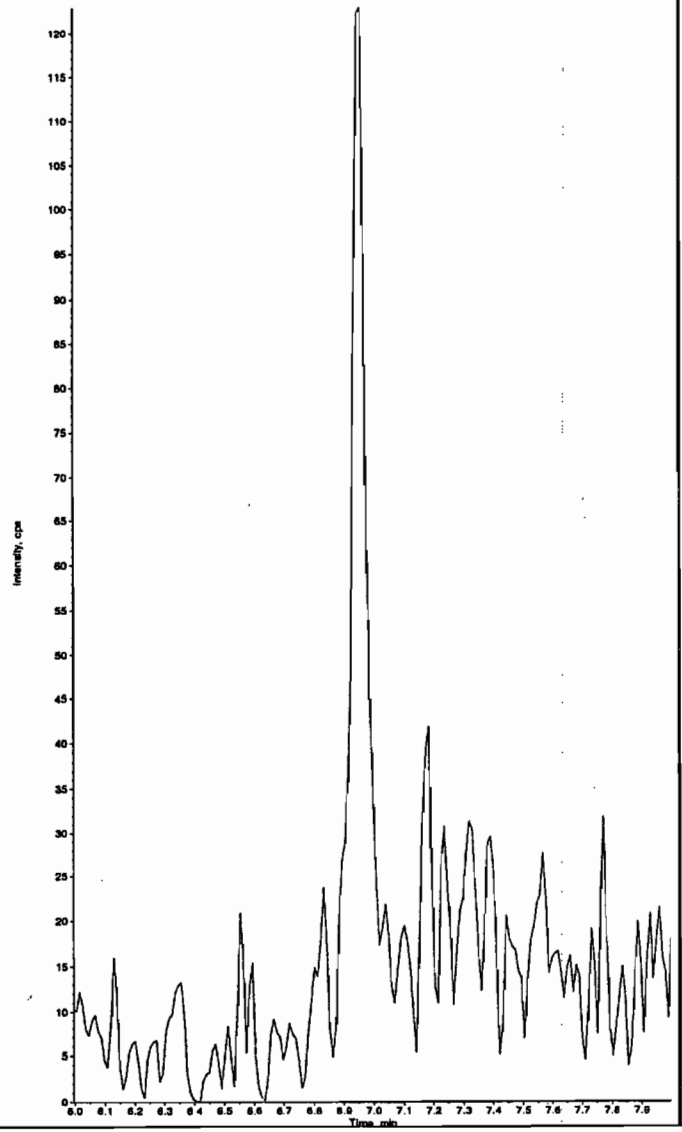

Sample Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS03050097.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/6/2010
Acq. Time: 6:15:06 PM

Modified: No

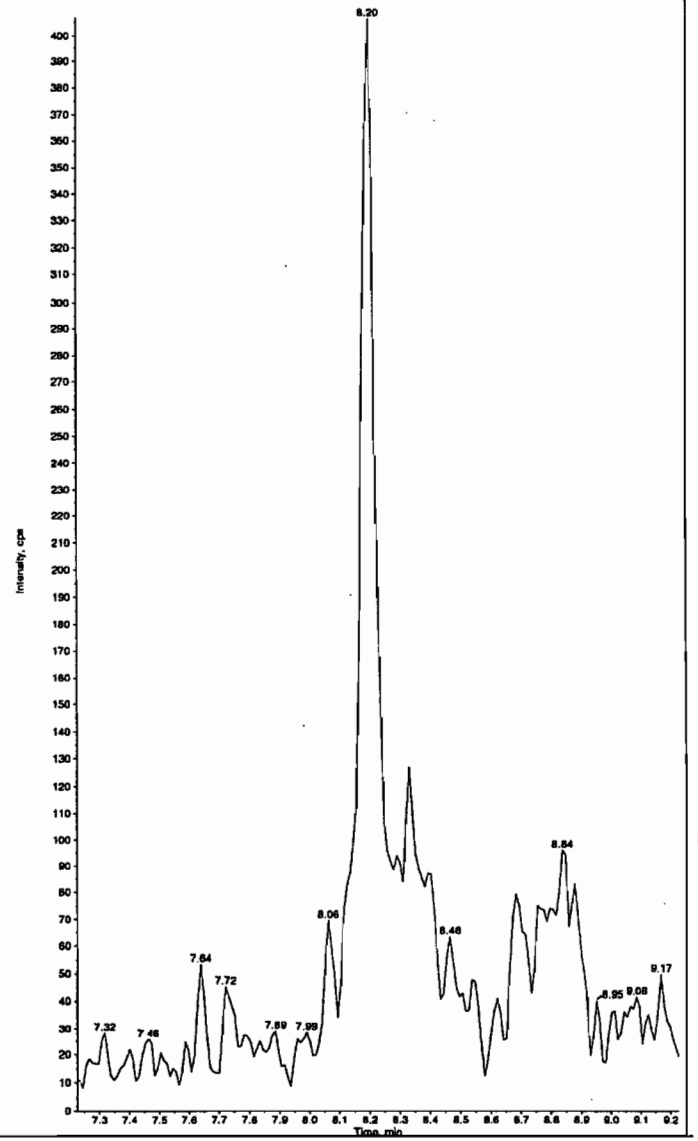

Hime 03/09/10

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK12" Sample ID: "|1|LER" File: "EXS03050097.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/6/2010
Time: 6:15:06 PM

ied: No

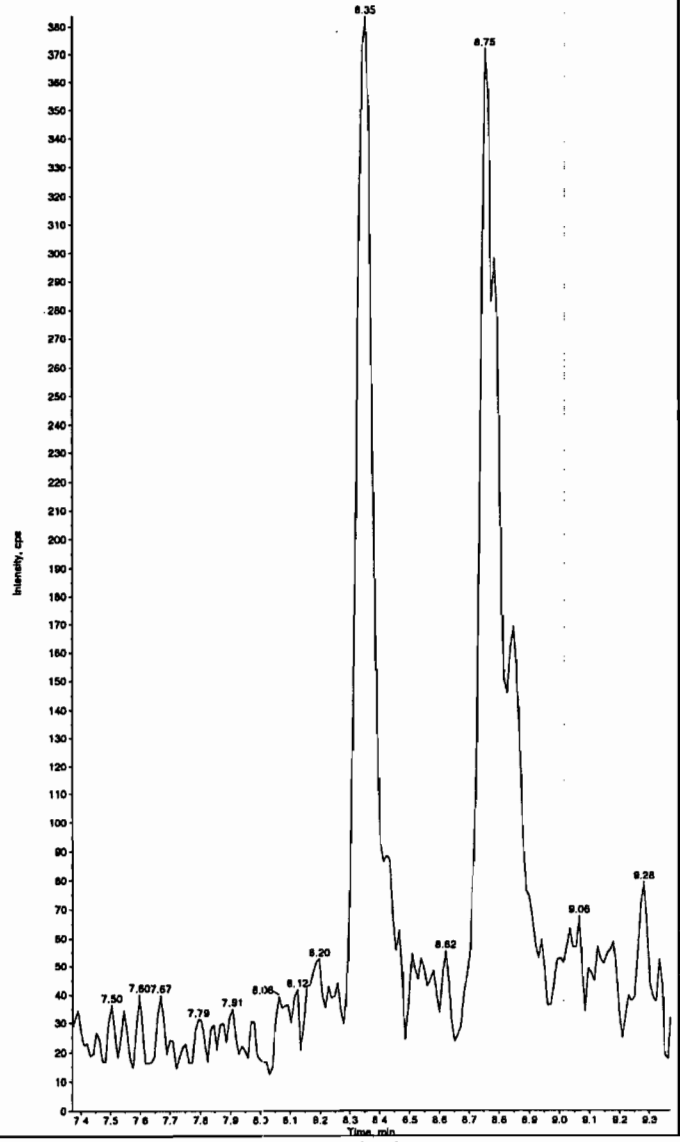

Sample Name: "XIBLK12" Sample ID: "|1|LER" File: "EXS03050097.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/6/2010
Acq. Time: 6:15:06 PM

Modified: No

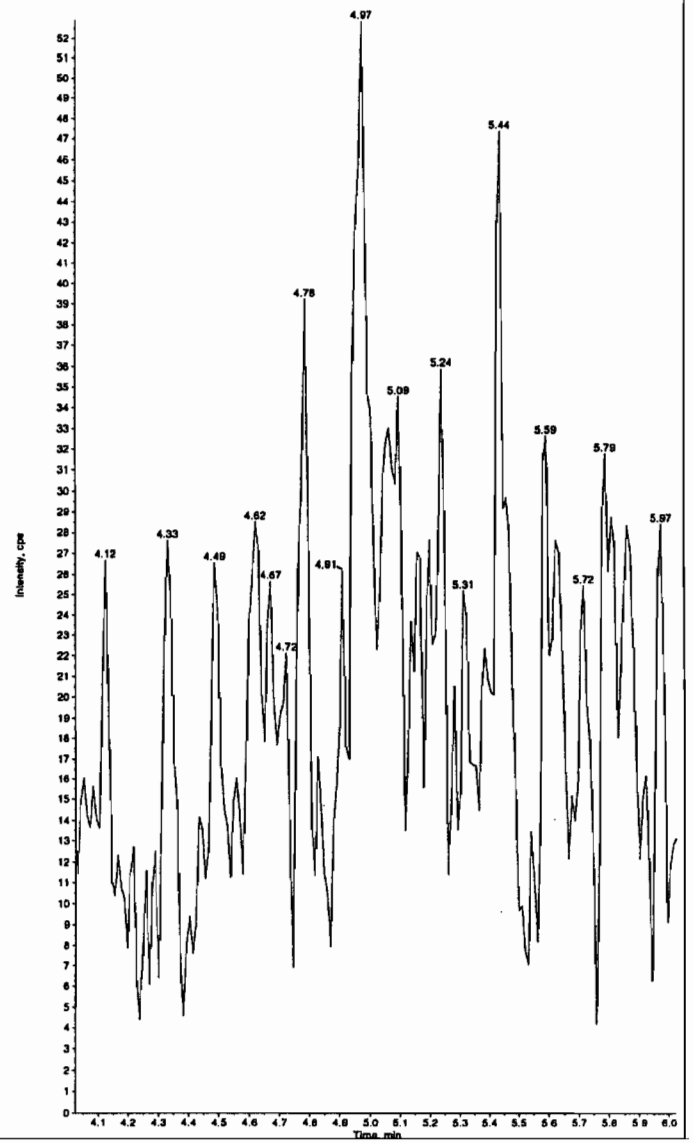

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS03050097.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/6/2010
Time: 6:15:06 PM

ied: No

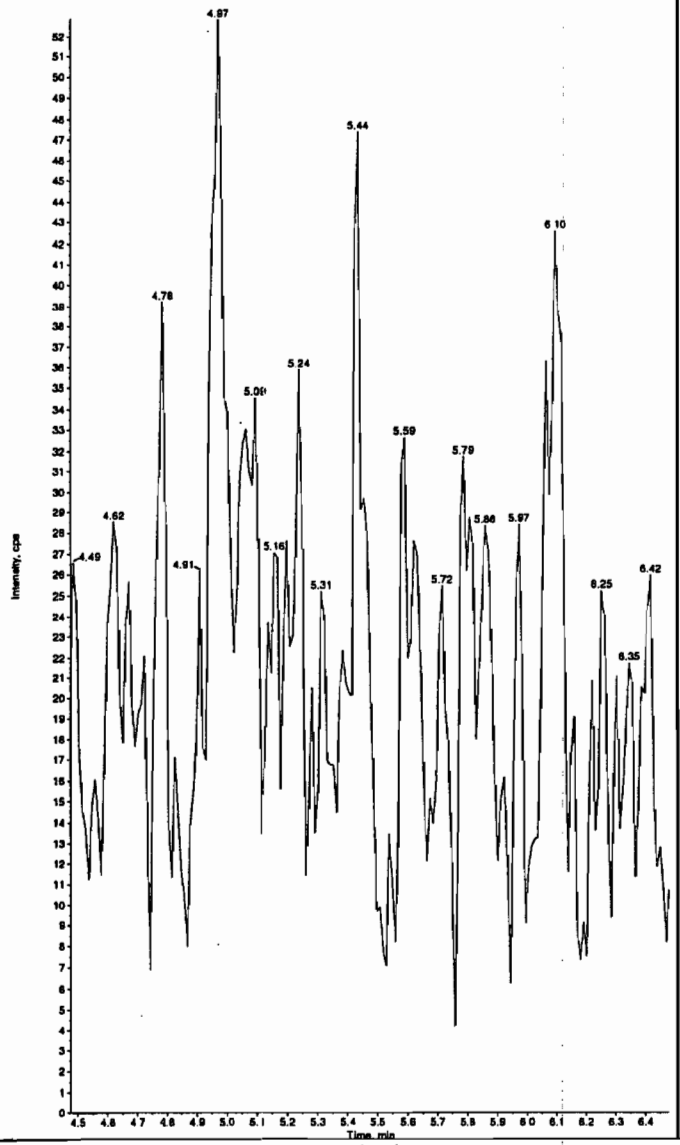

Sample Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS03050097.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/6/2010
Acq. Time: 6:15:06 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 7.41e+004 counts
Height: 21343.363 cps
Start Time: 10.7 min
End Time: 11.0 min

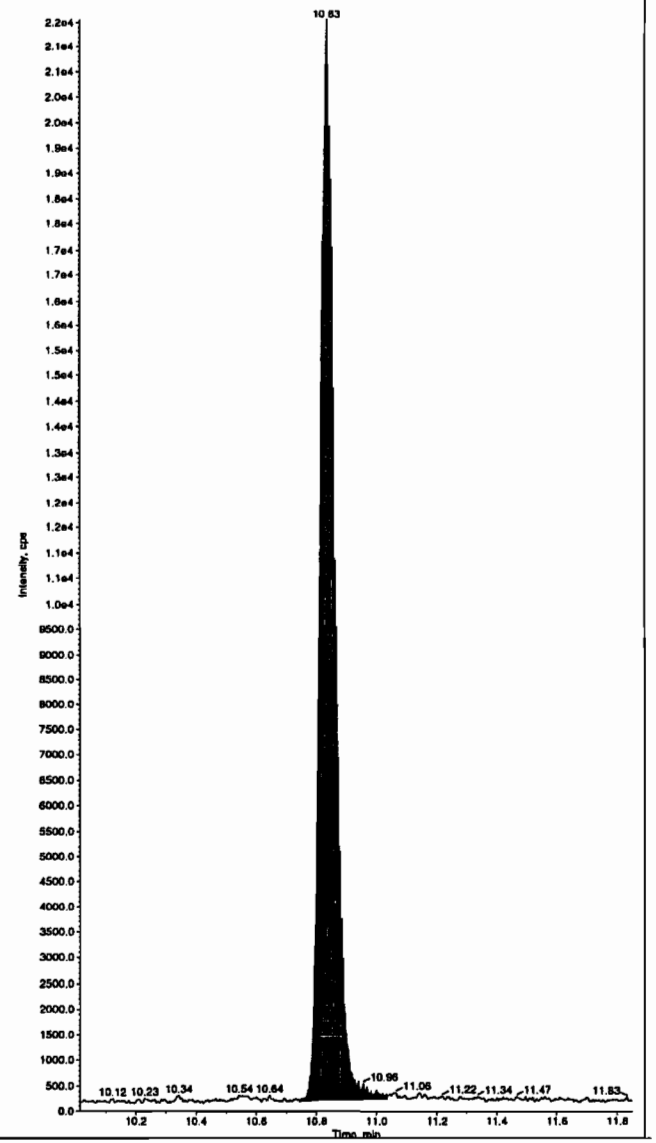

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1898

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 06–MAR–10 20:52

GEL Data File: EXS03050107.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0
3,5–Dinitroaniline	0	0
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0

Run 3/9/10

ple Name: "XIBLK13" Sample ID: "[1]LER" File: "EXS03050107.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/6/2010
Time: 8:52:01 PM

fied: No

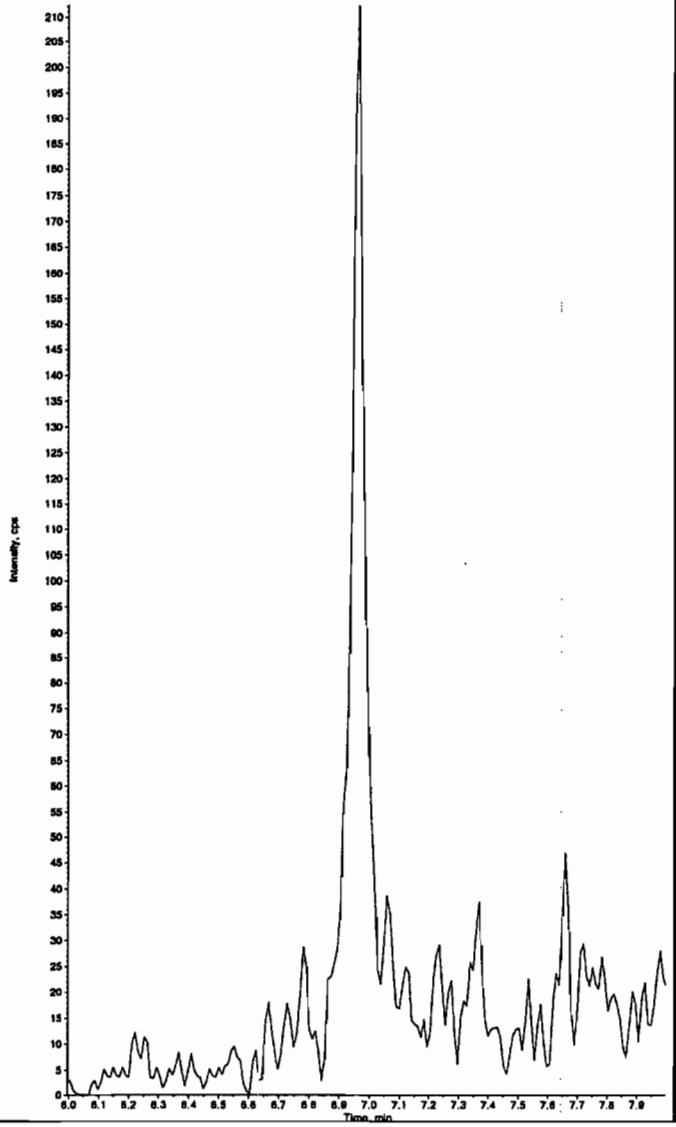

Sample Name: "XIBLK13" Sample ID: "[1]LER" File: "EXS03050107.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/6/2010
Acq. Time: 8:52:01 PM

Modified: No

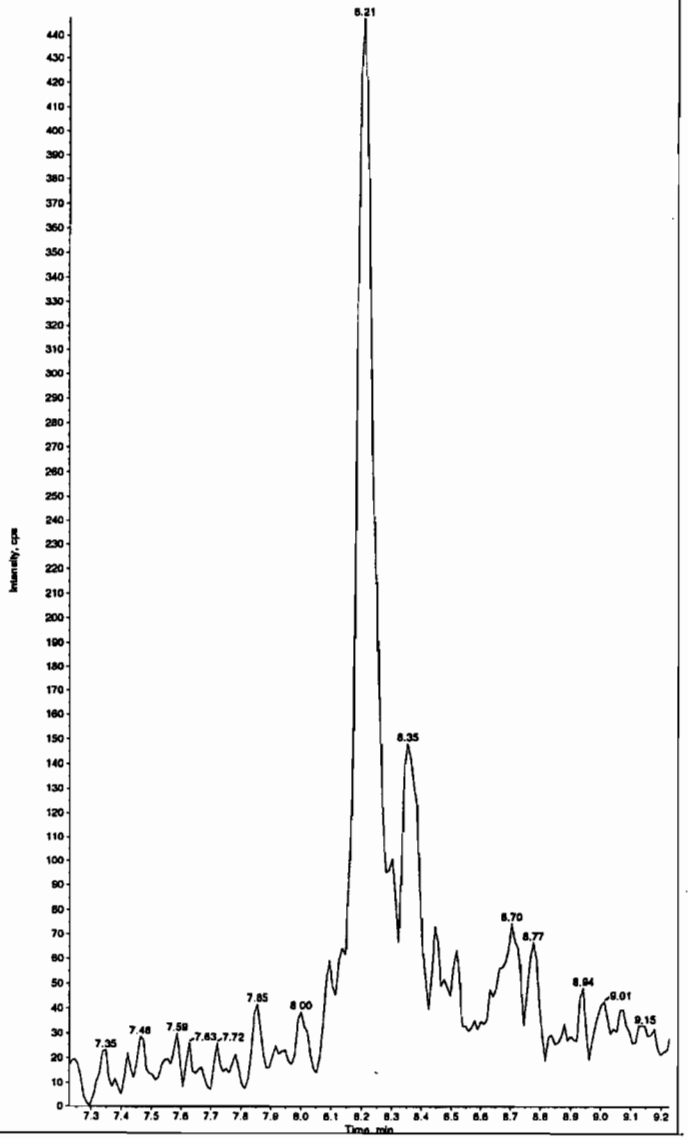

dhm 03/09/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ke Name: "XIBLK13" Sample ID: "|1|LER" File: "EXS03050107.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nent: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/6/2010
Time: 8:52:01 PM

ied: No

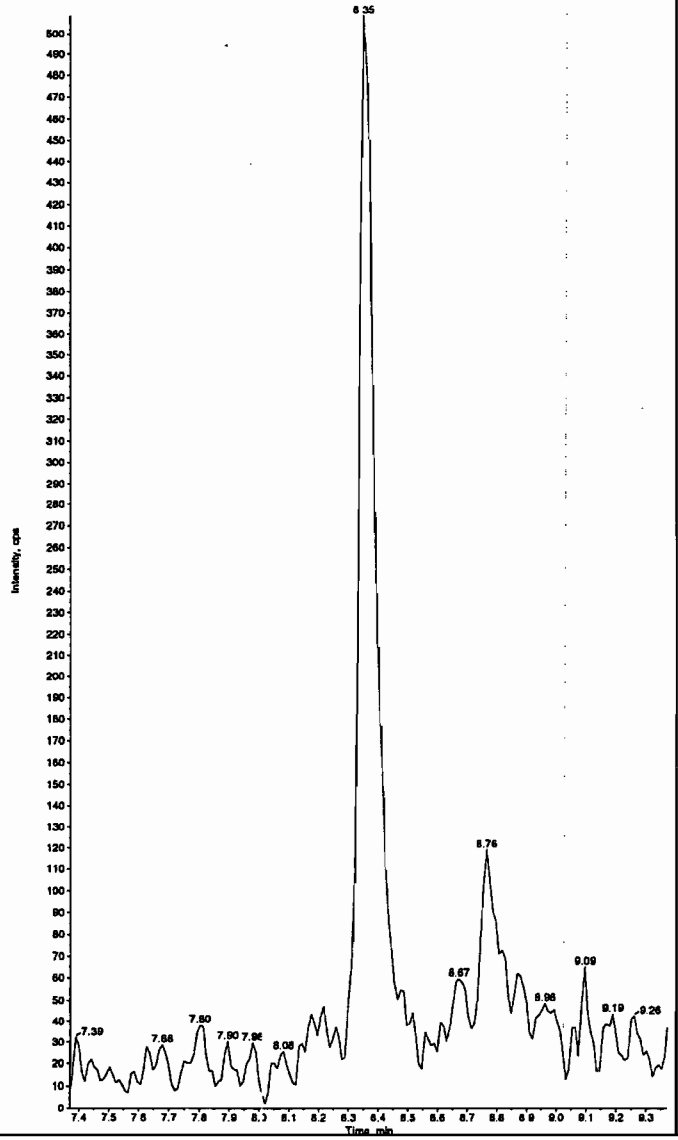

Sample Name: "XIBLK13" Sample ID: "|1|LER" File: "EXS03050107.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/6/2010
Acq. Time: 8:52:01 PM

Modified: No

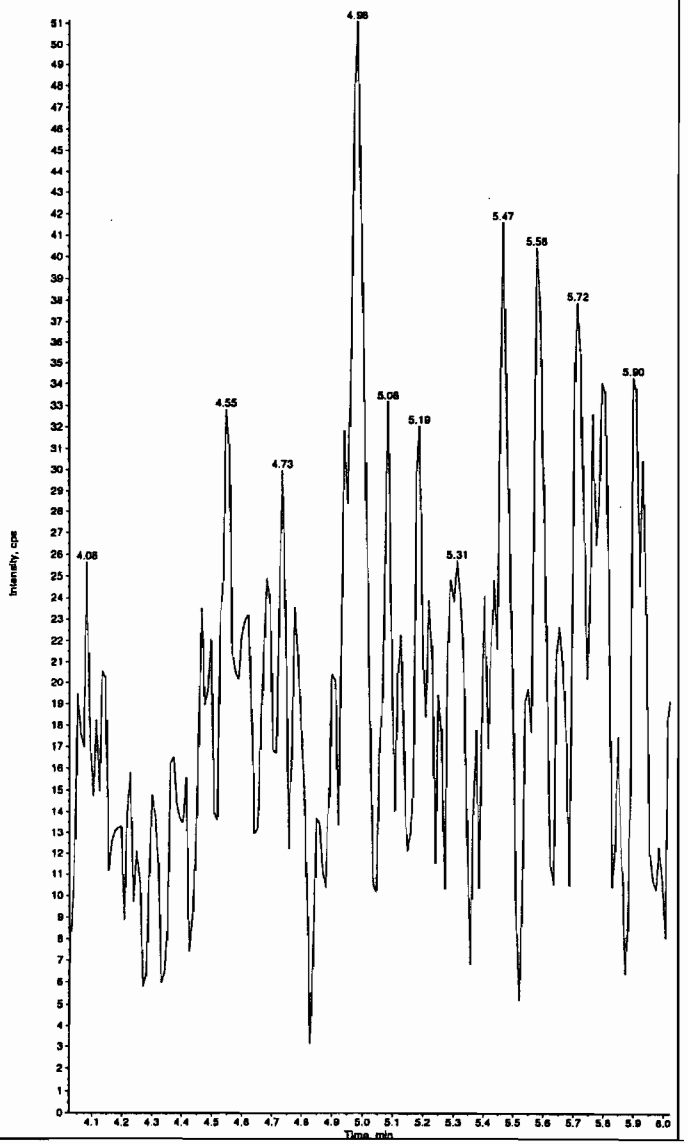

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ple Name: "XIBLK13" Sample ID: "|1|LER" File: "EXS03050107.wiff"
: Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/6/2010
Time: 8:52:01 PM

ied: No

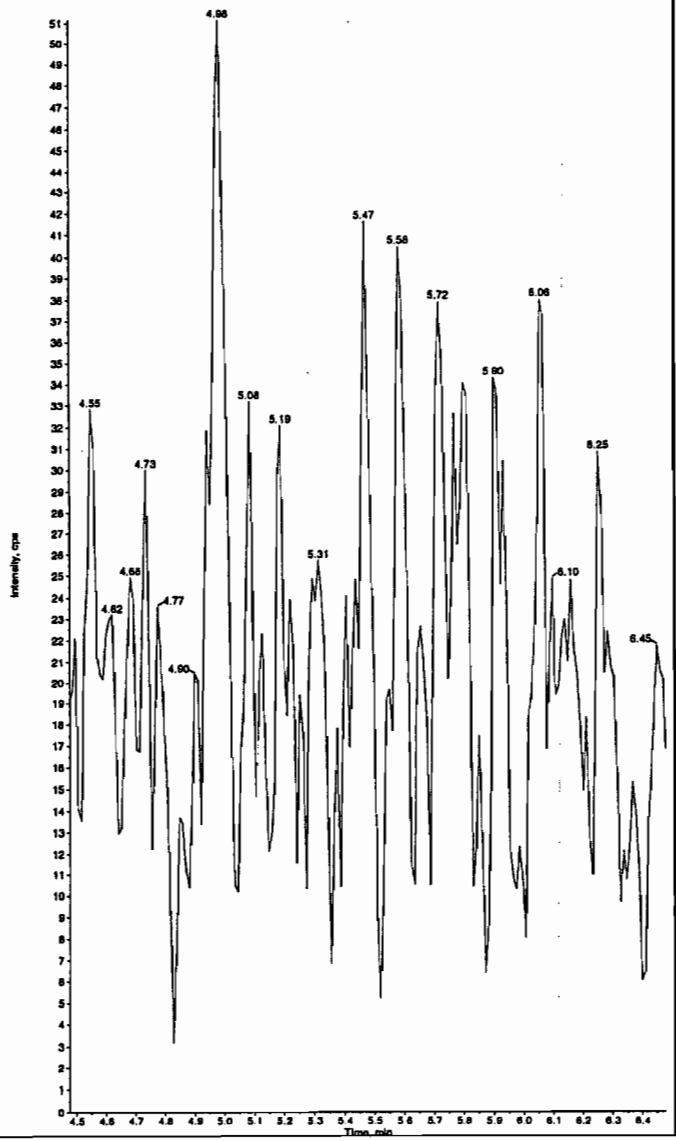

Sample Name: "XIBLK13" Sample ID: "|1|LER" File: "EXS03050107.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/6/2010
Acq. Time: 8:52:01 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 6.66e+004 counts
Height: 18580.671 cps
Start Time: 10.8 min
End Time: 11.0 min

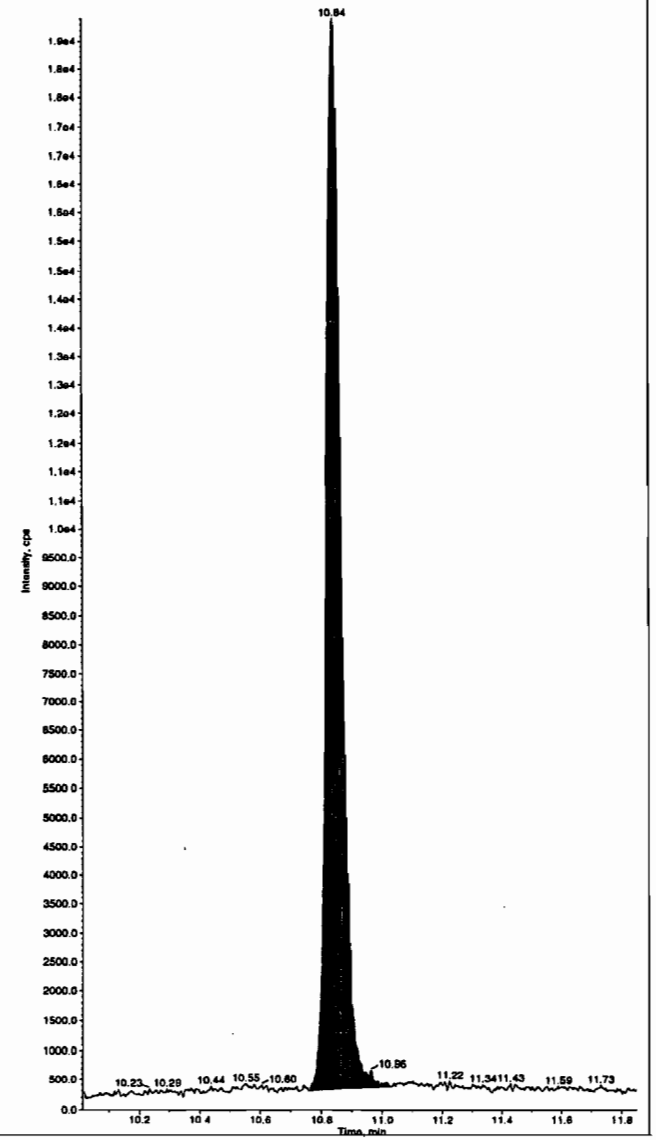

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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Calibration Report - MS1 Static

Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

15 matches of 15 tested references

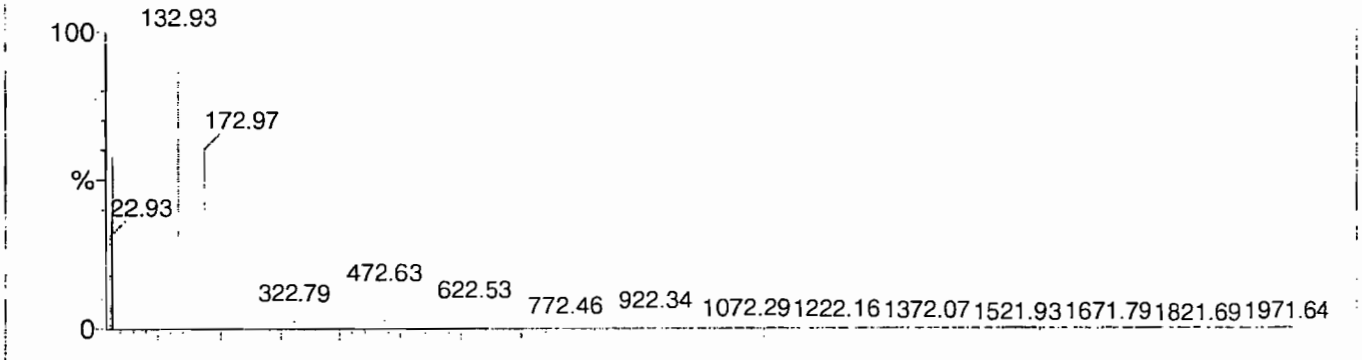

Reference file: Naics2

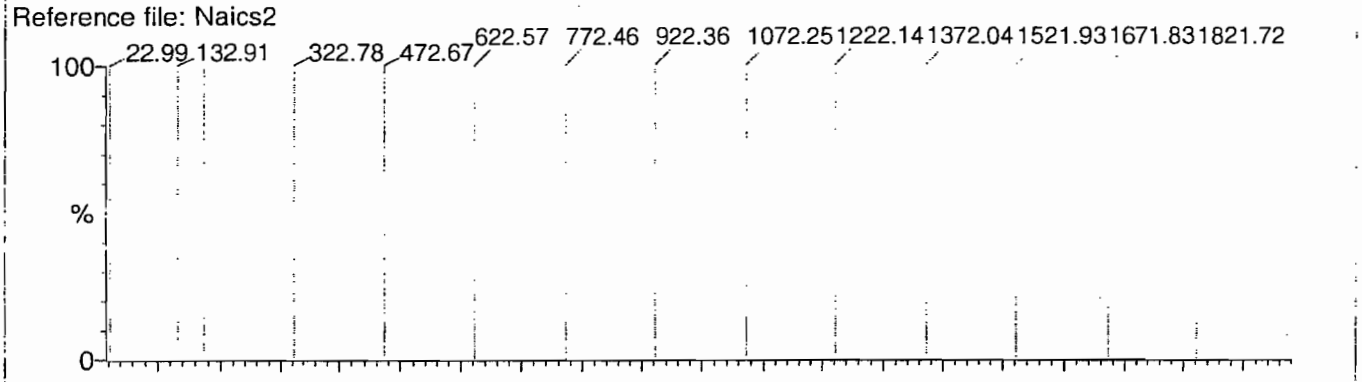

Mass difference (Raw - Ref mass)

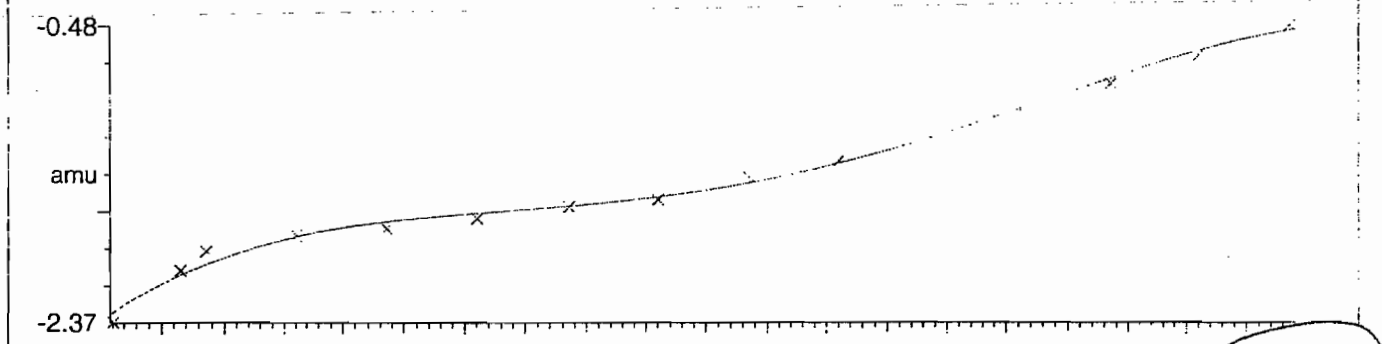

Residuals

Mean residual = -1.673470e-9 ± 0.036953

ok
hm

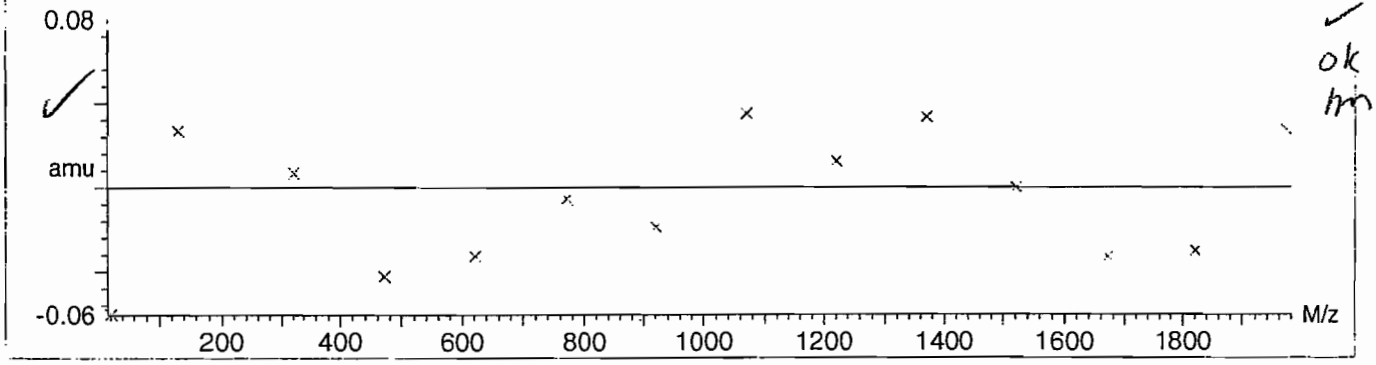

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Calibration Report - MS1 Scanning

Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

15 matches of 15 tested references

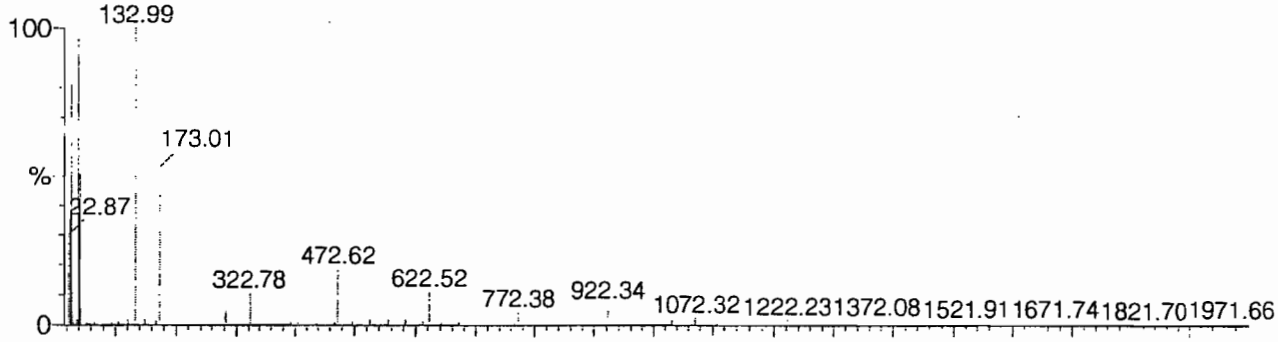

Reference file: Naics2

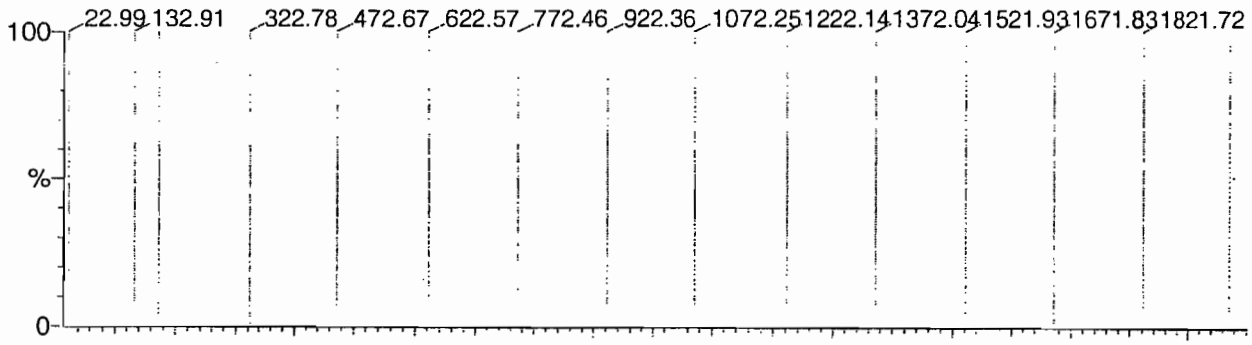

Mass difference (Raw - Ref mass)

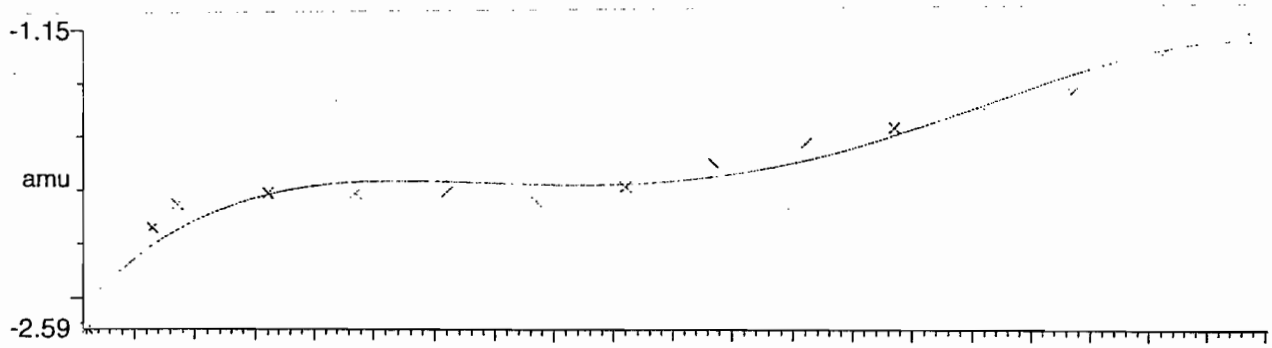

Residuals

Mean residual = -5.432715e-9 ± 0.069858

ok
jm

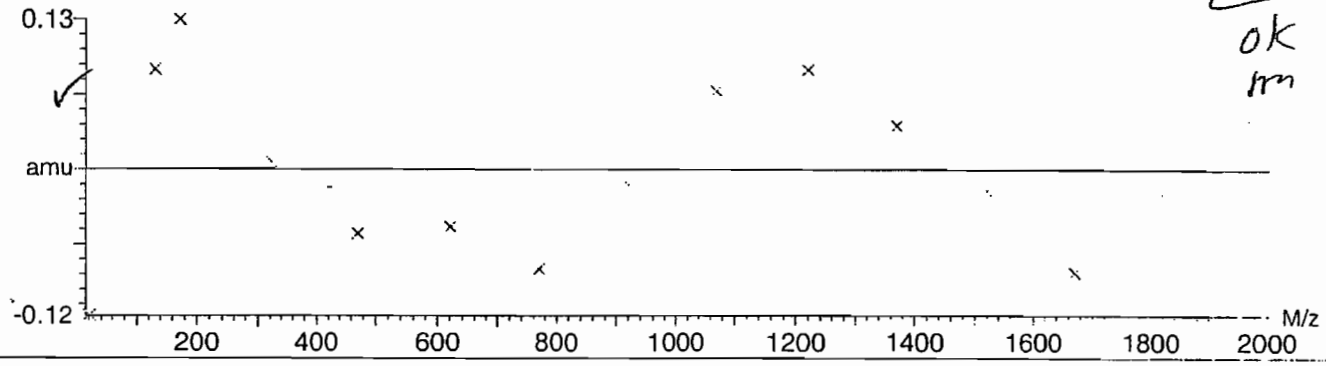

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Calibration Report - MS1 Scan Speed Compensation

Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

15 matches of 15 tested references

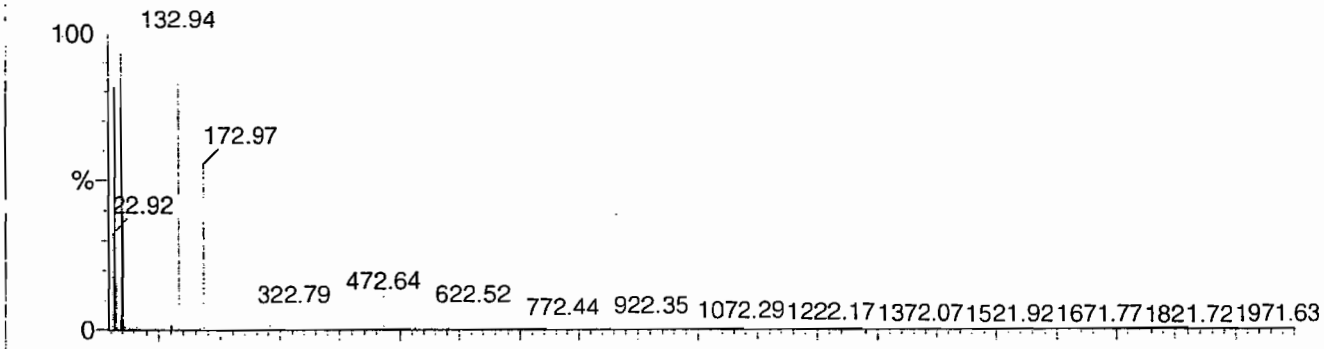

Reference file: Naics2

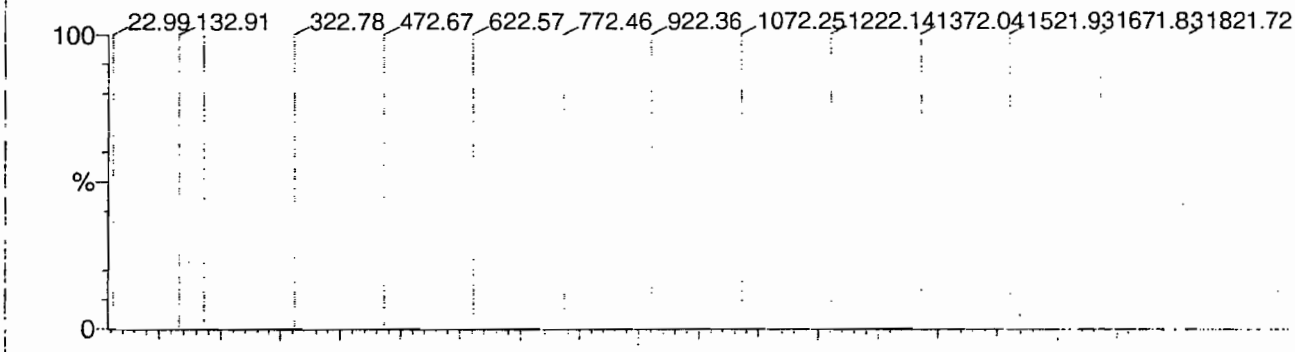

Mass difference (Raw - Ref mass)

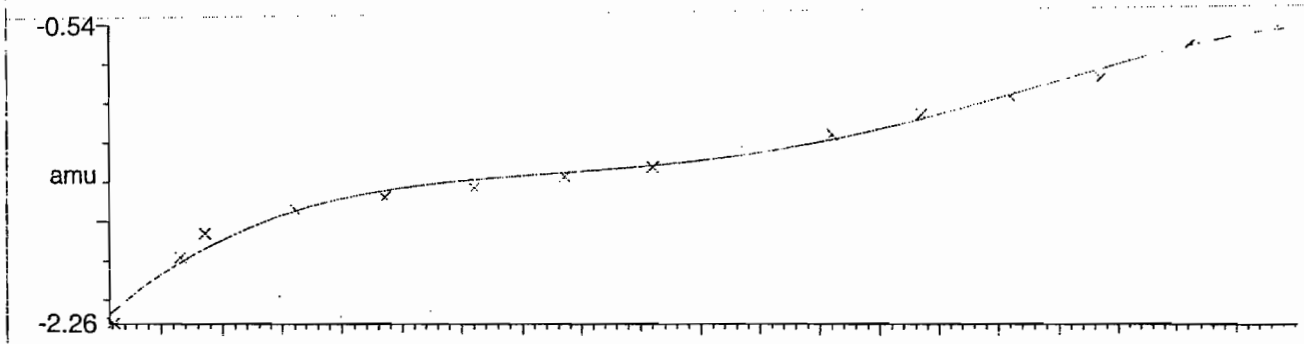

Residuals

Mean residual = 3.486639e-9 ± 0.040487

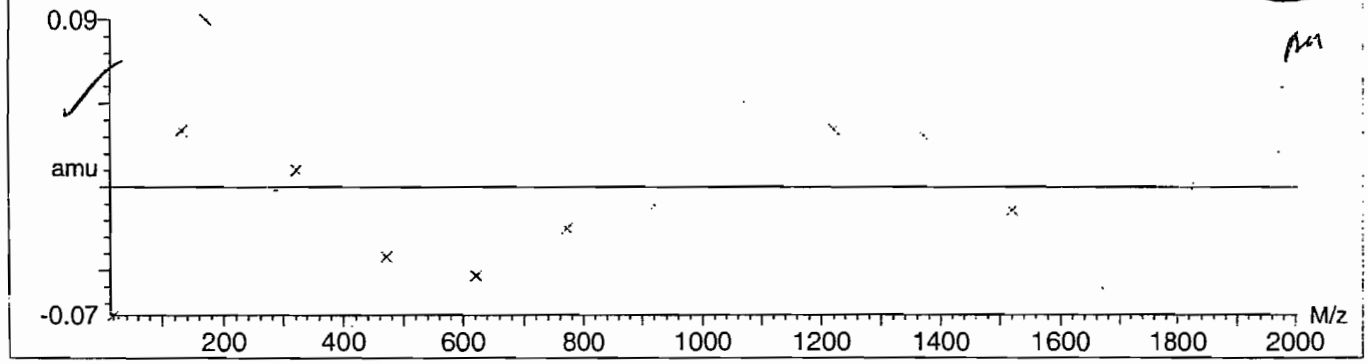

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Calibration Report - MS2 Static

Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

15 matches of 15 tested references

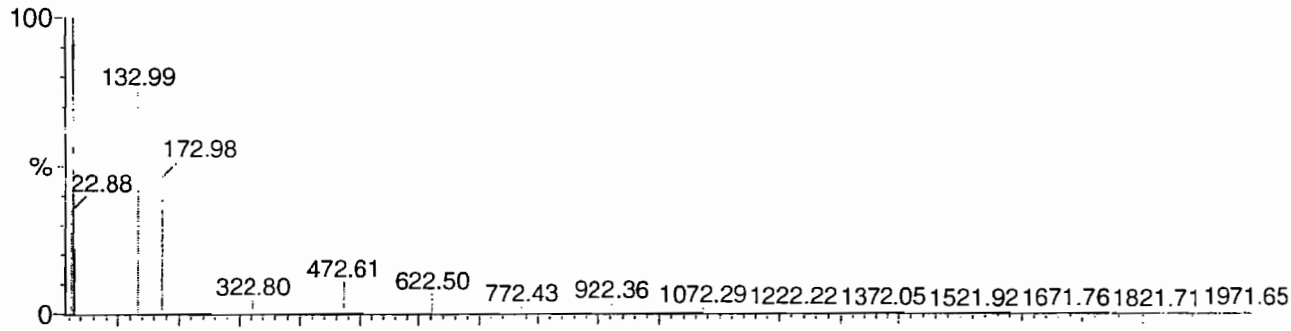

Reference file: Naics2

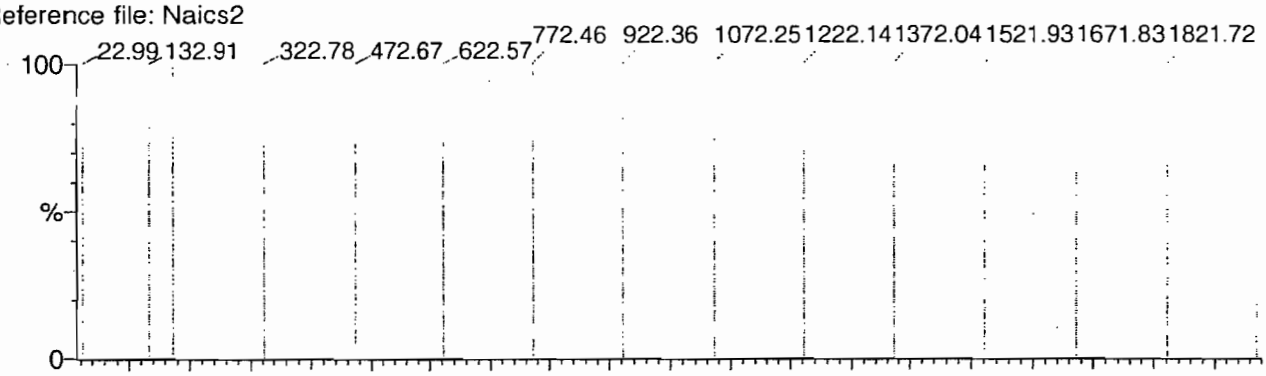

Mass difference (Raw - Ref mass)

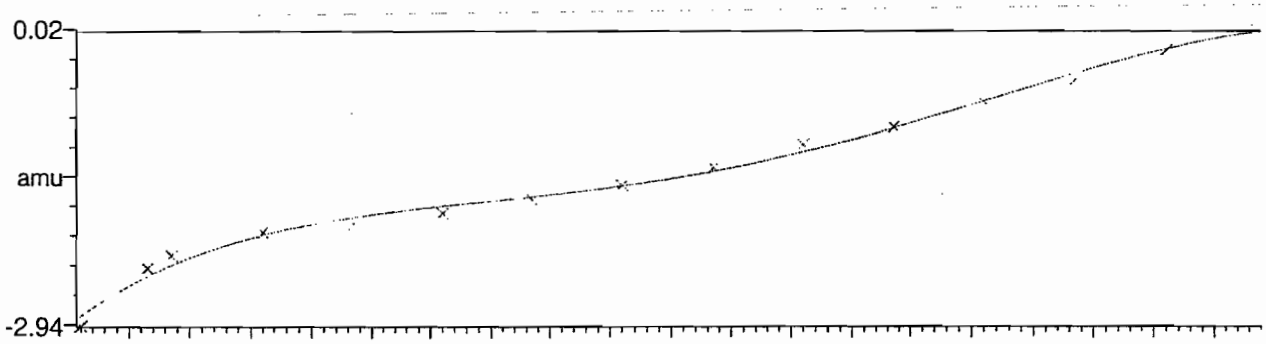

Residuals

Mean residual = 2.048910e-9 ± 0.057803

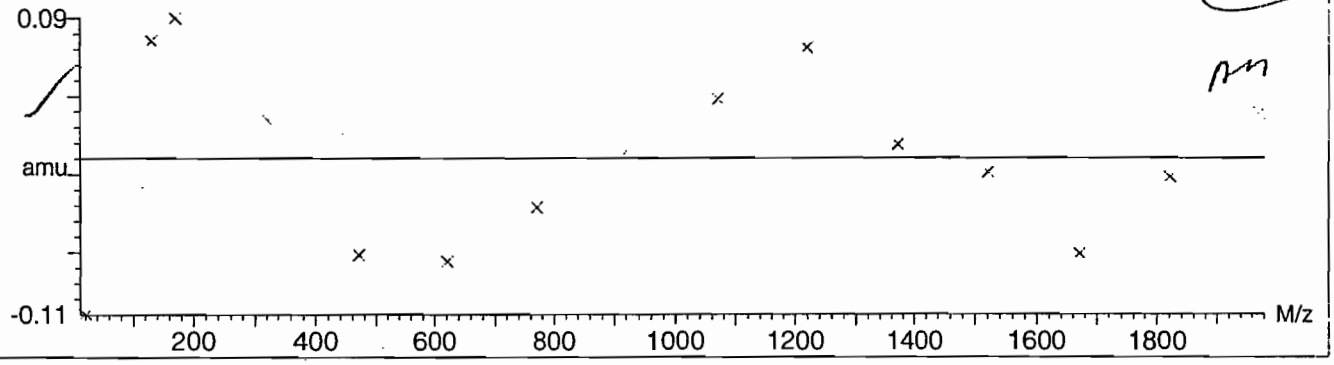

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Calibration Report - MS2 Scanning

Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

14 matches of 15 tested references

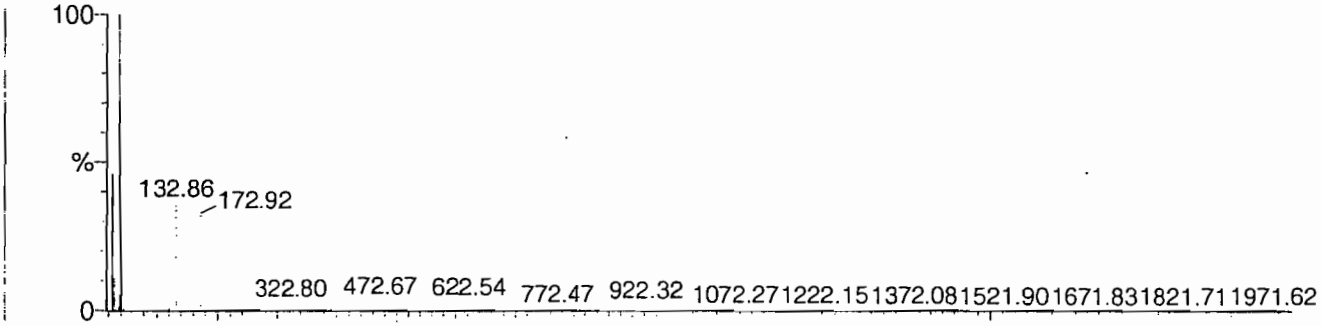

Reference file: Naics2

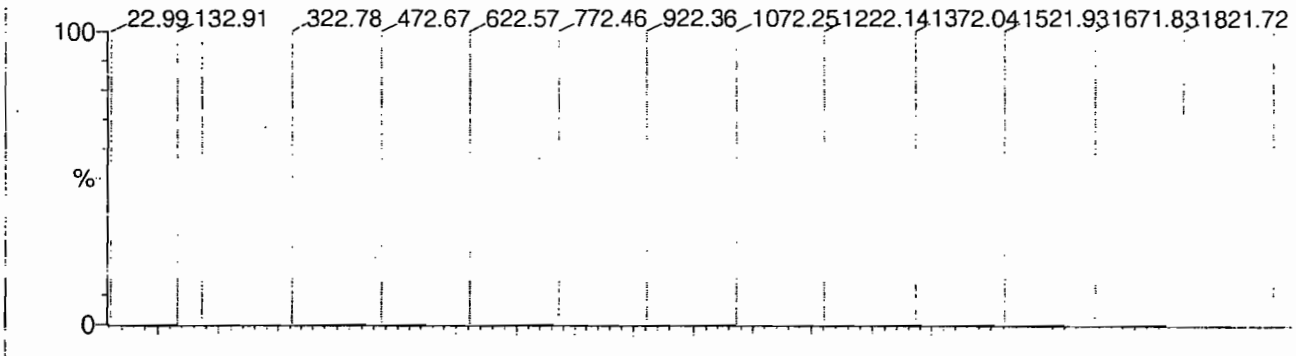

Mass difference (Raw - Ref mass)

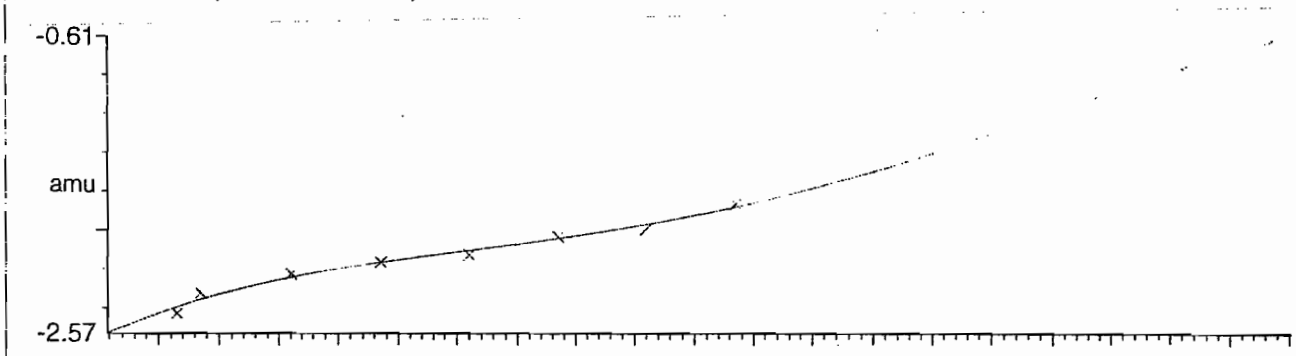

Residuals

Mean residual = -2.623502e-9 ± 0.025622

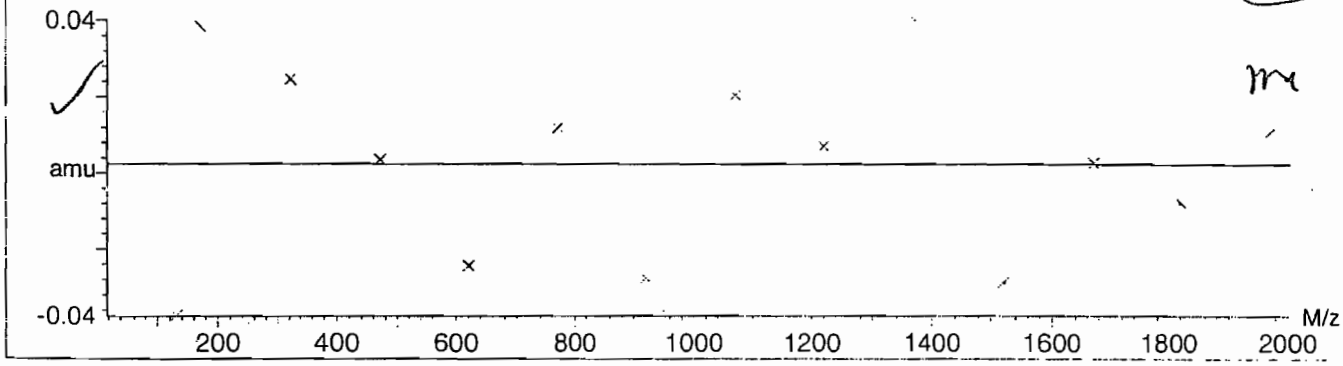

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Calibration Report - MS2 Scan Speed Compensation

Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

14 matches of 15 tested references

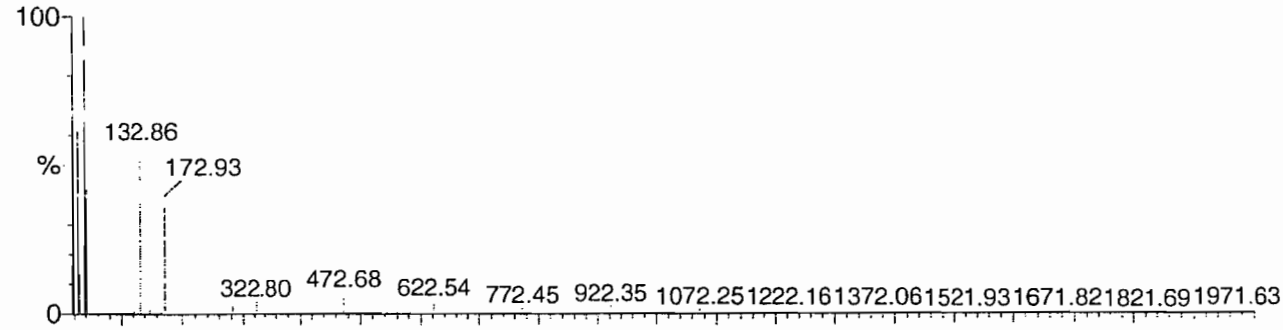

Reference file: Naics2

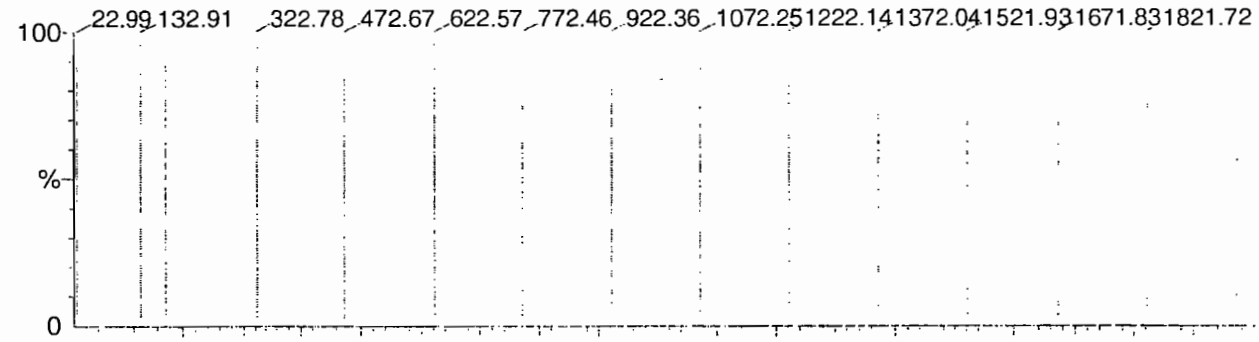

Mass difference (Raw - Ref mass)

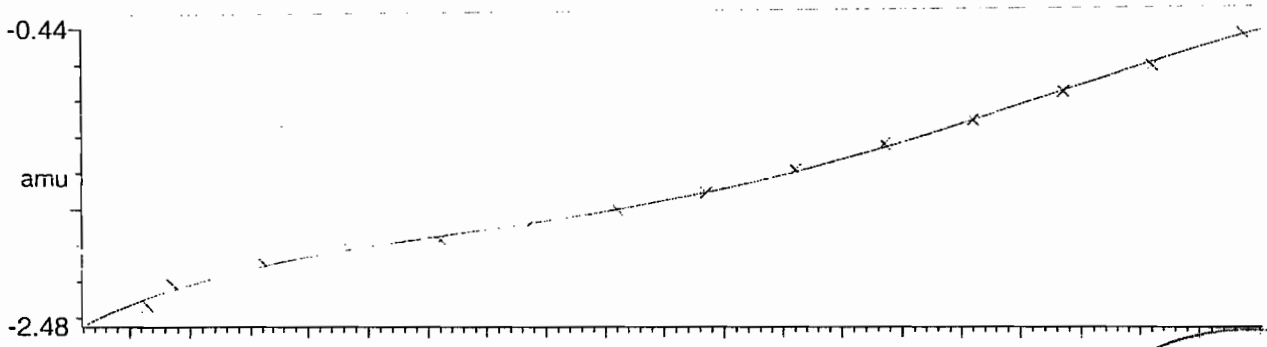

Residuals

Mean residual = -6.785350e-9 ± 0.023134

m

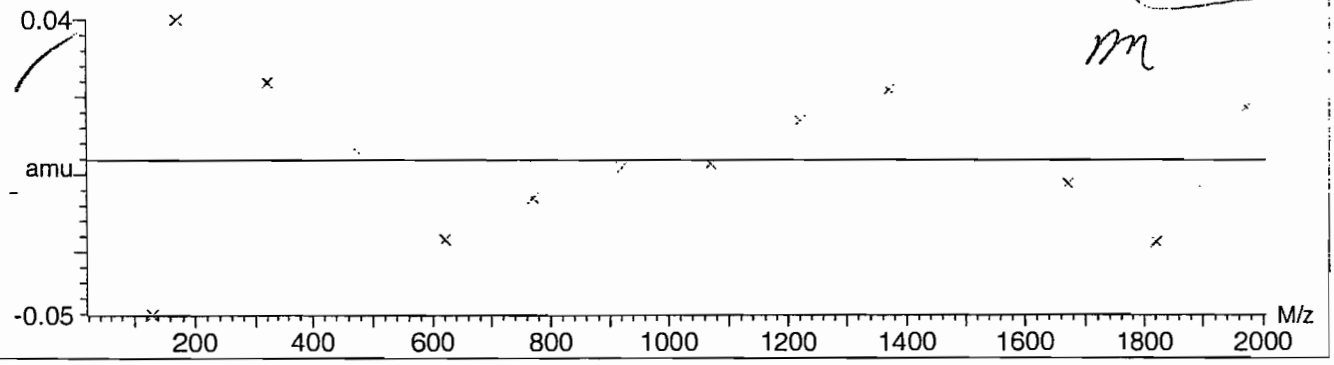

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Quattro Micro Tune Parameters

Parameter File: C:\MASSLYNX\NEW_EXP.PRO\ACQUDB\explosives04.IPR

Printed : Sun Mar 14 12:47:33 2010

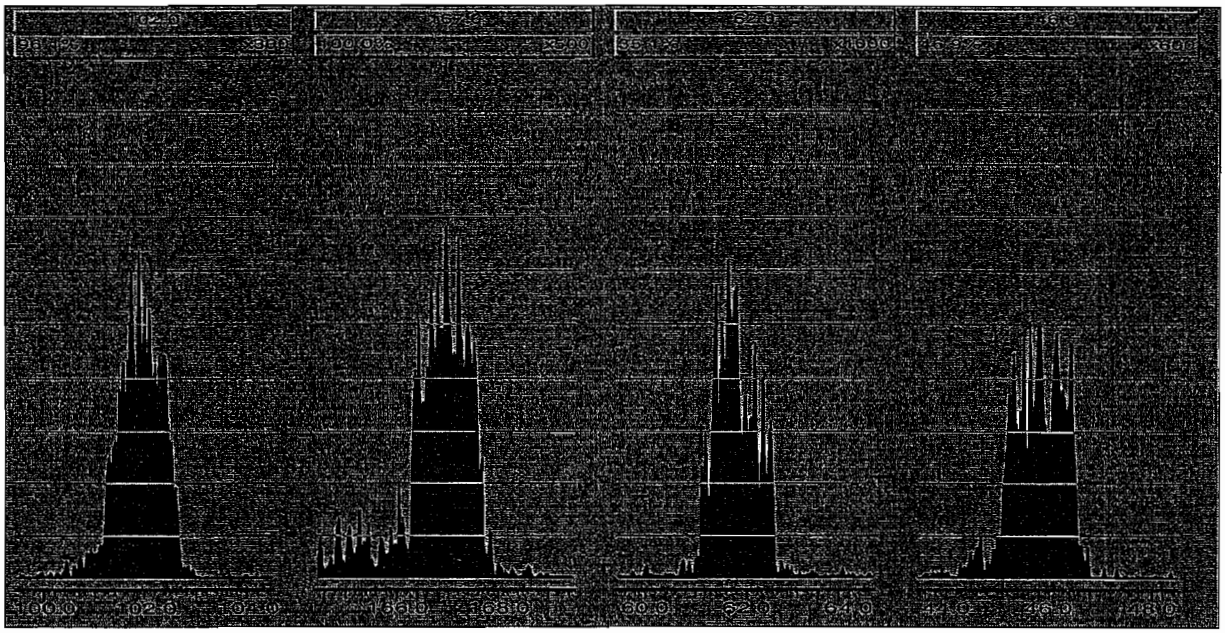

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1898

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			3364.442	12.175	19055.667	17.644
Upper Limit			4373.7746	12.675	24772.3671	18.144
Lower Limit			2355.1094	11.675	13338.9669	17.144
MB for batch 955064	16–mar–10 04:50	EXP0314078a	3528.74	12.17	20031.3	17.641
LCS for batch 955064	16–mar–10 05:19	EXP0314079a	3687.47	12.17	20843.3	17.64
WST15–10–8941	16–mar–10 06:18	EXP0314081a	3565.11	12.168	21016.9	17.652
WST15–10–8941(247327002MS	16–mar–10 06:48	EXP0314082a	4072.21	12.17	24341.5	17.641
WST15–10–8941(247327002MS	16–mar–10 07:17	EXP0314083a	3659.99	12.171	22509.7	17.641

IS1 (DNB) = 1,3–Dinitrobenzene–d4
IS2 (DNT) = 2,6–Dinitrotoluene–d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = – 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = –0.5 of average multipoint RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits

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SAMPLE DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: WST15-10-8941

Lab Code: GEL

GEL Job No (SDG) 10-1898

Matrix: SOIL

GEL Sample ID: 247327002

Sample Amount 2

Moisture: 7.8

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0314081a

Date Analyzed: 16-MAR-10 06:18

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	228	J
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314081a
Date: 16-Mar-2010
Time: 06:18:41
ID: 247327002 | LANL | 955065 | Solid | 2 |
Vial: 3:1,D

MAT 3/17/10

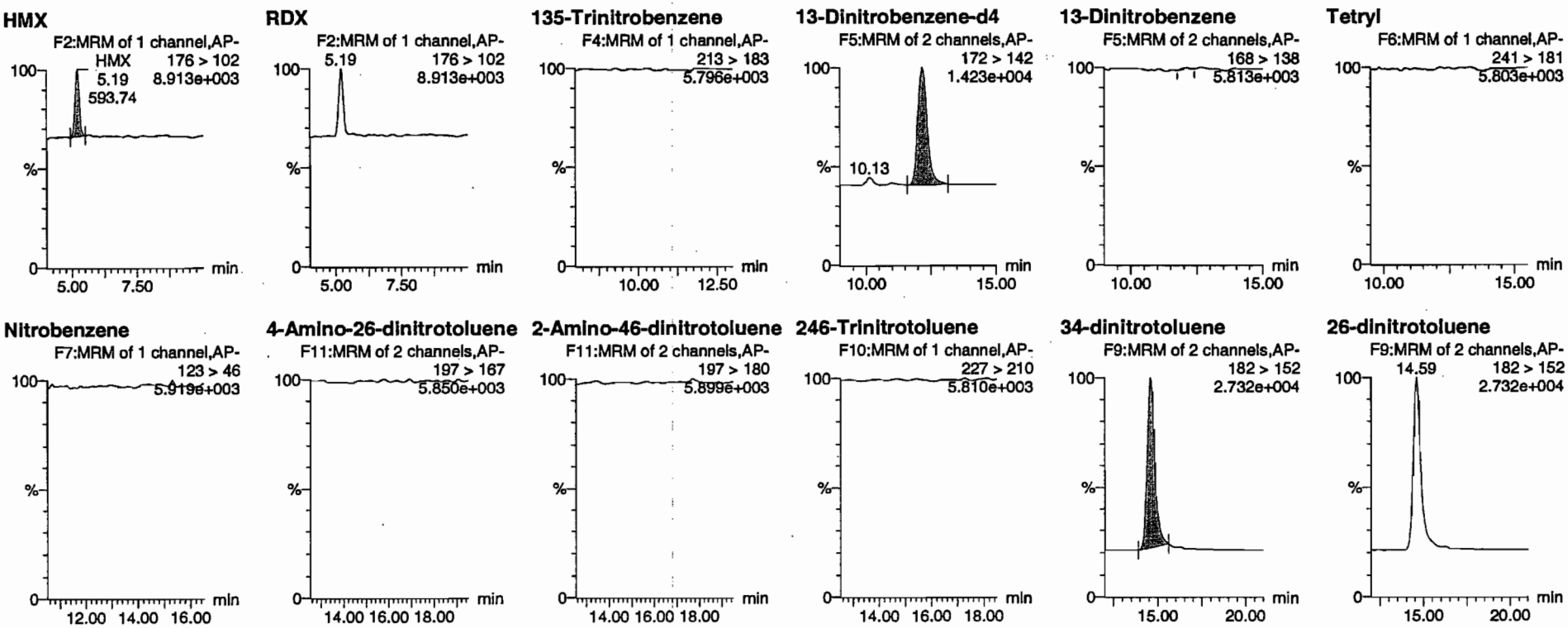

Hmm 03/17/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

24-dinitrotoluene

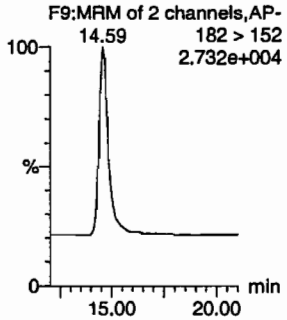

26-dinitrotoluene-d3

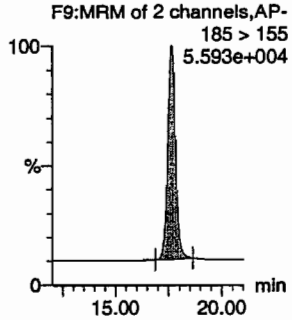

2-Nitrotoluene

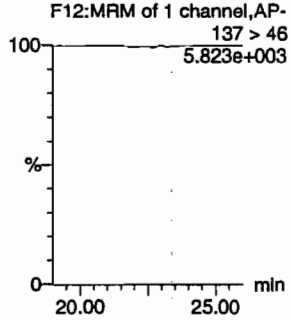

4-Nitrotoluene

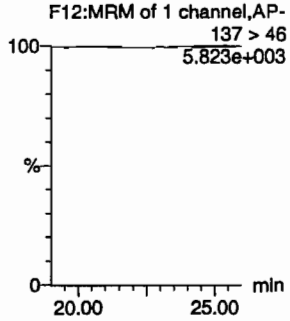

3-Nitrotoluene

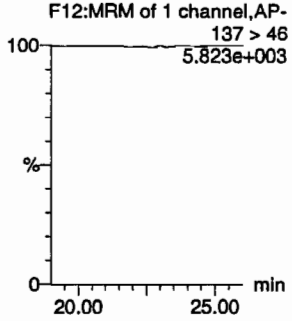

PETN

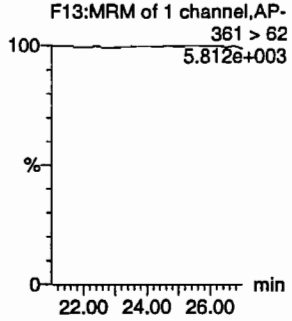

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Ind/ml	%Rec	%Dev	S/N
247327002	HMX	176 > 102	5.19	593.739	3565.111	593.739	83.271	bb			22.7783			98.4
247327002	RDX	176 > 102			3565.111									
247327002	135-Trinitrobenzene	213 > 183			3565.111									
247327002	13-Dinitrobenzene-d4	172 > 142	12.17	3565.111		3565.111	3565.111	bb			529.8220	106.0	6.0	540.5
247327002	13-Dinitrobenzene	168 > 138			3565.111			MM-	17-Mar-10	12:30:33				
247327002	Tetryl	241 > 181			3565.111									
247327002	Nitrobenzene	123 > 46			3565.111									
247327002	4-Amino-26-dinitrotoluene	197 > 167			21016.932									
247327002	2-Amino-46-dinitrotoluene	197 > 180			21016.932									
247327002	246-Trinitrotoluene	227 > 210			21016.932									
247327002	34-dinitrotoluene	182 > 152	14.59	10444.881	21016.932	10444.881	248.487	bb			257.6990	103.1	3.1	695.3
247327002	26-dinitrotoluene	182 > 152			21016.932									
247327002	24-dinitrotoluene	182 > 152			21016.932									
247327002	26-dinitrotoluene-d3	185 > 155	17.65	21016.932		21016.932	21016.932	bb			551.4621	110.3	10.3	2173.2
247327002	2-Nitrotoluene	137 > 46			21016.932									
247327002	4-Nitrotoluene	137 > 46			21016.932									
247327002	3-Nitrotoluene	137 > 46			21016.932									
247327002	PETN	361 > 62			21016.932									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: WST15-10-8941

Lab Code: GEL

GEL Job No (SDG) 10-1898

Matrix: SOIL

GEL Sample ID: 247327002

Sample Amount 2

Moisture: 7.8

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03050100.wiff

Date Analyzed: 06-MAR-10 19:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ren 3/9/10

mple Name: "247327002" Sample ID: "955065|2|LER" File: "EXS03050100.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/6/2010
. Time: 7:02:11 PM

ified: No

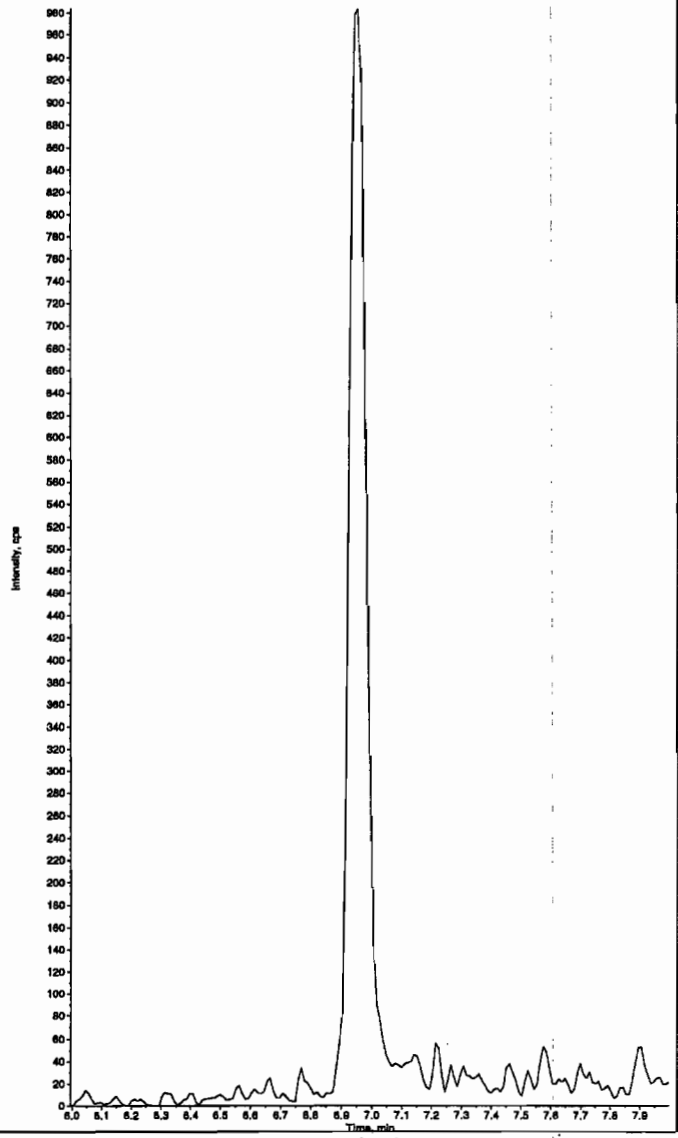

Sample Name: "247327002" Sample ID: "955065|2|LER" File: "EXS03050100.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/6/2010
Acq. Time: 7:02:11 PM

Modified: Yes

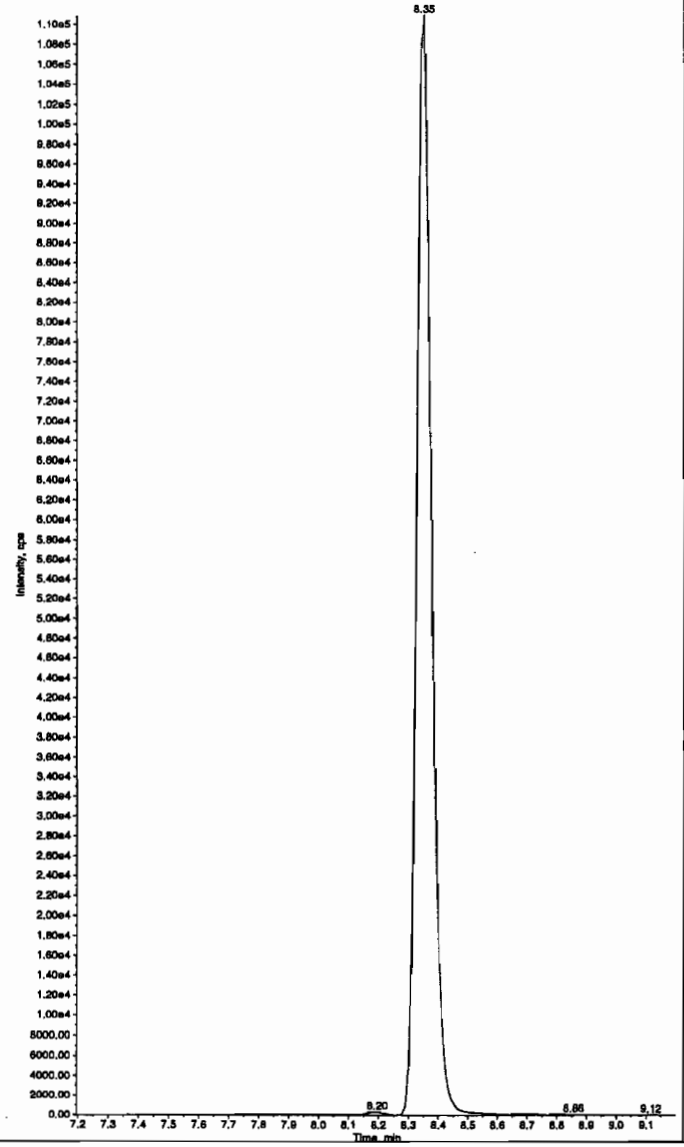

HMW 03/09/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "247327002" Sample ID: "955065|2|LER" File: "EXS03050100.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212S" Annotation: ""

```
ple Index:        1
ple Type:      Unknown
centration:       N/A
culated Conc:     234.     ng/mL
. Date:        3/6/2010
. Time:        7:02:11 PM

ified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00    cps
. Peak Width:     0.00    sec
othing Width:  3        points
Window:          30.0     sec
ected RT:         8.37    min
 Relative RT:     No

. Type:          Valley
ention Time:      8.34    min
a:          2.93e+006   counts
ght:         840504.700  cps
rt Time:          8.21    min
 Time:            8.68    min
```

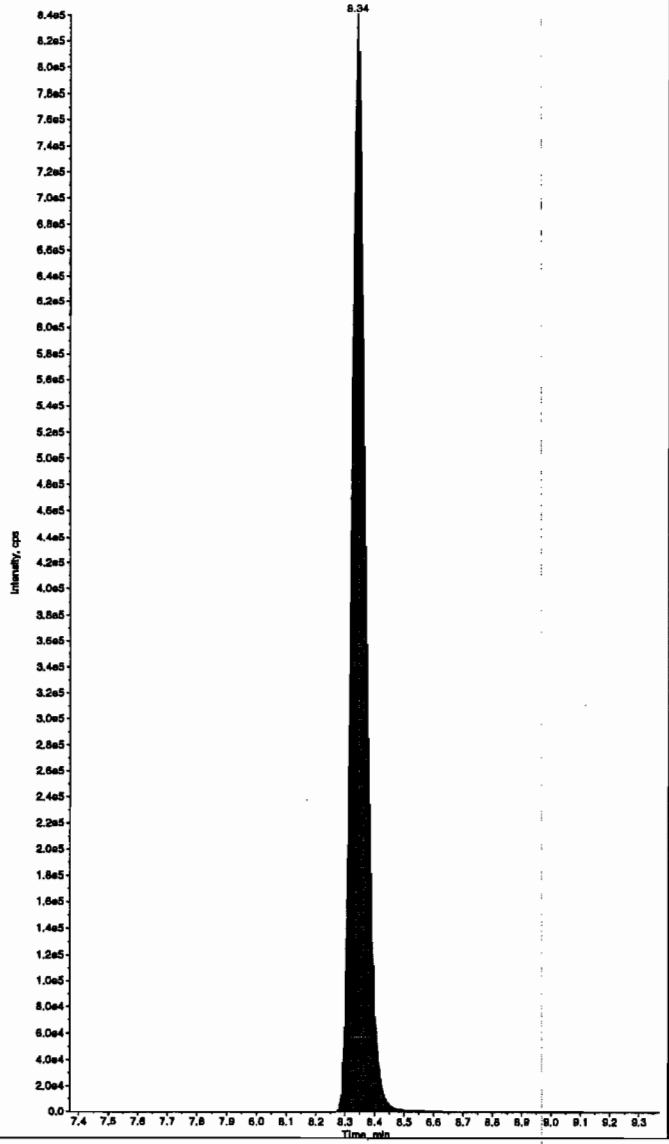

Sample Name: "247327002" Sample ID: "955065|2|LER" File: "EXS03050100.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:       N/A
Calculated Conc:     0.00     ng/mL
Acq. Date:        3/6/2010
Acq. Time:        7:02:11 PM

Modified:            No
```

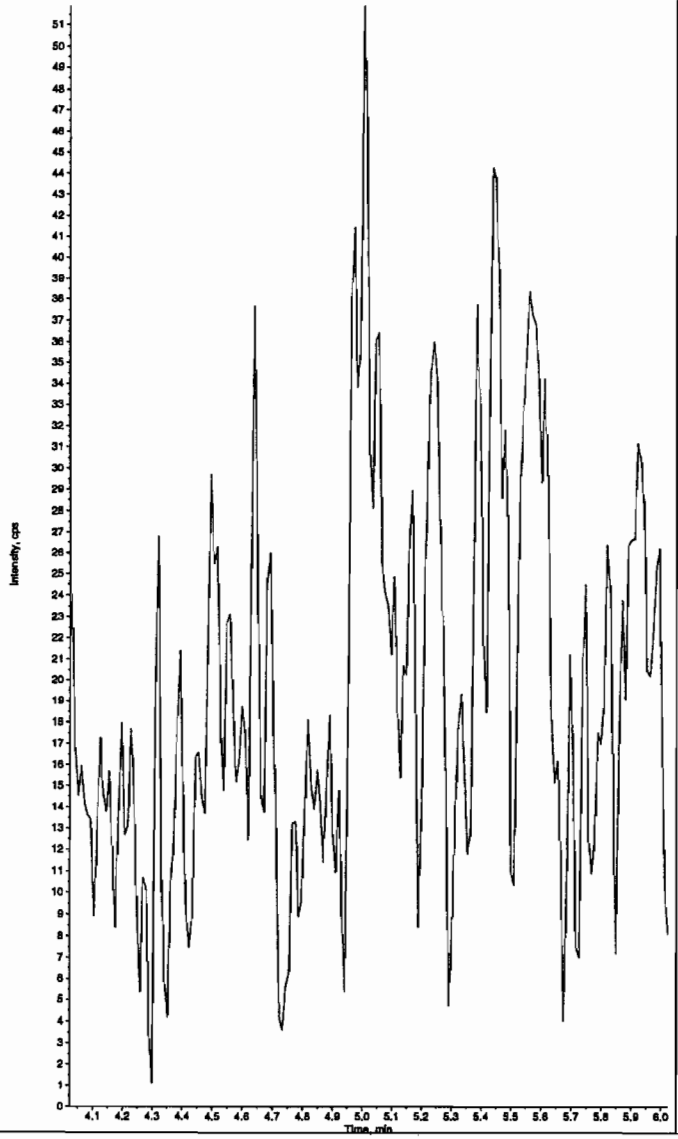

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ample Name: "247327002" Sample ID: "955065|2|LER" File: "EXS03050100.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCX83212S" Annotation: ""

```
ple Index:        1
ple Type:       Unknown
centration:       N/A
culated Conc:     0.00      ng/mL
. Date:         3/6/2010
. Time:         7:02:11 PM

ified:            No
```

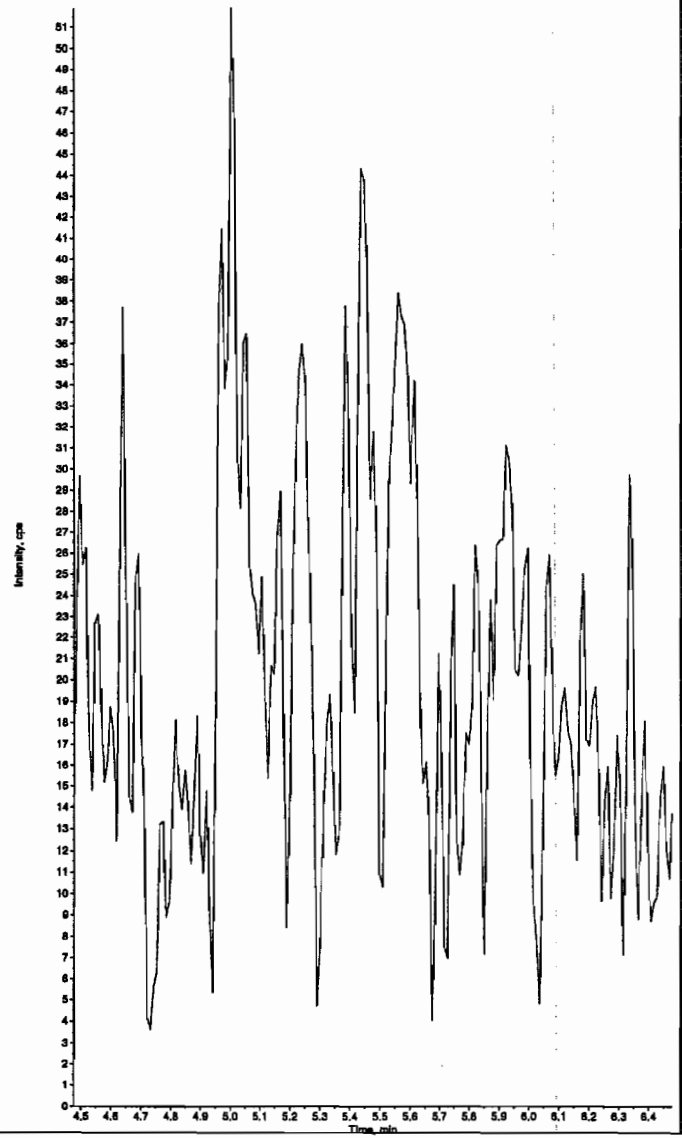

Sample Name: "247327002" Sample ID: "955065|2|LER" File: "EXS03050100.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:       Unknown
Concentration:       N/A
Calculated Conc:  No Intercept
Acq. Date:         3/6/2010
Acq. Time:         7:02:11 PM

Modified:            No
Proc. Algorithm:  IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:        10.9    min
Use Relative RT:     No

Int. Type:        Valley
Retention Time:     10.8    min
Area:          4.78e+004   counts
Height:         12832.026  cps
Start Time:         10.7    min
End Time:           11.0    min
```

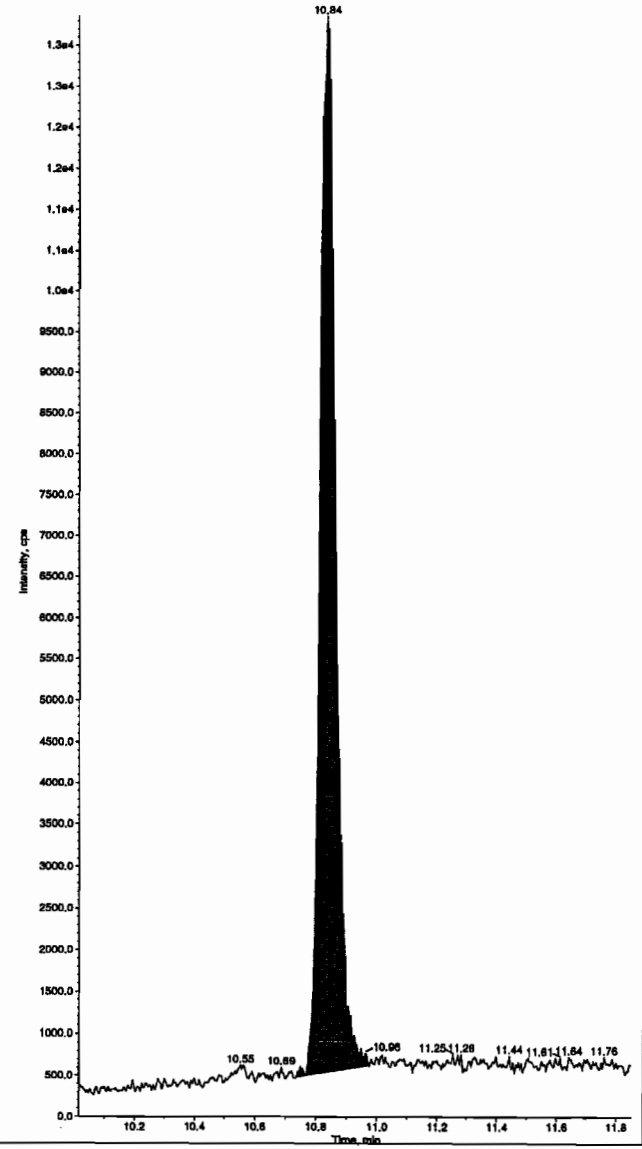

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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STANDARDS DATA

SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MNX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1898

Lab Code: GEL

Run Date: 05-MAR-10,14-MAR-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	1	2	3	4	5	6	Ave RF	RSD	Q
Data File:	EXP0314003a	EXP0314004a	EXP0314005a	EXP0314006a	EXP0314007a	EXP0314008a			
Parmname									
1,3,5-Trinitrobenzene	4.451	3.979	3.11	3.373	3.491	3.675	3.680	12.966	
1,3-Dinitrobenzene-d4	7.232	6.43	7.14	5.899	6.486	7.186	6.729	8.056	
2,4,6-Trinitrotoluene	.44	.296	.315	.313	.354	.328	0.341	15.306	
2,4-Dinitrotoluene	.252	.223	.234	.242	.252	.234	0.240	4.731	
2,6-Dinitrotoluene	1.195	1.162	1.095	1.086	1.097	1.116	1.125	3.879	
2,6-Dinitrotoluene-d3	35.525	38.022	42.425	35.013	41.029	36.654	38.111	7.919	
2-Amino-4,6-dinitrotoluene	.392	.37	.428	.384	.501	.391	0.411	11.712	
3,4-Dinitrotoluene	1.071	.886	.91	.922	.978	1.019	0.964	7.42	
4-Amino-2,6-dinitrotoluene	.402	.261	.295	.271	.346	.292	0.311	17.091	
HMX	3.919	3.14	3.408	3.215	4.964	3.288	3.656	19.093	
Nitrobenzene	.752	.822	.825	.859	.954	.71	0.820	10.362	
RDX	2.726	2.425	2.36	2.61	3.317	2.517	2.659	13.073	
Tetryl	.976	1.142	1.014	.809	.966	.777	0.947	14.288	
m-Dinitrobenzene	1.722	1.421	1.218	1.133	1.277	1.2	1.329	16.246	
m-Nitrotoluene	.106	.087	.093	.088	.093	.081	0.091	9.224	
o-Nitrotoluene	.164	.147	.158	.15	.158	.134	0.152	7.077	
p-Nitrotoluene	.083	.077	.081	.072	.078	.067	0.076	7.669	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1898

Lab Code: GEL

Run Date: 05-MAR-10,14-MAR-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	1	2	3	4	5	6	X	X^2	Intercept	COD	Q
Data File:	EXP0314003a	EXP0314004a	EXP0314005a	EXP0314006a	EXP0314007a	EXP0314008a					
Parmname:											
PETN	1696.46	2772.34	8585.36	17112.5	31106.9	36853.7	1.094	-.0001328	18.561	.9909	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\031410expa.mdb, Time: Mon Mar 15 09:25:32 2010
Calibration: Untitled, Time: Mon Mar 15 10:15:48 2010

Compound name: HMX
Response Factor: 3.65571
RRF SD: 0.697998, % Relative SD: 19.0934
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

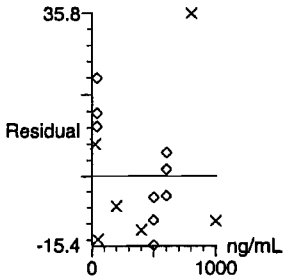

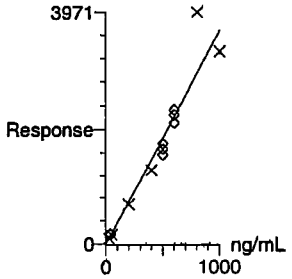

MMP 3/15/10

Compound name: RDX
Response Factor: 2.65919
RRF SD: 0.347639, % Relative SD: 13.0731
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

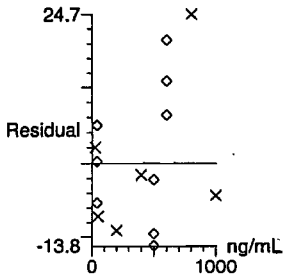

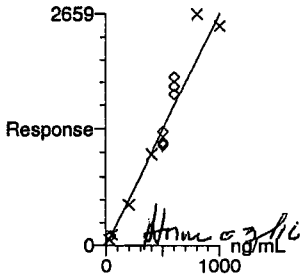

Hmm 03/16/10

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Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Compound name: 135-Trinitrobenzene
Response Factor: 3.67993
RRF SD: 0.477131, % Relative SD: 12.9658
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

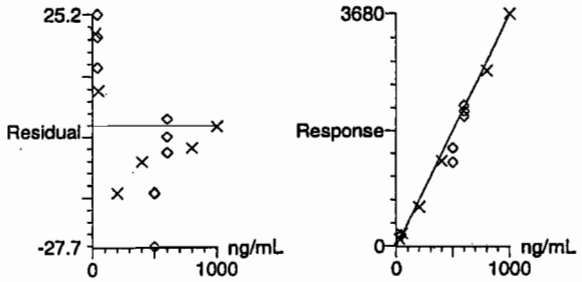

Compound name: 13-Dinitrobenzene-d4
Response Factor: 6.72888
RRF SD: 0.54206, % Relative SD: 8.05572
Response type: External Std, Area
Curve type: RF

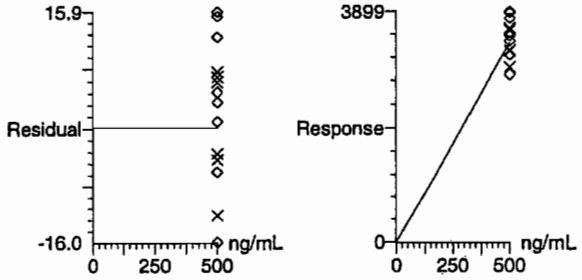

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Compound name: 13-Dinitrobenzene
Response Factor: 1.32854
RRF SD: 0.215838, % Relative SD: 16.2463
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

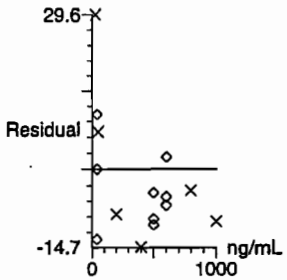

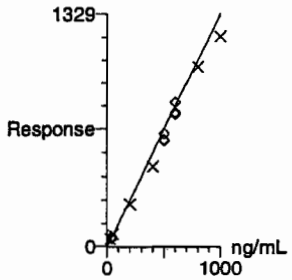

Compound name: Tetryl
Response Factor: 0.947232
RRF SD: 0.135343, % Relative SD: 14.2882
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

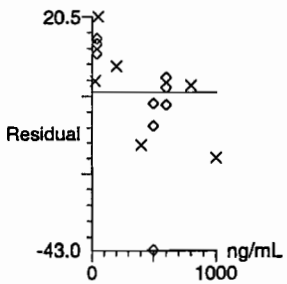

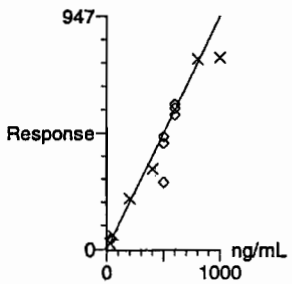

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Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Compound name: Nitrobenzene
Response Factor: 0.820337
RRF SD: 0.0850068, % Relative SD: 10.3624
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

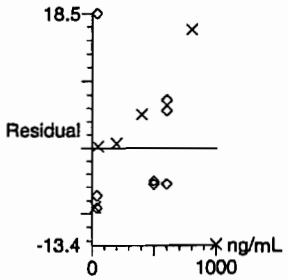

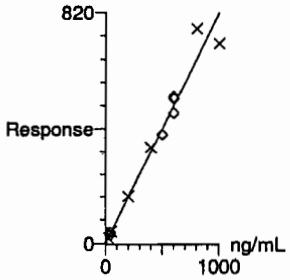

Compound name: 4-Amino-26-dinitrotoluene
Response Factor: 0.311252
RRF SD: 0.053196, % Relative SD: 17.091
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

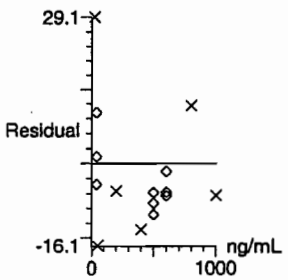

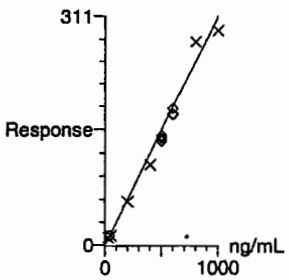

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Compound name: 2-Amino-46-dinitrotoluene
Response Factor: 0.410915
RRF SD: 0.0481257, % Relative SD: 11.7118
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

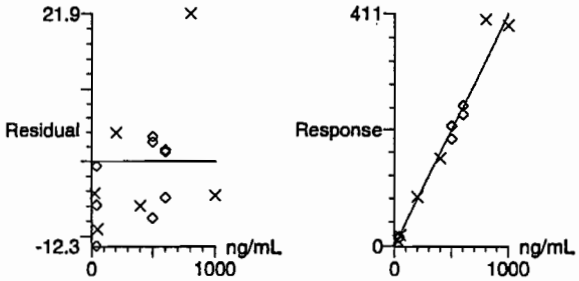

Compound name: 246-Trinitrotoluene
Response Factor: 0.341077
RRF SD: 0.0522035, % Relative SD: 15.3055
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

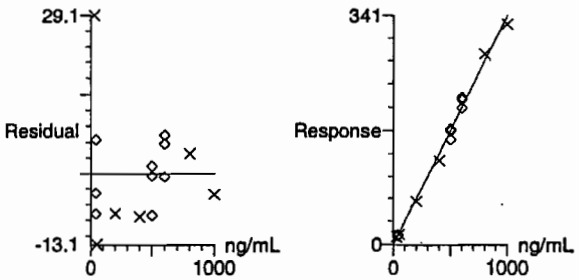

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Compound name: 34-dinitrotoluene
Response Factor: 0.964254
RRF SD: 0.0715434, % Relative SD: 7.41956
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

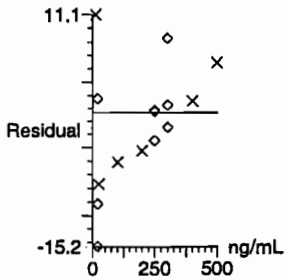

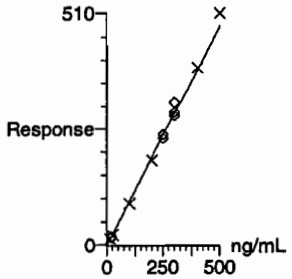

Compound name: 26-dinitrotoluene
Response Factor: 1.12508
RRF SD: 0.0436387, % Relative SD: 3.87872
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

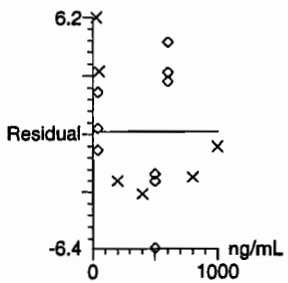

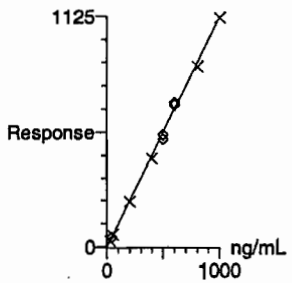

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Compound name: 24-dinitrotoluene
Response Factor: 0.239516
RRF SD: 0.0113317, % Relative SD: 4.73111
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

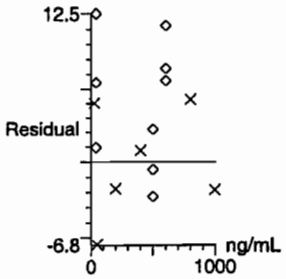

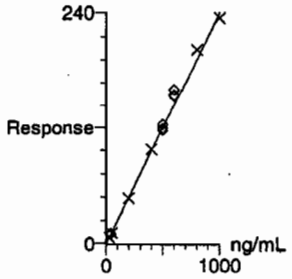

Compound name: 26-dinitrotoluene-d3
Response Factor: 38.1113
RRF SD: 3.01799, % Relative SD: 7.91889
Response type: External Std, Area
Curve type: RF

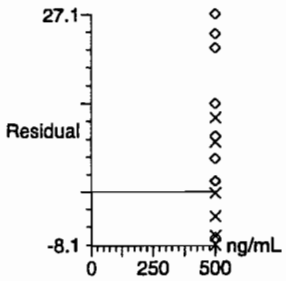

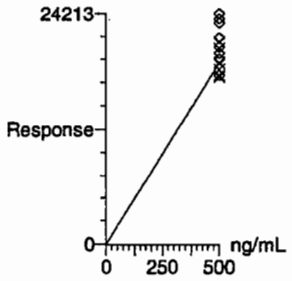

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Compound name: 2-Nitrotoluene
Response Factor: 0.151748
RRF SD: 0.0107392, % Relative SD: 7.07703
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

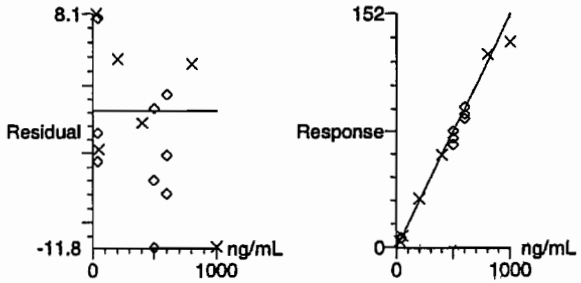

Compound name: 4-Nitrotoluene
Response Factor: 0.0764562
RRF SD: 0.00586344, % Relative SD: 7.66902
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

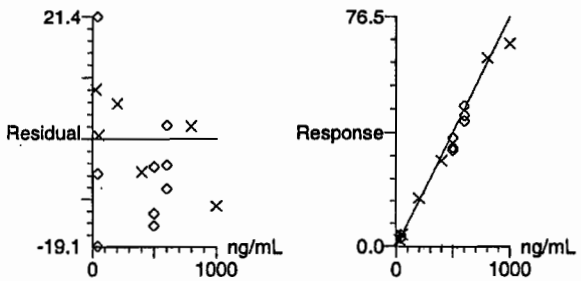

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Compound name: 3-Nitrotoluene
Response Factor: 0.091452
RRF SD: 0.00843596, % Relative SD: 9.22446
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

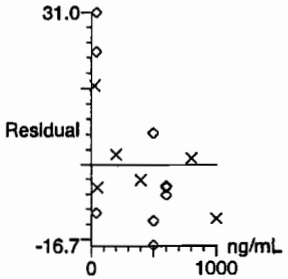

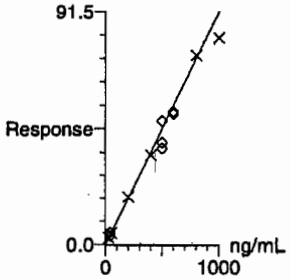

Compound name: PETN
Coefficient of Determination: 0.990878
Calibration curve: -0.000132821 * x^2 + 1.09448 * x + 18.5607
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None

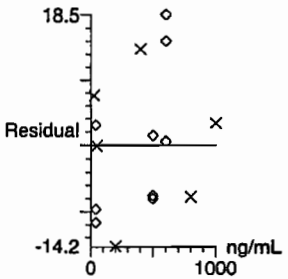

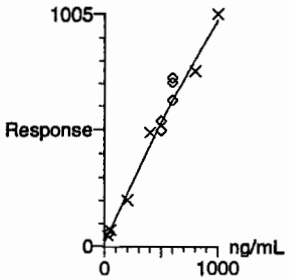

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1898

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0314010a

Analysis Date: 14–MAR–10 19:24

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Nitrobenzene	600	640.134	107	
PETN	600	711.078	119	
RDX	600	646.997	108	
Tetryl	600	608.116	101	
m–Dinitrobenzene	600	613.453	102	
m–Nitrotoluene	600	573.227	96	
o–Nitrotoluene	600	608.034	101	
p–Nitrotoluene	600	614.277	102	
HMX	600	573.087	96	
1,3,5–Trinitrobenzene	600	584.915	97	
1,3–Dinitrobenzene–d4	500	419.791	84	
2,4,6–Trinitrotoluene	600	596.891	99	
2,4–Dinitrotoluene	600	647.933	108	
2,6–Dinitrotoluene	600	619.219	103	
2,6–Dinitrotoluene–d3	500	464.57	93	
2–Amino–4,6–dinitrotoluene	600	568.004	95	
3,4–Dinitrotoluene	300	294.779	98	
4–Amino–2,6–dinitrotoluene	600	566.927	94	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314010a
Date: 14-Mar-2010
Time: 19:24:18
ID: WXX100314-07ICV
Vial: 1:1,B

MMT 3/15/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.611e+004
7.63

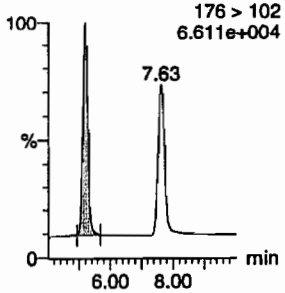

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.611e+004
5.19
RDX
7.63
9719.81

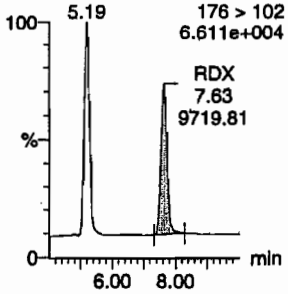

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
4.768e+004

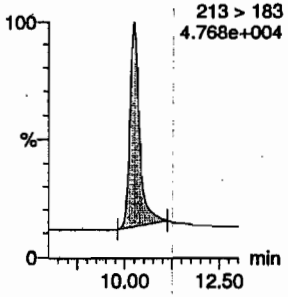

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.214e+004
10.13

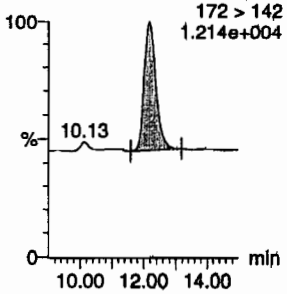

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.740e+004

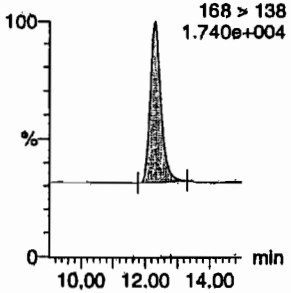

Tetryl
F6:MRM of 1 channel,AP-
Tetryl
12.87
3254.24
241 > 181
1.422e+004

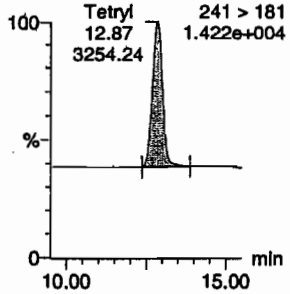

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.387e+004

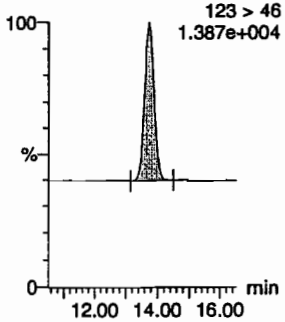

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.040e+004

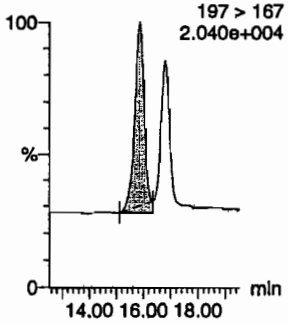

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
2.676e+004
15.58

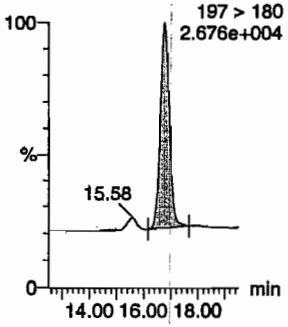

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.196e+004

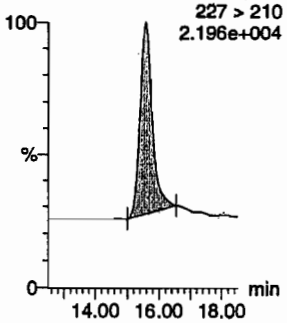

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.81
182 > 152
6.790e+004
18.53

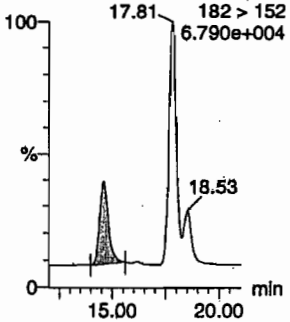

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.790e+004
14.60
18.53

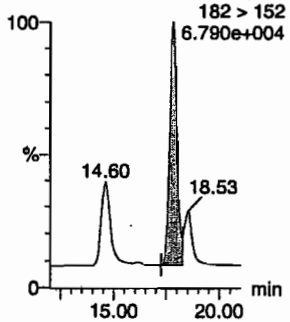

HMM 03/16/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

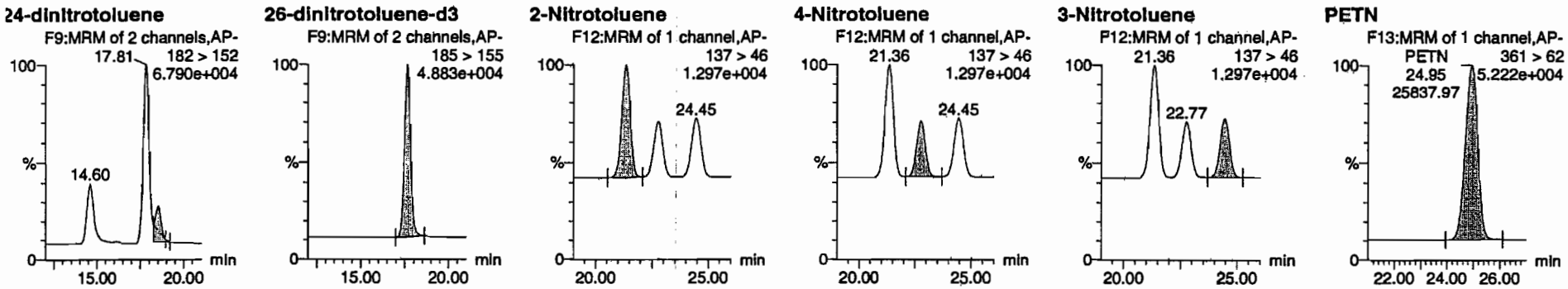

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100314-07ICV	HMX	176 > 102	5.19	11835.821	2824.727	11835.821	2095.038	bb			573.0866	95.5	-4.5	1231.9
WXX100314-07ICV	RDX	176 > 102	7.63	9719.810	2824.727	9719.810	1720.487	bb			646.9965	107.8	7.8	861.2
WXX100314-07ICV	135-Trinitrobenzene	213 > 183	10.25	12160.136	2824.727	12160.136	2152.444	bb			584.9152	97.5	-2.5	394.8
WXX100314-07ICV	13-Dinitrobenzene-d4	172 > 142	12.17	2824.727		2824.727	2824.727	bb			419.7913	84.0	-16.0	128.8
WXX100314-07ICV	13-Dinitrobenzene	168 > 138	12.31	4604.282	2824.727	4604.282	814.996	bb			613.4534	102.2	2.2	642.3
WXX100314-07ICV	Tetryl	241 > 181	12.87	3254.240	2824.727	3254.240	576.027	bb			608.1163	101.4	1.4	284.9
WXX100314-07ICV	Nitrobenzene	123 > 46	13.75	2966.671	2824.727	2966.671	525.125	bb			640.1337	106.7	6.7	366.9
WXX100314-07ICV	4-Amino-26-dinitrotoluene	197 > 167	15.86	6248.474	17705.365	6248.474	176.457	MM	15-Mar-10	10:07:02	566.9267	94.5	-5.5	400.7
WXX100314-07ICV	2-Amino-46-dinitrotoluene	197 > 180	16.78	8264.919	17705.365	8264.919	233.402	bb			568.0040	94.7	-5.3	351.0
WXX100314-07ICV	246-Trinitrotoluene	227 > 210	15.57	7209.126	17705.365	7209.126	203.586	bb			596.8910	99.5	-0.5	186.9
WXX100314-07ICV	34-dinitrotoluene	182 > 152	14.60	10065.197	17705.365	10065.197	284.241	bb			294.7786	98.3	-1.7	268.4
WXX100314-07ICV	26-dinitrotoluene	182 > 152	17.81	24669.586	17705.365	24669.586	696.670	MM	15-Mar-10	10:09:56	619.2189	103.2	3.2	794.2
WXX100314-07ICV	24-dinitrotoluene	182 > 152	18.53	5495.397	17705.365	5495.397	155.190	MM	15-Mar-10	10:13:10	647.9335	108.0	8.0	166.4
WXX100314-07ICV	26-dinitrotoluene-d3	185 > 155	17.64	17705.365		17705.365	17705.365	bb			464.5701	92.9	-7.1	1184.3
WXX100314-07ICV	2-Nitrotoluene	137 > 46	21.36	3267.269	17705.365	3267.269	92.268	bb			608.0343	101.3	1.3	705.9
WXX100314-07ICV	4-Nitrotoluene	137 > 46	22.77	1663.075	17705.365	1663.075	46.968	bb			614.2769	102.4	2.4	340.6
WXX100314-07ICV	3-Nitrotoluene	137 > 46	24.45	1856.326	17705.365	1856.326	52.423	bb			573.2265	95.5	-4.5	359.5
WXX100314-07ICV	PETN	361 > 62	24.95	25837.969	17705.365	25837.969	729.665	bb			711.0780	118.5	18.5	6025.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/14/10
Time of Injection: 1924
Standard Number: WXX100314-07ICV
Data File: EXP0314010a

HMX	95.5
RDX	107.8
135-TNB	97.5
13-DNB	102.2
Tetryl	101.4
Nitrobenzene	106.7
4A-26-DNT	94.5
2A-46-DNT	94.7
246-TNT	99.5
34-DNT(surr)	98.3
26-DNT	103.2
24-DNT	108.0
2-NT	101.3
4-NT	102.4
3-NT	95.5
PETN	118.5
Total	1627.0
Average	101.7

MTP 3/15/10

HMK 03/16/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1898

Lab Code: GEL

Run Date: 05-MAR-10,14-MAR-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8O

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS03050003.wifl	EXS03050004.wifl	EXS03050005.wifl	EXS03050006.wifl	EXS03050007.wifl	EXS03050008.wifl	EXS03050009.wifl					
Parmname:												
2,4-Diamino-6-nitrotoluene	85600	188000	436000	918000	1500000	1790000	3780000	-5040	1860	.016	.9992	
2,6-Diamino-4-nitrotoluene	126000	257000	638000	1300000	2090000	2570000	5220000	-13200	2690	-.037	.9996	
3,4-Dinitrotoluene	307000	593000	1470000	2930000	4500000	5680000	10400000	-66800	13500	-3.11	.9976	
3,5-Dinitroaniline	462000	868000	2040000	4020000	6030000	7500000	12600000	-18600	8840	-1.27	.9999	
TATB	63200	132000	333000	729000	1100000	1480000	3120000	-13200	1430	.069	1	
tris(o-cresyl) phosphate	950000	1920000	4370000	8500000	12200000	15100000	25100000	123000	17900	-2.71	.9999	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.32e+004			
a1	1.43e+003			
a2	0.0686			

Correlation coefficient 1.0000
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.86e+004			
a1	8.84e+003			
a2	-1.27			

Correlation coefficient 0.9999
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-6.68e+004			
a1	1.35e+004			
a2	-3.11			

Correlation coefficient 0.9976
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.32e+004			
a1	2.69e+003			
a2	-0.0366			

Correlation coefficient 0.9996
Use Area

Lcen 3/9/10

HMM 03/09/10

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Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-5.04e+003			
a1	1.86e+003			
a2	0.0157			

Correlation coefficient 0.9992
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	1.23e+005			
a1	1.79e+004			
a2	-2.71			

Correlation coefficient 0.9999
Use Area

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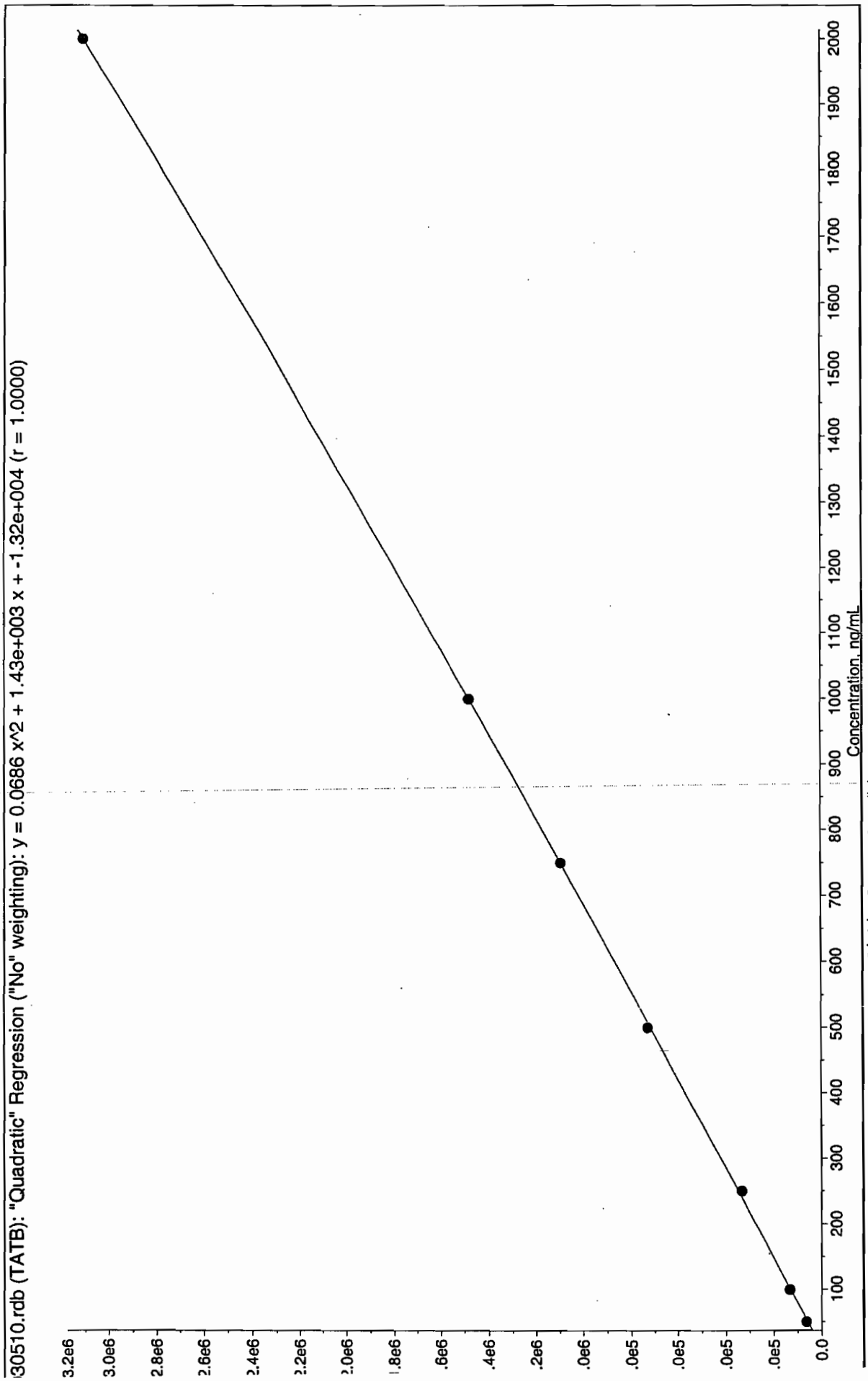

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

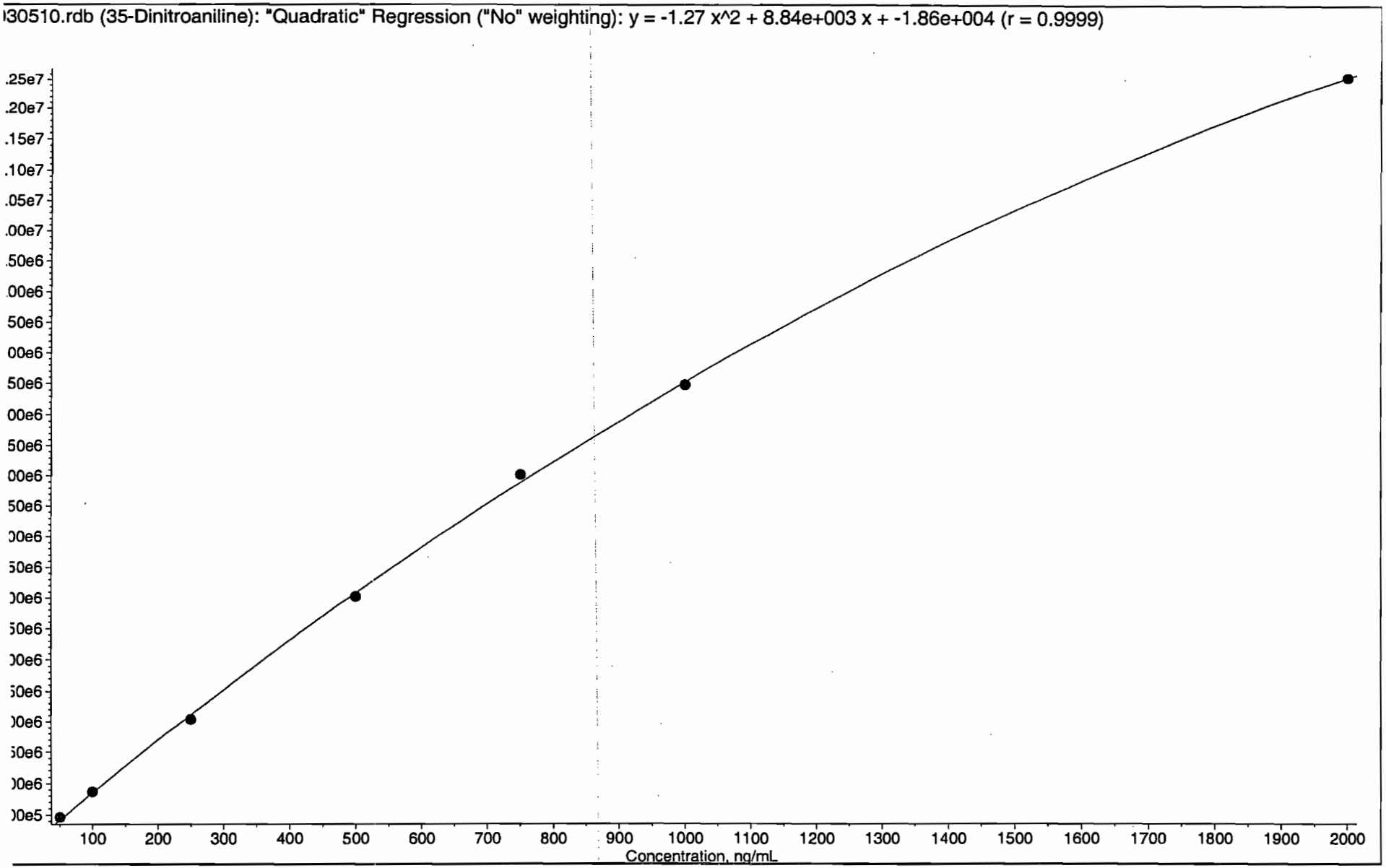

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

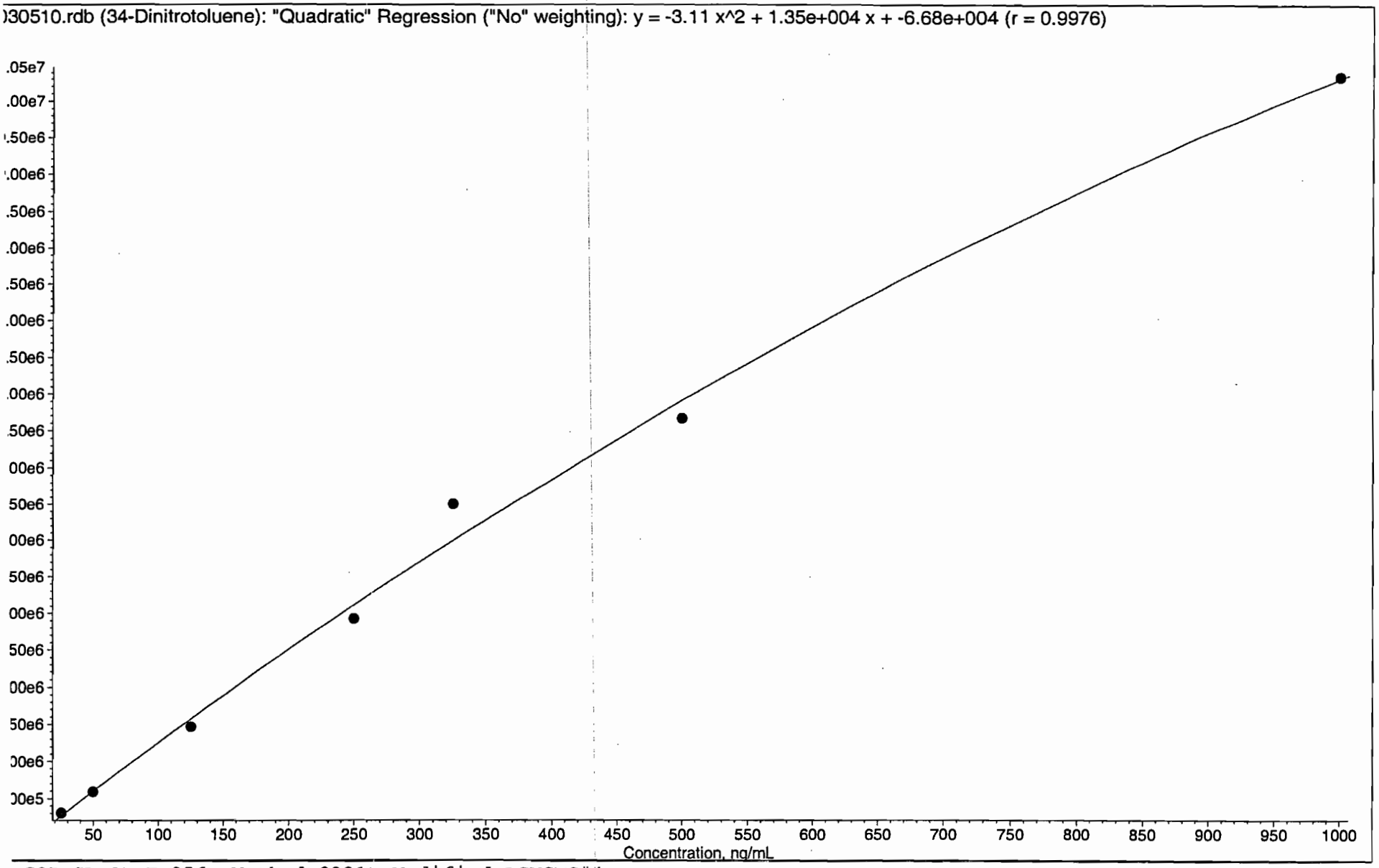

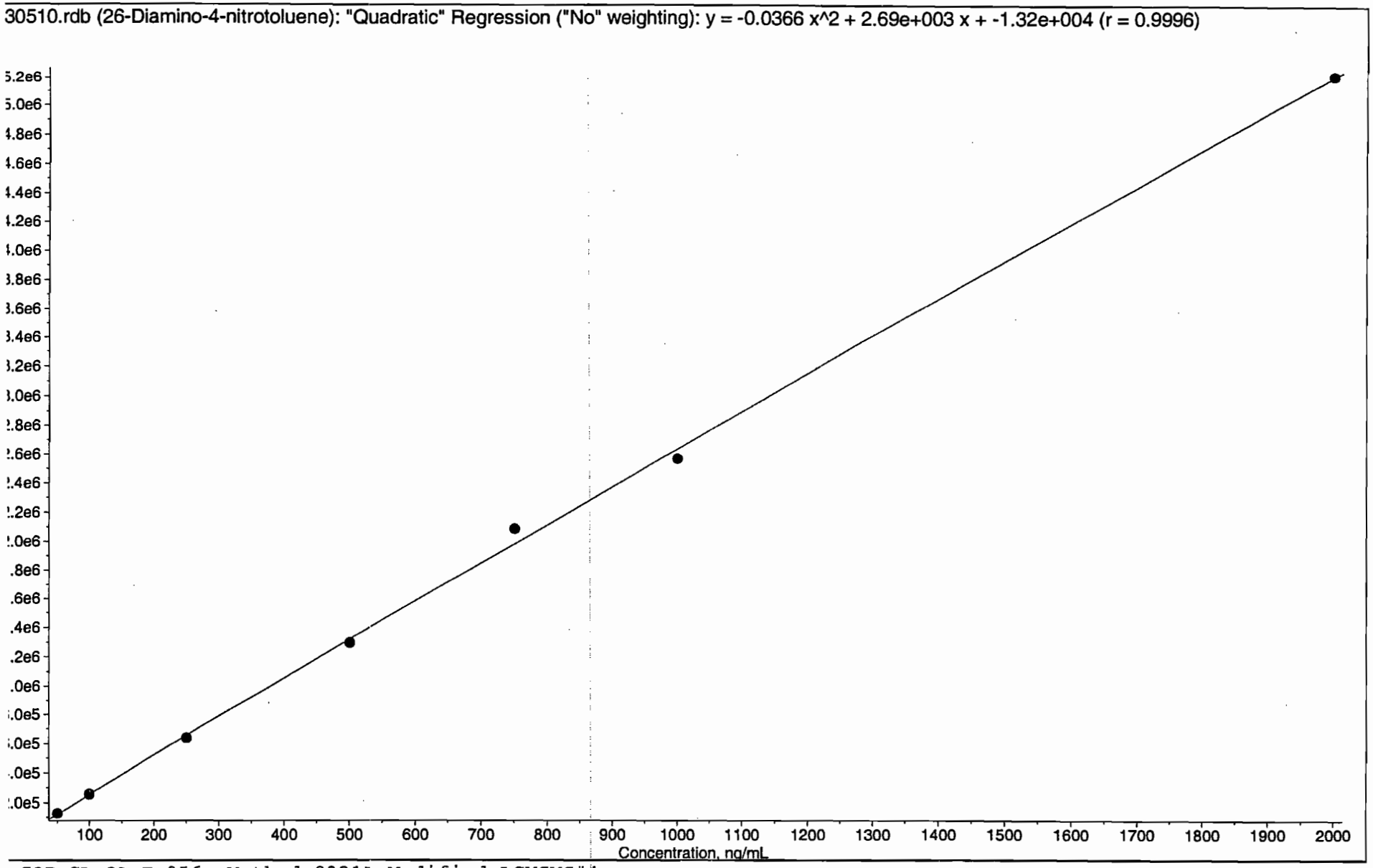

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

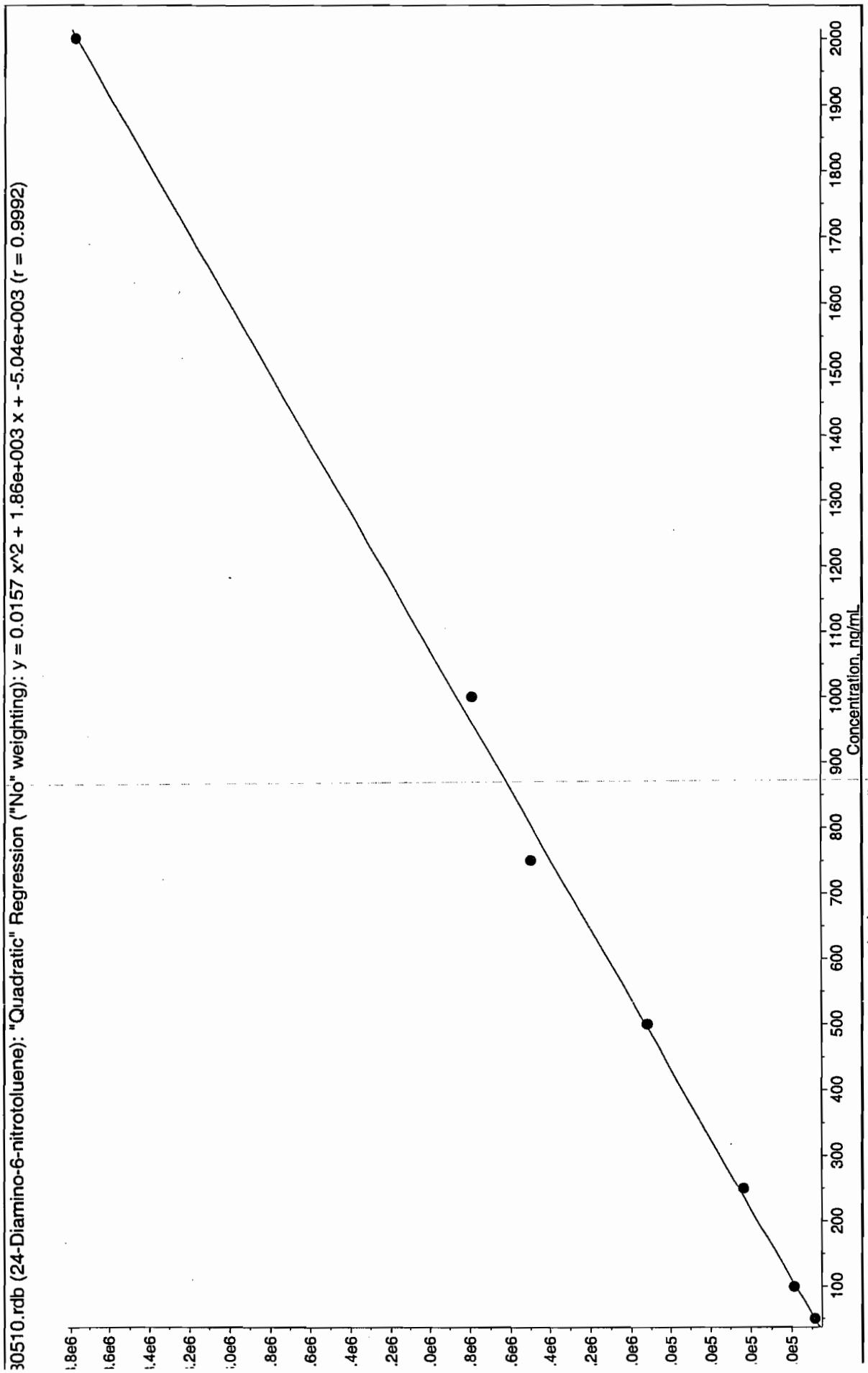

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

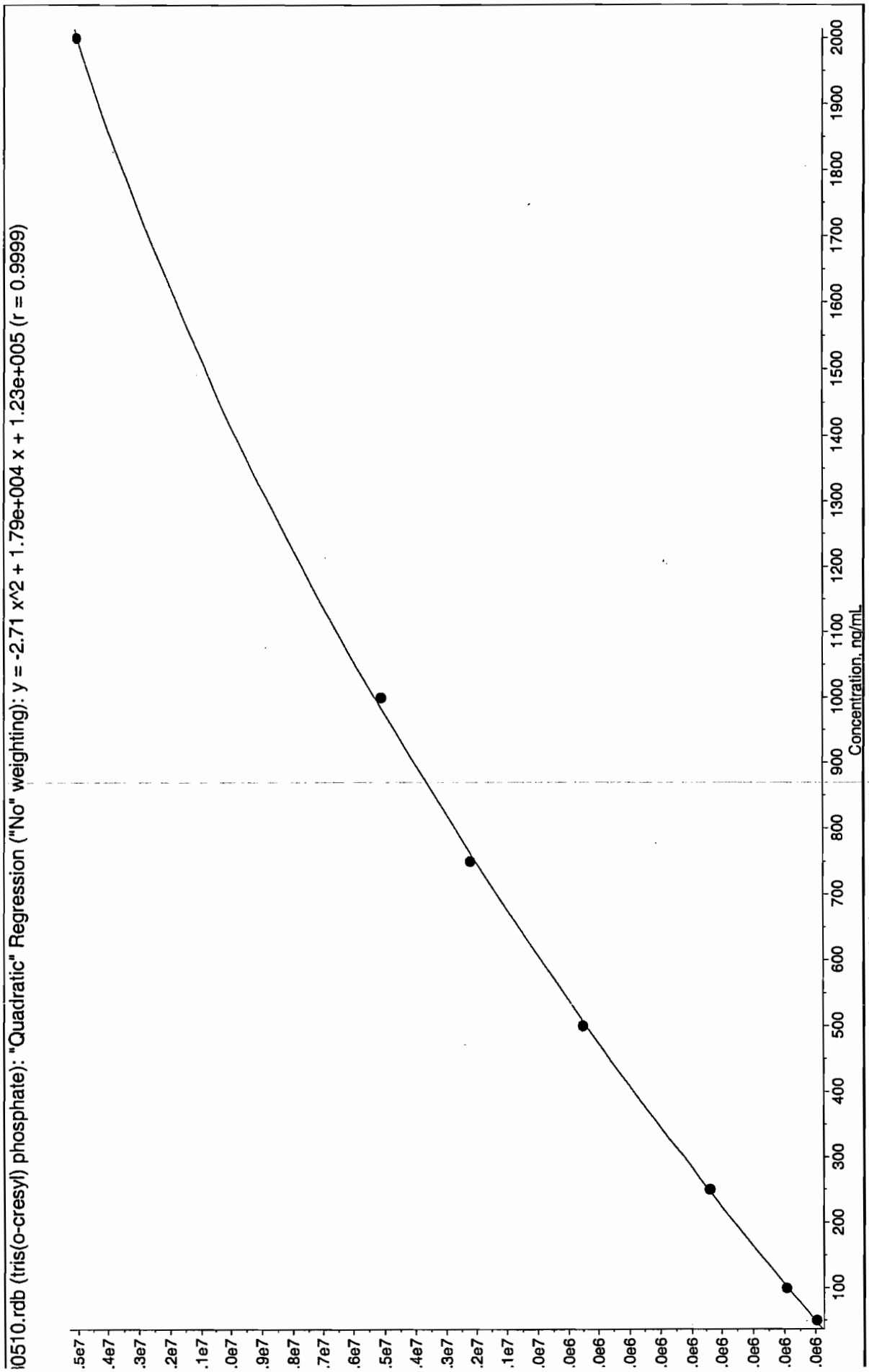

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1898

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS03050011.wiff

Analysis Date: 05-MAR-10 19:44

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	484	97	
2,6-Diamino-4-nitrotoluene	500	507	101	
3,4-Dinitrotoluene	250	230	92	
3,5-Dinitroaniline	500	502	100	
TATB	500	503	101	
tris(o-cresyl) phosphate	500	506	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Run 3/9/10

le Name: "WXX100305-26ICV" Sample ID: "[1]LER" File: "EXS03050011.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_C" Annotation: ""

Index:	1
Type:	QC
tration:	500. ng/mL
ated Conc:	503. ng/mL
ate:	3/5/2010
ime:	7:44:43 PM
ed:	No
Algorithm:	IntelliQuan - IQA
eak Height:	2500.00 cps
eak Width:	0.00 sec
ing Width:	3 points
dow:	30.0 sec
ed RT:	7.00 min
lative RT:	No
ype:	Valley
ion Time:	7.00 min
	7.23e+005 counts
:	166982.193 cps
Time:	6.89 min
me:	7.80 min

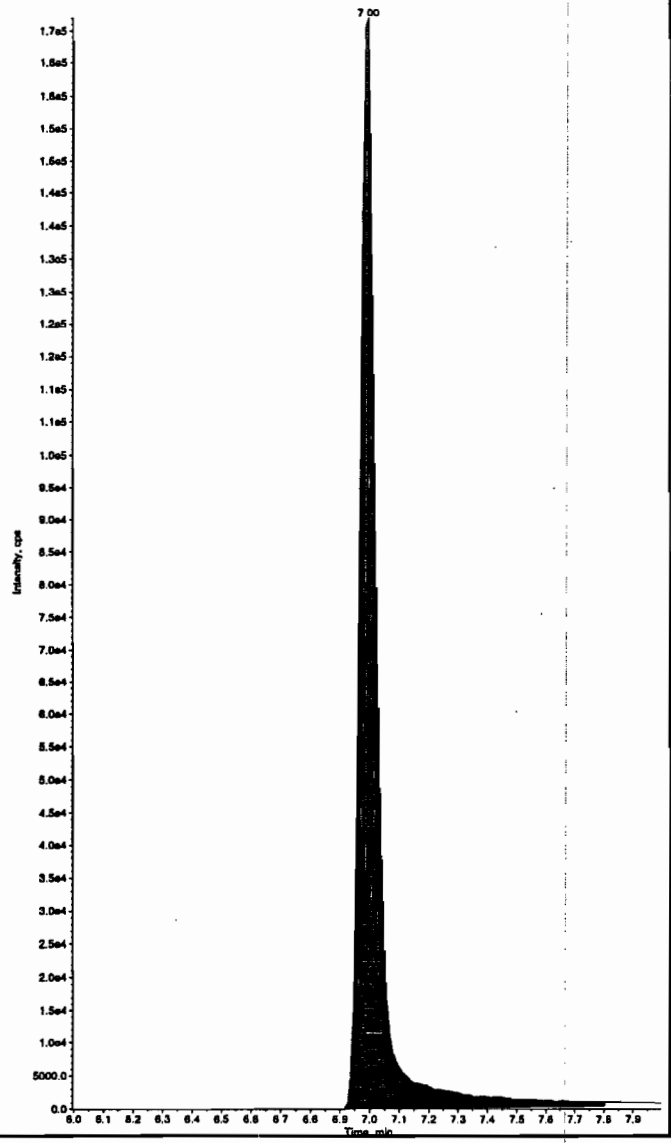

Sample Name: "WXX100305-26ICV" Sample ID: "[1]LER" File: "EXS03050011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	487. ng/mL
Acq. Date:	3/5/2010
Acq. Time:	7:44:43 PM
Modified:	Yes
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	2000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	15.0 sec
Expected RT:	8.17 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	8.23 min
Area:	3.99e+006 counts
Height:	1121243.164 cps
Start Time:	8.15 min
End Time:	8.33 min

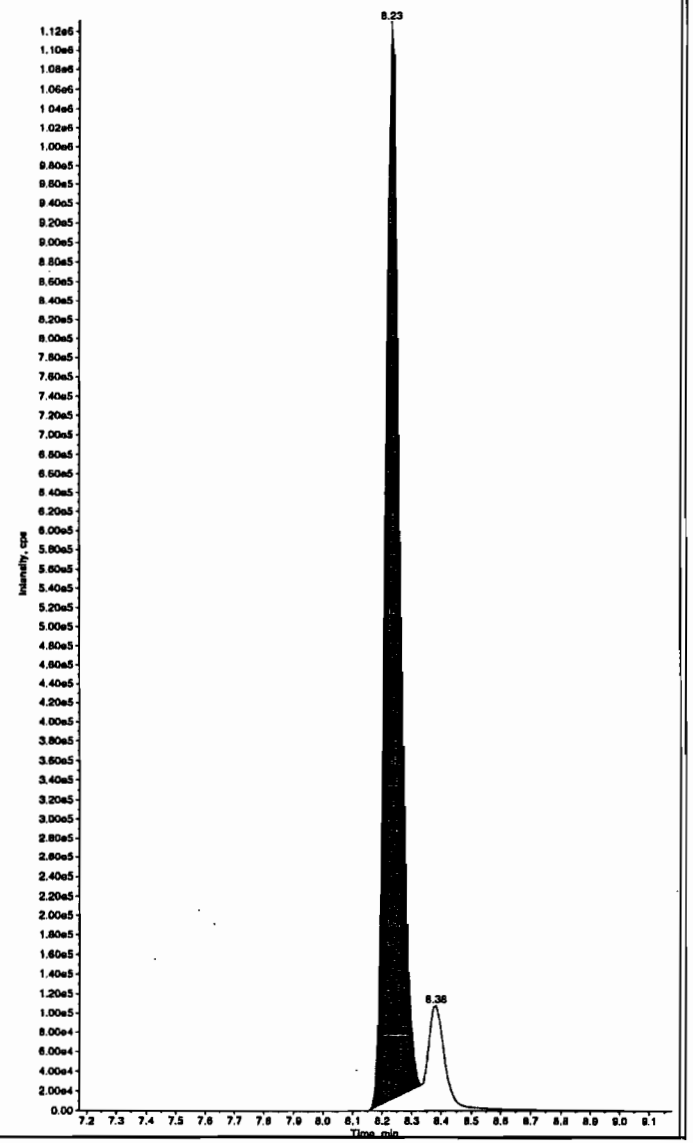

Hnm 03/09/10

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after Dan 3/9/10

e Name: "WXX100305-26ICV" Sample ID: "|1|LER" File: "EXS03050011.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
tration: 500. ng/mL
ated Conc: 503. ng/mL
ate: 3/5/2010
ime: 7:44:43 PM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 2500.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 7.00 min
lative RT: No

ype: Valley
ion Time: 7.00 min
7.23e+005 counts
: 166982.193 cps
Time: 6.89 min
me: 7.80 min

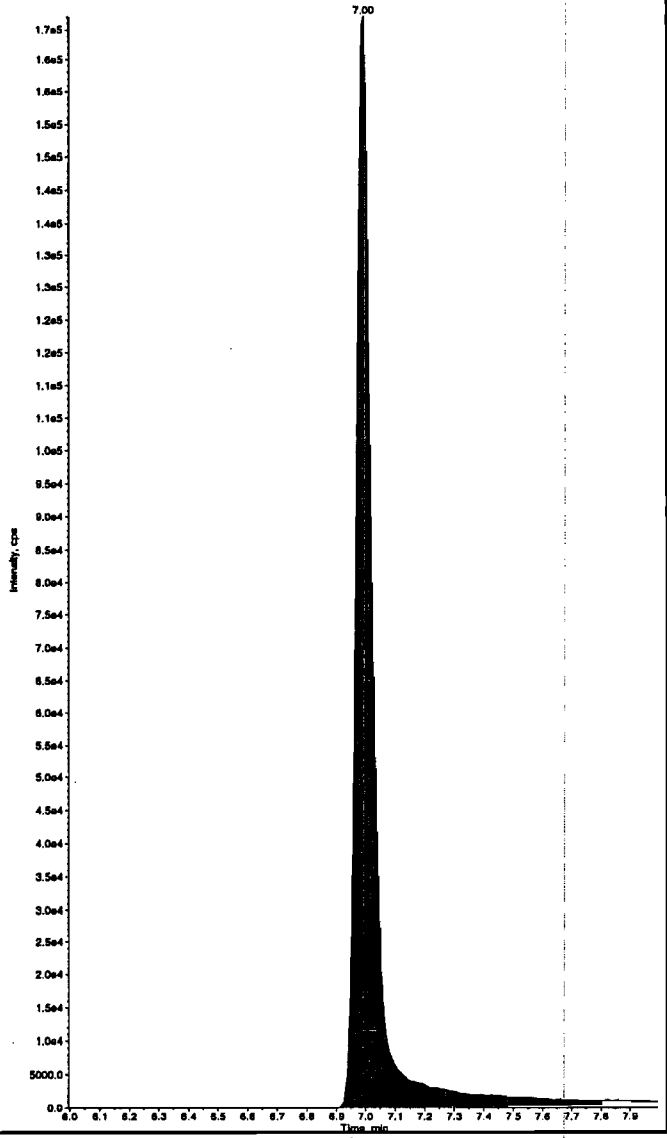

Sample Name: "WXX100305-26ICV" Sample ID: "|1|LER" File: "EXS03050011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 502. ng/mL
Acq. Date: 3/5/2010
Acq. Time: 7:44:43 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.23 min
Area: 4.10e+006 counts
Height: 1140995.391 cps
Start Time: 8.15 min
End Time: 8.33 min

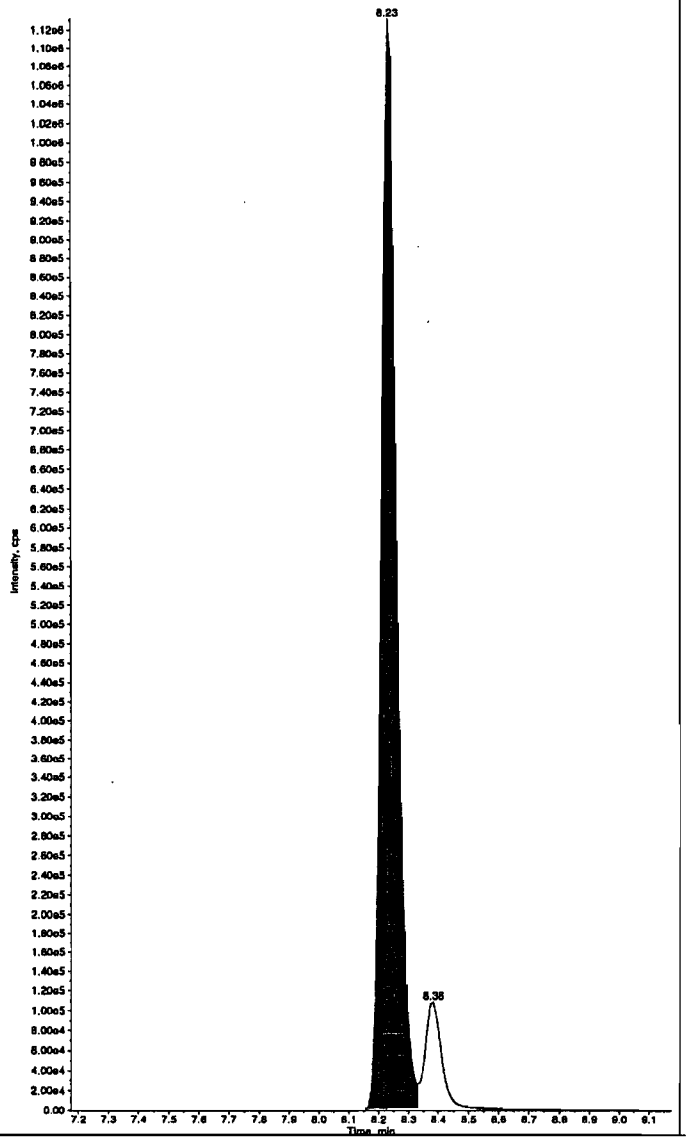

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

le Name: "WXX100305-26ICV" Sample ID: "[1]LER" File: "EXS03050011.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ent: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
tration: 250. ng/mL
ated Conc: 230. ng/mL
ate: 3/5/2010
ime: 7:44:43 PM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 1460.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 8.37 min
lative RT: No

ype: Valley
ion Time: 8.37 min
2.89e+006 counts
: 860204.163 cps
Time: 8.31 min
me: 8.71 min

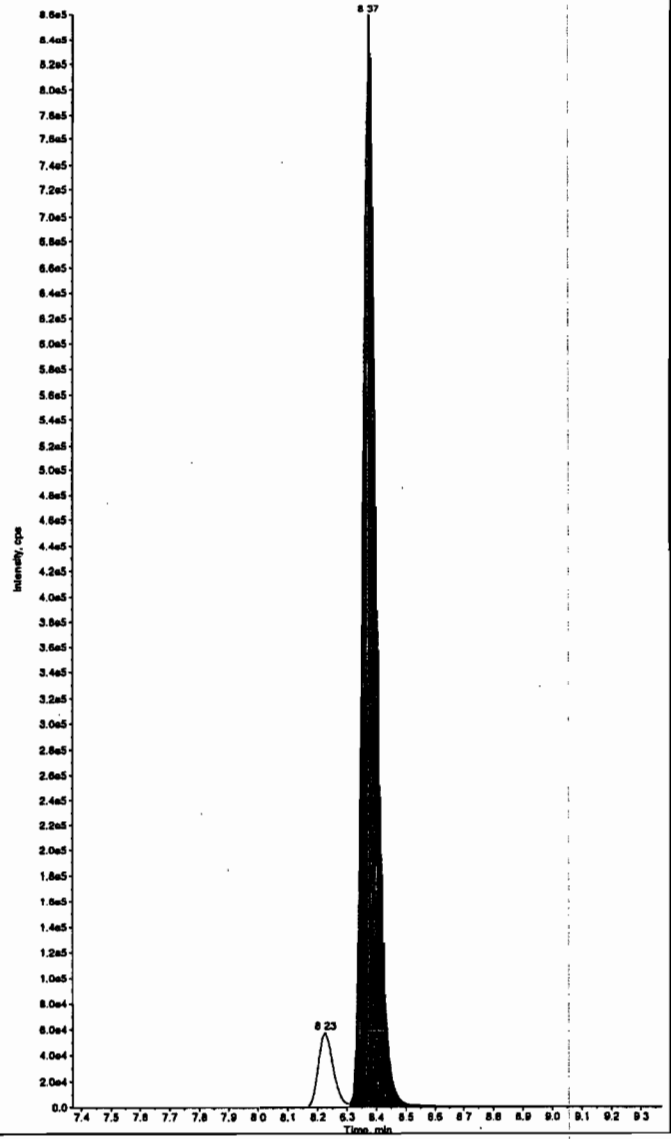

Sample Name: "WXX100305-26ICV" Sample ID: "[1]LER" File: "EXS03050011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 507. ng/mL
Acq. Date: 3/5/2010
Acq. Time: 7:44:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 1.34e+006 counts
Height: 328203.613 cps
Start Time: 4.93 min
End Time: 5.31 min

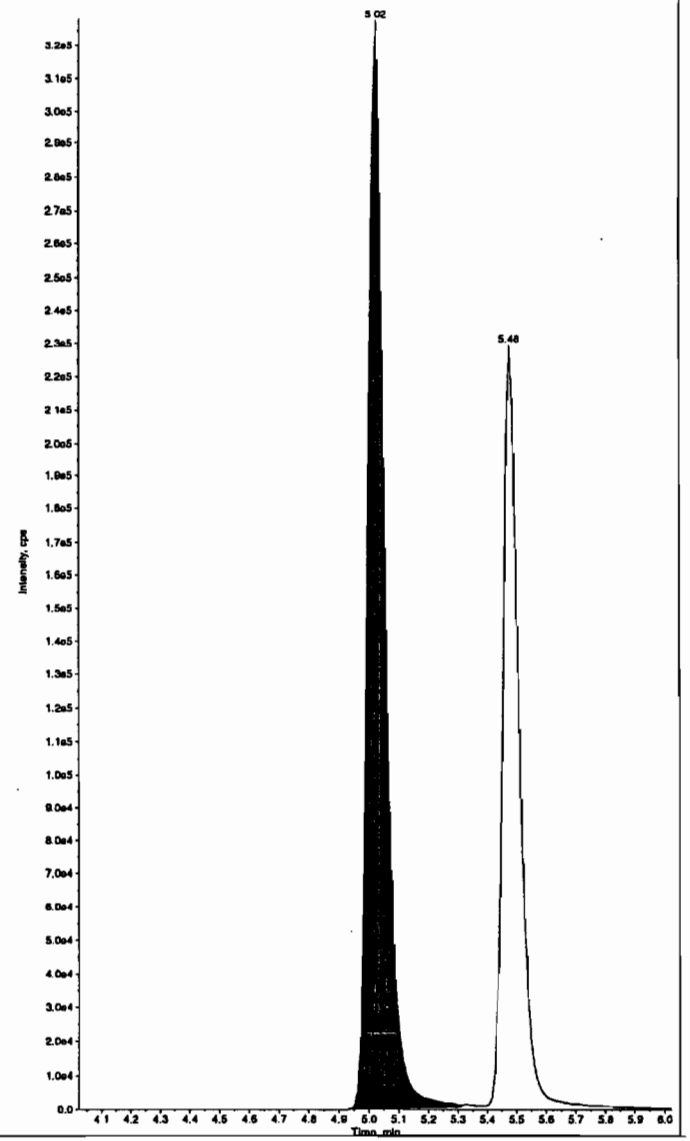

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s Name: "WXX100305-26ICV" Sample ID: "|1|LER" File: "EXS03050011.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
ent: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
tration: 500. ng/mL
ated Conc: 484. ng/mL
ste: 3/5/2010
ime: 7:44:43 PM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 350.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 5.48 min
lative RT: No

ype: Valley
ion Time: 5.48 min
8.98e+005 counts
: 229511.749 cps
Time: 5.39 min
me: 5.99 min

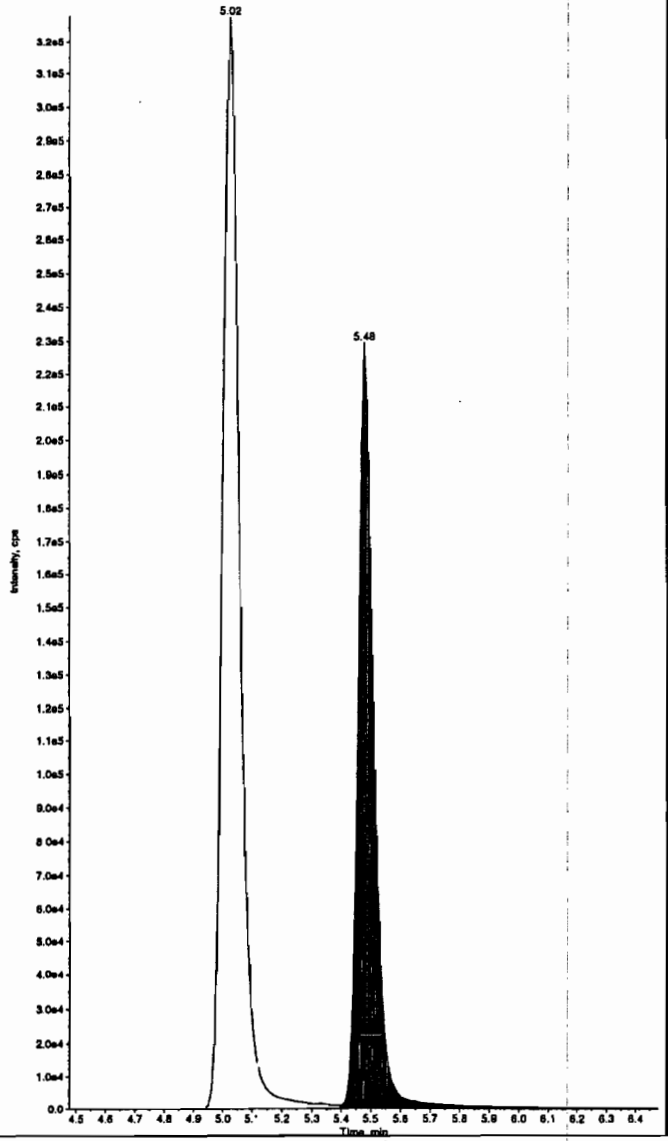

Sample Name: "WXX100305-26ICV" Sample ID: "|1|LER" File: "EXS03050011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 506. ng/mL
Acq. Date: 3/5/2010
Acq. Time: 7:44:43 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 8.48e+006 counts
Height: 2465937.256 cps
Start Time: 10.7 min
End Time: 11.2 min

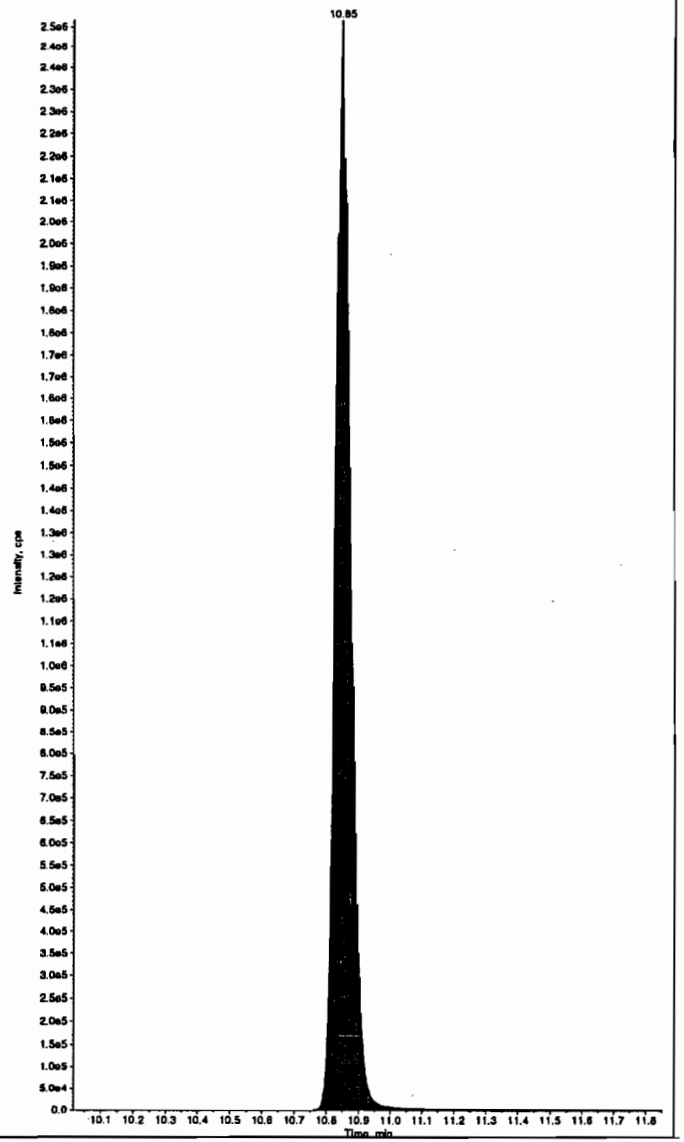

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1898

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0314012a

Analysis Date: 14-MAR-10 20:23

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	45.353	113	
1,3-Dinitrobenzene-d4	500	469.423	94	
2,4,6-Trinitrotoluene	40	36.944	92	
2,4-Dinitrotoluene	40	44.992	112	
2,6-Dinitrotoluene	40	39.604	99	
2,6-Dinitrotoluene-d3	500	507.766	102	
2-Amino-4,6-dinitrotoluene	40	35.068	88	
3,4-Dinitrotoluene	20	17.939	90	
4-Amino-2,6-dinitrotoluene	40	40.541	101	
HMX	40	45.554	114	
Nitrobenzene	40	47.411	119	
PETN	40	41.119	103	
RDX	40	37.369	93	
Tetryl	40	45.238	113	
m-Dinitrobenzene	40	34.726	87	
m-Nitrotoluene	40	52.416	131	*
o-Nitrotoluene	40	43.094	108	
p-Nitrotoluene	40	37.564	94	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314012a
Date: 14-Mar-2010
Time: 20:23:15
ID: WXX100314-08CRI
Vial: 1:1,C

MATT 3/15/10

HMX

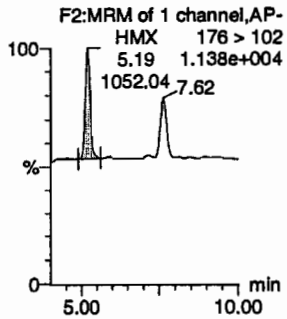

RDX

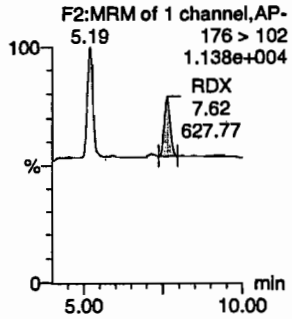

135-Trinitrobenzene

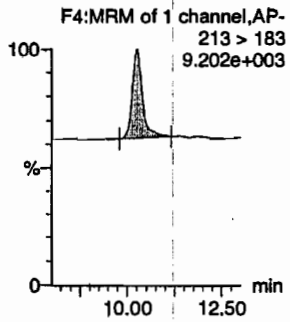

13-Dinitrobenzene-d4

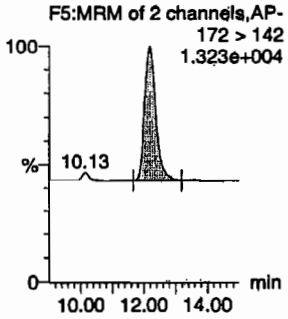

13-Dinitrobenzene

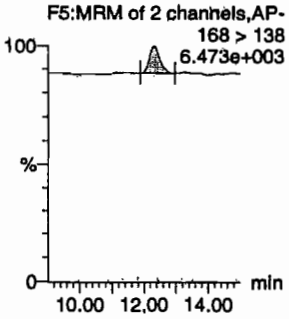

Tetryl

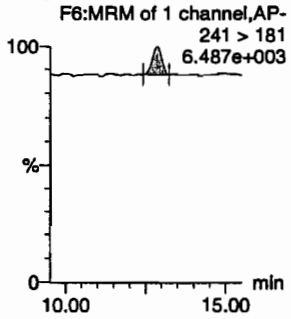

Nitrobenzene

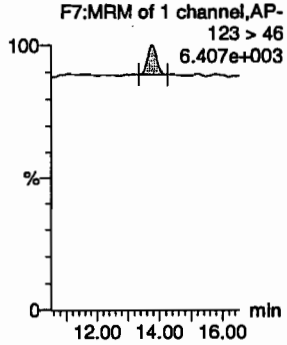

4-Amino-26-dinitrotoluene

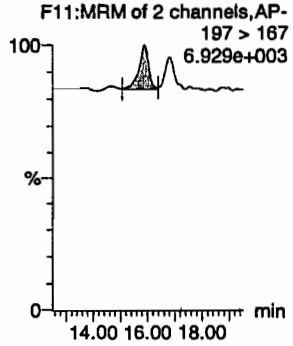

2-Amino-46-dinitrotoluene

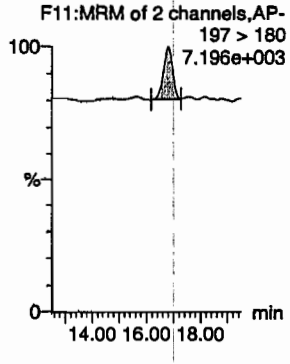

246-Trinitrotoluene

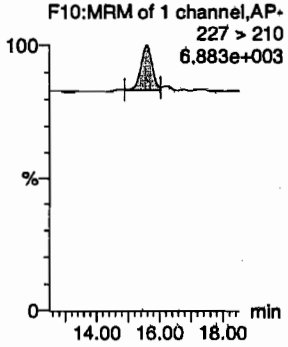

34-dinitrotoluene

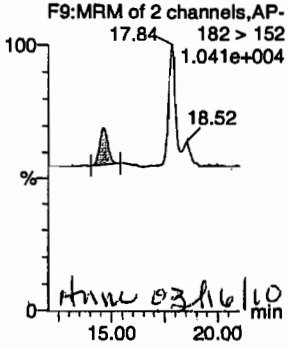

Hmc 03/16/10

26-dinitrotoluene

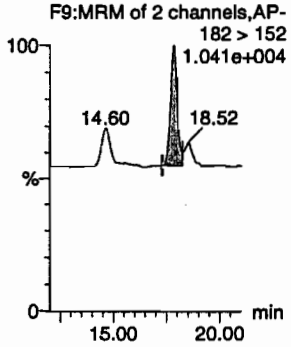

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

24-dinitrotoluene

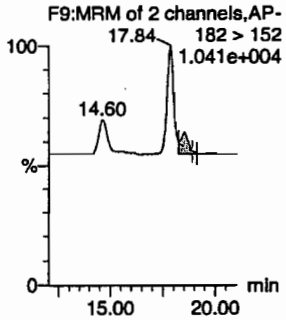

26-dinitrotoluene-d3

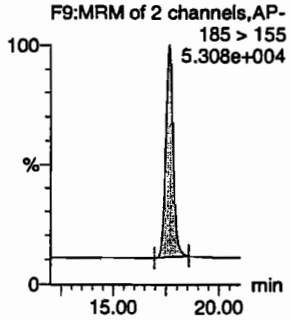

2-Nitrotoluene

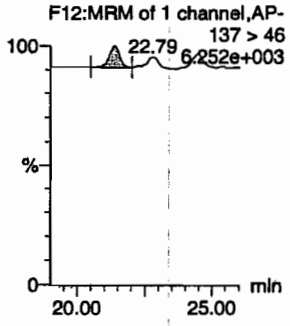

4-Nitrotoluene

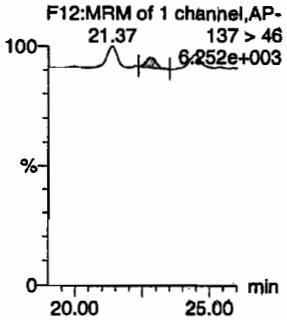

3-Nitrotoluene

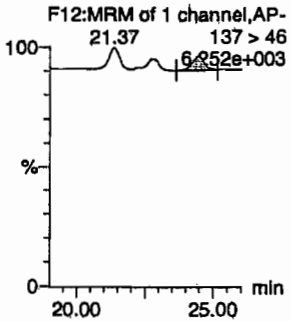

PETN

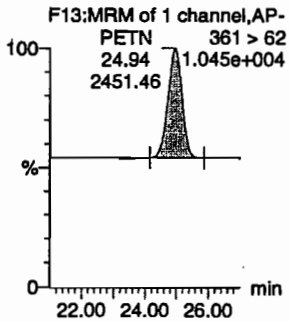

ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100314-08CRI	HMX	176 > 102	5.19	1052.037	3158.691	1052.037	166.531	bb			45.5535	113.9	13.9	86.2
WXX100314-08CRI	RDX	176 > 102	7.62	627.766	3158.691	627.766	99.371	bb			37.3690	93.4	-6.6	46.0
WXX100314-08CRI	135-Trinitrobenzene	213 > 183	10.27	1054.332	3158.691	1054.332	166.894	bb			45.3525	113.4	13.4	111.1
WXX100314-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	3158.691		3158.691	3158.691	bb			469.4227	93.9	-6.1	347.5
WXX100314-08CRI	13-Dinitrobenzene	168 > 138	12.31	291.450	3158.691	291.450	46.135	bb			34.7259	86.8	-13.2	32.0
WXX100314-08CRI	Tetryl	241 > 181	12.87	270.707	3158.691	270.707	42.851	bb			45.2383	113.1	13.1	47.0
WXX100314-08CRI	Nitrobenzene	123 > 46	13.76	245.701	3158.691	245.701	38.893	bb			47.4108	118.5	18.5	19.6
WXX100314-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.89	488.379	19351.625	488.379	12.619	MM	15-Mar-10	10:07:09	40.5413	101.4	1.4	26.9
WXX100314-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.79	557.705	19351.625	557.705	14.410	bb			35.0675	87.7	-12.3	31.2
WXX100314-08CRI	246-Trinitrotoluene	227 > 210	15.58	487.691	19351.625	487.691	12.601	dd			36.9441	92.4	-7.6	27.3
WXX100314-08CRI	34-dinitrotoluene	182 > 152	14.60	669.473	19351.625	669.473	17.298	bb			17.9388	89.7	-10.3	77.1
WXX100314-08CRI	26-dinitrotoluene	182 > 152	17.84	1724.533	19351.625	1724.533	44.558	MM	15-Mar-10	10:10:06	39.6042	99.0	-1.0	249.5
WXX100314-08CRI	24-dinitrotoluene	182 > 152	18.52	417.081	19351.625	417.081	10.776	MM	15-Mar-10	10:13:19	44.9924	112.5	12.5	50.3
WXX100314-08CRI	26-dinitrotoluene-d3	185 > 155	17.64	19351.625		19351.625	19351.625	bb			507.7662	101.6	1.6	1621.3
WXX100314-08CRI	2-Nitrotoluene	137 > 46	21.37	253.096	19351.625	253.096	6.539	bb			43.0939	107.7	7.7	32.0
WXX100314-08CRI	4-Nitrotoluene	137 > 46	22.79	111.157	19351.625	111.157	2.872	bb			37.5644	93.9	-6.1	14.6
WXX100314-08CRI	3-Nitrotoluene	137 > 46	24.46	185.527	19351.625	185.527	4.794	bb			52.4163	131.0	31.0	20.5
WXX100314-08CRI	PETN	361 > 62	24.94	2451.459	19351.625	2451.459	63.340	bb			41.1187	102.8	2.8	502.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/14/10
Time of Injection	2023
Standard Number	WXX100314-08CRI
Data File	EXP0314012a

HMX	113.9
RDX	93.4
135-TNB	113.4
13-DNB	86.8
Tetryl	113.1
Nitrobenzene	118.5
4A-26-DNT	101.4
2A-46-DNT	87.7
246-TNT	92.4
34-DNT(surr)	89.7
26-DNT	99.0
24-DNT	112.5
2-NT	107.7
4-NT	93.9
3-NT	131.0
PETN	102.8
Total	1657.2
Average	103.6

HMM 03/16/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1898

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0314023a

Analysis Date: 15–MAR–10 01:47

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	562.341	94	
1,3–Dinitrobenzene–d4	500	504.22	101	
2,4,6–Trinitrotoluene	600	632.951	105	
2,4–Dinitrotoluene	600	641.749	107	
2,6–Dinitrotoluene	600	629.098	105	
2,6–Dinitrotoluene–d3	500	542.493	108	
2–Amino–4,6–dinitrotoluene	600	610.437	102	
3,4–Dinitrotoluene	300	302.639	101	
4–Amino–2,6–dinitrotoluene	600	562.733	94	
HMX	600	609.823	102	
Nitrobenzene	600	631.179	105	
PETN	600	603.16	101	
RDX	600	680.646	113	
Tetryl	600	623.98	104	
m–Dinitrobenzene	600	569.786	95	
m–Nitrotoluene	600	571.208	95	
o–Nitrotoluene	600	576.388	96	
p–Nitrotoluene	600	572.801	95	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314023a
Date: 15-Mar-2010
Time: 01:47:26
ID: WXX100314-07CCV
Vial: 1:1,B

MATT 3/15/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
8.233e+004

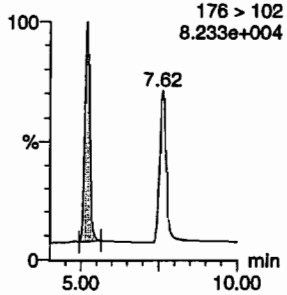

RDX
F2:MRM of 1 channel,AP-
176 > 102
8.233e+004

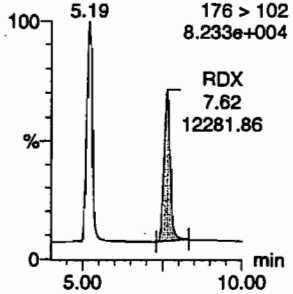

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.549e+004

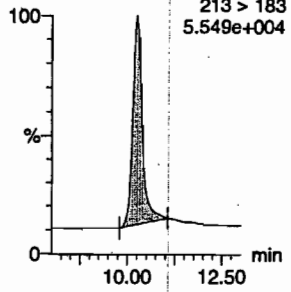

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.405e+004

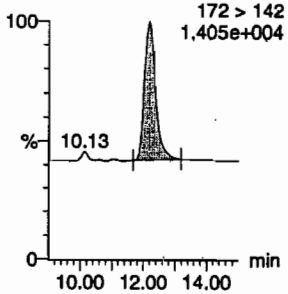

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.909e+004

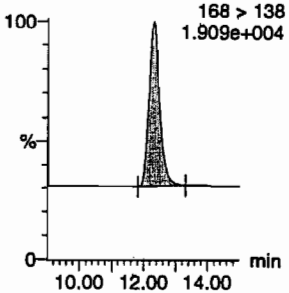

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.686e+004

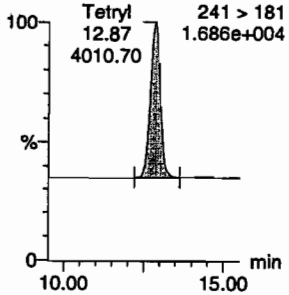

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.570e+004

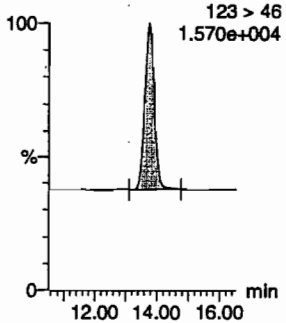

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.314e+004

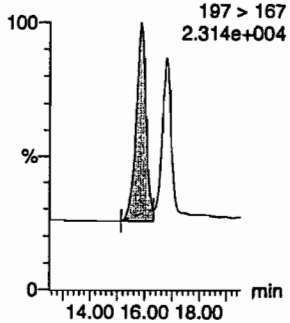

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.241e+004

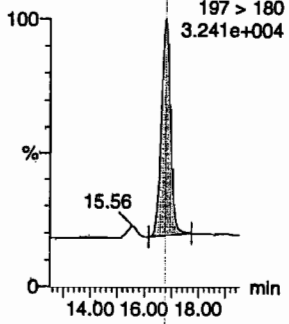

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.601e+004

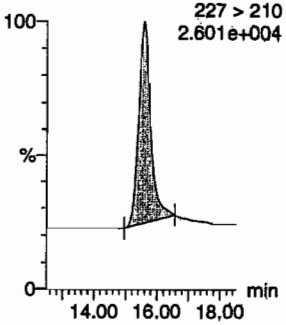

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
8.093e+004

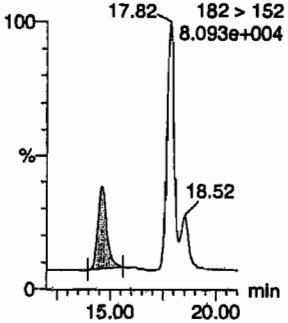

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
8.093e+004

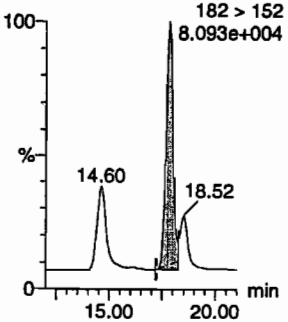

Hinks 03/16/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

24-dinitrotoluene

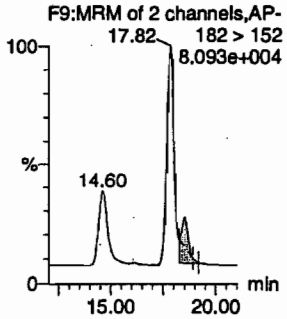

26-dinitrotoluene-d3

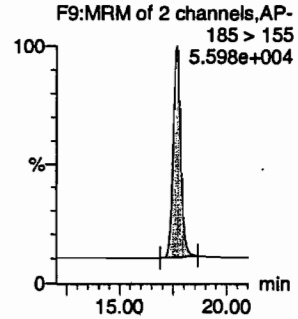

2-Nitrotoluene

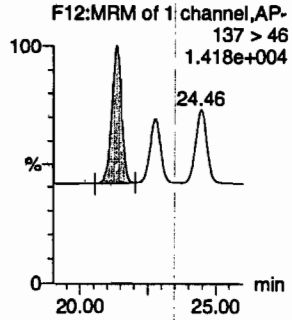

4-Nitrotoluene

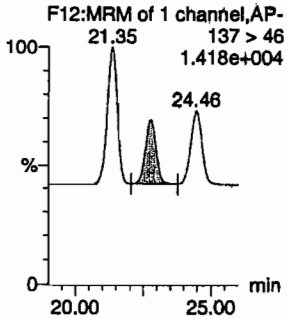

3-Nitrotoluene

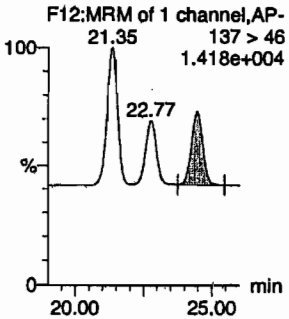

PETN

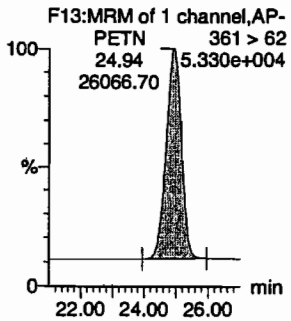

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100314-07CCV	HMX	176 > 102	5.19	15127.549	3392.838	15127.549	2229.336	bb			609.8230	101.6	1.6	1747.6
WXX100314-07CCV	RDX	176 > 102	7.62	12281.855	3392.838	12281.855	1809.968	bb			680.6463	113.4	13.4	1203.2
WXX100314-07CCV	135-Trinitrobenzene	213 > 183	10.25	14042.084	3392.838	14042.084	2069.371	bb			562.3406	93.7	-6.3	803.9
WXX100314-07CCV	13-Dinitrobenzene-d4	172 > 142	12.17	3392.838		3392.838	3392.838	bb			504.2200	100.8	0.8	205.9
WXX100314-07CCV	13-Dinitrobenzene	168 > 138	12.31	5136.632	3392.838	5136.632	756.982	bb			569.7856	95.0	-5.0	547.7
WXX100314-07CCV	Tetryl	241 > 181	12.87	4010.702	3392.838	4010.702	591.054	bb			623.9802	104.0	4.0	229.2
WXX100314-07CCV	Nitrobenzene	123 > 46	13.76	3513.482	3392.838	3513.482	517.779	bb			631.1788	105.2	5.2	414.0
WXX100314-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.86	7242.553	20675.094	7242.553	175.152	MM	15-Mar-10	10:07:31	562.7325	93.8	-6.2	270.2
WXX100314-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.79	10372.188	20675.094	10372.188	250.838	bb			610.4366	101.7	1.7	549.4
WXX100314-07CCV	246-Trinitrotoluene	227 > 210	15.58	8926.890	20675.094	8926.890	215.885	bb			632.9508	105.5	5.5	163.1
WXX100314-07CCV	34-dinitrotoluene	182 > 152	14.60	12066.827	20675.094	12066.827	291.820	bb			302.6385	100.9	0.9	221.2
WXX100314-07CCV	26-dinitrotoluene	182 > 152	17.82	29267.027	20675.094	29267.027	707.785	MM	15-Mar-10	10:10:29	629.0981	104.8	4.8	669.9
WXX100314-07CCV	24-dinitrotoluene	182 > 152	18.52	6355.896	20675.094	6355.896	153.709	MM	15-Mar-10	10:13:38	641.7495	107.0	7.0	138.3
WXX100314-07CCV	26-dinitrotoluene-d3	185 > 155	17.64	20675.094		20675.094	20675.094	bb			542.4927	108.5	8.5	2278.9
WXX100314-07CCV	2-Nitrotoluene	137 > 46	21.35	3616.718	20675.094	3616.718	87.466	bb			576.3884	96.1	-3.9	532.9
WXX100314-07CCV	4-Nitrotoluene	137 > 46	22.77	1810.897	20675.094	1810.897	43.794	bb			572.8006	95.5	-4.5	251.8
WXX100314-07CCV	3-Nitrotoluene	137 > 46	24.46	2160.054	20675.094	2160.054	52.238	bb			571.2076	95.2	-4.8	288.3
WXX100314-07CCV	PETN	361 > 62	24.94	26066.695	20675.094	26066.695	630.389	bb			603.1603	100.5	0.5	5438.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/15/10
Time of Injection: 0147
Standard Number: WXX100314-07CCV
Data File: EXP0314023a

HMX		101.6
RDX		113.4
135-TNB		93.7
13-DNB		95.0
Tetryl		104.0
Nitrobenzene		105.2
4A-26-DNT		93.8
2A-46-DNT		101.7
246-TNT		105.5
34-DNT(surr)		100.9
26-DNT		104.8
24-DNT		107.0
2-NT		96.1
4-NT		95.5
3-NT		95.2
PETN		100.5
Total		1613.9
Average		100.9

MTP 3/15/10

Hmm 03/16/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1898

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0314025a

Analysis Date: 15-MAR-10 02:46

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
HMX	40	44.421	111	
Nitrobenzene	40	36.612	92	
PETN	40	36.431	91	
RDX	40	40.127	100	
Tetryl	40	45.808	115	
m-Dinitrobenzene	40	44.086	110	
m-Nitrotoluene	40	49.167	123	
o-Nitrotoluene	40	38.212	96	
p-Nitrotoluene	40	48.579	121	
1,3,5-Trinitrobenzene	40	50.069	125	
1,3-Dinitrobenzene-d4	500	524.134	105	
2,4,6-Trinitrotoluene	40	38.531	96	
2,4-Dinitrotoluene	40	40.483	101	
2,6-Dinitrotoluene	40	40.862	102	
2,6-Dinitrotoluene-d3	500	567.612	114	
2-Amino-4,6-dinitrotoluene	40	37.43	94	
3,4-Dinitrotoluene	20	16.97	85	
4-Amino-2,6-dinitrotoluene	40	43.966	110	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314025a
Date: 15-Mar-2010
Time: 02:46:30
ID: WXX100314-08CRI
Vial: 1:1,C

MAT 3/15/10

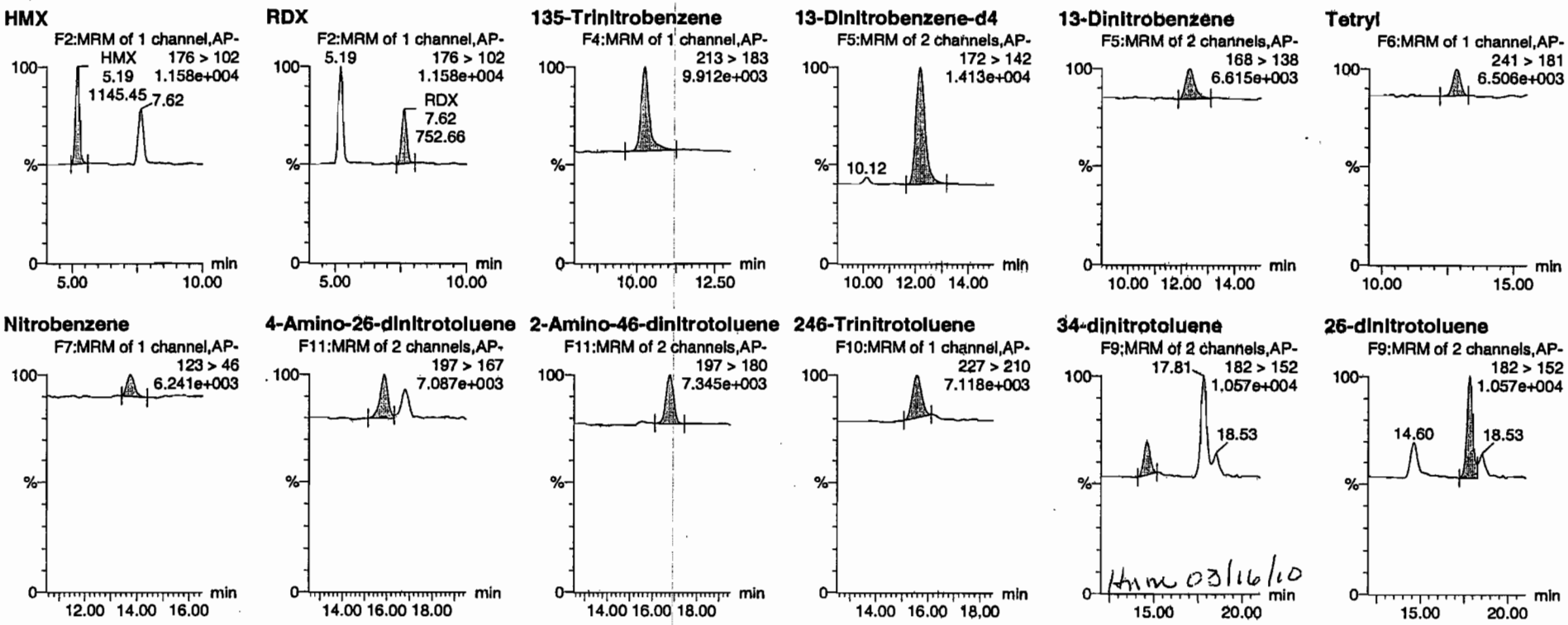

HMM 03/16/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

24-dinitrotoluene

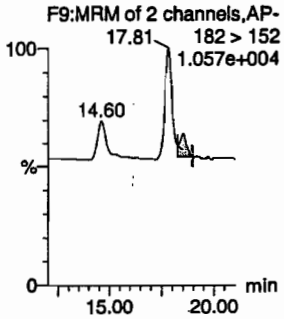

26-dinitrotoluene-d3

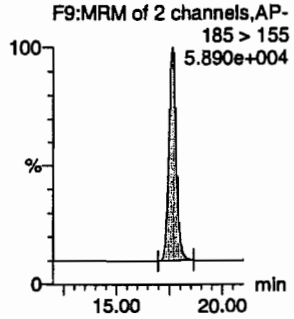

2-Nitrotoluene

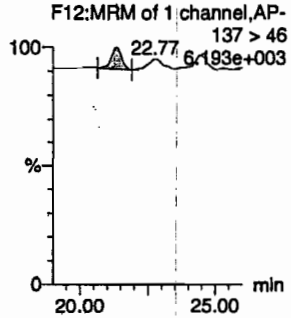

4-Nitrotoluene

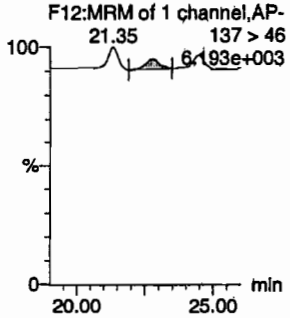

3-Nitrotoluene

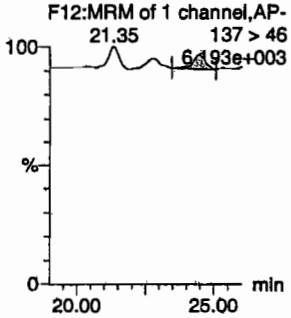

PETN

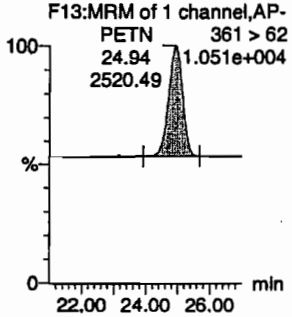

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100314-08CRI	HMX	176 > 102	5.19	1145.450	3526.837	1145.450	162.391	bb			44.4211	111.1	11.1	171.9
WXX100314-08CRI	RDX	176 > 102	7.62	752.662	3526.837	752.662	106.705	bb			40.1269	100.3	0.3	97.9
WXX100314-08CRI	135-Trinitrobenzene	213 > 183	10.25	1299.630	3526.837	1299.630	184.249	bb			50.0686	125.2	25.2	240.0
WXX100314-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	3526.837		3526.837	3526.837	bb			524.1340	104.8	4.8	185.8
WXX100314-08CRI	13-Dinitrobenzene	168 > 138	12.31	413.131	3526.837	413.131	58.570	bb			44.0858	110.2	10.2	49.6
WXX100314-08CRI	Tetryl	241 > 181	12.82	306.066	3526.837	306.066	43.391	bb			45.8082	114.5	14.5	23.8
WXX100314-08CRI	Nitrobenzene	123 > 46	13.76	211.853	3526.837	211.853	30.034	bb			36.6123	91.5	-8.5	14.8
WXX100314-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.86	592.052	21632.408	592.052	13.684	MM	15-Mar-10	10:07:38	43.9656	109.9	9.9	60.7
WXX100314-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.78	665.430	21632.408	665.430	15.380	bb			37.4296	93.6	-6.4	51.8
WXX100314-08CRI	246-Trinitrotoluene	227 > 210	15.58	568.581	21632.408	568.581	13.142	bb			38.5305	96.3	-3.7	105.8
WXX100314-08CRI	34-dinitrotoluene	182 > 152	14.60	707.952	21632.408	707.952	16.363	bb			16.9698	84.8	-15.2	30.2
WXX100314-08CRI	26-dinitrotoluene	182 > 152	17.81	1989.013	21632.408	1989.013	45.973	MM	15-Mar-10	10:10:41	40.8620	102.2	2.2	91.1
WXX100314-08CRI	24-dinitrotoluene	182 > 152	18.53	419.512	21632.408	419.512	9.696	MM	15-Mar-10	10:13:51	40.4833	101.2	1.2	19.8
WXX100314-08CRI	26-dinitrotoluene-d3	185 > 155	17.64	21632.408		21632.408	21632.408	bb			567.6116	113.5	13.5	1412.3
WXX100314-08CRI	2-Nitrotoluene	137 > 46	21.35	250.877	21632.408	250.877	5.799	bb			38.2124	95.5	-4.5	59.9
WXX100314-08CRI	4-Nitrotoluene	137 > 46	22.77	160.691	21632.408	160.691	3.714	bb			48.5785	121.4	21.4	28.4
WXX100314-08CRI	3-Nitrotoluene	137 > 46	24.45	194.536	21632.408	194.536	4.496	bb			49.1668	122.9	22.9	38.2
WXX100314-08CRI	PETN	361 > 62	24.94	2520.485	21632.408	2520.485	58.257	bb			36.4306	91.1	-8.9	1426.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/15/10
Time of Injection	0246
Standard Number	WXX100314-08CRI
Data File	EXP0314025a

HMX	111.1
RDX	100.3
135-TNB	125.2
13-DNB	110.2
Tetryl	114.5
Nitrobenzene	91.5
4A-26-DNT	109.9
2A-46-DNT	93.6
246-TNT	96.3
34-DNT(surr)	84.8
26-DNT	102.2
24-DNT	101.2
2-NT	95.5
4-NT	121.4
3-NT	122.9
PETN	91.1
Total	1671.7
Average	104.5

MHP 3/15/10

HMK 03/16/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1898

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0314036a

Analysis Date: 15–MAR–10 08:10

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2–Amino–4,6–dinitrotoluene	600	608.331	101	
3,4–Dinitrotoluene	300	325.574	109	
4–Amino–2,6–dinitrotoluene	600	590.851	98	
HMX	600	632.345	105	
Nitrobenzene	600	569.416	95	
PETN	600	689.279	115	
RDX	600	722.585	120	*
Tetryl	600	579.696	97	
m–Dinitrobenzene	600	560.181	93	
m–Nitrotoluene	600	561.892	94	
o–Nitrotoluene	600	556.526	93	
p–Nitrotoluene	600	547.013	91	
1,3,5–Trinitrobenzene	600	609.929	102	
1,3–Dinitrobenzene–d4	500	517.182	103	
2,4,6–Trinitrotoluene	600	642.971	107	
2,4–Dinitrotoluene	600	669.08	112	
2,6–Dinitrotoluene	600	616.33	103	
2,6–Dinitrotoluene–d3	500	508.481	102	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314036a
Date: 15-Mar-2010
Time: 08:10:45
ID: WXX100314-07CCV
Vial: 1:1,B

MAP 3/15/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
8.743e+004

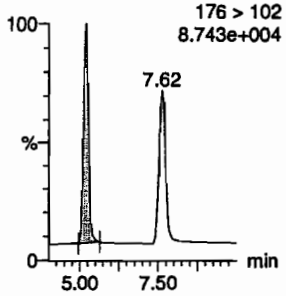

RDX
F2:MRM of 1 channel,AP-
176 > 102
8.743e+004

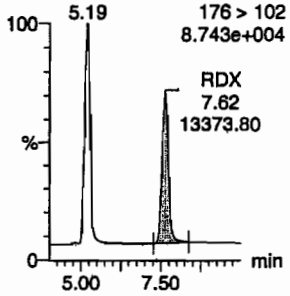

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.941e+004

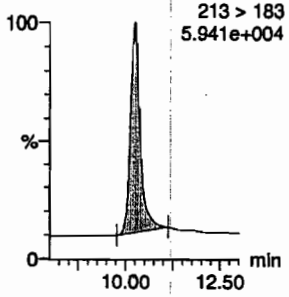

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.419e+004

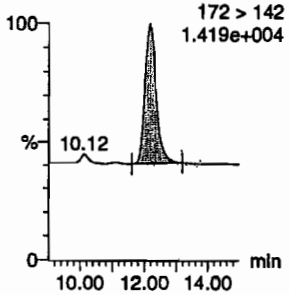

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.882e+004

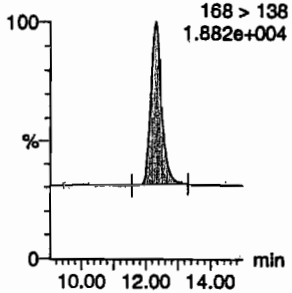

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.615e+004

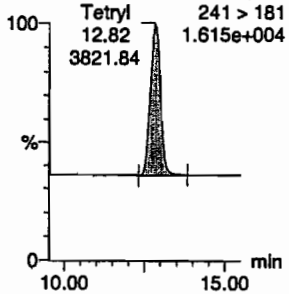

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.507e+004

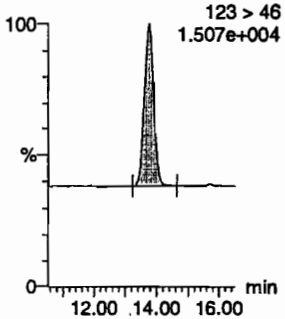

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.278e+004

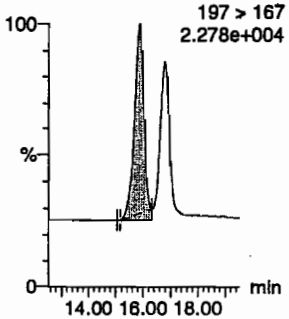

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.061e+004

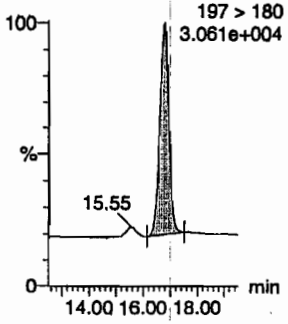

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.538e+004

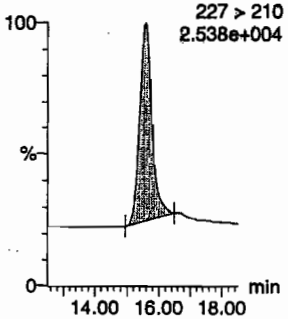

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.449e+004

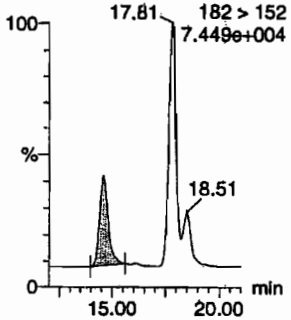

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.449e+004

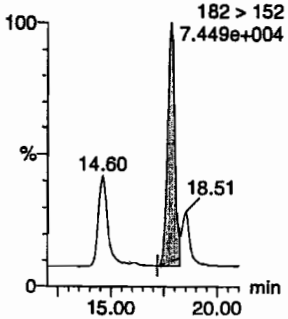

thmw 03/16/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

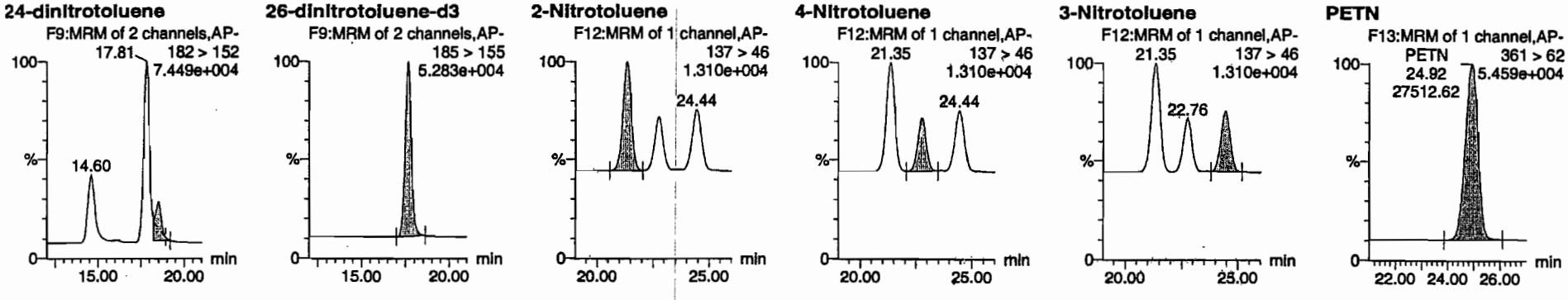

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100314-07CCV	HMX	176 > 102	5.19	16089.472	3480.057	16089.472	2311.668	bb			632.3446	105.4	5.4	2178.1
WXX100314-07CCV	RDX	176 > 102	7.62	13373.795	3480.057	13373.795	1921.491	bb			722.5851	120.4	20.4	1528.2
WXX100314-07CCV	135-Trinitrobenzene	213 > 183	10.25	15621.933	3480.057	15621.933	2244.494	bb			609.9292	101.7	1.7	1037.5
WXX100314-07CCV	13-Dinitrobenzene-d4	172 > 142	12.17	3480.057		3480.057	3480.057	bb			517.1819	103.4	3.4	302.9
WXX100314-07CCV	13-Dinitrobenzene	168 > 138	12.31	5179.870	3480.057	5179.870	744.222	bb			560.1814	93.4	-6.6	527.2
WXX100314-07CCV	Tetryl	241 > 181	12.82	3821.845	3480.057	3821.845	549.107	bb			579.6960	96.6	-3.4	223.1
WXX100314-07CCV	Nitrobenzene	123 > 46	13.75	3251.162	3480.057	3251.162	467.113	bb			569.4165	94.9	-5.1	209.8
WXX100314-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.86	7127.687	19378.883	7127.687	183.903	MM	15-Mar-10	10:08:21	590.8506	98.5	-1.5	383.7
WXX100314-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.78	9688.370	19378.883	9688.370	249.972	bb			608.3306	101.4	1.4	926.7
WXX100314-07CCV	246-Trinitrotoluene	227 > 210	15.57	8499.691	19378.883	8499.691	219.303	bb			642.9714	107.2	7.2	444.5
WXX100314-07CCV	34-dinitrotoluene	182 > 152	14.60	12167.449	19378.883	12167.449	313.936	bb			325.5738	108.5	8.5	610.2
WXX100314-07CCV	26-dinitrotoluene	182 > 152	17.81	26875.383	19378.883	26875.383	693.419	MM	15-Mar-10	10:11:20	616.3298	102.7	2.7	1661.2
WXX100314-07CCV	24-dinitrotoluene	182 > 152	18.51	6211.133	19378.883	6211.133	160.255	MM	15-Mar-10	10:14:23	669.0804	111.5	11.5	354.7
WXX100314-07CCV	26-dinitrotoluene-d3	185 > 155	17.64	19378.883		19378.883	19378.883	bb			508.4815	101.7	1.7	1666.4
WXX100314-07CCV	2-Nitrotoluene	137 > 46	21.35	3273.151	19378.883	3273.151	84.451	bb			556.5259	92.8	-7.2	926.8
WXX100314-07CCV	4-Nitrotoluene	137 > 46	22.76	1620.948	19378.883	1620.948	41.823	bb			547.0129	91.2	-8.8	456.2
WXX100314-07CCV	3-Nitrotoluene	137 > 46	24.44	1991.613	19378.883	1991.613	51.386	bb			561.8923	93.6	-6.4	518.8
WXX100314-07CCV	PETN	361 > 62	24.92	27512.617	19378.883	27512.617	709.861	bb			689.2789	114.9	14.9	10823.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/15/10
Time of Injection: 0810
Standard Number: WXX100314-07CCV
Data File: EXP0314036a

HMX	105.4
RDX	120.4
135-TNB	101.7
13-DNB	93.4
Tetryl	96.6
Nitrobenzene	94.9
4A-26-DNT	98.5
2A-46-DNT	101.4
246-TNT	107.2
34-DNT(surr)	108.5
26-DNT	102.7
24-DNT	111.5
2-NT	92.8
4-NT	91.2
3-NT	93.6
PETN	114.9
Total	1634.7
Average	102.2

MHT 3/15/10

HMM 03/16/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1898

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0314038a

Analysis Date: 15-MAR-10 09:09

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	48.08	120	
1,3-Dinitrobenzene-d4	500	561.739	112	
2,4,6-Trinitrotoluene	40	42.509	106	
2,4-Dinitrotoluene	40	42.725	107	
2,6-Dinitrotoluene	40	40.07	100	
2,6-Dinitrotoluene-d3	500	609.223	122	
2-Amino-4,6-dinitrotoluene	40	39.73	99	
3,4-Dinitrotoluene	20	20.324	102	
4-Amino-2,6-dinitrotoluene	40	38.401	96	
HMX	40	48.581	121	
Nitrobenzene	40	37.305	93	
PETN	40	35.681	89	
RDX	40	42.458	106	
Tetryl	40	44.148	110	
m-Dinitrobenzene	40	40.014	100	
m-Nitrotoluene	40	35.958	90	
o-Nitrotoluene	40	39.196	98	
p-Nitrotoluene	40	32.343	81	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314038a
Date: 15-Mar-2010
Time: 09:09:49
ID: WXX100314-08CRI
Vial: 1:1,C

MMP 3/15/10

HMX

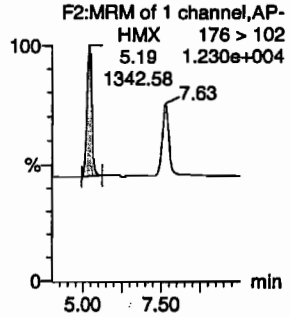

RDX

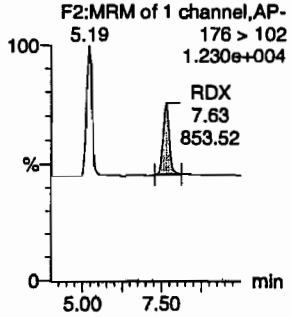

135-Trinitrobenzene

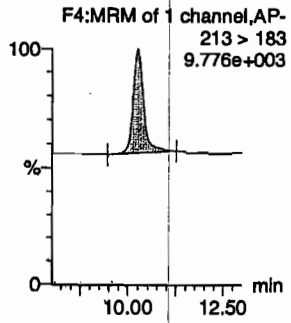

13-Dinitrobenzene-d4

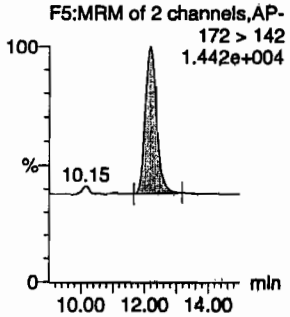

13-Dinitrobenzene

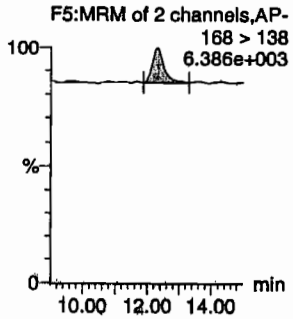

Tetryl

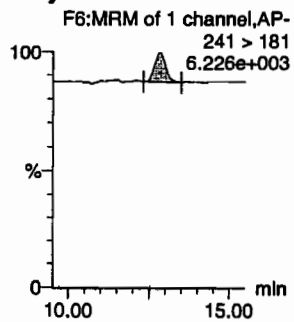

Nitrobenzene

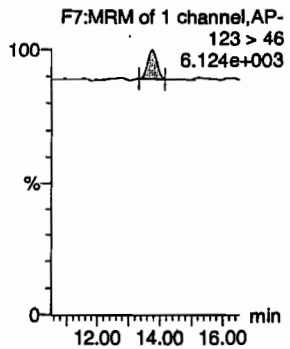

4-Amino-26-dinitrotoluene

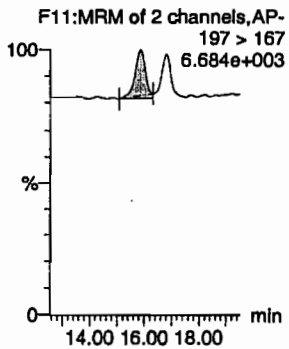

2-Amino-46-dinitrotoluene

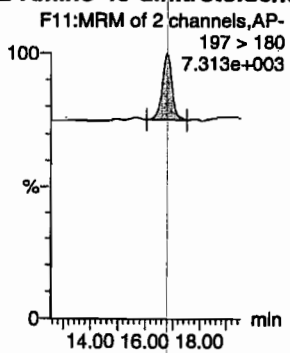

246-Trinitrotoluene

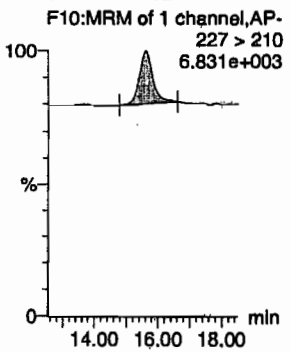

34-dinitrotoluene

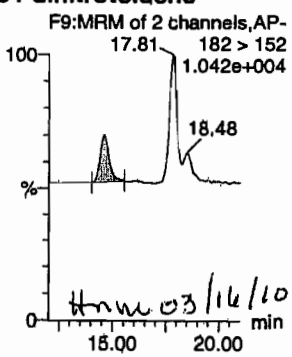

Hmw 03/16/10

26-dinitrotoluene

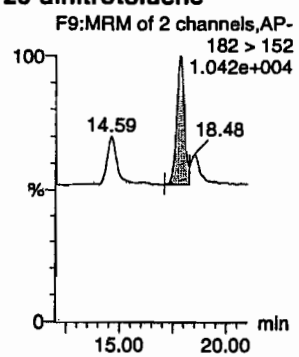

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA.qld, Time: Mon Mar 15 10:15:48 2010

24-dinitrotoluene

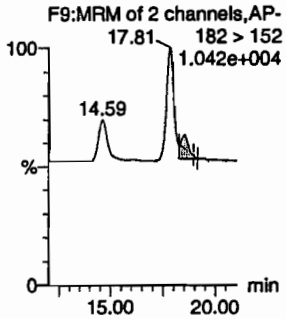

26-dinitrotoluene-d3

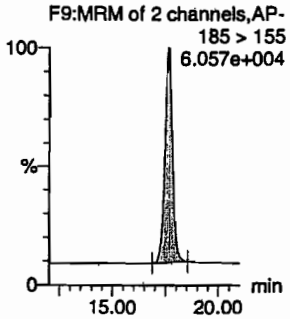

2-Nitrotoluene

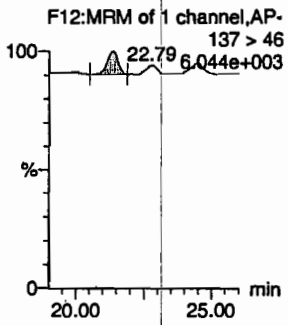

4-Nitrotoluene

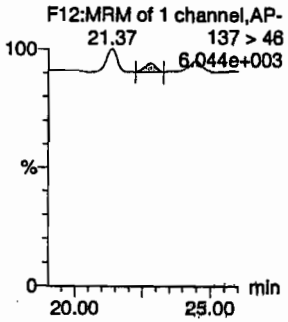

3-Nitrotoluene

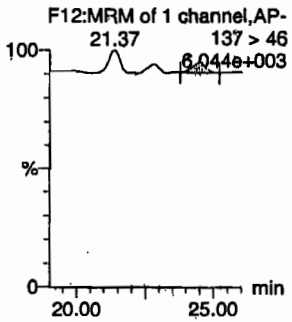

PETN

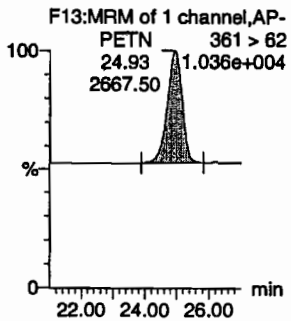

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100314-08CRI	HMX	176 > 102	5.19	1342.582	3779.876	1342.582	177.596	bb			48.5805	121.5	21.5	188.3
WXX100314-08CRI	RDX	176 > 102	7.63	853.523	3779.876	853.523	112.904	bb			42.4579	106.1	6.1	101.1
WXX100314-08CRI	135-Trinitrobenzene	213 > 183	10.25	1337.563	3779.876	1337.563	176.932	bb			48.0804	120.2	20.2	120.4
WXX100314-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	3779.876		3779.876	3779.876	bb			561.7389	112.3	12.3	473.1
WXX100314-08CRI	13-Dinitrobenzene	168 > 138	12.31	401.876	3779.876	401.876	53.160	bb			40.0139	100.0	0.0	33.0
WXX100314-08CRI	Tetryl	241 > 181	12.80	316.139	3779.876	316.139	41.819	bb			44.1483	110.4	10.4	36.0
WXX100314-08CRI	Nitrobenzene	123 > 46	13.74	231.349	3779.876	231.349	30.603	bb			37.3051	93.3	-6.7	28.4
WXX100314-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.85	555.029	23218.264	555.029	11.952	MM	15-Mar-10	10:08:29	38.4011	96.0	-4.0	38.2
WXX100314-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.77	758.110	23218.264	758.110	16.326	bb			39.7301	99.3	-0.7	102.8
WXX100314-08CRI	246-Trinitrotoluene	227 > 210	15.60	673.281	23218.264	673.281	14.499	bb			42.5093	106.3	6.3	55.1
WXX100314-08CRI	34-dinitrotoluene	182 > 152	14.59	910.031	23218.264	910.031	19.597	bb			20.3238	101.6	1.6	37.1
WXX100314-08CRI	26-dinitrotoluene	182 > 152	17.81	2093.447	23218.264	2093.447	45.082	MM	15-Mar-10	10:11:34	40.0700	100.2	0.2	100.8
WXX100314-08CRI	24-dinitrotoluene	182 > 152	18.48	475.195	23218.264	475.195	10.233	MM	15-Mar-10	10:14:32	42.7246	106.8	6.8	21.6
WXX100314-08CRI	26-dinitrotoluene-d3	185 > 155	17.65	23218.264		23218.264	23218.264	bb			609.2228	121.8	21.8	1540.7
WXX100314-08CRI	2-Nitrotoluene	137 > 46	21.37	276.198	23218.264	276.198	5.948	bb			39.1957	98.0	-2.0	66.6
WXX100314-08CRI	4-Nitrotoluene	137 > 46	22.79	114.830	23218.264	114.830	2.473	bb			32.3432	80.9	-19.1	26.5
WXX100314-08CRI	3-Nitrotoluene	137 > 46	24.48	152.702	23218.264	152.702	3.288	bb			35.9577	89.9	-10.1	31.9
WXX100314-08CRI	PETN	361 > 62	24.93	2667.504	23218.264	2667.504	57.444	bb			35.6812	89.2	-10.8	1068.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/15/10
Time of Injection	0909
Standard Number	WXX100314-08CRI
Data File	EXP0314038a

HMX	121.5
RDX	106.1
135-TNB	120.2
13-DNB	100.0
Tetryl	110.4
Nitrobenzene	93.3
4A-26-DNT	96.0
2A-46-DNT	99.3
246-TNT	106.3
34-DNT(surr)	101.6
26-DNT	100.2
24-DNT	106.8
2-NT	98.0
4-NT	80.9
3-NT	89.9
PETN	89.2
Total	1619.7
Average	101.2

MJT 3/16/10

4/mk 03/16/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1898

Lab Code: GEI **GEL Sample ID:** WXXCCV

GEL Data File EXP0314049a **Analysis Date:** 15-MAR-10 14:34

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	620.69	103	
1,3-Dinitrobenzene-d4	500	475.67	95	
2,4,6-Trinitrotoluene	600	706.598	118	
2,4-Dinitrotoluene	600	593.774	99	
2,6-Dinitrotoluene	600	605.222	101	
2,6-Dinitrotoluene-d3	500	510.525	102	
2-Amino-4,6-dinitrotoluene	600	769.978	128	*
3,4-Dinitrotoluene	300	335.398	112	
4-Amino-2,6-dinitrotoluene	600	669.047	112	
HMX	600	851.427	142	*
Nitrobenzene	600	638.469	106	
PETN	600	665.533	111	
RDX	600	855.282	143	*
Tetryl	600	679.537	113	
m-Dinitrobenzene	600	592.924	99	
m-Nitrotoluene	600	566.82	94	
o-Nitrotoluene	600	587.568	98	
p-Nitrotoluene	600	596.13	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314049a
Date: 15-Mar-2010
Time: 14:34:29
ID: WXX100314-07CCV
Vial: 1:1,B

MMT 3/16/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.061e+005

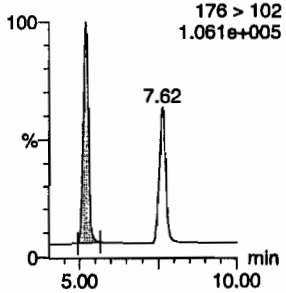

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.061e+005

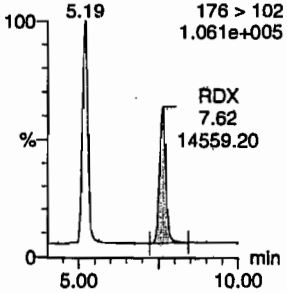

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.697e+004

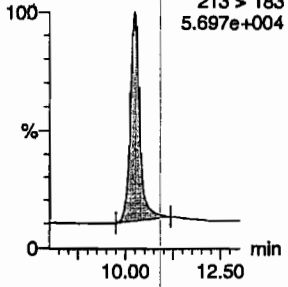

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.360e+004

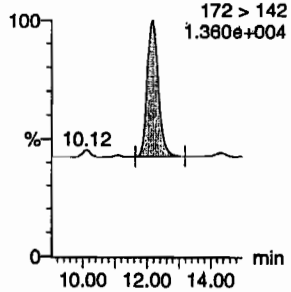

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.840e+004

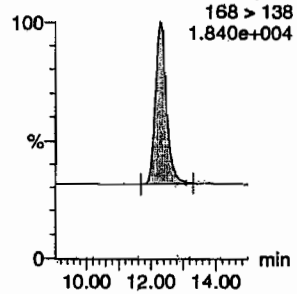

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.705e+004

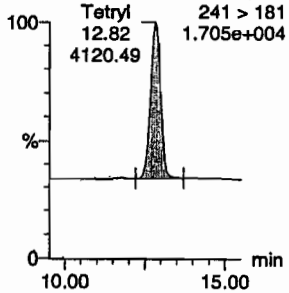

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.503e+004

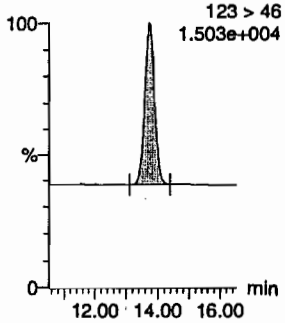

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.492e+004

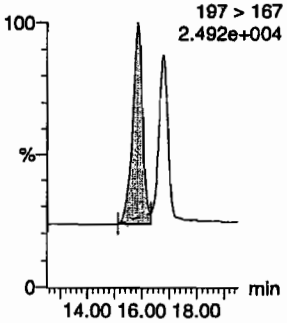

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.646e+004

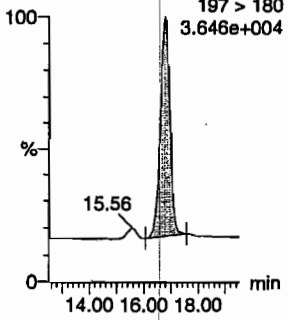

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.730e+004

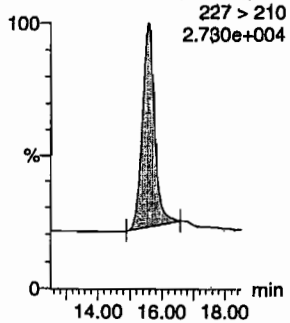

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.218e+004

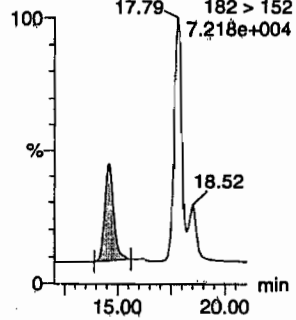

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.218e+004

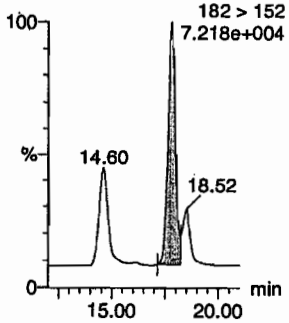

HMW 03/16/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

24-dinitrotoluene

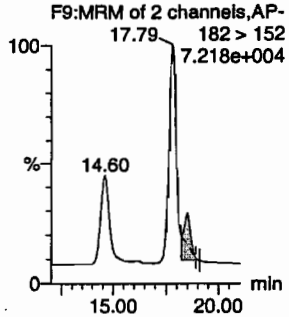

26-dinitrotoluene-d3

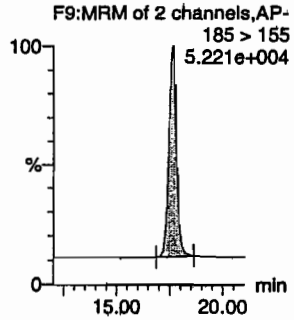

2-Nitrotoluene

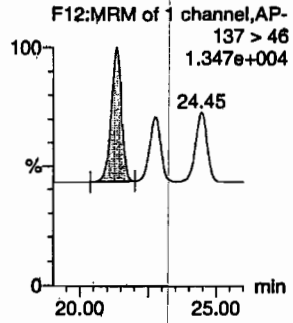

4-Nitrotoluene

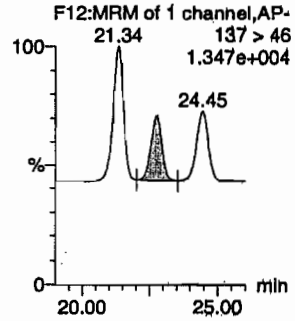

3-Nitrotoluene

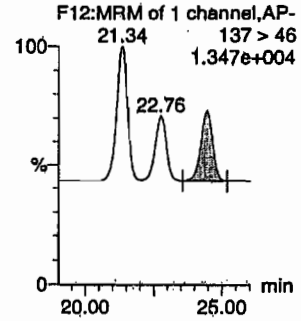

PETN

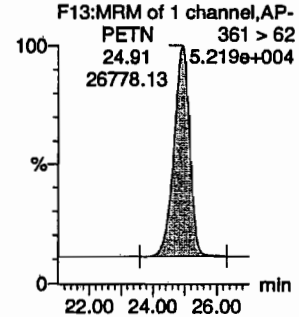

ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100314-07CCV	HMX	176 > 102	5.19	19924.982	3200.728	19924.982	3112.570	bb			851.4272	141.9	41.9	1671.5
WXX100314-07CCV	RDX	176 > 102	7.62	14559.197	3200.728	14559.197	2274.357	bb			855.2820	142.5	42.5	1032.5
WXX100314-07CCV	135-Trinitrobenzene	213 > 183	10.25	14621.527	3200.728	14621.527	2284.094	bb			620.6903	103.4	3.4	1427.2
WXX100314-07CCV	13-Dinitrobenzene-d4	172 > 142	12.14	3200.728		3200.728	3200.728	bb			475.6700	95.1	-4.9	135.0
WXX100314-07CCV	13-Dinitrobenzene	168 > 138	12.27	5042.569	3200.728	5042.569	787.722	bb			592.9243	98.8	-1.2	230.4
WXX100314-07CCV	Tetryl	241 > 181	12.82	4120.487	3200.728	4120.487	643.680	bb			679.5374	113.3	13.3	544.6
WXX100314-07CCV	Nitrobenzene	123 > 46	13.72	3352.825	3200.728	3352.825	523.760	bb			638.4691	106.4	6.4	296.1
WXX100314-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.86	8103.439	19456.768	8103.439	208.242	MM	16-Mar-10	09:21:07	669.0468	111.5	11.5	750.6
WXX100314-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.76	12312.083	19456.768	12312.083	316.396	bb			769.9784	128.3	28.3	1048.8
WXX100314-07CCV	246-Trinitrotoluene	227 > 210	15.58	9378.340	19456.768	9378.340	241.005	bb			706.5983	117.8	17.8	270.4
WXX100314-07CCV	34-dinitrotoluene	182 > 152	14.60	12584.990	19456.768	12584.990	323.409	bb			335.3983	111.8	11.8	196.4
WXX100314-07CCV	26-dinitrotoluene	182 > 152	17.79	26497.094	19456.768	26497.094	680.922	MM	16-Mar-10	09:23:07	605.2221	100.9	0.9	493.7
WXX100314-07CCV	24-dinitrotoluene	182 > 152	18.52	5534.206	19456.768	5534.206	142.218	MM	16-Mar-10	09:26:39	593.7736	99.0	-1.0	105.1
WXX100314-07CCV	26-dinitrotoluene-d3	185 > 155	17.64	19456.768		19456.768	19456.768	bb			510.5251	102.1	2.1	2476.3
WXX100314-07CCV	2-Nitrotoluene	137 > 46	21.34	3469.613	19456.768	3469.613	89.162	bb			587.5684	97.9	-2.1	231.3
WXX100314-07CCV	4-Nitrotoluene	137 > 46	22.76	1773.594	19456.768	1773.594	45.578	bb			596.1297	99.4	-0.6	112.6
WXX100314-07CCV	3-Nitrotoluene	137 > 46	24.45	2017.155	19456.768	2017.155	51.837	bb			566.8204	94.5	-5.5	121.2
WXX100314-07CCV	PETN	361 > 62	24.91	26778.125	19456.768	26778.125	688.144	bb			665.5329	110.9	10.9	6273.3

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/15/10
Time of Injection: 1434
Standard Number: WXX100314-07CCV
Data File: EXP0314049a

HMX		141.9
RDX		142.5
135-TNB		103.4
13-DNB		98.8
Tetryl		113.3
Nitrobenzene		106.4
4A-26-DNT		111.5
2A-46-DNT		128.3
246-TNT		117.8
34-DNT(surr)		111.8
26-DNT		100.9
24-DNT		99.0
2-NT		97.9
4-NT		99.4
3-NT		94.5
PETN		110.9
Total		1778.3
Average		111.1

MMP 3/16/10

HMM 03/16/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1898

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0314051a

Analysis Date: 15-MAR-10 15:33

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4,6-Trinitrotoluene	40	51.218	128	
2,4-Dinitrotoluene	40	34.919	87	
2,6-Dinitrotoluene	40	41.463	104	
2,6-Dinitrotoluene-d3	500	555.566	111	
2-Amino-4,6-dinitrotoluene	40	30.239	76	
3,4-Dinitrotoluene	20	22.214	111	
4-Amino-2,6-dinitrotoluene	40	40.225	101	
HMX	40	47.565	119	
Nitrobenzene	40	44.5	111	
PETN	40	42.63	107	
RDX	40	43.799	109	
Tetryl	40	53.694	134	*
m-Dinitrobenzene	40	39.539	99	
m-Nitrotoluene	40	39.643	99	
o-Nitrotoluene	40	38.496	96	
p-Nitrotoluene	40	45.625	114	
1,3,5-Trinitrobenzene	40	41.397	103	
1,3-Dinitrobenzene-d4	500	464.716	93	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314051a
Date: 15-Mar-2010
Time: 15:33:33
ID: WXX100314-08CRI
Vial: 1:1,C

MMT 3/16/10

HMX

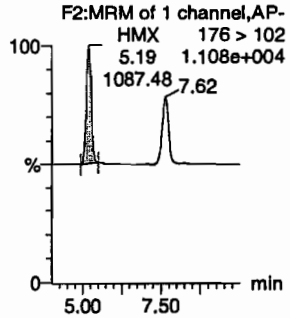

RDX

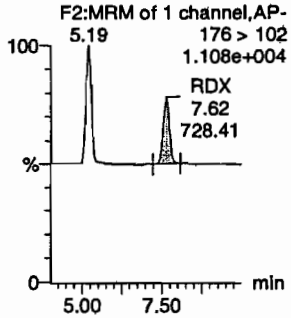

135-Trinitrobenzene

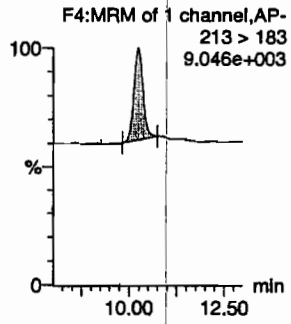

13-Dinitrobenzene-d4

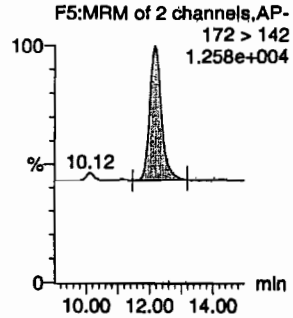

13-Dinitrobenzene

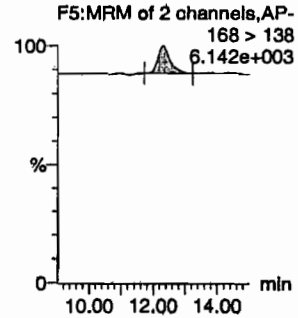

Tetryl

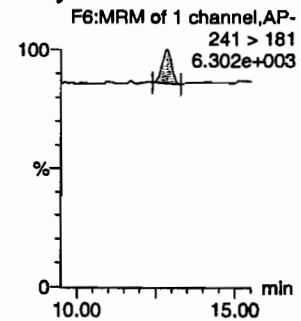

Nitrobenzene

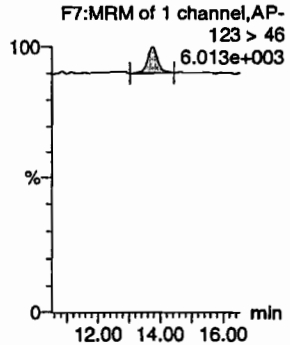

4-Amino-26-dinitrotoluene

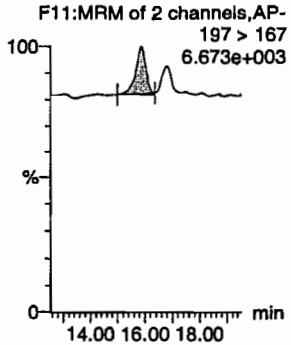

2-Amino-46-dinitrotoluene

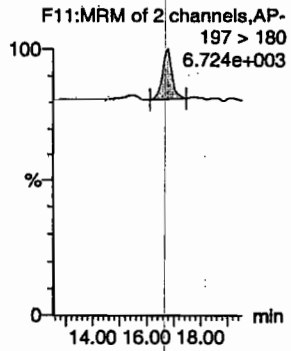

246-Trinitrotoluene

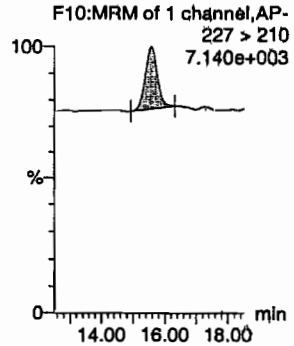

34-dinitrotoluene

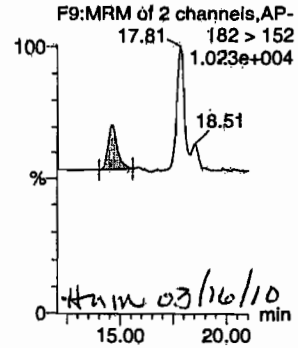

HMM 03/16/10

26-dinitrotoluene

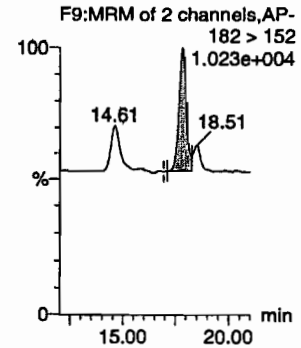

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

24-dinitrotoluene

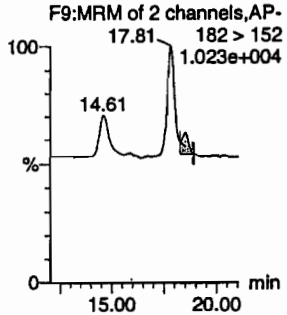

26-dinitrotoluene-d3

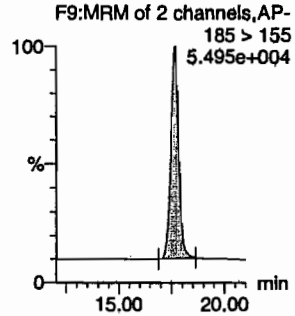

2-Nitrotoluene

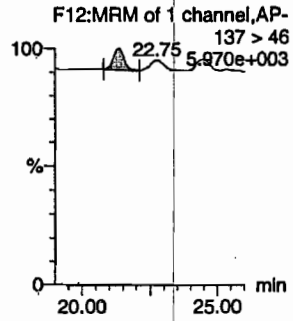

4-Nitrotoluene

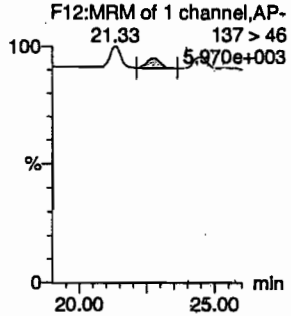

3-Nitrotoluene

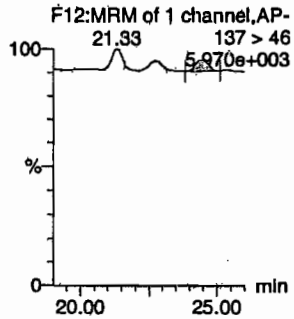

PETN

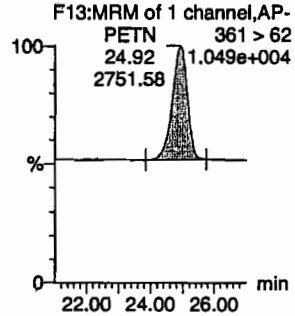

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100314-08CRI	HMX	176 > 102	5.19	1087.483	3127.018	1087.483	173.885	bb			47.5653	118.9	18.9	241.8
WXX100314-08CRI	RDX	176 > 102	7.62	728.407	3127.018	728.407	116.470	bb			43.7990	109.5	9.5	137.8
WXX100314-08CRI	135-Trinitrobenzene	213 > 183	10.25	952.715	3127.018	952.715	152.336	bb			41.3965	103.5	3.5	120.3
WXX100314-08CRI	13-Dinitrobenzene-d4	172 > 142	12.18	3127.018		3127.018	3127.018	bb			464.7157	92.9	-7.1	890.3
WXX100314-08CRI	13-Dinitrobenzene	168 > 138	12.31	328.520	3127.018	328.520	52.529	bb			39.5392	98.8	-1.2	27.3
WXX100314-08CRI	Tetryl	241 > 181	12.83	318.085	3127.018	318.085	50.861	bb			53.6941	134.2	34.2	31.9
WXX100314-08CRI	Nitrobenzene	123 > 46	13.76	228.301	3127.018	228.301	36.505	bb			44.4995	111.2	11.2	20.1
WXX100314-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.86	530.187	21173.322	530.187	12.520	MM	16-Mar-10	09:20:57	40.2252	100.6	0.6	35.1
WXX100314-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.76	526.182	21173.322	526.182	12.426	bb			30.2388	75.6	-24.4	48.7
WXX100314-08CRI	246-Trinitrotoluene	227 > 210	15.55	739.771	21173.322	739.771	17.469	bb			51.2184	128.0	28.0	91.2
WXX100314-08CRI	34-dinitrotoluene	182 > 152	14.61	907.075	21173.322	907.075	21.420	bb			22.2143	111.1	11.1	23.0
WXX100314-08CRI	26-dinitrotoluene	182 > 152	17.81	1975.418	21173.322	1975.418	46.649	MM	16-Mar-10	09:23:19	41.4627	103.7	3.7	61.9
WXX100314-08CRI	24-dinitrotoluene	182 > 152	18.51	354.175	21173.322	354.175	8.364	MM	16-Mar-10	09:26:28	34.9193	87.3	-12.7	12.3
WXX100314-08CRI	26-dinitrotoluene-d3	185 > 155	17.64	21173.322		21173.322	21173.322	bb			555.5657	111.1	11.1	1649.4
WXX100314-08CRI	2-Nitrotoluene	137 > 46	21.33	247.376	21173.322	247.376	5.842	bb			38.4961	96.2	-3.8	65.5
WXX100314-08CRI	4-Nitrotoluene	137 > 46	22.75	147.717	21173.322	147.717	3.488	bb			45.6246	114.1	14.1	31.3
WXX100314-08CRI	3-Nitrotoluene	137 > 46	24.44	153.525	21173.322	153.525	3.625	bb			39.6430	99.1	-0.9	34.2
WXX100314-08CRI	PETN	361 > 62	24.92	2751.584	21173.322	2751.584	64.978	bb			42.6304	106.6	6.6	274.2

✓

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/15/10
Time of Injection	1533
Standard Number	WXX100314-08CRI
Data File	EXP0314051a

HMX	118.9
RDX	109.5
135-TNB	103.5
13-DNB	98.8
Tetryl	134.2
Nitrobenzene	111.2
4A-26-DNT	100.6
2A-46-DNT	75.6
246-TNT	128.0
34-DNT(surr)	111.1
26-DNT	103.7
24-DNT	87.3
2-NT	96.2
4-NT	114.1
3-NT	99.1
PETN	106.6
Total	1698.4
Average	106.2

MTT 3/16/10

Hmc 03/16/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1898

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0314062a

Analysis Date: 15–MAR–10 20:58

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
4–Amino–2,6–dinitrotoluene	600	514.089	86	
HMX	600	728	121	*
Nitrobenzene	600	640.349	107	
PETN	600	601.907	100	
RDX	600	702.374	117	
Tetryl	600	601.516	100	
m–Dinitrobenzene	600	570.456	95	
m–Nitrotoluene	600	585.575	98	
o–Nitrotoluene	600	558.255	93	
p–Nitrotoluene	600	574.305	96	
1,3,5–Trinitrobenzene	600	608.865	101	
1,3–Dinitrobenzene–d4	500	462.899	93	
2,4,6–Trinitrotoluene	600	558.522	93	
2,4–Dinitrotoluene	600	603.291	101	
2,6–Dinitrotoluene	600	619.778	103	
2,6–Dinitrotoluene–d3	500	557.336	111	
2–Amino–4,6–dinitrotoluene	600	671.295	112	
3,4–Dinitrotoluene	300	275.546	92	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314062a
Date: 15-Mar-2010
Time: 20:58:04
ID: WXX100314-07CCV
Vial: 1:1,B

MATT 3/16/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
8.707e+004

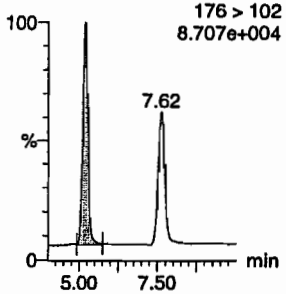

RDX
F2:MRM of 1 channel,AP-
176 > 102
8.707e+004

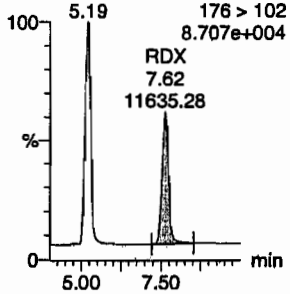

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.209e+004

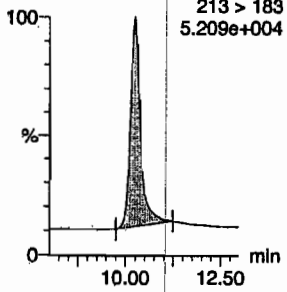

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.280e+004

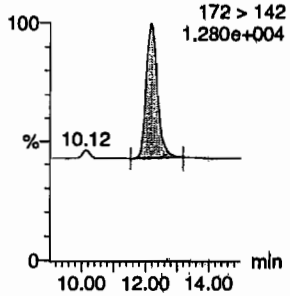

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.719e+004

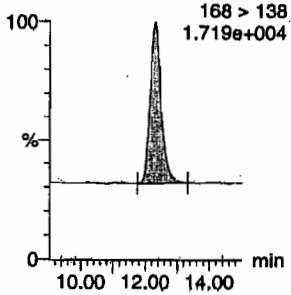

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.495e+004

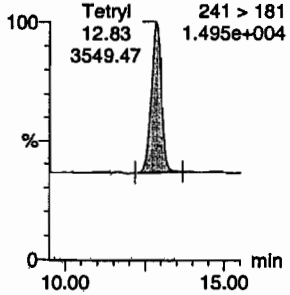

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.431e+004

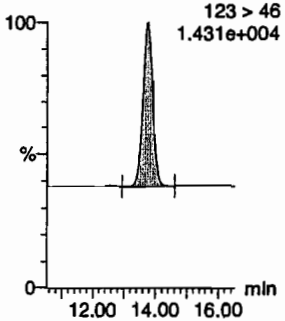

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.138e+004

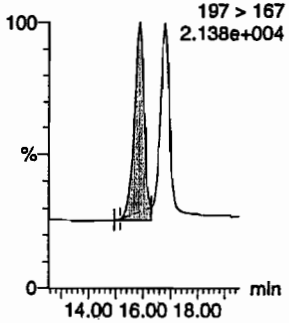

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.447e+004

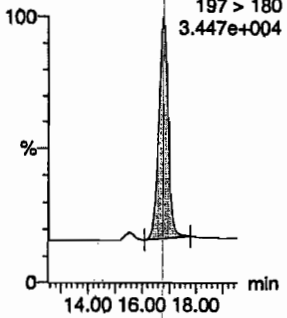

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.372e+004

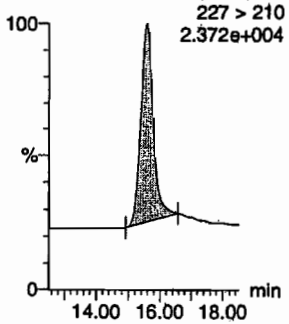

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.897e+004

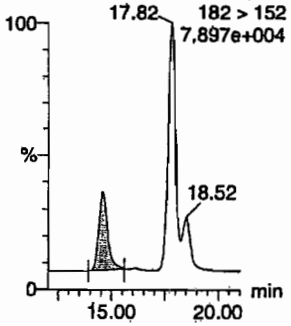

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.897e+004

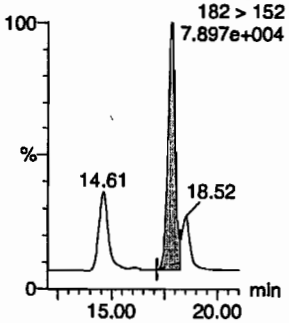

HMM 03/16/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

24-dinitrotoluene

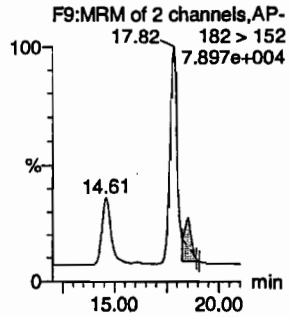

26-dinitrotoluene-d3

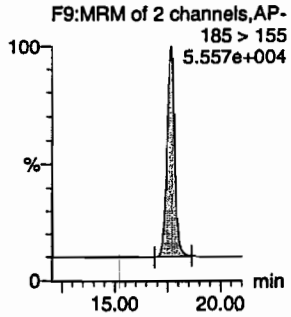

2-Nitrotoluene

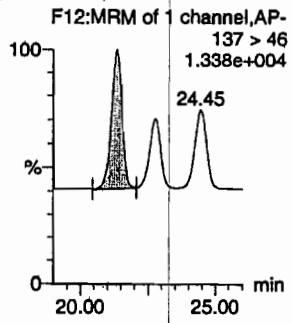

4-Nitrotoluene

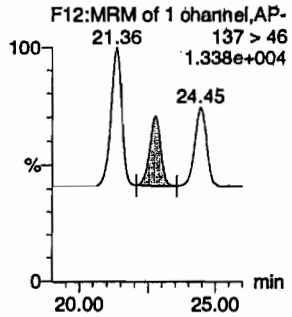

3-Nitrotoluene

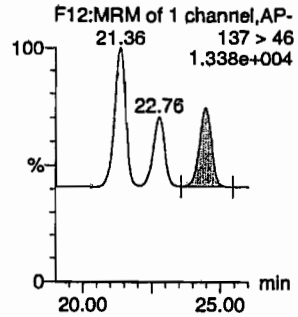

PETN

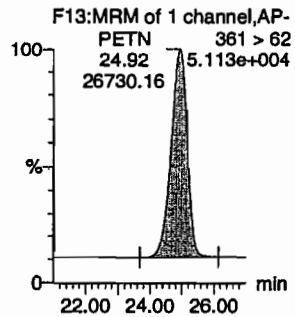

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Ung/ml	%Rec	%Dev	S/N
WXX100314-07CCV	HMX	176 > 102	5.19	16579.156	3114.794	16579.156	2661.357	dd			728.0001	121.3	21.3	1773.0
WXX100314-07CCV	RDX	176 > 102	7.62	11635.279	3114.794	11635.279	1867.745	bb			702.3735	117.1	17.1	1055.6
WXX100314-07CCV	135-Trinitrobenzene	213 > 183	10.25	13957.884	3114.794	13957.884	2240.579	bb			608.8653	101.5	1.5	898.8
WXX100314-07CCV	13-Dinitrobenzene-d4	172 > 142	12.18	3114.794		3114.794	3114.794	bb			462.8990	92.6	-7.4	98.3
WXX100314-07CCV	13-Dinitrobenzene	168 > 138	12.28	4721.235	3114.794	4721.235	757.873	bb			570.4564	95.1	-4.9	447.9
WXX100314-07CCV	Tetryl	241 > 181	12.83	3549.465	3114.794	3549.465	569.775	bb			601.5159	100.3	0.3	597.7
WXX100314-07CCV	Nitrobenzene	123 > 46	13.76	3272.412	3114.794	3272.412	525.302	bb			640.3485	106.7	6.7	279.2
WXX100314-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.86	6797.534	21240.793	6797.534	160.011	MM	16-Mar-10	09:20:38	514.0892	85.7	-14.3	224.0
WXX100314-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.79	11718.349	21240.793	11718.349	275.845	bb			671.2950	111.9	11.9	1153.2
WXX100314-07CCV	246-Trinitrotoluene	227 > 210	15.58	8092.708	21240.793	8092.708	190.499	bb			558.5222	93.1	-6.9	479.5
WXX100314-07CCV	34-dinitrotoluene	182 > 152	14.61	11287.207	21240.793	11287.207	265.696	bb			275.5462	91.8	-8.2	359.5
WXX100314-07CCV	26-dinitrotoluene	182 > 152	17.82	29622.371	21240.793	29622.371	697.299	MM	16-Mar-10	09:23:33	619.7782	103.3	3.3	1148.8
WXX100314-07CCV	24-dinitrotoluene	182 > 152	18.52	6138.487	21240.793	6138.487	144.498	MM	16-Mar-10	09:26:08	603.2910	100.5	0.5	233.9
WXX100314-07CCV	26-dinitrotoluene-d3	185 > 155	17.64	21240.793		21240.793	21240.793	bb			557.3360	111.5	11.5	1335.2
WXX100314-07CCV	2-Nitrotoluene	137 > 46	21.36	3598.778	21240.793	3598.778	84.714	bb			558.2548	93.0	-7.0	224.9
WXX100314-07CCV	4-Nitrotoluene	137 > 46	22.76	1865.332	21240.793	1865.332	43.909	bb			574.3051	95.7	-4.3	111.3
WXX100314-07CCV	3-Nitrotoluene	137 > 46	24.45	2274.975	21240.793	2274.975	53.552	bb			585.5754	97.6	-2.4	126.2
WXX100314-07CCV	PETN	361 > 62	24.92	26730.164	21240.793	26730.164	629.218	bb			601.9069	100.3	0.3	9654.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/15/10
Time of Injection: 2058
Standard Number: WXX100314-07CCV
Data File: EXP0314062a

HMX	121.3
RDX	117.1
135-TNB	101.5
13-DNB	95.1
Tetryl	100.3
Nitrobenzene	106.7
4A-26-DNT	85.7
2A-46-DNT	111.9
246-TNT	93.1
34-DNT(surr)	91.8
26-DNT	103.3
24-DNT	100.5
2-NT	93.0
4-NT	95.7
3-NT	97.6
PETN	100.3
Total	1614.9
Average	100.9

MT 3/16/10

HMM 03/16/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1898

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0314064a

Analysis Date: 15–MAR–10 21:57

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
RDX	40	46.467	116	
Tetryl	40	40.921	102	
m–Dinitrobenzene	40	36.925	92	
m–Nitrotoluene	40	38.328	96	
o–Nitrotoluene	40	44.595	111	
p–Nitrotoluene	40	52.453	131	*
1,3,5–Trinitrobenzene	40	47.82	120	
1,3–Dinitrobenzene–d4	500	492.228	98	
2,4,6–Trinitrotoluene	40	35.914	90	
2,4–Dinitrotoluene	40	36.557	91	
2,6–Dinitrotoluene	40	41.448	104	
2,6–Dinitrotoluene–d3	500	520.408	104	
2–Amino–4,6–dinitrotoluene	40	41.797	104	
3,4–Dinitrotoluene	20	20.089	100	
4–Amino–2,6–dinitrotoluene	40	36.875	92	
HMX	40	48.11	120	
Nitrobenzene	40	49.493	124	
PETN	40	45.842	115	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314064a
Date: 15-Mar-2010
Time: 21:57:07
ID: WXX100314-08CRI
Vial: 1:1,C

MOT 3/16/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.19 1.142e+004
1165.06 7.63

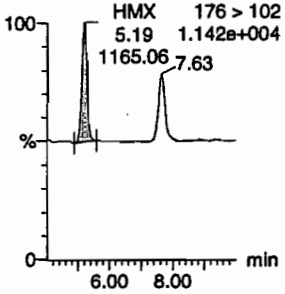

RDX
F2:MRM of 1 channel,AP-
5.19 176 > 102
1.142e+004
RDX
7.63
818.53

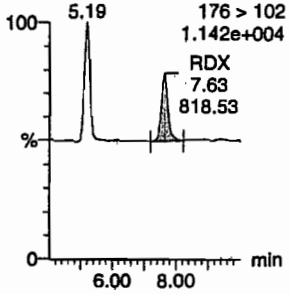

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
9.515e+003

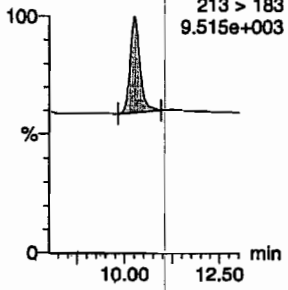

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.351e+004

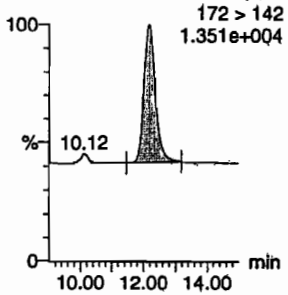

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.444e+003

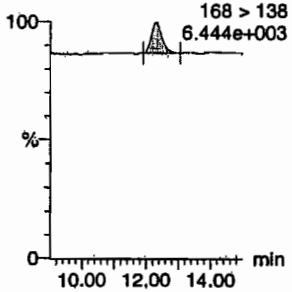

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.260e+003

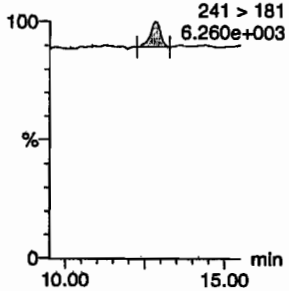

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.266e+003

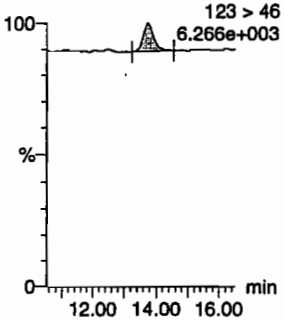

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.741e+003

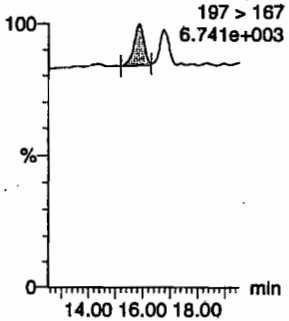

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.403e+003

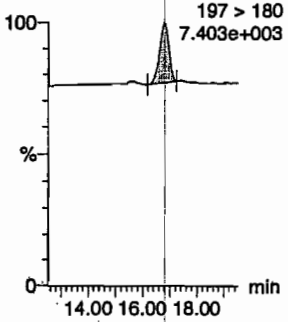

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.860e+003

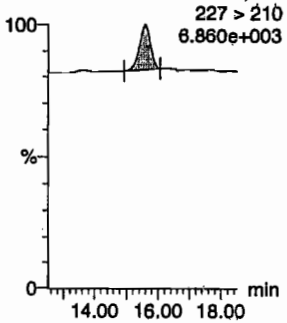

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.012e+004
17.81
18.55

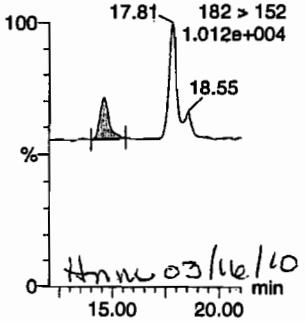

HMW 03/16/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.012e+004
14.60
18.55

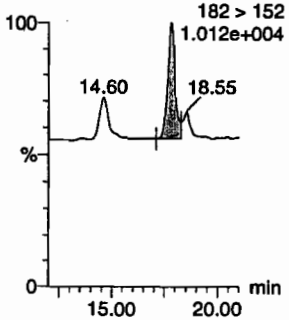

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

24-dinitrotoluene

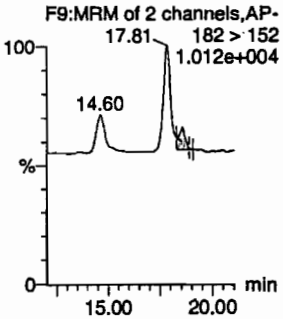

26-dinitrotoluene-d3

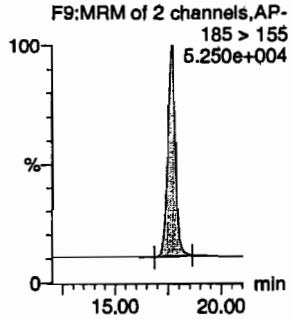

2-Nitrotoluene

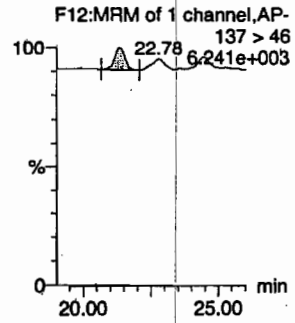

4-Nitrotoluene

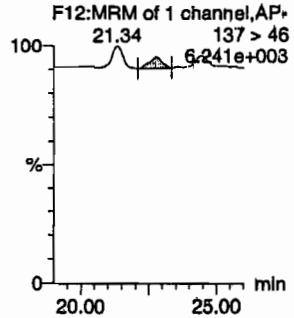

3-Nitrotoluene

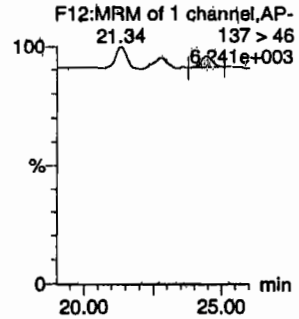

PETN

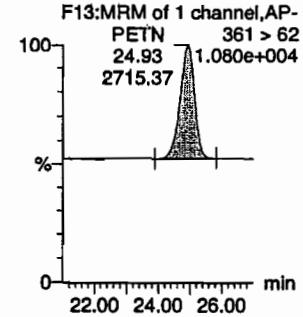

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100314-08CRI	HMX	176 > 102	5.19	1165.064	3312.145	1165.064	175.878	bb			48.1104	120.3	20.3	203.7
WXX100314-08CRI	RDX	176 > 102	7.63	818.527	3312.145	818.527	123.564	bb			46.4670	116.2	16.2	117.0
WXX100314-08CRI	135-Trinitrobenzene	213 > 183	10.25	1165.702	3312.145	1165.702	175.974	bb			47.8200	119.5	19.5	188.5
WXX100314-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	3312.145		3312.145	3312.145	bb			492.2280	98.4	-1.6	269.3
WXX100314-08CRI	13-Dinitrobenzene	168 > 138	12.31	324.965	3312.145	324.965	49.057	bb			36.9252	92.3	-7.7	32.7
WXX100314-08CRI	Tetryl	241 > 181	12.82	256.766	3312.145	256.766	38.761	bb			40.9206	102.3	2.3	25.2
WXX100314-08CRI	Nitrobenzene	123 > 46	13.71	268.950	3312.145	268.950	40.601	bb			49.4926	123.7	23.7	24.4
WXX100314-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.86	455.269	19833.418	455.269	11.477	MM	16-Mar-10	09:20:17	36.8747	92.2	-7.8	36.0
WXX100314-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.78	681.276	19833.418	681.276	17.175	bb			41.7968	104.5	4.5	51.1
WXX100314-08CRI	246-Trinitrotoluene	227 > 210	15.57	485.900	19833.418	485.900	12.250	bb			35.9142	89.8	-10.2	116.0
WXX100314-08CRI	34-dinitrotoluene	182 > 152	14.60	768.393	19833.418	768.393	19.371	bb			20.0893	100.4	0.4	39.3
WXX100314-08CRI	26-dinitrotoluene	182 > 152	17.81	1849.751	19833.418	1849.751	46.632	MM	16-Mar-10	09:23:42	41.4479	103.6	3.6	111.4
WXX100314-08CRI	24-dinitrotoluene	182 > 152	18.55	347.323	19833.418	347.323	8.756	MM	16-Mar-10	09:25:58	36.5571	91.4	-8.6	23.8
WXX100314-08CRI	26-dinitrotoluene-d3	185 > 155	17.64	19833.418		19833.418	19833.418	bb			520.4080	104.1	4.1	1627.4
WXX100314-08CRI	2-Nitrotoluene	137 > 46	21.34	268.432	19833.418	268.432	6.767	bb			44.5949	111.5	11.5	74.6
WXX100314-08CRI	4-Nitrotoluene	137 > 46	22.78	159.077	19833.418	159.077	4.010	bb			52.4526	131.1	31.1	36.0
WXX100314-08CRI	3-Nitrotoluene	137 > 46	24.45	139.040	19833.418	139.040	3.505	bb			38.3283	95.8	-4.2	36.3
WXX100314-08CRI	PETN	361 > 62	24.93	2715.366	19833.418	2715.366	68.454	bb			45.8415	114.6	14.6	257.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/15/10
Time of Injection	2157
Standard Number	WXX100314-08CRI
Data File	EXP0314064a

HMX	120.3
RDX	116.2
135-TNB	119.5
13-DNB	92.3
Tetryl	102.3
Nitrobenzene	123.7
4A-26-DNT	92.2
2A-46-DNT	104.5
246-TNT	89.8
34-DNT(surr)	100.4
26-DNT	103.6
24-DNT	91.4
2-NT	111.5
4-NT	131.1
3-NT	95.8
PETN	114.6
Total	1709.2
Average	106.8

MRT 3/16/10

dhm 03/16/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1898

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0314075a

Analysis Date: 16–MAR–10 03:21

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
o–Nitrotoluene	600	573.856	96	
p–Nitrotoluene	600	584.945	97	
1,3,5–Trinitrobenzene	600	628.112	105	
1,3–Dinitrobenzene–d4	500	461.984	92	
2,4,6–Trinitrotoluene	600	636.549	106	
2,4–Dinitrotoluene	600	623.131	104	
2,6–Dinitrotoluene	600	618.162	103	
2,6–Dinitrotoluene–d3	500	500.393	100	
2–Amino–4,6–dinitrotoluene	600	677.621	113	
3,4–Dinitrotoluene	300	312.409	104	
4–Amino–2,6–dinitrotoluene	600	608.141	101	
HMX	600	707.796	118	
Nitrobenzene	600	631.627	105	
PETN	600	672.61	112	
RDX	600	713.824	119	
Tetryl	600	479.72	80	*
m–Dinitrobenzene	600	623.19	104	
m–Nitrotoluene	600	551.301	92	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314075a
Date: 16-Mar-2010
Time: 03:21:47
ID: WXX100314-07CCV
Vial: 1:1,B

MMP 3/16/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
8.667e+004
7.62

RDX
F2:MRM of 1 channel,AP-
176 > 102
8.667e+004
5.19
RDX
7.62
11801.57

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.430e+004

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.311e+004
10.12

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.886e+004

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.366e+004
Tetryl
12.82
2825.16

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.476e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.272e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.209e+004
15.56

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.468e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.179e+004
17.82
18.49

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.179e+004
14.60
18.49

HNW 03/16/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

24-dinitrotoluene

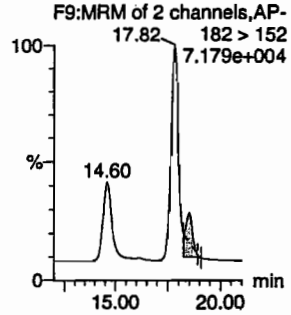

26-dinitrotoluene-d3

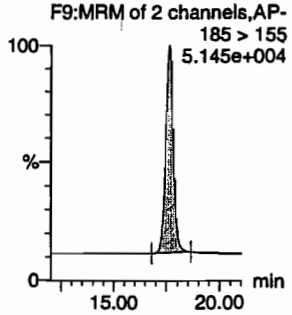

2-Nitrotoluene

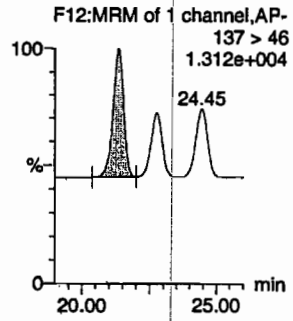

4-Nitrotoluene

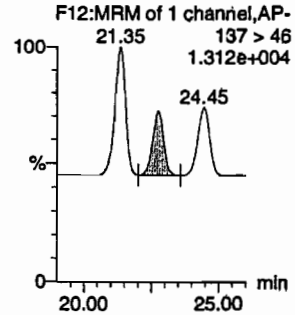

3-Nitrotoluene

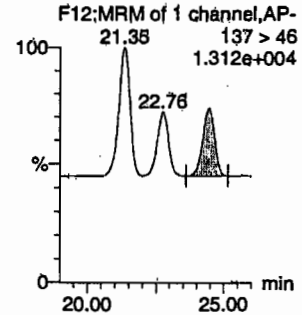

PETN

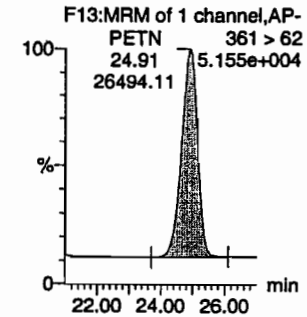

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100314-07CCV	HMX	176 > 102	5.19	16087.162	3108.634	16087.162	2587.497	bb			707.7961	118.0	18.0	1465.5
WXX100314-07CCV	RDX	176 > 102	7.62	11801.571	3108.634	11801.571	1898.192	bb			713.8236	119.0	19.0	908.7
WXX100314-07CCV	135-Trinitrobenzene	213 > 183	10.25	14370.620	3108.634	14370.620	2311.404	bb			628.1117	104.7	4.7	849.8
WXX100314-07CCV	13-Dinitrobenzene-d4	172 > 142	12.17	3108.634		3108.634	3108.634	bb			461.9836	92.4	-7.6	246.9
WXX100314-07CCV	13-Dinitrobenzene	168 > 138	12.31	5147.473	3108.634	5147.473	827.932	bb			623.1902	103.9	3.9	752.7
WXX100314-07CCV	Tetryl	241 > 181	12.82	2825.164	3108.634	2825.164	454.406	bb			479.7198	80.0	-20.0	219.3
WXX100314-07CCV	Nitrobenzene	123 > 46	13.76	3221.456	3108.634	3221.456	518.147	bb			631.6266	105.3	5.3	223.8
WXX100314-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.86	7219.563	19070.605	7219.563	189.285	MM	16-Mar-10	09:19:43	608.1410	101.4	1.4	448.2
WXX100314-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.79	10620.226	19070.605	10620.226	278.445	bb			677.6212	112.9	12.9	587.6
WXX100314-07CCV	246-Trinitrotoluene	227 > 210	15.58	8280.928	19070.605	8280.928	217.112	bb			636.5490	106.1	6.1	832.3
WXX100314-07CCV	34-dinitrotoluene	182 > 152	14.60	11489.721	19070.605	11489.721	301.242	bb			312.4091	104.1	4.1	252.0
WXX100314-07CCV	26-dinitrotoluene	182 > 152	17.82	26526.486	19070.605	26526.486	695.481	MM	16-Mar-10	09:24:35	618.1623	103.0	3.0	701.7
WXX100314-07CCV	24-dinitrotoluene	182 > 152	18.49	5692.563	19070.605	5692.563	149.250	MM	16-Mar-10	09:25:07	623.1314	103.9	3.9	147.3
WXX100314-07CCV	26-dinitrotoluene-d3	185 > 155	17.64	19070.605		19070.605	19070.605	bb			500.3926	100.1	0.1	2466.7
WXX100314-07CCV	2-Nitrotoluene	137 > 46	21.35	3321.383	19070.605	3321.383	87.081	bb			573.8556	95.6	-4.4	266.7
WXX100314-07CCV	4-Nitrotoluene	137 > 46	22.76	1705.778	19070.605	1705.778	44.723	bb			584.9453	97.5	-2.5	131.4
WXX100314-07CCV	3-Nitrotoluene	137 > 46	24.45	1922.988	19070.605	1922.988	50.418	bb			551.3013	91.9	-8.1	139.6
WXX100314-07CCV	PETN	361 > 62	24.91	26494.109	19070.605	26494.109	694.632	bb			672.6099	112.1	12.1	7564.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/16/10
Time of Injection: 0321
Standard Number: WXX100314-07CCV
Data File: EXP0314075a

HMX	118.0
RDX	119.0
135-TNB	104.7
13-DNB	103.9
Tetryl	80.0
Nitrobenzene	105.3
4A-26-DNT	101.4
2A-46-DNT	112.9
246-TNT	106.1
34-DNT(surr)	104.1
26-DNT	103.0
24-DNT	103.9
2-NT	95.6
4-NT	97.5
3-NT	91.9
PETN	112.1
Total	1659.4
Average	103.7

MJT 3/16/10

HMK 03/16/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1898

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0314077a

Analysis Date: 16-MAR-10 04:20

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	48.663	122	
1,3-Dinitrobenzene-d4	500	509.718	102	
2,4,6-Trinitrotoluene	40	38.082	95	
2,4-Dinitrotoluene	40	41.132	103	
2,6-Dinitrotoluene	40	40.984	102	
2,6-Dinitrotoluene-d3	500	520.8	104	
2-Amino-4,6-dinitrotoluene	40	41.749	104	
3,4-Dinitrotoluene	20	18.777	94	
4-Amino-2,6-dinitrotoluene	40	41.325	103	
HMX	40	47.264	118	
Nitrobenzene	40	41.044	103	
PETN	40	44.312	111	
RDX	40	48.392	121	
Tetryl	40	36.455	91	
m-Dinitrobenzene	40	34.836	87	
m-Nitrotoluene	40	43.511	109	
o-Nitrotoluene	40	46.465	116	
p-Nitrotoluene	40	42.934	107	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314077a
Date: 16-Mar-2010
Time: 04:20:44
ID: WXX100314-08CRI
Vial: 1:1,C

MMP 3/16/10

HMX

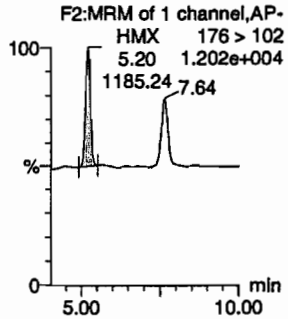

RDX

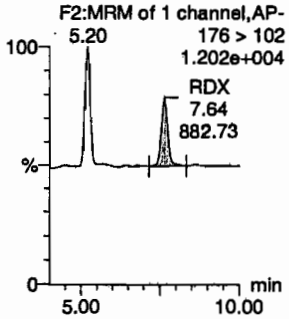

135-Trinitrobenzene

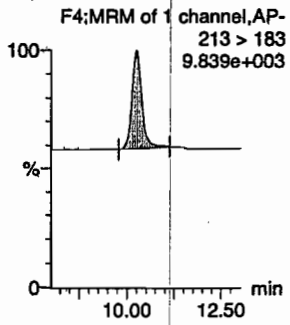

13-Dinitrobenzene-d4

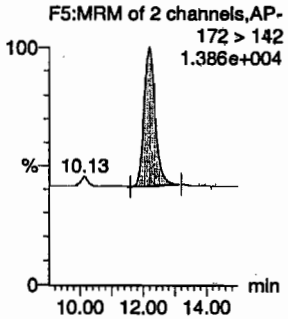

13-Dinitrobenzene

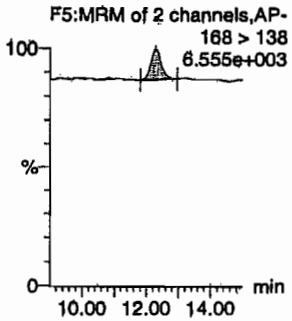

Tetryl

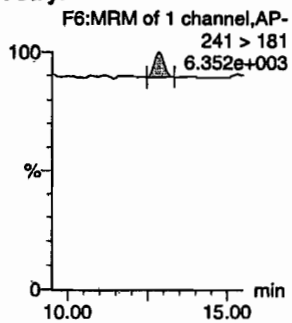

Nitrobenzene

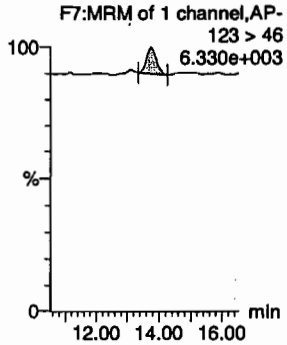

4-Amino-26-dinitrotoluene

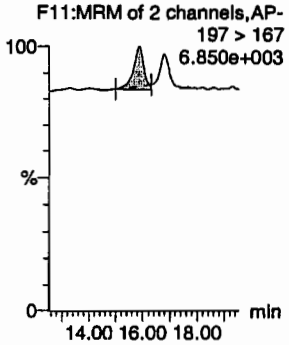

2-Amino-46-dinitrotoluene

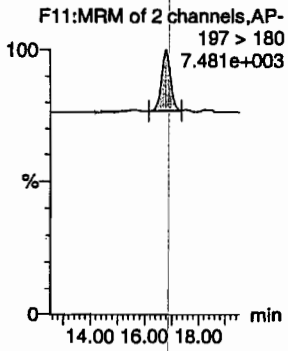

246-Trinitrotoluene

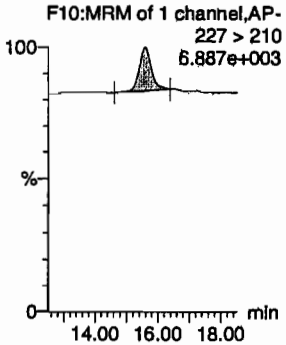

34-dinitrotoluene

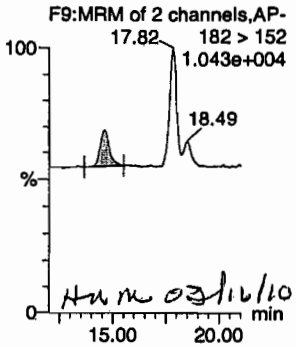

26-dinitrotoluene

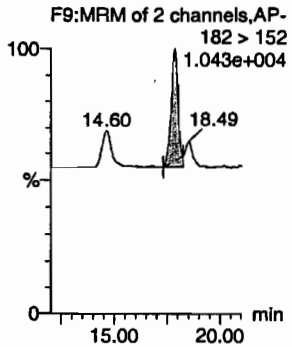

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA1.qld, Time: Tue Mar 16 09:27:58 2010

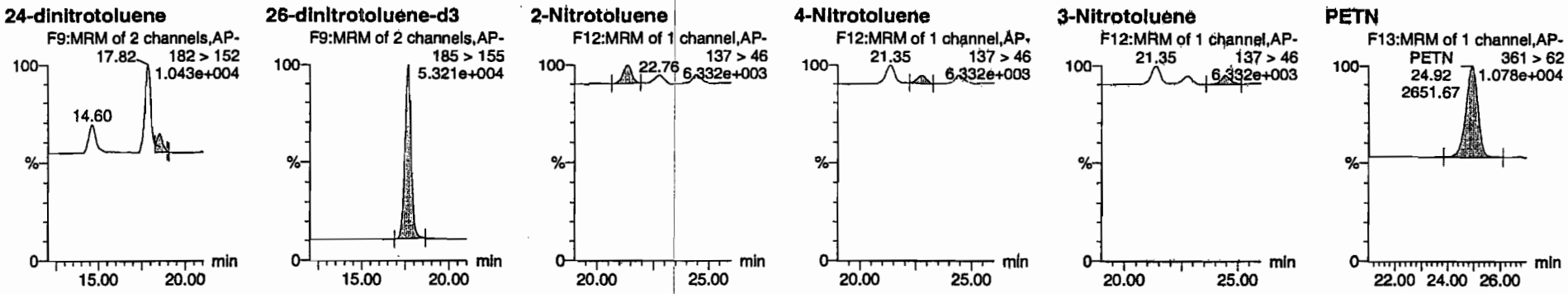

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100314-08CRI	HMX	176 > 102	5.20	1185.242	3429.830	1185.242	172.784	bb			47.2643	118.2	18.2	209.9
WXX100314-08CRI	RDX	176 > 102	7.64	882.731	3429.830	882.731	128.684	bb			48.3923	121.0	21.0	122.3
WXX100314-08CRI	135-Trinitrobenzene	213 > 183	10.25	1228.412	3429.830	1228.412	179.078	bb			48.6634	121.7	21.7	377.2
WXX100314-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	3429.830		3429.830	3429.830	bb			509.7175	101.9	1.9	171.9
WXX100314-08CRI	13-Dinitrobenzene	168 > 138	12.27	317.471	3429.830	317.471	46.281	bb			34.8359	87.1	-12.9	28.1
WXX100314-08CRI	Tetryl	241 > 181	12.82	236.874	3429.830	236.874	34.531	bb			36.4551	91.1	-8.9	28.0
WXX100314-08CRI	Nitrobenzene	123 > 46	13.72	230.964	3429.830	230.964	33.670	bb			41.0440	102.6	2.6	18.7
WXX100314-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.86	510.598	19848.350	510.598	12.862	MM	16-Mar-10	09:19:27	41.3250	103.3	3.3	19.3
WXX100314-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.79	681.011	19848.350	681.011	17.155	bb			41.7491	104.4	4.4	39.6
WXX100314-08CRI	246-Trinitrotoluene	227 > 210	15.58	515.621	19848.350	515.621	12.989	bb			38.0823	95.2	-4.8	60.2
WXX100314-08CRI	34-dinitrotoluene	182 > 152	14.60	718.757	19848.350	718.757	18.106	bb			18.7774	93.9	-6.1	42.5
WXX100314-08CRI	26-dinitrotoluene	182 > 152	17.82	1830.442	19848.350	1830.442	46.111	MM	16-Mar-10	09:24:44	40.9844	102.5	2.5	137.8
WXX100314-08CRI	24-dinitrotoluene	182 > 152	18.49	391.083	19848.350	391.083	9.852	MM	16-Mar-10	09:24:53	41.1321	102.8	2.8	27.8
WXX100314-08CRI	26-dinitrotoluene-d3	185 > 155	17.64	19848.350		19848.350	19848.350	bb			520.7998	104.2	4.2	2091.2
WXX100314-08CRI	2-Nitrotoluene	137 > 46	21.35	279.897	19848.350	279.897	7.051	bb			46.4646	116.2	16.2	52.5
WXX100314-08CRI	4-Nitrotoluene	137 > 46	22.76	130.307	19848.350	130.307	3.283	bb			42.9339	107.3	7.3	23.0
WXX100314-08CRI	3-Nitrotoluene	137 > 46	24.43	157.961	19848.350	157.961	3.979	bb			43.5113	108.8	8.8	26.6
WXX100314-08CRI	PETN	361 > 62	24.92	2651.668	19848.350	2651.668	66.798	bb			44.3116	110.8	10.8	398.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/16/10
Time of Injection	0420
Standard Number	WXX100314-08CRI
Data File	EXP0314077a

HMX	118.2
RDX	121.0
135-TNB	121.7
13-DNB	87.1
Tetryl	91.1
Nitrobenzene	102.6
4A-26-DNT	103.3
2A-46-DNT	104.4
246-TNT	95.2
34-DNT(surr)	93.9
26-DNT	102.5
24-DNT	102.8
2-NT	116.2
4-NT	107.3
3-NT	108.8
PETN	110.8
Total	1686.9
Average	105.4

MMT 3/16/10

HMM 03/16/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1898

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0314088a

Analysis Date: 16-MAR-10 09:45

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Dinitrobenzene	600	558.603	93	
m-Nitrotoluene	600	532.943	89	
o-Nitrotoluene	600	507.554	85	
p-Nitrotoluene	600	525.665	88	
1,3,5-Trinitrobenzene	600	554.76	92	
1,3-Dinitrobenzene-d4	500	516.17	103	
2,4,6-Trinitrotoluene	600	620.772	103	
2,4-Dinitrotoluene	600	650.935	108	
2,6-Dinitrotoluene	600	607.981	101	
2,6-Dinitrotoluene-d3	500	515.033	103	
2-Amino-4,6-dinitrotoluene	600	611.361	102	
3,4-Dinitrotoluene	300	319.204	106	
4-Amino-2,6-dinitrotoluene	600	547.323	91	
HMX	600	755.976	126	*
Nitrobenzene	600	527.304	88	
PETN	600	680.381	113	
RDX	600	789.54	132	*
Tetryl	600	477.715	80	*

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314088a
Date: 16-Mar-2010
Time: 09:45:11
ID: WXX100314-07CCV
Vial: 1:1,B

MMT 3/17/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.027e+005
7.62

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.027e+005
5.19
RDX
7.62
14584.41

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.326e+004

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.404e+004
10.12

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.884e+004

Tetryl
F6:MRM of 1 channel,AP-
Tetryl
12.82
3143.34
241 > 181
1.447e+004

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.444e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.153e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.038e+004
15.53

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.426e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.82
182 > 152
7.187e+004
18.49

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.187e+004
14.60
18.49

Hmm 03/17/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

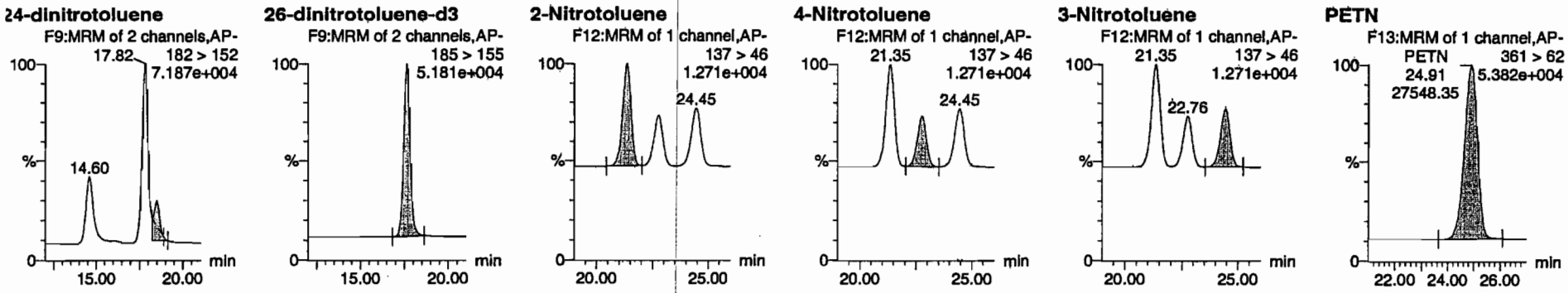

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100314-07CCV	HMX	176 > 102	5.19	19197.541	3473.247	19197.541	2763.630	bb			755.9765	126.0	26.0	867.1
WXX100314-07CCV	RDX	176 > 102	7.62	14584.411	3473.247	14584.411	2099.536	bb			789.5396	131.6	31.6	547.7
WXX100314-07CCV	135-Trinitrobenzene	213 > 183	10.25	14181.096	3473.247	14181.096	2041.475	bb			554.7600	92.5	-7.5	3988.7
WXX100314-07CCV	13-Dinitrobenzene-d4	172 > 142	12.17	3473.247		3473.247	3473.247	bb			516.1698	103.2	3.2	238.0
WXX100314-07CCV	13-Dinitrobenzene	168 > 138	12.27	5155.163	3473.247	5155.163	742.124	bb			558.6025	93.1	-6.9	285.4
WXX100314-07CCV	Tetryl	241 > 181	12.82	3143.336	3473.247	3143.336	452.507	bb			477.7148	79.6	-20.4	336.4
WXX100314-07CCV	Nitrobenzene	123 > 46	13.76	3004.821	3473.247	3004.821	432.567	bb			527.3036	87.9	-12.1	351.6
WXX100314-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.86	6687.664	19628.580	6687.664	170.355	MM	17-Mar-10	12:31:52	547.3226	91.2	-8.8	167.3
WXX100314-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.76	9862.086	19628.580	9862.086	251.218	bb			611.3608	101.9	1.9	974.7
WXX100314-07CCV	246-Trinitrotoluene	227 > 210	15.58	8311.970	19628.580	8311.970	211.731	bb			620.7724	103.5	3.5	651.0
WXX100314-07CCV	34-dinitrotoluene	182 > 152	14.60	12083.106	19628.580	12083.106	307.794	bb			319.2040	106.4	6.4	251.0
WXX100314-07CCV	26-dinitrotoluene	182 > 152	17.82	26852.918	19628.580	26852.918	684.026	MM	17-Mar-10	12:33:25	607.9808	101.3	1.3	695.0
WXX100314-07CCV	24-dinitrotoluene	182 > 152	18.49	6120.548	19628.580	6120.548	155.909	MM	17-Mar-10	12:34:38	650.9351	108.5	8.5	153.4
WXX100314-07CCV	26-dinitrotoluene-d3	185 > 155	17.64	19628.580		19628.580	19628.580	bb			515.0333	103.0	3.0	2121.0
WXX100314-07CCV	2-Nitrotoluene	137 > 46	21.35	3023.588	19628.580	3023.588	77.020	bb			507.5535	84.6	-15.4	733.2
WXX100314-07CCV	4-Nitrotoluene	137 > 46	22.76	1577.758	19628.580	1577.758	40.190	bb			525.6646	87.6	-12.4	362.1
WXX100314-07CCV	3-Nitrotoluene	137 > 46	24.45	1913.342	19628.580	1913.342	48.739	bb			532.9428	88.8	-11.2	415.1
WXX100314-07CCV	PETN	361 > 62	24.91	27548.346	19628.580	27548.346	701.741	bb			680.3808	113.4	13.4	6657.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 03/16/10
Time of Injection: 0945
Standard Number: WXX100314-07CCV
Data File: EXP0314088a

HMX		126.0
RDX		131.6
135-TNB		92.5
13-DNB		93.1
Tetryl		79.6
Nitrobenzene		87.9
4A-26-DNT		91.2
2A-46-DNT		101.9
246-TNT		103.5
34-DNT(surr)		106.4
26-DNT		101.3
24-DNT		108.5
2-NT		94.6
4-NT		97.6
3-NT		88.8
PETN		113.4
Total		1617.9
Average		101.1

MJT 3/17/10

HJM 03/17/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1898

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0314090a

Analysis Date: 16-MAR-10 10:44

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene	40	39.806	100	
2,6-Dinitrotoluene-d3	500	591.45	118	
2-Amino-4,6-dinitrotoluene	40	44.647	112	
3,4-Dinitrotoluene	20	16.385	82	
4-Amino-2,6-dinitrotoluene	40	39.318	98	
HMX	40	50.858	127	
Nitrobenzene	40	45.207	113	
PETN	40	39.826	100	
RDX	40	49.187	123	
Tetryl	40	42.113	105	
m-Dinitrobenzene	40	36.399	91	
m-Nitrotoluene	40	32.494	81	
o-Nitrotoluene	40	33.622	84	
p-Nitrotoluene	40	31.085	78	
1,3,5-Trinitrobenzene	40	53.321	133	*
1,3-Dinitrobenzene-d4	500	498.557	100	
2,4,6-Trinitrotoluene	40	42.928	107	
2,4-Dinitrotoluene	40	38.67	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314090a
Date: 16-Mar-2010
Time: 10:44:12
ID: WXX100314-08CRI
Vial: 1:1,C

MM 3/17/10

HMX

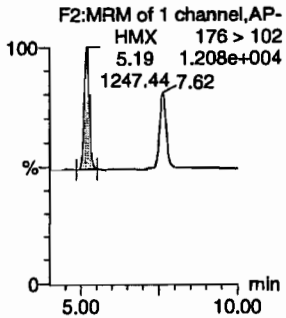

RDX

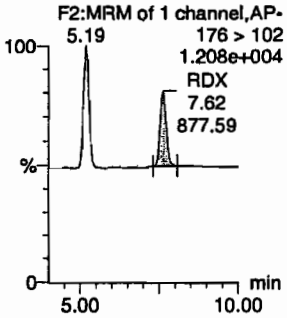

135-Trinitrobenzene

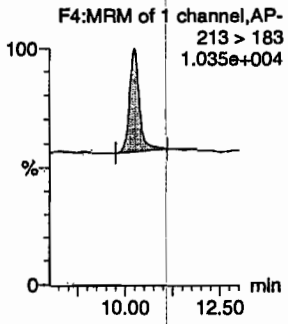

13-Dinitrobenzene-d4

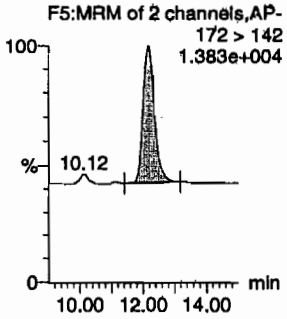

13-Dinitrobenzene

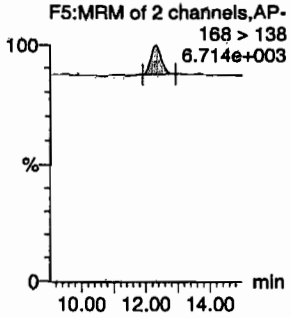

Tetryl

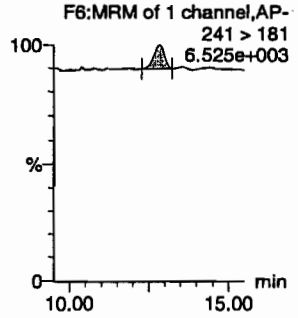

Nitrobenzene

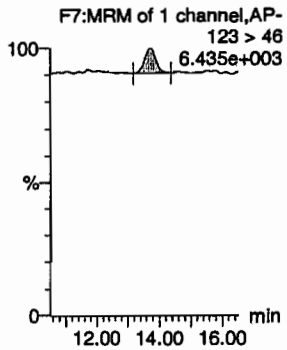

4-Amino-26-dinitrotoluene

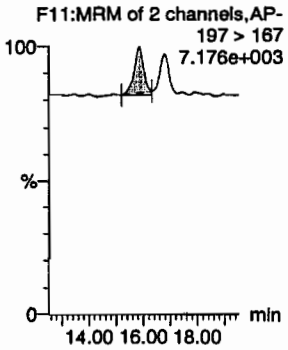

2-Amino-46-dinitrotoluene

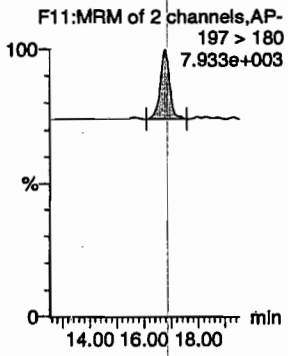

246-Trinitrotoluene

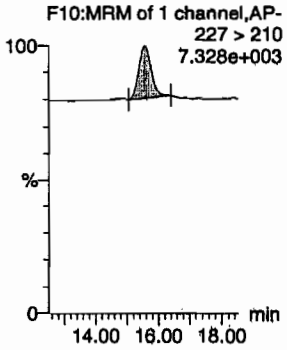

34-dinitrotoluene

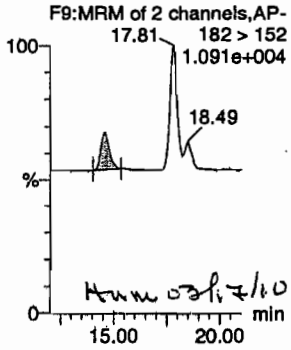

Hmm 03/17/10

26-dinitrotoluene

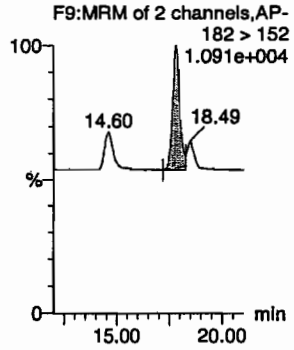

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

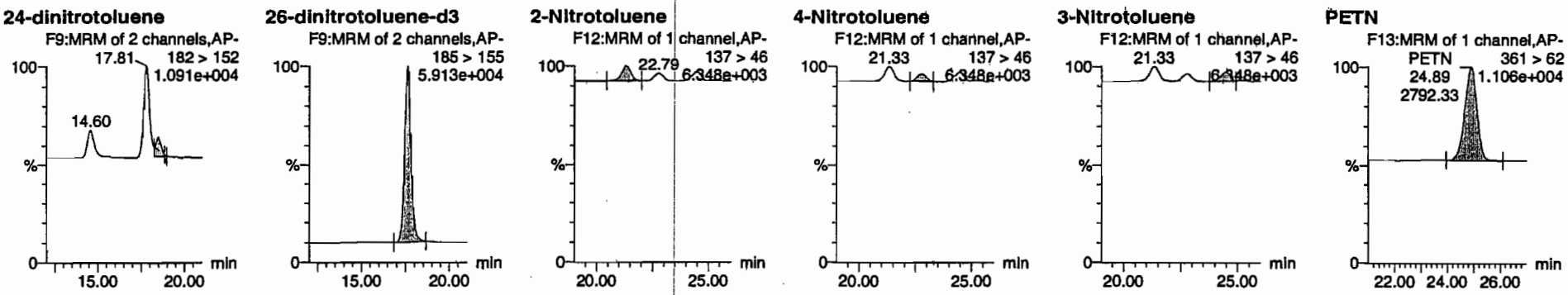

ID	Name	Trace	RT	Area	ISArea	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100314-08CRI	HMX	176 > 102	5.19	1247.437	3354.735	1247.437	185.922	bb			50.8579	127.1	27.1	277.5
WXX100314-08CRI	RDX	176 > 102	7.62	877.587	3354.735	877.587	130.798	bb			49.1873	123.0	23.0	168.3
WXX100314-08CRI	135-Trinitrobenzene	213 > 183	10.23	1316.522	3354.735	1316.522	196.218	bb			53.3213	133.3	33.3	99.2
WXX100314-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	3354.735		3354.735	3354.735	bb			498.5574	99.7	-0.3	178.7
WXX100314-08CRI	13-Dinitrobenzene	168 > 138	12.31	324.448	3354.735	324.448	48.357	bb			36.3985	91.0	-9.0	35.5
WXX100314-08CRI	Tetryl	241 > 181	12.82	267.645	3354.735	267.645	39.891	bb			42.1128	105.3	5.3	21.1
WXX100314-08CRI	Nitrobenzene	123 > 46	13.71	248.820	3354.735	248.820	37.085	bb			45.2069	113.0	13.0	17.0
WXX100314-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.85	551.703	22540.926	551.703	12.238	MM	17-Mar-10	12:31:59	39.3180	98.3	-1.7	44.8
WXX100314-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.75	827.080	22540.926	827.080	18.346	bb			44.6471	111.6	11.6	41.5
WXX100314-08CRI	246-Trinitrotoluene	227 > 210	15.54	660.075	22540.926	660.075	14.642	bb			42.9278	107.3	7.3	39.8
WXX100314-08CRI	34-dinitrotoluene	182 > 152	14.60	712.278	22540.926	712.278	15.800	bb			16.3854	81.9	-18.1	75.0
WXX100314-08CRI	26-dinitrotoluene	182 > 152	17.81	2018.993	22540.926	2018.993	44.785	MM	17-Mar-10	12:33:31	39.8062	99.5	-0.5	248.0
WXX100314-08CRI	24-dinitrotoluene	182 > 152	18.49	417.551	22540.926	417.551	9.262	MM	17-Mar-10	12:34:30	38.6700	96.7	-3.3	54.2
WXX100314-08CRI	26-dinitrotoluene-d3	185 > 155	17.63	22540.926		22540.926	22540.926	bb			591.4501	118.3	18.3	2080.2
WXX100314-08CRI	2-Nitrotoluene	137 > 46	21.33	230.010	22540.926	230.010	5.102	bb			33.6220	84.1	-15.9	57.1
WXX100314-08CRI	4-Nitrotoluene	137 > 46	22.79	107.144	22540.926	107.144	2.377	bb			31.0852	77.7	-22.3	27.7
WXX100314-08CRI	3-Nitrotoluene	137 > 46	24.48	133.965	22540.926	133.965	2.972	bb			32.4935	81.2	-18.8	34.7
WXX100314-08CRI	PETN	361 > 62	24.89	2792.326	22540.926	2792.326	61.939	bb			39.8261	99.6	-0.4	685.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	03/16/10
Time of Injection	1044
Standard Number	WXX100314-08CRI
Data File	EXP0314090a

HMX	127.1
RDX	123.0
135-TNB	133.3
13-DNB	91.0
Tetryl	105.3
Nitrobenzene	113.0
4A-26-DNT	98.3
2A-46-DNT	111.6
246-TNT	107.3
34-DNT(surr)	81.9
26-DNT	99.5
24-DNT	96.7
2-NT	84.1
4-NT	77.7
3-NT	81.2
PETN	99.6
Total	1630.6
Average	101.9

MAT 3/17/10

HMM 03/17/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1898

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03050013.wiff

Analysis Date: 05–MAR–10 20:16

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	102	102	
2,6–Diamino–4–nitrotoluene	100	104	104	
3,4–Dinitrotoluene	50	52	104	
3,5–Dinitroaniline	100	104	104	
TATB	100	108	108	
tris(o–cresyl) phosphate	100	100	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Scan 3/9/10

e Name: "WXX100305-27CRI" Sample ID: "|1|LER" File: "EXS03050013.wiff"
lame: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_C" Annotation: ""

Index:	1	
Type:	QC	
tration:	100.	ng/mL
sted Conc:	108.	ng/mL
ate:	3/5/2010	
ime:	8:16:04 PM	
ed:	No	
Algorithm:	IntelliQuan - IQA	
eak Height:	2500.00	cps
eak Width:	0.00	sec
ing Width:	3	points
dow:	30.0	sec
ed RT:	7.00	min
lative RT:	No	
ype:	Valley	
ion Time:	7.00	min
	1.42e+005	counts
:	36071.091	cps
rime:	6.89	min
ne:	7.39	min

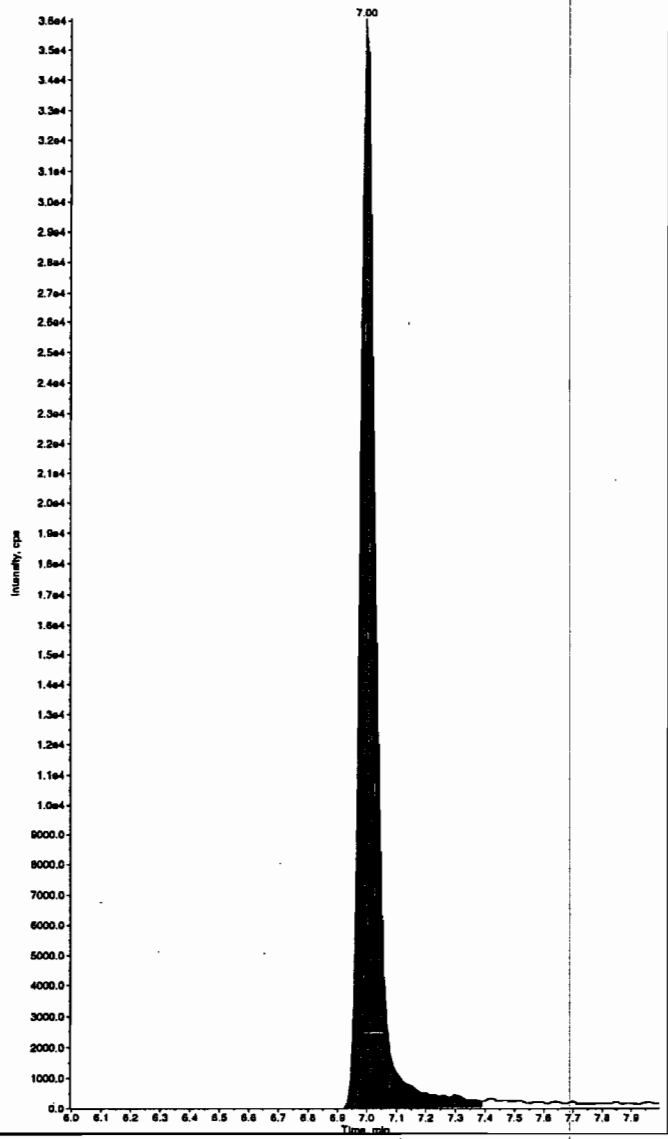

Sample Name: "WXX100305-27CRI" Sample ID: "|1|LER" File: "EXS03050013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	104.	ng/mL
Acq. Date:	3/5/2010	
Acq. Time:	8:16:04 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.23	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.24	min
Area:	8.89e+005	counts
Height:	251687.103	cps
Start Time:	8.14	min
End Time:	8.34	min

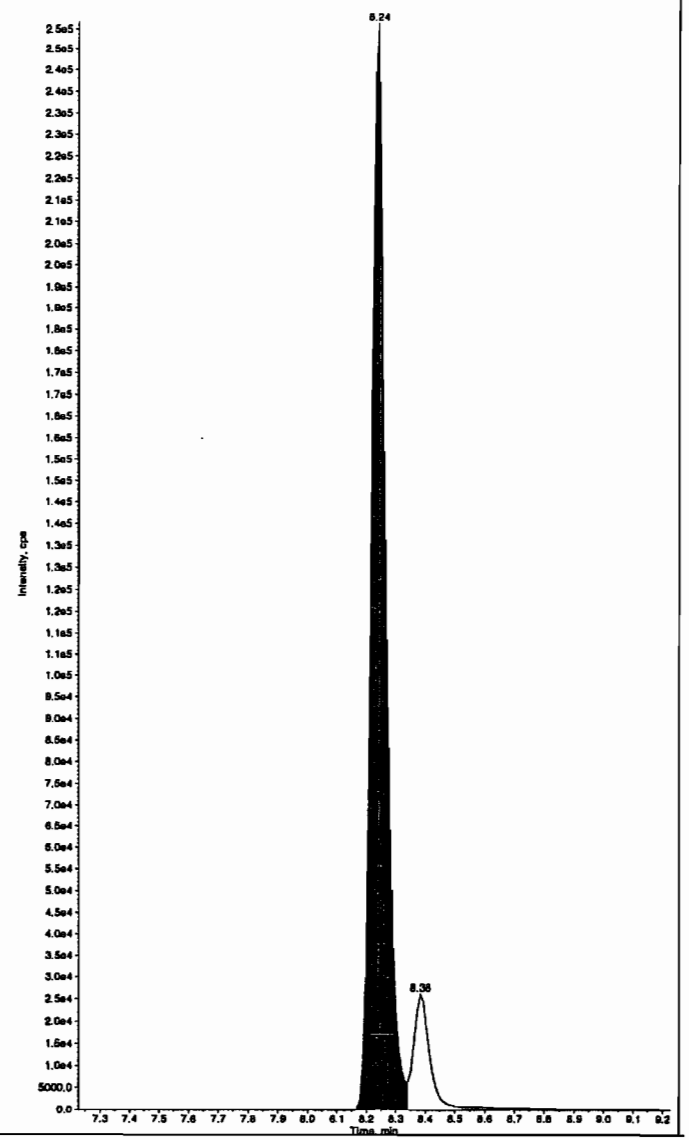

Hmm 03/09/10

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Name: "WXX100305-27CRI" Sample ID: "|1|LER" File: "EXS03050013.wiff"
ame: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
int: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
ration: 50.0 ng/mL
ted Conc: 52.0 ng/mL
te: 3/5/2010
me: 8:16:04 PM

d: No
lgorithm: IntelliQuan - IQA
ak Height: 1460.00 cps
ak Width: 0.00 sec
ng Width: 3 points
low: 30.0 sec
d RT: 8.37 min
ative RT: No

pe: Valley
on Time: 8.38 min
6.29e+005 counts
184661.255 cps
ime: 8.31 min
e: 8.69 min

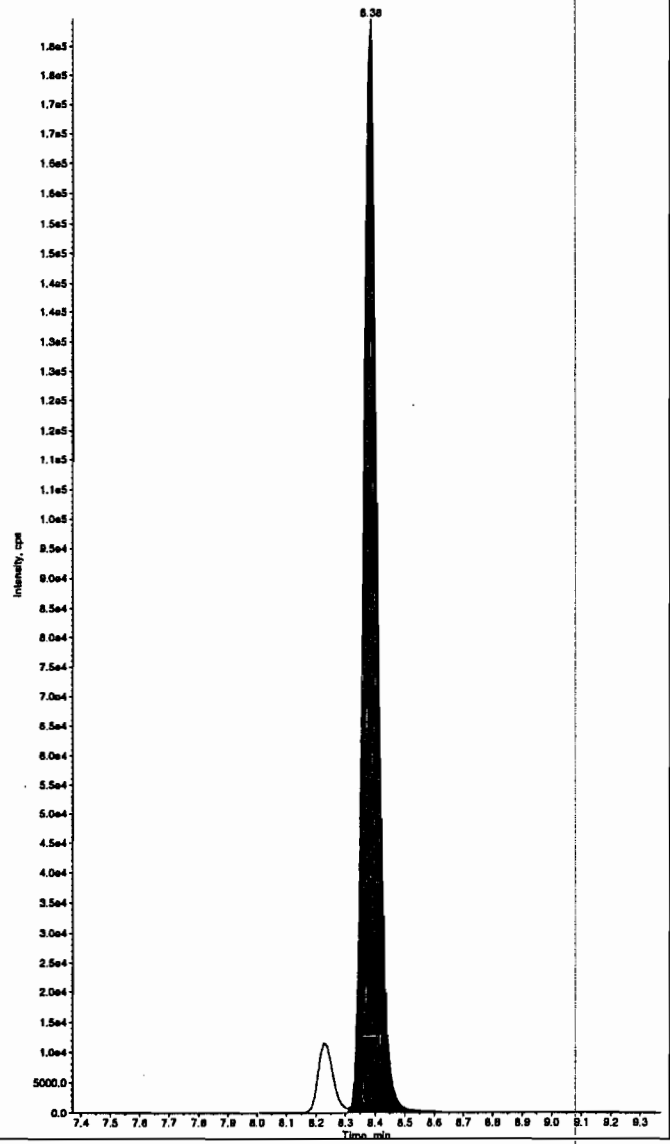

Sample Name: "WXX100305-27CRI" Sample ID: "|1|LER" File: "EXS03050013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 3/5/2010
Acq. Time: 8:16:04 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 2.66e+005 counts
Height: 64472.961 cps
Start Time: 4.93 min
End Time: 5.31 min

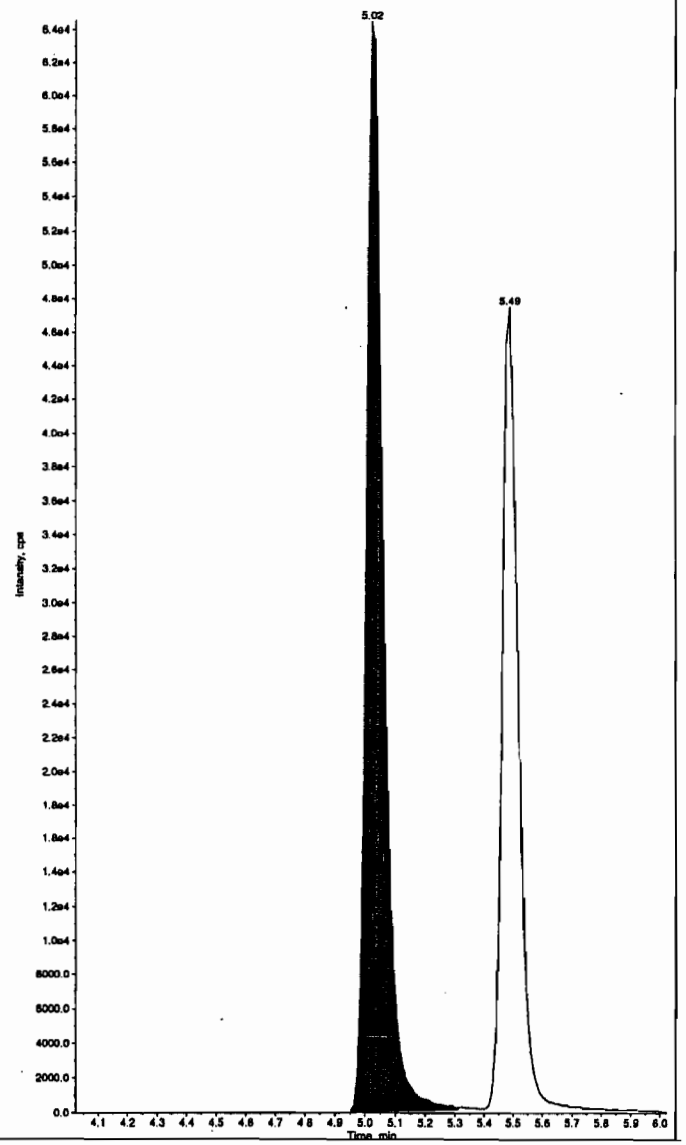

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

le Name: "WXX100305-27CRI" Sample ID: "|1|LER" File: "EXS03050013.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ent: "LCMSEXP_C" Annotation: "

```
 Index:        1
 Type:          QC
tration:       100.     ng/mL
ated Conc:     102.     ng/mL
ate:        3/5/2010
ime:        8:16:04 PM

ed:            No
Algorithm: IntelliQuan - IQA
eak Height: 350.00    cps
eak Width:    0.00    sec
ing Width:  3        points
dow:         30.0     sec
ed RT:        5.48    min
lative RT:    No

ype:        Valley
ion Time:     5.49    min
        1.85e+005    counts
:          47318.394  cps
Time:         5.38    min
me:           5.83    min
```

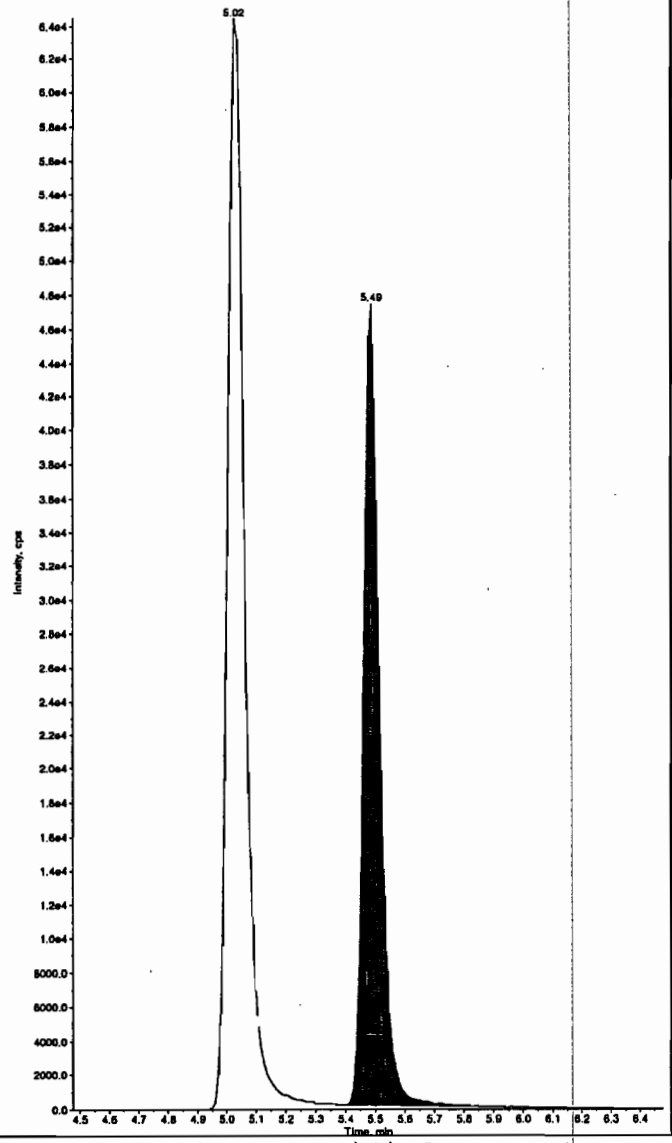

Sample Name: "WXX100305-27CRI" Sample ID: "|1|LER" File: "EXS03050013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "

```
Sample Index:        1
Sample Type:          QC
Concentration:       100.     ng/mL
Calculated Conc:     100.     ng/mL
Acq. Date:        3/5/2010
Acq. Time:        8:16:04 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3        points
RT Window:          30.0     sec
Expected RT:         10.9    min
Use Relative RT:     No

Int. Type:        Valley
Retention Time:      10.9    min
Area:         1.89e+006    counts
Height:        541194.153  cps
Start Time:          10.8    min
End Time:            11.1    min
```

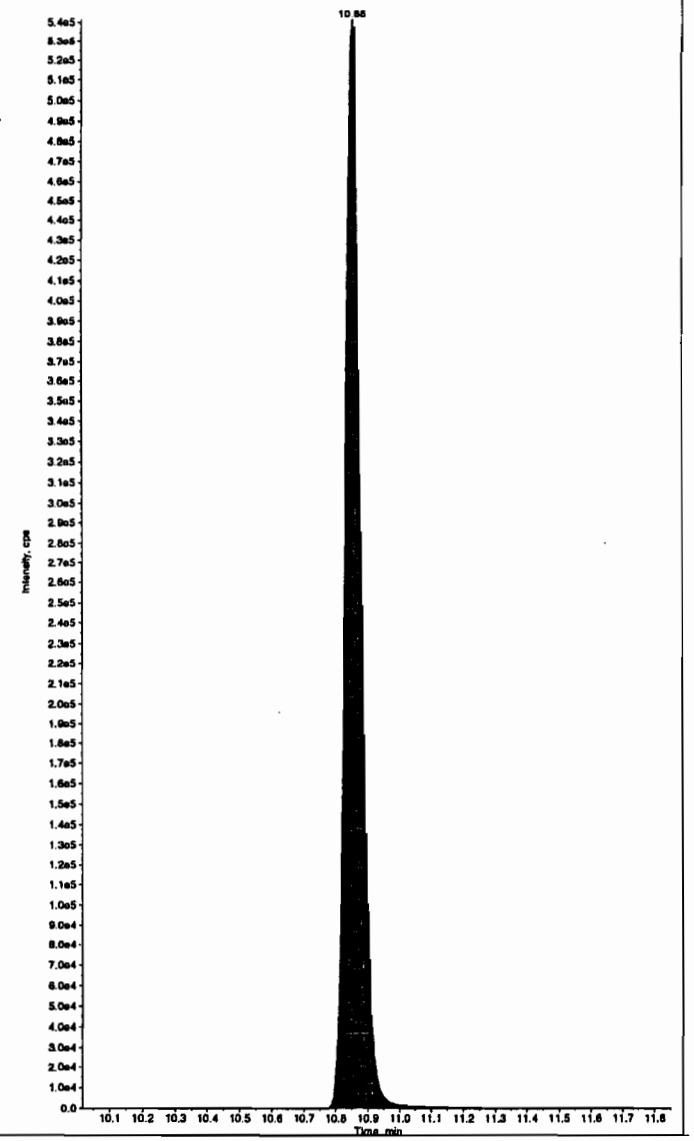

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1898

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03050024.wiff

Analysis Date: 05-MAR-10 23:08

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	507	101	
2,6-Diamino-4-nitrotoluene	500	520	104	
3,4-Dinitrotoluene	250	237	95	
3,5-Dinitroaniline	500	509	102	
TATB	500	506	101	
tris(o-cresyl) phosphate	500	505	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 3/9/10

le Name: "WXX100305-26CCV" Sample ID: "[1]LER" File: "EXS03050024.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
tration: 500. ng/mL
ated Conc: 506. ng/mL
ate: 3/5/2010
ime: 11:08:44 PM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 2500.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 7.00 min
lative RT: No

ype: Valley
ion Time: 7.02 min
7.28e+005 counts
: 172189.423 cps
Time: 6.92 min
me: 7.71 min

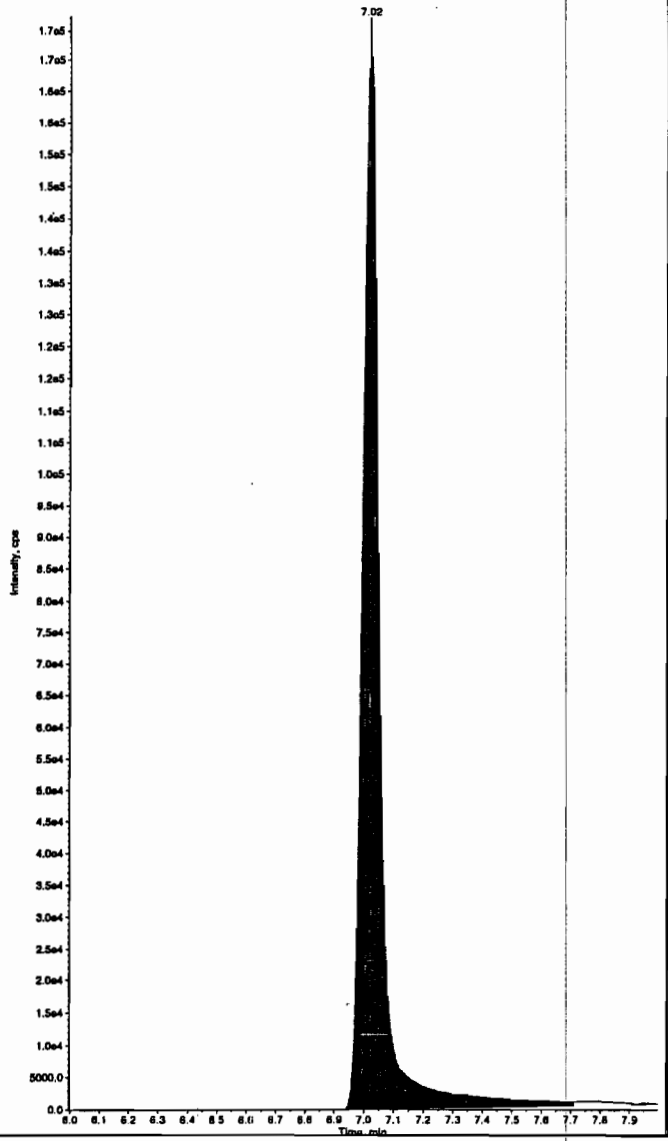

Sample Name: "WXX100305-26CCV" Sample ID: "[1]LER" File: "EXS03050024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 489. ng/mL
Acq. Date: 3/5/2010
Acq. Time: 11:08:44 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.23 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.25 min
Area: 4.00e+006 counts
Height: 1103983.643 cps
Start Time: 8.19 min
End Time: 8.35 min

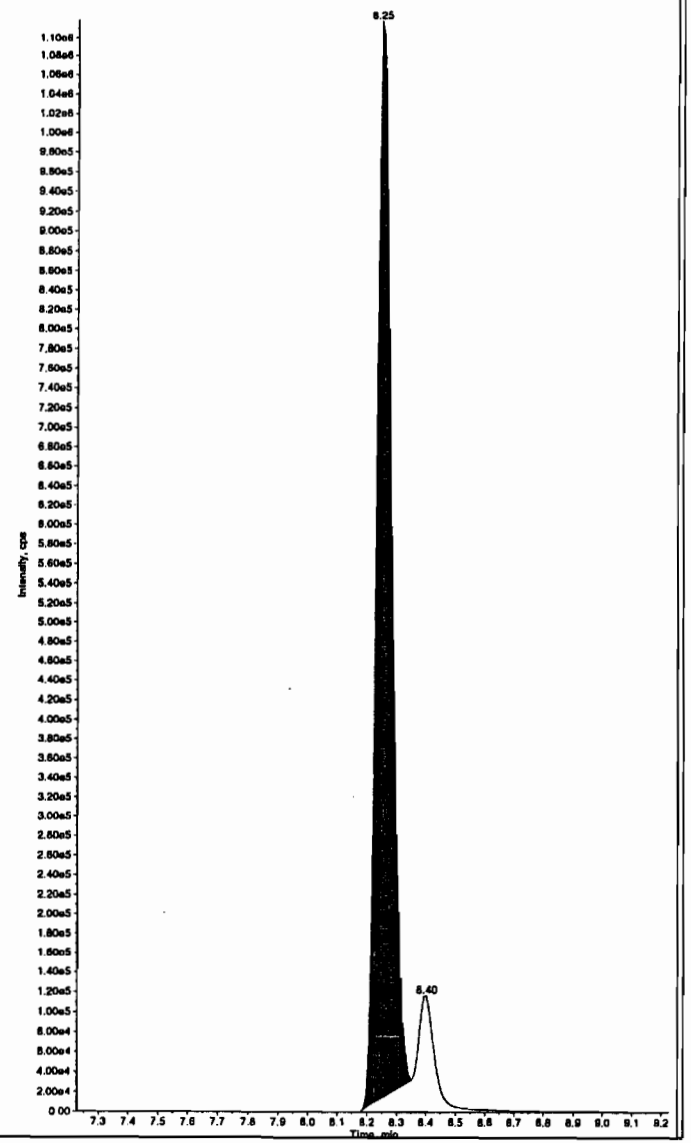

Hrm 03/09/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Run 3/9/10

le Name: "WXX100305-26CCV" Sample ID: "|1|LER" File: "EXS03050024.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
nent: "LCMSEXP_C" Annotation: ""
Index: 1
Type: QC
ntration: 500. ng/mL
lated Conc: 506. ng/mL
Date: 3/5/2010
Time: 11:08:44 PM

ed: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 7.00 min
lative RT: No

Type: Valley
ion Time: 7.02 min
7.28e+005 counts
: 172189.423 cps
Time: 6.92 min
me: 7.71 min

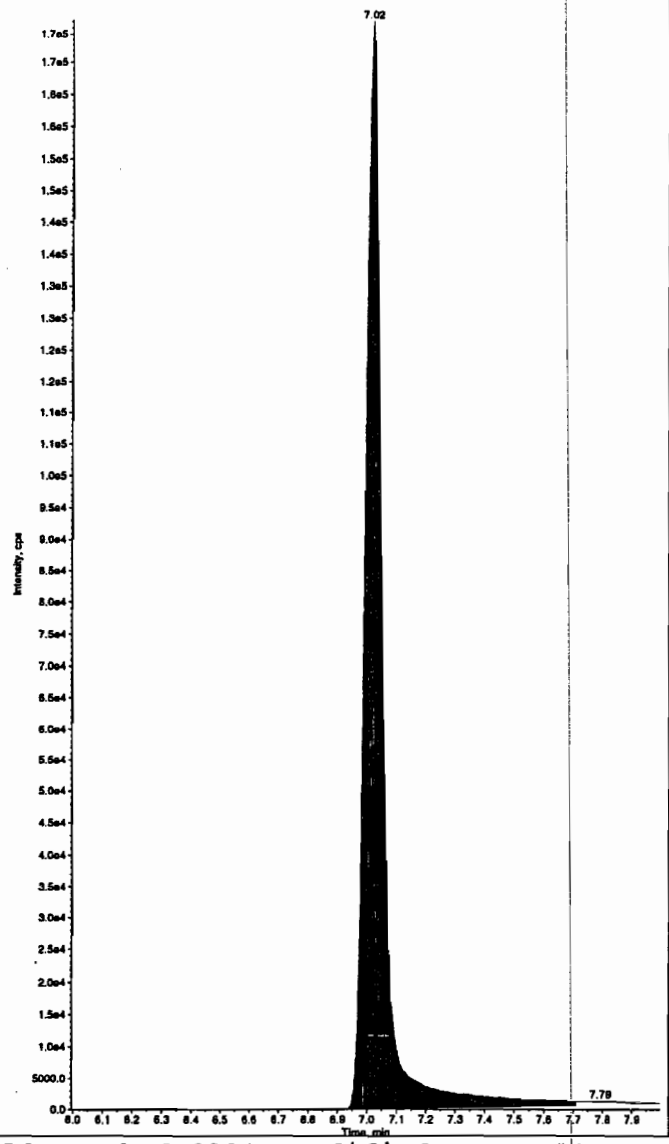

Sample Name: "WXX100305-26CCV" Sample ID: "|1|LER" File: "EXS03050024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 509. ng/mL
Acq. Date: 3/5/2010
Acq. Time: 11:08:44 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.23 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.25 min
Area: 4.15e+006 counts
Height: 1137952.652 cps
Start Time: 8.19 min
End Time: 8.35 min

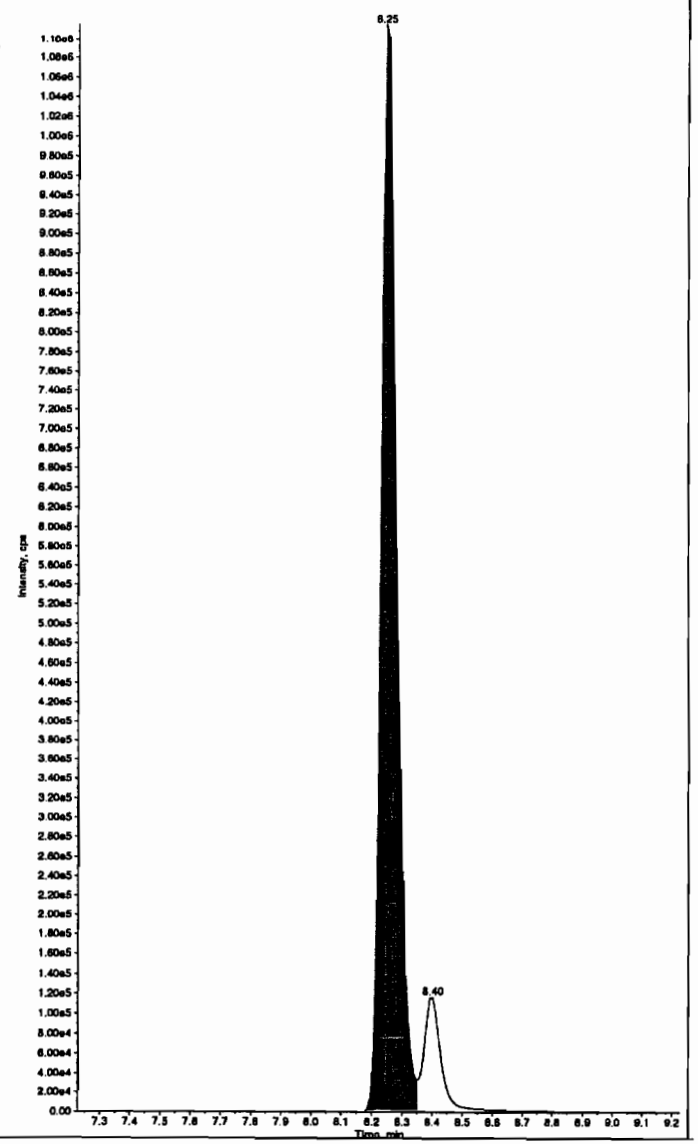

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

le Name: "WXX100305-26CCV" Sample ID: "[1]LER" File: "EXS03050024.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ent: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
tration: 250. ng/mL
ated Conc: 237. ng/mL
ate: 3/5/2010
ime: 11:08:44 PM

ed: No
Algorithm: IntelliQuan - IQA
ask Height: 1460.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 8.37 min
lative RT: No

ype: Valley
ion Time: 8.39 min
2.96e+006 counts
: 841921.204 cps
Time: 8.32 min
me: 8.74 min

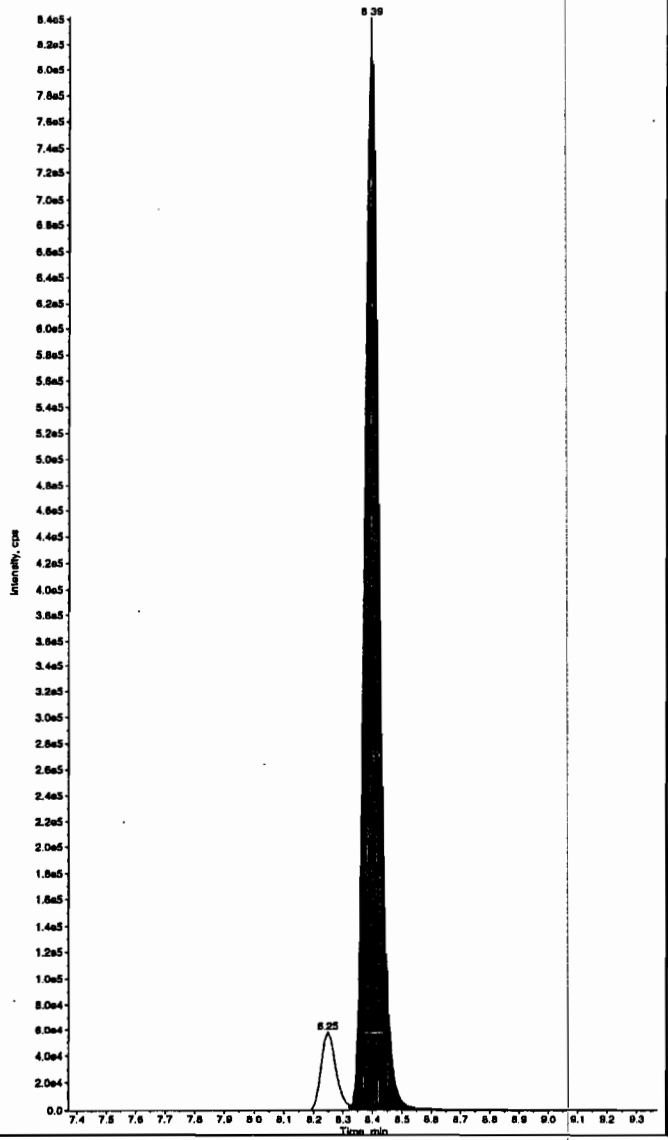

Sample Name: "WXX100305-26CCV" Sample ID: "[1]LER" File: "EXS03050024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 520. ng/mL
Acq. Date: 3/5/2010
Acq. Time: 11:08:44 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 1.37e+006 counts
Height: 329270.813 cps
Start Time: 4.94 min
End Time: 5.32 min

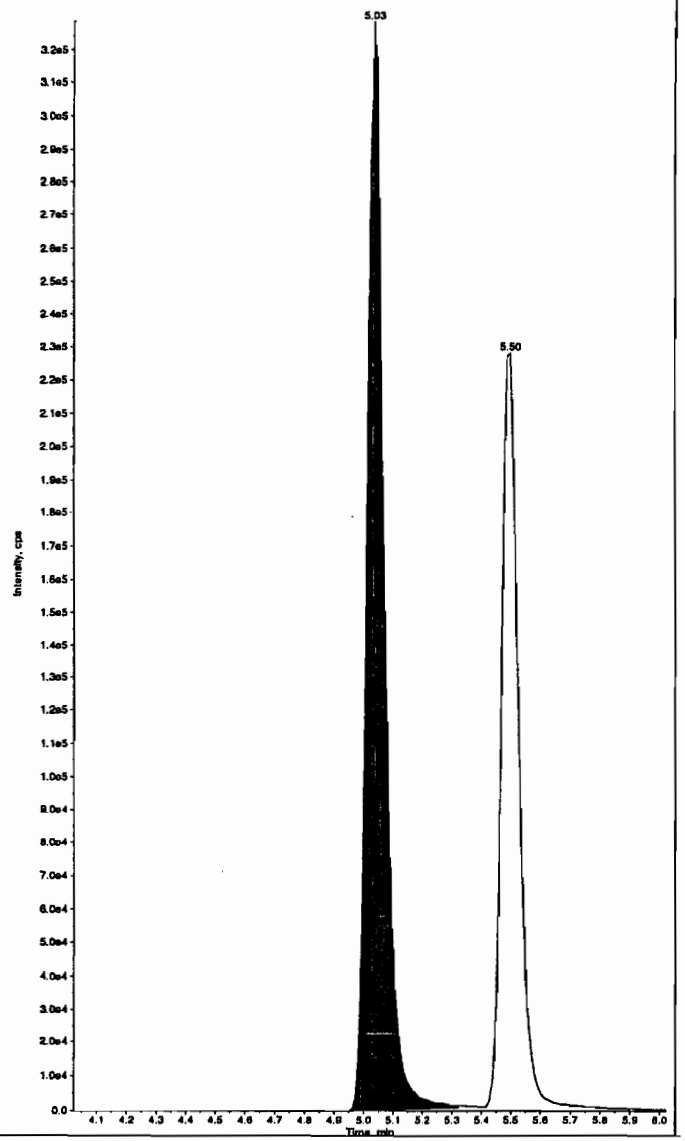

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

s Name: "WXX100305-26CCV" Sample ID: "|1|LER" File: "EXS03050024.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ent: "LCMSEXP_C" Annotation: ""

```
 Index:        1
 Type:          QC
tration:       500.    ng/mL
ated Conc:     507.    ng/mL
ate:        3/5/2010
ime:        11:08:44 PM

ed:            No
Algorithm: IntelliQuan - IQA
eak Height: 350.00   cps
eak Width:    0.00   sec
ing Width:  3        points
dow:         30.0    sec
ed RT:        5.48   min
lative RT:    No

ype:        Valley
ion Time:     5.50   min
        9.40e+005   counts
:         228285.080  cps
Time:         5.39   min
me:           6.00   min
```

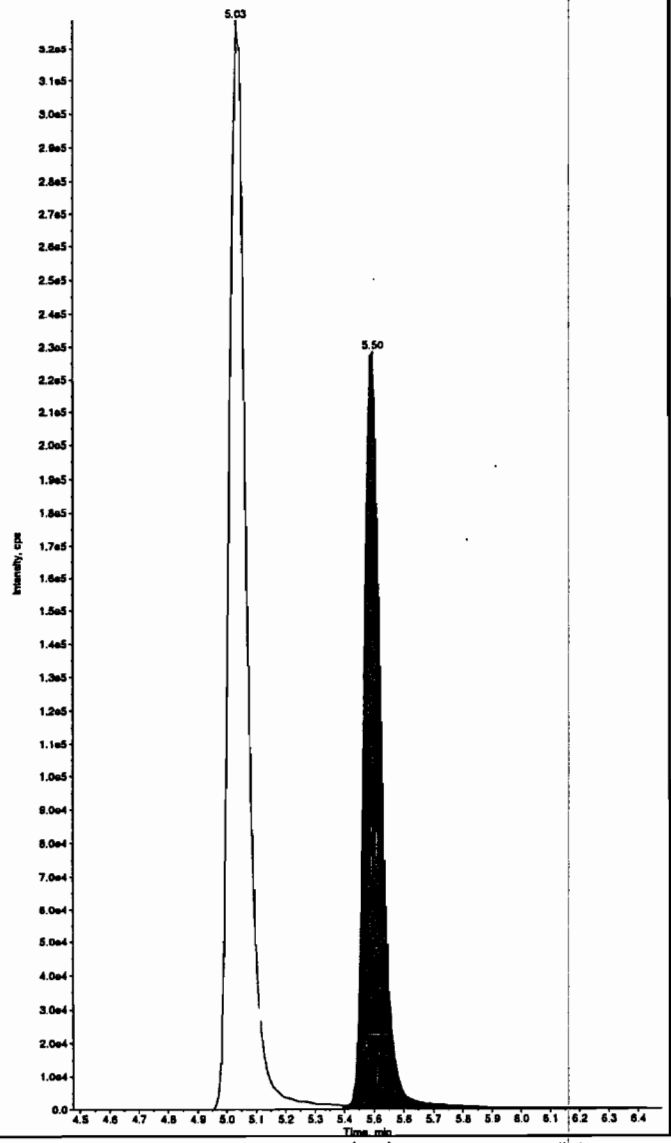

Sample Name: "WXX100305-26CCV" Sample ID: "|1|LER" File: "EXS03050024.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:          QC
Concentration:       500.    ng/mL
Calculated Conc:     505.    ng/mL
Acq. Date:        3/5/2010
Acq. Time:        11:08:44 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:     0.00  sec
Smoothing Width:  3        points
RT Window:          30.0   sec
Expected RT:        10.9   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.9   min
Area:         8.48e+006   counts
Height:        2484763.184  cps
Start Time:         10.8   min
End Time:           11.3   min
```

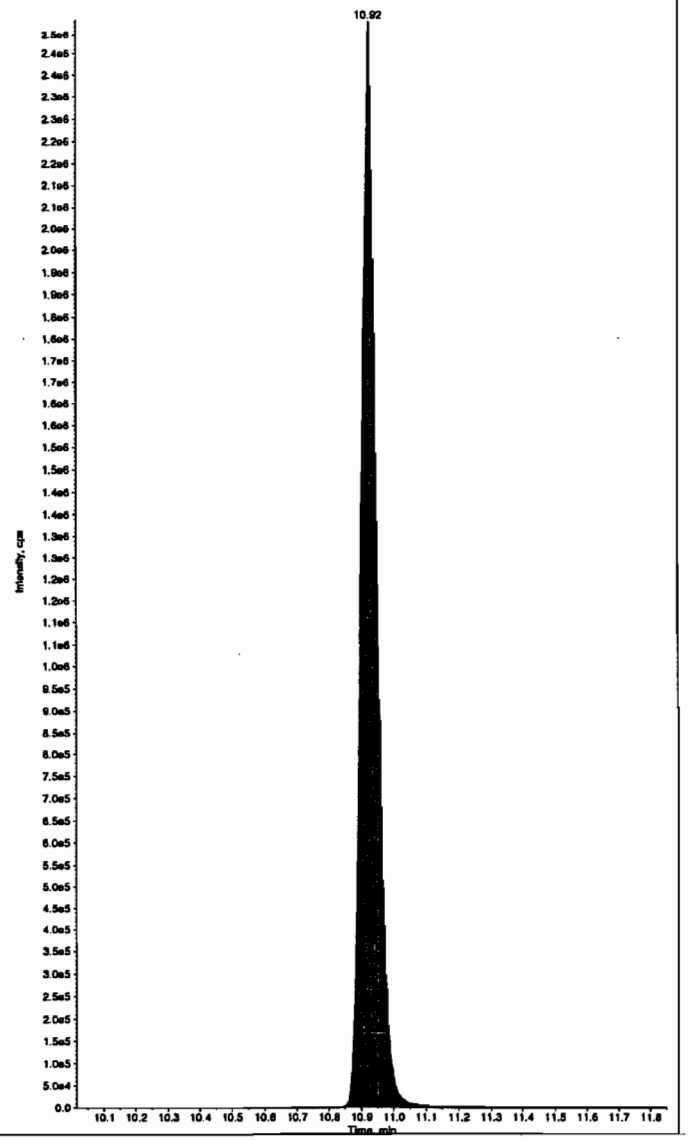

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1898

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03050026.wiff

Analysis Date: 05–MAR–10 23:40

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	102	102	
2,6–Diamino–4–nitrotoluene	100	109	109	
3,4–Dinitrotoluene	50	51.8	104	
3,5–Dinitroaniline	100	105	105	
TATB	100	112	112	
tris(o–cresyl) phosphate	100	103	103	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lcm 3/9/10

e Name: "WXX100305-27CRI" Sample ID: "|1|LER" File: "EXS03050026.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
tration: 100. ng/mL
sted Conc: 112. ng/mL
ate: 3/5/2010
ime: 11:40:09 PM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 2500.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 7.00 min
lative RT: No

ype: Valley
ion Time: 7.01 min
1.47e+005 counts
: 37090.164 cps
Time: 6.90 min
me: 7.74 min

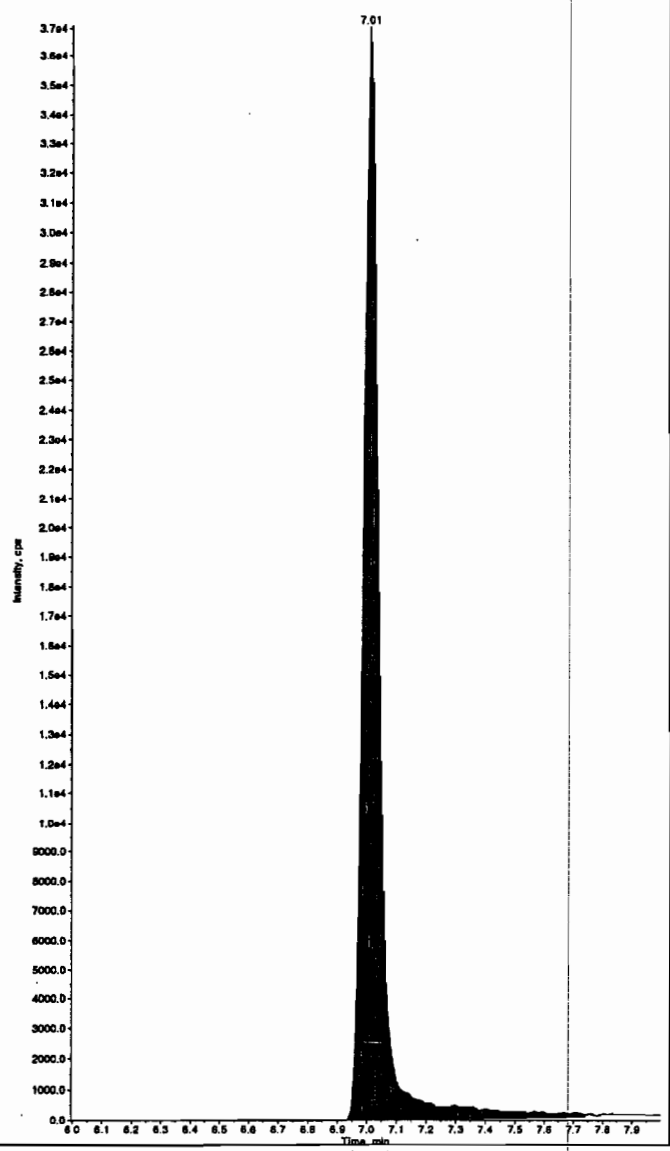

Sample Name: "WXX100305-27CRI" Sample ID: "|1|LER" File: "EXS03050026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 105. ng/mL
Acq. Date: 3/5/2010
Acq. Time: 11:40:09 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.23 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.24 min
Area: 8.94e+005 counts
Height: 243688.553 cps
Start Time: 8.13 min
End Time: 8.34 min

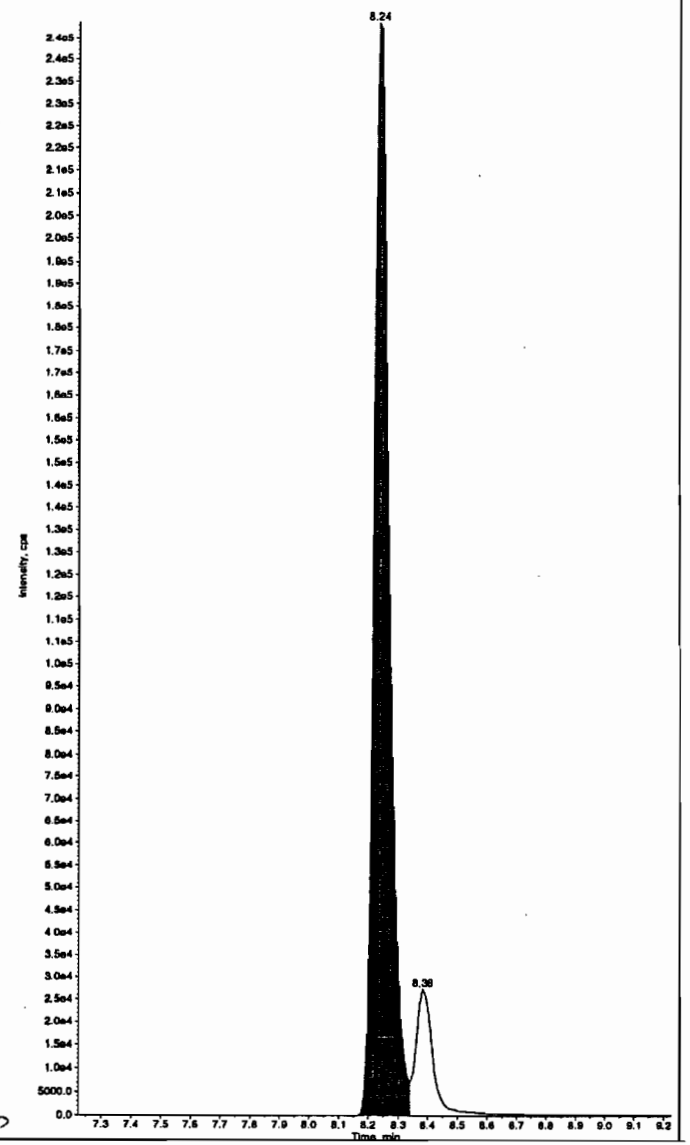

Hrm 03/09/10

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

) Name: "WXX100305-27CRI" Sample ID: "|1|LER" File: "EXS03050026.wiff"
lame: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ent: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
ration: 50.0 ng/mL
ated Conc: 51.8 ng/mL
ate: 3/5/2010
ime: 11:40:09 PM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 1460.00 cps
eak Width: 0.00 sec
ing Width: 3 points
low: 30.0 sec
ed RT: 8.37 min
ative RT: No

ype: Valley
on Time: 8.38 min
6.26e+005 counts
181524.170 cps
Time: 8.31 min
e: 8.73 min

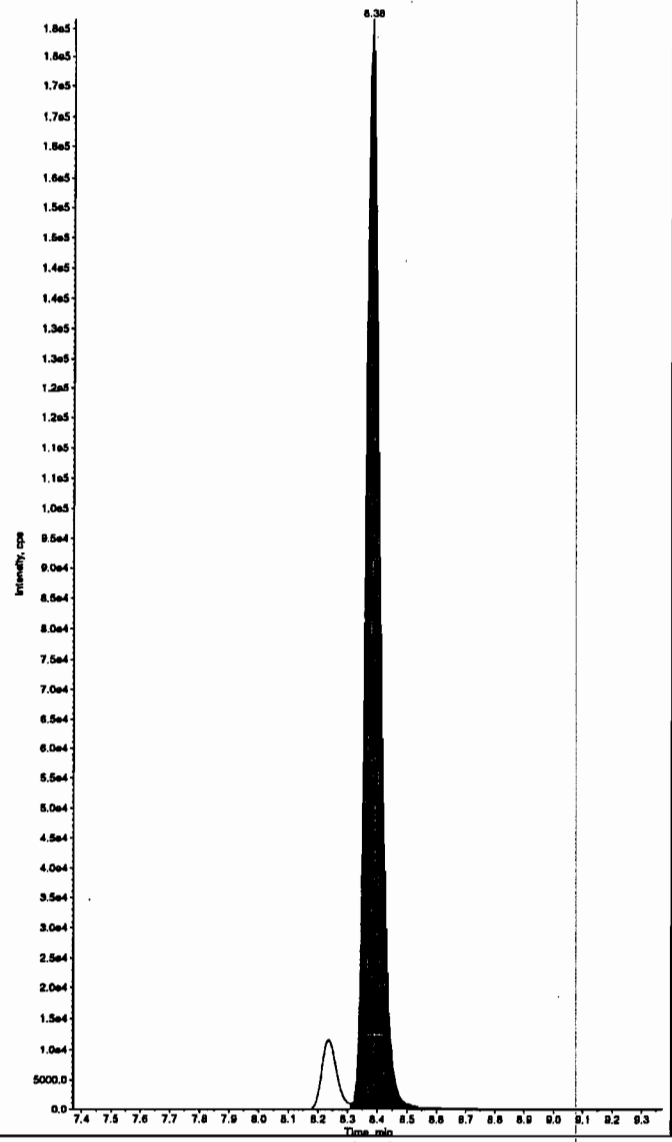

Sample Name: "WXX100305-27CRI" Sample ID: "|1|LER" File: "EXS03050026.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 109. ng/mL
Acq. Date: 3/5/2010
Acq. Time: 11:40:09 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 2.80e+005 counts
Height: 69851.128 cps
Start Time: 4.94 min
End Time: 5.30 min

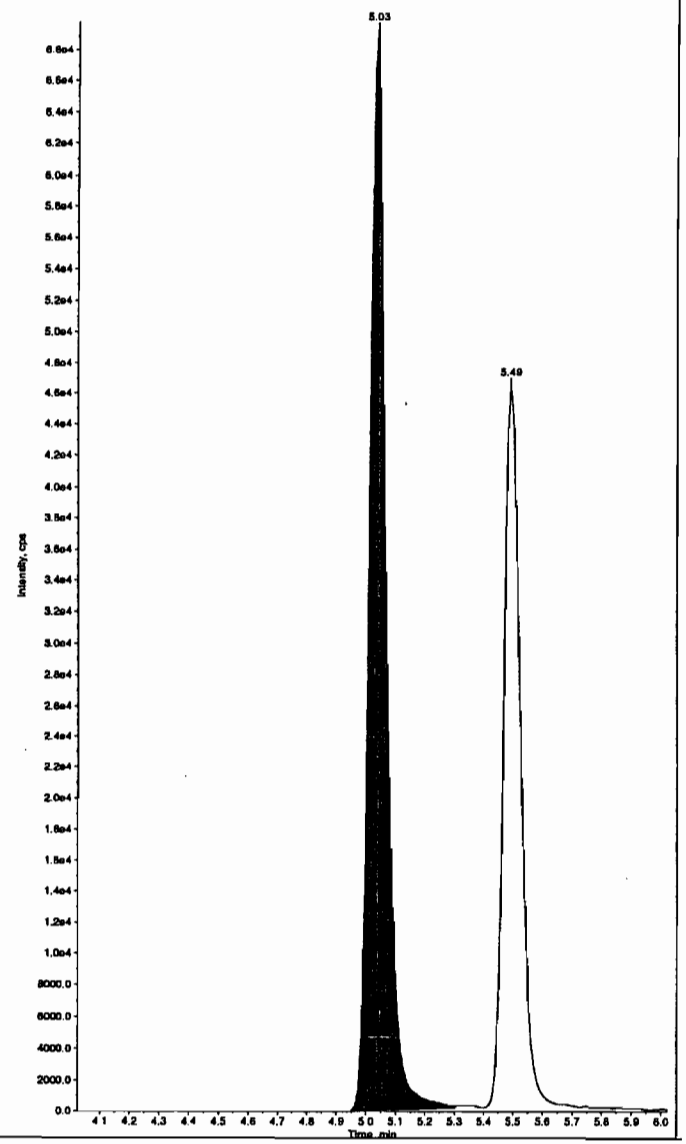

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e Name: "WXX100305-27CRI" Sample ID: "|1|LER" File: "EXS03050026.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ent: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
tration: 100. ng/mL
ated Conc: 102. ng/mL
ate: 3/5/2010
ime: 11:40:09 PM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 350.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 5.48 min
lative RT: No

ype: Valley
ion Time: 5.49 min
1.85e+005 counts
: 46813.030 cps
Time: 5.39 min
ne: 5.73 min

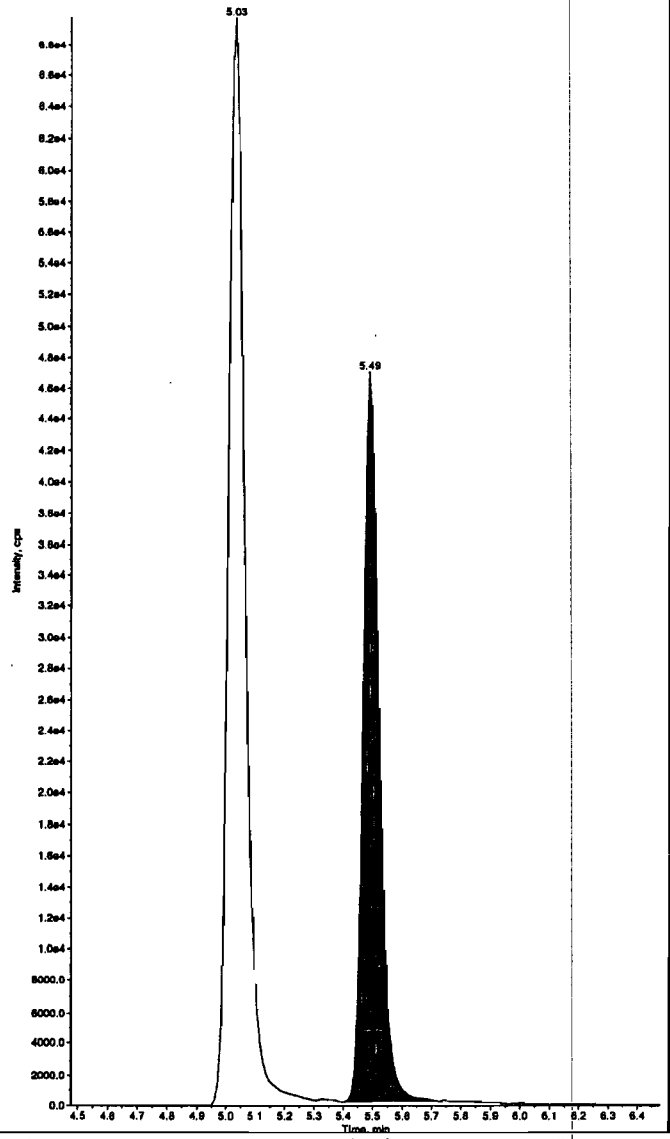

Sample Name: "WXX100305-27CRI" Sample ID: "|1|LER" File: "EXS03050026.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 3/5/2010
Acq. Time: 11:40:09 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.95e+006 counts
Height: 567113.281 cps
Start Time: 10.8 min
End Time: 11.1 min

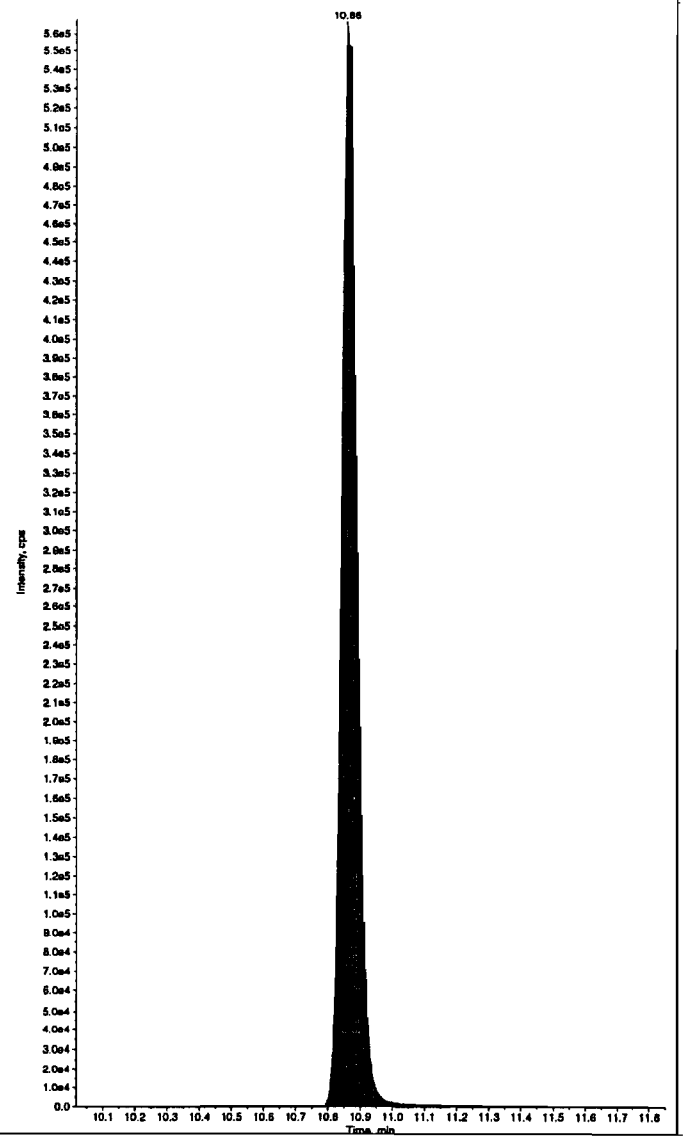

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1898

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03050035.wiff

Analysis Date: 06–MAR–10 02:01

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	509	102	
2,6–Diamino–4–nitrotoluene	500	531	106	
3,4–Dinitrotoluene	250	246	98	
3,5–Dinitroaniline	500	529	106	
TATB	500	534	107	
tris(o–cresyl) phosphate	500	503	101	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 3/9/10

Name: "WXX100305-26CCV" Sample ID: "[1]LER" File: "EXS03050035.wiff"
ame: "TATB" Mass(es): "257.2/204.9 amu"
nt "LCMSEXP_C" Annotation: ""
Index: 1
Type: QC
ration: 500. ng/mL
ted Conc: 534. ng/mL
te: 3/6/2010
me: 2:01:27 AM

d: No
lgorithm: IntelliQuan - IQA
ak Height: 2500.00 cps
ak Width: 0.00 sec
ng Width: 3 points
ow: 30.0 sec
d RT: 7.00 min
ative RT: No

pe: Valley
on Time: 7.01 min
7.70e+005 counts
184983.658 cps
ime: 6.91 min
e: 7.77 min

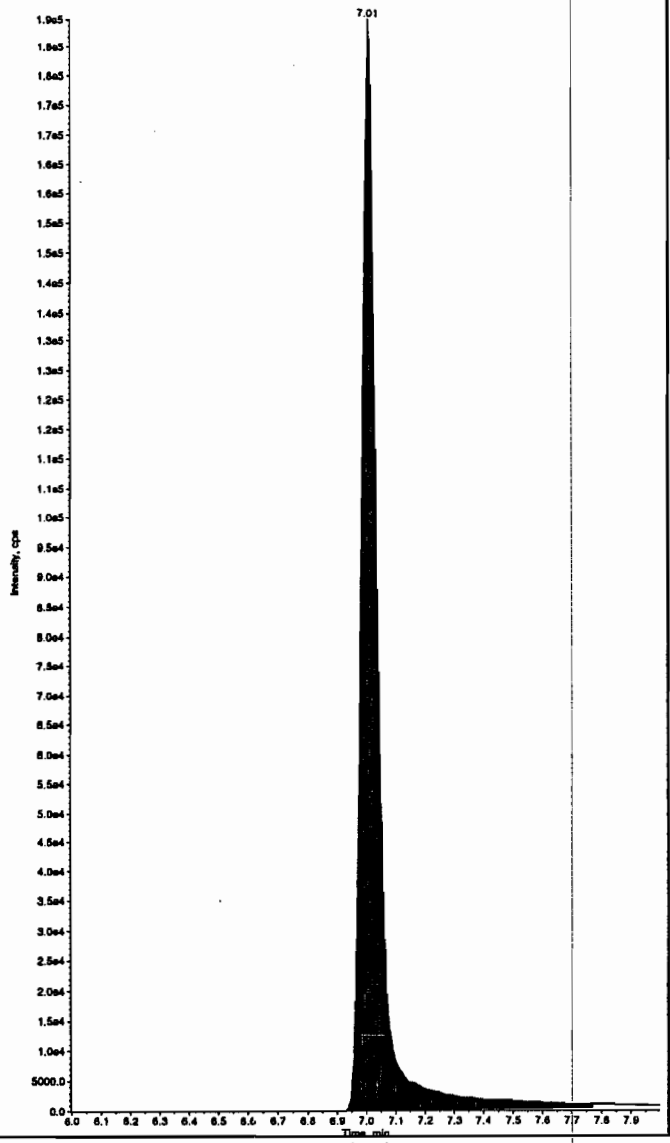

Sample Name: "WXX100305-26CCV" Sample ID: "[1]LER" File: "EXS03050035.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 507. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 2:01:27 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.23 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.24 min
Area: 4.14e+006 counts
Height: 1161526.001 cps
Start Time: 8.17 min
End Time: 8.34 min

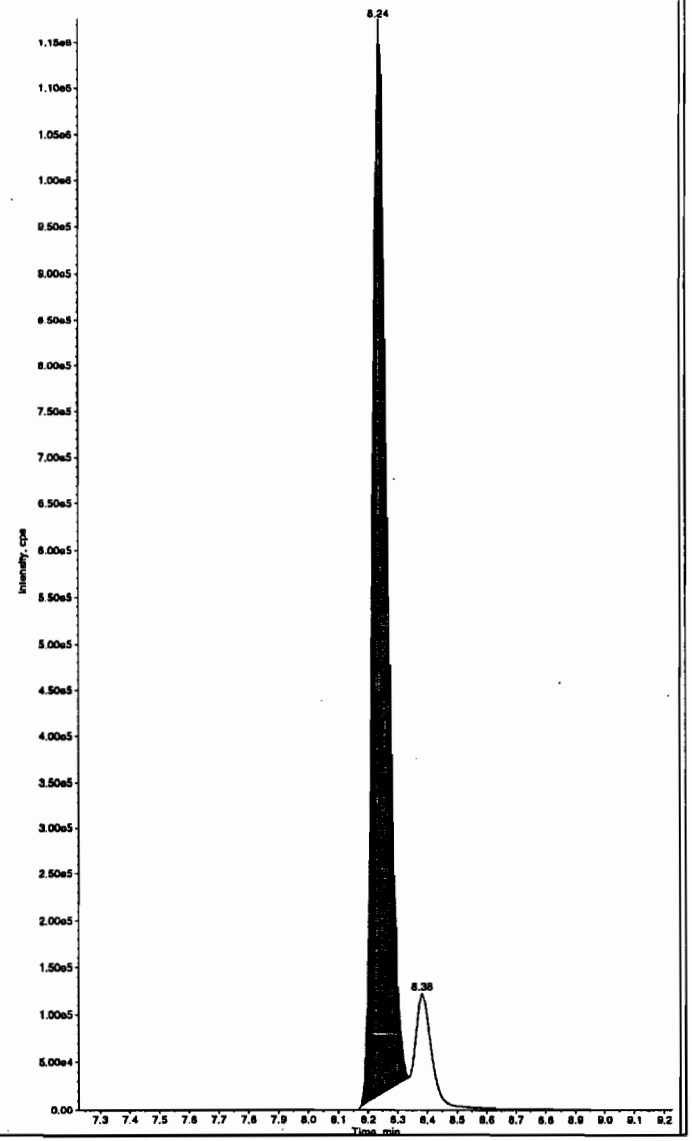

Hmm 03/09/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Scan 3/9/10

Name: "WXX100305-26CCV" Sample ID: "[1]LER" File: "EXS03050035.wiff"
lame: "TATB" Mass(es): "257.2/204.9 amu"
nl: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
ration: 500. ng/mL
ted Conc: 534. ng/mL
te: 3/6/2010
me: 2:01:27 AM

d: No
lgorithm: IntelliQuan - IQA
ak Height: 2500.00 cps
ak Width: 0.00 sec
ng Width: 3 points
low: 30.0 sec
d RT: 7.00 min
ative RT: No

pe: Valley
on Time: 7.01 min
7.70e+005 counts
184983.658 cps
ime: 6.91 min
e: 7.77 min

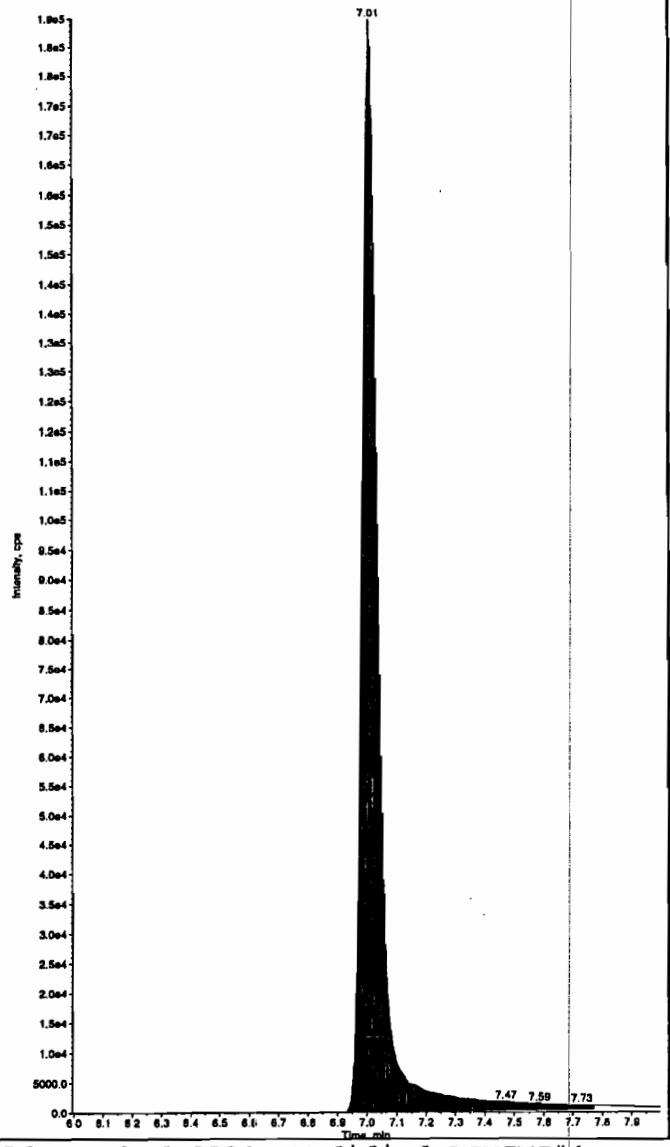

Sample Name: "WXX100305-26CCV" Sample ID: "[1]LER" File: "EXS03050035.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 529. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 2:01:27 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.23 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.24 min
Area: 4.30e+006 counts
Height: 1181932.758 cps
Start Time: 8.16 min
End Time: 8.34 min

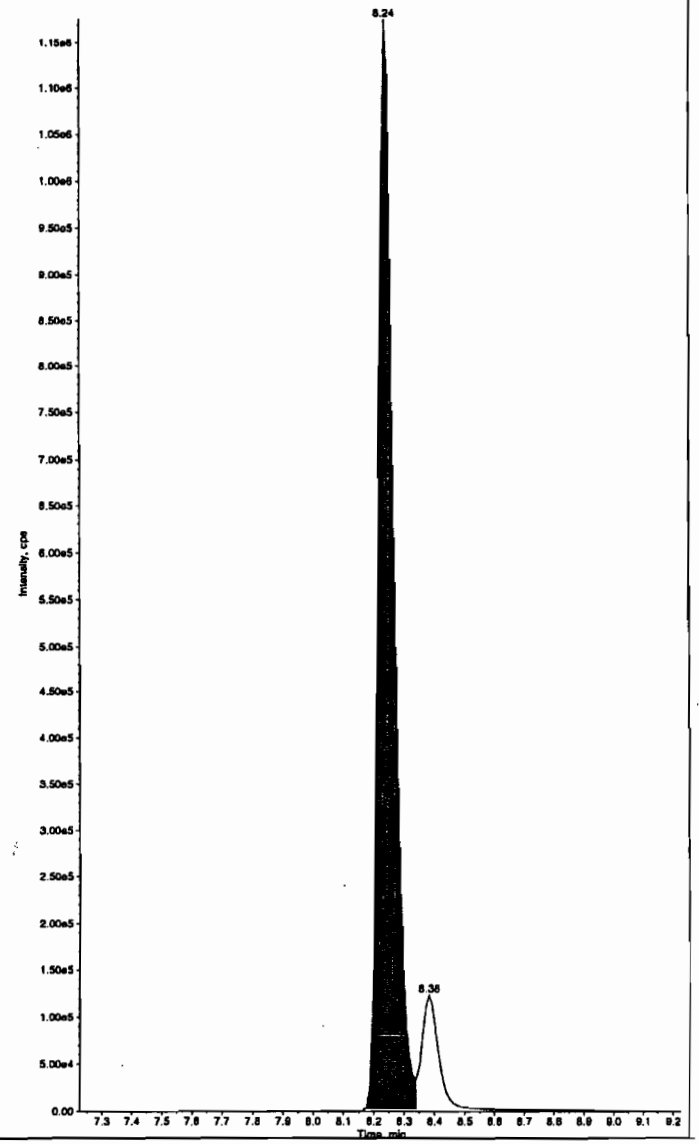

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "WXX100305-26CCV" Sample ID: "|1|LER" File: "EXS03050035.wiff"
lame: "34-Dinitrotoluene" Mass(as): "182.1/151.9 amu"
ent: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
ration: 250. ng/mL
ated Conc: 245. ng/mL
ate: 3/6/2010
ime: 2:01:27 AM

ed: No
lgorithm: IntelliQuan - IQA
eak Height: 1460.00 cps
eak Width: 0.00 sec
ing Width: 3 points
low: 30.0 sec
d RT: 8.37 min
ative RT: No

ype: Valley
on Time: 8.38 min
3.07e+006 counts
867922.485 cps
Time: 8.31 min
e: 8.71 min

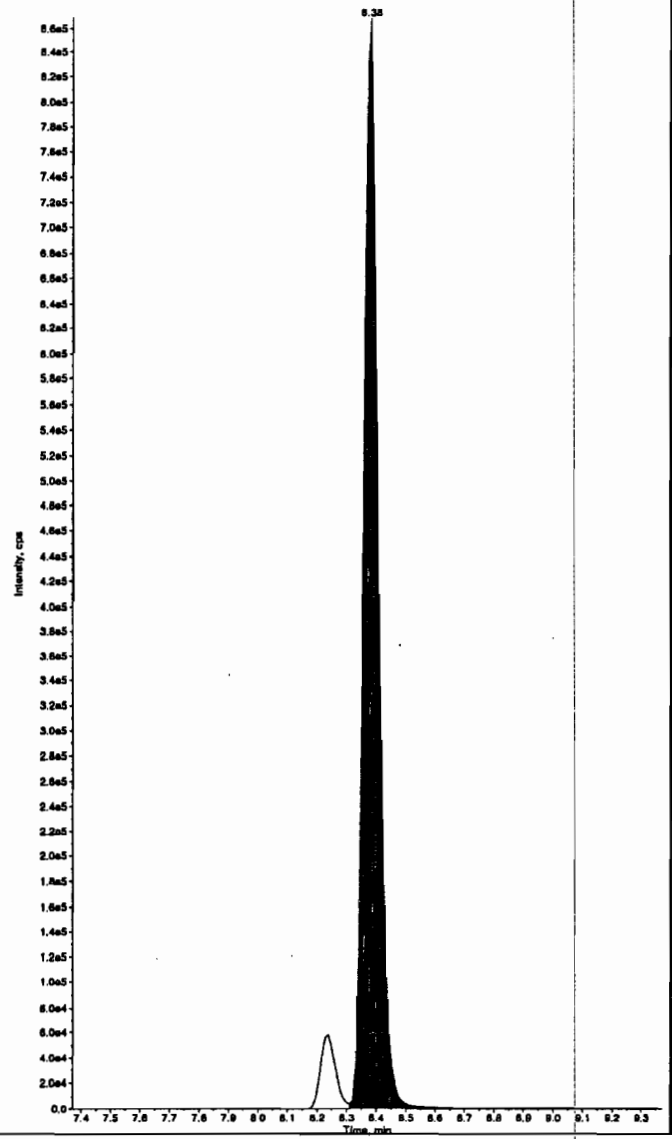

Sample Name: "WXX100305-26CCV" Sample ID: "|1|LER" File: "EXS03050035.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 531. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 2:01:27 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 1.40e+006 counts
Height: 343806.885 cps
Start Time: 4.91 min
End Time: 5.33 min

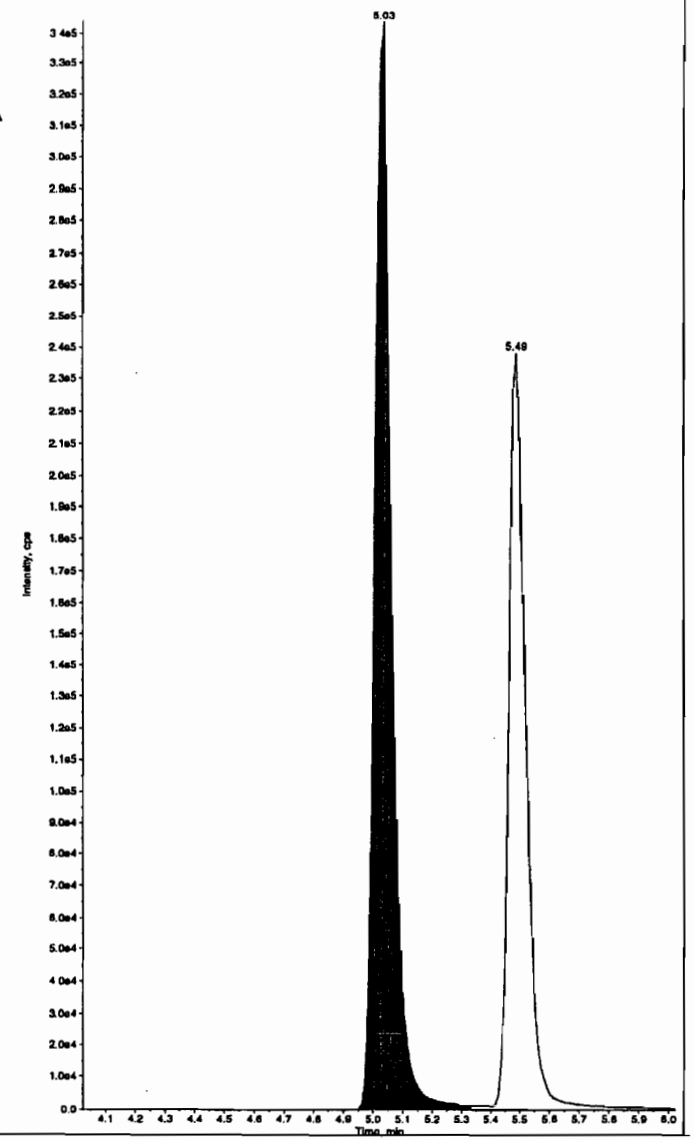

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: Name: "WXX100305-26CCV" Sample ID: "[1]LER" File: "EXS03050035.wiff"
ame: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nt: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
ration: 500. ng/mL
ated Conc: 509. ng/mL
ate: 3/6/2010
me: 2:01:27 AM

d: No
algorithm: IntelliQuan - IQA
ak Height: 350.00 cps
ak Width: 0.00 sec
ing Width: 3 points
low: 30.0 sec
d RT: 5.48 min
ative RT: No

pe: Valley
on Time: 5.49 min
9.45e+005 counts
237291.595 cps
time: 5.41 min
e: 5.81 min

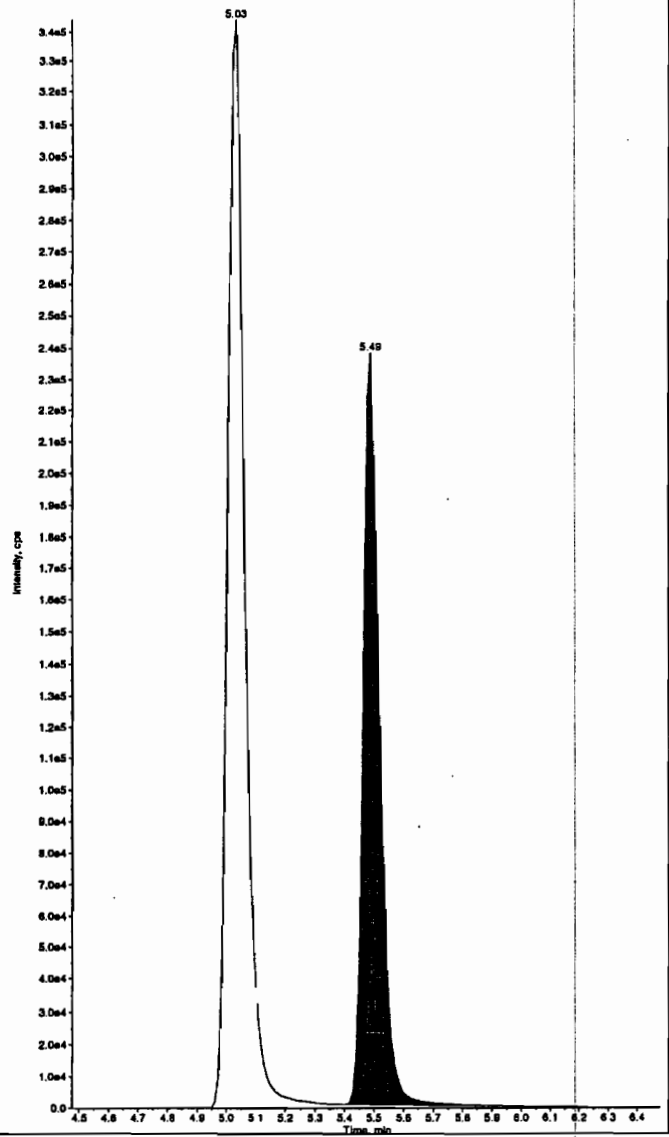

Sample Name: "WXX100305-26CCV" Sample ID: "[1]LER" File: "EXS03050035.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 503. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 2:01:27 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 8.44e+006 counts
Height: 2329935.791 cps
Start Time: 10.8 min
End Time: 11.2 min

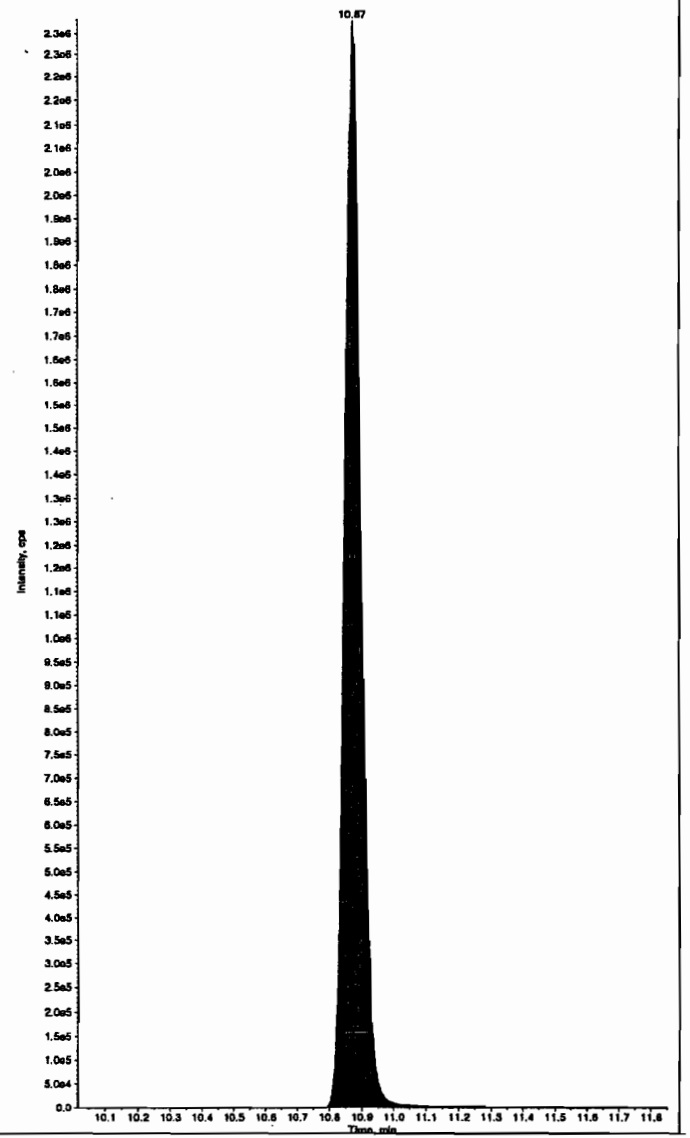

HAM 3/24/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1898

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03050037.wiff

Analysis Date: 06–MAR–10 02:32

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	110	110	
2,6–Diamino–4–nitrotoluene	100	113	113	
3,4–Dinitrotoluene	50	52.5	105	
3,5–Dinitroaniline	100	110	110	
TATB	100	112	112	
tris(o–cresyl) phosphate	100	97.2	97	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 3/9/10

Name: "WXX100305-27CRI" Sample ID: "[1]LER" File: "EXS03050037.wiff"
me: "TATB" Mass(es): "257.2/204.9 amu"
nt: "LCMSEXP_C" Annotation: ""
Index: 1
Type: QC
ration: 100. ng/mL
ted Conc: 112. ng/mL
te: 3/6/2010
me: 2:32:52 AM

d: No
lgorithm: IntelliQuan - IQA
ak Height: 2500.00 cps
ak Width: 0.00 sec
ng Width: 3 points
ow: 30.0 sec
d RT: 7.00 min
ative RT: No

pe: Valley
on Time: 7.01 min
1.47e+005 counts
37346.008 cps
ime: 6.91 min
e: 7.43 min

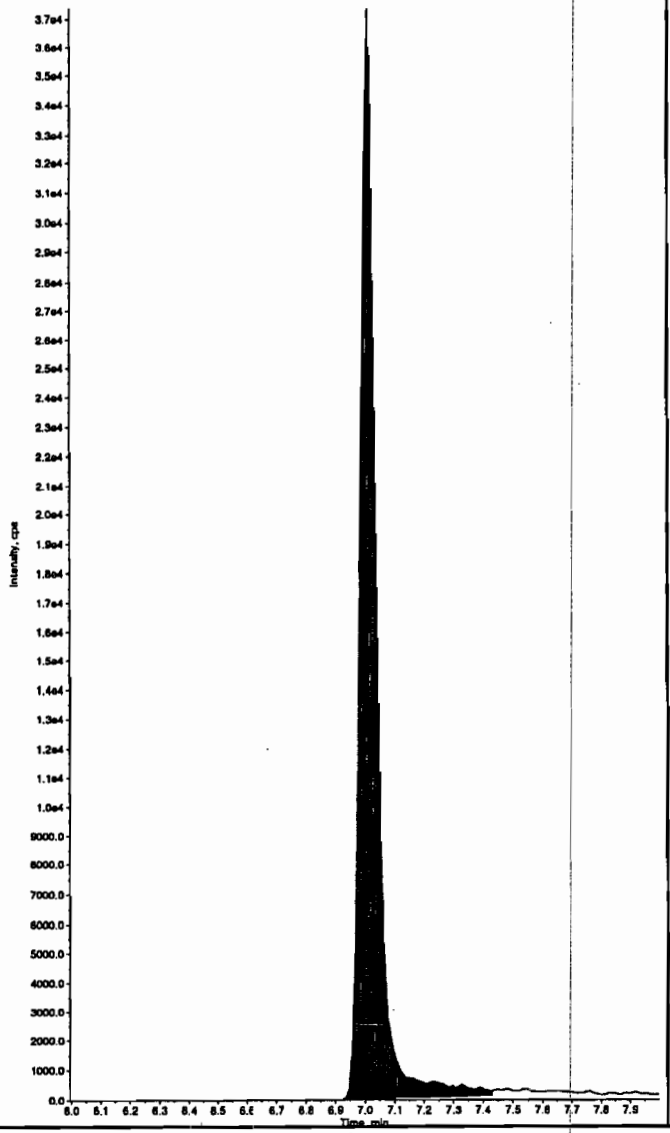

Sample Name: "WXX100305-27CRI" Sample ID: "[1]LER" File: "EXS03050037.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 105. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 2:32:52 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.23 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.24 min
Area: 8.98e+005 counts
Height: 258527.130 cps
Start Time: 8.17 min
End Time: 8.34 min

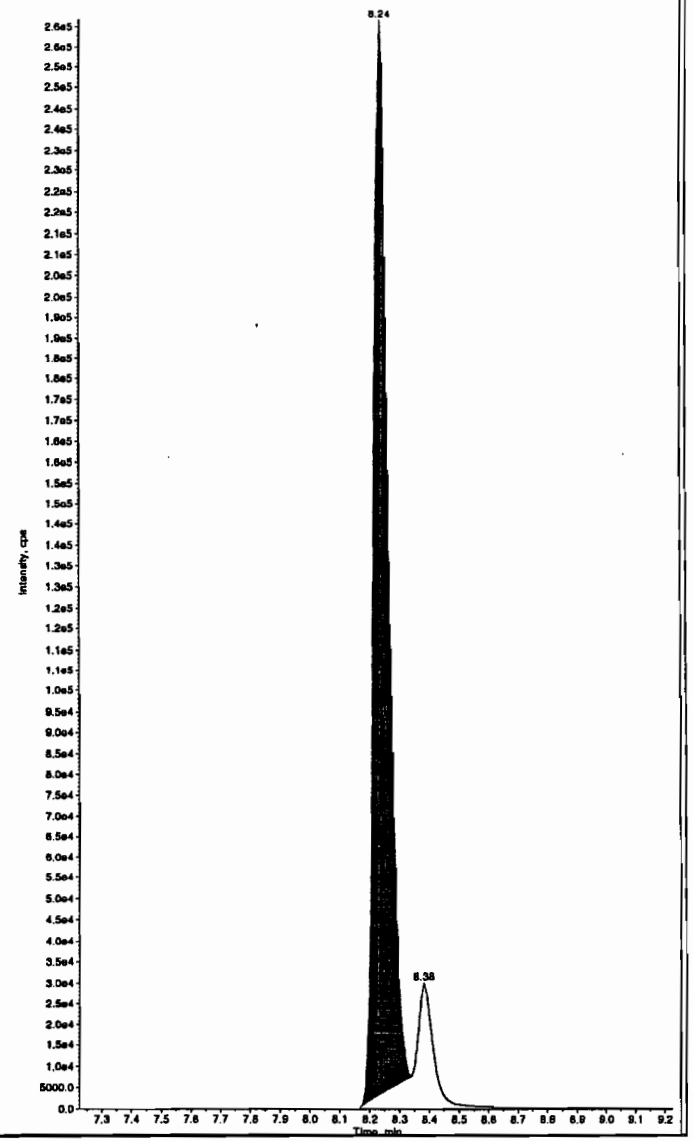

dmm 03/09/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Scan 3/9/10

Name: "WXX100305-27CRI" Sample ID: "[1]LER" File: "EXS03050037.wiff"
ame: "TATB" Mass(es): "257.2/204.9 amu"
nt: "LCMSEXP_C" Annotation: ""
Index: 1
Type: QC
ration: 100. ng/mL
ted Conc: 112. ng/mL
te: 3/6/2010
me: 2:32:52 AM

d: No
lgorithm: IntelliQuan - IQA
ak Height: 2500.00 cps
ak Width: 0.00 sec
ng Width: 3 points
ow: 30.0 sec
d RT: 7.00 min
ative RT: No

pe: Valley
on Time: 7.01 min
1.47e+005 counts
37346.008 cps
ime: 6.91 min
e: 7.43 min

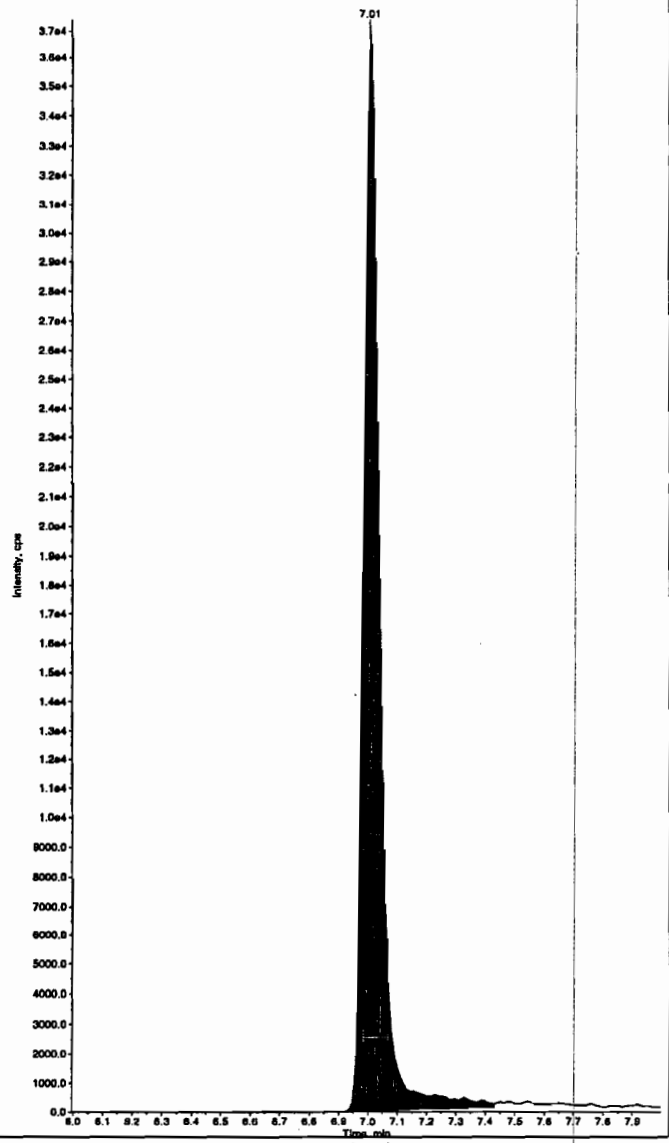

Sample Name: "WXX100305-27CRI" Sample ID: "[1]LER" File: "EXS03050037.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 110. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 2:32:52 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.23 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.24 min
Area: 9.35e+005 counts
Height: 263004.667 cps
Start Time: 8.16 min
End Time: 8.34 min

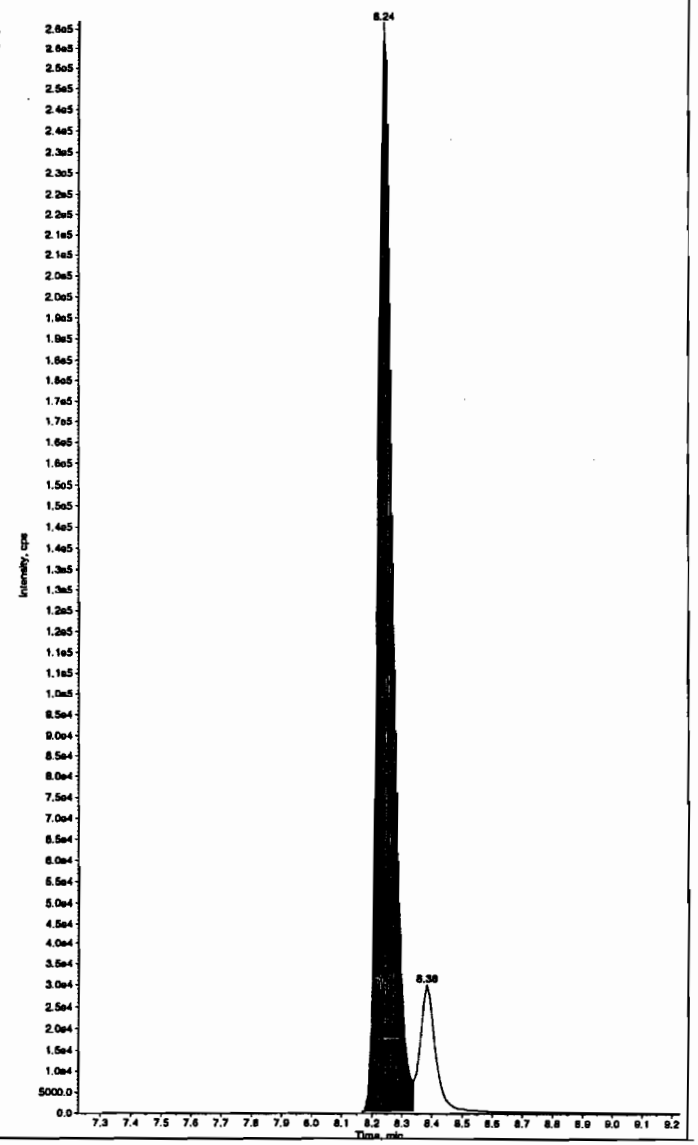

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "WXX100305-27CRI" Sample ID: "[1]LER" File: "EXS03050037.wiff"
ame: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nt: "LCMSEXP_C" Annotation: ""

```
Index:          1
Type:          QC
ration:      50.0    ng/mL
ted Conc:    52.5    ng/mL
te:        3/6/2010
me:        2:32:52 AM

d:            No
lgorithm: IntelliQuan - IQA
sk Height:1460.00   cps
sk Width:    0.00   sec
ng Width:  3        points
ow:         30.0    sec
d RT:        8.37   min
ative RT:    No

pe:        Valley
on Time:     8.38   min
        6.35e+005   counts
         189075.043  cps
ime:         8.31   min
e:           8.59   min
```

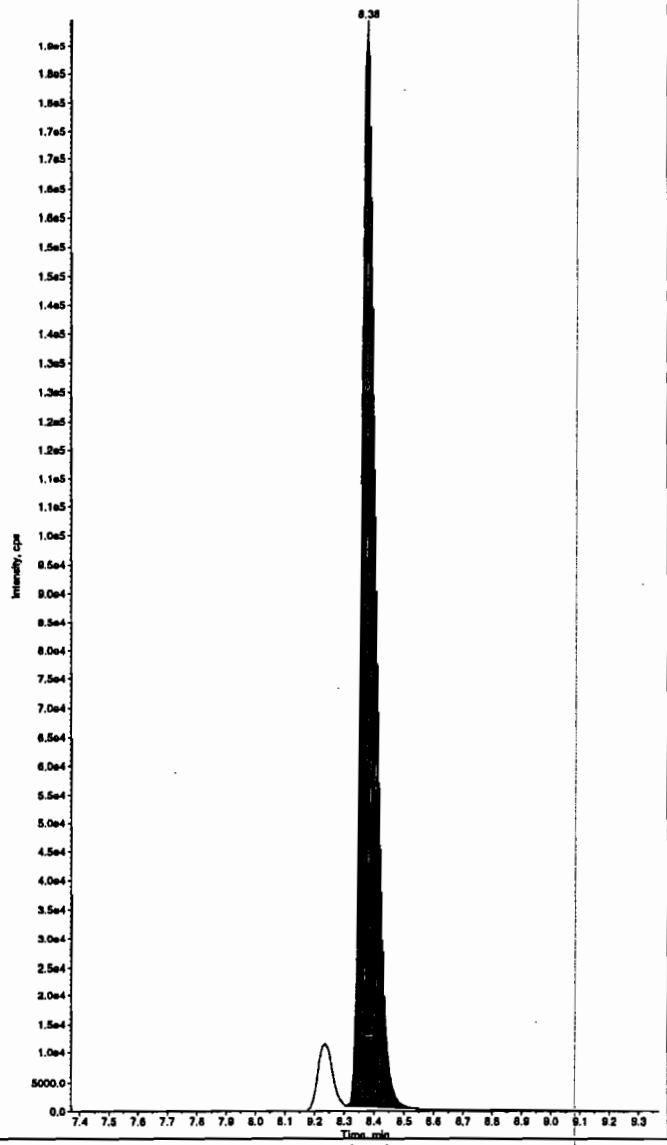

Sample Name: "WXX100305-27CRI" Sample ID: "[1]LER" File: "EXS03050037.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:      100.    ng/mL
Calculated Conc:    113.    ng/mL
Acq. Date:        3/6/2010
Acq. Time:        2:32:52 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:        5.02   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     5.03   min
Area:          2.89e+005   counts
Height:        72523.758   cps
Start Time:         4.94   min
End Time:           5.31   min
```

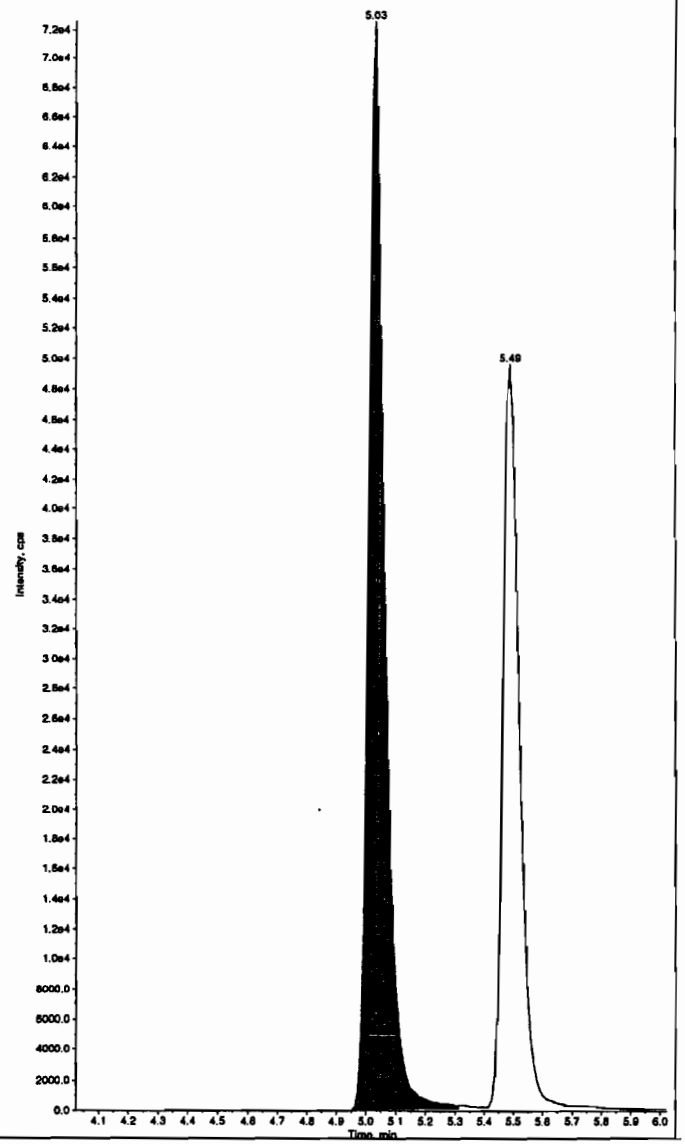

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Name: "WXX100305-27CRI" Sample ID: "|1|LER" File: "EXS03050037.wiff"
ame: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
nl: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
ration: 100. ng/mL
ted Conc: 110. ng/mL
te: 3/6/2010
me: 2:32:52 AM

d: No
lgorithm: IntelliQuan - IQA
ak Height: 350.00 cps
ak Width: 0.00 sec
ng Width: 3 points
ow: 30.0 sec
d RT: 5.48 min
ative RT: No

ps: Valley
on Time: 5.49 min
1.99e+005 counts
49546.009 cps
ime: 5.41 min
e: 5.94 min

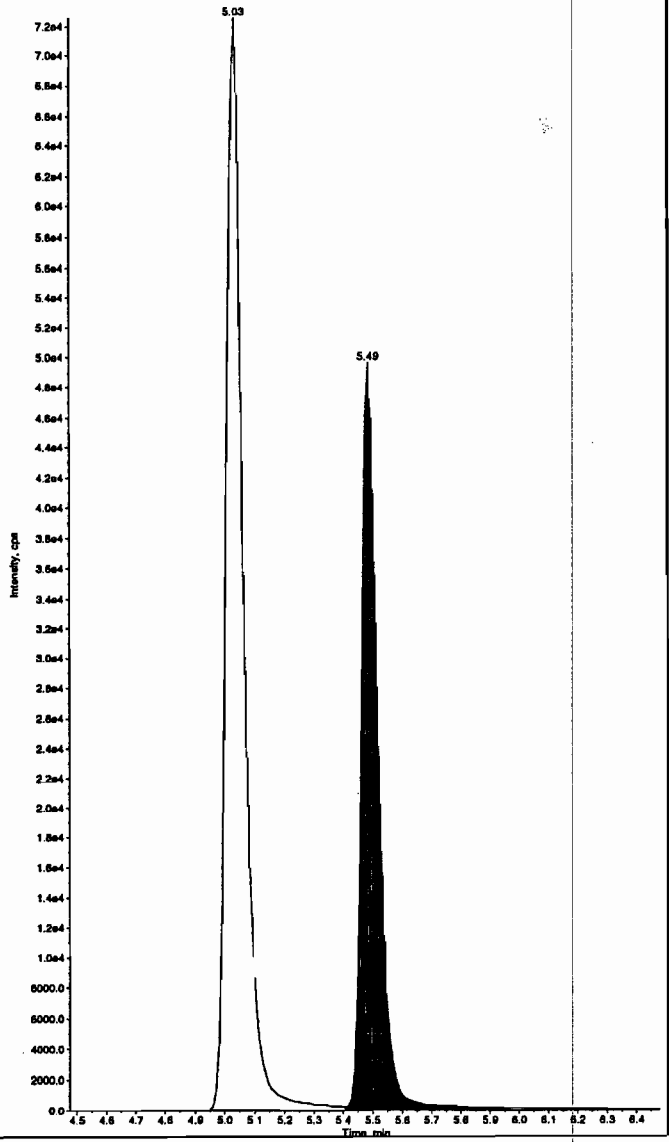

Sample Name: "WXX100305-27CRI" Sample ID: "|1|LER" File: "EXS03050037.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 97.2 ng/mL
Acq. Date: 3/6/2010
Acq. Time: 2:32:52 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.84e+006 counts
Height: 539893.494 cps
Start Time: 10.8 min
End Time: 11.2 min

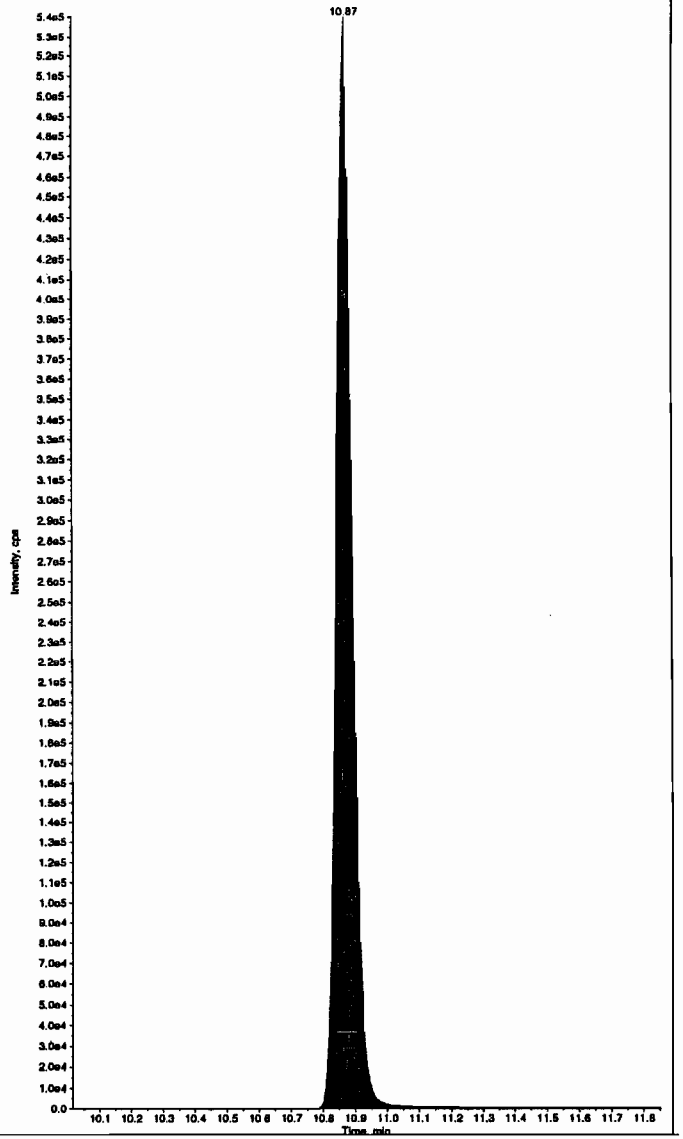

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1898

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03050048.wiff

Analysis Date: 06-MAR-10 05:25

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	541	108	
2,6-Diamino-4-nitrotoluene	500	545	109	
3,4-Dinitrotoluene	250	237	95	
3,5-Dinitroaniline	500	507	101	
TATB	500	532	106	
tris(o-cresyl) phosphate	500	501	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 3/9/10

Name: "WXX100305-26CCV" Sample ID: "|1|LER" File: "EXS03050048.wiff"
me: "TATB" Mass(es): "257.2/204.9 amu"
t: "LCMSEXP_C" Annotation: ""
ndex: 1
ype: QC
ation: 500. ng/mL
ed Conc: 532. ng/mL
e: 3/6/2010
e: 5:25:35 AM

l: No
gorithm: IntelliQuan - IQA
k Height: 2500.00 cps
k Width: 0.00 sec
g Width: 3 points
w: 30.0 sec
l RT: 7.00 min
tive RT: No

e: Valley
n Time: 7.00 min
7.66e+005 counts
180460.495 cps
ime: 6.90 min
: 7.93 min

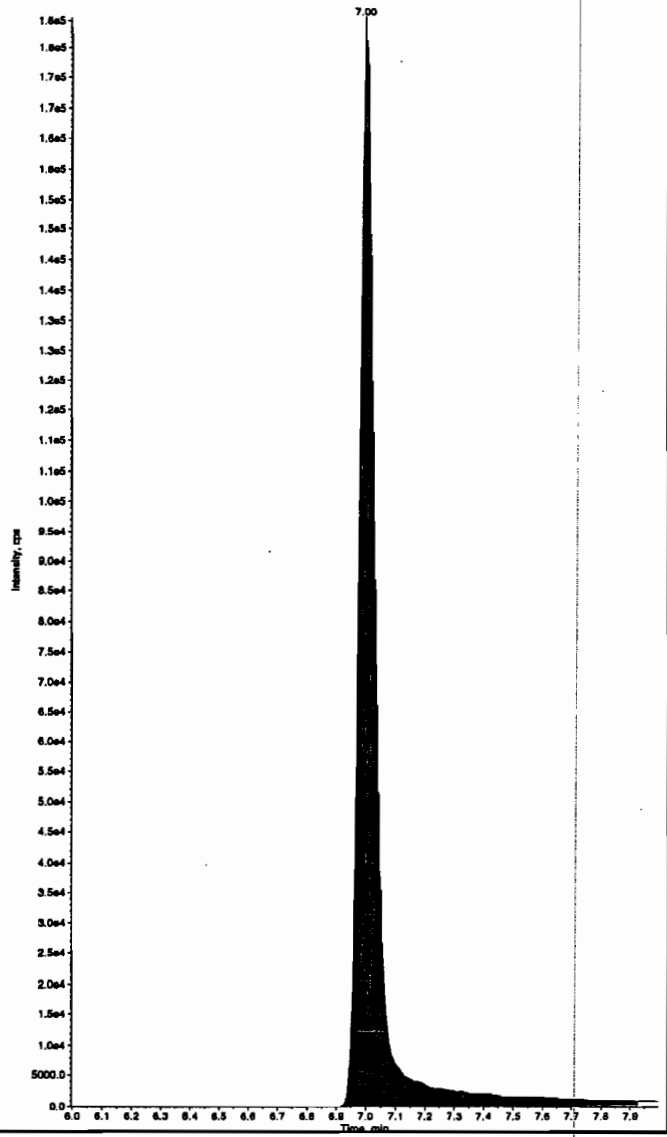

Sample Name: "WXX100305-26CCV" Sample ID: "|1|LER" File: "EXS03050048.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	487.	ng/mL
Acq. Date:	3/6/2010	
Acq. Time:	5:25:35 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.23	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.23	min
Area:	3.99e+006	counts
Height:	1116178.101	cps
Start Time:	8.16	min
End Time:	8.33	min

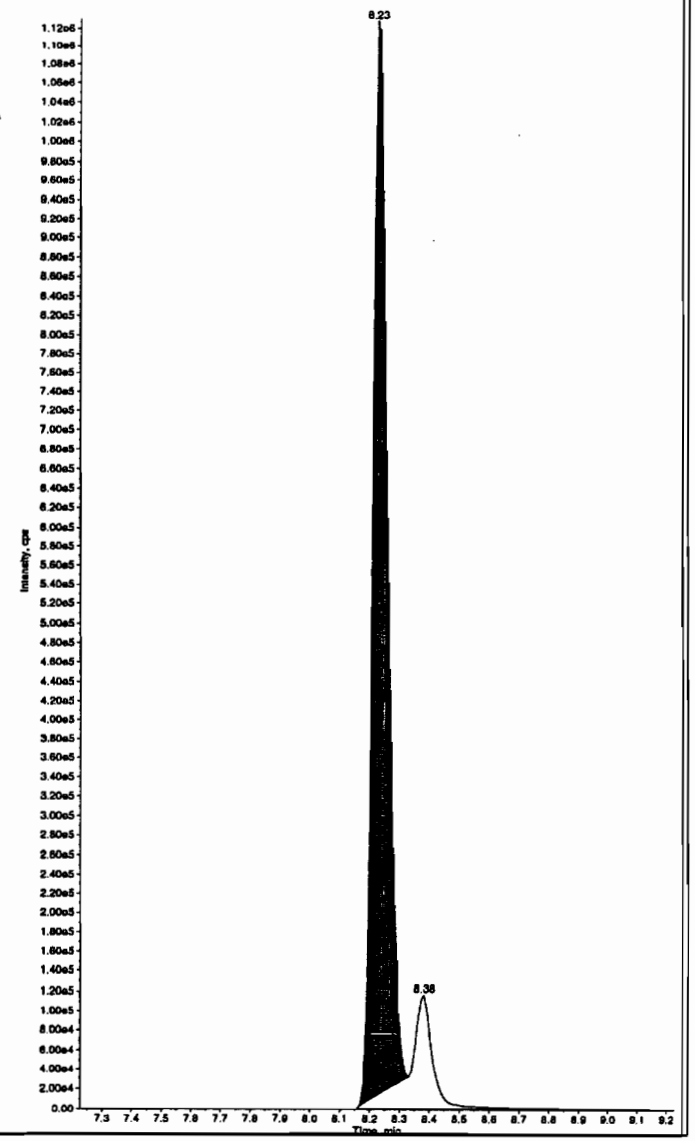

thmw 03/09/10

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after Dan 3/9/10

Name: "WXX100305-26CCV" Sample ID: "[1]LER" File: "EXS03050048.wiff"
ame: "TATB" Mass(es): "257.2/204.9 amu"
nt: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
ration: 500. ng/mL
ted Conc: 532. ng/mL
te: 3/6/2010
me: 5:25:35 AM

d: No
lgorithm: IntelliQuan - IQA
ak Height: 2500.00 cps
ak Width: 0.00 sec
ng Width: 3 points
nw: 30.0 sec
d RT: 7.00 min
ative RT: No

pe: Valley
on Time: 7.00 min
7.66e+005 counts
180460.495 cps
ime: 6.90 min
e: 7.93 min

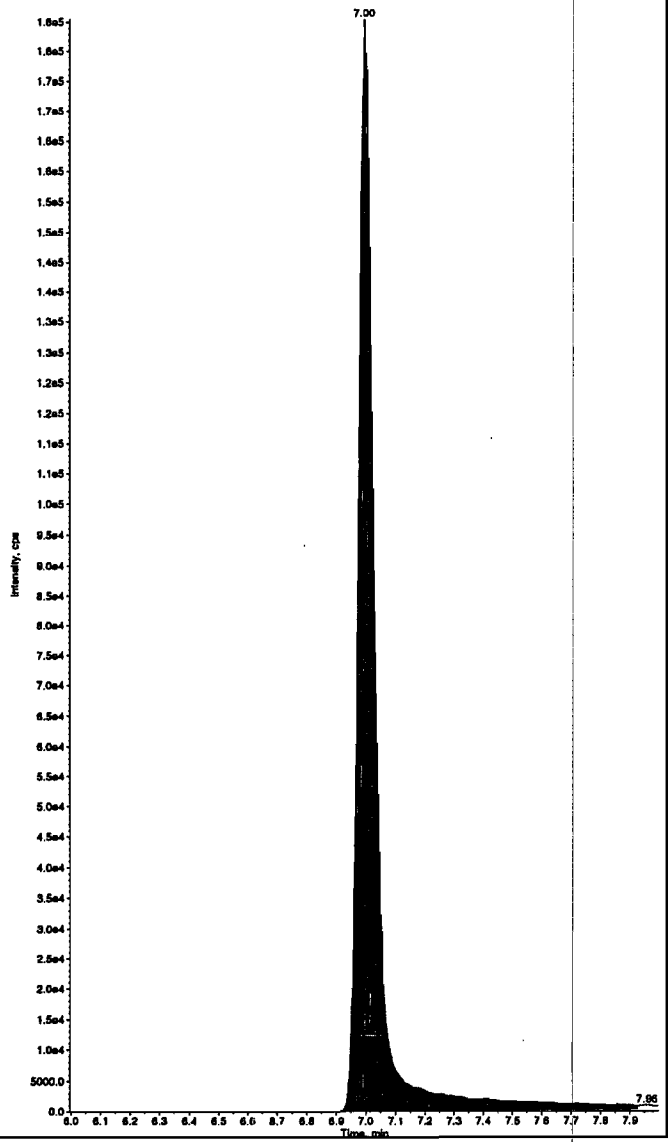

Sample Name: "WXX100305-26CCV" Sample ID: "[1]LER" File: "EXS03050048.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 507. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 5:25:35 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.23 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.23 min
Area: 4.13e+006 counts
Height: 1147846.356 cps
Start Time: 8.16 min
End Time: 8.33 min

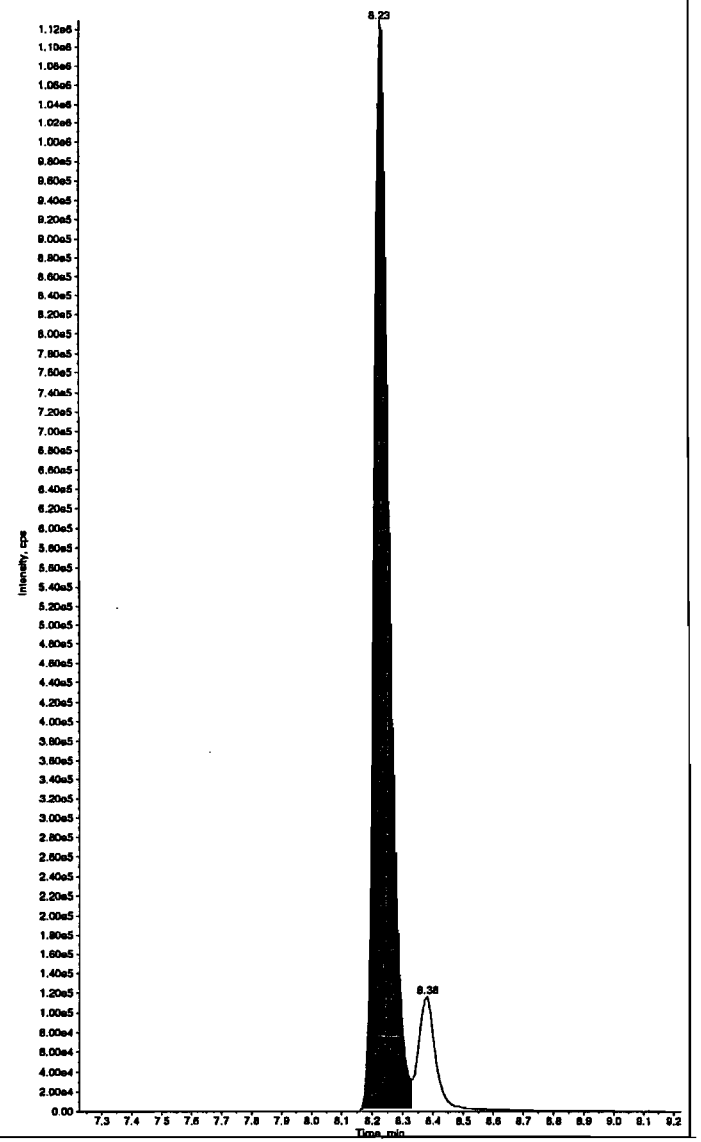

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s Name: "WXX100305-26CCV" Sample ID: "[1]LER" File: "EXS03050048.wiff"
lame: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ent: "LCMSEXP_C" Annotation: ""

```
 Index:          1
 Type:          QC
tration:       250.     ng/mL
ated Conc:     237.     ng/mL
ate:        3/6/2010
ime:        5:25:35 AM

ed:            No
Algorithm: IntelliQuan - IQA
eak Height:1460.00    cps
eak Width:     0.00    sec
ing Width:  3        points
dow:          30.0     sec
ed RT:         8.37    min
lative RT:     No

ype:         Valley
ion Time:      8.37    min
          2.97e+006   counts
          876499.268  cps
Time:          8.30    min
se:            8.72    min
```

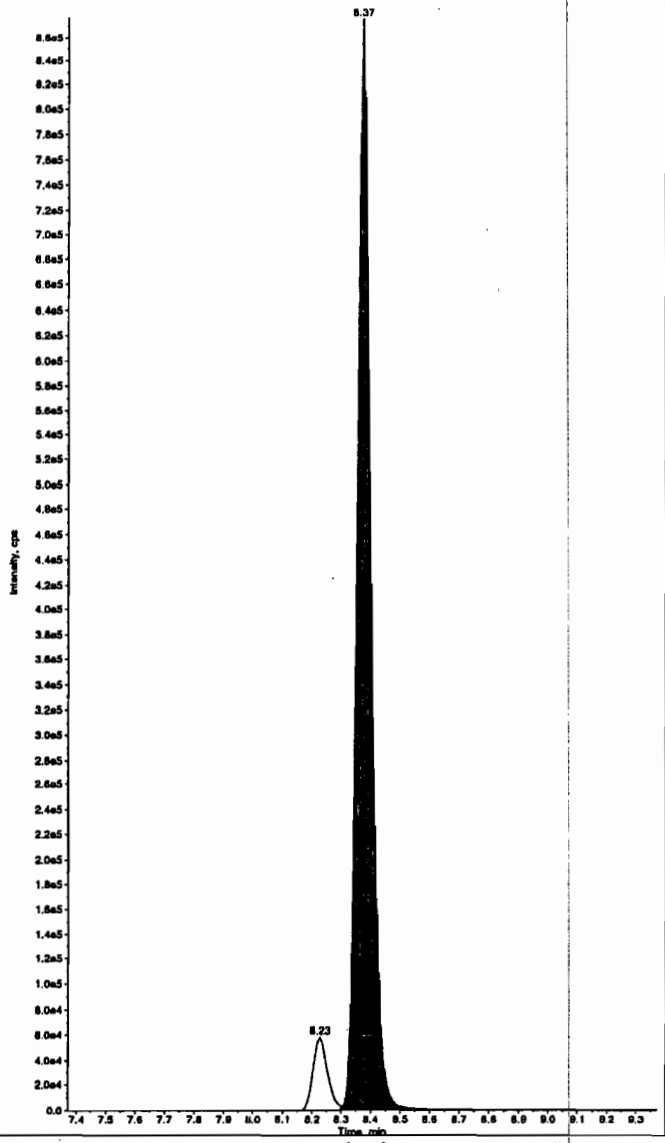

Sample Name: "WXX100305-26CCV" Sample ID: "[1]LER" File: "EXS03050048.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:     500.     ng/mL
Calculated Conc:   545.     ng/mL
Acq. Date:      3/6/2010
Acq. Time:      5:25:35 AM

Modified:          No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:        5.02    min
Use Relative RT:   No

Int. Type:       Valley
Retention Time:     5.02    min
Area:        1.44e+006   counts
Height:      349995.575  cps
Start Time:         4.93    min
End Time:           5.32    min
```

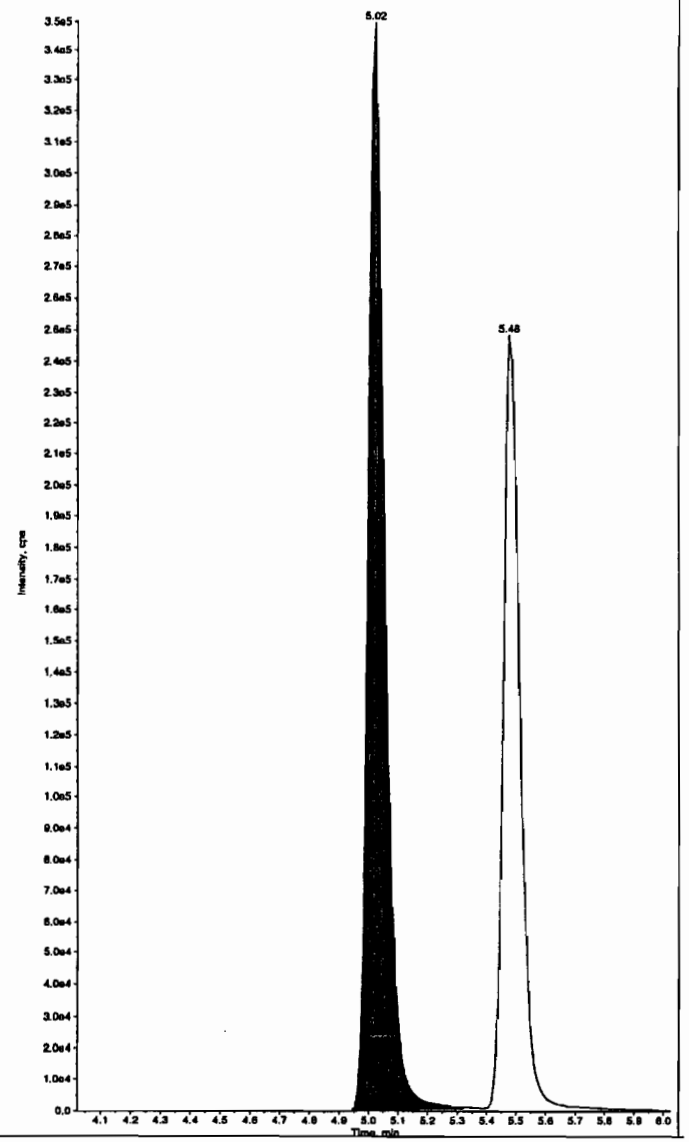

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e Name: "WXX100305-26CCV" Sample ID: "[1]LER" File: "EXS03050048.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ent: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
tration: 500. ng/mL
ated Conc: 541. ng/mL
ate: 3/6/2010
ime: 5:25:35 AM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 350.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 5.48 min
lative RT: No

ype: Valley
ion Time: 5.48 min
1.00e+006 counts
: 248370.041 cps
Time: 5.38 min
me: 6.05 min

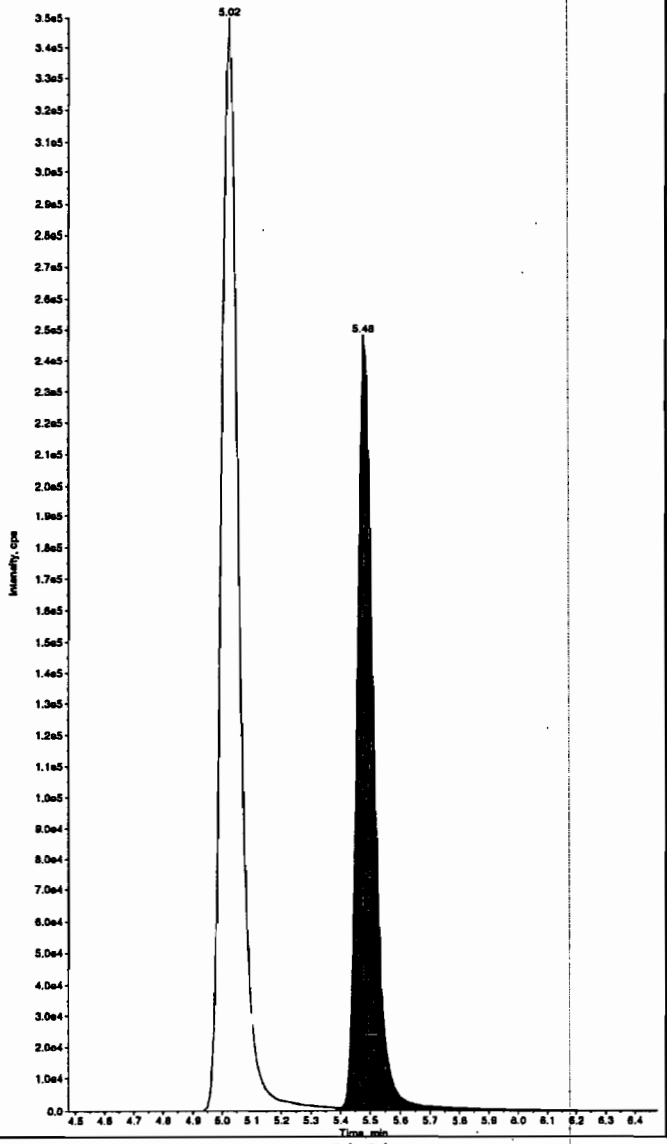

Sample Name: "WXX100305-26CCV" Sample ID: "[1]LER" File: "EXS03050048.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 501. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 5:25:35 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 8.41e+006 counts
Height: 2222998.047 cps
Start Time: 10.8 min
End Time: 11.2 min

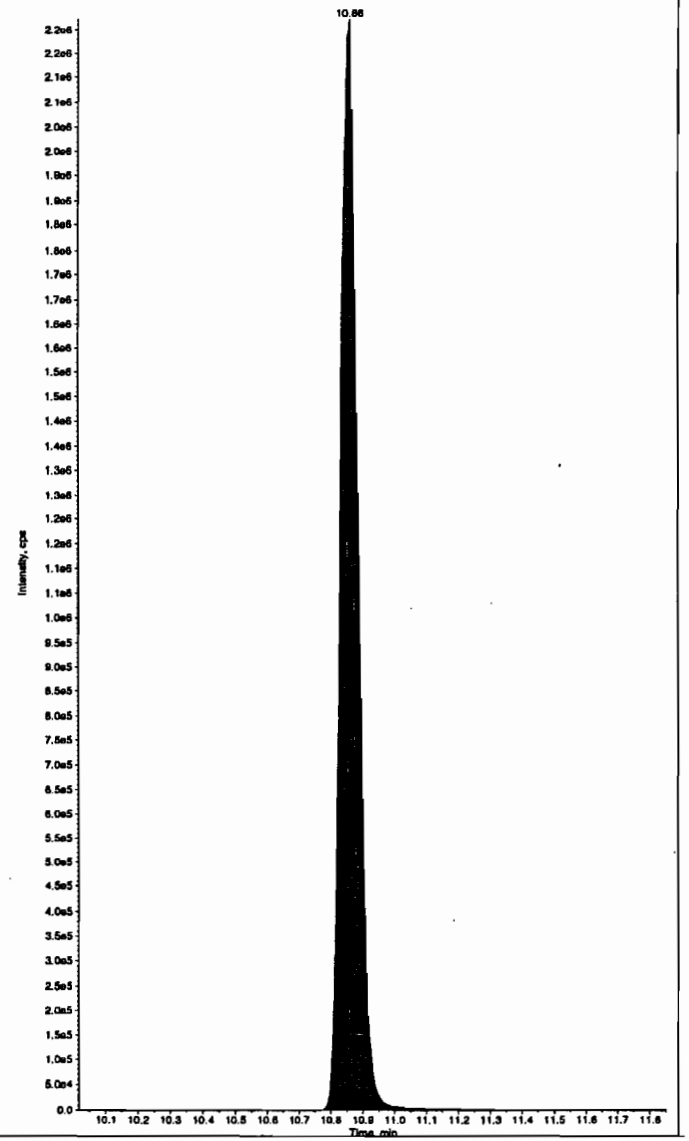

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1898

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03050050.wiff

Analysis Date: 06-MAR-10 05:56

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	105	105	
2,6-Diamino-4-nitrotoluene	100	111	111	
3,4-Dinitrotoluene	50	51.4	103	
3,5-Dinitroaniline	100	108	108	
TATB	100	110	110	
tris(o-cresyl) phosphate	100	101	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 3/9/10

Name: "WXX100305-27CRI" Sample ID: "[1]LER" File: "EXS03050050.wiff"
lame: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_C" Annotation: ""

Index:	1	
Type:	QC	
ration:	100.	ng/mL
ated Conc:	110.	ng/mL
ate:	3/6/2010	
me:	5:56:58 AM	
d:	No	
lgorithm:	IntelliQuan - IQA	
ak Height:	2500.00	cps
ak Width:	0.00	sec
ng Width:	3	points
low:	30.0	sec
d RT:	7.00	min
ative RT:	No	
pe:	Valley	
on Time:	7.01	min
	1.45e+005	counts
	37100.952	cps
ime:	6.90	min
a:	7.59	min

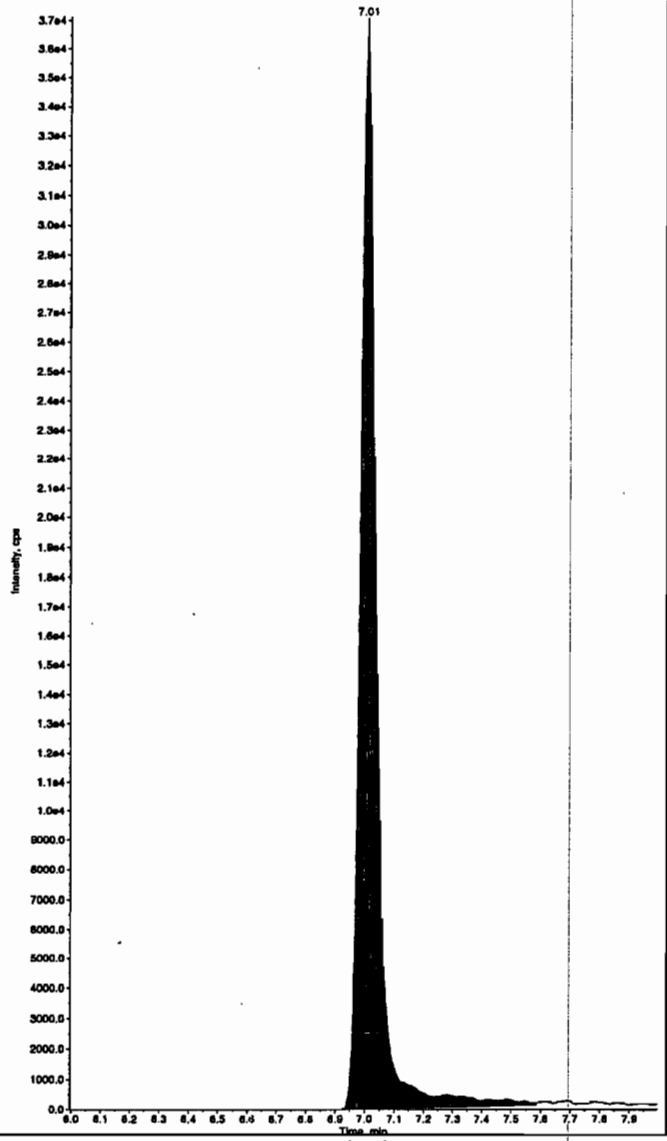

Sample Name: "WXX100305-27CRI" Sample ID: "[1]LER" File: "EXS03050050.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	108.	ng/mL
Acq. Date:	3/6/2010	
Acq. Time:	5:56:58 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.23	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.24	min
Area:	9.18e+005	counts
Height:	252990.845	cps
Start Time:	8.10	min
End Time:	8.34	min

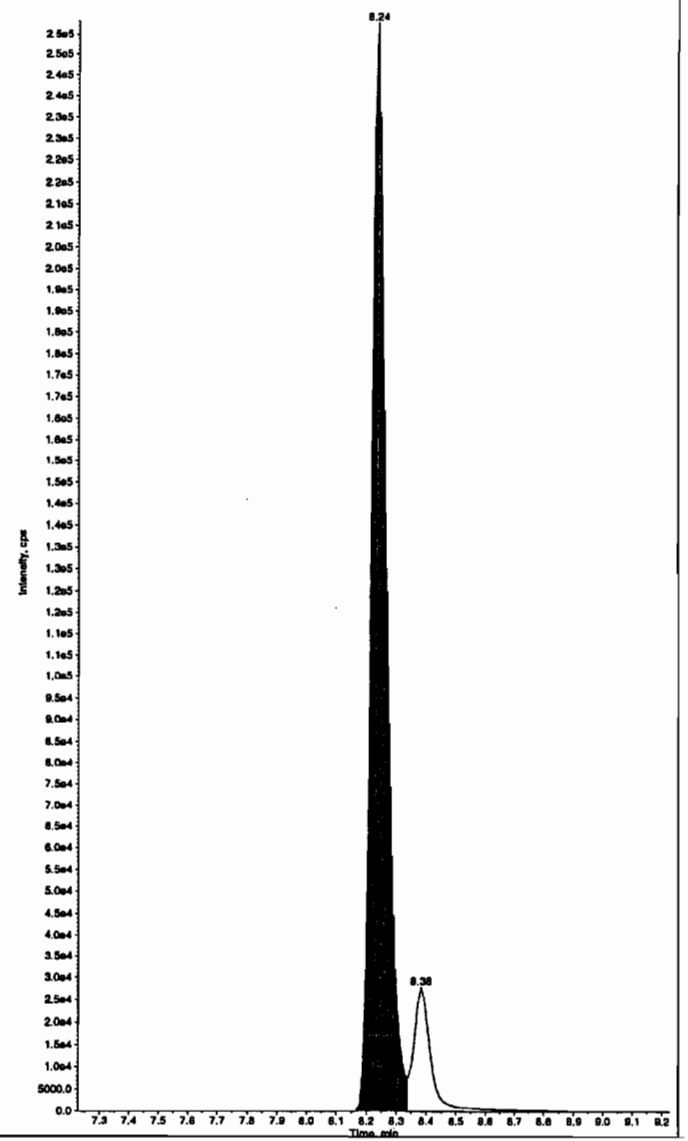

Hmm 03/09/10

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "WXX100305-27CRI" Sample ID: "[1]LER" File: "EXS03050050.wiff"
ame: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nt: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
ration: 50.0 ng/mL
ted Conc: 51.4 ng/mL
te: 3/6/2010
me: 5:56:58 AM

d: No
lgorithm: IntelliQuan - IQA
ak Height: 1460.00 cps
ak Width: 0.00 sec
ng Width: 3 points
ow: 30.0 sec
d RT: 8.37 min
ative RT: No

pe: Valley
on Time: 8.38 min
6.21e+005 counts
180589.249 cps
ime: 8.31 min
e: 8.70 min

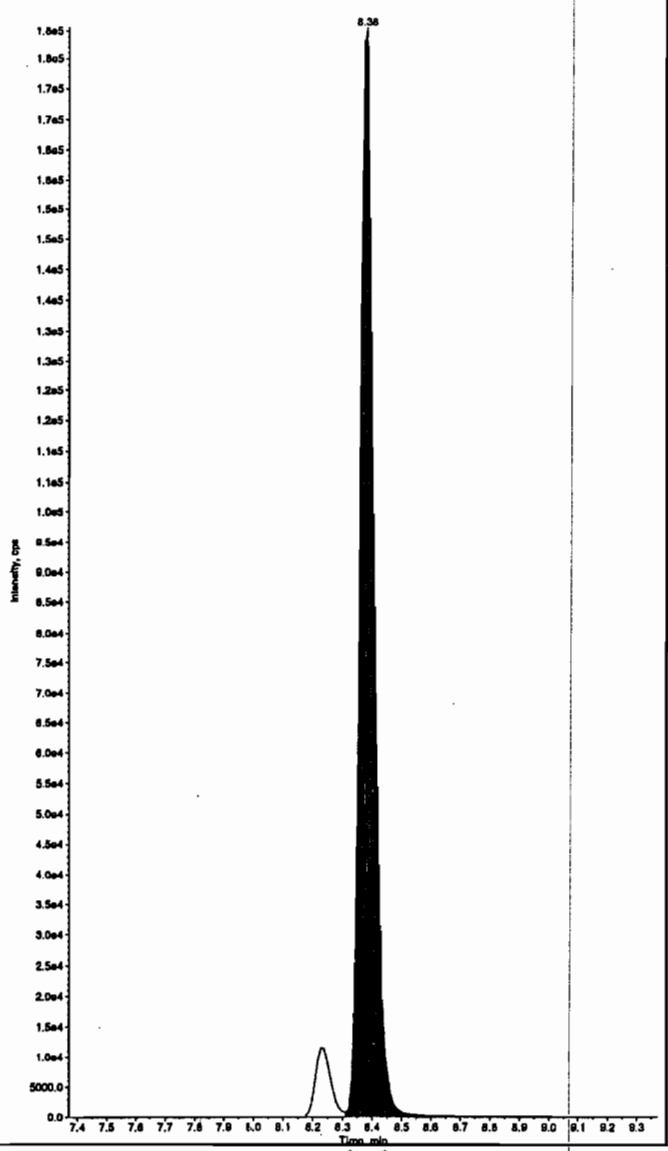

Sample Name: "WXX100305-27CRI" Sample ID: "[1]LER" File: "EXS03050050.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 111. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 5:56:58 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 2.86e+005 counts
Height: 70368.240 cps
Start Time: 4.94 min
End Time: 5.33 min

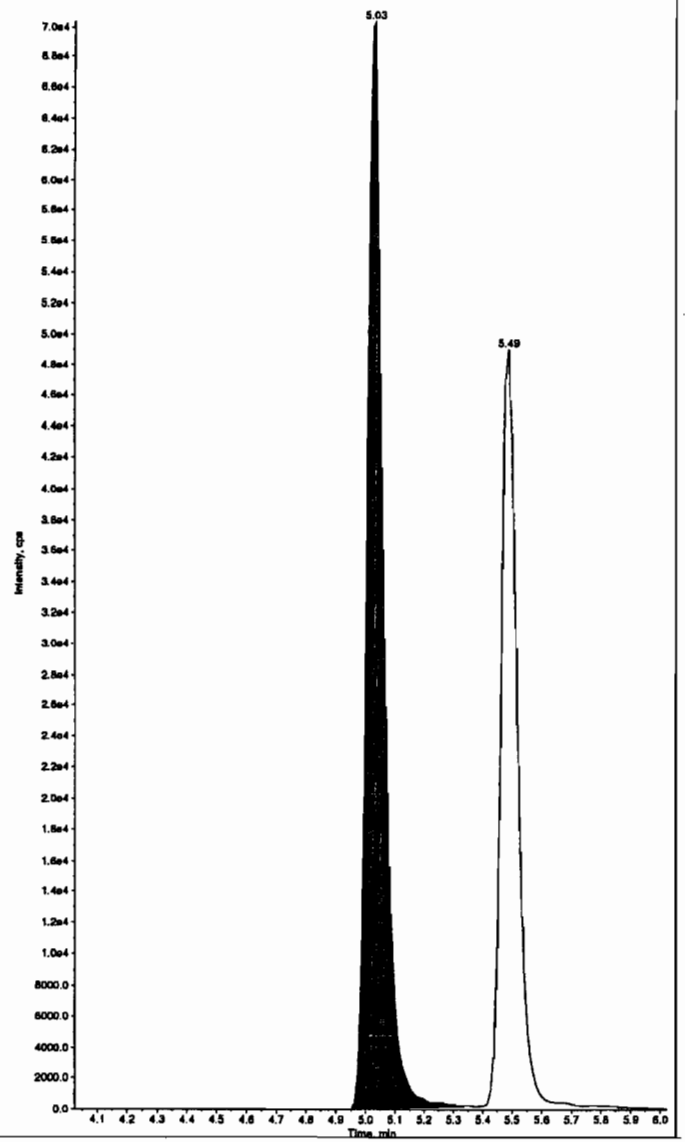

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

s Name: "WXX100305-27CRI" Sample ID: "|1|LER" File: "EXS03050050.wiff"
lame: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ent: "LCMSEXP_C" Annotation: ""

```
Index:          1
Type:           QC
ration:         100.     ng/mL
sted Conc:      105.     ng/mL
ate:        3/6/2010
ime:        5:56:58 AM

ed:             No
Algorithm: IntelliQuan - IQA
eak Height: 350.00    cps
eak Width:    0.00    sec
ing Width:  3        points
dow:         30.0     sec
ed RT:        5.48    min
lative RT:    No

ype:         Valley
ion Time:     5.49    min
        1.90e+005    counts
        48802.822    cps
Time:         5.38    min
me:           5.74    min
```

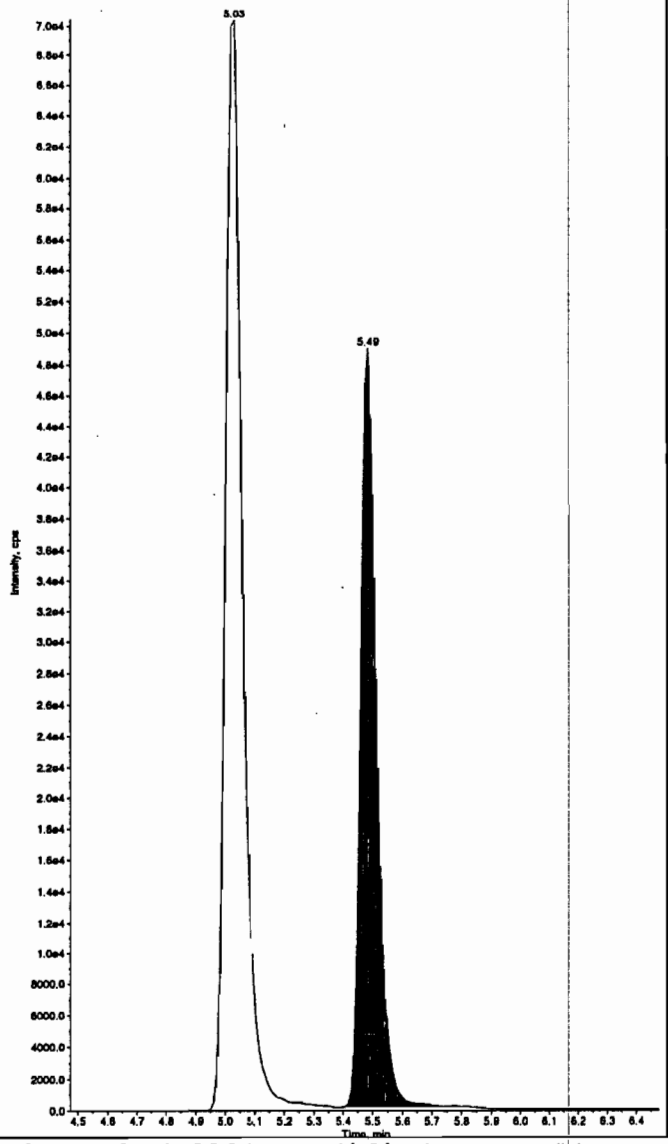

Sample Name: "WXX100305-27CRI" Sample ID: "|1|LER" File: "EXS03050050.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         100.     ng/mL
Calculated Conc:       101.     ng/mL
Acq. Date:         3/6/2010
Acq. Time:         5:56:58 AM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:        10.9    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.9    min
Area:          1.90e+006    counts
Height:        546225.464   cps
Start Time:         10.7    min
End Time:           11.2    min
```

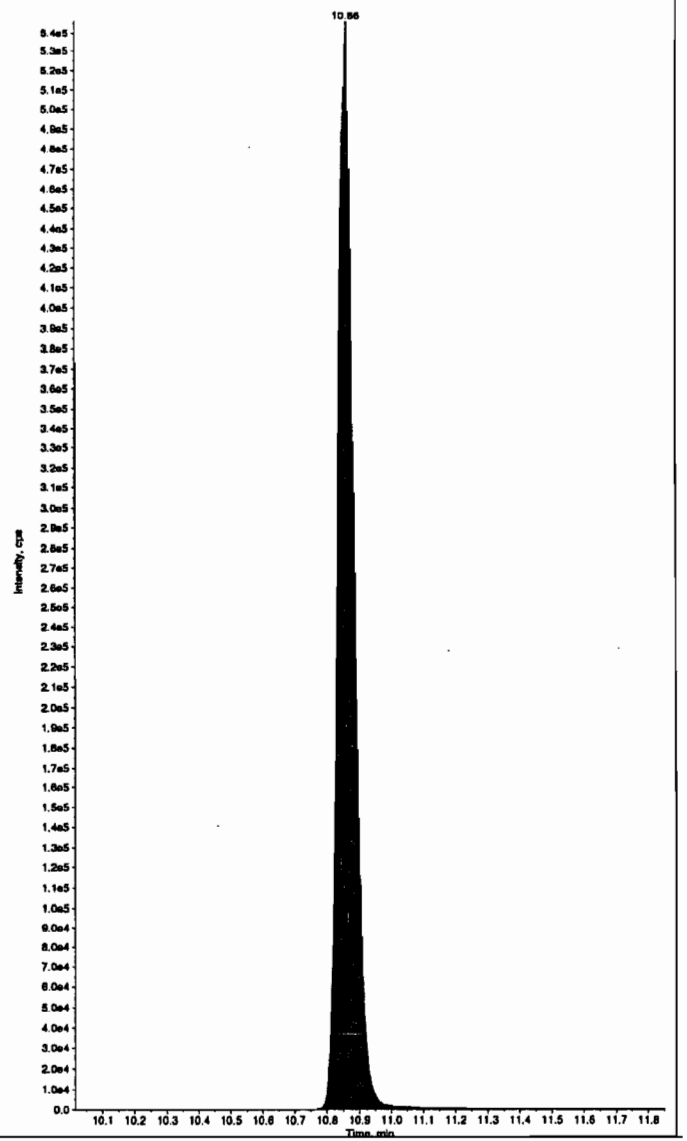

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1898

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03050060.wiff

Analysis Date: 06–MAR–10 08:34

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
3,4–Dinitrotoluene	250	247	99	
3,5–Dinitroaniline	500	554	111	
TATB	500	557	111	
tris(o–cresyl) phosphate	500	498	100	
2,4–Diamino–6–nitrotoluene	500	492	99	
2,6–Diamino–4–nitrotoluene	500	499	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Run 3/9/10

e Name: "WXX100305-26CCV" Sample ID: "|1|LER" File: "EXS03050060.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
tration: 500. ng/mL
ated Conc: 557. ng/mL
ate: 3/6/2010
ime: 8:34:01 AM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 2500.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 7.00 min
lative RT: No

ype: Valley
ion Time: 7.01 min
8.03e+005 counts
: 187849.228 cps
Time: 6.91 min
me: 7.95 min

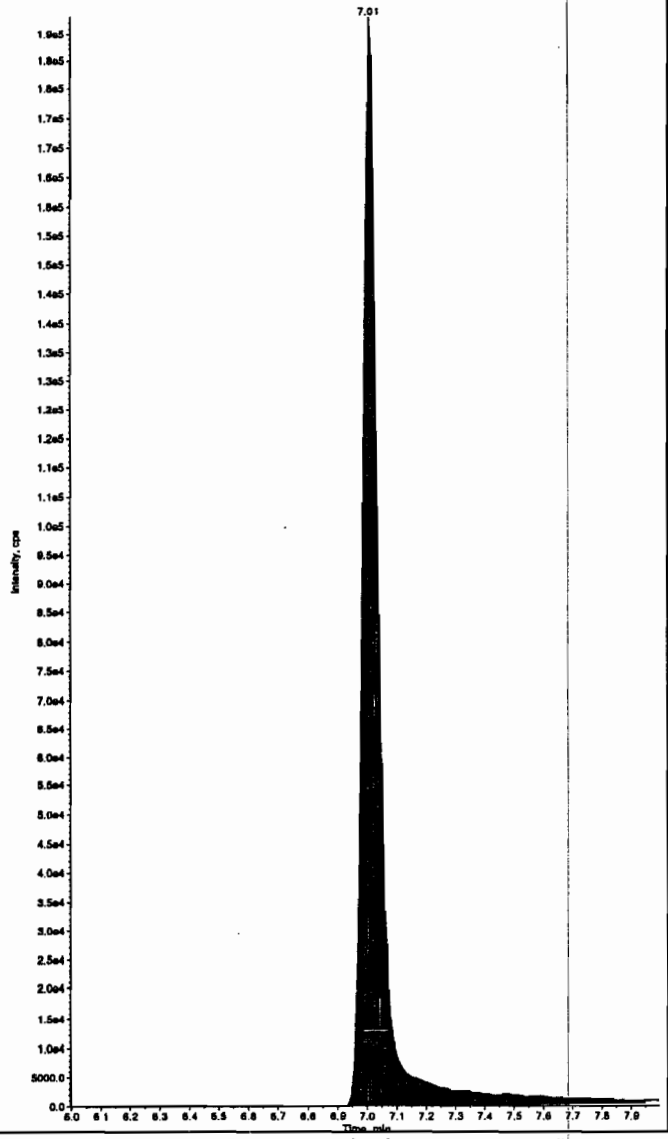

Sample Name: "WXX100305-26CCV" Sample ID: "|1|LER" File: "EXS03050060.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 534. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 8:34:01 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.23 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.24 min
Area: 4.34e+006 counts
Height: 1230289.185 cps
Start Time: 8.16 min
End Time: 8.34 min

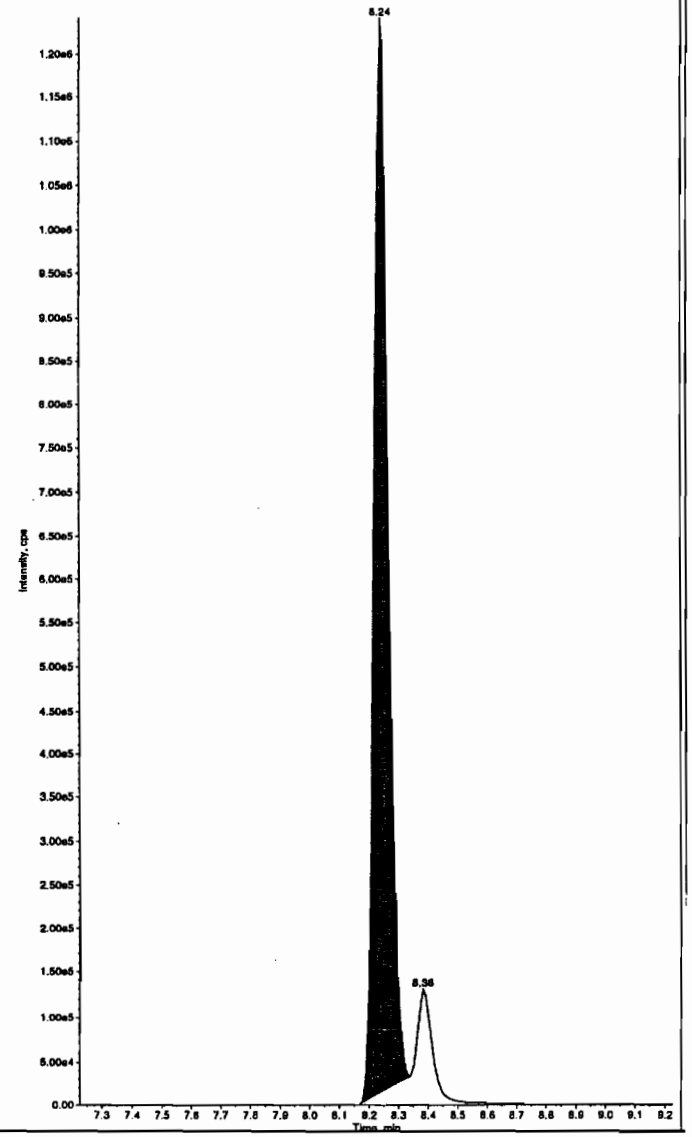

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, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Scan 3/9/10

e Name: "WXX100305-26CCV" Sample ID: "|1|LER" File: "EXS03050060.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
ration: 500. ng/mL
ated Conc: 557. ng/mL
ate: 3/6/2010
Time: 8:34:01 AM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 2500.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 7.00 min
lative RT: No

ype: Valley
ion Time: 7.01 min
8.03e+005 counts
187849.228 cps
Time: 6.91 min
me: 7.95 min

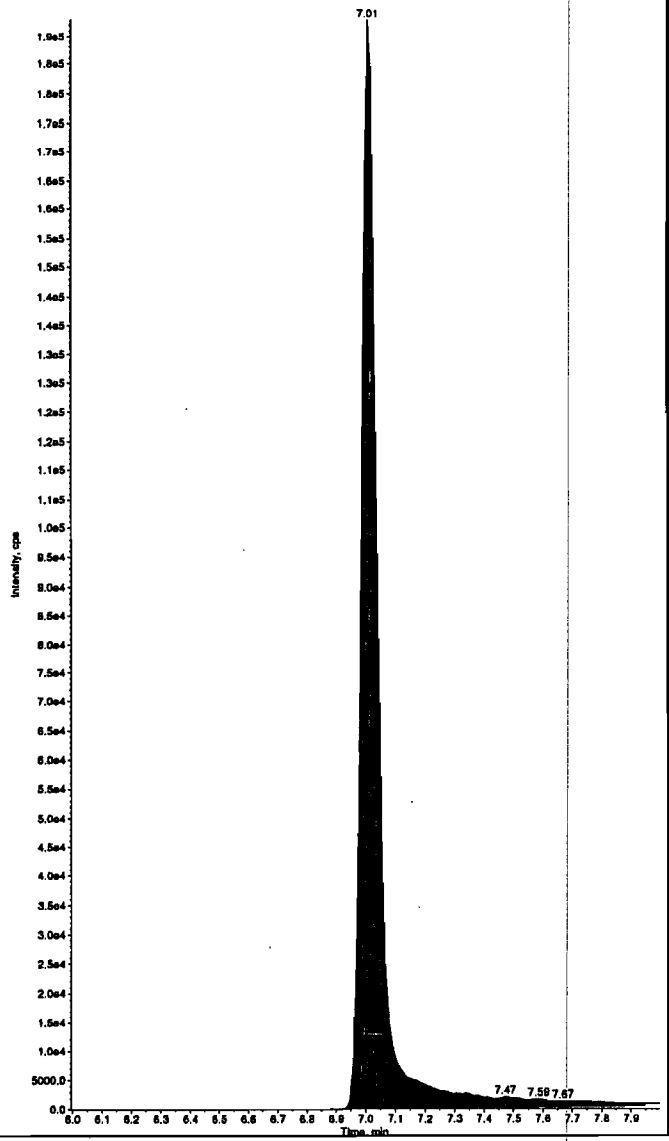

Sample Name: "WXX100305-26CCV" Sample ID: "|1|LER" File: "EXS03050060.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 554. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 8:34:01 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.23 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.24 min
Area: 4.49e+006 counts
Height: 1254370.754 cps
Start Time: 8.16 min
End Time: 8.34 min

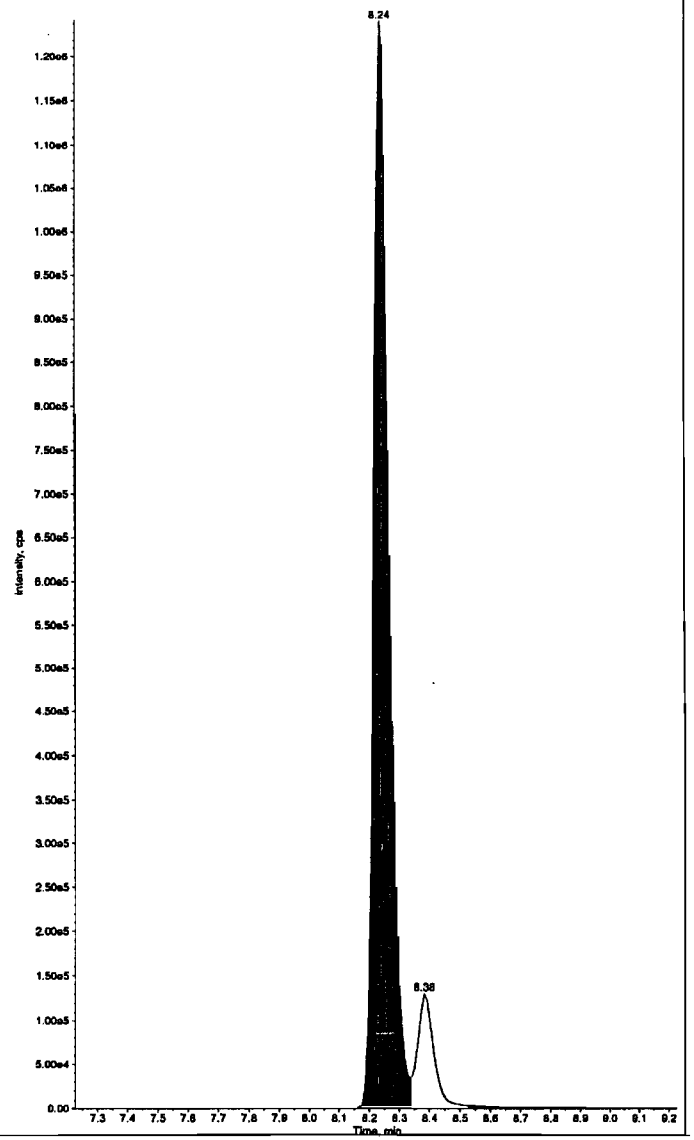

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

) Name: "WXX100305-26CCV" Sample ID: "|1|LER" File: "EXS03050060.wiff"
ame: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ent: "LCMSEXP_C" Annotation: ""
Index: 1
Type: QC
ration: 250. ng/mL
ated Conc: 247. ng/mL
ate: 3/6/2010
me: 8:34:01 AM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 1460.00 cps
eak Width: 0.00 sec
ing Width: 3 points
low: 30.0 sec
ed RT: 8.37 min
ative RT: No

ype: Valley
on Time: 8.38 min
3.08e+006 counts
887903.992 cps
Time: 8.31 min
ae: 8.72 min

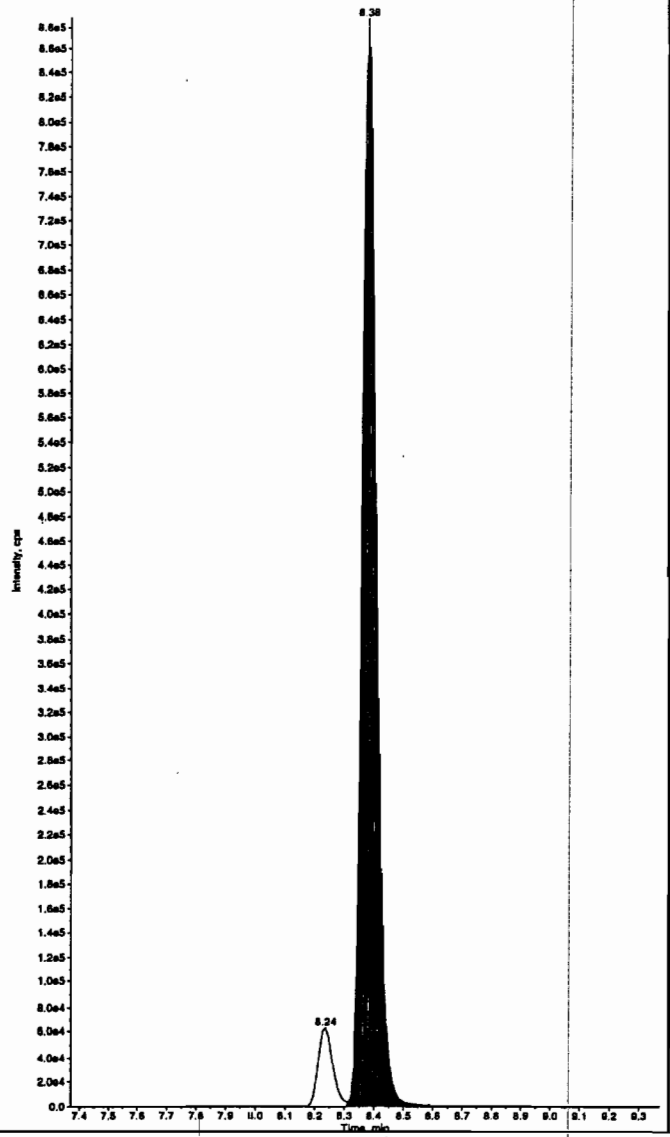

Sample Name: "WXX100305-26CCV" Sample ID: "|1|LER" File: "EXS03050060.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 499. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 8:34:01 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 1.32e+006 counts
Height: 314091.949 cps
Start Time: 4.93 min
End Time: 5.33 min

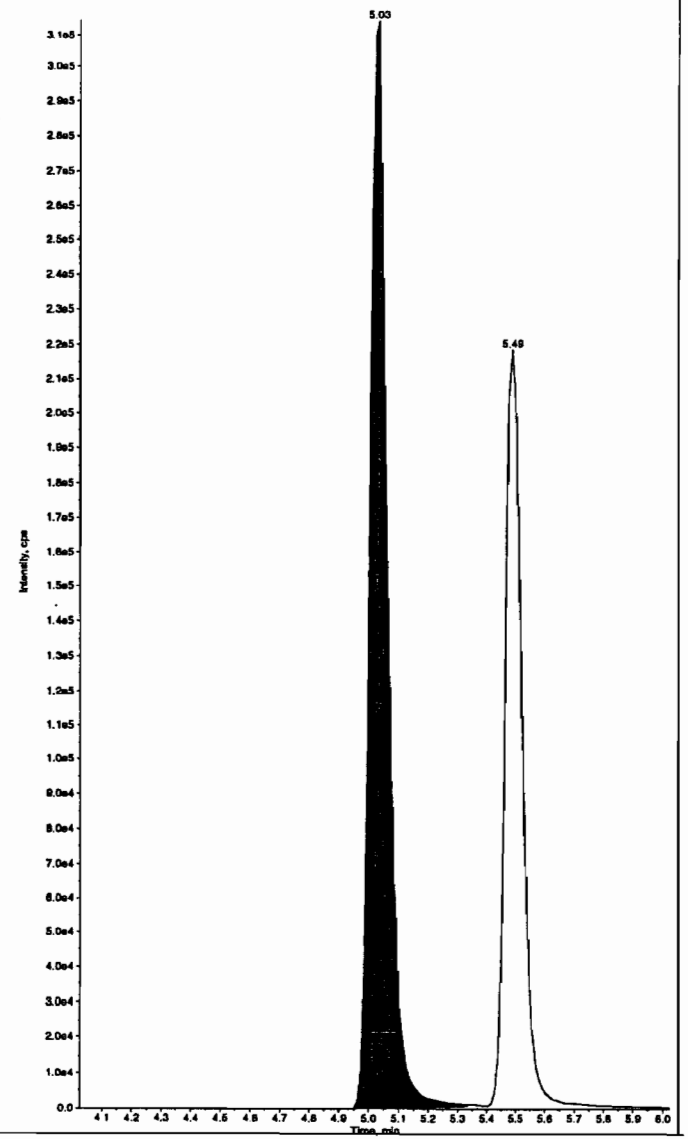

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "WXX100305-26CCV" Sample ID: "[1]LER" File: "EXS03050060.wiff"
lame: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ant: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
ration: 500. ng/mL
ated Conc: 492. ng/mL
ate: 3/6/2010
me: 8:34:01 AM

d: No
lgorithm: IntelliQuan - IQA
ak Height: 350.00 cps
ak Width: 0.00 sec
ng Width: 3 points
low: 30.0 sec
d RT: 5.48 min
ative RT: No

ype: Valley
on Time: 5.49 min
9.13e+005 counts
218423.599 cps
Time: 5.39 min
e: 6.14 min

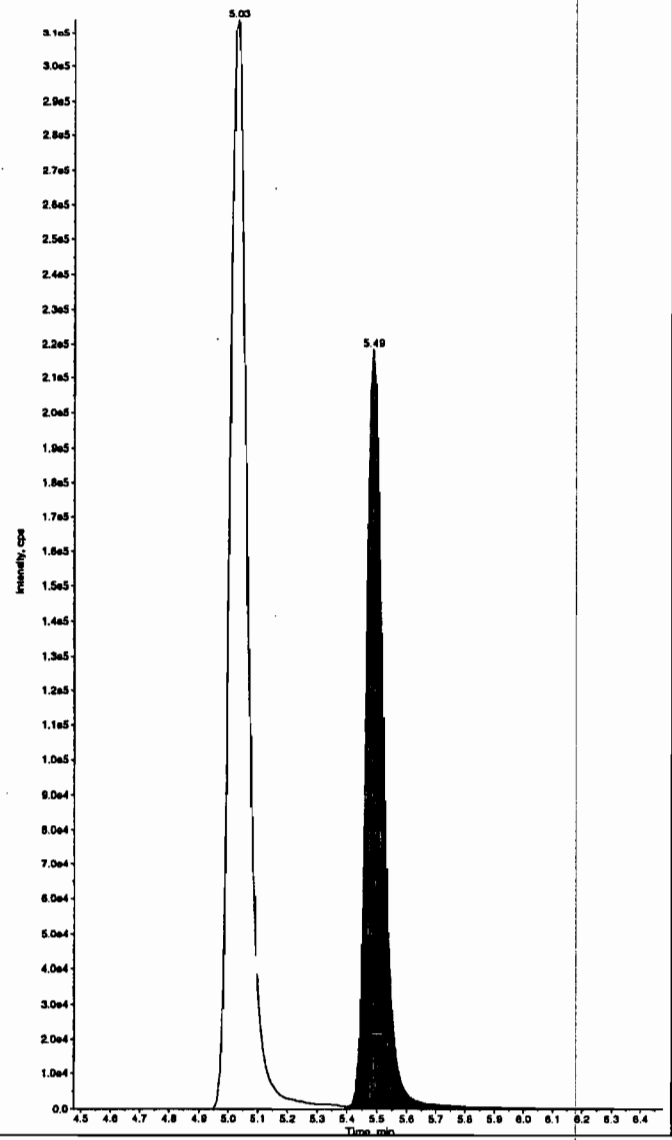

Sample Name: "WXX100305-26CCV" Sample ID: "[1]LER" File: "EXS03050060.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 498. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 8:34:01 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 8.36e+006 counts
Height: 2407232.422 cps
Start Time: 10.8 min
End Time: 11.2 min

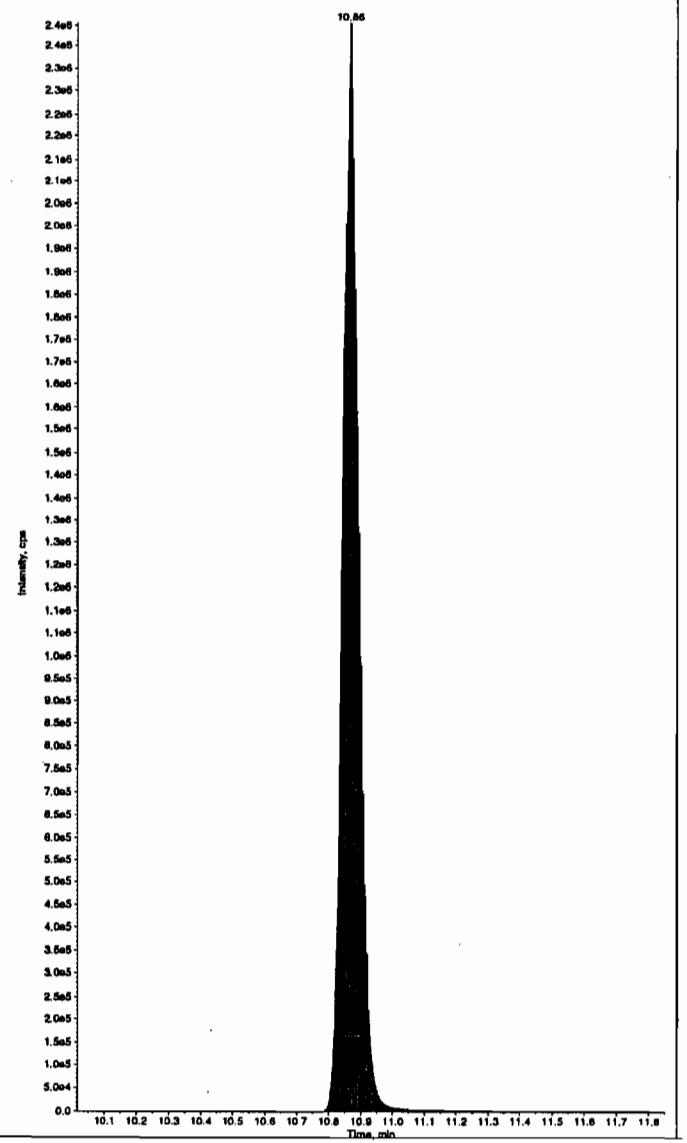

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1898

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03050062.wiff

Analysis Date: 06–MAR–10 09:05

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
tris(o–cresyl) phosphate	100	100	100	
TATB	100	116	116	
2,4–Diamino–6–nitrotoluene	100	101	101	
2,6–Diamino–4–nitrotoluene	100	103	103	
3,4–Dinitrotoluene	50	51.1	102	
3,5–Dinitroaniline	100	111	111	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

LCen 3/9/10

Name: "WXX100305-27CRI" Sample ID: "[1]LER" File: "EXS03050062.wiff"
lame: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
:ration: 100. ng/mL
ted Conc: 116. ng/mL
ate: 3/6/2010
ime: 9:05:25 AM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 2500.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 7.00 min
lative RT: No

/pe: Valley
ion Time: 7.00 min
1.54e+005 counts
: 38752.625 cps
Time: 6.91 min
me: 7.69 min

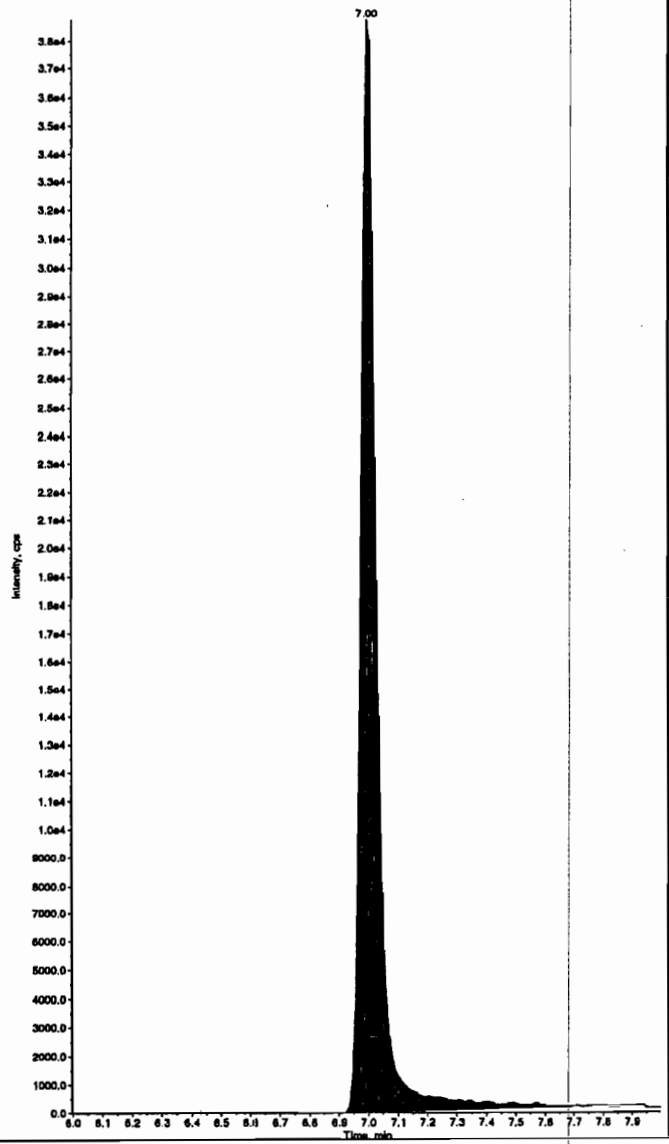

Sample Name: "WXX100305-27CRI" Sample ID: "[1]LER" File: "EXS03050062.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 111. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 9:05:25 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.20 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.24 min
Area: 9.46e+005 counts
Height: 264936.615 cps
Start Time: 8.14 min
End Time: 8.33 min

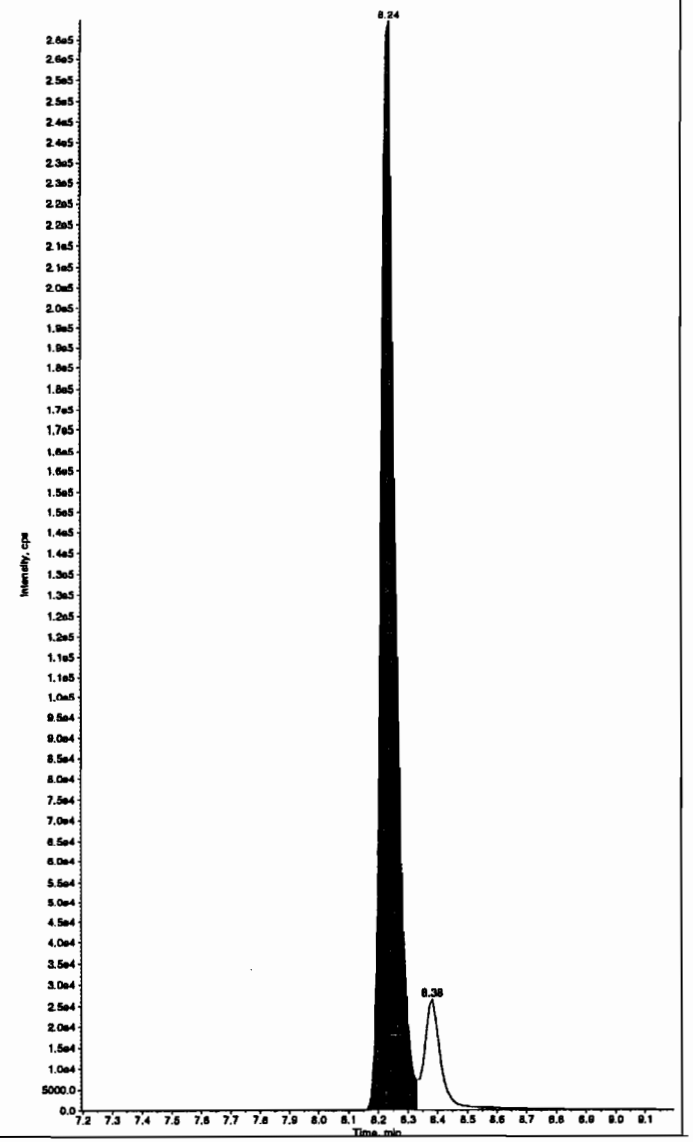

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SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "WXX100305-27CRI" Sample ID: "[1]LER" File: "EXS03050062.wiff"
ame: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nt: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
ration: 50.0 ng/mL
ted Conc: 51.1 ng/mL
te: 3/6/2010
me: 9:05:25 AM

d: No
lgorithm: IntelliQuan - IQA
ak Height: 1460.00 cps
ak Width: 0.00 sec
ng Width: 3 points
low: 30.0 sec
d RT: 8.37 min
ative RT: No

pe: Valley
on Time: 8.37 min
6.16e+005 counts
185875.763 cps
ima: 8.31 min
e: 8.69 min

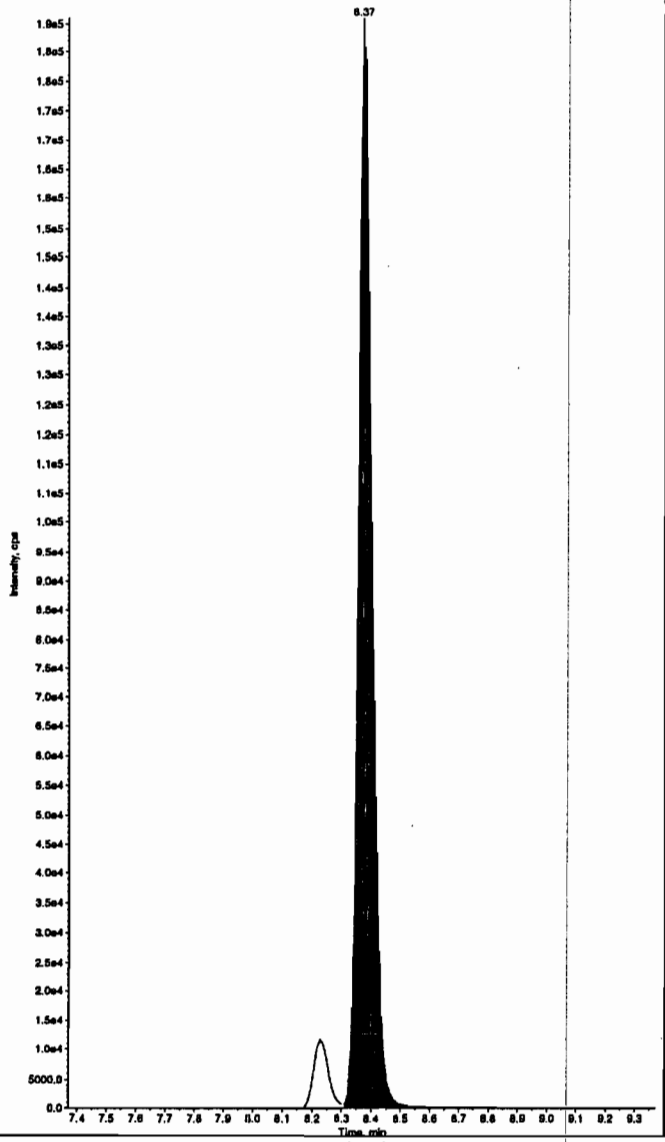

Sample Name: "WXX100305-27CRI" Sample ID: "[1]LER" File: "EXS03050062.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 9:05:25 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 2.64e+005 counts
Height: 62094.765 cps
Start Time: 4.93 min
End Time: 5.31 min

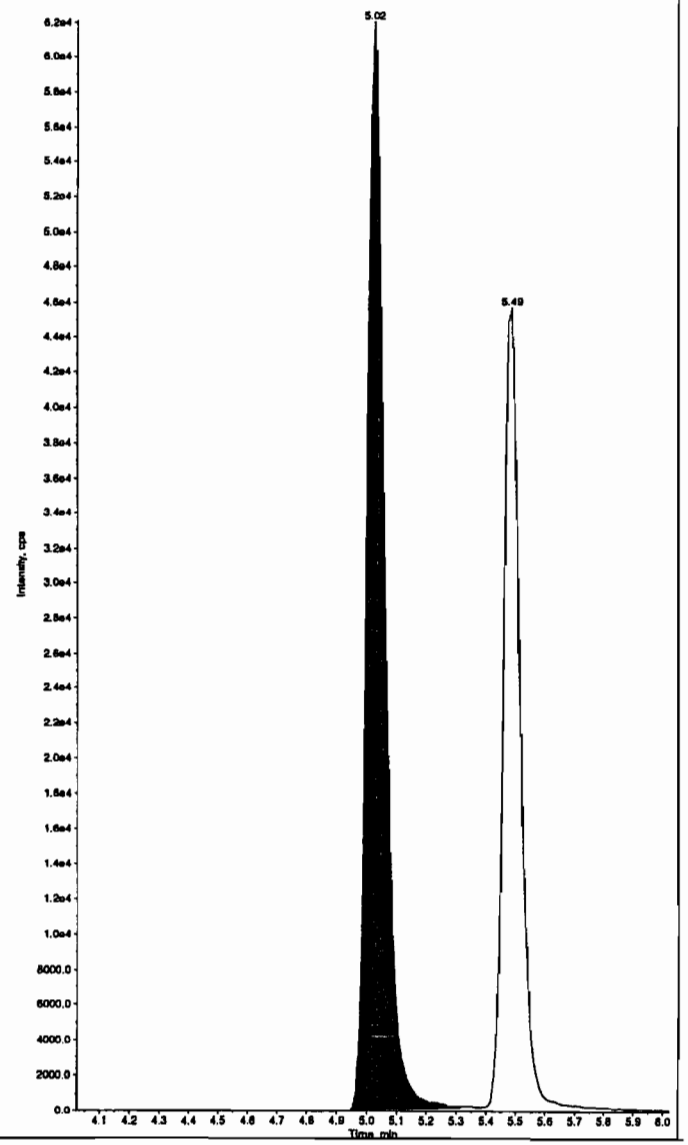

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "WXX100305-27CRI" Sample ID: "|1|LER" File: "EXS03050062.wiff"
ame: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nt: "LCMSEXP_C" Annotation: ""

```
Index:          1
Type:          QC
ration:      100.    ng/mL
ted Conc:    101.    ng/mL
te:        3/6/2010
me:        9:05:25 AM

d:            No
lgorithm: IntelliQuan - IQA
ak Height: 350.00   cps
ak Width:    0.00   sec
ng Width:  3       points
ow:         30.0   sec
d RT:        5.48  min
ative RT:    No

pe:         Valley
on Time:     5.49  min
       1.83e+005   counts
         45674.507  cps
ime:         5.37  min
e:           5.90  min
```

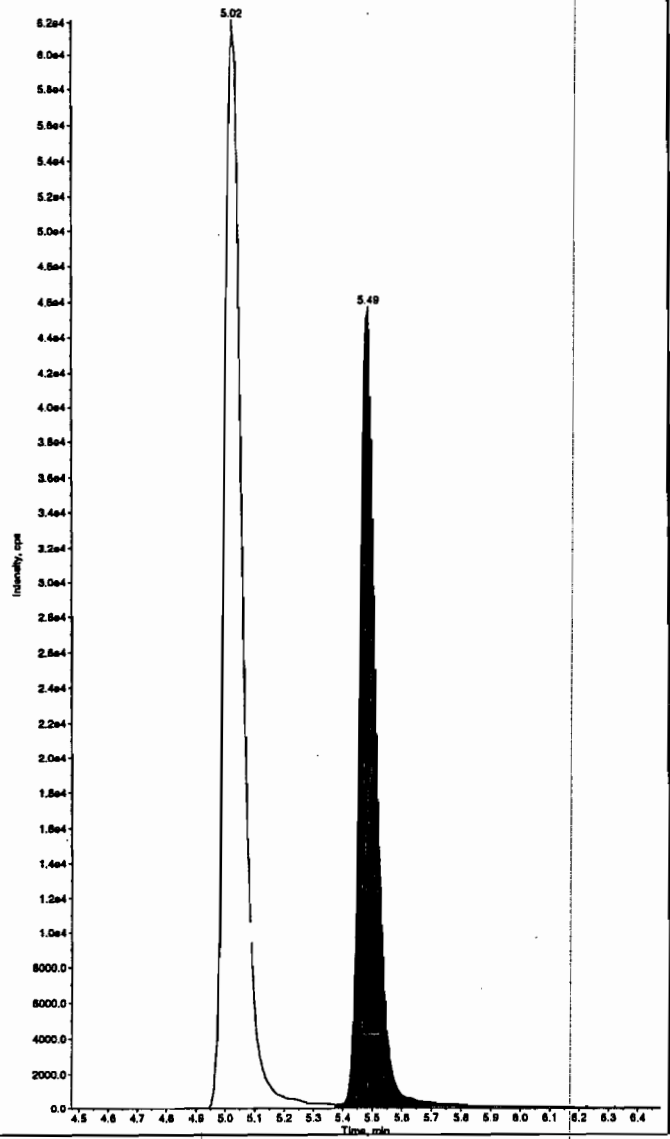

Sample Name: "WXX100305-27CRI" Sample ID: "|1|LER" File: "EXS03050062.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:      100.    ng/mL
Calculated Conc:    100.    ng/mL
Acq. Date:        3/6/2010
Acq. Time:        9:05:25 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         30.0    sec
Expected RT:        10.9   min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.9   min
Area:         1.89e+006   counts
Height:        523279.785  cps
Start Time:         10.8   min
End Time:           11.3   min
```

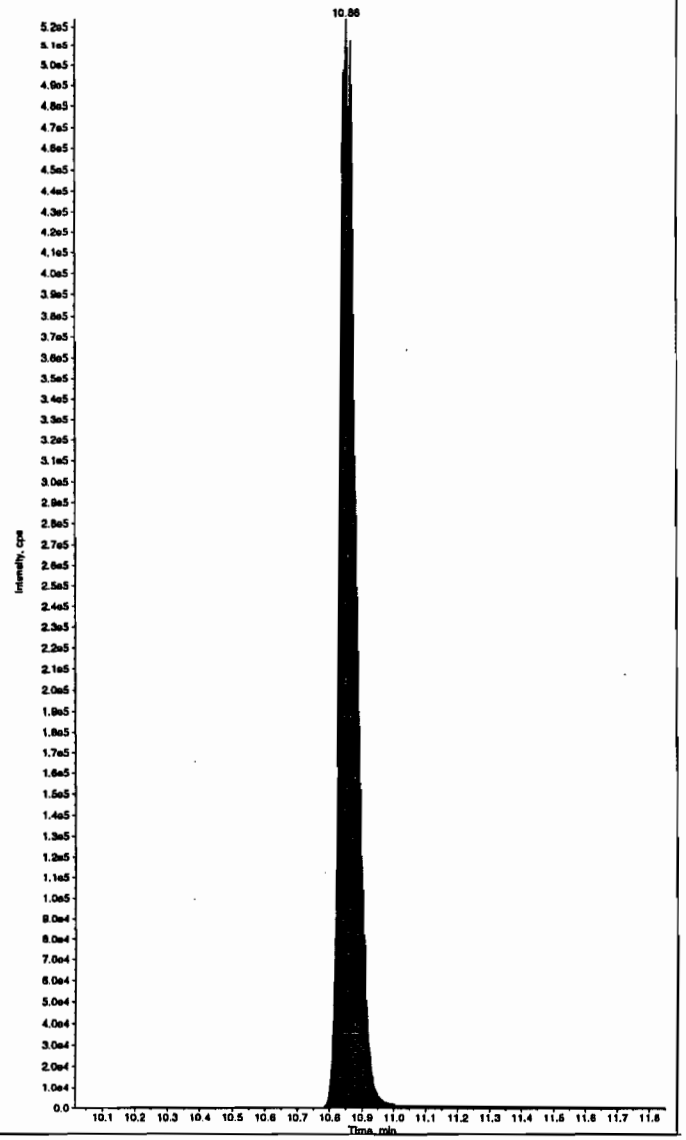

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1898

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03050066.wiff

Analysis Date: 06–MAR–10 10:08

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	456	91	
2,6–Diamino–4–nitrotoluene	500	476	95	
3,4–Dinitrotoluene	250	247	99	
3,5–Dinitroaniline	500	535	107	
TATB	500	549	110	
tris(o–cresyl) phosphate	500	507	101	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Lan 3/9/10

Name: "WXX100305-26CCV" Sample ID: "[1]LER" File: "EXS03050066.wiff"
ame: "TATB" Mass(es): "257.2/204.9 amu"
int: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
ration: 500. ng/mL
ted Conc: 549. ng/mL
te: 3/6/2010
me: 10:08:15 AM

d: No
lgorithm: IntelliQuan - IQA
ak Height: 2500.00 cps
ak Width: 0.00 sec
ng Width: 3 points
low: 30.0 sec
d RT: 7.00 min
ative RT: No

pe: Valley
on Time: 6.99 min
7.92e+005 counts
182468.521 cps
ime: 6.87 min
e: 8.09 min

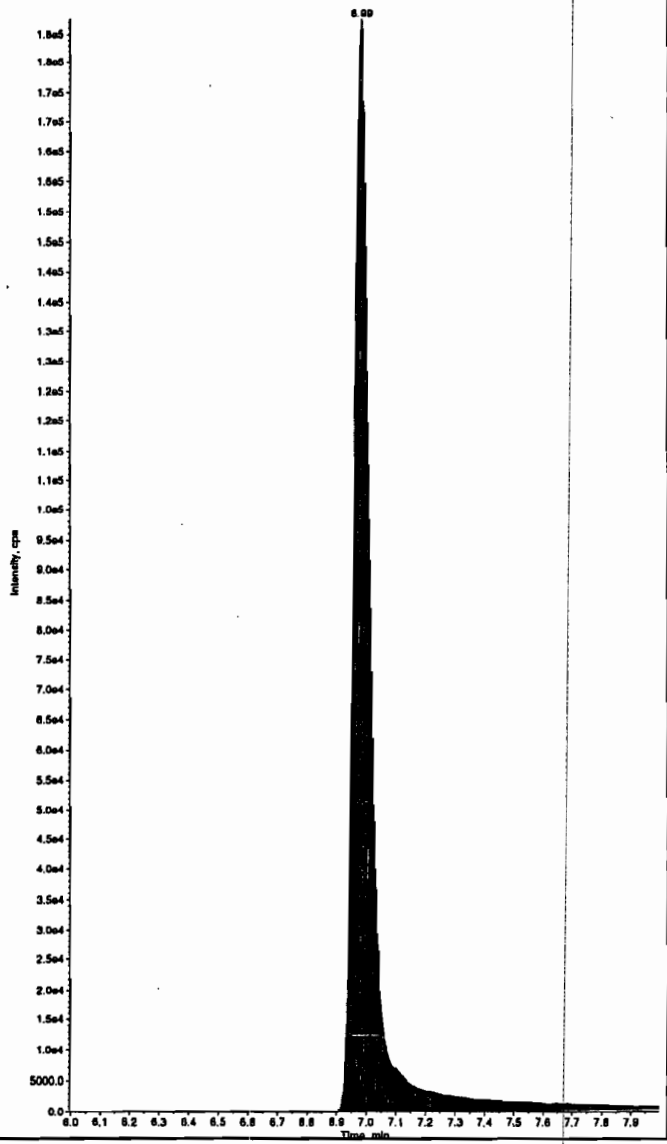

Sample Name: "WXX100305-26CCV" Sample ID: "[1]LER" File: "EXS03050066.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 518. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 10:08:15 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.22 min
Area: 4.22e+006 counts
Height: 1172567.749 cps
Start Time: 8.14 min
End Time: 8.32 min

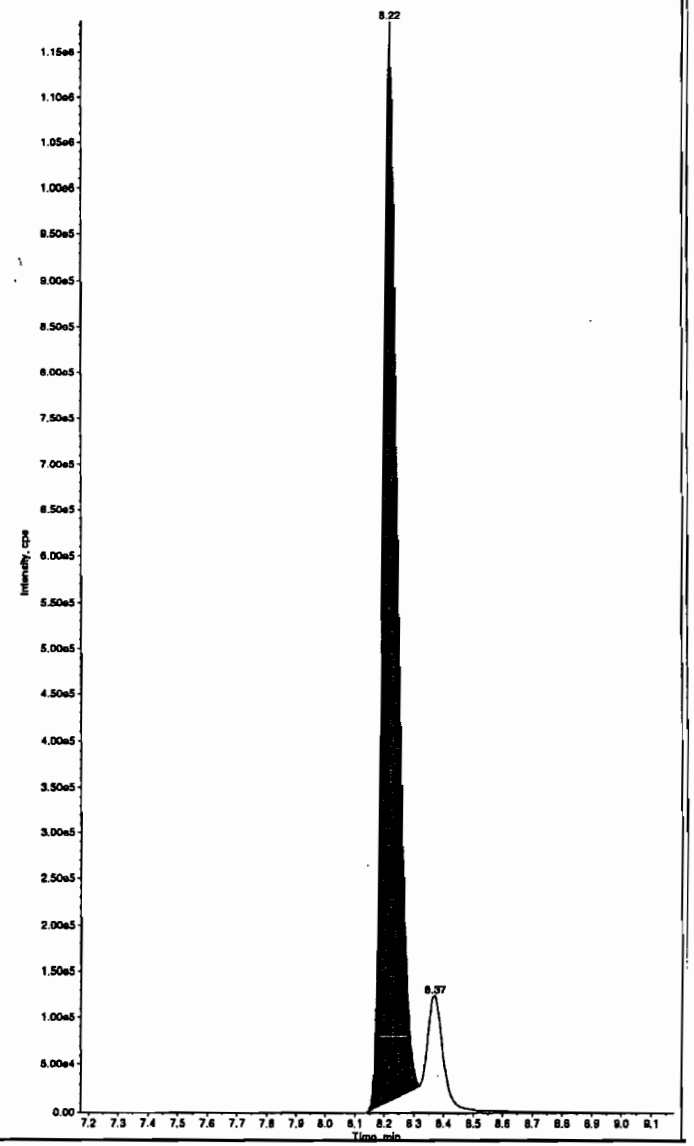

dhime 03/09/10

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after Clean 3/9/10

) Name: "WXX100305-26CCV" Sample ID: "|1|LER" File: "EXS03050066.wiff"
lame: "TATB" Mass(as): "257.2/204.9 amu"
ent: "LCMSEXP_C" Annotation: ""

Index:	1
Type:	QC
ration:	500. ng/mL
ated Conc:	549. ng/mL
ate:	3/6/2010
me:	10:08:15 AM
ed:	No
Algorithm:	IntelliQuan - IQA
eak Height:	2500.00 cps
eak Width:	0.00 sec
ing Width:	3 points
low:	30.0 sec
ed RT:	7.00 min
lative RT:	No
ype:	Valley
ion Time:	6.99 min
	7.92e+005 counts
:	182468.521 cps
Time:	6.87 min
me:	8.09 min

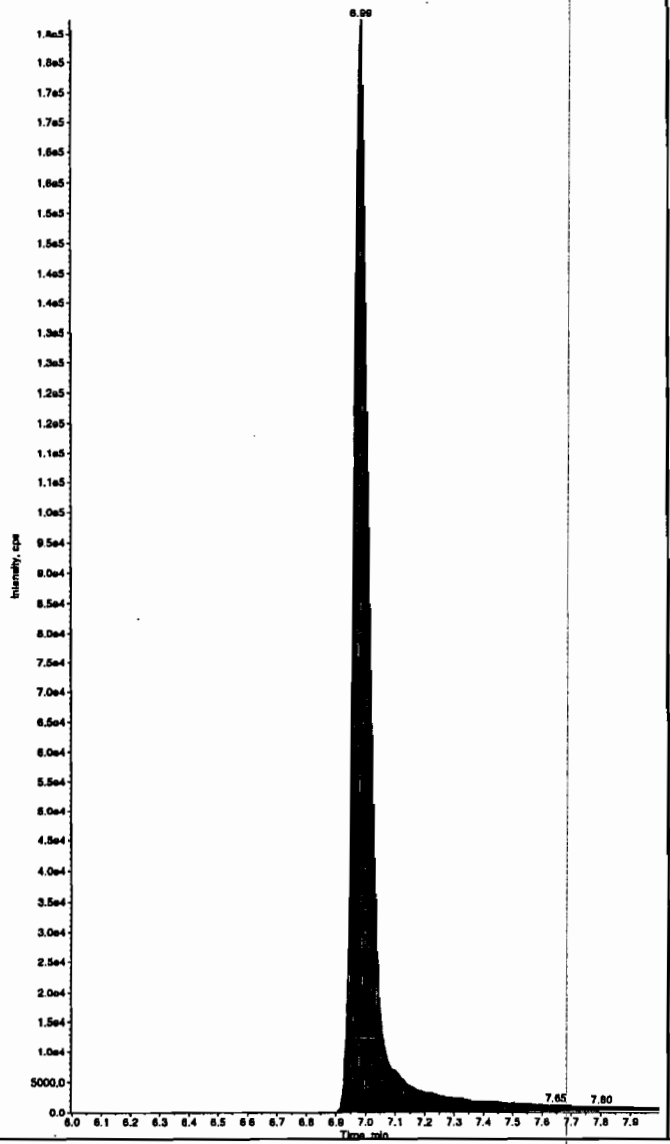

Sample Name: "WXX100305-26CCV" Sample ID: "|1|LER" File: "EXS03050066.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	535. ng/mL
Acq. Date:	3/6/2010
Acq. Time:	10:08:15 AM
Modified:	Yes
RT Window:	15.0 sec
Expected RT:	8.17 min
Use Relative RT:	No
Int. Type:	Manual
Retention Time:	8.22 min
Area:	4.35e+006 counts
Height:	1183019.493 cps
Start Time:	8.14 min
End Time:	8.32 min

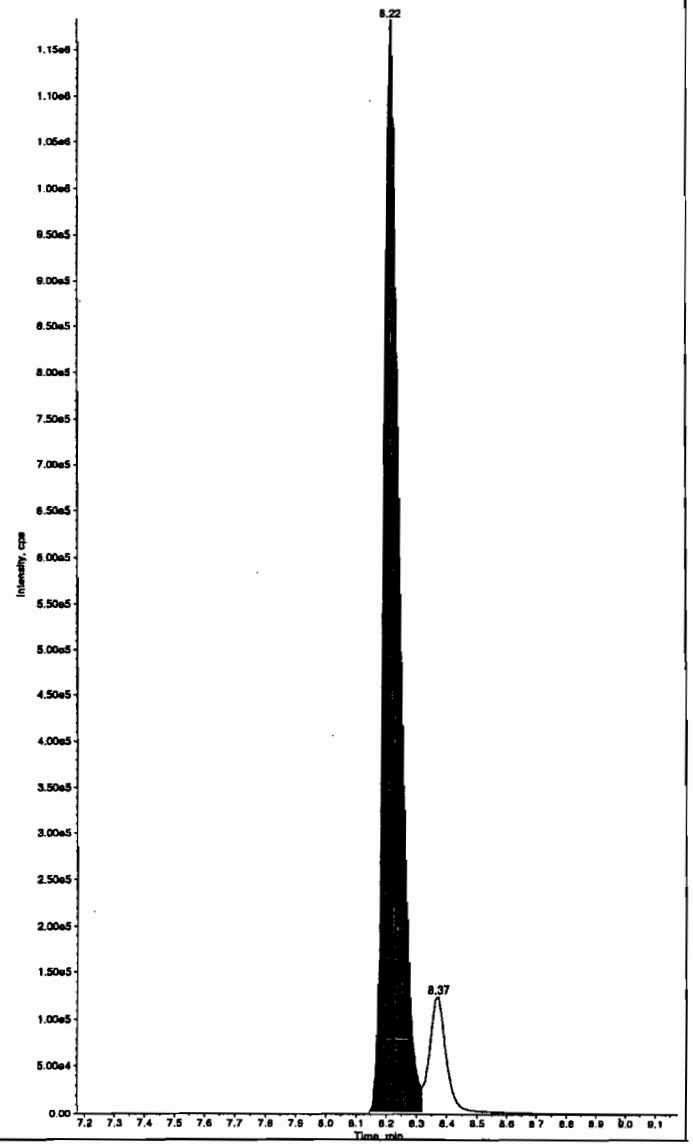

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Name: "WXX100305-26CCV" Sample ID: "|1|LER" File: "EXS03050066.wiff"
ame: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nt: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
ration: 250. ng/mL
ted Conc: 247. ng/mL
te: 3/6/2010
me: 10:08:15 AM

d: No
lgorithm: IntelliQuan - IQA
ak Height: 1460.00 cps
ak Width: 0.00 sec
ng Width: 3 points
ow: 30.0 sec
d RT: 8.37 min
ative RT: No

pe: Valley
on Time: 8.36 min
3.08e+006 counts
937779.907 cps
ime: 8.29 min
e: 8.69 min

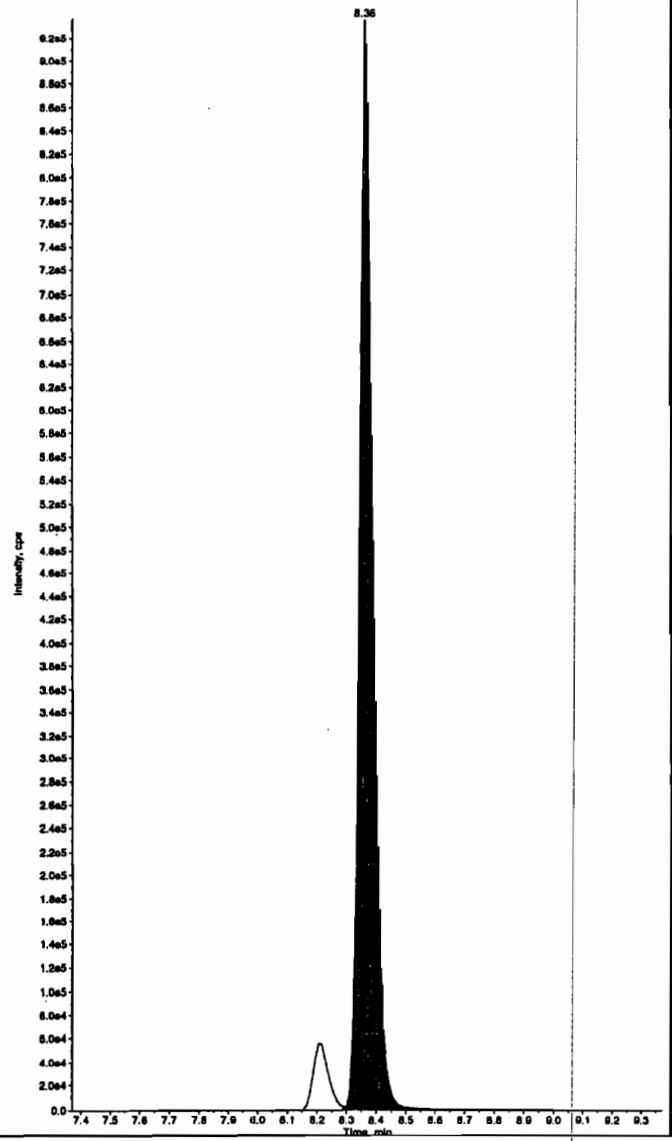

Sample Name: "WXX100305-26CCV" Sample ID: "|1|LER" File: "EXS03050066.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 476. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 10:08:15 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.01 min
Area: 1.26e+006 counts
Height: 304854.767 cps
Start Time: 4.92 min
End Time: 5.30 min

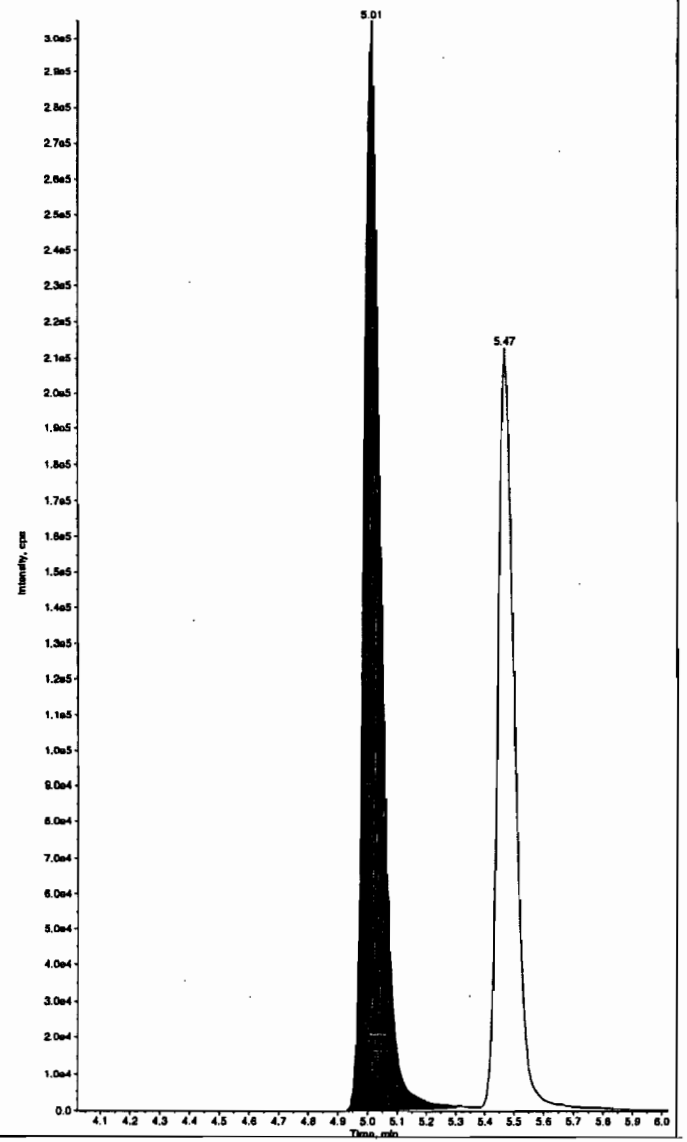

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Name: "WXX100305-26CCV" Sample ID: "[1]LER" File: "EXS03050066.wiff"
ame: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
nt: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
ration: 500. ng/mL
ted Conc: 456. ng/mL
te: 3/6/2010
me: 10:08:15 AM

d: No
lgorithm: IntelliQuan - IQA
ak Height: 350.00 cps
ak Width: 0.00 sec
ng Width: 3 points
low: 30.0 sec
d RT: 5.48 min
ative RT: No

ype: Valley
ion Time: 5.47 min
8.46e+005 counts
211998.352 cps
time: 5.38 min
e: 5.91 min

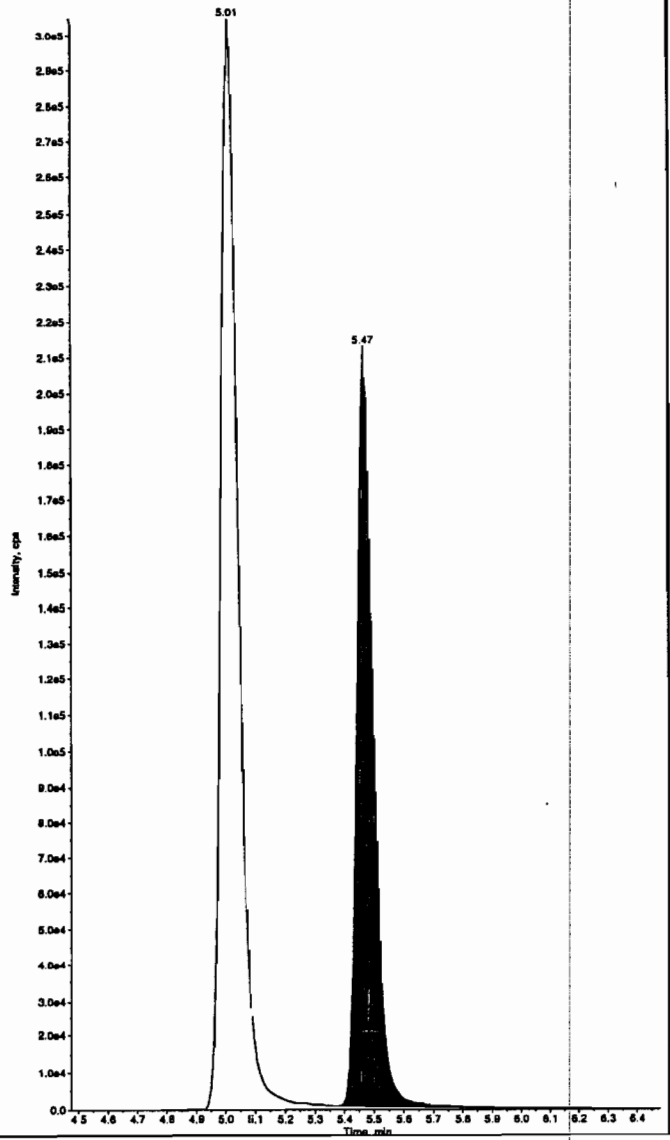

Sample Name: "WXX100305-26CCV" Sample ID: "[1]LER" File: "EXS03050066.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 507. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 10:08:15 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 8.50e+006 counts
Height: 2485842.529 cps
Start Time: 10.8 min
End Time: 11.2 min

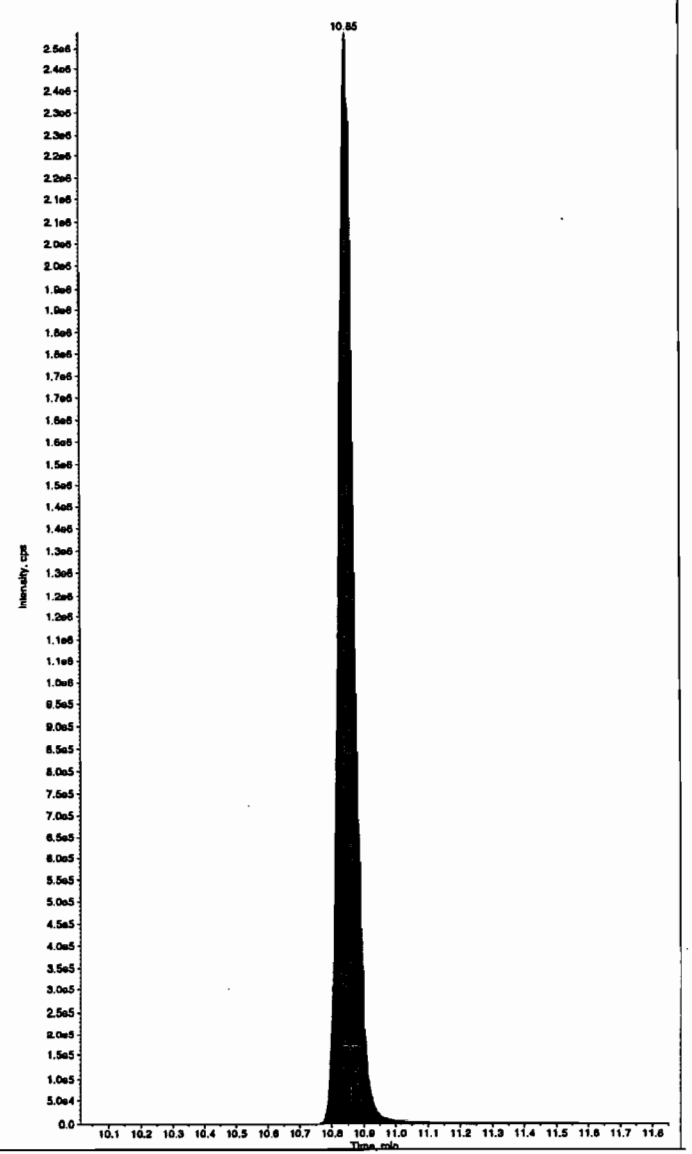

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1898

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03050068.wiff

Analysis Date: 06–MAR–10 10:39

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	94.8	95	
2,6–Diamino–4–nitrotoluene	100	101	101	
3,4–Dinitrotoluene	50	51.1	102	
3,5–Dinitroaniline	100	105	105	
TATB	100	111	111	
tris(o–cresyl) phosphate	100	99	99	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 3/9/10

) Name: "WXX100305-27CRI" Sample ID: "[1]LER" File: "EXS03050068.wiff"
lame: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_C" Annotation: ""
Index: 1
Type: QC
ration: 100. ng/mL
ated Conc: 111. ng/mL
ate: 3/6/2010
ime: 10:39:39 AM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 2500.00 cps
eak Width: 0.00 sec
ing Width: 3 points
low: 30.0 sec
ed RT: 7.00 min
lative RT: No

ype: Valley
ion Time: 6.97 min
1.46e+005 counts
: 37338.898 cps
Time: 6.87 min
me: 7.36 min

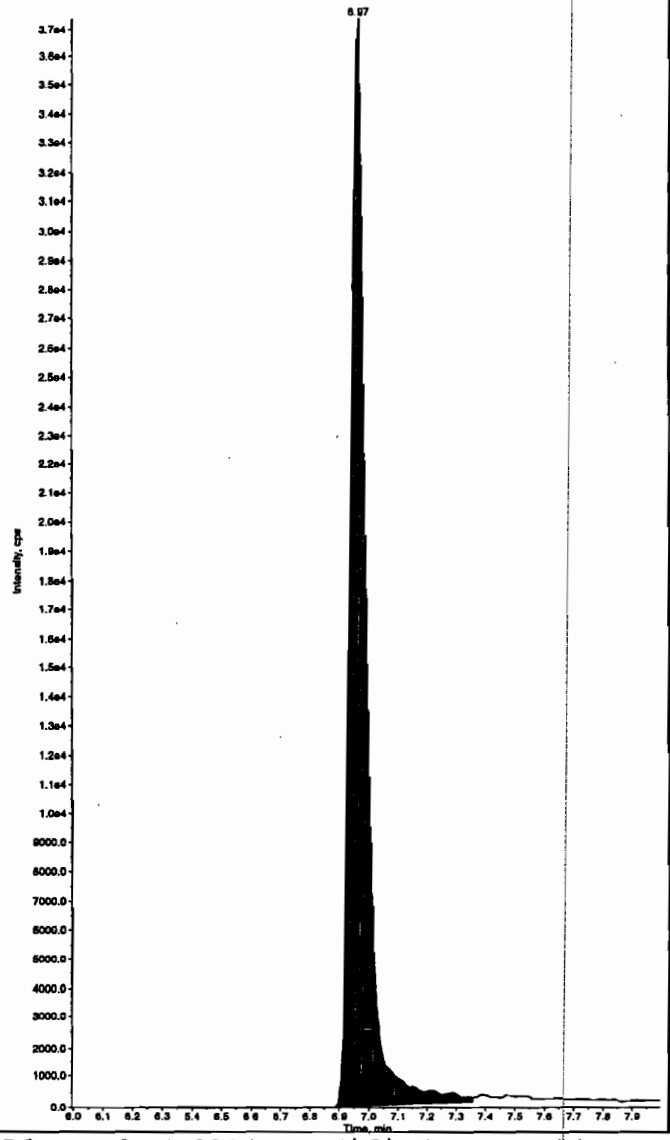

Sample Name: "WXX100305-27CRI" Sample ID: "[1]LER" File: "EXS03050068.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 105. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 10:39:39 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.15 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.20 min
Area: 8.93e+005 counts
Height: 238822.998 cps
Start Time: 8.11 min
End Time: 8.31 min

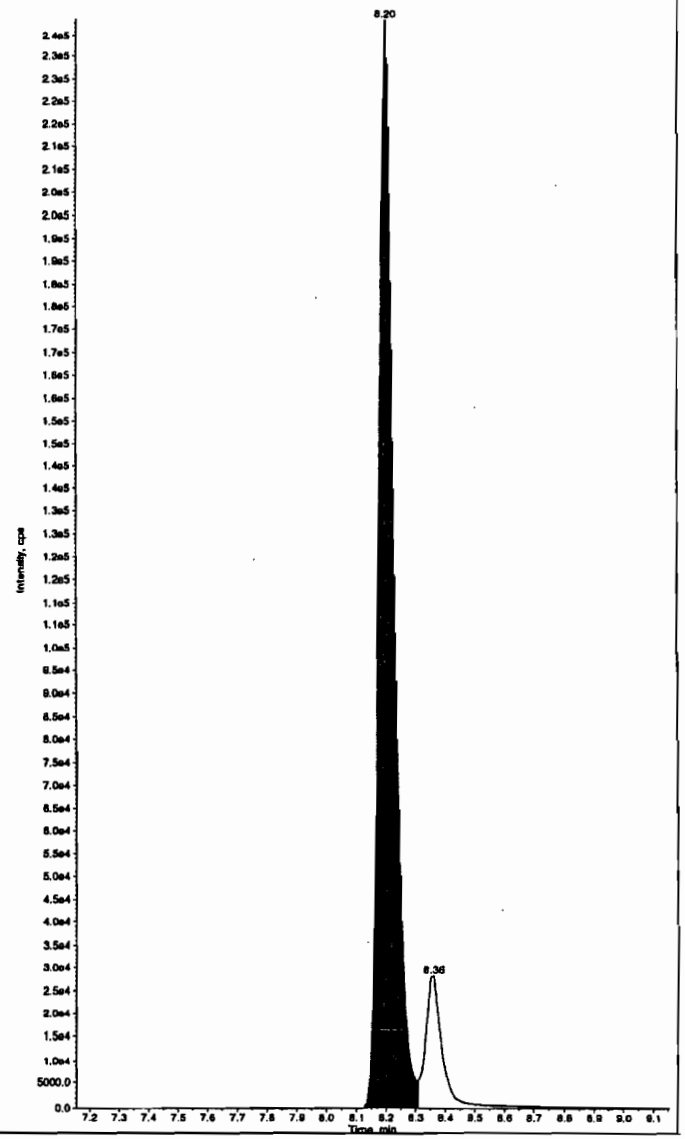

HMM 03/09/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

e Name: "WXX100305-27CRI" Sample ID: "[1]LER" File: "EXS03050068.wiff"
lame: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ent: "LCMSEXP_C" Annotation: "

Index: 1
Type: QC
ration: 50.0 ng/mL
ated Conc: 51.1 ng/mL
ate: 3/6/2010
ime: 10:39:39 AM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 1460.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 8.37 min
lative RT: No

ype: Valley
ion Time: 8.35 min
6.17e+005 counts
: 187936.569 cps
Time: 8.28 min
me: 8.69 min

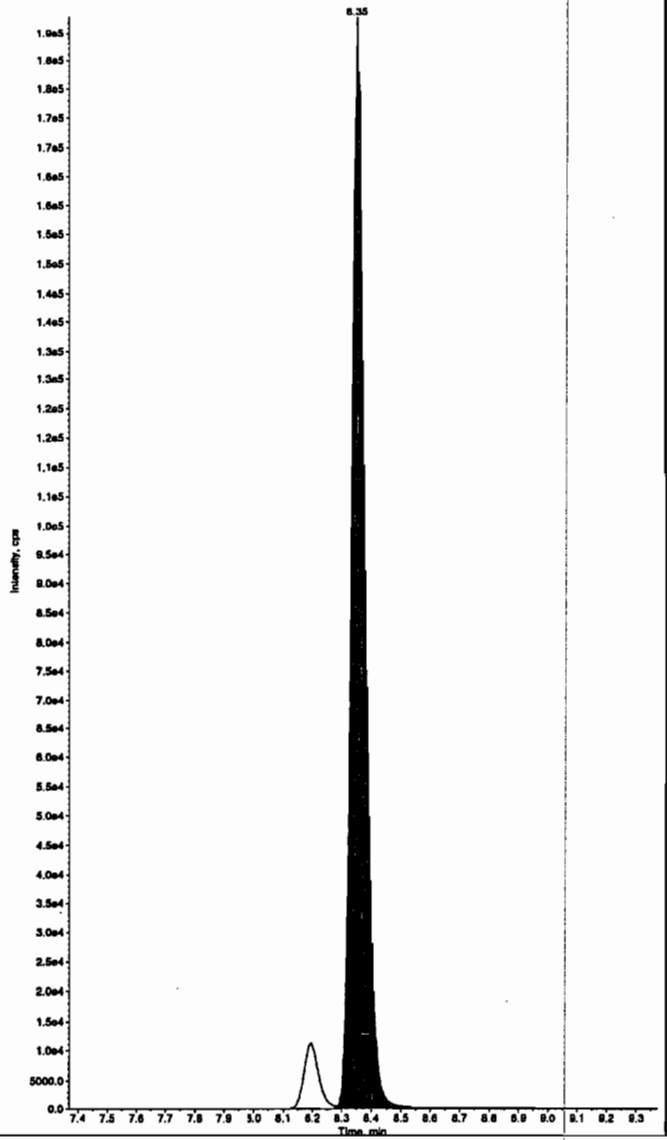

Sample Name: "WXX100305-27CRI" Sample ID: "[1]LER" File: "EXS03050068.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 101. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 10:39:39 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.99 min
Area: 2.58e+005 counts
Height: 61932.999 cps
Start Time: 4.90 min
End Time: 5.29 min

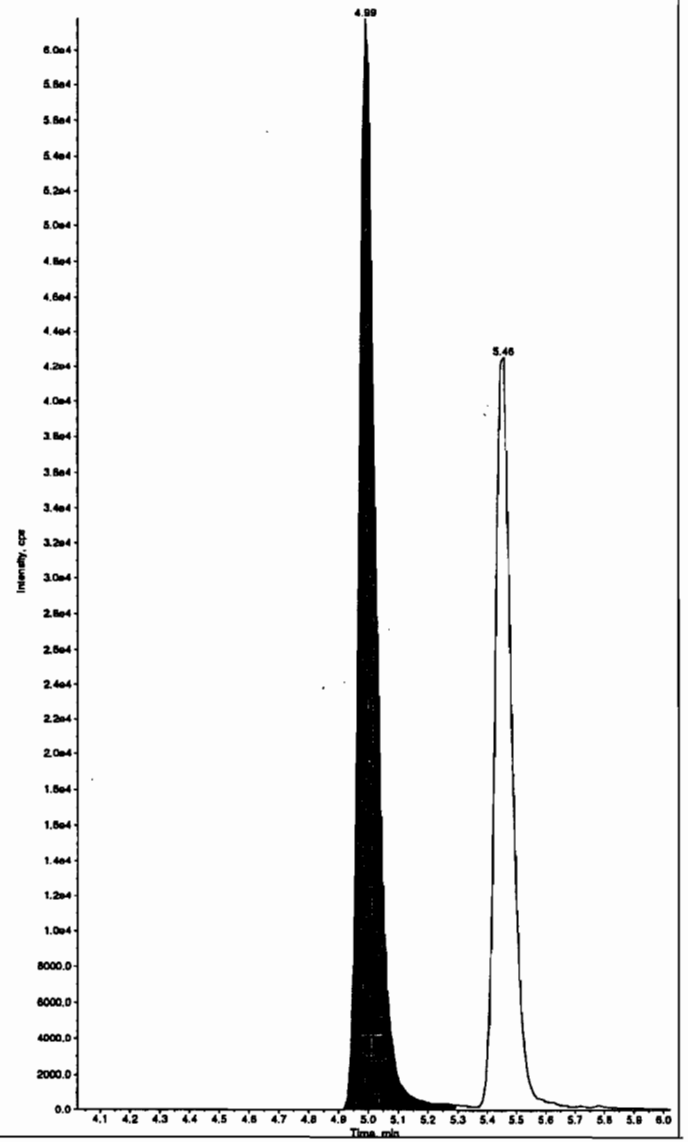

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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; Name: "WXX100305-27CRI" Sample ID: "[1]LER" File: "EXS03050068.wiff"
lame: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ent: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
:ration: 100. ng/mL
ated Conc: 94.8 ng/mL
ate: 3/6/2010
ime: 10:39:39 AM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 350.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 5.48 min
lative RT: No

ype: Valley
ion Time: 5.46 min
1.71e+005 counts
: 42302.734 cps
Time: 5.37 min
me: 5.68 min

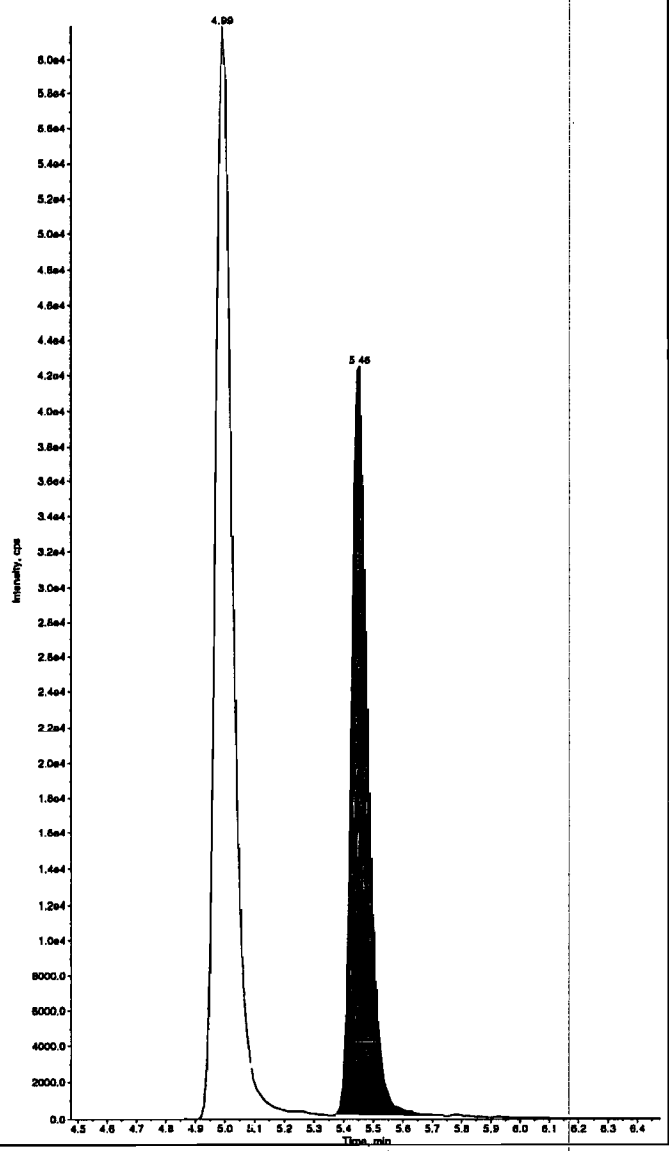

Sample Name: "WXX100305-27CRI" Sample ID: "[1]LER" File: "EXS03050068.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 99.0 ng/mL
Acq. Date: 3/6/2010
Acq. Time: 10:39:39 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.87e+006 counts
Height: 585983.887 cps
Start Time: 10.7 min
End Time: 11.1 min

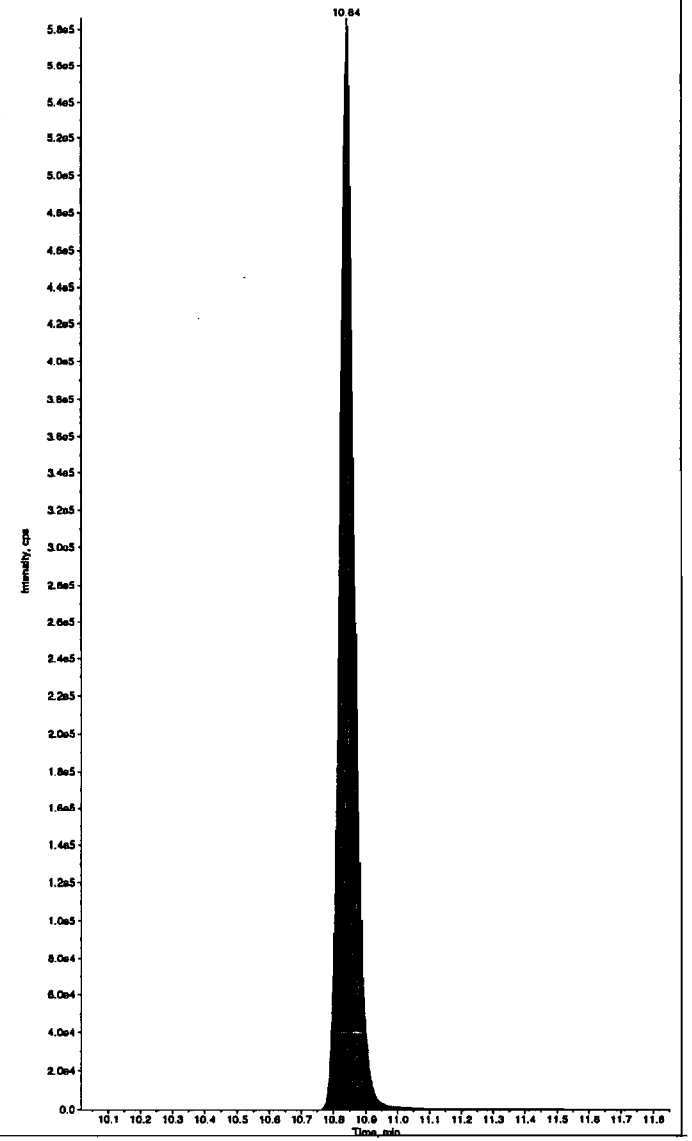

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1898

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03050079.wiff

Analysis Date: 06–MAR–10 13:32

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	443	89	
2,6–Diamino–4–nitrotoluene	500	460	92	
3,4–Dinitrotoluene	250	235	94	
3,5–Dinitroaniline	500	506	101	
TATB	500	522	104	
tris(o–cresyl) phosphate	500	475	95	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Scan 3/9/10

Name: "WXX100306-26CCV" Sample ID: "|1|LER" File: "EXS03050079.wiff"
ame: "TATB" Mass(es): "257.2/204.9 amu"
nt: "LCMSEXP_C" Annotation: ""
Index: 1
Type: QC
ration: 500. ng/mL
ted Conc: 522. ng/mL
te: 3/6/2010
me: 1:32:28 PM

d: No
lgorithm: IntelliQuan - IQA
ak Height: 2500.00 cps
ak Width: 0.00 sec
ng Width: 3 points
low: 30.0 sec
d RT: 7.00 min
ative RT: No

pe: Valley
on Time: 6.94 min
7.51e+005 counts
179990.768 cps
ima: 6.84 min
e: 7.62 min

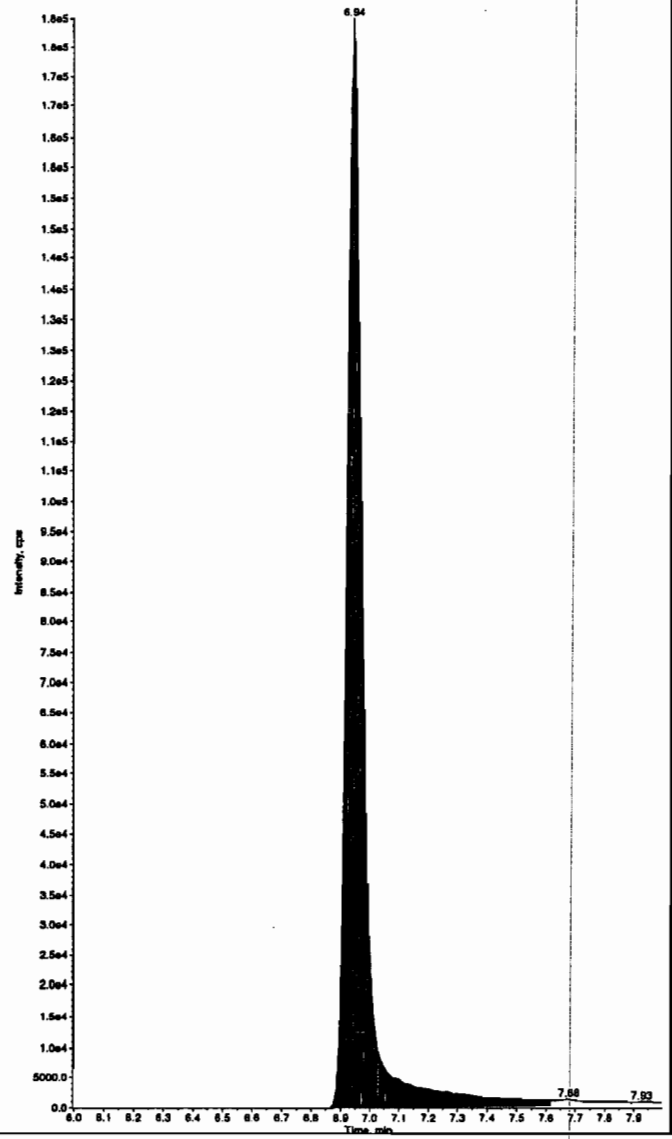

Sample Name: "WXX100306-26CCV" Sample ID: "|1|LER" File: "EXS03050079.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 506. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 1:32:28 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.15 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.19 min
Area: 4.13e+006 counts
Height: 1098335.205 cps
Start Time: 8.09 min
End Time: 8.30 min

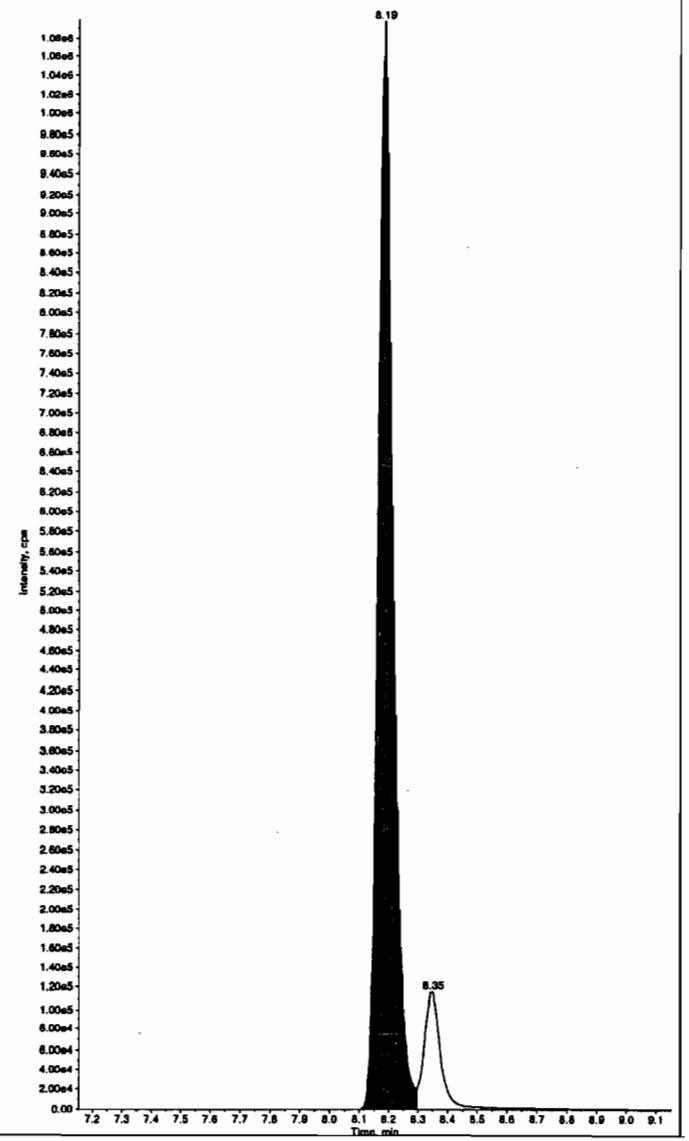

Hmm 03/09/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

e Name: "WXX100306-26CCV" Sample ID: "[1]LER" File: "EXS03050079.wiff"
lame: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ent: "LCMSEXP_C" Annotation: ""

```
 Index:          1
 Type:          QC
tration:       250.    ng/mL
ated Conc:     235.    ng/mL
ate:        3/6/2010
ime:        1:32:28 PM

ed:            No
Algorithm: IntelliQuan - IQA
eak Height:1460.00   cps
eak Width:    0.00   sec
ing Width:  3        points
dow:         30.0    sec
ed RT:        8.37   min
lative RT:    No

ype:        Valley
ion Time:     8.34   min
        2.94e+006   counts
:         883458.557  cps
Time:         8.27   min
me:           8.66   min
```

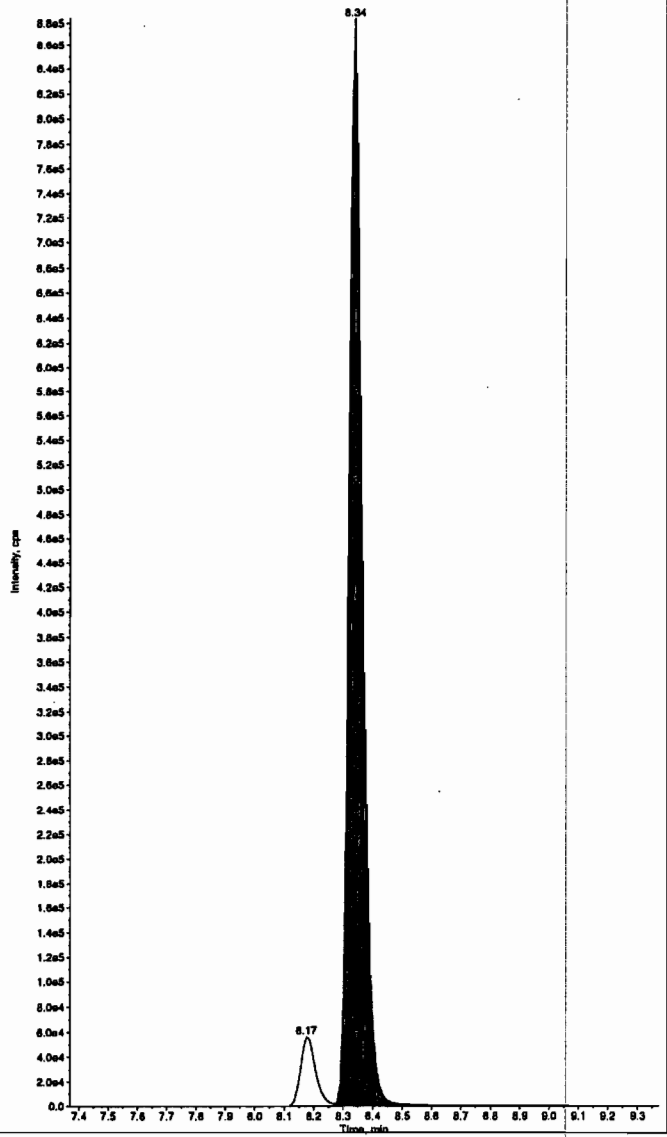

Sample Name: "WXX100306-26CCV" Sample ID: "[1]LER" File: "EXS03050079.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       500.    ng/mL
Calculated Conc:     460.    ng/mL
Acq. Date:        3/6/2010
Acq. Time:        1:32:28 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:        5.02   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     4.97   min
Area:          1.22e+006   counts
Height:         283994.751  cps
Start Time:         4.88   min
End Time:           5.28   min
```

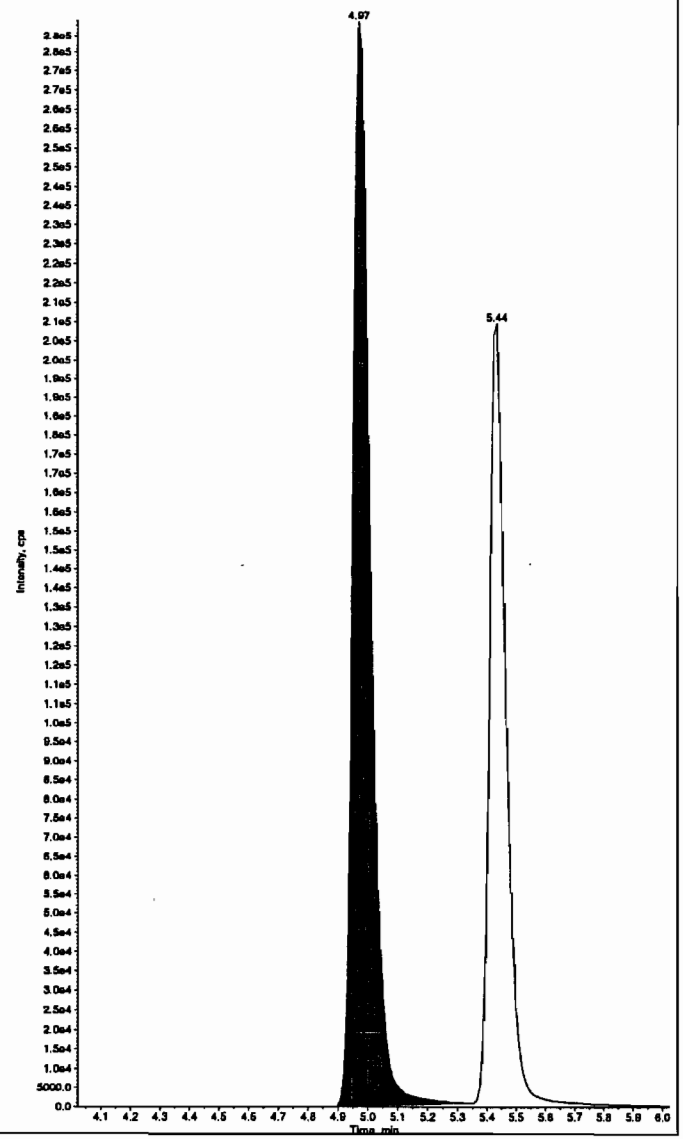

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

e Name: "WXX100306-26CCV" Sample ID: "[1]LER" File: "EXS03050079.wlf"
lame: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ent: "LCMSEXP_C" Annotation: ""

Index:	1	
Type:	QC	
tration:	500.	ng/mL
ated Conc:	443.	ng/mL
ate:	3/6/2010	
ime:	1:32:28 PM	
ed:	No	
Algorithm:	IntelliQuan - IQA	
eak Height:	350.00	cps
eak Width:	0.00	sec
ing Width:	3	points
dow:	30.0	sec
ed RT:	5.48	min
lative RT:	No	
ype:	Valley	
ion Time:	5.44	min
	8.21e+005	counts
	204450.729	cps
Time:	5.33	min
ne:	5.99	min

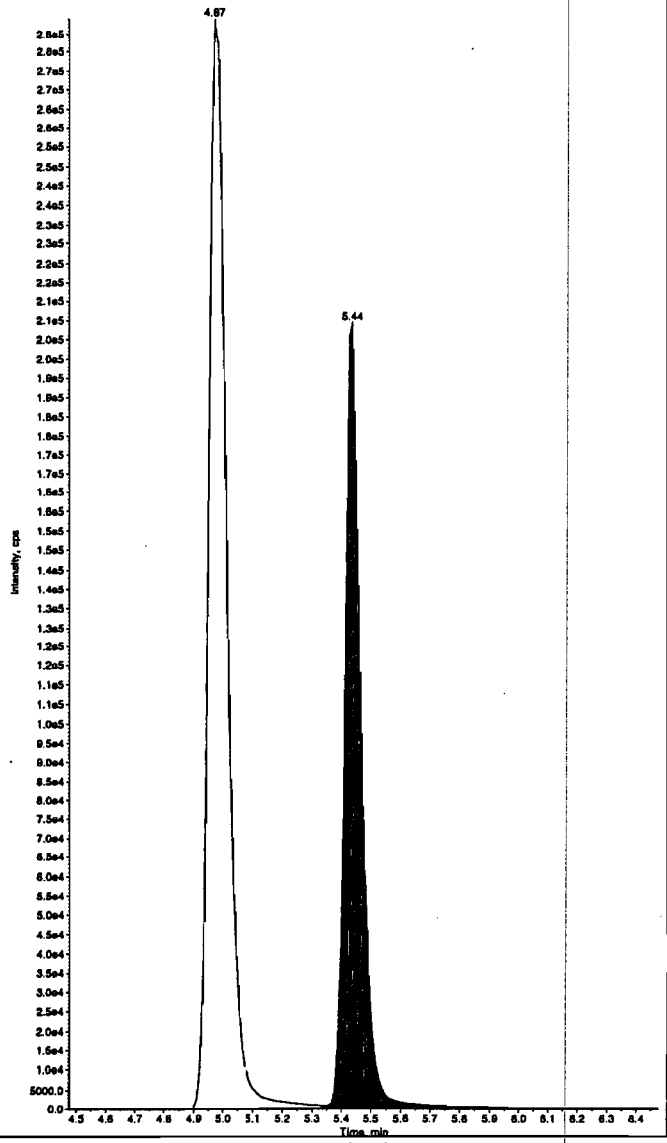

Sample Name: "WXX100306-26CCV" Sample ID: "[1]LER" File: "EXS03050079.wlf"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	475.	ng/mL
Acq. Date:	3/6/2010	
Acq. Time:	1:32:28 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.8	min
Area:	8.01e+006	counts
Height:	2178535.645	cps
Start Time:	10.7	min
End Time:	11.2	min

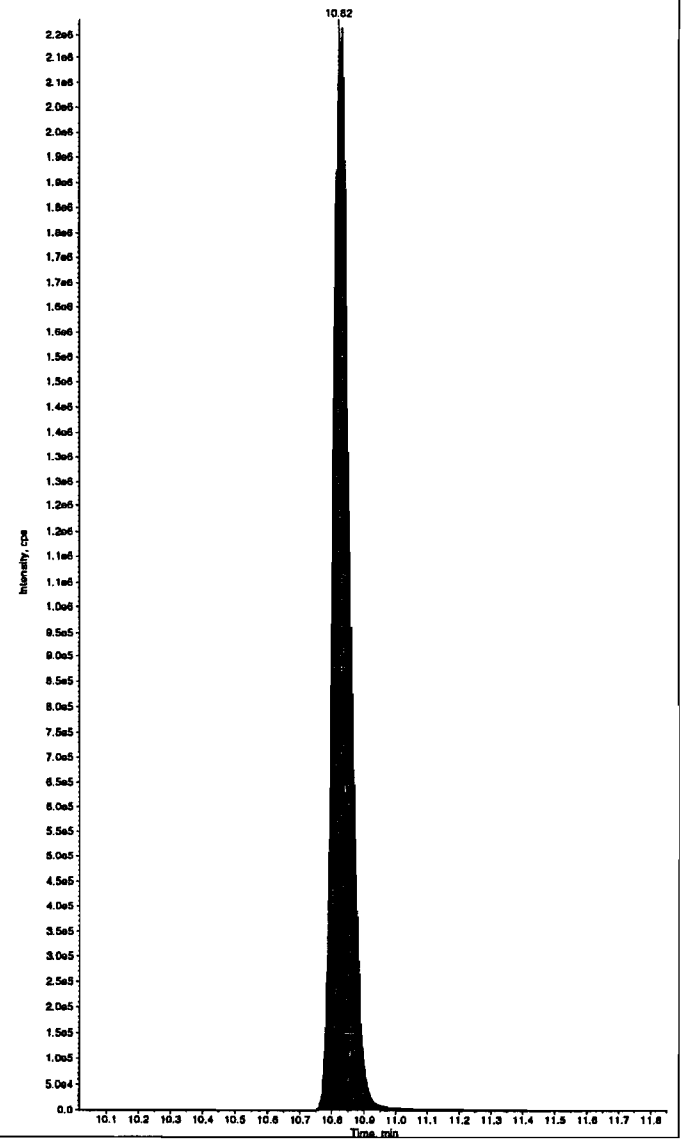

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1898

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03050081.wiff

Analysis Date: 06–MAR–10 14:03

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	96.5	97	
2,6–Diamino–4–nitrotoluene	100	99.1	99	
3,4–Dinitrotoluene	50	50.4	101	
3,5–Dinitroaniline	100	109	109	
TATB	100	114	114	
tris(o–cresyl) phosphate	100	95.1	95	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 3/9/10

e Name: "WXX100306-27CRI" Sample ID: "|1|LER" File: "EXS03050081.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
tration: 100. ng/mL
ated Conc: 114. ng/mL
ate: 3/6/2010
ime: 2:03:52 PM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 2500.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 7.00 min
lative RT: No

ype: Valley
ion Time: 6.94 min
1.51e+005 counts
: 37239.651 cps
Time: 6.85 min
me: 7.48 min

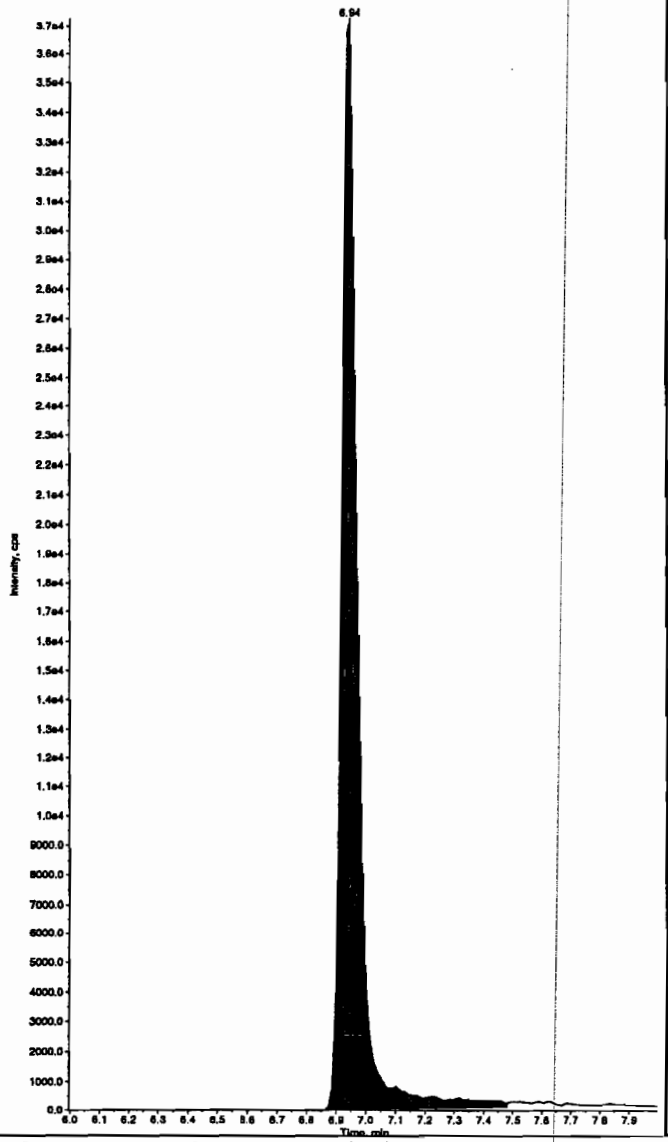

Sample Name: "WXX100306-27CRI" Sample ID: "|1|LER" File: "EXS03050081.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 109. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 2:03:52 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.16 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.19 min
Area: 9.28e+005 counts
Height: 253832.703 cps
Start Time: 8.09 min
End Time: 8.30 min

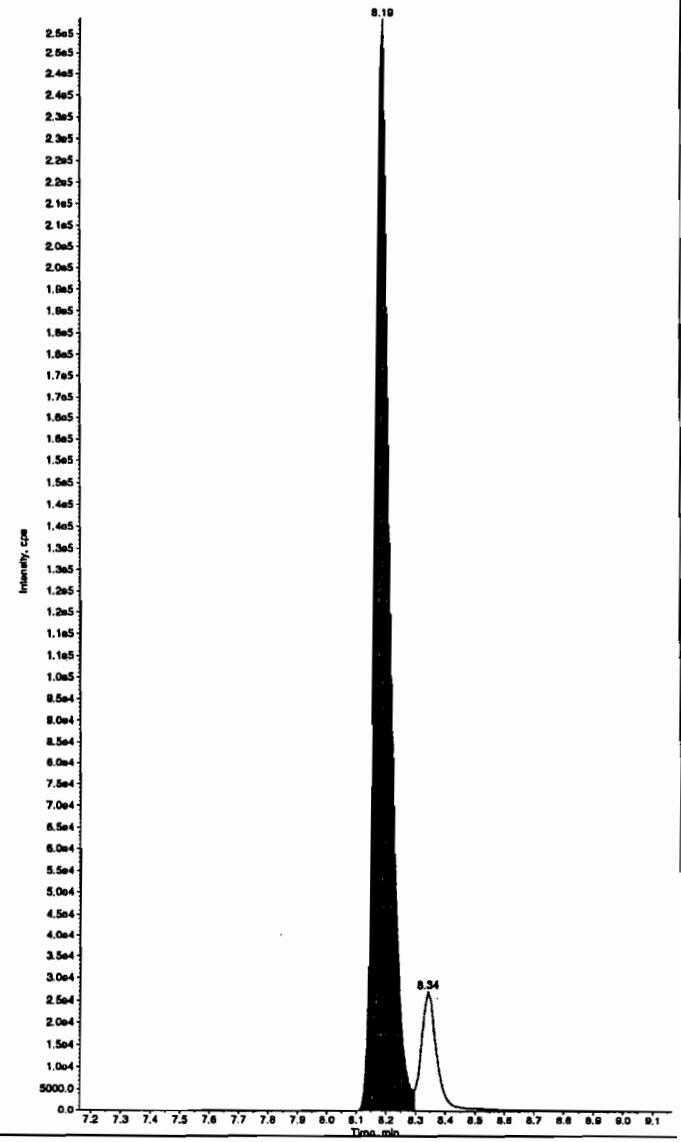

Hum 03/09/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "WXX100306-27CRI" Sample ID: "[1]LER" File: "EXS03050081.wiff"
ame: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nt: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
ration: 50.0 ng/mL
ted Conc: 50.4 ng/mL
te: 3/6/2010
me: 2:03:52 PM

d: No
lgorithm: IntelliQuan - IQA
ak Height: 1460.00 cps
ak Width: 0.00 sec
ng Width: 3 points
ow: 30.0 sec
d RT: 8.37 min
ative RT: No

pe: Valley
on Time: 8.34 min
6.08e+005 counts
185593.994 cps
ime: 8.27 min
e: 8.66 min

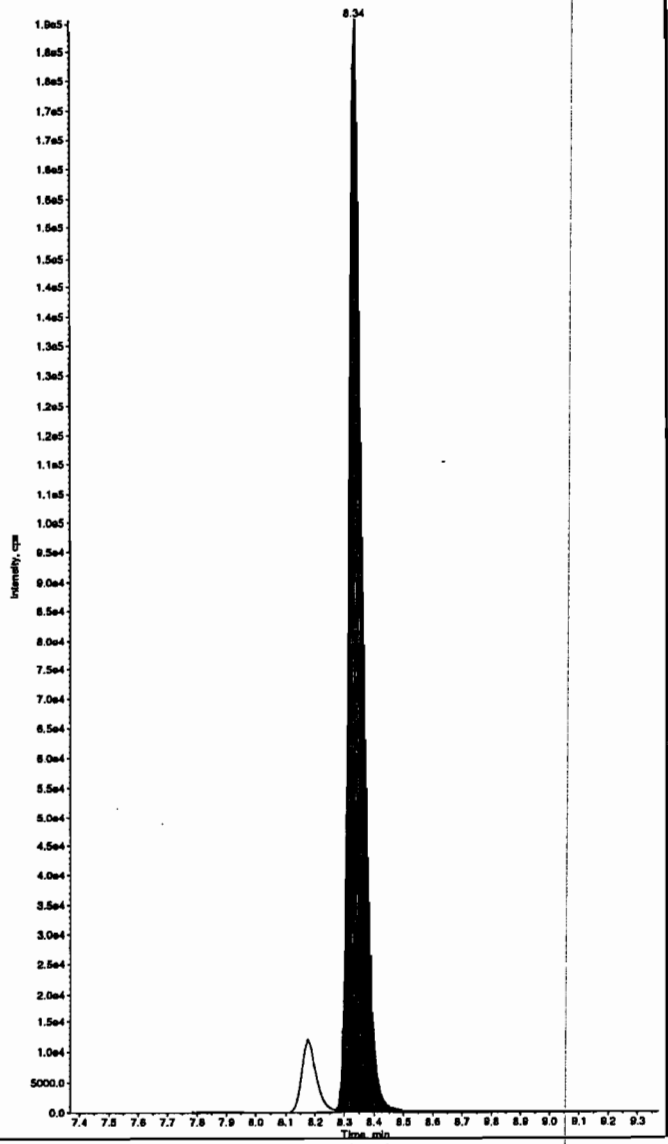

Sample Name: "WXX100306-27CRI" Sample ID: "[1]LER" File: "EXS03050081.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 99.1 ng/mL
Acq. Date: 3/6/2010
Acq. Time: 2:03:52 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.98 min
Area: 2.53e+005 counts
Height: 61635.872 cps
Start Time: 4.87 min
End Time: 5.27 min

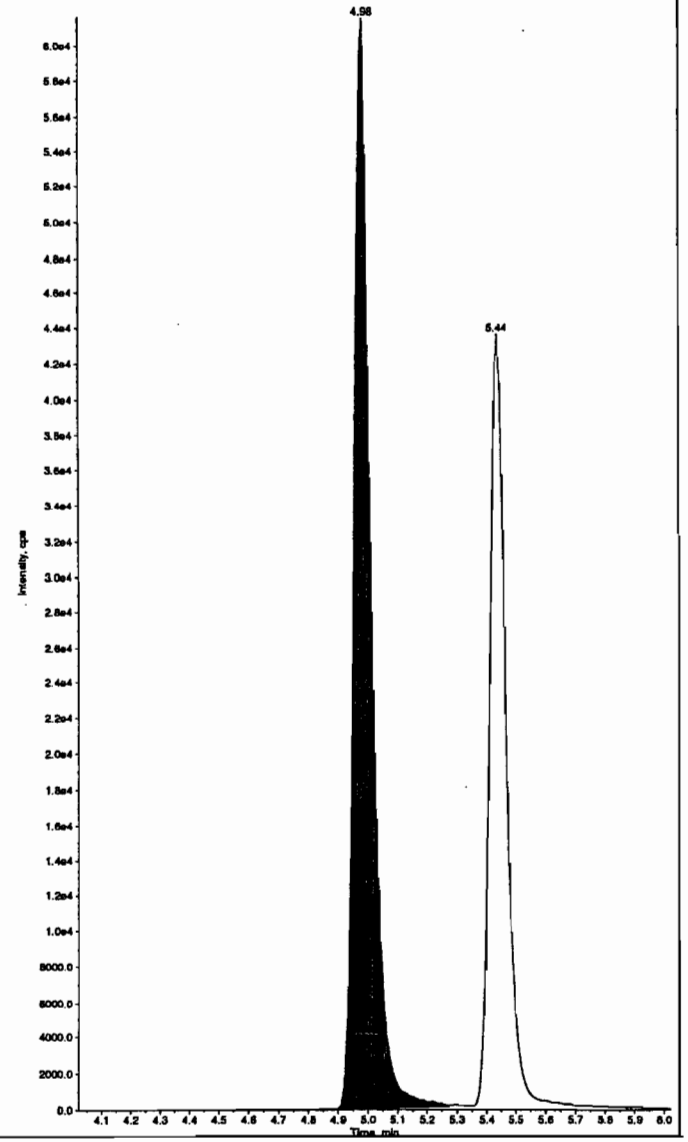

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "WXX100306-27CRI" Sample ID: "[1]LER" File: "EXS03050081.wiff"
ame: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nt: "LCMSEXP_C" Annotation: ""

Index:	1	
Type:	QC	
ration:	100.	ng/mL
ted Conc:	96.5	ng/mL
te:	3/6/2010	
me:	2:03:52 PM	
d:	No	
lgorithm:	IntelliQuan - IQA	
ak Height:	350.00	cps
ak Width:	0.00	sec
ng Width:	3	points
low:	30.0	sec
d RT:	5.48	min
lative RT:	No	
pe:	Valley	
ion Time:	5.44	min
	1.74e+005	counts
	43665.592	cps
rime:	5.35	min
e:	6.05	min

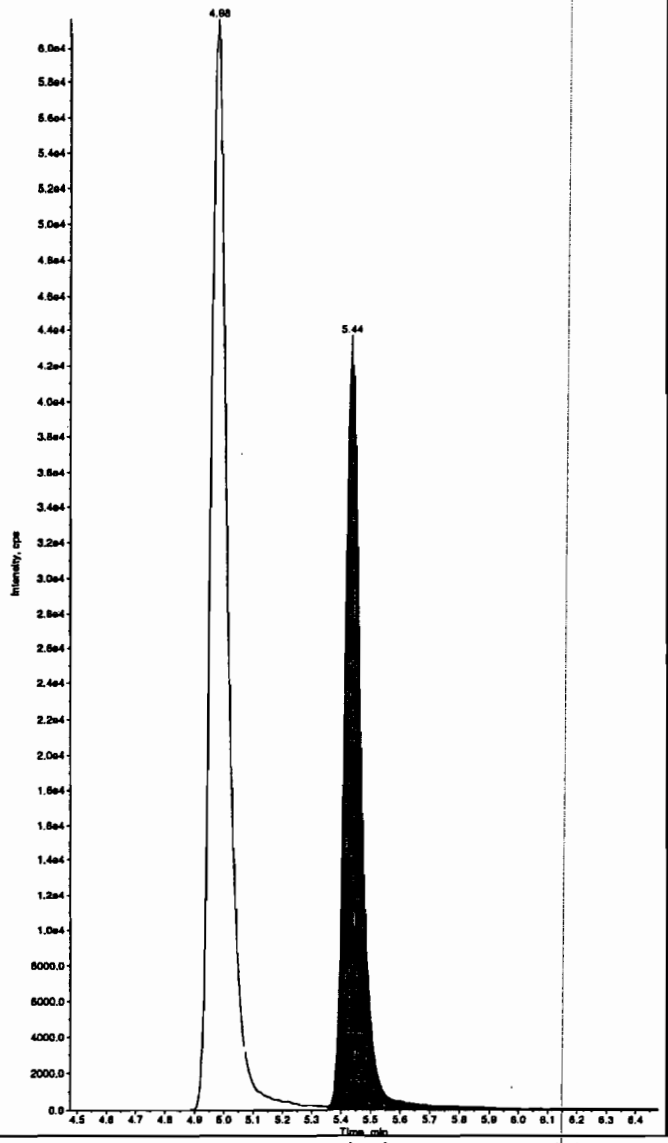

Sample Name: "WXX100306-27CRI" Sample ID: "[1]LER" File: "EXS03050081.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	95.1	ng/mL
Acq. Date:	3/6/2010	
Acq. Time:	2:03:52 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.8	min
Area:	1.80e+006	counts
Height:	534517.151	cps
Start Time:	10.7	min
End Time:	11.1	min

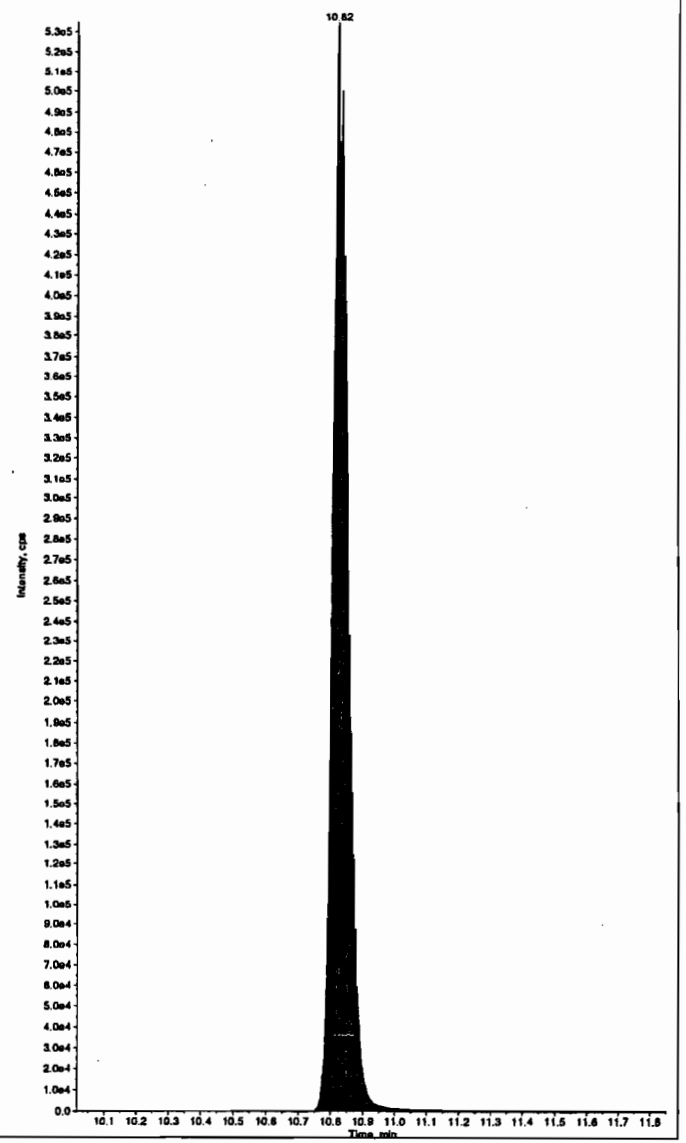

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1898

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03050084.wiff

Analysis Date: 06-MAR-10 14:50

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	464	93	
2,6-Diamino-4-nitrotoluene	500	505	101	
3,4-Dinitrotoluene	250	235	94	
3,5-Dinitroaniline	500	499	100	
TATB	500	535	107	
tris(o-cresyl) phosphate	500	486	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

LCan 3/9/10

Name: "WXX100306-26CCV" Sample ID: "|1|LER" File: "EXS03050084.wiff"
ame: "TATB" Mass(es): "257.2/204.9 amu"
nt: "LCMSEXP_C" Annotation: ""
Index: 1
Type: QC
ration: 500. ng/mL
ted Conc: 535. ng/mL
te: 3/6/2010
me: 2:50:57 PM

d: No
lgorithm: IntelliQuan - IQA
ak Height: 2500.00 cps
ak Width: 0.00 sec
ng Width: 3 points
ow: 30.0 sec
d RT: 7.00 min
ative RT: No

pe: Valley
on Time: 6.93 min
7.71e+005 counts
179050.583 cps
ime: 6.84 min
e: 7.83 min

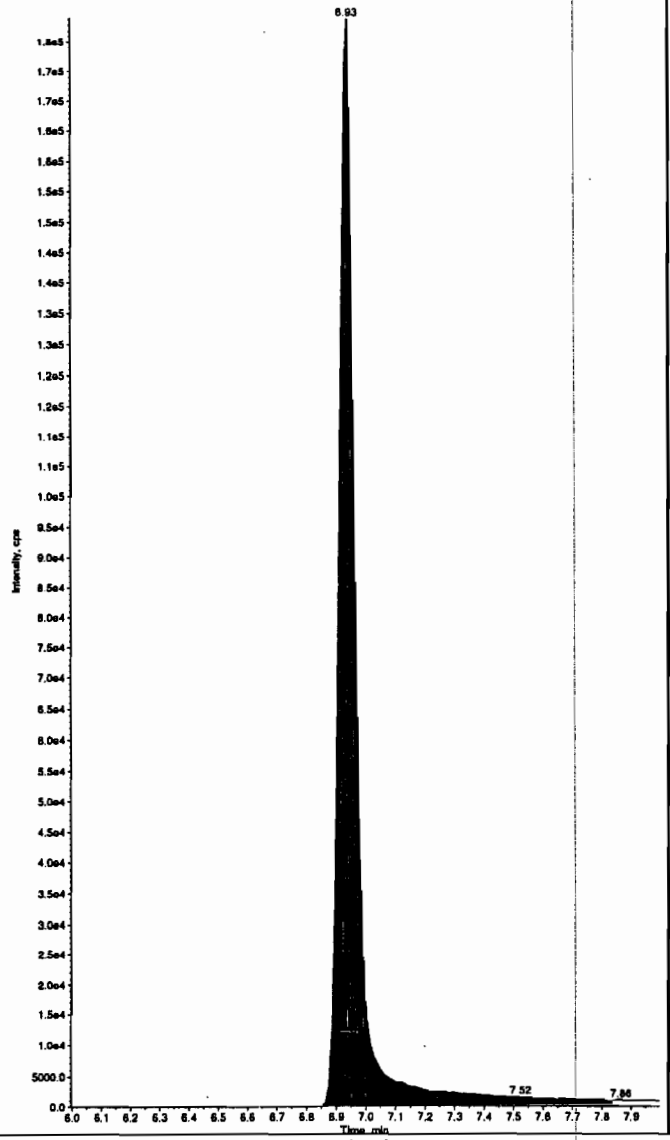

Sample Name: "WXX100306-26CCV" Sample ID: "|1|LER" File: "EXS03050084.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 499. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 2:50:57 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.17 min
Area: 4.08e+006 counts
Height: 1117327.026 cps
Start Time: 8.08 min
End Time: 8.29 min

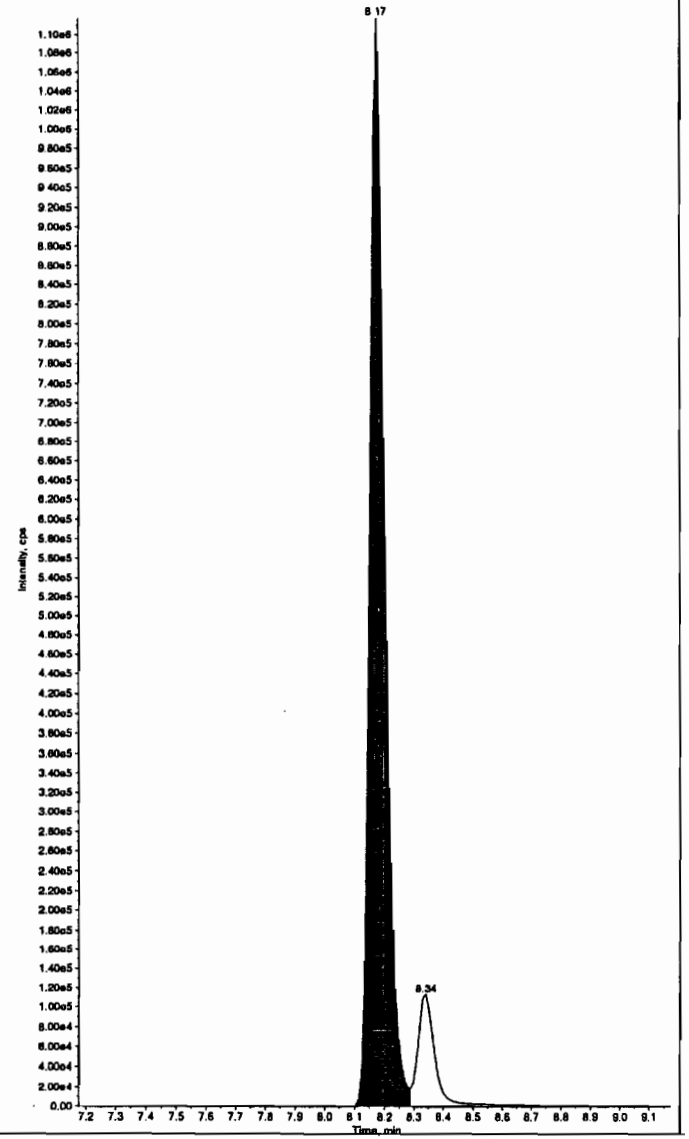

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SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "WXX100306-26CCV" Sample ID: "[1]LER" File: "EXS03050084.wiff"
ame: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nt: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
ration: 250. ng/mL
tad Conc: 235. ng/mL
te: 3/6/2010
me: 2:50:57 PM

d: No
lgorithm: IntelliQuan - IQA
sk Height: 1460.00 cps
sk Width: 0.00 sec
ng Width: 3 points
ow: 30.0 sec
d RT: 8.37 min
ative RT: No

pe: Valley
on Time: 8.33 min
2.95e+006 counts
850335.571 cps
ime: 8.26 min
e: 8.66 min

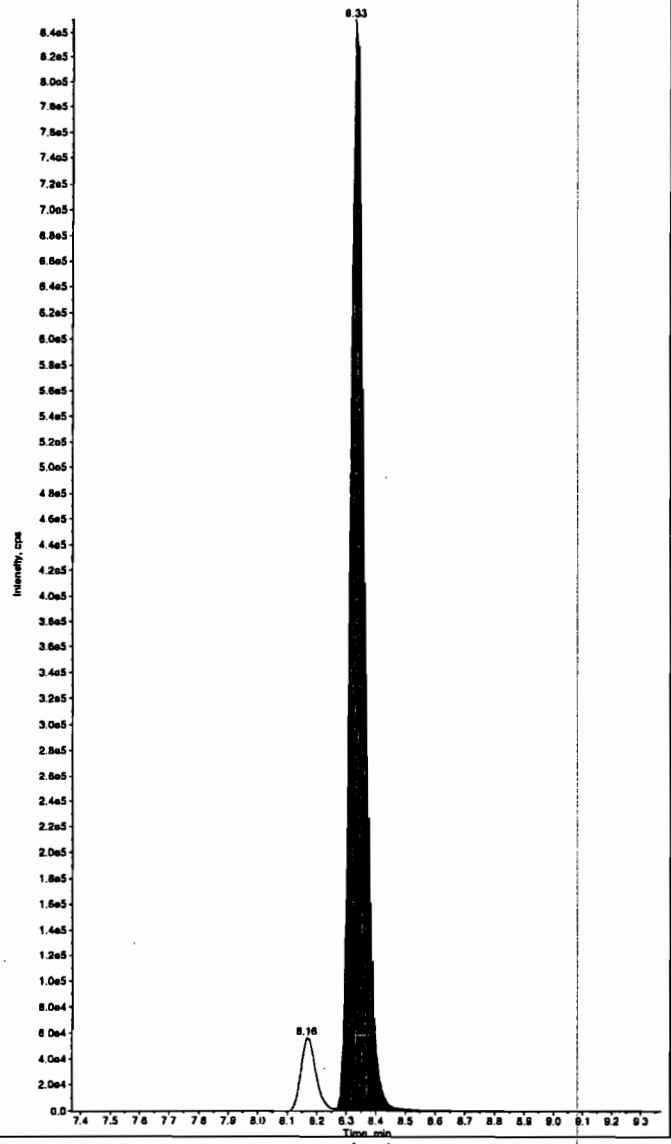

Sample Name: "WXX100306-26CCV" Sample ID: "[1]LER" File: "EXS03050084.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 505. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 2:50:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.96 min
Area: 1.34e+006 counts
Height: 322698.761 cps
Start Time: 4.87 min
End Time: 5.27 min

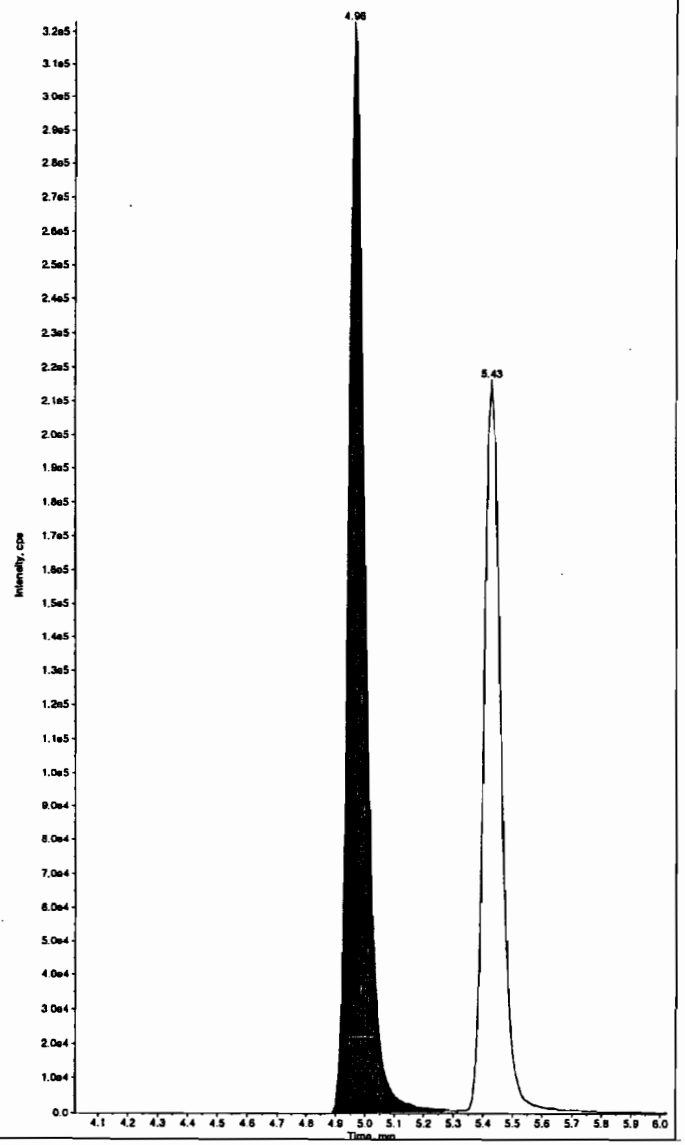

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "WXX100306-26CCV" Sample ID: "[1]LER" File: "EXS03050084.wiff"
ame: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nt: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
ration: 500. ng/mL
ted Conc: 464. ng/mL
te: 3/6/2010
me: 2:50:57 PM

d: No
algorithm: IntelliQuan - IQA
ak Height: 350.00 cps
ak Width: 0.00 sec
ng Width: 3 points
low: 30.0 sec
d RT: 5.48 min
ative RT: No

pe: Valley
on Time: 5.43 min
8.61e+005 counts
215487.198 cps
ime: 5.31 min
e: 5.67 min

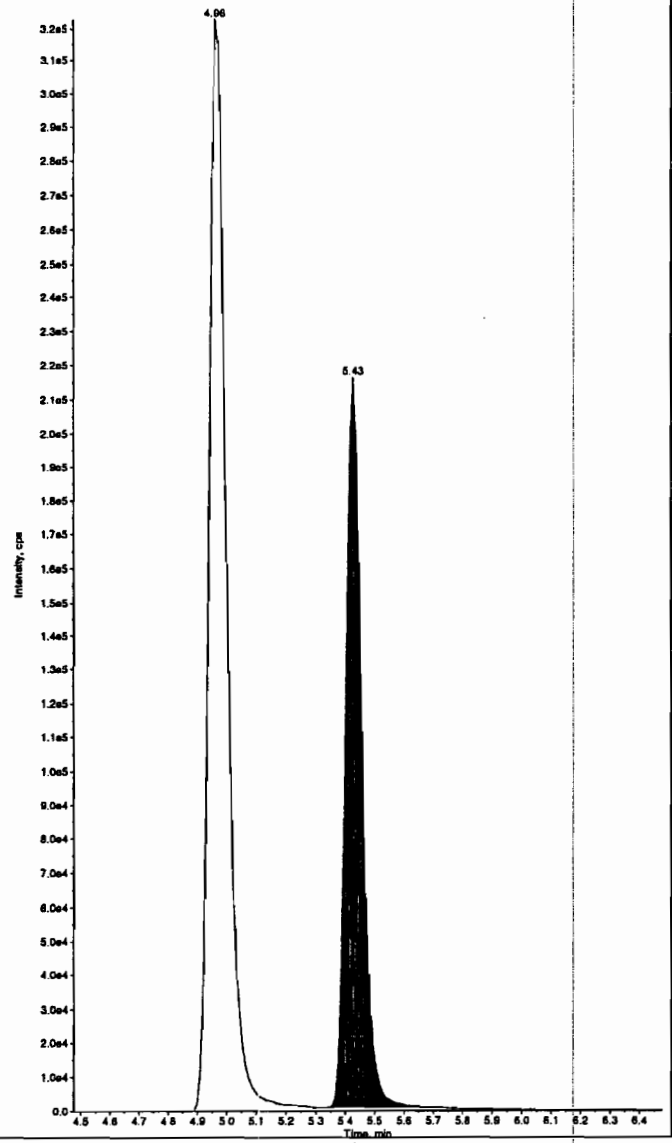

Sample Name: "WXX100306-26CCV" Sample ID: "[1]LER" File: "EXS03050084.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 486. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 2:50:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 8.19e+006 counts
Height: 2329003.662 cps
Start Time: 10.7 min
End Time: 11.2 min

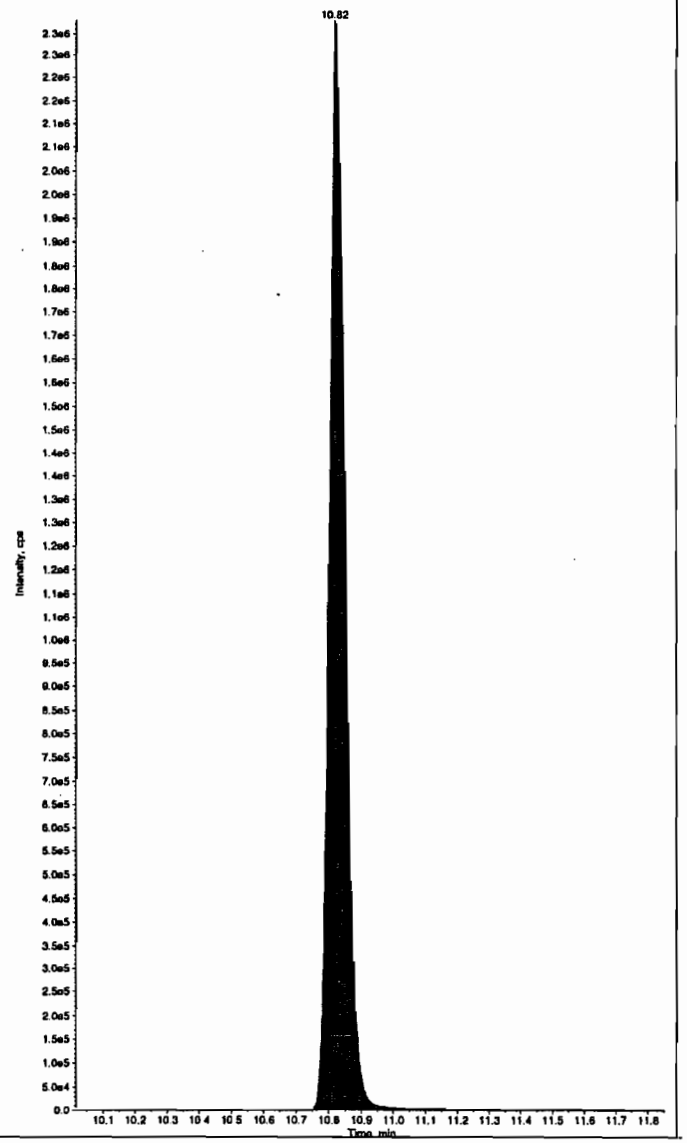

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1898

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03050086.wiff

Analysis Date: 06–MAR–10 15:22

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	99.7	100	
2,6–Diamino–4–nitrotoluene	100	96.4	96	
3,4–Dinitrotoluene	50	50	100	
3,5–Dinitroaniline	100	107	107	
TATB	100	112	112	
tris(o–cresyl) phosphate	100	93.5	94	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Rcu 3/9/10

Name: "WXX100306-27CRI" Sample ID: "[1]LER" File: "EXS03050086.wiff"
ame: "TATB" Mass(es): "257.2/204.9 amu"
nt: "LCMSEXP_C" Annotation: ""
(ndex: 1
Type: QC
ation: 100. ng/mL
ted Conc: 112. ng/mL
te: 3/6/2010
me: 3:22:21 PM

d: No
lgorithm: IntelliQuan - IQA
ak Height: 2500.00 cps
ak Width: 0.00 sec
ng Width: 3 points
ow: 30.0 sec
d RT: 7.00 min
ative RT: No

pe: Valley
on Time: 6.93 min
1.48e+005 counts
38156.437 cps
ime: 6.84 min
e: 7.33 min

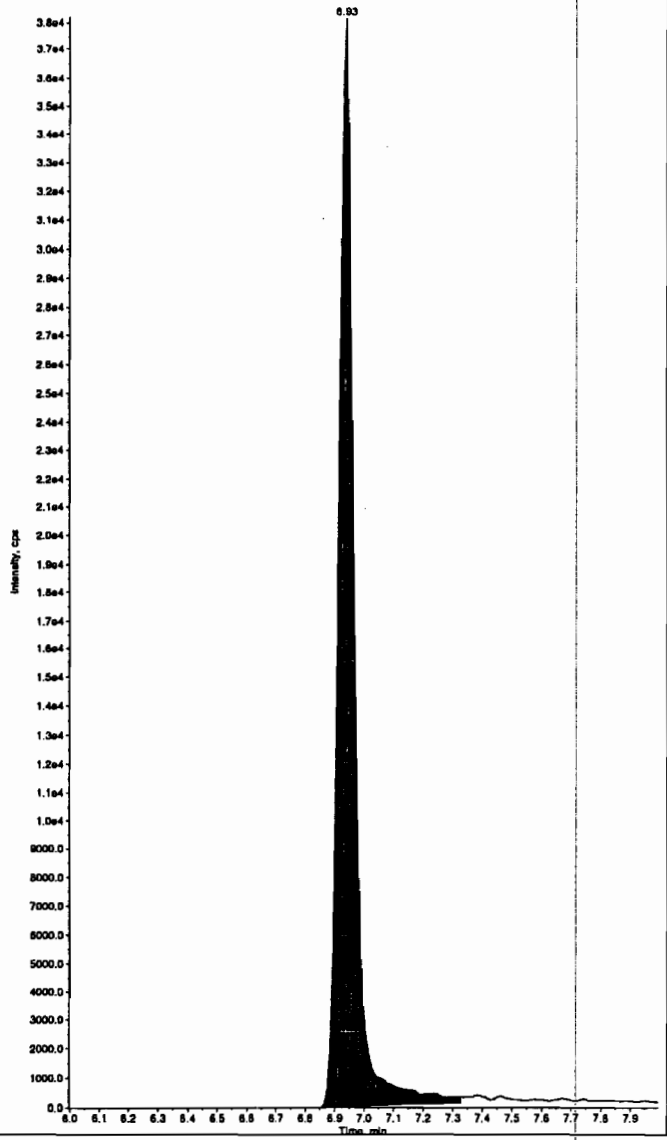

Sample Name: "WXX100306-27CRI" Sample ID: "[1]LER" File: "EXS03050086.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 107. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 3:22:21 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.17 min
Area: 9.12e+005 counts
Height: 245857.513 cps
Start Time: 8.07 min
End Time: 8.29 min

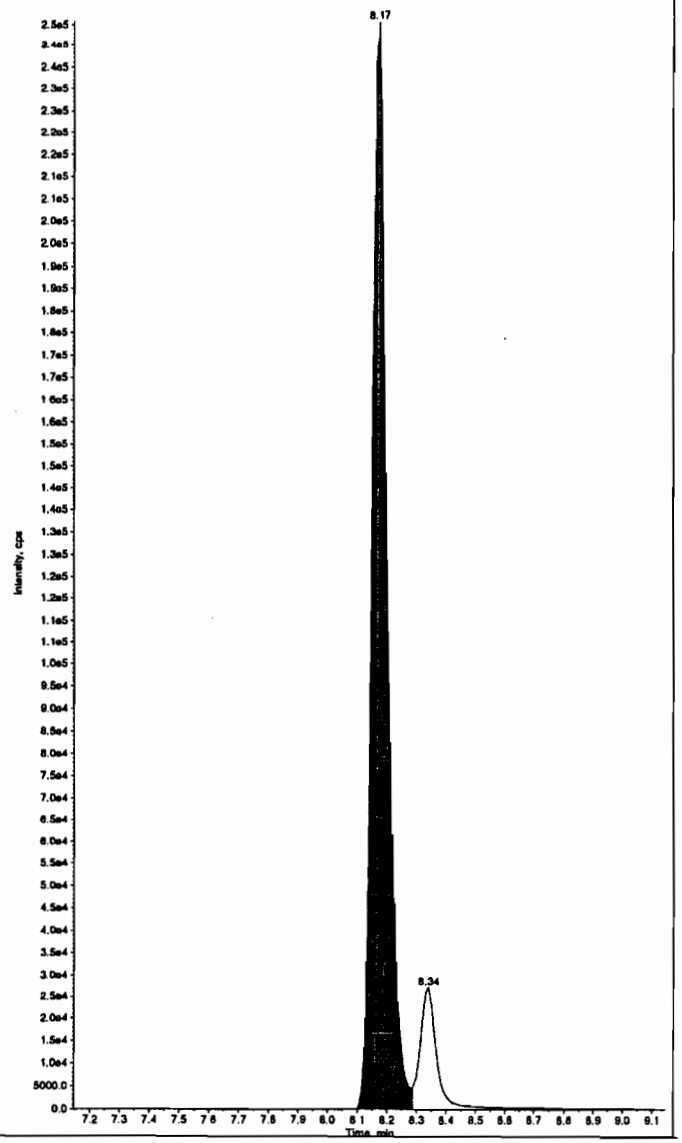

dhm 03/09/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "WXX100306-27CRI" Sample ID: "|1|LER" File: "EXS03050086.wiff"
ame: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nt: "LCMSEXP_C" Annotation: ""

```
Index:          1
Type:          QC
ration:      50.0    ng/mL
ted Conc:    50.0    ng/mL
te:       3/6/2010
me:       3:22:21 PM

d:           No
lgorithm: IntelliQuan - IQA
ak Height:1460.00   cps
ak Width:    0.00   sec
ng Width:  3       points
ow:         30.0    sec
d RT:        8.37   min
ative RT:    No

pe:        Valley
on Time:     8.33   min
       6.02e+005   counts
        181269.333  cps
ime:         8.26   min
e:           8.67   min
```

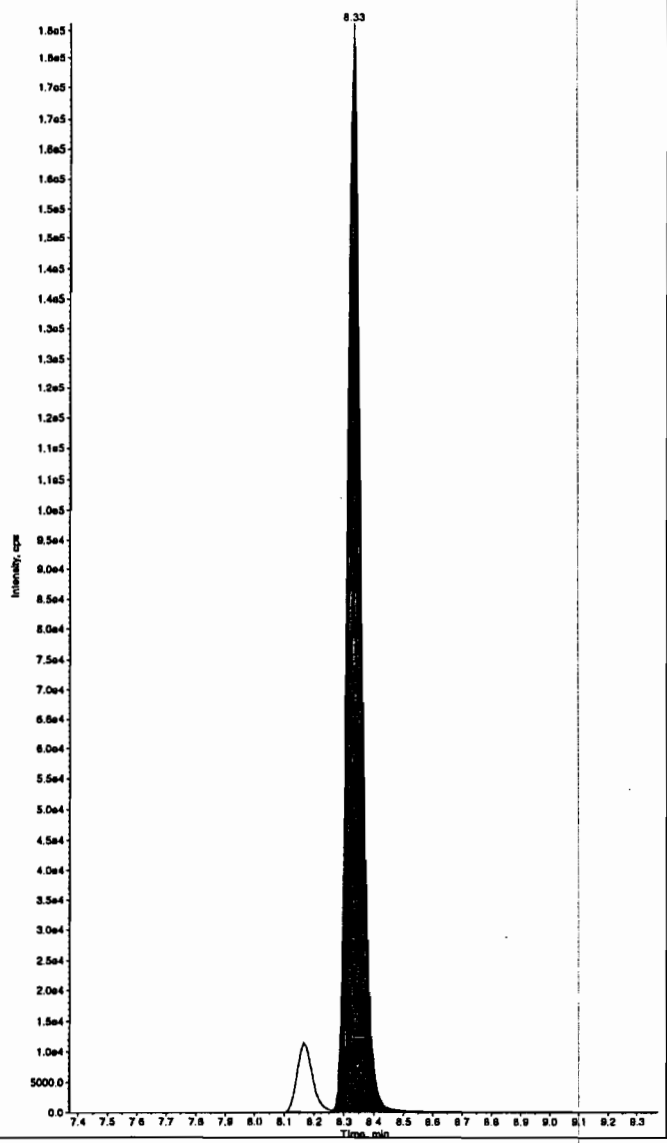

Sample Name: "WXX100306-27CRI" Sample ID: "|1|LER" File: "EXS03050086.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:     100.    ng/mL
Calculated Conc:    96.4   ng/mL
Acq. Date:      3/6/2010
Acq. Time:      3:22:21 PM

Modified:          No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         30.0    sec
Expected RT:        5.02   min
Use Relative RT:   No

Int. Type:       Valley
Retention Time:     4.96   min
Area:        2.46e+005   counts
Height:       60187.717  cps
Start Time:         4.85   min
End Time:           5.27   min
```

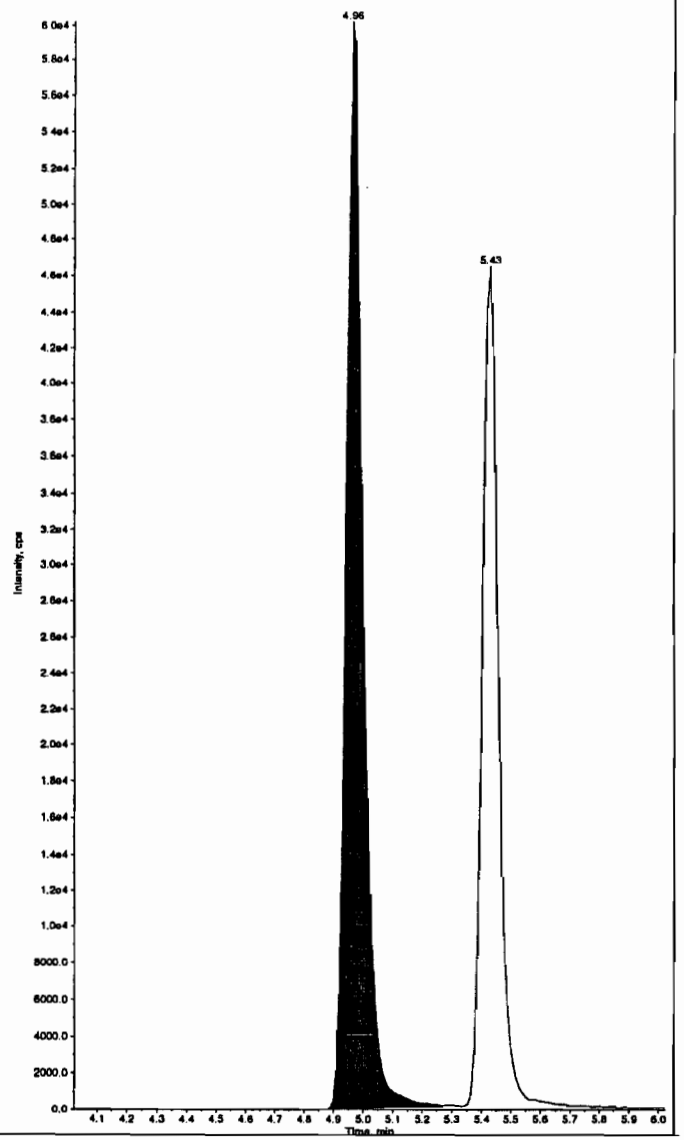

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "WXX100306-27CRI" Sample ID: "[1]LER" File: "EXS03050086.wiff"
ame: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nt: "LCMSEXP_C" Annotation: ""

```
Index:          1
Type:           QC
ration:       100.     ng/mL
ted Conc:      99.7     ng/mL
te:        3/6/2010
me:        3:22:21 PM

d:             No
lgorithm: IntelliQuan - IQA
ak Height: 350.00    cps
ak Width:    0.00    sec
ng Width:  3        points
ow:         30.0     sec
d RT:        5.48    min
ative RT:    No

pe:         Valley
on Time:     5.43    min
        1.80e+005   counts
          46398.296  cps
ime:         5.33    min
e:           5.72    min
```

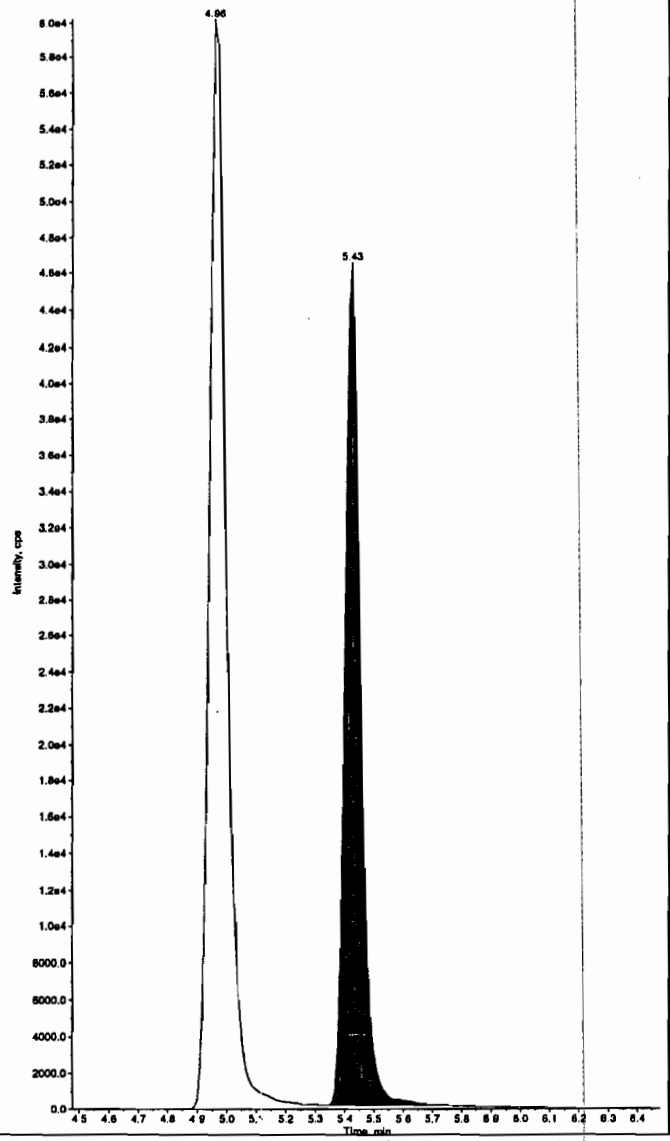

Sample Name: "WXX100306-27CRI" Sample ID: "[1]LER" File: "EXS03050086.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       100.     ng/mL
Calculated Conc:      93.5     ng/mL
Acq. Date:        3/6/2010
Acq. Time:        3:22:21 PM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3        points
RT Window:          30.0     sec
Expected RT:         10.9    min
Use Relative RT:     No

Int. Type:          Valley
Retention Time:      10.8    min
Area:          1.77e+006   counts
Height:        517812.866  cps
Start Time:          10.7    min
End Time:            11.2    min
```

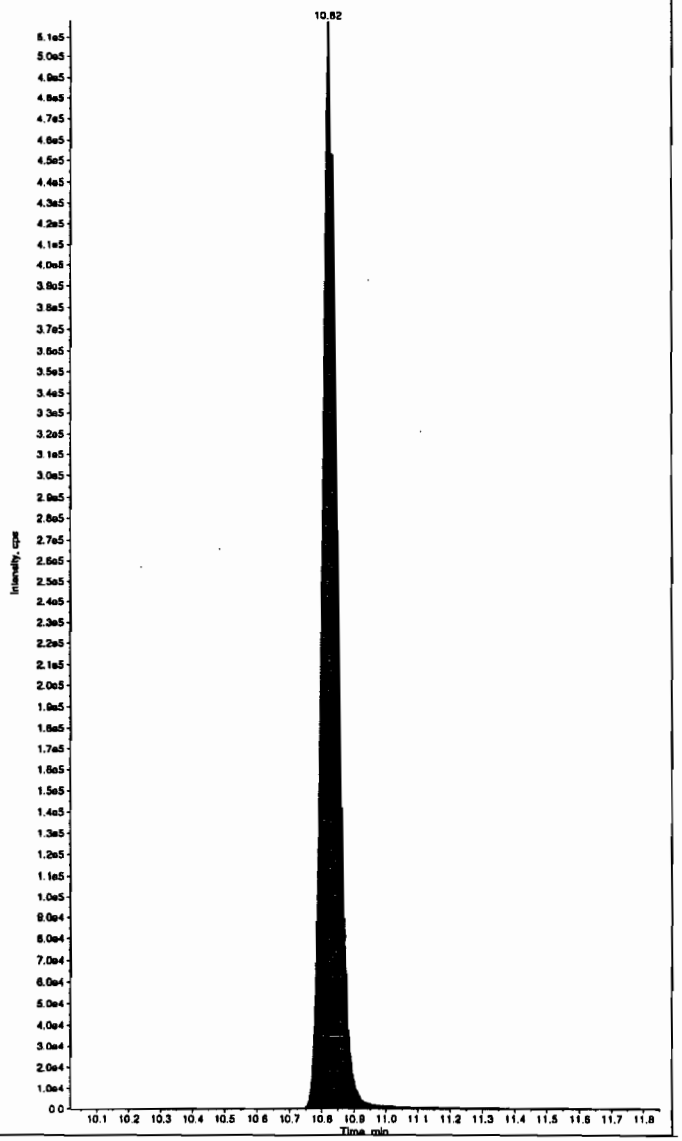

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1898

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03050093.wiff

Analysis Date: 06–MAR–10 17:12

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	472	95	
2,6–Diamino–4–nitrotoluene	500	492	99	
3,4–Dinitrotoluene	250	233	93	
3,5–Dinitroaniline	500	521	104	
TATB	500	535	107	
tris(o–cresyl) phosphate	500	515	103	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 3/9/10

Name: "WXX100306-26CCV" Sample ID: "[1]LER" File: "EXS03050093.wiff"
me: "TATB" Mass(es): "257.2/204.9 amu"
t: "LCMSEXP_C" Annotation: ""
ndex: 1
ype: QC
ation: 500. ng/mL
ed Conc: 535. ng/mL
e: 3/6/2010
e: 5:12:20 PM

l: No
gorithm: IntelliQuan - IQA
k Height: 2500.00 cps
k Width: 0.00 sec
g Width: 3 points
w: 30.0 sec
RT: 7.00 min
tive RT: No

e: Valley
n Time: 6.94 min
7.70e+005 counts
181904.495 cps
me: 6.85 min
: 7.58 min

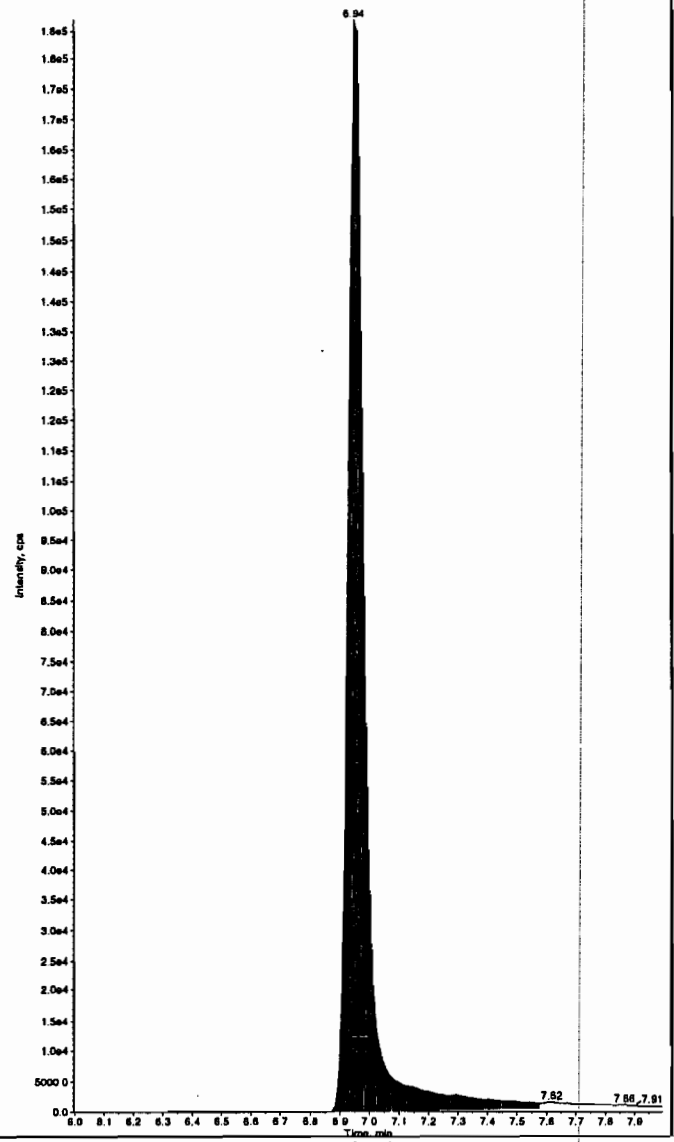

Sample Name: "WXX100306-26CCV" Sample ID: "[1]LER" File: "EXS03050093.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 521. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 5:12:20 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.19 min
Area: 4.24e+006 counts
Height: 1140857.910 cps
Start Time: 8.09 min
End Time: 8.30 min

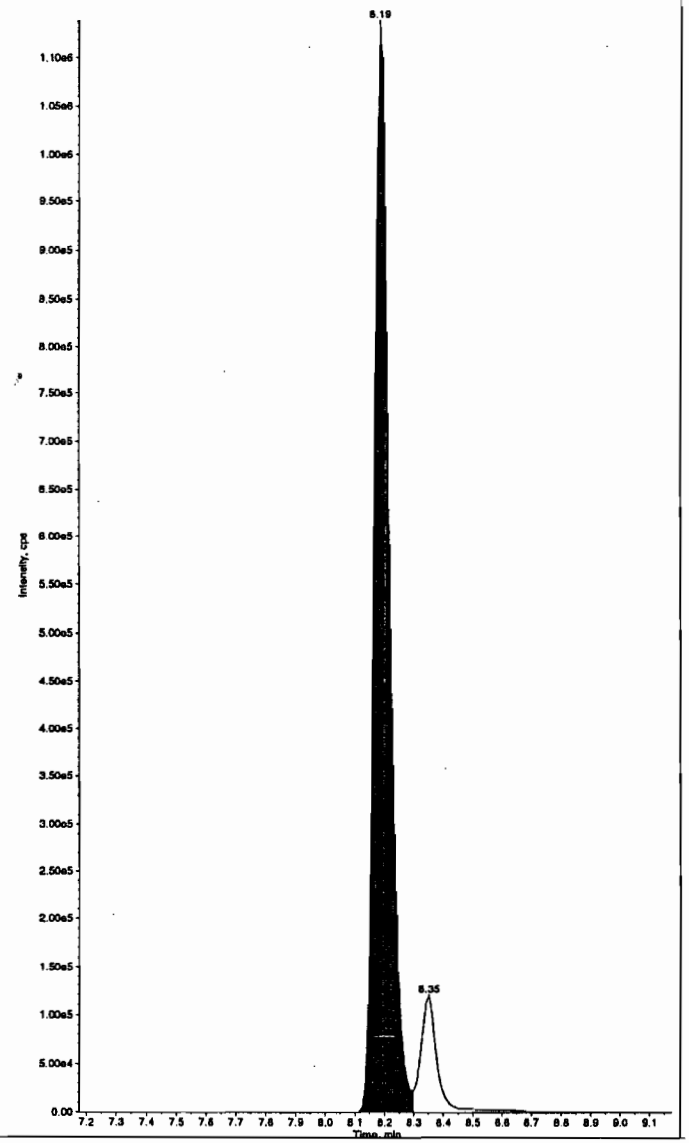

dtmm 07/09/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "WXX100306-26CCV" Sample ID: "[1]LER" File: "EXS03050093.wiff"
me: "34-Dinitrotoluene" Mass(as): "182.1/151.9 amu"
l: "LCMSEXP_C" Annotation: ""

ndex: 1
ype: QC
ation: 250. ng/mL
ed Conc: 233. ng/mL
e: 3/6/2010
e: 5:12:20 PM

l: No
gorithm: IntelliQuan - IQA
k Height: 1460.00 cps
k Width: 0.00 sec
g Width: 3 points
w: 30.0 sec
RT: 8.37 min
tive RT: No

e: Valley
n Time: 8.34 min
2.92e+006 counts
869344.299 cps
me: 8.27 min
: 8.59 min

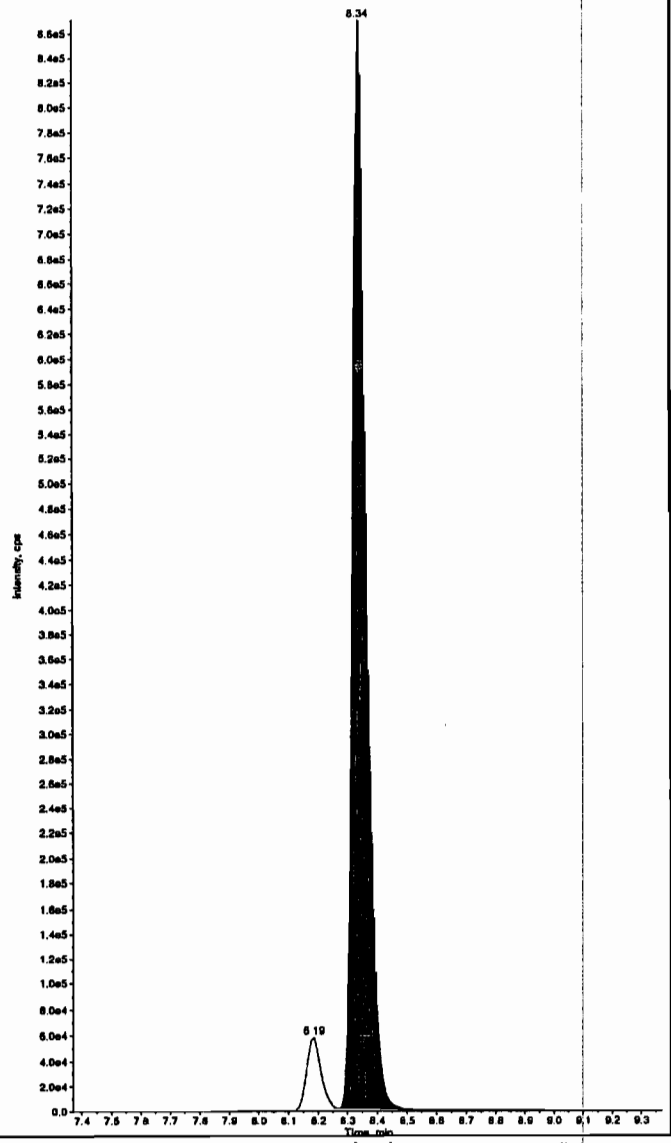

Sample Name: "WXX100306-26CCV" Sample ID: "[1]LER" File: "EXS03050093.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 492. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 5:12:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.98 min
Area: 1.30e+006 counts
Height: 320335.693 cps
Start Time: 4.89 min
End Time: 5.28 min

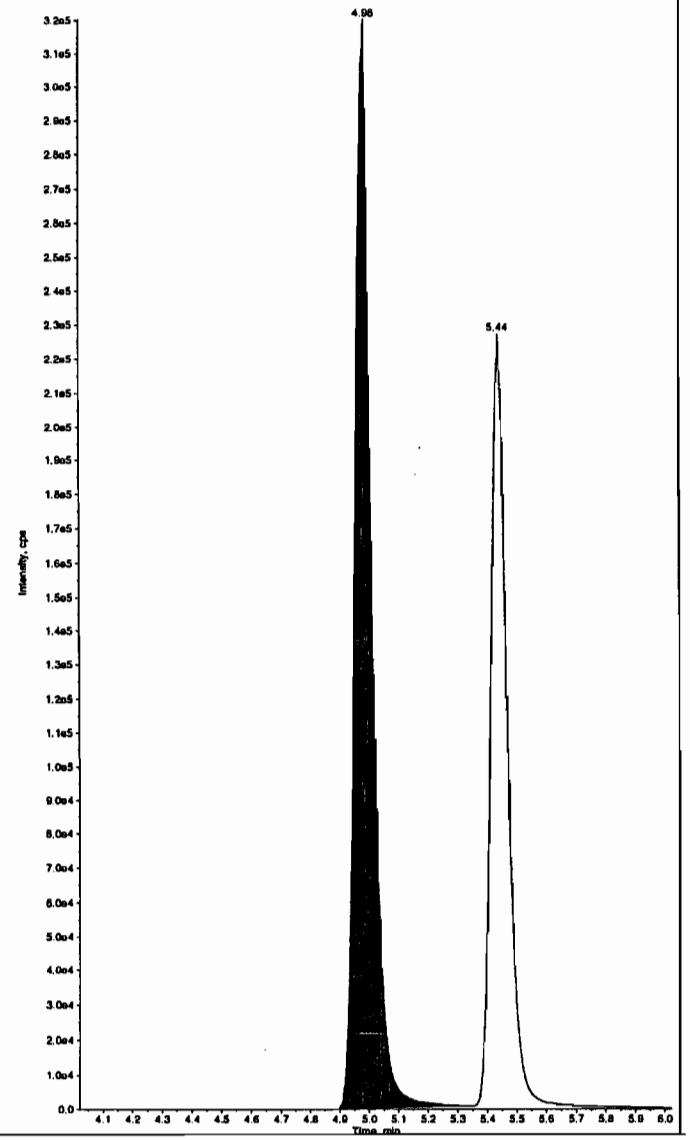

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "WXX100306-26CCV" Sample ID: "|1|LER" File: "EXS03050093.wiff"
me: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
it "LCMSEXP_C" Annotation: ""

ndex: 1
ype: QC
ation: 500. ng/mL
ed Conc: 472. ng/mL
e: 3/6/2010
e: 5:12:20 PM

: No
gorithm: IntelliQuan - IQA
k Height: 350.00 cps
k Width: 0.00 sec
g Width: 3 points
w: 30.0 sec
RT: 5.48 min
tive RT: No

e: Valley
n Time: 5.44 min
8.76e+005 counts
227213.272 cps
me: 5.34 min
: 5.85 min

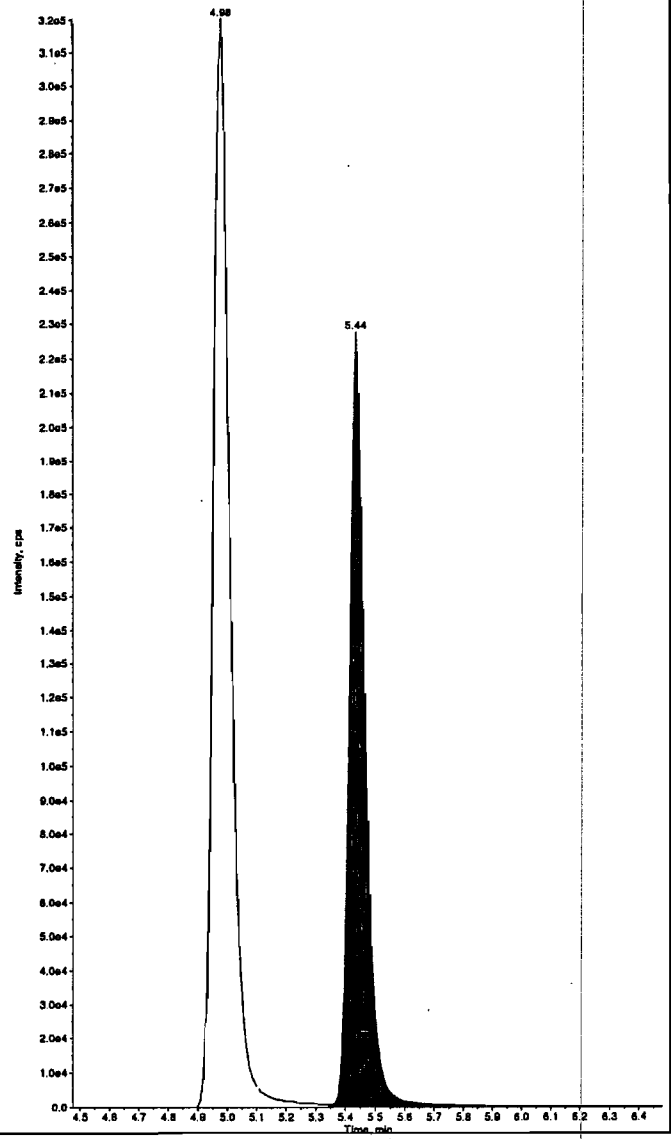

Sample Name: "WXX100306-26CCV" Sample ID: "|1|LER" File: "EXS03050093.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 515. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 5:12:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 8.62e+006 counts
Height: 2423811.035 cps
Start Time: 10.7 min
End Time: 11.2 min

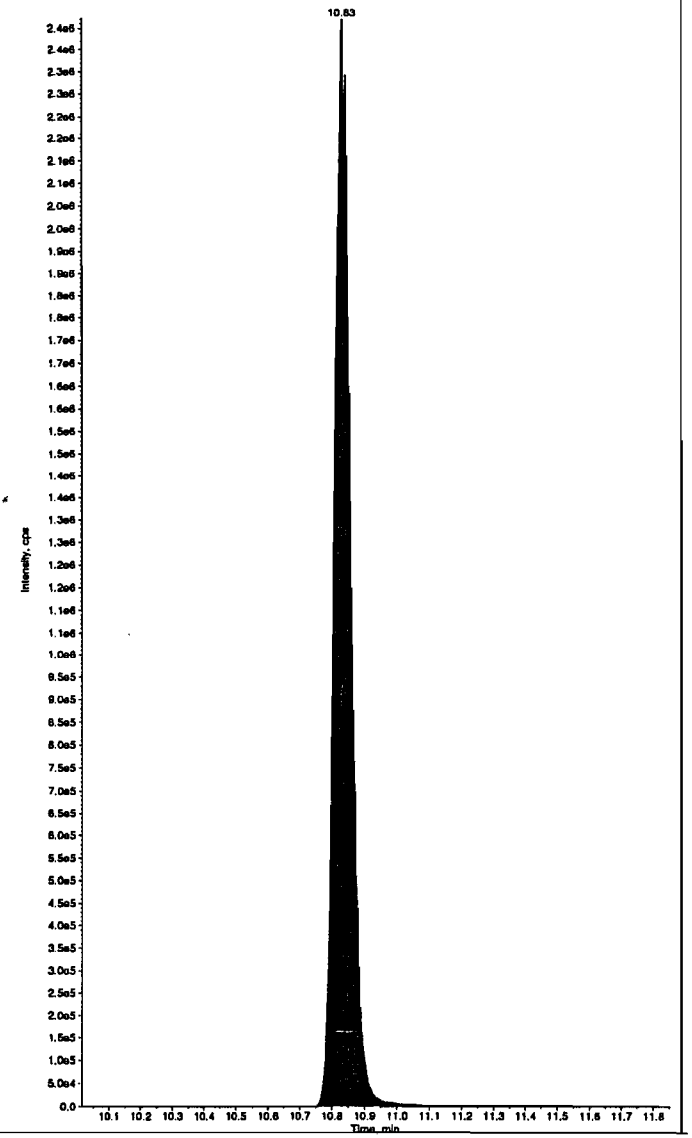

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1898

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03050095.wiff

Analysis Date: 06-MAR-10 17:43

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	101	101	
2,6-Diamino-4-nitrotoluene	100	106	106	
3,4-Dinitrotoluene	50	50.4	101	
3,5-Dinitroaniline	100	107	107	
TATB	100	110	110	
tris(o-cresyl) phosphate	100	103	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Lan 3/9/10

le Name: "WXX100306-27CRI" Sample ID: "|1|LER" File: "EXS03050095.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
nent: "LCMSEXP_C" Annotation: ""

Index:	1
Type:	QC
tration:	100. ng/mL
ated Conc:	110. ng/mL
ate:	3/6/2010
ime:	5:43:44 PM
ed:	No
Algorithm:	IntelliQuan - IQA
eak Height:	2500.00 cps
eak Width:	0.00 sec
ing Width:	3 points
dow:	30.0 sec
ed RT:	7.00 min
lative RT:	No
ype:	Valley
ion Time:	6.96 min
	1.45e+005 counts
	36213.032 cps
Time:	6.86 min
me:	7.32 min

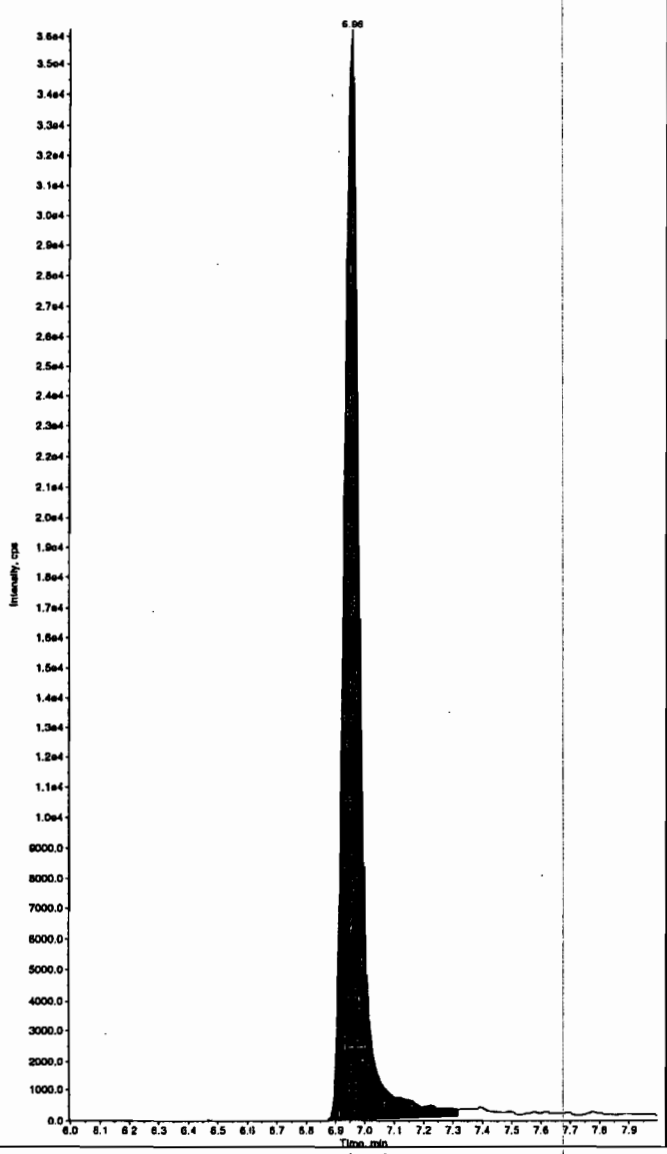

Sample Name: "WXX100306-27CRI" Sample ID: "|1|LER" File: "EXS03050095.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	100. ng/mL
Calculated Conc:	107. ng/mL
Acq. Date:	3/6/2010
Acq. Time:	5:43:44 PM
Modified:	Yes
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	2000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	15.0 sec
Expected RT:	8.19 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	8.19 min
Area:	9.11e+005 counts
Height:	247521.591 cps
Start Time:	8.09 min
End Time:	8.30 min

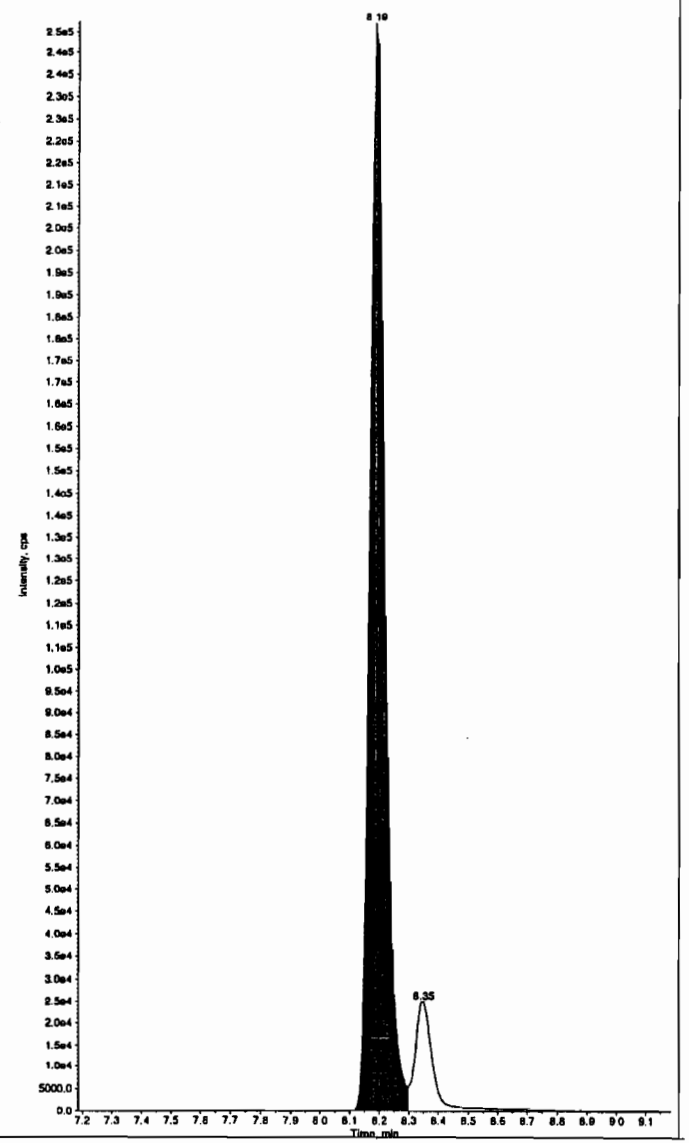

dtm 03/09/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

e Name: "WXX100306-27CRI" Sample ID: "[1]LER" File: "EXS03050095.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ent: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
tration: 50.0 ng/mL
ated Conc: 50.4 ng/mL
ate: 3/6/2010
ime: 5:43:44 PM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 1460.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 8.37 min
lative RT: No

ype: Valley
ion Time: 8.34 min
6.08e+005 counts
: 182524.490 cps
Time: 8.27 min
me: 8.68 min

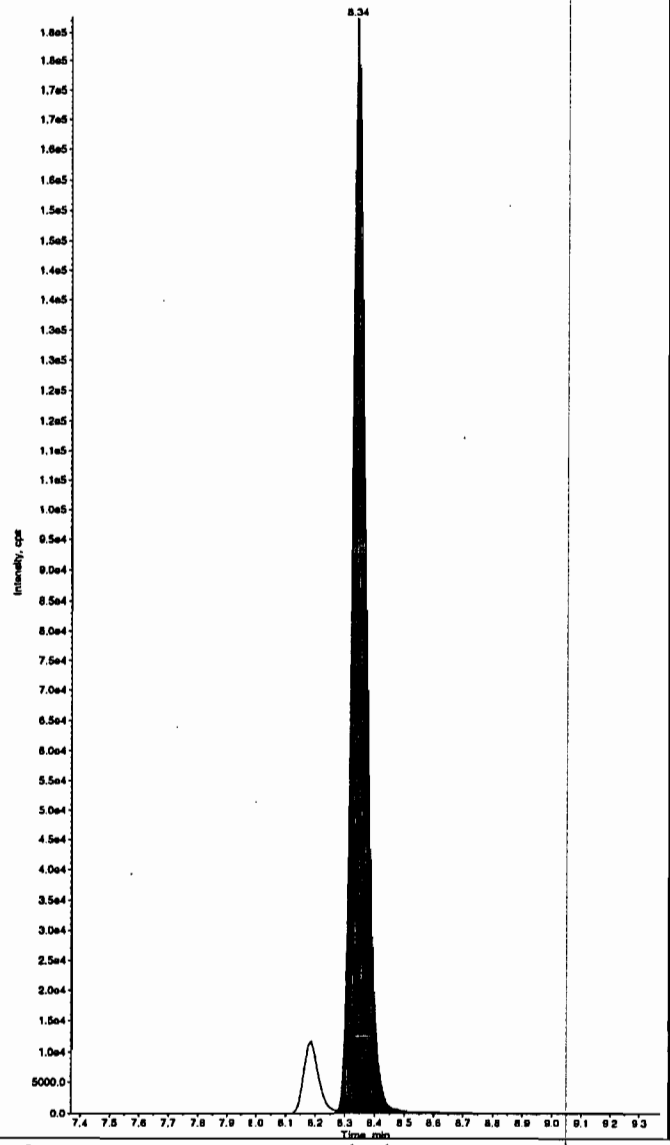

Sample Name: "WXX100306-27CRI" Sample ID: "[1]LER" File: "EXS03050095.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 106. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 5:43:44 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.98 min
Area: 2.71e+005 counts
Height: 64913.605 cps
Start Time: 4.89 min
End Time: 5.28 min

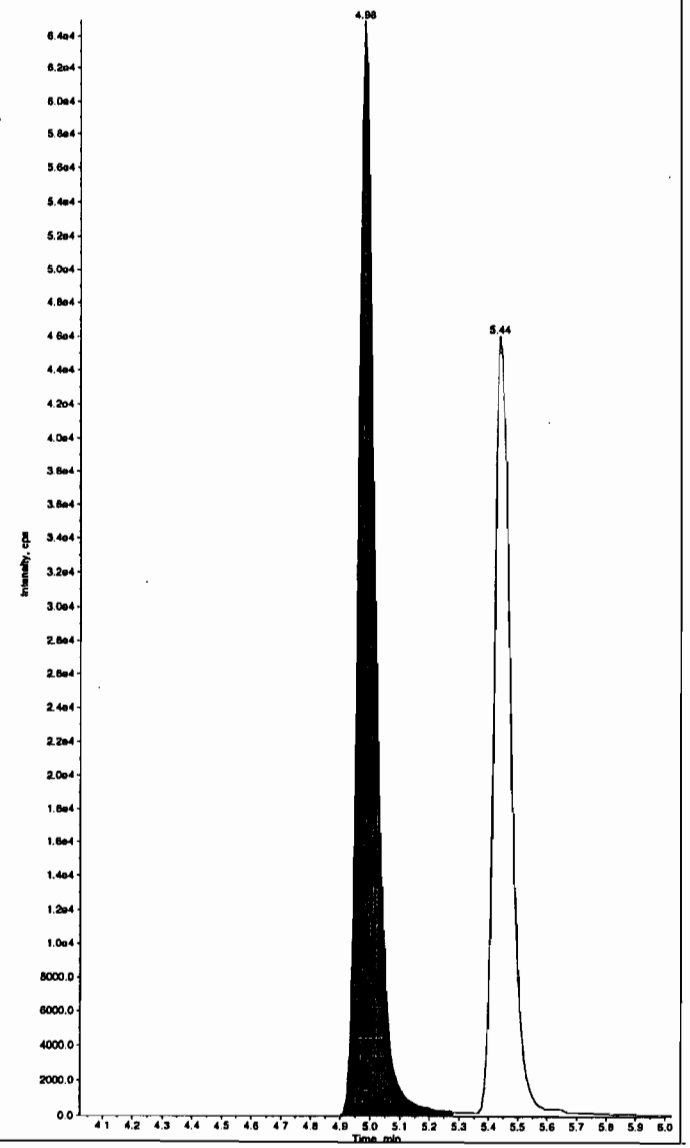

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

s Name: "WXX100306-27CRI" Sample ID: "|1|LER" File: "EXS03050095.wiff"
lame: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ent: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
tration: 100. ng/mL
sted Conc: 101. ng/mL
ate: 3/6/2010
ime: 5:43:44 PM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 350.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 5.48 min
lative RT: No

ype: Valley
ion Time: 5.44 min
1.83e+005 counts
: 45844.112 cps
Time: 5.36 min
me: 5.83 min

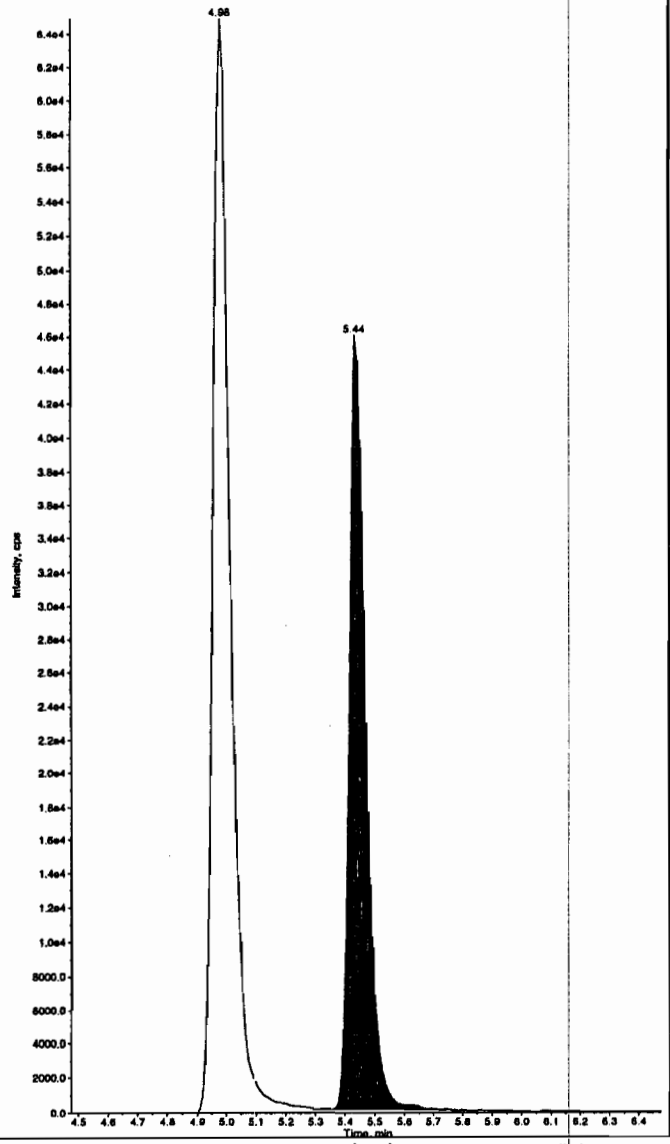

Sample Name: "WXX100306-27CRI" Sample ID: "|1|LER" File: "EXS03050095.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 5:43:44 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.93e+006 counts
Height: 586768.433 cps
Start Time: 10.7 min
End Time: 11.1 min

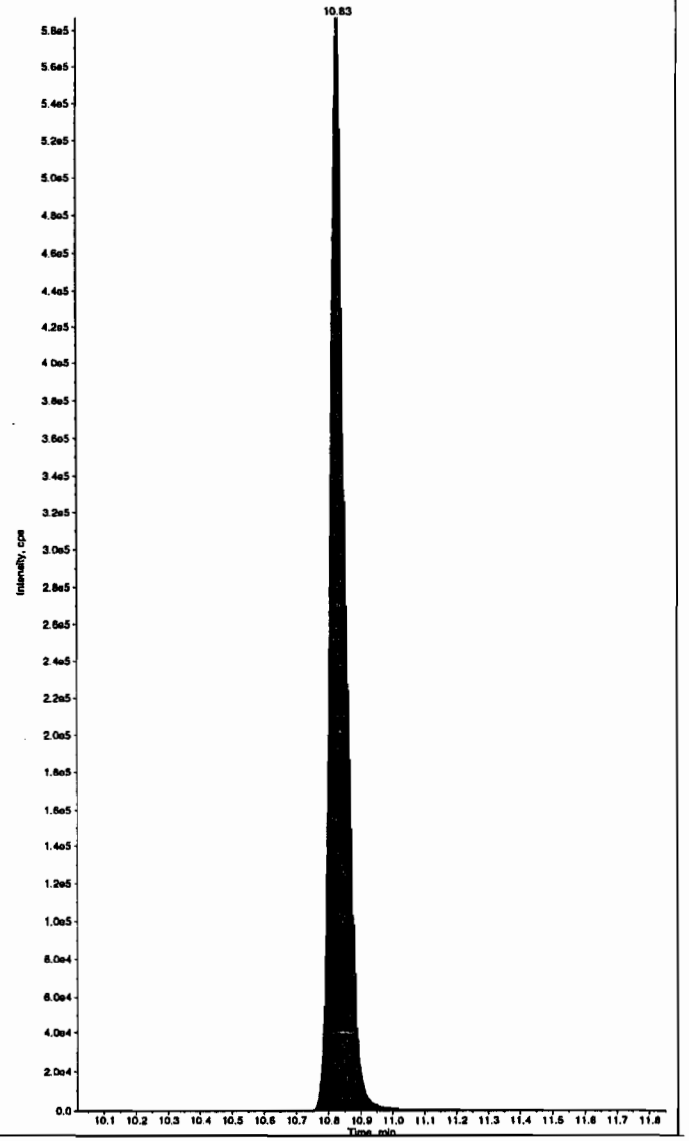

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1898

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03050106.wiff

Analysis Date: 06-MAR-10 20:36

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
3,5-Dinitroaniline	500	513	103	
TATB	500	582	116	
tris(o-cresyl) phosphate	500	520	104	
2,4-Diamino-6-nitrotoluene	500	477	95	
2,6-Diamino-4-nitrotoluene	500	464	93	
3,4-Dinitrotoluene	250	236	94	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Jan 31/2010

e Name: "WXX100306-26CCV" Sample ID: "[1]LER" File: "EXS03050106.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_C" Annotation: ""

```
 Index:          1
 Type:          QC
tration:       500.     ng/mL
ated Conc:     582.     ng/mL
ate:        3/6/2010
ime:        8:36:21 PM

ed:            No
Algorithm: IntelliQuan - IQA
eak Height:2500.00    cps
eak Width:     0.00    sec
ing Width:  3        points
dow:          30.0    sec
ed RT:         7.00   min
lative RT:     No

ype:         Valley
ion Time:      6.97   min
         8.42e+005   counts
:         187620.972  cps
Time:          6.85   min
me:            8.24   min
```

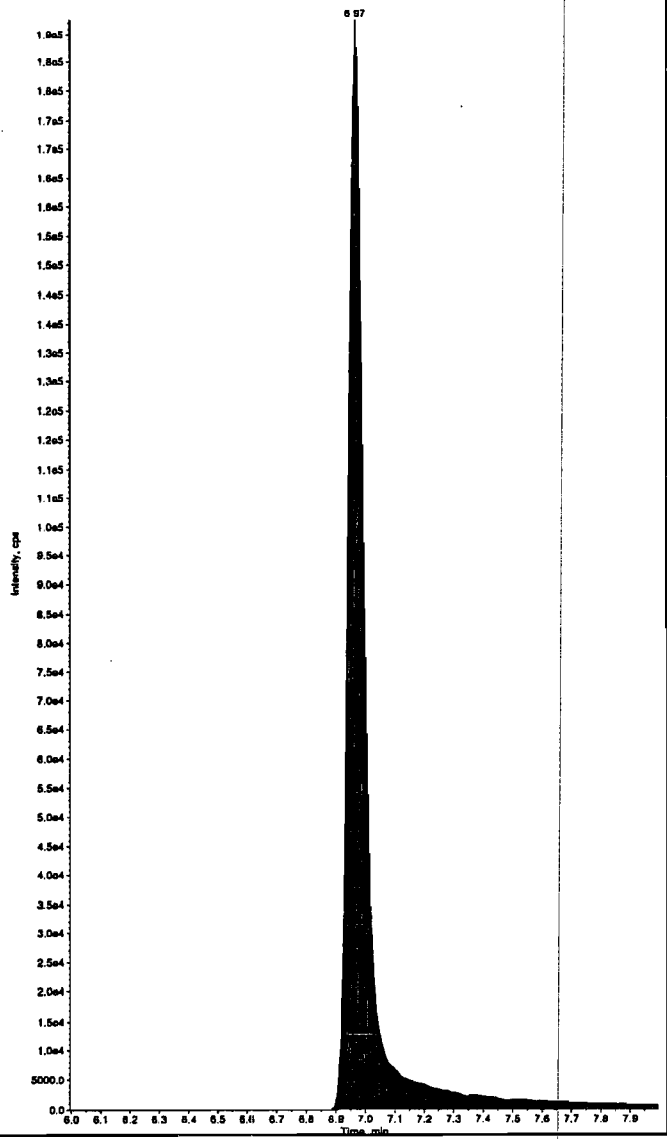

Sample Name: "WXX100306-26CCV" Sample ID: "[1]LER" File: "EXS03050106.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:     500.     ng/mL
Calculated Conc:   497.     ng/mL
Acq. Date:      3/6/2010
Acq. Time:      8:36:21 PM

Modified:          Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         15.0     sec
Expected RT:        8.20    min
Use Relative RT:   No

Int. Type:       Valley
Retention Time:     8.21    min
Area:        4.06e+006   counts
Height:      1129158.691  cps
Start Time:         8.13    min
End Time:           8.31    min
```

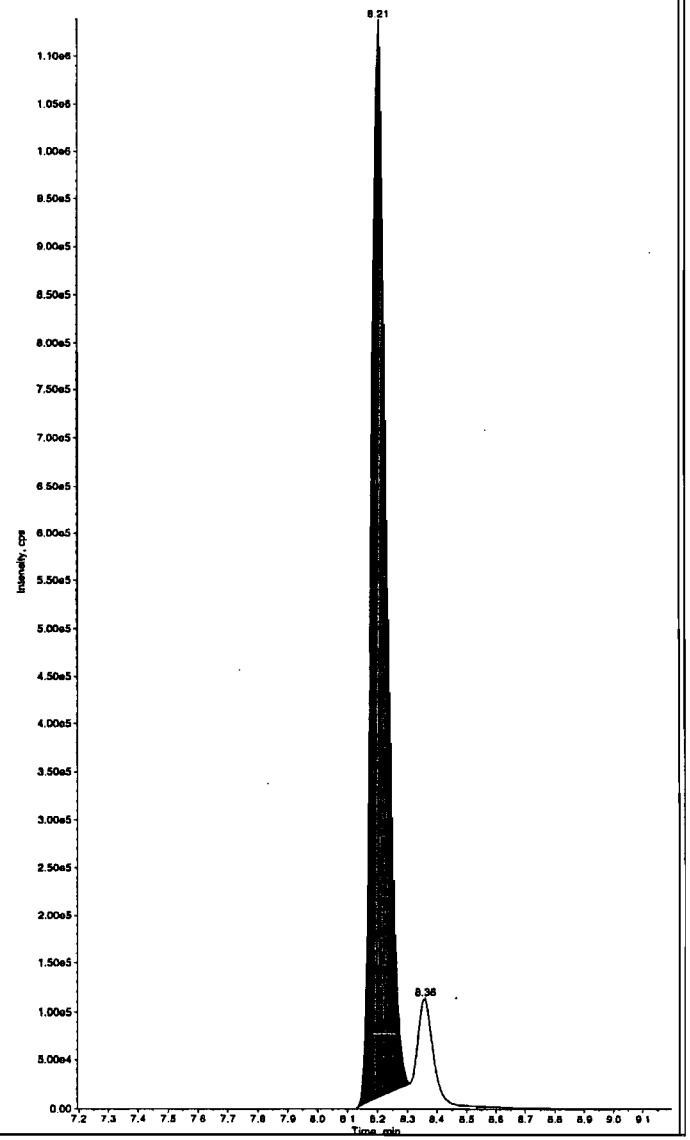

HMW 02/09/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

after Ran 3/9/10

Name: "WXX100306-26CCV" Sample ID: "|1|LER" File: "EXS03050106.wiff"
lame: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_C" Annotation: ""

Index:	1
Type:	QC
ration:	500. ng/mL
ated Conc:	582. ng/mL
ate:	3/6/2010
ime:	8:36:21 PM
ed:	No
algorithm:	IntelliQuan - IQA
eak Height:	2500.00 cps
eak Width:	0.00 sec
ing Width:	3 points
dow:	30.0 sec
ed RT:	7.00 min
lative RT:	No
ype:	Valley
ion Time:	6.97 min
	8.42e+005 counts
:	187620.972 cps
Time:	6.85 min
me:	8.24 min

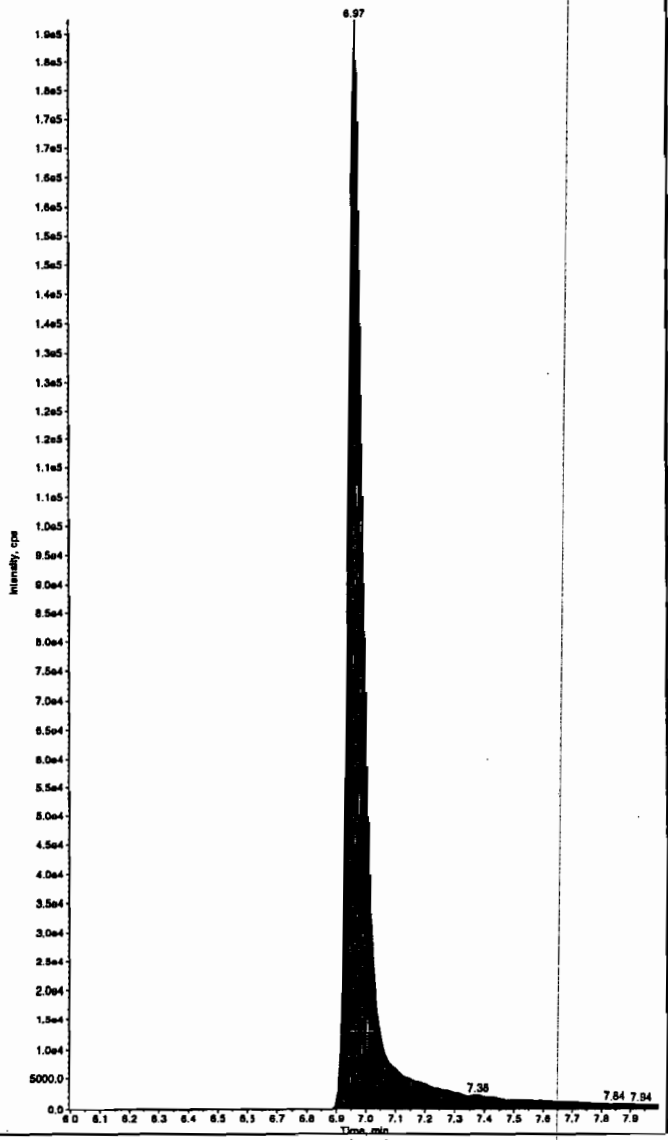

Sample Name: "WXX100306-26CCV" Sample ID: "|1|LER" File: "EXS03050106.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	513. ng/mL
Acq. Date:	3/6/2010
Acq. Time:	8:36:21 PM
Modified:	Yes
RT Window:	15.0 sec
Expected RT:	8.20 min
Use Relative RT:	No
Int. Type:	Manual
Retention Time:	8.20 min
Area:	4.18e+006 counts
Height:	1138722.355 cps
Start Time:	8.13 min
End Time:	8.31 min

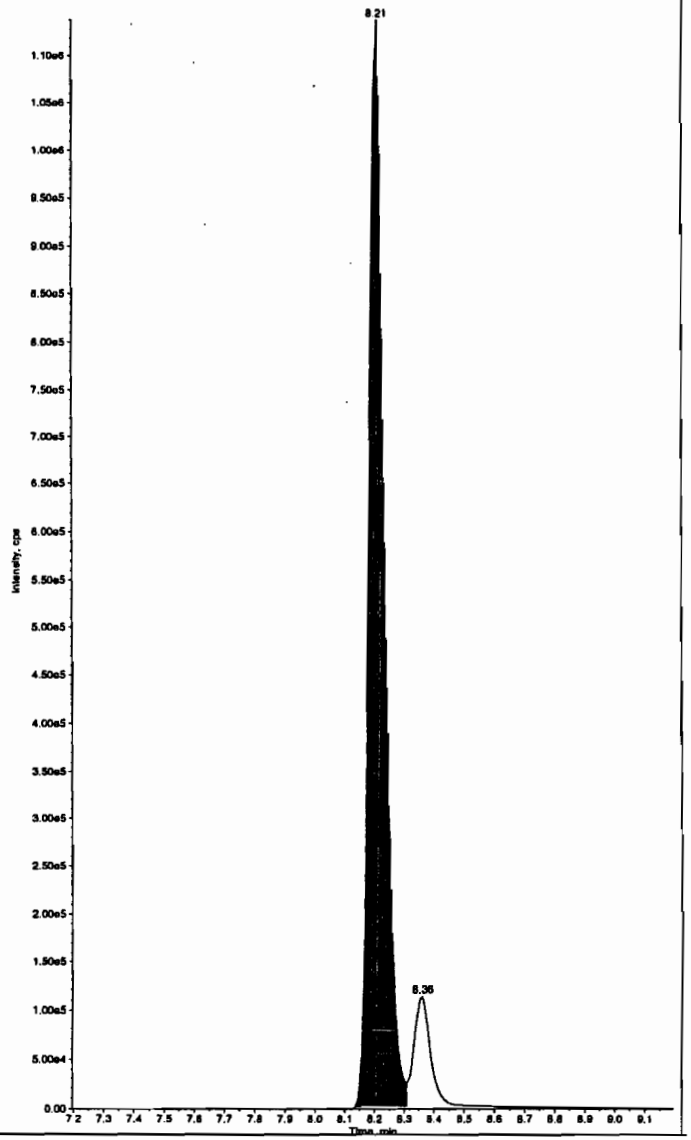

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "WXX100306-26CCV" Sample ID: "[1]LER" File: "EXS03050106.wiff"
lame: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ant: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
ration: 250. ng/mL
ated Conc: 236. ng/mL
ate: 3/6/2010
ime: 8:36:21 PM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 1460.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 8.37 min
lative RT: No

ype: Valley
ion Time: 8.35 min
2.95e+006 counts
: 871497.070 cps
Time: 8.28 min
ne: 8.68 min

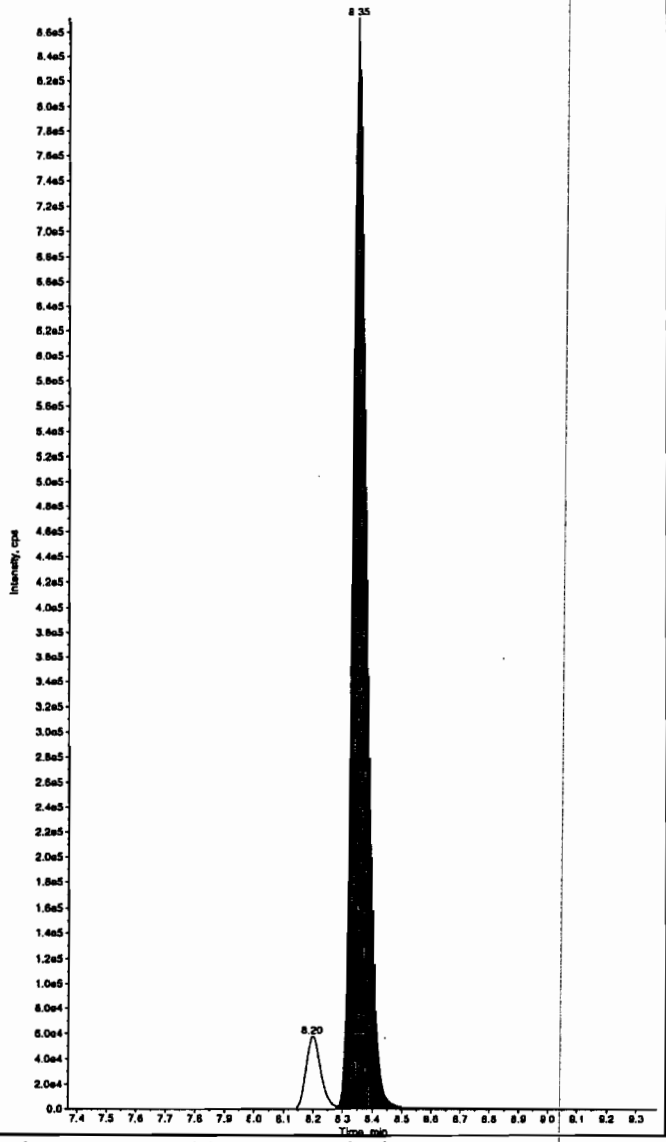

Sample Name: "WXX100306-26CCV" Sample ID: "[1]LER" File: "EXS03050106.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 464. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 8:36:21 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.99 min
Area: 1.23e+006 counts
Height: 302395.050 cps
Start Time: 4.89 min
End Time: 5.29 min

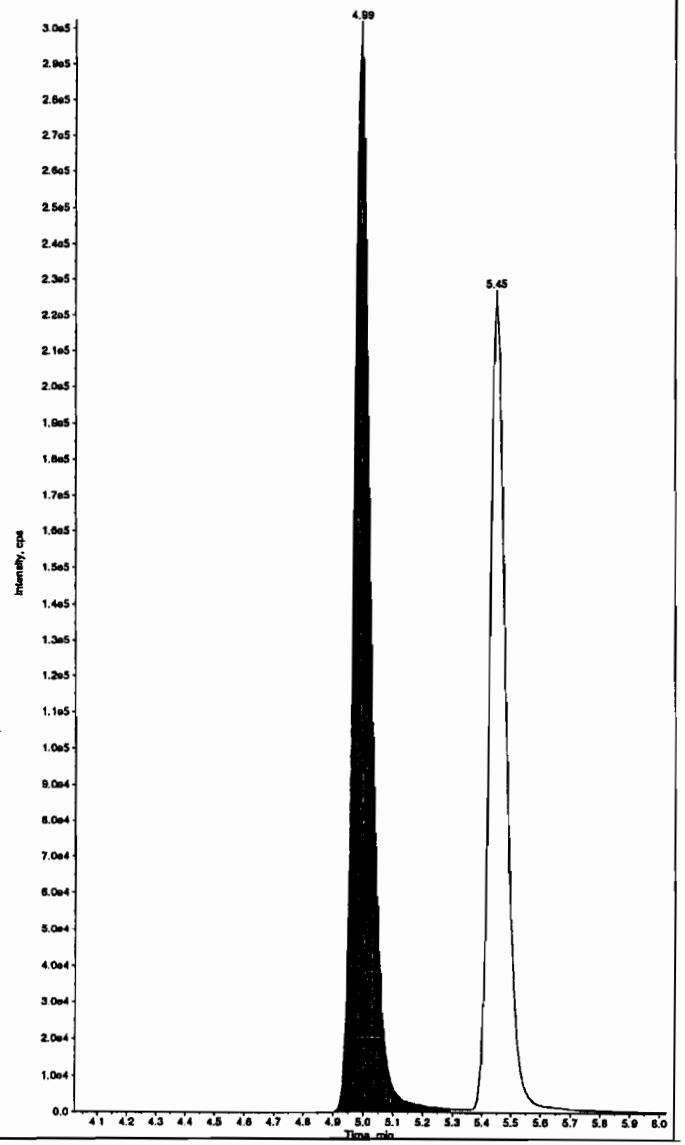

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

le Name: "WXX100306-26CCV" Sample ID: "|1|LER" File: "EXS03050106.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
nent: "LCMSEXP_C" Annotation: ""

```
 Index:        1
 Type:        QC
itration:     500.    ng/mL
lated Conc:   477.    ng/mL
Date:       3/6/2010
Time:       8:36:21 PM

ied:          No
 Algorithm: IntelliQuan - IQA
Peak Height: 350.00   cps
Peak Width:    0.00   sec
ning Width:  3       points
ndow:         30.0   sec
ted RT:        5.48  min
elative RT:    No

Type:        Valley
tion Time:     5.45  min
          8.84e+005  counts
t:         226633.041  cps
 Time:         5.34  min
ime:           5.84  min
```

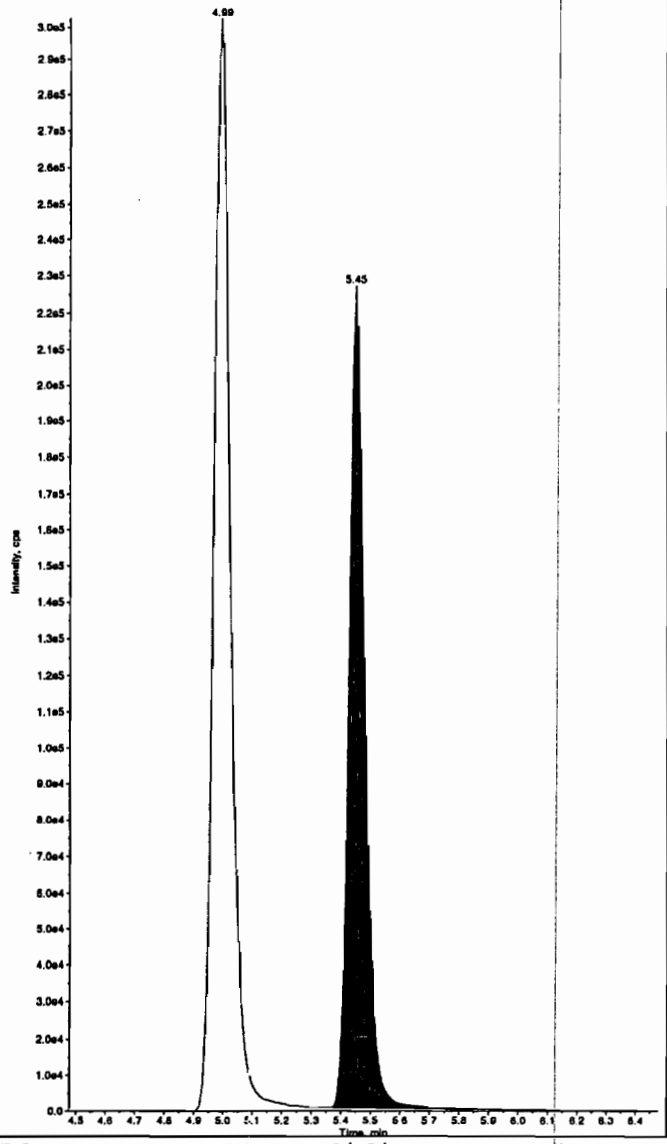

Sample Name: "WXX100306-26CCV" Sample ID: "|1|LER" File: "EXS03050106.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:     500.    ng/mL
Calculated Conc:   520.    ng/mL
Acq. Date:       3/6/2010
Acq. Time:       8:36:21 PM

Modified:          No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         30.0    sec
Expected RT:       10.9    min
Use Relative RT:   No

Int. Type:       Valley
Retention Time:    10.8    min
Area:        8.69e+006   counts
Height:      2420409.912  cps
Start Time:        10.7    min
End Time:          11.2    min
```

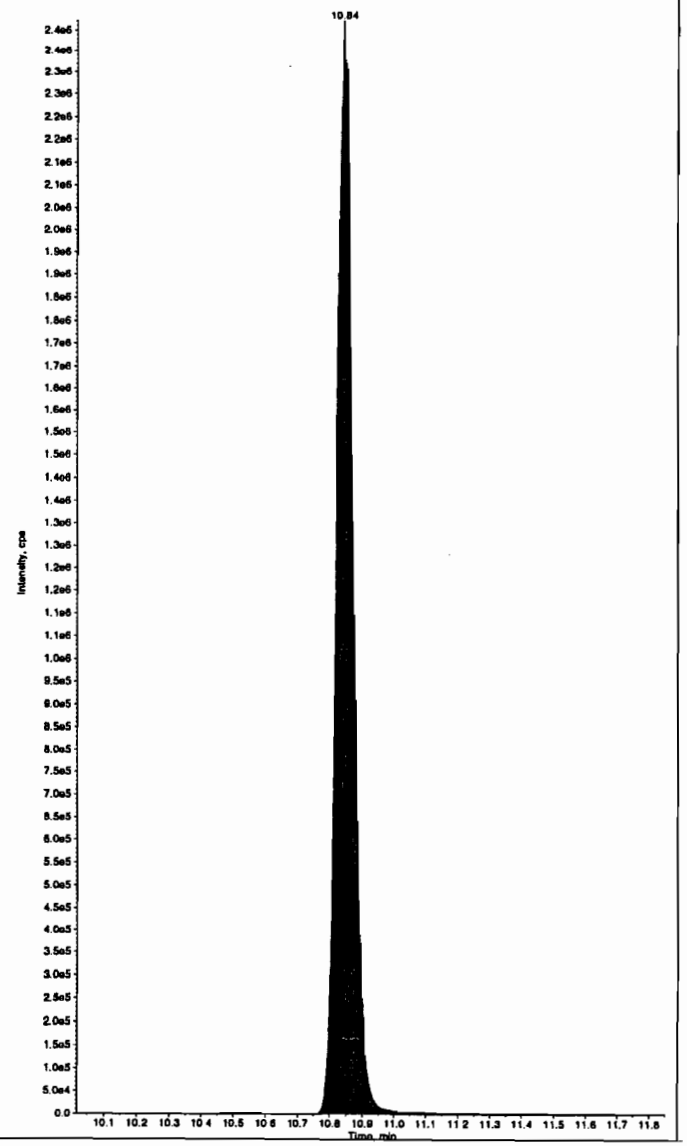

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1898

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03050108.wiff

Analysis Date: 06-MAR-10 21:07

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
tris(o-cresyl) phosphate	100	106	106	
2,4-Diamino-6-nitrotoluene	100	98.3	98	
2,6-Diamino-4-nitrotoluene	100	105	105	
3,4-Dinitrotoluene	50	49.8	100	
3,5-Dinitroaniline	100	104	104	
TATB	100	120	120	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Kan 3/9/10

ie Name: "WXX100306-27CRI" Sample ID: "|1|LER" File: "EXS03050108.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
nent: "LCMSEXP_C" Annotation: ""
: Index: 1
: Type: QC
ıtration: 100. ng/mL
ıated Conc: 120. ng/mL
Date: 3/6/2010
Time: 9:07:45 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
ning Width: 3 points
ıdow: 30.0 sec
ted RT: 7.00 min
elative RT: No

Type: Valley
tion Time: 6.98 min
1.60e+005 counts
t: 38700.287 cps
Time: 6.85 min
ime: 7.62 min

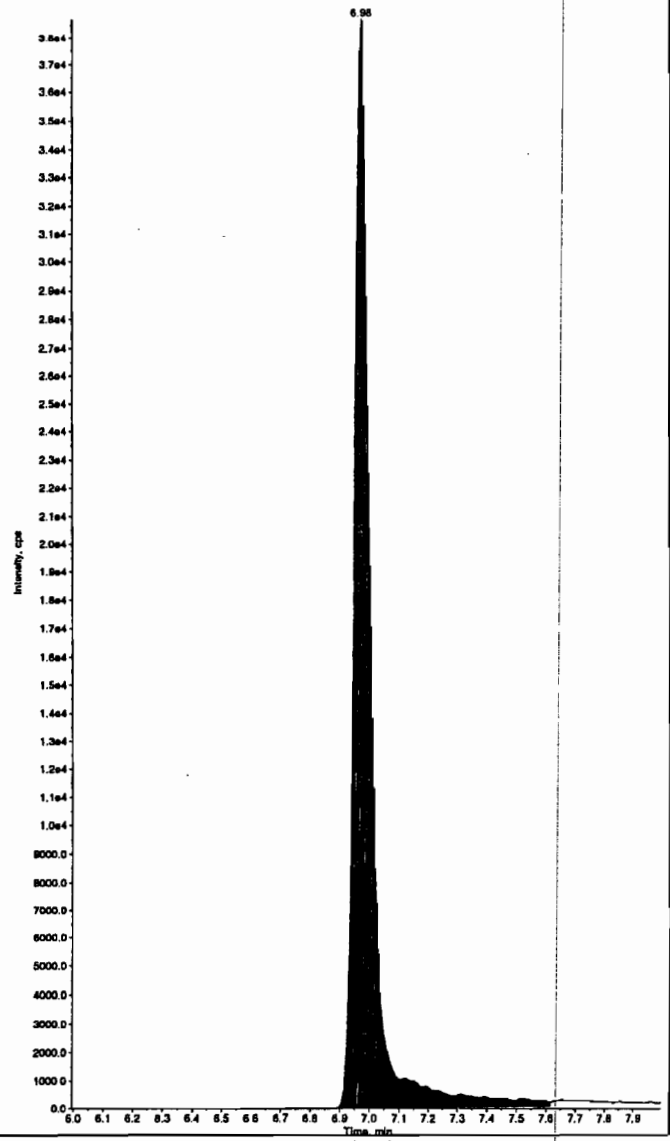

Sample Name: "WXX100306-27CRI" Sample ID: "|1|LER" File: "EXS03050108.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 9:07:45 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.15 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.21 min
Area: 8.88e+005 counts
Height: 242843.018 cps
Start Time: 8.12 min
End Time: 8.32 min

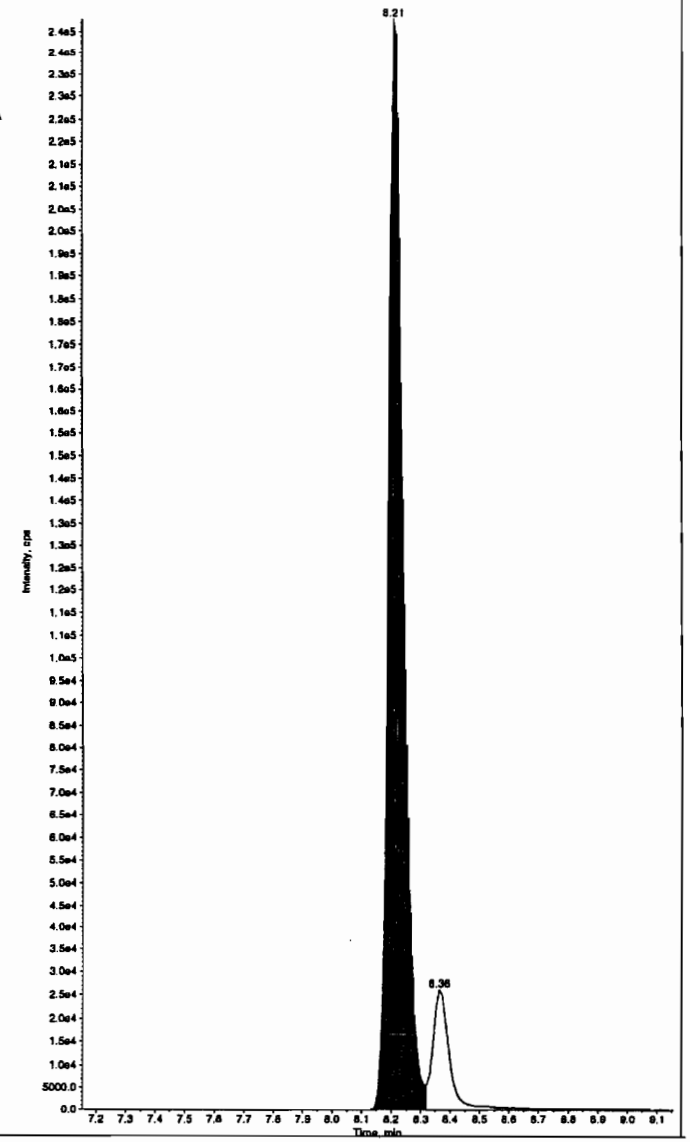

Hrm 03/09/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

le Name: "WXX100306-27CRI" Sample ID: "|1|LER" File: "EXS03050108.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nent: "LCMSEXP_C" Annotation: ""
: Index: 1
: Type: QC
ıtration: 50.0 ng/mL
ıated Conc: 49.8 ng/mL
Date: 3/6/2010
Time: 9:07:45 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
ning Width: 3 points
ndow: 30.0 sec
ted RT: 8.37 min
ılative RT: No

Type: Valley
tion Time: 8.36 min
5.99e+005 counts
: 179120.834 cps
Time: 8.29 min
ime: 8.70 min

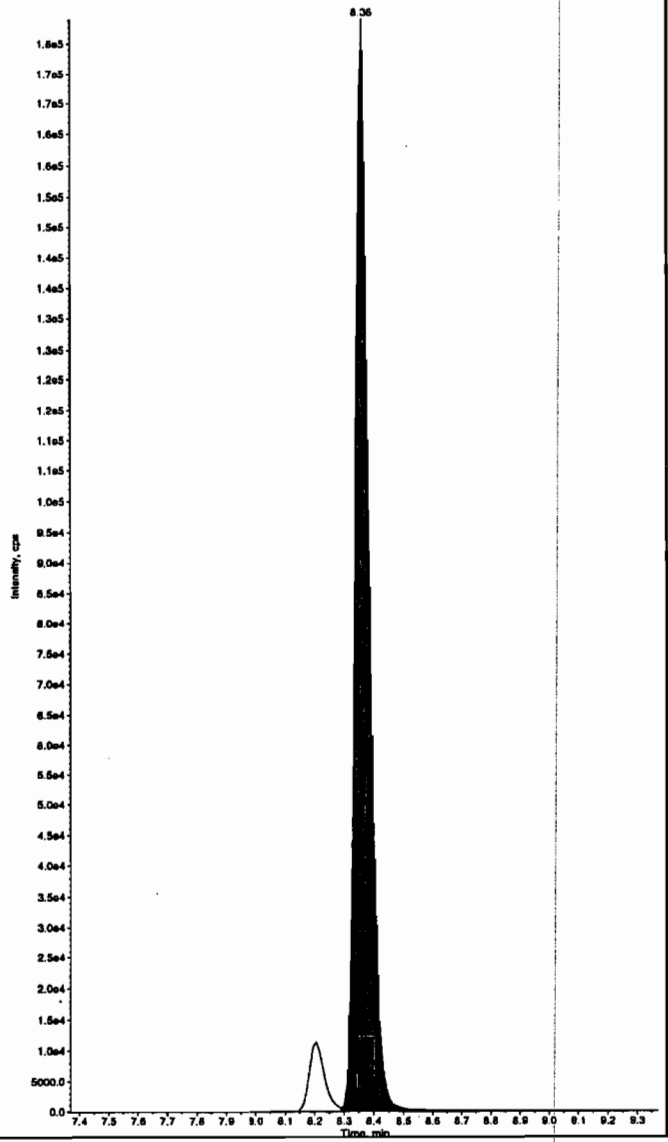

Sample Name: "WXX100306-27CRI" Sample ID: "|1|LER" File: "EXS03050108.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 105. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 9:07:45 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.00 min
Area: 2.69e+005 counts
Height: 65777.092 cps
Start Time: 4.88 min
End Time: 5.30 min

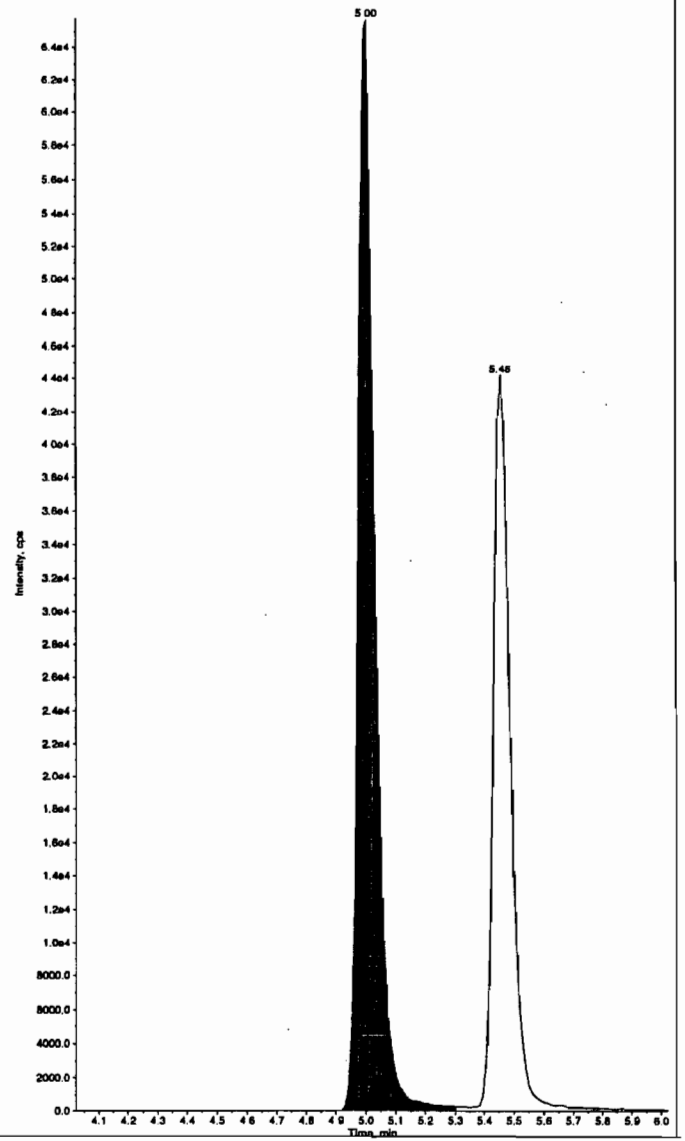

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

le Name: "WXX100306-27CRI" Sample ID: "|1|LER" File: "EXS03050108.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nent: "LCMSEXP_C" Annotation: ""

: Index: 1
: Type: QC
itration: 100. ng/mL
lated Conc: 98.3 ng/mL
Date: 3/6/2010
Time: 9:07:45 PM

led: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
ning Width: 3 points
ndow: 30.0 sec
ted RT: 5.48 min
elative RT: No

Type: Valley
tion Time: 5.46 min
1.78e+005 counts
t: 44148.884 cps
Time: 5.35 min
ime: 5.84 min

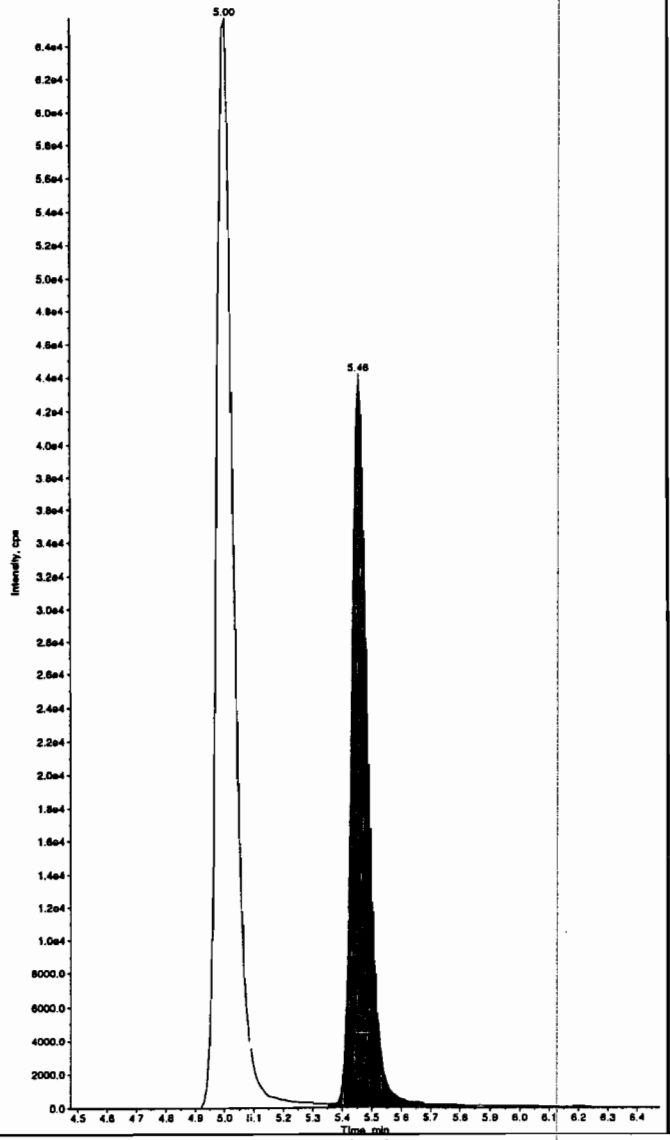

Sample Name: "WXX100306-27CRI" Sample ID: "|1|LER" File: "EXS03050108.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 106. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 9:07:45 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.98e+006 counts
Height: 633027.405 cps
Start Time: 10.7 min
End Time: 11.2 min

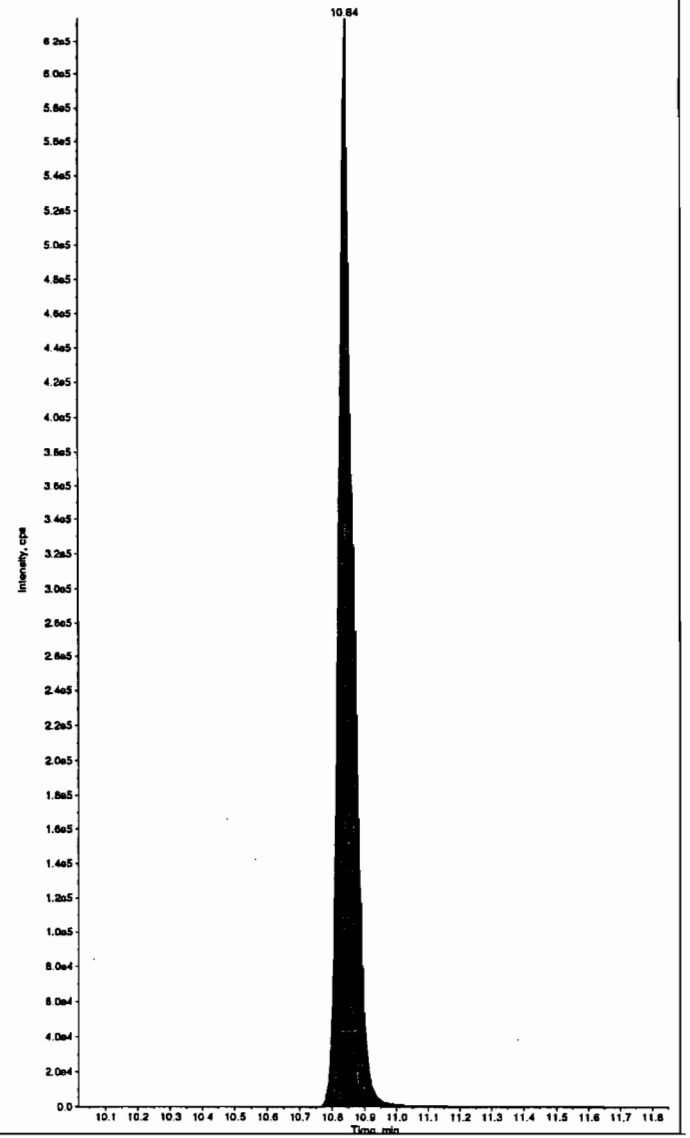

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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QUALITY CONTROL DATA

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 955064

Lab Code: GEL

GEL Job No (SDG) 10-1898

Matrix: SOIL

GEL Sample ID: 1202047529

Sample Amount 2

Moisture:

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0314078a

Date Analyzed: 16-MAR-10 04:50

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

Method: C:\MASSLYNX\NEW_EXP.PRO\MethDB\031410expa.mdb, Time: Mon Mar 15 09:25:32 2010
Calibration: C:\MASSLYNX\NEW_EXP.PRO\CurveDB\031410expa.cdb, Time: Mon Mar 15 10:15:48 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314078a
Date: 16-Mar-2010
Time: 04:50:12
ID: 1202047529 | LANC | 955065 | Soil | MB | 2 |
Vial: 3:1,A

MAP 3/17/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.992e+003

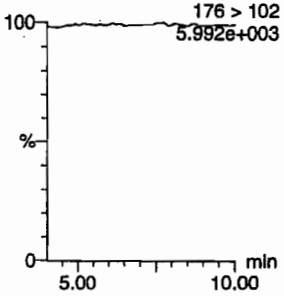

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.992e+003

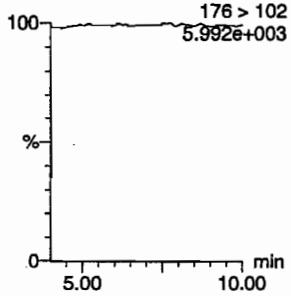

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.776e+003

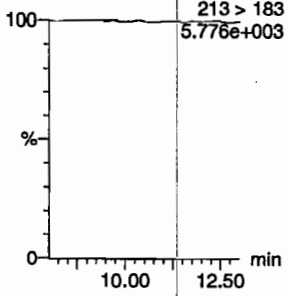

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.400e+004

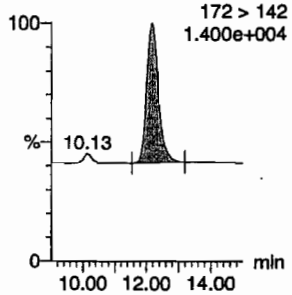

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
10.66
168 > 138
5.888e+003

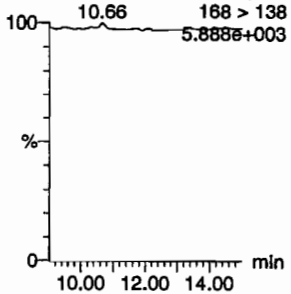

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.828e+003

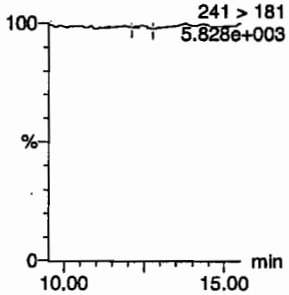

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.787e+003

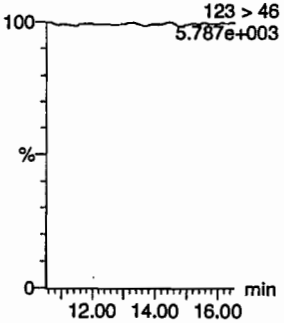

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.839e+003

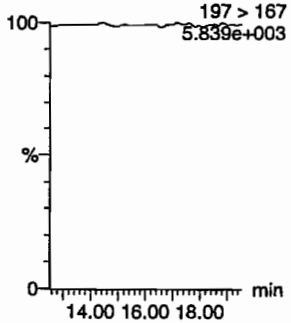

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.828e+003

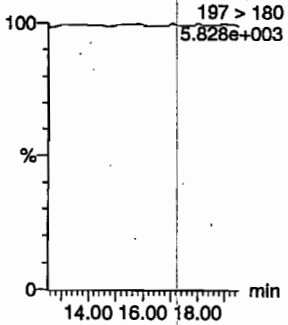

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.791e+003

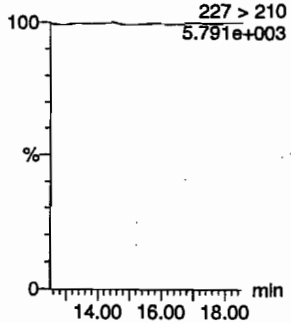

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.507e+004

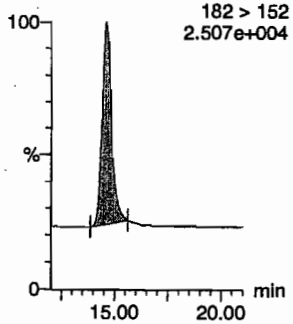

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.60
182 > 152
2.507e+004

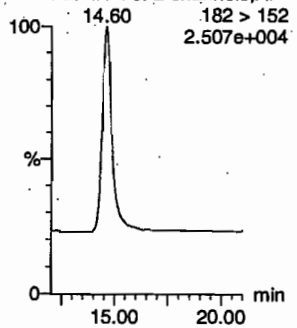

Hmw 03/17/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
14.60 182 > 152
2.507e+004

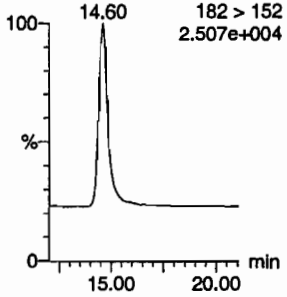

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.393e+004

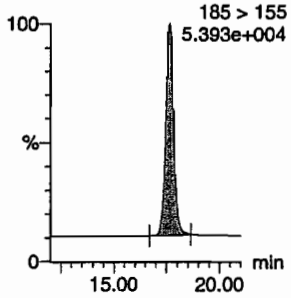

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.867e+003

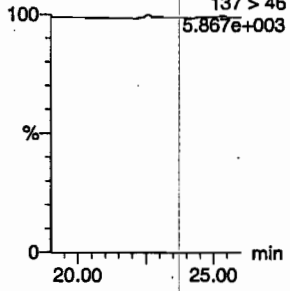

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.867e+003

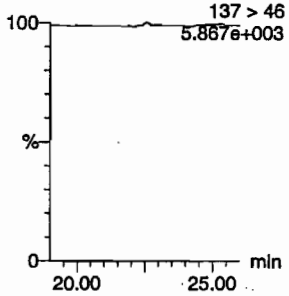

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.867e+003

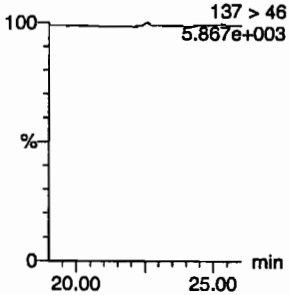

PETN
F13:MRM of 1 channel,AP-
361 > 62
5.813e+003

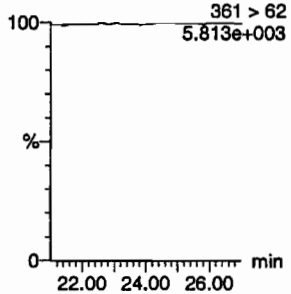

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
1202047529	HMX	176 > 102			3528.745									
1202047529	RDX	176 > 102			3528.745									
1202047529	135-Trinitrobenzene	213 > 183			3528.745									
1202047529	13-Dinitrobenzene-d4	172 > 142	12.17	3528.745		3528.745	3528.745	bb			524.4176	104.9	4.9	764.7
1202047529	13-Dinitrobenzene	168 > 138			3528.745									
1202047529	Tetryl	241 > 181			3528.745			MM-	17-Mar-10	12:30:40				
1202047529	Nitrobenzene	123 > 46			3528.745									
1202047529	4-Amino-26-dinitrotoluene	197 > 167			20031.279									
1202047529	2-Amino-46-dinitrotoluene	197 > 180			20031.279									
1202047529	246-Trinitrotoluene	227 > 210			20031.279									
1202047529	34-dinitrotoluene	182 > 152	14.60	9521.422	20031.279	9521.422	237.664	bb			246.4744	98.6	-1.4	625.2
1202047529	26-dinitrotoluene	182 > 152			20031.279									
1202047529	24-dinitrotoluene	182 > 152			20031.279									
1202047529	26-dinitrotoluene-d3	185 > 155	17.64	20031.279		20031.279	20031.279	bb			525.5997	105.1	5.1	2288.3
1202047529	2-Nitrotoluene	137 > 46			20031.279									
1202047529	4-Nitrotoluene	137 > 46			20031.279									
1202047529	3-Nitrotoluene	137 > 46			20031.279									
1202047529	PETN	361 > 62			20031.279									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 955064

Lab Code: GEL

GEL Job No (SDG) 10-1898

Matrix: SOIL

GEL Sample ID: 1202047529

Sample Amount 2

Moisture:

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03050098.wiff

Date Analyzed: 06-MAR-10 18:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 3/9/10

nple Name: "1202047529" Sample ID: "955065|2|LER" File: "EXS03050098.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 3/6/2010
Time: 6:30:48 PM

fied: No

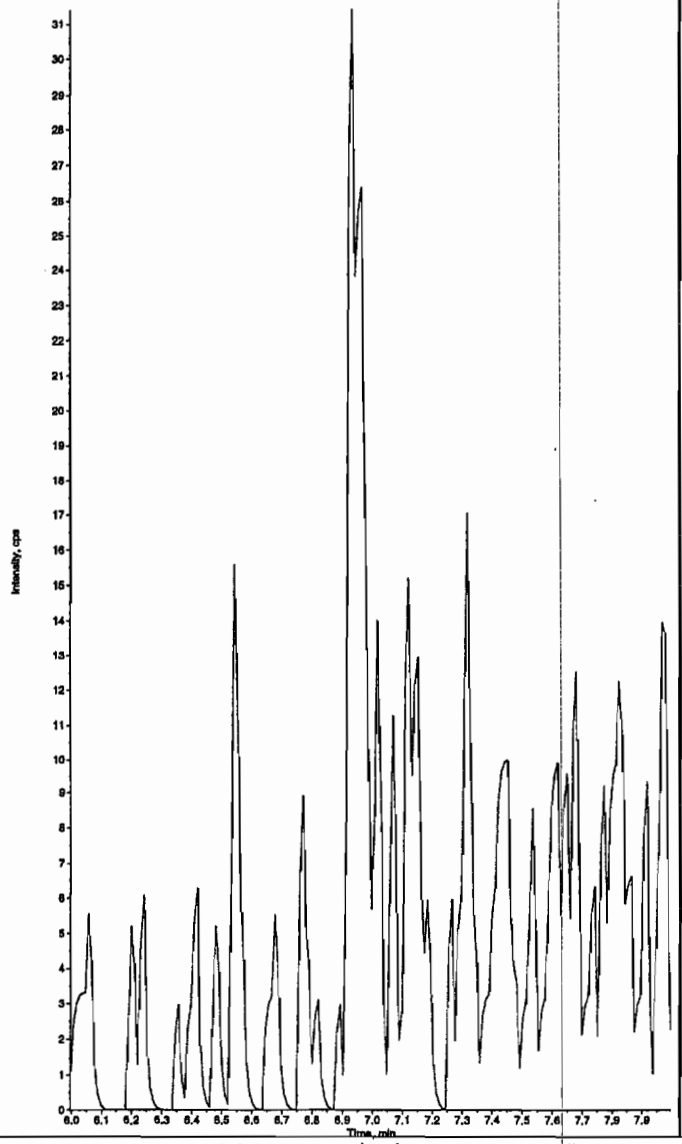

Sample Name: "1202047529" Sample ID: "955065|2|LER" File: "EXS03050098.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/6/2010
Acq. Time: 6:30:48 PM

Modified: No

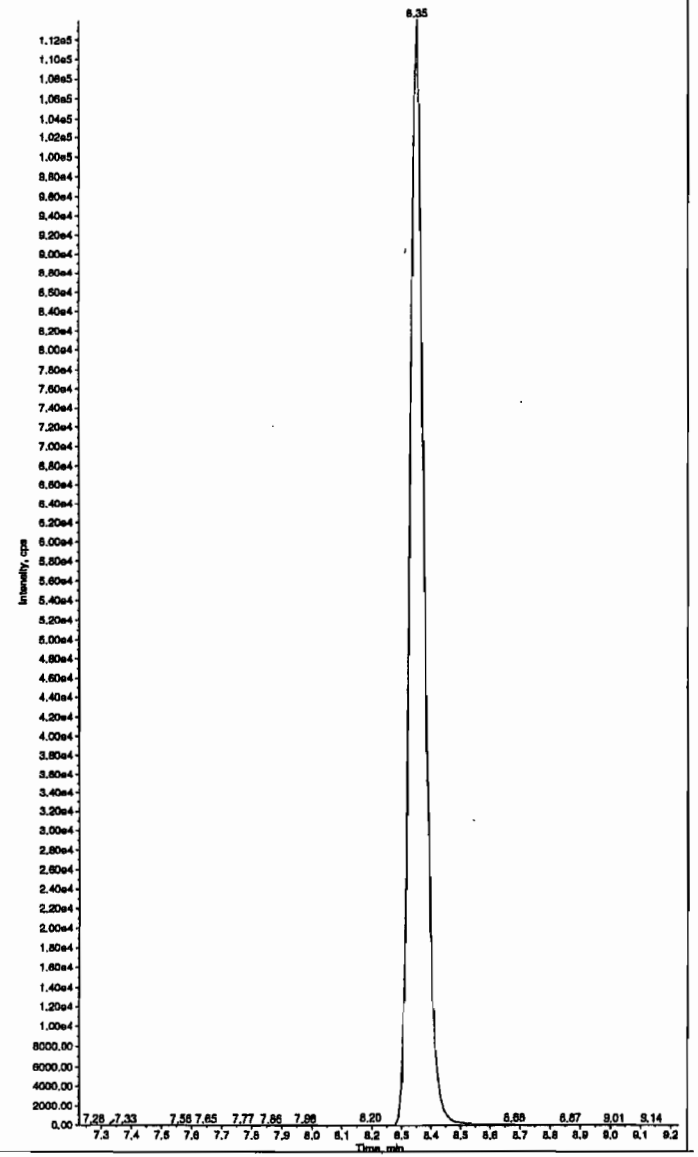

Hm 03/09/10

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

nple Name: "1202047529" Sample ID: "955065|2|LER" File: "EXS03050098.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 242. ng/mL
Date: 3/6/2010
Time: 6:30:48 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 8.37 min
Relative RT: No

Type: Valley
ntion Time: 8.34 min
: 3.03e+006 counts
ht: 883155.090 cps
t Time: 8.23 min
Time: 8.70 min

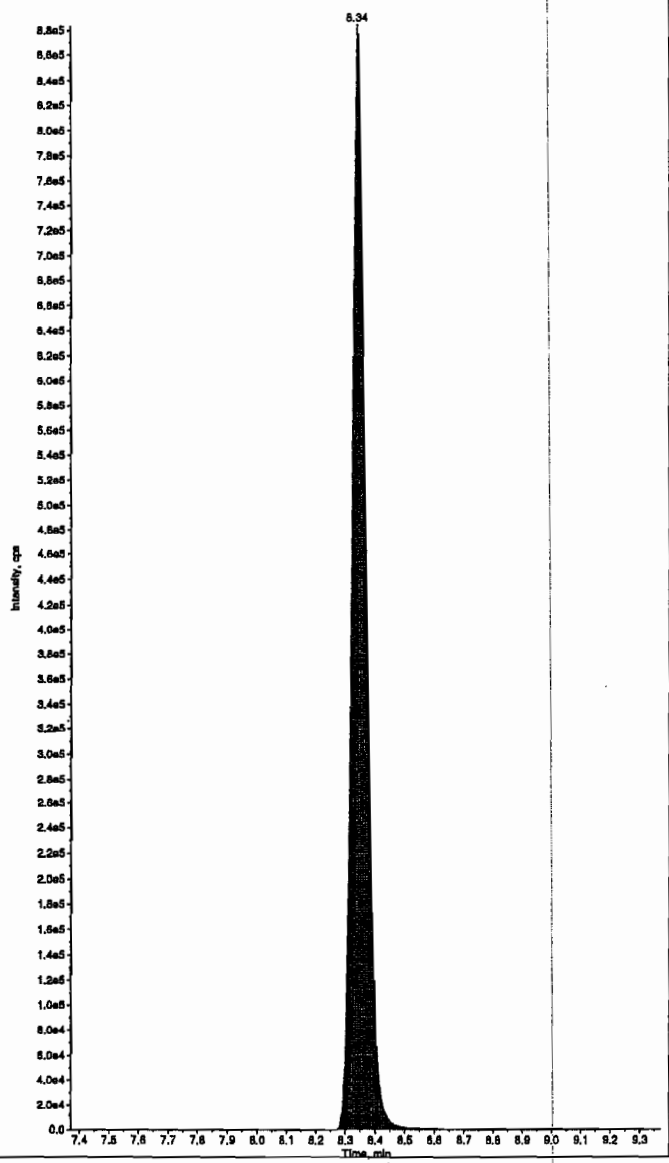

Sample Name: "1202047529" Sample ID: "955065|2|LER" File: "EXS03050098.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/6/2010
Acq. Time: 6:30:48 PM

Modified: No

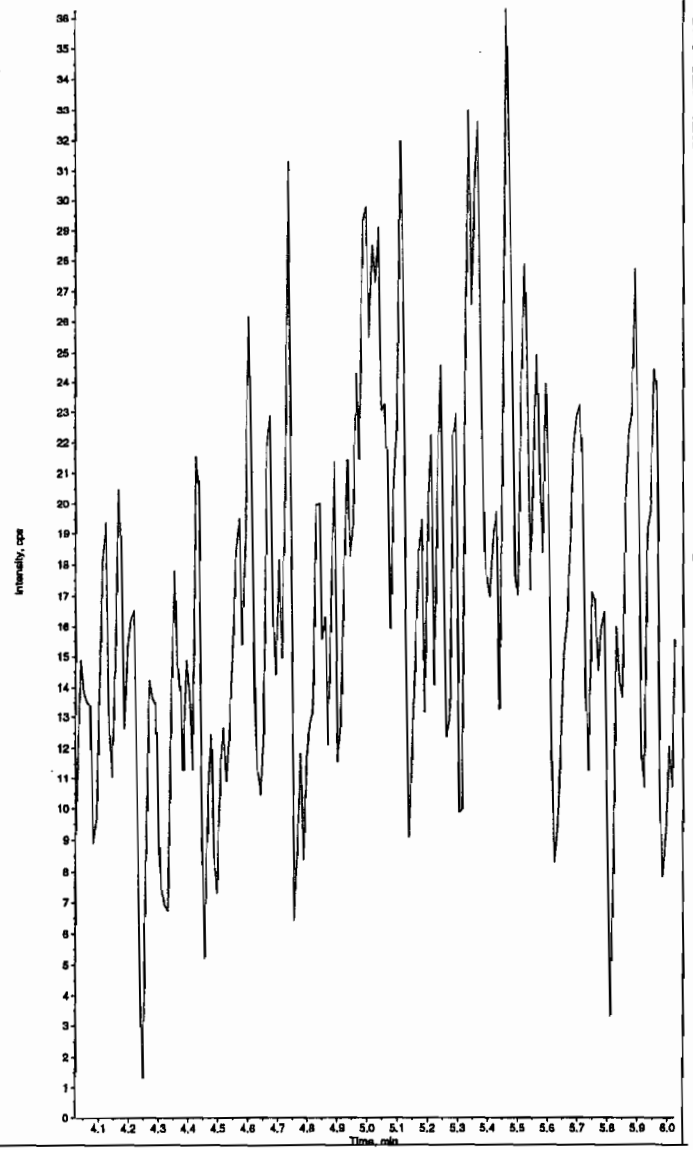

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

mple Name: "1202047529" Sample ID: "955065|2|LER" File: "EXS03050098.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 3/6/2010
Time: 6:30:48 PM

fied: No

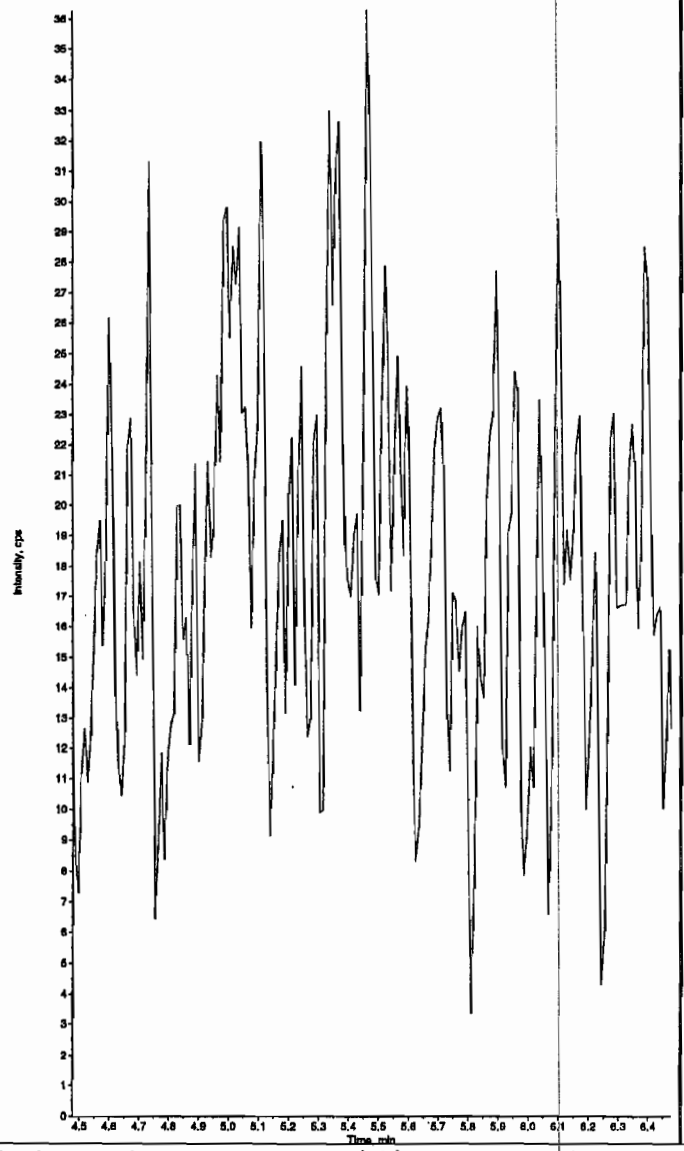

Sample Name: "1202047529" Sample ID: "955065|2|LER" File: "EXS03050098.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/6/2010
Acq. Time: 6:30:48 PM

Modified: No

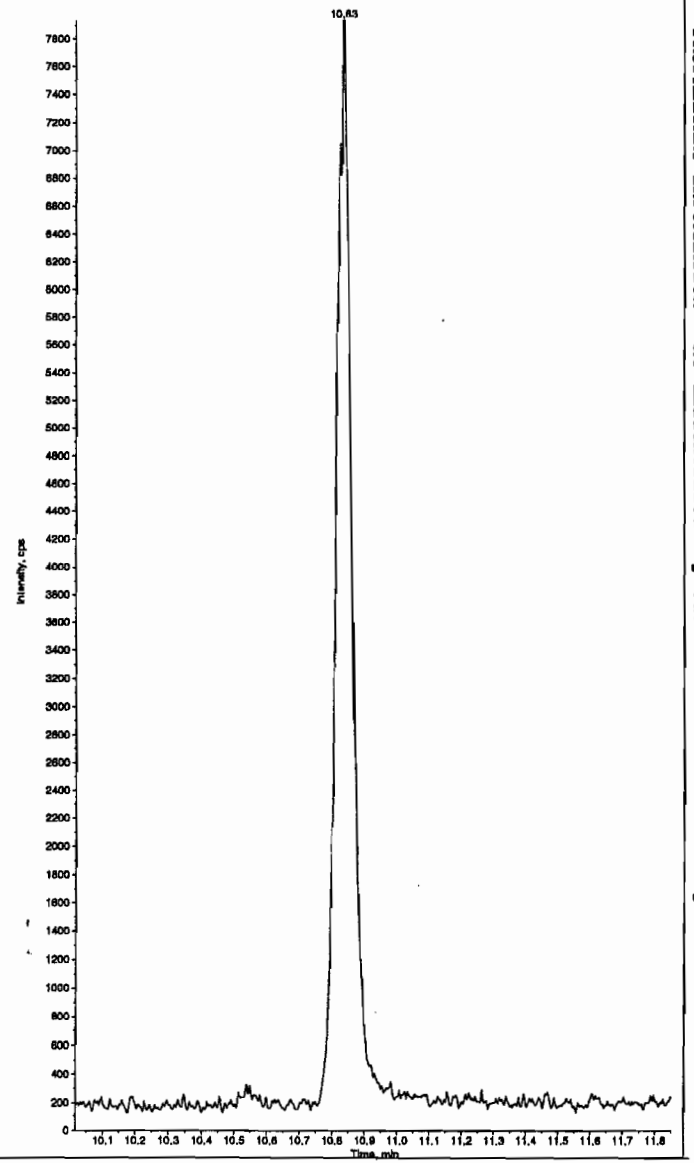

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 955064

Lab Code: GEL

GEL Job No (SDG) 10-1898

Matrix: SOIL

GEL Sample ID: 1202047530

Sample Amount 2

Moisture:

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0314079a

Date Analyzed: 16-MAR-10 05:19

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4760	
121-14-2	2,4-Dinitrotoluene	5540	
121-82-4	RDX	4870	
19406-51-0	4-Amino-2,6-dinitrotoluene	4850	
2691-41-0	HMX	4520	
35572-78-2	2-Amino-4,6-dinitrotoluene	5160	
479-45-8	Tetryl	2450	
606-20-2	2,6-Dinitrotoluene	4980	
78-11-5	PETN	5360	
88-72-2	o-Nitrotoluene	4860	
98-95-3	Nitrobenzene	4500	
99-08-1	m-Nitrotoluene	5040	
99-35-4	1,3,5-Trinitrobenzene	3920	
99-65-0	m-Dinitrobenzene	4500	
99-99-0	p-Nitrotoluene	4970	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314079a
Date: 16-Mar-2010
Time: 05:19:45
ID: 1202047530 | LANW | 955065 | Soil | LCS | 21
Vial: 3:1,B

MAP 3/17/10

HMX
F2:MRM of 1 channel,AP-176 > 102
6.754e+004
7.62

RDX
F2:MRM of 1 channel,AP-176 > 102
6.754e+004
5.20
RDX 7.62 9550.40

135-Trinitrobenzene
F4:MRM of 1 channel,AP-213 > 183
4.128e+004

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-172 > 142
1.445e+004
10.13

13-Dinitrobenzene
F5:MRM of 2 channels,AP-168 > 138
1.685e+004

Tetryl
F6:MRM of 1 channel,AP-241 > 181
1.022e+004
Tetryl 12.82 1710.07

Nitrobenzene
F7:MRM of 1 channel,AP-123 > 46
1.317e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-197 > 167
2.055e+004
16.79

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-197 > 180
2.780e+004

246-Trinitrotoluene
F10:MRM of 1 channel,AP-227 > 210
2.072e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-182 > 152
6.367e+004
17.82
18.51

26-dinitrotoluene
F9:MRM of 2 channels,AP-182 > 152
6.367e+004
14.60
18.51

HMW 03/17/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

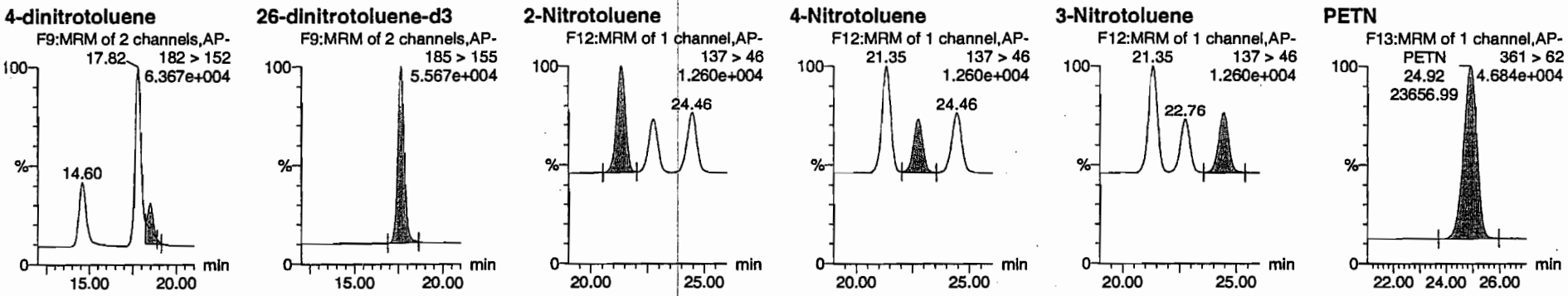

Sample	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
1202047530	HMX	176 > 102	5.20	12187.499	3687.472	12187.499	1652.555	bb			452.0476	90.4	-9.6	1566.7
1202047530	RDX	176 > 102	7.62	9550.399	3687.472	9550.399	1294.979	bb			486.9826	97.4	-2.6	1026.6
1202047530	135-Trinitrobenzene	213 > 183	10.25	10641.755	3687.472	10641.755	1442.961	bb			392.1168	78.4	-21.6	1193.4
1202047530	13-Dinitrobenzene-d4	172 > 142	12.17	3687.472		3687.472	3687.472	bb			548.0065	109.6	9.6	347.1
1202047530	13-Dinitrobenzene	168 > 138	12.31	4411.222	3687.472	4411.222	598.136	bb			450.2216	90.0	-10.0	512.4
1202047530	Tetryl	241 > 181	12.82	1710.074	3687.472	1710.074	231.876	bb			244.7934	49.0	-51.0	87.9
1202047530	Nitrobenzene	123 > 46	13.76	2722.260	3687.472	2722.260	369.123	bb			449.9649	90.0	-10.0	210.9
1202047530	4-Amino-26-dinitrotoluene	197 > 167	15.86	6291.666	20843.297	6291.666	150.928	MM	17-Mar-10	12:31:22	484.9054	97.0	-3.0	303.6
1202047530	2-Amino-46-dinitrotoluene	197 > 180	16.79	8838.615	20843.297	8838.615	212.025	bb			515.9831	103.2	3.2	431.2
1202047530	246-Trinitrotoluene	227 > 210	15.58	6765.909	20843.297	6765.909	162.304	bb			475.8576	95.2	-4.8	474.4
1202047530	34-dinitrotoluene	182 > 152	14.60	10104.914	20843.297	10104.914	242.402	bb			251.3882	100.6	0.6	182.7
1202047530	26-dinitrotoluene	182 > 152	17.82	23350.789	20843.297	23350.789	560.151	MM	17-Mar-10	12:33:02	497.8774	99.6	-0.4	513.7
1202047530	24-dinitrotoluene	182 > 152	18.51	5534.894	20843.297	5534.894	132.774	MM	17-Mar-10	12:35:15	554.3437	110.9	10.9	117.8
1202047530	26-dinitrotoluene-d3	185 > 155	17.64	20843.297		20843.297	20843.297	bb			546.9061	109.4	9.4	1688.8
1202047530	2-Nitrotoluene	137 > 46	21.35	3074.156	20843.297	3074.156	73.744	bb			485.9679	97.2	-2.8	321.5
1202047530	4-Nitrotoluene	137 > 46	22.76	1583.318	20843.297	1583.318	37.981	bb			496.7741	99.4	-0.6	158.6
1202047530	3-Nitrotoluene	137 > 46	24.46	1920.018	20843.297	1920.018	46.058	bb			503.6349	100.7	0.7	179.9
1202047530	PETN	361 > 62	24.92	23656.992	20843.297	23656.992	567.496	bb			536.4745	107.3	7.3	5187.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 955064

Lab Code: GEI

GEL Job No (SDG) 10-1898

Matrix: SOIL

GEL Sample ID: 1202047530

Sample Amount 2

Moisture:

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03050099.wiff

Date Analyzed: 06-MAR-10 18:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5220	
59229-75-3	2,6-Diamino-4-nitrotoluene	4810	
618-87-1	3,5-Dinitroaniline	5060	
6629-29-4	2,4-Diamino-6-nitrotoluene	4450	
78-30-8	tris(o-cresyl) phosphate	5210	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcr 3/9/10

mple Name: "1202047530" Sample ID: "955065|2|LER" File: "EXS03050099.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 522. ng/mL
Date: 3/6/2010
Time: 6:46:29 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.00 min
Relative RT: No

Type: Valley
ntion Time: 6.96 min
: 7.51e+005 counts
ht: 179734.161 cps
t Time: 6.87 min
Time: 7.46 min

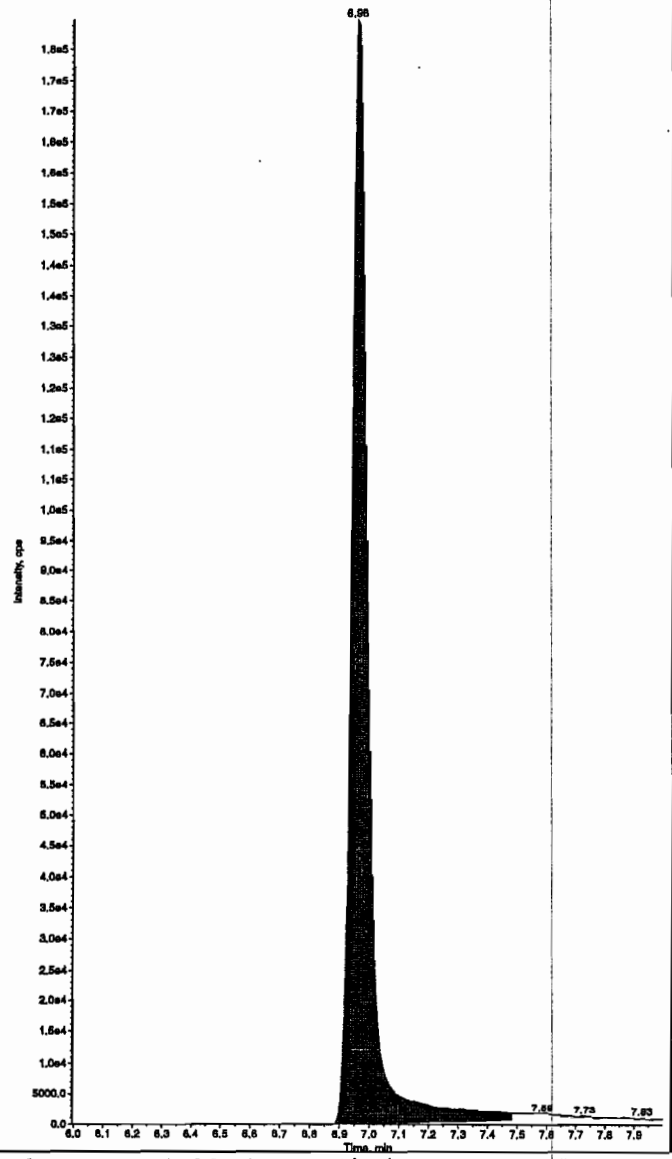

Sample Name: "1202047530" Sample ID: "955065|2|LER" File: "EXS03050099.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 506. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 6:46:29 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.20 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.20 min
Area: 4.13e+006 counts
Height: 1142342.407 cps
Start Time: 8.13 min
End Time: 8.31 min

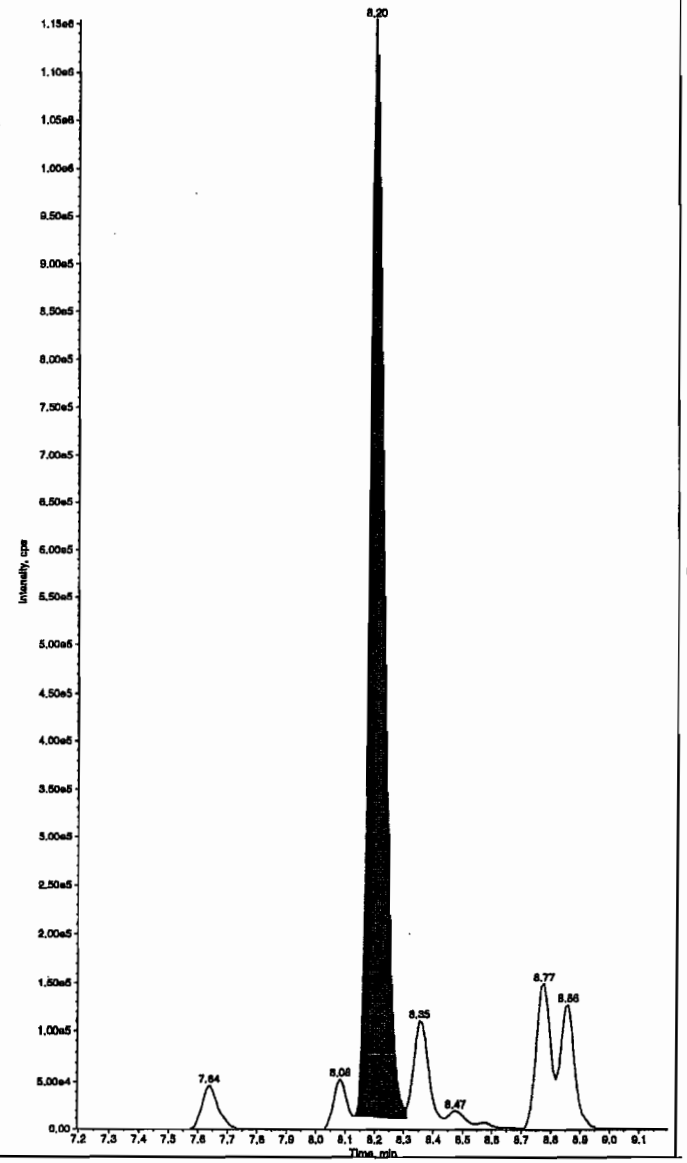

HM 03/09/10

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mple Name: "1202047530" Sample ID: "955065|2|LER" File: "EXS03050099.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCX83212S" Annotation: ""

```
le Index:        1
le Type:      Unknown
entration:      N/A
ulated Conc:    236.    ng/mL
 Date:       3/6/2010
 Time:       6:46:29 PM

fied:           No
. Algorithm: IntelliQuan - IQA
 Peak Height:1460.00   cps
 Peak Width:    0.00   sec
thing Width:  3       points
indow:         30.0    sec
cted RT:        8.37   min
Relative RT:    No

 Type:        Valley
ntion Time:     8.35   min
:          2.95e+006   counts
ht:          857274.048  cps
t Time:         8.28   min
Time:           8.54   min
```

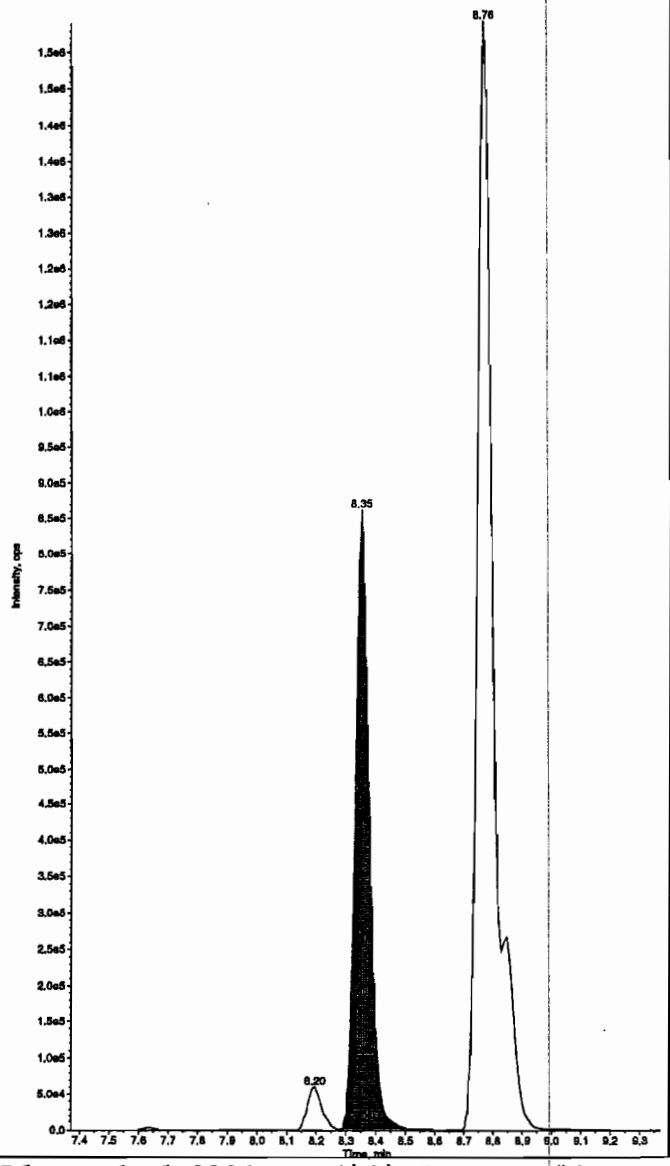

Sample Name: "1202047530" Sample ID: "955065|2|LER" File: "EXS03050099.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:      N/A
Calculated Conc:    481.    ng/mL
Acq. Date:       3/6/2010
Acq. Time:       6:46:29 PM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         30.0    sec
Expected RT:        5.02   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     4.99   min
Area:          1.27e+006   counts
Height:        311119.019  cps
Start Time:         4.90   min
End Time:           5.30   min
```

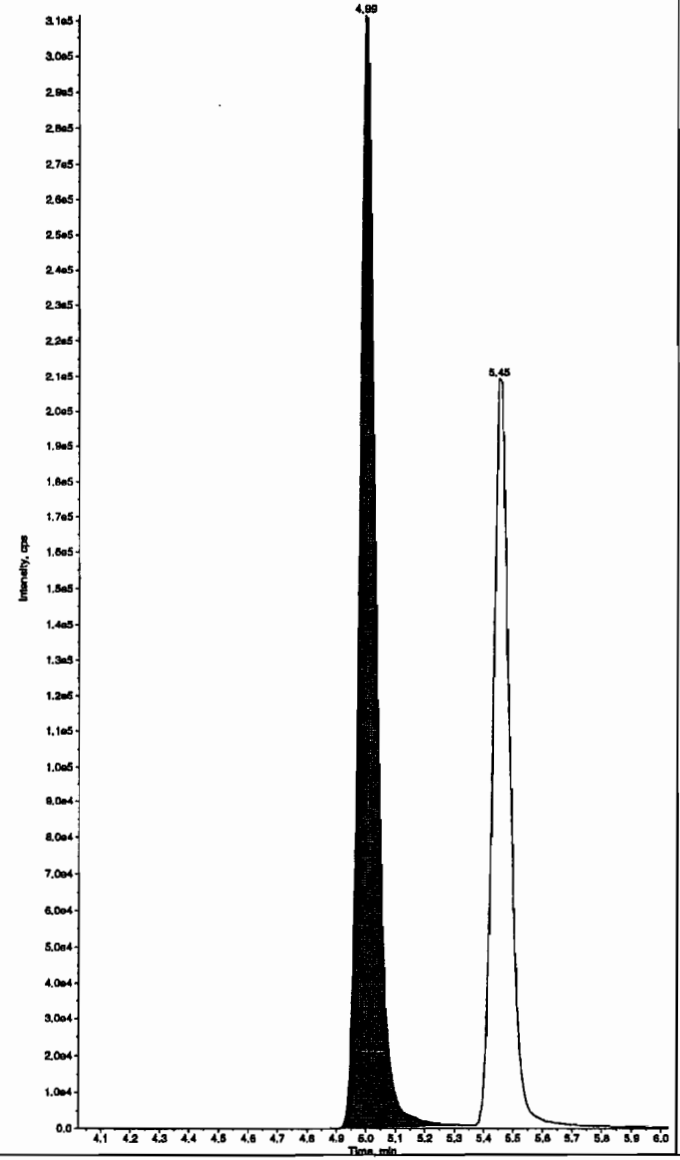

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "1202047530" Sample ID: "955065|2|LER" File: "EXS03050099.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCX83212S" Annotation: ""

```
ple Index:        1
ple Type:      Unknown
entration:       N/A
culated Conc:    445.     ng/mL
 Date:        3/6/2010
 Time:        6:46:29 PM

fied:            No
. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00    cps
 Peak Width:    0.00    sec
thing Width:  3        points
Window:         30.0    sec
cted RT:         5.48   min
Relative RT:     No

 Type:         Valley
ntion Time:      5.45   min
:          8.25e+005   counts
ht:          208144.028  cps
t Time:          5.37   min
Time:            5.85   min
```

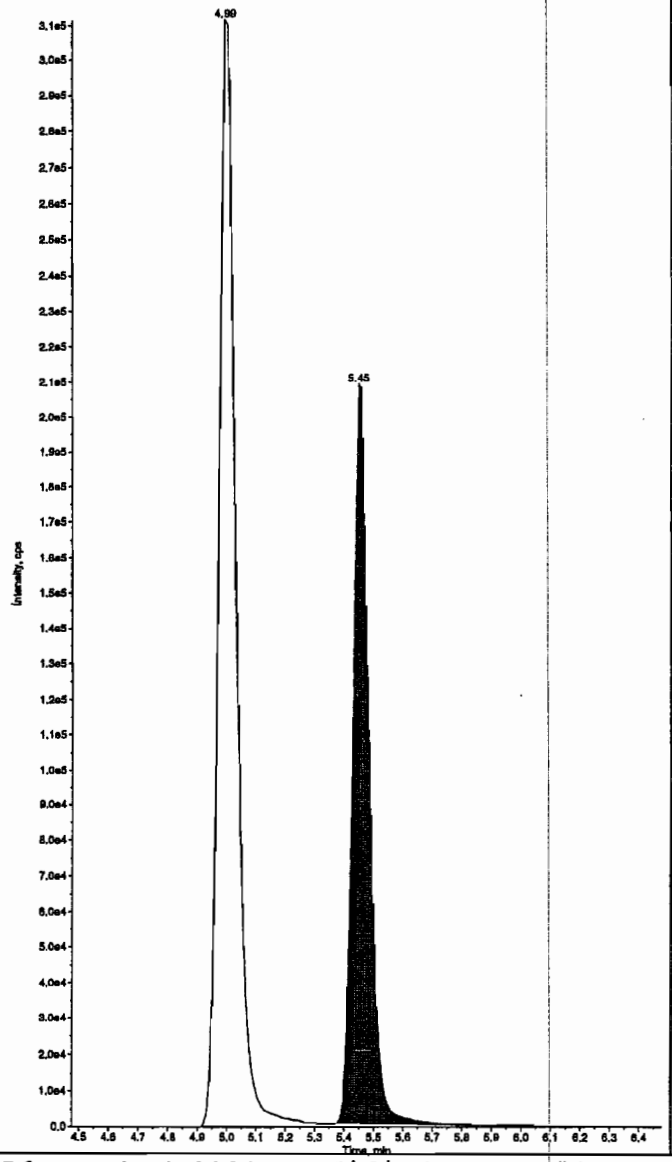

Sample Name: "1202047530" Sample ID: "955065|2|LER" File: "EXS03050099.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:       N/A
Calculated Conc:     521.     ng/mL
Acq. Date:        3/6/2010
Acq. Time:        6:46:29 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:         10.9   min
Use Relative RT:     No

Int. Type:        Valley
Retention Time:      10.8   min
Area:          8.72e+006   counts
Height:        2342339.600  cps
Start Time:          10.7   min
End Time:            11.2   min
```

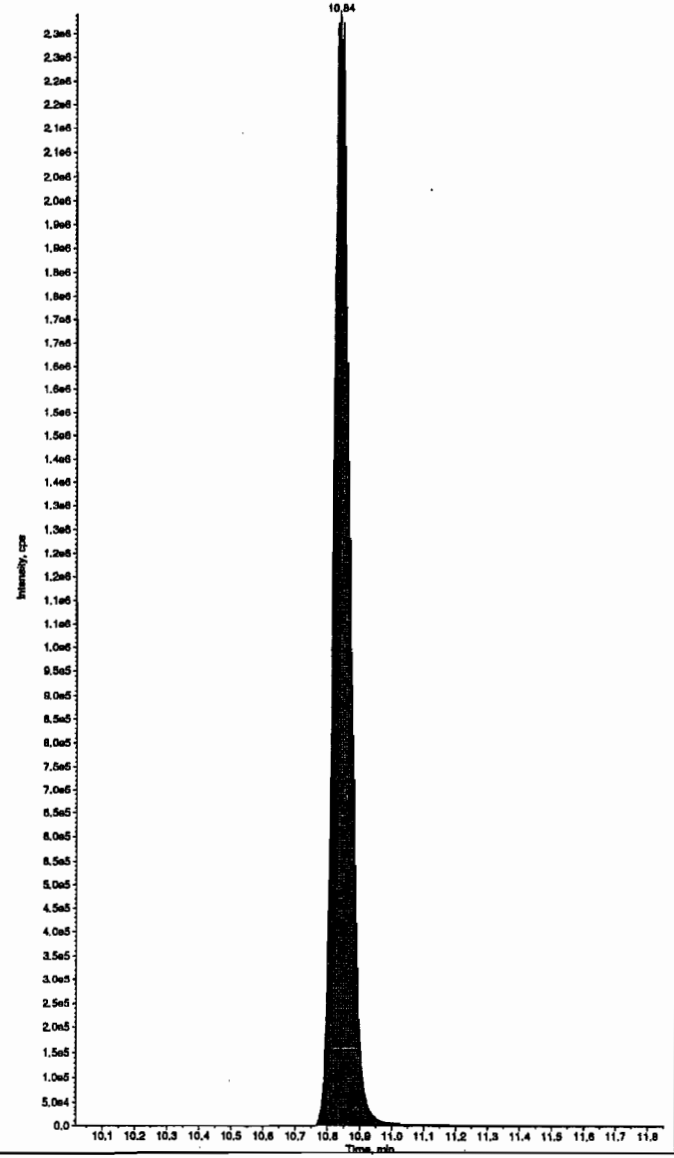

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: WST15-10-8941(247327002MS)

Lab Code: GEI

GEL Job No (SDG) 10-1898

Matrix: SOIL

GEL Sample ID: 1202047531

Sample Amount 2

Moisture: 7.8

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0314082a

Date Analyzed: 16-MAR-10 06:48

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5700	
121-14-2	2,4-Dinitrotoluene	4890	
121-82-4	RDX	5260	
19406-51-0	4-Amino-2,6-dinitrotoluene	5330	
2691-41-0	HMX	5810	
35572-78-2	2-Amino-4,6-dinitrotoluene	5990	
479-45-8	Tetryl	2530	
606-20-2	2,6-Dinitrotoluene	4850	
78-11-5	PETN	5150	
88-72-2	o-Nitrotoluene	4160	
98-95-3	Nitrobenzene	4740	
99-08-1	m-Nitrotoluene	4250	
99-35-4	1,3,5-Trinitrobenzene	4420	
99-65-0	m-Dinitrobenzene	4720	
99-99-0	p-Nitrotoluene	3900	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314082a
Date: 16-Mar-2010
Time: 06:48:09
ID: 1202047531 | LANC | 955065 | Soil | 2473270022US | 2 |
Vial: 3:1,E

MOT 3/17/10

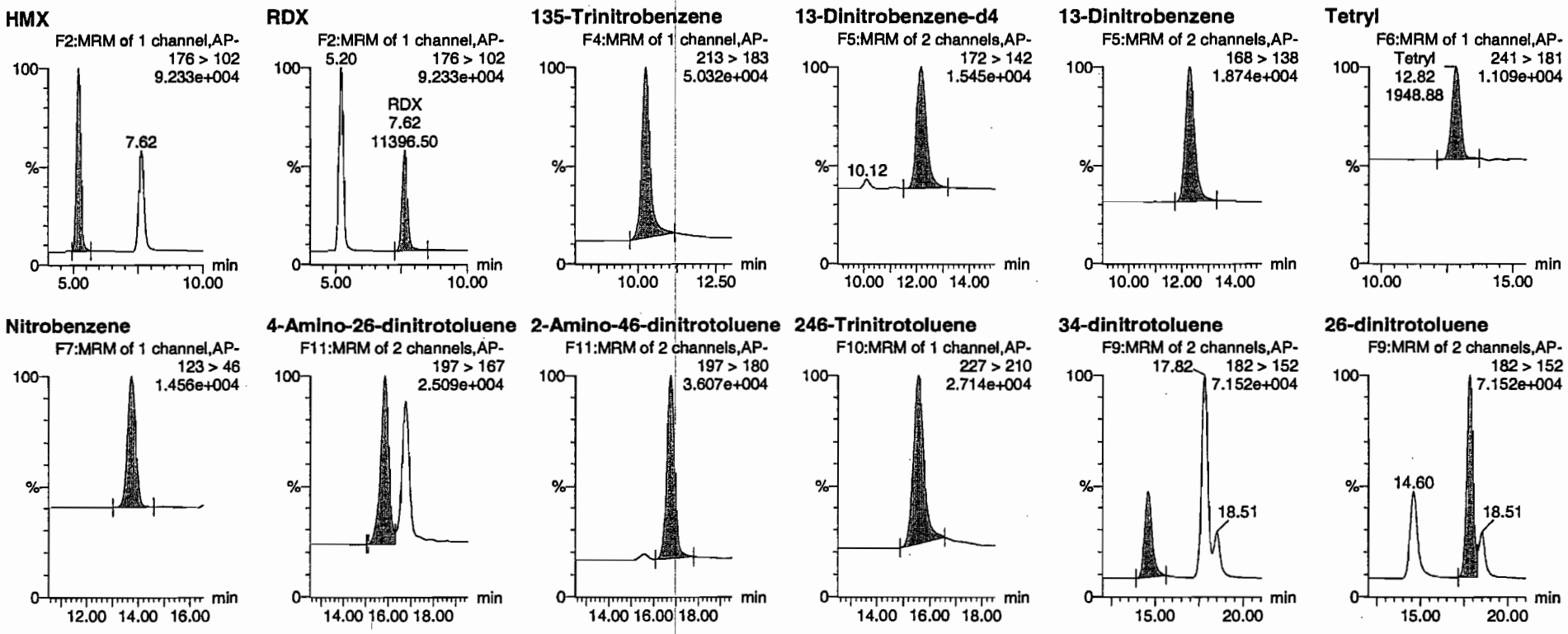

Hmm 03/17/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

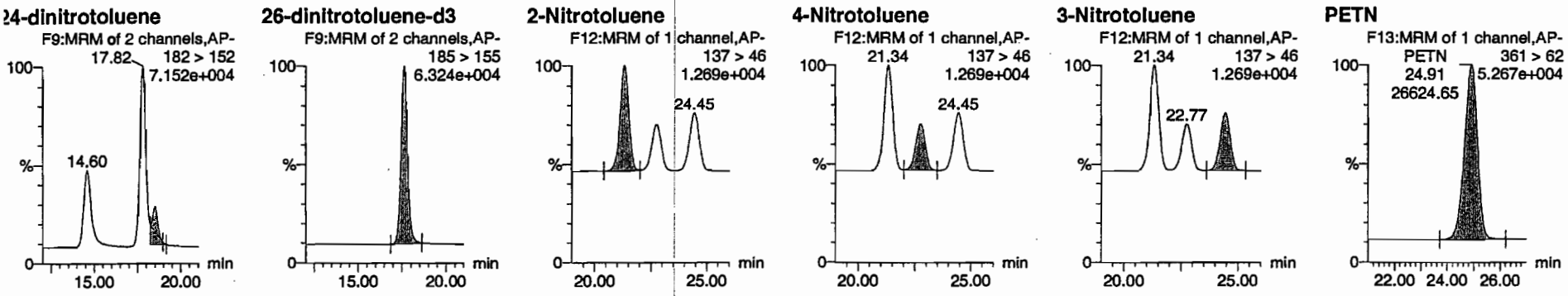

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
1202047531	HMX	176 > 102	5.20	17301.527	4072.207	17301.527	2124.343	db			581.1028	116.2	16.2	1811.1
1202047531	RDX	176 > 102	7.62	11396.498	4072.207	11396.498	1399.302	bb			526.2138	105.2	5.2	999.2
1202047531	135-Trinitrobenzene	213 > 183	10.25	13246.021	4072.207	13246.021	1626.393	bb			441.9637	88.4	-11.6	793.9
1202047531	13-Dinitrobenzene-d4	172 > 142	12.17	4072.207		4072.207	4072.207	bb			605.1831	121.0	21.0	367.9
1202047531	13-Dinitrobenzene	168 > 138	12.31	5108.351	4072.207	5108.351	627.221	bb			472.1142	94.4	-5.6	350.0
1202047531	Tetryl	241 > 181	12.82	1948.882	4072.207	1948.882	239.291	bb			252.6209	50.5	-49.5	152.9
1202047531	Nitrobenzene	123 > 46	13.76	3164.745	4072.207	3164.745	388.579	bb			473.6817	94.7	-5.3	308.5
1202047531	4-Amino-26-dinitrotoluene	197 > 167	15.86	8080.652	24341.492	8080.652	165.985	MM	17-Mar-10	12:31:31	533.2821	106.7	6.7	189.4
1202047531	2-Amino-46-dinitrotoluene	197 > 180	16.76	11987.687	24341.492	11987.687	246.240	bb			599.2471	119.8	19.8	713.8
1202047531	246-Trinitrotoluene	227 > 210	15.58	9468.560	24341.492	9468.560	194.494	bb			570.2352	114.0	14.0	239.3
1202047531	34-dinitrotoluene	182 > 152	14.60	13618.745	24341.492	13618.745	279.743	bb			290.1139	116.0	16.0	428.9
1202047531	26-dinitrotoluene	182 > 152	17.82	26571.258	24341.492	26571.258	545.802	MM	17-Mar-10	12:33:10	485.1233	97.0	-3.0	1013.1
1202047531	24-dinitrotoluene	182 > 152	18.51	5704.496	24341.492	5704.496	117.176	MM	17-Mar-10	12:35:06	489.2224	97.8	-2.2	216.3
1202047531	26-dinitrotoluene-d3	185 > 155	17.64	24341.492		24341.492	24341.492	bb			638.6951	127.7	27.7	2144.1
1202047531	2-Nitrotoluene	137 > 46	21.34	3069.932	24341.492	3069.932	63.060	bb			415.5561	83.1	-16.9	207.0
1202047531	4-Nitrotoluene	137 > 46	22.77	1451.503	24341.492	1451.503	29.815	bb			389.9671	78.0	-22.0	90.7
1202047531	3-Nitrotoluene	137 > 46	24.45	1894.189	24341.492	1894.189	38.909	bb			425.4544	85.1	-14.9	113.6
1202047531	PETN	361 > 62	24.91	26624.654	24341.492	26624.654	546.899	bb			514.9024	103.0	3.0	5196.3

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: WST15-10-8941(247327002MS)

Lab Code: GEL

GEL Job No (SDG) 10-1898

Matrix: SOIL

GEL Sample ID: 1202047531

Sample Amount 2

Moisture: 7.8

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03050101.wiff

Date Analyzed: 06-MAR-10 19:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	13800	
59229-75-3	2,6-Diamino-4-nitrotoluene	4430	
618-87-1	3,5-Dinitroaniline	5100	
6629-29-4	2,4-Diamino-6-nitrotoluene	3390	
78-30-8	tris(o-cresyl) phosphate	5110	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Scan 3/9/10

ample Name: "1202047531" Sample ID: "955065|2|LER" File: "EXS03050101.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 1380. ng/mL
. Date: 3/6/2010
. Time: 7:17:53 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.00 min
Relative RT: No

. Type: Valley
ention Time: 6.96 min
: 2.09e+006 counts
ght: 472131.256 cps
rt Time: 6.86 min
Time: 7.74 min

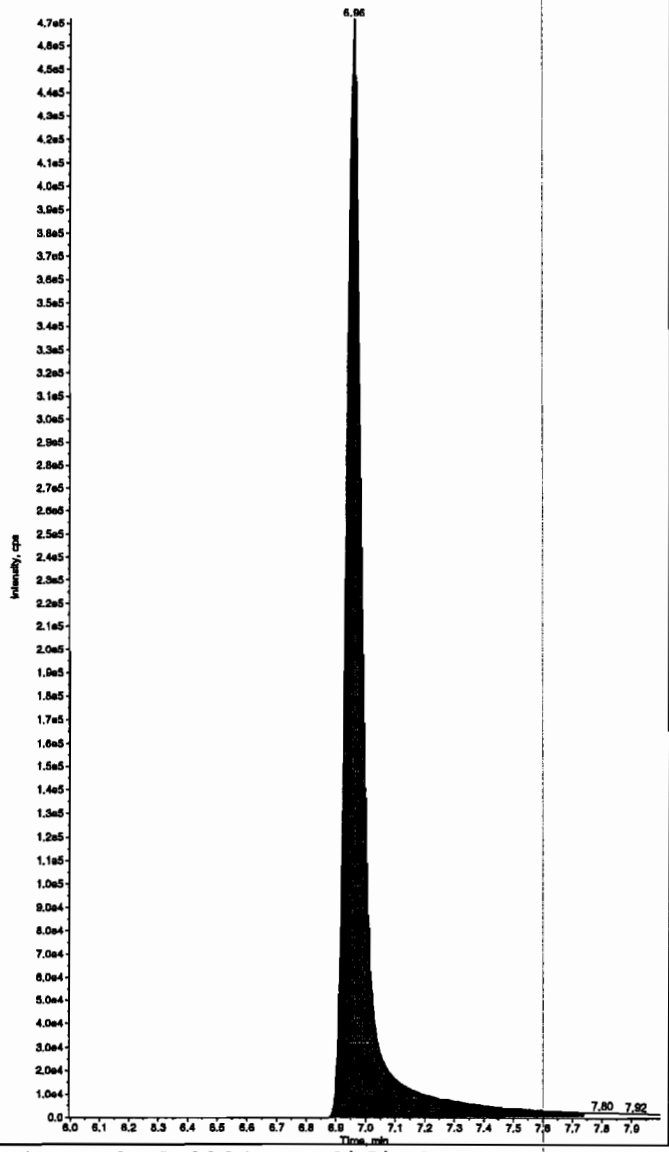

Sample Name: "1202047531" Sample ID: "955065|2|LER" File: "EXS03050101.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 510. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 7:17:53 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.20 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.20 min
Area: 4.16e+006 counts
Height: 1151744.141 cps
Start Time: 8.12 min
End Time: 8.30 min

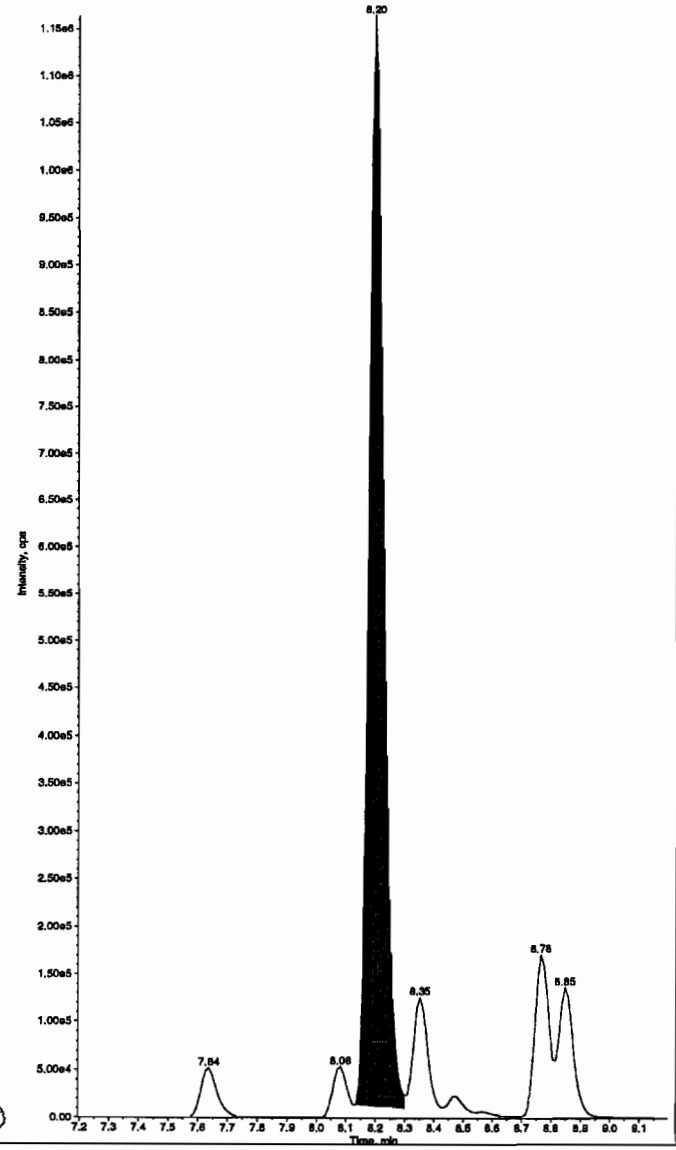

Hnm 03/09/10

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ample Name: "1202047531" Sample ID: "955065|2|LER" File: "EXS03050101.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212S" Annotation: ""

```
ple Index:        1
pla Type:      Unknown
centration:       N/A
culated Conc:     248.     ng/mL
. Date:        3/6/2010
. Time:        7:17:53 PM

ified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00    cps
. Peak Width:     0.00    sec
othing Width:  3        points
Window:          30.0    sec
ected RT:         8.37   min
Relative RT:      No

. Type:         Valley
ention Time:      8.35   min
a:          3.10e+006   counts
ght:          927102.722  cps
rt Time:          8.28   min
Time:             8.59   min
```

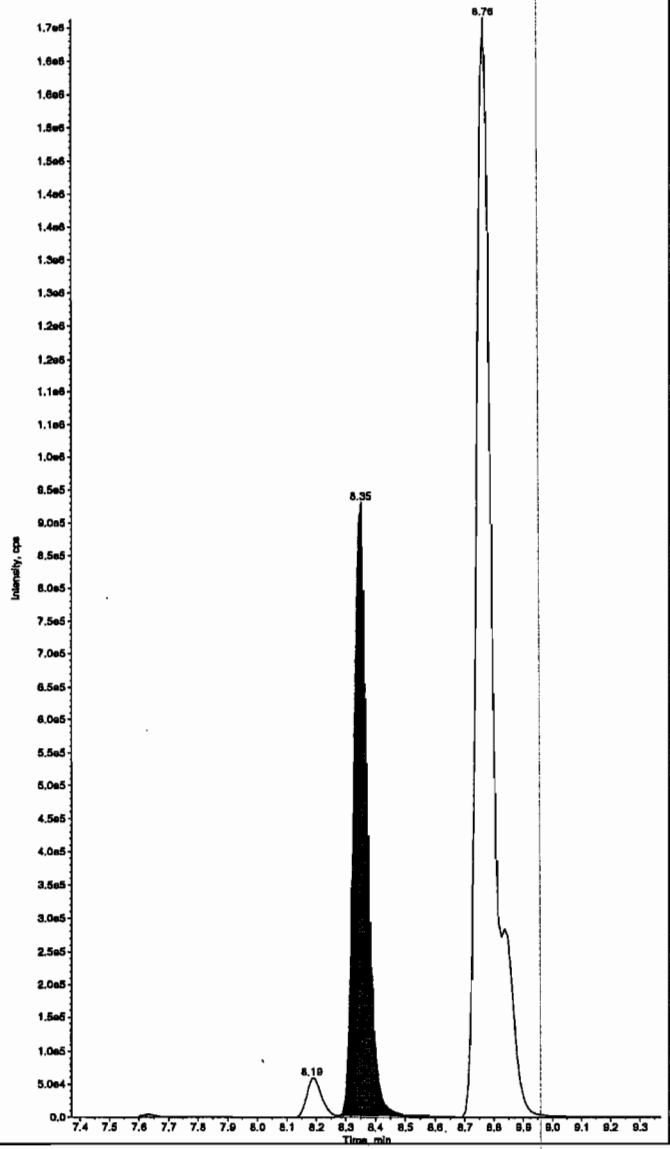

Sample Name: "1202047531" Sample ID: "955065|2|LER" File: "EXS03050101.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:       N/A
Calculated Conc:     443.     ng/mL
Acq. Date:        3/6/2010
Acq. Time:        7:17:53 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:         5.02   min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      4.98   min
Area:          1.17e+006   counts
Height:          285788.666  cps
Start Time:          4.88   min
End Time:            5.29   min
```

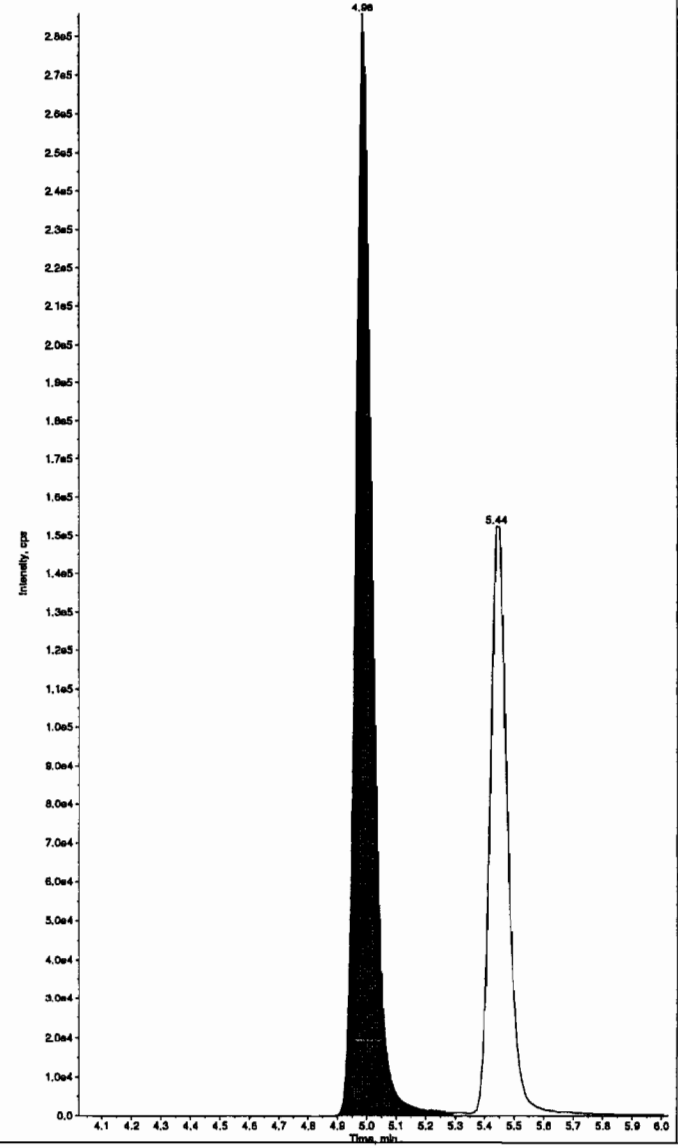

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

ample Name: "1202047531" Sample ID: "955065|2|LER" File: "EXS03050101.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCX83212S" Annotation: ""

```
ple Index:        1
ple Type:      Unknown
centration:       N/A
culated Conc:     339.     ng/mL
. Date:        3/6/2010
. Time:        7:17:53 PM

ified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00    cps
. Peak Width:    0.00    sec
othing Width:  3        points
Window:          30.0    sec
ected RT:         5.48   min
 Relative RT:     No

. Type:        Valley
ention Time:      5.44   min
a:          6.26e+005   counts
ght:          152071.487  cps
rt Time:          5.34   min
 Time:            5.90   min
```

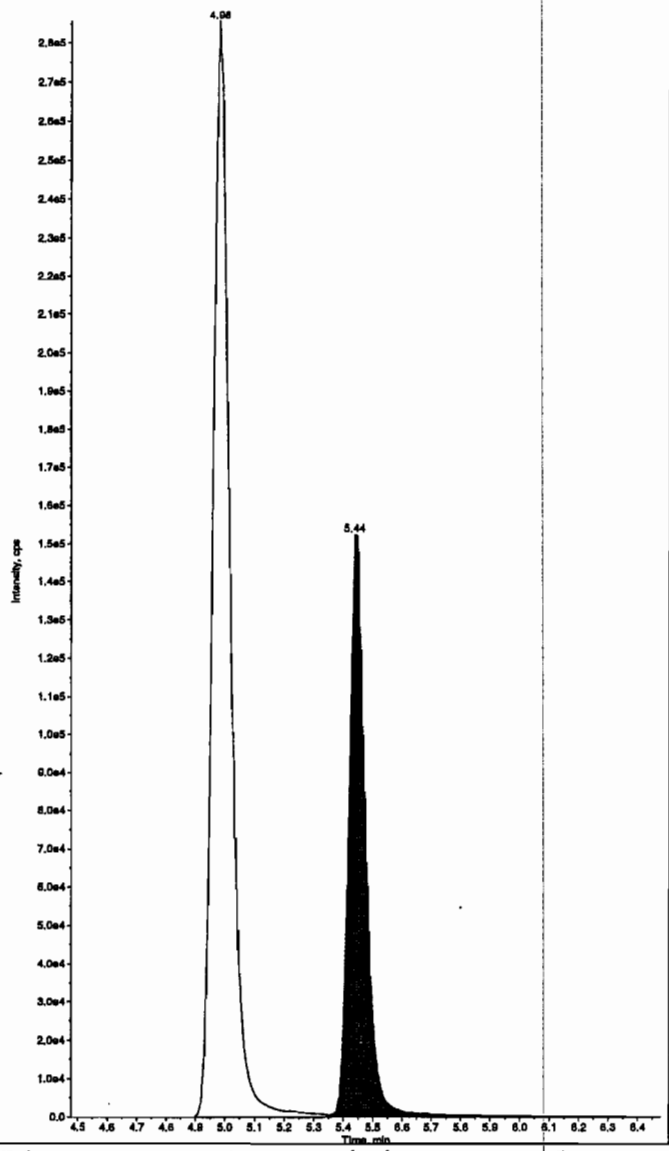

Sample Name: "1202047531" Sample ID: "955065|2|LER" File: "EXS03050101.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:       N/A
Calculated Conc:     511.     ng/mL
Acq. Date:        3/6/2010
Acq. Time:        7:17:53 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:        10.9    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.8    min
Area:          8.56e+006   counts
Height:        2377626.709  cps
Start Time:         10.7    min
End Time:           11.2    min
```

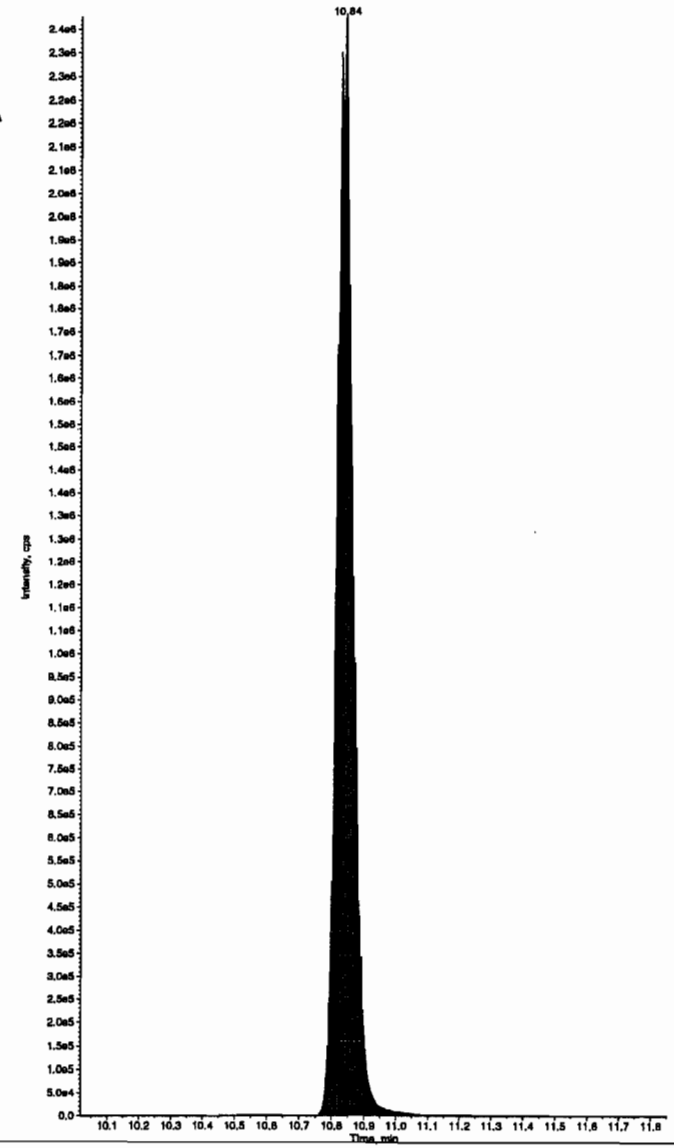

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: WST15-10-8941(247327002MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1898

Matrix: SOIL

GEL Sample ID: 1202047532

Sample Amount 2

Moisture: 7.8

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0314083a

Date Analyzed: 16-MAR-10 07:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4680	
121-14-2	2,4-Dinitrotoluene	5320	
121-82-4	RDX	5990	
19406-51-0	4-Amino-2,6-dinitrotoluene	4830	
2691-41-0	HMX	5490	
35572-78-2	2-Amino-4,6-dinitrotoluene	5200	
479-45-8	Tetryl	1770	
606-20-2	2,6-Dinitrotoluene	4830	
78-11-5	PETN	5600	
88-72-2	o-Nitrotoluene	4060	
98-95-3	Nitrobenzene	4770	
99-08-1	m-Nitrotoluene	4010	
99-35-4	1,3,5-Trinitrobenzene	4420	
99-65-0	m-Dinitrobenzene	4510	
99-99-0	p-Nitrotoluene	3990	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0314083a
Date: 16-Mar-2010
Time: 07:17:36
ID: 1202047532 | LANW | 955065 | Solid | 247327002MSD | 2 |
Vial: 3:1,F

MAP 3/17/10

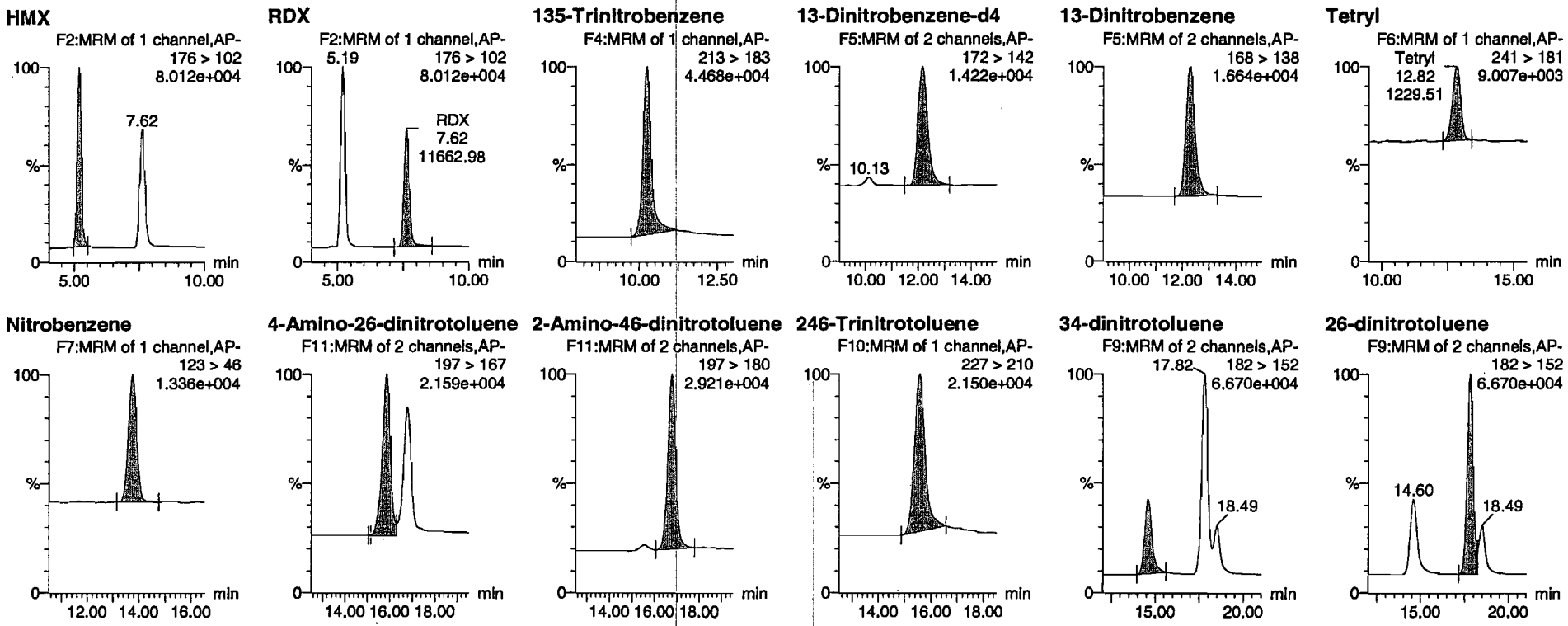

HMW 03/17/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\031410expA2.qld, Time: Wed Mar 17 12:35:29 2010

24-dinitrotoluene

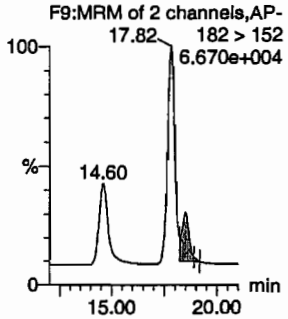

26-dinitrotoluene-d3

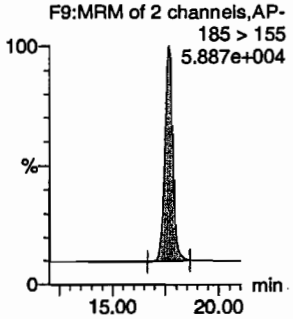

2-Nitrotoluene

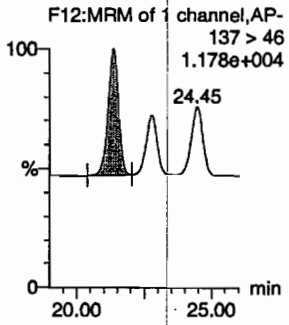

4-Nitrotoluene

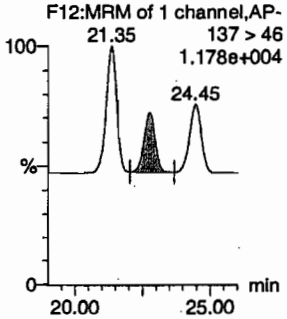

3-Nitrotoluene

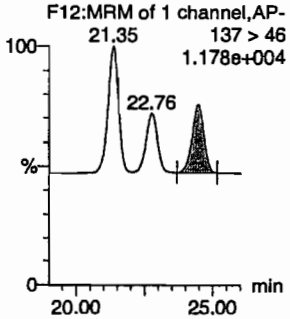

PETN

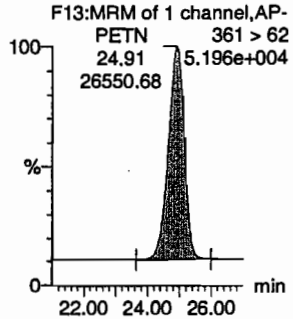

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
1202047532	HMX	176 > 102	5.19	14689.142	3659.986	14689.142	2006.721	bb			548.9280	109.8	9.8	1278.6
1202047532	RDX	176 > 102	7.62	11662.979	3659.986	11662.979	1593.309	bb			599.1709	119.8	19.8	841.2
1202047532	135-Trinitrobenzene	213 > 183	10.25	11894.454	3659.986	11894.454	1624.932	bb			441.5664	88.3	-11.7	382.0
1202047532	13-Dinitrobenzene-d4	172 > 142	12.17	3659.986		3659.986	3659.986	bb			543.9217	108.8	8.8	500.9
1202047532	13-Dinitrobenzene	168 > 138	12.31	4382.230	3659.986	4382.230	598.668	bb			450.6215	90.1	-9.9	262.7
1202047532	Tetryl	241 > 181	12.82	1229.506	3659.986	1229.506	167.966	bb			177.3229	35.5	-64.5	81.2
1202047532	Nitrobenzene	123 > 46	13.76	2863.558	3659.986	2863.558	391.198	bb			476.8748	95.4	-4.6	185.3
1202047532	4-Amino-26-dinitrotoluene	197 > 167	15.86	6770.716	22509.689	6770.716	150.396	MM	17-Mar-10	12:31:44	483.1955	96.6	-3.4	236.5
1202047532	2-Amino-46-dinitrotoluene	197 > 180	16.76	9626.565	22509.689	9626.565	213.832	bb			520.3788	104.1	4.1	481.4
1202047532	246-Trinitrotoluene	227 > 210	15.58	7192.255	22509.689	7192.255	159.759	bb			468.3957	93.7	-6.3	479.2
1202047532	34-dinitrotoluene	182 > 152	14.60	10997.940	22509.689	10997.940	244.293	bb			253.3497	101.3	1.3	141.7
1202047532	26-dinitrotoluene	182 > 152	17.82	24485.668	22509.689	24485.668	543.892	MM	17-Mar-10	12:33:18	483.4257	96.7	-3.3	380.9
1202047532	24-dinitrotoluene	182 > 152	18.49	5734.189	22509.689	5734.189	127.372	MM	17-Mar-10	12:34:54	531.7883	106.4	6.4	88.1
1202047532	26-dinitrotoluene-d3	185 > 155	17.64	22509.689		22509.689	22509.689	bb			590.6305	118.1	18.1	2414.1
1202047532	2-Nitrotoluene	137 > 46	21.35	2774.511	22509.689	2774.511	61.629	bb			406.1300	81.2	-18.8	607.5
1202047532	4-Nitrotoluene	137 > 46	22.76	1371.803	22509.689	1371.803	30.471	bb			398.5470	79.7	-20.3	282.7
1202047532	3-Nitrotoluene	137 > 46	24.45	1651.699	22509.689	1651.699	36.689	bb			401.1791	80.2	-19.8	327.2
1202047532	PETN	361 > 62	24.91	26550.684	22509.689	26550.684	589.761	bb			559.9394	112.0	12.0	12206.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: WST15-10-8941(247327002MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1898

Matrix: SOIL

GEL Sample ID: 1202047532

Sample Amount 2

Moisture: 7.8

Amount Units g

Date Received: 18-FEB-10

Extraction Type Sonication

Extraction Batch ID: 955064

Concentrated Extract Volume (mL) 10

Date Extracted: 24-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03050102.wiff

Date Analyzed: 06-MAR-10 19:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5530	
59229-75-3	2,6-Diamino-4-nitrotoluene	4440	
618-87-1	3,5-Dinitroaniline	5430	
6629-29-4	2,4-Diamino-6-nitrotoluene	3310	
78-30-8	tris(o-cresyl) phosphate	5160	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sun 3/9/10

ample Name: "1202047532" Sample ID: "955065|2|LER" File: "EXS03050102.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
ncentration: N/A
culated Conc: 553. ng/mL
. Date: 3/6/2010
. Time: 7:33:34 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.00 min
Relative RT: No

. Type: Valley
ention Time: 6.96 min
a: 7.97e+005 counts
ght: 180423.386 cps
rt Time: 6.85 min
. Time: 7.95 min

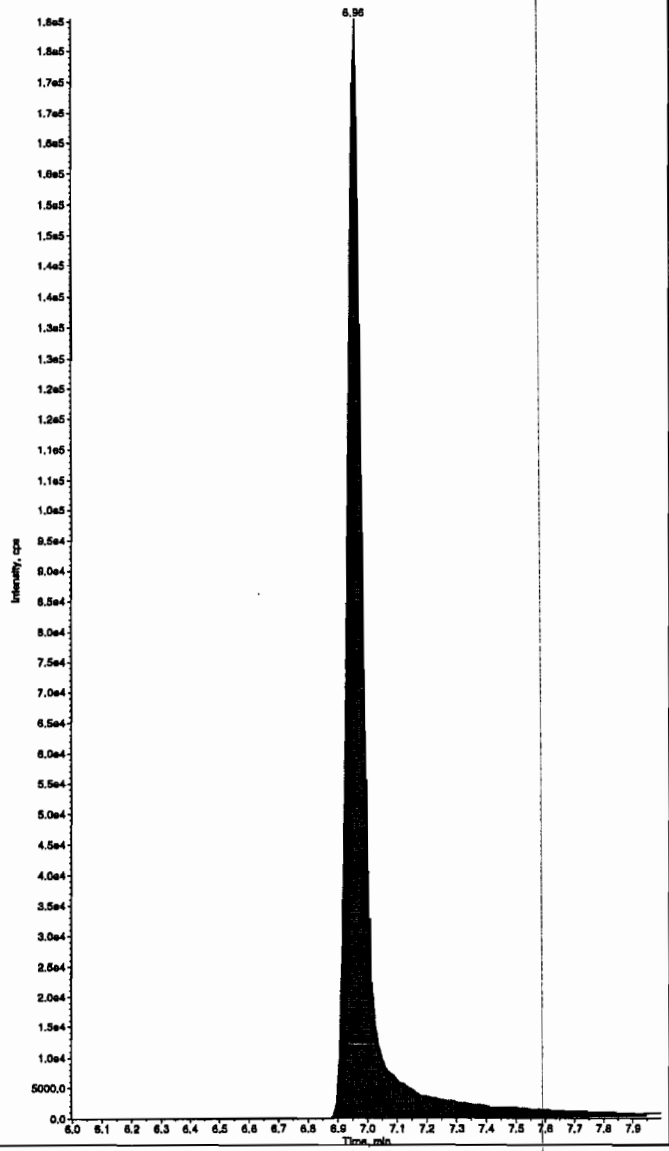

Sample Name: "1202047532" Sample ID: "955065|2|LER" File: "EXS03050102.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 543. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 7:33:34 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.20 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.20 min
Area: 4.41e+006 counts
Height: 1176424.927 cps
Start Time: 8.12 min
End Time: 8.30 min

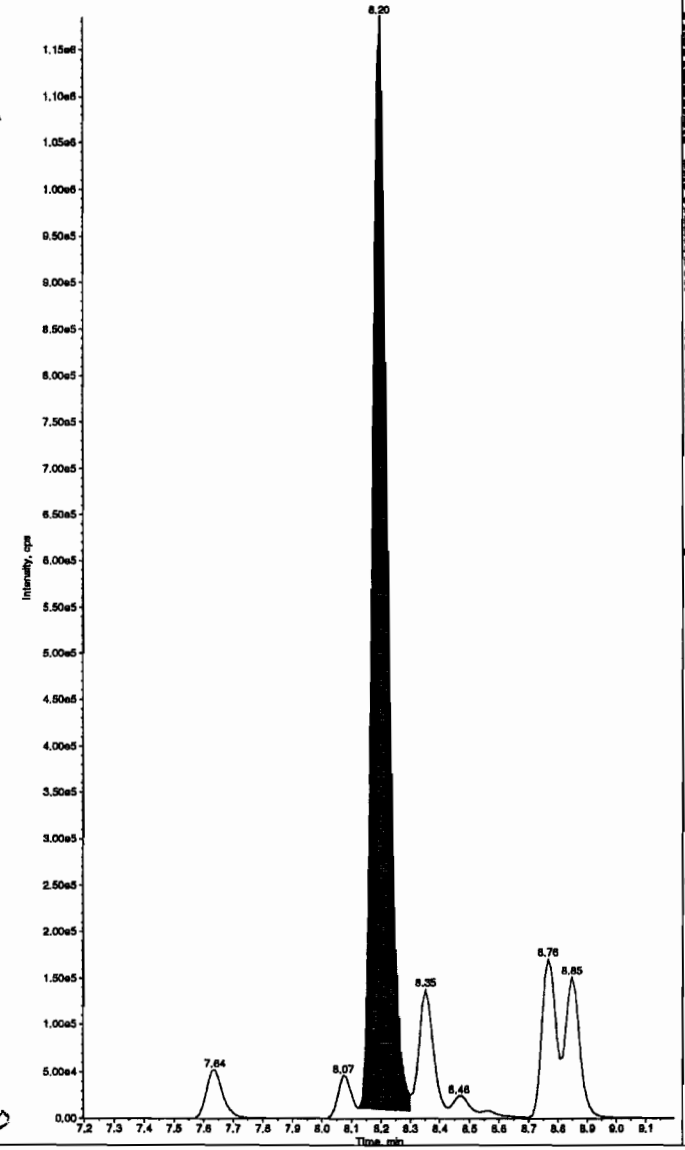

HMM 03/09/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202047532" Sample ID: "955065|2|LER" File: "EXS03050102.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

ple Index: 1
ple Type: Unknown
ncentration: N/A
lculated Conc: 261. ng/mL
q. Date: 3/6/2010
q. Time: 7:33:34 PM

ified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 8.37 min
Relative RT: No

t. Type: Valley
tention Time: 8.35 min
ea: 3.25e+006 counts
ight: 947753.967 cps
rt Time: 8.28 min
d Time: 8.59 min

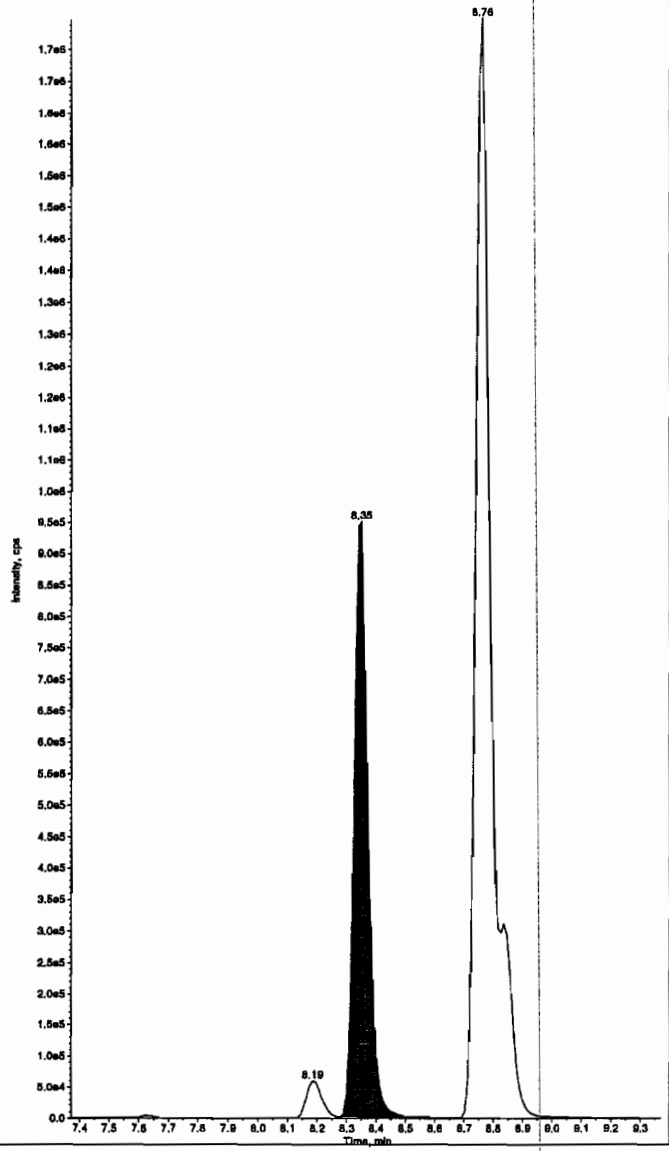

Sample Name: "1202047532" Sample ID: "955065|2|LER" File: "EXS03050102.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 444. ng/mL
Acq. Date: 3/6/2010
Acq. Time: 7:33:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.98 min
Area: 1.17e+006 counts
Height: 297219.208 cps
Start Time: 4.88 min
End Time: 5.24 min

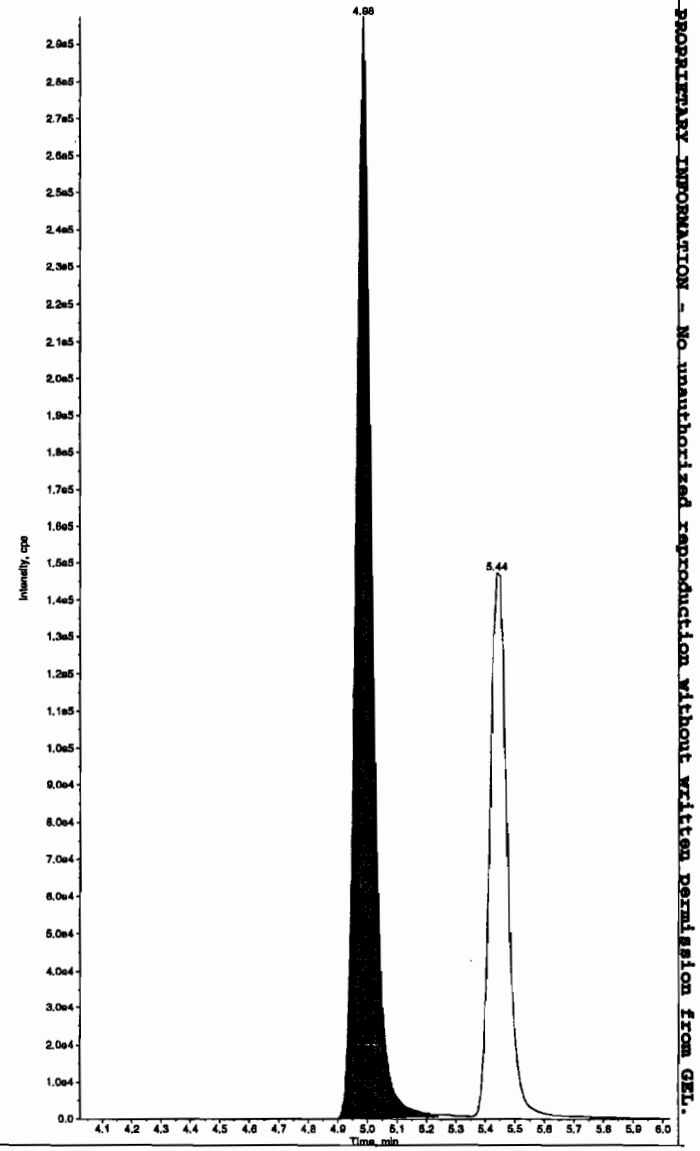

Sample Name: "1202047532" Sample ID: "955065|2|LER" File: "EXS03050102.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

mple Index:	1
mple Type:	Unknown
ncentration:	N/A
lculated Conc:	331. ng/mL
q. Date:	3/6/2010
q. Time:	7:33:34 PM
dified:	No
oc. Algorithm:	IntelliQuan - IQA
n. Peak Height:	350.00 cps
n. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	30.0 sec
pected RT:	5.48 min
e Relative RT:	No
t. Type:	Valley
tention Time:	5.44 min
ea:	6.12e+005 counts
ight:	147129.059 cps
art Time:	5.34 min
d Time:	6.00 min

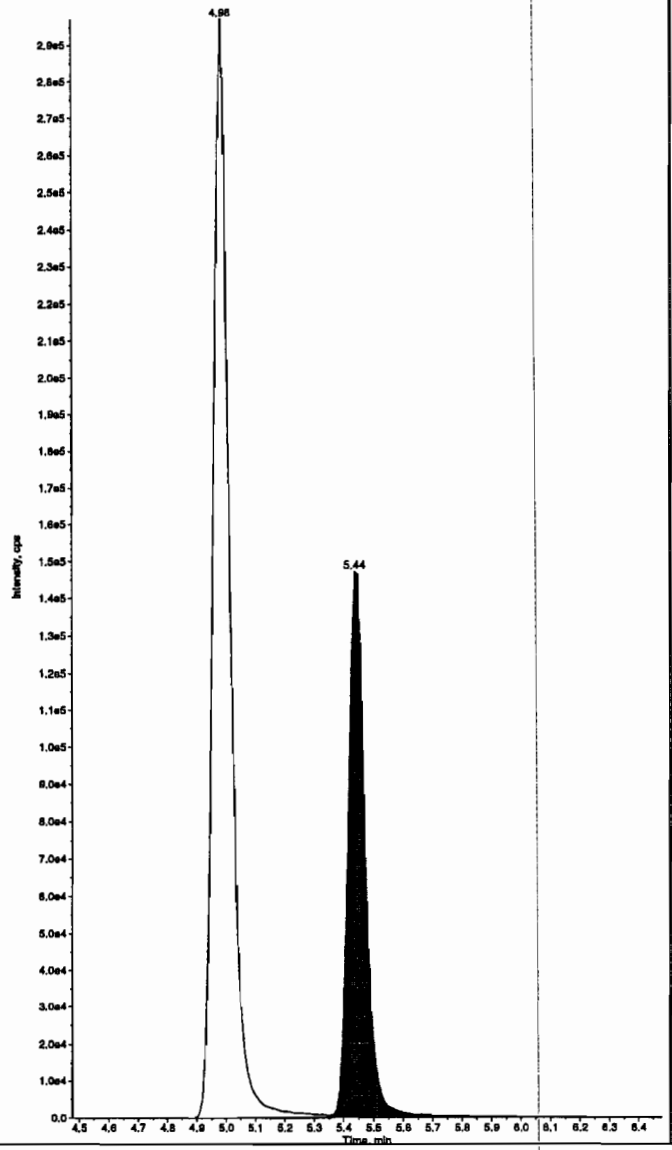

Sample Name: "1202047532" Sample ID: "955065|2|LER" File: "EXS03050102.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	516. ng/mL
Acq. Date:	3/6/2010
Acq. Time:	7:33:34 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.9 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.8 min
Area:	8.64e+006 counts
Height:	2363520.752 cps
Start Time:	10.7 min
End Time:	11.2 min

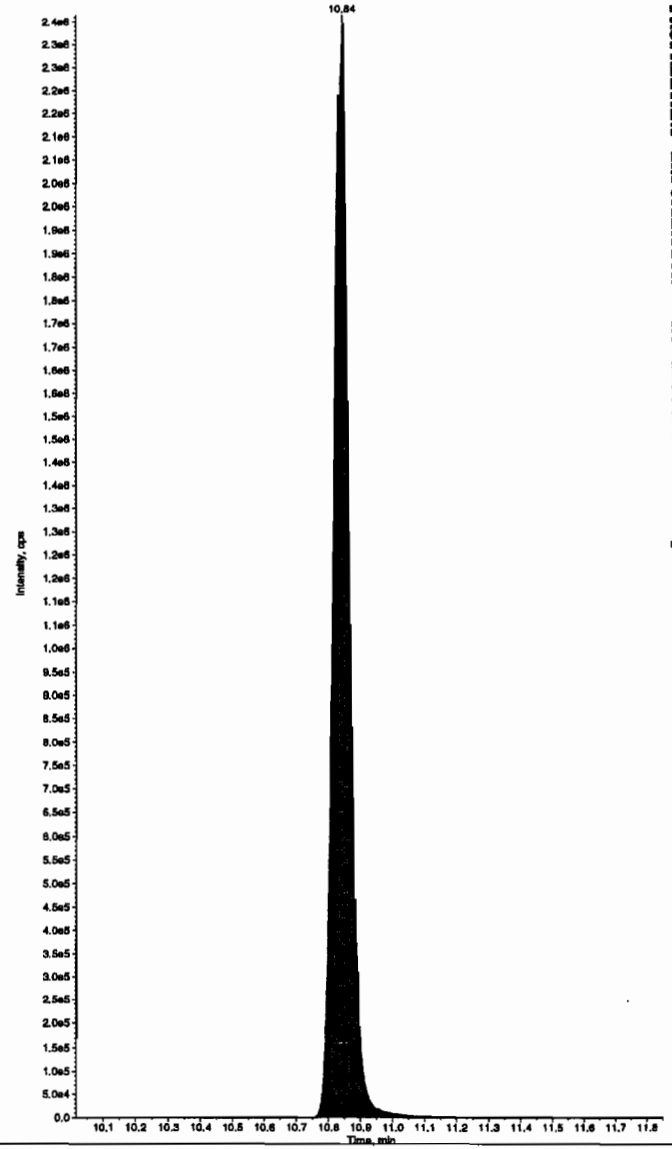

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MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 955064 **Verified by:** _____
Analyst: Sirena White
Method: SW846 8330 PREP

Lab SOP: GL-OA-E-033 REV# 17
Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202047529 MB	24-FEB-2010 15:24:00	2	10	5
1202047530 LCS	24-FEB-2010 15:24:00	2	10	5
247327002	24-FEB-2010 15:24:00	2	10	5
1202047531 MS (247327002)	24-FEB-2010 15:24:00	2	10	5
1202047532 MSD (247327002)	24-FEB-2010 15:24:00	2	10	5
247346001	24-FEB-2010 15:24:00	2	10	5
247346002	24-FEB-2010 15:24:00	2	10	5
247346003	24-FEB-2010 15:24:00	2	10	5
247346004	24-FEB-2010 15:24:00	2	10	5
247346005	24-FEB-2010 15:24:00	2	10	5
247346006	24-FEB-2010 15:24:00	2	10	5
247346007	24-FEB-2010 15:24:00	2	10	5
247346008	24-FEB-2010 15:24:00	2	10	5
247358001	24-FEB-2010 15:24:00	2	10	5
247358002	24-FEB-2010 15:24:00	2	10	5
247358003	24-FEB-2010 15:24:00	2	10	5
247358004	24-FEB-2010 15:24:00	2	10	5

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202047530	8321 Explosives LCS	IXX100208-03	.1	mL
LCS	1202047530	8321 LANL Explosives Mix 10mg/L	UXX100210-02.4	1	mL
MS	1202047531	8321 Explosives LCS	IXX100208-03	.1	mL
MS	1202047531	8321 LANL Explosives Mix 10mg/L	UXX100210-02.4	1	mL
MSD	1202047532	8321 Explosives LCS	IXX100208-03	.1	mL
MSD	1202047532	8321 LANL Explosives Mix 10mg/L	UXX100210-02.4	1	mL
SURR	All	3,4-Dinitrotoluene (8330 Surr.) 100ppm	IXP100223-02	.05	mL

Comments:

Final Solvent: ACN

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 03/14/10
Extr. Injection Volume: 50uL
Sequence Number: 031410expA
Initial Calibration Date: 03/14/10

Method: SW846 8321A-Modified
Int. Std.: UXX100220-02.2
Mobile Phase Lot#: 1283854, 1281642
Standard-Samp Reagent Lot#: 1283379, 1271949

Reviewed BY: [illegible]
Date: 03/17/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100314-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0314001a	XIBLK01	MAP	3/14/10 14:59			1		USE	B
EXP0314002a	XIBLK01	MAP	3/14/10 15:28			1		USE	B
EXP0314003a	WXXICAL-01	MAP	3/14/10 15:57			1		USE	I
EXP0314004a	WXXICAL-02	MAP	3/14/10 16:27			1		USE	I
EXP0314005a	WXXICAL-03	MAP	3/14/10 16:56			1		USE	I
EXP0314006a	WXXICAL-04	MAP	3/14/10 17:26			1		USE	I
EXP0314007a	WXXICAL-05	MAP	3/14/10 17:55			1		USE	I
EXP0314008a	WXXICAL-06	MAP	3/14/10 18:25			1		USE	I
EXP0314009a	XIBLK02	MAP	3/14/10 18:54			1		USE	B
EXP0314010a	WXXICV	MAP	3/14/10 19:24			1		USE	C
EXP0314011a	XIBLK03	MAP	3/14/10 19:53			1		USE	B
EXP0314012a	WXXCRI	MAP	3/14/10 20:23			1		USE	C
EXP0314013a	1202052406	MAP	3/14/10 20:52	957200	Various	2	LANL	USE	S
EXP0314014a	1202052407	MAP	3/14/10 21:22	957200	Various	2	LANL	USE	S
EXP0314015a	247784002	MAP	3/14/10 21:51	957200	10-1979	2	LANL	USE	S
EXP0314016a	247790002	MAP	3/14/10 22:21	957200	10-1981	2	LANL	USE	S
EXP0314017a	247790003	MAP	3/14/10 22:50	957200	10-1981	2	LANL	USE	S
EXP0314018a	247791002	MAP	3/14/10 23:20	957200	10-1982	2	LANL	USE	S
EXP0314019a	247791003	MAP	3/14/10 23:49	957200	10-1982	2	LANL	USE	S
EXP0314020a	247791004	MAP	3/15/10 0:19	957200	10-1982	2	LANL	USE	S
EXP0314021a	247791005	MAP	3/15/10 0:48	957200	10-1982	2	LANL	USE	S
EXP0314022a	247791006	MAP	3/15/10 1:17	957200	10-1982	2	LANL	USE	S
EXP0314023a	WXXCCV	MAP	3/15/10 1:47			1		USE	C
EXP0314024a	XIBLK04	MAP	3/15/10 2:17			1		USE	B
EXP0314025a	WXXCRI	MAP	3/15/10 2:46			1		USE	C
EXP0314026a	247799001	MAP	3/15/10 3:15	957200	10-1990	2	LANL	USE	S
EXP0314027a	1202052408	MAP	3/15/10 3:45	957200	10-1990	2	LANL	USE	S
EXP0314028a	1202052409	MAP	3/15/10 4:14	957200	10-1990	2	LANL	USE	S
EXP0314029a	247799002	MAP	3/15/10 4:44	957200	10-1990	2	LANL	USE	S

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EXP0314030a	247799003	MAP	3/15/10 5:13	957200	10-1990	2	LANL	USE	S
EXP0314031a	247799004	MAP	3/15/10 5:43	957200	10-1990	2	LANL	USE	S
EXP0314032a	247799005	MAP	3/15/10 6:12	957200	10-1990	2	LANL	USE	S
EXP0314033a	247799006	MAP	3/15/10 6:42	957200	10-1990	2	LANL	USE	S
EXP0314034a	247799007	MAP	3/15/10 7:11	957200	10-1990	2	LANL	USE	S
EXP0314035a	247799008	MAP	3/15/10 7:41	957200	10-1990	2	LANL	USE	S
EXP0314036a	WXXCCV	MAP	3/15/10 8:10			1		USE	C
EXP0314037a	XIBLK05	MAP	3/15/10 8:40			1		USE	B
EXP0314038a	WXXCRI	MAP	3/15/10 9:09			1		USE	C
EXP0314039a	247799009	MAP	3/15/10 9:39	957200	10-1990	2	LANL	USE	S
EXP0314040a	247799010	MAP	3/15/10 10:08	957200	10-1990	2	LANL	USE	S
EXP0314041a	XIBLK06	MAP	3/15/10 10:38			1	LANL	USE	B
EXP0314042a	1202045802	MAP	3/15/10 11:07	954361	10-1839	2	LANL	USE	S
EXP0314043a	1202045803	MAP	3/15/10 11:37	954361	10-1839	2	LANL	USE	S
EXP0314044a	247116002	MAP	3/15/10 12:07	954361	10-1839	2	LANL	USE	S
EXP0314045a	1202045804	MAP	3/15/10 12:36	954361	10-1839	2	LANL	USE	S
EXP0314046a	1202045805	MAP	3/15/10 13:06	954361	10-1839	2	LANL	USE	S
EXP0314047a	247116003	MAP	3/15/10 13:35	954361	10-1839	2	LANL	USE	S
EXP0314048a	247116004	MAP	3/15/10 14:04	954361	10-1839	2	LANL	USE	S
EXP0314049a	WXXCCV	MAP	3/15/10 14:34			1		USE	C
EXP0314050a	XIBLK07	MAP	3/15/10 15:04			1		USE	B
EXP0314051a	WXXCRI	MAP	3/15/10 15:33			1		USE	C
EXP0314052a	247116006	MAP	3/15/10 16:03	954361	10-1839	2	LANL	USE	S
EXP0314053a	247116007	MAP	3/15/10 16:32	954361	10-1839	2	LANL	USE	S
EXP0314054a	247116008	MAP	3/15/10 17:02	954361	10-1839	2	LANL	USE	S
EXP0314055a	247116009	MAP	3/15/10 17:31	954361	10-1839	2	LANL	USE	S
EXP0314056a	247116010	MAP	3/15/10 18:01	954361	10-1839	2	LANL	USE	S
EXP0314057a	247116011	MAP	3/15/10 18:30	954361	10-1839	2	LANL	USE	S
EXP0314058a	247116012	MAP	3/15/10 19:00	954361	10-1839	2	LANL	USE	S
EXP0314059a	247116013	MAP	3/15/10 19:29	954361	10-1839	2	LANL	USE	S
EXP0314060a	247116014	MAP	3/15/10 19:59	954361	10-1839	2	LANL	USE	S
EXP0314061a	247116015	MAP	3/15/10 20:28	954361	10-1839	2	LANL	USE	S
EXP0314062a	WXXCCV	MAP	3/15/10 20:58			1		USE	C
EXP0314063a	XIBLK08	MAP	3/15/10 21:27			1		USE	B
EXP0314064a	WXXCRI	MAP	3/15/10 21:57			1		USE	C
EXP0314065a	247116016	MAP	3/15/10 22:26	954361	10-1839	2	LANL	USE	S
EXP0314066a	247116017	MAP	3/15/10 22:56	954361	10-1839	2	LANL	USE	S

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EXP0314067a	1202041915	MAP	3/15/10 23:25	952684	Various	2	LANL	DUSE	S
EXP0314068a	XIBLK09	MAP	3/15/10 23:55			1		USE	B
EXP0314069a	1202055082	MAP	3/16/10 0:24	958286	Various	2	LANL	USE	S
EXP0314070a	1202055083	MAP	3/16/10 0:54	958286	Various	2	LANL	USE	S
EXP0314071a	248040007	MAP	3/16/10 1:23	958286	10-2051	2	LANL	USE	S
EXP0314072a	1202055084	MAP	3/16/10 1:53	958286	10-2051	2	LANL	USE	S
EXP0314073a	1202055085	MAP	3/16/10 2:22	958286	10-2051	2	LANL	DUSE-RA	S
EXP0314074a	248259006	MAP	3/16/10 2:52	958286	10-2148	2	LANL	USE-DL	S
EXP0314075a	WXXCCV	MAP	3/16/10 3:21			1		USE	C
EXP0314076a	XIBLK10	MAP	3/16/10 3:51			1		USE	B
EXP0314077a	WXXCRI	MAP	3/16/10 4:20			1		USE	C
EXP0314078a	1202047529	MAP	3/16/10 4:50	955065	Various	2	LANL	USE	S
EXP0314079a	1202047530	MAP	3/16/10 5:19	955065	Various	2	LANL	USE	S
EXP0314080a	247327002	MAP	3/16/10 5:49	955065	10-1898	100	LANL	DUSE	S
EXP0314081a	247327002	MAP	3/16/10 6:18	955065	10-1898	2	LANL	USE	S
EXP0314082a	1202047531	MAP	3/16/10 6:48	955065	10-1898	2	LANL	USE	S
EXP0314083a	1202047532	MAP	3/16/10 7:17	955065	10-1898	2	LANL	USE	S
EXP0314084a	XIBLK15	MAP	3/16/10 7:47			1		USE	B
EXP0314085a	247346001	MAP	3/16/10 8:16	955065	10-1911	2	LANL	USE	S
EXP0314086a	247346002	MAP	3/16/10 8:46	955065	10-1911	2	LANL	USE	S
EXP0314087a	247346003	MAP	3/16/10 9:15	955065	10-1911	2	LANL	USE	S
EXP0314088a	WXXCCV	MAP	3/16/10 9:45			1		USE	C
EXP0314089a	XIBLK11	MAP	3/16/10 10:14			1		USE	B
EXP0314090a	WXXCRI	MAP	3/16/10 10:44			1		USE	C
EXP0314091a	247346004	MAP	3/16/10 13:13	955065	10-1911	2	LANL	DUSE	S
EXP0314092a	247346005	MAP	3/16/10 13:42	955065	10-1911	2	LANL	DUSE	S
EXP0314093a	247346006	MAP	3/16/10 14:11	955065	10-1911	2	LANL	DUSE	S
EXP0314094a	247346007	MAP	3/16/10 14:41	955065	10-1911	2	LANL	DUSE	S
EXP0314095a	247346008	MAP	3/16/10 15:10	955065	10-1911	2	LANL	DUSE	S
EXP0314096a	247358001	MAP	3/16/10 15:40	955065	10-1914	2	LANL	DUSE	S
EXP0314097a	247358002	MAP	3/16/10 16:10	955065	10-1914	2	LANL	DUSE	S
EXP0314098a	247358003	MAP	3/16/10 16:39	955065	10-1914	2	LANL	DUSE	S
EXP0314099a	247358004	MAP	3/16/10 17:08	955065	10-1914	2	LANL	DUSE	S
EXP0314100a	247358004	MAP	3/16/10 17:41	955065	10-1914	2	LANL	DUSE	S
EXP0314101a	WXXCCV	MAP	3/16/10 18:11			1		DUSE	C
EXP0314102a	XIBLK12	MAP	3/16/10 18:40			1		DUSE	B
EXP0314103a	WXXCRI	MAP	3/16/10 19:10			1		DUSE	C

EXP0314104a	248259006	MAP	3/16/10 19:39	958286	10-2148	10	LANL	DUSE	S
EXP0314105a	1202055085	MAP	3/16/10 20:09	958286	10-2051	2	LANL	DUSE	S
EXP0314106a	XIBLK13	MAP	3/16/10 20:38			1		DUSE	B
EXP0314107a	1202049901	MAP	3/16/10 21:08	956045	Various	2	LANL	DUSE	S
EXP0314108a	1202049902	MAP	3/16/10 21:37	956045	Various	2	LANL	DUSE	S
EXP0314109a	247421002	MAP	3/16/10 22:07	956045	10-1920	2	LANL	DUSE	S
EXP0314110a	1202049903	MAP	3/16/10 22:36	956045	10-1920	2	LANL	DUSE	S
EXP0314111a	1202049904	MAP	3/16/10 23:06	956045	10-1920	2	LANL	DUSE	S
EXP0314112a	247421003	MAP	3/16/10 23:35	956045	10-1920	2	LANL	DUSE	S
EXP0314113a	247421004	MAP	3/17/10 0:05	956045	10-1920	2	LANL	DUSE	S
EXP0314114a	WXXCCV	MAP	3/17/10 0:34			1		DUSE	C
EXP0314115a	XIBLK14	MAP	3/17/10 1:04			1		DUSE	B
EXP0314116a	WXXCRI	MAP	3/17/10 1:33			1		DUSE	C
EXP0314117a	247421005	MAP	3/17/10 2:03	956045	10-1920	2	LANL	DUSE	S
EXP0314118a	247421006	MAP	3/17/10 2:32	956045	10-1920	2	LANL	DUSE	S
EXP0314119a	247421007	MAP	3/17/10 3:02	956045	10-1920	2	LANL	DUSE	S
EXP0314120a	247450002	MAP	3/17/10 3:31	956045	10-1937	2	LANL	DUSE	S
EXP0314121a	247450003	MAP	3/17/10 4:01	956045	10-1937	2	LANL	DUSE	S
EXP0314122a	247450004	MAP	3/17/10 4:30	956045	10-1937	2	LANL	DUSE	S
EXP0314123a	247450005	MAP	3/17/10 5:00	956045	10-1937	2	LANL	DUSE	S
EXP0314124a	247450006	MAP	3/17/10 5:29	956045	10-1937	2	LANL	DUSE	S
EXP0314125a	247450007	MAP	3/17/10 5:59	956045	10-1937	2	LANL	DUSE	S
EXP0314126a	247562002	MAP	3/17/10 6:28	956045	~~10-950~~ 10-1950 HMM 03/17/10	2	LANL	DUSE	S

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS4

Date: 03/05/10
Extr. Injection Volume: 10uL
Sequence Number: 030510exs
Initial Calibration Date: 030510

Method: 8321A-Modified
Int. Std.: N/A
Mobile Phase Lot#:1268566, 1268568
Standard-Samp Reagent Lot# :1274562, 1261217

Reviewed By: Hmm
Date: 03/09/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100305-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS03050001.wiff	XIBLK01	LER	3/5/2010 17:07			1		USE	B
EXS03050002.wiff	XIBLK01	LER	3/5/2010 17:23			1		USE	B
EXS03050003.wiff	WXXICAL-19	LER	3/5/2010 17:39			1		USE	I
EXS03050004.wiff	WXXICAL-20	LER	3/5/2010 17:54			1		USE	I
EXS03050005.wiff	WXXICAL-21	LER	3/5/2010 18:10			1		USE	I
EXS03050006.wiff	WXXICAL-22	LER	3/5/2010 18:26			1		USE	I
EXS03050007.wiff	WXXICAL-23	LER	3/5/2010 18:41			1		USE	I
EXS03050008.wiff	WXXICAL-24	LER	3/5/2010 18:57			1		USE	I
EXS03050009.wiff	WXXICAL-25	LER	3/5/2010 19:13			1		USE	I
EXS03050010.wiff	XIBLK02	LER	3/5/2010 19:29			1		USE	B
EXS03050011.wiff	WXXICV	LER	3/5/2010 19:44			1		USE	C
EXS03050012.wiff	XIBLK03	LER	3/5/2010 20:00			1		USE	B
EXS03050013.wiff	WXXCRI	LER	3/5/2010 20:16			1		USE	C
EXS03050014.wiff	1202045735	LER	3/5/2010 20:31	954321	VARIOUS	2	LANL	USE	S
EXS03050015.wiff	1202045736	LER	3/5/2010 20:47	954321	VARIOUS	2	LANL	USE	S
EXS03050016.wiff	247126001	LER	3/5/2010 21:03	954321	10-1849	2	LANL	USE	S
EXS03050017.wiff	1202045737	LER	3/5/2010 21:18	954321	10-1849	2	LANL	USE	S
EXS03050018.wiff	1202045738	LER	3/5/2010 21:34	954321	10-1849	2	LANL	USE	S
EXS03050019.wiff	247126002	LER	3/5/2010 21:50	954321	10-1849	2	LANL	USE	S
EXS03050020.wiff	247126003	LER	3/5/2010 22:05	954321	10-1849	2	LANL	USE	S
EXS03050021.wiff	247178001	LER	3/5/2010 22:21	954321	10-1861	2	LANL	USE	S
EXS03050022.wiff	247178002	LER	3/5/2010 22:37	954321	10-1861	2	LANL	USE	S
EXS03050023.wiff	247178003	LER	3/5/2010 22:53	954321	10-1861	2	LANL	USE	S
EXS03050024.wiff	WXXCCV	LER	3/5/2010 23:08			1		USE	C
EXS03050025.wiff	XIBLK04	LER	3/5/2010 23:24			1		USE	B
EXS03050026.wiff	WXXCRI	LER	3/5/2010 23:40			1		USE	C
EXS03050027.wiff	247178004	LER	3/5/2010 23:55	954321	10-1861	2	LANL	USE	S
EXS03050028.wiff	247178005	LER	3/6/2010 0:11	954321	10-1861	2	LANL	USE	S
EXS03050029.wiff	247178006	LER	3/6/2010 0:27	954321	10-1861	2	LANL	USE	S
EXS03050030.wiff	247178007	LER	3/6/2010 0:42	954321	10-1861	2	LANL	USE	S

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EXS03050031.wiff	247178008	LER	3/6/2010 0:58	954321	10-1861	2	LANL	USE	S
EXS03050032.wiff	247178009	LER	3/6/2010 1:14	954321	10-1861	2	LANL	USE	S
EXS03050033.wiff	247178010	LER	3/6/2010 1:30	954321	10-1861	2	LANL	USE	S
EXS03050034.wiff	247178011	LER	3/6/2010 1:45	954321	10-1861	2	LANL	USE	S
EXS03050035.wiff	WXXCCV	LER	3/6/2010 2:01			1		USE	C
EXS03050036.wiff	XIBLK05	LER	3/6/2010 2:17			1		USE	B
EXS03050037.wiff	WXXCRI	LER	3/6/2010 2:32			1		USE	C
EXS03050038.wiff	1202052406	LER	3/6/2010 2:48	957200	VARIOUS	2	LANL	USE	S
EXS03050039.wiff	1202052407	LER	3/6/2010 3:04	957200	VARIOUS	2	LANL	USE	S
EXS03050040.wiff	247784002	LER	3/6/2010 3:19	957200	10-1979	2	LANL	USE	S
EXS03050041.wiff	247790002	LER	3/6/2010 3:35	957200	10-1981	2	LANL	USE	S
EXS03050042.wiff	247790003	LER	3/6/2010 3:51	957200	10-1981	2	LANL	USE	S
EXS03050043.wiff	247791002	LER	3/6/2010 4:07	957200	10-1982	2	LANL	USE	S
EXS03050044.wiff	247791003	LER	3/6/2010 4:22	957200	10-1982	2	LANL	USE	S
EXS03050045.wiff	247791004	LER	3/6/2010 4:38	957200	10-1982	2	LANL	USE	S
EXS03050046.wiff	247791005	LER	3/6/2010 4:54	957200	10-1982	2	LANL	USE	S
EXS03050047.wiff	247791006	LER	3/6/2010 5:09	957200	10-1982	2	LANL	USE	S
EXS03050048.wiff	WXXCCV	LER	3/6/2010 5:25			1		USE	C
EXS03050049.wiff	XIBLK06	LER	3/6/2010 5:41			1		USE	B
EXS03050050.wiff	WXXCRI	LER	3/6/2010 5:56			1		USE	C
EXS03050051.wiff	247799001	LER	3/6/2010 6:12	957200	10-1990	2	LANL	USE	S
EXS03050052.wiff	1202052408	LER	3/6/2010 6:28	957200	10-1990	2	LANL	USE	S
EXS03050053.wiff	1202052409	LER	3/6/2010 6:44	957200	10-1990	2	LANL	USE	S
EXS03050054.wiff	247799002	LER	3/6/2010 6:59	957200	10-1990	2	LANL	USE	S
EXS03050055.wiff	247799003	LER	3/6/2010 7:15	957200	10-1990	2	LANL	USE	S
EXS03050056.wiff	247799004	LER	3/6/2010 7:31	957200	10-1990	2	LANL	USE	S
EXS03050057.wiff	247799005	LER	3/6/2010 7:46	957200	10-1990	2	LANL	USE	S
EXS03050058.wiff	247799006	LER	3/6/2010 8:02	957200	10-1990	2	LANL	USE	S
EXS03050059.wiff	247799007	LER	3/6/2010 8:18	957200	10-1990	2	LANL	USE	S
EXS03050060.wiff	WXXCCV	LER	3/6/2010 8:34			1		USE	C
EXS03050061.wiff	XIBLK07	LER	3/6/2010 8:49			1		USE	B
EXS03050062.wiff	WXXCRI	LER	3/6/2010 9:05			1		USE	C
EXS03050063.wiff	247799008	LER	3/6/2010 9:21	957200	10-1990	2	LANL	USE	S
EXS03050064.wiff	247799009	LER	3/6/2010 9:36	957200	10-1990	2	LANL	USE	S
EXS03050065.wiff	247799010	LER	3/6/2010 9:52	957200	10-1990	2	LANL	USE	S
EXS03050066.wiff	WXXCCV	LER	3/6/2010 10:08			1		USE	C
EXS03050067.wiff	XIBLK08	LER	3/6/2010 10:23			1		USE	B

EXS03050068.wiff	WXXCRI	LER	3/6/2010 10:39			1		USE	C
EXS03050069.wiff	1202041953	LER	3/6/2010 10:55	952706	10-1758	2	LANL	USE	S
EXS03050070.wiff	1202041954	LER	3/6/2010 11:11	952706	10-1758	2	LANL	USE	S
EXS03050071.wiff	246866002	LER	3/6/2010 11:26	952706	10-1758	2	LANL	USE	S
EXS03050072.wiff	1202041955	LER	3/6/2010 11:42	952706	10-1758	2	LANL	USE	S
EXS03050073.wiff	1202041956	LER	3/6/2010 11:58	952706	10-1758	2	LANL	USE	S
EXS03050074.wiff	246866003	LER	3/6/2010 12:14	952706	10-1758	2	LANL	USE	S
EXS03050075.wiff	246866004	LER	3/6/2010 12:29	952706	10-1758	2	LANL	USE	S
EXS03050076.wiff	246866005	LER	3/6/2010 12:45	952706	10-1758	2	LANL	USE	S
EXS03050077.wiff	246866006	LER	3/6/2010 13:01	952706	10-1758	2	LANL	USE	S
EXS03050078.wiff	246866007	LER	3/6/2010 13:16	952706	10-1758	2	LANL	USE	S
EXS03050079.wiff	WXXCCV	LER	3/6/2010 13:32			1		USE	C
EXS03050080.wiff	XIBLK09	LER	3/6/2010 13:48			1		USE	B
EXS03050081.wiff	WXXCRI	LER	3/6/2010 14:03			1		USE	C
EXS03050082.wiff	246866008	LER	3/6/2010 14:19	952706	10-1758	2	LANL	USE	S
EXS03050083.wiff	246866009	LER	3/6/2010 14:35	952706	10-1758	2	LANL	USE	S
EXS03050084.wiff	WXXCCV	LER	3/6/2010 14:50			1		USE	C
EXS03050085.wiff	XIBLK10	LER	3/6/2010 15:06			1		USE	B
EXS03050086.wiff	WXXCRI	LER	3/6/2010 15:22			1		USE	C
EXS03050087.wiff	1202055082	LER	3/6/2010 15:38	958286	VARIOUS	2	LANL	USE	S
EXS03050088.wiff	1202055083	LER	3/6/2010 15:53	958286	VARIOUS	2	LANL	USE	S
EXS03050089.wiff	248040007	LER	3/6/2010 16:09	958286	10-2051	2	LANL	USE	S
EXS03050090.wiff	1202055084	LER	3/6/2010 16:25	958286	10-2051	2	LANL	USE	S
EXS03050091.wiff	1202055085	LER	3/6/2010 16:40	958286	10-2051	2	LANL	USE	S
EXS03050092.wiff	248259006	LER	3/6/2010 16:56	958286	10-2148	2	LANL	USE	S
EXS03050093.wiff	WXXCCV	LER	3/6/2010 17:12			1		USE	C
EXS03050094.wiff	XIBLK11	LER	3/6/2010 17:28			1		USE	B
EXS03050095.wiff	WXXCRI	LER	3/6/2010 17:43			1		USE	C
EXS03050096.wiff	UXX100210-02.4	LER	3/6/2010 17:59	SCREEN	SOLID	2	O2SI	USE	S
EXS03050097.wiff	XIBLK12	LER	3/6/2010 18:15			1		USE	B
EXS03050098.wiff	1202047529	LER	3/6/2010 18:30	955065	VARIOUS	2	LANL	USE	S
EXS03050099.wiff	1202047530	LER	3/6/2010 18:46	955065	VARIOUS	2	LANL	USE	S
EXS03050100.wiff	247327002	LER	3/6/2010 19:02	955065	10-1898	2	LANL	USE	S
EXS03050101.wiff	1202047531	LER	3/6/2010 19:17	955065	10-1898	2	LANL	USE	S
EXS03050102.wiff	1202047532	LER	3/6/2010 19:33	955065	10-1898	2	LANL	USE	S
EXS03050103.wiff	247346001	LER	3/6/2010 19:49	955065	10-1911	2	LANL	USE	S
EXS03050104.wiff	247346002	LER	3/6/2010 20:04	955065	10-1911	2	LANL	USE	S

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EXS03050105.wiff	247346003	LER	3/6/2010 20:20	955065	10-1911	2	LANL	USE	S
EXS03050106.wiff	WXXCCV	LER	3/6/2010 20:36			1		USE	C
EXS03050107.wiff	XIBLK13	LER	3/6/2010 20:52			1		USE	B
EXS03050108.wiff	WXXCRI	LER	3/6/2010 21:07			1		USE	C
EXS03050109.wiff	247346004	LER	3/6/2010 21:23	955065	10-1911	2	LANL	USE	S
EXS03050110.wiff	247346005	LER	3/6/2010 21:39	955065	10-1911	2	LANL	USE	S
EXS03050111.wiff	247346006	LER	3/6/2010 21:54	955065	10-1911	2	LANL	USE	S
EXS03050112.wiff	247346007	LER	3/6/2010 22:10	955065	10-1911	2	LANL	USE	S
EXS03050113.wiff	247346008	LER	3/6/2010 22:26	955065	10-1911	2	LANL	USE	S
EXS03050114.wiff	247358001	LER	3/6/2010 22:41	955065	10-1914	2	LANL	USE	S
EXS03050115.wiff	247358002	LER	3/6/2010 22:57	955065	10-1914	2	LANL	USE	S
EXS03050116.wiff	247358003	LER	3/6/2010 23:13	955065	10-1914	2	LANL	USE	S
EXS03050117.wiff	247358004	LER	3/6/2010 23:29	955065	10-1914	2	LANL	USE	S
EXS03050118.wiff	WXXCCV	LER	3/6/2010 23:44			1		USE	C
EXS03050119.wiff	XIBLK14	LER	3/7/2010 0:00			1		USE	B
EXS03050120.wiff	WXXCRI	LER	3/7/2010 0:16			1		USE	C

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GEL Laboratories LLC
Form GEL-DER

DER Report No.: 807209
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
20-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LC-MS/MS	SW846 8321A Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
955065	See Below		

Potentially affected work order(s)(SDG): 247327(10-1898),247346(10-1911),247358(10-1914)

Application Issues:

Failed Recovery for MSD/PSD

Failed Recovery for LCS/LCSD

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The Laboratory Control Sample (1202047530) did not meet spike recovery limits for Tetryl at 49.0%. The recovery limits are 51-112%.	1. Since the Matrix Spike met acceptance limits for Tetryl, method control was achieved. The samples have exceeded twice their hold time; therefore, the data are reported with the appropriate DER. The discrepancy is noted in the case narrative.
2. The Matrix Spike (1202047531) did not meet spike recovery limits for TATB at 276%. The recovery limits are 29-155%.	2. Since the Laboratory Control Sample met acceptance limits for TATB, the data are reported with the appropriate DER. The discrepancy is noted in the case narrative.
3. The Matrix Spike Duplicate (1202047532) did not meet spike recovery limits for Tetryl at 35.5%. The recovery limits are 36-124%.	3. Since the Matrix Spike met acceptance limits for Tetryl, method control was achieved. The data are reported with the appropriate DER. The discrepancy is noted in the case narrative.
4. The MS/MSD pair (1202047531/2) did not meet RPD acceptance limits for Tetryl at 35.0% and TATB at 85.6%. The acceptance limits are 0-30%.	4. Since all other RPD recoveries met acceptance criteria, the noted exceptions are attributed to vagaries in the extraction process. The data are reported with the appropriate DER. The discrepancies are noted in the case narrative.

Originator's Name:
Michael Penny 20-MAR-10

Data Validator/Group Leader:
Herbert Maier 22-MAR-10

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1898

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	956143
Prep Batch Number:	956141

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
247327002	WST15-10-8941
1202050207	Method Blank (MB)
1202050208	Laboratory Control Sample (LCS)
1202050209	247552002(WST15-10-8894) Matrix Spike (MS)
1202050210	247552002(WST15-10-8894) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

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

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

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

One of the five quantified peaks did not meet the acceptance criteria in one of the Aroclor-1016 standard analyzed for this SDG; however, the average concentration of the five quantitated peaks met the acceptance criteria.

Quality Control (QC) Information

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

Surrogate Recoveries
Sample 247327002 (WST15-10-8941) did not meet the surrogate recovery acceptance criteria due to dilution. See DER #795177 located in the Miscellaneous Data section.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-1970) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

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

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

Sample Dilutions
Sample 247327002 (WST15-10-8941) was diluted at 1:10 due to the oily matrix of the extract.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation

Data Exception Report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. DER # 795177 was generated for this SDG. A copy is included in the Miscellaneous Data section of this package.

Manual Integrations

Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

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

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: Andy Whitlock Date: 3- 9-2010

Roadmap for LANL 10-1898 PCB

This roadmap was analyzed by yip00818 on 03-09-2010, 11:32.
This roadmap was reviewed by yip00818 on 03-09-2010, 11:36.
This roadmap was packaged by yml on 03-09-2010, 14:51.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/022310.b/045f4501.d	247327002	sample	23-FEB-2010	15:57	10-1898.sub	WST15-10-8941	10.00000	956143	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/022310.b/045b4501.d	247327002	sample	23-FEB-2010	15:57	10-1898.sub	WST15-10-8941	10.00000	956143	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/022310.b/042f4201-4.d	1202050207	mb	23-FEB-2010	15:19	10-1898.sub	PBLK01	1.00000	956143	
☐	N	/chem/ecd1a.i/022310.b/043f4301-4.d	1202050208	lcs	23-FEB-2010	15:32	10-1898.sub	PBLK01LCS	1.00000	956143	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/022310.b/042b4201-4.d	1202050207	mb	23-FEB-2010	15:19	10-1898.sub	PBLK01	1.00000	956143	
☐	N	/chem/ecd1a.i/022310.b/043b4301-4.d	1202050208	lcs	23-FEB-2010	15:32	10-1898.sub	PBLK01LCS	1.00000	956143	

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**	**Date Collected:**	**02/16/2010 12:00**	**Matrix:**	**D**
Lab Sample ID:	**247327002**	**Date Received:**	**02/18/2010 08:45**	**%Moisture:**	**7.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST15-10-8941**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**956143**	**Inst:**	**ECD1A.I**	**Dilution:**	**10**
Run Date:	**02/23/2010 15:57**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/22/2010 21:16**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**045f4501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	045b4501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	36.0	ug/kg	12.0	36.0	1
11104-28-2	Aroclor-1221	U	36.0	ug/kg	12.0	36.0	1
11141-16-5	Aroclor-1232	U	36.0	ug/kg	12.0	36.0	1
53469-21-9	Aroclor-1242	U	36.0	ug/kg	12.0	36.0	1
12672-29-6	Aroclor-1248	U	36.0	ug/kg	12.0	36.0	1
11097-69-1	Aroclor-1254	U	36.0	ug/kg	12.0	36.0	1
11096-82-5	Aroclor-1260	U	36.0	ug/kg	12.0	36.0	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10–1898

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202050207	MB for batch 956141	63	61	64	67
1202050208	LCS for batch 956141	70	67	60	73
247327002	WST15–10–8941	22 * D	23 * D	23 * D	26 * D

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%–120%)
DCB = Decachlorobiphenyl	(30%–116%)

* Recovery outside Acceptance Limits
\# Column to be used to flag recovery values
D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1898
Client ID: LCS for batch 956141
Lab Sample ID: 1202050208
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 02/23/2010 15:32
Prep Batch ID: 956141
Batch ID: 956143
Dilution: 1

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	25.7	77	39-102
11096-82-5	LCS	Aroclor-1260	33.3	0.0	30.3	91	45-118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number:	**10-1970**	**Sample Type:**	**Matrix Spike**	
Client ID:	**WST15-10-8894MS**	**Matrix:**	**R**	
Lab Sample ID:	**1202050209**	**%Moisture:**	**2.4**	
Instrument:	**ECD1A.I**	**Analysis Date:**	**02/23/2010 19:19**	**Dilution: 1**
Analyst:	**YS1**	**Prep Batch ID:**	**956141**	
Inj. Vol:	**1 uL**	**Batch ID:**	**956143**	

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	34.1	0.00	U	24.4	72	23-119
11096-82-5	MS	Aroclor-1260	34.1	0.00	U	33.5	98	28-124

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1970
Client ID: WST15-10-8894MSD
Lab Sample ID: 1202050210
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: R
%Moisture: 2.4
Analysis Date: 02/23/2010 19:32
Prep Batch ID: 956141
Batch ID: 956143
Dilution: 1

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	34.0	0.00	U	25.6	75	23-119	5	0-28
11096-82-5	MSD Aroclor-1260	34.0	0.00	U	33.8	99	28-124	1	0-30

Method Blank Summary

SDG Number:	10-1898	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 956141	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	042b4201-1.d 042f4201-1.d
Lab Sample ID:	1202050207				
Column:	CLP2 CLP1	Prep Date:	02/22/2010 21:16	Analyzed:	02/23/10 15:19
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 956141	1202050208	043f4301-1.d 043b4301-1.d	02/23/10	1532
02 WST15-10-8941	247327002	045f4501.d 045b4501.d	02/23/10	1557

SAMPLE
DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**	**Date Collected:**	**02/16/2010 12:00**	**Matrix:**	**D**
Lab Sample ID:	**247327002**	**Date Received:**	**02/18/2010 08:45**	**%Moisture:**	**7.8**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**WST15-10-8941**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**956143**	**Inst:**	**ECD1A.I**	**Dilution:**	**10**
Run Date:	**02/23/2010 15:57**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/22/2010 21:16**	**Aliquot:**	**30.12 g**	**Final Volume:**	**1 mL**
Data File:	**045f4501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	045b4501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	36.0	ug/kg	12.0	36.0	1
11104-28-2	Aroclor-1221	U	36.0	ug/kg	12.0	36.0	1
11141-16-5	Aroclor-1232	U	36.0	ug/kg	12.0	36.0	1
53469-21-9	Aroclor-1242	U	36.0	ug/kg	12.0	36.0	1
12672-29-6	Aroclor-1248	U	36.0	ug/kg	12.0	36.0	1
11097-69-1	Aroclor-1254	U	36.0	ug/kg	12.0	36.0	1
11096-82-5	Aroclor-1260	U	36.0	ug/kg	12.0	36.0	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022310.b/045f4501.d
Lab Smp Id: 247327002 Client Smp ID: WST15-10-8941
Inj Date : 23-FEB-2010 15:57
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |247327002|10|
Misc Info : |ECD82P_1S|956143|SVA|LANL|SOIL|WST15-10-8941|||
Comment :
Method : /chem/ecd1a.i/022310.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 06:46 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 45
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-1898.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.12000	Weight of sample extracted (g)
M	7.83650	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.923	1.922	0.001	1921323	4.46159	1.6	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.229	5.232	-0.003	1390440	4.52486	1.6	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd1a.i/022310.b/045f4501.d

Page 1

Date : 23-FEB-2010 15:57

Client ID: WST15-10-8941

Instrument: ecd1a.i

Sample Info: |2473270021101|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

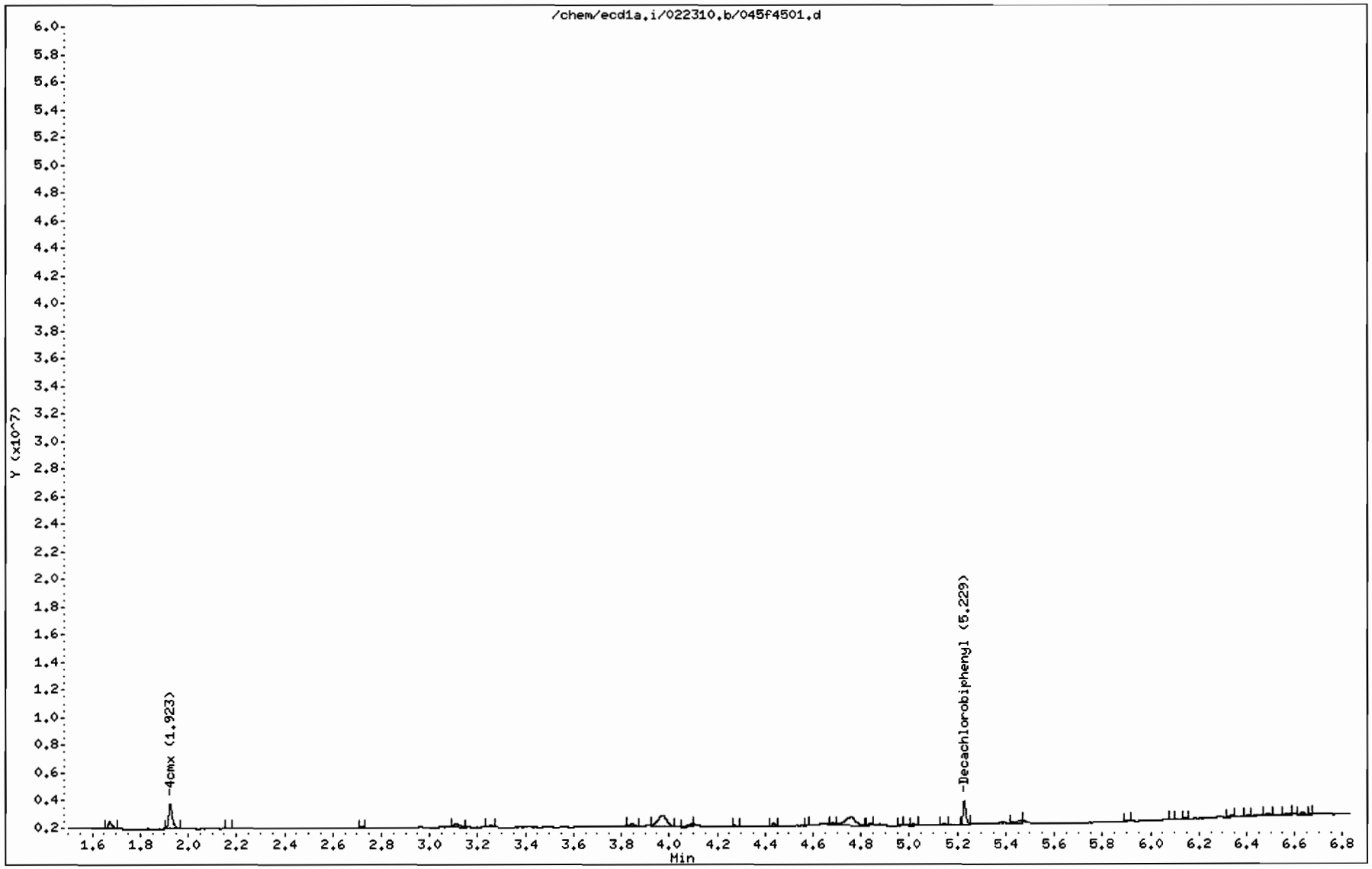

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022310.b/045b4501.d
Lab Smp Id: 247327002 Client Smp ID: WST15-10-8941
Inj Date : 23-FEB-2010 15:57
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |247327002|10|
Misc Info : |ECD82P_1S|956143|SVA|LANL|SOIL|WST15-10-8941|||
Comment :
Method : /chem/ecd1a.i/022310.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 06:46 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 45
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: 10-1898.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.12000	Weight of sample extracted (g)
M	7.83650	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.288	2.287	0.001	1346844	4.52878	1.6	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.935	5.936	-0.001	1088494	5.14659	1.8	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd1a.i/022310.b/045b4501.d

Date : 23-FEB-2010 15:57

Client ID: WST15-10-8941

Sample Info: |2473270021101

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

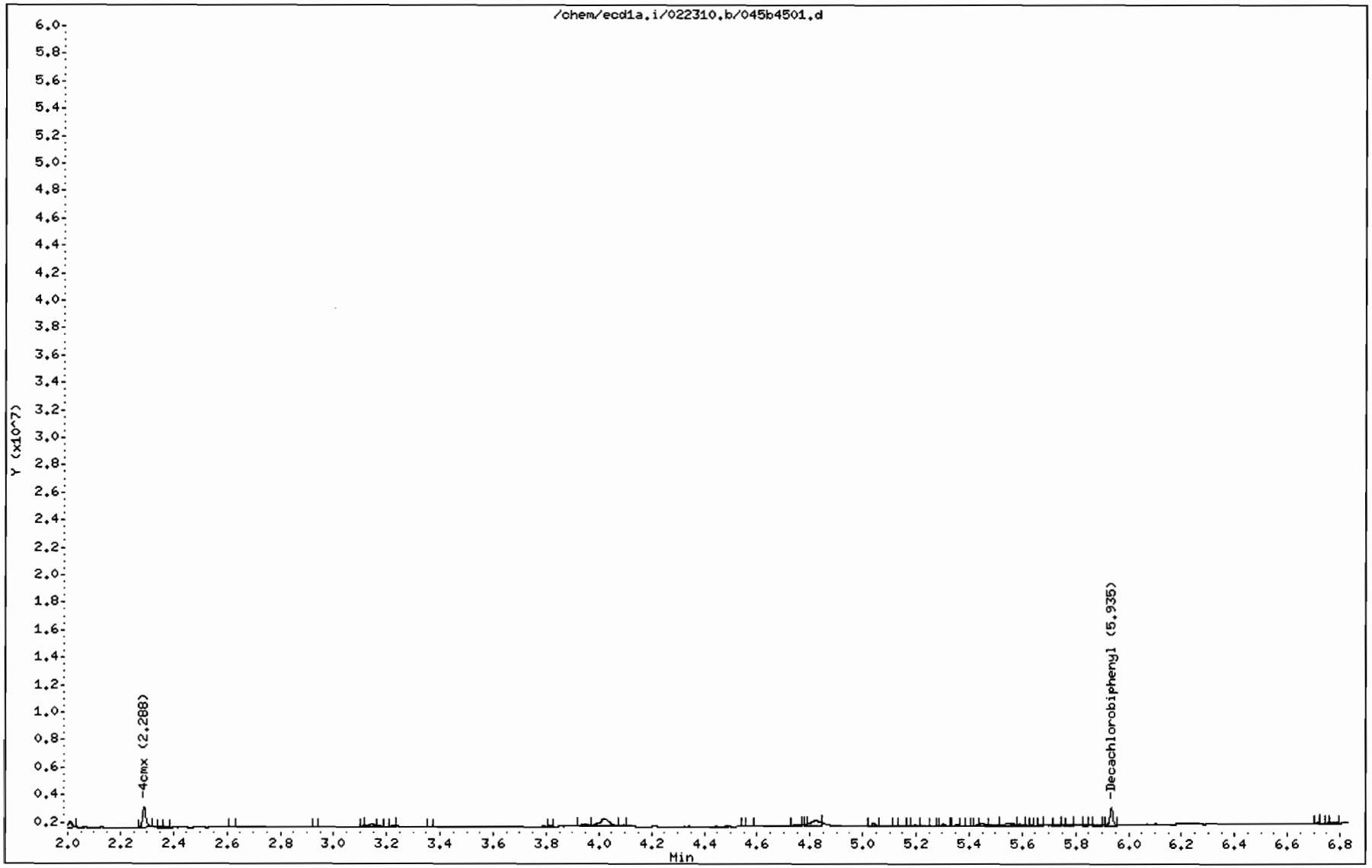

STANDARDS DATA

Report Date: 24-Feb-2010 08:58

Calibration History

Method : /chem/ecd1a.i/022310.b/ECD1-F-8082-022210.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 22-FEB-2010 12:08

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032f3201.d
22-FEB-2010 10:23	AR1248	/chem/ecd1a.i/022210.b/026f2601.d
22-FEB-2010 09:20	AR1242	/chem/ecd1a.i/022210.b/020f2001.d
22-FEB-2010 08:16	AR1254	/chem/ecd1a.i/022210.b/014f1401.d
22-FEB-2010 07:13	AR1660	/chem/ecd1a.i/022210.b/008f0801.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033f3301.d
22-FEB-2010 10:33	AR1248	/chem/ecd1a.i/022210.b/027f2701.d
22-FEB-2010 09:30	AR1242	/chem/ecd1a.i/022210.b/021f2101.d
22-FEB-2010 08:27	AR1254	/chem/ecd1a.i/022210.b/015f1501.d
22-FEB-2010 07:24	AR1660	/chem/ecd1a.i/022210.b/009f0901.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034f3401.d
22-FEB-2010 10:44	AR1248	/chem/ecd1a.i/022210.b/028f2801.d
22-FEB-2010 09:41	AR1242	/chem/ecd1a.i/022210.b/022f2201.d
22-FEB-2010 08:37	AR1254	/chem/ecd1a.i/022210.b/016f1601.d
22-FEB-2010 07:34	AR1660	/chem/ecd1a.i/022210.b/010f1001.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035f3501.d
22-FEB-2010 11:05	AR1248	/chem/ecd1a.i/022210.b/030f3001.d
22-FEB-2010 09:51	AR1242	/chem/ecd1a.i/022210.b/023f2301.d
22-FEB-2010 08:48	AR1254	/chem/ecd1a.i/022210.b/017f1701.d
22-FEB-2010 07:45	AR1660	/chem/ecd1a.i/022210.b/011f1101.d
22-FEB-2010 07:03	AR1262	/chem/ecd1a.i/022210.b/007f0701.d
22-FEB-2010 06:52	AR1221	/chem/ecd1a.i/022210.b/006f0601.d
22-FEB-2010 06:41	AR1232	/chem/ecd1a.i/022210.b/005f0501.d
22-FEB-2010 06:31	DDTANALOGSTD	/chem/ecd1a.i/022210.b/004f0401.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036f3601.d
22-FEB-2010 10:54	AR1248	/chem/ecd1a.i/022210.b/029f2901.d
22-FEB-2010 10:02	AR1242	/chem/ecd1a.i/022210.b/024f2401.d
22-FEB-2010 08:59	AR1254	/chem/ecd1a.i/022210.b/018f1801.d
22-FEB-2010 07:55	AR1660	/chem/ecd1a.i/022210.b/012f1201.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 19:45	AR1660	/chem/ecd1a.i/022310.b/063f6301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 14:58	AR1660	/chem/ecd1a.i/022310.b/040f4001.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 22:04	AR1660	/chem/ecd1a.i/022310.b/074f7401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 21:26	AR1660	/chem/ecd1a.i/022310.b/071f7101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 17:25	AR1660	/chem/ecd1a.i/022310.b/052f5201.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 13:34	AR1660	/chem/ecd1a.i/022310.b/033f3301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 11:39	AR1660	/chem/ecd1a.i/022310.b/024f2401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 07:25	AR1268	/chem/ecd1a.i/022310.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 07:15	AR1262	/chem/ecd1a.i/022310.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 07:04	AR1221	/chem/ecd1a.i/022310.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 06:53	AR1232	/chem/ecd1a.i/022310.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 06:43	AR1248	/chem/ecd1a.i/022310.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 06:32	AR1242	/chem/ecd1a.i/022310.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 06:22	AR1254	/chem/ecd1a.i/022310.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 06:11	AR1660	/chem/ecd1a.i/022310.b/002f0201.d

Report Date: 24-Feb-2010 08:58

Calibration History

Method : /chem/ecd1a.i/022310.b/ECD1-B-8082-022210.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 22-FEB-2010 12:08

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032b3201.d
22-FEB-2010 10:23	AR1248	/chem/ecd1a.i/022210.b/026b2601.d
22-FEB-2010 09:20	AR1242	/chem/ecd1a.i/022210.b/020b2001.d
22-FEB-2010 08:16	AR1254	/chem/ecd1a.i/022210.b/014b1401.d
22-FEB-2010 07:13	AR1660	/chem/ecd1a.i/022210.b/008b0801.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033b3301.d
22-FEB-2010 10:33	AR1248	/chem/ecd1a.i/022210.b/027b2701.d
22-FEB-2010 09:30	AR1242	/chem/ecd1a.i/022210.b/021b2101.d
22-FEB-2010 08:27	AR1254	/chem/ecd1a.i/022210.b/015b1501.d
22-FEB-2010 07:24	AR1660	/chem/ecd1a.i/022210.b/009b0901.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034b3401.d
22-FEB-2010 10:44	AR1248	/chem/ecd1a.i/022210.b/028b2801.d
22-FEB-2010 09:41	AR1242	/chem/ecd1a.i/022210.b/022b2201.d
22-FEB-2010 08:37	AR1254	/chem/ecd1a.i/022210.b/016b1601.d
22-FEB-2010 07:34	AR1660	/chem/ecd1a.i/022210.b/010b1001.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035b3501.d
22-FEB-2010 11:05	AR1248	/chem/ecd1a.i/022210.b/030b3001.d
22-FEB-2010 09:51	AR1242	/chem/ecd1a.i/022210.b/023b2301.d
22-FEB-2010 08:48	AR1254	/chem/ecd1a.i/022210.b/017b1701.d
22-FEB-2010 07:45	AR1660	/chem/ecd1a.i/022210.b/011b1101.d
22-FEB-2010 07:03	AR1262	/chem/ecd1a.i/022210.b/007b0701.d
22-FEB-2010 06:52	AR1221	/chem/ecd1a.i/022210.b/006b0601.d
22-FEB-2010 06:41	AR1232	/chem/ecd1a.i/022210.b/005b0501.d
22-FEB-2010 06:31	DDTANALOGSTD	/chem/ecd1a.i/022210.b/004b0401.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036b3601.d
22-FEB-2010 10:54	AR1248	/chem/ecd1a.i/022210.b/029b2901.d
22-FEB-2010 10:02	AR1242	/chem/ecd1a.i/022210.b/024b2401.d
22-FEB-2010 08:59	AR1254	/chem/ecd1a.i/022210.b/018b1801.d
22-FEB-2010 07:55	AR1660	/chem/ecd1a.i/022210.b/012b1201.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

| Ccal Level: 4 , Ccal Amount: 1000 |

23-FEB-2010 22:04	AR1660	/chem/ecd1a.i/022310.b/074b7401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 21:26	AR1660	/chem/ecd1a.i/022310.b/071b7101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 19:45	AR1660	/chem/ecd1a.i/022310.b/063b6301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 17:25	AR1660	/chem/ecd1a.i/022310.b/052b5201.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 14:58	AR1660	/chem/ecd1a.i/022310.b/040b4001.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 13:34	AR1660	/chem/ecd1a.i/022310.b/033b3301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 11:39	AR1660	/chem/ecd1a.i/022310.b/024b2401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 06:11	AR1660	/chem/ecd1a.i/022310.b/002b0201.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 07:25	AR1268	/chem/ecd1a.i/022310.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 07:15	AR1262	/chem/ecd1a.i/022310.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 07:04	AR1221	/chem/ecd1a.i/022310.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 06:53	AR1232	/chem/ecd1a.i/022310.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 06:43	AR1248	/chem/ecd1a.i/022310.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 06:32	AR1242	/chem/ecd1a.i/022310.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 06:22	AR1254	/chem/ecd1a.i/022310.b/003b0301.d

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COMPOUND LISTING

Method file : /chem/ecd1a.i/022310.b/ECD1-F-8082-022210.m
Quant Method : ESTD Target Version : 3.50
Last Update : 24-Feb-2010 08:09 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.376	2.346-2.406	1.538e+04
	2.663	2.633-2.693	1.824e+04
	2.743	2.713-2.773	1.207e+04
	2.781	2.751-2.811	7.096e+03
	2.992	2.962-3.022	8.912e+03
63 4,4-DDD	3.900	3.880-3.920	3.060e+05
64 4,4-DDE	3.551	3.531-3.571	3.552e+05
62 4,4-DDT	4.064	4.044-4.084	2.080e+05
2 Aroclor-1221	2.035	2.005-2.065	4.398e+03
	2.128	2.098-2.158	2.431e+03
	2.153	2.123-2.183	1.042e+04
3 Aroclor-1232	2.378	2.348-2.408	6.218e+03
	2.664	2.634-2.694	7.488e+03
	2.745	2.715-2.775	4.887e+03
	2.859	2.829-2.889	2.191e+03
	3.247	3.217-3.277	2.731e+03
4 Aroclor-1242	2.377	2.347-2.407	1.256e+04
	2.664	2.634-2.694	1.461e+04
	2.783	2.753-2.813	5.629e+03
	2.993	2.963-3.023	7.310e+03
	3.246	3.216-3.276	6.183e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/022310.b/ECD1-F-8082-022210.m

Compound	RT	RT Window	RF
5 Aroclor-1248	2.859	2.829-2.889	9.301e+03
	2.993	2.963-3.023	1.241e+04
	3.246	3.216-3.276	1.220e+04
	3.378	3.348-3.408	1.042e+04
	3.611	3.581-3.641	6.820e+03
6 Aroclor-1254	3.222	3.192-3.252	1.201e+04
	3.377	3.347-3.407	1.583e+04
	3.610	3.580-3.640	1.952e+04
	3.774	3.744-3.804	1.381e+04
	3.883	3.853-3.913	1.428e+04
7 Aroclor-1260	3.718	3.688-3.748	1.707e+04
	3.881	3.851-3.911	2.364e+04
	4.042	4.012-4.072	2.497e+04
	4.111	4.081-4.141	1.441e+04
	4.254	4.224-4.284	1.443e+04
8 Aroclor-1262	3.720	3.690-3.750	1.261e+04
	3.881	3.851-3.911	1.569e+04
	4.112	4.082-4.142	1.995e+04
	4.255	4.225-4.285	1.798e+04
	4.434	4.404-4.464	3.725e+04
9 Aroclor-1268	4.620	4.590-4.650	4.848e+04
	4.642	4.612-4.672	5.448e+04
	4.755	4.725-4.785	3.862e+04
	4.957	4.927-4.987	1.635e+04
	5.123	5.093-5.153	1.121e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.922	1.892-1.952	4.306e+05
$ 12 Decachlorobiphenyl	5.232	5.202-5.262	3.073e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/022310.b/ECD1-B-8082-022210.m
Quant Method : ESTD Target Version : 3.50
Last Update : 24-Feb-2010 08:10 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.183	3.153-3.213	1.279e+04
	3.267	3.237-3.297	8.918e+03
	3.330	3.300-3.360	5.406e+03
	3.557	3.527-3.587	6.916e+03
	3.632	3.602-3.662	6.425e+03
62 4,4-DDT	4.660	4.640-4.680	1.000e+05
63 4,4-DDE	4.128	4.108-4.148	2.505e+05
64 4,4-DDD	4.473	4.453-4.493	2.085e+05
2 Aroclor-1221	2.485	2.455-2.515	3.431e+03
	2.579	2.549-2.609	2.152e+03
	2.620	2.590-2.650	7.328e+03
3 Aroclor-1232	2.888	2.858-2.918	4.920e+03
	3.186	3.156-3.216	5.252e+03
	3.268	3.238-3.298	3.768e+03
	3.559	3.529-3.589	2.699e+03
	3.793	3.763-3.823	2.631e+03
4 Aroclor-1242	3.185	3.155-3.215	1.035e+04
	3.268	3.238-3.298	7.279e+03
	3.558	3.528-3.588	5.768e+03
	3.793	3.763-3.823	5.788e+03
	3.820	3.790-3.850	6.641e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/022310.b/ECD1-B-8082-022210.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.394	3.364-3.424	7.602e+03
	3.559	3.529-3.589	9.360e+03
	3.792	3.762-3.822	1.065e+04
	3.820	3.790-3.850	1.210e+04
	3.957	3.927-3.987	1.150e+04
6 Aroclor-1254	3.394	3.364-3.424	6.068e+03
	3.816	3.786-3.846	1.074e+04
	3.932	3.902-3.962	1.164e+04
	4.209	4.179-4.239	1.590e+04
	4.345	4.315-4.375	1.198e+04
7 Aroclor-1260	4.324	4.294-4.354	1.321e+04
	4.449	4.419-4.479	1.557e+04
	4.716	4.686-4.746	1.184e+04
	4.889	4.859-4.919	1.220e+04
	5.036	5.006-5.066	2.653e+04
8 Aroclor-1262	4.450	4.420-4.480	1.126e+04
	4.716	4.686-4.746	1.550e+04
	4.891	4.861-4.921	1.407e+04
	5.037	5.007-5.067	2.845e+04
	5.251	5.221-5.281	1.972e+04
9 Aroclor-1268	5.249	5.219-5.279	3.730e+04
	5.276	5.246-5.306	3.492e+04
	5.426	5.396-5.456	2.658e+04
	5.591	5.561-5.621	1.223e+04
	5.784	5.754-5.814	7.433e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.287	2.257-2.317	2.974e+05
$ 12 Decachlorobiphenyl	5.936	5.906-5.966	2.115e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 22-FEB-2010 12:08
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/022310.b/ECD1-F-8082-022210.m
Cal Date : 24-Feb-2010 08:09 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032f3201.d
Level 2: /chem/ecd1a.i/022210.b/033f3301.d
Level 3: /chem/ecd1a.i/022210.b/034f3401.d
Level 4: /chem/ecd1a.i/022210.b/035f3501.d
Level 5: /chem/ecd1a.i/022210.b/036f3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	18473	16312	15150	14238	12749	15384	14.060
(2)	20194	18537	17759	17625	17070	18237	6.651
(3)	14170	12473	11875	11163	10646	12065	11.317
(4)	8163	7198	6933	6624	6564	7096	9.135
(5)	10345	9178	8623	8273	8142	8912	10.051
63 4,4-DDD	+++++	+++++	+++++	305990	+++++	305990	0.000
64 4,4-DDE	+++++	+++++	+++++	355239	+++++	355239	0.000
62 4,4-DDT	+++++	+++++	+++++	208015	+++++	208015	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4398	+++++	4398	0.000
(2)	+++++	+++++	+++++	2431	+++++	2431	0.000
(3)	+++++	+++++	+++++	10418	+++++	10418	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6218	+++++	6218	0.000
(2)	+++++	+++++	+++++	7488	+++++	7488	0.000
(3)	+++++	+++++	+++++	4887	+++++	4887	0.000
(4)	+++++	+++++	+++++	2191	+++++	2191	0.000
(5)	+++++	+++++	+++++	2731	+++++	2731	0.000
4 Aroclor-1242(1)	14895	13406	12308	11554	10624	12557	13.200
(2)	15940	15326	14418	13613	13761	14612	6.870
(3)	6066	5934	5542	5337	5267	5629	6.326
(4)	8523	7616	7127	6725	6562	7310	10.814
(5)	6824	6256	5999	5817	6020	6183	6.317
5 Aroclor-1248(1)	10594	9810	9017	8885	8199	9301	9.911
(2)	14228	12736	11895	11712	11476	12409	9.043
(3)	12841	12156	11815	11785	12410	12201	3.615
(4)	11297	10503	10013	9956	10333	10420	5.179
(5)	7445	6917	6453	6460	6824	6820	5.977

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 22-FEB-2010 12:08
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/022310.b/ECD1-F-8082-022210.m
Cal Date : 24-Feb-2010 08:09 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	13496	12213	11744	11466	11117	12007	7.694
(2)	16789	15969	15727	15423	15253	15832	3.802
(3)	20267	19353	19208	19481	19310	19524	2.185
(4)	14142	13669	13487	13772	13976	13809	1.858
(5)	15228	14234	13851	14228	13864	14281	3.932
7 Aroclor-1260(1)	19445	17307	16758	16208	15645	17072	8.574
(2)	25625	23757	23316	22992	22528	23643	5.056
(3)	27164	24948	24176	24127	24442	24971	5.079
(4)	16166	14596	13941	13551	13775	14406	7.345
(5)	15672	14437	13986	13647	14411	14431	5.316
8 Aroclor-1262(1)	+++++	+++++	+++++	12612	+++++	12612	0.000
(2)	+++++	+++++	+++++	15693	+++++	15693	0.000
(3)	+++++	+++++	+++++	19946	+++++	19946	0.000
(4)	+++++	+++++	+++++	17981	+++++	17981	0.000
(5)	+++++	+++++	+++++	37250	+++++	37250	0.000
9 Aroclor-1268(1)	49163	48928	48151	48132	48019	48478	1.086
(2)	55254	54719	54718	54649	53075	54483	1.512
(3)	39937	38826	38121	38191	38006	38616	2.083
(4)	16234	16191	16152	16347	16815	16348	1.657
(5)	114910	115297	111446	111050	107804	112101	2.753
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	457836	439032	431646	423676	400995	430637	4.841
$ 12 Decachlorobiphenyl	331580	312081	303953	298909	289924	307289	5.135

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 22-FEB-2010 12:08
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/022310.b/ECD1-B-8082-022210.m
Cal Date : 24-Feb-2010 08:10 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032b3201.d
Level 2: /chem/ecd1a.i/022210.b/033b3301.d
Level 3: /chem/ecd1a.i/022210.b/034b3401.d
Level 4: /chem/ecd1a.i/022210.b/035b3501.d
Level 5: /chem/ecd1a.i/022210.b/036b3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14790	13406	12599	11956	11198	12790	10.807
(2)	11020	9550	8735	8081	7204	8918	16.336
(3)	6667	5702	5261	4923	4477	5406	15.464
(4)	8469	7466	6811	6206	5627	6916	15.991
(5)	7861	6755	6366	5845	5300	6425	15.123
62 4,4-DDT	+++++	+++++	+++++	100019	+++++	100019	0.000
63 4,4-DDE	+++++	+++++	+++++	250510	+++++	250510	0.000
64 4,4-DDD	+++++	+++++	+++++	208527	+++++	208527	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3431	+++++	3431	0.000
(2)	+++++	+++++	+++++	2152	+++++	2152	0.000
(3)	+++++	+++++	+++++	7328	+++++	7328	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	4920	+++++	4920	0.000
(2)	+++++	+++++	+++++	5252	+++++	5252	0.000
(3)	+++++	+++++	+++++	3768	+++++	3768	0.000
(4)	+++++	+++++	+++++	2699	+++++	2699	0.000
(5)	+++++	+++++	+++++	2631	+++++	2631	0.000
4 Aroclor-1242(1)	12162	10602	10267	9852	8873	10351	11.615
(2)	8972	7860	7095	6551	5917	7279	16.286
(3)	7172	6222	5595	5138	4714	5768	16.707
(4)	7092	6149	5608	5215	4876	5788	15.018
(5)	8262	7049	6439	5944	5512	6641	16.138
5 Aroclor-1248(1)	9375	8130	7334	6873	6297	7602	15.743
(2)	11273	9902	9059	8609	7955	9360	13.704
(3)	12356	11118	10348	9982	9432	10647	10.657
(4)	14147	12783	11698	11327	10532	12097	11.596
(5)	13387	12032	11069	10719	10286	11499	10.750

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 22-FEB-2010 12:08
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/022310.b/ECD1-B-8082-022210.m
Cal Date : 24-Feb-2010 08:10 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7593	6474	5915	5463	4897	6068	16.986
(2)	13079	11278	10543	9836	8978	10743	14.511
(3)	14023	12144	11373	10769	9907	11643	13.419
(4)	18579	16173	15683	15087	13972	15899	10.745
(5)	14693	12059	11530	11303	10291	11975	13.772
7 Aroclor-1260(1)	16156	14478	12627	11898	10869	13206	15.988
(2)	18308	16389	15401	14483	13254	15567	12.332
(3)	14169	12468	11644	10875	10061	11844	13.319
(4)	14677	12787	11930	11182	10430	12201	13.416
(5)	30570	27429	26347	25126	23163	26527	10.405
8 Aroclor-1262(1)	+++++	+++++	+++++	11265	+++++	11265	0.000
(2)	+++++	+++++	+++++	15504	+++++	15504	0.000
(3)	+++++	+++++	+++++	14070	+++++	14070	0.000
(4)	+++++	+++++	+++++	28448	+++++	28448	0.000
(5)	+++++	+++++	+++++	19723	+++++	19723	0.000
9 Aroclor-1268(1)	41829	39003	36612	35751	33294	37298	8.721
(2)	39747	36378	33891	33096	31474	34917	9.246
(3)	30202	27679	25801	25188	24032	26580	9.093
(4)	14370	12834	11677	11309	10971	12232	11.329
(5)	81955	77588	73073	71224	67792	74326	7.452
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	335261	308362	295849	285028	262485	297397	9.098
$ 12 Decachlorobiphenyl	252219	220293	206273	196840	181867	211498	12.633

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1898

Instrument ID: ECD1A Calibration Date: 02/23/10 Time: 0611

Lab File ID: 002F0201 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15384.345	13535.104	0.01	-12.0	15.0
(2)	18237.012	16914.086	0.01	-7.2	15.0
(3)	12065.482	10868.544	0.01	-9.9	15.0
(4)	7096.105	6510.230	0.01	-8.2	15.0
(5)	8912.192	8262.297	0.01	-7.3	15.0
Aroclor-1260	17072.421	17718.373	0.01	3.8	15.0
(2)	23643.449	25348.511	0.01	7.2	15.0
(3)	24971.335	27084.315	0.01	8.5	15.0
(4)	14405.675	15473.477	0.01	7.4	15.0
(5)	14430.527	15854.511	0.01	9.9	15.0
4cmx	430636.91	396908.24	0.01	-7.8	15.0
Decachlorobiphenyl	307289.35	289760.17	0.01	-5.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1898

Instrument ID: ECD1A Calibration Date: 02/23/10 Time: 0611

Lab File ID: 002B0201 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	11458.800	0.01	-10.4	15.0
(2)	8917.926	7736.071	0.01	-13.2	15.0
(3)	5406.011	4765.375	0.01	-11.8	15.0
(4)	6915.638	6010.703	0.01	-13.1	15.0
(5)	6425.213	5640.945	0.01	-12.2	15.0
Aroclor-1260	13205.642	12335.399	0.01	-6.6	15.0
(2)	15566.814	15064.788	0.01	-3.2	15.0
(3)	11843.501	11343.130	0.01	-4.2	15.0
(4)	12201.193	11755.960	0.01	-3.6	15.0
(5)	26527.172	26335.720	0.01	-0.7	15.0
4cmx	297396.93	265172.56	0.01	-10.8	15.0
Decachlorobiphenyl	211498.34	185738.53	0.01	-12.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1898

Instrument ID: ECD1A Calibration Date: 02/23/10 Time: 1458

Lab File ID: 040F4001 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15384.345	13817.688	0.01	-10.2	15.0
(2)	18237.012	17049.592	0.01	-6.5	15.0
(3)	12065.482	11134.455	0.01	-7.7	15.0
(4)	7096.105	6691.207	0.01	-5.7	15.0
(5)	8912.192	8530.122	0.01	-4.3	15.0
Aroclor-1260	17072.421	17099.844	0.01	0.2	15.0
(2)	23643.449	24747.363	0.01	4.7	15.0
(3)	24971.335	26431.869	0.01	5.8	15.0
(4)	14405.675	15156.872	0.01	5.2	15.0
(5)	14430.527	15656.749	0.01	8.5	15.0
4cmx	430636.91	403897.63	0.01	-6.2	15.0
Decachlorobiphenyl	307289.35	286854.79	0.01	-6.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1898

Instrument ID: ECD1A Calibration Date: 02/23/10 Time: 1458

Lab File ID: 040B4001 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	12789.782	11709.612	0.01	-8.4	15.0	
(2)	8917.926	7582.126	0.01	-15.0	15.0	
(3)	5406.011	4699.918	0.01	-13.1	15.0	
(4)	6915.638	5937.303	0.01	-14.1	15.0	
(5)	6425.213	5456.636	0.01	-15.1	15.0	<-
Aroclor-1260	13205.642	11326.989	0.01	-14.2	15.0	
(2)	15566.814	13884.105	0.01	-10.8	15.0	
(3)	11843.501	10466.529	0.01	-11.6	15.0	
(4)	12201.193	10840.427	0.01	-11.2	15.0	
(5)	26527.172	24256.154	0.01	-8.6	15.0	
4cmx	297396.93	262119.49	0.01	-11.9	15.0	
Decachlorobiphenyl	211498.34	187233.54	0.01	-11.5	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1898

Instrument ID: ECD1A Calibration Date: 02/23/10 Time: 1725

Lab File ID: 052F5201 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15384.345	14082.769	0.01	-8.5	15.0
(2)	18237.012	17909.958	0.01	-1.8	15.0
(3)	12065.482	11375.797	0.01	-5.7	15.0
(4)	7096.105	6833.598	0.01	-3.7	15.0
(5)	8912.192	8821.075	0.01	-1.0	15.0
Aroclor-1260	17072.421	17548.738	0.01	2.8	15.0
(2)	23643.449	25361.136	0.01	7.3	15.0
(3)	24971.335	27091.719	0.01	8.5	15.0
(4)	14405.675	15526.482	0.01	7.8	15.0
(5)	14430.527	15958.251	0.01	10.6	15.0
4cmx	430636.91	413495.26	0.01	-4.0	15.0
Decachlorobiphenyl	307289.35	263994.61	0.01	-14.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1898

Instrument ID: ECD1A Calibration Date: 02/23/10 Time: 1725

Lab File ID: 052B5201 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	11798.514	0.01	-7.8	15.0
(2)	8917.926	7700.094	0.01	-13.6	15.0
(3)	5406.011	4771.974	0.01	-11.7	15.0
(4)	6915.638	5990.080	0.01	-13.4	15.0
(5)	6425.213	5646.517	0.01	-12.1	15.0
Aroclor-1260	13205.642	11397.739	0.01	-13.7	15.0
(2)	15566.814	13917.518	0.01	-10.6	15.0
(3)	11843.501	10475.892	0.01	-11.5	15.0
(4)	12201.193	10862.993	0.01	-11.0	15.0
(5)	26527.172	24257.808	0.01	-8.6	15.0
4cmx	297396.93	266980.21	0.01	-10.2	15.0
Decachlorobiphenyl	211498.34	185455.88	0.01	-12.3	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022310.b/002f0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 23-FEB-2010 06:11
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/022310.b/ECD1-F-8082-022210.m
Meth Date : 23-Feb-2010 11:28 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.922	1.922	0.000	39690824	100.000	92.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.232	5.232	0.000	28976017	100.000	94.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.376	2.376	0.000	13535104	1000.00	880	80.00- 120.00	100.00
2.663	2.663	0.000	16914085	1000.00	927	104.96- 144.96	124.96
2.743	2.743	0.000	10868543	1000.00	901	60.30- 100.30	80.30
2.781	2.781	0.000	6510230	1000.00	917	28.10- 68.10	48.10
2.992	2.992	0.000	8262297	1000.00	927	41.04- 81.04	61.04
Average of Peak Amounts =					911		
7 Aroclor-1260					CAS #: 11096-82-5		
3.718	3.718	0.000	17718372	1000.00	1040	80.00- 120.00	100.00
3.881	3.881	0.000	25348510	1000.00	1070	123.06- 163.06	143.06
4.042	4.042	0.000	27084315	1000.00	1080	132.86- 172.86	152.86
4.111	4.111	0.000	15473477	1000.00	1070	67.33- 107.33	87.33
4.254	4.254	0.000	15854510	1000.00	1100	69.48- 109.48	89.48
Average of Peak Amounts =					1.07e+03		

Data File: /chem/ecd1a.i/022310.b/002f0201.d

Date : 23-FEB-2010 06:11

Client ID: AR166001

Sample Info: IWAR100203-60 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

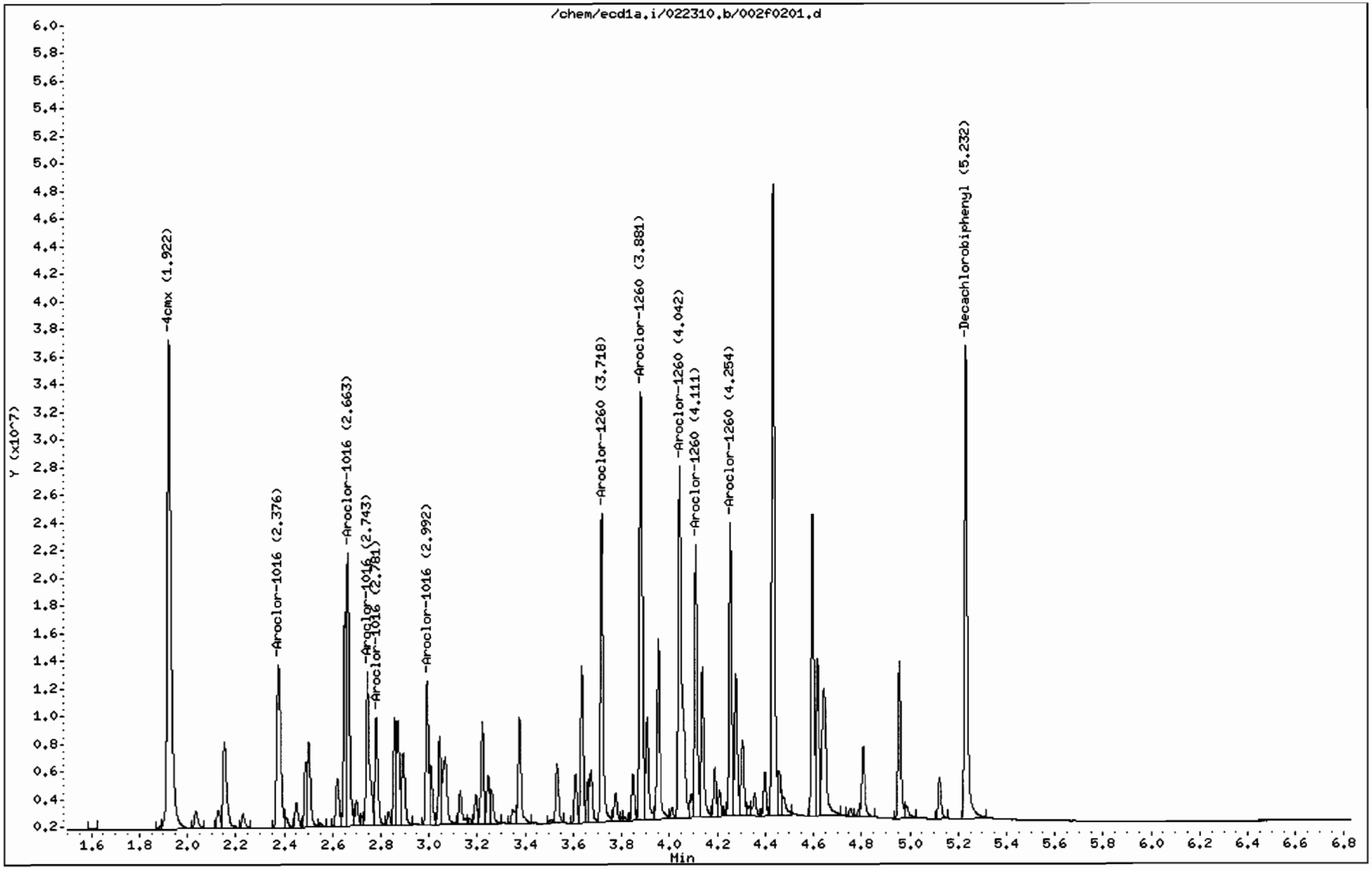

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022310.b/002b0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 23-FEB-2010 06:11
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/022310.b/ECD1-B-8082-022210.m
Meth Date : 23-Feb-2010 11:30 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.287	2.287	0.000	26517256	100.000	89.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.936	5.936	0.000	18573853	100.000	87.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.183	3.183	0.000	11458800	1000.00	896	80.00- 120.00	100.00(M)
3.267	3.267	0.000	7736071	1000.00	867	47.51- 87.51	67.51
3.330	3.330	0.000	4765375	1000.00	881	21.59- 61.59	41.59
3.557	3.557	0.000	6010703	1000.00	869	32.45- 72.45	52.45
3.632	3.632	0.000	5640945	1000.00	878	29.23- 69.23	59.26
Average of Peak Amounts =					878		
7 Aroclor-1260					CAS #: 11096-82-5		
4.324	4.324	0.000	12335399	1000.00	934	80.00- 120.00	100.00
4.449	4.449	0.000	15064788	1000.00	968	102.13- 142.13	122.13
4.716	4.716	0.000	11343130	1000.00	958	71.96- 111.96	91.96
4.889	4.889	0.000	11755960	1000.00	964	75.30- 115.30	95.30
5.036	5.036	0.000	26335720	1000.00	993	193.50- 233.50	213.50
Average of Peak Amounts =					963		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/022310.b/002b0201.d

Date : 23-FEB-2010 06:11

Client ID: AR166001

Sample Info: |WAR100203-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

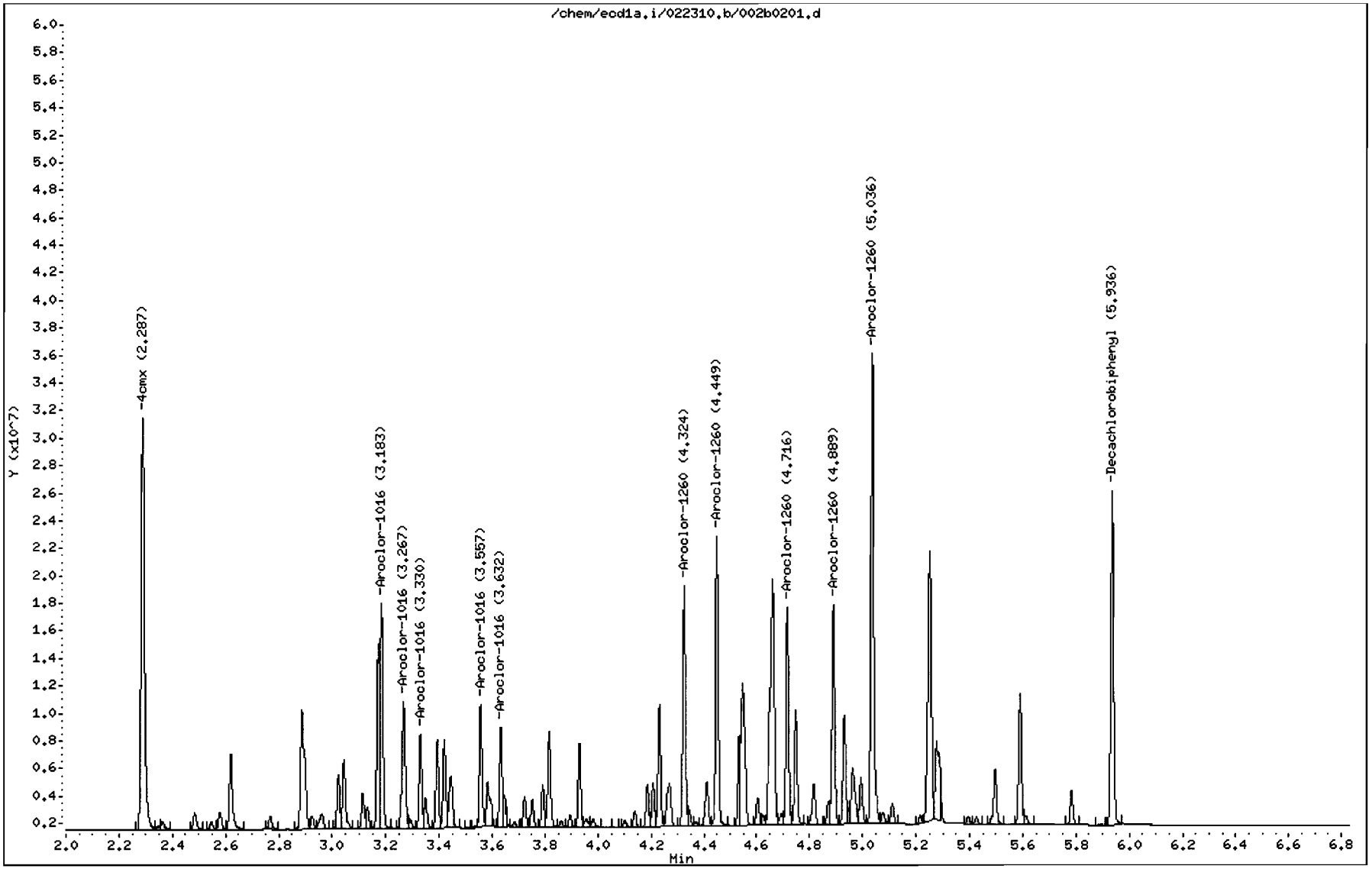

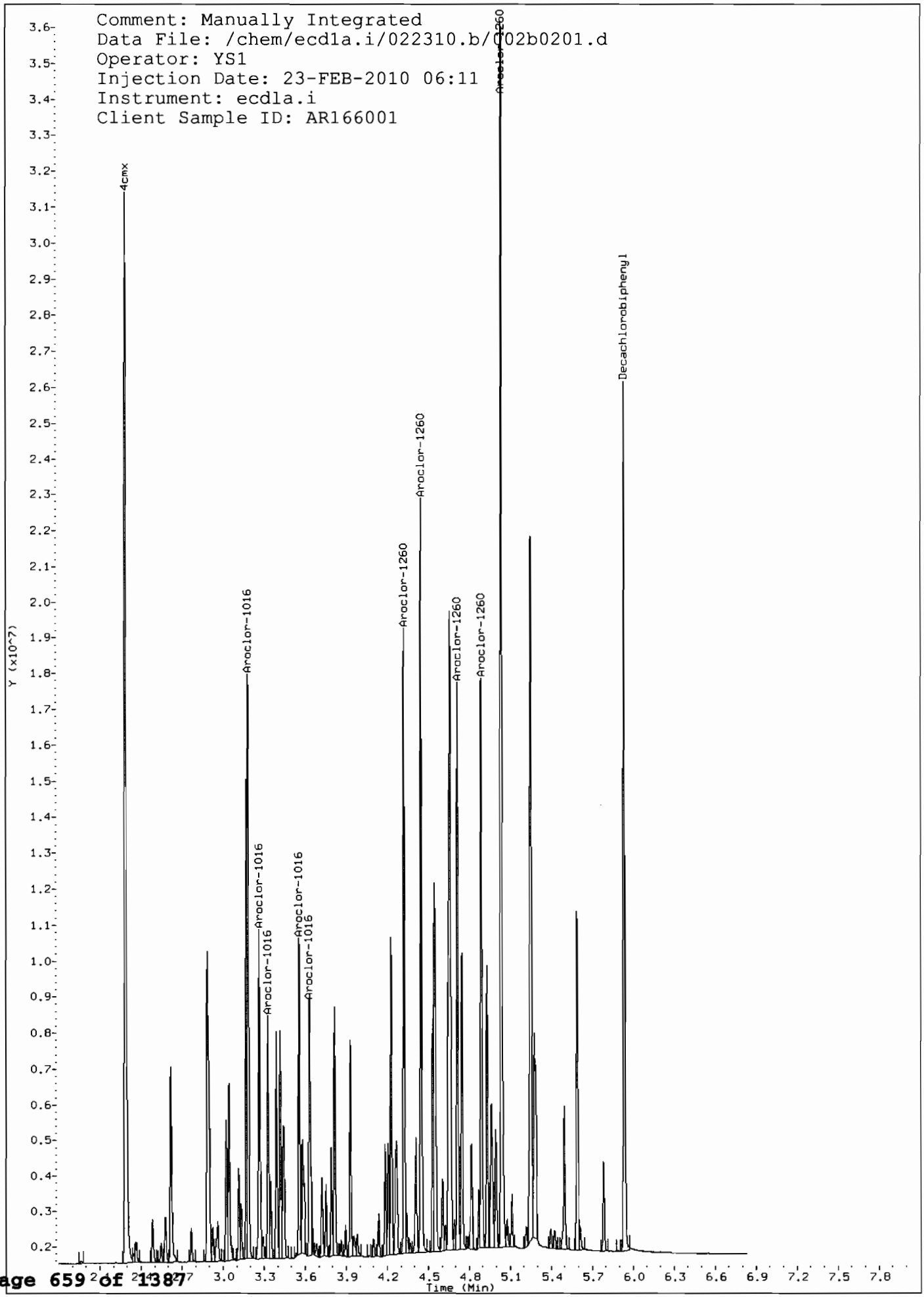
Comment: Manually Integrated
Data File: /chem/ecd1a.i/022310.b/C02b0201.d
Operator: YS1
Injection Date: 23-FEB-2010 06:11
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

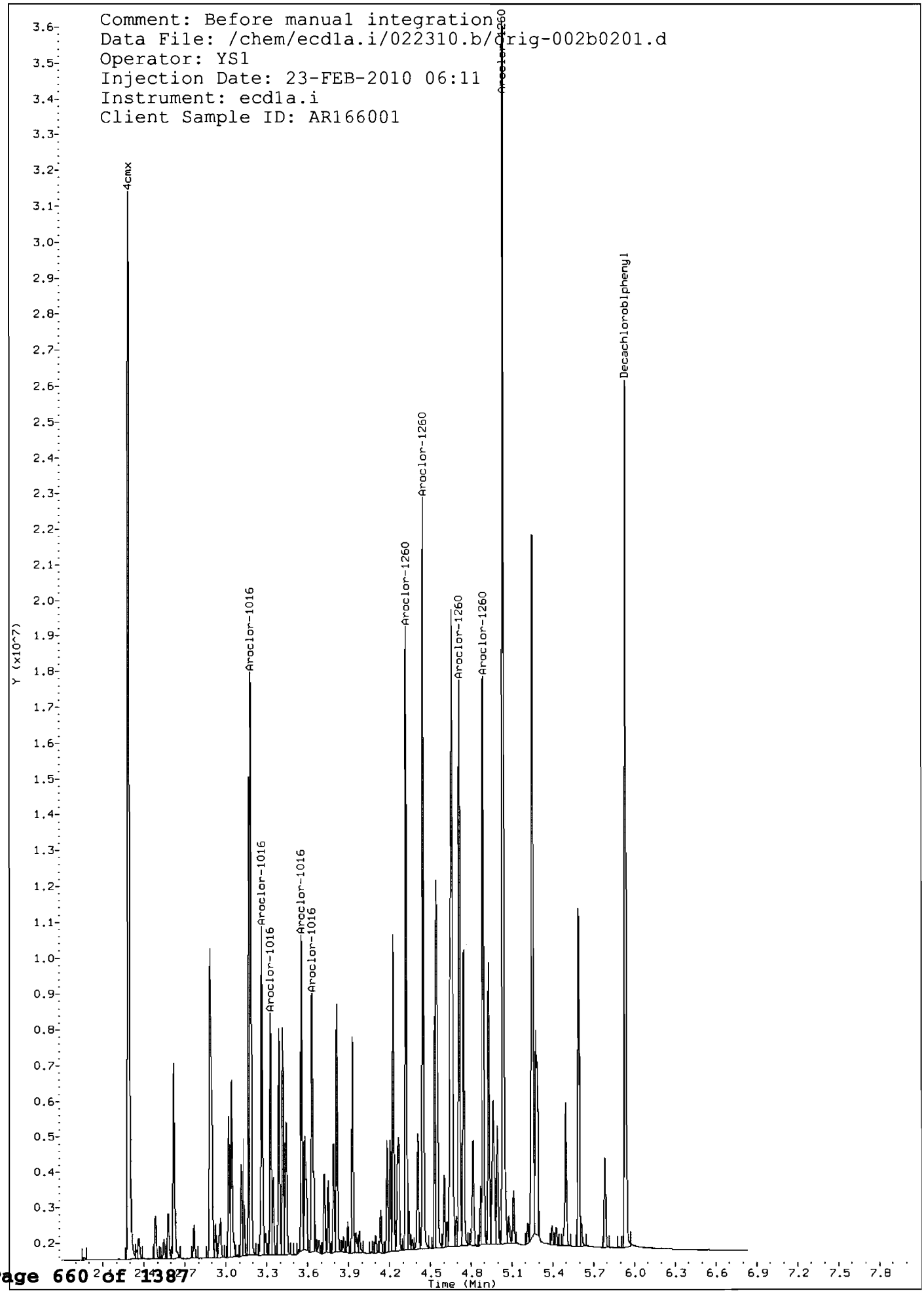
Comment: Before manual integration
Data File: /chem/ecd1a.i/022310.b/orig-002b0201.d
Operator: YS1
Injection Date: 23-FEB-2010 06:11
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/022310.b/003f0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 23-FEB-2010 06:22
Operator : YS1 Inst ID: ecdla.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecdla.i/022310.b/ECD1-F-8082-022210.m
Meth Date : 23-Feb-2010 11:28 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.222	3.222	0.000	12023733	1000.00	1000	80.00- 120.00	100.00
3.377	3.377	0.000	16139536	1000.00	1020	114.23- 154.23	134.23
3.610	3.610	0.000	20832543	1000.00	1070	153.26- 193.26	173.26
3.774	3.774	0.000	14837457	1000.00	1070	103.40- 143.40	123.40
3.883	3.883	0.000	15559530	1000.00	1090	109.41- 149.41	129.41

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/022310.b/003f0301.d
Date : 23-FEB-2010 06:22
Client ID: AR125401
Sample Info: IWAR100219-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

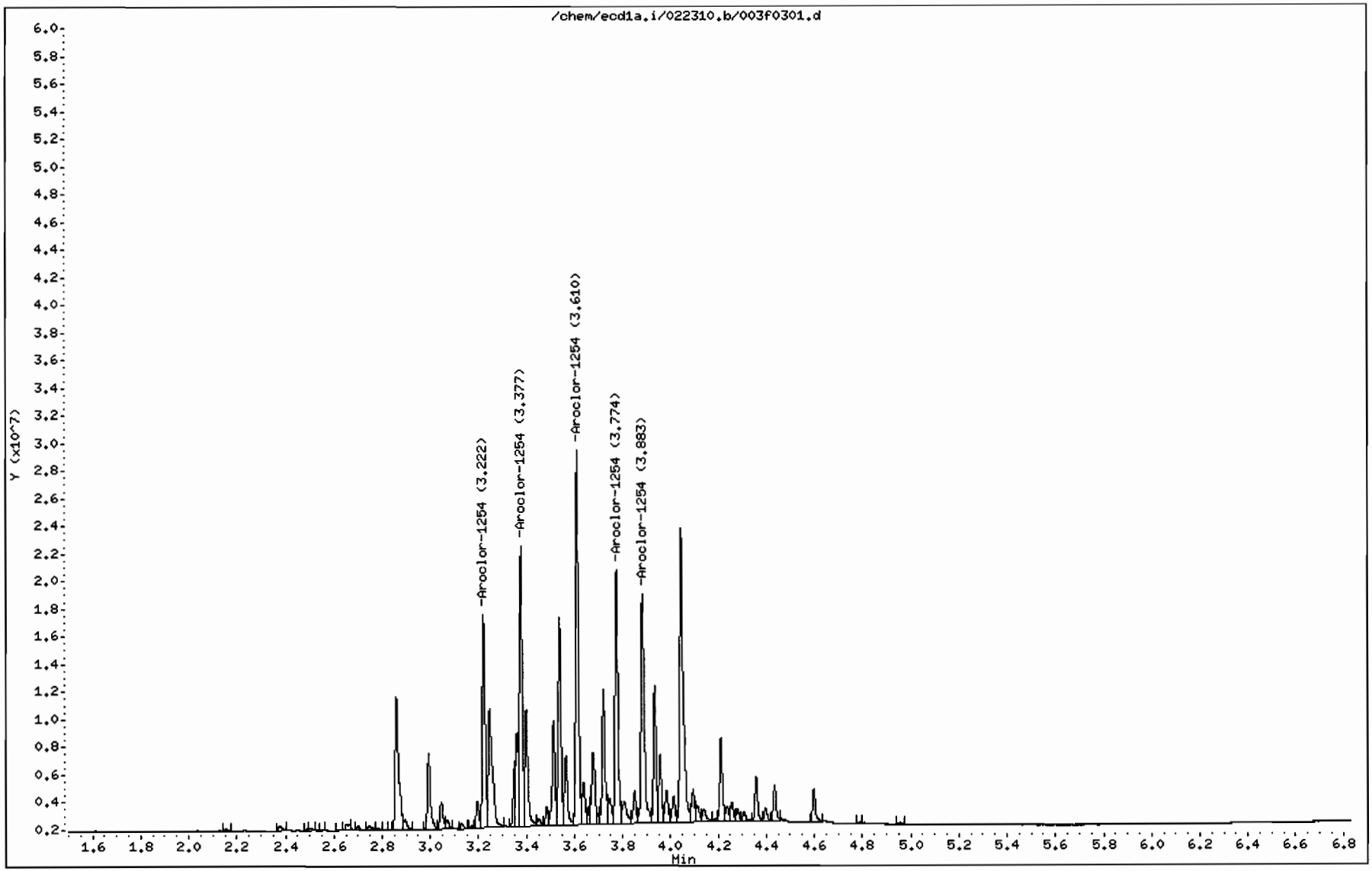

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022310.b/003b0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 23-FEB-2010 06:22
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/022310.b/ECD1-B-8082-022210.m
Meth Date : 23-Feb-2010 11:30 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.394	3.394	0.000	5521374	1000.00	910	80.00- 120.00	100.00
3.816	3.816	0.000	9874704	1000.00	919	158.85- 198.85	178.85
3.932	3.932	0.000	10861414	1000.00	933	176.72- 216.72	196.72
4.209	4.209	0.000	15218943	1000.00	957	255.64- 295.64	275.64
4.345	4.345	0.000	11120215	1000.00	929	181.40- 221.40	201.40
Average of Peak Amounts =					930		

Data File: /chem/ecd1a.i/022310.b/003b0301.d

Date : 23-FEB-2010 06:22

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

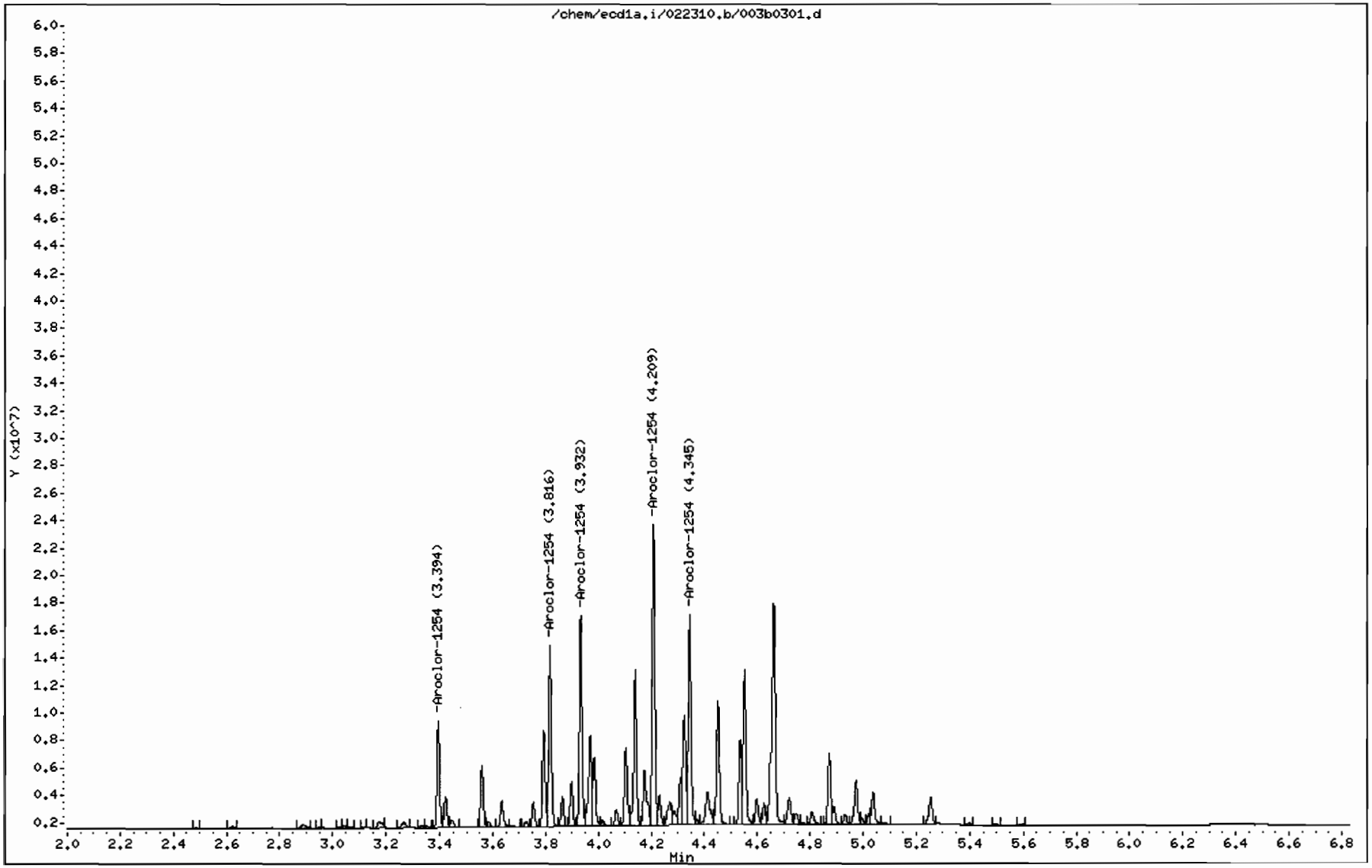

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022310.b/004f0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 23-FEB-2010 06:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/022310.b/ECD1-F-8082-022210.m
Meth Date : 23-Feb-2010 11:28 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.377	2.377	0.000	12139934	1000.00	967	80.00- 120.00	100.00
2.664	2.664	0.000	14039341	1000.00	961	95.65- 135.65	115.65
2.783	2.783	0.000	5580145	1000.00	991	25.97- 65.97	45.97
2.993	2.993	0.000	7084930	1000.00	969	38.36- 78.36	58.36
3.246	3.246	0.000	6333052	1000.00	1020	32.17- 72.17	52.17
Average of Peak Amounts =					982		

Data File: /chem/ecd1a.i/022310.b/004f0401.d

Date : 23-FEB-2010 06:32

Client ID: AR124201

Sample Info: IWAR100219-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

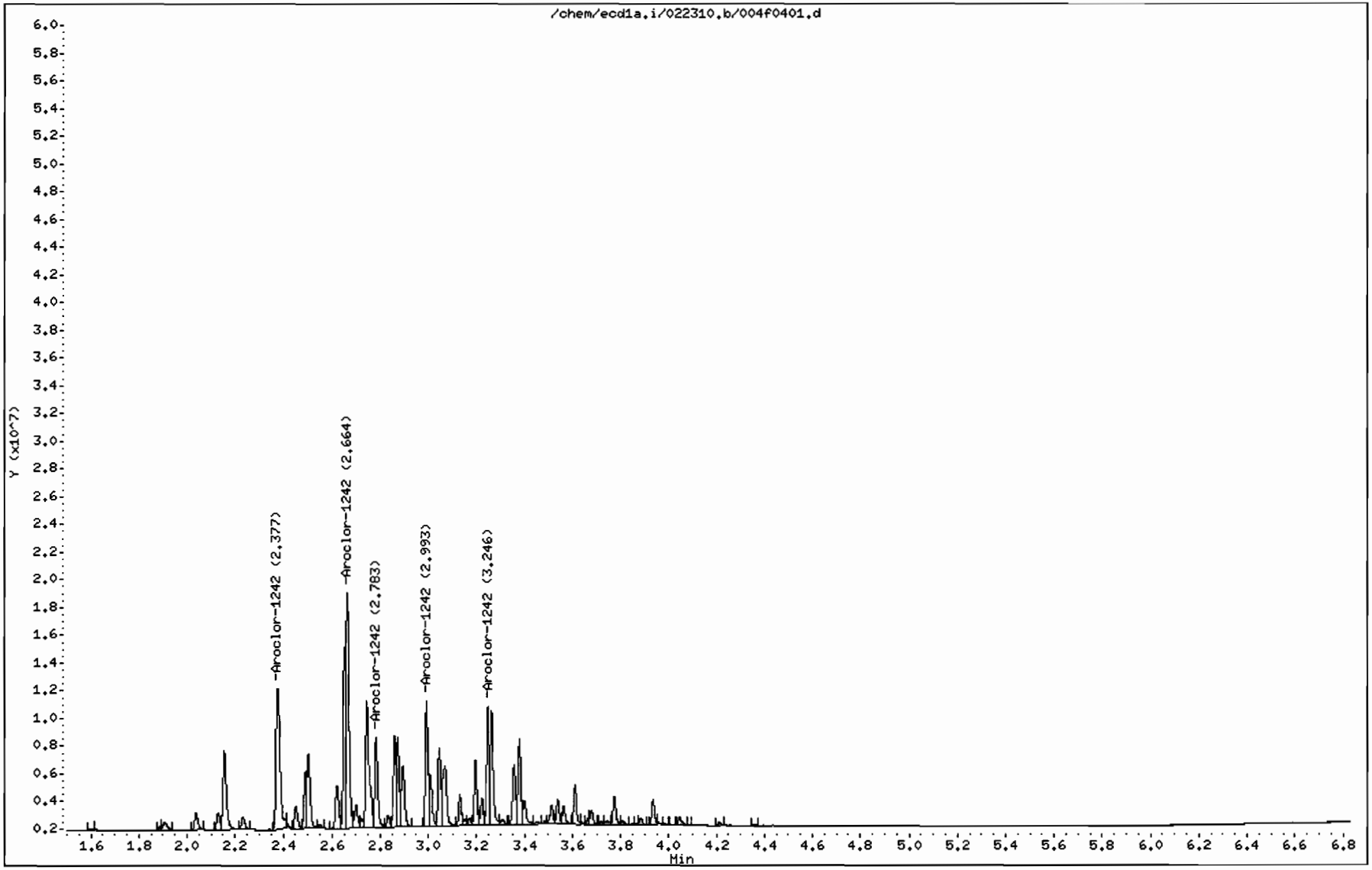

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022310.b/004b0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 23-FEB-2010 06:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/022310.b/ECD1-B-8082-022210.m
Meth Date : 23-Feb-2010 11:30 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.185	3.185	0.000	9840705	1000.00	951	80.00- 120.00	100.00
3.268	3.268	0.000	6627672	1000.00	910	47.35- 87.35	67.35
3.558	3.558	0.000	5137951	1000.00	891	32.21- 72.21	52.21
3.793	3.793	0.000	5298120	1000.00	915	33.84- 73.84	53.84
3.820	3.820	0.000	5972876	1000.00	899	40.70- 80.70	60.70
		Average of Peak Amounts =			913		

Data File: /chem/ecd1a.i/022310.b/004b0401.d

Date : 23-FEB-2010 06:32

Client ID: AR124201

Sample Info: IWAR100219-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

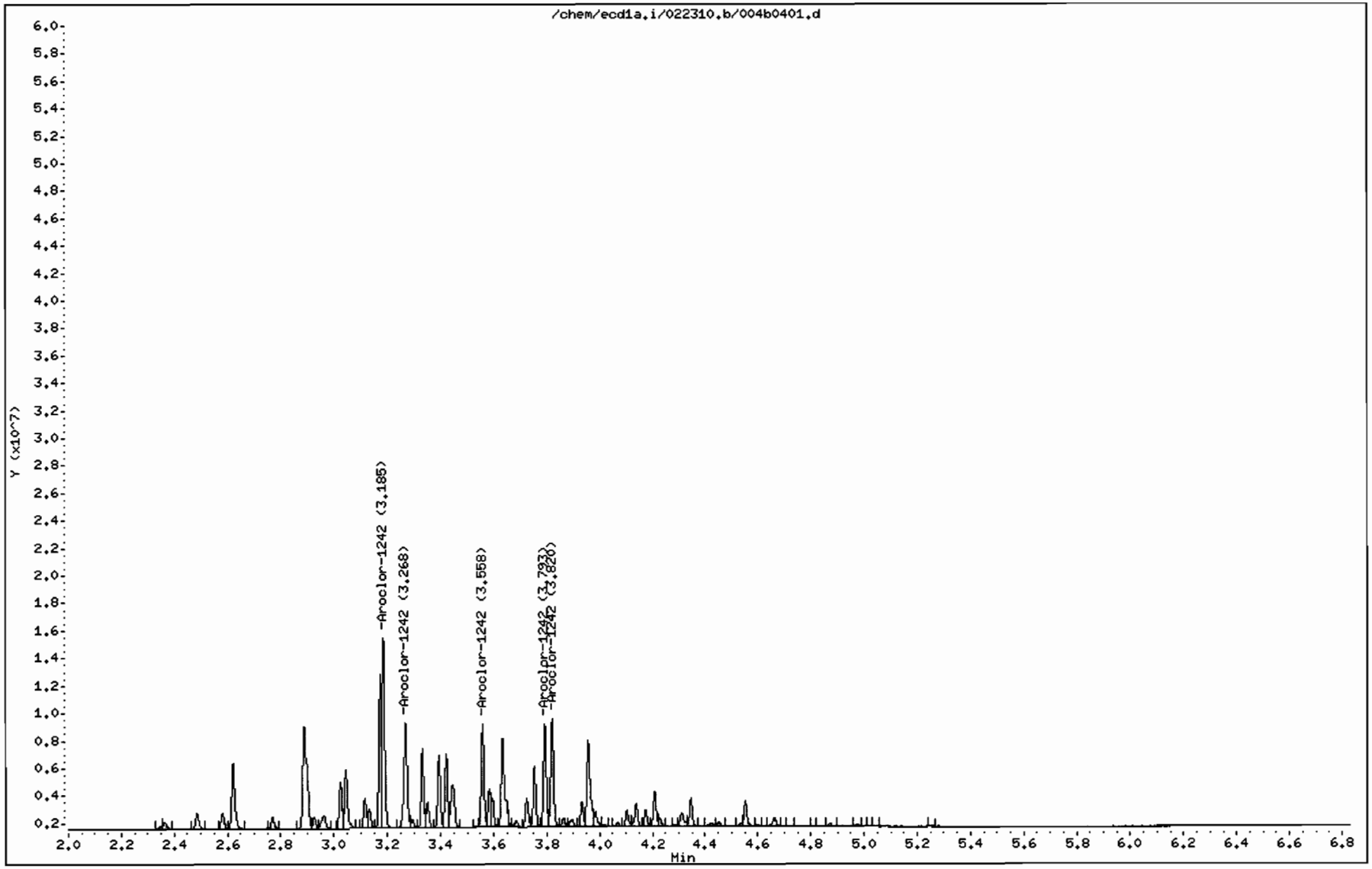

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022310.b/005f0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 23-FEB-2010 06:43
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/022310.b/ECD1-F-8082-022210.m
Meth Date : 23-Feb-2010 11:28 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
2.859	2.859	0.000	9713657	1000.00	1040	80.00- 120.00	100.00
2.993	2.993	0.000	12425206	1000.00	1000	107.91- 147.91	127.91
3.246	3.246	0.000	13066639	1000.00	1070	114.52- 154.52	134.52
3.378	3.378	0.000	11011583	1000.00	1060	93.36- 133.36	113.36
3.611	3.611	0.000	7674135	1000.00	1120	59.00- 99.00	79.00

Average of Peak Amounts = 1.06e+03

Data File: /chem/ecd1a.i/022310.b/005f0501.d

Date : 23-FEB-2010 06:43

Client ID: AR124801

Sample Info: !WAR091217-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

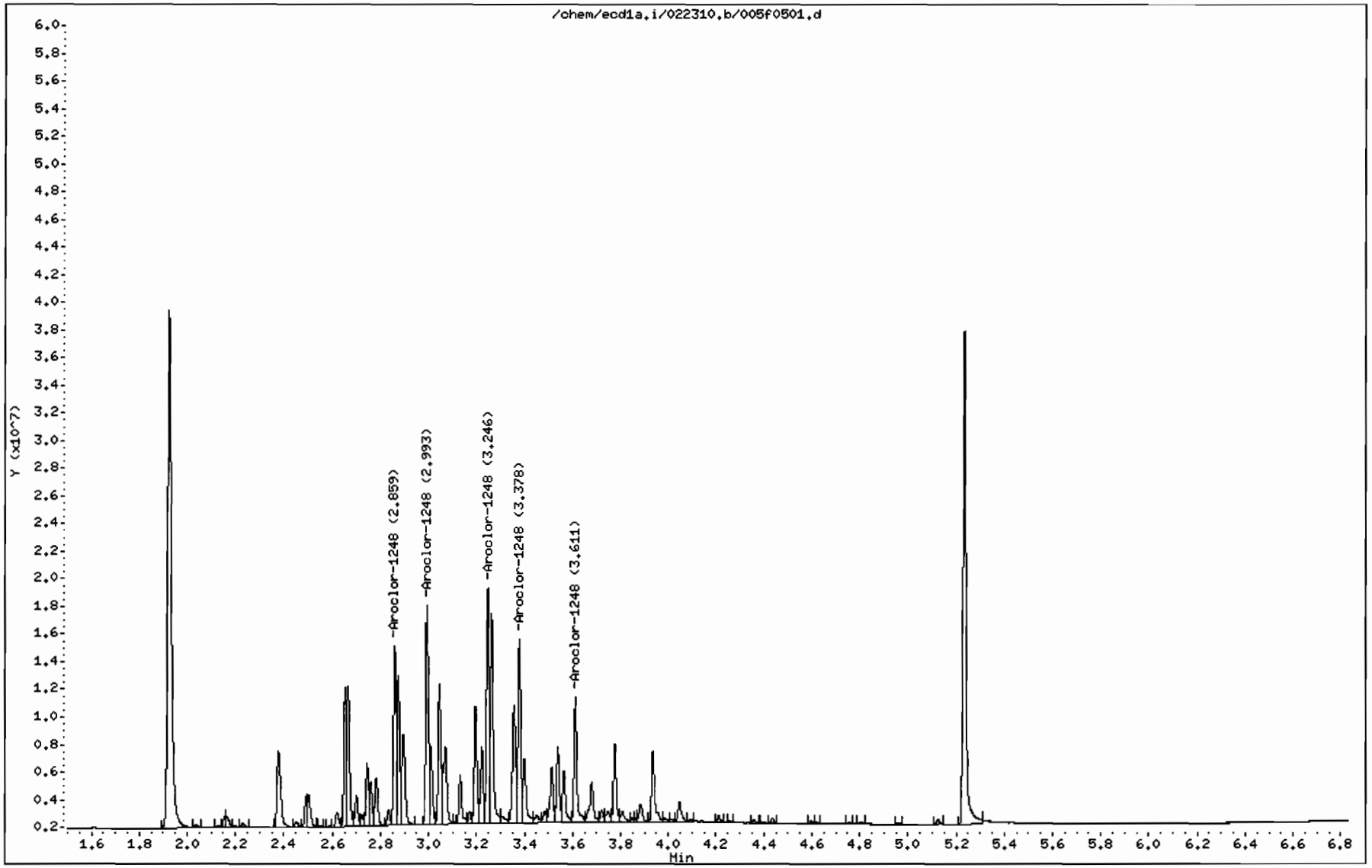

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022310.b/005b0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 23-FEB-2010 06:43
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091217-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/022310.b/ECD1-B-8082-022210.m
Meth Date : 23-Feb-2010 11:30 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.394	3.394	0.000	7212209	1000.00	949	80.00- 120.00	100.00
3.559	3.559	0.000	9005782	1000.00	962	104.87- 144.87	124.87
3.792	3.792	0.000	10350703	1000.00	972	123.52- 163.52	143.52
3.820	3.820	0.000	11558654	1000.00	955	140.27- 180.27	160.27
3.957	3.957	0.000	11120255	1000.00	967	134.19- 174.19	154.19
Average of Peak Amounts =					961		

Data File: /chem/ecd1a.i/022310.b/005b0501.d

Date : 23-FEB-2010 06:43

Client ID: AR124801

Sample Info: IWAR091217-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

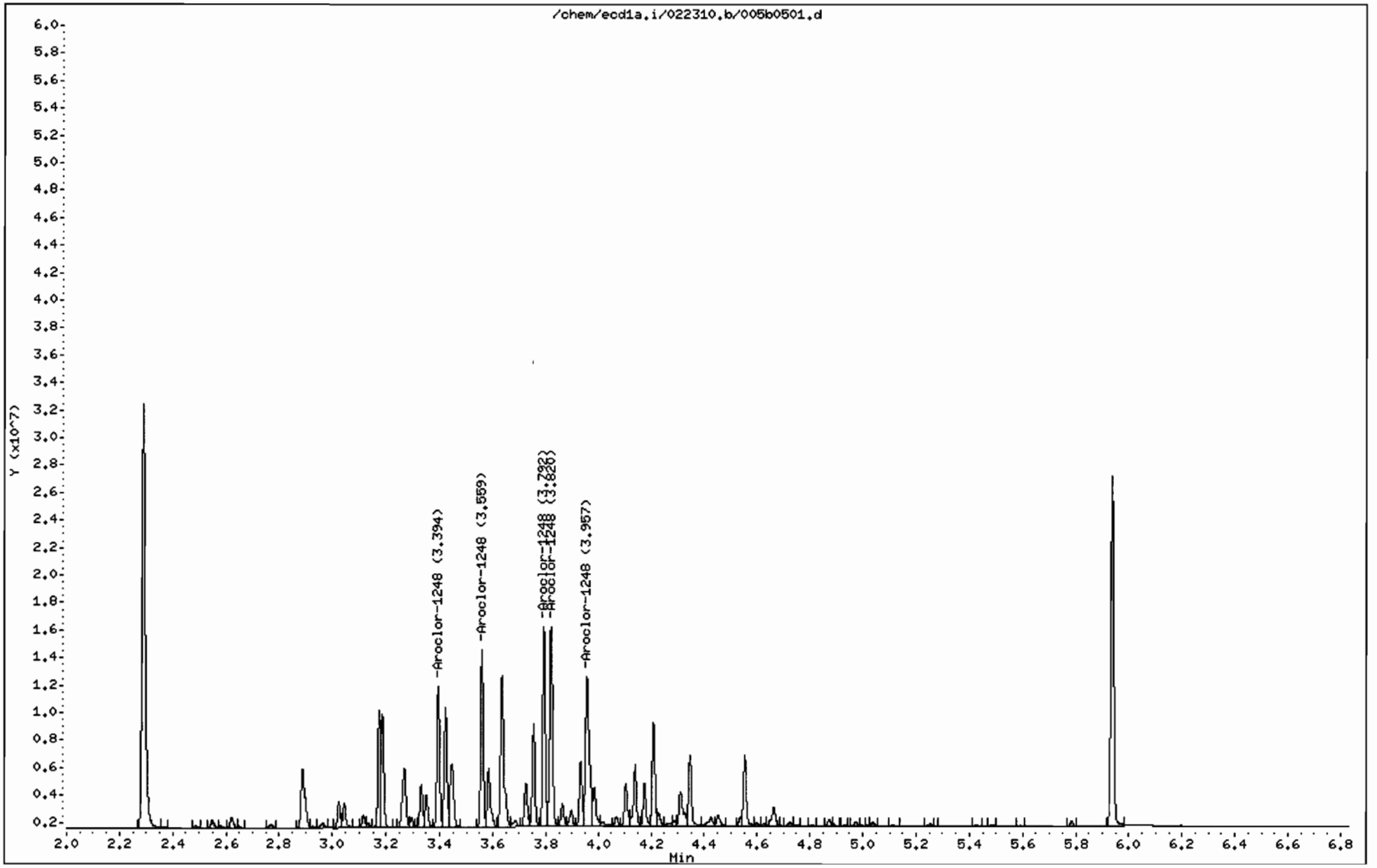

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022310.b/006f0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 23-FEB-2010 06:53
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/022310.b/ECD1-F-8082-022210.m
Meth Date : 23-Feb-2010 11:28 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.378	2.378	0.000	6725058	1000.00	1080	80.00- 120.00	100.00
2.664	2.664	0.000	8433052	1000.00	1130	105.40- 145.40	125.40
2.745	2.745	0.000	5405991	1000.00	1110	60.39- 100.39	80.39
2.859	2.859	0.000	2624674	1000.00	1200	19.03- 59.03	39.03
3.247	3.247	0.000	3264733	1000.00	1200	28.55- 68.55	48.55

Average of Peak Amounts = 1.14e+03

Data File: /chem/ecd1a.i/022310.b/006f0601.d

Date : 23-FEB-2010 06:53

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

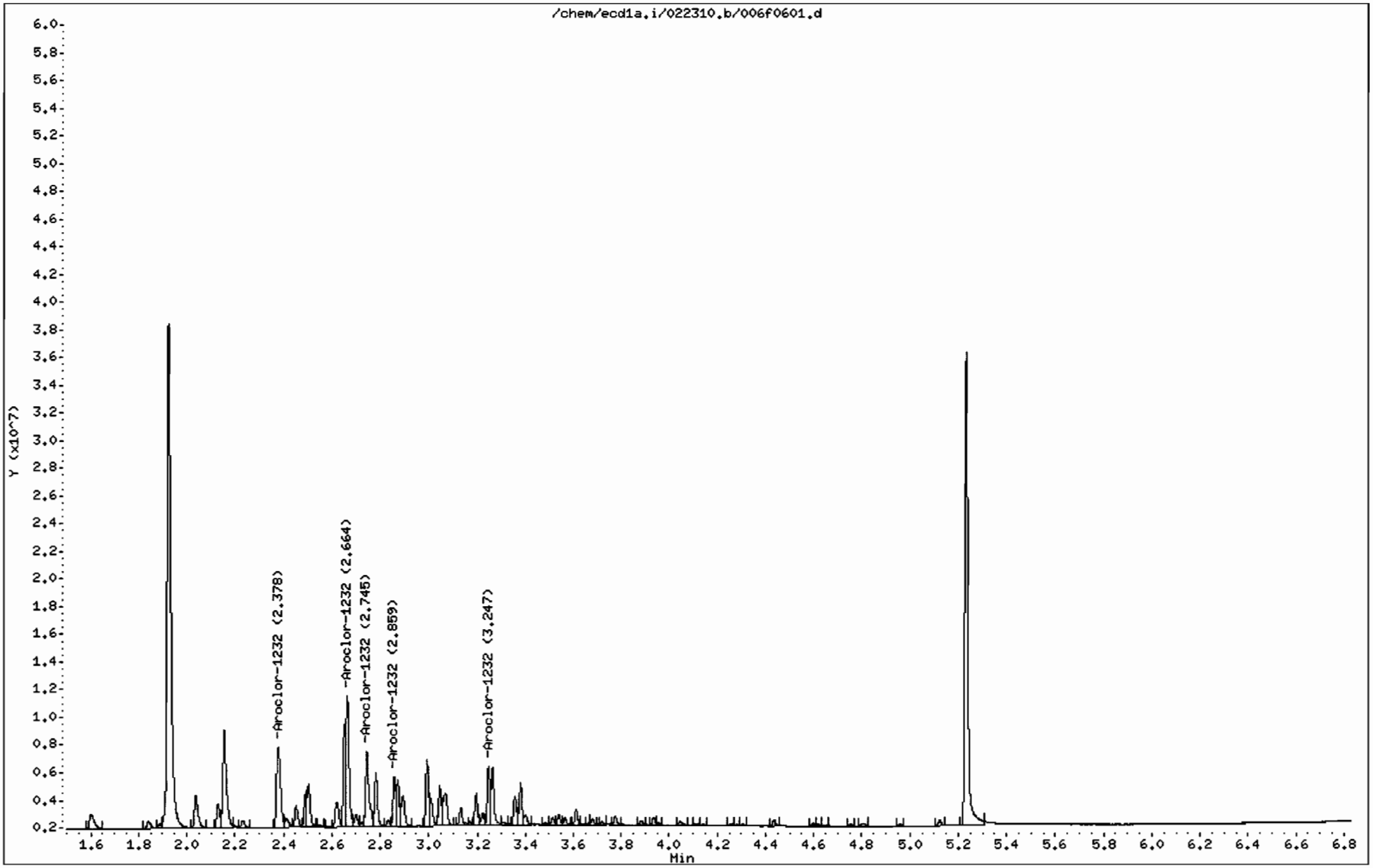

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022310.b/006b0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 23-FEB-2010 06:53
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/022310.b/ECD1-B-8082-022210.m
Meth Date : 23-Feb-2010 11:30 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.888	2.888	0.000	5141093	1000.00	1040	80.00- 120.00	100.00
3.186	3.186	0.000	5852547	1000.00	1110	93.84- 133.84	113.84
3.268	3.268	0.000	3912245	1000.00	1040	56.10- 96.10	76.10
3.559	3.559	0.000	2879027	1000.00	1070	36.00- 76.00	56.00
3.793	3.793	0.000	2827708	1000.00	1070	35.00- 75.00	55.00

Average of Peak Amounts = 1.07e+03

Data File: /chem/ecd1a.i/022310.b/006b0601.d

Date : 23-FEB-2010 06:53

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

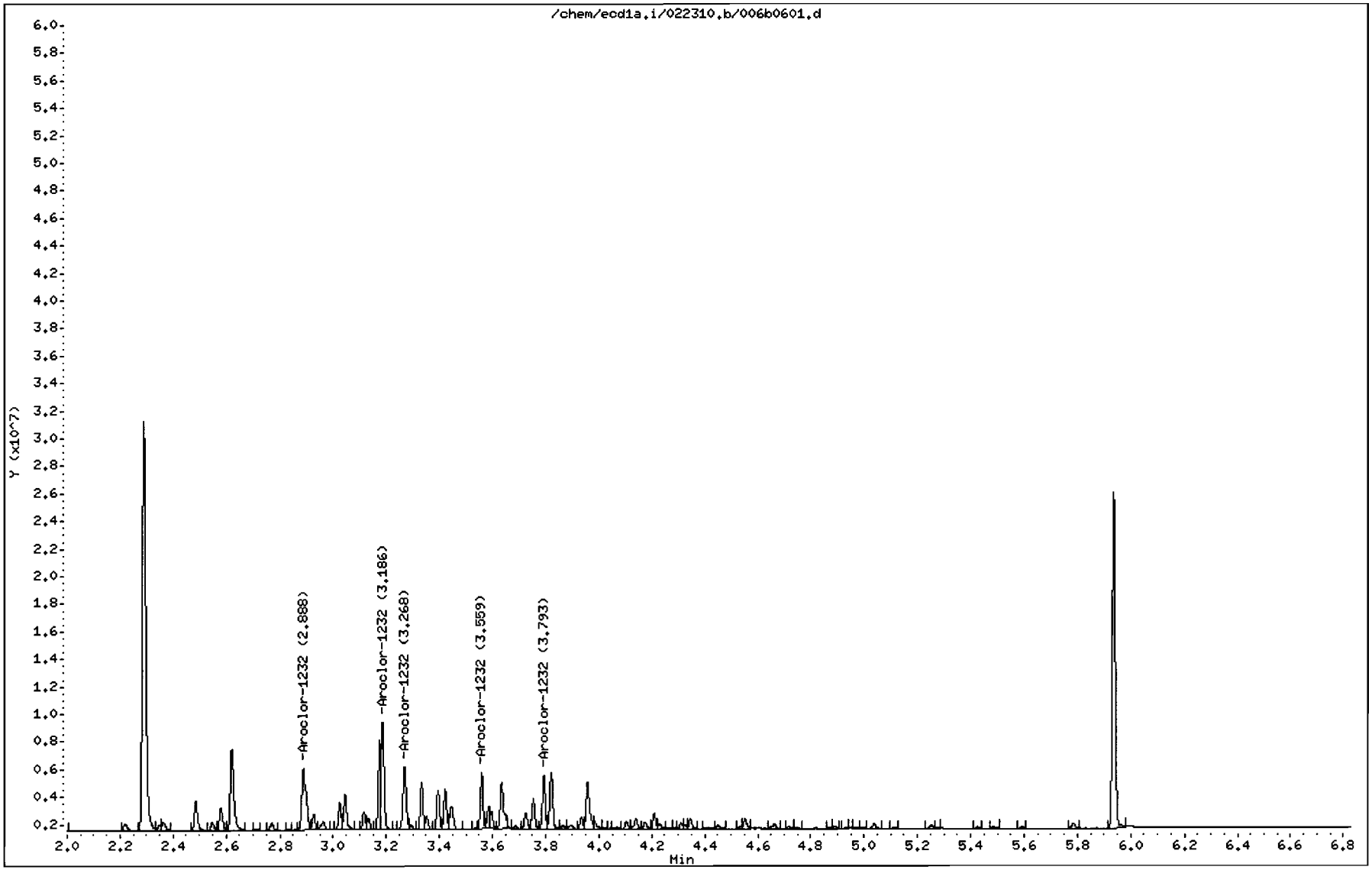

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022310.b/007f0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 23-FEB-2010 07:04
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/022310.b/ECD1-F-8082-022210.m
Meth Date : 23-Feb-2010 11:28 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.035	2.035	0.000	4742763	1000.00	1080	80.00- 120.00	100.00
2.128	2.128	0.000	2645430	1000.00	1090	35.78- 75.78	55.78
2.153	2.153	0.000	11330059	1000.00	1090	218.89- 258.89	238.89

Average of Peak Amounts = 1.08e+03

Data File: /chem/ecd1a.i/022310.b/007f0701.d

Date : 23-FEB-2010 07:04

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

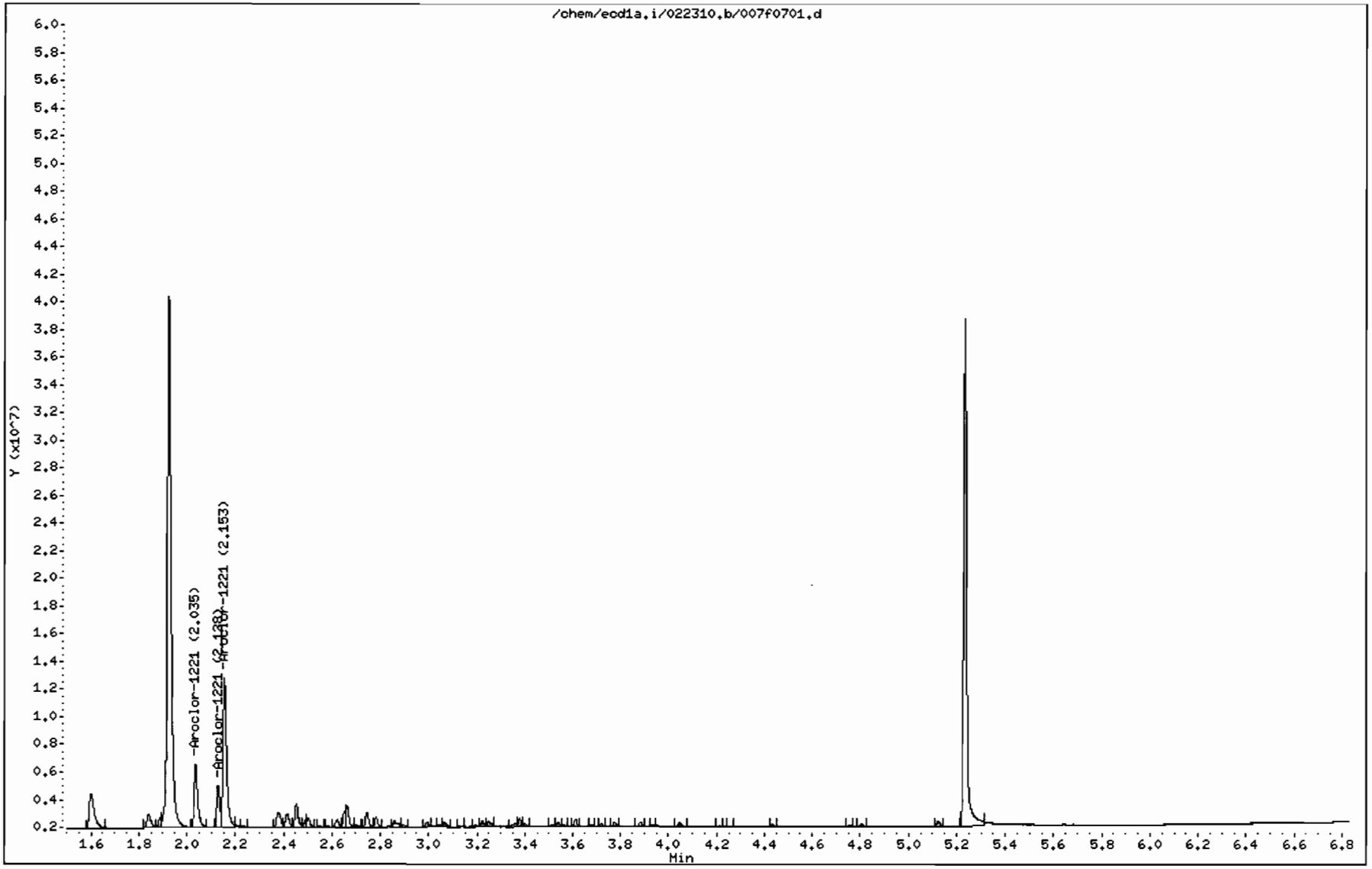

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022310.b/007b0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 23-FEB-2010 07:04
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/022310.b/ECD1-B-8082-022210.m
Meth Date : 23-Feb-2010 11:30 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.485	2.485	0.000	3427584	1000.00	999	80.00- 120.00	100.00
2.579	2.579	0.000	2212120	1000.00	1030	44.54- 84.54	64.54
2.620	2.620	0.000	7673682	1000.00	1050	203.88- 243.88	223.88

Average of Peak Amounts = 1.02e+03

Data File: /chem/ecd1a.i/022310.b/007b0701.d

Date : 23-FEB-2010 07:04

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

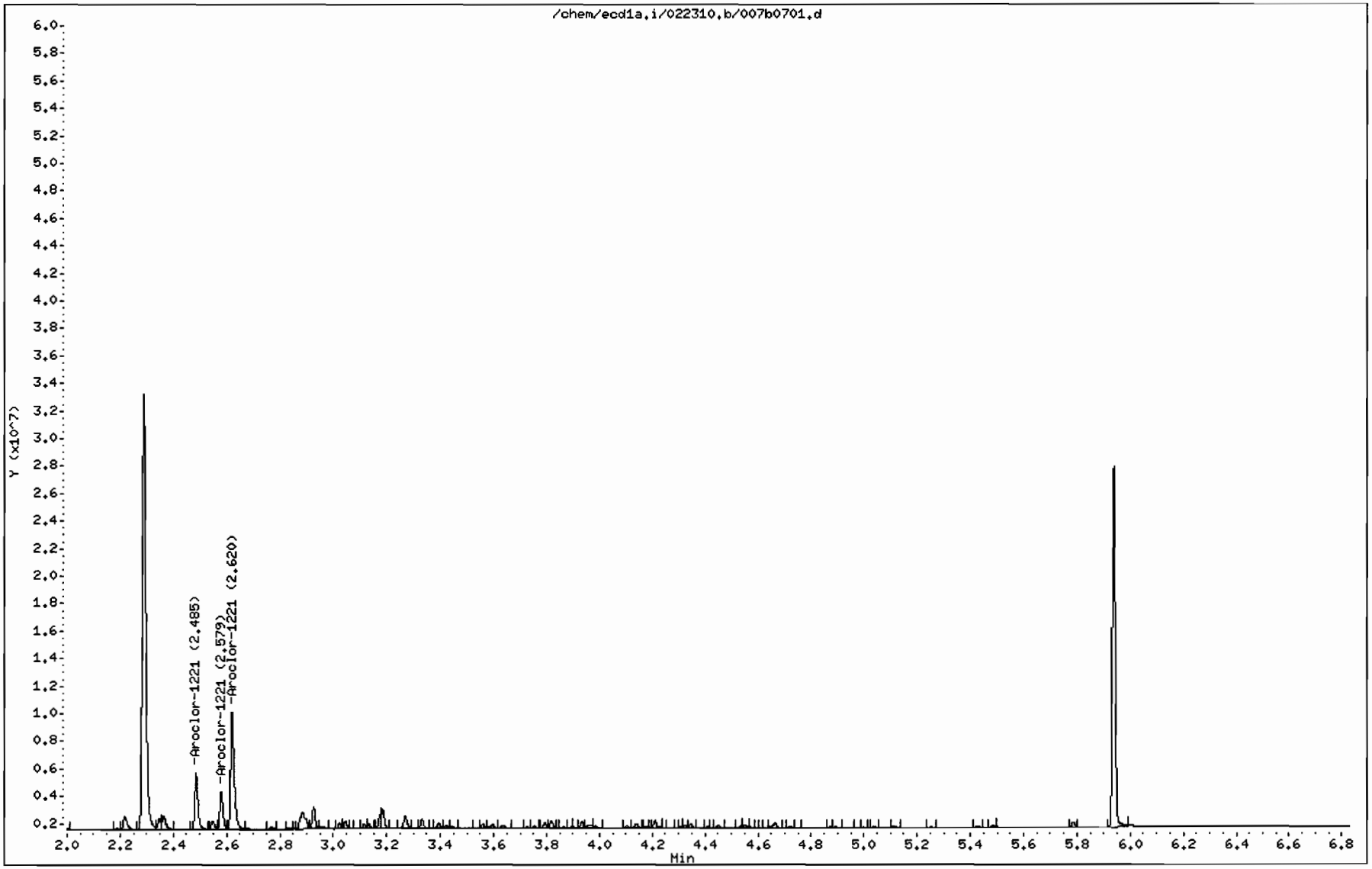

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022310.b/040f4001.d
Lab Smp Id: WAR100203-60 04 Client Smp ID: AR166004
Inj Date : 23-FEB-2010 14:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/022310.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 07:45 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 40 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.922	1.922	0.000	40389763	100.000	93.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.230	5.232	-0.002	28685479	100.000	93.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.376	2.376	0.000	13817688	1000.00	898	80.00- 120.00	100.00
2.663	2.663	0.000	17049592	1000.00	935	103.39- 143.39	123.39
2.742	2.743	-0.001	11134455	1000.00	923	60.58- 100.58	80.58
2.781	2.781	0.000	6691207	1000.00	943	28.42- 68.42	48.42
2.991	2.992	-0.001	8530122	1000.00	957	41.73- 81.73	61.73
Average of Peak Amounts =					931		
7 Aroclor-1260					CAS #: 11096-82-5		
3.717	3.718	-0.001	17099844	1000.00	1000	80.00- 120.00	100.00
3.880	3.881	-0.001	24747363	1000.00	1050	124.72- 164.72	144.72
4.042	4.042	0.000	26431869	1000.00	1060	134.57- 174.57	154.57
4.110	4.111	-0.001	15156872	1000.00	1050	68.64- 108.64	88.64
4.253	4.254	-0.001	15656749	1000.00	1080	71.56- 111.56	91.56
Average of Peak Amounts =					1.05e+03		

Data File: /chem/ecd1a.i/022310.b/040f4001.d

Date : 23-FEB-2010 14:58

Client ID: AR166004

Sample Info: IWAR100203-60 04

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

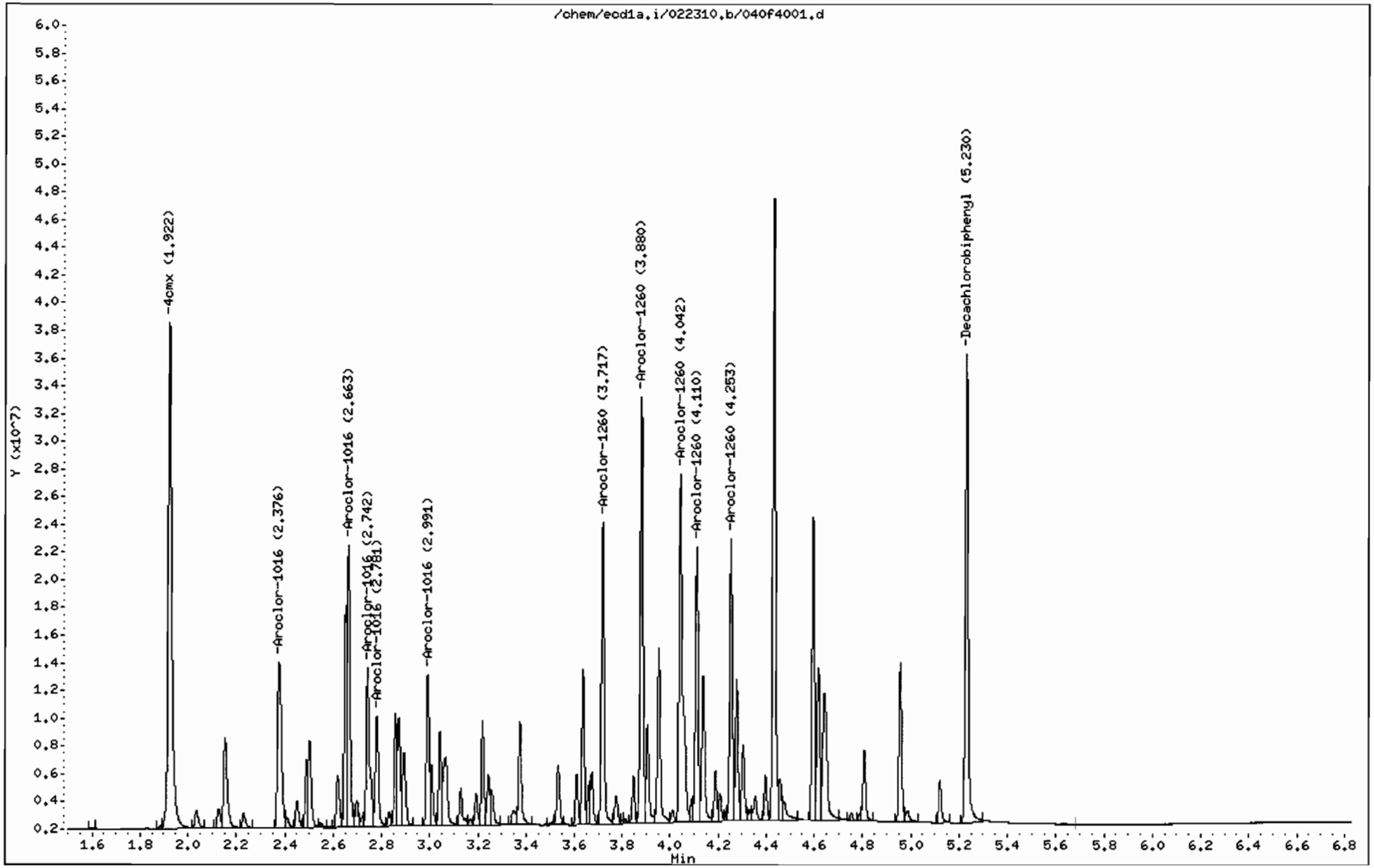

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022310.b/040b4001.d
Lab Smp Id: WAR100203-60 04 Client Smp ID: AR166004
Inj Date : 23-FEB-2010 14:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/022310.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 07:45 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 40 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.288	2.287	0.001	26211949	100.000	88.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.934	5.936	-0.002	18723354	100.000	88.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.183	3.183	0.000	11709612	1000.00	916	80.00- 120.00	100.00(M)
3.267	3.267	0.000	7582126	1000.00	850	44.75- 84.75	64.75
3.330	3.330	0.000	4699918	1000.00	869	20.14- 60.14	40.14
3.557	3.557	0.000	5937303	1000.00	858	30.70- 70.70	50.70
3.632	3.632	0.000	5456636	1000.00	849	26.60- 66.60	46.60
Average of Peak Amounts =					869		
7 Aroclor-1260					CAS #: 11096-82-5		
4.324	4.324	0.000	11326989	1000.00	858	80.00- 120.00	100.00
4.448	4.449	-0.001	13884105	1000.00	892	102.58- 142.58	122.58
4.715	4.716	-0.001	10466529	1000.00	884	72.40- 112.40	92.40
4.889	4.889	0.000	10840427	1000.00	888	75.70- 115.70	95.70
5.036	5.036	0.000	24256154	1000.00	914	194.14- 234.14	214.14
Average of Peak Amounts =					887		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/022310.b/040b4001.d

Page 1

Date : 23-FEB-2010 14:58

Client ID: AR166004

Instrument: ecd1a.i

Sample Info: IWAR100203-60 04

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

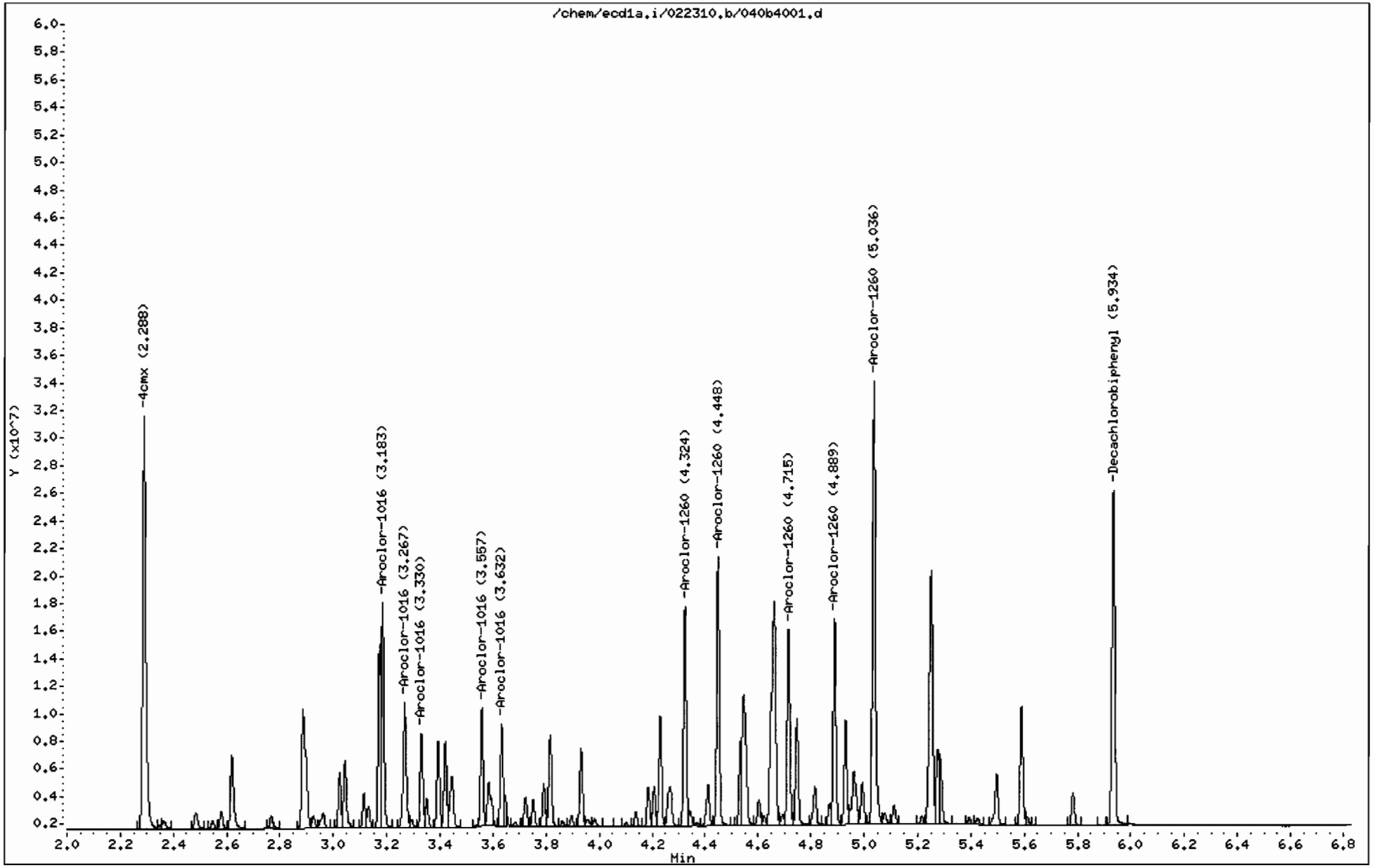

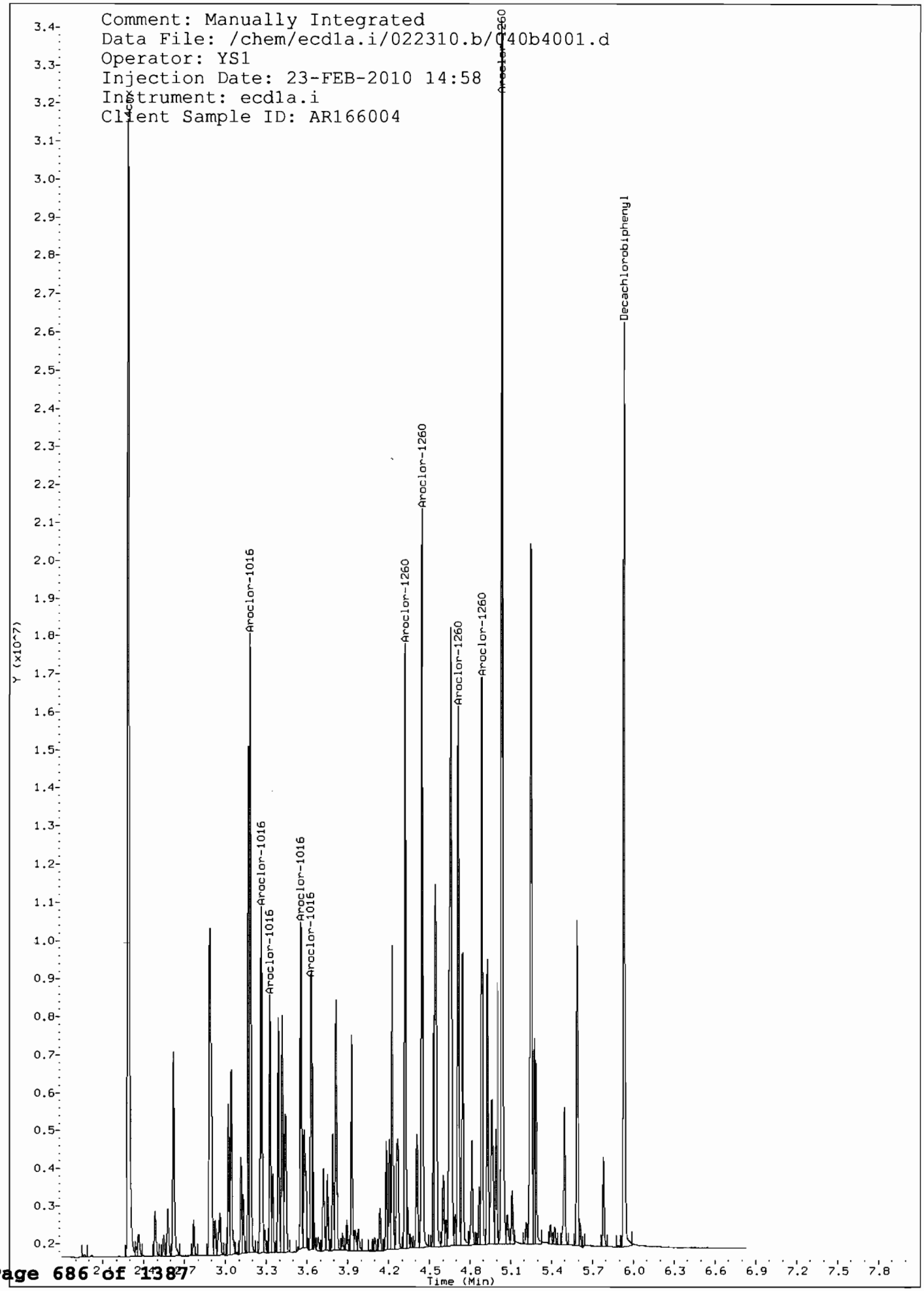
Comment: Manually Integrated
Data File: /chem/ecd1a.i/022310.b/040b4001.d
Operator: YS1
Injection Date: 23-FEB-2010 14:58
Instrument: ecd1a.i
Client Sample ID: AR166004
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

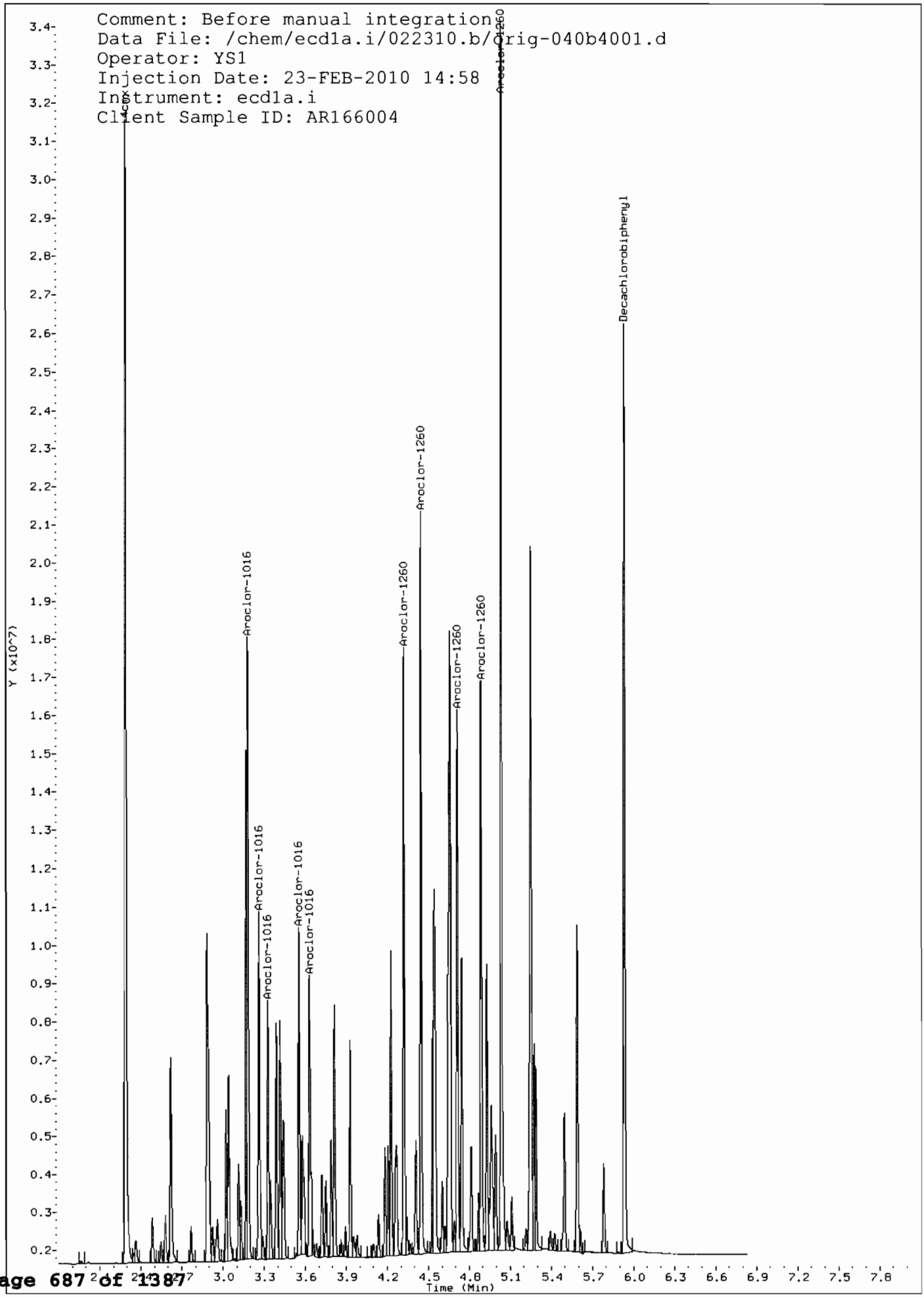
Comment: Before manual integration
Data File: /chem/ecd1a.i/022310.b/Orig-040b4001.d
Operator: YS1
Injection Date: 23-FEB-2010 14:58
Instrument: ecd1a.i
Client Sample ID: AR166004
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022310.b/052f5201.d
Lab Smp Id: WAR100203-60 05 Client Smp ID: AR166005
Inj Date : 23-FEB-2010 17:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 05
Misc Info :
Comment :
Method : /chem/ecd1a.i/022310.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 06:48 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 52 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpc1p1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.922	1.922	0.000	41349526	100.000	96.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.230	5.232	-0.002	26399461	100.000	85.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.376	2.376	0.000	14082768	1000.00	915	80.00- 120.00	100.00
2.662	2.663	-0.001	17909958	1000.00	982	107.18- 147.18	127.18
2.742	2.743	-0.001	11375797	1000.00	943	60.78- 100.78	80.78
2.781	2.781	0.000	6833597	1000.00	963	28.52- 68.52	48.52
2.991	2.992	-0.001	8821075	1000.00	990	42.64- 82.64	62.64
Average of Peak Amounts =					959		
7 Aroclor-1260					CAS #: 11096-82-5		
3.716	3.718	-0.002	17548737	1000.00	1030	80.00- 120.00	100.00
3.879	3.881	-0.002	25361135	1000.00	1070	124.52- 164.52	144.52
4.041	4.042	-0.001	27091719	1000.00	1080	134.38- 174.38	154.38
4.110	4.111	-0.001	15526481	1000.00	1080	68.48- 108.48	88.48
4.252	4.254	-0.002	15958250	1000.00	1100	70.94- 110.94	90.94
Average of Peak Amounts =					1.07e+03		

Data File: /chem/ecd1a.i/022310.b/052f5201.d

Date : 23-FEB-2010 17:25

Client ID: AR166005

Sample Info: IWAR100203-60 05

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

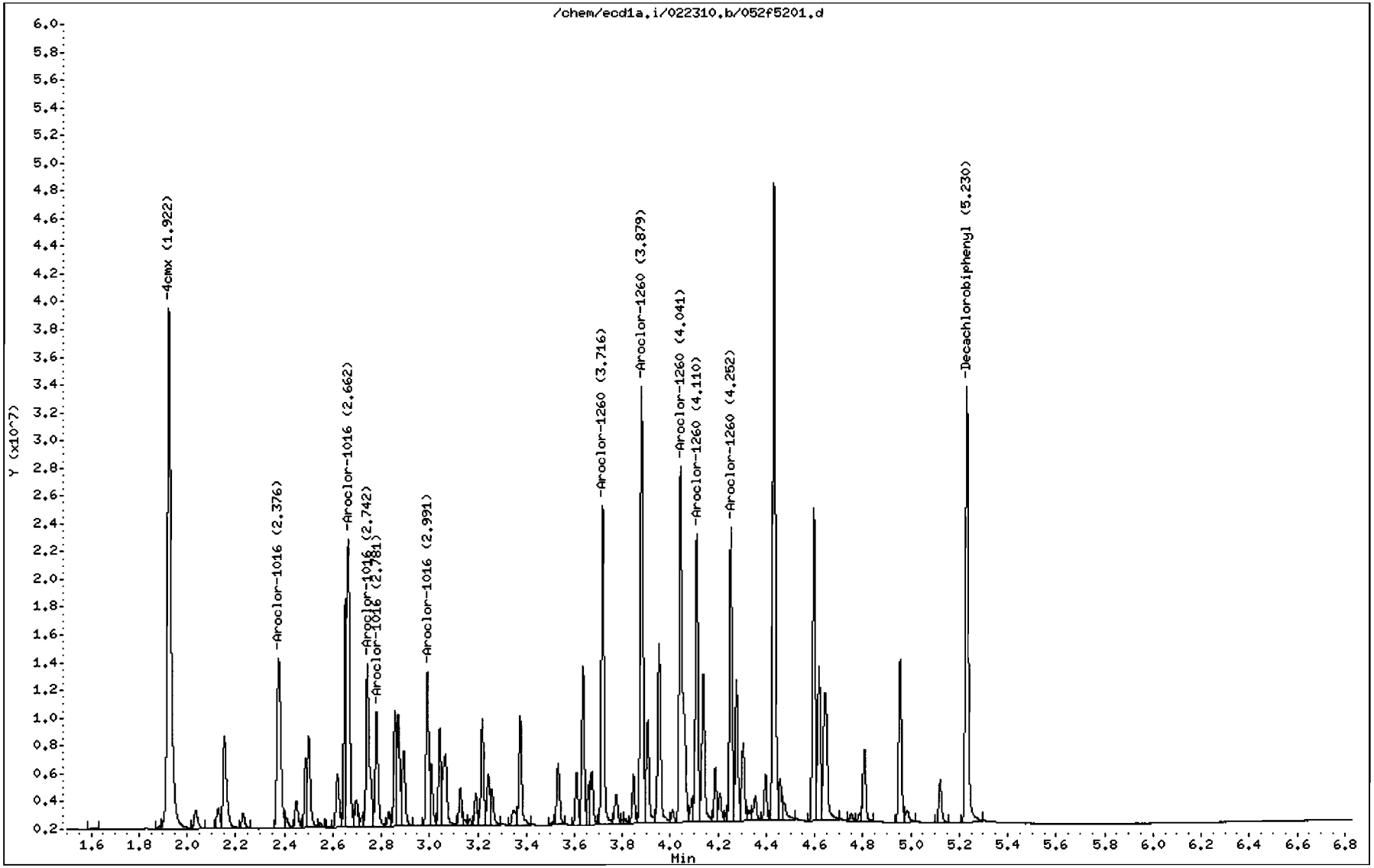

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022310.b/052b5201.d
Lab Smp Id: WAR100203-60 05 Client Smp ID: AR166005
Inj Date : 23-FEB-2010 17:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100203-60 05
Misc Info :
Comment :
Method : /chem/ecd1a.i/022310.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 07:45 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 52 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.288	2.287	0.001	26698021	100.000	89.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.934	5.936	-0.002	18545588	100.000	87.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.183	3.183	0.000	11798514	1000.00	922	80.00- 120.00	100.00(M)
3.266	3.267	-0.001	7700094	1000.00	863	44.75- 84.75	65.26
3.330	3.330	0.000	4771974	1000.00	883	20.14- 60.14	40.45
3.556	3.557	-0.001	5990080	1000.00	866	30.70- 70.70	50.77
3.632	3.632	0.000	5646517	1000.00	879	26.60- 66.60	57.26
Average of Peak Amounts =					883		
7 Aroclor-1260					CAS #: 11096-82-5		
4.323	4.324	-0.001	11397739	1000.00	863	80.00- 120.00	100.00
4.448	4.449	-0.001	13917518	1000.00	894	102.58- 142.58	122.11
4.714	4.716	-0.002	10475892	1000.00	884	72.40- 112.40	91.91
4.887	4.889	-0.002	10862993	1000.00	890	75.70- 115.70	95.31
5.034	5.036	-0.002	24257808	1000.00	914	194.14- 234.14	212.83
Average of Peak Amounts =					889		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/022310.b/052b5201.d

Date : 23-FEB-2010 17:25

Client ID: AR166005

Sample Info: IWAR100203-60 05

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

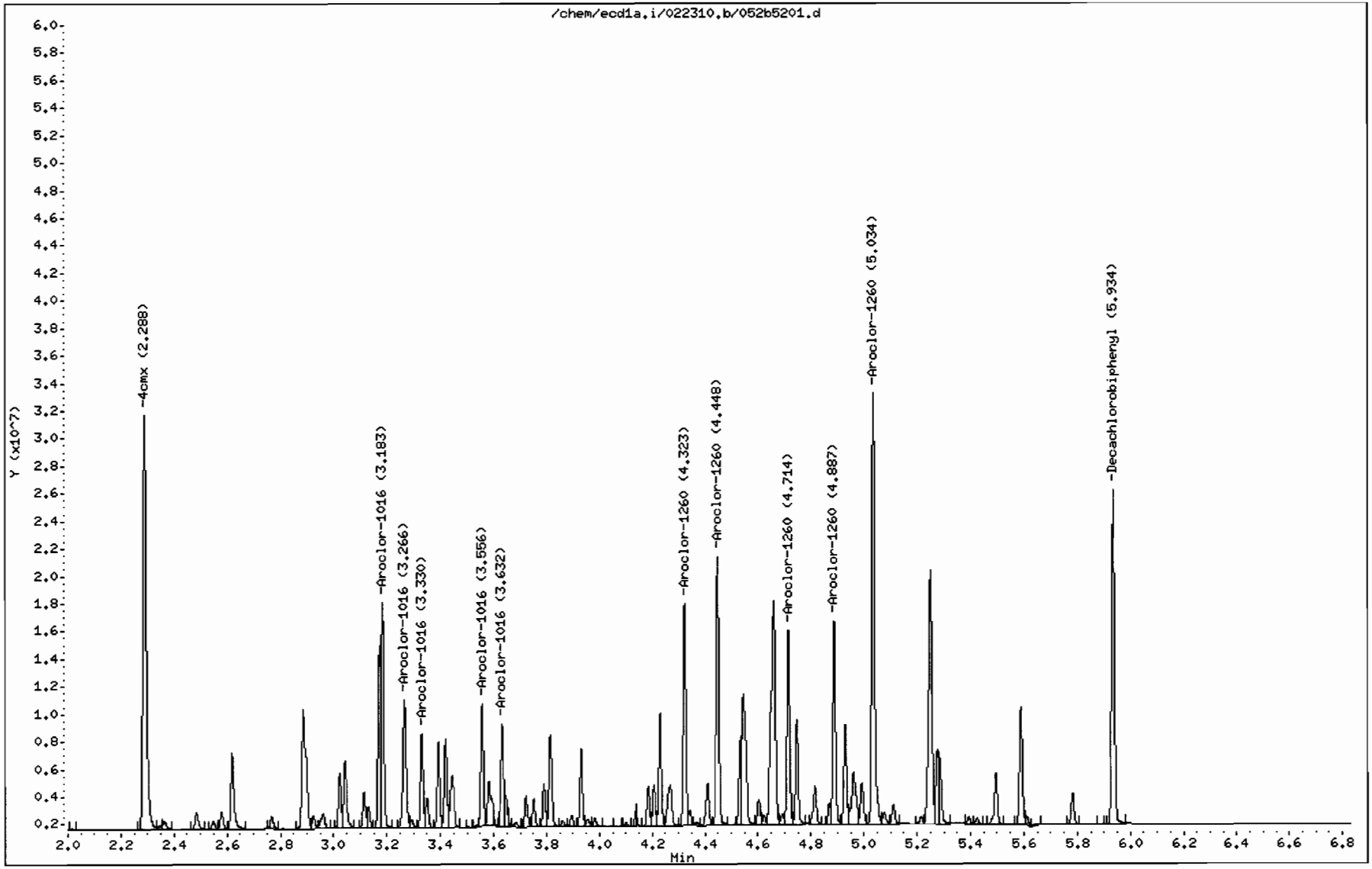

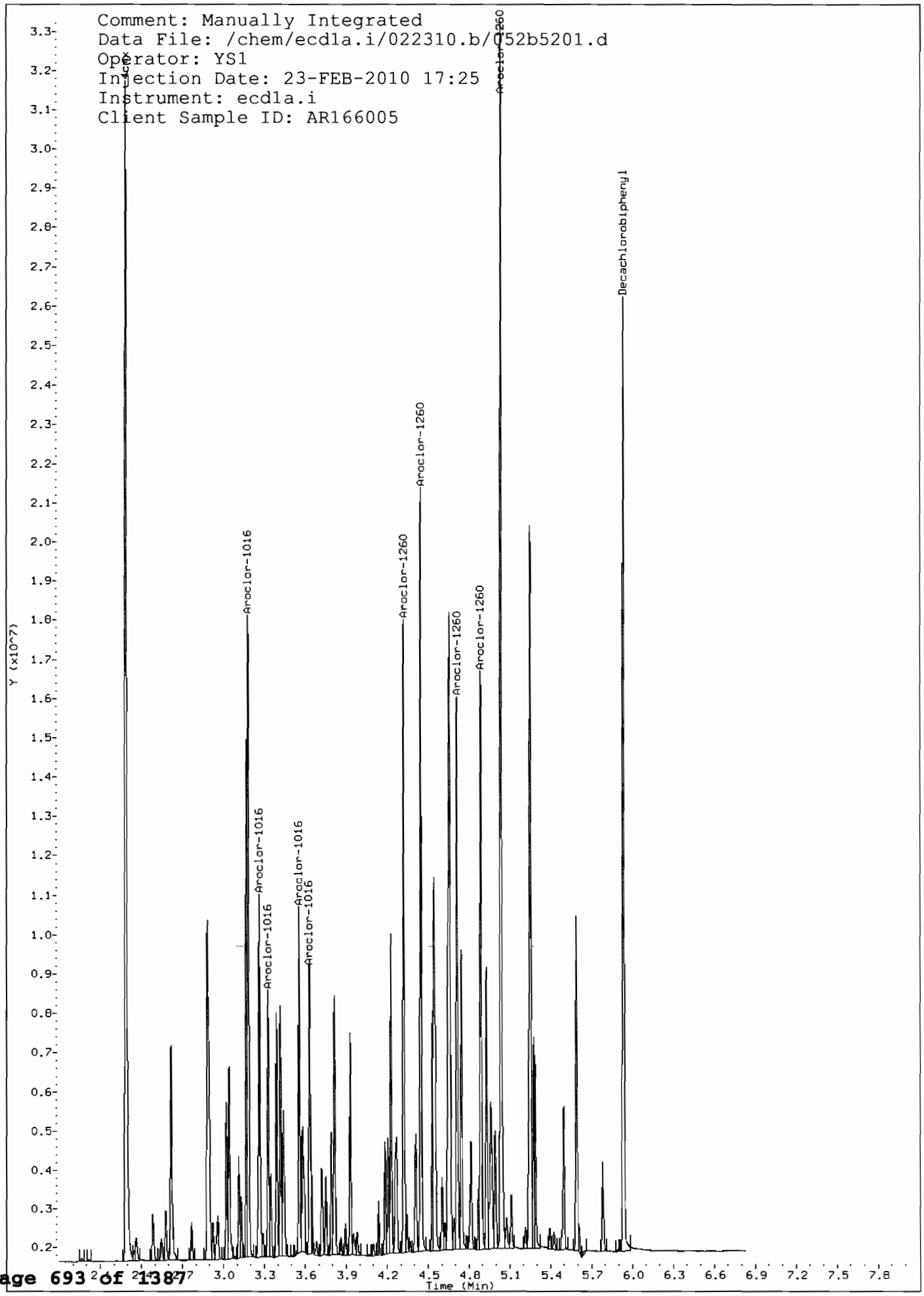
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Data File: /chem/ecd1a.i/022310.b/052b5201.d
Operator: YS1
Injection Date: 23-FEB-2010 17:25
Instrument: ecd1a.i
Client Sample ID: AR166005
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
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Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

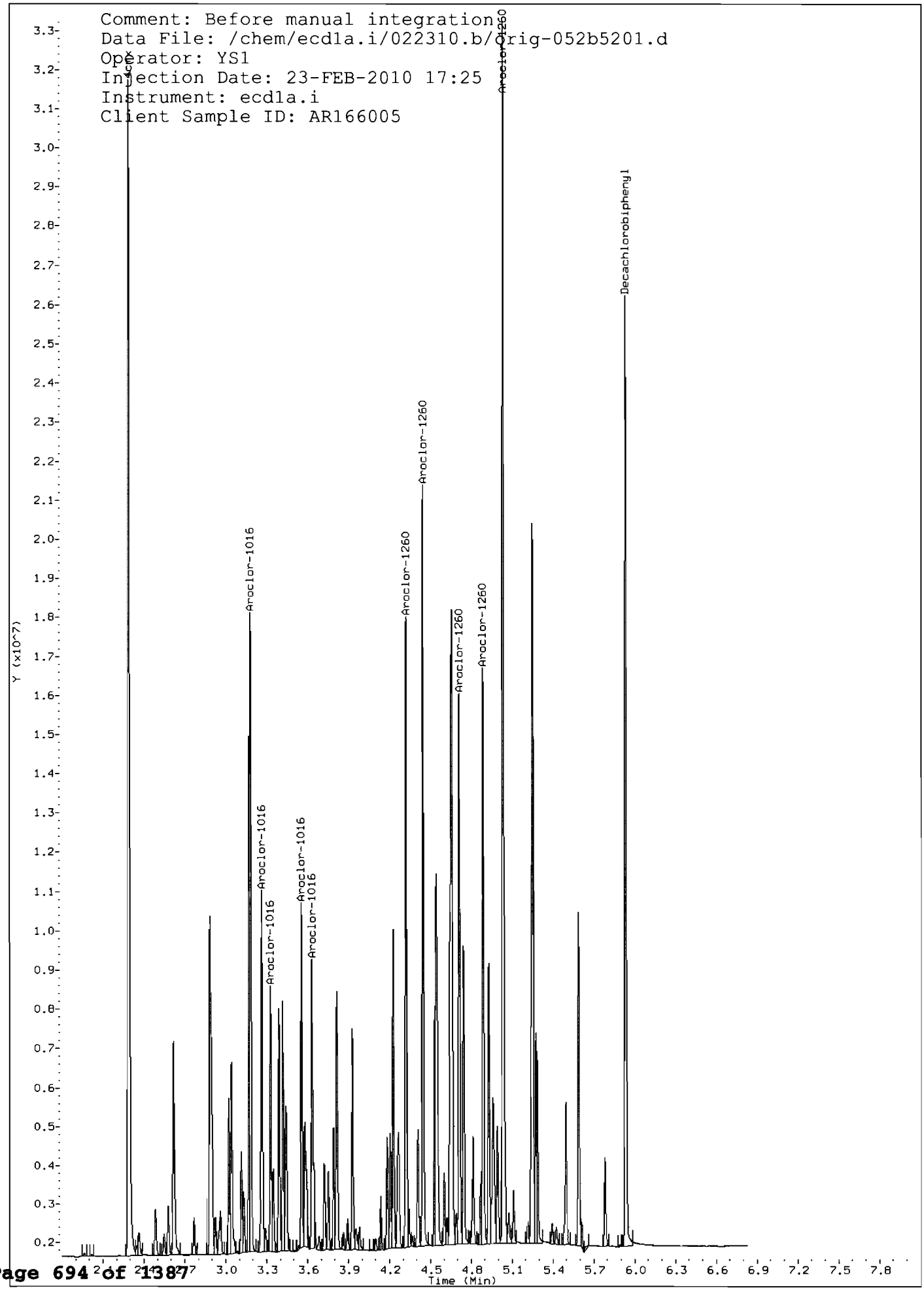
Comment: Before manual integration
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Operator: YS1
Injection Date: 23-FEB-2010 17:25
Instrument: ecd1a.i
Client Sample ID: AR166005
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1898

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.92 DCB: 5.23

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/22/10	0559	1.92	5.23
02	ZZZZZ	ZZZZZ	02/22/10	0610	1.92	5.23
03	ZZZZZ	ZZZZZ	02/22/10	0620	1.92	5.23
04	DDTANALOGSTD	WAR091219-DD	02/22/10	0631		
05	AR123201	WAR100104-32	02/22/10	0641		
06	AR122101	WAR100104-21	02/22/10	0652		
07	AR126201	WAR100104-62	02/22/10	0703		
08	AR166001	WAR100222-01	02/22/10	0713	1.92	5.23
09	AR166002	WAR100222-02	02/22/10	0724	1.92	5.23
10	AR166003	WAR100222-03	02/22/10	0734	1.92	5.23
11	AR166004	WAR100222-04	02/22/10	0745	1.92	5.23
12	AR166005	IAR100104-01	02/22/10	0755	1.92	5.23
13	AR166001	WAR100203-60	02/22/10	0806	1.92	5.23
14	AR125401	WAR100222-05	02/22/10	0816		
15	AR125402	WAR100222-06	02/22/10	0827		
16	AR125403	WAR100222-07	02/22/10	0837		
17	AR125404	WAR100222-08	02/22/10	0848		
18	AR125405	IAR100219-02	02/22/10	0859		
19	AR125401	WAR100219-54	02/22/10	0909		
20	AR124201	WAR100222-09	02/22/10	0920		
21	AR124202	WAR100222-10	02/22/10	0930		
22	AR124203	WAR100222-11	02/22/10	0941		
23	AR124204	WAR100222-12	02/22/10	0951		
24	AR124205	IAR100219-01	02/22/10	1002		
25	AR124201	WAR100219-42	02/22/10	1012		
26	AR124801	WAR100222-13	02/22/10	1023		
27	AR124802	WAR100222-14	02/22/10	1033		
28	AR124803	WAR100222-15	02/22/10	1044		
29	AR124805	IAR100211-01	02/22/10	1054		
30	AR124804	WAR100222-16	02/22/10	1105		
31	AR124801	WAR091217-48	02/22/10	1116		
32	AR126801	WAR100222-17	02/22/10	1126		

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1898

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.92 DCB: 5.23

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR126802	WAR100222-18	02/22/10	1137		
02	AR126803	WAR100222-19	02/22/10	1147		
03	AR126804	WAR100222-20	02/22/10	1158		
04	AR126805	IAR100104-05	02/22/10	1208		
05	AR126801	WAR100107-68	02/22/10	1219		
06	PIBLK02	WAR100219-99	02/22/10	1229	1.92	5.23
07	ZZZZZ	ZZZZZ	02/22/10	1240	1.92	5.23
08	ZZZZZ	ZZZZZ	02/22/10	1250	1.93	5.23
09	ZZZZZ	ZZZZZ	02/22/10	1301	1.92	5.23
10	ZZZZZ	ZZZZZ	02/22/10	1314	1.92	5.23
11	ZZZZZ	ZZZZZ	02/22/10	1326	1.92	5.23
12	ZZZZZ	ZZZZZ	02/22/10	1339	1.92	5.23
13	ZZZZZ	ZZZZZ	02/22/10	1351	1.92	5.23
14	ZZZZZ	ZZZZZ	02/22/10	1404	1.92	5.23
15	ZZZZZ	ZZZZZ	02/22/10	1417	1.92	5.23
16	ZZZZZ	ZZZZZ	02/22/10	1430	1.92	5.23
17	AR166002	WAR100203-60	02/22/10	1442	1.92	5.23
18	PIBLK03	WAR100219-99	02/22/10	1453	1.92	5.23
19	ZZZZZ	ZZZZZ	02/22/10	1503	1.92	5.23
20	ZZZZZ	ZZZZZ	02/22/10	1516	1.92	5.23
21	ZZZZZ	ZZZZZ	02/22/10	1528	1.92	5.23
22	ZZZZZ	ZZZZZ	02/22/10	1541	1.92	5.23
23	ZZZZZ	ZZZZZ	02/22/10	1554	1.92	5.23
24	ZZZZZ	ZZZZZ	02/22/10	1606	1.92	5.23
25	ZZZZZ	ZZZZZ	02/22/10	1619	1.92	5.23
26	ZZZZZ	ZZZZZ	02/22/10	1632	1.92	5.23
27	ZZZZZ	ZZZZZ	02/22/10	1644	1.92	5.23
28	ZZZZZ	ZZZZZ	02/22/10	1657	1.92	5.23
29	AR166003	WAR100203-60	02/22/10	1710	1.92	5.23
30	PIBLK04	WAR100219-99	02/22/10	1722	1.92	5.23
31	ZZZZZ	ZZZZZ	02/22/10	1735	1.92	5.23
32	ZZZZZ	ZZZZZ	02/22/10	1748	1.92	5.23

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1898

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/22/10	0559	2.29	5.93
02	ZZZZZ	ZZZZZ	02/22/10	0610	2.29	5.94
03	ZZZZZ	ZZZZZ	02/22/10	0620	2.29	5.94
04	DDTANALOGSTD	WAR091219-DD	02/22/10	0631		
05	AR123201	WAR100104-32	02/22/10	0641		
06	AR122101	WAR100104-21	02/22/10	0652		
07	AR126201	WAR100104-62	02/22/10	0703		
08	AR166001	WAR100222-01	02/22/10	0713	2.29	5.94
09	AR166002	WAR100222-02	02/22/10	0724	2.29	5.94
10	AR166003	WAR100222-03	02/22/10	0734	2.29	5.94
11	AR166004	WAR100222-04	02/22/10	0745	2.29	5.94
12	AR166005	IAR100104-01	02/22/10	0755	2.29	5.94
13	AR166001	WAR100203-60	02/22/10	0806	2.29	5.94
14	AR125401	WAR100222-05	02/22/10	0816		
15	AR125402	WAR100222-06	02/22/10	0827		
16	AR125403	WAR100222-07	02/22/10	0837		
17	AR125404	WAR100222-08	02/22/10	0848		
18	AR125405	IAR100219-02	02/22/10	0859		
19	AR125401	WAR100219-54	02/22/10	0909		
20	AR124201	WAR100222-09	02/22/10	0920		
21	AR124202	WAR100222-10	02/22/10	0930		
22	AR124203	WAR100222-11	02/22/10	0941		
23	AR124204	WAR100222-12	02/22/10	0951		
24	AR124205	IAR100219-01	02/22/10	1002		
25	AR124201	WAR100219-42	02/22/10	1012		
26	AR124801	WAR100222-13	02/22/10	1023		
27	AR124802	WAR100222-14	02/22/10	1033		
28	AR124803	WAR100222-15	02/22/10	1044		
29	AR124805	IAR100211-01	02/22/10	1054		
30	AR124804	WAR100222-16	02/22/10	1105		
31	AR124801	WAR091217-48	02/22/10	1116		
32	AR126801	WAR100222-17	02/22/10	1126		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1898

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR126802	WAR100222-18	02/22/10	1137		
02	AR126803	WAR100222-19	02/22/10	1147		
03	AR126804	WAR100222-20	02/22/10	1158		
04	AR126805	IAR100104-05	02/22/10	1208		
05	AR126801	WAR100107-68	02/22/10	1219		
06	PIBLK02	WAR100219-99	02/22/10	1229	2.29	5.94
07	ZZZZZ	ZZZZZ	02/22/10	1240	2.29	5.94
08	ZZZZZ	ZZZZZ	02/22/10	1250	2.29	5.94
09	ZZZZZ	ZZZZZ	02/22/10	1301	2.29	5.94
10	ZZZZZ	ZZZZZ	02/22/10	1314	2.29	5.94
11	ZZZZZ	ZZZZZ	02/22/10	1326	2.29	5.94
12	ZZZZZ	ZZZZZ	02/22/10	1339	2.29	5.93
13	ZZZZZ	ZZZZZ	02/22/10	1351	2.29	5.93
14	ZZZZZ	ZZZZZ	02/22/10	1404	2.29	5.94
15	ZZZZZ	ZZZZZ	02/22/10	1417	2.29	5.93
16	ZZZZZ	ZZZZZ	02/22/10	1430	2.29	5.93
17	AR166002	WAR100203-60	02/22/10	1442	2.29	5.94
18	PIBLK03	WAR100219-99	02/22/10	1453	2.29	5.94
19	ZZZZZ	ZZZZZ	02/22/10	1503	2.29	5.94
20	ZZZZZ	ZZZZZ	02/22/10	1516	2.29	5.93
21	ZZZZZ	ZZZZZ	02/22/10	1528	2.29	5.93
22	ZZZZZ	ZZZZZ	02/22/10	1541	2.29	5.94
23	ZZZZZ	ZZZZZ	02/22/10	1554	2.29	5.93
24	ZZZZZ	ZZZZZ	02/22/10	1606	2.29	5.93
25	ZZZZZ	ZZZZZ	02/22/10	1619	2.29	5.94
26	ZZZZZ	ZZZZZ	02/22/10	1632	2.29	5.93
27	ZZZZZ	ZZZZZ	02/22/10	1644	2.29	5.93
28	ZZZZZ	ZZZZZ	02/22/10	1657	2.29	5.93
29	AR166003	WAR100203-60	02/22/10	1710	2.29	5.93
30	PIBLK04	WAR100219-99	02/22/10	1722	2.29	5.93
31	ZZZZZ	ZZZZZ	02/22/10	1735	2.29	5.93
32	ZZZZZ	ZZZZZ	02/22/10	1748	2.29	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1898

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.92 DCB: 5.23

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/23/10	0601	1.92	5.23
02	AR166001	WAR100203-60	02/23/10	0611	1.92	5.23
03	AR125401	WAR100219-54	02/23/10	0622		
04	AR124201	WAR100219-42	02/23/10	0632		
05	AR124801	WAR091217-48	02/23/10	0643		
06	AR123201	WAR100104-32	02/23/10	0653		
07	AR122101	WAR100104-21	02/23/10	0704		
08	AR126201	WAR100104-62	02/23/10	0715		
09	AR126801	WAR100107-68	02/23/10	0725		
10	DDTANALOGSTD	WAR091219-DD	02/23/10	0736		
11	PIBLK02	WAR100219-99	02/23/10	0746	1.92	5.23
12	ZZZZZ	ZZZZZ	02/23/10	0757		
13	ZZZZZ	ZZZZZ	02/23/10	0922	1.92	5.24
14	ZZZZZ	ZZZZZ	02/23/10	0933	1.92	5.23
15	ZZZZZ	ZZZZZ	02/23/10	0946	1.92	5.23
16	ZZZZZ	ZZZZZ	02/23/10	0958	1.92	5.23
17	ZZZZZ	ZZZZZ	02/23/10	1011	1.92	5.23
18	ZZZZZ	ZZZZZ	02/23/10	1023	1.92	5.23
19	ZZZZZ	ZZZZZ	02/23/10	1036	1.92	5.23
20	ZZZZZ	ZZZZZ	02/23/10	1049	1.92	5.23
21	ZZZZZ	ZZZZZ	02/23/10	1101	1.92	5.23
22	ZZZZZ	ZZZZZ	02/23/10	1114	1.92	5.23
23	ZZZZZ	ZZZZZ	02/23/10	1127	1.92	5.23
24	AR166002	WAR100203-60	02/23/10	1139	1.92	5.23
25	PIBLK03	WAR100219-99	02/23/10	1150	1.92	5.23
26	ZZZZZ	ZZZZZ	02/23/10	1200	1.92	5.23
27	ZZZZZ	ZZZZZ	02/23/10	1213	1.92	5.23
28	ZZZZZ	ZZZZZ	02/23/10	1226	1.92	5.23
29	ZZZZZ	ZZZZZ	02/23/10	1238	1.92	5.23
30	ZZZZZ	ZZZZZ	02/23/10	1251	1.92	5.23
31	ZZZZZ	ZZZZZ	02/23/10	1303	1.92	5.23
32	ZZZZZ	ZZZZZ	02/23/10	1316	1.92	5.23

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1898

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.92 DCB: 5.23

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR166003	WAR100203-60	02/23/10	1334	1.92	5.24
02	PIBLK04	WAR100219-99	02/23/10	1344	1.92	5.23
03	ZZZZZ	ZZZZZ	02/23/10	1355	1.92	5.23
04	ZZZZZ	ZZZZZ	02/23/10	1407	1.92	5.23
05	ZZZZZ	ZZZZZ	02/23/10	1420	1.92	5.23
06	ZZZZZ	ZZZZZ	02/23/10	1432	1.92	5.23
07	ZZZZZ	ZZZZZ	02/23/10	1445	1.92	5.23
08	AR166004	WAR100203-60	02/23/10	1458	1.92	5.23
09	PIBLK05	WAR100219-99	02/23/10	1508	1.92	5.23
10	PBLK01	1202050207	02/23/10	1519	1.92	5.23
11	PBLK01LCS	1202050208	02/23/10	1532	1.92	5.23
12	ZZZZZ	ZZZZZ	02/23/10	1544	1.92	5.23
13	WST15-10-8941	247327002	02/23/10	1557	1.92	5.23
14	ZZZZZ	ZZZZZ	02/23/10	1609	1.92	5.23
15	ZZZZZ	ZZZZZ	02/23/10	1622	1.92	5.23
16	ZZZZZ	ZZZZZ	02/23/10	1635	1.92	5.23
17	ZZZZZ	ZZZZZ	02/23/10	1647	1.92	5.23
18	ZZZZZ	ZZZZZ	02/23/10	1700	1.92	5.23
19	ZZZZZ	ZZZZZ	02/23/10	1713	1.92	5.23
20	AR166005	WAR100203-60	02/23/10	1725	1.92	5.23
21	PIBLK06	WAR100219-99	02/23/10	1738	1.92	5.23
22	ZZZZZ	ZZZZZ	02/23/10	1751	1.92	5.23
23	ZZZZZ	ZZZZZ	02/23/10	1803	1.92	5.23
24	ZZZZZ	ZZZZZ	02/23/10	1816	1.92	5.23
25	ZZZZZ	ZZZZZ	02/23/10	1829	1.92	5.23
26	ZZZZZ	ZZZZZ	02/23/10	1841	1.92	5.23
27	ZZZZZ	ZZZZZ	02/23/10	1854	1.92	5.23
28	ZZZZZ	ZZZZZ	02/23/10	1907	1.92	5.23
29	ZZZZZ	ZZZZZ	02/23/10	1919	1.92	5.23
30	ZZZZZ	ZZZZZ	02/23/10	1932	1.92	5.23
31	AR166006	WAR100203-60	02/23/10	1945	1.92	5.23
32	PIBLK07	WAR100219-99	02/23/10	1957	1.92	5.23

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1898

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/23/10	0601	2.29	5.93
02	AR166001	WAR100203-60	02/23/10	0611	2.29	5.94
03	AR125401	WAR100219-54	02/23/10	0622		
04	AR124201	WAR100219-42	02/23/10	0632		
05	AR124801	WAR091217-48	02/23/10	0643		
06	AR123201	WAR100104-32	02/23/10	0653		
07	AR122101	WAR100104-21	02/23/10	0704		
08	AR126201	WAR100104-62	02/23/10	0715		
09	AR126801	WAR100107-68	02/23/10	0725		
10	DDTANALOGSTD	WAR091219-DD	02/23/10	0736		
11	PIBLK02	WAR100219-99	02/23/10	0746	2.29	5.94
12	ZZZZZ	ZZZZZ	02/23/10	0757		
13	ZZZZZ	ZZZZZ	02/23/10	0922	2.29	5.94
14	ZZZZZ	ZZZZZ	02/23/10	0933	2.29	5.94
15	ZZZZZ	ZZZZZ	02/23/10	0946	2.29	5.93
16	ZZZZZ	ZZZZZ	02/23/10	0958	2.29	5.93
17	ZZZZZ	ZZZZZ	02/23/10	1011	2.29	5.93
18	ZZZZZ	ZZZZZ	02/23/10	1023	2.29	5.93
19	ZZZZZ	ZZZZZ	02/23/10	1036	2.29	5.93
20	ZZZZZ	ZZZZZ	02/23/10	1049	2.29	5.93
21	ZZZZZ	ZZZZZ	02/23/10	1101	2.29	5.93
22	ZZZZZ	ZZZZZ	02/23/10	1114	2.29	5.93
23	ZZZZZ	ZZZZZ	02/23/10	1127	2.29	5.93
24	AR166002	WAR100203-60	02/23/10	1139	2.29	5.93
25	PIBLK03	WAR100219-99	02/23/10	1150	2.29	5.93
26	ZZZZZ	ZZZZZ	02/23/10	1200	2.29	5.93
27	ZZZZZ	ZZZZZ	02/23/10	1213	2.29	5.93
28	ZZZZZ	ZZZZZ	02/23/10	1226	2.29	5.93
29	ZZZZZ	ZZZZZ	02/23/10	1238	2.29	5.93
30	ZZZZZ	ZZZZZ	02/23/10	1251	2.29	5.93
31	ZZZZZ	ZZZZZ	02/23/10	1303	2.29	5.93
32	ZZZZZ	ZZZZZ	02/23/10	1316	2.29	5.93

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1898

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR166003	WAR100203-60	02/23/10	1334	2.29	5.94
02	PIBLK04	WAR100219-99	02/23/10	1344	2.29	5.94
03	ZZZZZ	ZZZZZ	02/23/10	1355	2.29	5.94
04	ZZZZZ	ZZZZZ	02/23/10	1407	2.29	5.93
05	ZZZZZ	ZZZZZ	02/23/10	1420	2.29	5.93
06	ZZZZZ	ZZZZZ	02/23/10	1432	2.29	5.93
07	ZZZZZ	ZZZZZ	02/23/10	1445	2.29	5.93
08	AR166004	WAR100203-60	02/23/10	1458	2.29	5.93
09	PIBLK05	WAR100219-99	02/23/10	1508	2.29	5.94
10	PBLK01	1202050207	02/23/10	1519	2.29	5.93
11	PBLK01LCS	1202050208	02/23/10	1532	2.29	5.93
12	ZZZZZ	ZZZZZ	02/23/10	1544	2.29	5.93
13	WST15-10-8941	247327002	02/23/10	1557	2.29	5.93
14	ZZZZZ	ZZZZZ	02/23/10	1609	2.29	5.93
15	ZZZZZ	ZZZZZ	02/23/10	1622	2.29	5.93
16	ZZZZZ	ZZZZZ	02/23/10	1635	2.29	5.93
17	ZZZZZ	ZZZZZ	02/23/10	1647	2.29	5.93
18	ZZZZZ	ZZZZZ	02/23/10	1700	2.29	5.93
19	ZZZZZ	ZZZZZ	02/23/10	1713	2.29	5.93
20	AR166005	WAR100203-60	02/23/10	1725	2.29	5.93
21	PIBLK06	WAR100219-99	02/23/10	1738	2.29	5.93
22	ZZZZZ	ZZZZZ	02/23/10	1751	2.29	5.93
23	ZZZZZ	ZZZZZ	02/23/10	1803	2.29	5.93
24	ZZZZZ	ZZZZZ	02/23/10	1816	2.29	5.93
25	ZZZZZ	ZZZZZ	02/23/10	1829	2.29	5.93
26	ZZZZZ	ZZZZZ	02/23/10	1841	2.29	5.93
27	ZZZZZ	ZZZZZ	02/23/10	1854	2.29	5.93
28	ZZZZZ	ZZZZZ	02/23/10	1907	2.29	5.93
29	ZZZZZ	ZZZZZ	02/23/10	1919	2.29	5.93
30	ZZZZZ	ZZZZZ	02/23/10	1932	2.29	5.93
31	AR166006	WAR100203-60	02/23/10	1945	2.29	5.93
32	PIBLK07	WAR100219-99	02/23/10	1957	2.29	5.93

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10–1898 **Client ID:** LCS for batch 956141

Lab Sample ID: 1202050208

Data File:	043f4301.d	**Data File:**	043b4301.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–FEB–10 15:32	**Analyzed:**	23–FEB–10 15:32

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							9.03
Column 1	1	2.38	2.35 – 2.41	23.6		ug/kg	
	2	2.66	2.63 – 2.69	24.8		ug/kg	
	3	2.74	2.71 – 2.77	28.5		ug/kg	
	4	2.78	2.75 – 2.81	25.6		ug/kg	
	5	2.99	2.96 – 3.02	25.9		ug/kg	
					25.7		
Column 2	1	3.18	3.15 – 3.21	24.1		ug/kg	
	2	3.27	3.24 – 3.3	23.6		ug/kg	
	3	3.33	3.3 – 3.36	22.6		ug/kg	
	4	3.56	3.53 – 3.59	23.5		ug/kg	
	5	3.63	3.6 – 3.66	23.5		ug/kg	
					23.5		
Aroclor–1260							14.5
Column 1	1	3.72	3.69 – 3.75	30		ug/kg	
	2	3.88	3.85 – 3.91	30.6		ug/kg	
	3	4.04	4.01 – 4.07	30.9		ug/kg	
	4	4.11	4.08 – 4.14	30.9		ug/kg	
	5	4.25	4.22 – 4.28	29.1		ug/kg	
					30.3		
Column 2	1	4.32	4.29 – 4.35	25		ug/kg	
	2	4.45	4.42 – 4.48	26.2		ug/kg	
	3	4.71	4.69 – 4.75	25.9		ug/kg	
	4	4.89	4.86 – 4.92	26.3		ug/kg	
	5	5.04	5.01 – 5.07	27.4		ug/kg	
					26.2		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202050207**				
Client Sample:	**QC for batch 956141**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 956141**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**956143**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/23/2010 15:19**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/22/2010 21:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**042f4201-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	042b4201-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022310.b/042f4201-4.d
Lab Smp Id: 1202050207 Client Smp ID: PBLK01
Inj Date : 23-FEB-2010 15:19
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202050207|1|
Misc Info : |ECD82P_1S|956143|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/022310.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 08:09 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 42 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1898.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable - Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.924	1.922	0.002	54477383	126.504	4.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.231	5.232	-0.001	39536846	128.663	4.3	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/022310.b/042f4201-4.d
Date : 23-FEB-2010 15:19
Client ID: PBLK01
Sample Info: |1202050207|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

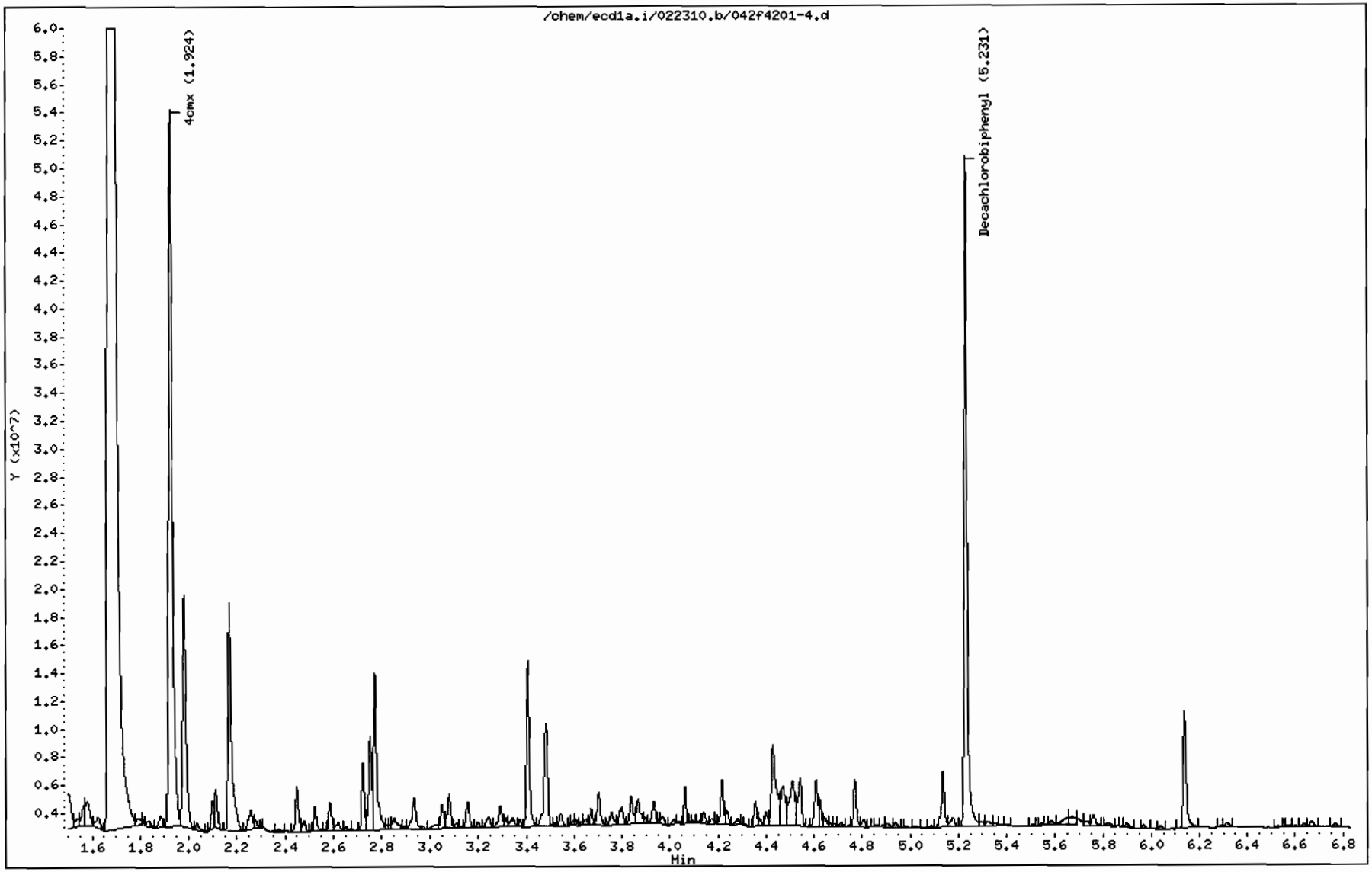

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022310.b/042b4201-4.d
Lab Smp Id: 1202050207 Client Smp ID: PBLK01
Inj Date : 23-FEB-2010 15:19
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202050207|1|
Misc Info : |ECD82P_1S|956143|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/022310.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 08:10 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 42 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1898.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.289	2.287	0.002	36122235	121.461	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.934	5.936	-0.002	28492375	134.717	4.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/022310.b/042b4201-4.d

Page 1

Date : 23-FEB-2010 15:19

Client ID: PBLK01

Instrument: ecd1a.i

Sample Info: |1202050207|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

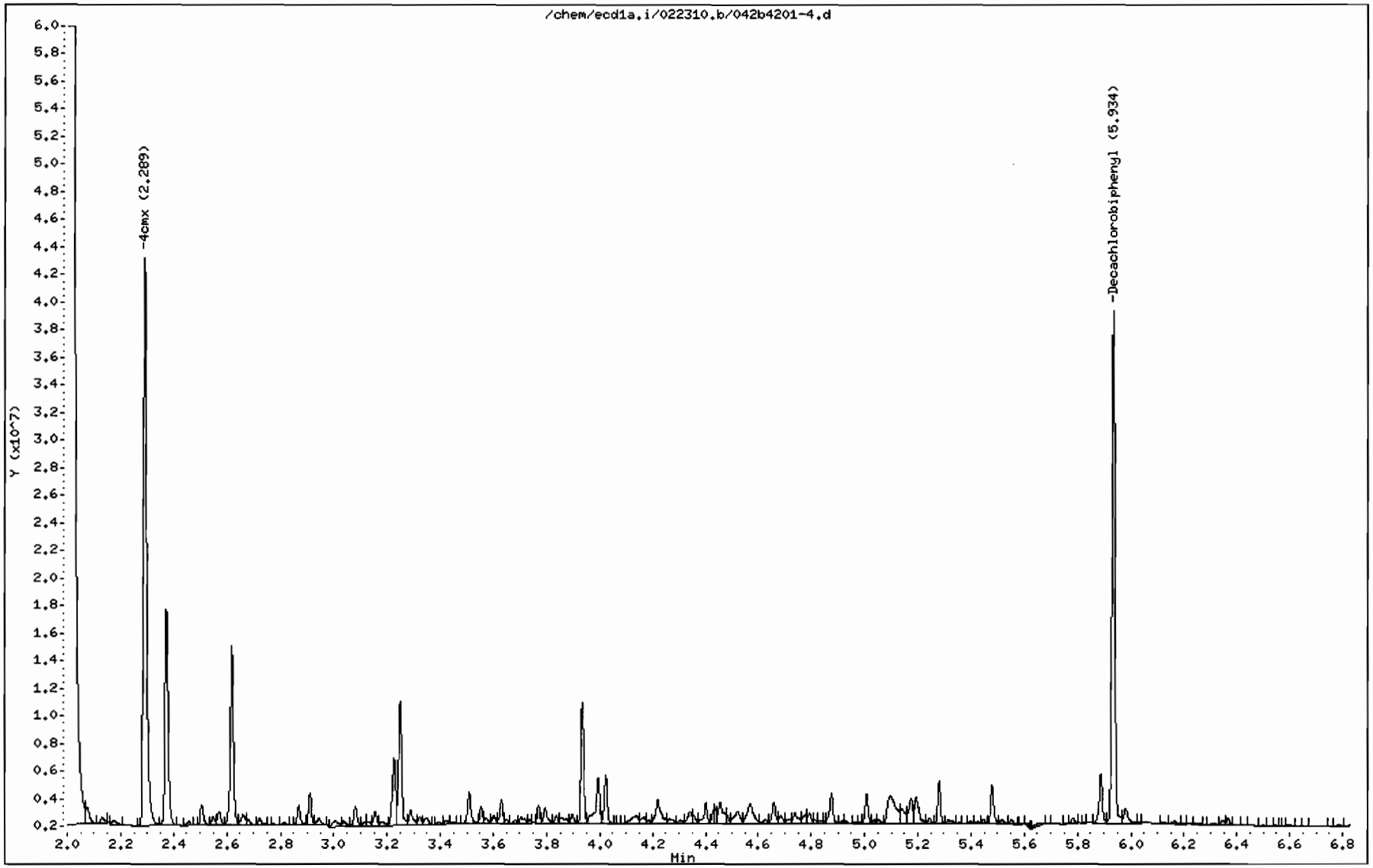

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1898**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202050208**				
Client Sample:	**QC for batch 956141**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 956141**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**956143**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/23/2010 15:32**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/22/2010 21:16**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**043f4301-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	043b4301-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		25.7	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260		30.3	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022310.b/043f4301-4.d
Lab Smp Id: 1202050208 Client Smp ID: PBLK01LCS
Inj Date : 23-FEB-2010 15:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202050208|1|
Misc Info : |ECD82P_1S|956143|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/022310.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 08:09 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 43 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1898.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.922	1.922	0.000	60592759	140.705	4.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.230	5.232	-0.002	36775524	119.677	4.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.375	2.376	-0.001	10885800	707.589	23.6	80.00- 120.00	100.00
2.663	2.663	0.000	13574775	744.353	24.8	103.70- 143.70	124.70
2.743	2.743	0.000	10334359	856.523	28.6	60.72- 100.72	94.93
2.780	2.781	-0.001	5442914	767.028	25.6	28.78- 68.78	50.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.991	2.992	-0.001	6932949	777.917	25.9	42.99- 82.99	63.69
Average of Peak Concentrations =					25.7		
7 Aroclor-1260					CAS #: 11096-82-5		
3.717	3.718	-0.001	15344554	898.792	30.0	80.00- 120.00	100.00
3.880	3.881	-0.001	21726515	918.923	30.6	124.57- 164.57	141.59
4.042	4.042	0.000	23166805	927.736	30.9	133.95- 173.95	150.98
4.110	4.111	-0.001	13346353	926.465	30.9	68.41- 108.41	86.98
4.253	4.254	-0.001	12596328	872.894	29.1	71.25- 111.25	82.09
Average of Peak Concentrations =					30.3		

Data File: /chem/ecd1a.i/022310.b/043f4301-4.d
Date : 23-FEB-2010 15:32
Client ID: PBLK01LCS
Sample Info: 1120205020811
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

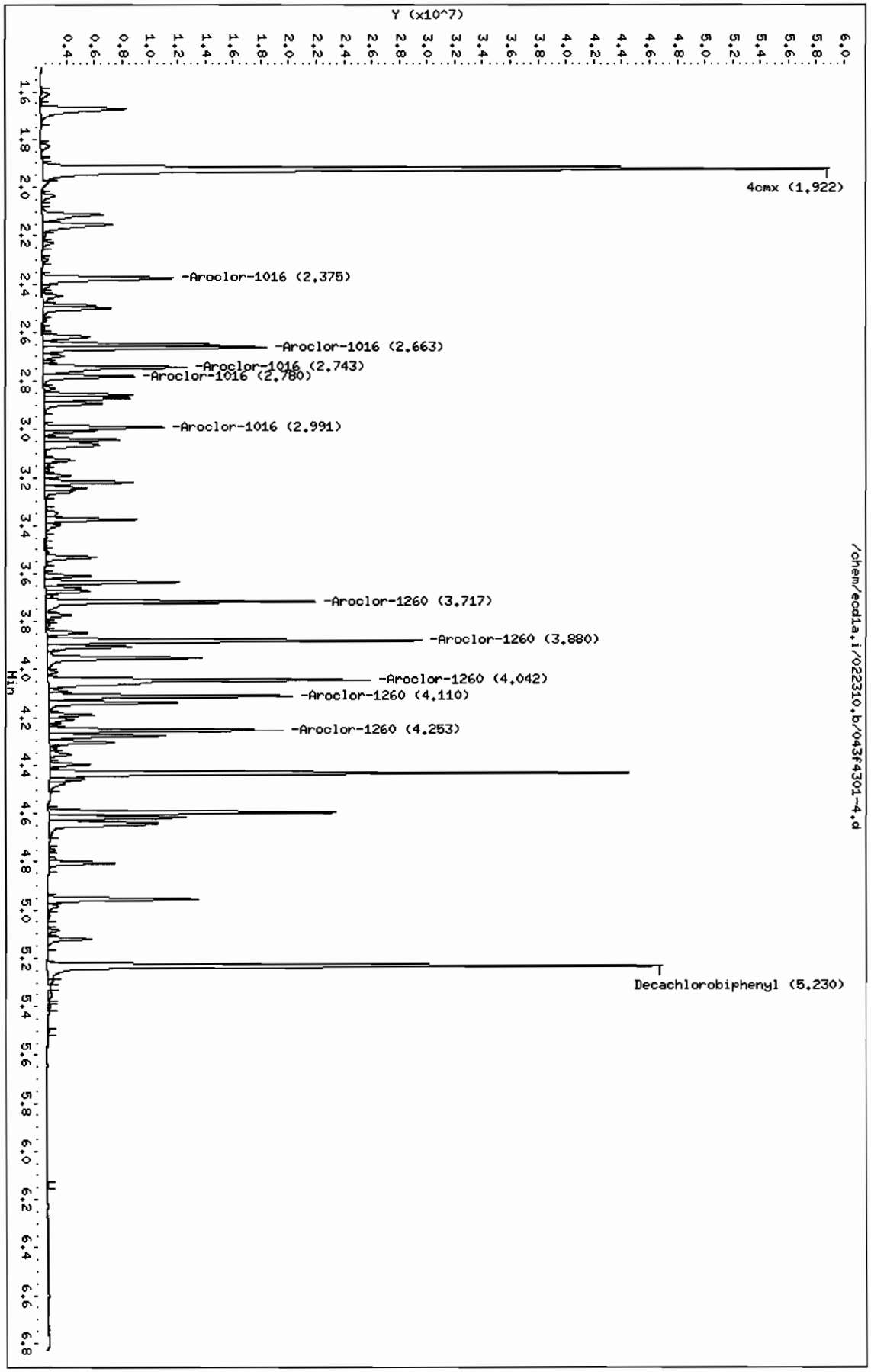

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022310.b/043b4301-4.d
Lab Smp Id: 1202050208 Client Smp ID: PBLK01LCS
Inj Date : 23-FEB-2010 15:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202050208|1|
Misc Info : |ECD82P_1S|956143|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/022310.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 08:10 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 43 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1898.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.287	2.287	0.000	39761672	133.699	4.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.934	5.936	-0.002	30707746	145.191	4.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.184	3.183	0.001	9259209	723.954	24.1	80.00- 120.00	100.00(M)
3.266	3.267	-0.001	6317058	708.355	23.6	44.93- 84.93	68.22
3.330	3.330	0.000	3664776	677.908	22.6	20.22- 60.22	39.58
3.557	3.557	0.000	4884054	706.233	23.5	30.74- 70.74	52.75

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.632	3.632	0.000	4524648	704.202	23.5	27.15- 67.15	48.87
Average of Peak Concentrations =					23.5		
7 Aroclor-1260					CAS #: 11096-82-5		
4.323	4.324	-0.001	9896664	749.427	25.0	80.00- 120.00	100.00
4.448	4.449	-0.001	12255948	787.313	26.2	103.25- 143.25	123.84
4.714	4.716	-0.002	9218213	778.335	25.9	72.66- 112.66	93.14
4.888	4.889	-0.001	9641794	790.234	26.3	75.70- 115.70	97.42
5.035	5.036	-0.001	21840625	823.330	27.4	194.58- 234.58	220.69
Average of Peak Concentrations =					26.2		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/022310.b/043b4301-4.d
Date : 23-FEB-2010 15:32
Client ID: PBLK01LCS
Sample Info: I120205020811
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

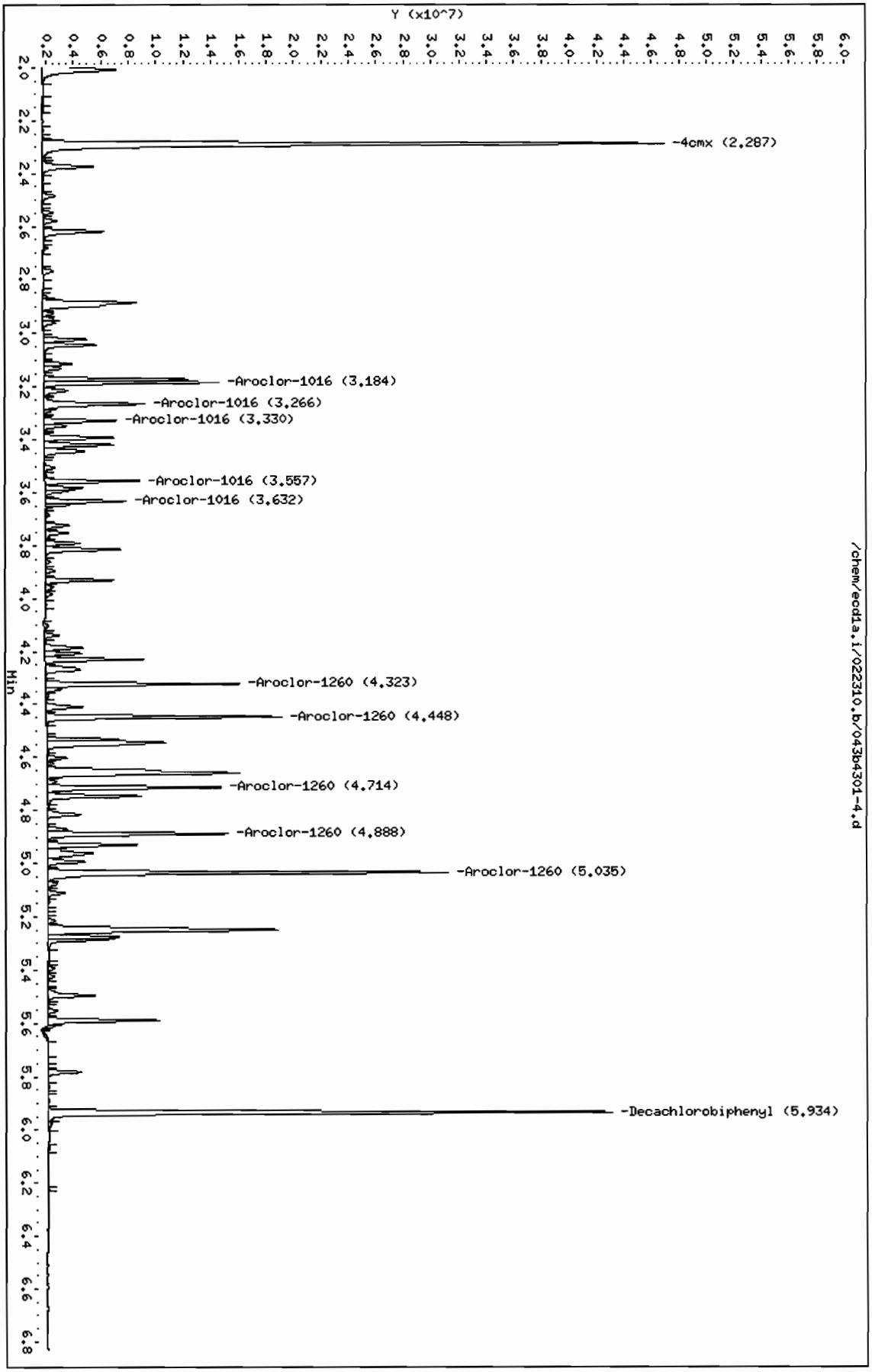

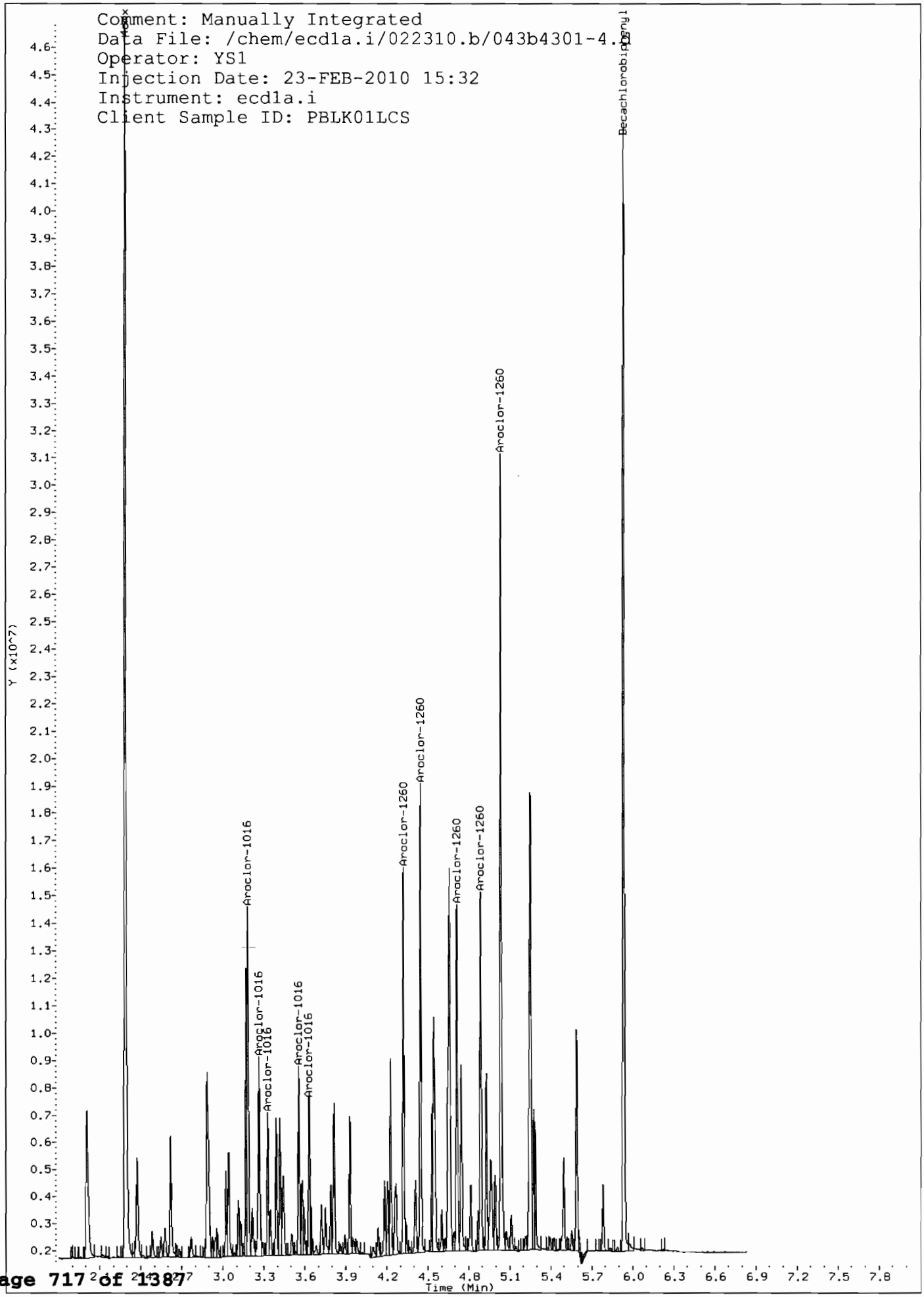
Comment: Manually Integrated
Data File: /chem/ecd1a.i/022310.b/043b4301-4.d
Operator: YS1
Injection Date: 23-FEB-2010 15:32
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Y (x10^7)
Time (Min)

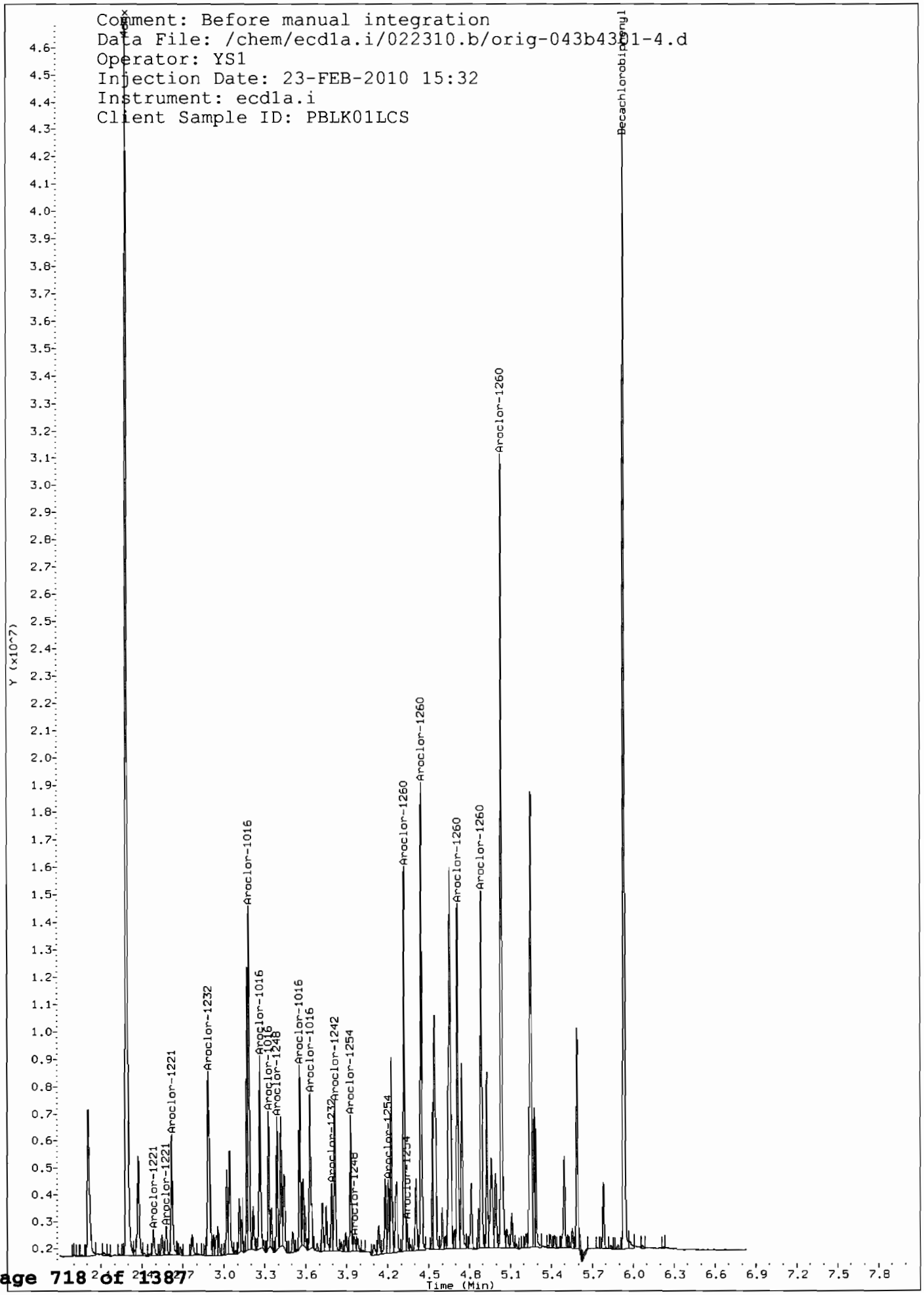
Comment: Before manual integration
Data File: /chem/ecd1a.i/022310.b/orig-043b4301-4.d
Operator: YS1
Injection Date: 23-FEB-2010 15:32
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Mirex
Decachlorobiphenyl
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1232
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1016
Aroclor-1016
Aroclor-1232
Aroclor-1242
Aroclor-1254
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 02/23/2010 METHOD: ECD1-F-8082-022210.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/022210.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	22-FEB-2010 05:59		022210	1.0		CLEAN
002f0201.d	WAR100203-60 01	YS1	22-FEB-2010 06:10		022210	1.0		DUSE RE-ICAL
003f0301.d	AR1660-4	YS1	22-FEB-2010 06:20		022210	1.0		DUSE SCREEN
004f0401.d	WAR091219-DDT	YS1	22-FEB-2010 06:31		022210	1.0		DDT ANALOG STANDARD
005f0501.d	WAR100104-32	YS1	22-FEB-2010 06:41		022210	1.0		PATTERN ONLY
006f0601.d	WAR100104-21	YS1	22-FEB-2010 06:52		022210	1.0		PATTERN ONLY
007f0701.d	WAR100104-62	YS1	22-FEB-2010 07:03		022210	1.0		PATTERN ONLY
008f0801.d	WAR100222-01 60	YS1	22-FEB-2010 07:13		022210	1.0		AR1660 I-CAL LEVEL 1
009f0901.d	WAR100222-02 60	YS1	22-FEB-2010 07:24		022210	1.0		AR1660 I-CAL LEVEL 2
010f1001.d	WAR100222-03 60	YS1	22-FEB-2010 07:34		022210	1.0		AR1660 I-CAL LEVEL 3
011f1101.d	WAR100222-04 60	YS1	22-FEB-2010 07:45		022210	1.0		AR1660 I-CAL LEVEL 4
012f1201.d	IAR100104-01	YS1	22-FEB-2010 07:55		022210	1.0		AR1660 I-CAL LEVEL 5
013f1301.d	WAR100203-60 01	YS1	22-FEB-2010 08:06		022210	1.0		PASSED ON BOTH COLUMNS
014f1401.d	WAR100222-05 54	YS1	22-FEB-2010 08:16		022210	1.0		AR1254 I-CAL LEVEL 1
015f1501.d	WAR100222-06 54	YS1	22-FEB-2010 08:27		022210	1.0		AR1254 I-CAL LEVEL 2

Instrument Batch: /chem/ecd1a.i/022210.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR100222-07 54	YS1	22-FEB-2010 08:37		022210	1.0		AR1254 I-CAL LEVEL 3
017f1701.d	WAR100222-08 54	YS1	22-FEB-2010 08:48		022210	1.0		AR1254 I-CAL LEVEL 4
018f1801.d	IAR100219-02	YS1	22-FEB-2010 08:59		022210	1.0		AR1254 I-CAL LEVEL 5
019f1901.d	WAR100219-54	YS1	22-FEB-2010 09:09		022210	1.0		PASSED ON BOTH COLUMNS
020f2001.d	WAR100222-09 42	YS1	22-FEB-2010 09:20		022210	1.0		AR1242 I-CAL LEVEL 1
021f2101.d	WAR100222-10 42	YS1	22-FEB-2010 09:30		022210	1.0		AR1242 I-CAL LEVEL 2
022f2201.d	WAR100222-11 42	YS1	22-FEB-2010 09:41		022210	1.0		AR1242 I-CAL LEVEL 3
023f2301.d	WAR100222-12 42	YS1	22-FEB-2010 09:51		022210	1.0		AR1242 I-CAL LEVEL 4
024f2401.d	IAR100219-01	YS1	22-FEB-2010 10:02		022210	1.0		AR1242 I-CAL LEVEL 5
025f2501.d	WAR100219-42	YS1	22-FEB-2010 10:12		022210	1.0		PASSED ON BOTH COLUMNS
026f2601.d	WAR100222-13 48	YS1	22-FEB-2010 10:23		022210	1.0		AR1248 I-CAL LEVEL 1
027f2701.d	WAR100222-14 48	YS1	22-FEB-2010 10:33		022210	1.0		AR1248 I-CAL LEVEL 2
028f2801.d	WAR100222-15 48	YS1	22-FEB-2010 10:44		022210	1.0		AR1248 I-CAL LEVEL 3
029f2901.d	IAR100211-01	YS1	22-FEB-2010 10:54		022210	1.0		AR1248 I-CAL LEVEL 5
030f3001.d	WAR100222-16	YS1	22-FEB-2010 11:05		022210	1.0		AR1248 I-CAL LEVEL 4
031f3101.d	WAR091217-48	YS1	22-FEB-2010 11:16		022210	1.0		PASSED ON BOTH COLUMNS
032f3201.d	WAR100222-17 68	YS1	22-FEB-2010 11:26		022210	1.0		AR1268 I-CAL LEVEL 1
033f3301.d	WAR100222-18 68	YS1	22-FEB-2010 11:37		022210	1.0		AR1268 I-CAL LEVEL 2
034f3401.d	WAR100222-19 68	YS1	22-FEB-2010 11:47		022210	1.0		AR1268 I-CAL LEVEL 3
035f3501.d	WAR100222-20 68	YS1	22-FEB-2010 11:58		022210	1.0		AR1268 I-CAL LEVEL 4

Instrument Batch: /chem/ecd1a.i/022210.b Page: 2

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	IAR100104-05	YS1	22-FEB-2010 12:08		022210	1.0		AR1268 I-CAL LEVEL 5
037f3701.d	WAR100107-68	YS1	22-FEB-2010 12:19		022210	1.0		PASSED ON BOTH COLUMNS
038f3801.d	WAR100219-99 02	YS1	22-FEB-2010 12:29		022210	1.0		CLEAN
039f3901-1.d	1202046866	YS1	22-FEB-2010 12:40	954781	10-1846	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901-2.d	1202046866	YS1	22-FEB-2010 12:40	954781	10-1848	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

039f3901.d	1202046866	YS1	22-FEB-2010 12:40	954781	10-1808		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001-1.d	1202046867	YS1	22-FEB-2010 12:50	954781	10-1846		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001-2.d	1202046867	YS1	22-FEB-2010 12:50	954781	10-1848		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	1202046867	YS1	22-FEB-2010 12:50	954781	10-1808		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
041f4101.d	246968001	YS1	22-FEB-2010 13:01	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
042f4201.d	246968002	YS1	22-FEB-2010 13:14	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
043f4301.d	246968003	YS1	22-FEB-2010 13:26	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
044f4401.d	246968004	YS1	22-FEB-2010 13:39	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	246968005	YS1	22-FEB-2010 13:51	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
046f4601.d	246968006	YS1	22-FEB-2010 14:04	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
047f4701.d	246968007	YS1	22-FEB-2010 14:17	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
048f4801.d	246968008	YS1	22-FEB-2010 14:30	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	WAR100203-60 02	YS1	22-FEB-2010 14:42		022210		1.0		PASSED ON BOTH COLUMNS
050f5001.d	WAR100219-99 03	YS1	22-FEB-2010 14:53		022210		1.0		CLEAN
051f5101.d	246968009	YS1	22-FEB-2010 15:03	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
052f5201.d	246968010	YS1	22-FEB-2010 15:16	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	246968011	YS1	22-FEB-2010 15:28	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	246968012	YS1	22-FEB-2010 15:41	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	246968013	YS1	22-FEB-2010 15:54	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
056f5601.d	246968014	YS1	22-FEB-2010 16:06	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	246968015	YS1	22-FEB-2010 16:19	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	246968016	YS1	22-FEB-2010 16:32	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	246968017	YS1	22-FEB-2010 16:44	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
060f6001.d	247121002	YS1	22-FEB-2010 16:57	954781	10-1846	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

061f6101.d	WAR100203-60 03	YS1	22-FEB-2010 17:10		022210		1.0		PASSED ON BOTH COLUMNS
062f6201.d	WAR100219-99 04	YS1	22-FEB-2010 17:22		022210		1.0		CLEAN
063f6301.d	247123001	YS1	22-FEB-2010 17:35	954781	10-1848		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	1202046868	YS1	22-FEB-2010 17:48	954781	10-1848		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
065f6501.d	1202046869	YS1	22-FEB-2010 18:00	954781	10-1848		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	WAR100203-60 04	YS1	22-FEB-2010 18:13		022210		1.0		PASSED ON BOTH COLUMNS
067f6701.d	WAR100219-99 05	YS1	22-FEB-2010 18:26		022210		1.0		CLEAN
068f6801.d	1202048527	YS1	22-FEB-2010 18:38	955479	10-1818		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	1202048528	YS1	22-FEB-2010 18:51	955479	10-1818		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	247043003	YS1	22-FEB-2010 19:04	955479	10-1818		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
071f7101.d	1202048529	YS1	22-FEB-2010 19:16	955479	10-1818		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/022210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
072f7201.d	1202048530	YS1	22-FEB-2010 19:29	955479	10-1818	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	247043004	YS1	22-FEB-2010 19:42	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	247043005	YS1	22-FEB-2010 19:54	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	247043006	YS1	22-FEB-2010 20:07	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
076f7601.d	247043007	YS1	22-FEB-2010 20:20	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	247043008	YS1	22-FEB-2010 20:32	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	WAR100203-60 05	YS1	22-FEB-2010 20:45		022210	1.0		PASSED ON BOTH COLUMNS
079f7901.d	WAR100219-99 06	YS1	22-FEB-2010 20:58		022210	1.0		CLEAN
080f8001.d	247043009	YS1	22-FEB-2010 21:10	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
081f8101.d	247043010	YS1	22-FEB-2010 21:23	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
082f8201.d	247043011	YS1	22-FEB-2010 21:35	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
083f8301.d	247043012	YS1	22-FEB-2010 21:48	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
084f8401.d	247043013	YS1	22-FEB-2010 22:01	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
085f8501.d	247043014	YS1	22-FEB-2010 22:13	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

086f8601.d	247043015	YS1	22-FEB-2010 22:26	955479	10-1818		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	247043016	YS1	22-FEB-2010 22:39	955479	10-1818		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
088f8801.d	247043017	YS1	22-FEB-2010 22:51	955479	10-1818		1.0	LANL	SURROGATE LOW RE
089f8901.d	247043018	YS1	22-FEB-2010 23:04	955479	10-1818		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
090f9001.d	WAR100203-60 06	YS1	22-FEB-2010 23:17		022210		1.0		PASSED ON BOTH COLUMNS
091f9101.d	WAR100219-99 07	YS1	22-FEB-2010 23:29		022210		1.0		CLEAN

Instrument Batch: /chem/ecd1a.i/022210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
092f9201.d	1660	YS1	22-FEB-2010 23:42		022210	1.0		DUSE SCREEN
093f9301.d	1660-4	YS1	22-FEB-2010 23:55		022210	1.0		DUSE SCREEN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 02/24/2010 METHOD: ECD1-F-8082-022210.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/022310.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	23-FEB-2010 06:01		022310	1.0		CLEAN
002f0201.d	WAR100203-60 01	YS1	23-FEB-2010 06:11		022310	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR100219-54	YS1	23-FEB-2010 06:22		022310	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR100219-42	YS1	23-FEB-2010 06:32		022310	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091217-48	YS1	23-FEB-2010 06:43		022310	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100104-32	YS1	23-FEB-2010 06:53		022310	1.0		PATTERN ONLY
007f0701.d	WAR100104-21	YS1	23-FEB-2010 07:04		022310	1.0		PATTERN ONLY
008f0801.d	WAR100104-62	YS1	23-FEB-2010 07:15		022310	1.0		PATTERN ONLY
009f0901.d	WAR100107-68	YS1	23-FEB-2010 07:25		022310	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	YS1	23-FEB-2010 07:36		022310	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100219-99 02	YS1	23-FEB-2010 07:46		022310	1.0		CLEAN
012f1201.d	acetone	YS1	23-FEB-2010 07:57		022310	1.0		ACETONE/HEXANE SCREEN FOR PREP
013f1301.d	surroge	YS1	23-FEB-2010 09:22		022310	1.0		SURROPGATE SCREEN FOR PREP
014f1401.d	1202048657	YS1	23-FEB-2010 09:33	955562	10-1839	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
015f1501.d	1202048658	YS1	23-FEB-2010 09:46	955562	10-1839	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/022310.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	247116002	YS1	23-FEB-2010 09:58	955562	10-1839		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
017f1701.d	247116003	YS1	23-FEB-2010 10:11	955562	10-1839		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
018f1801.d	247116004	YS1	23-FEB-2010 10:23	955562	10-1839		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
019f1901.d	247116006	YS1	23-FEB-2010 10:36	955562	10-1839		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	247116007	YS1	23-FEB-2010 10:49	955562	10-1839		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	247116008	YS1	23-FEB-2010 11:01	955562	10-1839		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	247116009	YS1	23-FEB-2010 11:14	955562	10-1839		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
023f2301.d	247116010	YS1	23-FEB-2010 11:27	955562	10-1839		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
024f2401.d	WAR100203-60 02	YS1	23-FEB-2010 11:39		022310		1.0		PASSED ON BOTH COLUMNS
025f2501.d	WAR100219-99 03	YS1	23-FEB-2010 11:50		022310		1.0		CLEAN
026f2601.d	247116011	YS1	23-FEB-2010 12:00	955562	10-1839		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	247116012	YS1	23-FEB-2010 12:13	955562	10-1839		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	247116013	YS1	23-FEB-2010 12:26	955562	10-1839		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	247116014	YS1	23-FEB-2010 12:38	955562	10-1839		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
030f3001.d	247116015	YS1	23-FEB-2010 12:51	955562	10-1839		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
031f3101.d	247116016	YS1	23-FEB-2010 13:03	955562	10-1839		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	247116017	YS1	23-FEB-2010 13:16	955562	10-1839		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	WAR100203-60 03	YS1	23-FEB-2010 13:34		022310		1.0		OK AR1260 1170 ON FRONT. NO HITS ABOVE THE PQL
034f3401.d	WAR100219-99 04	YS1	23-FEB-2010 13:44		022310		1.0		CLEAN
035f3501.d	MS	YS1	23-FEB-2010 13:55	955562	DUSE		1.0	LANL	DUSE WAS MS

Instrument Batch: /chem/ecd1a.i/022310.b Page: 2

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202048659	YS1	23-FEB-2010 14:07	955562	10-1861	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	247178001	YS1	23-FEB-2010 14:20	955562	10-1861	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	1202048660	YS1	23-FEB-2010 14:32	955562	10-1861	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	247178002	YS1	23-FEB-2010 14:45	955562	10-1861	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	WAR100203-60 04	YS1	23-FEB-2010 14:58		022310	1.0		PASSED ON BOTH COLUMNS

041f4101.d	WAR100219-99 05	YS1	23-FEB-2010 15:08		022310		1.0		CLEAN
042f4201.d	1202050207	YS1	23-FEB-2010 15:19	956143	10-1896		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
043f4301.d	1202050208	YS1	23-FEB-2010 15:32	956143	10-1896		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
044f4401.d	247325001	YS1	23-FEB-2010 15:44	956143	10-1896		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	247327002	YS1	23-FEB-2010 15:57	956143	10-1898		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
046f4601.d	247421002	YS1	23-FEB-2010 16:09	956143	10-1920		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
047f4701.d	247421003	YS1	23-FEB-2010 16:22	956143	10-1920		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
048f4801.d	247421004	YS1	23-FEB-2010 16:35	956143	10-1920		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	247421005	YS1	23-FEB-2010 16:47	956143	10-1920		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
050f5001.d	247421006	YS1	23-FEB-2010 17:00	956143	10-1920		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
051f5101.d	247421007	YS1	23-FEB-2010 17:13	956143	10-1920		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
052f5201.d	WAR100203-60 05	YS1	23-FEB-2010 17:25		022310		1.0		PASSED ON BOTH COLUMNS
053f5301.d	WAR100219-99 06	YS1	23-FEB-2010 17:38		022310		1.0		CLEAN
054f5401.d	247450002	YS1	23-FEB-2010 17:51	956143	10-1937		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	247450003	YS1	23-FEB-2010 18:03	956143	10-1937		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	247450004	YS1	23-FEB-2010 18:16	956143	10-1937	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	247450005	YS1	23-FEB-2010 18:29	956143	10-1937	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	247450006	YS1	23-FEB-2010 18:41	956143	10-1937	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	247450007	YS1	23-FEB-2010 18:54	956143	10-1937	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
060f6001.d	247552002	YS1	23-FEB-2010 19:07	956143	10-1970	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	1202050209	YS1	23-FEB-2010 19:19	956143	10-1970	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
062f6201.d	1202050210	YS1	23-FEB-2010 19:32	956143	10-1970	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
063f6301.d	WAR100203-60 06	YS1	23-FEB-2010 19:45		022310	1.0		PASSED ON BOTH COLUMNS
064f6401.d	WAR100219-99 07	YS1	23-FEB-2010 19:57		022310	1.0		CLEAN

065f6501.d	1202048627	YS1	23-FEB-2010 20:10	955552	10026		1.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
066f6601.d	1202048628	YS1	23-FEB-2010 20:22	955552	10026		1.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
067f6701.d	247007001	YS1	23-FEB-2010 20:35	955552	10026		400.0	WSRS	UPLOAD BOTH COLUMNS, USE FRONT
068f6801.d	1202048629	YS1	23-FEB-2010 20:48	955552	10026		400.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
069f6901.d	1202048630	YS1	23-FEB-2010 21:00	955552	10026		400.0	QC A	UPLOAD BOTH COLUMNS, USE FRONT
070f7001.d	247007002	YS1	23-FEB-2010 21:13	955552	10026		500.0	WSRS	UPLOAD BOTH COLUMNS, USE FRONT
071f7101.d	WAR100203-60 07	YS1	23-FEB-2010 21:26		022310		1.0		PASSED ON BOTH COLUMNS
072f7201.d	WAR100219-99 08	YS1	23-FEB-2010 21:38		022310		1.0		CLEAN
073f7301.d	247273002	YS1	23-FEB-2010 21:51	955552	247273		100.0	LAID	UPLOAD BOTH COLUMNS, USE FRONT
074f7401.d	WAR100203-60 08	YS1	23-FEB-2010 22:04		022310		1.0		PASSED ON BOTH COLUMNS
075f7501.d	WAR100219-99 09	YS1	23-FEB-2010 22:16		022310		1.0		CLEAN

Instrument Batch: /chem/ecd1a.i/022310.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	1248	YS1	23-FEB-2010 22:29		022310		1.0	DUSE SCREEN
077f7701.d		YS1	23-FEB-2010 22:44		022310		1.0	DUSE SCREEN
078f7801.d		YS1	23-FEB-2010 22:56		022310		1.0	DUSE SCREEN

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022310.b/061b6101.d
Lab Smp Id: 1202050209 Client Smp ID: WST15-10-8894MS
Inj Date : 23-FEB-2010 19:19
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202050209|1|
Misc Info : |ECD82P_1S|956143|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/022310.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 08:10 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 61 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1970.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	2.37500	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.288	2.287	0.001	39413703	132.529	4.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.934	5.936	-0.002	32161002	152.063	5.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.184	3.183	0.001	8633242	675.011	23.0	80.00- 120.00	100.00(M)
3.266	3.267	-0.001	6384737	715.944	24.4	44.93- 84.93	73.96
3.330	3.330	0.000	3420561	632.733	21.6	20.22- 60.22	39.62
3.557	3.557	0.000	4542082	656.784	22.4	30.74- 70.74	52.61

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.632	3.632	0.000	4316514	671.809	22.9	27.15- 67.15	50.00
Average of Peak Concentrations =					22.8		
7 Aroclor-1260					CAS #: 11096-82-5		
4.323	4.324	-0.001	10031993	759.675	25.9	80.00- 120.00	100.00
4.448	4.449	-0.001	12897620	828.533	28.2	103.25- 143.25	128.56
4.714	4.716	-0.002	9987398	843.281	28.7	72.66- 112.66	99.56
4.888	4.889	-0.001	10165747	833.176	28.4	75.70- 115.70	101.33
5.035	5.036	-0.001	22931522	864.454	29.5	194.58- 234.58	228.58
Average of Peak Concentrations =					28.1		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/022310.b/061b6101.d
Date : 23-FEB-2010 19:19
Client ID: WST15-10-8894MS
Sample Info: |1202050209|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

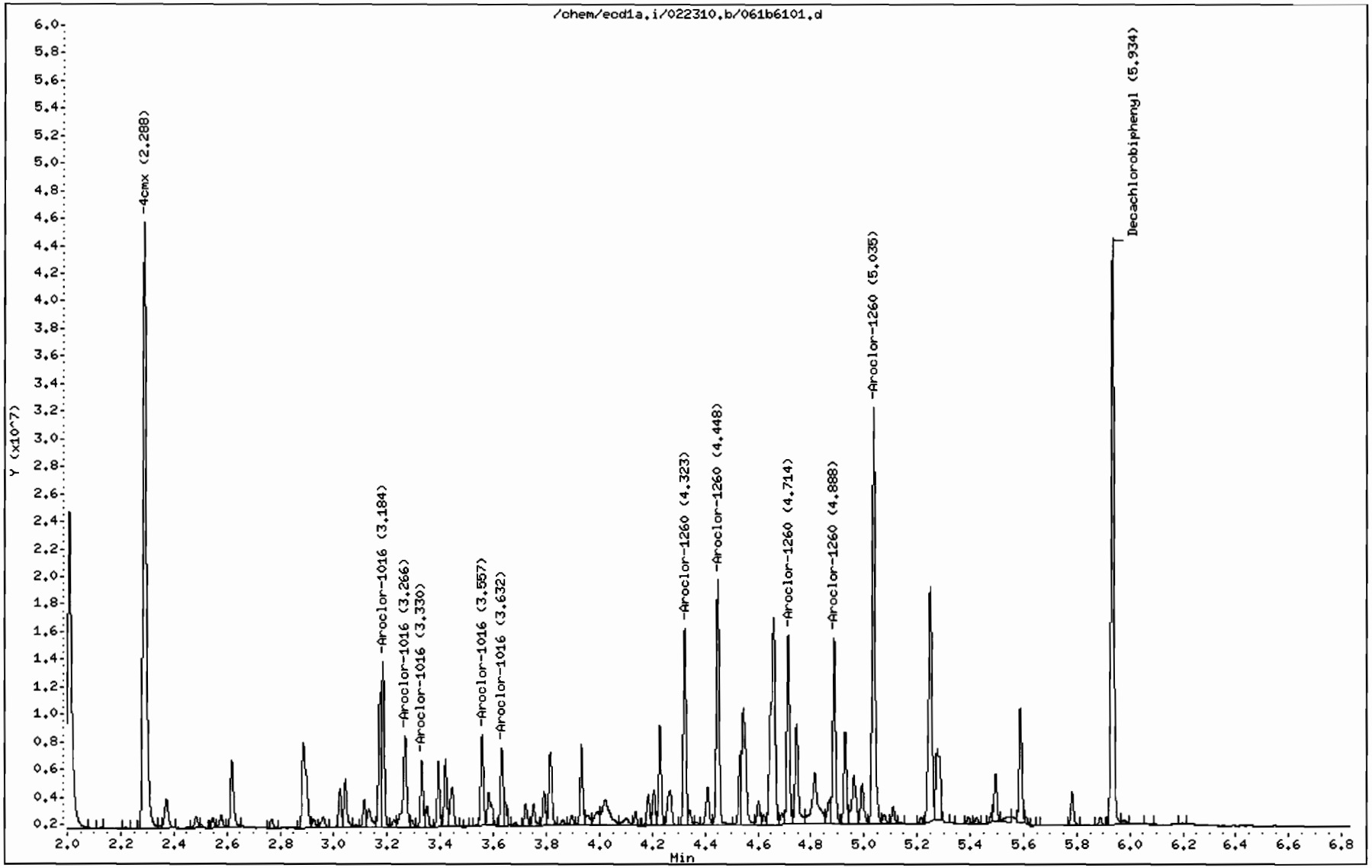

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022310.b/061f6101.d
Lab Smp Id: 1202050209 Client Smp ID: WST15-10-8894MS
Inj Date : 23-FEB-2010 19:19
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202050209|1|
Misc Info : |ECD82P_1S|956143|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/022310.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 08:09 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 61 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1970.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.05000	Weight of sample extracted (g)
M	2.37500	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.922	1.922	0.000	60233484	139.871	4.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.229	5.232	-0.003	50433981	164.125	5.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.375	2.376	-0.001	10222037	664.444	22.6	80.00- 120.00	100.00
2.662	2.663	-0.001	12920054	708.452	24.1	103.70- 143.70	126.39
2.743	2.743	0.000	8415356	697.474	23.8	60.72- 100.72	82.33
2.780	2.781	-0.001	5673430	799.513	27.2	28.78- 68.78	55.50

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.990	2.992	-0.002	6352305	712.766	24.3	42.99- 82.99	62.14
Average of Peak Concentrations =					24.4		
7 Aroclor-1260					CAS #: 11096-82-5		
3.716	3.718	-0.002	15632379	915.651	31.2	80.00- 120.00	100.00
3.879	3.881	-0.002	23366242	988.276	33.7	124.57- 164.57	149.47
4.040	4.042	-0.002	24844134	994.906	33.9	133.95- 173.95	158.93
4.109	4.111	-0.002	14809851	1028.06	35.0	68.41- 108.41	94.74
4.252	4.254	-0.002	14307912	991.503	33.8	71.25- 111.25	91.53
Average of Peak Concentrations =					33.5		

Data File: /chem/ecd1a.i/022310.b/061f6101.d
Date : 23-FEB-2010 19:19
Client ID: WST15-10-8894MS
Sample Info: 1120205020911
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

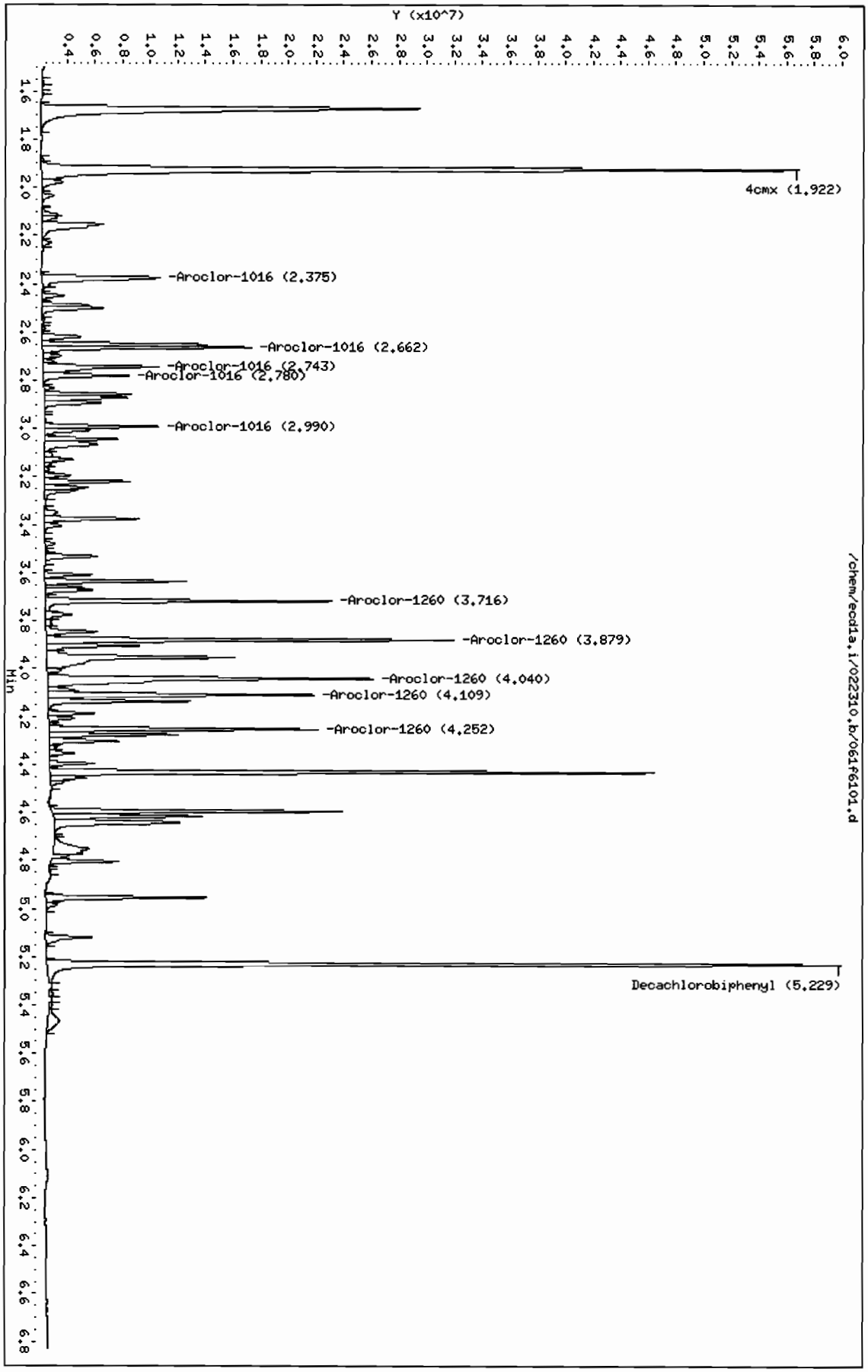

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022310.b/062b6201.d
Lab Smp Id: 1202050210 Client Smp ID: WST15-10-8894MSD
Inj Date : 23-FEB-2010 19:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202050210|1|
Misc Info : |ECD82P_1S|956143|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/022310.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 08:10 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 62 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1970.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.11000	Weight of sample extracted (g)
M	2.37500	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.288	2.287	0.001	41080049	138.132	4.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.933	5.936	-0.003	32531326	153.814	5.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.183	3.183	0.000	9132036	714.010	24.3	80.00- 120.00	100.00(M)
3.266	3.267	-0.001	5987230	671.370	22.8	44.93- 84.93	65.56
3.330	3.330	0.000	3591835	664.415	22.6	20.22- 60.22	39.33
3.557	3.557	0.000	4799186	693.961	23.6	30.74- 70.74	52.55

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.632	3.632	0.000	4417502	687.526	23.4	27.15- 67.15	48.37
Average of Peak Concentrations =					23.3		
7 Aroclor-1260					CAS #: 11096-82-5		
4.323	4.324	-0.001	10356291	784.232	26.7	80.00- 120.00	100.00
4.448	4.449	-0.001	12678622	814.465	27.7	103.25- 143.25	122.42
4.713	4.716	-0.003	10091593	852.079	29.0	72.66- 112.66	97.44
4.888	4.889	-0.001	10094880	827.368	28.1	75.70- 115.70	97.48
5.035	5.036	-0.001	23481077	885.171	30.1	194.58- 234.58	226.73
Average of Peak Concentrations =					28.3		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/022310.b/062b6201.d

Date : 23-FEB-2010 19:32

Client ID: WST15-10-8894MSD

Sample Info: |120205021011|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

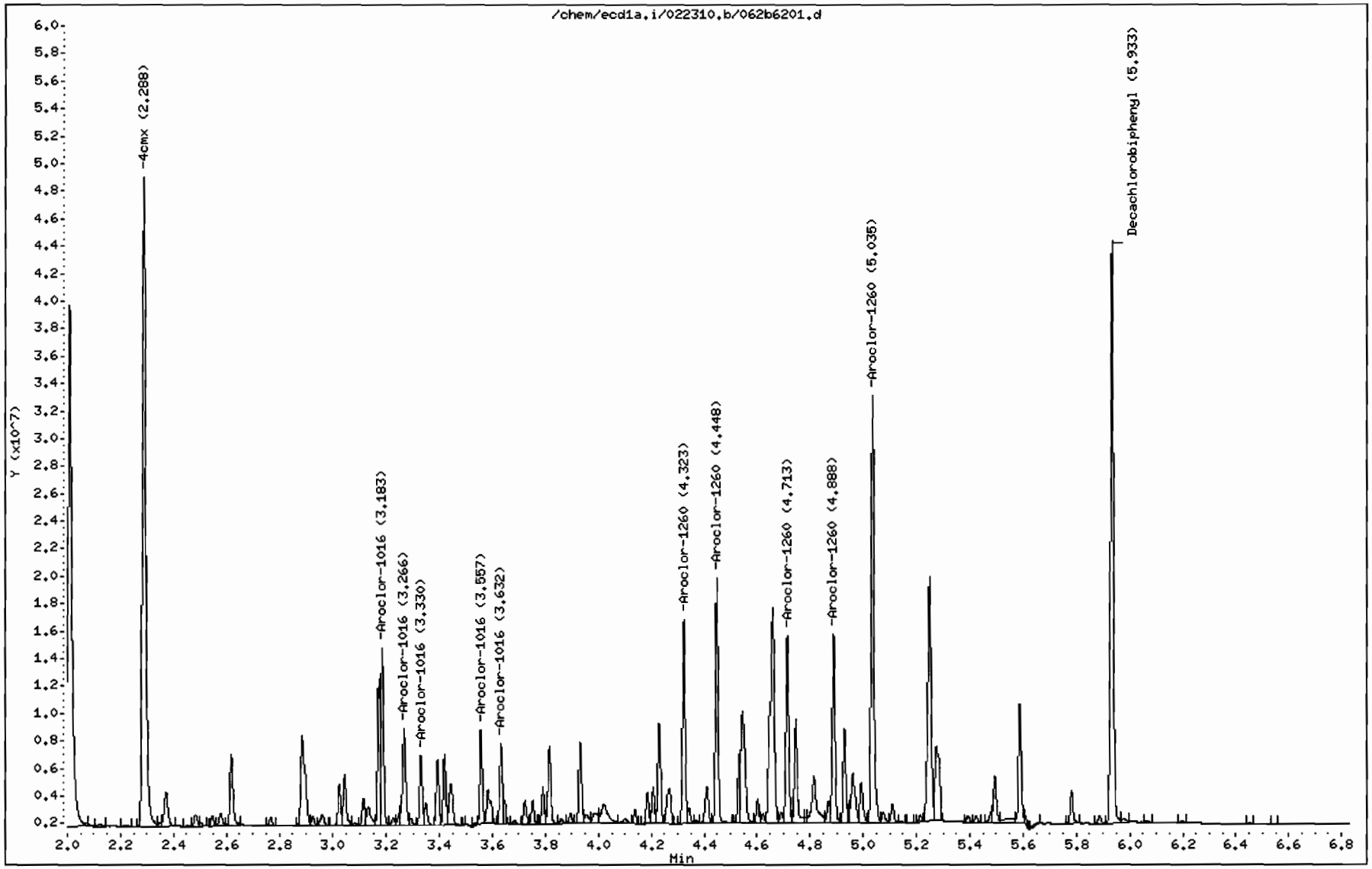

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022310.b/062f6201.d
Lab Smp Id: 1202050210 Client Smp ID: WST15-10-8894MSD
Inj Date : 23-FEB-2010 19:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202050210|1|
Misc Info : |ECD82P_1S|956143|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/022310.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 08:09 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 62 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1970.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.11000	Weight of sample extracted (g)
M	2.37500	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.923	1.922	0.001	62560880	145.275	4.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.229	5.232	-0.003	40887358	133.058	4.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.375	2.376	-0.001	10862719	706.089	24.0	80.00- 120.00	100.00
2.663	2.663	0.000	13530811	741.942	25.2	103.70- 143.70	124.56
2.742	2.743	-0.001	8915497	738.926	25.1	60.72- 100.72	82.07
2.779	2.781	-0.002	5762350	812.044	27.6	28.78- 68.78	53.05

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.990	2.992	-0.002	6806259	763.702	26.0	42.99- 82.99	62.66
Average of Peak Concentrations =					25.6		
7 Aroclor-1260					CAS #: 11096-82-5		
3.716	3.718	-0.002	16144092	945.624	32.2	80.00- 120.00	100.00
3.878	3.881	-0.003	23248402	983.291	33.4	124.57- 164.57	144.01
4.041	4.042	-0.001	24649429	987.109	33.6	133.95- 173.95	152.68
4.108	4.111	-0.003	14824523	1029.08	35.0	68.41- 108.41	91.83
4.252	4.254	-0.002	14687594	1017.81	34.6	71.25- 111.25	90.98
Average of Peak Concentrations =					33.8		

Data File: /chem/ecd1a.i/022310.b/062f6201.d

Date : 23-FEB-2010 19:32

Client ID: WST15-10-8894MSD

Sample Info: |1202050210|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

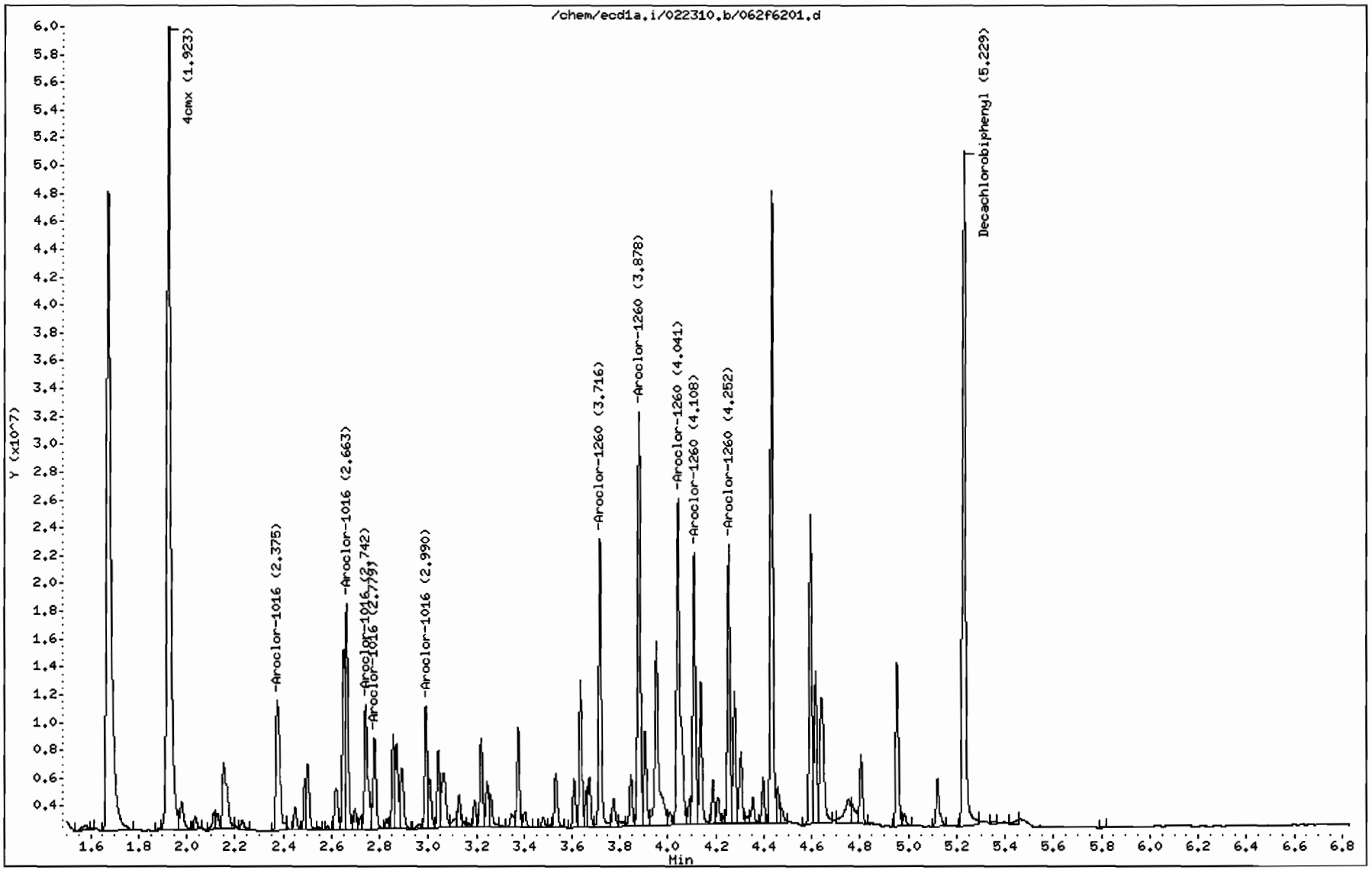

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 956141 **Verified by:** _____

Analyst: Andrew Schwemin

Method: SW846 3550B

Lab SOP: GL-OA-E-010 REV# 18

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202050207 MB	22-FEB-2010 21:16:00	30	H2SO4/KMn2		2	9	1	0.03333
1202050208 LCS	22-FEB-2010 21:16:00	30	H2SO4/KMn2		2	9	1	0.03333
247325001	22-FEB-2010 21:16:00	30.02	H2SO4/KMn2		2	9	1	0.03331
247327002	22-FEB-2010 21:16:00	30.12	H2SO4/KMn2		2	9	1	0.0332
247421002	22-FEB-2010 21:16:00	30.02	H2SO4/KMn2		2	9	1	0.03331
247421003	22-FEB-2010 21:16:00	30.18	H2SO4/KMn2		2	9	1	0.03313
247421004	22-FEB-2010 21:16:00	30.06	H2SO4/KMn2		2	9	1	0.03327
247421005	22-FEB-2010 21:16:00	30.02	H2SO4/KMn2		2	9	1	0.03331
247421006	22-FEB-2010 21:16:00	30.13	H2SO4/KMn2		2	9	1	0.03319
247421007	22-FEB-2010 21:16:00	30.02	H2SO4/KMn2		2	9	1	0.03331
247450002	22-FEB-2010 21:16:00	30.19	H2SO4/KMn2		2	9	1	0.03312
247450003	22-FEB-2010 21:16:00	30.03	H2SO4/KMn2		2	9	1	0.0333
247450004	22-FEB-2010 21:16:00	30.03	H2SO4/KMn2		2	9	1	0.0333
247450005	22-FEB-2010 21:16:00	30.14	H2SO4/KMn2		2	9	1	0.03318
247450006	22-FEB-2010 21:16:00	30.19	H2SO4/KMn2		2	9	1	0.03312
247450007	22-FEB-2010 21:16:00	30.18	H2SO4/KMn2		2	9	1	0.03313
247552002	22-FEB-2010 21:16:00	30.04	H2SO4/KMn2		2	9	1	0.03329
1202050209 MS (247552002)	22-FEB-2010 21:16:00	30.05	H2SO4/KMn2		2	9	1	0.03328
1202050210 MSD (247552002)	22-FEB-2010 21:16:00	30.11	H2SO4/KMn2		2	9	1	0.03321

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202050208	PCB Laboratory Control	WE100210-07	1	mL
MS	1202050209	PCB Laboratory Control	WE100210-07	1	mL
MSD	1202050210	PCB Laboratory Control	WE100210-07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE091217-15	1	mL
REGNT	All	Acetone	100211-B1	150	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Hexane	1273340-B2	150	mL
REGNT	All	5% Potassium Permanganate	B1202457-F	5	mL
SOURC	All	SODIUM SULFATE	1269268	30	g

Comments:

Clean up Date: 2/22/10

Clean up Initials: AJS

Verified By: AV

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-037

GEL Laboratories LLC
Form GEL-DER

DER Report No.: 795177
Revision No.: 1

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
24-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GC/ECD	SW846 8082	Solid	LANL
Batch ID:	**Sample Numbers:**		
956143	See Below		

Potentially affected work order(s)(SDG): 247325(10-1896),247327(10-1898),247421(10-1920),247450(10-1937),247552(10-1970)

Application Issues:

Failed Yield for Surrogates

Specification and Requirements Exception Description:	DER Disposition:
1. Sample 247327002 did not meet surrogate recovery acceptance criteria.	1. The failure was due to sample matrix and dilution. The data were reported.

Originator's Name:

Yiping Shi 24-FEB-10

Data Validator/Group Leader:

Jimin Cao 26-FEB-10

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1898

Sample Analysis

Sample ID	**Client ID**
247327002	WST15-10-8941
1202047652	Method Blank (MB) **ICP**
1202047657	Laboratory Control Sample (LCS)
1202047654	247327002(WST15-10-8941L) Serial Dilution (SD)
1202047653	247327002(WST15-10-8941D) Sample Duplicate (DUP)
1202047655	247327002(WST15-10-8941S) Matrix Spike (MS)
1202047656	247327002(WST15-10-8941SD) Matrix Spike Duplicate (MSD)
1202047663	Method Blank (MB) **ICP-MS**
1202047668	Laboratory Control Sample (LCS)
1202047665	247327002(WST15-10-8941L) Serial Dilution (SD)
1202047664	247327002(WST15-10-8941D) Sample Duplicate (DUP)
1202047666	247327002(WST15-10-8941S) Matrix Spike (MS)
1202047667	247327002(WST15-10-8941SD) Matrix Spike Duplicate (MSD)
1202055200	Method Blank (MB) **CVAA**
1202055201	Laboratory Control Sample (LCS)
1202055204	247456001(WST16-10-12233L) Serial Dilution (SD)
1202055202	247456001(WST16-10-12233D) Sample Duplicate (DUP)
1202055203	247456001(WST16-10-12233S) Matrix Spike (MS)
1202055205	247456001(WST16-10-12233SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Method/Analysis Information

Analytical Batch:	955119, 955121 and 958334
Prep Batch :	955118, 955120 and 958333
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-009 REV# 19, GL-MA-E-014 REV# 21 and GL-MA-E-010 REV# 23
Analytical Method:	SW846 3050B/6010B, SW846 3050B/6020 and SW846 7471A
Prep Method :	SW846 3050B and SW846 7471A Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

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

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 247327002 (WST15-10-8941) and 247456001 (WST16-10-12233).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of calcium and potassium, as indicated by the "N" qualifiers.

Matrix Spike Duplicate (MSD) Recovery Statement
The percent recovery (%R) obtained from the MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MSD met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of calcium, barium and nickel, as indicated by the "N" qualifiers.

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated matrix spike duplicate (MSD) is evaluated based on acceptance criteria of 20%. The RPD between qualifying elements results in the MS and MSD were within the acceptance limits of 20% with the exceptions of aluminum, barium and calcium, as indicated by the "*" qualifiers.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exceptions of calcium, chromium, copper, lead and vanadium, as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

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

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG were diluted the standard 2x for solids on the ICPMS.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 800694 and 801880. A copy of each DER is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

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

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: Kristen Parson **Date:** 3/10/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1898 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 247327002 **BASIS:** Dry Weight **DATE COLLECTED** 16-FEB-10

CLIENT ID: WST15-10-8941 **LEVEL:** Low **DATE RECEIVED** 18-FEB-10

MATRIX: SOIL **%SOLIDS:** 92.2

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7429-90-5	Aluminum	3860000	ug/kg	*	7030	20700	20700	1	P	HSC	03/06/10 02:56	030510A-1	955119
7440-36-0	Antimony	1030	ug/kg	U	341	1030	1030	1	P	HSC	03/06/10 02:56	030510A-1	955119
7440-38-2	Arsenic	927	ug/kg	J	214	1070	1070	2	MS	BAJ	03/08/10 00:18	100307-2	955121
7440-39-3	Barium	103000	ug/kg	*N	103	517	517	1	P	HSC	03/06/10 02:56	030510A-1	955119
7440-41-7	Beryllium	329	ug/kg		21.4	107	107	2	MS	BAJ	03/08/10 00:18	100307-2	955121
7440-43-9	Cadmium	158	ug/kg	J	103	517	517	1	P	HSC	03/06/10 02:56	030510A-1	955119
7440-70-2	Calcium	1890000	ug/kg	*N	8270	25800	25800	1	P	HSC	03/06/10 02:56	030510A-1	955119
7440-47-3	Chromium	4500	ug/kg	*	155	517	517	1	P	HSC	03/06/10 02:56	030510A-1	955119
7440-48-4	Cobalt	2640	ug/kg		155	517	517	1	P	HSC	03/06/10 02:56	030510A-1	955119
7440-50-8	Copper	5380	ug/kg	*	310	1030	1030	1	P	HSC	03/06/10 02:56	030510A-1	955119
7439-89-6	Iron	7010000	ug/kg		8270	25800	25800	1	P	HSC	03/06/10 02:56	030510A-1	955119
7439-92-1	Lead	6560	ug/kg	*	258	1030	1030	1	P	HSC	03/06/10 02:56	030510A-1	955119
7439-95-4	Magnesium	1170000	ug/kg		8780	31000	31000	1	P	HSC	03/06/10 02:56	030510A-1	955119
7439-96-5	Manganese	248000	ug/kg		207	1030	1030	1	P	HSC	03/06/10 02:56	030510A-1	955119
7439-97-6	Mercury	12.5	ug/kg	U	4.25	12.5	12.5	1	AV	JXL1	03/01/10 10:44	030110S1-3	958334
7440-02-0	Nickel	5730	ug/kg	N	107	429	429	2	MS	BAJ	03/08/10 00:18	100307-2	955121
7440-09-7	Potassium	788000	ug/kg	N	6610	25800	25800	1	P	HSC	03/06/10 02:56	030510A-1	955119
7782-49-2	Selenium	1070	ug/kg	U	536	1070	1070	2	MS	BAJ	03/08/10 00:18	100307-2	955121
7440-22-4	Silver	509	ug/kg	J	103	517	517	1	P	HSC	03/06/10 02:56	030510A-1	955119
7440-23-5	Sodium	125000	ug/kg		7230	25800	25800	1	P	HSC	03/06/10 02:56	030510A-1	955119
7440-28-0	Thallium	147	ug/kg	J	64.3	214	214	2	MS	BAJ	03/08/10 00:18	100307-2	955121
7440-62-2	Vanadium	14700	ug/kg	*	103	517	517	1	P	HSC	03/06/10 02:56	030510A-1	955119
7440-66-6	Zinc	18700	ug/kg		341	1030	1030	1	P	HSC	03/06/10 02:56	030510A-1	955119

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
955119	955118	SW846 3050B	0.525	g	50	mL	02/22/10	AXG2
955121	955120	SW846 3050B	0.506	g	50	mL	02/22/10	AXG2
958334	958333	SW846 7471A Prep	0.521	g	30	mL	02/28/10	TXB3

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1898

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.21	ug/L	5	ug/L	104.3	90.0 – 110.0	AV	01-MAR-10 09:34	030110S1-3
	Aluminum	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	05-MAR-10 16:30	030510A-1
	Antimony	520	ug/L	500	ug/L	103.9	90.0 – 110.0	P	05-MAR-10 16:30	030510A-1
	Barium	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	05-MAR-10 16:30	030510A-1
	Cadmium	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	05-MAR-10 16:30	030510A-1
	Calcium	5160	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	05-MAR-10 16:30	030510A-1
	Chromium	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	05-MAR-10 16:30	030510A-1
	Cobalt	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	05-MAR-10 16:30	030510A-1
	Copper	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	05-MAR-10 16:30	030510A-1
	Iron	5240	ug/L	5000	ug/L	104.9	90.0 – 110.0	P	05-MAR-10 16:30	030510A-1
	Lead	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	05-MAR-10 16:30	030510A-1
	Magnesium	5450	ug/L	5000	ug/L	109	90.0 – 110.0	P	05-MAR-10 16:30	030510A-1
	Manganese	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	05-MAR-10 16:30	030510A-1
	Potassium	2460	ug/L	2500	ug/L	98.3	90.0 – 110.0	P	05-MAR-10 16:30	030510A-1
	Silver	256	ug/L	250	ug/L	102.5	90.0 – 110.0	P	05-MAR-10 16:30	030510A-1
	Sodium	2590	ug/L	2500	ug/L	103.5	90.0 – 110.0	P	05-MAR-10 16:30	030510A-1
	Vanadium	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	05-MAR-10 16:30	030510A-1
	Zinc	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	05-MAR-10 16:30	030510A-1
	Arsenic	49	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	07-MAR-10 22:21	100307-2
	Beryllium	50.5	ug/L	50	ug/L	101.1	90.0 – 110.0	MS	07-MAR-10 22:21	100307-2
	Nickel	52.5	ug/L	50	ug/L	105	90.0 – 110.0	MS	07-MAR-10 22:21	100307-2
	Selenium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	07-MAR-10 22:21	100307-2
	Thallium	53.5	ug/L	50	ug/L	107	90.0 – 110.0	MS	07-MAR-10 22:21	100307-2
CCV01										
	Mercury	5.18	ug/L	5	ug/L	103.5	80.0 – 120.0	AV	01-MAR-10 09:39	030110S1-3
	Aluminum	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	05-MAR-10 17:17	030510A-1
	Antimony	519	ug/L	500	ug/L	103.8	90.0 – 110.0	P	05-MAR-10 17:17	030510A-1
	Barium	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	05-MAR-10 17:17	030510A-1
	Cadmium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	05-MAR-10 17:17	030510A-1
	Calcium	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	05-MAR-10 17:17	030510A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1898

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	05-MAR-10 17:17	030510A-1
	Cobalt	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	05-MAR-10 17:17	030510A-1
	Copper	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	05-MAR-10 17:17	030510A-1
	Iron	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05-MAR-10 17:17	030510A-1
	Lead	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	05-MAR-10 17:17	030510A-1
	Magnesium	5300	ug/L	5000	ug/L	105.9	90.0 – 110.0	P	05-MAR-10 17:17	030510A-1
	Manganese	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	05-MAR-10 17:17	030510A-1
	Potassium	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	05-MAR-10 17:17	030510A-1
	Silver	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	05-MAR-10 17:17	030510A-1
	Sodium	9720	ug/L	10000	ug/L	97.2	90.0 – 110.0	P	05-MAR-10 17:17	030510A-1
	Vanadium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	05-MAR-10 17:17	030510A-1
	Zinc	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	05-MAR-10 17:17	030510A-1
	Arsenic	48.6	ug/L	50	ug/L	97.2	90.0 – 110.0	MS	07-MAR-10 22:39	100307-2
	Beryllium	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	07-MAR-10 22:39	100307-2
	Nickel	52.2	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	07-MAR-10 22:39	100307-2
	Selenium	49.4	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	07-MAR-10 22:39	100307-2
	Thallium	53.8	ug/L	50	ug/L	107.6	90.0 – 110.0	MS	07-MAR-10 22:39	100307-2
CCV02										
	Mercury	5.28	ug/L	5	ug/L	105.5	80.0 – 120.0	AV	01-MAR-10 09:59	030110S1-3
	Aluminum	5220	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	05-MAR-10 17:44	030510A-1
	Antimony	510	ug/L	500	ug/L	102	90.0 – 110.0	P	05-MAR-10 17:44	030510A-1
	Barium	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	05-MAR-10 17:44	030510A-1
	Cadmium	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	05-MAR-10 17:44	030510A-1
	Calcium	5320	ug/L	5000	ug/L	106.4	90.0 – 110.0	P	05-MAR-10 17:44	030510A-1
	Chromium	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	05-MAR-10 17:44	030510A-1
	Cobalt	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	05-MAR-10 17:44	030510A-1
	Copper	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	05-MAR-10 17:44	030510A-1
	Iron	5220	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	05-MAR-10 17:44	030510A-1
	Lead	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	05-MAR-10 17:44	030510A-1
	Magnesium	5480	ug/L	5000	ug/L	109.6	90.0 – 110.0	P	05-MAR-10 17:44	030510A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1898

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Manganese	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	05–MAR–10 17:44	030510A–1
	Potassium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	05–MAR–10 17:44	030510A–1
	Silver	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	05–MAR–10 17:44	030510A–1
	Sodium	9650	ug/L	10000	ug/L	96.5	90.0 – 110.0	P	05–MAR–10 17:44	030510A–1
	Vanadium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	05–MAR–10 17:44	030510A–1
	Zinc	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	05–MAR–10 17:44	030510A–1
	Arsenic	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	07–MAR–10 23:12	100307–2
	Beryllium	51.9	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	07–MAR–10 23:12	100307–2
	Nickel	52.7	ug/L	50	ug/L	105.4	90.0 – 110.0	MS	07–MAR–10 23:12	100307–2
	Selenium	50.2	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	07–MAR–10 23:12	100307–2
	Thallium	54	ug/L	50	ug/L	108	90.0 – 110.0	MS	07–MAR–10 23:12	100307–2
CCV03										
	Mercury	5.22	ug/L	5	ug/L	104.4	80.0 – 120.0	AV	01–MAR–10 10:19	030110S1–3
	Aluminum	4860	ug/L	5000	ug/L	97.2	90.0 – 110.0	P	05–MAR–10 18:16	030510A–1
	Antimony	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	05–MAR–10 18:16	030510A–1
	Barium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	05–MAR–10 18:16	030510A–1
	Cadmium	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	05–MAR–10 18:16	030510A–1
	Calcium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	05–MAR–10 18:16	030510A–1
	Chromium	481	ug/L	500	ug/L	96.1	90.0 – 110.0	P	05–MAR–10 18:16	030510A–1
	Cobalt	480	ug/L	500	ug/L	95.9	90.0 – 110.0	P	05–MAR–10 18:16	030510A–1
	Copper	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	05–MAR–10 18:16	030510A–1
	Iron	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	05–MAR–10 18:16	030510A–1
	Lead	482	ug/L	500	ug/L	96.4	90.0 – 110.0	P	05–MAR–10 18:16	030510A–1
	Magnesium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	05–MAR–10 18:16	030510A–1
	Manganese	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	05–MAR–10 18:16	030510A–1
	Potassium	4720	ug/L	5000	ug/L	94.4	90.0 – 110.0	P	05–MAR–10 18:16	030510A–1
	Silver	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	05–MAR–10 18:16	030510A–1
	Sodium	9050	ug/L	10000	ug/L	90.5	90.0 – 110.0	P	05–MAR–10 18:16	030510A–1
	Vanadium	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	05–MAR–10 18:16	030510A–1
	Zinc	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	05–MAR–10 18:16	030510A–1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–1898

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Arsenic	48.9	ug/L	50	ug/L	97.8	90.0 – 110.0	MS	07–MAR–10 23:45	100307–2
	Beryllium	54.5	ug/L	50	ug/L	109	90.0 – 110.0	MS	07–MAR–10 23:45	100307–2
	Nickel	53.2	ug/L	50	ug/L	106.4	90.0 – 110.0	MS	07–MAR–10 23:45	100307–2
	Selenium	50	ug/L	50	ug/L	100	90.0 – 110.0	MS	07–MAR–10 23:45	100307–2
	Thallium	53.8	ug/L	50	ug/L	107.6	90.0 – 110.0	MS	07–MAR–10 23:45	100307–2
CCV04										
	Mercury	4.92	ug/L	5	ug/L	98.3	80.0 – 120.0	AV	01–MAR–10 10:39	030110S1–3
	Aluminum	5380	ug/L	5000	ug/L	107.7	90.0 – 110.0	P	05–MAR–10 19:19	030510A–1
	Antimony	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	05–MAR–10 19:19	030510A–1
	Barium	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	05–MAR–10 19:19	030510A–1
	Cadmium	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	05–MAR–10 19:19	030510A–1
	Calcium	5340	ug/L	5000	ug/L	106.8	90.0 – 110.0	P	05–MAR–10 19:19	030510A–1
	Chromium	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	05–MAR–10 19:19	030510A–1
	Cobalt	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	05–MAR–10 19:19	030510A–1
	Copper	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	05–MAR–10 19:19	030510A–1
	Iron	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	05–MAR–10 19:19	030510A–1
	Lead	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	05–MAR–10 19:19	030510A–1
	Magnesium	5360	ug/L	5000	ug/L	107.3	90.0 – 110.0	P	05–MAR–10 19:19	030510A–1
	Manganese	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	05–MAR–10 19:19	030510A–1
	Potassium	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	05–MAR–10 19:19	030510A–1
	Silver	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	05–MAR–10 19:19	030510A–1
	Sodium	9500	ug/L	10000	ug/L	95	90.0 – 110.0	P	05–MAR–10 19:19	030510A–1
	Vanadium	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	05–MAR–10 19:19	030510A–1
	Zinc	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	05–MAR–10 19:19	030510A–1
	Arsenic	49.4	ug/L	50	ug/L	98.8	90.0 – 110.0	MS	08–MAR–10 00:03	100307–2
	Beryllium	53.9	ug/L	50	ug/L	107.8	90.0 – 110.0	MS	08–MAR–10 00:03	100307–2
	Nickel	53.8	ug/L	50	ug/L	107.5	90.0 – 110.0	MS	08–MAR–10 00:03	100307–2
	Selenium	49.1	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	08–MAR–10 00:03	100307–2
	Thallium	54.3	ug/L	50	ug/L	108.6	90.0 – 110.0	MS	08–MAR–10 00:03	100307–2

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–1898

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV05										
	Mercury	4.9	ug/L	5	ug/L	97.9	80.0 – 120.0	AV	01–MAR–10 10:59	030110S1–3
	Aluminum	4820	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	05–MAR–10 20:21	030510A–1
	Antimony	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	05–MAR–10 20:21	030510A–1
	Barium	480	ug/L	500	ug/L	96	90.0 – 110.0	P	05–MAR–10 20:21	030510A–1
	Cadmium	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	05–MAR–10 20:21	030510A–1
	Calcium	4810	ug/L	5000	ug/L	96.1	90.0 – 110.0	P	05–MAR–10 20:21	030510A–1
	Chromium	476	ug/L	500	ug/L	95.3	90.0 – 110.0	P	05–MAR–10 20:21	030510A–1
	Cobalt	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	05–MAR–10 20:21	030510A–1
	Copper	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	05–MAR–10 20:21	030510A–1
	Iron	4700	ug/L	5000	ug/L	94	90.0 – 110.0	P	05–MAR–10 20:21	030510A–1
	Lead	475	ug/L	500	ug/L	95.1	90.0 – 110.0	P	05–MAR–10 20:21	030510A–1
	Magnesium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	05–MAR–10 20:21	030510A–1
	Manganese	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	05–MAR–10 20:21	030510A–1
	Potassium	4620	ug/L	5000	ug/L	92.5	90.0 – 110.0	P	05–MAR–10 20:21	030510A–1
	Silver	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	05–MAR–10 20:21	030510A–1
	Sodium	8710	ug/L	10000	ug/L	87.1	90.0 – 110.0	P	05–MAR–10 20:21	030510A–1
	Vanadium	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	05–MAR–10 20:21	030510A–1
	Zinc	476	ug/L	500	ug/L	95.1	90.0 – 110.0	P	05–MAR–10 20:21	030510A–1
	Arsenic	49.4	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	08–MAR–10 00:36	100307–2
	Beryllium	53.3	ug/L	50	ug/L	106.6	90.0 – 110.0	MS	08–MAR–10 00:36	100307–2
	Nickel	53.3	ug/L	50	ug/L	106.6	90.0 – 110.0	MS	08–MAR–10 00:36	100307–2
	Selenium	49.7	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	08–MAR–10 00:36	100307–2
	Thallium	54.4	ug/L	50	ug/L	108.9	90.0 – 110.0	MS	08–MAR–10 00:36	100307–2
CCV06										
	Mercury	4.87	ug/L	5	ug/L	97.4	80.0 – 120.0	AV	01–MAR–10 11:20	030110S1–3
	Aluminum	4850	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	05–MAR–10 21:24	030510A–1
	Antimony	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	05–MAR–10 21:24	030510A–1
	Barium	483	ug/L	500	ug/L	96.5	90.0 – 110.0	P	05–MAR–10 21:24	030510A–1
	Cadmium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	05–MAR–10 21:24	030510A–1
	Calcium	4900	ug/L	5000	ug/L	97.9	90.0 – 110.0	P	05–MAR–10 21:24	030510A–1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–1898

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	05–MAR–10 21:24	030510A–1
	Cobalt	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	05–MAR–10 21:24	030510A–1
	Copper	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	05–MAR–10 21:24	030510A–1
	Iron	4790	ug/L	5000	ug/L	95.7	90.0 – 110.0	P	05–MAR–10 21:24	030510A–1
	Lead	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	05–MAR–10 21:24	030510A–1
	Magnesium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	05–MAR–10 21:24	030510A–1
	Manganese	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	05–MAR–10 21:24	030510A–1
	Potassium	4640	ug/L	5000	ug/L	92.8	90.0 – 110.0	P	05–MAR–10 21:24	030510A–1
	Silver	480	ug/L	500	ug/L	96	90.0 – 110.0	P	05–MAR–10 21:24	030510A–1
	Sodium	8790	ug/L	10000	ug/L	87.9	90.0 – 110.0	P	05–MAR–10 21:24	030510A–1
	Vanadium	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	05–MAR–10 21:24	030510A–1
	Zinc	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	05–MAR–10 21:24	030510A–1
CCV07										
	Aluminum	4860	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	05–MAR–10 22:20	030510A–1
	Antimony	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	05–MAR–10 22:20	030510A–1
	Barium	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	05–MAR–10 22:20	030510A–1
	Cadmium	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	05–MAR–10 22:20	030510A–1
	Calcium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	05–MAR–10 22:20	030510A–1
	Chromium	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	05–MAR–10 22:20	030510A–1
	Cobalt	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	05–MAR–10 22:20	030510A–1
	Copper	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	05–MAR–10 22:20	030510A–1
	Iron	4860	ug/L	5000	ug/L	97.2	90.0 – 110.0	P	05–MAR–10 22:20	030510A–1
	Lead	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	05–MAR–10 22:20	030510A–1
	Magnesium	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	05–MAR–10 22:20	030510A–1
	Manganese	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	05–MAR–10 22:20	030510A–1
	Potassium	4650	ug/L	5000	ug/L	93.1	90.0 – 110.0	P	05–MAR–10 22:20	030510A–1
	Silver	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	05–MAR–10 22:20	030510A–1
	Sodium	8970	ug/L	10000	ug/L	89.7	90.0 – 110.0	P	05–MAR–10 22:20	030510A–1
	Vanadium	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	05–MAR–10 22:20	030510A–1
	Zinc	480	ug/L	500	ug/L	96	90.0 – 110.0	P	05–MAR–10 22:20	030510A–1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–1898

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV08										
	Aluminum	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	05–MAR–10 23:22	030510A–1
	Antimony	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	05–MAR–10 23:22	030510A–1
	Barium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	05–MAR–10 23:22	030510A–1
	Cadmium	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	05–MAR–10 23:22	030510A–1
	Calcium	5120	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	05–MAR–10 23:22	030510A–1
	Chromium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	05–MAR–10 23:22	030510A–1
	Cobalt	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–MAR–10 23:22	030510A–1
	Copper	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	05–MAR–10 23:22	030510A–1
	Iron	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	05–MAR–10 23:22	030510A–1
	Lead	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	05–MAR–10 23:22	030510A–1
	Magnesium	5330	ug/L	5000	ug/L	106.6	90.0 – 110.0	P	05–MAR–10 23:22	030510A–1
	Manganese	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	05–MAR–10 23:22	030510A–1
	Potassium	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	05–MAR–10 23:22	030510A–1
	Silver	500	ug/L	500	ug/L	100	90.0 – 110.0	P	05–MAR–10 23:22	030510A–1
	Sodium	9560	ug/L	10000	ug/L	95.6	90.0 – 110.0	P	05–MAR–10 23:22	030510A–1
	Vanadium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	05–MAR–10 23:22	030510A–1
	Zinc	500	ug/L	500	ug/L	100	90.0 – 110.0	P	05–MAR–10 23:22	030510A–1
CCV09										
	Aluminum	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	06–MAR–10 00:24	030510A–1
	Antimony	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	06–MAR–10 00:24	030510A–1
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	06–MAR–10 00:24	030510A–1
	Cadmium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	06–MAR–10 00:24	030510A–1
	Calcium	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	06–MAR–10 00:24	030510A–1
	Chromium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	06–MAR–10 00:24	030510A–1
	Cobalt	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	06–MAR–10 00:24	030510A–1
	Copper	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	06–MAR–10 00:24	030510A–1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	06–MAR–10 00:24	030510A–1
	Lead	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	06–MAR–10 00:24	030510A–1
	Magnesium	5240	ug/L	5000	ug/L	104.7	90.0 – 110.0	P	06–MAR–10 00:24	030510A–1
	Manganese	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	06–MAR–10 00:24	030510A–1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–1898

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	06–MAR–10 00:24	030510A–1
	Silver	500	ug/L	500	ug/L	100	90.0 – 110.0	P	06–MAR–10 00:24	030510A–1
	Sodium	9540	ug/L	10000	ug/L	95.4	90.0 – 110.0	P	06–MAR–10 00:24	030510A–1
	Vanadium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	06–MAR–10 00:24	030510A–1
	Zinc	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	06–MAR–10 00:24	030510A–1
CCV10										
	Aluminum	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	06–MAR–10 01:27	030510A–1
	Antimony	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	06–MAR–10 01:27	030510A–1
	Barium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	06–MAR–10 01:27	030510A–1
	Cadmium	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	06–MAR–10 01:27	030510A–1
	Calcium	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	06–MAR–10 01:27	030510A–1
	Chromium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	06–MAR–10 01:27	030510A–1
	Cobalt	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	06–MAR–10 01:27	030510A–1
	Copper	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	06–MAR–10 01:27	030510A–1
	Iron	5000	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	06–MAR–10 01:27	030510A–1
	Lead	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	06–MAR–10 01:27	030510A–1
	Magnesium	5240	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	06–MAR–10 01:27	030510A–1
	Manganese	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	06–MAR–10 01:27	030510A–1
	Potassium	4920	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	06–MAR–10 01:27	030510A–1
	Silver	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	06–MAR–10 01:27	030510A–1
	Sodium	9010	ug/L	10000	ug/L	90.1	90.0 – 110.0	P	06–MAR–10 01:27	030510A–1
	Vanadium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	06–MAR–10 01:27	030510A–1
	Zinc	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	06–MAR–10 01:27	030510A–1
CCV11										
	Aluminum	5190	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	06–MAR–10 02:29	030510A–1
	Antimony	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	06–MAR–10 02:29	030510A–1
	Barium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	06–MAR–10 02:29	030510A–1
	Cadmium	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	06–MAR–10 02:29	030510A–1
	Calcium	5250	ug/L	5000	ug/L	104.9	90.0 – 110.0	P	06–MAR–10 02:29	030510A–1
	Chromium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	06–MAR–10 02:29	030510A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1898

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	06–MAR–10 02:29	030510A–1
	Copper	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	06–MAR–10 02:29	030510A–1
	Iron	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	06–MAR–10 02:29	030510A–1
	Lead	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	06–MAR–10 02:29	030510A–1
	Magnesium	5390	ug/L	5000	ug/L	107.8	90.0 – 110.0	P	06–MAR–10 02:29	030510A–1
	Manganese	510	ug/L	500	ug/L	102	90.0 – 110.0	P	06–MAR–10 02:29	030510A–1
	Potassium	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	06–MAR–10 02:29	030510A–1
	Silver	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	06–MAR–10 02:29	030510A–1
	Sodium	9310	ug/L	10000	ug/L	93.1	90.0 – 110.0	P	06–MAR–10 02:29	030510A–1
	Vanadium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	06–MAR–10 02:29	030510A–1
	Zinc	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	06–MAR–10 02:29	030510A–1
CCV12										
	Aluminum	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	06–MAR–10 03:31	030510A–1
	Antimony	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	06–MAR–10 03:31	030510A–1
	Barium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	06–MAR–10 03:31	030510A–1
	Cadmium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	06–MAR–10 03:31	030510A–1
	Calcium	5170	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	06–MAR–10 03:31	030510A–1
	Chromium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	06–MAR–10 03:31	030510A–1
	Cobalt	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	06–MAR–10 03:31	030510A–1
	Copper	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	06–MAR–10 03:31	030510A–1
	Iron	5090	ug/L	5000	ug/L	101.9	90.0 – 110.0	P	06–MAR–10 03:31	030510A–1
	Lead	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	06–MAR–10 03:31	030510A–1
	Magnesium	5290	ug/L	5000	ug/L	105.8	90.0 – 110.0	P	06–MAR–10 03:31	030510A–1
	Manganese	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	06–MAR–10 03:31	030510A–1
	Potassium	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	06–MAR–10 03:31	030510A–1
	Silver	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	06–MAR–10 03:31	030510A–1
	Sodium	9480	ug/L	10000	ug/L	94.8	90.0 – 110.0	P	06–MAR–10 03:31	030510A–1
	Vanadium	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	06–MAR–10 03:31	030510A–1
	Zinc	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	06–MAR–10 03:31	030510A–1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–1898

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.165	ug/L	.2	ug/L	82.5	70.0 – 130.0	AV	01–MAR–10 09:37	030110S1–3
	Beryllium	.543	ug/L	.5	ug/L	108.6	70.0 – 130.0	MS	07–MAR–10 22:28	100307–2
	Selenium	5.84	ug/L	5	ug/L	116.7	70.0 – 130.0	MS	07–MAR–10 22:28	100307–2
	Arsenic	5.96	ug/L	5	ug/L	119.3	70.0 – 130.0	MS	07–MAR–10 22:28	100307–2
	Thallium	1.3	ug/L	1	ug/L	129.5	70.0 – 130.0	MS	07–MAR–10 22:28	100307–2
	Nickel	2.2	ug/L	2	ug/L	109.8	70.0 – 130.0	MS	07–MAR–10 22:28	100307–2
PQL01										
	Aluminum	217	ug/L	200	ug/L	108.3	70.0 – 130.0	P	05–MAR–10 16:44	030510A–1
	Iron	103	ug/L	100	ug/L	103.4	70.0 – 130.0	P	05–MAR–10 16:44	030510A–1
	Lead	8.57	ug/L	10	ug/L	85.7	70.0 – 130.0	P	05–MAR–10 16:44	030510A–1
	Magnesium	387	ug/L	300	ug/L	129.1	70.0 – 130.0	P	05–MAR–10 16:44	030510A–1
	Manganese	10.4	ug/L	10	ug/L	104.2	70.0 – 130.0	P	05–MAR–10 16:44	030510A–1
	Potassium	134	ug/L	150	ug/L	89.3	70.0 – 130.0	P	05–MAR–10 16:44	030510A–1
	Silver	5.22	ug/L	5	ug/L	104.5	70.0 – 130.0	P	05–MAR–10 16:44	030510A–1
	Sodium	297	ug/L	300	ug/L	98.9	70.0 – 130.0	P	05–MAR–10 16:44	030510A–1
	Antimony	10.5	ug/L	10	ug/L	105.2	70.0 – 130.0	P	05–MAR–10 16:44	030510A–1
	Barium	5.14	ug/L	5	ug/L	102.7	70.0 – 130.0	P	05–MAR–10 16:44	030510A–1
	Cadmium	5.05	ug/L	5	ug/L	101	70.0 – 130.0	P	05–MAR–10 16:44	030510A–1
	Chromium	5.01	ug/L	5	ug/L	100.1	70.0 – 130.0	P	05–MAR–10 16:44	030510A–1
	Cobalt	5.28	ug/L	5	ug/L	105.5	70.0 – 130.0	P	05–MAR–10 16:44	030510A–1
	Copper	9.69	ug/L	10	ug/L	96.9	70.0 – 130.0	P	05–MAR–10 16:44	030510A–1
	Vanadium	5.21	ug/L	5	ug/L	104.2	70.0 – 130.0	P	05–MAR–10 16:44	030510A–1
	Zinc	10.2	ug/L	10	ug/L	101.5	70.0 – 130.0	P	05–MAR–10 16:44	030510A–1
	Calcium	205	ug/L	200	ug/L	102.7	70.0 – 130.0	P	05–MAR–10 16:44	030510A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1898

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	01–MAR–10 09:36	030110S1–3
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–MAR–10 16:37	030510A–1
	Antimony	4.05	+/–10	J	3.3	10.0	SOL	P	05–MAR–10 16:37	030510A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 16:37	030510A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 16:37	030510A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–MAR–10 16:37	030510A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–MAR–10 16:37	030510A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–MAR–10 16:37	030510A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–MAR–10 16:37	030510A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–MAR–10 16:37	030510A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–MAR–10 16:37	030510A–1
	Magnesium	92.36	+/–300	J	85.0	300	SOL	P	05–MAR–10 16:37	030510A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–MAR–10 16:37	030510A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–MAR–10 16:37	030510A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 16:37	030510A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–MAR–10 16:37	030510A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 16:37	030510A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–MAR–10 16:37	030510A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	07–MAR–10 22:25	100307–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	07–MAR–10 22:25	100307–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	07–MAR–10 22:25	100307–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	07–MAR–10 22:25	100307–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	07–MAR–10 22:25	100307–2
CCB01										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	01–MAR–10 09:41	030110S1–3
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–MAR–10 17:24	030510A–1
	Antimony	4.7	+/–10	J	3.3	10.0	SOL	P	05–MAR–10 17:24	030510A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 17:24	030510A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 17:24	030510A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–MAR–10 17:24	030510A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–MAR–10 17:24	030510A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1898

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–MAR–10 17:24	030510A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–MAR–10 17:24	030510A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–MAR–10 17:24	030510A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–MAR–10 17:24	030510A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–MAR–10 17:24	030510A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–MAR–10 17:24	030510A–1
	Potassium	145.58	+/–250	J	64.0	250	SOL	P	05–MAR–10 17:24	030510A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 17:24	030510A–1
	Sodium	82.43	+/–250	J	70.0	250	SOL	P	05–MAR–10 17:24	030510A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 17:24	030510A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–MAR–10 17:24	030510A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	07–MAR–10 22:43	100307–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	07–MAR–10 22:43	100307–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	07–MAR–10 22:43	100307–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	07–MAR–10 22:43	100307–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	07–MAR–10 22:43	100307–2
CCB02										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	01–MAR–10 10:01	030110S1–3
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–MAR–10 17:51	030510A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–MAR–10 17:51	030510A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 17:51	030510A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 17:51	030510A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–MAR–10 17:51	030510A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–MAR–10 17:51	030510A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–MAR–10 17:51	030510A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–MAR–10 17:51	030510A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–MAR–10 17:51	030510A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–MAR–10 17:51	030510A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–MAR–10 17:51	030510A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–MAR–10 17:51	030510A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–MAR–10 17:51	030510A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1898

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 17:51	030510A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–MAR–10 17:51	030510A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 17:51	030510A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–MAR–10 17:51	030510A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	07–MAR–10 23:15	100307–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	07–MAR–10 23:15	100307–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	07–MAR–10 23:15	100307–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	07–MAR–10 23:15	100307–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	07–MAR–10 23:15	100307–2
CCB03										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	01–MAR–10 10:21	030110S1–3
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–MAR–10 18:23	030510A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–MAR–10 18:23	030510A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 18:23	030510A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 18:23	030510A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–MAR–10 18:23	030510A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–MAR–10 18:23	030510A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–MAR–10 18:23	030510A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–MAR–10 18:23	030510A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–MAR–10 18:23	030510A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–MAR–10 18:23	030510A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–MAR–10 18:23	030510A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–MAR–10 18:23	030510A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–MAR–10 18:23	030510A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 18:23	030510A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–MAR–10 18:23	030510A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 18:23	030510A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–MAR–10 18:23	030510A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	07–MAR–10 23:48	100307–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	07–MAR–10 23:48	100307–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	07–MAR–10 23:48	100307–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1898

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	07–MAR–10 23:48	100307–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	07–MAR–10 23:48	100307–2
CCB04										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	01–MAR–10 10:41	030110S1–3
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–MAR–10 19:26	030510A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–MAR–10 19:26	030510A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 19:26	030510A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 19:26	030510A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–MAR–10 19:26	030510A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–MAR–10 19:26	030510A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–MAR–10 19:26	030510A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–MAR–10 19:26	030510A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–MAR–10 19:26	030510A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–MAR–10 19:26	030510A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–MAR–10 19:26	030510A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–MAR–10 19:26	030510A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–MAR–10 19:26	030510A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 19:26	030510A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–MAR–10 19:26	030510A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 19:26	030510A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–MAR–10 19:26	030510A–1
	Arsenic	1.0	+/–5	U	1.0	5.0	SOL	MS	08–MAR–10 00:07	100307–2
	Beryllium	0.1	+/–.5	U	0.1	0.5	SOL	MS	08–MAR–10 00:07	100307–2
	Nickel	0.5	+/–2	U	0.5	2.0	SOL	MS	08–MAR–10 00:07	100307–2
	Selenium	2.5	+/–5	U	2.5	5.0	SOL	MS	08–MAR–10 00:07	100307–2
	Thallium	0.3	+/–1	U	0.3	1.0	SOL	MS	08–MAR–10 00:07	100307–2
CCB05										
	Mercury	0.068	+/–.2	U	0.068	0.2	SOL	AV	01–MAR–10 11:01	030110S1–3
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–MAR–10 20:28	030510A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–MAR–10 20:28	030510A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 20:28	030510A–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1898

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	05-MAR-10 20:28	030510A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	05-MAR-10 20:28	030510A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	05-MAR-10 20:28	030510A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	05-MAR-10 20:28	030510A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	05-MAR-10 20:28	030510A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	05-MAR-10 20:28	030510A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	05-MAR-10 20:28	030510A-1
	Magnesium	85.0	+/-300	U	85.0	300	SOL	P	05-MAR-10 20:28	030510A-1
	Manganese	2.0	+/-10	U	2.0	10.0	SOL	P	05-MAR-10 20:28	030510A-1
	Potassium	64.0	+/-250	U	64.0	250	SOL	P	05-MAR-10 20:28	030510A-1
	Silver	1.0	+/-5	U	1.0	5.0	SOL	P	05-MAR-10 20:28	030510A-1
	Sodium	70.0	+/-250	U	70.0	250	SOL	P	05-MAR-10 20:28	030510A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	SOL	P	05-MAR-10 20:28	030510A-1
	Zinc	3.3	+/-10	U	3.3	10.0	SOL	P	05-MAR-10 20:28	030510A-1
	Arsenic	1.0	+/-5	U	1.0	5.0	SOL	MS	08-MAR-10 00:40	100307-2
	Beryllium	0.1	+/-.5	U	0.1	0.5	SOL	MS	08-MAR-10 00:40	100307-2
	Nickel	0.5	+/-2	U	0.5	2.0	SOL	MS	08-MAR-10 00:40	100307-2
	Selenium	2.5	+/-5	U	2.5	5.0	SOL	MS	08-MAR-10 00:40	100307-2
	Thallium	0.3	+/-1	U	0.3	1.0	SOL	MS	08-MAR-10 00:40	100307-2
CCB06										
	Mercury	0.068	+/-.2	U	0.068	0.2	SOL	AV	01-MAR-10 11:21	030110S1-3
	Aluminum	68.0	+/-200	U	68.0	200	SOL	P	05-MAR-10 21:31	030510A-1
	Antimony	3.3	+/-10	U	3.3	10.0	SOL	P	05-MAR-10 21:31	030510A-1
	Barium	1.0	+/-5	U	1.0	5.0	SOL	P	05-MAR-10 21:31	030510A-1
	Cadmium	1.0	+/-5	U	1.0	5.0	SOL	P	05-MAR-10 21:31	030510A-1
	Calcium	80.0	+/-250	U	80.0	250	SOL	P	05-MAR-10 21:31	030510A-1
	Chromium	1.5	+/-5	U	1.5	5.0	SOL	P	05-MAR-10 21:31	030510A-1
	Cobalt	1.5	+/-5	U	1.5	5.0	SOL	P	05-MAR-10 21:31	030510A-1
	Copper	3.0	+/-10	U	3.0	10.0	SOL	P	05-MAR-10 21:31	030510A-1
	Iron	80.0	+/-250	U	80.0	250	SOL	P	05-MAR-10 21:31	030510A-1
	Lead	2.5	+/-10	U	2.5	10.0	SOL	P	05-MAR-10 21:31	030510A-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1898

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–MAR–10 21:31	030510A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–MAR–10 21:31	030510A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–MAR–10 21:31	030510A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 21:31	030510A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–MAR–10 21:31	030510A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 21:31	030510A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–MAR–10 21:31	030510A–1
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–MAR–10 22:28	030510A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–MAR–10 22:28	030510A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 22:28	030510A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 22:28	030510A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–MAR–10 22:28	030510A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–MAR–10 22:28	030510A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–MAR–10 22:28	030510A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–MAR–10 22:28	030510A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–MAR–10 22:28	030510A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–MAR–10 22:28	030510A–1
	Magnesium	121.77	+/–300	J	85.0	300	SOL	P	05–MAR–10 22:28	030510A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–MAR–10 22:28	030510A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–MAR–10 22:28	030510A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 22:28	030510A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–MAR–10 22:28	030510A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 22:28	030510A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–MAR–10 22:28	030510A–1
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	05–MAR–10 23:29	030510A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	05–MAR–10 23:29	030510A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 23:29	030510A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 23:29	030510A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	05–MAR–10 23:29	030510A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1898

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	05–MAR–10 23:29	030510A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	05–MAR–10 23:29	030510A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	05–MAR–10 23:29	030510A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	05–MAR–10 23:29	030510A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	05–MAR–10 23:29	030510A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	05–MAR–10 23:29	030510A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	05–MAR–10 23:29	030510A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	05–MAR–10 23:29	030510A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 23:29	030510A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	05–MAR–10 23:29	030510A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	05–MAR–10 23:29	030510A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	05–MAR–10 23:29	030510A–1
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	06–MAR–10 00:31	030510A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	06–MAR–10 00:31	030510A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	06–MAR–10 00:31	030510A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	06–MAR–10 00:31	030510A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	06–MAR–10 00:31	030510A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	06–MAR–10 00:31	030510A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	06–MAR–10 00:31	030510A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	06–MAR–10 00:31	030510A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	06–MAR–10 00:31	030510A–1
	Lead	–2.63	+/–10	J	2.5	10.0	SOL	P	06–MAR–10 00:31	030510A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	06–MAR–10 00:31	030510A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	06–MAR–10 00:31	030510A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	06–MAR–10 00:31	030510A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	06–MAR–10 00:31	030510A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	06–MAR–10 00:31	030510A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	06–MAR–10 00:31	030510A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	06–MAR–10 00:31	030510A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1898

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	06–MAR–10 01:34	030510A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	06–MAR–10 01:34	030510A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	06–MAR–10 01:34	030510A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	06–MAR–10 01:34	030510A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	06–MAR–10 01:34	030510A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	06–MAR–10 01:34	030510A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	06–MAR–10 01:34	030510A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	06–MAR–10 01:34	030510A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	06–MAR–10 01:34	030510A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	06–MAR–10 01:34	030510A–1
	Magnesium	126.13	+/–300	J	85.0	300	SOL	P	06–MAR–10 01:34	030510A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	06–MAR–10 01:34	030510A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	06–MAR–10 01:34	030510A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	06–MAR–10 01:34	030510A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	06–MAR–10 01:34	030510A–1
	Vanadium	1.29	+/–5	J	1.0	5.0	SOL	P	06–MAR–10 01:34	030510A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	06–MAR–10 01:34	030510A–1
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	06–MAR–10 02:36	030510A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	06–MAR–10 02:36	030510A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	06–MAR–10 02:36	030510A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	06–MAR–10 02:36	030510A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	06–MAR–10 02:36	030510A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	06–MAR–10 02:36	030510A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	06–MAR–10 02:36	030510A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	06–MAR–10 02:36	030510A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	06–MAR–10 02:36	030510A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	06–MAR–10 02:36	030510A–1
	Magnesium	85.0	+/–300	U	85.0	300	SOL	P	06–MAR–10 02:36	030510A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	06–MAR–10 02:36	030510A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	06–MAR–10 02:36	030510A–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1898

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	06–MAR–10 02:36	030510A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	06–MAR–10 02:36	030510A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	06–MAR–10 02:36	030510A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	06–MAR–10 02:36	030510A–1
CCB12										
	Aluminum	68.0	+/–200	U	68.0	200	SOL	P	06–MAR–10 03:38	030510A–1
	Antimony	3.3	+/–10	U	3.3	10.0	SOL	P	06–MAR–10 03:38	030510A–1
	Barium	1.0	+/–5	U	1.0	5.0	SOL	P	06–MAR–10 03:38	030510A–1
	Cadmium	1.0	+/–5	U	1.0	5.0	SOL	P	06–MAR–10 03:38	030510A–1
	Calcium	80.0	+/–250	U	80.0	250	SOL	P	06–MAR–10 03:38	030510A–1
	Chromium	1.5	+/–5	U	1.5	5.0	SOL	P	06–MAR–10 03:38	030510A–1
	Cobalt	1.5	+/–5	U	1.5	5.0	SOL	P	06–MAR–10 03:38	030510A–1
	Copper	3.0	+/–10	U	3.0	10.0	SOL	P	06–MAR–10 03:38	030510A–1
	Iron	80.0	+/–250	U	80.0	250	SOL	P	06–MAR–10 03:38	030510A–1
	Lead	2.5	+/–10	U	2.5	10.0	SOL	P	06–MAR–10 03:38	030510A–1
	Magnesium	128.57	+/–300	J	85.0	300	SOL	P	06–MAR–10 03:38	030510A–1
	Manganese	2.0	+/–10	U	2.0	10.0	SOL	P	06–MAR–10 03:38	030510A–1
	Potassium	64.0	+/–250	U	64.0	250	SOL	P	06–MAR–10 03:38	030510A–1
	Silver	1.0	+/–5	U	1.0	5.0	SOL	P	06–MAR–10 03:38	030510A–1
	Sodium	70.0	+/–250	U	70.0	250	SOL	P	06–MAR–10 03:38	030510A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	SOL	P	06–MAR–10 03:38	030510A–1
	Zinc	3.3	+/–10	U	3.3	10.0	SOL	P	06–MAR–10 03:38	030510A–1

METALS
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PREPARATION BLANK SUMMARY

SDG NO. 10–1898

Contract: LANL01004

Matrix: MISC SOLID

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202047652								
	Aluminum	6370	ug/kg	+/–18700	U	P	6370	18700
	Antimony	309	ug/kg	+/–936	U	P	309	936
	Cadmium	93.6	ug/kg	+/–468	U	P	93.6	468
	Barium	93.6	ug/kg	+/–468	U	P	93.6	468
	Calcium	7490	ug/kg	+/–23400	U	P	7490	23400
	Cobalt	140	ug/kg	+/–468	U	P	140	468
	Iron	7490	ug/kg	+/–23400	U	P	7490	23400
	Magnesium	8430	ug/kg	+/–28100	J	P	7960	28100
	Potassium	5990	ug/kg	+/–23400	U	P	5990	23400
	Zinc	309	ug/kg	+/–936	U	P	309	936
	Vanadium	108	ug/kg	+/–468	J	P	93.6	468
	Sodium	6550	ug/kg	+/–23400	U	P	6550	23400
	Silver	93.6	ug/kg	+/–468	U	P	93.6	468
	Manganese	187	ug/kg	+/–936	U	P	187	936
	Lead	234	ug/kg	+/–936	U	P	234	936
	Copper	281	ug/kg	+/–936	U	P	281	936
	Chromium	140	ug/kg	+/–468	U	P	140	468
1202047663								
	Selenium	473	ug/kg	+/–945	U	MS	473	945
	Arsenic	189	ug/kg	+/–945	U	MS	189	945
	Beryllium	18.9	ug/kg	+/–94.5	U	MS	18.9	94.5
	Nickel	94.5	ug/kg	+/–378	U	MS	94.5	378
	Thallium	56.7	ug/kg	+/–189	U	MS	56.7	189
1202055200								
	Mercury	3.86	ug/kg	+/–11.3	U	AV	3.86	11.3

METALS
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Interference Check Sample

SDG No: 10–1898

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	531000	ug/L	500000	ug/L	106	80.0 – 120.0	05–MAR–10 16:50	030510A–1
	Antimony	0.02	ug/L					05–MAR–10 16:50	030510A–1
	Barium	–1.29	ug/L					05–MAR–10 16:50	030510A–1
	Cadmium	0.955	ug/L					05–MAR–10 16:50	030510A–1
	Calcium	490000	ug/L	500000	ug/L	97.9	80.0 – 120.0	05–MAR–10 16:50	030510A–1
	Chromium	1.75	ug/L					05–MAR–10 16:50	030510A–1
	Cobalt	–1.73	ug/L					05–MAR–10 16:50	030510A–1
	Copper	1.83	ug/L					05–MAR–10 16:50	030510A–1
	Iron	187000	ug/L	200000	ug/L	93.6	80.0 – 120.0	05–MAR–10 16:50	030510A–1
	Lead	1.74	ug/L					05–MAR–10 16:50	030510A–1
	Magnesium	492000	ug/L	500000	ug/L	98.5	80.0 – 120.0	05–MAR–10 16:50	030510A–1
	Manganese	–4.16	ug/L					05–MAR–10 16:50	030510A–1
	Potassium	–158.0	ug/L					05–MAR–10 16:50	030510A–1
	Silver	0.0002	ug/L					05–MAR–10 16:50	030510A–1
	Sodium	33.4	ug/L					05–MAR–10 16:50	030510A–1
	Vanadium	–2.4	ug/L					05–MAR–10 16:50	030510A–1
	Zinc	–0.58	ug/L					05–MAR–10 16:50	030510A–1
ICSAB01									
	Aluminum	532000	ug/L	500000	ug/L	106	80.0 – 120.0	05–MAR–10 16:56	030510A–1
	Antimony	566	ug/L	500	ug/L	113	80.0 – 120.0	05–MAR–10 16:56	030510A–1
	Barium	506	ug/L	500	ug/L	101	80.0 – 120.0	05–MAR–10 16:56	030510A–1
	Cadmium	459	ug/L	500	ug/L	91.7	80.0 – 120.0	05–MAR–10 16:56	030510A–1
	Calcium	489000	ug/L	500000	ug/L	97.8	80.0 – 120.0	05–MAR–10 16:56	030510A–1
	Chromium	485	ug/L	500	ug/L	97	80.0 – 120.0	05–MAR–10 16:56	030510A–1
	Cobalt	469	ug/L	500	ug/L	93.9	80.0 – 120.0	05–MAR–10 16:56	030510A–1
	Copper	587	ug/L	500	ug/L	117	80.0 – 120.0	05–MAR–10 16:56	030510A–1
	Iron	187000	ug/L	200000	ug/L	93.6	80.0 – 120.0	05–MAR–10 16:56	030510A–1
	Lead	491	ug/L	500	ug/L	98.2	80.0 – 120.0	05–MAR–10 16:56	030510A–1
	Magnesium	494000	ug/L	500000	ug/L	98.8	80.0 – 120.0	05–MAR–10 16:56	030510A–1

METALS
-4-
Interference Check Sample

SDG No: 10-1898

Contract: LANL01004 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Manganese	503	ug/L	500	ug/L	101	80.0 - 120.0	05-MAR-10 16:56	030510A-1
	Potassium	5300	ug/L	5000	ug/L	106	80.0 - 120.0	05-MAR-10 16:56	030510A-1
	Silver	280	ug/L	250	ug/L	112	80.0 - 120.0	05-MAR-10 16:56	030510A-1
	Sodium	5460	ug/L	5000	ug/L	109	80.0 - 120.0	05-MAR-10 16:56	030510A-1
	Vanadium	504	ug/L	500	ug/L	101	80.0 - 120.0	05-MAR-10 16:56	030510A-1
	Zinc	501	ug/L	500	ug/L	100	80.0 - 120.0	05-MAR-10 16:56	030510A-1

METALS
–4–
Interference Check Sample

SDG No: 10–1898

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	–0.029	ug/L					07–MAR–10 22:32	100307–2
	Beryllium	0.097	ug/L					07–MAR–10 22:32	100307–2
	Nickel	3.36	ug/L					07–MAR–10 22:32	100307–2
	Selenium	–1.27	ug/L					07–MAR–10 22:32	100307–2
	Thallium	0.013	ug/L					07–MAR–10 22:32	100307–2
ICSAB01									
	Arsenic	21.6	ug/L	20	ug/L	108	80.0 – 120.0	07–MAR–10 22:35	100307–2
	Beryllium	19.1	ug/L	20	ug/L	95.6	80.0 – 120.0	07–MAR–10 22:35	100307–2
	Nickel	23.5	ug/L	23.31	ug/L	101	80.0 – 120.0	07–MAR–10 22:35	100307–2
	Selenium	19.6	ug/L	20	ug/L	98	80.0 – 120.0	07–MAR–10 22:35	100307–2
	Thallium	22.1	ug/L	20	ug/L	111	80.0 – 120.0	07–MAR–10 22:35	100307–2

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1898 **Client ID** WST15–10–8941S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.2

Sample ID: 247327002 **Spike ID:** 1202047655

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/kg		4710000		3860000		519000	163	N/A	P
Antimony	ug/kg	75–125	48200		341	U	51900	92.9		P
Barium	ug/kg	75–125	146000		103000		51900	82		P
Cadmium	ug/kg	75–125	48400		158	J	51900	92.9		P
Calcium	ug/kg	75–125	2260000		1890000		519000	70.2	N	P
Chromium	ug/kg	75–125	55100		4500		51900	97.5		P
Cobalt	ug/kg	75–125	51400		2640		51900	94		P
Copper	ug/kg	75–125	60400		5380		51900	106		P
Iron	ug/kg		5980000		7010000		519000	–199	N/A	P
Lead	ug/kg	75–125	55600		6560		51900	94.6		P
Magnesium	ug/kg	75–125	1560000		1170000		519000	75.2		P
Manganese	ug/kg		260000		248000		51900	23.3	N/A	P
Potassium	ug/kg	75–125	1130000		788000		519000	66.3	N	P
Silver	ug/kg	75–125	51300		509	J	51900	97.9		P
Sodium	ug/kg	75–125	599000		125000		519000	91.3		P
Vanadium	ug/kg	75–125	64400		14700		51900	95.9		P
Zinc	ug/kg	75–125	66600		18700		51900	92.3		P

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–1898 **Client ID** WST15–10–8941SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.2

Sample ID: 247327002 **Spike ID:** 1202047656

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Calcium	ug/kg	75–125	2760000		1890000		527000	165	N	P
Chromium	ug/kg	75–125	56700		4500		52700	99.1		P
Cobalt	ug/kg	75–125	52100		2640		52700	93.9		P
Copper	ug/kg	75–125	62700		5380		52700	109		P
Iron	ug/kg		6860000		7010000		527000	–28.8	N/A	P
Lead	ug/kg	75–125	55900		6560		52700	93.7		P
Magnesium	ug/kg	75–125	1790000		1170000		527000	117		P
Manganese	ug/kg		312000		248000		52700	122	N/A	P
Potassium	ug/kg	75–125	1240000		788000		527000	86.7		P
Silver	ug/kg	75–125	51500		509	J	52700	96.8		P
Sodium	ug/kg	75–125	661000		125000		527000	102		P
Vanadium	ug/kg	75–125	66500		14700		52700	98.3		P
Zinc	ug/kg	75–125	70100		18700		52700	97.7		P
Aluminum	ug/kg		6070000		3860000		527000	419	N/A	P
Antimony	ug/kg	75–125	48400		341	U	52700	91.8		P
Barium	ug/kg	75–125	197000		103000		52700	177	N	P
Cadmium	ug/kg	75–125	48500		158	J	52700	91.7		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1898 **Client ID** WST15–10–8941S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.2

Sample ID: 247327002 **Spike ID:** 1202047666

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	8180		927	J	8430	86		MS
Beryllium	ug/kg	75–125	5240		329		5270	93.3		MS
Nickel	ug/kg	75–125	11400		5730		5270	107		MS
Selenium	ug/kg	75–125	1670		536	U	2110	79.3		MS
Thallium	ug/kg	75–125	10500		147	J	10500	98.3		MS

METALS
–5a–

Matrix Spike Duplicate Summary

SDG NO. 10–1898 **Client ID** WST15–10–8941SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 92.2

Sample ID: 247327002 **Spike ID:** 1202047667

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/kg	75–125	8850		927	J	8540	92.7		MS
Beryllium	ug/kg	75–125	5480		329		5340	96.4		MS
Nickel	ug/kg	75–125	13700		5730		5340	149	N	MS
Selenium	ug/kg	75–125	1730		536	U	2140	81		MS
Thallium	ug/kg	75–125	11200		147	J	10700	104		MS

METALS
–5a–
Matrix Spike Summary

SDG NO. 10–1898 **Client ID:** WST16–10–12233S

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 94.7

Sample ID: 247456001 **Spike ID:** 1202055203

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75–125	147		11.2	J	122	112		AV

METALS
-5a-
Matrix Spike Duplicate Summary

SDG NO. 10-1898 **Client ID:** WST16-10-12233SD

Contract: LANL01004 **Level:** Low

Matrix: SOIL **% Solids:** 94.7

Sample ID: 247456001 **Spike ID:** 1202055205

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/kg	75-125	145		11.2	J	121	111		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1898

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST15–10–8941D

Sample ID: 247327002 **Duplicate ID:** 1202047653 **Percent Solids for Dup:** 92.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/–20%	3860000		3800000		1.45		P
Antimony	ug/kg		341	U	348	U			P
Barium	ug/kg	+/–20%	103000		115000		10.4		P
Cadmium	ug/kg	+/–528	158	J	238	J	40.3		P
Calcium	ug/kg	+/–20%	1890000		2410000		24.1	*	P
Chromium	ug/kg	+/–20%	4500		5960		27.9	*	P
Cobalt	ug/kg	+/–20%	2640		2850		7.45		P
Copper	ug/kg	+/–20%	5380		8590		46	*	P
Iron	ug/kg	+/–20%	7010000		7790000		10.5		P
Lead	ug/kg	+/–20%	6560		8200		22.3	*	P
Magnesium	ug/kg	+/–20%	1170000		1260000		7.12		P
Manganese	ug/kg	+/–20%	248000		265000		6.7		P
Potassium	ug/kg	+/–20%	788000		815000		3.33		P
Silver	ug/kg	+/–528	509	J	507	J	.511		P
Sodium	ug/kg	+/–26400	125000		133000		6.02		P
Vanadium	ug/kg	+/–20%	14700		19000		25.4	*	P
Zinc	ug/kg	+/–20%	18700		21900		15.7		P

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1898

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST15-10-8941SD

Sample ID: 1202047655 **Duplicate ID:** 1202047656 **Percent Solids for Dup:** 92.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/kg	+/-20	4710000		6070000		25.3	*	P
Antimony	ug/kg	+/-20	48200		48400		.351		P
Barium	ug/kg	+/-20	146000		197000		29.6	*	P
Cadmium	ug/kg	+/-20	48400		48500		.192		P
Calcium	ug/kg	+/-20	2260000		2760000		20.1	*	P
Chromium	ug/kg	+/-20	55100		56700		2.91		P
Cobalt	ug/kg	+/-20	51400		52100		1.38		P
Copper	ug/kg	+/-20	60400		62700		3.74		P
Iron	ug/kg	+/-20	5980000		6860000		13.7		P
Lead	ug/kg	+/-20	55600		55900		.529		P
Magnesium	ug/kg	+/-20	1560000		1790000		13.6		P
Manganese	ug/kg	+/-20	260000		312000		18.2		P
Potassium	ug/kg	+/-20	1130000		1240000		9.51		P
Silver	ug/kg	+/-20	51300		51500		.429		P
Sodium	ug/kg	+/-20	599000		661000		9.9		P
Vanadium	ug/kg	+/-20	64400		66500		3.17		P
Zinc	ug/kg	+/-20	66600		70100		5.24		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1898

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST15–10–8941D

Sample ID: 247327002 **Duplicate ID:** 1202047664 **Percent Solids for Dup:** 92.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–1050	927	J	1200		25.7		MS
Beryllium	ug/kg	+/–105	329		308		6.57		MS
Nickel	ug/kg	+/–20%	5730		6620		14.4		MS
Selenium	ug/kg		536	U	527	U			MS
Thallium	ug/kg	+/–211	147	J	125	J	16		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1898

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST15–10–8941SD

Sample ID: 1202047666 **Duplicate ID:** 1202047667 **Percent Solids for Dup:** 92.2

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/kg	+/–20	8180		8850		7.87		MS
Beryllium	ug/kg	+/–20	5240		5480		4.35		MS
Nickel	ug/kg	+/–20	11400		13700		18.3		MS
Selenium	ug/kg	+/–20	1670		1730		3.4		MS
Thallium	ug/kg	+/–20	10500		11200		6.77		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1898

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST16–10–12233D

Sample ID: 247456001 **Duplicate ID:** 1202055202 **Percent Solids for Dup:** 94.7

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–12.4	11.2	J	14.2		24.1		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1898

Contract: LANL01004 **Lab Code:** GEL

Matrix: SOLID **Level:** Low **Client ID:** WST16–10–12233SD

Sample ID: 1202055203 **Duplicate ID:** 1202055205 **Percent Solids for Dup:** 94.7

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/kg	+/–20	147		145		1.83		AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1898

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202047657								
	Aluminum	ug/kg	10500000	8750000		83.3	56–144	P
	Antimony	ug/kg	173000	139000		80.3	71–130	P
	Barium	ug/kg	198000	212000		107	80–120	P
	Cadmium	ug/kg	60700	59100		97.4	81–120	P
	Calcium	ug/kg	9870000	9760000		98.8	83–117	P
	Chromium	ug/kg	236000	243000		103	80–120	P
	Cobalt	ug/kg	91200	96000		105	81–120	P
	Copper	ug/kg	174000	197000		113	81–118	P
	Iron	ug/kg	18000000	17400000		96.5	51–149	P
	Lead	ug/kg	86000	84000		97.7	79–121	P
	Magnesium	ug/kg	4000000	3690000		92.2	79–122	P
	Manganese	ug/kg	558000	558000		99.9	81–119	P
	Potassium	ug/kg	4300000	3960000		92	74–127	P
	Silver	ug/kg	30100	33000		110	66–134	P
	Sodium	ug/kg	1020000	951000		93.3	74–127	P
	Vanadium	ug/kg	115000	121000		105	79–121	P
	Zinc	ug/kg	594000	593000		99.8	80–121	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1898

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202047668								
	Arsenic	ug/kg	104000	109000		105	78–123	MS
	Beryllium	ug/kg	77600	87000		112	84–116	MS
	Nickel	ug/kg	134000	152000		113	78–123	MS
	Selenium	ug/kg	286000	293000		102	77–123	MS
	Thallium	ug/kg	121000	146000		121	78–122	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1898

Contract: LANL01004

Aqueous LCS Source: **Solid LCS Source:** ERA

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202055201								
	Mercury	ug/kg	5150	5560		108	71.6-128.3	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1898 **Client ID** WST15-10-8941L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 247327002 **Serial Dilution ID:** 1202047654

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	37400		35900		4.14		10	P
Antimony	3.3	U	16.5	U				P
Barium	1000		980		2		10	P
Cadmium	1.53	J	5	U	100			P
Calcium	18300		17900		2.46		10	P
Chromium	43.6		42.3		3.1			P
Cobalt	25.6		26.3		2.54			P
Copper	52		43.5	J	16.4			P
Iron	67800		68000		.295		10	P
Lead	63.5		60		5.51			P
Magnesium	11300		11400		.442		10	P
Manganese	2400		2380		.833		10	P
Potassium	7630		7150		6.29		10	P
Silver	4.93	J	5.85	J	18.7			P
Sodium	1210		1310		7.85			P
Vanadium	142		146		2.46		10	P
Zinc	181		168		7.18		10	P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1898 **Client ID:** WST15–10–8941L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 247327002 **Serial Dilution ID:** 1202047665

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	4.32	J	5	U	100			MS
Beryllium	1.53		1.41	J	8.17			MS
Nickel	26.7		25.7		3.93			MS
Selenium	2.5	U	12.5	U				MS
Thallium	.685	J	1.5	U	100			MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1898 **Client ID:** WST16-10-12233L

Contract: LANL01004

Matrix: SOLID **Level:** Low

Sample ID: 247456001 **Serial Dilution ID:** 1202055204

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.192	J	.34	U	100			AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1898 **Method Type:** P

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 955118							
1202047652	MB for batch 955118	MB	S	22-FEB-10	.534g	50mL	
1202047657	LCS for batch 955118	LCS	S	22-FEB-10	.527g	50mL	
1202047655	WST15-10-8941S	MS	S	22-FEB-10	.523g	50mL	
1202047656	WST15-10-8941SD	MSD	S	22-FEB-10	.515g	50mL	
1202047653	WST15-10-8941D	DUP	S	22-FEB-10	.514g	50mL	
247327002	WST15-10-8941	SAMPLE	S	22-FEB-10	.525g	50mL	

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10–1898 **Method Type**: MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 955120							
1202047663	MB for batch 955120	MB	S	22–FEB–10	.529g	50mL	
1202047668	LCS for batch 955120	LCS	S	22–FEB–10	.509g	50mL	
1202047666	WST15–10–8941S	MS	S	22–FEB–10	.515g	50mL	
1202047667	WST15–10–8941SD	MSD	S	22–FEB–10	.508g	50mL	
1202047664	WST15–10–8941D	DUP	S	22–FEB–10	.515g	50mL	
247327002	WST15–10–8941	SAMPLE	S	22–FEB–10	.506g	50mL	

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-1898 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	958333						
1202055200	MB for batch 958333	MB	S	28-FEB-10	.529g	30mL	
1202055201	LCS for batch 958333	LCS	S	28-FEB-10	.204g	30mL	
1202055203	WST16-10-12233S	MS	S	28-FEB-10	.519g	30mL	
1202055205	WST16-10-12233SD	MSD	S	28-FEB-10	.524g	30mL	
1202055202	WST16-10-12233D	DUP	S	28-FEB-10	.51g	30mL	
247327002	WST15-10-8941	SAMPLE	S	28-FEB-10	.521g	30mL	

Metals
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Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 07-MAR-10 **End Date:** 08-MAR-10

Client Sdg: 10-1898
Method MS
Data File: 100307-2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	22:10			X		X											X		X			X		
S10	1	22:14			X		X											X		X			X		
S100	1	22:17			X		X											X		X			X		
ICV01	1	22:21			X		X											X		X			X		
ICB01	1	22:25			X		X											X		X			X		
CRDL01	1	22:28			X		X											X		X			X		
ICSA01	1	22:32			X		X											X		X			X		
ICSAB01	1	22:35			X		X											X		X			X		
CCV01	1	22:39			X		X											X		X			X		
CCB01	1	22:43			X		X											X		X			X		
ZZZZZZ	2	22:46																							
ZZZZZZ	40	22:50																							
ZZZZZZ	2	22:54																							
ZZZZZZ	2	22:57																							
ZZZZZZ	2	23:01																							
ZZZZZZ	2	23:05																							
ZZZZZZ	10	23:08																							
CCV02	1	23:12			X		X											X		X			X		
CCB02	1	23:15			X		X											X		X			X		
ZZZZZZ	2	23:19																							
ZZZZZZ	2	23:23																							
ZZZZZZ	2	23:26																							
ZZZZZZ	2	23:30																							
ZZZZZZ	2	23:34																							
ZZZZZZ	2	23:37																							
ZZZZZZ	2	23:41																							
CCV03	1	23:45			X		X											X		X			X		
CCB03	1	23:48			X		X											X		X			X		
ZZZZZZ	2	23:52																							
ZZZZZZ	2	23:56																							
ZZZZZZ	2	23:59																							
CCV04	1	00:03			X		X											X		X			X		
CCB04	1	00:07			X		X											X		X			X		
1202047663	2	00:10			X		X											X		X			X		
1202047668	40	00:14			X		X											X		X			X		
247327002	2	00:18			X		X											X		X			X		
1202047664	2	00:21			X		X											X		X			X		
1202047666	2	00:25			X		X											X		X			X		
1202047667	2	00:29			X		X											X		X			X		
1202047665	10	00:33			X		X											X		X			X		

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
CCV05	1	00:36			X		X											X		X			X		
CCB05	1	00:40			X		X											X		X			X		

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 05–MAR–10 **End Date:** 06–MAR–10

Client Sdg: 10–1898
Method P
Data File: 030510A–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	15:57	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
S0.1	1	16:04		X		X		X		X	X	X		X		X			X		X			X	X
S0.5	1	16:10	X	X		X		X	X	X	X	X		X	X	X			X		X			X	X
SCAL	1	16:17	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
S10	1	16:24	X						X				X		X							X			
ICV01	1	16:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ICB01	1	16:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
PQL01	1	16:44	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ICSA01	1	16:50	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ICSAB01	1	16:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
LR01	1	17:03	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
LR02	1	17:10	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV01	1	17:17	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB01	1	17:24	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
LR03	1	17:30	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
LR04	1	17:37	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV02	1	17:44	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB02	1	17:51	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV03	1	18:16	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB03	1	18:23	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	18:30																							
ZZZZZZ	1	18:37																							
ZZZZZZ	1	18:44																							
ZZZZZZ	1	18:51																							
ZZZZZZ	1	18:58																							
ZZZZZZ	1	19:05																							
ZZZZZZ	5	19:12																							
CCV04	1	19:19	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB04	1	19:26	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	19:32																							
ZZZZZZ	1	19:39																							
ZZZZZZ	1	19:46																							
ZZZZZZ	1	19:53																							
ZZZZZZ	1	20:00																							
ZZZZZZ	1	20:07																							
ZZZZZZ	5	20:14																							
CCV05	1	20:21	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB05	1	20:28	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	20:35																							
ZZZZZZ	1	20:42																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																							
ZZZZZZ	1	20:49																							
ZZZZZZ	1	20:56																							
ZZZZZZ	1	21:03																							
ZZZZZZ	1	21:10																							
ZZZZZZ	1	21:17																							
CCV06	1	21:24	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB06	1	21:31	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	21:38																							
ZZZZZZ	1	21:45																							
ZZZZZZ	1	21:52																							
ZZZZZZ	1	21:59																							
ZZZZZZ	1	22:06																							
ZZZZZZ	1	22:14																							
CCV07	1	22:20	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB07	1	22:28	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	22:34																							
ZZZZZZ	1	22:41																							
ZZZZZZ	1	22:47																							
ZZZZZZ	1	22:54																							
ZZZZZZ	1	23:01																							
ZZZZZZ	1	23:08																							
ZZZZZZ	5	23:15																							
CCV08	1	23:22	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB08	1	23:29	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	23:36																							
ZZZZZZ	1	23:43																							
ZZZZZZ	1	23:49																							
ZZZZZZ	1	23:57																							
ZZZZZZ	1	00:03																							
ZZZZZZ	1	00:10																							
ZZZZZZ	1	00:17																							
CCV09	1	00:24	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB09	1	00:31	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	00:38																							
ZZZZZZ	1	00:45																							
ZZZZZZ	1	00:52																							
ZZZZZZ	1	00:59																							
ZZZZZZ	1	01:06																							
ZZZZZZ	1	01:13																							
ZZZZZZ	1	01:20																							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
CCV10	1	01:27	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB10	1	01:34	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
ZZZZZZ	1	01:41																							
ZZZZZZ	1	01:48																							
ZZZZZZ	1	01:54																							
ZZZZZZ	1	02:02																							
ZZZZZZ	1	02:09																							
ZZZZZZ	1	02:16																							
ZZZZZZ	5	02:23																							
CCV11	1	02:29	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB11	1	02:36	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202047652	1	02:43	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202047657	1	02:50	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
247327002	1	02:56	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202047653	1	03:03	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202047655	1	03:10	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202047656	1	03:17	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
1202047654	5	03:24	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCV12	1	03:31	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X
CCB12	1	03:38	X	X		X		X	X	X	X	X	X	X	X	X			X		X	X		X	X

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 01–MAR–10 **End Date:** 01–MAR–10

Client Sdg: 10–1898
Method AV
Data File: 030110S1–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Se	Ag	Na	Tl	V	Zn
S0.0	1	09:24															X								
S0.2	1	09:26															X								
S0.5	1	09:27															X								
S2.0	1	09:29															X								
S5.0	1	09:31															X								
S10.0	1	09:32															X								
ICV01	1	09:34															X								
ICB01	1	09:36															X								
CRDL01	1	09:37															X								
CCV01	1	09:39															X								
CCB01	1	09:41															X								
ZZZZZZ	1	09:42																							
ZZZZZZ	10	09:44																							
ZZZZZZ	1	09:46																							
ZZZZZZ	1	09:48																							
ZZZZZZ	1	09:49																							
ZZZZZZ	1	09:51																							
ZZZZZZ	5	09:52																							
ZZZZZZ	1	09:54																							
ZZZZZZ	1	09:56																							
ZZZZZZ	1	09:57																							
CCV02	1	09:59															X								
CCB02	1	10:01															X								
ZZZZZZ	1	10:02																							
ZZZZZZ	1	10:04																							
ZZZZZZ	1	10:06																							
ZZZZZZ	1	10:08																							
ZZZZZZ	1	10:09																							
ZZZZZZ	1	10:11																							
ZZZZZZ	1	10:13																							
ZZZZZZ	1	10:14																							
ZZZZZZ	1	10:16																							
ZZZZZZ	1	10:18																							
CCV03	1	10:19															X								
CCB03	1	10:21															X								
ZZZZZZ	1	10:23																							
ZZZZZZ	1	10:24																							
ZZZZZZ	1	10:26																							
ZZZZZZ	1	10:28																							
1202055200	1	10:29															X								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																						
1202055201	10	10:31														X								
ZZZZZZ	1	10:33																						
ZZZZZZ	1	10:34																						
ZZZZZZ	1	10:36																						
ZZZZZZ	1	10:38																						
CCV04	1	10:39														X								
CCB04	1	10:41														X								
ZZZZZZ	1	10:43																						
247327002	1	10:44														X								
ZZZZZZ	1	10:46																						
ZZZZZZ	1	10:48																						
ZZZZZZ	1	10:49																						
ZZZZZZ	1	10:51																						
ZZZZZZ	1	10:53																						
ZZZZZZ	1	10:54																						
ZZZZZZ	1	10:56																						
1202055202	1	10:58														X								
CCV05	1	10:59														X								
CCB05	1	11:01														X								
1202055203	1	11:03														X								
1202055205	1	11:04														X								
1202055204	5	11:06														X								
ZZZZZZ	1	11:08																						
ZZZZZZ	1	11:10																						
ZZZZZZ	1	11:11																						
ZZZZZZ	1	11:13																						
ZZZZZZ	1	11:15																						
ZZZZZZ	1	11:16																						
ZZZZZZ	10	11:18																						
CCV06	1	11:20														X								
CCB06	1	11:21														X								

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1898

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum		15.0	50
	Antimony		0.5	3
	Arsenic		1.0	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Cadmium		0.1	1
	Calcium		33.0	100
	Chromium		1.0	3
	Cobalt		0.3	1
	Copper		0.33	1
	Iron		25.0	100
	Lead		0.5	2
	Magnesium		7.5	25
	Manganese		1.0	5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		2.5	5
	Silver		0.2	1
	Sodium		80.0	250
	Thallium		0.3	1
	Vanadium		2.0	10
	Zinc		2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1898

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 15–JUN–09

	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
MERCURY				
SOLID	Mercury		0.068	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1898

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
SOLID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.3	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Cadmium	226.502	1.0	5
	Calcium	317.933	80.0	250
	Chromium	267.716	1.5	5
	Cobalt	228.616	1.5	5
	Copper	324.752	3.0	10
	Iron	238.204	80.0	250
	Lead	220.353	2.5	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	64.0	250
	Selenium	196.026	5.0	30
	Silver	328.068	1.0	5
	Sodium	589.592	70.0	250
	Thallium	190.801	5.0	20
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1898
Effective Dates: 01-FEB-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02697	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.48147	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.21356	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05186	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.18741	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1898
Effective Dates: 01-FEB-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.85580	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.44491	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-29.9151	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.57616
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.60374	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	198.62
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	4.37985	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.36147	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	2.23785	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.36818	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.35273

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-1898
Contract: LANL01004
Instrument: OPTIMA3
Effective Dates: 01-FEB-10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	48.4946
Antimony	206.836	-0.02515	0.00000	0.00000	0.00000	-20.5057
Arsenic	188.979	-0.23424	0.00000	0.00000	0.00000	2.41902
Barium	233.527	-0.03042	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.16240	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.10329	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01944	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01444	0.00000	0.00000	0.00000	-2.33100
Copper	324.752	-0.05293	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09554	0.00000	0.00000	0.00000	-2.48774
Magnesium	279.077	1.04597	0.00000	0.00000	0.00000	-10.4683
Manganese	257.61	-0.09877	0.00000	0.04089	0.00000	0.00000
Molybdenum	202.031	-0.07763	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80543	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.39429	1.18725
Selenium	196.026	-3.27508	0.00000	0.00000	0.00000	-3.07287
Silica	251.611	0.00000	0.00000	0.00000	0.00000	27.2377
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	12.3082
Silver	328.068	-0.32385	0.00000	0.00000	0.00000	0.00000
Stroutium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-4.77918	0.00000
Tin	189.927	-0.01682	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.08168	0.00000	0.00000
Uranium	409.014	0.11400	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.14564	0.00000	-0.01931	0.00000	-14.1293
Zinc	213.857	0.09701	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1898
Effective Dates: 01-FEB-10

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silica
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-0.84443	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.63547	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.37026	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1898
Effective Dates: 01-FEB-10

Parmname	Wavelength	Silicon	Silver	Strontium	Sulfur	Thallium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: LANL01004
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1898
Effective Dates: 01-FEB-10

Parmname	Wavelength	Tin	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-15.4932	3.30431	0.00000	-2.81282	0.00000
Arsenic	188.979	0.00000	-8.66313	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-2.20293	0.00000
Beryllium	313.107	0.00000	-2.27027	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	-0.19473	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.39645	-1.41250	0.00000
Cobalt	228.616	0.00000	2.09497	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.55360	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-9.37529	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.81635	-4.04400	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-8.29801	0.00000	1.88584	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.43915	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	1.05947	-1.91382	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–1898

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–1898

Contract: LANL01004 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10

Raw Data

Method: Hg_ReAlign
Result: 030910

Sample ID: Hg_ReAlign

Hg 253.652 **Rep: 1**

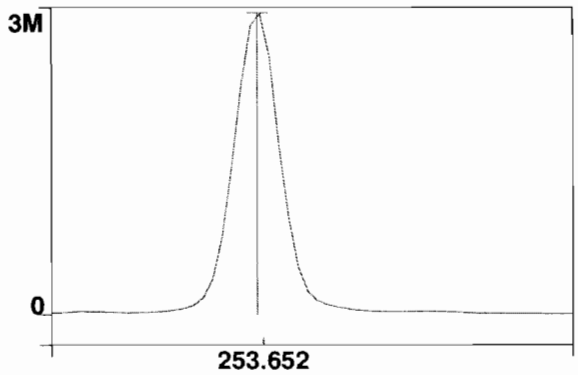

Intensity: 3148060.1 cps
Conc:

1

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Reprocessing Begun
Logged In Analyst: Optima3 **Technique: ICP Continuous**

Results Data Set (original): 030510
Results Library (original): C:\pe\Optima3\Results\Results.mdb
Results Data Set (reprocessed): 030510A
Results Library (reprocessed): C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 3/5/2010 18:02:55**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 3/5/2010 15:57:15**
Analyst: **Data Type: Reprocessed on 3/5/2010 18:07:18**
Logged In Analyst (Original) : Optima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	735808.0	735808.0	99.492	%	16:00:25
1	Sc Radial	4408.8	4408.8	101	%	15:59:08
1	Y 371.029	659489.4	659489.4	99.497	%	16:00:25
1	Y RADIAL	4639.8	4639.8	100.7	%	15:59:08
1	Ag 328.068†	203.0	204.0	[0.00]	ug/L	16:00:25

1	Al 396.153Radial†	-85.1	-84.7	[0.00]	ug/L	15:59:28
1	As 188.979†	-22.5	-22.6	[0.00]	ug/L	16:00:45
1	B 249.677†	-521.9	-524.6	[0.00]	ug/L	16:00:45
1	Ba 233.527†	-15.7	-15.8	[0.00]	ug/L	16:00:45
1	Be 313.107†	-8779.4	-8824.2	[0.00]	ug/L	16:00:25
1	Ca 317.933Radial†	19.9	19.8	[0.00]	ug/L	15:59:28
1	Cd 226.502†	-193.2	-194.2	[0.00]	ug/L	16:00:45
1	Co 228.616†	-70.4	-70.7	[0.00]	ug/L	16:00:45
1	Cr 267.716†	45.4	45.7	[0.00]	ug/L	16:00:45
1	Cu 324.752†	7188.3	7225.0	[0.00]	ug/L	16:00:25
1	Fe 238.204 Radial†	6.0	5.9	[0.00]	ug/L	15:59:28
1	K 766.490 Radial†	2630.6	2617.5	[0.00]	ug/L	15:59:08
1	Mg 279.077 IEC†	-0.5	-0.5	[0.00]	ug/L	15:59:28
1	Mn 257.610†	428.7	430.9	[0.00]	ug/L	16:00:45
1	Mo 202.031†	19.1	19.2	[0.00]	ug/L	16:00:45
1	Na 589.592 Radial†	-962.8	-958.0	[0.00]	ug/L	15:59:08
1	Ni 231.604†	104.9	105.4	[0.00]	ug/L	16:00:45
1	P 214.914†	199.3	200.3	[0.00]	ug/L	16:00:45
1	Pb 220.353†	-49.6	-49.9	[0.00]	ug/L	16:00:45
1	S 181.975 Axial†	44.6	44.9	[0.00]	ug/L	16:00:45
1	Sb 206.836†	31.7	31.9	[0.00]	ug/L	16:00:45
1	Se 196.026†	-20.9	-21.0	[0.00]	ug/L	16:00:45
1	Si 251.611†	551.3	554.1	[0.00]	ug/L	16:00:45
1	Sn 189.927†	2.5	2.5	[0.00]	ug/L	16:00:45
1	Sr 421.552†	8.0	8.0	[0.00]	ug/L	15:59:08
1	Ti 334.940†	-1407.7	-1414.9	[0.00]	ug/L	16:00:25
1	Tl 190.801†	-28.5	-28.7	[0.00]	ug/L	16:00:45
1	U 409.014†	-2533.2	-2546.1	[0.00]	ug/L	16:00:25
1	V 292.402†	-1653.4	-1661.8	[0.00]	ug/L	16:00:25
1	Zn 213.857†	670.1	673.5	[0.00]	ug/L	16:00:45
1	SiO2†	549.4	552.2	[0.00]	ug/L	16:01:41
2	Sc 361.383	739199.7	739199.7	99.951	%	16:00:50
2	Sc Radial	4325.1	4325.1	98.6	%	15:59:33
2	Y 371.029	662434.6	662434.6	99.941	%	16:00:50
2	Y RADIAL	4549.6	4549.6	98.73	%	15:59:33
2	Ag 328.068†	211.0	211.1	[0.00]	ug/L	16:00:50
2	Al 396.153Radial†	-86.5	-87.7	[0.00]	ug/L	15:59:53
2	As 188.979†	-34.6	-34.6	[0.00]	ug/L	16:01:10
2	B 249.677†	-543.5	-543.8	[0.00]	ug/L	16:01:10
2	Ba 233.527†	6.8	6.9	[0.00]	ug/L	16:01:10
2	Be 313.107†	-8765.9	-8770.2	[0.00]	ug/L	16:00:50
2	Ca 317.933Radial†	15.6	15.9	[0.00]	ug/L	15:59:53
2	Cd 226.502†	-183.5	-183.6	[0.00]	ug/L	16:01:10
2	Co 228.616†	-58.0	-58.0	[0.00]	ug/L	16:01:10
2	Cr 267.716†	64.0	64.1	[0.00]	ug/L	16:01:10
2	Cu 324.752†	7354.6	7358.2	[0.00]	ug/L	16:00:50
2	Fe 238.204 Radial†	9.4	9.5	[0.00]	ug/L	15:59:53
2	K 766.490 Radial†	2476.7	2512.0	[0.00]	ug/L	15:59:33
2	Mg 279.077 IEC†	-0.2	-0.2	[0.00]	ug/L	15:59:53
2	Mn 257.610†	445.0	445.3	[0.00]	ug/L	16:01:10
2	Mo 202.031†	18.5	18.5	[0.00]	ug/L	16:01:10
2	Na 589.592 Radial†	-883.6	-896.2	[0.00]	ug/L	15:59:33
2	Ni 231.604†	78.1	78.1	[0.00]	ug/L	16:01:10
2	P 214.914†	195.8	195.9	[0.00]	ug/L	16:01:10
2	Pb 220.353†	-51.9	-51.9	[0.00]	ug/L	16:01:10
2	S 181.975 Axial†	43.0	43.0	[0.00]	ug/L	16:01:10
2	Sb 206.836†	18.0	18.0	[0.00]	ug/L	16:01:10
2	Se 196.026†	-26.2	-26.3	[0.00]	ug/L	16:01:10
2	Si 251.611†	541.4	541.7	[0.00]	ug/L	16:01:10
2	Sn 189.927†	10.4	10.4	[0.00]	ug/L	16:01:10
2	Sr 421.552†	9.5	9.6	[0.00]	ug/L	15:59:33
2	Ti 334.940†	-1368.8	-1369.5	[0.00]	ug/L	16:00:50
2	Tl 190.801†	-37.7	-37.8	[0.00]	ug/L	16:01:10
2	U 409.014†	-2447.8	-2449.0	[0.00]	ug/L	16:00:50
2	V 292.402†	-1664.8	-1665.6	[0.00]	ug/L	16:00:50
2	Zn 213.857†	674.4	674.7	[0.00]	ug/L	16:01:10
2	SiO2†	552.2	552.5	[0.00]	ug/L	16:01:46
3	Sc 361.383	743685.1	743685.1	100.56	%	16:01:16
3	Sc Radial	4426.3	4426.3	101	%	15:59:58
3	Y 371.029	666545.4	666545.4	100.56	%	16:01:16
3	Y RADIAL	4635.4	4635.4	100.6	%	15:59:58

3	Ag 328.068†	181.9	180.9	[0.00] ug/L	16:01:16
3	Al 396.153Radial†	-98.8	-97.9	[0.00] ug/L	16:00:18
3	As 188.979†	-23.6	-23.5	[0.00] ug/L	16:01:36
3	B 249.677†	-557.7	-554.6	[0.00] ug/L	16:01:36
3	Ba 233.527†	20.8	20.6	[0.00] ug/L	16:01:36
3	Be 313.107†	-8917.2	-8867.8	[0.00] ug/L	16:01:16
3	Ca 317.933Radial†	12.8	12.7	[0.00] ug/L	16:00:18
3	Cd 226.502†	-171.1	-170.1	[0.00] ug/L	16:01:36
3	Co 228.616†	-61.1	-60.8	[0.00] ug/L	16:01:36
3	Cr 267.716†	71.9	71.5	[0.00] ug/L	16:01:36
3	Cu 324.752†	7348.4	7307.6	[0.00] ug/L	16:01:16
3	Fe 238.204 Radial†	7.7	7.7	[0.00] ug/L	16:00:18
3	K 766.490 Radial†	2490.9	2468.6	[0.00] ug/L	15:59:58
3	Mg 279.077 IEC†	0.3	0.3	[0.00] ug/L	16:00:18
3	Mn 257.610†	410.8	408.6	[0.00] ug/L	16:01:36
3	Mo 202.031†	13.7	13.7	[0.00] ug/L	16:01:36
3	Na 589.592 Radial†	-882.7	-874.8	[0.00] ug/L	15:59:58
3	Ni 231.604†	94.3	93.8	[0.00] ug/L	16:01:36
3	P 214.914†	190.8	189.8	[0.00] ug/L	16:01:36
3	Pb 220.353†	-65.6	-65.3	[0.00] ug/L	16:01:36
3	S 181.975 Axial†	50.4	50.1	[0.00] ug/L	16:01:36
3	Sb 206.836†	37.6	37.4	[0.00] ug/L	16:01:36
3	Se 196.026†	-19.2	-19.1	[0.00] ug/L	16:01:36
3	Si 251.611†	548.9	545.9	[0.00] ug/L	16:01:36
3	Sn 189.927†	0.7	0.7	[0.00] ug/L	16:01:36
3	Sr 421.552†	-14.7	-14.6	[0.00] ug/L	15:59:58
3	Ti 334.940†	-1311.2	-1304.0	[0.00] ug/L	16:01:16
3	Tl 190.801†	-30.0	-29.8	[0.00] ug/L	16:01:36
3	U 409.014†	-2589.1	-2574.8	[0.00] ug/L	16:01:16
3	V 292.402†	-1699.7	-1690.3	[0.00] ug/L	16:01:16
3	Zn 213.857†	687.8	684.0	[0.00] ug/L	16:01:36
3	SiO2†	550.9	547.9	[0.00] ug/L	16:01:51

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	739564.3	3951.18	0.53%	100.00	%
Sc Radial	4386.7	54.08	1.23%	100	%
Y 371.029	662823.1	3544.05	0.53%	100.00	%
Y RADIAL	4608.3	50.90	1.10%	100.00	%
Ag 328.068†	198.7	15.77	7.94%	[0.00]	ug/L
Al 396.153Radial†	-90.1	6.94	7.70%	[0.00]	ug/L
As 188.979†	-26.9	6.70	24.94%	[0.00]	ug/L
B 249.677†	-541.0	15.20	2.81%	[0.00]	ug/L
Ba 233.527†	3.9	18.38	470.65%	[0.00]	ug/L
Be 313.107†	-8820.7	48.88	0.55%	[0.00]	ug/L
Ca 317.933Radial†	16.1	3.55	22.05%	[0.00]	ug/L
Cd 226.502†	-182.6	12.06	6.61%	[0.00]	ug/L
Co 228.616†	-63.2	6.70	10.61%	[0.00]	ug/L
Cr 267.716†	60.4	13.30	22.01%	[0.00]	ug/L
Cu 324.752†	7297.0	67.24	0.92%	[0.00]	ug/L
Fe 238.204 Radial†	7.7	1.78	23.17%	[0.00]	ug/L
K 766.490 Radial†	2532.7	76.56	3.02%	[0.00]	ug/L
Mg 279.077 IEC†	-0.2	0.41	261.34%	[0.00]	ug/L
Mn 257.610†	428.2	18.49	4.32%	[0.00]	ug/L
Mo 202.031†	17.1	3.03	17.68%	[0.00]	ug/L
Na 589.592 Radial†	-909.7	43.21	4.75%	[0.00]	ug/L
Ni 231.604†	92.4	13.70	14.82%	[0.00]	ug/L
P 214.914†	195.3	5.29	2.71%	[0.00]	ug/L
Pb 220.353†	-55.7	8.35	14.99%	[0.00]	ug/L
S 181.975 Axial†	46.0	3.68	8.00%	[0.00]	ug/L
Sb 206.836†	29.1	10.00	34.38%	[0.00]	ug/L
Se 196.026†	-22.1	3.72	16.84%	[0.00]	ug/L
Si 251.611†	547.2	6.33	1.16%	[0.00]	ug/L
Sn 189.927†	4.6	5.18	113.56%	[0.00]	ug/L
Sr 421.552†	1.0	13.54	>999.9%	[0.00]	ug/L
Ti 334.940†	-1362.8	55.75	4.09%	[0.00]	ug/L
Tl 190.801†	-32.1	4.96	15.44%	[0.00]	ug/L
U 409.014†	-2523.3	65.94	2.61%	[0.00]	ug/L
V 292.402†	-1672.6	15.48	0.93%	[0.00]	ug/L

Zn 213.857†	677.4	5.75	0.85%	[0.00] ug/L
SiO2†	550.8	2.59	0.47%	[0.00] ug/L

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Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.1 **Date Collected: 3/5/2010 16:04:02**
Analyst: **Data Type: Reprocessed on 3/5/2010 18:07:20**
Logged In Analyst (Original) : Optima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	757295.7	757295.7	102.40	%	16:07:11
1	Sc Radial	4526.2	4526.2	103	%	16:06:14
1	Y 371.029	677442.6	677442.6	102.21	%	16:07:11
1	Y RADIAL	4777.1	4777.1	103.7	%	16:06:14
1	Ag 328.068†	18931.0	18289.1	[100]	ug/L	16:07:11
1	As 188.979†	190.0	212.4	[100]	ug/L	16:07:31
1	B 249.677†	3145.4	3612.8	[100]	ug/L	16:07:11
1	Ba 233.527†	8215.5	8019.2	[100]	ug/L	16:07:11
1	Be 313.107†	236551.4	239833.5	[100]	ug/L	16:07:11
1	Cd 226.502†	6646.5	6673.5	[100]	ug/L	16:07:31
1	Co 228.616†	3159.7	3148.9	[100]	ug/L	16:07:31
1	Cr 267.716†	7315.1	7083.5	[100]	ug/L	16:07:11
1	Cu 324.752†	32589.6	24529.6	[100]	ug/L	16:07:11
1	K 766.490 Radial†	7595.6	4829.0	[1000]	ug/L	16:05:54
1	Mn 257.610†	62220.1	60335.0	[100]	ug/L	16:07:11
1	Mo 202.031†	1069.1	1027.0	[100]	ug/L	16:07:31
1	Ni 231.604†	3169.1	3002.5	[100]	ug/L	16:07:31
1	P 214.914†	1071.8	851.4	[500]	ug/L	16:07:31
1	Pb 220.353†	553.4	596.1	[100]	ug/L	16:07:31
1	S 181.975 Axial†	199.7	149.0	[200]	ug/L	16:07:31
1	Sb 206.836†	271.0	235.6	[100]	ug/L	16:07:31
1	Se 196.026†	139.3	158.1	[100]	ug/L	16:07:31
1	Si 251.611†	13657.5	12790.5	[500]	ug/L	16:07:11
1	Sn 189.927†	424.7	410.2	[100]	ug/L	16:07:31
1	Sr 421.552†	13330.7	12919.1	[100]	ug/L	16:06:14
1	Ti 334.940†	46531.5	46804.8	[100]	ug/L	16:07:11
1	Tl 190.801†	177.6	205.5	[100]	ug/L	16:07:31
1	U 409.014†	501.6	3013.1	[100]	ug/L	16:07:11
1	V 292.402†	10618.1	12042.1	[100]	ug/L	16:07:11
1	Zn 213.857†	9557.6	8656.4	[100]	ug/L	16:07:11
1	SiO2†	13567.4	12698.9	[1069.5]	ug/L	16:08:28
2	Sc 361.383	764329.3	764329.3	103.35	%	16:07:37
2	Sc Radial	4505.3	4505.3	103	%	16:06:39
2	Y 371.029	685066.5	685066.5	103.36	%	16:07:37
2	Y RADIAL	4731.8	4731.8	102.7	%	16:06:39
2	Ag 328.068†	19116.1	18298.0	[100]	ug/L	16:07:37
2	As 188.979†	192.3	212.9	[100]	ug/L	16:07:57
2	B 249.677†	3240.2	3676.2	[100]	ug/L	16:07:37
2	Ba 233.527†	8257.5	7986.0	[100]	ug/L	16:07:37
2	Be 313.107†	239561.8	240620.5	[100]	ug/L	16:07:37
2	Cd 226.502†	6684.0	6650.1	[100]	ug/L	16:07:57
2	Co 228.616†	3167.4	3128.0	[100]	ug/L	16:07:57
2	Cr 267.716†	7360.1	7061.2	[100]	ug/L	16:07:37
2	Cu 324.752†	32955.6	24590.8	[100]	ug/L	16:07:37
2	K 766.490 Radial†	7556.9	4825.3	[1000]	ug/L	16:06:19
2	Mn 257.610†	62792.2	60329.5	[100]	ug/L	16:07:37
2	Mo 202.031†	1075.7	1023.7	[100]	ug/L	16:07:57
2	Ni 231.604†	3182.3	2986.7	[100]	ug/L	16:07:57
2	P 214.914†	1080.5	850.2	[500]	ug/L	16:07:57
2	Pb 220.353†	551.0	588.8	[100]	ug/L	16:07:57
2	S 181.975 Axial†	196.2	143.9	[200]	ug/L	16:07:57
2	Sb 206.836†	276.0	238.0	[100]	ug/L	16:07:57
2	Se 196.026†	136.4	154.1	[100]	ug/L	16:07:57
2	Si 251.611†	13657.3	12667.6	[500]	ug/L	16:07:37
2	Sn 189.927†	429.0	410.6	[100]	ug/L	16:07:57
2	Sr 421.552†	13281.5	12931.0	[100]	ug/L	16:06:39
2	Ti 334.940†	47138.3	46973.8	[100]	ug/L	16:07:37
2	Tl 190.801†	175.0	201.4	[100]	ug/L	16:07:57

2	U 409.014†	374.4	2885.6	[100]	ug/L	16:07:37
2	V 292.402†	10664.9	11991.9	[100]	ug/L	16:07:37
2	Zn 213.857†	9698.1	8706.4	[100]	ug/L	16:07:37
2	SiO2†	13766.6	12769.7	[1069.5]	ug/L	16:08:33
3	Sc 361.383	761813.4	761813.4	103.01	%	16:08:02
3	Sc Radial	4442.0	4442.0	101	%	16:07:04
3	Y 371.029	682045.4	682045.4	102.90	%	16:08:02
3	Y RADIAL	4668.2	4668.2	101.3	%	16:07:04
3	Ag 328.068†	19155.0	18396.9	[100]	ug/L	16:08:02
3	As 188.979†	182.0	203.6	[100]	ug/L	16:08:22
3	B 249.677†	3255.2	3701.1	[100]	ug/L	16:08:02
3	Ba 233.527†	8234.1	7989.8	[100]	ug/L	16:08:02
3	Be 313.107†	238026.5	239895.6	[100]	ug/L	16:08:02
3	Cd 226.502†	6651.1	6639.5	[100]	ug/L	16:08:22
3	Co 228.616†	3159.3	3130.2	[100]	ug/L	16:08:22
3	Cr 267.716†	7335.5	7060.9	[100]	ug/L	16:08:02
3	Cu 324.752†	32866.5	24609.7	[100]	ug/L	16:08:02
3	K 766.490 Radial†	7666.9	5039.0	[1000]	ug/L	16:06:44
3	Mn 257.610†	62550.0	60295.0	[100]	ug/L	16:08:02
3	Mo 202.031†	1065.4	1017.1	[100]	ug/L	16:08:22
3	Ni 231.604†	3172.8	2987.7	[100]	ug/L	16:08:22
3	P 214.914†	1076.6	849.9	[500]	ug/L	16:08:22
3	Pb 220.353†	545.1	584.9	[100]	ug/L	16:08:22
3	S 181.975 Axial†	190.9	139.3	[200]	ug/L	16:08:22
3	Sb 206.836†	271.3	234.3	[100]	ug/L	16:08:22
3	Se 196.026†	131.5	149.8	[100]	ug/L	16:08:22
3	Si 251.611†	13638.8	12693.3	[500]	ug/L	16:08:02
3	Sn 189.927†	423.6	406.6	[100]	ug/L	16:08:22
3	Sr 421.552†	13071.4	12907.9	[100]	ug/L	16:07:04
3	Ti 334.940†	46774.7	46771.4	[100]	ug/L	16:08:02
3	Tl 190.801†	170.6	197.7	[100]	ug/L	16:08:22
3	U 409.014†	419.9	2930.9	[100]	ug/L	16:08:02
3	V 292.402†	10668.5	12029.5	[100]	ug/L	16:08:02
3	Zn 213.857†	9673.3	8713.4	[100]	ug/L	16:08:02
3	SiO2†	13614.7	12666.2	[1069.5]	ug/L	16:08:38

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	761146.1	3563.96	0.47%	102.92	%
Sc Radial	4491.1	43.85	0.98%	102	%
Y 371.029	681518.2	3839.22	0.56%	102.82	%
Y RADIAL	4725.7	54.72	1.16%	102.5	%
Ag 328.068†	18328.0	59.82	0.33%	[100]	ug/L
As 188.979†	209.6	5.24	2.50%	[100]	ug/L
B 249.677†	3663.4	45.56	1.24%	[100]	ug/L
Ba 233.527†	7998.3	18.20	0.23%	[100]	ug/L
Be 313.107†	240116.5	437.54	0.18%	[100]	ug/L
Cd 226.502†	6654.4	17.40	0.26%	[100]	ug/L
Co 228.616†	3135.7	11.49	0.37%	[100]	ug/L
Cr 267.716†	7068.5	12.93	0.18%	[100]	ug/L
Cu 324.752†	24576.7	41.88	0.17%	[100]	ug/L
K 766.490 Radial†	4897.8	122.30	2.50%	[1000]	ug/L
Mn 257.610†	60319.8	21.68	0.04%	[100]	ug/L
Mo 202.031†	1022.6	5.01	0.49%	[100]	ug/L
Ni 231.604†	2992.3	8.84	0.30%	[100]	ug/L
P 214.914†	850.5	0.79	0.09%	[500]	ug/L
Pb 220.353†	589.9	5.69	0.97%	[100]	ug/L
S 181.975 Axial†	144.1	4.85	3.36%	[200]	ug/L
Sb 206.836†	236.0	1.88	0.80%	[100]	ug/L
Se 196.026†	154.0	4.18	2.71%	[100]	ug/L
Si 251.611†	12717.1	64.82	0.51%	[500]	ug/L
Sn 189.927†	409.1	2.17	0.53%	[100]	ug/L
Sr 421.552†	12919.3	11.53	0.09%	[100]	ug/L
Ti 334.940†	46850.0	108.48	0.23%	[100]	ug/L
Tl 190.801†	201.6	3.91	1.94%	[100]	ug/L
U 409.014†	2943.2	64.65	2.20%	[100]	ug/L
V 292.402†	12021.2	26.12	0.22%	[100]	ug/L
Zn 213.857†	8692.0	31.11	0.36%	[100]	ug/L
SiO2†	12711.6	52.92	0.42%	[1069.5]	ug/L

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Sequence No.: 3
Sample ID: S0.5
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 3/5/2010 16:10:48
Data Type: Reprocessed on 3/5/2010 18:07:31

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	772352.2	772352.2	104.43	%	16:13:58
1	Sc Radial	4486.2	4486.2	102	%	16:12:40
1	Y 371.029	685403.1	685403.1	103.41	%	16:13:58
1	Y RADIAL	4698.7	4698.7	102.0	%	16:12:40
1	Ag 328.068†	101074.3	96584.9	[500]	ug/L	16:14:03
1	Al 396.153Radial†	5158.4	5134.1	[5000]	ug/L	16:12:40
1	As 188.979†	1138.6	1117.1	[500]	ug/L	16:14:23
1	B 249.677†	19881.1	19578.1	[500]	ug/L	16:14:03
1	Ba 233.527†	43933.0	42064.1	[500]	ug/L	16:14:03
1	Be 313.107†	1287162.2	1241340.3	[500]	ug/L	16:13:58
1	Ca 317.933Radial†	2784.7	2706.9	[5000]	ug/L	16:13:00
1	Cd 226.502†	37299.2	35898.4	[500]	ug/L	16:14:03
1	Co 228.616†	17383.8	16708.9	[500]	ug/L	16:14:03
1	Cr 267.716†	38770.7	37064.4	[500]	ug/L	16:14:03
1	Cu 324.752†	145306.6	131841.1	[500]	ug/L	16:14:03
1	K 766.490 Radial†	29207.8	26027.7	[5000]	ug/L	16:12:40
1	Mg 279.077 IEC†	129.5	126.7	[5000]	ug/L	16:13:00
1	Mn 257.610†	325584.2	311334.2	[500]	ug/L	16:14:03
1	Mo 202.031†	5557.9	5304.8	[500]	ug/L	16:14:23
1	Ni 231.604†	16794.1	15988.7	[500]	ug/L	16:14:03
1	P 214.914†	4830.8	4430.4	[2500]	ug/L	16:14:23
1	Pb 220.353†	3138.9	3061.3	[500]	ug/L	16:14:23
1	S 181.975 Axial†	847.1	765.2	[1000]	ug/L	16:14:23
1	Sb 206.836†	1301.6	1217.3	[500]	ug/L	16:14:23
1	Se 196.026†	820.1	807.4	[500]	ug/L	16:14:23
1	Si 251.611†	70727.2	67177.4	[2500]	ug/L	16:14:03
1	Sn 189.927†	2213.6	2115.0	[500]	ug/L	16:14:23
1	Sr 421.552†	68938.7	67409.5	[500]	ug/L	16:12:40
1	Ti 334.940†	252272.1	242925.4	[500]	ug/L	16:14:03
1	Tl 190.801†	1082.8	1069.0	[500]	ug/L	16:14:23
1	U 409.014†	12773.4	14754.5	[500]	ug/L	16:14:03
1	V 292.402†	64464.3	63400.3	[500]	ug/L	16:14:03
1	Zn 213.857†	48571.6	45832.2	[500]	ug/L	16:14:03
1	SiO2†	69240.3	65750.1	[5347.5]	ug/L	16:15:30
2	Sc 361.383	784848.7	784848.7	106.12	%	16:14:28
2	Sc Radial	4451.6	4451.6	101	%	16:13:06
2	Y 371.029	696535.7	696535.7	105.09	%	16:14:28
2	Y RADIAL	4696.9	4696.9	101.9	%	16:13:06
2	Ag 328.068†	98112.7	92253.1	[500]	ug/L	16:14:34
2	Al 396.153Radial†	5138.2	5153.5	[5000]	ug/L	16:13:06
2	As 188.979†	1127.8	1089.6	[500]	ug/L	16:14:54
2	B 249.677†	19130.9	18568.1	[500]	ug/L	16:14:34
2	Ba 233.527†	42687.8	40220.8	[500]	ug/L	16:14:34
2	Be 313.107†	1308771.4	1242078.3	[500]	ug/L	16:14:28
2	Ca 317.933Radial†	2766.8	2710.4	[5000]	ug/L	16:13:26
2	Cd 226.502†	36429.6	34510.3	[500]	ug/L	16:14:34
2	Co 228.616†	16920.8	16007.6	[500]	ug/L	16:14:34
2	Cr 267.716†	37783.7	35543.2	[500]	ug/L	16:14:34
2	Cu 324.752†	140319.7	124926.5	[500]	ug/L	16:14:34
2	K 766.490 Radial†	29152.3	26195.0	[5000]	ug/L	16:13:06
2	Mg 279.077 IEC†	130.9	129.2	[5000]	ug/L	16:13:26
2	Mn 257.610†	316571.7	297877.9	[500]	ug/L	16:14:34
2	Mo 202.031†	5502.9	5168.3	[500]	ug/L	16:14:54
2	Ni 231.604†	16349.5	15313.8	[500]	ug/L	16:14:34
2	P 214.914†	4779.9	4308.8	[2500]	ug/L	16:14:54
2	Pb 220.353†	3099.5	2976.3	[500]	ug/L	16:14:54
2	S 181.975 Axial†	846.6	751.8	[1000]	ug/L	16:14:54
2	Sb 206.836†	1264.2	1162.1	[500]	ug/L	16:14:54

2	Se 196.026†	806.3	781.9	[500]	ug/L	16:14:54
2	Si 251.611†	68510.0	64009.9	[2500]	ug/L	16:14:34
2	Sn 189.927†	2188.9	2058.0	[500]	ug/L	16:14:54
2	Sr 421.552†	68504.6	67505.9	[500]	ug/L	16:13:06
2	Ti 334.940†	244934.0	232164.5	[500]	ug/L	16:14:34
2	Tl 190.801†	1064.5	1035.1	[500]	ug/L	16:14:54
2	U 409.014†	12130.4	13953.8	[500]	ug/L	16:14:34
2	V 292.402†	62770.9	60821.7	[500]	ug/L	16:14:34
2	Zn 213.857†	47236.4	43833.5	[500]	ug/L	16:14:34
2	SiO2†	69498.2	64937.4	[5347.5]	ug/L	16:15:35
3	Sc 361.383	780047.4	780047.4	105.47	%	16:14:59
3	Sc Radial	4392.8	4392.8	100	%	16:13:31
3	Y 371.029	691428.6	691428.6	104.32	%	16:14:59
3	Y RADIAL	4587.9	4587.9	99.56	%	16:13:31
3	Ag 328.068†	99531.7	94167.5	[500]	ug/L	16:15:05
3	Al 396.153Radial†	5021.2	5104.3	[5000]	ug/L	16:13:31
3	As 188.979†	1133.1	1101.2	[500]	ug/L	16:15:25
3	B 249.677†	19577.5	19102.4	[500]	ug/L	16:15:05
3	Ba 233.527†	43293.9	41043.1	[500]	ug/L	16:15:05
3	Be 313.107†	1300336.9	1241672.5	[500]	ug/L	16:14:59
3	Ca 317.933Radial†	2771.1	2751.2	[5000]	ug/L	16:13:51
3	Cd 226.502†	36818.5	35090.3	[500]	ug/L	16:15:05
3	Co 228.616†	17154.0	16326.9	[500]	ug/L	16:15:05
3	Cr 267.716†	38240.7	36195.7	[500]	ug/L	16:15:05
3	Cu 324.752†	142526.4	127832.6	[500]	ug/L	16:15:05
3	K 766.490 Radial†	28552.7	25980.5	[5000]	ug/L	16:13:31
3	Mg 279.077 IEC†	128.6	128.5	[5000]	ug/L	16:13:51
3	Mn 257.610†	320630.9	303562.5	[500]	ug/L	16:15:05
3	Mo 202.031†	5543.4	5238.6	[500]	ug/L	16:15:25
3	Ni 231.604†	16543.5	15592.5	[500]	ug/L	16:15:05
3	P 214.914†	4812.1	4367.0	[2500]	ug/L	16:15:25
3	Pb 220.353†	3143.4	3036.0	[500]	ug/L	16:15:25
3	S 181.975 Axial†	843.5	753.7	[1000]	ug/L	16:15:25
3	Sb 206.836†	1279.1	1183.7	[500]	ug/L	16:15:25
3	Se 196.026†	822.1	801.5	[500]	ug/L	16:15:25
3	Si 251.611†	69540.0	65383.8	[2500]	ug/L	16:15:05
3	Sn 189.927†	2206.4	2087.3	[500]	ug/L	16:15:25
3	Sr 421.552†	67208.2	67114.1	[500]	ug/L	16:13:31
3	Ti 334.940†	247797.1	236299.7	[500]	ug/L	16:15:05
3	Tl 190.801†	1073.7	1050.1	[500]	ug/L	16:15:25
3	U 409.014†	12346.2	14228.7	[500]	ug/L	16:15:05
3	V 292.402†	63445.0	61824.9	[500]	ug/L	16:15:05
3	Zn 213.857†	47822.3	44663.0	[500]	ug/L	16:15:05
3	SiO2†	69669.5	65502.9	[5347.5]	ug/L	16:15:40

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	779082.8	6303.83	0.81%	105.34	%
Sc Radial	4443.5	47.20	1.06%	101	%
Y 371.029	691122.4	5572.61	0.81%	104.27	%
Y RADIAL	4661.2	63.46	1.36%	101.1	%
Ag 328.068†	94335.2	2170.75	2.30%	[500]	ug/L
Al 396.153Radial†	5130.6	24.74	0.48%	[5000]	ug/L
As 188.979†	1102.6	13.83	1.25%	[500]	ug/L
B 249.677†	19082.9	505.30	2.65%	[500]	ug/L
Ba 233.527†	41109.3	923.41	2.25%	[500]	ug/L
Be 313.107†	1241697.0	369.64	0.03%	[500]	ug/L
Ca 317.933Radial†	2722.8	24.62	0.90%	[5000]	ug/L
Cd 226.502†	35166.3	697.17	1.98%	[500]	ug/L
Co 228.616†	16347.8	351.13	2.15%	[500]	ug/L
Cr 267.716†	36267.7	763.13	2.10%	[500]	ug/L
Cu 324.752†	128200.1	3471.92	2.71%	[500]	ug/L
K 766.490 Radial†	26067.8	112.73	0.43%	[5000]	ug/L
Mg 279.077 IEC†	128.1	1.25	0.98%	[5000]	ug/L
Mn 257.610†	304258.2	6755.10	2.22%	[500]	ug/L
Mo 202.031†	5237.2	68.28	1.30%	[500]	ug/L
Ni 231.604†	15631.7	339.19	2.17%	[500]	ug/L
P 214.914†	4368.8	60.83	1.39%	[2500]	ug/L
Pb 220.353†	3024.5	43.62	1.44%	[500]	ug/L

S 181.975 Axial†	756.9	7.25	0.96%	[1000]	ug/L
Sb 206.836†	1187.7	27.78	2.34%	[500]	ug/L
Se 196.026†	796.9	13.35	1.68%	[500]	ug/L
Si 251.611†	65523.7	1588.40	2.42%	[2500]	ug/L
Sn 189.927†	2086.8	28.52	1.37%	[500]	ug/L
Sr 421.552†	67343.2	204.13	0.30%	[500]	ug/L
Ti 334.940†	237129.9	5428.26	2.29%	[500]	ug/L
Tl 190.801†	1051.4	16.95	1.61%	[500]	ug/L
U 409.014†	14312.3	406.81	2.84%	[500]	ug/L
V 292.402†	62015.6	1299.84	2.10%	[500]	ug/L
Zn 213.857†	44776.2	1004.15	2.24%	[500]	ug/L
SiO2†	65396.8	416.58	0.64%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 3/5/2010 16:17:51
Data Type: Reprocessed on 3/5/2010 18:07:32

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	762995.3	762995.3	103.17	%	16:21:07
1	Sc Radial	4318.1	4318.1	98.4	%	16:20:04
1	Y 371.029	676977.7	676977.7	102.14	%	16:21:07
1	Y RADIAL	4697.9	4697.9	101.9	%	16:19:44
1	Ag 328.068†	194408.4	188239.6	[1000]	ug/L	16:21:07
1	Al 396.153Radial†	10195.9	10448.2	[10000]	ug/L	16:19:44
1	As 188.979†	2233.7	2192.0	[1000]	ug/L	16:21:27
1	B 249.677†	38995.6	38339.1	[1000]	ug/L	16:21:07
1	Ba 233.527†	84168.0	81579.4	[1000]	ug/L	16:21:07
1	Be 313.107†	2507160.6	2438988.4	[1000]	ug/L	16:21:01
1	Ca 317.933Radial†	5475.8	5546.8	[10000]	ug/L	16:19:44
1	Cd 226.502†	71193.6	69190.0	[1000]	ug/L	16:21:07
1	Co 228.616†	32952.4	32003.6	[1000]	ug/L	16:21:27
1	Cr 267.716†	73912.6	71582.4	[1000]	ug/L	16:21:07
1	Cu 324.752†	272646.1	256976.4	[1000]	ug/L	16:21:07
1	Fe 238.204 Radial†	945.9	953.2	[10000]	ug/L	16:20:04
1	K 766.490 Radial†	54640.8	52977.1	[10000]	ug/L	16:19:44
1	Mg 279.077 IEC†	257.5	261.8	[10000]	ug/L	16:20:04
1	Mn 257.610†	622976.7	603417.3	[1000]	ug/L	16:21:07
1	Mo 202.031†	10873.9	10522.8	[1000]	ug/L	16:21:27
1	Na 589.592 Radial†	30254.5	31645.3	[10000]	ug/L	16:19:44
1	Ni 231.604†	31531.0	30470.3	[1000]	ug/L	16:21:27
1	P 214.914†	9284.7	8804.2	[5000]	ug/L	16:21:27
1	Pb 220.353†	6193.6	6059.1	[1000]	ug/L	16:21:27
1	S 181.975 Axial†	1623.4	1527.6	[2000]	ug/L	16:21:27
1	Sb 206.836†	2488.9	2383.4	[1000]	ug/L	16:21:27
1	Se 196.026†	1595.5	1568.6	[1000]	ug/L	16:21:27
1	Si 251.611†	135601.4	130890.0	[5000]	ug/L	16:21:07
1	Sn 189.927†	4350.8	4212.7	[1000]	ug/L	16:21:27
1	Sr 421.552†	135170.3	137318.8	[1000]	ug/L	16:19:44
1	Ti 334.940†	487954.6	474332.6	[1000]	ug/L	16:21:07
1	Tl 190.801†	2140.0	2106.4	[1000]	ug/L	16:21:27
1	U 409.014†	26902.3	28599.4	[1000]	ug/L	16:21:07
1	V 292.402†	125324.8	123148.7	[1000]	ug/L	16:21:07
1	Zn 213.857†	91367.6	87884.3	[1000]	ug/L	16:21:07
1	SiO2†	134750.0	130061.1	[10695]	ug/L	16:22:35
2	Sc 361.383	760881.1	760881.1	102.88	%	16:21:38
2	Sc Radial	4343.9	4343.9	99.0	%	16:20:29
2	Y 371.029	675724.3	675724.3	101.95	%	16:21:38
2	Y RADIAL	4676.1	4676.1	101.5	%	16:20:09
2	Ag 328.068†	194056.0	188420.7	[1000]	ug/L	16:21:38
2	Al 396.153Radial†	9985.0	10173.6	[10000]	ug/L	16:20:09
2	As 188.979†	2227.1	2191.5	[1000]	ug/L	16:21:58
2	B 249.677†	38898.6	38349.8	[1000]	ug/L	16:21:38
2	Ba 233.527†	84288.1	81922.8	[1000]	ug/L	16:21:38
2	Be 313.107†	2517075.8	2455378.3	[1000]	ug/L	16:21:33
2	Ca 317.933Radial†	5388.3	5425.3	[10000]	ug/L	16:20:09
2	Cd 226.502†	71265.4	69451.5	[1000]	ug/L	16:21:38
2	Co 228.616†	32718.1	31864.6	[1000]	ug/L	16:21:58
2	Cr 267.716†	74017.4	71883.3	[1000]	ug/L	16:21:38
2	Cu 324.752†	271899.1	256984.6	[1000]	ug/L	16:21:38
2	Fe 238.204 Radial†	946.3	947.9	[10000]	ug/L	16:20:29
2	K 766.490 Radial†	53770.5	51768.1	[10000]	ug/L	16:20:09
2	Mg 279.077 IEC†	255.8	258.5	[10000]	ug/L	16:20:29
2	Mn 257.610†	623198.1	605310.4	[1000]	ug/L	16:21:38
2	Mo 202.031†	10790.7	10471.2	[1000]	ug/L	16:21:58
2	Na 589.592 Radial†	29846.7	31050.7	[10000]	ug/L	16:20:09
2	Ni 231.604†	31321.3	30351.3	[1000]	ug/L	16:21:58

2	P 214.914†	9211.5	8758.2	[5000]	ug/L	16:21:58
2	Pb 220.353†	6140.7	6024.3	[1000]	ug/L	16:21:58
2	S 181.975 Axial†	1608.7	1517.7	[2000]	ug/L	16:21:58
2	Sb 206.836†	2485.4	2386.7	[1000]	ug/L	16:21:58
2	Se 196.026†	1587.2	1564.8	[1000]	ug/L	16:21:58
2	Si 251.611†	135236.1	130900.1	[5000]	ug/L	16:21:38
2	Sn 189.927†	4305.1	4180.0	[1000]	ug/L	16:21:58
2	Sr 421.552†	132815.1	134123.8	[1000]	ug/L	16:20:09
2	Ti 334.940†	487227.2	474939.9	[1000]	ug/L	16:21:38
2	Tl 190.801†	2122.2	2094.8	[1000]	ug/L	16:21:58
2	U 409.014†	26724.0	28498.6	[1000]	ug/L	16:21:38
2	V 292.402†	125131.3	123298.2	[1000]	ug/L	16:21:38
2	Zn 213.857†	91521.6	88280.1	[1000]	ug/L	16:21:38
2	SiO2†	134397.0	130080.9	[10695]	ug/L	16:22:40
3	Sc 361.383	759499.3	759499.3	102.70	%	16:22:09
3	Sc Radial	4343.4	4343.4	99.0	%	16:20:54
3	Y 371.029	673684.3	673684.3	101.64	%	16:22:09
3	Y RADIAL	4692.4	4692.4	101.8	%	16:20:34
3	Ag 328.068†	193637.1	188355.9	[1000]	ug/L	16:22:09
3	Al 396.153Radial†	10054.2	10244.7	[10000]	ug/L	16:20:34
3	As 188.979†	2243.6	2211.6	[1000]	ug/L	16:22:29
3	B 249.677†	38940.6	38459.5	[1000]	ug/L	16:22:09
3	Ba 233.527†	84034.2	81824.6	[1000]	ug/L	16:22:09
3	Be 313.107†	2508655.8	2451630.4	[1000]	ug/L	16:22:04
3	Ca 317.933Radial†	5399.1	5436.9	[10000]	ug/L	16:20:34
3	Cd 226.502†	71120.2	69436.1	[1000]	ug/L	16:22:09
3	Co 228.616†	32809.1	32011.1	[1000]	ug/L	16:22:29
3	Cr 267.716†	73856.3	71857.3	[1000]	ug/L	16:22:09
3	Cu 324.752†	270957.4	256548.5	[1000]	ug/L	16:22:09
3	Fe 238.204 Radial†	939.9	941.6	[10000]	ug/L	16:20:54
3	K 766.490 Radial†	54047.4	52054.4	[10000]	ug/L	16:20:34
3	Mg 279.077 IEC†	256.1	258.8	[10000]	ug/L	16:20:54
3	Mn 257.610†	621455.6	604715.7	[1000]	ug/L	16:22:09
3	Mo 202.031†	10820.7	10519.6	[1000]	ug/L	16:22:29
3	Na 589.592 Radial†	30051.2	31260.9	[10000]	ug/L	16:20:34
3	Ni 231.604†	31394.5	30478.0	[1000]	ug/L	16:22:29
3	P 214.914†	9215.8	8778.5	[5000]	ug/L	16:22:29
3	Pb 220.353†	6161.2	6055.2	[1000]	ug/L	16:22:29
3	S 181.975 Axial†	1615.0	1526.6	[2000]	ug/L	16:22:29
3	Sb 206.836†	2488.3	2393.9	[1000]	ug/L	16:22:29
3	Se 196.026†	1603.5	1583.5	[1000]	ug/L	16:22:29
3	Si 251.611†	135161.4	131066.5	[5000]	ug/L	16:22:09
3	Sn 189.927†	4328.5	4210.3	[1000]	ug/L	16:22:29
3	Sr 421.552†	133786.0	135120.9	[1000]	ug/L	16:20:34
3	Ti 334.940†	486186.4	474787.9	[1000]	ug/L	16:22:09
3	Tl 190.801†	2143.9	2119.7	[1000]	ug/L	16:22:29
3	U 409.014†	26523.1	28350.2	[1000]	ug/L	16:22:09
3	V 292.402†	124848.3	123243.9	[1000]	ug/L	16:22:09
3	Zn 213.857†	91256.1	88183.4	[1000]	ug/L	16:22:09
3	SiO2†	136454.8	132322.3	[10695]	ug/L	16:22:45

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	761125.2	1760.73	0.23%	102.92	%
Sc Radial	4335.1	14.76	0.34%	98.8	%
Y 371.029	675462.1	1662.27	0.25%	101.91	%
Y RADIAL	4688.8	11.32	0.24%	101.7	%
Ag 328.068†	188338.7	91.75	0.05%	[1000]	ug/L
Al 396.153Radial†	10288.8	142.49	1.38%	[10000]	ug/L
As 188.979†	2198.4	11.46	0.52%	[1000]	ug/L
B 249.677†	38382.8	66.62	0.17%	[1000]	ug/L
Ba 233.527†	81775.6	176.87	0.22%	[1000]	ug/L
Be 313.107†	2448665.7	8587.74	0.35%	[1000]	ug/L
Ca 317.933Radial†	5469.7	67.03	1.23%	[10000]	ug/L
Cd 226.502†	69359.2	146.74	0.21%	[1000]	ug/L
Co 228.616†	31959.8	82.49	0.26%	[1000]	ug/L
Cr 267.716†	71774.3	166.75	0.23%	[1000]	ug/L
Cu 324.752†	256836.5	249.46	0.10%	[1000]	ug/L
Fe 238.204 Radial†	947.6	5.82	0.61%	[10000]	ug/L

K 766.490 Radial†	52266.5	631.78	1.21%	[10000]	ug/L
Mg 279.077 IEC†	259.7	1.81	0.70%	[10000]	ug/L
Mn 257.610†	604481.1	968.08	0.16%	[1000]	ug/L
Mo 202.031†	10504.5	28.88	0.27%	[1000]	ug/L
Na 589.592 Radial†	31319.0	301.49	0.96%	[10000]	ug/L
Ni 231.604†	30433.2	71.01	0.23%	[1000]	ug/L
P 214.914†	8780.3	23.10	0.26%	[5000]	ug/L
Pb 220.353†	6046.2	19.06	0.32%	[1000]	ug/L
S 181.975 Axial†	1524.0	5.49	0.36%	[2000]	ug/L
Sb 206.836†	2388.0	5.41	0.23%	[1000]	ug/L
Se 196.026†	1572.3	9.88	0.63%	[1000]	ug/L
Si 251.611†	130952.2	99.14	0.08%	[5000]	ug/L
Sn 189.927†	4201.0	18.24	0.43%	[1000]	ug/L
Sr 421.552†	135521.2	1634.65	1.21%	[1000]	ug/L
Ti 334.940†	474686.8	316.00	0.07%	[1000]	ug/L
Tl 190.801†	2107.0	12.45	0.59%	[1000]	ug/L
U 409.014†	28482.7	125.36	0.44%	[1000]	ug/L
V 292.402†	123230.3	75.66	0.06%	[1000]	ug/L
Zn 213.857†	88115.9	206.34	0.23%	[1000]	ug/L
SiO2†	130821.5	1299.85	0.99%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/5/2010 16:24:55
Data Type: Reprocessed on 3/5/2010 18:07:33
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	764480.9	764480.9	103.37	%	16:28:06
1	Sc Radial	4453.8	4453.8	102	%	16:27:09
1	Y 371.029	673849.1	673849.1	101.66	%	16:28:06
1	Y RADIAL	4641.3	4641.3	100.7	%	16:27:09
1	Al 396.153Radial†	50497.5	49827.3	[50000]	ug/L	16:26:49
1	Ca 317.933Radial†	26095.9	25686.9	[50000]	ug/L	16:26:49
1	Fe 238.204 Radial†	1825.2	1790.0	[20000]	ug/L	16:27:09
1	Mg 279.077 IEC†	1214.4	1196.3	[50000]	ug/L	16:27:09
1	Na 589.592 Radial†	59773.6	59783.3	[20000]	ug/L	16:26:49
2	Sc 361.383	765120.3	765120.3	103.46	%	16:28:12
2	Sc Radial	4403.9	4403.9	100	%	16:27:34
2	Y 371.029	674303.3	674303.3	101.73	%	16:28:12
2	Y RADIAL	4637.4	4637.4	100.6	%	16:27:34
2	Al 396.153Radial†	50634.8	50527.5	[50000]	ug/L	16:27:14
2	Ca 317.933Radial†	26128.5	26010.5	[50000]	ug/L	16:27:14
2	Fe 238.204 Radial†	1810.9	1796.1	[20000]	ug/L	16:27:34
2	Mg 279.077 IEC†	1206.0	1201.4	[50000]	ug/L	16:27:34
2	Na 589.592 Radial†	59770.9	60447.6	[20000]	ug/L	16:27:14
3	Sc 361.383	756067.2	756067.2	102.23	%	16:28:17
3	Sc Radial	4412.0	4412.0	101	%	16:27:59
3	Y 371.029	666582.4	666582.4	100.57	%	16:28:17
3	Y RADIAL	4607.3	4607.3	99.98	%	16:27:59
3	Al 396.153Radial†	50496.4	50297.4	[50000]	ug/L	16:27:39
3	Ca 317.933Radial†	26141.7	25975.9	[50000]	ug/L	16:27:39
3	Fe 238.204 Radial†	1814.8	1796.7	[20000]	ug/L	16:27:59
3	Mg 279.077 IEC†	1211.4	1204.7	[50000]	ug/L	16:27:59
3	Na 589.592 Radial†	59492.8	60061.9	[20000]	ug/L	16:27:39

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	761889.5	5052.35	0.66%	103.02	%
Sc Radial	4423.2	26.78	0.61%	101	%
Y 371.029	671578.3	4332.52	0.65%	101.32	%
Y RADIAL	4628.7	18.64	0.40%	100.4	%
Al 396.153Radial†	50217.4	356.92	0.71%	[50000]	ug/L
Ca 317.933Radial†	25891.1	177.71	0.69%	[50000]	ug/L
Fe 238.204 Radial†	1794.3	3.71	0.21%	[20000]	ug/L
Mg 279.077 IEC†	1200.8	4.23	0.35%	[50000]	ug/L
Na 589.592 Radial†	60097.6	333.58	0.56%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	188.4	0.00000	0.999997	
Al 396.153Radial	3	Lin Thru 0	0.0	1.005	0.00000	0.999987	
As 188.979	3	Lin Thru 0	0.0	2.199	0.00000	0.999991	
B 249.677	3	Lin Thru 0	0.0	38.33	0.00000	0.999990	
Ba 233.527	3	Lin Thru 0	0.0	81.85	0.00000	0.999996	
Be 313.107	3	Lin Thru 0	0.0	2455	0.00000	0.999982	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5192	0.00000	0.999931	
Cd 226.502	3	Lin Thru 0	0.0	69.53	0.00000	0.999977	
Co 228.616	3	Lin Thru 0	0.0	32.10	0.00000	0.999956	
Cr 267.716	3	Lin Thru 0	0.0	71.92	0.00000	0.999990	
Cu 324.752	3	Lin Thru 0	0.0	256.7	0.00000	0.999993	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0907	0.00000	0.999753	

K 766.490 Radial	3	Lin Thru 0	0.0	5.221	0.00000	0.999984
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0241	0.00000	0.999861
Mn 257.610	3	Lin Thru 0	0.0	605.3	0.00000	0.999996
Mo 202.031	3	Lin Thru 0	0.0	10.50	0.00000	0.999997
Na 589.592 Radia	2	Lin Thru 0	0.0	3.030	0.00000	0.999859
Ni 231.604	3	Lin Thru 0	0.0	30.59	0.00000	0.999940
P 214.914	3	Lin Thru 0	0.0	1.754	0.00000	0.999994
Pb 220.353	3	Lin Thru 0	0.0	6.046	0.00000	0.999998
S 181.975 Axial	3	Lin Thru 0	0.0	0.7606	0.00000	0.999985
Sb 206.836	3	Lin Thru 0	0.0	2.385	0.00000	0.999997
Se 196.026	3	Lin Thru 0	0.0	1.576	0.00000	0.999983
Si 251.611	3	Lin Thru 0	0.0	26.19	0.00000	0.999997
Sn 189.927	3	Lin Thru 0	0.0	4.195	0.00000	0.999994
Sr 421.552	3	Lin Thru 0	0.0	135.3	0.00000	0.999989
Ti 334.940	3	Lin Thru 0	0.0	474.6	0.00000	0.999999
Tl 190.801	3	Lin Thru 0	0.0	2.105	0.00000	0.999992
U 409.014	3	Lin Thru 0	0.0	28.52	0.00000	0.999994
V 292.402	3	Lin Thru 0	0.0	123.4	0.00000	0.999994
Zn 213.857	3	Lin Thru 0	0.0	88.39	0.00000	0.999978
SiO2	3	Lin Thru 0	0.0	12.23	0.00000	0.999997

Sequence No.: 6
Sample ID: ICV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/5/2010 16:30:29
Data Type: Reprocessed on 3/5/2010 18:07:33

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	777107.2	777107.2	105.08	%			16:33:39
1	Sc Radial	4590.3	4590.3	105	%			16:32:22
1	Y 371.029	691036.3	691036.3	104.26	%			16:33:39
1	Y RADIAL	4775.8	4775.8	103.6	%			16:32:22
1	Ag 328.068†	50315.5	47686.0	256.61	ug/L	256.61	ppb	16:33:39
1	Al 396.153Radial†	5375.8	5227.4	5173.0	ug/L	5173.0	ppb	16:32:22
1	As 188.979†	1070.6	1045.7	479.80	ug/L	479.80	ppb	16:33:59
1	B 249.677†	20456.5	20009.2	519.77	ug/L	519.77	ppb	16:33:39
1	Ba 233.527†	43811.7	41691.2	510.63	ug/L	510.63	ppb	16:33:39
1	Be 313.107†	658324.3	635340.6	259.91	ug/L	259.91	ppb	16:33:39
1	Ca 317.933Radial†	2782.8	2643.3	5091.2	ug/L	5091.2	ppb	16:32:42
1	Cd 226.502†	36013.0	34455.8	495.43	ug/L	495.43	ppb	16:33:59
1	Co 228.616†	17339.8	16565.3	516.19	ug/L	516.19	ppb	16:33:59
1	Cr 267.716†	37286.8	35425.0	493.20	ug/L	493.20	ppb	16:33:39
1	Cu 324.752†	144482.7	130205.6	507.31	ug/L	507.31	ppb	16:33:39
1	Fe 238.204 Radial†	497.9	468.1	5175.2	ug/L	5175.2	ppb	16:32:42
1	K 766.490 Radial†	16093.9	12847.4	2457.0	ug/L	2457.0	ppb	16:32:22
1	Mg 279.077 IEC†	137.2	131.2	5444.5	ug/L	5444.5	ppb	16:32:42
1	Mn 257.610†	326970.4	310745.8	513.69	ug/L	513.69	ppb	16:33:39
1	Mo 202.031†	5913.6	5610.8	535.01	ug/L	535.01	ppb	16:33:59
1	Na 589.592 Radial†	7341.0	7925.1	2615.3	ug/L	2615.3	ppb	16:32:22
1	Ni 231.604†	16321.2	15440.3	504.37	ug/L	504.37	ppb	16:33:59
1	P 214.914†	4873.5	4442.7	2434.4	ug/L	2434.4	ppb	16:33:59
1	Pb 220.353†	3125.7	3030.4	503.22	ug/L	503.22	ppb	16:33:59
1	S 181.975 Axial†	2031.7	1887.6	2480.6	ug/L	2480.6	ppb	16:33:59
1	Sb 206.836†	1278.3	1187.5	517.04	ug/L	517.04	ppb	16:33:59
1	Se 196.026†	4229.6	4047.3	2581.3	ug/L	2581.3	ppb	16:33:59
1	Si 251.611†	135528.8	128434.0	4897.7	ug/L	4897.7	ppb	16:33:39
1	Sn 189.927†	2347.5	2229.5	532.12	ug/L	532.12	ppb	16:33:59
1	Sr 421.552†	74971.9	71645.5	529.47	ug/L	529.47	ppb	16:32:22
1	Ti 334.940†	247726.5	237121.3	499.52	ug/L	499.52	ppb	16:33:39
1	Tl 190.801†	1110.5	1088.9	520.59	ug/L	520.59	ppb	16:33:59
1	U 409.014†	11730.2	13686.7	478.24	ug/L	478.24	ppb	16:33:39
1	V 292.402†	63596.5	62196.7	511.28	ug/L	511.28	ppb	16:33:39
1	Zn 213.857†	47915.9	44923.6	503.56	ug/L	503.56	ppb	16:33:39
1	SiO2†	135535.4	128436.7	10488	ug/L	10488	ppb	16:34:57
2	Sc 361.383	776602.1	776602.1	105.01	%			16:34:05
2	Sc Radial	4509.3	4509.3	103	%			16:32:47
2	Y 371.029	690805.2	690805.2	104.22	%			16:34:05
2	Y RADIAL	4721.2	4721.2	102.5	%			16:32:47
2	Ag 328.068†	50130.2	47540.7	255.86	ug/L	255.86	ppb	16:34:05
2	Al 396.153Radial†	5248.1	5195.6	5141.3	ug/L	5141.3	ppb	16:32:47
2	As 188.979†	1079.0	1054.4	483.75	ug/L	483.75	ppb	16:34:25
2	B 249.677†	20438.2	20004.5	519.64	ug/L	519.64	ppb	16:34:05
2	Ba 233.527†	43636.4	41551.4	508.92	ug/L	508.92	ppb	16:34:05
2	Be 313.107†	655496.4	633055.1	258.98	ug/L	258.98	ppb	16:34:05
2	Ca 317.933Radial†	2782.3	2690.6	5182.4	ug/L	5182.4	ppb	16:33:07
2	Cd 226.502†	36064.4	34527.1	496.45	ug/L	496.45	ppb	16:34:25
2	Co 228.616†	17330.0	16566.7	516.23	ug/L	516.23	ppb	16:34:25
2	Cr 267.716†	37100.0	35270.2	491.05	ug/L	491.05	ppb	16:34:05
2	Cu 324.752†	144062.4	129894.8	506.11	ug/L	506.11	ppb	16:34:05
2	Fe 238.204 Radial†	495.0	473.9	5238.9	ug/L	5238.9	ppb	16:33:07
2	K 766.490 Radial†	15815.7	12853.3	2458.1	ug/L	2458.1	ppb	16:32:47
2	Mg 279.077 IEC†	131.8	128.4	5326.4	ug/L	5326.4	ppb	16:33:07
2	Mn 257.610†	326063.4	310084.5	512.60	ug/L	512.60	ppb	16:34:05
2	Mo 202.031†	5907.8	5608.9	534.84	ug/L	534.84	ppb	16:34:25
2	Na 589.592 Radial†	7189.5	7903.8	2608.3	ug/L	2608.3	ppb	16:32:47
2	Ni 231.604†	16334.6	15463.1	505.12	ug/L	505.12	ppb	16:34:25

2	P 214.914†	4869.0	4441.5	2433.9	ug/L	2433.9 ppb	16:34:25
2	Pb 220.353†	3148.0	3053.5	507.03	ug/L	507.03 ppb	16:34:25
2	S 181.975 Axial†	2025.3	1882.7	2474.2	ug/L	2474.2 ppb	16:34:25
2	Sb 206.836†	1291.4	1200.7	522.63	ug/L	522.63 ppb	16:34:25
2	Se 196.026†	4217.9	4038.8	2576.0	ug/L	2576.0 ppb	16:34:25
2	Si 251.611†	135142.3	128149.8	4886.8	ug/L	4886.8 ppb	16:34:05
2	Sn 189.927†	2362.3	2245.1	535.85	ug/L	535.85 ppb	16:34:25
2	Sr 421.552†	73282.2	71290.1	526.84	ug/L	526.84 ppb	16:32:47
2	Ti 334.940†	247022.5	236604.3	498.46	ug/L	498.46 ppb	16:34:05
2	Tl 190.801†	1107.5	1086.8	519.57	ug/L	519.57 ppb	16:34:25
2	U 409.014†	11609.0	13578.7	474.44	ug/L	474.44 ppb	16:34:05
2	V 292.402†	63308.6	61961.9	509.36	ug/L	509.36 ppb	16:34:05
2	Zn 213.857†	47740.0	44785.8	501.99	ug/L	501.99 ppb	16:34:05
2	SiO2†	135805.9	128778.2	10516	ug/L	10516 ppb	16:35:02
3	Sc 361.383	788104.1	788104.1	106.56	%		16:34:31
3	Sc Radial	4479.1	4479.1	102	%		16:33:12
3	Y 371.029	699528.7	699528.7	105.54	%		16:34:31
3	Y RADIAL	4700.6	4700.6	102.0	%		16:33:12
3	Ag 328.068†	50880.8	47548.3	255.93	ug/L	255.93 ppb	16:34:31
3	Al 396.153Radial†	5210.2	5192.9	5138.9	ug/L	5138.9 ppb	16:33:12
3	As 188.979†	1078.2	1038.6	476.63	ug/L	476.63 ppb	16:34:51
3	B 249.677†	20758.5	20021.0	520.07	ug/L	520.07 ppb	16:34:31
3	Ba 233.527†	44259.1	41529.2	508.66	ug/L	508.66 ppb	16:34:31
3	Be 313.107†	663933.4	631862.0	258.49	ug/L	258.49 ppb	16:34:31
3	Ca 317.933Radial†	2780.4	2706.9	5213.7	ug/L	5213.7 ppb	16:33:32
3	Cd 226.502†	36028.4	33992.0	488.74	ug/L	488.74 ppb	16:34:51
3	Co 228.616†	17345.7	16340.5	509.17	ug/L	509.17 ppb	16:34:51
3	Cr 267.716†	37587.8	35212.3	490.25	ug/L	490.25 ppb	16:34:31
3	Cu 324.752†	146503.7	130183.5	507.23	ug/L	507.23 ppb	16:34:31
3	Fe 238.204 Radial†	498.6	480.6	5313.2	ug/L	5313.2 ppb	16:33:32
3	K 766.490 Radial†	15703.7	12847.1	2456.9	ug/L	2456.9 ppb	16:33:12
3	Mg 279.077 IEC†	137.3	134.6	5585.5	ug/L	5585.5 ppb	16:33:32
3	Mn 257.610†	331086.7	310266.6	512.90	ug/L	512.90 ppb	16:34:31
3	Mo 202.031†	5914.4	5533.0	527.61	ug/L	527.61 ppb	16:34:51
3	Na 589.592 Radial†	6934.1	7700.8	2541.3	ug/L	2541.3 ppb	16:33:12
3	Ni 231.604†	16300.2	15203.8	496.65	ug/L	496.65 ppb	16:34:51
3	P 214.914†	4889.1	4392.7	2405.7	ug/L	2405.7 ppb	16:34:51
3	Pb 220.353†	3113.6	2977.5	494.43	ug/L	494.43 ppb	16:34:51
3	S 181.975 Axial†	2026.3	1855.5	2438.4	ug/L	2438.4 ppb	16:34:51
3	Sb 206.836†	1302.1	1192.8	518.98	ug/L	518.98 ppb	16:34:51
3	Se 196.026†	4231.4	3992.9	2547.0	ug/L	2547.0 ppb	16:34:51
3	Si 251.611†	137341.7	128335.5	4894.0	ug/L	4894.0 ppb	16:34:31
3	Sn 189.927†	2344.1	2195.2	523.95	ug/L	523.95 ppb	16:34:51
3	Sr 421.552†	72408.4	70913.9	524.06	ug/L	524.06 ppb	16:33:12
3	Ti 334.940†	250942.8	236849.9	498.96	ug/L	498.96 ppb	16:34:31
3	Tl 190.801†	1118.7	1081.9	517.25	ug/L	517.25 ppb	16:34:51
3	U 409.014†	11903.6	13693.8	478.47	ug/L	478.47 ppb	16:34:31
3	V 292.402†	64349.8	62059.0	510.05	ug/L	510.05 ppb	16:34:31
3	Zn 213.857†	48371.2	44714.6	501.23	ug/L	501.23 ppb	16:34:31
3	SiO2†	137878.9	128836.0	10521	ug/L	10521 ppb	16:35:07

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	780604.5	105.55	%	0.879				0.83%
Sc Radial	4526.2	103	%	1.3				1.27%
Y 371.029	693790.1	104.67	%	0.750				0.72%
Y RADIAL	4732.6	102.7	%	0.84				0.82%
Ag 328.068†	47591.7	256.13	ug/L	0.417	256.13	ppb	0.417	0.16%
QC value within limits for Ag 328.068 Recovery = 102.45%								
Al 396.153Radial†	5205.3	5151.1	ug/L	19.00	5151.1	ppb	19.00	0.37%
QC value within limits for Al 396.153Radial Recovery = 103.02%								
As 188.979†	1046.3	480.06	ug/L	3.570	480.06	ppb	3.570	0.74%
QC value within limits for As 188.979 Recovery = 96.01%								
B 249.677†	20011.6	519.83	ug/L	0.225	519.83	ppb	0.225	0.04%
QC value within limits for B 249.677 Recovery = 103.97%								
Ba 233.527†	41590.6	509.40	ug/L	1.073	509.40	ppb	1.073	0.21%
QC value within limits for Ba 233.527 Recovery = 101.88%								
Be 313.107†	633419.2	259.13	ug/L	0.721	259.13	ppb	0.721	0.28%
QC value within limits for Be 313.107 Recovery = 103.65%								

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Ca 317.933Radial†       2680.3      5162.5 ug/L         63.67      5162.5 ppb          63.67   1.23%
   QC value within limits for Ca 317.933Radial  Recovery = 103.25%
Cd 226.502†            34325.0      493.54 ug/L         4.187      493.54 ppb          4.187   0.85%
   QC value within limits for Cd 226.502  Recovery = 98.71%
Co 228.616†            16490.8      513.86 ug/L         4.065      513.86 ppb          4.065   0.79%
   QC value within limits for Co 228.616  Recovery = 102.77%
Cr 267.716†            35302.5      491.50 ug/L         1.529      491.50 ppb          1.529   0.31%
   QC value within limits for Cr 267.716  Recovery = 98.30%
Cu 324.752†           130094.6      506.88 ug/L         0.674      506.88 ppb          0.674   0.13%
   QC value within limits for Cu 324.752  Recovery = 101.38%
Fe 238.204 Radial†       474.2      5242.5 ug/L         69.07      5242.5 ppb          69.07   1.32%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.85%
K 766.490 Radial†      12849.3      2457.3 ug/L          0.66      2457.3 ppb           0.66   0.03%
   QC value within limits for K 766.490 Radial  Recovery = 98.29%
Mg 279.077 IEC†          131.4      5452.2 ug/L        129.71      5452.2 ppb         129.71   2.38%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.04%
Mn 257.610†           310365.6      513.06 ug/L         0.559      513.06 ppb          0.559   0.11%
   QC value within limits for Mn 257.610  Recovery = 102.61%
Mo 202.031†             5584.2      532.48 ug/L         4.225      532.48 ppb          4.225   0.79%
   QC value within limits for Mo 202.031  Recovery = 106.50%
Na 589.592 Radial†      7843.2      2588.3 ug/L         40.87      2588.3 ppb          40.87   1.58%
   QC value within limits for Na 589.592 Radial  Recovery = 103.53%
Ni 231.604†            15369.1      502.05 ug/L         4.690      502.05 ppb          4.690   0.93%
   QC value within limits for Ni 231.604  Recovery = 100.41%
P 214.914†              4425.6      2424.6 ug/L         16.44      2424.6 ppb          16.44   0.68%
   QC value within limits for P 214.914  Recovery = 96.99%
Pb 220.353†             3020.5      501.56 ug/L         6.461      501.56 ppb          6.461   1.29%
   QC value within limits for Pb 220.353  Recovery = 100.31%
S 181.975 Axial†        1875.3      2464.4 ug/L         22.74      2464.4 ppb          22.74   0.92%
   QC value within limits for S 181.975 Axial  Recovery = 98.58%
Sb 206.836†             1193.7      519.55 ug/L         2.835      519.55 ppb          2.835   0.55%
   QC value within limits for Sb 206.836  Recovery = 103.91%
Se 196.026†             4026.4      2568.1 ug/L         18.44      2568.1 ppb          18.44   0.72%
   QC value within limits for Se 196.026  Recovery = 102.72%
Si 251.611†           128306.4      4892.8 ug/L          5.52      4892.8 ppb           5.52   0.11%
   QC value within limits for Si 251.611  Recovery = 97.86%
Sn 189.927†             2223.3      530.64 ug/L         6.087      530.64 ppb          6.087   1.15%
   QC value within limits for Sn 189.927  Recovery = 106.13%
Sr 421.552†            71283.2      526.79 ug/L         2.704      526.79 ppb          2.704   0.51%
   QC value within limits for Sr 421.552  Recovery = 105.36%
Ti 334.940†           236858.5      498.98 ug/L         0.533      498.98 ppb          0.533   0.11%
   QC value within limits for Ti 334.940  Recovery = 99.80%
Tl 190.801†             1085.9      519.14 ug/L         1.711      519.14 ppb          1.711   0.33%
   QC value within limits for Tl 190.801  Recovery = 103.83%
U 409.014†             13653.1      477.05 ug/L         2.261      477.05 ppb          2.261   0.47%
   QC value within limits for U 409.014  Recovery = 95.41%
V 292.402†             62072.5      510.23 ug/L         0.974      510.23 ppb          0.974   0.19%
   QC value within limits for V 292.402  Recovery = 102.05%
Zn 213.857†            44808.0      502.26 ug/L         1.191      502.26 ppb          1.191   0.24%
   QC value within limits for Zn 213.857  Recovery = 100.45%
SiO2†                 128683.6       10509 ug/L          17.7       10509 ppb           17.7   0.17%
   QC value within limits for SiO2  Recovery = 98.26%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 3/5/2010 16:37:18
Data Type: Reprocessed on 3/5/2010 18:07:36

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	749550.1	749550.1	101.35	%			16:40:28
1	Sc Radial	4381.6	4381.6	99.9	%			16:39:11
1	Y 371.029	670923.9	670923.9	101.22	%			16:40:28
1	Y RADIAL	4627.3	4627.3	100.4	%			16:39:11
1	Ag 328.068†	216.3	14.8	0.0895	ug/L	0.0895	ppb	16:40:28
1	Al 396.153Radial†	-80.1	9.9	9.8618	ug/L	9.8618	ppb	16:39:31
1	As 188.979†	-22.3	4.9	2.2230	ug/L	2.2230	ppb	16:40:48
1	B 249.677†	-155.0	388.0	10.119	ug/L	10.119	ppb	16:40:48
1	Ba 233.527†	19.5	15.3	0.1896	ug/L	0.1896	ppb	16:40:48
1	Be 313.107†	-8991.4	-50.9	-0.0209	ug/L	-0.0209	ppb	16:40:28
1	Ca 317.933Radial†	18.3	2.2	4.2503	ug/L	4.2503	ppb	16:39:31
1	Cd 226.502†	-174.0	11.0	0.1553	ug/L	0.1553	ppb	16:40:48
1	Co 228.616†	-51.6	12.3	0.3826	ug/L	0.3826	ppb	16:40:48
1	Cr 267.716†	65.4	4.2	0.0584	ug/L	0.0584	ppb	16:40:48
1	Cu 324.752†	7367.7	-27.4	-0.1067	ug/L	-0.1067	ppb	16:40:28
1	Fe 238.204 Radial†	10.2	2.6	28.204	ug/L	28.204	ppb	16:39:31
1	K 766.490 Radial†	2507.0	-22.7	-4.3617	ug/L	-4.3617	ppb	16:39:11
1	Mg 279.077 IEC†	0.8	1.0	40.059	ug/L	40.059	ppb	16:39:31
1	Mn 257.610†	438.2	4.1	0.0079	ug/L	0.0079	ppb	16:40:48
1	Mo 202.031†	19.0	1.6	0.1525	ug/L	0.1525	ppb	16:40:48
1	Na 589.592 Radial†	-865.3	43.4	14.306	ug/L	14.306	ppb	16:39:11
1	Ni 231.604†	90.8	-2.9	-0.0946	ug/L	-0.0946	ppb	16:40:48
1	P 214.914†	192.8	-5.1	-2.8702	ug/L	-2.8702	ppb	16:40:48
1	Pb 220.353†	-56.4	0.1	0.0089	ug/L	0.0089	ppb	16:40:48
1	S 181.975 Axial†	42.3	-4.3	-5.6271	ug/L	-5.6271	ppb	16:40:48
1	Sb 206.836†	40.9	11.3	4.7717	ug/L	4.7717	ppb	16:40:48
1	Se 196.026†	-30.8	-8.3	-5.1806	ug/L	-5.1806	ppb	16:40:48
1	Si 251.611†	566.9	12.1	0.4606	ug/L	0.4606	ppb	16:40:48
1	Sn 189.927†	15.5	10.8	2.5638	ug/L	2.5638	ppb	16:40:48
1	Sr 421.552†	39.0	38.0	0.2808	ug/L	0.2808	ppb	16:39:11
1	Ti 334.940†	-1424.9	-43.1	-0.0948	ug/L	-0.0948	ppb	16:40:28
1	Tl 190.801†	-38.5	-5.9	-2.7920	ug/L	-2.7920	ppb	16:40:48
1	U 409.014†	-2484.1	72.3	2.5308	ug/L	2.5308	ppb	16:40:28
1	V 292.402†	-1610.2	83.9	0.6837	ug/L	0.6837	ppb	16:40:28
1	Zn 213.857†	679.2	-7.3	-0.0861	ug/L	-0.0861	ppb	16:40:48
1	SiO2†	590.3	31.6	2.5775	ug/L	2.5775	ppb	16:41:44
2	Sc 361.383	747932.3	747932.3	101.13	%			16:40:53
2	Sc Radial	4460.2	4460.2	102	%			16:39:36
2	Y 371.029	669402.8	669402.8	100.99	%			16:40:53
2	Y RADIAL	4713.0	4713.0	102.3	%			16:39:36
2	Ag 328.068†	131.6	-68.5	-0.3597	ug/L	-0.3597	ppb	16:40:53
2	Al 396.153Radial†	-69.7	21.5	21.457	ug/L	21.457	ppb	16:39:56
2	As 188.979†	-24.0	3.1	1.4162	ug/L	1.4162	ppb	16:41:13
2	B 249.677†	-148.6	394.1	10.279	ug/L	10.279	ppb	16:41:13
2	Ba 233.527†	8.7	4.7	0.0581	ug/L	0.0581	ppb	16:41:13
2	Be 313.107†	-8999.3	-77.9	-0.0315	ug/L	-0.0315	ppb	16:40:53
2	Ca 317.933Radial†	18.0	1.5	2.9832	ug/L	2.9832	ppb	16:39:56
2	Cd 226.502†	-182.5	2.2	0.0295	ug/L	0.0295	ppb	16:41:13
2	Co 228.616†	-55.8	8.0	0.2450	ug/L	0.2450	ppb	16:41:13
2	Cr 267.716†	73.1	11.9	0.1648	ug/L	0.1648	ppb	16:41:13
2	Cu 324.752†	7368.5	-11.0	-0.0434	ug/L	-0.0434	ppb	16:40:53
2	Fe 238.204 Radial†	9.6	1.7	18.830	ug/L	18.830	ppb	16:39:56
2	K 766.490 Radial†	2488.2	-85.5	-16.374	ug/L	-16.374	ppb	16:39:36
2	Mg 279.077 IEC†	2.4	2.5	104.87	ug/L	104.87	ppb	16:39:56
2	Mn 257.610†	425.6	-7.4	-0.0146	ug/L	-0.0146	ppb	16:41:13
2	Mo 202.031†	4.4	-12.7	-1.2130	ug/L	-1.2130	ppb	16:41:13
2	Na 589.592 Radial†	-934.9	-9.8	-3.2464	ug/L	-3.2464	ppb	16:39:36
2	Ni 231.604†	85.4	-8.0	-0.2603	ug/L	-0.2603	ppb	16:41:13

2	P 214.914†	211.0	13.3	7.5877	ug/L	7.5877 ppb	16:41:13
2	Pb 220.353†	-82.4	-25.8	-4.2696	ug/L	-4.2696 ppb	16:41:13
2	S 181.975 Axial†	42.0	-4.5	-5.8829	ug/L	-5.8829 ppb	16:41:13
2	Sb 206.836†	47.1	17.5	7.3380	ug/L	7.3380 ppb	16:41:13
2	Se 196.026†	-17.6	4.7	2.9917	ug/L	2.9917 ppb	16:41:13
2	Si 251.611†	560.8	7.3	0.2922	ug/L	0.2922 ppb	16:41:13
2	Sn 189.927†	14.3	9.6	2.2769	ug/L	2.2769 ppb	16:41:13
2	Sr 421.552†	6.2	5.1	0.0380	ug/L	0.0380 ppb	16:39:36
2	Ti 334.940†	-1325.9	51.7	0.0993	ug/L	0.0993 ppb	16:40:53
2	Tl 190.801†	-30.7	1.7	0.8302	ug/L	0.8302 ppb	16:41:13
2	U 409.014†	-2463.1	87.8	3.0749	ug/L	3.0749 ppb	16:40:53
2	V 292.402†	-1696.3	-4.7	-0.0504	ug/L	-0.0504 ppb	16:40:53
2	Zn 213.857†	681.7	-3.3	-0.0388	ug/L	-0.0388 ppb	16:41:13
2	SiO2†	570.9	13.6	1.1487	ug/L	1.1487 ppb	16:41:49
3	Sc 361.383	744579.9	744579.9	100.68	%		16:41:19
3	Sc Radial	4444.1	4444.1	101	%		16:40:01
3	Y 371.029	665085.7	665085.7	100.34	%		16:41:19
3	Y RADIAL	4694.2	4694.2	101.9	%		16:40:01
3	Ag 328.068†	193.1	-6.8	-0.0319	ug/L	-0.0319 ppb	16:41:19
3	Al 396.153Radial†	-80.5	10.6	10.581	ug/L	10.581 ppb	16:40:21
3	As 188.979†	-31.3	-4.2	-1.9315	ug/L	-1.9315 ppb	16:41:39
3	B 249.677†	-199.8	342.5	8.9344	ug/L	8.9344 ppb	16:41:39
3	Ba 233.527†	-0.3	-4.2	-0.0512	ug/L	-0.0512 ppb	16:41:39
3	Be 313.107†	-9010.0	-128.6	-0.0528	ug/L	-0.0528 ppb	16:41:19
3	Ca 317.933Radial†	16.7	0.4	0.8033	ug/L	0.8033 ppb	16:40:21
3	Cd 226.502†	-174.2	9.6	0.1370	ug/L	0.1370 ppb	16:41:39
3	Co 228.616†	-64.9	-1.3	-0.0395	ug/L	-0.0395 ppb	16:41:39
3	Cr 267.716†	66.6	5.8	0.0802	ug/L	0.0802 ppb	16:41:39
3	Cu 324.752†	7475.0	127.6	0.4983	ug/L	0.4983 ppb	16:41:19
3	Fe 238.204 Radial†	9.1	1.3	14.651	ug/L	14.651 ppb	16:40:21
3	K 766.490 Radial†	2426.3	-137.7	-26.372	ug/L	-26.372 ppb	16:40:01
3	Mg 279.077 IEC†	3.1	3.2	132.16	ug/L	132.16 ppb	16:40:21
3	Mn 257.610†	457.2	25.9	0.0388	ug/L	0.0388 ppb	16:41:39
3	Mo 202.031†	19.2	2.0	0.1885	ug/L	0.1885 ppb	16:41:39
3	Na 589.592 Radial†	-907.4	13.9	4.6010	ug/L	4.6010 ppb	16:40:01
3	Ni 231.604†	86.4	-6.6	-0.2159	ug/L	-0.2159 ppb	16:41:39
3	P 214.914†	205.3	8.6	4.8147	ug/L	4.8147 ppb	16:41:39
3	Pb 220.353†	-63.8	-7.7	-1.2658	ug/L	-1.2658 ppb	16:41:39
3	S 181.975 Axial†	52.2	5.9	7.7492	ug/L	7.7492 ppb	16:41:39
3	Sb 206.836†	29.2	-0.0	0.0334	ug/L	0.0334 ppb	16:41:39
3	Se 196.026†	-27.9	-5.6	-3.4942	ug/L	-3.4942 ppb	16:41:39
3	Si 251.611†	567.3	16.3	0.6190	ug/L	0.6190 ppb	16:41:39
3	Sn 189.927†	15.7	11.0	2.6288	ug/L	2.6288 ppb	16:41:39
3	Sr 421.552†	42.4	40.9	0.3023	ug/L	0.3023 ppb	16:40:01
3	Ti 334.940†	-1471.6	-99.0	-0.2191	ug/L	-0.2191 ppb	16:41:19
3	Tl 190.801†	-38.7	-6.4	-3.0358	ug/L	-3.0358 ppb	16:41:39
3	U 409.014†	-2548.4	-7.9	-0.2789	ug/L	-0.2789 ppb	16:41:19
3	V 292.402†	-1719.3	-35.2	-0.2824	ug/L	-0.2824 ppb	16:41:19
3	Zn 213.857†	671.4	-10.6	-0.1210	ug/L	-0.1210 ppb	16:41:39
3	SiO2†	581.1	26.4	2.1523	ug/L	2.1523 ppb	16:41:54

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	747354.1	101.05	%	0.343				0.34%
Sc Radial	4428.6	101	%	0.9				0.94%
Y 371.029	668470.8	100.85	%	0.457				0.45%
Y RADIAL	4678.2	101.5	%	0.98				0.96%
Ag 328.068†	-20.2	-0.1007	ug/L	0.23236	-0.1007	ppb	0.23236	230.73%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	14.0	13.967	ug/L	6.4971	13.967	ppb	6.4971	46.52%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.2	0.5692	ug/L	2.20292	0.5692	ppb	2.20292	387.00%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	374.9	9.7773	ug/L	0.73436	9.7773	ppb	0.73436	7.51%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.3	0.0655	ug/L	0.12058	0.0655	ppb	0.12058	184.02%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-85.8	-0.0351	ug/L	0.01625	-0.0351	ppb	0.01625	46.32%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          1.4      2.6789 ug/L       1.74356      2.6789 ppb        1.74356  65.08%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                7.6      0.1073 ug/L       0.06798      0.1073 ppb        0.06798  63.36%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                6.3      0.1960 ug/L       0.21529      0.1960 ppb        0.21529 109.81%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                7.3      0.1011 ug/L       0.05619      0.1011 ppb        0.05619  55.55%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               29.8      0.1161 ug/L       0.33250      0.1161 ppb        0.33250 286.48%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.9      20.562 ug/L        6.9404      20.562 ppb         6.9404  33.75%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -82.0     -15.702 ug/L       11.0204     -15.702 ppb        11.0204  70.18%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.2      92.361 ug/L       47.3047      92.361 ppb        47.3047  51.22%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                7.5      0.0107 ug/L       0.02681      0.0107 ppb        0.02681 250.20%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -3.1     -0.2907 ug/L       0.79895     -0.2907 ppb        0.79895 274.85%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        15.8      5.2203 ug/L       8.79281      5.2203 ppb        8.79281 168.43%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -5.8     -0.1902 ug/L       0.08577     -0.1902 ppb        0.08577  45.08%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 5.6      3.1774 ug/L       5.41781      3.1774 ppb        5.41781 170.51%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -11.1     -1.8422 ug/L       2.19671     -1.8422 ppb        2.19671 119.25%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.0     -1.2536 ug/L       7.79770     -1.2536 ppb        7.79770 622.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                9.6      4.0477 ug/L       3.70571      4.0477 ppb        3.70571  91.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.1     -1.8944 ug/L       4.31465     -1.8944 ppb        4.31465 227.76%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               11.9      0.4573 ug/L       0.16345      0.4573 ppb        0.16345  35.74%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               10.4      2.4898 ug/L       0.18724      2.4898 ppb        0.18724   7.52%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               28.0      0.2070 ug/L       0.14679      0.2070 ppb        0.14679  70.90%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -30.1     -0.0715 ug/L       0.16049     -0.0715 ppb        0.16049 224.41%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -3.5     -1.6659 ug/L       2.16507     -1.6659 ppb        2.16507 129.97%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                50.7      1.7756 ug/L       1.79994      1.7756 ppb        1.79994 101.37%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                14.7      0.1170 ug/L       0.50432      0.1170 ppb        0.50432 431.16%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -7.1     -0.0820 ug/L       0.04123     -0.0820 ppb        0.04123  50.30%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     23.9      1.9595 ug/L       0.73367      1.9595 ppb        0.73367  37.44%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 3/5/2010 16:44:06
Data Type: Reprocessed on 3/5/2010 18:07:37

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	752056.7	752056.7	101.69	%			16:47:16
1	Sc Radial	4683.4	4683.4	107	%			16:45:59
1	Y 371.029	673844.7	673844.7	101.66	%			16:47:16
1	Y RADIAL	4924.8	4924.8	106.9	%			16:45:59
1	Ag 328.068†	1207.8	989.1	5.2492	ug/L	5.2492	ppb	16:47:16
1	Al 396.153Radial†	132.8	214.5	212.88	ug/L	212.88	ppb	16:46:19
1	As 188.979†	36.3	62.6	28.515	ug/L	28.515	ppb	16:47:36
1	B 249.677†	1687.1	2200.0	57.376	ug/L	57.376	ppb	16:47:16
1	Ba 233.527†	427.0	416.0	5.0961	ug/L	5.0961	ppb	16:47:36
1	Be 313.107†	3765.3	12523.5	5.1123	ug/L	5.1123	ppb	16:47:16
1	Ca 317.933Radial†	126.6	102.4	197.30	ug/L	197.30	ppb	16:46:19
1	Cd 226.502†	179.9	359.5	5.1772	ug/L	5.1772	ppb	16:47:36
1	Co 228.616†	107.7	169.1	5.2777	ug/L	5.2777	ppb	16:47:36
1	Cr 267.716†	433.2	365.6	5.0688	ug/L	5.0688	ppb	16:47:36
1	Cu 324.752†	9983.2	2520.4	9.7917	ug/L	9.7917	ppb	16:47:16
1	Fe 238.204 Radial†	15.6	7.0	76.810	ug/L	76.810	ppb	16:46:19
1	K 766.490 Radial†	3345.6	601.0	114.91	ug/L	114.91	ppb	16:45:59
1	Mg 279.077 IEC†	6.5	6.2	259.05	ug/L	259.05	ppb	16:46:19
1	Mn 257.610†	6918.4	6375.3	10.530	ug/L	10.530	ppb	16:47:16
1	Mo 202.031†	115.3	96.2	9.1756	ug/L	9.1756	ppb	16:47:36
1	Na 589.592 Radial†	-8.0	902.2	297.73	ug/L	297.73	ppb	16:45:59
1	Ni 231.604†	245.4	148.9	4.8627	ug/L	4.8627	ppb	16:47:36
1	P 214.914†	462.3	259.2	145.97	ug/L	145.97	ppb	16:47:36
1	Pb 220.353†	-6.8	49.0	8.1692	ug/L	8.1692	ppb	16:47:36
1	S 181.975 Axial†	120.6	72.6	95.398	ug/L	95.398	ppb	16:47:36
1	Sb 206.836†	56.7	26.7	11.569	ug/L	11.569	ppb	16:47:36
1	Se 196.026†	26.6	48.3	30.852	ug/L	30.852	ppb	16:47:36
1	Si 251.611†	3209.2	2608.7	99.499	ug/L	99.499	ppb	16:47:36
1	Sn 189.927†	58.6	53.1	12.685	ug/L	12.685	ppb	16:47:36
1	Sr 421.552†	692.3	647.5	4.7839	ug/L	4.7839	ppb	16:45:59
1	Ti 334.940†	1046.1	2391.5	5.0174	ug/L	5.0174	ppb	16:47:16
1	Tl 190.801†	11.4	43.3	20.610	ug/L	20.610	ppb	16:47:36
1	U 409.014†	-884.8	1653.2	57.948	ug/L	57.948	ppb	16:47:16
1	V 292.402†	-1063.3	627.0	5.3092	ug/L	5.3092	ppb	16:47:16
1	Zn 213.857†	1613.6	909.4	10.232	ug/L	10.232	ppb	16:47:36
1	SiO2†	3344.6	2738.2	223.67	ug/L	223.67	ppb	16:48:32
2	Sc 361.383	754685.5	754685.5	102.04	%			16:47:41
2	Sc Radial	4422.9	4422.9	101	%			16:46:24
2	Y 371.029	675231.5	675231.5	101.87	%			16:47:41
2	Y RADIAL	4653.2	4653.2	101.0	%			16:46:24
2	Ag 328.068†	1214.6	991.6	5.2773	ug/L	5.2773	ppb	16:47:41
2	Al 396.153Radial†	129.6	218.6	216.93	ug/L	216.93	ppb	16:46:44
2	As 188.979†	35.1	61.3	27.906	ug/L	27.906	ppb	16:48:01
2	B 249.677†	1678.3	2185.7	56.998	ug/L	56.998	ppb	16:47:41
2	Ba 233.527†	429.3	416.8	5.1059	ug/L	5.1059	ppb	16:48:01
2	Be 313.107†	3601.3	12349.9	5.0418	ug/L	5.0418	ppb	16:47:41
2	Ca 317.933Radial†	123.5	106.4	204.89	ug/L	204.89	ppb	16:46:44
2	Cd 226.502†	166.2	345.5	4.9711	ug/L	4.9711	ppb	16:48:01
2	Co 228.616†	102.0	163.1	5.0908	ug/L	5.0908	ppb	16:48:01
2	Cr 267.716†	435.4	366.3	5.0814	ug/L	5.0814	ppb	16:48:01
2	Cu 324.752†	9909.3	2413.8	9.3813	ug/L	9.3813	ppb	16:47:41
2	Fe 238.204 Radial†	17.3	9.4	103.97	ug/L	103.97	ppb	16:46:44
2	K 766.490 Radial†	3306.9	747.2	142.89	ug/L	142.89	ppb	16:46:24
2	Mg 279.077 IEC†	11.6	11.7	484.41	ug/L	484.41	ppb	16:46:44
2	Mn 257.610†	6820.9	6256.0	10.326	ug/L	10.326	ppb	16:47:41
2	Mo 202.031†	122.6	103.0	9.8259	ug/L	9.8259	ppb	16:48:01
2	Na 589.592 Radial†	-18.7	891.1	294.07	ug/L	294.07	ppb	16:46:24
2	Ni 231.604†	247.6	150.2	4.9075	ug/L	4.9075	ppb	16:48:01

2	P 214.914†	474.2	269.3	151.78 ug/L	151.78 ppb	16:48:01
2	Pb 220.353†	-1.5	54.2	9.0376 ug/L	9.0376 ppb	16:48:01
2	S 181.975 Axial†	120.5	72.1	94.712 ug/L	94.712 ppb	16:48:01
2	Sb 206.836†	49.1	19.1	8.3923 ug/L	8.3923 ppb	16:48:01
2	Se 196.026†	23.1	44.8	28.687 ug/L	28.687 ppb	16:48:01
2	Si 251.611†	3195.5	2584.2	98.558 ug/L	98.558 ppb	16:48:01
2	Sn 189.927†	59.2	53.4	12.763 ug/L	12.763 ppb	16:48:01
2	Sr 421.552†	673.1	666.6	4.9251 ug/L	4.9251 ppb	16:46:24
2	Ti 334.940†	1100.3	2441.0	5.1072 ug/L	5.1072 ppb	16:47:41
2	Tl 190.801†	10.9	42.7	20.361 ug/L	20.361 ppb	16:48:01
2	U 409.014†	-1072.1	1472.7	51.616 ug/L	51.616 ppb	16:47:41
2	V 292.402†	-1075.9	618.3	5.2363 ug/L	5.2363 ppb	16:47:41
2	Zn 213.857†	1609.9	900.2	10.125 ug/L	10.125 ppb	16:48:01
2	SiO2†	3337.9	2720.2	222.18 ug/L	222.18 ppb	16:48:37
3	Sc 361.383	749650.1	749650.1	101.36 %		16:48:07
3	Sc Radial	4473.4	4473.4	102 %		16:46:49
3	Y 371.029	670789.6	670789.6	101.20 %		16:48:07
3	Y RADIAL	4723.6	4723.6	102.5 %		16:46:49
3	Ag 328.068†	1179.4	964.9	5.1435 ug/L	5.1435 ppb	16:48:07
3	Al 396.153Radial†	133.8	221.3	219.69 ug/L	219.69 ppb	16:47:09
3	As 188.979†	44.9	71.2	32.434 ug/L	32.434 ppb	16:48:27
3	B 249.677†	1600.3	2119.8	55.272 ug/L	55.272 ppb	16:48:07
3	Ba 233.527†	434.6	424.9	5.2057 ug/L	5.2057 ppb	16:48:27
3	Be 313.107†	3513.5	12287.0	5.0159 ug/L	5.0159 ppb	16:48:07
3	Ca 317.933Radial†	129.7	111.1	213.99 ug/L	213.99 ppb	16:47:09
3	Cd 226.502†	166.8	347.2	4.9934 ug/L	4.9934 ppb	16:48:27
3	Co 228.616†	113.4	175.0	5.4617 ug/L	5.4617 ppb	16:48:27
3	Cr 267.716†	416.8	350.7	4.8655 ug/L	4.8655 ppb	16:48:27
3	Cu 324.752†	9976.0	2544.8	9.8926 ug/L	9.8926 ppb	16:48:07
3	Fe 238.204 Radial†	19.8	11.7	129.32 ug/L	129.32 ppb	16:47:09
3	K 766.490 Radial†	3349.9	752.3	143.88 ug/L	143.88 ppb	16:46:49
3	Mg 279.077 IEC†	10.1	10.1	418.52 ug/L	418.52 ppb	16:47:09
3	Mn 257.610†	6813.6	6293.7	10.394 ug/L	10.394 ppb	16:48:07
3	Mo 202.031†	116.3	97.6	9.3094 ug/L	9.3094 ppb	16:48:27
3	Na 589.592 Radial†	-6.8	903.0	297.98 ug/L	297.98 ppb	16:46:49
3	Ni 231.604†	261.1	165.1	5.3932 ug/L	5.3932 ppb	16:48:27
3	P 214.914†	474.8	273.1	153.77 ug/L	153.77 ppb	16:48:27
3	Pb 220.353†	-4.8	51.0	8.4969 ug/L	8.4969 ppb	16:48:27
3	S 181.975 Axial†	126.0	78.3	102.96 ug/L	102.96 ppb	16:48:27
3	Sb 206.836†	56.7	26.8	11.607 ug/L	11.607 ppb	16:48:27
3	Se 196.026†	26.5	48.3	30.953 ug/L	30.953 ppb	16:48:27
3	Si 251.611†	3200.9	2610.6	99.572 ug/L	99.572 ppb	16:48:27
3	Sn 189.927†	51.9	46.6	11.146 ug/L	11.146 ppb	16:48:27
3	Sr 421.552†	676.9	662.8	4.8971 ug/L	4.8971 ppb	16:46:49
3	Ti 334.940†	1028.2	2377.2	4.9790 ug/L	4.9790 ppb	16:48:07
3	Tl 190.801†	15.5	47.4	22.567 ug/L	22.567 ppb	16:48:27
3	U 409.014†	-1039.3	1498.0	52.501 ug/L	52.501 ppb	16:48:07
3	V 292.402†	-1086.5	600.7	5.0833 ug/L	5.0833 ppb	16:48:07
3	Zn 213.857†	1597.7	898.8	10.101 ug/L	10.101 ppb	16:48:27
3	SiO2†	3316.4	2720.9	222.25 ug/L	222.25 ppb	16:48:42

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	752130.7	101.70	%	0.341				0.33%
Sc Radial	4526.6	103	%	3.1				3.05%
Y 371.029	673288.6	101.58	%	0.343				0.34%
Y RADIAL	4767.2	103.4	%	3.06				2.96%
Ag 328.068†	981.9	5.2233	ug/L	0.07058	5.2233	ppb	0.07058	1.35%
QC value within limits for Ag 328.068 Recovery = 104.47%								
Al 396.153Radial†	218.1	216.50	ug/L	3.422	216.50	ppb	3.422	1.58%
QC value within limits for Al 396.153Radial Recovery = 108.25%								
As 188.979†	65.0	29.619	ug/L	2.4573	29.619	ppb	2.4573	8.30%
QC value within limits for As 188.979 Recovery = 98.73%								
B 249.677†	2168.5	56.549	ug/L	1.1215	56.549	ppb	1.1215	1.98%
QC value within limits for B 249.677 Recovery = 113.10%								
Ba 233.527†	419.2	5.1359	ug/L	0.06064	5.1359	ppb	0.06064	1.18%
QC value within limits for Ba 233.527 Recovery = 102.72%								
Be 313.107†	12386.8	5.0567	ug/L	0.04988	5.0567	ppb	0.04988	0.99%
QC value within limits for Be 313.107 Recovery = 101.13%								

Ca 317.933Radial†	106.6	205.39 ug/L	8.359	205.39 ppb	8.359	4.07%
QC value within limits for Ca 317.933Radial Recovery = 102.70%						
Cd 226.502†	350.7	5.0473 ug/L	0.11309	5.0473 ppb	0.11309	2.24%
QC value within limits for Cd 226.502 Recovery = 100.95%						
Co 228.616†	169.1	5.2768 ug/L	0.18549	5.2768 ppb	0.18549	3.52%
QC value within limits for Co 228.616 Recovery = 105.54%						
Cr 267.716†	360.9	5.0052 ug/L	0.12116	5.0052 ppb	0.12116	2.42%
QC value within limits for Cr 267.716 Recovery = 100.10%						
Cu 324.752†	2493.0	9.6885 ug/L	0.27081	9.6885 ppb	0.27081	2.80%
QC value within limits for Cu 324.752 Recovery = 96.89%						
Fe 238.204 Radial†	9.4	103.37 ug/L	26.261	103.37 ppb	26.261	25.41%
QC value within limits for Fe 238.204 Radial Recovery = 103.37%						
K 766.490 Radial†	700.2	133.89 ug/L	16.447	133.89 ppb	16.447	12.28%
QC value within limits for K 766.490 Radial Recovery = 89.26%						
Mg 279.077 IEC†	9.3	387.33 ug/L	115.877	387.33 ppb	115.877	29.92%
QC value within limits for Mg 279.077 IEC Recovery = 129.11%						
Mn 257.610†	6308.3	10.417 ug/L	0.1037	10.417 ppb	0.1037	1.00%
QC value within limits for Mn 257.610 Recovery = 104.17%						
Mo 202.031†	98.9	9.4370 ug/L	0.34338	9.4370 ppb	0.34338	3.64%
QC value within limits for Mo 202.031 Recovery = 94.37%						
Na 589.592 Radial†	898.8	296.59 ug/L	2.190	296.59 ppb	2.190	0.74%
QC value within limits for Na 589.592 Radial Recovery = 98.86%						
Ni 231.604†	154.7	5.0545 ug/L	0.29421	5.0545 ppb	0.29421	5.82%
QC value within limits for Ni 231.604 Recovery = 101.09%						
P 214.914†	267.2	150.51 ug/L	4.052	150.51 ppb	4.052	2.69%
QC value within limits for P 214.914 Recovery = 100.34%						
Pb 220.353†	51.4	8.5679 ug/L	0.43854	8.5679 ppb	0.43854	5.12%
QC value within limits for Pb 220.353 Recovery = 85.68%						
S 181.975 Axial†	74.3	97.690 ug/L	4.5758	97.690 ppb	4.5758	4.68%
QC value within limits for S 181.975 Axial Recovery = 97.69%						
Sb 206.836†	24.2	10.523 ug/L	1.8450	10.523 ppb	1.8450	17.53%
QC value within limits for Sb 206.836 Recovery = 105.23%						
Se 196.026†	47.1	30.164 ug/L	1.2800	30.164 ppb	1.2800	4.24%
QC value within limits for Se 196.026 Recovery = 100.55%						
Si 251.611†	2601.2	99.210 ug/L	0.5653	99.210 ppb	0.5653	0.57%
QC value within limits for Si 251.611 Recovery = 99.21%						
Sn 189.927†	51.0	12.198 ug/L	0.9118	12.198 ppb	0.9118	7.48%
QC value within limits for Sn 189.927 Recovery = 121.98%						
Sr 421.552†	659.0	4.8687 ug/L	0.07480	4.8687 ppb	0.07480	1.54%
QC value within limits for Sr 421.552 Recovery = 97.37%						
Ti 334.940†	2403.2	5.0346 ug/L	0.06580	5.0346 ppb	0.06580	1.31%
QC value within limits for Ti 334.940 Recovery = 100.69%						
Tl 190.801†	44.5	21.179 ug/L	1.2082	21.179 ppb	1.2082	5.70%
QC value within limits for Tl 190.801 Recovery = 105.90%						
U 409.014†	1541.3	54.022 ug/L	3.4291	54.022 ppb	3.4291	6.35%
QC value within limits for U 409.014 Recovery = 108.04%						
V 292.402†	615.3	5.2096 ug/L	0.11528	5.2096 ppb	0.11528	2.21%
QC value within limits for V 292.402 Recovery = 104.19%						
Zn 213.857†	902.8	10.153 ug/L	0.0698	10.153 ppb	0.0698	0.69%
QC value within limits for Zn 213.857 Recovery = 101.53%						
SiO2†	2726.4	222.70 ug/L	0.840	222.70 ppb	0.840	0.38%
QC value within limits for SiO2 Recovery = 104.55%						

All analyte(s) passed QC.

Sequence No.: 9
Sample ID: ICSA
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 3/5/2010 16:50:54
Data Type: Reprocessed on 3/5/2010 18:07:38

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	693476.9	693476.9	93.768	%			16:53:20
1	Sc Radial	4063.2	4063.2	92.6	%			16:52:53
1	Y 371.029	607027.6	607027.6	91.582	%			16:53:20
1	Y RADIAL	4253.0	4253.0	92.29	%			16:52:53
1	Ag 328.068†	-10537.9	-11436.8	0.4965	ug/L	0.4965	ppb	16:53:20
1	Al 396.153Radial†	496506.5	536132.1	533210	ug/L	533210	ppb	16:52:48
1	As 188.979†	-85.2	-64.0	14.426	ug/L	14.426	ppb	16:53:40
1	B 249.677†	216.1	771.4	-10.164	ug/L	-10.164	ppb	16:53:20
1	Ba 233.527†	-503.8	-541.2	-0.9022	ug/L	-0.9022	ppb	16:53:40
1	Be 313.107†	-9260.2	-1054.9	-0.4859	ug/L	-0.4859	ppb	16:53:20
1	Ca 317.933Radial†	236439.4	255250.4	491640	ug/L	491640	ppb	16:52:48
1	Cd 226.502†	1130.3	1388.0	0.7097	ug/L	0.7097	ppb	16:53:40
1	Co 228.616†	-25.6	35.9	-1.5744	ug/L	-1.5744	ppb	16:53:40
1	Cr 267.716†	-73.3	-138.6	1.6498	ug/L	1.6498	ppb	16:53:40
1	Cu 324.752†	4819.5	-2157.2	1.4365	ug/L	1.4365	ppb	16:53:20
1	Fe 238.204 Radial†	15680.3	16921.2	186520	ug/L	186520	ppb	16:52:53
1	K 766.490 Radial†	2366.2	22.0	-160.24	ug/L	-160.24	ppb	16:52:53
1	Mg 279.077 IEC†	10964.9	11838.2	490900	ug/L	490900	ppb	16:52:53
1	Mn 257.610†	-859.4	-1344.8	-3.8797	ug/L	-3.8797	ppb	16:53:20
1	Mo 202.031†	-187.2	-216.8	-0.3273	ug/L	-0.3273	ppb	16:53:40
1	Na 589.592 Radial†	-779.3	68.3	22.532	ug/L	22.532	ppb	16:52:53
1	Ni 231.604†	164.9	83.4	2.7257	ug/L	2.7257	ppb	16:53:40
1	P 214.914†	179.9	-3.4	-18.252	ug/L	-18.252	ppb	16:53:40
1	Pb 220.353†	-722.5	-714.8	3.4198	ug/L	3.4198	ppb	16:53:40
1	S 181.975 Axial†	76.7	35.8	-52.902	ug/L	-52.902	ppb	16:53:40
1	Sb 206.836†	58.2	33.0	-4.0680	ug/L	-4.0680	ppb	16:53:40
1	Se 196.026†	-795.2	-825.9	-55.613	ug/L	-55.613	ppb	16:53:40
1	Si 251.611†	492.9	-21.5	-0.5682	ug/L	-0.5682	ppb	16:53:40
1	Sn 189.927†	-284.0	-307.4	3.3545	ug/L	3.3545	ppb	16:53:40
1	Sr 421.552†	465.6	501.6	0.0364	ug/L	0.0364	ppb	16:52:53
1	Ti 334.940†	-12311.4	-11766.8	1.0098	ug/L	1.0098	ppb	16:53:20
1	Tl 190.801†	-65.9	-38.2	-18.374	ug/L	-18.374	ppb	16:53:40
1	U 409.014†	-864.6	1601.3	34.889	ug/L	34.889	ppb	16:53:20
1	V 292.402†	272.8	1963.5	-1.9212	ug/L	-1.9212	ppb	16:53:40
1	Zn 213.857†	2882.9	2397.0	-0.7996	ug/L	-0.7996	ppb	16:53:40
1	SiO2†	550.1	35.8	3.4892	ug/L	3.4892	ppb	16:54:36
2	Sc 361.383	664736.6	664736.6	89.882	%			16:53:45
2	Sc Radial	4105.3	4105.3	93.6	%			16:53:03
2	Y 371.029	582159.6	582159.6	87.830	%			16:53:45
2	Y RADIAL	4306.7	4306.7	93.46	%			16:53:03
2	Ag 328.068†	-10569.4	-11957.8	-1.8142	ug/L	-1.8142	ppb	16:53:45
2	Al 396.153Radial†	491881.7	525689.9	522820	ug/L	522820	ppb	16:52:58
2	As 188.979†	-76.0	-57.7	17.502	ug/L	17.502	ppb	16:54:05
2	B 249.677†	204.8	768.8	-10.379	ug/L	-10.379	ppb	16:53:45
2	Ba 233.527†	-516.0	-578.0	-1.3259	ug/L	-1.3259	ppb	16:54:05
2	Be 313.107†	-9193.8	-1408.0	-0.6333	ug/L	-0.6333	ppb	16:53:45
2	Ca 317.933Radial†	234247.6	250288.9	482080	ug/L	482080	ppb	16:52:58
2	Cd 226.502†	1135.6	1446.0	1.4512	ug/L	1.4512	ppb	16:54:05
2	Co 228.616†	-30.1	29.6	-1.7815	ug/L	-1.7815	ppb	16:54:05
2	Cr 267.716†	-45.7	-111.3	2.0445	ug/L	2.0445	ppb	16:54:05
2	Cu 324.752†	4866.1	-1883.1	2.5502	ug/L	2.5502	ppb	16:53:45
2	Fe 238.204 Radial†	15919.7	17003.3	187420	ug/L	187420	ppb	16:53:03
2	K 766.490 Radial†	2445.6	80.6	-145.82	ug/L	-145.82	ppb	16:53:03
2	Mg 279.077 IEC†	11120.5	11883.0	492760	ug/L	492760	ppb	16:53:03
2	Mn 257.610†	-1103.2	-1655.6	-4.3798	ug/L	-4.3798	ppb	16:53:45
2	Mo 202.031†	-185.4	-223.4	-0.9989	ug/L	-0.9989	ppb	16:54:05
2	Na 589.592 Radial†	-762.6	94.8	31.298	ug/L	31.298	ppb	16:53:03
2	Ni 231.604†	157.6	82.9	2.7099	ug/L	2.7099	ppb	16:54:05

2	P 214.914†	160.1	-17.2	-29.762 ug/L	-29.762 ppb	16:54:05
2	Pb 220.353†	-705.0	-728.7	-1.6086 ug/L	-1.6086 ppb	16:54:05
2	S 181.975 Axial†	52.7	12.7	-81.343 ug/L	-81.343 ppb	16:54:05
2	Sb 206.836†	62.9	40.9	-0.6352 ug/L	-0.6352 ppb	16:54:05
2	Se 196.026†	-789.8	-856.6	-74.038 ug/L	-74.038 ppb	16:54:05
2	Si 251.611†	536.6	49.8	2.1640 ug/L	2.1640 ppb	16:54:05
2	Sn 189.927†	-314.3	-354.2	-9.5678 ug/L	-9.5678 ppb	16:54:05
2	Sr 421.552†	481.9	514.0	0.1988 ug/L	0.1988 ppb	16:53:03
2	Ti 334.940†	-12473.0	-12514.3	-2.0003 ug/L	-2.0003 ppb	16:53:45
2	Tl 190.801†	-74.8	-51.1	-24.535 ug/L	-24.535 ppb	16:54:05
2	U 409.014†	-742.5	1697.2	38.149 ug/L	38.149 ppb	16:53:45
2	V 292.402†	216.6	1913.6	-2.4232 ug/L	-2.4232 ppb	16:54:05
2	Zn 213.857†	2866.5	2511.8	0.3618 ug/L	0.3618 ppb	16:54:05
2	SiO2†	470.7	-27.2	-1.6426 ug/L	-1.6426 ppb	16:54:41
3	Sc 361.383	690869.2	690869.2	93.416 %		16:54:11
3	Sc Radial	4072.2	4072.2	92.8 %		16:53:13
3	Y 371.029	605036.1	605036.1	91.282 %		16:54:11
3	Y RADIAL	4281.9	4281.9	92.92 %		16:53:13
3	Ag 328.068†	-10419.0	-11352.0	1.3182 ug/L	1.3182 ppb	16:54:11
3	Al 396.153Radial†	500742.2	539505.6	536560 ug/L	536560 ppb	16:53:08
3	As 188.979†	-67.3	-45.2	23.237 ug/L	23.237 ppb	16:54:31
3	B 249.677†	230.6	787.9	-9.9217 ug/L	-9.9217 ppb	16:54:11
3	Ba 233.527†	-560.9	-604.4	-1.6407 ug/L	-1.6407 ppb	16:54:31
3	Be 313.107†	-9081.0	-900.3	-0.4235 ug/L	-0.4235 ppb	16:54:11
3	Ca 317.933Radial†	238572.8	256982.1	494970 ug/L	494970 ppb	16:53:08
3	Cd 226.502†	1133.3	1395.8	0.7027 ug/L	0.7027 ppb	16:54:31
3	Co 228.616†	-32.4	28.5	-1.8193 ug/L	-1.8193 ppb	16:54:31
3	Cr 267.716†	-81.1	-147.2	1.5500 ug/L	1.5500 ppb	16:54:31
3	Cu 324.752†	4804.4	-2153.9	1.5100 ug/L	1.5100 ppb	16:54:11
3	Fe 238.204 Radial†	15812.5	17026.0	187670 ug/L	187670 ppb	16:53:13
3	K 766.490 Radial†	2337.2	-15.0	-168.43 ug/L	-168.43 ppb	16:53:13
3	Mg 279.077 IEC†	11041.6	11894.5	493230 ug/L	493230 ppb	16:53:13
3	Mn 257.610†	-1053.9	-1556.4	-4.2106 ug/L	-4.2106 ppb	16:54:11
3	Mo 202.031†	-182.4	-212.4	0.2255 ug/L	0.2255 ppb	16:54:31
3	Na 589.592 Radial†	-714.4	140.1	46.242 ug/L	46.242 ppb	16:53:13
3	Ni 231.604†	171.9	91.6	2.9919 ug/L	2.9919 ppb	16:54:31
3	P 214.914†	181.7	-0.8	-16.913 ug/L	-16.913 ppb	16:54:31
3	Pb 220.353†	-724.3	-719.6	3.4030 ug/L	3.4030 ppb	16:54:31
3	S 181.975 Axial†	59.7	17.9	-76.977 ug/L	-76.977 ppb	16:54:31
3	Sb 206.836†	78.0	54.5	4.7634 ug/L	4.7634 ppb	16:54:31
3	Se 196.026†	-787.7	-821.1	-49.673 ug/L	-49.673 ppb	16:54:31
3	Si 251.611†	494.8	-17.5	-0.4211 ug/L	-0.4211 ppb	16:54:31
3	Sn 189.927†	-305.1	-331.2	-1.7894 ug/L	-1.7894 ppb	16:54:31
3	Sr 421.552†	478.4	514.4	0.1056 ug/L	0.1056 ppb	16:53:13
3	Ti 334.940†	-12372.5	-11881.8	1.0239 ug/L	1.0239 ppb	16:54:11
3	Tl 190.801†	-63.2	-35.6	-17.161 ug/L	-17.161 ppb	16:54:31
3	U 409.014†	-839.2	1625.0	35.590 ug/L	35.590 ppb	16:54:11
3	V 292.402†	177.4	1862.5	-2.8560 ug/L	-2.8560 ppb	16:54:31
3	Zn 213.857†	2845.0	2368.1	-1.3014 ug/L	-1.3014 ppb	16:54:31
3	SiO2†	476.9	-40.3	-2.7460 ug/L	-2.7460 ppb	16:54:46

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	683027.6	92.355	%	2.1491				2.33%
Sc Radial	4080.2	93.0	%	0.51				0.54%
Y 371.029	598074.4	90.231	%	2.0848				2.31%
Y RADIAL	4280.5	92.89	%	0.582				0.63%
Ag 328.068†	-11582.2	0.0002	ug/L	1.62411	0.0002	ppb	1.62411	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	533775.9	530860	ug/L	7163.6	530860	ppb	7163.6	1.35%
QC value within limits for Al 396.153Radial Recovery = 106.17%								
As 188.979†	-55.6	18.389	ug/L	4.4719	18.389	ppb	4.4719	24.32%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	776.0	-10.155	ug/L	0.2288	-10.155	ppb	0.2288	2.25%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-574.5	-1.2896	ug/L	0.37056	-1.2896	ppb	0.37056	28.73%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1121.0	-0.5143	ug/L	0.10774	-0.5143	ppb	0.10774	20.95%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†     254173.8      489560 ug/L        6691.3      489560 ppb        6691.3   1.37%
   QC value within limits for Ca 317.933Radial  Recovery = 97.91%
Cd 226.502†             1410.0      0.9546 ug/L       0.43016      0.9546 ppb       0.43016  45.06%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               31.3     -1.7251 ug/L       0.13188     -1.7251 ppb       0.13188   7.64%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -132.4      1.7481 ug/L       0.26148      1.7481 ppb       0.26148  14.96%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -2064.7      1.8323 ug/L       0.62287      1.8323 ppb       0.62287  33.99%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     16983.5      187200 ug/L         608.1      187200 ppb         608.1   0.32%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.60%
K 766.490 Radial†         29.2     -158.16 ug/L        11.450     -158.16 ppb        11.450   7.24%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        11871.9      492300 ug/L        1232.6      492300 ppb        1232.6   0.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.46%
Mn 257.610†            -1518.9     -4.1567 ug/L       0.25437     -4.1567 ppb       0.25437   6.12%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -217.5     -0.3669 ug/L       0.61317     -0.3669 ppb       0.61317 167.12%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       101.1      33.358 ug/L       11.9883      33.358 ppb       11.9883  35.94%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               86.0      2.8092 ug/L       0.15845      2.8092 ppb       0.15845   5.64%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -7.2     -21.642 ug/L        7.0637     -21.642 ppb        7.0637  32.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -721.1      1.7381 ug/L       2.89829      1.7381 ppb       2.89829 166.75%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          22.1     -70.408 ug/L       15.3166     -70.408 ppb       15.3166  21.75%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               42.8      0.0201 ug/L       4.45199      0.0201 ppb       4.45199 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -834.5     -59.775 ug/L       12.7047     -59.775 ppb       12.7047  21.25%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                3.6      0.3916 ug/L       1.53669      0.3916 ppb       1.53669 392.44%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -330.9     -2.6676 ug/L       6.50573     -2.6676 ppb       6.50573 243.88%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              510.0      0.1136 ug/L       0.08153      0.1136 ppb       0.08153  71.77%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           -12054.3      0.0111 ug/L       1.74196      0.0111 ppb       1.74196 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -41.6     -20.023 ug/L        3.9543     -20.023 ppb        3.9543  19.75%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              1641.1      36.209 ug/L        1.7161      36.209 ppb        1.7161   4.74%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              1913.2     -2.4001 ug/L       0.46784     -2.4001 ppb       0.46784  19.49%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             2425.7     -0.5798 ug/L       0.85315     -0.5798 ppb       0.85315 147.16%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -10.6     -0.2998 ug/L       3.32744     -0.2998 ppb       3.32744 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 3/5/2010 16:56:58
Data Type: Reprocessed on 3/5/2010 18:07:39

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	703878.8	703878.8	95.175	%			17:00:09
1	Sc Radial	4081.7	4081.7	93.0	%			16:59:10
1	Y 371.029	614596.2	614596.2	92.724	%			17:00:09
1	Y RADIAL	4295.9	4295.9	93.22	%			16:59:10
1	Ag 328.068†	39083.7	40866.5	280.39	ug/L	280.39	ppb	17:00:09
1	Al 396.153Radial†	494257.6	531285.6	528360	ug/L	528360	ppb	16:58:50
1	As 188.979†	980.7	1057.3	528.08	ug/L	528.08	ppb	17:00:29
1	B 249.677†	19489.9	21019.0	516.55	ug/L	516.55	ppb	17:00:09
1	Ba 233.527†	38993.9	40966.9	507.37	ug/L	507.37	ppb	17:00:09
1	Be 313.107†	557122.6	594188.5	243.15	ug/L	243.15	ppb	17:00:09
1	Ca 317.933Radial†	234877.8	252415.1	486170	ug/L	486170	ppb	16:58:50
1	Cd 226.502†	31411.0	33186.1	458.27	ug/L	458.27	ppb	17:00:29
1	Co 228.616†	14331.5	15121.2	468.40	ug/L	468.40	ppb	17:00:29
1	Cr 267.716†	33076.8	34693.3	486.52	ug/L	486.52	ppb	17:00:09
1	Cu 324.752†	148239.0	148457.5	588.05	ug/L	588.05	ppb	17:00:09
1	Fe 238.204 Radial†	15879.0	17058.0	188040	ug/L	188040	ppb	16:59:10
1	K 766.490 Radial†	28814.6	28435.4	5280.4	ug/L	5280.4	ppb	16:58:50
1	Mg 279.077 IEC†	11135.8	11968.2	496300	ug/L	496300	ppb	16:59:10
1	Mn 257.610†	291698.0	306058.4	503.93	ug/L	503.93	ppb	17:00:09
1	Mo 202.031†	4686.3	4906.8	487.86	ug/L	487.86	ppb	17:00:29
1	Na 589.592 Radial†	14464.6	16455.3	5430.3	ug/L	5430.3	ppb	16:58:50
1	Ni 231.604†	13471.9	14062.4	459.36	ug/L	459.36	ppb	17:00:29
1	P 214.914†	4450.8	4481.1	2424.3	ug/L	2424.3	ppb	17:00:29
1	Pb 220.353†	2061.6	2221.8	488.67	ug/L	488.67	ppb	17:00:29
1	S 181.975 Axial†	1952.7	2005.7	2537.9	ug/L	2537.9	ppb	17:00:29
1	Sb 206.836†	1320.3	1358.2	569.37	ug/L	569.37	ppb	17:00:29
1	Se 196.026†	3127.1	3307.8	2571.1	ug/L	2571.1	ppb	17:00:29
1	Si 251.611†	137222.5	143632.2	5478.9	ug/L	5478.9	ppb	17:00:09
1	Sn 189.927†	1691.1	1772.2	498.07	ug/L	498.07	ppb	17:00:29
1	Sr 421.552†	62955.8	67659.7	496.42	ug/L	496.42	ppb	16:58:50
1	Ti 334.940†	224732.9	237489.3	524.68	ug/L	524.68	ppb	17:00:09
1	Tl 190.801†	955.3	1035.9	495.53	ug/L	495.53	ppb	17:00:29
1	U 409.014†	13038.0	16222.3	546.32	ug/L	546.32	ppb	17:00:09
1	V 292.402†	58961.5	63623.4	504.92	ug/L	504.92	ppb	17:00:09
1	Zn 213.857†	45609.3	47244.1	502.64	ug/L	502.64	ppb	17:00:09
1	SiO2†	135938.8	142279.8	11622	ug/L	11622	ppb	17:01:26
2	Sc 361.383	704836.6	704836.6	95.304	%			17:00:35
2	Sc Radial	4071.7	4071.7	92.8	%			16:59:36
2	Y 371.029	615971.8	615971.8	92.932	%			17:00:35
2	Y RADIAL	4285.9	4285.9	93.00	%			16:59:36
2	Ag 328.068†	39038.7	40763.5	279.58	ug/L	279.58	ppb	17:00:35
2	Al 396.153Radial†	504545.4	543677.4	540690	ug/L	540690	ppb	16:59:16
2	As 188.979†	978.9	1054.0	526.48	ug/L	526.48	ppb	17:00:55
2	B 249.677†	19409.8	20907.1	513.69	ug/L	513.69	ppb	17:00:35
2	Ba 233.527†	38857.2	40767.8	504.93	ug/L	504.93	ppb	17:00:35
2	Be 313.107†	555907.8	592118.4	242.30	ug/L	242.30	ppb	17:00:35
2	Ca 317.933Radial†	239291.7	257792.0	496530	ug/L	496530	ppb	16:59:16
2	Cd 226.502†	31252.1	32974.6	455.26	ug/L	455.26	ppb	17:00:55
2	Co 228.616†	14293.7	15061.1	466.54	ug/L	466.54	ppb	17:00:55
2	Cr 267.716†	32886.6	34446.6	483.08	ug/L	483.08	ppb	17:00:35
2	Cu 324.752†	148254.5	148262.1	587.27	ug/L	587.27	ppb	17:00:35
2	Fe 238.204 Radial†	15813.6	17029.6	187730	ug/L	187730	ppb	16:59:36
2	K 766.490 Radial†	29221.4	28949.9	5375.4	ug/L	5375.4	ppb	16:59:16
2	Mg 279.077 IEC†	11098.4	11957.3	495850	ug/L	495850	ppb	16:59:36
2	Mn 257.610†	290999.0	304908.5	502.01	ug/L	502.01	ppb	17:00:35
2	Mo 202.031†	4677.7	4891.1	486.46	ug/L	486.46	ppb	17:00:55
2	Na 589.592 Radial†	14741.1	16791.5	5541.2	ug/L	5541.2	ppb	16:59:16
2	Ni 231.604†	13430.9	14000.3	457.33	ug/L	457.33	ppb	17:00:55

2	P 214.914†	4406.1	4427.9	2397.5 ug/L	2397.5 ppb	17:00:55
2	Pb 220.353†	2047.1	2203.7	488.84 ug/L	488.84 ppb	17:00:55
2	S 181.975 Axial†	1937.9	1987.4	2511.5 ug/L	2511.5 ppb	17:00:55
2	Sb 206.836†	1292.0	1326.6	555.88 ug/L	555.88 ppb	17:00:55
2	Se 196.026†	3111.3	3286.7	2558.2 ug/L	2558.2 ppb	17:00:55
2	Si 251.611†	136859.9	143055.9	5456.9 ug/L	5456.9 ppb	17:00:35
2	Sn 189.927†	1716.8	1796.8	505.79 ug/L	505.79 ppb	17:00:55
2	Sr 421.552†	63899.7	68843.3	505.09 ug/L	505.09 ppb	16:59:16
2	Ti 334.940†	224232.6	236643.5	524.32 ug/L	524.32 ppb	17:00:35
2	Tl 190.801†	942.6	1021.2	488.54 ug/L	488.54 ppb	17:00:55
2	U 409.014†	13125.0	16294.9	548.91 ug/L	548.91 ppb	17:00:35
2	V 292.402†	58821.0	63391.7	503.07 ug/L	503.07 ppb	17:00:35
2	Zn 213.857†	45475.9	47039.1	500.38 ug/L	500.38 ppb	17:00:35
2	SiO2†	134122.0	140179.4	11450 ug/L	11450 ppb	17:01:31
3	Sc 361.383	699563.2	699563.2	94.591 %		17:01:01
3	Sc Radial	4129.6	4129.6	94.1 %		17:00:01
3	Y 371.029	611873.5	611873.5	92.313 %		17:01:01
3	Y RADIAL	4326.4	4326.4	93.88 %		17:00:01
3	Ag 328.068†	38729.8	40745.8	279.05 ug/L	279.05 ppb	17:01:01
3	Al 396.153Radial†	498420.2	529550.8	526640 ug/L	526640 ppb	16:59:41
3	As 188.979†	991.7	1075.3	535.74 ug/L	535.74 ppb	17:01:21
3	B 249.677†	19383.7	21033.1	517.23 ug/L	517.23 ppb	17:01:01
3	Ba 233.527†	38611.3	40815.2	505.46 ug/L	505.46 ppb	17:01:01
3	Be 313.107†	553995.3	594493.6	243.27 ug/L	243.27 ppb	17:01:01
3	Ca 317.933Radial†	236377.3	251082.2	483610 ug/L	483610 ppb	16:59:41
3	Cd 226.502†	31483.8	33466.7	462.52 ug/L	462.52 ppb	17:01:21
3	Co 228.616†	14395.8	15282.1	473.47 ug/L	473.47 ppb	17:01:21
3	Cr 267.716†	32833.4	34650.4	485.88 ug/L	485.88 ppb	17:01:01
3	Cu 324.752†	146978.3	148085.6	586.50 ug/L	586.50 ppb	17:01:01
3	Fe 238.204 Radial†	15892.0	16874.0	186010 ug/L	186010 ppb	17:00:01
3	K 766.490 Radial†	28954.1	28224.6	5240.9 ug/L	5240.9 ppb	16:59:41
3	Mg 279.077 IEC†	11131.0	11824.4	490330 ug/L	490330 ppb	17:00:01
3	Mn 257.610†	289415.1	305535.7	503.11 ug/L	503.11 ppb	17:01:01
3	Mo 202.031†	4738.1	4991.9	495.78 ug/L	495.78 ppb	17:01:21
3	Na 589.592 Radial†	14611.4	16431.0	5422.3 ug/L	5422.3 ppb	16:59:41
3	Ni 231.604†	13546.8	14229.0	464.81 ug/L	464.81 ppb	17:01:21
3	P 214.914†	4458.8	4518.5	2447.1 ug/L	2447.1 ppb	17:01:21
3	Pb 220.353†	2090.1	2265.3	495.60 ug/L	495.60 ppb	17:01:21
3	S 181.975 Axial†	1978.1	2045.3	2590.1 ug/L	2590.1 ppb	17:01:21
3	Sb 206.836†	1316.3	1362.5	571.49 ug/L	571.49 ppb	17:01:21
3	Se 196.026†	3144.9	3346.8	2591.2 ug/L	2591.2 ppb	17:01:21
3	Si 251.611†	136163.1	143401.7	5470.0 ug/L	5470.0 ppb	17:01:01
3	Sn 189.927†	1693.2	1785.4	500.87 ug/L	500.87 ppb	17:01:21
3	Sr 421.552†	63246.4	67184.3	492.93 ug/L	492.93 ppb	16:59:41
3	Ti 334.940†	222795.8	236898.1	523.58 ug/L	523.58 ppb	17:01:01
3	Tl 190.801†	938.4	1024.1	489.91 ug/L	489.91 ppb	17:01:21
3	U 409.014†	12976.5	16241.7	547.23 ug/L	547.23 ppb	17:01:01
3	V 292.402†	58555.5	63576.3	504.84 ug/L	504.84 ppb	17:01:01
3	Zn 213.857†	45200.6	47107.8	501.37 ug/L	501.37 ppb	17:01:01
3	SiO2†	134470.1	141608.3	11567 ug/L	11567 ppb	17:01:36

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	702759.6	95.023	%	0.3798				0.40%
Sc Radial	4094.3	93.3	%	0.71				0.76%
Y 371.029	614147.2	92.656	%	0.3147				0.34%
Y RADIAL	4302.7	93.37	%	0.457				0.49%
Ag 328.068†	40791.9	279.67	ug/L	0.678	279.67	ppb	0.678	0.24%
QC value within limits for Ag 328.068 Recovery = 111.87%								
Al 396.153Radial†	534837.9	531890	ug/L	7662.3	531890	ppb	7662.3	1.44%
QC value within limits for Al 396.153Radial Recovery = 106.38%								
As 188.979†	1062.2	530.10	ug/L	4.951	530.10	ppb	4.951	0.93%
QC value within limits for As 188.979 Recovery = 106.02%								
B 249.677†	20986.4	515.82	ug/L	1.881	515.82	ppb	1.881	0.36%
QC value within limits for B 249.677 Recovery = 103.16%								
Ba 233.527†	40849.9	505.92	ug/L	1.287	505.92	ppb	1.287	0.25%
QC value within limits for Ba 233.527 Recovery = 101.18%								
Be 313.107†	593600.2	242.91	ug/L	0.528	242.91	ppb	0.528	0.22%
QC value within limits for Be 313.107 Recovery = 97.16%								

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Ca 317.933Radial†     253763.1      488770 ug/L        6841.9      488770 ppb         6841.9   1.40%
   QC value within limits for Ca 317.933Radial  Recovery = 97.75%
Cd 226.502†            33209.2      458.69 ug/L         3.647      458.69 ppb          3.647   0.80%
   QC value within limits for Cd 226.502  Recovery = 91.74%
Co 228.616†            15154.8      469.47 ug/L         3.585      469.47 ppb          3.585   0.76%
   QC value within limits for Co 228.616  Recovery = 93.89%
Cr 267.716†            34596.8      485.16 ug/L         1.831      485.16 ppb          1.831   0.38%
   QC value within limits for Cr 267.716  Recovery = 97.03%
Cu 324.752†           148268.4      587.27 ug/L         0.778      587.27 ppb          0.778   0.13%
   QC value within limits for Cu 324.752  Recovery = 117.45%
Fe 238.204 Radial†     16987.2      187260 ug/L        1091.4      187260 ppb         1091.4   0.58%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.63%
K 766.490 Radial†      28536.6      5298.9 ug/L         69.16      5298.9 ppb          69.16   1.31%
   QC value within limits for K 766.490 Radial  Recovery = 105.98%
Mg 279.077 IEC†        11916.6      494160 ug/L        3320.8      494160 ppb         3320.8   0.67%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.83%
Mn 257.610†           305500.8      503.01 ug/L         0.959      503.01 ppb          0.959   0.19%
   QC value within limits for Mn 257.610  Recovery = 100.60%
Mo 202.031†             4929.9      490.03 ug/L         5.026      490.03 ppb          5.026   1.03%
   QC value within limits for Mo 202.031  Recovery = 98.01%
Na 589.592 Radial†     16559.3      5464.6 ug/L         66.48      5464.6 ppb          66.48   1.22%
   QC value within limits for Na 589.592 Radial  Recovery = 109.29%
Ni 231.604†            14097.2      460.50 ug/L         3.863      460.50 ppb          3.863   0.84%
   QC value within limits for Ni 231.604  Recovery = 92.10%
P 214.914†              4475.8      2422.9 ug/L         24.85      2422.9 ppb          24.85   1.03%
   QC value within limits for P 214.914  Recovery = 96.92%
Pb 220.353†             2230.3      491.04 ug/L         3.952      491.04 ppb          3.952   0.80%
   QC value within limits for Pb 220.353  Recovery = 98.21%
S 181.975 Axial†        2012.8      2546.5 ug/L         40.03      2546.5 ppb          40.03   1.57%
   QC value within limits for S 181.975 Axial  Recovery = 101.86%
Sb 206.836†             1349.1      565.58 ug/L         8.467      565.58 ppb          8.467   1.50%
   QC value within limits for Sb 206.836  Recovery = 113.12%
Se 196.026†             3313.7      2573.5 ug/L         16.64      2573.5 ppb          16.64   0.65%
   QC value within limits for Se 196.026  Recovery = 102.94%
Si 251.611†           143363.2      5468.6 ug/L         11.06      5468.6 ppb          11.06   0.20%
   QC value within limits for Si 251.611  Recovery = 109.37%
Sn 189.927†             1784.8      501.58 ug/L         3.907      501.58 ppb          3.907   0.78%
   QC value within limits for Sn 189.927  Recovery = 100.32%
Sr 421.552†            67895.8      498.15 ug/L         6.263      498.15 ppb          6.263   1.26%
   QC value within limits for Sr 421.552  Recovery = 99.63%
Ti 334.940†           237010.3      524.19 ug/L         0.563      524.19 ppb          0.563   0.11%
   QC value within limits for Ti 334.940  Recovery = 104.84%
Tl 190.801†             1027.0      491.33 ug/L         3.703      491.33 ppb          3.703   0.75%
   QC value within limits for Tl 190.801  Recovery = 98.27%
U 409.014†             16253.0      547.49 ug/L         1.314      547.49 ppb          1.314   0.24%
   QC value within limits for U 409.014  Recovery = 109.50%
V 292.402†             63530.5      504.28 ug/L         1.047      504.28 ppb          1.047   0.21%
   QC value within limits for V 292.402  Recovery = 100.86%
Zn 213.857†            47130.3      501.46 ug/L         1.133      501.46 ppb          1.133   0.23%
   QC value within limits for Zn 213.857  Recovery = 100.29%
SiO2†                 141355.8       11547 ug/L          87.7       11547 ppb           87.7   0.76%
   QC value within limits for SiO2  Recovery = 107.96%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 3/5/2010 17:03:47
Data Type: Reprocessed on 3/5/2010 18:07:40
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	689053.5	689053.5	93.170	%			17:06:59
1	Sc Radial	4043.6	4043.6	92.2	%			17:06:00
1	Y 371.029	602386.3	602386.3	90.882	%			17:06:59
1	Y RADIAL	4258.7	4258.7	92.41	%			17:06:00
1	Ag 328.068†	-21986.7	-23797.1	10.650	ug/L	10.650	ppb	17:06:59
1	Al 396.153Radial†	481181.5	522102.8	519250	ug/L	519250	ppb	17:05:40
1	As 188.979†	-150.6	-134.8	39.102	ug/L	39.102	ppb	17:07:19
1	B 249.677†	1168.7	1795.4	-22.828	ug/L	-22.828	ppb	17:06:59
1	Ba 233.527†	-1340.5	-1442.6	-4.5241	ug/L	-4.5241	ppb	17:07:19
1	Be 313.107†	-15169.6	-7460.8	-3.0845	ug/L	-3.0845	ppb	17:06:59
1	Ca 317.933Radial†	230508.7	250052.6	481620	ug/L	481620	ppb	17:05:40
1	Cd 226.502†	2948.2	3347.0	6.8549	ug/L	6.8549	ppb	17:07:19
1	Co 228.616†	141.7	215.2	0.4465	ug/L	0.4465	ppb	17:07:19
1	Cr 267.716†	100.1	47.0	2.7632	ug/L	2.7632	ppb	17:07:19
1	Cu 324.752†	2378.3	-4744.3	-4.3655	ug/L	-4.3655	ppb	17:06:59
1	Fe 238.204 Radial†	35876.2	38912.8	428920	ug/L	428920	ppb	17:06:00
1	K 766.490 Radial†	3820.1	1611.6	-56.379	ug/L	-56.379	ppb	17:05:40
1	Mg 279.077 IEC†	10773.9	11688.3	484430	ug/L	484430	ppb	17:06:00
1	Mn 257.610†	-20454.5	-22382.2	-14.441	ug/L	-14.441	ppb	17:06:59
1	Mo 202.031†	-384.9	-430.3	-1.9630	ug/L	-1.9630	ppb	17:07:19
1	Na 589.592 Radial†	1459831.6	1584616.7	522930	ug/L	522930	ppb	17:05:40
1	Ni 231.604†	221.0	144.7	4.7271	ug/L	4.7271	ppb	17:07:19
1	P 214.914†	506.6	348.4	-14.482	ug/L	-14.482	ppb	17:07:19
1	Pb 220.353†	-517.0	-499.2	16.087	ug/L	16.087	ppb	17:07:19
1	S 181.975 Axial†	74.0	33.4	-53.344	ug/L	-53.344	ppb	17:07:19
1	Sb 206.836†	40.3	14.2	-14.827	ug/L	-14.827	ppb	17:07:19
1	Se 196.026†	-1890.8	-2007.3	-263.76	ug/L	-263.76	ppb	17:07:19
1	Si 251.611†	-288.2	-856.6	-32.205	ug/L	-32.205	ppb	17:07:19
1	Sn 189.927†	-320.4	-348.5	-22.139	ug/L	-22.139	ppb	17:07:19
1	Sr 421.552†	1513.4	1640.8	8.5307	ug/L	8.5307	ppb	17:06:00
1	Ti 334.940†	-10160.2	-9542.2	-1.9227	ug/L	-1.9227	ppb	17:06:59
1	Tl 190.801†	-73.7	-47.0	-22.736	ug/L	-22.736	ppb	17:07:19
1	U 409.014†	409642.6	442194.6	15457	ug/L	15457	ppb	17:06:59
1	V 292.402†	1124.1	2879.0	-0.6508	ug/L	-0.6508	ppb	17:07:19
1	Zn 213.857†	5134.6	4833.5	-9.5105	ug/L	-9.5105	ppb	17:07:19
1	SiO2†	-352.7	-929.5	-74.889	ug/L	-74.889	ppb	17:08:16
2	Sc 361.383	687290.9	687290.9	92.932	%			17:07:25
2	Sc Radial	4077.7	4077.7	93.0	%			17:06:26
2	Y 371.029	600858.9	600858.9	90.651	%			17:07:25
2	Y RADIAL	4298.6	4298.6	93.28	%			17:06:26
2	Ag 328.068†	-21907.1	-23771.9	11.063	ug/L	11.063	ppb	17:07:25
2	Al 396.153Radial†	479771.9	516225.2	513410	ug/L	513410	ppb	17:06:06
2	As 188.979†	-163.0	-148.6	32.991	ug/L	32.991	ppb	17:07:45
2	B 249.677†	1005.7	1623.1	-27.416	ug/L	-27.416	ppb	17:07:25
2	Ba 233.527†	-1326.4	-1431.2	-4.3692	ug/L	-4.3692	ppb	17:07:45
2	Be 313.107†	-15079.1	-7405.2	-3.0578	ug/L	-3.0578	ppb	17:07:25
2	Ca 317.933Radial†	229454.7	246829.6	475420	ug/L	475420	ppb	17:06:06
2	Cd 226.502†	2968.6	3377.0	7.2299	ug/L	7.2299	ppb	17:07:45
2	Co 228.616†	144.1	218.2	0.5279	ug/L	0.5279	ppb	17:07:45
2	Cr 267.716†	81.5	27.3	2.4957	ug/L	2.4957	ppb	17:07:45
2	Cu 324.752†	2278.5	-4845.2	-4.7340	ug/L	-4.7340	ppb	17:07:25
2	Fe 238.204 Radial†	36226.3	38964.3	429490	ug/L	429490	ppb	17:06:26
2	K 766.490 Radial†	3794.9	1549.8	-61.928	ug/L	-61.928	ppb	17:06:06
2	Mg 279.077 IEC†	10871.3	11695.4	484720	ug/L	484720	ppb	17:06:26
2	Mn 257.610†	-20563.8	-22556.1	-14.684	ug/L	-14.684	ppb	17:07:25
2	Mo 202.031†	-387.4	-434.0	-2.3480	ug/L	-2.3480	ppb	17:07:45
2	Na 589.592 Radial†	1441769.2	1551954.3	512150	ug/L	512150	ppb	17:06:06
2	Ni 231.604†	194.7	117.1	3.8236	ug/L	3.8236	ppb	17:07:45

2	P 214.914†	484.9	326.4	-28.855	ug/L	-28.855 ppb	17:07:45
2	Pb 220.353†	-494.8	-476.7	18.247	ug/L	18.247 ppb	17:07:45
2	S 181.975 Axial†	72.3	31.9	-54.339	ug/L	-54.339 ppb	17:07:45
2	Sb 206.836†	39.3	13.2	-15.138	ug/L	-15.138 ppb	17:07:45
2	Se 196.026†	-1868.1	-1988.1	-250.86	ug/L	-250.86 ppb	17:07:45
2	Si 251.611†	-299.6	-869.6	-32.698	ug/L	-32.698 ppb	17:07:45
2	Sn 189.927†	-325.5	-354.8	-24.789	ug/L	-24.789 ppb	17:07:45
2	Sr 421.552†	1532.9	1648.0	8.6302	ug/L	8.6302 ppb	17:06:26
2	Ti 334.940†	-9349.4	-8697.7	-1.0042	ug/L	-1.0042 ppb	17:07:25
2	Tl 190.801†	-96.3	-71.5	-34.379	ug/L	-34.379 ppb	17:07:45
2	U 409.014†	408858.4	442478.3	15467	ug/L	15467 ppb	17:07:25
2	V 292.402†	1011.1	2760.6	-1.6754	ug/L	-1.6754 ppb	17:07:45
2	Zn 213.857†	5100.6	4811.1	-9.8430	ug/L	-9.8430 ppb	17:07:45
2	SiO2†	-399.3	-980.5	-79.054	ug/L	-79.054 ppb	17:08:21
3	Sc 361.383	682662.6	682662.6	92.306	%		17:07:50
3	Sc Radial	4036.7	4036.7	92.0	%		17:06:52
3	Y 371.029	598316.8	598316.8	90.268	%		17:07:50
3	Y RADIAL	4250.4	4250.4	92.23	%		17:06:52
3	Ag 328.068†	-21804.4	-23820.5	11.420	ug/L	11.420 ppb	17:07:50
3	Al 396.153Radial†	481266.8	523083.0	520230	ug/L	520230 ppb	17:06:32
3	As 188.979†	-164.3	-151.1	32.266	ug/L	32.266 ppb	17:08:10
3	B 249.677†	921.6	1539.4	-29.909	ug/L	-29.909 ppb	17:07:50
3	Ba 233.527†	-1366.7	-1484.6	-4.9625	ug/L	-4.9625 ppb	17:08:10
3	Be 313.107†	-14822.3	-7237.0	-2.9938	ug/L	-2.9938 ppb	17:07:50
3	Ca 317.933Radial†	229920.4	249838.6	481210	ug/L	481210 ppb	17:06:32
3	Cd 226.502†	3023.9	3458.6	8.2070	ug/L	8.2070 ppb	17:08:10
3	Co 228.616†	138.5	213.2	0.3501	ug/L	0.3501 ppb	17:08:10
3	Cr 267.716†	41.7	-15.2	1.9410	ug/L	1.9410 ppb	17:08:10
3	Cu 324.752†	2205.3	-4907.9	-4.8782	ug/L	-4.8782 ppb	17:07:50
3	Fe 238.204 Radial†	36021.7	39137.1	431390	ug/L	431390 ppb	17:06:52
3	K 766.490 Radial†	3697.1	1485.0	-78.476	ug/L	-78.476 ppb	17:06:32
3	Mg 279.077 IEC†	10810.1	11747.5	486880	ug/L	486880 ppb	17:06:52
3	Mn 257.610†	-20478.9	-22614.1	-14.680	ug/L	-14.680 ppb	17:07:50
3	Mo 202.031†	-379.2	-428.0	-1.5605	ug/L	-1.5605 ppb	17:08:10
3	Na 589.592 Radial†	1442979.9	1568996.8	517770	ug/L	517770 ppb	17:06:32
3	Ni 231.604†	206.7	131.5	4.2950	ug/L	4.2950 ppb	17:08:10
3	P 214.914†	478.9	323.5	-30.287	ug/L	-30.287 ppb	17:08:10
3	Pb 220.353†	-520.2	-507.9	14.677	ug/L	14.677 ppb	17:08:10
3	S 181.975 Axial†	82.7	43.6	-40.184	ug/L	-40.184 ppb	17:08:10
3	Sb 206.836†	52.2	27.4	-9.3361	ug/L	-9.3361 ppb	17:08:10
3	Se 196.026†	-1903.9	-2040.5	-279.16	ug/L	-279.16 ppb	17:08:10
3	Si 251.611†	-317.6	-891.3	-33.533	ug/L	-33.533 ppb	17:08:10
3	Sn 189.927†	-320.3	-351.5	-23.074	ug/L	-23.074 ppb	17:08:10
3	Sr 421.552†	1523.3	1654.4	8.6338	ug/L	8.6338 ppb	17:06:52
3	Ti 334.940†	-10166.4	-9651.0	-2.4124	ug/L	-2.4124 ppb	17:07:50
3	Tl 190.801†	-84.8	-59.8	-28.824	ug/L	-28.824 ppb	17:08:10
3	U 409.014†	406136.5	442512.3	15468	ug/L	15468 ppb	17:07:50
3	V 292.402†	1052.4	2812.7	-1.4759	ug/L	-1.4759 ppb	17:08:10
3	Zn 213.857†	5158.6	4911.1	-8.9986	ug/L	-8.9986 ppb	17:08:10
3	SiO2†	-256.9	-829.2	-66.698	ug/L	-66.698 ppb	17:08:26

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	686335.6	92.803	%	0.4463				0.48%
Sc Radial	4052.7	92.4	%	0.50				0.54%
Y 371.029	600520.6	90.600	%	0.3101				0.34%
Y RADIAL	4269.2	92.64	%	0.560				0.60%
Ag 328.068†	-23796.5	11.044	ug/L	0.3852	11.044	ppb	0.3852	3.49%
Al 396.153Radial†	520470.3	517630	ug/L	3688.6	517630	ppb	3688.6	0.71%
QC value within limits for Al 396.153Radial Recovery = 103.53%								
As 188.979†	-144.8	34.787	ug/L	3.7550	34.787	ppb	3.7550	10.79%
B 249.677†	1652.7	-26.717	ug/L	3.5916	-26.717	ppb	3.5916	13.44%
Ba 233.527†	-1452.8	-4.6186	ug/L	0.30774	-4.6186	ppb	0.30774	6.66%
Be 313.107†	-7367.7	-3.0453	ug/L	0.04658	-3.0453	ppb	0.04658	1.53%
Ca 317.933Radial†	248906.9	479420	ug/L	3471.2	479420	ppb	3471.2	0.72%
QC value within limits for Ca 317.933Radial Recovery = 95.88%								
Cd 226.502†	3394.2	7.4306	ug/L	0.69806	7.4306	ppb	0.69806	9.39%
Co 228.616†	215.5	0.4415	ug/L	0.08898	0.4415	ppb	0.08898	20.16%
Cr 267.716†	19.7	2.4000	ug/L	0.41938	2.4000	ppb	0.41938	17.47%

Cu 324.752†	-4832.4	-4.6592	ug/L	0.26440	-4.6592	ppb	0.26440	5.67%
Fe 238.204 Radial†	39004.7	429940	ug/L	1294.9	429940	ppb	1294.9	0.30%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 85.99%								
K 766.490 Radial†	1548.8	-65.594	ug/L	11.4958	-65.594	ppb	11.4958	17.53%
Mg 279.077 IEC†	11710.4	485340	ug/L	1338.3	485340	ppb	1338.3	0.28%
QC value within limits for Mg 279.077 IEC Recovery = 97.07%								
Mn 257.610†	-22517.4	-14.602	ug/L	0.1393	-14.602	ppb	0.1393	0.95%
Mo 202.031†	-430.7	-1.9571	ug/L	0.39378	-1.9571	ppb	0.39378	20.12%
Na 589.592 Radial†	1568522.6	517620	ug/L	5391.0	517620	ppb	5391.0	1.04%
QC value within limits for Na 589.592 Radial Recovery = 103.52%								
Ni 231.604†	131.1	4.2819	ug/L	0.45191	4.2819	ppb	0.45191	10.55%
P 214.914†	332.8	-24.541	ug/L	8.7410	-24.541	ppb	8.7410	35.62%
Pb 220.353†	-494.6	16.337	ug/L	1.7978	16.337	ppb	1.7978	11.00%
S 181.975 Axial†	36.3	-49.289	ug/L	7.9006	-49.289	ppb	7.9006	16.03%
Sb 206.836†	18.3	-13.100	ug/L	3.2635	-13.100	ppb	3.2635	24.91%
Se 196.026†	-2012.0	-264.59	ug/L	14.171	-264.59	ppb	14.171	5.36%
Si 251.611†	-872.5	-32.812	ug/L	0.6713	-32.812	ppb	0.6713	2.05%
Sn 189.927†	-351.6	-23.334	ug/L	1.3442	-23.334	ppb	1.3442	5.76%
Sr 421.552†	1647.8	8.5982	ug/L	0.05851	8.5982	ppb	0.05851	0.68%
Ti 334.940†	-9297.0	-1.7797	ug/L	0.71488	-1.7797	ppb	0.71488	40.17%
Tl 190.801†	-59.4	-28.646	ug/L	5.8232	-28.646	ppb	5.8232	20.33%
U 409.014†	442395.1	15464	ug/L	6.0	15464	ppb	6.0	0.04%
QC value within limits for U 409.014 Recovery = 103.09%								
V 292.402†	2817.5	-1.2674	ug/L	0.54321	-1.2674	ppb	0.54321	42.86%
Zn 213.857†	4851.9	-9.4507	ug/L	0.42534	-9.4507	ppb	0.42534	4.50%
SiO2†	-913.1	-73.547	ug/L	6.2865	-73.547	ppb	6.2865	8.55%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 3/5/2010 17:10:36
Data Type: Reprocessed on 3/5/2010 18:07:42

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	781151.7	781151.7	105.62	%			17:14:11
1	Sc Radial	4327.2	4327.2	98.6	%			17:12:54
1	Y 371.029	683729.4	683729.4	103.15	%			17:14:11
1	Y RADIAL	4683.2	4683.2	101.6	%			17:12:34
1	Ag 328.068†	-6286.3	-6150.3	7.9781	ug/L	7.9781	ppb	17:14:16
1	Al 396.153Radial†	409.7	505.5	28.509	ug/L	28.509	ppb	17:12:34
1	As 188.979†	22400.6	21234.9	9720.1	ug/L	9720.1	ppb	17:14:16
1	B 249.677†	206028.4	195600.8	5075.7	ug/L	5075.7	ppb	17:14:11
1	Ba 233.527†	1160747.5	1098947.1	13449	ug/L	13449	ppb	17:14:11
1	Be 313.107†	7331428.2	6949934.2	2853.5	ug/L	2853.5	ppb	17:14:05
1	Ca 317.933Radial†	34.7	19.0	36.642	ug/L	36.642	ppb	17:12:54
1	Cd 226.502†	720937.2	682738.2	9825.7	ug/L	9825.7	ppb	17:14:11
1	Co 228.616†	331549.6	313961.5	9777.9	ug/L	9777.9	ppb	17:14:16
1	Cr 267.716†	1848279.3	1749819.2	24345	ug/L	24345	ppb	17:14:11
1	Cu 324.752†	5725920.5	5413783.8	21093	ug/L	21093	ppb	17:14:05
1	Fe 238.204 Radial†	-16.3	-24.2	26.094	ug/L	26.094	ppb	17:12:54
1	K 766.490 Radial†	1620779.6	1640541.4	314180	ug/L	314180	ppb	17:12:29
1	Mg 279.077 IEC†	-5.4	-5.3	-118.64	ug/L	-118.64	ppb	17:12:54
1	Mn 257.610†	6250101.2	5916926.5	9775.6	ug/L	9775.6	ppb	17:14:05
1	Mo 202.031†	108431.1	102641.3	9778.7	ug/L	9778.7	ppb	17:14:16
1	Na 589.592 Radial†	-205.5	701.3	231.43	ug/L	231.43	ppb	17:12:34
1	Ni 231.604†	320042.0	302911.0	9895.1	ug/L	9895.1	ppb	17:14:16
1	P 214.914†	31682.2	29800.2	12897	ug/L	12897	ppb	17:14:16
1	Pb 220.353†	157523.9	149193.3	24690	ug/L	24690	ppb	17:14:16
1	S 181.975 Axial†	41227.3	38986.5	51254	ug/L	51254	ppb	17:14:16
1	Sb 206.836†	26900.3	25439.0	11027	ug/L	11027	ppb	17:14:16
1	Se 196.026†	16986.5	16104.3	10246	ug/L	10246	ppb	17:14:16
1	Si 251.611†	1346695.2	1274451.8	48545	ug/L	48545	ppb	17:14:11
1	Sn 189.927†	45260.0	42845.8	10214	ug/L	10214	ppb	17:14:16
1	Sr 421.552†	1363662.6	1382419.3	10217	ug/L	10217	ppb	17:12:29
1	Ti 334.940†	5027152.1	4760876.5	10024	ug/L	10024	ppb	17:14:05
1	Tl 190.801†	22747.1	21568.2	10312	ug/L	10312	ppb	17:14:16
1	U 409.014†	-1240.7	1348.7	-7.1281	ug/L	-7.1281	ppb	17:14:16
1	V 292.402†	1311734.5	1243572.2	10199	ug/L	10199	ppb	17:14:11
1	Zn 213.857†	1316600.0	1245828.6	14003	ug/L	14003	ppb	17:14:11
1	SiO2†	1338611.7	1266795.0	103330	ug/L	103330	ppb	17:15:02
2	Sc 361.383	787589.9	787589.9	106.49	%			17:14:31
2	Sc Radial	4336.6	4336.6	98.9	%			17:13:24
2	Y 371.029	689817.3	689817.3	104.07	%			17:14:31
2	Y RADIAL	4705.1	4705.1	102.1	%			17:13:04
2	Ag 328.068†	-6310.1	-6124.0	8.0671	ug/L	8.0671	ppb	17:14:36
2	Al 396.153Radial†	432.9	528.0	54.545	ug/L	54.545	ppb	17:13:04
2	As 188.979†	22514.3	21168.3	9689.6	ug/L	9689.6	ppb	17:14:36
2	B 249.677†	207501.8	195389.8	5070.4	ug/L	5070.4	ppb	17:14:31
2	Ba 233.527†	1168895.9	1097615.2	13432	ug/L	13432	ppb	17:14:31
2	Be 313.107†	7365773.7	6925445.1	2843.4	ug/L	2843.4	ppb	17:14:25
2	Ca 317.933Radial†	36.1	20.4	39.366	ug/L	39.366	ppb	17:13:24
2	Cd 226.502†	725818.2	681742.0	9811.3	ug/L	9811.3	ppb	17:14:31
2	Co 228.616†	332255.1	312058.0	9718.5	ug/L	9718.5	ppb	17:14:36
2	Cr 267.716†	1860529.9	1747018.3	24306	ug/L	24306	ppb	17:14:31
2	Cu 324.752†	5764034.2	5405258.6	21060	ug/L	21060	ppb	17:14:25
2	Fe 238.204 Radial†	-19.6	-27.6	-13.031	ug/L	-13.031	ppb	17:13:24
2	K 766.490 Radial†	1627378.3	1643642.7	314770	ug/L	314770	ppb	17:12:59
2	Mg 279.077 IEC†	-4.0	-3.9	-60.959	ug/L	-60.959	ppb	17:13:24
2	Mn 257.610†	6272561.3	5889645.5	9730.6	ug/L	9730.6	ppb	17:14:25
2	Mo 202.031†	108487.6	101855.1	9703.8	ug/L	9703.8	ppb	17:14:36
2	Na 589.592 Radial†	-307.7	598.4	197.46	ug/L	197.46	ppb	17:13:04
2	Ni 231.604†	320946.6	301283.5	9842.0	ug/L	9842.0	ppb	17:14:36

2	P 214.914†	31780.9	29647.7	12816	ug/L	12816	ppb	17:14:36
2	Pb 220.353†	157870.6	148299.7	24542	ug/L	24542	ppb	17:14:36
2	S 181.975 Axial†	41310.6	38745.6	50938	ug/L	50938	ppb	17:14:36
2	Sb 206.836†	26929.7	25258.5	10950	ug/L	10950	ppb	17:14:36
2	Se 196.026†	16931.1	15920.8	10129	ug/L	10129	ppb	17:14:36
2	Si 251.611†	1357122.7	1273821.0	48522	ug/L	48522	ppb	17:14:31
2	Sn 189.927†	45427.5	42652.9	10168	ug/L	10168	ppb	17:14:36
2	Sr 421.552†	1367362.0	1383154.8	10222	ug/L	10222	ppb	17:12:59
2	Ti 334.940†	5050055.1	4743476.2	9986.9	ug/L	9986.9	ppb	17:14:25
2	Tl 190.801†	22775.4	21418.7	10241	ug/L	10241	ppb	17:14:36
2	U 409.014†	-1345.9	1259.5	-10.164	ug/L	-10.164	ppb	17:14:36
2	V 292.402†	1321255.8	1242361.0	10188	ug/L	10188	ppb	17:14:31
2	Zn 213.857†	1324082.1	1242664.9	13967	ug/L	13967	ppb	17:14:31
2	SiO2†	1335760.2	1253757.5	102260	ug/L	102260	ppb	17:15:08
3	Sc 361.383	768431.6	768431.6	103.90	%			17:14:51
3	Sc Radial	4368.8	4368.8	99.6	%			17:13:55
3	Y 371.029	673534.7	673534.7	101.62	%			17:14:51
3	Y RADIAL	4738.3	4738.3	102.8	%			17:13:35
3	Ag 328.068†	-6498.2	-6452.7	6.4558	ug/L	6.4558	ppb	17:14:56
3	Al 396.153Radial†	418.5	510.3	21.630	ug/L	21.630	ppb	17:13:35
3	As 188.979†	22633.3	21810.0	9982.5	ug/L	9982.5	ppb	17:14:56
3	B 249.677†	203066.2	195978.7	5084.9	ug/L	5084.9	ppb	17:14:51
3	Ba 233.527†	1143819.0	1100845.8	13472	ug/L	13472	ppb	17:14:51
3	Be 313.107†	7347827.4	7080615.9	2907.1	ug/L	2907.1	ppb	17:14:44
3	Ca 317.933Radial†	34.1	18.1	34.948	ug/L	34.948	ppb	17:13:55
3	Cd 226.502†	711389.4	684847.6	9856.2	ug/L	9856.2	ppb	17:14:51
3	Co 228.616†	334409.4	321909.9	10026	ug/L	10026	ppb	17:14:56
3	Cr 267.716†	1824381.1	1755785.1	24428	ug/L	24428	ppb	17:14:51
3	Cu 324.752†	5733496.7	5510812.3	21471	ug/L	21471	ppb	17:14:44
3	Fe 238.204 Radial†	-17.4	-25.2	22.151	ug/L	22.151	ppb	17:13:55
3	K 766.490 Radial†	1617574.0	1621678.6	310560	ug/L	310560	ppb	17:13:30
3	Mg 279.077 IEC†	-3.3	-3.1	-24.872	ug/L	-24.872	ppb	17:13:55
3	Mn 257.610†	6254281.6	6018901.9	9944.1	ug/L	9944.1	ppb	17:14:44
3	Mo 202.031†	109292.1	105169.2	10020	ug/L	10020	ppb	17:14:56
3	Na 589.592 Radial†	-220.0	688.8	227.31	ug/L	227.31	ppb	17:13:35
3	Ni 231.604†	323057.5	310829.0	10154	ug/L	10154	ppb	17:14:56
3	P 214.914†	31972.9	30576.5	13267	ug/L	13267	ppb	17:14:56
3	Pb 220.353†	158978.9	153062.3	25331	ug/L	25331	ppb	17:14:56
3	S 181.975 Axial†	41606.1	39997.1	52583	ug/L	52583	ppb	17:14:56
3	Sb 206.836†	27077.8	26031.5	11285	ug/L	11285	ppb	17:14:56
3	Se 196.026†	17093.0	16473.0	10480	ug/L	10480	ppb	17:14:56
3	Si 251.611†	1323967.4	1273683.3	48512	ug/L	48512	ppb	17:14:51
3	Sn 189.927†	45712.3	43990.5	10487	ug/L	10487	ppb	17:14:56
3	Sr 421.552†	1356293.9	1361858.1	10065	ug/L	10065	ppb	17:13:30
3	Ti 334.940†	5031072.5	4843435.5	10197	ug/L	10197	ppb	17:14:44
3	Tl 190.801†	22897.3	22069.2	10551	ug/L	10551	ppb	17:14:56
3	U 409.014†	-1369.5	1205.2	-12.343	ug/L	-12.343	ppb	17:14:56
3	V 292.402†	1293014.9	1246113.4	10223	ug/L	10223	ppb	17:14:51
3	Zn 213.857†	1300823.0	1251278.2	14062	ug/L	14062	ppb	17:14:51
3	SiO2†	1335017.7	1284314.9	104750	ug/L	104750	ppb	17:15:14

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	779057.7	105.34	%	1.318				1.25%
Sc Radial	4344.2	99.0	%	0.50				0.50%
Y 371.029	682360.4	102.95	%	1.241				1.21%
Y RADIAL	4708.9	102.2	%	0.60				0.59%
Ag 328.068†	-6242.3	7.5003	ug/L	0.90570	7.5003	ppb	0.90570	12.08%
Al 396.153Radial†	514.6	34.894	ug/L	17.3617	34.894	ppb	17.3617	49.75%
As 188.979†	21404.4	9797.4	ug/L	161.03	9797.4	ppb	161.03	1.64%
QC value within limits for As 188.979 Recovery = 97.97%								
B 249.677†	195656.4	5077.0	ug/L	7.33	5077.0	ppb	7.33	0.14%
QC value within limits for B 249.677 Recovery = 101.54%								
Ba 233.527†	1099136.0	13451	ug/L	19.9	13451	ppb	19.9	0.15%
QC value less than the lower limit for Ba 233.527 Recovery = 89.67%								
Be 313.107†	6985331.7	2868.0	ug/L	34.23	2868.0	ppb	34.23	1.19%
QC value within limits for Be 313.107 Recovery = 95.60%								
Ca 317.933Radial†	19.2	36.986	ug/L	2.2289	36.986	ppb	2.2289	6.03%
Cd 226.502†	683109.3	9831.0	ug/L	22.91	9831.0	ppb	22.91	0.23%

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   QC value within limits for Cd 226.502  Recovery = 98.31%
Co 228.616†          315976.5      9840.6 ug/L        162.93      9840.6 ppb         162.93   1.66%
   QC value within limits for Co 228.616  Recovery = 98.41%
Cr 267.716†         1750874.2       24360 ug/L          62.3       24360 ppb           62.3   0.26%
   QC value within limits for Cr 267.716  Recovery = 97.44%
Cu 324.752†         5443284.9       21208 ug/L         228.5       21208 ppb          228.5   1.08%
   QC value within limits for Cu 324.752  Recovery = 106.04%
Fe 238.204 Radial†       -25.6      11.738 ug/L       21.5408      11.738 ppb        21.5408 183.51%
K 766.490 Radial†    1635287.6      313170 ug/L        2276.9      313170 ppb         2276.9   0.73%
   QC value within limits for K 766.490 Radial  Recovery = 104.39%
Mg 279.077 IEC†           -4.1     -68.157 ug/L       47.2968     -68.157 ppb        47.2968  69.39%
Mn 257.610†         5941824.7      9816.8 ug/L        112.56      9816.8 ppb         112.56   1.15%
   QC value within limits for Mn 257.610  Recovery = 98.17%
Mo 202.031†          103221.9      9834.0 ug/L        164.98      9834.0 ppb         164.98   1.68%
   QC value within limits for Mo 202.031  Recovery = 98.34%
Na 589.592 Radial†       662.8      218.74 ug/L        18.536      218.74 ppb         18.536   8.47%
Ni 231.604†          305007.8      9963.6 ug/L        166.81      9963.6 ppb         166.81   1.67%
   QC value within limits for Ni 231.604  Recovery = 99.64%
P 214.914†            30008.1      12994 ug/L         240.4       12994 ppb          240.4   1.85%
   QC value less than the lower limit for P 214.914  Recovery = 86.62%
Pb 220.353†          150185.1      24854 ug/L         419.0       24854 ppb          419.0   1.69%
   QC value within limits for Pb 220.353  Recovery = 99.42%
S 181.975 Axial†      39243.0      51592 ug/L         873.0       51592 ppb          873.0   1.69%
   QC value within limits for S 181.975 Axial  Recovery = 103.18%
Sb 206.836†           25576.3      11087 ug/L         175.4       11087 ppb          175.4   1.58%
   QC value greater than the upper limit for Sb 206.836  Recovery = 110.87%
Se 196.026†           16166.0      10285 ug/L         178.9       10285 ppb          178.9   1.74%
   QC value within limits for Se 196.026  Recovery = 102.85%
Si 251.611†         1273985.4      48526 ug/L          16.7       48526 ppb           16.7   0.03%
   QC value within limits for Si 251.611  Recovery = 97.05%
Sn 189.927†           43163.1      10290 ug/L         172.4       10290 ppb          172.4   1.68%
   QC value within limits for Sn 189.927  Recovery = 102.90%
Sr 421.552†         1375810.7      10168 ug/L          89.3       10168 ppb           89.3   0.88%
   QC value within limits for Sr 421.552  Recovery = 101.68%
Ti 334.940†         4782596.1      10069 ug/L         112.5       10069 ppb          112.5   1.12%
   QC value within limits for Ti 334.940  Recovery = 100.69%
Tl 190.801†           21685.4      10368 ug/L         162.6       10368 ppb          162.6   1.57%
   QC value within limits for Tl 190.801  Recovery = 103.68%
U 409.014†             1271.1     -9.8782 ug/L       2.61907     -9.8782 ppb        2.61907  26.51%
V 292.402†          1244015.5      10203 ug/L          17.7       10203 ppb           17.7   0.17%
   QC value within limits for V 292.402  Recovery = 102.03%
Zn 213.857†         1246590.6      14011 ug/L          48.0       14011 ppb           48.0   0.34%
   QC value within limits for Zn 213.857  Recovery = 93.41%
SiO2†               1268289.1     103450 ug/L        1249.5      103450 ppb         1249.5   1.21%
   QC value within limits for SiO2  Recovery = 96.68%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/5/2010 17:17:24
Data Type: Reprocessed on 3/5/2010 18:07:43

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	802061.7	802061.7	108.45	%			17:20:34
1	Sc Radial	4671.5	4671.5	106	%			17:19:16
1	Y 371.029	708985.7	708985.7	106.96	%			17:20:34
1	Y RADIAL	4881.2	4881.2	105.9	%			17:19:16
1	Ag 328.068†	100729.0	92681.5	495.40	ug/L	495.40	ppb	17:20:39
1	Al 396.153Radial†	5200.2	4973.3	4922.3	ug/L	4922.3	ppb	17:19:16
1	As 188.979†	1215.5	1147.6	526.18	ug/L	526.18	ppb	17:20:59
1	B 249.677†	21651.5	20505.3	532.81	ug/L	532.81	ppb	17:20:39
1	Ba 233.527†	44268.5	40815.2	499.91	ug/L	499.91	ppb	17:20:39
1	Be 313.107†	1302884.3	1210183.0	494.03	ug/L	494.03	ppb	17:20:34
1	Ca 317.933Radial†	2833.5	2644.7	5093.9	ug/L	5093.9	ppb	17:19:37
1	Cd 226.502†	37613.3	34865.1	501.34	ug/L	501.34	ppb	17:20:39
1	Co 228.616†	16953.5	15695.6	489.00	ug/L	489.00	ppb	17:20:59
1	Cr 267.716†	38766.3	35685.2	496.80	ug/L	496.80	ppb	17:20:39
1	Cu 324.752†	145641.0	126995.5	494.79	ug/L	494.79	ppb	17:20:39
1	Fe 238.204 Radial†	494.8	456.9	5051.0	ug/L	5051.0	ppb	17:19:37
1	K 766.490 Radial†	31804.8	27333.4	5228.6	ug/L	5228.6	ppb	17:19:16
1	Mg 279.077 IEC†	135.8	127.7	5296.4	ug/L	5296.4	ppb	17:19:37
1	Mn 257.610†	327420.6	301479.4	498.37	ug/L	498.37	ppb	17:20:39
1	Mo 202.031†	5608.4	5154.3	491.50	ug/L	491.50	ppb	17:20:59
1	Na 589.592 Radial†	30465.7	29518.2	9741.1	ug/L	9741.1	ppb	17:19:16
1	Ni 231.604†	16901.0	15491.6	506.07	ug/L	506.07	ppb	17:20:39
1	P 214.914†	4895.1	4318.3	2365.6	ug/L	2365.6	ppb	17:20:59
1	Pb 220.353†	3189.7	2996.8	497.51	ug/L	497.51	ppb	17:20:59
1	S 181.975 Axial†	875.2	761.1	999.63	ug/L	999.63	ppb	17:20:59
1	Sb 206.836†	1331.6	1198.8	520.22	ug/L	520.22	ppb	17:20:59
1	Se 196.026†	835.8	792.8	516.18	ug/L	516.18	ppb	17:20:59
1	Si 251.611†	71545.5	65423.3	2492.2	ug/L	2492.2	ppb	17:20:39
1	Sn 189.927†	2230.7	2052.3	489.89	ug/L	489.89	ppb	17:20:59
1	Sr 421.552†	68538.7	64359.7	475.62	ug/L	475.62	ppb	17:19:16
1	Ti 334.940†	252911.3	234567.0	494.14	ug/L	494.14	ppb	17:20:39
1	Tl 190.801†	1081.0	1028.8	492.07	ug/L	492.07	ppb	17:20:59
1	U 409.014†	12640.9	14179.2	495.51	ug/L	495.51	ppb	17:20:39
1	V 292.402†	64590.5	61230.1	502.88	ug/L	502.88	ppb	17:20:39
1	Zn 213.857†	48828.4	44346.2	497.05	ug/L	497.05	ppb	17:20:39
1	SiO2†	71954.9	65797.2	5367.2	ug/L	5367.2	ppb	17:22:06
2	Sc 361.383	812305.6	812305.6	109.84	%			17:21:04
2	Sc Radial	4641.6	4641.6	106	%			17:19:42
2	Y 371.029	718526.9	718526.9	108.40	%			17:21:04
2	Y RADIAL	4832.1	4832.1	104.9	%			17:19:42
2	Ag 328.068†	100677.7	91463.5	488.91	ug/L	488.91	ppb	17:21:10
2	Al 396.153Radial†	5151.8	4959.0	4908.4	ug/L	4908.4	ppb	17:19:42
2	As 188.979†	1202.7	1121.8	514.41	ug/L	514.41	ppb	17:21:30
2	B 249.677†	21622.3	20227.0	525.56	ug/L	525.56	ppb	17:21:10
2	Ba 233.527†	44117.0	40162.4	491.91	ug/L	491.91	ppb	17:21:10
2	Be 313.107†	1314321.3	1205445.7	492.09	ug/L	492.09	ppb	17:21:04
2	Ca 317.933Radial†	2839.4	2667.3	5137.5	ug/L	5137.5	ppb	17:20:02
2	Cd 226.502†	37421.2	34252.8	492.52	ug/L	492.52	ppb	17:21:10
2	Co 228.616†	16983.7	15526.0	483.72	ug/L	483.72	ppb	17:21:30
2	Cr 267.716†	38687.5	35162.7	489.53	ug/L	489.53	ppb	17:21:10
2	Cu 324.752†	145793.8	125441.1	488.74	ug/L	488.74	ppb	17:21:10
2	Fe 238.204 Radial†	494.5	459.7	5081.1	ug/L	5081.1	ppb	17:20:02
2	K 766.490 Radial†	31379.8	27124.0	5188.5	ug/L	5188.5	ppb	17:19:42
2	Mg 279.077 IEC†	134.6	127.4	5284.1	ug/L	5284.1	ppb	17:20:02
2	Mn 257.610†	326300.4	296652.2	490.40	ug/L	490.40	ppb	17:21:10
2	Mo 202.031†	5620.7	5100.2	486.36	ug/L	486.36	ppb	17:21:30
2	Na 589.592 Radial†	30102.7	29359.4	9688.7	ug/L	9688.7	ppb	17:19:42
2	Ni 231.604†	16827.4	15228.0	497.46	ug/L	497.46	ppb	17:21:10

2	P 214.914†	4911.8	4276.6	2342.9 ug/L	2342.9 ppb	17:21:30
2	Pb 220.353†	3217.4	2985.0	495.54 ug/L	495.54 ppb	17:21:30
2	S 181.975 Axial†	868.7	745.0	978.46 ug/L	978.46 ppb	17:21:30
2	Sb 206.836†	1337.2	1188.4	515.67 ug/L	515.67 ppb	17:21:30
2	Se 196.026†	845.8	792.2	515.84 ug/L	515.84 ppb	17:21:30
2	Si 251.611†	71421.2	64478.3	2456.1 ug/L	2456.1 ppb	17:21:10
2	Sn 189.927†	2237.4	2032.5	485.17 ug/L	485.17 ppb	17:21:30
2	Sr 421.552†	67773.4	64050.9	473.34 ug/L	473.34 ppb	17:19:42
2	Ti 334.940†	252969.6	231679.2	488.07 ug/L	488.07 ppb	17:21:10
2	Tl 190.801†	1092.0	1026.3	490.83 ug/L	490.83 ppb	17:21:30
2	U 409.014†	12675.5	14063.7	491.47 ug/L	491.47 ppb	17:21:10
2	V 292.402†	64135.0	60064.3	493.36 ug/L	493.36 ppb	17:21:10
2	Zn 213.857†	48739.8	43697.8	489.78 ug/L	489.78 ppb	17:21:10
2	SiO2†	72740.7	65676.0	5357.4 ug/L	5357.4 ppb	17:22:11
3	Sc 361.383	811616.6	811616.6	109.74 %		17:21:35
3	Sc Radial	4723.5	4723.5	108 %		17:20:07
3	Y 371.029	718195.7	718195.7	108.35 %		17:21:35
3	Y RADIAL	4977.6	4977.6	108.0 %		17:20:07
3	Ag 328.068†	100607.4	91477.2	488.98 ug/L	488.98 ppb	17:21:40
3	Al 396.153Radial†	5278.5	4992.2	4941.3 ug/L	4941.3 ppb	17:20:07
3	As 188.979†	1199.4	1119.8	513.45 ug/L	513.45 ppb	17:22:01
3	B 249.677†	21530.1	20159.7	523.80 ug/L	523.80 ppb	17:21:40
3	Ba 233.527†	44100.2	40181.2	492.15 ug/L	492.15 ppb	17:21:40
3	Be 313.107†	1315778.7	1207789.5	493.04 ug/L	493.04 ppb	17:21:35
3	Ca 317.933Radial†	2838.1	2619.6	5045.6 ug/L	5045.6 ppb	17:20:27
3	Cd 226.502†	37587.1	34432.9	495.12 ug/L	495.12 ppb	17:21:40
3	Co 228.616†	17067.9	15615.8	486.52 ug/L	486.52 ppb	17:22:01
3	Cr 267.716†	38776.4	35273.6	491.07 ug/L	491.07 ppb	17:21:40
3	Cu 324.752†	145278.4	125084.2	487.34 ug/L	487.34 ppb	17:21:40
3	Fe 238.204 Radial†	501.0	457.5	5057.9 ug/L	5057.9 ppb	17:20:27
3	K 766.490 Radial†	31915.4	27107.0	5185.2 ug/L	5185.2 ppb	17:20:07
3	Mg 279.077 IEC†	137.7	128.0	5309.4 ug/L	5309.4 ppb	17:20:27
3	Mn 257.610†	326998.4	297540.5	491.86 ug/L	491.86 ppb	17:21:40
3	Mo 202.031†	5634.2	5116.8	487.94 ug/L	487.94 ppb	17:22:01
3	Na 589.592 Radial†	30756.5	29473.1	9726.2 ug/L	9726.2 ppb	17:20:07
3	Ni 231.604†	16861.2	15271.9	498.89 ug/L	498.89 ppb	17:21:40
3	P 214.914†	4970.2	4333.6	2375.8 ug/L	2375.8 ppb	17:22:01
3	Pb 220.353†	3222.6	2992.2	496.74 ug/L	496.74 ppb	17:22:01
3	S 181.975 Axial†	884.3	759.8	997.97 ug/L	997.97 ppb	17:22:01
3	Sb 206.836†	1350.0	1201.1	521.10 ug/L	521.10 ppb	17:22:01
3	Se 196.026†	851.0	797.5	519.21 ug/L	519.21 ppb	17:22:01
3	Si 251.611†	71333.5	64453.6	2455.2 ug/L	2455.2 ppb	17:21:40
3	Sn 189.927†	2252.2	2047.7	488.78 ug/L	488.78 ppb	17:22:01
3	Sr 421.552†	69424.8	64473.5	476.47 ug/L	476.47 ppb	17:20:07
3	Ti 334.940†	252620.4	231556.5	487.79 ug/L	487.79 ppb	17:21:40
3	Tl 190.801†	1104.4	1038.5	496.58 ug/L	496.58 ppb	17:22:01
3	U 409.014†	12743.9	14135.8	494.00 ug/L	494.00 ppb	17:21:40
3	V 292.402†	64420.1	60373.7	495.90 ug/L	495.90 ppb	17:21:40
3	Zn 213.857†	48891.6	43873.7	491.76 ug/L	491.76 ppb	17:21:40
3	SiO2†	71762.9	64841.2	5289.1 ug/L	5289.1 ppb	17:22:16

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	808661.3	109.34	%	0.774				0.71%
Sc Radial	4678.9	107	%	0.9				0.89%
Y 371.029	715236.1	107.91	%	0.817				0.76%
Y RADIAL	4897.0	106.3	%	1.61				1.51%
Ag 328.068†	91874.1	491.10	ug/L	3.726	491.10	ppb	3.726	0.76%
QC value within limits for Ag 328.068 Recovery = 98.22%								
Al 396.153Radial†	4974.8	4924.0	ug/L	16.53	4924.0	ppb	16.53	0.34%
QC value within limits for Al 396.153Radial Recovery = 98.48%								
As 188.979†	1129.7	518.01	ug/L	7.087	518.01	ppb	7.087	1.37%
QC value within limits for As 188.979 Recovery = 103.60%								
B 249.677†	20297.4	527.39	ug/L	4.777	527.39	ppb	4.777	0.91%
QC value within limits for B 249.677 Recovery = 105.48%								
Ba 233.527†	40386.3	494.66	ug/L	4.550	494.66	ppb	4.550	0.92%
QC value within limits for Ba 233.527 Recovery = 98.93%								
Be 313.107†	1207806.1	493.05	ug/L	0.972	493.05	ppb	0.972	0.20%
QC value within limits for Be 313.107 Recovery = 98.61%								

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Ca 317.933Radial†       2643.9      5092.3 ug/L         45.97      5092.3 ppb          45.97   0.90%
   QC value within limits for Ca 317.933Radial  Recovery = 101.85%
Cd 226.502†            34516.9      496.33 ug/L         4.530      496.33 ppb          4.530   0.91%
   QC value within limits for Cd 226.502  Recovery = 99.27%
Co 228.616†            15612.5      486.41 ug/L         2.643      486.41 ppb          2.643   0.54%
   QC value within limits for Co 228.616  Recovery = 97.28%
Cr 267.716†            35373.8      492.47 ug/L         3.834      492.47 ppb          3.834   0.78%
   QC value within limits for Cr 267.716  Recovery = 98.49%
Cu 324.752†           125840.3      490.29 ug/L         3.958      490.29 ppb          3.958   0.81%
   QC value within limits for Cu 324.752  Recovery = 98.06%
Fe 238.204 Radial†       458.0      5063.3 ug/L         15.75      5063.3 ppb          15.75   0.31%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.27%
K 766.490 Radial†      27188.1      5200.7 ug/L         24.13      5200.7 ppb          24.13   0.46%
   QC value within limits for K 766.490 Radial  Recovery = 104.01%
Mg 279.077 IEC†          127.7      5296.6 ug/L         12.66      5296.6 ppb          12.66   0.24%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.93%
Mn 257.610†           298557.4      493.54 ug/L         4.243      493.54 ppb          4.243   0.86%
   QC value within limits for Mn 257.610  Recovery = 98.71%
Mo 202.031†             5123.8      488.60 ug/L         2.635      488.60 ppb          2.635   0.54%
   QC value within limits for Mo 202.031  Recovery = 97.72%
Na 589.592 Radial†     29450.2      9718.6 ug/L         27.00      9718.6 ppb          27.00   0.28%
   QC value within limits for Na 589.592 Radial  Recovery = 97.19%
Ni 231.604†            15330.5      500.80 ug/L         4.614      500.80 ppb          4.614   0.92%
   QC value within limits for Ni 231.604  Recovery = 100.16%
P 214.914†              4309.5      2361.4 ug/L         16.80      2361.4 ppb          16.80   0.71%
   QC value within limits for P 214.914  Recovery = 94.46%
Pb 220.353†             2991.3      496.60 ug/L         0.995      496.60 ppb          0.995   0.20%
   QC value within limits for Pb 220.353  Recovery = 99.32%
S 181.975 Axial†         755.3      992.02 ug/L        11.775      992.02 ppb         11.775   1.19%
   QC value within limits for S 181.975 Axial  Recovery = 99.20%
Sb 206.836†             1196.1      519.00 ug/L         2.912      519.00 ppb          2.912   0.56%
   QC value within limits for Sb 206.836  Recovery = 103.80%
Se 196.026†              794.2      517.08 ug/L         1.855      517.08 ppb          1.855   0.36%
   QC value within limits for Se 196.026  Recovery = 103.42%
Si 251.611†            64785.1      2467.8 ug/L         21.08      2467.8 ppb          21.08   0.85%
   QC value within limits for Si 251.611  Recovery = 98.71%
Sn 189.927†             2044.2      487.95 ug/L         2.469      487.95 ppb          2.469   0.51%
   QC value within limits for Sn 189.927  Recovery = 97.59%
Sr 421.552†            64294.7      475.14 ug/L         1.616      475.14 ppb          1.616   0.34%
   QC value within limits for Sr 421.552  Recovery = 95.03%
Ti 334.940†           232600.9      490.00 ug/L         3.589      490.00 ppb          3.589   0.73%
   QC value within limits for Ti 334.940  Recovery = 98.00%
Tl 190.801†             1031.2      493.16 ug/L         3.025      493.16 ppb          3.025   0.61%
   QC value within limits for Tl 190.801  Recovery = 98.63%
U 409.014†             14126.2      493.66 ug/L         2.040      493.66 ppb          2.040   0.41%
   QC value within limits for U 409.014  Recovery = 98.73%
V 292.402†             60556.1      497.38 ug/L         4.933      497.38 ppb          4.933   0.99%
   QC value within limits for V 292.402  Recovery = 99.48%
Zn 213.857†            43972.6      492.86 ug/L         3.762      492.86 ppb          3.762   0.76%
   QC value within limits for Zn 213.857  Recovery = 98.57%
SiO2†                  65438.1      5337.9 ug/L         42.54      5337.9 ppb          42.54   0.80%
   QC value within limits for SiO2  Recovery = 99.82%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/5/2010 17:24:27
Data Type: Reprocessed on 3/5/2010 18:07:44

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	781448.0	781448.0	105.66	%			17:27:36
1	Sc Radial	4680.6	4680.6	107	%			17:26:19
1	Y 371.029	698597.1	698597.1	105.40	%			17:27:36
1	Y RADIAL	4946.8	4946.8	107.3	%			17:26:19
1	Ag 328.068†	139.1	-67.0	-0.3675	ug/L	-0.3675	ppb	17:27:36
1	Al 396.153Radial†	-91.0	4.9	4.8664	ug/L	4.8664	ppb	17:26:39
1	As 188.979†	-16.3	11.4	5.2076	ug/L	5.2076	ppb	17:27:56
1	B 249.677†	570.2	1080.7	28.197	ug/L	28.197	ppb	17:27:36
1	Ba 233.527†	47.4	41.0	0.5005	ug/L	0.5005	ppb	17:27:56
1	Be 313.107†	-9311.6	8.2	0.0036	ug/L	0.0036	ppb	17:27:36
1	Ca 317.933Radial†	22.0	4.5	8.6033	ug/L	8.6033	ppb	17:26:39
1	Cd 226.502†	-154.3	36.6	0.5298	ug/L	0.5298	ppb	17:27:56
1	Co 228.616†	-57.0	9.2	0.2851	ug/L	0.2851	ppb	17:27:56
1	Cr 267.716†	82.2	17.4	0.2376	ug/L	0.2376	ppb	17:27:56
1	Cu 324.752†	7831.6	114.9	0.4413	ug/L	0.4413	ppb	17:27:36
1	Fe 238.204 Radial†	7.2	-0.9	-10.080	ug/L	-10.080	ppb	17:26:39
1	K 766.490 Radial†	3614.1	854.5	163.61	ug/L	163.61	ppb	17:26:19
1	Mg 279.077 IEC†	-0.4	-0.2	-9.6480	ug/L	-9.6480	ppb	17:26:39
1	Mn 257.610†	467.4	14.2	0.0228	ug/L	0.0228	ppb	17:27:56
1	Mo 202.031†	9.9	-7.8	-0.7443	ug/L	-0.7443	ppb	17:27:56
1	Na 589.592 Radial†	-690.7	262.3	86.570	ug/L	86.570	ppb	17:26:19
1	Ni 231.604†	91.8	-5.5	-0.1809	ug/L	-0.1809	ppb	17:27:56
1	P 214.914†	196.6	-9.2	-5.3153	ug/L	-5.3153	ppb	17:27:56
1	Pb 220.353†	-29.0	28.3	4.6776	ug/L	4.6776	ppb	17:27:56
1	S 181.975 Axial†	47.6	-1.0	-1.2794	ug/L	-1.2794	ppb	17:27:56
1	Sb 206.836†	41.1	9.8	4.1618	ug/L	4.1618	ppb	17:27:56
1	Se 196.026†	-13.4	9.4	5.9350	ug/L	5.9350	ppb	17:27:56
1	Si 251.611†	652.3	70.1	2.6852	ug/L	2.6852	ppb	17:27:56
1	Sn 189.927†	21.4	15.7	3.7331	ug/L	3.7331	ppb	17:27:56
1	Sr 421.552†	28.7	25.9	0.1917	ug/L	0.1917	ppb	17:26:19
1	Ti 334.940†	-1372.3	64.0	0.1322	ug/L	0.1322	ppb	17:27:36
1	Tl 190.801†	-38.5	-4.3	-2.0662	ug/L	-2.0662	ppb	17:27:56
1	U 409.014†	-2356.4	293.2	10.282	ug/L	10.282	ppb	17:27:36
1	V 292.402†	-1756.9	9.9	0.0904	ug/L	0.0904	ppb	17:27:36
1	Zn 213.857†	820.1	98.8	1.1193	ug/L	1.1193	ppb	17:27:56
1	SiO2†	652.0	66.2	5.4315	ug/L	5.4315	ppb	17:28:52
2	Sc 361.383	774201.6	774201.6	104.68	%			17:28:02
2	Sc Radial	4733.5	4733.5	108	%			17:26:44
2	Y 371.029	692989.8	692989.8	104.55	%			17:28:02
2	Y RADIAL	4983.0	4983.0	108.1	%			17:26:44
2	Ag 328.068†	202.4	-5.3	-0.0319	ug/L	-0.0319	ppb	17:28:02
2	Al 396.153Radial†	-79.7	16.3	16.157	ug/L	16.157	ppb	17:27:04
2	As 188.979†	-10.2	17.1	7.7746	ug/L	7.7746	ppb	17:28:22
2	B 249.677†	441.2	962.4	25.113	ug/L	25.113	ppb	17:28:02
2	Ba 233.527†	37.1	31.5	0.3858	ug/L	0.3858	ppb	17:28:22
2	Be 313.107†	-9209.2	23.5	0.0102	ug/L	0.0102	ppb	17:28:02
2	Ca 317.933Radial†	21.2	3.5	6.7876	ug/L	6.7876	ppb	17:27:04
2	Cd 226.502†	-144.3	44.8	0.6457	ug/L	0.6457	ppb	17:28:22
2	Co 228.616†	-58.2	7.6	0.2370	ug/L	0.2370	ppb	17:28:22
2	Cr 267.716†	97.2	32.4	0.4500	ug/L	0.4500	ppb	17:28:22
2	Cu 324.752†	7768.1	123.6	0.4795	ug/L	0.4795	ppb	17:28:02
2	Fe 238.204 Radial†	7.5	-0.7	-8.2397	ug/L	-8.2397	ppb	17:27:04
2	K 766.490 Radial†	3467.9	681.2	130.43	ug/L	130.43	ppb	17:26:44
2	Mg 279.077 IEC†	2.1	2.1	86.876	ug/L	86.876	ppb	17:27:04
2	Mn 257.610†	483.3	33.5	0.0510	ug/L	0.0510	ppb	17:28:22
2	Mo 202.031†	23.6	5.4	0.5177	ug/L	0.5177	ppb	17:28:22
2	Na 589.592 Radial†	-719.3	243.1	80.221	ug/L	80.221	ppb	17:26:44
2	Ni 231.604†	105.8	8.6	0.2820	ug/L	0.2820	ppb	17:28:22

2	P 214.914†	199.4	-4.9	-2.8283	ug/L	-2.8283 ppb	17:28:22
2	Pb 220.353†	-50.1	7.9	1.3052	ug/L	1.3052 ppb	17:28:22
2	S 181.975 Axial†	51.7	3.4	4.5172	ug/L	4.5172 ppb	17:28:22
2	Sb 206.836†	43.1	12.1	5.1571	ug/L	5.1571 ppb	17:28:22
2	Se 196.026†	-14.4	8.4	5.2977	ug/L	5.2977 ppb	17:28:22
2	Si 251.611†	647.7	71.5	2.7251	ug/L	2.7251 ppb	17:28:22
2	Sn 189.927†	22.7	17.1	4.0828	ug/L	4.0828 ppb	17:28:22
2	Sr 421.552†	32.1	28.7	0.2124	ug/L	0.2124 ppb	17:26:44
2	Ti 334.940†	-1287.8	132.6	0.2719	ug/L	0.2719 ppb	17:28:02
2	Tl 190.801†	-34.3	-0.7	-0.3110	ug/L	-0.3110 ppb	17:28:22
2	U 409.014†	-2563.2	74.7	2.6204	ug/L	2.6204 ppb	17:28:02
2	V 292.402†	-1698.5	50.1	0.4206	ug/L	0.4206 ppb	17:28:02
2	Zn 213.857†	804.3	90.9	1.0271	ug/L	1.0271 ppb	17:28:22
2	SiO2†	661.4	81.0	6.6089	ug/L	6.6089 ppb	17:28:57
3	Sc 361.383	779495.6	779495.6	105.40	%		17:28:27
3	Sc Radial	4729.0	4729.0	108	%		17:27:09
3	Y 371.029	698112.7	698112.7	105.32	%		17:28:27
3	Y RADIAL	4963.0	4963.0	107.7	%		17:27:09
3	Ag 328.068†	165.5	-41.6	-0.2151	ug/L	-0.2151 ppb	17:28:27
3	Al 396.153Radial†	-79.9	16.0	15.880	ug/L	15.880 ppb	17:27:30
3	As 188.979†	-8.8	18.5	8.4237	ug/L	8.4237 ppb	17:28:47
3	B 249.677†	448.7	966.7	25.219	ug/L	25.219 ppb	17:28:27
3	Ba 233.527†	9.4	5.0	0.0625	ug/L	0.0625 ppb	17:28:47
3	Be 313.107†	-9202.9	89.3	0.0367	ug/L	0.0367 ppb	17:28:27
3	Ca 317.933Radial†	21.8	4.1	7.8578	ug/L	7.8578 ppb	17:27:30
3	Cd 226.502†	-139.6	50.2	0.7212	ug/L	0.7212 ppb	17:28:47
3	Co 228.616†	-57.8	8.3	0.2586	ug/L	0.2586 ppb	17:28:47
3	Cr 267.716†	76.7	12.3	0.1707	ug/L	0.1707 ppb	17:28:47
3	Cu 324.752†	7734.9	41.7	0.1608	ug/L	0.1608 ppb	17:28:27
3	Fe 238.204 Radial†	10.5	2.0	22.138	ug/L	22.138 ppb	17:27:30
3	K 766.490 Radial†	3533.7	745.3	142.70	ug/L	142.70 ppb	17:27:09
3	Mg 279.077 IEC†	0.9	1.0	40.005	ug/L	40.005 ppb	17:27:30
3	Mn 257.610†	475.0	22.4	0.0376	ug/L	0.0376 ppb	17:28:47
3	Mo 202.031†	25.5	7.1	0.6752	ug/L	0.6752 ppb	17:28:47
3	Na 589.592 Radial†	-717.7	243.9	80.485	ug/L	80.485 ppb	17:27:09
3	Ni 231.604†	109.9	11.9	0.3877	ug/L	0.3877 ppb	17:28:47
3	P 214.914†	197.9	-7.5	-4.3165	ug/L	-4.3165 ppb	17:28:47
3	Pb 220.353†	-50.1	8.2	1.3554	ug/L	1.3554 ppb	17:28:47
3	S 181.975 Axial†	45.9	-2.4	-3.1801	ug/L	-3.1801 ppb	17:28:47
3	Sb 206.836†	42.5	11.3	4.7814	ug/L	4.7814 ppb	17:28:47
3	Se 196.026†	-18.8	4.3	2.7837	ug/L	2.7837 ppb	17:28:47
3	Si 251.611†	651.9	71.3	2.7143	ug/L	2.7143 ppb	17:28:47
3	Sn 189.927†	15.3	10.0	2.3838	ug/L	2.3838 ppb	17:28:47
3	Sr 421.552†	26.6	23.7	0.1750	ug/L	0.1750 ppb	17:27:09
3	Ti 334.940†	-1372.6	60.5	0.1230	ug/L	0.1230 ppb	17:28:27
3	Tl 190.801†	-29.6	4.0	1.9011	ug/L	1.9011 ppb	17:28:47
3	U 409.014†	-2514.8	137.3	4.8114	ug/L	4.8114 ppb	17:28:27
3	V 292.402†	-1705.9	54.1	0.4543	ug/L	0.4543 ppb	17:28:27
3	Zn 213.857†	801.1	82.6	0.9290	ug/L	0.9290 ppb	17:28:47
3	SiO2†	634.9	51.6	4.1971	ug/L	4.1971 ppb	17:29:02

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	778381.7	105.25	%	0.507				0.48%
Sc Radial	4714.4	107	%	0.7				0.62%
Y 371.029	696566.5	105.09	%	0.469				0.45%
Y RADIAL	4964.2	107.7	%	0.39				0.37%
Ag 328.068†	-38.0	-0.2048	ug/L	0.16805	-0.2048	ppb	0.16805	82.04%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.4	12.301	ug/L	6.4401	12.301	ppb	6.4401	52.35%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	15.7	7.1353	ug/L	1.70072	7.1353	ppb	1.70072	23.84%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1003.3	26.176	ug/L	1.7509	26.176	ppb	1.7509	6.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	25.8	0.3163	ug/L	0.22716	0.3163	ppb	0.22716	71.83%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	40.3	0.0168	ug/L	0.01747	0.0168	ppb	0.01747	103.74%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          4.0      7.7496 ug/L       0.91268      7.7496 ppb        0.91268  11.78%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†               43.9      0.6323 ug/L       0.09641      0.6323 ppb        0.09641  15.25%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                8.4      0.2603 ug/L       0.02409      0.2603 ppb        0.02409   9.26%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               20.7      0.2861 ug/L       0.14583      0.2861 ppb        0.14583  50.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               93.4      0.3605 ug/L       0.17403      0.3605 ppb        0.17403  48.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.1      1.2728 ug/L      18.09318      1.2728 ppb       18.09318 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        760.3      145.58 ug/L        16.778      145.58 ppb         16.778  11.52%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.9      39.078 ug/L       48.2688      39.078 ppb        48.2688 123.52%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               23.4      0.0371 ug/L       0.01409      0.0371 ppb        0.01409  37.96%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.6      0.1495 ug/L       0.77809      0.1495 ppb        0.77809 520.36%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       249.8      82.425 ug/L        3.5915      82.425 ppb         3.5915   4.36%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                5.0      0.1629 ug/L       0.30241      0.1629 ppb        0.30241 185.60%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -7.2     -4.1534 ug/L       1.25151     -4.1534 ppb        1.25151  30.13%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               14.8      2.4460 ug/L       1.93274      2.4460 ppb        1.93274  79.01%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.0      0.0192 ug/L       4.00957      0.0192 ppb        4.00957 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               11.1      4.7001 ug/L       0.50261      4.7001 ppb        0.50261  10.69%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                7.4      4.6721 ug/L       1.66622      4.6721 ppb        1.66622  35.66%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               71.0      2.7082 ug/L       0.02062      2.7082 ppb        0.02062   0.76%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               14.3      3.3999 ug/L       0.89716      3.3999 ppb        0.89716  26.39%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               26.1      0.1930 ug/L       0.01873      0.1930 ppb        0.01873   9.70%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               85.7      0.1757 ug/L       0.08347      0.1757 ppb        0.08347  47.51%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.3     -0.1587 ug/L       1.98801     -0.1587 ppb        1.98801 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               168.4      5.9047 ug/L       3.94619      5.9047 ppb        3.94619  66.83%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                38.0      0.3218 ug/L       0.20110      0.3218 ppb        0.20110  62.49%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               90.8      1.0251 ug/L       0.09515      1.0251 ppb        0.09515   9.28%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     66.2      5.4125 ug/L       1.20599      5.4125 ppb        1.20599  22.28%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 15
Sample ID: LR1
Analyst: HSC
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 36
Date Collected: 3/5/2010 17:30:54
Data Type: Reprocessed on 3/5/2010 18:07:45

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	797333.7	797333.7	107.81	%			17:34:05
1	Sc Radial	4689.6	4689.6	107	%			17:32:47
1	Y 371.029	709989.9	709989.9	107.12	%			17:34:05
1	Y RADIAL	4919.4	4919.4	106.8	%			17:32:47
1	Ag 328.068†	-22371.0	-20948.8	22.059	ug/L	22.059	ppb	17:34:05
1	Al 396.153Radial†	-104.0	-7.2	-5.9647	ug/L	-5.9647	ppb	17:33:07
1	As 188.979†	-163.9	-125.2	28.833	ug/L	28.833	ppb	17:34:25
1	B 249.677†	1627.9	2050.9	-5.9434	ug/L	-5.9434	ppb	17:34:05
1	Ba 233.527†	-1598.5	-1486.6	-6.9224	ug/L	-6.9224	ppb	17:34:05
1	Be 313.107†	-9190.9	295.8	0.1203	ug/L	0.1203	ppb	17:34:05
1	Ca 317.933Radial†	25.4	7.7	14.812	ug/L	14.812	ppb	17:33:07
1	Cd 226.502†	2745.3	2729.1	1.4785	ug/L	1.4785	ppb	17:34:05
1	Co 228.616†	516.7	542.5	11.554	ug/L	11.554	ppb	17:34:25
1	Cr 267.716†	-422.7	-452.4	0.7634	ug/L	0.7634	ppb	17:34:05
1	Cu 324.752†	1036.4	-6335.6	-5.3640	ug/L	-5.3640	ppb	17:34:05
1	Fe 238.204 Radial†	35487.8	33188.4	365830	ug/L	365830	ppb	17:32:47
1	K 766.490 Radial†	2944.8	222.0	42.521	ug/L	42.521	ppb	17:32:47
1	Mg 279.077 IEC†	9.6	9.2	-3.1340	ug/L	-3.1340	ppb	17:33:07
1	Mn 257.610†	-28514.2	-26876.4	-8.2883	ug/L	-8.2883	ppb	17:34:05
1	Mo 202.031†	-250.2	-249.2	4.6538	ug/L	4.6538	ppb	17:34:05
1	Na 589.592 Radial†	-723.5	232.9	76.841	ug/L	76.841	ppb	17:32:47
1	Ni 231.604†	118.7	17.6	0.5657	ug/L	0.5657	ppb	17:34:25
1	P 214.914†	598.7	360.0	-84.537	ug/L	-84.537	ppb	17:34:25
1	Pb 220.353†	135.3	181.2	0.6142	ug/L	0.6142	ppb	17:34:25
1	S 181.975 Axial†	50.5	0.9	1.1399	ug/L	1.1399	ppb	17:34:25
1	Sb 206.836†	41.7	9.6	-0.4889	ug/L	-0.4889	ppb	17:34:25
1	Se 196.026†	-1510.5	-1379.0	-55.859	ug/L	-55.859	ppb	17:34:25
1	Si 251.611†	-207.3	-739.5	-27.946	ug/L	-27.946	ppb	17:34:05
1	Sn 189.927†	-17.9	-21.2	-26.047	ug/L	-26.047	ppb	17:34:25
1	Sr 421.552†	130.2	120.8	0.8927	ug/L	0.8927	ppb	17:32:47
1	Ti 334.940†	-1518.5	-45.7	-0.1568	ug/L	-0.1568	ppb	17:34:05
1	Tl 190.801†	-36.9	-2.1	-1.4020	ug/L	-1.4020	ppb	17:34:25
1	U 409.014†	-361.2	2188.2	35.040	ug/L	35.040	ppb	17:34:05
1	V 292.402†	4852.4	6173.4	-3.4172	ug/L	-3.4172	ppb	17:34:05
1	Zn 213.857†	3728.4	2780.8	-23.256	ug/L	-23.256	ppb	17:34:25
1	SiO2†	-245.3	-778.4	-63.004	ug/L	-63.004	ppb	17:35:22
2	Sc 361.383	802174.2	802174.2	108.47	%			17:34:31
2	Sc Radial	4643.8	4643.8	106	%			17:33:12
2	Y 371.029	713298.5	713298.5	107.62	%			17:34:31
2	Y RADIAL	4899.6	4899.6	106.3	%			17:33:12
2	Ag 328.068†	-22608.8	-21042.8	22.841	ug/L	22.841	ppb	17:34:31
2	Al 396.153Radial†	-105.6	-9.7	-8.4099	ug/L	-8.4099	ppb	17:33:32
2	As 188.979†	-159.4	-120.1	31.955	ug/L	31.955	ppb	17:34:51
2	B 249.677†	1566.5	1985.2	-8.2299	ug/L	-8.2299	ppb	17:34:31
2	Ba 233.527†	-1620.9	-1498.3	-6.9575	ug/L	-6.9575	ppb	17:34:31
2	Be 313.107†	-9268.6	275.5	0.1127	ug/L	0.1127	ppb	17:34:31
2	Ca 317.933Radial†	22.3	4.9	9.5132	ug/L	9.5132	ppb	17:33:32
2	Cd 226.502†	2721.7	2691.9	0.5809	ug/L	0.5809	ppb	17:34:31
2	Co 228.616†	522.4	544.8	11.572	ug/L	11.572	ppb	17:34:51
2	Cr 267.716†	-411.7	-439.9	1.0047	ug/L	1.0047	ppb	17:34:31
2	Cu 324.752†	977.7	-6395.6	-5.4118	ug/L	-5.4118	ppb	17:34:31
2	Fe 238.204 Radial†	35479.6	33507.6	369340	ug/L	369340	ppb	17:33:12
2	K 766.490 Radial†	2924.3	229.7	44.008	ug/L	44.008	ppb	17:33:12
2	Mg 279.077 IEC†	11.0	10.6	52.202	ug/L	52.202	ppb	17:33:32
2	Mn 257.610†	-28860.6	-27036.2	-8.2073	ug/L	-8.2073	ppb	17:34:31
2	Mo 202.031†	-265.6	-262.0	3.7083	ug/L	3.7083	ppb	17:34:31
2	Na 589.592 Radial†	-694.9	253.2	83.572	ug/L	83.572	ppb	17:33:12
2	Ni 231.604†	108.9	7.9	0.2495	ug/L	0.2495	ppb	17:34:51

2	P 214.914†	579.4	338.8	-99.416 ug/L	-99.416 ppb	17:34:51
2	Pb 220.353†	165.6	208.3	4.8165 ug/L	4.8165 ppb	17:34:51
2	S 181.975 Axial†	51.2	1.2	1.6291 ug/L	1.6291 ppb	17:34:51
2	Sb 206.836†	27.5	-3.7	-6.1426 ug/L	-6.1426 ppb	17:34:51
2	Se 196.026†	-1510.2	-1370.2	-42.413 ug/L	-42.413 ppb	17:34:51
2	Si 251.611†	-145.5	-681.4	-25.710 ug/L	-25.710 ppb	17:34:31
2	Sn 189.927†	-24.9	-27.5	-27.765 ug/L	-27.765 ppb	17:34:51
2	Sr 421.552†	108.8	101.8	0.7520 ug/L	0.7520 ppb	17:33:12
2	Ti 334.940†	-1365.2	104.1	0.1531 ug/L	0.1531 ppb	17:34:31
2	Tl 190.801†	-49.3	-13.3	-6.7162 ug/L	-6.7162 ppb	17:34:51
2	U 409.014†	-339.2	2210.6	35.421 ug/L	35.421 ppb	17:34:31
2	V 292.402†	4906.8	6196.4	-3.7575 ug/L	-3.7575 ppb	17:34:31
2	Zn 213.857†	3706.5	2739.8	-24.244 ug/L	-24.244 ppb	17:34:51
2	SiO2†	-213.7	-747.8	-60.474 ug/L	-60.474 ppb	17:35:27
3	Sc 361.383	792703.6	792703.6	107.19 %		17:34:57
3	Sc Radial	4681.0	4681.0	107 %		17:33:37
3	Y 371.029	706040.6	706040.6	106.52 %		17:34:57
3	Y RADIAL	4938.3	4938.3	107.2 %		17:33:37
3	Ag 328.068†	-22267.9	-20973.8	22.977 ug/L	22.977 ppb	17:34:57
3	Al 396.153Radial†	-92.4	3.5	4.6988 ug/L	4.6988 ppb	17:33:57
3	As 188.979†	-163.6	-125.8	29.233 ug/L	29.233 ppb	17:35:17
3	B 249.677†	1513.7	1953.2	-8.9641 ug/L	-8.9641 ppb	17:34:57
3	Ba 233.527†	-1512.0	-1414.6	-5.9562 ug/L	-5.9562 ppb	17:34:57
3	Be 313.107†	-9128.1	304.5	0.1244 ug/L	0.1244 ppb	17:34:57
3	Ca 317.933Radial†	19.4	2.1	3.9708 ug/L	3.9708 ppb	17:33:57
3	Cd 226.502†	2696.5	2698.4	0.7388 ug/L	0.7388 ppb	17:34:57
3	Co 228.616†	527.5	555.3	11.908 ug/L	11.908 ppb	17:35:17
3	Cr 267.716†	-492.3	-519.7	-0.1166 ug/L	-0.1166 ppb	17:34:57
3	Cu 324.752†	922.4	-6436.4	-5.6026 ug/L	-5.6026 ppb	17:34:57
3	Fe 238.204 Radial†	35703.2	33450.8	368720 ug/L	368720 ppb	17:33:37
3	K 766.490 Radial†	2853.2	141.2	27.055 ug/L	27.055 ppb	17:33:37
3	Mg 279.077 IEC†	7.4	7.1	-92.447 ug/L	-92.447 ppb	17:33:57
3	Mn 257.610†	-28394.5	-26919.3	-8.0700 ug/L	-8.0700 ppb	17:34:57
3	Mo 202.031†	-266.7	-265.9	3.2865 ug/L	3.2865 ppb	17:34:57
3	Na 589.592 Radial†	-719.1	235.8	77.818 ug/L	77.818 ppb	17:33:37
3	Ni 231.604†	121.7	21.1	0.6805 ug/L	0.6805 ppb	17:35:17
3	P 214.914†	582.1	347.8	-93.758 ug/L	-93.758 ppb	17:35:17
3	Pb 220.353†	132.3	179.1	0.0353 ug/L	0.0353 ppb	17:35:17
3	S 181.975 Axial†	48.6	-0.6	-0.8161 ug/L	-0.8161 ppb	17:35:17
3	Sb 206.836†	30.8	-0.3	-4.6948 ug/L	-4.6948 ppb	17:35:17
3	Se 196.026†	-1521.7	-1397.5	-61.168 ug/L	-61.168 ppb	17:35:17
3	Si 251.611†	-204.6	-738.1	-27.873 ug/L	-27.873 ppb	17:34:57
3	Sn 189.927†	-15.6	-19.1	-25.720 ug/L	-25.720 ppb	17:35:17
3	Sr 421.552†	95.5	88.5	0.6538 ug/L	0.6538 ppb	17:33:37
3	Ti 334.940†	-1382.0	73.4	0.1008 ug/L	0.1008 ppb	17:34:57
3	Tl 190.801†	-26.9	7.0	2.9300 ug/L	2.9300 ppb	17:35:17
3	U 409.014†	-404.1	2146.3	33.243 ug/L	33.243 ppb	17:34:57
3	V 292.402†	4699.6	6057.2	-4.8071 ug/L	-4.8071 ppb	17:34:57
3	Zn 213.857†	3687.6	2762.9	-23.891 ug/L	-23.891 ppb	17:35:17
3	SiO2†	-125.9	-668.3	-53.960 ug/L	-53.960 ppb	17:35:32

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	797403.8	107.82	%	0.640				0.59%
Sc Radial	4671.5	106	%	0.6				0.52%
Y 371.029	709776.3	107.08	%	0.548				0.51%
Y RADIAL	4919.1	106.7	%	0.42				0.39%
Ag 328.068†	-20988.5	22.625	ug/L	0.4950	22.625	ppb	0.4950	2.19%
Al 396.153Radial†	-4.4	-3.2253	ug/L	6.97051	-3.2253	ppb	6.97051	216.12%
As 188.979†	-123.7	30.007	ug/L	1.6988	30.007	ppb	1.6988	5.66%
B 249.677†	1996.4	-7.7125	ug/L	1.57541	-7.7125	ppb	1.57541	20.43%
Ba 233.527†	-1466.5	-6.6120	ug/L	0.56826	-6.6120	ppb	0.56826	8.59%
Be 313.107†	292.0	0.1191	ug/L	0.00591	0.1191	ppb	0.00591	4.96%
Ca 317.933Radial†	4.9	9.4321	ug/L	5.42126	9.4321	ppb	5.42126	57.48%
Cd 226.502†	2706.5	0.9327	ug/L	0.47919	0.9327	ppb	0.47919	51.37%
Co 228.616†	547.5	11.678	ug/L	0.1993	11.678	ppb	0.1993	1.71%
Cr 267.716†	-470.7	0.5505	ug/L	0.59021	0.5505	ppb	0.59021	107.22%
Cu 324.752†	-6389.2	-5.4595	ug/L	0.12627	-5.4595	ppb	0.12627	2.31%
Fe 238.204 Radial†	33382.3	367960	ug/L	1876.4	367960	ppb	1876.4	0.51%

K 766.490 Radial†	197.6	37.861	ug/L	9.3884	37.861	ppb	9.3884 24.80%
Mg 279.077 IEC†	8.9	-14.460	ug/L	72.9869	-14.460	ppb	72.9869 504.76%
Mn 257.610†	-26944.0	-8.1885	ug/L	0.11036	-8.1885	ppb	0.11036 1.35%
Mo 202.031†	-259.1	3.8829	ug/L	0.70018	3.8829	ppb	0.70018 18.03%
Na 589.592 Radial†	240.6	79.411	ug/L	3.6371	79.411	ppb	3.6371 4.58%
Ni 231.604†	15.6	0.4986	ug/L	0.22323	0.4986	ppb	0.22323 44.77%
P 214.914†	348.9	-92.570	ug/L	7.5106	-92.570	ppb	7.5106 8.11%
Pb 220.353†	189.6	1.8220	ug/L	2.60941	1.8220	ppb	2.60941 143.22%
S 181.975 Axial†	0.5	0.6510	ug/L	1.29385	0.6510	ppb	1.29385 198.75%
Sb 206.836†	1.8	-3.7754	ug/L	2.93685	-3.7754	ppb	2.93685 77.79%
Se 196.026†	-1382.2	-53.146	ug/L	9.6672	-53.146	ppb	9.6672 18.19%
Si 251.611†	-719.7	-27.176	ug/L	1.2703	-27.176	ppb	1.2703 4.67%
Sn 189.927†	-22.6	-26.511	ug/L	1.0986	-26.511	ppb	1.0986 4.14%
Sr 421.552†	103.7	0.7661	ug/L	0.12007	0.7661	ppb	0.12007 15.67%
Ti 334.940†	43.9	0.0323	ug/L	0.16590	0.0323	ppb	0.16590 513.03%
Tl 190.801†	-2.8	-1.7294	ug/L	4.83140	-1.7294	ppb	4.83140 279.37%
U 409.014†	2181.7	34.568	ug/L	1.1635	34.568	ppb	1.1635 3.37%
V 292.402†	6142.3	-3.9939	ug/L	0.72449	-3.9939	ppb	0.72449 18.14%
Zn 213.857†	2761.2	-23.797	ug/L	0.5006	-23.797	ppb	0.5006 2.10%
SiO2†	-731.5	-59.146	ug/L	4.6659	-59.146	ppb	4.6659 7.89%

Sequence No.: 16
Sample ID: LR2
Analyst: HSC
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 3/5/2010 17:37:44
Data Type: Reprocessed on 3/5/2010 18:07:46

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	794730.9	794730.9	107.46	%			17:40:55
1	Sc Radial	4808.8	4808.8	110	%			17:39:38
1	Y 371.029	712622.2	712622.2	107.51	%			17:40:55
1	Y RADIAL	5051.2	5051.2	109.6	%			17:39:38
1	Ag 328.068†	182.2	-29.1	-0.1622	ug/L	-0.1622	ppb	17:40:55
1	Al 396.153Radial†	-72.2	24.2	24.144	ug/L	24.144	ppb	17:39:58
1	As 188.979†	-28.7	0.2	0.0777	ug/L	0.0777	ppb	17:41:15
1	B 249.677†	116.8	649.7	16.953	ug/L	16.953	ppb	17:41:15
1	Ba 233.527†	39.8	33.2	0.4068	ug/L	0.4068	ppb	17:41:15
1	Be 313.107†	-9301.6	164.8	0.0677	ug/L	0.0677	ppb	17:40:55
1	Ca 317.933Radial†	28.4	9.8	18.841	ug/L	18.841	ppb	17:39:58
1	Cd 226.502†	-168.4	26.0	0.3760	ug/L	0.3760	ppb	17:41:15
1	Co 228.616†	-58.7	8.6	0.2648	ug/L	0.2648	ppb	17:41:15
1	Cr 267.716†	77.4	11.6	0.1587	ug/L	0.1587	ppb	17:41:15
1	Cu 324.752†	7798.8	-39.5	-0.1593	ug/L	-0.1593	ppb	17:40:55
1	Fe 238.204 Radial†	7.5	-0.8	-9.3525	ug/L	-9.3525	ppb	17:39:58
1	K 766.490 Radial†	3026.3	228.0	43.639	ug/L	43.639	ppb	17:39:38
1	Mg 279.077 IEC†	0.3	0.4	17.775	ug/L	17.775	ppb	17:39:58
1	Mn 257.610†	487.2	25.2	0.0399	ug/L	0.0399	ppb	17:41:15
1	Mo 202.031†	9.3	-8.5	-0.8112	ug/L	-0.8112	ppb	17:41:15
1	Na 589.592 Radial†	-754.9	221.0	72.934	ug/L	72.934	ppb	17:39:38
1	Ni 231.604†	88.8	-9.8	-0.3212	ug/L	-0.3212	ppb	17:41:15
1	P 214.914†	219.6	9.1	5.2105	ug/L	5.2105	ppb	17:41:15
1	Pb 220.353†	-68.4	-8.0	-1.3186	ug/L	-1.3186	ppb	17:41:15
1	S 181.975 Axial†	51.8	2.2	2.8729	ug/L	2.8729	ppb	17:41:15
1	Sb 206.836†	12885.5	11962.0	5014.9	ug/L	5014.9	ppb	17:40:55
1	Se 196.026†	-20.0	3.5	2.1773	ug/L	2.1773	ppb	17:41:15
1	Si 251.611†	966.4	352.1	13.454	ug/L	13.454	ppb	17:41:15
1	Sn 189.927†	6.3	1.3	0.3122	ug/L	0.3122	ppb	17:41:15
1	Sr 421.552†	87.9	79.2	0.5852	ug/L	0.5852	ppb	17:39:38
1	Ti 334.940†	-1344.8	111.3	0.2318	ug/L	0.2318	ppb	17:40:55
1	Tl 190.801†	-38.6	-3.8	-1.8178	ug/L	-1.8178	ppb	17:41:15
1	U 409.014†	-2442.2	250.6	8.7881	ug/L	8.7881	ppb	17:40:55
1	V 292.402†	-1689.9	100.0	0.8171	ug/L	0.8171	ppb	17:40:55
1	Zn 213.857†	750.9	21.3	0.2452	ug/L	0.2452	ppb	17:41:15
1	SiO2†	994.7	374.8	30.669	ug/L	30.669	ppb	17:42:11
2	Sc 361.383	792341.3	792341.3	107.14	%			17:41:20
2	Sc Radial	4728.1	4728.1	108	%			17:40:03
2	Y 371.029	708737.6	708737.6	106.93	%			17:41:20
2	Y RADIAL	4983.5	4983.5	108.1	%			17:40:03
2	Ag 328.068†	241.0	26.3	0.1392	ug/L	0.1392	ppb	17:41:20
2	Al 396.153Radial†	-83.9	12.2	12.214	ug/L	12.214	ppb	17:40:23
2	As 188.979†	-24.7	3.8	1.7522	ug/L	1.7522	ppb	17:41:40
2	B 249.677†	112.7	646.2	16.858	ug/L	16.858	ppb	17:41:40
2	Ba 233.527†	25.6	20.0	0.2469	ug/L	0.2469	ppb	17:41:40
2	Be 313.107†	-9310.7	130.2	0.0536	ug/L	0.0536	ppb	17:41:20
2	Ca 317.933Radial†	33.7	15.2	29.290	ug/L	29.290	ppb	17:40:23
2	Cd 226.502†	-178.3	16.2	0.2342	ug/L	0.2342	ppb	17:41:40
2	Co 228.616†	-61.6	5.7	0.1741	ug/L	0.1741	ppb	17:41:40
2	Cr 267.716†	87.9	21.6	0.2986	ug/L	0.2986	ppb	17:41:40
2	Cu 324.752†	7792.5	-23.5	-0.0957	ug/L	-0.0957	ppb	17:41:20
2	Fe 238.204 Radial†	8.9	0.6	6.6447	ug/L	6.6447	ppb	17:40:23
2	K 766.490 Radial†	2984.3	236.2	45.200	ug/L	45.200	ppb	17:40:03
2	Mg 279.077 IEC†	0.7	0.8	34.919	ug/L	34.919	ppb	17:40:23
2	Mn 257.610†	490.4	29.5	0.0480	ug/L	0.0480	ppb	17:41:40
2	Mo 202.031†	6.8	-10.8	-1.0275	ug/L	-1.0275	ppb	17:41:40
2	Na 589.592 Radial†	-792.0	174.9	57.717	ug/L	57.717	ppb	17:40:03
2	Ni 231.604†	111.9	12.0	0.3928	ug/L	0.3928	ppb	17:41:40

2	P 214.914†	208.5	-0.7	-0.3870	ug/L	-0.3870	ppb	17:41:40
2	Pb 220.353†	-75.1	-14.4	-2.3799	ug/L	-2.3799	ppb	17:41:40
2	S 181.975 Axial†	43.8	-5.1	-6.6587	ug/L	-6.6587	ppb	17:41:40
2	Sb 206.836†	12806.4	11924.3	4999.1	ug/L	4999.1	ppb	17:41:20
2	Se 196.026†	-24.8	-1.0	-0.6363	ug/L	-0.6363	ppb	17:41:40
2	Si 251.611†	958.6	347.5	13.282	ug/L	13.282	ppb	17:41:40
2	Sn 189.927†	13.1	7.7	1.8417	ug/L	1.8417	ppb	17:41:40
2	Sr 421.552†	94.4	86.6	0.6397	ug/L	0.6397	ppb	17:40:03
2	Ti 334.940†	-1324.6	126.4	0.2638	ug/L	0.2638	ppb	17:41:20
2	Tl 190.801†	-42.9	-7.9	-3.7685	ug/L	-3.7685	ppb	17:41:40
2	U 409.014†	-2451.8	234.8	8.2305	ug/L	8.2305	ppb	17:41:20
2	V 292.402†	-1656.0	126.9	1.0291	ug/L	1.0291	ppb	17:41:20
2	Zn 213.857†	757.8	29.9	0.3344	ug/L	0.3344	ppb	17:41:40
2	SiO2†	996.7	379.4	31.055	ug/L	31.055	ppb	17:42:16
3	Sc 361.383	785573.0	785573.0	106.22	%			17:41:45
3	Sc Radial	4728.6	4728.6	108	%			17:40:28
3	Y 371.029	703292.4	703292.4	106.11	%			17:41:45
3	Y RADIAL	4959.5	4959.5	107.6	%			17:40:28
3	Ag 328.068†	254.7	41.2	0.2209	ug/L	0.2209	ppb	17:41:45
3	Al 396.153Radial†	-69.7	25.4	25.261	ug/L	25.261	ppb	17:40:48
3	As 188.979†	-17.8	10.2	4.6220	ug/L	4.6220	ppb	17:42:05
3	B 249.677†	118.2	652.3	17.017	ug/L	17.017	ppb	17:42:05
3	Ba 233.527†	22.0	16.8	0.2071	ug/L	0.2071	ppb	17:42:05
3	Be 313.107†	-9144.1	212.2	0.0872	ug/L	0.0872	ppb	17:41:45
3	Ca 317.933Radial†	30.8	12.4	23.951	ug/L	23.951	ppb	17:40:48
3	Cd 226.502†	-169.5	23.1	0.3314	ug/L	0.3314	ppb	17:42:05
3	Co 228.616†	-56.7	9.8	0.3046	ug/L	0.3046	ppb	17:42:05
3	Cr 267.716†	77.2	12.3	0.1704	ug/L	0.1704	ppb	17:42:05
3	Cu 324.752†	7741.4	-9.0	-0.0364	ug/L	-0.0364	ppb	17:41:45
3	Fe 238.204 Radial†	9.2	0.8	9.3519	ug/L	9.3519	ppb	17:40:48
3	K 766.490 Radial†	2894.0	152.1	29.107	ug/L	29.107	ppb	17:40:28
3	Mg 279.077 IEC†	3.9	3.8	155.56	ug/L	155.56	ppb	17:40:48
3	Mn 257.610†	472.7	16.8	0.0223	ug/L	0.0223	ppb	17:42:05
3	Mo 202.031†	16.7	-1.4	-0.1286	ug/L	-0.1286	ppb	17:42:05
3	Na 589.592 Radial†	-846.3	124.6	41.119	ug/L	41.119	ppb	17:40:28
3	Ni 231.604†	104.1	5.6	0.1818	ug/L	0.1818	ppb	17:42:05
3	P 214.914†	215.9	7.9	4.5544	ug/L	4.5544	ppb	17:42:05
3	Pb 220.353†	-46.8	11.7	1.9366	ug/L	1.9366	ppb	17:42:05
3	S 181.975 Axial†	52.1	3.1	4.0672	ug/L	4.0672	ppb	17:42:05
3	Sb 206.836†	12725.0	11950.7	5010.2	ug/L	5010.2	ppb	17:41:45
3	Se 196.026†	-28.2	-4.4	-2.7859	ug/L	-2.7859	ppb	17:42:05
3	Si 251.611†	971.6	367.5	14.035	ug/L	14.035	ppb	17:42:05
3	Sn 189.927†	13.6	8.2	1.9633	ug/L	1.9633	ppb	17:42:05
3	Sr 421.552†	99.3	91.1	0.6731	ug/L	0.6731	ppb	17:40:28
3	Ti 334.940†	-1267.1	169.9	0.3470	ug/L	0.3470	ppb	17:41:45
3	Tl 190.801†	-34.0	0.1	0.0539	ug/L	0.0539	ppb	17:42:05
3	U 409.014†	-2582.3	92.2	3.2313	ug/L	3.2313	ppb	17:41:45
3	V 292.402†	-1714.0	59.0	0.4839	ug/L	0.4839	ppb	17:41:45
3	Zn 213.857†	739.3	18.6	0.2079	ug/L	0.2079	ppb	17:42:05
3	SiO2†	974.4	366.5	29.973	ug/L	29.973	ppb	17:42:21

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	790881.7	106.94	%	0.642				0.60%
Sc Radial	4755.2	108	%	1.1				0.98%
Y 371.029	708217.4	106.85	%	0.707				0.66%
Y RADIAL	4998.1	108.5	%	1.03				0.95%
Ag 328.068†	12.8	0.0659	ug/L	0.20177	0.0659	ppb	0.20177	305.95%
Al 396.153Radial†	20.6	20.540	ug/L	7.2316	20.540	ppb	7.2316	35.21%
As 188.979†	4.7	2.1506	ug/L	2.29821	2.1506	ppb	2.29821	106.86%
B 249.677†	649.4	16.943	ug/L	0.0797	16.943	ppb	0.0797	0.47%
Ba 233.527†	23.3	0.2869	ug/L	0.10573	0.2869	ppb	0.10573	36.85%
Be 313.107†	169.1	0.0695	ug/L	0.01687	0.0695	ppb	0.01687	24.27%
Ca 317.933Radial†	12.5	24.027	ug/L	5.2249	24.027	ppb	5.2249	21.75%
Cd 226.502†	21.7	0.3138	ug/L	0.07249	0.3138	ppb	0.07249	23.10%
Co 228.616†	8.0	0.2478	ug/L	0.06689	0.2478	ppb	0.06689	26.99%
Cr 267.716†	15.2	0.2092	ug/L	0.07763	0.2092	ppb	0.07763	37.11%
Cu 324.752†	-24.0	-0.0971	ug/L	0.06148	-0.0971	ppb	0.06148	63.31%
Fe 238.204 Radial†	0.2	2.2147	ug/L	10.10854	2.2147	ppb	10.10854	456.43%

K 766.490 Radial†	205.4	39.315	ug/L	8.8748	39.315	ppb	8.8748	22.57%
Mg 279.077 IEC†	1.7	69.418	ug/L	75.0922	69.418	ppb	75.0922	108.17%
Mn 257.610†	23.8	0.0368	ug/L	0.01314	0.0368	ppb	0.01314	35.75%
Mo 202.031†	-6.9	-0.6557	ug/L	0.46918	-0.6557	ppb	0.46918	71.55%
Na 589.592 Radial†	173.5	57.256	ug/L	15.9126	57.256	ppb	15.9126	27.79%
Ni 231.604†	2.6	0.0845	ug/L	0.36685	0.0845	ppb	0.36685	434.20%
P 214.914†	5.4	3.1260	ug/L	3.05997	3.1260	ppb	3.05997	97.89%
Pb 220.353†	-3.6	-0.5873	ug/L	2.24927	-0.5873	ppb	2.24927	382.97%
S 181.975 Axial†	0.1	0.0938	ug/L	5.87824	0.0938	ppb	5.87824	>999.9%
Sb 206.836†	11945.6	5008.1	ug/L	8.11	5008.1	ppb	8.11	0.16%
Se 196.026†	-0.7	-0.4150	ug/L	2.48899	-0.4150	ppb	2.48899	599.78%
Si 251.611†	355.7	13.590	ug/L	0.3943	13.590	ppb	0.3943	2.90%
Sn 189.927†	5.7	1.3724	ug/L	0.92015	1.3724	ppb	0.92015	67.05%
Sr 421.552†	85.6	0.6327	ug/L	0.04437	0.6327	ppb	0.04437	7.01%
Ti 334.940†	135.9	0.2809	ug/L	0.05947	0.2809	ppb	0.05947	21.17%
Tl 190.801†	-3.9	-1.8441	ug/L	1.91136	-1.8441	ppb	1.91136	103.64%
U 409.014†	192.5	6.7500	ug/L	3.06000	6.7500	ppb	3.06000	45.33%
V 292.402†	95.3	0.7767	ug/L	0.27481	0.7767	ppb	0.27481	35.38%
Zn 213.857†	23.3	0.2625	ug/L	0.06500	0.2625	ppb	0.06500	24.77%
SiO2†	373.6	30.566	ug/L	0.5480	30.566	ppb	0.5480	1.79%

Sequence No.: 17
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/5/2010 17:44:33
Data Type: Reprocessed on 3/5/2010 18:07:48

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	821641.0	821641.0	111.10	%			17:47:43
1	Sc Radial	4495.5	4495.5	102	%			17:46:46
1	Y 371.029	726369.9	726369.9	109.59	%			17:47:43
1	Y RADIAL	4866.3	4866.3	105.6	%			17:46:26
1	Ag 328.068†	101921.6	91541.6	489.38	ug/L	489.38	ppb	17:47:48
1	Al 396.153Radial†	5307.0	5268.8	5216.5	ug/L	5216.5	ppb	17:46:26
1	As 188.979†	1189.7	1097.7	503.48	ug/L	503.48	ppb	17:48:08
1	B 249.677†	20879.8	19335.0	502.22	ug/L	502.22	ppb	17:47:48
1	Ba 233.527†	44613.8	40153.3	491.81	ug/L	491.81	ppb	17:47:48
1	Be 313.107†	1330217.0	1206157.5	492.38	ug/L	492.38	ppb	17:47:43
1	Ca 317.933Radial†	2861.0	2775.7	5346.2	ug/L	5346.2	ppb	17:46:46
1	Cd 226.502†	37809.9	34215.6	491.97	ug/L	491.97	ppb	17:47:48
1	Co 228.616†	17745.3	16035.8	499.59	ug/L	499.59	ppb	17:47:48
1	Cr 267.716†	39087.1	35122.1	488.97	ug/L	488.97	ppb	17:47:48
1	Cu 324.752†	147917.6	125844.6	490.31	ug/L	490.31	ppb	17:47:48
1	Fe 238.204 Radial†	493.1	473.5	5234.4	ug/L	5234.4	ppb	17:46:46
1	K 766.490 Radial†	30234.2	26970.3	5159.0	ug/L	5159.0	ppb	17:46:26
1	Mg 279.077 IEC†	136.5	133.3	5531.4	ug/L	5531.4	ppb	17:46:46
1	Mn 257.610†	330402.5	296969.1	490.93	ug/L	490.93	ppb	17:47:48
1	Mo 202.031†	5658.8	5076.4	484.10	ug/L	484.10	ppb	17:48:08
1	Na 589.592 Radial†	29010.6	29218.6	9642.2	ug/L	9642.2	ppb	17:46:26
1	Ni 231.604†	16996.4	15206.1	496.73	ug/L	496.73	ppb	17:47:48
1	P 214.914†	4963.4	4272.2	2340.1	ug/L	2340.1	ppb	17:48:08
1	Pb 220.353†	3201.2	2937.1	487.68	ug/L	487.68	ppb	17:48:08
1	S 181.975 Axial†	888.7	753.9	990.17	ug/L	990.17	ppb	17:48:08
1	Sb 206.836†	1348.0	1184.2	513.90	ug/L	513.90	ppb	17:48:08
1	Se 196.026†	851.4	788.4	513.83	ug/L	513.83	ppb	17:48:08
1	Si 251.611†	72241.7	64478.0	2456.1	ug/L	2456.1	ppb	17:47:48
1	Sn 189.927†	2267.5	2036.4	486.13	ug/L	486.13	ppb	17:48:08
1	Sr 421.552†	67706.6	66068.0	488.25	ug/L	488.25	ppb	17:46:26
1	Ti 334.940†	255800.4	231610.4	487.93	ug/L	487.93	ppb	17:47:48
1	Tl 190.801†	1115.8	1036.4	495.53	ug/L	495.53	ppb	17:48:08
1	U 409.014†	12882.3	14118.7	493.38	ug/L	493.38	ppb	17:47:48
1	V 292.402†	65077.4	60249.1	494.81	ug/L	494.81	ppb	17:47:48
1	Zn 213.857†	49079.6	43499.4	487.51	ug/L	487.51	ppb	17:47:48
1	SiO2†	72514.0	64719.5	5279.2	ug/L	5279.2	ppb	17:49:15
2	Sc 361.383	814516.6	814516.6	110.13	%			17:48:14
2	Sc Radial	4502.9	4502.9	103	%			17:47:11
2	Y 371.029	719584.7	719584.7	108.56	%			17:48:14
2	Y RADIAL	4977.8	4977.8	108.0	%			17:46:51
2	Ag 328.068†	101455.1	91920.5	491.37	ug/L	491.37	ppb	17:48:19
2	Al 396.153Radial†	5345.3	5297.4	5244.9	ug/L	5244.9	ppb	17:46:51
2	As 188.979†	1186.5	1104.2	506.42	ug/L	506.42	ppb	17:48:39
2	B 249.677†	20736.6	19369.4	503.12	ug/L	503.12	ppb	17:48:19
2	Ba 233.527†	44449.2	40355.1	494.28	ug/L	494.28	ppb	17:48:19
2	Be 313.107†	1321005.8	1208266.7	493.24	ug/L	493.24	ppb	17:48:14
2	Ca 317.933Radial†	2836.1	2746.8	5290.5	ug/L	5290.5	ppb	17:47:11
2	Cd 226.502†	37566.6	34292.4	493.08	ug/L	493.08	ppb	17:48:19
2	Co 228.616†	17670.7	16107.7	501.84	ug/L	501.84	ppb	17:48:19
2	Cr 267.716†	38881.7	35243.4	490.65	ug/L	490.65	ppb	17:48:19
2	Cu 324.752†	146991.9	126168.7	491.57	ug/L	491.57	ppb	17:48:19
2	Fe 238.204 Radial†	489.2	468.9	5183.5	ug/L	5183.5	ppb	17:47:11
2	K 766.490 Radial†	30438.5	27120.3	5187.7	ug/L	5187.7	ppb	17:46:51
2	Mg 279.077 IEC†	132.2	129.0	5349.7	ug/L	5349.7	ppb	17:47:11
2	Mn 257.610†	328930.3	298233.7	493.02	ug/L	493.02	ppb	17:48:19
2	Mo 202.031†	5654.5	5117.0	487.97	ug/L	487.97	ppb	17:48:39
2	Na 589.592 Radial†	29274.9	29429.0	9711.6	ug/L	9711.6	ppb	17:46:51
2	Ni 231.604†	16888.1	15241.6	497.89	ug/L	497.89	ppb	17:48:19

2	P 214.914†	4977.2	4323.9	2369.3 ug/L	2369.3 ppb		17:48:39
2	Pb 220.353†	3215.7	2975.5	494.04 ug/L	494.04 ppb		17:48:39
2	S 181.975 Axial†	883.9	756.6	993.65 ug/L	993.65 ppb		17:48:39
2	Sb 206.836†	1341.7	1189.2	516.09 ug/L	516.09 ppb		17:48:39
2	Se 196.026†	855.7	799.0	520.47 ug/L	520.47 ppb		17:48:39
2	Si 251.611†	71738.0	64589.3	2460.4 ug/L	2460.4 ppb		17:48:19
2	Sn 189.927†	2260.6	2048.0	488.88 ug/L	488.88 ppb		17:48:39
2	Sr 421.552†	68641.4	66868.9	494.17 ug/L	494.17 ppb		17:46:51
2	Ti 334.940†	254541.5	232481.2	489.77 ug/L	489.77 ppb		17:48:19
2	Tl 190.801†	1119.0	1048.1	501.12 ug/L	501.12 ppb		17:48:39
2	U 409.014†	12967.3	14297.3	499.65 ug/L	499.65 ppb		17:48:19
2	V 292.402†	64752.3	60466.3	496.64 ug/L	496.64 ppb		17:48:19
2	Zn 213.857†	48882.2	43706.6	489.85 ug/L	489.85 ppb		17:48:19
2	SiO2†	73242.4	65951.7	5379.9 ug/L	5379.9 ppb		17:49:20
3	Sc 361.383	822850.4	822850.4	111.26 %			17:48:45
3	Sc Radial	4477.2	4477.2	102 %			17:47:36
3	Y 371.029	727502.5	727502.5	109.76 %			17:48:45
3	Y RADIAL	5031.7	5031.7	109.2 %			17:47:16
3	Ag 328.068†	101289.7	90838.8	485.64 ug/L	485.64 ppb		17:48:50
3	Al 396.153Radial†	5280.0	5263.5	5211.5 ug/L	5211.5 ppb		17:47:16
3	As 188.979†	1169.3	1077.8	494.42 ug/L	494.42 ppb		17:49:10
3	B 249.677†	20738.6	19180.5	498.19 ug/L	498.19 ppb		17:48:50
3	Ba 233.527†	44390.6	39893.7	488.63 ug/L	488.63 ppb		17:48:50
3	Be 313.107†	1329899.9	1204112.7	491.54 ug/L	491.54 ppb		17:48:45
3	Ca 317.933Radial†	2838.1	2764.7	5325.0 ug/L	5325.0 ppb		17:47:36
3	Cd 226.502†	37477.8	33867.1	486.95 ug/L	486.95 ppb		17:48:50
3	Co 228.616†	17632.7	15911.1	495.71 ug/L	495.71 ppb		17:48:50
3	Cr 267.716†	38886.0	34889.7	485.73 ug/L	485.73 ppb		17:48:50
3	Cu 324.752†	146966.7	124794.3	486.23 ug/L	486.23 ppb		17:48:50
3	Fe 238.204 Radial†	492.7	475.0	5251.1 ug/L	5251.1 ppb		17:47:36
3	K 766.490 Radial†	30260.4	27116.6	5187.0 ug/L	5187.0 ppb		17:47:16
3	Mg 279.077 IEC†	136.6	134.0	5559.2 ug/L	5559.2 ppb		17:47:36
3	Mn 257.610†	328260.0	294606.4	487.02 ug/L	487.02 ppb		17:48:50
3	Mo 202.031†	5632.0	5044.8	481.10 ug/L	481.10 ppb		17:49:10
3	Na 589.592 Radial†	28714.8	29044.6	9584.8 ug/L	9584.8 ppb		17:47:16
3	Ni 231.604†	16905.8	15102.2	493.34 ug/L	493.34 ppb		17:48:50
3	P 214.914†	4943.6	4247.9	2326.9 ug/L	2326.9 ppb		17:49:10
3	Pb 220.353†	3180.8	2914.5	483.93 ug/L	483.93 ppb		17:49:10
3	S 181.975 Axial†	864.9	731.4	960.59 ug/L	960.59 ppb		17:49:10
3	Sb 206.836†	1312.7	1150.7	499.68 ug/L	499.68 ppb		17:49:10
3	Se 196.026†	842.0	778.9	507.83 ug/L	507.83 ppb		17:49:10
3	Si 251.611†	71749.8	63940.3	2435.7 ug/L	2435.7 ppb		17:48:50
3	Sn 189.927†	2237.0	2006.0	478.88 ug/L	478.88 ppb		17:49:10
3	Sr 421.552†	67493.9	66129.9	488.71 ug/L	488.71 ppb		17:47:16
3	Ti 334.940†	254307.7	229930.3	484.39 ug/L	484.39 ppb		17:48:50
3	Tl 190.801†	1105.6	1025.8	490.46 ug/L	490.46 ppb		17:49:10
3	U 409.014†	12756.8	13988.9	488.84 ug/L	488.84 ppb		17:48:50
3	V 292.402†	64661.9	59789.7	491.04 ug/L	491.04 ppb		17:48:50
3	Zn 213.857†	48857.7	43235.1	484.55 ug/L	484.55 ppb		17:48:50
3	SiO2†	72127.2	64275.9	5243.0 ug/L	5243.0 ppb		17:49:26

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	819669.3	110.83	%	0.609				0.55%
Sc Radial	4491.9	102	%	0.3				0.30%
Y 371.029	724485.7	109.30	%	0.646				0.59%
Y RADIAL	4958.6	107.6	%	1.83				1.70%
Ag 328.068†	91433.6	488.80	ug/L	2.909	488.80	ppb	2.909	0.60%
QC value within limits for Ag 328.068 Recovery = 97.76%								
Al 396.153Radial†	5276.6	5224.3	ug/L	18.00	5224.3	ppb	18.00	0.34%
QC value within limits for Al 396.153Radial Recovery = 104.49%								
As 188.979†	1093.2	501.44	ug/L	6.252	501.44	ppb	6.252	1.25%
QC value within limits for As 188.979 Recovery = 100.29%								
B 249.677†	19295.0	501.17	ug/L	2.622	501.17	ppb	2.622	0.52%
QC value within limits for B 249.677 Recovery = 100.23%								
Ba 233.527†	40134.0	491.57	ug/L	2.831	491.57	ppb	2.831	0.58%
QC value within limits for Ba 233.527 Recovery = 98.31%								
Be 313.107†	1206179.0	492.39	ug/L	0.852	492.39	ppb	0.852	0.17%
QC value within limits for Be 313.107 Recovery = 98.48%								

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Ca 317.933Radial†        2762.4      5320.6 ug/L         28.12      5320.6 ppb          28.12   0.53%
   QC value within limits for Ca 317.933Radial  Recovery = 106.41%
Cd 226.502†             34125.0      490.67 ug/L          3.265      490.67 ppb           3.265   0.67%
   QC value within limits for Cd 226.502  Recovery = 98.13%
Co 228.616†             16018.2      499.05 ug/L          3.102      499.05 ppb           3.102   0.62%
   QC value within limits for Co 228.616  Recovery = 99.81%
Cr 267.716†             35085.0      488.45 ug/L          2.500      488.45 ppb           2.500   0.51%
   QC value within limits for Cr 267.716  Recovery = 97.69%
Cu 324.752†            125602.5      489.37 ug/L          2.795      489.37 ppb           2.795   0.57%
   QC value within limits for Cu 324.752  Recovery = 97.87%
Fe 238.204 Radial†        472.5      5223.0 ug/L         35.24      5223.0 ppb          35.24   0.67%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.46%
K 766.490 Radial†       27069.1      5177.9 ug/L         16.39      5177.9 ppb          16.39   0.32%
   QC value within limits for K 766.490 Radial  Recovery = 103.56%
Mg 279.077 IEC†           132.1      5480.1 ug/L        113.75      5480.1 ppb         113.75   2.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.60%
Mn 257.610†            296603.1      490.32 ug/L          3.043      490.32 ppb           3.043   0.62%
   QC value within limits for Mn 257.610  Recovery = 98.06%
Mo 202.031†             5079.4      484.39 ug/L          3.446      484.39 ppb           3.446   0.71%
   QC value within limits for Mo 202.031  Recovery = 96.88%
Na 589.592 Radial†      29230.7      9646.2 ug/L         63.52      9646.2 ppb          63.52   0.66%
   QC value within limits for Na 589.592 Radial  Recovery = 96.46%
Ni 231.604†             15183.3      495.98 ug/L          2.366      495.98 ppb           2.366   0.48%
   QC value within limits for Ni 231.604  Recovery = 99.20%
P 214.914†              4281.3      2345.4 ug/L         21.70      2345.4 ppb          21.70   0.93%
   QC value within limits for P 214.914  Recovery = 93.82%
Pb 220.353†             2942.4      488.55 ug/L          5.113      488.55 ppb           5.113   1.05%
   QC value within limits for Pb 220.353  Recovery = 97.71%
S 181.975 Axial†         747.3      981.47 ug/L         18.164      981.47 ppb          18.164   1.85%
   QC value within limits for S 181.975 Axial  Recovery = 98.15%
Sb 206.836†             1174.7      509.89 ug/L          8.909      509.89 ppb           8.909   1.75%
   QC value within limits for Sb 206.836  Recovery = 101.98%
Se 196.026†              788.8      514.04 ug/L          6.324      514.04 ppb           6.324   1.23%
   QC value within limits for Se 196.026  Recovery = 102.81%
Si 251.611†             64335.9      2450.7 ug/L         13.21      2450.7 ppb          13.21   0.54%
   QC value within limits for Si 251.611  Recovery = 98.03%
Sn 189.927†             2030.2      484.63 ug/L          5.167      484.63 ppb           5.167   1.07%
   QC value within limits for Sn 189.927  Recovery = 96.93%
Sr 421.552†             66355.6      490.37 ug/L          3.294      490.37 ppb           3.294   0.67%
   QC value within limits for Sr 421.552  Recovery = 98.07%
Ti 334.940†            231340.6      487.36 ug/L          2.735      487.36 ppb           2.735   0.56%
   QC value within limits for Ti 334.940  Recovery = 97.47%
Tl 190.801†             1036.8      495.70 ug/L          5.335      495.70 ppb           5.335   1.08%
   QC value within limits for Tl 190.801  Recovery = 99.14%
U 409.014†              14135.0      493.96 ug/L          5.429      493.96 ppb           5.429   1.10%
   QC value within limits for U 409.014  Recovery = 98.79%
V 292.402†              60168.4      494.16 ug/L          2.856      494.16 ppb           2.856   0.58%
   QC value within limits for V 292.402  Recovery = 98.83%
Zn 213.857†             43480.4      487.30 ug/L          2.660      487.30 ppb           2.660   0.55%
   QC value within limits for Zn 213.857  Recovery = 97.46%
SiO2†                   64982.4      5300.7 ug/L         70.91      5300.7 ppb          70.91   1.34%
   QC value within limits for SiO2  Recovery = 99.13%
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/5/2010 17:51:36
Data Type: Reprocessed on 3/5/2010 18:07:49
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	777453.4	777453.4	105.12	%			17:54:45
1	Sc Radial	4695.8	4695.8	107	%			17:53:28
1	Y 371.029	693513.1	693513.1	104.63	%			17:54:45
1	Y RADIAL	4922.9	4922.9	106.8	%			17:53:28
1	Ag 328.068†	224.1	14.6	0.0671	ug/L	0.0671	ppb	17:54:45
1	Al 396.153Radial†	-88.7	7.3	7.2123	ug/L	7.2123	ppb	17:53:48
1	As 188.979†	-30.3	-1.9	-0.8759	ug/L	-0.8759	ppb	17:55:05
1	B 249.677†	112.1	647.6	16.901	ug/L	16.901	ppb	17:55:05
1	Ba 233.527†	21.8	16.9	0.2068	ug/L	0.2068	ppb	17:55:05
1	Be 313.107†	-9179.7	88.4	0.0364	ug/L	0.0364	ppb	17:54:45
1	Ca 317.933Radial†	18.2	0.9	1.7677	ug/L	1.7677	ppb	17:53:48
1	Cd 226.502†	-168.0	22.9	0.3327	ug/L	0.3327	ppb	17:55:05
1	Co 228.616†	-56.5	9.4	0.2947	ug/L	0.2947	ppb	17:55:05
1	Cr 267.716†	70.2	6.4	0.0875	ug/L	0.0875	ppb	17:55:05
1	Cu 324.752†	7751.8	77.1	0.2961	ug/L	0.2961	ppb	17:54:45
1	Fe 238.204 Radial†	6.0	-2.1	-23.347	ug/L	-23.347	ppb	17:53:48
1	K 766.490 Radial†	2912.0	187.7	35.924	ug/L	35.924	ppb	17:53:28
1	Mg 279.077 IEC†	1.7	1.8	73.281	ug/L	73.281	ppb	17:53:48
1	Mn 257.610†	440.8	-8.9	-0.0200	ug/L	-0.0200	ppb	17:55:05
1	Mo 202.031†	22.7	4.5	0.4233	ug/L	0.4233	ppb	17:55:05
1	Na 589.592 Radial†	-791.9	169.9	56.075	ug/L	56.075	ppb	17:53:28
1	Ni 231.604†	102.6	5.2	0.1689	ug/L	0.1689	ppb	17:55:05
1	P 214.914†	200.0	-5.0	-2.8926	ug/L	-2.8926	ppb	17:55:05
1	Pb 220.353†	-63.0	-4.2	-0.6953	ug/L	-0.6953	ppb	17:55:05
1	S 181.975 Axial†	42.3	-5.7	-7.5057	ug/L	-7.5057	ppb	17:55:05
1	Sb 206.836†	41.2	10.1	4.2899	ug/L	4.2899	ppb	17:55:05
1	Se 196.026†	-21.5	1.6	0.9758	ug/L	0.9758	ppb	17:55:05
1	Si 251.611†	587.2	11.3	0.4264	ug/L	0.4264	ppb	17:55:05
1	Sn 189.927†	14.9	9.6	2.2987	ug/L	2.2987	ppb	17:55:05
1	Sr 421.552†	1.1	0.0	0.0003	ug/L	0.0003	ppb	17:53:28
1	Ti 334.940†	-1341.4	86.8	0.1747	ug/L	0.1747	ppb	17:54:45
1	Tl 190.801†	-33.9	-0.2	-0.0929	ug/L	-0.0929	ppb	17:55:05
1	U 409.014†	-2492.3	152.4	5.3478	ug/L	5.3478	ppb	17:54:45
1	V 292.402†	-1670.7	83.3	0.6958	ug/L	0.6958	ppb	17:54:45
1	Zn 213.857†	706.9	-5.0	-0.0543	ug/L	-0.0543	ppb	17:55:05
1	SiO2†	569.5	-9.1	-0.7593	ug/L	-0.7593	ppb	17:56:01
2	Sc 361.383	788889.1	788889.1	106.67	%			17:55:11
2	Sc Radial	4798.6	4798.6	109	%			17:53:53
2	Y 371.029	703410.0	703410.0	106.12	%			17:55:11
2	Y RADIAL	5036.2	5036.2	109.3	%			17:53:53
2	Ag 328.068†	187.6	-22.8	-0.1286	ug/L	-0.1286	ppb	17:55:11
2	Al 396.153Radial†	-90.3	7.5	7.4826	ug/L	7.4826	ppb	17:54:13
2	As 188.979†	-22.1	6.2	2.8197	ug/L	2.8197	ppb	17:55:31
2	B 249.677†	125.6	658.8	17.188	ug/L	17.188	ppb	17:55:31
2	Ba 233.527†	22.4	17.1	0.2095	ug/L	0.2095	ppb	17:55:31
2	Be 313.107†	-9325.8	78.0	0.0323	ug/L	0.0323	ppb	17:55:11
2	Ca 317.933Radial†	21.6	3.7	7.0555	ug/L	7.0555	ppb	17:54:13
2	Cd 226.502†	-175.7	18.0	0.2603	ug/L	0.2603	ppb	17:55:31
2	Co 228.616†	-62.0	5.0	0.1553	ug/L	0.1553	ppb	17:55:31
2	Cr 267.716†	92.8	26.6	0.3666	ug/L	0.3666	ppb	17:55:31
2	Cu 324.752†	7829.9	43.4	0.1640	ug/L	0.1640	ppb	17:55:11
2	Fe 238.204 Radial†	8.3	-0.1	-1.2085	ug/L	-1.2085	ppb	17:54:13
2	K 766.490 Radial†	2742.6	-25.5	-4.9004	ug/L	-4.9004	ppb	17:53:53
2	Mg 279.077 IEC†	3.6	3.4	142.32	ug/L	142.32	ppb	17:54:13
2	Mn 257.610†	445.3	-10.8	-0.0237	ug/L	-0.0237	ppb	17:55:31
2	Mo 202.031†	14.2	-3.8	-0.3634	ug/L	-0.3634	ppb	17:55:31
2	Na 589.592 Radial†	-825.5	155.1	51.168	ug/L	51.168	ppb	17:53:53
2	Ni 231.604†	101.1	2.3	0.0761	ug/L	0.0761	ppb	17:55:31

2	P 214.914†	202.3	-5.7	-3.2545	ug/L	-3.2545 ppb	17:55:31
2	Pb 220.353†	-53.4	5.6	0.9352	ug/L	0.9352 ppb	17:55:31
2	S 181.975 Axial†	53.8	4.5	5.8657	ug/L	5.8657 ppb	17:55:31
2	Sb 206.836†	40.4	8.8	3.7002	ug/L	3.7002 ppb	17:55:31
2	Se 196.026†	-10.7	12.1	7.6778	ug/L	7.6778 ppb	17:55:31
2	Si 251.611†	598.8	14.1	0.5427	ug/L	0.5427 ppb	17:55:31
2	Sn 189.927†	14.5	9.0	2.1553	ug/L	2.1553 ppb	17:55:31
2	Sr 421.552†	20.1	17.4	0.1285	ug/L	0.1285 ppb	17:53:53
2	Ti 334.940†	-1341.3	105.4	0.2072	ug/L	0.2072 ppb	17:55:11
2	Tl 190.801†	-32.0	2.1	1.0132	ug/L	1.0132 ppb	17:55:31
2	U 409.014†	-2415.5	258.9	9.0763	ug/L	9.0763 ppb	17:55:11
2	V 292.402†	-1768.2	14.9	0.1359	ug/L	0.1359 ppb	17:55:11
2	Zn 213.857†	708.9	-12.8	-0.1457	ug/L	-0.1457 ppb	17:55:31
2	SiO2†	598.3	10.0	0.8305	ug/L	0.8305 ppb	17:56:06
3	Sc 361.383	778659.9	778659.9	105.29	%		17:55:36
3	Sc Radial	4712.6	4712.6	107	%		17:54:18
3	Y 371.029	694758.9	694758.9	104.82	%		17:55:36
3	Y RADIAL	4945.2	4945.2	107.3	%		17:54:18
3	Ag 328.068†	258.0	46.4	0.2445	ug/L	0.2445 ppb	17:55:36
3	Al 396.153Radial†	-88.6	7.6	7.5872	ug/L	7.5872 ppb	17:54:38
3	As 188.979†	-30.1	-1.7	-0.7783	ug/L	-0.7783 ppb	17:55:56
3	B 249.677†	87.4	624.0	16.279	ug/L	16.279 ppb	17:55:56
3	Ba 233.527†	12.6	8.1	0.0997	ug/L	0.0997 ppb	17:55:56
3	Be 313.107†	-9202.8	80.0	0.0329	ug/L	0.0329 ppb	17:55:36
3	Ca 317.933Radial†	21.2	3.6	6.9027	ug/L	6.9027 ppb	17:54:38
3	Cd 226.502†	-166.4	24.6	0.3544	ug/L	0.3544 ppb	17:55:56
3	Co 228.616†	-47.1	18.4	0.5720	ug/L	0.5720 ppb	17:55:56
3	Cr 267.716†	75.9	11.7	0.1608	ug/L	0.1608 ppb	17:55:56
3	Cu 324.752†	7828.3	138.3	0.5352	ug/L	0.5352 ppb	17:55:36
3	Fe 238.204 Radial†	9.0	0.6	6.9993	ug/L	6.9993 ppb	17:54:38
3	K 766.490 Radial†	2785.8	60.5	11.567	ug/L	11.567 ppb	17:54:18
3	Mg 279.077 IEC†	0.2	0.3	12.414	ug/L	12.414 ppb	17:54:38
3	Mn 257.610†	438.8	-11.4	-0.0187	ug/L	-0.0187 ppb	17:55:56
3	Mo 202.031†	10.7	-6.9	-0.6592	ug/L	-0.6592 ppb	17:55:56
3	Na 589.592 Radial†	-832.1	135.1	44.577	ug/L	44.577 ppb	17:54:18
3	Ni 231.604†	100.0	2.6	0.0835	ug/L	0.0835 ppb	17:55:56
3	P 214.914†	203.8	-1.7	-1.0793	ug/L	-1.0793 ppb	17:55:56
3	Pb 220.353†	-76.0	-16.4	-2.7205	ug/L	-2.7205 ppb	17:55:56
3	S 181.975 Axial†	43.7	-4.4	-5.8278	ug/L	-5.8278 ppb	17:55:56
3	Sb 206.836†	34.4	3.6	1.5236	ug/L	1.5236 ppb	17:55:56
3	Se 196.026†	-23.2	0.0	0.0408	ug/L	0.0408 ppb	17:55:56
3	Si 251.611†	595.4	18.3	0.7069	ug/L	0.7069 ppb	17:55:56
3	Sn 189.927†	16.6	11.2	2.6780	ug/L	2.6780 ppb	17:55:56
3	Sr 421.552†	20.1	17.7	0.1310	ug/L	0.1310 ppb	17:54:18
3	Ti 334.940†	-1357.3	73.7	0.1520	ug/L	0.1520 ppb	17:55:36
3	Tl 190.801†	-36.2	-2.3	-1.0955	ug/L	-1.0955 ppb	17:55:56
3	U 409.014†	-2446.3	199.8	7.0065	ug/L	7.0065 ppb	17:55:36
3	V 292.402†	-1716.5	42.3	0.3461	ug/L	0.3461 ppb	17:55:36
3	Zn 213.857†	702.2	-10.5	-0.1208	ug/L	-0.1208 ppb	17:55:56
3	SiO2†	732.5	144.8	11.862	ug/L	11.862 ppb	17:56:11

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	781667.5	105.69	%	0.850				0.80%
Sc Radial	4735.7	108	%	1.3				1.16%
Y 371.029	697227.3	105.19	%	0.813				0.77%
Y RADIAL	4968.1	107.8	%	1.30				1.21%
Ag 328.068†	12.7	0.0610	ug/L	0.18658	0.0610	ppb	0.18658	305.91%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.5	7.4274	ug/L	0.19346	7.4274	ppb	0.19346	2.60%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.9	0.3885	ug/L	2.10607	0.3885	ppb	2.10607	542.08%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	643.5	16.790	ug/L	0.4645	16.790	ppb	0.4645	2.77%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	14.0	0.1720	ug/L	0.06260	0.1720	ppb	0.06260	36.40%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	82.1	0.0339	ug/L	0.00222	0.0339	ppb	0.00222	6.55%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          2.7      5.2420 ug/L       3.00979      5.2420 ppb        3.00979  57.42%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†               21.8      0.3158 ug/L       0.04924      0.3158 ppb        0.04924  15.59%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               11.0      0.3406 ug/L       0.21209      0.3406 ppb        0.21209  62.26%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               14.9      0.2050 ug/L       0.14469      0.2050 ppb        0.14469  70.60%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               86.2      0.3317 ug/L       0.18813      0.3317 ppb        0.18813  56.71%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.5     -5.8519 ug/L      15.69681     -5.8519 ppb       15.69681 268.23%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         74.2      14.197 ug/L       20.5386      14.197 ppb        20.5386 144.67%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.8      76.005 ug/L       64.9965      76.005 ppb        64.9965  85.52%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -10.3     -0.0208 ug/L       0.00261     -0.0208 ppb        0.00261  12.57%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -2.1     -0.1997 ug/L       0.55948     -0.1997 ppb        0.55948 280.10%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       153.4      50.607 ug/L        5.7697      50.607 ppb         5.7697  11.40%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                3.4      0.1095 ug/L       0.05158      0.1095 ppb        0.05158  47.11%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.2     -2.4088 ug/L       1.16553     -2.4088 ppb        1.16553  48.39%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -5.0     -0.8269 ug/L       1.83137     -0.8269 ppb        1.83137 221.48%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.9     -2.4893 ug/L       7.28406     -2.4893 ppb        7.28406 292.62%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                7.5      3.1713 ug/L       1.45705      3.1713 ppb        1.45705  45.95%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                4.6      2.8981 ug/L       4.16566      2.8981 ppb        4.16566 143.74%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               14.6      0.5587 ug/L       0.14095      0.5587 ppb        0.14095  25.23%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               10.0      2.3773 ug/L       0.27009      2.3773 ppb        0.27009  11.36%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               11.7      0.0866 ug/L       0.07475      0.0866 ppb        0.07475  86.29%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               88.6      0.1780 ug/L       0.02774      0.1780 ppb        0.02774  15.59%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -0.1     -0.0584 ug/L       1.05478     -0.0584 ppb        1.05478 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               203.7      7.1435 ug/L       1.86803      7.1435 ppb        1.86803  26.15%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                46.8      0.3926 ug/L       0.28282      0.3926 ppb        0.28282  72.04%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -9.4     -0.1069 ug/L       0.04723     -0.1069 ppb        0.04723  44.16%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     48.6      3.9779 ug/L       6.87437      3.9779 ppb        6.87437 172.81%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 3/5/2010 18:16:46 **Plasma On Time: 3/1/2010 06:57:40**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\030510A.sif
Batch ID:
Results Data Set: 030510A
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 3/5/2010 18:16:48**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4801.0	4801.0	109	%			18:18:40
1	Y RADIAL	5010.1	5010.1	108.7	%			18:18:40
1	Al 396.153Radial†	5277.7	4912.5	4862.7	ug/L	4862.7	ppb	18:18:40
1	Ca 317.933Radial†	2802.9	2545.0	4901.9	ug/L	4901.9	ppb	18:19:01
1	Fe 238.204 Radial†	487.3	437.5	4836.8	ug/L	4836.8	ppb	18:19:01
1	K 766.490 Radial†	29883.0	24772.0	4738.3	ug/L	4738.3	ppb	18:18:40
1	Mg 279.077 IEC†	131.7	120.5	4998.1	ug/L	4998.1	ppb	18:19:01
1	Na 589.592 Radial†	29137.5	27533.2	9086.0	ug/L	9086.0	ppb	18:18:40
1	Sr 421.552†	68204.3	62318.7	460.54	ug/L	460.54	ppb	18:18:40
1	Sc 361.383	826745.9	826745.9	111.79	%			18:19:58
1	Y 371.029	729817.8	729817.8	110.11	%			18:19:58
1	Ag 328.068†	99494.0	88803.6	474.66	ug/L	474.66	ppb	18:20:03
1	As 188.979†	1159.2	1063.8	487.89	ug/L	487.89	ppb	18:20:23
1	B 249.677†	20214.4	18623.8	483.79	ug/L	483.79	ppb	18:20:03
1	Ba 233.527†	43898.3	39265.2	480.92	ug/L	480.92	ppb	18:20:03
1	Be 313.107†	1313152.4	1183499.1	483.12	ug/L	483.12	ppb	18:19:58
1	Cd 226.502†	37066.3	33340.2	479.41	ug/L	479.41	ppb	18:20:03
1	Co 228.616†	16956.7	15231.7	474.55	ug/L	474.55	ppb	18:20:23
1	Cr 267.716†	38279.3	34182.3	475.87	ug/L	475.87	ppb	18:20:03
1	Cu 324.752†	144724.1	122165.8	475.97	ug/L	475.97	ppb	18:20:03
1	Mn 257.610†	324520.6	289871.1	479.18	ug/L	479.18	ppb	18:20:03
1	Mo 202.031†	5570.8	4966.2	473.57	ug/L	473.57	ppb	18:20:23
1	Ni 231.604†	16674.2	14823.5	484.24	ug/L	484.24	ppb	18:20:03
1	P 214.914†	4910.9	4197.7	2300.5	ug/L	2300.5	ppb	18:20:23
1	Pb 220.353†	3158.7	2881.3	478.36	ug/L	478.36	ppb	18:20:23
1	S 181.975 Axial†	863.4	726.4	954.05	ug/L	954.05	ppb	18:20:23
1	Sb 206.836†	1291.4	1126.2	489.13	ug/L	489.13	ppb	18:20:23
1	Se 196.026†	838.4	772.1	502.50	ug/L	502.50	ppb	18:20:23
1	Si 251.611†	70703.6	62700.6	2388.4	ug/L	2388.4	ppb	18:20:03
1	Sn 189.927†	2218.5	1980.0	472.61	ug/L	472.61	ppb	18:20:23
1	Ti 334.940†	251142.0	226021.5	476.15	ug/L	476.15	ppb	18:20:03
1	Tl 190.801†	1091.2	1008.2	482.11	ug/L	482.11	ppb	18:20:23
1	U 409.014†	12618.1	13810.8	482.66	ug/L	482.66	ppb	18:20:03
1	V 292.402†	63554.3	58525.0	480.73	ug/L	480.73	ppb	18:20:03
1	Zn 213.857†	48042.4	42298.8	474.09	ug/L	474.09	ppb	18:20:03
1	SiO2†	70513.3	62526.7	5100.2	ug/L	5100.2	ppb	18:21:30
2	Sc Radial	4883.1	4883.1	111	%			18:19:06
2	Y RADIAL	5119.0	5119.0	111.1	%			18:19:06
2	Al 396.153Radial†	5359.9	4905.1	4855.0	ug/L	4855.0	ppb	18:19:06
2	Ca 317.933Radial†	2815.7	2513.3	4840.9	ug/L	4840.9	ppb	18:19:26
2	Fe 238.204 Radial†	485.8	428.7	4740.3	ug/L	4740.3	ppb	18:19:26
2	K 766.490 Radial†	30234.2	24628.0	4710.8	ug/L	4710.8	ppb	18:19:06
2	Mg 279.077 IEC†	136.5	122.8	5093.2	ug/L	5093.2	ppb	18:19:26
2	Na 589.592 Radial†	29655.5	27550.5	9091.7	ug/L	9091.7	ppb	18:19:06
2	Sr 421.552†	69501.0	62434.9	461.40	ug/L	461.40	ppb	18:19:06
2	Sc 361.383	814036.3	814036.3	110.07	%			18:20:29
2	Y 371.029	719048.5	719048.5	108.48	%			18:20:29

2	Ag 328.068†	99726.1	90404.0	483.14 ug/L	483.14 ppb	18:20:34
2	As 188.979†	1168.6	1088.6	499.17 ug/L	499.17 ppb	18:20:54
2	B 249.677†	20338.1	19018.5	494.08 ug/L	494.08 ppb	18:20:34
2	Ba 233.527†	43944.6	39920.4	488.94 ug/L	488.94 ppb	18:20:34
2	Be 313.107†	1294264.8	1184679.9	483.62 ug/L	483.62 ppb	18:20:29
2	Cd 226.502†	37129.2	33915.1	487.70 ug/L	487.70 ppb	18:20:34
2	Co 228.616†	17007.6	15514.8	483.37 ug/L	483.37 ppb	18:20:54
2	Cr 267.716†	38297.7	34733.6	483.54 ug/L	483.54 ppb	18:20:34
2	Cu 324.752†	144895.6	124342.9	484.44 ug/L	484.44 ppb	18:20:34
2	Mn 257.610†	324976.2	294817.6	487.34 ug/L	487.34 ppb	18:20:34
2	Mo 202.031†	5577.8	5050.4	481.58 ug/L	481.58 ppb	18:20:54
2	Ni 231.604†	16705.5	15084.8	492.77 ug/L	492.77 ppb	18:20:34
2	P 214.914†	4919.2	4273.8	2342.4 ug/L	2342.4 ppb	18:20:54
2	Pb 220.353†	3148.6	2916.3	484.17 ug/L	484.17 ppb	18:20:54
2	S 181.975 Axial†	864.1	739.0	970.68 ug/L	970.68 ppb	18:20:54
2	Sb 206.836†	1322.4	1172.3	508.79 ug/L	508.79 ppb	18:20:54
2	Se 196.026†	840.0	785.3	510.70 ug/L	510.70 ppb	18:20:54
2	Si 251.611†	71000.9	63958.1	2436.3 ug/L	2436.3 ppb	18:20:34
2	Sn 189.927†	2226.1	2017.9	481.66 ug/L	481.66 ppb	18:20:54
2	Ti 334.940†	251191.4	229573.9	483.61 ug/L	483.61 ppb	18:20:34
2	Tl 190.801†	1089.6	1022.0	488.74 ug/L	488.74 ppb	18:20:54
2	U 409.014†	12784.5	14138.2	494.14 ug/L	494.14 ppb	18:20:34
2	V 292.402†	63616.1	59468.8	488.52 ug/L	488.52 ppb	18:20:34
2	Zn 213.857†	48167.0	43083.0	482.91 ug/L	482.91 ppb	18:20:34
2	SiO2†	71194.4	64130.3	5231.1 ug/L	5231.1 ppb	18:21:35
3	Sc Radial	4795.2	4795.2	109 %		18:19:31
3	Y RADIAL	4996.8	4996.8	108.4 %		18:19:31
3	Al 396.153Radial†	5271.4	4912.5	4862.4 ug/L	4862.4 ppb	18:19:31
3	Ca 317.933Radial†	2816.9	2560.9	4932.5 ug/L	4932.5 ppb	18:19:51
3	Fe 238.204 Radial†	488.2	438.9	4852.3 ug/L	4852.3 ppb	18:19:51
3	K 766.490 Radial†	29723.8	24659.4	4716.8 ug/L	4716.8 ppb	18:19:31
3	Mg 279.077 IEC†	132.1	121.0	5019.6 ug/L	5019.6 ppb	18:19:51
3	Na 589.592 Radial†	28695.3	27160.9	8963.2 ug/L	8963.2 ppb	18:19:31
3	Sr 421.552†	67656.6	61893.0	457.40 ug/L	457.40 ppb	18:19:31
3	Sc 361.383	815243.9	815243.9	110.23 %		18:20:59
3	Y 371.029	719758.3	719758.3	108.59 %		18:20:59
3	Ag 328.068†	99832.9	90366.7	482.98 ug/L	482.98 ppb	18:21:05
3	As 188.979†	1154.2	1074.0	492.55 ug/L	492.55 ppb	18:21:25
3	B 249.677†	20383.6	19032.4	494.44 ug/L	494.44 ppb	18:21:05
3	Ba 233.527†	43722.9	39660.2	485.76 ug/L	485.76 ppb	18:21:05
3	Be 313.107†	1300127.7	1188256.8	485.08 ug/L	485.08 ppb	18:20:59
3	Cd 226.502†	36983.6	33733.0	485.07 ug/L	485.07 ppb	18:21:05
3	Co 228.616†	16933.9	15425.1	480.57 ug/L	480.57 ppb	18:21:25
3	Cr 267.716†	38270.4	34657.3	482.49 ug/L	482.49 ppb	18:21:05
3	Cu 324.752†	145099.3	124332.6	484.41 ug/L	484.41 ppb	18:21:05
3	Mn 257.610†	323991.2	293486.7	485.16 ug/L	485.16 ppb	18:21:05
3	Mo 202.031†	5577.0	5042.1	480.80 ug/L	480.80 ppb	18:21:25
3	Ni 231.604†	16637.9	15000.9	490.03 ug/L	490.03 ppb	18:21:05
3	P 214.914†	4915.4	4263.8	2336.5 ug/L	2336.5 ppb	18:21:25
3	Pb 220.353†	3151.0	2914.2	483.82 ug/L	483.82 ppb	18:21:25
3	S 181.975 Axial†	864.8	738.6	970.05 ug/L	970.05 ppb	18:21:25
3	Sb 206.836†	1293.4	1144.3	496.91 ug/L	496.91 ppb	18:21:25
3	Se 196.026†	838.1	782.4	509.12 ug/L	509.12 ppb	18:21:25
3	Si 251.611†	70734.1	63620.6	2423.4 ug/L	2423.4 ppb	18:21:05
3	Sn 189.927†	2200.3	1991.5	475.36 ug/L	475.36 ppb	18:21:25
3	Ti 334.940†	251026.9	229086.7	482.60 ug/L	482.60 ppb	18:21:05
3	Tl 190.801†	1076.0	1008.2	482.16 ug/L	482.16 ppb	18:21:25
3	U 409.014†	12632.9	13983.5	488.70 ug/L	488.70 ppb	18:21:05
3	V 292.402†	63539.8	59313.9	487.23 ug/L	487.23 ppb	18:21:05
3	Zn 213.857†	48008.1	42874.0	480.54 ug/L	480.54 ppb	18:21:05
3	SiO2†	71234.4	64070.8	5226.3 ug/L	5226.3 ppb	18:21:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	818675.4	110.70	%	0.949				0.86%
Sc Radial	4826.4	110	%	1.1				1.02%
Y 371.029	722874.9	109.06	%	0.909				0.83%
Y RADIAL	5042.0	109.4	%	1.45				1.33%
Ag 328.068†	89858.1	480.26	ug/L	4.853	480.26	ppb	4.853	1.01%

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   QC value within limits for Ag 328.068  Recovery = 96.05%
Al 396.153Radial†       4910.0      4860.0 ug/L          4.37      4860.0 ppb          4.37   0.09%
   QC value within limits for Al 396.153Radial  Recovery = 97.20%
As 188.979†             1075.4      493.21 ug/L         5.668      493.21 ppb         5.668   1.15%
   QC value within limits for As 188.979  Recovery = 98.64%
B 249.677†             18891.5      490.77 ug/L         6.045      490.77 ppb         6.045   1.23%
   QC value within limits for B 249.677  Recovery = 98.15%
Ba 233.527†            39615.3      485.20 ug/L         4.038      485.20 ppb         4.038   0.83%
   QC value within limits for Ba 233.527  Recovery = 97.04%
Be 313.107†          1185478.6      483.94 ug/L         1.015      483.94 ppb         1.015   0.21%
   QC value within limits for Be 313.107  Recovery = 96.79%
Ca 317.933Radial†       2539.7      4891.8 ug/L         46.63      4891.8 ppb         46.63   0.95%
   QC value within limits for Ca 317.933Radial  Recovery = 97.84%
Cd 226.502†            33662.8      484.06 ug/L         4.234      484.06 ppb         4.234   0.87%
   QC value within limits for Cd 226.502  Recovery = 96.81%
Co 228.616†            15390.5      479.50 ug/L         4.509      479.50 ppb         4.509   0.94%
   QC value within limits for Co 228.616  Recovery = 95.90%
Cr 267.716†            34524.4      480.64 ug/L         4.157      480.64 ppb         4.157   0.86%
   QC value within limits for Cr 267.716  Recovery = 96.13%
Cu 324.752†           123613.8      481.60 ug/L         4.882      481.60 ppb         4.882   1.01%
   QC value within limits for Cu 324.752  Recovery = 96.32%
Fe 238.204 Radial†       435.1      4809.8 ug/L         60.67      4809.8 ppb         60.67   1.26%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.20%
K 766.490 Radial†      24686.5      4722.0 ug/L         14.49      4722.0 ppb         14.49   0.31%
   QC value within limits for K 766.490 Radial  Recovery = 94.44%
Mg 279.077 IEC†          121.4      5037.0 ug/L         49.83      5037.0 ppb         49.83   0.99%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.74%
Mn 257.610†           292725.1      483.89 ug/L         4.224      483.89 ppb         4.224   0.87%
   QC value within limits for Mn 257.610  Recovery = 96.78%
Mo 202.031†             5019.6      478.65 ug/L         4.420      478.65 ppb         4.420   0.92%
   QC value within limits for Mo 202.031  Recovery = 95.73%
Na 589.592 Radial†     27414.9      9047.0 ug/L         72.64      9047.0 ppb         72.64   0.80%
   QC value within limits for Na 589.592 Radial  Recovery = 90.47%
Ni 231.604†            14969.7      489.02 ug/L         4.358      489.02 ppb         4.358   0.89%
   QC value within limits for Ni 231.604  Recovery = 97.80%
P 214.914†              4245.1      2326.5 ug/L         22.67      2326.5 ppb         22.67   0.97%
   QC value within limits for P 214.914  Recovery = 93.06%
Pb 220.353†             2903.9      482.12 ug/L         3.257      482.12 ppb         3.257   0.68%
   QC value within limits for Pb 220.353  Recovery = 96.42%
S 181.975 Axial†         734.7      964.93 ug/L         9.423      964.93 ppb         9.423   0.98%
   QC value within limits for S 181.975 Axial  Recovery = 96.49%
Sb 206.836†             1147.6      498.28 ug/L         9.899      498.28 ppb         9.899   1.99%
   QC value within limits for Sb 206.836  Recovery = 99.66%
Se 196.026†              779.9      507.44 ug/L         4.352      507.44 ppb         4.352   0.86%
   QC value within limits for Se 196.026  Recovery = 101.49%
Si 251.611†            63426.4      2416.1 ug/L         24.80      2416.1 ppb         24.80   1.03%
   QC value within limits for Si 251.611  Recovery = 96.64%
Sn 189.927†             1996.5      476.54 ug/L         4.639      476.54 ppb         4.639   0.97%
   QC value within limits for Sn 189.927  Recovery = 95.31%
Sr 421.552†            62215.5      459.78 ug/L         2.109      459.78 ppb         2.109   0.46%
   QC value within limits for Sr 421.552  Recovery = 91.96%
Ti 334.940†           228227.4      480.79 ug/L         4.049      480.79 ppb         4.049   0.84%
   QC value within limits for Ti 334.940  Recovery = 96.16%
Tl 190.801†             1012.8      484.33 ug/L         3.812      484.33 ppb         3.812   0.79%
   QC value within limits for Tl 190.801  Recovery = 96.87%
U 409.014†             13977.5      488.50 ug/L         5.741      488.50 ppb         5.741   1.18%
   QC value within limits for U 409.014  Recovery = 97.70%
V 292.402†             59102.6      485.49 ug/L         4.175      485.49 ppb         4.175   0.86%
   QC value within limits for V 292.402  Recovery = 97.10%
Zn 213.857†            42752.0      479.18 ug/L         4.566      479.18 ppb         4.566   0.95%
   QC value within limits for Zn 213.857  Recovery = 95.84%
SiO2†                  63575.9      5185.9 ug/L         74.22      5185.9 ppb         74.22   1.43%
   QC value within limits for SiO2  Recovery = 96.98%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/5/2010 18:23:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4790.2	4790.2	109	%			18:25:42
1	Y RADIAL	5089.2	5089.2	110.4	%			18:25:42
1	Al 396.153Radial†	-77.0	19.6	19.450	ug/L	19.450	ppb	18:26:03
1	Ca 317.933Radial†	19.1	1.4	2.6381	ug/L	2.6381	ppb	18:26:03
1	Fe 238.204 Radial†	7.7	-0.6	-6.7211	ug/L	-6.7211	ppb	18:26:03
1	K 766.490 Radial†	2669.0	-88.5	-16.957	ug/L	-16.957	ppb	18:25:42
1	Mg 279.077 IEC†	0.9	1.0	41.393	ug/L	41.393	ppb	18:26:03
1	Na 589.592 Radial†	-853.4	128.2	42.292	ug/L	42.292	ppb	18:25:42
1	Sr 421.552†	46.1	41.3	0.3049	ug/L	0.3049	ppb	18:25:42
1	Sc 361.383	792815.3	792815.3	107.20	%			18:26:59
1	Y 371.029	709438.1	709438.1	107.03	%			18:26:59
1	Ag 328.068†	204.6	-7.8	-0.0463	ug/L	-0.0463	ppb	18:26:59
1	As 188.979†	-25.1	3.5	1.5708	ug/L	1.5708	ppb	18:27:19
1	B 249.677†	4.2	544.9	14.217	ug/L	14.217	ppb	18:27:19
1	Ba 233.527†	7.7	3.2	0.0401	ug/L	0.0401	ppb	18:27:19
1	Be 313.107†	-9471.7	-14.8	-0.0059	ug/L	-0.0059	ppb	18:26:59
1	Cd 226.502†	-190.7	4.7	0.0694	ug/L	0.0694	ppb	18:27:19
1	Co 228.616†	-48.9	17.5	0.5457	ug/L	0.5457	ppb	18:27:19
1	Cr 267.716†	71.9	6.6	0.0909	ug/L	0.0909	ppb	18:27:19
1	Cu 324.752†	7826.1	3.5	0.0108	ug/L	0.0108	ppb	18:26:59
1	Mn 257.610†	458.4	-0.6	-0.0034	ug/L	-0.0034	ppb	18:27:19
1	Mo 202.031†	19.0	0.6	0.0585	ug/L	0.0585	ppb	18:27:19
1	Ni 231.604†	97.3	-1.7	-0.0547	ug/L	-0.0547	ppb	18:27:19
1	P 214.914†	189.0	-19.0	-10.822	ug/L	-10.822	ppb	18:27:19
1	Pb 220.353†	-63.3	-3.3	-0.5422	ug/L	-0.5422	ppb	18:27:19
1	S 181.975 Axial†	43.7	-5.2	-6.9052	ug/L	-6.9052	ppb	18:27:19
1	Sb 206.836†	34.8	3.4	1.4531	ug/L	1.4531	ppb	18:27:19
1	Se 196.026†	-11.6	11.3	7.1644	ug/L	7.1644	ppb	18:27:19
1	Si 251.611†	563.2	-21.9	-0.8369	ug/L	-0.8369	ppb	18:27:19
1	Sn 189.927†	12.5	7.1	1.7030	ug/L	1.7030	ppb	18:27:19
1	Ti 334.940†	-1440.1	19.4	0.0358	ug/L	0.0358	ppb	18:26:59
1	Tl 190.801†	-36.7	-2.1	-1.0018	ug/L	-1.0018	ppb	18:27:19
1	U 409.014†	-2563.0	132.4	4.6438	ug/L	4.6438	ppb	18:26:59
1	V 292.402†	-1755.6	34.9	0.2946	ug/L	0.2946	ppb	18:26:59
1	Zn 213.857†	674.8	-48.0	-0.5414	ug/L	-0.5414	ppb	18:27:19
1	SiO2†	546.1	-41.5	-3.3924	ug/L	-3.3924	ppb	18:28:15
2	Sc Radial	4732.0	4732.0	108	%			18:26:08
2	Y RADIAL	4957.3	4957.3	107.6	%			18:26:08
2	Al 396.153Radial†	-80.5	15.5	15.410	ug/L	15.410	ppb	18:26:28
2	Ca 317.933Radial†	22.4	4.7	8.9672	ug/L	8.9672	ppb	18:26:28
2	Fe 238.204 Radial†	9.4	1.0	10.882	ug/L	10.882	ppb	18:26:28
2	K 766.490 Radial†	2612.4	-110.9	-21.253	ug/L	-21.253	ppb	18:26:08
2	Mg 279.077 IEC†	-1.2	-1.0	-41.509	ug/L	-41.509	ppb	18:26:28
2	Na 589.592 Radial†	-855.4	116.7	38.514	ug/L	38.514	ppb	18:26:08
2	Sr 421.552†	13.5	11.6	0.0853	ug/L	0.0853	ppb	18:26:08
2	Sc 361.383	782236.0	782236.0	105.77	%			18:27:25
2	Y 371.029	698549.0	698549.0	105.39	%			18:27:25
2	Ag 328.068†	197.0	-12.4	-0.0682	ug/L	-0.0682	ppb	18:27:25
2	As 188.979†	-23.7	4.5	2.0529	ug/L	2.0529	ppb	18:27:45
2	B 249.677†	-17.5	524.4	13.680	ug/L	13.680	ppb	18:27:45
2	Ba 233.527†	6.1	1.9	0.0239	ug/L	0.0239	ppb	18:27:45
2	Be 313.107†	-9505.2	-166.0	-0.0675	ug/L	-0.0675	ppb	18:27:25
2	Cd 226.502†	-192.5	0.6	0.0096	ug/L	0.0096	ppb	18:27:45
2	Co 228.616†	-50.3	15.6	0.4857	ug/L	0.4857	ppb	18:27:45
2	Cr 267.716†	91.9	26.5	0.3649	ug/L	0.3649	ppb	18:27:45
2	Cu 324.752†	7868.2	142.0	0.5487	ug/L	0.5487	ppb	18:27:25
2	Mn 257.610†	430.4	-21.3	-0.0324	ug/L	-0.0324	ppb	18:27:45
2	Mo 202.031†	13.1	-4.8	-0.4527	ug/L	-0.4527	ppb	18:27:45
2	Ni 231.604†	100.0	2.1	0.0690	ug/L	0.0690	ppb	18:27:45

2	P 214.914†	206.8	0.2	0.0187 ug/L	0.0187 ppb	18:27:45
2	Pb 220.353†	-64.0	-4.8	-0.7918 ug/L	-0.7918 ppb	18:27:45
2	S 181.975 Axial†	42.8	-5.5	-7.2784 ug/L	-7.2784 ppb	18:27:45
2	Sb 206.836†	37.4	6.3	2.6448 ug/L	2.6448 ppb	18:27:45
2	Se 196.026†	-15.5	7.4	4.7278 ug/L	4.7278 ppb	18:27:45
2	Si 251.611†	548.5	-28.6	-1.0876 ug/L	-1.0876 ppb	18:27:45
2	Sn 189.927†	13.5	8.2	1.9544 ug/L	1.9544 ppb	18:27:45
2	Ti 334.940†	-1407.2	32.3	0.0684 ug/L	0.0684 ppb	18:27:25
2	Tl 190.801†	-36.5	-2.5	-1.1671 ug/L	-1.1671 ppb	18:27:45
2	U 409.014†	-2379.4	273.7	9.5957 ug/L	9.5957 ppb	18:27:25
2	V 292.402†	-1717.5	48.8	0.4049 ug/L	0.4049 ppb	18:27:25
2	Zn 213.857†	687.9	-27.0	-0.3087 ug/L	-0.3087 ppb	18:27:45
2	SiO2†	590.6	7.6	0.6301 ug/L	0.6301 ppb	18:28:20
3	Sc Radial	4794.6	4794.6	109 %		18:26:33
3	Y RADIAL	5058.4	5058.4	109.8 %		18:26:33
3	Al 396.153Radial†	-83.1	14.1	14.008 ug/L	14.008 ppb	18:26:53
3	Ca 317.933Radial†	20.1	2.3	4.3972 ug/L	4.3972 ppb	18:26:53
3	Fe 238.204 Radial†	7.7	-0.6	-6.7228 ug/L	-6.7228 ppb	18:26:53
3	K 766.490 Radial†	2613.9	-141.1	-27.047 ug/L	-27.047 ppb	18:26:33
3	Mg 279.077 IEC†	0.7	0.8	33.362 ug/L	33.362 ppb	18:26:53
3	Na 589.592 Radial†	-851.0	131.1	43.255 ug/L	43.255 ppb	18:26:33
3	Sr 421.552†	0.4	-0.6	-0.0046 ug/L	-0.0046 ppb	18:26:33
3	Sc 361.383	794140.6	794140.6	107.38 %		18:27:50
3	Y 371.029	710567.7	710567.7	107.20 %		18:27:50
3	Ag 328.068†	194.6	-17.4	-0.0939 ug/L	-0.0939 ppb	18:27:50
3	As 188.979†	-21.1	7.2	3.2678 ug/L	3.2678 ppb	18:28:10
3	B 249.677†	-10.8	530.9	13.853 ug/L	13.853 ppb	18:28:10
3	Ba 233.527†	22.8	17.3	0.2131 ug/L	0.2131 ppb	18:28:10
3	Be 313.107†	-9469.2	2.3	0.0019 ug/L	0.0019 ppb	18:27:50
3	Cd 226.502†	-185.5	9.9	0.1433 ug/L	0.1433 ppb	18:28:10
3	Co 228.616†	-61.4	5.9	0.1843 ug/L	0.1843 ppb	18:28:10
3	Cr 267.716†	101.6	34.2	0.4758 ug/L	0.4758 ppb	18:28:10
3	Cu 324.752†	8005.6	158.4	0.6150 ug/L	0.6150 ppb	18:27:50
3	Mn 257.610†	439.6	-18.9	-0.0332 ug/L	-0.0332 ppb	18:28:10
3	Mo 202.031†	18.2	-0.2	-0.0176 ug/L	-0.0176 ppb	18:28:10
3	Ni 231.604†	92.3	-6.5	-0.2133 ug/L	-0.2133 ppb	18:28:10
3	P 214.914†	196.7	-12.1	-7.0132 ug/L	-7.0132 ppb	18:28:10
3	Pb 220.353†	-83.5	-22.1	-3.6498 ug/L	-3.6498 ppb	18:28:10
3	S 181.975 Axial†	50.6	1.2	1.5103 ug/L	1.5103 ppb	18:28:10
3	Sb 206.836†	41.6	9.7	4.1114 ug/L	4.1114 ppb	18:28:10
3	Se 196.026†	-15.5	7.7	4.8743 ug/L	4.8743 ppb	18:28:10
3	Si 251.611†	549.1	-35.8	-1.3685 ug/L	-1.3685 ppb	18:28:10
3	Sn 189.927†	17.7	11.9	2.8369 ug/L	2.8369 ppb	18:28:10
3	Ti 334.940†	-1251.8	197.0	0.4114 ug/L	0.4114 ppb	18:27:50
3	Tl 190.801†	-41.9	-6.9	-3.2938 ug/L	-3.2938 ppb	18:28:10
3	U 409.014†	-2606.1	96.3	3.3768 ug/L	3.3768 ppb	18:27:50
3	V 292.402†	-1666.3	120.8	0.9862 ug/L	0.9862 ppb	18:27:50
3	Zn 213.857†	669.6	-53.8	-0.6074 ug/L	-0.6074 ppb	18:28:10
3	SiO2†	556.3	-32.8	-2.6791 ug/L	-2.6791 ppb	18:28:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	789730.6	106.78	%	0.882				0.83%
Sc Radial	4772.3	109	%	0.8				0.73%
Y 371.029	706184.9	106.54	%	1.001				0.94%
Y RADIAL	5035.0	109.3	%	1.50				1.37%
Ag 328.068†	-12.5	-0.0695	ug/L	0.02378	-0.0695	ppb	0.02378	34.24%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	16.4	16.289	ug/L	2.8255	16.289	ppb	2.8255	17.35%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.0	2.2972	ug/L	0.87447	2.2972	ppb	0.87447	38.07%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	533.4	13.917	ug/L	0.2740	13.917	ppb	0.2740	1.97%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.5	0.0924	ug/L	0.10488	0.0924	ppb	0.10488	113.54%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-59.5	-0.0238	ug/L	0.03798	-0.0238	ppb	0.03798	159.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.8	5.3341	ug/L	3.26692	5.3341	ppb	3.26692	61.25%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                5.1      0.0741 ug/L       0.06695      0.0741 ppb        0.06695  90.35%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               13.0      0.4052 ug/L       0.19368      0.4052 ppb        0.19368  47.80%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               22.4      0.3105 ug/L       0.19813      0.3105 ppb        0.19813  63.81%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              101.3      0.3915 ug/L       0.33137      0.3915 ppb        0.33137  84.64%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.1     -0.8539 ug/L      10.16369     -0.8539 ppb       10.16369 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -113.5     -21.752 ug/L        5.0632     -21.752 ppb         5.0632  23.28%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.3      11.082 ug/L       45.7219      11.082 ppb        45.7219 412.57%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -13.6     -0.0230 ug/L       0.01698     -0.0230 ppb        0.01698  73.87%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -1.4     -0.1373 ug/L       0.27585     -0.1373 ppb        0.27585 200.97%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       125.3      41.354 ug/L        2.5057      41.354 ppb         2.5057   6.06%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -2.0     -0.0664 ug/L       0.14153     -0.0664 ppb        0.14153 213.25%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -10.3     -5.9388 ug/L       5.49958     -5.9388 ppb        5.49958  92.60%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -10.1     -1.6613 ug/L       1.72663     -1.6613 ppb        1.72663 103.94%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -3.2     -4.2244 ug/L       4.96997     -4.2244 ppb        4.96997 117.65%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                6.5      2.7364 ug/L       1.33148      2.7364 ppb        1.33148  48.66%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                8.8      5.5888 ug/L       1.36644      5.5888 ppb        1.36644  24.45%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -28.8     -1.0977 ug/L       0.26591     -1.0977 ppb        0.26591  24.23%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                9.1      2.1648 ug/L       0.59553      2.1648 ppb        0.59553  27.51%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               17.4      0.1286 ug/L       0.15922      0.1286 ppb        0.15922 123.84%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               82.9      0.1719 ug/L       0.20809      0.1719 ppb        0.20809 121.07%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -3.8     -1.8209 ug/L       1.27821     -1.8209 ppb        1.27821  70.20%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               167.5      5.8721 ug/L       3.28634      5.8721 ppb        3.28634  55.97%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                68.2      0.5619 ug/L       0.37160      0.5619 ppb        0.37160  66.14%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -42.9     -0.4858 ug/L       0.15688     -0.4858 ppb        0.15688  32.29%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -22.2     -1.8138 ug/L       2.14635     -1.8138 ppb        2.14635 118.33%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/5/2010 19:19:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4514.3	4514.3	103	%			19:21:14
1	Y RADIAL	4742.2	4742.2	102.9	%			19:20:54
1	Al 396.153Radial†	5489.3	5424.3	5371.4	ug/L	5371.4	ppb	19:20:54
1	Ca 317.933Radial†	2865.4	2768.3	5332.0	ug/L	5332.0	ppb	19:21:14
1	Fe 238.204 Radial†	488.5	467.0	5161.9	ug/L	5161.9	ppb	19:21:14
1	K 766.490 Radial†	30595.1	27197.9	5202.6	ug/L	5202.6	ppb	19:20:54
1	Mg 279.077 IEC†	132.0	128.4	5327.1	ug/L	5327.1	ppb	19:21:14
1	Na 589.592 Radial†	28767.8	28864.6	9525.4	ug/L	9525.4	ppb	19:20:54
1	Sr 421.552†	69565.7	67599.0	499.56	ug/L	499.56	ppb	19:20:54
1	Sc 361.383	832921.2	832921.2	112.62	%			19:22:11
1	Y 371.029	734471.3	734471.3	110.81	%			19:22:11
1	Ag 328.068†	102373.2	90700.2	484.87	ug/L	484.87	ppb	19:22:16
1	As 188.979†	1183.5	1077.7	494.36	ug/L	494.36	ppb	19:22:36
1	B 249.677†	20692.4	18914.1	491.26	ug/L	491.26	ppb	19:22:16
1	Ba 233.527†	45052.9	39999.3	489.92	ug/L	489.92	ppb	19:22:16
1	Be 313.107†	1337044.7	1196004.6	488.24	ug/L	488.24	ppb	19:22:11
1	Cd 226.502†	38038.8	33957.9	488.27	ug/L	488.27	ppb	19:22:16
1	Co 228.616†	17829.2	15894.0	495.17	ug/L	495.17	ppb	19:22:16
1	Cr 267.716†	39187.2	34734.5	483.57	ug/L	483.57	ppb	19:22:16
1	Cu 324.752†	149681.3	125607.5	489.39	ug/L	489.39	ppb	19:22:16
1	Mn 257.610†	333088.0	295326.0	488.21	ug/L	488.21	ppb	19:22:16
1	Mo 202.031†	5684.9	5030.6	479.73	ug/L	479.73	ppb	19:22:36
1	Ni 231.604†	17104.4	15094.9	493.10	ug/L	493.10	ppb	19:22:16
1	P 214.914†	5001.4	4245.5	2325.0	ug/L	2325.0	ppb	19:22:36
1	Pb 220.353†	3219.9	2914.7	484.01	ug/L	484.01	ppb	19:22:36
1	S 181.975 Axial†	878.4	734.0	963.91	ug/L	963.91	ppb	19:22:36
1	Sb 206.836†	1318.7	1141.9	495.82	ug/L	495.82	ppb	19:22:36
1	Se 196.026†	860.3	785.9	512.10	ug/L	512.10	ppb	19:22:36
1	Si 251.611†	73269.9	64510.3	2457.4	ug/L	2457.4	ppb	19:22:16
1	Sn 189.927†	2235.4	1980.3	472.75	ug/L	472.75	ppb	19:22:36
1	Ti 334.940†	258461.0	230854.5	486.35	ug/L	486.35	ppb	19:22:16
1	Tl 190.801†	1108.2	1016.1	485.88	ug/L	485.88	ppb	19:22:36
1	U 409.014†	13153.4	14202.4	496.34	ug/L	496.34	ppb	19:22:16
1	V 292.402†	65376.2	59721.2	490.49	ug/L	490.49	ppb	19:22:16
1	Zn 213.857†	49391.0	43177.6	483.91	ug/L	483.91	ppb	19:22:16
1	SiO2†	73380.9	64605.2	5270.0	ug/L	5270.0	ppb	19:23:43
2	Sc Radial	4528.4	4528.4	103	%			19:21:39
2	Y RADIAL	5203.1	5203.1	112.9	%			19:21:19
2	Al 396.153Radial†	5557.2	5473.5	5420.3	ug/L	5420.3	ppb	19:21:19
2	Ca 317.933Radial†	2895.1	2788.5	5370.8	ug/L	5370.8	ppb	19:21:39
2	Fe 238.204 Radial†	493.9	470.7	5203.4	ug/L	5203.4	ppb	19:21:39
2	K 766.490 Radial†	31033.0	27529.3	5266.1	ug/L	5266.1	ppb	19:21:19
2	Mg 279.077 IEC†	133.2	129.2	5357.8	ug/L	5357.8	ppb	19:21:39
2	Na 589.592 Radial†	28981.9	28984.8	9565.0	ug/L	9565.0	ppb	19:21:19
2	Sr 421.552†	70214.7	68016.7	502.65	ug/L	502.65	ppb	19:21:19
2	Sc 361.383	827083.0	827083.0	111.83	%			19:22:42
2	Y 371.029	729954.7	729954.7	110.13	%			19:22:42
2	Ag 328.068†	101786.2	90816.9	485.51	ug/L	485.51	ppb	19:22:47
2	As 188.979†	1162.0	1065.9	489.03	ug/L	489.03	ppb	19:23:07
2	B 249.677†	20651.2	19007.0	493.67	ug/L	493.67	ppb	19:22:47
2	Ba 233.527†	44690.0	39957.2	489.41	ug/L	489.41	ppb	19:22:47
2	Be 313.107†	1329351.7	1197505.7	488.85	ug/L	488.85	ppb	19:22:42
2	Cd 226.502†	37562.5	33770.4	485.57	ug/L	485.57	ppb	19:22:47
2	Co 228.616†	17694.8	15885.5	494.90	ug/L	494.90	ppb	19:22:47
2	Cr 267.716†	38899.2	34722.6	483.41	ug/L	483.41	ppb	19:22:47
2	Cu 324.752†	149388.5	126283.9	492.02	ug/L	492.02	ppb	19:22:47
2	Mn 257.610†	330683.5	295263.6	488.11	ug/L	488.11	ppb	19:22:47
2	Mo 202.031†	5642.2	5028.1	479.49	ug/L	479.49	ppb	19:23:07
2	Ni 231.604†	16945.1	15059.6	491.94	ug/L	491.94	ppb	19:22:47

2	P 214.914†	4967.5	4246.5	2325.1 ug/L	2325.1 ppb	19:23:07
2	Pb 220.353†	3188.4	2906.7	482.69 ug/L	482.69 ppb	19:23:07
2	S 181.975 Axial†	874.6	736.1	966.73 ug/L	966.73 ppb	19:23:07
2	Sb 206.836†	1314.2	1146.1	497.61 ug/L	497.61 ppb	19:23:07
2	Se 196.026†	845.5	778.1	507.25 ug/L	507.25 ppb	19:23:07
2	Si 251.611†	72774.4	64526.5	2458.1 ug/L	2458.1 ppb	19:22:47
2	Sn 189.927†	2229.7	1989.2	474.87 ug/L	474.87 ppb	19:23:07
2	Ti 334.940†	257089.7	231248.3	487.19 ug/L	487.19 ppb	19:22:47
2	Tl 190.801†	1103.1	1018.5	487.02 ug/L	487.02 ppb	19:23:07
2	U 409.014†	13058.8	14200.2	496.26 ug/L	496.26 ppb	19:22:47
2	V 292.402†	65089.9	59874.9	491.72 ug/L	491.72 ppb	19:22:47
2	Zn 213.857†	48978.1	43118.0	483.23 ug/L	483.23 ppb	19:22:47
2	SiO2†	72949.3	64679.3	5276.1 ug/L	5276.1 ppb	19:23:48
3	Sc Radial	4508.3	4508.3	103 %		19:22:04
3	Y RADIAL	5104.9	5104.9	110.8 %		19:21:44
3	Al 396.153Radial†	5469.7	5412.4	5359.4 ug/L	5359.4 ppb	19:21:44
3	Ca 317.933Radial†	2855.6	2762.5	5320.9 ug/L	5320.9 ppb	19:22:04
3	Fe 238.204 Radial†	488.4	467.5	5167.6 ug/L	5167.6 ppb	19:22:04
3	K 766.490 Radial†	30478.0	27123.7	5188.5 ug/L	5188.5 ppb	19:21:44
3	Mg 279.077 IEC†	133.7	130.3	5404.8 ug/L	5404.8 ppb	19:22:04
3	Na 589.592 Radial†	28357.2	28502.4	9405.9 ug/L	9405.9 ppb	19:21:44
3	Sr 421.552†	68775.6	66920.5	494.55 ug/L	494.55 ppb	19:21:44
3	Sc 361.383	824822.0	824822.0	111.53 %		19:23:13
3	Y 371.029	729612.7	729612.7	110.08 %		19:23:13
3	Ag 328.068†	100403.5	89826.7	480.21 ug/L	480.21 ppb	19:23:18
3	As 188.979†	1175.4	1080.7	495.67 ug/L	495.67 ppb	19:23:38
3	B 249.677†	20327.5	18767.4	487.45 ug/L	487.45 ppb	19:23:18
3	Ba 233.527†	43994.7	39443.3	483.11 ug/L	483.11 ppb	19:23:18
3	Be 313.107†	1326518.5	1198223.7	489.13 ug/L	489.13 ppb	19:23:13
3	Cd 226.502†	36961.3	33323.4	479.14 ug/L	479.14 ppb	19:23:18
3	Co 228.616†	17402.6	15666.9	488.12 ug/L	488.12 ppb	19:23:18
3	Cr 267.716†	38229.8	34217.8	476.38 ug/L	476.38 ppb	19:23:18
3	Cu 324.752†	146433.6	124000.5	483.13 ug/L	483.13 ppb	19:23:18
3	Mn 257.610†	324740.3	290745.3	480.64 ug/L	480.64 ppb	19:23:18
3	Mo 202.031†	5675.2	5071.4	483.62 ug/L	483.62 ppb	19:23:38
3	Ni 231.604†	16653.0	14839.3	484.75 ug/L	484.75 ppb	19:23:18
3	P 214.914†	5021.6	4307.2	2361.5 ug/L	2361.5 ppb	19:23:38
3	Pb 220.353†	3227.6	2949.7	489.80 ug/L	489.80 ppb	19:23:38
3	S 181.975 Axial†	886.0	748.4	982.89 ug/L	982.89 ppb	19:23:38
3	Sb 206.836†	1323.4	1157.6	502.62 ug/L	502.62 ppb	19:23:38
3	Se 196.026†	866.6	799.2	520.50 ug/L	520.50 ppb	19:23:38
3	Si 251.611†	71531.2	63590.2	2422.3 ug/L	2422.3 ppb	19:23:18
3	Sn 189.927†	2253.8	2016.3	481.32 ug/L	481.32 ppb	19:23:38
3	Ti 334.940†	252018.8	227331.6	478.93 ug/L	478.93 ppb	19:23:18
3	Tl 190.801†	1104.9	1022.8	489.01 ug/L	489.01 ppb	19:23:38
3	U 409.014†	12729.6	13937.1	487.05 ug/L	487.05 ppb	19:23:18
3	V 292.402†	63816.1	58892.3	483.81 ug/L	483.81 ppb	19:23:18
3	Zn 213.857†	48159.9	42504.4	476.35 ug/L	476.35 ppb	19:23:18
3	SiO2†	73371.8	65236.9	5321.5 ug/L	5321.5 ppb	19:23:53

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	828275.4	112.00	%	0.565				0.50%
Sc Radial	4517.0	103	%	0.2				0.23%
Y 371.029	731346.2	110.34	%	0.409				0.37%
Y RADIAL	5016.7	108.9	%	5.27				4.84%
Ag 328.068†	90447.9	483.53	ug/L	2.890	483.53	ppb	2.890	0.60%
QC value within limits for Ag 328.068 Recovery = 96.71%								
Al 396.153Radial†	5436.7	5383.7	ug/L	32.28	5383.7	ppb	32.28	0.60%
QC value within limits for Al 396.153Radial Recovery = 107.67%								
As 188.979†	1074.8	493.02	ug/L	3.517	493.02	ppb	3.517	0.71%
QC value within limits for As 188.979 Recovery = 98.60%								
B 249.677†	18896.1	490.79	ug/L	3.139	490.79	ppb	3.139	0.64%
QC value within limits for B 249.677 Recovery = 98.16%								
Ba 233.527†	39799.9	487.48	ug/L	3.792	487.48	ppb	3.792	0.78%
QC value within limits for Ba 233.527 Recovery = 97.50%								
Be 313.107†	1197244.6	488.74	ug/L	0.454	488.74	ppb	0.454	0.09%
QC value within limits for Be 313.107 Recovery = 97.75%								
Ca 317.933Radial†	2773.1	5341.2	ug/L	26.21	5341.2	ppb	26.21	0.49%

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   QC value within limits for Ca 317.933Radial  Recovery = 106.82%
Cd 226.502†            33683.9      484.33 ug/L         4.691      484.33 ppb          4.691   0.97%
   QC value within limits for Cd 226.502  Recovery = 96.87%
Co 228.616†            15815.5      492.73 ug/L         3.995      492.73 ppb          3.995   0.81%
   QC value within limits for Co 228.616  Recovery = 98.55%
Cr 267.716†            34558.3      481.12 ug/L         4.105      481.12 ppb          4.105   0.85%
   QC value within limits for Cr 267.716  Recovery = 96.22%
Cu 324.752†           125297.3      488.18 ug/L         4.568      488.18 ppb          4.568   0.94%
   QC value within limits for Cu 324.752  Recovery = 97.64%
Fe 238.204 Radial†       468.4      5177.6 ug/L         22.51      5177.6 ppb          22.51   0.43%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.55%
K 766.490 Radial†      27283.6      5219.1 ug/L         41.33      5219.1 ppb          41.33   0.79%
   QC value within limits for K 766.490 Radial  Recovery = 104.38%
Mg 279.077 IEC†          129.3      5363.3 ug/L         39.13      5363.3 ppb          39.13   0.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.27%
Mn 257.610†           293778.3      485.66 ug/L         4.342      485.66 ppb          4.342   0.89%
   QC value within limits for Mn 257.610  Recovery = 97.13%
Mo 202.031†             5043.4      480.95 ug/L         2.319      480.95 ppb          2.319   0.48%
   QC value within limits for Mo 202.031  Recovery = 96.19%
Na 589.592 Radial†     28783.9      9498.8 ug/L         82.86      9498.8 ppb          82.86   0.87%
   QC value within limits for Na 589.592 Radial  Recovery = 94.99%
Ni 231.604†            14997.9      489.93 ug/L         4.525      489.93 ppb          4.525   0.92%
   QC value within limits for Ni 231.604  Recovery = 97.99%
P 214.914†              4266.4      2337.2 ug/L         21.06      2337.2 ppb          21.06   0.90%
   QC value within limits for P 214.914  Recovery = 93.49%
Pb 220.353†             2923.7      485.50 ug/L         3.780      485.50 ppb          3.780   0.78%
   QC value within limits for Pb 220.353  Recovery = 97.10%
S 181.975 Axial†         739.5      971.18 ug/L        10.240      971.18 ppb         10.240   1.05%
   QC value within limits for S 181.975 Axial  Recovery = 97.12%
Sb 206.836†             1148.5      498.69 ug/L         3.524      498.69 ppb          3.524   0.71%
   QC value within limits for Sb 206.836  Recovery = 99.74%
Se 196.026†              787.7      513.29 ug/L         6.705      513.29 ppb          6.705   1.31%
   QC value within limits for Se 196.026  Recovery = 102.66%
Si 251.611†            64209.0      2445.9 ug/L         20.49      2445.9 ppb          20.49   0.84%
   QC value within limits for Si 251.611  Recovery = 97.84%
Sn 189.927†             1995.2      476.31 ug/L         4.465      476.31 ppb          4.465   0.94%
   QC value within limits for Sn 189.927  Recovery = 95.26%
Sr 421.552†            67512.1      498.92 ug/L         4.089      498.92 ppb          4.089   0.82%
   QC value within limits for Sr 421.552  Recovery = 99.78%
Ti 334.940†           229811.5      484.16 ug/L         4.546      484.16 ppb          4.546   0.94%
   QC value within limits for Ti 334.940  Recovery = 96.83%
Tl 190.801†             1019.1      487.30 ug/L         1.586      487.30 ppb          1.586   0.33%
   QC value within limits for Tl 190.801  Recovery = 97.46%
U 409.014†             14113.3      493.22 ug/L         5.339      493.22 ppb          5.339   1.08%
   QC value within limits for U 409.014  Recovery = 98.64%
V 292.402†             59496.1      488.67 ug/L         4.253      488.67 ppb          4.253   0.87%
   QC value within limits for V 292.402  Recovery = 97.73%
Zn 213.857†            42933.3      481.16 ug/L         4.180      481.16 ppb          4.180   0.87%
   QC value within limits for Zn 213.857  Recovery = 96.23%
SiO2†                  64840.4      5289.2 ug/L         28.17      5289.2 ppb          28.17   0.53%
   QC value within limits for SiO2  Recovery = 98.91%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/5/2010 19:26:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4528.7	4528.7	103	%			19:28:15
1	Y RADIAL	4716.9	4716.9	102.4	%			19:27:55
1	Al 396.153Radial†	-73.2	19.2	19.061	ug/L	19.061	ppb	19:28:15
1	Ca 317.933Radial†	22.8	6.0	11.464	ug/L	11.464	ppb	19:28:15
1	Fe 238.204 Radial†	6.7	-1.2	-13.205	ug/L	-13.205	ppb	19:28:15
1	K 766.490 Radial†	2749.3	130.4	24.968	ug/L	24.968	ppb	19:27:55
1	Mg 279.077 IEC†	2.7	2.8	114.38	ug/L	114.38	ppb	19:28:15
1	Na 589.592 Radial†	-913.7	24.6	8.1116	ug/L	8.1116	ppb	19:27:55
1	Sr 421.552†	13.8	12.4	0.0912	ug/L	0.0912	ppb	19:27:55
1	Sc 361.383	801342.8	801342.8	108.35	%			19:29:12
1	Y 371.029	714763.6	714763.6	107.84	%			19:29:12
1	Ag 328.068†	159.4	-51.6	-0.2824	ug/L	-0.2824	ppb	19:29:12
1	As 188.979†	-22.3	6.3	2.8809	ug/L	2.8809	ppb	19:29:32
1	B 249.677†	-69.3	477.1	12.449	ug/L	12.449	ppb	19:29:32
1	Ba 233.527†	22.8	17.2	0.2108	ug/L	0.2108	ppb	19:29:32
1	Be 313.107†	-9475.1	76.1	0.0315	ug/L	0.0315	ppb	19:29:12
1	Cd 226.502†	-177.0	19.3	0.2799	ug/L	0.2799	ppb	19:29:32
1	Co 228.616†	-56.2	11.3	0.3517	ug/L	0.3517	ppb	19:29:32
1	Cr 267.716†	59.8	-5.3	-0.0755	ug/L	-0.0755	ppb	19:29:32
1	Cu 324.752†	7992.7	79.6	0.3048	ug/L	0.3048	ppb	19:29:12
1	Mn 257.610†	471.2	6.7	0.0050	ug/L	0.0050	ppb	19:29:32
1	Mo 202.031†	16.0	-2.4	-0.2268	ug/L	-0.2268	ppb	19:29:32
1	Ni 231.604†	91.1	-8.3	-0.2725	ug/L	-0.2725	ppb	19:29:32
1	P 214.914†	202.1	-8.8	-5.0783	ug/L	-5.0783	ppb	19:29:32
1	Pb 220.353†	-66.8	-5.9	-0.9741	ug/L	-0.9741	ppb	19:29:32
1	S 181.975 Axial†	43.3	-6.0	-7.9320	ug/L	-7.9320	ppb	19:29:32
1	Sb 206.836†	34.5	2.8	1.1652	ug/L	1.1652	ppb	19:29:32
1	Se 196.026†	-21.1	2.7	1.6607	ug/L	1.6607	ppb	19:29:32
1	Si 251.611†	700.6	99.3	3.7963	ug/L	3.7963	ppb	19:29:32
1	Sn 189.927†	9.1	3.8	0.9163	ug/L	0.9163	ppb	19:29:32
1	Ti 334.940†	-1356.6	110.7	0.2221	ug/L	0.2221	ppb	19:29:12
1	Tl 190.801†	-30.0	4.4	2.0869	ug/L	2.0869	ppb	19:29:32
1	U 409.014†	-2485.2	229.7	8.0561	ug/L	8.0561	ppb	19:29:12
1	V 292.402†	-1714.1	90.6	0.7507	ug/L	0.7507	ppb	19:29:12
1	Zn 213.857†	716.6	-16.1	-0.1791	ug/L	-0.1791	ppb	19:29:32
1	SiO2†	802.3	189.6	15.510	ug/L	15.510	ppb	19:30:28
2	Sc Radial	4544.1	4544.1	104	%			19:28:40
2	Y RADIAL	5128.8	5128.8	111.3	%			19:28:20
2	Al 396.153Radial†	-71.4	21.2	21.068	ug/L	21.068	ppb	19:28:40
2	Ca 317.933Radial†	16.4	-0.3	-0.6001	ug/L	-0.6001	ppb	19:28:40
2	Fe 238.204 Radial†	7.3	-0.7	-7.2406	ug/L	-7.2406	ppb	19:28:40
2	K 766.490 Radial†	2661.0	36.1	6.9119	ug/L	6.9119	ppb	19:28:20
2	Mg 279.077 IEC†	0.6	0.7	29.883	ug/L	29.883	ppb	19:28:40
2	Na 589.592 Radial†	-900.8	40.1	13.219	ug/L	13.219	ppb	19:28:20
2	Sr 421.552†	-1.3	-2.3	-0.0168	ug/L	-0.0168	ppb	19:28:20
2	Sc 361.383	813308.3	813308.3	109.97	%			19:29:37
2	Y 371.029	724234.1	724234.1	109.27	%			19:29:37
2	Ag 328.068†	238.5	18.2	0.0890	ug/L	0.0890	ppb	19:29:37
2	As 188.979†	-28.4	1.1	0.4977	ug/L	0.4977	ppb	19:29:57
2	B 249.677†	-76.3	471.6	12.306	ug/L	12.306	ppb	19:29:57
2	Ba 233.527†	28.8	22.3	0.2739	ug/L	0.2739	ppb	19:29:57
2	Be 313.107†	-9486.2	194.6	0.0801	ug/L	0.0801	ppb	19:29:37
2	Cd 226.502†	-166.5	31.3	0.4525	ug/L	0.4525	ppb	19:29:57
2	Co 228.616†	-64.1	4.8	0.1489	ug/L	0.1489	ppb	19:29:57
2	Cr 267.716†	66.7	0.2	0.0003	ug/L	0.0003	ppb	19:29:57
2	Cu 324.752†	8005.3	-17.5	-0.0742	ug/L	-0.0742	ppb	19:29:37
2	Mn 257.610†	475.1	3.8	0.0044	ug/L	0.0044	ppb	19:29:57
2	Mo 202.031†	13.2	-5.1	-0.4907	ug/L	-0.4907	ppb	19:29:57
2	Ni 231.604†	94.0	-6.9	-0.2270	ug/L	-0.2270	ppb	19:29:57

2	P 214.914†	203.7	-10.1	-5.7098	ug/L	-5.7098	ppb	19:29:57
2	Pb 220.353†	-89.4	-25.6	-4.2251	ug/L	-4.2251	ppb	19:29:57
2	S 181.975 Axial†	46.8	-3.4	-4.5101	ug/L	-4.5101	ppb	19:29:57
2	Sb 206.836†	34.2	2.1	0.8908	ug/L	0.8908	ppb	19:29:57
2	Se 196.026†	-11.6	11.5	7.3007	ug/L	7.3007	ppb	19:29:57
2	Si 251.611†	701.2	90.4	3.4589	ug/L	3.4589	ppb	19:29:57
2	Sn 189.927†	15.5	9.5	2.2652	ug/L	2.2652	ppb	19:29:57
2	Ti 334.940†	-1311.1	170.6	0.3524	ug/L	0.3524	ppb	19:29:37
2	Tl 190.801†	-27.6	7.0	3.3286	ug/L	3.3286	ppb	19:29:57
2	U 409.014†	-2450.5	294.9	10.343	ug/L	10.343	ppb	19:29:37
2	V 292.402†	-1724.7	104.3	0.8594	ug/L	0.8594	ppb	19:29:37
2	Zn 213.857†	706.8	-34.7	-0.3902	ug/L	-0.3902	ppb	19:29:57
2	SiO2†	747.6	129.0	10.561	ug/L	10.561	ppb	19:30:33
3	Sc Radial	4525.0	4525.0	103	%			19:29:05
3	Y RADIAL	5118.1	5118.1	111.1	%			19:28:45
3	Al 396.153Radial†	-88.1	4.7	4.6931	ug/L	4.6931	ppb	19:29:05
3	Ca 317.933Radial†	20.2	3.5	6.6960	ug/L	6.6960	ppb	19:29:05
3	Fe 238.204 Radial†	7.4	-0.5	-6.0387	ug/L	-6.0387	ppb	19:29:05
3	K 766.490 Radial†	2737.8	121.5	23.272	ug/L	23.272	ppb	19:28:45
3	Mg 279.077 IEC†	-0.1	0.1	3.8935	ug/L	3.8935	ppb	19:29:05
3	Na 589.592 Radial†	-932.5	5.6	1.8644	ug/L	1.8644	ppb	19:28:45
3	Sr 421.552†	-1.1	-2.1	-0.0156	ug/L	-0.0156	ppb	19:28:45
3	Sc 361.383	809273.5	809273.5	109.43	%			19:30:03
3	Y 371.029	722498.3	722498.3	109.00	%			19:30:03
3	Ag 328.068†	215.3	-1.9	-0.0243	ug/L	-0.0243	ppb	19:30:03
3	As 188.979†	-19.8	8.8	4.0098	ug/L	4.0098	ppb	19:30:23
3	B 249.677†	-83.2	465.0	12.131	ug/L	12.131	ppb	19:30:23
3	Ba 233.527†	16.2	10.9	0.1347	ug/L	0.1347	ppb	19:30:23
3	Be 313.107†	-9338.0	287.1	0.1177	ug/L	0.1177	ppb	19:30:03
3	Cd 226.502†	-177.0	20.9	0.3052	ug/L	0.3052	ppb	19:30:23
3	Co 228.616†	-50.8	16.7	0.5205	ug/L	0.5205	ppb	19:30:23
3	Cr 267.716†	74.2	7.4	0.0961	ug/L	0.0961	ppb	19:30:23
3	Cu 324.752†	7928.2	-51.7	-0.2123	ug/L	-0.2123	ppb	19:30:03
3	Mn 257.610†	496.1	25.1	0.0408	ug/L	0.0408	ppb	19:30:23
3	Mo 202.031†	18.5	-0.2	-0.0186	ug/L	-0.0186	ppb	19:30:23
3	Ni 231.604†	98.6	-2.4	-0.0776	ug/L	-0.0776	ppb	19:30:23
3	P 214.914†	187.5	-24.0	-13.632	ug/L	-13.632	ppb	19:30:23
3	Pb 220.353†	-71.6	-9.7	-1.6106	ug/L	-1.6106	ppb	19:30:23
3	S 181.975 Axial†	45.0	-4.9	-6.4393	ug/L	-6.4393	ppb	19:30:23
3	Sb 206.836†	34.2	2.2	0.9154	ug/L	0.9154	ppb	19:30:23
3	Se 196.026†	-20.2	3.7	2.3204	ug/L	2.3204	ppb	19:30:23
3	Si 251.611†	726.2	116.4	4.4451	ug/L	4.4451	ppb	19:30:23
3	Sn 189.927†	8.4	3.1	0.7382	ug/L	0.7382	ppb	19:30:23
3	Ti 334.940†	-1303.7	171.4	0.3532	ug/L	0.3532	ppb	19:30:03
3	Tl 190.801†	-27.8	6.7	3.1837	ug/L	3.1837	ppb	19:30:23
3	U 409.014†	-2165.1	544.7	19.099	ug/L	19.099	ppb	19:30:03
3	V 292.402†	-1705.1	114.4	0.9638	ug/L	0.9638	ppb	19:30:03
3	Zn 213.857†	697.4	-40.1	-0.4520	ug/L	-0.4520	ppb	19:30:23
3	SiO2†	658.8	51.2	4.1881	ug/L	4.1881	ppb	19:30:38

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	807974.9	109.25	%	0.823				0.75%
Sc Radial	4532.6	103	%	0.2				0.22%
Y 371.029	720498.7	108.70	%	0.761				0.70%
Y RADIAL	4987.9	108.2	%	5.09				4.71%
Ag 328.068†	-11.8	-0.0726	ug/L	0.19038	-0.0726	ppb	0.19038	262.37%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	15.0	14.941	ug/L	8.9314	14.941	ppb	8.9314	59.78%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.4	2.4628	ug/L	1.79303	2.4628	ppb	1.79303	72.80%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	471.2	12.295	ug/L	0.1592	12.295	ppb	0.1592	1.29%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	16.8	0.2065	ug/L	0.06973	0.2065	ppb	0.06973	33.77%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	185.9	0.0764	ug/L	0.04323	0.0764	ppb	0.04323	56.55%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.0	5.8534	ug/L	6.07609	5.8534	ppb	6.07609	103.81%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                23.8      0.3459 ug/L       0.09319      0.3459 ppb        0.09319  26.94%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                11.0      0.3404 ug/L       0.18608      0.3404 ppb        0.18608  54.67%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 0.8      0.0070 ug/L       0.08598      0.0070 ppb        0.08598 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 3.5      0.0061 ug/L       0.26775      0.0061 ppb        0.26775 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.8     -8.8279 ug/L       3.83760     -8.8279 ppb        3.83760  43.47%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          96.0      18.384 ug/L        9.9714      18.384 ppb         9.9714  54.24%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.2      49.386 ug/L       57.7679      49.386 ppb        57.7679 116.97%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                11.9      0.0167 ug/L       0.02084      0.0167 ppb        0.02084 124.65%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -2.6     -0.2454 ug/L       0.23659     -0.2454 ppb        0.23659  96.42%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         23.4      7.7317 ug/L       5.68689      7.7317 ppb        5.68689  73.55%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -5.9     -0.1924 ug/L       0.10197     -0.1924 ppb        0.10197  53.01%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -14.3     -8.1400 ug/L       4.76659     -8.1400 ppb        4.76659  58.56%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -13.7     -2.2700 ug/L       1.72283     -2.2700 ppb        1.72283  75.90%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -4.8     -6.2938 ug/L       1.71561     -6.2938 ppb        1.71561  27.26%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.3      0.9905 ug/L       0.15182      0.9905 ppb        0.15182  15.33%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 6.0      3.7606 ug/L       3.08348      3.7606 ppb        3.08348  81.99%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               102.1      3.9001 ug/L       0.50120      3.9001 ppb        0.50120  12.85%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.5      1.3066 ug/L       0.83498      1.3066 ppb        0.83498  63.91%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 2.7      0.0196 ug/L       0.06200      0.0196 ppb        0.06200 315.95%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               150.9      0.3092 ug/L       0.07549      0.3092 ppb        0.07549  24.41%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 6.0      2.8664 ug/L       0.67895      2.8664 ppb        0.67895  23.69%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                356.4      12.499 ug/L        5.8287      12.499 ppb         5.8287  46.63%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                103.1      0.8580 ug/L       0.10655      0.8580 ppb        0.10655  12.42%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -30.3     -0.3404 ug/L       0.14312     -0.3404 ppb        0.14312  42.04%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     123.3      10.086 ug/L        5.6759      10.086 ppb         5.6759  56.27%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/5/2010 20:21:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5010.9	5010.9	114	%			20:23:06
1	Y RADIAL	5248.2	5248.2	113.9	%			20:23:06
1	Al 396.153Radial†	5418.5	4833.7	4784.1	ug/L	4784.1	ppb	20:23:06
1	Ca 317.933Radial†	2866.9	2493.7	4803.1	ug/L	4803.1	ppb	20:23:26
1	Fe 238.204 Radial†	493.9	424.7	4696.2	ug/L	4696.2	ppb	20:23:26
1	K 766.490 Radial†	30218.8	23922.1	4575.8	ug/L	4575.8	ppb	20:23:06
1	Mg 279.077 IEC†	140.1	122.8	5094.6	ug/L	5094.6	ppb	20:23:26
1	Na 589.592 Radial†	28724.6	26056.3	8598.6	ug/L	8598.6	ppb	20:23:06
1	Sr 421.552†	68929.6	60342.6	445.94	ug/L	445.94	ppb	20:23:06
1	Sc 361.383	829844.9	829844.9	112.21	%			20:24:23
1	Y 371.029	734993.9	734993.9	110.89	%			20:24:23
1	Ag 328.068†	100882.0	89708.2	479.43	ug/L	479.43	ppb	20:24:28
1	As 188.979†	1161.0	1061.5	486.84	ug/L	486.84	ppb	20:24:48
1	B 249.677†	20372.0	18696.7	485.68	ug/L	485.68	ppb	20:24:28
1	Ba 233.527†	44219.7	39405.1	482.63	ug/L	482.63	ppb	20:24:28
1	Be 313.107†	1317121.1	1182649.4	482.78	ug/L	482.78	ppb	20:24:23
1	Cd 226.502†	37302.9	33427.3	480.68	ug/L	480.68	ppb	20:24:28
1	Co 228.616†	17510.2	15668.4	488.16	ug/L	488.16	ppb	20:24:28
1	Cr 267.716†	38667.2	34400.1	478.91	ug/L	478.91	ppb	20:24:28
1	Cu 324.752†	146706.3	123448.9	480.96	ug/L	480.96	ppb	20:24:28
1	Mn 257.610†	326930.8	290935.1	480.92	ug/L	480.92	ppb	20:24:28
1	Mo 202.031†	5660.7	5027.7	479.42	ug/L	479.42	ppb	20:24:48
1	Ni 231.604†	16777.7	14860.0	485.42	ug/L	485.42	ppb	20:24:28
1	P 214.914†	4950.4	4216.5	2310.3	ug/L	2310.3	ppb	20:24:48
1	Pb 220.353†	3181.0	2890.7	479.92	ug/L	479.92	ppb	20:24:48
1	S 181.975 Axial†	867.5	727.1	955.02	ug/L	955.02	ppb	20:24:48
1	Sb 206.836†	1310.4	1138.8	494.51	ug/L	494.51	ppb	20:24:48
1	Se 196.026†	846.1	776.1	504.76	ug/L	504.76	ppb	20:24:48
1	Si 251.611†	71909.5	63539.1	2420.4	ug/L	2420.4	ppb	20:24:28
1	Sn 189.927†	2213.6	1968.2	469.81	ug/L	469.81	ppb	20:24:48
1	Ti 334.940†	253832.9	227580.6	479.41	ug/L	479.41	ppb	20:24:28
1	Tl 190.801†	1098.3	1010.9	483.36	ug/L	483.36	ppb	20:24:48
1	U 409.014†	12650.8	13797.8	482.22	ug/L	482.22	ppb	20:24:28
1	V 292.402†	64445.8	59107.2	485.55	ug/L	485.55	ppb	20:24:28
1	Zn 213.857†	48540.8	42582.5	477.30	ug/L	477.30	ppb	20:24:28
1	SiO2†	73034.4	64538.0	5264.5	ug/L	5264.5	ppb	20:25:55
2	Sc Radial	4921.7	4921.7	112	%			20:23:31
2	Y RADIAL	5159.6	5159.6	112.0	%			20:23:31
2	Al 396.153Radial†	5430.0	4929.9	4880.1	ug/L	4880.1	ppb	20:23:31
2	Ca 317.933Radial†	2841.8	2516.8	4847.6	ug/L	4847.6	ppb	20:23:51
2	Fe 238.204 Radial†	490.5	429.5	4748.6	ug/L	4748.6	ppb	20:23:51
2	K 766.490 Radial†	30291.4	24466.2	4679.9	ug/L	4679.9	ppb	20:23:31
2	Mg 279.077 IEC†	131.8	117.7	4880.9	ug/L	4880.9	ppb	20:23:51
2	Na 589.592 Radial†	28937.6	26701.9	8811.7	ug/L	8811.7	ppb	20:23:31
2	Sr 421.552†	69179.9	61659.4	455.67	ug/L	455.67	ppb	20:23:31
2	Sc 361.383	842815.2	842815.2	113.96	%			20:24:54
2	Y 371.029	745358.7	745358.7	112.45	%			20:24:54
2	Ag 328.068†	100485.2	87976.4	470.22	ug/L	470.22	ppb	20:24:59
2	As 188.979†	1169.4	1053.0	482.90	ug/L	482.90	ppb	20:25:19
2	B 249.677†	20308.4	18361.4	476.96	ug/L	476.96	ppb	20:24:59
2	Ba 233.527†	43927.9	38542.5	472.07	ug/L	472.07	ppb	20:24:59
2	Be 313.107†	1334281.2	1179642.9	481.54	ug/L	481.54	ppb	20:24:54
2	Cd 226.502†	37049.3	32693.1	470.11	ug/L	470.11	ppb	20:24:59
2	Co 228.616†	17389.4	15322.2	477.38	ug/L	477.38	ppb	20:24:59
2	Cr 267.716†	38418.3	33651.4	468.49	ug/L	468.49	ppb	20:24:59
2	Cu 324.752†	146280.9	121063.4	471.67	ug/L	471.67	ppb	20:24:59
2	Mn 257.610†	325634.2	285313.5	471.65	ug/L	471.65	ppb	20:24:59
2	Mo 202.031†	5657.9	4947.6	471.79	ug/L	471.79	ppb	20:25:19
2	Ni 231.604†	16722.1	14581.1	476.31	ug/L	476.31	ppb	20:24:59

2	P 214.914†	4936.2	4136.1	2266.3 ug/L	2266.3 ppb	20:25:19
2	Pb 220.353†	3163.3	2831.5	470.13 ug/L	470.13 ppb	20:25:19
2	S 181.975 Axial†	862.0	710.5	933.09 ug/L	933.09 ppb	20:25:19
2	Sb 206.836†	1306.5	1117.4	485.27 ug/L	485.27 ppb	20:25:19
2	Se 196.026†	854.6	772.0	502.28 ug/L	502.28 ppb	20:25:19
2	Si 251.611†	71522.1	62212.9	2369.8 ug/L	2369.8 ppb	20:24:59
2	Sn 189.927†	2214.7	1938.8	462.80 ug/L	462.80 ppb	20:25:19
2	Ti 334.940†	252860.7	223246.2	470.31 ug/L	470.31 ppb	20:24:59
2	Tl 190.801†	1110.6	1006.6	481.28 ug/L	481.28 ppb	20:25:19
2	U 409.014†	12670.1	13641.2	476.74 ug/L	476.74 ppb	20:24:59
2	V 292.402†	64075.7	57898.6	475.64 ug/L	475.64 ppb	20:24:59
2	Zn 213.857†	48405.1	41797.7	468.49 ug/L	468.49 ppb	20:24:59
2	SiO2†	71808.3	62460.4	5094.8 ug/L	5094.8 ppb	20:26:01
3	Sc Radial	5012.4	5012.4	114 %		20:23:56
3	Y RADIAL	5215.6	5215.6	113.2 %		20:23:56
3	Al 396.153Radial†	5441.7	4852.5	4802.9 ug/L	4802.9 ppb	20:23:56
3	Ca 317.933Radial†	2848.7	2477.0	4770.9 ug/L	4770.9 ppb	20:24:16
3	Fe 238.204 Radial†	490.0	421.2	4657.0 ug/L	4657.0 ppb	20:24:16
3	K 766.490 Radial†	30475.1	24138.4	4617.2 ug/L	4617.2 ppb	20:23:56
3	Mg 279.077 IEC†	132.2	115.9	4806.3 ug/L	4806.3 ppb	20:24:16
3	Na 589.592 Radial†	29174.2	26442.2	8726.0 ug/L	8726.0 ppb	20:23:56
3	Sr 421.552†	69648.4	60953.6	450.45 ug/L	450.45 ppb	20:23:56
3	Sc 361.383	836096.2	836096.2	113.05 %		20:25:25
3	Y 371.029	740575.0	740575.0	111.73 %		20:25:25
3	Ag 328.068†	102307.3	90296.7	482.54 ug/L	482.54 ppb	20:25:30
3	As 188.979†	1169.2	1061.1	486.67 ug/L	486.67 ppb	20:25:50
3	B 249.677†	20755.5	18900.2	490.99 ug/L	490.99 ppb	20:25:30
3	Ba 233.527†	44826.4	39647.1	485.59 ug/L	485.59 ppb	20:25:30
3	Be 313.107†	1331447.1	1186545.0	484.38 ug/L	484.38 ppb	20:25:25
3	Cd 226.502†	37738.4	33563.9	482.65 ug/L	482.65 ppb	20:25:30
3	Co 228.616†	17740.9	15755.8	490.87 ug/L	490.87 ppb	20:25:30
3	Cr 267.716†	39177.2	34593.5	481.60 ug/L	481.60 ppb	20:25:30
3	Cu 324.752†	149053.4	124547.4	485.23 ug/L	485.23 ppb	20:25:30
3	Mn 257.610†	331064.0	292412.7	483.37 ug/L	483.37 ppb	20:25:30
3	Mo 202.031†	5672.2	5000.2	476.79 ug/L	476.79 ppb	20:25:50
3	Ni 231.604†	17046.2	14985.6	489.53 ug/L	489.53 ppb	20:25:30
3	P 214.914†	4952.7	4185.5	2291.8 ug/L	2291.8 ppb	20:25:50
3	Pb 220.353†	3180.9	2869.3	476.39 ug/L	476.39 ppb	20:25:50
3	S 181.975 Axial†	871.0	724.5	951.57 ug/L	951.57 ppb	20:25:50
3	Sb 206.836†	1305.5	1125.7	488.92 ug/L	488.92 ppb	20:25:50
3	Se 196.026†	845.2	769.7	500.61 ug/L	500.61 ppb	20:25:50
3	Si 251.611†	72803.2	63850.4	2432.3 ug/L	2432.3 ppb	20:25:30
3	Sn 189.927†	2215.5	1955.1	466.68 ug/L	466.68 ppb	20:25:50
3	Ti 334.940†	257086.6	228767.3	481.93 ug/L	481.93 ppb	20:25:30
3	Tl 190.801†	1110.7	1014.6	485.14 ug/L	485.14 ppb	20:25:50
3	U 409.014†	13116.3	14125.2	493.70 ug/L	493.70 ppb	20:25:30
3	V 292.402†	65279.1	59414.9	488.03 ug/L	488.03 ppb	20:25:30
3	Zn 213.857†	49269.1	42903.3	480.91 ug/L	480.91 ppb	20:25:30
3	SiO2†	72451.6	63535.8	5182.6 ug/L	5182.6 ppb	20:26:06

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	836252.1	113.07	%	0.877				0.78%
Sc Radial	4981.7	114	%	1.2				1.04%
Y 371.029	740309.2	111.69	%	0.783				0.70%
Y RADIAL	5207.8	113.0	%	0.97				0.86%
Ag 328.068†	89327.1	477.40	ug/L	6.407	477.40	ppb	6.407	1.34%
QC value within limits for Ag 328.068 Recovery = 95.48%								
Al 396.153Radial†	4872.0	4822.4	ug/L	50.88	4822.4	ppb	50.88	1.06%
QC value within limits for Al 396.153Radial Recovery = 96.45%								
As 188.979†	1058.6	485.47	ug/L	2.228	485.47	ppb	2.228	0.46%
QC value within limits for As 188.979 Recovery = 97.09%								
B 249.677†	18652.8	484.54	ug/L	7.086	484.54	ppb	7.086	1.46%
QC value within limits for B 249.677 Recovery = 96.91%								
Ba 233.527†	39198.2	480.10	ug/L	7.106	480.10	ppb	7.106	1.48%
QC value within limits for Ba 233.527 Recovery = 96.02%								
Be 313.107†	1182945.8	482.90	ug/L	1.422	482.90	ppb	1.422	0.29%
QC value within limits for Be 313.107 Recovery = 96.58%								
Ca 317.933Radial†	2495.8	4807.2	ug/L	38.55	4807.2	ppb	38.55	0.80%

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   QC value within limits for Ca 317.933Radial  Recovery = 96.14%
Cd 226.502†            33228.1      477.81 ug/L         6.746      477.81 ppb          6.746   1.41%
   QC value within limits for Cd 226.502  Recovery = 95.56%
Co 228.616†            15582.1      485.47 ug/L         7.138      485.47 ppb          7.138   1.47%
   QC value within limits for Co 228.616  Recovery = 97.09%
Cr 267.716†            34215.0      476.33 ug/L         6.925      476.33 ppb          6.925   1.45%
   QC value within limits for Cr 267.716  Recovery = 95.27%
Cu 324.752†           123019.9      479.29 ug/L         6.933      479.29 ppb          6.933   1.45%
   QC value within limits for Cu 324.752  Recovery = 95.86%
Fe 238.204 Radial†       425.1      4700.6 ug/L        45.96      4700.6 ppb         45.96   0.98%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.01%
K 766.490 Radial†      24175.6      4624.3 ug/L        52.43      4624.3 ppb         52.43   1.13%
   QC value within limits for K 766.490 Radial  Recovery = 92.49%
Mg 279.077 IEC†          118.8      4927.3 ug/L       149.64      4927.3 ppb        149.64   3.04%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.55%
Mn 257.610†           289553.7      478.65 ug/L         6.184      478.65 ppb          6.184   1.29%
   QC value within limits for Mn 257.610  Recovery = 95.73%
Mo 202.031†             4991.9      476.00 ug/L         3.874      476.00 ppb          3.874   0.81%
   QC value within limits for Mo 202.031  Recovery = 95.20%
Na 589.592 Radial†     26400.1      8712.1 ug/L       107.20      8712.1 ppb        107.20   1.23%
   QC value less than the lower limit for Na 589.592 Radial  Recovery = 87.12%
Ni 231.604†            14808.9      483.76 ug/L         6.764      483.76 ppb          6.764   1.40%
   QC value within limits for Ni 231.604  Recovery = 96.75%
P 214.914†              4179.4      2289.5 ug/L        22.13      2289.5 ppb         22.13   0.97%
   QC value within limits for P 214.914  Recovery = 91.58%
Pb 220.353†             2863.8      475.48 ug/L         4.956      475.48 ppb          4.956   1.04%
   QC value within limits for Pb 220.353  Recovery = 95.10%
S 181.975 Axial†         720.7      946.56 ug/L        11.791      946.56 ppb         11.791   1.25%
   QC value within limits for S 181.975 Axial  Recovery = 94.66%
Sb 206.836†             1127.3      489.57 ug/L         4.657      489.57 ppb          4.657   0.95%
   QC value within limits for Sb 206.836  Recovery = 97.91%
Se 196.026†              772.6      502.55 ug/L         2.091      502.55 ppb          2.091   0.42%
   QC value within limits for Se 196.026  Recovery = 100.51%
Si 251.611†            63200.8      2407.5 ug/L        33.16      2407.5 ppb         33.16   1.38%
   QC value within limits for Si 251.611  Recovery = 96.30%
Sn 189.927†             1954.1      466.43 ug/L         3.513      466.43 ppb          3.513   0.75%
   QC value within limits for Sn 189.927  Recovery = 93.29%
Sr 421.552†            60985.2      450.69 ug/L         4.870      450.69 ppb          4.870   1.08%
   QC value within limits for Sr 421.552  Recovery = 90.14%
Ti 334.940†           226531.4      477.21 ug/L         6.113      477.21 ppb          6.113   1.28%
   QC value within limits for Ti 334.940  Recovery = 95.44%
Tl 190.801†             1010.7      483.26 ug/L         1.932      483.26 ppb          1.932   0.40%
   QC value within limits for Tl 190.801  Recovery = 96.65%
U 409.014†             13854.7      484.22 ug/L         8.652      484.22 ppb          8.652   1.79%
   QC value within limits for U 409.014  Recovery = 96.84%
V 292.402†             58806.9      483.07 ug/L         6.556      483.07 ppb          6.556   1.36%
   QC value within limits for V 292.402  Recovery = 96.61%
Zn 213.857†            42427.8      475.57 ug/L         6.389      475.57 ppb          6.389   1.34%
   QC value within limits for Zn 213.857  Recovery = 95.11%
SiO2†                  63511.4      5180.7 ug/L        84.86      5180.7 ppb         84.86   1.64%
   QC value within limits for SiO2  Recovery = 96.88%
QC Failed.  Continue with analysis.
```

Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/5/2010 20:28:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4833.9	4833.9	110	%			20:30:07
1	Y RADIAL	5119.6	5119.6	111.1	%			20:30:07
1	Al 396.153Radial†	-79.5	17.9	17.878	ug/L	17.878	ppb	20:30:27
1	Ca 317.933Radial†	24.4	6.1	11.655	ug/L	11.655	ppb	20:30:27
1	Fe 238.204 Radial†	8.3	-0.1	-1.3167	ug/L	-1.3167	ppb	20:30:27
1	K 766.490 Radial†	2544.0	-224.0	-42.912	ug/L	-42.912	ppb	20:30:07
1	Mg 279.077 IEC†	2.0	1.9	80.601	ug/L	80.601	ppb	20:30:27
1	Na 589.592 Radial†	-962.4	36.3	11.974	ug/L	11.974	ppb	20:30:07
1	Sr 421.552†	2.1	0.9	0.0066	ug/L	0.0066	ppb	20:30:07
1	Sc 361.383	810665.1	810665.1	109.61	%			20:31:24
1	Y 371.029	722880.3	722880.3	109.06	%			20:31:24
1	Ag 328.068†	291.6	67.4	0.3501	ug/L	0.3501	ppb	20:31:24
1	As 188.979†	-28.4	0.9	0.4369	ug/L	0.4369	ppb	20:31:44
1	B 249.677†	-84.3	464.1	12.107	ug/L	12.107	ppb	20:31:44
1	Ba 233.527†	12.2	7.3	0.0893	ug/L	0.0893	ppb	20:31:44
1	Be 313.107†	-9267.7	365.8	0.1500	ug/L	0.1500	ppb	20:31:24
1	Cd 226.502†	-176.4	21.7	0.3150	ug/L	0.3150	ppb	20:31:44
1	Co 228.616†	-56.0	12.1	0.3724	ug/L	0.3724	ppb	20:31:44
1	Cr 267.716†	71.4	4.7	0.0616	ug/L	0.0616	ppb	20:31:44
1	Cu 324.752†	7987.6	-9.9	-0.0441	ug/L	-0.0441	ppb	20:31:24
1	Mn 257.610†	481.2	10.8	0.0144	ug/L	0.0144	ppb	20:31:44
1	Mo 202.031†	7.9	-9.9	-0.9417	ug/L	-0.9417	ppb	20:31:44
1	Ni 231.604†	110.5	8.3	0.2720	ug/L	0.2720	ppb	20:31:44
1	P 214.914†	198.0	-14.7	-8.3533	ug/L	-8.3533	ppb	20:31:44
1	Pb 220.353†	-71.4	-9.5	-1.5609	ug/L	-1.5609	ppb	20:31:44
1	S 181.975 Axial†	36.4	-12.8	-16.856	ug/L	-16.856	ppb	20:31:44
1	Sb 206.836†	35.0	2.9	1.1879	ug/L	1.1879	ppb	20:31:44
1	Se 196.026†	-18.2	5.5	3.4975	ug/L	3.4975	ppb	20:31:44
1	Si 251.611†	694.8	86.6	3.3196	ug/L	3.3196	ppb	20:31:44
1	Sn 189.927†	4.7	-0.3	-0.0699	ug/L	-0.0699	ppb	20:31:44
1	Ti 334.940†	-1269.2	204.9	0.4224	ug/L	0.4224	ppb	20:31:24
1	Tl 190.801†	-34.1	0.9	0.4450	ug/L	0.4450	ppb	20:31:44
1	U 409.014†	-2456.7	282.0	9.8888	ug/L	9.8888	ppb	20:31:24
1	V 292.402†	-1798.7	31.7	0.2636	ug/L	0.2636	ppb	20:31:24
1	Zn 213.857†	705.8	-33.5	-0.3806	ug/L	-0.3806	ppb	20:31:44
1	SiO2†	733.2	118.0	9.6780	ug/L	9.6780	ppb	20:32:40
2	Sc Radial	5037.7	5037.7	115	%			20:30:32
2	Y RADIAL	5313.8	5313.8	115.3	%			20:30:32
2	Al 396.153Radial†	-87.7	13.8	13.724	ug/L	13.724	ppb	20:30:52
2	Ca 317.933Radial†	15.9	-2.3	-4.3377	ug/L	-4.3377	ppb	20:30:52
2	Fe 238.204 Radial†	7.4	-1.3	-13.789	ug/L	-13.789	ppb	20:30:52
2	K 766.490 Radial†	2584.6	-282.0	-54.023	ug/L	-54.023	ppb	20:30:32
2	Mg 279.077 IEC†	1.0	1.0	41.960	ug/L	41.960	ppb	20:30:52
2	Na 589.592 Radial†	-884.3	139.6	46.070	ug/L	46.070	ppb	20:30:32
2	Sr 421.552†	24.8	20.6	0.1520	ug/L	0.1520	ppb	20:30:32
2	Sc 361.383	823660.0	823660.0	111.37	%			20:31:49
2	Y 371.029	734121.3	734121.3	110.76	%			20:31:49
2	Ag 328.068†	260.9	35.7	0.1740	ug/L	0.1740	ppb	20:31:49
2	As 188.979†	-31.9	-1.7	-0.7927	ug/L	-0.7927	ppb	20:32:09
2	B 249.677†	-89.2	460.9	12.028	ug/L	12.028	ppb	20:32:09
2	Ba 233.527†	22.7	16.4	0.2017	ug/L	0.2017	ppb	20:32:09
2	Be 313.107†	-9313.6	458.0	0.1875	ug/L	0.1875	ppb	20:31:49
2	Cd 226.502†	-174.9	25.6	0.3730	ug/L	0.3730	ppb	20:32:09
2	Co 228.616†	-50.5	17.8	0.5519	ug/L	0.5519	ppb	20:32:09
2	Cr 267.716†	79.5	11.0	0.1471	ug/L	0.1471	ppb	20:32:09
2	Cu 324.752†	8016.1	-99.3	-0.3959	ug/L	-0.3959	ppb	20:31:49
2	Mn 257.610†	511.9	31.4	0.0489	ug/L	0.0489	ppb	20:32:09
2	Mo 202.031†	9.7	-8.4	-0.8030	ug/L	-0.8030	ppb	20:32:09
2	Ni 231.604†	97.8	-4.6	-0.1504	ug/L	-0.1504	ppb	20:32:09

2	P 214.914†	199.5	-16.2	-9.1316 ug/L	-9.1316 ppb	20:32:09
2	Pb 220.353†	-72.8	-9.7	-1.5999 ug/L	-1.5999 ppb	20:32:09
2	S 181.975 Axial†	50.4	-0.7	-0.9145 ug/L	-0.9145 ppb	20:32:09
2	Sb 206.836†	19.0	-12.0	-5.0334 ug/L	-5.0334 ppb	20:32:09
2	Se 196.026†	-22.0	2.4	1.4605 ug/L	1.4605 ppb	20:32:09
2	Si 251.611†	678.5	62.0	2.3766 ug/L	2.3766 ppb	20:32:09
2	Sn 189.927†	6.7	1.5	0.3515 ug/L	0.3515 ppb	20:32:09
2	Ti 334.940†	-1303.4	192.4	0.3948 ug/L	0.3948 ppb	20:31:49
2	Tl 190.801†	-22.7	11.7	5.5615 ug/L	5.5615 ppb	20:32:09
2	U 409.014†	-2329.7	431.5	15.130 ug/L	15.130 ppb	20:31:49
2	V 292.402†	-1793.8	61.9	0.5217 ug/L	0.5217 ppb	20:31:49
2	Zn 213.857†	705.3	-44.2	-0.4962 ug/L	-0.4962 ppb	20:32:09
2	SiO2†	717.8	93.7	7.6846 ug/L	7.6846 ppb	20:32:45
3	Sc Radial	4906.4	4906.4	112 %		20:30:57
3	Y RADIAL	5145.0	5145.0	111.6 %		20:30:57
3	Al 396.153Radial†	-76.9	21.3	21.166 ug/L	21.166 ppb	20:31:17
3	Ca 317.933Radial†	16.9	-1.0	-1.9589 ug/L	-1.9589 ppb	20:31:17
3	Fe 238.204 Radial†	7.4	-1.1	-11.565 ug/L	-11.565 ppb	20:31:17
3	K 766.490 Radial†	2562.2	-241.8	-46.324 ug/L	-46.324 ppb	20:30:57
3	Mg 279.077 IEC†	0.8	0.9	35.971 ug/L	35.971 ppb	20:31:17
3	Na 589.592 Radial†	-925.0	82.6	27.264 ug/L	27.264 ppb	20:30:57
3	Sr 421.552†	23.5	20.0	0.1481 ug/L	0.1481 ppb	20:30:57
3	Sc 361.383	815693.2	815693.2	110.29 %		20:32:15
3	Y 371.029	727682.0	727682.0	109.79 %		20:32:15
3	Ag 328.068†	175.1	-39.9	-0.2245 ug/L	-0.2245 ppb	20:32:15
3	As 188.979†	-28.4	1.1	0.5058 ug/L	0.5058 ppb	20:32:35
3	B 249.677†	-80.7	467.8	12.207 ug/L	12.207 ppb	20:32:35
3	Ba 233.527†	7.5	2.9	0.0361 ug/L	0.0361 ppb	20:32:35
3	Be 313.107†	-9236.7	446.1	0.1825 ug/L	0.1825 ppb	20:32:15
3	Cd 226.502†	-186.4	13.7	0.2002 ug/L	0.2002 ppb	20:32:35
3	Co 228.616†	-50.5	17.4	0.5419 ug/L	0.5419 ppb	20:32:35
3	Cr 267.716†	57.1	-8.6	-0.1243 ug/L	-0.1243 ppb	20:32:35
3	Cu 324.752†	8030.3	-16.1	-0.0708 ug/L	-0.0708 ppb	20:32:15
3	Mn 257.610†	491.2	17.1	0.0256 ug/L	0.0256 ppb	20:32:35
3	Mo 202.031†	27.8	8.1	0.7688 ug/L	0.7688 ppb	20:32:35
3	Ni 231.604†	102.0	0.1	0.0023 ug/L	0.0023 ppb	20:32:35
3	P 214.914†	197.2	-16.5	-9.3673 ug/L	-9.3673 ppb	20:32:35
3	Pb 220.353†	-69.6	-7.4	-1.2237 ug/L	-1.2237 ppb	20:32:35
3	S 181.975 Axial†	42.4	-7.5	-9.8778 ug/L	-9.8778 ppb	20:32:35
3	Sb 206.836†	29.2	-2.6	-1.0319 ug/L	-1.0319 ppb	20:32:35
3	Se 196.026†	-21.7	2.4	1.5191 ug/L	1.5191 ppb	20:32:35
3	Si 251.611†	663.7	54.5	2.0715 ug/L	2.0715 ppb	20:32:35
3	Sn 189.927†	12.1	6.4	1.5377 ug/L	1.5377 ppb	20:32:35
3	Ti 334.940†	-1316.7	169.0	0.3471 ug/L	0.3471 ppb	20:32:15
3	Tl 190.801†	-29.1	5.7	2.7009 ug/L	2.7009 ppb	20:32:35
3	U 409.014†	-2362.1	381.6	13.383 ug/L	13.383 ppb	20:32:15
3	V 292.402†	-1770.9	67.0	0.5815 ug/L	0.5815 ppb	20:32:15
3	Zn 213.857†	709.0	-34.6	-0.3900 ug/L	-0.3900 ppb	20:32:35
3	SiO2†	690.2	74.9	6.1046 ug/L	6.1046 ppb	20:32:50

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	816672.8	110.43	%	0.886				0.80%
Sc Radial	4926.0	112	%	2.4				2.10%
Y 371.029	728227.9	109.87	%	0.851				0.77%
Y RADIAL	5192.8	112.7	%	2.29				2.03%
Ag 328.068†	21.1	0.0998	ug/L	0.29436	0.0998	ppb	0.29436	294.81%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	17.7	17.590	ug/L	3.7293	17.590	ppb	3.7293	21.20%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.1	0.0500	ug/L	0.73062	0.0500	ppb	0.73062	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	464.3	12.114	ug/L	0.0897	12.114	ppb	0.0897	0.74%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.9	0.1090	ug/L	0.08452	0.1090	ppb	0.08452	77.52%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	423.3	0.1733	ug/L	0.02036	0.1733	ppb	0.02036	11.75%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.9	1.7862	ug/L	8.62918	1.7862	ppb	8.62918	483.10%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              20.3      0.2960 ug/L       0.08793      0.2960 ppb        0.08793  29.70%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              15.7      0.4887 ug/L       0.10089      0.4887 ppb        0.10089  20.64%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               2.4      0.0281 ug/L       0.13876      0.0281 ppb        0.13876 493.38%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -41.8     -0.1703 ug/L       0.19584     -0.1703 ppb        0.19584 115.00%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.8     -8.8904 ug/L       6.65263     -8.8904 ppb        6.65263  74.83%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -249.3     -47.753 ug/L        5.6915     -47.753 ppb         5.6915  11.92%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.3      52.844 ug/L       24.2243      52.844 ppb        24.2243  45.84%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              19.8      0.0296 ug/L       0.01757      0.0296 ppb        0.01757  59.26%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -3.4     -0.3253 ug/L       0.95007     -0.3253 ppb        0.95007 292.06%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       86.2      28.436 ug/L       17.0781      28.436 ppb        17.0781  60.06%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               1.3      0.0413 ug/L       0.21389      0.0413 ppb        0.21389 517.92%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -15.8     -8.9507 ug/L       0.53064     -8.9507 ppb        0.53064   5.93%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -8.9     -1.4615 ug/L       0.20685     -1.4615 ppb        0.20685  14.15%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -7.0     -9.2161 ug/L       7.99134     -9.2161 ppb        7.99134  86.71%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -3.9     -1.6258 ug/L       3.15288     -1.6258 ppb        3.15288 193.93%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.4      2.1590 ug/L       1.15954      2.1590 ppb        1.15954  53.71%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              67.7      2.5892 ug/L       0.65062      2.5892 ppb        0.65062  25.13%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.5      0.6064 ug/L       0.83358      0.6064 ppb        0.83358 137.46%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              13.8      0.1022 ug/L       0.08283      0.1022 ppb        0.08283  81.04%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             188.8      0.3881 ug/L       0.03808      0.3881 ppb        0.03808   9.81%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               6.1      2.9025 ug/L       2.56423      2.9025 ppb        2.56423  88.35%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              365.0      12.801 ug/L        2.6689      12.801 ppb         2.6689  20.85%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              53.5      0.4556 ug/L       0.16894      0.4556 ppb        0.16894  37.08%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -37.4     -0.4222 ug/L       0.06419     -0.4222 ppb        0.06419  15.20%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   95.6      7.8224 ug/L       1.79068      7.8224 ppb        1.79068  22.89%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 28
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/5/2010 21:24:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4915.0	4915.0	112	%			21:26:21
1	Y RADIAL	5125.8	5125.8	111.2	%			21:26:21
1	Al 396.153Radial†	5388.9	4899.8	4850.2	ug/L	4850.2	ppb	21:26:21
1	Ca 317.933Radial†	2886.3	2560.0	4930.8	ug/L	4930.8	ppb	21:26:41
1	Fe 238.204 Radial†	498.5	437.3	4834.3	ug/L	4834.3	ppb	21:26:41
1	K 766.490 Radial†	30102.9	24334.8	4654.7	ug/L	4654.7	ppb	21:26:21
1	Mg 279.077 IEC†	135.5	121.1	5024.3	ug/L	5024.3	ppb	21:26:41
1	Na 589.592 Radial†	28826.0	26637.5	8790.4	ug/L	8790.4	ppb	21:26:21
1	Sr 421.552†	68946.0	61535.0	454.75	ug/L	454.75	ppb	21:26:21
1	Sc 361.383	844252.8	844252.8	114.16	%			21:27:38
1	Y 371.029	747142.3	747142.3	112.72	%			21:27:38
1	Ag 328.068†	102177.3	89308.5	477.33	ug/L	477.33	ppb	21:27:44
1	As 188.979†	1183.1	1063.3	487.67	ug/L	487.67	ppb	21:28:04
1	B 249.677†	20348.7	18366.4	477.05	ug/L	477.05	ppb	21:27:44
1	Ba 233.527†	44676.8	39132.9	479.30	ug/L	479.30	ppb	21:27:44
1	Be 313.107†	1342084.3	1184484.7	483.53	ug/L	483.53	ppb	21:27:38
1	Cd 226.502†	37518.6	33048.9	475.22	ug/L	475.22	ppb	21:27:44
1	Co 228.616†	17725.5	15590.6	485.72	ug/L	485.72	ppb	21:27:44
1	Cr 267.716†	39057.1	34153.5	475.47	ug/L	475.47	ppb	21:27:44
1	Cu 324.752†	149431.9	123605.2	481.57	ug/L	481.57	ppb	21:27:44
1	Mn 257.610†	330901.9	289441.4	478.47	ug/L	478.47	ppb	21:27:44
1	Mo 202.031†	5681.4	4959.8	472.95	ug/L	472.95	ppb	21:28:04
1	Ni 231.604†	16966.9	14770.5	482.50	ug/L	482.50	ppb	21:27:44
1	P 214.914†	4958.2	4148.1	2271.0	ug/L	2271.0	ppb	21:28:04
1	Pb 220.353†	3211.3	2868.8	476.29	ug/L	476.29	ppb	21:28:04
1	S 181.975 Axial†	877.2	722.5	948.90	ug/L	948.90	ppb	21:28:04
1	Sb 206.836†	1310.6	1119.0	485.99	ug/L	485.99	ppb	21:28:04
1	Se 196.026†	855.1	771.1	501.90	ug/L	501.90	ppb	21:28:04
1	Si 251.611†	72753.7	63184.9	2406.9	ug/L	2406.9	ppb	21:27:44
1	Sn 189.927†	2222.1	1942.0	463.56	ug/L	463.56	ppb	21:28:04
1	Ti 334.940†	257266.9	226728.3	477.63	ug/L	477.63	ppb	21:27:44
1	Tl 190.801†	1104.9	1000.0	478.19	ug/L	478.19	ppb	21:28:04
1	U 409.014†	13283.3	14159.4	494.89	ug/L	494.89	ppb	21:27:44
1	V 292.402†	65133.5	58729.4	482.40	ug/L	482.40	ppb	21:27:44
1	Zn 213.857†	49061.9	42300.7	474.11	ug/L	474.11	ppb	21:27:44
1	SiO2†	72797.2	63219.4	5156.9	ug/L	5156.9	ppb	21:29:11
2	Sc Radial	4939.4	4939.4	113	%			21:26:46
2	Y RADIAL	5157.8	5157.8	111.9	%			21:26:46
2	Al 396.153Radial†	5407.2	4892.3	4842.5	ug/L	4842.5	ppb	21:26:46
2	Ca 317.933Radial†	2889.2	2549.8	4911.2	ug/L	4911.2	ppb	21:27:06
2	Fe 238.204 Radial†	496.8	433.5	4793.5	ug/L	4793.5	ppb	21:27:06
2	K 766.490 Radial†	30076.7	24178.6	4624.8	ug/L	4624.8	ppb	21:26:46
2	Mg 279.077 IEC†	133.7	118.9	4931.2	ug/L	4931.2	ppb	21:27:06
2	Na 589.592 Radial†	28877.0	26555.5	8763.4	ug/L	8763.4	ppb	21:26:46
2	Sr 421.552†	68889.8	61180.3	452.13	ug/L	452.13	ppb	21:26:46
2	Sc 361.383	834861.7	834861.7	112.89	%			21:28:09
2	Y 371.029	739323.0	739323.0	111.54	%			21:28:09
2	Ag 328.068†	101982.2	90142.6	481.77	ug/L	481.77	ppb	21:28:15
2	As 188.979†	1165.5	1059.3	485.87	ug/L	485.87	ppb	21:28:35
2	B 249.677†	20338.5	18557.9	482.04	ug/L	482.04	ppb	21:28:15
2	Ba 233.527†	44695.1	39589.3	484.89	ug/L	484.89	ppb	21:28:15
2	Be 313.107†	1335187.0	1191599.4	486.43	ug/L	486.43	ppb	21:28:09
2	Cd 226.502†	37627.3	33514.9	481.93	ug/L	481.93	ppb	21:28:15
2	Co 228.616†	17668.7	15715.1	489.60	ug/L	489.60	ppb	21:28:15
2	Cr 267.716†	39076.5	34555.6	481.07	ug/L	481.07	ppb	21:28:15
2	Cu 324.752†	148617.0	124355.8	484.49	ug/L	484.49	ppb	21:28:15
2	Mn 257.610†	330722.9	292543.5	483.60	ug/L	483.60	ppb	21:28:15
2	Mo 202.031†	5667.4	5003.4	477.11	ug/L	477.11	ppb	21:28:35
2	Ni 231.604†	16976.0	14945.8	488.23	ug/L	488.23	ppb	21:28:15

2	P 214.914†	4954.8	4193.9	2296.7 ug/L	2296.7 ppb	21:28:35
2	Pb 220.353†	3192.4	2883.7	478.76 ug/L	478.76 ppb	21:28:35
2	S 181.975 Axial†	873.4	727.7	955.75 ug/L	955.75 ppb	21:28:35
2	Sb 206.836†	1295.6	1118.6	485.98 ug/L	485.98 ppb	21:28:35
2	Se 196.026†	850.5	775.5	504.59 ug/L	504.59 ppb	21:28:35
2	Si 251.611†	72476.0	63655.8	2424.8 ug/L	2424.8 ppb	21:28:15
2	Sn 189.927†	2218.1	1960.3	467.94 ug/L	467.94 ppb	21:28:35
2	Ti 334.940†	256489.8	228574.9	481.53 ug/L	481.53 ppb	21:28:15
2	Tl 190.801†	1098.8	1005.4	480.79 ug/L	480.79 ppb	21:28:35
2	U 409.014†	13009.6	14047.9	490.97 ug/L	490.97 ppb	21:28:15
2	V 292.402†	65094.8	59336.9	487.38 ug/L	487.38 ppb	21:28:15
2	Zn 213.857†	49042.9	42767.3	479.36 ug/L	479.36 ppb	21:28:15
2	SiO2†	73499.5	64558.9	5266.3 ug/L	5266.3 ppb	21:29:16
3	Sc Radial	5005.6	5005.6	114 %		21:27:11
3	Y RADIAL	5262.5	5262.5	114.2 %		21:27:11
3	Al 396.153Radial†	5508.7	4917.8	4867.5 ug/L	4867.5 ppb	21:27:11
3	Ca 317.933Radial†	2891.0	2517.5	4848.9 ug/L	4848.9 ppb	21:27:31
3	Fe 238.204 Radial†	497.0	427.8	4730.4 ug/L	4730.4 ppb	21:27:31
3	K 766.490 Radial†	30548.7	24239.1	4636.4 ug/L	4636.4 ppb	21:27:11
3	Mg 279.077 IEC†	137.6	120.7	5009.0 ug/L	5009.0 ppb	21:27:31
3	Na 589.592 Radial†	29491.9	26755.3	8829.3 ug/L	8829.3 ppb	21:27:11
3	Sr 421.552†	70304.9	61611.7	455.32 ug/L	455.32 ppb	21:27:11
3	Sc 361.383	830332.8	830332.8	112.27 %		21:28:40
3	Y 371.029	735220.2	735220.2	110.92 %		21:28:40
3	Ag 328.068†	101091.7	89842.1	480.15 ug/L	480.15 ppb	21:28:45
3	As 188.979†	1187.7	1084.8	497.42 ug/L	497.42 ppb	21:29:05
3	B 249.677†	20200.7	18533.5	481.41 ug/L	481.41 ppb	21:28:45
3	Ba 233.527†	44330.9	39480.9	483.56 ug/L	483.56 ppb	21:28:45
3	Be 313.107†	1325204.9	1189159.7	485.44 ug/L	485.44 ppb	21:28:40
3	Cd 226.502†	37261.5	33370.9	479.87 ug/L	479.87 ppb	21:28:45
3	Co 228.616†	17549.1	15693.8	488.96 ug/L	488.96 ppb	21:28:45
3	Cr 267.716†	38707.9	34416.1	479.13 ug/L	479.13 ppb	21:28:45
3	Cu 324.752†	147258.8	123864.1	482.57 ug/L	482.57 ppb	21:28:45
3	Mn 257.610†	327799.3	291537.4	481.92 ug/L	481.92 ppb	21:28:45
3	Mo 202.031†	5698.7	5058.6	482.36 ug/L	482.36 ppb	21:29:05
3	Ni 231.604†	16896.0	14956.6	488.58 ug/L	488.58 ppb	21:28:45
3	P 214.914†	4981.6	4241.7	2324.4 ug/L	2324.4 ppb	21:29:05
3	Pb 220.353†	3197.1	2903.3	482.04 ug/L	482.04 ppb	21:29:05
3	S 181.975 Axial†	870.2	729.1	957.55 ug/L	957.55 ppb	21:29:05
3	Sb 206.836†	1324.9	1151.0	499.73 ug/L	499.73 ppb	21:29:05
3	Se 196.026†	866.0	793.4	515.85 ug/L	515.85 ppb	21:29:05
3	Si 251.611†	71778.4	63384.6	2414.4 ug/L	2414.4 ppb	21:28:45
3	Sn 189.927†	2225.4	1977.6	472.04 ug/L	472.04 ppb	21:29:05
3	Ti 334.940†	254494.1	228036.6	480.38 ug/L	480.38 ppb	21:28:45
3	Tl 190.801†	1114.5	1024.7	489.96 ug/L	489.96 ppb	21:29:05
3	U 409.014†	12836.5	13956.6	487.78 ug/L	487.78 ppb	21:28:45
3	V 292.402†	64615.2	59224.3	486.54 ug/L	486.54 ppb	21:28:45
3	Zn 213.857†	48660.7	42663.9	478.20 ug/L	478.20 ppb	21:28:45
3	SiO2†	72063.3	63634.8	5190.6 ug/L	5190.6 ppb	21:29:21

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	836482.4	113.10	%	0.960				0.85%
Sc Radial	4953.3	113	%	1.1				0.95%
Y 371.029	740561.8	111.73	%	0.914				0.82%
Y RADIAL	5182.0	112.5	%	1.55				1.38%
Ag 328.068†	89764.4	479.75	ug/L	2.245	479.75	ppb	2.245	0.47%
QC value within limits for Ag 328.068 Recovery = 95.95%								
Al 396.153Radial†	4903.3	4853.4	ug/L	12.84	4853.4	ppb	12.84	0.26%
QC value within limits for Al 396.153Radial Recovery = 97.07%								
As 188.979†	1069.1	490.32	ug/L	6.214	490.32	ppb	6.214	1.27%
QC value within limits for As 188.979 Recovery = 98.06%								
B 249.677†	18485.9	480.17	ug/L	2.720	480.17	ppb	2.720	0.57%
QC value within limits for B 249.677 Recovery = 96.03%								
Ba 233.527†	39401.1	482.59	ug/L	2.918	482.59	ppb	2.918	0.60%
QC value within limits for Ba 233.527 Recovery = 96.52%								
Be 313.107†	1188414.6	485.13	ug/L	1.477	485.13	ppb	1.477	0.30%
QC value within limits for Be 313.107 Recovery = 97.03%								
Ca 317.933Radial†	2542.4	4896.9	ug/L	42.78	4896.9	ppb	42.78	0.87%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.94%
Cd 226.502†            33311.6      479.01 ug/L         3.437      479.01 ppb          3.437   0.72%
   QC value within limits for Cd 226.502  Recovery = 95.80%
Co 228.616†            15666.5      488.09 ug/L         2.078      488.09 ppb          2.078   0.43%
   QC value within limits for Co 228.616  Recovery = 97.62%
Cr 267.716†            34375.1      478.56 ug/L         2.843      478.56 ppb          2.843   0.59%
   QC value within limits for Cr 267.716  Recovery = 95.71%
Cu 324.752†           123941.7      482.88 ug/L         1.486      482.88 ppb          1.486   0.31%
   QC value within limits for Cu 324.752  Recovery = 96.58%
Fe 238.204 Radial†       432.9      4786.1 ug/L         52.37      4786.1 ppb          52.37   1.09%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.72%
K 766.490 Radial†      24250.8      4638.6 ug/L         15.09      4638.6 ppb          15.09   0.33%
   QC value within limits for K 766.490 Radial  Recovery = 92.77%
Mg 279.077 IEC†          120.2      4988.2 ug/L         49.93      4988.2 ppb          49.93   1.00%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.76%
Mn 257.610†           291174.1      481.33 ug/L         2.614      481.33 ppb          2.614   0.54%
   QC value within limits for Mn 257.610  Recovery = 96.27%
Mo 202.031†             5007.3      477.47 ug/L         4.716      477.47 ppb          4.716   0.99%
   QC value within limits for Mo 202.031  Recovery = 95.49%
Na 589.592 Radial†     26649.4      8794.4 ug/L         33.15      8794.4 ppb          33.15   0.38%
   QC value less than the lower limit for Na 589.592 Radial  Recovery = 87.94%
Ni 231.604†            14891.0      486.44 ug/L         3.413      486.44 ppb          3.413   0.70%
   QC value within limits for Ni 231.604  Recovery = 97.29%
P 214.914†              4194.6      2297.4 ug/L         26.68      2297.4 ppb          26.68   1.16%
   QC value within limits for P 214.914  Recovery = 91.89%
Pb 220.353†             2885.3      479.03 ug/L         2.884      479.03 ppb          2.884   0.60%
   QC value within limits for Pb 220.353  Recovery = 95.81%
S 181.975 Axial†         726.4      954.07 ug/L         4.567      954.07 ppb          4.567   0.48%
   QC value within limits for S 181.975 Axial  Recovery = 95.41%
Sb 206.836†             1129.6      490.57 ug/L         7.937      490.57 ppb          7.937   1.62%
   QC value within limits for Sb 206.836  Recovery = 98.11%
Se 196.026†              780.0      507.45 ug/L         7.402      507.45 ppb          7.402   1.46%
   QC value within limits for Se 196.026  Recovery = 101.49%
Si 251.611†            63408.4      2415.4 ug/L          9.00      2415.4 ppb           9.00   0.37%
   QC value within limits for Si 251.611  Recovery = 96.62%
Sn 189.927†             1960.0      467.85 ug/L         4.239      467.85 ppb          4.239   0.91%
   QC value within limits for Sn 189.927  Recovery = 93.57%
Sr 421.552†            61442.3      454.06 ug/L         1.701      454.06 ppb          1.701   0.37%
   QC value within limits for Sr 421.552  Recovery = 90.81%
Ti 334.940†           227779.9      479.85 ug/L         2.002      479.85 ppb          2.002   0.42%
   QC value within limits for Ti 334.940  Recovery = 95.97%
Tl 190.801†             1010.1      482.98 ug/L         6.183      482.98 ppb          6.183   1.28%
   QC value within limits for Tl 190.801  Recovery = 96.60%
U 409.014†             14054.6      491.21 ug/L         3.561      491.21 ppb          3.561   0.72%
   QC value within limits for U 409.014  Recovery = 98.24%
V 292.402†             59096.9      485.44 ug/L         2.664      485.44 ppb          2.664   0.55%
   QC value within limits for V 292.402  Recovery = 97.09%
Zn 213.857†            42577.3      477.22 ug/L         2.755      477.22 ppb          2.755   0.58%
   QC value within limits for Zn 213.857  Recovery = 95.44%
SiO2†                  63804.3      5204.6 ug/L         56.04      5204.6 ppb          56.04   1.08%
   QC value within limits for SiO2  Recovery = 97.33%
QC Failed.  Continue with analysis.
```

Sequence No.: 29
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/5/2010 21:31:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4665.1	4665.1	106	%			21:33:23
1	Y RADIAL	4955.9	4955.9	107.5	%			21:33:23
1	Al 396.153Radial†	-84.4	10.8	10.706	ug/L	10.706	ppb	21:33:43
1	Ca 317.933Radial†	20.9	3.6	6.9094	ug/L	6.9094	ppb	21:33:43
1	Fe 238.204 Radial†	6.9	-1.2	-13.688	ug/L	-13.688	ppb	21:33:43
1	K 766.490 Radial†	2688.9	-4.2	-0.8074	ug/L	-0.8074	ppb	21:33:23
1	Mg 279.077 IEC†	1.6	1.7	70.673	ug/L	70.673	ppb	21:33:43
1	Na 589.592 Radial†	-968.1	-0.7	-0.2185	ug/L	-0.2185	ppb	21:33:23
1	Sr 421.552†	1.2	0.1	0.0010	ug/L	0.0010	ppb	21:33:23
1	Sc 361.383	834381.2	834381.2	112.82	%			21:34:40
1	Y 371.029	746217.3	746217.3	112.58	%			21:34:40
1	Ag 328.068†	373.2	132.1	0.6859	ug/L	0.6859	ppb	21:34:45
1	As 188.979†	-28.8	1.4	0.6250	ug/L	0.6250	ppb	21:35:05
1	B 249.677†	-285.6	287.9	7.5124	ug/L	7.5124	ppb	21:35:05
1	Ba 233.527†	19.9	13.8	0.1697	ug/L	0.1697	ppb	21:35:05
1	Be 313.107†	-9282.1	593.4	0.2429	ug/L	0.2429	ppb	21:34:45
1	Cd 226.502†	-163.5	37.7	0.5469	ug/L	0.5469	ppb	21:35:05
1	Co 228.616†	-59.8	10.1	0.3148	ug/L	0.3148	ppb	21:35:05
1	Cr 267.716†	92.3	21.4	0.2924	ug/L	0.2924	ppb	21:35:05
1	Cu 324.752†	8119.1	-100.5	-0.4016	ug/L	-0.4016	ppb	21:34:45
1	Mn 257.610†	484.7	1.4	-0.0020	ug/L	-0.0020	ppb	21:35:05
1	Mo 202.031†	17.5	-1.6	-0.1513	ug/L	-0.1513	ppb	21:35:05
1	Ni 231.604†	107.1	2.5	0.0804	ug/L	0.0804	ppb	21:35:05
1	P 214.914†	191.9	-25.2	-14.267	ug/L	-14.267	ppb	21:35:05
1	Pb 220.353†	-75.1	-10.9	-1.7920	ug/L	-1.7920	ppb	21:35:05
1	S 181.975 Axial†	48.1	-3.3	-4.3954	ug/L	-4.3954	ppb	21:35:05
1	Sb 206.836†	32.5	-0.2	-0.0919	ug/L	-0.0919	ppb	21:35:05
1	Se 196.026†	-11.7	11.8	7.4345	ug/L	7.4345	ppb	21:35:05
1	Si 251.611†	622.7	4.7	0.1806	ug/L	0.1806	ppb	21:35:05
1	Sn 189.927†	8.3	2.8	0.6753	ug/L	0.6753	ppb	21:35:05
1	Ti 334.940†	-1254.8	250.5	0.5155	ug/L	0.5155	ppb	21:34:45
1	Tl 190.801†	-27.3	7.9	3.7457	ug/L	3.7457	ppb	21:35:05
1	U 409.014†	-2298.8	485.7	17.034	ug/L	17.034	ppb	21:34:40
1	V 292.402†	-1767.9	105.6	0.8888	ug/L	0.8888	ppb	21:34:45
1	Zn 213.857†	688.3	-67.3	-0.7593	ug/L	-0.7593	ppb	21:35:05
1	SiO2†	664.6	38.2	3.1313	ug/L	3.1313	ppb	21:36:11
2	Sc Radial	5112.6	5112.6	117	%			21:33:48
2	Y RADIAL	5347.4	5347.4	116.0	%			21:33:48
2	Al 396.153Radial†	-79.5	21.9	21.742	ug/L	21.742	ppb	21:34:08
2	Ca 317.933Radial†	16.4	-2.1	-3.9588	ug/L	-3.9588	ppb	21:34:08
2	Fe 238.204 Radial†	7.9	-0.9	-10.164	ug/L	-10.164	ppb	21:34:08
2	K 766.490 Radial†	2636.0	-270.9	-51.900	ug/L	-51.900	ppb	21:33:48
2	Mg 279.077 IEC†	1.7	1.6	66.327	ug/L	66.327	ppb	21:34:08
2	Na 589.592 Radial†	-938.2	104.7	34.535	ug/L	34.535	ppb	21:33:48
2	Sr 421.552†	9.1	6.8	0.0502	ug/L	0.0502	ppb	21:33:48
2	Sc 361.383	809394.7	809394.7	109.44	%			21:35:10
2	Y 371.029	723662.7	723662.7	109.18	%			21:35:10
2	Ag 328.068†	258.9	37.9	0.1874	ug/L	0.1874	ppb	21:35:16
2	As 188.979†	-31.3	-1.8	-0.7999	ug/L	-0.7999	ppb	21:35:36
2	B 249.677†	-321.0	247.6	6.4614	ug/L	6.4614	ppb	21:35:36
2	Ba 233.527†	-2.5	-6.2	-0.0741	ug/L	-0.0741	ppb	21:35:36
2	Be 313.107†	-9414.3	218.7	0.0898	ug/L	0.0898	ppb	21:35:16
2	Cd 226.502†	-183.7	14.8	0.2171	ug/L	0.2171	ppb	21:35:36
2	Co 228.616†	-47.9	19.4	0.6037	ug/L	0.6037	ppb	21:35:36
2	Cr 267.716†	82.1	14.6	0.1975	ug/L	0.1975	ppb	21:35:36
2	Cu 324.752†	8199.5	195.2	0.7511	ug/L	0.7511	ppb	21:35:16
2	Mn 257.610†	491.4	20.8	0.0306	ug/L	0.0306	ppb	21:35:36
2	Mo 202.031†	17.1	-1.5	-0.1433	ug/L	-0.1433	ppb	21:35:36
2	Ni 231.604†	111.5	9.4	0.3081	ug/L	0.3081	ppb	21:35:36

2	P 214.914†	196.3	-16.0	-9.2584	ug/L	-9.2584 ppb	21:35:36
2	Pb 220.353†	-84.2	-21.3	-3.5145	ug/L	-3.5145 ppb	21:35:36
2	S 181.975 Axial†	53.0	2.5	3.2405	ug/L	3.2405 ppb	21:35:36
2	Sb 206.836†	34.4	2.4	0.9701	ug/L	0.9701 ppb	21:35:36
2	Se 196.026†	-15.8	7.6	4.8204	ug/L	4.8204 ppb	21:35:36
2	Si 251.611†	701.4	93.6	3.5763	ug/L	3.5763 ppb	21:35:36
2	Sn 189.927†	-1.8	-6.2	-1.4828	ug/L	-1.4828 ppb	21:35:36
2	Ti 334.940†	-1319.9	156.8	0.3175	ug/L	0.3175 ppb	21:35:16
2	Tl 190.801†	-41.1	-5.5	-2.6093	ug/L	-2.6093 ppb	21:35:36
2	U 409.014†	-2271.6	447.6	15.697	ug/L	15.697 ppb	21:35:10
2	V 292.402†	-1740.1	82.6	0.6999	ug/L	0.6999 ppb	21:35:16
2	Zn 213.857†	698.7	-39.0	-0.4424	ug/L	-0.4424 ppb	21:35:36
2	SiO2†	621.2	16.7	1.3735	ug/L	1.3735 ppb	21:36:16
3	Sc Radial	5058.6	5058.6	115	%		21:34:13
3	Y RADIAL	5322.3	5322.3	115.5	%		21:34:13
3	Al 396.153Radial†	-77.5	22.9	22.746	ug/L	22.746 ppb	21:34:34
3	Ca 317.933Radial†	17.6	-0.8	-1.6097	ug/L	-1.6097 ppb	21:34:34
3	Fe 238.204 Radial†	8.5	-0.3	-3.7246	ug/L	-3.7246 ppb	21:34:34
3	K 766.490 Radial†	2593.4	-283.7	-54.334	ug/L	-54.334 ppb	21:34:13
3	Mg 279.077 IEC†	-0.2	0.0	1.0333	ug/L	1.0333 ppb	21:34:34
3	Na 589.592 Radial†	-1017.2	27.6	9.1142	ug/L	9.1142 ppb	21:34:13
3	Sr 421.552†	23.2	19.1	0.1415	ug/L	0.1415 ppb	21:34:13
3	Sc 361.383	829540.6	829540.6	112.17	%		21:35:41
3	Y 371.029	741676.6	741676.6	111.90	%		21:35:41
3	Ag 328.068†	305.9	74.1	0.3844	ug/L	0.3844 ppb	21:35:46
3	As 188.979†	-21.8	7.5	3.3996	ug/L	3.3996 ppb	21:36:06
3	B 249.677†	-309.6	265.0	6.9143	ug/L	6.9143 ppb	21:36:06
3	Ba 233.527†	31.6	24.3	0.2988	ug/L	0.2988 ppb	21:36:06
3	Be 313.107†	-9268.9	557.2	0.2277	ug/L	0.2277 ppb	21:35:46
3	Cd 226.502†	-178.1	23.9	0.3467	ug/L	0.3467 ppb	21:36:06
3	Co 228.616†	-65.2	5.0	0.1554	ug/L	0.1554 ppb	21:36:06
3	Cr 267.716†	64.7	-2.7	-0.0423	ug/L	-0.0423 ppb	21:36:06
3	Cu 324.752†	8122.5	-55.4	-0.2238	ug/L	-0.2238 ppb	21:35:46
3	Mn 257.610†	488.4	7.2	0.0114	ug/L	0.0114 ppb	21:36:06
3	Mo 202.031†	14.6	-4.1	-0.3903	ug/L	-0.3903 ppb	21:36:06
3	Ni 231.604†	110.5	6.1	0.1979	ug/L	0.1979 ppb	21:36:06
3	P 214.914†	202.6	-14.7	-8.3083	ug/L	-8.3083 ppb	21:36:06
3	Pb 220.353†	-70.5	-7.1	-1.1773	ug/L	-1.1773 ppb	21:36:06
3	S 181.975 Axial†	43.9	-6.8	-8.9590	ug/L	-8.9590 ppb	21:36:06
3	Sb 206.836†	31.6	-0.9	-0.3360	ug/L	-0.3360 ppb	21:36:06
3	Se 196.026†	-18.5	5.6	3.5484	ug/L	3.5484 ppb	21:36:06
3	Si 251.611†	631.6	15.9	0.6115	ug/L	0.6115 ppb	21:36:06
3	Sn 189.927†	16.4	10.0	2.3934	ug/L	2.3934 ppb	21:36:06
3	Ti 334.940†	-1346.8	162.0	0.3352	ug/L	0.3352 ppb	21:35:46
3	Tl 190.801†	-20.7	13.6	6.4558	ug/L	6.4558 ppb	21:36:06
3	U 409.014†	-2393.8	389.1	13.644	ug/L	13.644 ppb	21:35:41
3	V 292.402†	-1757.9	105.3	0.8747	ug/L	0.8747 ppb	21:35:46
3	Zn 213.857†	701.8	-51.7	-0.5854	ug/L	-0.5854 ppb	21:36:06
3	SiO2†	625.3	6.6	0.5498	ug/L	0.5498 ppb	21:36:21

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	824438.8	111.48	%	1.792				1.61%
Sc Radial	4945.5	113	%	5.6				4.94%
Y 371.029	737185.5	111.22	%	1.800				1.62%
Y RADIAL	5208.5	113.0	%	4.76				4.21%
Ag 328.068†	81.4	0.4192	ug/L	0.25110	0.4192	ppb	0.25110	59.89%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	18.5	18.398	ug/L	6.6806	18.398	ppb	6.6806	36.31%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.4	1.0749	ug/L	2.13560	1.0749	ppb	2.13560	198.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	266.8	6.9627	ug/L	0.52716	6.9627	ppb	0.52716	7.57%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.6	0.1315	ug/L	0.18935	0.1315	ppb	0.18935	144.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	456.4	0.1868	ug/L	0.08434	0.1868	ppb	0.08434	45.15%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.2	0.4470	ug/L	5.71858	0.4470	ppb	5.71858	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                25.5      0.3702 ug/L       0.16615      0.3702 ppb        0.16615  44.88%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                11.5      0.3580 ug/L       0.22726      0.3580 ppb        0.22726  63.48%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                11.1      0.1492 ug/L       0.17250      0.1492 ppb        0.17250 115.62%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                13.1      0.0419 ug/L       0.62058      0.0419 ppb        0.62058 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.8     -9.1922 ug/L       5.05231     -9.1922 ppb        5.05231  54.96%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -186.3     -35.680 ug/L       30.2255     -35.680 ppb        30.2255  84.71%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.1      46.011 ug/L       39.0124      46.011 ppb        39.0124  84.79%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 9.8      0.0133 ug/L       0.01638      0.0133 ppb        0.01638 122.78%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -2.4     -0.2283 ug/L       0.14036     -0.2283 ppb        0.14036  61.48%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         43.9      14.477 ug/L       17.9866      14.477 ppb        17.9866 124.24%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 6.0      0.1955 ug/L       0.11386      0.1955 ppb        0.11386  58.25%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -18.6     -10.611 ug/L        3.2012     -10.611 ppb         3.2012  30.17%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -13.1     -2.1613 ug/L       1.21155     -2.1613 ppb        1.21155  56.06%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.6     -3.3713 ug/L       6.16389     -3.3713 ppb        6.16389 182.84%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.4      0.1807 ug/L       0.69441      0.1807 ppb        0.69441 384.28%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 8.3      5.2678 ug/L       1.98128      5.2678 ppb        1.98128  37.61%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                38.1      1.4561 ug/L       1.84868      1.4561 ppb        1.84868 126.96%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.2      0.5286 ug/L       1.94227      0.5286 ppb        1.94227 367.42%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 8.7      0.0642 ug/L       0.07129      0.0642 ppb        0.07129 111.00%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               189.8      0.3894 ug/L       0.10958      0.3894 ppb        0.10958  28.14%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.3      2.5307 ug/L       4.65305      2.5307 ppb        4.65305 183.86%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                440.8      15.458 ug/L        1.7074      15.458 ppb         1.7074  11.05%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 97.8      0.8211 ug/L       0.10526      0.8211 ppb        0.10526  12.82%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -52.7     -0.5957 ug/L       0.15870     -0.5957 ppb        0.15870  26.64%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      20.5      1.6849 ug/L       1.31860      1.6849 ppb        1.31860  78.26%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 36
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/5/2010 22:20:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4889.2	4889.2	111	%			22:22:50
1	Y RADIAL	5119.2	5119.2	111.1	%			22:22:50
1	Al 396.153Radial†	5378.3	4915.7	4865.9	ug/L	4865.9	ppb	22:22:50
1	Ca 317.933Radial†	2855.2	2545.7	4903.2	ug/L	4903.2	ppb	22:23:10
1	Fe 238.204 Radial†	495.4	436.8	4829.0	ug/L	4829.0	ppb	22:23:10
1	K 766.490 Radial†	29992.6	24377.7	4662.9	ug/L	4662.9	ppb	22:22:50
1	Mg 279.077 IEC†	131.2	117.9	4889.4	ug/L	4889.4	ppb	22:23:10
1	Na 589.592 Radial†	29324.7	27220.8	8982.9	ug/L	8982.9	ppb	22:22:50
1	Sr 421.552†	69276.1	62156.0	459.34	ug/L	459.34	ppb	22:22:50
1	Sc 361.383	837138.3	837138.3	113.19	%			22:24:07
1	Y 371.029	742156.2	742156.2	111.97	%			22:24:07
1	Ag 328.068†	101638.1	89592.8	478.86	ug/L	478.86	ppb	22:24:13
1	As 188.979†	1166.3	1057.2	484.92	ug/L	484.92	ppb	22:24:33
1	B 249.677†	20037.7	18243.2	473.83	ug/L	473.83	ppb	22:24:13
1	Ba 233.527†	44553.5	39356.6	482.04	ug/L	482.04	ppb	22:24:13
1	Be 313.107†	1337092.3	1190066.2	485.80	ug/L	485.80	ppb	22:24:07
1	Cd 226.502†	37353.2	33182.1	477.14	ug/L	477.14	ppb	22:24:13
1	Co 228.616†	17597.7	15609.7	486.32	ug/L	486.32	ppb	22:24:13
1	Cr 267.716†	38951.3	34350.9	478.22	ug/L	478.22	ppb	22:24:13
1	Cu 324.752†	147967.7	123424.2	480.87	ug/L	480.87	ppb	22:24:13
1	Mn 257.610†	329315.7	290503.6	480.23	ug/L	480.23	ppb	22:24:13
1	Mo 202.031†	5649.5	4973.8	474.30	ug/L	474.30	ppb	22:24:33
1	Ni 231.604†	16934.6	14868.3	485.70	ug/L	485.70	ppb	22:24:13
1	P 214.914†	4925.5	4156.1	2275.8	ug/L	2275.8	ppb	22:24:33
1	Pb 220.353†	3176.0	2861.5	475.10	ug/L	475.10	ppb	22:24:33
1	S 181.975 Axial†	853.4	707.9	929.77	ug/L	929.77	ppb	22:24:33
1	Sb 206.836†	1289.7	1110.3	482.37	ug/L	482.37	ppb	22:24:33
1	Se 196.026†	837.1	761.7	495.89	ug/L	495.89	ppb	22:24:33
1	Si 251.611†	71988.8	63050.8	2401.8	ug/L	2401.8	ppb	22:24:13
1	Sn 189.927†	2205.8	1944.1	464.06	ug/L	464.06	ppb	22:24:33
1	Ti 334.940†	255522.5	227102.5	478.43	ug/L	478.43	ppb	22:24:13
1	Tl 190.801†	1097.6	1001.7	479.02	ug/L	479.02	ppb	22:24:33
1	U 409.014†	12878.5	13900.7	485.81	ug/L	485.81	ppb	22:24:13
1	V 292.402†	64937.2	59040.9	484.92	ug/L	484.92	ppb	22:24:13
1	Zn 213.857†	48890.9	42515.0	476.52	ug/L	476.52	ppb	22:24:13
1	SiO2†	72608.1	63594.3	5187.5	ug/L	5187.5	ppb	22:25:40
2	Sc Radial	4892.0	4892.0	112	%			22:23:15
2	Y RADIAL	5120.1	5120.1	111.1	%			22:23:15
2	Al 396.153Radial†	5390.8	4924.1	4874.0	ug/L	4874.0	ppb	22:23:15
2	Ca 317.933Radial†	2890.5	2575.9	4961.3	ug/L	4961.3	ppb	22:23:35
2	Fe 238.204 Radial†	500.5	441.1	4877.0	ug/L	4877.0	ppb	22:23:35
2	K 766.490 Radial†	30017.9	24385.0	4664.2	ug/L	4664.2	ppb	22:23:15
2	Mg 279.077 IEC†	133.0	119.4	4953.4	ug/L	4953.4	ppb	22:23:35
2	Na 589.592 Radial†	29468.7	27334.8	9020.5	ug/L	9020.5	ppb	22:23:15
2	Sr 421.552†	69209.5	62060.5	458.63	ug/L	458.63	ppb	22:23:15
2	Sc 361.383	833553.6	833553.6	112.71	%			22:24:38
2	Y 371.029	738551.3	738551.3	111.43	%			22:24:38
2	Ag 328.068†	102481.7	90727.4	484.92	ug/L	484.92	ppb	22:24:43
2	As 188.979†	1181.0	1074.7	492.90	ug/L	492.90	ppb	22:25:03
2	B 249.677†	20514.1	18741.9	486.82	ug/L	486.82	ppb	22:24:43
2	Ba 233.527†	45006.0	39927.4	489.03	ug/L	489.03	ppb	22:24:43
2	Be 313.107†	1334653.6	1192982.3	487.01	ug/L	487.01	ppb	22:24:38
2	Cd 226.502†	37869.2	33781.8	485.77	ug/L	485.77	ppb	22:24:43
2	Co 228.616†	17763.0	15823.2	492.97	ug/L	492.97	ppb	22:24:43
2	Cr 267.716†	39274.5	34785.6	484.27	ug/L	484.27	ppb	22:24:43
2	Cu 324.752†	149354.9	125217.0	487.85	ug/L	487.85	ppb	22:24:43
2	Mn 257.610†	332818.6	294862.6	487.44	ug/L	487.44	ppb	22:24:43
2	Mo 202.031†	5700.1	5040.3	480.63	ug/L	480.63	ppb	22:25:03
2	Ni 231.604†	17136.2	15111.5	493.64	ug/L	493.64	ppb	22:24:43

2	P 214.914†	4978.0	4221.3	2311.6 ug/L	2311.6 ppb	22:25:03
2	Pb 220.353†	3196.2	2891.5	480.06 ug/L	480.06 ppb	22:25:03
2	S 181.975 Axial†	876.2	731.5	960.72 ug/L	960.72 ppb	22:25:03
2	Sb 206.836†	1312.6	1135.6	493.16 ug/L	493.16 ppb	22:25:03
2	Se 196.026†	848.3	774.8	504.34 ug/L	504.34 ppb	22:25:03
2	Si 251.611†	72806.6	64049.8	2439.8 ug/L	2439.8 ppb	22:24:43
2	Sn 189.927†	2218.6	1963.9	468.79 ug/L	468.79 ppb	22:25:03
2	Ti 334.940†	257939.3	230217.5	484.99 ug/L	484.99 ppb	22:24:43
2	Tl 190.801†	1108.6	1015.7	485.70 ug/L	485.70 ppb	22:25:03
2	U 409.014†	13117.5	14161.7	494.94 ug/L	494.94 ppb	22:24:43
2	V 292.402†	65585.9	59863.2	491.68 ug/L	491.68 ppb	22:24:43
2	Zn 213.857†	49450.5	43197.2	484.17 ug/L	484.17 ppb	22:24:43
2	SiO2†	72249.7	63552.2	5183.9 ug/L	5183.9 ppb	22:25:45
3	Sc Radial	4883.9	4883.9	111 %		22:23:40
3	Y RADIAL	5113.2	5113.2	111.0 %		22:23:40
3	Al 396.153Radial†	5330.9	4878.3	4828.4 ug/L	4828.4 ppb	22:23:40
3	Ca 317.933Radial†	2866.6	2558.7	4928.2 ug/L	4928.2 ppb	22:24:00
3	Fe 238.204 Radial†	499.4	440.9	4874.2 ug/L	4874.2 ppb	22:24:00
3	K 766.490 Radial†	29772.0	24208.5	4630.5 ug/L	4630.5 ppb	22:23:40
3	Mg 279.077 IEC†	136.3	122.6	5086.2 ug/L	5086.2 ppb	22:24:00
3	Na 589.592 Radial†	29002.7	26959.9	8896.8 ug/L	8896.8 ppb	22:23:40
3	Sr 421.552†	68580.0	61597.4	455.21 ug/L	455.21 ppb	22:23:40
3	Sc 361.383	830431.9	830431.9	112.29 %		22:25:09
3	Y 371.029	736305.0	736305.0	111.09 %		22:25:09
3	Ag 328.068†	101242.2	89965.4	480.86 ug/L	480.86 ppb	22:25:14
3	As 188.979†	1179.5	1077.3	494.07 ug/L	494.07 ppb	22:25:34
3	B 249.677†	20130.7	18468.9	479.70 ug/L	479.70 ppb	22:25:14
3	Ba 233.527†	44458.1	39589.5	484.90 ug/L	484.90 ppb	22:25:14
3	Be 313.107†	1332360.3	1195391.4	487.98 ug/L	487.98 ppb	22:25:09
3	Cd 226.502†	37397.8	33488.3	481.54 ug/L	481.54 ppb	22:25:14
3	Co 228.616†	17576.8	15716.7	489.67 ug/L	489.67 ppb	22:25:14
3	Cr 267.716†	38859.3	34546.8	480.95 ug/L	480.95 ppb	22:25:14
3	Cu 324.752†	147174.5	123773.4	482.23 ug/L	482.23 ppb	22:25:14
3	Mn 257.610†	328411.6	292047.9	482.78 ug/L	482.78 ppb	22:25:14
3	Mo 202.031†	5692.2	5052.2	481.76 ug/L	481.76 ppb	22:25:34
3	Ni 231.604†	16894.4	14953.3	488.47 ug/L	488.47 ppb	22:25:14
3	P 214.914†	4978.3	4238.3	2322.4 ug/L	2322.4 ppb	22:25:34
3	Pb 220.353†	3205.7	2910.6	483.22 ug/L	483.22 ppb	22:25:34
3	S 181.975 Axial†	876.4	734.5	964.77 ug/L	964.77 ppb	22:25:34
3	Sb 206.836†	1302.1	1130.6	491.16 ug/L	491.16 ppb	22:25:34
3	Se 196.026†	851.8	780.7	508.06 ug/L	508.06 ppb	22:25:34
3	Si 251.611†	71887.8	63474.5	2417.9 ug/L	2417.9 ppb	22:25:14
3	Sn 189.927†	2226.5	1978.3	472.21 ug/L	472.21 ppb	22:25:34
3	Ti 334.940†	254735.2	228224.3	480.78 ug/L	480.78 ppb	22:25:14
3	Tl 190.801†	1120.1	1029.7	492.29 ug/L	492.29 ppb	22:25:34
3	U 409.014†	12867.1	13982.4	488.66 ug/L	488.66 ppb	22:25:14
3	V 292.402†	64875.7	59449.5	488.34 ug/L	488.34 ppb	22:25:14
3	Zn 213.857†	48782.4	42767.1	479.34 ug/L	479.34 ppb	22:25:14
3	SiO2†	71902.0	63483.5	5178.2 ug/L	5178.2 ppb	22:25:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	833707.9	112.73	%	0.454				0.40%
Sc Radial	4888.4	111	%	0.1				0.08%
Y 371.029	739004.2	111.49	%	0.445				0.40%
Y RADIAL	5117.5	111.1	%	0.08				0.07%
Ag 328.068†	90095.2	481.55	ug/L	3.087	481.55	ppb	3.087	0.64%
QC value within limits for Ag 328.068 Recovery = 96.31%								
Al 396.153Radial†	4906.1	4856.1	ug/L	24.33	4856.1	ppb	24.33	0.50%
QC value within limits for Al 396.153Radial Recovery = 97.12%								
As 188.979†	1069.7	490.63	ug/L	4.978	490.63	ppb	4.978	1.01%
QC value within limits for As 188.979 Recovery = 98.13%								
B 249.677†	18484.7	480.12	ug/L	6.503	480.12	ppb	6.503	1.35%
QC value within limits for B 249.677 Recovery = 96.02%								
Ba 233.527†	39624.5	485.32	ug/L	3.514	485.32	ppb	3.514	0.72%
QC value within limits for Ba 233.527 Recovery = 97.06%								
Be 313.107†	1192813.3	486.93	ug/L	1.089	486.93	ppb	1.089	0.22%
QC value within limits for Be 313.107 Recovery = 97.39%								
Ca 317.933Radial†	2560.1	4930.9	ug/L	29.17	4930.9	ppb	29.17	0.59%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.62%
Cd 226.502†            33484.1      481.48 ug/L         4.314      481.48 ppb          4.314   0.90%
   QC value within limits for Cd 226.502  Recovery = 96.30%
Co 228.616†            15716.6      489.65 ug/L         3.326      489.65 ppb          3.326   0.68%
   QC value within limits for Co 228.616  Recovery = 97.93%
Cr 267.716†            34561.1      481.15 ug/L         3.030      481.15 ppb          3.030   0.63%
   QC value within limits for Cr 267.716  Recovery = 96.23%
Cu 324.752†           124138.2      483.65 ug/L         3.702      483.65 ppb          3.702   0.77%
   QC value within limits for Cu 324.752  Recovery = 96.73%
Fe 238.204 Radial†       439.6      4860.1 ug/L        26.93      4860.1 ppb         26.93   0.55%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.20%
K 766.490 Radial†      24323.7      4652.5 ug/L        19.10      4652.5 ppb         19.10   0.41%
   QC value within limits for K 766.490 Radial  Recovery = 93.05%
Mg 279.077 IEC†          120.0      4976.3 ug/L       100.42      4976.3 ppb        100.42   2.02%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.53%
Mn 257.610†           292471.4      483.48 ug/L         3.653      483.48 ppb          3.653   0.76%
   QC value within limits for Mn 257.610  Recovery = 96.70%
Mo 202.031†             5022.1      478.89 ug/L         4.024      478.89 ppb          4.024   0.84%
   QC value within limits for Mo 202.031  Recovery = 95.78%
Na 589.592 Radial†     27171.8      8966.8 ug/L        63.43      8966.8 ppb         63.43   0.71%
   QC value less than the lower limit for Na 589.592 Radial  Recovery = 89.67%
Ni 231.604†            14977.7      489.27 ug/L         4.033      489.27 ppb          4.033   0.82%
   QC value within limits for Ni 231.604  Recovery = 97.85%
P 214.914†              4205.2      2303.2 ug/L        24.41      2303.2 ppb         24.41   1.06%
   QC value within limits for P 214.914  Recovery = 92.13%
Pb 220.353†             2887.9      479.46 ug/L         4.097      479.46 ppb          4.097   0.85%
   QC value within limits for Pb 220.353  Recovery = 95.89%
S 181.975 Axial†         724.6      951.75 ug/L        19.144      951.75 ppb         19.144   2.01%
   QC value within limits for S 181.975 Axial  Recovery = 95.18%
Sb 206.836†             1125.5      488.90 ug/L         5.738      488.90 ppb          5.738   1.17%
   QC value within limits for Sb 206.836  Recovery = 97.78%
Se 196.026†              772.4      502.76 ug/L         6.232      502.76 ppb          6.232   1.24%
   QC value within limits for Se 196.026  Recovery = 100.55%
Si 251.611†            63525.0      2419.8 ug/L        19.11      2419.8 ppb         19.11   0.79%
   QC value within limits for Si 251.611  Recovery = 96.79%
Sn 189.927†             1962.1      468.36 ug/L         4.093      468.36 ppb          4.093   0.87%
   QC value within limits for Sn 189.927  Recovery = 93.67%
Sr 421.552†            61937.9      457.73 ug/L         2.208      457.73 ppb          2.208   0.48%
   QC value within limits for Sr 421.552  Recovery = 91.55%
Ti 334.940†           228514.8      481.40 ug/L         3.324      481.40 ppb          3.324   0.69%
   QC value within limits for Ti 334.940  Recovery = 96.28%
Tl 190.801†             1015.7      485.67 ug/L         6.633      485.67 ppb          6.633   1.37%
   QC value within limits for Tl 190.801  Recovery = 97.13%
U 409.014†             14014.9      489.81 ug/L         4.672      489.81 ppb          4.672   0.95%
   QC value within limits for U 409.014  Recovery = 97.96%
V 292.402†             59451.2      488.32 ug/L         3.379      488.32 ppb          3.379   0.69%
   QC value within limits for V 292.402  Recovery = 97.66%
Zn 213.857†            42826.4      480.01 ug/L         3.869      480.01 ppb          3.869   0.81%
   QC value within limits for Zn 213.857  Recovery = 96.00%
SiO2†                  63543.3      5183.2 ug/L          4.67      5183.2 ppb          4.67   0.09%
   QC value within limits for SiO2  Recovery = 96.93%
QC Failed.  Continue with analysis.
```

Sequence No.: 37
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/5/2010 22:28:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4948.6	4948.6	113	%			22:29:52
1	Y RADIAL	5198.6	5198.6	112.8	%			22:29:52
1	Al 396.153Radial†	-66.0	31.6	31.372	ug/L	31.372	ppb	22:30:12
1	Ca 317.933Radial†	17.2	-0.9	-1.7373	ug/L	-1.7373	ppb	22:30:12
1	Fe 238.204 Radial†	7.6	-1.0	-10.903	ug/L	-10.903	ppb	22:30:12
1	K 766.490 Radial†	2678.4	-158.3	-30.326	ug/L	-30.326	ppb	22:29:52
1	Mg 279.077 IEC†	3.3	3.0	126.17	ug/L	126.17	ppb	22:30:12
1	Na 589.592 Radial†	-1010.4	14.0	4.6043	ug/L	4.6043	ppb	22:29:52
1	Sr 421.552†	39.7	34.2	0.2527	ug/L	0.2527	ppb	22:29:52
1	Sc 361.383	799075.2	799075.2	108.05	%			22:31:09
1	Y 371.029	726085.0	726085.0	109.54	%			22:31:09
1	Ag 328.068†	204.8	-9.1	-0.0557	ug/L	-0.0557	ppb	22:31:09
1	As 188.979†	-32.4	-3.2	-1.4339	ug/L	-1.4339	ppb	22:31:29
1	B 249.677†	-316.1	248.4	6.4819	ug/L	6.4819	ppb	22:31:29
1	Ba 233.527†	25.8	20.0	0.2452	ug/L	0.2452	ppb	22:31:29
1	Be 313.107†	-8968.9	519.8	0.2127	ug/L	0.2127	ppb	22:31:09
1	Cd 226.502†	-197.8	-0.5	-0.0040	ug/L	-0.0040	ppb	22:31:29
1	Co 228.616†	-51.8	15.2	0.4736	ug/L	0.4736	ppb	22:31:29
1	Cr 267.716†	77.7	11.5	0.1572	ug/L	0.1572	ppb	22:31:29
1	Cu 324.752†	7969.7	79.2	0.3040	ug/L	0.3040	ppb	22:31:09
1	Mn 257.610†	520.1	53.1	0.0815	ug/L	0.0815	ppb	22:31:29
1	Mo 202.031†	20.4	1.7	0.1645	ug/L	0.1645	ppb	22:31:29
1	Ni 231.604†	102.2	2.2	0.0711	ug/L	0.0711	ppb	22:31:29
1	P 214.914†	197.7	-12.3	-7.0789	ug/L	-7.0789	ppb	22:31:29
1	Pb 220.353†	-80.1	-18.4	-3.0383	ug/L	-3.0383	ppb	22:31:29
1	S 181.975 Axial†	41.4	-7.6	-10.048	ug/L	-10.048	ppb	22:31:29
1	Sb 206.836†	33.4	1.8	0.7782	ug/L	0.7782	ppb	22:31:29
1	Se 196.026†	-26.1	-2.1	-1.3378	ug/L	-1.3378	ppb	22:31:29
1	Si 251.611†	611.9	19.1	0.7258	ug/L	0.7258	ppb	22:31:29
1	Sn 189.927†	8.0	2.8	0.6692	ug/L	0.6692	ppb	22:31:29
1	Ti 334.940†	-1254.4	201.8	0.4114	ug/L	0.4114	ppb	22:31:09
1	Tl 190.801†	-44.0	-8.6	-4.0968	ug/L	-4.0968	ppb	22:31:29
1	U 409.014†	-2505.7	204.2	7.1622	ug/L	7.1622	ppb	22:31:09
1	V 292.402†	-1732.2	69.3	0.5817	ug/L	0.5817	ppb	22:31:09
1	Zn 213.857†	709.5	-20.8	-0.2345	ug/L	-0.2345	ppb	22:31:29
1	SiO2†	648.4	49.3	4.0273	ug/L	4.0273	ppb	22:32:25
2	Sc Radial	4989.6	4989.6	114	%			22:30:17
2	Y RADIAL	5245.4	5245.4	113.8	%			22:30:17
2	Al 396.153Radial†	-75.1	24.0	23.930	ug/L	23.930	ppb	22:30:37
2	Ca 317.933Radial†	23.2	4.3	8.2618	ug/L	8.2618	ppb	22:30:37
2	Fe 238.204 Radial†	8.5	-0.2	-2.2071	ug/L	-2.2071	ppb	22:30:37
2	K 766.490 Radial†	2540.8	-298.9	-57.251	ug/L	-57.251	ppb	22:30:17
2	Mg 279.077 IEC†	4.3	4.0	164.77	ug/L	164.77	ppb	22:30:37
2	Na 589.592 Radial†	-936.5	86.3	28.476	ug/L	28.476	ppb	22:30:17
2	Sr 421.552†	22.0	18.3	0.1352	ug/L	0.1352	ppb	22:30:17
2	Sc 361.383	802663.4	802663.4	108.53	%			22:31:34
2	Y 371.029	728424.8	728424.8	109.90	%			22:31:34
2	Ag 328.068†	343.8	118.1	0.6187	ug/L	0.6187	ppb	22:31:34
2	As 188.979†	-34.3	-4.7	-2.1330	ug/L	-2.1330	ppb	22:31:54
2	B 249.677†	-358.8	210.4	5.4907	ug/L	5.4907	ppb	22:31:54
2	Ba 233.527†	29.0	22.8	0.2805	ug/L	0.2805	ppb	22:31:54
2	Be 313.107†	-9084.0	450.8	0.1846	ug/L	0.1846	ppb	22:31:34
2	Cd 226.502†	-188.0	9.4	0.1386	ug/L	0.1386	ppb	22:31:54
2	Co 228.616†	-66.4	2.0	0.0598	ug/L	0.0598	ppb	22:31:54
2	Cr 267.716†	71.3	5.3	0.0698	ug/L	0.0698	ppb	22:31:54
2	Cu 324.752†	7850.9	-63.2	-0.2542	ug/L	-0.2542	ppb	22:31:34
2	Mn 257.610†	533.0	62.9	0.0969	ug/L	0.0969	ppb	22:31:54
2	Mo 202.031†	12.8	-5.3	-0.5076	ug/L	-0.5076	ppb	22:31:54
2	Ni 231.604†	108.9	7.9	0.2583	ug/L	0.2583	ppb	22:31:54

2	P 214.914†	187.1	-23.0	-13.037 ug/L	-13.037 ppb	22:31:54
2	Pb 220.353†	-67.5	-6.5	-1.0654 ug/L	-1.0654 ppb	22:31:54
2	S 181.975 Axial†	40.8	-8.4	-11.000 ug/L	-11.000 ppb	22:31:54
2	Sb 206.836†	40.2	8.0	3.3461 ug/L	3.3461 ppb	22:31:54
2	Se 196.026†	-21.3	2.5	1.5564 ug/L	1.5564 ppb	22:31:54
2	Si 251.611†	618.6	22.8	0.8755 ug/L	0.8755 ppb	22:31:54
2	Sn 189.927†	4.5	-0.4	-0.0940 ug/L	-0.0940 ppb	22:31:54
2	Ti 334.940†	-1268.5	194.0	0.3902 ug/L	0.3902 ppb	22:31:34
2	Tl 190.801†	-39.7	-4.5	-2.1410 ug/L	-2.1410 ppb	22:31:54
2	U 409.014†	-2306.9	397.8	13.948 ug/L	13.948 ppb	22:31:34
2	V 292.402†	-1688.5	116.8	0.9694 ug/L	0.9694 ppb	22:31:34
2	Zn 213.857†	714.8	-18.9	-0.2143 ug/L	-0.2143 ppb	22:31:54
2	SiO2†	632.5	32.0	2.6270 ug/L	2.6270 ppb	22:32:30
3	Sc Radial	4888.6	4888.6	111 %		22:30:42
3	Y RADIAL	5174.5	5174.5	112.3 %		22:30:42
3	Al 396.153Radial†	-85.2	13.6	13.629 ug/L	13.629 ppb	22:31:02
3	Ca 317.933Radial†	19.5	1.4	2.7435 ug/L	2.7435 ppb	22:31:02
3	Fe 238.204 Radial†	10.0	1.2	13.758 ug/L	13.758 ppb	22:31:02
3	K 766.490 Radial†	2527.4	-264.7	-50.701 ug/L	-50.701 ppb	22:30:42
3	Mg 279.077 IEC†	1.8	1.8	74.367 ug/L	74.367 ppb	22:31:02
3	Na 589.592 Radial†	-963.8	44.8	14.785 ug/L	14.785 ppb	22:30:42
3	Sr 421.552†	2.0	0.8	0.0061 ug/L	0.0061 ppb	22:30:42
3	Sc 361.383	802139.3	802139.3	108.46 %		22:32:00
3	Y 371.029	725647.1	725647.1	109.48 %		22:32:00
3	Ag 328.068†	223.8	7.6	0.0404 ug/L	0.0404 ppb	22:32:00
3	As 188.979†	-35.7	-6.1	-2.7456 ug/L	-2.7456 ppb	22:32:20
3	B 249.677†	-349.7	218.6	5.6992 ug/L	5.6992 ppb	22:32:20
3	Ba 233.527†	9.9	5.2	0.0648 ug/L	0.0648 ppb	22:32:20
3	Be 313.107†	-9146.8	387.5	0.1593 ug/L	0.1593 ppb	22:32:00
3	Cd 226.502†	-180.3	16.4	0.2364 ug/L	0.2364 ppb	22:32:20
3	Co 228.616†	-53.4	13.9	0.4291 ug/L	0.4291 ppb	22:32:20
3	Cr 267.716†	87.0	19.8	0.2723 ug/L	0.2723 ppb	22:32:20
3	Cu 324.752†	7942.2	25.7	0.0960 ug/L	0.0960 ppb	22:32:00
3	Mn 257.610†	544.9	74.1	0.1208 ug/L	0.1208 ppb	22:32:20
3	Mo 202.031†	4.1	-13.3	-1.2682 ug/L	-1.2682 ppb	22:32:20
3	Ni 231.604†	118.4	16.7	0.5466 ug/L	0.5466 ppb	22:32:20
3	P 214.914†	191.3	-19.0	-10.830 ug/L	-10.830 ppb	22:32:20
3	Pb 220.353†	-67.6	-6.6	-1.1003 ug/L	-1.1003 ppb	22:32:20
3	S 181.975 Axial†	42.8	-6.5	-8.5618 ug/L	-8.5618 ppb	22:32:20
3	Sb 206.836†	37.8	5.8	2.4153 ug/L	2.4153 ppb	22:32:20
3	Se 196.026†	-22.1	1.7	1.1145 ug/L	1.1145 ppb	22:32:20
3	Si 251.611†	602.7	8.4	0.3379 ug/L	0.3379 ppb	22:32:20
3	Sn 189.927†	13.8	8.2	1.9437 ug/L	1.9437 ppb	22:32:20
3	Ti 334.940†	-1148.3	304.0	0.6311 ug/L	0.6311 ppb	22:32:00
3	Tl 190.801†	-34.5	0.2	0.1175 ug/L	0.1175 ppb	22:32:20
3	U 409.014†	-2470.8	245.2	8.5961 ug/L	8.5961 ppb	22:32:00
3	V 292.402†	-1750.6	58.5	0.4716 ug/L	0.4716 ppb	22:32:00
3	Zn 213.857†	684.3	-46.5	-0.5321 ug/L	-0.5321 ppb	22:32:20
3	SiO2†	610.9	12.4	1.0505 ug/L	1.0505 ppb	22:32:35

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	801292.6	108.35	%	0.262				0.24%
Sc Radial	4942.3	113	%	1.2				1.03%
Y 371.029	726719.0	109.64	%	0.225				0.21%
Y RADIAL	5206.2	113.0	%	0.78				0.69%
Ag 328.068†	38.9	0.2012	ug/L	0.36480	0.2012	ppb	0.36480	181.34%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	23.1	22.977	ug/L	8.9098	22.977	ppb	8.9098	38.78%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.6	-2.1042	ug/L	0.65635	-2.1042	ppb	0.65635	31.19%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	225.8	5.8906	ug/L	0.52256	5.8906	ppb	0.52256	8.87%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	16.0	0.1969	ug/L	0.11569	0.1969	ppb	0.11569	58.77%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	452.7	0.1855	ug/L	0.02672	0.1855	ppb	0.02672	14.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.6	3.0893	ug/L	5.00851	3.0893	ppb	5.00851	162.12%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                8.5      0.1237 ug/L       0.12088      0.1237 ppb        0.12088  97.76%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               10.4      0.3208 ug/L       0.22717      0.3208 ppb        0.22717  70.81%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               12.2      0.1664 ug/L       0.10152      0.1664 ppb        0.10152  61.00%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               13.9      0.0486 ug/L       0.28211      0.0486 ppb        0.28211 580.44%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.0      0.2159 ug/L      12.50814      0.2159 ppb       12.50814 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -240.6     -46.093 ug/L       14.0419     -46.093 ppb        14.0419  30.46%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.9      121.77 ug/L        45.361      121.77 ppb         45.361  37.25%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               63.4      0.0997 ug/L       0.01979      0.0997 ppb        0.01979  19.84%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -5.6     -0.5371 ug/L       0.71680     -0.5371 ppb        0.71680 133.46%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        48.3      15.955 ug/L       11.9786      15.955 ppb        11.9786  75.08%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                8.9      0.2920 ug/L       0.23954      0.2920 ppb        0.23954  82.05%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -18.1     -10.315 ug/L        3.0121     -10.315 ppb         3.0121  29.20%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -10.5     -1.7347 ug/L       1.12908     -1.7347 ppb        1.12908  65.09%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -7.5     -9.8698 ug/L       1.22869     -9.8698 ppb        1.22869  12.45%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.2      2.1799 ug/L       1.30003      2.1799 ppb        1.30003  59.64%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                0.7      0.4444 ug/L       1.55916      0.4444 ppb        1.55916 350.86%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               16.8      0.6464 ug/L       0.27750      0.6464 ppb        0.27750  42.93%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.5      0.8396 ug/L       1.02951      0.8396 ppb        1.02951 122.61%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               17.8      0.1313 ug/L       0.12333      0.1313 ppb        0.12333  93.92%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              233.3      0.4776 ug/L       0.13337      0.4776 ppb        0.13337  27.93%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -4.3     -2.0401 ug/L       2.10900     -2.0401 ppb        2.10900 103.38%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               282.4      9.9022 ug/L       3.57668      9.9022 ppb        3.57668  36.12%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                81.6      0.6742 ug/L       0.26150      0.6742 ppb        0.26150  38.78%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -28.7     -0.3269 ug/L       0.17795     -0.3269 ppb        0.17795  54.43%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     31.2      2.5683 ug/L       1.48931      2.5683 ppb        1.48931  57.99%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 45
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/5/2010 23:22:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4837.1	4837.1	110	%			23:24:11
1	Y RADIAL	5038.0	5038.0	109.3	%			23:24:11
1	Al 396.153Radial†	5505.3	5082.7	5030.5	ug/L	5030.5	ppb	23:24:11
1	Ca 317.933Radial†	2963.8	2671.7	5146.0	ug/L	5146.0	ppb	23:24:31
1	Fe 238.204 Radial†	515.8	460.1	5086.5	ug/L	5086.5	ppb	23:24:31
1	K 766.490 Radial†	30886.0	25477.4	4873.1	ug/L	4873.1	ppb	23:24:11
1	Mg 279.077 IEC†	142.4	129.3	5362.4	ug/L	5362.4	ppb	23:24:31
1	Na 589.592 Radial†	31047.8	29066.5	9592.0	ug/L	9592.0	ppb	23:24:11
1	Sr 421.552†	72115.0	65399.0	483.31	ug/L	483.31	ppb	23:24:11
1	Sc 361.383	819661.3	819661.3	110.83	%			23:25:29
1	Y 371.029	726454.6	726454.6	109.60	%			23:25:29
1	Ag 328.068†	103929.4	93574.8	500.18	ug/L	500.18	ppb	23:25:29
1	As 188.979†	1211.4	1119.9	513.68	ug/L	513.68	ppb	23:25:49
1	B 249.677†	20790.3	19299.6	501.28	ug/L	501.28	ppb	23:25:29
1	Ba 233.527†	45575.6	41118.1	503.62	ug/L	503.62	ppb	23:25:29
1	Be 313.107†	1371015.9	1245861.5	508.60	ug/L	508.60	ppb	23:25:29
1	Cd 226.502†	37994.0	34463.9	495.57	ug/L	495.57	ppb	23:25:49
1	Co 228.616†	18112.5	16405.7	511.12	ug/L	511.12	ppb	23:25:49
1	Cr 267.716†	39945.0	35981.2	500.93	ug/L	500.93	ppb	23:25:29
1	Cu 324.752†	152018.8	129866.6	505.98	ug/L	505.98	ppb	23:25:29
1	Mn 257.610†	342708.9	308791.3	510.45	ug/L	510.45	ppb	23:25:29
1	Mo 202.031†	5898.2	5304.7	505.84	ug/L	505.84	ppb	23:25:49
1	Ni 231.604†	17395.5	15603.2	509.70	ug/L	509.70	ppb	23:25:49
1	P 214.914†	5132.2	4435.4	2430.1	ug/L	2430.1	ppb	23:25:49
1	Pb 220.353†	3301.5	3034.5	503.80	ug/L	503.80	ppb	23:25:49
1	S 181.975 Axial†	893.9	760.6	998.97	ug/L	998.97	ppb	23:25:49
1	Sb 206.836†	1343.7	1183.3	514.04	ug/L	514.04	ppb	23:25:49
1	Se 196.026†	870.6	807.6	525.75	ug/L	525.75	ppb	23:25:49
1	Si 251.611†	73765.8	66010.2	2514.4	ug/L	2514.4	ppb	23:25:29
1	Sn 189.927†	2289.4	2061.1	491.99	ug/L	491.99	ppb	23:25:49
1	Ti 334.940†	267028.8	242297.6	510.44	ug/L	510.44	ppb	23:25:29
1	Tl 190.801†	1153.4	1072.7	513.00	ug/L	513.00	ppb	23:25:49
1	U 409.014†	12653.7	13940.5	487.12	ug/L	487.12	ppb	23:25:29
1	V 292.402†	66750.3	61900.0	508.48	ug/L	508.48	ppb	23:25:29
1	Zn 213.857†	50154.0	44575.6	499.60	ug/L	499.60	ppb	23:25:29
1	SiO2†	75203.6	67303.8	5490.0	ug/L	5490.0	ppb	23:26:49
2	Sc Radial	4841.0	4841.0	110	%			23:24:36
2	Y RADIAL	5051.3	5051.3	109.6	%			23:24:36
2	Al 396.153Radial†	5530.6	5101.7	5049.7	ug/L	5049.7	ppb	23:24:36
2	Ca 317.933Radial†	2970.2	2675.4	5153.0	ug/L	5153.0	ppb	23:24:56
2	Fe 238.204 Radial†	515.6	459.5	5080.0	ug/L	5080.0	ppb	23:24:56
2	K 766.490 Radial†	30661.1	25251.2	4829.8	ug/L	4829.8	ppb	23:24:36
2	Mg 279.077 IEC†	142.2	129.0	5350.0	ug/L	5350.0	ppb	23:24:56
2	Na 589.592 Radial†	30901.4	28911.3	9540.8	ug/L	9540.8	ppb	23:24:36
2	Sr 421.552†	71986.9	65230.7	482.06	ug/L	482.06	ppb	23:24:36
2	Sc 361.383	834969.2	834969.2	112.90	%			23:25:57
2	Y 371.029	740049.5	740049.5	111.65	%			23:25:57
2	Ag 328.068†	105860.8	93566.3	500.12	ug/L	500.12	ppb	23:25:57
2	As 188.979†	1216.1	1104.1	506.49	ug/L	506.49	ppb	23:26:17
2	B 249.677†	21309.3	19415.5	504.33	ug/L	504.33	ppb	23:25:57
2	Ba 233.527†	46593.8	41266.0	505.43	ug/L	505.43	ppb	23:25:57
2	Be 313.107†	1398639.9	1247649.8	509.33	ug/L	509.33	ppb	23:25:57
2	Cd 226.502†	38300.7	34107.0	490.43	ug/L	490.43	ppb	23:26:17
2	Co 228.616†	18174.1	16160.7	503.47	ug/L	503.47	ppb	23:26:17
2	Cr 267.716†	40831.6	36105.7	502.66	ug/L	502.66	ppb	23:25:57
2	Cu 324.752†	154973.9	129969.4	506.38	ug/L	506.38	ppb	23:25:57
2	Mn 257.610†	349287.5	308949.2	510.71	ug/L	510.71	ppb	23:25:57
2	Mo 202.031†	5929.6	5235.0	499.19	ug/L	499.19	ppb	23:26:17
2	Ni 231.604†	17557.4	15458.8	504.99	ug/L	504.99	ppb	23:26:17

2	P 214.914†	5161.7	4376.6	2396.5	ug/L	2396.5 ppb	23:26:17
2	Pb 220.353†	3347.6	3020.8	501.51	ug/L	501.51 ppb	23:26:17
2	S 181.975 Axial†	905.4	756.0	992.93	ug/L	992.93 ppb	23:26:17
2	Sb 206.836†	1343.9	1161.3	504.61	ug/L	504.61 ppb	23:26:17
2	Se 196.026†	879.4	801.0	521.52	ug/L	521.52 ppb	23:26:17
2	Si 251.611†	75306.9	66155.0	2520.0	ug/L	2520.0 ppb	23:25:57
2	Sn 189.927†	2317.3	2048.0	488.86	ug/L	488.86 ppb	23:26:17
2	Ti 334.940†	271821.2	242125.3	510.07	ug/L	510.07 ppb	23:25:57
2	Tl 190.801†	1171.4	1069.7	511.58	ug/L	511.58 ppb	23:26:17
2	U 409.014†	13098.2	14124.9	493.59	ug/L	493.59 ppb	23:25:57
2	V 292.402†	67877.3	61794.1	507.54	ug/L	507.54 ppb	23:25:57
2	Zn 213.857†	51139.5	44618.8	500.12	ug/L	500.12 ppb	23:25:57
2	SiO2†	73928.1	64930.1	5296.0	ug/L	5296.0 ppb	23:26:55
3	Sc Radial	4913.2	4913.2	112	%		23:25:01
3	Y RADIAL	5113.9	5113.9	111.0	%		23:25:01
3	Al 396.153Radial†	5602.4	5092.1	5040.1	ug/L	5040.1 ppb	23:25:01
3	Ca 317.933Radial†	2969.6	2635.3	5075.8	ug/L	5075.8 ppb	23:25:21
3	Fe 238.204 Radial†	517.4	454.3	5022.6	ug/L	5022.6 ppb	23:25:21
3	K 766.490 Radial†	31062.9	25201.6	4820.3	ug/L	4820.3 ppb	23:25:01
3	Mg 279.077 IEC†	142.3	127.2	5278.0	ug/L	5278.0 ppb	23:25:21
3	Na 589.592 Radial†	31373.9	28921.7	9544.2	ug/L	9544.2 ppb	23:25:01
3	Sr 421.552†	72719.9	64926.5	479.81	ug/L	479.81 ppb	23:25:01
3	Sc 361.383	830216.6	830216.6	112.26	%		23:26:24
3	Y 371.029	736636.3	736636.3	111.14	%		23:26:24
3	Ag 328.068†	105297.6	93601.4	500.30	ug/L	500.30 ppb	23:26:24
3	As 188.979†	1210.1	1104.8	506.82	ug/L	506.82 ppb	23:26:44
3	B 249.677†	21193.3	19420.2	504.46	ug/L	504.46 ppb	23:26:24
3	Ba 233.527†	46280.4	41223.1	504.90	ug/L	504.90 ppb	23:26:24
3	Be 313.107†	1390684.6	1247654.8	509.33	ug/L	509.33 ppb	23:26:24
3	Cd 226.502†	37974.9	34011.1	489.06	ug/L	489.06 ppb	23:26:44
3	Co 228.616†	18051.3	16143.4	502.94	ug/L	502.94 ppb	23:26:44
3	Cr 267.716†	40524.0	36038.8	501.73	ug/L	501.73 ppb	23:26:24
3	Cu 324.752†	153984.4	129873.7	506.00	ug/L	506.00 ppb	23:26:24
3	Mn 257.610†	347289.5	308940.3	510.69	ug/L	510.69 ppb	23:26:24
3	Mo 202.031†	5901.4	5239.9	499.66	ug/L	499.66 ppb	23:26:44
3	Ni 231.604†	17398.1	15406.0	503.26	ug/L	503.26 ppb	23:26:44
3	P 214.914†	5123.4	4368.6	2392.0	ug/L	2392.0 ppb	23:26:44
3	Pb 220.353†	3342.9	3033.6	503.63	ug/L	503.63 ppb	23:26:44
3	S 181.975 Axial†	891.4	748.1	982.56	ug/L	982.56 ppb	23:26:44
3	Sb 206.836†	1343.4	1167.6	507.26	ug/L	507.26 ppb	23:26:44
3	Se 196.026†	872.7	799.5	520.40	ug/L	520.40 ppb	23:26:44
3	Si 251.611†	74874.5	66151.6	2519.9	ug/L	2519.9 ppb	23:26:24
3	Sn 189.927†	2297.3	2041.9	487.40	ug/L	487.40 ppb	23:26:44
3	Ti 334.940†	270204.5	242063.4	509.94	ug/L	509.94 ppb	23:26:24
3	Tl 190.801†	1144.3	1051.4	502.91	ug/L	502.91 ppb	23:26:44
3	U 409.014†	12979.6	14085.7	492.22	ug/L	492.22 ppb	23:26:24
3	V 292.402†	67636.9	61924.1	508.60	ug/L	508.60 ppb	23:26:24
3	Zn 213.857†	50846.1	44616.7	500.12	ug/L	500.12 ppb	23:26:24
3	SiO2†	74084.1	65443.9	5338.0	ug/L	5338.0 ppb	23:27:00

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	828282.4	112.00	%	1.059				0.95%
Sc Radial	4863.8	111	%	1.0				0.88%
Y 371.029	734380.1	110.80	%	1.067				0.96%
Y RADIAL	5067.7	110.0	%	0.88				0.80%
Ag 328.068†	93580.8	500.20	ug/L	0.088	500.20	ppb	0.088	0.02%
QC value within limits for Ag 328.068 Recovery = 100.04%								
Al 396.153Radial†	5092.2	5040.1	ug/L	9.60	5040.1	ppb	9.60	0.19%
QC value within limits for Al 396.153Radial Recovery = 100.80%								
As 188.979†	1109.6	509.00	ug/L	4.061	509.00	ppb	4.061	0.80%
QC value within limits for As 188.979 Recovery = 101.80%								
B 249.677†	19378.4	503.36	ug/L	1.798	503.36	ppb	1.798	0.36%
QC value within limits for B 249.677 Recovery = 100.67%								
Ba 233.527†	41202.4	504.65	ug/L	0.929	504.65	ppb	0.929	0.18%
QC value within limits for Ba 233.527 Recovery = 100.93%								
Be 313.107†	1247055.4	509.09	ug/L	0.421	509.09	ppb	0.421	0.08%
QC value within limits for Be 313.107 Recovery = 101.82%								
Ca 317.933Radial†	2660.8	5124.9	ug/L	42.70	5124.9	ppb	42.70	0.83%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.50%
Cd 226.502†            34194.0      491.68 ug/L         3.431      491.68 ppb          3.431   0.70%
   QC value within limits for Cd 226.502  Recovery = 98.34%
Co 228.616†            16236.6      505.84 ug/L         4.579      505.84 ppb          4.579   0.91%
   QC value within limits for Co 228.616  Recovery = 101.17%
Cr 267.716†            36041.9      501.77 ug/L         0.865      501.77 ppb          0.865   0.17%
   QC value within limits for Cr 267.716  Recovery = 100.35%
Cu 324.752†           129903.2      506.12 ug/L         0.223      506.12 ppb          0.223   0.04%
   QC value within limits for Cu 324.752  Recovery = 101.22%
Fe 238.204 Radial†       458.0      5063.0 ug/L         35.18      5063.0 ppb          35.18   0.69%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.26%
K 766.490 Radial†      25310.1      4841.1 ug/L         28.13      4841.1 ppb          28.13   0.58%
   QC value within limits for K 766.490 Radial  Recovery = 96.82%
Mg 279.077 IEC†          128.5      5330.1 ug/L         45.60      5330.1 ppb          45.60   0.86%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.60%
Mn 257.610†           308893.6      510.62 ug/L         0.146      510.62 ppb          0.146   0.03%
   QC value within limits for Mn 257.610  Recovery = 102.12%
Mo 202.031†             5259.9      501.56 ug/L         3.708      501.56 ppb          3.708   0.74%
   QC value within limits for Mo 202.031  Recovery = 100.31%
Na 589.592 Radial†     28966.5      9559.0 ug/L         28.63      9559.0 ppb          28.63   0.30%
   QC value within limits for Na 589.592 Radial  Recovery = 95.59%
Ni 231.604†            15489.3      505.98 ug/L         3.335      505.98 ppb          3.335   0.66%
   QC value within limits for Ni 231.604  Recovery = 101.20%
P 214.914†              4393.5      2406.2 ug/L         20.81      2406.2 ppb          20.81   0.86%
   QC value within limits for P 214.914  Recovery = 96.25%
Pb 220.353†             3029.6      502.98 ug/L         1.276      502.98 ppb          1.276   0.25%
   QC value within limits for Pb 220.353  Recovery = 100.60%
S 181.975 Axial†         754.9      991.49 ug/L         8.297      991.49 ppb          8.297   0.84%
   QC value within limits for S 181.975 Axial  Recovery = 99.15%
Sb 206.836†             1170.8      508.64 ug/L         4.866      508.64 ppb          4.866   0.96%
   QC value within limits for Sb 206.836  Recovery = 101.73%
Se 196.026†              802.7      522.56 ug/L         2.819      522.56 ppb          2.819   0.54%
   QC value within limits for Se 196.026  Recovery = 104.51%
Si 251.611†            66105.6      2518.1 ug/L          3.20      2518.1 ppb           3.20   0.13%
   QC value within limits for Si 251.611  Recovery = 100.72%
Sn 189.927†             2050.3      489.42 ug/L         2.347      489.42 ppb          2.347   0.48%
   QC value within limits for Sn 189.927  Recovery = 97.88%
Sr 421.552†            65185.4      481.73 ug/L         1.770      481.73 ppb          1.770   0.37%
   QC value within limits for Sr 421.552  Recovery = 96.35%
Ti 334.940†           242162.1      510.15 ug/L         0.258      510.15 ppb          0.258   0.05%
   QC value within limits for Ti 334.940  Recovery = 102.03%
Tl 190.801†             1064.6      509.16 ug/L         5.460      509.16 ppb          5.460   1.07%
   QC value within limits for Tl 190.801  Recovery = 101.83%
U 409.014†             14050.3      490.98 ug/L         3.407      490.98 ppb          3.407   0.69%
   QC value within limits for U 409.014  Recovery = 98.20%
V 292.402†             61872.7      508.21 ug/L         0.582      508.21 ppb          0.582   0.11%
   QC value within limits for V 292.402  Recovery = 101.64%
Zn 213.857†            44603.7      499.95 ug/L         0.299      499.95 ppb          0.299   0.06%
   QC value within limits for Zn 213.857  Recovery = 99.99%
SiO2†                  65892.6      5374.7 ug/L        102.03      5374.7 ppb         102.03   1.90%
   QC value within limits for SiO2  Recovery = 100.51%
All analyte(s) passed QC.
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Sequence No.: 46
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/5/2010 23:29:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4839.6	4839.6	110	%			23:31:02
1	Y RADIAL	5111.7	5111.7	110.9	%			23:31:02
1	Al 396.153Radial†	-88.5	9.9	9.8677	ug/L	9.8677	ppb	23:31:22
1	Ca 317.933Radial†	26.8	8.2	15.718	ug/L	15.718	ppb	23:31:22
1	Fe 238.204 Radial†	9.1	0.5	5.6307	ug/L	5.6307	ppb	23:31:22
1	K 766.490 Radial†	2518.6	-249.7	-47.834	ug/L	-47.834	ppb	23:31:02
1	Mg 279.077 IEC†	0.8	0.9	36.484	ug/L	36.484	ppb	23:31:22
1	Na 589.592 Radial†	-970.6	29.9	9.8772	ug/L	9.8772	ppb	23:31:02
1	Sr 421.552†	8.9	7.1	0.0522	ug/L	0.0522	ppb	23:31:02
1	Sc 361.383	823553.0	823553.0	111.36	%			23:32:19
1	Y 371.029	738293.8	738293.8	111.39	%			23:32:19
1	Ag 328.068†	285.0	57.3	0.3015	ug/L	0.3015	ppb	23:32:24
1	As 188.979†	-18.2	10.5	4.7791	ug/L	4.7791	ppb	23:32:44
1	B 249.677†	-132.0	422.4	11.020	ug/L	11.020	ppb	23:32:44
1	Ba 233.527†	23.2	17.0	0.2083	ug/L	0.2083	ppb	23:32:44
1	Be 313.107†	-8922.1	808.6	0.3305	ug/L	0.3305	ppb	23:32:24
1	Cd 226.502†	-184.2	17.2	0.2488	ug/L	0.2488	ppb	23:32:44
1	Co 228.616†	-47.4	20.6	0.6391	ug/L	0.6391	ppb	23:32:44
1	Cr 267.716†	55.9	-10.2	-0.1444	ug/L	-0.1444	ppb	23:32:44
1	Cu 324.752†	7831.8	-263.9	-1.0318	ug/L	-1.0318	ppb	23:32:24
1	Mn 257.610†	497.6	18.7	0.0299	ug/L	0.0299	ppb	23:32:44
1	Mo 202.031†	15.8	-2.9	-0.2792	ug/L	-0.2792	ppb	23:32:44
1	Ni 231.604†	118.5	13.9	0.4551	ug/L	0.4551	ppb	23:32:44
1	P 214.914†	184.6	-29.5	-16.635	ug/L	-16.635	ppb	23:32:44
1	Pb 220.353†	-72.8	-9.7	-1.6011	ug/L	-1.6011	ppb	23:32:44
1	S 181.975 Axial†	37.7	-12.1	-15.959	ug/L	-15.959	ppb	23:32:44
1	Sb 206.836†	28.5	-3.5	-1.4750	ug/L	-1.4750	ppb	23:32:44
1	Se 196.026†	-12.8	10.6	6.7298	ug/L	6.7298	ppb	23:32:44
1	Si 251.611†	728.7	107.2	4.0955	ug/L	4.0955	ppb	23:32:44
1	Sn 189.927†	3.4	-1.5	-0.3536	ug/L	-0.3536	ppb	23:32:44
1	Ti 334.940†	-1245.0	244.8	0.5119	ug/L	0.5119	ppb	23:32:24
1	Tl 190.801†	-30.7	4.5	2.1371	ug/L	2.1371	ppb	23:32:44
1	U 409.014†	-2583.1	203.6	7.1406	ug/L	7.1406	ppb	23:32:19
1	V 292.402†	-1810.3	46.9	0.3892	ug/L	0.3892	ppb	23:32:24
1	Zn 213.857†	797.7	38.9	0.4378	ug/L	0.4378	ppb	23:32:44
1	SiO2†	751.0	123.5	10.110	ug/L	10.110	ppb	23:33:50
2	Sc Radial	4858.3	4858.3	111	%			23:31:27
2	Y RADIAL	5111.0	5111.0	110.9	%			23:31:27
2	Al 396.153Radial†	-72.3	24.8	24.701	ug/L	24.701	ppb	23:31:47
2	Ca 317.933Radial†	26.1	7.4	14.310	ug/L	14.310	ppb	23:31:47
2	Fe 238.204 Radial†	7.0	-1.4	-14.873	ug/L	-14.873	ppb	23:31:47
2	K 766.490 Radial†	2538.3	-240.7	-46.111	ug/L	-46.111	ppb	23:31:27
2	Mg 279.077 IEC†	0.8	0.9	37.254	ug/L	37.254	ppb	23:31:47
2	Na 589.592 Radial†	-993.2	12.9	4.2528	ug/L	4.2528	ppb	23:31:27
2	Sr 421.552†	34.1	29.8	0.2202	ug/L	0.2202	ppb	23:31:27
2	Sc 361.383	827710.1	827710.1	111.92	%			23:32:49
2	Y 371.029	740600.0	740600.0	111.73	%			23:32:49
2	Ag 328.068†	276.7	48.6	0.2491	ug/L	0.2491	ppb	23:32:54
2	As 188.979†	-30.4	-0.3	-0.1270	ug/L	-0.1270	ppb	23:33:14
2	B 249.677†	-168.8	390.2	10.180	ug/L	10.180	ppb	23:33:14
2	Ba 233.527†	12.5	7.3	0.0901	ug/L	0.0901	ppb	23:33:14
2	Be 313.107†	-9035.1	747.8	0.3056	ug/L	0.3056	ppb	23:32:54
2	Cd 226.502†	-179.5	22.3	0.3238	ug/L	0.3238	ppb	23:33:14
2	Co 228.616†	-43.4	24.4	0.7570	ug/L	0.7570	ppb	23:33:14
2	Cr 267.716†	82.2	13.1	0.1795	ug/L	0.1795	ppb	23:33:14
2	Cu 324.752†	7893.7	-243.9	-0.9557	ug/L	-0.9557	ppb	23:32:54
2	Mn 257.610†	515.6	32.5	0.0507	ug/L	0.0507	ppb	23:33:14
2	Mo 202.031†	15.2	-3.6	-0.3393	ug/L	-0.3393	ppb	23:33:14
2	Ni 231.604†	111.1	6.8	0.2231	ug/L	0.2231	ppb	23:33:14

2	P 214.914†	195.1	-21.0	-11.800 ug/L	-11.800 ppb	23:33:14
2	Pb 220.353†	-71.3	-8.0	-1.3146 ug/L	-1.3146 ppb	23:33:14
2	S 181.975 Axial†	37.8	-12.2	-16.033 ug/L	-16.033 ppb	23:33:14
2	Sb 206.836†	35.4	2.5	1.0249 ug/L	1.0249 ppb	23:33:14
2	Se 196.026†	-15.5	8.3	5.2200 ug/L	5.2200 ppb	23:33:14
2	Si 251.611†	720.8	96.8	3.6990 ug/L	3.6990 ppb	23:33:14
2	Sn 189.927†	-2.1	-6.5	-1.5353 ug/L	-1.5353 ppb	23:33:14
2	Ti 334.940†	-1296.6	204.3	0.4255 ug/L	0.4255 ppb	23:32:54
2	Tl 190.801†	-36.6	-0.6	-0.3059 ug/L	-0.3059 ppb	23:33:14
2	U 409.014†	-2556.1	239.4	8.3951 ug/L	8.3951 ppb	23:32:49
2	V 292.402†	-1749.4	109.4	0.9008 ug/L	0.9008 ppb	23:32:54
2	Zn 213.857†	767.6	8.4	0.0976 ug/L	0.0976 ppb	23:33:14
2	SiO2†	751.5	120.6	9.8746 ug/L	9.8746 ppb	23:33:55
3	Sc Radial	4991.1	4991.1	114 %		23:31:52
3	Y RADIAL	5233.8	5233.8	113.6 %		23:31:52
3	Al 396.153Radial†	-82.4	17.7	17.615 ug/L	17.615 ppb	23:32:12
3	Ca 317.933Radial†	23.5	4.6	8.7955 ug/L	8.7955 ppb	23:32:12
3	Fe 238.204 Radial†	9.2	0.4	3.9923 ug/L	3.9923 ppb	23:32:12
3	K 766.490 Radial†	2552.3	-289.5	-55.442 ug/L	-55.442 ppb	23:31:52
3	Mg 279.077 IEC†	1.5	1.5	61.421 ug/L	61.421 ppb	23:32:12
3	Na 589.592 Radial†	-1017.1	15.7	5.1804 ug/L	5.1804 ppb	23:31:52
3	Sr 421.552†	47.7	41.0	0.3027 ug/L	0.3027 ppb	23:31:52
3	Sc 361.383	835383.3	835383.3	112.96 %		23:33:19
3	Y 371.029	747975.6	747975.6	112.85 %		23:33:19
3	Ag 328.068†	370.5	129.3	0.6805 ug/L	0.6805 ppb	23:33:24
3	As 188.979†	-25.9	3.9	1.7902 ug/L	1.7902 ppb	23:33:44
3	B 249.677†	-196.8	366.8	9.5676 ug/L	9.5676 ppb	23:33:44
3	Ba 233.527†	22.0	15.5	0.1928 ug/L	0.1928 ppb	23:33:44
3	Be 313.107†	-8990.5	861.5	0.3516 ug/L	0.3516 ppb	23:33:24
3	Cd 226.502†	-175.4	27.3	0.3961 ug/L	0.3961 ppb	23:33:44
3	Co 228.616†	-50.1	18.8	0.5847 ug/L	0.5847 ppb	23:33:44
3	Cr 267.716†	73.7	4.9	0.0635 ug/L	0.0635 ppb	23:33:44
3	Cu 324.752†	7907.3	-296.7	-1.1644 ug/L	-1.1644 ppb	23:33:24
3	Mn 257.610†	512.0	25.1	0.0393 ug/L	0.0393 ppb	23:33:44
3	Mo 202.031†	21.1	1.5	0.1475 ug/L	0.1475 ppb	23:33:44
3	Ni 231.604†	113.1	7.7	0.2498 ug/L	0.2498 ppb	23:33:44
3	P 214.914†	190.6	-26.6	-14.911 ug/L	-14.911 ppb	23:33:44
3	Pb 220.353†	-59.0	3.4	0.5715 ug/L	0.5715 ppb	23:33:44
3	S 181.975 Axial†	48.4	-3.1	-4.1049 ug/L	-4.1049 ppb	23:33:44
3	Sb 206.836†	17.2	-13.9	-5.8027 ug/L	-5.8027 ppb	23:33:44
3	Se 196.026†	-16.0	8.0	5.0702 ug/L	5.0702 ppb	23:33:44
3	Si 251.611†	733.1	101.8	3.8862 ug/L	3.8862 ppb	23:33:44
3	Sn 189.927†	5.4	0.3	0.0624 ug/L	0.0624 ppb	23:33:44
3	Ti 334.940†	-1374.5	145.9	0.2966 ug/L	0.2966 ppb	23:33:24
3	Tl 190.801†	-28.4	7.0	3.3158 ug/L	3.3158 ppb	23:33:44
3	U 409.014†	-2341.1	450.7	15.802 ug/L	15.802 ppb	23:33:19
3	V 292.402†	-1702.6	165.3	1.3726 ug/L	1.3726 ppb	23:33:24
3	Zn 213.857†	788.9	21.0	0.2364 ug/L	0.2364 ppb	23:33:44
3	SiO2†	731.0	96.3	7.8697 ug/L	7.8697 ppb	23:34:00

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	828882.1	112.08	%	0.812				0.72%
Sc Radial	4896.3	112	%	1.9				1.69%
Y 371.029	742289.8	111.99	%	0.763				0.68%
Y RADIAL	5152.1	111.8	%	1.53				1.37%
Ag 328.068†	78.4	0.4104	ug/L	0.23537	0.4104	ppb	0.23537	57.36%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	17.5	17.395	ug/L	7.4192	17.395	ppb	7.4192	42.65%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.7	2.1474	ug/L	2.47252	2.1474	ppb	2.47252	115.14%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	393.1	10.256	ug/L	0.7291	10.256	ppb	0.7291	7.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	13.3	0.1638	ug/L	0.06423	0.1638	ppb	0.06423	39.23%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	805.9	0.3292	ug/L	0.02304	0.3292	ppb	0.02304	7.00%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.7	12.941	ug/L	3.6584	12.941	ppb	3.6584	28.27%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              22.3      0.3229 ug/L       0.07369      0.3229 ppb        0.07369  22.82%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              21.2      0.6603 ug/L       0.08807      0.6603 ppb        0.08807  13.34%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               2.6      0.0329 ug/L       0.16408      0.0329 ppb        0.16408 499.19%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -268.1     -1.0506 ug/L       0.10560     -1.0506 ppb        0.10560  10.05%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.2     -1.7499 ug/L      11.39420     -1.7499 ppb       11.39420 651.14%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -260.0     -49.796 ug/L        4.9651     -49.796 ppb        4.9651   9.97%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.1      45.053 ug/L       14.1802      45.053 ppb       14.1802  31.47%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              25.4      0.0400 ug/L       0.01042      0.0400 ppb        0.01042  26.08%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -1.6     -0.1570 ug/L       0.26543     -0.1570 ppb        0.26543 169.05%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       19.5      6.4368 ug/L       3.01537      6.4368 ppb        3.01537  46.85%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               9.5      0.3093 ug/L       0.12694      0.3093 ppb        0.12694  41.04%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -25.7     -14.449 ug/L        2.4506     -14.449 ppb        2.4506  16.96%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -4.8     -0.7814 ug/L       1.18037     -0.7814 ppb        1.18037 151.06%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -9.1     -12.033 ug/L        6.8656     -12.033 ppb        6.8656  57.06%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -4.9     -2.0842 ug/L       3.45437     -2.0842 ppb        3.45437 165.74%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               8.9      5.6733 ug/L       0.91799      5.6733 ppb        0.91799  16.18%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             101.9      3.8935 ug/L       0.19835      3.8935 ppb        0.19835   5.09%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -2.6     -0.6088 ug/L       0.82890     -0.6088 ppb        0.82890 136.15%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              26.0      0.1917 ug/L       0.12764      0.1917 ppb        0.12764  66.58%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             198.3      0.4114 ug/L       0.10831      0.4114 ppb        0.10831  26.33%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               3.6      1.7157 ug/L       1.84726      1.7157 ppb        1.84726 107.67%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              297.9      10.446 ug/L        4.6810      10.446 ppb        4.6810  44.81%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              107.2      0.8875 ug/L       0.49186      0.8875 ppb        0.49186  55.42%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              22.8      0.2573 ug/L       0.17105      0.2573 ppb        0.17105  66.48%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   113.5      9.2847 ug/L       1.23105      9.2847 ppb        1.23105  13.26%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 54
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/6/2010 00:24:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4919.0	4919.0	112	%			00:26:41
1	Y RADIAL	5160.3	5160.3	112.0	%			00:26:41
1	Al 396.153Radial†	5573.6	5060.6	5008.7	ug/L	5008.7	ppb	00:26:41
1	Ca 317.933Radial†	2940.5	2606.2	5019.8	ug/L	5019.8	ppb	00:27:01
1	Fe 238.204 Radial†	515.5	452.0	4997.9	ug/L	4997.9	ppb	00:27:01
1	K 766.490 Radial†	30912.3	25034.6	4788.4	ug/L	4788.4	ppb	00:26:41
1	Mg 279.077 IEC†	139.6	124.6	5170.3	ug/L	5170.3	ppb	00:27:01
1	Na 589.592 Radial†	30996.7	28552.3	9422.3	ug/L	9422.3	ppb	00:26:41
1	Sr 421.552†	72047.3	64250.1	474.82	ug/L	474.82	ppb	00:26:41
1	Sc 361.383	826272.0	826272.0	111.72	%			00:27:59
1	Y 371.029	732680.0	732680.0	110.54	%			00:27:59
1	Ag 328.068†	105903.3	94591.4	505.55	ug/L	505.55	ppb	00:28:04
1	As 188.979†	1216.2	1115.5	511.59	ug/L	511.59	ppb	00:28:24
1	B 249.677†	21003.4	19340.4	502.36	ug/L	502.36	ppb	00:28:04
1	Ba 233.527†	46210.1	41357.0	506.55	ug/L	506.55	ppb	00:28:04
1	Be 313.107†	1392588.4	1255273.1	512.42	ug/L	512.42	ppb	00:27:59
1	Cd 226.502†	38970.4	35063.6	504.20	ug/L	504.20	ppb	00:28:04
1	Co 228.616†	18300.8	16443.5	512.30	ug/L	512.30	ppb	00:28:04
1	Cr 267.716†	40702.3	36370.7	506.34	ug/L	506.34	ppb	00:28:04
1	Cu 324.752†	153397.2	130003.0	506.50	ug/L	506.50	ppb	00:28:04
1	Mn 257.610†	342213.2	305873.7	505.63	ug/L	505.63	ppb	00:28:04
1	Mo 202.031†	5885.3	5250.5	500.67	ug/L	500.67	ppb	00:28:24
1	Ni 231.604†	17542.6	15609.3	509.90	ug/L	509.90	ppb	00:28:04
1	P 214.914†	5125.0	4391.9	2405.2	ug/L	2405.2	ppb	00:28:24
1	Pb 220.353†	3316.6	3024.2	502.08	ug/L	502.08	ppb	00:28:24
1	S 181.975 Axial†	906.4	765.3	1005.2	ug/L	1005.2	ppb	00:28:24
1	Sb 206.836†	1340.3	1170.5	508.57	ug/L	508.57	ppb	00:28:24
1	Se 196.026†	880.0	809.8	526.88	ug/L	526.88	ppb	00:28:24
1	Si 251.611†	74789.0	66393.5	2529.1	ug/L	2529.1	ppb	00:28:04
1	Sn 189.927†	2296.5	2051.0	489.56	ug/L	489.56	ppb	00:28:24
1	Ti 334.940†	265649.4	239135.3	503.76	ug/L	503.76	ppb	00:28:04
1	Tl 190.801†	1148.7	1060.2	506.97	ug/L	506.97	ppb	00:28:24
1	U 409.014†	13417.6	14532.8	507.89	ug/L	507.89	ppb	00:28:04
1	V 292.402†	67945.2	62487.7	513.22	ug/L	513.22	ppb	00:28:04
1	Zn 213.857†	50892.6	44874.6	503.00	ug/L	503.00	ppb	00:28:04
1	SiO2†	74431.0	66069.5	5389.2	ug/L	5389.2	ppb	00:29:31
2	Sc Radial	4847.1	4847.1	110	%			00:27:06
2	Y RADIAL	5073.3	5073.3	110.1	%			00:27:06
2	Al 396.153Radial†	5587.0	5146.4	5094.4	ug/L	5094.4	ppb	00:27:06
2	Ca 317.933Radial†	2964.5	2666.8	5136.6	ug/L	5136.6	ppb	00:27:27
2	Fe 238.204 Radial†	516.5	459.8	5082.9	ug/L	5082.9	ppb	00:27:27
2	K 766.490 Radial†	31070.8	25586.8	4894.1	ug/L	4894.1	ppb	00:27:06
2	Mg 279.077 IEC†	139.0	126.0	5225.4	ug/L	5225.4	ppb	00:27:27
2	Na 589.592 Radial†	31132.9	29085.4	9598.2	ug/L	9598.2	ppb	00:27:06
2	Sr 421.552†	72259.1	65394.5	483.27	ug/L	483.27	ppb	00:27:06
2	Sc 361.383	831693.1	831693.1	112.46	%			00:28:29
2	Y 371.029	738417.8	738417.8	111.40	%			00:28:29
2	Ag 328.068†	105327.0	93461.0	499.56	ug/L	499.56	ppb	00:28:35
2	As 188.979†	1218.3	1110.3	509.22	ug/L	509.22	ppb	00:28:55
2	B 249.677†	20888.4	19115.6	496.50	ug/L	496.50	ppb	00:28:35
2	Ba 233.527†	46123.6	41010.5	502.31	ug/L	502.31	ppb	00:28:35
2	Be 313.107†	1402790.5	1256220.5	512.79	ug/L	512.79	ppb	00:28:29
2	Cd 226.502†	38914.3	34786.3	500.20	ug/L	500.20	ppb	00:28:35
2	Co 228.616†	18204.8	16251.3	506.31	ug/L	506.31	ppb	00:28:35
2	Cr 267.716†	40620.1	36060.1	502.02	ug/L	502.02	ppb	00:28:35
2	Cu 324.752†	152702.7	128490.4	500.61	ug/L	500.61	ppb	00:28:35
2	Mn 257.610†	341560.6	303296.8	501.38	ug/L	501.38	ppb	00:28:35
2	Mo 202.031†	5851.9	5186.5	494.58	ug/L	494.58	ppb	00:28:55
2	Ni 231.604†	17563.9	15525.9	507.18	ug/L	507.18	ppb	00:28:35

2	P 214.914†	5115.2	4353.2	2384.3 ug/L	2384.3 ppb	00:28:55
2	Pb 220.353†	3291.8	2982.9	495.25 ug/L	495.25 ppb	00:28:55
2	S 181.975 Axial†	901.3	755.5	992.30 ug/L	992.30 ppb	00:28:55
2	Sb 206.836†	1331.1	1154.6	501.71 ug/L	501.71 ppb	00:28:55
2	Se 196.026†	866.5	792.6	516.18 ug/L	516.18 ppb	00:28:55
2	Si 251.611†	74691.5	65870.5	2509.2 ug/L	2509.2 ppb	00:28:35
2	Sn 189.927†	2297.8	2038.7	486.65 ug/L	486.65 ppb	00:28:55
2	Ti 334.940†	264821.4	236849.2	498.96 ug/L	498.96 ppb	00:28:35
2	Tl 190.801†	1150.7	1055.3	504.61 ug/L	504.61 ppb	00:28:55
2	U 409.014†	13275.9	14328.6	500.73 ug/L	500.73 ppb	00:28:35
2	V 292.402†	67665.3	61842.5	507.89 ug/L	507.89 ppb	00:28:35
2	Zn 213.857†	50831.2	44523.1	499.03 ug/L	499.03 ppb	00:28:35
2	SiO2†	76075.9	67097.9	5473.4 ug/L	5473.4 ppb	00:29:36
3	Sc Radial	4815.1	4815.1	110 %		00:27:32
3	Y RADIAL	5036.5	5036.5	109.3 %		00:27:32
3	Al 396.153Radial†	5545.0	5141.8	5089.7 ug/L	5089.7 ppb	00:27:32
3	Ca 317.933Radial†	2971.7	2691.2	5183.5 ug/L	5183.5 ppb	00:27:52
3	Fe 238.204 Radial†	515.1	461.6	5102.6 ug/L	5102.6 ppb	00:27:52
3	K 766.490 Radial†	31064.1	25767.7	4928.7 ug/L	4928.7 ppb	00:27:32
3	Mg 279.077 IEC†	140.4	128.1	5312.0 ug/L	5312.0 ppb	00:27:52
3	Na 589.592 Radial†	30930.9	29088.8	9599.4 ug/L	9599.4 ppb	00:27:32
3	Sr 421.552†	71864.1	65469.5	483.83 ug/L	483.83 ppb	00:27:32
3	Sc 361.383	837060.0	837060.0	113.18 %		00:29:00
3	Y 371.029	742199.9	742199.9	111.98 %		00:29:00
3	Ag 328.068†	104903.0	92485.9	494.37 ug/L	494.37 ppb	00:29:05
3	As 188.979†	1213.7	1099.2	504.14 ug/L	504.14 ppb	00:29:26
3	B 249.677†	20862.2	18973.3	492.79 ug/L	492.79 ppb	00:29:05
3	Ba 233.527†	46003.2	40641.1	497.78 ug/L	497.78 ppb	00:29:05
3	Be 313.107†	1410775.8	1255277.8	512.40 ug/L	512.40 ppb	00:29:00
3	Cd 226.502†	38908.5	34559.3	496.93 ug/L	496.93 ppb	00:29:05
3	Co 228.616†	18131.1	16082.5	501.06 ug/L	501.06 ppb	00:29:05
3	Cr 267.716†	40464.8	35691.3	496.89 ug/L	496.89 ppb	00:29:05
3	Cu 324.752†	151768.0	126794.0	494.00 ug/L	494.00 ppb	00:29:05
3	Mn 257.610†	340000.8	299971.3	495.88 ug/L	495.88 ppb	00:29:05
3	Mo 202.031†	5901.6	5197.1	495.59 ug/L	495.59 ppb	00:29:26
3	Ni 231.604†	17547.2	15410.9	503.42 ug/L	503.42 ppb	00:29:05
3	P 214.914†	5117.5	4326.2	2370.1 ug/L	2370.1 ppb	00:29:26
3	Pb 220.353†	3303.0	2974.0	493.78 ug/L	493.78 ppb	00:29:26
3	S 181.975 Axial†	892.2	742.3	974.93 ug/L	974.93 ppb	00:29:26
3	Sb 206.836†	1336.3	1151.6	500.43 ug/L	500.43 ppb	00:29:26
3	Se 196.026†	882.1	801.5	521.83 ug/L	521.83 ppb	00:29:26
3	Si 251.611†	74116.2	64936.4	2473.5 ug/L	2473.5 ppb	00:29:05
3	Sn 189.927†	2304.9	2031.9	485.03 ug/L	485.03 ppb	00:29:26
3	Ti 334.940†	263341.6	234031.9	493.03 ug/L	493.03 ppb	00:29:05
3	Tl 190.801†	1156.7	1054.0	503.95 ug/L	503.95 ppb	00:29:26
3	U 409.014†	13283.4	14259.5	498.32 ug/L	498.32 ppb	00:29:05
3	V 292.402†	67396.0	61218.7	502.85 ug/L	502.85 ppb	00:29:05
3	Zn 213.857†	50683.8	44103.0	494.31 ug/L	494.31 ppb	00:29:05
3	SiO2†	75354.8	66027.1	5385.8 ug/L	5385.8 ppb	00:29:41

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	831675.0	112.45	%	0.729				0.65%
Sc Radial	4860.4	111	%	1.2				1.09%
Y 371.029	737765.9	111.31	%	0.723				0.65%
Y RADIAL	5090.0	110.5	%	1.38				1.25%
Ag 328.068†	93512.7	499.83	ug/L	5.593	499.83	ppb	5.593	1.12%
QC value within limits for Ag 328.068 Recovery = 99.97%								
Al 396.153Radial†	5116.2	5064.2	ug/L	48.18	5064.2	ppb	48.18	0.95%
QC value within limits for Al 396.153Radial Recovery = 101.28%								
As 188.979†	1108.3	508.32	ug/L	3.804	508.32	ppb	3.804	0.75%
QC value within limits for As 188.979 Recovery = 101.66%								
B 249.677†	19143.1	497.22	ug/L	4.822	497.22	ppb	4.822	0.97%
QC value within limits for B 249.677 Recovery = 99.44%								
Ba 233.527†	41002.9	502.21	ug/L	4.384	502.21	ppb	4.384	0.87%
QC value within limits for Ba 233.527 Recovery = 100.44%								
Be 313.107†	1255590.5	512.54	ug/L	0.223	512.54	ppb	0.223	0.04%
QC value within limits for Be 313.107 Recovery = 102.51%								
Ca 317.933Radial†	2654.8	5113.3	ug/L	84.28	5113.3	ppb	84.28	1.65%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.27%
Cd 226.502†            34803.1      500.45 ug/L         3.641      500.45 ppb          3.641   0.73%
   QC value within limits for Cd 226.502  Recovery = 100.09%
Co 228.616†            16259.1      506.56 ug/L         5.623      506.56 ppb          5.623   1.11%
   QC value within limits for Co 228.616  Recovery = 101.31%
Cr 267.716†            36040.7      501.75 ug/L         4.734      501.75 ppb          4.734   0.94%
   QC value within limits for Cr 267.716  Recovery = 100.35%
Cu 324.752†           128429.1      500.37 ug/L         6.249      500.37 ppb          6.249   1.25%
   QC value within limits for Cu 324.752  Recovery = 100.07%
Fe 238.204 Radial†       457.8      5061.1 ug/L        55.65      5061.1 ppb          55.65   1.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.22%
K 766.490 Radial†      25463.0      4870.4 ug/L        73.08      4870.4 ppb          73.08   1.50%
   QC value within limits for K 766.490 Radial  Recovery = 97.41%
Mg 279.077 IEC†          126.2      5235.9 ug/L        71.44      5235.9 ppb          71.44   1.36%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.72%
Mn 257.610†           303047.3      500.96 ug/L         4.887      500.96 ppb          4.887   0.98%
   QC value within limits for Mn 257.610  Recovery = 100.19%
Mo 202.031†             5211.4      496.95 ug/L         3.265      496.95 ppb          3.265   0.66%
   QC value within limits for Mo 202.031  Recovery = 99.39%
Na 589.592 Radial†     28908.8      9540.0 ug/L       101.90      9540.0 ppb         101.90   1.07%
   QC value within limits for Na 589.592 Radial  Recovery = 95.40%
Ni 231.604†            15515.4      506.83 ug/L         3.252      506.83 ppb          3.252   0.64%
   QC value within limits for Ni 231.604  Recovery = 101.37%
P 214.914†              4357.1      2386.6 ug/L        17.66      2386.6 ppb          17.66   0.74%
   QC value within limits for P 214.914  Recovery = 95.46%
Pb 220.353†             2993.7      497.04 ug/L         4.430      497.04 ppb          4.430   0.89%
   QC value within limits for Pb 220.353  Recovery = 99.41%
S 181.975 Axial†         754.4      990.80 ug/L        15.180      990.80 ppb         15.180   1.53%
   QC value within limits for S 181.975 Axial  Recovery = 99.08%
Sb 206.836†             1158.9      503.57 ug/L         4.375      503.57 ppb          4.375   0.87%
   QC value within limits for Sb 206.836  Recovery = 100.71%
Se 196.026†              801.3      521.63 ug/L         5.352      521.63 ppb          5.352   1.03%
   QC value within limits for Se 196.026  Recovery = 104.33%
Si 251.611†            65733.5      2503.9 ug/L        28.16      2503.9 ppb          28.16   1.12%
   QC value within limits for Si 251.611  Recovery = 100.16%
Sn 189.927†             2040.5      487.08 ug/L         2.293      487.08 ppb          2.293   0.47%
   QC value within limits for Sn 189.927  Recovery = 97.42%
Sr 421.552†            65038.0      480.64 ug/L         5.050      480.64 ppb          5.050   1.05%
   QC value within limits for Sr 421.552  Recovery = 96.13%
Ti 334.940†           236672.2      498.58 ug/L         5.378      498.58 ppb          5.378   1.08%
   QC value within limits for Ti 334.940  Recovery = 99.72%
Tl 190.801†             1056.5      505.18 ug/L         1.587      505.18 ppb          1.587   0.31%
   QC value within limits for Tl 190.801  Recovery = 101.04%
U 409.014†             14373.6      502.32 ug/L         4.980      502.32 ppb          4.980   0.99%
   QC value within limits for U 409.014  Recovery = 100.46%
V 292.402†             61849.6      507.99 ug/L         5.188      507.99 ppb          5.188   1.02%
   QC value within limits for V 292.402  Recovery = 101.60%
Zn 213.857†            44500.2      498.78 ug/L         4.349      498.78 ppb          4.349   0.87%
   QC value within limits for Zn 213.857  Recovery = 99.76%
SiO2†                  66398.2      5416.2 ug/L        49.64      5416.2 ppb          49.64   0.92%
   QC value within limits for SiO2  Recovery = 101.28%
All analyte(s) passed QC.
```

Sequence No.: 55
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/6/2010 00:31:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4813.0	4813.0	110	%			00:33:44
1	Y RADIAL	5109.2	5109.2	110.9	%			00:33:44
1	Al 396.153Radial†	-75.3	21.5	21.348	ug/L	21.348	ppb	00:34:04
1	Ca 317.933Radial†	25.6	7.3	13.971	ug/L	13.971	ppb	00:34:04
1	Fe 238.204 Radial†	9.6	1.1	11.897	ug/L	11.897	ppb	00:34:04
1	K 766.490 Radial†	2568.5	-191.6	-36.715	ug/L	-36.715	ppb	00:33:44
1	Mg 279.077 IEC†	0.6	0.7	29.975	ug/L	29.975	ppb	00:34:04
1	Na 589.592 Radial†	-945.5	48.0	15.827	ug/L	15.827	ppb	00:33:44
1	Sr 421.552†	38.7	34.3	0.2535	ug/L	0.2535	ppb	00:33:44
1	Sc 361.383	801207.7	801207.7	108.34	%			00:35:01
1	Y 371.029	731212.4	731212.4	110.32	%			00:35:01
1	Ag 328.068†	306.7	84.4	0.4455	ug/L	0.4455	ppb	00:35:01
1	As 188.979†	-20.5	7.9	3.6127	ug/L	3.6127	ppb	00:35:21
1	B 249.677†	-344.1	223.4	5.8234	ug/L	5.8234	ppb	00:35:21
1	Ba 233.527†	14.8	9.8	0.1202	ug/L	0.1202	ppb	00:35:21
1	Be 313.107†	-8858.8	643.5	0.2627	ug/L	0.2627	ppb	00:35:01
1	Cd 226.502†	-186.1	10.8	0.1562	ug/L	0.1562	ppb	00:35:21
1	Co 228.616†	-38.4	27.7	0.8637	ug/L	0.8637	ppb	00:35:21
1	Cr 267.716†	75.9	9.7	0.1312	ug/L	0.1312	ppb	00:35:21
1	Cu 324.752†	7839.2	-60.9	-0.2415	ug/L	-0.2415	ppb	00:35:01
1	Mn 257.610†	503.3	36.4	0.0601	ug/L	0.0601	ppb	00:35:21
1	Mo 202.031†	25.6	6.5	0.6168	ug/L	0.6168	ppb	00:35:21
1	Ni 231.604†	100.4	0.3	0.0081	ug/L	0.0081	ppb	00:35:21
1	P 214.914†	187.1	-22.6	-12.856	ug/L	-12.856	ppb	00:35:21
1	Pb 220.353†	-77.8	-16.1	-2.6616	ug/L	-2.6616	ppb	00:35:21
1	S 181.975 Axial†	46.2	-3.3	-4.3626	ug/L	-4.3626	ppb	00:35:21
1	Sb 206.836†	33.0	1.4	0.6195	ug/L	0.6195	ppb	00:35:21
1	Se 196.026†	-19.2	4.4	2.7960	ug/L	2.7960	ppb	00:35:21
1	Si 251.611†	711.6	109.6	4.1788	ug/L	4.1788	ppb	00:35:21
1	Sn 189.927†	7.1	2.0	0.4785	ug/L	0.4785	ppb	00:35:21
1	Ti 334.940†	-1347.2	119.2	0.2466	ug/L	0.2466	ppb	00:35:01
1	Tl 190.801†	-31.2	3.3	1.5543	ug/L	1.5543	ppb	00:35:21
1	U 409.014†	-2455.9	256.4	8.9874	ug/L	8.9874	ppb	00:35:01
1	V 292.402†	-1796.3	14.5	0.1416	ug/L	0.1416	ppb	00:35:01
1	Zn 213.857†	789.4	51.2	0.5777	ug/L	0.5777	ppb	00:35:21
1	SiO2†	717.5	111.4	9.0958	ug/L	9.0958	ppb	00:36:17
2	Sc Radial	4866.9	4866.9	111	%			00:34:09
2	Y RADIAL	5112.4	5112.4	110.9	%			00:34:09
2	Al 396.153Radial†	-82.4	15.8	15.793	ug/L	15.793	ppb	00:34:29
2	Ca 317.933Radial†	23.6	5.2	9.9194	ug/L	9.9194	ppb	00:34:29
2	Fe 238.204 Radial†	7.6	-0.8	-9.1784	ug/L	-9.1784	ppb	00:34:29
2	K 766.490 Radial†	2643.9	-149.6	-28.663	ug/L	-28.663	ppb	00:34:09
2	Mg 279.077 IEC†	0.0	0.2	7.1495	ug/L	7.1495	ppb	00:34:29
2	Na 589.592 Radial†	-965.2	39.7	13.090	ug/L	13.090	ppb	00:34:09
2	Sr 421.552†	-9.7	-9.8	-0.0721	ug/L	-0.0721	ppb	00:34:09
2	Sc 361.383	801405.7	801405.7	108.36	%			00:35:26
2	Y 371.029	729921.8	729921.8	110.12	%			00:35:26
2	Ag 328.068†	222.9	7.1	0.0319	ug/L	0.0319	ppb	00:35:26
2	As 188.979†	-29.9	-0.7	-0.3098	ug/L	-0.3098	ppb	00:35:46
2	B 249.677†	-352.7	215.5	5.6224	ug/L	5.6224	ppb	00:35:46
2	Ba 233.527†	16.7	11.5	0.1420	ug/L	0.1420	ppb	00:35:46
2	Be 313.107†	-8980.2	533.5	0.2178	ug/L	0.2178	ppb	00:35:26
2	Cd 226.502†	-182.5	14.3	0.2070	ug/L	0.2070	ppb	00:35:46
2	Co 228.616†	-47.9	18.9	0.5870	ug/L	0.5870	ppb	00:35:46
2	Cr 267.716†	76.5	10.2	0.1405	ug/L	0.1405	ppb	00:35:46
2	Cu 324.752†	7808.0	-91.4	-0.3604	ug/L	-0.3604	ppb	00:35:26
2	Mn 257.610†	512.3	44.5	0.0724	ug/L	0.0724	ppb	00:35:46
2	Mo 202.031†	9.0	-8.8	-0.8396	ug/L	-0.8396	ppb	00:35:46
2	Ni 231.604†	90.3	-9.1	-0.2967	ug/L	-0.2967	ppb	00:35:46

2	P 214.914†	181.8	-27.6	-15.658	ug/L	-15.658	ppb	00:35:46
2	Pb 220.353†	-72.9	-11.6	-1.9149	ug/L	-1.9149	ppb	00:35:46
2	S 181.975 Axial†	40.3	-8.7	-11.501	ug/L	-11.501	ppb	00:35:46
2	Sb 206.836†	25.6	-5.5	-2.3310	ug/L	-2.3310	ppb	00:35:46
2	Se 196.026†	-15.5	7.8	4.9258	ug/L	4.9258	ppb	00:35:46
2	Si 251.611†	693.4	92.7	3.5493	ug/L	3.5493	ppb	00:35:46
2	Sn 189.927†	0.7	-3.9	-0.9301	ug/L	-0.9301	ppb	00:35:46
2	Ti 334.940†	-1353.4	113.8	0.2378	ug/L	0.2378	ppb	00:35:26
2	Tl 190.801†	-30.7	3.8	1.7945	ug/L	1.7945	ppb	00:35:46
2	U 409.014†	-2534.6	184.2	6.4613	ug/L	6.4613	ppb	00:35:26
2	V 292.402†	-1713.7	91.2	0.7406	ug/L	0.7406	ppb	00:35:26
2	Zn 213.857†	790.4	52.0	0.5917	ug/L	0.5917	ppb	00:35:46
2	SiO2†	710.5	104.8	8.5947	ug/L	8.5947	ppb	00:36:22
3	Sc Radial	4900.9	4900.9	112	%			00:34:34
3	Y RADIAL	5164.8	5164.8	112.1	%			00:34:34
3	Al 396.153Radial†	-83.4	15.4	15.379	ug/L	15.379	ppb	00:34:54
3	Ca 317.933Radial†	23.3	4.8	9.1853	ug/L	9.1853	ppb	00:34:54
3	Fe 238.204 Radial†	8.2	-0.3	-3.5514	ug/L	-3.5514	ppb	00:34:54
3	K 766.490 Radial†	2607.9	-198.4	-37.999	ug/L	-37.999	ppb	00:34:34
3	Mg 279.077 IEC†	0.0	0.2	7.9072	ug/L	7.9072	ppb	00:34:54
3	Na 589.592 Radial†	-945.2	63.6	20.996	ug/L	20.996	ppb	00:34:34
3	Sr 421.552†	21.9	18.6	0.1374	ug/L	0.1374	ppb	00:34:34
3	Sc 361.383	803563.1	803563.1	108.65	%			00:35:51
3	Y 371.029	731545.6	731545.6	110.37	%			00:35:51
3	Ag 328.068†	170.1	-42.1	-0.2257	ug/L	-0.2257	ppb	00:35:51
3	As 188.979†	-29.8	-0.6	-0.2691	ug/L	-0.2691	ppb	00:36:11
3	B 249.677†	-357.7	211.8	5.5259	ug/L	5.5259	ppb	00:36:11
3	Ba 233.527†	12.9	8.0	0.0995	ug/L	0.0995	ppb	00:36:11
3	Be 313.107†	-9000.0	537.5	0.2197	ug/L	0.2197	ppb	00:35:51
3	Cd 226.502†	-183.3	14.0	0.2020	ug/L	0.2020	ppb	00:36:11
3	Co 228.616†	-56.9	10.8	0.3342	ug/L	0.3342	ppb	00:36:11
3	Cr 267.716†	74.2	7.9	0.1090	ug/L	0.1090	ppb	00:36:11
3	Cu 324.752†	7860.2	-62.8	-0.2478	ug/L	-0.2478	ppb	00:35:51
3	Mn 257.610†	499.5	31.5	0.0513	ug/L	0.0513	ppb	00:36:11
3	Mo 202.031†	15.4	-2.9	-0.2802	ug/L	-0.2802	ppb	00:36:11
3	Ni 231.604†	97.8	-2.5	-0.0809	ug/L	-0.0809	ppb	00:36:11
3	P 214.914†	198.5	-12.6	-7.1417	ug/L	-7.1417	ppb	00:36:11
3	Pb 220.353†	-82.3	-20.1	-3.3179	ug/L	-3.3179	ppb	00:36:11
3	S 181.975 Axial†	41.8	-7.5	-9.8494	ug/L	-9.8494	ppb	00:36:11
3	Sb 206.836†	26.1	-5.0	-2.1283	ug/L	-2.1283	ppb	00:36:11
3	Se 196.026†	-31.7	-7.1	-4.4898	ug/L	-4.4898	ppb	00:36:11
3	Si 251.611†	698.1	95.3	3.6417	ug/L	3.6417	ppb	00:36:11
3	Sn 189.927†	-0.1	-4.6	-1.1002	ug/L	-1.1002	ppb	00:36:11
3	Ti 334.940†	-1310.6	156.6	0.3282	ug/L	0.3282	ppb	00:35:51
3	Tl 190.801†	-37.8	-2.7	-1.2961	ug/L	-1.2961	ppb	00:36:11
3	U 409.014†	-2580.6	148.2	5.1968	ug/L	5.1968	ppb	00:35:51
3	V 292.402†	-1705.6	102.8	0.8397	ug/L	0.8397	ppb	00:35:51
3	Zn 213.857†	759.3	21.4	0.2431	ug/L	0.2431	ppb	00:36:11
3	SiO2†	841.2	223.4	18.273	ug/L	18.273	ppb	00:36:27

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	802058.8	108.45	%	0.177				0.16%
Sc Radial	4860.3	111	%	1.0				0.91%
Y 371.029	730893.2	110.27	%	0.129				0.12%
Y RADIAL	5128.8	111.3	%	0.68				0.61%
Ag 328.068†	16.5	0.0839	ug/L	0.33860	0.0839	ppb	0.33860	403.73%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	17.6	17.507	ug/L	3.3332	17.507	ppb	3.3332	19.04%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.2	1.0113	ug/L	2.25299	1.0113	ppb	2.25299	222.79%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	216.9	5.6572	ug/L	0.15180	5.6572	ppb	0.15180	2.68%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.8	0.1205	ug/L	0.02125	0.1205	ppb	0.02125	17.63%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	571.5	0.2334	ug/L	0.02537	0.2334	ppb	0.02537	10.87%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.7	11.025	ug/L	2.5774	11.025	ppb	2.5774	23.38%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                13.0      0.1884 ug/L       0.02797      0.1884 ppb        0.02797  14.85%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                19.1      0.5950 ug/L       0.26483      0.5950 ppb        0.26483  44.51%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.3      0.1269 ug/L       0.01617      0.1269 ppb        0.01617  12.74%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -71.7     -0.2832 ug/L       0.06689     -0.2832 ppb        0.06689  23.62%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.0     -0.2776 ug/L      10.91237     -0.2776 ppb       10.91237 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -179.9     -34.459 ug/L        5.0603     -34.459 ppb         5.0603  14.68%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.4      15.010 ug/L       12.9649      15.010 ppb        12.9649  86.37%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                37.5      0.0612 ug/L       0.01058      0.0612 ppb        0.01058  17.27%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -1.8     -0.1676 ug/L       0.73467     -0.1676 ppb        0.73467 438.22%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         50.4      16.638 ug/L        4.0148      16.638 ppb         4.0148  24.13%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -3.8     -0.1232 ug/L       0.15673     -0.1232 ppb        0.15673 127.24%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -20.9     -11.885 ug/L        4.3403     -11.885 ppb         4.3403  36.52%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -15.9     -2.6315 ug/L       0.70200     -2.6315 ppb        0.70200  26.68%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -6.5     -8.5711 ug/L       3.73703     -8.5711 ppb        3.73703  43.60%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -3.0     -1.2799 ug/L       1.64806     -1.2799 ppb        1.64806 128.76%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.7      1.0773 ug/L       4.93746      1.0773 ppb        4.93746 458.30%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                99.2      3.7899 ug/L       0.33990      3.7899 ppb        0.33990   8.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -2.2     -0.5173 ug/L       0.86651     -0.5173 ppb        0.86651 167.52%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                14.4      0.1062 ug/L       0.16504      0.1062 ppb        0.16504 155.33%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               129.9      0.2709 ug/L       0.04986      0.2709 ppb        0.04986  18.41%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.4      0.6842 ug/L       1.71923      0.6842 ppb        1.71923 251.27%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                196.3      6.8818 ug/L       1.92996      6.8818 ppb        1.92996  28.04%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 69.5      0.5740 ug/L       0.37772      0.5740 ppb        0.37772  65.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                41.5      0.4708 ug/L       0.19734      0.4708 ppb        0.19734  41.91%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     146.5      11.988 ug/L        5.4487      11.988 ppb         5.4487  45.45%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 63
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/6/2010 01:27:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4968.0	4968.0	113	%			01:29:48
1	Y RADIAL	5182.3	5182.3	112.5	%			01:29:48
1	Al 396.153Radial†	5674.6	5100.7	5049.1	ug/L	5049.1	ppb	01:29:48
1	Ca 317.933Radial†	2968.5	2605.1	5017.6	ug/L	5017.6	ppb	01:30:08
1	Fe 238.204 Radial†	508.3	441.1	4876.9	ug/L	4876.9	ppb	01:30:08
1	K 766.490 Radial†	31553.1	25328.5	4844.9	ug/L	4844.9	ppb	01:29:48
1	Mg 279.077 IEC†	141.1	124.7	5174.1	ug/L	5174.1	ppb	01:30:08
1	Na 589.592 Radial†	29558.9	27009.9	8913.3	ug/L	8913.3	ppb	01:29:48
1	Sr 421.552†	71267.8	62928.0	465.04	ug/L	465.04	ppb	01:29:48
1	Sc 361.383	844798.0	844798.0	114.23	%			01:31:05
1	Y 371.029	747285.5	747285.5	112.74	%			01:31:05
1	Ag 328.068†	105780.8	92405.4	493.86	ug/L	493.86	ppb	01:31:10
1	As 188.979†	1222.8	1097.3	503.25	ug/L	503.25	ppb	01:31:30
1	B 249.677†	20914.4	18850.2	489.62	ug/L	489.62	ppb	01:31:10
1	Ba 233.527†	46388.9	40606.5	497.35	ug/L	497.35	ppb	01:31:10
1	Be 313.107†	1413357.8	1246121.2	508.67	ug/L	508.67	ppb	01:31:05
1	Cd 226.502†	39014.1	34336.9	493.76	ug/L	493.76	ppb	01:31:10
1	Co 228.616†	18259.5	16048.1	499.99	ug/L	499.99	ppb	01:31:10
1	Cr 267.716†	40702.7	35572.1	495.22	ug/L	495.22	ppb	01:31:10
1	Cu 324.752†	153176.5	126798.9	494.01	ug/L	494.01	ppb	01:31:10
1	Mn 257.610†	342606.3	299500.8	495.09	ug/L	495.09	ppb	01:31:10
1	Mo 202.031†	5906.0	5153.2	491.38	ug/L	491.38	ppb	01:31:30
1	Ni 231.604†	17599.8	15315.0	500.29	ug/L	500.29	ppb	01:31:10
1	P 214.914†	5161.2	4323.0	2368.5	ug/L	2368.5	ppb	01:31:30
1	Pb 220.353†	3348.2	2986.8	495.89	ug/L	495.89	ppb	01:31:30
1	S 181.975 Axial†	905.1	746.4	980.29	ug/L	980.29	ppb	01:31:30
1	Sb 206.836†	1362.0	1163.3	505.19	ug/L	505.19	ppb	01:31:30
1	Se 196.026†	879.9	792.4	515.55	ug/L	515.55	ppb	01:31:30
1	Si 251.611†	74930.6	65049.5	2477.9	ug/L	2477.9	ppb	01:31:10
1	Sn 189.927†	2303.0	2011.6	480.17	ug/L	480.17	ppb	01:31:30
1	Ti 334.940†	265564.0	233846.3	492.62	ug/L	492.62	ppb	01:31:10
1	Tl 190.801†	1162.5	1049.8	501.95	ug/L	501.95	ppb	01:31:30
1	U 409.014†	13467.7	14313.4	500.24	ug/L	500.24	ppb	01:31:10
1	V 292.402†	67664.6	60908.4	500.31	ug/L	500.31	ppb	01:31:10
1	Zn 213.857†	50898.2	43880.5	491.85	ug/L	491.85	ppb	01:31:10
1	SiO2†	75902.5	65896.8	5375.3	ug/L	5375.3	ppb	01:32:37
2	Sc Radial	4819.4	4819.4	110	%			01:30:13
2	Y RADIAL	5031.6	5031.6	109.2	%			01:30:13
2	Al 396.153Radial†	5614.6	5200.7	5148.2	ug/L	5148.2	ppb	01:30:13
2	Ca 317.933Radial†	2979.7	2696.1	5192.9	ug/L	5192.9	ppb	01:30:33
2	Fe 238.204 Radial†	514.0	460.1	5087.1	ug/L	5087.1	ppb	01:30:33
2	K 766.490 Radial†	31213.5	25878.5	4950.2	ug/L	4950.2	ppb	01:30:13
2	Mg 279.077 IEC†	137.6	125.4	5203.4	ug/L	5203.4	ppb	01:30:33
2	Na 589.592 Radial†	29105.3	27401.9	9042.7	ug/L	9042.7	ppb	01:30:13
2	Sr 421.552†	70636.1	64293.5	475.13	ug/L	475.13	ppb	01:30:13
2	Sc 361.383	841407.4	841407.4	113.77	%			01:31:36
2	Y 371.029	744934.5	744934.5	112.39	%			01:31:36
2	Ag 328.068†	106703.1	93589.2	500.24	ug/L	500.24	ppb	01:31:41
2	As 188.979†	1237.6	1114.7	511.24	ug/L	511.24	ppb	01:32:01
2	B 249.677†	21231.6	19202.7	498.76	ug/L	498.76	ppb	01:31:41
2	Ba 233.527†	46761.5	41097.7	503.37	ug/L	503.37	ppb	01:31:41
2	Be 313.107†	1409908.6	1248075.5	509.48	ug/L	509.48	ppb	01:31:36
2	Cd 226.502†	39445.1	34853.3	501.17	ug/L	501.17	ppb	01:31:41
2	Co 228.616†	18493.9	16318.5	508.40	ug/L	508.40	ppb	01:31:41
2	Cr 267.716†	41081.7	36048.8	501.86	ug/L	501.86	ppb	01:31:41
2	Cu 324.752†	154679.1	128659.9	501.27	ug/L	501.27	ppb	01:31:41
2	Mn 257.610†	346005.3	303697.0	502.04	ug/L	502.04	ppb	01:31:41
2	Mo 202.031†	5934.9	5199.4	495.81	ug/L	495.81	ppb	01:32:01
2	Ni 231.604†	17835.5	15584.3	509.09	ug/L	509.09	ppb	01:31:41

2	P 214.914†	5145.5	4327.4	2369.4 ug/L	2369.4 ppb	01:32:01
2	Pb 220.353†	3331.9	2984.3	495.50 ug/L	495.50 ppb	01:32:01
2	S 181.975 Axial†	910.1	753.9	990.21 ug/L	990.21 ppb	01:32:01
2	Sb 206.836†	1355.6	1162.4	504.94 ug/L	504.94 ppb	01:32:01
2	Se 196.026†	882.7	798.0	519.59 ug/L	519.59 ppb	01:32:01
2	Si 251.611†	75589.0	65892.6	2510.0 ug/L	2510.0 ppb	01:31:41
2	Sn 189.927†	2300.6	2017.6	481.63 ug/L	481.63 ppb	01:32:01
2	Ti 334.940†	268040.5	236960.0	499.20 ug/L	499.20 ppb	01:31:41
2	Tl 190.801†	1158.6	1050.4	502.28 ug/L	502.28 ppb	01:32:01
2	U 409.014†	13682.7	14549.9	508.49 ug/L	508.49 ppb	01:31:41
2	V 292.402†	68546.9	61922.6	508.57 ug/L	508.57 ppb	01:31:41
2	Zn 213.857†	51388.7	44491.2	498.66 ug/L	498.66 ppb	01:31:41
2	SiO2†	76028.7	66275.4	5406.1 ug/L	5406.1 ppb	01:32:42
3	Sc Radial	4750.9	4750.9	108 %		01:30:38
3	Y RADIAL	5017.3	5017.3	108.9 %		01:30:38
3	Al 396.153Radial†	5542.9	5208.2	5155.6 ug/L	5155.6 ppb	01:30:38
3	Ca 317.933Radial†	2945.0	2703.2	5206.6 ug/L	5206.6 ppb	01:30:58
3	Fe 238.204 Radial†	503.0	456.8	5050.2 ug/L	5050.2 ppb	01:30:58
3	K 766.490 Radial†	30791.2	25898.6	4954.0 ug/L	4954.0 ppb	01:30:38
3	Mg 279.077 IEC†	139.2	128.7	5337.9 ug/L	5337.9 ppb	01:30:58
3	Na 589.592 Radial†	28835.5	27535.1	9086.7 ug/L	9086.7 ppb	01:30:38
3	Sr 421.552†	69652.3	64312.9	475.28 ug/L	475.28 ppb	01:30:38
3	Sc 361.383	841593.8	841593.8	113.80 %		01:32:06
3	Y 371.029	745316.1	745316.1	112.45 %		01:32:06
3	Ag 328.068†	106229.1	93151.9	497.89 ug/L	497.89 ppb	01:32:12
3	As 188.979†	1240.9	1117.3	512.39 ug/L	512.39 ppb	01:32:32
3	B 249.677†	21108.9	19090.7	495.86 ug/L	495.86 ppb	01:32:12
3	Ba 233.527†	46462.0	40825.3	500.04 ug/L	500.04 ppb	01:32:12
3	Be 313.107†	1411974.1	1249616.0	510.10 ug/L	510.10 ppb	01:32:06
3	Cd 226.502†	39183.8	34616.0	497.76 ug/L	497.76 ppb	01:32:12
3	Co 228.616†	18358.0	16195.5	504.59 ug/L	504.59 ppb	01:32:12
3	Cr 267.716†	40790.4	35784.8	498.19 ug/L	498.19 ppb	01:32:12
3	Cu 324.752†	154087.9	128110.3	499.13 ug/L	499.13 ppb	01:32:12
3	Mn 257.610†	343684.2	301589.8	498.55 ug/L	498.55 ppb	01:32:12
3	Mo 202.031†	5971.7	5230.6	498.77 ug/L	498.77 ppb	01:32:32
3	Ni 231.604†	17674.0	15438.9	504.33 ug/L	504.33 ppb	01:32:12
3	P 214.914†	5207.9	4381.2	2400.6 ug/L	2400.6 ppb	01:32:32
3	Pb 220.353†	3353.0	3002.2	498.47 ug/L	498.47 ppb	01:32:32
3	S 181.975 Axial†	907.1	751.2	986.57 ug/L	986.57 ppb	01:32:32
3	Sb 206.836†	1359.9	1166.0	506.63 ug/L	506.63 ppb	01:32:32
3	Se 196.026†	896.3	809.8	527.00 ug/L	527.00 ppb	01:32:32
3	Si 251.611†	75091.8	65440.9	2492.7 ug/L	2492.7 ppb	01:32:12
3	Sn 189.927†	2346.3	2057.3	491.09 ug/L	491.09 ppb	01:32:32
3	Ti 334.940†	266430.9	235493.3	496.10 ug/L	496.10 ppb	01:32:12
3	Tl 190.801†	1158.8	1050.4	502.24 ug/L	502.24 ppb	01:32:32
3	U 409.014†	13609.2	14482.6	506.15 ug/L	506.15 ppb	01:32:12
3	V 292.402†	67946.8	61382.0	504.24 ug/L	504.24 ppb	01:32:12
3	Zn 213.857†	51123.0	44247.8	495.95 ug/L	495.95 ppb	01:32:12
3	SiO2†	76104.2	66326.9	5410.3 ug/L	5410.3 ppb	01:32:47

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	842599.7	113.93	%	0.258				0.23%
Sc Radial	4846.1	110	%	2.5				2.29%
Y 371.029	745845.4	112.53	%	0.190				0.17%
Y RADIAL	5077.1	110.2	%	1.98				1.80%
Ag 328.068†	93048.8	497.33	ug/L	3.229	497.33	ppb	3.229	0.65%
QC value within limits for Ag 328.068 Recovery = 99.47%								
Al 396.153Radial†	5169.9	5117.6	ug/L	59.48	5117.6	ppb	59.48	1.16%
QC value within limits for Al 396.153Radial Recovery = 102.35%								
As 188.979†	1109.8	508.96	ug/L	4.977	508.96	ppb	4.977	0.98%
QC value within limits for As 188.979 Recovery = 101.79%								
B 249.677†	19047.9	494.75	ug/L	4.670	494.75	ppb	4.670	0.94%
QC value within limits for B 249.677 Recovery = 98.95%								
Ba 233.527†	40843.1	500.25	ug/L	3.019	500.25	ppb	3.019	0.60%
QC value within limits for Ba 233.527 Recovery = 100.05%								
Be 313.107†	1247937.6	509.41	ug/L	0.718	509.41	ppb	0.718	0.14%
QC value within limits for Be 313.107 Recovery = 101.88%								
Ca 317.933Radial†	2668.1	5139.0	ug/L	105.37	5139.0	ppb	105.37	2.05%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.78%
Cd 226.502†            34602.1      497.56 ug/L         3.710      497.56 ppb          3.710   0.75%
   QC value within limits for Cd 226.502  Recovery = 99.51%
Co 228.616†            16187.4      504.33 ug/L         4.215      504.33 ppb          4.215   0.84%
   QC value within limits for Co 228.616  Recovery = 100.87%
Cr 267.716†            35801.9      498.42 ug/L         3.327      498.42 ppb          3.327   0.67%
   QC value within limits for Cr 267.716  Recovery = 99.68%
Cu 324.752†           127856.4      498.13 ug/L         3.729      498.13 ppb          3.729   0.75%
   QC value within limits for Cu 324.752  Recovery = 99.63%
Fe 238.204 Radial†       452.7      5004.7 ug/L        112.19      5004.7 ppb         112.19   2.24%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.09%
K 766.490 Radial†      25701.9      4916.4 ug/L         61.88      4916.4 ppb          61.88   1.26%
   QC value within limits for K 766.490 Radial  Recovery = 98.33%
Mg 279.077 IEC†          126.3      5238.5 ug/L         87.34      5238.5 ppb          87.34   1.67%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.77%
Mn 257.610†           301595.9      498.56 ug/L         3.476      498.56 ppb          3.476   0.70%
   QC value within limits for Mn 257.610  Recovery = 99.71%
Mo 202.031†             5194.4      495.32 ug/L         3.719      495.32 ppb          3.719   0.75%
   QC value within limits for Mo 202.031  Recovery = 99.06%
Na 589.592 Radial†     27315.7      9014.2 ug/L         90.09      9014.2 ppb          90.09   1.00%
   QC value within limits for Na 589.592 Radial  Recovery = 90.14%
Ni 231.604†            15446.1      504.57 ug/L         4.402      504.57 ppb          4.402   0.87%
   QC value within limits for Ni 231.604  Recovery = 100.91%
P 214.914†              4343.9      2379.5 ug/L         18.29      2379.5 ppb          18.29   0.77%
   QC value within limits for P 214.914  Recovery = 95.18%
Pb 220.353†             2991.1      496.62 ug/L         1.612      496.62 ppb          1.612   0.32%
   QC value within limits for Pb 220.353  Recovery = 99.32%
S 181.975 Axial†         750.5      985.69 ug/L         5.018      985.69 ppb          5.018   0.51%
   QC value within limits for S 181.975 Axial  Recovery = 98.57%
Sb 206.836†             1163.9      505.58 ug/L         0.916      505.58 ppb          0.916   0.18%
   QC value within limits for Sb 206.836  Recovery = 101.12%
Se 196.026†              800.0      520.72 ug/L         5.806      520.72 ppb          5.806   1.12%
   QC value within limits for Se 196.026  Recovery = 104.14%
Si 251.611†            65461.0      2493.5 ug/L         16.08      2493.5 ppb          16.08   0.65%
   QC value within limits for Si 251.611  Recovery = 99.74%
Sn 189.927†             2028.8      484.30 ug/L         5.929      484.30 ppb          5.929   1.22%
   QC value within limits for Sn 189.927  Recovery = 96.86%
Sr 421.552†            63844.8      471.82 ug/L         5.868      471.82 ppb          5.868   1.24%
   QC value within limits for Sr 421.552  Recovery = 94.36%
Ti 334.940†           235433.2      495.97 ug/L         3.290      495.97 ppb          3.290   0.66%
   QC value within limits for Ti 334.940  Recovery = 99.19%
Tl 190.801†             1050.2      502.16 ug/L         0.181      502.16 ppb          0.181   0.04%
   QC value within limits for Tl 190.801  Recovery = 100.43%
U 409.014†             14448.6      504.96 ug/L         4.253      504.96 ppb          4.253   0.84%
   QC value within limits for U 409.014  Recovery = 100.99%
V 292.402†             61404.3      504.37 ug/L         4.132      504.37 ppb          4.132   0.82%
   QC value within limits for V 292.402  Recovery = 100.87%
Zn 213.857†            44206.5      495.49 ug/L         3.429      495.49 ppb          3.429   0.69%
   QC value within limits for Zn 213.857  Recovery = 99.10%
SiO2†                  66166.4      5397.2 ug/L         19.11      5397.2 ppb          19.11   0.35%
   QC value within limits for SiO2  Recovery = 100.93%
All analyte(s) passed QC.
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Sequence No.: 64
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/6/2010 01:34:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4865.3	4865.3	111	%			01:36:50
1	Y RADIAL	5094.8	5094.8	110.6	%			01:36:50
1	Al 396.153Radial†	-83.7	14.6	14.583	ug/L	14.583	ppb	01:37:10
1	Ca 317.933Radial†	24.3	5.8	11.135	ug/L	11.135	ppb	01:37:10
1	Fe 238.204 Radial†	6.5	-1.8	-19.909	ug/L	-19.909	ppb	01:37:10
1	K 766.490 Radial†	2544.3	-238.7	-45.719	ug/L	-45.719	ppb	01:36:50
1	Mg 279.077 IEC†	4.1	3.9	160.14	ug/L	160.14	ppb	01:37:10
1	Na 589.592 Radial†	-961.3	43.0	14.181	ug/L	14.181	ppb	01:36:50
1	Sr 421.552†	34.2	29.9	0.2205	ug/L	0.2205	ppb	01:36:50
1	Sc 361.383	835995.7	835995.7	113.04	%			01:38:07
1	Y 371.029	748483.2	748483.2	112.92	%			01:38:07
1	Ag 328.068†	302.4	68.9	0.3552	ug/L	0.3552	ppb	01:38:12
1	As 188.979†	-28.9	1.3	0.6150	ug/L	0.6150	ppb	01:38:32
1	B 249.677†	-352.5	229.2	5.9801	ug/L	5.9801	ppb	01:38:32
1	Ba 233.527†	6.3	1.7	0.0226	ug/L	0.0226	ppb	01:38:32
1	Be 313.107†	-9149.0	727.1	0.2973	ug/L	0.2973	ppb	01:38:12
1	Cd 226.502†	-170.6	31.7	0.4601	ug/L	0.4601	ppb	01:38:32
1	Co 228.616†	-40.9	26.9	0.8365	ug/L	0.8365	ppb	01:38:32
1	Cr 267.716†	70.6	2.0	0.0260	ug/L	0.0260	ppb	01:38:32
1	Cu 324.752†	8041.3	-183.2	-0.7204	ug/L	-0.7204	ppb	01:38:12
1	Mn 257.610†	532.7	43.0	0.0626	ug/L	0.0626	ppb	01:38:32
1	Mo 202.031†	10.1	-8.2	-0.7862	ug/L	-0.7862	ppb	01:38:32
1	Ni 231.604†	103.3	-1.1	-0.0350	ug/L	-0.0350	ppb	01:38:32
1	P 214.914†	184.2	-32.4	-18.294	ug/L	-18.294	ppb	01:38:32
1	Pb 220.353†	-83.8	-18.4	-3.0391	ug/L	-3.0391	ppb	01:38:32
1	S 181.975 Axial†	42.4	-8.5	-11.159	ug/L	-11.159	ppb	01:38:32
1	Sb 206.836†	30.8	-1.9	-0.7895	ug/L	-0.7895	ppb	01:38:32
1	Se 196.026†	-32.3	-6.4	-4.1367	ug/L	-4.1367	ppb	01:38:32
1	Si 251.611†	701.9	73.7	2.8254	ug/L	2.8254	ppb	01:38:32
1	Sn 189.927†	7.6	2.2	0.5184	ug/L	0.5184	ppb	01:38:32
1	Ti 334.940†	-1267.7	241.3	0.4926	ug/L	0.4926	ppb	01:38:12
1	Tl 190.801†	-34.7	1.4	0.6436	ug/L	0.6436	ppb	01:38:32
1	U 409.014†	-2533.7	281.8	9.8849	ug/L	9.8849	ppb	01:38:07
1	V 292.402†	-1713.8	156.5	1.2818	ug/L	1.2818	ppb	01:38:12
1	Zn 213.857†	777.8	10.6	0.1243	ug/L	0.1243	ppb	01:38:32
1	SiO2†	643.2	18.2	1.5064	ug/L	1.5064	ppb	01:39:38
2	Sc Radial	4946.8	4946.8	113	%			01:37:15
2	Y RADIAL	5223.9	5223.9	113.4	%			01:37:15
2	Al 396.153Radial†	-79.8	19.3	19.216	ug/L	19.216	ppb	01:37:35
2	Ca 317.933Radial†	22.9	4.2	8.1189	ug/L	8.1189	ppb	01:37:35
2	Fe 238.204 Radial†	10.1	1.2	13.633	ug/L	13.633	ppb	01:37:35
2	K 766.490 Radial†	2654.9	-178.4	-34.168	ug/L	-34.168	ppb	01:37:15
2	Mg 279.077 IEC†	2.3	2.2	90.839	ug/L	90.839	ppb	01:37:35
2	Na 589.592 Radial†	-979.9	40.8	13.448	ug/L	13.448	ppb	01:37:15
2	Sr 421.552†	-3.9	-4.4	-0.0329	ug/L	-0.0329	ppb	01:37:15
2	Sc 361.383	839715.2	839715.2	113.54	%			01:38:37
2	Y 371.029	751426.1	751426.1	113.37	%			01:38:37
2	Ag 328.068†	278.4	46.5	0.2474	ug/L	0.2474	ppb	01:38:43
2	As 188.979†	-24.1	5.7	2.5933	ug/L	2.5933	ppb	01:39:03
2	B 249.677†	-354.7	228.6	5.9598	ug/L	5.9598	ppb	01:39:03
2	Ba 233.527†	7.3	2.5	0.0339	ug/L	0.0339	ppb	01:39:03
2	Be 313.107†	-9152.3	760.0	0.3106	ug/L	0.3106	ppb	01:38:43
2	Cd 226.502†	-181.1	23.1	0.3338	ug/L	0.3338	ppb	01:39:03
2	Co 228.616†	-48.9	20.1	0.6246	ug/L	0.6246	ppb	01:39:03
2	Cr 267.716†	88.4	17.4	0.2395	ug/L	0.2395	ppb	01:39:03
2	Cu 324.752†	8051.0	-206.2	-0.8090	ug/L	-0.8090	ppb	01:38:43
2	Mn 257.610†	528.1	36.9	0.0586	ug/L	0.0586	ppb	01:39:03
2	Mo 202.031†	14.4	-4.4	-0.4189	ug/L	-0.4189	ppb	01:39:03
2	Ni 231.604†	110.6	4.9	0.1613	ug/L	0.1613	ppb	01:39:03

2	P 214.914†	186.8	-30.8	-17.415 ug/L	-17.415 ppb	01:39:03
2	Pb 220.353†	-59.4	3.4	0.5683 ug/L	0.5683 ppb	01:39:03
2	S 181.975 Axial†	40.9	-9.9	-13.081 ug/L	-13.081 ppb	01:39:03
2	Sb 206.836†	25.1	-7.0	-2.9299 ug/L	-2.9299 ppb	01:39:03
2	Se 196.026†	-25.7	-0.5	-0.2945 ug/L	-0.2945 ppb	01:39:03
2	Si 251.611†	659.8	33.9	1.2981 ug/L	1.2981 ppb	01:39:03
2	Sn 189.927†	8.6	3.0	0.7218 ug/L	0.7218 ppb	01:39:03
2	Ti 334.940†	-1311.9	207.3	0.4255 ug/L	0.4255 ppb	01:38:43
2	Tl 190.801†	-30.6	5.2	2.4497 ug/L	2.4497 ppb	01:39:03
2	U 409.014†	-2497.1	324.0	11.361 ug/L	11.361 ppb	01:38:37
2	V 292.402†	-1734.7	144.8	1.1890 ug/L	1.1890 ppb	01:38:43
2	Zn 213.857†	787.1	15.8	0.1763 ug/L	0.1763 ppb	01:39:03
2	SiO2†	653.3	24.5	2.0154 ug/L	2.0154 ppb	01:39:43
3	Sc Radial	5010.3	5010.3	114 %		01:37:40
3	Y RADIAL	5255.3	5255.3	114.0 %		01:37:40
3	Al 396.153Radial†	-68.6	30.0	29.844 ug/L	29.844 ppb	01:38:00
3	Ca 317.933Radial†	26.3	7.0	13.392 ug/L	13.392 ppb	01:38:00
3	Fe 238.204 Radial†	6.8	-1.7	-18.944 ug/L	-18.944 ppb	01:38:00
3	K 766.490 Radial†	2640.7	-220.6	-42.258 ug/L	-42.258 ppb	01:37:40
3	Mg 279.077 IEC†	3.3	3.1	127.40 ug/L	127.40 ppb	01:38:00
3	Na 589.592 Radial†	-987.8	44.8	14.785 ug/L	14.785 ppb	01:37:40
3	Sr 421.552†	1.9	0.7	0.0048 ug/L	0.0048 ppb	01:37:40
3	Sc 361.383	851739.4	851739.4	115.17 %		01:39:08
3	Y 371.029	761325.0	761325.0	114.86 %		01:39:08
3	Ag 328.068†	353.2	108.0	0.5606 ug/L	0.5606 ppb	01:39:13
3	As 188.979†	-30.8	0.1	0.0673 ug/L	0.0673 ppb	01:39:33
3	B 249.677†	-362.8	226.0	5.8981 ug/L	5.8981 ppb	01:39:33
3	Ba 233.527†	28.4	20.7	0.2558 ug/L	0.2558 ppb	01:39:33
3	Be 313.107†	-9345.5	706.1	0.2887 ug/L	0.2887 ppb	01:39:13
3	Cd 226.502†	-174.4	31.2	0.4536 ug/L	0.4536 ppb	01:39:33
3	Co 228.616†	-46.8	22.5	0.7014 ug/L	0.7014 ppb	01:39:33
3	Cr 267.716†	72.3	2.3	0.0286 ug/L	0.0286 ppb	01:39:33
3	Cu 324.752†	7994.7	-355.2	-1.3925 ug/L	-1.3925 ppb	01:39:13
3	Mn 257.610†	508.3	13.1	0.0146 ug/L	0.0146 ppb	01:39:33
3	Mo 202.031†	18.3	-1.3	-0.1223 ug/L	-0.1223 ppb	01:39:33
3	Ni 231.604†	111.0	4.0	0.1293 ug/L	0.1293 ppb	01:39:33
3	P 214.914†	195.2	-25.9	-14.442 ug/L	-14.442 ppb	01:39:33
3	Pb 220.353†	-87.9	-20.6	-3.4021 ug/L	-3.4021 ppb	01:39:33
3	S 181.975 Axial†	51.9	-0.9	-1.1551 ug/L	-1.1551 ppb	01:39:33
3	Sb 206.836†	20.6	-11.2	-4.6624 ug/L	-4.6624 ppb	01:39:33
3	Se 196.026†	-14.3	9.7	6.1183 ug/L	6.1183 ppb	01:39:33
3	Si 251.611†	643.7	11.7	0.4465 ug/L	0.4465 ppb	01:39:33
3	Sn 189.927†	10.3	4.4	1.0480 ug/L	1.0480 ppb	01:39:33
3	Ti 334.940†	-1290.9	241.9	0.4950 ug/L	0.4950 ppb	01:39:13
3	Tl 190.801†	-32.4	4.0	1.8950 ug/L	1.8950 ppb	01:39:33
3	U 409.014†	-2447.5	398.2	13.964 ug/L	13.964 ppb	01:39:08
3	V 292.402†	-1729.6	170.8	1.4139 ug/L	1.4139 ppb	01:39:13
3	Zn 213.857†	770.2	-8.7	-0.0940 ug/L	-0.0940 ppb	01:39:33
3	SiO2†	664.0	25.7	2.1034 ug/L	2.1034 ppb	01:39:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	842483.4	113.92	%	1.113				0.98%
Sc Radial	4940.8	113	%	1.7				1.47%
Y 371.029	753744.8	113.72	%	1.015				0.89%
Y RADIAL	5191.3	112.7	%	1.85				1.64%
Ag 328.068†	74.5	0.3877	ug/L	0.15911	0.3877	ppb	0.15911	41.04%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	21.3	21.214	ug/L	7.8242	21.214	ppb	7.8242	36.88%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.4	1.0918	ug/L	1.32880	1.0918	ppb	1.32880	121.70%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	227.9	5.9460	ug/L	0.04274	5.9460	ppb	0.04274	0.72%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.3	0.1041	ug/L	0.13148	0.1041	ppb	0.13148	126.28%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	731.1	0.2989	ug/L	0.01099	0.2989	ppb	0.01099	3.68%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.6	10.882	ug/L	2.6456	10.882	ppb	2.6456	24.31%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                28.7      0.4158 ug/L       0.07110      0.4158 ppb        0.07110  17.10%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                23.2      0.7208 ug/L       0.10724      0.7208 ppb        0.10724  14.88%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 7.3      0.0980 ug/L       0.12253      0.0980 ppb        0.12253 124.98%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -248.2     -0.9740 ug/L       0.36513     -0.9740 ppb        0.36513  37.49%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.8     -8.4066 ug/L      19.09320     -8.4066 ppb       19.09320 227.12%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -212.5     -40.715 ug/L        5.9280     -40.715 ppb         5.9280  14.56%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.0      126.13 ug/L        34.666      126.13 ppb         34.666  27.49%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                31.0      0.0453 ug/L       0.02665      0.0453 ppb        0.02665  58.86%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -4.6     -0.4425 ug/L       0.33259     -0.4425 ppb        0.33259  75.17%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         42.8      14.138 ug/L        0.6696      14.138 ppb         0.6696   4.74%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 2.6      0.0852 ug/L       0.10533      0.0852 ppb        0.10533 123.64%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -29.7     -16.717 ug/L        2.0190     -16.717 ppb         2.0190  12.08%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -11.9     -1.9576 ug/L       2.19507     -1.9576 ppb        2.19507 112.13%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -6.4     -8.4649 ug/L       6.40301     -8.4649 ppb        6.40301  75.64%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -6.7     -2.7939 ug/L       1.93999     -2.7939 ppb        1.93999  69.44%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.9      0.5623 ug/L       5.18092      0.5623 ppb        5.18092 921.34%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                39.8      1.5233 ug/L       1.20534      1.5233 ppb        1.20534  79.12%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.2      0.7627 ug/L       0.26715      0.7627 ppb        0.26715  35.03%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 8.7      0.0642 ug/L       0.13673      0.0642 ppb        0.13673 213.10%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               230.2      0.4710 ug/L       0.03950      0.4710 ppb        0.03950   8.39%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.5      1.6628 ug/L       0.92520      1.6628 ppb        0.92520  55.64%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                334.7      11.736 ug/L        2.0651      11.736 ppb         2.0651  17.60%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                157.4      1.2949 ug/L       0.11304      1.2949 ppb        0.11304   8.73%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 5.9      0.0689 ug/L       0.14346      0.0689 ppb        0.14346 208.28%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      22.8      1.8751 ug/L       0.32227      1.8751 ppb        0.32227  17.19%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 72
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/6/2010 02:29:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4908.7	4908.7	112	%			02:31:51
1	Y RADIAL	5124.0	5124.0	111.2	%			02:31:51
1	Al 396.153Radial†	5676.4	5162.9	5110.4	ug/L	5110.4	ppb	02:31:51
1	Ca 317.933Radial†	3010.2	2674.0	5150.3	ug/L	5150.3	ppb	02:32:11
1	Fe 238.204 Radial†	525.4	461.8	5105.4	ug/L	5105.4	ppb	02:32:11
1	K 766.490 Radial†	31695.1	25792.0	4933.5	ug/L	4933.5	ppb	02:31:51
1	Mg 279.077 IEC†	143.3	128.2	5320.1	ug/L	5320.1	ppb	02:32:11
1	Na 589.592 Radial†	30140.6	27845.2	9189.0	ug/L	9189.0	ppb	02:31:51
1	Sr 421.552†	71729.7	64101.2	473.71	ug/L	473.71	ppb	02:31:51
1	Sc 361.383	838023.3	838023.3	113.31	%			02:33:09
1	Y 371.029	741991.4	741991.4	111.94	%			02:33:09
1	Ag 328.068†	105995.0	93343.1	498.95	ug/L	498.95	ppb	02:33:09
1	As 188.979†	1233.2	1115.2	511.53	ug/L	511.53	ppb	02:33:30
1	B 249.677†	21315.9	19352.5	502.67	ug/L	502.67	ppb	02:33:09
1	Ba 233.527†	46467.1	41003.8	502.22	ug/L	502.22	ppb	02:33:09
1	Be 313.107†	1396473.0	1241222.7	506.71	ug/L	506.71	ppb	02:33:09
1	Cd 226.502†	38626.2	34270.7	492.78	ug/L	492.78	ppb	02:33:30
1	Co 228.616†	18381.1	16284.7	507.34	ug/L	507.34	ppb	02:33:30
1	Cr 267.716†	40670.3	35831.5	498.85	ug/L	498.85	ppb	02:33:09
1	Cu 324.752†	155505.7	129938.4	506.26	ug/L	506.26	ppb	02:33:09
1	Mn 257.610†	349613.0	308108.9	509.33	ug/L	509.33	ppb	02:33:09
1	Mo 202.031†	5981.2	5261.3	501.71	ug/L	501.71	ppb	02:33:30
1	Ni 231.604†	17639.8	15474.9	505.51	ug/L	505.51	ppb	02:33:30
1	P 214.914†	5231.7	4421.7	2422.2	ug/L	2422.2	ppb	02:33:30
1	Pb 220.353†	3367.0	3027.1	502.58	ug/L	502.58	ppb	02:33:30
1	S 181.975 Axial†	917.2	763.5	1002.8	ug/L	1002.8	ppb	02:33:30
1	Sb 206.836†	1371.6	1181.4	513.10	ug/L	513.10	ppb	02:33:30
1	Se 196.026†	893.6	810.7	527.70	ug/L	527.70	ppb	02:33:30
1	Si 251.611†	75433.5	66023.6	2514.9	ug/L	2514.9	ppb	02:33:09
1	Sn 189.927†	2336.0	2057.0	491.01	ug/L	491.01	ppb	02:33:30
1	Ti 334.940†	272435.2	241789.7	509.37	ug/L	509.37	ppb	02:33:09
1	Tl 190.801†	1176.9	1070.7	512.06	ug/L	512.06	ppb	02:33:30
1	U 409.014†	12920.5	13925.8	486.61	ug/L	486.61	ppb	02:33:09
1	V 292.402†	68009.3	61691.5	506.73	ug/L	506.73	ppb	02:33:09
1	Zn 213.857†	51181.8	44491.0	498.67	ug/L	498.67	ppb	02:33:09
1	SiO2†	75914.0	66444.1	5419.8	ug/L	5419.8	ppb	02:34:29
2	Sc Radial	4625.7	4625.7	105	%			02:32:16
2	Y RADIAL	4844.1	4844.1	105.1	%			02:32:16
2	Al 396.153Radial†	5606.1	5406.5	5352.7	ug/L	5352.7	ppb	02:32:16
2	Ca 317.933Radial†	3004.4	2833.0	5456.7	ug/L	5456.7	ppb	02:32:36
2	Fe 238.204 Radial†	516.9	482.5	5333.7	ug/L	5333.7	ppb	02:32:36
2	K 766.490 Radial†	31328.9	27177.5	5198.6	ug/L	5198.6	ppb	02:32:16
2	Mg 279.077 IEC†	143.3	136.1	5645.4	ug/L	5645.4	ppb	02:32:36
2	Na 589.592 Radial†	29760.4	29132.4	9613.8	ug/L	9613.8	ppb	02:32:16
2	Sr 421.552†	71256.8	67574.1	499.38	ug/L	499.38	ppb	02:32:16
2	Sc 361.383	838691.7	838691.7	113.40	%			02:33:37
2	Y 371.029	741932.6	741932.6	111.94	%			02:33:37
2	Ag 328.068†	106406.0	93630.9	500.56	ug/L	500.56	ppb	02:33:37
2	As 188.979†	1239.2	1119.6	513.59	ug/L	513.59	ppb	02:33:57
2	B 249.677†	21274.9	19301.3	501.30	ug/L	501.30	ppb	02:33:37
2	Ba 233.527†	46715.5	41190.2	504.51	ug/L	504.51	ppb	02:33:37
2	Be 313.107†	1402867.4	1245879.2	508.61	ug/L	508.61	ppb	02:33:37
2	Cd 226.502†	38663.6	34276.5	492.84	ug/L	492.84	ppb	02:33:57
2	Co 228.616†	18411.3	16298.4	507.76	ug/L	507.76	ppb	02:33:57
2	Cr 267.716†	40927.8	36030.0	501.61	ug/L	501.61	ppb	02:33:37
2	Cu 324.752†	155575.7	129890.8	506.09	ug/L	506.09	ppb	02:33:37
2	Mn 257.610†	351479.7	309509.1	511.65	ug/L	511.65	ppb	02:33:37
2	Mo 202.031†	5984.6	5260.2	501.62	ug/L	501.62	ppb	02:33:57
2	Ni 231.604†	17695.1	15511.2	506.70	ug/L	506.70	ppb	02:33:57

2	P 214.914†	5227.2	4414.1	2417.8 ug/L	2417.8 ppb	02:33:57
2	Pb 220.353†	3368.5	3026.1	502.46 ug/L	502.46 ppb	02:33:57
2	S 181.975 Axial†	917.3	762.9	1001.9 ug/L	1001.9 ppb	02:33:57
2	Sb 206.836†	1370.6	1179.5	512.35 ug/L	512.35 ppb	02:33:57
2	Se 196.026†	898.7	814.6	530.72 ug/L	530.72 ppb	02:33:57
2	Si 251.611†	75743.3	66243.7	2523.4 ug/L	2523.4 ppb	02:33:37
2	Sn 189.927†	2346.9	2065.0	492.95 ug/L	492.95 ppb	02:33:57
2	Ti 334.940†	272999.7	242095.9	510.03 ug/L	510.03 ppb	02:33:37
2	Tl 190.801†	1180.1	1072.7	512.99 ug/L	512.99 ppb	02:33:57
2	U 409.014†	13015.6	14000.5	489.20 ug/L	489.20 ppb	02:33:37
2	V 292.402†	68180.1	61794.3	507.53 ug/L	507.53 ppb	02:33:37
2	Zn 213.857†	51439.7	44682.4	500.80 ug/L	500.80 ppb	02:33:37
2	SiO2†	76192.9	66636.6	5435.5 ug/L	5435.5 ppb	02:34:35
3	Sc Radial	4852.9	4852.9	111 %		02:32:41
3	Y RADIAL	5070.0	5070.0	110.0 %		02:32:41
3	Al 396.153Radial†	5616.4	5167.0	5114.5 ug/L	5114.5 ppb	02:32:41
3	Ca 317.933Radial†	2966.6	2665.5	5134.1 ug/L	5134.1 ppb	02:33:01
3	Fe 238.204 Radial†	512.4	455.5	5035.7 ug/L	5035.7 ppb	02:33:01
3	K 766.490 Radial†	31377.5	25830.7	4941.0 ug/L	4941.0 ppb	02:32:41
3	Mg 279.077 IEC†	138.7	125.6	5208.4 ug/L	5208.4 ppb	02:33:01
3	Na 589.592 Radial†	29550.4	27621.5	9115.2 ug/L	9115.2 ppb	02:32:41
3	Sr 421.552†	70818.0	64014.3	473.07 ug/L	473.07 ppb	02:32:41
3	Sc 361.383	843291.0	843291.0	114.03 %		02:34:04
3	Y 371.029	746008.4	746008.4	112.55 %		02:34:04
3	Ag 328.068†	106761.0	93430.5	499.39 ug/L	499.39 ppb	02:34:04
3	As 188.979†	1246.0	1119.6	513.53 ug/L	513.53 ppb	02:34:24
3	B 249.677†	21576.1	19463.2	505.57 ug/L	505.57 ppb	02:34:04
3	Ba 233.527†	46817.9	41055.3	502.85 ug/L	502.85 ppb	02:34:04
3	Be 313.107†	1405746.9	1241657.5	506.89 ug/L	506.89 ppb	02:34:04
3	Cd 226.502†	38723.0	34142.6	490.95 ug/L	490.95 ppb	02:34:24
3	Co 228.616†	18460.4	16252.9	506.35 ug/L	506.35 ppb	02:34:24
3	Cr 267.716†	40921.5	35827.6	498.79 ug/L	498.79 ppb	02:34:04
3	Cu 324.752†	156578.5	130022.0	506.58 ug/L	506.58 ppb	02:34:04
3	Mn 257.610†	351611.7	307934.4	509.04 ug/L	509.04 ppb	02:34:04
3	Mo 202.031†	6010.7	5254.2	501.03 ug/L	501.03 ppb	02:34:24
3	Ni 231.604†	17745.5	15470.3	505.36 ug/L	505.36 ppb	02:34:24
3	P 214.914†	5242.5	4402.4	2411.2 ug/L	2411.2 ppb	02:34:24
3	Pb 220.353†	3395.0	3033.1	503.58 ug/L	503.58 ppb	02:34:24
3	S 181.975 Axial†	920.2	761.0	999.57 ug/L	999.57 ppb	02:34:24
3	Sb 206.836†	1371.3	1173.5	509.77 ug/L	509.77 ppb	02:34:24
3	Se 196.026†	900.0	811.4	528.02 ug/L	528.02 ppb	02:34:24
3	Si 251.611†	76135.0	66223.0	2522.6 ug/L	2522.6 ppb	02:34:04
3	Sn 189.927†	2341.7	2049.1	489.12 ug/L	489.12 ppb	02:34:24
3	Ti 334.940†	274057.8	241710.8	509.21 ug/L	509.21 ppb	02:34:04
3	Tl 190.801†	1176.0	1063.5	508.60 ug/L	508.60 ppb	02:34:24
3	U 409.014†	13028.5	13949.2	487.44 ug/L	487.44 ppb	02:34:04
3	V 292.402†	68307.6	61578.2	505.81 ug/L	505.81 ppb	02:34:04
3	Zn 213.857†	51412.4	44411.1	497.78 ug/L	497.78 ppb	02:34:04
3	SiO2†	75600.4	65750.5	5363.1 ug/L	5363.1 ppb	02:34:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	840002.0	113.58	%	0.388				0.34%
Sc Radial	4795.8	109	%	3.4				3.13%
Y 371.029	743310.8	112.14	%	0.352				0.31%
Y RADIAL	5012.7	108.8	%	3.22				2.96%
Ag 328.068†	93468.2	499.63	ug/L	0.832	499.63	ppb	0.832	0.17%
QC value within limits for Ag 328.068 Recovery = 99.93%								
Al 396.153Radial†	5245.5	5192.5	ug/L	138.72	5192.5	ppb	138.72	2.67%
QC value within limits for Al 396.153Radial Recovery = 103.85%								
As 188.979†	1118.1	512.89	ug/L	1.172	512.89	ppb	1.172	0.23%
QC value within limits for As 188.979 Recovery = 102.58%								
B 249.677†	19372.3	503.18	ug/L	2.183	503.18	ppb	2.183	0.43%
QC value within limits for B 249.677 Recovery = 100.64%								
Ba 233.527†	41083.1	503.19	ug/L	1.181	503.19	ppb	1.181	0.23%
QC value within limits for Ba 233.527 Recovery = 100.64%								
Be 313.107†	1242919.8	507.40	ug/L	1.049	507.40	ppb	1.049	0.21%
QC value within limits for Be 313.107 Recovery = 101.48%								
Ca 317.933Radial†	2724.2	5247.0	ug/L	181.76	5247.0	ppb	181.76	3.46%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.94%
Cd 226.502†            34229.9      492.19 ug/L         1.077      492.19 ppb          1.077   0.22%
   QC value within limits for Cd 226.502  Recovery = 98.44%
Co 228.616†            16278.7      507.15 ug/L         0.725      507.15 ppb          0.725   0.14%
   QC value within limits for Co 228.616  Recovery = 101.43%
Cr 267.716†            35896.4      499.75 ug/L         1.612      499.75 ppb          1.612   0.32%
   QC value within limits for Cr 267.716  Recovery = 99.95%
Cu 324.752†           129950.4      506.31 ug/L         0.252      506.31 ppb          0.252   0.05%
   QC value within limits for Cu 324.752  Recovery = 101.26%
Fe 238.204 Radial†       466.6      5158.3 ug/L        155.87      5158.3 ppb         155.87   3.02%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.17%
K 766.490 Radial†      26266.8      5024.4 ug/L        150.94      5024.4 ppb         150.94   3.00%
   QC value within limits for K 766.490 Radial  Recovery = 100.49%
Mg 279.077 IEC†          130.0      5391.3 ug/L        227.01      5391.3 ppb         227.01   4.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.83%
Mn 257.610†           308517.5      510.00 ug/L         1.432      510.00 ppb          1.432   0.28%
   QC value within limits for Mn 257.610  Recovery = 102.00%
Mo 202.031†             5258.6      501.45 ug/L         0.370      501.45 ppb          0.370   0.07%
   QC value within limits for Mo 202.031  Recovery = 100.29%
Na 589.592 Radial†     28199.7      9306.0 ug/L        269.10      9306.0 ppb         269.10   2.89%
   QC value within limits for Na 589.592 Radial  Recovery = 93.06%
Ni 231.604†            15485.5      505.86 ug/L         0.732      505.86 ppb          0.732   0.14%
   QC value within limits for Ni 231.604  Recovery = 101.17%
P 214.914†              4412.7      2417.1 ug/L          5.55      2417.1 ppb           5.55   0.23%
   QC value within limits for P 214.914  Recovery = 96.68%
Pb 220.353†             3028.8      502.87 ug/L         0.616      502.87 ppb          0.616   0.12%
   QC value within limits for Pb 220.353  Recovery = 100.57%
S 181.975 Axial†         762.5      1001.4 ug/L          1.65      1001.4 ppb           1.65   0.16%
   QC value within limits for S 181.975 Axial  Recovery = 100.14%
Sb 206.836†             1178.1      511.74 ug/L         1.747      511.74 ppb          1.747   0.34%
   QC value within limits for Sb 206.836  Recovery = 102.35%
Se 196.026†              812.2      528.81 ug/L         1.656      528.81 ppb          1.656   0.31%
   QC value within limits for Se 196.026  Recovery = 105.76%
Si 251.611†            66163.4      2520.3 ug/L          4.64      2520.3 ppb           4.64   0.18%
   QC value within limits for Si 251.611  Recovery = 100.81%
Sn 189.927†             2057.0      491.03 ug/L         1.914      491.03 ppb          1.914   0.39%
   QC value within limits for Sn 189.927  Recovery = 98.21%
Sr 421.552†            65229.8      482.05 ug/L        15.006      482.05 ppb         15.006   3.11%
   QC value within limits for Sr 421.552  Recovery = 96.41%
Ti 334.940†           241865.5      509.54 ug/L         0.433      509.54 ppb          0.433   0.08%
   QC value within limits for Ti 334.940  Recovery = 101.91%
Tl 190.801†             1069.0      511.22 ug/L         2.309      511.22 ppb          2.309   0.45%
   QC value within limits for Tl 190.801  Recovery = 102.24%
U 409.014†             13958.5      487.75 ug/L         1.322      487.75 ppb          1.322   0.27%
   QC value within limits for U 409.014  Recovery = 97.55%
V 292.402†             61688.0      506.69 ug/L         0.864      506.69 ppb          0.864   0.17%
   QC value within limits for V 292.402  Recovery = 101.34%
Zn 213.857†            44528.2      499.08 ug/L         1.550      499.08 ppb          1.550   0.31%
   QC value within limits for Zn 213.857  Recovery = 99.82%
SiO2†                  66277.1      5406.1 ug/L        38.10      5406.1 ppb          38.10   0.70%
   QC value within limits for SiO2  Recovery = 101.10%
All analyte(s) passed QC.
```

Sequence No.: 73
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/6/2010 02:36:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4807.2	4807.2	110	%			02:38:42
1	Y RADIAL	5056.4	5056.4	109.7	%			02:38:42
1	Al 396.153Radial†	-80.3	16.8	16.720	ug/L	16.720	ppb	02:39:02
1	Ca 317.933Radial†	24.3	6.0	11.649	ug/L	11.649	ppb	02:39:02
1	Fe 238.204 Radial†	8.6	0.2	2.0306	ug/L	2.0306	ppb	02:39:02
1	K 766.490 Radial†	2791.6	14.8	2.8261	ug/L	2.8261	ppb	02:38:42
1	Mg 279.077 IEC†	-0.2	0.0	0.2855	ug/L	0.2855	ppb	02:39:02
1	Na 589.592 Radial†	-943.7	48.5	16.014	ug/L	16.014	ppb	02:38:42
1	Sr 421.552†	24.8	21.6	0.1596	ug/L	0.1596	ppb	02:38:42
1	Sc 361.383	818987.9	818987.9	110.74	%			02:39:59
1	Y 371.029	748656.3	748656.3	112.95	%			02:39:59
1	Ag 328.068†	238.1	16.4	0.0823	ug/L	0.0823	ppb	02:39:59
1	As 188.979†	-22.2	6.8	3.1078	ug/L	3.1078	ppb	02:40:19
1	B 249.677†	-174.4	383.5	10.004	ug/L	10.004	ppb	02:40:19
1	Ba 233.527†	24.8	18.5	0.2280	ug/L	0.2280	ppb	02:40:19
1	Be 313.107†	-9076.6	624.4	0.2552	ug/L	0.2552	ppb	02:39:59
1	Cd 226.502†	-188.7	12.3	0.1785	ug/L	0.1785	ppb	02:40:19
1	Co 228.616†	-51.4	16.8	0.5207	ug/L	0.5207	ppb	02:40:19
1	Cr 267.716†	67.2	0.3	0.0008	ug/L	0.0008	ppb	02:40:19
1	Cu 324.752†	7993.3	-78.9	-0.3129	ug/L	-0.3129	ppb	02:39:59
1	Mn 257.610†	500.2	23.5	0.0390	ug/L	0.0390	ppb	02:40:19
1	Mo 202.031†	15.5	-3.1	-0.2959	ug/L	-0.2959	ppb	02:40:19
1	Ni 231.604†	105.6	2.9	0.0955	ug/L	0.0955	ppb	02:40:19
1	P 214.914†	178.8	-33.9	-19.246	ug/L	-19.246	ppb	02:40:19
1	Pb 220.353†	-63.3	-1.4	-0.2336	ug/L	-0.2336	ppb	02:40:19
1	S 181.975 Axial†	49.6	-1.2	-1.5579	ug/L	-1.5579	ppb	02:40:19
1	Sb 206.836†	25.6	-5.9	-2.4652	ug/L	-2.4652	ppb	02:40:19
1	Se 196.026†	-12.8	10.6	6.7024	ug/L	6.7024	ppb	02:40:19
1	Si 251.611†	722.4	105.1	4.0171	ug/L	4.0171	ppb	02:40:19
1	Sn 189.927†	11.8	6.1	1.4627	ug/L	1.4627	ppb	02:40:19
1	Ti 334.940†	-1300.8	188.1	0.3934	ug/L	0.3934	ppb	02:39:59
1	Tl 190.801†	-31.6	3.5	1.6781	ug/L	1.6781	ppb	02:40:19
1	U 409.014†	-2468.8	293.9	10.307	ug/L	10.307	ppb	02:39:59
1	V 292.402†	-1742.4	99.2	0.8186	ug/L	0.8186	ppb	02:39:59
1	Zn 213.857†	791.5	37.3	0.4218	ug/L	0.4218	ppb	02:40:19
1	SiO2†	713.2	93.2	7.6318	ug/L	7.6318	ppb	02:41:15
2	Sc Radial	5010.6	5010.6	114	%			02:39:07
2	Y RADIAL	5269.2	5269.2	114.3	%			02:39:07
2	Al 396.153Radial†	-70.6	28.3	28.163	ug/L	28.163	ppb	02:39:27
2	Ca 317.933Radial†	23.8	4.7	9.0352	ug/L	9.0352	ppb	02:39:27
2	Fe 238.204 Radial†	7.9	-0.8	-8.6996	ug/L	-8.6996	ppb	02:39:27
2	K 766.490 Radial†	2725.4	-146.6	-28.072	ug/L	-28.072	ppb	02:39:07
2	Mg 279.077 IEC†	1.7	1.7	69.697	ug/L	69.697	ppb	02:39:27
2	Na 589.592 Radial†	-1053.2	-12.4	-4.0779	ug/L	-4.0779	ppb	02:39:07
2	Sr 421.552†	16.7	13.6	0.1008	ug/L	0.1008	ppb	02:39:07
2	Sc 361.383	812344.0	812344.0	109.84	%			02:40:25
2	Y 371.029	741267.8	741267.8	111.83	%			02:40:25
2	Ag 328.068†	299.9	74.4	0.3880	ug/L	0.3880	ppb	02:40:25
2	As 188.979†	-26.1	3.1	1.4101	ug/L	1.4101	ppb	02:40:45
2	B 249.677†	-196.8	361.8	9.4405	ug/L	9.4405	ppb	02:40:45
2	Ba 233.527†	18.1	12.6	0.1542	ug/L	0.1542	ppb	02:40:45
2	Be 313.107†	-9077.0	556.9	0.2274	ug/L	0.2274	ppb	02:40:25
2	Cd 226.502†	-181.3	17.6	0.2547	ug/L	0.2547	ppb	02:40:45
2	Co 228.616†	-58.4	10.0	0.3099	ug/L	0.3099	ppb	02:40:45
2	Cr 267.716†	76.3	9.1	0.1238	ug/L	0.1238	ppb	02:40:45
2	Cu 324.752†	7923.1	-83.7	-0.3300	ug/L	-0.3300	ppb	02:40:25
2	Mn 257.610†	526.9	51.5	0.0814	ug/L	0.0814	ppb	02:40:45
2	Mo 202.031†	19.0	0.2	0.0182	ug/L	0.0182	ppb	02:40:45
2	Ni 231.604†	101.0	-0.5	-0.0152	ug/L	-0.0152	ppb	02:40:45

2	P 214.914†	185.8	-26.2	-14.839	ug/L	-14.839 ppb	02:40:45
2	Pb 220.353†	-78.2	-15.5	-2.5548	ug/L	-2.5548 ppb	02:40:45
2	S 181.975 Axial†	41.7	-8.0	-10.547	ug/L	-10.547 ppb	02:40:45
2	Sb 206.836†	20.7	-10.2	-4.2854	ug/L	-4.2854 ppb	02:40:45
2	Se 196.026†	-21.8	2.2	1.3852	ug/L	1.3852 ppb	02:40:45
2	Si 251.611†	732.8	120.0	4.5801	ug/L	4.5801 ppb	02:40:45
2	Sn 189.927†	7.9	2.6	0.6241	ug/L	0.6241 ppb	02:40:45
2	Ti 334.940†	-1363.7	121.2	0.2483	ug/L	0.2483 ppb	02:40:25
2	Tl 190.801†	-31.4	3.5	1.6568	ug/L	1.6568 ppb	02:40:45
2	U 409.014†	-2581.3	173.2	6.0746	ug/L	6.0746 ppb	02:40:25
2	V 292.402†	-1790.0	42.9	0.3622	ug/L	0.3622 ppb	02:40:25
2	Zn 213.857†	798.8	49.8	0.5651	ug/L	0.5651 ppb	02:40:45
2	SiO2†	737.5	120.6	9.8593	ug/L	9.8593 ppb	02:41:20
3	Sc Radial	5004.6	5004.6	114	%		02:39:33
3	Y RADIAL	5285.6	5285.6	114.7	%		02:39:33
3	Al 396.153Radial†	-82.3	18.0	17.891	ug/L	17.891 ppb	02:39:53
3	Ca 317.933Radial†	25.3	6.1	11.655	ug/L	11.655 ppb	02:39:53
3	Fe 238.204 Radial†	10.3	1.4	15.095	ug/L	15.095 ppb	02:39:53
3	K 766.490 Radial†	2664.0	-197.6	-37.852	ug/L	-37.852 ppb	02:39:33
3	Mg 279.077 IEC†	1.1	1.1	45.457	ug/L	45.457 ppb	02:39:53
3	Na 589.592 Radial†	-1001.7	31.7	10.446	ug/L	10.446 ppb	02:39:33
3	Sr 421.552†	44.4	37.9	0.2799	ug/L	0.2799 ppb	02:39:33
3	Sc 361.383	824735.7	824735.7	111.52	%		02:40:50
3	Y 371.029	755190.6	755190.6	113.94	%		02:40:50
3	Ag 328.068†	283.4	55.5	0.3000	ug/L	0.3000 ppb	02:40:50
3	As 188.979†	-36.5	-5.9	-2.6768	ug/L	-2.6768 ppb	02:41:10
3	B 249.677†	-197.6	363.8	9.4877	ug/L	9.4877 ppb	02:41:10
3	Ba 233.527†	18.6	12.8	0.1596	ug/L	0.1596 ppb	02:41:10
3	Be 313.107†	-9207.2	564.4	0.2308	ug/L	0.2308 ppb	02:40:50
3	Cd 226.502†	-179.3	21.8	0.3141	ug/L	0.3141 ppb	02:41:10
3	Co 228.616†	-51.1	17.3	0.5367	ug/L	0.5367 ppb	02:41:10
3	Cr 267.716†	80.2	11.5	0.1596	ug/L	0.1596 ppb	02:41:10
3	Cu 324.752†	8007.6	-116.4	-0.4563	ug/L	-0.4563 ppb	02:40:50
3	Mn 257.610†	519.4	37.6	0.0617	ug/L	0.0617 ppb	02:41:10
3	Mo 202.031†	13.8	-4.7	-0.4487	ug/L	-0.4487 ppb	02:41:10
3	Ni 231.604†	115.5	11.1	0.3623	ug/L	0.3623 ppb	02:41:10
3	P 214.914†	186.2	-28.4	-16.072	ug/L	-16.072 ppb	02:41:10
3	Pb 220.353†	-72.2	-9.1	-1.5000	ug/L	-1.5000 ppb	02:41:10
3	S 181.975 Axial†	42.0	-8.4	-10.991	ug/L	-10.991 ppb	02:41:10
3	Sb 206.836†	34.5	1.9	0.8047	ug/L	0.8047 ppb	02:41:10
3	Se 196.026†	-24.9	-0.3	-0.1377	ug/L	-0.1377 ppb	02:41:10
3	Si 251.611†	698.5	79.2	3.0280	ug/L	3.0280 ppb	02:41:10
3	Sn 189.927†	9.8	4.2	1.0051	ug/L	1.0051 ppb	02:41:10
3	Ti 334.940†	-1315.5	183.1	0.3807	ug/L	0.3807 ppb	02:40:50
3	Tl 190.801†	-29.7	5.5	2.6024	ug/L	2.6024 ppb	02:41:10
3	U 409.014†	-2600.6	191.2	6.7030	ug/L	6.7030 ppb	02:40:50
3	V 292.402†	-1669.1	175.8	1.4300	ug/L	1.4300 ppb	02:40:50
3	Zn 213.857†	795.5	35.9	0.4025	ug/L	0.4025 ppb	02:41:10
3	SiO2†	713.1	88.6	7.2611	ug/L	7.2611 ppb	02:41:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	818689.2	110.70	%	0.839				0.76%
Sc Radial	4940.8	113	%	2.6				2.34%
Y 371.029	748371.6	112.91	%	1.051				0.93%
Y RADIAL	5203.7	112.9	%	2.77				2.46%
Ag 328.068†	48.7	0.2568	ug/L	0.15734	0.2568	ppb	0.15734	61.28%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	21.0	20.925	ug/L	6.2960	20.925	ppb	6.2960	30.09%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.3	0.6137	ug/L	2.97336	0.6137	ppb	2.97336	484.50%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	369.7	9.6442	ug/L	0.31288	9.6442	ppb	0.31288	3.24%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	14.6	0.1806	ug/L	0.04116	0.1806	ppb	0.04116	22.79%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	581.9	0.2378	ug/L	0.01517	0.2378	ppb	0.01517	6.38%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.6	10.780	ug/L	1.5108	10.780	ppb	1.5108	14.02%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              17.2      0.2491 ug/L       0.06796      0.2491 ppb        0.06796  27.28%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              14.7      0.4558 ug/L       0.12658      0.4558 ppb        0.12658  27.77%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               6.9      0.0948 ug/L       0.08328      0.0948 ppb        0.08328  87.90%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -93.0     -0.3664 ug/L       0.07834     -0.3664 ppb        0.07834  21.38%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.3      2.8085 ug/L      11.91613      2.8085 ppb       11.91613 424.29%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -109.8     -21.033 ug/L       21.2330     -21.033 ppb        21.2330 100.95%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.9      38.480 ug/L       35.2279      38.480 ppb        35.2279  91.55%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              37.5      0.0607 ug/L       0.02121      0.0607 ppb        0.02121  34.94%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -2.5     -0.2421 ug/L       0.23806     -0.2421 ppb        0.23806  98.31%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       22.6      7.4605 ug/L      10.37310      7.4605 ppb       10.37310 139.04%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               4.5      0.1476 ug/L       0.19407      0.1476 ppb        0.19407 131.52%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -29.5     -16.719 ug/L        2.2738     -16.719 ppb         2.2738  13.60%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -8.7     -1.4295 ug/L       1.16218     -1.4295 ppb        1.16218  81.30%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -5.9     -7.6988 ug/L       5.32278     -7.6988 ppb        5.32278  69.14%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -4.8     -1.9820 ug/L       2.57920     -1.9820 ppb        2.57920 130.13%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               4.2      2.6500 ug/L       3.59116      2.6500 ppb        3.59116 135.52%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             101.4      3.8751 ug/L       0.78574      3.8751 ppb        0.78574  20.28%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.3      1.0306 ug/L       0.41986      1.0306 ppb        0.41986  40.74%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              24.4      0.1801 ug/L       0.09130      0.1801 ppb        0.09130  50.69%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             164.1      0.3408 ug/L       0.08035      0.3408 ppb        0.08035  23.58%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               4.2      1.9791 ug/L       0.53991      1.9791 ppb        0.53991  27.28%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              219.5      7.6949 ug/L       2.28392      7.6949 ppb        2.28392  29.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              106.0      0.8703 ug/L       0.53579      0.8703 ppb        0.53579  61.57%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              41.0      0.4631 ug/L       0.08886      0.4631 ppb        0.08886  19.19%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   100.8      8.2507 ug/L       1.40531      8.2507 ppb        1.40531  17.03%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 74
Sample ID: 1202047652|955119|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 93
Date Collected: 3/6/2010 02:43:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202047652|955119|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4901.4	4901.4	112	%			02:45:30
1	Y RADIAL	5144.7	5144.7	111.6	%			02:45:30
1	Al 396.153Radial†	-68.8	28.5	28.365	ug/L	28.365	ppb	02:45:50
1	Ca 317.933Radial†	24.4	5.8	11.113	ug/L	11.113	ppb	02:45:50
1	Fe 238.204 Radial†	11.3	2.4	26.983	ug/L	26.983	ppb	02:45:50
1	K 766.490 Radial†	2752.7	-69.0	-13.239	ug/L	-13.239	ppb	02:45:30
1	Mg 279.077 IEC†	3.8	3.5	147.03	ug/L	147.03	ppb	02:45:50
1	Na 589.592 Radial†	-880.2	121.9	40.225	ug/L	40.225	ppb	02:45:30
1	Sr 421.552†	53.2	46.6	0.3445	ug/L	0.3445	ppb	02:45:30
1	Sc 361.383	819651.4	819651.4	110.83	%			02:46:47
1	Y 371.029	730368.8	730368.8	110.19	%			02:46:47
1	Ag 328.068†	247.6	24.8	0.1418	ug/L	0.1418	ppb	02:46:47
1	As 188.979†	-26.0	3.4	1.5502	ug/L	1.5502	ppb	02:47:07
1	B 249.677†	-213.4	348.5	9.0867	ug/L	9.0867	ppb	02:47:07
1	Ba 233.527†	24.6	18.3	0.2275	ug/L	0.2275	ppb	02:47:07
1	Be 313.107†	-8876.2	811.8	0.3326	ug/L	0.3326	ppb	02:46:47
1	Cd 226.502†	-175.7	24.1	0.3456	ug/L	0.3456	ppb	02:47:07
1	Co 228.616†	-56.6	12.0	0.3716	ug/L	0.3716	ppb	02:47:07
1	Cr 267.716†	97.8	27.9	0.3874	ug/L	0.3874	ppb	02:47:07
1	Cu 324.752†	7952.5	-121.5	-0.4759	ug/L	-0.4759	ppb	02:46:47
1	Mn 257.610†	858.5	346.3	0.5689	ug/L	0.5689	ppb	02:47:07
1	Mo 202.031†	11.9	-6.4	-0.6087	ug/L	-0.6087	ppb	02:47:07
1	Ni 231.604†	106.9	4.0	0.1298	ug/L	0.1298	ppb	02:47:07
1	P 214.914†	185.7	-27.8	-15.748	ug/L	-15.748	ppb	02:47:07
1	Pb 220.353†	-78.8	-15.4	-2.5442	ug/L	-2.5442	ppb	02:47:07
1	S 181.975 Axial†	42.7	-7.5	-9.8368	ug/L	-9.8368	ppb	02:47:07
1	Sb 206.836†	30.4	-1.7	-0.6920	ug/L	-0.6920	ppb	02:47:07
1	Se 196.026†	-31.3	-6.1	-3.8137	ug/L	-3.8137	ppb	02:47:07
1	Si 251.611†	1214.6	548.7	20.961	ug/L	20.961	ppb	02:47:07
1	Sn 189.927†	11.5	5.8	1.3925	ug/L	1.3925	ppb	02:47:07
1	Ti 334.940†	-1062.2	404.4	0.8384	ug/L	0.8384	ppb	02:46:47
1	Tl 190.801†	-26.8	7.9	3.7506	ug/L	3.7506	ppb	02:47:07
1	U 409.014†	-2573.4	201.4	7.0565	ug/L	7.0565	ppb	02:46:47
1	V 292.402†	-1641.9	191.1	1.5519	ug/L	1.5519	ppb	02:46:47
1	Zn 213.857†	884.9	121.0	1.3645	ug/L	1.3645	ppb	02:47:07
1	SiO2†	1205.2	536.6	43.895	ug/L	43.895	ppb	02:48:03
2	Sc Radial	4960.6	4960.6	113	%			02:45:55
2	Y RADIAL	5208.5	5208.5	113.0	%			02:45:55
2	Al 396.153Radial†	-69.2	28.9	28.827	ug/L	28.827	ppb	02:46:15
2	Ca 317.933Radial†	26.7	7.5	14.474	ug/L	14.474	ppb	02:46:15
2	Fe 238.204 Radial†	11.8	2.7	29.742	ug/L	29.742	ppb	02:46:15
2	K 766.490 Radial†	2697.3	-147.4	-28.241	ug/L	-28.241	ppb	02:45:55
2	Mg 279.077 IEC†	0.9	1.0	39.884	ug/L	39.884	ppb	02:46:15
2	Na 589.592 Radial†	-908.0	106.7	35.225	ug/L	35.225	ppb	02:45:55
2	Sr 421.552†	53.8	46.6	0.3444	ug/L	0.3444	ppb	02:45:55
2	Sc 361.383	817007.5	817007.5	110.47	%			02:47:12
2	Y 371.029	729038.6	729038.6	109.99	%			02:47:12
2	Ag 328.068†	256.7	33.7	0.1845	ug/L	0.1845	ppb	02:47:12
2	As 188.979†	-29.4	0.3	0.1384	ug/L	0.1384	ppb	02:47:32
2	B 249.677†	-222.1	340.0	8.8641	ug/L	8.8641	ppb	02:47:32
2	Ba 233.527†	33.7	26.6	0.3286	ug/L	0.3286	ppb	02:47:32
2	Be 313.107†	-9084.7	597.2	0.2448	ug/L	0.2448	ppb	02:47:12
2	Cd 226.502†	-173.9	25.3	0.3627	ug/L	0.3627	ppb	02:47:32
2	Co 228.616†	-51.2	16.8	0.5186	ug/L	0.5186	ppb	02:47:32
2	Cr 267.716†	117.9	46.3	0.6417	ug/L	0.6417	ppb	02:47:32
2	Cu 324.752†	7815.6	-222.2	-0.8704	ug/L	-0.8704	ppb	02:47:12
2	Mn 257.610†	808.0	303.2	0.5022	ug/L	0.5022	ppb	02:47:32
2	Mo 202.031†	7.9	-10.0	-0.9512	ug/L	-0.9512	ppb	02:47:32
2	Ni 231.604†	104.5	2.2	0.0704	ug/L	0.0704	ppb	02:47:32

2	P 214.914†	204.4	-10.3	-5.7215	ug/L	-5.7215 ppb	02:47:32
2	Pb 220.353†	-63.8	-2.1	-0.3408	ug/L	-0.3408 ppb	02:47:32
2	S 181.975 Axial†	45.0	-5.2	-6.9014	ug/L	-6.9014 ppb	02:47:32
2	Sb 206.836†	32.3	0.2	0.0935	ug/L	0.0935 ppb	02:47:32
2	Se 196.026†	-19.8	4.1	2.6887	ug/L	2.6887 ppb	02:47:32
2	Si 251.611†	1214.9	552.5	21.108	ug/L	21.108 ppb	02:47:32
2	Sn 189.927†	14.3	8.3	1.9910	ug/L	1.9910 ppb	02:47:32
2	Ti 334.940†	-1149.1	322.6	0.6734	ug/L	0.6734 ppb	02:47:12
2	Tl 190.801†	-28.7	6.1	2.9208	ug/L	2.9208 ppb	02:47:32
2	U 409.014†	-2435.4	318.7	11.170	ug/L	11.170 ppb	02:47:12
2	V 292.402†	-1714.3	120.8	0.9825	ug/L	0.9825 ppb	02:47:12
2	Zn 213.857†	894.4	132.2	1.4922	ug/L	1.4922 ppb	02:47:32
2	SiO2†	1226.4	559.3	45.760	ug/L	45.760 ppb	02:48:08
3	Sc Radial	5029.2	5029.2	115	%		02:46:20
3	Y RADIAL	5265.1	5265.1	114.3	%		02:46:20
3	Al 396.153Radial†	-60.9	37.0	36.751	ug/L	36.751 ppb	02:46:40
3	Ca 317.933Radial†	25.2	5.8	11.259	ug/L	11.259 ppb	02:46:40
3	Fe 238.204 Radial†	11.5	2.3	25.369	ug/L	25.369 ppb	02:46:40
3	K 766.490 Radial†	2644.0	-226.5	-43.388	ug/L	-43.388 ppb	02:46:20
3	Mg 279.077 IEC†	2.1	2.0	83.306	ug/L	83.306 ppb	02:46:40
3	Na 589.592 Radial†	-920.1	107.1	35.349	ug/L	35.349 ppb	02:46:20
3	Sr 421.552†	38.2	32.4	0.2391	ug/L	0.2391 ppb	02:46:20
3	Sc 361.383	827080.5	827080.5	111.83	%		02:47:37
3	Y 371.029	735936.6	735936.6	111.03	%		02:47:37
3	Ag 328.068†	222.6	0.4	-0.0006	ug/L	-0.0006 ppb	02:47:37
3	As 188.979†	-27.4	2.3	1.0718	ug/L	1.0718 ppb	02:47:57
3	B 249.677†	-234.7	331.2	8.6348	ug/L	8.6348 ppb	02:47:57
3	Ba 233.527†	12.5	7.2	0.0911	ug/L	0.0911 ppb	02:47:57
3	Be 313.107†	-9160.1	629.9	0.2579	ug/L	0.2579 ppb	02:47:37
3	Cd 226.502†	-190.4	12.4	0.1794	ug/L	0.1794 ppb	02:47:57
3	Co 228.616†	-50.0	18.5	0.5748	ug/L	0.5748 ppb	02:47:57
3	Cr 267.716†	117.5	44.7	0.6152	ug/L	0.6152 ppb	02:47:57
3	Cu 324.752†	7967.4	-172.6	-0.6817	ug/L	-0.6817 ppb	02:47:37
3	Mn 257.610†	804.2	290.9	0.4796	ug/L	0.4796 ppb	02:47:57
3	Mo 202.031†	23.8	4.1	0.3966	ug/L	0.3966 ppb	02:47:57
3	Ni 231.604†	114.4	9.9	0.3218	ug/L	0.3218 ppb	02:47:57
3	P 214.914†	197.1	-19.1	-10.731	ug/L	-10.731 ppb	02:47:57
3	Pb 220.353†	-73.7	-10.2	-1.6750	ug/L	-1.6750 ppb	02:47:57
3	S 181.975 Axial†	37.5	-12.4	-16.357	ug/L	-16.357 ppb	02:47:57
3	Sb 206.836†	33.9	1.3	0.6009	ug/L	0.6009 ppb	02:47:57
3	Se 196.026†	-26.4	-1.5	-0.8750	ug/L	-0.8750 ppb	02:47:57
3	Si 251.611†	1218.5	542.4	20.705	ug/L	20.705 ppb	02:47:57
3	Sn 189.927†	22.1	15.2	3.6335	ug/L	3.6335 ppb	02:47:57
3	Ti 334.940†	-1206.5	283.9	0.5846	ug/L	0.5846 ppb	02:47:37
3	Tl 190.801†	-39.3	-3.1	-1.4593	ug/L	-1.4593 ppb	02:47:57
3	U 409.014†	-2221.8	536.6	18.812	ug/L	18.812 ppb	02:47:37
3	V 292.402†	-1747.7	109.8	0.9287	ug/L	0.9287 ppb	02:47:37
3	Zn 213.857†	885.6	114.5	1.2905	ug/L	1.2905 ppb	02:47:57
3	SiO2†	1227.5	546.7	44.698	ug/L	44.698 ppb	02:48:13

Mean Data: 1202047652|955119|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	821246.5	111.04	%	0.706				0.64%
Sc Radial	4963.7	113	%	1.5				1.29%
Y 371.029	731781.3	110.40	%	0.552				0.50%
Y RADIAL	5206.1	113.0	%	1.31				1.16%
Ag 328.068†	19.6	0.1086	ug/L	0.09692	0.1086	ppb	0.09692	89.28%
Al 396.153Radial†	31.5	31.314	ug/L	4.7143	31.314	ppb	4.7143	15.05%
As 188.979†	2.0	0.9201	ug/L	0.71800	0.9201	ppb	0.71800	78.03%
B 249.677†	339.9	8.8619	ug/L	0.22594	8.8619	ppb	0.22594	2.55%
Ba 233.527†	17.4	0.2157	ug/L	0.11915	0.2157	ppb	0.11915	55.23%
Be 313.107†	679.6	0.2784	ug/L	0.04735	0.2784	ppb	0.04735	17.01%
Ca 317.933Radial†	6.4	12.282	ug/L	1.8997	12.282	ppb	1.8997	15.47%
Cd 226.502†	20.6	0.2959	ug/L	0.10122	0.2959	ppb	0.10122	34.21%
Co 228.616†	15.8	0.4884	ug/L	0.10493	0.4884	ppb	0.10493	21.49%
Cr 267.716†	39.6	0.5481	ug/L	0.13980	0.5481	ppb	0.13980	25.51%
Cu 324.752†	-172.1	-0.6760	ug/L	0.19729	-0.6760	ppb	0.19729	29.18%
Fe 238.204 Radial†	2.5	27.365	ug/L	2.2111	27.365	ppb	2.2111	8.08%
K 766.490 Radial†	-147.6	-28.289	ug/L	15.0745	-28.289	ppb	15.0745	53.29%

Mg 279.077 IEC†	2.2	90.072	ug/L	53.8901	90.072	ppb	53.8901	59.83%
Mn 257.610†	313.5	0.5169	ug/L	0.04640	0.5169	ppb	0.04640	8.98%
Mo 202.031†	-4.1	-0.3878	ug/L	0.70052	-0.3878	ppb	0.70052	180.65%
Na 589.592 Radial†	111.9	36.933	ug/L	2.8514	36.933	ppb	2.8514	7.72%
Ni 231.604†	5.3	0.1740	ug/L	0.13140	0.1740	ppb	0.13140	75.51%
P 214.914†	-19.1	-10.733	ug/L	5.0132	-10.733	ppb	5.0132	46.71%
Pb 220.353†	-9.2	-1.5200	ug/L	1.10984	-1.5200	ppb	1.10984	73.02%
S 181.975 Axial†	-8.4	-11.032	ug/L	4.8395	-11.032	ppb	4.8395	43.87%
Sb 206.836†	-0.1	0.0008	ug/L	0.65137	0.0008	ppb	0.65137	>999.9%
Se 196.026†	-1.2	-0.6666	ug/L	3.25620	-0.6666	ppb	3.25620	488.45%
Si 251.611†	547.9	20.925	ug/L	0.2038	20.925	ppb	0.2038	0.97%
Sn 189.927†	9.8	2.3390	ug/L	1.16036	2.3390	ppb	1.16036	49.61%
Sr 421.552†	41.9	0.3094	ug/L	0.06082	0.3094	ppb	0.06082	19.66%
Ti 334.940†	337.0	0.6988	ug/L	0.12882	0.6988	ppb	0.12882	18.43%
Tl 190.801†	3.6	1.7374	ug/L	2.79931	1.7374	ppb	2.79931	161.12%
U 409.014†	352.2	12.346	ug/L	5.9655	12.346	ppb	5.9655	48.32%
V 292.402†	140.6	1.1543	ug/L	0.34536	1.1543	ppb	0.34536	29.92%
Zn 213.857†	122.6	1.3824	ug/L	0.10205	1.3824	ppb	0.10205	7.38%
SiO2†	547.5	44.784	ug/L	0.9358	44.784	ppb	0.9358	2.09%

Sequence No.: 75
Sample ID: 1202047657|955119|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 94
Date Collected: 3/6/2010 02:50:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202047657|955119|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5039.3	5039.3	115	%			02:52:38
1	Y RADIAL	5745.0	5745.0	124.7	%			02:52:38
1	Al 396.153Radial†	105318.1	91770.1	91244	ug/L	91244	ppb	02:52:18
1	Ca 317.933Radial†	60783.4	52896.2	101880	ug/L	101880	ppb	02:52:18
1	Fe 238.204 Radial†	18943.4	16482.6	181710	ug/L	181710	ppb	02:52:18
1	K 766.490 Radial†	250719.6	215720.2	41273	ug/L	41273	ppb	02:52:18
1	Mg 279.077 IEC†	1076.3	937.1	38690	ug/L	38690	ppb	02:52:38
1	Na 589.592 Radial†	33707.2	30252.0	9983.2	ug/L	9983.2	ppb	02:52:18
1	Sr 421.552†	354366.6	308477.2	2279.1	ug/L	2279.1	ppb	02:52:18
1	Sc 361.383	851790.9	851790.9	115.17	%			02:53:39
1	Y 371.029	824765.7	824765.7	124.43	%			02:53:39
1	Ag 328.068†	60423.1	52263.5	347.56	ug/L	347.56	ppb	02:53:39
1	As 188.979†	2759.9	2423.1	1194.5	ug/L	1194.5	ppb	02:53:44
1	B 249.677†	71305.0	62451.3	1597.1	ug/L	1597.1	ppb	02:53:39
1	Ba 233.527†	209454.2	181853.9	2230.2	ug/L	2230.2	ppb	02:53:39
1	Be 313.107†	2330501.7	2032270.3	841.18	ug/L	841.18	ppb	02:53:39
1	Cd 226.502†	50691.0	44194.9	617.74	ug/L	617.74	ppb	02:53:44
1	Co 228.616†	37468.6	32595.1	1001.5	ug/L	1001.5	ppb	02:53:44
1	Cr 267.716†	211869.1	183894.2	2562.4	ug/L	2562.4	ppb	02:53:39
1	Cu 324.752†	621429.5	532256.9	2083.5	ug/L	2083.5	ppb	02:53:39
1	Mn 257.610†	4078770.2	3540949.1	5866.5	ug/L	5866.5	ppb	02:53:39
1	Mo 202.031†	6346.9	5493.5	538.69	ug/L	538.69	ppb	02:53:44
1	Ni 231.604†	50534.0	43783.5	1430.5	ug/L	1430.5	ppb	02:53:44
1	P 214.914†	17083.9	14637.7	7820.2	ug/L	7820.2	ppb	02:53:44
1	Pb 220.353†	5982.5	5250.0	877.59	ug/L	877.59	ppb	02:53:44
1	S 181.975 Axial†	3614.7	3092.4	4048.5	ug/L	4048.5	ppb	02:53:44
1	Sb 206.836†	3944.3	3395.6	1431.6	ug/L	1431.6	ppb	02:53:44
1	Se 196.026†	5059.6	4415.1	3217.9	ug/L	3217.9	ppb	02:53:44
1	Si 251.611†	1134152.2	984176.2	37574	ug/L	37574	ppb	02:53:39
1	Sn 189.927†	5147.3	4464.6	1072.0	ug/L	1072.0	ppb	02:53:44
1	Ti 334.940†	3231628.3	2807212.2	5925.1	ug/L	5925.1	ppb	02:53:39
1	Tl 190.801†	3058.1	2687.3	1346.5	ug/L	1346.5	ppb	02:53:44
1	U 409.014†	-7963.5	-4391.0	-180.40	ug/L	-180.40	ppb	02:53:39
1	V 292.402†	182341.5	159989.9	1271.1	ug/L	1271.1	ppb	02:53:39
1	Zn 213.857†	639417.3	554494.3	6234.1	ug/L	6234.1	ppb	02:53:39
1	SiO2†	1115456.7	967940.4	79139	ug/L	79139	ppb	02:54:19
2	Sc Radial	5004.9	5004.9	114	%			02:53:03
2	Y RADIAL	5733.6	5733.6	124.4	%			02:53:03
2	Al 396.153Radial†	105158.5	92259.3	91730	ug/L	91730	ppb	02:52:43
2	Ca 317.933Radial†	60560.2	53063.7	102210	ug/L	102210	ppb	02:52:43
2	Fe 238.204 Radial†	18840.1	16505.3	181960	ug/L	181960	ppb	02:52:43
2	K 766.490 Radial†	250316.2	216864.2	41492	ug/L	41492	ppb	02:52:43
2	Mg 279.077 IEC†	1074.4	941.8	38886	ug/L	38886	ppb	02:53:03
2	Na 589.592 Radial†	33472.7	30247.8	9981.8	ug/L	9981.8	ppb	02:52:43
2	Sr 421.552†	353472.4	309810.2	2288.9	ug/L	2288.9	ppb	02:52:43
2	Sc 361.383	846626.5	846626.5	114.48	%			02:53:54
2	Y 371.029	818807.3	818807.3	123.53	%			02:53:54
2	Ag 328.068†	60032.5	52242.3	347.54	ug/L	347.54	ppb	02:53:54
2	As 188.979†	2779.2	2454.7	1208.9	ug/L	1208.9	ppb	02:53:59
2	B 249.677†	70850.0	62431.5	1596.5	ug/L	1596.5	ppb	02:53:54
2	Ba 233.527†	208620.8	182235.3	2234.9	ug/L	2234.9	ppb	02:53:54
2	Be 313.107†	2314726.7	2030833.0	840.60	ug/L	840.60	ppb	02:53:54
2	Cd 226.502†	50749.5	44514.5	622.31	ug/L	622.31	ppb	02:53:59
2	Co 228.616†	37566.4	32879.0	1010.4	ug/L	1010.4	ppb	02:53:59
2	Cr 267.716†	210657.7	183958.0	2563.3	ug/L	2563.3	ppb	02:53:54
2	Cu 324.752†	617031.5	531706.3	2081.3	ug/L	2081.3	ppb	02:53:54
2	Mn 257.610†	4062245.7	3548116.2	5878.4	ug/L	5878.4	ppb	02:53:54
2	Mo 202.031†	6367.0	5544.7	543.59	ug/L	543.59	ppb	02:53:59
2	Ni 231.604†	50510.4	44030.5	1438.6	ug/L	1438.6	ppb	02:53:59

2	P 214.914†	17144.2	14780.9	7902.2 ug/L	7902.2 ppb		02:53:59
2	Pb 220.353†	5987.2	5285.8	883.62 ug/L	883.62 ppb		02:53:59
2	S 181.975 Axial†	3633.7	3128.2	4095.4 ug/L	4095.4 ppb		02:53:59
2	Sb 206.836†	4011.9	3475.5	1465.3 ug/L	1465.3 ppb		02:53:59
2	Se 196.026†	5051.0	4434.4	3230.8 ug/L	3230.8 ppb		02:53:59
2	Si 251.611†	1127530.2	984398.3	37583 ug/L	37583 ppb		02:53:54
2	Sn 189.927†	5155.9	4499.3	1080.3 ug/L	1080.3 ppb		02:53:59
2	Ti 334.940†	3213785.2	2808740.9	5928.4 ug/L	5928.4 ppb		02:53:54
2	Tl 190.801†	3071.6	2715.3	1359.8 ug/L	1359.8 ppb		02:53:59
2	U 409.014†	-7821.1	-4308.8	-177.55 ug/L	-177.55 ppb		02:53:54
2	V 292.402†	181373.9	160110.4	1272.1 ug/L	1272.1 ppb		02:53:54
2	Zn 213.857†	636505.6	555337.3	6243.5 ug/L	6243.5 ppb		02:53:54
2	SiO2†	1126113.9	983157.5	80383 ug/L	80383 ppb		02:54:25
3	Sc Radial	4978.7	4978.7	113 %			02:53:28
3	Y RADIAL	5722.1	5722.1	124.2 %			02:53:28
3	Al 396.153Radial†	106697.4	94100.9	93561 ug/L	93561 ppb		02:53:08
3	Ca 317.933Radial†	61532.8	54200.3	104390 ug/L	104390 ppb		02:53:08
3	Fe 238.204 Radial†	19122.3	16840.9	185660 ug/L	185660 ppb		02:53:08
3	K 766.490 Radial†	253902.8	221180.5	42318 ug/L	42318 ppb		02:53:08
3	Mg 279.077 IEC†	1074.0	946.4	39073 ug/L	39073 ppb		02:53:28
3	Na 589.592 Radial†	33759.8	30655.3	10116 ug/L	10116 ppb		02:53:08
3	Sr 421.552†	358051.1	315476.9	2330.8 ug/L	2330.8 ppb		02:53:08
3	Sc 361.383	836725.2	836725.2	113.14 %			02:54:08
3	Y 371.029	808259.7	808259.7	121.94 %			02:54:08
3	Ag 328.068†	59285.5	52202.6	348.65 ug/L	348.65 ppb		02:54:08
3	As 188.979†	2751.5	2458.8	1211.6 ug/L	1211.6 ppb		02:54:13
3	B 249.677†	69934.5	62354.6	1593.9 ug/L	1593.9 ppb		02:54:08
3	Ba 233.527†	206279.6	182322.4	2236.0 ug/L	2236.0 ppb		02:54:08
3	Be 313.107†	2286957.2	2030215.4	840.34 ug/L	840.34 ppb		02:54:08
3	Cd 226.502†	50766.2	45053.9	629.70 ug/L	629.70 ppb		02:54:13
3	Co 228.616†	37609.6	33305.5	1023.6 ug/L	1023.6 ppb		02:54:13
3	Cr 267.716†	208759.0	184457.4	2570.3 ug/L	2570.3 ppb		02:54:08
3	Cu 324.752†	607316.0	529497.2	2072.9 ug/L	2072.9 ppb		02:54:08
3	Mn 257.610†	4019054.9	3551932.1	5885.1 ug/L	5885.1 ppb		02:54:08
3	Mo 202.031†	6362.4	5606.5	549.79 ug/L	549.79 ppb		02:54:13
3	Ni 231.604†	50502.8	44545.9	1455.4 ug/L	1455.4 ppb		02:54:13
3	P 214.914†	17136.2	14951.0	7998.5 ug/L	7998.5 ppb		02:54:13
3	Pb 220.353†	6000.3	5359.2	895.96 ug/L	895.96 ppb		02:54:13
3	S 181.975 Axial†	3625.4	3158.5	4134.8 ug/L	4134.8 ppb		02:54:13
3	Sb 206.836†	4040.5	3542.3	1493.6 ug/L	1493.6 ppb		02:54:13
3	Se 196.026†	5076.8	4509.4	3286.9 ug/L	3286.9 ppb		02:54:13
3	Si 251.611†	1112927.4	983146.5	37535 ug/L	37535 ppb		02:54:08
3	Sn 189.927†	5149.7	4547.2	1091.9 ug/L	1091.9 ppb		02:54:13
3	Ti 334.940†	3175002.5	2807682.5	5926.4 ug/L	5926.4 ppb		02:54:08
3	Tl 190.801†	3102.8	2774.6	1388.0 ug/L	1388.0 ppb		02:54:13
3	U 409.014†	-8034.8	-4578.5	-187.45 ug/L	-187.45 ppb		02:54:08
3	V 292.402†	179225.4	160086.3	1271.4 ug/L	1271.4 ppb		02:54:08
3	Zn 213.857†	630587.4	556685.8	6258.1 ug/L	6258.1 ppb		02:54:08
3	SiO2†	1124366.5	993253.7	81208 ug/L	81208 ppb		02:54:31

Mean Data: 1202047657|955119|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	845047.5	114.26	%	1.035				0.91%
Sc Radial	5007.7	114	%	0.7				0.61%
Y 371.029	817277.6	123.30	%	1.261				1.02%
Y RADIAL	5733.6	124.4	%	0.25				0.20%
Ag 328.068†	52236.1	347.92	ug/L	0.635	347.92	ppb	0.635	0.18%
Al 396.153Radial†	92710.1	92178	ug/L	1222.1	92178	ppb	1222.1	1.33%
As 188.979†	2445.5	1205.0	ug/L	9.21	1205.0	ppb	9.21	0.76%
B 249.677†	62412.5	1595.8	ug/L	1.72	1595.8	ppb	1.72	0.11%
Ba 233.527†	182137.2	2233.7	ug/L	3.09	2233.7	ppb	3.09	0.14%
Be 313.107†	2031106.2	840.71	ug/L	0.428	840.71	ppb	0.428	0.05%
Ca 317.933Radial†	53386.7	102830	ug/L	1366.6	102830	ppb	1366.6	1.33%
Cd 226.502†	44587.8	623.25	ug/L	6.035	623.25	ppb	6.035	0.97%
Co 228.616†	32926.5	1011.8	ug/L	11.12	1011.8	ppb	11.12	1.10%
Cr 267.716†	184103.2	2565.4	ug/L	4.33	2565.4	ppb	4.33	0.17%
Cu 324.752†	531153.5	2079.2	ug/L	5.57	2079.2	ppb	5.57	0.27%
Fe 238.204 Radial†	16609.6	183110	ug/L	2211.7	183110	ppb	2211.7	1.21%
K 766.490 Radial†	217921.6	41695	ug/L	551.0	41695	ppb	551.0	1.32%

Mg 279.077 IEC†	941.8	38883	ug/L	191.8	38883	ppb	191.8	0.49%
Mn 257.610†	3546999.1	5876.7	ug/L	9.38	5876.7	ppb	9.38	0.16%
Mo 202.031†	5548.3	544.02	ug/L	5.563	544.02	ppb	5.563	1.02%
Na 589.592 Radial†	30385.0	10027	ug/L	77.3	10027	ppb	77.3	0.77%
Ni 231.604†	44120.0	1441.5	ug/L	12.71	1441.5	ppb	12.71	0.88%
P 214.914†	14789.9	7907.0	ug/L	89.27	7907.0	ppb	89.27	1.13%
Pb 220.353†	5298.3	885.72	ug/L	9.368	885.72	ppb	9.368	1.06%
S 181.975 Axial†	3126.4	4092.9	ug/L	43.24	4092.9	ppb	43.24	1.06%
Sb 206.836†	3471.1	1463.5	ug/L	31.01	1463.5	ppb	31.01	2.12%
Se 196.026†	4453.0	3245.2	ug/L	36.66	3245.2	ppb	36.66	1.13%
Si 251.611†	983907.0	37564	ug/L	25.6	37564	ppb	25.6	0.07%
Sn 189.927†	4503.7	1081.4	ug/L	10.01	1081.4	ppb	10.01	0.93%
Sr 421.552†	311254.8	2299.6	ug/L	27.46	2299.6	ppb	27.46	1.19%
Ti 334.940†	2807878.5	5926.6	ug/L	1.63	5926.6	ppb	1.63	0.03%
Tl 190.801†	2725.7	1364.8	ug/L	21.17	1364.8	ppb	21.17	1.55%
U 409.014†	-4426.1	-181.80	ug/L	5.094	-181.80	ppb	5.094	2.80%
V 292.402†	160062.2	1271.5	ug/L	0.52	1271.5	ppb	0.52	0.04%
Zn 213.857†	555505.8	6245.2	ug/L	12.12	6245.2	ppb	12.12	0.19%
SiO2†	981450.5	80243	ug/L	1041.9	80243	ppb	1041.9	1.30%

Sequence No.: 76
Sample ID: 247327002|955119|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 95
Date Collected: 3/6/2010 02:56:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 247327002|955119|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4955.3	4955.3	113	%			02:58:36
1	Y RADIAL	5517.0	5517.0	119.7	%			02:58:36
1	Al 396.153Radial†	42328.7	37561.8	37357	ug/L	37357	ppb	02:58:36
1	Ca 317.933Radial†	10791.4	9537.0	18369	ug/L	18369	ppb	02:58:36
1	Fe 238.204 Radial†	6947.4	6142.5	67707	ug/L	67707	ppb	02:58:36
1	K 766.490 Radial†	48014.8	39972.6	7647.9	ug/L	7647.9	ppb	02:58:36
1	Mg 279.077 IEC†	310.1	274.7	11325	ug/L	11325	ppb	02:58:56
1	Na 589.592 Radial†	3112.0	3664.6	1209.3	ug/L	1209.3	ppb	02:58:36
1	Sr 421.552†	21696.0	19205.5	141.80	ug/L	141.80	ppb	02:58:36
1	Sc 361.383	833954.9	833954.9	112.76	%			02:59:54
1	Y 371.029	783270.0	783270.0	118.17	%			02:59:54
1	Ag 328.068†	-4111.0	-3844.4	4.6724	ug/L	4.6724	ppb	02:59:59
1	As 188.979†	-32.1	-1.6	35.884	ug/L	35.884	ppb	03:00:19
1	B 249.677†	734.3	1192.1	20.020	ug/L	20.020	ppb	02:59:59
1	Ba 233.527†	93892.0	83261.0	1019.7	ug/L	1019.7	ppb	02:59:59
1	Be 313.107†	-17238.0	-6466.2	2.7986	ug/L	2.7986	ppb	02:59:59
1	Cd 226.502†	459.6	590.2	1.5122	ug/L	1.5122	ppb	03:00:19
1	Co 228.616†	1069.7	1011.8	25.990	ug/L	25.990	ppb	03:00:19
1	Cr 267.716†	3509.6	3052.0	43.985	ug/L	43.985	ppb	03:00:19
1	Cu 324.752†	22706.2	12839.3	53.645	ug/L	53.645	ppb	02:59:59
1	Mn 257.610†	1630205.9	1445264.0	2394.0	ug/L	2394.0	ppb	02:59:54
1	Mo 202.031†	-28.7	-42.6	1.4172	ug/L	1.4172	ppb	03:00:19
1	Ni 231.604†	1750.1	1459.5	47.688	ug/L	47.688	ppb	03:00:19
1	P 214.914†	5556.9	4732.6	2643.0	ug/L	2643.0	ppb	03:00:19
1	Pb 220.353†	355.7	371.1	65.270	ug/L	65.270	ppb	03:00:19
1	S 181.975 Axial†	827.1	687.5	896.82	ug/L	896.82	ppb	03:00:19
1	Sb 206.836†	44.5	10.4	-5.1908	ug/L	-5.1908	ppb	03:00:19
1	Se 196.026†	-327.2	-268.1	-14.942	ug/L	-14.942	ppb	03:00:19
1	Si 251.611†	734971.4	651237.0	24868	ug/L	24868	ppb	02:59:54
1	Sn 189.927†	-75.1	-71.2	-17.590	ug/L	-17.590	ppb	03:00:19
1	Ti 334.940†	1278892.2	1135504.5	2394.3	ug/L	2394.3	ppb	02:59:54
1	Tl 190.801†	-112.7	-67.9	-1.4060	ug/L	-1.4060	ppb	03:00:19
1	U 409.014†	-5033.1	-1940.2	-75.846	ug/L	-75.846	ppb	02:59:59
1	V 292.402†	19977.8	19389.2	144.79	ug/L	144.79	ppb	02:59:59
1	Zn 213.857†	20226.4	17259.7	184.76	ug/L	184.76	ppb	02:59:59
1	SiO2†	739326.7	655095.7	53570	ug/L	53570	ppb	03:01:27
2	Sc Radial	4955.0	4955.0	113	%			02:59:01
2	Y RADIAL	5501.3	5501.3	119.4	%			02:59:01
2	Al 396.153Radial†	42517.2	37731.4	37526	ug/L	37526	ppb	02:59:01
2	Ca 317.933Radial†	10787.1	9533.9	18363	ug/L	18363	ppb	02:59:01
2	Fe 238.204 Radial†	6970.8	6163.7	67941	ug/L	67941	ppb	02:59:01
2	K 766.490 Radial†	47892.3	39867.4	7627.8	ug/L	7627.8	ppb	02:59:01
2	Mg 279.077 IEC†	311.1	275.6	11361	ug/L	11361	ppb	02:59:21
2	Na 589.592 Radial†	3107.1	3660.4	1208.0	ug/L	1208.0	ppb	02:59:01
2	Sr 421.552†	21765.8	19268.7	142.27	ug/L	142.27	ppb	02:59:01
2	Sc 361.383	838569.6	838569.6	113.39	%			03:00:25
2	Y 371.029	788424.8	788424.8	118.95	%			03:00:25
2	Ag 328.068†	-4068.3	-3786.6	5.0532	ug/L	5.0532	ppb	03:00:30
2	As 188.979†	-40.6	-9.0	32.557	ug/L	32.557	ppb	03:00:50
2	B 249.677†	654.5	1118.2	18.055	ug/L	18.055	ppb	03:00:30
2	Ba 233.527†	92237.6	81343.7	996.23	ug/L	996.23	ppb	03:00:30
2	Be 313.107†	-16949.7	-6127.8	2.9326	ug/L	2.9326	ppb	03:00:30
2	Cd 226.502†	466.9	594.4	1.5481	ug/L	1.5481	ppb	03:00:50
2	Co 228.616†	1045.6	985.3	25.154	ug/L	25.154	ppb	03:00:50
2	Cr 267.716†	3495.8	3022.7	43.578	ug/L	43.578	ppb	03:00:50
2	Cu 324.752†	22263.1	12337.7	51.704	ug/L	51.704	ppb	03:00:30
2	Mn 257.610†	1639862.4	1445824.6	2395.0	ug/L	2395.0	ppb	03:00:25
2	Mo 202.031†	-23.4	-37.7	1.8965	ug/L	1.8965	ppb	03:00:50
2	Ni 231.604†	1745.0	1446.6	47.265	ug/L	47.265	ppb	03:00:50

2	P 214.914†	5551.3	4700.5	2624.9	ug/L	2624.9	ppb	03:00:50
2	Pb 220.353†	346.4	361.2	63.657	ug/L	63.657	ppb	03:00:50
2	S 181.975 Axial†	825.9	682.4	890.08	ug/L	890.08	ppb	03:00:50
2	Sb 206.836†	64.5	27.8	2.1174	ug/L	2.1174	ppb	03:00:50
2	Se 196.026†	-326.5	-265.8	-12.976	ug/L	-12.976	ppb	03:00:50
2	Si 251.611†	738668.8	650911.0	24855	ug/L	24855	ppb	03:00:25
2	Sn 189.927†	-74.5	-70.2	-17.379	ug/L	-17.379	ppb	03:00:50
2	Ti 334.940†	1285068.4	1134710.1	2392.7	ug/L	2392.7	ppb	03:00:25
2	Tl 190.801†	-104.9	-60.4	2.1246	ug/L	2.1246	ppb	03:00:50
2	U 409.014†	-5108.4	-1982.0	-77.339	ug/L	-77.339	ppb	03:00:30
2	V 292.402†	19674.2	19023.9	141.80	ug/L	141.80	ppb	03:00:30
2	Zn 213.857†	19919.2	16890.0	180.55	ug/L	180.55	ppb	03:00:30
2	SiO2†	744327.1	655897.6	53636	ug/L	53636	ppb	03:01:33
3	Sc Radial	4962.1	4962.1	113	%			02:59:26
3	Y RADIAL	5464.4	5464.4	118.6	%			02:59:26
3	Al 396.153Radial†	42171.1	37371.1	37167	ug/L	37167	ppb	02:59:26
3	Ca 317.933Radial†	10750.9	9488.2	18275	ug/L	18275	ppb	02:59:26
3	Fe 238.204 Radial†	6965.6	6150.2	67792	ug/L	67792	ppb	02:59:26
3	K 766.490 Radial†	47815.8	39738.5	7603.1	ug/L	7603.1	ppb	02:59:26
3	Mg 279.077 IEC†	310.0	274.2	11304	ug/L	11304	ppb	02:59:46
3	Na 589.592 Radial†	3146.0	3690.9	1218.0	ug/L	1218.0	ppb	02:59:26
3	Sr 421.552†	21587.8	19083.5	140.90	ug/L	140.90	ppb	02:59:26
3	Sc 361.383	852394.5	852394.5	115.26	%			03:00:56
3	Y 371.029	799194.4	799194.4	120.57	%			03:00:56
3	Ag 328.068†	-4120.1	-3773.4	5.0625	ug/L	5.0625	ppb	03:01:01
3	As 188.979†	-36.0	-4.4	34.638	ug/L	34.638	ppb	03:01:21
3	B 249.677†	688.0	1138.0	18.594	ug/L	18.594	ppb	03:01:01
3	Ba 233.527†	92693.7	80420.1	984.94	ug/L	984.94	ppb	03:01:01
3	Be 313.107†	-17159.1	-6067.1	2.9640	ug/L	2.9640	ppb	03:01:01
3	Cd 226.502†	471.5	591.7	1.5246	ug/L	1.5246	ppb	03:01:21
3	Co 228.616†	1079.9	1000.1	25.608	ug/L	25.608	ppb	03:01:21
3	Cr 267.716†	3514.3	2988.7	43.100	ug/L	43.100	ppb	03:01:21
3	Cu 324.752†	22338.5	12084.6	50.710	ug/L	50.710	ppb	03:01:01
3	Mn 257.610†	1669929.1	1448454.8	2399.3	ug/L	2399.3	ppb	03:00:56
3	Mo 202.031†	-8.6	-24.6	3.1383	ug/L	3.1383	ppb	03:01:21
3	Ni 231.604†	1754.1	1429.5	46.705	ug/L	46.705	ppb	03:01:21
3	P 214.914†	5530.5	4603.1	2569.6	ug/L	2569.6	ppb	03:01:21
3	Pb 220.353†	337.8	348.8	61.528	ug/L	61.528	ppb	03:01:21
3	S 181.975 Axial†	805.6	653.0	851.54	ug/L	851.54	ppb	03:01:21
3	Sb 206.836†	53.9	17.7	-2.0867	ug/L	-2.0867	ppb	03:01:21
3	Se 196.026†	-329.4	-263.7	-11.982	ug/L	-11.982	ppb	03:01:21
3	Si 251.611†	754214.4	653832.9	24967	ug/L	24967	ppb	03:00:56
3	Sn 189.927†	-72.7	-67.6	-16.771	ug/L	-16.771	ppb	03:01:21
3	Ti 334.940†	1307862.6	1136105.5	2395.6	ug/L	2395.6	ppb	03:00:56
3	Tl 190.801†	-95.6	-50.9	6.7023	ug/L	6.7023	ppb	03:01:21
3	U 409.014†	-5181.4	-1972.3	-76.978	ug/L	-76.978	ppb	03:01:01
3	V 292.402†	19722.5	18784.4	139.90	ug/L	139.90	ppb	03:01:01
3	Zn 213.857†	19968.8	16648.1	177.84	ug/L	177.84	ppb	03:01:01
3	SiO2†	740492.0	641923.3	52493	ug/L	52493	ppb	03:01:38

Mean Data: 247327002|955119|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	841639.7	113.80	%	1.297				1.14%
Sc Radial	4957.5	113	%	0.1				0.08%
Y 371.029	790296.4	119.23	%	1.226				1.03%
Y RADIAL	5494.2	119.2	%	0.59				0.49%
Ag 328.068†	-3801.5	4.9294	ug/L	0.22261	4.9294	ppb	0.22261	4.52%
Al 396.153Radial†	37554.8	37350	ug/L	179.3	37350	ppb	179.3	0.48%
As 188.979†	-5.0	34.360	ug/L	1.6808	34.360	ppb	1.6808	4.89%
B 249.677†	1149.4	18.890	ug/L	1.0154	18.890	ppb	1.0154	5.38%
Ba 233.527†	81674.9	1000.3	ug/L	17.71	1000.3	ppb	17.71	1.77%
Be 313.107†	-6220.4	2.8984	ug/L	0.08786	2.8984	ppb	0.08786	3.03%
Ca 317.933Radial†	9519.7	18336	ug/L	52.7	18336	ppb	52.7	0.29%
Cd 226.502†	592.1	1.5283	ug/L	0.01824	1.5283	ppb	0.01824	1.19%
Co 228.616†	999.1	25.584	ug/L	0.4188	25.584	ppb	0.4188	1.64%
Cr 267.716†	3021.1	43.554	ug/L	0.4428	43.554	ppb	0.4428	1.02%
Cu 324.752†	12420.5	52.020	ug/L	1.4929	52.020	ppb	1.4929	2.87%
Fe 238.204 Radial†	6152.1	67814	ug/L	118.2	67814	ppb	118.2	0.17%
K 766.490 Radial†	39859.5	7626.3	ug/L	22.44	7626.3	ppb	22.44	0.29%

Mg 279.077 IEC†	274.8	11330	ug/L	29.0	11330	ppb	29.0	0.26%
Mn 257.610†	1446514.5	2396.1	ug/L	2.82	2396.1	ppb	2.82	0.12%
Mo 202.031†	-35.0	2.1507	ug/L	0.88826	2.1507	ppb	0.88826	41.30%
Na 589.592 Radial†	3672.0	1211.8	ug/L	5.45	1211.8	ppb	5.45	0.45%
Ni 231.604†	1445.2	47.219	ug/L	0.4930	47.219	ppb	0.4930	1.04%
P 214.914†	4678.8	2612.5	ug/L	38.21	2612.5	ppb	38.21	1.46%
Pb 220.353†	360.4	63.485	ug/L	1.8765	63.485	ppb	1.8765	2.96%
S 181.975 Axial†	674.3	879.48	ug/L	24.432	879.48	ppb	24.432	2.78%
Sb 206.836†	18.6	-1.7200	ug/L	3.66787	-1.7200	ppb	3.66787	213.24%
Se 196.026†	-265.9	-13.300	ug/L	1.5064	-13.300	ppb	1.5064	11.33%
Si 251.611†	651993.6	24896	ug/L	61.1	24896	ppb	61.1	0.25%
Sn 189.927†	-69.7	-17.247	ug/L	0.4249	-17.247	ppb	0.4249	2.46%
Sr 421.552†	19185.9	141.66	ug/L	0.695	141.66	ppb	0.695	0.49%
Ti 334.940†	1135440.0	2394.2	ug/L	1.47	2394.2	ppb	1.47	0.06%
Tl 190.801†	-59.7	2.4736	ug/L	4.06540	2.4736	ppb	4.06540	164.35%
U 409.014†	-1964.8	-76.721	ug/L	0.7793	-76.721	ppb	0.7793	1.02%
V 292.402†	19065.9	142.16	ug/L	2.467	142.16	ppb	2.467	1.74%
Zn 213.857†	16932.6	181.05	ug/L	3.488	181.05	ppb	3.488	1.93%
SiO2†	650972.2	53233	ug/L	641.7	53233	ppb	641.7	1.21%

Sequence No.: 77 **Autosampler Location: 96**
Sample ID: 1202047653|955119|1 **Date Collected: 3/6/2010 03:03:50**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202047653|955119|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4988.8	4988.8	114	%			03:06:03
1	Y RADIAL	5588.5	5588.5	121.3	%			03:06:03
1	Al 396.153Radial†	41597.0	36666.9	36467	ug/L	36467	ppb	03:05:43
1	Ca 317.933Radial†	13674.1	12007.7	23128	ug/L	23128	ppb	03:05:43
1	Fe 238.204 Radial†	7587.2	6663.9	73455	ug/L	73455	ppb	03:06:03
1	K 766.490 Radial†	49389.5	40896.3	7823.1	ug/L	7823.1	ppb	03:05:43
1	Mg 279.077 IEC†	327.6	288.2	11878	ug/L	11878	ppb	03:06:03
1	Na 589.592 Radial†	3394.2	3894.3	1285.1	ug/L	1285.1	ppb	03:05:43
1	Sr 421.552†	23746.0	20879.2	154.14	ug/L	154.14	ppb	03:05:43
1	Sc 361.383	843074.6	843074.6	114.00	%			03:07:01
1	Y 371.029	801828.8	801828.8	120.97	%			03:07:01
1	Ag 328.068†	-4576.9	-4213.6	4.8834	ug/L	4.8834	ppb	03:07:06
1	As 188.979†	-62.8	-28.2	43.311	ug/L	43.311	ppb	03:07:26
1	B 249.677†	551.6	1024.8	14.706	ug/L	14.706	ppb	03:07:06
1	Ba 233.527†	100254.2	87941.4	1077.1	ug/L	1077.1	ppb	03:07:06
1	Be 313.107†	-31048.7	-18415.9	2.7023	ug/L	2.7023	ppb	03:07:06
1	Cd 226.502†	556.3	670.7	2.0778	ug/L	2.0778	ppb	03:07:26
1	Co 228.616†	1281.1	1187.0	26.988	ug/L	26.988	ppb	03:07:26
1	Cr 267.716†	4556.4	3936.6	56.445	ug/L	56.445	ppb	03:07:26
1	Cu 324.752†	30766.4	19692.0	80.646	ug/L	80.646	ppb	03:07:06
1	Mn 257.610†	1726673.5	1514249.3	2508.5	ug/L	2508.5	ppb	03:07:01
1	Mo 202.031†	-11.7	-27.4	3.3649	ug/L	3.3649	ppb	03:07:26
1	Ni 231.604†	1856.8	1536.4	50.196	ug/L	50.196	ppb	03:07:26
1	P 214.914†	6545.1	5546.2	3096.6	ug/L	3096.6	ppb	03:07:26
1	Pb 220.353†	446.4	447.3	77.247	ug/L	77.247	ppb	03:07:26
1	S 181.975 Axial†	968.0	803.2	1049.1	ug/L	1049.1	ppb	03:07:26
1	Sb 206.836†	67.7	30.3	-3.7740	ug/L	-3.7740	ppb	03:07:26
1	Se 196.026†	-364.4	-297.6	-20.860	ug/L	-20.860	ppb	03:07:26
1	Si 251.611†	513073.0	449532.2	17165	ug/L	17165	ppb	03:07:01
1	Sn 189.927†	-101.9	-93.9	-22.501	ug/L	-22.501	ppb	03:07:26
1	Ti 334.940†	2429713.1	2132762.6	4496.4	ug/L	4496.4	ppb	03:07:01
1	Tl 190.801†	-156.1	-104.9	-1.0784	ug/L	-1.0784	ppb	03:07:26
1	U 409.014†	-4937.5	-1808.0	-71.895	ug/L	-71.895	ppb	03:07:06
1	V 292.402†	25347.0	23907.5	178.39	ug/L	178.39	ppb	03:07:06
1	Zn 213.857†	22619.9	19165.2	205.41	ug/L	205.41	ppb	03:07:06
1	SiO2†	514104.2	450433.1	36834	ug/L	36834	ppb	03:08:34
2	Sc Radial	4976.8	4976.8	113	%			03:06:28
2	Y RADIAL	5563.8	5563.8	120.7	%			03:06:28
2	Al 396.153Radial†	40569.0	35848.8	35653	ug/L	35653	ppb	03:06:08
2	Ca 317.933Radial†	13409.4	11803.4	22734	ug/L	22734	ppb	03:06:08
2	Fe 238.204 Radial†	7623.6	6712.0	73985	ug/L	73985	ppb	03:06:28
2	K 766.490 Radial†	48128.2	39889.0	7630.4	ug/L	7630.4	ppb	03:06:08
2	Mg 279.077 IEC†	326.3	287.8	11862	ug/L	11862	ppb	03:06:28
2	Na 589.592 Radial†	3269.5	3791.5	1251.2	ug/L	1251.2	ppb	03:06:08
2	Sr 421.552†	23050.9	20316.8	149.99	ug/L	149.99	ppb	03:06:08
2	Sc 361.383	836598.7	836598.7	113.12	%			03:07:32
2	Y 371.029	796295.3	796295.3	120.14	%			03:07:32
2	Ag 328.068†	-4644.3	-4304.2	4.6188	ug/L	4.6188	ppb	03:07:37
2	As 188.979†	-58.8	-25.1	44.878	ug/L	44.878	ppb	03:07:57
2	B 249.677†	552.7	1029.6	14.743	ug/L	14.743	ppb	03:07:37
2	Ba 233.527†	101720.3	89918.2	1101.3	ug/L	1101.3	ppb	03:07:37
2	Be 313.107†	-31350.3	-18893.3	2.5143	ug/L	2.5143	ppb	03:07:37
2	Cd 226.502†	582.7	697.8	2.4122	ug/L	2.4122	ppb	03:07:57
2	Co 228.616†	1281.8	1196.3	27.275	ug/L	27.275	ppb	03:07:57
2	Cr 267.716†	4531.7	3945.7	56.589	ug/L	56.589	ppb	03:07:57
2	Cu 324.752†	31083.0	20180.8	82.581	ug/L	82.581	ppb	03:07:37
2	Mn 257.610†	1714576.7	1515280.2	2510.3	ug/L	2510.3	ppb	03:07:32
2	Mo 202.031†	-14.4	-29.8	3.1734	ug/L	3.1734	ppb	03:07:57
2	Ni 231.604†	1844.7	1538.3	50.259	ug/L	50.259	ppb	03:07:57

2	P 214.914†	6505.1	5555.3	3100.8	ug/L	3100.8 ppb	03:07:57
2	Pb 220.353†	459.5	461.9	79.416	ug/L	79.416 ppb	03:07:57
2	S 181.975 Axial†	965.1	807.2	1054.5	ug/L	1054.5 ppb	03:07:57
2	Sb 206.836†	63.3	26.9	-5.1126	ug/L	-5.1126 ppb	03:07:57
2	Se 196.026†	-359.9	-296.1	-18.802	ug/L	-18.802 ppb	03:07:57
2	Si 251.611†	509916.4	450225.5	17192	ug/L	17192 ppb	03:07:32
2	Sn 189.927†	-83.0	-77.9	-18.779	ug/L	-18.779 ppb	03:07:57
2	Ti 334.940†	2412576.4	2134112.1	4499.2	ug/L	4499.2 ppb	03:07:32
2	Tl 190.801†	-159.9	-109.2	-3.1404	ug/L	-3.1404 ppb	03:07:57
2	U 409.014†	-5013.0	-1908.2	-75.470	ug/L	-75.470 ppb	03:07:37
2	V 292.402†	25683.5	24377.1	182.10	ug/L	182.10 ppb	03:07:37
2	Zn 213.857†	22932.3	19595.1	210.19	ug/L	210.19 ppb	03:07:37
2	SiO2†	521639.8	460585.6	37664	ug/L	37664 ppb	03:08:39
3	Sc Radial	4973.1	4973.1	113	%		03:06:53
3	Y RADIAL	5565.6	5565.6	120.8	%		03:06:53
3	Al 396.153Radial†	40933.2	36196.9	35999	ug/L	35999 ppb	03:06:33
3	Ca 317.933Radial†	13417.3	11819.2	22765	ug/L	22765 ppb	03:06:33
3	Fe 238.204 Radial†	7606.3	6701.7	73872	ug/L	73872 ppb	03:06:53
3	K 766.490 Radial†	48528.7	40274.0	7704.1	ug/L	7704.1 ppb	03:06:33
3	Mg 279.077 IEC†	329.7	291.0	11994	ug/L	11994 ppb	03:06:53
3	Na 589.592 Radial†	3242.6	3769.9	1244.1	ug/L	1244.1 ppb	03:06:33
3	Sr 421.552†	23283.5	20537.1	151.61	ug/L	151.61 ppb	03:06:33
3	Sc 361.383	842610.9	842610.9	113.93	%		03:08:03
3	Y 371.029	801835.9	801835.9	120.97	%		03:08:03
3	Ag 328.068†	-4605.3	-4240.7	4.9024	ug/L	4.9024 ppb	03:08:08
3	As 188.979†	-61.7	-27.3	43.847	ug/L	43.847 ppb	03:08:28
3	B 249.677†	547.6	1021.6	14.554	ug/L	14.554 ppb	03:08:08
3	Ba 233.527†	100525.1	88227.5	1080.6	ug/L	1080.6 ppb	03:08:08
3	Be 313.107†	-31063.7	-18444.0	2.6916	ug/L	2.6916 ppb	03:08:08
3	Cd 226.502†	574.2	686.7	2.2637	ug/L	2.2637 ppb	03:08:28
3	Co 228.616†	1270.1	1177.9	26.698	ug/L	26.698 ppb	03:08:28
3	Cr 267.716†	4547.1	3930.6	56.374	ug/L	56.374 ppb	03:08:28
3	Cu 324.752†	30806.3	19741.9	80.866	ug/L	80.866 ppb	03:08:08
3	Mn 257.610†	1724256.3	1512961.1	2506.4	ug/L	2506.4 ppb	03:08:03
3	Mo 202.031†	-24.3	-38.5	2.3400	ug/L	2.3400 ppb	03:08:28
3	Ni 231.604†	1839.7	1522.3	49.737	ug/L	49.737 ppb	03:08:28
3	P 214.914†	6493.9	5504.4	3072.3	ug/L	3072.3 ppb	03:08:28
3	Pb 220.353†	442.4	444.0	76.546	ug/L	76.546 ppb	03:08:28
3	S 181.975 Axial†	959.7	796.4	1040.2	ug/L	1040.2 ppb	03:08:28
3	Sb 206.836†	67.7	30.4	-3.7799	ug/L	-3.7799 ppb	03:08:28
3	Se 196.026†	-361.8	-295.4	-18.600	ug/L	-18.600 ppb	03:08:28
3	Si 251.611†	512948.2	449670.3	17171	ug/L	17171 ppb	03:08:03
3	Sn 189.927†	-109.9	-101.0	-24.278	ug/L	-24.278 ppb	03:08:28
3	Ti 334.940†	2428564.3	2132927.2	4496.7	ug/L	4496.7 ppb	03:08:03
3	Tl 190.801†	-160.6	-108.9	-2.9938	ug/L	-2.9938 ppb	03:08:28
3	U 409.014†	-5117.6	-1968.5	-77.568	ug/L	-77.568 ppb	03:08:08
3	V 292.402†	25390.3	23957.8	178.71	ug/L	178.71 ppb	03:08:08
3	Zn 213.857†	22754.8	19294.6	206.81	ug/L	206.81 ppb	03:08:08
3	SiO2†	514963.4	451435.4	36916	ug/L	36916 ppb	03:08:45

Mean Data: 1202047653|955119|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	840761.4	113.68	%	0.488				0.43%
Sc Radial	4979.6	114	%	0.2				0.16%
Y 371.029	799986.7	120.69	%	0.482				0.40%
Y RADIAL	5572.7	120.9	%	0.30				0.25%
Ag 328.068†	-4252.9	4.8015	ug/L	0.15852	4.8015	ppb	0.15852	3.30%
Al 396.153Radial†	36237.5	36040	ug/L	408.3	36040	ppb	408.3	1.13%
As 188.979†	-26.9	44.012	ug/L	0.7964	44.012	ppb	0.7964	1.81%
B 249.677†	1025.3	14.668	ug/L	0.1000	14.668	ppb	0.1000	0.68%
Ba 233.527†	88695.7	1086.3	ug/L	13.06	1086.3	ppb	13.06	1.20%
Be 313.107†	-18584.4	2.6361	ug/L	0.10561	2.6361	ppb	0.10561	4.01%
Ca 317.933Radial†	11876.8	22876	ug/L	219.0	22876	ppb	219.0	0.96%
Cd 226.502†	685.0	2.2512	ug/L	0.16753	2.2512	ppb	0.16753	7.44%
Co 228.616†	1187.1	26.987	ug/L	0.2885	26.987	ppb	0.2885	1.07%
Cr 267.716†	3937.6	56.469	ug/L	0.1096	56.469	ppb	0.1096	0.19%
Cu 324.752†	19871.6	81.364	ug/L	1.0592	81.364	ppb	1.0592	1.30%
Fe 238.204 Radial†	6692.5	73770	ug/L	279.2	73770	ppb	279.2	0.38%
K 766.490 Radial†	40353.1	7719.2	ug/L	97.27	7719.2	ppb	97.27	1.26%

Mg 279.077 IEC†	289.0	11911	ug/L	72.0	11911	ppb	72.0	0.60%
Mn 257.610†	1514163.5	2508.4	ug/L	1.93	2508.4	ppb	1.93	0.08%
Mo 202.031†	-31.9	2.9594	ug/L	0.54489	2.9594	ppb	0.54489	18.41%
Na 589.592 Radial†	3818.6	1260.1	ug/L	21.93	1260.1	ppb	21.93	1.74%
Ni 231.604†	1532.3	50.064	ug/L	0.2852	50.064	ppb	0.2852	0.57%
P 214.914†	5535.3	3089.9	ug/L	15.40	3089.9	ppb	15.40	0.50%
Pb 220.353†	451.0	77.736	ug/L	1.4961	77.736	ppb	1.4961	1.92%
S 181.975 Axial†	802.2	1047.9	ug/L	7.21	1047.9	ppb	7.21	0.69%
Sb 206.836†	29.2	-4.2222	ug/L	0.77113	-4.2222	ppb	0.77113	18.26%
Se 196.026†	-296.4	-19.421	ug/L	1.2505	-19.421	ppb	1.2505	6.44%
Si 251.611†	449809.3	17176	ug/L	14.0	17176	ppb	14.0	0.08%
Sn 189.927†	-90.9	-21.853	ug/L	2.8064	-21.853	ppb	2.8064	12.84%
Sr 421.552†	20577.7	151.91	ug/L	2.093	151.91	ppb	2.093	1.38%
Ti 334.940†	2133267.3	4497.4	ug/L	1.54	4497.4	ppb	1.54	0.03%
Tl 190.801†	-107.7	-2.4042	ug/L	1.15050	-2.4042	ppb	1.15050	47.85%
U 409.014†	-1894.9	-74.977	ug/L	2.8682	-74.977	ppb	2.8682	3.83%
V 292.402†	24080.8	179.73	ug/L	2.058	179.73	ppb	2.058	1.15%
Zn 213.857†	19351.6	207.47	ug/L	2.457	207.47	ppb	2.457	1.18%
SiO2†	454151.4	37138	ug/L	457.5	37138	ppb	457.5	1.23%

Sequence No.: 78
Sample ID: 1202047655|955119|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 97
Date Collected: 3/6/2010 03:10:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202047655|955119|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4884.6	4884.6	111	%			03:13:10
1	Y RADIAL	5328.0	5328.0	115.6	%			03:13:10
1	Al 396.153Radial†	50714.3	45635.4	45364	ug/L	45364	ppb	03:12:50
1	Ca 317.933Radial†	12629.5	11326.2	21815	ug/L	21815	ppb	03:12:50
1	Fe 238.204 Radial†	5848.6	5244.8	57826	ug/L	57826	ppb	03:13:10
1	K 766.490 Radial†	66322.7	57030.2	10911	ug/L	10911	ppb	03:12:50
1	Mg 279.077 IEC†	404.4	363.4	15018	ug/L	15018	ppb	03:13:10
1	Na 589.592 Radial†	18565.1	17582.5	5802.3	ug/L	5802.3	ppb	03:12:50
1	Sr 421.552†	88607.8	79575.5	587.96	ug/L	587.96	ppb	03:12:50
1	Sc 361.383	847530.7	847530.7	114.60	%			03:14:09
1	Y 371.029	783633.4	783633.4	118.23	%			03:14:09
1	Ag 328.068†	102115.7	88908.6	494.89	ug/L	494.89	ppb	03:14:09
1	As 188.979†	1177.4	1054.3	516.45	ug/L	516.45	ppb	03:14:29
1	B 249.677†	21685.4	19463.9	497.04	ug/L	497.04	ppb	03:14:09
1	Ba 233.527†	131528.6	114769.3	1405.3	ug/L	1405.3	ppb	03:14:09
1	Be 313.107†	1389246.4	1221091.9	503.79	ug/L	503.79	ppb	03:14:09
1	Cd 226.502†	37171.2	32618.7	463.58	ug/L	463.58	ppb	03:14:29
1	Co 228.616†	18228.8	15969.8	492.23	ug/L	492.23	ppb	03:14:29
1	Cr 267.716†	43666.0	38043.0	530.79	ug/L	530.79	ppb	03:14:09
1	Cu 324.752†	179720.5	149529.0	585.39	ug/L	585.39	ppb	03:14:09
1	Mn 257.610†	1733459.5	1512206.9	2503.5	ug/L	2503.5	ppb	03:14:09
1	Mo 202.031†	5623.9	4890.3	470.65	ug/L	470.65	ppb	03:14:29
1	Ni 231.604†	18458.1	16014.3	523.15	ug/L	523.15	ppb	03:14:29
1	P 214.914†	5747.6	4820.1	2601.5	ug/L	2601.5	ppb	03:14:29
1	Pb 220.353†	3589.7	3188.1	534.89	ug/L	534.89	ppb	03:14:29
1	S 181.975 Axial†	5228.2	4516.2	5928.8	ug/L	5928.8	ppb	03:14:29
1	Sb 206.836†	1278.9	1086.9	463.28	ug/L	463.28	ppb	03:14:29
1	Se 196.026†	636.2	577.3	501.41	ug/L	501.41	ppb	03:14:29
1	Si 251.611†	762664.4	664961.8	25386	ug/L	25386	ppb	03:14:09
1	Sn 189.927†	2210.1	1924.0	459.22	ug/L	459.22	ppb	03:14:29
1	Ti 334.940†	1540748.5	1345836.3	2837.3	ug/L	2837.3	ppb	03:14:09
1	Tl 190.801†	886.3	805.5	414.71	ug/L	414.71	ppb	03:14:29
1	U 409.014†	12483.7	13416.7	462.68	ug/L	462.68	ppb	03:14:09
1	V 292.402†	86518.6	77169.6	621.69	ug/L	621.69	ppb	03:14:09
1	Zn 213.857†	67162.3	57929.1	642.60	ug/L	642.60	ppb	03:14:09
1	SiO2†	757060.2	660067.9	53964	ug/L	53964	ppb	03:15:29
2	Sc Radial	4885.2	4885.2	111	%			03:13:35
2	Y RADIAL	5330.0	5330.0	115.7	%			03:13:35
2	Al 396.153Radial†	51126.8	46000.4	45726	ug/L	45726	ppb	03:13:15
2	Ca 317.933Radial†	12667.1	11358.6	21878	ug/L	21878	ppb	03:13:15
2	Fe 238.204 Radial†	5824.8	5222.8	57584	ug/L	57584	ppb	03:13:35
2	K 766.490 Radial†	66807.6	57458.4	10993	ug/L	10993	ppb	03:13:15
2	Mg 279.077 IEC†	406.4	365.1	15091	ug/L	15091	ppb	03:13:35
2	Na 589.592 Radial†	18628.7	17637.7	5820.5	ug/L	5820.5	ppb	03:13:15
2	Sr 421.552†	89484.2	80353.0	593.70	ug/L	593.70	ppb	03:13:15
2	Sc 361.383	839723.9	839723.9	113.54	%			03:14:36
2	Y 371.029	776004.8	776004.8	117.08	%			03:14:36
2	Ag 328.068†	101096.4	88839.3	494.44	ug/L	494.44	ppb	03:14:36
2	As 188.979†	1182.4	1068.2	522.70	ug/L	522.70	ppb	03:14:56
2	B 249.677†	21515.0	19489.7	497.74	ug/L	497.74	ppb	03:14:36
2	Ba 233.527†	130721.5	115125.5	1409.7	ug/L	1409.7	ppb	03:14:36
2	Be 313.107†	1378002.5	1222459.5	504.35	ug/L	504.35	ppb	03:14:36
2	Cd 226.502†	37137.3	32890.4	467.52	ug/L	467.52	ppb	03:14:56
2	Co 228.616†	18232.0	16120.5	496.95	ug/L	496.95	ppb	03:14:56
2	Cr 267.716†	43359.0	38126.8	531.96	ug/L	531.96	ppb	03:14:36
2	Cu 324.752†	176998.0	148589.3	581.72	ug/L	581.72	ppb	03:14:36
2	Mn 257.610†	1719821.5	1514258.4	2506.8	ug/L	2506.8	ppb	03:14:36
2	Mo 202.031†	5652.2	4960.9	477.36	ug/L	477.36	ppb	03:14:56
2	Ni 231.604†	18455.1	16161.4	527.95	ug/L	527.95	ppb	03:14:56

2	P 214.914†	5730.1	4851.3	2620.4	ug/L	2620.4 ppb	03:14:56
2	Pb 220.353†	3569.2	3199.2	536.84	ug/L	536.84 ppb	03:14:56
2	S 181.975 Axial†	5258.4	4585.2	6019.5	ug/L	6019.5 ppb	03:14:56
2	Sb 206.836†	1287.6	1104.9	471.11	ug/L	471.11 ppb	03:14:56
2	Se 196.026†	653.6	597.8	513.91	ug/L	513.91 ppb	03:14:56
2	Si 251.611†	755365.7	664720.9	25377	ug/L	25377 ppb	03:14:36
2	Sn 189.927†	2224.7	1954.8	466.60	ug/L	466.60 ppb	03:14:56
2	Ti 334.940†	1525828.7	1345195.5	2836.0	ug/L	2836.0 ppb	03:14:36
2	Tl 190.801†	898.0	823.0	423.00	ug/L	423.00 ppb	03:14:56
2	U 409.014†	12119.3	13197.0	455.01	ug/L	455.01 ppb	03:14:36
2	V 292.402†	85650.5	77106.9	621.30	ug/L	621.30 ppb	03:14:36
2	Zn 213.857†	66492.5	57884.0	642.10	ug/L	642.10 ppb	03:14:36
2	SiO2†	752928.4	662570.7	54168	ug/L	54168 ppb	03:15:35
3	Sc Radial	4867.6	4867.6	111	%		03:14:00
3	Y RADIAL	5302.3	5302.3	115.1	%		03:14:00
3	Al 396.153Radial†	50172.5	45306.3	45036	ug/L	45036 ppb	03:13:40
3	Ca 317.933Radial†	12479.8	11230.9	21632	ug/L	21632 ppb	03:13:40
3	Fe 238.204 Radial†	5785.0	5205.8	57397	ug/L	57397 ppb	03:14:00
3	K 766.490 Radial†	65624.7	56609.2	10831	ug/L	10831 ppb	03:13:40
3	Mg 279.077 IEC†	403.4	363.7	15033	ug/L	15033 ppb	03:14:00
3	Na 589.592 Radial†	18123.9	17243.2	5690.3	ug/L	5690.3 ppb	03:13:40
3	Sr 421.552†	87351.7	78721.6	581.65	ug/L	581.65 ppb	03:13:40
3	Sc 361.383	835874.9	835874.9	113.02	%		03:15:03
3	Y 371.029	772753.4	772753.4	116.59	%		03:15:03
3	Ag 328.068†	100419.0	88649.9	493.36	ug/L	493.36 ppb	03:15:03
3	As 188.979†	1182.4	1073.1	524.78	ug/L	524.78 ppb	03:15:23
3	B 249.677†	21362.7	19442.3	496.54	ug/L	496.54 ppb	03:15:03
3	Ba 233.527†	129698.5	114750.5	1405.1	ug/L	1405.1 ppb	03:15:03
3	Be 313.107†	1367919.4	1219126.7	502.97	ug/L	502.97 ppb	03:15:03
3	Cd 226.502†	36970.3	32893.1	467.58	ug/L	467.58 ppb	03:15:23
3	Co 228.616†	18150.6	16122.4	497.03	ug/L	497.03 ppb	03:15:23
3	Cr 267.716†	42993.2	37979.1	529.89	ug/L	529.89 ppb	03:15:03
3	Cu 324.752†	175723.7	148179.7	580.11	ug/L	580.11 ppb	03:15:03
3	Mn 257.610†	1706963.8	1509857.0	2499.6	ug/L	2499.6 ppb	03:15:03
3	Mo 202.031†	5614.0	4950.0	476.30	ug/L	476.30 ppb	03:15:23
3	Ni 231.604†	18374.3	16164.8	528.06	ug/L	528.06 ppb	03:15:23
3	P 214.914†	5736.1	4879.8	2637.0	ug/L	2637.0 ppb	03:15:23
3	Pb 220.353†	3552.4	3198.8	536.62	ug/L	536.62 ppb	03:15:23
3	S 181.975 Axial†	5218.5	4571.3	6001.3	ug/L	6001.3 ppb	03:15:23
3	Sb 206.836†	1250.2	1077.1	459.51	ug/L	459.51 ppb	03:15:23
3	Se 196.026†	639.2	587.7	507.03	ug/L	507.03 ppb	03:15:23
3	Si 251.611†	749572.9	662658.9	25298	ug/L	25298 ppb	03:15:03
3	Sn 189.927†	2228.9	1967.5	469.59	ug/L	469.59 ppb	03:15:23
3	Ti 334.940†	1515037.7	1341835.9	2828.9	ug/L	2828.9 ppb	03:15:03
3	Tl 190.801†	894.3	823.3	423.06	ug/L	423.06 ppb	03:15:23
3	U 409.014†	12148.9	13272.4	457.67	ug/L	457.67 ppb	03:15:03
3	V 292.402†	85022.5	76898.7	619.64	ug/L	619.64 ppb	03:15:03
3	Zn 213.857†	66017.0	57733.0	640.42	ug/L	640.42 ppb	03:15:03
3	SiO2†	744239.7	657936.6	53790	ug/L	53790 ppb	03:15:40

Mean Data: 1202047655|955119|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	841043.2	113.72	%	0.803				0.71%
Sc Radial	4879.1	111	%	0.2				0.20%
Y 371.029	777463.9	117.30	%	0.843				0.72%
Y RADIAL	5320.1	115.4	%	0.34				0.29%
Ag 328.068†	88799.3	494.23	ug/L	0.787	494.23	ppb	0.787	0.16%
Al 396.153Radial†	45647.3	45375	ug/L	345.3	45375	ppb	345.3	0.76%
As 188.979†	1065.2	521.31	ug/L	4.338	521.31	ppb	4.338	0.83%
B 249.677†	19465.3	497.11	ug/L	0.606	497.11	ppb	0.606	0.12%
Ba 233.527†	114881.8	1406.7	ug/L	2.58	1406.7	ppb	2.58	0.18%
Be 313.107†	1220892.7	503.70	ug/L	0.691	503.70	ppb	0.691	0.14%
Ca 317.933Radial†	11305.2	21775	ug/L	127.8	21775	ppb	127.8	0.59%
Cd 226.502†	32800.7	466.23	ug/L	2.289	466.23	ppb	2.289	0.49%
Co 228.616†	16070.9	495.41	ug/L	2.746	495.41	ppb	2.746	0.55%
Cr 267.716†	38049.6	530.88	ug/L	1.034	530.88	ppb	1.034	0.19%
Cu 324.752†	148766.0	582.41	ug/L	2.705	582.41	ppb	2.705	0.46%
Fe 238.204 Radial†	5224.5	57602	ug/L	215.3	57602	ppb	215.3	0.37%
K 766.490 Radial†	57032.6	10912	ug/L	81.3	10912	ppb	81.3	0.74%

Mg 279.077 IEC†	364.1	15047	ug/L	38.5	15047	ppb	38.5	0.26%
Mn 257.610†	1512107.5	2503.3	ug/L	3.65	2503.3	ppb	3.65	0.15%
Mo 202.031†	4933.7	474.77	ug/L	3.605	474.77	ppb	3.605	0.76%
Na 589.592 Radial†	17487.8	5771.0	ug/L	70.49	5771.0	ppb	70.49	1.22%
Ni 231.604†	16113.5	526.39	ug/L	2.807	526.39	ppb	2.807	0.53%
P 214.914†	4850.4	2619.6	ug/L	17.74	2619.6	ppb	17.74	0.68%
Pb 220.353†	3195.4	536.12	ug/L	1.070	536.12	ppb	1.070	0.20%
S 181.975 Axial†	4557.5	5983.2	ug/L	47.98	5983.2	ppb	47.98	0.80%
Sb 206.836†	1089.6	464.63	ug/L	5.916	464.63	ppb	5.916	1.27%
Se 196.026†	587.6	507.45	ug/L	6.265	507.45	ppb	6.265	1.23%
Si 251.611†	664113.9	25353	ug/L	48.4	25353	ppb	48.4	0.19%
Sn 189.927†	1948.7	465.14	ug/L	5.337	465.14	ppb	5.337	1.15%
Sr 421.552†	79550.0	587.77	ug/L	6.030	587.77	ppb	6.030	1.03%
Ti 334.940†	1344289.2	2834.0	ug/L	4.54	2834.0	ppb	4.54	0.16%
Tl 190.801†	817.3	420.26	ug/L	4.806	420.26	ppb	4.806	1.14%
U 409.014†	13295.4	458.45	ug/L	3.897	458.45	ppb	3.897	0.85%
V 292.402†	77058.4	620.88	ug/L	1.091	620.88	ppb	1.091	0.18%
Zn 213.857†	57848.7	641.70	ug/L	1.141	641.70	ppb	1.141	0.18%
SiO2†	660191.7	53974	ug/L	189.7	53974	ppb	189.7	0.35%

Sequence No.: 79
Sample ID: 1202047656|955119|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 98
Date Collected: 3/6/2010 03:17:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202047656|955119|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4924.7	4924.7	112	%			03:20:06
1	Y RADIAL	5429.0	5429.0	117.8	%			03:20:06
1	Al 396.153Radial†	65420.6	58364.0	58023	ug/L	58023	ppb	03:19:46
1	Ca 317.933Radial†	15419.6	13719.0	26424	ug/L	26424	ppb	03:19:46
1	Fe 238.204 Radial†	6677.3	5940.1	65491	ug/L	65491	ppb	03:20:06
1	K 766.490 Radial†	72725.7	62248.3	11909	ug/L	11909	ppb	03:19:46
1	Mg 279.077 IEC†	468.7	417.6	17261	ug/L	17261	ppb	03:20:06
1	Na 589.592 Radial†	20538.0	19204.0	6337.4	ug/L	6337.4	ppb	03:19:46
1	Sr 421.552†	97560.6	86901.9	642.07	ug/L	642.07	ppb	03:19:46
1	Sc 361.383	842415.1	842415.1	113.91	%			03:21:05
1	Y 371.029	791413.7	791413.7	119.40	%			03:21:05
1	Ag 328.068†	99828.5	87441.8	489.91	ug/L	489.91	ppb	03:21:05
1	As 188.979†	1172.1	1055.9	520.09	ug/L	520.09	ppb	03:21:25
1	B 249.677†	21622.8	19523.9	497.36	ug/L	497.36	ppb	03:21:05
1	Ba 233.527†	173607.3	152407.6	1865.4	ug/L	1865.4	ppb	03:21:05
1	Be 313.107†	1372501.5	1213752.9	501.10	ug/L	501.10	ppb	03:21:05
1	Cd 226.502†	36765.9	32459.8	460.51	ug/L	460.51	ppb	03:21:25
1	Co 228.616†	18212.2	16051.8	494.63	ug/L	494.63	ppb	03:21:25
1	Cr 267.716†	44018.7	38584.0	538.49	ug/L	538.49	ppb	03:21:05
1	Cu 324.752†	181529.6	152069.6	595.71	ug/L	595.71	ppb	03:21:05
1	Mn 257.610†	2036782.7	1787682.8	2959.3	ug/L	2959.3	ppb	03:21:05
1	Mo 202.031†	5626.8	4922.7	474.39	ug/L	474.39	ppb	03:21:25
1	Ni 231.604†	18800.2	16412.4	536.16	ug/L	536.16	ppb	03:21:25
1	P 214.914†	8301.8	7092.9	3892.4	ug/L	3892.4	ppb	03:21:25
1	Pb 220.353†	3516.4	3142.7	529.92	ug/L	529.92	ppb	03:21:25
1	S 181.975 Axial†	5088.2	4421.0	5801.3	ug/L	5801.3	ppb	03:21:25
1	Sb 206.836†	1264.7	1081.2	460.20	ug/L	460.20	ppb	03:21:25
1	Se 196.026†	607.7	555.6	506.05	ug/L	506.05	ppb	03:21:25
1	Si 251.611†	841446.9	738167.1	28181	ug/L	28181	ppb	03:21:05
1	Sn 189.927†	2211.0	1936.5	462.60	ug/L	462.60	ppb	03:21:25
1	Ti 334.940†	1602873.1	1408540.4	2969.9	ug/L	2969.9	ppb	03:21:05
1	Tl 190.801†	914.8	835.2	432.05	ug/L	432.05	ppb	03:21:25
1	U 409.014†	11279.2	12425.4	427.03	ug/L	427.03	ppb	03:21:05
1	V 292.402†	87710.6	78674.6	632.65	ug/L	632.65	ppb	03:21:05
1	Zn 213.857†	69282.8	60146.6	666.44	ug/L	666.44	ppb	03:21:05
1	SiO2†	833899.0	731537.0	59808	ug/L	59808	ppb	03:22:26
2	Sc Radial	4963.7	4963.7	113	%			03:20:31
2	Y RADIAL	5476.8	5476.8	118.8	%			03:20:31
2	Al 396.153Radial†	64784.6	57344.0	57008	ug/L	57008	ppb	03:20:11
2	Ca 317.933Radial†	15271.1	13479.8	25963	ug/L	25963	ppb	03:20:11
2	Fe 238.204 Radial†	6623.6	5845.9	64453	ug/L	64453	ppb	03:20:31
2	K 766.490 Radial†	72071.0	61160.6	11701	ug/L	11701	ppb	03:20:11
2	Mg 279.077 IEC†	458.6	405.4	16756	ug/L	16756	ppb	03:20:31
2	Na 589.592 Radial†	20277.6	18830.2	6214.0	ug/L	6214.0	ppb	03:20:11
2	Sr 421.552†	96457.2	85243.7	629.82	ug/L	629.82	ppb	03:20:11
2	Sc 361.383	838759.6	838759.6	113.41	%			03:21:32
2	Y 371.029	785892.3	785892.3	118.57	%			03:21:32
2	Ag 328.068†	99020.9	87111.6	487.77	ug/L	487.77	ppb	03:21:32
2	As 188.979†	1170.9	1059.3	521.41	ug/L	521.41	ppb	03:21:52
2	B 249.677†	21420.5	19428.2	495.03	ug/L	495.03	ppb	03:21:32
2	Ba 233.527†	173268.4	152773.0	1869.9	ug/L	1869.9	ppb	03:21:32
2	Be 313.107†	1362267.5	1209980.6	499.57	ug/L	499.57	ppb	03:21:32
2	Cd 226.502†	36575.2	32432.3	460.22	ug/L	460.22	ppb	03:21:52
2	Co 228.616†	18136.9	16055.1	494.75	ug/L	494.75	ppb	03:21:52
2	Cr 267.716†	43843.7	38598.1	538.67	ug/L	538.67	ppb	03:21:32
2	Cu 324.752†	180479.9	151838.6	594.76	ug/L	594.76	ppb	03:21:32
2	Mn 257.610†	2030358.4	1789811.2	2962.7	ug/L	2962.7	ppb	03:21:32
2	Mo 202.031†	5608.2	4927.8	474.79	ug/L	474.79	ppb	03:21:52
2	Ni 231.604†	18693.5	16390.3	535.44	ug/L	535.44	ppb	03:21:52

2	P 214.914†	8273.9	7100.1	3897.3	ug/L	3897.3	ppb	03:21:52
2	Pb 220.353†	3527.6	3166.1	533.61	ug/L	533.61	ppb	03:21:52
2	S 181.975 Axial†	5067.3	4422.1	5802.9	ug/L	5802.9	ppb	03:21:52
2	Sb 206.836†	1261.3	1083.0	461.02	ug/L	461.02	ppb	03:21:52
2	Se 196.026†	594.6	546.4	497.78	ug/L	497.78	ppb	03:21:52
2	Si 251.611†	837678.7	738063.9	28177	ug/L	28177	ppb	03:21:32
2	Sn 189.927†	2204.6	1939.3	463.24	ug/L	463.24	ppb	03:21:52
2	Ti 334.940†	1596304.0	1408881.0	2970.6	ug/L	2970.6	ppb	03:21:32
2	Tl 190.801†	921.0	844.2	436.32	ug/L	436.32	ppb	03:21:52
2	U 409.014†	11294.9	12482.4	429.15	ug/L	429.15	ppb	03:21:32
2	V 292.402†	87021.6	78402.6	630.60	ug/L	630.60	ppb	03:21:32
2	Zn 213.857†	68944.6	60113.5	666.23	ug/L	666.23	ppb	03:21:32
2	SiO2†	831046.3	732212.3	59863	ug/L	59863	ppb	03:22:32
3	Sc Radial	4869.0	4869.0	111	%			03:20:56
3	Y RADIAL	5395.2	5395.2	117.1	%			03:20:56
3	Al 396.153Radial†	64429.7	58138.7	57798	ug/L	57798	ppb	03:20:36
3	Ca 317.933Radial†	15176.7	13657.5	26306	ug/L	26306	ppb	03:20:36
3	Fe 238.204 Radial†	6582.2	5922.6	65297	ug/L	65297	ppb	03:20:56
3	K 766.490 Radial†	71536.1	61918.4	11846	ug/L	11846	ppb	03:20:36
3	Mg 279.077 IEC†	454.9	410.0	16945	ug/L	16945	ppb	03:20:56
3	Na 589.592 Radial†	20088.2	19008.3	6272.8	ug/L	6272.8	ppb	03:20:36
3	Sr 421.552†	95879.0	86382.1	638.23	ug/L	638.23	ppb	03:20:36
3	Sc 361.383	842451.1	842451.1	113.91	%			03:21:59
3	Y 371.029	790867.3	790867.3	119.32	%			03:21:59
3	Ag 328.068†	99569.1	87210.3	488.60	ug/L	488.60	ppb	03:21:59
3	As 188.979†	1162.9	1047.7	516.34	ug/L	516.34	ppb	03:22:19
3	B 249.677†	21497.0	19412.6	494.49	ug/L	494.49	ppb	03:21:59
3	Ba 233.527†	173369.6	152192.4	1862.8	ug/L	1862.8	ppb	03:21:59
3	Be 313.107†	1368608.2	1210283.7	499.69	ug/L	499.69	ppb	03:21:59
3	Cd 226.502†	36663.2	32368.3	459.21	ug/L	459.21	ppb	03:22:19
3	Co 228.616†	18208.5	16047.9	494.51	ug/L	494.51	ppb	03:22:19
3	Cr 267.716†	43928.1	38502.9	537.36	ug/L	537.36	ppb	03:21:59
3	Cu 324.752†	181496.9	152034.1	595.56	ug/L	595.56	ppb	03:21:59
3	Mn 257.610†	2033229.2	1784487.0	2954.0	ug/L	2954.0	ppb	03:21:59
3	Mo 202.031†	5640.4	4934.4	475.49	ug/L	475.49	ppb	03:22:19
3	Ni 231.604†	18789.0	16401.9	535.81	ug/L	535.81	ppb	03:22:19
3	P 214.914†	8305.8	7096.1	3894.4	ug/L	3894.4	ppb	03:22:19
3	Pb 220.353†	3507.9	3135.2	528.63	ug/L	528.63	ppb	03:22:19
3	S 181.975 Axial†	5062.5	4398.2	5771.4	ug/L	5771.4	ppb	03:22:19
3	Sb 206.836†	1253.8	1071.6	456.17	ug/L	456.17	ppb	03:22:19
3	Se 196.026†	586.9	537.3	493.96	ug/L	493.96	ppb	03:22:19
3	Si 251.611†	841089.9	737822.2	28168	ug/L	28168	ppb	03:21:59
3	Sn 189.927†	2210.0	1935.6	462.36	ug/L	462.36	ppb	03:22:19
3	Ti 334.940†	1603165.5	1408737.1	2970.3	ug/L	2970.3	ppb	03:21:59
3	Tl 190.801†	919.0	838.8	433.75	ug/L	433.75	ppb	03:22:19
3	U 409.014†	11344.2	12482.0	429.04	ug/L	429.04	ppb	03:21:59
3	V 292.402†	87319.8	78328.2	629.89	ug/L	629.89	ppb	03:21:59
3	Zn 213.857†	69145.4	60023.4	665.08	ug/L	665.08	ppb	03:21:59
3	SiO2†	842034.5	738647.8	60390	ug/L	60390	ppb	03:22:38

Mean Data: 1202047656|955119|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	841208.6	113.74	%	0.287				0.25%
Sc Radial	4919.1	112	%	1.1				0.97%
Y 371.029	789391.1	119.10	%	0.459				0.39%
Y RADIAL	5433.7	117.9	%	0.89				0.75%
Ag 328.068†	87254.6	488.76	ug/L	1.077	488.76	ppb	1.077	0.22%
Al 396.153Radial†	57948.9	57610	ug/L	532.9	57610	ppb	532.9	0.93%
As 188.979†	1054.3	519.28	ug/L	2.632	519.28	ppb	2.632	0.51%
B 249.677†	19454.9	495.62	ug/L	1.525	495.62	ppb	1.525	0.31%
Ba 233.527†	152457.7	1866.0	ug/L	3.57	1866.0	ppb	3.57	0.19%
Be 313.107†	1211339.1	500.12	ug/L	0.853	500.12	ppb	0.853	0.17%
Ca 317.933Radial†	13618.8	26231	ug/L	239.2	26231	ppb	239.2	0.91%
Cd 226.502†	32420.1	459.98	ug/L	0.681	459.98	ppb	0.681	0.15%
Co 228.616†	16051.6	494.63	ug/L	0.119	494.63	ppb	0.119	0.02%
Cr 267.716†	38561.7	538.17	ug/L	0.711	538.17	ppb	0.711	0.13%
Cu 324.752†	151980.8	595.35	ug/L	0.514	595.35	ppb	0.514	0.09%
Fe 238.204 Radial†	5902.9	65080	ug/L	552.1	65080	ppb	552.1	0.85%
K 766.490 Radial†	61775.8	11818	ug/L	106.7	11818	ppb	106.7	0.90%

Mg 279.077 IEC†	411.0	16987	ug/L	255.0	16987	ppb	255.0	1.50%
Mn 257.610†	1787327.0	2958.7	ug/L	4.39	2958.7	ppb	4.39	0.15%
Mo 202.031†	4928.3	474.89	ug/L	0.556	474.89	ppb	0.556	0.12%
Na 589.592 Radial†	19014.2	6274.7	ug/L	61.71	6274.7	ppb	61.71	0.98%
Ni 231.604†	16401.5	535.80	ug/L	0.362	535.80	ppb	0.362	0.07%
P 214.914†	7096.4	3894.7	ug/L	2.45	3894.7	ppb	2.45	0.06%
Pb 220.353†	3148.0	530.72	ug/L	2.585	530.72	ppb	2.585	0.49%
S 181.975 Axial†	4413.8	5791.9	ug/L	17.74	5791.9	ppb	17.74	0.31%
Sb 206.836†	1078.6	459.13	ug/L	2.595	459.13	ppb	2.595	0.57%
Se 196.026†	546.4	499.26	ug/L	6.180	499.26	ppb	6.180	1.24%
Si 251.611†	738017.7	28176	ug/L	6.8	28176	ppb	6.8	0.02%
Sn 189.927†	1937.1	462.73	ug/L	0.454	462.73	ppb	0.454	0.10%
Sr 421.552†	86175.9	636.70	ug/L	6.266	636.70	ppb	6.266	0.98%
Ti 334.940†	1408719.5	2970.3	ug/L	0.35	2970.3	ppb	0.35	0.01%
Tl 190.801†	839.4	434.04	ug/L	2.153	434.04	ppb	2.153	0.50%
U 409.014†	12463.3	428.41	ug/L	1.193	428.41	ppb	1.193	0.28%
V 292.402†	78468.5	631.05	ug/L	1.436	631.05	ppb	1.436	0.23%
Zn 213.857†	60094.5	665.91	ug/L	0.733	665.91	ppb	0.733	0.11%
SiO2†	734132.4	60021	ug/L	321.0	60021	ppb	321.0	0.53%

Sequence No.: 80
Sample ID: 1202047654|955119|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 99
Date Collected: 3/6/2010 03:24:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202047654|955119|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5070.9	5070.9	116	%			03:26:43
1	Y RADIAL	5353.7	5353.7	116.2	%			03:26:43
1	Al 396.153Radial†	8205.2	7188.3	7149.1	ug/L	7149.1	ppb	03:26:43
1	Ca 317.933Radial†	2170.8	1861.8	3585.9	ug/L	3585.9	ppb	03:27:03
1	Fe 238.204 Radial†	1442.2	1239.9	13667	ug/L	13667	ppb	03:27:03
1	K 766.490 Radial†	11410.1	7338.0	1403.9	ug/L	1403.9	ppb	03:26:43
1	Mg 279.077 IEC†	62.7	54.4	2240.7	ug/L	2240.7	ppb	03:27:03
1	Na 589.592 Radial†	-138.1	790.2	260.76	ug/L	260.76	ppb	03:26:43
1	Sr 421.552†	4388.4	3795.3	28.023	ug/L	28.023	ppb	03:26:43
1	Sc 361.383	843930.5	843930.5	114.11	%			03:28:00
1	Y 371.029	759079.2	759079.2	114.52	%			03:28:00
1	Ag 328.068†	-605.1	-728.9	1.1852	ug/L	1.1852	ppb	03:28:05
1	As 188.979†	-32.2	-1.4	6.6273	ug/L	6.6273	ppb	03:28:26
1	B 249.677†	-40.0	505.9	10.962	ug/L	10.962	ppb	03:28:05
1	Ba 233.527†	18261.5	15999.2	195.96	ug/L	195.96	ppb	03:28:05
1	Be 313.107†	-10825.6	-666.1	0.7912	ug/L	0.7912	ppb	03:28:05
1	Cd 226.502†	-55.6	133.9	0.5199	ug/L	0.5199	ppb	03:28:26
1	Co 228.616†	165.3	208.0	5.3919	ug/L	5.3919	ppb	03:28:26
1	Cr 267.716†	728.2	577.7	8.3405	ug/L	8.3405	ppb	03:28:26
1	Cu 324.752†	10656.9	2042.0	8.6806	ug/L	8.6806	ppb	03:28:05
1	Mn 257.610†	328137.2	287129.3	475.64	ug/L	475.64	ppb	03:28:00
1	Mo 202.031†	10.3	-8.1	0.3285	ug/L	0.3285	ppb	03:28:26
1	Ni 231.604†	435.0	288.7	9.4335	ug/L	9.4335	ppb	03:28:26
1	P 214.914†	1235.9	887.7	495.29	ug/L	495.29	ppb	03:28:26
1	Pb 220.353†	2.5	57.9	10.259	ug/L	10.259	ppb	03:28:26
1	S 181.975 Axial†	190.4	120.9	157.60	ug/L	157.60	ppb	03:28:26
1	Sb 206.836†	34.1	0.8	-1.5611	ug/L	-1.5611	ppb	03:28:26
1	Se 196.026†	-72.2	-41.2	5.1688	ug/L	5.1688	ppb	03:28:26
1	Si 251.611†	143156.0	124905.1	4769.5	ug/L	4769.5	ppb	03:28:05
1	Sn 189.927†	-17.8	-20.1	-4.9441	ug/L	-4.9441	ppb	03:28:26
1	Ti 334.940†	251876.5	222090.5	468.29	ug/L	468.29	ppb	03:28:00
1	Tl 190.801†	-53.4	-14.7	-0.9406	ug/L	-0.9406	ppb	03:28:26
1	U 409.014†	-2951.7	-63.4	-3.7997	ug/L	-3.7997	ppb	03:28:00
1	V 292.402†	2551.0	3908.1	29.218	ug/L	29.218	ppb	03:28:05
1	Zn 213.857†	4367.6	3150.0	33.521	ug/L	33.521	ppb	03:28:26
1	SiO2†	145803.4	127221.5	10403	ug/L	10403	ppb	03:29:32
2	Sc Radial	5018.4	5018.4	114	%			03:27:08
2	Y RADIAL	5301.0	5301.0	115.0	%			03:27:08
2	Al 396.153Radial†	8163.6	7226.2	7186.8	ug/L	7186.8	ppb	03:27:08
2	Ca 317.933Radial†	2142.7	1856.9	3576.6	ug/L	3576.6	ppb	03:27:28
2	Fe 238.204 Radial†	1425.5	1238.3	13650	ug/L	13650	ppb	03:27:28
2	K 766.490 Radial†	11593.7	7601.7	1454.4	ug/L	1454.4	ppb	03:27:08
2	Mg 279.077 IEC†	62.0	54.3	2239.7	ug/L	2239.7	ppb	03:27:28
2	Na 589.592 Radial†	-147.7	780.5	257.58	ug/L	257.58	ppb	03:27:08
2	Sr 421.552†	4358.8	3809.1	28.125	ug/L	28.125	ppb	03:27:08
2	Sc 361.383	839534.4	839534.4	113.52	%			03:28:31
2	Y 371.029	754467.5	754467.5	113.83	%			03:28:31
2	Ag 328.068†	-564.8	-696.2	1.3518	ug/L	1.3518	ppb	03:28:36
2	As 188.979†	-35.9	-4.7	5.0966	ug/L	5.0966	ppb	03:28:56
2	B 249.677†	-45.7	500.8	10.831	ug/L	10.831	ppb	03:28:36
2	Ba 233.527†	18263.0	16084.3	197.00	ug/L	197.00	ppb	03:28:36
2	Be 313.107†	-10814.9	-706.3	0.7754	ug/L	0.7754	ppb	03:28:36
2	Cd 226.502†	-41.2	146.4	0.7011	ug/L	0.7011	ppb	03:28:56
2	Co 228.616†	157.3	201.7	5.1949	ug/L	5.1949	ppb	03:28:56
2	Cr 267.716†	739.5	591.1	8.5255	ug/L	8.5255	ppb	03:28:56
2	Cu 324.752†	10641.2	2077.1	8.8162	ug/L	8.8162	ppb	03:28:36
2	Mn 257.610†	327335.0	287928.4	476.96	ug/L	476.96	ppb	03:28:31
2	Mo 202.031†	11.7	-6.9	0.4489	ug/L	0.4489	ppb	03:28:56
2	Ni 231.604†	429.8	286.2	9.3495	ug/L	9.3495	ppb	03:28:56

2	P 214.914†	1249.0	905.0	505.12	ug/L	505.12 ppb	03:28:56
2	Pb 220.353†	17.4	71.0	12.447	ug/L	12.447 ppb	03:28:56
2	S 181.975 Axial†	202.0	132.0	172.19	ug/L	172.19 ppb	03:28:56
2	Sb 206.836†	28.1	-4.4	-3.6990	ug/L	-3.6990 ppb	03:28:56
2	Se 196.026†	-84.2	-52.1	-1.8178	ug/L	-1.8178 ppb	03:28:56
2	Si 251.611†	142820.4	125266.4	4783.3	ug/L	4783.3 ppb	03:28:36
2	Sn 189.927†	-13.9	-16.8	-4.1558	ug/L	-4.1558 ppb	03:28:56
2	Ti 334.940†	250703.1	222212.7	468.55	ug/L	468.55 ppb	03:28:31
2	Tl 190.801†	-49.9	-11.9	0.4393	ug/L	0.4393 ppb	03:28:56
2	U 409.014†	-2927.0	-55.2	-3.5090	ug/L	-3.5090 ppb	03:28:31
2	V 292.402†	2505.1	3879.4	28.990	ug/L	28.990 ppb	03:28:36
2	Zn 213.857†	4381.2	3182.0	33.886	ug/L	33.886 ppb	03:28:56
2	SiO2†	144196.5	126475.1	10342	ug/L	10342 ppb	03:29:37
3	Sc Radial	5026.2	5026.2	115	%		03:27:34
3	Y RADIAL	5325.8	5325.8	115.6	%		03:27:34
3	Al 396.153Radial†	8149.9	7203.0	7163.8	ug/L	7163.8 ppb	03:27:34
3	Ca 317.933Radial†	2122.2	1836.1	3536.4	ug/L	3536.4 ppb	03:27:54
3	Fe 238.204 Radial†	1412.2	1224.8	13501	ug/L	13501 ppb	03:27:54
3	K 766.490 Radial†	11394.5	7412.1	1418.1	ug/L	1418.1 ppb	03:27:34
3	Mg 279.077 IEC†	64.4	56.4	2324.9	ug/L	2324.9 ppb	03:27:54
3	Na 589.592 Radial†	-124.5	801.0	264.34	ug/L	264.34 ppb	03:27:34
3	Sr 421.552†	4365.0	3808.7	28.122	ug/L	28.122 ppb	03:27:34
3	Sc 361.383	849547.0	849547.0	114.87	%		03:29:01
3	Y 371.029	763843.3	763843.3	115.24	%		03:29:01
3	Ag 328.068†	-642.8	-758.2	0.9681	ug/L	0.9681 ppb	03:29:07
3	As 188.979†	-18.2	11.0	12.233	ug/L	12.233 ppb	03:29:27
3	B 249.677†	-82.4	469.2	10.033	ug/L	10.033 ppb	03:29:07
3	Ba 233.527†	18366.2	15984.6	195.77	ug/L	195.77 ppb	03:29:07
3	Be 313.107†	-10804.1	-584.6	0.8245	ug/L	0.8245 ppb	03:29:07
3	Cd 226.502†	-35.9	151.4	0.7891	ug/L	0.7891 ppb	03:29:27
3	Co 228.616†	158.1	200.8	5.1664	ug/L	5.1664 ppb	03:29:27
3	Cr 267.716†	745.1	588.3	8.4836	ug/L	8.4836 ppb	03:29:27
3	Cu 324.752†	10695.9	2014.2	8.5628	ug/L	8.5628 ppb	03:29:07
3	Mn 257.610†	330171.9	286999.5	475.40	ug/L	475.40 ppb	03:29:01
3	Mo 202.031†	2.7	-14.8	-0.3191	ug/L	-0.3191 ppb	03:29:27
3	Ni 231.604†	422.3	275.2	8.9921	ug/L	8.9921 ppb	03:29:27
3	P 214.914†	1230.7	876.0	488.77	ug/L	488.77 ppb	03:29:27
3	Pb 220.353†	23.3	76.0	13.271	ug/L	13.271 ppb	03:29:27
3	S 181.975 Axial†	190.7	120.0	156.45	ug/L	156.45 ppb	03:29:27
3	Sb 206.836†	25.9	-6.5	-4.6395	ug/L	-4.6395 ppb	03:29:27
3	Se 196.026†	-76.6	-44.6	2.6290	ug/L	2.6290 ppb	03:29:27
3	Si 251.611†	143774.9	124614.5	4758.4	ug/L	4758.4 ppb	03:29:07
3	Sn 189.927†	-19.7	-21.7	-5.3301	ug/L	-5.3301 ppb	03:29:27
3	Ti 334.940†	253597.3	222129.3	468.36	ug/L	468.36 ppb	03:29:01
3	Tl 190.801†	-44.4	-6.6	2.9292	ug/L	2.9292 ppb	03:29:27
3	U 409.014†	-2924.8	-22.8	-2.3584	ug/L	-2.3584 ppb	03:29:01
3	V 292.402†	2550.7	3893.1	29.116	ug/L	29.116 ppb	03:29:07
3	Zn 213.857†	4393.7	3147.5	33.520	ug/L	33.520 ppb	03:29:27
3	SiO2†	145290.1	125929.9	10298	ug/L	10298 ppb	03:29:42

Mean Data: 1202047654|955119|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	844337.3	114.17	%	0.679				0.59%
Sc Radial	5038.5	115	%	0.6				0.56%
Y 371.029	759130.0	114.53	%	0.707				0.62%
Y RADIAL	5326.9	115.6	%	0.57				0.50%
Ag 328.068†	-727.8	1.1684	ug/L	0.19242	1.1684	ppb	0.19242	16.47%
Al 396.153Radial†	7205.8	7166.5	ug/L	18.99	7166.5	ppb	18.99	0.26%
As 188.979†	1.6	7.9857	ug/L	3.75722	7.9857	ppb	3.75722	47.05%
B 249.677†	492.0	10.609	ug/L	0.5027	10.609	ppb	0.5027	4.74%
Ba 233.527†	16022.7	196.24	ug/L	0.659	196.24	ppb	0.659	0.34%
Be 313.107†	-652.3	0.7970	ug/L	0.02509	0.7970	ppb	0.02509	3.15%
Ca 317.933Radial†	1851.6	3566.3	ug/L	26.30	3566.3	ppb	26.30	0.74%
Cd 226.502†	143.9	0.6700	ug/L	0.13727	0.6700	ppb	0.13727	20.49%
Co 228.616†	203.5	5.2511	ug/L	0.12283	5.2511	ppb	0.12283	2.34%
Cr 267.716†	585.7	8.4499	ug/L	0.09700	8.4499	ppb	0.09700	1.15%
Cu 324.752†	2044.4	8.6865	ug/L	0.12679	8.6865	ppb	0.12679	1.46%
Fe 238.204 Radial†	1234.4	13606	ug/L	91.6	13606	ppb	91.6	0.67%
K 766.490 Radial†	7450.6	1425.4	ug/L	26.05	1425.4	ppb	26.05	1.83%

Mg 279.077 IEC†	55.0	2268.4	ug/L	48.93	2268.4	ppb	48.93	2.16%
Mn 257.610†	287352.4	476.00	ug/L	0.837	476.00	ppb	0.837	0.18%
Mo 202.031†	-9.9	0.1528	ug/L	0.41303	0.1528	ppb	0.41303	270.36%
Na 589.592 Radial†	790.6	260.89	ug/L	3.384	260.89	ppb	3.384	1.30%
Ni 231.604†	283.4	9.2584	ug/L	0.23436	9.2584	ppb	0.23436	2.53%
P 214.914†	889.6	496.39	ug/L	8.230	496.39	ppb	8.230	1.66%
Pb 220.353†	68.3	11.992	ug/L	1.5570	11.992	ppb	1.5570	12.98%
S 181.975 Axial†	124.3	162.08	ug/L	8.771	162.08	ppb	8.771	5.41%
Sb 206.836†	-3.4	-3.2999	ug/L	1.57755	-3.2999	ppb	1.57755	47.81%
Se 196.026†	-45.9	1.9933	ug/L	3.53642	1.9933	ppb	3.53642	177.41%
Si 251.611†	124928.7	4770.4	ug/L	12.47	4770.4	ppb	12.47	0.26%
Sn 189.927†	-19.6	-4.8100	ug/L	0.59853	-4.8100	ppb	0.59853	12.44%
Sr 421.552†	3804.4	28.090	ug/L	0.0579	28.090	ppb	0.0579	0.21%
Ti 334.940†	222144.1	468.40	ug/L	0.133	468.40	ppb	0.133	0.03%
Tl 190.801†	-11.1	0.8093	ug/L	1.96128	0.8093	ppb	1.96128	242.35%
U 409.014†	-47.1	-3.2224	ug/L	0.76222	-3.2224	ppb	0.76222	23.65%
V 292.402†	3893.5	29.108	ug/L	0.1142	29.108	ppb	0.1142	0.39%
Zn 213.857†	3159.8	33.642	ug/L	0.2112	33.642	ppb	0.2112	0.63%
SiO2†	126542.2	10348	ug/L	53.0	10348	ppb	53.0	0.51%

Sequence No.: 81
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/6/2010 03:31:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4878.4	4878.4	111	%			03:33:46
1	Y RADIAL	5080.3	5080.3	110.2	%			03:33:46
1	Al 396.153Radial†	5635.5	5157.6	5104.8	ug/L	5104.8	ppb	03:33:46
1	Ca 317.933Radial†	3000.2	2681.7	5165.1	ug/L	5165.1	ppb	03:34:06
1	Fe 238.204 Radial†	517.7	457.8	5061.6	ug/L	5061.6	ppb	03:34:06
1	K 766.490 Radial†	31678.2	25952.6	4964.1	ug/L	4964.1	ppb	03:33:46
1	Mg 279.077 IEC†	142.5	128.3	5323.1	ug/L	5323.1	ppb	03:34:06
1	Na 589.592 Radial†	31112.9	28886.6	9532.6	ug/L	9532.6	ppb	03:33:46
1	Sr 421.552†	72576.1	65260.0	482.28	ug/L	482.28	ppb	03:33:46
1	Sc 361.383	823491.7	823491.7	111.35	%			03:35:03
1	Y 371.029	729428.6	729428.6	110.05	%			03:35:03
1	Ag 328.068†	107673.1	96500.8	515.73	ug/L	515.73	ppb	03:35:08
1	As 188.979†	1235.7	1136.6	521.31	ug/L	521.31	ppb	03:35:28
1	B 249.677†	21744.1	20069.1	521.33	ug/L	521.33	ppb	03:35:08
1	Ba 233.527†	47196.6	42382.6	519.10	ug/L	519.10	ppb	03:35:08
1	Be 313.107†	1384215.6	1251961.9	511.10	ug/L	511.10	ppb	03:35:03
1	Cd 226.502†	39825.0	35948.8	516.94	ug/L	516.94	ppb	03:35:08
1	Co 228.616†	18611.5	16777.8	522.71	ug/L	522.71	ppb	03:35:08
1	Cr 267.716†	41286.8	37018.6	515.36	ug/L	515.36	ppb	03:35:08
1	Cu 324.752†	156482.6	133237.5	519.09	ug/L	519.09	ppb	03:35:08
1	Mn 257.610†	348409.4	312472.5	516.53	ug/L	516.53	ppb	03:35:08
1	Mo 202.031†	5957.4	5333.1	508.55	ug/L	508.55	ppb	03:35:28
1	Ni 231.604†	17927.3	16007.8	522.92	ug/L	522.92	ppb	03:35:08
1	P 214.914†	5220.1	4492.8	2460.3	ug/L	2460.3	ppb	03:35:28
1	Pb 220.353†	3359.7	3073.0	510.17	ug/L	510.17	ppb	03:35:28
1	S 181.975 Axial†	913.6	774.5	1017.2	ug/L	1017.2	ppb	03:35:28
1	Sb 206.836†	1371.7	1202.8	522.41	ug/L	522.41	ppb	03:35:28
1	Se 196.026†	906.9	836.6	544.07	ug/L	544.07	ppb	03:35:28
1	Si 251.611†	76509.2	68164.4	2596.6	ug/L	2596.6	ppb	03:35:08
1	Sn 189.927†	2334.3	2091.9	499.32	ug/L	499.32	ppb	03:35:28
1	Ti 334.940†	270468.4	244266.0	514.57	ug/L	514.57	ppb	03:35:08
1	Tl 190.801†	1164.7	1078.1	515.54	ug/L	515.54	ppb	03:35:28
1	U 409.014†	13884.7	14992.9	524.00	ug/L	524.00	ppb	03:35:08
1	V 292.402†	69054.0	63688.9	523.08	ug/L	523.08	ppb	03:35:08
1	Zn 213.857†	51952.0	45979.8	515.39	ug/L	515.39	ppb	03:35:08
1	SiO2†	75111.2	66905.3	5457.3	ug/L	5457.3	ppb	03:36:35
2	Sc Radial	4850.0	4850.0	111	%			03:34:11
2	Y RADIAL	5087.2	5087.2	110.4	%			03:34:11
2	Al 396.153Radial†	5638.7	5190.2	5137.7	ug/L	5137.7	ppb	03:34:11
2	Ca 317.933Radial†	3023.3	2718.4	5235.9	ug/L	5235.9	ppb	03:34:31
2	Fe 238.204 Radial†	524.3	466.5	5157.5	ug/L	5157.5	ppb	03:34:31
2	K 766.490 Radial†	31461.5	25923.5	4958.6	ug/L	4958.6	ppb	03:34:11
2	Mg 279.077 IEC†	144.4	130.8	5425.7	ug/L	5425.7	ppb	03:34:31
2	Na 589.592 Radial†	30568.5	28558.1	9424.2	ug/L	9424.2	ppb	03:34:11
2	Sr 421.552†	72049.3	65165.7	481.58	ug/L	481.58	ppb	03:34:11
2	Sc 361.383	844099.7	844099.7	114.13	%			03:35:34
2	Y 371.029	746961.0	746961.0	112.69	%			03:35:34
2	Ag 328.068†	107379.9	93883.0	501.82	ug/L	501.82	ppb	03:35:39
2	As 188.979†	1237.9	1111.4	509.79	ug/L	509.79	ppb	03:35:59
2	B 249.677†	21596.7	19463.1	505.55	ug/L	505.55	ppb	03:35:39
2	Ba 233.527†	46960.3	41140.7	503.90	ug/L	503.90	ppb	03:35:39
2	Be 313.107†	1411431.3	1245456.8	508.42	ug/L	508.42	ppb	03:35:34
2	Cd 226.502†	39438.7	34737.2	499.49	ug/L	499.49	ppb	03:35:39
2	Co 228.616†	18506.6	16277.9	507.14	ug/L	507.14	ppb	03:35:39
2	Cr 267.716†	41123.2	35970.0	500.77	ug/L	500.77	ppb	03:35:39
2	Cu 324.752†	156627.3	129933.2	506.23	ug/L	506.23	ppb	03:35:39
2	Mn 257.610†	347194.0	303768.4	502.16	ug/L	502.16	ppb	03:35:39
2	Mo 202.031†	5980.2	5222.5	498.01	ug/L	498.01	ppb	03:35:59
2	Ni 231.604†	17753.4	15462.3	505.10	ug/L	505.10	ppb	03:35:39

2	P 214.914†	5226.1	4383.6	2400.4 ug/L	2400.4 ppb	03:35:59
2	Pb 220.353†	3371.0	3009.2	499.61 ug/L	499.61 ppb	03:35:59
2	S 181.975 Axial†	919.6	759.7	997.85 ug/L	997.85 ppb	03:35:59
2	Sb 206.836†	1366.7	1168.3	507.55 ug/L	507.55 ppb	03:35:59
2	Se 196.026†	893.2	804.7	523.99 ug/L	523.99 ppb	03:35:59
2	Si 251.611†	76350.7	66348.0	2527.4 ug/L	2527.4 ppb	03:35:39
2	Sn 189.927†	2337.6	2043.6	487.82 ug/L	487.82 ppb	03:35:59
2	Ti 334.940†	269940.3	237873.0	501.11 ug/L	501.11 ppb	03:35:39
2	Tl 190.801†	1173.8	1060.5	507.08 ug/L	507.08 ppb	03:35:59
2	U 409.014†	13827.0	14637.9	511.57 ug/L	511.57 ppb	03:35:39
2	V 292.402†	68635.2	61807.8	507.67 ug/L	507.67 ppb	03:35:39
2	Zn 213.857†	51695.4	44615.8	500.08 ug/L	500.08 ppb	03:35:39
2	SiO2†	76388.0	66377.0	5414.4 ug/L	5414.4 ppb	03:36:41
3	Sc Radial	4925.1	4925.1	112 %		03:34:36
3	Y RADIAL	5138.0	5138.0	111.5 %		03:34:36
3	Al 396.153Radial†	5706.6	5172.9	5120.5 ug/L	5120.5 ppb	03:34:36
3	Ca 317.933Radial†	2990.7	2647.7	5099.7 ug/L	5099.7 ppb	03:34:56
3	Fe 238.204 Radial†	522.9	458.0	5064.1 ug/L	5064.1 ppb	03:34:56
3	K 766.490 Radial†	31833.1	25821.0	4939.0 ug/L	4939.0 ppb	03:34:36
3	Mg 279.077 IEC†	138.5	123.5	5124.3 ug/L	5124.3 ppb	03:34:56
3	Na 589.592 Radial†	31213.2	28711.2	9474.8 ug/L	9474.8 ppb	03:34:36
3	Sr 421.552†	73500.2	65465.5	483.80 ug/L	483.80 ppb	03:34:36
3	Sc 361.383	840080.1	840080.1	113.59 %		03:36:05
3	Y 371.029	744384.4	744384.4	112.31 %		03:36:05
3	Ag 328.068†	106551.1	93603.6	500.31 ug/L	500.31 ppb	03:36:10
3	As 188.979†	1237.2	1116.0	511.85 ug/L	511.85 ppb	03:36:30
3	B 249.677†	21537.3	19501.4	506.56 ug/L	506.56 ppb	03:36:10
3	Ba 233.527†	46795.4	41192.4	504.53 ug/L	504.53 ppb	03:36:10
3	Be 313.107†	1410156.9	1250251.9	510.37 ug/L	510.37 ppb	03:36:05
3	Cd 226.502†	39495.7	34952.7	502.60 ug/L	502.60 ppb	03:36:10
3	Co 228.616†	18476.6	16329.0	508.73 ug/L	508.73 ppb	03:36:10
3	Cr 267.716†	41024.2	36055.3	501.95 ug/L	501.95 ppb	03:36:10
3	Cu 324.752†	154803.0	128983.8	502.53 ug/L	502.53 ppb	03:36:10
3	Mn 257.610†	346067.2	304231.9	502.93 ug/L	502.93 ppb	03:36:10
3	Mo 202.031†	5955.4	5225.7	498.31 ug/L	498.31 ppb	03:36:30
3	Ni 231.604†	17812.5	15588.8	509.23 ug/L	509.23 ppb	03:36:10
3	P 214.914†	5212.6	4393.6	2407.0 ug/L	2407.0 ppb	03:36:30
3	Pb 220.353†	3338.0	2994.3	497.16 ug/L	497.16 ppb	03:36:30
3	S 181.975 Axial†	914.5	759.1	997.00 ug/L	997.00 ppb	03:36:30
3	Sb 206.836†	1371.8	1178.6	511.87 ug/L	511.87 ppb	03:36:30
3	Se 196.026†	882.7	799.2	520.31 ug/L	520.31 ppb	03:36:30
3	Si 251.611†	75825.4	66205.6	2521.9 ug/L	2521.9 ppb	03:36:10
3	Sn 189.927†	2332.0	2048.4	488.96 ug/L	488.96 ppb	03:36:30
3	Ti 334.940†	268387.4	237637.5	500.62 ug/L	500.62 ppb	03:36:10
3	Tl 190.801†	1164.0	1056.8	505.32 ug/L	505.32 ppb	03:36:30
3	U 409.014†	13591.2	14488.3	506.34 ug/L	506.34 ppb	03:36:10
3	V 292.402†	68462.6	61943.6	508.77 ug/L	508.77 ppb	03:36:10
3	Zn 213.857†	51534.7	44691.1	500.92 ug/L	500.92 ppb	03:36:10
3	SiO2†	74887.0	65375.9	5332.5 ug/L	5332.5 ppb	03:36:46

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	835890.5	113.02	%	1.477				1.31%
Sc Radial	4884.5	111	%	0.9				0.78%
Y 371.029	740258.0	111.68	%	1.428				1.28%
Y RADIAL	5101.9	110.7	%	0.68				0.62%
Ag 328.068†	94662.5	505.96	ug/L	8.502	505.96	ppb	8.502	1.68%
QC value within limits for Ag 328.068 Recovery = 101.19%								
Al 396.153Radial†	5173.6	5121.0	ug/L	16.48	5121.0	ppb	16.48	0.32%
QC value within limits for Al 396.153Radial Recovery = 102.42%								
As 188.979†	1121.4	514.31	ug/L	6.144	514.31	ppb	6.144	1.19%
QC value within limits for As 188.979 Recovery = 102.86%								
B 249.677†	19677.8	511.15	ug/L	8.835	511.15	ppb	8.835	1.73%
QC value within limits for B 249.677 Recovery = 102.23%								
Ba 233.527†	41571.9	509.18	ug/L	8.601	509.18	ppb	8.601	1.69%
QC value within limits for Ba 233.527 Recovery = 101.84%								
Be 313.107†	1249223.6	509.96	ug/L	1.386	509.96	ppb	1.386	0.27%
QC value within limits for Be 313.107 Recovery = 101.99%								
Ca 317.933Radial†	2682.6	5166.9	ug/L	68.12	5166.9	ppb	68.12	1.32%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.34%
Cd 226.502†            35212.9      506.34 ug/L         9.307      506.34 ppb          9.307   1.84%
   QC value within limits for Cd 226.502  Recovery = 101.27%
Co 228.616†            16461.6      512.86 ug/L         8.568      512.86 ppb          8.568   1.67%
   QC value within limits for Co 228.616  Recovery = 102.57%
Cr 267.716†            36347.9      506.03 ug/L         8.105      506.03 ppb          8.105   1.60%
   QC value within limits for Cr 267.716  Recovery = 101.21%
Cu 324.752†           130718.2      509.28 ug/L         8.693      509.28 ppb          8.693   1.71%
   QC value within limits for Cu 324.752  Recovery = 101.86%
Fe 238.204 Radial†       460.8      5094.4 ug/L        54.67      5094.4 ppb         54.67   1.07%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.89%
K 766.490 Radial†      25899.0      4953.9 ug/L        13.21      4953.9 ppb         13.21   0.27%
   QC value within limits for K 766.490 Radial  Recovery = 99.08%
Mg 279.077 IEC†          127.5      5291.0 ug/L       153.27      5291.0 ppb        153.27   2.90%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.82%
Mn 257.610†           306824.3      507.21 ug/L         8.087      507.21 ppb          8.087   1.59%
   QC value within limits for Mn 257.610  Recovery = 101.44%
Mo 202.031†             5260.4      501.62 ug/L         5.999      501.62 ppb          5.999   1.20%
   QC value within limits for Mo 202.031  Recovery = 100.32%
Na 589.592 Radial†     28718.6      9477.2 ug/L        54.24      9477.2 ppb         54.24   0.57%
   QC value within limits for Na 589.592 Radial  Recovery = 94.77%
Ni 231.604†            15686.3      512.42 ug/L         9.327      512.42 ppb          9.327   1.82%
   QC value within limits for Ni 231.604  Recovery = 102.48%
P 214.914†              4423.3      2422.6 ug/L        32.86      2422.6 ppb         32.86   1.36%
   QC value within limits for P 214.914  Recovery = 96.90%
Pb 220.353†             3025.5      502.31 ug/L         6.917      502.31 ppb          6.917   1.38%
   QC value within limits for Pb 220.353  Recovery = 100.46%
S 181.975 Axial†         764.4      1004.0 ug/L        11.43      1004.0 ppb         11.43   1.14%
   QC value within limits for S 181.975 Axial  Recovery = 100.40%
Sb 206.836†             1183.2      513.94 ug/L         7.643      513.94 ppb          7.643   1.49%
   QC value within limits for Sb 206.836  Recovery = 102.79%
Se 196.026†              813.5      529.46 ug/L        12.786      529.46 ppb         12.786   2.41%
   QC value within limits for Se 196.026  Recovery = 105.89%
Si 251.611†            66906.0      2548.6 ug/L        41.63      2548.6 ppb         41.63   1.63%
   QC value within limits for Si 251.611  Recovery = 101.95%
Sn 189.927†             2061.3      492.03 ug/L         6.340      492.03 ppb          6.340   1.29%
   QC value within limits for Sn 189.927  Recovery = 98.41%
Sr 421.552†            65297.1      482.55 ug/L         1.133      482.55 ppb          1.133   0.23%
   QC value within limits for Sr 421.552  Recovery = 96.51%
Ti 334.940†           239925.5      505.43 ug/L         7.916      505.43 ppb          7.916   1.57%
   QC value within limits for Ti 334.940  Recovery = 101.09%
Tl 190.801†             1065.1      509.31 ug/L         5.464      509.31 ppb          5.464   1.07%
   QC value within limits for Tl 190.801  Recovery = 101.86%
U 409.014†             14706.4      513.97 ug/L         9.072      513.97 ppb          9.072   1.77%
   QC value within limits for U 409.014  Recovery = 102.79%
V 292.402†             62480.1      513.17 ug/L         8.598      513.17 ppb          8.598   1.68%
   QC value within limits for V 292.402  Recovery = 102.63%
Zn 213.857†            45095.6      505.47 ug/L         8.609      505.47 ppb          8.609   1.70%
   QC value within limits for Zn 213.857  Recovery = 101.09%
SiO2†                  66219.4      5401.4 ug/L        63.40      5401.4 ppb         63.40   1.17%
   QC value within limits for SiO2  Recovery = 101.01%
All analyte(s) passed QC.
```

Sequence No.: 82
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/6/2010 03:38:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4976.8	4976.8	113	%			03:40:49
1	Y RADIAL	5223.4	5223.4	113.3	%			03:40:49
1	Al 396.153Radial†	-81.7	18.1	17.937	ug/L	17.937	ppb	03:41:09
1	Ca 317.933Radial†	27.9	8.5	16.324	ug/L	16.324	ppb	03:41:09
1	Fe 238.204 Radial†	4.4	-3.9	-42.524	ug/L	-42.524	ppb	03:41:09
1	K 766.490 Radial†	2601.3	-239.8	-45.941	ug/L	-45.941	ppb	03:40:49
1	Mg 279.077 IEC†	3.6	3.3	137.08	ug/L	137.08	ppb	03:41:09
1	Na 589.592 Radial†	-960.5	63.0	20.796	ug/L	20.796	ppb	03:40:49
1	Sr 421.552†	36.6	31.2	0.2307	ug/L	0.2307	ppb	03:40:49
1	Sc 361.383	820906.9	820906.9	111.00	%			03:42:05
1	Y 371.029	734499.5	734499.5	110.81	%			03:42:05
1	Ag 328.068†	334.9	103.1	0.5269	ug/L	0.5269	ppb	03:42:10
1	As 188.979†	-31.6	-1.6	-0.7422	ug/L	-0.7422	ppb	03:42:30
1	B 249.677†	-134.8	419.6	10.953	ug/L	10.953	ppb	03:42:30
1	Ba 233.527†	26.2	19.7	0.2414	ug/L	0.2414	ppb	03:42:30
1	Be 313.107†	-9073.6	646.2	0.2641	ug/L	0.2641	ppb	03:42:10
1	Cd 226.502†	-165.6	33.5	0.4883	ug/L	0.4883	ppb	03:42:30
1	Co 228.616†	-56.6	12.1	0.3791	ug/L	0.3791	ppb	03:42:30
1	Cr 267.716†	89.8	20.5	0.2812	ug/L	0.2812	ppb	03:42:30
1	Cu 324.752†	7878.7	-198.9	-0.7832	ug/L	-0.7832	ppb	03:42:10
1	Mn 257.610†	539.1	57.4	0.0851	ug/L	0.0851	ppb	03:42:30
1	Mo 202.031†	23.9	4.4	0.4148	ug/L	0.4148	ppb	03:42:30
1	Ni 231.604†	110.1	6.8	0.2207	ug/L	0.2207	ppb	03:42:30
1	P 214.914†	184.5	-29.1	-16.404	ug/L	-16.404	ppb	03:42:30
1	Pb 220.353†	-66.1	-3.9	-0.6347	ug/L	-0.6347	ppb	03:42:30
1	S 181.975 Axial†	46.5	-4.1	-5.3367	ug/L	-5.3367	ppb	03:42:30
1	Sb 206.836†	25.1	-6.5	-2.7178	ug/L	-2.7178	ppb	03:42:30
1	Se 196.026†	-25.2	-0.6	-0.4776	ug/L	-0.4776	ppb	03:42:30
1	Si 251.611†	792.1	166.4	6.3486	ug/L	6.3486	ppb	03:42:30
1	Sn 189.927†	-0.4	-4.9	-1.1734	ug/L	-1.1734	ppb	03:42:30
1	Ti 334.940†	-1311.1	181.6	0.3690	ug/L	0.3690	ppb	03:42:10
1	Tl 190.801†	-38.8	-2.9	-1.3574	ug/L	-1.3574	ppb	03:42:30
1	U 409.014†	-2467.0	300.7	10.549	ug/L	10.549	ppb	03:42:05
1	V 292.402†	-1721.7	121.4	1.0189	ug/L	1.0189	ppb	03:42:10
1	Zn 213.857†	922.3	153.5	1.7428	ug/L	1.7428	ppb	03:42:30
1	SiO2†	686.4	67.5	5.5118	ug/L	5.5118	ppb	03:43:36
2	Sc Radial	4749.5	4749.5	108	%			03:41:14
2	Y RADIAL	5039.6	5039.6	109.4	%			03:41:14
2	Al 396.153Radial†	-70.4	25.0	24.905	ug/L	24.905	ppb	03:41:34
2	Ca 317.933Radial†	30.6	12.2	23.435	ug/L	23.435	ppb	03:41:34
2	Fe 238.204 Radial†	7.0	-1.2	-13.113	ug/L	-13.113	ppb	03:41:34
2	K 766.490 Radial†	2677.3	-59.8	-11.471	ug/L	-11.471	ppb	03:41:14
2	Mg 279.077 IEC†	3.4	3.3	136.51	ug/L	136.51	ppb	03:41:34
2	Na 589.592 Radial†	-957.8	25.1	8.2735	ug/L	8.2735	ppb	03:41:14
2	Sr 421.552†	35.4	31.7	0.2343	ug/L	0.2343	ppb	03:41:14
2	Sc 361.383	789459.8	789459.8	106.75	%			03:42:36
2	Y 371.029	706945.7	706945.7	106.66	%			03:42:36
2	Ag 328.068†	262.5	47.3	0.2425	ug/L	0.2425	ppb	03:42:41
2	As 188.979†	-26.4	2.2	0.9917	ug/L	0.9917	ppb	03:43:01
2	B 249.677†	-106.7	441.1	11.509	ug/L	11.509	ppb	03:43:01
2	Ba 233.527†	20.5	15.3	0.1864	ug/L	0.1864	ppb	03:43:01
2	Be 313.107†	-9133.0	265.0	0.1090	ug/L	0.1090	ppb	03:42:41
2	Cd 226.502†	-153.5	38.9	0.5616	ug/L	0.5616	ppb	03:43:01
2	Co 228.616†	-45.4	20.6	0.6419	ug/L	0.6419	ppb	03:43:01
2	Cr 267.716†	91.8	25.6	0.3537	ug/L	0.3537	ppb	03:43:01
2	Cu 324.752†	8039.6	234.6	0.9111	ug/L	0.9111	ppb	03:42:41
2	Mn 257.610†	508.0	47.7	0.0719	ug/L	0.0719	ppb	03:43:01
2	Mo 202.031†	18.1	-0.2	-0.0179	ug/L	-0.0179	ppb	03:43:01
2	Ni 231.604†	111.8	12.2	0.4000	ug/L	0.4000	ppb	03:43:01

2	P 214.914†	181.6	-25.2	-14.564 ug/L	-14.564 ppb	03:43:01
2	Pb 220.353†	-71.2	-11.0	-1.8104 ug/L	-1.8104 ppb	03:43:01
2	S 181.975 Axial†	44.5	-4.3	-5.6177 ug/L	-5.6177 ppb	03:43:01
2	Sb 206.836†	39.0	7.4	3.1048 ug/L	3.1048 ppb	03:43:01
2	Se 196.026†	-23.1	0.4	0.2388 ug/L	0.2388 ppb	03:43:01
2	Si 251.611†	714.5	122.2	4.6646 ug/L	4.6646 ppb	03:43:01
2	Sn 189.927†	2.5	-2.3	-0.5342 ug/L	-0.5342 ppb	03:43:01
2	Ti 334.940†	-1219.3	220.6	0.4550 ug/L	0.4550 ppb	03:42:41
2	Tl 190.801†	-27.3	6.5	3.1062 ug/L	3.1062 ppb	03:43:01
2	U 409.014†	-2578.0	108.2	3.7950 ug/L	3.7950 ppb	03:42:36
2	V 292.402†	-1794.0	-8.0	-0.0540 ug/L	-0.0540 ppb	03:42:41
2	Zn 213.857†	922.8	187.0	2.1140 ug/L	2.1140 ppb	03:43:01
2	SiO2†	723.7	127.2	10.399 ug/L	10.399 ppb	03:43:42
3	Sc Radial	4768.0	4768.0	109 %		03:41:39
3	Y RADIAL	4992.4	4992.4	108.3 %		03:41:39
3	Al 396.153Radial†	-67.5	28.0	27.830 ug/L	27.830 ppb	03:41:59
3	Ca 317.933Radial†	28.0	9.7	18.683 ug/L	18.683 ppb	03:41:59
3	Fe 238.204 Radial†	7.6	-0.7	-7.8815 ug/L	-7.8815 ppb	03:41:59
3	K 766.490 Radial†	2519.4	-214.7	-41.133 ug/L	-41.133 ppb	03:41:39
3	Mg 279.077 IEC†	2.8	2.7	112.11 ug/L	112.11 ppb	03:41:59
3	Na 589.592 Radial†	-929.4	54.6	18.007 ug/L	18.007 ppb	03:41:39
3	Sr 421.552†	34.0	30.2	0.2234 ug/L	0.2234 ppb	03:41:39
3	Sc 361.383	843505.3	843505.3	114.05 %		03:43:06
3	Y 371.029	754494.5	754494.5	113.83 %		03:43:06
3	Ag 328.068†	309.6	72.8	0.3794 ug/L	0.3794 ppb	03:43:11
3	As 188.979†	-24.6	5.3	2.4100 ug/L	2.4100 ppb	03:43:31
3	B 249.677†	-129.0	427.9	11.165 ug/L	11.165 ppb	03:43:31
3	Ba 233.527†	33.4	25.4	0.3128 ug/L	0.3128 ppb	03:43:31
3	Be 313.107†	-9121.1	823.6	0.3365 ug/L	0.3365 ppb	03:43:11
3	Cd 226.502†	-177.8	26.8	0.3876 ug/L	0.3876 ppb	03:43:31
3	Co 228.616†	-60.4	10.2	0.3162 ug/L	0.3162 ppb	03:43:31
3	Cr 267.716†	89.0	17.6	0.2420 ug/L	0.2420 ppb	03:43:31
3	Cu 324.752†	7999.9	-282.8	-1.1082 ug/L	-1.1082 ppb	03:43:11
3	Mn 257.610†	524.0	31.2	0.0461 ug/L	0.0461 ppb	03:43:31
3	Mo 202.031†	13.9	-5.0	-0.4742 ug/L	-0.4742 ppb	03:43:31
3	Ni 231.604†	105.1	-0.3	-0.0099 ug/L	-0.0099 ppb	03:43:31
3	P 214.914†	201.6	-18.6	-10.348 ug/L	-10.348 ppb	03:43:31
3	Pb 220.353†	-66.6	-2.7	-0.4424 ug/L	-0.4424 ppb	03:43:31
3	S 181.975 Axial†	41.3	-9.8	-12.883 ug/L	-12.883 ppb	03:43:31
3	Sb 206.836†	26.1	-6.2	-2.5769 ug/L	-2.5769 ppb	03:43:31
3	Se 196.026†	-20.0	4.6	2.8918 ug/L	2.8918 ppb	03:43:31
3	Si 251.611†	704.3	70.3	2.6901 ug/L	2.6901 ppb	03:43:31
3	Sn 189.927†	15.1	8.7	2.0784 ug/L	2.0784 ppb	03:43:31
3	Ti 334.940†	-1307.3	216.6	0.4451 ug/L	0.4451 ppb	03:43:11
3	Tl 190.801†	-34.4	1.9	0.8945 ug/L	0.8945 ppb	03:43:31
3	U 409.014†	-2540.2	296.1	10.384 ug/L	10.384 ppb	03:43:06
3	V 292.402†	-1753.1	135.5	1.1142 ug/L	1.1142 ppb	03:43:11
3	Zn 213.857†	926.7	135.1	1.5311 ug/L	1.5311 ppb	03:43:31
3	SiO2†	727.3	86.9	7.1167 ug/L	7.1167 ppb	03:43:47

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	817957.3	110.60	%	3.670				3.32%
Sc Radial	4831.4	110	%	2.9				2.61%
Y 371.029	731979.9	110.43	%	3.602				3.26%
Y RADIAL	5085.1	110.3	%	2.65				2.40%
Ag 328.068†	74.4	0.3829	ug/L	0.14220	0.3829	ppb	0.14220	37.13%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	23.7	23.557	ug/L	5.0824	23.557	ppb	5.0824	21.57%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.0	0.8865	ug/L	1.57875	0.8865	ppb	1.57875	178.08%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	429.5	11.209	ug/L	0.2804	11.209	ppb	0.2804	2.50%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	20.1	0.2469	ug/L	0.06335	0.2469	ppb	0.06335	25.66%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	578.3	0.2365	ug/L	0.11623	0.2365	ppb	0.11623	49.14%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	10.1	19.481	ug/L	3.6216	19.481	ppb	3.6216	18.59%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                33.0      0.4792 ug/L       0.08736      0.4792 ppb        0.08736  18.23%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                14.3      0.4457 ug/L       0.17275      0.4457 ppb        0.17275  38.76%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                21.2      0.2923 ug/L       0.05669      0.2923 ppb        0.05669  19.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -82.4     -0.3268 ug/L       1.08424     -0.3268 ppb        1.08424 331.80%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.9     -21.173 ug/L       18.6745     -21.173 ppb        18.6745  88.20%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -171.5     -32.849 ug/L       18.6688     -32.849 ppb        18.6688  56.83%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.1      128.57 ug/L        14.252      128.57 ppb         14.252  11.09%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                45.4      0.0677 ug/L       0.01982      0.0677 ppb        0.01982  29.27%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -0.3     -0.0258 ug/L       0.44455     -0.0258 ppb        0.44455 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         47.6      15.692 ug/L        6.5744      15.692 ppb         6.5744  41.90%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 6.2      0.2036 ug/L       0.20546      0.2036 ppb        0.20546 100.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -24.3     -13.772 ug/L        3.1047     -13.772 ppb         3.1047  22.54%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.9     -0.9625 ug/L       0.74057     -0.9625 ppb        0.74057  76.94%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -6.0     -7.9457 ug/L       4.27781     -7.9457 ppb        4.27781  53.84%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.7     -0.7300 ug/L       3.32176     -0.7300 ppb        3.32176 455.05%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.5      0.8843 ug/L       1.77504      0.8843 ppb        1.77504 200.72%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               119.6      4.5678 ug/L       1.83121      4.5678 ppb        1.83121  40.09%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.5      0.1236 ug/L       1.72280      0.1236 ppb        1.72280 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                31.1      0.2295 ug/L       0.00556      0.2295 ppb        0.00556   2.42%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               206.2      0.4230 ug/L       0.04704      0.4230 ppb        0.04704  11.12%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 1.9      0.8811 ug/L       2.23187      0.8811 ppb        2.23187 253.31%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                235.0      8.2425 ug/L       3.85252      8.2425 ppb        3.85252  46.74%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 83.0      0.6930 ug/L       0.64869      0.6930 ppb        0.64869  93.60%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               158.5      1.7960 ug/L       0.29508      1.7960 ppb        0.29508  16.43%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      93.9      7.6757 ug/L       2.49083      7.6757 ppb        2.49083  32.45%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Sunday, March 07, 2010 12:47:09
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.667
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	4808.8	4808.810	108.927	2.3
	Mg	24.0	50727.3	50727.315	619.955	1.2
	Co	58.9	88616.6	88616.606	384.339	0.4
	Rh	102.9	166250.4	166250.400	950.647	0.6
	In	114.9	227713.9	227713.943	749.789	0.3
	Pb	208.0	239302.0	239302.024	3735.445	1.6
⌈>	Ba	137.9	227074.7	227074.676	1482.945	0.7
⌊	Ba++	69.0	3788.7	0.017	0.000	1.1
⌈>	Ce	139.9	277482.0	277482.011	1509.902	0.5
⌊	CeO	155.9	6354.9	0.023	0.000	2.0
	Bkgd	220.0	24.1	24.100	3.209	13.3

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
6.50	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	6.5	5423.7
Co	59	17	7.0	93544.6
In	115	17	7.8	224994.3

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	587	2050	0.686
Be	9.0	9.0	2049	2075	0.646
Mg	24.0	24.0	5697	2080	0.658
Mg	25.0	25.0	5925	2080	0.646
Mg	26.0	26.0	6170	2080	0.632
Co	58.9	58.9	14191	2110	0.626
Rh	102.9	102.9	24873	2160	0.636
In	114.9	114.9	27788	2180	0.640
Ce	139.9	139.9	33871	2200	0.643
Pb	206.0	206.0	49948	2295	0.615
Pb	207.0	207.0	50159	2240	0.636
Pb	208.0	208.0	50451	2265	0.704
U	238.1	238.0	57727	2275	0.728

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, March 07, 2010 22:10:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100307\Blank.130

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		22	
>	Sc	45		ug/L		1022139	
	Ni	60		ug/L		90	
>	Ge	74		ug/L		435488	
	As	75		ug/L		-44	
	Se	77		ug/L		5769	
	Se	82		ug/L		14	
	Kr	83		ug/L		118	
>	Lu	175		ug/L		554836	
	Tl	205		ug/L		964	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, March 07, 2010 22:14:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100307\Standard 1.131

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**10.000**	**ug/L**	4.189	4554	0.004
|>	Sc	45		**ug/L**		1051363	1051362.560
⌊	Ni	60	**10.000**	**ug/L**	0.465	13506	0.013
⌈>	Ge	74		**ug/L**		433073	433072.947
|	As	75	**10.000**	**ug/L**	4.803	11262	0.026
|	Se	77		**ug/L**		6105	0.001
|	Se	82	**10.000**	**ug/L**	1.776	1203	0.003
⌊	Kr	83		**ug/L**		109	-0.000
⌈>	Lu	175		**ug/L**		548556	548556.126
⌊	Tl	205	**10.000**	**ug/L**	1.956	214444	0.389

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, March 07, 2010 22:17:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100307\Standard 2.132

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**99.952**	**ug/L**	2.035	44854	0.041
>	Sc	45		**ug/L**		1090459	1090458.853
	Ni	60	**99.993**	**ug/L**	1.775	138259	0.127
>	Ge	74		**ug/L**		458453	458453.032
	As	75	**99.997**	**ug/L**	1.524	119303	0.260
	Se	77		**ug/L**		15233	0.020
	Se	82	**99.986**	**ug/L**	2.320	12432	0.027
	Kr	83		**ug/L**		131	0.000
>	Lu	175		**ug/L**		562147	562147.350
	Tl	205	**99.814**	**ug/L**	1.564	1841656	3.275

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, March 07, 2010 22:21:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100307\QC Std 1.133

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.539**	**ug/L**	0.567	23421	0.021
>	Sc	45		**ug/L**		1125294	1125294.023
	Ni	60	**52.495**	**ug/L**	0.814	74958	0.067
>	Ge	74		**ug/L**		469178	469177.787
	As	75	**49.028**	**ug/L**	1.679	59842	0.128
	Se	77		**ug/L**		11222	0.011
	Se	82	**50.798**	**ug/L**	2.164	6470	0.014
	Kr	83		**ug/L**		128	0.000
>	Lu	175		**ug/L**		563030	563030.225
	Tl	205	**53.492**	**ug/L**	1.454	988946	1.755

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	101.078				
>	Sc	45		110.1			
	Ni	60	104.990				
>	Ge	74		107.7			
	As	75	98.056				
	Se	77					
	Se	82	101.596				
	Kr	83					
>	Lu	175		101.5			
	Tl	205	106.984				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, March 07, 2010 22:25:02
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100307\QC Std 2.134

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.001**	**ug/L**	786.941	24	-0.000
>	Sc	45		**ug/L**		1116447	1116446.587
	Ni	60	**-0.004**	**ug/L**	85.177	93	-0.000
>	Ge	74		**ug/L**		466171	466170.678
	As	75	**0.125**	**ug/L**	157.109	103	0.000
	Se	77		**ug/L**		6573	0.001
	Se	82	**-0.065**	**ug/L**	297.468	6	-0.000
	Kr	83		**ug/L**		134	0.000
>	Lu	175		**ug/L**		562920	562919.722
	Tl	205	**0.096**	**ug/L**	6.162	2750	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		109.2			
	Ni	60					
>	Ge	74		107.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, March 07, 2010 22:28:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100307\QC Std 3.135

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.543**	**ug/L**	5.571	274	0.000
>	Sc	45		**ug/L**		1117876	1117876.285
	Ni	60	**2.196**	**ug/L**	2.145	3209	0.003
>	Ge	74		**ug/L**		465623	465623.327
	As	75	**5.964**	**ug/L**	6.257	7182	0.016
	Se	77		**ug/L**		6564	0.001
	Se	82	**5.837**	**ug/L**	5.956	751	0.002
	Kr	83		**ug/L**		129	0.000
>	Lu	175		**ug/L**		565942	565941.990
	Tl	205	**1.295**	**ug/L**	3.635	25006	0.042

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	108.613				
>	Sc	45		109.4			
	Ni	60	109.792				
>	Ge	74		106.9			
	As	75	119.285				
	Se	77					
	Se	82	116.745				
	Kr	83					
>	Lu	175		102.0			
	Tl	205	129.460				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, March 07, 2010 22:32:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100307\QC Std 4.136

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.097**	**ug/L**	13.216	65	0.000
>	Sc	45		**ug/L**		1055236	1055236.285
	Ni	60	**3.356**	**ug/L**	6.179	4579	0.004
>	Ge	74		**ug/L**		441269	441268.954
	As	75	**-0.029**	**ug/L**	996.297	-79	-0.000
	Se	77		**ug/L**		7147	0.003
	Se	82	**-1.267**	**ug/L**	27.489	-137	-0.000
	Kr	83		**ug/L**		323	0.000
>	Lu	175		**ug/L**		523944	523944.414
	Tl	205	**0.013**	**ug/L**	18.221	1137	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		103.2			
	Ni	60	101.400				
>	Ge	74		101.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		94.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, March 07, 2010 22:35:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100307\QC Std 5.137

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**19.121**	**ug/L**	0.867	8091	0.008
>	Sc	45		**ug/L**		1025700	1025700.434
	Ni	60	**23.535**	**ug/L**	1.654	30682	0.030
>	Ge	74		**ug/L**		431681	431680.924
	As	75	**21.633**	**ug/L**	1.910	24270	0.056
	Se	77		**ug/L**		8818	0.007
	Se	82	**19.591**	**ug/L**	6.954	2303	0.005
	Kr	83		**ug/L**		328	0.000
>	Lu	175		**ug/L**		516957	516957.429
	Tl	205	**22.136**	**ug/L**	2.264	376253	0.726

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	95.607				
>	Sc	45		100.3			
	Ni	60	100.965				
>	Ge	74		99.1			
	As	75	108.167				
	Se	77					
	Se	82	97.957				
	Kr	83					
>	Lu	175		93.2			
	Tl	205	110.678				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, March 07, 2010 22:39:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100307\QC Std 6.138

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.384**	**ug/L**	2.617	22728	0.021
>	Sc	45		**ug/L**		1095689	1095689.270
	Ni	60	**52.163**	**ug/L**	3.734	72485	0.066
>	Ge	74		**ug/L**		463109	463108.533
	As	75	**48.610**	**ug/L**	0.764	58557	0.127
	Se	77		**ug/L**		10676	0.010
	Se	82	**49.365**	**ug/L**	1.943	6207	0.013
	Kr	83		**ug/L**		128	0.000
>	Lu	175		**ug/L**		555031	555030.999
	Tl	205	**53.798**	**ug/L**	0.683	980530	1.765

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	100.768				
>	Sc	45		107.2			
	Ni	60	104.326				
>	Ge	74		106.3			
	As	75	97.220				
	Se	77					
	Se	82	98.730				
	Kr	83					
>	Lu	175		100.0			
	Tl	205	107.596				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, March 07, 2010 22:43:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100307\QC Std 7.139

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.012**	**ug/L**	94.976	18	-0.000
>	Sc	45		**ug/L**		1107281	1107281.182
	Ni	60	**0.001**	**ug/L**	996.143	99	0.000
>	Ge	74		**ug/L**		467677	467676.836
	As	75	**0.110**	**ug/L**	273.117	88	0.000
	Se	77		**ug/L**		6519	0.001
	Se	82	**-0.053**	**ug/L**	248.884	8	-0.000
	Kr	83		**ug/L**		131	0.000
>	Lu	175		**ug/L**		567129	567128.530
	Tl	205	**0.135**	**ug/L**	2.585	3501	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		108.3			
	Ni	60					
>	Ge	74		107.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		102.2			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, March 07, 2010 23:12:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100307\QC Std 8.147

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.932**	**ug/L**	1.368	21589	0.021
>	Sc	45		**ug/L**		1009497	1009496.696
	Ni	60	**52.674**	**ug/L**	1.949	67475	0.067
>	Ge	74		**ug/L**		426102	426101.573
	As	75	**49.302**	**ug/L**	1.030	54649	0.128
	Se	77		**ug/L**		10202	0.011
	Se	82	**50.226**	**ug/L**	0.479	5810	0.014
	Kr	83		**ug/L**		132	0.000
>	Lu	175		**ug/L**		547273	547272.808
	Tl	205	**54.013**	**ug/L**	1.049	970804	1.772

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	103.864				
>	Sc	45		98.8			
	Ni	60	105.349				
>	Ge	74		97.8			
	As	75	98.604				
	Se	77					
	Se	82	100.452				
	Kr	83					
>	Lu	175		98.6			
	Tl	205	108.026				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, March 07, 2010 23:15:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100307\QC Std 9.148

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.006**	**ug/L**	189.703	24	0.000
>	Sc	45		**ug/L**		998437	998436.968
	Ni	60	**0.006**	**ug/L**	65.259	96	0.000
>	Ge	74		**ug/L**		426774	426773.501
	As	75	**0.146**	**ug/L**	321.721	123	0.000
	Se	77		**ug/L**		6223	0.001
	Se	82	**-0.170**	**ug/L**	84.495	-6	-0.000
	Kr	83		**ug/L**		131	0.000
>	Lu	175		**ug/L**		543638	543638.035
	Tl	205	**0.124**	**ug/L**	5.903	3153	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		97.7			
	Ni	60					
>	Ge	74		98.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, March 07, 2010 23:45:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100307\QC Std 8.156

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**54.484**	**ug/L**	2.987	21354	0.022
>	Sc	45		**ug/L**		952011	952011.432
	Ni	60	**53.192**	**ug/L**	0.631	64252	0.067
>	Ge	74		**ug/L**		409349	409348.571
	As	75	**48.873**	**ug/L**	3.561	52037	0.127
	Se	77		**ug/L**		9532	0.010
	Se	82	**49.990**	**ug/L**	1.798	5555	0.014
	Kr	83		**ug/L**		118	0.000
>	Lu	175		**ug/L**		538855	538854.944
	Tl	205	**53.810**	**ug/L**	2.072	951922	1.765

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	108.968				
>	Sc	45		93.1			
	Ni	60	106.383				
>	Ge	74		94.0			
	As	75	97.745				
	Se	77					
	Se	82	99.981				
	Kr	83					
>	Lu	175		97.1			
	Tl	205	107.620				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, March 07, 2010 23:48:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl soil.mth
Dataset File: C:\elandata\Dataset\100307\QC Std 9.157

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.001**	**ug/L**	2458.545	20	-0.000
>	Sc	45		**ug/L**		957270	957270.257
	Ni	60	**0.013**	**ug/L**	55.780	100	0.000
>	Ge	74		**ug/L**		412974	412974.239
	As	75	**-0.109**	**ug/L**	271.125	-159	-0.000
	Se	77		**ug/L**		6005	0.001
	Se	82	**0.028**	**ug/L**	509.188	16	0.000
	Kr	83		**ug/L**		105	-0.000
>	Lu	175		**ug/L**		540857	540856.792
	Tl	205	**0.102**	**ug/L**	6.972	2748	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		93.7			
	Ni	60					
>	Ge	74		94.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Monday, March 08, 2010 00:03:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100307\QC Std 8.161

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**53.888**	**ug/L**	0.566	20893	0.022
|>	Sc	45		**ug/L**		941484	941484.104
⌊	Ni	60	**53.772**	**ug/L**	1.330	64236	0.068
⌈>	Ge	74		**ug/L**		406653	406653.155
|	As	75	**49.394**	**ug/L**	2.215	52254	0.129
|	Se	77		**ug/L**		9453	0.010
|	Se	82	**49.138**	**ug/L**	1.674	5426	0.013
⌊	Kr	83		**ug/L**		126	0.000
⌈>	Lu	175		**ug/L**		532521	532520.862
⌊	Tl	205	**54.280**	**ug/L**	3.544	948825	1.781

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	107.776				
>	Sc	45		92.1			
	Ni	60	107.544				
>	Ge	74		93.4			
	As	75	98.787				
	Se	77					
	Se	82	98.277				
	Kr	83					
>	Lu	175		96.0			
	Tl	205	108.560				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Monday, March 08, 2010 00:07:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lani soil.mth
Dataset File: C:\elandata\Dataset\100307\QC Std 9.162

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.000**	**ug/L**	2751.860	20	-0.000
>	Sc	45		**ug/L**		921324	921324.464
	Ni	60	**0.007**	**ug/L**	115.331	90	0.000
>	Ge	74		**ug/L**		392829	392829.447
	As	75	**-0.100**	**ug/L**	267.839	-143	-0.000
	Se	77		**ug/L**		5644	0.001
	Se	82	**-0.047**	**ug/L**	252.134	7	-0.000
	Kr	83		**ug/L**		107	0.000
>	Lu	175		**ug/L**		526199	526199.468
	Tl	205	**0.096**	**ug/L**	1.217	2572	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.1			
	Ni	60					
>	Ge	74		90.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		94.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202047663
Sample Date/Time: Monday, March 08, 2010 00:10:51
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 955121|2|baj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100307\1202047663.163

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.014**	**ug/L**	69.175	24	0.000
>	Sc	45		**ug/L**		892646	892645.879
	Ni	60	**0.097**	**ug/L**	8.820	188	0.000
>	Ge	74		**ug/L**		369670	369669.553
	As	75	**0.121**	**ug/L**	166.061	80	0.000
	Se	77		**ug/L**		4350	-0.001
	Se	82	**0.759**	**ug/L**	25.729	87	0.000
	Kr	83		**ug/L**		109	0.000
>	Lu	175		**ug/L**		524298	524297.951
	Tl	205	**0.042**	**ug/L**	1.134	1626	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		87.3			
	Ni	60					
>	Ge	74		84.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		94.5			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202047668
Sample Date/Time: Monday, March 08, 2010 00:14:33
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 955121|40|baj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100307\1202047668.164

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**22.139**	**ug/L**	2.567	8460	0.009
>	Sc	45		**ug/L**		926955	926954.772
	Ni	60	**38.601**	**ug/L**	1.934	45414	0.049
>	Ge	74		**ug/L**		393181	393181.454
	As	75	**27.698**	**ug/L**	3.667	28313	0.072
	Se	77		**ug/L**		11776	0.017
	Se	82	**74.531**	**ug/L**	1.469	7951	0.020
	Kr	83		**ug/L**		122	0.000
>	Lu	175		**ug/L**		526293	526292.635
	Tl	205	**37.141**	**ug/L**	0.803	642169	1.218

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.7			
	Ni	60					
>	Ge	74		90.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		94.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 247327002
Sample Date/Time: Monday, March 08, 2010 00:18:15
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 955121|2|baj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100307\247327002.165

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.533**	**ug/L**	3.777	607	0.001
>	Sc	45		**ug/L**		930208	930208.344
	Ni	60	**26.733**	**ug/L**	1.297	31591	0.034
>	Ge	74		**ug/L**		374572	374571.521
	As	75	**4.324**	**ug/L**	8.803	4182	0.011
	Se	77		**ug/L**		4373	-0.002
	Se	82	**-0.173**	**ug/L**	186.260	-5	-0.000
	Kr	83		**ug/L**		187	0.000
>	Lu	175		**ug/L**		532471	532470.924
	Tl	205	**0.685**	**ug/L**	1.889	12891	0.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		91.0			
	Ni	60					
>	Ge	74		86.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202047664
Sample Date/Time: Monday, March 08, 2010 00:21:57
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 955121|2|baj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100307\1202047664.166

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**1.461**	ug/L	7.353	589	0.001
>	Sc	45		ug/L		946516	946516.342
	Ni	60	**31.442**	ug/L	3.224	37791	0.040
>	Ge	74		ug/L		382589	382588.970
	As	75	**5.698**	ug/L	2.529	5636	0.015
	Se	77		ug/L		4205	-0.002
	Se	82	**0.152**	ug/L	100.826	28	0.000
	Kr	83		ug/L		171	0.000
>	Lu	175		ug/L		545201	545201.325
	Tl	205	**0.594**	ug/L	2.682	11575	0.019

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		92.6			
	Ni	60					
>	Ge	74		87.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202047666
Sample Date/Time: Monday, March 08, 2010 00:25:39
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 955121|2|baj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100307\1202047666.167

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**24.881**	**ug/L**	0.445	9921	0.010
>	Sc	45		**ug/L**		967150	967149.826
	Ni	60	**53.970**	**ug/L**	3.646	66209	0.068
>	Ge	74		**ug/L**		394868	394868.204
	As	75	**38.819**	**ug/L**	2.643	39861	0.101
	Se	77		**ug/L**		5170	-0.000
	Se	82	**7.934**	**ug/L**	2.546	861	0.002
	Kr	83		**ug/L**		183	0.000
>	Lu	175		**ug/L**		543234	543234.370
	Tl	205	**49.829**	**ug/L**	3.364	888688	1.635

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		94.6			
	Ni	60					
>	Ge	74		90.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202047667
Sample Date/Time: Monday, March 08, 2010 00:29:22
Sample Type:
Sample Description: LANL 6020 MSD
Number of Replicates: 3
Batch ID: 955121|2|baj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100307\1202047667.168

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**25.635**	**ug/L**	2.316	10475	0.011
>	Sc	45		**ug/L**		991332	991331.740
	Ni	60	**63.966**	**ug/L**	1.654	80441	0.081
>	Ge	74		**ug/L**		402527	402526.739
	As	75	**41.430**	**ug/L**	0.689	43373	0.108
	Se	77		**ug/L**		5206	-0.000
	Se	82	**8.097**	**ug/L**	2.353	895	0.002
	Kr	83		**ug/L**		195	0.000
>	Lu	175		**ug/L**		539863	539862.724
	Tl	205	**52.596**	**ug/L**	1.514	932352	1.726

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		97.0			
	Ni	60					
>	Ge	74		92.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202047665
Sample Date/Time: Monday, March 08, 2010 00:33:06
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 955121|10|baj
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100307\1202047665.169

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.281**	**ug/L**	5.735	134	0.000
>	Sc	45		**ug/L**		979232	979232.220
	Ni	60	**5.130**	**ug/L**	1.988	6452	0.007
>	Ge	74		**ug/L**		406035	406035.230
	As	75	**0.618**	**ug/L**	28.045	612	0.002
	Se	77		**ug/L**		5422	0.000
	Se	82	**-0.037**	**ug/L**	507.068	9	-0.000
	Kr	83		**ug/L**		128	0.000
>	Lu	175		**ug/L**		543140	543140.193
	Tl	205	**0.152**	**ug/L**	2.213	3652	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		95.8			
	Ni	60					
>	Ge	74		93.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, March 08, 2010 00:36:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100307\QC Std 6.170

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**53.300**	**ug/L**	5.072	22004	0.022
>	Sc	45		**ug/L**		1002842	1002842.434
	Ni	60	**53.310**	**ug/L**	0.925	67828	0.068
>	Ge	74		**ug/L**		426759	426758.742
	As	75	**49.358**	**ug/L**	2.792	54795	0.128
	Se	77		**ug/L**		10660	0.012
	Se	82	**49.647**	**ug/L**	0.988	5753	0.013
	Kr	83		**ug/L**		125	0.000
>	Lu	175		**ug/L**		543570	543569.687
	Tl	205	**54.441**	**ug/L**	1.122	971751	1.786

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	106.600				
>	Sc	45		98.1			
	Ni	60	106.619				
>	Ge	74		98.0			
	As	75	98.716				
	Se	77					
	Se	82	99.294				
	Kr	83					
>	Lu	175		98.0			
	Tl	205	108.881				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, March 08, 2010 00:40:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil.mth
Dataset File: C:\elandata\Dataset\100307\QC Std 7.171

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.019**	**ug/L**	85.427	29	0.000
>	Sc	45		**ug/L**		976022	976021.646
	Ni	60	**-0.002**	**ug/L**	227.930	84	-0.000
>	Ge	74		**ug/L**		414948	414948.049
	As	75	**-0.129**	**ug/L**	43.563	-182	-0.000
	Se	77		**ug/L**		6220	0.002
	Se	82	**-0.045**	**ug/L**	363.640	8	-0.000
	Kr	83		**ug/L**		122	0.000
>	Lu	175		**ug/L**		537726	537726.267
	Tl	205	**0.099**	**ug/L**	4.101	2678	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		95.5			
	Ni	60					
>	Ge	74		95.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		96.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\030110S1.SIF
Batch ID:
Results Data Set: 030110S1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: SOIL **Method Last Saved: 1/4/2010 13:53:20**
Method Description: 7471A, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 3/1/2010 09:23:10**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0005	0.0024	0.0005	09:24:02	Yes
2		[0.00]	0.0003	0.0002	0.0003	09:24:32	Yes
Mean:		[0.00]	0.0004				
SD:		0.00	0.0001				
%RSD:		0.00	38.94				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 3/1/2010 09:24:51**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0026	0.0141	0.0029	09:25:41	Yes
2		[0.2]	0.0025	0.0133	0.0029	09:26:11	Yes
Mean:		[0.2]	0.0025				
SD:		0.0	0.0000				
%RSD:		0.0	1.27				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01265 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/1/2010 09:26:30**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0064	0.0329	0.0067	09:27:21	Yes
2		[0.5]	0.0062	0.0305	0.0065	09:27:50	Yes
Mean:		[0.5]	0.0063				
SD:		0.0	0.0001				
%RSD:		0.0	1.90				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999992 Slope: 0.01253 Intercept: 0.00001

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 3/1/2010 09:28:10**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0251	0.1237	0.0255	09:29:02	Yes
2		[2.0]	0.0251	0.1225	0.0254	09:29:32	Yes
Mean:		[2.0]	0.0251				
SD:		0.0	0.0000				
%RSD:		0.0	0.15				

Standard number 3 applied. [2.0]
Correlation Coef.: 1.000000 Slope: 0.01254 Intercept: 0.00001

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 3/1/2010 09:29:51**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0615	0.3014	0.0619	09:30:44	Yes
2		[5.0]	0.0613	0.3008	0.0617	09:31:13	Yes
Mean:		[5.0]	0.0614				
SD:		0.0	0.0001				
%RSD:		0.0	0.19				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999965 Slope: 0.01229 Intercept: 0.00014

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 3/1/2010 09:31:34**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1191	0.5830	0.1194	09:32:24	Yes
2		[10.0]	0.1189	0.5781	0.1193	09:32:54	Yes
Mean:		[10.0]	0.1190				
SD:		0.0	0.0001				
%RSD:		0.0	0.08				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999854 Slope: 0.01192 Intercept: 0.00055

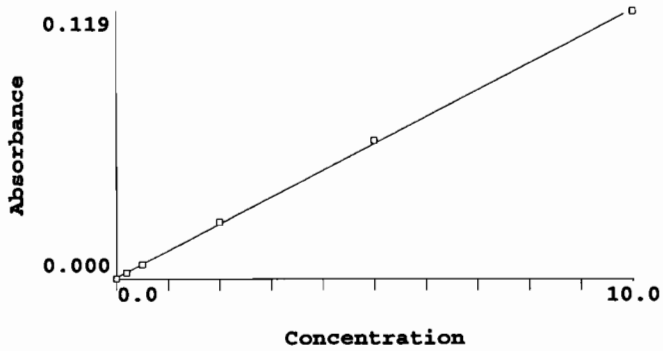

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.047	0.00	38.9
S0.2	0.0025	0.2	0.166	0.00	1.3
S0.5	0.0063	0.5	0.479	0.00	1.9
S2.0	0.0251	2.0	2.058	0.00	0.1

S5.0	0.0614	5.0	5.106	0.00	0.2
S10.0	0.1190	10.0	9.937	0.00	0.1

Correlation Coef.: 0.999854 Slope: 0.01192 Intercept: 0.00055

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 3/1/2010 09:33:13**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.208	5.208	0.0626	0.3044	0.0630	09:34:04	Yes
2	5.221	5.221	0.0628	0.3032	0.0631	09:34:34	Yes
Mean:	5.214	5.214	0.0627				
SD:	0.009	0.009	0.0001				
%RSD:	0.169	0.169	0.17				

QC value within limits for Hg 253.7 Recovery = 104.29%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 3/1/2010 09:34:54**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.048	-0.048	-0.0000	0.0007	0.0003	09:35:45	Yes
2	-0.039	-0.039	0.0001	0.0022	0.0004	09:36:15	Yes
Mean:	-0.043	-0.043	0.0000				
SD:	0.007	0.007	0.0001				
%RSD:	15.47	15.47	209.24				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 3/1/2010 09:36:35**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.167	0.167	0.0025	0.0132	0.0029	09:37:27	Yes
2	0.163	0.163	0.0025	0.0125	0.0028	09:37:57	Yes
Mean:	0.165	0.165	0.0025				
SD:	0.003	0.003	0.0000				
%RSD:	1.654	1.654	1.29				

QC value within limits for Hg 253.7 Recovery = 82.31%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/1/2010 09:38:17**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.166	5.166	0.0621	0.3014	0.0625	09:39:07	Yes
2	5.184	5.184	0.0624	0.2974	0.0627	09:39:37	Yes
Mean:	5.175	5.175	0.0622				
SD:	0.013	0.013	0.0002				
%RSD:	0.247	0.247	0.25				

QC value within limits for Hg 253.7 Recovery = 103.50%
All analyte(s) passed QC.

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/1/2010 09:39:56**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.046	-0.046	0.0000	0.0008	0.0004	09:40:47	Yes
2	-0.049	-0.049	-0.0000	0.0005	0.0003	09:41:16	Yes
Mean:	-0.047	-0.047	-0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	5.295	5.295	277.21				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202055194|958331|1 **Date Collected: 3/1/2010 09:41:36**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055194|958331|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.049	-0.049	-0.0000	0.0002	0.0003	09:42:27	Yes
2	-0.046	-0.046	0.0000	0.0010	0.0004	09:42:57	Yes
Mean:	-0.047	-0.047	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	5.261	5.261	289.87				

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1202055195|958331|10 **Date Collected: 3/1/2010 09:43:17**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055195|958331|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.988	3.988	0.0481	0.2323	0.0484	09:44:09	Yes
2	3.997	3.997	0.0482	0.2307	0.0486	09:44:39	Yes
Mean:	3.992	3.992	0.0481				
SD:	0.006	0.006	0.0001				
%RSD:	0.159	0.159	0.16				

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 246870001|958331|1 **Date Collected: 3/1/2010 09:45:00**
Analyst: JXL **Data Type: Original**

Replicate Data: 246870001|958331|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.307	0.307	0.0042	0.0215	0.0046	09:45:50	Yes
2	0.307	0.307	0.0042	0.0210	0.0046	09:46:20	Yes
Mean:	0.307	0.307	0.0042				
SD:	0.000	0.000	0.0000				
%RSD:	0.063	0.063	0.05				

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 1202055196|958331|1 **Date Collected: 3/1/2010 09:46:39**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055196|958331|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 246870003|958331|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.189	0.189	0.0028	0.0145	0.0032	09:55:47	Yes
2	0.190	0.190	0.0028	0.0147	0.0032	09:56:17	Yes
Mean:	0.189	0.189	0.0028				
SD:	0.001	0.001	0.0000				
%RSD:	0.330	0.330	0.27				

==========

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 246870004|958331|1 **Date Collected: 3/1/2010 09:56:37**
Analyst: JXL **Data Type: Original**

Replicate Data: 246870004|958331|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.245	0.245	0.0035	0.0176	0.0038	09:57:27	Yes
2	0.243	0.243	0.0035	0.0177	0.0038	09:57:57	Yes
Mean:	0.244	0.244	0.0035				
SD:	0.001	0.001	0.0000				
%RSD:	0.544	0.544	0.46				

==========

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/1/2010 09:58:17**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.293	5.293	0.0637	0.3020	0.0640	09:59:07	Yes
2	5.261	5.261	0.0633	0.2985	0.0636	09:59:37	Yes
Mean:	5.277	5.277	0.0635				
SD:	0.023	0.023	0.0003				
%RSD:	0.439	0.439	0.44				

QC value within limits for Hg 253.7 Recovery = 105.54%
All analyte(s) passed QC.

==========

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/1/2010 09:59:56**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.047	-0.047	-0.0000	0.0013	0.0003	10:00:47	Yes
2	-0.046	-0.046	0.0000	0.0016	0.0004	10:01:17	Yes
Mean:	-0.047	-0.047	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	2.396	2.396	>999.9%				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 246870005|958331|1 **Date Collected: 3/1/2010 10:01:36**
Analyst: JXL **Data Type: Original**

Replicate Data: 246870005|958331|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.691	0.691	0.0088	0.0433	0.0091	10:02:28	Yes
2	0.688	0.688	0.0088	0.0431	0.0091	10:02:58	Yes

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.258	0.258	0.0036	0.0191	0.0040	10:10:53	Yes
2	0.266	0.266	0.0037	0.0197	0.0041	10:11:23	Yes
Mean:	0.262	0.262	0.0037				
SD:	0.005	0.005	0.0001				
%RSD:	1.985	1.985	1.69				

==========

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 246872001|958331|1 **Date Collected: 3/1/2010 10:11:42**
Analyst: JXL **Data Type: Original**

Replicate Data: 246872001|958331|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.064	0.064	0.0013	0.0090	0.0017	10:12:33	Yes
2	0.064	0.064	0.0013	0.0086	0.0017	10:13:03	Yes
Mean:	0.064	0.064	0.0013				
SD:	0.000	0.000	0.0000				
%RSD:	0.373	0.373	0.22				

==========

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 246872002|958331|1 **Date Collected: 3/1/2010 10:13:22**
Analyst: JXL **Data Type: Original**

Replicate Data: 246872002|958331|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.088	0.088	0.0016	0.0109	0.0020	10:14:13	Yes
2	0.093	0.093	0.0017	0.0115	0.0020	10:14:43	Yes
Mean:	0.091	0.091	0.0016				
SD:	0.004	0.004	0.0000				
%RSD:	4.256	4.256	2.81				

==========

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 246872003|958331|1 **Date Collected: 3/1/2010 10:15:02**
Analyst: JXL **Data Type: Original**

Replicate Data: 246872003|958331|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.189	0.189	0.0028	0.0158	0.0032	10:15:52	Yes
2	0.182	0.182	0.0027	0.0147	0.0031	10:16:22	Yes
Mean:	0.186	0.186	0.0028				
SD:	0.005	0.005	0.0001				
%RSD:	2.554	2.554	2.04				

==========

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 246872004|958331|1 **Date Collected: 3/1/2010 10:16:41**
Analyst: JXL **Data Type: Original**

Replicate Data: 246872004|958331|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.054	0.054	0.0012	0.0065	0.0016	10:17:32	Yes
2	0.060	0.060	0.0013	0.0076	0.0016	10:18:02	Yes
Mean:	0.057	0.057	0.0012				
SD:	0.004	0.004	0.0001				
%RSD:	7.498	7.498	4.14				

==========

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/1/2010 10:18:21**

Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.230	5.230	0.0629	0.2958	0.0633	10:19:11	Yes
2	5.215	5.215	0.0627	0.2938	0.0631	10:19:41	Yes
Mean:	5.222	5.222	0.0628				
SD:	0.010	0.010	0.0001				
%RSD:	0.200	0.200	0.20				

QC value within limits for Hg 253.7 Recovery = 104.45%
All analyte(s) passed QC.

Sequence No.: 35 Autosampler Location: 8
Sample ID: CCB Date Collected: 3/1/2010 10:20:00
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.049	-0.049	-0.0000	0.0008	0.0003	10:20:51	Yes
2	-0.051	-0.051	-0.0000	0.0014	0.0003	10:21:21	Yes
Mean:	-0.050	-0.050	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	2.774	2.774	43.33				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 Autosampler Location: 32
Sample ID: 246872005|958331|1 Date Collected: 3/1/2010 10:21:41
Analyst: JXL Data Type: Original

Replicate Data: 246872005|958331|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.118	0.118	0.0020	0.0107	0.0023	10:22:32	Yes
2	0.122	0.122	0.0020	0.0115	0.0024	10:23:02	Yes
Mean:	0.120	0.120	0.0020				
SD:	0.003	0.003	0.0000				
%RSD:	2.228	2.228	1.60				

Sequence No.: 37 Autosampler Location: 33
Sample ID: 246872006|958331|1 Date Collected: 3/1/2010 10:23:21
Analyst: JXL Data Type: Original

Replicate Data: 246872006|958331|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.122	0.122	0.0020	0.0110	0.0024	10:24:12	Yes
2	0.122	0.122	0.0020	0.0109	0.0024	10:24:42	Yes
Mean:	0.122	0.122	0.0020				
SD:	0.000	0.000	0.0000				
%RSD:	0.067	0.067	0.05				

Sequence No.: 38 Autosampler Location: 34
Sample ID: 246872007|958331|1 Date Collected: 3/1/2010 10:25:02
Analyst: JXL Data Type: Original

Replicate Data: 246872007|958331|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.088	0.088	0.0016	0.0097	0.0020	10:25:53	Yes

2	0.093	0.093	0.0017	0.0104	0.0020	10:26:23	Yes
Mean:	0.090	0.090	0.0016				
SD:	0.003	0.003	0.0000				
%RSD:	3.825	3.825	2.52				

Sequence No.: 39 **Autosampler Location: 35**
Sample ID: 246872008|958331|1 **Date Collected: 3/1/2010 10:26:43**
Analyst: JXL **Data Type: Original**

Replicate Data: 246872008|958331|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.107	0.107	0.0018	0.0128	0.0022	10:27:35	Yes
2	0.107	0.107	0.0018	0.0126	0.0022	10:28:05	Yes
Mean:	0.107	0.107	0.0018				
SD:	0.000	0.000	0.0000				
%RSD:	0.455	0.455	0.32				

Sequence No.: 40 **Autosampler Location: 36**
Sample ID: 1202055200|958334|1 **Date Collected: 3/1/2010 10:28:25**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055200|958334|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.045	-0.045	0.0000	0.0023	0.0004	10:29:16	Yes
2	-0.047	-0.047	-0.0000	0.0022	0.0004	10:29:46	Yes
Mean:	-0.046	-0.046	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	3.052	3.052	154.86				

Sequence No.: 41 **Autosampler Location: 37**
Sample ID: 1202055201|958334|10 **Date Collected: 3/1/2010 10:30:06**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055201|958334|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.797	3.797	0.0458	0.2159	0.0462	10:30:58	Yes
2	3.771	3.771	0.0455	0.2133	0.0459	10:31:28	Yes
Mean:	3.784	3.784	0.0457				
SD:	0.018	0.018	0.0002				
%RSD:	0.487	0.487	0.48				

Sequence No.: 42 **Autosampler Location: 38**
Sample ID: 246887001|958334|1 **Date Collected: 3/1/2010 10:31:48**
Analyst: JXL **Data Type: Original**

Replicate Data: 246887001|958334|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.402	0.402	0.0053	0.0265	0.0057	10:32:39	Yes
2	0.387	0.387	0.0052	0.0263	0.0055	10:33:09	Yes
Mean:	0.394	0.394	0.0053				
SD:	0.010	0.010	0.0001				
%RSD:	2.635	2.635	2.36				

Sequence No.: 43 **Autosampler Location: 39**
Sample ID: 246887002|958334|1 **Date Collected: 3/1/2010 10:33:28**
Analyst: JXL **Data Type: Original**

Replicate Data: 246887002|958334|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.192	0.192	0.0028	0.0151	0.0032	10:34:19	Yes
2	0.197	0.197	0.0029	0.0158	0.0033	10:34:49	Yes
Mean:	0.194	0.194	0.0029				
SD:	0.004	0.004	0.0000				
%RSD:	1.879	1.879	1.52				

==========

Sequence No.: 44 **Autosampler Location: 40**
Sample ID: 246887003|958334|1 **Date Collected: 3/1/2010 10:35:09**
Analyst: JXL **Data Type: Original**

Replicate Data: 246887003|958334|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.710	0.710	0.0090	0.0450	0.0094	10:36:00	Yes
2	0.715	0.715	0.0091	0.0447	0.0094	10:36:30	Yes
Mean:	0.713	0.713	0.0090				
SD:	0.003	0.003	0.0000				
%RSD:	0.413	0.413	0.39				

==========

Sequence No.: 45 **Autosampler Location: 41**
Sample ID: 246887004|958334|1 **Date Collected: 3/1/2010 10:36:49**
Analyst: JXL **Data Type: Original**

Replicate Data: 246887004|958334|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.450	0.450	0.0059	0.0306	0.0063	10:37:40	Yes
2	0.439	0.439	0.0058	0.0293	0.0061	10:38:10	Yes
Mean:	0.445	0.445	0.0059				
SD:	0.008	0.008	0.0001				
%RSD:	1.784	1.784	1.62				

==========

Sequence No.: 46 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/1/2010 10:38:30**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.928	4.928	0.0593	0.2779	0.0597	10:39:20	Yes
2	4.903	4.903	0.0590	0.2751	0.0594	10:39:50	Yes
Mean:	4.915	4.915	0.0591				
SD:	0.018	0.018	0.0002				
%RSD:	0.363	0.363	0.36				

QC value within limits for Hg 253.7 Recovery = 98.30%
All analyte(s) passed QC.

==========

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/1/2010 10:40:09**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.043	-0.043	0.0000	0.0025	0.0004	10:40:59	Yes
2	-0.046	-0.046	0.0000	0.0019	0.0004	10:41:29	Yes
Mean:	-0.044	-0.044	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	4.810	4.810	102.10				

QC value within limits for Hg 253.7 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 48 **Autosampler Location: 42**
Sample ID: 246887005|958334|1 **Date Collected: 3/1/2010 10:41:48**
Analyst: JXL **Data Type: Original**

Replicate Data: 246887005|958334|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.437	0.437	0.0058	0.0293	0.0061	10:42:39	Yes
2	0.427	0.427	0.0056	0.0284	0.0060	10:43:09	Yes
Mean:	0.432	0.432	0.0057				
SD:	0.007	0.007	0.0001				
%RSD:	1.564	1.564	1.41				

Sequence No.: 49 **Autosampler Location: 43**
Sample ID: 247327002|958334|1 **Date Collected: 3/1/2010 10:43:28**
Analyst: JXL **Data Type: Original**

Replicate Data: 247327002|958334|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.054	0.054	0.0012	0.0078	0.0016	10:44:19	Yes
2	0.056	0.056	0.0012	0.0080	0.0016	10:44:49	Yes
Mean:	0.055	0.055	0.0012				
SD:	0.001	0.001	0.0000				
%RSD:	1.996	1.996	1.08				

Sequence No.: 50 **Autosampler Location: 44**
Sample ID: 247427001|958334|1 **Date Collected: 3/1/2010 10:45:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 247427001|958334|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.032	-0.032	0.0002	0.0029	0.0005	10:45:59	Yes
2	-0.033	-0.033	0.0002	0.0026	0.0005	10:46:29	Yes
Mean:	-0.033	-0.033	0.0002				
SD:	0.001	0.001	0.0000				
%RSD:	2.651	2.651	6.30				

Sequence No.: 51 **Autosampler Location: 45**
Sample ID: 247427002|958334|1 **Date Collected: 3/1/2010 10:46:48**
Analyst: JXL **Data Type: Original**

Replicate Data: 247427002|958334|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.002	-0.002	0.0005	0.0042	0.0009	10:47:40	Yes
2	-0.002	-0.002	0.0005	0.0047	0.0009	10:48:10	Yes
Mean:	-0.002	-0.002	0.0005				
SD:	0.000	0.000	0.0000				
%RSD:	20.05	20.05	0.86				

Sequence No.: 52 **Autosampler Location: 46**
Sample ID: 247427003|958334|1 **Date Collected: 3/1/2010 10:48:29**
Analyst: JXL **Data Type: Original**

Replicate Data: 247427003|958334|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	-0.010	-0.010	0.0004	0.0036	0.0008	10:49:21	Yes
2	-0.010	-0.010	0.0004	0.0041	0.0008	10:49:51	Yes
Mean:	-0.010	-0.010	0.0004				
SD:	0.000	0.000	0.0000				
%RSD:	1.320	1.320	0.35				

Sequence No.: 53 **Autosampler Location: 47**
Sample ID: 247427004|958334|1 **Date Collected: 3/1/2010 10:50:11**
Analyst: JXL **Data Type: Original**

Replicate Data: 247427004|958334|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.017	-0.017	0.0003	0.0030	0.0007	10:51:02	Yes
2	-0.011	-0.011	0.0004	0.0041	0.0008	10:51:32	Yes
Mean:	-0.014	-0.014	0.0004				
SD:	0.004	0.004	0.0001				
%RSD:	32.12	32.12	13.83				

Sequence No.: 54 **Autosampler Location: 48**
Sample ID: 247427005|958334|1 **Date Collected: 3/1/2010 10:51:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 247427005|958334|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.121	0.121	0.0020	0.0118	0.0023	10:52:44	Yes
2	0.114	0.114	0.0019	0.0106	0.0023	10:53:14	Yes
Mean:	0.117	0.117	0.0020				
SD:	0.005	0.005	0.0001				
%RSD:	4.120	4.120	2.95				

Sequence No.: 55 **Autosampler Location: 49**
Sample ID: 247427006|958334|1 **Date Collected: 3/1/2010 10:53:34**
Analyst: JXL **Data Type: Original**

Replicate Data: 247427006|958334|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.071	0.071	0.0014	0.0081	0.0018	10:54:25	Yes
2	0.072	0.072	0.0014	0.0080	0.0018	10:54:55	Yes
Mean:	0.071	0.071	0.0014				
SD:	0.001	0.001	0.0000				
%RSD:	0.944	0.944	0.57				

Sequence No.: 56 **Autosampler Location: 50**
Sample ID: 247456001|958334|1 **Date Collected: 3/1/2010 10:55:16**
Analyst: JXL **Data Type: Original**

Replicate Data: 247456001|958334|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.186	0.186	0.0028	0.0144	0.0031	10:56:07	Yes
2	0.197	0.197	0.0029	0.0161	0.0033	10:56:37	Yes
Mean:	0.192	0.192	0.0028				
SD:	0.007	0.007	0.0001				
%RSD:	3.893	3.893	3.13				

Sequence No.: 57 **Autosampler Location: 51**
Sample ID: 1202055202|958334|1 **Date Collected: 3/1/2010 10:56:57**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055202|958334|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.225	0.225	0.0032	0.0165	0.0036	10:57:47	Yes
2	0.233	0.233	0.0033	0.0175	0.0037	10:58:17	Yes
Mean:	0.229	0.229	0.0033				
SD:	0.005	0.005	0.0001				
%RSD:	2.271	2.271	1.89				

==========

Sequence No.: 58 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/1/2010 10:58:37**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.871	4.871	0.0586	0.2735	0.0590	10:59:28	Yes
2	4.922	4.922	0.0592	0.2757	0.0596	10:59:57	Yes
Mean:	4.897	4.897	0.0589				
SD:	0.036	0.036	0.0004				
%RSD:	0.728	0.728	0.72				

QC value within limits for Hg 253.7 Recovery = 97.93%
All analyte(s) passed QC.

==========

Sequence No.: 59 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/1/2010 11:00:16**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.052	-0.052	-0.0001	0.0011	0.0003	11:01:07	Yes
2	-0.046	-0.046	0.0000	0.0019	0.0004	11:01:37	Yes
Mean:	-0.049	-0.049	-0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	9.572	9.572	188.35				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 60 **Autosampler Location: 52**
Sample ID: 1202055203|958334|1 **Date Collected: 3/1/2010 11:01:56**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055203|958334|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.419	2.419	0.0294	0.1380	0.0297	11:02:47	Yes
2	2.412	2.412	0.0293	0.1384	0.0297	11:03:17	Yes
Mean:	2.416	2.416	0.0294				
SD:	0.005	0.005	0.0001				
%RSD:	0.191	0.191	0.19				

==========

Sequence No.: 61 **Autosampler Location: 53**
Sample ID: 1202055205|958334|1 **Date Collected: 3/1/2010 11:03:36**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055205|958334|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.392	2.392	0.0291	0.1385	0.0294	11:04:28	Yes
2	2.399	2.399	0.0292	0.1374	0.0295	11:04:58	Yes
Mean:	2.395	2.395	0.0291				

SD:	0.005	0.005	0.0001
%RSD:	0.225	0.225	0.22

==========

Sequence No.: 62 **Autosampler Location: 54**
Sample ID: 1202055204|958334|5 **Date Collected: 3/1/2010 11:05:17**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055204|958334|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.003	0.003	0.0006	0.0047	0.0009	11:06:09	Yes
2	0.002	0.002	0.0006	0.0043	0.0009	11:06:39	Yes
Mean:	0.003	0.003	0.0006				
SD:	0.001	0.001	0.0000				
%RSD:	19.20	19.20	1.09				

==========

Sequence No.: 63 **Autosampler Location: 55**
Sample ID: 247456002|958334|1 **Date Collected: 3/1/2010 11:06:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 247456002|958334|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.072	0.072	0.0014	0.0080	0.0018	11:07:50	Yes
2	0.072	0.072	0.0014	0.0082	0.0018	11:08:20	Yes
Mean:	0.072	0.072	0.0014				
SD:	0.000	0.000	0.0000				
%RSD:	0.208	0.208	0.13				

==========

Sequence No.: 64 **Autosampler Location: 56**
Sample ID: 247456003|958334|1 **Date Collected: 3/1/2010 11:08:39**
Analyst: JXL **Data Type: Original**

Replicate Data: 247456003|958334|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.306	0.306	0.0042	0.0216	0.0046	11:09:30	Yes
2	0.307	0.307	0.0042	0.0217	0.0046	11:10:00	Yes
Mean:	0.306	0.306	0.0042				
SD:	0.001	0.001	0.0000				
%RSD:	0.329	0.329	0.29				

==========

Sequence No.: 65 **Autosampler Location: 57**
Sample ID: 247456004|958334|1 **Date Collected: 3/1/2010 11:10:20**
Analyst: JXL **Data Type: Original**

Replicate Data: 247456004|958334|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.332	0.332	0.0045	0.0225	0.0049	11:11:11	Yes
2	0.338	0.338	0.0046	0.0237	0.0049	11:11:41	Yes
Mean:	0.335	0.335	0.0045				
SD:	0.004	0.004	0.0000				
%RSD:	1.211	1.211	1.06				

==========

Sequence No.: 66 **Autosampler Location: 58**
Sample ID: 247456005|958334|1 **Date Collected: 3/1/2010 11:12:00**
Analyst: JXL **Data Type: Original**

Replicate Data: 247456005|958334|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	1.520	1.520	0.0187	0.0912	0.0190	11:12:51	Yes
2	1.496	1.496	0.0184	0.0899	0.0187	11:13:21	Yes
Mean:	1.508	1.508	0.0185				
SD:	0.017	0.017	0.0002				
%RSD:	1.131	1.131	1.10				

==========

Sequence No.: 67 **Autosampler Location: 59**
Sample ID: 247456006|958334|1 **Date Collected: 3/1/2010 11:13:41**
Analyst: JXL **Data Type: Original**

Replicate Data: 247456006|958334|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.092	0.092	0.0017	0.0095	0.0020	11:14:32	Yes
2	0.083	0.083	0.0015	0.0086	0.0019	11:15:02	Yes
Mean:	0.088	0.088	0.0016				
SD:	0.006	0.006	0.0001				
%RSD:	7.242	7.242	4.73				

==========

Sequence No.: 68 **Autosampler Location: 60**
Sample ID: 1202047338|954974|1 **Date Collected: 3/1/2010 11:15:22**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202047338|954974|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.052	-0.052	-0.0001	0.0017	0.0003	11:16:14	Yes
2	-0.052	-0.052	-0.0001	0.0012	0.0003	11:16:44	Yes
Mean:	-0.052	-0.052	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.004	0.004	0.04				

==========

Sequence No.: 69 **Autosampler Location: 61**
Sample ID: 1202047339|954974|10 **Date Collected: 3/1/2010 11:17:04**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202047339|954974|10

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	3.734	3.734	0.0451	0.2090	0.0454	11:17:56	Yes
2	3.758	3.758	0.0454	0.2107	0.0457	11:18:25	Yes
Mean:	3.746	3.746	0.0452				
SD:	0.017	0.017	0.0002				
%RSD:	0.460	0.460	0.45				

==========

Sequence No.: 70 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/1/2010 11:18:46**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.862	4.862	0.0585	0.2720	0.0589	11:19:36	Yes
2	4.873	4.873	0.0587	0.2716	0.0590	11:20:06	Yes
Mean:	4.868	4.868	0.0586				
SD:	0.008	0.008	0.0001				
%RSD:	0.160	0.160	0.16				

QC value within limits for Hg 253.7 Recovery = 97.36%
All analyte(s) passed QC.

==========

Sequence No.: 71 **Autosampler Location: 8**

Sample ID: CCB **Date Collected: 3/1/2010 11:20:25**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.044	-0.044	0.0000	0.0019	0.0004	11:21:16	Yes
2	-0.050	-0.050	-0.0000	0.0012	0.0003	11:21:46	Yes
Mean:	-0.047	-0.047	-0.0000				
SD:	0.004	0.004	0.0001				
%RSD:	9.567	9.567	>999.9%				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 72 **Autosampler Location: 62**
Sample ID: 247186001|954974|1 **Date Collected: 3/1/2010 11:22:06**
Analyst: JXL **Data Type: Original**

Replicate Data: 247186001|954974|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.183	0.183	0.0027	0.0141	0.0031	11:22:57	Yes
2	0.188	0.188	0.0028	0.0152	0.0031	11:23:27	Yes
Mean:	0.186	0.186	0.0028				
SD:	0.003	0.003	0.0000				
%RSD:	1.547	1.547	1.24				

Sequence No.: 73 **Autosampler Location: 63**
Sample ID: 1202047340|954974|1 **Date Collected: 3/1/2010 11:23:46**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202047340|954974|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.202	0.202	0.0030	0.0154	0.0033	11:24:37	Yes
2	0.208	0.208	0.0030	0.0158	0.0034	11:25:07	Yes
Mean:	0.205	0.205	0.0030				
SD:	0.004	0.004	0.0000				
%RSD:	1.901	1.901	1.55				

Sequence No.: 74 **Autosampler Location: 64**
Sample ID: 1202047341|954974|1 **Date Collected: 3/1/2010 11:25:27**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202047341|954974|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.390	2.390	0.0290	0.1361	0.0294	11:26:18	Yes
2	2.375	2.375	0.0289	0.1364	0.0292	11:26:48	Yes
Mean:	2.382	2.382	0.0290				
SD:	0.010	0.010	0.0001				
%RSD:	0.438	0.438	0.43				

Sequence No.: 75 **Autosampler Location: 65**
Sample ID: 1202047343|954974|1 **Date Collected: 3/1/2010 11:27:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202047343|954974|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.438	2.438	0.0296	0.1385	0.0300	11:27:59	Yes
2	2.433	2.433	0.0296	0.1384	0.0299	11:28:29	Yes

Miscellaneous

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: **955118.0** Verified by: _____

Analyst: Anthony Green

Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19

Instrument: BAL-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202047657	Metals Soil LCS SRM ICP/Hg	UI062540-1	.527	g
MS	1202047655	Metals Spike Mix I	UI100205-01	.25	mL
MS	1202047655	Metals Spike Mix II	UI100205-06	.25	mL
MSD	1202047656	Metals Spike Mix I	UI100205-01	.25	mL
MSD	1202047656	Metals Spike Mix II	UI100205-06	.25	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202047652 MB	22-FEB-2010 07:00:00	Soil	0.534	50	93.63296	
1202047657 LCS	22-FEB-2010 07:00:00	Soil	0.527	50	94.87666	
247327002	22-FEB-2010 07:00:00	Soil	0.525	50	95.2381	
1202047653 DUP (247327002)	22-FEB-2010 07:00:00	Soil	0.514	50	97.27626	
1202047654 SDILT (247327002)	22-FEB-2010 07:00:00	Soil	0.525	50	95.2381	
1202047655 MS (247327002)	22-FEB-2010 07:00:00	Soil	0.523	50	95.60229	
1202047656 MSD (247327002)	22-FEB-2010 07:00:00	Soil	0.515	50	97.08738	

Reagent/Solvent Lot ID	Description	Amount
1265209	HYDROCHLORIC ACID	10 mL
1268732	Nitric Acid CONC.	1.25 mL

Comments:

Sample 247327002 consist of black, rocky soil.

Prep Logbook

Acid Digestion of Sediments, Sludges, and Soils

Batch ID: 955120.0 **Verified by:** _____
Analyst: Anthony Green
Method: SW846 3050B

Lab SOP: GL-MA-E-009 REV# 19
Instrument: BAL-001

Sample ID	Run Date	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202047663 MB	22-FEB-2010 07:00:00	0.529	50	94.51796	
1202047668 LCS	22-FEB-2010 07:00:00	0.509	50	98.23183	
247327002	22-FEB-2010 07:00:00	0.506	50	98.81423	
1202047664 DUP (247327002)	22-FEB-2010 07:00:00	0.515	50	97.08738	
1202047665 SDILT (247327002)	22-FEB-2010 07:00:00	0.506	50	98.81423	
1202047666 MS (247327002)	22-FEB-2010 07:00:00	0.515	50	97.08738	
1202047667 MSD (247327002)	22-FEB-2010 07:00:00	0.508	50	98.4252	

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202047668	Metals Soil LCS SRM ICPMS	UI062540-MS	.509	g
MS	1202047666	ICP-MS Spike for soil products.	UI091015-A	.5	mL
MS	1202047666	ICP-MS Spike for Soil Products	UI091015-B	.5	mL
MSD	1202047667	ICP-MS Spike for soil products.	UI091015-A	.5	mL
MSD	1202047667	ICP-MS Spike for Soil Products	UI091015-B	.5	mL
REGNT	All	Hydrogen Peroxide 30%	1250038-02	1.5	mL
REGNT	All	Nitric Acid CONC.	1268732	5	mL

Comments:

Sample 247327002 consist of black, rocky soil.

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **958333.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7471A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202055201	Metals LCS Soil SRM	UI031809A	.204	g
MS	1202055203	Mercury soil working intermediate standard for MS	WHG100228-14	.3	mL
MSD	1202055205	Mercury soil working intermediate standard for MS	WHG100228-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1
1202055200 MB	28-FEB-2010 13:15:00	Soil	0.529	30	56.71078	
1202055201 LCS	28-FEB-2010 13:15:00	Soil	0.204	30	147.05882	
246887001	28-FEB-2010 13:15:00	Soil	0.539	30	55.65863	
246887002	28-FEB-2010 13:15:00	Soil	0.5	30	60	
246887003	28-FEB-2010 13:15:00	Soil	0.557	30	53.85996	
246887004	28-FEB-2010 13:15:00	Soil	0.568	30	52.8169	
246887005	28-FEB-2010 13:15:00	Soil	0.533	30	56.28518	
247327002	28-FEB-2010 13:15:00	Soil	0.521	30	57.58157	
247427001	28-FEB-2010 13:15:00	Soil	0.546	30	54.94505	
247427002	28-FEB-2010 13:15:00	Soil	0.522	30	57.47126	
247427003	28-FEB-2010 13:15:00	Soil	0.553	30	54.24955	
247427004	28-FEB-2010 13:15:00	Soil	0.583	30	51.45798	
247427005	28-FEB-2010 13:15:00	Soil	0.537	30	55.86592	
247427006	28-FEB-2010 13:15:00	Soil	0.51	30	58.82353	
247456001	28-FEB-2010 13:15:00	Soil	0.545	30	55.04587	
1202055202 DUP (247456001)	28-FEB-2010 13:15:00	Soil	0.51	30	58.82353	
1202055203 MS (247456001)	28-FEB-2010 13:15:00	Soil	0.519	30	57.80347	
1202055205 MSD (247456001)	28-FEB-2010 13:15:00	Soil	0.524	30	57.25191	
1202055204 SDILT (247456001)	28-FEB-2010 13:15:00	Soil	0.545	30	55.04587	
247456002	28-FEB-2010 13:15:00	Soil	0.552	30	54.34783	
247456003	28-FEB-2010 13:15:00	Soil	0.569	30	52.72408	
247456004	28-FEB-2010 13:15:00	Soil	0.585	30	51.28205	
247456005	28-FEB-2010 13:15:00	Soil	0.57	30	52.63158	
247456006	28-FEB-2010 13:15:00	Soil	0.531	30	56.49718	

Reagent/Solvent Lot ID	Description	Amount

Comments:

Prep Logbook

Batch ID: **958333.0** Verified by: _____

Analyst: Tara Griffin

Method: SW846 7471A Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: BAL-002

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202055201	Metals LCS Soil SRM	UI031809A	.204	g
MS	1202055203	Mercury soil working intermediate standard for MS	WHG100228-14	.3	mL
MSD	1202055205	Mercury soil working intermediate standard for MS	WHG100228-14	.3	mL

Sample ID	Run Date	Matrix	Initial Weight (g)	Final Volume (mL)	Prep Factor (mL/g)	pH Check 1

1255532-C	Hg reducing agent	2 mL
1274391-1	NITRIC ACID	.375 mL
1274394-A	Hydrochloric Acid Conc.	1.125 mL
1274397-C	5% KMnO4 solution	7.5 mL
WHG100228-07	Mercury Working Standard 1st Source CAL S 0.2/CRA	30 uL
WHG100228-08	Mercury Working Standard 1st Source CAL S 0.5	75 uL
WHG100228-09	Mercury Working 1st Source CAL S 2.0	300 uL
WHG100228-10	Mercury Working 1st Source CAL S 5.0/CCV	750 uL
WHG100228-11	Mercury Working 1st Source CAL S 10.0	1.5 mL
WHG100228-12	Mercury Working 2nd Source S 5.0/ICV	750 uL

Sample 247456001 is dry light brown rocky soil.

Digestion Start Date: 28-FEB-10 13:15

Digestion End Date: 28-FEB-10 13:45

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
08-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3050B/6010B	Solid	LANL
Batch ID:	**Sample Numbers:**		
955119	See Below		

Potentially affected work order(s)(SDG): 247327(10-1898)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202047655MS 2. Failed RPD for DUP: QC 1202047653DUP 3. Failed RPD for MS/MSD, or PS/PSD: QC 1202047656MSD 4. Failed Recovery for MSD/PSD: QC 1202047656MSD	1. The matrix spike recovery failed outside of the control limits for calcium and potassium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for calcium,chromium,copper,lead and vanadium due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 3. The matrix spike and matrix spike duplicate % RPD failed outside of the control limits for aluminum,barium and calcium due to possible matrix interferences and/or sample non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 4. The matrix spike duplicate recovery failed outside of the control limits for barium and calcium due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:
Helen Camello 09-MAR-10

Data Validator/Group Leader:
Eric Lawson 09-MAR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
09-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3050B/6020	Solid	LANL
Batch ID:	**Sample Numbers:**		
955121	See Below		

Potentially affected work order(s)(SDG): 247327(10-1898)

Application Issues:

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MSD/PSD: QC 1202047667MSD	The matrix spike duplicate recovery failed outside of the control limits for Ni due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Elizabeth Janssen 10-MAR-10

Data Validator/Group Leader:

Paul Boyd 10-MAR-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI031809A **Opened:** 18-MAR-09 **Catalog Number :** 540
Name: METALSOILSRM **Received:** 18-MAR-09 **Lot Number :** D061-540
Type: Source Material **Expires:** 10-OCT-10
Employee: Jamie Johnson
Supplier: ERA
Description: Metals LCS Soil SRM
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10600 mg/kg	Antimony	126 mg/kg
Arsenic	225 mg/kg	Barium	565 mg/kg
Beryllium	162 mg/kg	Boron	107 mg/kg
Cadmium	69.1 mg/kg	Calcium	10000 mg/kg
Chromium	124 mg/kg	Cobalt	115 mg/kg
Copper	66.7 mg/kg	Iron	17600 mg/kg
Lead	223 mg/kg	Magnesium	4260 mg/kg
Manganese	368 mg/kg	Mercury	5.15 mg/kg
Molybdenum	107 mg/kg	Nickel	172 mg/kg
Potassium	4090 mg/kg	Selenium	147 mg/kg
Silver	35.2 mg/kg	Sodium	538 mg/kg
Strontium	117 mg/kg	Thallium	173 mg/kg
Tin	164 mg/kg	Titanium	381 mg/kg
Vanadium	93.9 mg/kg	Zinc	349 mg/kg

Standard Logbook

Serial ID: UI062540-I **Opened:** 12-JUN-09 **Amount :** 80 g
Name: ICP SOIL SRM **Received:** 12-JUN-09 **Lot Number :** D062-540
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICP/Hg
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	173 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.7 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Magnesium	4000 mg/kg
Manganese	558 mg/kg	Mercury	8.46 mg/kg
Molybdenum	48.6 mg/kg	Nickel	134 mg/kg
Phosphorous	736 mg/kg	Potassium	4300 mg/kg
Selenium	286 mg/kg	Silica	2591 mg/kg
Silicon	1211 mg/kg	Silver	30.1 mg/kg
Sodium	1020 mg/kg	Strontium	227 mg/kg
Sulfur	385 mg/kg	Thallium	121 mg/kg
Tin	104 mg/kg	Titanium	462 mg/kg
Vanadium	115 mg/kg	Zinc	594 mg/kg

Serial ID: UI062540-MS **Opened:** 12-JUN-09 **Lot Number :** D062-540
Name: ICPMS SOIL SRM **Received:** 12-JUN-09
Type: Source Material **Expires:** 31-JAN-12
Employee: Bryan Davis
Supplier: ERA
Description: Metals Soil LCS SRM ICPMS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	10500 mg/kg	Antimony	67.4 mg/kg
Arsenic	104 mg/kg	Barium	198 mg/kg
Beryllium	77.6 mg/kg	Boron	141 mg/kg
Cadmium	60.6 mg/kg	Calcium	9870 mg/kg
Chromium	236 mg/kg	Cobalt	91.2 mg/kg
Copper	174 mg/kg	Iron	18000 mg/kg
Lead	86 mg/kg	Lithium	10.6 mg/kg
Magnesium	4000 mg/kg	Manganese	558 mg/kg
Mercury	8.46 mg/kg	Molybdenum	48.6 mg/kg
Nickel	134 mg/kg	Phosphorous	755 mg/kg
Potassium	4300 mg/kg	Selenium	286 mg/kg
Silver	30.1 mg/kg	Sodium	1020 mg/kg

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Strontium	227 mg/kg	Thallium	121 mg/kg
Thorium	9.84 mg/kg	Tin	104 mg/kg
Titanium	462 mg/kg	Uranium	2.13 mg/kg
Uranium-235	.0153 mg/kg	Uranium-238	2.11 mg/kg
Vanadium	92.4 mg/kg	Zinc	594 mg/kg
Zirconium	10.6 mg/kg		

Serial ID: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID:	UI090701-09	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #1	**Received:**	01-JUL-09	**Catalog Number :**	160044-09-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016477
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Master Soln #1				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID:	UI090701-10	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #2	**Received:**	01-JUL-09	**Catalog Number :**	160044-08-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016476
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Soln #2				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID:	UI090701-40	**Opened:**	01-JUL-09	**Amount :**	500 mL
Name:	TRACE ICP Stock PQL St	**Received:**	30-JUN-09	**Catalog Number :**	160543-01-03
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016475
Employee:	Helen Camello			**Solvent :**	+/-0.5%in2%HNO3+TrHF
Supplier:	02si				
Description:	TRACE ICP Stock PQL Standard				
Comments:	None				

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091015-A **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for soil products.
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	20 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	10 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091015-B **Opened:** 15-OCT-09 **Catalog Number :** 160067-03
Name: ICP-MS DOE SOIL SPIKE **Received:** 15-OCT-09 **Lot Number :** 1017142
Type: Source Material **Expires:** 15-OCT-10
Employee: Francena Armstrong
Supplier: 02si
Description: ICP-MS Spike for Soil Products
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silicon	200 mg/L	Silver	5 mg/L
Tin	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L

Analyte	Concentration	Analyte	Concentration
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100205-01 **Opened:** 05-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI100205-06 **Opened:** 05-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Standard Logbook

Serial ID: UI100217-48 **Opened:** 04-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 17-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 04-MAR-11 **Lot Number :** 1018878
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100219-11 **Opened:** 19-FEB-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 19-FEB-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI100226-40 **Opened:** 26-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 25-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 1018981
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100226-41 **Opened:** 26-FEB-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 25-FEB-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 1018981
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UMS100226-01 **Opened:** 26-FEB-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 26-FEB-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-104JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100226-02 **Opened:** 26-FEB-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 26-FEB-10 **Lot Number :** 21-103JB
Type: Source Material **Expires:** 26-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A

Standard Logbook

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100226-03 **Opened:** 26-FEB-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 26-FEB-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-102JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100228-01 **Opened:** 28-FEB-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 28-FEB-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 01-MAR-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100228-02 **Opened:** 28-FEB-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 28-FEB-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 01-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Standard Logbook

Serial ID: WHG100228-07 **Opened:** 28-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.2CRA **Received:** 28-FEB-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 07-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100228-01	Mercury	200 ug/L	30 uL	30 mL	.2 ug/L

Serial ID: WHG100228-08 **Opened:** 28-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS0.5 **Received:** 28-FEB-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 07-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working Standard 1st Source CAL S 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100228-01	Mercury	200 ug/L	75 uL	30 mL	.5 ug/L

Serial ID: WHG100228-09 **Opened:** 28-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS2.0 **Received:** 28-FEB-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 07-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100228-01	Mercury	200 ug/L	300 uL	30 mL	2 ug/L

Serial ID: WHG100228-10 **Opened:** 28-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS5.0CCV **Received:** 28-FEB-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 07-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL S 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100228-01	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Standard Logbook

Serial ID: WHG100228-11 **Opened:** 28-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKCALS10.0 **Received:** 28-FEB-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 07-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL S 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100228-01	Mercury	200 ug/L	1.5 mL	30 mL	10 ug/L

Serial ID: WHG100228-12 **Opened:** 28-FEB-10 **Pipet Id :** Hg1289245
Name: MHGWORKS5.0ICV **Received:** 28-FEB-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 07-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 2nd Source S 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100228-02	Mercury	200 ug/L	750 uL	30 mL	5 ug/L

Serial ID: WHG100228-14 **Opened:** 28-FEB-10 **Pipet Id :** Hg1289245
Name: MHGSOILMSSPIKE **Received:** 28-FEB-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 07-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury soil working intermediate standard for MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100305-42 **Opened:** 05-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1276974
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100305-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100305-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100305-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100305-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100305-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100305-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100305-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100305-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100305-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100305-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100305-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100305-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100305-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100305-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100305-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100305-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100305-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100305-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100305-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100305-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100305-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100305-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100305-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100305-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100305-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100305-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100305-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100305-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100305-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100305-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100305-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100305-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100305-43 **Opened:** 05-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1263028
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100305-44 **Opened:** 05-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-MAR-10 **Solvent :** 3%HCL and 1 %HNO3-1276974
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100305-45 **Opened:** 05-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1276974
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100305-46 **Opened:** 05-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-MAR-10 **Solvent :** 3%HCL AND 1%HNO3-1276974
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals

Standard Logbook

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100305-47 **Opened:** 05-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 06-MAR-10 **Solvent :** 3%HCL &1%HNO3-1276974
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100307-04 **Opened:** 07-MAR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 07-MAR-10 **Balance Id :** 4025216
Type: Working **Expires:** 08-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1276824
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100226-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100307-04A **Opened:** 07-MAR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 07-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 08-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100307-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100307-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100307-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100307-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100307-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100307-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100307-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100307-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100307-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100307-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100307-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100307-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100307-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100307-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100307-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100307-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100307-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100307-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100307-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100307-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100307-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100307-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100307-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100307-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100307-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100307-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100307-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100307-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100307-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100307-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100307-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100307-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100307-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100307-05 **Opened:** 07-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 07-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 08-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100307-06 **Opened:** 07-MAR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 07-MAR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 08-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100307-07 **Opened:** 07-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 07-MAR-10 **Lot Number :** 1010773
Type: Working **Expires:** 08-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1276824
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS100307-08 **Opened:** 07-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 07-MAR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 08-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1250038-02 **Opened:** 04-JAN-10 **Lot Number :** ZU74081198 mL
Name: B-H2O2 **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 04-JAN-11
Employee: Bryan Davis
Supplier: EM SCIENCE
Description: Hydrogen Peroxide 30%
Comments: None

Standard Logbook

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1265209 **Opened:** 04-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 04-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 04-FEB-11
Employee: Bryan Davis
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1268732 **Opened:** 11-FEB-10 **Lot Number :** H12022 L
Name: I-HNO3 **Received:** 11-FEB-10
Type: Reagent/Solvent **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1274394-A **Opened:** 24-FEB-10 **Lot Number :** J02039
Name: B-HCl-MER **Received:** 24-FEB-10
Type: Reagent/Solvent **Expires:** 01-MAR-10
Employee: Tara Griffin
Supplier: J T Baker
Description: Hydrochloric Acid Conc.
Comments: None

Standard Logbook

Serial ID: 1274397-C **Opened:** 24-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 24-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1276824 **Opened:** 01-MAR-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 08-MAR-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

Serial ID: 1276974 **Opened:** 01-MAR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 25-FEB-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 07-MAR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1898-1

Sample Analysis

Sample ID	**Client ID**
247329001	WST15-10-8941
1202058429	Tumbling Blank (TB)
1202061162	Method Blank (MB) **ICP-MS**
1202061163	Laboratory Control Sample (LCS)
1202061166	247329001(WST15-10-8941L) Serial Dilution (SD)
1202061164	247329001(WST15-10-8941D) Sample Duplicate (DUP)
1202058425	247329001(WST15-10-8941S) Matrix Spike (MS)
1202058429	Tumbling Blank (TB)
1202061255	Method Blank (MB) **CVAA**
1202061256	Laboratory Control Sample (LCS)
1202061260	247329001(WST15-10-8941L) Serial Dilution (SD)
1202061257	247329001(WST15-10-8941D) Sample Duplicate (DUP)
1202058426	247329001(WST15-10-8941S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Method/Analysis Information

Analytical Batch:	960969 and 961004
Prep Batch :	960967 and 961003
TCLP Prep Batch :	959749
Standard Operating Procedures:	GL-MA-E-014 REV# 21, GL-MA-E-008 REV# 13, GL-LB-E-006 REV# 13 and GL-MA-E-010 REV# 23

Analytical Method: SW846 3010/6020 and SW846 7470A

Prep Method : SW846 3010A and SW846 7470A Prep

TCLP Prep Method : SW846 1311

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

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

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 247329001 (WST15-10-8941.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exception of mercury, as indicated by the "N" qualifier.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

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

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples and associated matrix QC were prepared at a 10x factor for ICP/ICPMS to minimize potential interferences arising from the high sodium content in the TCLP leaching solution. The samples and associated matrix QC were prepared at a 10x factor for CVAA analysis because larger volumes of this matrix consume excessive amounts of potassium permanganate.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: 799886. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

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

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: Kristen Parson **Date:** 3/9/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1898-1 **CONTRACT:** LANL01004 **METHOD TYPE:** SW846

SAMPLE ID: 247329001 **BASIS:** As Received **DATE COLLECTED** 16-FEB-10

CLIENT ID: WST15-10-8941 **LEVEL:** Low **DATE RECEIVED** 18-FEB-10

MATRIX: TCLP **%SOLIDS:** 0

CAS No.	Analyte	Result	Units	Qual	MDL	PQL	CRDL	DF	M*	Analyst	Run Date	Analytical Run	Analytical Batch
7440-38-2	Arsenic	0.050	mg/L	U	0.016	0.05	0.05	1	MS	BAJ	03/06/10 14:17	100306-1	960969
7440-39-3	Barium	0.443	mg/L		0.006	0.02	0.02	1	MS	BAJ	03/06/10 14:17	100306-1	960969
7440-43-9	Cadmium	0.010	mg/L	U	0.0011	0.01	0.01	1	MS	BAJ	03/06/10 14:17	100306-1	960969
7440-47-3	Chromium	0.10	mg/L	U	0.02	0.1	0.1	1	MS	BAJ	03/06/10 14:17	100306-1	960969
7439-92-1	Lead	0.020	mg/L	U	0.005	0.02	0.02	1	MS	BAJ	03/06/10 14:17	100306-1	960969
7439-97-6	Mercury	0.002	mg/L	UN	0.00066	0.002	0.002	1	AV	JXL1	03/05/10 12:07	030510W5-2	961004
7782-49-2	Selenium	0.050	mg/L	U	0.01	0.05	0.05	1	MS	BAJ	03/06/10 14:17	100306-1	960969
7440-22-4	Silver	0.010	mg/L	U	0.002	0.01	0.01	1	MS	BAJ	03/06/10 14:17	100306-1	960969

Prep Information:

Analytical Batch	Prep Batch	Prep Method	Initial wt./vol.	Units	Final wt./vol.	Units	Date	Analyst
960969	960967	SW846 3010A	5	mL	50	mL	03/04/10	BCD1
961004	961003	SW846 7470A Prep	2	mL	20	mL	03/04/10	TXB3

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1898–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.11	ug/L	5	ug/L	102.1	90.0 – 110.0	AV	05–MAR–10 10:19	030510W5–2
	Arsenic	49	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	06–MAR–10 13:35	100306–1
	Barium	51.8	ug/L	50	ug/L	103.7	90.0 – 110.0	MS	06–MAR–10 13:35	100306–1
	Cadmium	51.7	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	06–MAR–10 13:35	100306–1
	Chromium	53	ug/L	50	ug/L	106	90.0 – 110.0	MS	06–MAR–10 13:35	100306–1
	Lead	53.4	ug/L	50	ug/L	106.9	90.0 – 110.0	MS	06–MAR–10 13:35	100306–1
	Selenium	52.2	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	06–MAR–10 13:35	100306–1
	Silver	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	06–MAR–10 13:35	100306–1
CCV01										
	Mercury	5.03	ug/L	5	ug/L	100.6	80.0 – 120.0	AV	05–MAR–10 10:25	030510W5–2
	Arsenic	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	06–MAR–10 13:51	100306–1
	Barium	51.3	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	06–MAR–10 13:51	100306–1
	Cadmium	53.1	ug/L	50	ug/L	106.2	90.0 – 110.0	MS	06–MAR–10 13:51	100306–1
	Chromium	52.3	ug/L	50	ug/L	104.6	90.0 – 110.0	MS	06–MAR–10 13:51	100306–1
	Lead	54.1	ug/L	50	ug/L	108.2	90.0 – 110.0	MS	06–MAR–10 13:51	100306–1
	Selenium	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	06–MAR–10 13:51	100306–1
	Silver	51.9	ug/L	50	ug/L	103.7	90.0 – 110.0	MS	06–MAR–10 13:51	100306–1
CCV02										
	Mercury	4.97	ug/L	5	ug/L	99.5	80.0 – 120.0	AV	05–MAR–10 10:48	030510W5–2
	Arsenic	49.8	ug/L	50	ug/L	99.6	90.0 – 110.0	MS	06–MAR–10 14:01	100306–1
	Barium	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	06–MAR–10 14:01	100306–1
	Cadmium	52.5	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	06–MAR–10 14:01	100306–1
	Chromium	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	06–MAR–10 14:01	100306–1
	Lead	53.7	ug/L	50	ug/L	107.4	90.0 – 110.0	MS	06–MAR–10 14:01	100306–1
	Selenium	53.6	ug/L	50	ug/L	107.2	90.0 – 110.0	MS	06–MAR–10 14:01	100306–1
	Silver	50.7	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	06–MAR–10 14:01	100306–1
CCV03										
	Mercury	4.9	ug/L	5	ug/L	97.9	80.0 – 120.0	AV	05–MAR–10 11:11	030510W5–2
	Arsenic	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	06–MAR–10 14:30	100306–1
	Barium	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	06–MAR–10 14:30	100306–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1898–1

Contract: LANL01004 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cadmium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	06–MAR–10 14:30	100306–1
	Chromium	52.8	ug/L	50	ug/L	105.5	90.0 – 110.0	MS	06–MAR–10 14:30	100306–1
	Lead	53.2	ug/L	50	ug/L	106.5	90.0 – 110.0	MS	06–MAR–10 14:30	100306–1
	Selenium	53.6	ug/L	50	ug/L	107.2	90.0 – 110.0	MS	06–MAR–10 14:30	100306–1
	Silver	50.3	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	06–MAR–10 14:30	100306–1
CCV04										
	Mercury	4.88	ug/L	5	ug/L	97.5	80.0 – 120.0	AV	05–MAR–10 11:34	030510W5–2
CCV05										
	Mercury	4.84	ug/L	5	ug/L	96.8	80.0 – 120.0	AV	05–MAR–10 11:58	030510W5–2
CCV06										
	Mercury	5.14	ug/L	5	ug/L	102.8	80.0 – 120.0	AV	05–MAR–10 12:21	030510W5–2

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–1898–1

Contract: LANL01004 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.19	ug/L	.2	ug/L	95	70.0 – 130.0	AV	05–MAR–10 10:23	030510W5–2
	Lead	2.51	ug/L	2	ug/L	125.6	70.0 – 130.0	MS	06–MAR–10 13:42	100306–1
	Silver	1.08	ug/L	1	ug/L	108.4	70.0 – 130.0	MS	06–MAR–10 13:42	100306–1
	Arsenic	5.95	ug/L	5	ug/L	118.9	70.0 – 130.0	MS	06–MAR–10 13:42	100306–1
	Barium	2.23	ug/L	2	ug/L	111.6	70.0 – 130.0	MS	06–MAR–10 13:42	100306–1
	Cadmium	1.12	ug/L	1	ug/L	112.3	70.0 – 130.0	MS	06–MAR–10 13:42	100306–1
	Chromium	11.7	ug/L	10	ug/L	117.4	70.0 – 130.0	MS	06–MAR–10 13:42	100306–1
	Selenium	5.8	ug/L	5	ug/L	116	70.0 – 130.0	MS	06–MAR–10 13:42	100306–1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1898-1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	05-MAR-10 10:21	030510W5-2
	Arsenic	1.6	+/-5	U	1.6	5.0	LIQ	MS	06-MAR-10 13:38	100306-1
	Barium	0.6	+/-2	U	0.6	2.0	LIQ	MS	06-MAR-10 13:38	100306-1
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	06-MAR-10 13:38	100306-1
	Chromium	2.0	+/-10	U	2.0	10.0	LIQ	MS	06-MAR-10 13:38	100306-1
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	06-MAR-10 13:38	100306-1
	Selenium	1.0	+/-5	U	1.0	5.0	LIQ	MS	06-MAR-10 13:38	100306-1
	Silver	0.2	+/-1	U	0.2	1.0	LIQ	MS	06-MAR-10 13:38	100306-1
CCB01										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	05-MAR-10 10:27	030510W5-2
	Arsenic	1.6	+/-5	U	1.6	5.0	LIQ	MS	06-MAR-10 13:54	100306-1
	Barium	0.6	+/-2	U	0.6	2.0	LIQ	MS	06-MAR-10 13:54	100306-1
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	06-MAR-10 13:54	100306-1
	Chromium	2.0	+/-10	U	2.0	10.0	LIQ	MS	06-MAR-10 13:54	100306-1
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	06-MAR-10 13:54	100306-1
	Selenium	1.0	+/-5	U	1.0	5.0	LIQ	MS	06-MAR-10 13:54	100306-1
	Silver	0.2	+/-1	U	0.2	1.0	LIQ	MS	06-MAR-10 13:54	100306-1
CCB02										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	05-MAR-10 10:50	030510W5-2
	Arsenic	1.6	+/-5	U	1.6	5.0	LIQ	MS	06-MAR-10 14:04	100306-1
	Barium	0.6	+/-2	U	0.6	2.0	LIQ	MS	06-MAR-10 14:04	100306-1
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	06-MAR-10 14:04	100306-1
	Chromium	2.0	+/-10	U	2.0	10.0	LIQ	MS	06-MAR-10 14:04	100306-1
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	06-MAR-10 14:04	100306-1
	Selenium	1.0	+/-5	U	1.0	5.0	LIQ	MS	06-MAR-10 14:04	100306-1
	Silver	0.2	+/-1	U	0.2	1.0	LIQ	MS	06-MAR-10 14:04	100306-1
CCB03										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	05-MAR-10 11:13	030510W5-2
	Arsenic	1.6	+/-5	U	1.6	5.0	LIQ	MS	06-MAR-10 14:33	100306-1
	Barium	0.6	+/-2	U	0.6	2.0	LIQ	MS	06-MAR-10 14:33	100306-1
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	06-MAR-10 14:33	100306-1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1898–1

Contract: LANL01004

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Chromium	2.0	+/–10	U	2.0	10.0	LIQ	MS	06–MAR–10 14:33	100306–1
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	06–MAR–10 14:33	100306–1
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	06–MAR–10 14:33	100306–1
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	06–MAR–10 14:33	100306–1
CCB04	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	05–MAR–10 11:36	030510W5–2
CCB05	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	05–MAR–10 11:59	030510W5–2
CCB06	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	05–MAR–10 12:23	030510W5–2

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–1898–1

Contract: LANL01004

Matrix: TCLP

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202058429								
	Arsenic	0.016	mg/L	+/–0.05	U	MS	0.016	0.05
	Barium	0.006	mg/L	+/–0.02	U	MS	0.006	0.02
	Cadmium	0.0011	mg/L	+/–0.01	U	MS	0.0011	0.01
	Mercury	–0.00088	mg/L	+/–0.002	J	AV	0.00066	0.002
	Selenium	0.01	mg/L	+/–0.05	U	MS	0.01	0.05
	Lead	0.005	mg/L	+/–0.02	U	MS	0.005	0.02
	Chromium	0.02	mg/L	+/–0.1	U	MS	0.02	0.1
	Silver	0.002	mg/L	+/–0.01	U	MS	0.002	0.01
1202061162								
	Cadmium	0.0011	mg/L	+/–0.01	U	MS	0.0011	0.01
	Chromium	0.02	mg/L	+/–0.1	U	MS	0.02	0.1
	Lead	0.005	mg/L	+/–0.02	U	MS	0.005	0.02
	Selenium	0.01	mg/L	+/–0.05	U	MS	0.01	0.05
	Barium	0.006	mg/L	+/–0.02	U	MS	0.006	0.02
	Arsenic	0.016	mg/L	+/–0.05	U	MS	0.016	0.05
	Silver	0.002	mg/L	+/–0.01	U	MS	0.002	0.01
1202061255								
	Mercury	–0.00087	mg/L	+/–0.002	J	AV	0.00066	0.002

METALS
–4–
Interference Check Sample

SDG No: 10–1898–1

Contract: LANL01004 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	–0.244	ug/L					06–MAR–10 13:45	100306–1
	Barium	0.731	ug/L					06–MAR–10 13:45	100306–1
	Cadmium	0.644	ug/L					06–MAR–10 13:45	100306–1
	Chromium	3.31	ug/L					06–MAR–10 13:45	100306–1
	Lead	0.228	ug/L					06–MAR–10 13:45	100306–1
	Selenium	–1.48	ug/L					06–MAR–10 13:45	100306–1
	Silver	0.131	ug/L					06–MAR–10 13:45	100306–1
ICSAB01									
	Arsenic	22.0	ug/L	20	ug/L	110	80.0 – 120.0	06–MAR–10 13:48	100306–1
	Barium	20.6	ug/L	20.8	ug/L	99	80.0 – 120.0	06–MAR–10 13:48	100306–1
	Cadmium	20.5	ug/L	20.44	ug/L	100	80.0 – 120.0	06–MAR–10 13:48	100306–1
	Chromium	24.1	ug/L	23.3	ug/L	103	80.0 – 120.0	06–MAR–10 13:48	100306–1
	Lead	21.3	ug/L	20.19	ug/L	106	80.0 – 120.0	06–MAR–10 13:48	100306–1
	Selenium	20.3	ug/L	20	ug/L	101	80.0 – 120.0	06–MAR–10 13:48	100306–1
	Silver	19.6	ug/L	20	ug/L	97.9	80.0 – 120.0	06–MAR–10 13:48	100306–1

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1898–1 **Client ID** WST15–10–8941S

Contract: LANL01004 **Level:** Low

Matrix: TCLP **% Solids:**

Sample ID: 247329001 **Spike ID:** 1202058425

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/L	75–125	4.4		0.016	U	5.26	83.6		MS
Barium	mg/L	75–125	9.07		0.443		10.5	81.9		MS
Cadmium	mg/L	75–125	.91		0.0011	U	1.05	86.4		MS
Chromium	mg/L	75–125	4.29		0.02	U	5.26	81.4		MS
Lead	mg/L	75–125	4.45		0.005	U	5.26	84.6		MS
Selenium	mg/L	75–125	.904		0.01	U	1.05	85.9		MS
Silver	mg/L	75–125	.466		0.002	U	.526	88.5		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1898–1 **Client ID** WST15–10–8941S

Contract: LANL01004 **Level:** Low

Matrix: TCLP **% Solids:**

Sample ID: 247329001 **Spike ID:** 1202058426

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/L	75–125	.0136		0.00066	U	.02	67.9	N	AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1898–1

Contract: LANL01004 **Lab Code:** GEL

Matrix: TCLP **Level:** Low **Client ID:** WST15–10–8941D

Sample ID: 247329001 **Duplicate ID:** 1202061164 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/L		0.016	U	0.016	U			MS
Barium	mg/L	+/–20%	0.443		0.444		.264		MS
Cadmium	mg/L		0.0011	U	0.0011	U			MS
Chromium	mg/L		0.02	U	0.02	U			MS
Lead	mg/L		0.005	U	0.005	U			MS
Selenium	mg/L		0.01	U	0.01	U			MS
Silver	mg/L		0.002	U	0.002	U			MS

Metals
-6-
Duplicate Sample Summary

SDG No.: 10-1898-1

Contract: LANL01004 **Lab Code:** GEL

Matrix: TCLP **Level:** Low **Client ID:** WST15-10-8941D

Sample ID: 247329001 **Duplicate ID:** 1202061257 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/L		0.00066	U	0.00066	U			AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-1898-1

Contract: LANL01004

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202061163								
	Arsenic	mg/L	.5	.47		94.1	80-120	MS
	Barium	mg/L	.5	.483		96.6	80-120	MS
	Cadmium	mg/L	.5	.491		98.2	80-120	MS
	Chromium	mg/L	.5	.488		97.6	80-120	MS
	Lead	mg/L	.5	.528		106	80-120	MS
	Selenium	mg/L	.5	.477		95.4	80-120	MS
	Silver	mg/L	.5	.519		104	80-120	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1898–1

Contract: LANL01004

Aqueous LCS Source: GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202061256								
	Mercury	mg/L	.02	.0197		98.6	80–120	AV

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1898–1 **Client ID** WST15–10–8941L

Contract: LANL01004

Matrix: TCLP **Level:** Low

Sample ID: 247329001 **Serial Dilution ID:** 1202061166

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Arsenic	1.6	U	8	U				MS
Barium	44.3		45.1		1.81			MS
Cadmium	.11	U	.55	U				MS
Chromium	2	U	10	U				MS
Lead	.5	U	2.5	U				MS
Selenium	1	U	5	U				MS
Silver	.2	U	1	U				MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1898-1 **Client ID:** WST15-10-8941L

Contract: LANL01004

Matrix: TCLP **Level:** Low

Sample ID: 247329001 **Serial Dilution ID:** 1202061260

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1898-1 **Method Type**: MS

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 960967							
1202061162	MB for batch 960967	MB	TCLP	04-MAR-10	5mL	50mL	
1202058429	TB for batch 959749	TB	TCLP	04-MAR-10	5mL	50mL	
1202061163	LCS for batch 960967	LCS	TCLP	04-MAR-10	5mL	50mL	
1202058425	WST15-10-8941S	MS	TCLP	04-MAR-10	5mL	50mL	
1202061164	WST15-10-8941D	DUP	TCLP	04-MAR-10	5mL	50mL	
247329001	WST15-10-8941	SAMPLE	TCLP	04-MAR-10	5mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-1898-1 **Method Type:** AV

Contract: LANL01004 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	961003						
1202061255	MB for batch 961003	MB	TCLP	04-MAR-10	2mL	20mL	
1202058429	TB for batch 959749	TB	TCLP	04-MAR-10	2mL	20mL	
1202061256	LCS for batch 961003	LCS	TCLP	04-MAR-10	2mL	20mL	
1202058426	WST15-10-8941S	MS	TCLP	04-MAR-10	2mL	20mL	
1202061257	WST15-10-8941D	DUP	TCLP	04-MAR-10	2mL	20mL	
247329001	WST15-10-8941	SAMPLE	TCLP	04-MAR-10	2mL	20mL	

Metals
-14-
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 06-MAR-10 **End Date:** 06-MAR-10

Client Sdg: 10-1898-1
Method MS
Data File: 100306-1

Samp No.	D/F	Run Time	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
S0.0	1	13:26	X	X	X	X	X		X	X
S10	1	13:29	X	X	X	X	X		X	X
S100	1	13:32	X	X	X	X	X		X	X
ICV01	1	13:35	X	X	X	X	X		X	X
ICB01	1	13:38	X	X	X	X	X		X	X
CRDL01	1	13:42	X	X	X	X	X		X	X
ICSA01	1	13:45	X	X	X	X	X		X	X
ICSAB01	1	13:48	X	X	X	X	X		X	X
CCV01	1	13:51	X	X	X	X	X		X	X
CCB01	1	13:54	X	X	X	X	X		X	X
LR01	1	13:58	X	X	X	X	X		X	X
CCV02	1	14:01	X	X	X	X	X		X	X
CCB02	1	14:04	X	X	X	X	X		X	X
1202058429	1	14:07	X	X	X	X	X		X	X
1202061162	1	14:10	X	X	X	X	X		X	X
1202061163	1	14:14	X	X	X	X	X		X	X
247329001	1	14:17	X	X	X	X	X		X	X
1202061164	1	14:20	X	X	X	X	X		X	X
1202058425	1	14:23	X	X	X	X	X		X	X
1202061166	5	14:27	X	X	X	X	X		X	X
CCV03	1	14:30	X	X	X	X	X		X	X
CCB03	1	14:33	X	X	X	X	X		X	X

Metals
–14–
Analysis Run Log

Contract: LANL01004
Lab Code: GEL
Inst Name: HG3
Start Date: 05–MAR–10 **End Date:** 05–MAR–10

Client Sdg: 10–1898–1
Method AV
Data File: 030510W5–2

Samp No.	D/F	Run Time	As	Ba	Cd	Cr	Pb	Hg	Se	Ag
S0.0	1	10:08						X		
S0.2	1	10:10						X		
S0.5	1	10:12						X		
S2.0	1	10:14						X		
S5.0	1	10:16						X		
S10.0	1	10:17						X		
ICV01	1	10:19						X		
ICB01	1	10:21						X		
CRDL01	1	10:23						X		
CCV01	1	10:25						X		
CCB01	1	10:27						X		
ZZZZZZ	1	10:29								
ZZZZZZ	1	10:31								
ZZZZZZ	1	10:33								
ZZZZZZ	1	10:35								
ZZZZZZ	1	10:37								
ZZZZZZ	5	10:39								
ZZZZZZ	1	10:40								
ZZZZZZ	1	10:42								
ZZZZZZ	1	10:44								
ZZZZZZ	1	10:46								
CCV02	1	10:48						X		
CCB02	1	10:50						X		
ZZZZZZ	1	10:52								
ZZZZZZ	1	10:54								
ZZZZZZ	1	10:56								
ZZZZZZ	1	10:58								
ZZZZZZ	1	11:00								
ZZZZZZ	1	11:02								
ZZZZZZ	1	11:04								
ZZZZZZ	1	11:05								
ZZZZZZ	1	11:07								
ZZZZZZ	5	11:09								
CCV03	1	11:11						X		
CCB03	1	11:13						X		
ZZZZZZ	1	11:15								
ZZZZZZ	1	11:17								
ZZZZZZ	1	11:19								
ZZZZZZ	1	11:21								
ZZZZZZ	1	11:23								

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time								
ZZZZZZ	1	11:25								
ZZZZZZ	1	11:27								
ZZZZZZ	1	11:29								
ZZZZZZ	1	11:31								
ZZZZZZ	1	11:32								
CCV04	1	11:34						X		
CCB04	1	11:36						X		
ZZZZZZ	1	11:38								
ZZZZZZ	5	11:40								
ZZZZZZ	1	11:42								
ZZZZZZ	1	11:44								
ZZZZZZ	1	11:46								
ZZZZZZ	1	11:48								
ZZZZZZ	1	11:50								
ZZZZZZ	1	11:52								
ZZZZZZ	1	11:54								
ZZZZZZ	1	11:56								
CCV05	1	11:58						X		
CCB05	1	11:59						X		
1202058429	1	12:01						X		
1202061255	1	12:03						X		
1202061256	1	12:05						X		
247329001	1	12:07						X		
1202058426	1	12:09						X		
1202061257	1	12:11						X		
1202061260	5	12:13						X		
ZZZZZZ	1	12:15								
ZZZZZZ	1	12:17								
ZZZZZZ	1	12:19								
CCV06	1	12:21						X		
CCB06	1	12:23						X		

Standards

METALS
-10-
Instrument Detection Limits

SDG NO. 10-1898-1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Arsenic		1.6	5
	Barium		0.6	2
	Cadmium		0.11	1
	Chromium		2.0	10
	Lead		0.5	2
	Selenium		1.0	5
	Silver		0.2	1

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1898–1

Contract: LANL01004 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
MERCURY				
LIQUID	Mercury		0.066	.2

METALS
–12–
Linear Ranges

SDG NO. 10–1898–1

Contract: LANL01004 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10

Raw Data

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Saturday, March 06, 2010 12:09:34
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.661
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	4777.6	4777.599	78.513	1.6
	Mg	24.0	48634.0	48634.045	234.209	0.5
	Co	58.9	90810.3	90810.329	749.980	0.8
	Rh	102.9	182759.1	182759.120	2080.782	1.1
	In	114.9	251410.0	251410.017	1585.778	0.6
	Pb	208.0	269712.7	269712.731	1579.796	0.6
⌈>	Ba	137.9	240159.5	240159.536	2766.790	1.2
⌊	Ba++	69.0	3561.9	0.015	0.000	2.0
⌈>	Ce	139.9	293604.7	293604.702	1492.439	0.5
⌊	CeO	155.9	6296.5	0.021	0.000	1.8
	Bkgd	220.0	22.2	22.200	3.915	17.6

Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
6.50	Lens Voltage
1450.00	ICP RF Power
-1750.00	Analog Stage Voltage
1250.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	6.5	5313.7
Co	59	17	7.3	86868.6
In	115	17	8.0	235041.8

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	585	2050	0.658
Be	9.0	9.0	2046	2075	0.619
Mg	24.0	24.0	5699	2080	0.646
Mg	25.0	25.0	5927	2080	0.613
Mg	26.0	25.9	6172	2080	0.645
Co	58.9	59.0	14193	2110	0.623
Rh	102.9	102.9	24880	2160	0.639
In	114.9	114.9	27795	2180	0.649
Ce	139.9	139.9	33866	2200	0.642
Pb	206.0	206.0	49948	2295	0.612
Pb	207.0	207.0	50159	2240	0.638
Pb	208.0	208.0	50451	2265	0.700
U	238.1	238.1	57734	2275	0.727

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, March 06, 2010 13:26:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tclp.mth
Dataset File: c:\elandata\Dataset\100305\Blank.494

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		1123902	
|	Cr	52		ug/L		-4589	
⌊	Cr	53		ug/L		177533	
⌈>	Ge	74		ug/L		448915	
|	As	75		ug/L		138	
|	Se	77		ug/L		9411	
|	Se	82		ug/L		18	
⌊	Kr	83		ug/L		156	
⌈	Ag	107		ug/L		50	
|	Cd	111		ug/L		33	
|	Cd	114		ug/L		49	
⌊>	In	115		ug/L		289337	
⌈	Ba	135		ug/L		46	
|	Ba	137		ug/L		67	
|>	Lu	175		ug/L		511807	
⌊	Pb	208		ug/L		641	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Ge	74	Linear Thru Zero	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Ag	107	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Pb	208	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45					
	Cr	52					
	Cr	53					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Ba	135					
	Ba	137					
>	Lu	175					
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, March 06, 2010 13:29:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tclp.mth
Dataset File: c:\elandata\Dataset\100305\Standard 1.495

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		1126684	1126684.477
|	Cr	52	10.000	ug/L	1.820	61598	0.059
⌊	Cr	53		ug/L		149975	-0.025
⌈>	Ge	74		ug/L		455993	455993.081
|	As	75	10.000	ug/L	3.795	13665	0.030
|	Se	77		ug/L		8175	-0.003
|	Se	82	10.000	ug/L	2.313	1338	0.003
⌊	Kr	83		ug/L		139	-0.000
⌈	Ag	107	10.000	ug/L	1.440	75432	0.252
|	Cd	111	10.000	ug/L	1.556	18236	0.061
|	Cd	114		ug/L		43805	0.146
⌊>	In	115		ug/L		298715	298714.937
⌈	Ba	135		ug/L		19084	0.037
|	Ba	137	10.000	ug/L	3.729	33967	0.065
|>	Lu	175		ug/L		520720	520720.423
⌊	Pb	208	10.000	ug/L	1.637	424928	0.815

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45					
	Cr	52					
	Cr	53					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Ba	135					
	Ba	137					
>	Lu	175					
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, March 06, 2010 13:32:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tclp.mth
Dataset File: c:\elandata\Dataset\100305\Standard 2.496

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		1096039	1096039.221
	Cr	52	**99.937**	**ug/L**	2.432	600683	0.552
	Cr	53		**ug/L**		213900	0.037
>	Ge	74		**ug/L**		437844	437843.590
	As	75	**100.024**	**ug/L**	0.824	133277	0.304
	Se	77		**ug/L**		17345	0.019
	Se	82	**100.005**	**ug/L**	1.539	12751	0.029
	Kr	83		**ug/L**		163	0.000
	Ag	107	**99.947**	**ug/L**	1.975	691793	2.396
	Cd	111	**99.993**	**ug/L**	2.549	174735	0.605
	Cd	114		**ug/L**		412103	1.428
>	In	115		**ug/L**		288768	288767.787
	Ba	135		**ug/L**		182113	0.357
	Ba	137	**99.959**	**ug/L**	2.253	319145	0.625
>	Lu	175		**ug/L**		510394	510393.852
	Pb	208	**99.883**	**ug/L**	2.534	3720265	7.290

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45					
|	Cr	52					
⌊	Cr	53					
⌈>	Ge	74					
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Ag	107					
|	Cd	111					
|	Cd	114					
⌊>	In	115					
⌈	Ba	135					
|	Ba	137					
|>	Lu	175					
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, March 06, 2010 13:35:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tclp.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 1.497

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		1112487	1112486.751
|	Cr	52	**52.995**	**ug/L**	1.586	321290	0.293
⌊	Cr	53		**ug/L**		175630	-0.000
⌈>	Ge	74		**ug/L**		449624	449624.460
|	As	75	**49.033**	**ug/L**	2.187	67157	0.149
|	Se	77		**ug/L**		12640	0.007
|	Se	82	**52.237**	**ug/L**	1.110	6848	0.015
⌊	Kr	83		**ug/L**		145	-0.000
⌈	Ag	107	**50.892**	**ug/L**	1.571	360855	1.220
|	Cd	111	**51.647**	**ug/L**	2.022	92474	0.313
|	Cd	114		**ug/L**		219100	0.741
⌊>	In	115		**ug/L**		295755	295755.464
⌈	Ba	135		**ug/L**		95746	0.182
|	Ba	137	**51.844**	**ug/L**	2.551	170221	0.324
|>	Lu	175		**ug/L**		524690	524690.175
⌊	Pb	208	**53.434**	**ug/L**	0.597	2046730	3.900

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		99.0			
	Cr	52	105.989				
	Cr	53					
>	Ge	74		100.2			
	As	75	98.066				
	Se	77					
	Se	82	104.474				
	Kr	83					
	Ag	107	101.783				
	Cd	111	103.295				
	Cd	114					
>	In	115		102.2			
	Ba	135					
	Ba	137	103.688				
>	Lu	175		102.5			
	Pb	208	106.868				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, March 06, 2010 13:38:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tclp.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 2.498

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		1124096	1124095.629
|	Cr	52	**0.145**	**ug/L**	10.633	-3688	0.001
⌊	Cr	53		**ug/L**		172950	-0.004
⌈>	Ge	74		**ug/L**		454533	454533.162
|	As	75	**0.032**	**ug/L**	446.360	186	0.000
|	Se	77		**ug/L**		9849	0.001
|	Se	82	**0.047**	**ug/L**	432.115	25	0.000
⌊	Kr	83		**ug/L**		149	-0.000
⌈	Ag	107	**0.002**	**ug/L**	54.681	68	0.000
|	Cd	111	**0.005**	**ug/L**	151.826	41	0.000
|	Cd	114		**ug/L**		43	-0.000
⌊>	In	115		**ug/L**		292633	292633.168
⌈	Ba	135		**ug/L**		39	-0.000
|	Ba	137	**0.001**	**ug/L**	188.036	71	0.000
|>	Lu	175		**ug/L**		526475	526475.032
⌊	Pb	208	**0.000**	**ug/L**	79.695	675	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		100.0			
	Cr	52					
	Cr	53					
>	Ge	74		101.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.1			
	Ba	135					
	Ba	137					
>	Lu	175		102.9			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, March 06, 2010 13:42:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tclp.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 3.499

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		1111030	1111030.469
	Cr	52	**11.741**	**ug/L**	3.040	67557	0.065
	Cr	53		**ug/L**		164680	-0.010
>	Ge	74		**ug/L**		445410	445409.615
	As	75	**5.945**	**ug/L**	4.263	8188	0.018
	Se	77		**ug/L**		9190	-0.000
	Se	82	**5.798**	**ug/L**	5.652	769	0.002
	Kr	83		**ug/L**		136	-0.000
	Ag	107	**1.084**	**ug/L**	4.110	7655	0.026
	Cd	111	**1.123**	**ug/L**	3.961	2022	0.007
	Cd	114		**ug/L**		4804	0.016
>	In	115		**ug/L**		292752	292751.624
	Ba	135		**ug/L**		4139	0.008
	Ba	137	**2.232**	**ug/L**	1.325	7313	0.014
>	Lu	175		**ug/L**		518868	518867.913
	Pb	208	**2.511**	**ug/L**	1.668	95744	0.183

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		98.9			
	Cr	52	117.410				
	Cr	53					
>	Ge	74		99.2			
	As	75	118.895				
	Se	77					
	Se	82	115.966				
	Kr	83					
	Ag	107	108.402				
	Cd	111	112.290				
	Cd	114					
>	In	115		101.2			
	Ba	135					
	Ba	137	111.609				
>	Lu	175		101.4			
	Pb	208	125.572				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, March 06, 2010 13:45:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tclp.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 4.500

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		965924	965924.154
	Cr	52	**3.310**	**ug/L**	1.614	13729	0.018
	Cr	53		**ug/L**		108272	-0.046
>	Ge	74		**ug/L**		398521	398520.814
	As	75	**-0.244**	**ug/L**	139.157	-174	-0.001
	Se	77		**ug/L**		8782	0.001
	Se	82	**-1.478**	**ug/L**	19.479	-155	-0.000
	Kr	83		**ug/L**		353	0.001
	Ag	107	**0.131**	**ug/L**	4.335	875	0.003
	Cd	111	**0.644**	**ug/L**	16.189	1060	0.004
	Cd	114		**ug/L**		12229	0.046
>	In	115		**ug/L**		263506	263505.686
	Ba	135		**ug/L**		1276	0.003
	Ba	137	**0.731**	**ug/L**	4.385	2216	0.005
>	Lu	175		**ug/L**		471411	471411.079
	Pb	208	**0.228**	**ug/L**	2.820	8420	0.017

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		85.9			
	Cr	52	100.306				
	Cr	53					
>	Ge	74		88.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Ag	107					
	Cd	111	145.132				
	Cd	114					
>	In	115		91.1			
	Ba	135					
	Ba	137	91.577				
>	Lu	175		92.1			
	Pb	208	120.448				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, March 06, 2010 13:48:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tclp.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 5.501

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		965078	965077.635
|	Cr	52	**24.082**	**ug/L**	0.121	124510	0.133
⌊	Cr	53		**ug/L**		131015	-0.022
⌈>	Ge	74		**ug/L**		397885	397884.788
|	As	75	**21.958**	**ug/L**	3.967	26681	0.067
|	Se	77		**ug/L**		11996	0.009
|	Se	82	**20.275**	**ug/L**	2.229	2362	0.006
⌊	Kr	83		**ug/L**		370	0.001
⌈	Ag	107	**19.579**	**ug/L**	2.741	123859	0.469
|	Cd	111	**20.501**	**ug/L**	0.807	32765	0.124
|	Cd	114		**ug/L**		86867	0.329
⌊>	In	115		**ug/L**		263799	263799.279
⌈	Ba	135		**ug/L**		34907	0.073
|	Ba	137	**20.591**	**ug/L**	0.722	61526	0.129
|>	Lu	175		**ug/L**		477182	477181.941
⌊	Pb	208	**21.344**	**ug/L**	1.740	743829	1.558

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		85.9			
	Cr	52	103.357				
	Cr	53					
>	Ge	74		88.6			
	As	75	109.788				
	Se	77					
	Se	82	101.377				
	Kr	83					
	Ag	107	97.894				
	Cd	111	100.276				
	Cd	114					
>	In	115		91.2			
	Ba	135					
	Ba	137	99.004				
>	Lu	175		93.2			
	Pb	208	105.722				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, March 06, 2010 13:51:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tclp.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 6.502

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		1070322	1070322.366
	Cr	52	**52.295**	**ug/L**	1.414	304957	0.289
	Cr	53		**ug/L**		172530	0.003
>	Ge	74		**ug/L**		437828	437828.449
	As	75	**50.103**	**ug/L**	2.437	66807	0.152
	Se	77		**ug/L**		13274	0.009
	Se	82	**52.586**	**ug/L**	4.223	6710	0.015
	Kr	83		**ug/L**		147	-0.000
	Ag	107	**51.865**	**ug/L**	2.188	353558	1.244
	Cd	111	**53.109**	**ug/L**	1.593	91406	0.321
	Cd	114		**ug/L**		215130	0.757
>	In	115		**ug/L**		284291	284290.767
	Ba	135		**ug/L**		93708	0.182
	Ba	137	**51.305**	**ug/L**	1.525	165003	0.321
>	Lu	175		**ug/L**		513897	513896.657
	Pb	208	**54.079**	**ug/L**	1.704	2028770	3.947

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		95.2			
	Cr	52	104.591				
	Cr	53					
>	Ge	74		97.5			
	As	75	100.206				
	Se	77					
	Se	82	105.173				
	Kr	83					
	Ag	107	103.730				
	Cd	111	106.218				
	Cd	114					
>	In	115		98.3			
	Ba	135					
	Ba	137	102.611				
>	Lu	175		100.4			
	Pb	208	108.158				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, March 06, 2010 13:54:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tclp.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 7.503

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		1095607	1095606.984
|	Cr	52	**0.135**	**ug/L**	46.410	-3657	0.001
⌊	Cr	53		**ug/L**		176392	0.003
⌈>	Ge	74		**ug/L**		444556	444555.614
|	As	75	**0.190**	**ug/L**	168.874	388	0.001
|	Se	77		**ug/L**		11039	0.004
|	Se	82	**-0.017**	**ug/L**	855.522	16	-0.000
⌊	Kr	83		**ug/L**		145	-0.000
⌈	Ag	107	**0.003**	**ug/L**	56.377	68	0.000
|	Cd	111	**0.003**	**ug/L**	87.120	38	0.000
|	Cd	114		**ug/L**		52	0.000
⌊>	In	115		**ug/L**		287436	287436.360
⌈	Ba	135		**ug/L**		48	0.000
|	Ba	137	**-0.001**	**ug/L**	135.398	66	-0.000
|>	Lu	175		**ug/L**		518796	518796.091
⌊	Pb	208	**0.000**	**ug/L**	570.751	653	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		97.5			
	Cr	52					
	Cr	53					
>	Ge	74		99.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.3			
	Ba	135					
	Ba	137					
>	Lu	175		101.4			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Saturday, March 06, 2010 13:58:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tclp.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 10.504

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		959086	959085.755
	Cr	52	**915.236**	ug/L	3.286	4846107	5.058
	Cr	53		ug/L		707563	0.580
>	Ge	74		ug/L		397407	397406.907
	As	75	**862.617**	ug/L	1.496	1042248	2.622
	Se	77		ug/L		49903	0.105
	Se	82	**486.829**	ug/L	0.276	56274	0.142
	Kr	83		ug/L		217	0.000
	Ag	107	**222.674**	ug/L	3.528	1377214	5.339
	Cd	111	**891.551**	ug/L	3.939	1391991	5.396
	Cd	114		ug/L		3574760	13.856
>	In	115		ug/L		258084	258084.157
	Ba	135		ug/L		1447226	2.978
	Ba	137	**928.455**	ug/L	1.320	2822201	5.808
>	Lu	175		ug/L		485919	485919.418
	Pb	208	**4685.771**	ug/L	1.609	166166297	341.975

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		85.3			
	Cr	52	91.524				
	Cr	53					
>	Ge	74		88.5			
	As	75	86.262				
	Se	77					
	Se	82	97.366				
	Kr	83					
	Ag	107	89.069				
	Cd	111	89.155				
	Cd	114					
>	In	115		89.2			
	Ba	135					
	Ba	137	92.846				
>	Lu	175		94.9			
	Pb	208	93.715				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	As	75	LRS is out of limits (+/- 10%)
QC Std 10	Ag	107	LRS is out of limits (+/- 10%)
QC Std 10	Cd	111	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Saturday, March 06, 2010 14:01:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tclp.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 11.505

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		1069754	1069754.391
	Cr	52	**51.704**	**ug/L**	1.046	301309	0.286
	Cr	53		**ug/L**		167927	-0.001
>	Ge	74		**ug/L**		429871	429871.385
	As	75	**49.775**	**ug/L**	0.885	65179	0.151
	Se	77		**ug/L**		12324	0.008
	Se	82	**53.580**	**ug/L**	2.935	6714	0.016
	Kr	83		**ug/L**		161	0.000
	Ag	107	**50.727**	**ug/L**	2.755	345091	1.216
	Cd	111	**52.449**	**ug/L**	1.387	90102	0.317
	Cd	114		**ug/L**		211872	0.747
>	In	115		**ug/L**		283720	283719.689
	Ba	135		**ug/L**		93459	0.180
	Ba	137	**50.986**	**ug/L**	1.492	165389	0.319
>	Lu	175		**ug/L**		518344	518343.512
	Pb	208	**53.703**	**ug/L**	1.856	2032093	3.919

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		95.2			
	Cr	52	103.407				
	Cr	53					
>	Ge	74		95.8			
	As	75	99.551				
	Se	77					
	Se	82	107.160				
	Kr	83					
	Ag	107	101.455				
	Cd	111	104.899				
	Cd	114					
>	In	115		98.1			
	Ba	135					
	Ba	137	101.971				
>	Lu	175		101.3			
	Pb	208	107.407				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Saturday, March 06, 2010 14:04:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tclp.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 12.506

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		1081868	1081868.212
	Cr	52	**0.307**	**ug/L**	9.311	-2581	0.002
	Cr	53		**ug/L**		170375	-0.000
>	Ge	74		**ug/L**		435867	435866.545
	As	75	**-0.245**	**ug/L**	89.657	-189	-0.001
	Se	77		**ug/L**		10453	0.003
	Se	82	**0.144**	**ug/L**	100.354	36	0.000
	Kr	83		**ug/L**		134	-0.000
	Ag	107	**0.006**	**ug/L**	14.366	86	0.000
	Cd	111	**0.004**	**ug/L**	160.745	38	0.000
	Cd	114		**ug/L**		58	0.000
>	In	115		**ug/L**		281374	281374.332
	Ba	135		**ug/L**		58	0.000
	Ba	137	**0.002**	**ug/L**	56.691	76	0.000
>	Lu	175		**ug/L**		520397	520396.606
	Pb	208	**0.016**	**ug/L**	2.252	1264	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		96.3			
	Cr	52					
	Cr	53					
>	Ge	74		97.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.2			
	Ba	135					
	Ba	137					
>	Lu	175		101.7			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202058429
Sample Date/Time: Saturday, March 06, 2010 14:07:41
Sample Type:
Sample Description: LANL 6020 TB
Number of Replicates: 3
Batch ID: 960969|1|baj
Method File: c:\elandata\Method\tclp.mth
Dataset File: c:\elandata\Dataset\100305\1202058429.507

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		1166088	1166088.385
	Cr	52	**1.116**	ug/L	8.231	2434	0.006
	Cr	53		ug/L		283177	0.085
>	Ge	74		ug/L		445122	445121.744
	As	75	**-1.028**	ug/L	36.160	-1255	-0.003
	Se	77		ug/L		19065	0.022
	Se	82	**0.031**	ug/L	385.923	22	0.000
	Kr	83		ug/L		173	0.000
	Ag	107	**0.005**	ug/L	48.273	81	0.000
	Cd	111	**-0.098**	ug/L	18.253	-136	-0.001
	Cd	114		ug/L		33	-0.000
>	In	115		ug/L		283554	283554.473
	Ba	135		ug/L		1002	0.002
	Ba	137	**0.490**	ug/L	3.416	1672	0.003
>	Lu	175		ug/L		523571	523570.655
	Pb	208	**0.001**	ug/L	115.486	697	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		103.8			
	Cr	52					
	Cr	53					
>	Ge	74		99.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.0			
	Ba	135					
	Ba	137					
>	Lu	175		102.3			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202061162
Sample Date/Time: Saturday, March 06, 2010 14:10:55
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 960969|1|baj
Method File: c:\elandata\Method\tclp.mth
Dataset File: c:\elandata\Dataset\100305\1202061162.508

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		1172526	1172525.736
	Cr	52	0.387	ug/L	73.360	-2266	0.002
	Cr	53		ug/L		313687	0.110
>	Ge	74		ug/L		457626	457626.475
	As	75	-0.091	ug/L	766.985	17	-0.000
	Se	77		ug/L		20674	0.024
	Se	82	0.089	ug/L	54.217	31	0.000
	Kr	83		ug/L		132	-0.000
	Ag	107	-0.000	ug/L	824.657	49	-0.000
	Cd	111	-0.005	ug/L	124.627	24	-0.000
	Cd	114		ug/L		39	-0.000
>	In	115		ug/L		293389	293389.322
	Ba	135		ug/L		63	0.000
	Ba	137	0.006	ug/L	63.004	89	0.000
>	Lu	175		ug/L		536919	536919.409
	Pb	208	-0.003	ug/L	11.491	537	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		104.3			
	Cr	52					
	Cr	53					
>	Ge	74		101.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.4			
	Ba	135					
	Ba	137					
>	Lu	175		104.9			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202061163
Sample Date/Time: Saturday, March 06, 2010 14:14:10
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 960969|1|baj
Method File: c:\elandata\Method\tclp.mth
Dataset File: c:\elandata\Dataset\100305\1202061163.509

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		1186683	1186683.341
	Cr	52	48.824	ug/L	0.976	315356	0.270
	Cr	53		ug/L		339861	0.128
>	Ge	74		ug/L		458221	458221.067
	As	75	47.027	ug/L	2.757	65656	0.143
	Se	77		ug/L		24761	0.033
	Se	82	47.704	ug/L	0.129	6375	0.014
	Kr	83		ug/L		151	-0.000
	Ag	107	51.899	ug/L	1.527	359191	1.244
	Cd	111	49.076	ug/L	1.086	85767	0.297
	Cd	114		ug/L		204570	0.709
>	In	115		ug/L		288635	288634.827
	Ba	135		ug/L		92519	0.172
	Ba	137	48.295	ug/L	3.038	162919	0.302
>	Lu	175		ug/L		539244	539243.743
	Pb	208	52.754	ug/L	2.483	2076195	3.850

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		105.6			
	Cr	52					
	Cr	53					
>	Ge	74		102.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.8			
	Ba	135					
	Ba	137					
>	Lu	175		105.4			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 247329001
Sample Date/Time: Saturday, March 06, 2010 14:17:26
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 960969|1|baj
Method File: c:\elandata\Method\tclp.mth
Dataset File: c:\elandata\Dataset\100305\247329001.510

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		1158772	1158772.277
|	Cr	52	**0.875**	**ug/L**	15.148	876	0.005
⌊	Cr	53		**ug/L**		294224	0.096
⌈>	Ge	74		**ug/L**		444819	444819.128
|	As	75	**-0.661**	**ug/L**	50.893	-756	-0.002
|	Se	77		**ug/L**		19734	0.023
|	Se	82	**-0.090**	**ug/L**	265.059	6	-0.000
⌊	Kr	83		**ug/L**		181	0.000
⌈	Ag	107	**0.002**	**ug/L**	82.081	60	0.000
|	Cd	111	**-0.118**	**ug/L**	18.940	-171	-0.001
|	Cd	114		**ug/L**		102	0.000
⌊>	In	115		**ug/L**		284654	284654.358
⌈	Ba	135		**ug/L**		82402	0.156
|	Ba	137	**44.302**	**ug/L**	2.110	145955	0.277
|>	Lu	175		**ug/L**		526472	526471.600
⌊	Pb	208	**0.135**	**ug/L**	1.919	5865	0.010

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		103.1			
	Cr	52					
	Cr	53					
>	Ge	74		99.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.4			
	Ba	135					
	Ba	137					
>	Lu	175		102.9			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202061164
Sample Date/Time: Saturday, March 06, 2010 14:20:42
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 960969|1|baj
Method File: c:\elandata\Method\tclp.mth
Dataset File: c:\elandata\Dataset\100305\1202061164.511

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		1158589	1158588.812
	Cr	52	**0.763**	ug/L	14.023	157	0.004
	Cr	53		ug/L		289427	0.092
>	Ge	74		ug/L		447906	447905.939
	As	75	**-0.554**	ug/L	155.292	-611	-0.002
	Se	77		ug/L		19408	0.022
	Se	82	**-0.208**	ug/L	76.260	-9	-0.000
	Kr	83		ug/L		171	0.000
	Ag	107	**-0.000**	ug/L	279.930	48	-0.000
	Cd	111	**-0.152**	ug/L	27.418	-230	-0.001
	Cd	114		ug/L		86	0.000
>	In	115		ug/L		284948	284948.260
	Ba	135		ug/L		81827	0.155
	Ba	137	**44.419**	ug/L	2.187	146617	0.278
>	Lu	175		ug/L		527423	527423.495
	Pb	208	**0.130**	ug/L	1.563	5655	0.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		103.1			
	Cr	52					
	Cr	53					
>	Ge	74		99.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.5			
	Ba	135					
	Ba	137					
>	Lu	175		103.1			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202058425
Sample Date/Time: Saturday, March 06, 2010 14:23:59
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 960969|1|baj
Method File: c:\elandata\Method\tclp.mth
Dataset File: c:\elandata\Dataset\100305\1202058425.512

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		1151689	1151689.390
	Cr	52	**429.472**	ug/L	1.206	2728886	2.374
	Cr	53		ug/L		610012	0.372
>	Ge	74		ug/L		444314	444314.006
	As	75	**440.250**	ug/L	0.364	594809	1.338
	Se	77		ug/L		26286	0.038
	Se	82	**90.369**	ug/L	2.667	11692	0.026
	Kr	83		ug/L		198	0.000
	Ag	107	**46.605**	ug/L	2.777	319000	1.117
	Cd	111	**90.985**	ug/L	1.447	157258	0.551
	Cd	114		ug/L		363588	1.273
>	In	115		ug/L		285508	285507.736
	Ba	135		ug/L		1549785	2.933
	Ba	137	**906.662**	ug/L	0.904	2997219	5.672
>	Lu	175		ug/L		528448	528447.908
	Pb	208	**445.446**	ug/L	0.870	17179363	32.509

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		102.5			
	Cr	52					
	Cr	53					
>	Ge	74		99.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.7			
	Ba	135					
	Ba	137					
>	Lu	175		103.3			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202061166
Sample Date/Time: Saturday, March 06, 2010 14:27:16
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 960969|5|baj
Method File: c:\elandata\Method\tclp.mth
Dataset File: c:\elandata\Dataset\100305\1202061166.513

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		1096660	1096659.543
	Cr	52	**0.338**	ug/L	14.680	-2428	0.002
	Cr	53		ug/L		175154	0.002
>	Ge	74		ug/L		443751	443751.122
	As	75	**-0.015**	ug/L	757.151	116	-0.000
	Se	77		ug/L		9699	0.001
	Se	82	**-0.216**	ug/L	31.051	-10	-0.000
	Kr	83		ug/L		160	0.000
	Ag	107	**0.003**	ug/L	47.056	70	0.000
	Cd	111	**-0.018**	ug/L	39.673	1	-0.000
	Cd	114		ug/L		71	0.000
>	In	115		ug/L		293338	293337.811
	Ba	135		ug/L		16833	0.032
	Ba	137	**9.016**	ug/L	3.684	30009	0.056
>	Lu	175		ug/L		531059	531058.649
	Pb	208	**0.032**	ug/L	3.698	1893	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		97.6			
	Cr	52					
	Cr	53					
>	Ge	74		98.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.4			
	Ba	135					
	Ba	137					
>	Lu	175		103.8			
	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, March 06, 2010 14:30:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tclp.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 6.514

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		1081092	1081092.016
	Cr	52	**52.748**	**ug/L**	1.125	310743	0.292
	Cr	53		**ug/L**		182602	0.011
>	Ge	74		**ug/L**		438283	438283.014
	As	75	**50.258**	**ug/L**	3.042	67080	0.153
	Se	77		**ug/L**		13094	0.009
	Se	82	**53.579**	**ug/L**	3.379	6844	0.016
	Kr	83		**ug/L**		136	-0.000
	Ag	107	**50.343**	**ug/L**	2.810	353310	1.207
	Cd	111	**51.764**	**ug/L**	2.475	91738	0.313
	Cd	114		**ug/L**		217349	0.742
>	In	115		**ug/L**		292746	292745.560
	Ba	135		**ug/L**		95067	0.177
	Ba	137	**50.256**	**ug/L**	2.750	168557	0.314
>	Lu	175		**ug/L**		536062	536062.334
	Pb	208	**53.227**	**ug/L**	1.504	2082726	3.885

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		96.2			
	Cr	52	105.496				
	Cr	53					
>	Ge	74		97.6			
	As	75	100.515				
	Se	77					
	Se	82	107.158				
	Kr	83					
	Ag	107	100.686				
	Cd	111	103.527				
	Cd	114					
>	In	115		101.2			
	Ba	135					
	Ba	137	100.511				
>	Lu	175		104.7			
	Pb	208	106.454				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, March 06, 2010 14:33:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tclp.mth
Dataset File: c:\elandata\Dataset\100305\QC Std 7.515

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		1101609	1101608.800
|	Cr	52	**0.296**	ug/L	32.888	-2694	0.002
⌊	Cr	53		ug/L		177292	0.003
⌈>	Ge	74		ug/L		436187	436187.475
|	As	75	**-0.017**	ug/L	236.950	111	-0.000
|	Se	77		ug/L		10575	0.003
|	Se	82	**0.071**	ug/L	194.907	27	0.000
⌊	Kr	83		ug/L		147	-0.000
⌈	Ag	107	**0.003**	ug/L	17.207	68	0.000
|	Cd	111	**0.004**	ug/L	46.542	40	0.000
|	Cd	114		ug/L		54	0.000
⌊>	In	115		ug/L		287094	287093.670
⌈	Ba	135		ug/L		57	0.000
|	Ba	137	**0.001**	ug/L	174.610	71	0.000
|>	Lu	175		ug/L		526695	526694.909
⌊	Pb	208	**0.003**	ug/L	21.084	786	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Lu	175	Linear Thru Zero	
Pb	208	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45		98.0			
|	Cr	52					
⌊	Cr	53					
⌈>	Ge	74		97.2			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈	Ag	107					
|	Cd	111					
|	Cd	114					
⌊>	In	115		99.2			
⌈	Ba	135					
|	Ba	137					
|>	Lu	175		102.9			
⌊	Pb	208					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

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Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\030510W1.SIF
Batch ID:
Results Data Set: 030510W5
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 3/5/2010 10:06:44**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0016	0.0087	0.0016	10:07:44	Yes
2		[0.00]	0.0015	0.0071	0.0015	10:08:20	Yes
Mean:		[0.00]	0.0016				
SD:		0.00	0.0001				
%RSD:		0.00	7.68				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 3/5/2010 10:08:38**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0021	0.0183	0.0036	10:09:39	Yes
2		[0.2]	0.0021	0.0180	0.0036	10:10:14	Yes
Mean:		[0.2]	0.0021				
SD:		0.0	0.0000				
%RSD:		0.0	0.84				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01035 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/5/2010 10:10:33**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0053	0.0337	0.0069	10:11:34	Yes
2		[0.5]	0.0052	0.0333	0.0067	10:12:09	Yes
Mean:		[0.5]	0.0052				
SD:		0.0	0.0001				
%RSD:		0.0	1.64				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999982 Slope: 0.01049 Intercept: -0.00001

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 3/5/2010 10:12:28**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	[2.0]	0.0216	0.1092	0.0231	10:13:30	Yes
2	[2.0]	0.0212	0.1073	0.0228	10:14:05	Yes
Mean:	[2.0]	0.0214				
SD:	0.0	0.0002				
%RSD:	0.0	1.07				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999986 Slope: 0.01072 Intercept: -0.00006

==========

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 3/5/2010 10:14:24**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0527	0.2546	0.0542	10:15:26	Yes
2		[5.0]	0.0526	0.2522	0.0541	10:16:01	Yes
Mean:		[5.0]	0.0526				
SD:		0.0	0.0001				
%RSD:		0.0	0.13				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999972 Slope: 0.01054 Intercept: 0.00004

==========

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 3/5/2010 10:16:21**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1060	0.5046	0.1076	10:17:21	Yes
2		[10.0]	0.1060	0.5012	0.1076	10:17:56	Yes
Mean:		[10.0]	0.1060				
SD:		0.0	0.0000				
%RSD:		0.0	0.01				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999990 Slope: 0.01059 Intercept: -0.00002

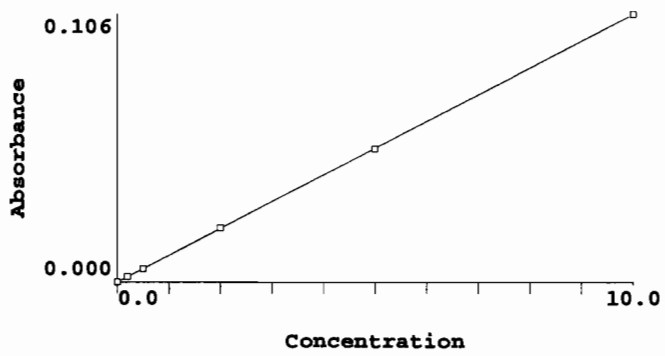

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	0.002	0.00	7.7
S0.2	0.0021	0.2	0.198	0.00	0.8
S0.5	0.0052	0.5	0.497	0.00	1.6
S2.0	0.0214	2.0	2.023	0.00	1.1
S5.0	0.0526	5.0	4.969	0.00	0.1
S10.0	0.1060	10.0	10.011	0.00	0.0

Correlation Coef.: 0.999990 Slope: 0.01059 Intercept: -0.00002

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 3/5/2010 10:18:15**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.078	5.078	0.0538	0.2570	0.0553	10:19:16	Yes
2	5.137	5.137	0.0544	0.2590	0.0560	10:19:51	Yes
Mean:	5.107	5.107	0.0541				
SD:	0.042	0.042	0.0004				
%RSD:	0.822	0.822	0.82				

QC value within limits for Hg 253.7 Recovery = 102.15%
All analyte(s) passed QC.

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 3/5/2010 10:20:10**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.014	0.014	0.0001	0.0103	0.0017	10:21:12	Yes
2	0.008	0.008	0.0001	0.0101	0.0016	10:21:46	Yes
Mean:	0.011	0.011	0.0001				
SD:	0.005	0.005	0.0000				
%RSD:	42.26	42.26	52.66				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 3/5/2010 10:22:06**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.190	0.190	0.0020	0.0181	0.0036	10:23:08	Yes
2	0.190	0.190	0.0020	0.0179	0.0036	10:23:42	Yes
Mean:	0.190	0.190	0.0020				
SD:	0.000	0.000	0.0000				
%RSD:	0.000	0.000	0.00				

QC value within limits for Hg 253.7 Recovery = 95.20%
All analyte(s) passed QC.

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/5/2010 10:24:02**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.028	5.028	0.0532	0.2573	0.0548	10:25:03	Yes
2	5.034	5.034	0.0533	0.2555	0.0549	10:25:38	Yes
Mean:	5.031	5.031	0.0533				
SD:	0.005	0.005	0.0000				
%RSD:	0.091	0.091	0.09				

QC value within limits for Hg 253.7 Recovery = 100.62%
All analyte(s) passed QC.

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/5/2010 10:25:56**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.023	-0.023	-0.0003	0.0077	0.0013	10:26:57	Yes
2	-0.014	-0.014	-0.0002	0.0082	0.0014	10:27:33	Yes
Mean:	-0.019	-0.019	-0.0002				
SD:	0.006	0.006	0.0001				
%RSD:	32.81	32.81	29.39				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202061323|961032|1 **Date Collected: 3/5/2010 10:27:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202061323|961032|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.022	0.022	0.0002	0.0104	0.0018	10:28:54	Yes
2	0.002	0.002	0.0000	0.0090	0.0016	10:29:28	Yes
Mean:	0.012	0.012	0.0001				
SD:	0.014	0.014	0.0001				
%RSD:	113.1	113.1	137.19				

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1202061324|961032|1 **Date Collected: 3/5/2010 10:29:49**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202061324|961032|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.234	2.234	0.0236	0.1166	0.0252	10:30:50	Yes
2	2.234	2.234	0.0236	0.1168	0.0252	10:31:25	Yes
Mean:	2.234	2.234	0.0236				
SD:	0.000	0.000	0.0000				
%RSD:	0.004	0.004	0.00				

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 248570001|961032|1 **Date Collected: 3/5/2010 10:31:45**
Analyst: JXL **Data Type: Original**

Replicate Data: 248570001|961032|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.009	0.009	0.0001	0.0099	0.0016	10:32:46	Yes
2	0.009	0.009	0.0001	0.0098	0.0016	10:33:21	Yes
Mean:	0.009	0.009	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	4.371	4.371	5.80				

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 1202061325|961032|1 **Date Collected: 3/5/2010 10:33:40**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202061325|961032|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.016	0.016	0.0001	0.0104	0.0017	10:34:41	Yes
2	0.003	0.003	0.0000	0.0089	0.0016	10:35:16	Yes
Mean:	0.009	0.009	0.0001				
SD:	0.009	0.009	0.0001				

1	-0.051	-0.051	-0.0006	0.0068	0.0010	10:44:14	Yes
2	-0.054	-0.054	-0.0006	0.0066	0.0010	10:44:49	Yes
Mean:	-0.052	-0.052	-0.0006				
SD:	0.002	0.002	0.0000				
%RSD:	4.151	4.151	3.98				

==========

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 248570005|961032|1 **Date Collected: 3/5/2010 10:45:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 248570005|961032|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.042	-0.042	-0.0005	0.0077	0.0011	10:46:09	Yes
2	-0.040	-0.040	-0.0004	0.0076	0.0011	10:46:44	Yes
Mean:	-0.041	-0.041	-0.0005				
SD:	0.001	0.001	0.0000				
%RSD:	3.118	3.118	2.96				

==========

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/5/2010 10:47:03**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.973	4.973	0.0526	0.2519	0.0542	10:48:04	Yes
2	4.973	4.973	0.0526	0.2498	0.0542	10:48:39	Yes
Mean:	4.973	4.973	0.0526				
SD:	0.000	0.000	0.0000				
%RSD:	0.002	0.002	0.00				

QC value within limits for Hg 253.7 Recovery = 99.45%
All analyte(s) passed QC.

==========

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/5/2010 10:48:58**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.036	-0.036	-0.0004	0.0080	0.0012	10:49:59	Yes
2	-0.036	-0.036	-0.0004	0.0080	0.0012	10:50:34	Yes
Mean:	-0.036	-0.036	-0.0004				
SD:	0.000	0.000	0.0000				
%RSD:	0.190	0.190	0.18				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 248570010|961032|1 **Date Collected: 3/5/2010 10:50:53**
Analyst: JXL **Data Type: Original**

Replicate Data: 248570010|961032|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.066	-0.066	-0.0007	0.0057	0.0008	10:51:55	Yes
2	-0.070	-0.070	-0.0008	0.0053	0.0008	10:52:29	Yes
Mean:	-0.068	-0.068	-0.0007				
SD:	0.003	0.003	0.0000				
%RSD:	4.457	4.457	4.32				

==========

SD:	0.016	0.016	0.0002
%RSD:	26.47	26.47	25.54

==========

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 248570016|961032|1 **Date Collected: 3/5/2010 11:02:29**
Analyst: JXL **Data Type: Original**

Replicate Data: 248570016|961032|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.053	-0.053	-0.0006	0.0072	0.0010	11:03:30	Yes
2	-0.056	-0.056	-0.0006	0.0070	0.0009	11:04:05	Yes
Mean:	-0.054	-0.054	-0.0006				
SD:	0.002	0.002	0.0000				
%RSD:	4.513	4.513	4.34				

==========

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 1202061343|961032|1 **Date Collected: 3/5/2010 11:04:24**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202061343|961032|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.055	-0.055	-0.0006	0.0066	0.0010	11:05:24	Yes
2	-0.065	-0.065	-0.0007	0.0061	0.0008	11:05:59	Yes
Mean:	-0.060	-0.060	-0.0007				
SD:	0.007	0.007	0.0001				
%RSD:	11.95	11.95	11.54				

==========

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 1202061344|961032|1 **Date Collected: 3/5/2010 11:06:18**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202061344|961032|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.957	1.957	0.0207	0.1049	0.0223	11:07:19	Yes
2	1.950	1.950	0.0206	0.1051	0.0222	11:07:54	Yes
Mean:	1.954	1.954	0.0207				
SD:	0.004	0.004	0.0000				
%RSD:	0.230	0.230	0.23				

==========

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 1202061345|961032|5 **Date Collected: 3/5/2010 11:08:13**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202061345|961032|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.050	-0.050	-0.0006	0.0073	0.0010	11:09:13	Yes
2	-0.056	-0.056	-0.0006	0.0063	0.0009	11:09:49	Yes
Mean:	-0.053	-0.053	-0.0006				
SD:	0.004	0.004	0.0000				
%RSD:	7.542	7.542	7.24				

==========

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/5/2010 11:10:08**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	4.876	4.876	0.0516	0.2467	0.0532	11:11:08	Yes
2	4.915	4.915	0.0520	0.2487	0.0536	11:11:43	Yes
Mean:	4.896	4.896	0.0518				
SD:	0.028	0.028	0.0003				
%RSD:	0.568	0.568	0.57				

QC value within limits for Hg 253.7 Recovery = 97.92%
All analyte(s) passed QC.

==========

Sequence No.: 35 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/5/2010 11:12:02**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.060	-0.060	-0.0007	0.0060	0.0009	11:13:03	Yes
2	-0.060	-0.060	-0.0007	0.0054	0.0009	11:13:38	Yes
Mean:	-0.060	-0.060	-0.0007				
SD:	0.000	0.000	0.0000				
%RSD:	0.103	0.103	0.10				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 36 **Autosampler Location: 32**
Sample ID: 248570017|961032|1 **Date Collected: 3/5/2010 11:13:57**
Analyst: JXL **Data Type: Original**

Replicate Data: 248570017|961032|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.069	-0.069	-0.0008	0.0062	0.0008	11:14:58	Yes
2	-0.081	-0.081	-0.0009	0.0045	0.0007	11:15:33	Yes
Mean:	-0.075	-0.075	-0.0008				
SD:	0.008	0.008	0.0001				
%RSD:	11.21	11.21	10.89				

==========

Sequence No.: 37 **Autosampler Location: 33**
Sample ID: 248570018|961032|1 **Date Collected: 3/5/2010 11:15:53**
Analyst: JXL **Data Type: Original**

Replicate Data: 248570018|961032|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.074	-0.074	-0.0008	0.0049	0.0008	11:16:54	Yes
2	-0.081	-0.081	-0.0009	0.0042	0.0007	11:17:29	Yes
Mean:	-0.078	-0.078	-0.0008				
SD:	0.005	0.005	0.0001				
%RSD:	6.412	6.412	6.24				

==========

Sequence No.: 38 **Autosampler Location: 34**
Sample ID: 248570019|961032|1 **Date Collected: 3/5/2010 11:17:48**
Analyst: JXL **Data Type: Original**

Replicate Data: 248570019|961032|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.070	-0.070	-0.0008	0.0055	0.0008	11:18:49	Yes
2	-0.077	-0.077	-0.0008	0.0055	0.0007	11:19:25	Yes
Mean:	-0.074	-0.074	-0.0008				
SD:	0.005	0.005	0.0000				
%RSD:	6.231	6.231	6.05				

Mean:	-0.079	-0.079	-0.0009
SD:	0.002	0.002	0.0000
%RSD:	2.749	2.749	2.67

==========

Sequence No.: 44 **Autosampler Location: 40**
Sample ID: 248565002|961036|1 **Date Collected: 3/5/2010 11:29:26**
Analyst: JXL **Data Type: Original**

Replicate Data: 248565002|961036|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.074	-0.074	-0.0008	0.0053	0.0008	11:30:27	Yes
2	-0.073	-0.073	-0.0008	0.0057	0.0008	11:31:01	Yes
Mean:	-0.074	-0.074	-0.0008				
SD:	0.001	0.001	0.0000				
%RSD:	0.686	0.686	0.67				

==========

Sequence No.: 45 **Autosampler Location: 41**
Sample ID: 1202061330|961036|1 **Date Collected: 3/5/2010 11:31:21**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202061330|961036|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.083	-0.083	-0.0009	0.0048	0.0007	11:32:22	Yes
2	-0.082	-0.082	-0.0009	0.0050	0.0007	11:32:56	Yes
Mean:	-0.083	-0.083	-0.0009				
SD:	0.001	0.001	0.0000				
%RSD:	0.973	0.973	0.95				

==========

Sequence No.: 46 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/5/2010 11:33:16**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.882	4.882	0.0517	0.2449	0.0532	11:34:16	Yes
2	4.871	4.871	0.0516	0.2442	0.0531	11:34:52	Yes
Mean:	4.876	4.876	0.0516				
SD:	0.008	0.008	0.0001				
%RSD:	0.159	0.159	0.16				

QC value within limits for Hg 253.7 Recovery = 97.52%
All analyte(s) passed QC.

==========

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/5/2010 11:35:11**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.043	-0.043	-0.0005	0.0068	0.0011	11:36:11	Yes
2	-0.033	-0.033	-0.0004	0.0074	0.0012	11:36:46	Yes
Mean:	-0.038	-0.038	-0.0004				
SD:	0.007	0.007	0.0001				
%RSD:	18.71	18.71	17.68				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 48 **Autosampler Location: 42**
Sample ID: 1202061331|961036|1 **Date Collected: 3/5/2010 11:37:05**

2	-0.092	-0.092	-0.0010	0.0039	0.0006	11:56:06	Yes
Mean:	-0.089	-0.089	-0.0010				
SD:	0.004	0.004	0.0000				
%RSD:	4.857	4.857	4.74				

==========

Sequence No.: 58 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/5/2010 11:56:26**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	4.836	4.836	0.0512	0.2446	0.0528	11:57:26	Yes
2	4.846	4.846	0.0513	0.2455	0.0529	11:58:01	Yes
Mean:	4.841	4.841	0.0513				
SD:	0.007	0.007	0.0001				
%RSD:	0.152	0.152	0.15				

QC value within limits for Hg 253.7 Recovery = 96.83%
All analyte(s) passed QC.

==========

Sequence No.: 59 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/5/2010 11:58:20**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.054	-0.054	-0.0006	0.0056	0.0010	11:59:21	Yes
2	-0.050	-0.050	-0.0006	0.0060	0.0010	11:59:56	Yes
Mean:	-0.052	-0.052	-0.0006				
SD:	0.003	0.003	0.0000				
%RSD:	5.641	5.641	5.41				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 60 **Autosampler Location: 52**
Sample ID: 1202058429|961004|1 **Date Collected: 3/5/2010 12:00:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202058429|961004|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.090	-0.090	-0.0010	0.0040	0.0006	12:01:16	Yes
2	-0.086	-0.086	-0.0009	0.0044	0.0006	12:01:51	Yes
Mean:	-0.088	-0.088	-0.0010				
SD:	0.003	0.003	0.0000				
%RSD:	3.382	3.382	3.30				

==========

Sequence No.: 61 **Autosampler Location: 53**
Sample ID: 1202061255|961004|1 **Date Collected: 3/5/2010 12:02:11**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202061255|961004|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.088	-0.088	-0.0010	0.0040	0.0006	12:03:12	Yes
2	-0.085	-0.085	-0.0009	0.0046	0.0006	12:03:46	Yes
Mean:	-0.087	-0.087	-0.0009				
SD:	0.002	0.002	0.0000				
%RSD:	2.624	2.624	2.56				

==========

Sequence No.: 62 **Autosampler Location: 54**

Sample ID: 1202061256|961004|1 Date Collected: 3/5/2010 12:04:06
Analyst: JXL Data Type: Original

Replicate Data: 1202061256|961004|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.965	1.965	0.0208	0.1050	0.0224	12:05:07	Yes
2	1.979	1.979	0.0209	0.1052	0.0225	12:05:42	Yes
Mean:	1.972	1.972	0.0209				
SD:	0.010	0.010	0.0001				
%RSD:	0.504	0.504	0.50				

Sequence No.: 63 Autosampler Location: 55
Sample ID: 247329001|961004|1 Date Collected: 3/5/2010 12:06:02
Analyst: JXL Data Type: Original

Replicate Data: 247329001|961004|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.083	-0.083	-0.0009	0.0047	0.0007	12:07:03	Yes
2	-0.080	-0.080	-0.0009	0.0047	0.0007	12:07:38	Yes
Mean:	-0.081	-0.081	-0.0009				
SD:	0.002	0.002	0.0000				
%RSD:	3.027	3.027	2.95				

Sequence No.: 64 Autosampler Location: 56
Sample ID: 1202058426|961004|1 Date Collected: 3/5/2010 12:07:57
Analyst: JXL Data Type: Original

Replicate Data: 1202058426|961004|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.351	1.351	0.0143	0.0750	0.0158	12:08:58	Yes
2	1.364	1.364	0.0144	0.0748	0.0160	12:09:33	Yes
Mean:	1.357	1.357	0.0144				
SD:	0.009	0.009	0.0001				
%RSD:	0.685	0.685	0.69				

Sequence No.: 65 Autosampler Location: 57
Sample ID: 1202061257|961004|1 Date Collected: 3/5/2010 12:09:53
Analyst: JXL Data Type: Original

Replicate Data: 1202061257|961004|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.094	-0.094	-0.0010	0.0037	0.0005	12:10:54	Yes
2	-0.094	-0.094	-0.0010	0.0031	0.0005	12:11:29	Yes
Mean:	-0.094	-0.094	-0.0010				
SD:	0.000	0.000	0.0000				
%RSD:	0.170	0.170	0.17				

Sequence No.: 66 Autosampler Location: 58
Sample ID: 1202061260|961004|5 Date Collected: 3/5/2010 12:11:48
Analyst: JXL Data Type: Original

Replicate Data: 1202061260|961004|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.098	-0.098	-0.0011	0.0031	0.0005	12:12:50	Yes
2	-0.088	-0.088	-0.0010	0.0041	0.0006	12:13:24	Yes
Mean:	-0.093	-0.093	-0.0010				
SD:	0.007	0.007	0.0001				

%RSD: 7.961 7.961 7.78

==========

Sequence No.: 67 **Autosampler Location: 59**
Sample ID: 1202059103|960999|1 **Date Collected: 3/5/2010 12:13:44**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202059103|960999|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.092	-0.092	-0.0010	0.0040	0.0006	12:14:46	Yes
2	-0.102	-0.102	-0.0011	0.0025	0.0005	12:15:20	Yes
Mean:	-0.097	-0.097	-0.0011				
SD:	0.007	0.007	0.0001				
%RSD:	7.401	7.401	7.24				

==========

Sequence No.: 68 **Autosampler Location: 60**
Sample ID: 1202061243|960999|1 **Date Collected: 3/5/2010 12:15:40**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202061243|960999|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.092	-0.092	-0.0010	0.0036	0.0006	12:16:42	Yes
2	-0.094	-0.094	-0.0010	0.0033	0.0005	12:17:17	Yes
Mean:	-0.093	-0.093	-0.0010				
SD:	0.002	0.002	0.0000				
%RSD:	1.918	1.918	1.87				

==========

Sequence No.: 69 **Autosampler Location: 61**
Sample ID: 1202061244|960999|1 **Date Collected: 3/5/2010 12:17:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202061244|960999|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.020	2.020	0.0214	0.1084	0.0229	12:18:39	Yes
2	2.032	2.032	0.0215	0.1079	0.0231	12:19:14	Yes
Mean:	2.026	2.026	0.0214				
SD:	0.009	0.009	0.0001				
%RSD:	0.444	0.444	0.44				

==========

Sequence No.: 70 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/5/2010 12:19:34**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.127	5.127	0.0543	0.2604	0.0558	12:20:35	Yes
2	5.157	5.157	0.0546	0.2609	0.0562	12:21:10	Yes
Mean:	5.142	5.142	0.0544				
SD:	0.021	0.021	0.0002				
%RSD:	0.408	0.408	0.41				

QC value within limits for Hg 253.7 Recovery = 102.83%
All analyte(s) passed QC.

==========

Sequence No.: 71 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/5/2010 12:21:29**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.061	-0.061	-0.0007	0.0051	0.0009	12:22:29	Yes
2	-0.046	-0.046	-0.0005	0.0061	0.0010	12:23:04	Yes
Mean:	-0.053	-0.053	-0.0006				
SD:	0.010	0.010	0.0001				
%RSD:	18.88	18.88	18.13				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 72 **Autosampler Location: 62**
Sample ID: 247988001|960999|1 **Date Collected: 3/5/2010 12:23:24**
Analyst: JXL **Data Type: Original**

Replicate Data: 247988001|960999|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.095	-0.095	-0.0010	0.0040	0.0005	12:24:25	Yes
2	-0.101	-0.101	-0.0011	0.0031	0.0005	12:25:00	Yes
Mean:	-0.098	-0.098	-0.0011				
SD:	0.005	0.005	0.0000				
%RSD:	4.637	4.637	4.54				

==========

Sequence No.: 73 **Autosampler Location: 63**
Sample ID: 1202059100|960999|1 **Date Collected: 3/5/2010 12:25:19**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202059100|960999|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.643	1.643	0.0174	0.0901	0.0189	12:26:21	Yes
2	1.650	1.650	0.0175	0.0901	0.0190	12:26:56	Yes
Mean:	1.646	1.646	0.0174				
SD:	0.005	0.005	0.0000				
%RSD:	0.281	0.281	0.28				

==========

Sequence No.: 74 **Autosampler Location: 64**
Sample ID: 1202059102|960999|1 **Date Collected: 3/5/2010 12:27:15**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202059102|960999|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.644	1.644	0.0174	0.0904	0.0190	12:28:17	Yes
2	1.655	1.655	0.0175	0.0905	0.0191	12:28:51	Yes
Mean:	1.650	1.650	0.0175				
SD:	0.007	0.007	0.0001				
%RSD:	0.452	0.452	0.45				

==========

Sequence No.: 75 **Autosampler Location: 65**
Sample ID: 1202061247|960999|5 **Date Collected: 3/5/2010 12:29:11**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202061247|960999|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.106	-0.106	-0.0011	0.0027	0.0004	12:30:12	Yes
2	-0.096	-0.096	-0.0010	0.0035	0.0005	12:30:47	Yes
Mean:	-0.101	-0.101	-0.0011				
SD:	0.007	0.007	0.0001				
%RSD:	6.888	6.888	6.74				

==========

Miscellaneous

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 961003

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202061256	WHG100304-13	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
TB	1202058429		SW846 7470A Prep	04-MAR-2010 12:40	<2	2 mL	20 mL	10	SOIL
MB	1202061255		SW846 7470A Prep	04-MAR-2010 12:40	<2	2 mL	20 mL	10	SOIL
LCS	1202061256		SW846 7470A Prep	04-MAR-2010 12:40	<2	2 mL	20 mL	10	SOIL
SAMPLE	247329001		SW846 7470A Prep	04-MAR-2010 12:40	<2	2 mL	20 mL	10	SOIL
MS	1202058426	247329001	SW846 7470A Prep	04-MAR-2010 12:40	<2	2 mL	20 mL	10	SOIL
DUP	1202061257	247329001	SW846 7470A Prep	04-MAR-2010 12:40	<2	2 mL	20 mL	10	SOIL
SDILT	1202061260	247329001	SW846 7470A Prep	04-MAR-2010 12:40	<2	2 mL	20 mL	10	SOIL

Reagent/Solvent Lot ID	Amount	Description
1176183	1 mL	Sulfuric Acid, Concentrated
1274391-1	.5 mL	NITRIC ACID
1276435-C	1.5 mL	5% Potassium Persulfate
1277238-C	3 mL	5% KMnO4 solution
1255532-C	1 mL	Hg reducing agent
WHG100304-06	500 uL	Mercury Working 2nd Source 5.0/ICV
WHG100304-01a	20 uL	Mercury Working 1st Source CAL 0.2/CRA
WHG100304-02	50 uL	Mercury Working 1st Source CAL 0.5
WHG100304-05	1 mL	Mercury Working 1st Source CAL 10.0
WHG100304-03	200 uL	Mercury Working 1st Source CAL 2.0
WHG100304-04	500 uL	Mercury Working 1st Source CAL 5.0/CCV

Comments Digestion Start Date: 04-MAR-10 12:40
Digestion End Date: 04-MAR-10 14:40

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 960967

Lab SOP: GL-MA-E-008 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202061163	UI1268746-A	.5	mL
LCS	1202061163	UI1268749-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
TB	1202058429		SW846 3010A	04-MAR-2010 10:30	<2	5 mL	50 mL	10	SOIL
MB	1202061162		SW846 3010A	04-MAR-2010 10:30	<2	5 mL	50 mL	10	SOIL
LCS	1202061163		SW846 3010A	04-MAR-2010 10:30	<2	5 mL	50 mL	10	SOIL
SAMPLE	247329001		SW846 3010A	04-MAR-2010 10:30	<2	5 mL	50 mL	10	SOIL
MS	1202058425	247329001	SW846 3010A	04-MAR-2010 10:30	<2	5 mL	50 mL	10	SOIL
DUP	1202061164	247329001	SW846 3010A	04-MAR-2010 10:30	<2	5 mL	50 mL	10	SOIL
SDILT	1202061166	247329001	SW846 3010A	04-MAR-2010 10:30	<2	5 mL	50 mL	10	SOIL

Reagent/Solvent Lot ID	Amount	Description
1277916	2.5 mL	HYDROCHLORIC ACID
1277919	3 mL	Nitric Acid CONC.

Comments

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 959749.0 **Verified by:** _____

Analyst: Steven Hucks

Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13

Instrument: TCLP Tumbler #105

Sample ID Analysis Start Date	1202058429 TB 02-MAR-2010 16:00:00	247329001 02-MAR-2010 16:00:00	1202058425 MS (247329001) 02-MAR-2010 16:00:00	1202058427 MSD (247329001) 02-MAR-2010 16:00:00
100% Solid Y/N		y	y	y
(I) Sub Sample Aliquot I=G-H (g)		100	100	100
Initial pH (su)	4.92	4.72	4.72	4.72
Filtrate pH (su)	4.92	5	5	5
Final pH (su)	4.92	4.72	4.72	4.72
Tumbler Speed	28	28	28	28
Sample Properties <>/= Water	TCLP1	Solid	Solid	Solid
(J) 20X Wet Solid Weight 20XC (g)	2000	2000	2000	2000
Filtrate Volume (mL)	500	250	95	95

Type	Sample Id	Description		Spike Amt	Units
MS	1202058425	TCLP PREP SPIKE REG METALS	1018406/1018442	5	mL
MS	1202058426	TCLP PREP MERCURY SPIKE	1017820	1	mL
MSD	1202058427	TCLP PREP SPIKE REG METALS	1018406/1018442	5	mL
MSD	1202058428	TCLP PREP MERCURY SPIKE	1017820	1	mL
RGNT	All	TCLP EXTRACTION FLUID 1	01032010-01-01	2000	mL
REGNT	All	Nitric Acid CONC.	1100721TCLP	2.5	mL

Comments:

Extration End Date: 03-MAR-10 09:00:00
Filtration End Date: 03-MAR-10 14:00:00
Bottle Lot Number: 1007397
Filter Lot Number: 9325036
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

Prep Logbook

Toxicity Characteristic Leaching Procedure Preparation

Batch ID: 959749.0 **Verified by:** _____
Analyst: Steven Hucks
Method: SW846 1311

Lab SOP: GL-LB-E-006 REV# 13
Instrument: TCLP Tumbler #105

Sample ID Analysis Start Date	1202058426 MS (247329001) 02-MAR-2010 16:00:00	1202058428 MSD (247329001) 02-MAR-2010 16:00:00
100% Solid Y/N	y	y
(I) Sub Sample Aliquot I=G-H (g)	100	100
Initial pH (su)	4.72	4.72
Filtrate pH (su)	5	5
Final pH (su)	4.72	4.72
Tumbler Speed	28	28
Sample Properties <>/= Water	Solid	Solid
(J) 20X Wet Solid Weight 20XC (g)	2000	2000
Filtrate Volume (mL)	50	50

Type	Sample Id	Description	Serial Number	Spike Amt	Units
MS	1202058425	TCLP PREP SPIKE REG METALS	1018406/1018442	5	mL
MS	1202058426	TCLP PREP MERCURY SPIKE	1017820	1	mL
MSD	1202058427	TCLP PREP SPIKE REG METALS	1018406/1018442	5	mL
MSD	1202058428	TCLP PREP MERCURY SPIKE	1017820	1	mL
RGNT	All	TCLP EXTRACTION FLUID 1	01032010-01-01	2000	mL
REGNT	All	Nitric Acid CONC.	1100721TCLP	2.5	mL

Comments:

Extration End Date: 03-MAR-10 09:00:00
Filtration End Date: 03-MAR-10 14:00:00
Bottle Lot Number: 1007397
Filter Lot Number: 9325036
Extration Start Temperature: 23 C
Extration End Temperature: 23 C
Filtration End Temperature: 23 C

DER Report No.: 799886
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
05-MAR-10	Industrial	Specifications	Process
Instrument Type: MERCURY	**Test / Method:** SW846 7470A	**Matrix Type:** Solid	**Client Code:** LANL
Batch ID: 961004	**Sample Numbers:** See Below		

Potentially affected work order(s)(SDG): 247329(10-1898-1)

Application Issues:

Failed Recovery for MS/PS

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202058426MS	1. The matrix spike recovery failed outside of the control limits for Hg due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Jason Loy 05-MAR-10

Data Validator/Group Leader:

Eric Lawson 08-MAR-10

Standard Logbook

Serial ID: 1017820 **Opened:** 10-NOV-09 **Amount :** 1 mg/L
Name: TCLP PREP Hg SPIKE **Received:** 10-NOV-09 **Catalog Number :** 160060-02
Type: Source Material **Expires:** 10-NOV-10 **Lot Number :** 1017820
Employee: Monifa Morant-Basdeo **Verified:** 10-NOV-09 **Solvent :** mercury
Supplier: O2S1
Description: TCLP PREP MERCURY SPIKE
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1 mg/L		

Serial ID: 1018406/1018442 **Opened:** 19-JAN-10 **Amount :** 5 mL
Name: TCLP PREP SPIKE **Received:** 19-JAN-10 **Catalog Number :** 160062-01
Type: Source Material **Expires:** 19-JAN-11 **Lot Number :** 1018406/1018442
Employee: Richard Dollinger **Verified:** 02-AUG-08
Supplier: O2SI
Description: TCLP PREP SPIKE REG METALS
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Antimony	40 mg/L
Arsenic	100 mg/L	Barium	200 mg/L
Beryllium	40 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Calcium	100 mg/L
Chromium	100 mg/L	Cobalt	40 mg/L
Copper	40 mg/L	Iron	40 mg/L
Lead	100 mg/L	Lithium	20 mg/L
Magnesium	40 mg/L	Manganese	40 mg/L
Molybdenum	40 mg/L	Nickel	40 mg/L
Potassium	100 mg/L	Selenium	20 mg/L
Silver	10 mg/L	Sodium	100 mg/L
Strontium	40 mg/L	Thallium	40 mg/L
Thorium	40 mg/L	Tin	40 mg/L
Total Uranium	20 mg/L	Uranium	20 mg/L
Uranium-235	.144 mg/L	Uranium-238	19.856 mg/L
Vanadium	40 mg/L	Zinc	40 mg/L
Zirconium	40 mg/L		

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Standard Logbook

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100219-11 **Opened:** 19-FEB-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 19-FEB-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI100219-60 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI100219-61 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI1268746-A **Opened:** 11-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 11-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI1268749-B **Opened:** 11-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 11-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 11-FEB-11
Employee: Bryan Davis
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UMS100226-01 **Opened:** 26-FEB-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 26-FEB-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-104JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100226-02 **Opened:** 26-FEB-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 26-FEB-10 **Lot Number :** 21-103JB
Type: Source Material **Expires:** 26-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Standard Logbook

Serial ID: UMS100226-03 **Opened:** 26-FEB-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 26-FEB-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-102JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100304-01 **Opened:** 04-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 04-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 05-MAR-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100304-02 **Opened:** 04-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 04-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 05-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100304-01a **Opened:** 04-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 04-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 11-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100304-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Standard Logbook

Serial ID: WHG100304-02 **Opened:** 04-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 04-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 11-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100304-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100304-03 **Opened:** 04-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 04-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 11-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100304-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG100304-04 **Opened:** 04-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 04-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 11-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100304-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100304-05 **Opened:** 04-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 04-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 11-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100304-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Standard Logbook

Serial ID: WHG100304-06 **Opened:** 04-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 04-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 11-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100304-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100304-13 **Opened:** 04-MAR-10 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 04-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 11-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WMS100306-04 **Opened:** 06-MAR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 06-MAR-10 **Balance Id :** 4025216
Type: Working **Expires:** 07-MAR-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1276824
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100226-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100306-04A **Opened:** 06-MAR-10 **Balance Id :** 4025216

Name: ICPMS Cal Standard 10 **Received:** 06-MAR-10 **Pipet Id :** 3541598

Type: Working **Expires:** 07-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824

Employee: Elizabeth Janssen

Supplier: GEL

Description: ICPMS Calibration Standard (10 ppb)

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100306-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100306-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100306-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100306-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100306-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100306-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100306-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100306-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100306-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100306-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100306-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100306-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100306-05 **Opened:** 06-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 06-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 07-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100306-06 **Opened:** 06-MAR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 06-MAR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 07-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100306-07 **Opened:** 06-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 06-MAR-10 **Lot Number :** 1010773
Type: Working **Expires:** 07-MAR-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1276824
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100306-08 **Opened:** 06-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 06-MAR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 07-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100306-70 **Opened:** 06-MAR-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 06-MAR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 07-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1276824
Employee: Elizabeth Janssen
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100219-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: 01032010-01-01 **Opened:** 01-MAR-10 **Balance Id :** BAL-011
Name: TCLP#1 **Received:** 01-MAR-10 **Solvent :** DI water
Type: Reagent/Solvent **Expires:** 01-MAR-11 **Storage :** Ambient
Employee: Clifford Postell **Verified:** 29-JAN-10
Supplier: GEL
Description: TCLP EXTRACTION FLUID 1
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
T49175929	TCLP-Sodium Hydroxide	100%	128.7 g	50 L	100%
T49253	TCLP-Glacial Acetic Acid	99%	285 mL	50 L	100%

Standard Logbook

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Standard Logbook

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1276435-C **Opened:** 28-FEB-10 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 28-FEB-10
Type: Reagent/Solvent **Expires:** 28-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1276824 **Opened:** 01-MAR-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 08-MAR-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

Serial ID: 1277238-C **Opened:** 01-MAR-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 01-MAR-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1277916 **Opened:** 02-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 02-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 02-MAR-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1277919 **Opened:** 02-MAR-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 02-MAR-10
Type: Reagent/Solvent **Expires:** 02-MAR-11
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: T49175929 **Opened:** 14-DEC-09 **Lot Number :** 49175929
Name: TCLP-Sodium Hydroxide **Received:** 09-DEC-09
Type: Reagent/Solvent **Expires:** 14-DEC-11
Employee: Clifford Postell
Supplier: EMD
Description: TCLP-Sodium Hydroxide
Comments: None

Standard Logbook

Serial ID:	T49253	**Opened:**	14-DEC-09	**Lot Number :**	49253
Name:	TCLP-Glacial Acetic Acid	**Received:**	09-DEC-09		
Type:	Reagent/Solvent	**Expires:**	14-DEC-11		
Employee:	Clifford Postell				
Supplier:	EMD				
Description:	TCLP-Glacial Acetic Acid				
Comments:	None				

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1898

Method/Analysis Information

Procedure:	**Dry Weight-Percent Moisture**
Analytical Method:	Dry Soil Prep
Analytical Batch Number:	954973

Sample ID	Client ID
247327002	WST15-10-8941
1202047344	247323001(RE46-10-12942) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-020 REV# 9.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 247323001 (RE46-10-12942). The QC was from LANL work order 247323.

QC Information
All of the QC samples met the required acceptance limits.

CSU
Not Applicable. The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**AM241**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	957096
Prep Batch Number:	954973

Sample ID	Client ID
247327002	WST15-10-8941
1202052134	Method Blank (MB)
1202052135	247360001(RE36-10-7427) Sample Duplicate (DUP)
1202052136	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information

All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202052134 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 247360001 (RE36-10-7427). The QC was from LANL work order 247360.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOPU**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	962738
Prep Batch Number:	954973

Sample ID	**Client ID**
247327002	WST15-10-8941
1202065407	Method Blank (MB)
1202065408	247327002(WST15-10-8941) Sample Duplicate (DUP)
1202065409	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202065407 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 247327002 (WST15-10-8941). The QC was from LANL work order 247327.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 247327002 (WST15-10-8941) was recounted due to a suspected false positive.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
Manual integration of alpha spectroscopy spectra 1202065409 (LCS) was performed to fully separate counts in Regions of Interest which would have been biased.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**ISOU**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	957101
Prep Batch Number:	954973

Sample ID	Client ID
247327002	WST15-10-8941
1202052148	Method Blank (MB)
1202052149	247360001(RE36-10-7427) Sample Duplicate (DUP)
1202052150	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquot for sample 1202052148 (MB) was changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 247360001 (RE36-10-7427). The QC was from LANL work order 247360.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**SR90**
Analytical Method:	EPA 905.0 Modified
Prep Method:	Dry Soil Prep
Analytical Batch Number:	955216
Prep Batch Number:	954973

Sample ID	Client ID
247327002	WST15-10-8941
1202047969	Method Blank (MB)
1202047970	247327002(WST15-10-8941) Sample Duplicate (DUP)
1202047971	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in February 2010.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202047969 (MB) and 1202047971 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 247327002 (WST15-10-8941). The QC was from LANL work order 247327.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank 1202047969 (MB) result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank 1202047969 (MB) result is greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**H3**
Analytical Method:	GL-RAD-A-002
Analytical Batch Number:	956740

Sample ID	Client ID
247327002	WST15-10-8941
1202051375	Method Blank (MB)
1202051376	247185001(RE15-10-7904) Sample Duplicate (DUP)
1202051377	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 247185001 (RE15-10-7904). The QC was from LANL work order 247185.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank 1202051375 (MB) result is greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Certification Statement

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

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for

CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer/Date: 3/10/2010

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

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

Client SDG: 10-1898 GEL Work Order: 247327

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Sharon L Austin

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID:	WST15-10-8941	Project:	LANL01004
Sample ID:	247327002	Client ID:	LANL010
Matrix:	D		
Collect Date:	16-FEB-10		
Receive Date:	18-FEB-10		
Collector:	Client		
Moisture:	7.84%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Alpha Spec Analysis												
AM241 "Dry Weight Corrected"												
Americium-241	U	0.000384	0.031	+/-0.00219	0.050	pCi/g		JXH2	03/06/10	1207	957096	2
ISOPU "Dry Weight Corrected"												
Plutonium-238	U	0.00156	0.0272	+/-0.00956	0.050	pCi/g		JXH2	03/09/10	0801	962738	3
Plutonium-239/240	U	0.00581	0.023	+/-0.00525	0.050	pCi/g						
ISOU "Dry Weight Corrected"												
Uranium-233/234		1.50	0.158	+/-0.155	0.100	pCi/g		JXH2	03/06/10	1214	957101	5
Uranium-235/236	U	0.101	0.103	+/-0.0318	0.100	pCi/g						
Uranium-238		2.43	0.109	+/-0.228	0.100	pCi/g						
Rad Gas Flow Proportional Counting												
SR90 "Dry Weight Corrected"												
Strontium-90	U	0.0407	0.163	+/-0.0459	0.500	pCi/g		MXB1	02/26/10	1042	955216	6
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium	U	135	200	+/-62.1	250	pCi/L		KXK2	03/03/10	1746	956740	7

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified
6	EPA 905.0 Modified
7	GL-RAD-A-002

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	AM241 "Dry Weight Corrected"	79.4	(50%-105%)
Plutonium-236 Tracer	ISOPU "Dry Weight Corrected"	79.6	(50%-105%)

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID: WST15-10-8941
Sample ID: 247327002
Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Uranium-232 Tracer		ISOU "Dry Weight Corrected"		96.9	(50%-105%)							
Strontium Carrier		SR90 "Dry Weight Corrected"		88.5	(50%-105%)							

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
JNX Non Calibrated Compound
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Compound cannot be extracted
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

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

QC Summary

Report Date: March 10, 2010

Client : **Los Alamos National Laboratory**
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: **Ms. Joylene Valdez**

Workorder: **247327**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 957096										
QC1202052135 247360001 DUP										
Americium-241	U	0.0296	U	0.00383	pCi/g	0.889		(0-1)	JXH2	03/06/1012:08
	TPU:	+/-0.00915		+/-0.00535						
	Yield:	73.0		80.3						
QC1202052136 LCS										
Americium-241	33.2			31.4	pCi/g		94.8	(80%-120%)		03/06/1012:08
	TPU:			+/-2.42						
	Yield:			97.5						
QC1202052134 MB										
Americium-241			U	-0.00231	pCi/g					03/06/1012:08
	TPU:			+/-0.00335						
	Yield:			81.1						
Batch 957101										
QC1202052149 247360001 DUP										
Uranium-233/234		1.51		1.42	pCi/g	0.140		(0-1)	JXH2	03/06/1012:15
	TPU:	+/-0.170		+/-0.156						
	Yield:	75.1		86.7						
Uranium-235/236	U	0.0228	U	0.0307	pCi/g	0.0898		(0-1)		
	TPU:	+/-0.0216		+/-0.0219						
	Yield:	75.1		86.7						
Uranium-238		1.93		1.48	pCi/g	0.611		(0-1)		
	TPU:	+/-0.205		+/-0.161						
	Yield:	75.1		86.7						
QC1202052150 LCS										
Uranium-233/234				6.55	pCi/g					03/06/1012:15
	TPU:			+/-0.741						
	Yield:			90.6						
Uranium-235/236			U	0.471	pCi/g					
	TPU:			+/-0.154						
	Yield:			90.6						
Uranium-238	5.75			5.16	pCi/g		89.7	(80%-120%)		
	TPU:			+/-0.619						
	Yield:			90.6						
QC1202052148 MB										
Uranium-233/234			U	0.0108	pCi/g					03/06/1012:15
	TPU:			+/-0.00849						
	Yield:			98.1						
Uranium-235/236			U	0.00457	pCi/g					
	TPU:			+/-0.00459						
	Yield:			98.1						
Uranium-238			U	-0.00561	pCi/g					
	TPU:			+/-0.00492						
	Yield:			98.1						
Batch 962738										

QC Summary

Workorder: 247327

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 962738										
QC1202065408 247327002 DUP										
Plutonium-238	U	0.00156	U	0.00203	pCi/g	0.0194		(0-1)	JXH2	03/09/1008:01
	TPU:	+/-0.00956		+/-0.00251						
	Yield:	79.6		93.1						
Plutonium-239/240	U	0.00581	U	0.00519	pCi/g	0.0362		(0-1)		
	TPU:	+/-0.00525		+/-0.00337						
	Yield:	79.6		93.1						
QC1202065409 LCS										
Plutonium-238				7.47	pCi/g			(80%-120%)		
	TPU:			+/-0.615						
	Yield:			87.0						
Plutonium-239/240	41.8			40.9	pCi/g		97.8	(80%-120%)		
	TPU:			+/-2.76						
	Yield:			87.0						
QC1202065407 MB										
Plutonium-238			U	0.00546	pCi/g					
	TPU:			+/-0.00668						
	Yield:			79.7						
Plutonium-239/240			U	0.000637	pCi/g					
	TPU:			+/-0.00281						
	Yield:			79.7						
Rad Gas Flow										
Batch 955216										
QC1202047970 247327002 DUP										
Strontium-90	U	0.0407	U	-0.0109	pCi/g	0.292		(0-1)	MXB1	02/26/1010:41
	TPU:	+/-0.0459		+/-0.0426						
	Yield:	88.5		86.3						
QC1202047971 LCS										
Strontium-90	22.2			24.1	pCi/g		108	(80%-120%)		02/26/1010:41
	TPU:			+/-2.53						
	Yield:			89.6						
QC1202047969 MB										
Strontium-90			U	0.235	pCi/g					02/26/1010:41
	TPU:			+/-0.102						
	Yield:			88.5						
Rad Liquid Scintillation										
Batch 956740										
QC1202051376 247185001 DUP										
Tritium		216		239	pCi/L	0.0896		(0-1)	KXK2	03/03/1021:34
	TPU:	+/-64.8		+/-65.9						
QC1202051377 LCS										
Tritium	5550			6060	pCi/L		109	(80%-120%)		03/04/1000:21
	TPU:			+/-538						
QC1202051375 MB										
Tritium			U	139	pCi/L					03/03/1019:56
	TPU:			+/-61.9						

QC Summary

Workorder: 247327

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
JNX	Non Calibrated Compound
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Compound cannot be extracted
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 957096 Product: AM Date: 8/8/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 3/8/10

Secondary Review Performed By: K A Bellett 3/9/10

3/11

P

Am/Cm Que Sheet

24-FEB-10

Batch #: 957096 | Analyst: JXH2 | First Client Due Date: 11-MAR-10 | Internal Due Date01-MAR-10 | Comments:

Tracer(s): Am243/Cm244 JH 3-3-10 | Tracer Code: 445-96-2-55 | Expiration Date: 05-11-10 | Vol: 0.1

LCS Isotope(s): Am241/Cm244 | LCS Code(s): — / — | Expiration Date: — / — | Vol(s): — / —

Spike Isotope(s): Am241/Cm244 | Spike Code(s): — / — | Expiration Date: — / — | Vol(s): — / —

Prep Date: 3-3-10 | Initials: JEH | Pipet ID: 2971058 | Balance ID: 50410272 | Witness: JB 3/3/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g / l / f)	Am/Cm Det #
247323001-1	RE46-10-12942	SAMPLE		.05 pCi/g	SOIL	LANL010	16-FEB-10	1	1	1.251	211
247323002-1	RE46-10-12944	SAMPLE		.05 pCi/g	SOIL	LANL010	16-FEB-10	2	2	1.255	212
247323003-1	RE46-10-12941	SAMPLE		.05 pCi/g	SOIL	LANL010	16-FEB-10	3	3	1.250	213
DS 3/8/10 ~~247323004-1~~	~~RE46-10-12951~~	~~SAMPLE~~		~~.05 pCi/g~~	~~SOIL~~	~~LANL010~~	~~16-FEB-10~~	~~4~~	~~4~~	~~1.274~~	~~214~~
247323005-1	RE46-10-12943	SAMPLE		.05 pCi/g	SOIL	LANL010	16-FEB-10	5	5	1.254	215
247323006-1	RE46-10-12952	SAMPLE		.05 pCi/g	SOIL	LANL010	16-FEB-10	6	6	1.267	216
247323007-1	RE46-10-13189	SAMPLE		.05 pCi/g	SOIL	LANL010	16-FEB-10	7	7	1.259	217
247325001-1	RE46-10-12661	SAMPLE		.05 pCi/g	SOIL	LANL010	16-FEB-10	8	8	1.279	218
247327002-1	WST15-10-8941	SAMPLE		.05 pCi/g	SOIL	LANL010	16-FEB-10	9	9	1.264	219
247337001-1	RE15-10-8346	SAMPLE		.05 pCi/g	SOIL	LANL010	12-FEB-10	10	10	1.262	220
247337002-1	RE15-10-8347	SAMPLE		.05 pCi/g	SOIL	LANL010	12-FEB-10	11	11	1.252	221
247337003-1	RE15-10-8344	SAMPLE		.05 pCi/g	SOIL	LANL010	12-FEB-10	12	12	1.256	222
247337004-1	RE15-10-8345	SAMPLE		.05 pCi/g	SOIL	LANL010	12-FEB-10	13	13	1.258	223
247337005-1	RE15-10-8342	SAMPLE		.05 pCi/g	SOIL	LANL010	12-FEB-10	14	14	1.250	224
247337006-1	RE15-10-8343	SAMPLE		.05 pCi/g	SOIL	LANL010	12-FEB-10	15	15	1.263	225
247337007-1	RE15-10-8377	SAMPLE		.05 pCi/g	SOIL	LANL010	12-FEB-10	16	16	1.254	226
DS 3/8/10 247360001-1	RE36-10-7427	SAMPLE		.05 pCi/g	SOIL	LANL010	12-FEB-10	17	17	1.254	227
~~247360002-1~~	~~RE36-10-7423~~	~~SAMPLE~~		~~.05 pCi/g~~	~~SOIL~~	~~LANL010~~	~~12-FEB-10~~	~~18~~	~~18~~	~~1.250~~	~~228~~
247360003-1	RE36-10-7428	SAMPLE		.05 pCi/g	SOIL	LANL010	12-FEB-10	19	19	1.259	229
247360004-1	RE36-10-7424	SAMPLE		.05 pCi/g	SOIL	LANL010	12-FEB-10	20	20	1.257	230
1202052134-1	MB for batch 957096	MB		.05 pCi/g	SOIL	QC ACCOUNT		21	21	1	231
1202052135-1	RE36-10-7427(247360001DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	12-FEB-10	22	22	1.258	232
1202052136-1	LCS for batch 957096	LCS		.05 pCi/g	SOIL	QC ACCOUNT		23	23	0.109	233

* SRM 0244-B Exp 4/30/20

Choose SOP Used: GL-RAD-A-011 / GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: DS 3/8/10

Blank Correction Report

Batch ID 957096

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202052135	DUP	Americium-241	1.26 g	0.00383	0.00535	0.0323	-.00183333	pCi/g	NO
1202052136	LCS	Americium-241	0.109 g	31.4	2.42	0.302	-.02119266	pCi/g	NO
1202052134	MB	Americium-241	1.00 g	-0.00231	0.00335	0.0386	-.00231	pCi/g	NO
247323001	RE46-10-12942	Americium-241	1.25 g	-0.00083	0.00225	0.0285	-.001848	pCi/g	NO
247323002	RE46-10-12944	Americium-241	1.26 g	0.00737	0.00415	0.0326	-.00183333	pCi/g	NO
247323003	RE46-10-12941	Americium-241	1.25 g	0.0032	0.00284	0.0356	-.001848	pCi/g	NO
247323005	RE46-10-12943	Americium-241	1.25 g	0.000828	0.00266	0.0375	-.001848	pCi/g	NO
247323006	RE46-10-12952	Americium-241	1.27 g	-0.005	0.00281	0.0299	-.00181890	pCi/g	NO
247323007	RE46-10-13189	Americium-241	1.26 g	0.00258	0.00239	0.0312	-.00183333	pCi/g	NO
247325001	RE46-10-12661	Americium-241	1.28 g	-0.0075	0.00421	0.0318	-.00180469	pCi/g	NO
247327002	WST15-10-8941	Americium-241	1.26 g	0.000384	0.00219	0.031	-.00183333	pCi/g	NO
247337001	RE15-10-8346	Americium-241	1.26 g	0.000439	0.00225	0.0319	-.00183333	pCi/g	NO
247337002	RE15-10-8347	Americium-241	1.25 g	-0.00395	0.00259	0.0299	-.001848	pCi/g	NO
247337003	RE15-10-8344	Americium-241	1.26 g	0.0029	0.00262	0.0334	-.00183333	pCi/g	NO
247337004	RE15-10-8345	Americium-241	1.26 g	0.00034	0.00216	0.0305	-.00183333	pCi/g	NO
247337005	RE15-10-8342	Americium-241	1.25 g	0.00236	0.00223	0.0297	-.001848	pCi/g	NO
247337006	RE15-10-8343	Americium-241	1.26 g	0.000796	0.00261	0.0369	-.00183333	pCi/g	NO
247337007	RE15-10-8377	Americium-241	1.25 g	-0.00182	0.00258	0.0365	-.001848	pCi/g	NO
247360001	RE36-10-7427	Americium-241	1.25 g	0.0296	0.00915	0.0356	-.001848	pCi/g	NO
247360003	RE36-10-7428	Americium-241	1.26 g	-0.000709	0.0025	0.0316	-.00183333	pCi/g	NO
247360004	RE36-10-7424	Americium-241	1.26 g	0.00175	0.00292	0.0339	-.00183333	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957096	CHAMBER : 219	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0247327002_AM	DETECTOR S/N : 79412	BKG FILE : B219.CNF;85
SAMPLE QTY : 1.264 G	AVERAGE %EFFICIENCY : 40.6279	BKG DATE : 28-FEB-2010
SAMPLE DATE : 16-FEB-2010 00:00:00	COUNT DATE : 6-MAR-2010 12:07:28	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 30300.00	EFF FILE : W219.CNF;30
% YIELD : 79.387		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3153E+01 pCi/G	NOMINAL : 3.3153E+01 pCi/G
RESULTS : 2.3154E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5536.262	4.933	1.000	0.175	0.000	2.8409	99.94000	3.84E-04	2.19E-03	1.26E-02	3.10E-02	2.19E-03
AM243	5270.000	5276.630	30.067	474.000	474.000	0.000	0.0000	99.78000	1.04E+00	8.59E-02	0.00E+00	5.94E-03	4.77E-02
CM-242	6102.000	6061.266	44.397	2.000	2.000	0.000	4.3413	100.0000	4.74E-03	3.37E-03	1.92E-02	4.43E-02	3.35E-03
CM-3/4	5795.020	5763.189	0.000	0.000	-0.505	0.505	5.1799	100.0000	-1.11E-03	2.46E-03	2.29E-02	5.17E-02	2.46E-03
CM-5/6	5386.000	5382.080	10.945	8.000	8.000	0.000	14.2480	86.09000	2.03E-02	7.32E-03	7.31E-02	1.53E-01	7.19E-03
CM-247	4946.000	4913.755	128.257	7.000	6.495	0.505	13.7917	79.30000	1.79E-02	7.53E-03	7.68E-02	1.61E-01	7.43E-03
CM-248	5078.600	5061.379	91.106	17.000	17.000	0.000	19.5080	91.00000	4.09E-02	1.03E-02	9.47E-02	1.96E-01	9.91E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 10-FEB-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

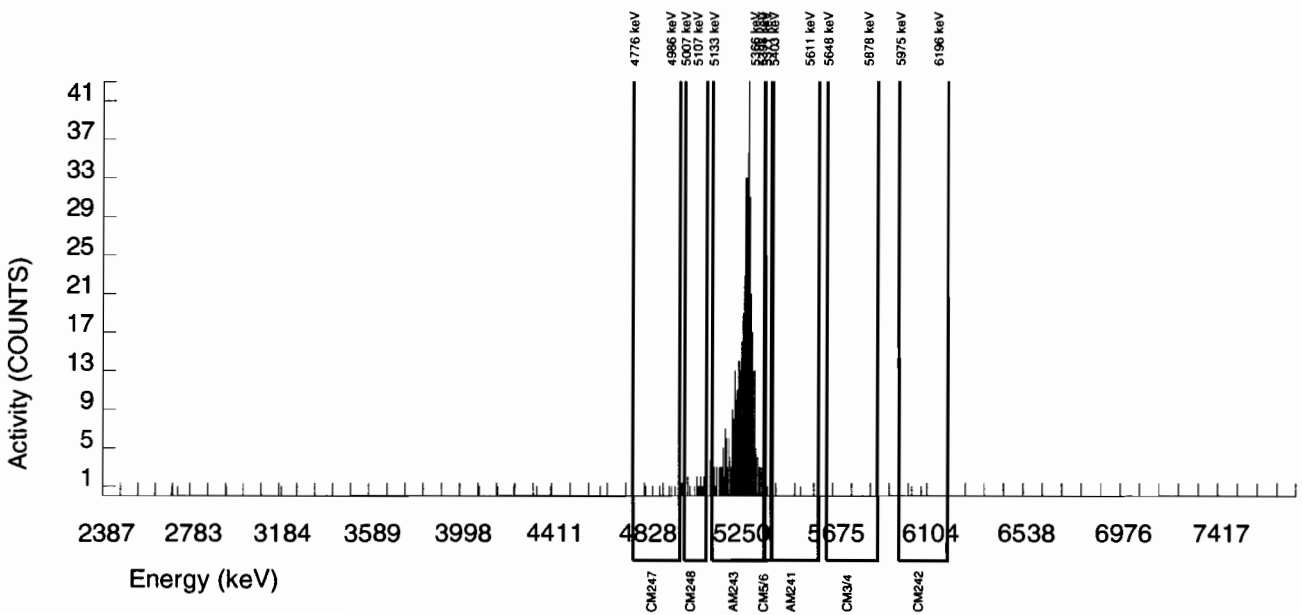

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957096	CHAMBER : 227	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0247360001_AM	DETECTOR S/N : 79420	BKG FILE : B227.CNF;85
SAMPLE QTY : 1.254 G	AVERAGE %EFFICIENCY : 38.7585	BKG DATE : 28-FEB-2010
SAMPLE DATE : 12-FEB-2010 00:00:00	COUNT DATE : 6-MAR-2010 12:07:52	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 30300.00	EFF FILE : W227.CNF;30
% YIELD : 73.032		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3154E+01 pCi/G	NOMINAL : 3.3154E+01 pCi/G
RESULTS : 2.1300E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5504.110	7.240	13.000	11.771	0.505	2.8409	99.94000	2.96E-02	9.15E-03	1.44E-02	3.56E-02	8.90E-03
AM243	5270.000	5275.199	62.561	417.000	415.990	1.010	1.0050	99.78000	1.05E+00	9.03E-02	5.11E-03	1.70E-02	5.15E-02
CM-242	6102.000	6086.763	0.000	0.000	-0.505	0.505	4.3413	100.0000	-1.40E-03	3.11E-03	2.20E-02	5.08E-02	3.10E-03
CM-3/4	5795.020	5777.009	14.788	2.000	2.000	0.000	5.1799	100.0000	5.04E-03	3.58E-03	2.63E-02	5.93E-02	3.56E-03
CM-5/6	5386.000	5374.514	0.000	3.000	3.000	0.000	14.2480	86.09000	8.76E-03	5.09E-03	8.39E-02	1.76E-01	5.06E-03
CM-247	4946.000	4937.183	14.788	2.000	2.000	0.000	13.7917	79.30000	6.34E-03	4.50E-03	8.82E-02	1.85E-01	4.48E-03
CM-248	5078.600	5075.414	28.088	9.000	9.000	0.000	19.5080	91.00000	2.49E-02	8.47E-03	1.09E-01	2.25E-01	8.28E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

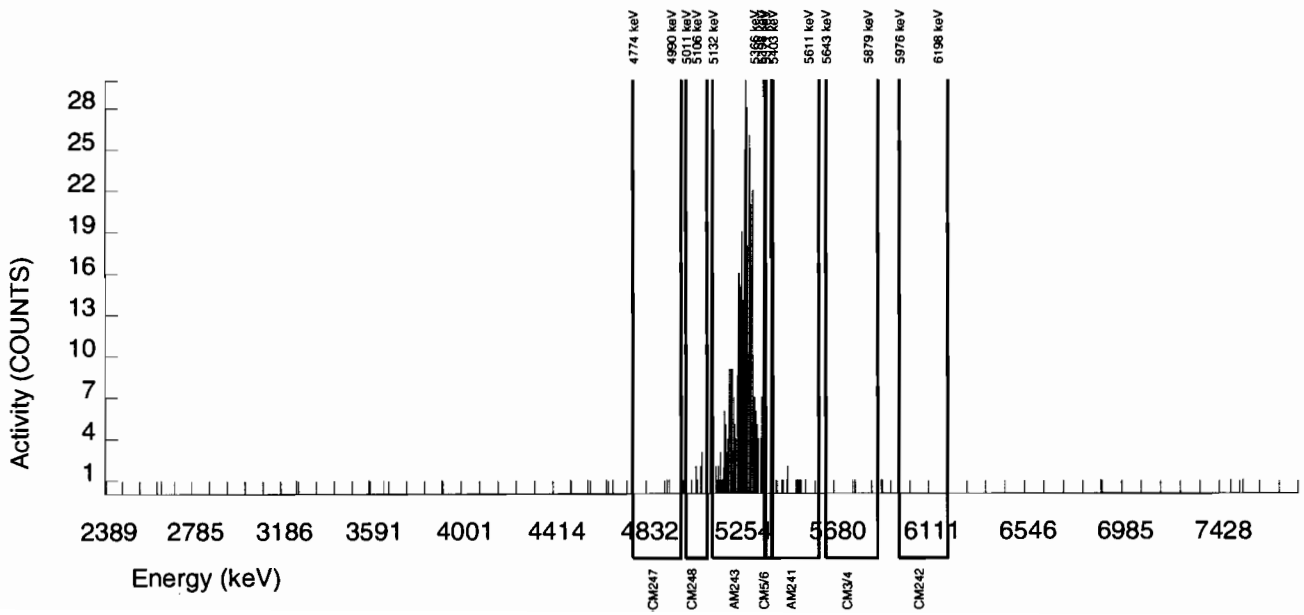

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957096	CHAMBER : 231	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202052134_AM	DETECTOR S/N : 79424	BKG FILE : B231.CNF;85
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 40.4350	BKG DATE : 28-FEB-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 6-MAR-2010 12:08:05	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 30300.00	EFF FILE : W231.CNF;30
% YIELD : 81.111		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9165E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 2.3656E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5558.424	4.945	1.000	-0.849	1.010	2.8409	99.94000	-2.31E-03	3.35E-03	1.56E-02	3.86E-02	3.34E-03
AM243	5270.000	5285.781	47.248	483.000	481.990	1.010	1.0050	99.78000	1.31E+00	1.08E-01	5.53E-03	1.84E-02	5.99E-02
CM-242	6102.000	6023.809	4.945	1.000	0.495	0.505	4.3413	100.0000	1.37E-03	3.10E-03	2.38E-02	5.50E-02	3.09E-03
CM-3/4	5795.020	5777.167	4.945	1.000	1.000	0.000	5.1799	100.0000	2.72E-03	2.73E-03	2.84E-02	6.42E-02	2.72E-03
CM-5/6	5386.000	5380.458	0.000	4.000	4.000	0.000	14.2480	86.09000	1.26E-02	6.38E-03	9.08E-02	1.90E-01	6.32E-03
CM-247	4946.000	4879.889	4.945	7.000	4.980	2.020	13.7917	79.30000	1.71E-02	9.78E-03	9.55E-02	2.00E-01	9.71E-03
CM-248	5078.600	5069.135	64.074	12.000	12.000	0.000	19.5080	91.00000	3.59E-02	1.06E-02	1.18E-01	2.43E-01	1.04E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

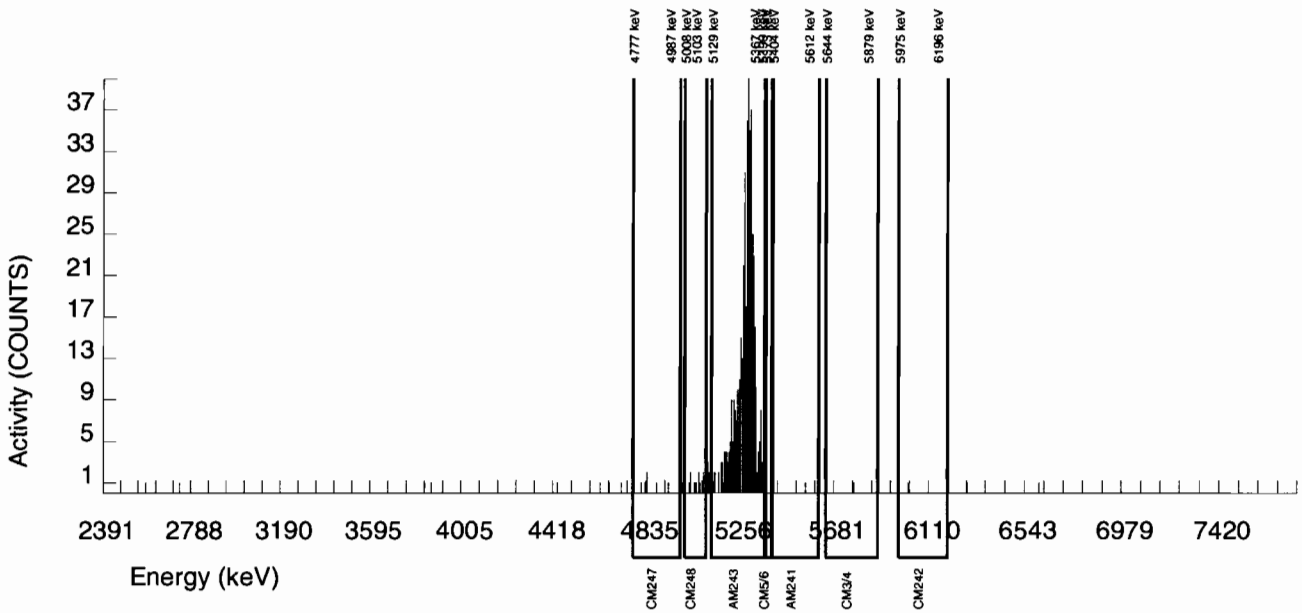

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957096	CHAMBER : 232	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202052135_AM	DETECTOR S/N : 79425	BKG FILE : B232.CNF;87
SAMPLE QTY : 1.258 G	AVERAGE %EFFICIENCY : 38.7095	BKG DATE : 28-FEB-2010
SAMPLE DATE : 12-FEB-2010 00:00:00	COUNT DATE : 6-MAR-2010 12:08:08	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 30300.00	EFF FILE : W232.CNF;30
% YIELD : 80.332		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.3154E+01 pCi/G	NOMINAL : 3.3154E+01 pCi/G
RESULTS : 2.3429E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5488.576	139.670	5.000	1.680	2.525	2.8409	99.94000	3.83E-03	5.35E-03	1.31E-02	3.23E-02	5.34E-03
AM243	5270.000	5284.418	52.748	458.000	456.990	1.010	1.0050	99.78000	1.04E+00	8.74E-02	4.63E-03	1.55E-02	4.89E-02
CM-242	6102.000	6057.448	9.353	2.000	2.000	0.000	4.3413	100.0000	5.02E-03	3.57E-03	2.00E-02	4.61E-02	3.55E-03
CM-3/4	5795.020	5800.299	59.858	2.000	2.000	0.000	5.1799	100.0000	4.57E-03	3.25E-03	2.38E-02	5.39E-02	3.23E-03
CM-5/6	5386.000	5379.775	0.000	10.000	10.000	0.000	14.2480	86.09000	2.65E-02	8.57E-03	7.62E-02	1.59E-01	8.38E-03
CM-247	4946.000	4897.964	114.729	5.000	3.990	1.010	13.7917	79.30000	1.15E-02	6.80E-03	8.00E-02	1.68E-01	6.75E-03
CM-248	5078.600	5086.354	0.000	9.000	9.000	0.000	19.5080	91.00000	2.26E-02	7.68E-03	9.86E-02	2.04E-01	7.52E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 10-FEB-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

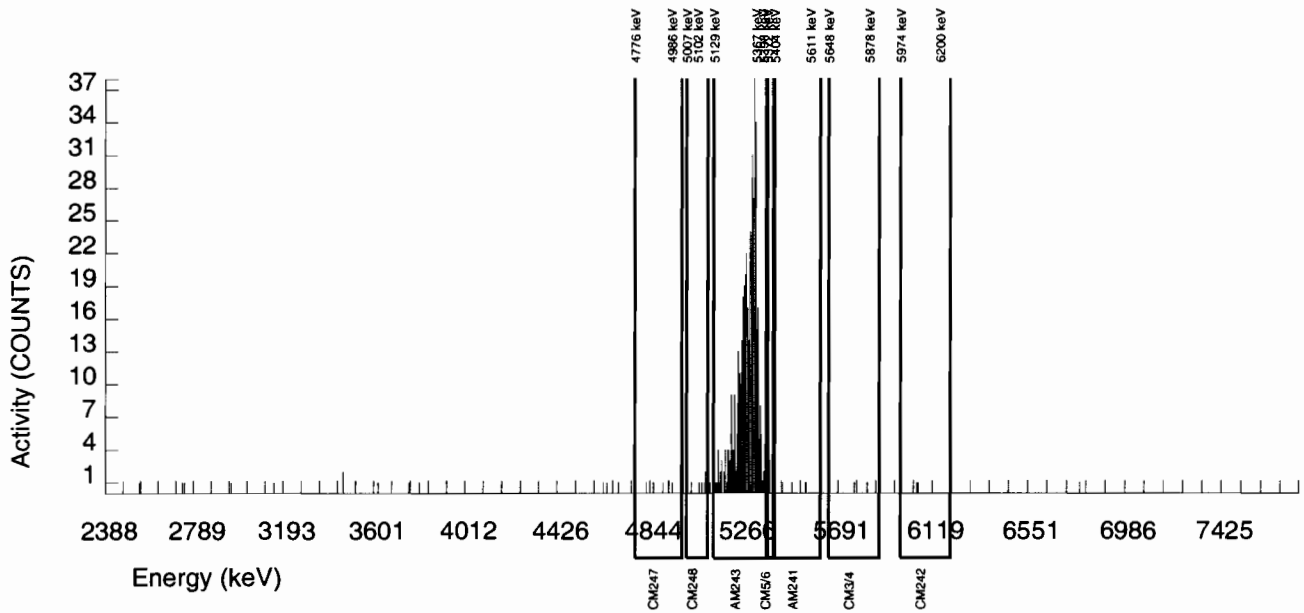

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957096	CHAMBER : 233	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202052136_AM	DETECTOR S/N : 79426	BKG FILE : B233.CNF;86
SAMPLE QTY : 0.109 G	AVERAGE %EFFICIENCY : 39.4029	BKG DATE : 28-FEB-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 6-MAR-2010 12:08:11	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 30300.00	EFF FILE : W233.CNF;31
% YIELD : 97.483		CAL DATE : 2-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0244-B	ID : 0244-B
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9165E+00 dpm	NOMINAL : 3.3151E+01 pCi/G	NOMINAL : 3.3151E+01 pCi/G
RESULTS : 2.8431E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
AM-241	5479.150	5504.814	47.713	1476.000	1474.513	0.505	2.8409	99.94000	3.14E+01	2.42E+00	1.22E-01	3.02E-01	8.19E-01
AM243	5270.000	5281.159	41.845	565.000	564.495	0.505	0.7106	99.78000	1.21E+01	1.01E+00	3.06E-02	1.19E-01	5.08E-01
CM-242	6102.000	6079.750	4.925	1.000	0.495	0.505	4.3413	100.0000	1.07E-02	2.43E-02	1.87E-01	4.31E-01	2.42E-02
CM-3/4	5795.020	5762.480	0.000	0.000	0.000	0.000	5.1799	100.0000	0.00E+00	2.14E-02	2.23E-01	5.03E-01	2.13E-02
CM-5/6	5386.000	5385.884	0.000	44.000	44.000	0.000	14.2480	86.09000	1.09E+00	1.82E-01	7.12E-01	1.49E+00	1.64E-01
CM-247	4946.000	4926.353	0.000	7.000	7.000	0.000	13.7917	79.30000	1.88E-01	7.24E-02	7.48E-01	1.57E+00	7.11E-02
CM-248	5078.600	5059.384	39.279	17.000	17.000	0.000	19.5080	91.00000	3.98E-01	1.01E-01	9.22E-01	1.91E+00	9.65E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 10-FEB-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

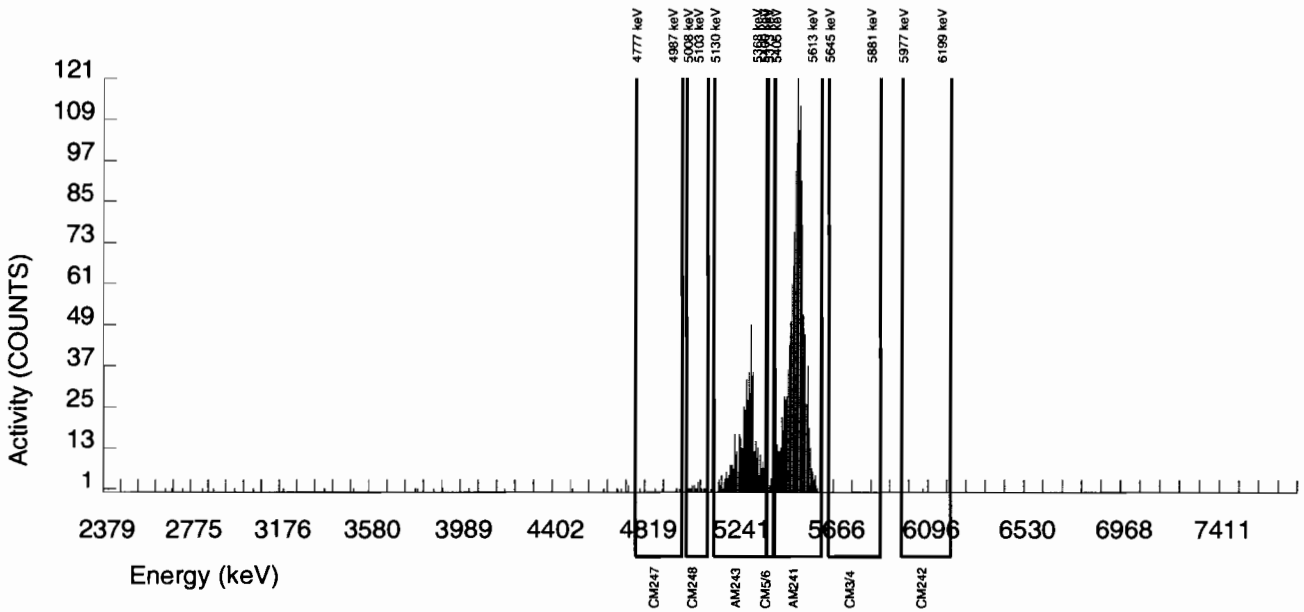

Radiochemistry Batch Checklist, Rev10

Batch# 957101 Product: U Date: 3/8/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	X		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	X		
Instrument source check is within limits. Instrument bkg check is within limits.	X		
Method RDL/ LLD has been met.	X		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	X		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	X		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	X		case narrative
Sample was run within hold time.	X		
Sample was correctly preserved if required.	X		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	X		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	X		
Aux data is correct.			N/A
Client Special requirements page has been checked.	X		
Raw Data and/ or spectrum are included and properly statused.	X		
QC data entered into QC database and batch is in REVW	X		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	X		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	X		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 3/8/10

Secondary Review Performed By: [signature] 3/11/10

3/1 - 3/11

LAN

P ✓

Uranium Que Sheet

24-FEB-10

Batch #: 957101 Analyst: JXH2 First Client Due Date:11-MAR-10 Internal Due Date:01-MAR-10

Tracer Isotope: U-232/U-236 Tracer Code: 1283-H Expiration Date: 12-09-10 Vol: 0.1

LCS Isotope: U-238 LCS Code: — Expiration Date: — Vol: 0.1

Spike Isotope: U-238 Spike Code: — Expiration Date: — Vol: 0.1

Prep Date: 3-3-10 Initials: JEH Pipet ID: 2971058 Balance ID: 30410272 Witness: NB 3/3/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/ml)	U Det #
247323001-1	RE46-10-12942	SAMPLE		.1 pCi/g	SOIL	LANL010	16-FEB-10	1	1	0.502	118
247323002-1	RE46-10-12944	SAMPLE		.1 pCi/g	SOIL	LANL010	16-FEB-10	2	2	0.522	125
247323003-1	RE46-10-12941	SAMPLE		.1 pCi/g	SOIL	LANL010	16-FEB-10	3	3	0.506	126
247323004-1	RE46-10-12951	SAMPLE		.1 pCi/g	SOIL	LANL010	16-FEB-10	4	4	0.509	127
247323005-1	RE46-10-12943	SAMPLE		.1 pCi/g	SOIL	LANL010	16-FEB-10	5	5	0.500	128
247323006-1	RE46-10-12952	SAMPLE		.1 pCi/g	SOIL	LANL010	16-FEB-10	6	6	0.512	129
247323007-1	RE46-10-13189	SAMPLE		.1 pCi/g	SOIL	LANL010	16-FEB-10	7	7	0.524	130
247325001-1	RE46-10-12661	SAMPLE		.1 pCi/g	SOIL	LANL010	16-FEB-10	8	8	0.503	131
247327002-1	WST15-10-8941	SAMPLE		.1 pCi/g	SOIL	LANL010	16-FEB-10	9	9	0.518	132
247337001-1	RE15-10-8346	SAMPLE		.1 pCi/g	SOIL	LANL010	12-FEB-10	10	10	0.513	133
247337002-1	RE15-10-8347	SAMPLE		.1 pCi/g	SOIL	LANL010	12-FEB-10	11	11	0.506	138
247337003-1	RE15-10-8344	SAMPLE		.1 pCi/g	SOIL	LANL010	12-FEB-10	12	12	0.514	139
247337004-1	RE15-10-8345	SAMPLE		.1 pCi/g	SOIL	LANL010	12-FEB-10	13	13	0.513	140
247337005-1	RE15-10-8342	SAMPLE		.1 pCi/g	SOIL	LANL010	12-FEB-10	14	14	0.516	141
247337006-1	RE15-10-8343	SAMPLE		.1 pCi/g	SOIL	LANL010	12-FEB-10	15	15	0.518	142
247337007-1	RE15-10-8377	SAMPLE		.1 pCi/g	SOIL	LANL010	12-FEB-10	16	16	0.513	143
247360001-1	RE36-10-7427	SAMPLE		.1 pCi/g	SOIL	LANL010	12-FEB-10	17	17	0.509	144
247360002-1	RE36-10-7423	SAMPLE		.1 pCi/g	SOIL	LANL010	12-FEB-10	18	18	0.503	145
247360003-1	RE36-10-7428	SAMPLE		.1 pCi/g	SOIL	LANL010	12-FEB-10	19	19	0.515	146
247360004-1	RE36-10-7424	SAMPLE		.1 pCi/g	SOIL	LANL010	12-FEB-10	20	20	0.502	147
1202052148-1	MB for batch 957101	MB		.1 pCi/g	SOIL	QC ACCOUNT		21	21		148
1202052149-1	RE36-10-7427(247360001DUP)	DUP		.1 pCi/g	SOIL	QC ACCOUNT	12-FEB-10	22	22	0.503	149
1202052150-1	LCS for batch 957101	LCS		.1 pCi/g	SOIL	QC ACCOUNT		23	23	0.103	150

* SRM 0244-A Exp 10/31/20

Choose SOP used: GL-RAD-A-011 Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) Data Reviewed By: 3/8/10

Blank Correction Report

Batch ID 957101

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202052149	DUP	Uranium-233/234	0.503 g	1.42	0.156	0.185	.021471173	pCi/g	NO
		Uranium-235/236	0.503 g	0.0307	0.0219	0.119	.009085487	pCi/g	YES
		Uranium-238	0.503 g	1.48	0.161	0.127	-.01115308	pCi/g	NO
1202052150	LCS	Uranium-233/234	0.103 g	6.55	0.741	0.847	.104854369	pCi/g	NO
		Uranium-235/236	0.103 g	0.471	0.154	0.548	.044368932	pCi/g	NO
		Uranium-238	0.103 g	5.16	0.619	0.583	-.05446602	pCi/g	NO
1202052148	MB	Uranium-233/234	1.00 g	0.0108	0.00849	0.0823	.0108	pCi/g	YES
		Uranium-235/236	1.00 g	0.00457	0.00459	0.0533	.00457	pCi/g	YES
		Uranium-238	1.00 g	-0.00561	0.00492	0.0566	-.00561	pCi/g	NO
247323001	RE46-10-12942	Uranium-233/234	0.502 g	0.715	0.0904	0.162	.021513944	pCi/g	NO
		Uranium-235/236	0.502 g	0.0808	0.0276	0.105	.009103586	pCi/g	NO
		Uranium-238	0.502 g	0.846	0.102	0.111	-.01117530	pCi/g	NO
247323002	RE46-10-12944	Uranium-233/234	0.522 g	0.906	0.118	0.208	.020689655	pCi/g	NO
		Uranium-235/236	0.522 g	0.0462	0.0234	0.134	.008754789	pCi/g	NO
		Uranium-238	0.522 g	0.924	0.119	0.143	-.01074713	pCi/g	NO
247323003	RE46-10-12941	Uranium-233/234	0.506 g	0.790	0.103	0.188	.021343874	pCi/g	NO
		Uranium-235/236	0.506 g	0.0469	0.0242	0.122	.009031621	pCi/g	NO
		Uranium-238	0.506 g	0.790	0.103	0.129	-.01108696	pCi/g	NO
247323004	RE46-10-12951	Uranium-233/234	0.509 g	0.792	0.0984	0.167	.021218075	pCi/g	NO
		Uranium-235/236	0.509 g	0.0186	0.0132	0.108	.008978389	pCi/g	YES
		Uranium-238	0.509 g	0.743	0.0946	0.115	-.01102161	pCi/g	NO
247323005	RE46-10-12943	Uranium-233/234	0.500 g	0.951	0.115	0.182	.0216	pCi/g	NO
		Uranium-235/236	0.500 g	0.0453	0.0234	0.118	.00914	pCi/g	YES
		Uranium-238	0.500 g	0.893	0.110	0.125	-.01122	pCi/g	NO
247323006	RE46-10-12952	Uranium-233/234	0.512 g	0.857	0.113	0.209	.02109375	pCi/g	NO
		Uranium-235/236	0.512 g	0.0349	0.0203	0.135	.008925781	pCi/g	YES
		Uranium-238	0.512 g	0.922	0.120	0.144	-.01095703	pCi/g	NO
247323007	RE46-10-13189	Uranium-233/234	0.524 g	0.747	0.0962	0.173	.020610887	pCi/g	NO
		Uranium-235/236	0.524 g	0.0336	0.020	0.112	.008721374	pCi/g	YES
		Uranium-238	0.524 g	0.755	0.0971	0.119	-.01070611	pCi/g	NO
247325001	RE46-10-12661	Uranium-233/234	0.503 g	0.716	0.0943	0.180	.021471173	pCi/g	NO
		Uranium-235/236	0.503 g	0.070	0.027	0.116	.009085487	pCi/g	NO
		Uranium-238	0.503 g	0.683	0.0917	0.124	-.01115308	pCi/g	NO
247327002	WST15-10-8941	Uranium-233/234	0.518 g	1.50	0.155	0.158	.020849421	pCi/g	NO
		Uranium-235/236	0.518 g	0.101	0.0318	0.103	.008822394	pCi/g	NO
		Uranium-238	0.518 g	2.43	0.228	0.109	-.01083012	pCi/g	NO
247337001	RE15-10-8346	Uranium-233/234	0.513 g	1.23	0.134	0.162	.021052632	pCi/g	NO
		Uranium-235/236	0.513 g	0.108	0.0323	0.105	.008908382	pCi/g	NO
		Uranium-238	0.513 g	2.22	0.213	0.111	-.01093567	pCi/g	NO
247337002	RE15-10-8347	Uranium-233/234	0.506 g	0.761	0.0969	0.171	.021343874	pCi/g	NO
		Uranium-235/236	0.506 g	0.0285	0.0166	0.111	.009031621	pCi/g	YES

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
247337002	RE15-10-8347	Uranium-238	0.506 g	0.900	0.109	0.118	-.01108696	pCi/g	NO
247337003	RE15-10-8344	Uranium-233/234	0.514 g	1.07	0.126	0.179	.021011673	pCi/g	NO
		Uranium-235/236	0.514 g	0.0498	0.0226	0.116	.008891051	pCi/g	NO
		Uranium-238	0.514 g	1.20	0.137	0.123	-.01091440	pCi/g	NO
247337004	RE15-10-8345	Uranium-233/234	0.513 g	1.53	0.156	0.157	.021052632	pCi/g	NO
		Uranium-235/236	0.513 g	0.0873	0.0284	0.102	.008908382	pCi/g	NO
		Uranium-238	0.513 g	1.71	0.171	0.108	-.01093567	pCi/g	NO
247337005	RE15-10-8342	Uranium-233/234	0.516 g	0.949	0.112	0.163	.020930233	pCi/g	NO
		Uranium-235/236	0.516 g	0.0634	0.0245	0.106	.008856589	pCi/g	NO
		Uranium-238	0.516 g	1.10	0.125	0.112	-.01087209	pCi/g	NO
247337006	RE15-10-8343	Uranium-233/234	0.518 g	0.862	0.103	0.157	.020849421	pCi/g	NO
		Uranium-235/236	0.518 g	0.0568	0.0239	0.102	.008822394	pCi/g	NO
		Uranium-238	0.518 g	1.08	0.120	0.108	-.01083012	pCi/g	NO
247337007	RE15-10-8377	Uranium-233/234	0.513 g	1.20	0.140	0.194	.021052632	pCi/g	NO
		Uranium-235/236	0.513 g	0.0753	0.0291	0.125	.008908382	pCi/g	NO
		Uranium-238	0.513 g	1.39	0.157	0.133	-.01093567	pCi/g	NO
247360001	RE36-10-7427	Uranium-233/234	0.509 g	1.51	0.170	0.207	.021218075	pCi/g	NO
		Uranium-235/236	0.509 g	0.0228	0.0216	0.134	.008978389	pCi/g	YES
		Uranium-238	0.509 g	1.93	0.205	0.142	-.01102161	pCi/g	NO
247360002	RE36-10-7423	Uranium-233/234	0.503 g	2.45	0.253	0.217	.021471173	pCi/g	NO
		Uranium-235/236	0.503 g	0.193	0.0508	0.141	.009085487	pCi/g	NO
		Uranium-238	0.503 g	3.27	0.322	0.149	-.01115308	pCi/g	NO
247360003	RE36-10-7428	Uranium-233/234	0.515 g	0.951	0.124	0.219	.020970874	pCi/g	NO
		Uranium-235/236	0.515 g	0.0365	0.0213	0.142	.008873786	pCi/g	YES
		Uranium-238	0.515 g	0.999	0.128	0.151	-.01089320	pCi/g	NO
247360004	RE36-10-7424	Uranium-233/234	0.502 g	1.06	0.133	0.210	.021513944	pCi/g	NO
		Uranium-235/236	0.502 g	0.0989	0.0363	0.136	.009103586	pCi/g	NO
		Uranium-238	0.502 g	1.21	0.145	0.144	-.01117530	pCi/g	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957101	CHAMBER : 132	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0247327002_UU	DETECTOR S/N : 67579	BKG FILE : B132.CNF;447
SAMPLE QTY : 0.518 G	AVERAGE %EFFICIENCY : 24.9577	BKG DATE : 28-FEB-2010
SAMPLE DATE : 16-FEB-2010 00:00:00	COUNT DATE : 6-MAR-2010 12:14:29	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 30300.00	EFF FILE : W132.CNF;132
% YIELD : 96.939		CAL DATE : 18-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5038E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.3660E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5308.766	30.024	551.000	549.990	1.010	1.0050	100.0000	3.92E+00	3.44E-01	1.44E-02	4.82E-02	1.67E-01
U-3/4	4763.020	4760.403	31.914	212.000	211.443	0.000	4.8416	100.0000	1.50E+00	1.55E-01	6.95E-02	1.58E-01	1.03E-01
U-235	4391.000	4406.914	5.020	12.000	11.495	0.505	2.2152	80.90000	1.01E-01	3.18E-02	3.93E-02	1.03E-01	3.08E-02
U-238	4184.730	4194.341	67.973	342.000	341.495	0.505	3.1208	100.0000	2.43E+00	2.28E-01	4.48E-02	1.09E-01	1.32E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 10-FEB-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

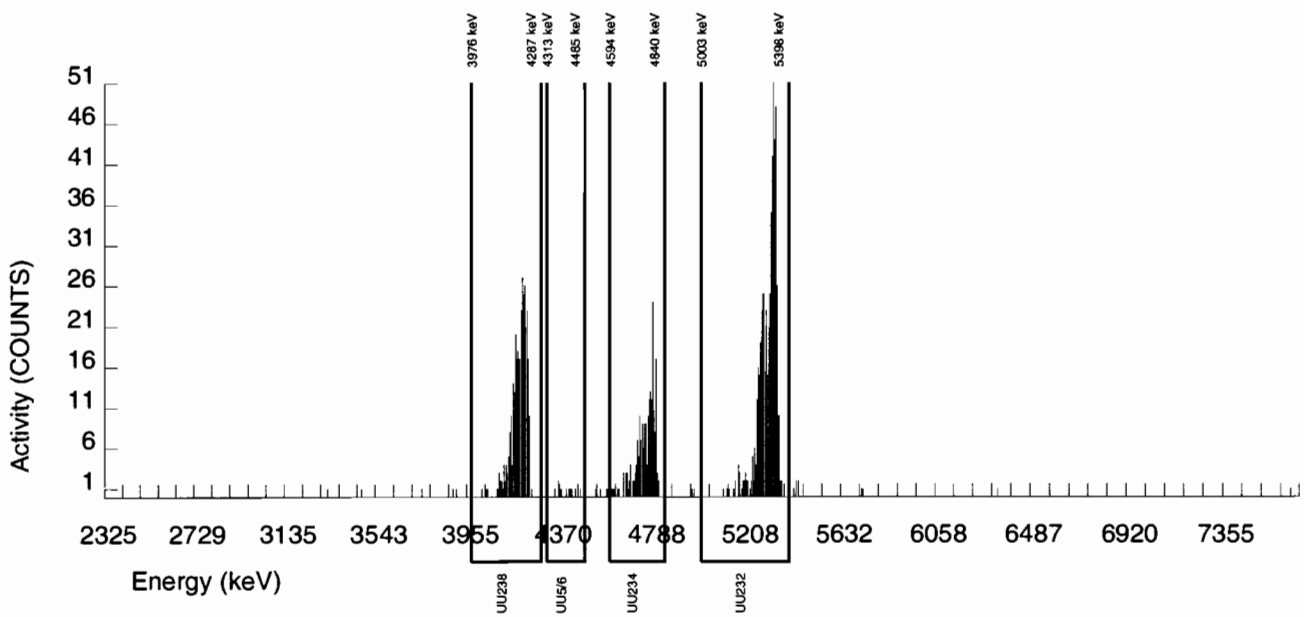

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effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957101	CHAMBER : 144	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0247360001_UU	DETECTOR S/N : 75551	BKG FILE : B144.CNF;399
SAMPLE QTY : 0.509 G	AVERAGE %EFFICIENCY : 25.1386	BKG DATE : 28-FEB-2010
SAMPLE DATE : 12-FEB-2010 00:00:00	COUNT DATE : 6-MAR-2010 12:15:02	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 30300.00	EFF FILE : W144.CNF;108
% YIELD : 75.067		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5043E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.3812E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5287.514	65.548	431.000	428.980	2.020	1.4213	100.0000	3.99E+00	3.73E-01	2.66E-02	7.84E-02	1.93E-01
U-3/4	4763.020	4751.874	47.566	165.000	163.051	1.515	4.8416	100.0000	1.51E+00	1.70E-01	9.07E-02	2.07E-01	1.19E-01
U-235	4391.000	4407.846	44.540	3.000	1.990	1.010	2.2152	80.90000	2.28E-02	2.16E-02	5.13E-02	1.34E-01	2.15E-02
U-238	4184.730	4171.068	59.975	208.000	208.000	0.000	3.1208	100.0000	1.93E+00	2.05E-01	5.85E-02	1.42E-01	1.34E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 10-FEB-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

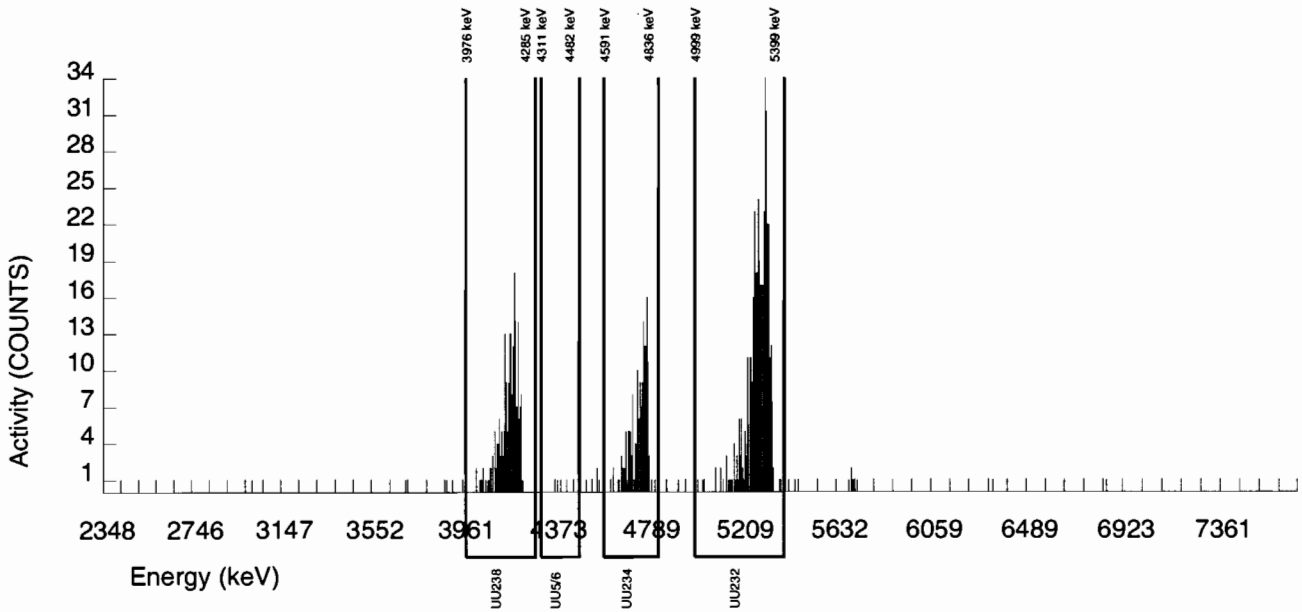

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957101	CHAMBER : 148	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202052148_UU	DETECTOR S/N : 74429	BKG FILE : B148.CNF;401
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 24.5720	BKG DATE : 28-FEB-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 6-MAR-2010 12:15:13	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 30300.00	EFF FILE : W148.CNF;129
% YIELD : 98.103		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.4166E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5304.048	53.342	549.000	547.990	1.010	1.0050	100.0000	2.03E+00	1.78E-01	7.50E-03	2.50E-02	8.67E-02
U-3/4	4763.020	4701.647	192.702	5.000	2.930	1.515	4.8416	100.0000	1.08E-02	8.49E-03	3.62E-02	8.23E-02	8.45E-03
U-235	4391.000	4401.356	4.941	1.000	1.000	0.000	2.2152	80.90000	4.57E-03	4.59E-03	2.04E-02	5.33E-02	4.57E-03
U-238	4184.730	4132.864	0.000	0.000	-1.515	1.515	3.1208	100.0000	-5.61E-03	4.92E-03	2.33E-02	5.66E-02	4.92E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 10-FEB-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

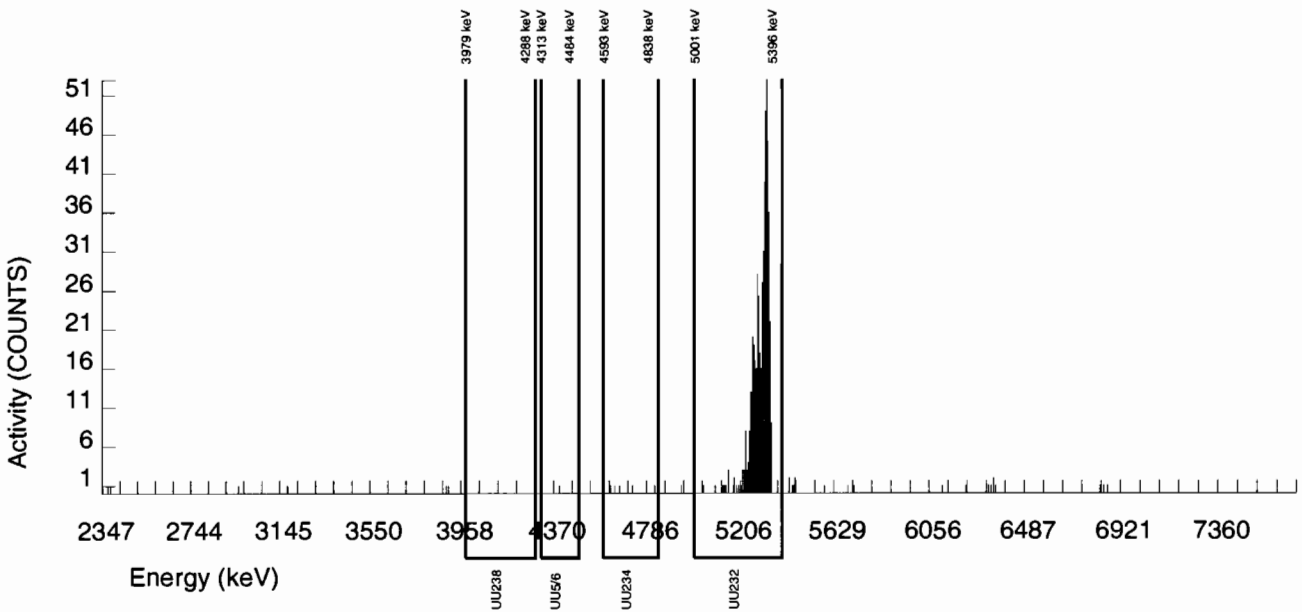

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957101	CHAMBER : 149	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202052149_UU	DETECTOR S/N : 33449	BKG FILE : B149.CNF;405
SAMPLE QTY : 0.503 G	AVERAGE %EFFICIENCY : 24.6450	BKG DATE : 28-FEB-2010
SAMPLE DATE : 12-FEB-2010 00:00:00	COUNT DATE : 6-MAR-2010 12:15:15	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 30300.00	EFF FILE : W149.CNF;114
% YIELD : 86.742		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5043E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 3.9072E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5301.716	66.257	489.000	485.970	3.030	1.7407	100.0000	4.03E+00	3.66E-01	2.91E-02	8.08E-02	1.84E-01
U-3/4	4763.020	4762.927	64.438	173.000	171.498	1.010	4.8416	100.0000	1.42E+00	1.56E-01	8.10E-02	1.85E-01	1.09E-01
U-235	4391.000	4376.981	4.935	4.000	2.990	1.010	2.2152	80.90000	3.07E-02	2.19E-02	4.58E-02	1.19E-01	2.18E-02
U-238	4184.730	4188.089	63.161	179.000	179.000	0.000	3.1208	100.0000	1.48E+00	1.61E-01	5.22E-02	1.27E-01	1.11E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 10-FEB-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

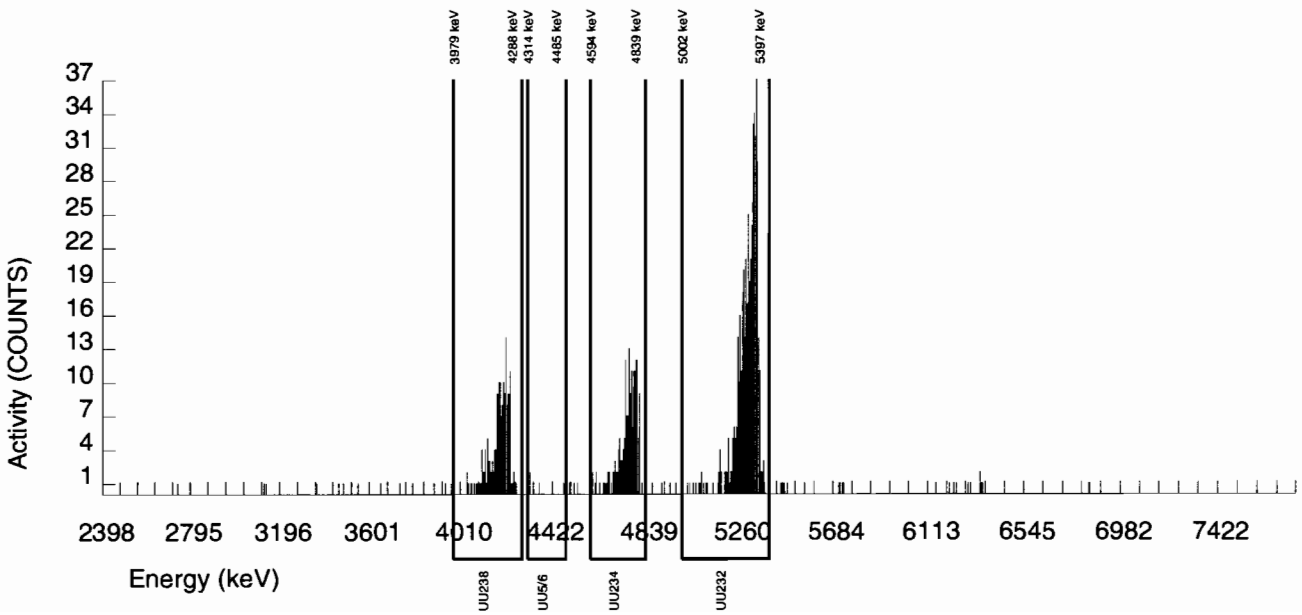

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957101	CHAMBER : 150	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202052150_UU	DETECTOR S/N : 75552	BKG FILE : B150.CNF;406
SAMPLE QTY : 0.103 G	AVERAGE %EFFICIENCY : 25.1049	BKG DATE : 28-FEB-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 6-MAR-2010 12:15:18	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 30300.00	EFF FILE : W150.CNF;122
% YIELD : 90.587		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 0244-A	ID : 0244-A
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5020E+00 dpm	NOMINAL : 5.7500E+00 pCi/G	NOMINAL : 5.7500E+00 pCi/G
RESULTS : 4.0782E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
U232	5302.100	5307.220	30.493	519.000	516.980	2.020	1.4213	100.0000	1.97E+01	1.86E+00	1.09E-01	3.22E-01	8.68E-01
U-3/4	4763.020	4767.484	21.245	173.000	171.972	0.505	4.8416	100.0000	6.55E+00	7.41E-01	3.72E-01	8.47E-01	5.00E-01
U-235	4391.000	4423.831	0.000	10.000	10.000	0.000	2.2152	80.90000	4.71E-01	1.54E-01	2.10E-01	5.48E-01	1.49E-01
U-238	4184.730	4195.387	51.273	136.000	135.495	0.505	3.1208	100.0000	5.16E+00	6.19E-01	2.40E-01	5.83E-01	4.44E-01

NOTES:

* BKG Sg calculated via blank population. (Sg updated 10-FEB-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

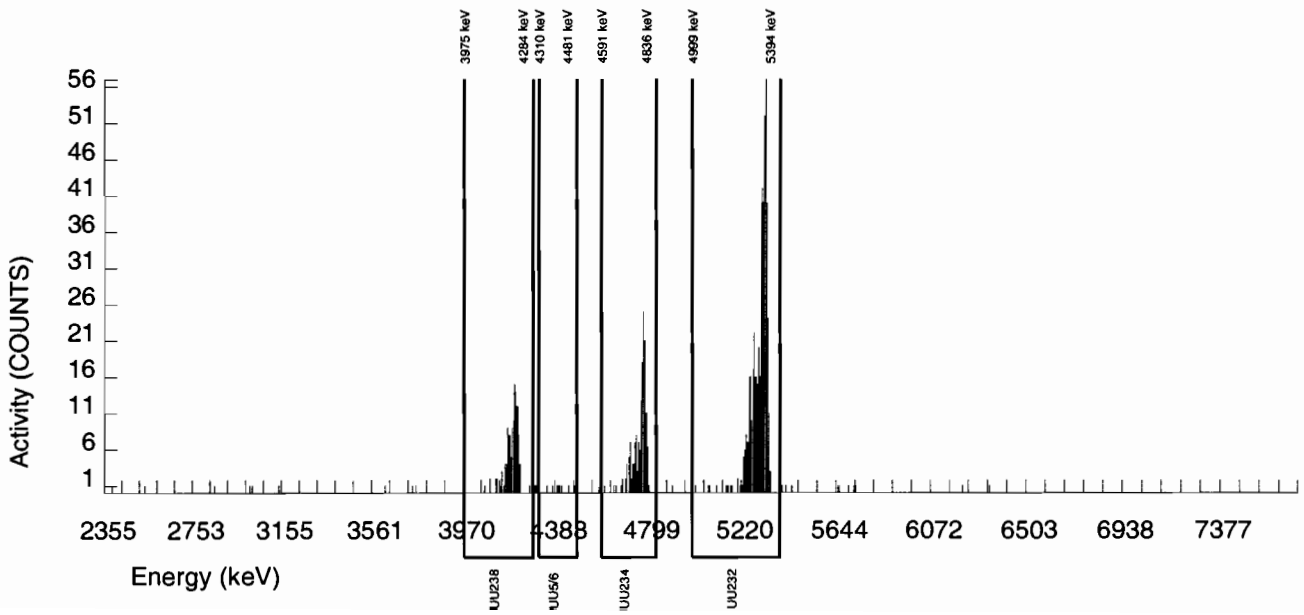

Radiochemistry Batch Checklist, Rev10

Batch# 962738 Product: Pu Date: 3/9/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 3/9/10

Secondary Review Performed By: [signature] 3/10/10

LANL

3/6 - 3/11

Plutonium Que Sheet

08-MAR-10

Batch #: 962738 **Analyst:** JXH2 **First Client Due Date:** 11-MAR-10 **Internal Due Date:** 06-MAR-10

Tracer Isotope(s): Pu-242/Pu-238 **Tracer Code:** 1430-C **Expiration Date:** 3-4-11 **Vol:** 0.1

LCS Isotope(s): Pu-239/Pu-238 **LCS Code:** — **Expiration Date:** — **Vol:** ~~0~~ JH 3-8-10

Spike Isotope(s): Pu-239/Pu-238 **Spike Code:** — **Expiration Date:** — **Vol:** —

Prep Date: 3-8-10 **Initials:** JEH **Pipet ID:** 2971058 **Balance ID:** 50410272 **Witness:** AYB 3/8/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Pu Det #
247327002-2	WST15-10-8941	SAMPLE		.05 pCi/g	SOIL	LANL010	16-FEB-10	1	1	1.250	95
1202065407-1	MB for batch 962738	MB		UCF pCi/g to pCi/g	SOIL	QC ACCOUNT		2	2	1	97
1202065408-2	WST15-10-8941(247327002DUP)	DUP		.05 pCi/g	SOIL	QC ACCOUNT	16-FEB-10	3	3	1.256	99
1202065409-1	LCS for batch 962738	LCS		UCF pCi/g to pCi/g	SOIL	QC ACCOUNT		4	4	0.105	100

*SRM 0244-B exp 4-30-20

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One

Data Reviewed By: [signature] 3/9/10

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 962738

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202065408	DUP	Plutonium-238	1.26 g	0.00203	0.00251	0.021	.004333333	pCi/g	YES
		Plutonium-239/240	1.26 g	0.00519	0.00337	0.0178	.000505556	pCi/g	NO
1202065409	LCS	Plutonium-238	0.105 g	7.47	0.615	0.269	.052	pCi/g	NO
		Plutonium-239/240	0.105 g	40.9	2.76	0.227	.006066667	pCi/g	NO
1202065407	MB	Plutonium-238	1.00 g	0.00546	0.00668	0.0302	.00546	pCi/g	YES
		Plutonium-239/240	1.00 g	0.000637	0.00281	0.0255	.000637	pCi/g	YES
247327002	WST15-10-8941	Plutonium-238	1.25 g	0.00156	0.00956	0.0272	.004368	pCi/g	YES
		Plutonium-239/240	1.25 g	0.00581	0.00525	0.023	.0005096	pCi/g	NO

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962738	CHAMBER : 100	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202065409_PU	DETECTOR S/N : 79456	BKG FILE : B100.CNF;686
SAMPLE QTY : 0.105 G	AVERAGE %EFFICIENCY : 33.8558	BKG DATE : 7-MAR-2010
SAMPLE DATE : 8-MAR-2010 00:00:00.	COUNT DATE : 9-MAR-2010 08:01:29	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W100.CNF;201
% YIELD : 87.000		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9940E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.6048E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5760.096	39.297	635.000	634.280	0.720	0.8485	100.0000	1.28E+01	9.65E-01	3.70E-02	1.29E-01	5.10E-01
PU-238	5499.000	5476.714	0.000	263.000	263.000	0.000	2.4495	99.90000	5.33E+00	4.72E-01	1.07E-01	2.69E-01	3.28E-01
PU-9/0	5155.000	5143.673	37.329	2022.000	2022.000	0.000	1.9732	99.90000	4.09E+01	2.76E+00	8.62E-02	2.27E-01	9.11E-01
PU242	4890.000	4887.622	0.000	53.000	52.280	0.720	*******	100.0000	1.06E+00	1.63E-01	5.44E+00	1.09E+01	1.48E-01
PU-244	4589.000	4500.677	82.614	5.000	4.280	0.720	6.4609	99.90000	8.67E-02	4.79E-02	2.82E-01	6.19E-01	4.76E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

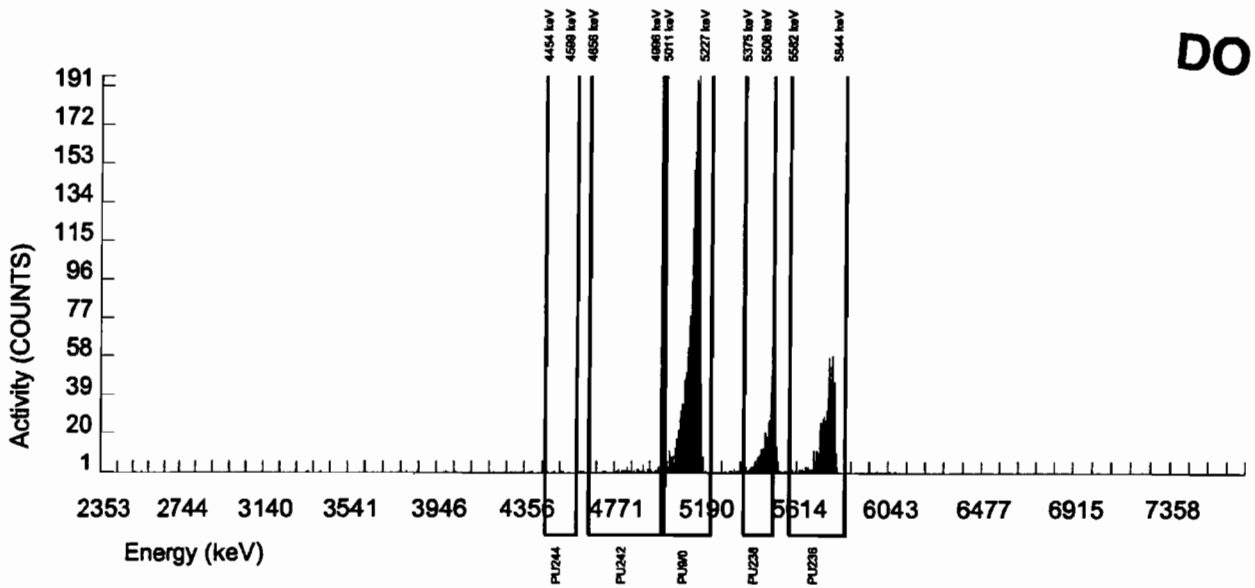

DO NOT REPORT

Manually Integrated

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962738	CHAMBER : 095	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0247327002_PU	DETECTOR S/N : 64279	BKG FILE : B095.CNF;688
SAMPLE QTY : 1.250 G	AVERAGE %EFFICIENCY : 30.7522	BKG DATE : 7-MAR-2010
SAMPLE DATE : 16-FEB-2010 00:00:00	COUNT DATE : 9-MAR-2010 08:01:29	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W095.CNF;209
% YIELD : 79.604		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0340E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.4152E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5764.275	59.742	543.000	527.160	15.840	3.9799	100.0000	1.09E+00	8.14E-02	1.76E-02	4.07E-02	4.88E-02
PU-238	5499.000	5448.902	9.888	13.000	0.760	12.240	2.4495	99.90000	1.56E-03	9.56E-03	1.08E-02	2.72E-02	9.56E-03
PU-9/0	5155.000	5125.482	158.204	5.000	2.840	2.160	1.9732	99.90000	5.81E-03	5.25E-03	8.71E-03	2.30E-02	5.24E-03
PU242	4890.000	4734.253	7.261	10.000	7.120	2.880	*******	100.0000	1.46E-02	7.16E-03	5.50E-01	1.11E+00	7.10E-03
PU-244	4589.000	4527.397	0.000	0.000	-0.720	0.720	6.4609	99.90000	-1.47E-03	2.52E-03	2.85E-02	6.26E-02	2.52E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

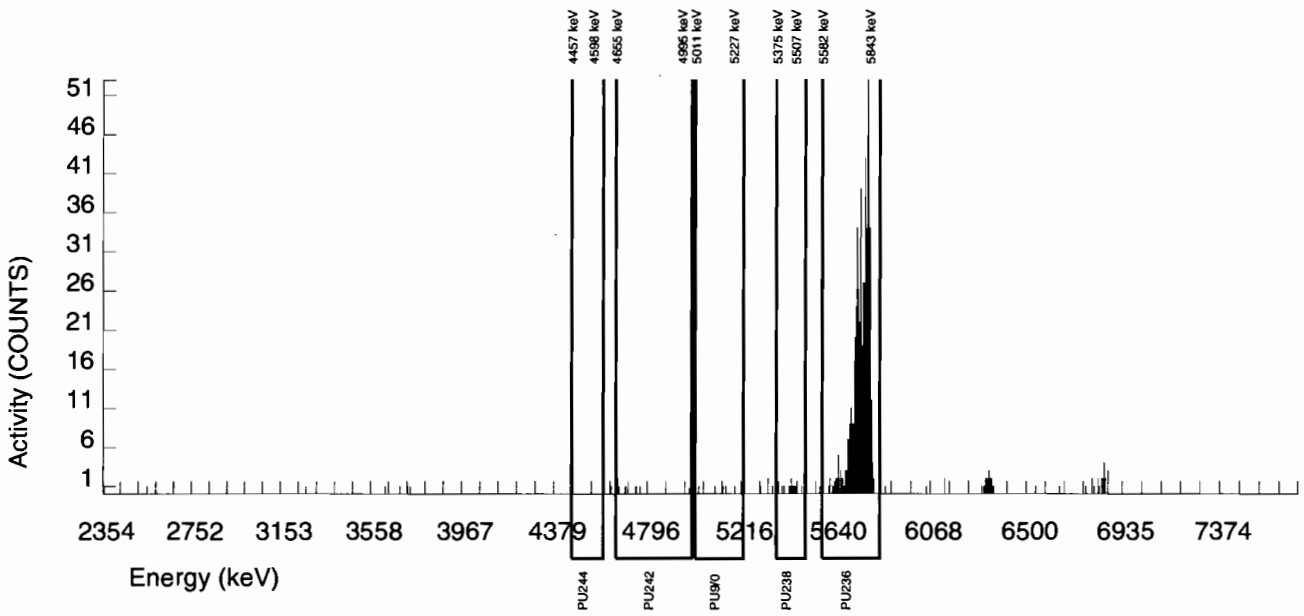

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962738	CHAMBER : 097	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202065407_PU	DETECTOR S/N : 67599	BKG FILE : B097.CNF;682
SAMPLE QTY : 1.000 G	AVERAGE %EFFICIENCY : 34.5530	BKG DATE : 7-MAR-2010
SAMPLE DATE : 8-MAR-2010 00:00:00.	COUNT DATE : 9-MAR-2010 08:01:29	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W097.CNF;193
% YIELD : 79.653		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9940E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.3848E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5761.118	59.124	597.000	592.680	4.320	2.0785	100.0000	1.35E+00	9.50E-02	1.02E-02	2.65E-02	5.57E-02
PU-238	5499.000	5460.077	73.176	6.000	2.400	3.600	2.4495	99.90000	5.46E-03	6.68E-03	1.20E-02	3.02E-02	6.67E-03
PU-9/0	5155.000	5122.144	4.919	1.000	0.280	0.720	1.9732	99.90000	6.37E-04	2.81E-03	9.69E-03	2.55E-02	2.80E-03
PU242	4890.000	4723.661	78.096	7.000	4.120	2.880	*******	100.0000	9.37E-03	6.87E-03	6.11E-01	1.23E+00	6.85E-03
PU-244	4589.000	4465.198	4.919	1.000	0.280	0.720	6.4609	99.90000	6.37E-04	2.81E-03	3.17E-02	6.96E-02	2.80E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

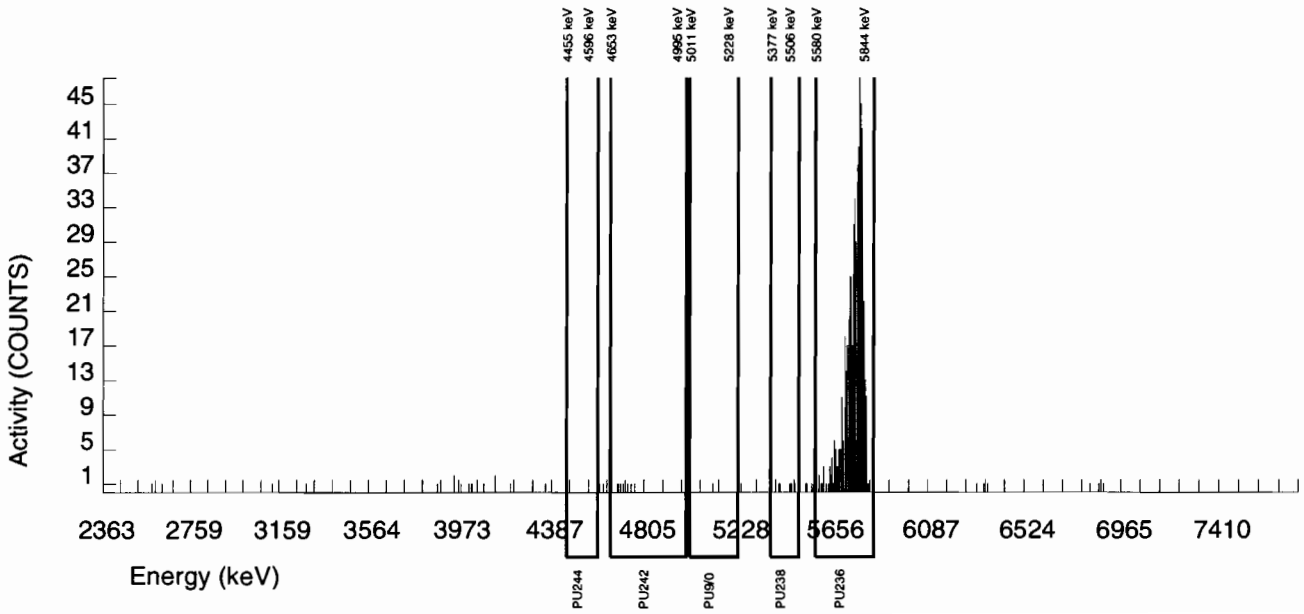

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962738	CHAMBER : 099	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202065408_PU	DETECTOR S/N : 70317	BKG FILE : B099.CNF;685
SAMPLE QTY : 1.256 G	AVERAGE %EFFICIENCY : 33.8661	BKG DATE : 7-MAR-2010
SAMPLE DATE : 16-FEB-2010 00:00:00	COUNT DATE : 9-MAR-2010 08:01:29	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W099.CNF;193
% YIELD : 93.083		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0340E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.8242E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5763.593	59.001	681.000	678.840	2.160	1.4697	100.0000	1.09E+00	7.30E-02	5.01E-03	1.43E-02	4.19E-02
PU-238	5499.000	5443.988	98.042	2.000	1.280	0.720	2.4495	99.90000	2.03E-03	2.51E-03	8.36E-03	2.10E-02	2.51E-03
PU-9/0	5155.000	5110.008	142.160	4.000	3.280	0.720	1.9732	99.90000	5.19E-03	3.37E-03	6.73E-03	1.78E-02	3.36E-03
PU242	4890.000	4813.603	176.475	7.000	5.560	1.440	*******	100.0000	8.79E-03	4.51E-03	4.25E-01	8.54E-01	4.48E-03
PU-244	4589.000	4528.342	0.000	0.000	0.000	0.000	6.4609	99.90000	0.00E+00	1.58E-03	2.20E-02	4.84E-02	1.58E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

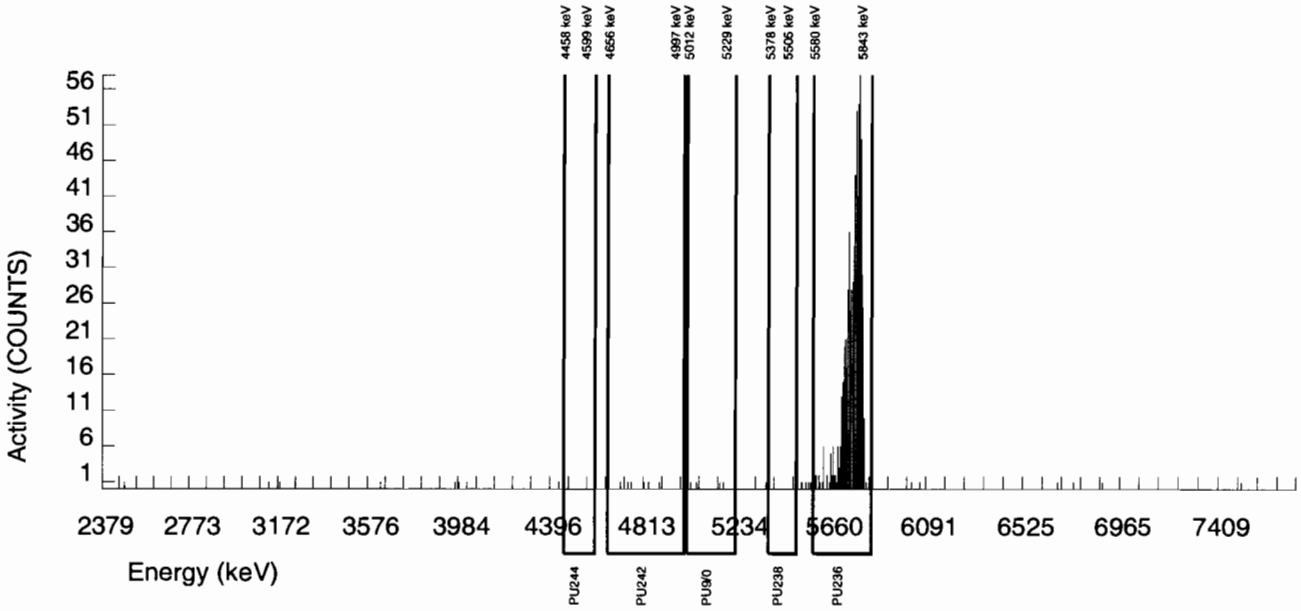

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962738	CHAMBER : 100	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202065409_PU	DETECTOR S/N : 79456	BKG FILE : B100.CNF;686
SAMPLE QTY : 0.105 G	AVERAGE %EFFICIENCY : 33.8558	BKG DATE : 7-MAR-2010
SAMPLE DATE : 8-MAR-2010 00:00:00.	COUNT DATE : 9-MAR-2010 08:01:29	BKG LIVE TIME(SEC) : 60000.00
ANALYST : JXH2	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W100.CNF;201
% YIELD : 87.000		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0244-B	ID : 0244-B
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9940E+00 dpm	NOMINAL : 4.1778E+01 pCi/G	NOMINAL : 4.1778E+01 pCi/G
RESULTS : 2.6048E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/G	TPU 1-SIGMA	DLC pCi/G	MDC pCi/G	UNC pCi/G
PU-236	5749.000	5760.096	39.297	635.000	634.280	0.720	0.8485	100.0000	1.28E+01	9.65E-01	3.70E-02	1.29E-01	5.10E-01
PU-238	5499.000	5489.327	34.060	369.000	369.000	0.000	2.4495	99.90000	7.47E+00	6.15E-01	1.07E-01	2.69E-01	3.89E-01
PU-9/0	5155.000	5143.673	37.329	2022.000	2022.000	0.000	1.9732	99.90000	4.09E+01	2.76E+00	8.62E-02	2.27E-01	9.11E-01
PU242	4890.000	4887.622	0.000	53.000	52.280	0.720	*******	100.0000	1.06E+00	1.63E-01	5.44E+00	1.09E+01	1.48E-01
PU-244	4589.000	4500.677	82.614	5.000	4.280	0.720	6.4609	99.90000	8.67E-02	4.79E-02	2.82E-01	6.19E-01	4.76E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

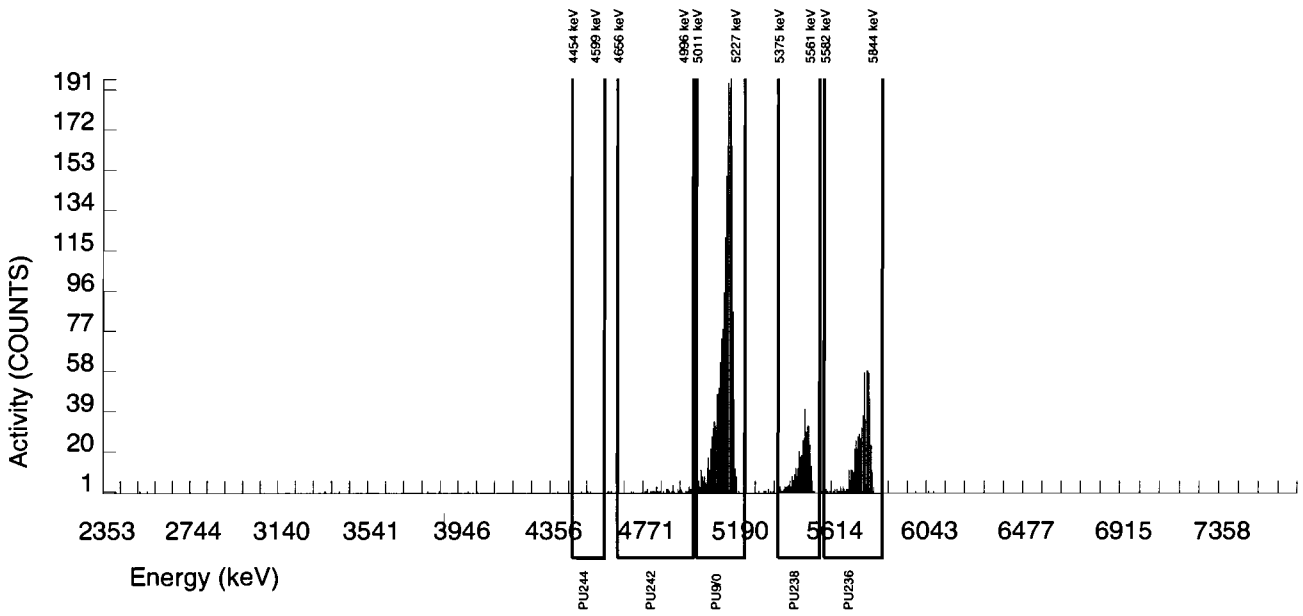

Radiochemistry Batch Checklist, Rev10

Batch# 955216 **Product:** SR-90 **Date:** 03/02/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.			N/A
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: V. Calyan

Secondary Review Performed By: [illegible]

LANL
03/09

Strontium 90 Que Sheet

02/23/10

Batch #: 955216 Analyst: MXB1 First Client Due Date: 03/09/2010 Internal Due Date 02/27/2010 Comments

Sr-90 Spike Code: — Expiration Date: — Vol: — Sr Sep. Date/time: 2-25-10/1605

Sr-90 LCS Code: 1243-B Expiration Date: 1-21-11 Vol: 0.1

Sr Carrier Code: 1194596 Exp Date: 3-19-10 Vol: 0.5 Sdt Wt: 8.93

Prep Date: 2-23-10 Initials: MCB Pipet ID: 1795419 Balance #: ~~S1 204813~~ MB 2-23 Analytical Scale #: 38110047 Witness: JEH 2-23-10

Sample ID	Client Description	Type	RDL	Collection Date	Matrix	Client	Rad	Pos. #	Wet/Dry Aliquot (mL) or (g)	Det # 1 & 2	Initial Sr wt (g)	Final Sr wt (g)	Net Sr wt (mg)
247120001-1	WST16-10-9917	SAMPLE	.5 pCi/g	FEB-12-10 12:00 PM	SOIL	LANL010		1	2.040	14A	0.0256	0.0317	6.1
247120002-1	WST16-10-9918	SAMPLE	.5 pCi/g	FEB-12-10 12:00 PM	SOIL	LANL010		2	2.035	13C	0.0249	0.0310	6.1
247120003-1	WST16-10-9919	SAMPLE	.5 pCi/g	FEB-12-10 12:00 PM	SOIL	LANL010		3	2.029	13A	0.0241	0.0315	7.4
247120004-1	WST16-10-12220	SAMPLE	.5 pCi/g	FEB-12-10 12:00 PM	SOIL	LANL010		4	2.037	*~~14D~~ 1A	0.0250	0.0318	6.8
247120005-1	WST16-10-12225	SAMPLE	.5 pCi/g	FEB-12-10 12:00 PM	SOIL	LANL010		5	2.007	14B	0.0249	0.0315	6.6
247120006-1	WST16-10-12214	SAMPLE	.5 pCi/g	FEB-12-10 12:00 PM	SOIL	LANL010		6	2.014	14C	0.0244	0.0312	6.8
247120007-1	WST16-10-12222	SAMPLE	.5 pCi/g	FEB-12-10 12:00 PM	SOIL	LANL010		7	2.011	13B	0.0249	0.0310	6.1
247120008-1	WST16-10-12223	SAMPLE	.5 pCi/g	FEB-12-10 12:00 PM	SOIL	LANL010		8	2.018	4B	0.0241	0.0312	7.1
247120009-1	WST16-10-12221	SAMPLE	.5 pCi/g	FEB-12-10 12:00 PM	SOIL	LANL010		9	2.003	*~~5A~~ 1B	0.0237	0.0305	6.8
247120010-1	WST16-10-12215	SAMPLE	.5 pCi/g	FEB-12-10 12:00 PM	SOIL	LANL010		10	2.021	12B	0.0246	0.0310	6.4
247120011-1	WST16-10-12216	SAMPLE	.5 pCi/g	FEB-12-10 12:00 PM	SOIL	LANL010		11	2.019	12C	0.0250	0.0317	6.7
247120012-1	WST16-10-12218	SAMPLE	.5 pCi/g	FEB-12-10 12:00 PM	SOIL	LANL010		12	2.015	*~~4D~~ 1C	0.0241	0.0312	7.1
247120013-1	WST16-10-12219	SAMPLE	.5 pCi/g	FEB-12-10 12:00 PM	SOIL	LANL010		13	2.000	*~~6A~~ 1D	0.0244	0.0315	7.1
247120014-1	WST16-10-12213	SAMPLE	.5 pCi/g	FEB-12-10 12:00 PM	SOIL	LANL010		14	2.006	12A	0.0242	0.0306	6.4
247120015-1	WST16-10-12217	SAMPLE	.5 pCi/g	FEB-12-10 12:00 PM	SOIL	LANL010		15	2.029	6C	0.0244	0.0314	7.0
247327002-1	WST15-10-8941	SAMPLE	.5 pCi/g	FEB-16-10 12:00 PM	SOIL	LANL010		16	2.001	1B	0.0247	0.0326	7.9
1202047969-1	MB for batch 955216	MB	.5 pCi/g		SOIL	QC ACCOUNT		17 1.0	~~2.000~~ 1.0	2A	0.0249	0.0328	7.9
1202047970-1	WST15-10-8941(247327002DUP)	DUP	.5 pCi/g	FEB-16-10 12:00 PM	SOIL	QC ACCOUNT		18	2.000	10C	0.0243	0.0320	7.7
1202047971-1	LCS for batch 955216	LCS	.5 pCi/g		SOIL	QC ACCOUNT		19 1.0	~~2.040~~ *	10D	0.0248	0.0328	8.0

*VC 03/02/10 wt ✓

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) Data Reviewed By: V. C[illegible] 03/02/10

Blank Correction Report

Batch ID 955216

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202047970	DUP	Strontium-90	2.00 g	-0.0109	0.0426	0.169	.1175	pCi/g	YES
1202047971	LCS	Strontium-90	1.00 g	24.1	2.53	0.349	.235	pCi/g	NO
1202047969	MB	Strontium-90	1.00 g	0.235	0.102	0.306	.235	pCi/g	YES
247120001	WST16-10-9917	Strontium-90	2.04 g	-0.00846	0.0584	0.229	.115196078	pCi/g	YES
247120002	WST16-10-9918	Strontium-90	2.04 g	-0.107	0.0359	0.199	.115196078	pCi/g	YES
247120003	WST16-10-9919	Strontium-90	2.03 g	-0.0372	0.0671	0.258	.115763547	pCi/g	YES
247120004	WST16-10-12220	Strontium-90	2.04 g	-0.0216	0.0311	0.128	.115196078	pCi/g	YES
247120005	WST16-10-12225	Strontium-90	2.01 g	0.00957	0.0457	0.179	.116915423	pCi/g	YES
247120006	WST16-10-12214	Strontium-90	2.01 g	0.0153	0.0592	0.222	.116915423	pCi/g	YES
247120007	WST16-10-12222	Strontium-90	2.01 g	-0.0249	0.0423	0.184	.116915423	pCi/g	YES
247120008	WST16-10-12223	Strontium-90	2.02 g	-0.0939	0.0602	0.248	.116336634	pCi/g	YES
247120009	WST16-10-12221	Strontium-90	2.00 g	-0.0343	0.0309	0.132	.1175	pCi/g	YES
247120010	WST16-10-12215	Strontium-90	2.02 g	-0.114	0.0433	0.211	.116336634	pCi/g	YES
247120011	WST16-10-12216	Strontium-90	2.02 g	-0.0708	0.0475	0.206	.116336634	pCi/g	YES
247120012	WST16-10-12218	Strontium-90	2.02 g	-0.0476	0.0301	0.132	.116336634	pCi/g	YES
247120013	WST16-10-12219	Strontium-90	2.00 g	-0.0202	0.037	0.146	.1175	pCi/g	YES
247120014	WST16-10-12213	Strontium-90	2.01 g	0.0673	0.0655	0.227	.116915423	pCi/g	YES
247120015	WST16-10-12217	Strontium-90	2.03 g	0.0694	0.0558	0.189	.115763547	pCi/g	YES
247327002	WST15-10-8941	Strontium-90	2.00 g	0.0407	0.0459	0.163	.1175	pCi/g	YES

S955216r1

Strontium-90 Solid

Filename : SR90.XLS
File type : Excel
Version # : 1.3.1

Spike S/N : N/A
Spike Exp Date : N/A
Spike Activity (dpm/ml): N/A
Spike Volume Added: N/A

Batch : 955216
Analyst : MXB1
Prep Date : 2/23/2010

LCS S/N : 1243-B
LCS Exp Date : 1/21/2011
LCS Activity (dpm/ml): 493.52
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Sr-90 Abundance : 1
Method Uncertainty : 0.1005

Carrier S/N : 1194590
Carrier Exp Date : 3/19/2010
Carrier Volume Added: 0.50
Carrier Weight (mg/ml): 17.85
Carrier Weight StDev.: 0.06

Procedure Code : GFC90SRS
Parmname : Strontium-90
Required MDC : 0.5 pCi/G
Halflife of Sr-90 : 28.90 years
Halflife of Y-90 : 64.053 hours

Geometry: Tuffryn Filter

Sample Characteristics					Carrier Calculations				
Pos.	Sample ID	Sample Aliquot G	Sample Aliquot StDev. G	Sample Date/Time	Carrier Weight (mg) (Standard)	Net Weight (mg) (Sample)	Net Weight StDev. (mg)	Carrier Aliquot (mL)	Carrier Aliquot StDev. (mL)
1	247120001.1	2.0400	3.4313E-03	2/12/2010 12:00	17.85	6.10	0.033548	0.5	0.002564
2	247120002.1	2.0350	3.4308E-03	2/12/2010 12:00	17.85	6.10	0.033548	0.5	0.002564
3	247120003.1	2.0290	3.4302E-03	2/12/2010 12:00	17.85	7.40	0.039135	0.5	0.002564
4	247120004.1	2.0370	3.4310E-03	2/12/2010 12:00	17.85	6.80	0.036556	0.5	0.002564
5	247120005.1	2.0070	3.4279E-03	2/12/2010 12:00	17.85	6.60	0.035697	0.5	0.002564
6	247120006.1	2.0140	3.4286E-03	2/12/2010 12:00	17.85	6.80	0.036556	0.5	0.002564
7	247120007.1	2.0110	3.4283E-03	2/12/2010 12:00	17.85	6.10	0.033548	0.5	0.002564
8	247120008.1	2.0180	3.4290E-03	2/12/2010 12:00	17.85	7.10	0.037846	0.5	0.002564
9	247120009.1	2.0030	3.4275E-03	2/12/2010 12:00	17.85	6.80	0.036556	0.5	0.002564
10	247120010.1	2.0210	3.4293E-03	2/12/2010 12:00	17.85	6.40	0.034837	0.5	0.002564
11	247120011.1	2.0190	3.4291E-03	2/12/2010 12:00	17.85	6.70	0.036127	0.5	0.002564
12	247120012.1	2.0150	3.4287E-03	2/12/2010 12:00	17.85	7.10	0.037846	0.5	0.002564
13	247120013.1	2.0000	3.4272E-03	2/12/2010 12:00	17.85	7.10	0.037846	0.5	0.002564
14	247120014.1	2.0060	3.4278E-03	2/12/2010 12:00	17.85	6.40	0.034837	0.5	0.002564
15	247120015.1	2.0290	3.4302E-03	2/12/2010 12:00	17.85	7.00	0.037416	0.5	0.002564
16	247327002.1	2.0010	3.4273E-03	2/16/2010 12:00	17.85	7.90	0.041284	0.5	0.002564
17	1202047969.1	1.0000	3.3233E-03	2/23/2010 0:00	17.85	7.90	0.041284	0.5	0.002564
18	1202047970.1	2.0000	3.4272E-03	2/16/2010 12:00	17.85	7.70	0.040425	0.5	0.002564
19	1202047971.1	1.0000	3.3233E-03	2/23/2010 0:00	17.85	8.00	0.041714	0.5	0.002564

Count Raw Data

Pos.	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Gross Beta CPM	Count Start Date/Time	Strontium Separation Date/Time	Yttrium Ingrowth	Sr-90 Decay	Calculated Sample Recovery %	Sample Recovery Error %
1	14A	60	2	23	0.378	2/25/2010 22:54	2/25/2010 16:05	0.076	0.999	68.35%	0.99%
2	13C	60	2	8	0.131	2/25/2010 22:54	2/25/2010 16:05	0.076	0.999	68.35%	0.99%
3	13A	60	6	43	0.710	2/25/2010 22:54	2/25/2010 16:05	0.076	0.999	82.91%	0.97%
4	1A	60	6	22	0.357	3/2/2010 8:28	2/25/2010 16:05	0.705	0.999	76.19%	0.98%
5	14B	60	2	16	0.263	2/25/2010 22:55	2/25/2010 16:05	0.076	0.999	73.95%	0.98%
6	14C	60	5	29	0.468	2/25/2010 22:55	2/25/2010 16:05	0.076	0.999	76.19%	0.98%
7	13B	60	2	12	0.198	2/25/2010 22:55	2/25/2010 16:05	0.076	0.999	68.35%	0.99%
8	4B	60	1	38	0.630	2/26/2010 10:41	2/25/2010 16:05	0.187	0.999	79.55%	0.97%
9	1B	60	5	21	0.339	3/2/2010 8:28	2/25/2010 16:05	0.705	0.999	76.19%	0.98%
10	12B	60	3	16	0.261	2/26/2010 10:39	2/25/2010 16:05	0.187	0.999	71.71%	0.98%
11	12C	60	5	22	0.358	2/26/2010 10:39	2/25/2010 16:05	0.187	0.999	75.07%	0.98%
12	1C	60	3	21	0.346	3/2/2010 8:28	2/25/2010 16:05	0.705	0.999	79.55%	0.97%
13	1D	60	5	32	0.529	3/2/2010 8:28	2/25/2010 16:05	0.705	0.999	79.55%	0.97%
14	12A	60	3	39	0.631	2/26/2010 10:40	2/25/2010 16:05	0.187	0.999	71.71%	0.98%
15	6C	60	6	34	0.563	2/26/2010 10:42	2/25/2010 16:05	0.187	0.999	78.43%	0.97%
16	1B	60	5	28	0.455	2/26/2010 10:42	2/25/2010 16:05	0.187	0.999	88.52%	0.96%
17	2A	60	5	35	0.579	2/26/2010 10:41	2/25/2010 16:05	0.187	1.000	88.52%	0.96%
18	10C	60	0	22	0.367	2/26/2010 10:41	2/25/2010 16:05	0.187	0.999	86.27%	0.96%
19	10D	60	4	1496	24.926	2/26/2010 10:41	2/25/2010 16:05	0.187	1.000	89.64%	0.96%

Calibration Data

Pos.	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm) Sr-90	Detector Efficiency (cpm/dpm) Y-90	Detector Efficiency Error (cpm/dpm)	Alpha X-Talk	Weekly Bkg CPM	Weekly Bkg Count Time (min.)
1	PIC	2/1/2010	2/28/2011	0.4272	0.5100	0.00816	0.16595	0.390	500
2	PIC	2/1/2010	2/28/2011	0.4351	0.5190	0.00816	0.07647	0.288	500
3	PIC	2/1/2010	2/28/2011	0.4231	0.5109	0.00816	0.06800	0.774	500
4	PIC	2/1/2010	2/28/2011	0.4183	0.4969	0.00600	0.09907	0.414	500
5	PIC	2/1/2010	2/28/2011	0.4252	0.5092	0.00816	0.12149	0.248	500
6	PIC	2/1/2010	2/28/2011	0.4240	0.5095	0.00816	0.18227	0.444	500
7	PIC	2/1/2010	2/28/2011	0.4369	0.5200	0.00816	0.06516	0.234	500
8	PIC	2/1/2010	2/28/2011	0.4196	0.5018	0.00196	0.18031	0.802	500
9	PIC	2/1/2010	2/28/2011	0.4175	0.5009	0.00409	0.13685	0.428	500
10	PIC	2/1/2010	2/28/2011	0.4266	0.5032	0.00816	0.11261	0.452	500
11	PIC	2/1/2010	2/28/2011	0.4268	0.5083	0.00816	0.10534	0.482	500
12	PIC	2/1/2010	2/28/2011	0.4148	0.4984	0.00344	0.07343	0.476	500
13	PIC	2/1/2010	2/28/2011	0.4125	0.5010	0.00511	0.04605	0.584	500
14	PIC	2/1/2010	2/28/2011	0.4231	0.5037	0.00816	0.37944	0.520	500
15	PIC	2/1/2010	2/28/2011	0.4233	0.5103	0.00816	0.03615	0.436	500
16	PIC	2/1/2010	2/28/2011	0.4147	0.5009	0.00409	0.13563	0.374	500
17	PIC	2/1/2010	2/28/2011	0.4245	0.5055	0.00349	0.04928	0.340	500
18	PIC	2/1/2010	2/28/2011	0.4152	0.5032	0.00816	0.09932	0.388	500
19	PIC	2/1/2010	2/28/2011	0.4170	0.5050	0.00816	0.10609	0.460	500

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

* - RPD changed to 0% due to activity below MDC for 1202047970.1

Results Pos.	Decision Level pCi/G	Critical Level pCi/G	Required MDC pCi/G	MDC pCi/G	Sample Act. Conc. pCi/G	Sample Act. Error pCi/G	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/G	1 SIGMA Total Prop. Uncertainty pCi/G	Sample QC	Sample Type	RPD	RER	Nominal pCi/G	Recovery
1	0.1379	0.0974	0.5	0.2294	**-8.463E-03**	6.8963	-0.0122	0.0841	0.0584	0.0584		SAMPLE				
2	0.1167	0.0824	0.5	0.1989	**-0.1074**	0.3342	-0.1572	0.0525	0.0358	0.0359		SAMPLE				
3	0.1625	0.1147	0.5	0.2584	**-0.0372**	1.8036	-0.0641	0.1157	0.0671	0.0671		SAMPLE				
4	0.0774	0.0547	0.5	0.1282	**-0.0216**	1.4379	-0.0572	0.0823	0.0311	0.0311		SAMPLE				
5	0.1038	0.0733	0.5	0.1793	**9.569E-03**	4.7757	0.0146	0.0698	0.0457	0.0457		SAMPLE				
6	0.1346	0.0950	0.5	0.2218	**0.0153**	3.8611	0.0241	0.0932	0.0592	0.0592		SAMPLE				
7	0.1060	0.0748	0.5	0.1841	**-0.0249**	1.6964	-0.0362	0.0614	0.0422	0.0423		SAMPLE				
8	0.1560	0.1101	0.5	0.2476	**-0.0939**	0.6411	-0.1717	0.1100	0.0602	0.0602		SAMPLE				
9	0.0798	0.0564	0.5	0.1319	**-0.0343**	0.9018	-0.0894	0.0806	0.0309	0.0309		SAMPLE				
10	0.1279	0.0903	0.5	0.2105	**-0.1141**	0.3798	-0.1910	0.0725	0.0433	0.0433		SAMPLE				
11	0.1260	0.0890	0.5	0.2065	**-0.0708**	0.6708	-0.1241	0.0832	0.0475	0.0475		SAMPLE				
12	0.0806	0.0569	0.5	0.1322	**-0.0476**	0.6325	-0.1297	0.0820	0.0301	0.0301		SAMPLE				
13	0.0900	0.0636	0.5	0.1456	**-0.0202**	1.8341	-0.0545	0.1000	0.0370	0.0370		SAMPLE				
14	0.1392	0.0982	0.5	0.2268	**0.0673**	0.9683	0.1110	0.1075	0.0652	0.0655		SAMPLE				
15	0.1148	0.0811	0.5	0.1894	**0.0694**	0.7972	0.1271	0.1013	0.0553	0.0558		SAMPLE				
16	0.0975	0.0688	0.5	0.1627	**0.0407**	1.1223	0.0814	0.0913	0.0457	0.0459		SAMPLE				
17	0.1821	0.1285	0.5	0.3061	**0.2347**	0.4251	0.2392	0.1017	0.0997	0.1025		MB				
18	0.1017	0.0718	0.5	0.1693	**-0.0109**	3.8901	-0.0213	0.0830	0.0426	0.0426	247327002.1	DUP	0.0%	0.2920		
19	0.2122	0.1498	0.5	0.3488	**24.0508**	0.0294	24.4663	0.6453	0.6343	2.5261		LCS			22.2307	108.2%

955216.xls

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
247120001	14A	60	2	23	2/25/2010 22:54	2/25/2010 23:54	PIC
247120002	13C	60	2	8	2/25/2010 22:54	2/25/2010 23:54	PIC
247120003	13A	60	6	43	2/25/2010 22:54	2/25/2010 23:54	PIC
247120004	1A	60	6	22	3/2/2010 8:28	3/2/2010 9:28	PIC
247120005	14B	60	2	16	2/25/2010 22:55	2/25/2010 23:55	PIC
247120006	14C	60	5	29	2/25/2010 22:55	2/25/2010 23:55	PIC
247120007	13B	60	2	12	2/25/2010 22:55	2/25/2010 23:55	PIC
247120008	4B	60	1	38	2/26/2010 10:41	2/26/2010 11:41	PIC
247120009	1B	60	5	21	3/2/2010 8:28	3/2/2010 9:28	PIC
247120010	12B	60	3	16	2/26/2010 10:39	2/26/2010 11:39	PIC
247120011	12C	60	5	22	2/26/2010 10:39	2/26/2010 11:39	PIC
247120012	1C	60	3	21	3/2/2010 8:28	3/2/2010 9:28	PIC
247120013	1D	60	5	32	3/2/2010 8:28	3/2/2010 9:28	PIC
247120014	12A	60	3	39	2/26/2010 10:40	2/26/2010 11:40	PIC
247120015	6C	60	6	34	2/26/2010 10:42	2/26/2010 11:42	PIC
247327002	1B	60	5	28	2/26/2010 10:42	2/26/2010 11:42	PIC
1202047969	2A	60	5	35	2/26/2010 10:41	2/26/2010 11:41	PIC
1202047970	10C	60	0	22	2/26/2010 10:41	2/26/2010 11:41	PIC
1202047971	10D	60	4	1496	2/26/2010 10:41	2/26/2010 11:41	PIC

Radiochemistry Batch Checklist, Rev10

Batch# 956740 Product: H3 Date: 3-4-10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature]

Secondary Review Performed By: [signature]

LANL 3-11-10

Tritium Que Sheet

180 / 01-MAR-10

Batch #: 956740 **Analyst:** KXK2 **First Client Due Date** 11-MAR-10 **Internal Due Date:** 01-MAR-10

Spike Isotope: Hydrogen-3 **Spike Code:** — **Expiration Date:** — **Vol:** —

LCS Isotope: Hydrogen-3 **LCS Code:** 0134-K **Expiration Date:** 3/27/10 **Vol:** 0.1

Prep Date: 2/25/10 **Initials:** KKW **Pipet ID:** 29709168 **Witness:** MS 3-1-10

Sample ID	Client Samp ID	Type	Hazard Code	Min CRDL	Matrix	Client	Sample Date	Aliquot in vial (g/mL)	LSC Rack #	Dist Rig #	Vol added for Dist (mL)	Initial Sample Aliquot (g/mL)	Final Wt (g)	Total Moisture ~~Dist Vol (mL)~~ KKW 3/1/10
247185001-1	RE15-10-7904	SAMPLE		.25 pCi/mL	SOIL	LANL010	10-FEB-10	10	25-2	1		397.77	356.00	41.77
247185002-1	RE15-10-7903	SAMPLE		.25 pCi/mL	SOIL	LANL010	10-FEB-10	10	25-3	2		302.64	243.93	58.71
247185003-1	RE15-10-7994	SAMPLE		.25 pCi/mL	SOIL	LANL010	10-FEB-10	10	25-4	3		445.60	396.14	49.46
247185004-1	RE15-10-7997	SAMPLE		.25 pCi/mL	SOIL	LANL010	10-FEB-10	10	25-5	4		413.03	318.03	95.00
247185005-1	RE15-10-7998	SAMPLE		.25 pCi/mL	SOIL	LANL010	10-FEB-10	10	25-6	5		474.97	409.90	65.07
247185006-1	RE15-10-8000	SAMPLE		.25 pCi/mL	SOIL	LANL010	10-FEB-10	10	25-7	6		402.60	353.48	49.12
247185007-1	RE15-10-7999	SAMPLE		.25 pCi/mL	SOIL	LANL010	10-FEB-10	10	25-8	7		412.20	339.65	72.55
247185008-1	RE15-10-7995	SAMPLE		.25 pCi/mL	SOIL	LANL010	10-FEB-10	10	57-1	8		357.07	265.30	91.77
247185009-1	RE15-10-7996	SAMPLE		.25 pCi/mL	SOIL	LANL010	10-FEB-10	10	57-2	9		488.64	428.54	60.10
247185010-1	RE15-10-7993	SAMPLE		.25 pCi/mL	SOIL	LANL010	10-FEB-10	10	57-3	10		310.70	249.18	61.52
247185011-1	RE15-10-8064	SAMPLE		.25 pCi/mL	SOIL	LANL010	10-FEB-10	10	57-4	11		311.61	220.93	90.68
247327002-1	WST15-10-8941	SAMPLE		.25 pCi/mL	SOIL	LANL010	16-FEB-10	10	57-5	12		537.45	495.53	41.92
247356001-1	RE15-10-8246	SAMPLE		.25 pCi/mL	SOIL	LANL010	13-FEB-10	7	57-6	13		571.66	563.09	8.57
~~247356002-1~~	~~RE15-10-8245~~	~~SAMPLE~~		~~.25 pCi/mL~~	~~SOIL~~	~~LANL010~~	~~13-FEB-10~~			14				
247356003-1	RE15-10-8243	SAMPLE		.25 pCi/mL	SOIL	LANL010	13-FEB-10	5	57-7	15		500.17	492.67	7.50
247356004-1	RE15-10-8244	SAMPLE		.25 pCi/mL	SOIL	LANL010	13-FEB-10	8	57-8	16		519.91	508.47	11.44
~~247356005-1~~	~~RE15-10-8242~~	~~SAMPLE~~		~~.25 pCi/mL~~	~~SOIL~~	~~LANL010~~	~~13-FEB-10~~			17				
247356006-1	RE15-10-8240	SAMPLE		.25 pCi/mL	SOIL	LANL010	13-FEB-10	6	57-9	18		587.87	578.46	9.41
~~247356007-1~~	~~RE15-10-8241~~	~~SAMPLE~~		~~.25 pCi/mL~~	~~SOIL~~	~~LANL010~~	~~13-FEB-10~~			19				
~~247356008-1~~	~~RE15-10-8267~~	~~SAMPLE~~		~~.25 pCi/mL~~	~~SOIL~~	~~LANL010~~	~~13-FEB-10~~			20				
1202051375-1	MB for batch 956740	MB		.25 pCi/mL	SOIL	QC ACCOUNT		10	57-10	21		20.00	0	20.00
1202051376-1	RE15-10-7904(247185001DUP)	DUP		.25 pCi/mL	SOIL	QC ACCOUNT	10-FEB-10	10	57-11	1		397.77	356.00	41.77
1202051377-1	LCS for batch 956740	LCS		.25 pCi/mL	SOIL	QC ACCOUNT		10	39-1	22		20.00	0	20.00

KKW 3/1/10

Bkg Rack #: 25-1

dailies ✓

Comments:

Bkg prepared with dead water? Yes/No

Instrument Used (circle as appropriate): *LS6000 (Red) 7065155, LS6500 (Blue) 7067083, LS6500 (Gold) 7070506, LS6500 (Green) 7067404, Wallac (Yellow) 4140127, LS6000 (Brown) 7060655, Wallac (Pink) 2200082, Wallac (White) 4140299, Purple 7069123, Silver 7060656, Orange DG06095168*

Calibration Used : *Ecoscint Ultra (10 mL sample/13 mL Econscint Ultra)*

Data Reviewed By: 3-4-10

GEL Laboratories LLC, Radiochemistry Division

DATE		2/25/2010		INITIALS	KXK2			BATCH NUMBER	956740

Sample #	Flask Wt. (g)	Sample Wet (g)	Flask & Sample Wet (g)	% Moisture of Sample (Balance Interface using % Moisture Batch)	Total Moisture in Sample (mL)	Sample Dry (g)	Flask & Sample Dry (g)	mLs aliquoted into LSC vial	Collection Tube Number
247185001	200	397.77	597.77	0.105	41.77	356.00	556.00	10	
247185002	200	302.64	502.64	0.194	58.71	243.93	443.93	10	
247185003	200	445.60	645.60	0.111	49.46	396.14	596.14	10	
247185004	200	413.03	613.03	0.230	95.00	318.03	518.03	10	
247185005	200	474.97	674.97	0.137	65.07	409.90	609.90	10	
247185006	200	402.60	602.60	0.122	49.12	353.48	553.48	10	
247185007	200	412.20	612.20	0.176	72.55	339.65	539.65	10	
247185008	200	357.07	557.07	0.257	91.77	265.30	465.30	10	
247185009	200	488.64	688.64	0.123	60.10	428.54	628.54	10	
247185010	200	310.70	510.70	0.198	61.52	249.18	449.18	10	
247185011	200	311.61	511.61	0.291	90.68	220.93	420.93	10	
247327002	200	537.45	737.45	0.078	41.92	495.53	695.53	10	
247356001	200	571.66	771.66	0.015	8.57	563.09	763.09	~~10~~ 7	
~~247356002~~	~~200~~	~~0.00~~	~~200.00~~	~~0.000~~	~~0.00~~	~~0.00~~	~~200.00~~	~~10~~	
247356003	200	500.17	700.17	0.015	7.50	492.67	692.67	5	
247356004	200	519.91	719.91	0.022	11.44	508.47	708.47	8	
~~247356005~~	~~200~~	~~0.00~~	~~200.00~~	~~0.000~~	~~0.00~~	~~0.00~~	~~200.00~~	~~10~~	
247356006	200	587.87	787.87	0.016	9.41	578.46	778.46	6	
~~247356007~~	~~200~~	~~0.00~~	~~200.00~~	~~0.011~~	~~0.00~~	~~0.00~~	~~200.00~~	~~10~~	
~~247356008~~	~~200~~	~~0.00~~	~~200.00~~	~~0.012~~	~~0.00~~	~~0.00~~	~~200.00~~	~~10~~	
MB	200	20.00	220.00	1.000	20.00	0.00	200.00	10	
DUP	200	397.77	597.77	0.105	41.77	356.00	556.00	10	
LCS	200	20.00	220.00	1.000	20.00	0.00	200.00	10	

T956740

Tritium Solid

Filename :	H3VAC.XLS	Spike S/N :	N/A	LCS S/N :	0134-K
File type :	Excel	Spike Exp Date :	N/A	LCS Exp Date :	3/27/2010
Version # :	1.2.6	Spike Activity (dpm/ml):	N/A	LCS Activity (dpm/ml):	2462.88
		Spike Volume Added:	N/A	LCS Volume Added:	0.10
Batch :	956740				
Analyst :	KXK2				
Prep Date :	2/25/2010				
				Procedure Code :	LSC_VH3S
H-3 Abundance :	1	Pipet, 0.1 ml Stdev : +/-	0.000701 ml	Parmname :	Tritium
Method Uncertainty :	0.0691	Pipet, 0.5 ml Stdev : +/-	0.002564 ml	Required MDC :	250 pCi/L
Geometry:	10mL DW/13mL Ecoscint Ultra	Pipet, 1.0 ml Stdev : +/-	0.005480 ml	Halflife of Tritium :	12.32 years
		Pipet, 5.0 ml Stdev : +/-	0.025729 ml		

Sample Characteristics

Pos.	Sample ID	Wet Sample Weight (g)	Total Moisture L	Sample Aliquot in Vial L	Sample Aliquot Stdev. L	Dry Sample Weight (g)	% Moisture of Sample	Rig number	Sample Date/Time
1	247185001.1	397.77	0.0418	0.0100	2.5729E-05	356.00	10.50%	1	2/10/2010 12:00
2	247185002.1	302.64	0.0587	0.0100	2.5729E-05	243.93	19.40%	2	2/10/2010 12:00
3	247185003.1	445.60	0.0495	0.0100	2.5729E-05	396.14	11.10%	3	2/10/2010 12:00
4	247185004.1	413.03	0.0950	0.0100	2.5729E-05	318.03	23.00%	4	2/10/2010 12:00
5	247185005.1	474.97	0.0651	0.0100	2.5729E-05	409.90	13.70%	5	2/10/2010 12:00
6	247185006.1	402.60	0.0491	0.0100	2.5729E-05	353.48	12.20%	6	2/10/2010 12:00
7	247185007.1	412.20	0.0726	0.0100	2.5729E-05	339.65	17.60%	7	2/10/2010 12:00
8	247185008.1	357.07	0.0918	0.0100	2.5729E-05	265.30	25.70%	8	2/10/2010 12:00
9	247185009.1	488.64	0.0601	0.0100	2.5729E-05	428.54	12.30%	9	2/10/2010 12:00
10	247185010.1	310.70	0.0615	0.0100	2.5729E-05	249.18	19.80%	10	2/10/2010 12:00
11	247185011.1	311.61	0.0907	0.0100	2.5729E-05	220.93	29.10%	11	2/10/2010 12:00
12	247327002.1	537.45	0.0419	0.0100	2.5729E-05	495.53	7.80%	12	2/16/2010 12:00
13	247356001.1	571.66	0.0086	0.0070	2.5729E-05	563.09	1.50%	13	2/13/2010 12:00
~~14~~	~~247356002.1~~	~~500.17~~	~~0.0086~~	~~0.0100~~	~~2.5729E-05~~	~~492.67~~	~~1.50%~~	~~14~~	~~2/13/2010 12:00~~
15	247356003.1	500.17	0.0075	0.0050	2.5729E-05	492.67	1.50%	15	2/13/2010 12:00
16	247356004.1	519.91	0.0114	0.0080	2.5729E-05	508.47	2.20%	16	2/13/2010 12:00
~~17~~	~~247356005.1~~	~~20.00~~	~~0.0094~~	~~0.0100~~	~~2.5729E-05~~	~~578.46~~	~~-2792.30%~~	~~17~~	~~2/13/2010 12:00~~
18	247356006.1	587.87	0.0094	0.0060	2.5729E-05	578.46	1.60%	18	2/13/2010 12:00
~~19~~	~~247356007.1~~	~~20.00~~	~~0.0094~~	~~0.0100~~	~~2.5729E-05~~	~~0.00~~	~~100.00%~~	~~19~~	~~2/13/2010 12:00~~
~~20~~	~~247356008.1~~	~~20.00~~	~~0.0200~~	~~0.0100~~	~~2.5729E-05~~	~~0.00~~	~~100.00%~~	~~20~~	~~2/13/2010 12:00~~
21	1202051375.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	21	2/25/2010 0:00
22	1202051376.1	397.77	0.0418	0.0100	2.5729E-05	356.00	10.50%	1	2/10/2010 12:00
23	1202051377.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	22	2/25/2010 0:00

T956740

Count raw Data					Background				Calibration Data					Backgrounds	
Pos.	Rack Position #	Counting Time (min.)	Quench#	Gross cpm	cpm	Count Time (min.)	Count Start Date/Time	Sample Decay	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Rack Position #	Count Start Date/Time
1	25-2	95	117.9	3.57	2.69	95	3/2/2010 18:14	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1841	0.00792	25-1	3/2/2010 16:36
2	25-3	95	118.3	5.13	2.69	95	3/2/2010 19:53	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1838	0.00792	25-1	3/2/2010 16:36
3	25-4	95	116.8	3.27	2.69	95	3/2/2010 21:31	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1850	0.00792	25-1	3/2/2010 16:36
4	25-5	95	118.6	4.8	2.69	95	3/2/2010 23:09	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1836	0.00792	25-1	3/2/2010 16:36
5	25-6	95	118.1	4.27	2.69	95	3/3/2010 0:47	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1840	0.00792	25-1	3/2/2010 16:36
6	25-7	95	118.4	3.33	2.69	95	3/3/2010 2:25	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1838	0.00792	25-1	3/2/2010 16:36
7	25-8	95	118.3	4.15	2.69	95	3/3/2010 4:03	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1838	0.00792	25-1	3/2/2010 16:36
8	57-1	95	118.7	5.16	2.69	95	3/3/2010 11:14	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1835	0.00792	25-1	3/2/2010 16:36
9	57-2	95	118.5	5.35	2.69	95	3/3/2010 12:52	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1837	0.00792	25-1	3/2/2010 16:36
10	57-3	95	119	4.26	2.69	95	3/3/2010 14:30	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1833	0.00792	25-1	3/2/2010 16:36
11	57-4	95	118.7	9.07	2.69	95	3/3/2010 16:08	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1835	0.00792	25-1	3/2/2010 16:36
12	57-5	95	118.5	3.24	2.69	95	3/3/2010 17:46	0.998	LSCGREEN	8/20/2009	8/31/2010	0.1837	0.00792	25-1	3/2/2010 16:36
13	57-6	10.85	117	925.16	2.69	95	3/3/2010 19:22	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1848	0.00792	25-1	3/2/2010 16:36
~~14~~	~~57-7~~	~~1.45~~	~~118.5~~	~~6949.65~~	~~2.69~~	~~95~~	~~3/3/2010 19:34~~	~~0.997~~	~~LSCGREEN~~	~~8/20/2009~~	~~8/31/2010~~	~~0.1837~~	~~0.00792~~	~~25-1~~	~~3/2/2010 16:36~~
15	57-7	1.45	118.5	6949.65	2.69	95	3/3/2010 19:34	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1837	0.00792	25-1	3/2/2010 16:36
16	57-8	4.3	117.8	2342.09	2.69	95	3/3/2010 19:36	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1842	0.00792	25-1	3/2/2010 16:36
~~17~~	~~57-10~~	~~95~~	~~117.4~~	~~3.26~~	~~2.69~~	~~95~~	~~3/3/2010 19:56~~	~~0.997~~	~~LSCGREEN~~	~~8/20/2009~~	~~8/31/2010~~	~~0.1845~~	~~0.00792~~	~~25-1~~	~~3/2/2010 16:36~~
18	57-9	11.3	118.5	885.93	2.69	95	3/3/2010 19:42	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1837	0.00792	25-1	3/2/2010 16:36
~~19~~	~~39-1~~	~~15~~	~~117.5~~	~~27.47~~	~~2.69~~	~~95~~	~~3/4/2010 0:21~~	~~0.997~~	~~LSCGREEN~~	~~8/20/2009~~	~~8/31/2010~~	~~0.1844~~	~~0.00792~~	~~25-1~~	~~3/2/2010 16:36~~
~~20~~	~~39-1~~	~~15~~	~~117.5~~	~~27.47~~	~~2.69~~	~~95~~	~~3/4/2010 0:21~~	~~0.997~~	~~LSCGREEN~~	~~8/20/2009~~	~~8/31/2010~~	~~0.1844~~	~~0.00792~~	~~25-1~~	~~3/2/2010 16:36~~
21	57-10	95	117.4	3.26	2.69	95	3/3/2010 19:56	0.999	LSCGREEN	8/20/2009	8/31/2010	0.1845	0.00792	25-1	3/2/2010 16:36
22	57-11	95	119.2	3.66	2.69	95	3/3/2010 21:34	0.997	LSCGREEN	8/20/2009	8/31/2010	0.1832	0.00792	25-1	3/2/2010 16:36
23	39-1	15	117.5	27.47	2.69	95	3/4/2010 0:21	0.999	LSCGREEN	8/20/2009	8/31/2010	0.1844	0.00792	25-1	3/2/2010 16:36

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	136.0605	96.0599	250	199.8688	**215.9383**	0.292	0.880	0.257	62.9901	64.7606		SAMPLE				
2	136.2846	96.2181	250	200.1980	**599.7240**	0.118	2.440	0.287	70.5185	81.9606		SAMPLE				
3	135.4691	95.6424	250	199.0000	**141.7043**	0.432	0.580	0.250	61.1951	61.9858		SAMPLE				
4	136.4568	96.3397	250	200.4509	**519.2690**	0.133	2.110	0.281	69.1017	77.9937		SAMPLE				
5	136.1771	96.1422	250	200.0401	**388.0396**	0.172	1.580	0.271	66.4755	71.7583		SAMPLE				
6	136.3466	96.2619	250	200.2890	**157.3762**	0.393	0.640	0.252	61.9007	62.8636		SAMPLE				
7	136.2918	96.2232	250	200.2085	**358.8701**	0.184	1.460	0.268	65.9554	70.5326		SAMPLE				
8	136.5243	96.3873	250	200.5500	**608.1651**	0.117	2.470	0.287	70.7779	82.4842		SAMPLE				
9	136.4122	96.3082	250	200.3853	**654.4093**	0.110	2.660	0.291	71.5705	84.8510		SAMPLE				
10	136.6991	96.5107	250	200.8068	**387.0615**	0.172	1.570	0.270	66.6824	71.9254		SAMPLE				
11	136.5286	96.3903	250	200.5563	**1570.9375**	0.056	6.380	0.352	86.6324	139.5569		SAMPLE				
12	136.2904	96.2222	250	200.2065	**135.1894**	0.454	0.550	0.250	61.4109	62.1285		SAMPLE				
13	427.6181	301.9020	250	700.3528	**322112.4425**	0.014	922.470	9.236	3224.9345	22696.4569		SAMPLE				
~~14~~	~~786.3592~~	~~555.1764~~	~~250~~	~~1619.1408~~	~~1708356.1998~~	~~0.013~~	~~6946.960~~	~~69.231~~	~~17024.8138~~	~~120194.5998~~		~~SAMPLE~~				
15	1572.7185	1110.3528	250	3238.2815	**3416712.3996**	0.015	6946.960	69.231	34049.6276	241351.6984		SAMPLE				
16	577.5100	407.7270	250	1029.3003	**717056.4685**	0.014	2339.400	23.339	7153.6504	50488.8831		SAMPLE				
~~17~~	~~135.7468~~	~~95.8384~~	~~250~~	~~199.4079~~	~~139.5466~~	~~0.439~~	~~0.570~~	~~0.250~~	~~61.2690~~	~~62.0351~~		~~SAMPLE~~				
18	492.8680	347.9691	250	804.7499	**362002.6128**	0.014	883.240	8.856	3629.7095	25532.9887		SAMPLE				
~~19~~	~~260.0454~~	~~183.5943~~	~~250~~	~~416.1730~~	~~6069.1729~~	~~0.056~~	~~24.780~~	~~1.364~~	~~333.9979~~	~~538.7321~~		~~SAMPLE~~				
~~20~~	~~260.0454~~	~~183.5943~~	~~250~~	~~416.1730~~	~~6069.1729~~	~~0.056~~	~~24.780~~	~~1.364~~	~~333.9979~~	~~538.7321~~		~~SAMPLE~~				
21	135.5065	95.6688	250	199.0550	**139.2996**	0.439	0.570	0.250	61.1606	61.9253		MB				
22	136.8210	96.5968	250	200.9859	**239.3532**	0.267	0.970	0.259	63.7959	65.9380	247185001.1	DUP	10.3%	0.0896		
23	259.5852	183.2693	250	415.4364	**6058.4311**	0.056	24.780	1.364	333.4067	537.7786		LCS			5547.0370	109.2%

ID: TRITIUM 2 MAR 2010 16:40

USER: 2 COMMENT: GREEN

PRESET TIME :	95.00						
DATA CALC :	CPM	H#	:YES	SAMPLE REPEATS:	1	PRINTER	: STD
COUNT BLANK :	NO	IC#	: NO	REPLICATES :	1	RS232	:EDIT
TWO PHASE :	NO	AQC	: NO	CYCLE REPEATS :	1	DISK	: OFF
SCINTILLATOR:	LIQUID	LUMEX	:YES	LOW SAMPLE REJ:	0	RWM LIST	: OFF
LOW LEVEL :	NO	HALF LIFE CORRECTION DATE:				none	

CHAN: 10.0 - 230.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 900.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0

ALPHA-BETA DISCRIMINATION: NO

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
1	25-1	95.00	116.9	2.69	13.24	34.69	3.50	0.80	97.68
2	25-2	95.00	117.9	3.57	11.35	34.93	3.49	0.77	195.84
3	25-3	95.00	118.3	5.13	9.34	37.38	3.37	0.73	294.01
4	25-4	95.00	116.8	3.27	11.84	34.56	3.51	0.74	392.14
5	25-5	95.00	118.6	4.80	9.62	38.39	3.32	0.63	490.27
6	25-6	95.00	118.1	4.27	10.23	36.12	3.43	0.64	588.37
7	25-7	95.00	118.4	3.33	11.65	34.60	3.50	0.61	686.47
8	25-8	95.00	118.3	4.15	10.34	36.03	3.43	0.54	784.54

INSTRUMENT CALIBRATION: Mini 3 MAR 2010 05:48
Calibration successful

ID: TRITIUM 3 MAR 2010 11:17

USER: 2 COMMENT:GREEN

PRESET TIME :	95.00						
DATA CALC :	CPM	H#	:YES	SAMPLE REPEATS:	1	PRINTER	: STD
COUNT BLANK :	NO	IC#	: NO	REPLICATES :	1	RS232	:EDIT
TWO PHASE :	NO	AQC	: NO	CYCLE REPEATS :	1	DISK	: OFF
SCINTILLATOR:	LIQUID	LUMEX	:YES	LOW SAMPLE REJ:	0	RWM LIST	: OFF
LOW LEVEL :	NO	HALF LIFE CORRECTION DATE:				none	

CHAN: 10.0 - 230.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 900.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0

ALPHA-BETA DISCRIMINATION: NO

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
1	57-1	95.00	118.7	5.16	9.70	38.78	3.33	1.67	97.91
2	57-2	95.00	118.5	5.35	9.11	36.91	3.39	0.70	196.06
3	57-3	95.00	119.0	4.26	10.17	35.06	3.48	0.51	294.12
4	57-4	95.00	118.7	9.07	6.88	42.55	3.15	0.42	392.17
5	57-5	95.00	118.5	3.24	11.72	33.69	3.54	0.51	490.22
6	57-6	10.85	117.0	925.16	2.00	1318.80	1.67	0.02	502.27
7	57-7	1.45	118.5	6949.65	1.99	9614.48	1.69	0.01	504.71
8	57-8	4.30	117.8	2342.09	1.99	3287.91	1.68	0.01	509.99
9	57-9	11.30	118.5	885.93	2.00	1261.77	1.68	0.02	522.48
10	57-10	95.00	117.4	3.26	11.65	33.45	3.56	0.48	620.53
11	57-11	95.00	119.2	3.66	11.01	35.09	3.47	0.52	718.61

INSTRUMENT CALIBRATION: Mini 3 MAR 2010 23:19
Calibration successful

ID:TRITIUM 4 MAR 2010 00:27

USER: 4 COMMENT:GREEN

PRESET TIME :	15.00						
DATA CALC :	CPM	H#	:YES	SAMPLE REPEATS:	1	PRINTER	: STD
COUNT BLANK :	NO	IC#	: NO	REPLICATES :	1	RS232	:EDIT
TWO PHASE :	NO	AQC	: NO	CYCLE REPEATS :	1	DISK	: OFF
SCINTILLATOR:	LIQUID	LUMEX	:YES	LOW SAMPLE REJ:	0	RWM LIST	: OFF
LOW LEVEL :	NO	HALF LIFE CORRECTION DATE:				none	

CHAN: 10.0 - 230.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 900.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0

ALPHA-BETA DISCRIMINATION: NO

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
1	39-1	15.00	117.5	**27.47**	9.88	**66.87**	6.32	0.32	15.80

Sample Count Start Time:	2 Mar 2010 16:36:43		
Data Capture Date	02 Mar 2010 18:11:08		
User Filename	S02030225-1A.XLS		
	U02030225-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	25-1	95.00
H#, Total Counts:	116.9	3351	
Win1: Tritium - Start, End, Counts:	10	230	259
Win2: - Start, End, Counts:	0	990	3351

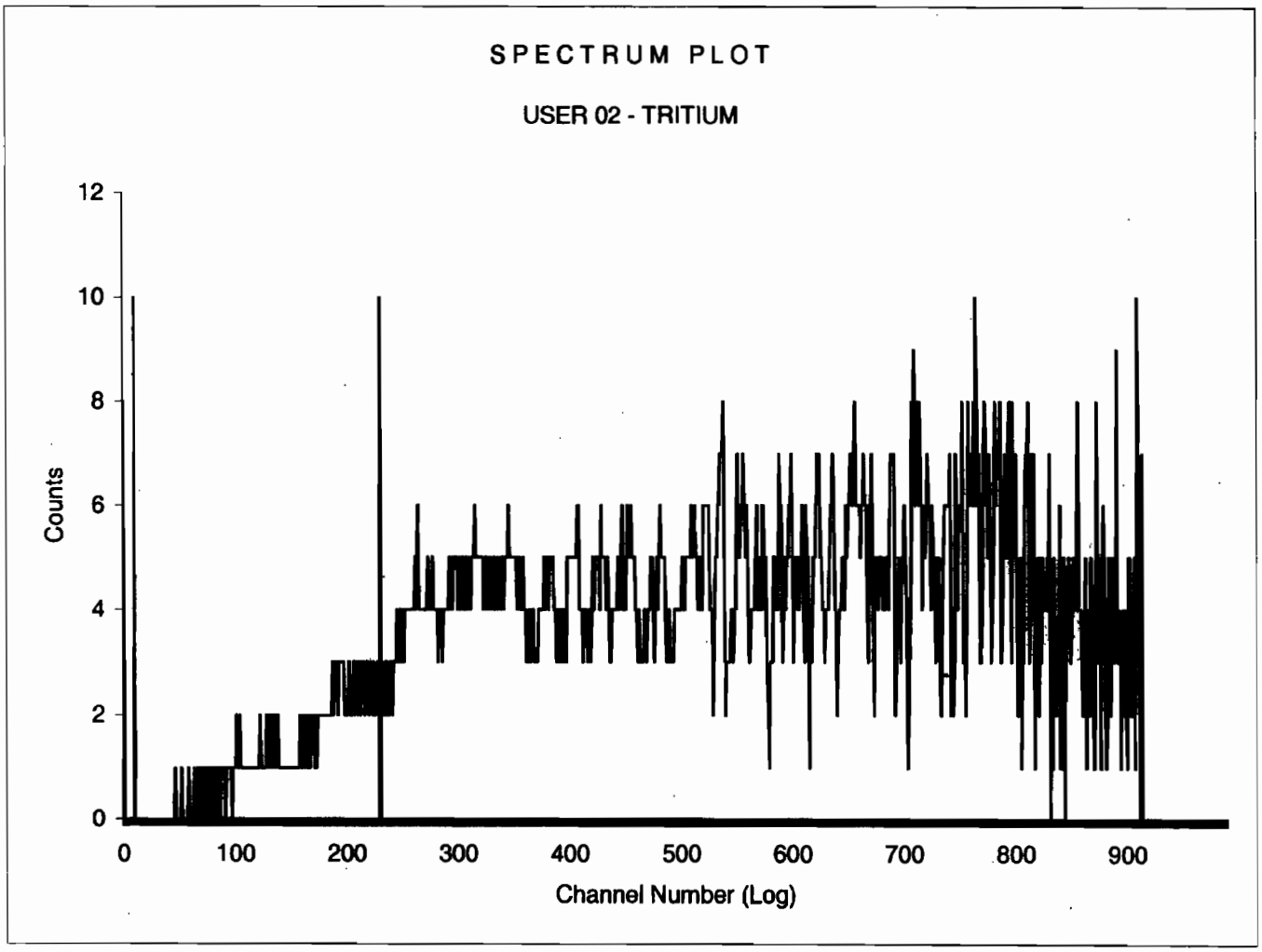

Sample Count Start Time:	2 Mar 2010 18:14:52		
Data Capture Date	02 Mar 2010 19:49:18		
User Filename	S02030225-2A.XLS		
	U02030225-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	25-2	95.00
H#, Total Counts:	117.9	3378	
Win1: Tritium - Start, End, Counts:	10	230	343
Win2: - Start, End, Counts:	0	990	3378

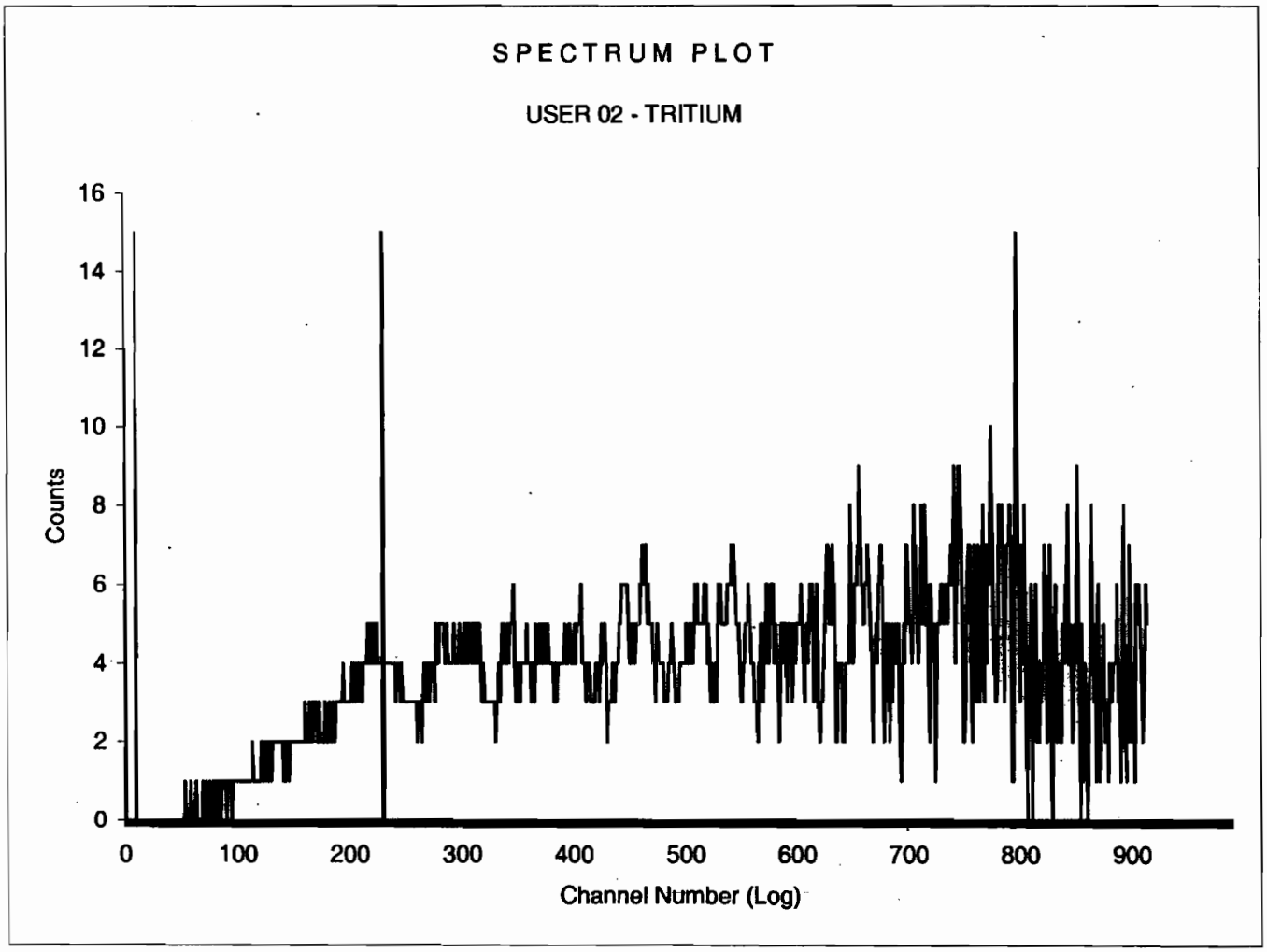

Sample Count Start Time:	2 Mar 2010 19:53:03		
Data Capture Date	02 Mar 2010 21:27:27		
User Filename	S02030225-3A.XLS		
	U02030225-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	25-3	95.00
H#, Total Counts:	118.3	3600	
Win1: Tritium - Start, End, Counts:	10	230	491
Win2: - Start, End, Counts:	0	990	3600

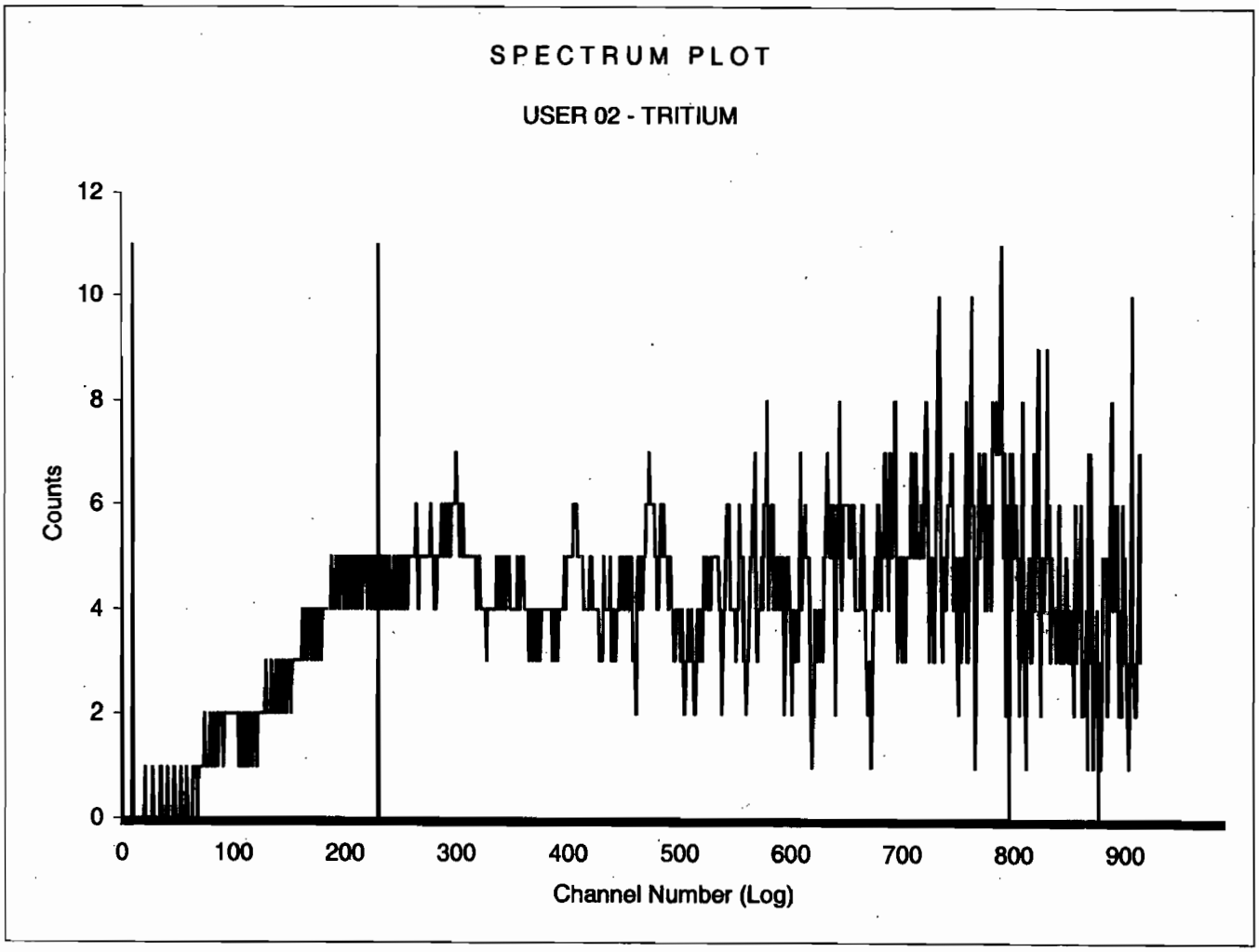

Sample Count Start Time:	2 Mar 2010 21:31:10		
Data Capture Date	02 Mar 2010 23:05:36		
User Filename	S02030225-4A.XLS		
	U02030225-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	25-4	95.00
H#, Total Counts:	116.8	3330	
Win1: Tritium - Start, End, Counts:	10	230	314
Win2: - Start, End, Counts:	0	990	3329

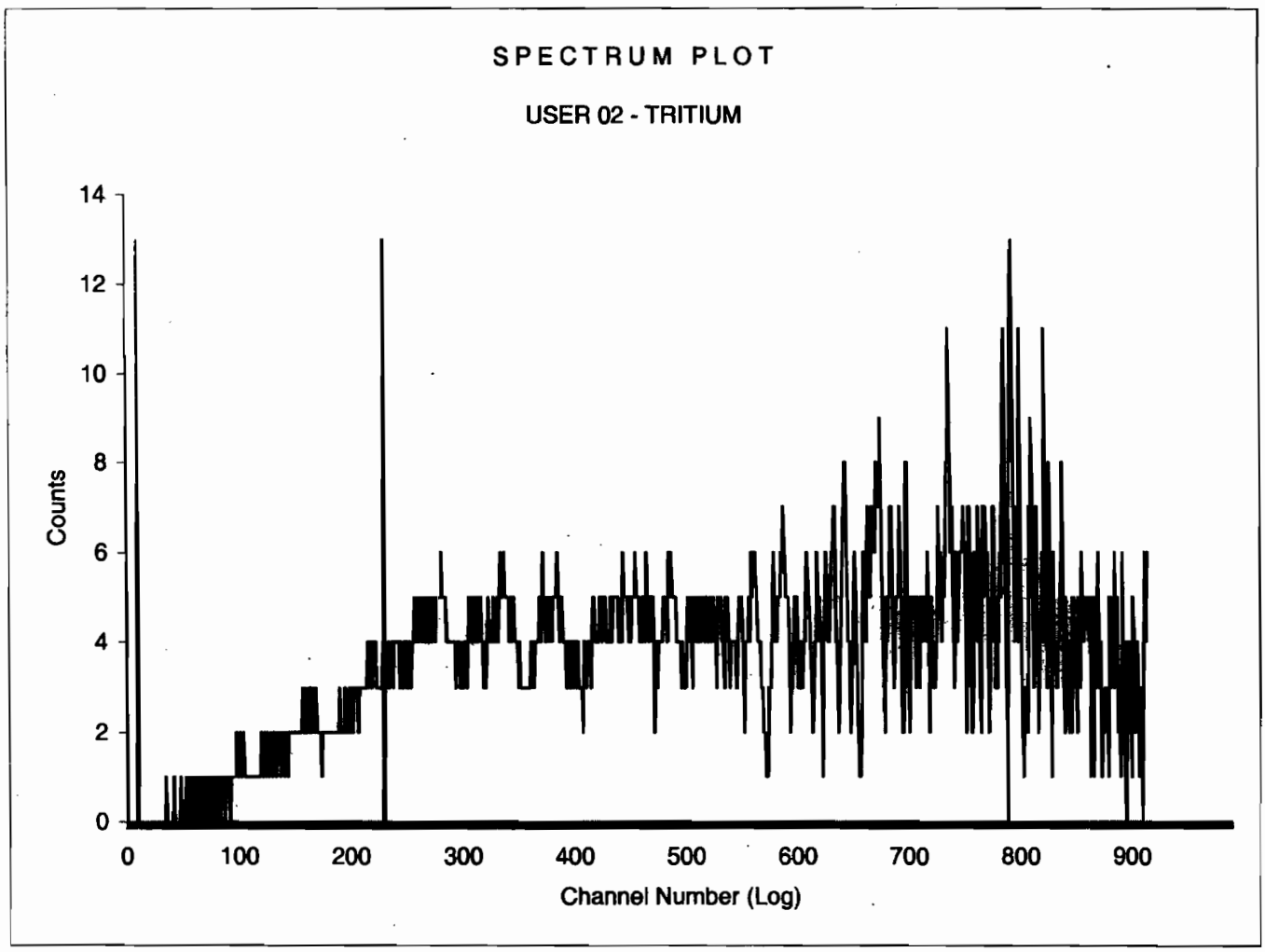

Sample Count Start Time:	2 Mar 2010 23:09:18		
Data Capture Date	03 Mar 2010 00:43:44		
User Filename	S02030325-5A.XLS		
	U02030225-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	25-5	95.00
H#, Total Counts:	118.6	3714	
Win1: Tritium - Start, End, Counts:	10	230	459
Win2: - Start, End, Counts:	0	990	3713

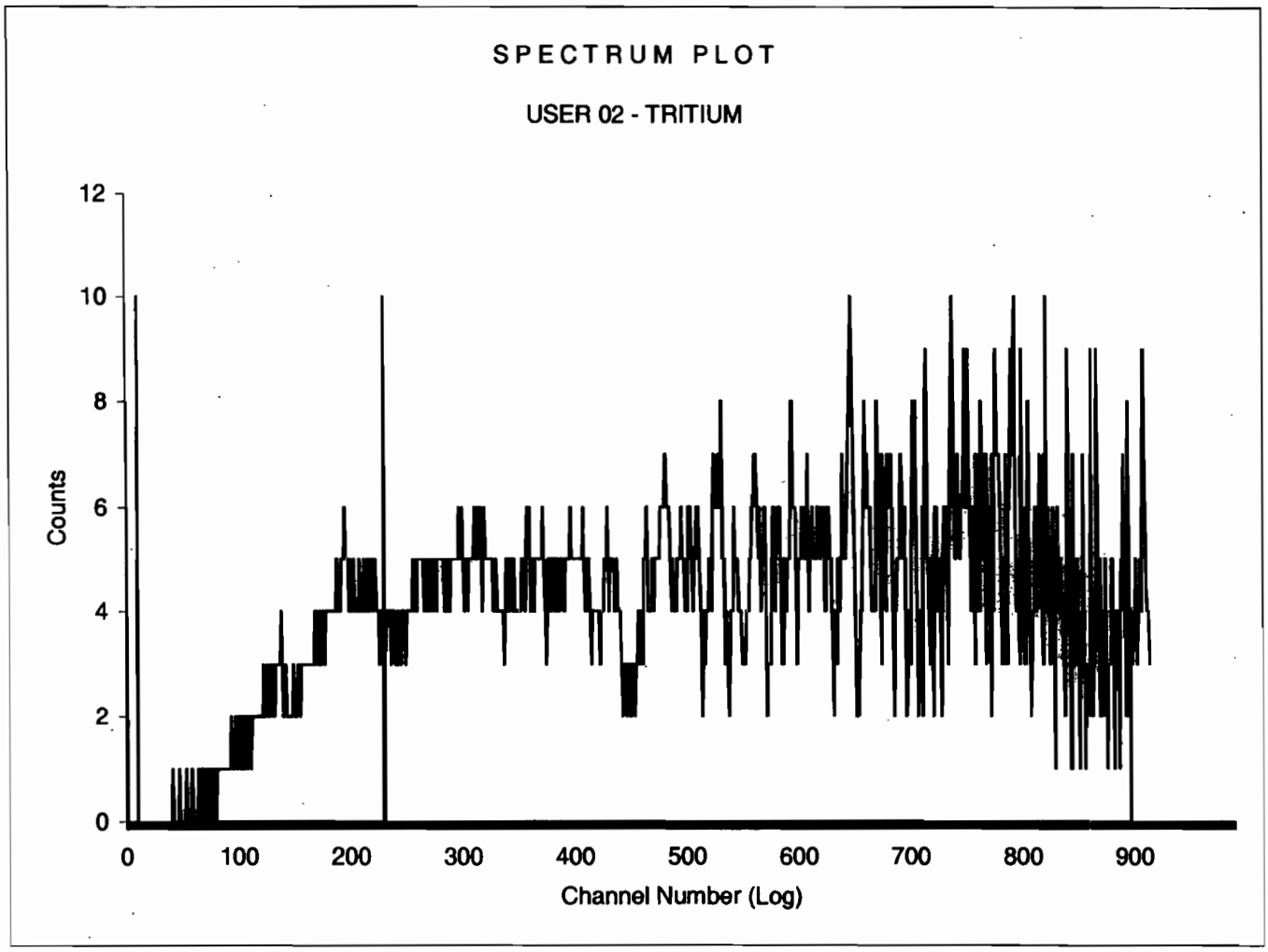

Sample Count Start Time:	3 Mar 2010 00:47:24		
Data Capture Date	03 Mar 2010 02:21:51		
User Filename	S02030325-6A.XLS		
	U02030225-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	25-6	95.00
H#, Total Counts:	118.1	3487	
Win1: Tritium - Start, End, Counts:	10	230	410
Win2: - Start, End, Counts:	0	990	3486

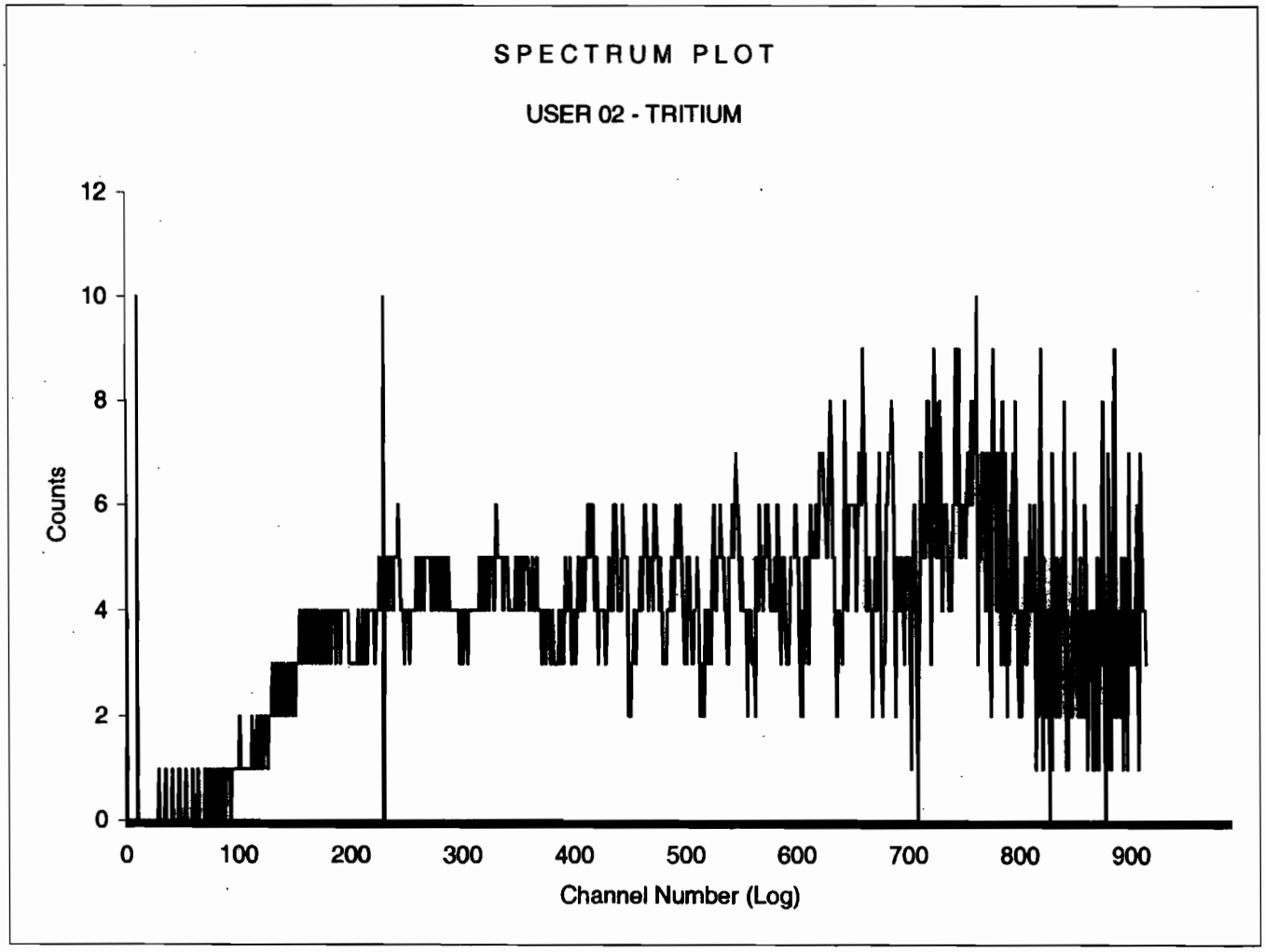

Sample Count Start Time:	3 Mar 2010 02:25:30		
Data Capture Date	03 Mar 2010 03:59:56		
User Filename	S02030325-7A.XLS		
	U02030225-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	7	25-7	95.00
H#, Total Counts:	118.4	3339	
Win1: Tritium - Start, End, Counts:	10	230	319
Win2: - Start, End, Counts:	0	990	3339

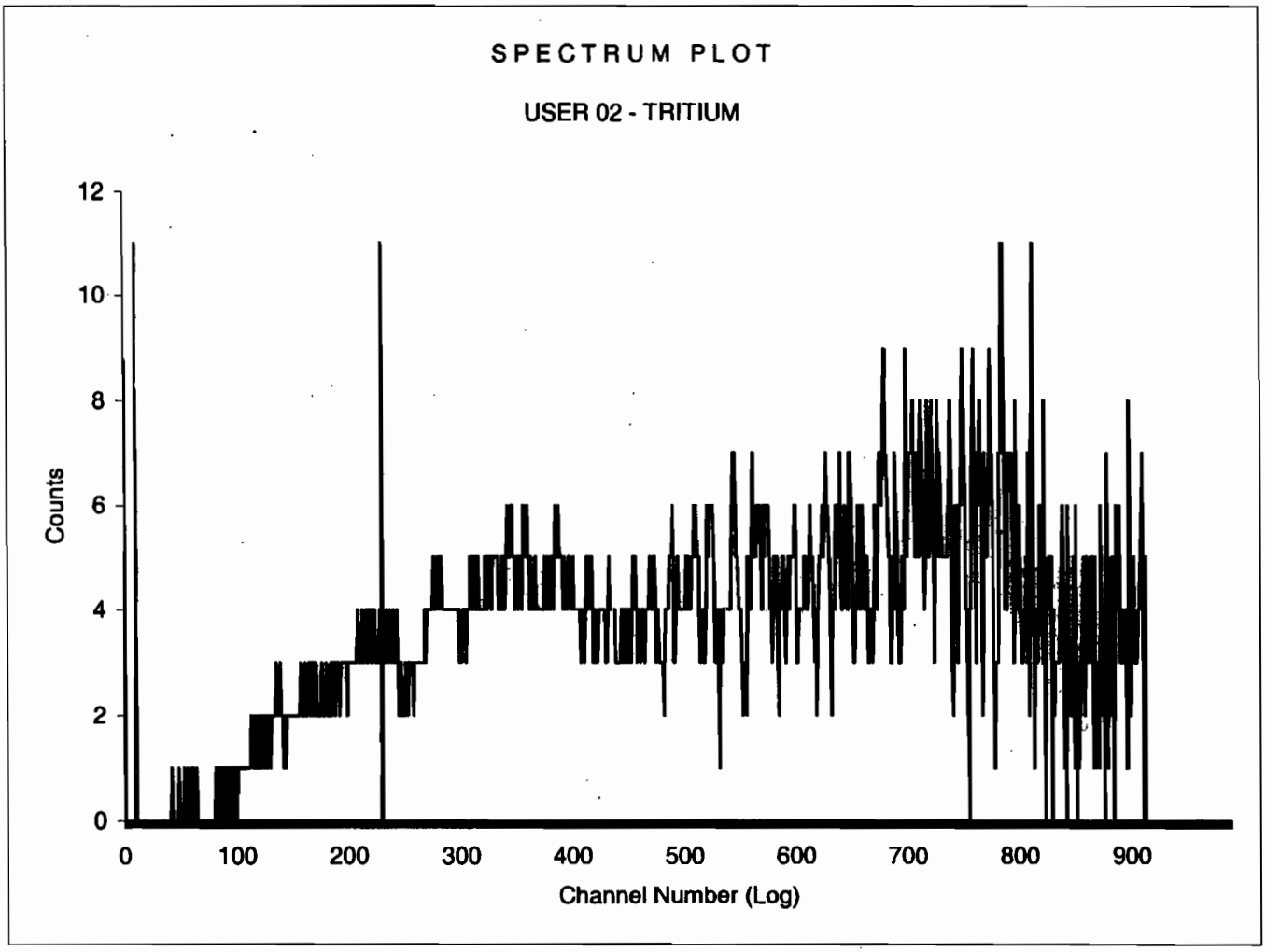

Sample Count Start Time:	3 Mar 2010 04:03:34		
Data Capture Date	03 Mar 2010 05:38:01		
User Filename	S02030325-8A.XLS		
	U02030225-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	8	25-8	95.00
H#, Total Counts:	118.3	3479	
Win1: Tritium - Start, End, Counts:	10	230	398
Win2: - Start, End, Counts:	0	990	3479

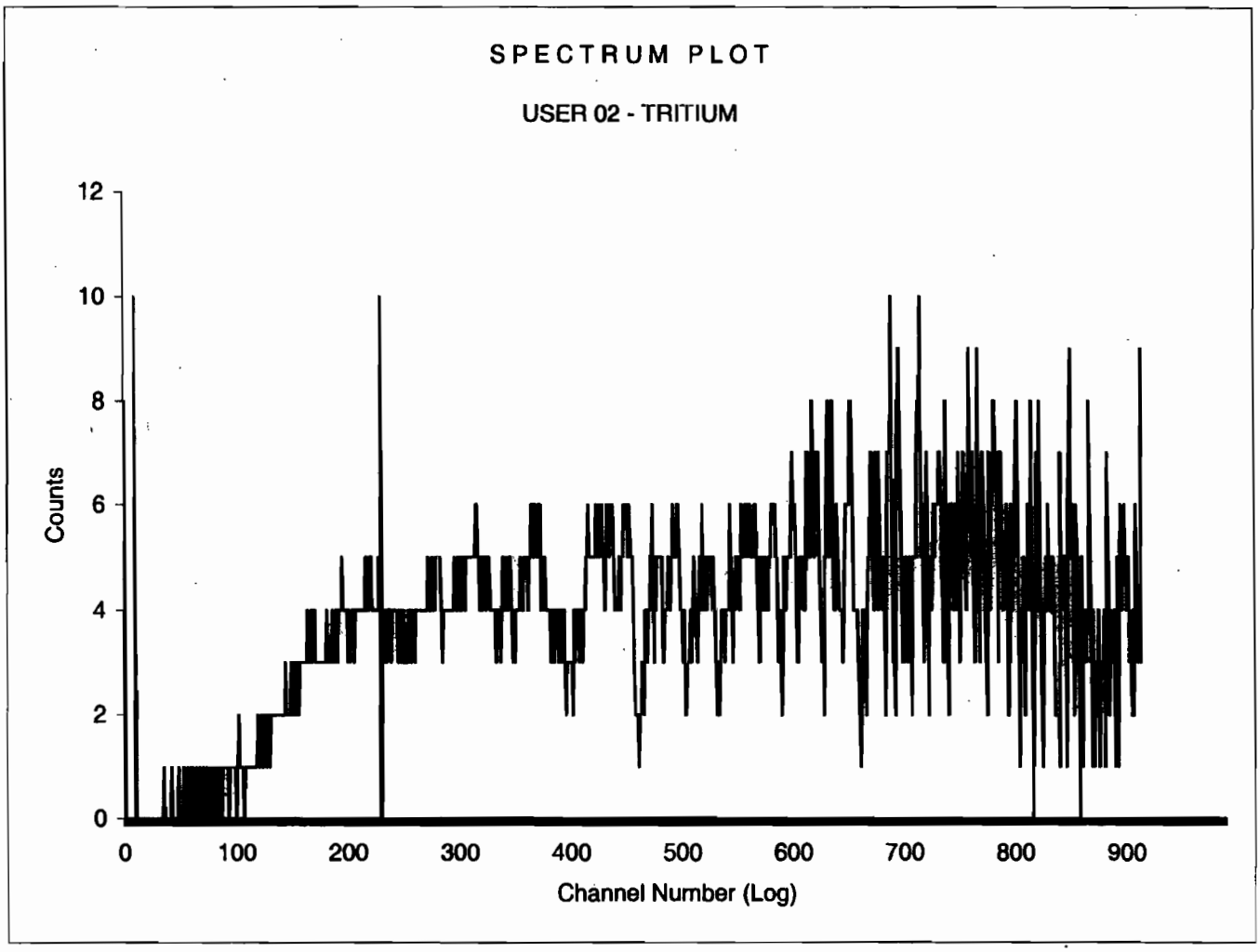

Sample Count Start Time:	3 Mar 2010 11:14:09		
Data Capture Date	03 Mar 2010 12:48:24		
User Filename	S02030357-1A.XLS		
	U02030357-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	57-1	95.00
H#, Total Counts:	118.7	3749	
Win1: Tritium - Start, End, Counts:	10	230	495
Win2: - Start, End, Counts:	0	990	3749

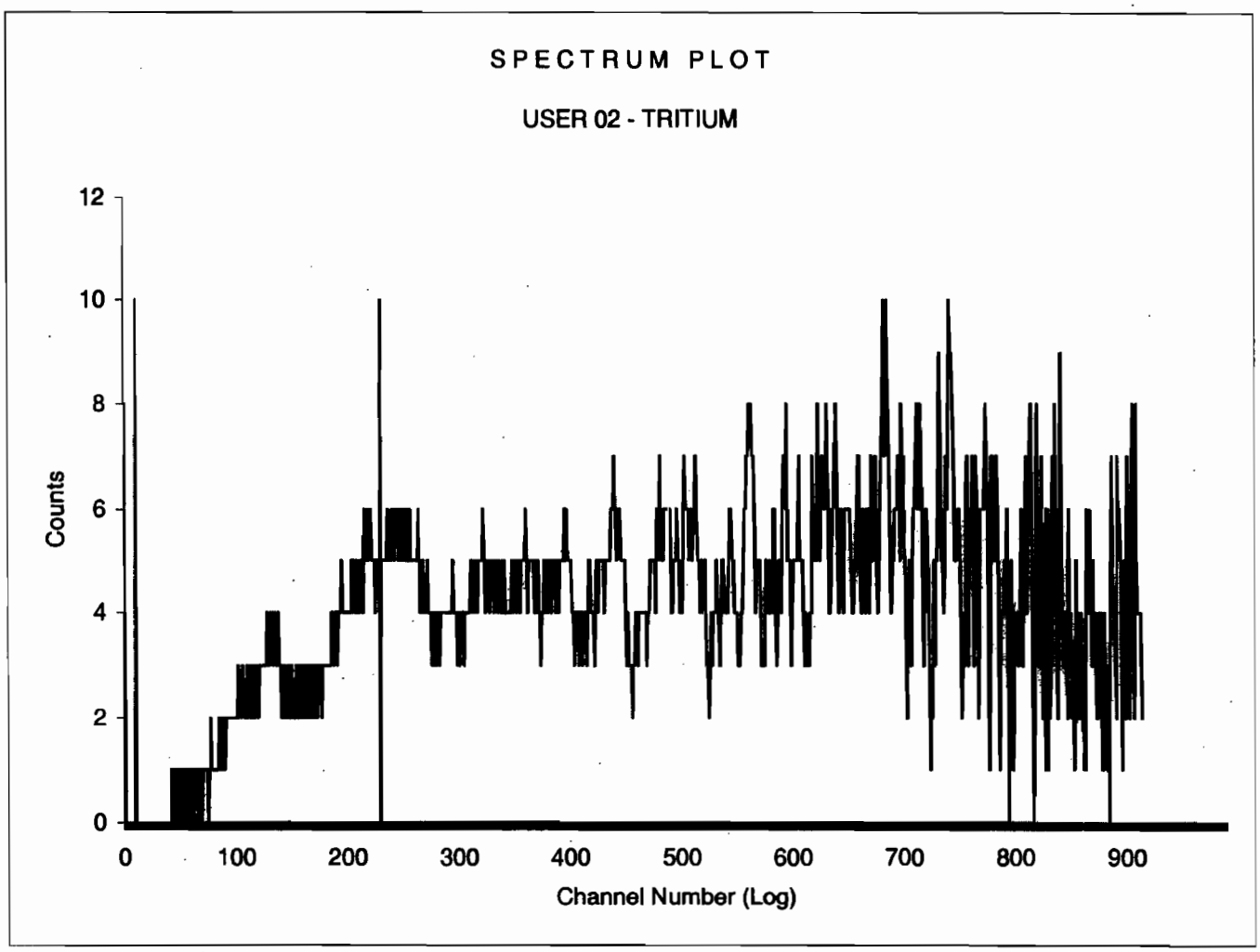

Sample Count Start Time:	3 Mar 2010 12:52:18		
Data Capture Date	03 Mar 2010 14:26:33		
User Filename	S02030357-2A.XLS		
	U02030357-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	57-2	95.00
H#, Total Counts:	118.5	3557	
Win1: Tritium - Start, End, Counts:	10	230	513
Win2: - Start, End, Counts:	0	990	3556

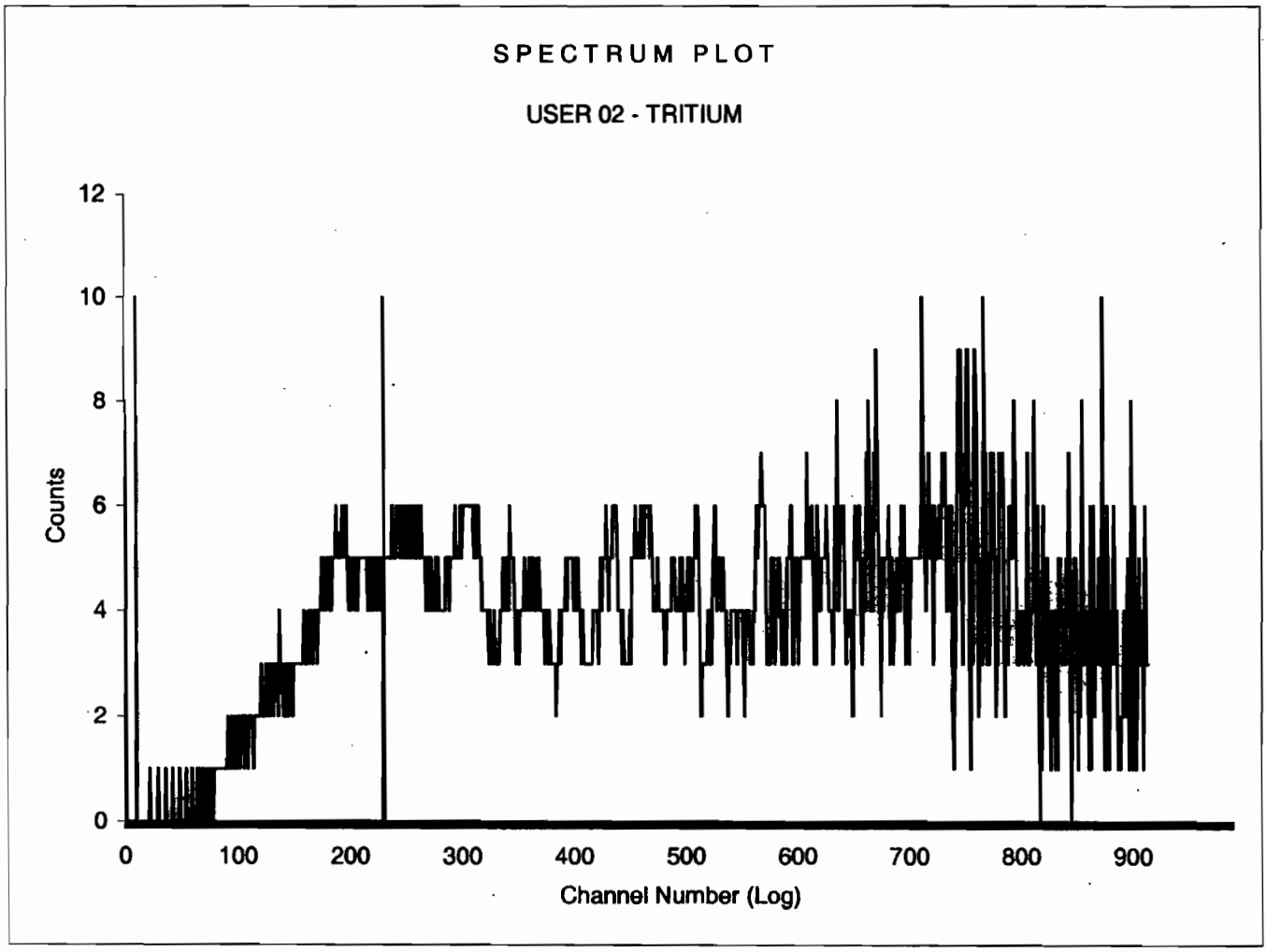

Sample Count Start Time:	3 Mar 2010 14:30:21		
Data Capture Date	03 Mar 2010 16:04:36		
User Filename	S02030357-3A.XLS		
	U02030357-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	57-3	95.00
H#, Total Counts:	119.0	3386	
Win1: Tritium - Start, End, Counts:	10	230	409
Win2: - Start, End, Counts:	0	990	3385

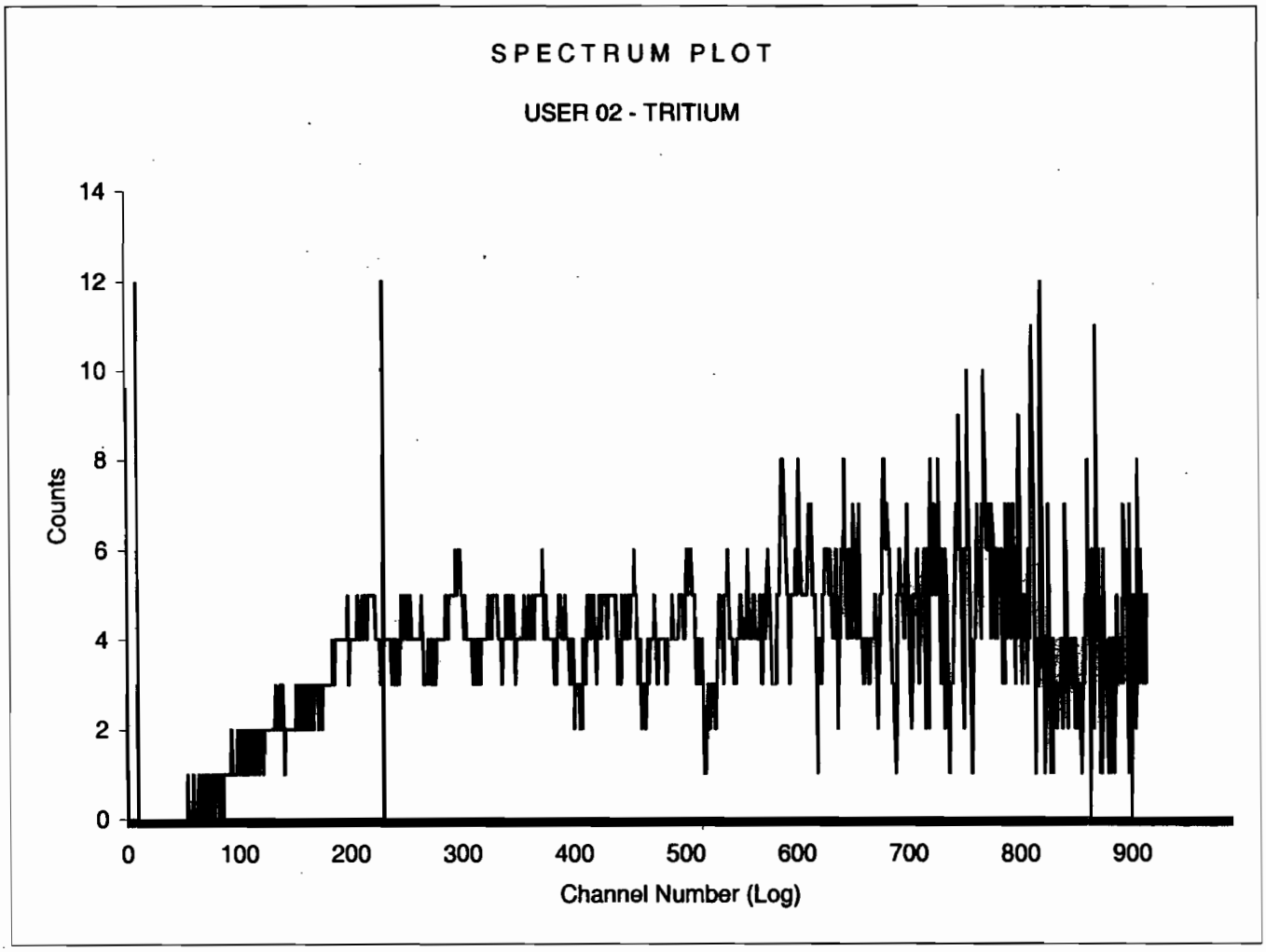

Sample Count Start Time:	3 Mar 2010 16:08:24		
Data Capture Date	03 Mar 2010 17:42:39		
User Filename	S02030357-4A.XLS		
	U02030357-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	57-4	95.00
H#, Total Counts:	118.7	4094	
Win1: Tritium - Start, End, Counts:	10	230	870
Win2: - Start, End, Counts:	0	990	4094

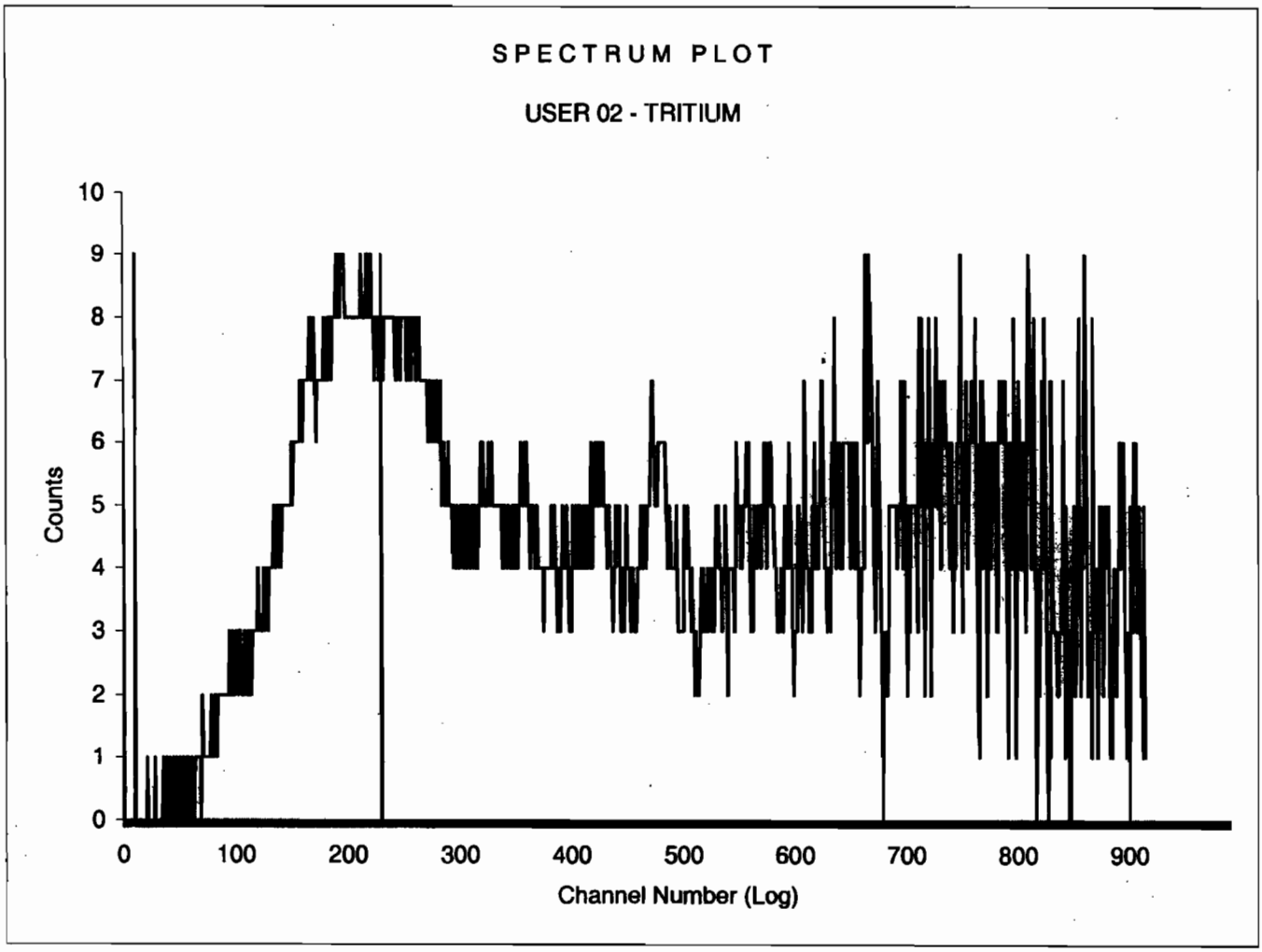

Sample Count Start Time:	3 Mar 2010 17:46:27		
Data Capture Date	03 Mar 2010 19:20:43		
User Filename	S02030357-5A.XLS		
	U02030357-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	57-5	95.00
H#, Total Counts:	118.5	3256	
Win1: Tritium - Start, End, Counts:	10	230	311
Win2: - Start, End, Counts:	0	990	3255

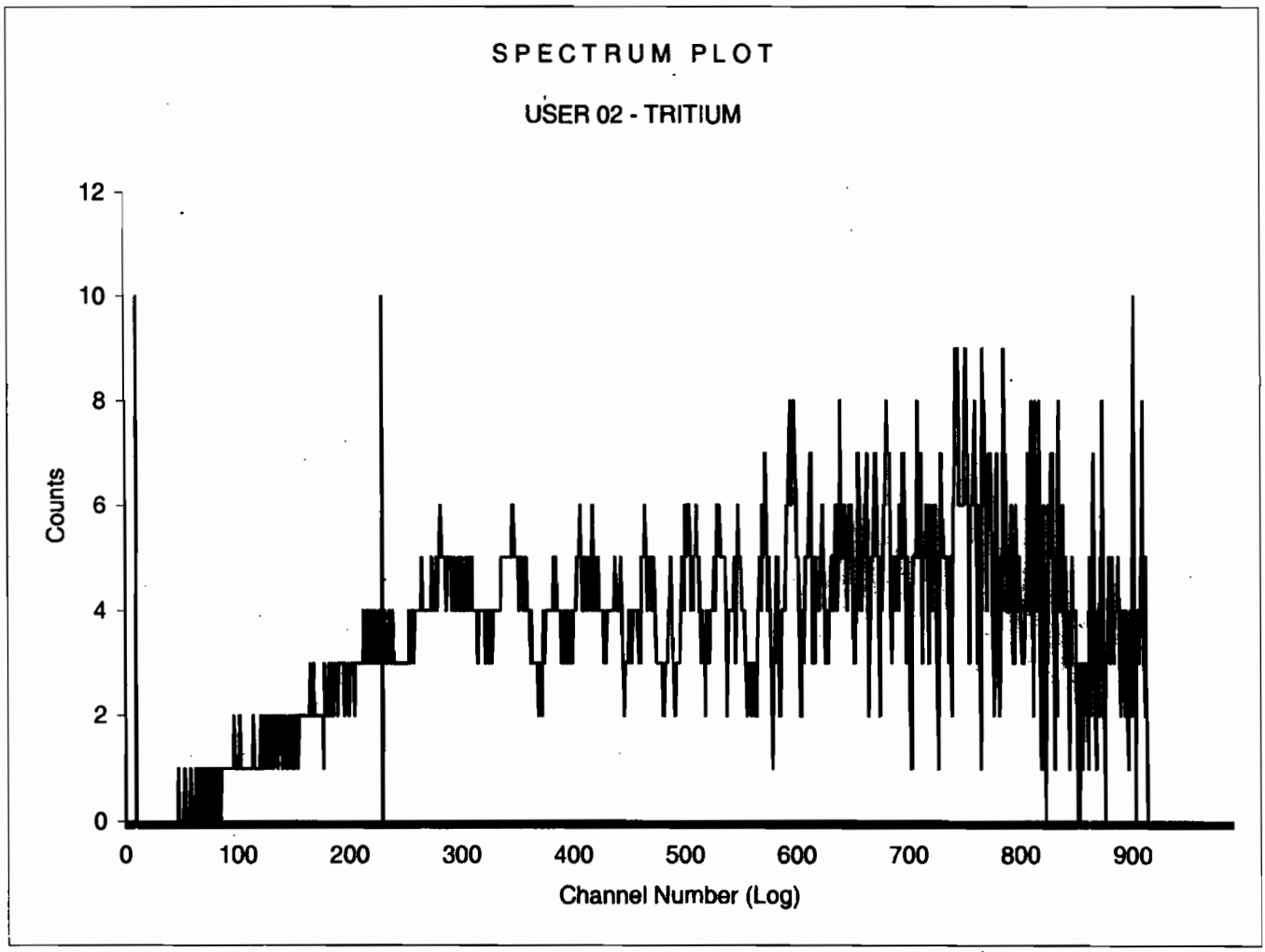

Sample Count Start Time:	3 Mar 2010 19:22:39		
Data Capture Date	03 Mar 2010 19:32:45		
User Filename	S02030357-6A.XLS		
	U02030357-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	57-6	10.85
H#, Total Counts:	117.0	14322	
Win1: Tritium - Start, End, Counts:	10	230	10117
Win2: - Start, End, Counts:	0	990	14322

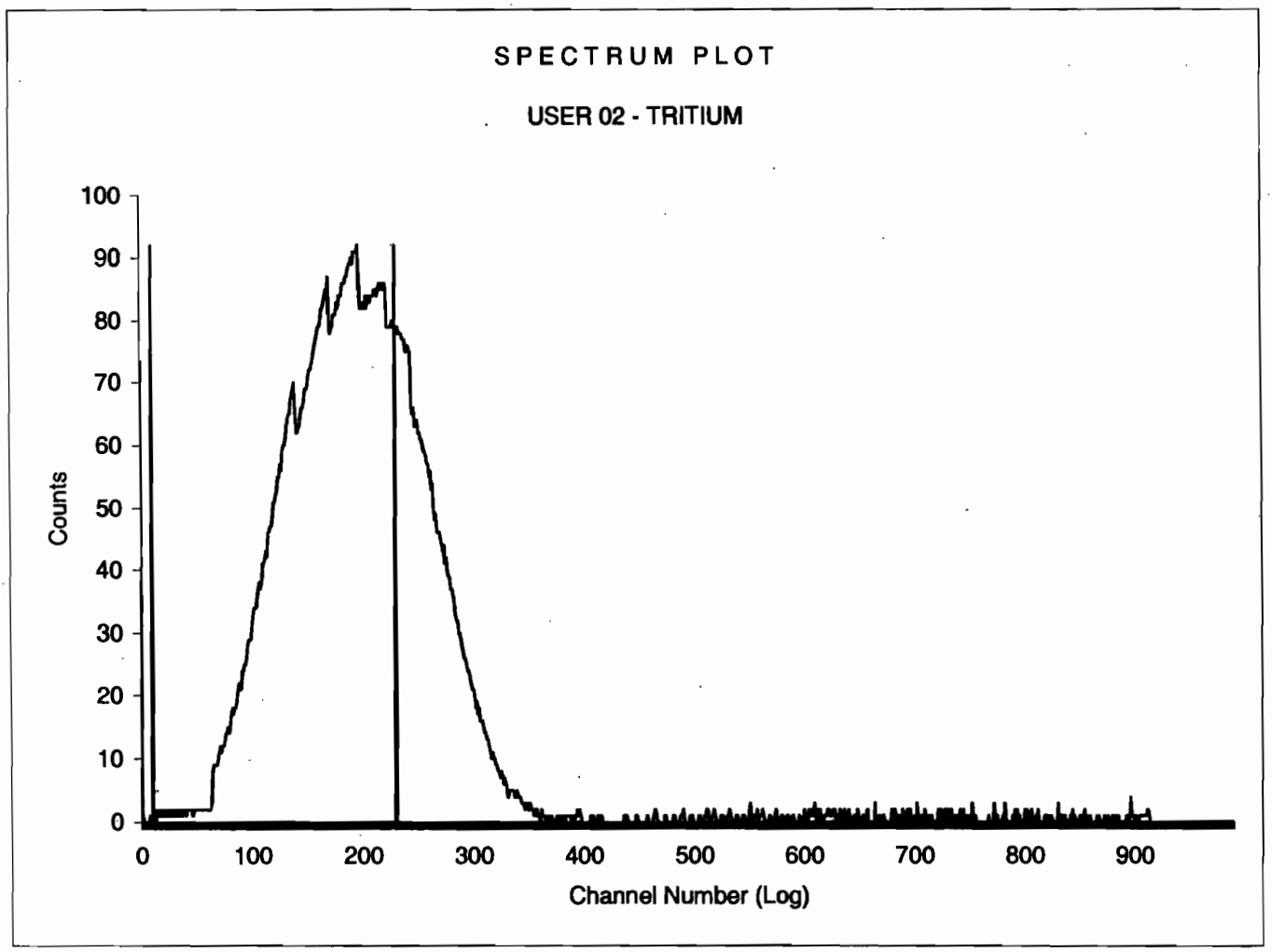

Sample Count Start Time:	3 Mar 2010 19:34:30		
Data Capture Date	03 Mar 2010 19:35:09		
User Filename	S02030357-7A.XLS		
	U02030357-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	7	57-7	1.45
H#, Total Counts:	118.5	13941	
Win1: Tritium - Start, End, Counts:	10	230	10156
Win2: - Start, End, Counts:	0	990	13939

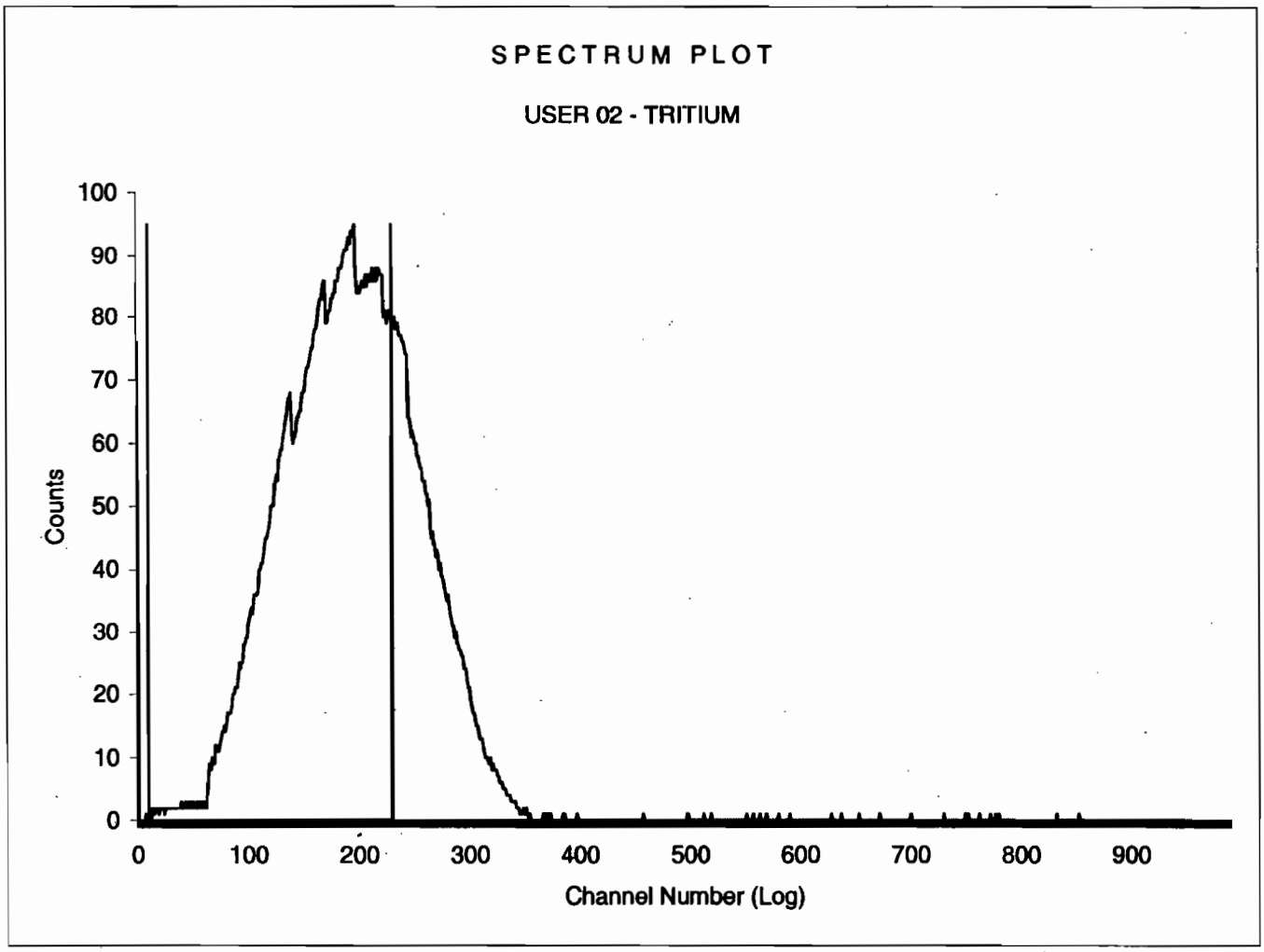

Sample Count Start Time:	3 Mar 2010 19:36:55		
Data Capture Date	03 Mar 2010 19:41:20		
User Filename	S02030357-8A.XLS		
	U02030357-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	8	57-8	4.30
H#, Total Counts:	117.8	14141	
Win1: Tritium - Start, End, Counts:	10	230	10147
Win2: - Start, End, Counts:	0	990	14141

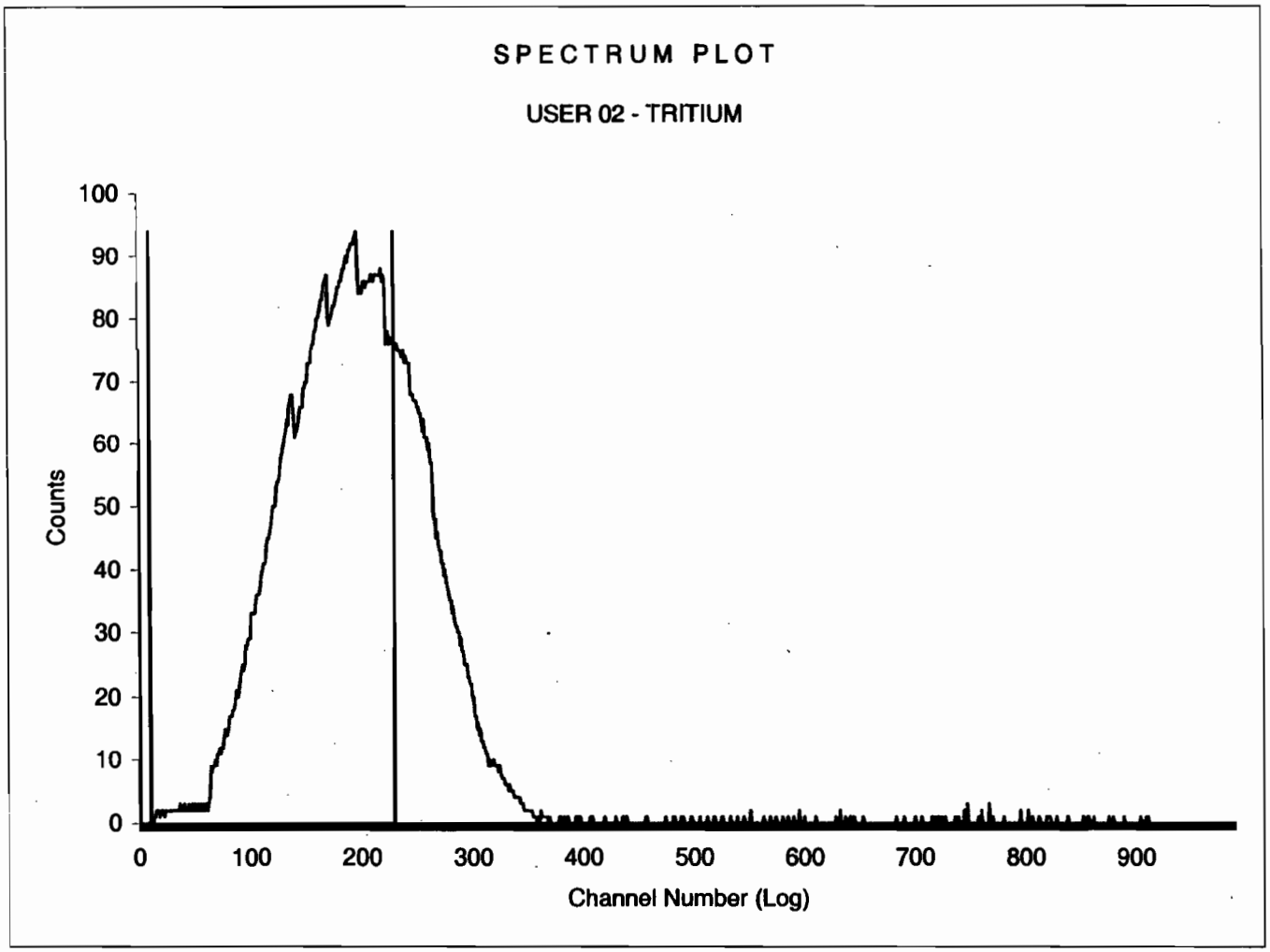

Sample Count Start Time:	3 Mar 2010 19:42:25		
Data Capture Date	03 Mar 2010 19:52:58		
User Filename	S02030357-9A.XLS		
	U02030357-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	9	57-9	11.30
H#, Total Counts:	118.5	14267	
Win1: Tritium - Start, End, Counts:	10	230	10090
Win2: - Start, End, Counts:	0	990	14267

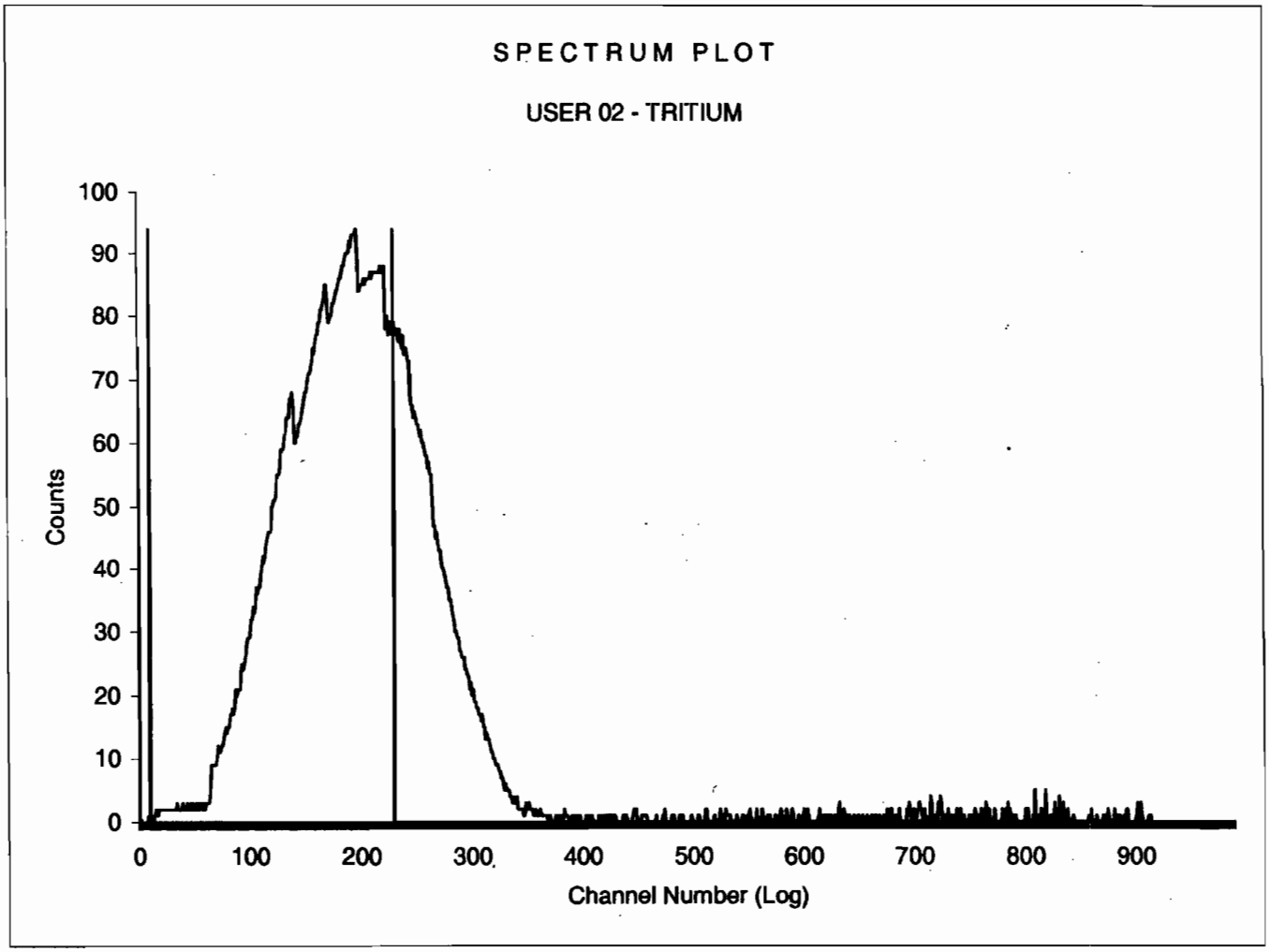

Sample Count Start Time:	3 Mar 2010 19:56:46		
Data Capture Date	03 Mar 2010 21:31:01		
User Filename	S02030357-10A.XLS		
	U02030357-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	10	57-10	95.00
H#, Total Counts:	117.4	3231	
Win1: Tritium - Start, End, Counts:	10	230	312
Win2: - Start, End, Counts:	0	990	3230

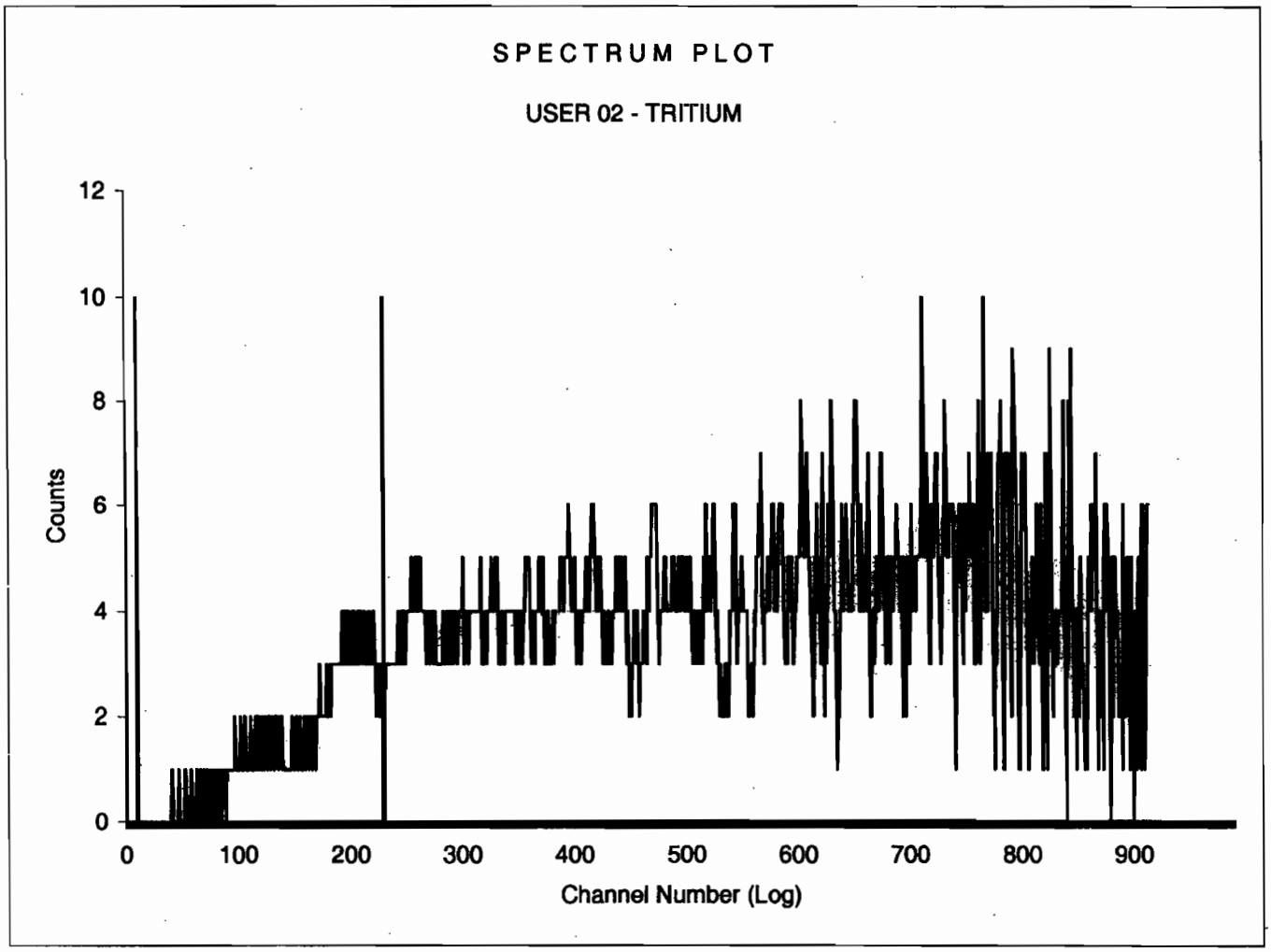

Sample Count Start Time:	3 Mar 2010 21:34:51		
Data Capture Date	03 Mar 2010 23:09:07		
User Filename	S02030357-11A.XLS		
	U02030357-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GREEN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	11	57-11	95.00
H#, Total Counts:	119.2	3377	
Win1: Tritium - Start, End, Counts:	10.	230	351
Win2: - Start, End, Counts:	0	990	3376

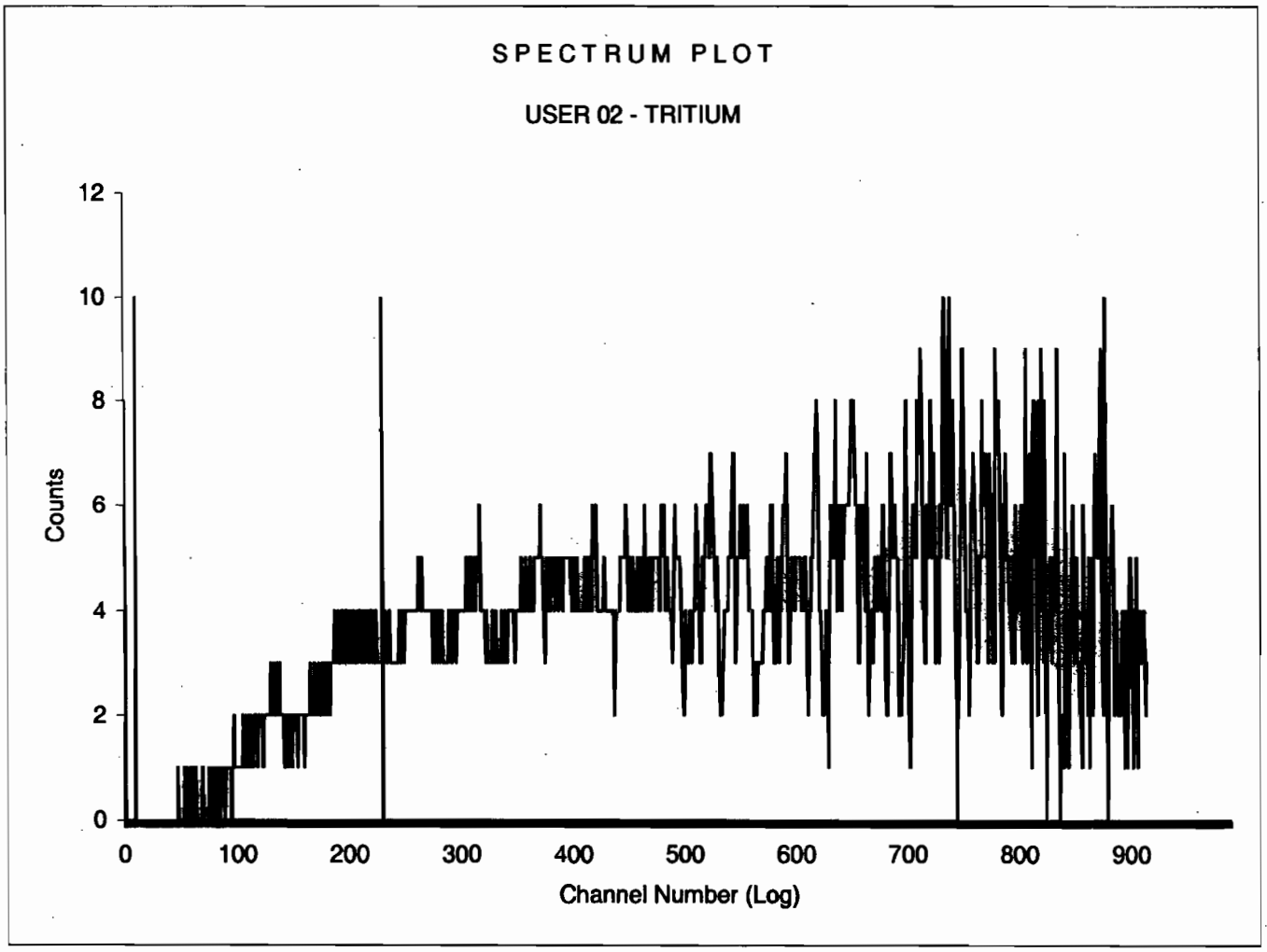

Sample Count Start Time:	4 Mar 2010 00:21:52		
Data Capture Date	04 Mar 2010 00:36:47		
User Filename	S04030439-1A.XLS		
	U04030439-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	GREEN		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	39-1	15.00
H#, Total Counts:	117.5	1015	
Win1: Tritium - Start, End, Counts:	10	230	416
Win2: - Start, End, Counts:	0	990	1014

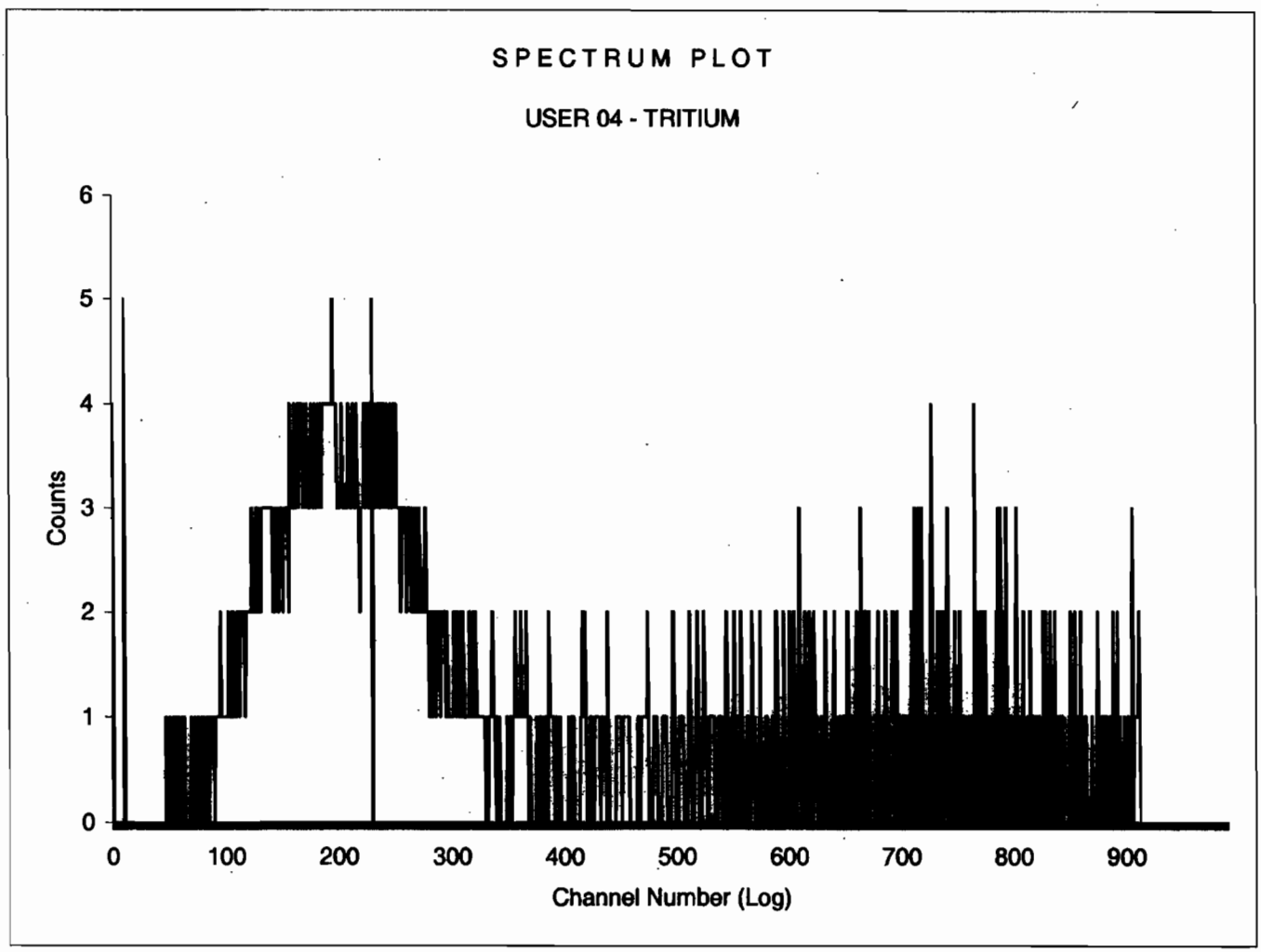

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W095.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:16 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.296122 through 0.316122

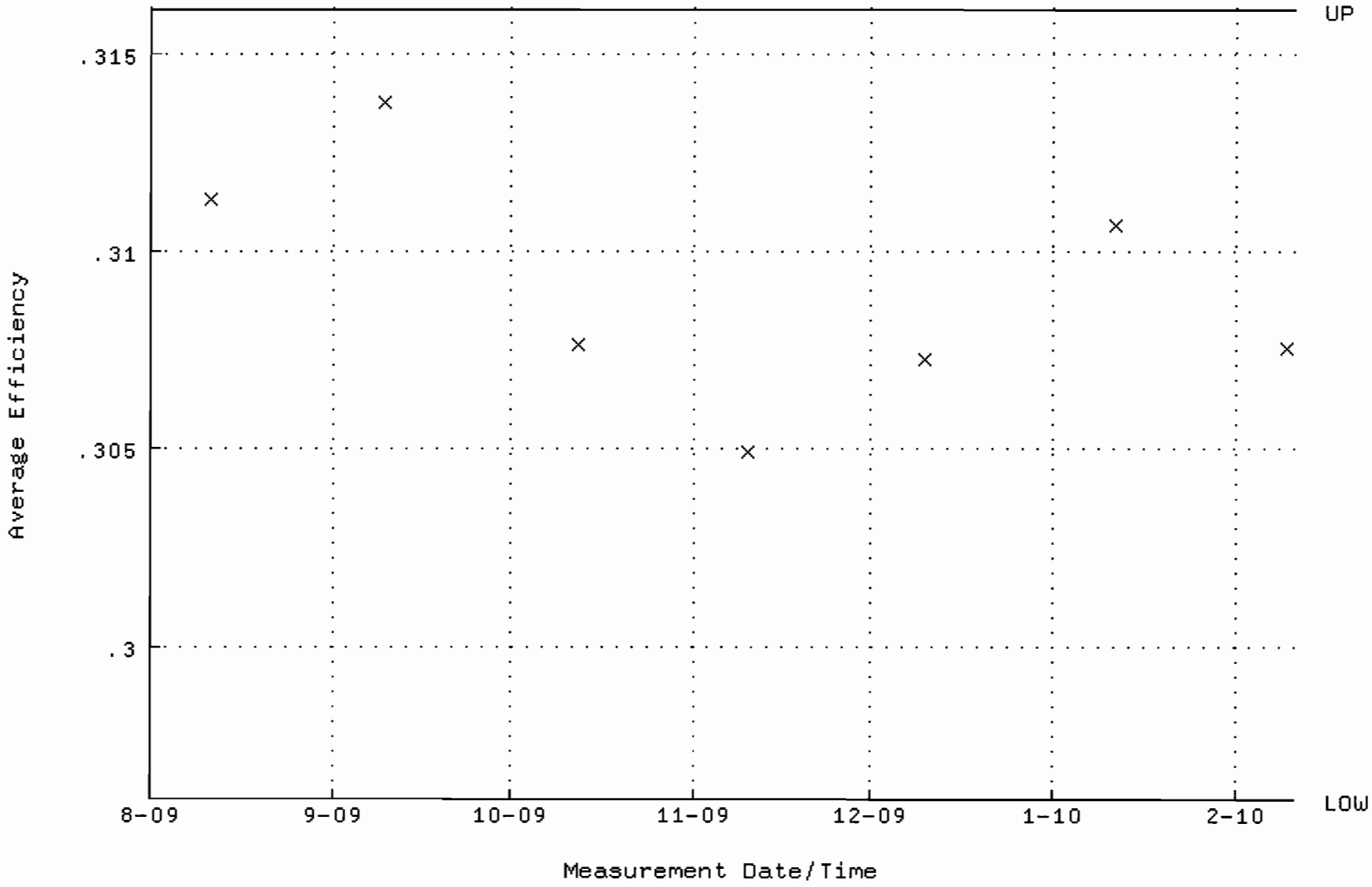

QA filename : DKA100:[ENV_ALPHA.QA.W]W095.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:16 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 65.4492 through 72.3386

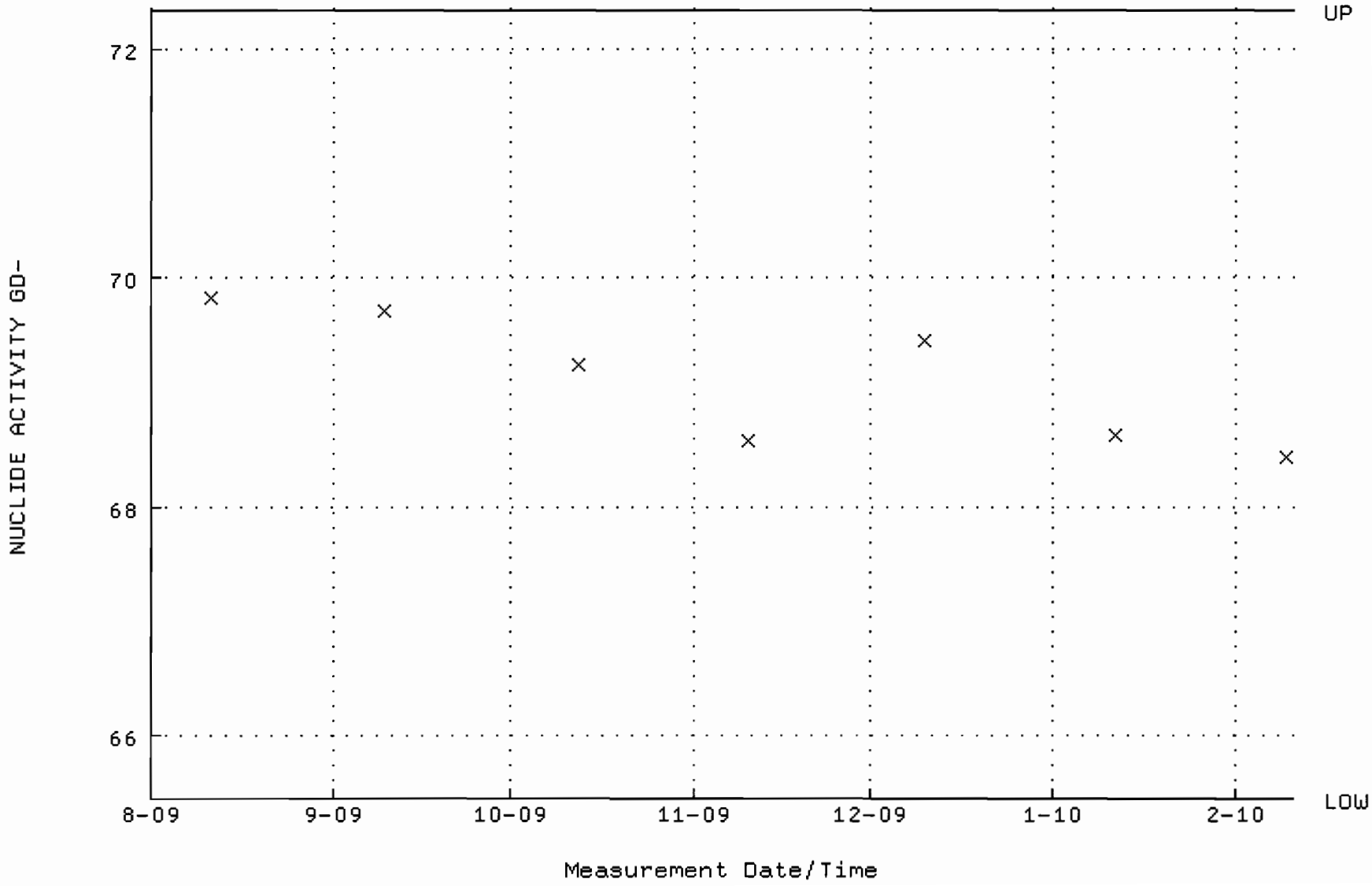

QA filename : DKA100:[ENV_ALPHA.QA.B]B095.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:43 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

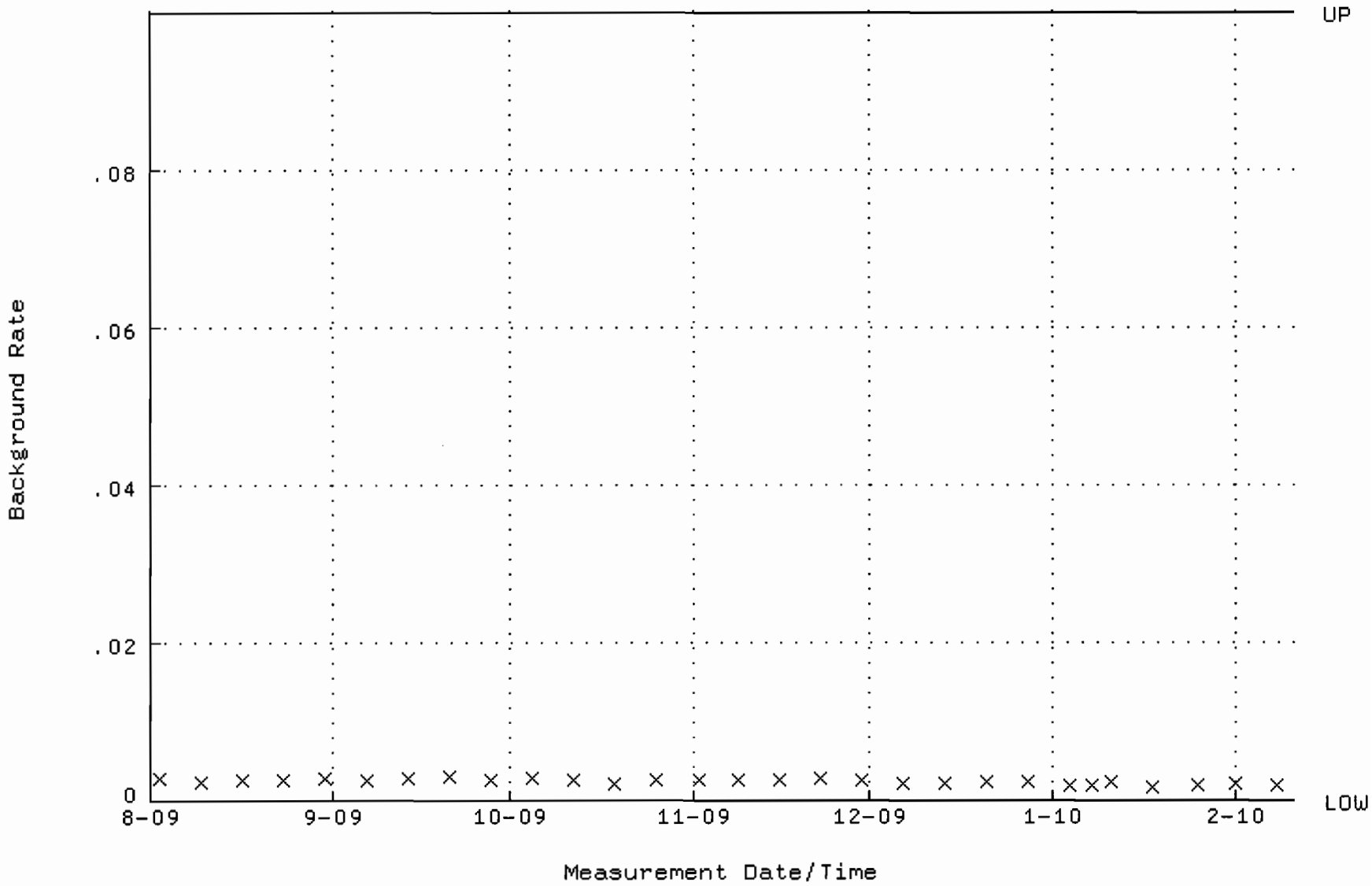

QA filename : DKA100:[ENV_ALPHA.QA.W]W097.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:16 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.333275 through 0.353275

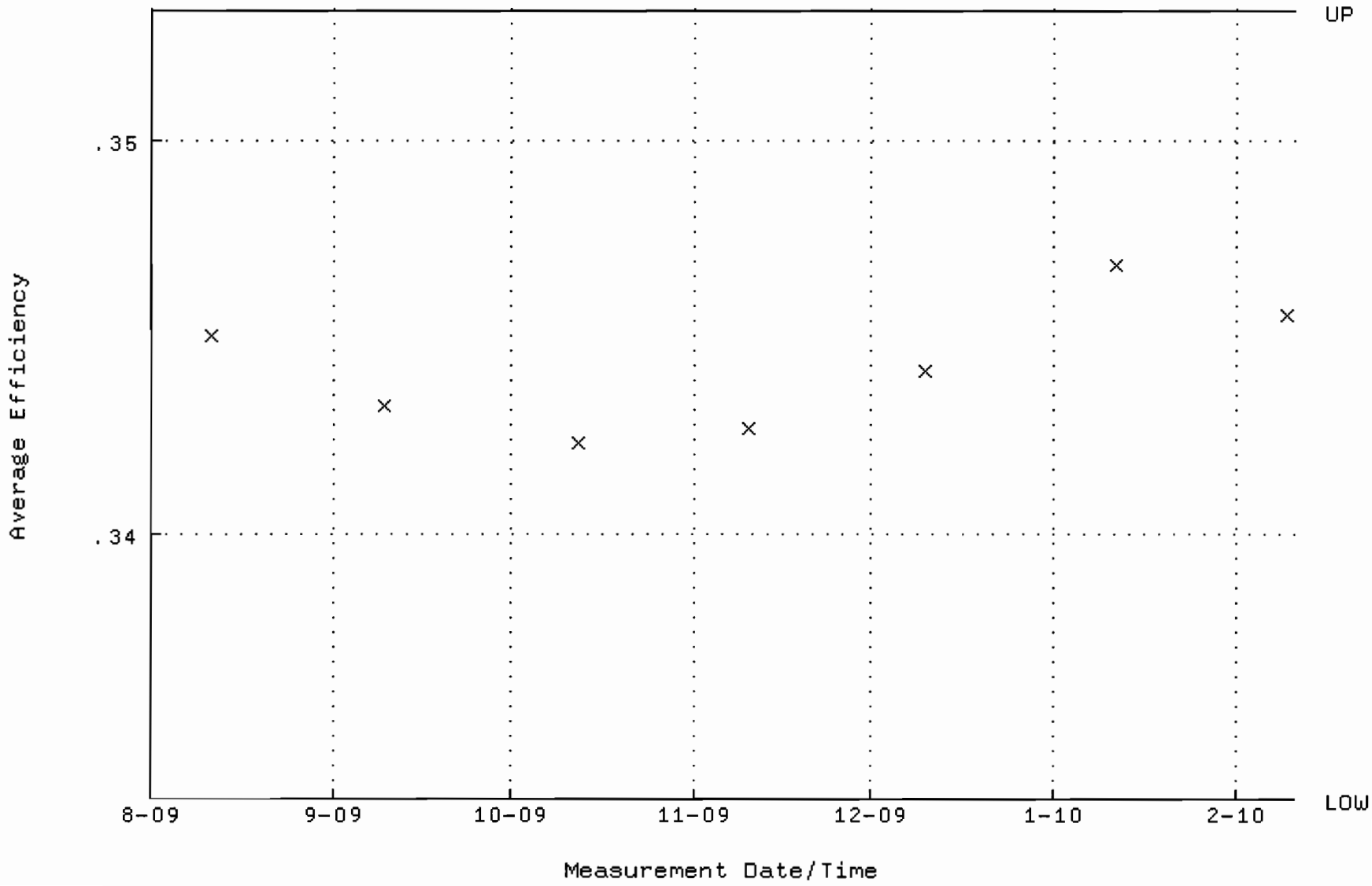

QA filename : DKA100:[ENV_ALPHA.QA.W]W097.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:16 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 64.7068 through 71.5180

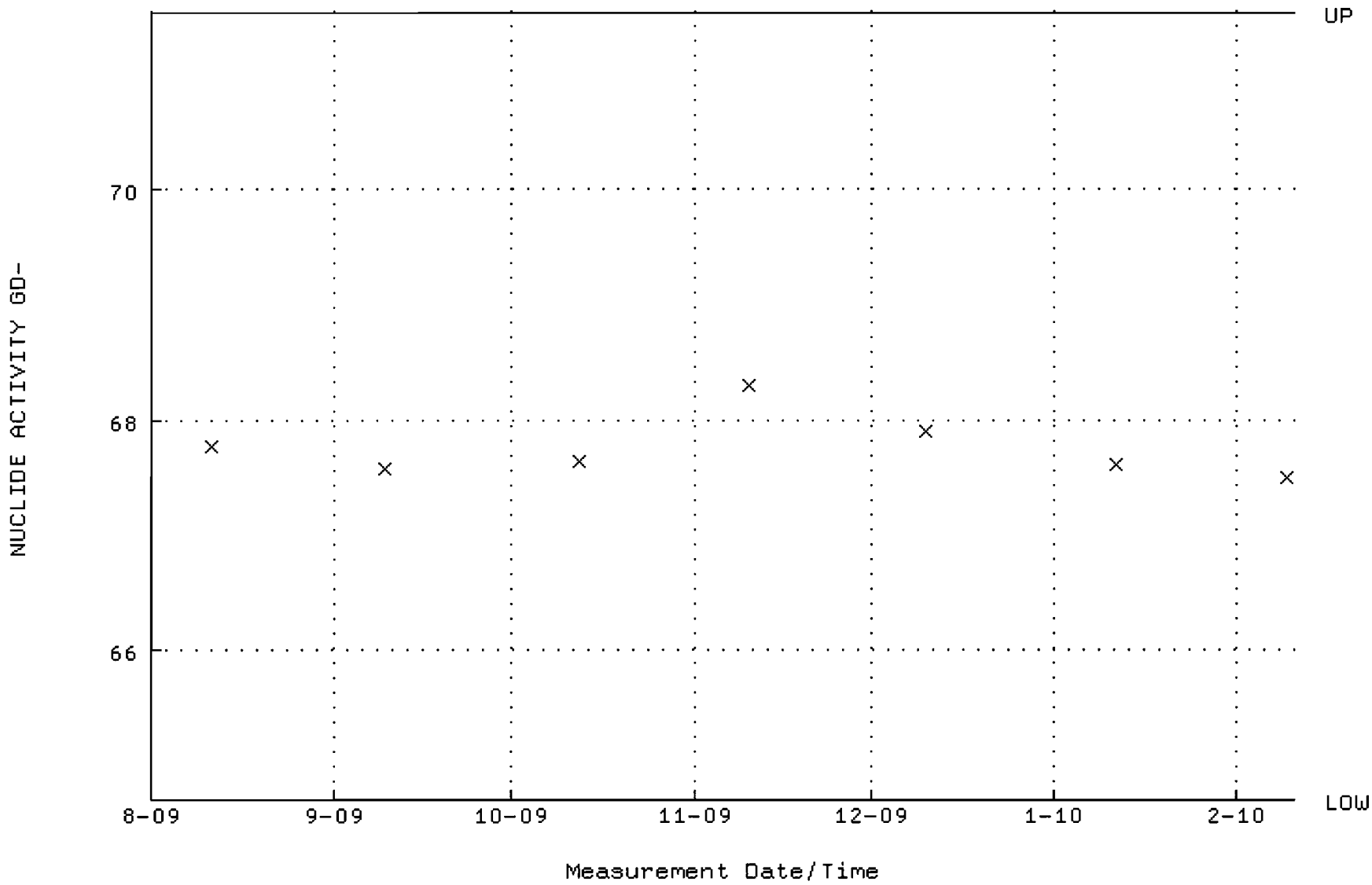

QA filename : DKA100:[ENV_ALPHA.QA.B]B097.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:43 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

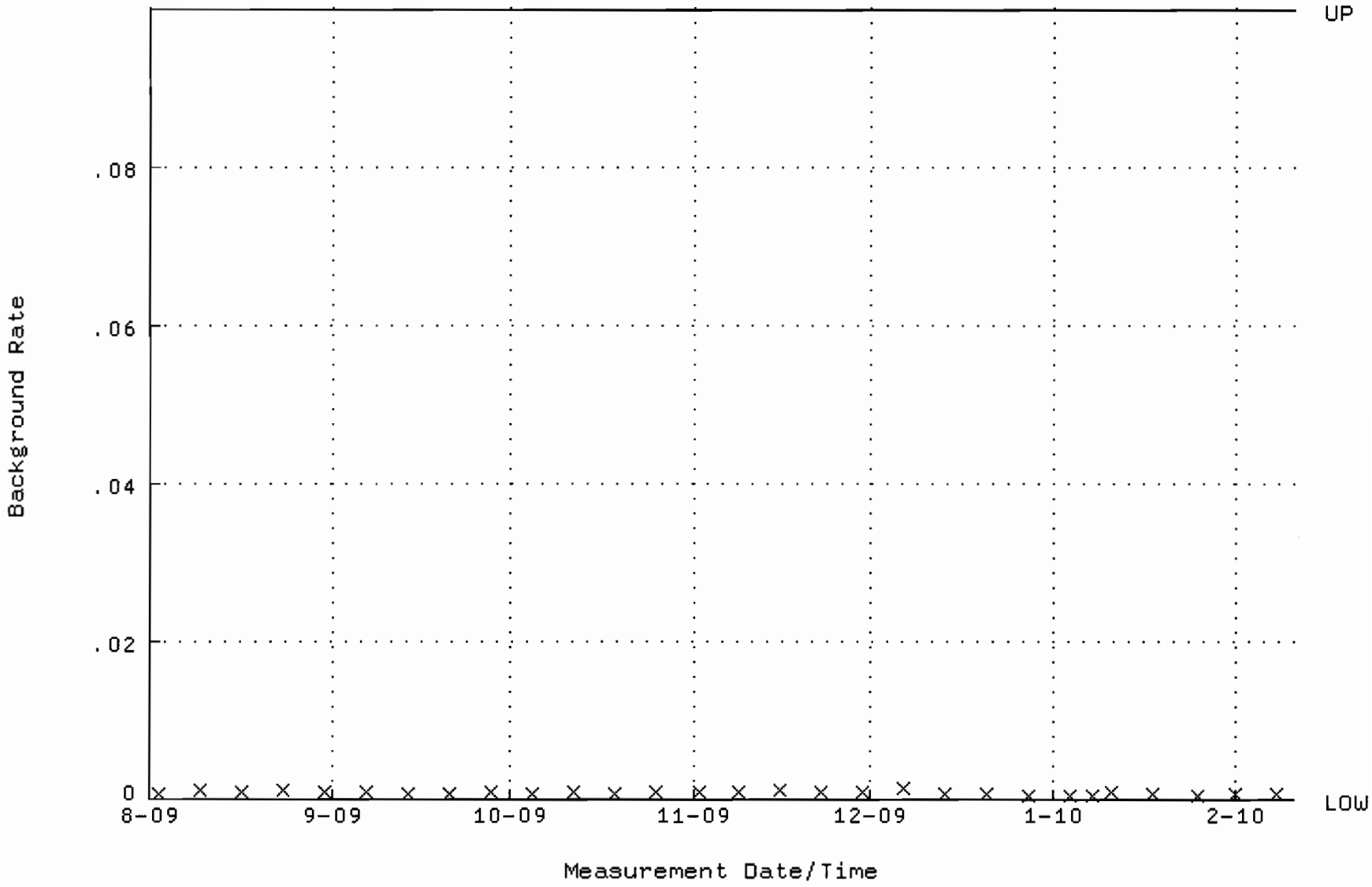

QA filename : DKA100:[ENV_ALPHA.QA.W]W099.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:16 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.330127 through 0.357809

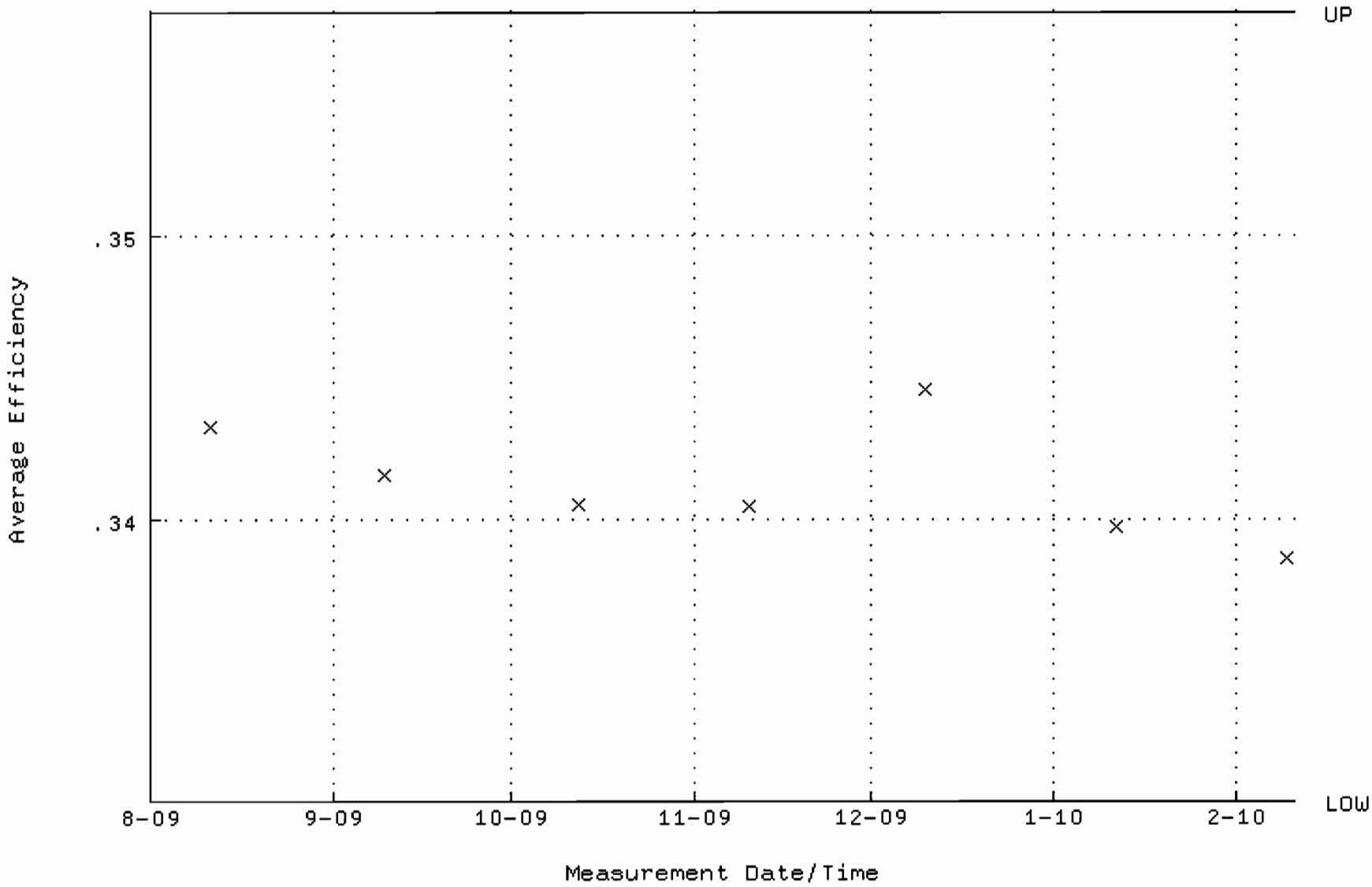

QA filename : DKA100:[ENV_ALPHA.QA.W]W099.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:16 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 68.9116 through 73.1498

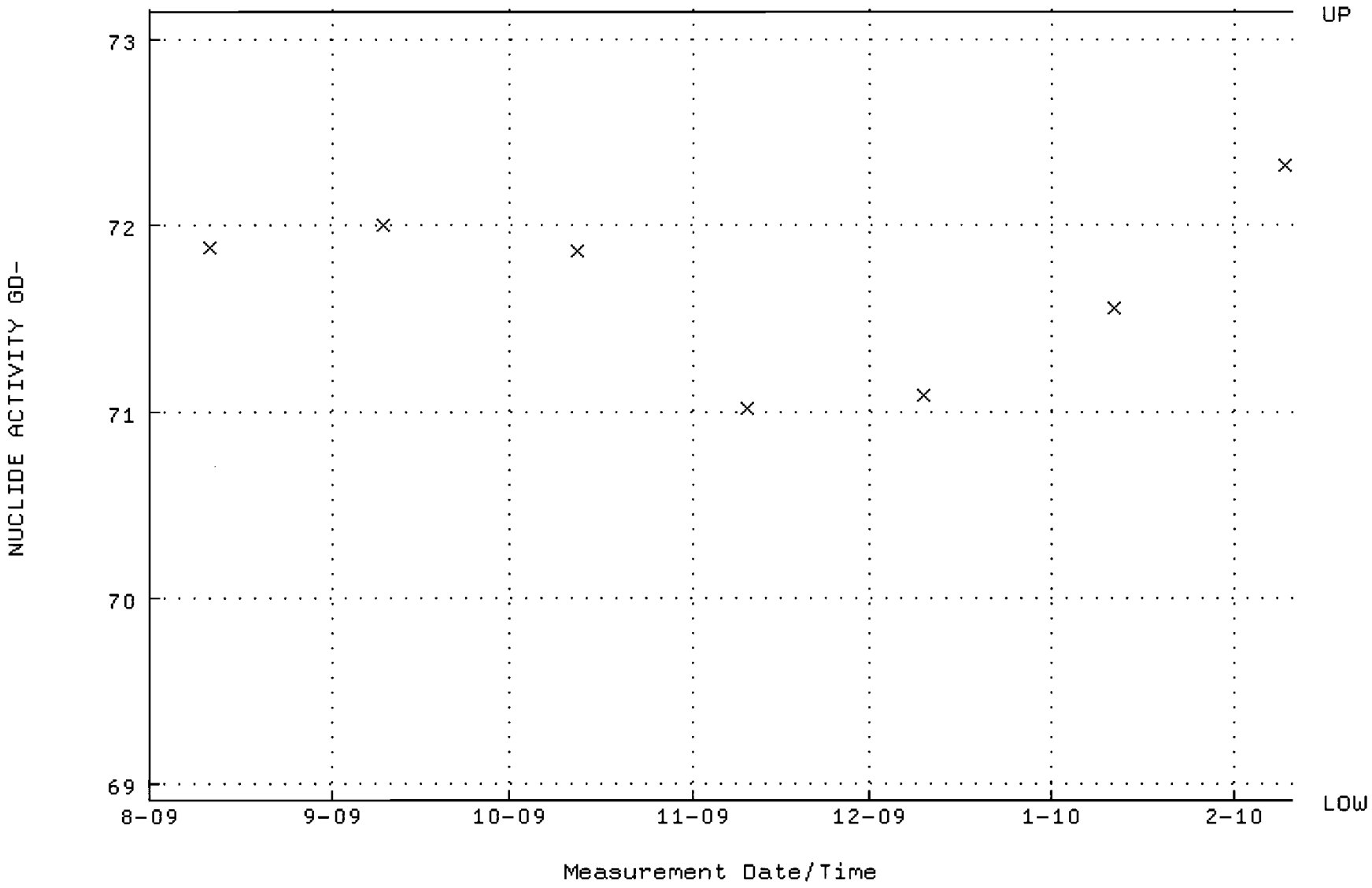

QA filename : DKA100:[ENV_ALPHA.QA.B]B099.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:43 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

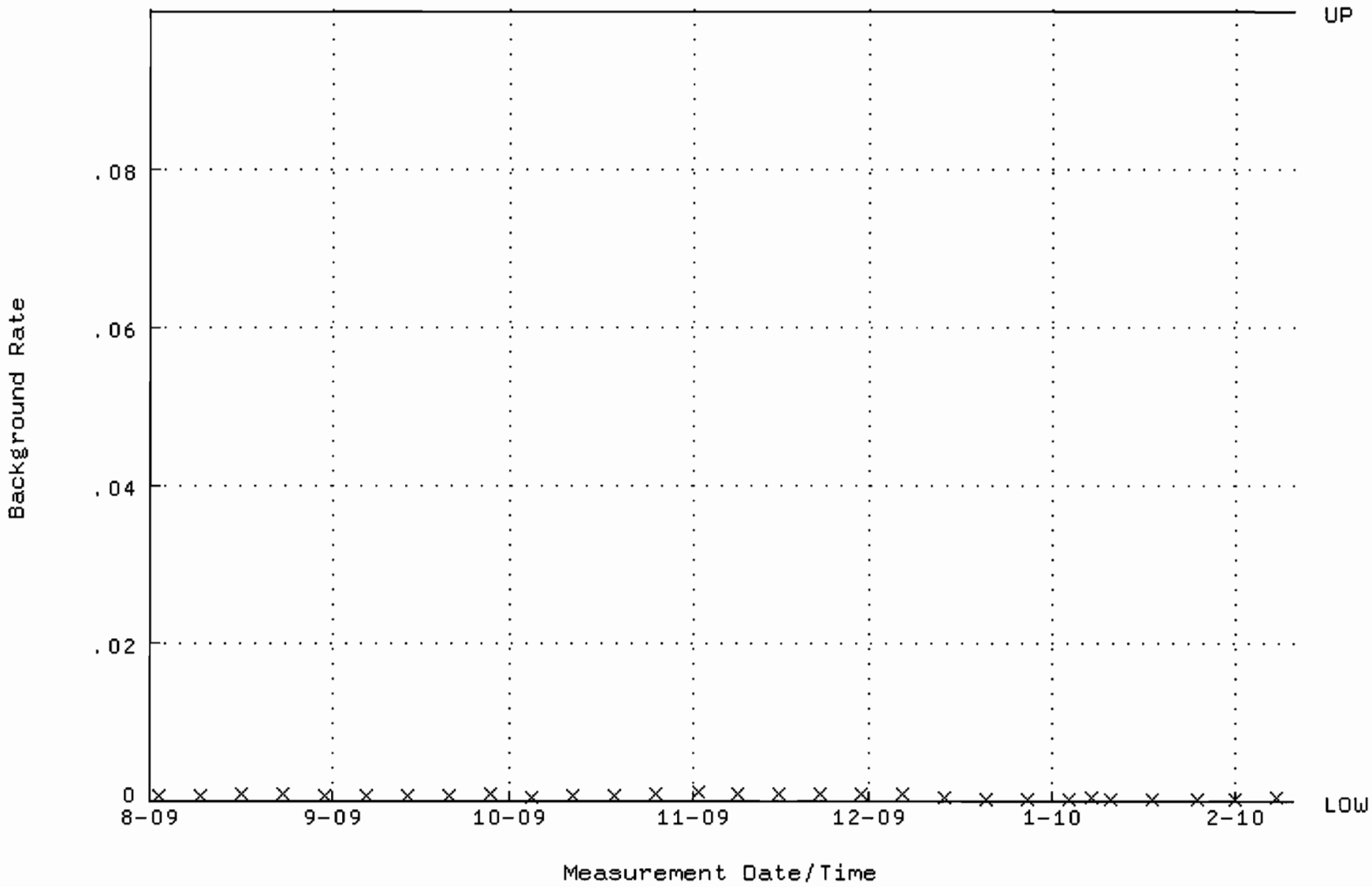

QA filename : DKA100:[ENV_ALPHA.QA.W]W100.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 11-AUG-2009 07:20:16 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.331433 through 0.351433

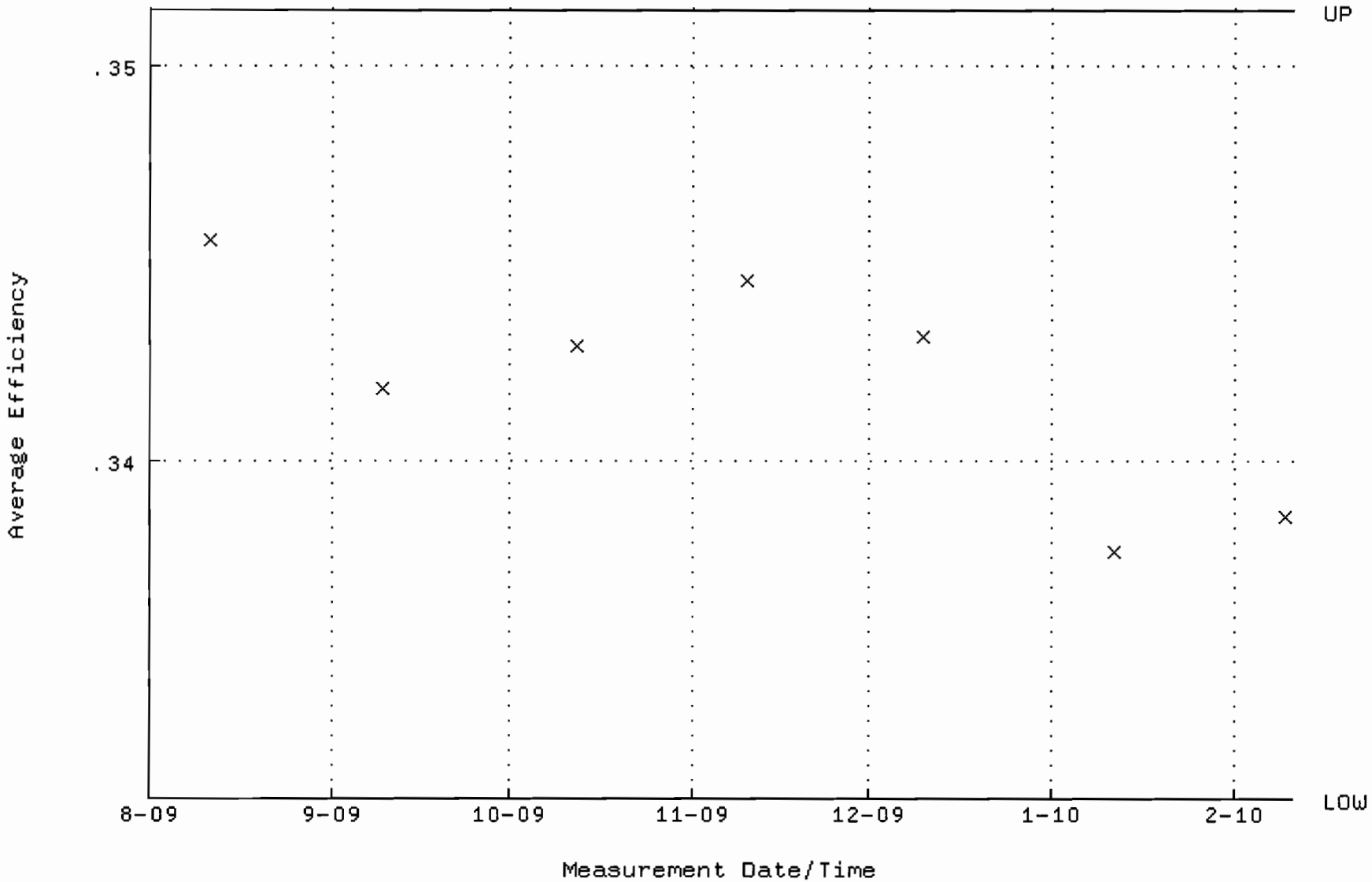

QA filename : DKA100:[ENV_ALPHA.QA.W]W100.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 11-AUG-2009 07:20:16 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 65.4550 through 72.3450

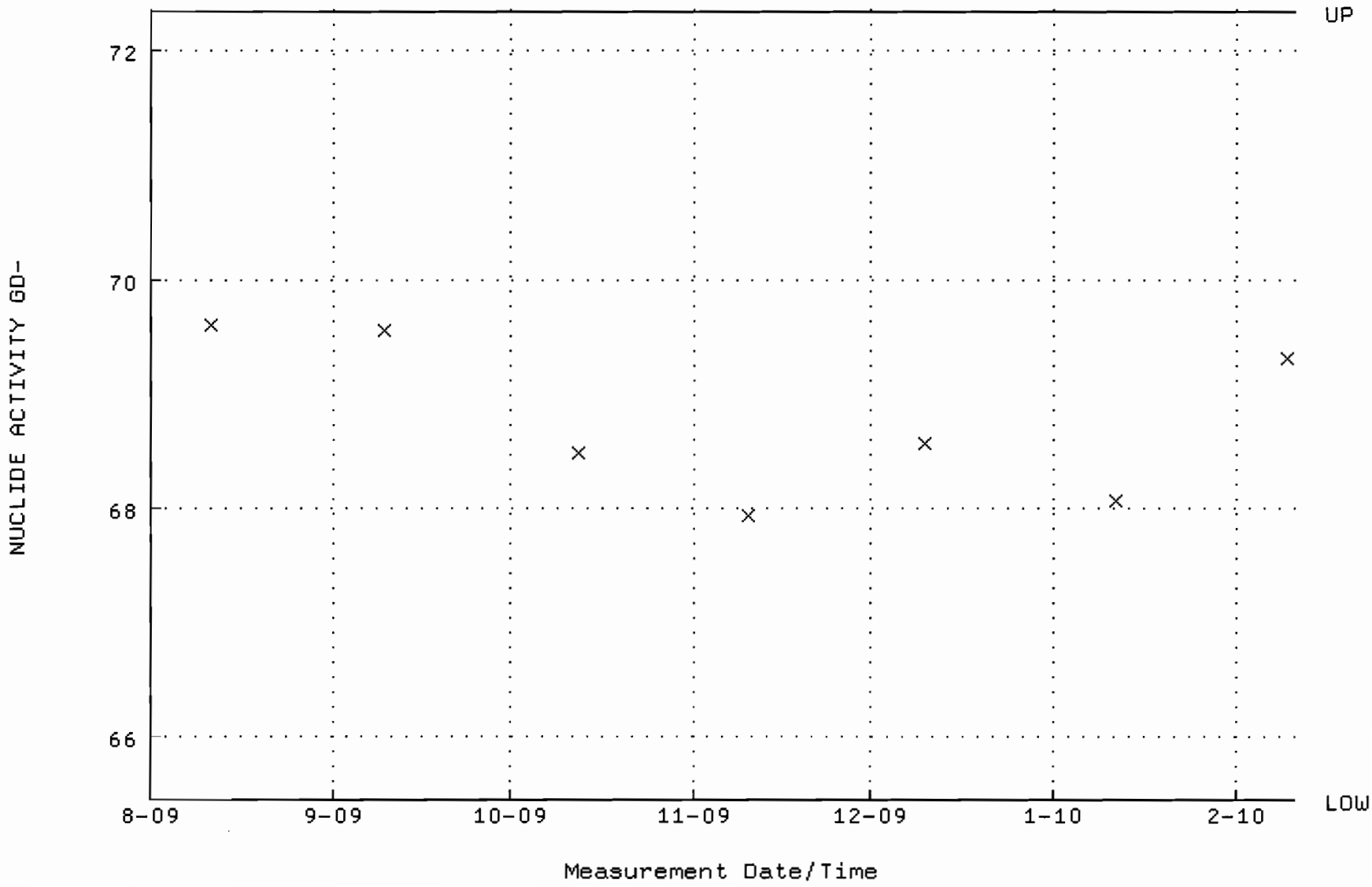

QA filename : DKA100:[ENV_ALPHA.QA.B]B100.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:38:43 through 10-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

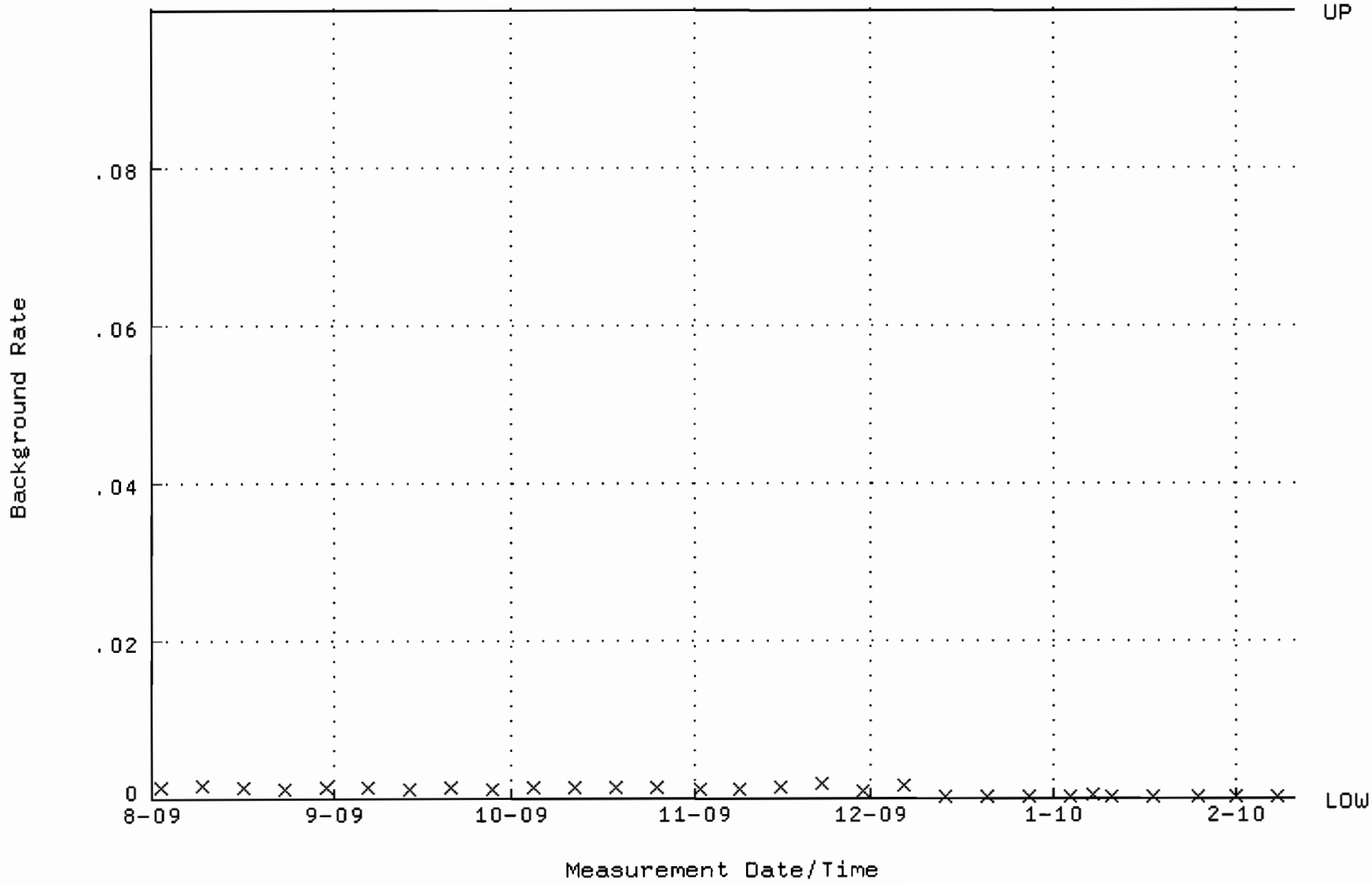

QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 3-AUG-2009 15:01:01 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.240573 through 0.260573

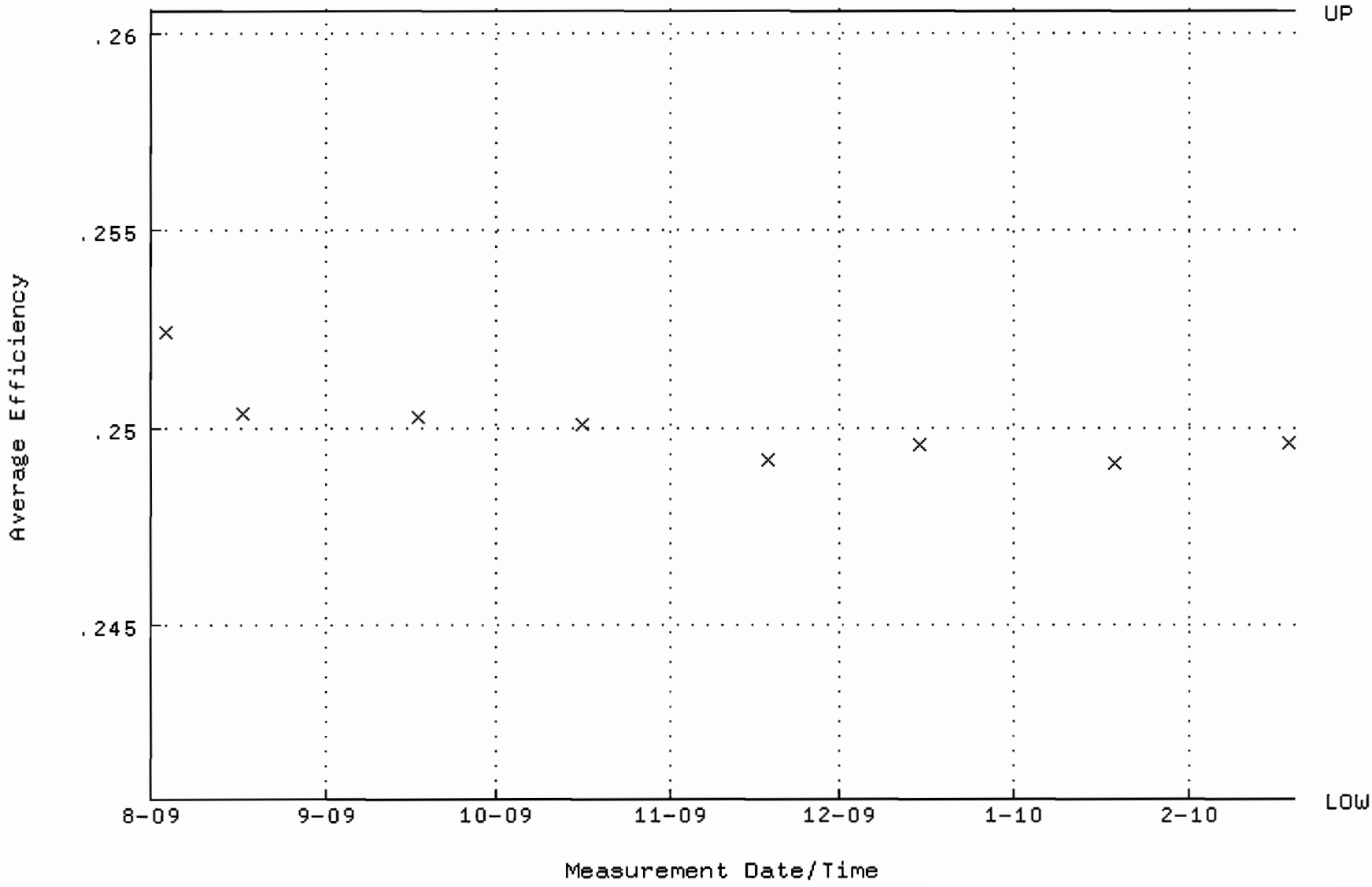

QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 3-AUG-2009 15:01:01 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 87.9674 through 97.2272

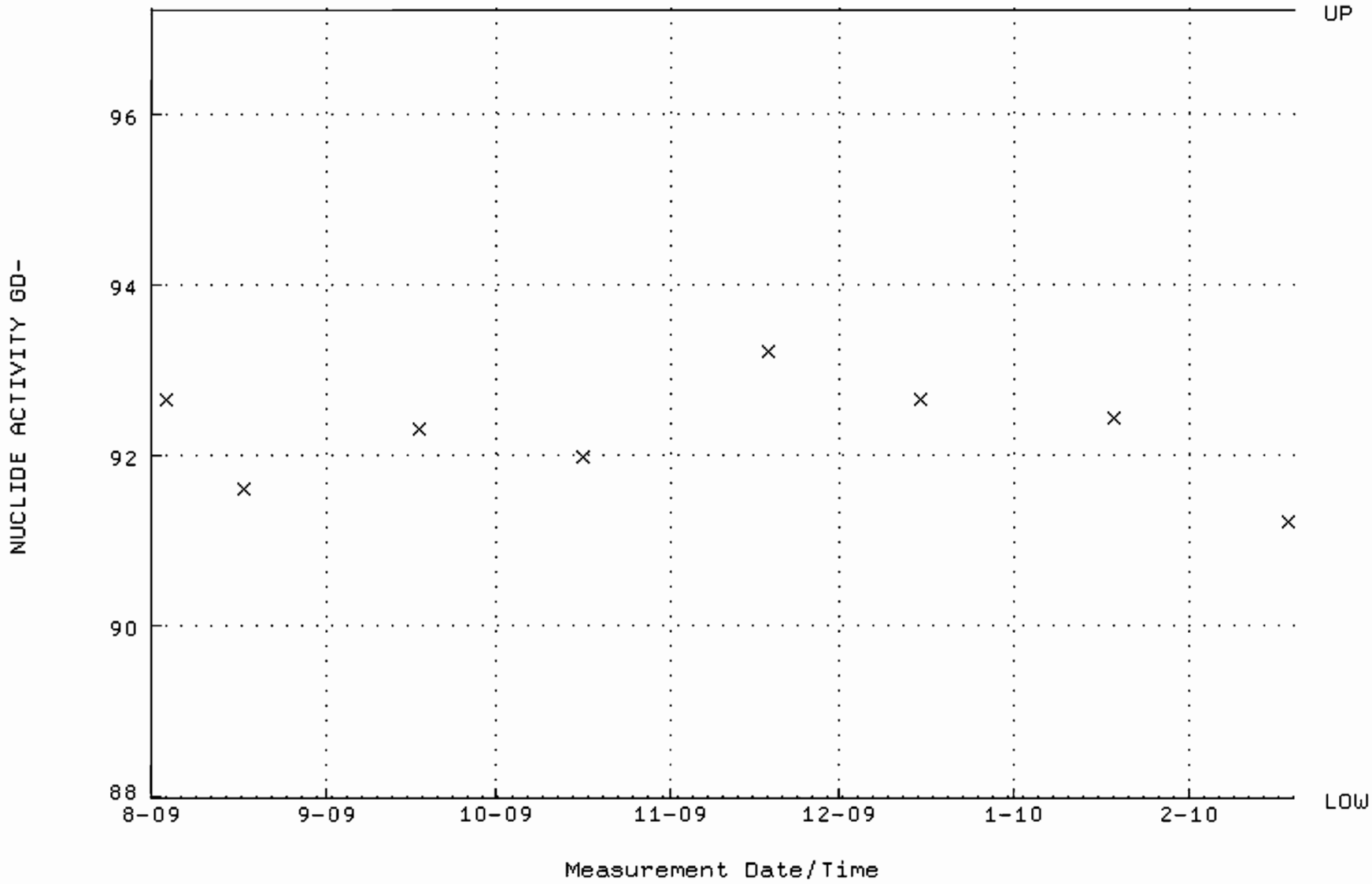

QA filename : DKA100:[ENV_ALPHA.QA.B]B132.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:13:22 through 19-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

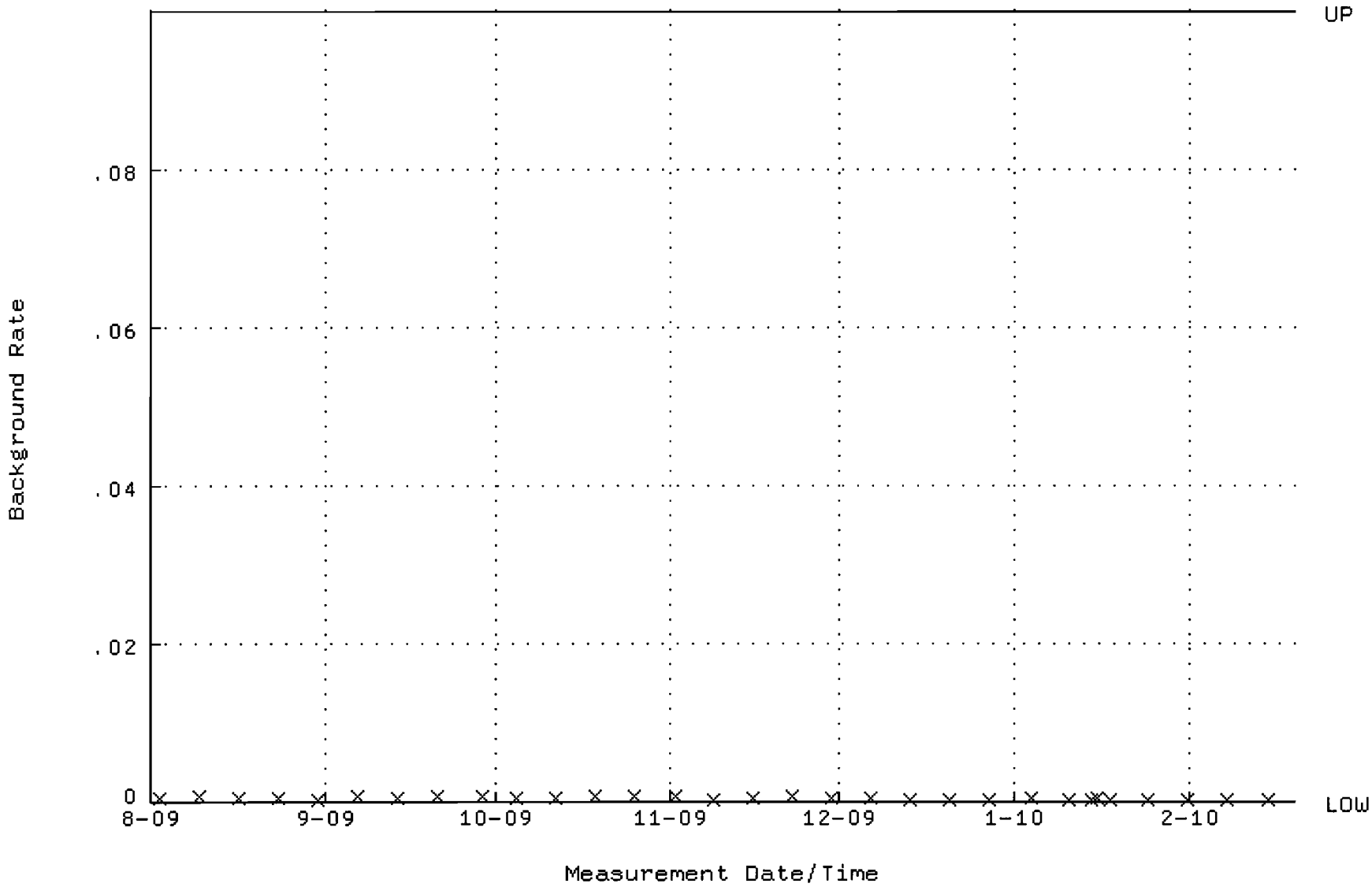

QA filename : DKA100:[ENV_ALPHA.QA.W]W144.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:06:42 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.237963 through 0.257963

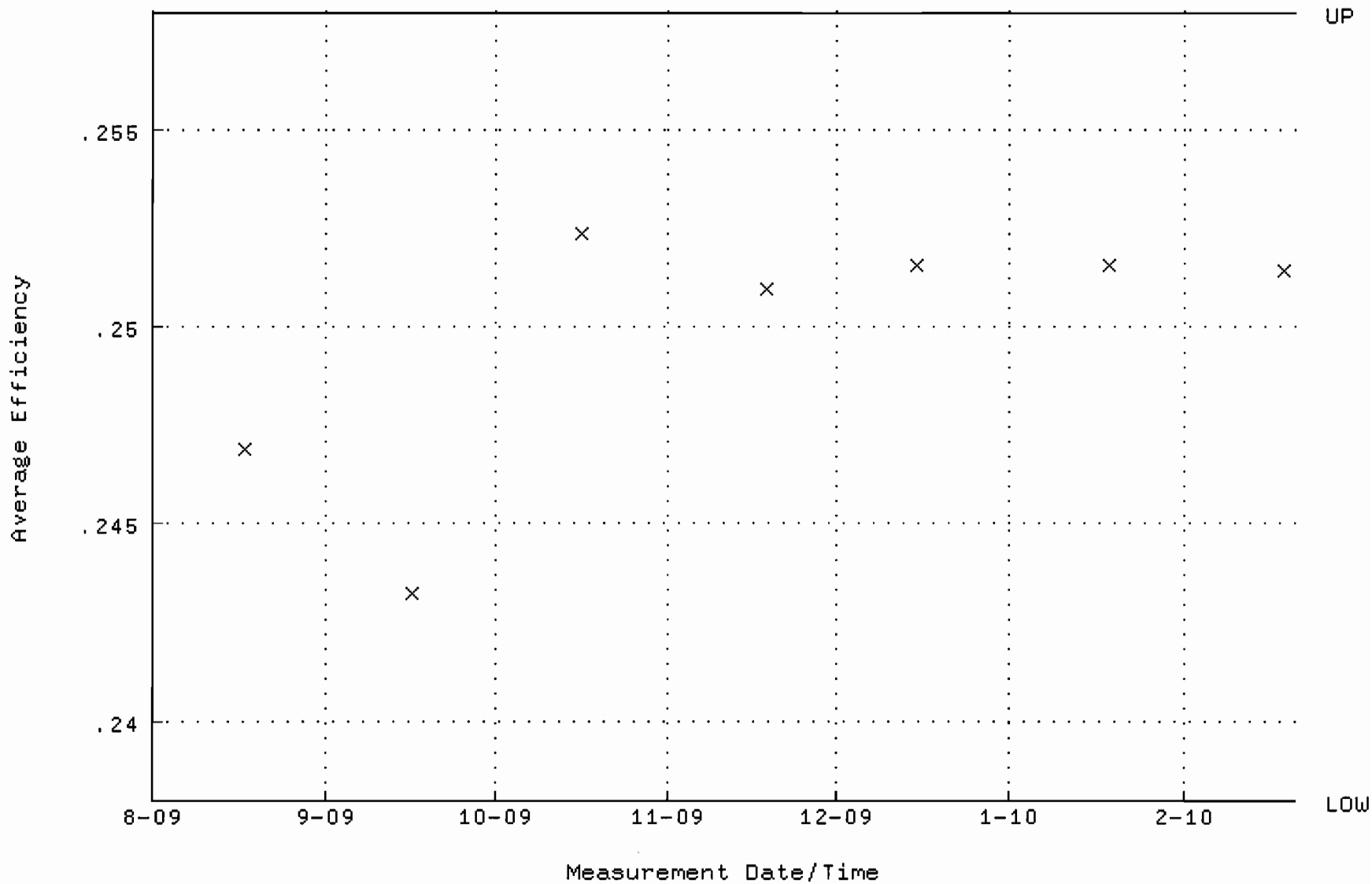

QA filename : DKA100:[ENV_ALPHA.QA.W]W144.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:06:42 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 84.6507 through 93.5613

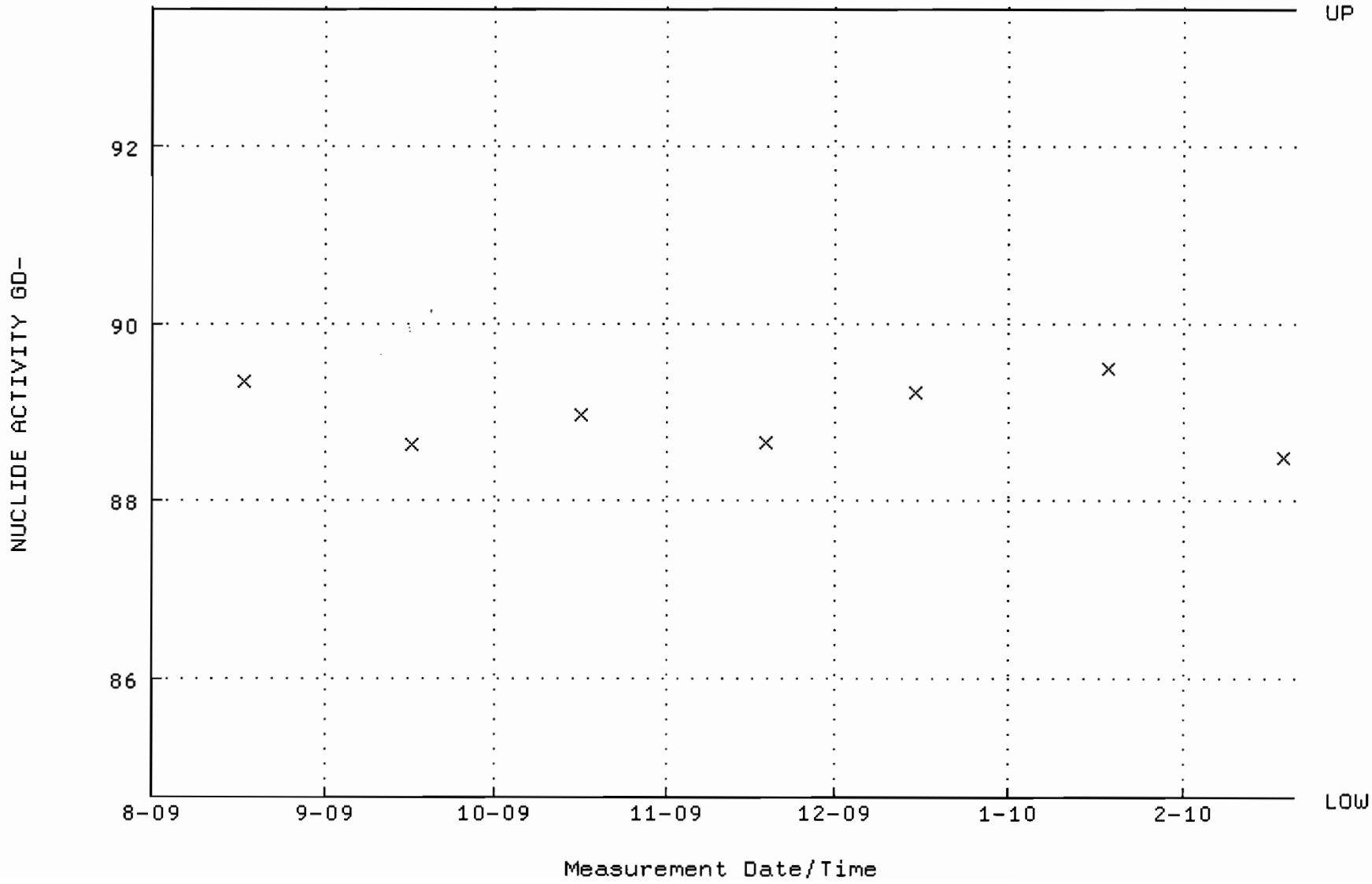

QA filename : DKA100:[ENV_ALPHA.QA.B]B144.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:12 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

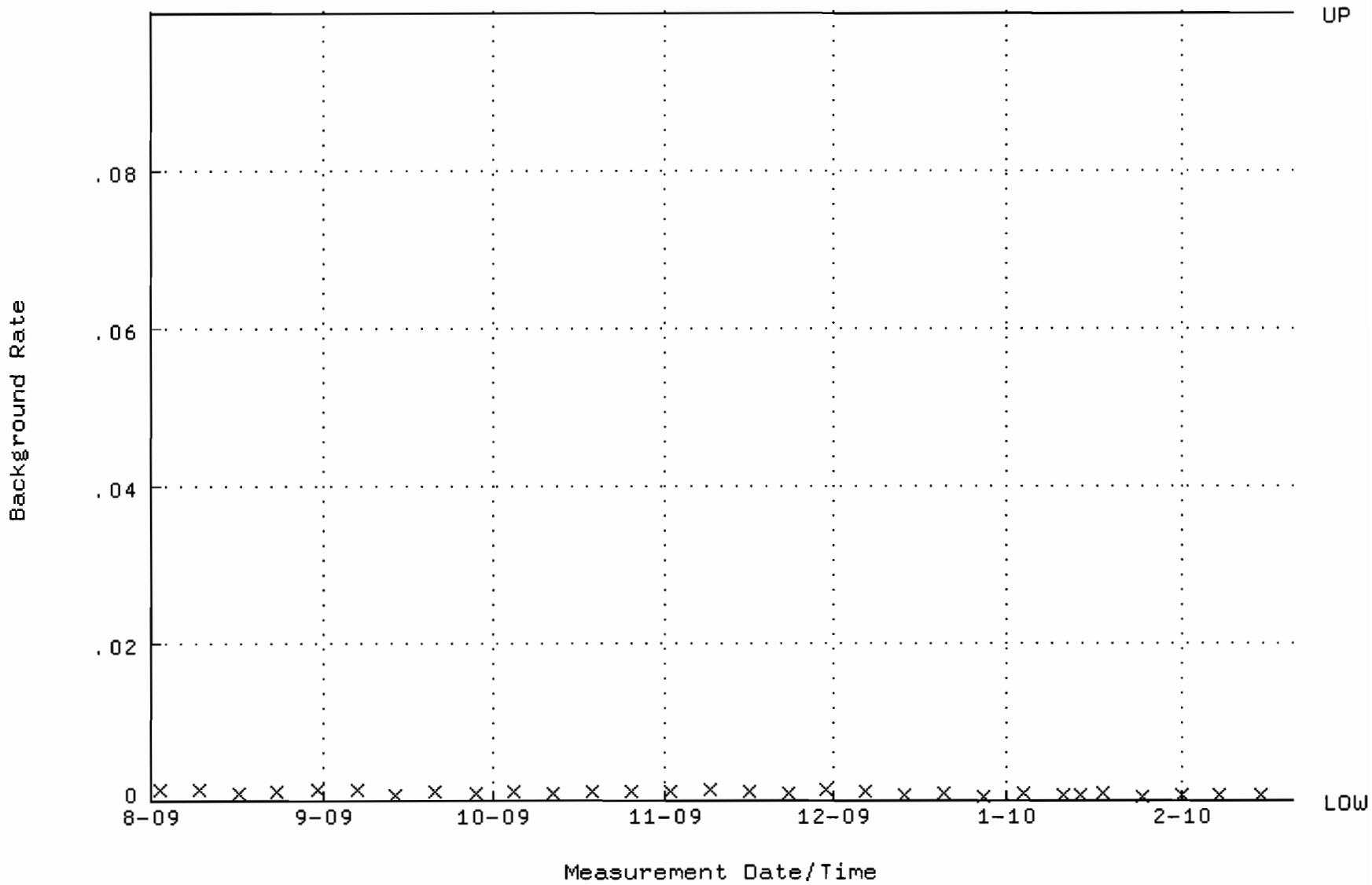

QA filename : DKA100:[ENV_ALPHA.QA.W]W148.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 10:07:10 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.237934 through 0.257934

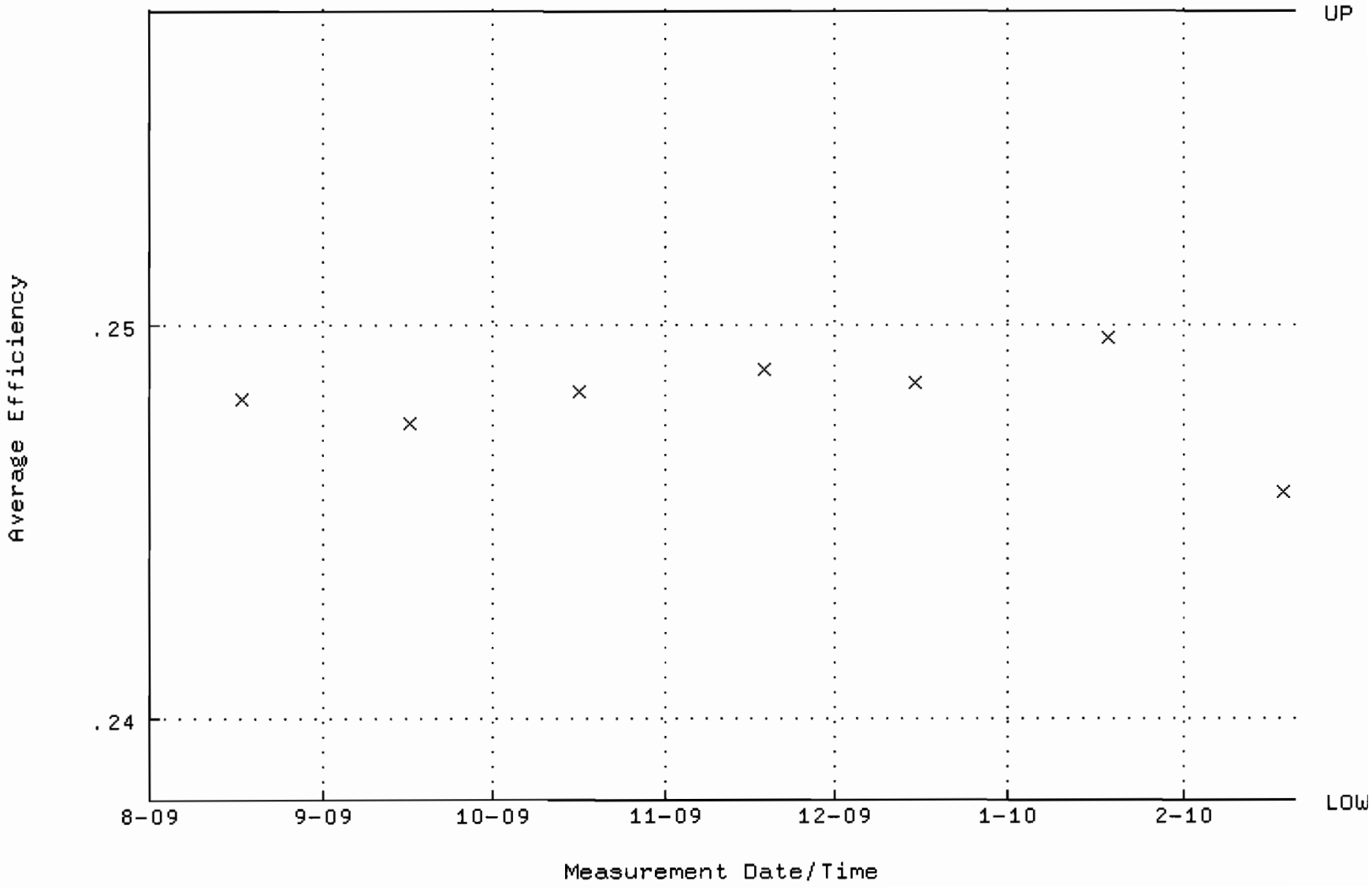

QA filename : DKA100:[ENV_ALPHA.QA.W]W148.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 10:07:10 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 85.0831 through 94.0393

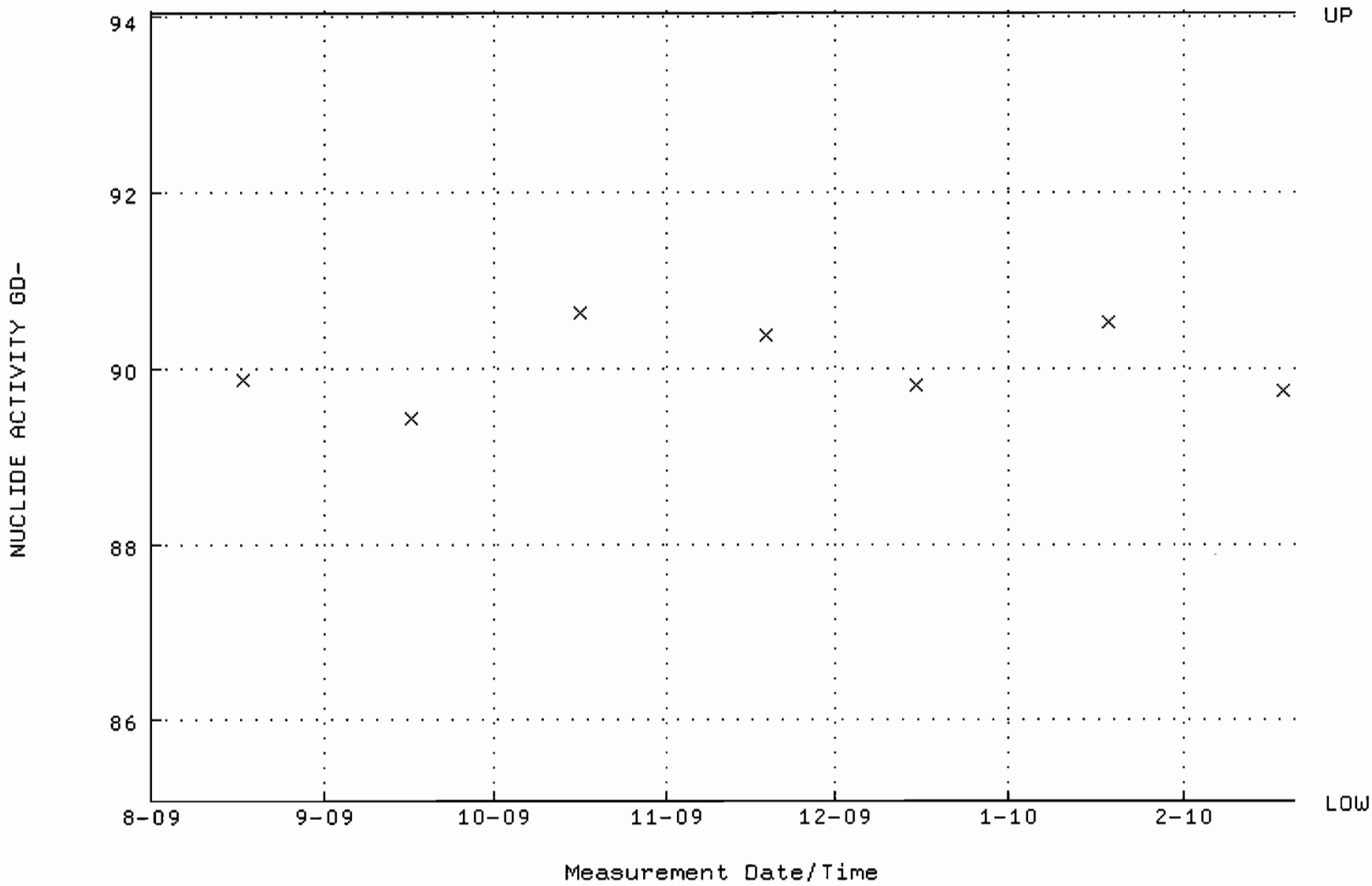

QA filename : DKA100:[ENV_ALPHA.QA.B]B148.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:28 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

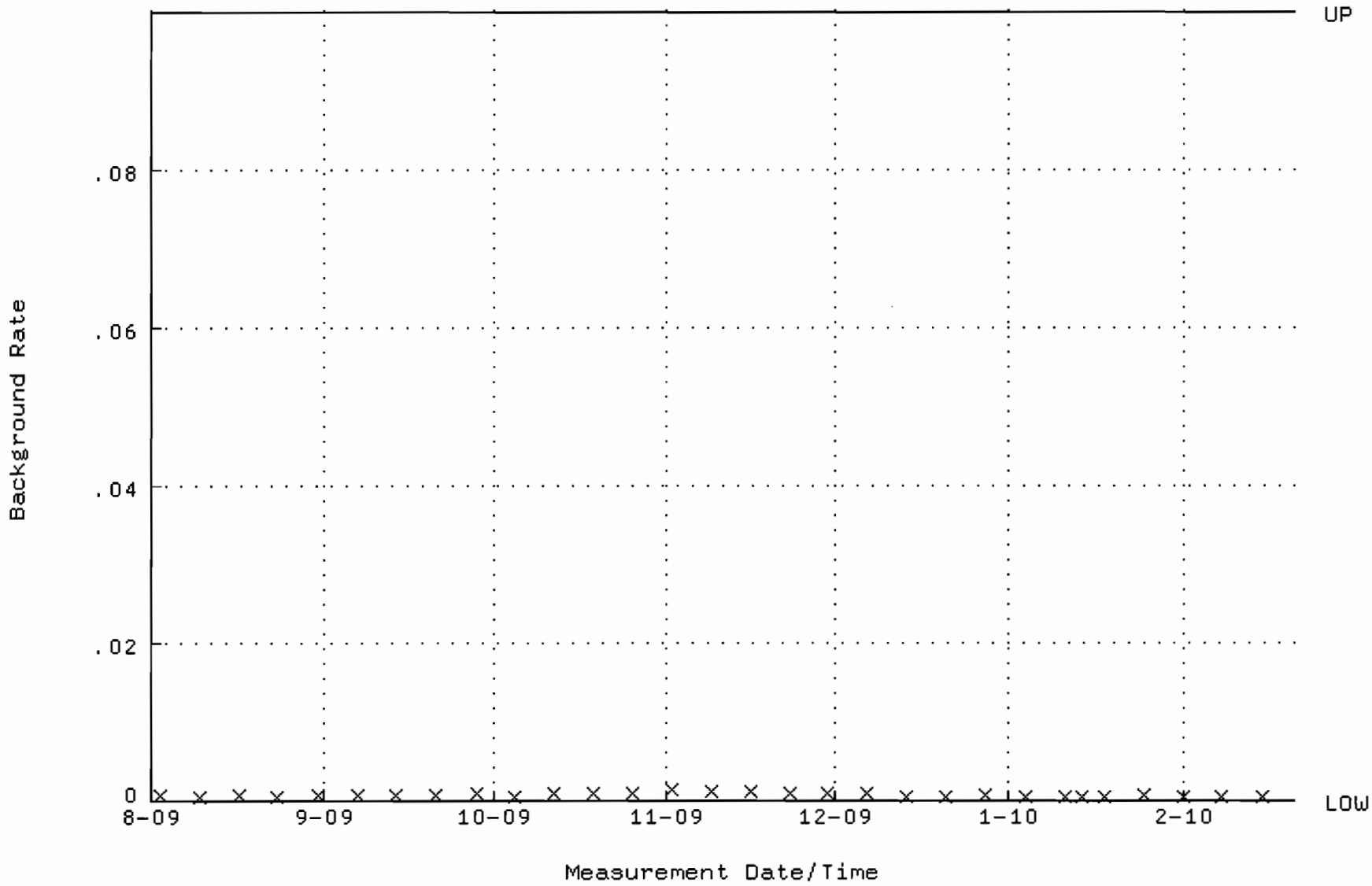

QA filename : DKA100:[ENV_ALPHA.QA.W]W149.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:46:49 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.242495 through 0.262495

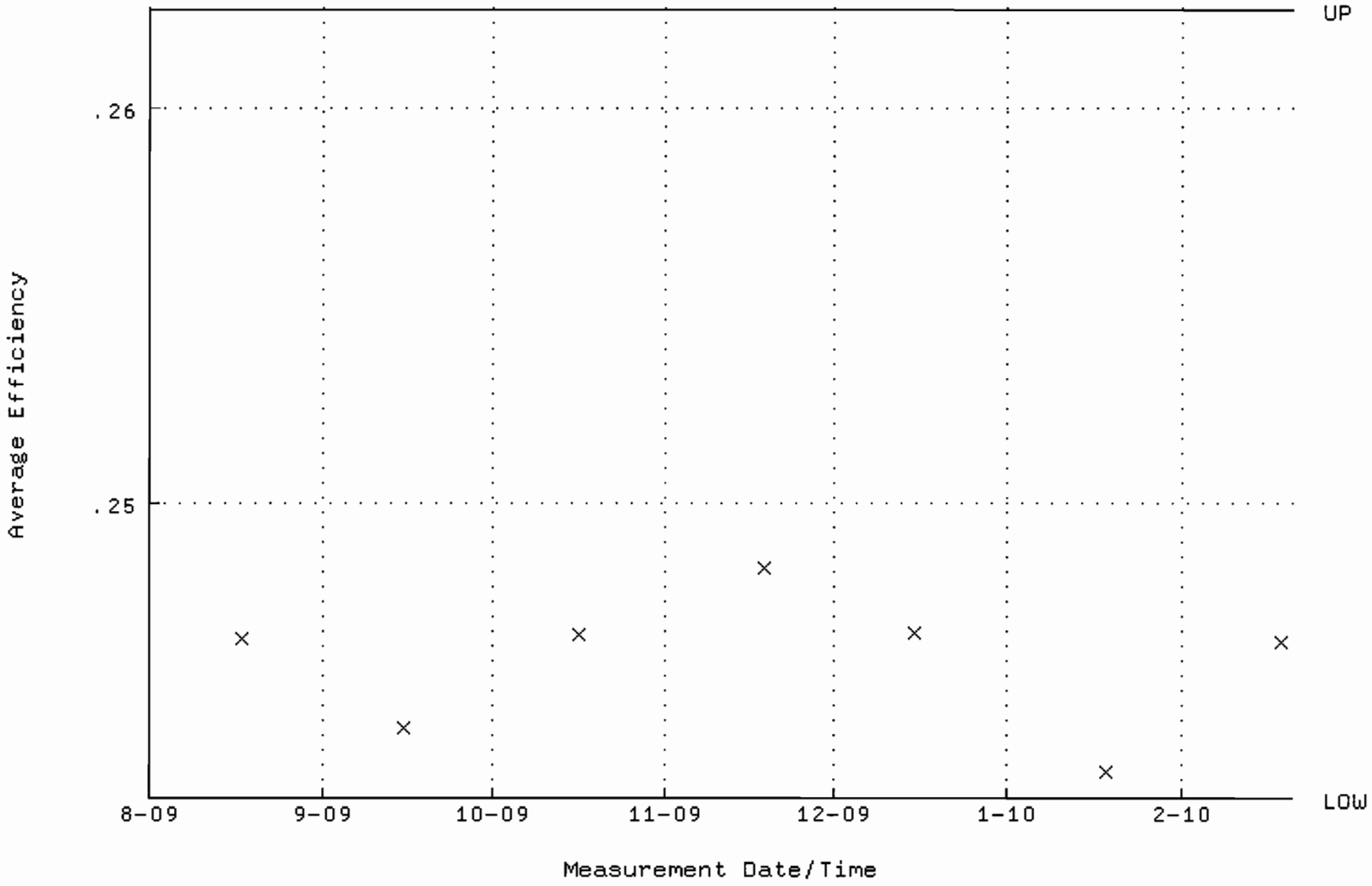

QA filename : DKA100:[ENV_ALPHA.QA.W]W149.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:46:49 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 84.8126 through 93.7402

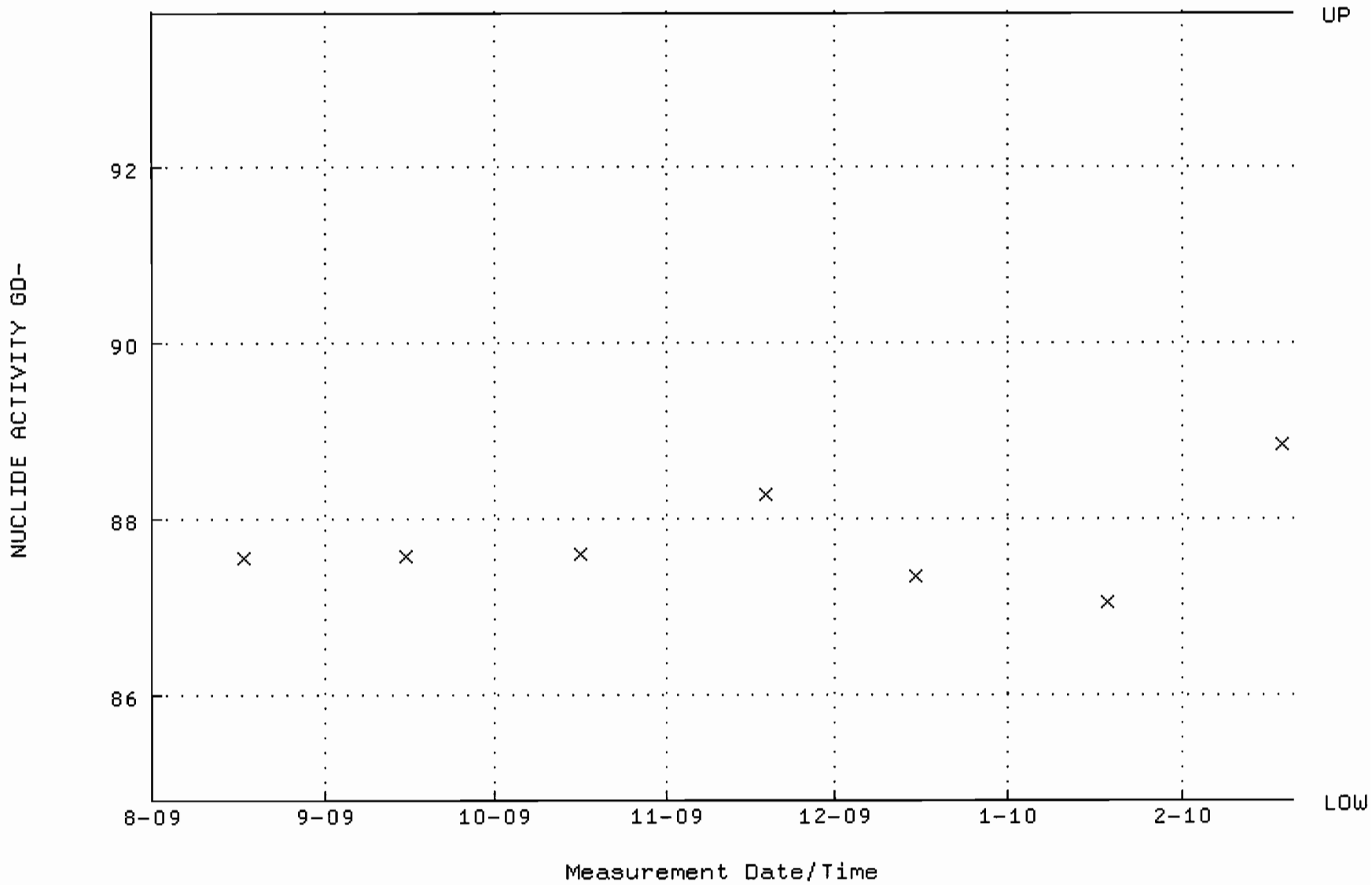

QA filename : DKA100:[ENV_ALPHA.QA.B]B149.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:32 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

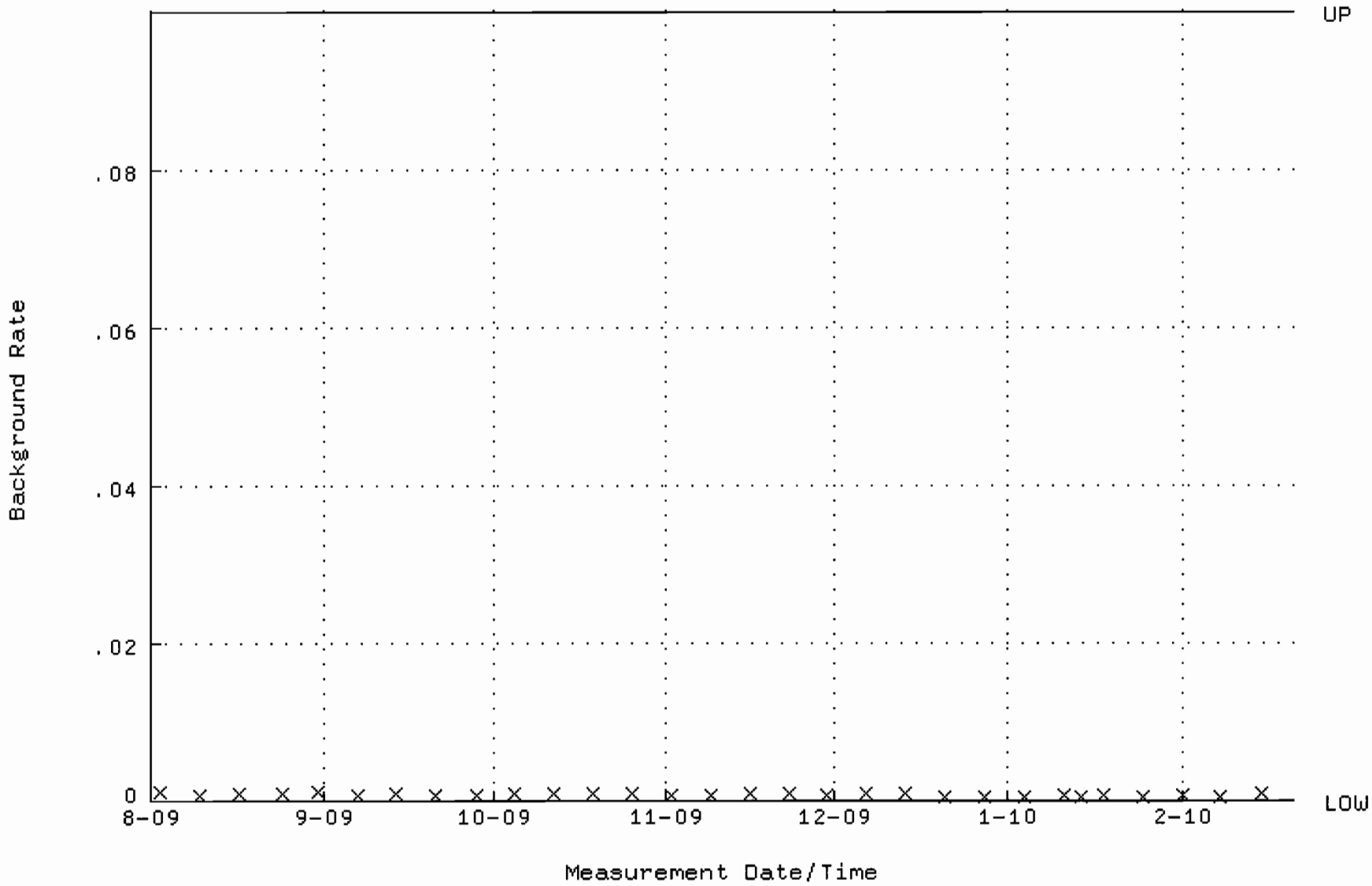

QA filename : DKA100:[ENV_ALPHA.QA.W]W150.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:47:06 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.238314 through 0.258314

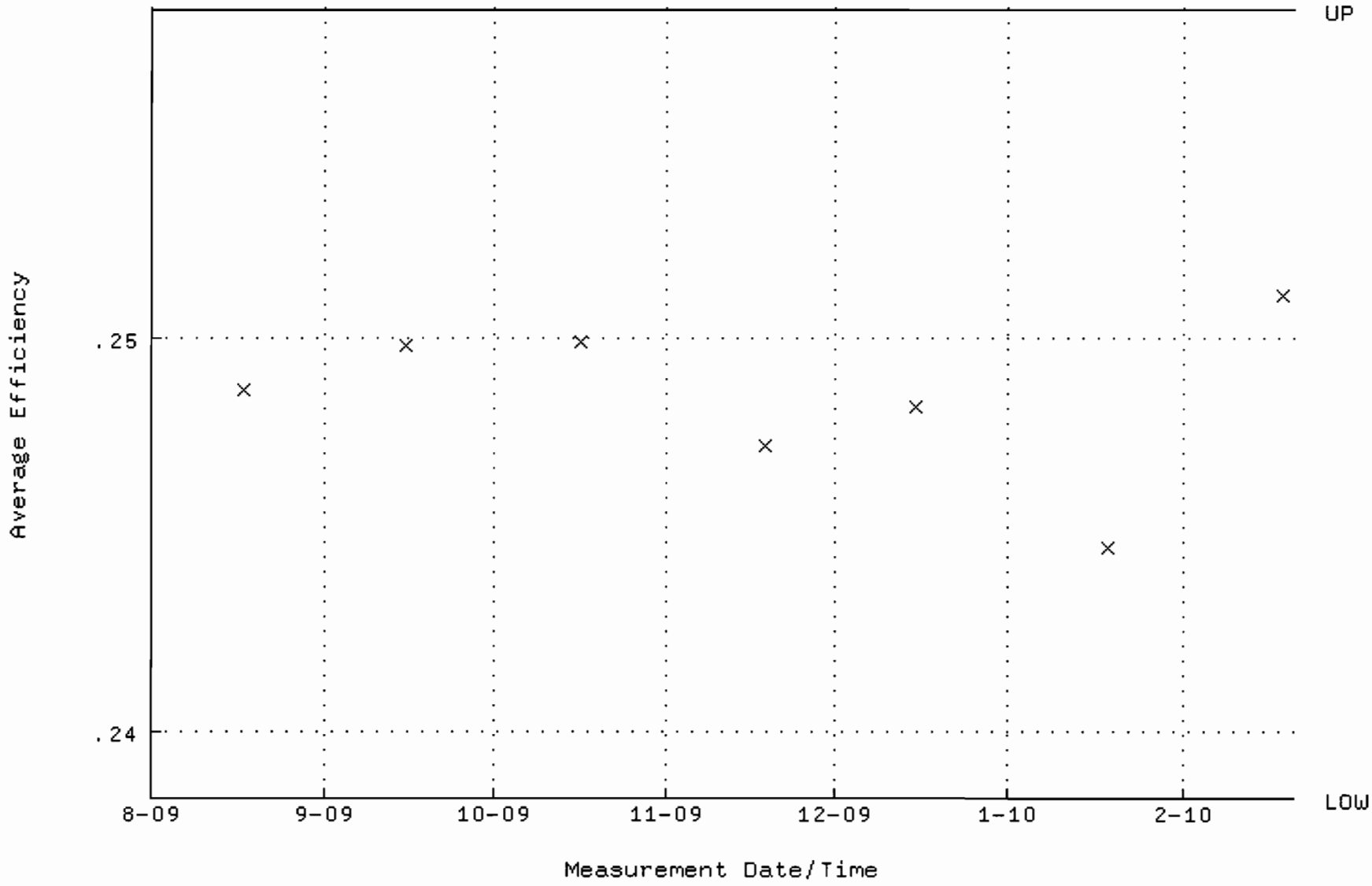

QA filename : DKA100:[ENV_ALPHA.QA.W]W150.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:47:06 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 84.4039 through 93.2885

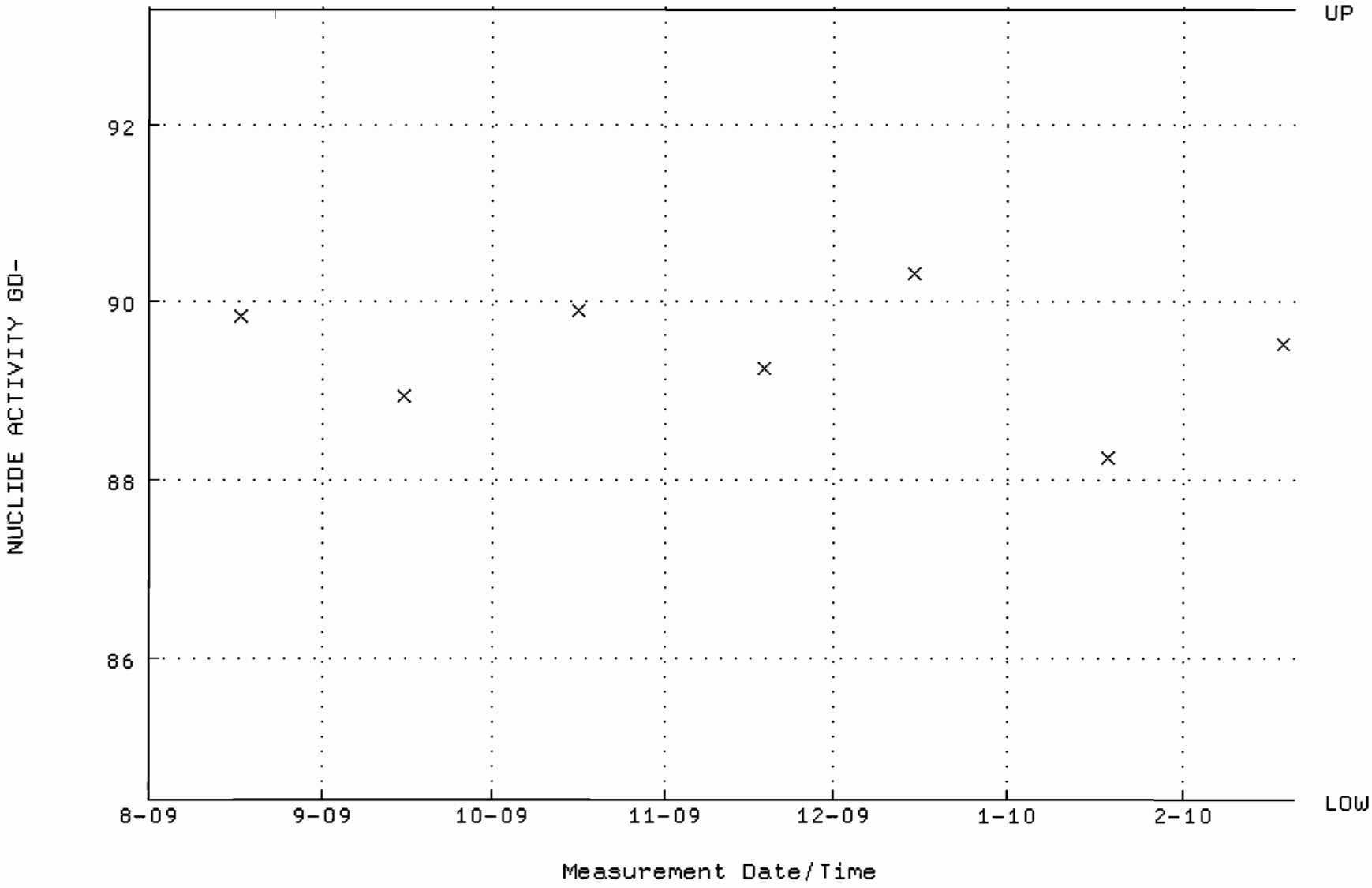

QA filename : DKA100:[ENV_ALPHA.QA.B]B150.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:36 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

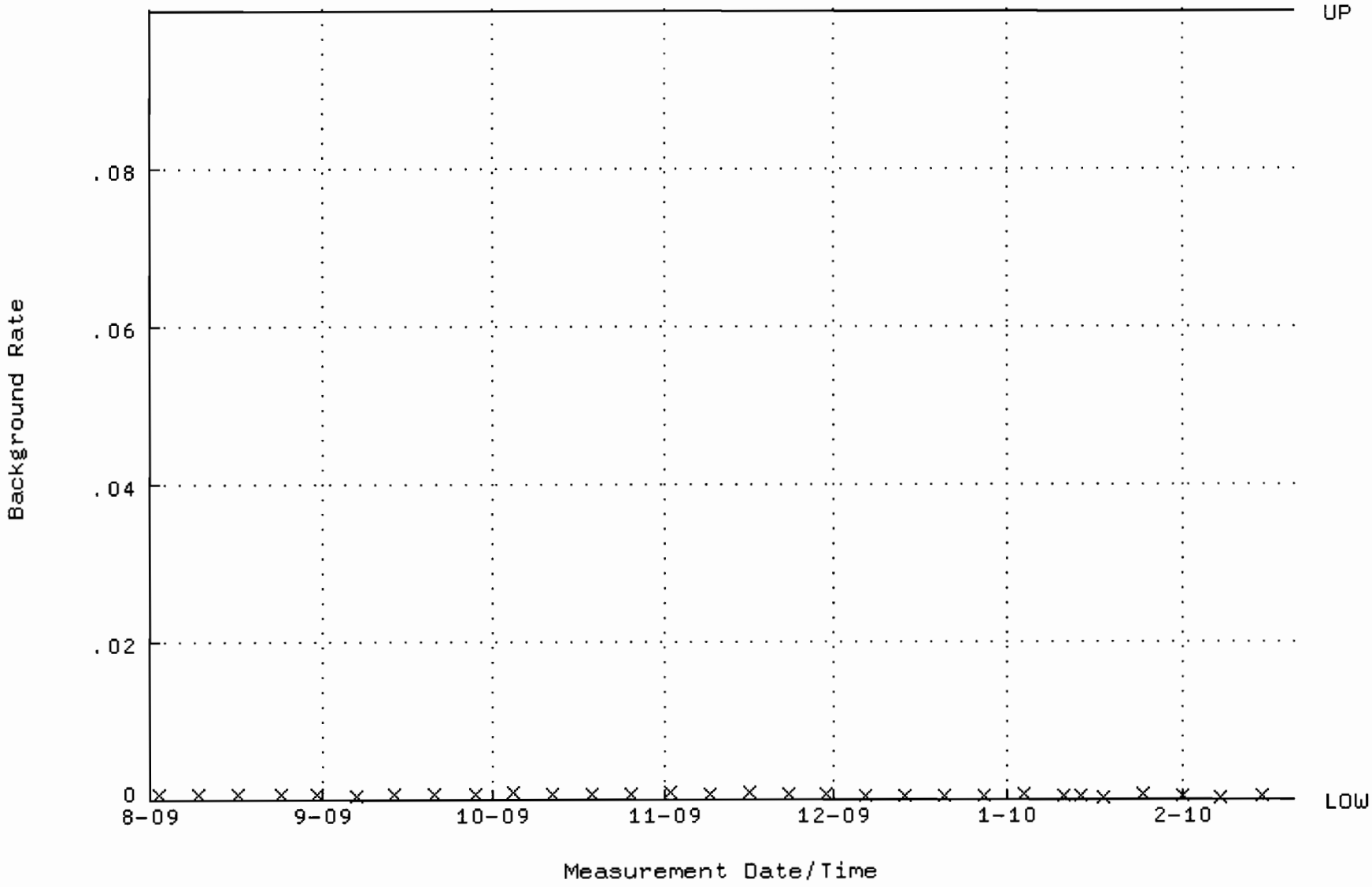

QA filename : DKA100:[ENV_ALPHA.QA.W]W219.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:07:18 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.363471 through 0.412689

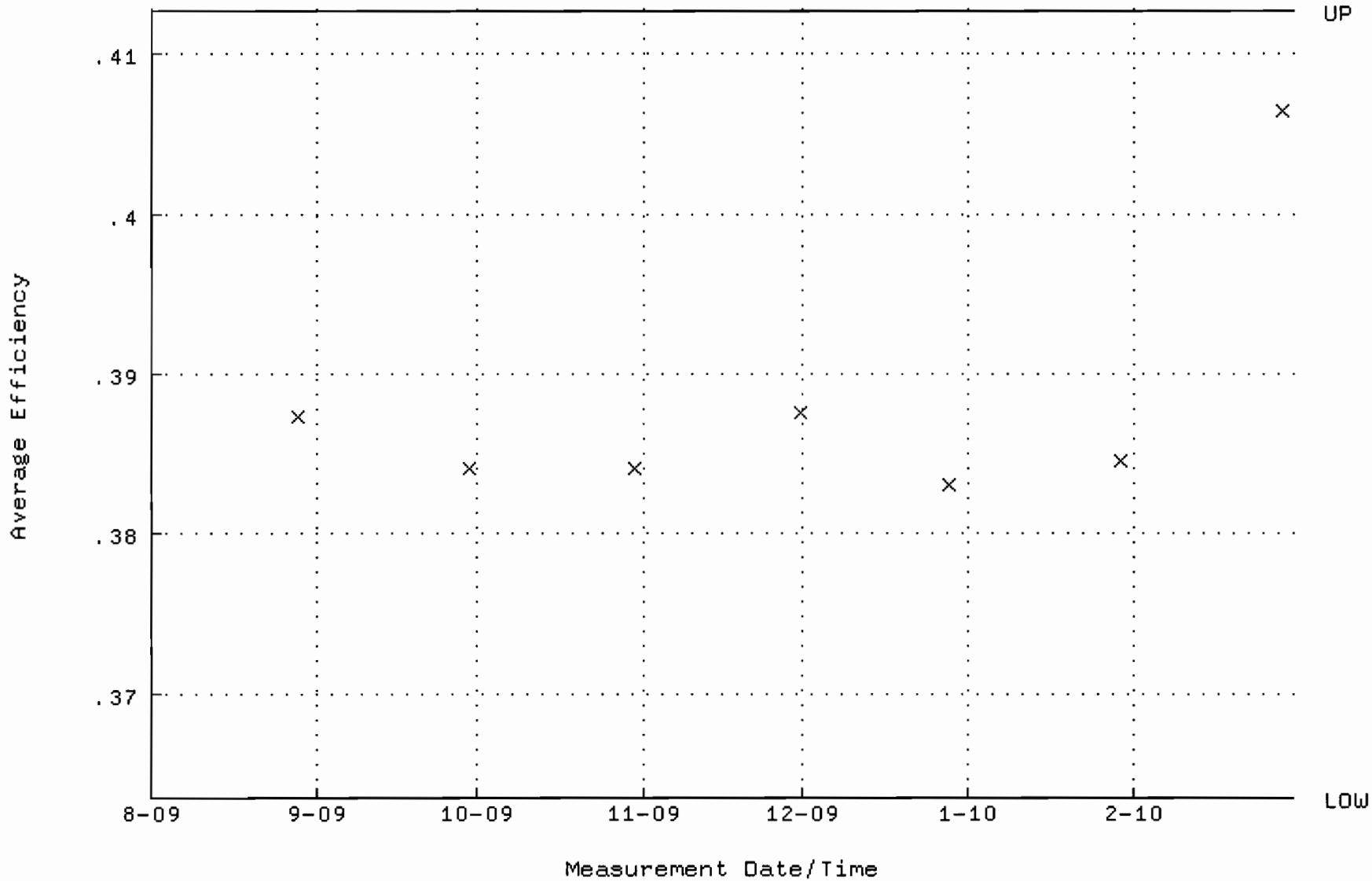

QA filename : DKA100:[ENV_ALPHA.QA.W]W219.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:07:18 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 83.1251 through 93.8923

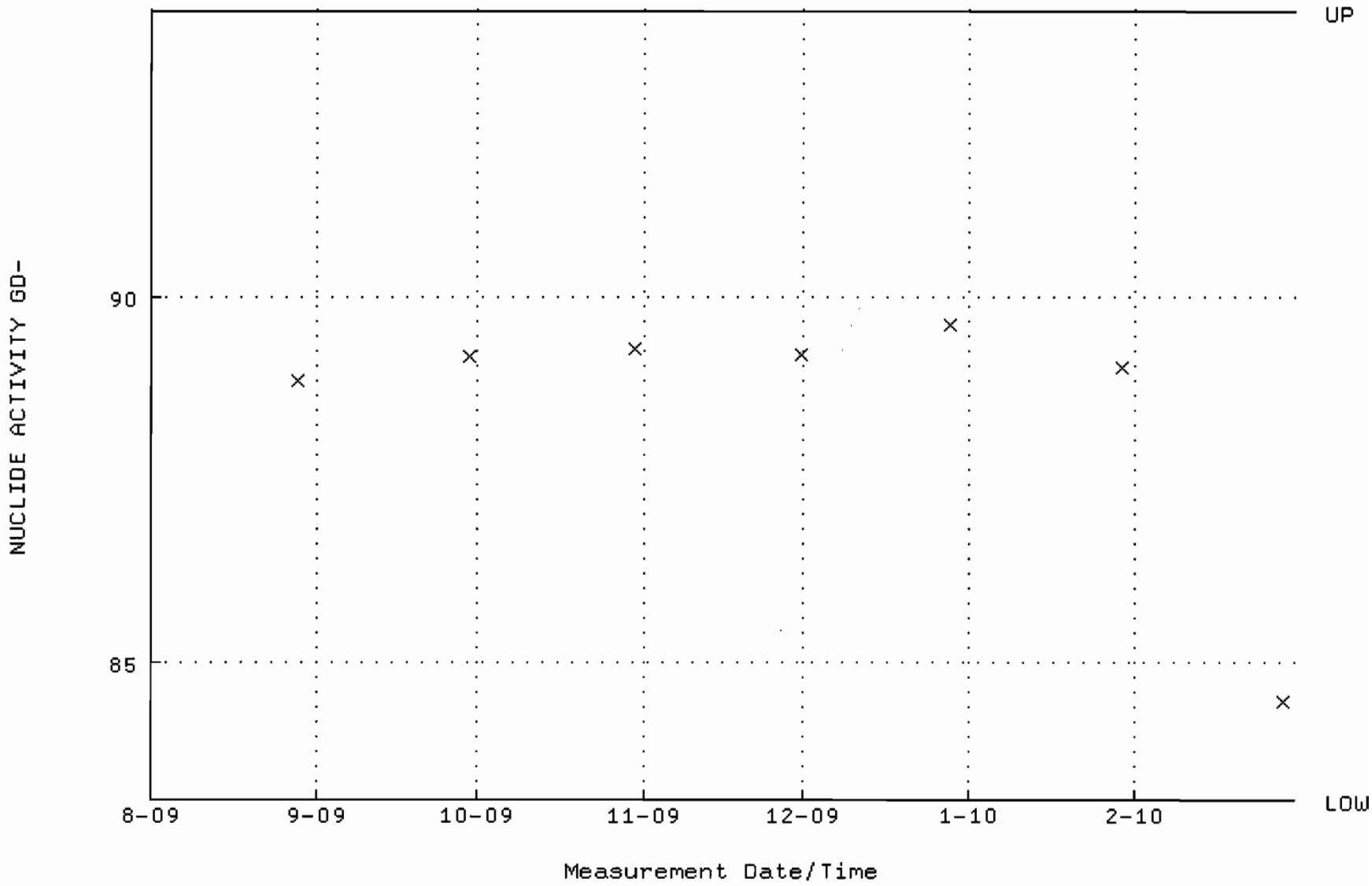

QA filename : DKA100:[ENV_ALPHA.QA.B]B219.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:25:52 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

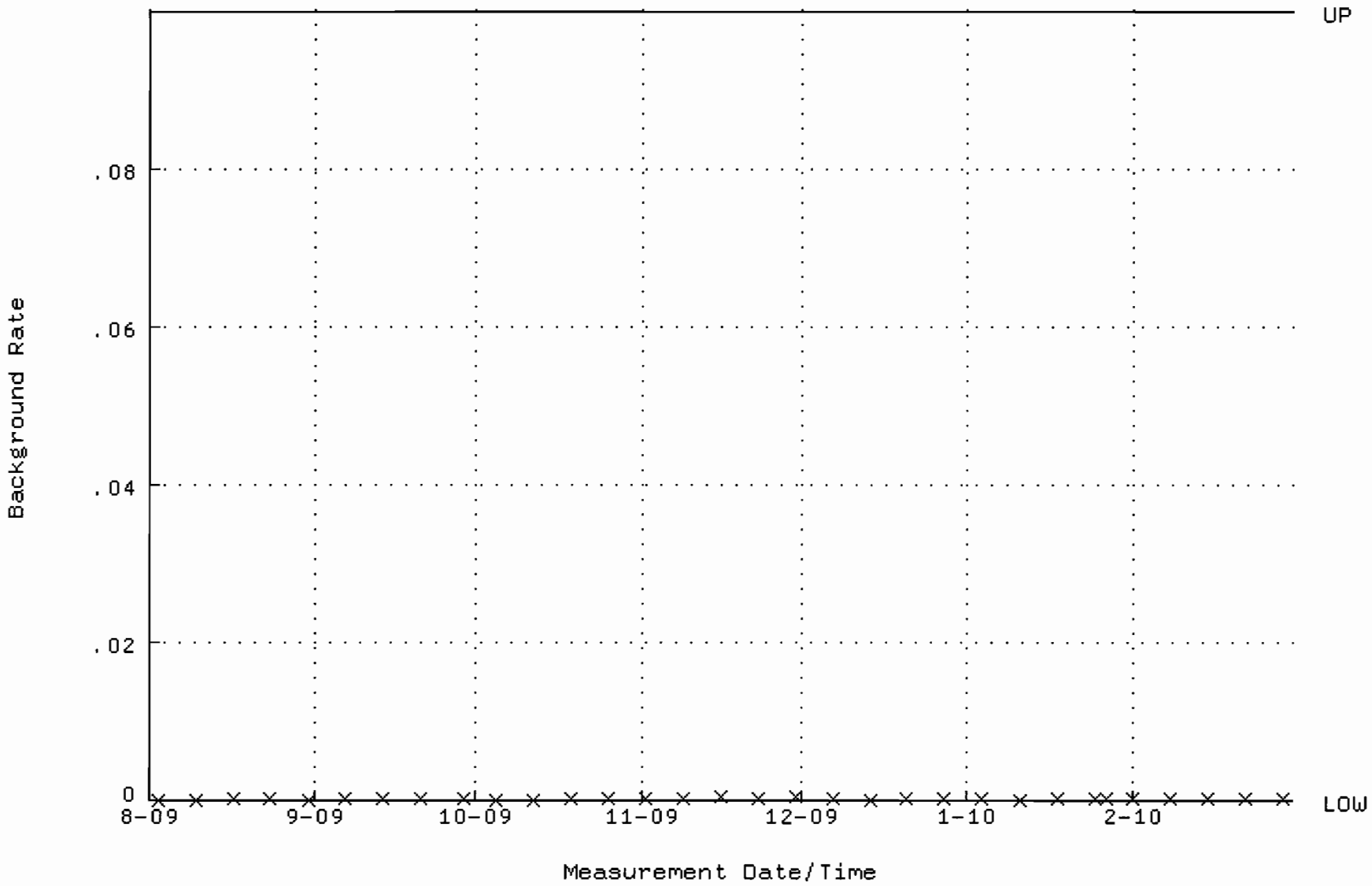

QA filename : DKA100:[ENV_ALPHA.QA.W]W227.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:08:03 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.379260 through 0.392050

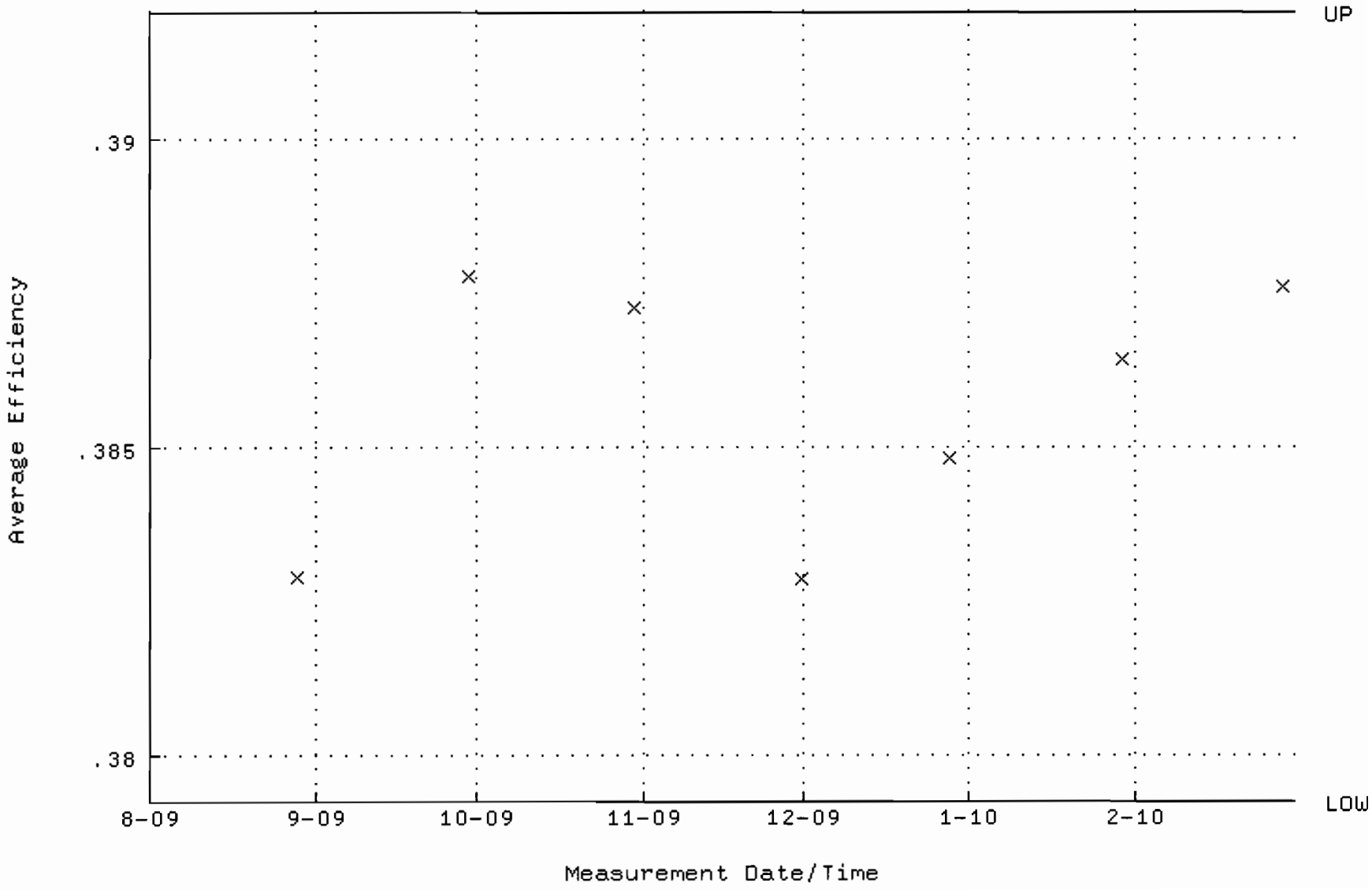

QA filename : DKA100:[ENV_ALPHA.QA.W]W227.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:08:03 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 88.9145 through 89.8637

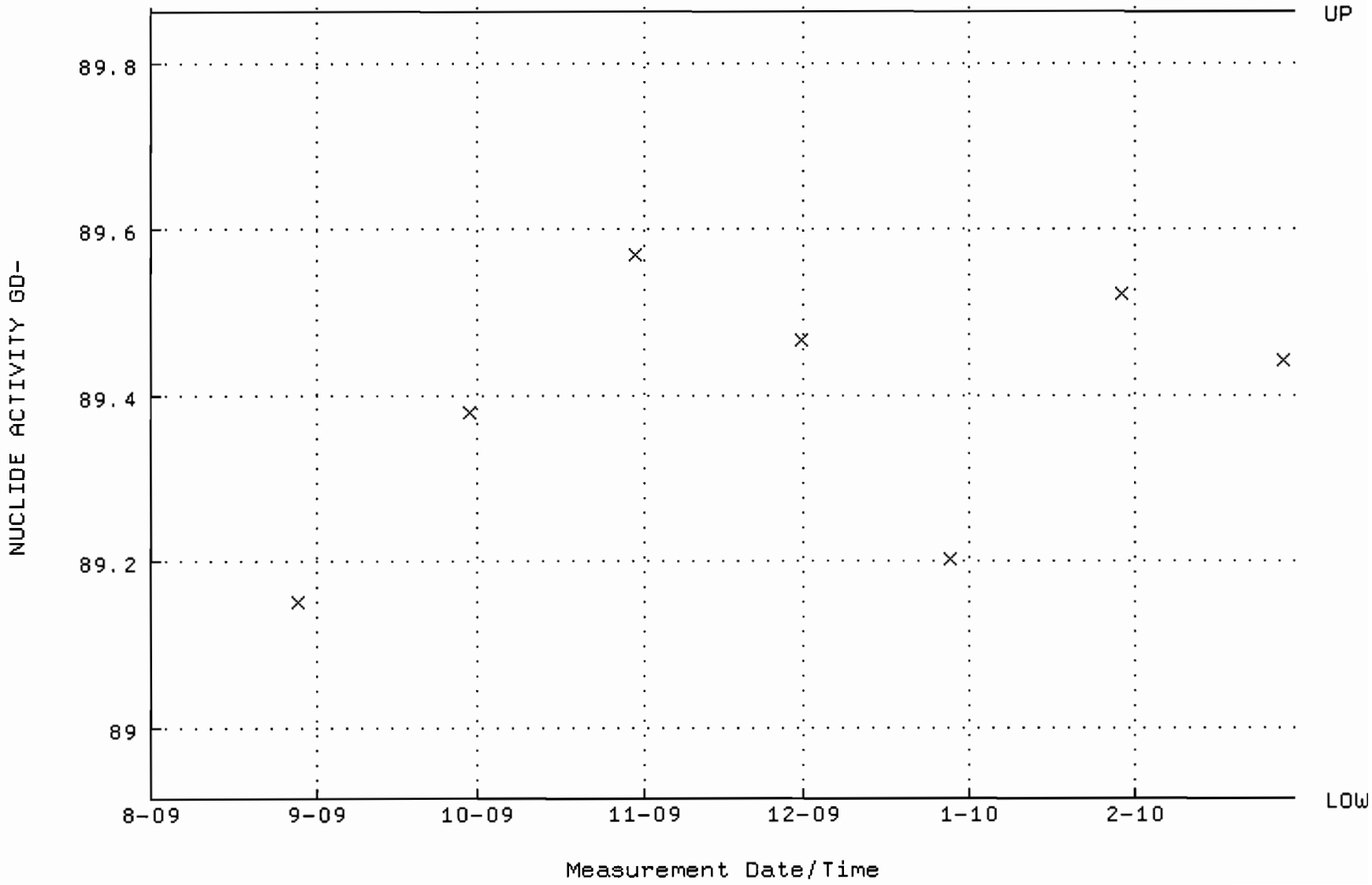

QA filename : DKA100:[ENV_ALPHA.QA.B]B227.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:26:24 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

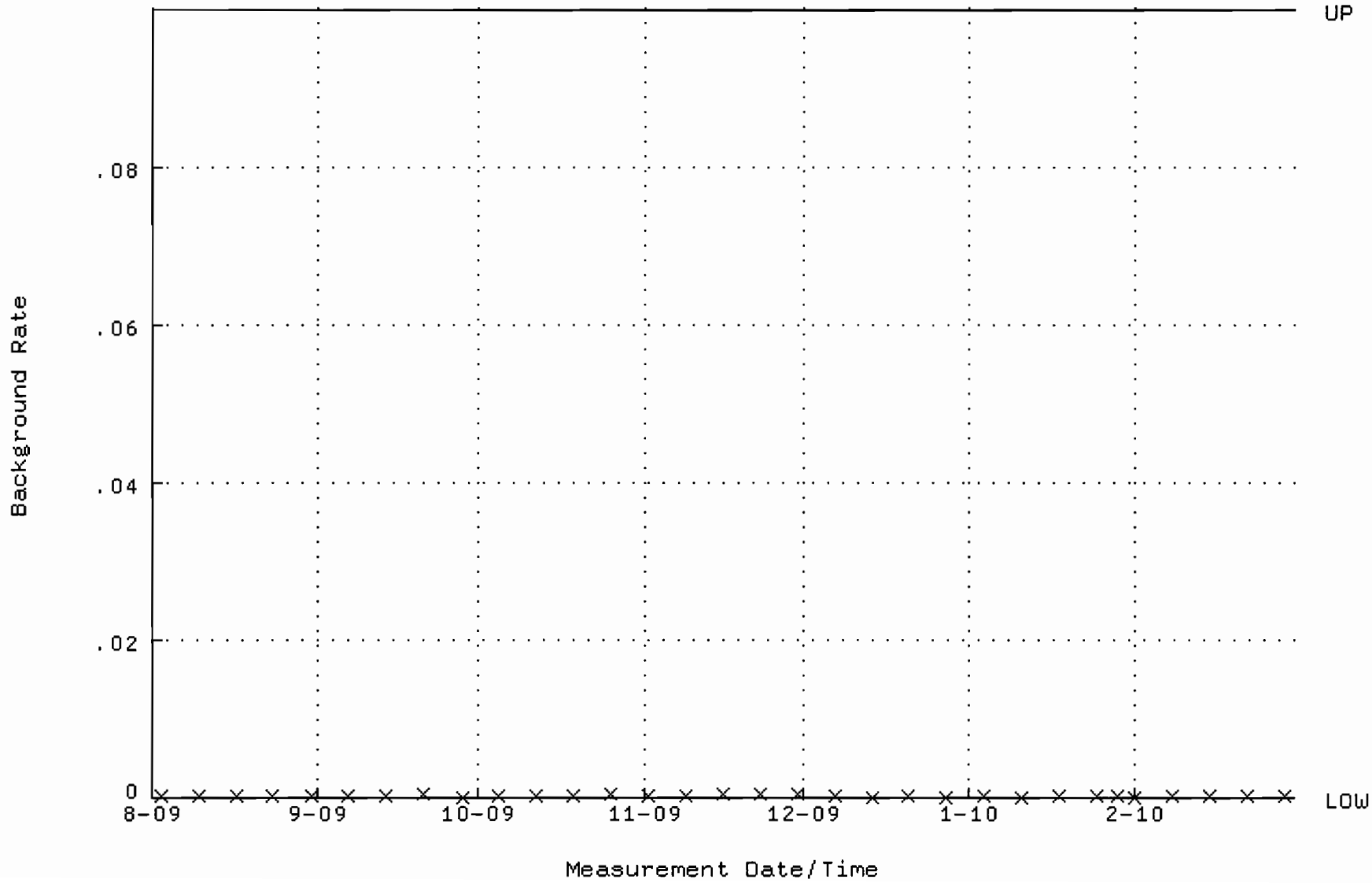

QA filename : DKA100:[ENV_ALPHA.QA.W]W231.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:08:24 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.372352 through 0.409678

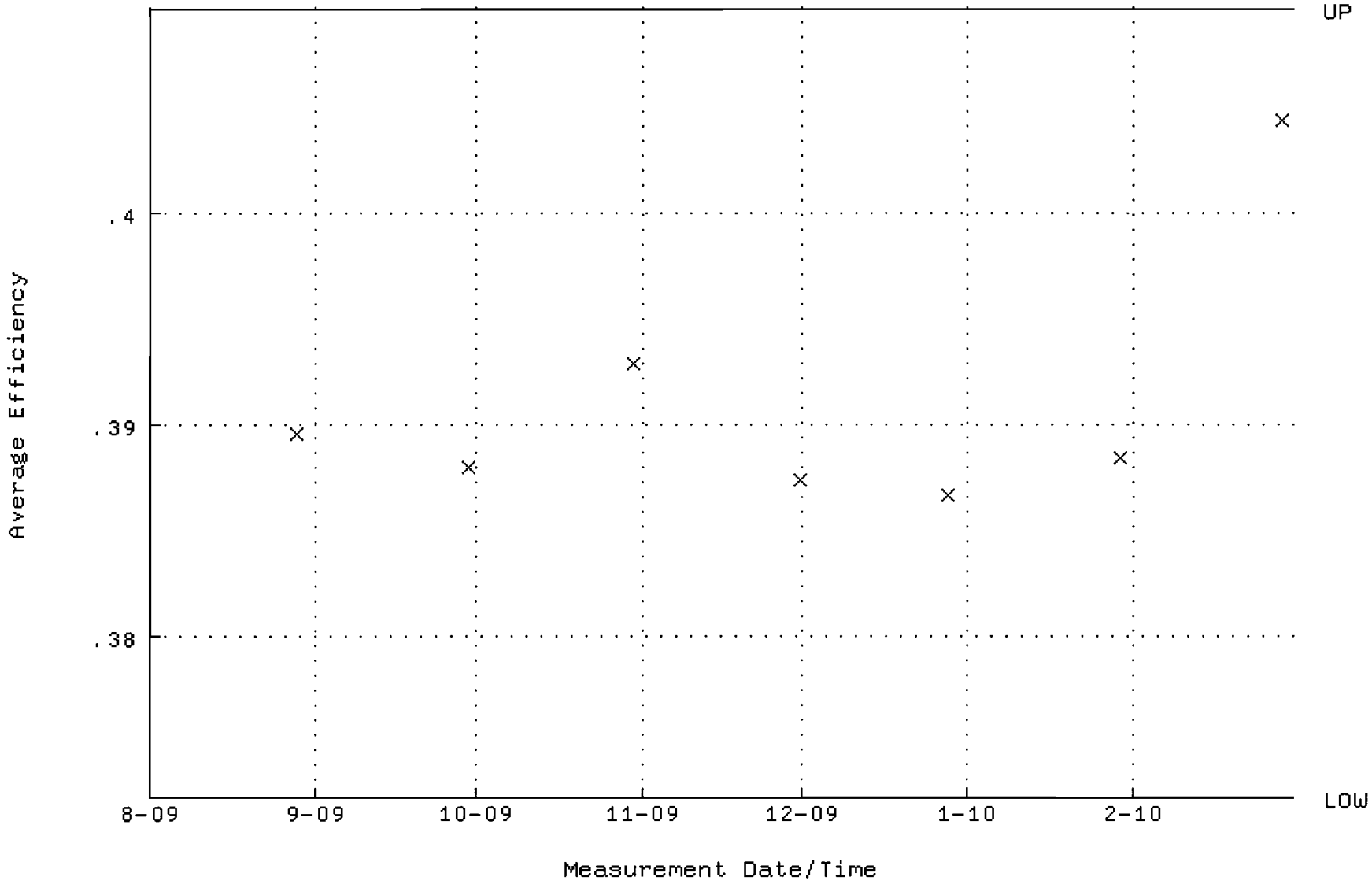

QA filename : DKA100:[ENV_ALPHA.QA.W]W231.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:08:24 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 83.6949 through 95.5595

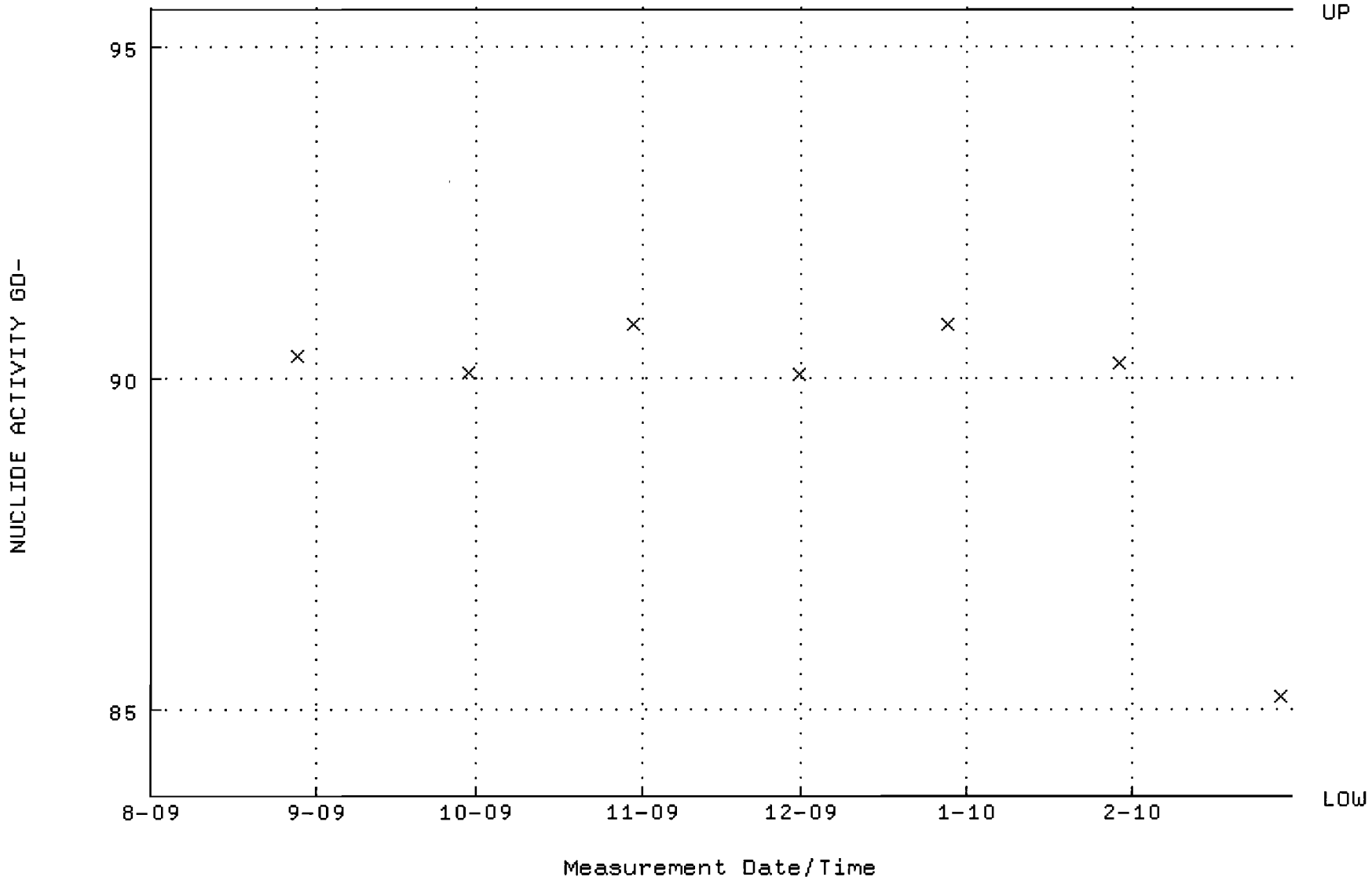

QA filename : DKA100:[ENV_ALPHA.QA.B]B231.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:26:43 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

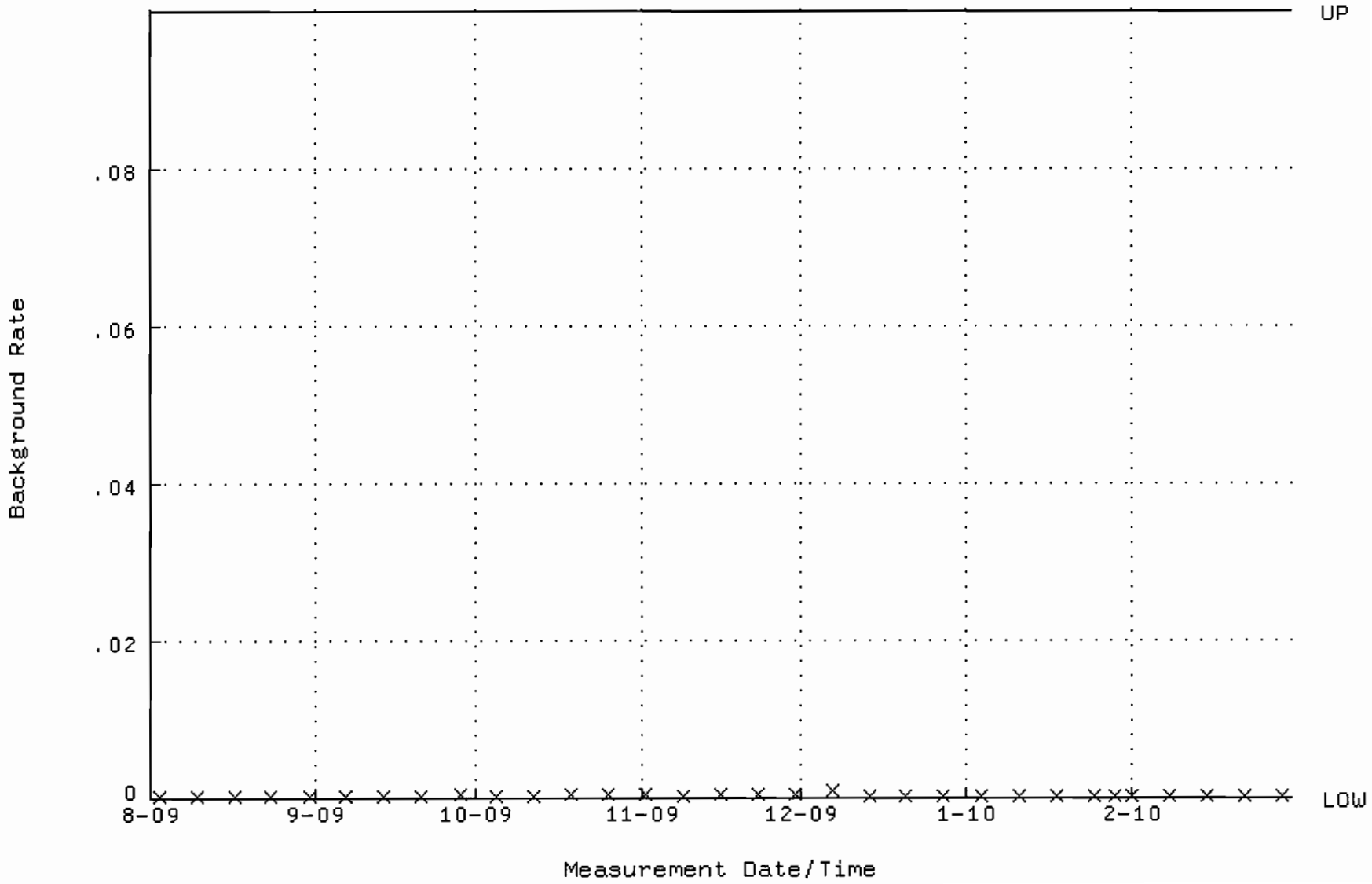

QA filename : DKA100:[ENV_ALPHA.QA.W]W232.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:08:30 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.356063 through 0.392181

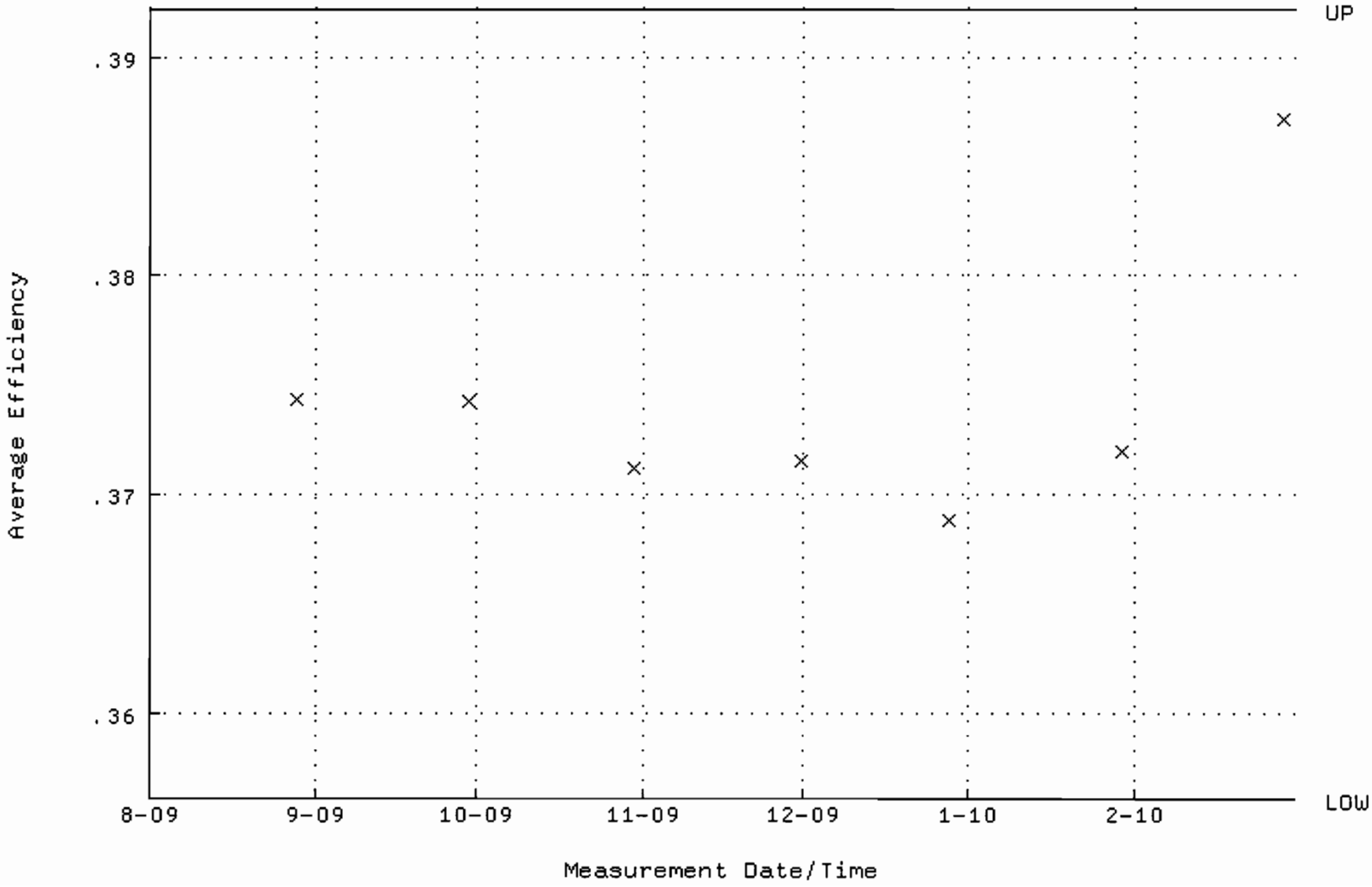

QA filename : DKA100:[ENV_ALPHA.QA.W]W232.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:08:30 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 83.5615 through 93.0435

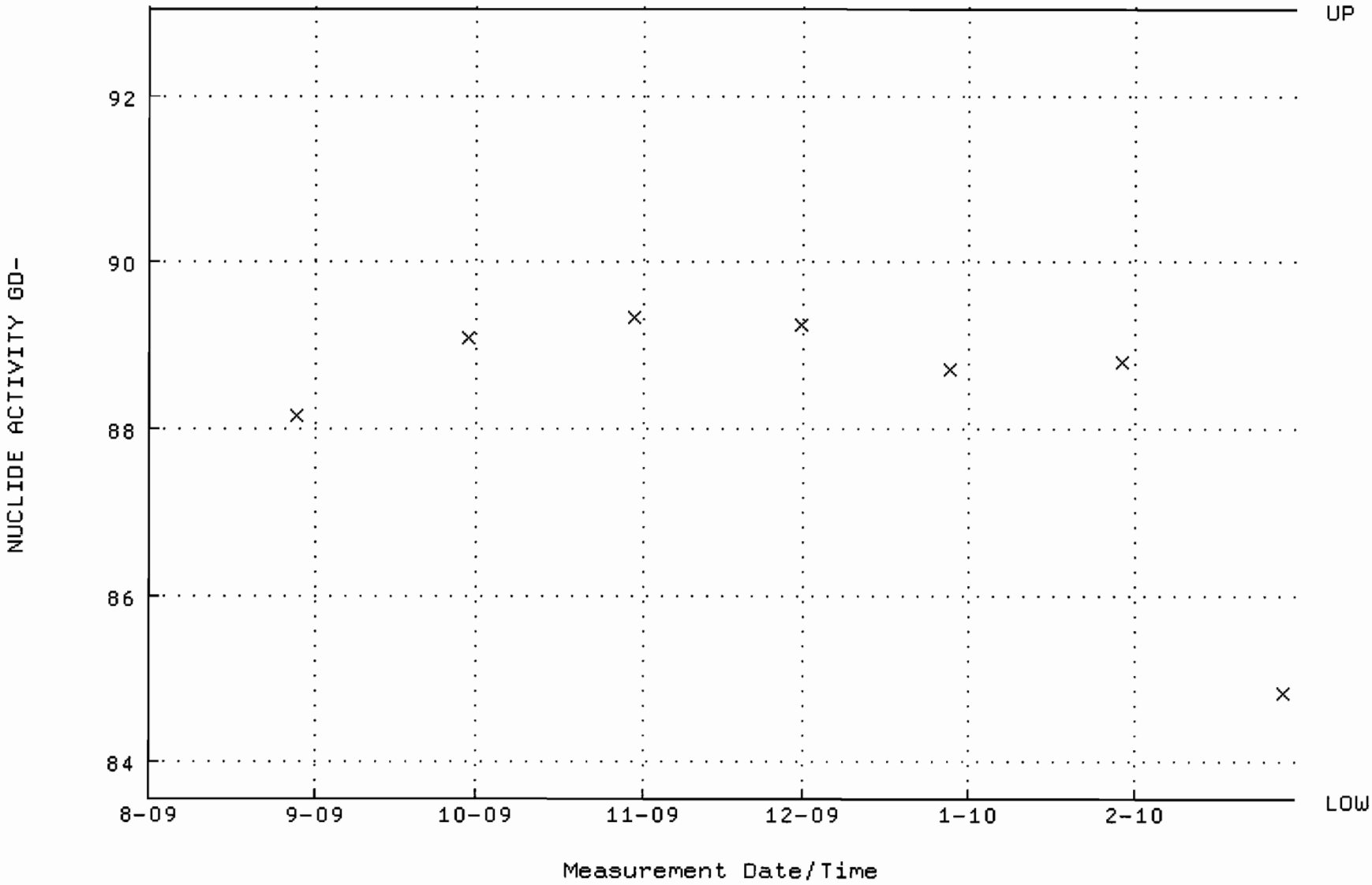

QA filename : DKA100:[ENV_ALPHA.QA.B]B232.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:26:47 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

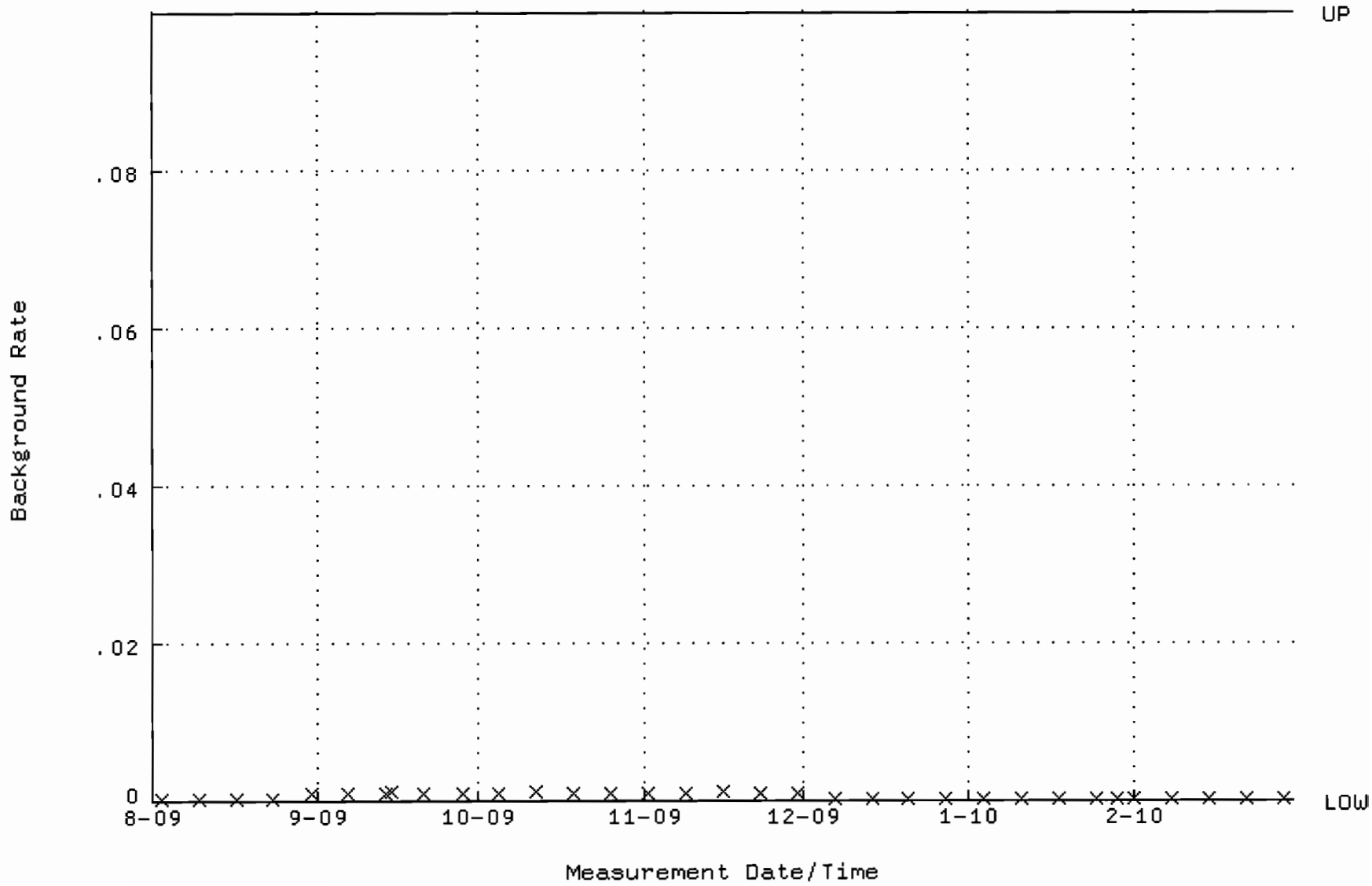

QA filename : DKA100:[ENV_ALPHA.QA.W]W233.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:08:35 through 3-MAR-2010 12:00:00
Lower/Upper Lmts: 0.366381 through 0.399563

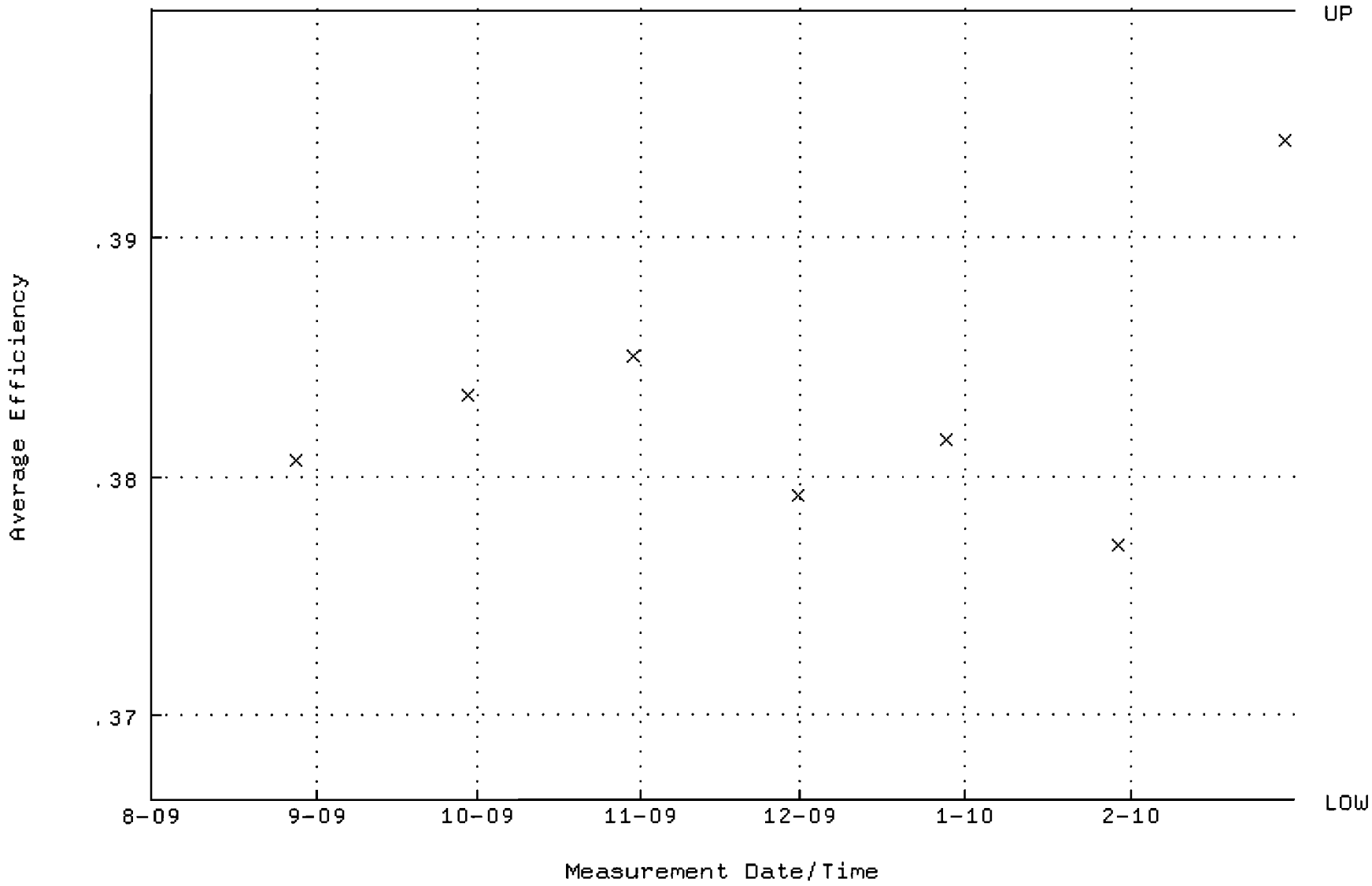

QA filename : DKA100:[ENV_ALPHA.QA.W]W233.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:08:35 through 3-MAR-2010 12:00:00
Lower/Upper Lmts: 82.6177 through 91.1049

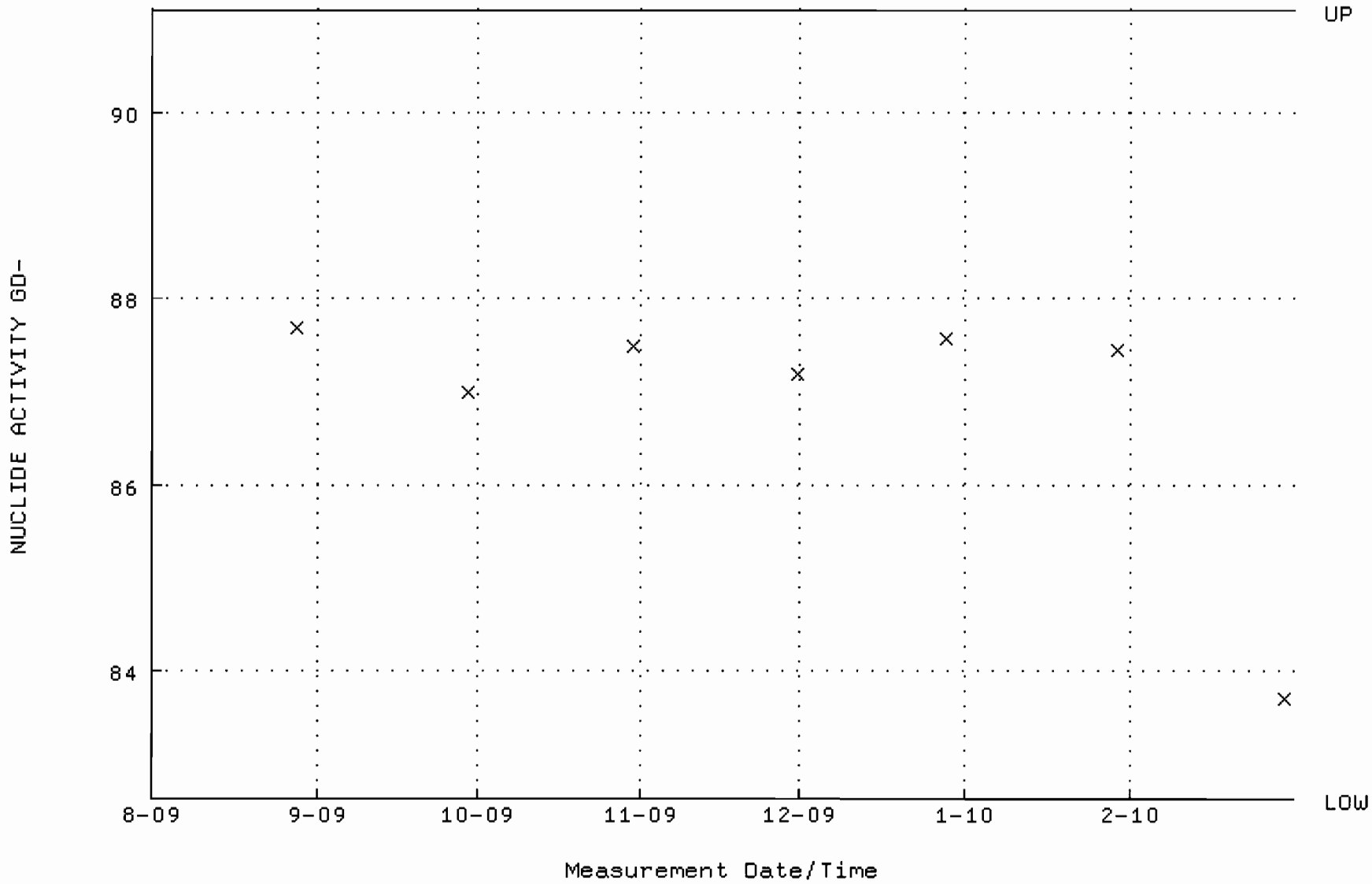

QA filename : DKA100:[ENV_ALPHA.QA.B]B233.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:26:52 through 3-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

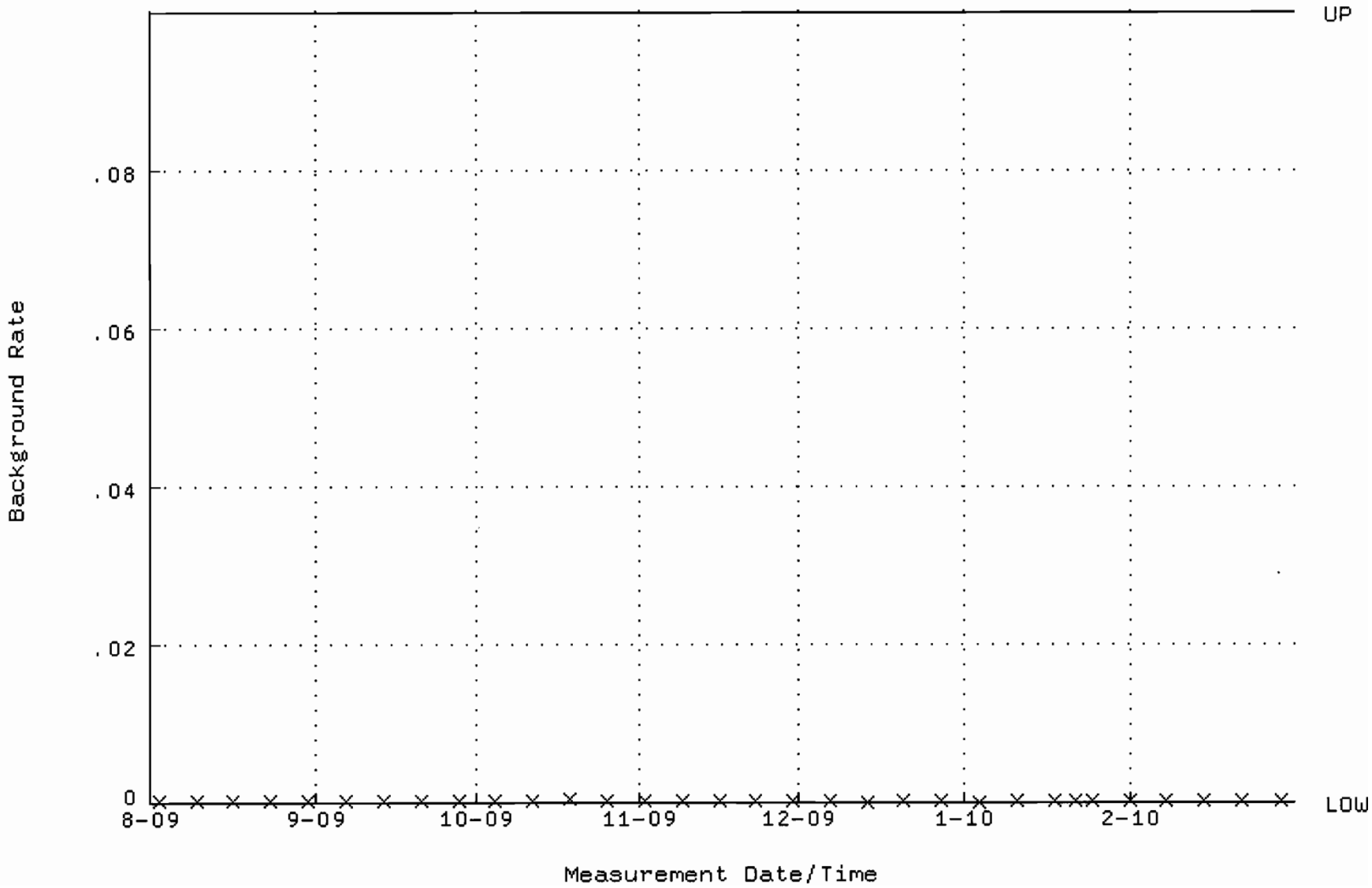

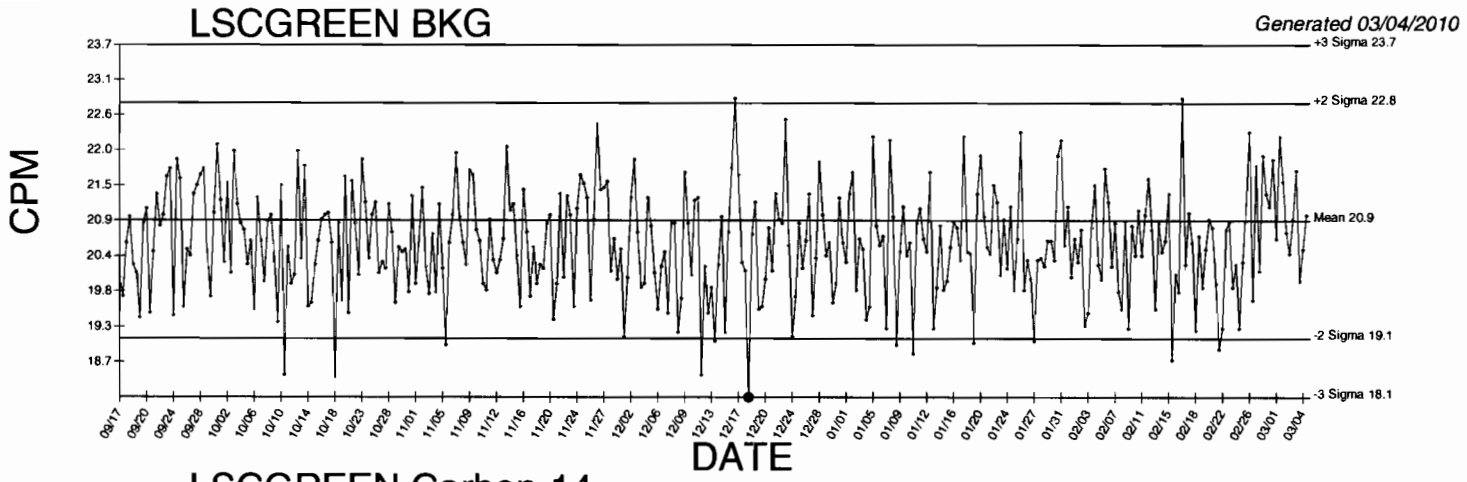

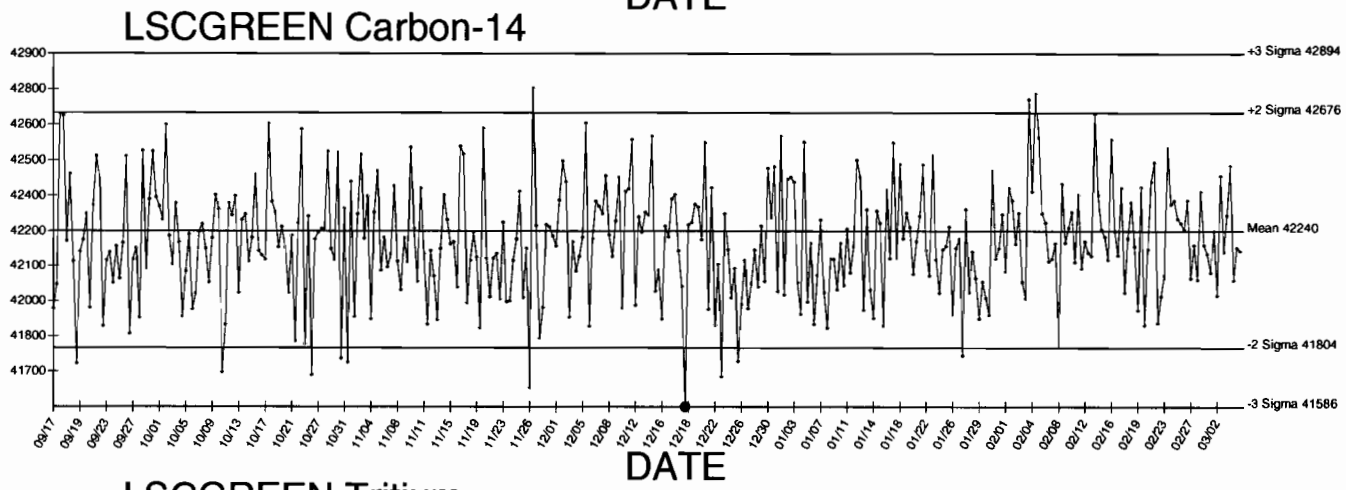

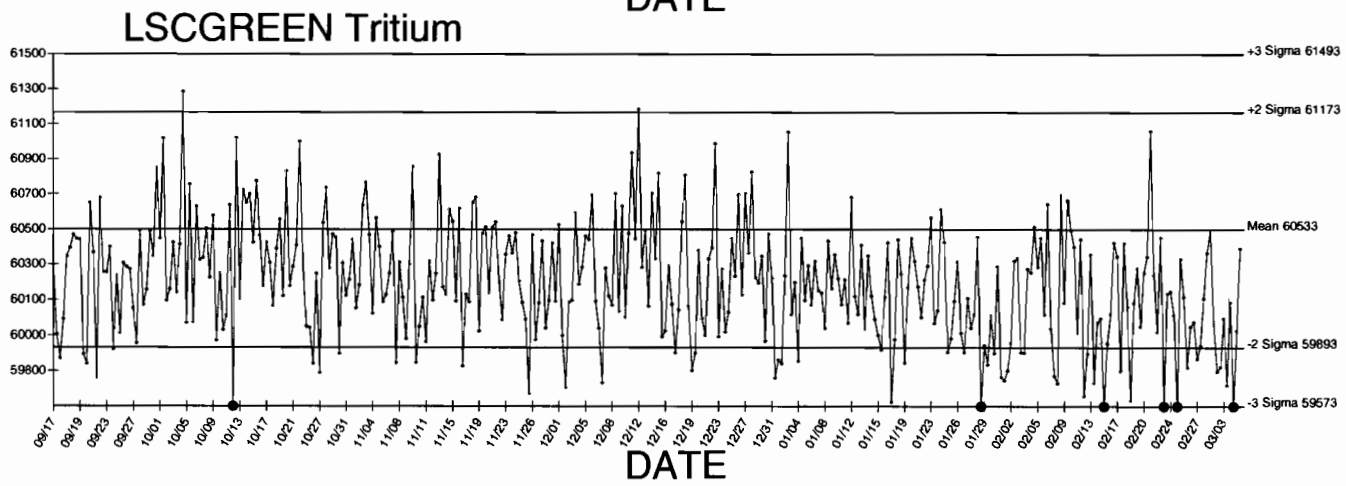

● Denotes Outlier

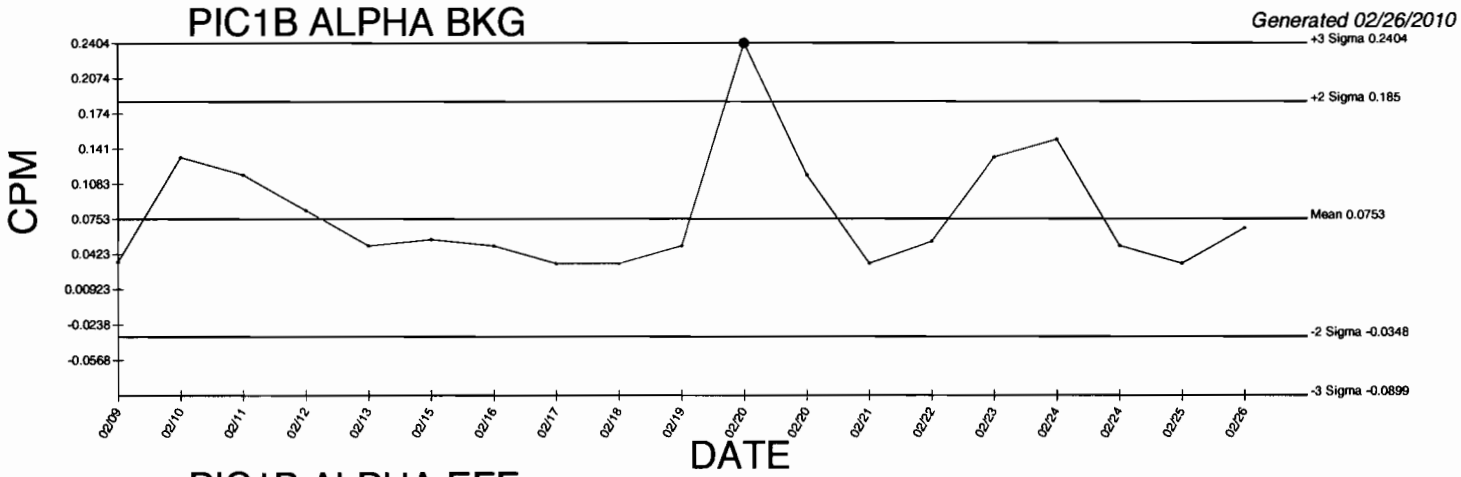
PIC1B ALPHA BKG
Generated 02/26/2010
CPM
0.2404
0.2074
0.174
0.141
0.1083
0.0753
0.0423
0.00923
-0.0238
-0.0568
+3 Sigma 0.2404
+2 Sigma 0.185
Mean 0.0753
-2 Sigma -0.0348
-3 Sigma -0.0899
02/09 02/10 02/11 02/12 02/13 02/15 02/16 02/17 02/18 02/19 02/20 02/20 02/21 02/22 02/23 02/24 02/24 02/25 02/26
DATE

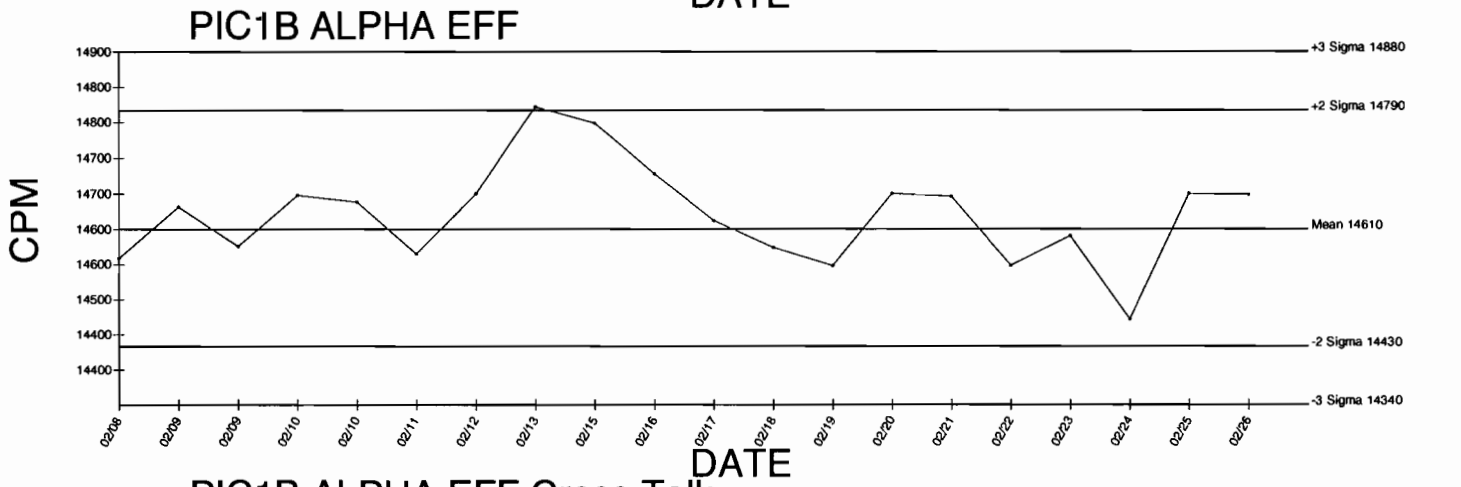
PIC1B ALPHA EFF
CPM
14900
14800
14800
14700
14700
14600
14600
14500
14400
14400
+3 Sigma 14880
+2 Sigma 14790
Mean 14610
-2 Sigma 14430
-3 Sigma 14340
02/08 02/09 02/09 02/10 02/10 02/11 02/12 02/13 02/15 02/16 02/17 02/18 02/19 02/20 02/21 02/22 02/23 02/24 02/25 02/26
DATE

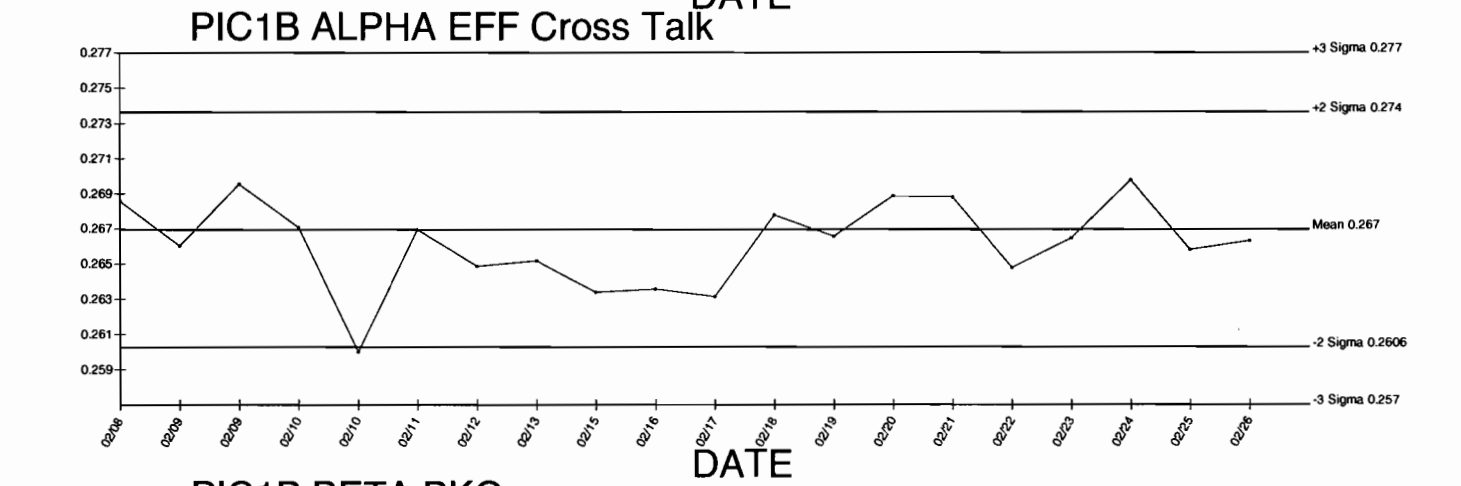
PIC1B ALPHA EFF Cross Talk
0.277
0.275
0.273
0.271
0.269
0.267
0.265
0.263
0.261
0.259
+3 Sigma 0.277
+2 Sigma 0.274
Mean 0.267
-2 Sigma 0.2606
-3 Sigma 0.257
02/08 02/09 02/09 02/10 02/10 02/11 02/12 02/13 02/15 02/16 02/17 02/18 02/19 02/20 02/21 02/22 02/23 02/24 02/25 02/26
DATE

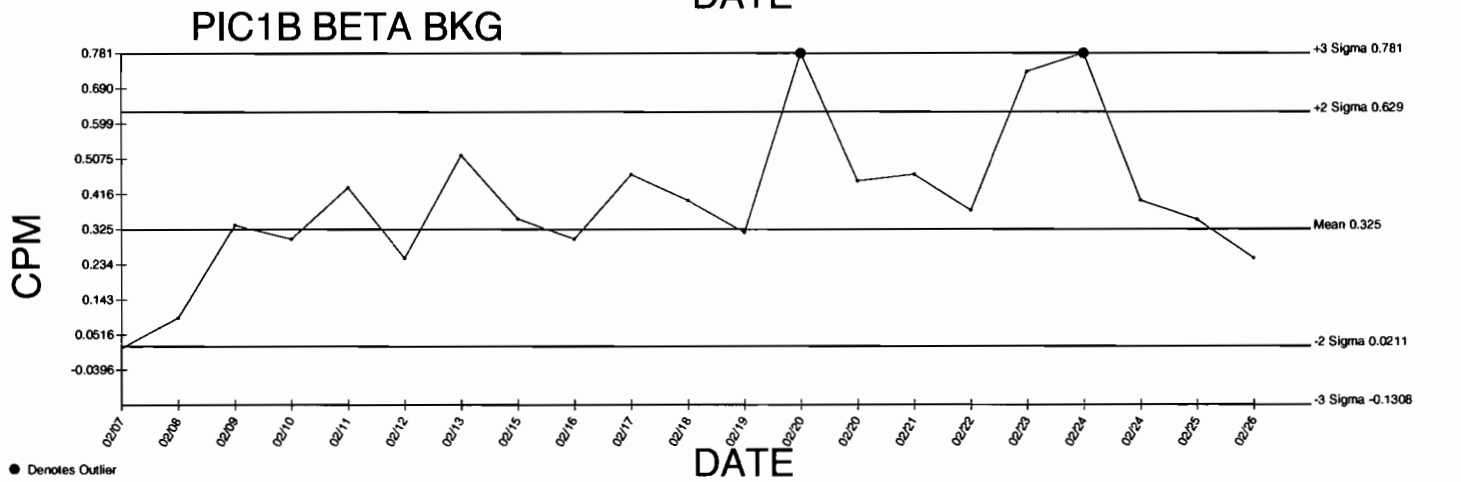
PIC1B BETA BKG
CPM
0.781
0.690
0.599
0.5075
0.416
0.325
0.234
0.143
0.0516
-0.0396
+3 Sigma 0.781
+2 Sigma 0.629
Mean 0.325
-2 Sigma 0.0211
-3 Sigma -0.1308
02/07 02/08 02/09 02/10 02/11 02/12 02/13 02/15 02/16 02/17 02/18 02/19 02/20 02/20 02/21 02/22 02/23 02/24 02/24 02/25 02/26
DATE
● Denotes Outlier

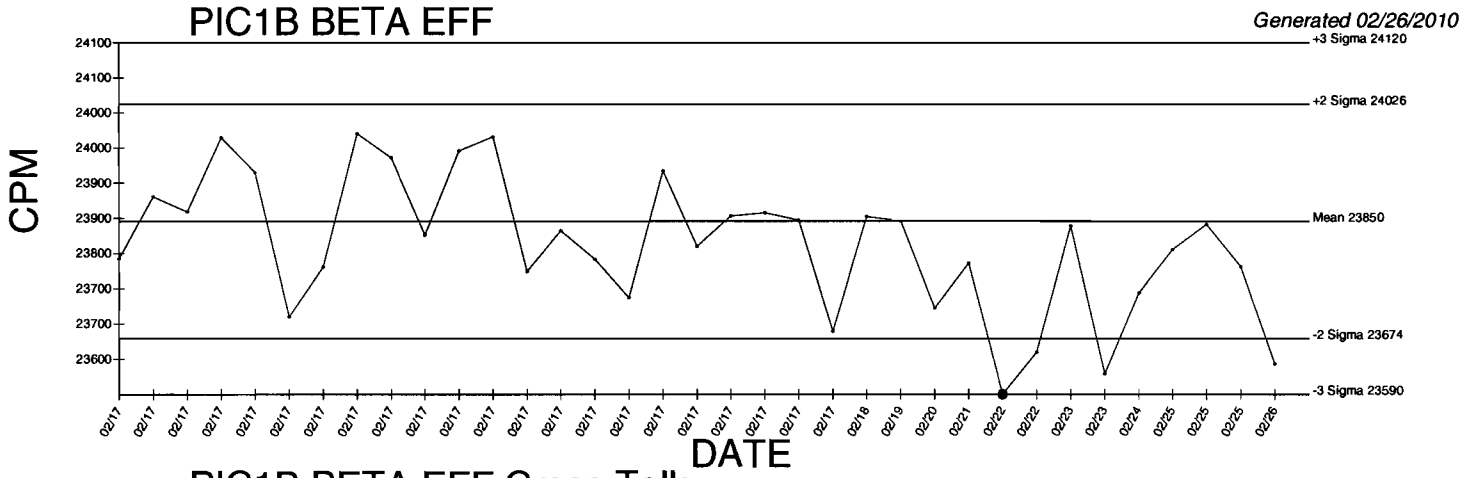

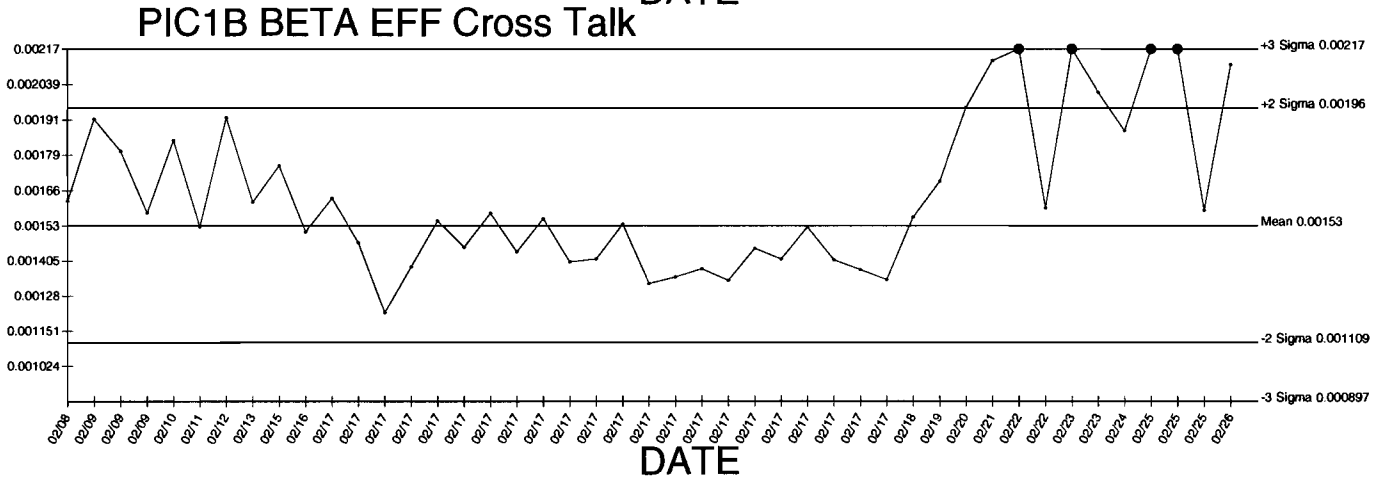

● Denotes Outlier

Generated 02/26/2010

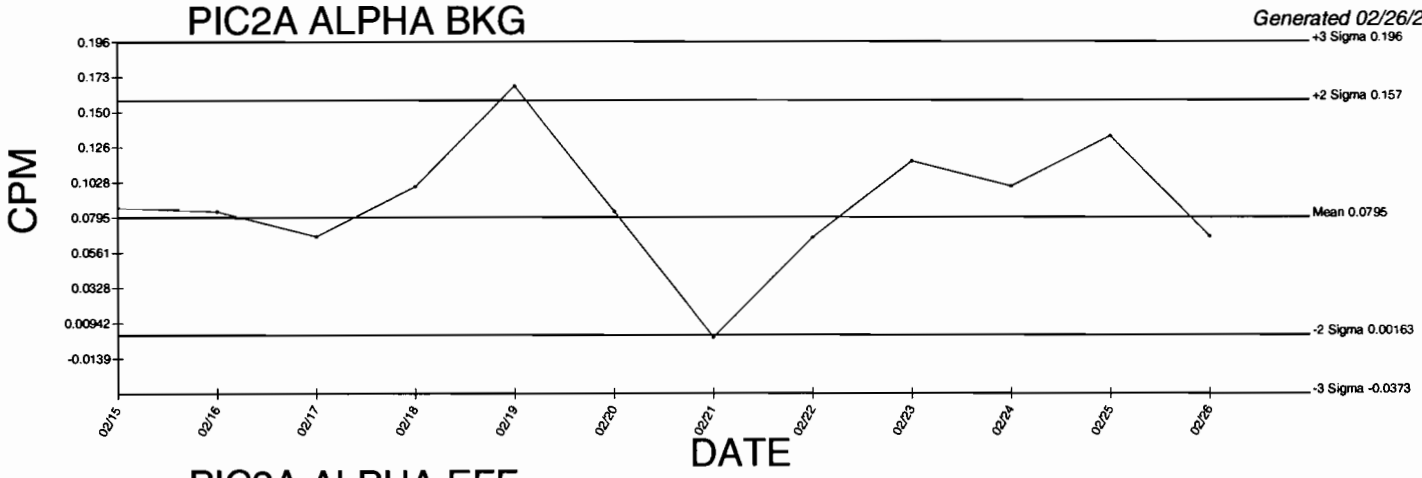

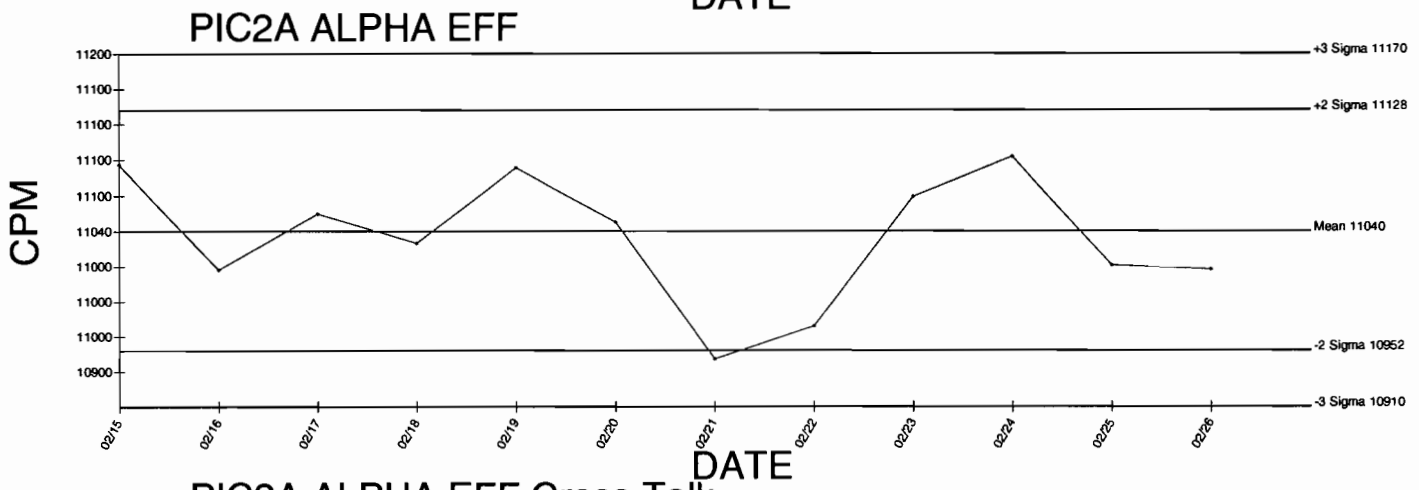

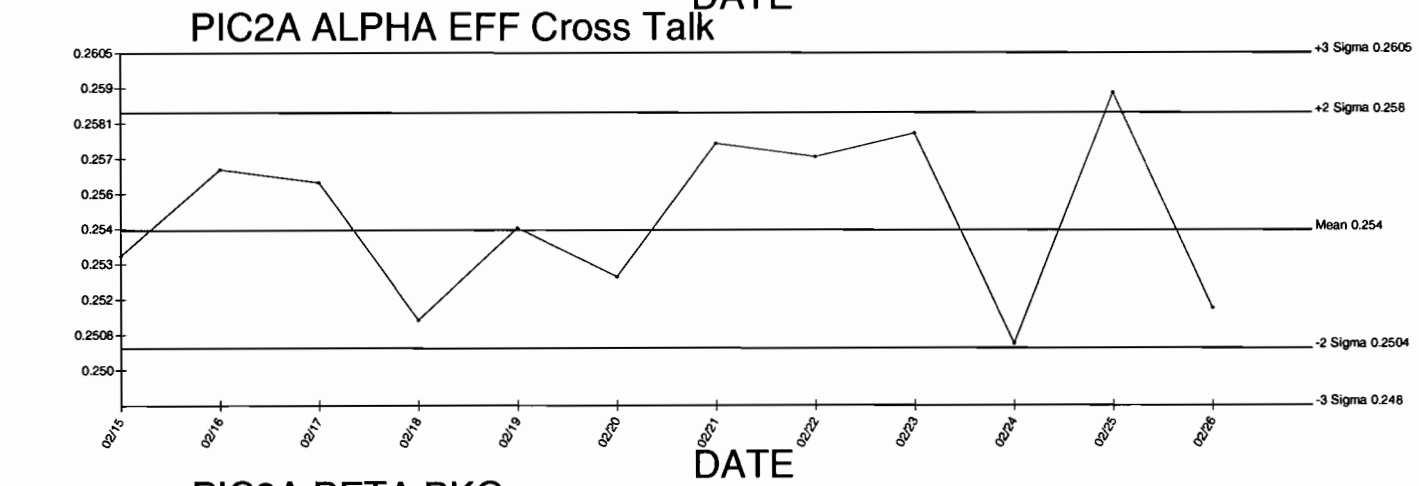

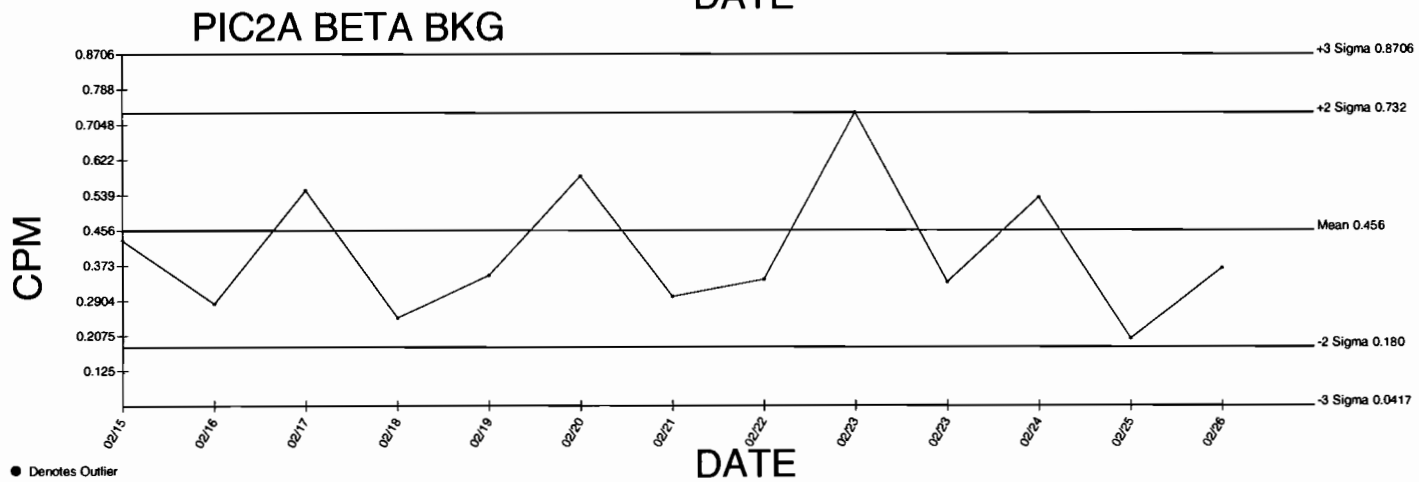

● Denotes Outlier

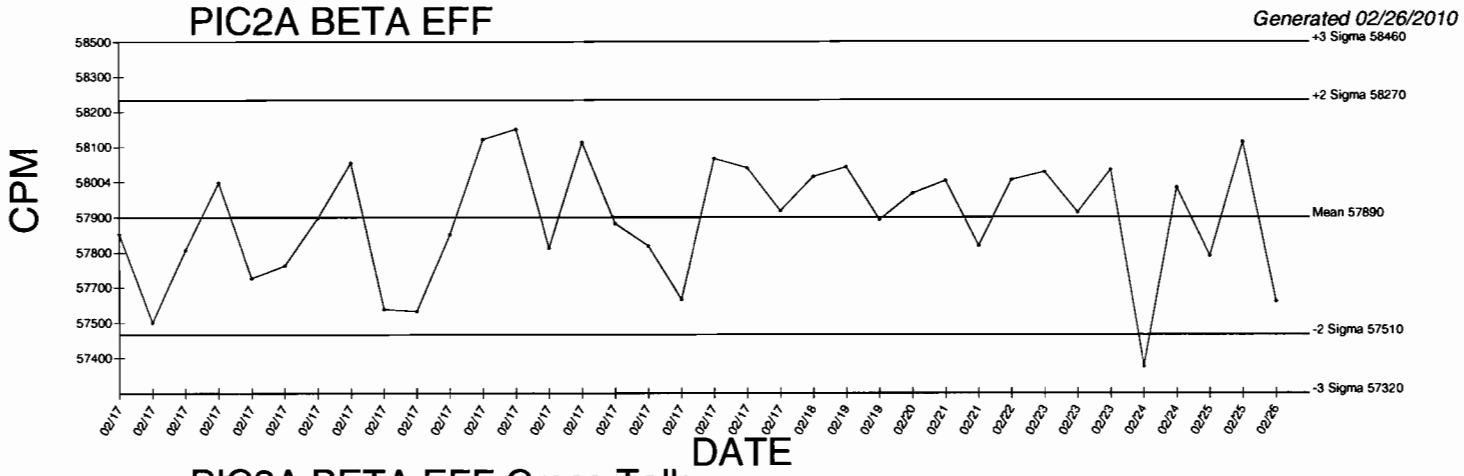

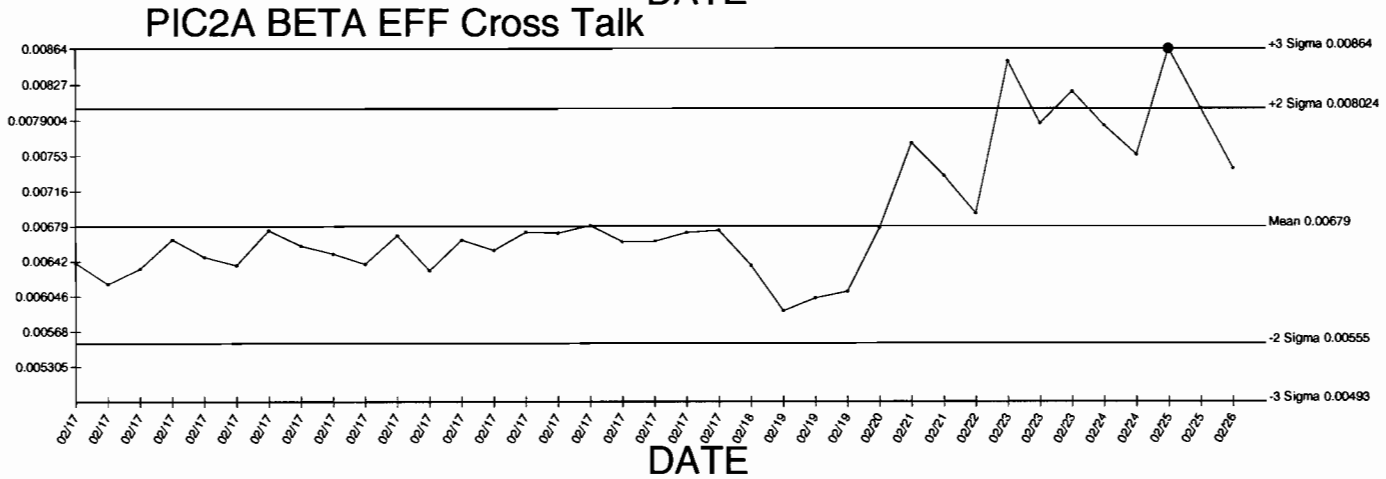

● Denotes Outlier

Generated 02/26/2010

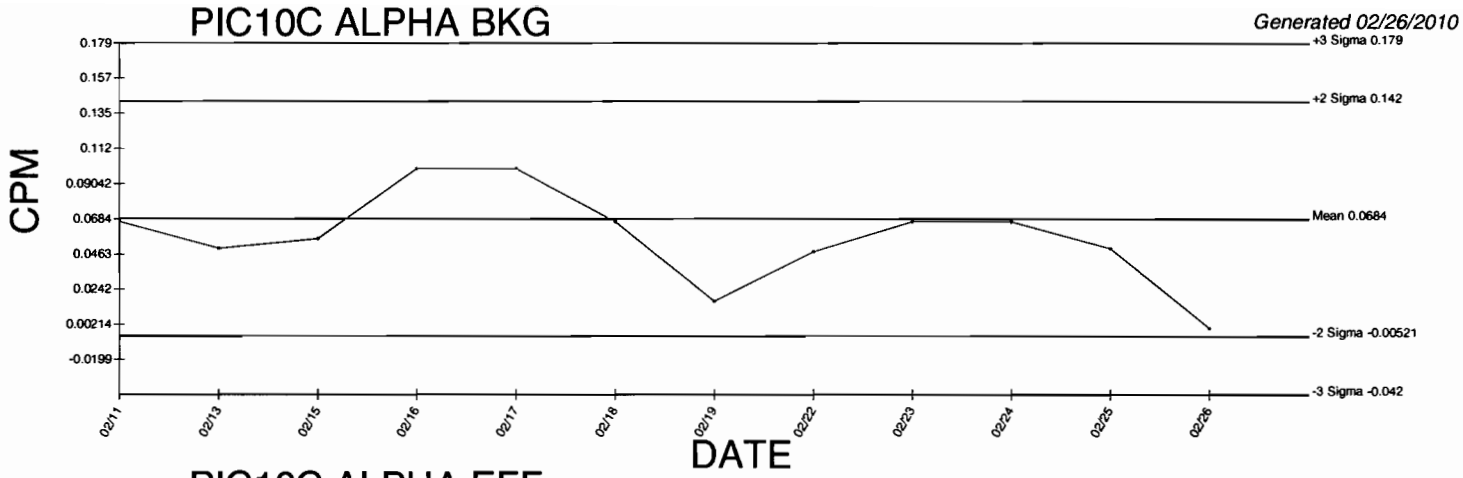

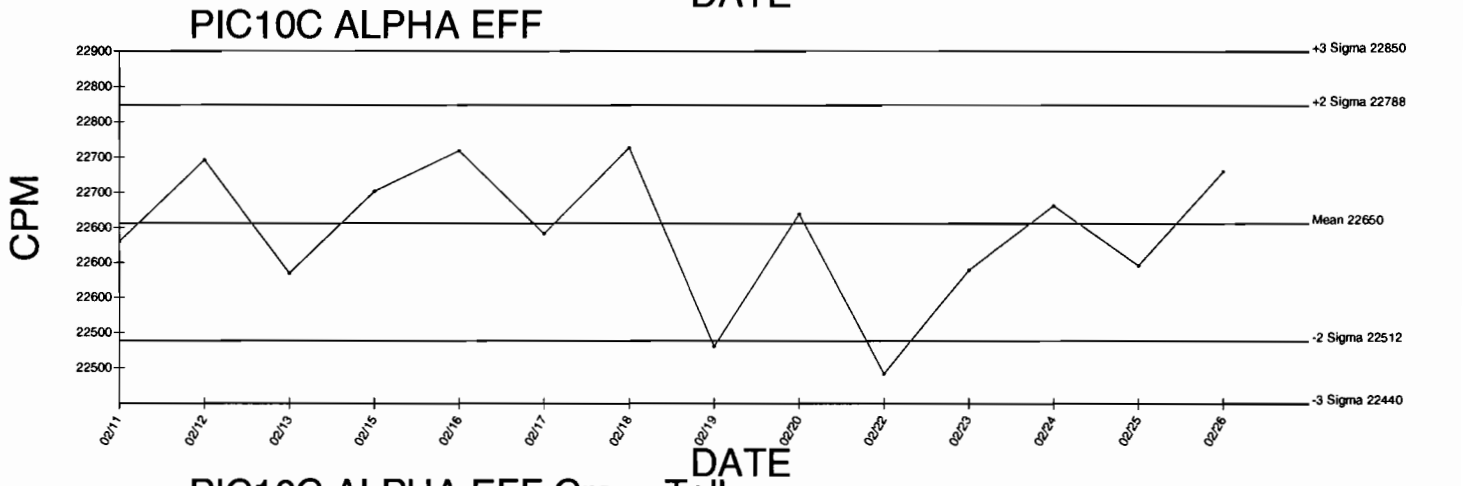

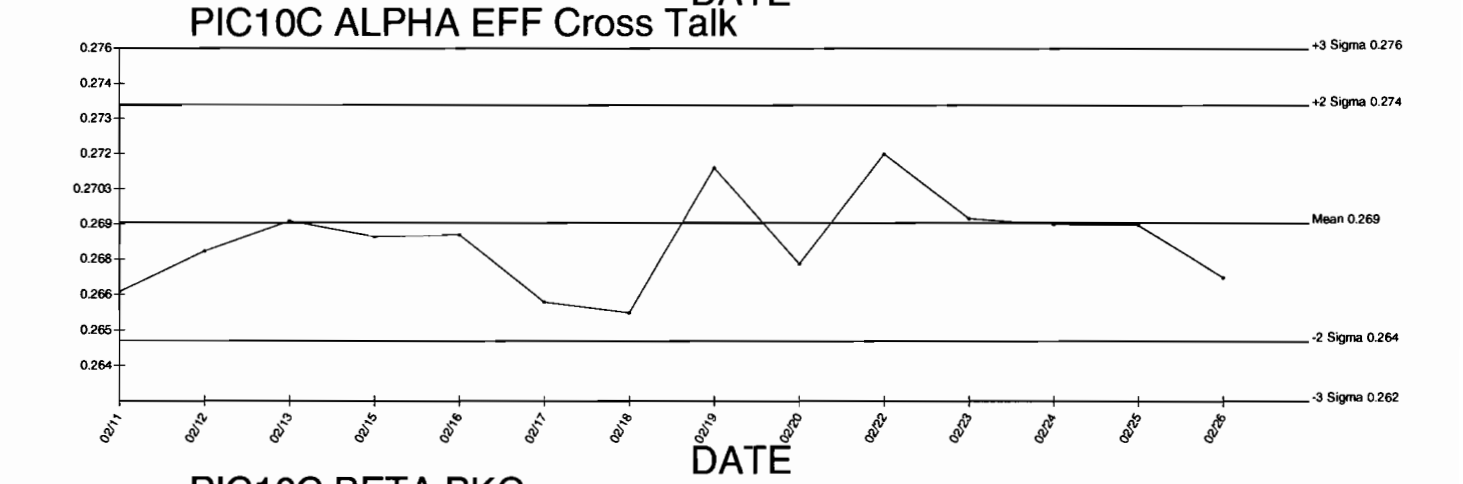

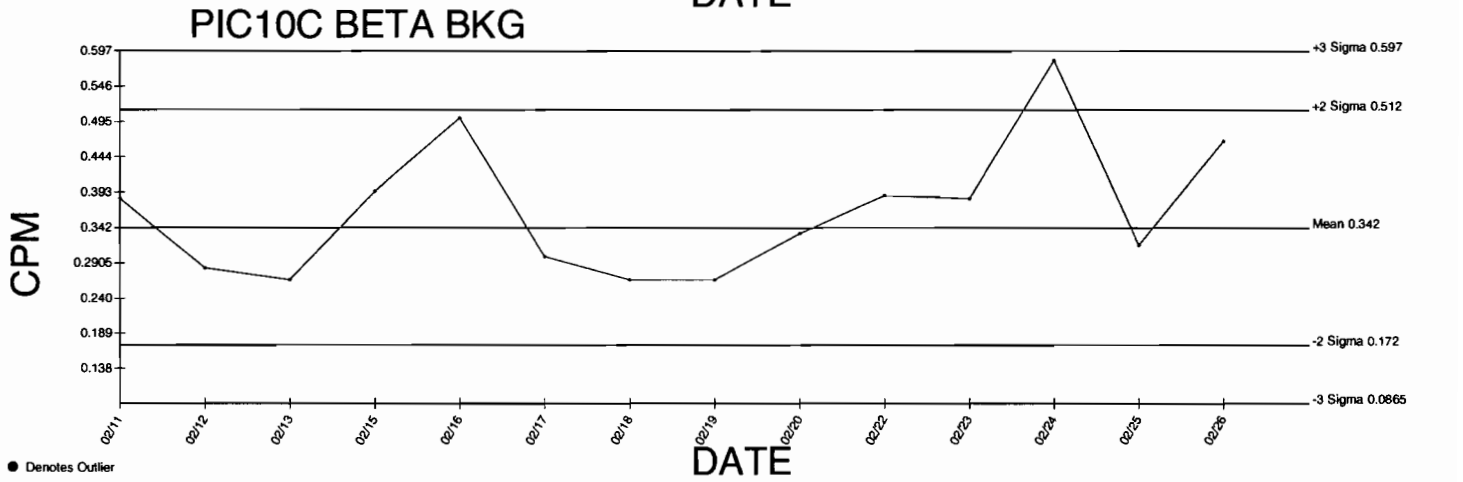

● Denotes Outlier

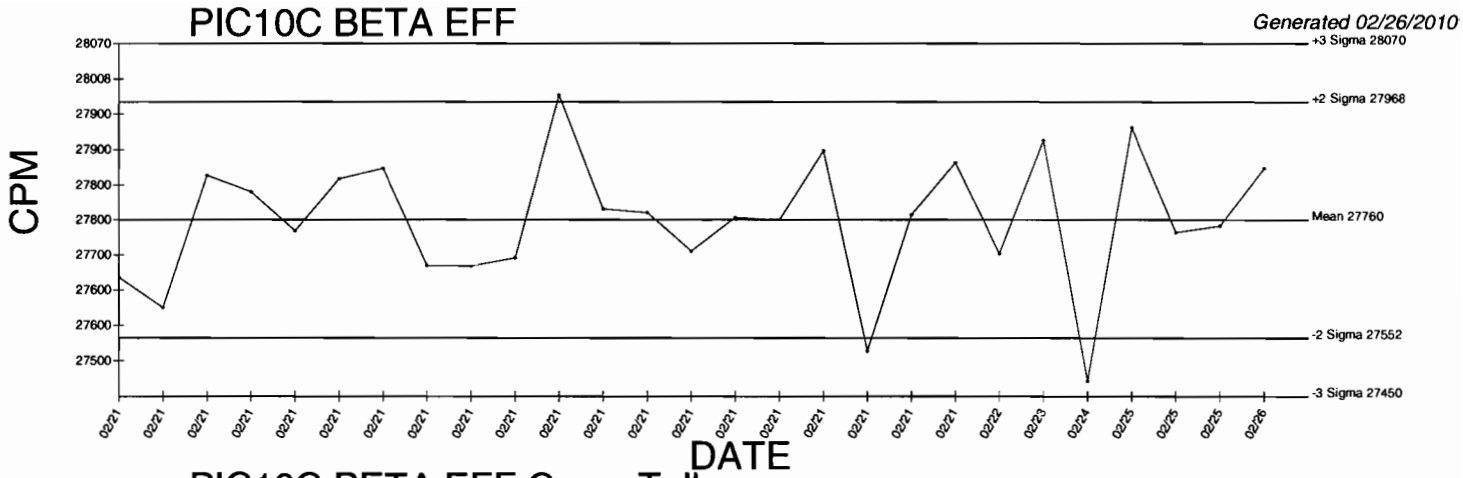

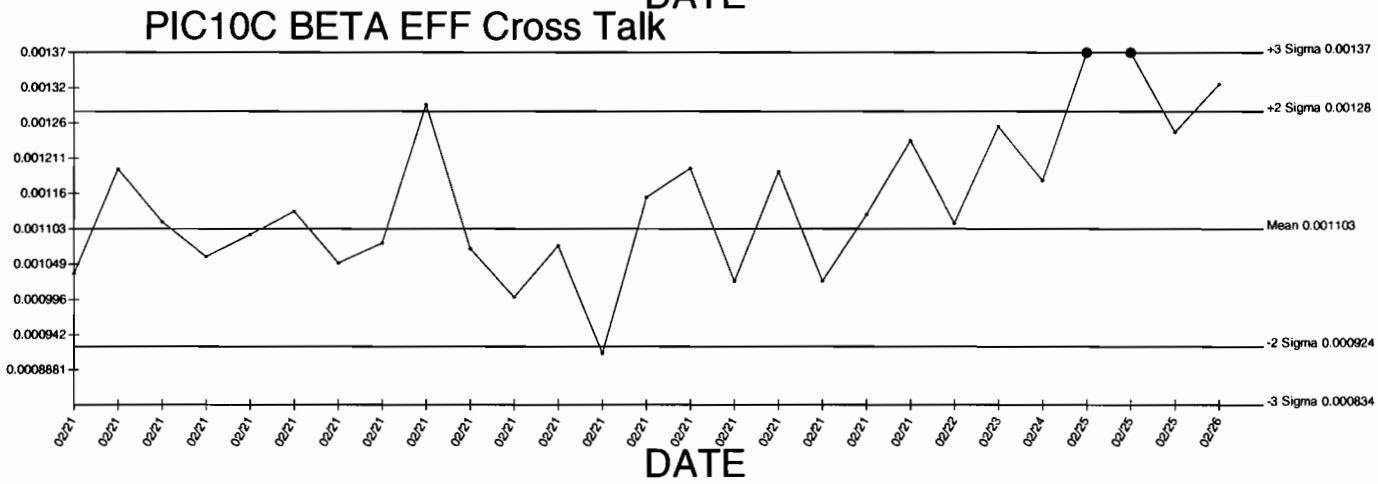

● Denotes Outlier

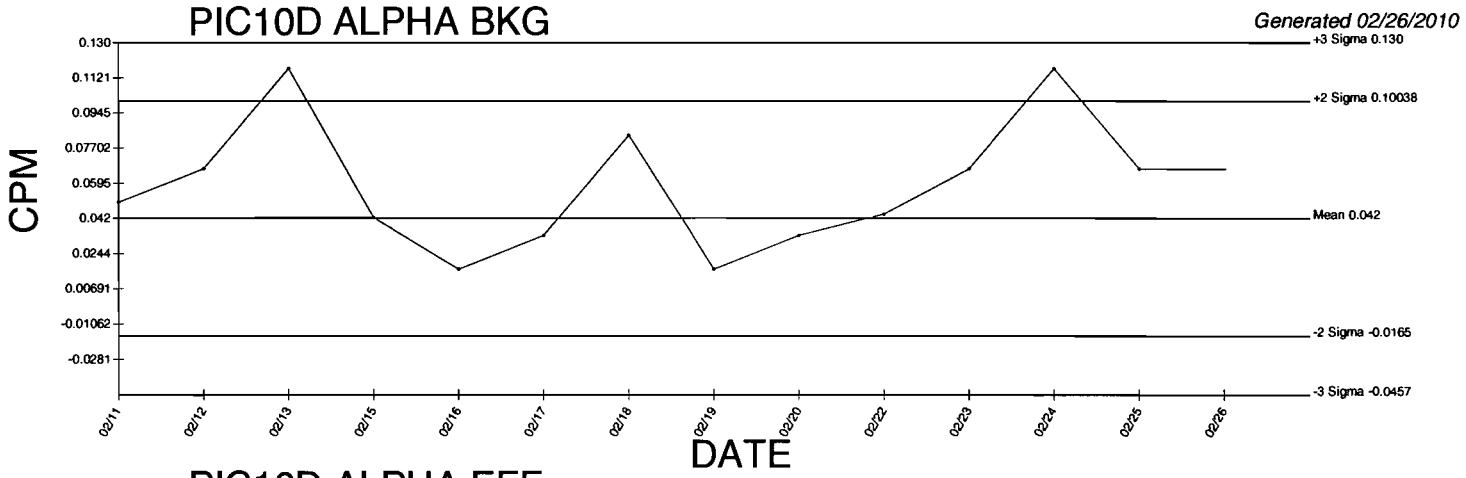

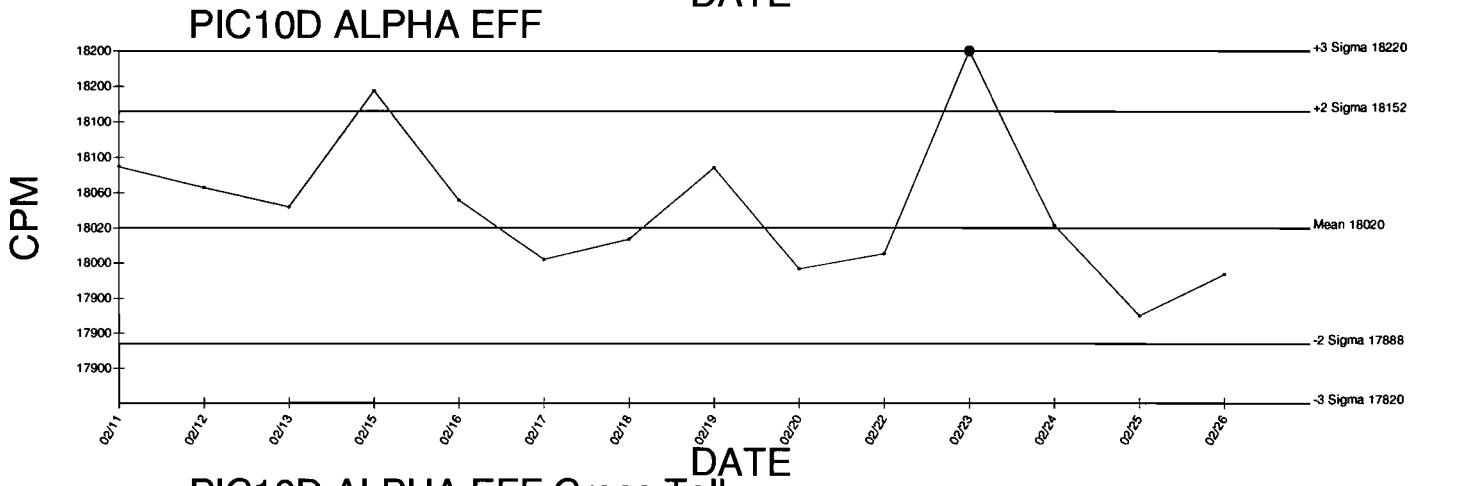

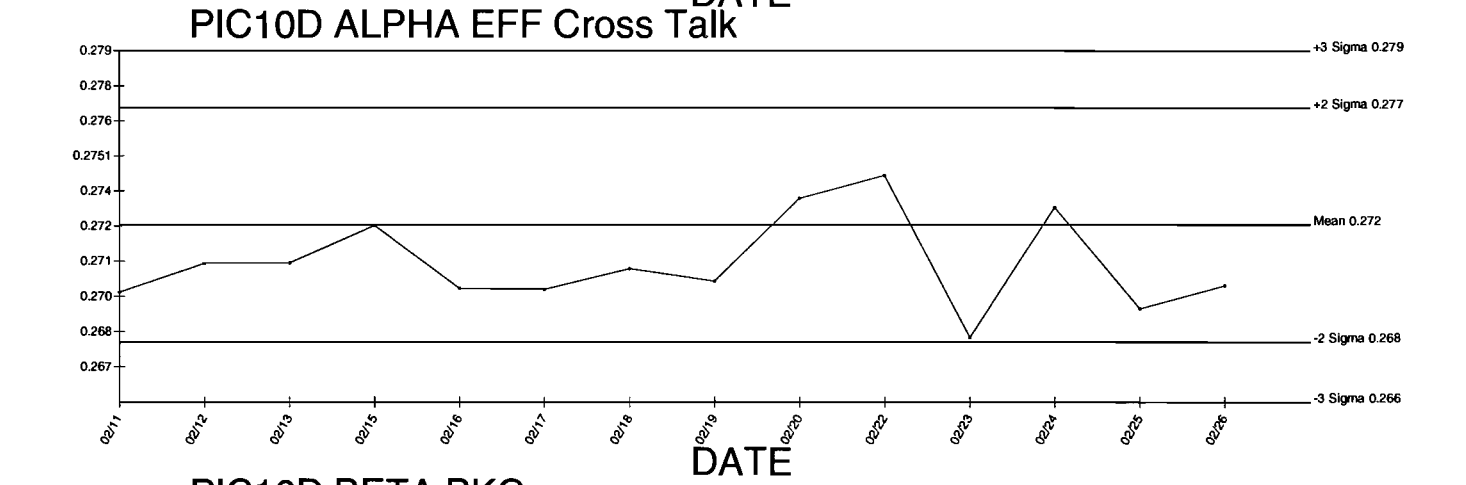

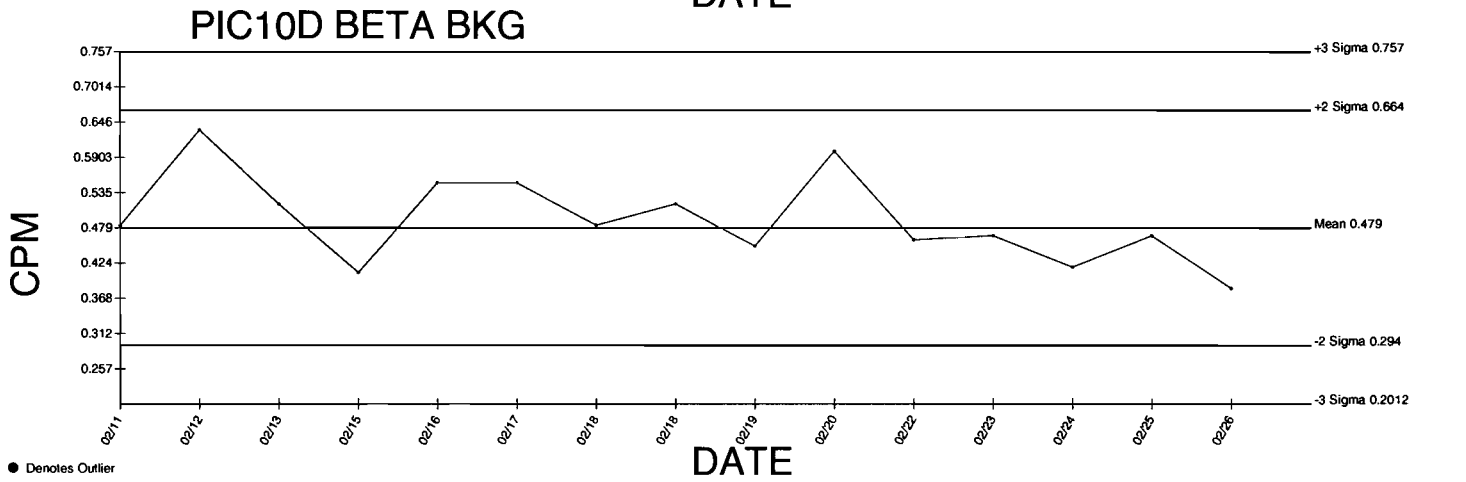

● Denotes Outlier

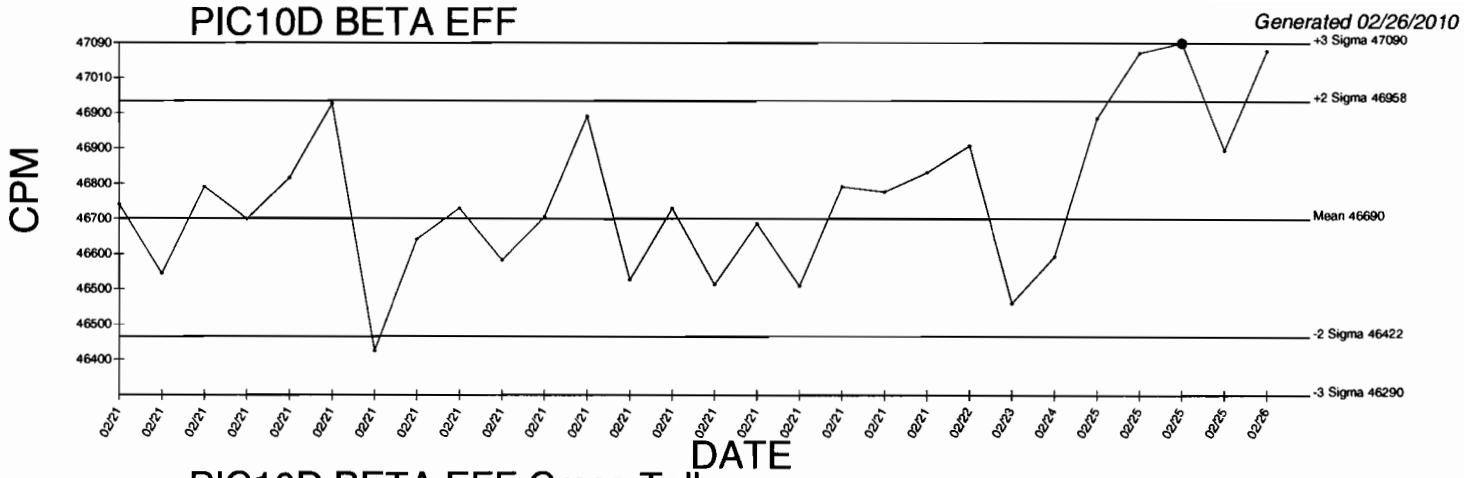

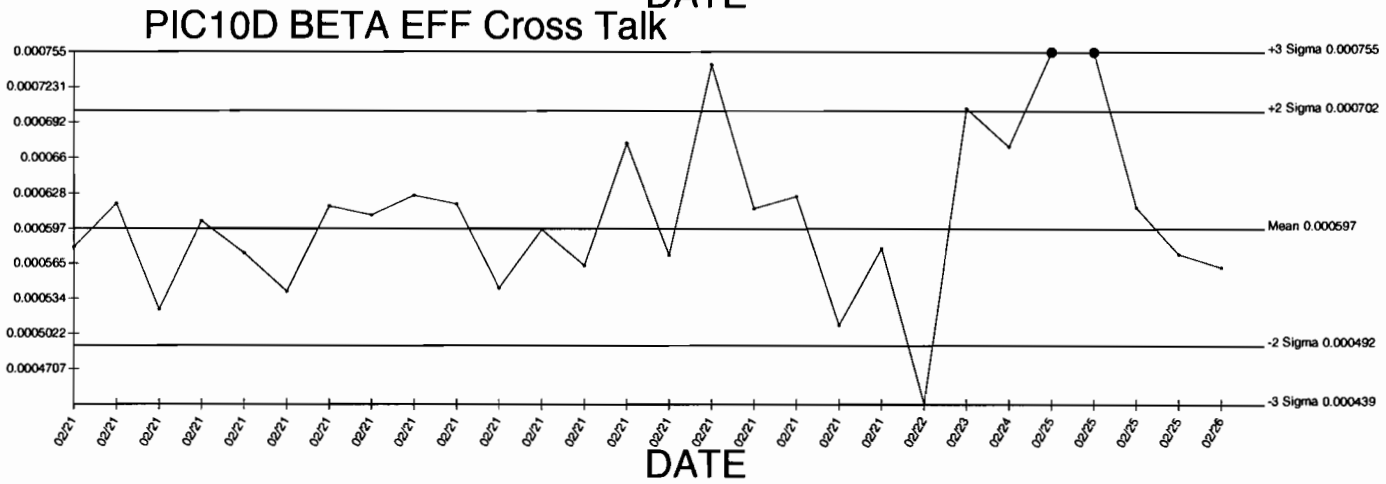

● Denotes Outlier

STANDARDS DATA

Amersham International plc
Amersham Laboratories

0134

[redacted]

NAMAS
CALIBRATION
No. 0146

Description

Radionuclide: TRITIUM (HYDROGEN-3) Product code: TRY·64

Chemical form: water Batch: 111

Measurement

Reference time: 1200 GMT on 1 March 1996

Radioactive concentration of tritium: 488.0 kilobecquerels per gram of water

which is equivalent to: 13.19 microcuries per gram of water

or: 2.93×10^7 disintegrations per minute per gram of water

Method of Measurement
This reference material was calibrated by direct comparison with a standard of tritium-labelled water obtained from the National Institute of Standards and Technology, USA.

Accuracy

The OVERALL UNCERTAINTY of the result quoted above is estimated to be less than ±2.5%

This estimate of uncertainty was calculated in accordance with the recommendations of the International Commission on Radiation Units and Measurements (ICRU Report 12). The limits of uncertainty were taken as the arithmetic sum of the uncertainty due to random variations, calculated at the 99·7% confidence level, and the estimated systematic uncertainties.

Purity

No radioactive impurities were detected. (Impurities with total activity greater than 0.001% of the activity of the tritium would have been detected).

Physical Data

Half-life of tritium: 12·43 ± 0·11 years

Maximum beta energy of tritium: 18·6 keV

Remarks:

The S.I. unit of radioactivity is the becquerel.

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = $3{\cdot}7 \times 10^{10}$ becquerels exactly.

Useful conversion factors are:

1 microcurie (µCi) = $3{\cdot}7 \times 10^4$ Bq = 37 kilobecquerels (kBq)

1 kilobecquerel (kBq) = 27·027 nanocuries (nCi)

This product meets the quality assurance requirements of NRC Regulatory Guide 4.15 for achieving implicit NIST (NBS) traceability as defined in NCRP58 (1985).

Approved signatory

W. F. Case

RC-5-023-001a

Amersham
The Health Science Group

WFCase

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0134
Prepared By:	Angela Johnson
Carrier Conc:	DI WATER
Reference Date:	03/01/1996
Ampoule Mass (g):	5 g
Uncertainty:	+/- 2.5 %
LogBook No:	RC S 023 061

A Solution Material Info	
Isotope:	Tritium
Prepared By:	Angela Johnson
Prep Date:	02/21/2001
Verification Date:	09/10/2008
Expiration Date:	03/27/2010
Primary Code:	0134-A
Dilution(mL):	100 mL
Mass of Parent(g):	3.3659 g
Density(g/mL):	1.0004
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (100 mL) = 985535.5200 dpm/mL
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (1.0004 g/mL) / (100 mL) = 985180.3116 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/20/2004	Amanda Fehr	5.86	1000	0134-H	5773.1566 dpm/mL	07/25/2006	07/25/2007
12/20/2005	Amanda Fehr	5.5451	1000	0134-I	5462.92 dpm/mL	12/20/2006	12/20/2007
07/11/2007	Daniel Roy	5.5863	1000	0134-J	5503.5128 dpm/ml	07/29/2008	07/29/2009
03/25/2009	Mary Aders	5.4917	1000	0134-K	5410.3147 dpm/ml	03/27/2009	03/27/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for H-3 Standard 0134-K

M. Aders	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Mass. Used (mL)	Source DPM/mL
4/9/2009	0134-K N1	1097.2000	54.0000	1043.2000	0.380548	1.0000	2741.3099
	0134-K N2	1073.2000	54.0000	1019.2000	0.380548	1.0000	2678.242955
	0134-K N3	1085.2000	54.0000	1031.2000	0.380548	1.0000	2709.776428
						Average =	2709.776428
Mean Value (Counting) =	2709.776428		**104.954429**	**Pass**			
Stdev =	31.53347278		0.01163693	**Rule 3 (Pass/Fail)**			

Certificate Value =	2581.86	dpm/mL
Lower Limit =	2646.709482	dpm/mL
Upper Limit =	2772.843373	dpm/mL
Rule 1 Pass/Fail	**Fail**	***exception taken due to full recovery of standard**
Two sigma =	63.06694556	dpm/mL
10 % of Mean =	270.9776428	dpm/mL
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for H-3 source 0134-K by transferring 0.1 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on Silver for H-3 source standard verification. The H-3 efficiency calibration which was used for verification calculations was performed on 4/9/09 using 0020-A (H-3). Calibration data is recorded in this logbook under H-3 0020. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference RAD SOP M-001

Mary L. Aders 4/9/09
Amanda L. Fehr 4/9/09

0244-A Characterization

Sample #	Uranium-233/234 Result (pCi/g)	Uranium-238 Result (pCi/g)	Thorium-230 Result (pCi/g)
0244-A 1	6.59	6.12	25.3
0244-A 2	6.36	6.07	28.5
0244-A 3	5.78	5.53	26.5
0244-A 4	6.48	5.97	25.5
0244-A 5	5.65	5.59	26.2
0244-A 6	6.96	5.78	27.0
0244-A 7	5.95	5.75	24.2
0244-A 8	5.29	5.67	27.2
0244-A 9	5.51	6.05	24.3
0244-A 10	6.37	5.57	25.6
0244-A 11	6.50	5.80	25.8
0244-A 12	6.13	5.42	22.4
0244-A 13	5.49	5.24	24.7
0244-A 14	6.19	5.21	26.9
0244-A 15	6.50	6.27	27.6
0244-A 16	6.50	5.24	24.9
0244-A 17	6.25	6.05	24.7
0244-A 18	6.14	6.00	25.4
0244-A 19	6.19	6.14	26.4
0244-A 20	5.67	5.61	23.2
Mean Value	6.13	5.75	25.62
1 sigma	0.439	0.325	1.493
2 sigma	0.878	0.650	2.986
75% Limit	4.60	4.31	19.22
125% Limit	7.66	7.19	32.03
Expected Result	6.2 +/- 4.0	6.0 +/- 4.0	24.5 +/- 0.6
Achieved Results	6.13 +/- 0.439	5.75 +/- 0.325	25.62 +/- 1.493

REFERENCE DATE 4/14/2000 Scott C Neill 12/1/04

Angela L. Johnson 12/3/04

TRM

Invoice:

5 bottles of TRM-1
10 " " TRM-2 and 3
5 " each of NRM-1 through 6
7 " baghouse dirt

Use 1/4 gm x 10 Samples WITH Together for TRM-2

Table 7. Recommended Concentrations of Tailings Reference Materials (pCi/g)

	TRM-1	TRM-2	TRM-3	TRM-4
U-238	99 ± 6	6.0 ± 4.0	19.6 ± 1.4	44.9 ± 1.6
U-234	105 ± 6	6.2 ± 4.0	19.6 ± 1.9	44.6 ± 1.2
Th-230	471 ± 11	24.5 ± 0.6	58.5 ± 2.1	44.0 ± 1.6
Ra-226	489 ± 17	25.4 ± 0.9	60.3 ± 2.3	42.9 ± 1.2
Pb-210	425 ± 24	22.1 ± 1.2	56.0 ± 2.1	38.9 ± 2.0

Attention Nancy Slater At GEL
Not For Log-In

9911627-01->0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 726794
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept. _____
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	Lab Sample ID (LAB USE)
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Instructions	
050486 - 001	~~NRM-2~~ NBHR	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA	Below	
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking (LAB USE) — Date Entered (mm/dd/yy) — Entered by

Turnaround Time ☒Normal ☐Rush Required Report Date

QC Initials

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well characterized mud materials being sent to GEL on behalf of Hank Mistaen
Please list as separate report.

Abnormal Conditions on Receipt (LAB USE)

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry	[signature]	DEP	Weston / 7577 / 845-0867

1. Relinquished by	[signature]	Org. WT	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by		Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by		Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by		Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by		Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by		Org.	Date	Time	6. Received by	Org.	Date

Original — To Accompany Samples, Laboratory Copy (White)
1st Copy — To Accompany Samples, Return to SMO (Blue)
2nd Copy — SMO Suspense Copy (Yellow)
3rd Copy — Field Copy (Pink)

0244-B Characterization

Sample #	Plutonium-239 Result (pCi/g)	Plutonium-238 Result (pCi/g)	Americium-241 Result (pCi/g)
0244-B 1	39.9	7.88	38.4
0244-B 2	44.1	7.97	40.6
0244-B 3	45.8	6.56	31.8
0244-B 4	43.6	7.69	31.5
0244-B 5	43	7.9	40.2
0244-B 6	43.5	7.84	29.4
0244-B 7	41.3	7.67	36
0244-B 8	44.3	6.95	33.2
0244-B 9	42.7	7.2	29.2
0244-B 10	44.9	7.69	30
0244-B 11	41.4	7.22	30.2
0244-B 12	41.3	7.74	36
0244-B 13	39.2	6.65	33.8
0244-B 14	39.6	7.78	31.1
0244-B 15	45.3	8.41	37.3
0244-B 16	38.1	6.74	33.6
0244-B 17	48.5	8.51	30.5
0244-B 18	36.5	7.23	38.6
0244-B 19	35.3	6.98	30.9
0244-B 20	37.4	8.55	31.3
Mean Value	41.79	7.56	33.68
1 sigma	3.418	0.596	3.724
2 sigma	6.835	1.193	7.448
75% Limit	30.75	6.02	24.38
125% Limit	51.25	10.04	40.63
Expected Result	41.0 +/- 3.0	8.03 +/- 0.37	32.5 +/- 1.1
Achieved Results	41.79 +/- 3.418	7.56 +/- .596	33.68 +/- 3.724

REFERENCE DATA 4/14/2000

Amanda L. Fehr 4/30/04
Matt L. [illegible] 5/1/04

PEM-1

PREPARATION AND CHARACTERIZATION OF THE PERFORMANCE EVALUATION SOIL SAMPLE PEM-1

INTRODUCTION

Rust Geotech (Rust) was contracted by Los Alamos National Laboratory (LANL) to prepare and characterize a soil performance evaluation sample designated PEM-1. This report describes sample preparation, homogeneity assessment, and determination of the concentrations of 28 elements and radioactive isotopes in the sample.

SAMPLE PREPARATION

Rust received nine five-gallon buckets of soil from LANL. The soils were dried overnight in ovens at 103 °C. The large pieces of leaves and sticks were removed and the soils were ground with ceramic-plate grinders to a particle size that passed through a 325 mesh screen. The samples were blended at the proportions specified by LANL for 48 hours in a 3-cubic-foot cross-flow blender. The sample identifications and the amounts used are listed in Table 1.

Table 1. Sample Identifications and Amounts Used to Prepare PEM-1

LANL Sample ID	Amount Used (kg)
AAA 1592	1.7
AAA 2505-1	10.9
AAA 2505-2	12.8
AAA 2750-1	8.4
AAA 2750-2	8.4
AAA 3205	12.6
AAA 8581	4.2
AAB 3417	12.8
AAB 3475	12.6

The blended sample was transferred to three five-gallon plastic containers. While the sample was being transferred, 10 samples were taken at pre-determined time intervals to be used for homogeneity assessment and sample characterization. These samples are believed to be representative of the bulk material.

Attention Nancy Slater At GEL
Not For Log-In

9911627-01->0

SF 2001-COC (10-97)
Supersedes (5-97) issue

Internal Lab Batch No.

ANALYSIS REQUEST AND CHAIN OF CUSTODY

SAR/WR No. N/A

Press F1 for instructions for each field.

AR/COC- 602945

Dept. No./Mail Stop: 7132 / 1042
Project/Task Manager: PAM PUISSANT
Project Name:
Record Center Code: N/A
Logbook Ref. No.: N/A
Service Order No.:

Date Samples Shipped: 11-16-99 SMO USE
Carrier/Waybill No.: 226494
Lab Contact: EDIE KENT
Lab Destination: G.E.L.
SMO Contact/Phone: Doug Salmi / 844-3110
Send Report to SMO: Suzi Jensen/844-3184

Contract No.: AJ-2480A
Case No.: 10204 1.3
SMO Authorization: Doug Salmi
Bill to: Sandia National Laboratories
Supplier Services, Dept. _____
P.O. Box 5800 MS 0154

Location — Tech Area VI — Building N/A — Room N/A

Reference LOV (available at SMO)

Sample No. - Fraction	ER Sample ID or Sample Location Detail	Beginning Depth in Ft.	ER Site No.	Date/Time Collected	Sample Matrix	Container Type	Container Volume	Preservative	Sample Collection Method	Sample Type	Parameter & Method Requested	Lab Sample ID (LAB USE)
050484 - 001	PEM-1	N/A	N/A	11/15/9 1100	S	P	1 L	4 C	G	SA	See Special Instructions Below	
050485 - 001	TRM-2	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
050486 - 001	~~NRM-2~~ NBHD	N/A	N/A	11/15/9 1100	S	G	1 L	4 C	G	SA		
-												
-												
-												
-												
-												
-												
-												

RMMA ☐Yes ☒No Ref. No.
Sample Disposal ☐Return to Client ☒Disposal by lab

Sample Tracking (LAB USE)
Date Entered (mm/dd/yy)
Entered by

Special Instructions/QC Requirements
EDD ☐Yes ☒No
Raw data package ☐Yes ☒No
These "samples" are well decontaminated rad materials being sent to GEL per behalf of Hank Hinton
Please list as separate report.

Abnormal Conditions on Receipt (LAB USE)

Turnaround Time ☒Normal ☐Rush Required Report Date

QC Limits

Sample Team Members	Name	Signature	Init	Company/Organization/Phone
	Douglas E. Perry		DP	Weston / 7577 / 845-0867

1. Relinquished by	Org. 7577	Date 11-16-99	Time 0900	4. Relinquished by	Org.	Date
1. Received by	Org.	Date	Time	4. Received by	Org.	Date
2. Relinquished by	Org.	Date	Time	5. Relinquished by	Org.	Date
2. Received by	Org.	Date	Time	5. Received by	Org.	Date
3. Relinquished by	Org.	Date	Time	6. Relinquished by	Org.	Date
3. Received by	Org.	Date	Time	6. Received by	Org.	Date

Original To Accompany Samples, Laboratory Copy (White) — 1st Copy To Accompany Samples, Return to SMO (Blue) — 2nd Copy SMO Suspense Copy (Yellow) — 3rd Copy Field Copy (Pink)

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Khan
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ **1. STANDARD WIPE TEST**

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **2. SOAK TEST**

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **3. SOAK TEST -- BERYLLIUM WINDOW**

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **4. GAS SOURCE TEST (Radioactive Gas)**

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ **5. OTHER LEAK TEST**

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **6. LEAK TEST NOT APPLICABLE**

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	05/11/2009
Expiration Date:	05/11/2010
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Julie Strock	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/30/2008	09/29/2009
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-SS*

M. Aders	Isotope	Value	Uncertainty
5/15/2009	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590
Mean Value (Counting) =	1.340	101.99	**Pass**
Stdev =	0.043588989		**Rule 3 (Pass/Fail)**

Target =	1.314
Lower Limit =	1.252822021
Upper Limit =	1.427177979
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.087177979
10 % of Mean =	0.134
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-SS*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Mary Fridrich 5/15/09
Robert Bin 05/15/09

1430

NATIONAL PHYSICAL LABORATORY

Teddington Middlesex UK TW11 0LW Telephone +44 20 8977 3222

Certificate of Calibration

UKAS CALIBRATION 0478

PLUTONIUM-236 SOLUTION
R37-02

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to recognised national standards, and to units of measurement realised at the National Physical Laboratory or other recognised national standards laboratories. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

FOR:	GEL Laboratories LLC 2040 Savage Road Charleston, SC 29407 USA
FOR THE ATTENTION OF:	Mr Tim Winters
NPL PRODUCT CODE:	R37-02
IDENTIFICATION:	A09881
DESCRIPTION:	An aqueous solution of ^{236}Pu also containing 2 mol dm^{-3} of nitric acid. The solution is contained in a flame sealed ampoule of type Q and nominal volume 5 ml (squat) as defined in BS 795:1983.
DATE(S) OF CALIBRATION:	26 June 2009 to 1 July 2009
INTENDED USE:	Calibration of instruments for response to ^{236}Pu
STORAGE:	The material may be stored at room temperature in a suitably sealed container. Flame-sealed glass ampoules are recommended for long-term storage. Regulatory conditions may apply to the manner in which this material is stored.

RECEIVED 11/24/09 AMS.

MEASUREMENTS

The samples were prepared by gravimetric dilution of a ^{236}Pu solution, which had been previously standardised using liquid scintillation counting. The accuracy of the dilution factor was checked using liquid scintillation counting.

Reference: 2009100356

Date of Issue: 4 November 2009

Checked by:

Signed:

Name: Dr Arvic Harms

(Authorised Signatory)

for Managing Director

RESULTS

Principal radionuclide:	^{236}Pu
Reference time:	2009-07-01 12:00 UTC
Activity concentration of principal radionuclide:	170.8 Bq g^{-1}
Expanded uncertainty:	±0.6 Bq g^{-1} (±0.36 %)
Contaminants present:	^{226}Ra, ^{232}U, ^{228}Th, ^{237}Np
Activity concentration of ^{226}Ra:	11.0 mBq g^{-1}
Expanded uncertainty:	±4.0 mBq g^{-1} (±36 %)
Activity concentration of ^{232}U:	0.67 Bq g^{-1}
Expanded uncertainty:	±0.12 Bq g^{-1} (±18 %)
Activity concentration of ^{228}Th:	11.38 mBq g^{-1}
Expanded uncertainty:	±0.46 mBq g^{-1} (±4 %)
Activity concentration of ^{237}Np:	5.00 mBq g^{-1}
Expanded uncertainty:	±0.34 mBq g^{-1} (±8 %)
Sample Mass:	4.97 g ± 0.02 g

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

NOTES

[1]. The reported reference time is stated consistent with the format given in ISO 8601:2004. UTC is the abbreviation for Universal Time, Coordinated. The date is stated in the format YYYY-MM-DD such that 2008-09-01 represents 1 September 2008.

[2]. The recommended half life of ^{236}Pu is 1044 (6) days and is taken from the evaluations published in *Nuclear Data Sheets*.

[3]. The recommended half life of ^{226}Ra is 5.844 (50) × 10^5 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[4]. The recommended half life of ^{232}U is 25800 (800) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[5]. The recommended half life of ^{237}Np is 7.83 (6) × 10^8 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[6]. The recommended half life of ^{228}Th is 698.60 (46) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1430
Prepared By:	Ashley Drochter
Carrier Conc:	2 M HNO3
Reference Date:	07/01/2009
Ampoule Mass (g):	4.97 g
Uncertainty:	+/- .36 %
LogBook No:	RC-S-051-149

A Solution Material Info	
Isotope:	Plutonium-236
Prepared By:	Ashley Drochter
Prep Date:	01/27/2010
Verification Date:	01/27/2010
Expiration Date:	01/27/2011
Primary Code:	1430-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8051 g
Density(g/mL):	1.0610
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (100 mL) = 492.4266 dpm/mL
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (1.0610 g/mL) / (100 mL) = 464.1156 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/27/2010	Bethany Fiem	33.0429	200	1430-B	76.6786262 dpm/mL	01/27/2010	01/27/2011
03/01/2010	Ashley Drochter	15.2331	200	1430-C	35.3496 dpm/mL	03/01/2010	03/01/2011

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Plutonium-236 Standard 1430-C

	Isotope	Value	Uncertainty
A. Drochter	1430-C	2.760	0.4480
3/4/2010	1430-C	2.770	0.4520
	1430-C	2.950	0.4850

Mean Value (Counting) =	2.827	104.54659	% of Known Value
Stdev =	0.106926766		
Target =	2.70		
Lower Limit =	2.612813134		
Upper Limit =	3.040520199		
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**
Two sigma =	0.213853532		
10 % of Mean =	0.282666667		
Rule 2 (Pass/Fail)	**Pass**		

The analyst prepared three standard verification sources for standard 1430-B using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. After approximately ten minutes, two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-236 were calculated by comparison to Pu-239 certified values.

3/5/10

3/5/10

STANDARDIZATION OF STRONTIUM CARRIER

DATE: [redacted] EXP. DATE: [redacted]
LOT NUMBER [redacted]

STRONTIUM PRECIPITATES

	1	2	3	4
Weight of carrier added	[redacted]	[redacted]	[redacted]	[redacted]
Aliquot (5.00 mL)				
Crucible + ppt.	[redacted]	[redacted]	[redacted]	[redacted]
Crucible	[redacted]	[redacted]	[redacted]	[redacted]
Wt. of ppt., g	0.0178	0.0179	0.0179	0.0178
mg Sr/mL	17.80	17.90	17.90	17.80
mg Sr/g	17.28	17.72	17.55	17.28

Must weigh carrier added

Jennifer L. Robb
9-24-09

Average	Std. Dev.	
17.85	± 0.06	0.00323446
17.46	± 0.22	0.0124023
mg Sr/ 0.5 mL		**8.93**
mg Sr/g		17.46

0.5% of Mean Value = 0.08925 Pass

A satisfactory standardization is obtained when results give a standard deviation of less than 0.5% of the mean value.

Eckert & Ziegler
Analytics

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CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1243

78352-278

Sr-90 10 mL Liquid in Flame Sealed Vial

Customer: General Engineering Labs/Charleston, SC
P.O. No.: 7312 RD, Item 3

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	Sr-90
Activity (Bq):	3.856 E5
Half-Life:	28.79 years
Calibration Date:	October 1, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	1.7%

Comments:
Impurities: γ-impurities <0.1%
10.41484 grams 0.1M HCl solution with 30 μg/g Sr carrier.

NOTE: This source also contains Y-90 in secular equilibrium with Sr-90. The Y-90 activity is equal to the Sr-90 activity. Since Sr-90 and Y-90 both decay 100% by beta emission, the total beta emission rate for the source is twice the certified Sr-90 activity. The half-life for Y-90 is 64.08 hours.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 10/3/08
D. M. Montgomery, QA Manager

RECEIVED

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1243
Prepared By:	Daniel Roy
Carrier Conc:	0.1M HCL
Reference Date:	10/01/2008
Ampoule Mass (g):	10.41484 g
Uncertainty:	+/- 1.7 %
LogBook No:	RC-S-048-124

A Solution Material Info	
Isotope:	Strontium-90
Prepared By:	Daniel Roy
Prep Date:	12/19/2008
Verification Date:	01/21/2010
Expiration Date:	01/21/2011
Primary Code:	1243-A
Dilution(mL):	100 mL
Mass of Parent(g):	10.2164 g
Density(g/mL):	0.9991
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(10.2164 g) * (385600 Bq) * (60 dpm/Bq) / (10.41484 g * 100 mL) = 226951.7634 dpm/mL
(10.2164 g) * (385600 Bq) * (60 dpm/Bq) / (0.9991 g/mL)/ (10.41484 g * 100 mL) = 227146.2010 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/21/2010	Bethany Fiem	2.2467	1000	1243-B	510.329369 dpm/mL	01/21/2010	01/21/2011

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Sr-90 Standard 1243-B

1/21/2010	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (mL)	Source DPM/mL
B. Flem	1243-B N1	1043.4000	43.6000	999.8000	2.030242	1.0000	492.453609
	1243-B N2	1035.2000	43.6000	991.6000	2.030242	1.0000	488.4146816
	1243-B N3	1020.0000	43.6000	976.4000	2.030242	1.0000	480.9278894
						Average =	487.2653933
Mean Value (Counting) =	487.2653933		**98.5553214**	**Pass**			
Stdev =	5.848179264		0.01200204	**Rule 3 (Pass/Fail)**			

Certificate Value =	494.408	dpm/mL
Lower Limit =	475.5690348	dpm/mL
Upper Limit =	498.9617518	dpm/mL
Rule 1 Pass/Fail	**Pass**	
Two sigma =	11.69635853	
10 % of Mean =	48.72653933	
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within tha 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for Sr-90 source 1243-B by transferring 1 mL portions of the standard into glass liquid scintillation vials with 10 mL of Ecoscint Ultra liquid scintillation coctai. A Background was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation coctail. The standard verification vials and Background source were dark adapted for two hours and counted on LSC Green for Sr-90 source standard verification. The Sr-90 efficiency calibration which was used for verification calculations was performed on 6/17/09 using source 0133-A (Sr-90). Calibration data is recorded in this logbook under Sr-90 0133-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

RAD SOP M-001

1/25/10

01-25-10

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CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

End of Certificate

RECEIVED 12/15/08
RC-S-05

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	**Serial #**	**Value**		**Uncertainty**	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Drochter 12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: GFPC **Batch ID: 955216**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
247120001	SAMPLE	MXB1	PIC14A	25-FEB-10 22:54	DONE	Tuffryn Filter	01-FEB-10 00:00
247120002	SAMPLE	MXB1	PIC13C	25-FEB-10 22:54	DONE	Tuffryn Filter	01-FEB-10 00:00
247120003	SAMPLE	MXB1	PIC13A	25-FEB-10 22:54	DONE	Tuffryn Filter	01-FEB-10 00:00
247120005	SAMPLE	MXB1	PIC14B	25-FEB-10 22:55	DONE	Tuffryn Filter	01-FEB-10 00:00
247120006	SAMPLE	MXB1	PIC14C	25-FEB-10 22:55	DONE	Tuffryn Filter	01-FEB-10 00:00
247120007	SAMPLE	MXB1	PIC13B	25-FEB-10 22:55	DONE	Tuffryn Filter	01-FEB-10 00:00
247120010	SAMPLE	MXB1	PIC12B	26-FEB-10 10:39	DONE	Tuffryn Filter	01-FEB-10 00:00
247120011	SAMPLE	MXB1	PIC12C	26-FEB-10 10:39	DONE	Tuffryn Filter	01-FEB-10 00:00
247120014	SAMPLE	MXB1	PIC12A	26-FEB-10 10:40	DONE	Tuffryn Filter	01-FEB-10 00:00
1202047969	MB	MXB1	PIC2A	26-FEB-10 10:41	DONE	Tuffryn Filter	01-FEB-10 00:00
1202047970	DUP	MXB1	PIC10C	26-FEB-10 10:41	DONE	Tuffryn Filter	01-FEB-10 00:00
1202047971	LCS	MXB1	PIC10D	26-FEB-10 10:41	DONE	Tuffryn Filter	01-FEB-10 00:00
247120008	SAMPLE	MXB1	PIC4B	26-FEB-10 10:41	DONE	Tuffryn Filter	01-FEB-10 00:00
247120015	SAMPLE	MXB1	PIC6C	26-FEB-10 10:42	DONE	Tuffryn Filter	01-FEB-10 00:00
247327002	SAMPLE	MXB1	PIC1B	26-FEB-10 10:42	DONE	Tuffryn Filter	01-FEB-10 00:00
247120004	SAMPLE	MXB1	PIC1A	02-MAR-10 08:28	DONE	Tuffryn Filter	01-FEB-10 00:00
247120009	SAMPLE	MXB1	PIC1B	02-MAR-10 08:28	DONE	Tuffryn Filter	01-FEB-10 00:00
247120012	SAMPLE	MXB1	PIC1C	02-MAR-10 08:28	DONE	Tuffryn Filter	01-FEB-10 00:00
247120013	SAMPLE	MXB1	PIC1D	02-MAR-10 08:28	DONE	Tuffryn Filter	01-FEB-10 00:00

Instrument Run Log

Instrument Type: LSC **Batch ID: 956740**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
247185001	SAMPLE	KXK2	LSCGREEN	02-MAR-10 18:14	DONE		
247185002	SAMPLE	KXK2	LSCGREEN	02-MAR-10 19:53	DONE		
247185003	SAMPLE	KXK2	LSCGREEN	02-MAR-10 21:31	DONE		
247185004	SAMPLE	KXK2	LSCGREEN	02-MAR-10 23:09	DONE		
247185005	SAMPLE	KXK2	LSCGREEN	03-MAR-10 00:47	DONE		
247185006	SAMPLE	KXK2	LSCGREEN	03-MAR-10 02:25	DONE		
247185007	SAMPLE	KXK2	LSCGREEN	03-MAR-10 04:03	DONE		
247185008	SAMPLE	KXK2	LSCGREEN	03-MAR-10 11:14	DONE		
247185009	SAMPLE	KXK2	LSCGREEN	03-MAR-10 12:52	DONE		
247185010	SAMPLE	KXK2	LSCGREEN	03-MAR-10 14:30	DONE		
247185011	SAMPLE	KXK2	LSCGREEN	03-MAR-10 16:08	DONE		
247327002	SAMPLE	KXK2	LSCGREEN	03-MAR-10 17:46	DONE		
247356001	SAMPLE	KXK2	LSCGREEN	03-MAR-10 19:22	DONE		
247356002	SAMPLE	KXK2	LSCGREEN	03-MAR-10 19:34	DONE		
247356003	SAMPLE	KXK2	LSCGREEN	03-MAR-10 19:34	DONE		
247356004	SAMPLE	KXK2	LSCGREEN	03-MAR-10 19:36	DONE		
247356006	SAMPLE	KXK2	LSCGREEN	03-MAR-10 19:42	DONE		
1202051375	MB	KXK2	LSCGREEN	03-MAR-10 19:56	DONE		
247356005	SAMPLE	KXK2	LSCGREEN	03-MAR-10 19:56	DONE		
1202051376	DUP	KXK2	LSCGREEN	03-MAR-10 21:34	DONE		
1202051377	LCS	KXK2	LSCGREEN	04-MAR-10 00:21	DONE		
247356007	SAMPLE	KXK2	LSCGREEN	04-MAR-10 00:21	DONE		
247356008	SAMPLE	KXK2	LSCGREEN	04-MAR-10 00:21	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 957096**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
247323001	SAMPLE	JXH2	1211	06-MAR-10 12:07	DONE		
247323002	SAMPLE	JXH2	1212	06-MAR-10 12:07	DONE		
247323003	SAMPLE	JXH2	1213	06-MAR-10 12:07	DONE		
247323004	SAMPLE	JXH2	1214	06-MAR-10 12:07	DUSE		
247323005	SAMPLE	JXH2	1215	06-MAR-10 12:07	DONE		
247323006	SAMPLE	JXH2	1216	06-MAR-10 12:07	DONE		
247323007	SAMPLE	JXH2	1217	06-MAR-10 12:07	DONE		
247325001	SAMPLE	JXH2	1218	06-MAR-10 12:07	DONE		
247327002	SAMPLE	JXH2	1219	06-MAR-10 12:07	DONE		
247337001	SAMPLE	JXH2	1220	06-MAR-10 12:07	DONE		
247337002	SAMPLE	JXH2	1221	06-MAR-10 12:07	DONE		
247337003	SAMPLE	JXH2	1222	06-MAR-10 12:07	DONE		
247337004	SAMPLE	JXH2	1223	06-MAR-10 12:07	DONE		
247337005	SAMPLE	JXH2	1224	06-MAR-10 12:07	DONE		
247337006	SAMPLE	JXH2	1225	06-MAR-10 12:07	DONE		
247337007	SAMPLE	JXH2	1226	06-MAR-10 12:07	DONE		
247360001	SAMPLE	JXH2	1227	06-MAR-10 12:07	DONE		
247360002	SAMPLE	JXH2	1228	06-MAR-10 12:07	DUSE		
247360003	SAMPLE	JXH2	1229	06-MAR-10 12:07	DONE		
247360004	SAMPLE	JXH2	1230	06-MAR-10 12:08	DONE		
1202052134	MB	JXH2	1231	06-MAR-10 12:08	DONE		
1202052135	DUP	JXH2	1232	06-MAR-10 12:08	DONE		
1202052136	LCS	JXH2	1233	06-MAR-10 12:08	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 957101**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
247323001	SAMPLE	JXH2	1118	06-MAR-10 12:13	DONE		
247323002	SAMPLE	JXH2	1125	06-MAR-10 12:14	DONE		
247323003	SAMPLE	JXH2	1126	06-MAR-10 12:14	DONE		
247323004	SAMPLE	JXH2	1127	06-MAR-10 12:14	DONE		
247323005	SAMPLE	JXH2	1128	06-MAR-10 12:14	DONE		
247323006	SAMPLE	JXH2	1129	06-MAR-10 12:14	DONE		
247323007	SAMPLE	JXH2	1130	06-MAR-10 12:14	DONE		
247325001	SAMPLE	JXH2	1131	06-MAR-10 12:14	DONE		
247327002	SAMPLE	JXH2	1132	06-MAR-10 12:14	DONE		
247337001	SAMPLE	JXH2	1133	06-MAR-10 12:14	DONE		
247337002	SAMPLE	JXH2	1138	06-MAR-10 12:14	DONE		
247337003	SAMPLE	JXH2	1139	06-MAR-10 12:14	DONE		
247337004	SAMPLE	JXH2	1140	06-MAR-10 12:14	DONE		
247337005	SAMPLE	JXH2	1141	06-MAR-10 12:14	DONE		
247337006	SAMPLE	JXH2	1142	06-MAR-10 12:14	DONE		
247337007	SAMPLE	JXH2	1143	06-MAR-10 12:15	DONE		
247360001	SAMPLE	JXH2	1144	06-MAR-10 12:15	DONE		
247360002	SAMPLE	JXH2	1145	06-MAR-10 12:15	DONE		
247360003	SAMPLE	JXH2	1146	06-MAR-10 12:15	DONE		
247360004	SAMPLE	JXH2	1147	06-MAR-10 12:15	DONE		
1202052148	MB	JXH2	1148	06-MAR-10 12:15	DONE		
1202052149	DUP	JXH2	1149	06-MAR-10 12:15	DONE		
1202052150	LCS	JXH2	1150	06-MAR-10 12:15	DONE		

Tuesday, February 16, 2010

REQUEST NUMBER: 10-1886

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1886

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/16/2010

TURNAROUND/REPORT DUE: 3/18/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-12692	WG	2/15/2010	
	EPA:150.1	1	CAPA-10-12692	WG	2/15/2010	
	EPA:160.1	1	CAPA-10-12692	WG	2/15/2010	
	EPA:245.2	1	CAPA-10-12691	WG	2/15/2010	
		1	CAPA-10-12692	WG	2/15/2010	
	EPA:300.0	1	CAPA-10-12692	WG	2/15/2010	
	EPA:310.1	1	CAPA-10-12692	WG	2/15/2010	
	EPA:335.3	1	CAPA-10-12691	WG	2/15/2010	
	EPA:350.1	1	CAPA-10-12692	WG	2/15/2010	

Tuesday, February 16, 2010

REQUEST NUMBER: 10-1886

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:351.2	1	CAPA-10-12691	WG	2/15/2010	
	EPA:353.2	1	CAPA-10-12692	WG	2/15/2010	
	EPA:365.4	1	CAPA-10-12692	WG	2/15/2010	
	EPA:900	1	CAPA-10-12691	WG	2/15/2010	
	EPA:901.1	1	CAPA-10-12691	WG	2/15/2010	
	EPA:905.0	1	CAPA-10-12691	WG	2/15/2010	
	HASL-300:AM-241	1	CAPA-10-12691	WG	2/15/2010	
	HASL-300:ISOPU	1	CAPA-10-12691	WG	2/15/2010	
	HASL-300:ISOU	1	CAPA-10-12691	WG	2/15/2010	
	SM:A2340B	1	CAPA-10-12691	WG	2/15/2010	
		1	CAPA-10-12692	WG	2/15/2010	
	SW-846:6010B	1	CAPA-10-12691	WG	2/15/2010	
		1	CAPA-10-12692	WG	2/15/2010	
	SW-846:6020	1	CAPA-10-12691	WG	2/15/2010	
		1	CAPA-10-12692	WG	2/15/2010	
	SW-846:6850	1	CAPA-10-12692	WG	2/15/2010	
	SW-846:8081A	1	CAPA-10-12691	WG	2/15/2010	
		2	CAPA-10-12691	WG	2/15/2010	
		3	CAPA-10-12691	WG	2/15/2010	
	SW-846:8082	1	CAPA-10-12691	WG	2/15/2010	
		2	CAPA-10-12691	WG	2/15/2010	
		3	CAPA-10-12691	WG	2/15/2010	
	SW-846:8260B	1	CAPA-10-12691	WG	2/15/2010	
		2	CAPA-10-12691	WG	2/15/2010	
		1	CAPA-10-12693	WG	2/15/2010	
	SW-846:8270C	1	CAPA-10-12691	WG	2/15/2010	
		2	CAPA-10-12691	WG	2/15/2010	
		3	CAPA-10-12691	WG	2/15/2010	

Tuesday, February 16, 2010

REQUEST NUMBER: 10-1886

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	CAPA-10-12691	WG	2/15/2010	
		2	CAPA-10-12691	WG	2/15/2010	
		3	CAPA-10-12691	WG	2/15/2010	
	SW-846:9060	1	CAPA-10-12691	WG	2/15/2010	

Final Page of REQUEST NUMBER 10-1886

Tuesday, February 16, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1886

LOS ALAMOS

NATIONAL LABORATORY

REQUEST NUMBER: 10-1886

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/18/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12691	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-12691	2	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-12691	3	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-12691	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12691	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12691	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12691	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12691	3	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12691	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-12691	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-12691	3	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-12691	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-12691	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-12691	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-12691	1	POLY	WSP-RAD	Nitric Acid	WG
CAPA-10-12691	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-12692	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-12692	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-12692	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-12693	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12691	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-12691	2	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-12691	3	AMBER GLASS	WSP-8081A-Pest	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		2/16/10	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2635 **EVENT NAME:** R-54 Characterization Sampling

SAMPLE ID: CAPA-10-12691 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/15/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0606	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-54		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
TOP DEPTH:	830		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	840		SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
3		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)		pH < 2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice		
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice		
3		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice		
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide		pH > 12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice		
1		WSP-GrossA/B	1 LITER POLY	None		
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice		
1		WSP-LL-H-3	1 LITER POLY	None		
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid		pH < 2
1		WSP-RAD	1 GAL POLY	Nitric Acid		pH < 2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		pH < 2
3		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice		

SAMPLE DESC:

SAMPLE COMMENTS: Collect sample from upper screen. Depths are from the proposed well design and may change once fact sheet is released.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2635 **EVENT NAME:** R-54 Characterization Sampling

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) M Green, D Woody

REVIEWED BY (PRINT) D. Woody

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody (Signature) D. Woody	0945 02/16/10	(Printed Name) (Signature)	0945 02/16/10
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2635 **EVENT NAME:** R-54 Characterization Sampling

SAMPLE ID: CAPA-10-12692 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/15/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0606	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-54		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
TOP DEPTH:	830		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	840		SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid		pH < 2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice		
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		pH < 2

SAMPLE DESC:

SAMPLE COMMENTS: Collect sample from upper screen. Depths are from the proposed well design and may change once fact sheet is released.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) M Green D. Woody **REVIEWED BY (PRINT)** D. Woody

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	02/16/10	(Printed Name)	02/16/10
(Signature) D. Woody	0945	(Signature)	0945
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2635 **EVENT NAME:** R-54 Characterization Sampling

SAMPLE ID: CAPA-10-12693 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/15/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0606	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	NA	
LOCATION ID:	R-54		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
TOP DEPTH:	830		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	840		SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	2 DW 02/15/10	WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	1 HCL

SAMPLE DESC: QC Sample of CAPA-10-12691

SAMPLE COMMENTS: Collect sample from upper screen. Depths are from the proposed well design and may change once fact sheet is released.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D. Woody, M Green

REVIEWED BY (PRINT) D. Woody

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	02/16/10	(Printed Name)	02/16/10
(Signature) D. Woody	0945	(Signature)	0945
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-1886 VALIDATION DATE: 4/09/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☐ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☒ OTHER (DESCRIBE): VOC

Section II. Completeness Check

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

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

1. The ICAL and/or ICV/CCV RRFs for isobutyl alcohol, n-butyl alcohol, proprionitrile, acrolein, and acetonitrile were < 0.05. The associated sample results were ND and were qualified R,V7b.
2. In the FTB methylene chloride was reported. The associated sample result was ND and was not qualified.
3. The ICV/CCV %Ds associated with both samples for dichorodifluoromethane; chloromethane; 2-hexanone; isopropylbenzene; n-propylbenzene; sec-butylbenzene; n-butylbenzene; 1,2,4-trichlorobenzene; hexachlorobutadiene; and 4-isopropyltoluene were >20%. The CCV %Ds associated with sample CAPA-10-12691 for acetonitrile; n-butyl alcohol; 1,2,4-trimethylbenzene; and 1,2,3-trichlorobenzene were > 20%. The CCV %Ds associated with sample -12693 for tetrachloroethylene; bromobenzene; 4-chlorotoluene; and tert-butylbenzene were > 20%. The associated sample results were ND and were qualified UJ,V7c.
4. The LCS%Rs associated with both samples for acetonitrile was > the laboratory UAL. The associated sample

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

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Los Alamos NATIONAL LABORATORY EST 1943

results were ND and were not qualified.

The LCS %R associated with sample -12691 for iodomethane was < the laboratory LAL. The associated sample result was ND and was qualified UJ,V12a.

5. It should be noted that the matrix spike solution did not include 10 target analytes. No sample data were qualified as a result.

Reviewed by: Allison Felix Level: 1 Date: 4/12/10

VALIDATOR'S SIGNATURE: _____ DATE: 4/09/10

Form 5114-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2 Volatile Organic Compound (VOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

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

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

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

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261002**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12691**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 10:16**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/24/2010 10:16**				
Data File:	**4z237.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00	UJ,V7c
74-87-3	Chloromethane	J	0.306	ug/L	0.300	1.00	UJ,V7c
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00	
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00	
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00	
67-64-1	Acetone	J	8.62	ug/L	3.50	10.0	
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0	R,V7b
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00	UJ,V12a
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0	
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00	
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00	
78-93-3	2-Butanone	J	3.15	ug/L	1.25	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00	
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0	R,V7b
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00	
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00	
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00	
108-10-1	4-Methyl-2-pentanone		5.73	ug/L	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00	
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00	UJ,V7c

MLH
4/09/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261002**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12691**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 10:16**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/24/2010 10:16**				
Data File:	**4z237.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00	
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00	
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00	
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00	UJ,V7c
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00	UJ,V7c
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	UJ,V7c
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00	UJ,V7c
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00	
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00	UJ,V7c
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00	
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00	UJ,V7c
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00	R,V7b
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00	
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00	
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00	
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00	
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00	R,V7b
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00	
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0	R,V7b
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00	

MLH
4/09/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261002**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12691**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 10:16**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/24/2010 10:16**				
Data File:	**4z237.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00	
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00	UJ,V7c
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	50.9	50.0	ug/L	102	(72%-132%)
Bromofluorobenzene	57.4	50.0	ug/L	115	(77%-123%)
Toluene-d8	49.9	50.0	ug/L	99.7	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	Unknown	4.48	8.06	ug/L		J
	Unknown Siloxane	14.83	21.3	ug/L		J
	Unknown Siloxane	16.79	14.7	ug/L		J

MLH
4/09/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261005**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12693**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 08:39**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/25/2010 08:39**				
Data File:	**4z335.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00	UJ,V7c
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00	UJ,V7c
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00	
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00	
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00	
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0	
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0	R,V7b
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00	
75-09-2	Methylene chloride	J	4.00	ug/L	3.00	10.0	
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00	
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00	
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0	R,V7b
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00	
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00	
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00	
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00	UJ,V7c

MLH
4/09/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261005**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12693**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 08:39**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/25/2010 08:39**				
Data File:	**4z335.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00	UJ,V7c
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00	
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00	
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00	
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00	UJ,V7c
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00	UJ,V7c
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00	UJ,V7c
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00	UJ,V7c
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00	UJ,V7c
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00	UJ,V7c
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00	UJ,V7c
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00	UJ,V7c
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00	
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00	UJ,V7c
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00	
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00	
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00	R,V7b
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00	
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00	
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00	
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00	
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00	R,V7b
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00	
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0	R,V7b
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00	

MLH
4/09/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261005**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12693**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 08:39**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/25/2010 08:39**				
Data File:	**4z335.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00	
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00	
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00	UJ,V7c
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	49.0	50.0	ug/L	98.1	(72%-132%)
Bromofluorobenzene	56.6	50.0	ug/L	113	(77%-123%)
Toluene-d8	48.3	50.0	ug/L	96.6	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.48	10.6	ug/L		J
	Unknown Siloxane	14.83	25.6	ug/L		J

MLH
4/09/10

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-1886 VALIDATION DATE: 04/10/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☐ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☒ OTHER (DESCRIBE): SVOC

Section II. Completeness Check

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

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

1. The ICAL RRF for atrazine was <.05. The associated sample result was ND and was qualified R,SV7b.
2. The ICV /CCV %Ds for benzidine; hexachlorocyclopentadiene; 1,4-dioxane; o-cresol; m-nitroaniline; 2,4-dinitrophenol; p-nitroaniline; and dinoseb were >20%. All associated sample results were ND and were qualified UJ,SV7c.
3. The MS/MSD %Rs for six target analytes were not within the laboratory's QC limits. However, MS/MSD analyses are not required for SVOCs and, thus, no sample data were qualified.

   It should be noted that 6 target analytes were not included in the LCS/MS/MSD spiking solutions. No sample data were qualified.

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Reviewed by: Allison Felix Level: 1 Date: 4/12/10

VALIDATOR'S SIGNATURE: _____ DATE: 04/10/10

Form 5115-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

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

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1886	Date Collected:	02/15/2010 12:00	Matrix:	GROUND WATER
Lab Sample ID:	247261002	Date Received:	02/17/2010 08:45		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-12691	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	954922	Inst:	MSD6.I	Dilution:	1
Run Date:	02/21/2010 17:14	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	02/18/2010 21:17	Aliquot:	1000 mL	Final Volume:	1 mL
Data File:	s6b2118.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.0	ug/L	2.00	10.0	
108-95-2	Phenol	U	10.0	ug/L	1.00	10.0	
95-57-8	2-Chlorophenol	U	10.0	ug/L	2.00	10.0	
106-46-7	1,4-Dichlorobenzene	U	10.0	ug/L	2.00	10.0	
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	10.0	ug/L	2.00	10.0	
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	10.0	ug/L	2.00	10.0	
83-32-9	Acenaphthene	U	1.00	ug/L	0.310	1.00	
121-14-2	2,4-Dinitrotoluene	U	10.0	ug/L	2.00	10.0	
100-02-7	4-Nitrophenol	U	10.0	ug/L	2.00	10.0	
87-86-5	Pentachlorophenol	U	10.0	ug/L	2.00	10.0	
129-00-0	Pyrene	U	1.00	ug/L	0.300	1.00	
110-86-1	Pyridine	U	10.0	ug/L	3.00	10.0	
62-53-3	Aniline	U	10.0	ug/L	2.50	10.0	
111-44-4	bis(2-Chloroethyl) ether	U	10.0	ug/L	2.00	10.0	
541-73-1	1,3-Dichlorobenzene	U	10.0	ug/L	2.00	10.0	
100-51-6	Benzyl alcohol	U	10.0	ug/L	2.00	10.0	
95-50-1	1,2-Dichlorobenzene	U	10.0	ug/L	2.00	10.0	
108-60-1	bis(2-Chloroisopropyl)ether	U	10.0	ug/L	2.00	10.0	
95-48-7	o-Cresol	U	10.0	ug/L	2.00	10.0	UJ,SV7c
65794-96-9	m,p-Cresols	U	10.0	ug/L	3.00	10.0	
67-72-1	Hexachloroethane	U	10.0	ug/L	2.00	10.0	
98-95-3	Nitrobenzene	U	10.0	ug/L	3.00	10.0	
78-59-1	Isophorone	U	10.0	ug/L	3.00	10.0	
88-75-5	2-Nitrophenol	U	10.0	ug/L	2.00	10.0	
105-67-9	2,4-Dimethylphenol	U	10.0	ug/L	2.00	10.0	
111-91-1	bis(2-Chloroethoxy)methane	U	10.0	ug/L	3.00	10.0	
120-83-2	2,4-Dichlorophenol	U	10.0	ug/L	2.00	10.0	
65-85-0	Benzoic acid	U	20.0	ug/L	6.00	20.0	
91-20-3	Naphthalene	U	1.00	ug/L	0.300	1.00	
106-47-8	4-Chloroaniline	U	10.0	ug/L	2.00	10.0	
87-68-3	Hexachlorobutadiene	U	10.0	ug/L	2.00	10.0	
91-57-6	2-Methylnaphthalene	U	1.00	ug/L	0.300	1.00	
90-12-0	1-Methylnaphthalene	U	1.00	ug/L	0.300	1.00	
77-47-4	Hexachlorocyclopentadiene	U	10.0	ug/L	3.00	10.0	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	10.0	ug/L	2.00	10.0	
95-95-4	2,4,5-Trichlorophenol	U	10.0	ug/L	2.00	10.0	
91-58-7	2-Chloronaphthalene	U	1.00	ug/L	0.300	1.00	

MLH
4/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261002**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12691**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**954922**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/21/2010 17:14**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/18/2010 21:17**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s6b2118.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
88-74-4	2-Nitroaniline	U	10.0	ug/L	2.00	10.0	
	o-Nitroaniline						
99-09-2	3-Nitroaniline	U	10.0	ug/L	2.00	10.0	UJ,SV7c
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	10.0	ug/L	2.00	10.0	
606-20-2	2,6-Dinitrotoluene	U	10.0	ug/L	2.00	10.0	
208-96-8	Acenaphthylene	U	1.00	ug/L	0.200	1.00	
51-28-5	2,4-Dinitrophenol	U	20.0	ug/L	5.00	20.0	UJ,SV7c
132-64-9	Dibenzofuran	U	10.0	ug/L	2.00	10.0	
84-66-2	Diethylphthalate	U	10.0	ug/L	2.00	10.0	
86-73-7	Fluorene	U	1.00	ug/L	0.200	1.00	
7005-72-3	4-Chlorophenylphenylether	U	10.0	ug/L	2.00	10.0	
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.0	ug/L	3.00	10.0	
100-01-6	4-Nitroaniline	U	10.0	ug/L	3.00	10.0	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	10.0	ug/L	3.00	10.0	
122-66-7	Azobenzene	U	10.0	ug/L	2.00	10.0	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	10.0	ug/L	2.00	10.0	
118-74-1	Hexachlorobenzene	U	10.0	ug/L	2.00	10.0	
1912-24-9	Atrazine	U	10.0	ug/L	3.00	10.0	R,SV7b
85-01-8	Phenanthrene	U	1.00	ug/L	0.200	1.00	
120-12-7	Anthracene	U	1.00	ug/L	0.200	1.00	
84-74-2	Di-n-butylphthalate	U	10.0	ug/L	2.00	10.0	
206-44-0	Fluoranthene	U	1.00	ug/L	0.200	1.00	
92-87-5	Benzidine	U	10.0	ug/L	3.00	10.0	UJ,SV7c
85-68-7	Butylbenzylphthalate	U	10.0	ug/L	2.00	10.0	
56-55-3	Benzo(a)anthracene	U	1.00	ug/L	0.200	1.00	
91-94-1	3,3'-Dichlorobenzidine	U	10.0	ug/L	2.00	10.0	
218-01-9	Chrysene	U	1.00	ug/L	0.200	1.00	
117-81-7	bis(2-Ethylhexyl)phthalate		11.2	ug/L	2.00	10.0	
117-84-0	Di-n-octylphthalate	U	10.0	ug/L	3.00	10.0	
205-99-2	Benzo(b)fluoranthene	U	1.00	ug/L	0.200	1.00	
207-08-9	Benzo(k)fluoranthene	U	1.00	ug/L	0.200	1.00	
50-32-8	Benzo(a)pyrene	U	1.00	ug/L	0.200	1.00	
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.00	ug/L	0.200	1.00	
53-70-3	Dibenzo(a,h)anthracene	U	1.00	ug/L	0.200	1.00	
191-24-2	Benzo(ghi)perylene	U	1.00	ug/L	0.200	1.00	
123-91-1	1,4-Dioxane	U	10.0	ug/L	2.00	10.0	UJ,SV7c
55-18-5	N-Nitrosodiethylamine	U	10.0	ug/L	2.00	10.0	

MLH
4/10/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261002**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12691**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**954922**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/21/2010 17:14**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/18/2010 21:17**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s6b2118.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
930-55-2	N-Nitrosopyrrolidine	U	10.0	ug/L	2.00	10.0	
924-16-3	N-Nitrosodi-n-butylamine	U	10.0	ug/L	3.00	10.0	
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.0	ug/L	3.00	10.0	
608-93-5	Pentachlorobenzene	U	10.0	ug/L	3.00	10.0	
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.0	ug/L	2.00	10.0	
88-85-7	Dinoseb	U	10.0	ug/L	2.00	10.0	UJ,SV7c
120-82-1	1,2,4-Trichlorobenzene	U	10.0	ug/L	2.00	10.0	

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	50.5	100	ug/L	50.5	(39%-120%)
2-Fluorobiphenyl	31.9	50.0	ug/L	63.8	(38%-108%)
2-Fluorophenol	36.4	100	ug/L	36.4	(19%-98%)
Nitrobenzene-d5	35.2	50.0	ug/L	70.3	(31%-122%)
Phenol-d5	22.3	100	ug/L	22.3	(15%-83%)
p-Terphenyl-d14	40.0	50.0	ug/L	80.1	(40%-138%)

Tentatively Identified Compound Summary

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

MLH
4/10/10

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-1886 VALIDATION DATE: 04/11/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

None

Reviewed by: Allison Felix Level: 1 Date: 4/12/10

VALIDATOR'S SIGNATURE:	DATE: 04/11/10
Form 5121-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☒	☐	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☒	☐	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 955723

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-12692

Date Received: 17-FEB-10

GEL Job No (SDG): 10-1886

GEL Sample ID: 247261004

Date Filtered: 04-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.196	ug/L	J	1	09-MAR-10 02:11	per0308070a
	Perchlorate Isotope Ratio			3.05			1	09-MAR-10 02:11	per0308070a
14797-73-0	Perchlorate-101	.05	.2	0.212	ug/L		1	09-MAR-10 02:11	per0308070a
	Perchlorate-O(18)			0.443	ug/L		1	09-MAR-10 02:11	per0308070a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

MLH 4/11/10

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DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-1886 VALIDATION DATE: 04/11/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. The ICAL RRF values for 2-amino-4,6-dinitrotoluene; PETN; m-nitrotoluene; o-nitrotoluene; and p–nitrotoluene were < 0.05 but ≥0.01. All associated sample results were ND and were qualified UJ,HE7b.
2. The MS %sR for 2,6-dinitrotoluene and tetryl were < the laboratory LAL but ≥10%. The associated sample results were ND and were qualified UJ,HE12e.

   The MS/MSD RPD for tetryl was > the laboratory acceptance limit. The associated sample result was ND and was qualified UJ,HE12g.

   Reviewed by: Allison Felix Level: 1 Date: 4/12/10

DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

VALIDATOR'S SIGNATURE: _____ DATE: 4/11/10

Form 5122-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
☐	☐	☒	3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
☐	☐	☒	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
☐	☐	☒	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
☐	☒	☐	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
☐	☒	☐	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
☐	☒	☐	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
☐	☐	☒	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	11. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE3d	R, HE3d
☐	☒	☐	12. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, HE4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, HE4a
☐	☐	☒	14. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, HE4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE4e	R, HE4e
☐	☒	☐	16. The absence of sample carry-over must be determined and verified.	N/A	R, N, HE4f
☐	☒	☐	17. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, HE7	J, HE7
☐	☒	☐	18. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less < 0.99.	UJ, R, HE7a	J, HE7a
☒	☐	☐	19. The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV.	UJ, R, HE7b	J, HE7b
☐	☒	☐	20. The ICV and/or CCV were recovered outside the method limits.	UJ, R, HE7c	J, HE7c
☐	☒	☐	21. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, HE7d	J, HE7d
☐	☒	☐	22. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, HE7f	R, HE7f

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
☐	☒	☐	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
☐	☒	☐	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
☐	☒	☐	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
☐	☒	☐	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
☐	☒	☐	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
☐	☒	☐	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
☐	☒	☐	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
☒	☐	☐	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
☐	☒	☐	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
☒	☐	☐	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
☐	☐	☒	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, HE15	R, HE15
☐	☐	☒	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
☐	☐	☒	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12691

Lab Code: GEL

GEL Job No (SDG) 10-1886

Matrix: GROUND WATER

GEL Sample ID: 247261003

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 17-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 954940

Concentrated Extract Volume (mL) 5

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0322015.wiff

Date Analyzed: 22-MAR-10 21:42

Units: ug/L

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		0.325	U
121-14-2	2,4-Dinitrotoluene		0.325	U
121-82-4	RDX		0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.325	U
2691-41-0	HMX		0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ,HE7b	0.325	U
479-45-8	Tetryl	UJ,HE12e	0.649	U
606-20-2	2,6-Dinitrotoluene	UJ,HE12e	0.325	U
78-11-5	PETN	UJ,HE7b	1.3	U
88-72-2	o-Nitrotoluene	UJ,HE7b	0.325	U
98-95-3	Nitrobenzene		0.124	J
99-08-1	m-Nitrotoluene	UJ,HE7b	0.325	U
99-35-4	1,3,5-Trinitrobenzene		0.325	U
99-65-0	m-Dinitrobenzene	UJ,HE7b	0.325	U
99-99-0	p-Nitrotoluene		0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MLH
4/11/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12691

Lab Code: GEL

GEL Job No (SDG) 10-1886

Matrix: GROUND WATER

GEL Sample ID: 247261003

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 17-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 954940

Concentrated Extract Volume (mL) 5

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03160139.wiff

Date Analyzed: 17-MAR-10 20:25

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MLH
4/11/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-1886 VALIDATION DATE: 4/11/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

☐ OTHER (DESCRIBE): pesticides

Section II. Completeness Check

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

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

1. The CCV %Ds for seven target analytes were >15% on one column only. The associated sample results were NDs and were not qualified.

Reviewed by: Allison Felix Level: 1 Date: 4/12/10

VALIDATOR'S SIGNATURE:	DATE: 04/11/10
Form 5116-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

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

5116-2

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

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

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

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

5116-2

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

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

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

5116-2

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

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

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

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST	
5116-2 **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

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

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261006**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12691**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**955055**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**02/20/2010 17:37**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/19/2010 14:35**	**Aliquot:**	**880 mL**	**Final Volume:**	**5 mL**
Data File:	**019f1901.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	019b1901.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.0227	ug/L	0.00568	0.0227	1
58-89-9	gamma-BHC (Lindane)	U	0.0227	ug/L	0.00568	0.0227	1
319-85-7	beta-BHC	U	0.0227	ug/L	0.00682	0.0227	1
319-86-8	delta-BHC	U	0.0227	ug/L	0.00568	0.0227	1
76-44-8	Heptachlor	U	0.0227	ug/L	0.00568	0.0227	1
309-00-2	Aldrin	U	0.0227	ug/L	0.00568	0.0227	1
1024-57-3	Heptachlor epoxide	U	0.0227	ug/L	0.00568	0.0227	1
5103-74-2	gamma-Chlordane	U	0.0227	ug/L	0.00568	0.0227	1
5103-71-9	alpha-Chlordane	U	0.0227	ug/L	0.00568	0.0227	1
959-98-8	Endosulfan I	U	0.0227	ug/L	0.00568	0.0227	1
72-55-9	4,4'-DDE	U	0.0455	ug/L	0.00568	0.0455	1
60-57-1	Dieldrin	U	0.0455	ug/L	0.0114	0.0455	1
72-20-8	Endrin	U	0.0455	ug/L	0.0114	0.0455	1
72-54-8	4,4'-DDD	U	0.0455	ug/L	0.0114	0.0455	1
33213-65-9	Endosulfan II	U	0.0455	ug/L	0.0114	0.0455	1
7421-93-4	Endrin aldehyde	U	0.0455	ug/L	0.00568	0.0455	1
50-29-3	4,4'-DDT	U	0.0455	ug/L	0.0114	0.0455	1
1031-07-8	Endosulfan sulfate	U	0.0455	ug/L	0.0114	0.0455	1
72-43-5	Methoxychlor	U	0.227	ug/L	0.0568	0.227	1
53494-70-5	Endrin ketone	U	0.0455	ug/L	0.0114	0.0455	1
8001-35-2	Toxaphene	U	0.568	ug/L	0.170	0.568	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.979	1.14	ug/L	86.1	(30%-105%)
Decachlorobiphenyl	0.876	1.14	ug/L	77.1	(30%-126%)

MLH
4/11/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-1886 VALIDATION DATE: 04/11/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

☐ OTHER (DESCRIBE): PCB

Section II. Completeness Check

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

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

1. The average CCV %D for aroclor-1260 was >15% on one column only. The associated sample result was ND and was not qualified.

Reviewed by: Allison Felix Level: 1 Date: 4/12/10

VALIDATOR'S SIGNATURE:	DATE: 04/11/10
Form 5116-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

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

5116-2

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

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

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

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

5116-2

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

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

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

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

5116-2

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

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

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

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST	
5116-2 **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

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

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261001**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12691**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**955010**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/22/2010 23:29**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/19/2010 14:14**	**Aliquot:**	**840 mL**	**Final Volume:**	**1 mL**
Data File:	**066f6601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	066b6601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.119	ug/L	0.0396	0.119	1
11104-28-2	Aroclor-1221	U	0.119	ug/L	0.0396	0.119	1
11141-16-5	Aroclor-1232	U	0.119	ug/L	0.0396	0.119	1
53469-21-9	Aroclor-1242	U	0.119	ug/L	0.0396	0.119	1
12672-29-6	Aroclor-1248	U	0.119	ug/L	0.0396	0.119	1
11097-69-1	Aroclor-1254	U	0.119	ug/L	0.0396	0.119	1
11096-82-5	Aroclor-1260	U	0.119	ug/L	0.0396	0.119	1
37324-23-5	Aroclor-1262	U	0.119	ug/L	0.0396	0.119	1

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
4cmx	0.158	0.238	ug/L	66.5	(30%-105%)
Decachlorobiphenyl	0.135	0.238	ug/L	56.8	(30%-126%)

MLH
4/11/10

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-1886 VALIDATION DATE: 04/11/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. In the MB K was detected. All associated sample results were detects >5X but ≤50X the MB concentration and were qualified J,I4a.
2. In a bracketing CCB K was detected. The associated sample results were detects > 5X the CCB and were not qualified.
3. The MS %Rs for Al and Fe were > the laboratory UALs. All associated sample results were detects and were qualified J+,I6b.
4. The MS %Rs for Cr, Ni, and Tl were < the laboratory LALs but ≥10%. The sample result for Tl in sample CAPA-10-12692 was a ND and was qualified UJ,I6a. All other associated sample results were detects and were qualified J-,I6a.

   It should be noted that the QC analyses for CVAA were performed on a LANL sample from another RN. No

DATA VALIDATION COVER SHEET	
5118-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

sample results were qualified.

5. The replicate RPDs for Al, Fe, and Ba were > 20%. All associated sample results were detects and were qualified J,I10a.

Reviewed by: Allison Felix Level: 1 Date: 4/12/10

VALIDATOR'S SIGNATURE: _____ DATE: 04/11/10

Form 5118-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST	
5118-2 **Metals Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☒	☐	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST	
5118-2 **Metals Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☒	☐	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST	
5118-2 **Metals Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1886 **METHOD TYPE:** EPA

SAMPLE ID: 247261003 **CLIENT ID:** CAPA-10-12691

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 17-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte		Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury		0.066	ug/L	U		AV	0.066	1	HG3	030210W3-6
7429-90-5	Aluminum	J+,I6b	1710	ug/L		*N	P	68	1	OPTIMA3	031610-1
7440-36-0	Antimony		0.5	ug/L	U	N	MS	0.5	1	ICPMS5	100318-3
7440-38-2	Arsenic		1.58	ug/L	J		MS	1.5	1	ICPMS5	100318-3
7440-39-3	Barium	J,I10a	66	ug/L		*	P	1	1	OPTIMA3	031610-1
7440-41-7	Beryllium		1	ug/L	U		P	1	1	OPTIMA3	031610-1
7440-42-8	Boron		22.9	ug/L	J		P	15	1	OPTIMA3	031610-1
7440-43-9	Cadmium		0.11	ug/L	U		MS	0.11	1	ICPMS5	100318-3
7440-70-2	Calcium		10700	ug/L			P	50	1	OPTIMA3	031610-1
7440-47-3	Chromium	J-,I6a	143	ug/L		N	MS	2.5	1	ICPMS5	100319-4
7440-48-4	Cobalt		1	ug/L	U		P	1	1	OPTIMA3	031610-1
7440-50-8	Copper		16.2	ug/L			P	3	1	OPTIMA3	031610-1
7439-89-6	Iron	J+,I6b	1890	ug/L		*N	P	30	1	OPTIMA3	031610-1
7439-92-1	Lead		9.8	ug/L			MS	0.5	1	ICPMS5	100319-4
7439-95-4	Magnesium		3640	ug/L			P	85	1	OPTIMA3	031610-1
7439-96-5	Manganese		65.5	ug/L			P	2	1	OPTIMA3	031610-1
7439-98-7	Molybdenum		7.53	ug/L			MS	0.1	1	ICPMS5	100318-3
7440-02-0	Nickel	J-,I6a	49.4	ug/L		N	MS	0.5	1	ICPMS5	100318-3
7440-09-7	Potassium	J,I4a	2030	ug/L			P	50	1	OPTIMA3	031610-1
7782-49-2	Selenium		1	ug/L	U		MS	1	1	ICPMS5	100319-4
7440-22-4	Silver		0.764	ug/L	J		MS	0.2	1	ICPMS5	100318-3
7440-23-5	Sodium		19000	ug/L			P	500	5	OPTIMA3	031710-2
7440-24-6	Strontium		80.7	ug/L			P	1	1	OPTIMA3	031610-1
7440-28-0	Thallium	J-,I6a	0.575	ug/L	J	N	MS	0.3	1	ICPMS5	100319-4
7440-31-5	Tin		12.5	ug/L	U		P	12.5	5	OPTIMA3	031710-2
7440-61-1	Uranium		3.25	ug/L			MS	0.05	1	ICPMS5	100319-4

MLH
4/11/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1886 **METHOD TYPE:** EPA

SAMPLE ID: 247261003 **CLIENT ID:** CAPA-10-12691

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 17-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	4.13	ug/L	J		P	1	1	OPTIMA3	031610-1
7440-66-6	Zinc	186	ug/L			P	3.3	1	OPTIMA3	031610-1
	Hardness as CaCO3	41.8	mg/L				0.35	1	CALC001	

MLH
4/11/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1886 **METHOD TYPE:** EPA

SAMPLE ID: 247261004 **CLIENT ID:** CAPA-10-12692

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 17-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	030210W3-6
7631-86-9	Silica	72.1	mg/L			P	0.053	1	OPTIMA3	031610-1
7429-90-5	Aluminum J+,I6b	87.3	ug/L	J	*N	P	68	1	OPTIMA3	031610-1
7440-36-0	Antimony	0.5	ug/L	U	N	MS	0.5	1	ICPMS5	100318-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100318-3
7440-39-3	Barium J,I10a	9.3	ug/L		*	P	1	1	OPTIMA3	031610-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	031610-1
7440-42-8	Boron	19	ug/L	J		P	15	1	OPTIMA3	031610-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100318-3
7440-70-2	Calcium	8280	ug/L			P	50	1	OPTIMA3	031610-1
7440-47-3	Chromium J-,I6a	11.1	ug/L		N	MS	2.5	1	ICPMS5	100319-4
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	031610-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	031610-1
7439-89-6	Iron J+,I6b	133	ug/L		*N	P	30	1	OPTIMA3	031610-1
7439-92-1	Lead	0.918	ug/L	J		MS	0.5	1	ICPMS5	100319-4
7439-95-4	Magnesium	2750	ug/L			P	85	1	OPTIMA3	031610-1
7439-96-5	Manganese	42.1	ug/L			P	2	1	OPTIMA3	031610-1
7439-98-7	Molybdenum	5.1	ug/L			MS	0.1	1	ICPMS5	100318-3
7440-02-0	Nickel J-,I6a	8.3	ug/L		N	MS	0.5	1	ICPMS5	100318-3
7440-09-7	Potassium J,I4a	1040	ug/L			P	50	1	OPTIMA3	031610-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100319-5
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100318-3
7440-23-5	Sodium	18900	ug/L			P	500	5	OPTIMA3	031710-2
7440-24-6	Strontium	47.2	ug/L			P	1	1	OPTIMA3	031610-1
7440-28-0	Thallium UJ,I6a	0.3	ug/L	U	N	MS	0.3	1	ICPMS5	100319-4
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	031710-2

MLH
4/11/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1886 **METHOD TYPE:** EPA

SAMPLE ID: 247261004 **CLIENT ID:** CAPA-10-12692

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 17-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	0.682	ug/L			MS	0.05	1	ICPMS5	100319-4
7440-62-2	Vanadium	3.24	ug/L	J		P	1	1	OPTIMA3	031610-1
7440-66-6	Zinc	60.5	ug/L			P	3.3	1	OPTIMA3	031610-1
	Hardness as CaCO3	32	mg/L				0.35	1	CALC001	

MLH
4/11/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1886 VALIDATION DATE: 04/11/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. In the MB ammonia as nitrogen and total phosphorus were detected. The associated sample results were detects ≤5X the MB concentrations and were qualified U,I4.

   In the ICB/CCBs total phosphorus and chloride were detected. The total phosphorus result was a detect ≤5X the ICB/CCB concentrations and was qualified U,I4b. The chloride result was > 5X the CCB and was not qualified.

2. The MS %Rs for TKN and ammonia as nitrogen were < the laboratory LALs but ≥10%. The associated sample results were ND or qualified ND and were qualified UJ,I6a

3. The analysis of pH was performed >2X past the method specified HT. The associated sample result was qualified J-,I9a, based on professional judgment.

   The analysis of sulfate was performed past the method specified HT, but < 2X past the HT. The associated sample result was a detect and was qualified J-,I9.

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos
NATIONAL LABORATORY
EST. 1943

Reviewed by: Allison Felix Level: 1 Date: 4/12/10

VALIDATOR'S SIGNATURE _____ DATE: 04/11/10

Form 5120-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☒	☐	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☒	☐	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 18, 2010

Client SDG: 10-1886

Client Sample ID:	CAPA-10-12691	Project:	ESHL01000
Sample ID:	247261003	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	15-FEB-10 12:00		
Receive Date:	17-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
SW 9060 Total Organic Carbon "As Received"												
Total Organic Carbon Average		1.71		0.330	1.00	mg/L	1	TSM	02/19/10	1755	954838	1
Flow Injection Analysis												
EPA 335.4 Cyanide, Total "As Received"												
Cyanide, Total	U	ND		1.66	5.00	ug/L	1	AXC2	02/25/10	1311	955983	2
Nutrient Analysis												
Nitrogen, Total Kjeldahl (TKN) "As Received"												
Nitrogen, Total Kjeldahl	U	ND	UJ,I6a	0.033	0.100	mg/L	1	AXH3	02/24/10	1254	955963	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	02/25/10	1138	955982
EPA 351.2 Prep	EPA 351.2 Total Kjeldahl Nitrogen Prep	SXJ1	02/22/10	1100	955962

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9060	
2	EPA 335.4	
3	EPA 351.2	

MLH
4/11/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 18, 2010

Client SDG: 10-1886

Client Sample ID: CAPA-10-12692
Sample ID: 247261004
Matrix: Ground Water
Collect Date: 15-FEB-10 12:00
Receive Date: 17-FEB-10
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Conductivity Analysis											
EPA120.1 Specific Conductivity "As Received"											
Conductivity		137		1.00	1.00	umhos/cm	1	LXA1 02/18/10	1217	954872	1
Electrode Analysis											
EPA 150.1 pH "As Received"											
pH at Temp 13.3C	H	7.61	J-,I9a	0.010	0.100	SU	1	LXA1 02/18/10	1250	954880	2
Ion Chromatography											
EPA 300.0 Anions Liquid 28 day "As Received"											
Bromide	U	ND		0.066	0.200	mg/L	1	GXM 03/10/10	1911	963224	3
								3			
Chloride		2.01		0.066	0.200	mg/L	1				
Fluoride		0.241		0.033	0.100	mg/L	1				
Sulfate	H	2.36	J-,I9	0.100	0.400	mg/L	1	GXM 03/17/10	1541	963224	4
								3			
Nutrient Analysis											
EPA 350.1 Nitrogen, Ammonia L "As Received"											
Nitrogen, Ammonia	J	0.046		0.016	0.050	mg/L	1	AXH3 02/23/10	1443	955952	5
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"											
Nitrogen, Nitrate/Nitrite	J	0.167	U,I4	0.050	0.250	mg/L	5	AXH3 02/22/10	1517	955958	6
EPA 365.4 Phosphorus, Total in "As Received"											
Phosphorus, Total as P		0.058	U,I4	0.015	0.050	mg/L	1	AXH3 02/23/10	1054	955966	7
Solids Analysis											
EPA 160.1 Solids, Dissolved-F "As Received"											
Total Dissolved Solids		134		2.38	10.0	mg/L		SDS 02/22/10	1231	955943	8
Titration Analysis											
EPA 310.1 Total Alkalinity "As Received"											
Alkalinity, Total as CaCO3		63.3		0.725	1.00	mg/L		LXA1 02/18/10	1310	954890	9
Carbonate alkalinity (CaCO3)	U	ND		0.725	1.00	mg/L					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	SXJ1	02/22/10	1500	955951
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	SXJ1	02/22/10	1100	955964

The following Analytical Methods were performed

Method	Description	Analyst Comments

MLH
4/11/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-1886 VALIDATION DATE: 4/11/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. It should be noted that the matrix QC analyses for iso-Pu, iso-U, gross alpha/beta, and Sr-90 were performed on LANL samples from another RN. No sample results were qualified.

Reviewed by: Allison Felix Level: 1 Date: 4/12/10

VALIDATOR'S SIGNATURE:	DATE: 4/11/10
Form 5119-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☐	☒	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 **Rad Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 **Rad Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☒	☐	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☒	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: March 17, 2010

Client Sample ID:	CAPA-10-12691	Project:	ESHL01000
Sample ID:	247261003	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	15-FEB-10		
Receive Date:	17-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
Alphaspec Am241 Liquid "As Received"												
Americium-241	U	0.0132	0.033	+/-0.00573	0.050	pCi/L		HAKB	03/16/10	1719	963528	1
Alphaspec Pu, Liquid "As Received"												
Plutonium-238	U	0.00282	0.049	+/-0.00488	0.050	pCi/L		HAKB	03/10/10	1636	957023	3
Plutonium-239/240	U	0.00844	0.0341	+/-0.0049	0.050	pCi/L						
Alphaspec U, Liquid "As Received"												
Uranium-234		1.15	0.107	+/-0.129	1.00	pCi/L		HAKB	03/08/10	0704	957025	5
Uranium-235/236	U	0.0419	0.0851	+/-0.019	1.00	pCi/L						
Uranium-238		1.20	0.0764	+/-0.133	0.500	pCi/L						
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Liquid "As Received"												
Cesium-137	U	-2.22	3.94	+/-1.36	8.00	pCi/L		KXG3	02/23/10	1922	956162	6
Cobalt-60	U	2.03	4.78	+/-1.30	8.00	pCi/L						
Gross Gamma	U	48.3	74.4	+/-15.2	120	pCi/L						
Neptunium-237	U	9.06	40.7	+/-11.9	10.0	pCi/L						
Potassium-40	U	14.1	55.6	+/-16.0	10.0	pCi/L						
Sodium-22	U	-2.13	3.44	+/-1.29	10.0	pCi/L						
Rad Gas Flow Proportional Counting												
GFPC, Gross A/B, liquid "As Received"												
Beta	U	2.48	2.73	+/-1.09	3.00	pCi/L		DXB5	03/08/10	1616	961597	7
Alpha		11.0	2.28	+/-2.14	3.00	pCi/L		DXB5	03/09/10	1123	961597	8
GFPC, Sr90, liquid "As Received"												
Strontium-90	U	0.155	0.479	+/-0.141	0.500	pCi/L		MXB1	02/26/10	2002	956123	12

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified

MLH
4/11/10

Tuesday, February 16, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1886

REQUEST NUMBER: 10-1886

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/18/2010
TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 247261.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12691	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-12691	2	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-12691	3	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-12691	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12691	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12691	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12691	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12691	3	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12691	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-12691	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-12691	3	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-12691	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-12691	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-12691	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-12691	1	POLY	WSP-RAD	Nitric Acid	WG
CAPA-10-12691	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-12692	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-12692	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-12692	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-12693	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12691	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-12691	2	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-12691	3	AMBER GLASS	WSP-8081A-Pest	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	2/16/10	1400	Greg Tyler	[illegible]	2-17-10	0845
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Tuesday, February 16, 2010

REQUEST NUMBER: 10-1886

LOS ALAMOS
NATIONAL LABORATORY

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

These Samples are on:
LANL Request Number:10-1886
Per Agreement Number:126310011
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/16/2010
TURNAROUND/REPORT DUE: 3/18/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-12692	WG	2/15/2010	
	EPA:150.1	1	CAPA-10-12692	WG	2/15/2010	
	EPA:160.1	1	CAPA-10-12692	WG	2/15/2010	
	EPA:245.2	1	CAPA-10-12691	WG	2/15/2010	
		1	CAPA-10-12692	WG	2/15/2010	
	EPA:300.0	1	CAPA-10-12692	WG	2/15/2010	
	EPA:310.1	1	CAPA-10-12692	WG	2/15/2010	
	EPA:335.3	1	CAPA-10-12691	WG	2/15/2010	
	EPA:350.1	1	CAPA-10-12692	WG	2/15/2010	

Tuesday, February 16, 2010

REQUEST NUMBER: 10-1886

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:351.2	1	CAPA-10-12691	WG	2/15/2010	
	EPA:353.2	1	CAPA-10-12692	WG	2/15/2010	
	EPA:365.4	1	CAPA-10-12692	WG	2/15/2010	
	EPA:900	1	CAPA-10-12691	WG	2/15/2010	
	EPA:901.1	1	CAPA-10-12691	WG	2/15/2010	
	EPA:905.0	1	CAPA-10-12691	WG	2/15/2010	
	HASL-300:AM-241	1	CAPA-10-12691	WG	2/15/2010	
	HASL-300:ISOPU	1	CAPA-10-12691	WG	2/15/2010	
	HASL-300:ISOU	1	CAPA-10-12691	WG	2/15/2010	
	SM:A2340B	1	CAPA-10-12691	WG	2/15/2010	
		1	CAPA-10-12692	WG	2/15/2010	
	SW-846:6010B	1	CAPA-10-12691	WG	2/15/2010	
		1	CAPA-10-12692	WG	2/15/2010	
	SW-846:6020	1	CAPA-10-12691	WG	2/15/2010	
		1	CAPA-10-12692	WG	2/15/2010	
	SW-846:6850	1	CAPA-10-12692	WG	2/15/2010	
	SW-846:8081A	1	CAPA-10-12691	WG	2/15/2010	
		2	CAPA-10-12691	WG	2/15/2010	
		3	CAPA-10-12691	WG	2/15/2010	
	SW-846:8082	1	CAPA-10-12691	WG	2/15/2010	
		2	CAPA-10-12691	WG	2/15/2010	
		3	CAPA-10-12691	WG	2/15/2010	
	SW-846:8260B	1	CAPA-10-12691	WG	2/15/2010	
		2	CAPA-10-12691	WG	2/15/2010	
		1	CAPA-10-12693	WG	2/15/2010	
	SW-846:8270C	1	CAPA-10-12691	WG	2/15/2010	
		2	CAPA-10-12691	WG	2/15/2010	
		3	CAPA-10-12691	WG	2/15/2010	

Tuesday, February 16, 2010

REQUEST NUMBER: 10-1886

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	CAPA-10-12691	WG	2/15/2010	
		2	CAPA-10-12691	WG	2/15/2010	
		3	CAPA-10-12691	WG	2/15/2010	
	SW-846:9060	1	CAPA-10-12691	WG	2/15/2010	

Final Page of REQUEST NUMBER 10-1886

GEL Laboratories LLC

a member of The GEL Group Inc.

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

P 843.556.8171 F 843.766.1178

www.gel.com

February 19, 2010

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

Re: LANL-WQH Water Samples
Work Order: 247261
SDG: 10-1886

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 17, 2010, and analyzed for Explosives by LCMSMS, GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile, GC/MS Volatile, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1886
Enclosures

problem solved

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 247261
SDG # : 10-1886

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Quality Control Data.....1050
Miscellaneous Data.....1094

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Quality Control Summary.....1115
Sample Data.....1121
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Quality Control Data.....1218
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Solids, Total Dissolved..... 1880
Specific Conductivity..... 1882
Total Kjeldahl Nitrogen..... 1884
Total Phosphorus..... 1894
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Miscellaneous..... 1907

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Standards Data..... 2284
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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 247261
SDG # : 10-1886

February 19, 2010

Laboratory Identification:

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

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 17, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. The Gross A/B container was preserved prior to analysis. The containers for radiochemistry were received at 13C temperature. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
247261001	CAPA-10-12691
247261002	CAPA-10-12691
247261003	CAPA-10-12691
247261004	CAPA-10-12692
247261005	CAPA-10-12693
247261006	CAPA-10-12691

Case Narrative

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

Data Package

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Explosives by LCMSMS, GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile, GC/MS Volatile, General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry.

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

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 19 February 2010

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

Chain of Custody and Supporting Documentation

Tuesday, February 16, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1886

LOS ALAMOS

NATIONAL LABORATORY

REQUEST NUMBER: 10-1886

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/18/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 247261.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12691	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-12691	2	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-12691	3	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-12691	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12691	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12691	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12691	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12691	3	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12691	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-12691	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-12691	3	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-12691	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-12691	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-12691	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-12691	1	POLY	WSP-RAD	Nitric Acid	WG
CAPA-10-12691	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-12692	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-12692	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-12692	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-12693	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12691	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-12691	2	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-12691	3	AMBER GLASS	WSP-8081A-Pest	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	2/16/10	1400	Greg Tyler	[illegible]	2-17-10	0845
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Tuesday, February 16, 2010

REQUEST NUMBER: 10-1886

LOS ALAMOS
NATIONAL LABORATORY

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

These Samples are on:
LANL Request Number:10-1886
Per Agreement Number:126310011
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/16/2010
TURNAROUND/REPORT DUE: 3/18/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-12692	WG	2/15/2010	
	EPA:150.1	1	CAPA-10-12692	WG	2/15/2010	
	EPA:160.1	1	CAPA-10-12692	WG	2/15/2010	
	EPA:245.2	1	CAPA-10-12691	WG	2/15/2010	
		1	CAPA-10-12692	WG	2/15/2010	
	EPA:300.0	1	CAPA-10-12692	WG	2/15/2010	
	EPA:310.1	1	CAPA-10-12692	WG	2/15/2010	
	EPA:335.3	1	CAPA-10-12691	WG	2/15/2010	
	EPA:350.1	1	CAPA-10-12692	WG	2/15/2010	

Tuesday, February 16, 2010

REQUEST NUMBER: 10-1886

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:351.2	1	CAPA-10-12691	WG	2/15/2010	
	EPA:353.2	1	CAPA-10-12692	WG	2/15/2010	
	EPA:365.4	1	CAPA-10-12692	WG	2/15/2010	
	EPA:900	1	CAPA-10-12691	WG	2/15/2010	
	EPA:901.1	1	CAPA-10-12691	WG	2/15/2010	
	EPA:905.0	1	CAPA-10-12691	WG	2/15/2010	
	HASL-300:AM-241	1	CAPA-10-12691	WG	2/15/2010	
	HASL-300:ISOPU	1	CAPA-10-12691	WG	2/15/2010	
	HASL-300:ISOU	1	CAPA-10-12691	WG	2/15/2010	
	SM:A2340B	1	CAPA-10-12691	WG	2/15/2010	
		1	CAPA-10-12692	WG	2/15/2010	
	SW-846:6010B	1	CAPA-10-12691	WG	2/15/2010	
		1	CAPA-10-12692	WG	2/15/2010	
	SW-846:6020	1	CAPA-10-12691	WG	2/15/2010	
		1	CAPA-10-12692	WG	2/15/2010	
	SW-846:6850	1	CAPA-10-12692	WG	2/15/2010	
	SW-846:8081A	1	CAPA-10-12691	WG	2/15/2010	
		2	CAPA-10-12691	WG	2/15/2010	
		3	CAPA-10-12691	WG	2/15/2010	
	SW-846:8082	1	CAPA-10-12691	WG	2/15/2010	
		2	CAPA-10-12691	WG	2/15/2010	
		3	CAPA-10-12691	WG	2/15/2010	
	SW-846:8260B	1	CAPA-10-12691	WG	2/15/2010	
		2	CAPA-10-12691	WG	2/15/2010	
		1	CAPA-10-12693	WG	2/15/2010	
	SW-846:8270C	1	CAPA-10-12691	WG	2/15/2010	
		2	CAPA-10-12691	WG	2/15/2010	
		3	CAPA-10-12691	WG	2/15/2010	

Tuesday, February 16, 2010

REQUEST NUMBER: 10-1886

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	1	CAPA-10-12691	WG	2/15/2010	
		2	CAPA-10-12691	WG	2/15/2010	
		3	CAPA-10-12691	WG	2/15/2010	
	SW-846:9060	1	CAPA-10-12691	WG	2/15/2010	

Final Page of REQUEST NUMBER 10-1886

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1886**
Received By: Greg Tyler	**Date Received: 2/17/10**

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

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **1,2,5C 13C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?			X	Sample ID's, containers affected and observed pH: **CAPA-10-12691 Gross A/B** If Preservation added, Lot#: **H51025**
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers:
7209 7850 0912 1C
7209 7850 0923 2C
7209 7850 0886 2C
7209 7850 0934 5C
7209 7850 0875 13C

PM (or PMA) review: Initials D. W. W. Date 2/18/10

Subject: Sample Receipt for 2/17/10
From: Dionne Francis <Dionne.Francis@gel.com>
Date: Thu, 18 Feb 2010 09:15:17 -0500
To: "Keith R. Greene" <kgreene@lanl.gov>, Joylene Valdez <joylenev@lanl.gov>, Valerie Davis <vsd@gel.com>

Good Morning Keith,

RN 10-1886: the Gross A/B container was preserved prior to analysis.

RN 10-1882: the TOC containers were preserved prior to analysis.

Thanks,
Dionne

--
Dionne Francis
Project Manager Assistant
GEL Laboratories, LLC
2040 Savage Road
Charleston, SC (USA) 29407
Direct: 843.769.7376 Ext. 4432
Main: 843.556.8171
Fax: 843.766.1178
E-mail: daf@gel.com
Web: www.gel.com

Let the Bible fill the memory, rule the heart, and guide the feet.

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 16FEB10
ACTWGT: 17.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AAREW01105800

1°

FedEx Express

TRK# 0201 7209 7850 0912

WED - 17FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 09-09

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 16FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

2°

FedEx Express

1 of 2

TRK# 0201 7209 7850 0923

WED - 17FEB A1
PRIORITY OVERNIGHT

MM MASTER MM

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 09-09

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 16FEB10
ACTWGT: 58.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

5°

FedEx Express

2 of 2

MPS# 0263 7209 7850 0934

Mstr# 7209 7850 0923 0201

WED - 17FEB A1
PRIORITY OVERNIGHT

29407
SC-US

XX CHSA

SAFA (505) 665-9968
DEZ
NATL LAB
1237 DPU 03
LAMOS, NM 87545
ED STATES US

SHIP DATE: 16FEB10
ACTWGT: 45.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

ALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWMO

2°

FedEx Express

3 of 3
MPS# 0263 7209 7850 0886
Mstr# 7209 7850 0864 0201

WED - 17FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505) 665-9968
YLENE VALDEZ
S ALAMOS NATL LAB
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S ALAMOS, NM 87545
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SHIP DATE: 16FEB10
ACTWGT: 44.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

ALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
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REF: 6B010AMR1A015AGWMO

13°

FedEx Express

2 of 3
MPS# 0263 7209 7850 0875
Mstr# 7209 50 0864 0201

WED - 17FEB A1
PRIORITY OVERNIGHT

29407
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DATA REVIEW QUALIFIER FLAG DEFINITION SHEET

Data Review Qualifier Definitions

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

GC/MS Volatile Analysis

GC/MS Volatile Organics
Los Alamos National Laboratory (LANL)
SDG 10-1886

Method/Analysis Information

Procedure: Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method: SW846 8260B DOE-AL
Prep Method: SW846 5030B
Analytical Batch Number: 956860

Sample Analysis

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

Sample ID	Client ID
247261002	CAPA-10-12691
247261005	CAPA-10-12693
1202051630	Method Blank (MB)
1202051633	Laboratory Control Sample (LCS)
1202051634	Laboratory Control Sample (LCS)
1202053165	Method Blank (MB)
1202053166	Laboratory Control Sample (LCS)
1202053167	Laboratory Control Sample (LCS)
1202051631	247261002(CAPA-10-12691) Post Spike (PS)
1202051632	247261002(CAPA-10-12691) Post Spike Duplicate (PSD)

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

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 19.1.2.

Calibration Information

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

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

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

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

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

Quality Control (QC) Information

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

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

Laboratory Control Sample (LCS) Recovery
The LCS recoveries for 1202051633 (LCS) and 1202053166 (LCS) were not all within the acceptance limits. The unacceptable recoveries were less than 5% of the requested analyte list. This satisfies the client criteria. The results are reported. See DER# 796000.

QC Sample Designation
Sample 247261002 (CAPA-10-12691) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

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

Technical Information

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

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

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

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

Miscellaneous Information

Electronic Package Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
The following DER was generated for this SDG: 796000

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

TIC Comment
Tentatively identified compounds (TIC) were required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

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

System Configuration

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

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA4.I	Gas Chromatograph/Mass Spectrometer	HP6890/HP5973	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement

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

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

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

Client SDG: 10-1886 GEL Work Order: 247261

The Qualifiers in this report are defined as follows:

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

** Analyte is a surrogate compound

J Value is estimated

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

Review/Validation

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

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

Signature: Stacy Calloway **Name: Stacy Calloway**

Date: 17 MAR 2010 **Title: Data Validator**

Roadmap for LANL 10-1886 VOA

This roadmap was analyzed by ACJ on 02-25-2010, 17:28.
This roadmap was reviewed by lys00434 on 02-26-2010, 14:18.

Sample

exclude	manual	datafile	smpid	clientid	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA4.i/022310v4/4z237.d	247261002	CAPA-10-12691	24-FEB-2010	10:16	10-1886.sub	1	956860	
☐	N	/chem/VOA4.i/022410v4/4z335.d	247261005	CAPA-10-12693	25-FEB-2010	08:39	10-1886.sub	1	956860	
■	N	/chem/VOA4.i/022410v4/4z336.d	247261005		25-FEB-2010	09:06	CALsubL+.sub	1	956860	

QC Sample

exclude	manual	datafile	smpid	clientid	sampletype	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA4.i/022310v4/4z229ll.d	1202051633	LCS	lcs	24-FEB-2010	06:35	all.sub	1	956860	
☐	N	/chem/VOA4.i/022310v4/4z230Sl.d	1202051634	LCS	lcs	24-FEB-2010	07:03	all.sub	1	956860	
☐	N	/chem/VOA4.i/022310v4/4z233bl.d	1202051630	BLANK	mb	24-FEB-2010	08:26	all.sub	1	956860	
☐	N	/chem/VOA4.i/022310v4/4z243.d	1202051631	CAPA-10-12691MS	ms	24-FEB-2010	13:02	10-1886.sub	1	956860	
☐	N	/chem/VOA4.i/022310v4/4z244.d	1202051632	CAPA-10-12691MSD	msd	24-FEB-2010	13:29	10-1886.sub	1	956860	
☐	N	/chem/VOA4.i/022410v4/4z329LL.d	1202053166	LCS	lcs	25-FEB-2010	05:54	all.sub	1	956860	
☐	N	/chem/VOA4.i/022410v4/4z330SL.d	1202053167	LCS	lcs	25-FEB-2010	06:22	all.sub	1	956860	
☐	N	/chem/VOA4.i/022410v4/4z333BL.d	1202053165	BLANK	mb	25-FEB-2010	07:44	all.sub	1	956860	

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261002**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12691**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 10:16**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/24/2010 10:16**				
Data File:	**4z237.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	J	0.306	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	J	8.62	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	J	3.15	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		5.73	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261002**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12691**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 10:16**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/24/2010 10:16**				
Data File:	**4z237.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261002**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12691**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 10:16**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/24/2010 10:16**				
Data File:	**4z237.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	50.9	50.0	ug/L	102	(72%-132%)
Bromofluorobenzene	57.4	50.0	ug/L	115	(77%-123%)
Toluene-d8	49.9	50.0	ug/L	99.7	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.48	8.06	ug/L		J
	Unknown Siloxane	14.83	21.3	ug/L		J
	Unknown Siloxane	16.79	14.7	ug/L		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261005**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12693**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 08:39**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/25/2010 08:39**				
Data File:	**4z335.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	J	4.00	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261005**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12693**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 08:39**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/25/2010 08:39**				
Data File:	**4z335.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261005**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12693**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 08:39**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/25/2010 08:39**				
Data File:	**4z335.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	49.0	50.0	ug/L	98.1	(72%-132%)
Bromofluorobenzene	56.6	50.0	ug/L	113	(77%-123%)
Toluene-d8	48.3	50.0	ug/L	96.6	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.48	10.6	ug/L		J
	Unknown Siloxane	14.83	25.6	ug/L		J

QC Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-1886

Matrix Type: LIQUID

CAP Column (1) : RTX-VOLATILES

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202051633	LCS for batch 956860	95	96	101
1202051634	LCS for batch 956860	97	96	105
1202051630	MB for batch 956860	98	98	112
247261002	CAPA-10-12691	102	100	115
1202051631	CAPA-10-12691PS	99	95	104
1202051632	CAPA-10-12691PSD	96	94	105
1202053166	LCS for batch 956860	93	90	100
1202053167	LCS for batch 956860	94	92	106
1202053165	MB for batch 956860	96	95	112
247261005	CAPA-10-12693	98	97	113

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(72%-132%)
TOL	= Toluene-d8	(76%-122%)
BFB	= Bromofluorobenzene	(77%-123%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886
Client ID: CAPA-10-12691PS
Lab Sample ID: 1202051631
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: GROUND WATER
Analysis Date: 02/24/2010 13:02
Dilution: 1
Prep Batch ID: 956860
Batch ID: 956860

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	36.8	74	36-136
74-87-3	PS	Chloromethane	50.0	0.306	J	45.9	91	47-135
75-01-4	PS	Vinyl chloride	50.0	0.00	U	50.9	102	51-136
74-83-9	PS	Bromomethane	50.0	0.00	U	52.0	104	50-140
75-00-3	PS	Chloroethane	50.0	0.00	U	50.9	102	60-125
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	46.8	94	54-146
60-29-7	PS	Ethyl ether	50.0	0.00	U	51.3	103	61-112
67-64-1	PS	Acetone	250	8.62	J	117	43	15-142
75-05-8	PS	Acetonitrile	1250	0.00	U	1550	124	53-129
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	45.7	91	59-128
74-88-4	PS	Iodomethane	250	0.00	U	224	89	57-133
75-09-2	PS	Methylene chloride	50.0	0.00	U	45.8	92	63-122
75-15-0	PS	Carbon disulfide	250	0.00	U	252	101	62-135
1634-04-4	PS	tert-Butyl methyl ether	50.0	0.00	U	48.1	96	65-120
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	47.2	94	64-120
108-05-4	PS	Vinyl acetate	250	0.00	U	307	123	56-151
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	48.7	97	58-132
78-93-3	PS	2-Butanone	250	3.15	J	158	62	11-118
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	49.6	99	63-132
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	45.2	90	56-136
67-66-3	PS	Chloroform	50.0	0.00	U	47.7	95	68-130
74-97-5	PS	Bromochloromethane	50.0	0.00	U	47.0	94	70-124

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886
Client ID: CAPA-10-12691PS
Lab Sample ID: 1202051631
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: GROUND WATER
Analysis Date: 02/24/2010 13:02
Prep Batch ID: 956860
Batch ID: 956860
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	45.6	91	66-132
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	45.3	91	64-130
71-36-3	PS	n-Butyl alcohol	5000	0.00	U	6040	121	52-149
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	47.2	94	61-137
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	51.7	103	60-127
71-43-2	PS	Benzene	50.0	0.00	U	45.5	91	65-119
79-01-6	PS	Trichloroethylene	50.0	0.00	U	43.5	87	68-121
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	48.7	97	69-122
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	48.1	96	67-134
74-95-3	PS	Dibromomethane	50.0	0.00	U	47.8	96	70-122
108-10-1	PS	4-Methyl-2-pentanone	250	5.73		248	97	52-130
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	44.9	90	64-133
108-88-3	PS	Toluene	50.0	0.00	U	42.6	85	64-116
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	44.8	90	63-133
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	46.4	93	66-123
591-78-6	PS	2-Hexanone	250	0.00	U	175	70	25-125
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	48.0	96	70-119
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	38.4	77	63-121
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	47.0	94	66-132
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	46.8	94	72-122
108-90-7	PS	Chlorobenzene	50.0	0.00	U	42.8	86	74-116
100-41-4	PS	Ethylbenzene	50.0	0.00	U	41.6	83	59-125

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-1886 **Sample Type:** Post Spike

Client ID: CAPA-10-12691PS **Matrix:** GROUND WATER

Lab Sample ID: 1202051631

Instrument: VOA4.I **Analysis Date:** 02/24/2010 13:02 **Dilution:** 1

Analyst: ACJ **Prep Batch ID** 956860

Purge Vol: 5 mL **Batch ID:** 956860

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	PS	m,p-Xylenes	100	0.00	U	82.5	82	48-140
95-47-6	PS	o-Xylene	50.0	0.00	U	43.1	86	59-134
100-42-5	PS	Styrene	50.0	0.00	U	43.2	86	54-138
75-25-2	PS	Bromoform	50.0	0.00	U	44.4	89	59-140
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	47.8	96	65-124
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	46.1	92	61-137
108-86-1	PS	Bromobenzene	50.0	0.00	U	41.5	83	64-125
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	38.5	77	56-128
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	41.2	82	62-125
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	38.7	77	44-134
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	39.4	79	55-133
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	39.2	78	62-126
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	39.7	79	62-130
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	38.4	77	66-123
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	38.2	76	61-121
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	36.8	74	60-136
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	39.1	78	66-122
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	38.6	77	75-120
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	34.9	70	57-133
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	44.6	89	58-138
87-68-3	PS	Hexachlorobutadiene	50.0	0.00	U	27.0	54	48-136
91-20-3	PS	Naphthalene	50.0	0.00	U	41.4	83	63-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886
Client ID: CAPA-10-12691PS
Lab Sample ID: 1202051631
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: GROUND WATER
Analysis Date: 02/24/2010 13:02
Prep Batch ID: 956860
Batch ID: 956860
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
87-61-6	PS	1,2,3-Trichlorobenzene	50.0	0.00	U	35.6	71	65-129
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	44.9	90	69-128
120-82-1	PS	1,2,4-Trichlorobenzene	50.0	0.00	U	33.0	66	56-130
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	40.9	82	67-123

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886 **Sample Type:** Post Spike Duplicate

Client ID: CAPA-10-12691PSD **Matrix:** GROUND WATER

Lab Sample ID: 1202051632

Instrument: VOA4.I **Analysis Date:** 02/24/2010 13:29 **Dilution:** 1

Analyst: ACJ **Prep Batch ID:** 956860

Purge Vol: 5 mL **Batch ID:** 956860

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	36.3	73	36-136	1	0-20
74-87-3	PSD	Chloromethane	50.0	0.306	J	45.6	91	47-135	1	0-20
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	49.7	99	51-136	2	0-20
74-83-9	PSD	Bromomethane	50.0	0.00	U	52.9	106	50-140	2	0-20
75-00-3	PSD	Chloroethane	50.0	0.00	U	50.9	102	60-125	0	0-20
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	45.5	91	54-146	3	0-20
60-29-7	PSD	Ethyl ether	50.0	0.00	U	49.2	98	61-112	4	0-20
67-64-1	PSD	Acetone	250	8.62	J	117	43	15-142	0	0-20
75-05-8	PSD	Acetonitrile	1250	0.00	U	1530	122	53-129	1	0-20
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	43.4	87	59-128	5	0-20
74-88-4	PSD	Iodomethane	250	0.00	U	219	88	57-133	2	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	45.6	91	63-122	0	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	243	97	62-135	4	0-20
1634-04-4	PSD	tert-Butyl methyl ether	50.0	0.00	U	47.3	95	65-120	2	0-20
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	44.8	90	64-120	5	0-20
108-05-4	PSD	Vinyl acetate	250	0.00	U	298	119	56-151	3	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	46.1	92	58-132	5	0-20
78-93-3	PSD	2-Butanone	250	3.15	J	157	61	11-118	1	0-20
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	46.8	94	63-132	6	0-20
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	42.0	84	56-136	7	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	45.4	91	68-130	5	0-20
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	45.5	91	70-124	3	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886
Client ID: CAPA-10-12691PSD
Lab Sample ID: 1202051632
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 02/24/2010 13:29
Dilution: 1
Prep Batch ID: 956860
Batch ID: 956860

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	43.0	86	66-132	6	0-20
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	42.7	85	64-130	6	0-29
71-36-3	PSD	n-Butyl alcohol	5000	0.00	U	5900	118	52-149	2	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	43.7	87	61-137	8	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	49.3	99	60-127	5	0-20
71-43-2	PSD	Benzene	50.0	0.00	U	43.2	86	65-119	5	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	40.1	80	68-121	8	0-20
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	46.8	94	69-122	4	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	45.9	92	67-134	5	0-20
74-95-3	PSD	Dibromomethane	50.0	0.00	U	46.2	92	70-122	3	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	5.73		245	96	52-130	1	0-20
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	42.8	86	64-133	5	0-20
108-88-3	PSD	Toluene	50.0	0.00	U	40.0	80	64-116	6	0-20
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	43.6	87	63-133	3	0-20
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	44.9	90	66-123	3	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	173	69	25-125	1	0-20
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	46.7	93	70-119	3	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	35.7	71	63-121	7	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	45.7	91	66-132	3	0-20
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	45.3	91	72-122	3	0-20
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	40.1	80	74-116	7	0-20
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	38.4	77	59-125	8	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886 **Sample Type:** Post Spike Duplicate

Client ID: CAPA-10-12691PSD **Matrix:** GROUND WATER

Lab Sample ID: 1202051632

Instrument: VOA4.I **Analysis Date:** 02/24/2010 13:29 **Dilution:** 1

Analyst: ACJ **Prep Batch ID:** 956860

Purge Vol: 5 mL **Batch ID:** 956860

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	77.6	78	48-140	6	0-20
95-47-6	PSD	o-Xylene	50.0	0.00	U	40.2	80	59-134	7	0-20
100-42-5	PSD	Styrene	50.0	0.00	U	40.8	82	54-138	6	0-20
75-25-2	PSD	Bromoform	50.0	0.00	U	45.2	90	59-140	2	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	47.6	95	65-124	0	0-20
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	45.9	92	61-137	0	0-20
108-86-1	PSD	Bromobenzene	50.0	0.00	U	40.4	81	64-125	3	0-20
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	36.4	73	56-128	6	0-20
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	38.8	78	62-125	6	0-20
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	36.7	73	44-134	5	0-20
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	37.2	74	55-133	6	0-20
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	38.0	76	62-126	3	0-20
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	35.2	70	62-130	12	0-20
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	37.0	74	66-123	4	0-20
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	36.4	73	61-121	5	0-20
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	35.7	71	60-136	3	0-20
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	38.1	76	66-122	2	0-20
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	38.4	77	75-120	1	0-20
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	34.4	69	57-133	1	0-20
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	45.7	91	58-138	2	0-20
87-68-3	PSD	Hexachlorobutadiene	50.0	0.00	U	29.6	59	48-136	9	0-20
91-20-3	PSD	Naphthalene	50.0	0.00	U	42.1	84	63-129	2	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-1886**
Client ID: **CAPA-10-12691PSD**
Lab Sample ID: **1202051632**
Instrument: **VOA4.I**
Analyst: **ACJ**
Purge Vol: **5 mL**

Sample Type: **Post Spike Duplicate**
Matrix: **GROUND WATER**
Analysis Date: **02/24/2010 13:29**
Prep Batch ID: **956860**
Batch ID: **956860**
Dilution: **1**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
87-61-6	PSD	1,2,3-Trichlorobenzene	50.0	0.00	U	37.0	74	65-129	4	0-24
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	42.5	85	69-128	5	0-20
120-82-1	PSD	1,2,4-Trichlorobenzene	50.0	0.00	U	33.5	67	56-130	2	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	40.3	81	67-123	1	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886
Client ID: LCS for batch 956860
Lab Sample ID: 1202051633
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: WATER
Analysis Date: 02/24/2010 06:35
Dilution: 1
Prep Batch ID: 956860
Batch ID: 956860

CAS No	Parmname		Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	40.4	81	58-147
74-87-3	LCS	Chloromethane	50.0	0.0	45.9	92	57-131
75-01-4	LCS	Vinyl chloride	50.0	0.0	53.5	107	68-129
74-83-9	LCS	Bromomethane	50.0	0.0	58.7	117	70-129
75-00-3	LCS	Chloroethane	50.0	0.0	54.3	109	69-128
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	51.6	103	70-150
60-29-7	LCS	Ethyl ether	50.0	0.0	51.5	103	68-122
67-64-1	LCS	Acetone	250	0.0	222	89	30-152
75-05-8	LCS	Acetonitrile	1250	0.0	1560	125 *	60-121
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	45.4	91	71-130
74-88-4	LCS	Iodomethane	250	0.0	170	68 *	71-129
75-09-2	LCS	Methylene chloride	50.0	0.0	46.2	92	70-124
75-15-0	LCS	Carbon disulfide	250	0.0	258	103	74-137
1634-04-4	LCS	tert-Butyl methyl ether	50.0	0.0	51.4	103	70-120
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	49.2	98	73-122
108-05-4	LCS	Vinyl acetate	250	0.0	262	105	62-143
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	50.3	101	75-121
78-93-3	LCS	2-Butanone	250	0.0	221	88	30-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	51.1	102	76-125
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	52.3	105	74-138
67-66-3	LCS	Chloroform	50.0	0.0	49.5	99	75-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	50.1	100	74-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 956860 **Matrix:** WATER

Lab Sample ID: 1202051633

Instrument: VOA4.I **Analysis Date:** 02/24/2010 06:35 **Dilution:** 1

Analyst: ACJ **Prep Batch ID:** 956860

Purge Vol: 5 mL **Batch ID:** 956860

CAS No	Parmname		Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	50.0	100	73-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	48.2	96	79-130
71-36-3	LCS	n-Butyl alcohol	5000	0.0	6220	124	60-141
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	51.2	102	73-139
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	52.1	104	66-123
71-43-2	LCS	Benzene	50.0	0.0	48.0	96	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	47.9	96	78-123
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	50.2	100	75-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	49.8	100	76-129
74-95-3	LCS	Dibromomethane	50.0	0.0	49.6	99	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	259	104	57-132
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	48.3	97	78-129
108-88-3	LCS	Toluene	50.0	0.0	46.4	93	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	49.7	99	77-126
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	48.9	98	74-120
591-78-6	LCS	2-Hexanone	250	0.0	222	89	30-149
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	51.4	103	74-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	44.2	88	73-124
124-48-1	LCS	Dibromochloromethane	50.0	0.0	51.4	103	74-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	50.8	102	77-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	46.2	92	77-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	45.0	90	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 956860 **Matrix:** WATER

Lab Sample ID: 1202051633

Instrument: VOA4.I **Analysis Date:** 02/24/2010 06:35 **Dilution:** 1

Analyst: ACJ **Prep Batch ID:** 956860

Purge Vol: 5 mL **Batch ID:** 956860

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	LCS	m,p-Xylenes	100	0.0	90.6	91	75-121
95-47-6	LCS	o-Xylene	50.0	0.0	47.2	94	76-123
100-42-5	LCS	Styrene	50.0	0.0	47.2	94	74-128
75-25-2	LCS	Bromoform	50.0	0.0	48.2	96	67-134
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	47.4	95	69-120
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	48.7	97	72-134
108-86-1	LCS	Bromobenzene	50.0	0.0	43.9	88	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	40.4	81	70-123
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	42.8	86	72-121
98-82-8	LCS	Isopropylbenzene	50.0	0.0	40.7	81	58-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	41.9	84	71-125
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	42.1	84	73-122
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	42.5	85	75-127
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	41.2	82	74-123
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	41.0	82	74-126
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	40.6	81	76-129
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	42.6	85	76-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	42.6	85	75-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	39.1	78	75-130
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	51.0	102	66-130
87-68-3	LCS	Hexachlorobutadiene	50.0	0.0	35.4	71	67-132
91-20-3	LCS	Naphthalene	50.0	0.0	48.2	96	66-126

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886
Client ID: LCS for batch 956860
Lab Sample ID: 1202051633
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: WATER
Analysis Date: 02/24/2010 06:35
Dilution: 1
Prep Batch ID: 956860
Batch ID: 956860

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
87-61-6	LCS	1,2,3-Trichlorobenzene	50.0	0.0	43.9	88	71-130
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	49.0	98	76-125
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	40.4	81	73-127
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	44.3	89	76-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886
Client ID: LCS for batch 956860
Lab Sample ID: 1202051634
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: WATER
Analysis Date: 02/24/2010 07:03
Dilution: 1
Prep Batch ID: 956860
Batch ID: 956860

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
107-02-8	LCS	Acrolein	250	0.0	282	113	43-147
76-13-1	LCS	Trichlorotrifluoroethane	250	0.0	226	90	66-142
107-05-1	LCS	Allyl chloride	250	0.0	238	95	61-137
107-13-1	LCS	Acrylonitrile	250	0.0	232	93	55-137
126-99-8	LCS	2-Chloro-1,3-butadiene	50.0	0.0	46.6	93	71-143
107-12-0	LCS	Propionitrile	250	0.0	225	90	68-131
126-98-7	LCS	Methacrylonitrile	250	0.0	237	95	54-134
78-83-1	LCS	Isobutyl alcohol	2500	0.0	2540	101	50-143
80-62-6	LCS	Methyl methacrylate	250	0.0	221	88	63-133
97-63-2	LCS	Ethyl methacrylate	250	0.0	224	90	66-128

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886
Client ID: LCS for batch 956860
Lab Sample ID: 1202053166
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: WATER
Analysis Date: 02/25/2010 05:54
Dilution: 1
Prep Batch ID: 956860
Batch ID: 956860

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	31.8	64	58-147
74-87-3	LCS	Chloromethane	50.0	0.0	41.3	83	57-131
75-01-4	LCS	Vinyl chloride	50.0	0.0	48.9	98	68-129
74-83-9	LCS	Bromomethane	50.0	0.0	53.7	107	70-129
75-00-3	LCS	Chloroethane	50.0	0.0	48.9	98	69-128
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	48.0	96	70-150
60-29-7	LCS	Ethyl ether	50.0	0.0	48.7	97	68-122
67-64-1	LCS	Acetone	250	0.0	216	86	30-152
75-05-8	LCS	Acetonitrile	1250	0.0	1530	123 *	60-121
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	43.9	88	71-130
74-88-4	LCS	Iodomethane	250	0.0	237	95	71-129
75-09-2	LCS	Methylene chloride	50.0	0.0	44.7	89	70-124
75-15-0	LCS	Carbon disulfide	250	0.0	245	98	74-137
1634-04-4	LCS	tert-Butyl methyl ether	50.0	0.0	48.0	96	70-120
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	46.4	93	73-122
108-05-4	LCS	Vinyl acetate	250	0.0	260	104	62-143
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	47.0	94	75-121
78-93-3	LCS	2-Butanone	250	0.0	211	84	30-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	49.7	99	76-125
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	51.5	103	74-138
67-66-3	LCS	Chloroform	50.0	0.0	47.1	94	75-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	48.2	96	74-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886
Client ID: LCS for batch 956860
Lab Sample ID: 1202053166
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: WATER
Analysis Date: 02/25/2010 05:54
Dilution: 1
Prep Batch ID: 956860
Batch ID: 956860

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	47.5	95	73-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	46.4	93	79-130
71-36-3	LCS	n-Butyl alcohol	5000	0.0	6280	126	60-141
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	48.6	97	73-139
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	50.1	100	66-123
71-43-2	LCS	Benzene	50.0	0.0	45.9	92	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	47.2	94	78-123
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	48.3	97	75-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	47.6	95	76-129
74-95-3	LCS	Dibromomethane	50.0	0.0	47.6	95	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	240	96	57-132
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	46.9	94	78-129
108-88-3	LCS	Toluene	50.0	0.0	44.4	89	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	47.2	94	77-126
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	45.8	92	74-120
591-78-6	LCS	2-Hexanone	250	0.0	207	83	30-149
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	48.5	97	74-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	43.9	88	73-124
124-48-1	LCS	Dibromochloromethane	50.0	0.0	47.9	96	74-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	47.8	96	77-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	46.2	92	77-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	45.2	90	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886
Client ID: LCS for batch 956860
Lab Sample ID: 1202053166
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: WATER
Analysis Date: 02/25/2010 05:54
Dilution: 1
Prep Batch ID: 956860
Batch ID: 956860

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	LCS	m,p-Xylenes	100	0.0	92.2	92	75-121
95-47-6	LCS	o-Xylene	50.0	0.0	47.4	95	76-123
100-42-5	LCS	Styrene	50.0	0.0	48.0	96	74-128
75-25-2	LCS	Bromoform	50.0	0.0	46.9	94	67-134
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	45.8	92	69-120
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	45.5	91	72-134
108-86-1	LCS	Bromobenzene	50.0	0.0	45.8	92	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	43.5	87	70-123
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	45.6	91	72-121
98-82-8	LCS	Isopropylbenzene	50.0	0.0	42.3	85	58-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	44.7	89	71-125
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	45.0	90	73-122
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	41.9	84	75-127
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	44.3	89	74-123
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	44.4	89	74-126
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	44.9	90	76-129
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	46.2	92	76-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	46.4	93	75-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	44.6	89	75-130
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	47.7	95	66-130
87-68-3	LCS	Hexachlorobutadiene	50.0	0.0	42.5	85	67-132
91-20-3	LCS	Naphthalene	50.0	0.0	49.4	99	66-126

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886
Client ID: LCS for batch 956860
Lab Sample ID: 1202053166
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: WATER
Analysis Date: 02/25/2010 05:54
Dilution: 1
Prep Batch ID: 956860
Batch ID: 956860

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
87-61-6	LCS	1,2,3-Trichlorobenzene	50.0	0.0	48.0	96	71-130
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	47.4	95	76-125
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	46.0	92	73-127
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	46.6	93	76-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 956860 **Matrix:** WATER

Lab Sample ID: 1202053167

Instrument: VOA4.I **Analysis Date:** 02/25/2010 06:22 **Dilution:** 1

Analyst: ACJ **Prep Batch ID:** 956860

Purge Vol: 5 mL **Batch ID:** 956860

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
107-02-8	LCS	Acrolein	250	0.0	266	106	43-147
76-13-1	LCS	Trichlorotrifluoroethane	250	0.0	186	74	66-142
107-05-1	LCS	Allyl chloride	250	0.0	222	89	61-137
107-13-1	LCS	Acrylonitrile	250	0.0	217	87	55-137
126-99-8	LCS	2-Chloro-1,3-butadiene	50.0	0.0	42.8	86	71-143
107-12-0	LCS	Propionitrile	250	0.0	220	88	68-131
126-98-7	LCS	Methacrylonitrile	250	0.0	222	89	54-134
78-83-1	LCS	Isobutyl alcohol	2500	0.0	2560	102	50-143
80-62-6	LCS	Methyl methacrylate	250	0.0	209	84	63-133
97-63-2	LCS	Ethyl methacrylate	250	0.0	209	84	66-128

Method Blank Summary

SDG Number:	10-1886	Client:	LANL010	Matrix:	WATER
Client ID:	MB for batch 956860	Instrument ID:	VOA4.I	Data File:	4z233bl.d
Lab Sample ID:	1202051630	Prep Date:	02/24/2010 08:26	Analyzed:	02/24/10 08:26
Column:	RTX-VOLATILES	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 956860	1202051633	4z229ll.d	02/24/10	0635
02	LCS for batch 956860	1202051634	4z230Sl.d	02/24/10	0703
03	CAPA-10-12691	247261002	4z237.d	02/24/10	1016
04	CAPA-10-12691PS	1202051631	4z243.d	02/24/10	1302
05	CAPA-10-12691PSD	1202051632	4z244.d	02/24/10	1329

Method Blank Summary

SDG Number:	10-1886	**Client:**	LANL010	**Matrix:**	WATER
Client ID:	MB for batch 956860	**Instrument ID:**	VOA4.I	**Data File:**	4z333BL.d
Lab Sample ID:	1202053165	**Prep Date:**	02/25/2010 07:44	**Analyzed:**	02/25/10 07:44
Column:	RTX-VOLATILES	**Heated Purge:**	Yes		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 956860	1202053166	4z329LL.d	02/25/10	0554
02 LCS for batch 956860	1202053167	4z330SL.d	02/25/10	0622
03 CAPA-10-12693	247261005	4z335.d	02/25/10	0839

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-1886

Instrument ID: VOA4.I **Injection Date/Time:** 19-FEB-10 20:16

Column Description: DB-624 **Lab File ID** /021910v4/4y501.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	18.6
75	30.0 - 60.0% of mass 95	49.7
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	79.9
175	5.0 -9.0% of mass 174	7.4
176	95.0 - 101.0% of mass 174	96.7
177	5.0 - 9.0% of mass 176	6.8

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD0005	W4VM100219-01	4y503.d	19-FEB-10 21:11
VSTD001	W4VM100219-02	4y504.d	19-FEB-10 21:39
VSTD002	W4VM100219-04	4y506.d	19-FEB-10 22:35
VSTD005	W4VM100219-05	4y507.d	19-FEB-10 23:03
VSTD010	W4VM100219-06	4y508.d	19-FEB-10 23:30
VSTD020	W4VM100219-07	4y509.d	19-FEB-10 23:59
VSTD050	W4VM100219-08	4y510.d	20-FEB-10 00:27
VSTD100	W4VM100219-09	4y511.d	20-FEB-10 00:54
VSTD005S	W4VM100219-10	4y513.d	20-FEB-10 01:50
VSTD010S	W4VM100219-11	4y514.d	20-FEB-10 02:18
VSTD025S	W4VM100219-12	4y515.d	20-FEB-10 02:46
VSTD050S	W4VM100219-13	4y516.d	20-FEB-10 03:13
VSTD100S	W4VM100219-14	4y517.d	20-FEB-10 03:41
VSTD250S	W4VM100219-15	4y518.d	20-FEB-10 04:09
VSTD500S	W4VM100219-16	4y519.d	20-FEB-10 04:37
SECOND SOURCE	W4VM100219-18	4y522.d	20-FEB-10 06:01
SHORT SECOND SOURCE	W4VM100219-19	4y523.d	20-FEB-10 06:28

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-1886

Instrument ID: VOA4.I **Injection Date/Time:** 24-FEB-10 05:40

Column Description: DB-624 **Lab File ID** /022310v4/4z227.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	21.6
75	30.0 - 60.0% of mass 95	52.1
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	72.6
175	5.0 -9.0% of mass 174	7.5
176	95.0 - 101.0% of mass 174	95.5
177	5.0 - 9.0% of mass 176	7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050	W4VM100223-05	4z228.d	24-FEB-10 06:08
LCS	1202051633	4z229ll.d	24-FEB-10 06:35
VSTD250S	W4VM100223-07	4z230.d	24-FEB-10 07:03
LCS	1202051634	4z230Sl.d	24-FEB-10 07:03
BLANK	1202051630	4z233bl.d	24-FEB-10 08:26
CAPA-10-12691	247261002	4z237.d	24-FEB-10 10:16
CAPA-10-12691MS	1202051631	4z243.d	24-FEB-10 13:02
CAPA-10-12691MSD	1202051632	4z244.d	24-FEB-10 13:29

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-1886

Instrument ID: VOA4.I **Injection Date/Time:** 25-FEB-10 04:31

Column Description: DB-624 **Lab File ID** /022410v4/4z326.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	21.3
75	30.0 - 60.0% of mass 95	51.8
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	77.3
175	5.0 -9.0% of mass 174	7
176	95.0 - 101.0% of mass 174	96.1
177	5.0 - 9.0% of mass 176	6.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050	W4VM100224-06	4z327.d	25-FEB-10 04:59
LCS	1202053166	4z329LL.d	25-FEB-10 05:54
VSTD250S	W4VM100224-09	4z330.d	25-FEB-10 06:22
LCS	1202053167	4z330SL.d	25-FEB-10 06:22
BLANK	1202053165	4z333BL.d	25-FEB-10 07:44
CAPA-10-12693	247261005	4z335.d	25-FEB-10 08:39

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA4.I

GC Column: RTX-VOLATILES

Client SDG: 10-1886

STD Analysis Time: 24-FEB-10 06:08

Data File: 4z228.d

	Fluorobenzene				Chlorobenzene-d5				1,4-Dichlorobenzene-d4			
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	1606797		10.6		1307664		13.8		891495		16.2	
Upper Limit	3213594		11.1		2615328		14.3		1782990		16.7	
Lower Limit	803399		10.1		653832		13.3		445748		15.7	
Sample ID												
BLK01LCS	1678394		10.6		1342598		13.8		939998		16.2	
BLK01SLCS	1679471		10.6		1362312		13.8		886258		16.2	
BLK01	1634330		10.6		1276736		13.8		761263		16.2	
CAPA-10-12691	1526692		10.6		1187830		13.8		704039		16.2	
CAPA-10-12691MS	1504559		10.6		1243650		13.8		840935		16.2	
CAPA-10-12691MSD	1590531		10.6		1300907		13.8		864506		16.2	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA4.I

GC Column: RTX-VOLATILES

Client SDG: 10-1886

STD Analysis Time: 25-FEB-10 04:59

Data File: 4z327.d

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1505510		10.6	1256766		13.8	879765		16.2
Upper Limit	3011020		11.1	2513532		14.3	1759530		16.7
Lower Limit	752755		10.1	628383		13.3	439883		15.7
Sample ID									
BLK02LCS	1598548		10.6	1321645		13.8	918208		16.2
BLK02SLCS	1636017		10.6	1337607		13.8	859155		16.2
BLK02	1501612		10.6	1204477		13.8	718783		16.2
CAPA-10-12693	1432095		10.6	1130893		13.8	668215		16.2

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261002**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12691**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 10:16**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/24/2010 10:16**				
Data File:	**4z237.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	J	0.306	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	J	8.62	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	J	3.15	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		5.73	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261002**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12691**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 10:16**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/24/2010 10:16**				
Data File:	**4z237.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261002**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12691**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 10:16**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/24/2010 10:16**				
Data File:	**4z237.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	50.9	50.0	ug/L	102	(72%-132%)
Bromofluorobenzene	57.4	50.0	ug/L	115	(77%-123%)
Toluene-d8	49.9	50.0	ug/L	99.7	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.48	8.06	ug/L		J
	Unknown Siloxane	14.83	21.3	ug/L		J
	Unknown Siloxane	16.79	14.7	ug/L		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/022310v4/4z237.d
Lab Smp Id: 247261002 Client Smp ID: CAPA-10-12691
Inj Date : 24-FEB-2010 10:16
Operator : ACJ Inst ID: VOA4.i
Smp Info : |247261002|956860|1|VOAF|1|
Misc Info : LANL 5ML PH2
Comment :
Method : /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m
Meth Date : 24-Feb-2010 15:17 amj Quant Type: ISTD
Cal Date : 20-FEB-2010 04:09 Cal File: 4y518.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1886.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 40 Fluorobenzene	96	10.620	10.620	(1.000)	1526692	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.772	(1.000)	1187830	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.180	16.180	(1.000)	704039	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.260	10.260	(0.966)	394218	50.9294	50.9
$ 47 Toluene-d8	98	12.253	12.254	(0.890)	1319829	49.8721	49.9
$ 71 Bromofluorobenzene	95	14.954	14.954	(0.924)	739379	57.3575	57.4
4 Chloromethane	50	5.299	5.292	(0.499)	4735	0.30636	0.31(a)
10 Acetone	43	7.364	7.352	(0.693)	65345	8.62077	8.6(a)
30 2-Butanone	43	9.327	9.327	(0.878)	27642	3.14927	3.1(a)
49 4-Methyl-2-pentanone	58	12.016	12.022	(0.872)	24382	5.73157	5.7(H)

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).

QC Flag Legend

H - Operator selected an alternate compound hit.

ION RATIO REPORT

VOA REPORT

Data file: 4z237.d
Report Date: 02/24/2010 15:19
Lab. ID: 247261002 SampleType: SAMPLE
Injection Date: 24-FEB-2010 10:16
Operator: ACJ Instrument: VOA4.i
Sample Info: |247261002|956860|1|VOAF|1|
Miscellaneous Info: LANL 5ML PH2
Comment:
Method used: /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1886
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Chloromethane			CAS#: 74-87-3			
50	4735	5.30	5.29	80-120	100	( )
52	751	5.29	5.29	3- 63	16	( )
10 Acetone			CAS#: 67-64-1			
43	65345	7.36	7.35	80-120	100	( )
58	15926	7.36	7.36	0- 58	24	( )
30 2-Butanone			CAS#: 78-93-3			
43	27642	9.33	9.33	80-120	100	( )
72	5153	9.34	9.33	0- 54	19	( )
37 1,2-Dichloroethane			CAS#: 107-06-2			
62	22098	10.61	10.34	80-120	100	(T)
64	4017	10.62	10.34	3- 63	18	(T)
49 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	24382	12.02	12.02	80-120	100	( )
43	68700	12.02	12.02	225-285	282	( )
100	8290	12.02	12.02	7- 67	34	( )
54 1,1,2-Trichloroethane			CAS#: 79-00-5			
83	25495	13.01	12.69	80-120	100	(T)
97	309	12.49	12.69	87-147	1	(QT)
85	215	12.31	12.69	35- 95	1	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Hexanone			CAS#: 591-78-6			
43	14718	13.02	12.86	80-120	100	(T)
58	139	12.88	12.86	24- 84	1	(Q)
57	236	13.04	12.86	0- 48	2	(T)
66 Bromoform			CAS#: 75-25-2			
173	3151	14.96	14.66	80-120	100	(T)
175	40270	14.95	14.66	19- 79	1278	(QT)
74 1,2,3-Trichloropropane			CAS#: 96-18-4			
110	2748	14.82	15.11	80-120	100	(T)
75	8210	14.83	15.11	241-301	299	(T)
77	637	14.81	15.11	56-116	23	(QT)
131 n-Butyl alcohol			CAS#: 71-36-3			
56	10348	10.62	10.69	80-120	100	(T)
41	1271	10.70	10.69	45-105	12	(Q)
43	1116	10.61	10.69	29- 89	11	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/022310v4/4z237.d
Lab Smp Id: 247261002 Client Smp ID: CAPA-10-12691
Inj Date : 24-FEB-2010 10:16
Operator : ACJ Inst ID: VOA4.i
Smp Info : |247261002|956860|1|VOAF|1|
Misc Info : LANL 5ML PH2
Comment :
Method : /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m
Meth Date : 24-Feb-2010 15:17 amj Quant Type: ISTD
Cal Date : 20-FEB-2010 04:09 Cal File: 4y518.d
Als bottle: 37
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1886.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 40 Fluorobenzene	10.620	3440350	50.000
* 61 Chlorobenzene-d5	13.771	3748307	50.000
* 86 1,4-Dichlorobenzene-d4	16.180	4337702	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/l)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
4.481	554759	8.06253876	8.1	0		0	40

RT	AREA	CONCENTRATIONS ON-COL(ug/l)	FINAL(ug/l)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane					CAS #:		
14.826	1594700	21.2722696	21.3	0		0	61
Unknown Siloxane					CAS #:		
16.789	1271841	14.6603028	14.7	0		0	86

Data File: /chem/VOA4.i/022310v4/4z237.d
Date : 24-FEB-2010 10:16
Client ID: CAPA-10-12691
Sample Info: |2472610021956860|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

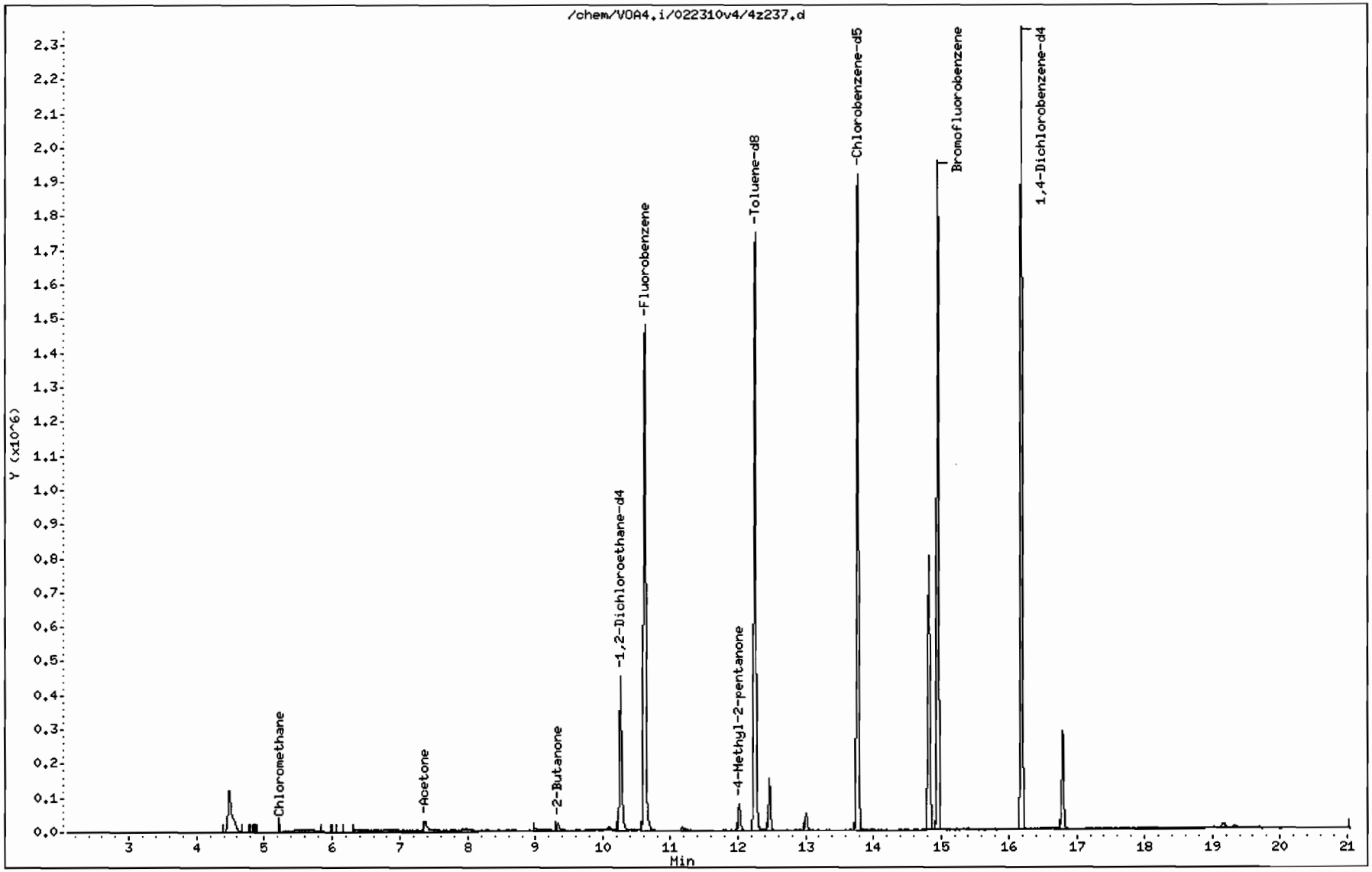

Data File: /chem/VOA4.i/022310v4/4z237.d

Date : 24-FEB-2010 10:16

Client ID: CAPA-10-12691

Instrument: VOA4.i

Sample Info: |2472610021956860|1|VOAF|1|

Purge Volume: 5.0

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

4 Chloromethane

Concentration: 0.31 ug/l

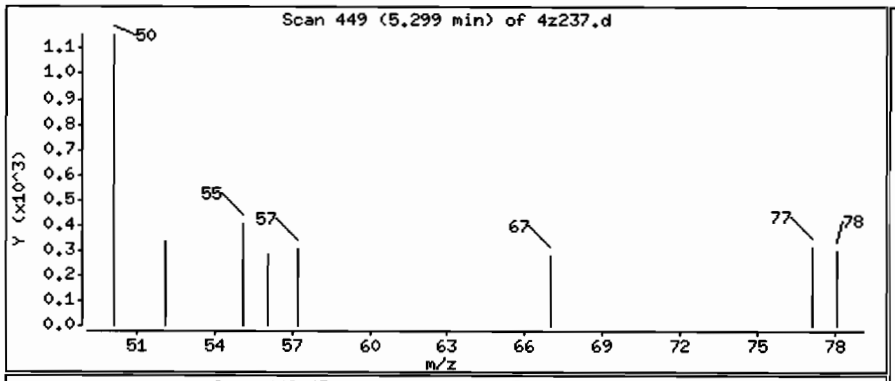

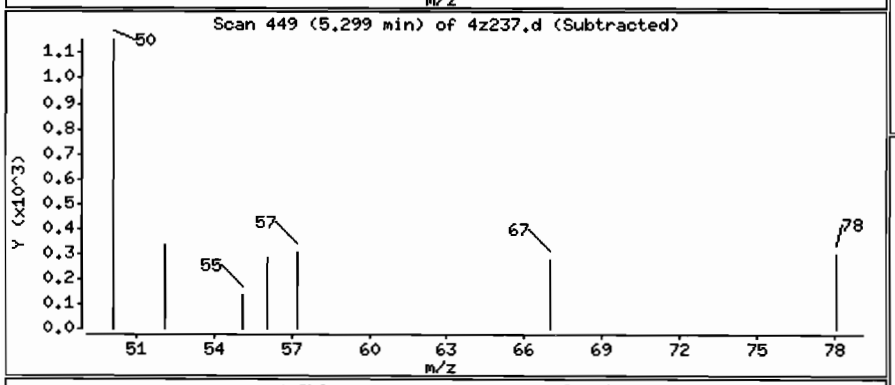

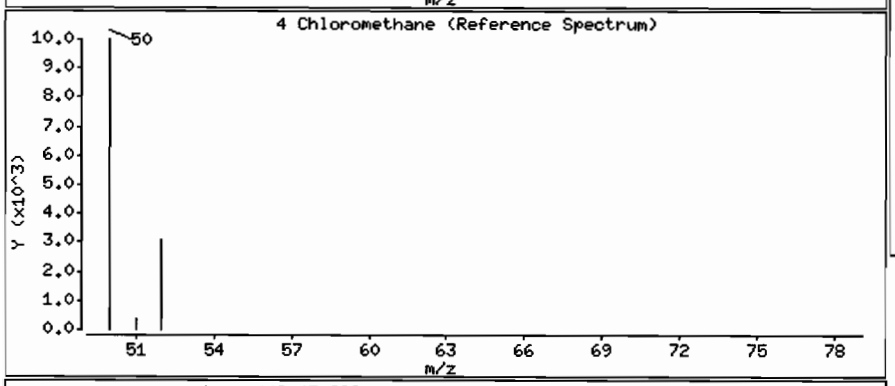

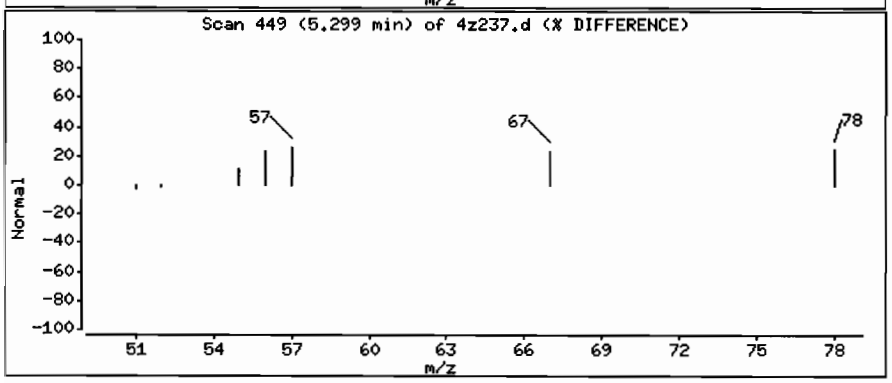

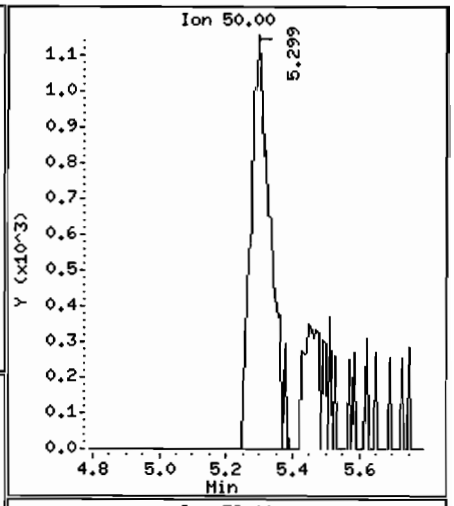

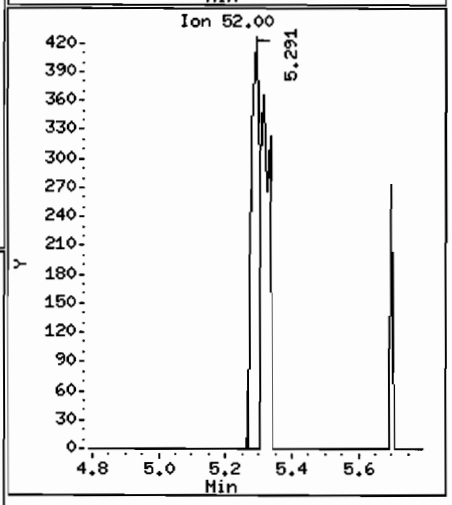

Data File: /chem/VOA4.i/022310v4/4z237.d

Date : 24-FEB-2010 10:16

Client ID: CAPA-10-12691

Instrument: VOA4.i

Sample Info: |2472610021956860|1|VOAF|1|

Purge Volume: 5.0

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

10 Acetone

Concentration: 8.6 ug/l

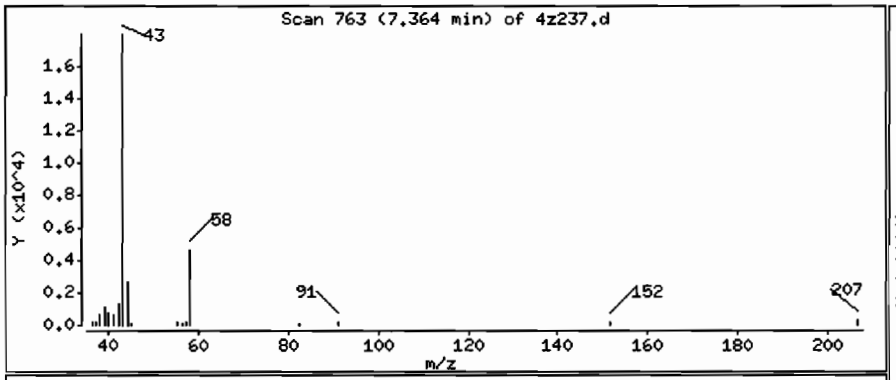

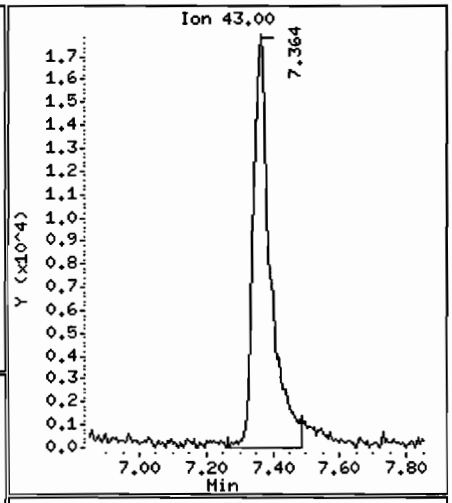

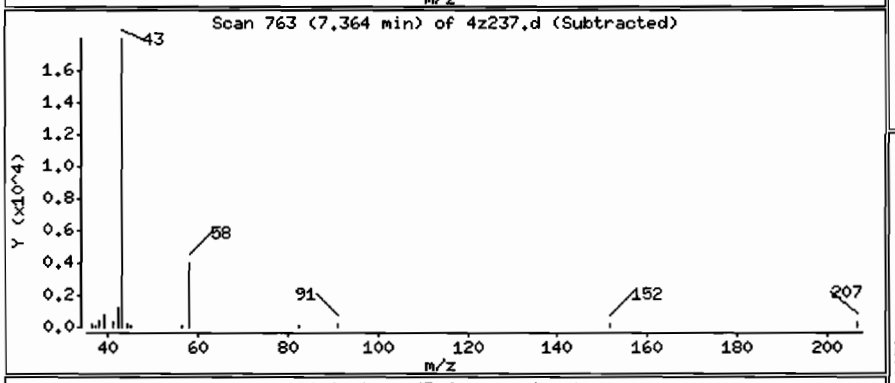

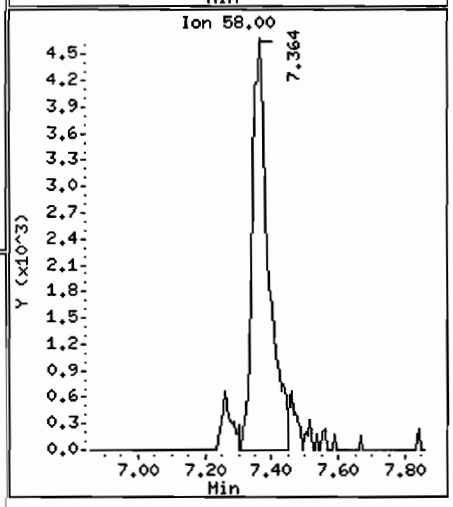

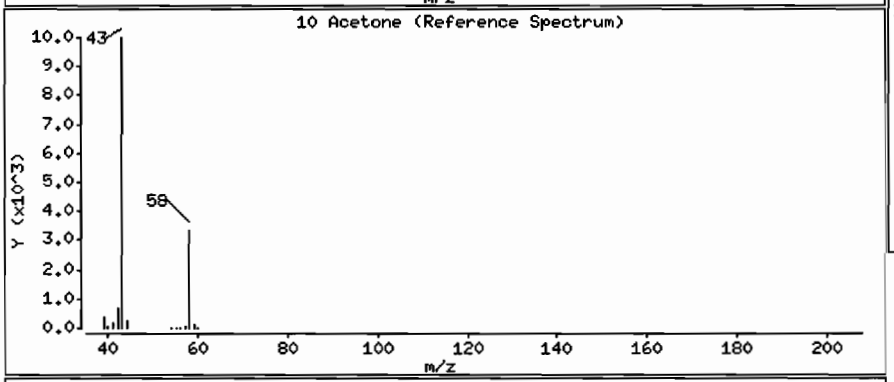

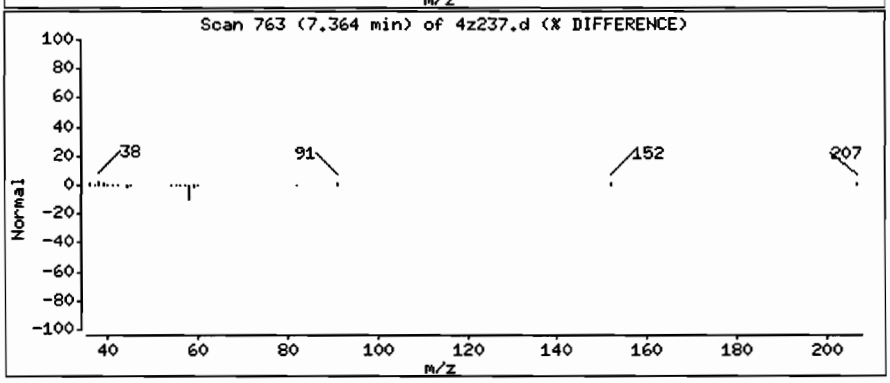

Data File: /chem/VOA4.i/022310v4/4z237.d

Date : 24-FEB-2010 10:16

Client ID: CAPA-10-12691

Instrument: VOA4.i

Sample Info: |2472610021956860|1|VOAF|1|

Purge Volume: 5.0

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

30 2-Butanone

Concentration: 3.1 ug/l

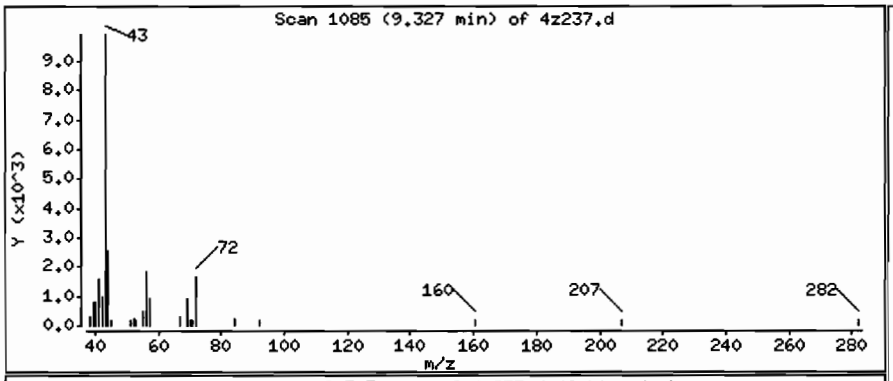

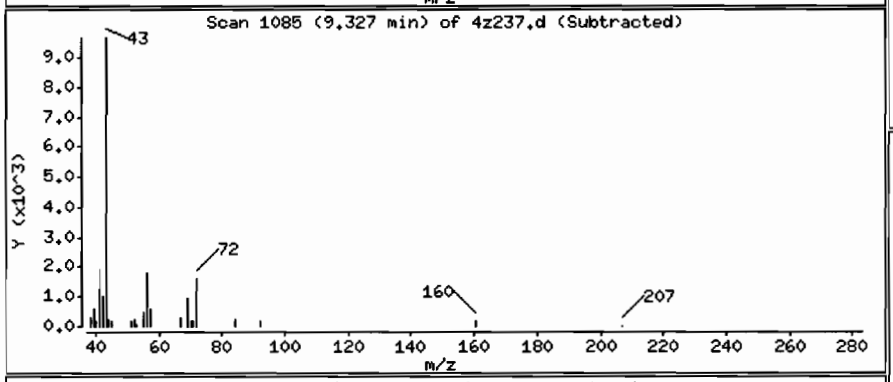

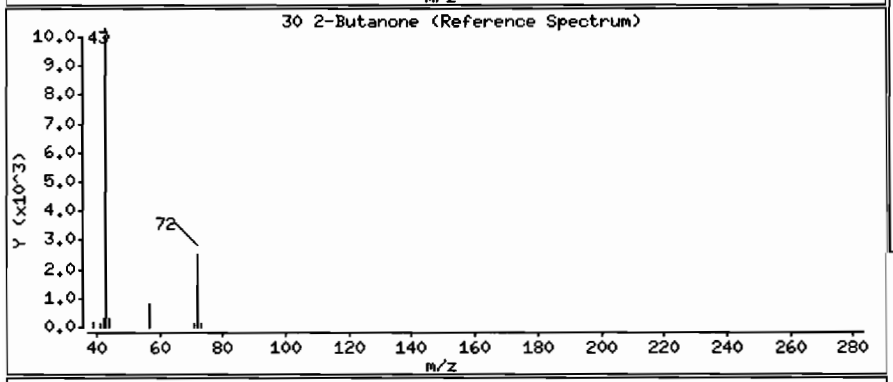

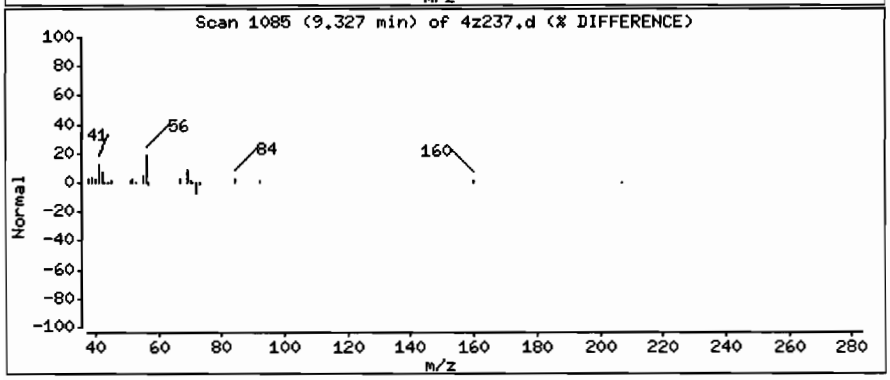

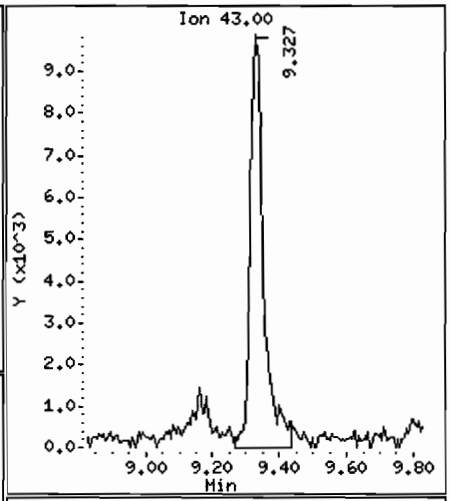

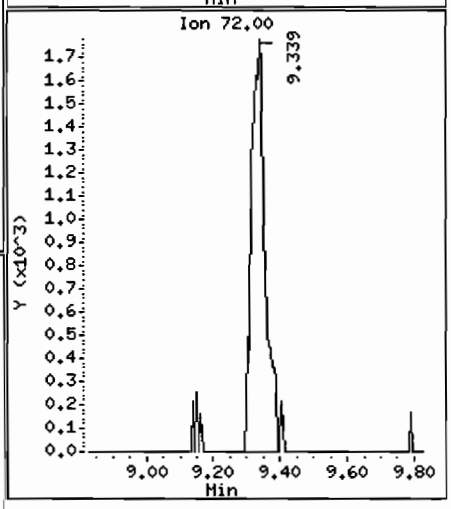

Data File: /chem/VOA4.i/022310v4/4z237.d

Page 5

Date : 24-FEB-2010 10:16

Client ID: CAPA-10-12691

Instrument: VOA4.i

Sample Info: |2472610021956860|1|VOAF|1|

Purge Volume: 5.0

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

49 4-Methyl-2-pentanone

Concentration: 5.7 ug/l

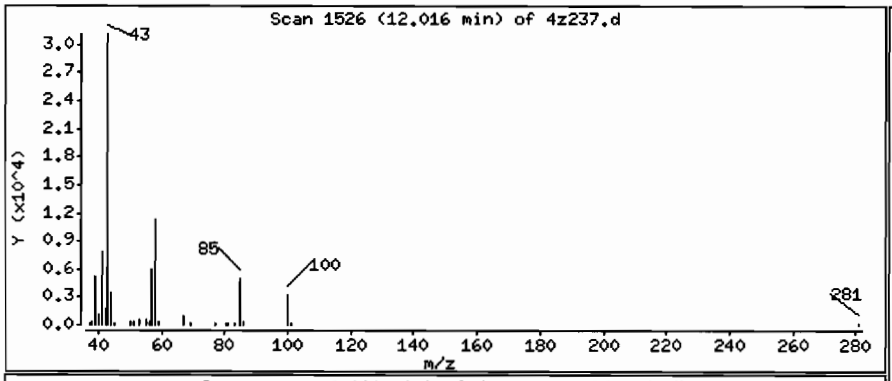

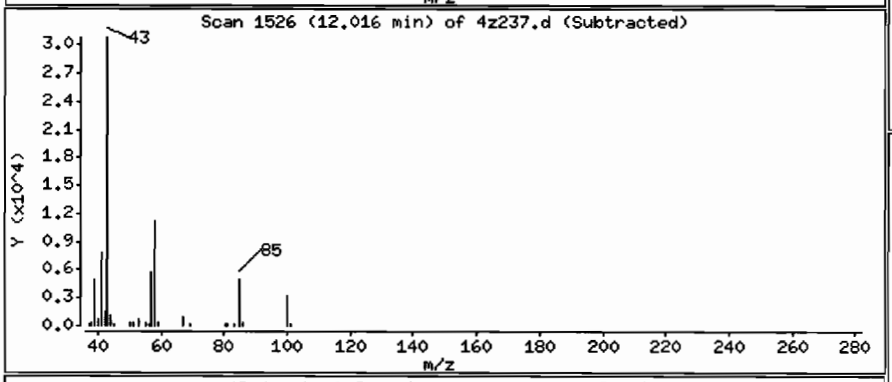

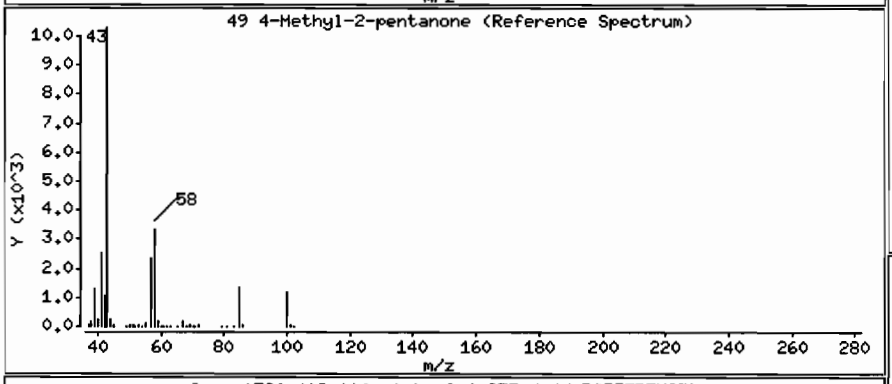

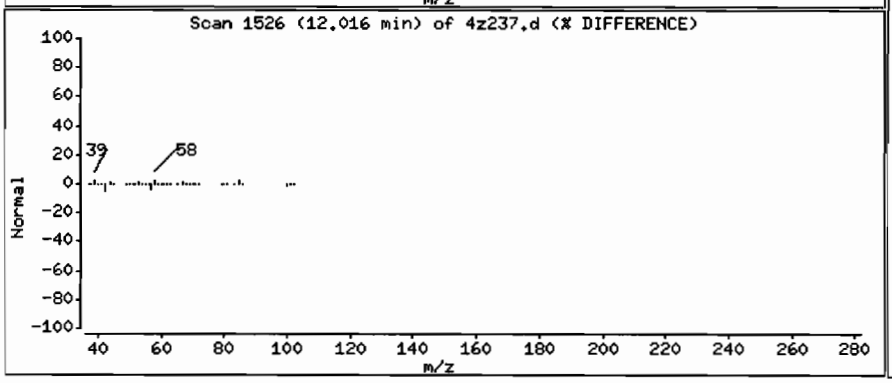

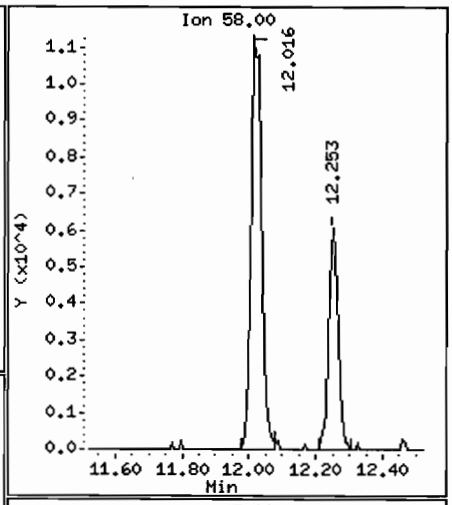

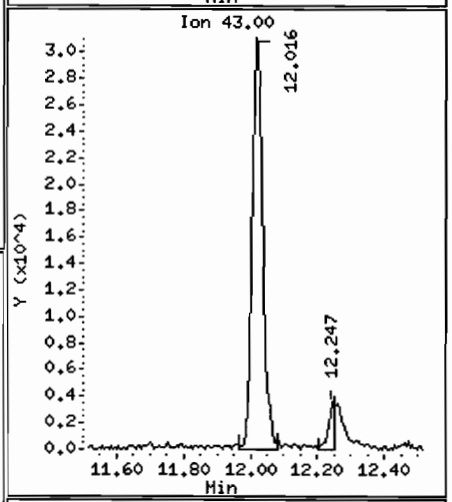

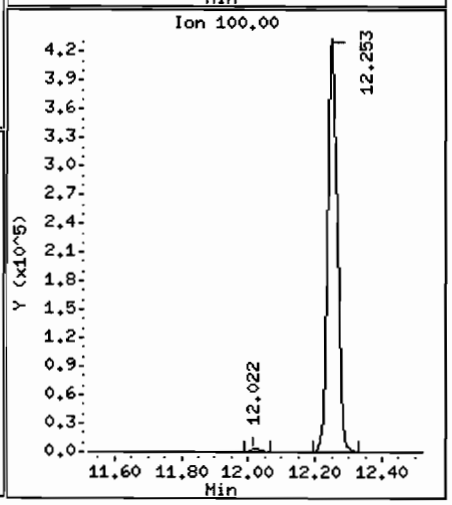

Data File: /chem/VOA4.i/022310v4/4z237.d

Date : 24-FEB-2010 10:16

Client ID: CAPA-10-12691

Instrument: VOA4.i

Sample Info: |2472610021956860|1|VOAF|1|

Purge Volume: 5.0

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0

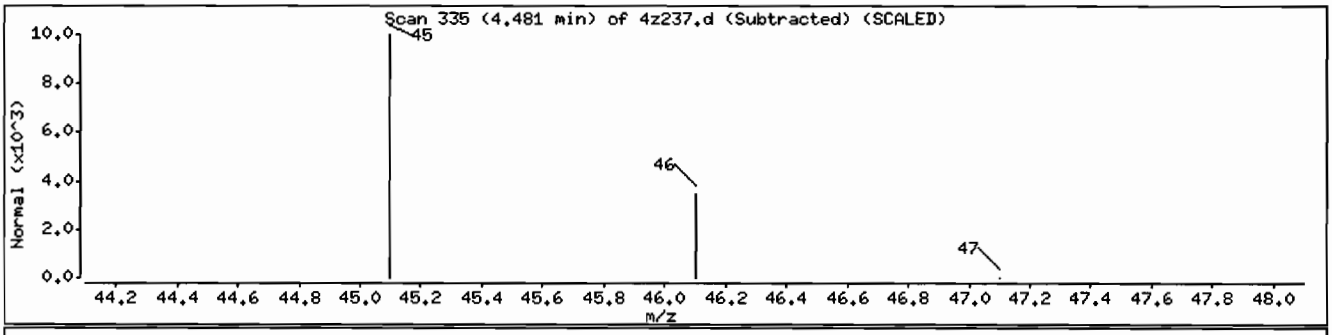

Data File: /chem/VOA4.i/022310v4/4z237.d

Date : 24-FEB-2010 10:16

Client ID: CAPA-10-12691

Instrument: VOA4.i

Sample Info: |2472610021956860|1|VOAF|1|

Purge Volume: 5.0

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Cyclotetrasiloxane, octamethyl-	556-67-2	NIST05.L	122479	86	C8H24O4Si4	296
Benzoic acid, 5-methyl-2-trimethylsilylo	1000153-59-4	NIST05.L	121894	50	C14H24O3Si2	296
7H-Dibenzo[b,g]carbazole, 7-methyl-	3557-49-1	NIST05.L	112705	50	C21H15N	281

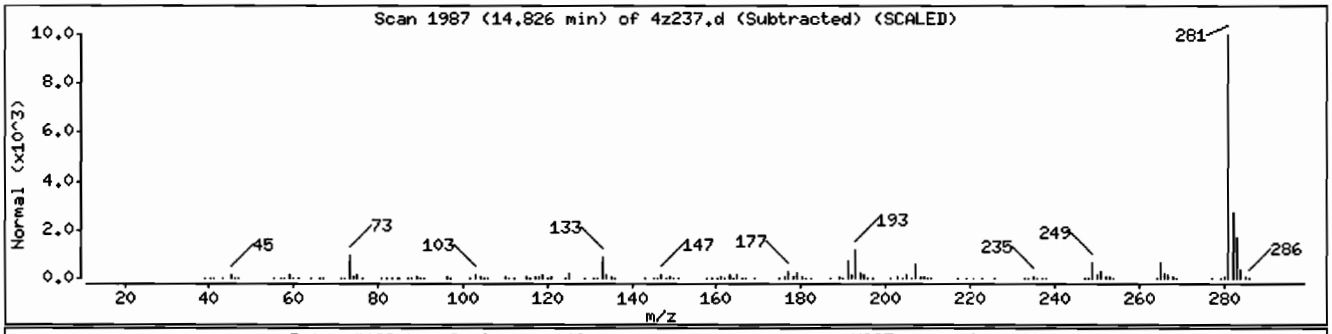

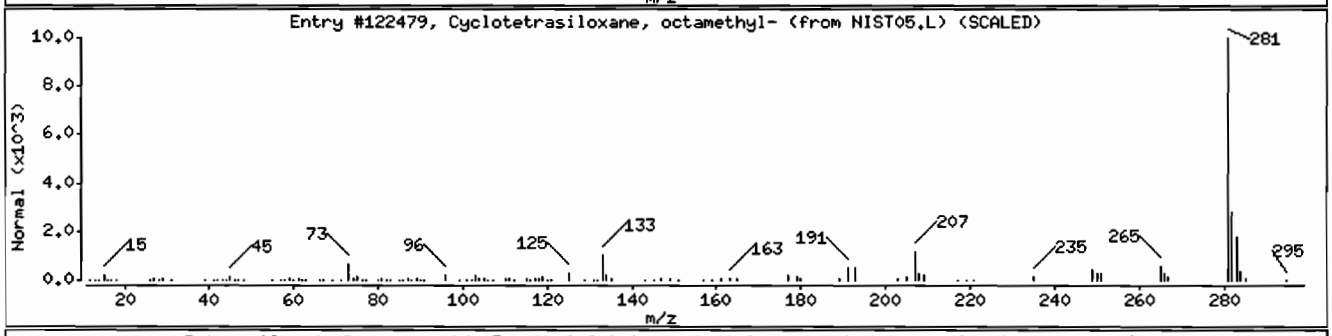

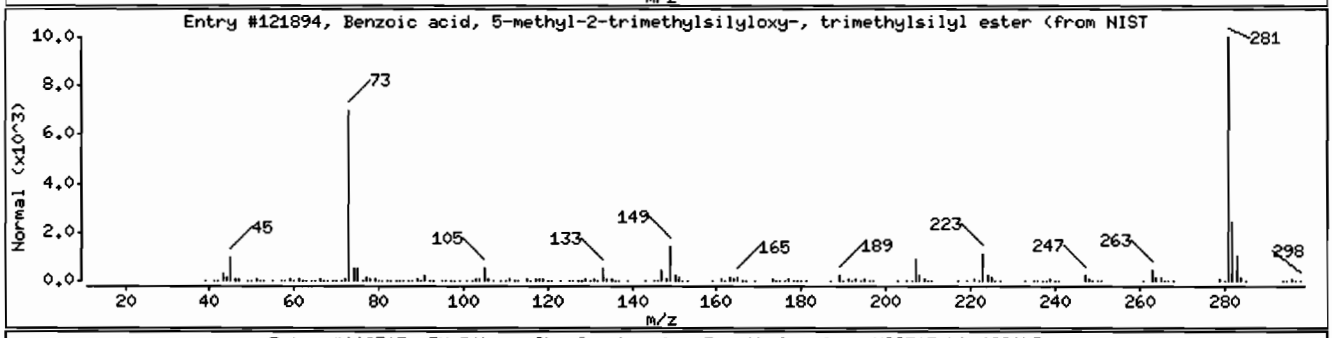

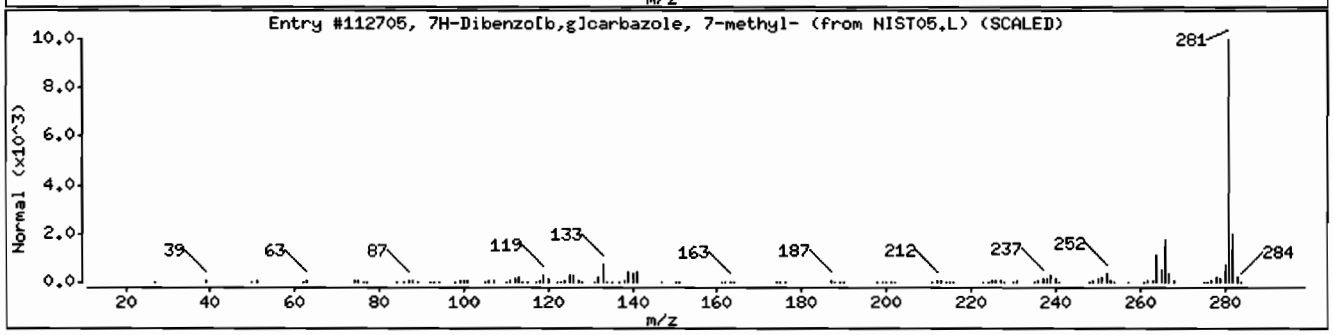

Data File: /chem/VOA4.i/022310v4/4z237.d

Date : 24-FEB-2010 10:16

Client ID: CAPA-10-12691

Instrument: VOA4.i

Sample Info: |2472610021956860|1|VOAF|1|

Purge Volume: 5.0

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Benzoic acid, 2-[(trimethylsilyl)oxy]-,	3789-85-3	NIST05.L	112910	64	C13H22O3Si2	282
Benzoic acid, 2-[(trimethylsilyl)oxy]-,	3789-85-3	NIST05.L	112905	50	C13H22O3Si2	282
Benzoic acid, 2-[(trimethylsilyl)oxy]-,	3789-85-3	NIST05.L	112909	39	C13H22O3Si2	282

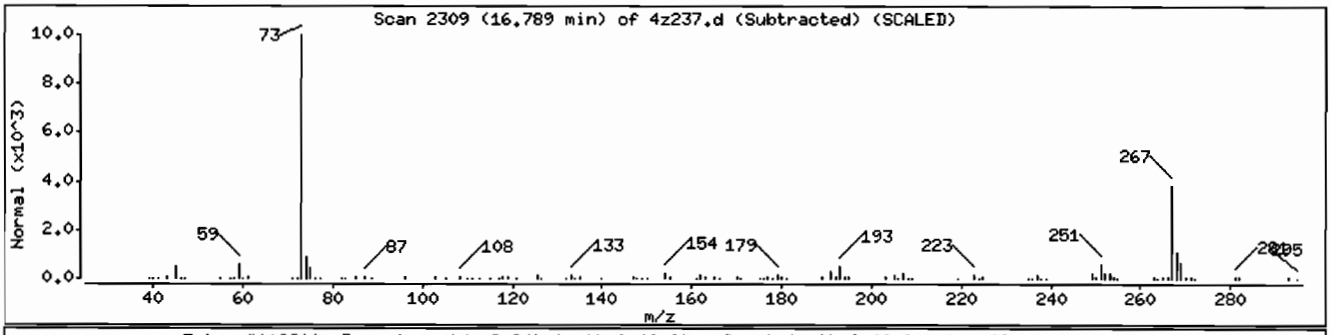

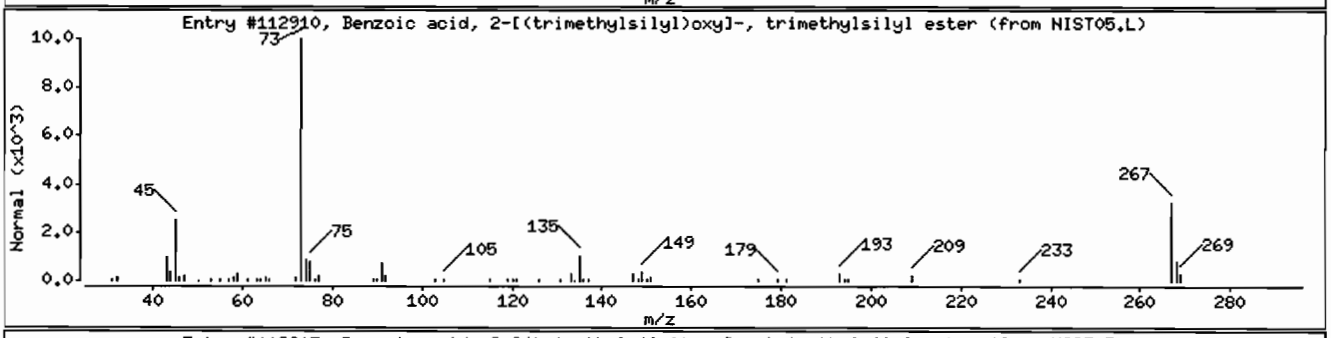

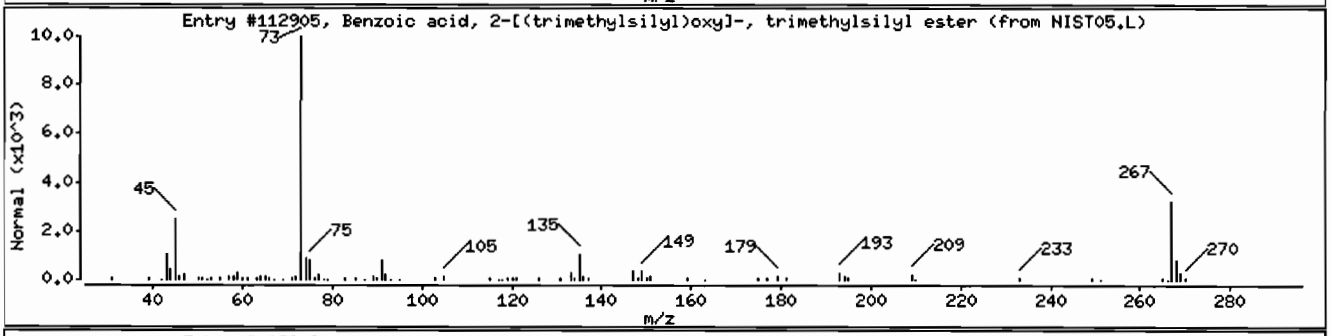

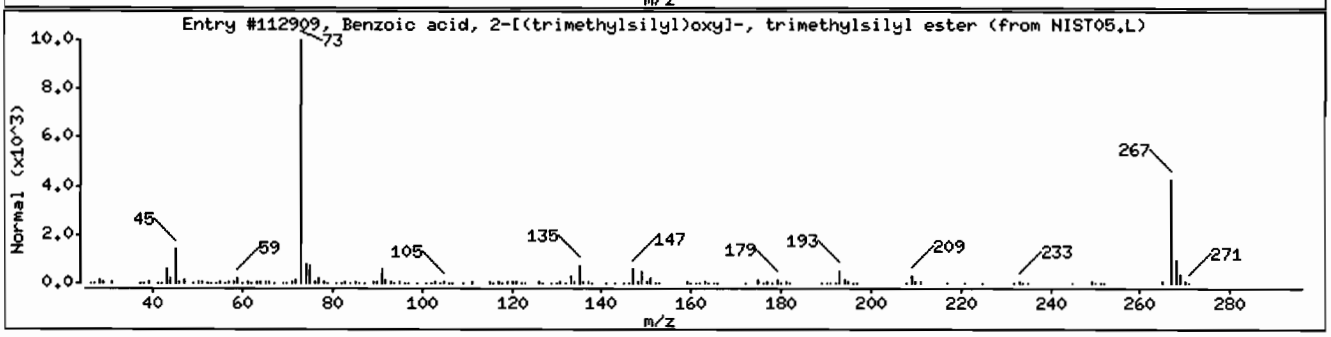

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261005**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12693**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 08:39**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/25/2010 08:39**				
Data File:	**4z335.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	J	4.00	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261005**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12693**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 08:39**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/25/2010 08:39**				
Data File:	**4z335.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261005**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12693**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 08:39**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/25/2010 08:39**				
Data File:	**4z335.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	49.0	50.0	ug/L	98.1	(72%-132%)
Bromofluorobenzene	56.6	50.0	ug/L	113	(77%-123%)
Toluene-d8	48.3	50.0	ug/L	96.6	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.48	10.6	ug/L		J
	Unknown Siloxane	14.83	25.6	ug/L		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/022410v4/4z335.d
Lab Smp Id: 247261005 Client Smp ID: CAPA-10-12693
Inj Date : 25-FEB-2010 08:39
Operator : ACJ Inst ID: VOA4.i
Smp Info : |247261005|956860|1|VOAF|1|
Misc Info : LANL 5ML PH2
Comment :
Method : /chem/VOA4.i/022410v4/VOA4-8260-021910PM.m
Meth Date : 25-Feb-2010 17:03 amj Quant Type: ISTD
Cal Date : 20-FEB-2010 04:09 Cal File: 4y518.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1886.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 40 Fluorobenzene	96	10.619	10.619	(1.000)	1432095	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	1130893	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.179	(1.000)	668215	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	356136	49.0487	49.0
$ 47 Toluene-d8	98	12.253	12.252	(0.890)	1216914	48.2984	48.3
$ 71 Bromofluorobenzene	95	14.953	14.953	(0.924)	692334	56.5873	56.6
17 Methylene chloride	84	7.936	7.942	(0.747)	48156	3.99573	4.0(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 4z335.d
Report Date: 02/25/2010 16:08
Lab. ID: 247261005 SampleType: SAMPLE
Injection Date: 25-FEB-2010 08:39
Operator: ACJ Instrument: VOA4.i
Sample Info: |247261005|956860|1|VOAF|1|
Miscellaneous Info: LANL 5ML PH2
Comment:
Method used: /chem/VOA4.i/022410v4/VOA4-8260-021910PM.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: CALsubL+
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 Methylene chloride				CAS#: 75-09-2		
84	48156	7.94	7.94	80-120	100	( )
86	31262	7.94	7.94	34- 94	65	( )
49	68159	7.94	7.94	106-166	142	( )
37 1,2-Dichloroethane				CAS#: 107-06-2		
62	21987	10.62	10.34	80-120	100	(T)
64	3656	10.62	10.34	2- 62	17	(T)
49 4-Methyl-2-pentanone				CAS#: 108-10-1		
58	10656	12.25	12.02	80-120	100	(T)
43	6791	12.25	12.02	229-289	64	(QT)
100	808848	12.25	12.02	5- 65	7590	(QT)
66 Bromoform				CAS#: 75-25-2		
173	3243	14.95	14.66	80-120	100	(T)
175	38711	14.95	14.66	19- 79	1194	(QT)
74 1,2,3-Trichloropropane				CAS#: 96-18-4		
110	3090	14.82	15.11	80-120	100	(T)
75	9703	14.82	15.11	242-302	314	(QT)
77	579	14.82	15.11	57-117	19	(QT)
131 n-Butyl alcohol				CAS#: 71-36-3		
56	9605	10.62	10.69	80-120	100	(T)
41	1743	10.69	10.69	47-107	18	(Q)
43	576	10.63	10.69	30- 90	6	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
139	Cyclohexene		CAS#: 110-83-8			
67	183699	10.26	10.50	80-120	100	(T)
54	456	10.26	10.50	35- 95	0	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/022410v4/4z335.d
Lab Smp Id: 247261005 Client Smp ID: CAPA-10-12693
Inj Date : 25-FEB-2010 08:39
Operator : ACJ Inst ID: VOA4.i
Smp Info : |247261005|956860|1|VOAF|1|
Misc Info : LANL 5ML PH2
Comment :
Method : /chem/VOA4.i/022410v4/VOA4-8260-021910PM.m
Meth Date : 25-Feb-2010 17:03 amj Quant Type: ISTD
Cal Date : 20-FEB-2010 04:09 Cal File: 4y518.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1886.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 40 Fluorobenzene	10.619	3137623	50.000
* 61 Chlorobenzene-d5	13.771	3541369	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/l)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
4.481	662618	10.5592396	10.6	0		0	40
Unknown Siloxane					CAS #:		
14.825	1811649	25.5783707	25.6	0		0	61

Data File: /chem/VOA4.i/022410v4/4z335.d
Date : 25-FEB-2010 08:39
Client ID: CAPA-10-12693
Sample Info: 1247261005|9568860|1|VOAF1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

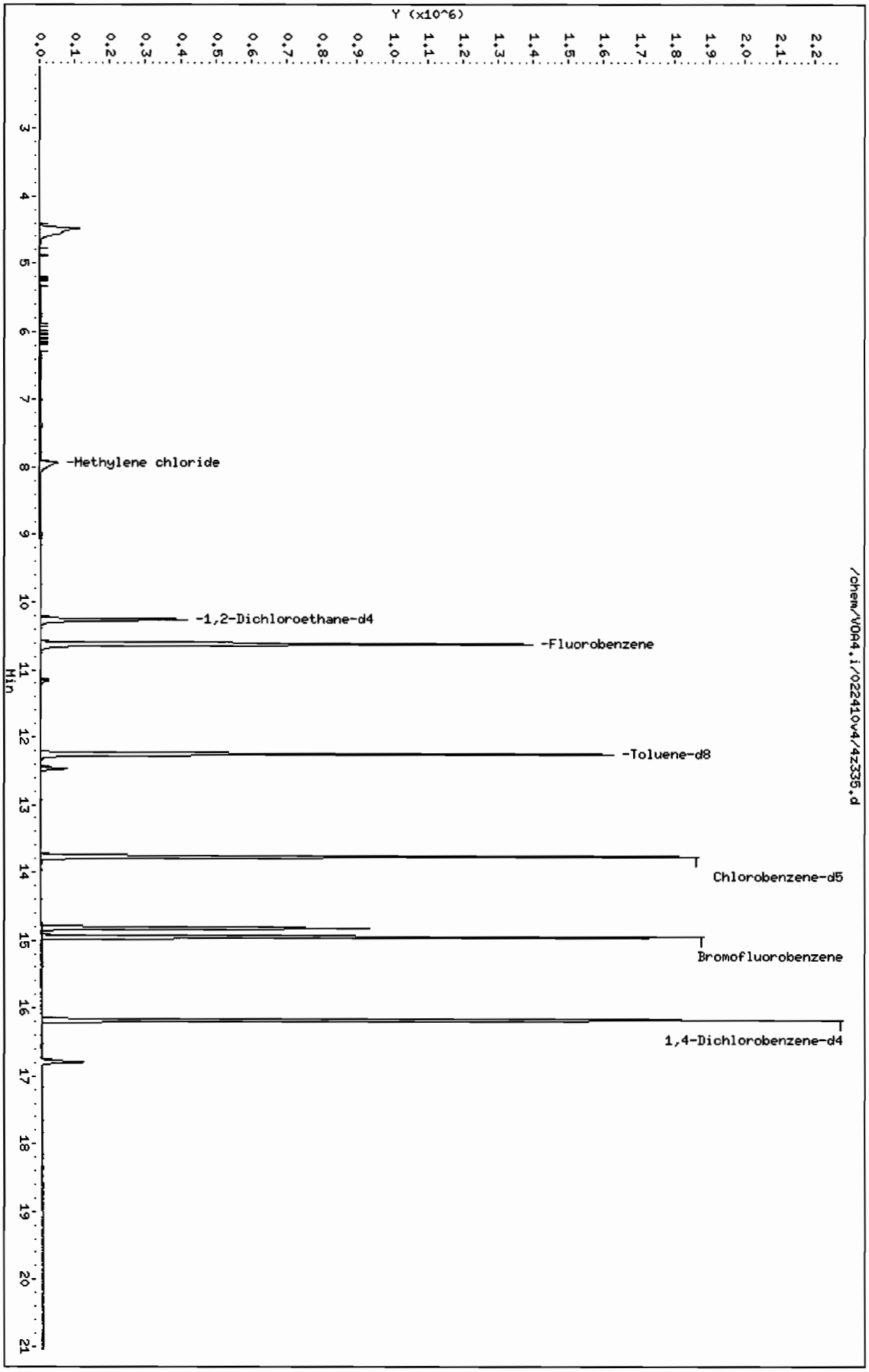

Page 1

Data File: /chem/VOA4.i/022410v4/4z335.d

Date : 25-FEB-2010 08:39

Client ID: CAPA-10-12693

Instrument: VOA4.i

Sample Info: |2472610051956860111VOAF|1|

Purge Volume: 5.0

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

17 Methylene chloride

Concentration: 4.0 ug/l

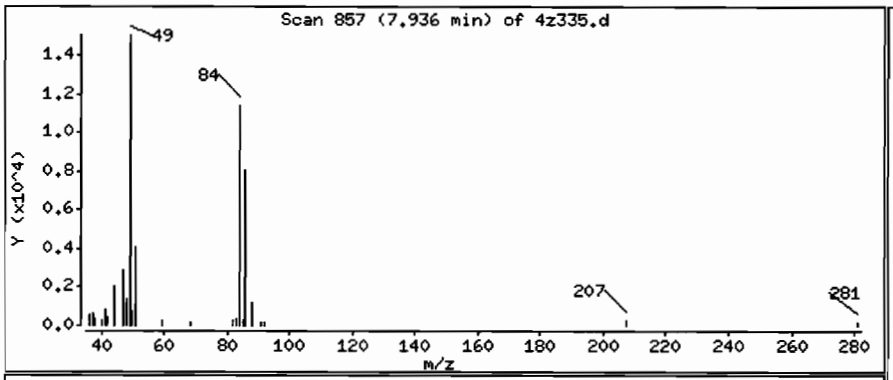

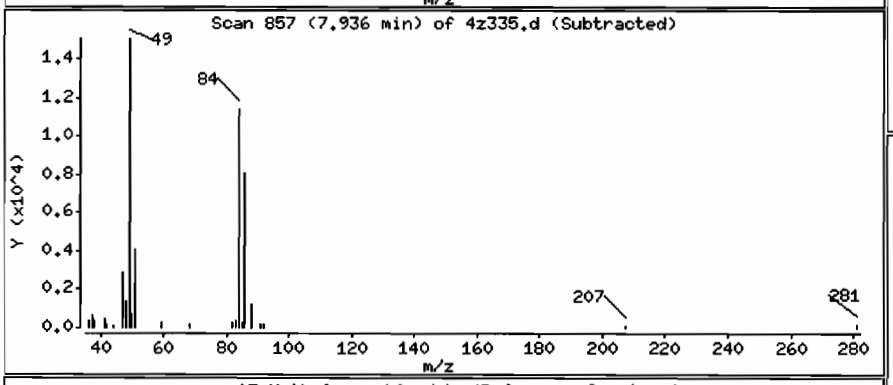

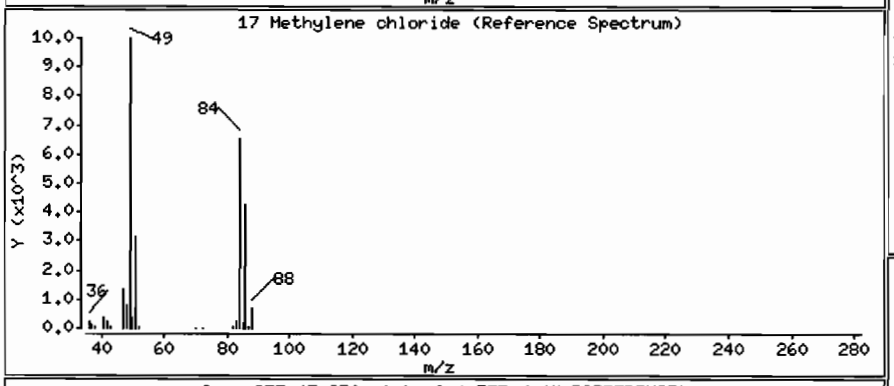

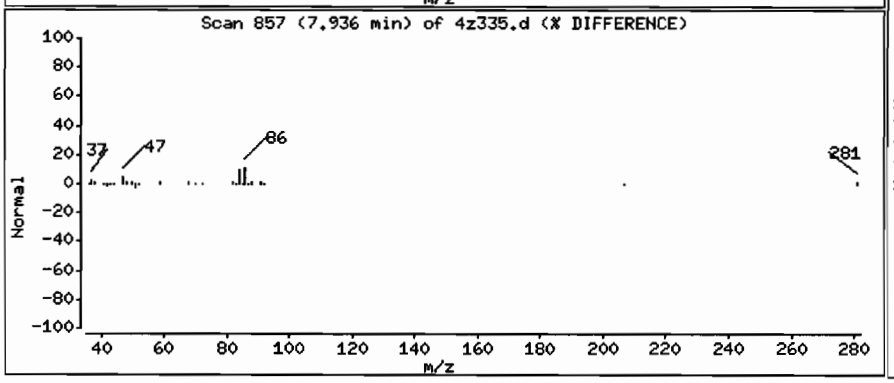

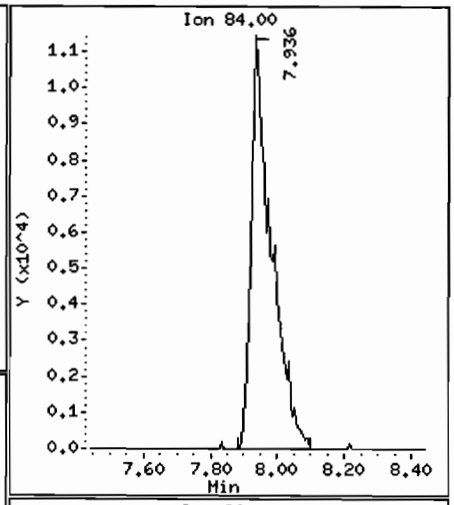

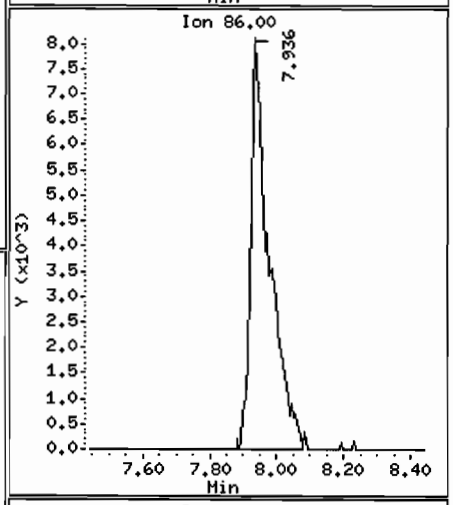

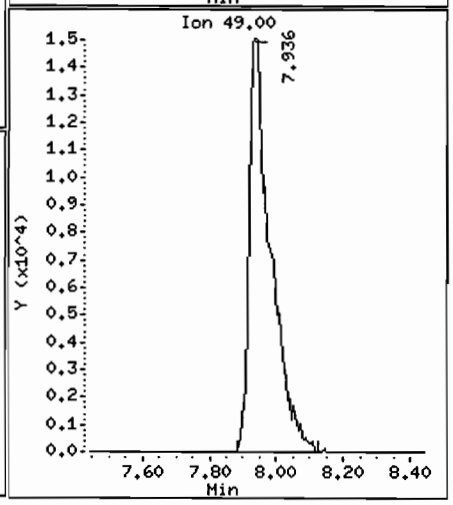

Data File: /chem/VOA4.i/022410v4/4z335.d

Date : 25-FEB-2010 08:39

Client ID: CAPA-10-12693

Instrument: VOA4.i

Sample Info: |2472610051956860|1|VOAF|1|

Purge Volume: 5.0

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0

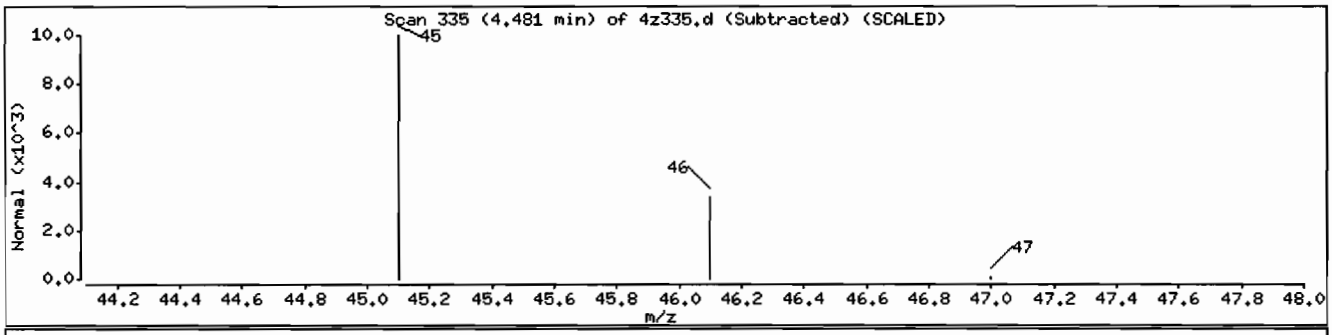

Data File: /chem/VOA4.i/022410v4/4z335.d

Date : 25-FEB-2010 08:39

Client ID: CAPA-10-12693

Instrument: VOA4.i

Sample Info: |2472610051956860|1|VOAF|1|

Purge Volume: 5.0

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Cyclotetrasiloxane, octamethyl-	556-67-2	NIST05.L	122479	86	C8H24O4Si4	296
7H-Dibenzo[b,g]carbazole, 7-methyl-	3557-49-1	NIST05.L	112705	53	C21H15N	281
Cyclotetrasiloxane, octamethyl-	556-67-2	NIST05.L	122480	53	C8H24O4Si4	296

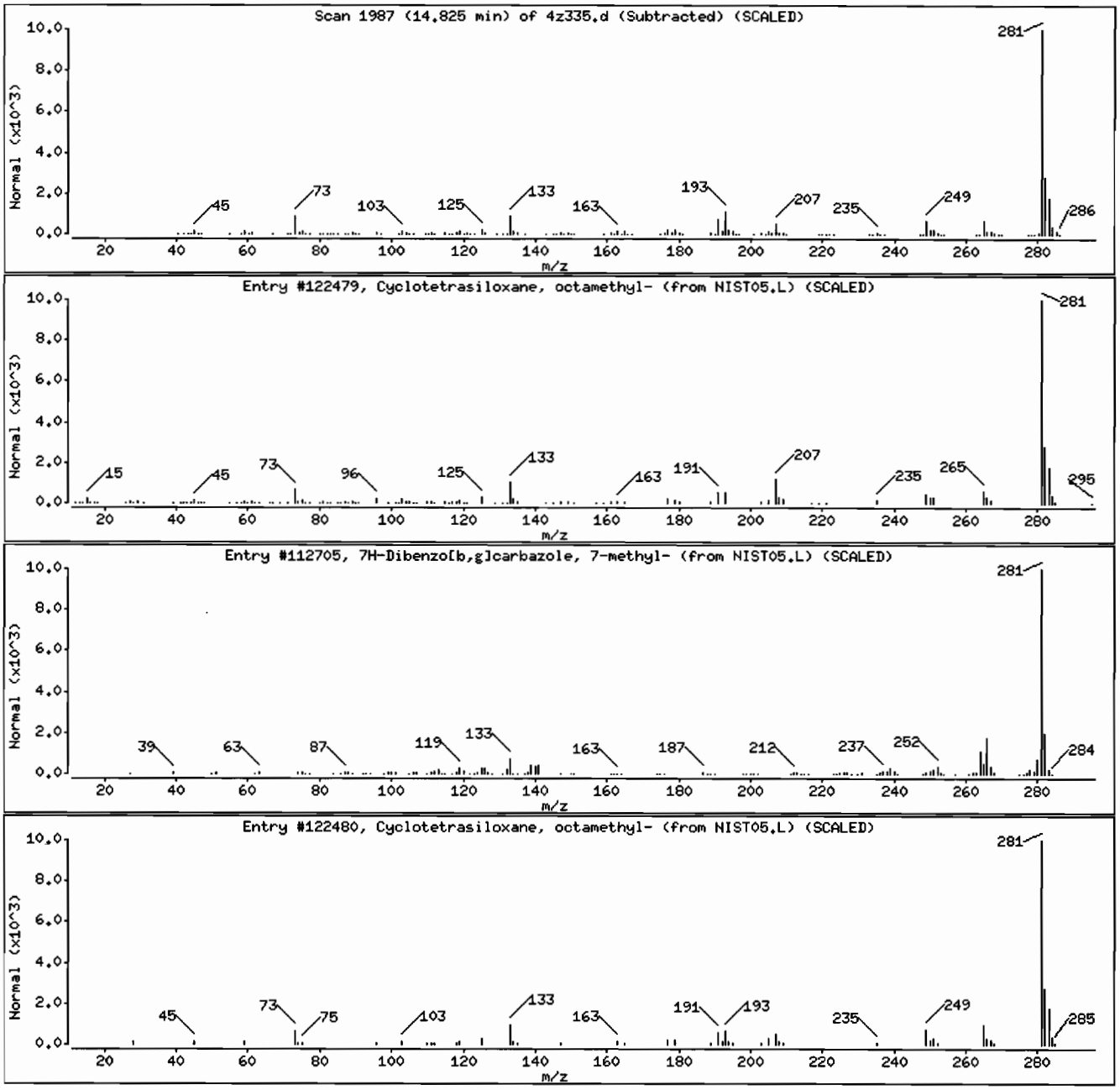

Standard Data

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Report Date: 24-Feb-2010 15:53

Calibration History

Method : /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m
Start Cal Date: 19-FEB-2010 21:11
End Cal Date : 20-FEB-2010 04:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
20-FEB-2010 01:50	ICALsubS	/chem/VOA4.i/021910v4/4y513.d
19-FEB-2010 21:39	CALsubL+	/chem/VOA4.i/021910v4/4y504.d
Cal Level: 2 , Cal Amount: 2.00000		
20-FEB-2010 02:18	ICALsubS	/chem/VOA4.i/021910v4/4y514.d
19-FEB-2010 22:35	CALsubL+	/chem/VOA4.i/021910v4/4y506.d
Cal Level: 3 , Cal Amount: 5.00000		
20-FEB-2010 02:46	ICALsubS	/chem/VOA4.i/021910v4/4y515.d
19-FEB-2010 23:03	CALsubL+	/chem/VOA4.i/021910v4/4y507.d
Cal Level: 4 , Cal Amount: 10.00000		
20-FEB-2010 03:13	ICALsubS	/chem/VOA4.i/021910v4/4y516.d
19-FEB-2010 23:30	CALsubL+	/chem/VOA4.i/021910v4/4y508.d
Cal Level: 5 , Cal Amount: 20.00000		
20-FEB-2010 03:41	ICALsubS	/chem/VOA4.i/021910v4/4y517.d
19-FEB-2010 23:59	CALsubL+	/chem/VOA4.i/021910v4/4y509.d
Cal Level: 6 , Cal Amount: 50.00000		
20-FEB-2010 04:09	ICALsubS	/chem/VOA4.i/021910v4/4y518.d
20-FEB-2010 00:27	CALsubL+	/chem/VOA4.i/021910v4/4y510.d
Cal Level: 7 , Cal Amount: 100.00000		
20-FEB-2010 04:37	ICALsubS	/chem/VOA4.i/021910v4/4y519.d
20-FEB-2010 04:37	CALsubS+SS	/chem/VOA4.i/021910v4/4y519.d
20-FEB-2010 00:54	CALsubL+	/chem/VOA4.i/021910v4/4y511.d
Cal Level: 8 , Cal Amount: 200.00000		
19-FEB-2010 21:11	BENZENE+	/chem/VOA4.i/021910v4/4y503.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 6

Ccal Level: 6 , Ccal Amount: 50.0		
24-FEB-2010 06:08	CALsubL+	/chem/VOA4.i/022310v4/4z228.d
Ccal Level: 6 , Ccal Amount: 50.0		
24-FEB-2010 07:03	CALsubS+SS	/chem/VOA4.i/022310v4/4z230.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-FEB-2010 21:11
End Cal Date : 20-FEB-2010 04:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m
Cal Date : 24-Feb-2010 15:17 amj
Curve Type : Average

Calibration File Names:
Level 1: /chem/VOA4.i/021910v4/4y513.d
Level 2: /chem/VOA4.i/021910v4/4y514.d
Level 3: /chem/VOA4.i/021910v4/4y515.d
Level 4: /chem/VOA4.i/021910v4/4y516.d
Level 5: /chem/VOA4.i/021910v4/4y517.d
Level 6: /chem/VOA4.i/021910v4/4y518.d
Level 7: /chem/VOA4.i/021910v4/4y519.d
Level 8: /chem/VOA4.i/021910v4/4y503.d

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	50.000 Level 6	RRF	% RSD
	100.000 Level 7	200.000 Level 8						
M 1 Xylenes (total)	0.87116	0.83923	0.85677	0.82553	0.88001	0.76140		
	0.81481	++++++					0.83556	4.821
M 2 1,2-Dichloroethylene (total)	0.49492	0.46601	0.47629	0.47986	0.44094	0.42792		
	0.44795	++++++					0.46199	5.172
M 135 1,3-Dichloropropylene	0.54519	0.51982	0.51252	0.51425	0.53124	0.48372		
	0.51132	++++++					0.51686	3.682
153 Chlorotrifluoroethylene	0.17311	0.16553	0.20042	0.16593	0.19893	0.20193		
	++++++	++++++					0.18431	9.705
154 2-Chloro-1,1,1-trifluoroethan	0.54194	0.53665	0.53067	0.51311	0.50623	0.53297		
	0.47490	++++++					0.51949	4.521
3 Dichlorodifluoromethane	0.35706	0.33021	0.37310	0.31776	0.29255	0.28836		
	0.30866	++++++					0.32396	9.823
4 Chloromethane	0.61381	0.53512	0.50731	0.53428	0.45384	0.45974		
	0.43911	++++++					0.50618	12.127

GEL Laboratories LLC

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Quant Method : ISTD
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Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m
Cal Date : 24-Feb-2010 15:17 amj
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	50.000 Level 6	RRF	% RSD
	100.000 Level 7	200.000 Level 8						
5 Vinyl chloride	0.46985	0.45667	0.45844	0.45954	0.43661	0.43028		
	0.42772	+++++					0.44844	3.696
6 Bromomethane	0.30439	0.24115	0.24082	0.23783	0.24376	0.24129		
	0.24210	+++++					0.25019	9.579
7 Chloroethane	0.26301	0.24969	0.24529	0.24702	0.24088	0.23599		
	0.23704	+++++					0.24556	3.754
8 Trichlorofluoromethane	0.48215	0.51692	0.54942	0.53821	0.52901	0.51481		
	0.53629	+++++					0.52383	4.205
134 Ethyl Ether	0.26643	0.25362	0.24088	0.24858	0.24796	0.24888		
	0.25012	+++++					0.25092	3.120
9 Acrolein	0.04234	0.04065	0.03518	0.03424	0.03858	0.04270		
	0.04898	+++++					0.04038	12.434
12 Trichlorotrifluoroethane	0.16682	0.16556	0.13947	0.13873	0.13088	0.11889		
	0.13225	+++++					0.14180	12.684
10 Acetone	0.29628	0.26446	0.24669	0.24124	0.22767	0.22758		
	0.23381	+++++					0.24825	9.977
11 1,1-Dichloroethylene	0.65870	0.59431	0.66197	0.66395	0.54029	0.57261		
	0.59692	+++++					0.61268	8.053
147 Isopropyl Alcohol	0.02594	0.02592	0.02382	0.02593	0.02514	0.02423		
	0.02471	+++++					0.02510	3.496

GEL Laboratories LLC

INITIAL CALIBRATION DATA

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Integrator : HP RTE
Method file : /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m
Cal Date : 24-Feb-2010 15:17 amj
Curve Type : Average

Compound	1.000 Level 1 / 100.000 Level 7	2.000 Level 2 / 200.000 Level 8	5.000 Level 3	10.000 Level 4	20.000 Level 5	50.000 Level 6	RRF	% RSD
13 Iodomethane	0.58899	0.57207	0.61857	0.61886	0.54687	0.58303		
	0.62330	++++++					0.59310	4.829
15 Acetonitrile	0.03927	0.03921	0.04263	0.04328	0.03600	0.03898		
	0.03985	++++++					0.03989	6.126
128 Methyl acetate	0.24717	0.23242	0.26052	0.24275	0.20415	0.23037		
	0.22436	++++++					0.23453	7.689
14 Carbon disulfide	1.17379	1.06520	1.17981	1.19292	0.95620	1.02974		
	1.00007	++++++					1.08539	8.882
16 Allyl chloride	0.46262	0.48425	0.43635	0.42170	0.41393	0.40609		
	0.38403	++++++					0.42985	7.980
148 tert-Butyl Alcohol	0.04256	0.04268	0.03929	0.04370	0.04243	0.04021		
	0.04164	++++++					0.04179	3.681
17 Methylene chloride	++++++	0.52060	0.44873	0.43869	0.36224	0.37509		
	0.37932	++++++					0.42078	14.378
18 Acrylonitrile	0.13723	0.11503	0.11326	0.11517	0.11198	0.11164		
	0.11317	++++++					0.11678	7.807
20 tert-Butyl methyl ether	0.98869	1.00245	0.94156	1.00100	0.84998	0.86814		
	0.90809	++++++					0.93713	6.780
21 trans-1,2-Dichloroethylene	0.49025	0.44918	0.46014	0.47709	0.42329	0.41606		
	0.43767	++++++					0.45053	6.060

GEL Laboratories LLC

INITIAL CALIBRATION DATA

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Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m
Cal Date : 24-Feb-2010 15:17 amj
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	50.000 Level 6	RRF	% RSD
	100.000 Level 7	200.000 Level 8						
23 Vinyl acetate	0.52279	0.55318	0.51917	0.58719	0.56407	0.50851		
	0.51114	+++++					0.53801	5.631
149 Isopropyl ether	1.02783	1.05338	1.04776	1.06637	1.06014	1.03551		
	1.01114	+++++					1.04316	1.865
22 1,1-Dichloroethane	0.62427	0.55476	0.59433	0.58600	0.53264	0.51491		
	0.54815	+++++					0.56501	6.763
24 2-Chloro-1,3-butadiene	0.47362	0.46045	0.41377	0.40769	0.40797	0.41371		
	0.41489	+++++					0.42744	6.425
150 Ethyl tert-butyl ether	1.00973	1.02054	0.99010	1.01408	0.99394	0.99650		
	0.98238	+++++					1.00104	1.392
30 2-Butanone	0.32038	0.29227	0.28825	0.28748	0.27705	0.26428		
	0.28251	+++++					0.28746	5.988
26 Ethyl acetate	0.36844	0.35529	0.31836	0.32880	0.31937	0.30696		
	0.30372	+++++					0.32871	7.428
31 cis-1,2-Dichloroethylene	0.49956	0.48285	0.49244	0.48263	0.45859	0.43977		
	0.45824	+++++					0.47344	4.564
25 2,2-Dichloropropane	0.28373	0.26838	0.27773	0.26317	0.26024	0.23286		
	0.25537	+++++					0.26307	6.303
28 Propionitrile	0.05393	0.05463	0.04572	0.04669	0.04489	0.04397		
	0.04689	+++++					0.04810	9.030

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-FEB-2010 21:11
End Cal Date : 20-FEB-2010 04:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m
Cal Date : 24-Feb-2010 15:17 amj
Curve Type : Average

Compound	1.000 Level 1 / 100.000 Level 7	2.000 Level 2 / 200.000 Level 8	5.000 Level 3	10.000 Level 4	20.000 Level 5	50.000 Level 6	RRF	% RSD
27 Methacrylonitrile	0.19982	0.21236	0.19021	0.20038	0.19713	0.19101		
	0.19006	+++++					0.19728	4.060
29 Bromochloromethane	0.19118	0.16916	0.17976	0.17681	0.16621	0.16379		
	0.17289	+++++					0.17426	5.368
32 Chloroform	0.64146	0.61807	0.59255	0.60375	0.57967	0.53781		
	0.56885	+++++					0.59173	5.726
72 Tetrahydrofuran	0.21229	0.21837	0.19412	0.19669	0.18896	0.17966		
	0.17914	+++++					0.19561	7.723
36 1,1,1-Trichloroethane	0.48953	0.46173	0.47326	0.44146	0.43854	0.40084		
	0.43461	+++++					0.44857	6.490
19 Isobutyl alcohol	0.01398	0.01440	0.01229	0.01388	0.01370	0.01392		
	0.01335	+++++					0.01364	4.957
129 Cyclohexane	0.70226	0.59340	0.60152	0.56976	0.53424	0.50009		
	0.55282	+++++					0.57916	11.125
34 1,1-Dichloropropene	0.47407	0.44402	0.46338	0.44268	0.41485	0.38991		
	0.42040	+++++					0.43562	6.708
33 Carbon tetrachloride	0.41956	0.40321	0.44726	0.42517	0.41573	0.39430		
	0.43052	+++++					0.41939	4.174
37 1,2-Dichloroethane	0.46882	0.45354	0.46819	0.47484	0.44055	0.42184		
	0.43338	+++++					0.45159	4.480

GEL Laboratories LLC

INITIAL CALIBRATION DATA

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End Cal Date : 20-FEB-2010 04:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m
Cal Date : 24-Feb-2010 15:17 amj
Curve Type : Average

Compound	1.000 Level 1 / 100.000 Level 7	2.000 Level 2 / 200.000 Level 8	5.000 Level 3	10.000 Level 4	20.000 Level 5	50.000 Level 6	RRF	% RSD
38 Benzene	1.42369	1.30207	1.33057	1.30994	1.20581	1.16344		
	1.21582	1.41587					1.29590	7.392
151 Methyl tert-amyl ether	0.97700	1.01332	0.94944	0.97260	0.95487	0.95159		
	0.96106	+++++					0.96856	2.304
139 Cyclohexene	0.67697	0.63897	0.68363	0.64916	0.61437	0.58028		
	0.62630	+++++					0.63852	5.629
131 n-Butyl alcohol	0.01123	0.01053	0.01111	0.01082	0.00928	0.01082		
	0.01117	0.01154					0.01081	6.396
39 Trichloroethylene	0.37781	0.34653	0.36133	0.35278	0.33598	0.31050		
	0.33352	+++++					0.34549	6.261
42 Methyl methacrylate	0.24664	0.24574	0.22237	0.22966	0.22802	0.22699		
	0.22961	+++++					0.23272	4.092
130 Methylcyclohexane	0.60591	0.58007	0.59305	0.56676	0.54195	0.50442		
	0.55739	+++++					0.56422	6.030
41 1,2-Dichloropropane	0.34135	0.33943	0.33577	0.33876	0.33248	0.30690		
	0.32393	+++++					0.33123	3.685
97 1,4-Dioxane	0.00350	0.00352	0.00308	0.00322	0.00324	0.00330		
	0.00318	+++++					0.00329	4.950
43 Dibromomethane	0.23442	0.22700	0.21053	0.21629	0.20860	0.19625		
	0.20693	+++++					0.21429	6.016

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-FEB-2010 21:11
End Cal Date : 20-FEB-2010 04:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m
Cal Date : 24-Feb-2010 15:17 amj
Curve Type : Average

Compound	1.000 Level 1 / 100.000 Level 7	2.000 Level 2 / 200.000 Level 8	5.000 Level 3	10.000 Level 4	20.000 Level 5	50.000 Level 6	RRF	% RSD
45 Bromodichloromethane	0.49425	0.45673	0.44733	0.45725	0.47475	0.42528		
	0.44702	+++++					0.45752	4.805
48 2-Nitropropane	0.11177	0.11692	0.09933	0.10639	0.10753	0.10779		
	0.11144	+++++					0.10874	5.032
44 2-Chloroethylvinyl ether	0.17101	0.16485	0.16495	0.17127	0.16844	0.17193		
	0.16773	+++++					0.16860	1.751
46 cis-1,3-Dichloropropylene	0.55370	0.54647	0.52813	0.53049	0.54124	0.49731		
	0.52254	+++++					0.53141	3.498
49 4-Methyl-2-pentanone	0.19079	0.18751	0.18345	0.17930	0.18487	0.16346		
	0.16408	+++++					0.17907	6.160
50 Toluene	1.17747	1.11669	1.11328	1.03042	1.03428	0.91729		
	0.94225	+++++					1.04738	9.100
51 Ethyl methacrylate	0.56017	0.58781	0.54369	0.54495	0.54752	0.52783		
	0.48807	+++++					0.54286	5.615
53 trans-1,3-Dichloropropylene	0.67518	0.61866	0.63619	0.60925	0.65047	0.56446		
	0.57837	+++++					0.61894	6.313
54 1,1,2-Trichloroethane	0.35859	0.35171	0.32270	0.31354	0.33719	0.28459		
	0.29175	+++++					0.32287	8.791
55 2-Hexanone	0.50036	0.50091	0.49377	0.49013	0.50691	0.43630		
	0.42561	+++++					0.47914	6.990

GEL Laboratories LLC

INITIAL CALIBRATION DATA

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Integrator : HP RTE
Method file : /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m
Cal Date : 24-Feb-2010 15:17 amj
Curve Type : Average

Compound	1.000 Level 1 / 100.000 Level 7	2.000 Level 2 / 200.000 Level 8	5.000 Level 3	10.000 Level 4	20.000 Level 5	50.000 Level 6	RRF	% RSD
52 1,3-Dichloropropane	0.64333	0.63879	0.63416	0.62360	0.65554	0.56734		
	0.57942	+++++					0.62031	5.424
56 Tetrachloroethylene	0.35986	0.36515	0.37574	0.34805	0.35467	0.31349		
	0.33562	+++++					0.35037	5.888
57 Dibromochloromethane	0.45230	0.45438	0.44527	0.44576	0.49593	0.43082		
	0.45148	+++++					0.45371	4.453
59 1,2-Dibromoethane	0.43180	0.38305	0.40020	0.39499	0.41768	0.36871		
	0.37676	+++++					0.39617	5.694
152 1-Chlorohexane	0.35940	0.31893	0.31687	0.27133	0.28661	0.30719		
	0.31578	+++++					0.31087	8.951
62 Chlorobenzene	1.23788	1.23444	1.20821	1.17933	1.23765	1.05464		
	1.08806	+++++					1.17717	6.446
60 1,1,1,2-Tetrachloroethane	0.43245	0.47110	0.45182	0.44117	0.47685	0.41790		
	0.45356	+++++					0.44926	4.629
58 Ethylbenzene	2.25907	2.13984	2.19100	2.05478	2.18997	1.83229		
	1.85977	+++++					2.07524	8.121
63 m,p-Xylenes	0.86552	0.83784	0.85312	0.81601	0.87471	0.74821		
	0.79079	+++++					0.82660	5.455
64 o-Xylene	0.88244	0.84197	0.86407	0.84458	0.89059	0.78778		
	0.86286	+++++					0.85347	3.986

GEL Laboratories LLC

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End Cal Date : 20-FEB-2010 04:37
Quant Method : ISTD
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Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m
Cal Date : 24-Feb-2010 15:17 amj
Curve Type : Average

Compound	1.000 Level 1 / 100.000 Level 7	2.000 Level 2 / 200.000 Level 8	5.000 Level 3	10.000 Level 4	20.000 Level 5	50.000 Level 6	RRF	% RSD
65 Styrene	1.42873	1.47483	1.44523	1.43037	1.55085	1.34523		
	1.43607	+++++					1.44447	4.249
66 Bromoform	0.49169	0.50449	0.49890	0.48567	0.53857	0.47783		
	0.51458	+++++					0.50168	4.043
67 Isopropylbenzene	3.89047	3.78477	3.79698	3.40825	3.64320	2.92025		
	2.97098	+++++					3.48784	11.502
68 cis-1,4-Dichloro-2-butene	0.28349	0.28112	0.25214	0.25271	0.26272	0.25693		
	0.24982	+++++					0.26270	5.343
70 Cyclohexanone	0.01484	0.01401	0.01211	0.01406	0.01444	+++++		
	+++++	+++++					0.01389	7.573
73 1,1,2,2-Tetrachloroethane	1.03775	0.97842	0.95320	0.91642	0.96163	0.80618		
	0.83319	+++++					0.92669	8.844
69 trans-1,4-Dichloro-2-butene	0.24463	0.26128	0.23595	0.24180	0.24847	0.24308		
	0.23669	+++++					0.24456	3.505
74 1,2,3-Trichloropropane	0.27411	0.24546	0.26331	0.24262	0.25470	0.22164		
	0.22723	+++++					0.24701	7.602
75 Bromobenzene	0.95265	0.95153	0.94369	0.89917	0.97053	0.82646		
	0.91522	+++++					0.92275	5.296
76 n-Propylbenzene	4.65145	4.54451	4.57508	4.20599	4.46517	3.54974		
	3.55962	+++++					4.22165	11.291

GEL Laboratories LLC

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m
Cal Date : 24-Feb-2010 15:17 amj
Curve Type : Average

Compound	1.000 Level 1 / 100.000 Level 7	2.000 Level 2 / 200.000 Level 8	5.000 Level 3	10.000 Level 4	20.000 Level 5	50.000 Level 6	RRF	% RSD
78 1,3,5-Trimethylbenzene	3.49172	3.43750	3.30366	3.11038	3.39399	2.77649		
	2.85913	+++++					3.19612	8.972
77 2-Chlorotoluene	3.14874	3.13775	3.09213	2.91926	3.08883	2.52867		
	2.60718	+++++					2.93180	8.893
80 4-Chlorotoluene	2.84043	2.76925	2.76543	2.59077	2.78506	2.24711		
	2.33331	+++++					2.61877	9.108
81 tert-Butylbenzene	3.16260	3.36158	3.40236	3.13083	3.39445	2.75849		
	2.88012	+++++					3.15577	8.127
79 1,2,4-Trimethylbenzene	3.71574	3.51518	3.46383	3.24555	3.49428	2.80831		
	2.86261	+++++					3.30079	10.493
82 Pentachloroethane	0.26770	0.35169	0.32431	0.27670	0.33754	0.27446		
	+++++	+++++					0.30540	12.018
83 sec-Butylbenzene	4.60165	4.48205	4.60517	4.20389	4.53905	3.63147		
	3.59140	+++++					4.23638	10.576
84 4-Isopropyltoluene	3.77331	3.71531	3.75082	3.44679	3.74160	3.00975		
	3.05064	+++++					3.49832	9.676
85 1,3-Dichlorobenzene	1.91202	1.90972	1.89834	1.84286	1.98109	1.62325		
	1.72229	+++++					1.84137	6.804
87 1,4-Dichlorobenzene	1.94895	1.96964	1.92938	1.82801	1.99836	1.63129		
	1.74171	+++++					1.86391	7.301

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-FEB-2010 21:11
End Cal Date : 20-FEB-2010 04:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m
Cal Date : 24-Feb-2010 15:17 amj
Curve Type : Average

Compound	1.000 Level 1 / 100.000 Level 7	2.000 Level 2 / 200.000 Level 8	5.000 Level 3	10.000 Level 4	20.000 Level 5	50.000 Level 6	RRF	% RSD
88 Benzyl chloride	1.32915	1.39102	1.31304	1.29688	1.36126	1.28232		
	1.11799	+++++					1.29881	6.778
89 n-Butylbenzene	3.62495	3.58999	3.60323	3.32337	3.60173	2.83845		
	2.87810	+++++					3.35141	10.519
90 1,2-Dichlorobenzene	1.82030	1.85764	1.82371	1.72182	1.91713	1.55614		
	1.62604	+++++					1.76040	7.438
91 bis(2-Chloroisopropyl)ether	0.41094	0.40479	0.36232	0.39654	0.40500	0.38966		
	0.36744	+++++					0.39096	4.891
92 1,2-Dibromo-3-chloropropane	0.17236	0.17039	0.18919	0.16872	0.19508	0.16232		
	0.17007	+++++					0.17545	6.808
93 1,2,4-Trichlorobenzene	0.98001	1.01126	1.00135	1.00407	1.09810	0.85787		
	0.93898	+++++					0.98452	7.466
94 Hexachlorobutadiene	0.67976	0.69836	0.64578	0.64762	0.70495	0.56733		
	0.60519	+++++					0.64985	7.722
95 Naphthalene	2.19209	2.20614	2.13354	2.24738	2.41492	1.95303		
	1.95829	+++++					2.15791	7.567
96 1,2,3-Trichlorobenzene	0.79246	0.78888	0.79254	0.83097	0.88159	0.70785		
	0.74367	+++++					0.79114	7.107
$ 138 1,2-Dichloroethane-d4	0.25536	0.25529	0.25107	0.25854	0.25126	0.25457		
	0.24844	+++++					0.25350	1.345

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-FEB-2010 21:11
End Cal Date : 20-FEB-2010 04:37
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m
Cal Date : 24-Feb-2010 15:17 amj
Curve Type : Average

Compound	1.000 Level 1	2.000 Level 2	5.000 Level 3	10.000 Level 4	20.000 Level 5	50.000 Level 6	RRF	% RSD
	100.000 Level 7	200.000 Level 8						
$ 47 Toluene-d8	1.13252	1.13737	1.13194	1.10795	1.12926	1.09260		
	1.06619	+++++					1.11398	2.382
$ 71 Bromofluorobenzene	0.93501	0.94005	0.93577	0.90605	0.89906	0.89596		
	0.89649	+++++					0.91548	2.228

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 20-FEB-2010 06:01
Lab File ID: 4y522.d Init. Cal. Date(s): 19-FEB-2010 20-FEB-2010
Analysis Type: WATER Init. Cal. Times: 21:11 04:37
Lab Sample ID: W4VM100219-18 Quant Type: ISTD
Method: /chem/VOA4.i/021910v4/VOA4-8260-021910.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M 1 Xylenes (total)	0.83556	0.74227	0.050	-11.16427	30.00000	Averaged	
M 2 1,2-Dichloroethylene (total	0.46199	0.41553	0.050	-10.05627	30.00000	Averaged	
M 135 1,3-Dichloropropylene	0.51686	0.47480	0.050	-8.13902	30.00000	Averaged	
3 Dichlorodifluoromethane	0.32396	0.22080	0.050	-31.84411	30.00000	Averaged	<-
4 Chloromethane	0.50618	0.38936	0.100	-23.07851	30.00000	Averaged	spcc
5 Vinyl chloride	0.44844	0.39541	0.050	-11.82609	20.00000	Averaged	ccc
6 Bromomethane	0.25019	0.22563	0.050	-9.81760	30.00000	Averaged	
7 Chloroethane	0.24556	0.21737	0.050	-11.48143	30.00000	Averaged	
8 Trichlorofluoromethane	0.52383	0.48089	0.050	-8.19690	30.00000	Averaged	
134 Ethyl Ether	0.25092	0.23491	0.001	-6.38346	30.00000	Averaged	
10 Acetone	0.24825	0.21282	0.050	-14.27149	40.00000	Averaged	
15 Acetonitrile	0.03989	0.04138	0.010	3.75012	30.00000	Averaged	
11 1,1-Dichloroethylene	0.61268	0.52650	0.050	-14.06497	20.00000	Averaged	ccc
128 Methyl acetate	0.23453	0.22798	0.010	-2.79589	40.00000	Averaged	
13 Iodomethane	0.59310	0.54574	0.050	-7.98529	30.00000	Averaged	
17 Methylene chloride	0.42078	0.36738	0.050	-12.68934	30.00000	Averaged	
14 Carbon disulfide	1.08539	1.00069	0.050	-7.80387	30.00000	Averaged	
20 tert-Butyl methyl ether	0.93713	0.87749	0.050	-6.36373	30.00000	Averaged	
21 trans-1,2-Dichloroethylene	0.45053	0.39564	0.050	-12.18314	30.00000	Averaged	
23 Vinyl acetate	0.53801	0.47790	0.010	-11.17132	40.00000	Averaged	
22 1,1-Dichloroethane	0.56501	0.50538	0.100	-10.55301	30.00000	Averaged	spcc
30 2-Butanone	0.28746	0.24655	0.030	-14.23223	40.00000	Averaged	
31 cis-1,2-Dichloroethylene	0.47344	0.43542	0.050	-8.03129	30.00000	Averaged	
25 2,2-Dichloropropane	0.26307	0.23218	0.050	-11.74120	30.00000	Averaged	
32 Chloroform	0.59173	0.53484	0.010	-9.61484	20.00000	Averaged	ccc
29 Bromochloromethane	0.17426	0.16226	0.010	-6.88493	30.00000	Averaged	
36 1,1,1-Trichloroethane	0.44857	0.39385	0.010	-12.19855	30.00000	Averaged	
129 Cyclohexane	0.57916	0.47601	0.010	-17.80968	30.00000	Averaged	
34 1,1-Dichloropropene	0.43562	0.38560	0.010	-11.48164	30.00000	Averaged	
131 n-Butyl alcohol	0.01081	0.01184	0.001	9.45698	40.00000	Averaged	
33 Carbon tetrachloride	0.41939	0.39549	0.010	-5.70048	30.00000	Averaged	
$ 138 1,2-Dichloroethane-d4	0.25350	0.25162	0.001	-0.74287	30.00000	Averaged	
37 1,2-Dichloroethane	0.45159	0.41841	0.010	-7.34745	30.00000	Averaged	
38 Benzene	1.29590	1.14537	0.010	-11.61578	30.00000	Averaged	
139 Cyclohexene	0.63852	0.54637	0.001	-14.43170	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 20-FEB-2010 06:01
Lab File ID: 4y522.d Init. Cal. Date(s): 19-FEB-2010 20-FEB-2010
Analysis Type: WATER Init. Cal. Times: 21:11 04:37
Lab Sample ID: W4VM100219-18 Quant Type: ISTD
Method: /chem/VOA4.i/021910v4/VOA4-8260-021910.m

	COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	39 Trichloroethylene	0.34549	0.31084	0.010	-10.03068	30.00000	Averaged	
	41 1,2-Dichloropropane	0.33123	0.30487	0.010	-7.95793	20.00000	Averaged	ccc
	130 Methylcyclohexane	0.56422	0.48129	0.010	-14.69894	30.00000	Averaged	
	45 Bromodichloromethane	0.45752	0.42700	0.010	-6.66998	30.00000	Averaged	
	43 Dibromomethane	0.21429	0.19806	0.010	-7.57097	30.00000	Averaged	
	44 2-Chloroethylvinyl ether	0.16860	0.16649	0.005	-1.24852	30.00000	Averaged	
	49 4-Methyl-2-pentanone	0.17907	0.15997	0.010	-10.66648	40.00000	Averaged	
	46 cis-1,3-Dichloropropylene	0.53141	0.48392	0.010	-8.93630	30.00000	Averaged	
$	47 Toluene-d8	1.11398	1.06910	0.010	-4.02884	30.00000	Averaged	
	50 Toluene	1.04738	0.89106	0.010	-14.92483	20.00000	Averaged	ccc
	53 trans-1,3-Dichloropropylene	0.61894	0.55059	0.010	-11.04347	30.00000	Averaged	
	54 1,1,2-Trichloroethane	0.32287	0.28001	0.010	-13.27373	30.00000	Averaged	
	55 2-Hexanone	0.47914	0.36873	0.010	-23.04250	40.00000	Averaged	
	52 1,3-Dichloropropane	0.62031	0.56257	0.010	-9.30921	30.00000	Averaged	
	56 Tetrachloroethylene	0.35037	0.29958	0.010	-14.49604	30.00000	Averaged	
	57 Dibromochloromethane	0.45371	0.42458	0.010	-6.42041	30.00000	Averaged	
	59 1,2-Dibromoethane	0.39617	0.36804	0.010	-7.10051	30.00000	Averaged	
	62 Chlorobenzene	1.17717	1.04088	0.300	-11.57781	30.00000	Averaged	spcc
	60 1,1,1,2-Tetrachloroethane	0.44926	0.41277	0.010	-8.12416	30.00000	Averaged	
	58 Ethylbenzene	2.07524	1.77548	0.010	-14.44493	20.00000	Averaged	ccc
	63 m,p-Xylenes	0.82660	0.72702	0.010	-12.04738	30.00000	Averaged	
	64 o-Xylene	0.85347	0.77279	0.010	-9.45337	30.00000	Averaged	
	65 Styrene	1.44447	1.32263	0.010	-8.43545	30.00000	Averaged	
	66 Bromoform	0.50168	0.48341	0.100	-3.64023	30.00000	Averaged	spcc
	67 Isopropylbenzene	3.48784	2.86573	0.010	-17.83663	30.00000	Averaged	
	73 1,1,2,2-Tetrachloroethane	0.92669	0.82495	0.300	-10.97855	30.00000	Averaged	spcc
$	71 Bromofluorobenzene	0.91548	0.90309	0.010	-1.35357	30.00000	Averaged	
	74 1,2,3-Trichloropropane	0.24701	0.22557	0.010	-8.68188	30.00000	Averaged	
	75 Bromobenzene	0.92275	0.83365	0.010	-9.65585	30.00000	Averaged	
	76 n-Propylbenzene	4.22165	3.48585	0.010	-17.42916	30.00000	Averaged	
	77 2-Chlorotoluene	2.93180	2.53455	0.010	-13.54959	30.00000	Averaged	
	78 1,3,5-Trimethylbenzene	3.19612	2.73087	0.010	-14.55680	30.00000	Averaged	
	80 4-Chlorotoluene	2.61877	2.24203	0.010	-14.38582	30.00000	Averaged	
	81 tert-Butylbenzene	3.15577	2.72156	0.010	-13.75944	30.00000	Averaged	
	79 1,2,4-Trimethylbenzene	3.30079	2.77125	0.010	-16.04273	30.00000	Averaged	
	83 sec-Butylbenzene	4.23638	3.54074	0.010	-16.42062	30.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 20-FEB-2010 06:01
Lab File ID: 4y522.d Init. Cal. Date(s): 19-FEB-2010 20-FEB-2010
Analysis Type: WATER Init. Cal. Times: 21:11 04:37
Lab Sample ID: W4VM100219-18 Quant Type: ISTD
Method: /chem/VOA4.i/021910v4/VOA4-8260-021910.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
84 4-Isopropyltoluene	3.49832	2.90502	0.010	-16.95942	30.00000	Averaged
85 1,3-Dichlorobenzene	1.84137	1.59674	0.010	-13.28492	30.00000	Averaged
87 1,4-Dichlorobenzene	1.86391	1.62476	0.010	-12.83034	30.00000	Averaged
89 n-Butylbenzene	3.35141	2.70801	0.010	-19.19772	30.00000	Averaged
90 1,2-Dichlorobenzene	1.76040	1.54836	0.010	-12.04458	30.00000	Averaged
92 1,2-Dibromo-3-chloropropane	0.17545	0.17011	0.010	-3.04258	30.00000	Averaged
93 1,2,4-Trichlorobenzene	0.98452	0.84469	0.010	-14.20243	30.00000	Averaged
94 Hexachlorobutadiene	0.64985	0.54993	0.010	-15.37579	30.00000	Averaged
95 Naphthalene	2.15791	2.05140	0.010	-4.93613	30.00000	Averaged
96 1,2,3-Trichlorobenzene	0.79114	0.74230	0.010	-6.17291	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 7.29941
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/021910v4/4y522.d
Lab Smp Id: W4VM100219-18 Client Smp ID: SECOND SOURCE
Inj Date : 20-FEB-2010 06:01
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM100219-18|ICV|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM100125-01E/IVM100218-01
Comment :
Method : /chem/VOA4.i/021910v4/VOA4-8260-021910.m
Meth Date : 20-Feb-2010 11:31 amj Quant Type: ISTD
Cal Date : 20-FEB-2010 04:09 Cal File: 4y518.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				3245282	150.000	133
M 2 1,2-Dichloroethylene (total)	96				1432003	100.000	89.9
M 135 1,3-Dichloropropylene	75				1636261	100.000	91.9
3 Dichlorodifluoromethane	85	4.904	4.904	(0.462)	380456	50.0000	34.1
4 Chloromethane	50	5.284	5.284	(0.498)	670909	50.0000	38.5
5 Vinyl chloride	62	5.507	5.507	(0.519)	681339	50.0000	44.1
6 Bromomethane	94	6.123	6.123	(0.577)	388784	50.0000	45.1
7 Chloroethane	64	6.288	6.288	(0.592)	374547	50.0000	44.2
8 Trichlorofluoromethane	101	6.675	6.675	(0.629)	828632	50.0000	45.9
134 Ethyl Ether	59	6.998	6.998	(0.659)	404772	50.0000	46.8
10 Acetone	43	7.352	7.352	(0.692)	1833558	250.000	214
15 Acetonitrile	41	7.699	7.699	(0.725)	1782712	1250.00	1300
11 1,1-Dichloroethylene	61	7.401	7.401	(0.697)	907228	50.0000	43.0
128 Methyl acetate	43	7.748	7.748	(0.730)	1964158	250.000	243
13 Iodomethane	142	7.657	7.657	(0.721)	4701844	250.000	230
17 Methylene chloride	84	7.937	7.937	(0.747)	633044	50.0000	43.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
14 Carbon disulfide	76	7.779	7.779	(0.732)	8621503	250.000	230
20 tert-Butyl methyl ether	73	8.236	8.236	(0.776)	1512025	50.0000	46.8
21 trans-1,2-Dichloroethylene	61	8.285	8.285	(0.780)	681729	50.0000	43.9
23 Vinyl acetate	43	8.705	8.705	(0.820)	4117418	250.000	222
22 1,1-Dichloroethane	63	8.760	8.760	(0.825)	870831	50.0000	44.7
30 2-Butanone	43	9.327	9.327	(0.878)	2124160	250.000	214
31 cis-1,2-Dichloroethylene	61	9.388	9.388	(0.884)	750274	50.0000	46.0
25 2,2-Dichloropropane	77	9.419	9.419	(0.887)	400073	50.0000	44.1
32 Chloroform	83	9.693	9.693	(0.913)	921592	50.0000	45.2
29 Bromochloromethane	128	9.656	9.656	(0.909)	279591	50.0000	46.6
36 1,1,1-Trichloroethane	97	9.980	9.980	(0.940)	678649	50.0000	43.9
129 Cyclohexane	56	10.083	10.083	(0.949)	820223	50.0000	41.1
34 1,1-Dichloropropene	75	10.132	10.132	(0.954)	664434	50.0000	44.2
131 n-Butyl alcohol	56	10.687	10.687	(1.006)	2039536	5000.00	5470
33 Carbon tetrachloride	117	10.175	10.175	(0.958)	681468	50.0000	47.1
$ 138 1,2-Dichloroethane-d4	65	10.260	10.260	(0.966)	433573	50.0000	49.6
37 1,2-Dichloroethane	62	10.339	10.339	(0.974)	720974	50.0000	46.3
38 Benzene	78	10.370	10.370	(0.976)	1973608	50.0000	44.2
139 Cyclohexene	67	10.492	10.492	(0.988)	941467	50.0000	42.8
* 40 Fluorobenzene	96	10.620	10.620	(1.000)	1723117	50.0000	
39 Trichloroethylene	95	11.004	11.004	(1.036)	535609	50.0000	45.0
41 1,2-Dichloropropane	63	11.241	11.241	(1.059)	525332	50.0000	46.0
130 Methylcyclohexane	83	11.260	11.260	(1.060)	829314	50.0000	42.6
45 Bromodichloromethane	83	11.479	11.479	(1.081)	735770	50.0000	46.7
43 Dibromomethane	93	11.376	11.376	(1.071)	341288	50.0000	46.2
44 2-Chloroethylvinyl ether	63	11.699	11.699	(1.102)	1434436	250.000	247
49 4-Methyl-2-pentanone	58	12.016	12.016	(0.872)	1165635	250.000	223
46 cis-1,3-Dichloropropylene	75	11.930	11.930	(1.123)	833856	50.0000	45.5
$ 47 Toluene-d8	98	12.247	12.253	(0.889)	1558056	50.0000	48.0
50 Toluene	92	12.327	12.327	(0.895)	1298597	50.0000	42.5
53 trans-1,3-Dichloropropylene	75	12.461	12.461	(0.905)	802404	50.0000	44.5
54 1,1,2-Trichloroethane	83	12.680	12.680	(0.921)	408076	50.0000	43.4
55 2-Hexanone	43	12.857	12.857	(0.934)	2686893	250.000	192
52 1,3-Dichloropropane	76	12.875	12.875	(0.935)	819861	50.0000	45.3
56 Tetrachloroethylene	164	12.918	12.918	(0.938)	436594	50.0000	42.8
57 Dibromochloromethane	129	13.144	13.144	(0.954)	618760	50.0000	46.8
59 1,2-Dibromoethane	107	13.320	13.320	(0.967)	536365	50.0000	46.4
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	1457360	50.0000	
62 Chlorobenzene	112	13.802	13.802	(1.002)	1516940	50.0000	44.2
60 1,1,1,2-Tetrachloroethane	131	13.851	13.851	(1.006)	601548	50.0000	45.9
58 Ethylbenzene	91	13.863	13.863	(1.007)	2587508	50.0000	42.8
63 m,p-Xylenes	106	13.973	13.973	(1.015)	2119053	100.000	88.0
64 o-Xylene	106	14.406	14.406	(1.046)	1126229	50.0000	45.3
65 Styrene	104	14.399	14.399	(1.046)	1927542	50.0000	45.8
66 Bromoform	173	14.655	14.655	(0.906)	481390	50.0000	48.2
67 Isopropylbenzene	105	14.759	14.759	(0.912)	2853734	50.0000	41.1
73 1,1,2,2-Tetrachloroethane	83	15.015	15.015	(0.928)	821495	50.0000	44.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
$ 71 Bromofluorobenzene	95	14.954	14.954	(0.924)	899311	50.0000	49.3
74 1,2,3-Trichloropropane	110	15.107	15.107	(0.934)	224621	50.0000	45.6
75 Bromobenzene	156	15.168	15.168	(0.937)	830159	50.0000	45.2
76 n-Propylbenzene	91	15.180	15.180	(0.938)	3471262	50.0000	41.3
77 2-Chlorotoluene	91	15.332	15.332	(0.948)	2523939	50.0000	43.2
78 1,3,5-Trimethylbenzene	105	15.332	15.332	(0.948)	2719438	50.0000	42.7
80 4-Chlorotoluene	91	15.430	15.430	(0.954)	2232649	50.0000	42.8
81 tert-Butylbenzene	119	15.704	15.704	(0.971)	2710164	50.0000	43.1
79 1,2,4-Trimethylbenzene	105	15.741	15.741	(0.973)	2759648	50.0000	42.0
83 sec-Butylbenzene	105	15.930	15.930	(0.985)	3525920	50.0000	41.8
84 4-Isopropyltoluene	119	16.052	16.052	(0.992)	2892862	50.0000	41.5
85 1,3-Dichlorobenzene	146	16.119	16.119	(0.996)	1590059	50.0000	43.4
* 86 1,4-Dichlorobenzene-d4	152	16.180	16.180	(1.000)	995813	50.0000	
87 1,4-Dichlorobenzene	146	16.204	16.204	(1.002)	1617960	50.0000	43.6
89 n-Butylbenzene	91	16.503	16.503	(1.020)	2696676	50.0000	40.4
90 1,2-Dichlorobenzene	146	16.643	16.643	(1.029)	1541883	50.0000	44.0
92 1,2-Dibromo-3-chloropropane	157	17.527	17.527	(1.083)	169397	50.0000	48.5
93 1,2,4-Trichlorobenzene	180	18.630	18.630	(1.151)	841158	50.0000	42.9
94 Hexachlorobutadiene	225	18.819	18.819	(1.163)	547632	50.0000	42.3
95 Naphthalene	128	19.033	19.033	(1.176)	2042810	50.0000	47.5
96 1,2,3-Trichlorobenzene	180	19.386	19.386	(1.198)	739194	50.0000	46.9

Data File: /chem/VOA4.i/021910v4/4y522.d
Date : 20-FEB-2010 06:01
Client ID: SECOND SOURCE
Sample Info: IW4VM100219-18|ICV|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

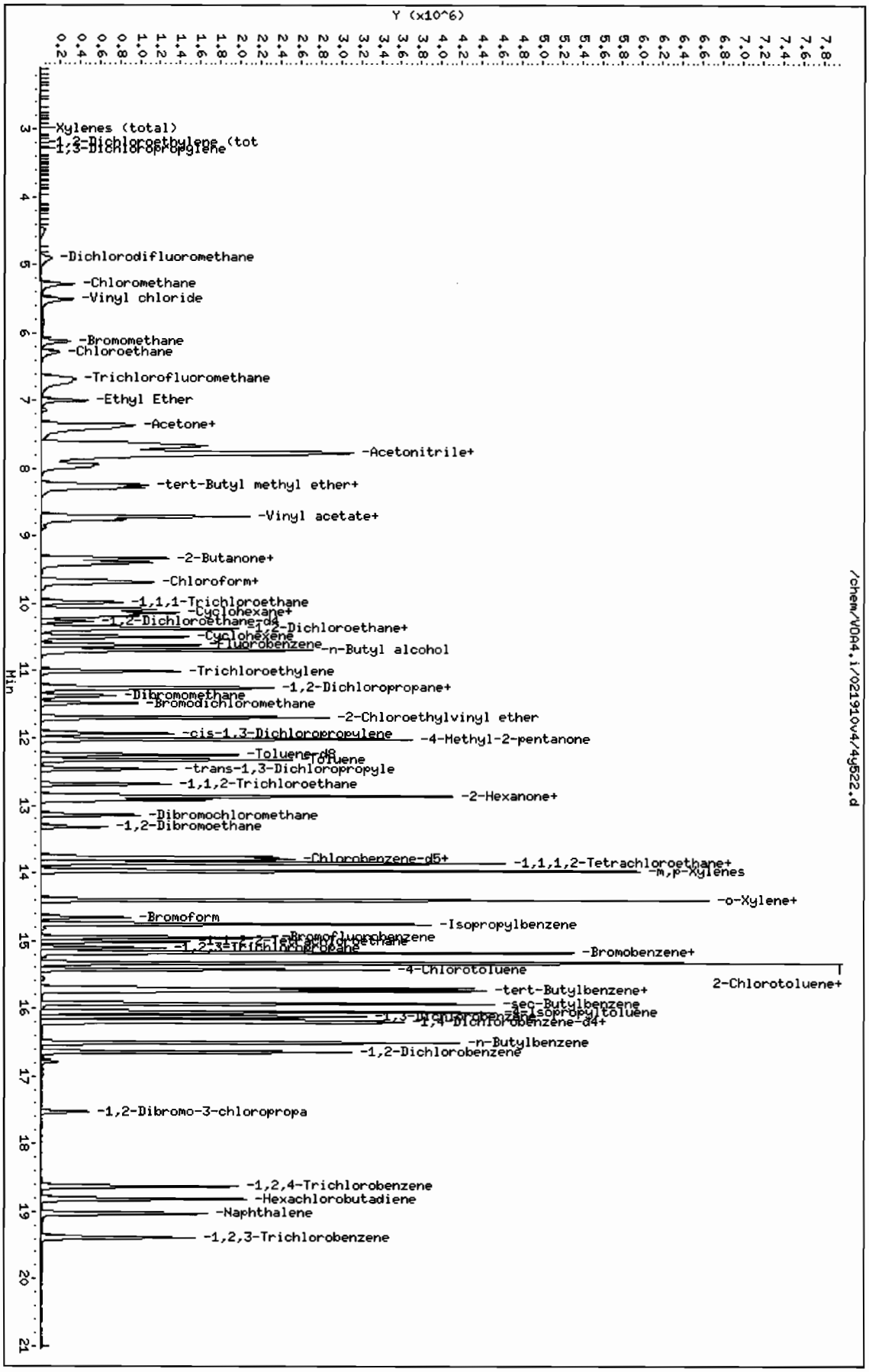

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 20-FEB-2010 06:28
Lab File ID: 4y523.d Init. Cal. Date(s): 19-FEB-2010 20-FEB-2010
Analysis Type: WATER Init. Cal. Times: 21:11 04:37
Lab Sample ID: W4VM100219-19 Quant Type: ISTD
Method: /chem/VOA4.i/021910v4/VOA4-8260-021910.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
153 Chlorotrifluoroethylene	0.18431	0.16926	0.010	-8.16462	30.00000	Averaged
154 2-Chloro-1,1,1-trifluoroeth	0.51949	0.51112	0.010	-1.61184	30.00000	Averaged
9 Acrolein	0.04038	0.04593	0.001	13.74360	30.00000	Averaged
12 Trichlorotrifluoroethane	0.14180	0.12943	0.050	-8.72552	30.00000	Averaged
147 Isopropyl Alcohol	0.02510	0.02514	0.010	0.18320	40.00000	Averaged
16 Allyl chloride	0.42985	0.39354	0.010	-8.44835	30.00000	Averaged
148 tert-Butyl Alcohol	0.04179	0.04088	0.010	-2.18360	40.00000	Averaged
18 Acrylonitrile	0.11678	0.10523	0.010	-9.88940	30.00000	Averaged
149 Isopropyl ether	1.04316	1.00113	0.010	-4.02913	30.00000	Averaged
24 2-Chloro-1,3-butadiene	0.42744	0.39760	0.010	-6.98237	30.00000	Averaged
150 Ethyl tert-butyl ether	1.00104	0.97666	0.010	-2.43550	30.00000	Averaged
28 Propionitrile	0.04810	0.04221	0.010	-12.25394	30.00000	Averaged
26 Ethyl acetate	0.32871	0.27618	0.010	-15.97803	40.00000	Averaged
27 Methacrylonitrile	0.19728	0.17797	0.010	-9.78919	30.00000	Averaged
72 Tetrahydrofuran	0.19561	0.17388	0.010	-11.10435	30.00000	Averaged
19 Isobutyl alcohol	0.01364	0.01253	0.005	-8.18341	40.00000	Averaged
151 Methyl tert-amyl ether	0.96856	0.93390	0.010	-3.57766	30.00000	Averaged
42 Methyl methacrylate	0.23272	0.20993	0.010	-9.79320	30.00000	Averaged
51 Ethyl methacrylate	0.54286	0.48529	0.010	-10.60574	30.00000	Averaged
152 1-Chlorohexane	0.31087	0.28520	0.010	-8.25753	30.00000	Averaged
97 1,4-Dioxane	0.00329	0.00319	0.001	-3.06986	40.00000	Averaged
48 2-Nitropropane	0.10874	0.10131	0.010	-6.83069	30.00000	Averaged
68 cis-1,4-Dichloro-2-butene	0.26270	0.24842	0.010	-5.43710	30.00000	Averaged
70 Cyclohexanone	0.01389	0.01652	0.005	18.93839	40.00000	Averaged
69 trans-1,4-Dichloro-2-butene	0.24456	0.23579	0.010	-3.58421	30.00000	Averaged
82 Pentachloroethane	0.30540	0.28771	0.010	-5.79419	30.00000	Averaged
88 Benzyl chloride	1.29881	1.06993	0.010	-17.62202	30.00000	Averaged
91 bis(2-Chloroisopropyl)ether	0.39096	0.36324	0.010	-7.08915	30.00000	Averaged
$ 138 1,2-Dichloroethane-d4	0.25350	0.25323	0.001	-0.10779	30.00000	Averaged
$ 47 Toluene-d8	1.11398	1.11087	0.010	-0.27841	30.00000	Averaged
$ 71 Bromofluorobenzene	0.91548	0.93004	0.010	1.58989	30.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 20-FEB-2010 06:28
Lab File ID: 4y523.d Init. Cal. Date(s): 19-FEB-2010 20-FEB-2010
Analysis Type: WATER Init. Cal. Times: 21:11 04:37
Lab Sample ID: W4VM100219-19 Quant Type: ISTD
Method: /chem/VOA4.i/021910v4/VOA4-8260-021910.m

Average %D / Drift Results.
Calculated Average %D/Drift = 7.29941
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/021910v4/4y523.d
Lab Smp Id: W4VM100219-19 Client Smp ID: SHORT SECOND SOURCE
Inj Date : 20-FEB-2010 06:28
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM100219-19|SHORTICV|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091216-08B/UVM100125-08C
Comment :
Method : /chem/VOA4.i/021910v4/VOA4-8260-021910.m
Meth Date : 20-Feb-2010 11:31 amj Quant Type: ISTD
Cal Date : 20-FEB-2010 04:09 Cal File: 4y518.d
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
153 Chlorotrifluoroethylene	116	4.818	4.818	(0.454)	887431	150.000	138
154 2-Chloro-1,1,1-trifluoroethane	118	5.657	5.657	(0.533)	2679812	150.000	148
9 Acrolein	56	7.181	7.181	(0.676)	401367	250.000	284
12 Trichlorotrifluoroethane	85	7.364	7.364	(0.693)	1130972	250.000	228
147 Isopropyl Alcohol	45	7.431	7.431	(0.700)	2197249	2500.00	2500
16 Allyl chloride	41	7.797	7.797	(0.734)	3438860	250.000	229
148 tert-Butyl Alcohol	59	7.925	7.925	(0.746)	3571952	2500.00	2440
18 Acrylonitrile	53	8.175	8.175	(0.770)	919563	250.000	225
149 Isopropyl ether	45	8.742	8.742	(0.823)	1749645	50.0000	48.0
24 2-Chloro-1,3-butadiene	53	8.870	8.870	(0.835)	694868	50.0000	46.5
150 Ethyl tert-butyl ether	59	9.144	9.144	(0.861)	1706875	50.0000	48.8
28 Propionitrile	54	9.388	9.388	(0.884)	368824	250.000	219
26 Ethyl acetate	43	9.339	9.339	(0.879)	2413393	250.000	210
27 Methacrylonitrile	41	9.577	9.577	(0.902)	1555149	250.000	226
72 Tetrahydrofuran	42	9.711	9.711	(0.600)	808945	250.000	222
19 Isobutyl alcohol	41	10.004	10.004	(0.942)	1094767	2500.00	2300

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
151 Methyl tert-amyl ether	73	10.388	10.388	(0.978)	1632153	50.0000	48.2
42 Methyl methacrylate	69	11.205	11.205	(1.055)	1834432	250.000	226
51 Ethyl methacrylate	69	12.461	12.461	(0.905)	3469784	250.000	223
152 1-Chlorohexane	55	13.662	13.662	(1.286)	498437	50.0000	45.9
97 1,4-Dioxane	88	11.327	11.327	(1.067)	278719	2500.00	2420
48 2-Nitropropane	43	11.674	11.674	(1.099)	885284	250.000	233
68 cis-1,4-Dichloro-2-butene	53	14.783	14.783	(0.914)	1155700	250.000	236
70 Cyclohexanone	42	14.905	14.905	(1.082)	590663	1250.00	1490
69 trans-1,4-Dichloro-2-butene	53	15.064	15.064	(0.931)	1096957	250.000	241
82 Pentachloroethane	167	15.771	15.771	(0.975)	1338463	250.000	236
88 Benzyl chloride	91	16.320	16.320	(1.009)	4977551	250.000	206
91 bis(2-Chloroisopropyl)ether	45	16.716	16.716	(1.033)	1689874	250.000	232
* 40 Fluorobenzene	96	10.620	10.620	(1.000)	1747668	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	1429990	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.180	16.180	(1.000)	930440	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.260	10.260	(0.966)	442564	50.0000	49.9
$ 47 Toluene-d8	98	12.253	12.253	(0.890)	1588539	50.0000	49.9
$ 71 Bromofluorobenzene	95	14.954	14.954	(0.924)	865345	50.0000	50.8

Data File: /chem/VOA4.i/021910v4/4y523.d
Date : 20-FEB-2010 06:28
Client ID: SHORT SECOND SOURCE
Sample Info: IW4VM100219-19|SHORTICV|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

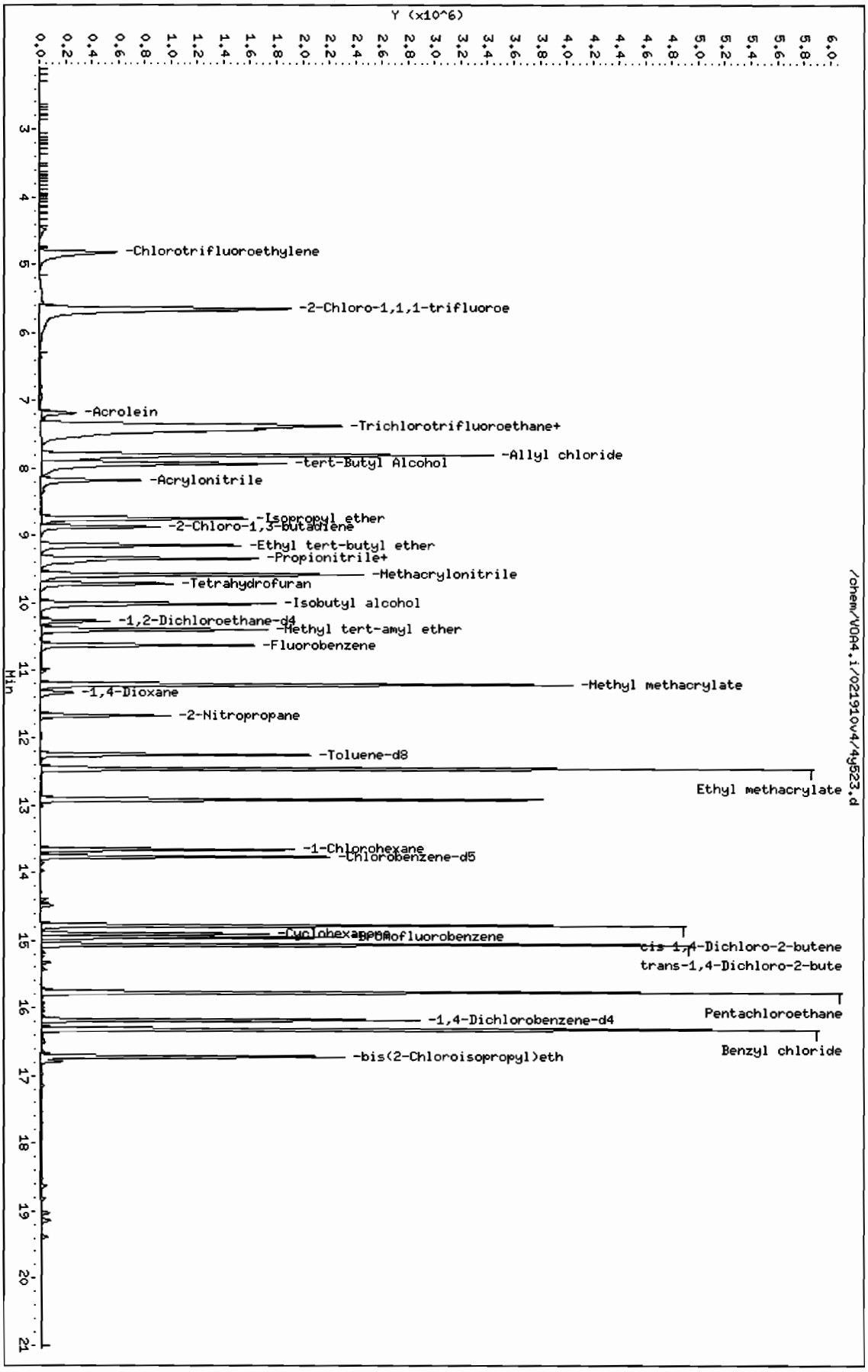

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 24-FEB-2010 06:08
Lab File ID: 4z228.d Init. Cal. Date(s): 19-FEB-2010 20-FEB-2010
Analysis Type: WATER Init. Cal. Times: 21:11 04:37
Lab Sample ID: W4VM100223-05 Quant Type: ISTD
Method: /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M 1 Xylenes (total)	0.83556	0.71909	0.050	-13.93956	30.00000	Averaged	
M 2 1,2-Dichloroethylene (total	0.46199	0.45591	0.050	-1.31602	30.00000	Averaged	
M 135 1,3-Dichloropropylene	0.51686	0.49126	0.050	-4.95336	30.00000	Averaged	
3 Dichlorodifluoromethane	0.32396	0.26303	0.050	-18.80733	30.00000	Averaged	
4 Chloromethane	0.50618	0.47283	0.100	-6.58809	30.00000	Averaged	spcc
5 Vinyl chloride	0.44844	0.48478	0.050	8.10170	20.00000	Averaged	ccc
6 Bromomethane	0.25019	0.27802	0.050	11.12250	30.00000	Averaged	
7 Chloroethane	0.24556	0.25987	0.050	5.82592	30.00000	Averaged	
8 Trichlorofluoromethane	0.52383	0.53879	0.050	2.85536	30.00000	Averaged	
134 Ethyl Ether	0.25092	0.25962	0.001	3.46689	30.00000	Averaged	
10 Acetone	0.24825	0.24264	0.050	-2.25846	40.00000	Averaged	
15 Acetonitrile	0.03989	0.05306	0.010	33.01214	30.00000	Averaged	<-
11 1,1-Dichloroethylene	0.61268	0.58279	0.050	-4.87745	20.00000	Averaged	ccc
128 Methyl acetate	0.23453	0.27680	0.010	18.01881	40.00000	Averaged	
13 Iodomethane	0.59310	0.57062	0.050	-3.79018	30.00000	Averaged	
17 Methylene chloride	0.42078	0.39804	0.050	-5.40403	30.00000	Averaged	
14 Carbon disulfide	1.08539	1.14271	0.050	5.28114	30.00000	Averaged	
20 tert-Butyl methyl ether	0.93713	0.94344	0.050	0.67355	30.00000	Averaged	
21 trans-1,2-Dichloroethylene	0.45053	0.43585	0.050	-3.25678	30.00000	Averaged	
23 Vinyl acetate	0.53801	0.52275	0.010	-2.83605	40.00000	Averaged	
22 1,1-Dichloroethane	0.56501	0.55412	0.100	-1.92764	30.00000	Averaged	spcc
30 2-Butanone	0.28746	0.27580	0.030	-4.05549	40.00000	Averaged	
31 cis-1,2-Dichloroethylene	0.47344	0.47596	0.050	0.53196	30.00000	Averaged	
25 2,2-Dichloropropane	0.26307	0.26246	0.050	-0.23181	30.00000	Averaged	
32 Chloroform	0.59173	0.57442	0.010	-2.92690	20.00000	Averaged	ccc
29 Bromochloromethane	0.17426	0.17005	0.010	-2.41646	30.00000	Averaged	
36 1,1,1-Trichloroethane	0.44857	0.42772	0.010	-4.64800	30.00000	Averaged	
129 Cyclohexane	0.57916	0.50617	0.010	-12.60288	30.00000	Averaged	
34 1,1-Dichloropropene	0.43562	0.41434	0.010	-4.88403	30.00000	Averaged	
131 n-Butyl alcohol	0.01081	0.01554	0.001	43.69556	40.00000	Averaged	<-
33 Carbon tetrachloride	0.41939	0.42128	0.010	0.44871	30.00000	Averaged	
$ 138 1,2-Dichloroethane-d4	0.25350	0.24564	0.001	-3.10209	30.00000	Averaged	
37 1,2-Dichloroethane	0.45159	0.46436	0.010	2.82743	30.00000	Averaged	
38 Benzene	1.29590	1.20705	0.010	-6.85628	30.00000	Averaged	
139 Cyclohexene	0.63852	0.58995	0.001	-7.60809	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 24-FEB-2010 06:08
Lab File ID: 4z228.d Init. Cal. Date(s): 19-FEB-2010 20-FEB-2010
Analysis Type: WATER Init. Cal. Times: 21:11 04:37
Lab Sample ID: W4VM100223-05 Quant Type: ISTD
Method: /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
39 Trichloroethylene	0.34549	0.32910	0.010	-4.74396	30.00000	Averaged	
41 1,2-Dichloropropane	0.33123	0.32534	0.010	-1.77891	20.00000	Averaged	ccc
130 Methylcyclohexane	0.56422	0.50717	0.010	-10.11100	30.00000	Averaged	
45 Bromodichloromethane	0.45752	0.44518	0.010	-2.69623	30.00000	Averaged	
43 Dibromomethane	0.21429	0.21089	0.010	-1.58533	30.00000	Averaged	
44 2-Chloroethylvinyl ether	0.16860	0.14274	0.005	-15.33827	30.00000	Averaged	
49 4-Methyl-2-pentanone	0.17907	0.19680	0.010	9.90649	40.00000	Averaged	
46 cis-1,3-Dichloropropylene	0.53141	0.50015	0.010	-5.88311	30.00000	Averaged	
$ 47 Toluene-d8	1.11398	1.03278	0.010	-7.28887	30.00000	Averaged	
50 Toluene	1.04738	0.92596	0.010	-11.59269	20.00000	Averaged	ccc
53 trans-1,3-Dichloropropylene	0.61894	0.59272	0.010	-4.23601	30.00000	Averaged	
54 1,1,2-Trichloroethane	0.32287	0.30704	0.010	-4.90270	30.00000	Averaged	
55 2-Hexanone	0.47914	0.45523	0.010	-4.98963	40.00000	Averaged	
52 1,3-Dichloropropane	0.62031	0.61230	0.010	-1.29195	30.00000	Averaged	
56 Tetrachloroethylene	0.35037	0.29281	0.010	-16.42762	30.00000	Averaged	
57 Dibromochloromethane	0.45371	0.45095	0.010	-0.60686	30.00000	Averaged	
59 1,2-Dibromoethane	0.39617	0.38849	0.010	-1.93877	30.00000	Averaged	
62 Chlorobenzene	1.17717	1.02950	0.300	-12.54447	30.00000	Averaged	spcc
60 1,1,1,2-Tetrachloroethane	0.44926	0.42157	0.010	-6.16515	30.00000	Averaged	
58 Ethylbenzene	2.07524	1.76554	0.010	-14.92394	20.00000	Averaged	ccc
63 m,p-Xylenes	0.82660	0.70177	0.010	-15.10125	30.00000	Averaged	
64 o-Xylene	0.85347	0.75371	0.010	-11.68906	30.00000	Averaged	
65 Styrene	1.44447	1.28848	0.010	-10.79908	30.00000	Averaged	
66 Bromoform	0.50168	0.49050	0.100	-2.22876	30.00000	Averaged	spcc
67 Isopropylbenzene	3.48784	2.75990	0.010	-20.87090	30.00000	Averaged	
73 1,1,2,2-Tetrachloroethane	0.92669	0.91140	0.300	-1.64897	30.00000	Averaged	spcc
$ 71 Bromofluorobenzene	0.91548	0.93959	0.010	2.63362	30.00000	Averaged	
74 1,2,3-Trichloropropane	0.24701	0.24984	0.010	1.14360	30.00000	Averaged	
75 Bromobenzene	0.92275	0.78206	0.010	-15.24711	30.00000	Averaged	
76 n-Propylbenzene	4.22165	3.28554	0.010	-22.17399	30.00000	Averaged	
77 2-Chlorotoluene	2.93180	2.43550	0.010	-16.92815	30.00000	Averaged	
78 1,3,5-Trimethylbenzene	3.19612	2.56184	0.010	-19.84552	30.00000	Averaged	
80 4-Chlorotoluene	2.61877	2.10337	0.010	-19.68102	30.00000	Averaged	
81 tert-Butylbenzene	3.15577	2.55606	0.010	-19.00366	30.00000	Averaged	
79 1,2,4-Trimethylbenzene	3.30079	2.58005	0.010	-21.83530	30.00000	Averaged	
83 sec-Butylbenzene	4.23638	3.30534	0.010	-21.97734	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 24-FEB-2010 06:08
Lab File ID: 4z228.d Init. Cal. Date(s): 19-FEB-2010 20-FEB-2010
Analysis Type: WATER Init. Cal. Times: 21:11 04:37
Lab Sample ID: W4VM100223-05 Quant Type: ISTD
Method: /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
84 4-Isopropyltoluene	3.49832	2.64046	0.010	-24.52211	30.00000	Averaged
85 1,3-Dichlorobenzene	1.84137	1.48854	0.010	-19.16135	30.00000	Averaged
87 1,4-Dichlorobenzene	1.86391	1.50116	0.010	-19.46166	30.00000	Averaged
89 n-Butylbenzene	3.35141	2.43160	0.010	-27.44533	30.00000	Averaged
90 1,2-Dichlorobenzene	1.76040	1.49016	0.010	-15.35112	30.00000	Averaged
92 1,2-Dibromo-3-chloropropane	0.17545	0.18199	0.010	3.72879	30.00000	Averaged
93 1,2,4-Trichlorobenzene	0.98452	0.71827	0.010	-27.04380	30.00000	Averaged
94 Hexachlorobutadiene	0.64985	0.39447	0.010	-39.29822	30.00000	Averaged <-
95 Naphthalene	2.15791	1.93673	0.010	-10.24989	30.00000	Averaged
96 1,2,3-Trichlorobenzene	0.79114	0.62109	0.010	-21.49374	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 10.18104
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/022310v4/4z228.d
Lab Smp Id: W4VM100223-05 Client Smp ID: VSTD050
Inj Date : 24-FEB-2010 06:08
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM100223-05|CCV/LCS|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM100220-01A/IVM100218-01
Comment :
Method : /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m
Meth Date : 24-Feb-2010 15:17 amj Quant Type: ISTD
Cal Date : 20-FEB-2010 04:09 Cal File: 4y518.d
Als bottle: 28 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				2820965	150.000	129
M 2 1,2-Dichloroethylene (total)	96				1465096	100.000	98.6
M 135 1,3-Dichloropropylene	75				1578718	100.000	95.0
3 Dichlorodifluoromethane	85	4.904	4.904	(0.462)	422634	50.0000	40.6
4 Chloromethane	50	5.292	5.292	(0.498)	759739	50.0000	46.7
5 Vinyl chloride	62	5.514	5.514	(0.519)	778937	50.0000	54.0
6 Bromomethane	94	6.130	6.130	(0.577)	446720	50.0000	55.6
7 Chloroethane	64	6.295	6.295	(0.593)	417552	50.0000	52.9
8 Trichlorofluoromethane	101	6.669	6.669	(0.628)	865721	50.0000	51.4
134 Ethyl Ether	59	6.999	6.999	(0.659)	417163	50.0000	51.7
10 Acetone	43	7.352	7.352	(0.692)	1949373	250.000	244
15 Acetonitrile	41	7.700	7.700	(0.725)	2131229	1250.00	1660
11 1,1-Dichloroethylene	61	7.395	7.395	(0.696)	936432	50.0000	47.6
128 Methyl acetate	43	7.748	7.748	(0.730)	2223767	250.000	295
13 Iodomethane	142	7.663	7.663	(0.722)	4584338	250.000	240
17 Methylene chloride	84	7.937	7.937	(0.747)	639567	50.0000	47.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
14 Carbon disulfide	76	7.779	7.779	(0.732)	9180516	250.000	263
20 tert-Butyl methyl ether	73	8.242	8.242	(0.776)	1515921	50.0000	50.3
21 trans-1,2-Dichloroethylene	61	8.279	8.279	(0.780)	700327	50.0000	48.4
23 Vinyl acetate	43	8.706	8.706	(0.820)	4199748	250.000	243
22 1,1-Dichloroethane	63	8.760	8.760	(0.825)	890351	50.0000	49.0
30 2-Butanone	43	9.327	9.327	(0.878)	2215795	250.000	240
31 cis-1,2-Dichloroethylene	61	9.388	9.388	(0.884)	764769	50.0000	50.3
25 2,2-Dichloropropane	77	9.419	9.419	(0.887)	421716	50.0000	49.9
32 Chloroform	83	9.693	9.693	(0.913)	922969	50.0000	48.5
29 Bromochloromethane	128	9.657	9.657	(0.909)	273229	50.0000	48.8
36 1,1,1-Trichloroethane	97	9.980	9.980	(0.940)	687258	50.0000	47.7
129 Cyclohexane	56	10.083	10.083	(0.949)	813308	50.0000	43.7
34 1,1-Dichloropropene	75	10.132	10.132	(0.954)	665761	50.0000	47.6
131 n-Butyl alcohol	56	10.687	10.687	(1.006)	2496765	5000.00	7180
33 Carbon tetrachloride	117	10.175	10.175	(0.958)	676904	50.0000	50.2
$ 138 1,2-Dichloroethane-d4	65	10.260	10.260	(0.966)	394695	50.0000	48.4
37 1,2-Dichloroethane	62	10.339	10.339	(0.974)	746136	50.0000	51.4
38 Benzene	78	10.376	10.376	(0.977)	1939484	50.0000	46.6
139 Cyclohexene	67	10.492	10.492	(0.988)	947922	50.0000	46.2
* 40 Fluorobenzene	96	10.620	10.620	(1.000)	1606797	50.0000	
39 Trichloroethylene	95	11.004	11.004	(1.036)	528801	50.0000	47.6
41 1,2-Dichloropropane	63	11.242	11.242	(1.059)	522756	50.0000	49.1
130 Methylcyclohexane	83	11.260	11.260	(1.060)	814925	50.0000	44.9
45 Bromodichloromethane	83	11.485	11.485	(1.081)	715314	50.0000	48.6
43 Dibromomethane	93	11.376	11.376	(1.071)	338859	50.0000	49.2
44 2-Chloroethylvinyl ether	63	11.699	11.699	(1.102)	1146756	250.000	212
49 4-Methyl-2-pentanone	58	12.022	12.022	(0.873)	1286770	250.000	275
46 cis-1,3-Dichloropropylene	75	11.931	11.931	(1.123)	803637	50.0000	47.0
$ 47 Toluene-d8	98	12.254	12.254	(0.890)	1350528	50.0000	46.4
50 Toluene	92	12.327	12.327	(0.895)	1210847	50.0000	44.2
53 trans-1,3-Dichloropropylene	75	12.467	12.467	(0.905)	775081	50.0000	47.9
54 1,1,2-Trichloroethane	83	12.686	12.686	(0.921)	401503	50.0000	47.5
55 2-Hexanone	43	12.857	12.857	(0.934)	2976458	250.000	238
52 1,3-Dichloropropane	76	12.875	12.875	(0.935)	800680	50.0000	49.4
56 Tetrachloroethylene	164	12.918	12.918	(0.938)	382899	50.0000	41.8
57 Dibromochloromethane	129	13.150	13.150	(0.955)	589695	50.0000	49.7
59 1,2-Dibromoethane	107	13.320	13.320	(0.967)	508012	50.0000	49.0
* 61 Chlorobenzene-d5	117	13.772	13.772	(1.000)	1307664	50.0000	
62 Chlorobenzene	112	13.802	13.802	(1.002)	1346244	50.0000	43.7
60 1,1,1,2-Tetrachloroethane	131	13.851	13.851	(1.006)	551268	50.0000	46.9
58 Ethylbenzene	91	13.863	13.863	(1.007)	2308728	50.0000	42.5
63 m,p-Xylenes	106	13.973	13.973	(1.015)	1835370	100.000	84.9
64 o-Xylene	106	14.406	14.406	(1.046)	985595	50.0000	44.2
65 Styrene	104	14.400	14.400	(1.046)	1684904	50.0000	44.6
66 Bromoform	173	14.662	14.662	(0.906)	437274	50.0000	48.9
67 Isopropylbenzene	105	14.759	14.759	(0.912)	2460437	50.0000	39.6
73 1,1,2,2-Tetrachloroethane	83	15.015	15.015	(0.928)	812513	50.0000	49.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
$ 71 Bromofluorobenzene	95	14.954	14.954	(0.924)	837643	50.0000	51.3
74 1,2,3-Trichloropropane	110	15.107	15.107	(0.934)	222727	50.0000	50.6
75 Bromobenzene	156	15.168	15.168	(0.937)	697199	50.0000	42.4
76 n-Propylbenzene	91	15.180	15.180	(0.938)	2929046	50.0000	38.9
77 2-Chlorotoluene	91	15.332	15.332	(0.948)	2171233	50.0000	41.5
78 1,3,5-Trimethylbenzene	105	15.332	15.332	(0.948)	2283864	50.0000	40.1
80 4-Chlorotoluene	91	15.430	15.430	(0.954)	1875140	50.0000	40.2
81 tert-Butylbenzene	119	15.704	15.704	(0.971)	2278716	50.0000	40.5
79 1,2,4-Trimethylbenzene	105	15.741	15.741	(0.973)	2300101	50.0000	39.1
83 sec-Butylbenzene	105	15.930	15.930	(0.985)	2946693	50.0000	39.0
84 4-Isopropyltoluene	119	16.052	16.052	(0.992)	2353953	50.0000	37.7
85 1,3-Dichlorobenzene	146	16.119	16.119	(0.996)	1327023	50.0000	40.4
* 86 1,4-Dichlorobenzene-d4	152	16.180	16.180	(1.000)	891495	50.0000	
87 1,4-Dichlorobenzene	146	16.204	16.204	(1.002)	1338277	50.0000	40.3
89 n-Butylbenzene	91	16.503	16.503	(1.020)	2167760	50.0000	36.3
90 1,2-Dichlorobenzene	146	16.643	16.643	(1.029)	1328467	50.0000	42.3
92 1,2-Dibromo-3-chloropropane	157	17.527	17.527	(1.083)	162243	50.0000	51.9
93 1,2,4-Trichlorobenzene	180	18.630	18.630	(1.151)	640333	50.0000	36.5
94 Hexachlorobutadiene	225	18.819	18.819	(1.163)	351671	50.0000	30.4
95 Naphthalene	128	19.033	19.033	(1.176)	1726586	50.0000	44.9
96 1,2,3-Trichlorobenzene	180	19.386	19.386	(1.198)	553701	50.0000	39.2

Data File: /chem/VOA4.i/022310v4/4z228.d
Date : 24-FEB-2010 06:08
Client ID: VSTD050
Sample Info: IW4VM100223-05|CCV/LCS|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

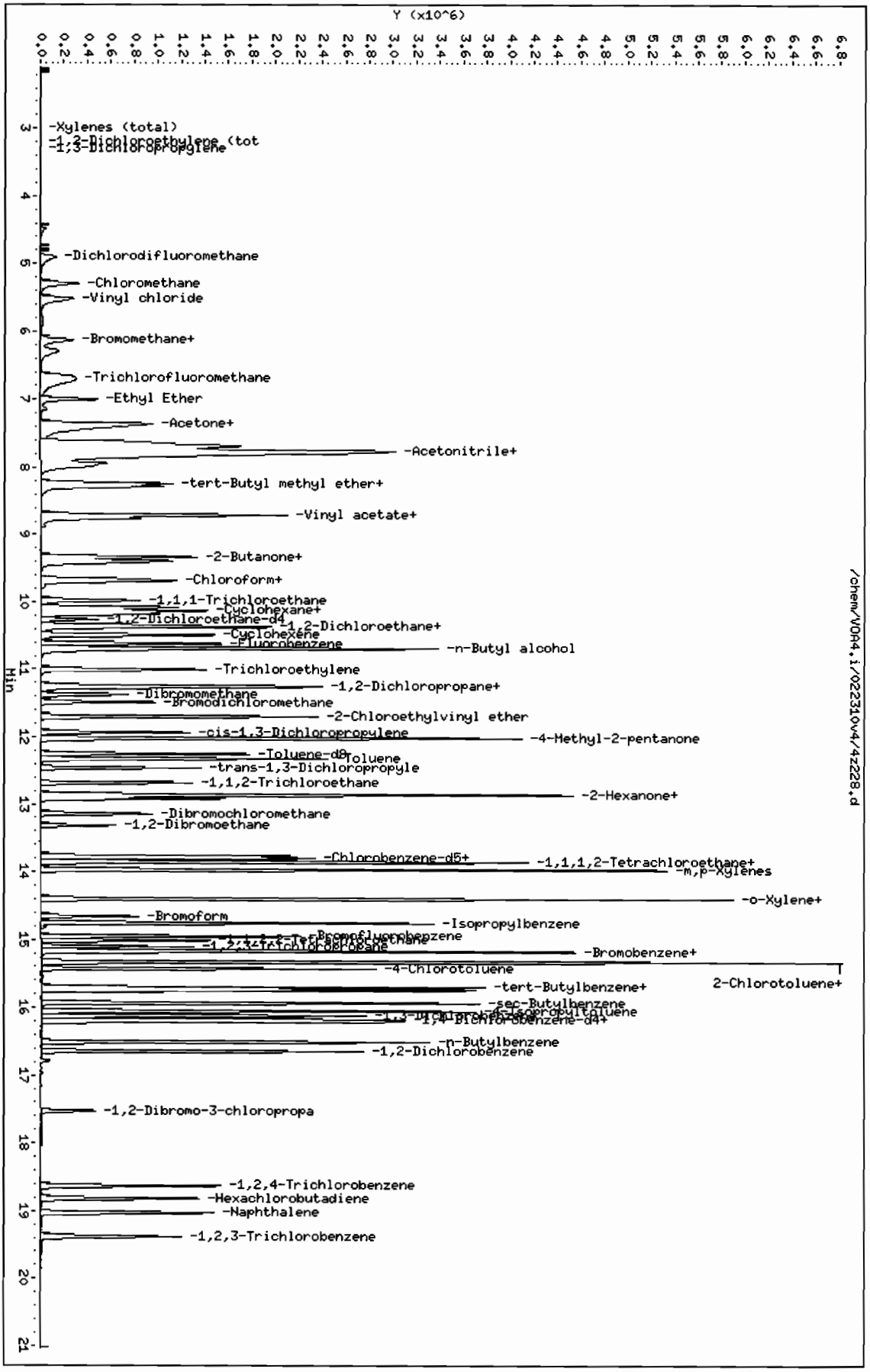

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 24-FEB-2010 07:03
Lab File ID: 4z230.d Init. Cal. Date(s): 19-FEB-2010 20-FEB-2010
Analysis Type: WATER Init. Cal. Times: 21:11 04:37
Lab Sample ID: W4VM100223-07 Quant Type: ISTD
Method: /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
153 Chlorotrifluoroethylene	0.18431	0.16636	0.010	-9.73922	30.00000	Averaged
154 2-Chloro-1,1,1-trifluoroeth	0.51949	0.55539	0.010	6.90964	30.00000	Averaged
9 Acrolein	0.04038	0.04556	0.001	12.81915	30.00000	Averaged
12 Trichlorotrifluoroethane	0.14180	0.12812	0.050	-9.64472	30.00000	Averaged
147 Isopropyl Alcohol	0.02510	0.02967	0.010	18.21832	40.00000	Averaged
16 Allyl chloride	0.42985	0.40898	0.010	-4.85492	30.00000	Averaged
148 tert-Butyl Alcohol	0.04179	0.04885	0.010	16.89221	40.00000	Averaged
18 Acrylonitrile	0.11678	0.10844	0.010	-7.14141	30.00000	Averaged
149 Isopropyl ether	1.04316	1.07789	0.010	3.32900	30.00000	Averaged
24 2-Chloro-1,3-butadiene	0.42744	0.39854	0.010	-6.76278	30.00000	Averaged
150 Ethyl tert-butyl ether	1.00104	1.03158	0.010	3.05082	30.00000	Averaged
28 Propionitrile	0.04810	0.04326	0.010	-10.07273	30.00000	Averaged
26 Ethyl acetate	0.32871	0.28343	0.010	-13.77482	40.00000	Averaged
27 Methacrylonitrile	0.19728	0.18664	0.010	-5.39608	30.00000	Averaged
72 Tetrahydrofuran	0.19561	0.18356	0.010	-6.15762	30.00000	Averaged
19 Isobutyl alcohol	0.01364	0.01385	0.005	1.48940	40.00000	Averaged
151 Methyl tert-amyl ether	0.96856	0.97483	0.010	0.64747	30.00000	Averaged
42 Methyl methacrylate	0.23272	0.20593	0.010	-11.51336	30.00000	Averaged
51 Ethyl methacrylate	0.54286	0.48746	0.010	-10.20601	30.00000	Averaged
152 1-Chlorohexane	0.31087	0.31727	0.010	2.05650	30.00000	Averaged
97 1,4-Dioxane	0.00329	0.00321	0.001	-2.53871	40.00000	Averaged
48 2-Nitropropane	0.10874	0.10343	0.010	-4.87791	30.00000	Averaged
68 cis-1,4-Dichloro-2-butene	0.26270	0.26085	0.010	-0.70661	30.00000	Averaged
70 Cyclohexanone	0.01389	0.01782	0.005	28.24704	40.00000	Averaged
69 trans-1,4-Dichloro-2-butene	0.24456	0.24964	0.010	2.07708	30.00000	Averaged
82 Pentachloroethane	0.30540	0.12400	0.010	-59.39642	30.00000	Averaged <-
88 Benzyl chloride	1.29881	1.11872	0.010	-13.86550	30.00000	Averaged
91 bis(2-Chloroisopropyl)ether	0.39096	0.38250	0.010	-2.16343	30.00000	Averaged
$ 138 1,2-Dichloroethane-d4	0.25350	0.24600	0.001	-2.96100	30.00000	Averaged
$ 47 Toluene-d8	1.11398	1.06758	0.010	-4.16525	30.00000	Averaged
$ 71 Bromofluorobenzene	0.91548	0.96351	0.010	5.24626	30.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 24-FEB-2010 07:03
Lab File ID: 4z230.d Init. Cal. Date(s): 19-FEB-2010 20-FEB-2010
Analysis Type: WATER Init. Cal. Times: 21:11 04:37
Lab Sample ID: W4VM100223-07 Quant Type: ISTD
Method: /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m

Average %D / Drift Results.	
Calculated Average %D/Drift =	10.18104
Maximun Average %D/Drift =	20.00000
* Passed Average %D/Drift Test.	

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/022310v4/4z230.d
Lab Smp Id: W4VM100223-07 Client Smp ID: VSTD250S
Inj Date : 24-FEB-2010 07:03
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM100223-07|SHORT|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091216-08B/UVM100125-08D
Comment :
Method : /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m
Meth Date : 24-Feb-2010 15:17 amj Quant Type: ISTD
Cal Date : 20-FEB-2010 04:09 Cal File: 4y518.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
153 Chlorotrifluoroethylene	116	4.818	4.818	(0.454)	838180	150.000	135
154 2-Chloro-1,1,1-trifluoroethane	118	5.657	5.657	(0.533)	2798286	150.000	160
9 Acrolein	56	7.181	7.181	(0.676)	382570	250.000	282
12 Trichlorotrifluoroethane	85	7.370	7.370	(0.694)	1075894	250.000	226
147 Isopropyl Alcohol	45	7.431	7.431	(0.700)	2491626	2500.00	2960
16 Allyl chloride	41	7.797	7.797	(0.734)	3434380	250.000	238
148 tert-Butyl Alcohol	59	7.925	7.925	(0.746)	4101977	2500.00	2920
18 Acrylonitrile	53	8.175	8.175	(0.770)	910629	250.000	232
149 Isopropyl ether	45	8.742	8.742	(0.823)	1810283	50.0000	51.7
24 2-Chloro-1,3-butadiene	53	8.870	8.870	(0.835)	669329	50.0000	46.6
150 Ethyl tert-butyl ether	59	9.144	9.144	(0.861)	1732508	50.0000	51.5
28 Propionitrile	54	9.394	9.394	(0.885)	363243	250.000	225
26 Ethyl acetate	43	9.339	9.339	(0.879)	2380034	250.000	216
27 Methacrylonitrile	41	9.577	9.577	(0.902)	1567243	250.000	236
72 Tetrahydrofuran	42	9.717	9.717	(0.601)	813410	250.000	235
19 Isobutyl alcohol	41	10.010	10.010	(0.943)	1162880	2500.00	2540

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
151 Methyl tert-amyl ether	73	10.388	10.388	(0.978)	1637193	50.0000	50.3
42 Methyl methacrylate	69	11.211	11.211	(1.056)	1729234	250.000	221
51 Ethyl methacrylate	69	12.467	12.467	(0.905)	3320348	250.000	224
152 1-Chlorohexane	55	13.662	13.662	(1.286)	532837	50.0000	51.0
97 1,4-Dioxane	88	11.327	11.327	(1.067)	269311	2500.00	2440
48 2-Nitropropane	43	11.674	11.674	(1.099)	868570	250.000	238
68 cis-1,4-Dichloro-2-butene	53	14.783	14.783	(0.914)	1155891	250.000	248
70 Cyclohexanone	42	14.905	14.905	(1.082)	606748	1250.00	1600
69 trans-1,4-Dichloro-2-butene	53	15.064	15.064	(0.931)	1106221	250.000	255
82 Pentachloroethane	167	15.771	15.771	(0.975)	549496	250.000	102
88 Benzyl chloride	91	16.320	16.320	(1.009)	4957396	250.000	215
91 bis(2-Chloroisopropyl)ether	45	16.722	16.722	(1.034)	1694967	250.000	244
* 40 Fluorobenzene	96	10.620	10.620	(1.000)	1679471	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.772	(1.000)	1362312	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.180	16.180	(1.000)	886258	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.260	10.260	(0.966)	413147	50.0000	48.5
$ 47 Toluene-d8	98	12.253	12.254	(0.890)	1454371	50.0000	47.9
$ 71 Bromofluorobenzene	95	14.954	14.954	(0.924)	853920	50.0000	52.6

Data File: /chem/VOA4.i/022310v4/4z230.d
Date : 24-FEB-2010 07:03
Client ID: VSTD250S
Sample Info: IW4VM100223-07|SHORT|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

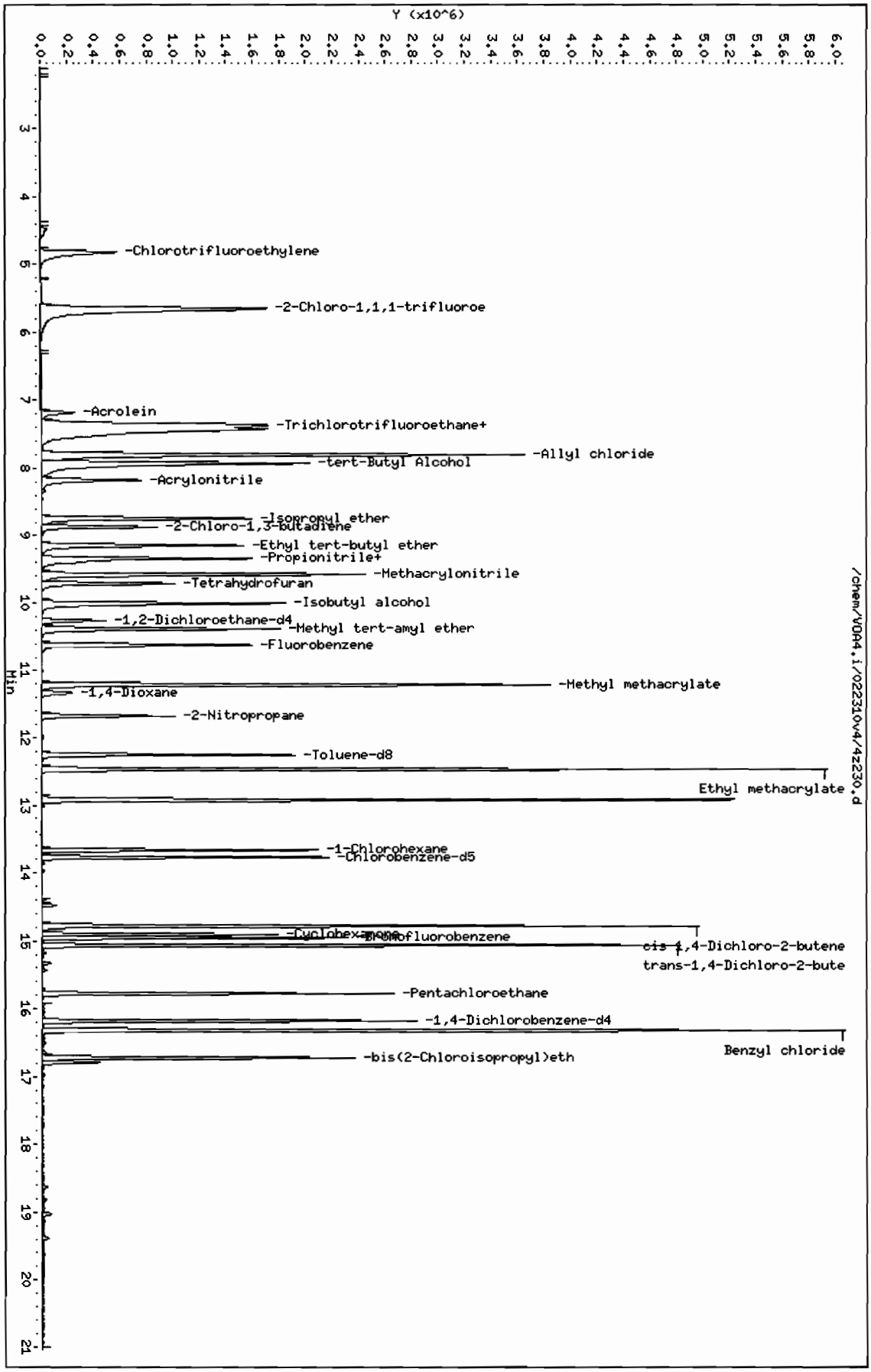

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 25-FEB-2010 04:59
Lab File ID: 4z327.d Init. Cal. Date(s): 19-FEB-2010 20-FEB-2010
Analysis Type: WATER Init. Cal. Times: 21:11 04:37
Lab Sample ID: W4VM100224-06 Quant Type: ISTD
Method: /chem/VOA4.i/022410v4/VOA4-8260-021910PM.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M 1 Xylenes (total)	0.83556	0.69766	0.050	-16.50421	30.00000	Averaged	
M 2 1,2-Dichloroethylene (total	0.46199	0.41177	0.050	-10.86927	30.00000	Averaged	
M 135 1,3-Dichloropropylene	0.51686	0.45588	0.050	-11.79804	30.00000	Averaged	
3 Dichlorodifluoromethane	0.32396	0.19250	0.050	-40.57877	30.00000	Averaged	<-
4 Chloromethane	0.50618	0.42545	0.100	-15.94750	30.00000	Averaged	spcc
5 Vinyl chloride	0.44844	0.42304	0.050	-5.66400	20.00000	Averaged	ccc
6 Bromomethane	0.25019	0.26270	0.050	4.99975	30.00000	Averaged	
7 Chloroethane	0.24556	0.24408	0.050	-0.60237	30.00000	Averaged	
8 Trichlorofluoromethane	0.52383	0.48387	0.050	-7.62748	30.00000	Averaged	
134 Ethyl Ether	0.25092	0.25662	0.001	2.26921	30.00000	Averaged	
10 Acetone	0.24825	0.27265	0.050	9.83018	40.00000	Averaged	
15 Acetonitrile	0.03989	0.04677	0.010	17.26560	30.00000	Averaged	
11 1,1-Dichloroethylene	0.61268	0.51215	0.050	-16.40861	20.00000	Averaged	ccc
128 Methyl acetate	0.23453	0.26952	0.010	14.91888	40.00000	Averaged	
13 Iodomethane	0.59310	0.50949	0.050	-14.09679	30.00000	Averaged	
17 Methylene chloride	0.42078	0.34790	0.050	-17.31890	30.00000	Averaged	
14 Carbon disulfide	1.08539	0.94839	0.050	-12.62226	30.00000	Averaged	
20 tert-Butyl methyl ether	0.93713	0.83009	0.050	-11.42266	30.00000	Averaged	
21 trans-1,2-Dichloroethylene	0.45053	0.39029	0.050	-13.37011	30.00000	Averaged	
23 Vinyl acetate	0.53801	0.53882	0.010	0.15155	40.00000	Averaged	
22 1,1-Dichloroethane	0.56501	0.49500	0.100	-12.39129	30.00000	Averaged	spcc
30 2-Butanone	0.28746	0.30487	0.030	6.05619	40.00000	Averaged	
31 cis-1,2-Dichloroethylene	0.47344	0.43325	0.050	-8.48843	30.00000	Averaged	
25 2,2-Dichloropropane	0.26307	0.24267	0.050	-7.75420	30.00000	Averaged	
32 Chloroform	0.59173	0.51712	0.010	-12.60877	20.00000	Averaged	ccc
29 Bromochloromethane	0.17426	0.15222	0.010	-12.64824	30.00000	Averaged	
36 1,1,1-Trichloroethane	0.44857	0.38703	0.010	-13.71987	30.00000	Averaged	
129 Cyclohexane	0.57916	0.42067	0.010	-27.36464	30.00000	Averaged	
34 1,1-Dichloropropene	0.43562	0.36287	0.010	-16.69980	30.00000	Averaged	
131 n-Butyl alcohol	0.01081	0.01278	0.001	18.19446	40.00000	Averaged	
33 Carbon tetrachloride	0.41939	0.36431	0.010	-13.13414	30.00000	Averaged	
$ 138 1,2-Dichloroethane-d4	0.25350	0.24558	0.001	-3.12771	30.00000	Averaged	
37 1,2-Dichloroethane	0.45159	0.43110	0.010	-4.53876	30.00000	Averaged	
38 Benzene	1.29590	1.08182	0.010	-16.51996	30.00000	Averaged	
139 Cyclohexene	0.63852	0.52928	0.001	-17.10874	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 25-FEB-2010 04:59
Lab File ID: 4z327.d Init. Cal. Date(s): 19-FEB-2010 20-FEB-2010
Analysis Type: WATER Init. Cal. Times: 21:11 04:37
Lab Sample ID: W4VM100224-06 Quant Type: ISTD
Method: /chem/VOA4.i/022410v4/VOA4-8260-021910PM.m

	COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	39 Trichloroethylene	0.34549	0.29350	0.010	-15.04790	30.00000	Averaged	
	41 1,2-Dichloropropane	0.33123	0.29590	0.010	-10.66572	20.00000	Averaged	ccc
	130 Methylcyclohexane	0.56422	0.43513	0.010	-22.87996	30.00000	Averaged	
	45 Bromodichloromethane	0.45752	0.40495	0.010	-11.49015	30.00000	Averaged	
	43 Dibromomethane	0.21429	0.19235	0.010	-10.23578	30.00000	Averaged	
	44 2-Chloroethylvinyl ether	0.16860	0.20119	0.005	19.32856	30.00000	Averaged	
	49 4-Methyl-2-pentanone	0.17907	0.16930	0.010	-5.45156	40.00000	Averaged	
	46 cis-1,3-Dichloropropylene	0.53141	0.46261	0.010	-12.94702	30.00000	Averaged	
$	47 Toluene-d8	1.11398	1.02563	0.010	-7.93099	30.00000	Averaged	
	50 Toluene	1.04738	0.83916	0.010	-19.88019	20.00000	Averaged	ccc
	53 trans-1,3-Dichloropropylene	0.61894	0.53806	0.010	-13.06772	30.00000	Averaged	
	54 1,1,2-Trichloroethane	0.32287	0.27641	0.010	-14.39021	30.00000	Averaged	
	55 2-Hexanone	0.47914	0.47838	0.010	-0.15930	40.00000	Averaged	
	52 1,3-Dichloropropane	0.62031	0.55924	0.010	-9.84459	30.00000	Averaged	
	56 Tetrachloroethylene	0.35037	0.26954	0.010	-23.06863	30.00000	Averaged	
	57 Dibromochloromethane	0.45371	0.40175	0.010	-11.45062	30.00000	Averaged	
	59 1,2-Dibromoethane	0.39617	0.34799	0.010	-12.16222	30.00000	Averaged	
	62 Chlorobenzene	1.17717	0.96986	0.300	-17.61090	30.00000	Averaged	spcc
	60 1,1,1,2-Tetrachloroethane	0.44926	0.37897	0.010	-15.64622	30.00000	Averaged	
	58 Ethylbenzene	2.07524	1.68659	0.010	-18.72805	20.00000	Averaged	ccc
	63 m,p-Xylenes	0.82660	0.68163	0.010	-17.53849	30.00000	Averaged	
	64 o-Xylene	0.85347	0.72971	0.010	-14.50051	30.00000	Averaged	
	65 Styrene	1.44447	1.24593	0.010	-13.74497	30.00000	Averaged	
	66 Bromoform	0.50168	0.41529	0.100	-17.22013	30.00000	Averaged	spcc
	67 Isopropylbenzene	3.48784	2.62217	0.010	-24.81983	30.00000	Averaged	
	73 1,1,2,2-Tetrachloroethane	0.92669	0.79412	0.300	-14.30511	30.00000	Averaged	spcc
$	71 Bromofluorobenzene	0.91548	0.93170	0.010	1.77163	30.00000	Averaged	
	74 1,2,3-Trichloropropane	0.24701	0.20834	0.010	-15.65601	30.00000	Averaged	
	75 Bromobenzene	0.92275	0.73346	0.010	-20.51385	30.00000	Averaged	
	76 n-Propylbenzene	4.22165	3.32286	0.010	-21.29014	30.00000	Averaged	
	77 2-Chlorotoluene	2.93180	2.37771	0.010	-18.89906	30.00000	Averaged	
	78 1,3,5-Trimethylbenzene	3.19612	2.56285	0.010	-19.81385	30.00000	Averaged	
	80 4-Chlorotoluene	2.61877	2.07804	0.010	-20.64814	30.00000	Averaged	
	81 tert-Butylbenzene	3.15577	2.33438	0.010	-26.02825	30.00000	Averaged	
	79 1,2,4-Trimethylbenzene	3.30079	2.63211	0.010	-20.25822	30.00000	Averaged	
	83 sec-Butylbenzene	4.23638	3.34649	0.010	-21.00598	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 25-FEB-2010 04:59
Lab File ID: 4z327.d Init. Cal. Date(s): 19-FEB-2010 20-FEB-2010
Analysis Type: WATER Init. Cal. Times: 21:11 04:37
Lab Sample ID: W4VM100224-06 Quant Type: ISTD
Method: /chem/VOA4.i/022410v4/VOA4-8260-021910PM.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
84 4-Isopropyltoluene	3.49832	2.74246	0.010	-21.60638	30.00000	Averaged
85 1,3-Dichlorobenzene	1.84137	1.49877	0.010	-18.60587	30.00000	Averaged
87 1,4-Dichlorobenzene	1.86391	1.52547	0.010	-18.15762	30.00000	Averaged
89 n-Butylbenzene	3.35141	2.67581	0.010	-20.15870	30.00000	Averaged
90 1,2-Dichlorobenzene	1.76040	1.46117	0.010	-16.99797	30.00000	Averaged
92 1,2-Dibromo-3-chloropropane	0.17545	0.15179	0.010	-13.48519	30.00000	Averaged
93 1,2,4-Trichlorobenzene	0.98452	0.77377	0.010	-21.40638	30.00000	Averaged
94 Hexachlorobutadiene	0.64985	0.45765	0.010	-29.57647	30.00000	Averaged
95 Naphthalene	2.15791	1.87632	0.010	-13.04959	30.00000	Averaged
96 1,2,3-Trichlorobenzene	0.79114	0.63331	0.010	-19.94918	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 14.66191
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/022410v4/4z327.d
Lab Smp Id: W4VM100224-06 Client Smp ID: VSTD050
Inj Date : 25-FEB-2010 04:59
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM100224-06|CCV|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM100202-07D/UVM100106-07C
Comment :
Method : /chem/VOA4.i/022410v4/VOA4-8260-021910PM.m
Meth Date : 25-Feb-2010 16:00 amj Quant Type: ISTD
Cal Date : 20-FEB-2010 04:09 Cal File: 4y518.d
Als bottle: 27 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
M 1 Xylenes (total)	106				2630371	150.000	125
M 2 1,2-Dichloroethylene (total)	96				1239851	100.000	89.1
M 135 1,3-Dichloropropylene	75				1372678	100.000	88.2
3 Dichlorodifluoromethane	85	4.904	4.904	(0.462)	289809	50.0000	29.7
4 Chloromethane	50	5.292	5.292	(0.498)	640524	50.0000	42.0
5 Vinyl chloride	62	5.514	5.514	(0.519)	636898	50.0000	47.2
6 Bromomethane	94	6.130	6.130	(0.577)	395498	50.0000	52.5
7 Chloroethane	64	6.295	6.295	(0.593)	367466	50.0000	49.7
8 Trichlorofluoromethane	101	6.674	6.674	(0.629)	728478	50.0000	46.2
134 Ethyl Ether	59	6.997	6.997	(0.659)	386342	50.0000	51.1
10 Acetone	43	7.357	7.357	(0.693)	2052391	250.000	274
15 Acetonitrile	41	7.699	7.699	(0.725)	1760484	1250.00	1460
11 1,1-Dichloroethylene	61	7.394	7.394	(0.696)	771040	50.0000	41.8
128 Methyl acetate	43	7.747	7.747	(0.730)	2028860	250.000	287
13 Iodomethane	142	7.668	7.668	(0.722)	3835211	250.000	215
17 Methylene chloride	84	7.942	7.942	(0.748)	523772	50.0000	41.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
14 Carbon disulfide	76	7.784	7.784	(0.733)	7139043	250.000	218
20 tert-Butyl methyl ether	73	8.241	8.241	(0.776)	1249702	50.0000	44.3
21 trans-1,2-Dichloroethylene	61	8.284	8.284	(0.780)	587585	50.0000	43.3
23 Vinyl acetate	43	8.710	8.710	(0.820)	4056004	250.000	250
22 1,1-Dichloroethane	63	8.759	8.759	(0.825)	745220	50.0000	43.8
30 2-Butanone	43	9.326	9.326	(0.878)	2294923	250.000	265
31 cis-1,2-Dichloroethylene	61	9.387	9.387	(0.884)	652266	50.0000	45.8
25 2,2-Dichloropropane	77	9.418	9.418	(0.887)	365340	50.0000	46.1
32 Chloroform	83	9.692	9.692	(0.913)	778536	50.0000	43.7
29 Bromochloromethane	128	9.655	9.655	(0.909)	229163	50.0000	43.7
36 1,1,1-Trichloroethane	97	9.979	9.979	(0.940)	582671	50.0000	43.1
129 Cyclohexane	56	10.082	10.082	(0.949)	633328	50.0000	36.3
34 1,1-Dichloropropene	75	10.137	10.137	(0.955)	546303	50.0000	41.6
131 n-Butyl alcohol	56	10.692	10.692	(1.007)	1924217	5000.00	5910
33 Carbon tetrachloride	117	10.174	10.174	(0.958)	548472	50.0000	43.4
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	369717	50.0000	48.4
37 1,2-Dichloroethane	62	10.344	10.344	(0.974)	649021	50.0000	47.7
38 Benzene	78	10.375	10.375	(0.977)	1628688	50.0000	41.7
139 Cyclohexene	67	10.497	10.497	(0.989)	796838	50.0000	41.4
* 40 Fluorobenzene	96	10.619	10.619	(1.000)	1505510	50.0000	
39 Trichloroethylene	95	11.003	11.003	(1.036)	441872	50.0000	42.5
41 1,2-Dichloropropane	63	11.247	11.247	(1.059)	445487	50.0000	44.7
130 Methylcyclohexane	83	11.265	11.265	(1.061)	655090	50.0000	38.6
45 Bromodichloromethane	83	11.484	11.484	(1.082)	609651	50.0000	44.2
43 Dibromomethane	93	11.375	11.375	(1.071)	289591	50.0000	44.9
44 2-Chloroethylvinyl ether	63	11.698	11.698	(1.102)	1514436	250.000	298
49 4-Methyl-2-pentanone	58	12.021	12.021	(0.873)	1063874	250.000	236
46 cis-1,3-Dichloropropylene	75	11.929	11.929	(1.123)	696464	50.0000	43.5
$ 47 Toluene-d8	98	12.252	12.252	(0.890)	1288972	50.0000	46.0
50 Toluene	92	12.326	12.326	(0.895)	1054628	50.0000	40.0
53 trans-1,3-Dichloropropylene	75	12.466	12.466	(0.905)	676214	50.0000	43.5
54 1,1,2-Trichloroethane	83	12.685	12.685	(0.921)	347378	50.0000	42.8
55 2-Hexanone	43	12.856	12.856	(0.934)	3006039	250.000	250
52 1,3-Dichloropropane	76	12.874	12.874	(0.935)	702840	50.0000	45.1
56 Tetrachloroethylene	164	12.923	12.923	(0.938)	338753	50.0000	38.5
57 Dibromochloromethane	129	13.149	13.149	(0.955)	504911	50.0000	44.3
59 1,2-Dibromoethane	107	13.319	13.319	(0.967)	437337	50.0000	43.9
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	1256766	50.0000	
62 Chlorobenzene	112	13.801	13.801	(1.002)	1218890	50.0000	41.2
60 1,1,1,2-Tetrachloroethane	131	13.850	13.850	(1.006)	476279	50.0000	42.2
58 Ethylbenzene	91	13.862	13.862	(1.007)	2119651	50.0000	40.6
63 m,p-Xylenes	106	13.972	13.972	(1.015)	1713294	100.000	82.5
64 o-Xylene	106	14.405	14.405	(1.046)	917077	50.0000	42.7
65 Styrene	104	14.405	14.405	(1.046)	1565844	50.0000	43.1
66 Bromoform	173	14.661	14.661	(0.906)	365355	50.0000	41.4
67 Isopropylbenzene	105	14.758	14.758	(0.912)	2306891	50.0000	37.6
73 1,1,2,2-Tetrachloroethane	83	15.020	15.020	(0.928)	698641	50.0000	42.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
$ 71 Bromofluorobenzene	95	14.953	14.953	(0.924)	819679	50.0000	50.9
74 1,2,3-Trichloropropane	110	15.112	15.112	(0.934)	183289	50.0000	42.2
75 Bromobenzene	156	15.167	15.167	(0.937)	645270	50.0000	39.7
76 n-Propylbenzene	91	15.185	15.185	(0.939)	2923333	50.0000	39.4
77 2-Chlorotoluene	91	15.331	15.331	(0.948)	2091829	50.0000	40.6
78 1,3,5-Trimethylbenzene	105	15.331	15.331	(0.948)	2254704	50.0000	40.1
80 4-Chlorotoluene	91	15.429	15.429	(0.954)	1828186	50.0000	39.7
81 tert-Butylbenzene	119	15.703	15.703	(0.971)	2053707	50.0000	37.0
79 1,2,4-Trimethylbenzene	105	15.746	15.746	(0.973)	2315634	50.0000	39.9
83 sec-Butylbenzene	105	15.935	15.935	(0.985)	2944124	50.0000	39.5
84 4-Isopropyltoluene	119	16.051	16.051	(0.992)	2412718	50.0000	39.2
85 1,3-Dichlorobenzene	146	16.124	16.124	(0.997)	1318561	50.0000	40.7
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.179	(1.000)	879765	50.0000	
87 1,4-Dichlorobenzene	146	16.209	16.209	(1.002)	1342052	50.0000	40.9
89 n-Butylbenzene	91	16.508	16.508	(1.020)	2354080	50.0000	39.9
90 1,2-Dichlorobenzene	146	16.642	16.642	(1.029)	1285482	50.0000	41.5
92 1,2-Dibromo-3-chloropropane	157	17.532	17.532	(1.084)	133538	50.0000	43.2
93 1,2,4-Trichlorobenzene	180	18.629	18.629	(1.151)	680736	50.0000	39.3
94 Hexachlorobutadiene	225	18.818	18.818	(1.163)	402625	50.0000	35.2
95 Naphthalene	128	19.032	19.032	(1.176)	1650717	50.0000	43.5
96 1,2,3-Trichlorobenzene	180	19.391	19.391	(1.199)	557166	50.0000	40.0

Data File: /chem/VOA4.i/022410v4/4z327.d
Date : 25-FEB-2010 04:59
Client ID: VSTD050
Sample Info: IW4VH100224-06ICCVI1IVOAFI4I
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

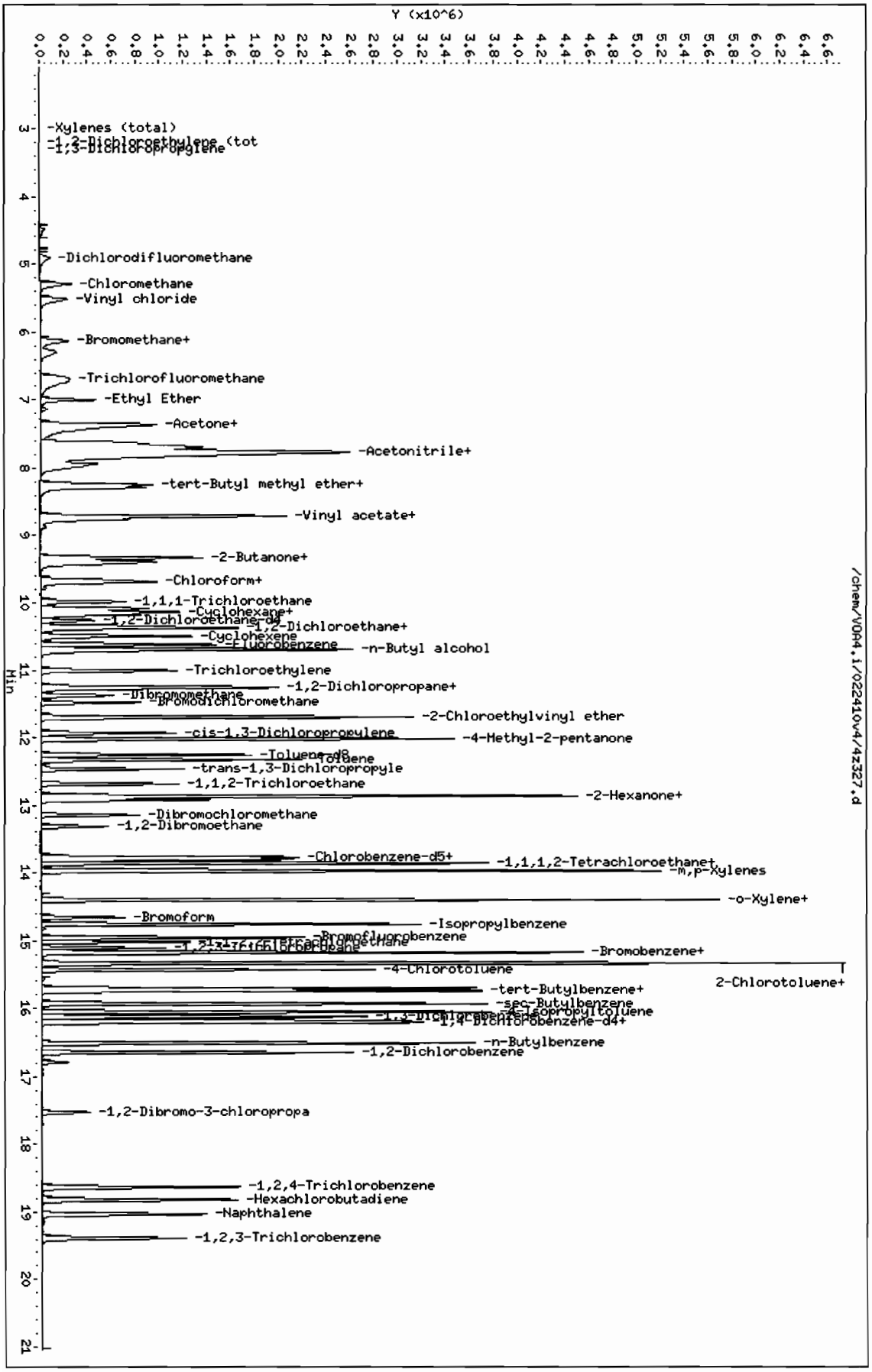

Page 1

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 25-FEB-2010 06:22
Lab File ID: 4z330.d Init. Cal. Date(s): 19-FEB-2010 20-FEB-2010
Analysis Type: WATER Init. Cal. Times: 21:11 04:37
Lab Sample ID: W4VM100224-09 Quant Type: ISTD
Method: /chem/VOA4.i/022410v4/VOA4-8260-021910PM.m

COMPOUND	RRF / AMOUNT	RF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
153 Chlorotrifluoroethylene	0.18431	0.17296	0.010	-6.15694	30.00000	Averaged
154 2-Chloro-1,1,1-trifluoroeth	0.51949	0.56104	0.010	7.99682	30.00000	Averaged
9 Acrolein	0.04038	0.04293	0.001	6.29875	30.00000	Averaged
12 Trichlorotrifluoroethane	0.14180	0.10558	0.050	-25.54535	30.00000	Averaged
147 Isopropyl Alcohol	0.02510	0.03127	0.010	24.57874	40.00000	Averaged
16 Allyl chloride	0.42985	0.38111	0.010	-11.34047	30.00000	Averaged
148 tert-Butyl Alcohol	0.04179	0.05002	0.010	19.69412	40.00000	Averaged
18 Acrylonitrile	0.11678	0.10142	0.010	-13.15693	30.00000	Averaged
149 Isopropyl ether	1.04316	1.05851	0.010	1.47144	30.00000	Averaged
24 2-Chloro-1,3-butadiene	0.42744	0.36624	0.010	-14.31843	30.00000	Averaged
150 Ethyl tert-butyl ether	1.00104	1.00754	0.010	0.64958	30.00000	Averaged
28 Propionitrile	0.04810	0.04238	0.010	-11.89835	30.00000	Averaged
26 Ethyl acetate	0.32871	0.26696	0.010	-18.78486	40.00000	Averaged
27 Methacrylonitrile	0.19728	0.17482	0.010	-11.38673	30.00000	Averaged
72 Tetrahydrofuran	0.19561	0.17542	0.010	-10.32167	30.00000	Averaged
19 Isobutyl alcohol	0.01364	0.01395	0.005	2.26188	40.00000	Averaged
151 Methyl tert-amyl ether	0.96856	0.95882	0.010	-1.00540	30.00000	Averaged
42 Methyl methacrylate	0.23272	0.19479	0.010	-16.29803	30.00000	Averaged
51 Ethyl methacrylate	0.54286	0.45482	0.010	-16.21843	30.00000	Averaged
152 1-Chlorohexane	0.31087	0.31832	0.010	2.39672	30.00000	Averaged
97 1,4-Dioxane	0.00329	0.00342	0.001	3.90148	40.00000	Averaged
48 2-Nitropropane	0.10874	0.10075	0.010	-7.34262	30.00000	Averaged
68 cis-1,4-Dichloro-2-butene	0.26270	0.25689	0.010	-2.21423	30.00000	Averaged
70 Cyclohexanone	0.01389	0.01837	0.005	32.23148	40.00000	Averaged
69 trans-1,4-Dichloro-2-butene	0.24456	0.24384	0.010	-0.29280	30.00000	Averaged
82 Pentachloroethane	0.30540	0.22214	0.010	-27.26271	30.00000	Averaged
88 Benzyl chloride	1.29881	1.13202	0.010	-12.84210	30.00000	Averaged
91 bis(2-Chloroisopropyl)ether	0.39096	0.36754	0.010	-5.98893	30.00000	Averaged
$ 138 1,2-Dichloroethane-d4	0.25350	0.23807	0.001	-6.09029	30.00000	Averaged
$ 47 Toluene-d8	1.11398	1.02824	0.010	-7.69601	30.00000	Averaged
$ 71 Bromofluorobenzene	0.91548	0.96666	0.010	5.59003	30.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 25-FEB-2010 06:22
Lab File ID: 4z330.d Init. Cal. Date(s): 19-FEB-2010 20-FEB-2010
Analysis Type: WATER Init. Cal. Times: 21:11 04:37
Lab Sample ID: W4VM100224-09 Quant Type: ISTD
Method: /chem/VOA4.i/022410v4/VOA4-8260-021910PM.m

Average %D / Drift Results.	
Calculated Average %D/Drift =	14.66191
Maximun Average %D/Drift =	20.00000
* Passed Average %D/Drift Test.	

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/022410v4/4z330.d
Lab Smp Id: W4VM100224-09 Client Smp ID: VSTD250S
Inj Date : 25-FEB-2010 06:22
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM100224-09|SHORT|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091216-08B/UVM100125-08D
Comment :
Method : /chem/VOA4.i/022410v4/VOA4-8260-021910PM.m
Meth Date : 25-Feb-2010 16:00 amj Quant Type: ISTD
Cal Date : 20-FEB-2010 04:09 Cal File: 4y518.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
153 Chlorotrifluoroethylene	116	4.825	4.825	(0.454)	848899	150.000	141
154 2-Chloro-1,1,1-trifluoroethane	118	5.657	5.657	(0.533)	2753604	150.000	162
9 Acrolein	56	7.181	7.181	(0.676)	351133	250.000	266
12 Trichlorotrifluoroethane	85	7.364	7.364	(0.693)	863621	250.000	186
147 Isopropyl Alcohol	45	7.431	7.431	(0.700)	2557745	2500.00	3110
16 Allyl chloride	41	7.797	7.797	(0.734)	3117473	250.000	222
148 tert-Butyl Alcohol	59	7.925	7.925	(0.746)	4091624	2500.00	2990
18 Acrylonitrile	53	8.175	8.175	(0.770)	829602	250.000	217
149 Isopropyl ether	45	8.742	8.742	(0.823)	1731742	50.0000	50.7
24 2-Chloro-1,3-butadiene	53	8.870	8.870	(0.835)	599174	50.0000	42.8
150 Ethyl tert-butyl ether	59	9.144	9.144	(0.861)	1648355	50.0000	50.3
28 Propionitrile	54	9.388	9.388	(0.884)	346661	250.000	220
26 Ethyl acetate	43	9.339	9.339	(0.879)	2183741	250.000	203
27 Methacrylonitrile	41	9.577	9.577	(0.902)	1430017	250.000	222
72 Tetrahydrofuran	42	9.717	9.717	(0.601)	753545	250.000	224
19 Isobutyl alcohol	41	10.004	10.004	(0.942)	1141414	2500.00	2560

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
151 Methyl tert-amyl ether	73	10.388	10.388	(0.978)	1568641	50.0000	49.5
42 Methyl methacrylate	69	11.205	11.205	(1.055)	1593407	250.000	209
51 Ethyl methacrylate	69	12.467	12.467	(0.905)	3041844	250.000	209
152 1-Chlorohexane	55	13.662	13.662	(1.286)	520781	50.0000	51.2
97 1,4-Dioxane	88	11.327	11.327	(1.067)	279678	2500.00	2600
48 2-Nitropropane	43	11.674	11.674	(1.099)	824174	250.000	232
68 cis-1,4-Dichloro-2-butene	53	14.783	14.783	(0.914)	1103528	250.000	244
70 Cyclohexanone	42	14.905	14.905	(1.082)	614254	1250.00	1650
69 trans-1,4-Dichloro-2-butene	53	15.064	15.064	(0.931)	1047494	250.000	249
82 Pentachloroethane	167	15.771	15.771	(0.975)	954266	250.000	182
88 Benzyl chloride	91	16.320	16.320	(1.009)	4862893	250.000	218
91 bis(2-Chloroisopropyl)ether	45	16.722	16.722	(1.034)	1578884	250.000	235
* 40 Fluorobenzene	96	10.620	10.619	(1.000)	1636017	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	1337607	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.180	16.179	(1.000)	859155	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.260	10.259	(0.966)	389479	50.0000	47.0
$ 47 Toluene-d8	98	12.254	12.252	(0.890)	1375386	50.0000	46.2
$ 71 Bromofluorobenzene	95	14.954	14.953	(0.924)	830510	50.0000	52.8

Data File: /chem/VOA4.i/022410v4/4z330.d
Date : 25-FEB-2010 06:22
Client ID: VSTD250S
Sample Info: IW4VM100224-09|SHORT|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

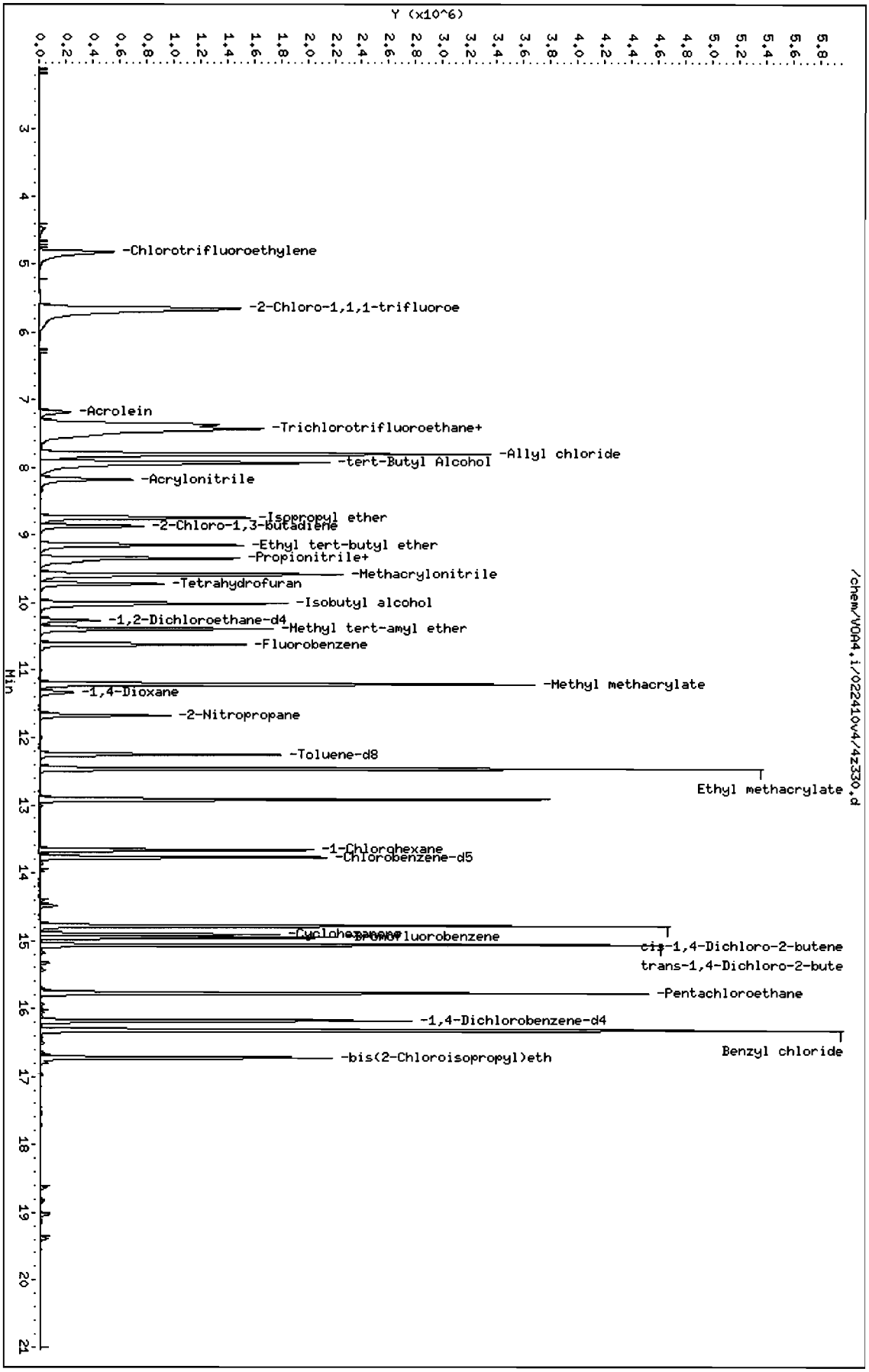

Page 1

QC Data

Data File: /chem/VOA4.i/021910v4/4y501.d

Date : 19-FEB-2010 20:16

Client ID: BFB01

Instrument: VOA4.i

Sample Info: |UVH091216-10|BFB1|1|VOAF|1|

Operator: ACJ

Column phase: DB-624

Column diameter: 0.25

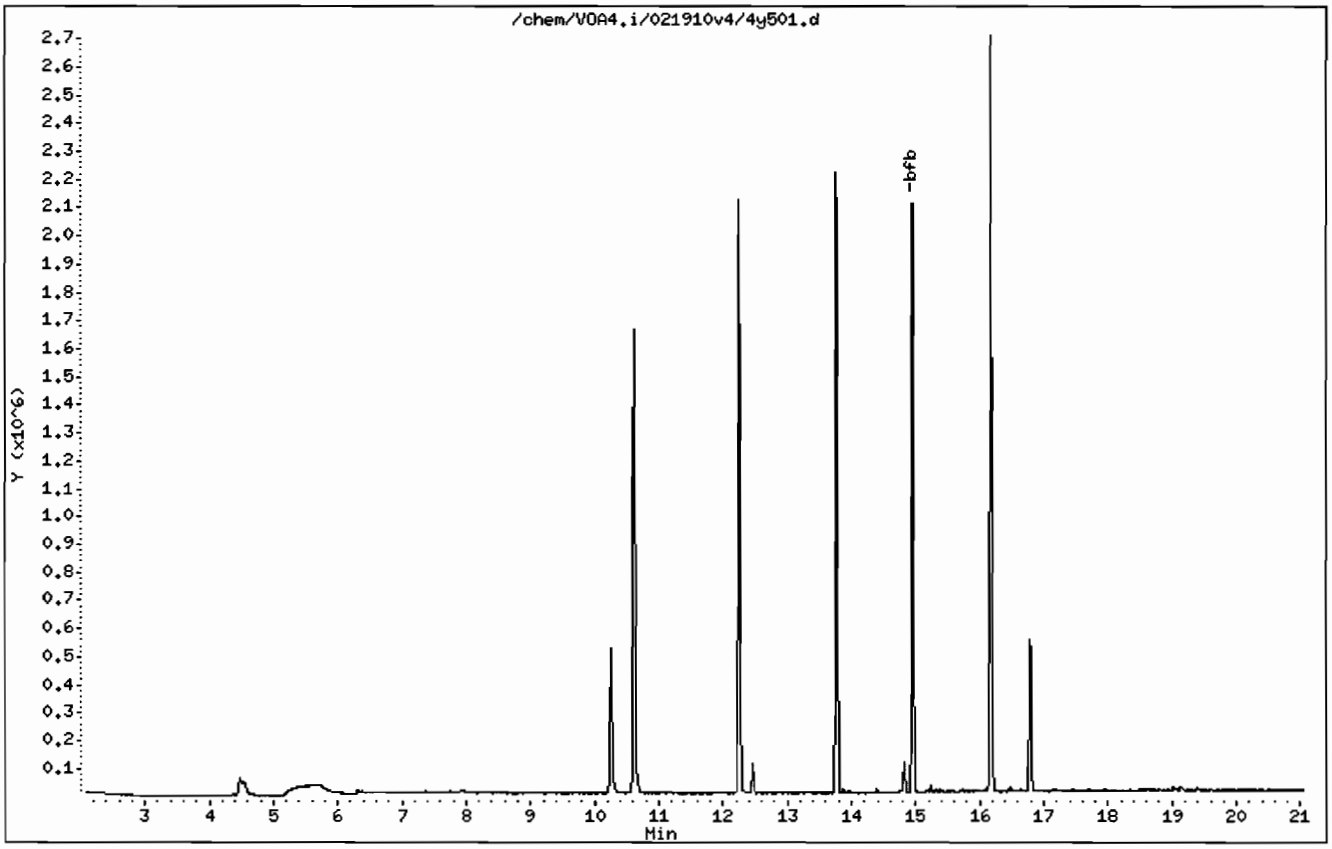

Data File: /chem/VOA4.i/021910v4/4y501.d

Date : 19-FEB-2010 20:16

Client ID: BFB01

Instrument: VOA4.i

Sample Info: |UVM091216-10|BFB1|1|VOAF|1|

Operator: ACJ

Column phase: DB-624

Column diameter: 0.25

1 bfb

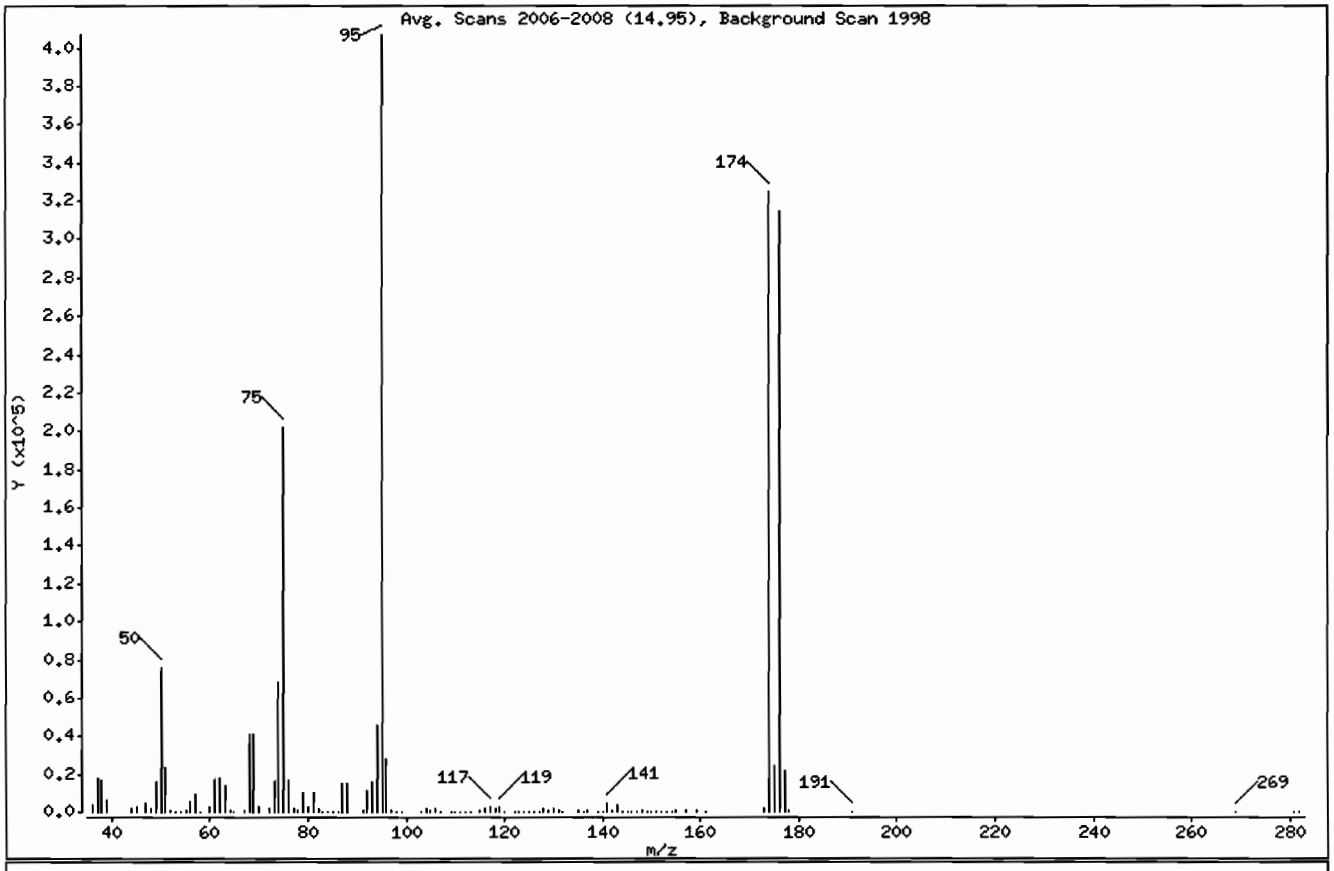

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.58
75	30.00 - 60.00% of mass 95	49.67
96	5.00 - 9.00% of mass 95	6.87
173	Less than 2.00% of mass 174	0.50 (0.62)
174	50.00 - 100.00% of mass 95	79.88
175	5.00 - 9.00% of mass 174	5.89 (7.38)
176	95.00 - 101.00% of mass 174	77.21 (96.65)
177	5.00 - 9.00% of mass 176	5.22 (6.76)

Data File: /chem/VOA4.i/021910v4/4y501.d

Date : 19-FEB-2010 20:16

Client ID: BFB01 Instrument: VOA4.i

Sample Info: |UVH091216-10|BFB1|1|VOAF|1|

Operator: ACJ

Column phase: DB-624 Column diameter: 0.25

Data File: 4y501.d
Spectrum: Avg. Scans 2006-2008 (14.95), Background Scan 1998
Location of Maximum: 95.00
Number of points: 114

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3353	73.00	15896	107.00	399	142.00	597
37.00	18232	74.00	68312	109.00	104	143.00	4112
38.00	16448	75.00	202240	110.00	284	144.00	178
39.00	6353	76.00	16888	111.00	321	145.00	390
44.00	2007	77.00	2039	112.00	263	146.00	333
45.00	3213	78.00	1377	113.00	380	147.00	407
47.00	4457	79.00	10382	115.00	469	148.00	1083
48.00	2278	80.00	3037	116.00	1518	149.00	265
49.00	15465	81.00	10137	117.00	2888	150.00	435
50.00	75664	82.00	2329	118.00	1618	151.00	79
51.00	23080	83.00	360	119.00	2380	152.00	229
52.00	1134	84.00	129	120.00	250	153.00	357
53.00	121	85.00	30	122.00	68	154.00	286
54.00	59	86.00	111	123.00	155	155.00	1068
55.00	685	87.00	15059	124.00	226	157.00	601
56.00	5214	88.00	14706	125.00	247	159.00	550
57.00	9437	91.00	1347	126.00	191	161.00	463
58.00	432	92.00	10861	127.00	155	173.00	2032
60.00	2966	93.00	16296	128.00	1721	174.00	325248
61.00	17256	94.00	45584	129.00	547	175.00	23992
62.00	17904	95.00	407168	130.00	1410	176.00	314368
63.00	14327	96.00	27968	131.00	566	177.00	21264
64.00	1186	97.00	713	132.00	106	178.00	646
65.00	241	98.00	64	135.00	836	191.00	69
67.00	932	99.00	56	136.00	90	269.00	108
68.00	41040	103.00	255	137.00	854	281.00	97
69.00	41504	104.00	1837	139.00	154	282.00	68
70.00	2866	105.00	586	140.00	223		
72.00	1649	106.00	1737	141.00	4415		

Data File: /chem/VOA4.i/022310v4/4z227.d

Page 1

Date : 24-FEB-2010 05:40

Client ID: BFB01

Instrument: VOA4.i

Sample Info: |UVM091216-10|BFB2|1|VOAF|1|

Operator: ACJ

Column phase: DB-624

Column diameter: 0.25

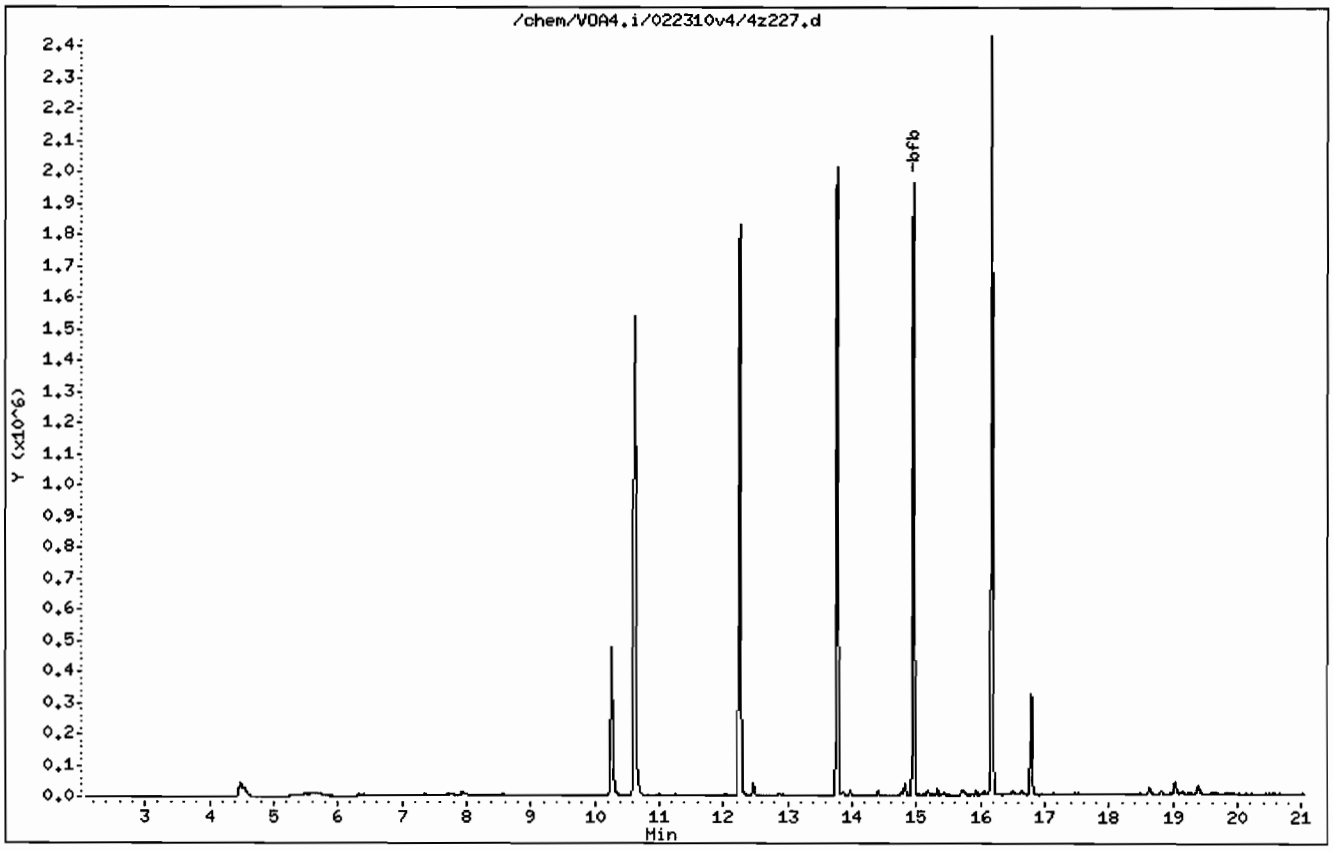

Data File: /chem/VOA4.i/022310v4/4z227.d

Date : 24-FEB-2010 05:40

Client ID: BFB01 Instrument: VOA4.i

Sample Info: |UVM091216-10|BFB2|1|VOAF|1|

Operator: ACJ

Column phase: DB-624 Column diameter: 0.25

1 bfb

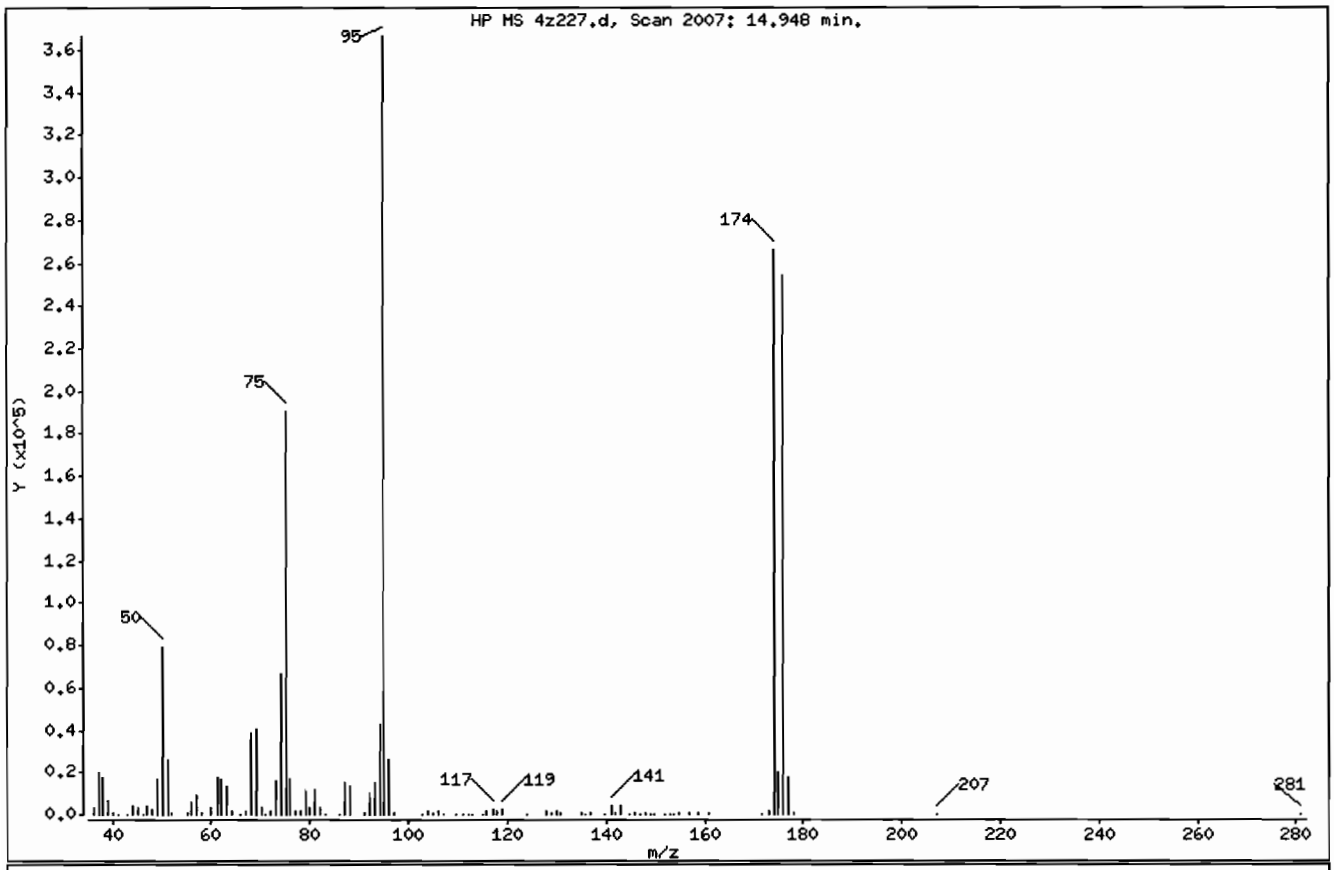

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	21.58
75	30.00 - 60.00% of mass 95	52.07
96	5.00 - 9.00% of mass 95	7.17
173	Less than 2.00% of mass 174	0.45 (0.62)
174	50.00 - 100.00% of mass 95	72.65
175	5.00 - 9.00% of mass 174	5.45 (7.51)
176	95.00 - 101.00% of mass 174	69.40 (95.53)
177	5.00 - 9.00% of mass 176	4.85 (6.99)

Data File: /chem/VOA4.i/022310v4/4z227.d

Date : 24-FEB-2010 05:40

Client ID: BFB01 Instrument: VOA4.i

Sample Info: |UVM091216-10|BFB2|1|VOAF|1|

Operator: ACJ

Column phase: DB-624 Column diameter: 0.25

Data File: 4z227.d
Spectrum: HP MS 4z227.d, Scan 2007: 14.948 min.
Location of Maximum: 95.10
Number of points: 101

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.10	3315	67.00	1275	97.10	729	143.00	3964
37.10	19832	68.10	38480	103.00	171	144.90	368
38.10	17600	69.10	40112	103.90	1933	146.00	506
39.10	7071	70.10	3222	105.00	574	146.80	269
40.10	1069	71.10	168	106.00	1489	147.90	973
41.10	231	72.00	1897	107.00	401	148.90	273
43.00	183	73.10	16253	109.80	254	149.90	192
44.10	3937	74.10	66736	110.90	389	151.80	166
45.10	3129	75.10	190912	112.00	294	152.90	304
46.10	362	76.10	17184	113.00	251	153.80	171
47.10	4085	77.00	1981	115.00	257	154.90	1068
48.00	2223	78.00	1657	115.90	1337	157.00	767
49.10	16976	79.00	10886	117.00	2174	158.90	553
50.10	79136	80.00	3508	117.90	1524	160.90	478
51.10	25856	81.00	11724	119.00	2261	171.80	151
52.10	1055	82.00	2988	124.00	343	173.10	1655
55.10	1100	83.10	270	128.00	1307	174.00	266368
56.00	6095	86.00	258	129.00	775	175.00	20000
57.10	9567	87.00	15340	129.90	1524	176.00	254464
58.10	663	88.00	13556	130.90	610	177.00	17784
60.00	3207	90.90	1079	134.90	581	178.00	652
61.10	17568	92.00	10306	135.90	225	207.00	326
62.10	16728	93.10	15549	136.90	620	281.00	320
63.10	13542	94.10	43160	139.90	268		
64.00	1512	95.10	366656	141.00	4048		
66.00	196	96.10	26296	141.90	491		

Data File: /chem/VOA4.i/022410v4/4z326.d

Page 1

Date : 25-FEB-2010 04:31

Client ID: BFB01

Instrument: VOA4.i

Sample Info: |UVM091216-10|BFB2|1|VOAF|1|

Operator: ACJ

Column phase: DB-624

Column diameter: 0.25

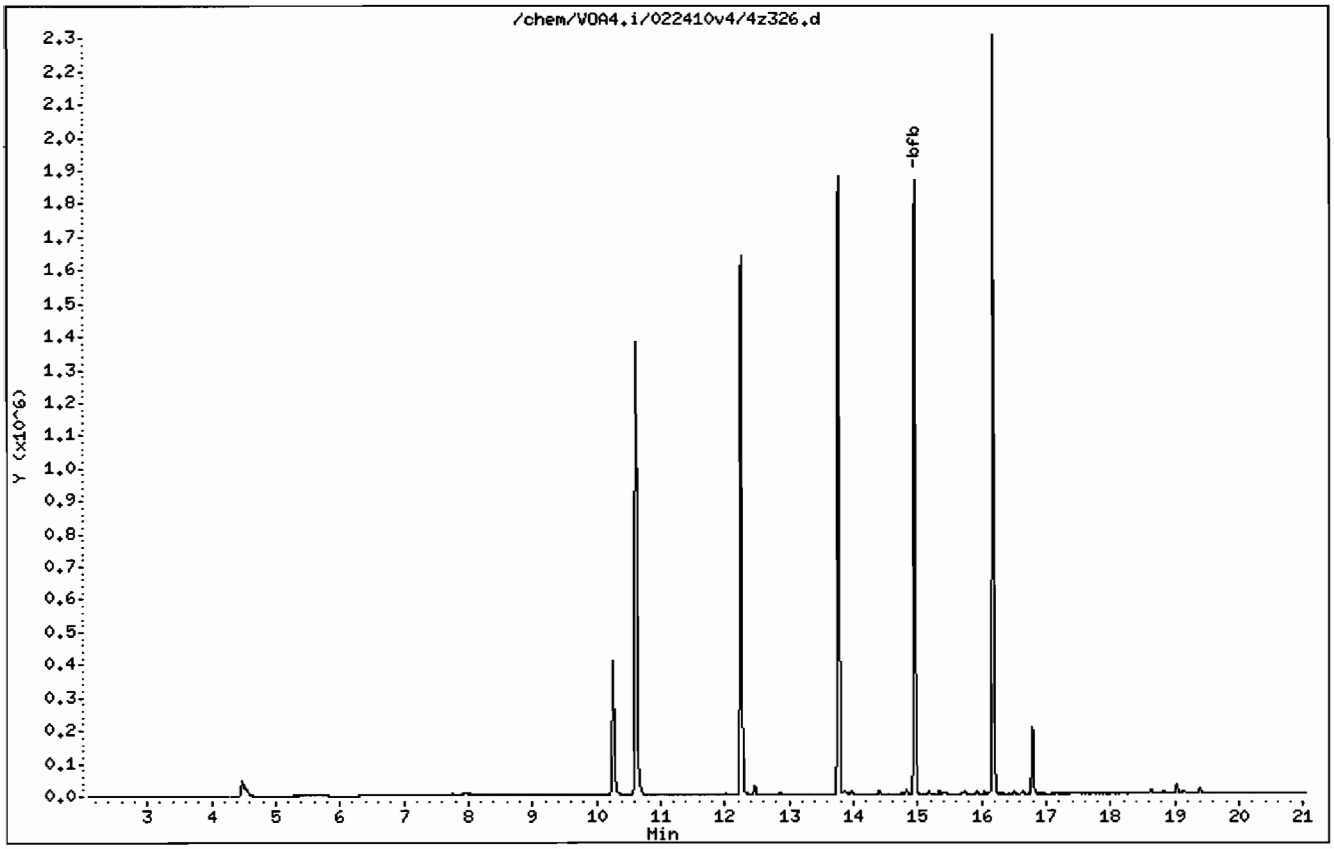

Data File: /chem/VOA4.i/022410v4/4z326.d

Date : 25-FEB-2010 04:31

Client ID: BFB01

Instrument: VOA4.i

Sample Info: |UVM091216-10|BFB2|1|VOAF|1|

Operator: ACJ

Column phase: DB-624

Column diameter: 0.25

1 bfb

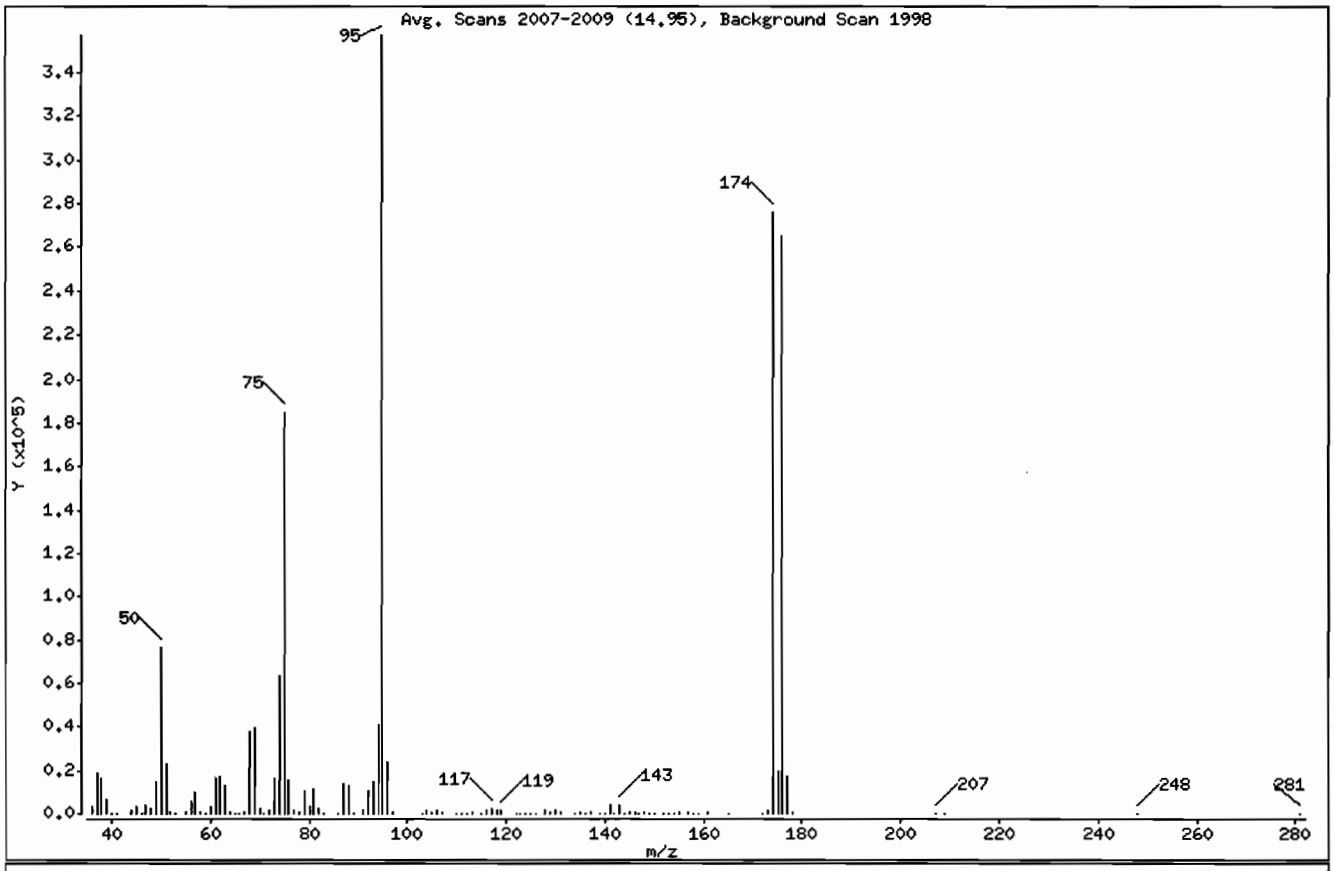

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	21.31
75	30.00 - 60.00% of mass 95	51.76
96	5.00 - 9.00% of mass 95	6.62
173	Less than 2.00% of mass 174	0.48 (0.62)
174	50.00 - 100.00% of mass 95	77.34
175	5.00 - 9.00% of mass 174	5.45 (7.05)
176	95.00 - 101.00% of mass 174	74.31 (96.09)
177	5.00 - 9.00% of mass 176	4.93 (6.63)

Data File: /chem/VOA4.i/022410v4/4z326.d

Date : 25-FEB-2010 04:31

Client ID: BFB01 Instrument: VOA4.i

Sample Info: |UVM091216-10|BFB2|1|VOAF|1|

Operator: ACJ

Column phase: DB-624 Column diameter: 0.25

Data File: 4z326.d
Spectrum: Avg. Scans 2007-2009 (14.95), Background Scan 1998
Location of Maximum: 95.00
Number of points: 115

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3541	68.00	37928	105.00	489	143.00	4458
37.00	19080	69.00	39128	106.00	1813	144.00	185
38.00	16576	70.00	2789	107.00	411	145.00	498
39.00	6933	71.00	57	110.00	232	146.00	619
40.00	175	72.00	1681	111.00	300	147.00	227
41.00	34	73.00	16424	112.00	229	148.00	1011
44.00	1351	74.00	63376	113.00	425	149.00	233
45.00	3238	75.00	184960	115.00	370	150.00	393
46.00	259	76.00	15486	116.00	1765	152.00	207
47.00	3700	77.00	1990	117.00	2349	153.00	164
48.00	2386	78.00	1171	118.00	1574	154.00	157
49.00	14507	79.00	10956	119.00	1969	155.00	905
50.00	76160	80.00	3234	122.00	115	157.00	621
51.00	22672	81.00	11470	123.00	84	158.00	52
52.00	1211	82.00	2105	124.00	280	159.00	391
53.00	73	83.00	361	125.00	110	161.00	487
55.00	1059	86.00	275	126.00	126	165.00	52
56.00	5519	87.00	14011	128.00	1372	172.00	126
57.00	10219	88.00	12737	129.00	642	173.00	1714
58.00	447	89.00	149	130.00	1242	174.00	276352
59.00	50	91.00	1608	131.00	426	175.00	19480
60.00	3237	92.00	10393	134.00	53	176.00	265536
61.00	16304	93.00	15191	135.00	827	177.00	17600
62.00	17320	94.00	41344	136.00	149	178.00	575
63.00	13034	95.00	357312	137.00	583	207.00	72
64.00	1216	96.00	23656	139.00	71	209.00	62
65.00	54	97.00	908	140.00	351	248.00	55
66.00	53	103.00	156	141.00	3726	281.00	185
67.00	975	104.00	1860	142.00	393		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**			**Matrix:**	**WATER**
Lab Sample ID:	**1202051630**				
Client Sample:	**QC for batch 956860**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 956860**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 08:26**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/24/2010 08:26**				
Data File:	**4z233bl.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**			**Matrix:**	**WATER**
Lab Sample ID:	**1202051630**				
Client Sample:	**QC for batch 956860**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 956860**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 08:26**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/24/2010 08:26**				
Data File:	**4z233bl.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**			**Matrix:**	**WATER**
Lab Sample ID:	**1202051630**				
Client Sample:	**QC for batch 956860**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 956860**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 08:26**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/24/2010 08:26**				
Data File:	**4z233bl.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	49.2	50.0	ug/L	98.4	(72%-132%)
Bromofluorobenzene	56.0	50.0	ug/L	112	(77%-123%)
Toluene-d8	49.0	50.0	ug/L	98.0	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.48	5.16	ug/L		J
	Unknown Siloxane	16.79	6.65	ug/L		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/022310v4/4z233bl.d
Lab Smp Id: 1202051630 Client Smp ID: BLANK
Inj Date : 24-FEB-2010 08:26
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202051630|956860|1|VOAF|1|
Misc Info : GEL 5ML N/A
Comment :
Method : /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m
Meth Date : 24-Feb-2010 15:17 amj Quant Type: ISTD
Cal Date : 20-FEB-2010 04:09 Cal File: 4y518.d
Als bottle: 33 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
$ 138 1,2-Dichloroethane-d4	65	10.259	10.260	(0.966)	407613	49.1917	49.2
* 40 Fluorobenzene	96	10.619	10.620	(1.000)	1634330	50.0000	
$ 47 Toluene-d8	98	12.252	12.254	(0.890)	1393538	48.9905	49.0
* 61 Chlorobenzene-d5	117	13.770	13.772	(1.000)	1276736	50.0000	
$ 71 Bromofluorobenzene	95	14.953	14.954	(0.924)	780540	55.9990	56.0
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.180	(1.000)	761263	50.0000	

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/022310v4/4z233b1.d
Lab Smp Id: 1202051630 Client Smp ID: BLANK
Inj Date : 24-FEB-2010 08:26
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202051630|956860|1|VOAF|1|
Misc Info : GEL 5ML N/A
Comment :
Method : /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m
Meth Date : 24-Feb-2010 15:17 amj Quant Type: ISTD
Cal Date : 20-FEB-2010 04:09 Cal File: 4y518.d
Als bottle: 33 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 40 Fluorobenzene	10.619	3597859	50.000
* 86 1,4-Dichlorobenzene-d4	16.179	4665004	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/l)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
4.481	371257	5.15941250	5.2	0		0	40
Unknown Siloxane				CAS #:			
16.788	620226	6.64764979	6.6	0		0	86

Data File: /chem/VOA4.i/022310v4/4z233bl.d

Page 1

Date : 24-FEB-2010 08:26

Client ID: BLANK

Instrument: VOA4.i

Sample Info: |1202051630|9568601|VOAF|1|

Purge Volume: 5.0

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

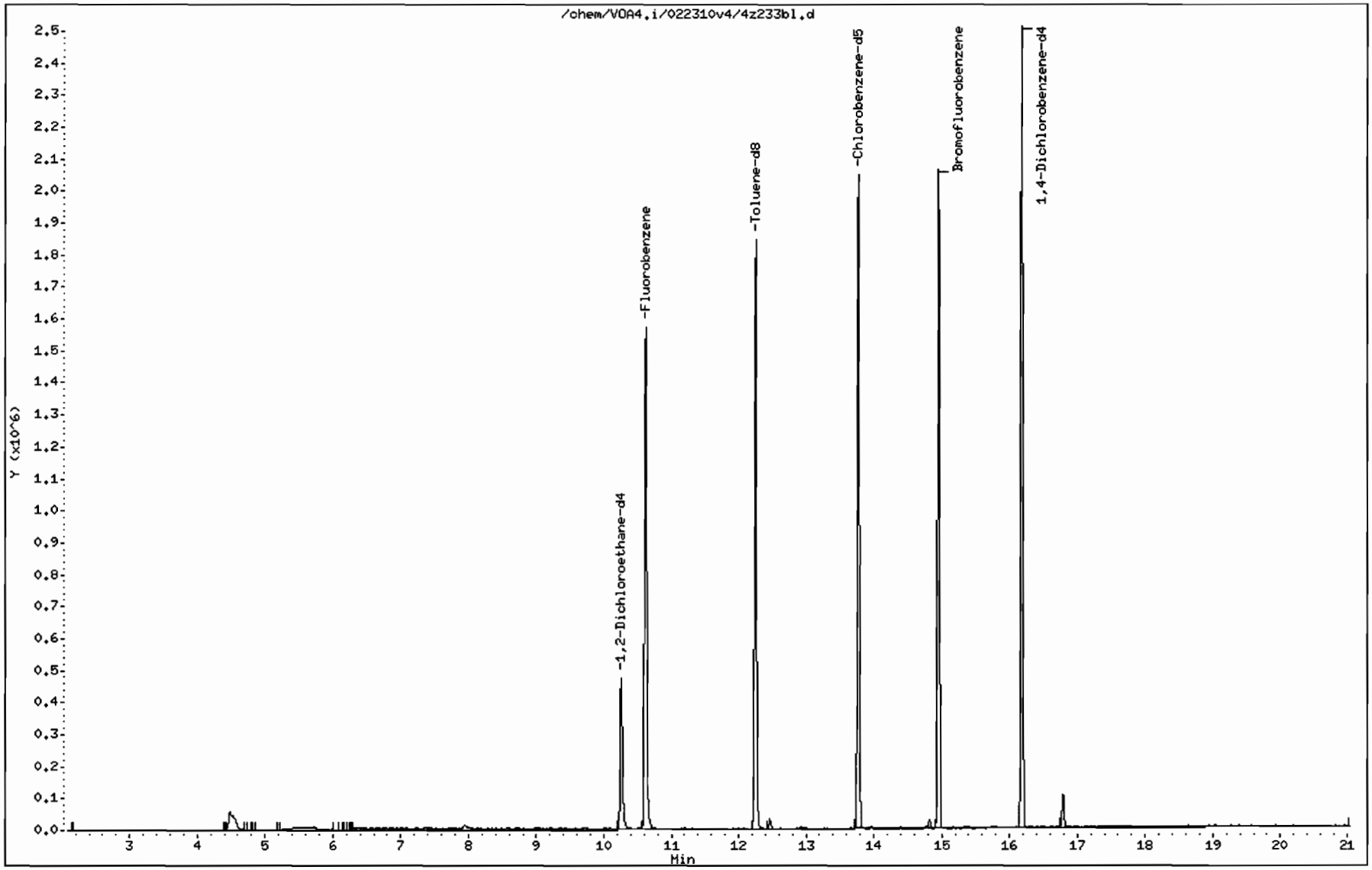

Data File: /chem/VOA4.i/022310v4/4z233bl.d

Date : 24-FEB-2010 08:26

Client ID: BLANK

Instrument: VOA4.i

Sample Info: |120205163019568601|VOAF|1|

Purge Volume: 5.0

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0

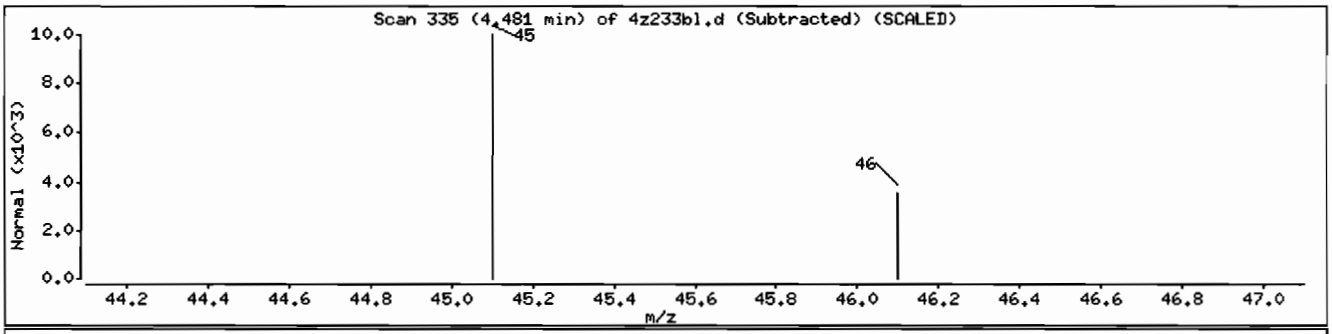

Data File: /chem/VOA4.i/022310v4/4z233bl.d

Date : 24-FEB-2010 08:26

Client ID: BLANK

Instrument: VOA4.i

Sample Info: |1202051630|956860|1|VOAF|1|

Purge Volume: 5.0

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Benzeneethanamine, N-[(pentafluorophenyl	55429-85-1	NIST05.L	182554	42	C21H26F5NO2Si2	475
Benzoic acid, 4-[(trimethylsilyl)oxy]-,	2078-13-9	NIST05.L	112913	39	C13H22O3Si2	282
Benzoic acid, 2-[(trimethylsilyl)oxy]-,	3789-85-3	NIST05.L	112905	39	C13H22O3Si2	282

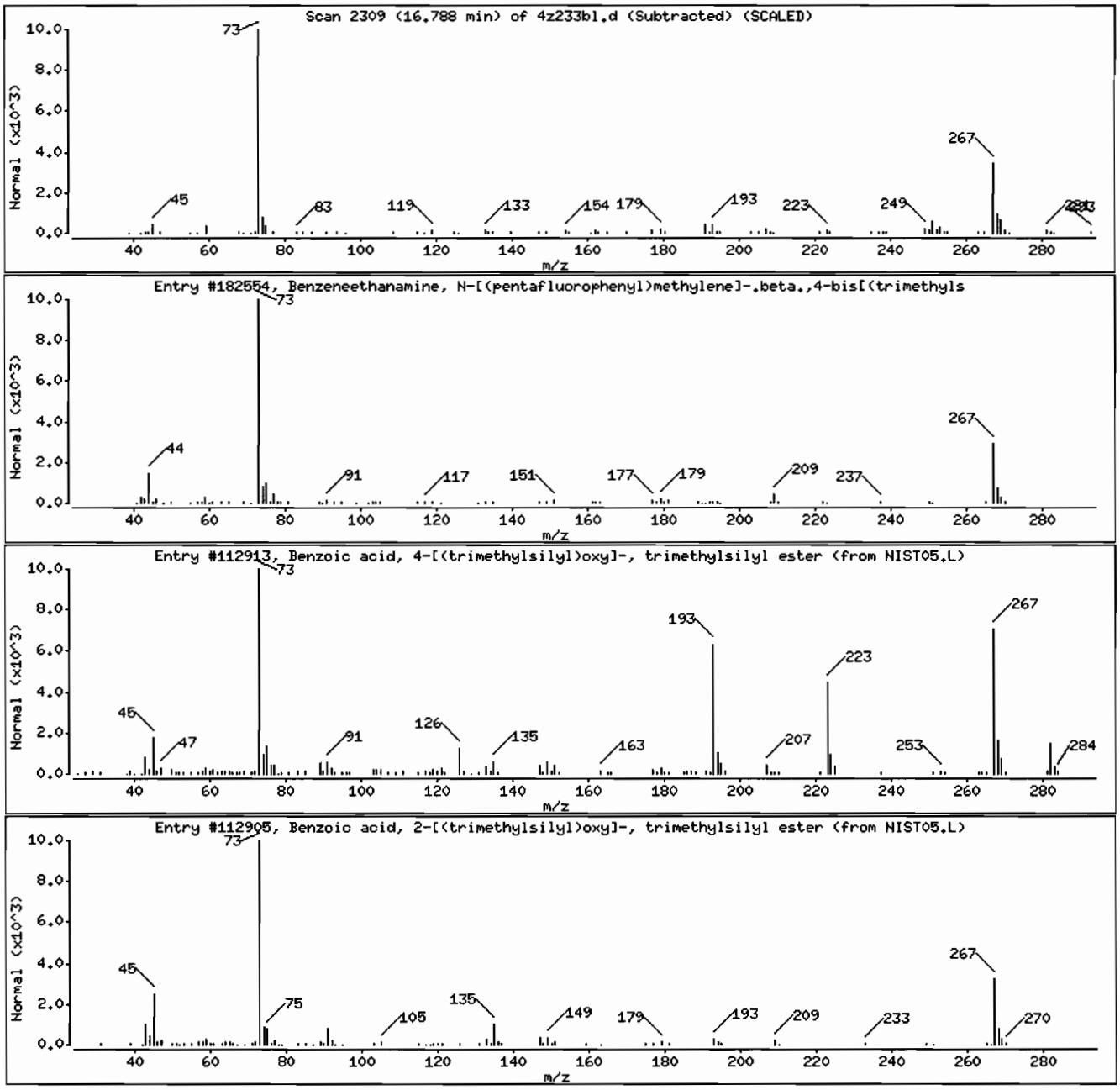

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**			**Matrix:**	**WATER**
Lab Sample ID:	**1202053165**				
Client Sample:	**QC for batch 956860**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 956860**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 07:44**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/25/2010 07:44**				
Data File:	**4z333BL.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**			**Matrix:**	**WATER**
Lab Sample ID:	**1202053165**				
Client Sample:	**QC for batch 956860**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 956860**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 07:44**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/25/2010 07:44**				
Data File:	**4z333BL.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**			**Matrix:**	**WATER**
Lab Sample ID:	**1202053165**				
Client Sample:	**QC for batch 956860**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 956860**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 07:44**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/25/2010 07:44**				
Data File:	**4z333BL.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	48.1	50.0	ug/L	96.1	(72%-132%)
Bromofluorobenzene	55.8	50.0	ug/L	112	(77%-123%)
Toluene-d8	47.3	50.0	ug/L	94.5	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	16.79	7.31	ug/L		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/022410v4/4z333BL.d
Lab Smp Id: 1202053165 Client Smp ID: BLANK
Inj Date : 25-FEB-2010 07:44
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202053165|956860|1|VOAF|1|
Misc Info : GEL 5ML N/A
Comment :
Method : /chem/VOA4.i/022410v4/VOA4-8260-021910PM.m
Meth Date : 25-Feb-2010 16:00 amj Quant Type: ISTD
Cal Date : 20-FEB-2010 04:09 Cal File: 4y518.d
Als bottle: 33 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	365970	48.0697	48.1
* 40 Fluorobenzene	96	10.619	10.619	(1.000)	1501612	50.0000	
$ 47 Toluene-d8	98	12.253	12.252	(0.890)	1268150	47.2570	47.2
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	1204477	50.0000	
$ 71 Bromofluorobenzene	95	14.953	14.953	(0.924)	735019	55.8496	55.8
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.179	(1.000)	718783	50.0000	

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/022410v4/4z333BL.d
Lab Smp Id: 1202053165 Client Smp ID: BLANK
Inj Date : 25-FEB-2010 07:44
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202053165|956860|1|VOAF|1|
Misc Info : GEL 5ML N/A
Comment :
Method : /chem/VOA4.i/022410v4/VOA4-8260-021910PM.m
Meth Date : 25-Feb-2010 16:00 amj Quant Type: ISTD
Cal Date : 20-FEB-2010 04:09 Cal File: 4y518.d
Als bottle: 33 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 86 1,4-Dichlorobenzene-d4	16.179	4389440	50.000

RT	AREA	CONCENTRATIONS ON-COL(ug/l)	FINAL(ug/l)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane					CAS #:		
16.788	641937	7.31228268	7.3	0		0	86

Data File: /chem/VOA4.i/022410v4/4z333BL.d
Date : 25-FEB-2010 07:44
Client ID: BLANK
Sample Info: |120205316519568601|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

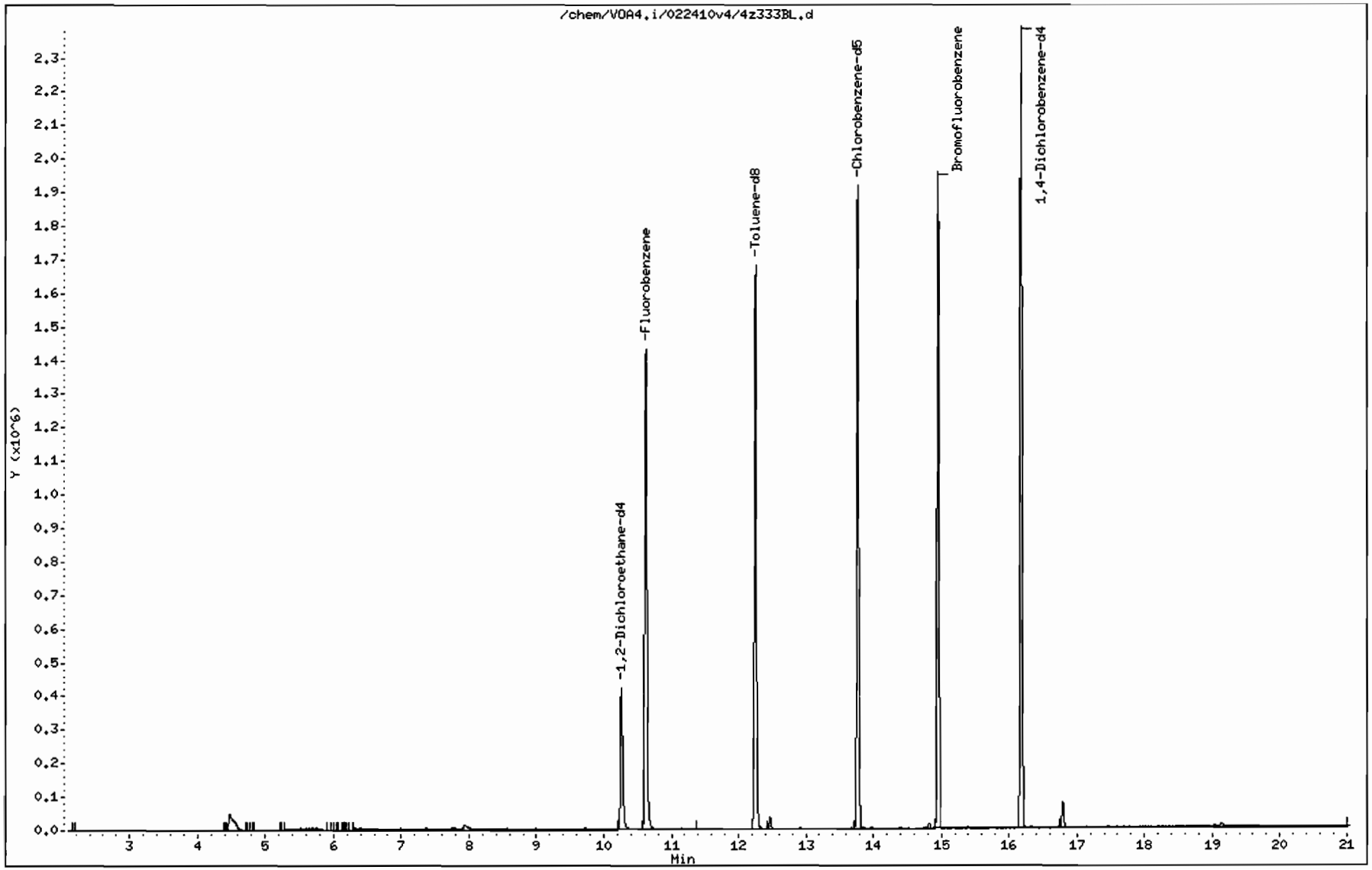

Data File: /chem/VOA4.i/022410v4/4z333BL.d

Page 1

Date : 25-FEB-2010 07:44

Client ID: BLANK

Instrument: VOA4.i

Sample Info: |1202053165|956860|1|VOAF|1|

Purge Volume: 5.0

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Benzeneethanamine, N-[(pentafluorophenyl	55429-85-1	NIST05.L	182554	42	C21H26F5NO2Si	475
11H-Dibenzo[b,e][1,4]diazepin-11-one, 5-	13450-73-2	NIST05.L	103364	16	C16H17N3O	267
Benzeneacetic acid, 3-methoxy-4-[(trimet	15964-84-8	NIST05.L	103724	10	C13H20O4Si	268

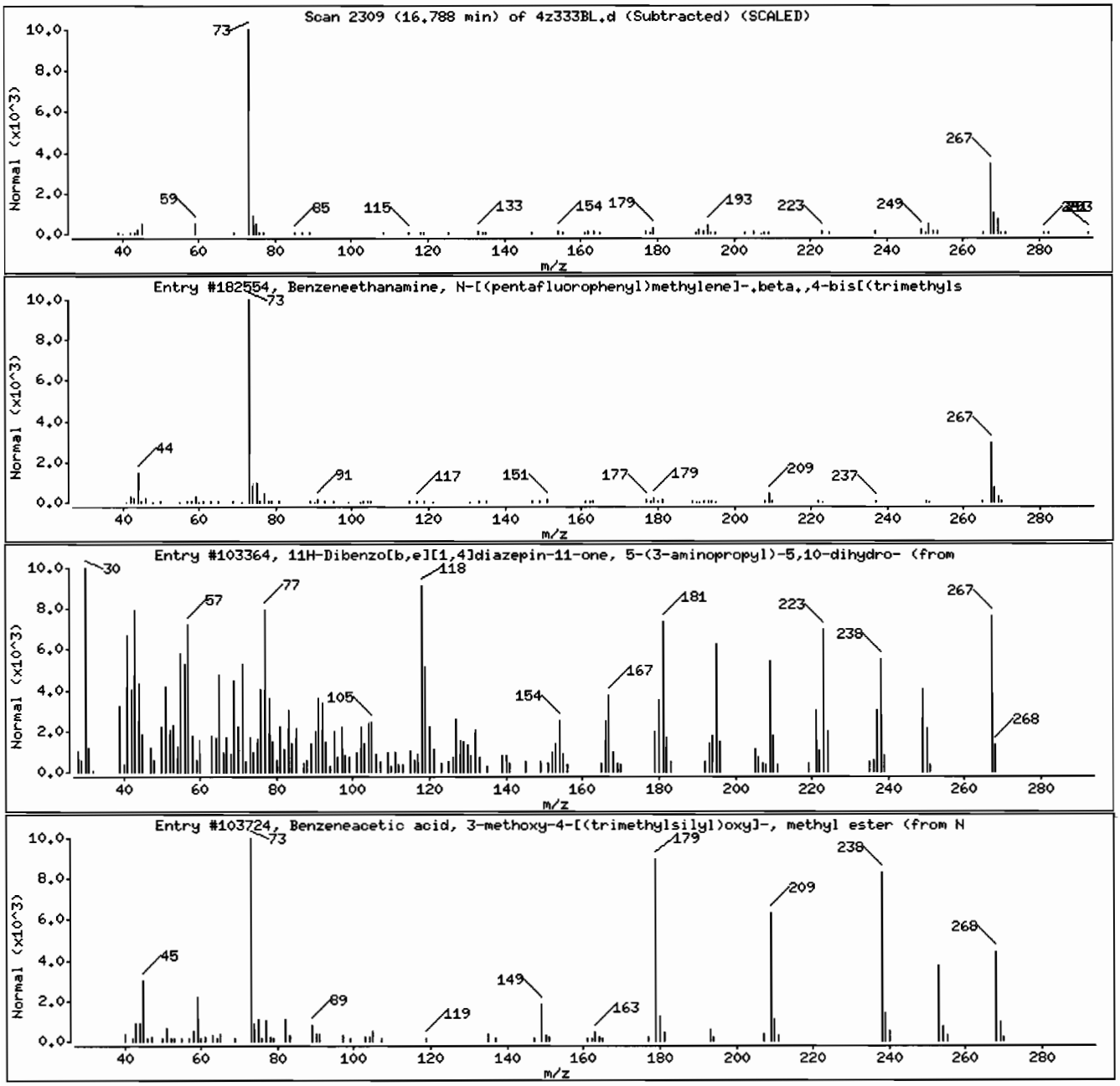

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**			**Matrix:**	**WATER**
Lab Sample ID:	**1202051633**				
Client Sample:	**QC for batch 956860**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 956860**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 06:35**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/24/2010 06:35**				
Data File:	**4z2291l.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		40.4	ug/L	0.300	1.00
74-87-3	Chloromethane		45.9	ug/L	0.300	1.00
75-01-4	Vinyl chloride		53.5	ug/L	0.500	1.00
74-83-9	Bromomethane		58.7	ug/L	0.300	1.00
75-00-3	Chloroethane		54.3	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		51.6	ug/L	0.300	1.00
60-29-7	Ethyl ether		51.5	ug/L	0.300	1.00
67-64-1	Acetone		222	ug/L	3.50	10.0
75-05-8	Acetonitrile		1560	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		45.4	ug/L	0.300	1.00
74-88-4	Iodomethane		170	ug/L	1.25	5.00
75-09-2	Methylene chloride		46.2	ug/L	3.00	10.0
75-15-0	Carbon disulfide		258	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		51.4	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		49.2	ug/L	0.300	1.00
108-05-4	Vinyl acetate		262	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		50.3	ug/L	0.300	1.00
78-93-3	2-Butanone		221	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		51.1	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		52.3	ug/L	0.300	1.00
67-66-3	Chloroform		49.5	ug/L	0.250	1.00
74-97-5	Bromochloromethane		50.1	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		50.0	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		48.2	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		6220	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		51.2	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		52.1	ug/L	0.250	1.00
71-43-2	Benzene		48.0	ug/L	0.300	1.00
79-01-6	Trichloroethylene		47.9	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		50.2	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		49.8	ug/L	0.250	1.00
74-95-3	Dibromomethane		49.6	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		259	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		48.3	ug/L	0.250	1.00
108-88-3	Toluene		46.4	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		49.7	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		48.9	ug/L	0.250	1.00
591-78-6	2-Hexanone		222	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**			**Matrix:**	**WATER**
Lab Sample ID:	**1202051633**				
Client Sample:	**QC for batch 956860**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 956860**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 06:35**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/24/2010 06:35**				
Data File:	**4z229ll.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		51.4	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		44.2	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		51.4	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		50.8	ug/L	0.250	1.00
108-90-7	Chlorobenzene		46.2	ug/L	0.250	1.00
100-41-4	Ethylbenzene		45.0	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		90.6	ug/L	0.500	2.00
95-47-6	o-Xylene		47.2	ug/L	0.300	1.00
100-42-5	Styrene		47.2	ug/L	0.250	1.00
75-25-2	Bromoform		48.2	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		47.4	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		48.7	ug/L	0.300	1.00
108-86-1	Bromobenzene		43.9	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		40.4	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		42.8	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		40.7	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		41.9	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		42.1	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		42.5	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		41.2	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		41.0	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		40.6	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		42.6	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		42.6	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		39.1	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		51.0	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		35.4	ug/L	0.300	1.00
91-20-3	Naphthalene		48.2	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		43.9	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**			**Matrix:**	**WATER**
Lab Sample ID:	**1202051633**				
Client Sample:	**QC for batch 956860**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 956860**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 06:35**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/24/2010 06:35**				
Data File:	**4z2291l.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		49.0	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		40.4	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		44.3	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	47.4	50.0	ug/L	94.8	(72%-132%)
Bromofluorobenzene	50.6	50.0	ug/L	101	(77%-123%)
Toluene-d8	48.0	50.0	ug/L	96.0	(76%-122%)

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/022310v4/4z22911.d
Lab Smp Id: 1202051633 Client Smp ID: LCS
Inj Date : 24-FEB-2010 06:35
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202051633|956860|1|VOAF|1|
Misc Info : GEL 5G N/A UVM100220-01A/IVM100218-01
Comment :
Method : /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m
Meth Date : 24-Feb-2010 15:17 amj Quant Type: ISTD
Cal Date : 20-FEB-2010 04:09 Cal File: 4y518.d
Als bottle: 29 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
M 1 Xylenes (total)	106				3093927	137.857	138
M 2 1,2-Dichloroethylene (total)	96				1555106	100.232	100
M 135 1,3-Dichloropropylene	75				1688146	97.2992	97.3
3 Dichlorodifluoromethane	85	4.904	4.904	(0.462)	438960	40.3659	40.4
4 Chloromethane	50	5.292	5.292	(0.498)	780369	45.9277	45.9
5 Vinyl chloride	62	5.514	5.514	(0.519)	805195	53.4895	53.5
6 Bromomethane	94	6.130	6.130	(0.577)	493262	58.7329	58.7
7 Chloroethane	64	6.288	6.295	(0.592)	447507	54.2898	54.3
8 Trichlorofluoromethane	101	6.668	6.669	(0.628)	906987	51.5807	51.6
134 Ethyl Ether	59	6.997	6.999	(0.659)	433420	51.4567	51.4
10 Acetone	43	7.351	7.352	(0.692)	1847092	221.656	222
11 1,1-Dichloroethylene	61	7.382	7.395	(0.695)	933038	45.3674	45.4
13 Iodomethane	142	7.668	7.663	(0.722)	3384794	170.013	170(R)
15 Acetonitrile	41	7.699	7.700	(0.725)	2093039	1563.20	1560(R)
128 Methyl acetate	43	7.747	7.748	(0.730)	2245867	285.268	285

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
14 Carbon disulfide	76	7.772	7.779	(0.732)	9389317	257.706	258
17 Methylene chloride	84	7.936	7.937	(0.747)	652423	46.1905	46.2
20 tert-Butyl methyl ether	73	8.241	8.242	(0.776)	1617604	51.4219	51.4
21 trans-1,2-Dichloroethylene	61	8.284	8.279	(0.780)	743455	49.1600	49.2
23 Vinyl acetate	43	8.704	8.706	(0.820)	4729485	261.880	262
22 1,1-Dichloroethane	63	8.753	8.760	(0.824)	954532	50.3284	50.3
30 2-Butanone	43	9.326	9.327	(0.878)	2129320	220.668	221
31 cis-1,2-Dichloroethylene	61	9.387	9.388	(0.884)	811651	51.0717	51.1
25 2,2-Dichloropropane	77	9.418	9.419	(0.887)	462171	52.3374	52.3
29 Bromochloromethane	128	9.656	9.657	(0.909)	293192	50.1232	50.1
32 Chloroform	83	9.692	9.693	(0.913)	984051	49.5412	49.5
36 1,1,1-Trichloroethane	97	9.979	9.980	(0.940)	752486	49.9742	50.0
129 Cyclohexane	56	10.082	10.083	(0.949)	844302	43.4287	43.4
34 1,1-Dichloropropene	75	10.131	10.132	(0.954)	704401	48.1717	48.2
33 Carbon tetrachloride	117	10.174	10.175	(0.958)	720735	51.1953	51.2
$ 138 1,2-Dichloroethane-d4	65	10.259	10.260	(0.966)	403145	47.3752	47.4
37 1,2-Dichloroethane	62	10.338	10.339	(0.974)	789141	52.0574	52.0
38 Benzene	78	10.375	10.376	(0.977)	2087780	47.9942	48.0
139 Cyclohexene	67	10.497	10.492	(0.989)	1013503	47.2850	47.3
* 40 Fluorobenzene	96	10.619	10.620	(1.000)	1678394	50.0000	
131 n-Butyl alcohol	56	10.692	10.687	(1.007)	2257333	6218.68	6220
39 Trichloroethylene	95	11.003	11.004	(1.036)	555452	47.8943	47.9
130 Methylcyclohexane	83	11.265	11.260	(1.061)	866755	45.7638	45.8
41 1,2-Dichloropropane	63	11.247	11.242	(1.059)	558529	50.2329	50.2
43 Dibromomethane	93	11.375	11.376	(1.071)	356932	49.6208	49.6
45 Bromodichloromethane	83	11.484	11.485	(1.082)	764755	49.7958	49.8
44 2-Chloroethylvinyl ether	63	11.698	11.699	(1.102)	1090435	192.674	193
46 cis-1,3-Dichloropropylene	75	11.929	11.931	(1.123)	861684	48.3051	48.3
49 4-Methyl-2-pentanone	58	12.021	12.022	(0.873)	1245056	258.941	259
$ 47 Toluene-d8	98	12.253	12.254	(0.890)	1436482	48.0229	48.0
50 Toluene	92	12.326	12.327	(0.895)	1303953	46.3640	46.4
53 trans-1,3-Dichloropropylene	75	12.460	12.467	(0.905)	826462	49.7277	49.7
54 1,1,2-Trichloroethane	83	12.685	12.686	(0.921)	423733	48.8756	48.9
55 2-Hexanone	43	12.856	12.857	(0.934)	2857858	222.127	222
52 1,3-Dichloropropane	76	12.874	12.875	(0.935)	856798	51.4390	51.4
56 Tetrachloroethylene	164	12.917	12.918	(0.938)	415867	44.2031	44.2
57 Dibromochloromethane	129	13.149	13.150	(0.955)	626483	51.4231	51.4
59 1,2-Dibromoethane	107	13.319	13.320	(0.967)	539906	50.7530	50.8
* 61 Chlorobenzene-d5	117	13.771	13.772	(1.000)	1342598	50.0000	
62 Chlorobenzene	112	13.801	13.802	(1.002)	1460211	46.1955	46.2
60 1,1,1,2-Tetrachloroethane	131	13.850	13.851	(1.006)	591640	49.0432	49.0
58 Ethylbenzene	91	13.862	13.863	(1.007)	2510244	45.0475	45.0
63 m,p-Xylenes	106	13.972	13.973	(1.015)	2011381	90.6196	90.6
64 o-Xylene	106	14.405	14.406	(1.046)	1082546	47.2370	47.2
65 Styrene	104	14.405	14.400	(1.046)	1831453	47.2183	47.2
66 Bromoform	173	14.661	14.662	(0.906)	454588	48.1989	48.2
67 Isopropylbenzene	105	14.758	14.759	(0.912)	2671093	40.7357	40.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
$ 71 Bromofluorobenzene	95	14.953	14.954	(0.924)	870806	50.5958	50.6
73 1,1,2,2-Tetrachloroethane	83	15.020	15.015	(0.928)	825546	47.3862	47.4
74 1,2,3-Trichloropropane	110	15.112	15.107	(0.934)	226189	48.7079	48.7
75 Bromobenzene	156	15.167	15.168	(0.937)	761928	43.9211	43.9
76 n-Propylbenzene	91	15.185	15.180	(0.939)	3209779	40.4423	40.4
78 1,3,5-Trimethylbenzene	105	15.331	15.332	(0.948)	2517436	41.8965	41.9
77 2-Chlorotoluene	91	15.331	15.332	(0.948)	2360397	42.8247	42.8
80 4-Chlorotoluene	91	15.429	15.430	(0.954)	2070527	42.0559	42.0
81 tert-Butylbenzene	119	15.703	15.704	(0.971)	2520034	42.4760	42.5
79 1,2,4-Trimethylbenzene	105	15.740	15.741	(0.973)	2557471	41.2132	41.2
83 sec-Butylbenzene	105	15.935	15.930	(0.985)	3262204	40.9599	41.0
84 4-Isopropyltoluene	119	16.051	16.052	(0.992)	2670428	40.6036	40.6
85 1,3-Dichlorobenzene	146	16.118	16.119	(0.996)	1475910	42.6346	42.6
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.180	(1.000)	939998	50.0000	
87 1,4-Dichlorobenzene	146	16.209	16.204	(1.002)	1494348	42.6452	42.6
89 n-Butylbenzene	91	16.502	16.503	(1.020)	2462413	39.0820	39.1
90 1,2-Dichlorobenzene	146	16.642	16.643	(1.029)	1465825	44.2909	44.3
92 1,2-Dibromo-3-chloropropane	157	17.526	17.527	(1.083)	168283	51.0194	51.0
93 1,2,4-Trichlorobenzene	180	18.629	18.630	(1.151)	747687	40.3960	40.4
94 Hexachlorobutadiene	225	18.818	18.819	(1.163)	432011	35.3608	35.4
95 Naphthalene	128	19.032	19.033	(1.176)	1954337	48.1735	48.2
96 1,2,3-Trichlorobenzene	180	19.385	19.386	(1.198)	652985	43.9030	43.9

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA4.i/022310v4/4z22911.d
Date : 24-FEB-2010 06:35
Client ID: LCS
Sample Info: |120205163319568601|VOAF1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

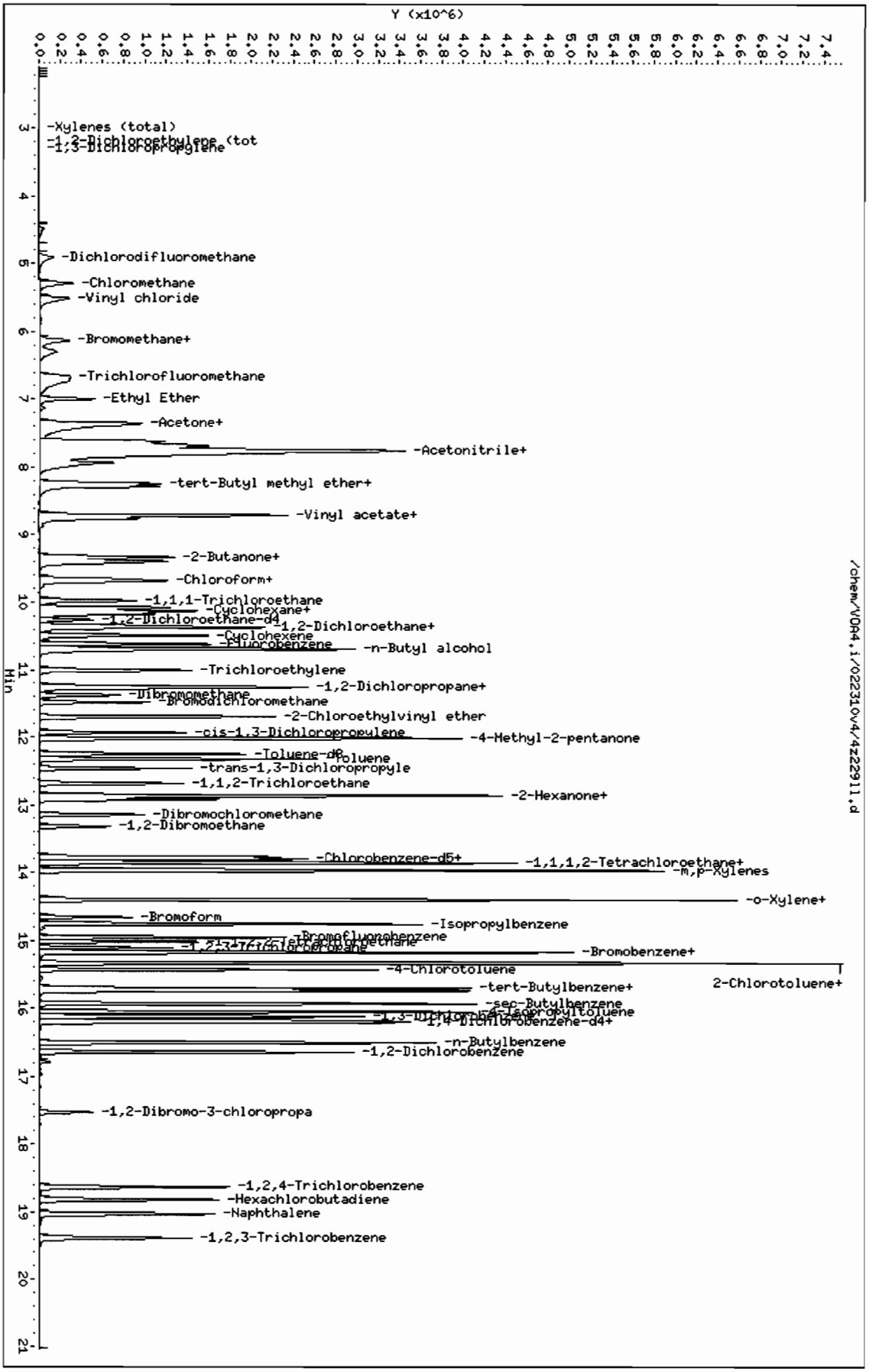

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**			**Matrix:**	**WATER**
Lab Sample ID:	**1202051634**				
Client Sample:	**QC for batch 956860**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 956860**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 07:03**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/24/2010 07:03**				
Data File:	**4z230Sl.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**			**Matrix:**	**WATER**
Lab Sample ID:	**1202051634**				
Client Sample:	**QC for batch 956860**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 956860**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 07:03**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/24/2010 07:03**				
Data File:	**4z230Sl.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein		282	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane		226	ug/L	1.00	5.00
107-05-1	Allyl chloride		238	ug/L	1.50	5.00
107-13-1	Acrylonitrile		232	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene		46.6	ug/L	0.300	1.00
107-12-0	Propionitrile		225	ug/L	1.50	5.00
126-98-7	Methacrylonitrile		237	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol		2540	ug/L	12.5	50.0
80-62-6	Methyl methacrylate		221	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**			**Matrix:**	**WATER**
Lab Sample ID:	**1202051634**				
Client Sample:	**QC for batch 956860**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 956860**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 07:03**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/24/2010 07:03**				
Data File:	**4z230SI.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate		224	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	48.5	50.0	ug/L	97.0	(72%-132%)
Bromofluorobenzene	52.6	50.0	ug/L	105	(77%-123%)
Toluene-d8	47.9	50.0	ug/L	95.8	(76%-122%)

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/022310v4/4z230S1.d
Lab Smp Id: 1202051634 Client Smp ID: LCS
Inj Date : 24-FEB-2010 07:03
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202051634|956860|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091216-08B/UVM100125-08D
Comment :
Method : /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m
Meth Date : 24-Feb-2010 15:17 amj Quant Type: ISTD
Cal Date : 20-FEB-2010 04:09 Cal File: 4y518.d
Als bottle: 30 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
153 Chlorotrifluoroethylene	116	4.818	4.818	(0.454)	838180	135.391	135
154 2-Chloro-1,1,1-trifluoroethane	118	5.657	5.657	(0.533)	2798286	160.365	160
9 Acrolein	56	7.181	7.181	(0.676)	382570	282.047	282
12 Trichlorotrifluoroethane	85	7.370	7.370	(0.694)	1075894	225.888	226
147 Isopropyl Alcohol	45	7.431	7.431	(0.700)	2491626	2955.46	2960
16 Allyl chloride	41	7.797	7.797	(0.734)	3434380	237.863	238
148 tert-Butyl Alcohol	59	7.925	7.925	(0.746)	4101977	2922.31	2920
18 Acrylonitrile	53	8.175	8.175	(0.770)	910629	232.147	232
149 Isopropyl ether	45	8.742	8.742	(0.823)	1810283	51.6645	51.7
24 2-Chloro-1,3-butadiene	53	8.870	8.870	(0.835)	669329	46.6186	46.6
150 Ethyl tert-butyl ether	59	9.144	9.144	(0.861)	1732508	51.5254	51.5
26 Ethyl acetate	43	9.339	9.339	(0.879)	2380034	215.563	216
28 Propionitrile	54	9.394	9.394	(0.885)	363243	224.818	225
27 Methacrylonitrile	41	9.577	9.577	(0.902)	1567243	236.510	236
72 Tetrahydrofuran	42	9.717	9.717	(0.601)	813410	234.606	235

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
19 Isobutyl alcohol	41	10.010	10.010	(0.943)	1162880	2537.23	2540
$ 138 1,2-Dichloroethane-d4	65	10.260	10.260	(0.966)	413147	48.5195	48.5
151 Methyl tert-amyl ether	73	10.388	10.388	(0.978)	1637193	50.3238	50.3
* 40 Fluorobenzene	96	10.620	10.620	(1.000)	1679471	50.0000	
42 Methyl methacrylate	69	11.211	11.211	(1.056)	1729234	221.217	221
97 1,4-Dioxane	88	11.327	11.327	(1.067)	269311	2436.53	2440
48 2-Nitropropane	43	11.674	11.674	(1.099)	868570	237.805	238
$ 47 Toluene-d8	98	12.253	12.254	(0.890)	1454371	47.9174	47.9
51 Ethyl methacrylate	69	12.467	12.467	(0.905)	3320348	224.485	224
152 1-Chlorohexane	55	13.662	13.662	(1.286)	532837	51.0282	51.0
* 61 Chlorobenzene-d5	117	13.771	13.772	(1.000)	1362312	50.0000	
68 cis-1,4-Dichloro-2-butene	53	14.783	14.783	(0.914)	1155891	248.234	248
70 Cyclohexanone	42	14.905	14.905	(1.082)	606748	1603.09	1600(A)
$ 71 Bromofluorobenzene	95	14.954	14.954	(0.924)	853920	52.6231	52.6
69 trans-1,4-Dichloro-2-butene	53	15.064	15.064	(0.931)	1106221	255.193	255
82 Pentachloroethane	167	15.771	15.771	(0.975)	549496	101.509	102(R)
* 86 1,4-Dichlorobenzene-d4	152	16.180	16.180	(1.000)	886258	50.0000	
88 Benzyl chloride	91	16.320	16.320	(1.009)	4957396	215.336	215
91 bis(2-Chloroisopropyl)ether	45	16.722	16.722	(1.034)	1694967	244.592	244

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA4.i/022310v4/4z230S1.d
Date : 24-FEB-2010 07:03
Client ID: LCS
Sample Info: 1120205163419568601 1|VOAF1 1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

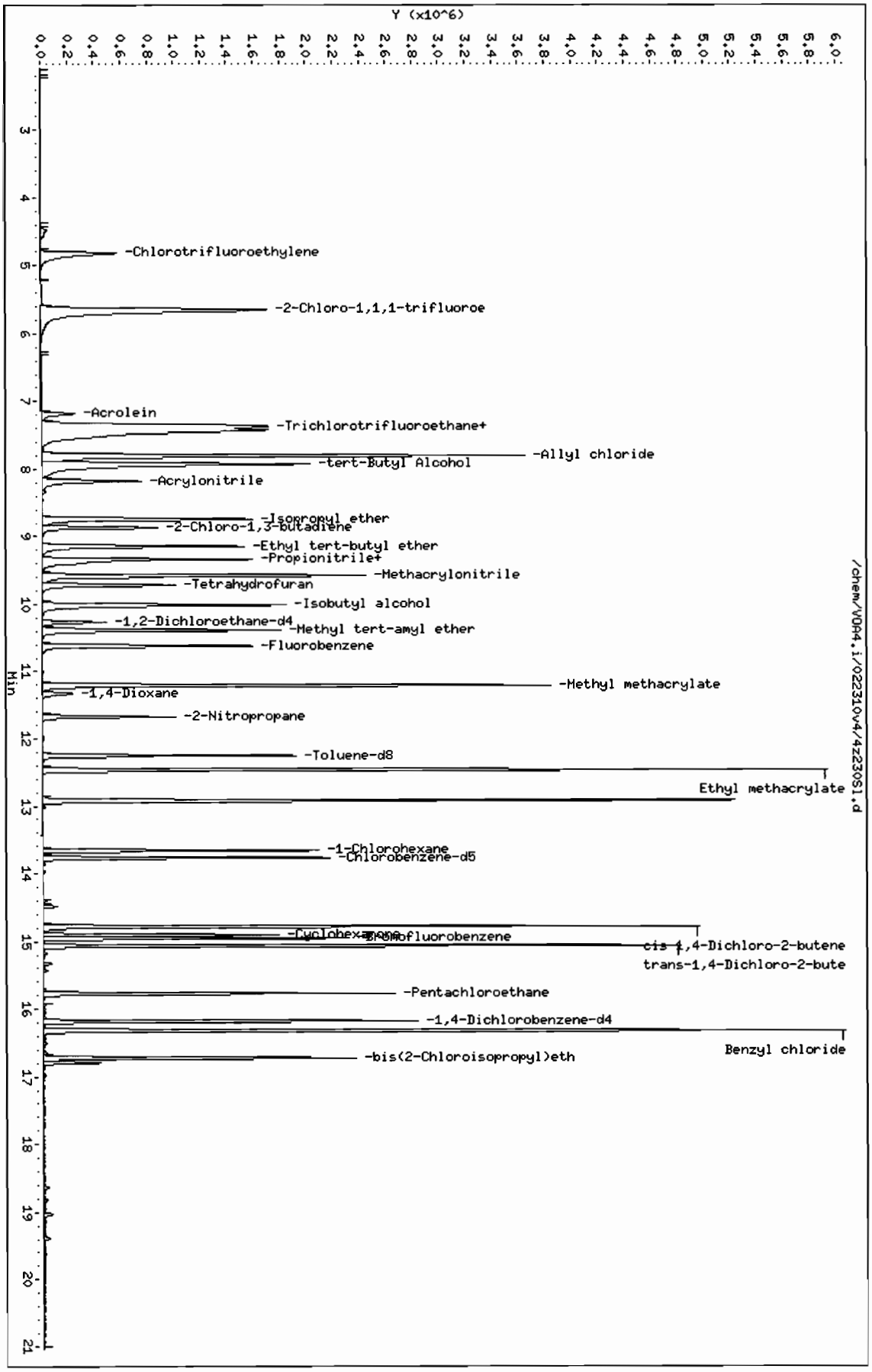

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**			**Matrix:**	**WATER**
Lab Sample ID:	**1202053166**				
Client Sample:	**QC for batch 956860**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 956860**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 05:54**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/25/2010 05:54**				
Data File:	**4z329LL.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		31.8	ug/L	0.300	1.00
74-87-3	Chloromethane		41.3	ug/L	0.300	1.00
75-01-4	Vinyl chloride		48.9	ug/L	0.500	1.00
74-83-9	Bromomethane		53.7	ug/L	0.300	1.00
75-00-3	Chloroethane		48.9	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		48.0	ug/L	0.300	1.00
60-29-7	Ethyl ether		48.7	ug/L	0.300	1.00
67-64-1	Acetone		216	ug/L	3.50	10.0
75-05-8	Acetonitrile		1530	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		43.9	ug/L	0.300	1.00
74-88-4	Iodomethane		237	ug/L	1.25	5.00
75-09-2	Methylene chloride		44.7	ug/L	3.00	10.0
75-15-0	Carbon disulfide		245	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		48.0	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		46.4	ug/L	0.300	1.00
108-05-4	Vinyl acetate		260	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		47.0	ug/L	0.300	1.00
78-93-3	2-Butanone		211	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		49.7	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		51.5	ug/L	0.300	1.00
67-66-3	Chloroform		47.1	ug/L	0.250	1.00
74-97-5	Bromochloromethane		48.2	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		47.5	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		46.4	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		6280	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		48.6	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		50.1	ug/L	0.250	1.00
71-43-2	Benzene		45.9	ug/L	0.300	1.00
79-01-6	Trichloroethylene		47.2	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		48.3	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		47.6	ug/L	0.250	1.00
74-95-3	Dibromomethane		47.6	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		240	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		46.9	ug/L	0.250	1.00
108-88-3	Toluene		44.4	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		47.2	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		45.8	ug/L	0.250	1.00
591-78-6	2-Hexanone		207	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**			**Matrix:**	**WATER**
Lab Sample ID:	**1202053166**				
Client Sample:	**QC for batch 956860**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 956860**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 05:54**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/25/2010 05:54**				
Data File:	**4z329LL.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		48.5	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		43.9	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		47.9	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		47.8	ug/L	0.250	1.00
108-90-7	Chlorobenzene		46.2	ug/L	0.250	1.00
100-41-4	Ethylbenzene		45.2	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		92.2	ug/L	0.500	2.00
95-47-6	o-Xylene		47.4	ug/L	0.300	1.00
100-42-5	Styrene		48.0	ug/L	0.250	1.00
75-25-2	Bromoform		46.9	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		45.8	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		45.5	ug/L	0.300	1.00
108-86-1	Bromobenzene		45.8	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		43.5	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		45.6	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		42.3	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		44.7	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		45.0	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		41.9	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		44.3	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		44.4	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		44.9	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		46.2	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		46.4	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		44.6	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		47.7	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		42.5	ug/L	0.300	1.00
91-20-3	Naphthalene		49.4	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		48.0	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**			**Matrix:**	**WATER**
Lab Sample ID:	**1202053166**				
Client Sample:	**QC for batch 956860**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 956860**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 05:54**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/25/2010 05:54**				
Data File:	**4z329LL.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		47.4	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		46.0	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		46.6	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	46.5	50.0	ug/L	93.1	(72%-132%)
Bromofluorobenzene	50.2	50.0	ug/L	100	(77%-123%)
Toluene-d8	45.2	50.0	ug/L	90.4	(76%-122%)

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/022410v4/4z329LL.d
Lab Smp Id: 1202053166 Client Smp ID: LCS
Inj Date : 25-FEB-2010 05:54
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202053166|956860|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM100220-01A/IVM100224-01
Comment :
Method : /chem/VOA4.i/022410v4/VOA4-8260-021910PM.m
Meth Date : 25-Feb-2010 16:00 amj Quant Type: ISTD
Cal Date : 20-FEB-2010 04:09 Cal File: 4y518.d
Als bottle: 29 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
M 1 Xylenes (total)	106				3083371	139.579	140
M 2 1,2-Dichloroethylene (total)	96				1421011	96.1266	96.1
M 135 1,3-Dichloropropylene	75				1569558	94.9828	95.0
3 Dichlorodifluoromethane	85	4.904	4.904	(0.462)	328984	31.7638	31.8
4 Chloromethane	50	5.284	5.292	(0.498)	668333	41.2987	41.3
5 Vinyl chloride	62	5.514	5.514	(0.520)	700503	48.8591	48.8
6 Bromomethane	94	6.123	6.130	(0.577)	429388	53.6812	53.7
7 Chloroethane	64	6.288	6.295	(0.592)	383607	48.8622	48.9
8 Trichlorofluoromethane	101	6.674	6.674	(0.629)	804308	48.0260	48.0
134 Ethyl Ether	59	6.997	6.997	(0.659)	390350	48.6581	48.6
10 Acetone	43	7.351	7.357	(0.693)	1715374	216.132	216
11 1,1-Dichloroethylene	61	7.388	7.394	(0.696)	860743	43.9426	43.9
13 Iodomethane	142	7.656	7.668	(0.721)	4502962	237.474	237
15 Acetonitrile	41	7.698	7.699	(0.725)	1957337	1534.87	1530(R)
128 Methyl acetate	43	7.747	7.747	(0.730)	2052528	273.732	274

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
14 Carbon disulfide	76	7.778	7.784	(0.733)	8511637	245.286	245
17 Methylene chloride	84	7.936	7.942	(0.748)	601795	44.7343	44.7
20 tert-Butyl methyl ether	73	8.241	8.241	(0.777)	1436798	47.9557	48.0
21 trans-1,2-Dichloroethylene	61	8.278	8.284	(0.780)	668342	46.4006	46.4
23 Vinyl acetate	43	8.704	8.710	(0.820)	4467097	259.706	260
22 1,1-Dichloroethane	63	8.753	8.759	(0.825)	849511	47.0283	47.0
30 2-Butanone	43	9.326	9.326	(0.879)	1939731	211.061	211
31 cis-1,2-Dichloroethylene	61	9.387	9.387	(0.885)	752669	49.7260	49.7
25 2,2-Dichloropropane	77	9.418	9.418	(0.887)	433124	51.4979	51.5
29 Bromochloromethane	128	9.655	9.655	(0.910)	268453	48.1863	48.2
32 Chloroform	83	9.692	9.692	(0.913)	890720	47.0824	47.1
36 1,1,1-Trichloroethane	97	9.979	9.979	(0.940)	680737	47.4673	47.5
129 Cyclohexane	56	10.082	10.082	(0.950)	769568	41.5618	41.6
34 1,1-Dichloropropene	75	10.131	10.137	(0.955)	646664	46.4322	46.4
33 Carbon tetrachloride	117	10.174	10.174	(0.959)	652309	48.6492	48.6
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.967)	377156	46.5349	46.5
37 1,2-Dichloroethane	62	10.338	10.344	(0.974)	723681	50.1237	50.1
38 Benzene	78	10.369	10.375	(0.977)	1900597	45.8736	45.9
139 Cyclohexene	67	10.491	10.497	(0.988)	905358	44.3493	44.3
* 40 Fluorobenzene	96	10.613	10.619	(1.000)	1598548	50.0000	
131 n-Butyl alcohol	56	10.686	10.692	(1.007)	2169653	6275.69	6280
39 Trichloroethylene	95	11.003	11.003	(1.037)	521242	47.1895	47.2
130 Methylcyclohexane	83	11.259	11.265	(1.061)	789231	43.7520	43.8
41 1,2-Dichloropropane	63	11.240	11.247	(1.059)	511602	48.3107	48.3
43 Dibromomethane	93	11.375	11.375	(1.072)	326166	47.6085	47.6
45 Bromodichloromethane	83	11.484	11.484	(1.082)	696473	47.6149	47.6
44 2-Chloroethylvinyl ether	63	11.698	11.698	(1.102)	1408751	261.352	261
46 cis-1,3-Dichloropropylene	75	11.929	11.929	(1.124)	796876	46.9033	46.9
49 4-Methyl-2-pentanone	58	12.021	12.021	(0.873)	1137693	240.364	240
$ 47 Toluene-d8	98	12.252	12.252	(0.890)	1330780	45.1945	45.2
50 Toluene	92	12.326	12.326	(0.895)	1228367	44.3689	44.4
53 trans-1,3-Dichloropropylene	75	12.460	12.466	(0.905)	772682	47.2288	47.2
54 1,1,2-Trichloroethane	83	12.685	12.685	(0.921)	390773	45.7884	45.8
55 2-Hexanone	43	12.862	12.856	(0.934)	2618306	206.735	207
52 1,3-Dichloropropane	76	12.874	12.874	(0.935)	794726	48.4688	48.5
56 Tetrachloroethylene	164	12.917	12.923	(0.938)	406377	43.8792	43.9
57 Dibromochloromethane	129	13.149	13.149	(0.955)	574328	47.8895	47.9
59 1,2-Dibromoethane	107	13.319	13.319	(0.967)	500934	47.8360	47.8
* 61 Chlorobenzene-d5	117	13.770	13.771	(1.000)	1321645	50.0000	
62 Chlorobenzene	112	13.801	13.801	(1.002)	1439076	46.2486	46.2
60 1,1,1,2-Tetrachloroethane	131	13.850	13.850	(1.006)	563061	47.4142	47.4
58 Ethylbenzene	91	13.862	13.862	(1.007)	2481155	45.2314	45.2
63 m,p-Xylenes	106	13.972	13.972	(1.015)	2014792	92.2124	92.2
64 o-Xylene	106	14.404	14.405	(1.046)	1068579	47.3668	47.4
65 Styrene	104	14.404	14.405	(1.046)	1833962	48.0326	48.0
66 Bromoform	173	14.661	14.661	(0.906)	432107	46.9026	46.9
67 Isopropylbenzene	105	14.758	14.758	(0.912)	2707005	42.2631	42.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
$ 71 Bromofluorobenzene	95	14.953	14.953	(0.924)	843824	50.1915	50.2
73 1,1,2,2-Tetrachloroethane	83	15.020	15.020	(0.928)	780074	45.8387	45.8
74 1,2,3-Trichloropropane	110	15.112	15.112	(0.934)	206506	45.5246	45.5
75 Bromobenzene	156	15.167	15.167	(0.937)	775489	45.7637	45.8
76 n-Propylbenzene	91	15.185	15.185	(0.939)	3369848	43.4667	43.5
78 1,3,5-Trimethylbenzene	105	15.331	15.331	(0.948)	2621408	44.6622	44.7
77 2-Chlorotoluene	91	15.331	15.331	(0.948)	2452898	45.5591	45.6
80 4-Chlorotoluene	91	15.429	15.429	(0.954)	2165958	45.0383	45.0
81 tert-Butylbenzene	119	15.703	15.703	(0.971)	2427725	41.8912	41.9
79 1,2,4-Trimethylbenzene	105	15.746	15.746	(0.973)	2685232	44.2990	44.3
83 sec-Butylbenzene	105	15.935	15.935	(0.985)	3452500	44.3780	44.4
84 4-Isopropyltoluene	119	16.050	16.051	(0.992)	2881633	44.8548	44.8
85 1,3-Dichlorobenzene	146	16.124	16.124	(0.997)	1563888	46.2481	46.2
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.179	(1.000)	918208	50.0000	
87 1,4-Dichlorobenzene	146	16.209	16.209	(1.002)	1588424	46.4057	46.4
89 n-Butylbenzene	91	16.502	16.508	(1.020)	2747880	44.6478	44.6
90 1,2-Dichlorobenzene	146	16.642	16.642	(1.029)	1505523	46.5699	46.6
92 1,2-Dibromo-3-chloropropane	157	17.532	17.532	(1.084)	153600	47.6730	47.7
93 1,2,4-Trichlorobenzene	180	18.635	18.629	(1.152)	831592	45.9954	46.0
94 Hexachlorobutadiene	225	18.818	18.818	(1.163)	506705	42.4588	42.4
95 Naphthalene	128	19.032	19.032	(1.176)	1956002	49.3587	49.4
96 1,2,3-Trichlorobenzene	180	19.385	19.391	(1.198)	697209	47.9888	48.0

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/VOA4.i/022410v4/4z329LL.d
Date : 25-FEB-2010 05:54
Client ID: LCS
Sample Info: 1120205316619568601 1|VOAF11|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

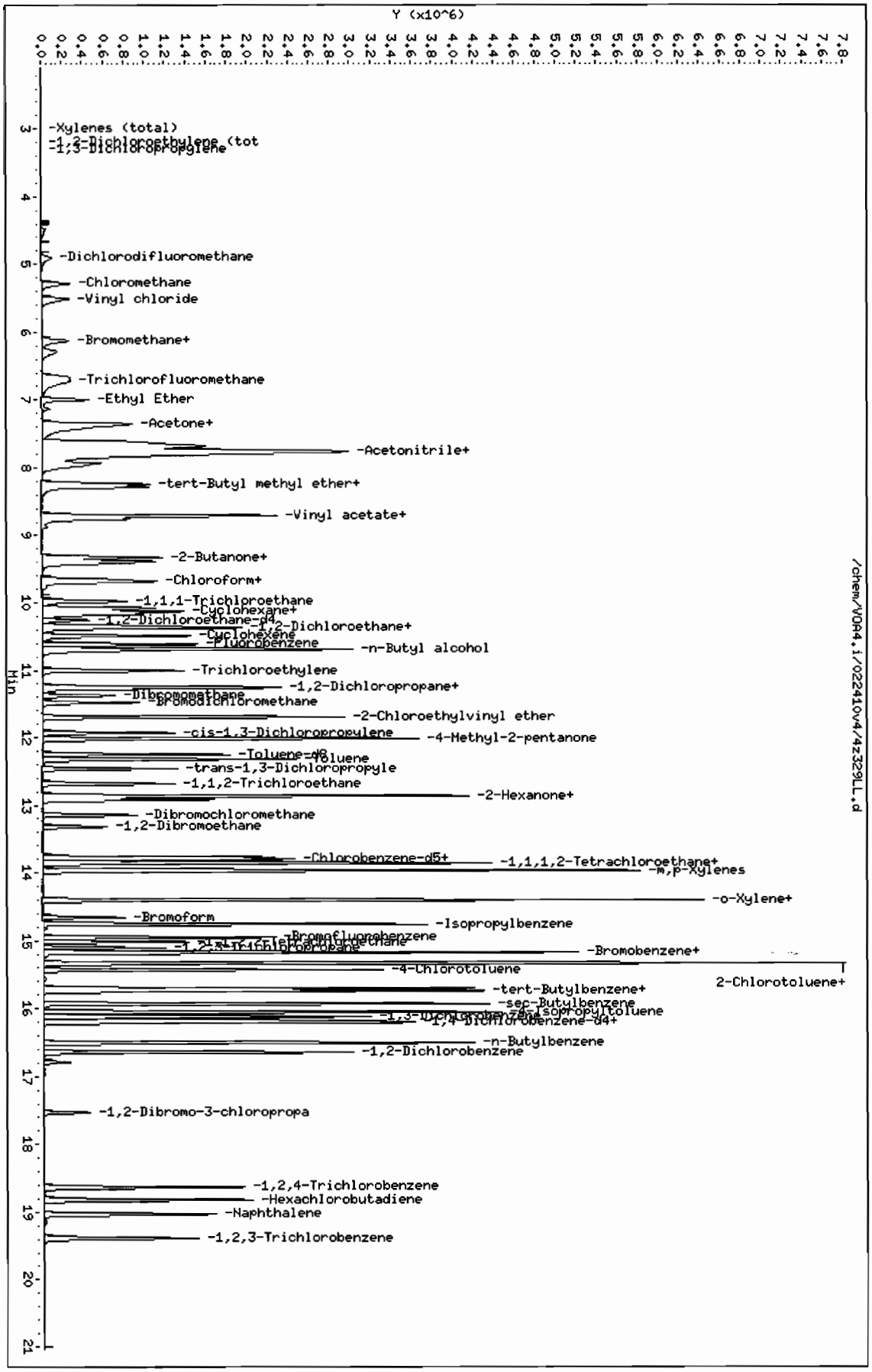

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**			**Matrix:**	**WATER**
Lab Sample ID:	**1202053167**				
Client Sample:	**QC for batch 956860**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 956860**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 06:22**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/25/2010 06:22**				
Data File:	**4z330SL.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**			**Matrix:**	**WATER**
Lab Sample ID:	**1202053167**				
Client Sample:	**QC for batch 956860**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 956860**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 06:22**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/25/2010 06:22**				
Data File:	**4z330SL.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein		266	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane		186	ug/L	1.00	5.00
107-05-1	Allyl chloride		222	ug/L	1.50	5.00
107-13-1	Acrylonitrile		217	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene		42.8	ug/L	0.300	1.00
107-12-0	Propionitrile		220	ug/L	1.50	5.00
126-98-7	Methacrylonitrile		222	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol		2560	ug/L	12.5	50.0
80-62-6	Methyl methacrylate		209	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**			**Matrix:**	**WATER**
Lab Sample ID:	**1202053167**				
Client Sample:	**QC for batch 956860**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 956860**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/25/2010 06:22**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/25/2010 06:22**				
Data File:	**4z330SL.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate		209	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	47.0	50.0	ug/L	93.9	(72%-132%)
Bromofluorobenzene	52.8	50.0	ug/L	106	(77%-123%)
Toluene-d8	46.2	50.0	ug/L	92.3	(76%-122%)

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/022410v4/4z330SL.d
Lab Smp Id: 1202053167 Client Smp ID: LCS
Inj Date : 25-FEB-2010 06:22
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202053167|956860|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091216-08B/UVM100125-08D
Comment :
Method : /chem/VOA4.i/022410v4/VOA4-8260-021910PM.m
Meth Date : 25-Feb-2010 16:00 amj Quant Type: ISTD
Cal Date : 20-FEB-2010 04:09 Cal File: 4y518.d
Als bottle: 30 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
153 Chlorotrifluoroethylene	116	4.825	4.825	(0.454)	848899	140.765	141
154 2-Chloro-1,1,1-trifluoroethane	118	5.657	5.657	(0.533)	2753604	161.995	162
9 Acrolein	56	7.181	7.181	(0.676)	351133	265.747	266
12 Trichlorotrifluoroethane	85	7.364	7.364	(0.693)	863621	186.137	186
147 Isopropyl Alcohol	45	7.431	7.431	(0.700)	2557745	3114.47	3110
16 Allyl chloride	41	7.797	7.797	(0.734)	3117473	221.649	222
148 tert-Butyl Alcohol	59	7.925	7.925	(0.746)	4091624	2992.35	2990
18 Acrylonitrile	53	8.175	8.175	(0.770)	829602	217.108	217
149 Isopropyl ether	45	8.742	8.742	(0.823)	1731742	50.7357	50.7
24 2-Chloro-1,3-butadiene	53	8.870	8.870	(0.835)	599174	42.8407	42.8
150 Ethyl tert-butyl ether	59	9.144	9.144	(0.861)	1648355	50.3248	50.3
26 Ethyl acetate	43	9.339	9.339	(0.879)	2183741	203.038	203
28 Propionitrile	54	9.388	9.388	(0.884)	346661	220.254	220
27 Methacrylonitrile	41	9.577	9.577	(0.902)	1430017	221.533	222
72 Tetrahydrofuran	42	9.717	9.717	(0.601)	753545	224.196	224

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
19 Isobutyl alcohol	41	10.004	10.004	(0.942)	1141414	2556.55	2560
$ 138 1,2-Dichloroethane-d4	65	10.260	10.259	(0.966)	389479	46.9548	47.0
151 Methyl tert-amyl ether	73	10.388	10.388	(0.978)	1568641	49.4973	49.5
* 40 Fluorobenzene	96	10.620	10.619	(1.000)	1636017	50.0000	
42 Methyl methacrylate	69	11.205	11.205	(1.055)	1593407	209.255	209
97 1,4-Dioxane	88	11.327	11.327	(1.067)	279678	2597.53	2600
48 2-Nitropropane	43	11.674	11.674	(1.099)	824174	231.643	232
$ 47 Toluene-d8	98	12.254	12.252	(0.890)	1375386	46.1520	46.2
51 Ethyl methacrylate	69	12.467	12.467	(0.905)	3041844	209.454	209
152 1-Chlorohexane	55	13.662	13.662	(1.286)	520781	51.1983	51.2
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	1337607	50.0000	
68 cis-1,4-Dichloro-2-butene	53	14.783	14.783	(0.914)	1103528	244.465	244
70 Cyclohexanone	42	14.905	14.905	(1.082)	614254	1652.89	1650(A)
$ 71 Bromofluorobenzene	95	14.954	14.953	(0.924)	830510	52.7950	52.8
69 trans-1,4-Dichloro-2-butene	53	15.064	15.064	(0.931)	1047494	249.268	249
82 Pentachloroethane	167	15.771	15.771	(0.975)	954266	181.843	182
* 86 1,4-Dichlorobenzene-d4	152	16.180	16.179	(1.000)	859155	50.0000	
88 Benzyl chloride	91	16.320	16.320	(1.009)	4862893	217.895	218
91 bis(2-Chloroisopropyl)ether	45	16.722	16.722	(1.034)	1578884	235.028	235

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA4.i/022410v4/4z330SL.d
Date : 25-FEB-2010 06:22
Client ID: LCS
Sample Info: 1120205316719568601 1|VOAF11|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

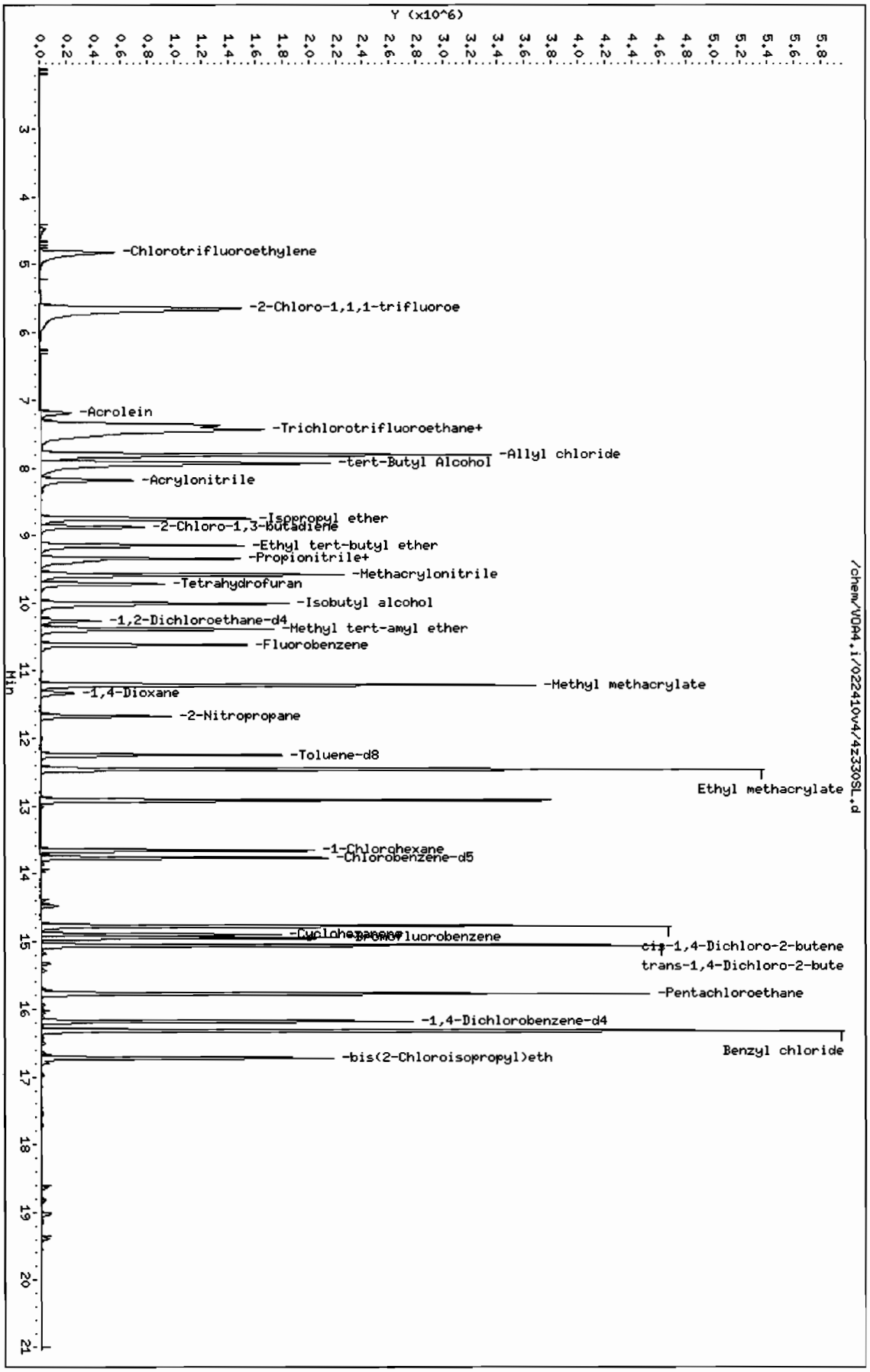

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202051631**	**Date Received:**	**02/17/2010 08:45**		
Client Sample:	**QC for batch 956860**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12691PS**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 13:02**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/24/2010 13:02**				
Data File:	**4z243.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		36.8	ug/L	0.300	1.00
74-87-3	Chloromethane		45.9	ug/L	0.300	1.00
75-01-4	Vinyl chloride		50.9	ug/L	0.500	1.00
74-83-9	Bromomethane		52.0	ug/L	0.300	1.00
75-00-3	Chloroethane		50.9	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		46.8	ug/L	0.300	1.00
60-29-7	Ethyl ether		51.3	ug/L	0.300	1.00
67-64-1	Acetone		117	ug/L	3.50	10.0
75-05-8	Acetonitrile		1550	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		45.7	ug/L	0.300	1.00
74-88-4	Iodomethane		224	ug/L	1.25	5.00
75-09-2	Methylene chloride		45.8	ug/L	3.00	10.0
75-15-0	Carbon disulfide		252	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		48.1	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		47.2	ug/L	0.300	1.00
108-05-4	Vinyl acetate		307	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		48.7	ug/L	0.300	1.00
78-93-3	2-Butanone		158	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		49.6	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		45.2	ug/L	0.300	1.00
67-66-3	Chloroform		47.7	ug/L	0.250	1.00
74-97-5	Bromochloromethane		47.0	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		45.6	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		45.3	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		6040	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		47.2	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		51.7	ug/L	0.250	1.00
71-43-2	Benzene		45.5	ug/L	0.300	1.00
79-01-6	Trichloroethylene		43.5	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		48.7	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		48.1	ug/L	0.250	1.00
74-95-3	Dibromomethane		47.8	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		248	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		44.9	ug/L	0.250	1.00
108-88-3	Toluene		42.6	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		44.8	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		46.4	ug/L	0.250	1.00
591-78-6	2-Hexanone		175	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202051631**	**Date Received:**	**02/17/2010 08:45**		
Client Sample:	**QC for batch 956860**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12691PS**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 13:02**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/24/2010 13:02**				
Data File:	**4z243.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		48.0	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		38.4	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		47.0	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		46.8	ug/L	0.250	1.00
108-90-7	Chlorobenzene		42.8	ug/L	0.250	1.00
100-41-4	Ethylbenzene		41.6	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		82.5	ug/L	0.500	2.00
95-47-6	o-Xylene		43.1	ug/L	0.300	1.00
100-42-5	Styrene		43.2	ug/L	0.250	1.00
75-25-2	Bromoform		44.4	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		47.8	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		46.1	ug/L	0.300	1.00
108-86-1	Bromobenzene		41.5	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		38.5	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		41.2	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		38.7	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		39.4	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		39.2	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		39.7	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		38.4	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		38.2	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		36.8	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		39.1	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		38.6	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		34.9	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		44.6	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		27.0	ug/L	0.300	1.00
91-20-3	Naphthalene		41.4	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		35.6	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202051631**	**Date Received:**	**02/17/2010 08:45**		
Client Sample:	**QC for batch 956860**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12691PS**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 13:02**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/24/2010 13:02**				
Data File:	**4z243.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		44.9	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		33.0	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		40.9	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	49.7	50.0	ug/L	99.5	(72%-132%)
Bromofluorobenzene	52.0	50.0	ug/L	104	(77%-123%)
Toluene-d8	47.3	50.0	ug/L	94.6	(76%-122%)

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/022310v4/4z243.d
Lab Smp Id: 1202051631 Client Smp ID: CAPA-10-12691MS
Inj Date : 24-FEB-2010 13:02
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202051631|956860|1|VOAF|1|
Misc Info : LANL 5ML PH2 MS 247261002
Comment :
Method : /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m
Meth Date : 24-Feb-2010 15:17 amj Quant Type: ISTD
Cal Date : 20-FEB-2010 04:09 Cal File: 4y518.d
Als bottle: 43 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1886.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 40 Fluorobenzene	96	10.620	10.620	(1.000)	1504559	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.772	(1.000)	1243650	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.180	(1.000)	840935	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.260	10.260	(0.966)	379356	49.7304	49.7
$ 47 Toluene-d8	98	12.253	12.254	(0.890)	1310275	47.2888	47.3
$ 71 Bromofluorobenzene	95	14.954	14.954	(0.924)	800235	51.9726	52.0
3 Dichlorodifluoromethane	85	4.911	4.904	(0.462)	358789	36.8055	36.8
4 Chloromethane	50	5.291	5.292	(0.498)	698497	45.8590	45.8
5 Vinyl chloride	62	5.521	5.514	(0.520)	686501	50.8737	50.9
6 Bromomethane	94	6.137	6.130	(0.578)	391175	51.9588	52.0
7 Chloroethane	64	6.302	6.295	(0.593)	376414	50.9412	50.9
8 Trichlorofluoromethane	101	6.669	6.669	(0.628)	737249	46.7719	46.8
134 Ethyl ether	59	6.998	6.999	(0.659)	387416	51.3092	51.3
10 Acetone	43	7.352	7.352	(0.692)	871309	116.640	117
15 Acetonitrile	41	7.699	7.700	(0.725)	1859379	1549.14	1550

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
11 1,1-Dichloroethylene	61	7.401	7.395	(0.697)	842198	45.6818	45.7
87 1,4-Dichlorobenzene	146	16.210	16.204	(1.002)	1209961	38.5971	38.6
93 1,2,4-Trichlorobenzene	180	18.630	18.630	(1.151)	545615	32.9510	33.0
13 Iodomethane	142	7.669	7.663	(0.722)	3992976	223.734	224
17 Methylene chloride	84	7.943	7.937	(0.748)	579752	45.7879	45.8
14 Carbon disulfide	76	7.785	7.779	(0.733)	8215698	251.547	252
20 tert-Butyl methyl ether	73	8.242	8.242	(0.776)	1356611	48.1079	48.1
21 trans-1,2-Dichloroethylene	61	8.285	8.279	(0.780)	639451	47.1681	47.2
23 Vinyl acetate	43	8.711	8.706	(0.820)	4972421	307.144	307
22 1,1-Dichloroethane	63	8.760	8.760	(0.825)	827468	48.6697	48.7
30 2-Butanone	43	9.327	9.327	(0.878)	1367201	158.057	158
31 cis-1,2-Dichloroethylene	61	9.388	9.388	(0.884)	706259	49.5747	49.6
85 1,3-Dichlorobenzene	146	16.119	16.119	(0.996)	1209620	39.0585	39.0
25 2,2-Dichloropropane	77	9.419	9.419	(0.887)	357556	45.1687	45.2
32 Chloroform	83	9.693	9.693	(0.913)	848556	47.6556	47.6
90 1,2-Dichlorobenzene	146	16.643	16.643	(1.029)	1209679	40.8571	40.8
29 Bromochloromethane	128	9.656	9.657	(0.909)	246263	46.9646	47.0
36 1,1,1-Trichloroethane	97	9.979	9.980	(0.940)	615973	45.6345	45.6
34 1,1-Dichloropropene	75	10.132	10.132	(0.954)	594228	45.3325	45.3
131 n-Butyl alcohol	56	10.693	10.687	(1.007)	1965474	6040.25	6040
33 Carbon tetrachloride	117	10.175	10.175	(0.958)	596100	47.2344	47.2
37 1,2-Dichloroethane	62	10.345	10.339	(0.974)	701921	51.6536	51.6
38 Benzene	78	10.376	10.376	(0.977)	1775355	45.5276	45.5
39 Trichloroethylene	95	11.004	11.004	(1.036)	452013	43.4783	43.5
41 1,2-Dichloropropane	63	11.241	11.242	(1.059)	485807	48.7406	48.7
45 Bromodichloromethane	83	11.485	11.485	(1.082)	661647	48.0597	48.0
43 Dibromomethane	93	11.376	11.376	(1.071)	307974	47.7614	47.8
95 Naphthalene	128	19.033	19.033	(1.176)	1503012	41.4129	41.4
49 4-Methyl-2-pentanone	58	12.022	12.022	(0.873)	1106135	248.353	248
94 Hexachlorobutadiene	225	18.819	18.819	(1.163)	295358	27.0234	27.0
46 cis-1,3-Dichloropropylene	75	11.930	11.931	(1.123)	718132	44.9090	44.9
50 Toluene	92	12.327	12.327	(0.895)	1110805	42.6388	42.6
53 trans-1,3-Dichloropropylene	75	12.467	12.467	(0.905)	689467	44.7854	44.8
54 1,1,2-Trichloroethane	83	12.686	12.686	(0.921)	372578	46.3943	46.4
55 2-Hexanone	43	12.857	12.857	(0.934)	2083876	174.856	175
52 1,3-Dichloropropane	76	12.875	12.875	(0.935)	740951	48.0232	48.0
56 Tetrachloroethylene	164	12.924	12.918	(0.938)	334308	38.3613	38.4
57 Dibromochloromethane	129	13.150	13.150	(0.955)	529920	46.9577	47.0
59 1,2-Dibromoethane	107	13.320	13.320	(0.967)	460776	46.7607	46.8
62 Chlorobenzene	112	13.802	13.802	(1.002)	1253819	42.8219	42.8
60 1,1,1,2-Tetrachloroethane	131	13.851	13.851	(1.006)	501645	44.8917	44.9
58 Ethylbenzene	91	13.863	13.863	(1.007)	2144810	41.5520	41.6
63 m,p-Xylenes	106	13.973	13.973	(1.015)	1695906	82.4855	82.5
64 o-Xylene	106	14.405	14.406	(1.046)	914792	43.0930	43.1
65 Styrene	104	14.405	14.400	(1.046)	1552502	43.2110	43.2
66 Bromoform	173	14.661	14.662	(0.906)	374391	44.3720	44.4
73 1,1,2,2-Tetrachloroethane	83	15.021	15.015	(0.928)	745024	47.8019	47.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
74 1,2,3-Trichloropropane	110	15.107	15.107	(0.934)	191632	46.1275	46.1
75 Bromobenzene	156	15.167	15.168	(0.937)	644674	41.5398	41.5
76 n-Propylbenzene	91	15.180	15.180	(0.938)	2733161	38.4938	38.5
77 2-Chlorotoluene	91	15.332	15.332	(0.948)	2031017	41.1896	41.2
67 Isopropylbenzene	105	14.759	14.759	(0.912)	2272409	38.7380	38.7
78 1,3,5-Trimethylbenzene	105	15.332	15.332	(0.948)	2116531	39.3739	39.4
80 4-Chlorotoluene	91	15.430	15.430	(0.954)	1727194	39.2150	39.2
81 tert-Butylbenzene	119	15.704	15.704	(0.971)	2108330	39.7228	39.7
79 1,2,4-Trimethylbenzene	105	15.741	15.741	(0.973)	2130222	38.3721	38.4
83 sec-Butylbenzene	105	15.930	15.930	(0.985)	2724674	38.2408	38.2
84 4-Isopropyltoluene	119	16.051	16.052	(0.992)	2167152	36.8331	36.8
89 n-Butylbenzene	91	16.503	16.503	(1.020)	1968832	34.9293	34.9
92 1,2-Dibromo-3-chloropropane	157	17.533	17.527	(1.084)	131531	44.5747	44.6
96 1,2,3-Trichlorobenzene	180	19.392	19.386	(1.199)	473968	35.6209	35.6

Data File: /chem/VOA4.i/022310v4/4z243.d
Date : 24-FEB-2010 13:02
Client ID: CAPA-10-12691WS
Sample Info: !120205163!!95686011!VOAF!1!
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

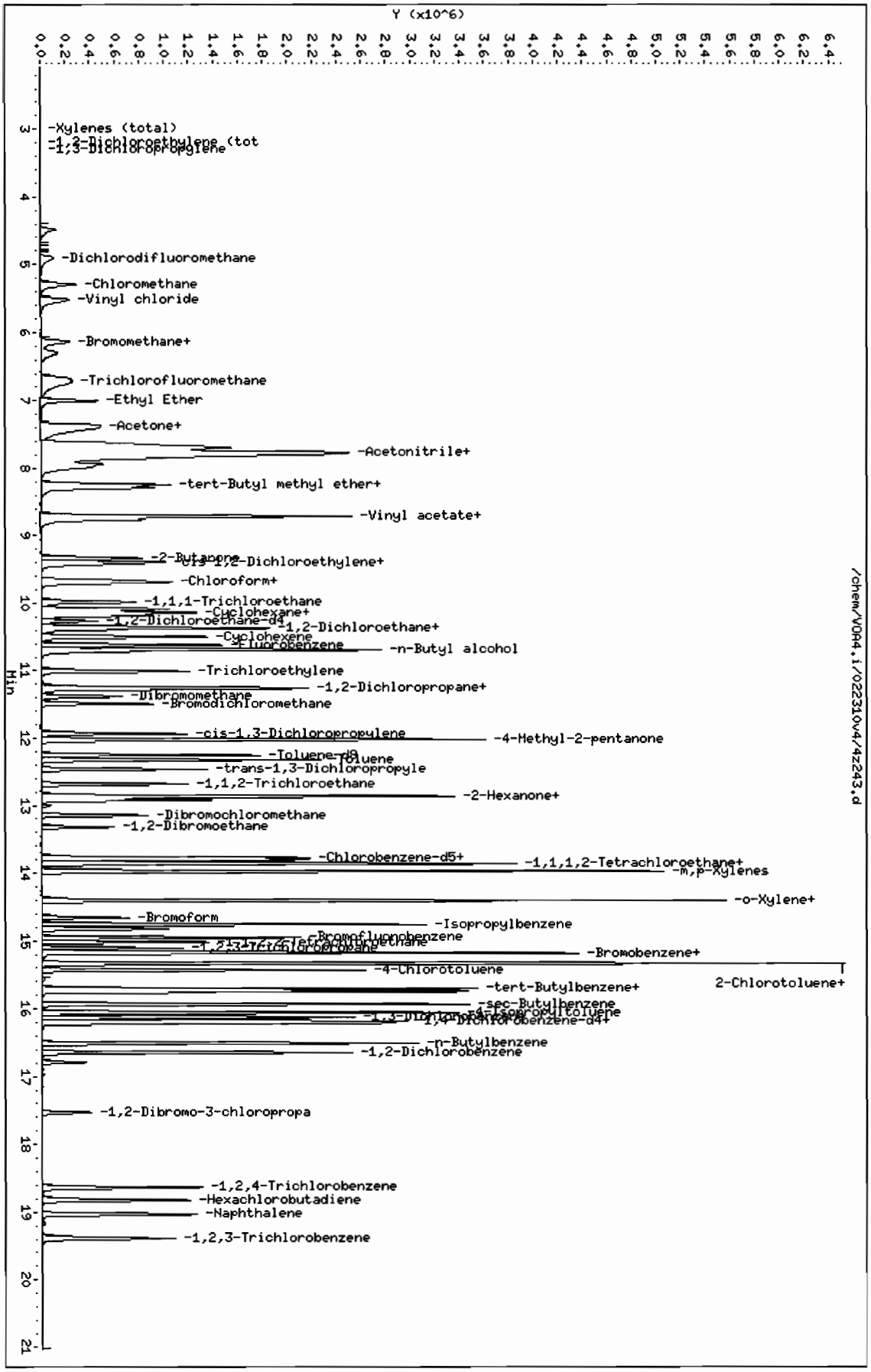

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202051632**	**Date Received:**	**02/17/2010 08:45**		
Client Sample:	**QC for batch 956860**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12691PSD**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 13:29**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/24/2010 13:29**				
Data File:	**4z244.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		36.3	ug/L	0.300	1.00
74-87-3	Chloromethane		45.6	ug/L	0.300	1.00
75-01-4	Vinyl chloride		49.7	ug/L	0.500	1.00
74-83-9	Bromomethane		52.9	ug/L	0.300	1.00
75-00-3	Chloroethane		50.9	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		45.5	ug/L	0.300	1.00
60-29-7	Ethyl ether		49.2	ug/L	0.300	1.00
67-64-1	Acetone		117	ug/L	3.50	10.0
75-05-8	Acetonitrile		1530	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		43.4	ug/L	0.300	1.00
74-88-4	Iodomethane		219	ug/L	1.25	5.00
75-09-2	Methylene chloride		45.6	ug/L	3.00	10.0
75-15-0	Carbon disulfide		243	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		47.3	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		44.8	ug/L	0.300	1.00
108-05-4	Vinyl acetate		298	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		46.1	ug/L	0.300	1.00
78-93-3	2-Butanone		157	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		46.8	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		42.0	ug/L	0.300	1.00
67-66-3	Chloroform		45.4	ug/L	0.250	1.00
74-97-5	Bromochloromethane		45.5	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		43.0	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		42.7	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol.		5900	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		43.7	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		49.3	ug/L	0.250	1.00
71-43-2	Benzene		43.2	ug/L	0.300	1.00
79-01-6	Trichloroethylene		40.1	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		46.8	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		45.9	ug/L	0.250	1.00
74-95-3	Dibromomethane		46.2	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		245	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		42.8	ug/L	0.250	1.00
108-88-3	Toluene		40.0	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		43.6	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		44.9	ug/L	0.250	1.00
591-78-6	2-Hexanone		173	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202051632**	**Date Received:**	**02/17/2010 08:45**		
Client Sample:	**QC for batch 956860**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12691PSD**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 13:29**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/24/2010 13:29**				
Data File:	**4z244.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		46.7	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		35.7	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		45.7	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		45.3	ug/L	0.250	1.00
108-90-7	Chlorobenzene		40.1	ug/L	0.250	1.00
100-41-4	Ethylbenzene		38.4	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		77.6	ug/L	0.500	2.00
95-47-6	o-Xylene		40.2	ug/L	0.300	1.00
100-42-5	Styrene		40.8	ug/L	0.250	1.00
75-25-2	Bromoform		45.2	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		47.6	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		45.9	ug/L	0.300	1.00
108-86-1	Bromobenzene		40.4	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		36.4	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		38.8	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		36.7	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		37.2	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		38.0	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		35.2	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		37.0	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		36.4	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		35.7	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		38.1	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		38.4	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		34.4	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		45.7	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		29.6	ug/L	0.300	1.00
91-20-3	Naphthalene		42.1	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		37.0	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202051632**	**Date Received:**	**02/17/2010 08:45**		
Client Sample:	**QC for batch 956860**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12691PSD**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**956860**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 13:29**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**02/24/2010 13:29**				
Data File:	**4z244.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		42.5	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		33.5	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		40.3	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	48.2	50.0	ug/L	96.5	(72%-132%)
Bromofluorobenzene	52.6	50.0	ug/L	105	(77%-123%)
Toluene-d8	47.1	50.0	ug/L	94.1	(76%-122%)

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/022310v4/4z244.d
Lab Smp Id: 1202051632 Client Smp ID: CAPA-10-12691MSD
Inj Date : 24-FEB-2010 13:29
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202051632|956860|1|VOAF|1|
Misc Info : LANL 5ML PH2 MSD 247261002
Comment :
Method : /chem/VOA4.i/022310v4/VOA4-8260-021910PM.m
Meth Date : 24-Feb-2010 15:17 amj Quant Type: ISTD
Cal Date : 20-FEB-2010 04:09 Cal File: 4y518.d
Als bottle: 44 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1886.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 40 Fluorobenzene	96	10.619	10.620	(1.000)	1590531	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.772	(1.000)	1300907	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.180	(1.000)	864506	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.259	10.260	(0.966)	388920	48.2283	48.2
$ 47 Toluene-d8	98	12.253	12.254	(0.890)	1364284	47.0710	47.1
$ 71 Bromofluorobenzene	95	14.953	14.954	(0.924)	832251	52.5782	52.6
3 Dichlorodifluoromethane	85	4.904	4.904	(0.462)	373888	36.2813	36.3
4 Chloromethane	50	5.299	5.292	(0.499)	734382	45.6088	45.6
5 Vinyl chloride	62	5.521	5.514	(0.520)	708868	49.6918	49.7
6 Bromomethane	94	6.145	6.130	(0.579)	420641	52.8527	52.8
7 Chloroethane	64	6.309	6.295	(0.594)	397802	50.9257	50.9
8 Trichlorofluoromethane	101	6.668	6.669	(0.628)	758590	45.5245	45.5
134 Ethyl ether	59	6.997	6.999	(0.659)	392668	49.1938	49.2
10 Acetone	43	7.351	7.352	(0.692)	921391	116.677	117
15 Acetonitrile	41	7.699	7.700	(0.725)	1936922	1526.52	1530

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
11 1,1-Dichloroethylene	61	7.400	7.395	(0.697)	846243	43.4201	43.4
87 1,4-Dichlorobenzene	146	16.209	16.204	(1.002)	1237103	38.3869	38.4
93 1,2,4-Trichlorobenzene	180	18.629	18.630	(1.151)	569512	33.4565	33.4
13 Iodomethane	142	7.668	7.663	(0.722)	4140253	219.446	219
17 Methylene chloride	84	7.979	7.937	(0.751)	609877	45.5636	45.6
14 Carbon disulfide	76	7.784	7.779	(0.733)	8378142	242.655	243
20 tert-Butyl methyl ether	73	8.241	8.242	(0.776)	1409850	47.2934	47.3
21 trans-1,2-Dichloroethylene	61	8.284	8.279	(0.780)	641663	44.7729	44.8
23 Vinyl acetate	43	8.704	8.706	(0.820)	5093145	297.596	298
22 1,1-Dichloroethane	63	8.759	8.760	(0.825)	829032	46.1260	46.1
30 2-Butanone	43	9.326	9.327	(0.878)	1434674	156.893	157
31 cis-1,2-Dichloroethylene	61	9.387	9.388	(0.884)	704352	46.7684	46.8
85 1,3-Dichlorobenzene	146	16.124	16.119	(0.997)	1214549	38.1484	38.1
25 2,2-Dichloropropane	77	9.418	9.419	(0.887)	351329	41.9831	42.0
32 Chloroform	83	9.692	9.693	(0.913)	853694	45.3527	45.4
90 1,2-Dichlorobenzene	146	16.642	16.643	(1.029)	1226561	40.2977	40.3
29 Bromochloromethane	128	9.655	9.657	(0.909)	251998	45.4607	45.5
36 1,1,1-Trichloroethane	97	9.979	9.980	(0.940)	612933	42.9548	43.0
34 1,1-Dichloropropene	75	10.131	10.132	(0.954)	591397	42.6779	42.7
131 n-Butyl alcohol	56	10.692	10.687	(1.007)	2028218	5896.16	5900
33 Carbon tetrachloride	117	10.174	10.175	(0.958)	583385	43.7282	43.7
37 1,2-Dichloroethane	62	10.338	10.339	(0.974)	707835	49.2733	49.3
38 Benzene	78	10.375	10.376	(0.977)	1781003	43.2037	43.2
39 Trichloroethylene	95	11.003	11.004	(1.036)	440444	40.0756	40.1
41 1,2-Dichloropropane	63	11.241	11.242	(1.059)	493036	46.7922	46.8
45 Bromodichloromethane	83	11.484	11.485	(1.082)	667323	45.8520	45.8
43 Dibromomethane	93	11.375	11.376	(1.071)	315223	46.2432	46.2
95 Naphthalene	128	19.032	19.033	(1.176)	1571750	42.1261	42.1
49 4-Methyl-2-pentanone	58	12.015	12.022	(0.872)	1143172	245.371	245
94 Hexachlorobutadiene	225	18.818	18.819	(1.163)	332728	29.6125	29.6
46 cis-1,3-Dichloropropylene	75	11.929	11.931	(1.123)	722809	42.7583	42.8
50 Toluene	92	12.326	12.327	(0.895)	1090826	40.0290	40.0
53 trans-1,3-Dichloropropylene	75	12.460	12.467	(0.905)	702510	43.6242	43.6
54 1,1,2-Trichloroethane	83	12.685	12.686	(0.921)	376938	44.8714	44.9
55 2-Hexanone	43	12.856	12.857	(0.934)	2152825	172.691	173
52 1,3-Dichloropropane	76	12.874	12.875	(0.935)	754424	46.7443	46.7
56 Tetrachloroethylene	164	12.917	12.918	(0.938)	325320	35.6869	35.7
57 Dibromochloromethane	129	13.143	13.150	(0.954)	539920	45.7381	45.7
59 1,2-Dibromoethane	107	13.319	13.320	(0.967)	466699	45.2773	45.3
62 Chlorobenzene	112	13.801	13.802	(1.002)	1227787	40.0873	40.1
60 1,1,1,2-Tetrachloroethane	131	13.850	13.851	(1.006)	496779	42.4996	42.5
58 Ethylbenzene	91	13.862	13.863	(1.007)	2075674	38.4427	38.4
63 m,p-Xylenes	106	13.972	13.973	(1.015)	1668526	77.5819	77.6
64 o-Xylene	106	14.405	14.406	(1.046)	893441	40.2348	40.2
65 Styrene	104	14.405	14.400	(1.046)	1533758	40.8104	40.8
66 Bromoform	173	14.661	14.662	(0.906)	391978	45.1898	45.2
73 1,1,2,2-Tetrachloroethane	83	15.020	15.015	(0.928)	762349	47.5799	47.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
74 1,2,3-Trichloropropane	110	15.106	15.107	(0.934)	196232	45.9469	45.9
75 Bromobenzene	156	15.167	15.168	(0.937)	645092	40.4334	40.4
76 n-Propylbenzene	91	15.185	15.180	(0.939)	2658330	36.4190	36.4
77 2-Chlorotoluene	91	15.331	15.332	(0.948)	1968810	38.8394	38.8
67 Isopropylbenzene	105	14.758	14.759	(0.912)	2211398	36.6701	36.7
78 1,3,5-Trimethylbenzene	105	15.331	15.332	(0.948)	2053350	37.1571	37.2
80 4-Chlorotoluene	91	15.429	15.430	(0.954)	1718634	37.9567	38.0
81 tert-Butylbenzene	119	15.703	15.704	(0.971)	1922001	35.2249	35.2
79 1,2,4-Trimethylbenzene	105	15.746	15.741	(0.973)	2109993	36.9714	37.0
83 sec-Butylbenzene	105	15.929	15.930	(0.985)	2664424	36.3756	36.4
84 4-Isopropyltoluene	119	16.051	16.052	(0.992)	2160808	35.7239	35.7
89 n-Butylbenzene	91	16.502	16.503	(1.020)	1994274	34.4160	34.4
92 1,2-Dibromo-3-chloropropane	157	17.526	17.527	(1.083)	138571	45.6801	45.7
96 1,2,3-Trichlorobenzene	180	19.385	19.386	(1.198)	506273	37.0113	37.0

Data File: /chem/VOA4.i/022310v4/4z244.d

Date : 24-FEB-2010 13:29

Client ID: CAPA-10-12691MSD

Sample Info: |1202051632|956860|1|VOAF|1|

Purge Volume: 5.0

Column phase: RTX-VOLATILES

Instrument: VOA4.i

Operator: ACJ

Column diameter: 0.25

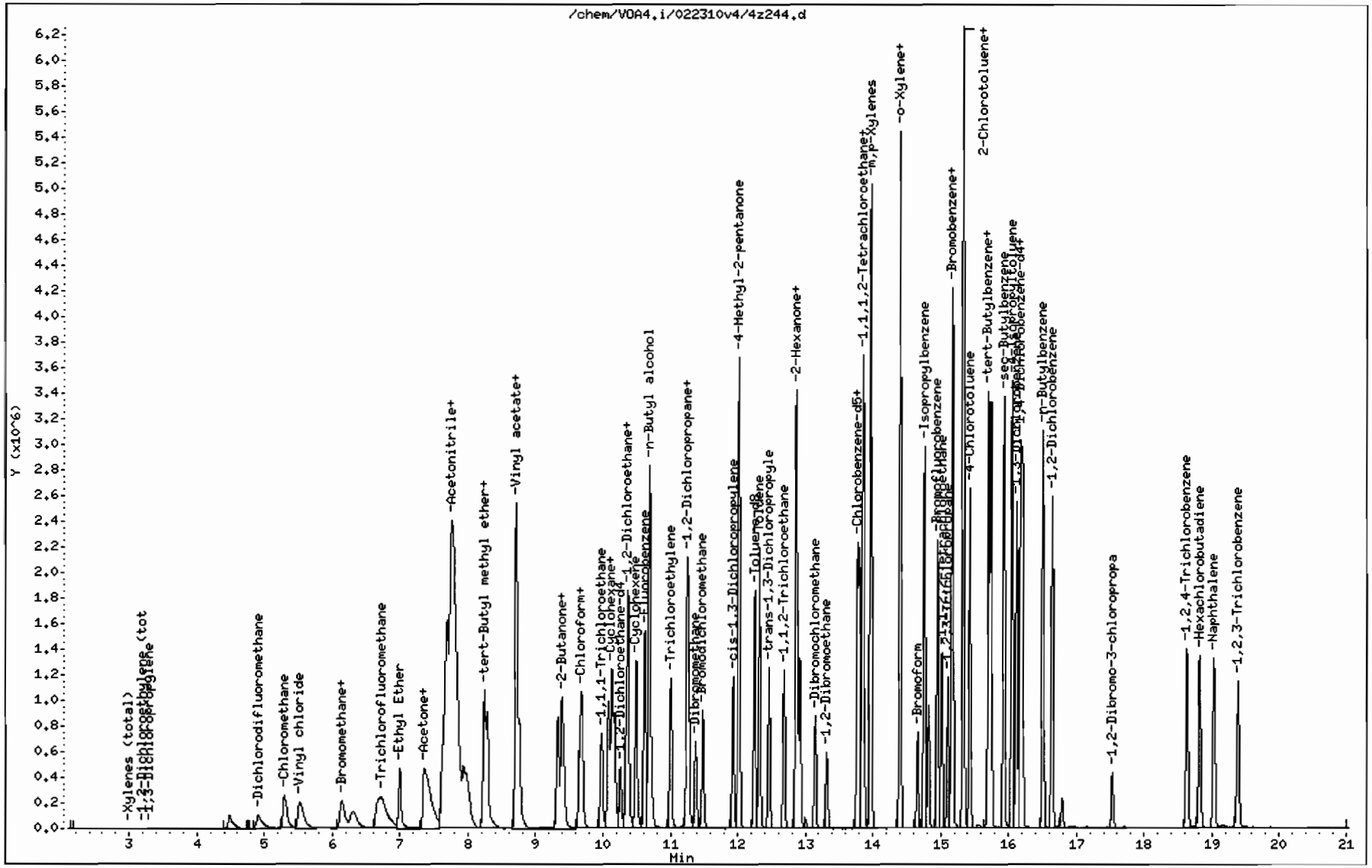

Miscellaneous Data

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA4

Date: 2/19/2010 Method 8260B/624 Operator: ACJ

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1671

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 2/19/2010

(See pg. 54 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # _____

Sequence Number: 021910V4

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	N/A				
IS	UVM100114-01	1	1	1	
SS	UVM091216-10	1	1	1	
LCS/MS	N/A				
BFB	UVM091216-10				1
SHORT	N/A				
DHEC	N/A				

Purge Amount	
5	Water Purge Vol:
N/A	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
2/19/2010 20:16	4Y501.D	UVM091216-10		BFB1	5ML	1	N/A	1	W	ACJ	N/A	O	
2/19/2010 20:44	4Y502.D	12020----	GEL	BLANK	5ML	1	N/A	2	w	ACJ	N/A	X	
2/19/2010 21:11	4Y503.D	W4VM100219-01	GEL	VSTD0005	5ML	1	N/A	3	w	ACJ	N/A	O	UVM100106-01C/UVM100202-01C
2/19/2010 21:39	4Y504.D	W4VM100219-02	GEL	VSTD001	5ML	1	N/A	4	w	ACJ	N/A	O	UVM100106-02C/UVM100202-02C
2/19/2010 22:07	4Y505.D	W4VM100219-03	GEL	VSTD001	5ML	1	N/A	5	w	ACJ	N/A	X	UVM100106-02C/UVM100202-02C; NOT NEEDED
2/19/2010 22:35	4Y506.D	W4VM100219-04	GEL	VSTD002	5ML	1	N/A	6	w	ACJ	N/A	O	UVM100106-03C/UVM100202-03C
2/19/2010 23:03	4Y507.D	W4VM100219-05	GEL	VSTD005	5ML	1	N/A	7	w	ACJ	N/A	O	UVM100106-04C/UVM100202-04C
2/19/2010 23:30	4Y508.D	W4VM100219-06	GEL	VSTD010	5ML	1	N/A	8	w	ACJ	N/A	O	UVM100106-05C/UVM100202-05C
2/19/2010 23:59	4Y509.D	W4VM100219-07	GEL	VSTD020	5ML	1	N/A	9	w	ACJ	N/A	O	UVM100106-06C/UVM100202-06C
2/20/2010 0:27	4Y510.D	W4VM100219-08	GEL	VSTD050	5ML	1	N/A	10	w	ACJ	N/A	O	UVM100106-07C/UVM100202-07C
2/20/2010 0:54	4Y511.D	W4VM100219-09	GEL	VSTD100	5ML	1	N/A	11	w	ACJ	N/A	O	UVM100106-08C/UVM100202-08C
2/20/2010 1:22	4Y512.D	12020----	GEL	BLANK	5ML	1	N/A	12	w	ACJ	N/A	X	
2/20/2010 1:50	4Y513.D	W4VM100219-10	GEL	VSTD005S	5ML	1	N/A	13	w	ACJ	N/A	O	UVM100215-01/UVM100125-01D
2/20/2010 2:18	4Y514.D	W4VM100219-11	GEL	VSTD010S	5ML	1	N/A	14	w	ACJ	N/A	O	UVM100215-02/UVM100125-02D
2/20/2010 2:46	4Y515.D	W4VM100219-12	GEL	VSTD025S	5ML	1	N/A	15	w	ACJ	N/A	O	UVM100215-03/UVM100125-03D
2/20/2010 3:13	4Y516.D	W4VM100219-13	GEL	VSTD050S	5ML	1	N/A	16	w	ACJ	N/A	O	UVM100215-04/UVM100125-04D
2/20/2010 3:41	4Y517.D	W4VM100219-14	GEL	VSTD100S	5ML	1	N/A	17	w	ACJ	N/A	O	UVM100215-05/UVM100125-05D
2/20/2010 4:09	4Y518.D	W4VM100219-15	GEL	VSTD250S	5ML	1	N/A	18	w	ACJ	N/A	O	UVM100215-06/UVM100125-06D
2/20/2010 4:37	4Y519.D	W4VM100219-16	GEL	VSTD500S	5ML	1	N/A	19	w	ACJ	N/A	O	UVM100215-07/UVM100125-07D
2/20/2010 5:05	4Y520.D	12020----	GEL	BLANK	5ML	1	N/A	20	w	ACJ	N/A	X	
2/20/2010 5:33	4Y521.D	W4VM100219-17	GEL	ICV	5ML	1	N/A	21	w	ACJ	N/A	X	UVM100125-02C/IVM100218-01
2/20/2010 6:01	4Y522.D	W4VM100219-18	GEL	ICV	5ML	1	N/A	22	w	ACJ	N/A	O	UVM100125-01E/IVM100218-01
2/20/2010 6:28	4Y523.D	W4VM100219-19	GEL	SHORTICV	5ML	1	N/A	23	w	ACJ	N/A	O	UVM091216-08B/UVM100125-08C

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA4

Date: 2/23/2010 Method 8260B/624 Operator: ACJ

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1671

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 2/19/2010

(See pg. 54 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 81710

Sequence Number: 022310V4PM

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W4VM100223-05		5+5		
IS	UVM100114-01	1	1	1	
SS	UVM091216-10	1	1	1	
LCS/MS	W4VM100223-06			5+5	
BFB	UVM091216-10				1
SHORT	W4VM100223-07		5+5	5+5	
DHEC	N/A			5	

Purge Amount	
5	Water Purge Vol:
N/A	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
2/24/2010 5:40	4Z227.D	UVM091216-10	GEL	BFB2	5ML	1	N/A	27	W	ACJ	N/A	O	
2/24/2010 6:08	4Z228.D	W4VM100223-05	GEL	CCV	5G	1	N/A	28	S	ACJ	N/A	O	UVM100220-01A/IVM100218-01
2/24/2010 6:35	4Z229.D	W4VM100223-06	GEL	LCS	5ML	1	N/A	29	W	ACJ	N/A	O	UVM100220-01A/IVM100218-01
2/24/2010 7:03	4Z230.D	W4VM100223-07	GEL	SHORT	5ML	1	N/A	30	W	ACJ	N/A	O	UVM091216-08B/UVM100125-08D
2/24/2010 7:31	4Z231.D	W4VM100223-08	GEL	SHORT	5G	1	N/A	31	S	ACJ	N/A	X	UVM091216-08B/UVM100125-08D; NOT NEEDED
2/24/2010 7:58	4Z232.D	12020----	GEL	BLANK	5G	1	N/A	32	S	ACJ	N/A	X	NOT NEEDED
2/24/2010 8:26	4Z233.D	12020----	GEL	BLANK	5ML	1	N/A	33	W	ACJ	N/A	O	
2/24/2010 8:54	4Z234.D	247101001	LANL	956860	5ML	1	PH2	34	W	ACJ	N	O	
2/24/2010 9:21	4Z235.D	247101002	LANL	956860	5ML	1	PH2	35	W	ACJ	N	O	
2/24/2010 9:49	4Z236.D	247216001	LANL	956860	5ML	1	PH2	36	W	ACJ	N	O	
2/24/2010 10:16	4Z237.D	247261002	LANL	956860	5ML	1	PH2	37	W	ACJ	N	O	
2/24/2010 10:44	4Z238.D	247432001	LANL	956860	5ML	1	PH2	38	W	ACJ	N	O	
2/24/2010 11:11	4Z239.D	247432005	LANL	956860	5ML	1	PH2	39	W	ACJ	N	O	
2/24/2010 11:39	4Z240.D	247432007	LANL	956860	5ML	1	PH2	40	W	ACJ	N	O	
2/24/2010 12:06	4Z241.D	247437001	LANL	956860	5ML	1	PH2	41	W	ACJ	N	O	
2/24/2010 12:34	4Z242.D	247437005	LANL	956860	5ML	1	PH7	42	W	ACJ	N	O	
2/24/2010 13:02	4Z243.D	1202051631	LANL	956860	5ML	1	PH2	43	W	ACJ	N	O	MS 247261002
2/24/2010 13:29	4Z244.D	1202051632	LANL	956860	5ML	1	PH2	44	W	ACJ	N	O	MSD 247261002

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA4

Date: 2/24/2010 Method 8260B/624 Operator: ACJ

REVIEWED BY: ____
DATE: ____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1671

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 2/19/2010

(See pg. 54 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

CI test lot # 81710

Sequence Number: 022410V4PM

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W4VM100224-06		5+5		
IS	UVM100114-01	1	1	1	
SS	UVM091216-10	1	1	1	
LCS/MS	W4VM100224-08			5+5	
BFB	UVM091216-10				1
SHORT	W4VM100224-09		5+5	5+5	
DHEC	N/A			5	

Purge Amount	
5	Water Purge Vol:
N/A	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	CI test (Y/N)	Acceptable (O/X)	Comments
2/25/2010 4:31	4Z326.D	UVM091216-10	GEL	BFB2	5ML	1	N/A	26	W	ACJ	N/A	O	
2/25/2010 4:59	4Z327.D	W4VM100224-06	GEL	CCV	5ML	1	N/A	27	W	ACJ	N/A	O	UVM100202-07D/UVM100106-07C
2/25/2010 5:26	4Z328.D	W4VM100224-07	GEL	LCS	5G	1	N/A	28	S	ACJ	N/A	X	UVM100220-01A/IVM100224-01; NOT NEEDED
2/25/2010 5:54	4Z329.D	W4VM100224-08	GEL	LCS	5ML	1	N/A	29	W	ACJ	N/A	O	UVM100220-01A/IVM100224-01
2/25/2010 6:22	4Z330.D	W4VM100224-09	GEL	SHORT	5ML	1	N/A	30	W	ACJ	N/A	O	UVM091216-08B/UVM100125-08D
2/25/2010 6:49	4Z331.D	W4VM100224-10	GEL	SHORT	5G	1	N/A	31	S	ACJ	N/A	X	UVM091216-08B/UVM100125-08D; NOT NEEDED
2/25/2010 7:17	4Z332.D	12020----	GEL	BLANK	5G	1	N/A	32	S	ACJ	N/A	X	NOT NEEDED
2/25/2010 7:44	4Z333.D	12020----	GEL	BLANK	5ML	1	N/A	33	W	ACJ	N/A	O	
2/25/2010 8:11	4Z334.D	247216002	LANL	956860	5ML	1	PH2	34	W	ACJ	N	O	
2/25/2010 8:39	4Z335.D	247261005	LANL	956860	5ML	1	PH2	35	W	ACJ	N	O	
2/25/2010 9:06	4Z336.D	1202051459	GEL	957485	500UL	10	N/A	36	W	ACJ	N/A	O	TCLPBLANK
2/25/2010 9:33	4Z337.D	247340006	BY12	957485	500UL	10	N/A	37	W	ACJ	N/A	O	
2/25/2010 10:01	4Z338.D	247340007	BY12	957485	500UL	10	N/A	38	W	ACJ	N/A	O	
2/25/2010 10:28	4Z339.D	247340010	BY12	957485	500UL	10	N/A	39	W	ACJ	N/A	O	
2/25/2010 10:56	4Z340.D	247340014	BY12	957485	500UL	10	N/A	40	W	ACJ	N/A	O	
2/25/2010 11:23	4Z341.D	247340020	BY12	957485	500UL	10	N/A	41	W	ACJ	N/A	O	
2/25/2010 11:51	4Z342.D	247340021	BY12	957485	500UL	10	N/A	42	W	ACJ	N/A	O	
2/25/2010 12:18	4Z343.D	247340024	BY12	957485	500UL	10	N/A	43	W	ACJ	N/A	O	
2/25/2010 12:46	4Z344.D	247340027	BY12	957485	500UL	10	N/A	44	W	ACJ	N/A	O	
2/25/2010 13:14	4Z345.D	247340031	BY12	957485	500UL	10	N/A	45	W	ACJ	N/A	O	
2/25/2010 13:42	4Z346.D	1202053038	BY12	957485	500UL	10	N/A	46	W	ACJ	N/A	X	MS 247340006; SEE 4Z511
2/25/2010 14:09	4Z347.D	1202053039	BY12	957485	500UL	10	N/A	47	W	ACJ	N/A	X	MSD 247340006; SEE 4Z512

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
25-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
VOA GC/MS	SW846 8260B DOE-AL	Liquid	ESHL, LANL
Batch ID:	**Sample Numbers:**		
956860	See Below		

Potentially affected work order(s)(SDG): 247101(10-1834-1),247216(10-1839-2),247261(10-1886),247432(10-1928),247437(10-1931)

Application Issues:

Failed Recovery for LCS/LCSD

Specification and Requirements Exception Description:	DER Disposition:
1. QC sample 1202051633LCS was outside the spike recovery acceptance limits for Acetonitrile and Iodomethane. QC sample 1202053166LCS was outside the spike recovery acceptance limits for Acetonitrile.	1. Narrate and report data. The total number of unacceptable spike recoveries is within the client required 5% of the requested analytes.

Originator's Name:

Amy Jamison 25-FEB-10

Data Validator/Group Leader:

Kelle Bellamy 26-FEB-10

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1886

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3510C
Analytical Batch Number:	954922
Prep Batch Number:	954921

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
247261002	CAPA-10-12691
1202047233	Method Blank (MB)
1202047234	Laboratory Control Sample (LCS)
1202047235	247261002(CAPA-10-12691) Matrix Spike (MS)
1202047236	247261002(CAPA-10-12691) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

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

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

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

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

Quality Control (QC) Information

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

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 247261002 (CAPA-10-12691) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
Several MS recoveries were not within the acceptance limits. Similar recoveries were observed in the MSD and were attributed to matrix interference.

Matrix Spike Duplicate (MSD) Recovery Statement
Several MSD recoveries were not within the acceptance limits. Similar recoveries were observed in the MS and were attributed to matrix interference.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

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

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

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

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report (DER ID 794283) was generated for this SDG.

Manual Integrations
Manual integrations were required in this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

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

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD6.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.20mm x 0.33 um (5% Phenylmethylpolysiloxane)

Certification Statement

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

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

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

Client SDG: 10-1886 GEL Work Order: 247261

The Qualifiers in this report are defined as follows:

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

** Analyte is a surrogate compound

J Value is estimated

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

Review/Validation

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

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

Signature: Pat Steele **Name: Patricia Steele**

Date: 17 MAR 2010 **Title: Group Leader**
Laboratory Manager

Roadmap for LANL 10-1886 SVOA

This roadmap was analyzed by jos00786 on 02-22-2010, 16:11.
This roadmap was reviewed by jcb on 02-25-2010, 13:40.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s022110.b/s6b2118.d	247261002	21-FEB-2010	17:14	10-1886.sub	CAPA-10-12691	1	954922	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s022110.b/s6b2104.d	1202047233	mb	21-FEB-2010	10:33	10-1886.sub	SBLK01	1	954922	
☐	N	/chem/MSD6.i/s022110.b/s6b2105.d	1202047234	lcs	21-FEB-2010	11:02	10-1886.sub	SBLK01LCS	1	954922	
☐	N	/chem/MSD6.i/s022110.b/s6b2119.d	1202047235	ms	21-FEB-2010	17:43	10-1886.sub	CAPA-10-12691MS	1	954922	failed spike
☐	N	/chem/MSD6.i/s022110.b/s6b2120.d	1202047236	msd	21-FEB-2010	18:11	10-1886.sub	CAPA-10-12691MSD	1	954922	failed spike

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261002**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12691**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**954922**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/21/2010 17:14**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/18/2010 21:17**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s6b2118.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.0	ug/L	2.00	10.0
108-95-2	Phenol	U	10.0	ug/L	1.00	10.0
95-57-8	2-Chlorophenol	U	10.0	ug/L	2.00	10.0
106-46-7	1,4-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	10.0	ug/L	2.00	10.0
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	10.0	ug/L	2.00	10.0
83-32-9	Acenaphthene	U	1.00	ug/L	0.310	1.00
121-14-2	2,4-Dinitrotoluene	U	10.0	ug/L	2.00	10.0
100-02-7	4-Nitrophenol	U	10.0	ug/L	2.00	10.0
87-86-5	Pentachlorophenol	U	10.0	ug/L	2.00	10.0
129-00-0	Pyrene	U	1.00	ug/L	0.300	1.00
110-86-1	Pyridine	U	10.0	ug/L	3.00	10.0
62-53-3	Aniline	U	10.0	ug/L	2.50	10.0
111-44-4	bis(2-Chloroethyl) ether	U	10.0	ug/L	2.00	10.0
541-73-1	1,3-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
100-51-6	Benzyl alcohol	U	10.0	ug/L	2.00	10.0
95-50-1	1,2-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
108-60-1	bis(2-Chloroisopropyl)ether	U	10.0	ug/L	2.00	10.0
95-48-7	o-Cresol	U	10.0	ug/L	2.00	10.0
65794-96-9	m,p-Cresols	U	10.0	ug/L	3.00	10.0
67-72-1	Hexachloroethane	U	10.0	ug/L	2.00	10.0
98-95-3	Nitrobenzene	U	10.0	ug/L	3.00	10.0
78-59-1	Isophorone	U	10.0	ug/L	3.00	10.0
88-75-5	2-Nitrophenol	U	10.0	ug/L	2.00	10.0
105-67-9	2,4-Dimethylphenol	U	10.0	ug/L	2.00	10.0
111-91-1	bis(2-Chloroethoxy)methane	U	10.0	ug/L	3.00	10.0
120-83-2	2,4-Dichlorophenol	U	10.0	ug/L	2.00	10.0
65-85-0	Benzoic acid	U	20.0	ug/L	6.00	20.0
91-20-3	Naphthalene	U	1.00	ug/L	0.300	1.00
106-47-8	4-Chloroaniline	U	10.0	ug/L	2.00	10.0
87-68-3	Hexachlorobutadiene	U	10.0	ug/L	2.00	10.0
91-57-6	2-Methylnaphthalene	U	1.00	ug/L	0.300	1.00
90-12-0	1-Methylnaphthalene	U	1.00	ug/L	0.300	1.00
77-47-4	Hexachlorocyclopentadiene	U	10.0	ug/L	3.00	10.0
88-06-2	2,4,6-Trichlorophenol	U	10.0	ug/L	2.00	10.0
95-95-4	2,4,5-Trichlorophenol	U	10.0	ug/L	2.00	10.0
91-58-7	2-Chloronaphthalene	U	1.00	ug/L	0.300	1.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261002**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12691**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**954922**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/21/2010 17:14**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/18/2010 21:17**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s6b2118.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.0	ug/L	2.00	10.0
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.0	ug/L	2.00	10.0
131-11-3	Dimethylphthalate	U	10.0	ug/L	2.00	10.0
606-20-2	2,6-Dinitrotoluene	U	10.0	ug/L	2.00	10.0
208-96-8	Acenaphthylene	U	1.00	ug/L	0.200	1.00
51-28-5	2,4-Dinitrophenol	U	20.0	ug/L	5.00	20.0
132-64-9	Dibenzofuran	U	10.0	ug/L	2.00	10.0
84-66-2	Diethylphthalate	U	10.0	ug/L	2.00	10.0
86-73-7	Fluorene	U	1.00	ug/L	0.200	1.00
7005-72-3	4-Chlorophenylphenylether	U	10.0	ug/L	2.00	10.0
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.0	ug/L	3.00	10.0
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.0	ug/L	3.00	10.0
122-39-4	Diphenylamine	U	10.0	ug/L	3.00	10.0
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	10.0	ug/L	2.00	10.0
101-55-3	4-Bromophenylphenylether	U	10.0	ug/L	2.00	10.0
118-74-1	Hexachlorobenzene	U	10.0	ug/L	2.00	10.0
1912-24-9	Atrazine	U	10.0	ug/L	3.00	10.0
85-01-8	Phenanthrene	U	1.00	ug/L	0.200	1.00
120-12-7	Anthracene	U	1.00	ug/L	0.200	1.00
84-74-2	Di-n-butylphthalate	U	10.0	ug/L	2.00	10.0
206-44-0	Fluoranthene	U	1.00	ug/L	0.200	1.00
92-87-5	Benzidine	U	10.0	ug/L	3.00	10.0
85-68-7	Butylbenzylphthalate	U	10.0	ug/L	2.00	10.0
56-55-3	Benzo(a)anthracene	U	1.00	ug/L	0.200	1.00
91-94-1	3,3'-Dichlorobenzidine	U	10.0	ug/L	2.00	10.0
218-01-9	Chrysene	U	1.00	ug/L	0.200	1.00
117-81-7	bis(2-Ethylhexyl)phthalate		11.2	ug/L	2.00	10.0
117-84-0	Di-n-octylphthalate	U	10.0	ug/L	3.00	10.0
205-99-2	Benzo(b)fluoranthene	U	1.00	ug/L	0.200	1.00
207-08-9	Benzo(k)fluoranthene	U	1.00	ug/L	0.200	1.00
50-32-8	Benzo(a)pyrene	U	1.00	ug/L	0.200	1.00
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.00	ug/L	0.200	1.00
53-70-3	Dibenzo(a,h)anthracene	U	1.00	ug/L	0.200	1.00
191-24-2	Benzo(ghi)perylene	U	1.00	ug/L	0.200	1.00
123-91-1	1,4-Dioxane	U	10.0	ug/L	2.00	10.0
55-18-5	N-Nitrosodiethylamine	U	10.0	ug/L	2.00	10.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261002**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12691**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**954922**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/21/2010 17:14**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/18/2010 21:17**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s6b2118.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.0	ug/L	2.00	10.0
924-16-3	N-Nitrosodi-n-butylamine	U	10.0	ug/L	3.00	10.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.0	ug/L	3.00	10.0
608-93-5	Pentachlorobenzene	U	10.0	ug/L	3.00	10.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.0	ug/L	2.00	10.0
88-85-7	Dinoseb	U	10.0	ug/L	2.00	10.0
120-82-1	1,2,4-Trichlorobenzene	U	10.0	ug/L	2.00	10.0

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	50.5	100	ug/L	50.5	(39%-120%)
2-Fluorobiphenyl	31.9	50.0	ug/L	63.8	(38%-108%)
2-Fluorophenol	36.4	100	ug/L	36.4	(19%-98%)
Nitrobenzene-d5	35.2	50.0	ug/L	70.3	(31%-122%)
Phenol-d5	22.3	100	ug/L	22.3	(15%-83%)
p-Terphenyl-d14	40.0	50.0	ug/L	80.1	(40%-138%)

Tentatively Identified Compound Summary

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

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-1886

Matrix Type: LIQUID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202047233	MB for batch 954921	41	25	74	67	69	88
1202047234	LCS for batch 954921	44	28	74	72	81	93
247261002	CAPA-10-12691	36	22	70	64	50	80
1202047235	CAPA-10-12691MS	49	38	70	65	56	76
1202047236	CAPA-10-12691MSD	48	39	74	69	58	82

Surrogate		Acceptance Limits
2FP	= 2-Fluorophenol	(19%-98%)
PHL	= Phenol-d5	(15%-83%)
NBZ	= Nitrobenzene-d5	(31%-122%)
FBP	= 2-Fluorobiphenyl	(38%-108%)
TBP	= 2,4,6-Tribromophenol	(39%-120%)
TPH	= p-Terphenyl-d14	(40%-138%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886
Client ID: LCS for batch 954921
Lab Sample ID: 1202047234
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 02/21/2010 11:02
Prep Batch ID: 954921
Batch ID: 954922
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	50.0	0.0	23.2	46	29-86
108-95-2	LCS	Phenol	50.0	0.0	14.9	30	15-50
95-57-8	LCS	2-Chlorophenol	50.0	0.0	36.7	73	43-103
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	29.1	58	35-90
621-64-7	LCS	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	50.0	0.0	42.8	86	51-111
59-50-7	LCS	Parachlorometa cresol *4-Chloro-3-methylphenol*	50.0	0.0	39.3	79	57-105
83-32-9	LCS	Acenaphthene	50.0	0.0	36.4	73	49-99
121-14-2	LCS	2,4-Dinitrotoluene	50.0	0.0	42.2	84	49-117
100-02-7	LCS	4-Nitrophenol	50.0	0.0	10.3	21	18-60
87-86-5	LCS	Pentachlorophenol	50.0	0.0	31.3	63	32-125
129-00-0	LCS	Pyrene	50.0	0.0	40.8	82	53-114
110-86-1	LCS	Pyridine	50.0	0.0	36.9	74	18-108
62-53-3	LCS	Aniline	50.0	0.0	45.0	90	48-120
111-44-4	LCS	bis(2-Chloroethyl) ether	50.0	0.0	35.0	70	49-99
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	28.7	57	21-88
100-51-6	LCS	Benzyl alcohol	50.0	0.0	26.8	54	33-97
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	30.2	60	24-93
108-60-1	LCS	bis(2-Chloroisopropyl)ether	50.0	0.0	38.9	78	36-117
95-48-7	LCS	o-Cresol	50.0	0.0	32.4	65	32-100
65794-96-9	LCS	m,p-Cresols	50.0	0.0	33.2	66	23-110
67-72-1	LCS	Hexachloroethane	50.0	0.0	24.1	48	10-91
98-95-3	LCS	Nitrobenzene	50.0	0.0	38.0	76	47-112

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886
Client ID: LCS for batch 954921
Lab Sample ID: 1202047234
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 02/21/2010 11:02
Dilution: 1
Prep Batch ID: 954921
Batch ID: 954922

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	50.0	0.0	42.3	85	55-109
88-75-5	LCS	2-Nitrophenol	50.0	0.0	37.7	75	51-108
105-67-9	LCS	2,4-Dimethylphenol	50.0	0.0	35.7	71	37-106
111-91-1	LCS	bis(2-Chloroethoxy)methane	50.0	0.0	39.2	78	51-106
120-83-2	LCS	2,4-Dichlorophenol	50.0	0.0	40.4	81	53-102
65-85-0	LCS	Benzoic acid	100	0.0	28.0	28	10-130
91-20-3	LCS	Naphthalene	50.0	0.0	31.2	62	39-90
106-47-8	LCS	4-Chloroaniline	50.0	0.0	48.4	97	54-123
87-68-3	LCS	Hexachlorobutadiene	50.0	0.0	26.7	53	16-93
91-57-6	LCS	2-Methylnaphthalene	50.0	0.0	36.9	74	44-98
90-12-0	LCS	1-Methylnaphthalene	50.0	0.0	36.4	73	29-104
77-47-4	LCS	Hexachlorocyclopentadiene	50.0	0.0	9.49	19	10-112
88-06-2	LCS	2,4,6-Trichlorophenol	50.0	0.0	41.1	82	47-115
95-95-4	LCS	2,4,5-Trichlorophenol	50.0	0.0	39.8	80	52-113
91-58-7	LCS	2-Chloronaphthalene	50.0	0.0	36.0	72	41-104
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	50.0	0.0	39.2	78	54-118
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	50.0	0.0	42.0	84	45-143
131-11-3	LCS	Dimethylphthalate	50.0	0.0	44.8	90	62-121
606-20-2	LCS	2,6-Dinitrotoluene	50.0	0.0	41.7	83	52-115
208-96-8	LCS	Acenaphthylene	50.0	0.0	39.2	78	46-111
51-28-5	LCS	2,4-Dinitrophenol	50.0	0.0	29.4	59	30-135
132-64-9	LCS	Dibenzofuran	50.0	0.0	40.2	80	59-106

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886
Client ID: LCS for batch 954921
Lab Sample ID: 1202047234
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 02/21/2010 11:02
Prep Batch ID 954921
Batch ID: 954922
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
84-66-2	LCS	Diethylphthalate	50.0	0.0	45.1	90	63-124
86-73-7	LCS	Fluorene	50.0	0.0	40.2	80	49-108
7005-72-3	LCS	4-Chlorophenylphenylether	50.0	0.0	41.6	83	56-107
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	50.0	0.0	29.3	59	45-126
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	50.0	0.0	37.9	76	43-146
122-39-4	LCS	Diphenylamine	50.0	0.0	44.3	89	60-111
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	50.0	0.0	43.7	87	47-122
101-55-3	LCS	4-Bromophenylphenylether	50.0	0.0	43.9	88	53-113
118-74-1	LCS	Hexachlorobenzene	50.0	0.0	41.6	83	53-111
1912-24-9	LCS	Atrazine	50.0	0.0	47.3	95	42-133
85-01-8	LCS	Phenanthrene	50.0	0.0	42.0	84	55-105
120-12-7	LCS	Anthracene	50.0	0.0	42.2	84	54-111
84-74-2	LCS	Di-n-butylphthalate	50.0	0.0	48.3	97	56-130
206-44-0	LCS	Fluoranthene	50.0	0.0	44.1	88	58-115
92-87-5	LCS	Benzidine	100	0.0	53.7	54	10-151
85-68-7	LCS	Butylbenzylphthalate	50.0	0.0	48.1	96	54-139
56-55-3	LCS	Benzo(a)anthracene	50.0	0.0	41.8	84	58-109
91-94-1	LCS	3,3'-Dichlorobenzidine	50.0	0.0	31.8	64	44-110
218-01-9	LCS	Chrysene	50.0	0.0	42.2	84	58-112
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	50.0	0.0	49.2	98	54-138
117-84-0	LCS	Di-n-octylphthalate	50.0	0.0	55.7	111	46-145
205-99-2	LCS	Benzo(b)fluoranthene	50.0	0.0	47.7	95	55-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886
Client ID: LCS for batch 954921
Lab Sample ID: 1202047234
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 02/21/2010 11:02
Dilution: 1
Prep Batch ID: 954921
Batch ID: 954922

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
207-08-9	LCS	Benzo(k)fluoranthene	50.0	0.0	47.4	95	57-119
50-32-8	LCS	Benzo(a)pyrene	50.0	0.0	48.2	96	60-118
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	50.0	0.0	42.9	86	52-124
53-70-3	LCS	Dibenzo(a,h)anthracene	50.0	0.0	42.4	85	53-125
191-24-2	LCS	Benzo(ghi)perylene	50.0	0.0	44.8	90	49-125
123-91-1	LCS	1,4-Dioxane	50.0	0.0	28.4	57	27-93
930-55-2	LCS	N-Nitrosopyrrolidine	50.0	0.0	38.8	78	46-101
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	30.8	62	23-94

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886
Client ID: CAPA-10-12691MS
Lab Sample ID: 1202047235
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 02/21/2010 17:43
Prep Batch ID: 954921
Batch ID: 954922
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	100	0.00	U	47.7	48	28-111
108-95-2	MS	Phenol	100	0.00	U	38.9	39	20-71
95-57-8	MS	2-Chlorophenol	100	0.00	U	63.8	64	47-99
106-46-7	MS	1,4-Dichlorobenzene	100	0.00	U	60.5	60	40-83
621-64-7	MS	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	100	0.00	U	74.0	74	35-125
59-50-7	MS	Parachlorometa cresol *4-Chloro-3-methylphenol*	100	0.00	U	71.2	71	52-112
83-32-9	MS	Acenaphthene	100	0.00	U	67.5	68	44-102
121-14-2	MS	2,4-Dinitrotoluene	100	0.00	U	75.7	76	52-111
100-02-7	MS	4-Nitrophenol	100	0.00	U	21.9	22 *	27-91
87-86-5	MS	Pentachlorophenol	100	0.00	U	37.5	38	20-140
129-00-0	MS	Pyrene	100	0.00	U	67.7	68	28-131
110-86-1	MS	Pyridine	100	0.00	U	0.00	0 *	22-113
62-53-3	MS	Aniline	100	0.00	U	58.9	59	45-126
111-44-4	MS	bis(2-Chloroethyl) ether	100	0.00	U	62.2	62	32-109
541-73-1	MS	1,3-Dichlorobenzene	100	0.00	U	60.1	60	37-83
100-51-6	MS	Benzyl alcohol	100	0.00	U	12.1	12 *	37-111
95-50-1	MS	1,2-Dichlorobenzene	100	0.00	U	61.0	61	35-88
108-60-1	MS	bis(2-Chloroisopropyl)ether	100	0.00	U	68.0	68	25-122
95-48-7	MS	o-Cresol	100	0.00	U	59.7	60	29-107
65794-96-9	MS	m,p-Cresols	100	0.00	U	63.5	64	22-116
67-72-1	MS	Hexachloroethane	100	0.00	U	57.3	57	4-98
98-95-3	MS	Nitrobenzene	100	0.00	U	75.5	76	21-138

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: **10-1886** **Sample Type:** **Matrix Spike**

Client ID: **CAPA-10-12691MS** **Matrix:** **GROUND WATER**

Lab Sample ID: **1202047235**

Instrument: **MSD6.I** **Analysis Date:** **02/21/2010 17:43** **Dilution: 1**

Analyst: **NAG1** **Prep Batch ID:** **954921**

Inj. Vol: **.5 uL** **Batch ID:** **954922**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	100	0.00	U	78.9	79	24-136
88-75-5	MS	2-Nitrophenol	100	0.00	U	74.3	74	47-110
105-67-9	MS	2,4-Dimethylphenol	100	0.00	U	66.6	67	43-103
111-91-1	MS	bis(2-Chloroethoxy)methane	100	0.00	U	73.1	73	37-116
120-83-2	MS	2,4-Dichlorophenol	100	0.00	U	78.1	78	48-106
65-85-0	MS	Benzoic acid	200	0.00	U	81.7	41	30-100
91-20-3	MS	Naphthalene	100	0.00	U	65.4	65	32-94
106-47-8	MS	4-Chloroaniline	100	0.00	U	66.5	66	46-123
87-68-3	MS	Hexachlorobutadiene	100	0.00	U	66.5	66	18-90
91-57-6	MS	2-Methylnaphthalene	100	0.00	U	76.0	76	40-103
90-12-0	MS	1-Methylnaphthalene	100	0.00	U	73.9	74	16-113
77-47-4	MS	Hexachlorocyclopentadiene	100	0.00	U	25.7	26	10-101
88-06-2	MS	2,4,6-Trichlorophenol	100	0.00	U	64.1	64	50-111
95-95-4	MS	2,4,5-Trichlorophenol	100	0.00	U	75.4	75	52-115
91-58-7	MS	2-Chloronaphthalene	100	0.00	U	68.2	68	44-97
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	100	0.00	U	72.5	73	31-133
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	100	0.00	U	68.6	69	25-150
131-11-3	MS	Dimethylphthalate	100	0.00	U	78.6	79	49-128
606-20-2	MS	2,6-Dinitrotoluene	100	0.00	U	74.6	75	55-110
208-96-8	MS	Acenaphthylene	100	0.00	U	72.1	72	22-127
51-28-5	MS	2,4-Dinitrophenol	100	0.00	U	50.6	51	33-135
132-64-9	MS	Dibenzofuran	100	0.00	U	74.1	74	39-119

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886
Client ID: CAPA-10-12691MS
Lab Sample ID: 1202047235
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 02/21/2010 17:43
Prep Batch ID 954921
Batch ID: 954922
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
84-66-2	MS	Diethylphthalate	100	0.00	U	79.2	79	50-130
86-73-7	MS	Fluorene	100	0.00	U	74.7	75	37-118
7005-72-3	MS	4-Chlorophenylphenylether	100	0.00	U	76.8	77	50-111
534-52-1	MS	2-Methyl-4,6-dinitrophenol	100	0.00	U	61.5	62	41-126
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	100	0.00	U	45.3	45	23-156
122-39-4	MS	Diphenylamine	100	0.00	U	77.4	77	26-130
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	100	0.00	U	70.2	70	48-117
101-55-3	MS	4-Bromophenylphenylether	100	0.00	U	76.6	77	48-114
118-74-1	MS	Hexachlorobenzene	100	0.00	U	70.6	71	25-134
1912-24-9	MS	Atrazine	100	0.00	U	16.3	16 *	25-136
85-01-8	MS	Phenanthrene	100	0.00	U	74.1	74	33-120
120-12-7	MS	Anthracene	100	0.00	U	74.3	74	27-131
84-74-2	MS	Di-n-butylphthalate	100	0.00	U	81.3	81	38-140
206-44-0	MS	Fluoranthene	100	0.00	U	78.0	78	46-121
92-87-5	MS	Benzidine	200	0.00	U	0.00	0 *	13-138
85-68-7	MS	Butylbenzylphthalate	100	0.00	U	79.2	79	35-149
56-55-3	MS	Benzo(a)anthracene	100	0.00	U	71.8	72	33-127
91-94-1	MS	3,3'-Dichlorobenzidine	100	0.00	U	30.6	31 *	40-111
218-01-9	MS	Chrysene	100	0.00	U	74.1	74	36-125
117-81-7	MS	bis(2-Ethylhexyl)phthalate	100	11.2		91.9	81	35-148
117-84-0	MS	Di-n-octylphthalate	100	0.00	U	85.8	86	27-159
205-99-2	MS	Benzo(b)fluoranthene	100	0.00	U	76.7	77	32-134

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-1886 **Sample Type:** Matrix Spike

Client ID: CAPA-10-12691MS **Matrix:** GROUND WATER

Lab Sample ID: 1202047235

Instrument: MSD6.I **Analysis Date:** 02/21/2010 17:43 **Dilution:** 1

Analyst: NAG1 **Prep Batch ID:** 954921

Inj. Vol: .5 uL **Batch ID:** 954922

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
207-08-9	MS	Benzo(k)fluoranthene	100	0.00	U	80.4	80	33-136
50-32-8	MS	Benzo(a)pyrene	100	0.00	U	83.7	84	35-134
193-39-5	MS	Indeno(1,2,3-cd)pyrene	100	0.00	U	77.0	77	28-138
53-70-3	MS	Dibenzo(a,h)anthracene	100	0.00	U	77.0	77	28-140
191-24-2	MS	Benzo(ghi)perylene	100	0.00	U	79.6	80	24-138
123-91-1	MS	1,4-Dioxane	100	0.00	U	58.7	59	44-102
930-55-2	MS	N-Nitrosopyrrolidine	100	0.00	U	69.6	70	29-117
120-82-1	MS	1,2,4-Trichlorobenzene	100	0.00	U	68.4	68	34-88

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886
Client ID: CAPA-10-12691MSD
Lab Sample ID: 1202047236
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 02/21/2010 18:11
Dilution: 1
Prep Batch ID: 954921
Batch ID: 954922

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD	N-Methyl-N-nitrosomethylam	100	0.00	U	47.5	48	28-111	0	0-25
108-95-2	MSD	Phenol	100	0.00	U	40.1	40	20-71	3	0-25
95-57-8	MSD	2-Chlorophenol	100	0.00	U	66.8	67	47-99	5	0-25
106-46-7	MSD	1,4-Dichlorobenzene	100	0.00	U	62.2	62	40-83	3	0-25
621-64-7	MSD	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	100	0.00	U	76.9	77	35-125	4	0-25
59-50-7	MSD	Parachlorometa cresol *4-Chloro-3-methylphenol*	100	0.00	U	70.4	70	52-112	1	0-25
83-32-9	MSD	Acenaphthene	100	0.00	U	70.2	70	44-102	4	0-25
121-14-2	MSD	2,4-Dinitrotoluene	100	0.00	U	75.4	75	52-111	0	0-25
100-02-7	MSD	4-Nitrophenol	100	0.00	U	21.6	22 *	27-91	1	0-25
87-86-5	MSD	Pentachlorophenol	100	0.00	U	36.8	37	20-140	2	0-25
129-00-0	MSD	Pyrene	100	0.00	U	73.8	74	28-131	9	0-25
110-86-1	MSD	Pyridine	100	0.00	U	0.00	0 *	22-113	0	0-25
62-53-3	MSD	Aniline	100	0.00	U	61.4	61	45-126	4	0-25
111-44-4	MSD	bis(2-Chloroethyl) ether	100	0.00	U	65.5	66	32-109	5	0-25
541-73-1	MSD	1,3-Dichlorobenzene	100	0.00	U	62.6	63	37-83	4	0-25
100-51-6	MSD	Benzyl alcohol	100	0.00	U	11.9	12 *	37-111	2	0-25
95-50-1	MSD	1,2-Dichlorobenzene	100	0.00	U	64.1	64	35-88	5	0-25
108-60-1	MSD	bis(2-Chloroisopropyl)ether	100	0.00	U	71.6	72	25-122	5	0-25
95-48-7	MSD	o-Cresol	100	0.00	U	61.3	61	29-107	3	0-25
65794-96-9	MSD	m,p-Cresols	100	0.00	U	65.2	65	22-116	3	0-25
67-72-1	MSD	Hexachloroethane	100	0.00	U	57.8	58	4-98	1	0-25
98-95-3	MSD	Nitrobenzene	100	0.00	U	78.4	78	21-138	4	0-25

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886 **Sample Type:** Matrix Spike Duplicate

Client ID: CAPA-10-12691MSD **Matrix:** GROUND WATER

Lab Sample ID: 1202047236

Instrument: MSD6.I **Analysis Date:** 02/21/2010 18:11 **Dilution:** 1

Analyst: NAG1 **Prep Batch ID** 954921

Inj. Vol: .5 uL **Batch ID:** 954922

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD	Isophorone	100	0.00	U	84.9	85	24-136	7	0-25
88-75-5	MSD	2-Nitrophenol	100	0.00	U	78.1	78	47-110	5	0-25
105-67-9	MSD	2,4-Dimethylphenol	100	0.00	U	72.5	72	43-103	8	0-25
111-91-1	MSD	bis(2-Chloroethoxy)methane	100	0.00	U	77.5	77	37-116	6	0-25
120-83-2	MSD	2,4-Dichlorophenol	100	0.00	U	80.9	81	48-106	4	0-25
65-85-0	MSD	Benzoic acid	200	0.00	U	74.8	37	30-100	9	0-25
91-20-3	MSD	Naphthalene	100	0.00	U	68.6	69	32-94	5	0-25
106-47-8	MSD	4-Chloroaniline	100	0.00	U	64.3	64	46-123	3	0-25
87-68-3	MSD	Hexachlorobutadiene	100	0.00	U	70.7	71	18-90	6	0-25
91-57-6	MSD	2-Methylnaphthalene	100	0.00	U	82.3	82	40-103	8	0-25
90-12-0	MSD	1-Methylnaphthalene	100	0.00	U	80.1	80	16-113	8	0-25
77-47-4	MSD	Hexachlorocyclopentadiene	100	0.00	U	20.5	21	10-101	23	0-25
88-06-2	MSD	2,4,6-Trichlorophenol	100	0.00	U	66.2	66	50-111	3	0-25
95-95-4	MSD	2,4,5-Trichlorophenol	100	0.00	U	69.0	69	52-115	9	0-25
91-58-7	MSD	2-Chloronaphthalene	100	0.00	U	70.8	71	44-97	4	0-25
88-74-4	MSD	2-Nitroaniline *o-Nitroaniline*	100	0.00	U	70.9	71	31-133	2	0-25
99-09-2	MSD	3-Nitroaniline *m-Nitroaniline*	100	0.00	U	60.8	61	25-150	12	0-25
131-11-3	MSD	Dimethylphthalate	100	0.00	U	80.6	81	49-128	3	0-25
606-20-2	MSD	2,6-Dinitrotoluene	100	0.00	U	77.1	77	55-110	3	0-25
208-96-8	MSD	Acenaphthylene	100	0.00	U	75.3	75	22-127	4	0-25
51-28-5	MSD	2,4-Dinitrophenol	100	0.00	U	44.4	44	33-135	13	0-25
132-64-9	MSD	Dibenzofuran	100	0.00	U	76.2	76	39-119	3	0-25

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886
Client ID: CAPA-10-12691MSD
Lab Sample ID: 1202047236
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 02/21/2010 18:11
Dilution: 1
Prep Batch ID: 954921
Batch ID: 954922

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
84-66-2	MSD	Diethylphthalate	100	0.00	U	81.7	82	50-130	3	0-25
86-73-7	MSD	Fluorene	100	0.00	U	74.3	74	37-118	0	0-25
7005-72-3	MSD	4-Chlorophenylphenylether	100	0.00	U	79.1	79	50-111	3	0-25
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	100	0.00	U	48.6	49	41-126	24	0-25
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	100	0.00	U	37.6	38	23-156	19	0-25
122-39-4	MSD	Diphenylamine	100	0.00	U	80.7	81	26-130	4	0-25
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	100	0.00	U	73.1	73	48-117	4	0-25
101-55-3	MSD	4-Bromophenylphenylether	100	0.00	U	80.6	81	48-114	5	0-25
118-74-1	MSD	Hexachlorobenzene	100	0.00	U	74.7	75	25-134	6	0-25
1912-24-9	MSD	Atrazine	100	0.00	U	14.9	15 *	25-136	9	0-25
85-01-8	MSD	Phenanthrene	100	0.00	U	76.3	76	33-120	3	0-25
120-12-7	MSD	Anthracene	100	0.00	U	75.8	76	27-131	2	0-25
84-74-2	MSD	Di-n-butylphthalate	100	0.00	U	88.7	89	38-140	9	0-25
206-44-0	MSD	Fluoranthene	100	0.00	U	77.9	78	46-121	0	0-25
92-87-5	MSD	Benzidine	200	0.00	U	0.00	0 *	13-138	0	0-25
85-68-7	MSD	Butylbenzylphthalate	100	0.00	U	87.5	88	35-149	10	0-25
56-55-3	MSD	Benzo(a)anthracene	100	0.00	U	74.9	75	33-127	4	0-25
91-94-1	MSD	3,3'-Dichlorobenzidine	100	0.00	U	25.6	26 *	40-111	18	0-25
218-01-9	MSD	Chrysene	100	0.00	U	75.9	76	36-125	2	0-25
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	100	11.2		103	92	35-148	12	0-25
117-84-0	MSD	Di-n-octylphthalate	100	0.00	U	99.5	100	27-159	15	0-25
205-99-2	MSD	Benzo(b)fluoranthene	100	0.00	U	83.1	83	32-134	8	0-25

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886
Client ID: CAPA-10-12691MSD
Lab Sample ID: 1202047236
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 02/21/2010 18:11
Dilution: 1
Prep Batch ID: 954921
Batch ID: 954922

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
207-08-9	MSD Benzo(k)fluoranthene	100	0.00	U	85.2	85	33-136	6	0-25
50-32-8	MSD Benzo(a)pyrene	100	0.00	U	86.4	86	35-134	3	0-25
193-39-5	MSD Indeno(1,2,3-cd)pyrene	100	0.00	U	73.2	73	28-138	5	0-25
53-70-3	MSD Dibenzo(a,h)anthracene	100	0.00	U	73.0	73	28-140	5	0-25
191-24-2	MSD Benzo(ghi)perylene	100	0.00	U	74.0	74	24-138	7	0-25
123-91-1	MSD 1,4-Dioxane	100	0.00	U	59.5	59	44-102	1	0-25
930-55-2	MSD N-Nitrosopyrrolidine	100	0.00	U	70.7	71	29-117	1	0-25
120-82-1	MSD 1,2,4-Trichlorobenzene	100	0.00	U	72.3	72	34-88	6	0-25

Method Blank Summary

SDG Number:	10-1886	**Client:**	LANL010	**Matrix:**	GROUND WATER
Client ID:	MB for batch 954921	**Instrument ID:**	MSD6.I	**Data File:**	s6b2104.d
Lab Sample ID:	1202047233	**Prep Date:**	02/18/2010 21:17	**Analyzed:**	02/21/10 10:33
Column:	J&W DB-5MS	**Level:**	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 954921	1202047234	s6b2105.d	02/21/10	1102
02 CAPA-10-12691	247261002	s6b2118.d	02/21/10	1714
03 CAPA-10-12691MS	1202047235	s6b2119.d	02/21/10	1743
04 CAPA-10-12691MSD	1202047236	s6b2120.d	02/21/10	1811

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1886

Instrument ID: MSD6.I **Injection Date/Time:** 09-NOV-09 18:00

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s110909.b/s6k0911.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.4
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.4
197	0 - 1% of mass 198	0.6
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.7
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	73.9
442	Greater than 40% of mass 198	77.9
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGAICAL	WBN091106-08	s6k0913.d	09-NOV-09 18:53
MEGAICAL	WBN091106-07	s6k0914.d	09-NOV-09 19:31
MEGAICAL	WBN091106-06	s6k0915.d	09-NOV-09 20:09
MEGAICAL	WBN091106-05.1	s6k0916.d	09-NOV-09 20:46
MEGAICAL	WBN091106-04	s6k0917.d	09-NOV-09 21:25
MEGAICAL	WBN091106-03	s6k0918.d	09-NOV-09 22:01
MEGAICAL	WBN091106-02	s6k0919.d	09-NOV-09 22:39
MEGAICAL	WBN091106-01	s6k0920.d	09-NOV-09 23:16

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1886

Instrument ID: MSD6.I **Injection Date/Time:** 10-NOV-09 11:07

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s110909.b/s6k0921.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.1
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43.1
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	50.9
197	0 - 1% of mass 198	0.4
199	5 - 9% of mass 198	7
275	10 - 30% of mass 198	23.3
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	72.6
442	Greater than 40% of mass 198	76
443	17 - 23% of mass 442	19.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP12ICAL	WBN091016-01	s6k0923.d	10-NOV-09 11:59
AP12ICAL	WBN091016-02	s6k0924.d	10-NOV-09 12:36
AP12ICAL	WBN091016-03	s6k0925.d	10-NOV-09 13:13
AP12ICAL	WBN091016-04	s6k0926.d	10-NOV-09 13:51
AP12ICAL	WBN091016-05	s6k0927.d	10-NOV-09 14:30
AP12ICAL	WBN091016-06	s6k0928.d	10-NOV-09 15:06
AP12ICAL	WBN091016-07	s6k0929.d	10-NOV-09 15:43
MEGAICV	WBN091106-09.1	s6k0937.d	10-NOV-09 20:29
AP12ICV	WBN091016-08.1	s6k0938.d	10-NOV-09 21:07

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1886

Instrument ID: MSD6.I **Injection Date/Time:** 21-FEB-10 09:16

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s022110.b/s6b2101.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	40
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	39.6
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	50
197	0 - 1% of mass 198	0.5
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	22.6
365	Greater than 1% of mass 198	2.3
441	Present, but less than mass 443	76.4
442	Greater than 40% of mass 198	70.7
443	17 - 23% of mass 442	19.1

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100215-09.1	s6b2102.d	21-FEB-10 09:30
APCVS	WBN100120-08.2	s6b2103.d	21-FEB-10 10:03
SBLK01	1202047233	s6b2104.d	21-FEB-10 10:33
SBLK01LCS	1202047234	s6b2105.d	21-FEB-10 11:02
CAPA-10-12691	247261002	s6b2118.d	21-FEB-10 17:14
CAPA-10-12691MS	1202047235	s6b2119.d	21-FEB-10 17:43
CAPA-10-12691MSD	1202047236	s6b2120.d	21-FEB-10 18:11

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-1886

Instrument: MSD6.I

STD Analysis Time: 21-FEB-10 09:30

GC Column: J&W DB-5MS

Data File: s6b2102.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	323267		4.6	1306328		5.87	682117		7.73	1170520		9.33	953121		12.3	769085		14.5
Upper Limit	646534		5.1	2612656		6.37	1364234		8.23	2341040		9.83	1906242		12.8	1538170		15.0
Lower Limit	161634		4.1	653164		5.37	341059		7.23	585260		8.83	476561		11.8	384543		14.0
Sample ID																		
BLK01	345477		4.6	1240706		5.87	697647		7.73	1183714		9.33	937271		12.3	710983		14.5
BLK01LCS	305633		4.6	1236895		5.87	656663		7.73	1117855		9.33	890828		12.3	663077		14.5
CAPA-10-12691	358498		4.6	1281730		5.87	722916		7.73	1245150		9.33	1035287		12.3	874592		14.5
CAPA-10-12691MS	343578		4.6	1267115		5.87	723114		7.73	1276320		9.33	1082114		12.3	900240		14.5
CAPA-10-12691MSD	297451		4.6	1081452		5.87	624762		7.73	1062000		9.33	836597		12.3	646918		14.5

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261002**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12691**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**954922**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/21/2010 17:14**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/18/2010 21:17**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s6b2118.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.0	ug/L	2.00	10.0
108-95-2	Phenol	U	10.0	ug/L	1.00	10.0
95-57-8	2-Chlorophenol	U	10.0	ug/L	2.00	10.0
106-46-7	1,4-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	10.0	ug/L	2.00	10.0
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	10.0	ug/L	2.00	10.0
83-32-9	Acenaphthene	U	1.00	ug/L	0.310	1.00
121-14-2	2,4-Dinitrotoluene	U	10.0	ug/L	2.00	10.0
100-02-7	4-Nitrophenol	U	10.0	ug/L	2.00	10.0
87-86-5	Pentachlorophenol	U	10.0	ug/L	2.00	10.0
129-00-0	Pyrene	U	1.00	ug/L	0.300	1.00
110-86-1	Pyridine	U	10.0	ug/L	3.00	10.0
62-53-3	Aniline	U	10.0	ug/L	2.50	10.0
111-44-4	bis(2-Chloroethyl) ether	U	10.0	ug/L	2.00	10.0
541-73-1	1,3-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
100-51-6	Benzyl alcohol	U	10.0	ug/L	2.00	10.0
95-50-1	1,2-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
108-60-1	bis(2-Chloroisopropyl)ether	U	10.0	ug/L	2.00	10.0
95-48-7	o-Cresol	U	10.0	ug/L	2.00	10.0
65794-96-9	m,p-Cresols	U	10.0	ug/L	3.00	10.0
67-72-1	Hexachloroethane	U	10.0	ug/L	2.00	10.0
98-95-3	Nitrobenzene	U	10.0	ug/L	3.00	10.0
78-59-1	Isophorone	U	10.0	ug/L	3.00	10.0
88-75-5	2-Nitrophenol	U	10.0	ug/L	2.00	10.0
105-67-9	2,4-Dimethylphenol	U	10.0	ug/L	2.00	10.0
111-91-1	bis(2-Chloroethoxy)methane	U	10.0	ug/L	3.00	10.0
120-83-2	2,4-Dichlorophenol	U	10.0	ug/L	2.00	10.0
65-85-0	Benzoic acid	U	20.0	ug/L	6.00	20.0
91-20-3	Naphthalene	U	1.00	ug/L	0.300	1.00
106-47-8	4-Chloroaniline	U	10.0	ug/L	2.00	10.0
87-68-3	Hexachlorobutadiene	U	10.0	ug/L	2.00	10.0
91-57-6	2-Methylnaphthalene	U	1.00	ug/L	0.300	1.00
90-12-0	1-Methylnaphthalene	U	1.00	ug/L	0.300	1.00
77-47-4	Hexachlorocyclopentadiene	U	10.0	ug/L	3.00	10.0
88-06-2	2,4,6-Trichlorophenol	U	10.0	ug/L	2.00	10.0
95-95-4	2,4,5-Trichlorophenol	U	10.0	ug/L	2.00	10.0
91-58-7	2-Chloronaphthalene	U	1.00	ug/L	0.300	1.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261002**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12691**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**954922**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/21/2010 17:14**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/18/2010 21:17**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s6b2118.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.0	ug/L	2.00	10.0
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.0	ug/L	2.00	10.0
131-11-3	Dimethylphthalate	U	10.0	ug/L	2.00	10.0
606-20-2	2,6-Dinitrotoluene	U	10.0	ug/L	2.00	10.0
208-96-8	Acenaphthylene	U	1.00	ug/L	0.200	1.00
51-28-5	2,4-Dinitrophenol	U	20.0	ug/L	5.00	20.0
132-64-9	Dibenzofuran	U	10.0	ug/L	2.00	10.0
84-66-2	Diethylphthalate	U	10.0	ug/L	2.00	10.0
86-73-7	Fluorene	U	1.00	ug/L	0.200	1.00
7005-72-3	4-Chlorophenylphenylether	U	10.0	ug/L	2.00	10.0
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.0	ug/L	3.00	10.0
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.0	ug/L	3.00	10.0
122-39-4	Diphenylamine	U	10.0	ug/L	3.00	10.0
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	10.0	ug/L	2.00	10.0
101-55-3	4-Bromophenylphenylether	U	10.0	ug/L	2.00	10.0
118-74-1	Hexachlorobenzene	U	10.0	ug/L	2.00	10.0
1912-24-9	Atrazine	U	10.0	ug/L	3.00	10.0
85-01-8	Phenanthrene	U	1.00	ug/L	0.200	1.00
120-12-7	Anthracene	U	1.00	ug/L	0.200	1.00
84-74-2	Di-n-butylphthalate	U	10.0	ug/L	2.00	10.0
206-44-0	Fluoranthene	U	1.00	ug/L	0.200	1.00
92-87-5	Benzidine	U	10.0	ug/L	3.00	10.0
85-68-7	Butylbenzylphthalate	U	10.0	ug/L	2.00	10.0
56-55-3	Benzo(a)anthracene	U	1.00	ug/L	0.200	1.00
91-94-1	3,3'-Dichlorobenzidine	U	10.0	ug/L	2.00	10.0
218-01-9	Chrysene	U	1.00	ug/L	0.200	1.00
117-81-7	bis(2-Ethylhexyl)phthalate		11.2	ug/L	2.00	10.0
117-84-0	Di-n-octylphthalate	U	10.0	ug/L	3.00	10.0
205-99-2	Benzo(b)fluoranthene	U	1.00	ug/L	0.200	1.00
207-08-9	Benzo(k)fluoranthene	U	1.00	ug/L	0.200	1.00
50-32-8	Benzo(a)pyrene	U	1.00	ug/L	0.200	1.00
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.00	ug/L	0.200	1.00
53-70-3	Dibenzo(a,h)anthracene	U	1.00	ug/L	0.200	1.00
191-24-2	Benzo(ghi)perylene	U	1.00	ug/L	0.200	1.00
123-91-1	1,4-Dioxane	U	10.0	ug/L	2.00	10.0
55-18-5	N-Nitrosodiethylamine	U	10.0	ug/L	2.00	10.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261002**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12691**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**954922**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/21/2010 17:14**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/18/2010 21:17**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s6b2118.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.0	ug/L	2.00	10.0
924-16-3	N-Nitrosodi-n-butylamine	U	10.0	ug/L	3.00	10.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.0	ug/L	3.00	10.0
608-93-5	Pentachlorobenzene	U	10.0	ug/L	3.00	10.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.0	ug/L	2.00	10.0
88-85-7	Dinoseb	U	10.0	ug/L	2.00	10.0
120-82-1	1,2,4-Trichlorobenzene	U	10.0	ug/L	2.00	10.0

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	50.5	100	ug/L	50.5	(39%-120%)
2-Fluorobiphenyl	31.9	50.0	ug/L	63.8	(38%-108%)
2-Fluorophenol	36.4	100	ug/L	36.4	(19%-98%)
Nitrobenzene-d5	35.2	50.0	ug/L	70.3	(31%-122%)
Phenol-d5	22.3	100	ug/L	22.3	(15%-83%)
p-Terphenyl-d14	40.0	50.0	ug/L	80.1	(40%-138%)

Tentatively Identified Compound Summary

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

GEL Laboratories LLC

Data file : /chem/MSD6.i/s022110.b/s6b2118.d
Lab Smp Id: 247261002 Client Smp ID: CAPA-10-12691
Inj Date : 21-FEB-2010 17:14
Operator : nagl Inst ID: MSD6.i
Smp Info : |247261002|954922|1|SVM|1|LANL
Misc Info : |MSD82709L|WBN100217-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Feb-2010 09:40 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1886.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.602	4.604	(1.000)	358498	40.0000	
* 29 Naphthalene-d8	136	5.868	5.871	(1.000)	1281730	40.0000	
* 46 Acenaphthene-d10	164	7.728	7.731	(1.000)	722916	40.0000	
* 67 Phenanthrene-d10	188	9.331	9.331	(1.000)	1245150	40.0000	
* 91 Chrysene-d12	240	12.269	12.274	(1.000)	1035287	40.0000	
* 98 Perylene-d12	264	14.471	14.468	(1.000)	874592	40.0000	
$ 3 2-Fluorophenol	112	3.463	3.455	(0.752)	326636	36.3835	36.4
$ 5 Phenol-d5	99	4.225	4.230	(0.918)	253164	22.3427	22.3
$ 20 Nitrobenzene-d5	82	5.137	5.142	(0.875)	318905	35.1724	35.2
$ 39 2-Fluorobiphenyl	172	6.992	6.995	(0.905)	594127	31.8907	31.9
$ 60 2,4,6-Tribromophenol	329	8.574	8.577	(1.109)	106513	50.4802	50.5
$ 81 p-Terphenyl-d14	244	11.038	11.036	(0.900)	668468	40.0383	40.0
93 bis(2-Ethylhexyl)phthalate	149	12.233	12.236	(0.997)	195515	11.1849	11.2

ION RATIO REPORT

SV REPORT

Data file: s6b2118.d
Report Date: 02/22/2010 09:45
Lab. ID: 247261002 SampleType: SAMPLE
Injection Date: 21-FEB-2010 17:14
Operator: nagl Instrument: MSD6.i
Sample Info: |247261002|954922|1|SVM|1|LANL
Miscellaneous Info: |MSD82709L|WBN100217-01
Comment:
Method used: /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1886
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	44642	5.14	4.98	80-120	100	(T)
42	28046	5.14	4.98	43-103	63	(T)
22 Isophorone				CAS#: 78-59-1		
82	318905	5.14	5.39	80-120	100	(T)
138	7242	5.87	5.39	0- 49	2	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	128236	7.73	7.43	80-120	100	(T)
164	722916	7.73	7.43	0- 40	564	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	94301	7.73	7.93	80-120	100	(T)
89	1502	7.73	7.93	54-114	2	(QT)
63	943	7.73	7.93	43-103	1	(QT)
53 Fluorene				CAS#: 86-73-7		
166	6861	8.57	8.32	80-120	100	(T)
165	6548	8.57	8.32	62-122	95	(T)
167	1897	8.57	8.32	0- 44	28	(T)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	165	8.57	8.37	80-120	100	(T)
105	144	8.56	8.37	11- 71	87	(QT)
51	270	8.57	8.37	26- 86	163	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
93 bis(2-Ethylhexyl)phthalate				CAS#: 117-81-7		
149	195515	12.23	12.24	80-120	100	( )
167	58313	12.23	12.24	1- 61	30	( )
108 N-Nitrosodiethylamine				CAS#: 55-18-5		
102	35843	3.25	3.66	80-120	100	(T)
56	148616	3.24	3.66	35- 95	415	(QT)
121 N-Nitrosodi-n-butylamine				CAS#: 924-16-3		
84	32935	5.87	6.28	80-120	100	(T)
57	1074	5.87	6.28	52-112	3	(QT)
41	837	5.87	6.28	0- 30	3	(T)
143 Dinoseb			CAS#: 88-85-7			
211	190	9.70	9.31	80-120	100	(T)
163	154	8.86	9.31	16- 76	81	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s022110.b/s6b2118.d
Lab Smp Id: 247261002 Client Smp ID: CAPA-10-12691
Inj Date : 21-FEB-2010 17:14
Operator : nag1 Inst ID: MSD6.i
Smp Info : |247261002|954922|1|SVM|1|LANL
Misc Info : |MSD82709L|WBN100217-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Feb-2010 09:40 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1886.sub
Target Version: 3.50
Processing Host: hpclp1

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/MSD6.i/s022110.b/s6b2118.d

Date : 21-FEB-2010 17:14

Client ID: CAPA-10-12691

Sample Info: |2472610021954922|1|SVMI1|LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1

Column diameter: 0.20

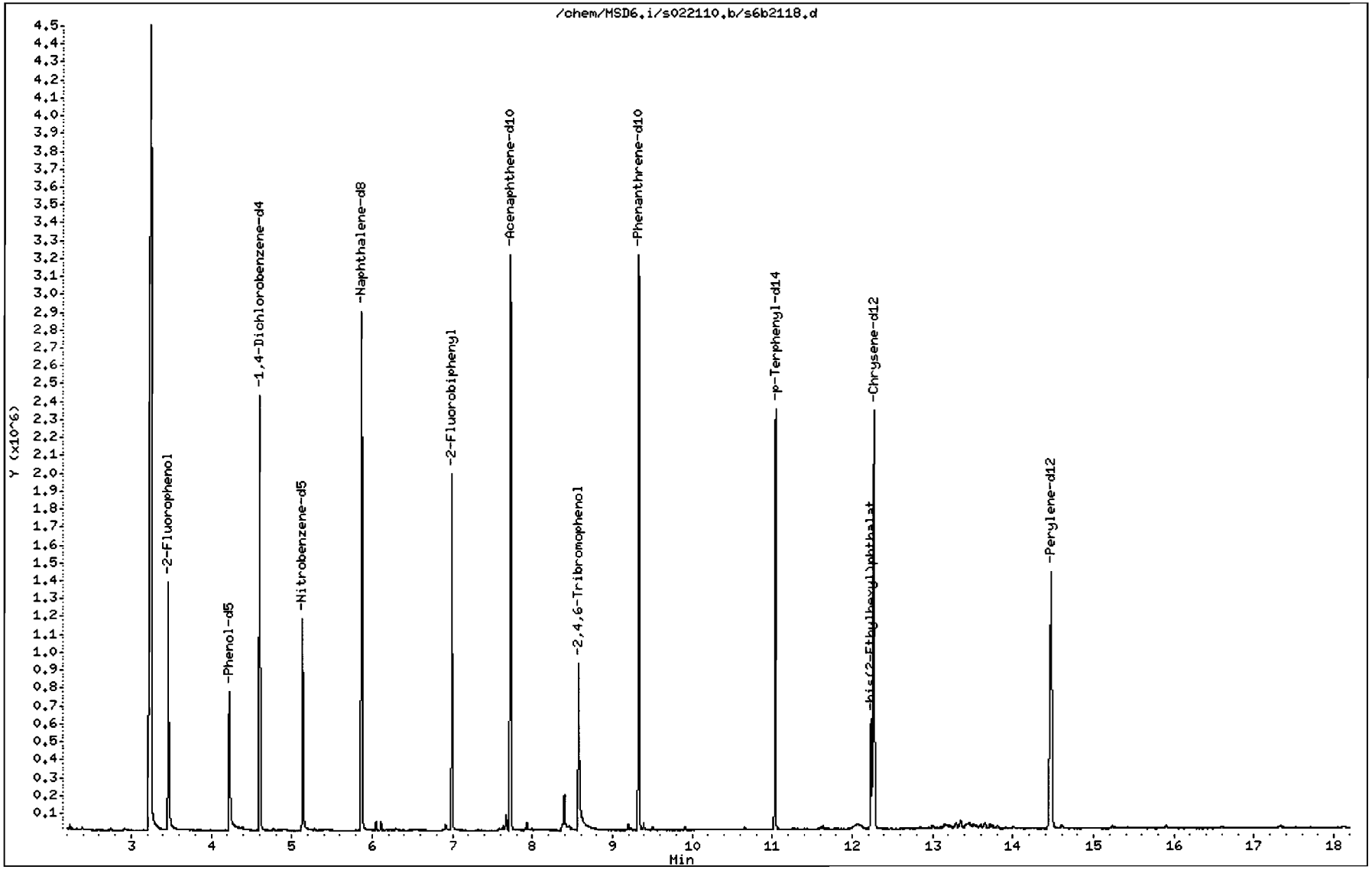

Data File: /chem/MSD6.i/s022110.b/s6b2118.d

Date : 21-FEB-2010 17:14

Client ID: CAPA-10-12691

Instrument: MSD6.i

Sample Info: 1247261002195492211ISVMI1ILANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 11.2 ug/L

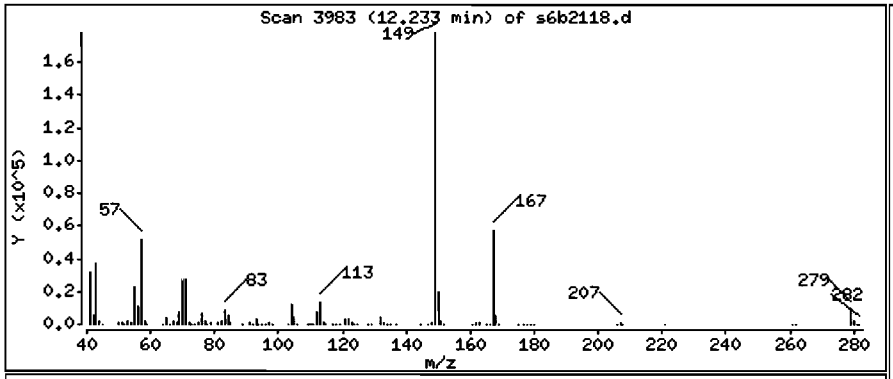

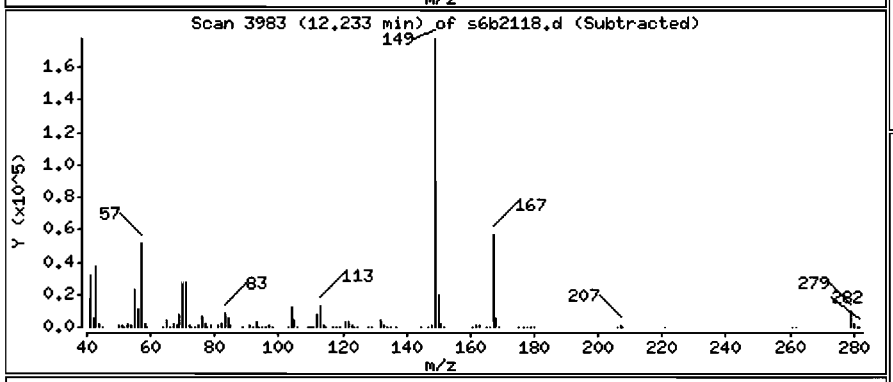

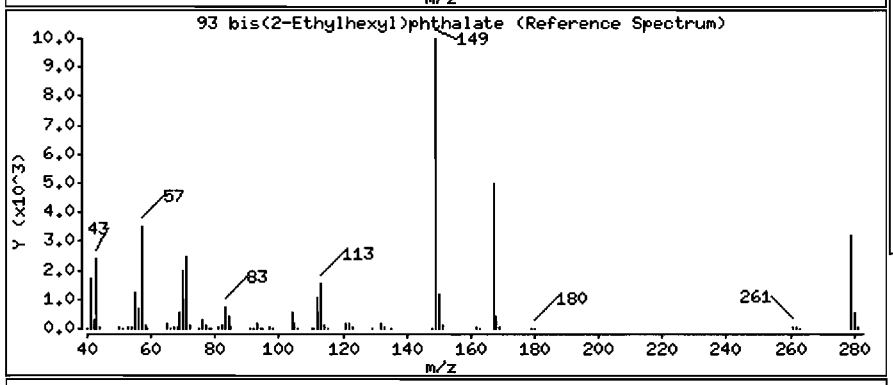

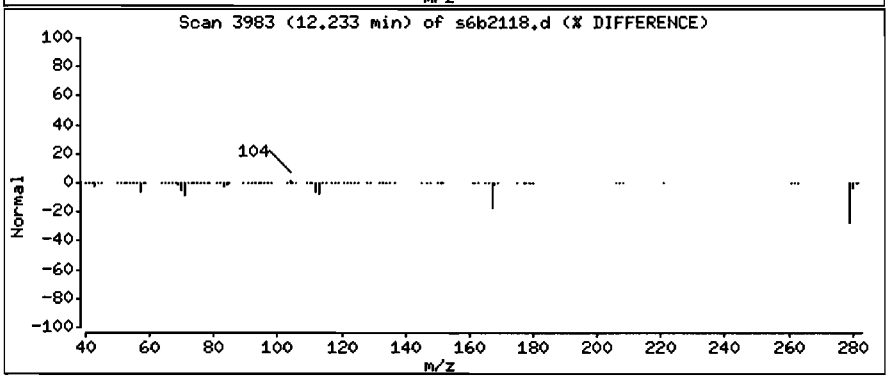

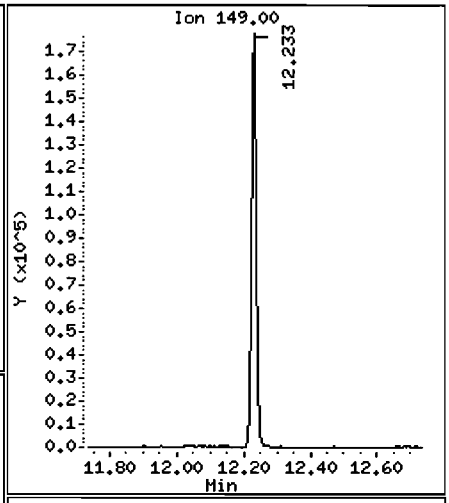

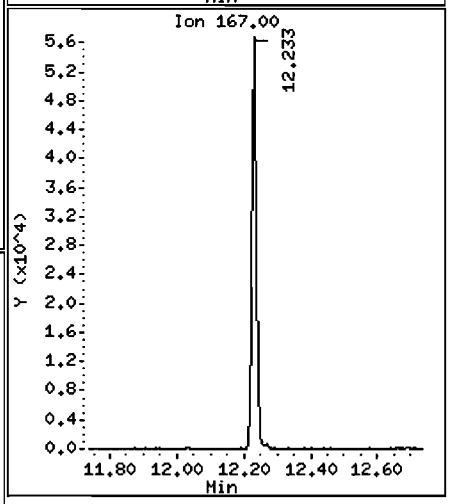

Standard Data

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate		10	20	40	50	80	100	120
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
4-Aminobiphenyl		10	20	40	50	80	100	120

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothioanisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120

SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.
(0210/Full list)

Report Date: 22-Feb-2010 09:53

Calibration History

Method : /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m
Start Cal Date: 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
09-NOV-2009 18:53	MEGA	/chem/MSD6.i/s110909.b/s6k0913.d
Cal Level: 2 , Cal Amount: 10.00000		
11-NOV-2009 01:47	NEV	/chem/MSD6.i/s110909.b/s6k0948.d
10-NOV-2009 22:55	HEX	/chem/MSD6.i/s110909.b/s6k0942.d
10-NOV-2009 16:20	PEST	/chem/MSD6.i/s110909.b/s6k0930.d
10-NOV-2009 11:59	AP12	/chem/MSD6.i/s110909.b/s6k0923.d
09-NOV-2009 19:31	MEGA	/chem/MSD6.i/s110909.b/s6k0914.d
Cal Level: 3 , Cal Amount: 20.00000		
11-NOV-2009 02:16	NEV	/chem/MSD6.i/s110909.b/s6k0949.d
10-NOV-2009 23:24	HEX	/chem/MSD6.i/s110909.b/s6k0943.d
10-NOV-2009 16:56	PEST	/chem/MSD6.i/s110909.b/s6k0931.d
10-NOV-2009 12:36	AP12	/chem/MSD6.i/s110909.b/s6k0924.d
09-NOV-2009 20:09	MEGA	/chem/MSD6.i/s110909.b/s6k0915.d
Cal Level: 4 , Cal Amount: 40.00000		
11-NOV-2009 02:44	NEV	/chem/MSD6.i/s110909.b/s6k0950.d
10-NOV-2009 23:53	HEX	/chem/MSD6.i/s110909.b/s6k0944.d
10-NOV-2009 17:33	PEST	/chem/MSD6.i/s110909.b/s6k0932.d
10-NOV-2009 13:13	AP12	/chem/MSD6.i/s110909.b/s6k0925.d
09-NOV-2009 20:46	MEGA	/chem/MSD6.i/s110909.b/s6k0916.d
Cal Level: 5 , Cal Amount: 50.00000		
11-NOV-2009 03:12	NEV	/chem/MSD6.i/s110909.b/s6k0951.d
11-NOV-2009 00:21	HEX	/chem/MSD6.i/s110909.b/s6k0945.d
10-NOV-2009 18:09	PEST	/chem/MSD6.i/s110909.b/s6k0933.d
10-NOV-2009 13:51	AP12	/chem/MSD6.i/s110909.b/s6k0926.d
09-NOV-2009 21:25	MEGA	/chem/MSD6.i/s110909.b/s6k0917.d
Cal Level: 6 , Cal Amount: 80.00000		
11-NOV-2009 03:41	NEV	/chem/MSD6.i/s110909.b/s6k0952.d
11-NOV-2009 00:50	HEX	/chem/MSD6.i/s110909.b/s6k0946.d
10-NOV-2009 18:45	PEST	/chem/MSD6.i/s110909.b/s6k0934.d
10-NOV-2009 14:30	AP12	/chem/MSD6.i/s110909.b/s6k0927.d
09-NOV-2009 22:01	MEGA	/chem/MSD6.i/s110909.b/s6k0918.d
Cal Level: 7 , Cal Amount: 100.00000		

11-NOV-2009 04:10	NEV	/chem/MSD6.i/s110909.b/s6k0953.d
11-NOV-2009 01:18	HEX	/chem/MSD6.i/s110909.b/s6k0947.d
10-NOV-2009 19:21	PEST	/chem/MSD6.i/s110909.b/s6k0935.d
10-NOV-2009 15:06	AP12	/chem/MSD6.i/s110909.b/s6k0928.d
09-NOV-2009 22:39	MEGA	/chem/MSD6.i/s110909.b/s6k0919.d

Cal Level: 8 , Cal Amount: 120.00000

11-NOV-2009 04:38	NEV	/chem/MSD6.i/s110909.b/s6k0954.d
10-NOV-2009 19:58	PEST	/chem/MSD6.i/s110909.b/s6k0936.d
10-NOV-2009 15:43	AP12	/chem/MSD6.i/s110909.b/s6k0929.d
09-NOV-2009 23:16	MEGA	/chem/MSD6.i/s110909.b/s6k0920.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0

21-FEB-2010 09:30	MEGA	/chem/MSD6.i/s022110.b/s6b2102.d

Ccal Level: 4 , Ccal Amount: 40.0

21-FEB-2010 10:03	AP12	/chem/MSD6.i/s022110.b/s6b2103.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m
Cal Date : 22-Feb-2010 09:40 nat00999

Calibration File Names:
Level 1: /chem/MSD6.i/s110909.b/s6k0913.d
Level 2: /chem/MSD6.i/s110909.b/s6k0948.d
Level 3: /chem/MSD6.i/s110909.b/s6k0949.d
Level 4: /chem/MSD6.i/s110909.b/s6k0950.d
Level 5: /chem/MSD6.i/s110909.b/s6k0951.d
Level 6: /chem/MSD6.i/s110909.b/s6k0952.d
Level 7: /chem/MSD6.i/s110909.b/s6k0953.d
Level 8: /chem/MSD6.i/s110909.b/s6k0954.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.62711	0.72014	0.69994	0.71294	0.67761					
	0.66245	0.66663					AVRG		0.68098		4.78734
2 Pyridine	+++++	0.78506	0.84345	0.94451	0.94132	0.77430					
	0.82190	0.82246					AVRG		0.84757		8.16958
4 Aniline	+++++	0.51792	0.56281	0.52949	0.53182	0.51964					
	0.51849	0.51247					AVRG		0.52752		3.21865
209 Benzaldehyde	+++++	0.94297	0.91161	0.92064	0.86617	0.84259					
	0.79828	0.74667					AVRG		0.86127		8.23824
6 Phenol	+++++	1.29580	1.38609	1.27955	1.27629	1.24279					
	1.20107	1.21677					AVRG		1.27120		4.82676

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m
Cal Date : 22-Feb-2010 09:40 nat00999

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
7 bis(2-Chloroethyl) ether	0.93365	0.90056	0.92748	0.85273	0.86174	0.82247					
	0.79075	0.79709					AVRG		0.86081		6.48811
8 2-Chlorophenol	+++++	1.05270	1.10343	1.04994	1.05384	0.99340					
	0.95375	0.94058					AVRG		1.02109		5.85808
203 n-Decane	+++++	1.57696	1.59018	1.40648	1.36249	1.17658					
	+++++	+++++					AVRG		1.42254		11.98709
9 1,3-Dichlorobenzene	+++++	1.22415	1.27608	1.20806	1.21136	1.14335					
	1.08668	1.07881					AVRG		1.17550		6.31837
11 1,4-Dichlorobenzene	+++++	1.27202	1.32037	1.21925	1.20743	1.15141					
	1.09639	1.07447					AVRG		1.19162		7.54222
12 Benzyl alcohol	+++++	0.60900	0.65716	0.63043	0.62465	0.64143					
	0.63021	0.64767					AVRG		0.63436		2.50657
13 1,2-Dichlorobenzene	+++++	1.16666	1.21707	1.13327	1.12016	1.08966					
	1.03460	1.02472					AVRG		1.11231		6.21300
14 bis(2-Chloroisopropyl)ether	+++++	2.07635	2.13325	1.99088	1.97675	1.86028					
	1.72252	1.69272					AVRG		1.92182		8.81925
15 o-Cresol	+++++	0.82992	0.88629	0.84024	0.85639	0.80893					
	0.80386	0.79407					AVRG		0.83139		3.92027

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INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m
Cal Date : 22-Feb-2010 09:40 nat00999

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
16 Acetophenone	+++++	1.20921	1.17591	1.21168	1.15285	1.16925					
	1.13524	1.12939					AVRG		1.16908		2.80572
17 N-Nitrosodipropylamine	0.65638	0.74117	0.78851	0.72893	0.73002	0.72328					
	0.70725	0.59369					AVRG		0.70865		8.34285
18 m,p-Cresols	+++++	1.03591	1.12590	1.04958	1.05532	1.04720					
	1.02399	1.03632					AVRG		1.05346		3.18987
19 Hexachloroethane	+++++	0.45806	0.49524	0.47390	0.46960	0.45628					
	0.43995	0.43396					AVRG		0.46100		4.53111
21 Nitrobenzene	+++++	0.31691	0.32516	0.29885	0.29715	0.27038					
	0.24823	0.23966					AVRG		0.28519		11.62250
22 Isophorone	+++++	0.55891	0.57824	0.53268	0.53266	0.49425					
	0.45829	0.38358					AVRG		0.50552		13.23015
23 2-Nitrophenol	+++++	0.13453	0.14214	0.13601	0.13806	0.12888					
	0.12072	0.12047					AVRG		0.13154		6.43934
24 2,4-Dimethylphenol	+++++	0.23987	0.22536	0.21067	0.20421	0.21065					
	0.21868	0.21622					AVRG		0.21795		5.40955
25 bis(2-Chloroethoxy)methane	+++++	0.33208	0.34147	0.30906	0.30442	0.28195					
	0.26036	0.25310					AVRG		0.29749		11.40063

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Cal Date : 22-Feb-2010 09:40 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.19875	0.21444	0.20921	0.20622	0.19391					
	0.18142	0.17985					AVRG		0.19769		6.80078
27 Benzoic acid	+++++	+++++	0.10585	0.12338	0.14032	0.14157					
	0.15049	0.14556					AVRG		0.13453		12.46641
28 1,2,4-Trichlorobenzene	+++++	0.27809	0.27557	0.25214	0.25046	0.22876					
	0.21050	0.20278					AVRG		0.24261		12.25857
30 Naphthalene	0.93577	0.85146	0.85267	0.76017	0.74029	0.64713					
	+++++	+++++					AVRG		0.79792		12.82401
204 alpha-Terpineol	+++++	0.23577	0.25490	0.22003	0.21987	0.20427					
	0.17723	+++++					AVRG		0.21868		12.15593
31 4-Chloroaniline	+++++	0.26389	0.28196	0.26991	0.26064	0.24995					
	0.23771	0.23114					AVRG		0.25646		7.00922
189 Caprolactam	+++++	0.06766	0.07272	0.08214	0.08102	0.07115					
	0.07075	0.07172					AVRG		0.07388		7.43636
32 Hexachlorobutadiene	+++++	0.14265	0.14557	0.13182	0.13097	0.11864					
	0.10931	0.10542					AVRG		0.12634		12.40746
33 4-Chloro-3-methylphenol	+++++	0.20824	0.22585	0.20971	0.20633	0.19424					
	0.17957	0.17303					AVRG		0.19957		9.25582

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.56779	0.53746	0.54769	0.49857	0.47476	0.43707					
	0.39981	0.38884					AVRG		0.48150		14.15789
35 1-Methylnaphthalene	0.55872	0.52838	0.53208	0.48366	0.46920	0.42612					
	0.38935	0.38051					AVRG		0.47100		14.29869
36 Hexachlorocyclopentadiene	+++++	0.13520	0.17775	0.15114	0.16219	0.15378					
	0.18308	0.16783					AVRG		0.16157		10.19735
208 1,1'-Biphenyl	+++++	1.32152	1.23439	1.25731	1.19710	1.16580					
	1.12776	1.10528					AVRG		1.20131		6.32036
205 2,3-Dichloroaniline	+++++	0.51880	0.53286	0.48272	0.49159	0.46096					
	0.42997	0.43664					AVRG		0.47908		8.16477
37 2,4,6-Trichlorophenol	+++++	0.27570	0.29634	0.28058	0.28008	0.26989					
	0.25242	0.25556					AVRG		0.27294		5.58990
38 2,4,5-Trichlorophenol	+++++	0.28031	0.30282	0.29443	0.29832	0.29160					
	0.28523	0.28197					AVRG		0.29067		2.92500
40 2-Chloronaphthalene	0.91208	0.94921	0.97975	0.90835	0.91949	0.87198					
	0.81926	0.82647					AVRG		0.89832		6.24992
42 o-Nitroaniline	+++++	0.28653	0.32807	0.30812	0.31848	0.31056					
	0.29539	0.30412					AVRG		0.30732		4.50651

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	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.19029	0.23187	0.23025	0.23197	0.23511					
	0.22216	0.23314					AVRG		0.22497		7.03906
43 Dimethylphthalate	+++++	1.10253	1.11895	1.05121	1.05401	1.01311					
	0.95493	0.88796					AVRG		1.02610		7.97599
44 2,6-Dinitrotoluene	+++++	0.24859	0.25869	0.24751	0.24771	0.24514					
	0.22903	0.23656					AVRG		0.24475		3.87474
45 Acenaphthylene	1.45077	1.53234	1.59736	1.47314	1.47686	1.41153					
	1.30118	1.31187					AVRG		1.44438		7.03164
47 Acenaphthene	0.97754	0.93463	0.97051	0.90906	0.90733	0.85875					
	0.82122	0.83304					AVRG		0.90151		6.58830
48 2,4-Dinitrophenol	+++++	+++++	15920	45695	60199	121040					
	185455	+++++					LINR	0.36255	0.13077		0.99262
49 Dibenzofuran	+++++	1.31036	1.35172	1.24091	1.23630	1.17505					
	1.09035	1.11352					AVRG		1.21689		7.96140
50 2,4-Dinitrotoluene	+++++	0.28688	0.32526	0.31392	0.31582	0.31468					
	0.30077	0.30301					AVRG		0.30862		4.09740
51 Diethylphthalate	+++++	1.08427	1.13193	1.06273	1.05585	1.00787					
	0.93441	0.95637					AVRG		1.03335		6.84784

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52 4-Nitrophenol	+++++	12277	40572	90802	114423	208122					
	294363	379687					LINR	0.18209	0.20146		0.99664
53 Fluorene	1.06940	1.05468	1.10259	1.00777	1.00699	0.94775					
	0.89677	0.90440					AVRG		0.99879		7.65829
54 4-Chlorophenylphenylether	+++++	0.49941	0.52344	0.48539	0.48490	0.45443					
	0.43029	0.42560					AVRG		0.47192		7.71070
55 2-Methyl-4,6-dinitrophenol	+++++	9251	34357	85168	107219	199515					
	279188	346834					LINR	0.17722	0.10780		0.99957
56 p-Nitroaniline	+++++	18297	49968	114446	144020	267165					
	377942	477974					LINR	0.17663	0.25514		0.99741
133 Diphenylamine	+++++	0.51235	0.51279	0.48995	0.49110	0.46341					
	0.45142	0.45392					AVRG		0.48213		5.41113
58 1,2-Diphenylhydrazine	+++++	0.65288	0.67935	0.62730	0.62752	0.58724					
	0.56393	0.55466					AVRG		0.61327		7.55575
59 Tributylphosphate	+++++	1.19922	1.25332	1.24022	1.27997	1.24188					
	1.19433	1.14050					AVRG		1.22135		3.81011
61 4-Bromophenylphenylether	+++++	0.16321	0.16758	0.15949	0.16092	0.15366					
	0.14977	0.15022					AVRG		0.15784		4.30183

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.17072	0.17525	0.16702	0.16690	0.16190					
	0.15730	0.15822					AVRG		0.16533		3.97990
207 Atrazine	+++++	0.04466	0.04316	0.04336	0.04050	0.04104					
	0.03746	0.03425					AVRG		0.04063		9.04410
65 Pentachlorophenol	+++++	12427	38945	80211	100581	192628					
	259470	326879					LINR	0.13427	0.09964		0.99838
206 n-Octadecane	+++++	0.51627	0.51598	0.45832	0.46068	0.40718					
	0.37377	0.35992					AVRG		0.44173		14.37986
68 Phenanthrene	0.95060	0.88603	0.89746	0.83221	0.81673	0.77346					
	0.73349	0.72773					AVRG		0.82721		9.72714
69 Anthracene	0.87683	0.86194	0.90534	0.83970	0.83829	0.78921					
	0.75133	0.75196					AVRG		0.82682		6.91971
72 Di-n-butylphthalate	+++++	1.00113	1.04654	0.99105	0.98676	0.92173					
	0.85606	0.84350					AVRG		0.94954		8.15043
76 Fluoranthene	0.78392	0.79487	0.87026	0.82674	0.81613	0.77420					
	0.73596	0.73727					AVRG		0.79242		5.73137
77 Benzidine	+++++	0.35813	0.40641	0.39242	0.37729	0.37701					
	0.39765	0.44234					AVRG		0.39304		6.85454

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
79 Pyrene	1.12114	1.31021	1.22539	1.10007	1.11660	1.02083					
	0.96007	0.94734					AVRG		1.10021		11.38295
85 Butylbenzylphthalate	+++++	0.52543	0.54028	0.51608	0.52406	0.49119					
	0.46906	0.45845					AVRG		0.50351		6.16544
89 Benzo(a)anthracene	0.94221	0.85505	0.89830	0.85692	0.85716	0.83423					
	0.82127	0.83891					AVRG		0.86301		4.55256
90 3,3'-Dichlorobenzidine	+++++	0.23529	0.28074	0.29290	0.29384	0.28532					
	0.28779	0.30173					AVRG		0.28252		7.74710
92 Chrysene	0.87195	0.83557	0.87346	0.82487	0.82639	0.80729					
	0.78155	0.79409					AVRG		0.82690		4.03552
93 bis(2-Ethylhexyl)phthalate	7340	107837	270739	551016	645048	1078889					
	1389660	1700943					WLINR	0.01019	0.70092		0.99014
94 Di-n-octylphthalate	+++++	1.19610	1.35485	1.31605	1.35770	1.25055					
	1.27306	1.15060					AVRG		1.27127		6.18607
95 Benzo(b)fluoranthene	0.74161	0.85750	0.94279	0.90432	0.93361	0.89239					
	0.89332	0.91506					AVRG		0.88507		7.19928
96 Benzo(k)fluoranthene	0.73172	0.86857	0.95518	0.92430	0.92244	0.89945					
	0.88010	0.85909					AVRG		0.88011		7.72381

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
97 Benzo(a)pyrene	0.54179	0.70605	0.81133	0.81358	0.82559	0.80913					
	0.80179	0.80647					AVRG		0.76447		12.74919
99 Indeno(1,2,3-cd)pyrene	5888	60939	200863	402882	510813	1012558					
	1348903	1889688					LINR	0.07592	0.78768		0.99752
100 Dibenzo(a,h)anthracene	3385	46770	157194	361792	411532	815285					
	1094612	1529825					LINR	0.06768	0.63666		0.99908
101 Benzo(ghi)perylene	0.41694	0.53228	0.60870	0.60962	0.60436	0.63133					
	0.62968	0.63931					AVRG		0.58403		12.88683
102 1,4-Dioxane	+++++	0.37671	0.37043	0.39061	0.37803	0.36375					
	0.35237	0.33052					AVRG		0.36606		5.38827
103 Methyl methacrylate	+++++	0.19626	0.19646	0.20436	0.20625	0.18540					
	0.18964	0.17876					AVRG		0.19388		5.13081
104 Ethyl methacrylate	+++++	0.79650	0.81191	0.84398	0.82898	0.80568					
	0.79571	0.75648					AVRG		0.80561		3.45659
105 2-Picoline	+++++	1.39124	1.31746	1.36987	1.31904	1.28927					
	1.27506	1.19912					AVRG		1.30872		4.85814
106 N-Nitrosomethylethylamine	+++++	0.50512	0.48970	0.52453	0.49928	0.51969					
	0.51463	0.52429					AVRG		0.51104		2.61826

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	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.56429	0.53321	0.56316	0.50377	0.53102					
	0.50923	0.49498					AVRG		0.52852		5.24900
108 N-Nitrosodiethylamine	+++++	0.50310	0.47987	0.51154	0.48534	0.49862					
	0.49304	0.49722					AVRG		0.49553		2.15019
109 Ethyl Methanesulfonate	+++++	0.65808	0.64977	0.67344	0.62747	0.66045					
	0.64399	0.64860					AVRG		0.65169		2.21442
110 Pentachloroethane	+++++	0.32209	0.31386	0.33094	0.32010	0.31614					
	0.31148	0.30303					AVRG		0.31681		2.78134
111 N-Nitrosopyrrolidine	+++++	0.44182	0.46376	0.50830	0.47779	0.50143					
	0.49385	0.44600					AVRG		0.47614		5.57640
113 N-Nitrosomorpholine	+++++	0.71032	0.67134	0.71256	0.65887	0.68726					
	0.65974	0.65547					AVRG		0.67936		3.58698
114 o-Toluidine	+++++	1.74797	1.65530	1.71709	1.64005	1.64679					
	1.58070	1.58178					AVRG		1.65281		3.79762
115 N-Nitrosopiperidine	+++++	0.13834	0.13623	0.14736	0.13885	0.14290					
	0.13997	0.14373					AVRG		0.14105		2.69891
116 a,a-Dimethylphenethylamine	+++++	0.78770	0.81587	0.88476	0.87463	0.88336					
	0.86623	0.87565					AVRG		0.85546		4.44785

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117 Triethylphosphorothioate	+++++	0.14741	0.14492	0.13783	0.14116	0.13439					
	0.12857	0.12370					AVRG		0.13685		6.28357
118 2,6-Dichlorophenol	+++++	0.19682	0.19992	0.21240	0.20960	0.21251					
	0.20568	0.21118					AVRG		0.20687		3.05257
119 Hexachloropropene	+++++	0.08644	0.09499	0.10791	0.10350	0.10830					
	0.10654	0.11112					AVRG		0.10269		8.60612
120 p-Phenylenediamine	+++++	0.19714	0.24091	0.25567	0.24421	0.23168					
	0.22043	0.21678					AVRG		0.22955		8.57933
121 N-Nitrosodi-n-butylamine	+++++	0.22447	0.22501	0.22216	0.21154	0.19839					
	0.19348	0.19524					AVRG		0.21004		6.76180
122 Safrole	+++++	0.18675	0.18585	0.19677	0.19040	0.18675					
	0.17956	0.17958					AVRG		0.18653		3.22597
123 1,2,4,5-Tetrachlorobenzene	+++++	0.45393	0.42422	0.44255	0.41650	0.41676					
	0.40609	0.40229					AVRG		0.42319		4.45863
124 Isosafrole	+++++	0.34011	0.33198	0.35164	0.33779	0.34233					
	0.33627	0.33702					AVRG		0.33959		1.83025
125 1,4-Naphthoquinone	+++++	0.30018	0.32824	0.34894	0.32634	0.29745					
	0.28366	0.26235					AVRG		0.30674		9.65282

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
126 m-Dinitrobenzene	+++++	0.15441	0.17500	0.17160	0.17355	0.17392					
	0.16754	0.16904					AVRG		0.16929		4.19006
127 Pentachlorobenzene	+++++	0.38426	0.36575	0.37736	0.36552	0.35674					
	0.35182	0.35035					AVRG		0.36454		3.50537
128 1-Naphthylamine	+++++	0.90674	0.92102	0.95184	0.91692	0.90718					
	0.86367	0.88454					AVRG		0.90742		3.07978
129 2-Naphthylamine	+++++	0.96578	1.00999	1.02440	0.99125	0.97953					
	0.93471	0.95520					AVRG		0.98012		3.19024
130 2,3,4,6-Tetrachlorophenol	+++++	0.20640	0.23481	0.21862	0.21374	0.22201					
	0.21460	0.22254					AVRG		0.21896		4.07356
131 5-Nitro-o-toluidine	+++++	0.22084	0.26615	0.28994	0.29013	0.29251					
	0.28841	0.30508					AVRG		0.27901		10.07623
132 Thionazin	+++++	0.16760	0.17396	0.17237	0.17849	0.17822					
	0.16987	0.16398					AVRG		0.17207		3.11896
134 Sulfotepp	+++++	0.08934	0.08802	0.08507	0.08886	0.08655					
	0.08265	0.08005					AVRG		0.08579		4.00843
135 Phorate	+++++	0.38230	0.38968	0.37391	0.38904	0.37359					
	0.35020	0.32660					AVRG		0.36933		6.25438

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m
Cal Date : 22-Feb-2010 09:40 nat00999

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
136 1,3,5-Trinitrobenzene	+++++	14861	45341	104071	130665	222134					
	265730	408609					LINR	0.09141	0.12978		0.99734
137 Phenacetin	+++++	0.21732	0.25812	0.27209	0.26902	0.27044					
	0.26738	0.28241					AVRG		0.26240		8.05167
138 Diallate	+++++	0.26191	0.24374	0.25182	0.23998	0.23522					
	0.22716	0.22410					AVRG		0.24056		5.55643
139 Dimethoate	+++++	0.18955	0.19806	0.21061	0.22946	0.23158					
	0.22398	0.21950					AVRG		0.21468		7.45885
140 4-Aminobiphenyl	+++++	0.50489	0.50584	0.54599	0.56556	0.56494					
	0.53276	0.52934					AVRG		0.53562		4.66298
141 Pentachloronitrobenzene	+++++	0.06195	0.06081	0.06546	0.06329	0.06151					
	0.06084	0.05959					AVRG		0.06192		3.12402
142 Pronamide	+++++	0.26962	0.26582	0.27431	0.26759	0.26151					
	0.25173	0.25174					AVRG		0.26319		3.31411
143 Dinoseb	+++++	11996	47856	123552	154632	280906					
	375481	479562					LINR	0.15482	0.14736		0.99949
144 Disulfoton	+++++	0.31933	0.32969	0.31920	0.32975	0.31125					
	0.29624	0.27823					AVRG		0.31196		6.02930

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Method file : /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m
Cal Date : 22-Feb-2010 09:40 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
145 Methyl parathion	+++++	0.14493	0.15978	0.17270	0.18140	0.18775						
	0.18141	0.17864					AVRG		0.17237		8.70434	
146 4-Nitroquinoline-1-oxide	+++++	0.02012	0.03296	0.02700	0.02533	0.02224						
	0.01930	0.01750					AVRG		0.02349		22.76469	<-
147 Methapyrilene	+++++	0.40623	0.42209	0.41103	0.39768	0.37937						
	0.35132	0.33430					AVRG		0.38600		8.45747	
148 Isodrin	+++++	0.10136	0.09753	0.10130	0.09757	0.09481						
	0.09122	0.09037					AVRG		0.09631		4.58453	
149 Aramite	+++++	0.03841	0.04251	0.04600	0.04566	0.04690						
	0.04564	0.04428					AVRG		0.04420		6.60357	
150 Kepone	+++++	0.05674	0.06191	0.06311	0.06098	0.06085						
	0.06194	0.06656					AVRG		0.06173		4.75009	
151 p-(Dimethylamino)azobenzene	+++++	0.31224	0.31378	0.33288	0.32474	0.31931						
	0.31446	0.30396					AVRG		0.31734		2.95033	
152 Chlorobenzilate	+++++	0.30009	0.27506	0.30295	0.29512	0.29377						
	0.29203	0.28006					AVRG		0.29130		3.50189	
153 3,3'-Dimethylbenzidine	+++++	0.49489	0.52397	0.53487	0.52482	0.53397						
	0.53619	0.54473					AVRG		0.52763		3.04743	

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Method file : /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m
Cal Date : 22-Feb-2010 09:40 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
154 Famphur	+++++	0.28850	0.33742	0.33640	0.36516	0.37704					
	0.35655	0.33317					AVRG		0.34203		8.41381
155 2-Acetylaminofluorene	+++++	23996	98558	217618	290992	478700					
	598627	953419					LINR	0.12414	0.37309		0.99874
157 7,12Dimethylbenz(a)anthracene	+++++	0.45745	0.44941	0.48919	0.48420	0.49542					
	0.49422	0.48353					AVRG		0.47906		3.80416
158 3-Methylcholanthrene	+++++	0.29343	0.35502	0.37871	0.37695	0.38953					
	0.38995	0.40328					AVRG		0.36955		9.94080
26 Phthalic anhydride	+++++	10939	40864	83487	108159	203846					
	306459	+++++					LINR	0.14938	0.09004		0.99590
173 Carbazole	0.68572	0.63216	0.65059	0.65023	0.64669	0.65901					
	0.65208	0.65947					AVRG		0.65449		2.32370
174 Hexachlorophene	+++++	0.04700	0.06194	0.06687	0.06701	0.06606					
	+++++	+++++					AVRG		0.06178		13.78238
179 Dibenzo(a,e)pyrene	+++++	21397	67635	183254	214017	467062					
	+++++	+++++					LINR	0.16800	0.36891		0.99459
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

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Method file : /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m
Cal Date : 22-Feb-2010 09:40 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	0.09983	0.11502	0.14598	0.13665	0.14571					
	0.12211	0.12583					AVRG		0.12730		13.25929
191 Parathion	+++++	0.05089	0.05709	0.06102	0.06360	0.06315					
	0.06253	0.06173					AVRG		0.06000		7.60183
192 Methoxychlor	+++++	0.54663	0.59527	0.57022	0.57190	0.55995					
	0.49223	0.53082					AVRG		0.55243		6.05482
210 m-Toluidine	+++++	1.07152	1.09862	1.08267	1.09477	1.19760					
	1.39731	0.92523					AVRG		1.12396		12.87193
211 p-Toluidine	+++++	0.98878	1.01175	0.93629	0.93823	0.84629					
	0.67790	+++++					AVRG		0.89987		13.64283
212 Cis Diallate	+++++	0.25680	0.24216	0.25774	0.25015	0.25647					
	0.24871	0.25860					AVRG		0.25295		2.41779
213 Trans Diallate	+++++	0.30813	0.28675	0.29626	0.28232	0.27673					
	0.26725	0.26364					AVRG		0.28301		5.55643
214 1,4-Dinitrobenzene	+++++	0.15465	0.18602	0.18671	0.19154	0.19074					
	0.18381	0.19324					AVRG		0.18382		7.23195
215 2-Ethoxyethanol	+++++	0.69474	0.75708	0.72314	0.72734	0.69576					
	0.68979	0.68463					AVRG		0.71035		3.71426

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Method file : /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m
Cal Date : 22-Feb-2010 09:40 nat00999

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
216 Methylenebis(2-chloroaniline)	+++++	11622	37526	94270	117296	226774					
	306702	394688					LINR	0.14094	0.14618		0.99920
229 2,2'-Dichlorobenzil	+++++	0.65548	0.70788	0.67278	+++++	0.85557					
	0.79635	+++++					AVRG		0.73761		11.58274
230 4-Chlorothioanisole	+++++	65505	120100	275307	+++++	727615					
	828249	+++++					LINR	0.13623	0.30665		0.99347
231 4-Chlorothiophenol	+++++	14955	49890	195788	+++++	593706					
	683100	+++++					LINR	0.29380	0.27176		0.99219
232 bis(p-Chlorophenyl)sulfone	+++++	0.41911	0.42098	0.38909	+++++	0.48605					
	0.44832	+++++					AVRG		0.43271		8.42306
233 bis(p-Chlorophenyl)disulfide	+++++	0.19644	0.20913	0.18244	+++++	0.22594					
	0.20806	+++++					AVRG		0.20440		7.90920
234 Diphenyl disulfide	+++++	0.20078	0.21401	0.19911	+++++	0.24759					
	0.23595	+++++					AVRG		0.21949		9.81334
235 Diphenyl sulfide	+++++	0.77537	0.76082	0.73538	+++++	0.86393					
	0.82035	+++++					AVRG		0.79117		6.45415
236 Phenyl sulfone	+++++	0.43220	0.43102	0.40994	+++++	0.50304					
	0.47114	+++++					AVRG		0.44947		8.28032

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Method file : /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m
Cal Date : 22-Feb-2010 09:40 nat00999

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
237 Hydroxymethyl phthalimide	+++++	0.14671	0.15531	0.12673	+++++	0.19818					
	0.17963	+++++					AVRG		0.16131		17.36813 <-
238 Phthalic acid	+++++	13646	40994	115933	+++++	343308					
	402020	+++++					LINR	0.25337	0.15547		0.99358
239 Thiophenol	+++++	41092	104698	327879	+++++	922601					
	1046955	+++++					LINR	0.23456	1.46946		0.99364
240 bis(Chloromethyl)ether	+++++	1.01755	1.00429	0.94829	+++++	1.10480					
	1.05711	+++++					AVRG		1.02641		5.71407
241 Octachlorostyrene	+++++	0.06097	0.06109	0.05953	+++++	0.07399					
	0.07072	+++++					AVRG		0.06526		10.12747
M 225 Trichlorophenols	+++++	0.27800	0.29958	0.28751	0.28920	0.28074					
	0.26883	0.26877					AVRG		0.28180		3.98593
M 226 Tetrachlorophenols	+++++	0.20640	0.23481	0.21862	0.21374	0.22201					
	0.21460	0.22254					AVRG		0.21896		4.07356
M 227 Benzo(b,k)fluoranthene	0.73667	0.86303	0.94898	0.91431	0.92802	0.89592					
	0.88671	0.88707					AVRG		0.88259		7.33906
M 228 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

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INITIAL CALIBRATION DATA

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Integrator : HP RTE
Method file : /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m
Cal Date : 22-Feb-2010 09:40 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
$ 3 2-Fluorophenol	+++++	0.98202	1.07204	1.02934	1.03017	0.98830					
	0.95348	0.95648					AVRG		1.00169		4.36295
$ 5 Phenol-d5	+++++	1.23734	1.34586	1.27212	1.28456	1.26316					
	1.22407	1.22277					AVRG		1.26427		3.41674
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-
$ 20 Nitrobenzene-d5	+++++	0.30745	0.31426	0.29453	0.29315	0.27101					
	0.25359	0.24671					AVRG		0.28296		9.27927
$ 39 2-Fluorobiphenyl	+++++	1.11512	1.14628	1.04977	1.05601	0.99136					
	0.92488	0.93239					AVRG		1.03083		8.29816
$ 60 2,4,6-Tribromophenol	+++++	0.10485	0.11685	0.11180	0.11267	0.12310					
	0.12190	0.12607					AVRG		0.11675		6.41378
$ 81 p-Terphenyl-d14	+++++	0.71309	0.69797	0.64349	0.66522	0.61764					
	0.59401	0.58404					AVRG		0.64507		7.73004

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End Cal Date : 11-NOV-2009 04:38
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Method file : /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m
Cal Date : 22-Feb-2010 09:40 nat00999

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

Data file : /chem/MSD6.i/s110909.b/s6k0913.d
Lab Smp Id: WBN091106-08 Client Smp ID: MEGAICAL
Inj Date : 09-NOV-2009 18:53
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-08|1 PPM|1|SVMF|1|MEGAICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:51 nat00999 Quant Type: ISTD
Cal Date : 09-NOV-2009 18:53 Cal File: s6k0913.d
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.833	4.833	(1.000)	284776	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	1018965	40.0000	
* 46 Acenaphthene-d10	164	7.986	7.986	(1.000)	545612	40.0000	
* 67 Phenanthrene-d10	188	9.598	9.598	(1.000)	921774	40.0000	
* 91 Chrysene-d12	240	12.615	12.615	(1.000)	727011	40.0000	
* 98 Perylene-d12	264	14.955	14.955	(1.000)	586942	40.0000	
1 N-Methyl-N-nitrosomethylamine	74	2.663	2.663	(0.551)	4297	1.00000	0.89(H)
7 bis(2-Chloroethyl) ether	63	4.548	4.548	(0.941)	6647	1.00000	1.1
17 N-Nitrosodipropylamine	70	5.190	5.190	(1.074)	4673	1.00000	0.93
30 Naphthalene	128	6.133	6.133	(1.003)	23838	1.00000	1.2
34 2-Methylnaphthalene	142	6.857	6.857	(1.122)	14464	1.00000	1.2
35 1-Methylnaphthalene	142	6.964	6.964	(1.139)	14233	1.00000	1.2
40 2-Chloronaphthalene	162	7.379	7.379	(0.924)	12441	1.00000	1.0
43 Dimethylphthalate	163	7.657	7.657	(0.959)	13728	1.00000	0.98
45 Acenaphthylene	152	7.830	7.830	(0.981)	19789	1.00000	1.0
47 Acenaphthene	154	8.016	8.016	(1.004)	13334	1.00000	1.1
51 Diethylphthalate	149	8.414	8.414	(1.054)	15410	1.00000	1.1
53 Fluorene	166	8.572	8.572	(1.073)	14587	1.00000	1.1
68 Phenanthrene	178	9.619	9.619	(1.002)	21906	1.00000	1.1
69 Anthracene	178	9.672	9.672	(1.008)	20206	1.00000	1.1
72 Di-n-butylphthalate	149	10.187	10.187	(1.061)	17369	1.00000	0.79
76 Fluoranthene	202	10.908	10.908	(1.136)	18065	1.00000	0.99
79 Pyrene	202	11.158	11.158	(0.884)	20377	1.00000	1.0(H)
85 Butylbenzylphthalate	149	11.838	11.838	(0.938)	5225	1.00000	0.57
89 Benzo(a)anthracene	228	12.592	12.592	(0.998)	17125	1.00000	1.1
92 Chrysene	228	12.643	12.643	(1.002)	15848	1.00000	1.0(H)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
93 bis(2-Ethylhexyl)phthalate	149	12.572	12.572	(0.997)	7340	1.00000	0.98
94 Di-n-octylphthalate	149	13.558	13.558	(0.907)	6621	1.00000	0.35
95 Benzo(b)fluoranthene	252	14.261	14.261	(0.954)	10882	1.00000	0.84(H)
96 Benzo(k)fluoranthene	252	14.310	14.310	(0.957)	10737	1.00000	0.83(H)
97 Benzo(a)pyrene	252	14.842	14.842	(0.992)	7950	1.00000	0.71
99 Indeno(1,2,3-cd)pyrene	276	16.929	16.929	(1.132)	5888	1.00000	3.5(H)
100 Dibenzo(a,h)anthracene	278	16.962	16.962	(1.134)	3385	1.00000	3.1(H)
101 Benzo(ghi)perylene	276	17.434	17.434	(1.166)	6118	1.00000	0.71(H)
173 Carbazole	167	9.835	9.835	(1.025)	15802	1.00000	1.0
M 227 Benzo(b,k)fluoranthene	252				21619	2.00000	1.7

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0913.d
Date : 09-NOV-2009 18:53
Client ID: MEGAICAL
Sample Info: IWBN091106-0811 PPMI1|SVMFI1|MEGAICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JHB3
Column diameter: 0.20

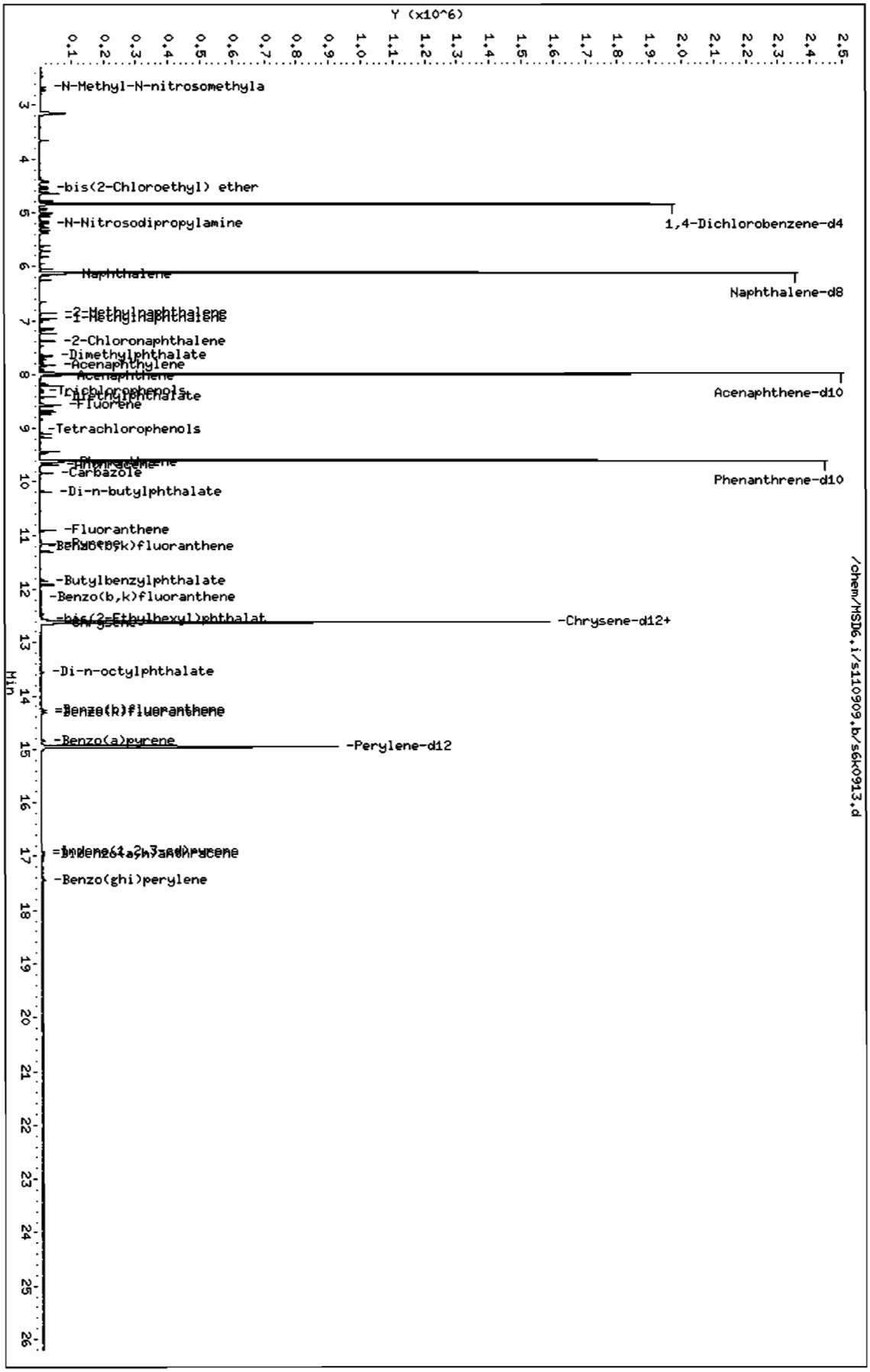

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Data file : /chem/MSD6.i/s110909.b/s6k0914.d
Lab Smp Id: WBN091106-07 Client Smp ID: MEGAICAL
Inj Date : 09-NOV-2009 19:31
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-07|10 PPM|1|SVMF|1|MEGAICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:51 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 01:47 Cal File: s6k0948.d
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	282234	40.0000	
* 29 Naphthalene-d8	136	6.115	6.115	(1.000)	1024045	40.0000	
* 46 Acenaphthene-d10	164	7.986	7.986	(1.000)	524483	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	864358	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	561593	40.0000	
* 98 Perylene-d12	264	14.950	14.950	(1.000)	416639	40.0000	
$ 3 2-Fluorophenol	112	3.649	3.649	(0.755)	69290	10.0000	9.8
$ 5 Phenol-d5	99	4.426	4.426	(0.916)	87305	10.0000	9.8
$ 20 Nitrobenzene-d5	82	5.366	5.366	(0.877)	78711	10.0000	10.9
$ 39 2-Fluorobiphenyl	172	7.239	7.239	(0.906)	146216	10.0000	10.8
$ 60 2,4,6-Tribromophenol	329	8.829	8.829	(1.106)	13748	10.0000	9.0
$ 81 p-Terphenyl-d14	244	11.303	11.303	(0.896)	100117	10.0000	11.0
1 N-Methyl-N-nitrosomethylamine	74	2.660	2.660	(0.550)	44248	10.0000	9.2
2 Pyridine	79	2.703	2.703	(0.559)	55393	10.0000	9.3
4 Aniline	66	4.515	4.515	(0.934)	36544	10.0000	9.8
6 Phenol	94	4.439	4.439	(0.918)	91430	10.0000	10.2(Q)
7 bis(2-Chloroethyl) ether	63	4.553	4.553	(0.942)	63542	10.0000	10.5
8 2-Chlorophenol	128	4.630	4.630	(0.958)	74277	10.0000	10.3
203 n-Decane	43	4.643	4.643	(0.960)	111268	10.0000	11.1
9 1,3-Dichlorobenzene	146	4.783	4.783	(0.989)	86374	10.0000	10.4
11 1,4-Dichlorobenzene	146	4.852	4.852	(1.004)	89752	10.0000	10.7
13 1,2-Dichlorobenzene	146	4.999	4.999	(1.034)	82318	10.0000	10.5
14 bis(2-Chloroisopropyl)ether	45	5.066	5.066	(1.048)	146504	10.0000	10.8
12 Benzyl alcohol	108	4.936	4.936	(1.021)	42970	10.0000	9.6
15 o-Cresol	107	5.022	5.022	(1.039)	58558	10.0000	10
18 m,p-Cresols	107	5.170	5.170	(1.070)	73092	10.0000	9.8(H)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.196	5.196	(1.075)	52296	10.0000	10.4
19 Hexachloroethane	117	5.338	5.338	(1.104)	32320	10.0000	9.9
21 Nitrobenzene	77	5.387	5.387	(0.881)	81133	10.0000	11.1
22 Isophorone	82	5.618	5.618	(0.919)	143086	10.0000	11.0
23 2-Nitrophenol	139	5.705	5.705	(0.933)	34440	10.0000	10.2
24 2,4-Dimethylphenol	122	5.715	5.715	(0.935)	61410	10.0000	11.0
25 bis(2-Chloroethoxy)methane	93	5.822	5.822	(0.952)	85015	10.0000	11.2
26 2,4-Dichlorophenol	162	5.945	5.945	(0.972)	50883	10.0000	10.0
27 Benzoic acid	105	5.756	5.756	(0.941)	13180	10.0000	3.8(QH)
28 1,2,4-Trichlorobenzene	180	6.044	6.044	(0.988)	71193	10.0000	11.5
30 Naphthalene	128	6.136	6.136	(1.003)	217984	10.0000	10.7
204 alpha-Terpineol	59	6.120	6.120	(1.001)	60361	10.0000	10.8
31 4-Chloroaniline	127	6.169	6.169	(1.009)	67559	10.0000	10.3
32 Hexachlorobutadiene	225	6.250	6.250	(1.022)	36520	10.0000	11.3
33 4-Chloro-3-methylphenol	107	6.650	6.650	(1.087)	53312	10.0000	10.4
34 2-Methylnaphthalene	142	6.859	6.859	(1.122)	137596	10.0000	11.2
35 1-Methylnaphthalene	142	6.966	6.966	(1.139)	135270	10.0000	11.2
36 Hexachlorocyclopentadiene	237	7.022	7.022	(0.879)	17728	10.0000	8.4
205 2,3-Dichloroaniline	161	7.152	7.152	(0.896)	68026	10.0000	10.8
37 2,4,6-Trichlorophenol	196	7.145	7.145	(0.895)	36150	10.0000	10.1
38 2,4,5-Trichlorophenol	196	7.180	7.180	(0.899)	36754	10.0000	9.6
40 2-Chloronaphthalene	162	7.382	7.382	(0.924)	124461	10.0000	10.6
42 o-Nitroaniline	65	7.474	7.474	(0.936)	37570	10.0000	9.3
41 m-Nitroaniline	138	7.914	7.914	(0.991)	24951	10.0000	8.4
43 Dimethylphthalate	163	7.662	7.662	(0.959)	144565	10.0000	10.7
44 2,6-Dinitrotoluene	165	7.731	7.731	(0.968)	32595	10.0000	10.2
50 2,4-Dinitrotoluene	165	8.164	8.164	(1.022)	37616	10.0000	9.3
45 Acenaphthylene	152	7.833	7.833	(0.981)	200921	10.0000	10.6
47 Acenaphthene	154	8.019	8.019	(1.004)	122550	10.0000	10.4
48 2,4-Dinitrophenol	184	8.024	8.024	(1.005)	3239	10.0000	16.4(Q)
49 Dibenzofuran	168	8.202	8.202	(1.027)	171816	10.0000	10.8
51 Diethylphthalate	149	8.416	8.416	(1.054)	142170	10.0000	10.5
52 4-Nitrophenol	139	8.060	8.060	(1.009)	12277	10.0000	11.9
53 Fluorene	166	8.574	8.574	(1.074)	138291	10.0000	10.6
54 4-Chlorophenylphenylether	204	8.559	8.559	(1.072)	65483	10.0000	10.6
55 2-Methyl-4,6-dinitrophenol	198	8.605	8.605	(0.896)	9251	10.0000	11.1
56 p-Nitroaniline	138	8.572	8.572	(1.073)	18297	10.0000	12.5(H)
133 Diphenylamine	169	8.681	8.681	(0.904)	110713	10.0000	10.6
58 1,2-Diphenylhydrazine	77	8.732	8.732	(0.910)	141081	10.0000	10.6
61 4-Bromophenylphenylether	248	9.092	9.092	(0.947)	35269	10.0000	10.3
63 Hexachlorobenzene	284	9.168	9.168	(0.955)	36891	10.0000	10.3
65 Pentachlorophenol	266	9.372	9.372	(0.976)	12427	10.0000	11.1
206 n-Octadecane	57	9.428	9.428	(0.982)	111561	10.0000	11.7
68 Phenanthrene	178	9.622	9.622	(1.002)	191461	10.0000	10.7
69 Anthracene	178	9.675	9.675	(1.008)	186256	10.0000	10.4
72 Di-n-butylphthalate	149	10.187	10.187	(1.061)	216333	10.0000	10.5
76 Fluoranthene	202	10.911	10.911	(1.137)	171763	10.0000	10.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.161	11.161	(0.885)	183951	10.0000	11.9
85 Butylbenzylphthalate	149	11.838	11.838	(0.939)	73769	10.0000	10.4
89 Benzo(a)anthracene	228	12.593	12.593	(0.998)	120048	10.0000	9.9
92 Chrysene	228	12.644	12.644	(1.002)	117313	10.0000	10.1
93 bis(2-Ethylhexyl)phthalate	149	12.567	12.567	(0.996)	107837	10.0000	11.4
94 Di-n-octylphthalate	149	13.558	13.558	(0.907)	124585	10.0000	9.4
95 Benzo(b)fluoranthene	252	14.264	14.264	(0.954)	89317	10.0000	9.7
96 Benzo(k)fluoranthene	252	14.313	14.313	(0.957)	90470	10.0000	9.9
97 Benzo(a)pyrene	252	14.843	14.843	(0.993)	73542	10.0000	9.2
99 Indeno(1,2,3-cd)pyrene	276	16.932	16.932	(1.133)	60939	10.0000	10.5
100 Dibenzo(a,h)anthracene	278	16.963	16.963	(1.135)	46770	10.0000	9.8
101 Benzo(ghi)perylene	276	17.444	17.444	(1.167)	55442	10.0000	9.1
126 m-Dinitrobenzene	168	7.700	7.700	(0.964)	20247	10.0000	9.1
130 2,3,4,6-Tetrachlorophenol	232	8.322	8.322	(1.042)	27063	10.0000	9.4
143 Dinoseb	211	9.558	9.558	(0.996)	11996	10.0000	10
173 Carbazole	167	9.836	9.836	(1.025)	136603	10.0000	9.6
184 p-Benzoquinone	54	4.082	4.082	(0.844)	7044	10.0000	7.8
192 Methoxychlor	227	12.465	12.465	(0.988)	76746	10.0000	9.9
211 p-Toluidine	106	5.249	5.249	(1.086)	69767	10.0000	11.0
210 m-Toluidine	106	5.280	5.280	(1.092)	75605	10.0000	9.5
26 Phthalic anhydride	104	6.900	6.900	(1.128)	10939	10.0000	10.7
179 Dibenzo(a,e)pyrene	302	21.164	21.164	(1.416)	21397	10.0000	12.3
214 1,4-Dinitrobenzene	75	7.619	7.619	(0.954)	20278	10.0000	8.4
215 2-Ethoxyethanol	59	2.449	2.449	(0.507)	49020	10.0000	9.8
216 Methylenebis(2-chloroaniline)	231	12.534	12.534	(0.994)	11622	10.0000	11.3(Q)
M 225 Trichlorophenols	196				72904	20.0000	19.7
M 226 Tetrachlorophenols	232				27063	10.0000	9.4
M 227 Benzo(b,k)fluoranthene	252				179787	20.0000	19.6

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0914.d
Date : 09-NOV-2009 19:31
Client ID: MEGAICAL
Sample Info: IWBN091106-07110 PPM11SVHF11MEGAICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

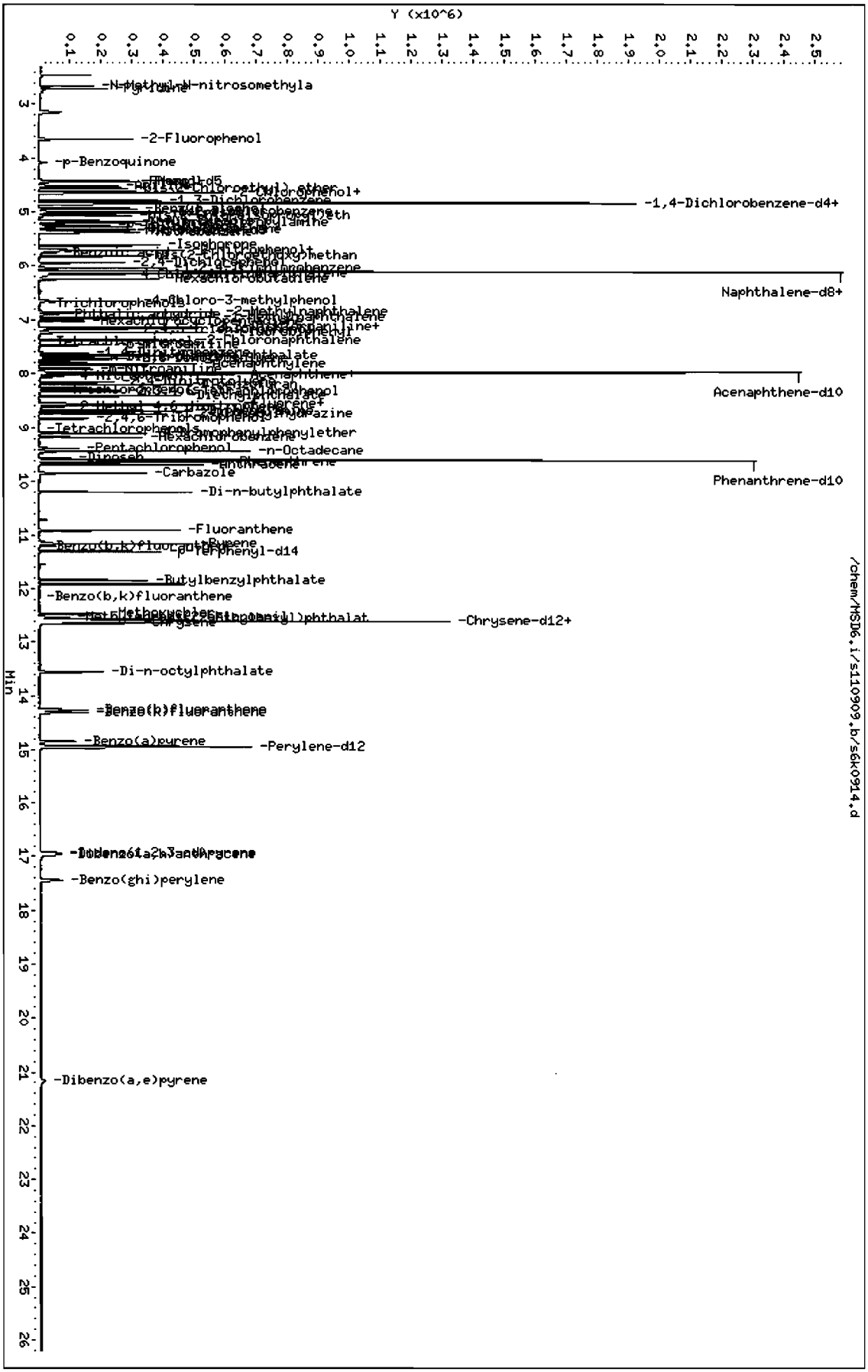

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GEL Laboratories LLC

Data file : /chem/MSD6.i/s110909.b/s6k0915.d
Lab Smp Id: WBN091106-06 Client Smp ID: MEGAICAL
Inj Date : 09-NOV-2009 20:09
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-06|20 PPM|1|SVMF|1|MEGAICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:51 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 02:16 Cal File: s6k0949.d
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.836	4.836	(1.000)	289417	40.0000	
* 29 Naphthalene-d8	136	6.115	6.115	(1.000)	1088371	40.0000	
* 46 Acenaphthene-d10	164	7.988	7.988	(1.000)	552569	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	946467	40.0000	
* 91 Chrysene-d12	240	12.616	12.616	(1.000)	713356	40.0000	
* 98 Perylene-d12	264	14.957	14.957	(1.000)	558138	40.0000	
$ 3 2-Fluorophenol	112	3.649	3.649	(0.754)	155134	20.0000	21.4
$ 5 Phenol-d5	99	4.429	4.429	(0.916)	194758	20.0000	21.3
$ 20 Nitrobenzene-d5	82	5.369	5.369	(0.878)	171017	20.0000	22.2
$ 39 2-Fluorobiphenyl	172	7.242	7.242	(0.907)	316700	20.0000	22.2
$ 60 2,4,6-Tribromophenol	329	8.829	8.829	(1.105)	32283	20.0000	20.0
$ 81 p-Terphenyl-d14	244	11.303	11.303	(0.896)	248952	20.0000	21.6
1 N-Methyl-N-nitrosomethylamine	74	2.663	2.663	(0.551)	104210	20.0000	21.2
2 Pyridine	79	2.704	2.704	(0.559)	122054	20.0000	19.9
4 Aniline	66	4.518	4.518	(0.934)	81443	20.0000	21.3
6 Phenol	94	4.441	4.441	(0.918)	200579	20.0000	21.8(Q)
7 bis(2-Chloroethyl) ether	63	4.556	4.556	(0.942)	134214	20.0000	21.5
8 2-Chlorophenol	128	4.630	4.630	(0.957)	159676	20.0000	21.6
203 n-Decane	43	4.643	4.643	(0.960)	230112	20.0000	22.4
9 1,3-Dichlorobenzene	146	4.783	4.783	(0.989)	184659	20.0000	21.7
11 1,4-Dichlorobenzene	146	4.852	4.852	(1.003)	191069	20.0000	22.2
13 1,2-Dichlorobenzene	146	4.999	4.999	(1.034)	176121	20.0000	21.9
14 bis(2-Chloroisopropyl)ether	45	5.068	5.068	(1.048)	308699	20.0000	22.2
12 Benzyl alcohol	108	4.941	4.941	(1.022)	95096	20.0000	20.7
15 o-Cresol	107	5.022	5.022	(1.038)	128253	20.0000	21.3
18 m,p-Cresols	107	5.175	5.175	(1.070)	162927	20.0000	21.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.201	5.201	(1.075)	114104	20.0000	22.2
19 Hexachloroethane	117	5.338	5.338	(1.104)	71665	20.0000	21.5
21 Nitrobenzene	77	5.389	5.389	(0.881)	176947	20.0000	22.8
22 Isophorone	82	5.621	5.621	(0.919)	314669	20.0000	22.9
23 2-Nitrophenol	139	5.708	5.708	(0.933)	77352	20.0000	21.6
24 2,4-Dimethylphenol	122	5.715	5.715	(0.935)	122636	20.0000	20.7
25 bis(2-Chloroethoxy)methane	93	5.822	5.822	(0.952)	185821	20.0000	23.0
26 2,4-Dichlorophenol	162	5.947	5.947	(0.972)	116696	20.0000	21.7
27 Benzoic acid	105	5.782	5.782	(0.945)	57602	20.0000	15.7
28 1,2,4-Trichlorobenzene	180	6.047	6.047	(0.989)	149963	20.0000	22.7
30 Naphthalene	128	6.136	6.136	(1.003)	464010	20.0000	21.4
204 alpha-Terpineol	59	6.123	6.123	(1.001)	138713	20.0000	23.3
31 4-Chloroaniline	127	6.169	6.169	(1.009)	153437	20.0000	22.0
32 Hexachlorobutadiene	225	6.251	6.251	(1.022)	79219	20.0000	23.0
33 4-Chloro-3-methylphenol	107	6.651	6.651	(1.087)	122902	20.0000	22.6
34 2-Methylnaphthalene	142	6.860	6.860	(1.122)	298046	20.0000	22.7
35 1-Methylnaphthalene	142	6.967	6.967	(1.139)	289552	20.0000	22.6
36 Hexachlorocyclopentadiene	237	7.023	7.023	(0.879)	49109	20.0000	22.0
205 2,3-Dichloroaniline	161	7.153	7.153	(0.895)	147220	20.0000	22.2
37 2,4,6-Trichlorophenol	196	7.145	7.145	(0.894)	81873	20.0000	21.7
38 2,4,5-Trichlorophenol	196	7.181	7.181	(0.899)	83664	20.0000	20.8
40 2-Chloronaphthalene	162	7.384	7.384	(0.924)	270690	20.0000	21.8
42 o-Nitroaniline	65	7.476	7.476	(0.936)	90640	20.0000	21.3
41 m-Nitroaniline	138	7.917	7.917	(0.991)	64063	20.0000	20.6
43 Dimethylphthalate	163	7.665	7.665	(0.959)	309149	20.0000	21.8
44 2,6-Dinitrotoluene	165	7.736	7.736	(0.968)	71471	20.0000	21.1
50 2,4-Dinitrotoluene	165	8.169	8.169	(1.023)	89865	20.0000	21.1
45 Acenaphthylene	152	7.835	7.835	(0.981)	441326	20.0000	22.1
47 Acenaphthene	154	8.021	8.021	(1.004)	268137	20.0000	21.5
48 2,4-Dinitrophenol	184	8.027	8.027	(1.005)	15920	20.0000	23.3(Q)
49 Dibenzofuran	168	8.205	8.205	(1.027)	373458	20.0000	22.2
51 Diethylphthalate	149	8.422	8.422	(1.054)	312734	20.0000	21.9
52 4-Nitrophenol	139	8.065	8.065	(1.010)	40572	20.0000	21.9
53 Fluorene	166	8.574	8.574	(1.073)	304628	20.0000	22.1
54 4-Chlorophenylphenylether	204	8.562	8.562	(1.072)	144619	20.0000	22.2
55 2-Methyl-4,6-dinitrophenol	198	8.608	8.608	(0.897)	34357	20.0000	20.6
56 p-Nitroaniline	138	8.577	8.577	(1.074)	49968	20.0000	21.2
133 Diphenylamine	169	8.687	8.687	(0.905)	242668	20.0000	21.3
58 1,2-Diphenylhydrazine	77	8.735	8.735	(0.910)	321489	20.0000	22.2
61 4-Bromophenylphenylether	248	9.094	9.094	(0.947)	79306	20.0000	21.2
63 Hexachlorobenzene	284	9.171	9.171	(0.955)	82935	20.0000	21.2
65 Pentachlorophenol	266	9.374	9.374	(0.977)	38945	20.0000	21.9
206 n-Octadecane	57	9.431	9.431	(0.982)	244179	20.0000	23.4
68 Phenanthrene	178	9.624	9.624	(1.003)	424706	20.0000	21.7
69 Anthracene	178	9.678	9.678	(1.008)	428435	20.0000	21.9
72 Di-n-butylphthalate	149	10.187	10.187	(1.061)	495257	20.0000	22.0
76 Fluoranthene	202	10.911	10.911	(1.137)	411837	20.0000	22.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.163	11.163	(0.885)	437071	20.0000	22.3
85 Butylbenzylphthalate	149	11.838	11.838	(0.938)	192705	20.0000	21.5
89 Benzo(a)anthracene	228	12.598	12.598	(0.999)	320405	20.0000	20.8
92 Chrysene	228	12.651	12.651	(1.003)	311544	20.0000	21.1
93 bis(2-Ethylhexyl)phthalate	149	12.570	12.570	(0.996)	270739	20.0000	22.1
94 Di-n-octylphthalate	149	13.561	13.561	(0.907)	378096	20.0000	21.3
95 Benzo(b)fluoranthene	252	14.269	14.269	(0.954)	263103	20.0000	21.3
96 Benzo(k)fluoranthene	252	14.318	14.318	(0.957)	266560	20.0000	21.7
97 Benzo(a)pyrene	252	14.848	14.848	(0.993)	226418	20.0000	21.2
99 Indeno(1,2,3-cd)pyrene	276	16.935	16.935	(1.132)	200863	20.0000	21.3
100 Dibenzo(a,h)anthracene	278	16.970	16.970	(1.135)	157194	20.0000	20.4
101 Benzo(ghi)perylene	276	17.449	17.449	(1.167)	169870	20.0000	20.8
126 m-Dinitrobenzene	168	7.703	7.703	(0.964)	48351	20.0000	20.7
130 2,3,4,6-Tetrachlorophenol	232	8.322	8.322	(1.042)	64873	20.0000	21.4
143 Dinoseb	211	9.558	9.558	(0.996)	47856	20.0000	19.9
173 Carbazole	167	9.838	9.838	(1.025)	307883	20.0000	19.9
184 p-Benzoquinone	54	4.085	4.085	(0.845)	16645	20.0000	18.1
192 Methoxychlor	227	12.468	12.468	(0.988)	212321	20.0000	21.6
211 p-Toluidine	106	5.249	5.249	(1.085)	146409	20.0000	22.5
210 m-Toluidine	106	5.282	5.282	(1.092)	158980	20.0000	19.5
26 Phthalic anhydride	104	6.905	6.905	(1.129)	40864	20.0000	22.6
179 Dibenzo(a,e)pyrene	302	21.177	21.177	(1.416)	67635	20.0000	19.8
214 1,4-Dinitrobenzene	75	7.624	7.624	(0.954)	51394	20.0000	20.2
215 2-Ethoxyethanol	59	2.454	2.454	(0.507)	109556	20.0000	21.3
216 Methylenebis(2-chloroaniline)	231	12.537	12.537	(0.994)	37526	20.0000	20.0(Q)
M 225 Trichlorophenols	196				165537	40.0000	42.5
M 226 Tetrachlorophenols	232				64873	20.0000	21.4
M 227 Benzo(b,k)fluoranthene	252				529663	40.0000	43.0

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0915.d

Page 1

Date : 09-NOV-2009 20:09

Client ID: MEGAICAL

Instrument: MSD6.i

Sample Info: |WBN091106-06|20 PPM|1|SVMF|1|MEGAICAL

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

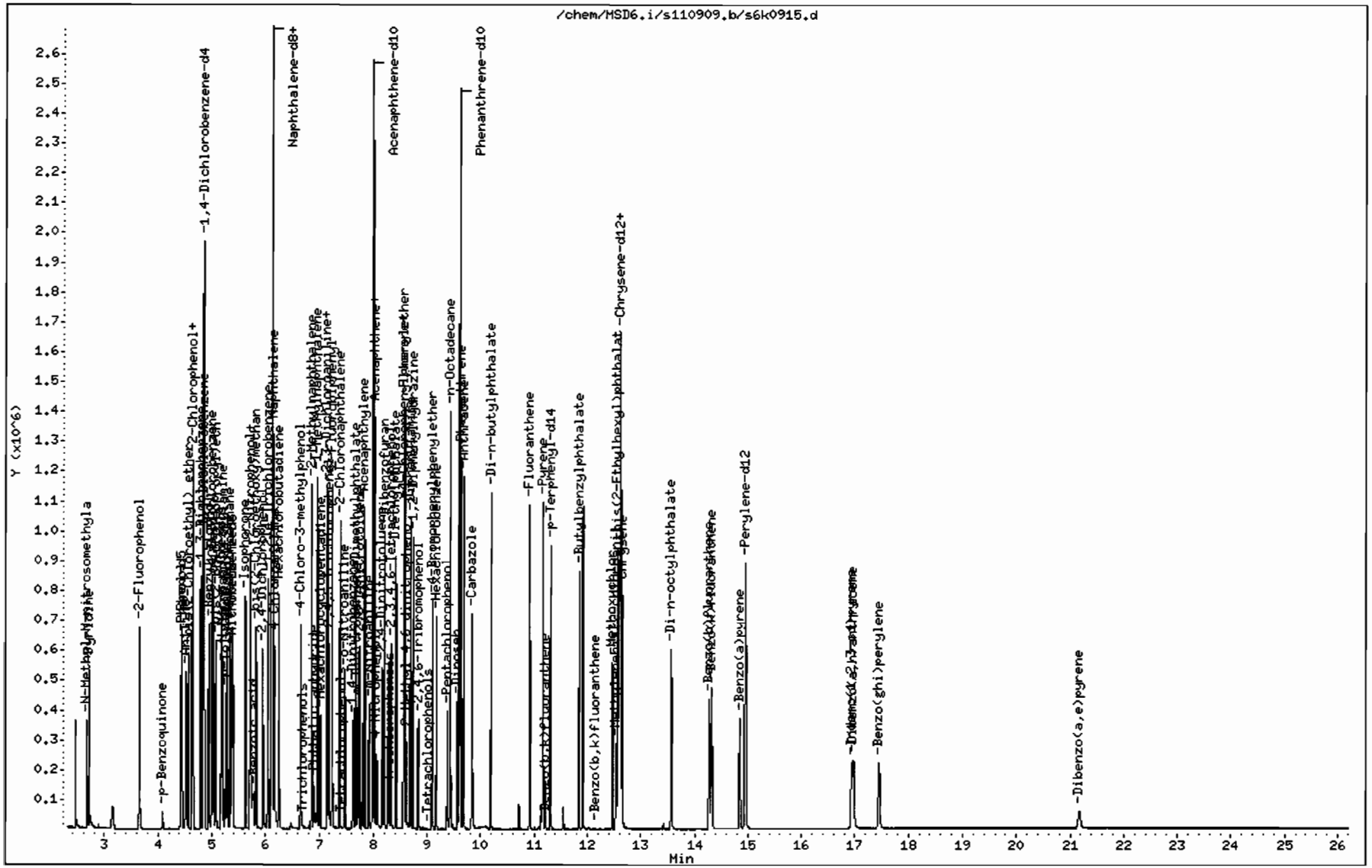

GEL Laboratories LLC

Data file : /chem/MSD6.i/s110909.b/s6k0916.d
Lab Smp Id: WBN091106-05.1 Client Smp ID: MEGAICAL
Inj Date : 09-NOV-2009 20:46
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-05.1|40 PPM|1|SVMF|1|MEGAICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s020210.b/MSD6-M8270C-BJCO-020210.m
Meth Date : 03-Feb-2010 11:52 nat00999 Quant Type: ISTD
Cal Date : 02-FEB-2010 18:19 Cal File: s6b0207.d
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.836	4.836	(1.000)	298722	40.0000	
* 29 Naphthalene-d8	136	6.118	6.118	(1.000)	1143952	40.0000	
* 46 Acenaphthene-d10	164	7.991	7.991	(1.000)	575628	40.0000	
* 67 Phenanthrene-d10	188	9.601	9.601	(1.000)	993660	40.0000	
* 91 Chrysene-d12	240	12.623	12.623	(1.000)	793787	40.0000	
* 98 Perylene-d12	264	14.960	14.960	(1.000)	630407	40.0000	
$ 3 2-Fluorophenol	112	3.651	3.651	(0.755)	307486	40.0000	41.1
$ 5 Phenol-d5	99	4.434	4.434	(0.917)	380010	40.0000	40.2
$ 20 Nitrobenzene-d5	82	5.374	5.374	(0.878)	336930	40.0000	41.6
$ 39 2-Fluorobiphenyl	172	7.244	7.244	(0.907)	604279	40.0000	40.7
$ 60 2,4,6-Tribromophenol	329	8.834	8.834	(1.106)	64358	40.0000	38.3
$ 81 p-Terphenyl-d14	244	11.308	11.308	(0.896)	510797	40.0000	39.9
1 N-Methyl-N-nitrosomethylamine	74	2.665	2.665	(0.551)	209088	40.0000	41.1
2 Pyridine	79	2.701	2.701	(0.558)	282146	40.0000	44.6
4 Aniline	66	4.520	4.520	(0.935)	158171	40.0000	40.1
6 Phenol	94	4.446	4.446	(0.919)	382231	40.0000	40.3
7 bis(2-Chloroethyl) ether	63	4.559	4.559	(0.943)	254729	40.0000	39.6
8 2-Chlorophenol	128	4.632	4.632	(0.958)	313640	40.0000	41.1
203 n-Decane	43	4.645	4.645	(0.960)	420146	40.0000	39.5
9 1,3-Dichlorobenzene	146	4.785	4.785	(0.989)	360873	40.0000	41.1
11 1,4-Dichlorobenzene	146	4.854	4.854	(1.004)	364217	40.0000	40.9
13 1,2-Dichlorobenzene	146	5.002	5.002	(1.034)	338533	40.0000	40.8
14 bis(2-Chloroisopropyl)ether	45	5.071	5.071	(1.048)	594721	40.0000	41.4
12 Benzyl alcohol	108	4.946	4.946	(1.023)	188324	40.0000	39.8
15 o-Cresol	107	5.027	5.027	(1.040)	250999	40.0000	40.4
18 m,p-Cresols	107	5.183	5.183	(1.072)	313533	40.0000	39.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.211	5.211	(1.077)	217747	40.0000	41.1
19 Hexachloroethane	117	5.338	5.338	(1.104)	141565	40.0000	41.1
21 Nitrobenzene	77	5.394	5.394	(0.882)	341873	40.0000	41.9
22 Isophorone	82	5.629	5.629	(0.920)	609361	40.0000	42.1
23 2-Nitrophenol	139	5.710	5.710	(0.933)	155591	40.0000	41.4
24 2,4-Dimethylphenol	122	5.720	5.720	(0.935)	240998	40.0000	38.7
25 bis(2-Chloroethoxy)methane	93	5.827	5.827	(0.953)	353549	40.0000	41.6
26 2,4-Dichlorophenol	162	5.952	5.952	(0.973)	239324	40.0000	42.3
27 Benzoic acid	105	5.815	5.815	(0.950)	141142	40.0000	36.7(H)
28 1,2,4-Trichlorobenzene	180	6.049	6.049	(0.989)	288440	40.0000	41.6
30 Naphthalene	128	6.141	6.141	(1.004)	869601	40.0000	38.1
204 alpha-Terpineol	59	6.128	6.128	(1.002)	251702	40.0000	40.2
31 4-Chloroaniline	127	6.174	6.174	(1.009)	308766	40.0000	42.1
32 Hexachlorobutadiene	225	6.253	6.253	(1.022)	150798	40.0000	41.7
33 4-Chloro-3-methylphenol	107	6.656	6.656	(1.088)	239902	40.0000	42.0
34 2-Methylnaphthalene	142	6.862	6.862	(1.122)	570340	40.0000	41.4
35 1-Methylnaphthalene	142	6.972	6.972	(1.140)	553281	40.0000	41.1
36 Hexachlorocyclopentadiene	237	7.023	7.023	(0.879)	87000	40.0000	37.4
205 2,3-Dichloroaniline	161	7.158	7.158	(0.896)	277867	40.0000	40.3
37 2,4,6-Trichlorophenol	196	7.150	7.150	(0.895)	161512	40.0000	41.1
38 2,4,5-Trichlorophenol	196	7.186	7.186	(0.899)	169483	40.0000	40.5
40 2-Chloronaphthalene	162	7.387	7.387	(0.924)	522872	40.0000	40.4
42 o-Nitroaniline	65	7.481	7.481	(0.936)	177361	40.0000	40.1
41 m-Nitroaniline	138	7.925	7.925	(0.992)	132538	40.0000	40.9
43 Dimethylphthalate	163	7.675	7.675	(0.960)	605104	40.0000	41.0
44 2,6-Dinitrotoluene	165	7.741	7.741	(0.969)	142474	40.0000	40.4
50 2,4-Dinitrotoluene	165	8.174	8.174	(1.023)	180702	40.0000	40.7
45 Acenaphthylene	152	7.840	7.840	(0.981)	847979	40.0000	40.8
47 Acenaphthene	154	8.027	8.027	(1.004)	523279	40.0000	40.3
48 2,4-Dinitrophenol	184	8.032	8.032	(1.005)	45695	40.0000	38.8
49 Dibenzofuran	168	8.207	8.207	(1.027)	714305	40.0000	40.8
51 Diethylphthalate	149	8.427	8.427	(1.055)	611739	40.0000	41.1
52 4-Nitrophenol	139	8.072	8.072	(1.010)	90802	40.0000	38.6
53 Fluorene	166	8.579	8.579	(1.074)	580101	40.0000	40.4
54 4-Chlorophenylphenylether	204	8.564	8.564	(1.072)	279403	40.0000	41.1
55 2-Methyl-4,6-dinitrophenol	198	8.618	8.618	(0.898)	85168	40.0000	38.9
56 p-Nitroaniline	138	8.585	8.585	(1.074)	114446	40.0000	38.2
133 Diphenylamine	169	8.692	8.692	(0.905)	486846	40.0000	40.6
58 1,2-Diphenylhydrazine	77	8.740	8.740	(0.910)	623327	40.0000	40.9
61 4-Bromophenylphenylether	248	9.097	9.097	(0.947)	158482	40.0000	40.4
63 Hexachlorobenzene	284	9.176	9.176	(0.956)	165966	40.0000	40.4
65 Pentachlorophenol	266	9.377	9.377	(0.977)	80211	40.0000	37.8
206 n-Octadecane	57	9.433	9.433	(0.982)	455414	40.0000	41.5
68 Phenanthrene	178	9.627	9.627	(1.003)	826930	40.0000	40.2
69 Anthracene	178	9.683	9.683	(1.008)	834373	40.0000	40.6
72 Di-n-butylphthalate	149	10.190	10.190	(1.061)	984767	40.0000	41.7
76 Fluoranthene	202	10.916	10.916	(1.137)	821495	40.0000	41.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.166	11.166	(0.885)	873225	40.0000	40.0
85 Butylbenzylphthalate	149	11.841	11.841	(0.938)	409656	40.0000	41.0
89 Benzo(a)anthracene	228	12.603	12.603	(0.998)	680213	40.0000	39.7
92 Chrysene	228	12.656	12.656	(1.003)	654773	40.0000	39.9
93 bis(2-Ethylhexyl)phthalate	149	12.572	12.572	(0.996)	551016	40.0000	40.0
94 Di-n-octylphthalate	149	13.564	13.564	(0.907)	829648	40.0000	41.4
95 Benzo(b)fluoranthene	252	14.277	14.277	(0.954)	570092	40.0000	40.9
96 Benzo(k)fluoranthene	252	14.328	14.328	(0.958)	582683	40.0000	42.0
97 Benzo(a)pyrene	252	14.853	14.853	(0.993)	512885	40.0000	42.6
99 Indeno(1,2,3-cd)pyrene	276	16.947	16.947	(1.133)	402882	40.0000	35.5
100 Dibenzo(a,h)anthracene	278	16.983	16.983	(1.135)	361792	40.0000	38.8
101 Benzo(ghi)perylene	276	17.465	17.465	(1.167)	384310	40.0000	41.8
126 m-Dinitrobenzene	168	7.711	7.711	(0.965)	98777	40.0000	40.5
130 2,3,4,6-Tetrachlorophenol	232	8.327	8.327	(1.042)	125841	40.0000	39.9
143 Dinoseb	211	9.563	9.563	(0.996)	123552	40.0000	39.9
173 Carbazole	167	9.843	9.843	(1.025)	646111	40.0000	39.7
184 p-Benzoquinone	54	4.085	4.085	(0.845)	43607	40.0000	45.9
192 Methoxychlor	227	12.473	12.473	(0.988)	452636	40.0000	41.3
211 p-Toluidine	106	5.254	5.254	(1.086)	279690	40.0000	41.6
210 m-Toluidine	106	5.287	5.287	(1.093)	323416	40.0000	38.5
215 2-Ethoxyethanol	59	2.454	2.454	(0.507)	216018	40.0000	40.7
179 Dibenzo(a,e)pyrene	302	21.193	21.193	(1.417)	183254	40.0000	38.2
26 Phthalic anhydride	104	6.910	6.910	(1.130)	83487	40.0000	38.4
214 1,4-Dinitrobenzene	75	7.629	7.629	(0.955)	107473	40.0000	40.6
216 Methylenebis(2-chloroaniline)	231	12.542	12.542	(0.994)	94270	40.0000	38.1
M 225 Trichlorophenols	196				330995	80.0000	81.6
M 226 Tetrachlorophenols	232				125841	40.0000	39.9
M 227 Benzo(b,k)fluoranthene	252				1152775	80.0000	82.9

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0916.d

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Date : 09-NOV-2009 20:46

Client ID: MEGAICAL

Instrument: MSD6.i

Sample Info: |WBN091106-05.1|40 PPM|1|SVMF|1|MEGAICAL

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

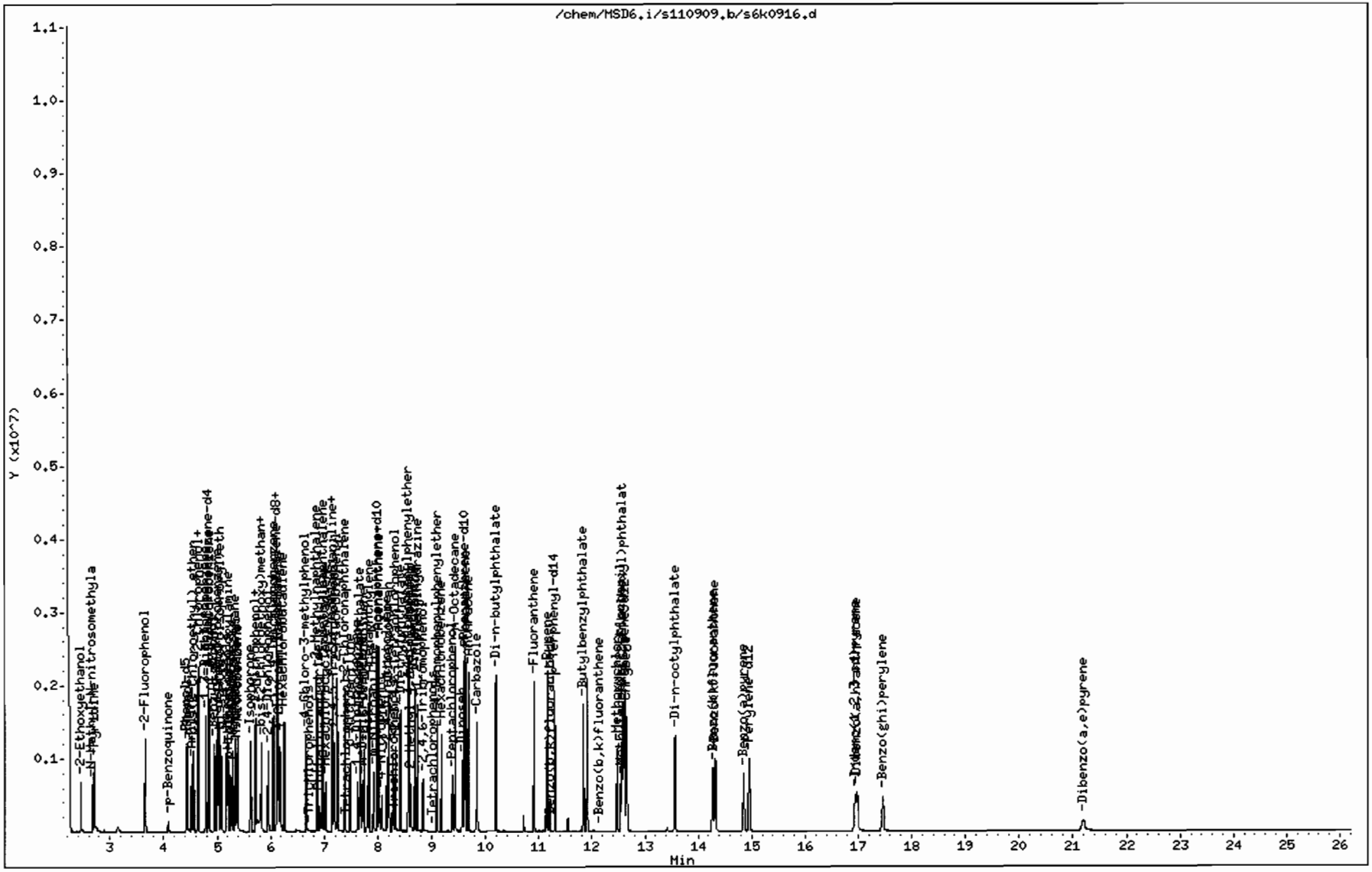

GEL Laboratories LLC

Data file : /chem/MSD6.i/s110909.b/s6k0917.d
Lab Smp Id: WBN091106-04 Client Smp ID: MEGAICAL
Inj Date : 09-NOV-2009 21:25
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-04|50 PPM|1|SVMF|1|MEGAICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:52 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 03:12 Cal File: s6k0951.d
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclpl

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.836	4.836	(1.000)	302004	40.0000	
* 29 Naphthalene-d8	136	6.118	6.118	(1.000)	1155922	40.0000	
* 46 Acenaphthene-d10	164	7.991	7.991	(1.000)	554397	40.0000	
* 67 Phenanthrene-d10	188	9.601	9.601	(1.000)	948438	40.0000	
* 91 Chrysene-d12	240	12.623	12.623	(1.000)	730814	40.0000	
* 98 Perylene-d12	264	14.957	14.957	(1.000)	564456	40.0000	
$ 3 2-Fluorophenol	112	3.651	3.651	(0.755)	388894	50.0000	51.4
$ 5 Phenol-d5	99	4.436	4.436	(0.917)	484929	50.0000	50.8
$ 20 Nitrobenzene-d5	82	5.376	5.376	(0.879)	423567	50.0000	51.8
$ 39 2-Fluorobiphenyl	172	7.244	7.244	(0.907)	731813	50.0000	51.2
$ 60 2,4,6-Tribromophenol	329	8.837	8.837	(1.106)	78080	50.0000	48.2
$ 81 p-Terphenyl-d14	244	11.311	11.311	(0.896)	607689	50.0000	51.6
1 N-Methyl-N-nitrosomethylamine	74	2.670	2.670	(0.552)	269140	50.0000	52.3
2 Pyridine	79	2.703	2.703	(0.559)	355353	50.0000	55.5
4 Aniline	66	4.523	4.523	(0.935)	200763	50.0000	50.4
6 Phenol	94	4.451	4.451	(0.920)	481806	50.0000	50.2(Q)
7 bis(2-Chloroethyl) ether	63	4.561	4.561	(0.943)	325313	50.0000	50.0
8 2-Chlorophenol	128	4.635	4.635	(0.958)	397829	50.0000	51.6
203 n-Decane	43	4.645	4.645	(0.960)	514345	50.0000	47.9
9 1,3-Dichlorobenzene	146	4.785	4.785	(0.989)	457295	50.0000	51.5
11 1,4-Dichlorobenzene	146	4.854	4.854	(1.004)	455811	50.0000	50.7
13 1,2-Dichlorobenzene	146	5.002	5.002	(1.034)	422867	50.0000	50.4
14 bis(2-Chloroisopropyl)ether	45	5.071	5.071	(1.048)	746233	50.0000	51.4
12 Benzyl alcohol	108	4.946	4.946	(1.023)	235807	50.0000	49.2
15 o-Cresol	107	5.030	5.030	(1.040)	323291	50.0000	51.5
18 m,p-Cresols	107	5.185	5.185	(1.072)	398387	50.0000	50.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.218	5.218	(1.079)	275587	50.0000	51.5
19 Hexachloroethane	117	5.341	5.341	(1.104)	177276	50.0000	50.9
21 Nitrobenzene	77	5.397	5.397	(0.882)	429349	50.0000	52.1
22 Isophorone	82	5.634	5.634	(0.921)	769638	50.0000	52.7
23 2-Nitrophenol	139	5.713	5.713	(0.934)	199485	50.0000	52.5
24 2,4-Dimethylphenol	122	5.723	5.723	(0.935)	295059	50.0000	46.8
25 bis(2-Chloroethoxy)methane	93	5.830	5.830	(0.953)	439862	50.0000	51.2
26 2,4-Dichlorophenol	162	5.955	5.955	(0.973)	297965	50.0000	52.2
27 Benzoic acid	105	5.830	5.830	(0.953)	202753	50.0000	52.2(H)
28 1,2,4-Trichlorobenzene	180	6.049	6.049	(0.989)	361892	50.0000	51.6
30 Naphthalene	128	6.141	6.141	(1.004)	1069650	50.0000	46.4
204 alpha-Terpineol	59	6.131	6.131	(1.002)	317685	50.0000	50.3
31 4-Chloroaniline	127	6.177	6.177	(1.010)	376602	50.0000	50.8
32 Hexachlorobutadiene	225	6.253	6.253	(1.022)	189234	50.0000	51.8
33 4-Chloro-3-methylphenol	107	6.658	6.658	(1.088)	298121	50.0000	51.7
34 2-Methylnaphthalene	142	6.864	6.864	(1.122)	685976	50.0000	49.3
35 1-Methylnaphthalene	142	6.972	6.972	(1.140)	677942	50.0000	49.8
36 Hexachlorocyclopentadiene	237	7.022	7.022	(0.879)	112398	50.0000	50.2
205 2,3-Dichloroaniline	161	7.158	7.158	(0.896)	340669	50.0000	51.3
37 2,4,6-Trichlorophenol	196	7.152	7.152	(0.895)	194092	50.0000	51.3
38 2,4,5-Trichlorophenol	196	7.186	7.186	(0.899)	206734	50.0000	51.3
40 2-Chloronaphthalene	162	7.389	7.389	(0.925)	637201	50.0000	51.2
42 o-Nitroaniline	65	7.484	7.484	(0.937)	220705	50.0000	51.8
41 m-Nitroaniline	138	7.930	7.930	(0.992)	160753	50.0000	51.6
43 Dimethylphthalate	163	7.677	7.677	(0.961)	730427	50.0000	51.4
44 2,6-Dinitrotoluene	165	7.746	7.746	(0.969)	171665	50.0000	50.6
50 2,4-Dinitrotoluene	165	8.179	8.179	(1.024)	218862	50.0000	51.2
45 Acenaphthylene	152	7.840	7.840	(0.981)	1023459	50.0000	51.1
47 Acenaphthene	154	8.026	8.026	(1.004)	628774	50.0000	50.3
48 2,4-Dinitrophenol	184	8.034	8.034	(1.005)	60199	50.0000	47.7(Q)
49 Dibenzofuran	168	8.210	8.210	(1.027)	856749	50.0000	50.8
51 Diethylphthalate	149	8.429	8.429	(1.055)	731700	50.0000	51.1
52 4-Nitrophenol	139	8.077	8.077	(1.011)	114423	50.0000	48.3
53 Fluorene	166	8.582	8.582	(1.074)	697837	50.0000	50.4
54 4-Chlorophenylphenylether	204	8.567	8.567	(1.072)	336031	50.0000	51.4
55 2-Methyl-4,6-dinitrophenol	198	8.620	8.620	(0.898)	107219	50.0000	49.0
56 p-Nitroaniline	138	8.590	8.590	(1.075)	144020	50.0000	47.8(H)
133 Diphenylamine	169	8.694	8.694	(0.906)	582219	50.0000	50.9
58 1,2-Diphenylhydrazine	77	8.742	8.742	(0.911)	743959	50.0000	51.2
61 4-Bromophenylphenylether	248	9.099	9.099	(0.948)	190778	50.0000	51.0
63 Hexachlorobenzene	284	9.176	9.176	(0.956)	197870	50.0000	50.5
65 Pentachlorophenol	266	9.377	9.377	(0.977)	100581	50.0000	47.9
206 n-Octadecane	57	9.433	9.433	(0.982)	546158	50.0000	52.1
68 Phenanthrene	178	9.629	9.629	(1.003)	968276	50.0000	49.4
69 Anthracene	178	9.685	9.685	(1.009)	993833	50.0000	50.7
72 Di-n-butylphthalate	149	10.192	10.192	(1.062)	1169848	50.0000	52.0
76 Fluoranthene	202	10.919	10.919	(1.137)	967563	50.0000	51.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.168	11.168	(0.885)	1020034	50.0000	50.7
85 Butylbenzylphthalate	149	11.843	11.843	(0.938)	478741	50.0000	52.0
89 Benzo(a)anthracene	228	12.603	12.603	(0.998)	783027	50.0000	49.7
92 Chrysene	228	12.659	12.659	(1.003)	754926	50.0000	50.0
93 bis(2-Ethylhexyl)phthalate	149	12.575	12.575	(0.996)	645048	50.0000	50.8
94 Di-n-octylphthalate	149	13.563	13.563	(0.907)	957955	50.0000	53.4
95 Benzo(b)fluoranthene	252	14.279	14.279	(0.955)	658725	50.0000	52.7
96 Benzo(k)fluoranthene	252	14.330	14.330	(0.958)	650848	50.0000	52.4
97 Benzo(a)pyrene	252	14.858	14.858	(0.993)	582512	50.0000	54.0
99 Indeno(1,2,3-cd)pyrene	276	16.950	16.950	(1.133)	510813	50.0000	49.0
100 Dibenzo(a,h)anthracene	278	16.983	16.983	(1.135)	411532	50.0000	48.5
101 Benzo(ghi)perylene	276	17.470	17.470	(1.168)	426415	50.0000	51.7
126 m-Dinitrobenzene	168	7.713	7.713	(0.965)	120267	50.0000	51.2
130 2,3,4,6-Tetrachlorophenol	232	8.330	8.330	(1.042)	148123	50.0000	48.8
143 Dinoseb	211	9.565	9.565	(0.996)	154632	50.0000	50.4
173 Carbazole	167	9.843	9.843	(1.025)	766686	50.0000	49.4
184 p-Benzoquinone	54	4.087	4.087	(0.845)	51587	50.0000	53.7
192 Methoxychlor	227	12.475	12.475	(0.988)	522439	50.0000	51.8
211 p-Toluidine	106	5.257	5.257	(1.087)	354186	50.0000	52.1
210 m-Toluidine	106	5.290	5.290	(1.094)	413282	50.0000	48.7
26 Phthalic anhydride	104	6.913	6.913	(1.130)	108159	50.0000	47.5
179 Dibenzo(a,e)pyrene	302	21.195	21.195	(1.417)	214017	50.0000	47.8
214 1,4-Dinitrobenzene	75	7.629	7.629	(0.955)	132736	50.0000	52.1
215 2-Ethoxyethanol	59	2.456	2.456	(0.508)	274575	50.0000	51.2
216 Methylenebis(2-chloroaniline)	231	12.547	12.547	(0.994)	117296	50.0000	49.6(Q)
M 225 Trichlorophenols	196				400826	100.000	103
M 226 Tetrachlorophenols	232				148123	50.0000	48.8
M 227 Benzo(b,k)fluoranthene	252				1309573	100.000	105

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0917.d
Date : 09-NOV-2009 21:25
Client ID: MEGAICAL
Sample Info: IWBN091106-04150 PPMI1ISVMFI4IMEGAICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

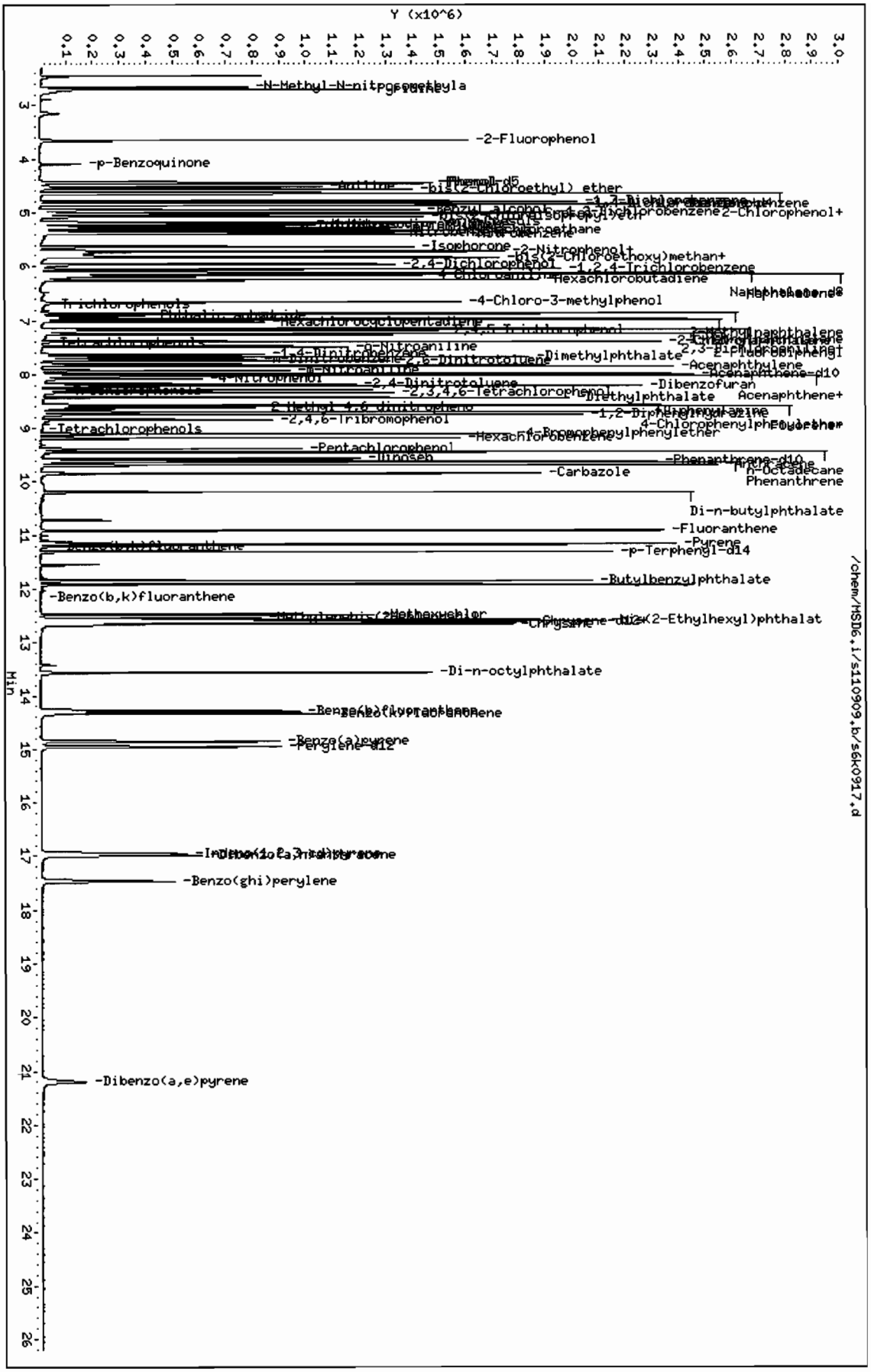

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GEL Laboratories LLC

Data file : /chem/MSD6.i/s110909.b/s6k0918.d
Lab Smp Id: WBN091106-03 Client Smp ID: MEGAICAL
Inj Date : 09-NOV-2009 22:01
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-03|80 PPM|1|SVMF|1|MEGAICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:52 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 03:41 Cal File: s6k0952.d
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.839	4.839	(1.000)	304898	40.0000	
* 29 Naphthalene-d8	136	6.120	6.120	(1.000)	1251706	40.0000	
* 46 Acenaphthene-d10	164	7.993	7.993	(1.000)	586776	40.0000	
* 67 Phenanthrene-d10	188	9.604	9.604	(1.000)	1023140	40.0000	
* 91 Chrysene-d12	240	12.628	12.628	(1.000)	818530	40.0000	
* 98 Perylene-d12	264	14.965	14.965	(1.000)	674673	40.0000	
$ 3 2-Fluorophenol	112	3.654	3.654	(0.755)	602660	80.0000	78.9
$ 5 Phenol-d5	99	4.444	4.444	(0.918)	770270	80.0000	79.9
$ 20 Nitrobenzene-d5	82	5.381	5.381	(0.879)	678450	80.0000	76.6
$ 39 2-Fluorobiphenyl	172	7.249	7.249	(0.907)	1163417	80.0000	76.9
$ 60 2,4,6-Tribromophenol	329	8.842	8.842	(1.106)	144470	80.0000	84.4
$ 81 p-Terphenyl-d14	244	11.313	11.313	(0.896)	1011106	80.0000	76.6
1 N-Methyl-N-nitrosomethylamine	74	2.675	2.675	(0.553)	413204	80.0000	79.6
2 Pyridine	79	2.703	2.703	(0.559)	472168	80.0000	73.1
4 Aniline	66	4.528	4.528	(0.936)	316875	80.0000	78.8
6 Phenol	94	4.456	4.456	(0.921)	757850	80.0000	78.2(Q)
7 bis(2-Chloroethyl) ether	63	4.566	4.566	(0.944)	501536	80.0000	76.4
8 2-Chlorophenol	128	4.637	4.637	(0.958)	605774	80.0000	77.8
203 n-Decane	43	4.648	4.648	(0.960)	717473	80.0000	66.2
9 1,3-Dichlorobenzene	146	4.788	4.788	(0.989)	697208	80.0000	77.8
11 1,4-Dichlorobenzene	146	4.857	4.857	(1.004)	702123	80.0000	77.3
13 1,2-Dichlorobenzene	146	5.004	5.004	(1.034)	664473	80.0000	78.4
14 bis(2-Chloroisopropyl)ether	45	5.076	5.076	(1.049)	1134393	80.0000	77.4
12 Benzyl alcohol	108	4.953	4.953	(1.024)	391141	80.0000	80.9
15 o-Cresol	107	5.035	5.035	(1.041)	493284	80.0000	77.8
18 m,p-Cresols	107	5.195	5.195	(1.074)	638579	80.0000	79.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.229	5.229	(1.081)	441053	80.0000	81.6
19 Hexachloroethane	117	5.341	5.341	(1.104)	278235	80.0000	79.2
21 Nitrobenzene	77	5.402	5.402	(0.883)	676862	80.0000	75.8
22 Isophorone	82	5.641	5.641	(0.922)	1237317	80.0000	78.2
23 2-Nitrophenol	139	5.715	5.715	(0.934)	322643	80.0000	78.4
24 2,4-Dimethylphenol	122	5.728	5.728	(0.936)	527356	80.0000	77.3
25 bis(2-Chloroethoxy)methane	93	5.832	5.832	(0.953)	705848	80.0000	75.8
26 2,4-Dichlorophenol	162	5.960	5.960	(0.974)	485436	80.0000	78.5
27 Benzoic acid	105	5.866	5.866	(0.958)	354417	80.0000	84.2
28 1,2,4-Trichlorobenzene	180	6.052	6.052	(0.989)	572693	80.0000	75.4
30 Naphthalene	128	6.143	6.143	(1.004)	1620027	80.0000	64.9
204 alpha-Terpineol	59	6.136	6.136	(1.002)	511383	80.0000	74.7
31 4-Chloroaniline	127	6.182	6.182	(1.010)	625731	80.0000	78.0
32 Hexachlorobutadiene	225	6.255	6.255	(1.022)	296995	80.0000	75.1
33 4-Chloro-3-methylphenol	107	6.661	6.661	(1.088)	486253	80.0000	77.9
34 2-Methylnaphthalene	142	6.867	6.867	(1.122)	1094176	80.0000	72.6
35 1-Methylnaphthalene	142	6.977	6.977	(1.140)	1066765	80.0000	72.4
36 Hexachlorocyclopentadiene	237	7.025	7.025	(0.879)	180471	80.0000	76.1
205 2,3-Dichloroaniline	161	7.163	7.163	(0.896)	540961	80.0000	77.0
37 2,4,6-Trichlorophenol	196	7.155	7.155	(0.895)	316731	80.0000	79.1
38 2,4,5-Trichlorophenol	196	7.191	7.191	(0.900)	342202	80.0000	80.2
40 2-Chloronaphthalene	162	7.392	7.392	(0.925)	1023319	80.0000	77.6
42 o-Nitroaniline	65	7.489	7.489	(0.937)	364460	80.0000	80.8
41 m-Nitroaniline	138	7.937	7.937	(0.993)	275916	80.0000	83.6
43 Dimethylphthalate	163	7.687	7.687	(0.962)	1188934	80.0000	79.0
44 2,6-Dinitrotoluene	165	7.754	7.754	(0.970)	287684	80.0000	80.1
50 2,4-Dinitrotoluene	165	8.187	8.187	(1.024)	369296	80.0000	81.6
45 Acenaphthylene	152	7.848	7.848	(0.982)	1656503	80.0000	78.2
47 Acenaphthene	154	8.031	8.031	(1.005)	1007792	80.0000	76.2
48 2,4-Dinitrophenol	184	8.042	8.042	(1.006)	121040	80.0000	77.6(Q)
49 Dibenzofuran	168	8.215	8.215	(1.028)	1378986	80.0000	77.2
51 Diethylphthalate	149	8.437	8.437	(1.055)	1182782	80.0000	78.0
52 4-Nitrophenol	139	8.088	8.088	(1.012)	208122	80.0000	77.7
53 Fluorene	166	8.587	8.587	(1.074)	1112233	80.0000	75.9
54 4-Chlorophenylphenylether	204	8.572	8.572	(1.072)	533296	80.0000	77.0
55 2-Methyl-4,6-dinitrophenol	198	8.630	8.630	(0.899)	199515	80.0000	79.4
56 p-Nitroaniline	138	8.605	8.605	(1.077)	267165	80.0000	78.4
133 Diphenylamine	169	8.699	8.699	(0.906)	948274	80.0000	76.9
58 1,2-Diphenylhydrazine	77	8.745	8.745	(0.911)	1201649	80.0000	76.6
61 4-Bromophenylphenylether	248	9.102	9.102	(0.948)	314432	80.0000	77.9
63 Hexachlorobenzene	284	9.181	9.181	(0.956)	331294	80.0000	78.3
65 Pentachlorophenol	266	9.382	9.382	(0.977)	192628	80.0000	81.0
206 n-Octadecane	57	9.438	9.438	(0.983)	833210	80.0000	73.7
68 Phenanthrene	178	9.634	9.634	(1.003)	1582722	80.0000	74.8
69 Anthracene	178	9.690	9.690	(1.009)	1614945	80.0000	76.4
72 Di-n-butylphthalate	149	10.195	10.195	(1.062)	1886112	80.0000	77.6
76 Fluoranthene	202	10.924	10.924	(1.137)	1584229	80.0000	78.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.176	11.176	(0.885)	1671156	80.0000	74.2
85 Butylbenzylphthalate	149	11.849	11.849	(0.938)	804101	80.0000	78.0
89 Benzo(a)anthracene	228	12.608	12.608	(0.998)	1365683	80.0000	77.3
92 Chrysene	228	12.669	12.669	(1.003)	1321586	80.0000	78.1
93 bis(2-Ethylhexyl)phthalate	149	12.577	12.577	(0.996)	1078889	80.0000	75.6
94 Di-n-octylphthalate	149	13.571	13.571	(0.907)	1687425	80.0000	78.7
95 Benzo(b)fluoranthene	252	14.295	14.295	(0.955)	1204142	80.0000	80.7
96 Benzo(k)fluoranthene	252	14.346	14.346	(0.959)	1213675	80.0000	81.8
97 Benzo(a)pyrene	252	14.871	14.871	(0.994)	1091797	80.0000	84.7
99 Indeno(1,2,3-cd)pyrene	276	16.970	16.970	(1.134)	1012558	80.0000	79.2
100 Dibenzo(a,h)anthracene	278	17.006	17.006	(1.136)	815285	80.0000	78.6
101 Benzo(ghi)perylene	276	17.490	17.490	(1.169)	851887	80.0000	86.5
126 m-Dinitrobenzene	168	7.721	7.721	(0.966)	204100	80.0000	82.2
130 2,3,4,6-Tetrachlorophenol	232	8.332	8.332	(1.042)	260543	80.0000	81.1
143 Dinoseb	211	9.571	9.571	(0.997)	280906	80.0000	80.7
173 Carbazole	167	9.851	9.851	(1.026)	1348512	80.0000	80.6
184 p-Benzoquinone	54	4.087	4.087	(0.845)	88853	80.0000	91.6
192 Methoxychlor	227	12.480	12.480	(0.988)	916678	80.0000	81.1
211 p-Toluidine	106	5.259	5.259	(1.087)	516062	80.0000	75.2
210 m-Toluidine	106	5.295	5.295	(1.094)	730294	80.0000	85.2
26 Phthalic anhydride	104	6.923	6.923	(1.131)	203846	80.0000	78.3
179 Dibenzo(a,e)pyrene	302	21.231	21.231	(1.419)	467062	80.0000	81.8
214 1,4-Dinitrobenzene	75	7.637	7.637	(0.955)	223847	80.0000	83.0
215 2-Ethoxyethanol	59	2.461	2.461	(0.509)	424273	80.0000	78.4
216 Methylenebis(2-chloroaniline)	231	12.552	12.552	(0.994)	226774	80.0000	81.4(Q)
M 225 Trichlorophenols	196				658933	160.000	159
M 226 Tetrachlorophenols	232				260543	80.0000	81.1
M 227 Benzo(b,k)fluoranthene	252				2417817	160.000	162

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0918.d
Date : 09-NOV-2009 22:01
Client ID: MEGAICAL
Sample Info: IWBN091106-03180 PPMI1ISVMFI1MEGAICAL

Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

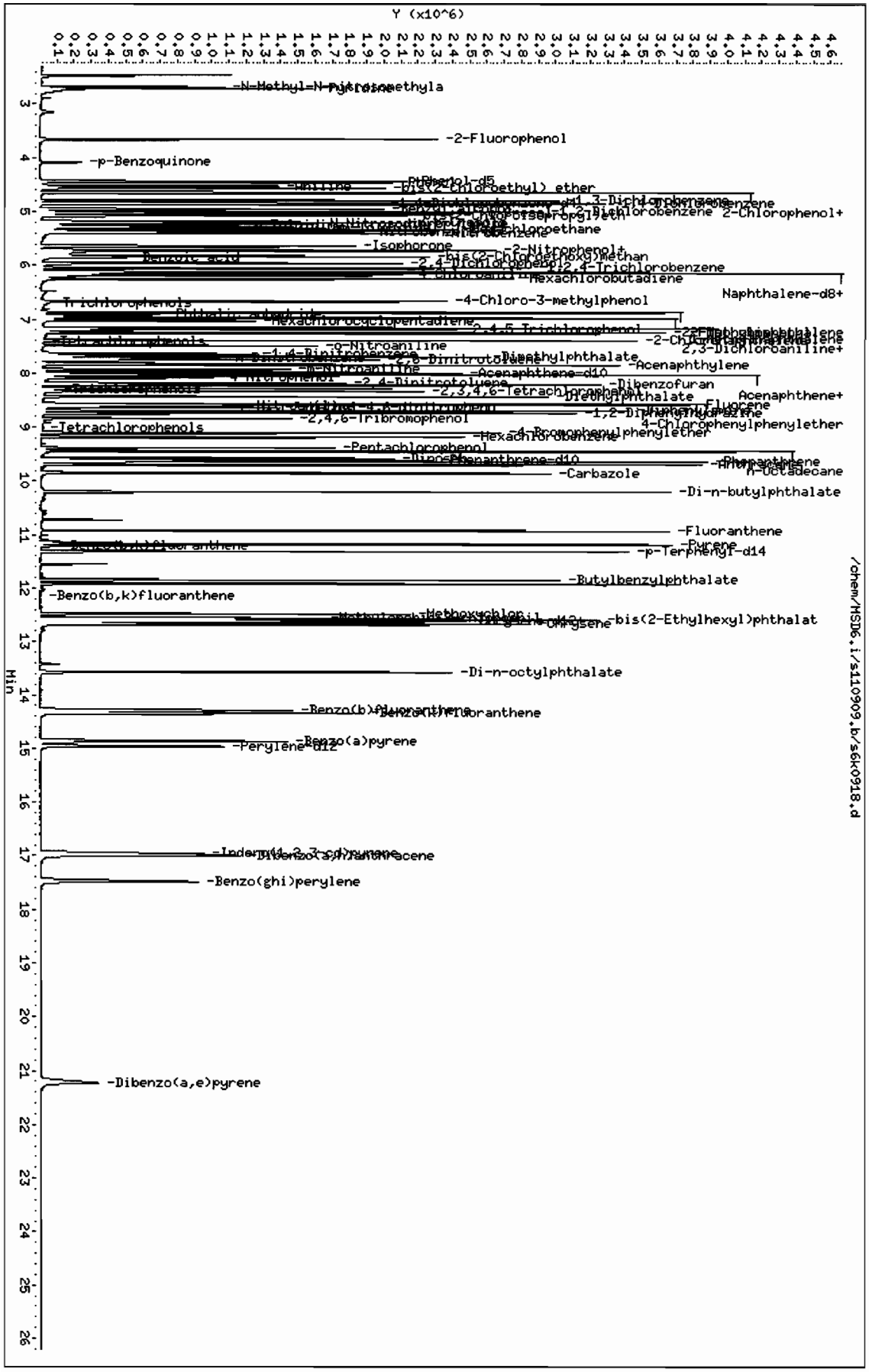

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Data file : /chem/MSD6.i/s110909.b/s6k0919.d
Lab Smp Id: WBN091106-02 Client Smp ID: MEGAICAL
Inj Date : 09-NOV-2009 22:39
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-02|100 PPM|1|SVMF|1|MEGAICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:52 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:10 Cal File: s6k0953.d
Als bottle: 9 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.839	4.839	(1.000)	330680	40.0000	
* 29 Naphthalene-d8	136	6.123	6.123	(1.000)	1412427	40.0000	
* 46 Acenaphthene-d10	164	7.996	7.996	(1.000)	644045	40.0000	
* 67 Phenanthrene-d10	188	9.606	9.606	(1.000)	1109067	40.0000	
* 91 Chrysene-d12	240	12.633	12.633	(1.000)	896879	40.0000	
* 98 Perylene-d12	264	14.970	14.970	(1.000)	703276	40.0000	
$ 3 2-Fluorophenol	112	3.657	3.657	(0.756)	788238	100.000	95.2
$ 5 Phenol-d5	99	4.449	4.449	(0.919)	1011939	100.000	96.8
$ 20 Nitrobenzene-d5	82	5.387	5.387	(0.880)	895459	100.000	89.6
$ 39 2-Fluorobiphenyl	172	7.252	7.252	(0.907)	1489153	100.000	89.7
$ 60 2,4,6-Tribromophenol	329	8.847	8.847	(1.106)	196276	100.000	104
$ 81 p-Terphenyl-d14	244	11.316	11.316	(0.896)	1331883	100.000	92.1
1 N-Methyl-N-nitrosomethylamine	74	2.678	2.678	(0.553)	547651	100.000	97.3
2 Pyridine	79	2.706	2.706	(0.559)	679468	100.000	97.0
4 Aniline	66	4.531	4.531	(0.936)	428636	100.000	98.3
6 Phenol	94	4.464	4.464	(0.923)	992925	100.000	94.5(Q)
7 bis(2-Chloroethyl) ether	63	4.571	4.571	(0.945)	653713	100.000	91.9
8 2-Chlorophenol	128	4.640	4.640	(0.959)	788462	100.000	93.4
203 n-Decane	43	4.650	4.650	(0.961)	859925	100.000	73.1
9 1,3-Dichlorobenzene	146	4.790	4.790	(0.990)	898362	100.000	92.4
11 1,4-Dichlorobenzene	146	4.857	4.857	(1.004)	906388	100.000	92.0
13 1,2-Dichlorobenzene	146	5.007	5.007	(1.035)	855301	100.000	93.0
14 bis(2-Chloroisopropyl)ether	45	5.078	5.078	(1.049)	1424009	100.000	89.6
12 Benzyl alcohol	108	4.959	4.959	(1.025)	520993	100.000	99.3
15 o-Cresol	107	5.040	5.040	(1.042)	664551	100.000	96.7
18 m,p-Cresols	107	5.201	5.201	(1.075)	846534	100.000	97.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.236	5.236	(1.082)	584680	100.000	99.8
19 Hexachloroethane	117	5.343	5.343	(1.104)	363707	100.000	95.4
21 Nitrobenzene	77	5.407	5.407	(0.883)	876503	100.000	87.0
22 Isophorone	82	5.647	5.647	(0.922)	1618267	100.000	90.6
23 2-Nitrophenol	139	5.721	5.721	(0.934)	426260	100.000	91.8
24 2,4-Dimethylphenol	122	5.733	5.733	(0.936)	772185	100.000	100
25 bis(2-Chloroethoxy)methane	93	5.838	5.838	(0.953)	919366	100.000	87.5
26 2,4-Dichlorophenol	162	5.965	5.965	(0.974)	640589	100.000	91.8
27 Benzoic acid	105	5.891	5.891	(0.962)	531391	100.000	112
28 1,2,4-Trichlorobenzene	180	6.054	6.054	(0.989)	743276	100.000	86.8
30 Naphthalene	128	6.149	6.149	(1.004)	2034122	100.000	72.2
204 alpha-Terpineol	59	6.138	6.138	(1.002)	625805	100.000	81.0
31 4-Chloroaniline	127	6.187	6.187	(1.010)	839384	100.000	92.7
32 Hexachlorobutadiene	225	6.258	6.258	(1.022)	385992	100.000	86.5
33 4-Chloro-3-methylphenol	107	6.666	6.666	(1.089)	634058	100.000	90.0
34 2-Methylnaphthalene	142	6.870	6.870	(1.122)	1411742	100.000	83.0
35 1-Methylnaphthalene	142	6.979	6.979	(1.140)	1374835	100.000	82.7
36 Hexachlorocyclopentadiene	237	7.025	7.025	(0.879)	294782	100.000	113
205 2,3-Dichloroaniline	161	7.168	7.168	(0.896)	692307	100.000	89.8
37 2,4,6-Trichlorophenol	196	7.160	7.160	(0.895)	406428	100.000	92.5
38 2,4,5-Trichlorophenol	196	7.196	7.196	(0.900)	459259	100.000	98.1
40 2-Chloronaphthalene	162	7.395	7.395	(0.925)	1319102	100.000	91.2
42 o-Nitroaniline	65	7.497	7.497	(0.938)	475616	100.000	96.1
41 m-Nitroaniline	138	7.945	7.945	(0.994)	357709	100.000	98.8
43 Dimethylphthalate	163	7.695	7.695	(0.962)	1537547	100.000	93.1
44 2,6-Dinitrotoluene	165	7.759	7.759	(0.970)	368765	100.000	93.6
50 2,4-Dinitrotoluene	165	8.195	8.195	(1.025)	484269	100.000	97.4
45 Acenaphthylene	152	7.851	7.851	(0.982)	2095043	100.000	90.1
47 Acenaphthene	154	8.037	8.037	(1.005)	1322253	100.000	91.1
48 2,4-Dinitrophenol	184	8.049	8.049	(1.007)	185455	100.000	102(Q)
49 Dibenzofuran	168	8.220	8.220	(1.028)	1755593	100.000	89.6
51 Diethylphthalate	149	8.442	8.442	(1.056)	1504510	100.000	90.4
52 4-Nitrophenol	139	8.098	8.098	(1.013)	294363	100.000	98.0
53 Fluorene	166	8.592	8.592	(1.075)	1443897	100.000	89.8
54 4-Chlorophenylphenylether	204	8.574	8.574	(1.072)	692810	100.000	91.2
55 2-Methyl-4,6-dinitrophenol	198	8.641	8.641	(0.899)	279188	100.000	100
56 p-Nitroaniline	138	8.615	8.615	(1.077)	377942	100.000	99.1(H)
133 Diphenylamine	169	8.707	8.707	(0.906)	1251636	100.000	93.6
58 1,2-Diphenylhydrazine	77	8.750	8.750	(0.911)	1563583	100.000	92.0
61 4-Bromophenylphenylether	248	9.107	9.107	(0.948)	415272	100.000	94.9
63 Hexachlorobenzene	284	9.183	9.183	(0.956)	436128	100.000	95.1
65 Pentachlorophenol	266	9.385	9.385	(0.977)	259470	100.000	99.3
206 n-Octadecane	57	9.441	9.441	(0.983)	1036341	100.000	84.6
68 Phenanthrene	178	9.639	9.639	(1.003)	2033728	100.000	88.7
69 Anthracene	178	9.696	9.696	(1.009)	2083180	100.000	90.9
72 Di-n-butylphthalate	149	10.198	10.198	(1.062)	2373557	100.000	90.2
76 Fluoranthene	202	10.926	10.926	(1.137)	2040583	100.000	92.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.179	11.179	(0.885)	2152662	100.000	87.3
85 Butylbenzylphthalate	149	11.851	11.851	(0.938)	1051724	100.000	93.2
89 Benzo(a)anthracene	228	12.616	12.616	(0.999)	1841444	100.000	95.2
92 Chrysene	228	12.677	12.677	(1.003)	1752387	100.000	94.5
93 bis(2-Ethylhexyl)phthalate	149	12.583	12.583	(0.996)	1389660	100.000	88.8
94 Di-n-octylphthalate	149	13.576	13.576	(0.907)	2238289	100.000	100
95 Benzo(b)fluoranthene	252	14.300	14.300	(0.955)	1570629	100.000	101
96 Benzo(k)fluoranthene	252	14.351	14.351	(0.959)	1547376	100.000	100
97 Benzo(a)pyrene	252	14.878	14.878	(0.994)	1409695	100.000	105
99 Indeno(1,2,3-cd)pyrene	276	16.981	16.981	(1.134)	1348903	100.000	100
100 Dibenzo(a,h)anthracene	278	17.016	17.016	(1.137)	1094612	100.000	100
101 Benzo(ghi)perylene	276	17.500	17.500	(1.169)	1107099	100.000	108
126 m-Dinitrobenzene	168	7.731	7.731	(0.967)	269752	100.000	99.0
130 2,3,4,6-Tetrachlorophenol	232	8.337	8.337	(1.043)	345531	100.000	98.0
143 Dinoseb	211	9.576	9.576	(0.997)	375481	100.000	98.1
173 Carbazole	167	9.856	9.856	(1.026)	1808011	100.000	99.6
184 p-Benzoquinone	54	4.090	4.090	(0.845)	100948	100.000	95.9
192 Methoxychlor	227	12.486	12.486	(0.988)	1103669	100.000	89.1
211 p-Toluidine	106	5.262	5.262	(1.087)	560424	100.000	75.3
210 m-Toluidine	106	5.308	5.308	(1.097)	1155156	100.000	124(A)
26 Phthalic anhydride	104	6.926	6.926	(1.131)	306459	100.000	102
179 Dibenzo(a,e)pyrene	302	21.231	21.231	(1.418)	497266	100.000	83.4
214 1,4-Dinitrobenzene	75	7.642	7.642	(0.956)	295950	100.000	100
215 2-Ethoxyethanol	59	2.464	2.464	(0.509)	570248	100.000	97.1
216 Methylenebis(2-chloroaniline)	231	12.560	12.560	(0.994)	306702	100.000	99.2(Q)
M 225 Trichlorophenols	196				865687	200.000	191
M 226 Tetrachlorophenols	232				345531	100.000	98.0
M 227 Benzo(b,k)fluoranthene	252				3118005	200.000	201

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0919.d
Date : 09-NOV-2009 22:39
Client ID: MEGAICAL
Sample Info: IWBN091106-021100 PPM11ISVMF11IMEGAICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

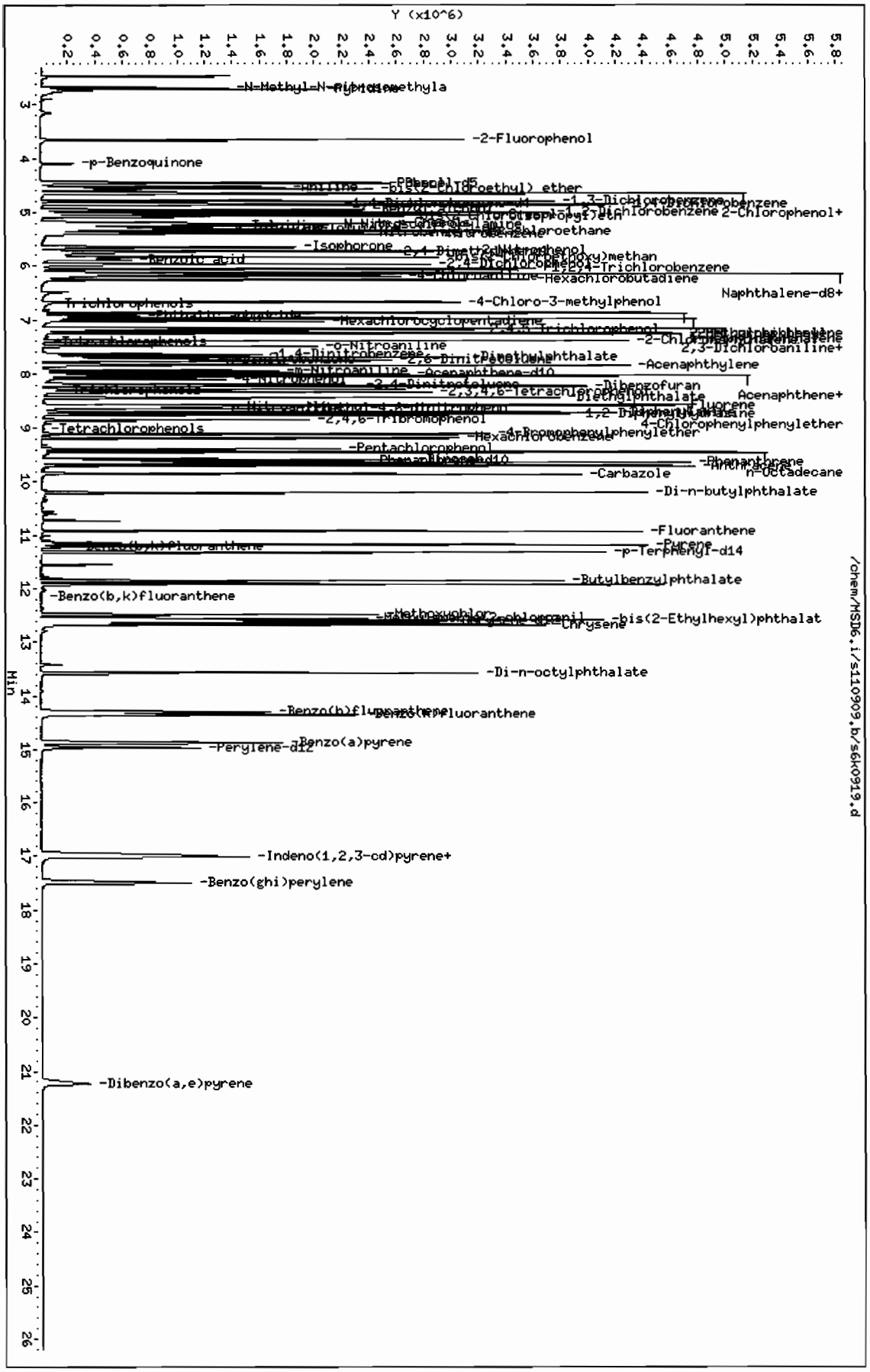

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Data file : /chem/MSD6.i/s110909.b/s6k0920.d
Lab Smp Id: WBN091106-01 Client Smp ID: MEGAICAL
Inj Date : 09-NOV-2009 23:16
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-01|120 PPM|1|SVMF|1|MEGAICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:52 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.841	4.841	(1.000)	333223	40.0000	
* 29 Naphthalene-d8	136	6.123	6.123	(1.000)	1463272	40.0000	
* 46 Acenaphthene-d10	164	7.998	7.998	(1.000)	648114	40.0000	
* 67 Phenanthrene-d10	188	9.609	9.609	(1.000)	1134747	40.0000	
* 91 Chrysene-d12	240	12.638	12.638	(1.000)	941778	40.0000	
* 98 Perylene-d12	264	14.975	14.975	(1.000)	810019	40.0000	
$ 3 2-Fluorophenol	112	3.659	3.659	(0.756)	956166	120.000	114
$ 5 Phenol-d5	99	4.451	4.451	(0.919)	1222364	120.000	116
$ 20 Nitrobenzene-d5	82	5.389	5.389	(0.880)	1083018	120.000	105
$ 39 2-Fluorobiphenyl	172	7.252	7.252	(0.907)	1812882	120.000	108
$ 60 2,4,6-Tribromophenol	329	8.849	8.849	(1.106)	245114	120.000	130(A)
$ 81 p-Terphenyl-d14	244	11.321	11.321	(0.896)	1650122	120.000	109
1 N-Methyl-N-nitrosomethylamine	74	2.680	2.680	(0.554)	666413	120.000	117
2 Pyridine	79	2.706	2.706	(0.559)	822183	120.000	116
4 Aniline	66	4.535	4.535	(0.937)	512300	120.000	116
6 Phenol	94	4.469	4.469	(0.923)	1216367	120.000	115(Q)
7 bis(2-Chloroethyl) ether	63	4.574	4.574	(0.945)	796827	120.000	111
8 2-Chlorophenol	128	4.642	4.642	(0.959)	940267	120.000	110
203 n-Decane	43	4.653	4.653	(0.961)	961133	120.000	81.1
9 1,3-Dichlorobenzene	146	4.793	4.793	(0.990)	1078457	120.000	110
11 1,4-Dichlorobenzene	146	4.859	4.859	(1.004)	1074113	120.000	108
13 1,2-Dichlorobenzene	146	5.009	5.009	(1.035)	1024380	120.000	110
14 bis(2-Chloroisopropyl)ether	45	5.081	5.081	(1.049)	1692158	120.000	106
12 Benzyl alcohol	108	4.966	4.966	(1.026)	647455	120.000	122(A)
15 o-Cresol	107	5.043	5.043	(1.042)	793811	120.000	115
18 m,p-Cresols	107	5.206	5.206	(1.075)	1035973	120.000	118

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.241	5.241	(1.083)	593493	120.000	100
19 Hexachloroethane	117	5.343	5.343	(1.104)	433814	120.000	113
21 Nitrobenzene	77	5.412	5.412	(0.884)	1052072	120.000	101
22 Isophorone	82	5.654	5.654	(0.923)	1683858	120.000	91.0
23 2-Nitrophenol	139	5.723	5.723	(0.935)	528860	120.000	110
24 2,4-Dimethylphenol	122	5.738	5.738	(0.937)	949157	120.000	119
25 bis(2-Chloroethoxy)methane	93	5.840	5.840	(0.954)	1111077	120.000	102
26 2,4-Dichlorophenol	162	5.967	5.967	(0.975)	789520	120.000	109
27 Benzoic acid	105	5.906	5.906	(0.965)	638965	120.000	130(A)
28 1,2,4-Trichlorobenzene	180	6.057	6.057	(0.989)	890158	120.000	100
30 Naphthalene	128	6.151	6.151	(1.005)	2444601	120.000	83.8
204 alpha-Terpineol	59	6.141	6.141	(1.003)	723777	120.000	90.5
31 4-Chloroaniline	127	6.189	6.189	(1.011)	1014652	120.000	108
32 Hexachlorobutadiene	225	6.258	6.258	(1.022)	462771	120.000	100
33 4-Chloro-3-methylphenol	107	6.668	6.668	(1.089)	759568	120.000	104
34 2-Methylnaphthalene	142	6.872	6.872	(1.122)	1706925	120.000	96.9
35 1-Methylnaphthalene	142	6.982	6.982	(1.140)	1670386	120.000	96.9
36 Hexachlorocyclopentadiene	237	7.025	7.025	(0.878)	326317	120.000	125(A)
205 2,3-Dichloroaniline	161	7.168	7.168	(0.896)	848984	120.000	109
37 2,4,6-Trichlorophenol	196	7.163	7.163	(0.896)	496898	120.000	112
38 2,4,5-Trichlorophenol	196	7.198	7.198	(0.900)	548249	120.000	116
40 2-Chloronaphthalene	162	7.397	7.397	(0.925)	1606934	120.000	110
42 o-Nitroaniline	65	7.499	7.499	(0.938)	591312	120.000	119
41 m-Nitroaniline	138	7.950	7.950	(0.994)	453301	120.000	124(A)
43 Dimethylphthalate	163	7.700	7.700	(0.963)	1726505	120.000	104
44 2,6-Dinitrotoluene	165	7.764	7.764	(0.971)	459963	120.000	116
50 2,4-Dinitrotoluene	165	8.200	8.200	(1.025)	589150	120.000	118
45 Acenaphthylene	152	7.853	7.853	(0.982)	2550730	120.000	109
47 Acenaphthene	154	8.039	8.039	(1.005)	1619711	120.000	111
48 2,4-Dinitrophenol	184	8.054	8.054	(1.007)	246126	120.000	131(AQ)
49 Dibenzofuran	168	8.223	8.223	(1.028)	2165065	120.000	110
51 Diethylphthalate	149	8.447	8.447	(1.056)	1859513	120.000	111
52 4-Nitrophenol	139	8.105	8.105	(1.013)	379687	120.000	124(A)
53 Fluorene	166	8.595	8.595	(1.075)	1758463	120.000	109
54 4-Chlorophenylphenylether	204	8.577	8.577	(1.072)	827514	120.000	108
55 2-Methyl-4,6-dinitrophenol	198	8.646	8.646	(0.900)	346834	120.000	120(A)
56 p-Nitroaniline	138	8.628	8.628	(1.079)	477974	120.000	123(A)
133 Diphenylamine	169	8.712	8.712	(0.907)	1545255	120.000	113
58 1,2-Diphenylhydrazine	77	8.753	8.753	(0.911)	1888199	120.000	108
61 4-Bromophenylphenylether	248	9.109	9.109	(0.948)	511390	120.000	114
63 Hexachlorobenzene	284	9.188	9.188	(0.956)	538604	120.000	115
65 Pentachlorophenol	266	9.387	9.387	(0.977)	326879	120.000	121(A)
206 n-Octadecane	57	9.443	9.443	(0.983)	1225249	120.000	97.8
68 Phenanthrene	178	9.642	9.642	(1.003)	2477381	120.000	106
69 Anthracene	178	9.700	9.700	(1.010)	2559859	120.000	109
72 Di-n-butylphthalate	149	10.200	10.200	(1.062)	2871463	120.000	106
76 Fluoranthene	202	10.931	10.931	(1.138)	2509833	120.000	112

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.183	11.183	(0.885)	2676547	120.000	103
85 Butylbenzylphthalate	149	11.854	11.854	(0.938)	1295261	120.000	109
89 Benzo(a)anthracene	228	12.621	12.621	(0.999)	2370190	120.000	117
92 Chrysene	228	12.682	12.682	(1.003)	2243579	120.000	115
93 bis(2-Ethylhexyl)phthalate	149	12.585	12.585	(0.996)	1700943	120.000	103
94 Di-n-octylphthalate	149	13.581	13.581	(0.907)	2796015	120.000	109
95 Benzo(b)fluoranthene	252	14.313	14.313	(0.956)	2223643	120.000	124(A)
96 Benzo(k)fluoranthene	252	14.363	14.363	(0.959)	2087639	120.000	117
97 Benzo(a)pyrene	252	14.891	14.891	(0.994)	1959776	120.000	126(A)
99 Indeno(1,2,3-cd)pyrene	276	16.993	16.993	(1.135)	1889688	120.000	122(A)
100 Dibenzo(a,h)anthracene	278	17.031	17.031	(1.137)	1529825	120.000	121(A)
101 Benzo(ghi)perylene	276	17.515	17.515	(1.170)	1553559	120.000	131(A)
126 m-Dinitrobenzene	168	7.744	7.744	(0.968)	328678	120.000	120
130 2,3,4,6-Tetrachlorophenol	232	8.340	8.340	(1.043)	432688	120.000	122(A)
143 Dinoseb	211	9.581	9.581	(0.997)	479562	120.000	121(A)
173 Carbazole	167	9.858	9.858	(1.026)	2244987	120.000	121(A)
184 p-Benzoquinone	54	4.092	4.092	(0.845)	125786	120.000	119
192 Methoxychlor	227	12.493	12.493	(0.988)	1499742	120.000	115
211 p-Toluidine	106	5.267	5.267	(1.088)	647565	120.000	86.4
210 m-Toluidine	106	5.313	5.313	(1.097)	924924	120.000	98.8
26 Phthalic anhydride	104	6.931	6.931	(1.132)	320729	120.000	103
179 Dibenzo(a,e)pyrene	302	21.261	21.261	(1.420)	844324	120.000	120
214 1,4-Dinitrobenzene	75	7.647	7.647	(0.956)	375732	120.000	126(A)
215 2-Ethoxyethanol	59	2.466	2.466	(0.509)	684402	120.000	116
216 Methylenebis(2-chloroaniline)	231	12.565	12.565	(0.994)	394688	120.000	120(AQ)
M 225 Trichlorophenols	196				1045147	240.000	229
M 226 Tetrachlorophenols	232				432688	120.000	122(A)
M 227 Benzo(b,k)fluoranthene	252				4311282	240.000	241(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0920.d
Date : 09-NOV-2009 23:16
Client ID: MEGAICAL
Sample Info: IWBN091106-01I120 PPMI1ISVMFI1IMEGAICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

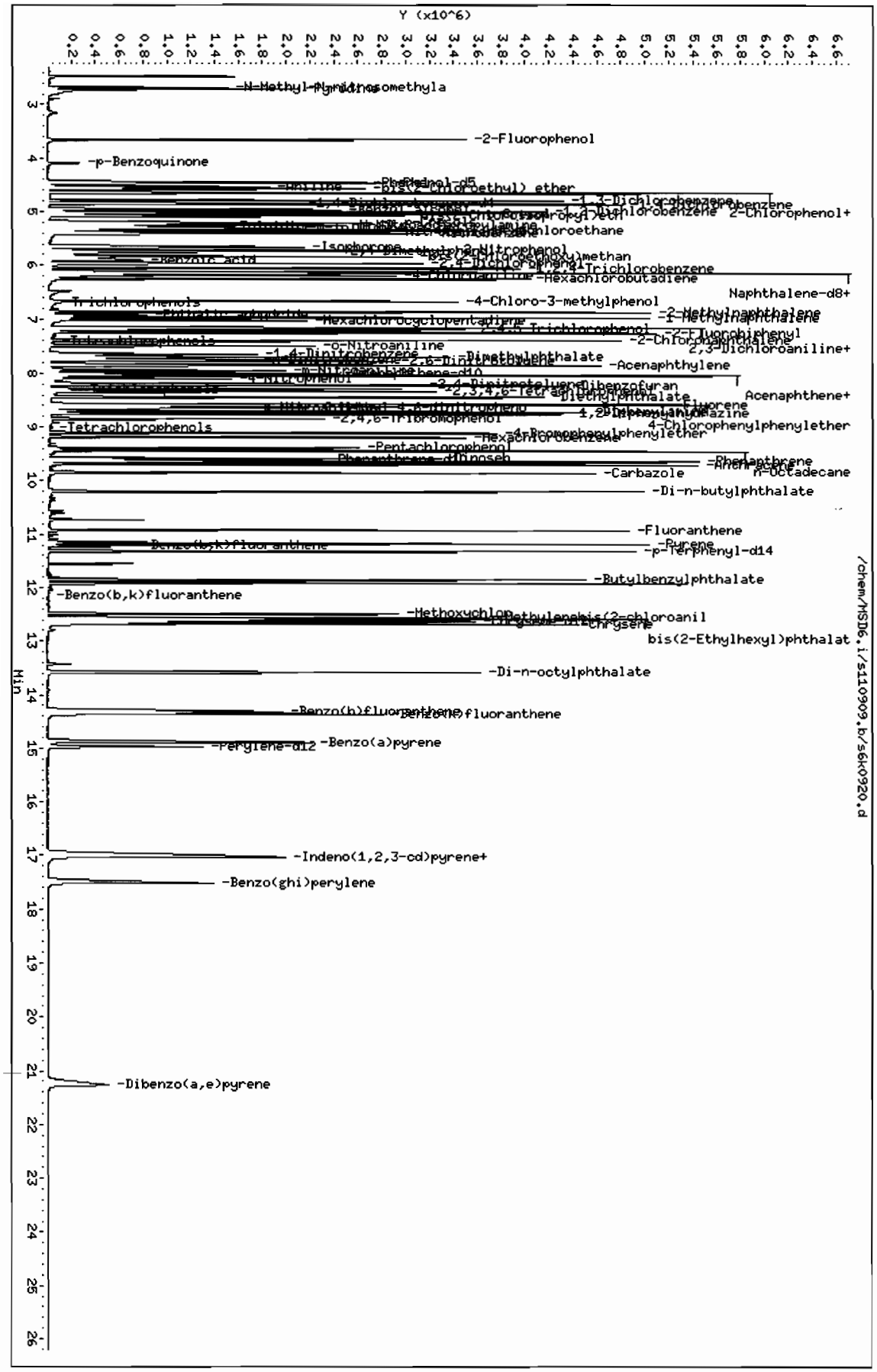

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Data file : /chem/MSD6.i/s110909.b/s6k0923.d
Lab Smp Id: WBN091016-01 Client Smp ID: AP12ICAL
Inj Date : 10-NOV-2009 11:59
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-01|10 PPM|1|SVMF|1|AP12ICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD6.i/s110909.b/MSD6-M8270D-110909.m
Meth Date : 10-Nov-2009 22:15 nat00999 Quant Type: ISTD
Cal Date : 10-NOV-2009 11:59 Cal File: s6k0923.d
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	247567	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	883871	40.0000	
* 46 Acenaphthene-d10	164	7.986	7.986	(1.000)	454586	40.0000	
* 67 Phenanthrene-d10	188	9.598	9.598	(1.000)	758263	40.0000	
* 91 Chrysene-d12	240	12.610	12.610	(1.000)	522180	40.0000	
* 98 Perylene-d12	264	14.947	14.947	(1.000)	359436	40.0000	
209 Benzaldehyde	77	4.426	4.426	(0.916)	58362	10.0000	10.0(Q)
16 Acetophenone	105	5.208	5.208	(1.077)	74840	10.0000	10.0(Q)
189 Caprolactam	113	6.503	6.503	(1.064)	14951	10.0000	10.0(Q)
208 1,1'-Biphenyl	154	7.351	7.351	(0.921)	150186	10.0000	10.0(Q)
207 Atrazine	173	9.244	9.244	(0.963)	8466	10.0000	10.0(Q)
77 Benzidine	184	11.036	11.036	(0.875)	46752	10.0000	10.0
90 3,3'-Dichlorobenzidine	252	12.534	12.534	(0.994)	30716	10.0000	10.0(Q)
102 1,4-Dioxane	88	2.451	2.451	(0.507)	23315	10.0000	10.0(Q)
103 Methyl methacrylate	100	2.449	2.449	(0.507)	12147	10.0000	10.0(Q)
104 Ethyl methacrylate	69	2.968	2.968	(0.614)	49297	10.0000	10.0(Q)
105 2-Picoline	93	3.228	3.228	(0.668)	86106	10.0000	10.0(Q)
106 N-Nitrosomethylethylamine	88	3.292	3.292	(0.681)	31263	10.0000	10.0(Q)
107 Methyl methanesulfonate	80	3.519	3.519	(0.728)	34925	10.0000	10.0(Q)
108 N-Nitrosodiethylamine	102	3.855	3.855	(0.798)	31138	10.0000	10.0(Q)
109 Ethyl Methanesulfonate	79	4.089	4.089	(0.846)	40730	10.0000	10.0(Q)
110 Pentachloroethane	167	4.574	4.574	(0.946)	19935	10.0000	10.0(Q)
111 N-Nitrosopyrrolidine	100	5.180	5.180	(1.072)	27345	10.0000	10.0(Q)
113 N-Nitrosomorpholine	56	5.216	5.216	(1.079)	43963	10.0000	10.0(Q)
114 o-Toluidine	106	5.241	5.241	(1.084)	108185	10.0000	10.0(Q)
115 N-Nitrosopiperidine	114	5.534	5.534	(0.905)	30569	10.0000	10.0(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.924	5.924	(0.969)	174056	10.0000	10.0
118 2,6-Dichlorophenol	162	6.179	6.179	(1.011)	43490	10.0000	10.0(QH)
119 Hexachloropropene	213	6.222	6.222	(1.018)	19101	10.0000	10.0(Q)
120 p-Phenylenediamine	108	6.533	6.533	(1.069)	43562	10.0000	10.0(QH)
121 N-Nitrosodi-n-butylamine	84	6.508	6.508	(1.065)	49601	10.0000	10.0(TQ)
122 Safrole	162	6.747	6.747	(1.104)	41266	10.0000	10.0(Q)
123 1,2,4,5-Tetrachlorobenzene	216	7.033	7.033	(0.881)	51588	10.0000	10.0(Q)
124 Isosafrole	162	7.300	7.300	(0.914)	38652	10.0000	10.0(Q)
125 1,4-Naphthoquinone	158	7.563	7.563	(0.947)	34114	10.0000	10.0(Q)
127 Pentachlorobenzene	250	8.156	8.156	(1.021)	43670	10.0000	10.0(Q)
128 1-Naphthylamine	143	8.281	8.281	(1.037)	103048	10.0000	10.0(Q)
129 2-Naphthylamine	143	8.365	8.365	(1.048)	109757	10.0000	10.0(QH)
131 5-Nitro-o-toluidine	152	8.566	8.566	(1.073)	25098	10.0000	10.0(Q)
136 1,3,5-Trinitrobenzene	75	8.941	8.941	(0.932)	14861	10.0000	10.0(Q)
137 Phenacetin	108	8.997	8.997	(0.937)	41196	10.0000	10.0(QH)
138 Diallate	86	8.989	8.989	(0.937)	49649	10.0000	10.0(Q)
140 4-Aminobiphenyl	169	9.372	9.372	(0.976)	95709	10.0000	10.0(H)
141 Pentachloronitrobenzene	237	9.390	9.390	(0.978)	11744	10.0000	10.0(Q)
142 Pronamide	173	9.418	9.418	(0.981)	51110	10.0000	10.0(Q)
146 4-Nitroquinoline-1-oxide	101	10.444	10.444	(1.088)	3815	10.0000	10.0(Q)
147 Methapyrilene	58	10.513	10.513	(1.095)	77008	10.0000	10.0(Q)
148 Isodrin	193	10.753	10.753	(1.120)	19214	10.0000	10.0(Q)
149 Aramite	185	11.265	11.265	(1.174)	7281	10.0000	10.0(Q)
150 Kepone	272	11.933	11.933	(1.243)	10756	10.0000	10.0(QH)
151 p-(Dimethylamino)azobenzene	120	11.454	11.454	(0.908)	40762	10.0000	10.0(Q)
152 Chlorobenzilate	251	11.497	11.497	(0.912)	39175	10.0000	10.0(Q)
153 3,3'-Dimethylbenzidine	212	11.836	11.836	(0.939)	64606	10.0000	10.0
155 2-Acetylaminofluorene	181	12.144	12.144	(0.963)	23996	10.0000	10.0(QH)
157 7,12Dimethylbenz(a)anthracene	256	14.246	14.246	(0.953)	41106	10.0000	10.0(Q)
158 3-Methylcholanthrene	268	15.467	15.467	(1.035)	26367	10.0000	10(QH)
212 Cis Diallate	86	9.089	9.089	(0.947)	7302	1.50000	1.5(Q)
213 Trans Diallate	86	8.989	8.989	(0.937)	49649	8.50000	8.5(Q)

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0923.d
Date : 10-NOV-2009 11:59
Client ID: AP12ICAL
Sample Info: IWBN091016-01110 PPM11SVMF11IAP12ICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

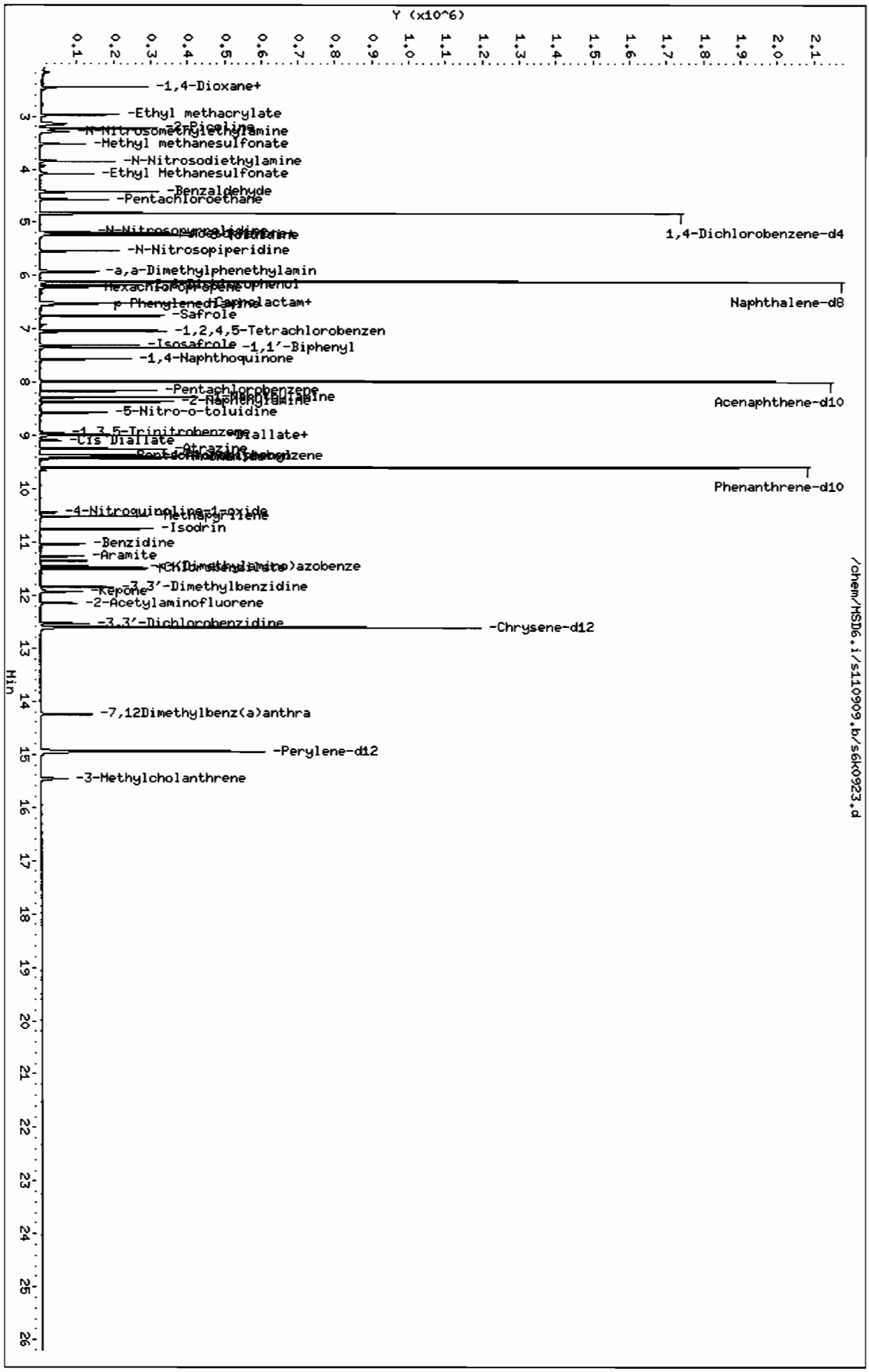

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Data file : /chem/MSD6.i/s110909.b/s6k0924.d
Lab Smp Id: WBN091016-02 Client Smp ID: AP12ICAL
Inj Date : 10-NOV-2009 12:36
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-02|20 PPM|1|SVMF|1|AP12ICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD6.i/s110909.b/MSD6-M8270D-110909.m
Meth Date : 10-Nov-2009 22:15 nat00999 Quant Type: ISTD
Cal Date : 10-NOV-2009 12:36 Cal File: s6k0924.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	256549	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	922700	40.0000	
* 46 Acenaphthene-d10	164	7.983	7.983	(1.000)	490585	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	853832	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	688612	40.0000	
* 98 Perylene-d12	264	14.952	14.952	(1.000)	518310	40.0000	
209 Benzaldehyde	77	4.426	4.426	(0.916)	116936	20.0000	19.7(Q)
16 Acetophenone	105	5.208	5.208	(1.077)	150839	20.0000	19.7(Q)
189 Caprolactam	113	6.513	6.513	(1.065)	33549	20.0000	20.7(Q)
208 1,1'-Biphenyl	154	7.351	7.351	(0.921)	302786	20.0000	19.3(Q)
207 Atrazine	173	9.247	9.247	(0.963)	18427	20.0000	19.6(Q)
77 Benzidine	184	11.036	11.036	(0.875)	139931	20.0000	21.3
90 3,3'-Dichlorobenzidine	252	12.534	12.534	(0.994)	96661	20.0000	21.8(Q)
102 1,4-Dioxane	88	2.456	2.456	(0.508)	47517	20.0000	19.8(Q)
103 Methyl methacrylate	100	2.454	2.454	(0.508)	25201	20.0000	20.0(Q)
104 Ethyl methacrylate	69	2.971	2.971	(0.615)	104147	20.0000	20.2(Q)
105 2-Picoline	93	3.228	3.228	(0.668)	168996	20.0000	19.4(Q)
106 N-Nitrosomethylethylamine	88	3.295	3.295	(0.682)	62816	20.0000	19.7(Q)
107 Methyl methanesulfonate	80	3.522	3.522	(0.729)	68397	20.0000	19.4(Q)
108 N-Nitrosodiethylamine	102	3.858	3.858	(0.798)	61555	20.0000	19.5(Q)
109 Ethyl Methanesulfonate	79	4.092	4.092	(0.847)	83349	20.0000	19.9(Q)
110 Pentachloroethane	167	4.574	4.574	(0.946)	40260	20.0000	19.7(Q)
111 N-Nitrosopyrrolidine	100	5.183	5.183	(1.072)	59489	20.0000	20.5(Q)
113 N-Nitrosomorpholine	56	5.219	5.219	(1.080)	86116	20.0000	19.4(Q)
114 o-Toluidine	106	5.244	5.244	(1.085)	212333	20.0000	19.4(Q)
115 N-Nitrosopiperidine	114	5.535	5.535	(0.905)	62849	20.0000	19.8(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.914	5.914	(0.967)	376403	20.0000	20.4
118 2,6-Dichlorophenol	162	6.182	6.182	(1.011)	92233	20.0000	20.2(Q)
119 Hexachloropropene	213	6.223	6.223	(1.018)	43822	20.0000	20.9(Q)
120 p-Phenylenediamine	108	6.536	6.536	(1.069)	111144	20.0000	22.0(Q)
121 N-Nitrosodi-n-butylamine	84	6.510	6.510	(1.065)	103810	20.0000	20.0(TQ)
122 Safrole	162	6.750	6.750	(1.104)	85743	20.0000	20.0(Q)
123 1,2,4,5-Tetrachlorobenzene	216	7.035	7.035	(0.881)	104059	20.0000	19.3(Q)
124 Isosafrole	162	7.303	7.303	(0.915)	81432	20.0000	19.8(Q)
125 1,4-Naphthoquinone	158	7.565	7.565	(0.948)	80516	20.0000	20.9(Q)
127 Pentachlorobenzene	250	8.157	8.157	(1.022)	89715	20.0000	19.5(Q)
128 1-Naphthylamine	143	8.281	8.281	(1.037)	225919	20.0000	20.2(Q)
129 2-Naphthylamine	143	8.368	8.368	(1.048)	247742	20.0000	20.4(Q)
131 5-Nitro-o-toluidine	152	8.569	8.569	(1.073)	65284	20.0000	21.9(Q)
136 1,3,5-Trinitrobenzene	75	8.944	8.944	(0.932)	45341	20.0000	23.0(Q)
137 Phenacetin	108	9.002	9.002	(0.938)	110195	20.0000	21.7(Q)
138 Diallate	86	8.990	8.990	(0.937)	104056	20.0000	19.3(Q)
140 4-Aminobiphenyl	169	9.374	9.374	(0.977)	215951	20.0000	20.0
141 Pentachloronitrobenzene	237	9.390	9.390	(0.978)	25960	20.0000	19.8(Q)
142 Pronamide	173	9.418	9.418	(0.981)	113483	20.0000	19.8(Q)
146 4-Nitroquinoline-1-oxide	101	10.445	10.445	(1.088)	14070	20.0000	24.8(Q)
147 Methapyrilene	58	10.514	10.514	(1.095)	180198	20.0000	20.4(Q)
148 Isodrin	193	10.750	10.750	(1.120)	41636	20.0000	19.6(Q)
149 Aramite	185	11.265	11.265	(1.174)	18150	20.0000	21.0(Q)
150 Kepone	272	11.930	11.930	(1.243)	26432	20.0000	20.9(Q)
151 p-(Dimethylamino)azobenzene	120	11.454	11.454	(0.908)	108037	20.0000	20.0(Q)
152 Chlorobenzilate	251	11.497	11.497	(0.912)	94704	20.0000	19.1(Q)
153 3,3'-Dimethylbenzidine	212	11.836	11.836	(0.938)	180406	20.0000	20.6
155 2-Acetylaminofluorene	181	12.147	12.147	(0.963)	98558	20.0000	24.4(Q)
157 7,12Dimethylbenz(a)anthracene	256	14.249	14.249	(0.953)	116466	20.0000	19.8(Q)
158 3-Methylcholanthrene	268	15.472	15.472	(1.035)	92005	20.0000	21.9(Q)
212 Cis Diallate	86	9.092	9.092	(0.947)	15507	3.00000	2.9(Q)
213 Trans Diallate	86	8.990	8.990	(0.937)	104056	17.0000	16.4(Q)

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0924.d
Date : 10-NOV-2009 12:36
Client ID: AP12ICAL
Sample Info: |WBN091016-02|20 PPM|1|SVMF|1|AP12ICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

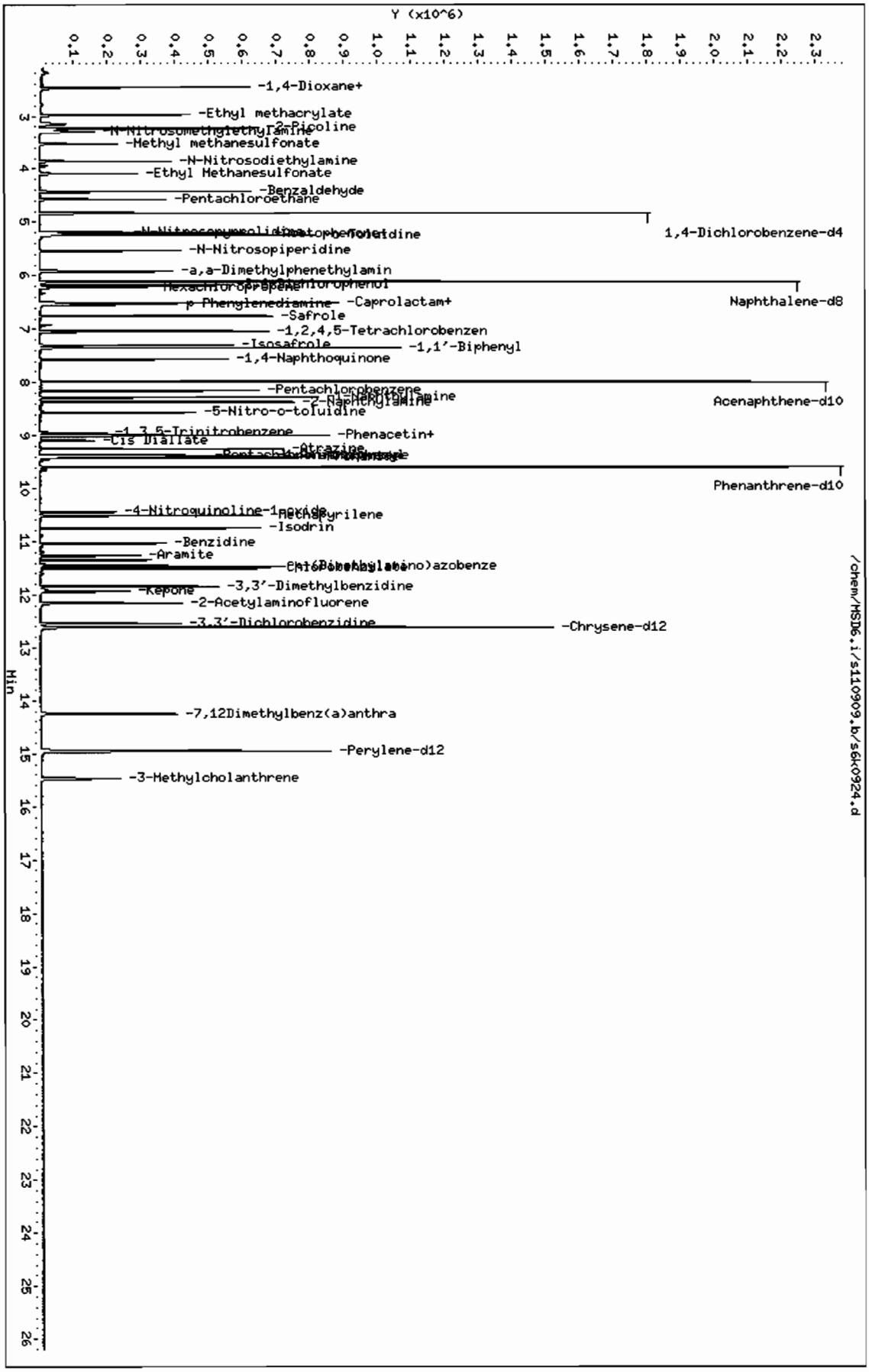

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Data file : /chem/MSD6.i/s110909.b/s6k0925.d
Lab Smp Id: WBN091016-03 Client Smp ID: AP12ICAL
Inj Date : 10-NOV-2009 13:13
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-03|40 PPM|1|SVMF|1|AP12ICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD6.i/s110909.b/MSD6-M8270D-110909.m
Meth Date : 10-Nov-2009 22:16 nat00999 Quant Type: ISTD
Cal Date : 10-NOV-2009 13:13 Cal File: s6k0925.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	263784	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	929195	40.0000	
* 46 Acenaphthene-d10	164	7.983	7.983	(1.000)	488159	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	849770	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	655637	40.0000	
* 98 Perylene-d12	264	14.950	14.950	(1.000)	480061	40.0000	
209 Benzaldehyde	77	4.429	4.429	(0.916)	242849	40.0000	39.8
16 Acetophenone	105	5.213	5.213	(1.079)	319622	40.0000	40.4
189 Caprolactam	113	6.531	6.531	(1.068)	76323	40.0000	44.3
208 1,1'-Biphenyl	154	7.354	7.354	(0.921)	613769	40.0000	39.6
207 Atrazine	173	9.252	9.252	(0.964)	36850	40.0000	39.7
77 Benzidine	184	11.038	11.038	(0.875)	257284	40.0000	40.7
90 3,3'-Dichlorobenzidine	252	12.537	12.537	(0.994)	192035	40.0000	43.4
102 1,4-Dioxane	88	2.459	2.459	(0.509)	103036	40.0000	41.2
103 Methyl methacrylate	100	2.456	2.456	(0.508)	53908	40.0000	41.1
104 Ethyl methacrylate	69	2.974	2.974	(0.615)	222628	40.0000	41.3
105 2-Picoline	93	3.228	3.228	(0.668)	361350	40.0000	40.3
106 N-Nitrosomethylethylamine	88	3.297	3.297	(0.682)	138363	40.0000	41.4
107 Methyl methanesulfonate	80	3.524	3.524	(0.729)	148553	40.0000	40.7
108 N-Nitrosodiethylamine	102	3.860	3.860	(0.799)	134935	40.0000	41.1
109 Ethyl Methanesulfonate	79	4.097	4.097	(0.848)	177643	40.0000	40.8
110 Pentachloroethane	167	4.574	4.574	(0.946)	87297	40.0000	41.1
111 N-Nitrosopyrrolidine	100	5.191	5.191	(1.074)	134081	40.0000	43.1
113 N-Nitrosomorpholine	56	5.226	5.226	(1.081)	187961	40.0000	40.8
114 o-Toluidine	106	5.249	5.249	(1.086)	452942	40.0000	40.2
115 N-Nitrosopiperidine	114	5.540	5.540	(0.906)	136923	40.0000	41.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.937	5.937	(0.971)	822116	40.0000	42.7
118 2,6-Dichlorophenol	162	6.184	6.184	(1.012)	197363	40.0000	41.8
119 Hexachloropropene	213	6.222	6.222	(1.018)	100271	40.0000	44.8
120 p-Phenylenediamine	108	6.541	6.541	(1.070)	237565	40.0000	44.2
121 N-Nitrosodi-n-butylamine	84	6.516	6.516	(1.066)	206427	40.0000	39.7(T)
122 Safrole	162	6.750	6.750	(1.104)	182839	40.0000	41.5
123 1,2,4,5-Tetrachlorobenzene	216	7.035	7.035	(0.881)	216035	40.0000	40.2
124 Isosafrole	162	7.305	7.305	(0.915)	171657	40.0000	41.2
125 1,4-Naphthoquinone	158	7.568	7.568	(0.948)	170338	40.0000	42.8
127 Pentachlorobenzene	250	8.159	8.159	(1.022)	184211	40.0000	40.2
128 1-Naphthylamine	143	8.284	8.284	(1.038)	464647	40.0000	41.1
129 2-Naphthylamine	143	8.371	8.371	(1.048)	500071	40.0000	41.0
131 5-Nitro-o-toluidine	152	8.574	8.574	(1.074)	141536	40.0000	44.8
136 1,3,5-Trinitrobenzene	75	8.946	8.946	(0.932)	104071	40.0000	47.8
137 Phenacetin	108	9.010	9.010	(0.939)	231214	40.0000	43.7
138 Diallate	86	8.992	8.992	(0.937)	213990	40.0000	39.9
140 4-Aminobiphenyl	169	9.377	9.377	(0.977)	463964	40.0000	42.1
141 Pentachloronitrobenzene	237	9.392	9.392	(0.978)	55629	40.0000	41.7
142 Pronamide	173	9.423	9.423	(0.982)	233100	40.0000	40.6
146 4-Nitroquinoline-1-oxide	101	10.445	10.445	(1.088)	22943	40.0000	40.4
147 Methapyrilene	58	10.516	10.516	(1.096)	349282	40.0000	39.8
148 Isodrin	193	10.753	10.753	(1.120)	86082	40.0000	40.5
149 Aramite	185	11.265	11.265	(1.174)	39093	40.0000	43.5
150 Kepone	272	11.933	11.933	(1.243)	53631	40.0000	41.7
151 p-(Dimethylamino)azobenzene	120	11.456	11.456	(0.908)	218246	40.0000	41.6
152 Chlorobenzilate	251	11.500	11.500	(0.912)	198625	40.0000	41.4
153 3,3'-Dimethylbenzidine	212	11.838	11.838	(0.939)	350679	40.0000	41.3
155 2-Acetylaminofluorene	181	12.154	12.154	(0.964)	217618	40.0000	49.7
157 7,12Dimethylbenz(a)anthracene	256	14.252	14.252	(0.953)	234840	40.0000	42.0
158 3-Methylcholanthrene	268	15.480	15.480	(1.035)	181802	40.0000	44.2
212 Cis Diallate	86	9.092	9.092	(0.947)	32853	6.00000	6.1
213 Trans Diallate	86	8.992	8.992	(0.937)	213990	34.0000	33.9

QC Flag Legend

T - Target compound detected outside RT window.

Data File: /chem/MSD6.i/s110909.b/s6k0925.d
Date : 10-NOV-2009 13:13
Client ID: AP12ICAL
Sample Info: IWBN091016-03I40 PPMI1ISVMF1IIAP12ICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

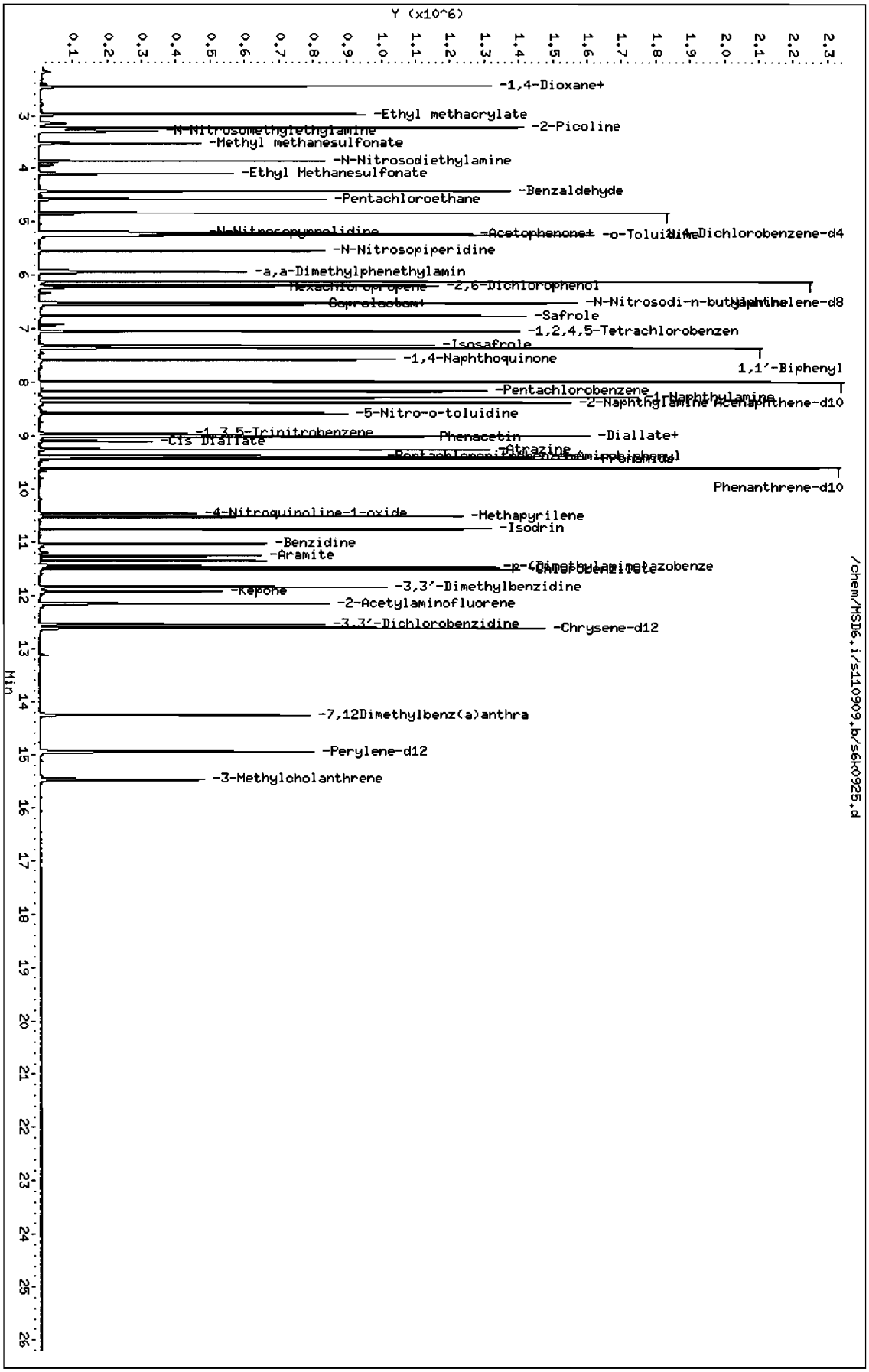

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Data file : /chem/MSD6.i/s110909.b/s6k0926.d
Lab Smp Id: WBN091016-04 Client Smp ID: AP12ICAL
Inj Date : 10-NOV-2009 13:51
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-04|50 PPM|1|SVMF|1|AP12ICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD6.i/s110909.b/MSD6-M8270D-110909.m
Meth Date : 10-Nov-2009 22:16 nat00999 Quant Type: ISTD
Cal Date : 10-NOV-2009 13:51 Cal File: s6k0926.d
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	250921	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	887231	40.0000	
* 46 Acenaphthene-d10	164	7.983	7.983	(1.000)	483118	40.0000	
* 67 Phenanthrene-d10	188	9.601	9.601	(1.000)	863982	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	678374	40.0000	
* 98 Perylene-d12	264	14.952	14.952	(1.000)	505705	40.0000	
209 Benzaldehyde	77	4.431	4.431	(0.917)	271675	50.0000	47.6
16 Acetophenone	105	5.213	5.213	(1.079)	361594	50.0000	48.5
189 Caprolactam	113	6.536	6.536	(1.069)	89854	50.0000	53.4
208 1,1'-Biphenyl	154	7.354	7.354	(0.921)	722924	50.0000	47.8
207 Atrazine	173	9.255	9.255	(0.964)	43736	50.0000	47.2
77 Benzidine	184	11.041	11.041	(0.875)	319932	50.0000	49.2
90 3,3'-Dichlorobenzidine	252	12.539	12.539	(0.994)	249163	50.0000	53.3
102 1,4-Dioxane	88	2.461	2.461	(0.509)	118569	50.0000	49.9
103 Methyl methacrylate	100	2.459	2.459	(0.509)	64691	50.0000	51.3
104 Ethyl methacrylate	69	2.976	2.976	(0.616)	260010	50.0000	50.5
105 2-Picoline	93	3.231	3.231	(0.668)	413718	50.0000	48.9
106 N-Nitrosomethylethylamine	88	3.300	3.300	(0.683)	156599	50.0000	49.5
107 Methyl methanesulfonate	80	3.526	3.526	(0.730)	158007	50.0000	46.5
108 N-Nitrosodiethylamine	102	3.863	3.863	(0.799)	152229	50.0000	49.0
109 Ethyl Methanesulfonate	79	4.097	4.097	(0.848)	196808	50.0000	48.1
110 Pentachloroethane	167	4.574	4.574	(0.946)	100400	50.0000	49.7
111 N-Nitrosopyrrolidine	100	5.193	5.193	(1.074)	149858	50.0000	50.5(Q)
113 N-Nitrosomorpholine	56	5.229	5.229	(1.082)	206654	50.0000	47.9
114 o-Toluidine	106	5.252	5.252	(1.086)	514405	50.0000	48.5
115 N-Nitrosopiperidine	114	5.542	5.542	(0.907)	153985	50.0000	49.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.950	5.950	(0.973)	969998	50.0000	52.0
118 2,6-Dichlorophenol	162	6.184	6.184	(1.012)	232452	50.0000	51.2
119 Hexachloropropene	213	6.222	6.222	(1.018)	114784	50.0000	52.7
120 p-Phenylenediamine	108	6.543	6.543	(1.070)	270833	50.0000	52.1
121 N-Nitrosodi-n-butylamine	84	6.518	6.518	(1.066)	234607	50.0000	47.9(T)
122 Safrole	162	6.752	6.752	(1.105)	211165	50.0000	50.1
123 1,2,4,5-Tetrachlorobenzene	216	7.038	7.038	(0.882)	251525	50.0000	48.0
124 Isosafrole	162	7.305	7.305	(0.915)	203991	50.0000	49.6
125 1,4-Naphthoquinone	158	7.568	7.568	(0.948)	197074	50.0000	50.1
127 Pentachlorobenzene	250	8.159	8.159	(1.022)	220739	50.0000	49.0
128 1-Naphthylamine	143	8.286	8.286	(1.038)	553727	50.0000	49.6
129 2-Naphthylamine	143	8.370	8.370	(1.048)	598614	50.0000	49.7
131 5-Nitro-o-toluidine	152	8.577	8.577	(1.074)	175206	50.0000	54.4
136 1,3,5-Trinitrobenzene	75	8.949	8.949	(0.932)	130665	50.0000	56.5
137 Phenacetin	108	9.013	9.013	(0.939)	290534	50.0000	52.9(Q)
138 Diallate	86	8.992	8.992	(0.937)	259168	50.0000	48.1
140 4-Aminobiphenyl	169	9.377	9.377	(0.977)	610793	50.0000	53.3
141 Pentachloronitrobenzene	237	9.392	9.392	(0.978)	68356	50.0000	50.3(Q)
142 Pronamide	173	9.425	9.425	(0.982)	288993	50.0000	49.7
146 4-Nitroquinoline-1-oxide	101	10.450	10.450	(1.088)	27356	50.0000	48.0
147 Methapyrilene	58	10.516	10.516	(1.095)	429483	50.0000	48.6
148 Isodrin	193	10.753	10.753	(1.120)	105375	50.0000	49.1
149 Aramite	185	11.268	11.268	(1.174)	49307	50.0000	52.9
150 Kepone	272	11.938	11.938	(1.243)	65859	50.0000	50.2
151 p-(Dimethylamino)azobenzene	120	11.459	11.459	(0.908)	275367	50.0000	50.6
152 Chlorobenzilate	251	11.502	11.502	(0.912)	250256	50.0000	50.3
153 3,3'-Dimethylbenzidine	212	11.841	11.841	(0.939)	445030	50.0000	50.5
155 2-Acetylaminofluorene	181	12.157	12.157	(0.964)	290992	50.0000	59.9
157 7,12Dimethylbenz(a)anthracene	256	14.257	14.257	(0.953)	306081	50.0000	51.5
158 3-Methylcholanthrene	268	15.485	15.485	(1.036)	238279	50.0000	53.7(Q)
212 Cis Diallate	86	9.092	9.092	(0.947)	40524	7.50000	7.4
213 Trans Diallate	86	8.992	8.992	(0.937)	259168	42.5000	40.9

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0926.d
Date : 10-NOV-2009 13:51
Client ID: AP12ICAL
Sample Info: IWBN091016-04|50 PPM|1|SVMF|1|AP12ICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JHB3
Column diameter: 0.20

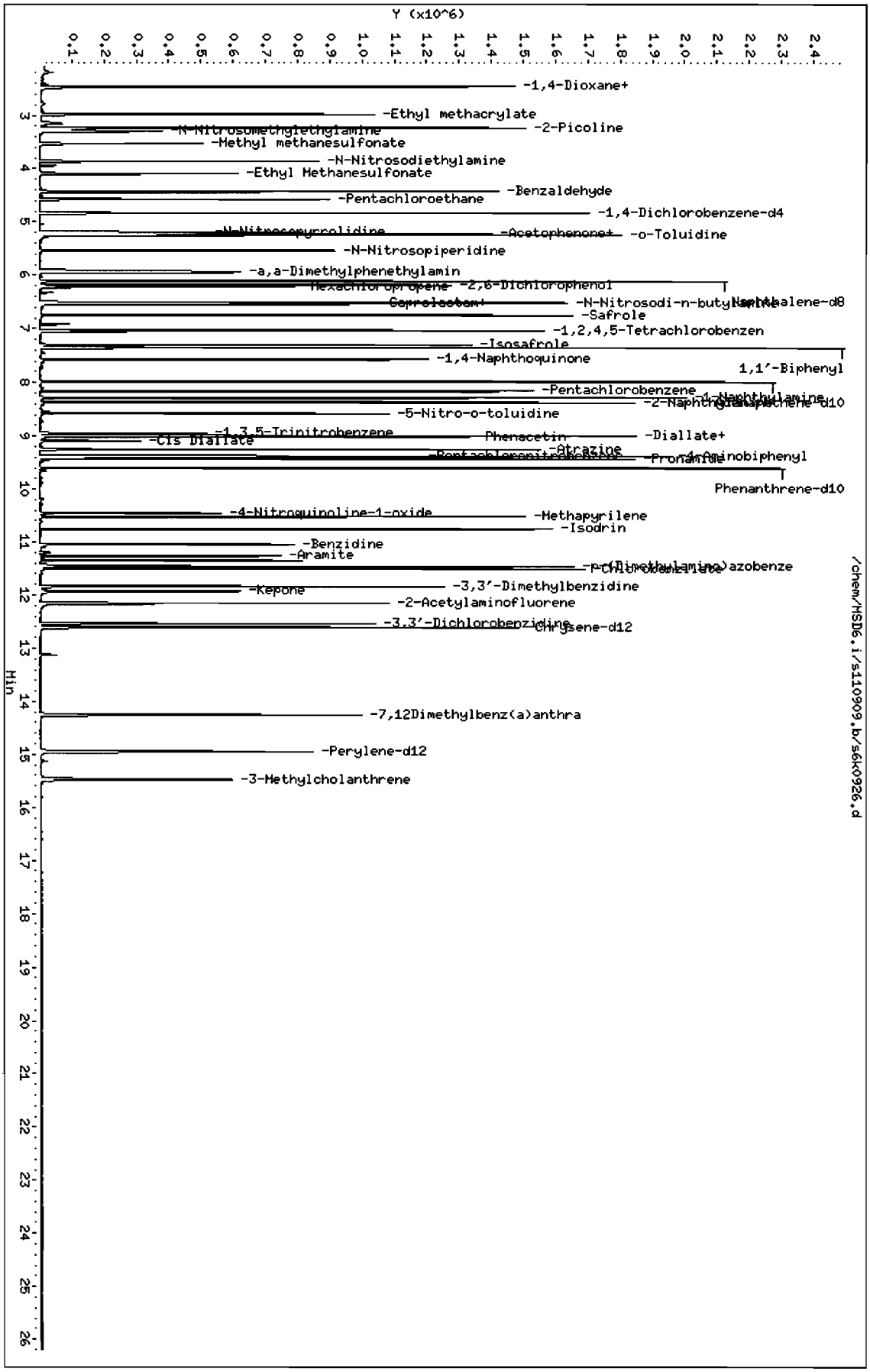

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD6.i/s110909.b/s6k0927.d
Lab Smp Id: WBN091016-05 Client Smp ID: AP12ICAL
Inj Date : 10-NOV-2009 14:30
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-05|80 PPM|1|SVMF|1|AP12ICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD6.i/s110909.b/MSD6-M8270D-110909.m
Meth Date : 10-Nov-2009 22:16 nat00999 Quant Type: ISTD
Cal Date : 10-NOV-2009 14:30 Cal File: s6k0927.d
Als bottle: 7 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	276239	40.0000	
* 29 Naphthalene-d8	136	6.115	6.115	(1.000)	973833	40.0000	
* 46 Acenaphthene-d10	164	7.986	7.986	(1.000)	510901	40.0000	
* 67 Phenanthrene-d10	188	9.601	9.601	(1.000)	893057	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	703590	40.0000	
* 98 Perylene-d12	264	14.952	14.952	(1.000)	512813	40.0000	
209 Benzaldehyde	77	4.434	4.434	(0.917)	465512	80.0000	75.2
16 Acetophenone	105	5.219	5.219	(1.080)	645987	80.0000	79.0
189 Caprolactam	113	6.554	6.554	(1.072)	138581	80.0000	76.0(Q)
208 1,1'-Biphenyl	154	7.359	7.359	(0.922)	1191213	80.0000	75.5
207 Atrazine	173	9.262	9.262	(0.965)	73310	80.0000	77.2
77 Benzidine	184	11.046	11.046	(0.876)	530516	80.0000	78.9
90 3,3'-Dichlorobenzidine	252	12.544	12.544	(0.995)	401503	80.0000	82.2
102 1,4-Dioxane	88	2.454	2.454	(0.508)	200966	80.0000	77.4
103 Methyl methacrylate	100	2.451	2.451	(0.507)	102431	80.0000	75.0
104 Ethyl methacrylate	69	2.971	2.971	(0.615)	445120	80.0000	78.8
105 2-Picoline	93	3.231	3.231	(0.668)	712295	80.0000	77.1
106 N-Nitrosomethylethylamine	88	3.302	3.302	(0.683)	287120	80.0000	81.9
107 Methyl methanesulfonate	80	3.534	3.534	(0.731)	293376	80.0000	78.8
108 N-Nitrosodiethylamine	102	3.868	3.868	(0.800)	275478	80.0000	80.5
109 Ethyl Methanesulfonate	79	4.105	4.105	(0.849)	364882	80.0000	80.8
110 Pentachloroethane	167	4.574	4.574	(0.946)	174658	80.0000	78.9
111 N-Nitrosopyrrolidine	100	5.206	5.206	(1.077)	277028	80.0000	83.8(Q)
113 N-Nitrosomorpholine	56	5.239	5.239	(1.084)	379696	80.0000	79.9
114 o-Toluidine	106	5.257	5.257	(1.087)	909814	80.0000	78.4
115 N-Nitrosopiperidine	114	5.547	5.547	(0.907)	278319	80.0000	81.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.950	5.950	(0.973)	1720488	80.0000	83.2
118 2,6-Dichlorophenol	162	6.189	6.189	(1.012)	413898	80.0000	82.4
119 Hexachloropropene	213	6.225	6.225	(1.018)	210927	80.0000	86.4
120 p-Phenylenediamine	108	6.551	6.551	(1.071)	451242	80.0000	79.2
121 N-Nitrosodi-n-butylamine	84	6.523	6.523	(1.067)	386399	80.0000	73.4(T)
122 Safrole	162	6.755	6.755	(1.105)	363735	80.0000	78.9
123 1,2,4,5-Tetrachlorobenzene	216	7.040	7.040	(0.882)	425849	80.0000	77.4
124 Isosafrole	162	7.311	7.311	(0.915)	349789	80.0000	80.4
125 1,4-Naphthoquinone	158	7.570	7.570	(0.948)	303940	80.0000	74.3
127 Pentachlorobenzene	250	8.162	8.162	(1.022)	364514	80.0000	77.1
128 1-Naphthylamine	143	8.292	8.292	(1.038)	926962	80.0000	78.8
129 2-Naphthylamine	143	8.376	8.376	(1.049)	1000885	80.0000	78.8
131 5-Nitro-o-toluidine	152	8.582	8.582	(1.075)	298885	80.0000	86.0
136 1,3,5-Trinitrobenzene	75	8.954	8.954	(0.933)	222134	80.0000	90.0
137 Phenacetin	108	9.023	9.023	(0.940)	483029	80.0000	84.0(Q)
138 Diallate	86	8.995	8.995	(0.937)	420134	80.0000	76.3
140 4-Aminobiphenyl	169	9.382	9.382	(0.977)	1009045	80.0000	84.1
141 Pentachloronitrobenzene	237	9.397	9.397	(0.979)	109865	80.0000	78.6(Q)
142 Pronamide	173	9.431	9.431	(0.982)	467086	80.0000	78.1
146 4-Nitroquinoline-1-oxide	101	10.452	10.452	(1.089)	39722	80.0000	69.7
147 Methapyrilene	58	10.519	10.519	(1.096)	677593	80.0000	75.2
148 Isodrin	193	10.756	10.756	(1.120)	169335	80.0000	77.0
149 Aramite	185	11.270	11.270	(1.174)	83762	80.0000	85.5
150 Kepone	272	11.940	11.940	(1.244)	108681	80.0000	80.2
151 p-(Dimethylamino)azobenzene	120	11.464	11.464	(0.909)	449328	80.0000	79.7
152 Chlorobenzilate	251	11.505	11.505	(0.912)	413386	80.0000	80.1
153 3,3'-Dimethylbenzidine	212	11.844	11.844	(0.939)	751395	80.0000	81.8
155 2-Acetylaminofluorene	181	12.165	12.165	(0.964)	478700	80.0000	91.6
157 7,12Dimethylbenz(a)anthracene	256	14.264	14.264	(0.954)	508112	80.0000	83.4
158 3-Methylcholanthrene	268	15.490	15.490	(1.036)	399514	80.0000	86.9(Q)
212 Cis Diallate	86	9.094	9.094	(0.947)	68713	12.0000	12.2
213 Trans Diallate	86	8.995	8.995	(0.937)	420134	68.0000	64.9

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0927.d

Date : 10-NOV-2009 14:30

Client ID: AP12ICAL

Sample Info: |WBN091016-05|80 PPM|1|SVMF|1|AP12ICAL

Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: JMB3

Column diameter: 0.20

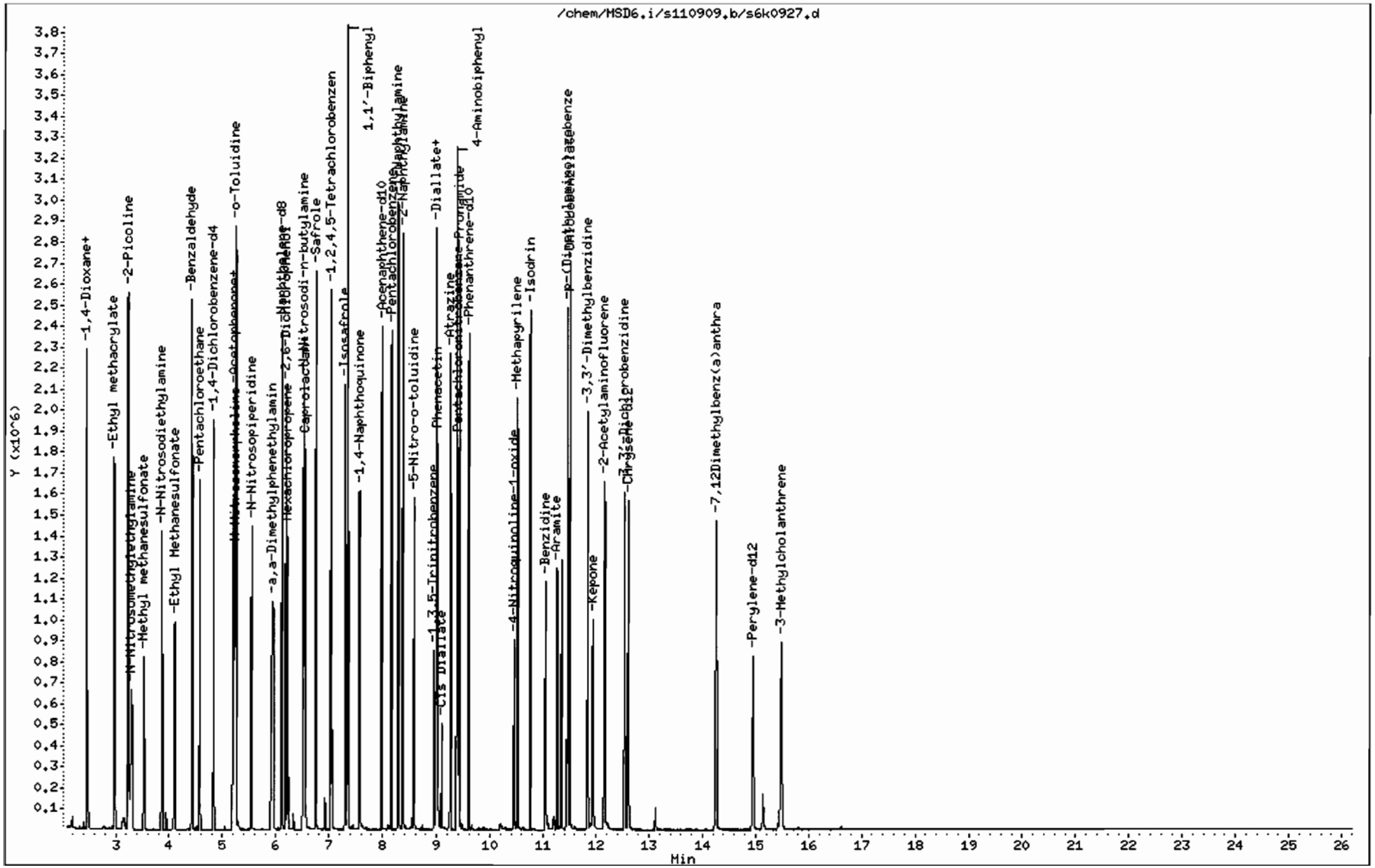

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Data file : /chem/MSD6.i/s110909.b/s6k0928.d
Lab Smp Id: WBN091016-06 Client Smp ID: AP12ICAL
Inj Date : 10-NOV-2009 15:06
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-06|100 PPM|1|SVMF|1|AP12ICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD6.i/s110909.b/MSD6-M8270D-110909.m
Meth Date : 10-Nov-2009 22:16 nat00999 Quant Type: ISTD
Cal Date : 10-NOV-2009 15:06 Cal File: s6k0928.d
Als bottle: 8 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	269726	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	951450	40.0000	
* 46 Acenaphthene-d10	164	7.983	7.983	(1.000)	504353	40.0000	
* 67 Phenanthrene-d10	188	9.601	9.601	(1.000)	889633	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	687577	40.0000	
* 98 Perylene-d12	264	14.952	14.952	(1.000)	493603	40.0000	
209 Benzaldehyde	77	4.434	4.434	(0.917)	538292	100.000	90.7
16 Acetophenone	105	5.221	5.221	(1.080)	765509	100.000	96.6
189 Caprolactam	113	6.556	6.556	(1.073)	168280	100.000	95.3(Q)
208 1,1'-Biphenyl	154	7.359	7.359	(0.922)	1421978	100.000	92.6
207 Atrazine	173	9.265	9.265	(0.965)	83322	100.000	89.8
77 Benzidine	184	11.048	11.048	(0.876)	683542	100.000	103
90 3,3'-Dichlorobenzidine	252	12.544	12.544	(0.995)	494688	100.000	103
102 1,4-Dioxane	88	2.456	2.456	(0.508)	237610	100.000	94.7
103 Methyl methacrylate	100	2.454	2.454	(0.508)	127875	100.000	96.6(Q)
104 Ethyl methacrylate	69	2.974	2.974	(0.615)	536559	100.000	97.8
105 2-Picoline	93	3.231	3.231	(0.668)	859789	100.000	96.1
106 N-Nitrosomethylethylamine	88	3.305	3.305	(0.684)	347021	100.000	101
107 Methyl methanesulfonate	80	3.534	3.534	(0.731)	343383	100.000	95.3
108 N-Nitrosodiethylamine	102	3.868	3.868	(0.800)	332464	100.000	99.6
109 Ethyl Methanesulfonate	79	4.105	4.105	(0.849)	434255	100.000	98.7
110 Pentachloroethane	167	4.576	4.576	(0.947)	210039	100.000	97.6
111 N-Nitrosopyrrolidine	100	5.208	5.208	(1.077)	333013	100.000	103(Q)
113 N-Nitrosomorpholine	56	5.241	5.241	(1.084)	444870	100.000	96.5
114 o-Toluidine	106	5.259	5.259	(1.088)	1065890	100.000	95.0
115 N-Nitrosopiperidine	114	5.550	5.550	(0.908)	332946	100.000	99.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.947	5.947	(0.973)	2060426	100.000	102
118 2,6-Dichlorophenol	162	6.192	6.192	(1.013)	489228	100.000	99.8
119 Hexachloropropene	213	6.225	6.225	(1.018)	253423	100.000	105
120 p-Phenylenediamine	108	6.551	6.551	(1.072)	524330	100.000	95.1
121 N-Nitrosodi-n-butylamine	84	6.523	6.523	(1.067)	460225	100.000	91.0(T)
122 Safrole	162	6.755	6.755	(1.105)	427111	100.000	95.7
123 1,2,4,5-Tetrachlorobenzene	216	7.040	7.040	(0.882)	512033	100.000	95.2
124 Isosafrole	162	7.310	7.310	(0.916)	423998	100.000	98.9
125 1,4-Naphthoquinone	158	7.570	7.570	(0.948)	357656	100.000	90.3
127 Pentachlorobenzene	250	8.161	8.161	(1.022)	443605	100.000	95.9
128 1-Naphthylamine	143	8.291	8.291	(1.039)	1088986	100.000	94.8
129 2-Naphthylamine	143	8.375	8.375	(1.049)	1178556	100.000	95.0
131 5-Nitro-o-toluidine	152	8.584	8.584	(1.075)	363649	100.000	105
136 1,3,5-Trinitrobenzene	75	8.956	8.956	(0.933)	265730	100.000	107
137 Phenacetin	108	9.028	9.028	(0.940)	594671	100.000	103(Q)
138 Diallate	86	8.995	8.995	(0.937)	505233	100.000	93.4
140 4-Aminobiphenyl	169	9.385	9.385	(0.977)	1184900	100.000	99.3
141 Pentachloronitrobenzene	237	9.397	9.397	(0.979)	135313	100.000	97.6(Q)
142 Pronamide	173	9.430	9.430	(0.982)	559863	100.000	95.0
146 4-Nitroquinoline-1-oxide	101	10.455	10.455	(1.089)	42924	100.000	75.6
147 Methapyrilene	58	10.524	10.524	(1.096)	781358	100.000	89.0
148 Isodrin	193	10.755	10.755	(1.120)	202874	100.000	93.8
149 Aramite	185	11.270	11.270	(1.174)	101518	100.000	103
150 Kepone	272	11.940	11.940	(1.244)	137760	100.000	102
151 p-(Dimethylamino)azobenzene	120	11.464	11.464	(0.909)	540533	100.000	98.4
152 Chlorobenzilate	251	11.507	11.507	(0.912)	501976	100.000	99.6
153 3,3'-Dimethylbenzidine	212	11.846	11.846	(0.939)	921672	100.000	102
155 2-Acetylaminofluorene	181	12.167	12.167	(0.965)	598627	100.000	114
157 7,12Dimethylbenz(a)anthracene	256	14.264	14.264	(0.954)	609873	100.000	103
158 3-Methylcholanthrene	268	15.495	15.495	(1.036)	481197	100.000	107(Q)
212 Cis Diallate	86	9.094	9.094	(0.947)	82974	15.0000	14.8
213 Trans Diallate	86	8.995	8.995	(0.937)	505233	85.0000	79.4

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0928.d

Page 1

Date : 10-NOV-2009 15:06

Client ID: AP12ICAL

Instrument: MSD6.i

Sample Info: |WBN091016-06|100 PPM|1|SVMF|1|AP12ICAL

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

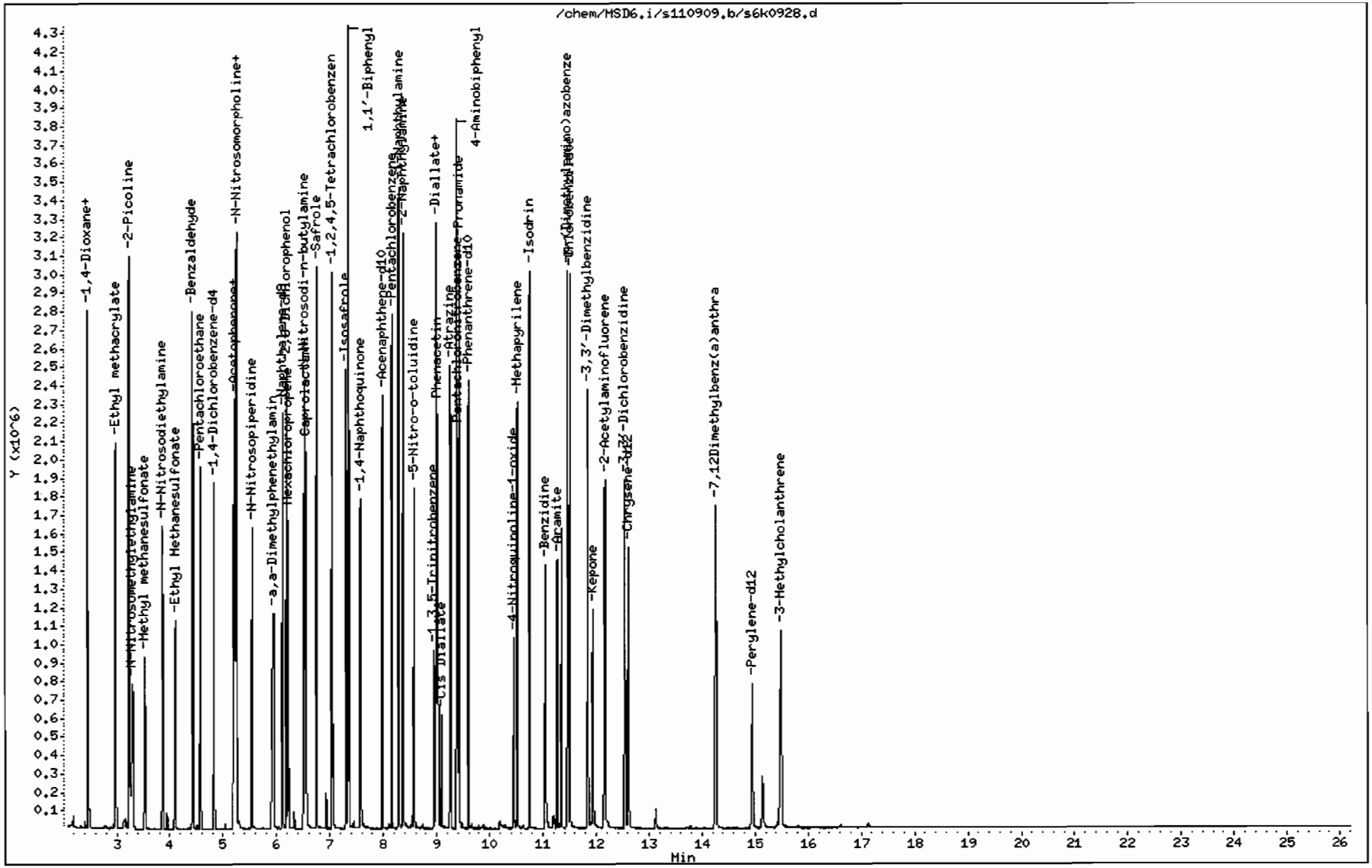

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Data file : /chem/MSD6.i/s110909.b/s6k0929.d
Lab Smp Id: WBN091016-07 Client Smp ID: AP12ICAL
Inj Date : 10-NOV-2009 15:43
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-07|120 PPM|1|SVMF|1|AP12ICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD6.i/s110909.b/MSD6-M8270D-110909.m
Meth Date : 10-Nov-2009 22:16 nat00999 Quant Type: ISTD
Cal Date : 10-NOV-2009 15:43 Cal File: s6k0929.d
Als bottle: 9 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	316668	40.0000	
* 29 Naphthalene-d8	136	6.115	6.115	(1.000)	1127304	40.0000	
* 46 Acenaphthene-d10	164	7.986	7.986	(1.000)	597582	40.0000	
* 67 Phenanthrene-d10	188	9.606	9.606	(1.000)	1059068	40.0000	
* 91 Chrysene-d12	240	12.618	12.618	(1.000)	872881	40.0000	
* 98 Perylene-d12	264	14.957	14.957	(1.000)	672288	40.0000	
209 Benzaldehyde	77	4.436	4.436	(0.918)	709340	120.000	104
16 Acetophenone	105	5.226	5.226	(1.081)	1072926	120.000	116
189 Caprolactam	113	6.569	6.569	(1.074)	242566	120.000	116(Q)
208 1,1'-Biphenyl	154	7.362	7.362	(0.922)	1981495	120.000	110
207 Atrazine	173	9.270	9.270	(0.965)	108824	120.000	101
77 Benzidine	184	11.056	11.056	(0.876)	1158331	120.000	135(A)
90 3,3'-Dichlorobenzidine	252	12.555	12.555	(0.995)	790124	120.000	128(A)
102 1,4-Dioxane	88	2.459	2.459	(0.509)	313992	120.000	108
103 Methyl methacrylate	100	2.456	2.456	(0.508)	169825	120.000	111(Q)
104 Ethyl methacrylate	69	2.974	2.974	(0.615)	718659	120.000	113
105 2-Picoline	93	3.234	3.234	(0.669)	1139171	120.000	110
106 N-Nitrosomethylethylamine	88	3.307	3.307	(0.684)	498080	120.000	123(A)
107 Methyl methanesulfonate	80	3.539	3.539	(0.732)	470230	120.000	112
108 N-Nitrosodiethylamine	102	3.873	3.873	(0.801)	472357	120.000	120(A)
109 Ethyl Methanesulfonate	79	4.110	4.110	(0.850)	616173	120.000	119
110 Pentachloroethane	167	4.576	4.576	(0.947)	287880	120.000	115
111 N-Nitrosopyrrolidine	100	5.219	5.219	(1.080)	423699	120.000	112(Q)
113 N-Nitrosomorpholine	56	5.249	5.249	(1.086)	622702	120.000	116
114 o-Toluidine	106	5.264	5.264	(1.089)	1502696	120.000	115
115 N-Nitrosopiperidine	114	5.555	5.555	(0.908)	486070	120.000	122(A)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.947	5.947	(0.972)	2961362	120.000	123(A)
118 2,6-Dichlorophenol	162	6.197	6.197	(1.013)	714204	120.000	122(A)
119 Hexachloropropene	213	6.225	6.225	(1.018)	375796	120.000	130(A)
120 p-Phenylenediamine	108	6.561	6.561	(1.073)	733126	120.000	113
121 N-Nitrosodi-n-butylamine	84	6.528	6.528	(1.067)	660297	120.000	112(T)
122 Safrole	162	6.758	6.758	(1.105)	607338	120.000	116
123 1,2,4,5-Tetrachlorobenzene	216	7.043	7.043	(0.882)	721210	120.000	114
124 Isosafrole	162	7.316	7.316	(0.916)	604188	120.000	119
125 1,4-Naphthoquinone	158	7.570	7.570	(0.948)	470325	120.000	103
127 Pentachlorobenzene	250	8.164	8.164	(1.022)	628086	120.000	115
128 1-Naphthylamine	143	8.297	8.297	(1.039)	1585757	120.000	117
129 2-Naphthylamine	143	8.383	8.383	(1.050)	1712431	120.000	117
131 5-Nitro-o-toluidine	152	8.590	8.590	(1.076)	546937	120.000	131(A)
136 1,3,5-Trinitrobenzene	75	8.962	8.962	(0.933)	408609	120.000	135(A)
137 Phenacetin	108	9.041	9.041	(0.941)	897271	120.000	129(AQ)
138 Diallate	86	8.997	8.997	(0.937)	712002	120.000	112
140 4-Aminobiphenyl	169	9.390	9.390	(0.977)	1681806	120.000	118
141 Pentachloronitrobenzene	237	9.403	9.403	(0.979)	189324	120.000	115(Q)
142 Pronamide	173	9.438	9.438	(0.982)	799839	120.000	115
146 4-Nitroquinoline-1-oxide	101	10.460	10.460	(1.089)	55611	120.000	82.3
147 Methapyrilene	58	10.529	10.529	(1.096)	1062145	120.000	104
148 Isodrin	193	10.758	10.758	(1.120)	287118	120.000	113
149 Aramite	185	11.273	11.273	(1.173)	140689	120.000	120(A)
150 Kepone	272	11.951	11.951	(1.244)	211485	120.000	129(A)
151 p-(Dimethylamino)azobenzene	120	11.469	11.469	(0.909)	795963	120.000	115
152 Chlorobenzilate	251	11.512	11.512	(0.912)	733377	120.000	115
153 3,3'-Dimethylbenzidine	212	11.854	11.854	(0.939)	1426464	120.000	124(A)
155 2-Acetylaminofluorene	181	12.180	12.180	(0.965)	953419	120.000	139(A)
157 7,12Dimethylbenz(a)anthracene	256	14.277	14.277	(0.954)	975211	120.000	121(A)
158 3-Methylcholanthrene	268	15.510	15.510	(1.037)	813356	120.000	131(AQ)
212 Cis Diallate	86	9.094	9.094	(0.947)	123246	18.0000	18.4(A)
213 Trans Diallate	86	8.997	8.997	(0.937)	712002	102.000	95.0

QC Flag Legend

T - Target compound detected outside RT window.
A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0929.d

Page 1

Date : 10-NOV-2009 15:43

Client ID: AP12ICAL

Instrument: MSD6.i

Sample Info: |WBN091016-07|120 PPM|1|SVMF|1|AP12ICAL

Operator: JMB3

Column phase: J&W DB-5MS

Column diameter: 0.20

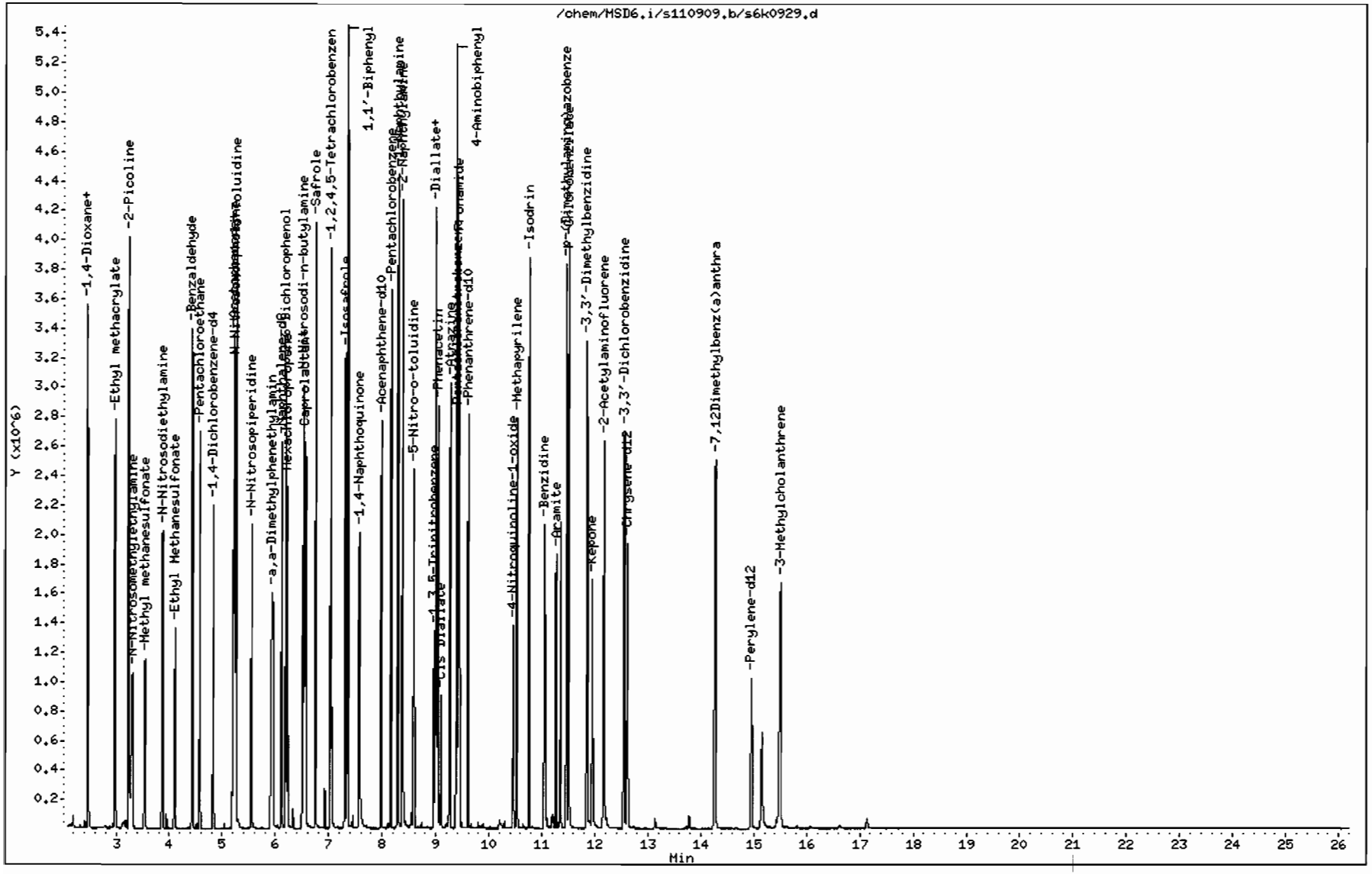

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 20:29
Lab File ID: s6k0937.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091106-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.00169	1.03466	1.03466	0.000	3.29147	60.00000	Averaged
$ 5 Phenol-d5	1.26427	1.24245	1.24245	0.000	-1.72556	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.28296	0.29902	0.29902	0.000	5.67523	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.03083	1.08174	1.08174	0.000	4.93820	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11675	0.12945	0.12945	0.000	10.88297	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.64507	0.72359	0.72359	0.000	12.17316	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.68098	0.64081	0.64081	0.000	-5.89855	60.00000	Averaged
2 Pyridine	0.84757	0.77144	0.77144	0.000	-8.98267	60.00000	Averaged
4 Aniline	0.52752	0.51930	0.51930	0.000	-1.55765	60.00000	Averaged
6 Phenol	1.27120	1.23489	1.23489	0.001	-2.85632	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.86081	0.80936	0.80936	0.000	-5.97614	60.00000	Averaged
8 2-Chlorophenol	1.02109	1.01772	1.01772	0.000	-0.32996	60.00000	Averaged
203 n-Decane	1.42254	1.44155	1.44155	0.000	1.33631	60.00000	Averaged
9 1,3-Dichlorobenzene	1.17550	1.19665	1.19665	0.000	1.79939	60.00000	Averaged
11 1,4-Dichlorobenzene	1.19162	1.18877	1.18877	0.001	-0.23932	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.11231	1.12583	1.12583	0.000	1.21558	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.92182	1.94108	1.94108	0.000	1.00230	60.00000	Averaged
12 Benzyl alcohol	0.63436	0.65075	0.65075	0.000	2.58272	60.00000	Averaged
15 o-Cresol	0.83139	0.83798	0.83798	0.000	0.79318	60.00000	Averaged
18 m,p-Cresols	1.05346	1.05662	1.05662	0.000	0.29972	60.00000	Averaged
17 N-Nitrosodipropylamine	0.70865	0.69204	0.69204	0.050	-2.34415	60.00000	Averaged spcc
19 Hexachloroethane	0.46100	0.44650	0.44650	0.000	-3.14409	60.00000	Averaged
21 Nitrobenzene	0.28519	0.29957	0.29957	0.000	5.04113	60.00000	Averaged
22 Isophorone	0.50552	0.52435	0.52435	0.000	3.72478	60.00000	Averaged
23 2-Nitrophenol	0.13154	0.13639	0.13639	0.001	3.68222	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.21795	0.23088	0.23088	0.000	5.93159	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.29749	0.30276	0.30276	0.000	1.77222	60.00000	Averaged
26 2,4-Dichlorophenol	0.19769	0.20590	0.20590	0.001	4.15386	20.00000	Averaged ccc
27 Benzoic acid	0.13453	0.14567	0.14567	0.000	8.28081	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24261	0.24953	0.24953	0.000	2.85087	60.00000	Averaged
30 Naphthalene	0.79792	0.83170	0.83170	0.000	4.23406	60.00000	Averaged
204 alpha-Terpineol	0.21868	0.21801	0.21801	0.000	-0.30655	60.00000	Averaged
31 4-Chloroaniline	0.25646	0.26546	0.26546	0.000	3.51176	60.00000	Averaged
32 Hexachlorobutadiene	0.12634	0.13489	0.13489	0.001	6.77038	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.19957	0.20148	0.20148	0.001	0.96147	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.48150	0.55976	0.55976	0.000	16.25394	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 20:29
Lab File ID: s6k0937.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091106-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35	1-Methylnaphthalene	0.47100	0.53047	0.53047	0.000	12.62514	60.00000	Averaged
36	Hexachlorocyclopentadiene	0.16157	0.12441	0.12441	0.050	-22.99690	60.00000	Averaged spcc
205	2,3-Dichloroaniline	0.47908	0.48878	0.48878	0.000	2.02564	60.00000	Averaged
37	2,4,6-Trichlorophenol	0.27294	0.27425	0.27425	0.001	0.48093	20.00000	Averaged ccc
38	2,4,5-Trichlorophenol	0.29067	0.30912	0.30912	0.000	6.34737	60.00000	Averaged
40	2-Chloronaphthalene	0.89832	0.89821	0.89821	0.000	-0.01212	60.00000	Averaged
42	o-Nitroaniline	0.30732	0.29883	0.29883	0.000	-2.76487	60.00000	Averaged
41	m-Nitroaniline	0.22497	0.22544	0.22544	0.000	0.20968	60.00000	Averaged
43	Dimethylphthalate	1.02610	1.07233	1.07233	0.000	4.50566	60.00000	Averaged
44	2,6-Dinitrotoluene	0.24475	0.24571	0.24571	0.000	0.39287	60.00000	Averaged
50	2,4-Dinitrotoluene	0.30862	0.32387	0.32387	0.000	4.94261	60.00000	Averaged
45	Acenaphthylene	1.44438	1.60997	1.60997	0.000	11.46448	60.00000	Averaged
47	Acenaphthene	0.90151	0.96315	0.96315	0.001	6.83729	20.00000	Averaged ccc
48	2,4-Dinitrophenol	35.88405	40.00000	0.06990	0.050	-10.28987	60.00000	Linear spcc
49	Dibenzofuran	1.21689	1.24464	1.24464	0.000	2.28092	60.00000	Averaged
51	Diethylphthalate	1.03335	1.08103	1.08103	0.000	4.61479	60.00000	Averaged
52	4-Nitrophenol	37.16907	40.00000	0.15052	0.050	-7.07733	60.00000	Linear spcc
53	Fluorene	0.99879	1.09503	1.09503	0.000	9.63571	60.00000	Averaged
54	4-Chlorophenylphenylether	0.47192	0.49481	0.49481	0.000	4.84948	60.00000	Averaged
55	2-Methyl-4,6-dinitrophenol	44.79678	40.00000	0.10162	0.000	11.99194	60.00000	Linear
56	p-Nitroaniline	37.18126	40.00000	0.19210	0.000	-7.04684	60.00000	Linear
133	Diphenylamine	0.48213	0.48382	0.48382	0.001	0.34977	20.00000	Averaged ccc
58	1,2-Diphenylhydrazine	0.61327	0.61966	0.61966	0.000	1.04277	60.00000	Averaged
61	4-Bromophenylphenylether	0.15784	0.15705	0.15705	0.000	-0.50023	60.00000	Averaged
63	Hexachlorobenzene	0.16533	0.16268	0.16268	0.000	-1.60406	60.00000	Averaged
65	Pentachlorophenol	41.23337	40.00000	0.08933	0.001	3.08343	20.00000	Linear ccc
206	n-Octadecane	0.44173	0.45929	0.45929	0.000	3.97491	60.00000	Averaged
68	Phenanthrene	0.82721	0.88585	0.88585	0.000	7.08867	60.00000	Averaged
69	Anthracene	0.82682	0.90991	0.90991	0.000	10.04830	60.00000	Averaged
72	Di-n-butylphthalate	0.94954	1.02135	1.02135	0.000	7.56331	60.00000	Averaged
76	Fluoranthene	0.79242	0.90654	0.90654	0.001	14.40110	20.00000	Averaged ccc
79	Pyrene	1.10021	1.20816	1.20816	0.000	9.81213	60.00000	Averaged
85	Butylbenzylphthalate	0.50351	0.54090	0.54090	0.000	7.42706	60.00000	Averaged
89	Benzo(a)anthracene	0.86301	0.92157	0.92157	0.000	6.78546	60.00000	Averaged
92	Chrysene	0.82690	0.90169	0.90169	0.000	9.04505	60.00000	Averaged
93	bis(2-Ethylhexyl)phthalate	41.60196	40.00000	0.72185	0.000	4.00491	60.00000	Wt Linear

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 20:29
Lab File ID: s6k0937.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091106-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.27127	1.35676	1.35676	0.001	6.72426	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	0.88507	0.99154	0.99154	0.000	12.02912	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.88011	1.01364	1.01364	0.000	15.17242	60.00000	Averaged	
	97 Benzo(a)pyrene	0.76447	0.88080	0.88080	0.001	15.21790	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	40.05227	40.00000	0.72891	0.000	0.13069	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	37.95723	40.00000	0.56106	0.000	-5.10692	60.00000	Linear	
	101 Benzo(ghi)perylene	0.58403	0.61594	0.61594	0.000	5.46367	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16929	0.17081	0.17081	0.000	0.89311	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21896	0.23318	0.23318	0.000	6.49309	60.00000	Averaged	
	143 Dinoseb	37.88463	40.00000	0.11675	0.000	-5.28842	60.00000	Linear	
	173 Carbazole	0.65449	0.70032	0.70032	0.000	7.00193	60.00000	Averaged	
	184 p-Benzoquinone	0.12730	0.14364	0.14364	0.000	12.83157	60.00000	Averaged	
	192 Methoxychlor	0.55243	0.57593	0.57593	0.000	4.25434	60.00000	Averaged	
	211 p-Toluidine	0.89987	0.90823	0.90823	0.000	0.92871	60.00000	Averaged	
	210 m-Toluidine	1.12396	1.11262	1.11262	0.000	-1.00903	60.00000	Averaged	
	26 Phthalic anhydride	71.32284	40.00000	0.14710	0.000	78.30709	60.00000	Linear	<-
	179 Dibenzo(a,e)pyrene	23.04060	40.00000	0.15052	0.000	-42.39851	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.18382	0.17485	0.17485	0.000	-4.87689	60.00000	Averaged	
	215 2-Ethoxyethanol	0.71035	0.75383	0.75383	0.000	6.12038	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	38.25405	40.00000	0.11920	0.000	-4.36487	60.00000	Linear	
M	225 Trichlorophenols	0.28180	0.29168	0.29168	0.000	3.50642	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21896	0.23318	0.23318	0.000	6.49309	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.88259	1.00259	1.00259	0.000	13.59635	60.00000	Averaged	

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Data file : /chem/MSD6.i/s110909.b/s6k0937.d
Lab Smp Id: WBN091106-09.1 Client Smp ID: MEGAICV
Inj Date : 10-NOV-2009 20:29
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-09.1|40 PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:50 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 02:44 Cal File: s6k0950.d
Als bottle: 17 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	267857	40.0000	
* 29 Naphthalene-d8	136	6.116	6.116	(1.000)	1007489	40.0000	
* 46 Acenaphthene-d10	164	7.986	7.986	(1.000)	511035	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	891521	40.0000	
* 91 Chrysene-d12	240	12.618	12.618	(1.000)	688764	40.0000	
* 98 Perylene-d12	264	14.955	14.955	(1.000)	524055	40.0000	
$ 3 2-Fluorophenol	112	3.646	3.646	(0.754)	277141	40.0000	41.3
$ 5 Phenol-d5	99	4.431	4.431	(0.917)	332800	40.0000	39.3
$ 20 Nitrobenzene-d5	82	5.371	5.371	(0.878)	301256	40.0000	42.3
$ 39 2-Fluorobiphenyl	172	7.242	7.242	(0.907)	552805	40.0000	42.0
$ 60 2,4,6-Tribromophenol	329	8.834	8.834	(1.106)	66156	40.0000	44.4
$ 81 p-Terphenyl-d14	244	11.306	11.306	(0.896)	498384	40.0000	44.9
1 N-Methyl-N-nitrosomethylamine	74	2.663	2.663	(0.551)	171645	40.0000	37.6
2 Pyridine	79	2.701	2.701	(0.559)	206635	40.0000	36.4
4 Aniline	66	4.518	4.518	(0.935)	139099	40.0000	39.4
6 Phenol	94	4.444	4.444	(0.919)	330773	40.0000	38.8
7 bis(2-Chloroethyl) ether	63	4.559	4.559	(0.943)	216794	40.0000	37.6
8 2-Chlorophenol	128	4.633	4.633	(0.958)	272604	40.0000	39.9
203 n-Decane	43	4.643	4.643	(0.960)	386128	40.0000	40.5
9 1,3-Dichlorobenzene	146	4.783	4.783	(0.989)	320531	40.0000	40.7
11 1,4-Dichlorobenzene	146	4.852	4.852	(1.004)	318420	40.0000	39.9
13 1,2-Dichlorobenzene	146	5.002	5.002	(1.035)	301561	40.0000	40.5
14 bis(2-Chloroisopropyl)ether	45	5.068	5.068	(1.048)	519933	40.0000	40.4
12 Benzyl alcohol	108	4.941	4.941	(1.022)	174307	40.0000	41.0
15 o-Cresol	107	5.025	5.025	(1.040)	224459	40.0000	40.3
18 m,p-Cresols	107	5.180	5.180	(1.072)	283022	40.0000	40.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.206	5.206	(1.077)	185368	40.0000	39.1
19 Hexachloroethane	117	5.338	5.338	(1.104)	119599	40.0000	38.7
21 Nitrobenzene	77	5.392	5.392	(0.882)	301811	40.0000	42.0
22 Isophorone	82	5.626	5.626	(0.920)	528272	40.0000	41.5
23 2-Nitrophenol	139	5.708	5.708	(0.933)	137410	40.0000	41.5
24 2,4-Dimethylphenol	122	5.718	5.718	(0.935)	232609	40.0000	42.4
25 bis(2-Chloroethoxy)methane	93	5.825	5.825	(0.952)	305032	40.0000	40.7
26 2,4-Dichlorophenol	162	5.950	5.950	(0.973)	207439	40.0000	41.7
27 Benzoic acid	105	5.812	5.812	(0.950)	146760	40.0000	43.3(H)
28 1,2,4-Trichlorobenzene	180	6.047	6.047	(0.989)	251400	40.0000	41.1
30 Naphthalene	128	6.138	6.138	(1.004)	837929	40.0000	41.7
204 alpha-Terpineol	59	6.123	6.123	(1.001)	219641	40.0000	39.9
31 4-Chloroaniline	127	6.172	6.172	(1.009)	267452	40.0000	41.4
32 Hexachlorobutadiene	225	6.251	6.251	(1.022)	135904	40.0000	42.7
33 4-Chloro-3-methylphenol	107	6.653	6.653	(1.088)	202993	40.0000	40.4
34 2-Methylnaphthalene	142	6.862	6.862	(1.122)	563953	40.0000	46.5
35 1-Methylnaphthalene	142	6.969	6.969	(1.140)	534441	40.0000	45.0
36 Hexachlorocyclopentadiene	237	7.020	7.020	(0.879)	63579	40.0000	30.8
205 2,3-Dichloroaniline	161	7.155	7.155	(0.896)	249785	40.0000	40.8
37 2,4,6-Trichlorophenol	196	7.147	7.147	(0.895)	140152	40.0000	40.2
38 2,4,5-Trichlorophenol	196	7.183	7.183	(0.899)	157970	40.0000	42.5
40 2-Chloronaphthalene	162	7.384	7.384	(0.925)	459019	40.0000	40.0
42 o-Nitroaniline	65	7.479	7.479	(0.936)	152711	40.0000	38.9
41 m-Nitroaniline	138	7.922	7.922	(0.992)	115209	40.0000	40.1
43 Dimethylphthalate	163	7.670	7.670	(0.960)	548000	40.0000	41.8
44 2,6-Dinitrotoluene	165	7.739	7.739	(0.969)	125566	40.0000	40.2
50 2,4-Dinitrotoluene	165	8.172	8.172	(1.023)	165511	40.0000	42.0
45 Acenaphthylene	152	7.835	7.835	(0.981)	822752	40.0000	44.6
47 Acenaphthene	154	8.024	8.024	(1.005)	492203	40.0000	42.7
48 2,4-Dinitrophenol	184	8.029	8.029	(1.005)	35722	40.0000	35.9
49 Dibenzofuran	168	8.205	8.205	(1.027)	636057	40.0000	40.9
51 Diethylphthalate	149	8.424	8.424	(1.055)	552446	40.0000	41.8
52 4-Nitrophenol	139	8.070	8.070	(1.011)	76920	40.0000	37.2
53 Fluorene	166	8.577	8.577	(1.074)	559601	40.0000	43.8
54 4-Chlorophenylphenylether	204	8.564	8.564	(1.072)	252864	40.0000	41.9
55 2-Methyl-4,6-dinitrophenol	198	8.613	8.613	(0.897)	90597	40.0000	44.8
56 p-Nitroaniline	138	8.582	8.582	(1.075)	98168	40.0000	37.2
133 Diphenylamine	169	8.689	8.689	(0.905)	431336	40.0000	40.1
58 1,2-Diphenylhydrazine	77	8.738	8.738	(0.910)	552443	40.0000	40.4
61 4-Bromophenylphenylether	248	9.094	9.094	(0.947)	140012	40.0000	39.8
63 Hexachlorobenzene	284	9.173	9.173	(0.956)	145031	40.0000	39.4
65 Pentachlorophenol	266	9.375	9.375	(0.977)	79644	40.0000	41.2
206 n-Octadecane	57	9.431	9.431	(0.982)	409467	40.0000	41.6
68 Phenanthrene	178	9.624	9.624	(1.003)	789756	40.0000	42.8
69 Anthracene	178	9.680	9.680	(1.008)	811200	40.0000	44.0
72 Di-n-butylphthalate	149	10.190	10.190	(1.062)	910557	40.0000	43.0
76 Fluoranthene	202	10.914	10.914	(1.137)	808196	40.0000	45.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.166	11.166	(0.885)	832137	40.0000	43.9
85 Butylbenzylphthalate	149	11.841	11.841	(0.938)	372553	40.0000	43.0
89 Benzo(a)anthracene	228	12.598	12.598	(0.998)	634741	40.0000	42.7
92 Chrysene	228	12.654	12.654	(1.003)	621053	40.0000	43.6
93 bis(2-Ethylhexyl)phthalate	149	12.570	12.570	(0.996)	497186	40.0000	41.6
94 Di-n-octylphthalate	149	13.561	13.561	(0.907)	711015	40.0000	42.7
95 Benzo(b)fluoranthene	252	14.275	14.275	(0.954)	519622	40.0000	44.8
96 Benzo(k)fluoranthene	252	14.326	14.326	(0.958)	531203	40.0000	46.1
97 Benzo(a)pyrene	252	14.853	14.853	(0.993)	461589	40.0000	46.1
99 Indeno(1,2,3-cd)pyrene	276	16.945	16.945	(1.133)	381990	40.0000	40.0
100 Dibenzo(a,h)anthracene	278	16.978	16.978	(1.135)	294025	40.0000	38.0
101 Benzo(ghi)perylene	276	17.460	17.460	(1.167)	322785	40.0000	42.2
126 m-Dinitrobenzene	168	7.708	7.708	(0.965)	87288	40.0000	40.4
130 2,3,4,6-Tetrachlorophenol	232	8.325	8.325	(1.042)	119161	40.0000	42.6
143 Dinoseb	211	9.561	9.561	(0.996)	104085	40.0000	37.9
173 Carbazole	167	9.841	9.841	(1.025)	624352	40.0000	42.8
184 p-Benzoquinone	54	4.085	4.085	(0.845)	38475	40.0000	45.1
192 Methoxychlor	227	12.468	12.468	(0.988)	396683	40.0000	41.7
211 p-Toluidine	106	5.252	5.252	(1.086)	243276	40.0000	40.4
210 m-Toluidine	106	5.285	5.285	(1.093)	298023	40.0000	39.6
26 Phthalic anhydride	104	6.911	6.911	(1.130)	148201	40.0000	71.3
179 Dibenzo(a,e)pyrene	302	21.182	21.182	(1.416)	78881	40.0000	23.0
214 1,4-Dinitrobenzene	75	7.624	7.624	(0.955)	89355	40.0000	38.0
215 2-Ethoxyethanol	59	2.454	2.454	(0.508)	201919	40.0000	42.4
216 Methylenebis(2-chloroaniline)	231	12.539	12.539	(0.994)	82098	40.0000	38.2
M 225 Trichlorophenols	196				298122	80.0000	82.8
M 226 Tetrachlorophenols	232				119161	40.0000	42.6
M 227 Benzo(b,k)fluoranthene	252				1050825	80.0000	90.9

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0937.d
Date : 10-NOV-2009 20:29
Client ID: MEGAICV
Sample Info: IWBN091106-09,1l40 PPM|1|SVMF1|1MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

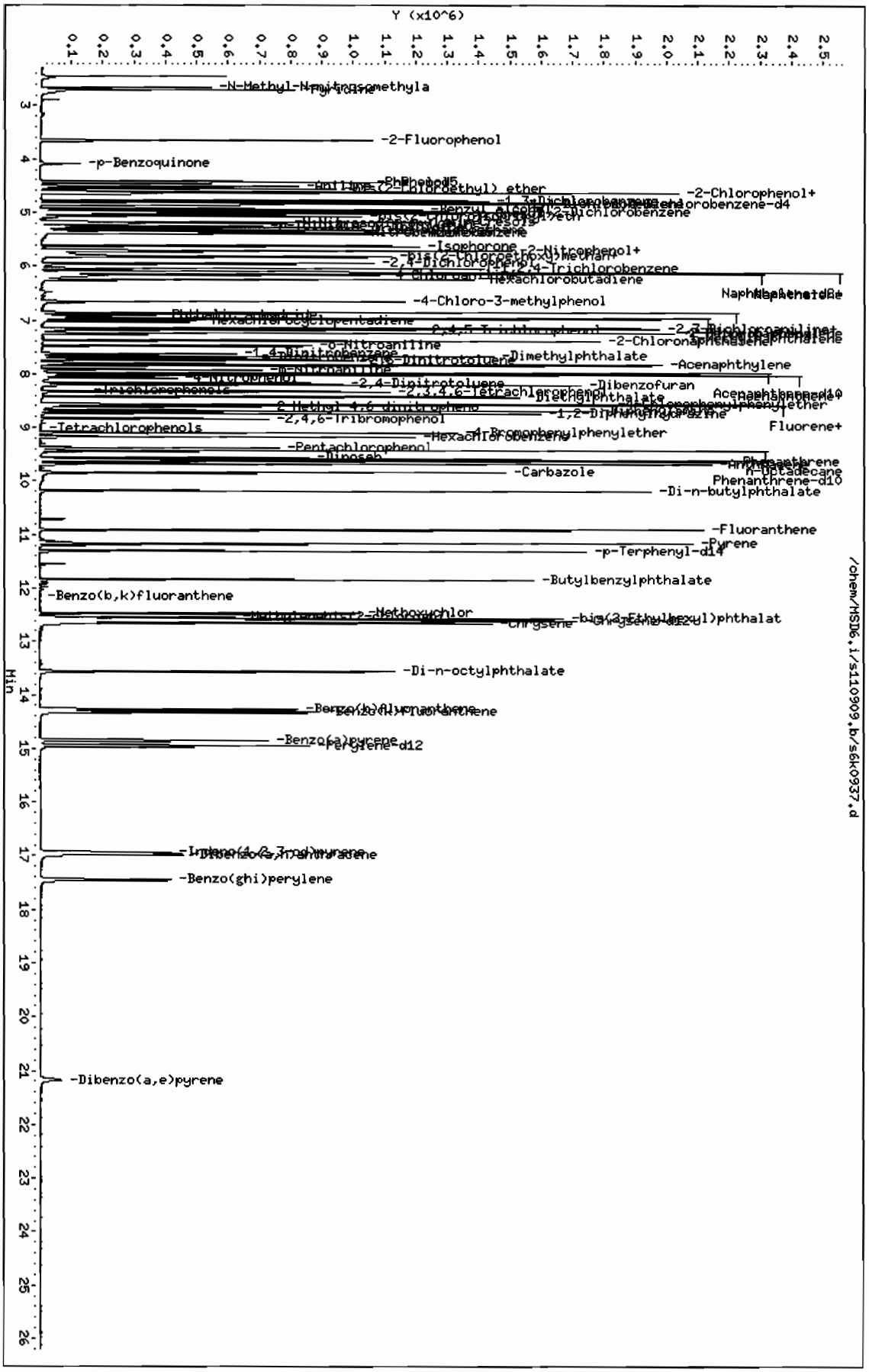

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 21:07
Lab File ID: s6k0938.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091016-08.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86127	0.67526	0.67526	0.000	-21.59733	60.00000	Averaged
16 Acetophenone	1.16908	1.08481	1.08481	0.000	-7.20809	60.00000	Averaged
189 Caprolactam	0.07388	0.08118	0.08118	0.000	9.87786	60.00000	Averaged
208 1,1'-Biphenyl	1.20131	1.15865	1.15865	0.000	-3.55099	60.00000	Averaged
207 Atrazine	0.04063	0.03738	0.03738	0.000	-8.01727	60.00000	Averaged
77 Benzidine	0.39304	0.35886	0.35886	0.000	-8.69608	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.28252	0.30132	0.30132	0.000	6.65684	60.00000	Averaged
102 1,4-Dioxane	0.36606	0.45837	0.45837	0.000	25.21672	60.00000	Averaged
103 Methyl methacrylate	0.19388	0.26059	0.26059	0.000	34.40927	60.00000	Averaged
104 Ethyl methacrylate	0.80561	0.97594	0.97594	0.000	21.14390	60.00000	Averaged
105 2-Picoline	1.30872	1.36092	1.36092	0.000	3.98846	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.51104	0.53755	0.53755	0.000	5.18772	60.00000	Averaged
107 Methyl methanesulfonate	0.52852	0.52223	0.52223	0.000	-1.19058	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49553	0.51026	0.51026	0.000	2.97098	60.00000	Averaged
109 Ethyl Methanesulfonate	0.65169	0.73760	0.73760	0.000	13.18337	60.00000	Averaged
110 Pentachloroethane	0.31681	0.42390	0.42390	0.000	33.80401	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47614	0.46325	0.46325	0.000	-2.70540	60.00000	Averaged
113 N-Nitrosomorpholine	0.67936	0.65676	0.65676	0.000	-3.32751	60.00000	Averaged
114 o-Toluidine	1.65281	1.64899	1.64899	0.000	-0.23102	60.00000	Averaged
115 N-Nitrosopiperidine	0.14105	0.14180	0.14180	0.000	0.52679	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.85546	0.87204	0.87204	0.000	1.93819	60.00000	Averaged
118 2,6-Dichlorophenol	0.20687	0.20008	0.20008	0.000	-3.28259	60.00000	Averaged
119 Hexachloropropene	0.10269	0.14537	0.14537	0.000	41.57055	60.00000	Averaged
120 p-Phenylenediamine	0.22955	0.23182	0.23182	0.000	0.99155	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21004	0.21749	0.21749	0.000	3.54470	60.00000	Averaged
122 Safrole	0.18653	0.20933	0.20933	0.000	12.22661	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42319	0.42512	0.42512	0.000	0.45545	60.00000	Averaged
124 Isosafrole	0.33959	0.43257	0.43257	0.000	27.38086	60.00000	Averaged
125 1,4-Naphthoquinone	0.30674	0.30375	0.30375	0.000	-0.97466	60.00000	Averaged
127 Pentachlorobenzene	0.36454	0.36394	0.36394	0.000	-0.16566	60.00000	Averaged
128 1-Naphthylamine	0.90742	0.91190	0.91190	0.000	0.49410	60.00000	Averaged
129 2-Naphthylamine	0.98012	0.91865	0.91865	0.000	-6.27177	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27901	0.28996	0.28996	0.000	3.92480	60.00000	Averaged
136 1,3,5-Trinitrobenzene	46.05690	40.00000	0.13757	0.000	15.14226	60.00000	Linear
137 Phenacetin	0.26240	0.25991	0.25991	0.000	-0.94903	60.00000	Averaged
138 Diallate	0.24056	0.23148	0.23148	0.000	-3.77545	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 21:07
Lab File ID: s6k0938.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091016-08.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.53562	0.58994	0.58994	0.000	10.14239	60.00000	Averaged
141 Pentachloronitrobenzene	0.06192	0.06213	0.06213	0.000	0.34079	60.00000	Averaged
142 Pronamide	0.26319	0.26234	0.26234	0.000	-0.32101	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02349	0.02580	0.02580	0.000	9.82299	60.00000	Averaged
147 Methapyrilene	0.38600	0.39422	0.39422	0.000	2.12820	60.00000	Averaged
148 Isodrin	0.09631	0.08838	0.08838	0.000	-8.22821	60.00000	Averaged
149 Aramite	0.04420	0.04155	0.04155	0.000	-5.99495	60.00000	Averaged
150 Kepone	0.06173	0.05889	0.05889	0.000	-4.59530	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31734	0.33079	0.33079	0.000	4.23929	60.00000	Averaged
152 Chlorobenzilate	0.29130	0.29321	0.29321	0.000	0.65640	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52763	0.57778	0.57778	0.000	9.50435	60.00000	Averaged
155 2-Acetylaminofluorene	41.44131	40.00000	0.34022	0.000	3.60328	60.00000	Linear
157 7,12Dimethylbenz(a)anthrace	0.47906	0.41447	0.41447	0.000	-13.48259	60.00000	Averaged
158 3-Methylcholanthrene	0.36955	0.35869	0.35869	0.000	-2.93887	60.00000	Averaged
212 Cis Diallate	0.25295	0.25705	0.25705	0.000	1.62146	60.00000	Averaged
213 Trans Diallate	0.28301	0.27233	0.27233	0.000	-3.77545	60.00000	Averaged

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Data file : /chem/MSD6.i/s110909.b/s6k0938.d
Lab Smp Id: WBN091016-08.1 Client Smp ID: AP12ICV
Inj Date : 10-NOV-2009 21:07
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-08.1|40 PPM|1|SVMF|1|AP12ICV
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 09:25 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 02:44 Cal File: s6k0950.d
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	282437	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	974498	40.0000	
* 46 Acenaphthene-d10	164	7.983	7.983	(1.000)	519475	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	914999	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	718441	40.0000	
* 98 Perylene-d12	264	14.950	14.950	(1.000)	524113	40.0000	
209 Benzaldehyde	77	4.428	4.428	(0.916)	190719	40.0000	31.4
16 Acetophenone	105	5.211	5.211	(1.078)	306390	40.0000	37.1
189 Caprolactam	113	6.531	6.531	(1.068)	79108	40.0000	44.0
208 1,1'-Biphenyl	154	7.354	7.354	(0.921)	601890	40.0000	38.6
207 Atrazine	173	9.249	9.249	(0.964)	34200	40.0000	36.8
77 Benzidine	184	11.038	11.038	(0.875)	257818	40.0000	36.5
90 3,3'-Dichlorobenzidine	252	12.539	12.539	(0.994)	216482	40.0000	42.7
102 1,4-Dioxane	88	2.456	2.456	(0.508)	129460	40.0000	50.1
103 Methyl methacrylate	100	2.454	2.454	(0.508)	73600	40.0000	53.8
104 Ethyl methacrylate	69	2.971	2.971	(0.615)	275642	40.0000	48.4
105 2-Picoline	93	3.228	3.228	(0.668)	384374	40.0000	41.6
106 N-Nitrosomethylethylamine	88	3.297	3.297	(0.682)	151823	40.0000	42.1
107 Methyl methanesulfonate	80	3.521	3.521	(0.728)	147497	40.0000	39.5
108 N-Nitrosodiethylamine	102	3.858	3.858	(0.798)	144115	40.0000	41.2
109 Ethyl Methanesulfonate	79	4.097	4.097	(0.848)	208326	40.0000	45.3
110 Pentachloroethane	167	4.574	4.574	(0.946)	119725	40.0000	53.5
111 N-Nitrosopyrrolidine	100	5.190	5.190	(1.074)	130840	40.0000	38.9(Q)
113 N-Nitrosomorpholine	56	5.223	5.223	(1.081)	185493	40.0000	38.7
114 o-Toluidine	106	5.249	5.249	(1.086)	465737	40.0000	39.9
115 N-Nitrosopiperidine	114	5.539	5.539	(0.906)	138180	40.0000	40.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.962	5.962	(0.975)	849798	40.0000	40.8
118 2,6-Dichlorophenol	162	6.184	6.184	(1.012)	194979	40.0000	38.7
119 Hexachloropropene	213	6.222	6.222	(1.018)	141665	40.0000	56.6
120 p-Phenylenediamine	108	6.541	6.541	(1.070)	225910	40.0000	40.4
121 N-Nitrosodi-n-butylamine	84	6.515	6.515	(1.066)	211942	40.0000	41.4(T)
122 Safrole	162	6.750	6.750	(1.104)	203993	40.0000	44.9
123 1,2,4,5-Tetrachlorobenzene	216	7.035	7.035	(0.881)	220840	40.0000	40.2
124 Isosafrole	162	7.305	7.305	(0.915)	224711	40.0000	51.0
125 1,4-Naphthoquinone	158	7.565	7.565	(0.948)	157789	40.0000	39.6
127 Pentachlorobenzene	250	8.156	8.156	(1.022)	189057	40.0000	39.9
128 1-Naphthylamine	143	8.284	8.284	(1.038)	473709	40.0000	40.2
129 2-Naphthylamine	143	8.368	8.368	(1.048)	477216	40.0000	37.5
131 5-Nitro-o-toluidine	152	8.574	8.574	(1.074)	150626	40.0000	41.6
136 1,3,5-Trinitrobenzene	75	8.946	8.946	(0.932)	125876	40.0000	46.0
137 Phenacetin	108	9.010	9.010	(0.939)	237813	40.0000	39.6(Q)
138 Diallate	86	8.990	8.990	(0.937)	211803	40.0000	38.5
140 4-Aminobiphenyl	169	9.374	9.374	(0.977)	539794	40.0000	44.0
141 Pentachloronitrobenzene	237	9.392	9.392	(0.978)	56852	40.0000	40.1(Q)
142 Pronamide	173	9.423	9.423	(0.982)	240044	40.0000	39.9
146 4-Nitroquinoline-1-oxide	101	10.445	10.445	(1.088)	23608	40.0000	43.9
147 Methapyrilene	58	10.518	10.518	(1.096)	360709	40.0000	40.8
148 Isodrin	193	10.750	10.750	(1.120)	80870	40.0000	36.7
149 Aramite	185	11.265	11.265	(1.174)	38019	40.0000	37.6
150 Kepone	272	11.933	11.933	(1.243)	53886	40.0000	38.2
151 p-(Dimethylamino)azobenzene	120	11.456	11.456	(0.908)	237654	40.0000	41.7
152 Chlorobenzilate	251	11.499	11.499	(0.912)	210653	40.0000	40.3
153 3,3'-Dimethylbenzidine	212	11.838	11.838	(0.939)	415103	40.0000	43.8
155 2-Acetylaminofluorene	181	12.154	12.154	(0.964)	244425	40.0000	41.4
157 7,12Dimethylbenz(a)anthracene	256	14.251	14.251	(0.953)	217229	40.0000	34.6
158 3-Methylcholanthrene	268	15.477	15.477	(1.035)	187994	40.0000	38.8(Q)
212 Cis Diallate	86	9.092	9.092	(0.947)	35280	6.00000	6.1
213 Trans Diallate	86	8.990	8.990	(0.937)	211803	34.0000	32.7

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0938.d
Date : 10-NOV-2009 21:07
Client ID: AP12ICV
Sample Info: IWBN091016-08.1140 PPM11SVMF11AP12ICV
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

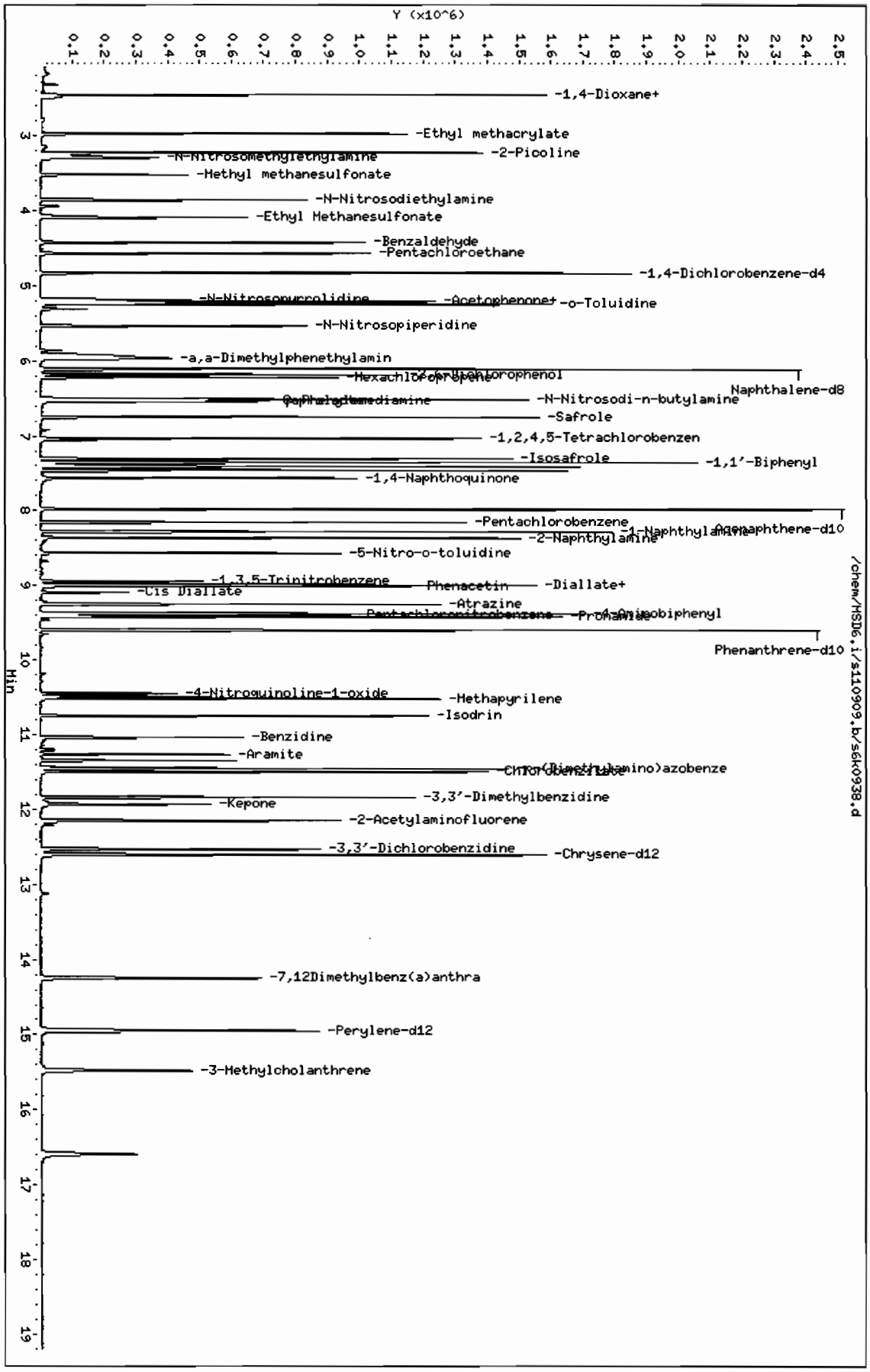

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 21-FEB-2010 09:30
Lab File ID: s6b2102.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN100215-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.00169	0.94044	0.94044	0.000	-6.11473	60.00000	Averaged
$ 5 Phenol-d5	1.26427	1.21587	1.21587	0.000	-3.82819	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.28296	0.28096	0.28096	0.000	-0.70695	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.03083	1.05556	1.05556	0.000	2.39854	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11675	0.11382	0.11382	0.000	-2.50963	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.64507	0.69744	0.69744	0.000	8.11827	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.68098	0.57578	0.57578	0.000	-15.44769	60.00000	Averaged
2 Pyridine	0.84757	0.73249	0.73249	0.000	-13.57819	60.00000	Averaged
4 Aniline	0.52752	0.49936	0.49936	0.000	-5.33915	60.00000	Averaged
6 Phenol	1.27120	1.25454	1.25454	0.001	-1.31060	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.86081	0.77700	0.77700	0.000	-9.73611	60.00000	Averaged
8 2-Chlorophenol	1.02109	1.02989	1.02989	0.000	0.86217	60.00000	Averaged
203 n-Decane	1.42254	1.28160	1.28160	0.000	-9.90758	60.00000	Averaged
9 1,3-Dichlorobenzene	1.17550	1.24119	1.24119	0.000	5.58877	60.00000	Averaged
11 1,4-Dichlorobenzene	1.19162	1.22759	1.22759	0.001	3.01871	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.11231	1.15210	1.15210	0.000	3.57751	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.92182	1.87482	1.87482	0.000	-2.44560	60.00000	Averaged
12 Benzyl alcohol	0.63436	0.43404	0.43404	0.000	-31.57848	60.00000	Averaged
15 o-Cresol	0.83139	0.79298	0.79298	0.000	-4.61965	60.00000	Averaged
18 m,p-Cresols	1.05346	1.05269	1.05269	0.000	-0.07265	60.00000	Averaged
17 N-Nitrosodipropylamine	0.70865	0.75530	0.75530	0.050	6.58271	60.00000	Averaged spcc
19 Hexachloroethane	0.46100	0.45195	0.45195	0.000	-1.96157	60.00000	Averaged
21 Nitrobenzene	0.28519	0.27559	0.27559	0.000	-3.36747	60.00000	Averaged
22 Isophorone	0.50552	0.50617	0.50617	0.000	0.12895	60.00000	Averaged
23 2-Nitrophenol	0.13154	0.14317	0.14317	0.001	8.83744	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.21795	0.21801	0.21801	0.000	0.02855	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.29749	0.28457	0.28457	0.000	-4.34422	60.00000	Averaged
26 2,4-Dichlorophenol	0.19769	0.21648	0.21648	0.001	9.50889	20.00000	Averaged ccc
27 Benzoic acid	0.13453	0.13818	0.13818	0.000	2.71312	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24261	0.25110	0.25110	0.000	3.49906	60.00000	Averaged
30 Naphthalene	0.79792	0.71811	0.71811	0.000	-10.00203	60.00000	Averaged
204 alpha-Terpineol	0.21868	0.20185	0.20185	0.000	-7.69574	60.00000	Averaged
31 4-Chloroaniline	0.25646	0.24622	0.24622	0.000	-3.99111	60.00000	Averaged
32 Hexachlorobutadiene	0.12634	0.13361	0.13361	0.001	5.75335	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.19957	0.20888	0.20888	0.001	4.66641	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.48150	0.50990	0.50990	0.000	5.89863	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 21-FEB-2010 09:30
Lab File ID: s6b2102.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN100215-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.47100	0.48525	0.48525	0.000	3.02461	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.16157	0.07075	0.07075	0.050	-56.20741	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.47908	0.48396	0.48396	0.000	1.01952	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.27294	0.28303	0.28303	0.001	3.69860	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.29067	0.28922	0.28922	0.000	-0.49709	60.00000	Averaged	
40	2-Chloronaphthalene	0.89832	0.92021	0.92021	0.000	2.43658	60.00000	Averaged	
42	o-Nitroaniline	0.30732	0.28358	0.28358	0.000	-7.72688	60.00000	Averaged	
41	m-Nitroaniline	0.22497	0.17735	0.17735	0.000	-21.16913	60.00000	Averaged	
43	Dimethylphthalate	1.02610	1.03364	1.03364	0.000	0.73495	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.24475	0.24393	0.24393	0.000	-0.33456	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.30862	0.30654	0.30654	0.000	-0.67315	60.00000	Averaged	
45	Acenaphthylene	1.44438	1.45608	1.45608	0.000	0.81006	60.00000	Averaged	
47	Acenaphthene	0.90151	0.84768	0.84768	0.001	-5.97080	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	30.89839	40.00000	0.05360	0.050	-22.75403	60.00000	Linear	spcc
49	Dibenzofuran	1.21689	1.24007	1.24007	0.000	1.90477	60.00000	Averaged	
51	Diethylphthalate	1.03335	1.06463	1.06463	0.000	3.02762	60.00000	Averaged	
52	4-Nitrophenol	33.59608	40.00000	0.13252	0.050	-16.00980	60.00000	Linear	spcc
53	Fluorene	0.99879	1.00510	1.00510	0.000	0.63112	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.47192	0.48811	0.48811	0.000	3.42929	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	38.86675	40.00000	0.08564	0.000	-2.83313	60.00000	Linear	
56	p-Nitroaniline	26.71195	40.00000	0.12532	0.000	-33.22012	60.00000	Linear	
133	Diphenylamine	0.48213	0.45997	0.45997	0.001	-4.59725	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.61327	0.61611	0.61611	0.000	0.46403	60.00000	Averaged	
61	4-Bromophenylphenylether	0.15784	0.16205	0.16205	0.000	2.66867	60.00000	Averaged	
63	Hexachlorobenzene	0.16533	0.16900	0.16900	0.000	2.22132	60.00000	Averaged	
65	Pentachlorophenol	33.22933	40.00000	0.06940	0.001	-16.92666	20.00000	Linear	ccc
206	n-Octadecane	0.44173	0.44415	0.44415	0.000	0.54809	60.00000	Averaged	
68	Phenanthrene	0.82721	0.82611	0.82611	0.000	-0.13307	60.00000	Averaged	
69	Anthracene	0.82682	0.84113	0.84113	0.000	1.73081	60.00000	Averaged	
72	Di-n-butylphthalate	0.94954	1.04248	1.04248	0.000	9.78831	60.00000	Averaged	
76	Fluoranthene	0.79242	0.82621	0.82621	0.001	4.26434	20.00000	Averaged	ccc
79	Pyrene	1.10021	1.04275	1.04275	0.000	-5.22259	60.00000	Averaged	
85	Butylbenzylphthalate	0.50351	0.54698	0.54698	0.000	8.63483	60.00000	Averaged	
89	Benzo(a)anthracene	0.86301	0.83776	0.83776	0.000	-2.92584	60.00000	Averaged	
92	Chrysene	0.82690	0.82136	0.82136	0.000	-0.67024	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	44.34955	40.00000	0.77000	0.000	10.87388	60.00000	Wt Linear	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 21-FEB-2010 09:30
Lab File ID: s6b2102.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN100215-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.27127	1.50766	1.50766	0.001	18.59446	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	0.88507	0.96410	0.96410	0.000	8.92917	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.88011	0.93689	0.93689	0.000	6.45190	60.00000	Averaged	
	97 Benzo(a)pyrene	0.76447	0.85472	0.85472	0.001	11.80615	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	39.78530	40.00000	0.72365	0.000	-0.53675	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	39.60039	40.00000	0.58721	0.000	-0.99904	60.00000	Linear	
	101 Benzo(ghi)perylene	0.58403	0.60146	0.60146	0.000	2.98528	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16929	0.16591	0.16591	0.000	-1.99650	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21896	0.23030	0.23030	0.000	5.17999	60.00000	Averaged	
	143 Dinoseb	30.80495	40.00000	0.09067	0.000	-22.98761	60.00000	Linear	
	173 Carbazole	0.65449	0.54315	0.54315	0.000	-17.01286	60.00000	Averaged	
	184 p-Benzoquinone	0.12730	0.07782	0.07782	0.000	-38.86784	60.00000	Averaged	
	192 Methoxychlor	0.55243	0.52877	0.52877	0.000	-4.28381	60.00000	Averaged	
	211 p-Toluidine	0.89987	0.79911	0.79911	0.000	-11.19750	60.00000	Averaged	
	210 m-Toluidine	1.12396	1.05307	1.05307	0.000	-6.30718	60.00000	Averaged	
	215 2-Ethoxyethanol	0.71035	0.57399	0.57399	0.000	-19.19630	60.00000	Averaged	
	179 Dibenzo(a,e)pyrene	29.38468	40.00000	0.20903	0.000	-26.53831	60.00000	Linear	
	26 Phthalic anhydride	55.87620	40.00000	0.11233	0.000	39.69051	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.18382	0.17756	0.17756	0.000	-3.40370	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	29.45563	40.00000	0.08704	0.000	-26.36092	60.00000	Linear	
M	225 Trichlorophenols	0.28180	0.28613	0.28613	0.000	1.53476	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21896	0.23030	0.23030	0.000	5.17999	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.88259	0.95050	0.95050	0.000	7.69402	60.00000	Averaged	

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Data file : /chem/MSD6.i/s022110.b/s6b2102.d
Lab Smp Id: WBN100215-09.1 Client Smp ID: MEGACVS
Inj Date : 21-FEB-2010 09:30
Operator : nag1 Inst ID: MSD6.i
Smp Info : |WBN100215-09.1|CCV|1|SVM|1|MEGACVS
Misc Info : |MSD8270|WBN100217-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Feb-2010 09:40 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclpl

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.604	4.604	(1.000)	323267	40.0000	
* 29 Naphthalene-d8	136	5.871	5.871	(1.000)	1306328	40.0000	
* 46 Acenaphthene-d10	164	7.731	7.731	(1.000)	682117	40.0000	
* 67 Phenanthrene-d10	188	9.331	9.331	(1.000)	1170520	40.0000	
* 91 Chrysene-d12	240	12.274	12.274	(1.000)	953121	40.0000	
* 98 Perylene-d12	264	14.468	14.468	(1.000)	769085	40.0000	
$ 3 2-Fluorophenol	112	3.455	3.455	(0.750)	304013	40.0000	37.6
$ 5 Phenol-d5	99	4.230	4.230	(0.919)	393051	40.0000	38.5
$ 20 Nitrobenzene-d5	82	5.142	5.142	(0.876)	367023	40.0000	39.7
$ 39 2-Fluorobiphenyl	172	6.995	6.995	(0.905)	720013	40.0000	41.0
$ 60 2,4,6-Tribromophenol	329	8.577	8.577	(1.109)	77638	40.0000	39.0
$ 81 p-Terphenyl-d14	244	11.036	11.036	(0.899)	664740	40.0000	43.2
1 N-Methyl-N-nitrosomethylamine	74	2.510	2.510	(0.545)	186131	40.0000	33.8
2 Pyridine	79	2.543	2.543	(0.552)	236789	40.0000	34.6
4 Aniline	66	4.299	4.299	(0.934)	161425	40.0000	37.9
6 Phenol	94	4.243	4.243	(0.921)	405550	40.0000	39.5(Q)
7 bis(2-Chloroethyl) ether	63	4.339	4.339	(0.942)	251178	40.0000	36.1
8 2-Chlorophenol	128	4.408	4.408	(0.957)	332931	40.0000	40.3
203 n-Decane	43	4.416	4.416	(0.959)	414298	40.0000	36.0
9 1,3-Dichlorobenzene	146	4.553	4.553	(0.989)	401237	40.0000	42.2
11 1,4-Dichlorobenzene	146	4.620	4.620	(1.003)	396840	40.0000	41.2
13 1,2-Dichlorobenzene	146	4.765	4.765	(1.035)	372436	40.0000	41.4
14 bis(2-Chloroisopropyl)ether	45	4.839	4.839	(1.051)	606068	40.0000	39.0
12 Benzyl alcohol	108	4.722	4.722	(1.025)	140311	40.0000	27.4
15 o-Cresol	107	4.811	4.811	(1.045)	256344	40.0000	38.2
18 m,p-Cresols	107	4.966	4.966	(1.079)	340301	40.0000	40.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.982	4.982	(1.082)	244164	40.0000	42.6
19 Hexachloroethane	117	5.091	5.091	(1.106)	146102	40.0000	39.2
21 Nitrobenzene	77	5.162	5.162	(0.879)	360007	40.0000	38.6
22 Isophorone	82	5.394	5.394	(0.919)	661221	40.0000	40.0
23 2-Nitrophenol	139	5.476	5.476	(0.933)	187027	40.0000	43.5
24 2,4-Dimethylphenol	122	5.496	5.496	(0.936)	284798	40.0000	40.0
25 bis(2-Chloroethoxy)methane	93	5.596	5.596	(0.953)	371740	40.0000	38.3
26 2,4-Dichlorophenol	162	5.720	5.720	(0.974)	282798	40.0000	43.8
27 Benzoic acid	105	5.616	5.616	(0.957)	180507	40.0000	41.1
28 1,2,4-Trichlorobenzene	180	5.805	5.805	(0.989)	328024	40.0000	41.4
30 Naphthalene	128	5.891	5.891	(1.003)	938085	40.0000	36.0
204 alpha-Terpineol	59	5.886	5.886	(1.003)	263682	40.0000	36.9
31 4-Chloroaniline	127	5.940	5.940	(1.012)	321647	40.0000	38.4
32 Hexachlorobutadiene	225	6.001	6.001	(1.022)	174537	40.0000	42.3
33 4-Chloro-3-methylphenol	107	6.429	6.429	(1.095)	272863	40.0000	41.9
34 2-Methylnaphthalene	142	6.612	6.612	(1.126)	666097	40.0000	42.4
35 1-Methylnaphthalene	142	6.717	6.717	(1.144)	633895	40.0000	41.2
36 Hexachlorocyclopentadiene	237	6.768	6.768	(0.875)	48263	40.0000	17.5
205 2,3-Dichloroaniline	161	6.910	6.910	(0.894)	330119	40.0000	40.4
37 2,4,6-Trichlorophenol	196	6.908	6.908	(0.894)	193062	40.0000	41.5
38 2,4,5-Trichlorophenol	196	6.946	6.946	(0.898)	197284	40.0000	39.8
40 2-Chloronaphthalene	162	7.132	7.132	(0.923)	627692	40.0000	41.0
42 o-Nitroaniline	65	7.242	7.242	(0.937)	193433	40.0000	36.9
41 m-Nitroaniline	138	7.683	7.683	(0.994)	120971	40.0000	31.5
43 Dimethylphthalate	163	7.430	7.430	(0.961)	705065	40.0000	40.3
44 2,6-Dinitrotoluene	165	7.502	7.502	(0.970)	166388	40.0000	39.9
50 2,4-Dinitrotoluene	165	7.935	7.935	(1.026)	209098	40.0000	39.7
45 Acenaphthylene	152	7.581	7.581	(0.981)	993218	40.0000	40.3
47 Acenaphthene	154	7.767	7.767	(1.005)	578219	40.0000	37.6
48 2,4-Dinitrophenol	184	7.802	7.802	(1.009)	36563	40.0000	30.9
49 Dibenzofuran	168	7.950	7.950	(1.028)	845871	40.0000	40.8
51 Diethylphthalate	149	8.177	8.177	(1.058)	726204	40.0000	41.2
52 4-Nitrophenol	139	7.858	7.858	(1.016)	90396	40.0000	33.6
53 Fluorene	166	8.320	8.320	(1.076)	685594	40.0000	40.2
54 4-Chlorophenylphenylether	204	8.307	8.307	(1.074)	332945	40.0000	41.4
55 2-Methyl-4,6-dinitrophenol	198	8.373	8.373	(0.897)	100243	40.0000	38.9
56 p-Nitroaniline	138	8.342	8.342	(1.079)	85481	40.0000	26.7
133 Diphenylamine	169	8.437	8.437	(0.904)	538403	40.0000	38.2
58 1,2-Diphenylhydrazine	77	8.480	8.480	(0.909)	721174	40.0000	40.2
61 4-Bromophenylphenylether	248	8.834	8.834	(0.947)	189683	40.0000	41.1
63 Hexachlorobenzene	284	8.908	8.908	(0.955)	197821	40.0000	40.9
65 Pentachlorophenol	266	9.117	9.117	(0.977)	81230	40.0000	33.2
206 n-Octadecane	57	9.173	9.173	(0.983)	519890	40.0000	40.2
68 Phenanthrene	178	9.359	9.359	(1.003)	966982	40.0000	39.9
69 Anthracene	178	9.413	9.413	(1.009)	984565	40.0000	40.7
72 Di-n-butylphthalate	149	9.930	9.930	(1.064)	1220243	40.0000	43.9
76 Fluoranthene	202	10.641	10.641	(1.140)	967096	40.0000	41.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	10.888	10.888	(0.887)	993864	40.0000	37.9
85 Butylbenzylphthalate	149	11.553	11.553	(0.941)	521340	40.0000	43.4
89 Benzo(a)anthracene	228	12.254	12.254	(0.998)	798483	40.0000	38.8
92 Chrysene	228	12.307	12.307	(1.003)	782852	40.0000	39.7
93 bis(2-Ethylhexyl)phthalate	149	12.236	12.236	(0.997)	733902	40.0000	44.3
94 Di-n-octylphthalate	149	13.158	13.158	(0.909)	1159518	40.0000	47.4
95 Benzo(b)fluoranthene	252	13.829	13.829	(0.956)	741478	40.0000	43.6
96 Benzo(k)fluoranthene	252	13.872	13.872	(0.959)	720548	40.0000	42.6
97 Benzo(a)pyrene	252	14.374	14.374	(0.993)	657353	40.0000	44.7
99 Indeno(1,2,3-cd)pyrene	276	16.374	16.374	(1.132)	556552	40.0000	39.8
100 Dibenzo(a,h)anthracene	278	16.400	16.400	(1.133)	451615	40.0000	39.6
101 Benzo(ghi)perylene	276	16.863	16.863	(1.166)	462576	40.0000	41.2(Q)
126 m-Dinitrobenzene	168	7.476	7.476	(0.967)	113173	40.0000	39.2
130 2,3,4,6-Tetrachlorophenol	232	8.075	8.075	(1.044)	157092	40.0000	42.1
143 Dinoseb	211	9.306	9.306	(0.997)	106130	40.0000	30.8
173 Carbazole	167	9.581	9.581	(1.027)	635764	40.0000	33.2
184 p-Benzoquinone	54	3.886	3.886	(0.844)	25158	40.0000	24.4
192 Methoxychlor	227	12.139	12.139	(0.989)	503979	40.0000	38.3
211 p-Toluidine	106	5.025	5.025	(1.091)	258326	40.0000	35.5
210 m-Toluidine	106	5.058	5.058	(1.099)	340423	40.0000	37.5
215 2-Ethoxyethanol	59	2.309	2.309	(0.501)	185553	40.0000	32.3
179 Dibenzo(a,e)pyrene	302	20.204	20.204	(1.396)	160762	40.0000	29.4
26 Phthalic anhydride	104	6.681	6.681	(1.138)	146738	40.0000	55.9
214 1,4-Dinitrobenzene	75	7.395	7.395	(0.956)	121116	40.0000	38.6
216 Methylenebis(2-chloroaniline)	231	12.205	12.205	(0.994)	82962	40.0000	29.4(Q)
M 225 Trichlorophenols	196				390346	80.0000	81.2
M 226 Tetrachlorophenols	232				157092	40.0000	42.1
M 227 Benzo(b,k)fluoranthene	252				1462026	80.0000	86.2

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s022110.b/s6b2102.d
Date : 21-FEB-2010 09:30
Client ID: MEGACVS
Sample Info: IWBN100215-09.1|CCV|1|SVM|1|MEGACVS
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

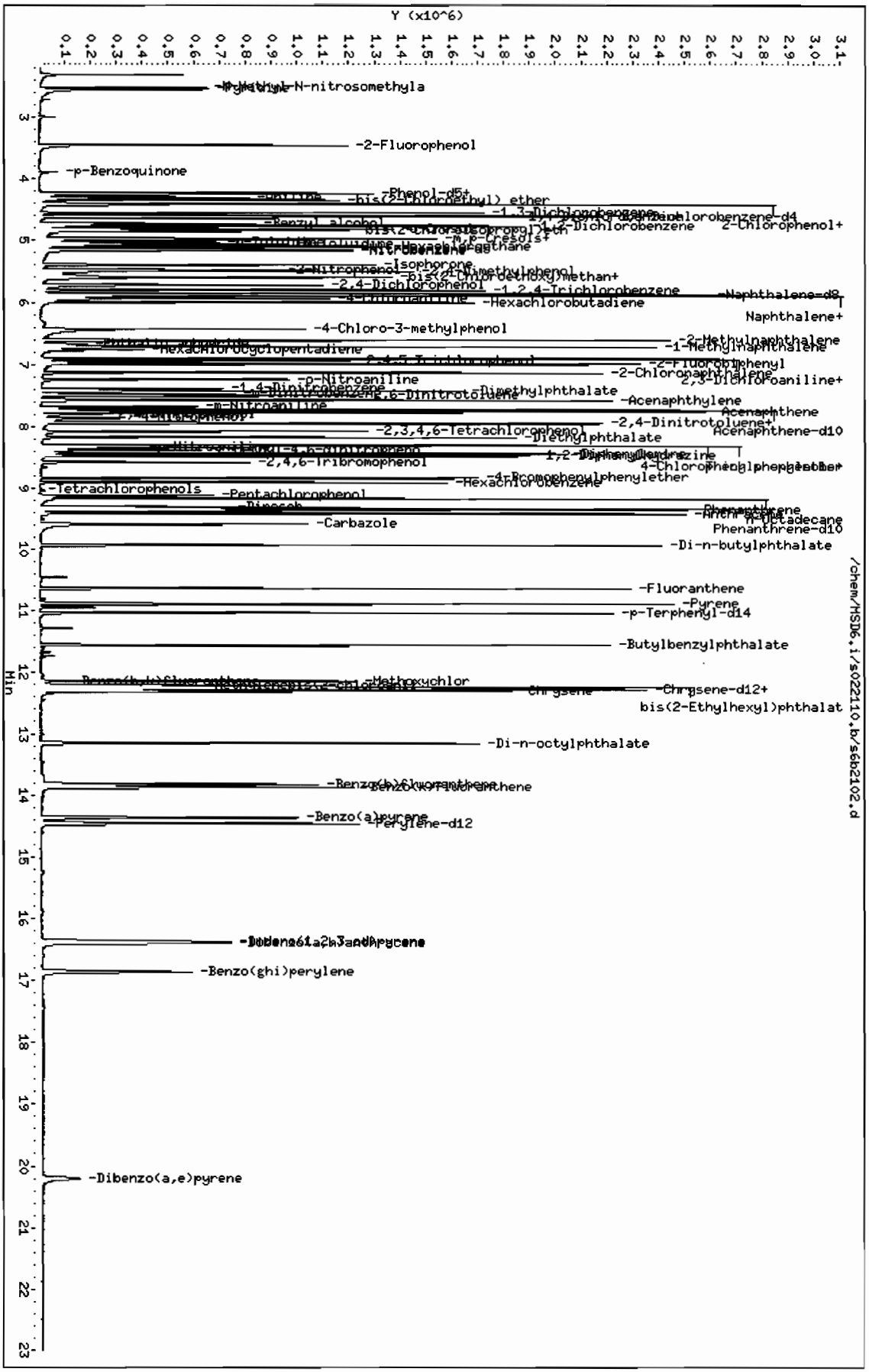

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 21-FEB-2010 10:03
Lab File ID: s6b2103.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN100120-08.2 Quant Type: ISTD
Method: /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86127	0.70258	0.70258	0.000	-18.42609	60.00000	Averaged
16 Acetophenone	1.16908	1.11770	1.11770	0.000	-4.39444	60.00000	Averaged
189 Caprolactam	0.07388	0.08781	0.08781	0.000	18.85617	60.00000	Averaged
208 1,1'-Biphenyl	1.20131	1.17895	1.17895	0.000	-1.86127	60.00000	Averaged
207 Atrazine	0.04063	0.04361	0.04361	0.000	7.33004	60.00000	Averaged
77 Benzidine	0.39304	0.19280	0.19280	0.000	-50.94696	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.28252	0.31277	0.31277	0.000	10.70963	60.00000	Averaged
102 1,4-Dioxane	0.36606	0.42129	0.42129	0.000	15.08830	60.00000	Averaged
103 Methyl methacrylate	0.19388	0.23138	0.23138	0.000	19.34504	60.00000	Averaged
104 Ethyl methacrylate	0.80561	0.87685	0.87685	0.000	8.84336	60.00000	Averaged
105 2-Picoline	1.30872	1.20173	1.20173	0.000	-8.17525	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.51104	0.48195	0.48195	0.000	-5.69147	60.00000	Averaged
107 Methyl methanesulfonate	0.52852	0.52505	0.52505	0.000	-0.65630	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49553	0.49666	0.49666	0.000	0.22777	60.00000	Averaged
109 Ethyl Methanesulfonate	0.65169	0.74565	0.74565	0.000	14.41792	60.00000	Averaged
110 Pentachloroethane	0.31681	0.41901	0.41901	0.000	32.25991	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47614	0.51343	0.51343	0.000	7.83258	60.00000	Averaged
113 N-Nitrosomorpholine	0.67936	0.69347	0.69347	0.000	2.07565	60.00000	Averaged
114 o-Toluidine	1.65281	1.63198	1.63198	0.000	-1.26070	60.00000	Averaged
115 N-Nitrosopiperidine	0.14105	0.14303	0.14303	0.000	1.40064	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.85546	0.70560	0.70560	0.000	-17.51772	60.00000	Averaged
118 2,6-Dichlorophenol	0.20687	0.22479	0.22479	0.000	8.65920	60.00000	Averaged
119 Hexachloropropene	0.10269	0.13789	0.13789	0.000	34.28683	60.00000	Averaged
120 p-Phenylenediamine	0.22955	0.23256	0.23256	0.000	1.31415	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21004	0.21432	0.21432	0.000	2.03506	60.00000	Averaged
122 Safrole	0.18653	0.22143	0.22143	0.000	18.71283	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42319	0.45416	0.45416	0.000	7.31733	60.00000	Averaged
124 Isosafrole	0.33959	0.43562	0.43562	0.000	28.27758	60.00000	Averaged
125 1,4-Naphthoquinone	0.30674	0.30546	0.30546	0.000	-0.41619	60.00000	Averaged
127 Pentachlorobenzene	0.36454	0.39042	0.39042	0.000	7.09946	60.00000	Averaged
128 1-Naphthylamine	0.90742	0.94196	0.94196	0.000	3.80738	60.00000	Averaged
129 2-Naphthylamine	0.98012	1.00637	1.00637	0.000	2.67848	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27901	0.29469	0.29469	0.000	5.61974	60.00000	Averaged
136 1,3,5-Trinitrobenzene	47.18816	40.00000	0.14124	0.000	17.97041	60.00000	Linear
137 Phenacetin	0.26240	0.28313	0.28313	0.000	7.90181	60.00000	Averaged
138 Diallate	0.24056	0.22289	0.22289	0.000	-7.34666	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 21-FEB-2010 10:03
Lab File ID: s6b2103.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN100120-08.2 Quant Type: ISTD
Method: /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.25295	0.31020	0.31020	0.000	22.63451	60.00000	Averaged
213 Trans Diallate	0.28301	0.26222	0.26222	0.000	-7.34666	60.00000	Averaged
140 4-Aminobiphenyl	0.53562	0.52757	0.52757	0.000	-1.50299	60.00000	Averaged
141 Pentachloronitrobenzene	0.06192	0.06733	0.06733	0.000	8.73899	60.00000	Averaged
142 Pronamide	0.26319	0.27650	0.27650	0.000	5.05624	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02349	0.01274	0.01274	0.000	-45.76295	60.00000	Averaged
147 Methapyrilene	0.38600	0.44179	0.44179	0.000	14.45167	60.00000	Averaged
148 Isodrin	0.09631	0.09785	0.09785	0.000	1.59828	60.00000	Averaged
149 Aramite	0.04420	0.04716	0.04716	0.000	6.69636	60.00000	Averaged
150 Kepone	0.06173	0.06181	0.06181	0.000	0.12511	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31734	0.30482	0.30482	0.000	-3.94459	60.00000	Averaged
152 Chlorobenzilate	0.29130	0.27691	0.27691	0.000	-4.93894	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52763	0.43798	0.43798	0.000	-16.99132	60.00000	Averaged
155 2-Acetylaminofluorene	47.53352	40.00000	0.39704	0.000	18.83380	60.00000	Linear
157 7,12Dimethylbenz(a)anthrace	0.47906	0.45246	0.45246	0.000	-5.55265	60.00000	Averaged
158 3-Methylcholanthrene	0.36955	0.41531	0.41531	0.000	12.38243	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD6.i/s022110.b/s6b2103.d
Lab Smp Id: WBN100120-08.2 Client Smp ID: APCVS
Inj Date : 21-FEB-2010 10:03
Operator : nag1 Inst ID: MSD6.i
Smp Info : |WBN100120-08.2|CCV|1|SVM|1|APCVS
Misc Info : |MSD8270|WBN100217-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Feb-2010 09:35 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.602	4.602	(1.000)	314846	40.0000	
* 29 Naphthalene-d8	136	5.868	5.868	(1.000)	1148427	40.0000	
* 46 Acenaphthene-d10	164	7.728	7.728	(1.000)	652190	40.0000	
* 67 Phenanthrene-d10	188	9.334	9.334	(1.000)	1142354	40.0000	
* 91 Chrysene-d12	240	12.269	12.269	(1.000)	990320	40.0000	
* 98 Perylene-d12	264	14.468	14.468	(1.000)	850517	40.0000	
209 Benzaldehyde	77	4.209	4.209	(0.915)	221203	40.0000	32.6
16 Acetophenone	105	4.984	4.984	(1.083)	351904	40.0000	38.2
189 Caprolactam	113	6.309	6.309	(1.075)	100845	40.0000	47.5
208 1,1'-Biphenyl	154	7.107	7.107	(0.920)	768899	40.0000	39.2
207 Atrazine	173	9.008	9.008	(0.965)	49822	40.0000	42.9
77 Benzidine	184	10.778	10.778	(0.878)	190930	40.0000	19.6
90 3,3'-Dichlorobenzidine	252	12.208	12.208	(0.995)	309744	40.0000	44.3
102 1,4-Dioxane	88	2.309	2.309	(0.502)	132642	40.0000	46.0
103 Methyl methacrylate	100	2.306	2.306	(0.501)	72850	40.0000	47.7
104 Ethyl methacrylate	69	2.793	2.793	(0.607)	276072	40.0000	43.5
105 2-Picoline	93	3.042	3.042	(0.661)	378360	40.0000	36.7
106 N-Nitrosomethylethylamine	88	3.114	3.114	(0.677)	151740	40.0000	37.7
107 Methyl methanesulfonate	80	3.338	3.338	(0.725)	165311	40.0000	39.7
108 N-Nitrosodiethylamine	102	3.657	3.657	(0.795)	156372	40.0000	40.1
109 Ethyl Methanesulfonate	79	3.896	3.896	(0.847)	234764	40.0000	45.8
110 Pentachloroethane	167	4.344	4.344	(0.944)	131923	40.0000	52.9
111 N-Nitrosopyrrolidine	100	4.971	4.971	(1.080)	161651	40.0000	43.1(Q)
113 N-Nitrosomorpholine	56	5.004	5.004	(1.087)	218335	40.0000	40.8
114 o-Toluidine	106	5.020	5.020	(1.091)	513821	40.0000	39.5
115 N-Nitrosopiperidine	114	5.310	5.310	(0.905)	164258	40.0000	40.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.675	5.675	(0.967)	810330	40.0000	33.0
118 2,6-Dichlorophenol	162	5.947	5.947	(1.013)	258150	40.0000	43.5
119 Hexachloropropene	213	5.973	5.973	(1.018)	158360	40.0000	53.7
120 p-Phenylenediamine	108	6.314	6.314	(1.076)	267081	40.0000	40.5
121 N-Nitrosodi-n-butylamine	84	6.281	6.281	(1.070)	246128	40.0000	40.8(Q)
122 Safrole	162	6.508	6.508	(1.109)	254296	40.0000	47.5
123 1,2,4,5-Tetrachlorobenzene	216	6.788	6.788	(0.878)	296199	40.0000	42.9
124 Isosafrole	162	7.063	7.063	(0.914)	284106	40.0000	51.3
125 1,4-Naphthoquinone	158	7.326	7.326	(0.948)	199218	40.0000	39.8
127 Pentachlorobenzene	250	7.902	7.902	(1.022)	254630	40.0000	42.8
128 1-Naphthylamine	143	8.032	8.032	(1.039)	614340	40.0000	41.5
129 2-Naphthylamine	143	8.118	8.118	(1.050)	656347	40.0000	41.1
131 5-Nitro-o-toluidine	152	8.330	8.330	(1.078)	192192	40.0000	42.2
136 1,3,5-Trinitrobenzene	75	8.737	8.737	(0.936)	161346	40.0000	47.2
137 Phenacetin	108	8.776	8.776	(0.940)	323434	40.0000	43.2(Q)
138 Diallate	86	8.732	8.732	(0.936)	254617	40.0000	37.1
212 Cis Diallate	86	8.832	8.832	(0.946)	53154	6.00000	7.4
213 Trans Diallate	86	8.732	8.732	(0.936)	254617	34.0000	31.5
140 4-Aminobiphenyl	169	9.122	9.122	(0.977)	602666	40.0000	39.4
141 Pentachloronitrobenzene	237	9.130	9.130	(0.978)	76919	40.0000	43.5(Q)
142 Pronamide	173	9.171	9.171	(0.983)	315856	40.0000	42.0
146 4-Nitroquinoline-1-oxide	101	10.192	10.192	(1.092)	14556	40.0000	21.7
147 Methapyrilene	58	10.254	10.254	(1.099)	504677	40.0000	45.8
148 Isodrin	193	10.470	10.470	(1.122)	111775	40.0000	40.6
149 Aramite	185	11.000	11.000	(1.179)	53874	40.0000	42.7
150 Kepone	272	11.617	11.617	(1.245)	70604	40.0000	40.0
151 p-(Dimethylamino)azobenzene	120	11.189	11.189	(0.912)	301870	40.0000	38.4
152 Chlorobenzilate	251	11.229	11.229	(0.915)	274229	40.0000	38.0
153 3,3'-Dimethylbenzidine	212	11.553	11.553	(0.942)	433743	40.0000	33.2
155 2-Acetylaminofluorene	181	11.859	11.859	(0.967)	393196	40.0000	47.5
157 7,12Dimethylbenz(a)anthracene	256	13.803	13.803	(0.954)	384824	40.0000	37.8
158 3-Methylcholanthrene	268	14.968	14.968	(1.035)	353228	40.0000	45.0(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s022110.b/s6b2103.d

Date : 21-FEB-2010 10:03

Client ID: APCVS

Sample Info: |WBN100120-08.2|CCV|1|SVM|1|APCVS

Column phase: J&W DB-5MS

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Instrument: MSD6.i

Operator: nag1

Column diameter: 0.20

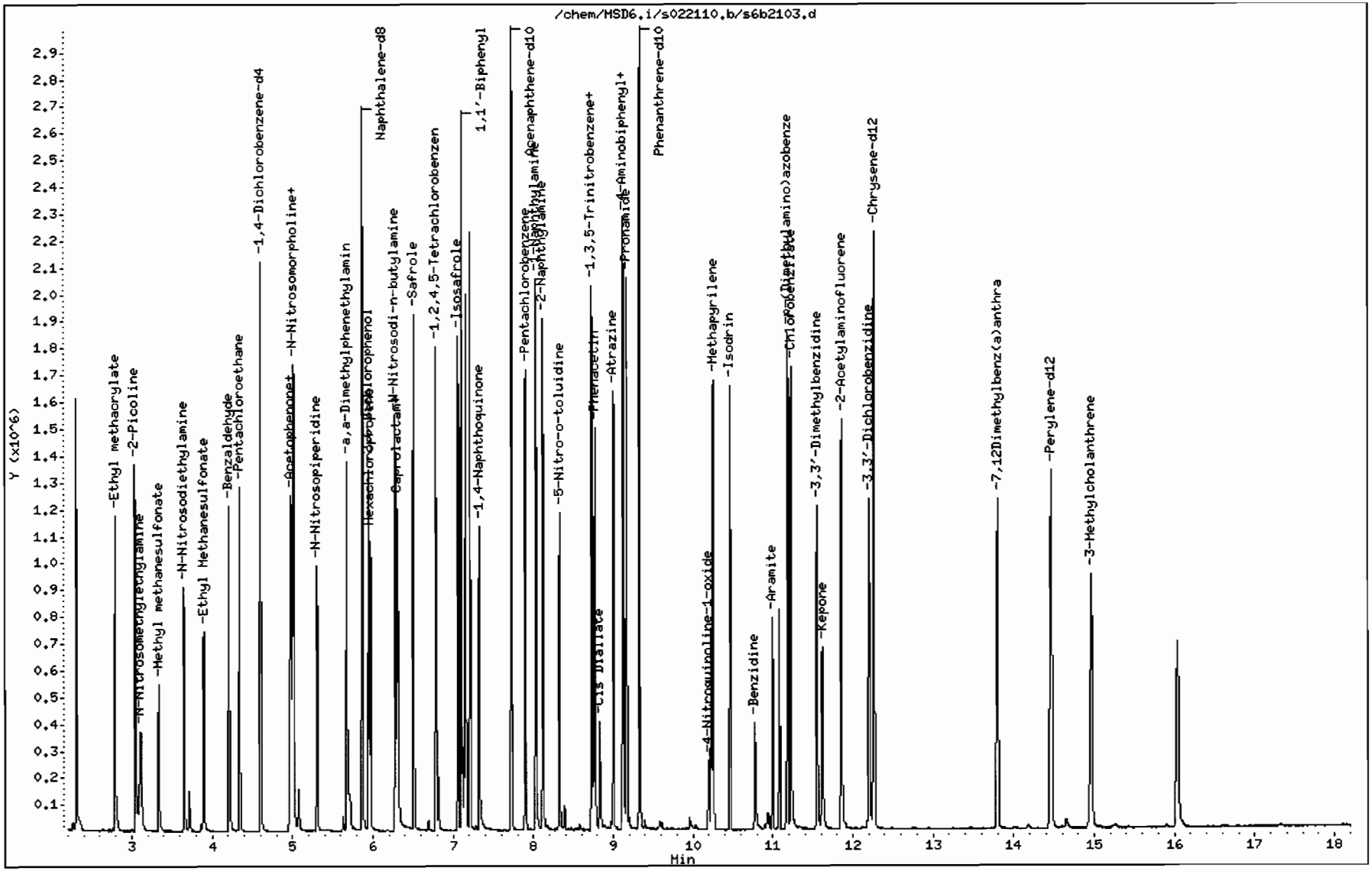

QC Data

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

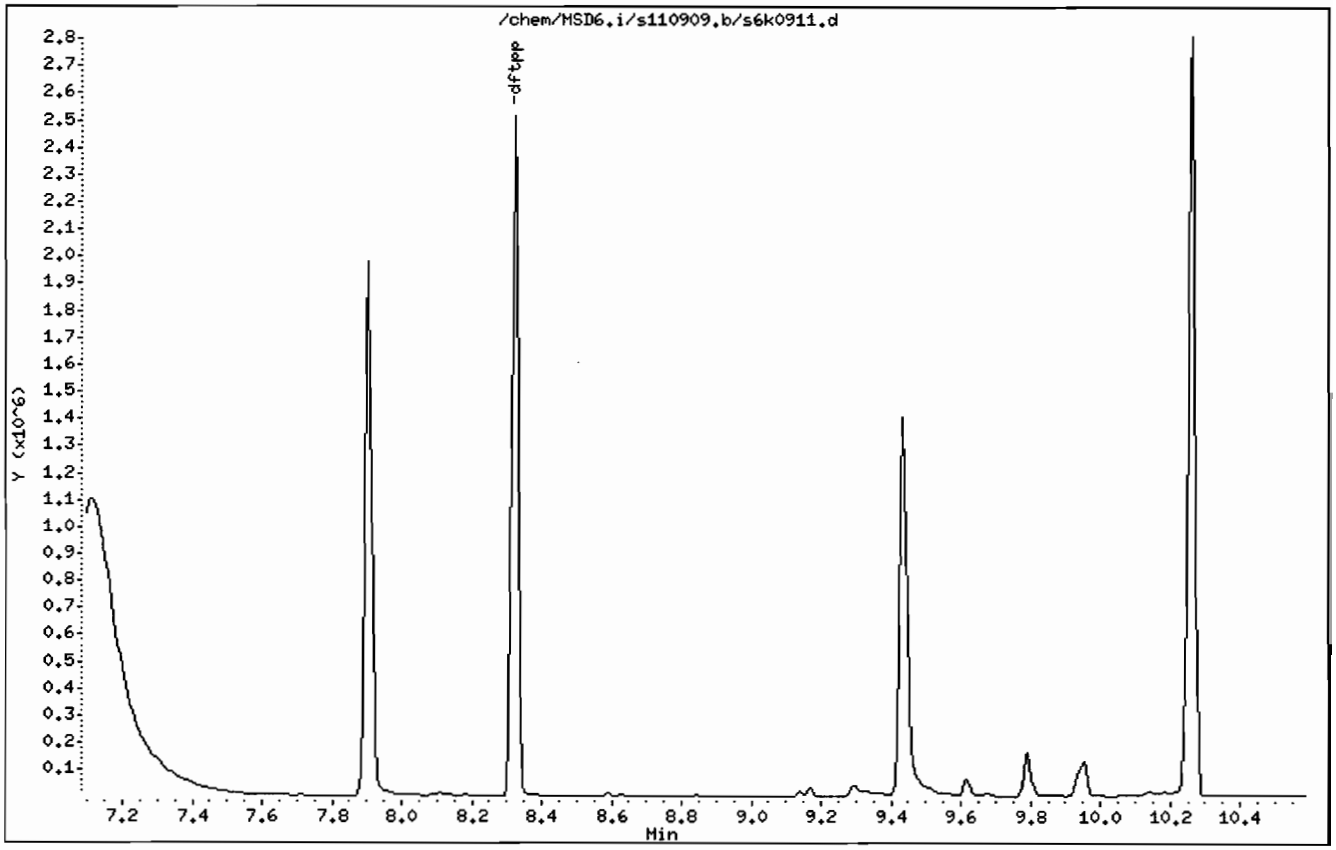

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

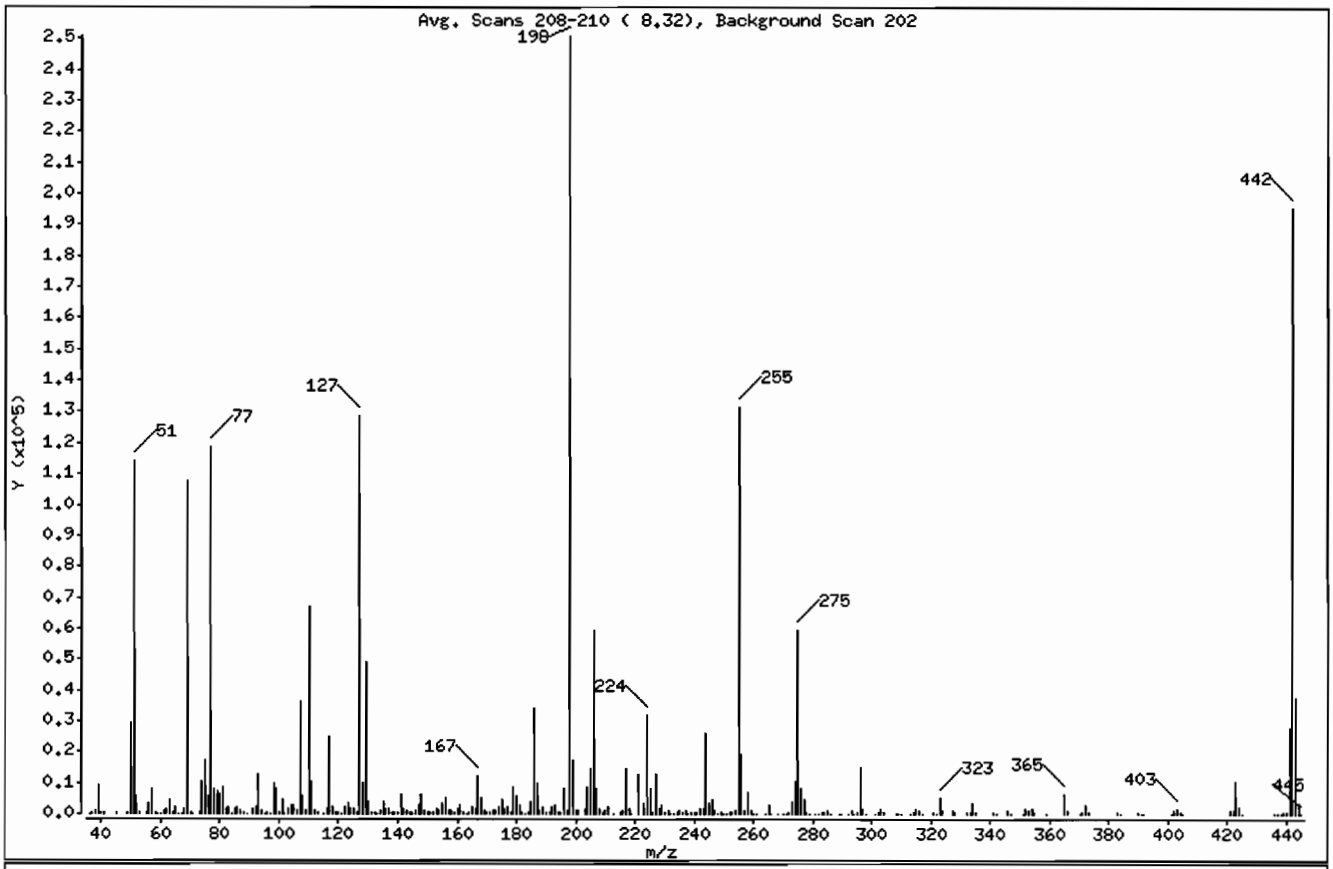

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.40
68	Less than 2.00% of mass 69	0.67 (1.56)
69	Mass 69 relative abundance	42.98
70	Less than 2.00% of mass 69	0.23 (0.53)
127	40.00 - 60.00% of mass 198	51.37
197	Less than 1.00% of mass 198	0.57
199	5.00 - 9.00% of mass 198	6.92
275	10.00 - 30.00% of mass 198	23.67
365	Greater than 1.00% of mass 198	2.45
441	Present, but less than mass 443	11.05
442	Greater than 40.00% of mass 198	77.94
443	17.00 - 23.00% of mass 442	14.94 (19.17)

Date : 09-NOV-2009 18:00

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	8	122.00	2302	198.00	250752	284.00	336
37.00	393	123.00	3695	199.00	17344	285.00	937
38.00	1200	124.00	1621	200.00	1195	286.00	170
39.00	9016	125.00	1448	201.00	1207	289.00	255
40.00	406	126.00	632	203.00	1659	290.00	159
41.00	292	127.00	128832	204.00	8363	292.00	259
45.00	305	128.00	9787	205.00	14289	293.00	1083
49.00	640	129.00	49280	206.00	59576	294.00	255
50.00	29544	130.00	4085	207.00	7878	295.00	324
51.00	113864	131.00	795	208.00	1898	296.00	14712
52.00	5719	132.00	464	209.00	609	297.00	1998
53.00	291	133.00	153	210.00	1016	298.00	48
55.00	556	134.00	1412	211.00	2089	301.00	220
56.00	3212	135.00	3908	213.00	96	302.00	374
57.00	7977	136.00	1509	215.00	674	303.00	1716
58.00	306	137.00	2002	216.00	1188	304.00	518
59.00	43	138.00	459	217.00	14324	308.00	142
60.00	144	139.00	392	218.00	1841	309.00	104
61.00	1384	140.00	751	219.00	194	310.00	127
62.00	1579	141.00	6116	221.00	12869	313.00	98
63.00	4522	142.00	1931	223.00	3368	314.00	758
64.00	592	143.00	1380	224.00	31752	315.00	1571
65.00	2251	144.00	329	225.00	7987	316.00	915
66.00	47	145.00	339	226.00	839	317.00	119
67.00	98	146.00	1032	227.00	12952	321.00	481
68.00	1681	147.00	3100	228.00	1848	322.00	229
69.00	107792	148.00	6347	229.00	2774	323.00	5178
70.00	566	149.00	1410	230.00	478	324.00	998
71.00	154	150.00	411	231.00	1257	327.00	960
73.00	818	151.00	692	232.00	280	328.00	487
74.00	10556	152.00	489	233.00	226	332.00	397
75.00	17208	153.00	1814	234.00	759	333.00	430
76.00	5735	154.00	1411	235.00	1001	334.00	3299
77.00	118792	155.00	3187	236.00	589	335.00	849
78.00	8119	156.00	5061	237.00	1093	341.00	644

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	7616	157.00	1047	238.00	176	342.00	184
80.00	6053	158.00	1005	239.00	483	346.00	1112
81.00	8741	159.00	819	240.00	449	347.00	197
82.00	1932	160.00	1690	241.00	776	351.00	99
83.00	2188	161.00	2737	242.00	1684	352.00	1491
84.00	232	162.00	809	243.00	1819	353.00	1169
85.00	1461	163.00	190	244.00	25832	354.00	1725
86.00	2130	164.00	335	245.00	3598	355.00	318
87.00	1162	165.00	2034	246.00	4786	359.00	103
88.00	449	166.00	1979	247.00	980	365.00	6134
89.00	268	167.00	12360	248.00	210	366.00	872
91.00	1835	168.00	5121	249.00	829	370.00	96
92.00	2163	169.00	1038	250.00	174	371.00	434
93.00	12786	170.00	446	251.00	238	372.00	2651
94.00	908	171.00	470	252.00	289	373.00	754
95.00	251	172.00	1064	253.00	569	383.00	711
96.00	626	173.00	1291	254.00	1047	384.00	258
97.00	236	174.00	2515	255.00	131328	390.00	402
98.00	9808	175.00	4789	256.00	18784	391.00	259
99.00	8032	176.00	1446	257.00	1424	392.00	153
100.00	745	177.00	2269	258.00	6873	401.00	116
101.00	4358	178.00	802	259.00	1148	402.00	1140
102.00	258	179.00	8475	260.00	228	403.00	1594
103.00	1616	180.00	5994	261.00	261	404.00	514
104.00	3096	181.00	2983	264.00	141	405.00	98
105.00	2795	182.00	429	265.00	2620	421.00	1430
106.00	910	183.00	259	266.00	251	422.00	1234
107.00	36184	184.00	679	268.00	180	423.00	10131
108.00	5604	185.00	3929	270.00	163	424.00	2144
109.00	997	186.00	34256	271.00	257	425.00	193
110.00	66656	187.00	9747	272.00	290	436.00	45
111.00	10177	188.00	1146	273.00	3906	437.00	191
112.00	1133	189.00	2105	274.00	10561	438.00	232
113.00	472	190.00	292	275.00	59368	439.00	301
115.00	217	191.00	815	276.00	7957	440.00	309

Date : 09-NOV-2009 18:00

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	1841	192.00	2423	277.00	4641	441.00	27712
117.00	25072	193.00	3008	278.00	676	442.00	195456
118.00	2060	194.00	699	279.00	175	443.00	37472
119.00	345	195.00	448	281.00	87	444.00	3400
120.00	476	196.00	7876	282.00	46	445.00	197
121.00	165	197.00	1433	283.00	505		

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

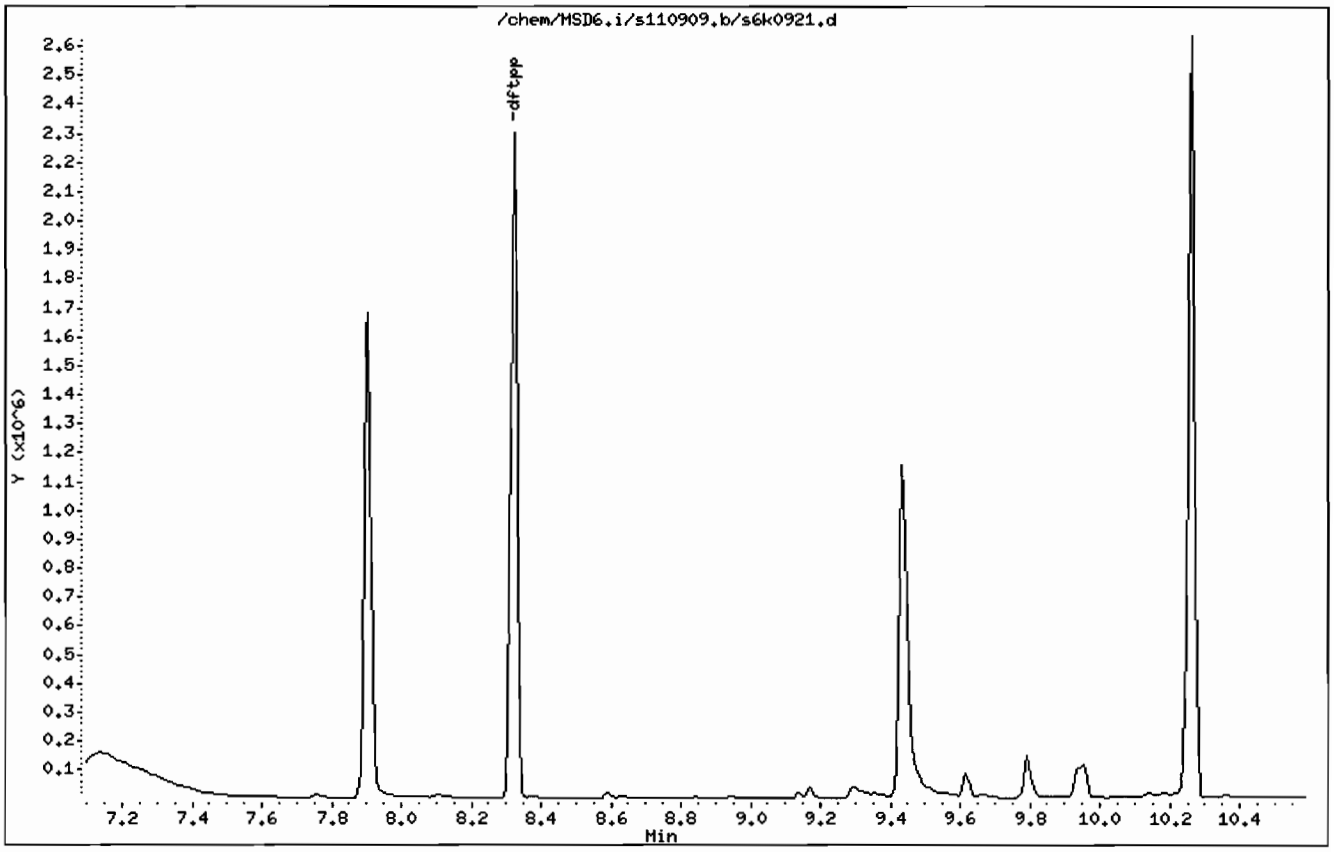

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

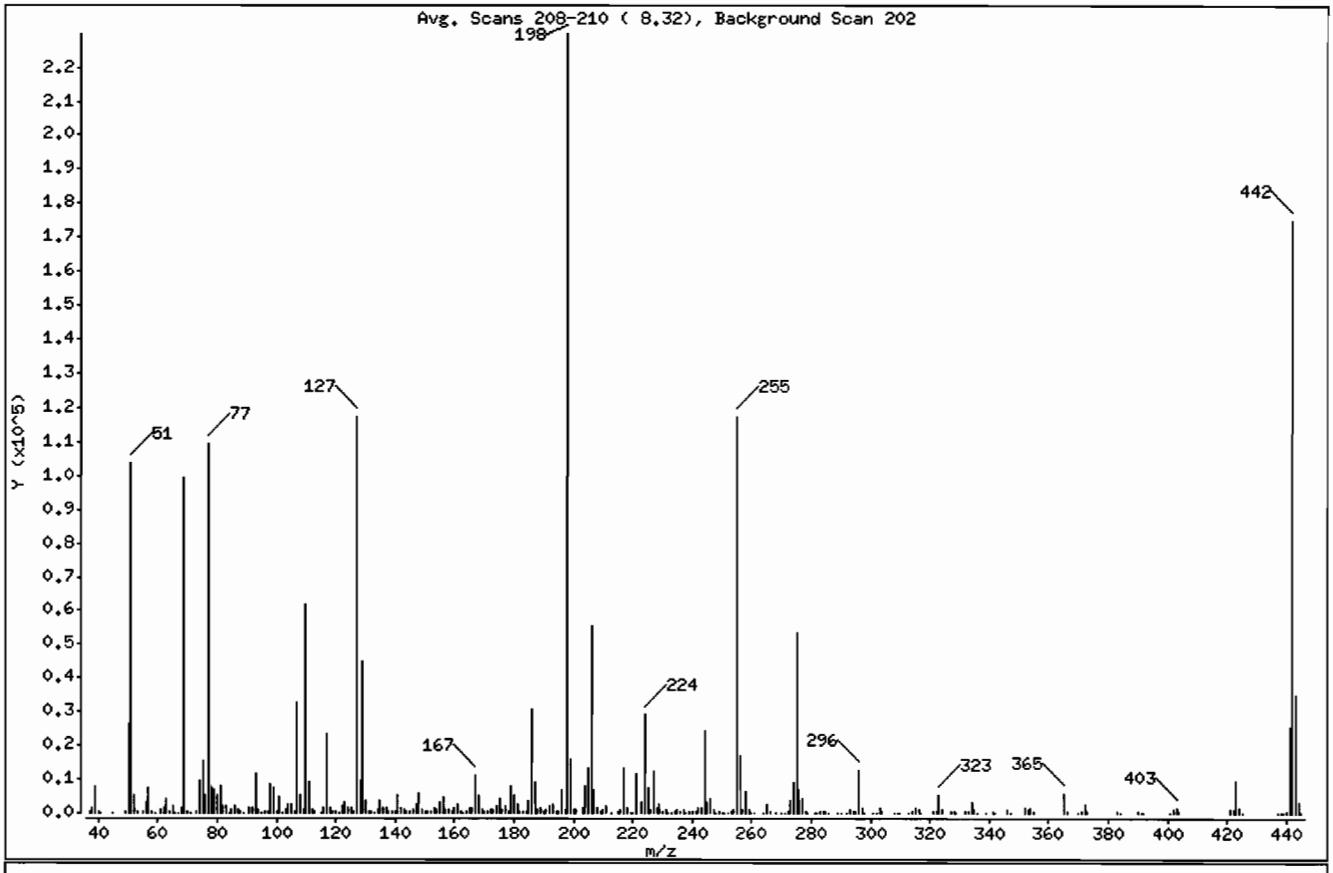

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.09
68	Less than 2.00% of mass 69	0.69 (1.59)
69	Mass 69 relative abundance	43.13
70	Less than 2.00% of mass 69	0.21 (0.50)
127	40.00 - 60.00% of mass 198	50.95
197	Less than 1.00% of mass 198	0.38
199	5.00 - 9.00% of mass 198	7.01
275	10.00 - 30.00% of mass 198	23.31
365	Greater than 1.00% of mass 198	2.61
441	Present, but less than mass 443	11.00
442	Greater than 40.00% of mass 198	76.04
443	17.00 - 23.00% of mass 442	15.14 (19.92)

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	446	124.00	1597	200.00	1296	285.00	727
38.00	1364	125.00	1527	201.00	1130	286.00	93
39.00	8081	126.00	500	203.00	1398	289.00	109
40.00	429	127.00	117112	204.00	7870	290.00	48
41.00	123	128.00	9305	205.00	12990	292.00	179
45.00	232	129.00	44864	206.00	55704	293.00	996
49.00	676	130.00	3877	207.00	6919	294.00	284
50.00	26328	131.00	762	208.00	1589	295.00	295
51.00	103656	132.00	413	209.00	492	296.00	12743
52.00	5217	133.00	83	210.00	869	297.00	1758
53.00	281	134.00	1179	211.00	2059	298.00	106
55.00	508	135.00	3584	213.00	155	301.00	200
56.00	3141	136.00	1380	215.00	501	302.00	236
57.00	7300	137.00	1770	216.00	1098	303.00	1828
58.00	351	138.00	422	217.00	13179	304.00	578
59.00	89	139.00	313	218.00	1725	308.00	164
61.00	1282	140.00	577	219.00	178	309.00	120
62.00	1522	141.00	5319	220.00	48	310.00	179
63.00	4035	142.00	1826	221.00	11795	313.00	116
64.00	709	143.00	1268	223.00	3181	314.00	633
65.00	2010	144.00	322	224.00	29056	315.00	1462
66.00	201	145.00	315	225.00	7532	316.00	903
67.00	136	146.00	853	226.00	796	317.00	97
68.00	1576	147.00	2856	227.00	12169	321.00	535
69.00	99128	148.00	5895	228.00	1834	322.00	301
70.00	492	149.00	1137	229.00	2389	323.00	5031
71.00	87	150.00	371	230.00	448	324.00	932
73.00	640	151.00	713	231.00	1077	327.00	782
74.00	9704	152.00	430	232.00	217	328.00	460
75.00	15458	153.00	1634	233.00	234	329.00	92
76.00	5031	154.00	1294	234.00	764	332.00	329
77.00	109208	155.00	2977	235.00	895	333.00	541
78.00	7381	156.00	4520	236.00	588	334.00	3026
79.00	6803	157.00	931	237.00	934	335.00	912
80.00	5387	158.00	937	238.00	52	336.00	92

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	7979	159.00	792	239.00	457	339.00	88
82.00	2000	160.00	1501	240.00	364	341.00	550
83.00	1851	161.00	2637	241.00	638	342.00	176
84.00	203	162.00	756	242.00	1412	346.00	1020
85.00	1319	163.00	204	243.00	1572	347.00	119
86.00	1985	164.00	328	244.00	24152	352.00	1335
87.00	1000	165.00	1810	245.00	3200	353.00	950
88.00	412	166.00	1695	246.00	4314	354.00	1475
89.00	260	167.00	10891	247.00	844	355.00	296
91.00	1676	168.00	5136	248.00	166	365.00	5995
92.00	1806	169.00	973	249.00	748	366.00	747
93.00	11677	170.00	306	250.00	170	370.00	103
94.00	892	171.00	442	251.00	190	371.00	323
95.00	199	172.00	897	252.00	210	372.00	2543
96.00	636	173.00	1105	253.00	472	373.00	611
97.00	286	174.00	2178	254.00	899	383.00	675
98.00	8556	175.00	4297	255.00	117320	384.00	156
99.00	7312	176.00	1290	256.00	16728	390.00	314
100.00	595	177.00	2105	257.00	1320	391.00	189
101.00	4548	178.00	636	258.00	6484	392.00	157
102.00	251	179.00	8002	259.00	1064	401.00	199
103.00	1289	180.00	5191	260.00	200	402.00	1090
104.00	2626	181.00	2701	261.00	212	403.00	1396
105.00	2533	182.00	448	264.00	192	404.00	427
106.00	724	183.00	312	265.00	2469	421.00	1265
107.00	33008	184.00	599	266.00	401	422.00	1145
108.00	5264	185.00	3797	268.00	43	423.00	9473
109.00	994	186.00	30448	270.00	167	424.00	1846
110.00	61616	187.00	8914	271.00	186	425.00	183
111.00	9026	188.00	970	272.00	329	437.00	54
112.00	1057	189.00	1726	273.00	3492	438.00	170
113.00	367	190.00	298	274.00	9124	439.00	228
115.00	227	191.00	976	275.00	53576	440.00	294
116.00	1610	192.00	2282	276.00	7126	441.00	25272
117.00	23152	193.00	2535	277.00	3970	442.00	174784

Date : 10-NOV-2009 11:07

Client ID: DFTPP Instrument: MSD6.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
118.00	1681	194.00	518	278.00	653	443.00	34808
119.00	280	195.00	333	279.00	140	444.00	3177
120.00	427	196.00	6863	281.00	140	445.00	129
121.00	176	197.00	878	282.00	42		
122.00	2199	198.00	229824	283.00	507		
123.00	3315	199.00	16104	284.00	294		

Data File: /chem/MSD6.i/s022110.b/s6b2101.d

Date : 21-FEB-2010 09:16

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

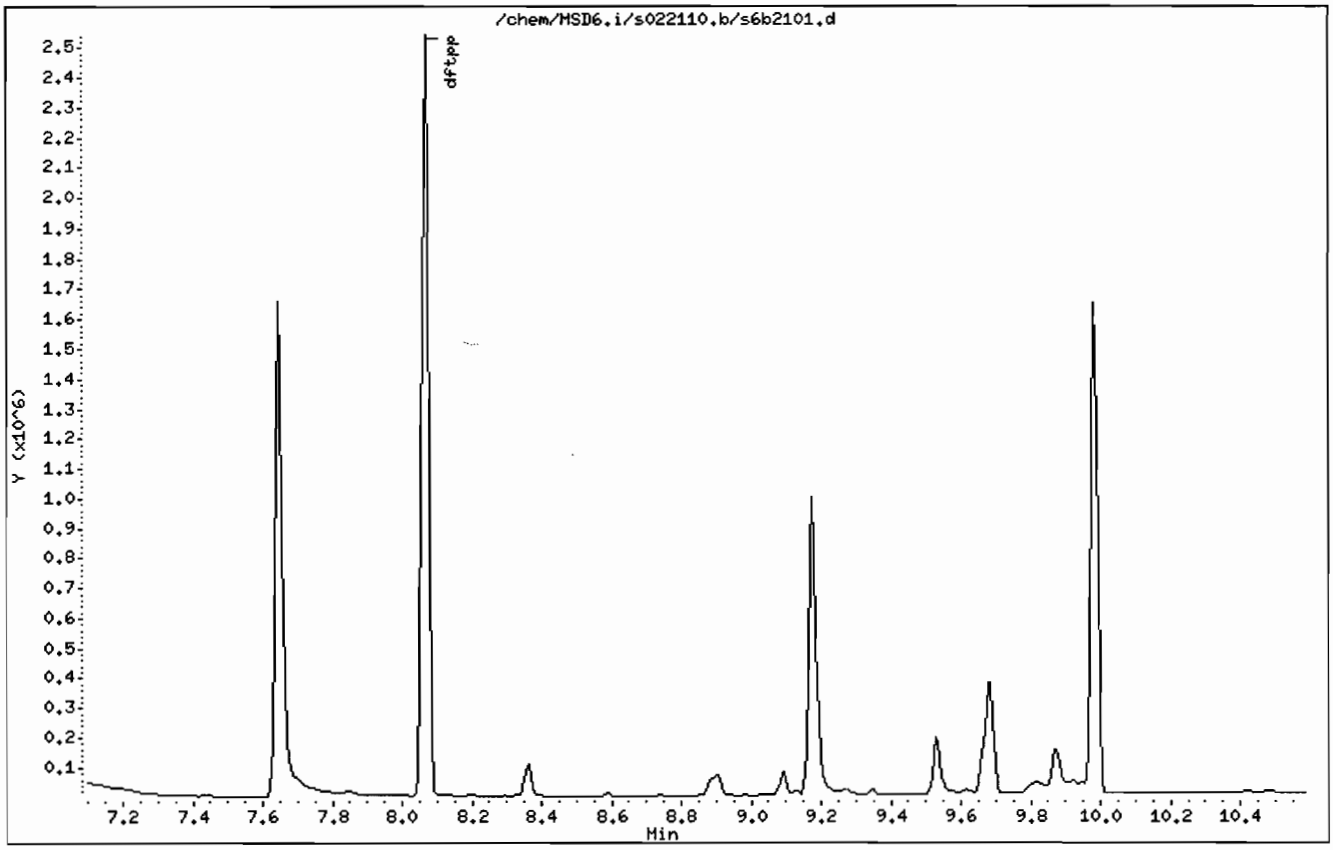

Data File: /chem/MSD6.i/s022110.b/s6b2101.d

Date : 21-FEB-2010 09:16

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

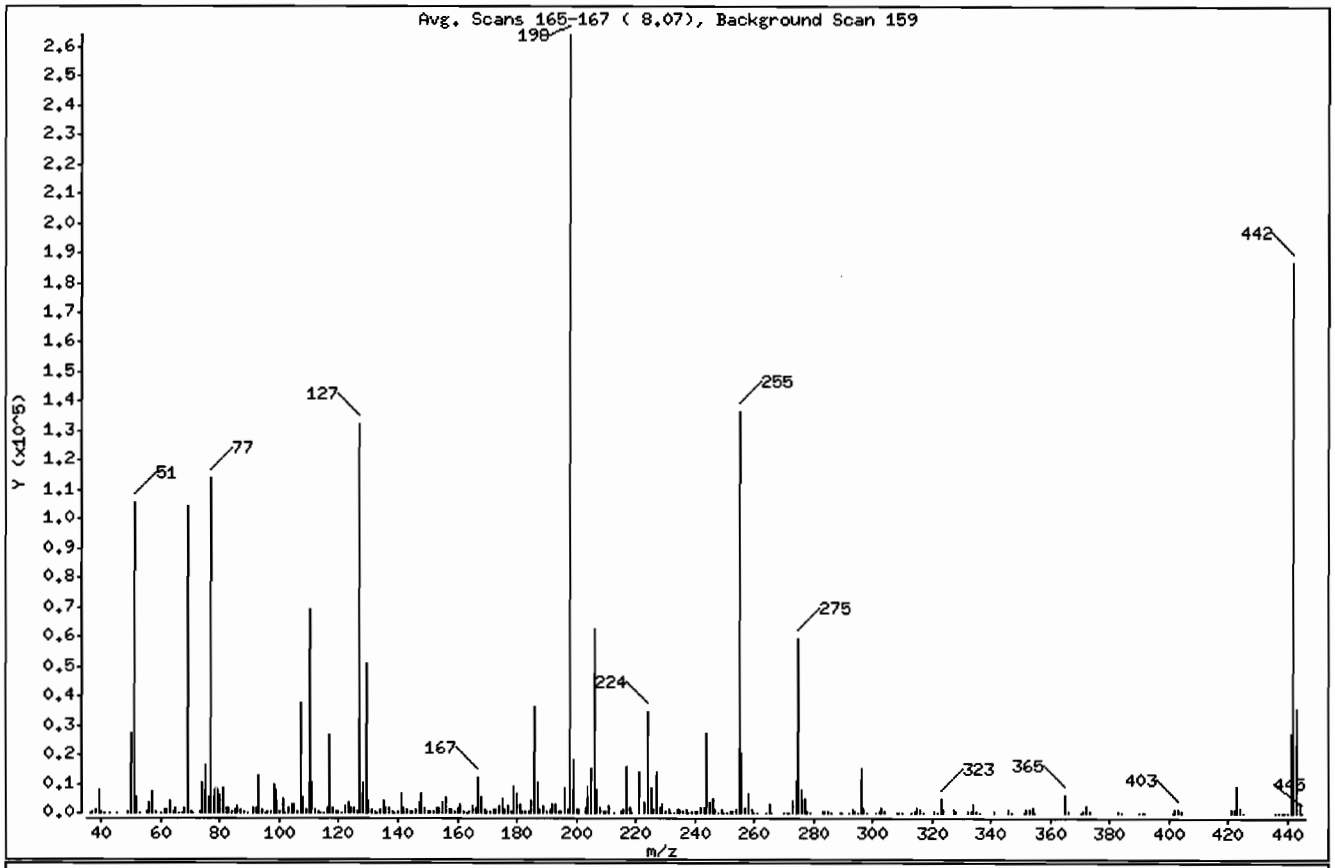

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	40.01
68	Less than 2.00% of mass 69	0.64 (1.63)
69	Mass 69 relative abundance	39.56
70	Less than 2.00% of mass 69	0.23 (0.58)
127	40.00 - 60.00% of mass 198	50.02
197	Less than 1.00% of mass 198	0.55
199	5.00 - 9.00% of mass 198	6.85
275	10.00 - 30.00% of mass 198	22.62
365	Greater than 1.00% of mass 198	2.28
441	Present, but less than mass 443	10.32
442	Greater than 40.00% of mass 198	70.71
443	17.00 - 23.00% of mass 442	13.50 (19.10)

Date : 21-FEB-2010 09:16

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6b2101.d
Spectrum: Avg. Scans 165-167 (8.07), Background Scan 159
Location of Maximum: 198.00
Number of points: 299

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	17	120.00	397	195.00	411	283.00	577
37.00	465	121.00	159	196.00	8233	284.00	358
38.00	1231	122.00	2376	197.00	1448	285.00	877
39.00	7918	123.00	3474	198.00	264128	286.00	161
40.00	337	124.00	1576	199.00	18088	289.00	175
41.00	142	125.00	1582	200.00	1355	290.00	167
43.00	25	126.00	553	201.00	1149	292.00	277
45.00	267	127.00	132096	203.00	1781	293.00	984
49.00	751	128.00	10058	204.00	8963	294.00	309
50.00	27120	129.00	51080	205.00	15416	295.00	284
51.00	105680	130.00	4226	206.00	62704	296.00	14931
52.00	5375	131.00	930	207.00	8007	297.00	2040
53.00	248	132.00	491	208.00	1908	298.00	99
55.00	385	133.00	302	209.00	666	301.00	203
56.00	3425	134.00	1422	210.00	640	302.00	344
57.00	7567	135.00	4124	211.00	2464	303.00	1770
58.00	400	136.00	1535	213.00	157	304.00	473
60.00	154	137.00	1976	215.00	721	308.00	213
61.00	1379	138.00	430	216.00	1142	309.00	180
62.00	1439	139.00	296	217.00	15884	310.00	192
63.00	4198	140.00	603	218.00	2040	313.00	175
64.00	690	141.00	6472	219.00	212	314.00	801
65.00	1948	142.00	2099	221.00	13761	315.00	1538
66.00	195	143.00	1510	223.00	3598	316.00	1014
67.00	178	144.00	320	224.00	34360	317.00	153
68.00	1702	145.00	351	225.00	8660	321.00	422
69.00	104496	146.00	1188	226.00	970	322.00	221
70.00	601	147.00	3422	227.00	13702	323.00	4888
71.00	141	148.00	6637	228.00	1952	324.00	960
73.00	682	149.00	1576	229.00	2805	327.00	919
74.00	10255	150.00	421	230.00	497	328.00	377
75.00	16371	151.00	843	231.00	1387	332.00	395
76.00	5481	152.00	542	232.00	261	333.00	502
77.00	114264	153.00	1963	233.00	278	334.00	2950
78.00	7810	154.00	1638	234.00	913	335.00	886

Data File: /chem/MSD6.i/s022110.b/s6b2101.d

Date : 21-FEB-2010 09:16

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6b2101.d
Spectrum: Avg. Scans 165-167 (8.07), Background Scan 159
Location of Maximum: 198.00
Number of points: 299

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	7709	155.00	3560	235.00	994	336.00	42
80.00	6208	156.00	5317	236.00	659	341.00	553
81.00	8723	157.00	1182	237.00	1168	346.00	1025
82.00	2074	158.00	1092	238.00	157	347.00	107
83.00	1981	159.00	876	239.00	586	351.00	49
84.00	306	160.00	2082	240.00	408	352.00	1389
85.00	1436	161.00	3145	241.00	593	353.00	1017
86.00	2172	162.00	887	242.00	1691	354.00	1531
87.00	1026	163.00	254	243.00	1763	355.00	278
88.00	421	164.00	462	244.00	27064	365.00	6026
89.00	238	165.00	2171	245.00	3402	366.00	878
91.00	2009	166.00	1936	246.00	4843	370.00	124
92.00	2095	167.00	12063	247.00	1068	371.00	332
93.00	12950	168.00	5589	248.00	201	372.00	2430
94.00	931	169.00	1126	249.00	973	373.00	615
95.00	212	170.00	395	250.00	204	383.00	675
96.00	658	171.00	609	251.00	287	384.00	187
97.00	335	172.00	1271	252.00	338	390.00	300
98.00	9527	173.00	1366	253.00	635	391.00	173
99.00	7833	174.00	2362	254.00	1002	392.00	159
100.00	716	175.00	5106	255.00	136512	401.00	105
101.00	4594	176.00	1441	256.00	20608	402.00	953
102.00	265	177.00	2409	257.00	1561	403.00	1224
103.00	1536	178.00	773	258.00	6858	404.00	484
104.00	2765	179.00	8949	259.00	1119	421.00	1117
105.00	2815	180.00	6492	260.00	280	422.00	1151
106.00	876	181.00	3064	261.00	246	423.00	9031
107.00	37600	182.00	439	264.00	126	424.00	1802
108.00	5503	183.00	337	265.00	3000	425.00	170
109.00	1005	184.00	678	266.00	179	436.00	43
110.00	69200	185.00	4355	270.00	208	437.00	89
111.00	10081	186.00	36400	271.00	259	438.00	213
112.00	1374	187.00	10318	272.00	296	439.00	45
113.00	415	188.00	1121	273.00	3967	440.00	233
114.00	47	189.00	2295	274.00	10687	441.00	27248

Data File: /chem/MSD6.i/s022110.b/s6b2101.d

Date : 21-FEB-2010 09:16

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN100207-01|DFTPP|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6b2101.d
Spectrum: Avg. Scans 165-167 (8.07), Background Scan 159
Location of Maximum: 198.00
Number of points: 299

m/z	Y	m/z	Y	m/z	Y	m/z	Y
115.00	163	190.00	334	275.00	59760	442.00	186752
116.00	1779	191.00	1086	276.00	7607	443.00	35672
117.00	26632	192.00	3018	277.00	4658	444.00	3483
118.00	1910	193.00	3078	278.00	765	445.00	151
119.00	333	194.00	600	279.00	193		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202047233**				
Client Sample:	**QC for batch 954921**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 954921**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**954922**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/21/2010 10:33**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/18/2010 21:17**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s6b2104.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.0	ug/L	2.00	10.0
108-95-2	Phenol	U	10.0	ug/L	1.00	10.0
95-57-8	2-Chlorophenol	U	10.0	ug/L	2.00	10.0
106-46-7	1,4-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	10.0	ug/L	2.00	10.0
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	10.0	ug/L	2.00	10.0
83-32-9	Acenaphthene	U	1.00	ug/L	0.310	1.00
121-14-2	2,4-Dinitrotoluene	U	10.0	ug/L	2.00	10.0
100-02-7	4-Nitrophenol	U	10.0	ug/L	2.00	10.0
87-86-5	Pentachlorophenol	U	10.0	ug/L	2.00	10.0
129-00-0	Pyrene	U	1.00	ug/L	0.300	1.00
110-86-1	Pyridine	U	10.0	ug/L	3.00	10.0
62-53-3	Aniline	U	10.0	ug/L	2.50	10.0
111-44-4	bis(2-Chloroethyl) ether	U	10.0	ug/L	2.00	10.0
541-73-1	1,3-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
100-51-6	Benzyl alcohol	U	10.0	ug/L	2.00	10.0
95-50-1	1,2-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
108-60-1	bis(2-Chloroisopropyl)ether	U	10.0	ug/L	2.00	10.0
95-48-7	o-Cresol	U	10.0	ug/L	2.00	10.0
65794-96-9	m,p-Cresols	U	10.0	ug/L	3.00	10.0
67-72-1	Hexachloroethane	U	10.0	ug/L	2.00	10.0
98-95-3	Nitrobenzene	U	10.0	ug/L	3.00	10.0
78-59-1	Isophorone	U	10.0	ug/L	3.00	10.0
88-75-5	2-Nitrophenol	U	10.0	ug/L	2.00	10.0
105-67-9	2,4-Dimethylphenol	U	10.0	ug/L	2.00	10.0
111-91-1	bis(2-Chloroethoxy)methane	U	10.0	ug/L	3.00	10.0
120-83-2	2,4-Dichlorophenol	U	10.0	ug/L	2.00	10.0
65-85-0	Benzoic acid	U	20.0	ug/L	6.00	20.0
91-20-3	Naphthalene	U	1.00	ug/L	0.300	1.00
106-47-8	4-Chloroaniline	U	10.0	ug/L	2.00	10.0
87-68-3	Hexachlorobutadiene	U	10.0	ug/L	2.00	10.0
91-57-6	2-Methylnaphthalene	U	1.00	ug/L	0.300	1.00
90-12-0	1-Methylnaphthalene	U	1.00	ug/L	0.300	1.00
77-47-4	Hexachlorocyclopentadiene	U	10.0	ug/L	3.00	10.0
88-06-2	2,4,6-Trichlorophenol	U	10.0	ug/L	2.00	10.0
95-95-4	2,4,5-Trichlorophenol	U	10.0	ug/L	2.00	10.0
91-58-7	2-Chloronaphthalene	U	1.00	ug/L	0.300	1.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202047233**				
Client Sample:	**QC for batch 954921**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 954921**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**954922**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/21/2010 10:33**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/18/2010 21:17**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s6b2104.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline	U	10.0	ug/L	2.00	10.0
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	10.0	ug/L	2.00	10.0
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	10.0	ug/L	2.00	10.0
606-20-2	2,6-Dinitrotoluene	U	10.0	ug/L	2.00	10.0
208-96-8	Acenaphthylene	U	1.00	ug/L	0.200	1.00
51-28-5	2,4-Dinitrophenol	U	20.0	ug/L	5.00	20.0
132-64-9	Dibenzofuran	U	10.0	ug/L	2.00	10.0
84-66-2	Diethylphthalate	U	10.0	ug/L	2.00	10.0
86-73-7	Fluorene	U	1.00	ug/L	0.200	1.00
7005-72-3	4-Chlorophenylphenylether	U	10.0	ug/L	2.00	10.0
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.0	ug/L	3.00	10.0
100-01-6	4-Nitroaniline	U	10.0	ug/L	3.00	10.0
	p-Nitroaniline					
122-39-4	Diphenylamine	U	10.0	ug/L	3.00	10.0
122-66-7	Azobenzene	U	10.0	ug/L	2.00	10.0
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	10.0	ug/L	2.00	10.0
118-74-1	Hexachlorobenzene	U	10.0	ug/L	2.00	10.0
1912-24-9	Atrazine	U	10.0	ug/L	3.00	10.0
85-01-8	Phenanthrene	U	1.00	ug/L	0.200	1.00
120-12-7	Anthracene	U	1.00	ug/L	0.200	1.00
84-74-2	Di-n-butylphthalate	U	10.0	ug/L	2.00	10.0
206-44-0	Fluoranthene	U	1.00	ug/L	0.200	1.00
92-87-5	Benzidine	U	10.0	ug/L	3.00	10.0
85-68-7	Butylbenzylphthalate	U	10.0	ug/L	2.00	10.0
56-55-3	Benzo(a)anthracene	U	1.00	ug/L	0.200	1.00
91-94-1	3,3'-Dichlorobenzidine	U	10.0	ug/L	2.00	10.0
218-01-9	Chrysene	U	1.00	ug/L	0.200	1.00
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.0	ug/L	2.00	10.0
117-84-0	Di-n-octylphthalate	U	10.0	ug/L	3.00	10.0
205-99-2	Benzo(b)fluoranthene	U	1.00	ug/L	0.200	1.00
207-08-9	Benzo(k)fluoranthene	U	1.00	ug/L	0.200	1.00
50-32-8	Benzo(a)pyrene	U	1.00	ug/L	0.200	1.00
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.00	ug/L	0.200	1.00
53-70-3	Dibenzo(a,h)anthracene	U	1.00	ug/L	0.200	1.00
191-24-2	Benzo(ghi)perylene	U	1.00	ug/L	0.200	1.00
123-91-1	1,4-Dioxane	U	10.0	ug/L	2.00	10.0
55-18-5	N-Nitrosodiethylamine	U	10.0	ug/L	2.00	10.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202047233**				
Client Sample:	**QC for batch 954921**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 954921**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**954922**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/21/2010 10:33**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/18/2010 21:17**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s6b2104.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.0	ug/L	2.00	10.0
924-16-3	N-Nitrosodi-n-butylamine	U	10.0	ug/L	3.00	10.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.0	ug/L	3.00	10.0
608-93-5	Pentachlorobenzene	U	10.0	ug/L	3.00	10.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.0	ug/L	2.00	10.0
88-85-7	Dinoseb	U	10.0	ug/L	2.00	10.0
120-82-1	1,2,4-Trichlorobenzene	U	10.0	ug/L	2.00	10.0

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	69.2	100	ug/L	69.2	(39%-120%)
2-Fluorobiphenyl	33.5	50.0	ug/L	66.9	(38%-108%)
2-Fluorophenol	40.8	100	ug/L	40.8	(19%-98%)
Nitrobenzene-d5	37.2	50.0	ug/L	74.3	(31%-122%)
Phenol-d5	24.6	100	ug/L	24.6	(15%-83%)
p-Terphenyl-d14	43.8	50.0	ug/L	87.5	(40%-138%)

Tentatively Identified Compound Summary

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

GEL Laboratories LLC

Data file : /chem/MSD6.i/s022110.b/s6b2104.d
Lab Smp Id: 1202047233 Client Smp ID: SBLK01
Inj Date : 21-FEB-2010 10:33
Operator : nag1 Inst ID: MSD6.i
Smp Info : |1202047233|954922|1|SVM|1|SBLK01
Misc Info : |MSD82709L|WBN100217-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Feb-2010 09:40 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1886.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.602	4.604	(1.000)	345477	40.0000	
* 29 Naphthalene-d8	136	5.868	5.871	(1.000)	1240706	40.0000	
* 46 Acenaphthene-d10	164	7.726	7.731	(1.000)	697647	40.0000	
* 67 Phenanthrene-d10	188	9.331	9.331	(1.000)	1183714	40.0000	
* 91 Chrysene-d12	240	12.269	12.274	(1.000)	937271	40.0000	
* 98 Perylene-d12	264	14.466	14.468	(1.000)	710983	40.0000	
$ 3 2-Fluorophenol	112	3.455	3.455	(0.751)	353313	40.8383	40.8
$ 5 Phenol-d5	99	4.220	4.230	(0.917)	268933	24.6289	24.6
$ 20 Nitrobenzene-d5	82	5.135	5.142	(0.875)	326124	37.1579	37.2
$ 39 2-Fluorobiphenyl	172	6.992	6.995	(0.905)	601482	33.4549	33.4
$ 60 2,4,6-Tribromophenol	329	8.574	8.577	(1.110)	140907	69.1995	69.2
$ 81 p-Terphenyl-d14	244	11.036	11.036	(0.899)	661521	43.7657	43.8

GEL Laboratories LLC

Data file : /chem/MSD6.i/s022110.b/s6b2104.d
Lab Smp Id: 1202047233 Client Smp ID: SBLK01
Inj Date : 21-FEB-2010 10:33
Operator : nag1 Inst ID: MSD6.i
Smp Info : |1202047233|954922|1|SVM|1|SBLK01
Misc Info : |MSD82709L|WBN100217-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Feb-2010 09:40 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1886.sub
Target Version: 3.50
Processing Host: hpclp1

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/MSD6.i/s022110.b/s6b2104.d

Date : 21-FEB-2010 10:33

Client ID: SBLK01

Sample Info: |1202047233|954922|1|SVMI|1|SBLK01

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Page 1

Instrument: MSD6.i

Operator: nag1

Column diameter: 0.20

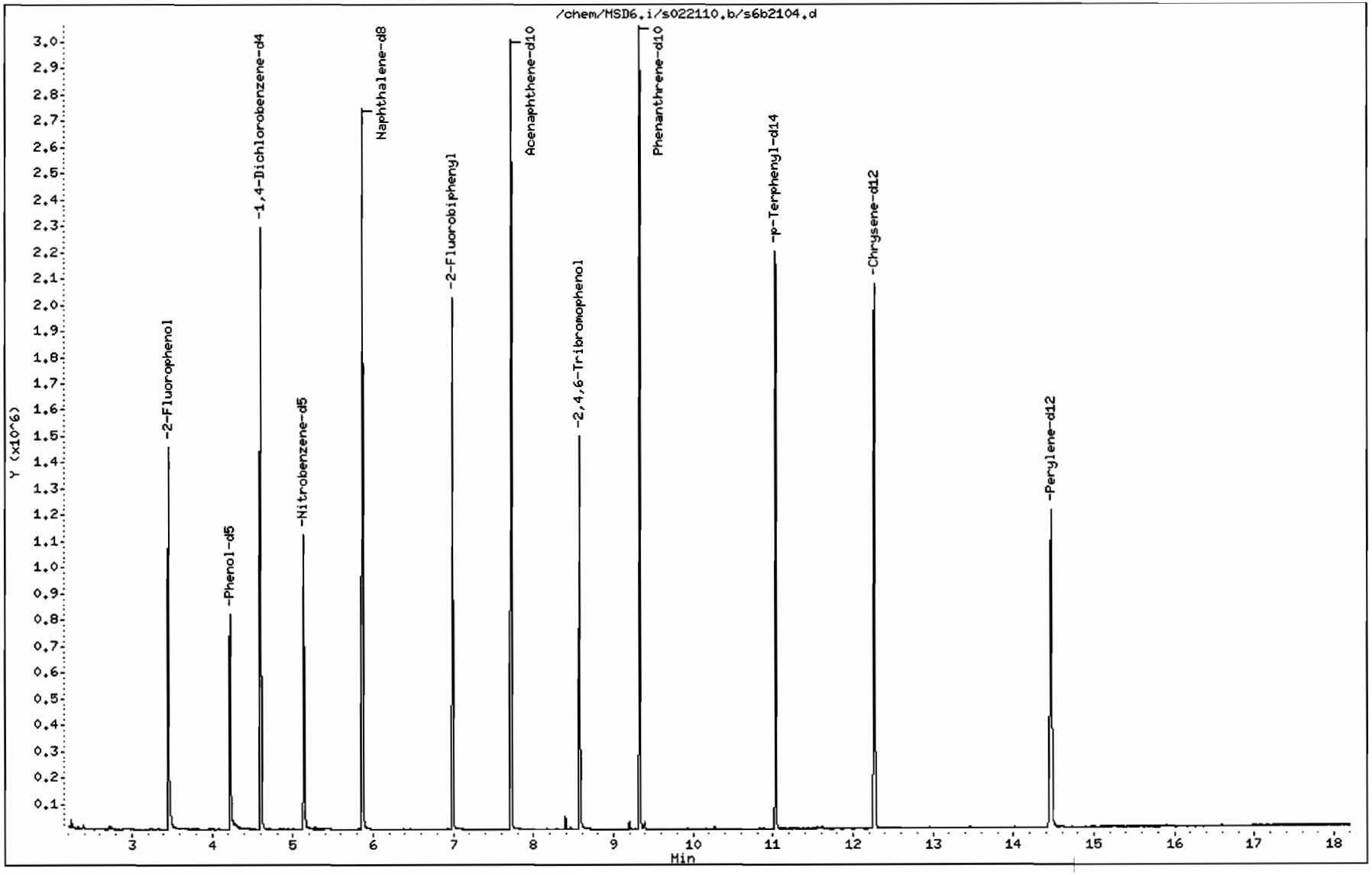

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202047234**				
Client Sample:	**QC for batch 954921**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 954921**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**954922**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/21/2010 11:02**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/18/2010 21:17**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s6b2105.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		23.2	ug/L	2.00	10.0
108-95-2	Phenol		14.9	ug/L	1.00	10.0
95-57-8	2-Chlorophenol		36.7	ug/L	2.00	10.0
106-46-7	1,4-Dichlorobenzene		29.1	ug/L	2.00	10.0
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*		42.8	ug/L	2.00	10.0
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*		39.3	ug/L	2.00	10.0
83-32-9	Acenaphthene		36.4	ug/L	0.310	1.00
121-14-2	2,4-Dinitrotoluene		42.2	ug/L	2.00	10.0
100-02-7	4-Nitrophenol		10.3	ug/L	2.00	10.0
87-86-5	Pentachlorophenol		31.3	ug/L	2.00	10.0
129-00-0	Pyrene		40.8	ug/L	0.300	1.00
110-86-1	Pyridine		36.9	ug/L	3.00	10.0
62-53-3	Aniline		45.0	ug/L	2.50	10.0
111-44-4	bis(2-Chloroethyl) ether		35.0	ug/L	2.00	10.0
541-73-1	1,3-Dichlorobenzene		28.7	ug/L	2.00	10.0
100-51-6	Benzyl alcohol		26.8	ug/L	2.00	10.0
95-50-1	1,2-Dichlorobenzene		30.2	ug/L	2.00	10.0
108-60-1	bis(2-Chloroisopropyl)ether		38.9	ug/L	2.00	10.0
95-48-7	o-Cresol		32.4	ug/L	2.00	10.0
65794-96-9	m,p-Cresols		33.2	ug/L	3.00	10.0
67-72-1	Hexachloroethane		24.1	ug/L	2.00	10.0
98-95-3	Nitrobenzene		38.0	ug/L	3.00	10.0
78-59-1	Isophorone		42.3	ug/L	3.00	10.0
88-75-5	2-Nitrophenol		37.7	ug/L	2.00	10.0
105-67-9	2,4-Dimethylphenol		35.7	ug/L	2.00	10.0
111-91-1	bis(2-Chloroethoxy)methane		39.2	ug/L	3.00	10.0
120-83-2	2,4-Dichlorophenol		40.4	ug/L	2.00	10.0
65-85-0	Benzoic acid		28.0	ug/L	6.00	20.0
91-20-3	Naphthalene		31.2	ug/L	0.300	1.00
106-47-8	4-Chloroaniline		48.4	ug/L	2.00	10.0
87-68-3	Hexachlorobutadiene		26.7	ug/L	2.00	10.0
91-57-6	2-Methylnaphthalene		36.9	ug/L	0.300	1.00
90-12-0	1-Methylnaphthalene		36.4	ug/L	0.300	1.00
77-47-4	Hexachlorocyclopentadiene	J	9.49	ug/L	3.00	10.0
88-06-2	2,4,6-Trichlorophenol		41.1	ug/L	2.00	10.0
95-95-4	2,4,5-Trichlorophenol		39.8	ug/L	2.00	10.0
91-58-7	2-Chloronaphthalene		36.0	ug/L	0.300	1.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202047234**				
Client Sample:	**QC for batch 954921**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 954921**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**954922**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/21/2010 11:02**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/18/2010 21:17**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s6b2I05.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline		39.2	ug/L	2.00	10.0
	o-Nitroaniline					
99-09-2	3-Nitroaniline		42.0	ug/L	2.00	10.0
	m-Nitroaniline					
131-11-3	Dimethylphthalate		44.8	ug/L	2.00	10.0
606-20-2	2,6-Dinitrotoluene		41.7	ug/L	2.00	10.0
208-96-8	Acenaphthylene		39.2	ug/L	0.200	1.00
51-28-5	2,4-Dinitrophenol		29.4	ug/L	5.00	20.0
132-64-9	Dibenzofuran		40.2	ug/L	2.00	10.0
84-66-2	Diethylphthalate		45.1	ug/L	2.00	10.0
86-73-7	Fluorene		40.2	ug/L	0.200	1.00
7005-72-3	4-Chlorophenylphenylether		41.6	ug/L	2.00	10.0
534-52-1	2-Methyl-4,6-dinitrophenol		29.3	ug/L	3.00	10.0
100-01-6	4-Nitroaniline		37.9	ug/L	3.00	10.0
	p-Nitroaniline					
122-39-4	Diphenylamine		44.3	ug/L	3.00	10.0
122-66-7	Azobenzene		43.7	ug/L	2.00	10.0
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		43.9	ug/L	2.00	10.0
118-74-1	Hexachlorobenzene		41.6	ug/L	2.00	10.0
1912-24-9	Atrazine		47.3	ug/L	3.00	10.0
85-01-8	Phenanthrene		42.0	ug/L	0.200	1.00
120-12-7	Anthracene		42.2	ug/L	0.200	1.00
84-74-2	Di-n-butylphthalate		48.3	ug/L	2.00	10.0
206-44-0	Fluoranthene		44.1	ug/L	0.200	1.00
92-87-5	Benzidine		53.7	ug/L	3.00	10.0
85-68-7	Butylbenzylphthalate		48.1	ug/L	2.00	10.0
56-55-3	Benzo(a)anthracene		41.8	ug/L	0.200	1.00
91-94-1	3,3'-Dichlorobenzidine		31.8	ug/L	2.00	10.0
218-01-9	Chrysene		42.2	ug/L	0.200	1.00
117-81-7	bis(2-Ethylhexyl)phthalate		49.2	ug/L	2.00	10.0
117-84-0	Di-n-octylphthalate		55.7	ug/L	3.00	10.0
205-99-2	Benzo(b)fluoranthene		47.7	ug/L	0.200	1.00
207-08-9	Benzo(k)fluoranthene		47.4	ug/L	0.200	1.00
50-32-8	Benzo(a)pyrene		48.2	ug/L	0.200	1.00
193-39-5	Indeno(1,2,3-cd)pyrene		42.9	ug/L	0.200	1.00
53-70-3	Dibenzo(a,h)anthracene		42.4	ug/L	0.200	1.00
191-24-2	Benzo(ghi)perylene		44.8	ug/L	0.200	1.00
123-91-1	1,4-Dioxane		28.4	ug/L	2.00	10.0
55-18-5	N-Nitrosodiethylamine	U	10.0	ug/L	2.00	10.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202047234**				
Client Sample:	**QC for batch 954921**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 954921**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**954922**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/21/2010 11:02**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/18/2010 21:17**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s6b2105.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine		38.8	ug/L	2.00	10.0
924-16-3	N-Nitrosodi-n-butylamine	U	10.0	ug/L	3.00	10.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.0	ug/L	3.00	10.0
608-93-5	Pentachlorobenzene	U	10.0	ug/L	3.00	10.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.0	ug/L	2.00	10.0
88-85-7	Dinoseb	U	10.0	ug/L	2.00	10.0
120-82-1	1,2,4-Trichlorobenzene		30.8	ug/L	2.00	10.0

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	81.0	100	ug/L	81.0	(39%-120%)
2-Fluorobiphenyl	36.2	50.0	ug/L	72.5	(38%-108%)
2-Fluorophenol	44.0	100	ug/L	44.0	(19%-98%)
Nitrobenzene-d5	36.8	50.0	ug/L	73.7	(31%-122%)
Phenol-d5	28.4	100	ug/L	28.4	(15%-83%)
p-Terphenyl-d14	46.6	50.0	ug/L	93.2	(40%-138%)

GEL Laboratories LLC

Data file : /chem/MSD6.i/s022110.b/s6b2105.d
Lab Smp Id: 1202047234 Client Smp ID: SBLK01LCS
Inj Date : 21-FEB-2010 11:02
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202047234|954922|1|SVM|1|SBLK01LCS
Misc Info : |MSD82709L|WBN100217-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Feb-2010 09:40 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1886.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.604	4.604	(1.000)	305633	40.0000	
* 29 Naphthalene-d8	136	5.871	5.871	(1.000)	1236895	40.0000	
* 46 Acenaphthene-d10	164	7.728	7.731	(1.000)	656663	40.0000	
* 67 Phenanthrene-d10	188	9.334	9.331	(1.000)	1117855	40.0000	
* 91 Chrysene-d12	240	12.274	12.274	(1.000)	890828	40.0000	
* 98 Perylene-d12	264	14.471	14.468	(1.000)	663077	40.0000	
$ 3 2-Fluorophenol	112	3.455	3.455	(0.750)	336730	43.9955	44.0
$ 5 Phenol-d5	99	4.227	4.230	(0.918)	274605	28.4268	28.4
$ 20 Nitrobenzene-d5	82	5.142	5.142	(0.876)	322426	36.8498	36.8
$ 39 2-Fluorobiphenyl	172	6.994	6.995	(0.905)	613353	36.2443	36.2
$ 60 2,4,6-Tribromophenol	329	8.579	8.577	(1.110)	155257	81.0056	81.0
$ 81 p-Terphenyl-d14	244	11.036	11.036	(0.899)	669794	46.6233	46.6
6 Phenol	94	4.240	4.243	(0.921)	144530	14.8801	14.9(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	4.408	4.408	(0.957)	286146	36.6761	36.7
11 1,4-Dichlorobenzene	146	4.620	4.620	(1.003)	265172	29.1239	29.1
17 N-Nitrosodipropylamine	70	4.979	4.982	(1.081)	231807	42.8107	42.8(Q)
28 1,2,4-Trichlorobenzene	180	5.804	5.805	(0.989)	231423	30.8473	30.8
33 4-Chloro-3-methylphenol	107	6.434	6.429	(1.096)	242394	39.2793	39.3
47 Acenaphthene	154	7.764	7.767	(1.005)	539187	36.4323	36.4
50 2,4-Dinitrotoluene	165	7.932	7.935	(1.026)	213622	42.1637	42.2
52 4-Nitrophenol	139	7.881	7.858	(1.020)	9819	10.2525	10.2(Q)
65 Pentachlorophenol	266	9.125	9.117	(0.978)	72163	31.2857	31.3
79 Pyrene	202	10.891	10.888	(0.887)	998687	40.7588	40.8
2 Pyridine	79	2.543	2.543	(0.552)	239046	36.9117	36.9
4 Aniline	66	4.299	4.299	(0.934)	181471	45.0223	45.0
7 bis(2-Chloroethyl) ether	63	4.339	4.339	(0.942)	230150	34.9917	35.0
9 1,3-Dichlorobenzene	146	4.553	4.553	(0.989)	257427	28.6610	28.7
12 Benzyl alcohol	108	4.722	4.722	(1.025)	129936	26.8072	26.8
13 1,2-Dichlorobenzene	146	4.765	4.765	(1.035)	257057	30.2458	30.2
14 bis(2-Chloroisopropyl)ether	45	4.841	4.839	(1.051)	570937	38.8808	38.9
15 o-Cresol	107	4.811	4.811	(1.045)	205873	32.4083	32.4
18 m,p-Cresols	107	4.966	4.966	(1.079)	267340	33.2129	33.2
19 Hexachloroethane	117	5.094	5.091	(1.106)	84945	24.1157	24.1
21 Nitrobenzene	77	5.162	5.162	(0.879)	335012	37.9885	38.0
22 Isophorone	82	5.394	5.394	(0.919)	661090	42.2915	42.3
23 2-Nitrophenol	139	5.476	5.476	(0.933)	153490	37.7341	37.7
24 2,4-Dimethylphenol	122	5.496	5.496	(0.936)	240715	35.7166	35.7
25 bis(2-Chloroethoxy)methane	93	5.596	5.596	(0.953)	360411	39.1786	39.2
26 2,4-Dichlorophenol	162	5.720	5.720	(0.974)	246989	40.4045	40.4
27 Benzoic acid	105	5.606	5.616	(0.955)	116576	28.0234	28.0
30 Naphthalene	128	5.894	5.891	(1.004)	769320	31.1801	31.2
31 4-Chloroaniline	127	5.942	5.940	(1.012)	383617	48.3737	48.4
32 Hexachlorobutadiene	225	6.003	6.001	(1.023)	104389	26.7203	26.7
34 2-Methylnaphthalene	142	6.612	6.612	(1.126)	548883	36.8648	36.9
35 1-Methylnaphthalene	142	6.717	6.717	(1.144)	530674	36.4360	36.4
36 Hexachlorocyclopentadiene	237	6.768	6.768	(0.876)	25169	9.48918	9.5(a)
37 2,4,6-Trichlorophenol	196	6.908	6.908	(0.894)	184315	41.1352	41.1
38 2,4,5-Trichlorophenol	196	6.949	6.946	(0.899)	189755	39.7661	39.8
40 2-Chloronaphthalene	162	7.135	7.132	(0.923)	530849	35.9961	36.0
42 o-Nitroaniline	65	7.242	7.242	(0.937)	197945	39.2343	39.2
41 m-Nitroaniline	138	7.685	7.683	(0.994)	155070	41.9874	42.0
43 Dimethylphthalate	163	7.425	7.430	(0.961)	754612	44.7972	44.8
44 2,6-Dinitrotoluene	165	7.502	7.502	(0.971)	167691	41.7358	41.7
45 Acenaphthylene	152	7.578	7.581	(0.981)	930277	39.2327	39.2
48 2,4-Dinitrophenol	184	7.802	7.802	(1.010)	31971	29.3949	29.4
49 Dibenzofuran	168	7.950	7.950	(1.029)	802537	40.1728	40.2
51 Diethylphthalate	149	8.179	8.177	(1.058)	764942	45.0920	45.1
53 Fluorene	166	8.319	8.320	(1.076)	658515	40.1613	40.2
54 4-Chlorophenylphenylether	204	8.307	8.307	(1.075)	322640	41.6453	41.6
55 2-Methyl-4,6-dinitrophenol	198	8.376	8.373	(0.897)	67039	29.3420	29.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
56 p-Nitroaniline	138	8.348	8.342	(1.080)	129242	37.9212	37.9
133 Diphenylamine	169	8.439	8.437	(0.904)	596404	44.2637	44.3
58 1,2-Diphenylhydrazine	77	8.483	8.480	(0.909)	749297	43.7198	43.7
61 4-Bromophenylphenylether	248	8.834	8.834	(0.946)	193711	43.9154	43.9
63 Hexachlorobenzene	284	8.908	8.908	(0.954)	192271	41.6137	41.6
207 Atrazine	173	9.010	9.008	(0.965)	53741	47.3240	47.3
68 Phenanthrene	178	9.359	9.359	(1.003)	970216	41.9687	42.0
69 Anthracene	178	9.415	9.413	(1.009)	974248	42.1630	42.2
72 Di-n-butylphthalate	149	9.932	9.930	(1.064)	1282374	48.3257	48.3
76 Fluoranthene	202	10.641	10.641	(1.140)	976902	44.1134	44.1
77 Benzidine	184	10.776	10.778	(0.878)	470268	53.7253	53.7
85 Butylbenzylphthalate	149	11.553	11.553	(0.941)	538861	48.0550	48.0
89 Benzo(a)anthracene	228	12.256	12.254	(0.999)	804094	41.8368	41.8
90 3,3'-Dichlorobenzidine	252	12.208	12.208	(0.995)	199789	31.7538	31.8
92 Chrysene	228	12.310	12.307	(1.003)	776880	42.1859	42.2
93 bis(2-Ethylhexyl)phthalate	149	12.236	12.236	(0.997)	761535	49.1925	49.2
94 Di-n-octylphthalate	149	13.158	13.158	(0.909)	1172906	55.6571	55.6
95 Benzo(b)fluoranthene	252	13.826	13.829	(0.955)	700131	47.7195	47.7
96 Benzo(k)fluoranthene	252	13.874	13.872	(0.959)	691416	47.3915	47.4
97 Benzo(a)pyrene	252	14.371	14.374	(0.993)	611097	48.2223	48.2
99 Indeno(1,2,3-cd)pyrene	276	16.374	16.374	(1.132)	520197	42.8761	42.9
100 Dibenzo(a,h)anthracene	278	16.397	16.400	(1.133)	418732	42.3829	42.4
101 Benzo(ghi)perylene	276	16.866	16.863	(1.166)	433876	44.8155	44.8(Q)
102 1,4-Dioxane	88	2.303	2.309	(0.500)	79536	28.4362	28.4
111 N-Nitrosopyrrolidine	100	4.976	4.971	(1.081)	140992	38.7547	38.8(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.510	2.510	(0.545)	120641	23.1858	23.2

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s022110.b/s6b2105.d
Date : 21-FEB-2010 11:02
Client ID: SBLK01LCS
Sample Info: 1120204723419549221|SVM11|SBLK01LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagi
Column diameter: 0.20

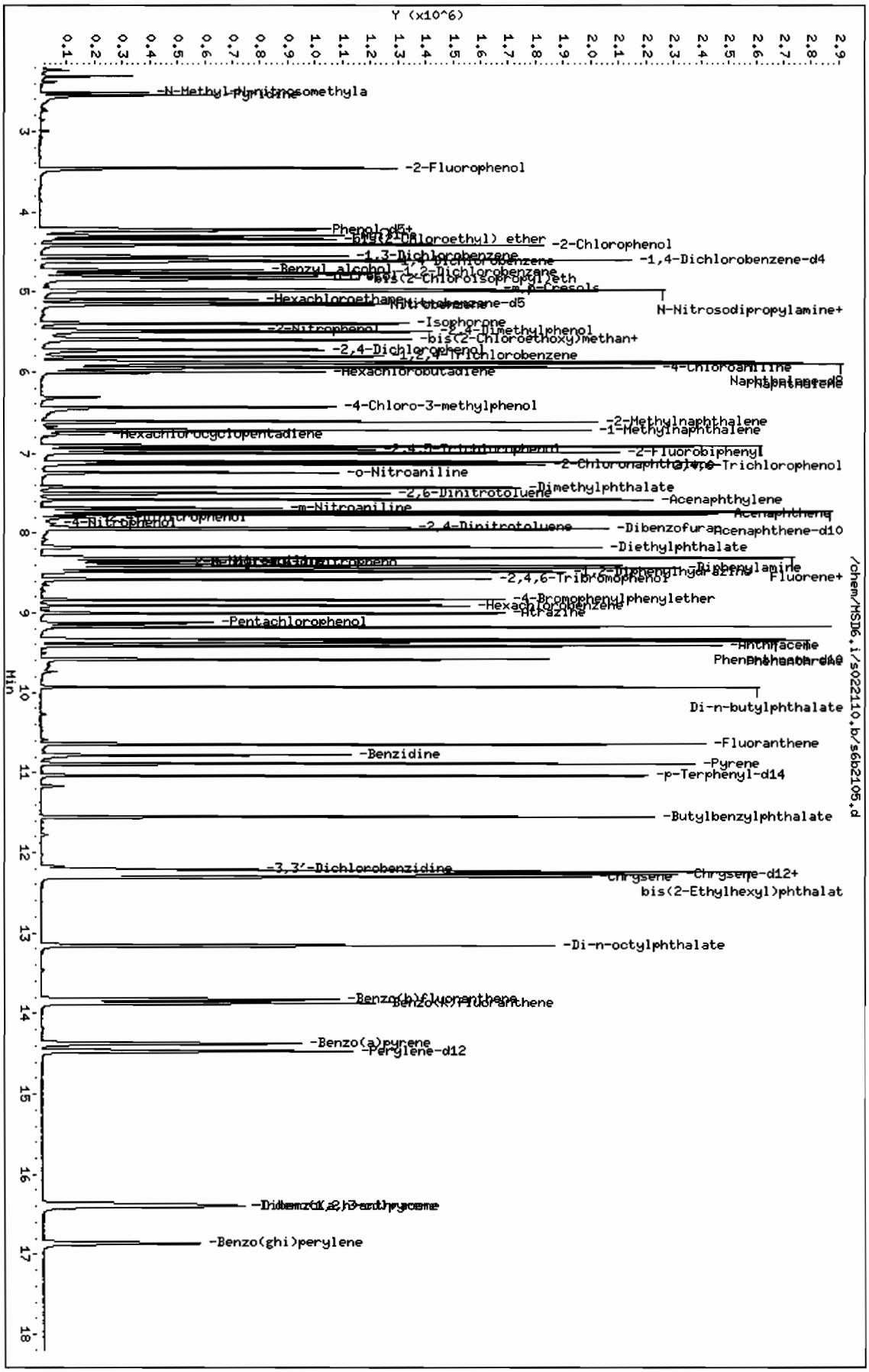

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202047235**	**Date Received:**	**02/17/2010 08:45**		
Client Sample:	**QC for batch 954921**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12691MS**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**954922**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/21/2010 17:43**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/18/2010 21:17**	**Aliquot:**	**500 mL**	**Final Volume:**	**1 mL**
Data File:	**s6b2119.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		47.7	ug/L	4.00	20.0
108-95-2	Phenol		38.9	ug/L	2.00	20.0
95-57-8	2-Chlorophenol		63.8	ug/L	4.00	20.0
106-46-7	1,4-Dichlorobenzene		60.5	ug/L	4.00	20.0
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*		74.0	ug/L	4.00	20.0
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*		71.2	ug/L	4.00	20.0
83-32-9	Acenaphthene		67.5	ug/L	0.620	2.00
121-14-2	2,4-Dinitrotoluene		75.7	ug/L	4.00	20.0
100-02-7	4-Nitrophenol		21.9	ug/L	4.00	20.0
87-86-5	Pentachlorophenol		37.5	ug/L	4.00	20.0
129-00-0	Pyrene		67.7	ug/L	0.600	2.00
110-86-1	Pyridine	U	20.0	ug/L	6.00	20.0
62-53-3	Aniline		58.9	ug/L	5.00	20.0
111-44-4	bis(2-Chloroethyl) ether		62.2	ug/L	4.00	20.0
541-73-1	1,3-Dichlorobenzene		60.1	ug/L	4.00	20.0
100-51-6	Benzyl alcohol	J	12.1	ug/L	4.00	20.0
95-50-1	1,2-Dichlorobenzene		61.0	ug/L	4.00	20.0
108-60-1	bis(2-Chloroisopropyl)ether		68.0	ug/L	4.00	20.0
95-48-7	o-Cresol		59.7	ug/L	4.00	20.0
65794-96-9	m,p-Cresols		63.5	ug/L	6.00	20.0
67-72-1	Hexachloroethane		57.3	ug/L	4.00	20.0
98-95-3	Nitrobenzene		75.5	ug/L	6.00	20.0
78-59-1	Isophorone		78.9	ug/L	6.00	20.0
88-75-5	2-Nitrophenol		74.3	ug/L	4.00	20.0
105-67-9	2,4-Dimethylphenol		66.6	ug/L	4.00	20.0
111-91-1	bis(2-Chloroethoxy)methane		73.1	ug/L	6.00	20.0
120-83-2	2,4-Dichlorophenol		78.1	ug/L	4.00	20.0
65-85-0	Benzoic acid		81.7	ug/L	12.0	40.0
91-20-3	Naphthalene		65.4	ug/L	0.600	2.00
106-47-8	4-Chloroaniline		66.5	ug/L	4.00	20.0
87-68-3	Hexachlorobutadiene		66.5	ug/L	4.00	20.0
91-57-6	2-MethyInaphthalene		76.0	ug/L	0.600	2.00
90-12-0	1-MethyInaphthalene		73.9	ug/L	0.600	2.00
77-47-4	Hexachlorocyclopentadiene		25.7	ug/L	6.00	20.0
88-06-2	2,4,6-Trichlorophenol		64.1	ug/L	4.00	20.0
95-95-4	2,4,5-Trichlorophenol		75.4	ug/L	4.00	20.0
91-58-7	2-Chloronaphthalene		68.2	ug/L	0.600	2.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202047235**	**Date Received:**	**02/17/2010 08:45**		
Client Sample:	**QC for batch 954921**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12691MS**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**954922**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/21/2010 17:43**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/18/2010 21:17**	**Aliquot:**	**500 mL**	**Final Volume:**	**1 mL**
Data File:	**s6b2119.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline		72.5	ug/L	4.00	20.0
	o-Nitroaniline					
99-09-2	3-Nitroaniline		68.6	ug/L	4.00	20.0
	m-Nitroaniline					
131-11-3	Dimethylphthalate		78.6	ug/L	4.00	20.0
606-20-2	2,6-Dinitrotoluene		74.6	ug/L	4.00	20.0
208-96-8	Acenaphthylene		72.1	ug/L	0.400	2.00
51-28-5	2,4-Dinitrophenol		50.6	ug/L	10.0	40.0
132-64-9	Dibenzofuran		74.1	ug/L	4.00	20.0
84-66-2	Diethylphthalate		79.2	ug/L	4.00	20.0
86-73-7	Fluorene		74.7	ug/L	0.400	2.00
7005-72-3	4-Chlorophenylphenylether		76.8	ug/L	4.00	20.0
534-52-1	2-Methyl-4,6-dinitrophenol		61.5	ug/L	6.00	20.0
100-01-6	4-Nitroaniline		45.3	ug/L	6.00	20.0
	p-Nitroaniline					
122-39-4	Diphenylamine		77.4	ug/L	6.00	20.0
122-66-7	Azobenzene		70.2	ug/L	4.00	20.0
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		76.6	ug/L	4.00	20.0
118-74-1	Hexachlorobenzene		70.6	ug/L	4.00	20.0
1912-24-9	Atrazine	J	16.3	ug/L	6.00	20.0
85-01-8	Phenanthrene		74.1	ug/L	0.400	2.00
120-12-7	Anthracene		74.3	ug/L	0.400	2.00
84-74-2	Di-n-butylphthalate		81.3	ug/L	4.00	20.0
206-44-0	Fluoranthene		78.0	ug/L	0.400	2.00
92-87-5	Benzidine	U	20.0	ug/L	6.00	20.0
85-68-7	Butylbenzylphthalate		79.2	ug/L	4.00	20.0
56-55-3	Benzo(a)anthracene		71.8	ug/L	0.400	2.00
91-94-1	3,3'-Dichlorobenzidine		30.6	ug/L	4.00	20.0
218-01-9	Chrysene		74.1	ug/L	0.400	2.00
117-81-7	bis(2-Ethylhexyl)phthalate		91.9	ug/L	4.00	20.0
117-84-0	Di-n-octylphthalate		85.8	ug/L	6.00	20.0
205-99-2	Benzo(b)fluoranthene		76.7	ug/L	0.400	2.00
207-08-9	Benzo(k)fluoranthene		80.4	ug/L	0.400	2.00
50-32-8	Benzo(a)pyrene		83.7	ug/L	0.400	2.00
193-39-5	Indeno(1,2,3-cd)pyrene		77.0	ug/L	0.400	2.00
53-70-3	Dibenzo(a,h)anthracene		77.0	ug/L	0.400	2.00
191-24-2	Benzo(ghi)perylene		79.6	ug/L	0.400	2.00
123-91-1	1,4-Dioxane		58.7	ug/L	4.00	20.0
55-18-5	N-Nitrosodiethylamine	J	12.4	ug/L	4.00	20.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202047235**	**Date Received:**	**02/17/2010 08:45**		
Client Sample:	**QC for batch 954921**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12691MS**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**954922**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/21/2010 17:43**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/18/2010 21:17**	**Aliquot:**	**500 mL**	**Final Volume:**	**1 mL**
Data File:	**s6b2119.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine		69.6	ug/L	4.00	20.0
924-16-3	N-Nitrosodi-n-butylamine	U	20.0	ug/L	6.00	20.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	20.0	ug/L	6.00	20.0
608-93-5	Pentachlorobenzene	U	20.0	ug/L	6.00	20.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	20.0	ug/L	4.00	20.0
88-85-7	Dinoseb	U	20.0	ug/L	4.00	20.0
120-82-1	1,2,4-Trichlorobenzene		68.4	ug/L	4.00	20.0

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	113	200	ug/L	56.3	(39%-120%)
2-Fluorobiphenyl	65.2	100	ug/L	65.2	(38%-108%)
2-Fluorophenol	97.3	200	ug/L	48.6	(19%-98%)
Nitrobenzene-d5	70.5	100	ug/L	70.5	(31%-122%)
Phenol-d5	75.9	200	ug/L	37.9	(15%-83%)
p-Terphenyl-d14	75.7	100	ug/L	75.7	(40%-138%)

GEL Laboratories LLC

Data file : /chem/MSD6.i/s022110.b/s6b2119.d
Lab Smp Id: 1202047235 Client Smp ID: CAPA-10-12691MS
Inj Date : 21-FEB-2010 17:43
Operator : nag1 Inst ID: MSD6.i
Smp Info : |1202047235|954922|1|SVM|1|MS
Misc Info : |MSD82709L|WBN100217-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Feb-2010 09:40 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 19 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1886.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	500.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.604	4.604	(1.000)	343578	40.0000	
* 29 Naphthalene-d8	136	5.871	5.871	(1.000)	1267115	40.0000	
* 46 Acenaphthene-d10	164	7.731	7.731	(1.000)	723114	40.0000	
* 67 Phenanthrene-d10	188	9.334	9.331	(1.000)	1276320	40.0000	
* 91 Chrysene-d12	240	12.277	12.274	(1.000)	1082114	40.0000	
* 98 Perylene-d12	264	14.476	14.468	(1.000)	900240	40.0000	
$ 3 2-Fluorophenol	112	3.463	3.455	(0.752)	418451	48.6347	97.3
$ 5 Phenol-d5	99	4.230	4.230	(0.919)	411931	37.9332	75.9
$ 20 Nitrobenzene-d5	82	5.142	5.142	(0.876)	315772	35.2286	70.4
$ 39 2-Fluorobiphenyl	172	6.994	6.995	(0.905)	607678	32.6091	65.2
$ 60 2,4,6-Tribromophenol	329	8.582	8.577	(1.110)	118829	56.3018	113
$ 81 p-Terphenyl-d14	244	11.038	11.036	(0.899)	660380	37.8422	75.7
6 Phenol	94	4.243	4.243	(0.921)	212442	19.4564	38.9(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	4.408	4.408	(0.957)	279574	31.8762	63.8
11 1,4-Dichlorobenzene	146	4.620	4.620	(1.003)	309600	30.2481	60.5
17 N-Nitrosodipropylamine	70	4.979	4.982	(1.081)	225119	36.9839	74.0(Q)
28 1,2,4-Trichlorobenzene	180	5.805	5.805	(0.989)	263012	34.2218	68.4
33 4-Chloro-3-methylphenol	107	6.444	6.429	(1.098)	224904	35.5759	71.2
47 Acenaphthene	154	7.767	7.767	(1.005)	550168	33.7581	67.5
50 2,4-Dinitrotoluene	165	7.935	7.935	(1.026)	211295	37.8720	75.7
52 4-Nitrophenol	139	7.909	7.858	(1.023)	13287	10.9319	21.9(QR)
65 Pentachlorophenol	266	9.130	9.117	(0.978)	42585	18.7651	37.5(Q)
79 Pyrene	202	10.891	10.888	(0.887)	1007458	33.8485	67.7
4 Aniline	66	4.299	4.299	(0.934)	133349	29.4297	58.8
7 bis(2-Chloroethyl) ether	63	4.339	4.339	(0.942)	229868	31.0890	62.2
9 1,3-Dichlorobenzene	146	4.553	4.553	(0.989)	303542	30.0629	60.1
12 Benzyl alcohol	108	4.729	4.722	(1.027)	33013	6.05874	12.1(aQR)
13 1,2-Dichlorobenzene	146	4.765	4.765	(1.035)	291544	30.5150	61.0
14 bis(2-Chloroisopropyl)ether	45	4.841	4.839	(1.051)	561110	33.9914	68.0
15 o-Cresol	107	4.813	4.811	(1.045)	213017	29.8295	59.6
18 m,p-Cresols	107	4.966	4.966	(1.079)	287300	31.7507	63.5
19 Hexachloroethane	117	5.094	5.091	(1.106)	113463	28.6543	57.3
21 Nitrobenzene	77	5.162	5.162	(0.879)	341085	37.7547	75.5
22 Isophorone	82	5.394	5.394	(0.919)	631851	39.4570	78.9
23 2-Nitrophenol	139	5.476	5.476	(0.933)	154799	37.1483	74.3
24 2,4-Dimethylphenol	122	5.499	5.496	(0.937)	229921	33.3014	66.6
25 bis(2-Chloroethoxy)methane	93	5.596	5.596	(0.953)	344359	36.5409	73.1
26 2,4-Dichlorophenol	162	5.728	5.720	(0.976)	244487	39.0414	78.1
27 Benzoic acid	105	5.616	5.616	(0.957)	174177	40.8713	81.7
30 Naphthalene	128	5.894	5.891	(1.004)	825951	32.6769	65.4
31 4-Chloroaniline	127	5.942	5.940	(1.012)	269992	33.2337	66.5
32 Hexachlorobutadiene	225	6.003	6.001	(1.023)	133054	33.2453	66.5
34 2-Methylnaphthalene	142	6.612	6.612	(1.126)	579816	38.0136	76.0
35 1-Methylnaphthalene	142	6.719	6.717	(1.145)	551276	36.9478	73.9
36 Hexachlorocyclopentadiene	237	6.768	6.768	(0.875)	37587	12.8687	25.7
37 2,4,6-Trichlorophenol	196	6.910	6.908	(0.894)	158189	32.0601	64.1
38 2,4,5-Trichlorophenol	196	6.956	6.946	(0.900)	198136	37.7068	75.4
40 2-Chloronaphthalene	162	7.135	7.132	(0.923)	553902	34.1078	68.2
42 o-Nitroaniline	65	7.242	7.242	(0.937)	201533	36.2746	72.5
41 m-Nitroaniline	138	7.688	7.683	(0.994)	139498	34.3001	68.6
43 Dimethylphthalate	163	7.425	7.430	(0.960)	728877	39.2932	78.6
44 2,6-Dinitrotoluene	165	7.502	7.502	(0.970)	165022	37.2972	74.6
45 Acenaphthylene	152	7.578	7.581	(0.980)	941112	36.0423	72.1
48 2,4-Dinitrophenol	184	7.805	7.802	(1.010)	25549	25.3097	50.6
49 Dibenzofuran	168	7.947	7.950	(1.028)	814841	37.0404	74.1
51 Diethylphthalate	149	8.179	8.177	(1.058)	739667	39.5953	79.2
53 Fluorene	166	8.319	8.320	(1.076)	673976	37.3269	74.6
54 4-Chlorophenylphenylether	204	8.307	8.307	(1.074)	327486	38.3863	76.8
55 2-Methyl-4,6-dinitrophenol	198	8.376	8.373	(0.897)	81455	30.7702	61.5
56 p-Nitroaniline	138	8.345	8.342	(1.079)	71787	22.6292	45.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
133 Diphenylamine	169	8.439	8.437	(0.904)	595034	38.6789	77.4
58 1,2-Diphenylhydrazine	77	8.483	8.480	(0.909)	686835	35.0996	70.2
61 4-Bromophenylphenylether	248	8.837	8.834	(0.947)	193001	38.3220	76.6
63 Hexachlorobenzene	284	8.911	8.908	(0.955)	186299	35.3150	70.6
207 Atrazine	173	9.002	9.008	(0.964)	10567	8.14991	16.3(aR)
68 Phenanthrene	178	9.362	9.359	(1.003)	978136	37.0580	74.1
69 Anthracene	178	9.415	9.413	(1.009)	980411	37.1617	74.3
72 Di-n-butylphthalate	149	9.932	9.930	(1.064)	1231987	40.6626	81.3
76 Fluoranthene	202	10.641	10.641	(1.140)	986504	39.0161	78.0
85 Butylbenzylphthalate	149	11.556	11.553	(0.941)	539629	39.6167	79.2
89 Benzo(a)anthracene	228	12.256	12.254	(0.998)	838576	35.9183	71.8
90 3,3'-Dichlorobenzidine	252	12.210	12.208	(0.995)	116926	15.2988	30.6(R)
92 Chrysene	228	12.310	12.307	(1.003)	828967	37.0571	74.1
93 bis(2-Ethylhexyl)phthalate	149	12.238	12.236	(0.997)	863650	45.9540	91.9
94 Di-n-octylphthalate	149	13.161	13.158	(0.909)	1227679	42.9089	85.8
95 Benzo(b)fluoranthene	252	13.834	13.829	(0.956)	764087	38.3588	76.7
96 Benzo(k)fluoranthene	252	13.877	13.872	(0.959)	796472	40.2103	80.4
97 Benzo(a)pyrene	252	14.376	14.374	(0.993)	719802	41.8366	83.7
99 Indeno(1,2,3-cd)pyrene	276	16.379	16.374	(1.131)	628622	38.4969	77.0
100 Dibenzo(a,h)anthracene	278	16.407	16.400	(1.133)	512762	38.4929	77.0
101 Benzo(ghi)perylene	276	16.873	16.863	(1.166)	522839	39.7774	79.6(Q)
102 1,4-Dioxane	88	2.306	2.309	(0.501)	92272	29.3463	58.7
108 N-Nitrosodiethylamine	102	3.236	3.657	(0.703)	26361	6.19332	12.4(aQ)
111 N-Nitrosopyrrolidine	100	4.976	4.971	(1.081)	142414	34.8223	69.6(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.510	2.510	(0.545)	139576	23.8624	47.7

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD6.i/s022110.b/s6b2119.d
Date : 21-FEB-2010 17:43
Client ID: CAPA-10-1269LMS
Sample Info: 1120204723511954922111SVM111MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

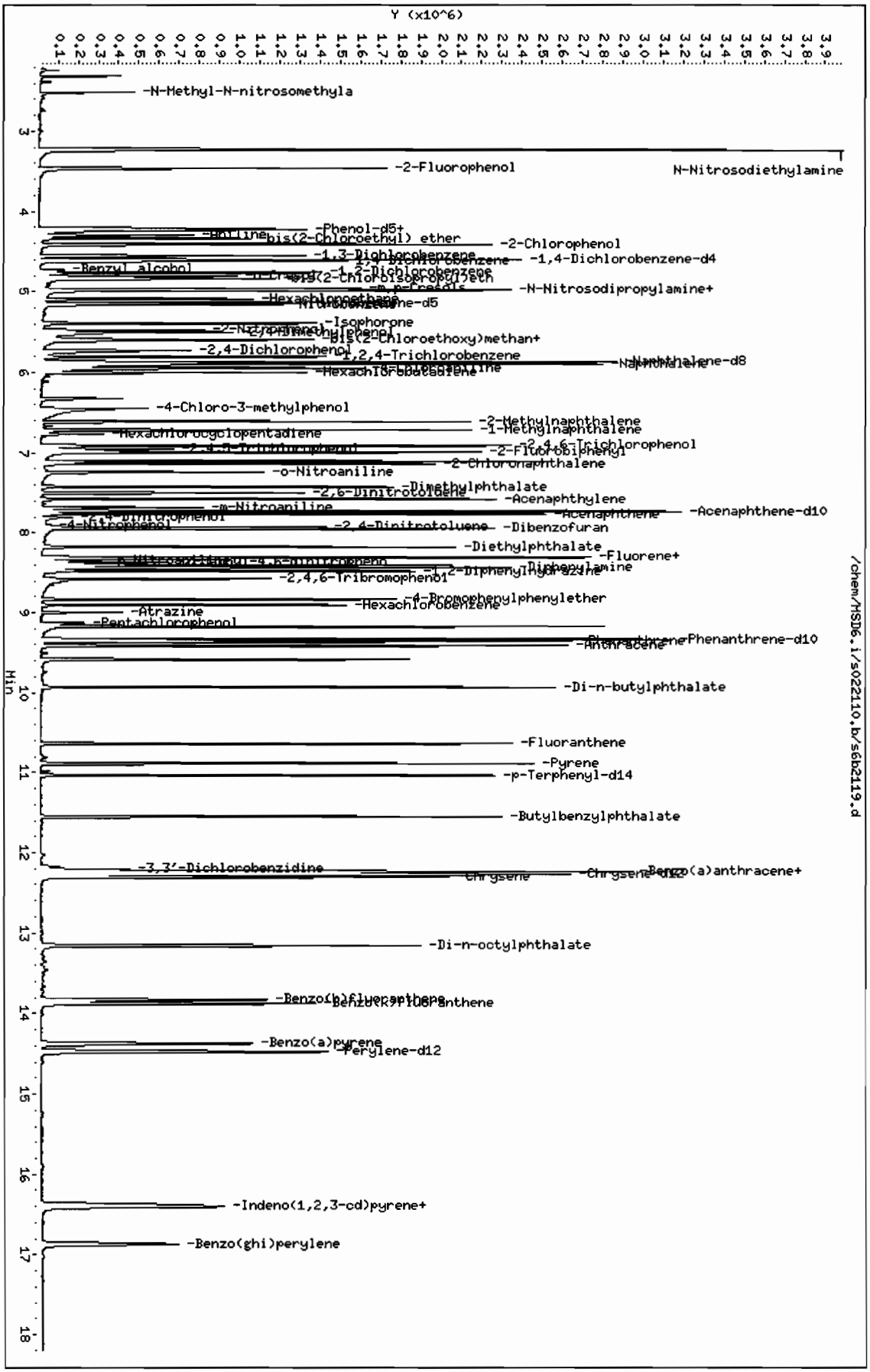

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202047236**	**Date Received:**	**02/17/2010 08:45**		
Client Sample:	**QC for batch 954921**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12691MSD**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**954922**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/21/2010 18:11**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/18/2010 21:17**	**Aliquot:**	**500 mL**	**Final Volume:**	**1 mL**
Data File:	**s6b2120.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		47.5	ug/L	4.00	20.0
108-95-2	Phenol		40.1	ug/L	2.00	20.0
95-57-8	2-Chlorophenol		66.8	ug/L	4.00	20.0
106-46-7	1,4-Dichlorobenzene		62.2	ug/L	4.00	20.0
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*		76.9	ug/L	4.00	20.0
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*		70.4	ug/L	4.00	20.0
83-32-9	Acenaphthene		70.2	ug/L	0.620	2.00
121-14-2	2,4-Dinitrotoluene		75.4	ug/L	4.00	20.0
100-02-7	4-Nitrophenol		21.6	ug/L	4.00	20.0
87-86-5	Pentachlorophenol		36.8	ug/L	4.00	20.0
129-00-0	Pyrene		73.8	ug/L	0.600	2.00
110-86-1	Pyridine	U	20.0	ug/L	6.00	20.0
62-53-3	Aniline		61.4	ug/L	5.00	20.0
111-44-4	bis(2-Chloroethyl) ether		65.5	ug/L	4.00	20.0
541-73-1	1,3-Dichlorobenzene		62.6	ug/L	4.00	20.0
100-51-6	Benzyl alcohol	J	11.9	ug/L	4.00	20.0
95-50-1	1,2-Dichlorobenzene		64.1	ug/L	4.00	20.0
108-60-1	bis(2-Chloroisopropyl)ether		71.6	ug/L	4.00	20.0
95-48-7	o-Cresol		61.3	ug/L	4.00	20.0
65794-96-9	m,p-Cresols		65.2	ug/L	6.00	20.0
67-72-1	Hexachloroethane		57.8	ug/L	4.00	20.0
98-95-3	Nitrobenzene		78.4	ug/L	6.00	20.0
78-59-1	Isophorone		84.9	ug/L	6.00	20.0
88-75-5	2-Nitrophenol		78.1	ug/L	4.00	20.0
105-67-9	2,4-Dimethylphenol		72.5	ug/L	4.00	20.0
111-91-1	bis(2-Chloroethoxy)methane		77.5	ug/L	6.00	20.0
120-83-2	2,4-Dichlorophenol		80.9	ug/L	4.00	20.0
65-85-0	Benzoic acid		74.8	ug/L	12.0	40.0
91-20-3	Naphthalene		68.6	ug/L	0.600	2.00
106-47-8	4-Chloroaniline		64.3	ug/L	4.00	20.0
87-68-3	Hexachlorobutadiene		70.7	ug/L	4.00	20.0
91-57-6	2-Methylnaphthalene		82.3	ug/L	0.600	2.00
90-12-0	1-Methylnaphthalene		80.1	ug/L	0.600	2.00
77-47-4	Hexachlorocyclopentadiene		20.5	ug/L	6.00	20.0
88-06-2	2,4,6-Trichlorophenol		66.2	ug/L	4.00	20.0
95-95-4	2,4,5-Trichlorophenol		69.0	ug/L	4.00	20.0
91-58-7	2-Chloronaphthalene		70.8	ug/L	0.600	2.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202047236**	**Date Received:**	**02/17/2010 08:45**		
Client Sample:	**QC for batch 954921**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12691MSD**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**954922**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/21/2010 18:11**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/18/2010 21:17**	**Aliquot:**	**500 mL**	**Final Volume:**	**1 mL**
Data File:	**s6b2120.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline		70.9	ug/L	4.00	20.0
	o-Nitroaniline					
99-09-2	3-Nitroaniline		60.8	ug/L	4.00	20.0
	m-Nitroaniline					
131-11-3	Dimethylphthalate		80.6	ug/L	4.00	20.0
606-20-2	2,6-Dinitrotoluene		77.1	ug/L	4.00	20.0
208-96-8	Acenaphthylene		75.3	ug/L	0.400	2.00
51-28-5	2,4-Dinitrophenol		44.4	ug/L	10.0	40.0
132-64-9	Dibenzofuran		76.2	ug/L	4.00	20.0
84-66-2	Diethylphthalate		81.7	ug/L	4.00	20.0
86-73-7	Fluorene		74.3	ug/L	0.400	2.00
7005-72-3	4-Chlorophenylphenylether		79.1	ug/L	4.00	20.0
534-52-1	2-Methyl-4,6-dinitrophenol		48.6	ug/L	6.00	20.0
100-01-6	4-Nitroaniline		37.6	ug/L	6.00	20.0
	p-Nitroaniline					
122-39-4	Diphenylamine		80.7	ug/L	6.00	20.0
122-66-7	Azobenzene		73.1	ug/L	4.00	20.0
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		80.6	ug/L	4.00	20.0
118-74-1	Hexachlorobenzene		74.7	ug/L	4.00	20.0
1912-24-9	Atrazine	J	14.9	ug/L	6.00	20.0
85-01-8	Phenanthrene		76.3	ug/L	0.400	2.00
120-12-7	Anthracene		75.8	ug/L	0.400	2.00
84-74-2	Di-n-butylphthalate		88.7	ug/L	4.00	20.0
206-44-0	Fluoranthene		77.9	ug/L	0.400	2.00
92-87-5	Benzidine	U	20.0	ug/L	6.00	20.0
85-68-7	Butylbenzylphthalate		87.5	ug/L	4.00	20.0
56-55-3	Benzo(a)anthracene		74.9	ug/L	0.400	2.00
91-94-1	3,3'-Dichlorobenzidine		25.6	ug/L	4.00	20.0
218-01-9	Chrysene		75.9	ug/L	0.400	2.00
117-81-7	bis(2-Ethylhexyl)phthalate		103	ug/L	4.00	20.0
117-84-0	Di-n-octylphthalate		99.5	ug/L	6.00	20.0
205-99-2	Benzo(b)fluoranthene		83.1	ug/L	0.400	2.00
207-08-9	Benzo(k)fluoranthene		85.2	ug/L	0.400	2.00
50-32-8	Benzo(a)pyrene		86.4	ug/L	0.400	2.00
193-39-5	Indeno(1,2,3-cd)pyrene		73.2	ug/L	0.400	2.00
53-70-3	Dibenzo(a,h)anthracene		73.0	ug/L	0.400	2.00
191-24-2	Benzo(ghi)perylene		74.0	ug/L	0.400	2.00
123-91-1	1,4-Dioxane		59.5	ug/L	4.00	20.0
55-18-5	N-Nitrosodiethylamine	U	20.0	ug/L	4.00	20.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202047236**	**Date Received:**	**02/17/2010 08:45**		
Client Sample:	**QC for batch 954921**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12691MSD**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**954922**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**02/21/2010 18:11**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**02/18/2010 21:17**	**Aliquot:**	**500 mL**	**Final Volume:**	**1 mL**
Data File:	**s6b2120.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine		70.7	ug/L	4.00	20.0
924-16-3	N-Nitrosodi-n-butylamine	U	20.0	ug/L	6.00	20.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	20.0	ug/L	6.00	20.0
608-93-5	Pentachlorobenzene	U	20.0	ug/L	6.00	20.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	20.0	ug/L	4.00	20.0
88-85-7	Dinoseb	U	20.0	ug/L	4.00	20.0
120-82-1	1,2,4-Trichlorobenzene		72.3	ug/L	4.00	20.0

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	116	200	ug/L	57.8	(39%-120%)
2-Fluorobiphenyl	68.8	100	ug/L	68.8	(38%-108%)
2-Fluorophenol	96.9	200	ug/L	48.5	(19%-98%)
Nitrobenzene-d5	74.5	100	ug/L	74.5	(31%-122%)
Phenol-d5	77.7	200	ug/L	38.9	(15%-83%)
p-Terphenyl-d14	82.3	100	ug/L	82.3	(40%-138%)

GEL Laboratories LLC

Data file : /chem/MSD6.i/s022110.b/s6b2120.d
Lab Smp Id: 1202047236 Client Smp ID: CAPA-10-12691MSD
Inj Date : 21-FEB-2010 18:11
Operator : nag1 Inst ID: MSD6.i
Smp Info : |1202047236|954922|1|SVM|1|MSD
Misc Info : |MSD82709L|WBN100217-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s022110.b/MSD6-M8270C-AQA-110909.m
Meth Date : 22-Feb-2010 09:40 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 20 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1886.sub
Target Version: 3.50
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	500.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.604	4.604	(1.000)	297451	40.0000	
* 29 Naphthalene-d8	136	5.871	5.871	(1.000)	1081452	40.0000	
* 46 Acenaphthene-d10	164	7.728	7.731	(1.000)	624762	40.0000	
* 67 Phenanthrene-d10	188	9.334	9.331	(1.000)	1062000	40.0000	
* 91 Chrysene-d12	240	12.274	12.274	(1.000)	836597	40.0000	
* 98 Perylene-d12	264	14.471	14.468	(1.000)	646918	40.0000	
$ 3 2-Fluorophenol	112	3.460	3.455	(0.752)	360999	48.4638	96.9
$ 5 Phenol-d5	99	4.230	4.230	(0.919)	365362	38.8623	77.7
$ 20 Nitrobenzene-d5	82	5.142	5.142	(0.876)	284834	37.2325	74.5
$ 39 2-Fluorobiphenyl	172	6.995	6.995	(0.905)	553682	34.3889	68.8
$ 60 2,4,6-Tribromophenol	329	8.579	8.577	(1.110)	105405	57.8033	116
$ 81 p-Terphenyl-d14	244	11.036	11.036	(0.899)	555503	41.1742	82.3
6 Phenol	94	4.243	4.243	(0.921)	189324	20.0280	40.0(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	4.408	4.408	(0.957)	253780	33.4224	66.8
11 1,4-Dichlorobenzene	146	4.620	4.620	(1.003)	275447	31.0846	62.2
17 N-Nitrosodipropylamine	70	4.976	4.982	(1.081)	202665	38.4583	76.9(Q)
28 1,2,4-Trichlorobenzene	180	5.805	5.805	(0.989)	237229	36.1663	72.3
33 4-Chloro-3-methylphenol	107	6.444	6.429	(1.098)	189840	35.1848	70.4
47 Acenaphthene	154	7.764	7.767	(1.005)	493970	35.0813	70.2
50 2,4-Dinitrotoluene	165	7.932	7.935	(1.026)	181814	37.7180	75.4
52 4-Nitrophenol	139	7.922	7.858	(1.025)	11053	10.7963	21.6(QR)
65 Pentachlorophenol	266	9.127	9.117	(0.978)	34426	18.3841	36.8
79 Pyrene	202	10.888	10.888	(0.887)	848786	36.8865	73.8
4 Aniline	66	4.299	4.299	(0.934)	120338	30.6767	61.4
7 bis(2-Chloroethyl) ether	63	4.339	4.339	(0.942)	209658	32.7529	65.5
9 1,3-Dichlorobenzene	146	4.553	4.553	(0.989)	273584	31.2978	62.6
12 Benzyl alcohol	108	4.727	4.722	(1.027)	28037	5.94345	11.9(aQR)
13 1,2-Dichlorobenzene	146	4.765	4.765	(1.035)	264925	32.0289	64.0
14 bis(2-Chloroisopropyl)ether	45	4.841	4.839	(1.051)	511617	35.7995	71.6
15 o-Cresol	107	4.811	4.811	(1.045)	189354	30.6278	61.2
18 m,p-Cresols	107	4.964	4.966	(1.078)	255413	32.6039	65.2
19 Hexachloroethane	117	5.094	5.091	(1.106)	99000	28.8789	57.8
21 Nitrobenzene	77	5.162	5.162	(0.879)	302248	39.1995	78.4
22 Isophorone	82	5.392	5.394	(0.918)	580345	42.4624	84.9
23 2-Nitrophenol	139	5.476	5.476	(0.933)	138865	39.0456	78.1
24 2,4-Dimethylphenol	122	5.499	5.496	(0.937)	213485	36.2293	72.4
25 bis(2-Chloroethoxy)methane	93	5.596	5.596	(0.953)	311473	38.7255	77.4
26 2,4-Dichlorophenol	162	5.726	5.720	(0.975)	216315	40.4729	80.9
27 Benzoic acid	105	5.606	5.616	(0.955)	136003	37.3926	74.8
30 Naphthalene	128	5.894	5.891	(1.004)	740346	34.3187	68.6
31 4-Chloroaniline	127	5.942	5.940	(1.012)	223077	32.1730	64.3
32 Hexachlorobutadiene	225	6.003	6.001	(1.023)	120752	35.3513	70.7
34 2-Methylnaphthalene	142	6.612	6.612	(1.126)	535656	41.1475	82.3
35 1-Methylnaphthalene	142	6.719	6.717	(1.145)	510086	40.0564	80.1
36 Hexachlorocyclopentadiene	237	6.770	6.768	(0.876)	25887	10.2582	20.5
37 2,4,6-Trichlorophenol	196	6.908	6.908	(0.894)	141123	33.1038	66.2
38 2,4,5-Trichlorophenol	196	6.956	6.946	(0.900)	156646	34.5038	69.0
40 2-Chloronaphthalene	162	7.135	7.132	(0.923)	496538	35.3888	70.8
42 o-Nitroaniline	65	7.242	7.242	(0.937)	170092	35.4350	70.9
41 m-Nitroaniline	138	7.685	7.683	(0.994)	106810	30.3970	60.8
43 Dimethylphthalate	163	7.425	7.430	(0.961)	646038	40.3101	80.6
44 2,6-Dinitrotoluene	165	7.499	7.502	(0.970)	147383	38.5544	77.1
45 Acenaphthylene	152	7.578	7.581	(0.981)	849068	37.6362	75.3
48 2,4-Dinitrophenol	184	7.807	7.802	(1.010)	15772	22.2242	44.4
49 Dibenzofuran	168	7.948	7.950	(1.028)	724071	38.0957	76.2
51 Diethylphthalate	149	8.177	8.177	(1.058)	659571	40.8659	81.7
53 Fluorene	166	8.317	8.320	(1.076)	579442	37.1432	74.3
54 4-Chlorophenylphenylether	204	8.307	8.307	(1.075)	291573	39.5569	79.1
55 2-Methyl-4,6-dinitrophenol	198	8.376	8.373	(0.897)	49239	24.2930	48.6
56 p-Nitroaniline	138	8.348	8.342	(1.080)	46779	18.8039	37.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
133 Diphenylamine	169	8.437	8.437	(0.904)	516300	40.3339	80.7
58 1,2-Diphenylhydrazine	77	8.480	8.480	(0.909)	595159	36.5526	73.1
61 4-Bromophenylphenylether	248	8.837	8.834	(0.947)	168829	40.2876	80.6
63 Hexachlorobenzene	284	8.908	8.908	(0.954)	163975	37.3561	74.7
207 Atrazine	173	9.000	9.008	(0.964)	8025	7.43843	14.9(aR)
68 Phenanthrene	178	9.359	9.359	(1.003)	838292	38.1692	76.3
69 Anthracene	178	9.413	9.413	(1.008)	832393	37.9185	75.8
72 Di-n-butylphthalate	149	9.933	9.930	(1.064)	1118374	44.3620	88.7
76 Fluoranthene	202	10.641	10.641	(1.140)	819810	38.9667	77.9
85 Butylbenzylphthalate	149	11.556	11.553	(0.941)	460944	43.7711	87.5
89 Benzo(a)anthracene	228	12.256	12.254	(0.999)	676173	37.4617	74.9
90 3,3'-Dichlorobenzidine	252	12.208	12.208	(0.995)	75681	12.8082	25.6(R)
92 Chrysene	228	12.307	12.307	(1.003)	656053	37.9342	75.9
93 bis(2-Ethylhexyl)phthalate	149	12.236	12.236	(0.997)	751157	51.6470	103
94 Di-n-octylphthalate	149	13.158	13.158	(0.909)	1023006	49.7565	99.5
95 Benzo(b)fluoranthene	252	13.829	13.829	(0.956)	594794	41.5525	83.1
96 Benzo(k)fluoranthene	252	13.874	13.872	(0.959)	606577	42.6149	85.2
97 Benzo(a)pyrene	252	14.374	14.374	(0.993)	534179	43.2055	86.4
99 Indeno(1,2,3-cd)pyrene	276	16.372	16.374	(1.131)	427416	36.5881	73.2
100 Dibenzo(a,h)anthracene	278	16.400	16.400	(1.133)	348026	36.5070	73.0
101 Benzo(ghi)perylene	276	16.863	16.863	(1.165)	349606	37.0131	74.0(Q)
102 1,4-Dioxane	88	2.301	2.309	(0.500)	80930	29.7305	59.5
111 N-Nitrosopyrrolidine	100	4.974	4.971	(1.080)	125150	35.3464	70.7(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.510	2.510	(0.545)	120386	23.7733	47.5

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD6.i/s022110.b/s6b2120.d

Date : 21-FEB-2010 18:11

Client ID: CAPA-10-12691MSD

Sample Info: |1202047236|954922|1|SVMI1|MSD

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1

Column diameter: 0.20

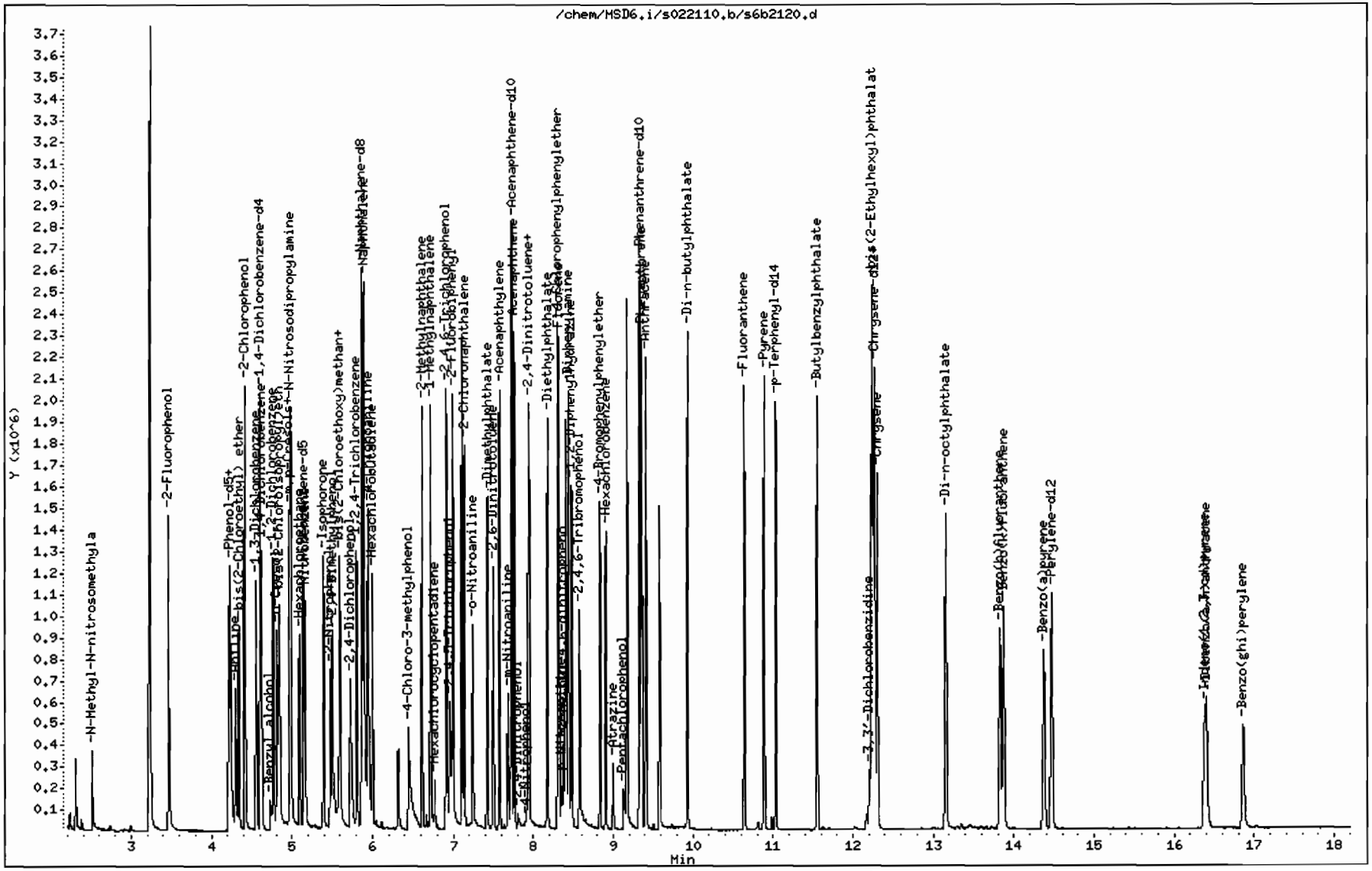

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 954921 **Verified by:** _____

Analyst: Sequan Smalls

Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Sec Ext pH	Final Volume (mL)	Prepped Factor (mL/mL)
1202047233 MB	18-FEB-2010 21:17:00	1000	5	1	13	1	0.001
1202047234 LCS	18-FEB-2010 21:17:00	1000	5	1	13	1	0.001
247261002	18-FEB-2010 21:17:00	1000	5	1	13	1	0.001
1202047235 MS (247261002)	18-FEB-2010 21:17:00	500	5	1	13	1	0.002
1202047236 MSD (247261002)	18-FEB-2010 21:17:00	500	5	1	13	1	0.002

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202047234	BNA LCS w/o Benzidine 50ppm	UE100204-14	1	mL
LCS	1202047234	BENZIDINE LCS	UE100217-22	1	mL
MS	1202047235	BNA LCS w/o Benzidine 50ppm	UE100204-14	1	mL
MS	1202047235	BENZIDINE LCS	UE100217-22	1	mL
MSD	1202047236	BNA LCS w/o Benzidine 50ppm	UE100204-14	1	mL
MSD	1202047236	BENZIDINE LCS	UE100217-22	1	mL
SURR	All	BNA for all Surrogate	UE100212-10	1	mL
REGNT	All	Sulfuric Acid Sol., 1:1	1266761	2	mL
REGNT	All	10 N Sodium Hydroxide Solution	1268789	10	mL
REGNT	All	Methylene Chloride	1270181-D	360	mL
SOURC	All	SODIUM SULFATE	1269268	30	g

Comments:

All samples were emulsive on acid. The emulsion was dark pink, by the third acid shake. Samples lost their pink coloring. Sample 247661002 required an additional 60mL OF CH2CL2 to break the emulsion.

Verified By: TRA

Final Solvent: CH2CL2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 11/09/2009 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1198658-D
Multiplier Voltage: 1565 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091101-01 Internal Std ID: WBN091106-10
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 22 Sequence Number: /chem/MSD6.i/s110909.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6k0901.d	WBN091101-01	JMB3	09-NOV-2009 11:20	50 PPM	s110909	1.0	DFTPP	DUSE
s6k0902.d	inst blk	JMB3	09-NOV-2009 11:35	--------	s110909	1.0	INST BLK	DUSE
s6k0903.d	WBN091106-08	JMB3	09-NOV-2009 12:23	1 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0904.d	WBN091106-07	JMB3	09-NOV-2009 13:00	10 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0905.d	WBN091106-06	JMB3	09-NOV-2009 13:36	20 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0906.d	WBN091106-05.1	JMB3	09-NOV-2009 14:14	40 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0907.d	WBN091106-04	JMB3	09-NOV-2009 14:52	50 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0908.d	WBN091106-03	JMB3	09-NOV-2009 15:30	80 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0909.d	WBN091106-02	JMB3	09-NOV-2009 16:06	100 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0910.d	WBN091106-01	JMB3	09-NOV-2009 16:43	120 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0911-D.d	WBN091101-01	JMB3	09-NOV-2009 18:00	50 PPM	s110909	1.0	DFTPP	
s6k0911.d	WBN091101-01	JMB3	09-NOV-2009 18:00	50 PPM	s110909	1.0	DFTPP	
s6k0912.d	inst blk	JMB3	09-NOV-2009 18:15	--------	s110909	1.0	INST BLK	
s6k0913.d	WBN091106-08	JMB3	09-NOV-2009 18:53	1 PPM	s110909	1.0	MEGAICAL	
s6k0914.d	WBN091106-07	JMB3	09-NOV-2009 19:31	10 PPM	s110909	1.0	MEGAICAL	
s6k0915.d	WBN091106-06	JMB3	09-NOV-2009 20:09	20 PPM	s110909	1.0	MEGAICAL	
s6k0916.d	WBN091106-05.1	JMB3	09-NOV-2009 20:46	40 PPM	s110909	1.0	MEGAICAL	
s6k0917.d	WBN091106-04	JMB3	09-NOV-2009 21:25	50 PPM	s110909	1.0	MEGAICAL	
s6k0918.d	WBN091106-03	JMB3	09-NOV-2009 22:01	80 PPM	s110909	1.0	MEGAICAL	

s6k0919.d	WBN091106-02	JMB3	09-NOV-2009 22:39	100 PPM	s110909	1.0	MEGAICAL	
s6k0920.d	WBN091106-01	JMB3	09-NOV-2009 23:16	120 PPM	s110909	1.0	MEGAICAL	
s6k0921-D.d	WBN091101-01	JMB3	10-NOV-2009 11:07	50 PPM	s110909	1.0	DFTPP	
s6k0921.d	WBN091101-01	JMB3	10-NOV-2009 11:07	50 PPM	s110909	1.0	DFTPP	
s6k0922.d	inst blk	JMB3	10-NOV-2009 11:21	--------	s110909	1.0	INST BLK	
s6k0923.d	WBN091016-01	JMB3	10-NOV-2009 11:59	10 PPM	s110909	1.0	AP12ICAL	
s6k0924.d	WBN091016-02	JMB3	10-NOV-2009 12:36	20 PPM	s110909	1.0	AP12ICAL	
s6k0925.d	WBN091016-03	JMB3	10-NOV-2009 13:13	40 PPM	s110909	1.0	AP12ICAL	
s6k0926.d	WBN091016-04	JMB3	10-NOV-2009 13:51	50 PPM	s110909	1.0	AP12ICAL	
s6k0927.d	WBN091016-05	JMB3	10-NOV-2009 14:30	80 PPM	s110909	1.0	AP12ICAL	
s6k0928.d	WBN091016-06	JMB3	10-NOV-2009 15:06	100 PPM	s110909	1.0	AP12ICAL	
s6k0929.d	WBN091016-07	JMB3	10-NOV-2009 15:43	120 PPM	s110909	1.0	AP12ICAL	
s6k0930.d	WBN091029-25	JMB3	10-NOV-2009 16:20	10 PPM	s110909	1.0	PESTICAL	
s6k0931.d	WBN091029-24	JMB3	10-NOV-2009 16:56	20 PPM	s110909	1.0	PESTICAL	
s6k0932.d	WBN091029-23.1	JMB3	10-NOV-2009 17:33	40 PPM	s110909	1.0	PESTICAL	
s6k0933.d	WBN091029-22	JMB3	10-NOV-2009 18:09	50 PPM	s110909	1.0	PESTICAL	
s6k0934.d	WBN091029-21	JMB3	10-NOV-2009 18:45	80 PPM	s110909	1.0	PESTICAL	
s6k0935.d	WBN091029-20	JMB3	10-NOV-2009 19:21	100 PPM	s110909	1.0	PESTICAL	
s6k0936.d	WBN091029-19	JMB3	10-NOV-2009 19:58	120 PPM	s110909	1.0	PESTICAL	
s6k0937-D.d	WBN091106-09.1	JMB3	10-NOV-2009 20:29	40 PPM	s110909	1.0	MEGAICV	FAILED SC 8270D
s6k0937.d	WBN091106-09.1	JMB3	10-NOV-2009 20:29	40 PPM	s110909	1.0	MEGAICV	
s6k0938-D.d	WBN091016-08.1	JMB3	10-NOV-2009 21:07	40 PPM	s110909	1.0	AP12ICV	
s6k0938.d	WBN091016-08.1	JMB3	10-NOV-2009 21:07	40 PPM	s110909	1.0	AP12ICV	
s6k0939-D.d	WBN091029-26.1	JMB3	10-NOV-2009 21:35	40 PPM	s110909	1.0	PESTICV	
s6k0939.d	WBN091029-26.1	JMB3	10-NOV-2009 21:35	40 PPM	s110909	1.0	PESTICV	
s6k0940-D.d	WBN091101-01	JMB3	10-NOV-2009 22:12	50 PPM	s110909	1.0	DFTPP	
s6k0940.d	WBN091101-01	JMB3	10-NOV-2009 22:12	50 PPM	s110909	1.0	DFTPP	

s6k0941.d	inst blk	JMB3	10-NOV-2009 22:26	--------	s110909	1.0	INST BLK	
s6k0942.d	WBN091016-16	JMB3	10-NOV-2009 22:55	500 PPM	s110909	1.0	HEXICAL	
s6k0943.d	WBN091016-15	JMB3	10-NOV-2009 23:24	1000 PPM	s110909	1.0	HEXICAL	
s6k0944.d	WBN091016-14	JMB3	10-NOV-2009 23:53	1250 PPM	s110909	1.0	HEXICAL	
s6k0945.d	WBN091016-13	JMB3	11-NOV-2009 00:21	1500 PPM	s110909	1.0	HEXICAL	
s6k0946.d	WBN091016-12	JMB3	11-NOV-2009 00:50	1750 PPM	s110909	1.0	HEXICAL	
s6k0947.d	UBN090828-02.4-16	JMB3	11-NOV-2009 01:18	500 PPM	s110909	1.0	HEXICAL	
s6k0948.d	UBN090924-01	JMB3	11-NOV-2009 01:47	10 PPM	s110909	1.0	NEVICAL	
s6k0949.d	UBN090924-02	JMB3	11-NOV-2009 02:16	20 PPM	s110909	1.0	NEVICAL	
s6k0950.d	UBN090924-03	JMB3	11-NOV-2009 02:44	40 PPM	s110909	1.0	NEVICAL	
s6k0951.d	UBN090924-04	JMB3	11-NOV-2009 03:12	50 PPM	s110909	1.0	NEVICAL	DUSE - disabled
s6k0952.d	UBN090924-05	JMB3	11-NOV-2009 03:41	80 PPM	s110909	1.0	NEVICAL	
s6k0953.d	UBN090924-06	JMB3	11-NOV-2009 04:10	100 PPM	s110909	1.0	NEVICAL	
s6k0954.d	UBN090924-07	JMB3	11-NOV-2009 04:38	120 PPM	s110909	1.0	NEVICAL	DUSE - disabled
s6k0955-D.d	WBN091016-10.1	JMB3	11-NOV-2009 05:07	1250 PPM	s110909	1.0	HEXICV	DUSE - failed >70%-130%
s6k0955.d	WBN091016-10.1	JMB3	11-NOV-2009 05:07	1250 PPM	s110909	1.0	HEXICV	

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 02/21/2010 METHOD: See raw data OPERATOR: nag1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1553 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100205-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD6.i/s022110.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6b2101.d	WBN100207-01	nag1	21-FEB-2010 09:16	DFTPP	s022110	1.0	DFTPP	
s6b2102.d	WBN100215-09.1	nag1	21-FEB-2010 09:30	CCV	s022110	1.0	MEGACVS	323267
s6b2103.d	WBN100120-08.2	nag1	21-FEB-2010 10:03	CCV	s022110	1.0	APCVS	
s6b2104.d	1202047233	nag1	21-FEB-2010 10:33	954922	10-1886	1.0	SBLK01	
s6b2105.d	1202047234	nag1	21-FEB-2010 11:02	954922	10-1886	1.0	SBLK01LCS	
s6b2106.d	1202048337	nag1	21-FEB-2010 11:30	955409	247361	1.0	SBLK01	
s6b2107.d	1202048338	nag1	21-FEB-2010 11:59	955409	247361	1.0	SBLK01LCS	
s6b2108.d	246136011	nag1	21-FEB-2010 12:28	952622	246136	1.0	WASP	
s6b2109.d	246136012	nag1	21-FEB-2010 12:56	952622	246136	1.0	WASP	
s6b2110.d	246136013	nag1	21-FEB-2010 13:25	952622	246136	1.0	WASP	
s6b2111.d	246136014	nag1	21-FEB-2010 13:54	952622	246136	1.0	WASP	
s6b2112.d	246136015	nag1	21-FEB-2010 14:23	952622	246136	1.0	WASP	
s6b2113.d	246136016	nag1	21-FEB-2010 14:50	952622	246136	1.0	WASP	
s6b2114.d	246136017	nag1	21-FEB-2010 15:19	952622	246136	1.0	WASP	
s6b2115.d	246136018	nag1	21-FEB-2010 15:48	952622	246136	1.0	WASP	
s6b2116.d	246136019	nag1	21-FEB-2010 16:17	952622	246136	1.0	WASP	
s6b2117.d	246136020	nag1	21-FEB-2010 16:46	952622	246136	1.0	WASP	
s6b2118.d	247261002	nag1	21-FEB-2010 17:14	954922	10-1886	1.0	LANL	
s6b2119.d	1202047235	nag1	21-FEB-2010 17:43	954922	10-1886	1.0	MS	failed spike

s6b2120.d	1202047236	nag1	21-FEB-2010 18:11	954922	10-1886		1.0	MSD	failed spike
s6b2121.d	247361002	nag1	21-FEB-2010 18:40	955409	247361		1.0	SNLS	
s6b2122.d	1202048339	nag1	21-FEB-2010 19:08	955409	247361		1.0	MS	failed C52 - manual
s6b2123.d	1202048340	nag1	21-FEB-2010 19:37	955409	247361		1.0	MSD	

(s10HInstrument Batch: /chem/MSD6.i/s022110.b Page: 1

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
22-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
954922	See Below		

Potentially affected work order(s)(SDG): 247261(10-1886)

Application Issues:

Failed Recovery for MS/PS

Container scanning event for custody missed

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The MS(1202047235) and MSD(1202047236) did not meet spike recovery limits. Please see the QC summary report for specific failures.	1. As the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported.
2. Container scanning event for custody missed: 247261002.	2. The analyst did not scan samples into his/her custody. The analyst had physical custody of the sample during the analysis.

Originator's Name:

Josh Brooks 22-FEB-10

Data Validator/Group Leader:

Cameron Bearden 25-FEB-10

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1886

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	955724
Prep Batch Number:	955723

Sample Analysis

Sample ID	Client ID
247261004	CAPA-10-12692
1202049068	Interference Check Sample (ICS)
1202049064	Method Blank (MB)
1202049065	Laboratory Control Sample (LCS)
1202049066	247261004(CAPA-10-12692) Matrix Spike (MS)
1202049067	247261004(CAPA-10-12692) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

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

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

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

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 247261004 (CAPA-10-12692) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

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Technical Information

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

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

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

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The sample in this SDG was not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

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System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

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

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: Herbert M. Maue **Date:** 03/14/10

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SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 955723

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-12692

Date Received: 17-FEB-10

GEL Job No (SDG): 10-1886

GEL Sample ID: 247261004

Date Filtered: 04-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.196	ug/L	J	1	09-MAR-10 02:11	per0308070a
	Perchlorate Isotope Ratio			3.05			1	09-MAR-10 02:11	per0308070a
14797-73-0	Perchlorate-101	.05	.2	0.212	ug/L		1	09-MAR-10 02:11	per0308070a
	Perchlorate-O(18)			0.443	ug/L		1	09-MAR-10 02:11	per0308070a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1886

Extract Batch Code: 955723

Date Filtered: 04–MAR–10

Matrix: GROUND WATER

Sample ID: 1202049065

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.206	ug/L	103		85 – 115
Perchlorate Isotope Ratio		3.18				–
Perchlorate–101	0.200	.213	ug/L	106		85 – 115
Perchlorate–O(18)		.472	ug/L			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1886

Extract Batch Code: 955723

Date Filtered: 04–MAR–10

Matrix: GROUND WATER

Sample ID: 1202049068

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.191	ug/L	95.5		70 – 130
Perchlorate Isotope Ratio		3.1				
Perchlorate–101	0.200	.202	ug/L	101		70 – 130
Perchlorate–O(18)		.485	ug/L			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308055a
Date: 08-Mar-2010
Time: 23:55:14
ID: 1202049068
Vial: 2:1,C

| LANL | 955724 | L202 | IG | 1 |

CW 03-09-10

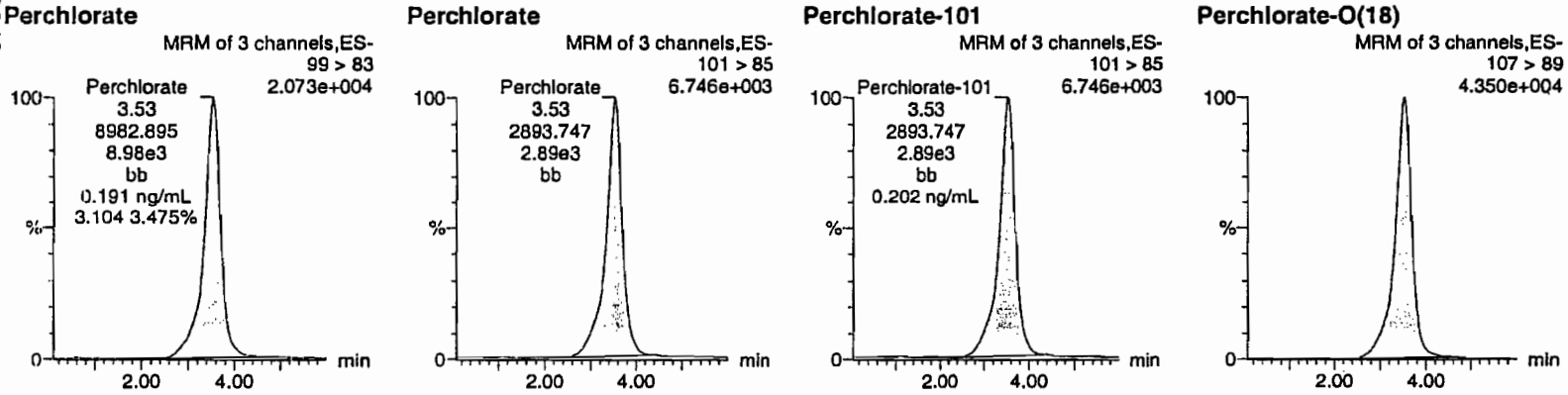

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202049068	Perchlorate	99 > 83	3.53	8982.895	8982.895	bb			0.1909	95.47	-4.53	810.487	3.10
1202049068	Perchlorate-101	101 > 85	3.53	2893.747	2893.747	bb			0.2024	101.20	1.20	106.277	
1202049068	Perchlorate-O(18)	107 > 89	3.52	18920.352	18920.352	bb			0.4845	96.91	-3.09	900.471	

MM 3/10/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–1886

Extract Batch Code: 955723

Date Extracted: 04–MAR–10

GEL MS/PS ID: 1202049066

Client ID: CAPA–10–12692

GEL MSD/PSD ID: 1202049067

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	0.200	0.196	ug/L	0.360	81.9	.368	85.5	1.97	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.13		3.13		0		–
Perchlorate–101	0.200	0.212	ug/L	0.379	83.6	.386	87.2	1.89	30	75 – 125
Perchlorate–O(18)	0	0.443	ug/L	0.435		.449		3.07		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1886

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	08–MAR–10	per0308001a	IPB001
Perchlorate–101	0.00	0	NA	08–MAR–10	per0308001a	IPB001
Perchlorate	0.00	0	NA	08–MAR–10	per0308002a	IPB001
Perchlorate–101	0.00	0	NA	08–MAR–10	per0308002a	IPB001

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per030810a.mdb 09 Mar 2010 12:48:33
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per030810a.cdb 09 Mar 2010 12:48:47

Name: per0308001a
Date: 08-Mar-2010
Time: 15:44:43
ID: IPB001
Vial: 1:1,A

3/3
03-09-10

Perchlorate

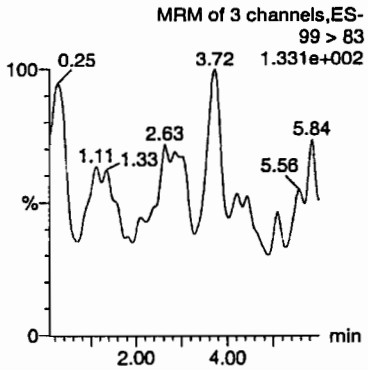

Perchlorate

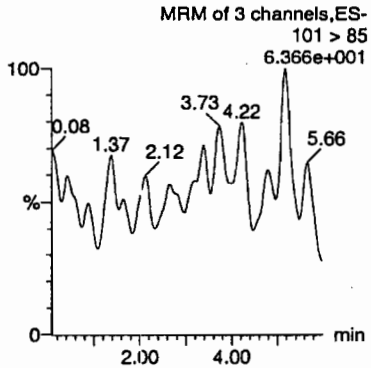

Perchlorate-101

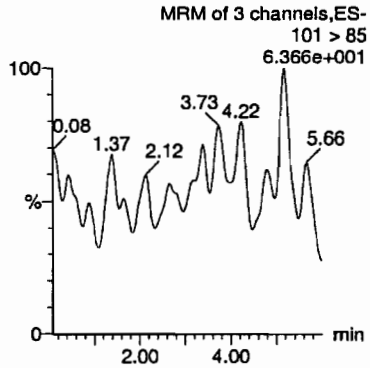

Perchlorate-O(18)

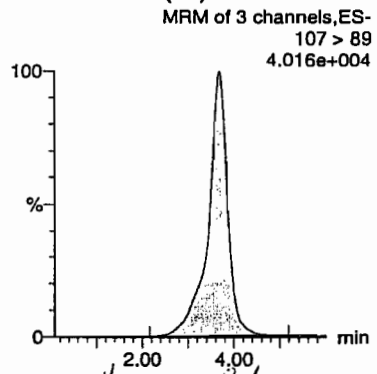

Hum 03/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	3.68	20012.854	20012.854	bb			0.5125	102.50	2.50	855.555	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308002a
Date: 08-Mar-2010
Time: 15:53:45
ID: IPB001
Vial: 1:1,A

333
03-04-10

Perchlorate

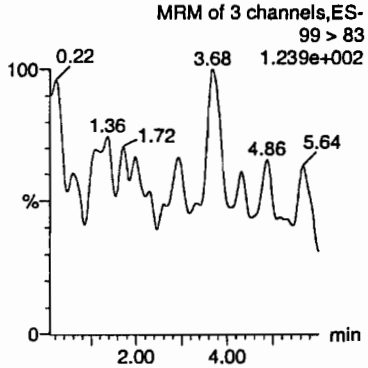

Perchlorate

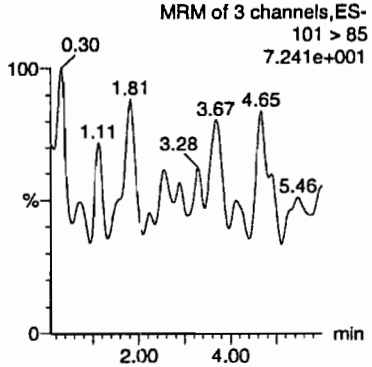

Perchlorate-101

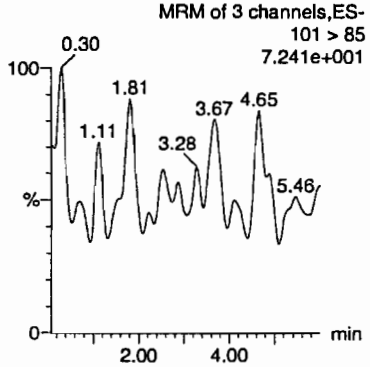

Perchlorate-O(18)

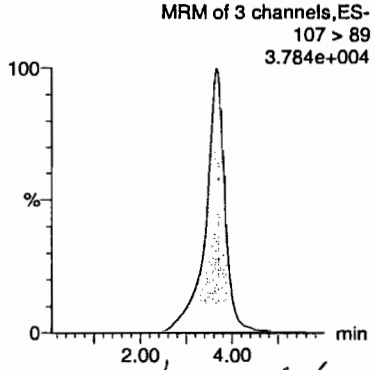

Hmc 03/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	3.66	18783.678	18783.678	bb			0.4810	96.21	-3.79	1331.0...	

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1886

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	08–MAR–10	per0308008a	IPB002
Perchlorate–101	0.00	0	NA	08–MAR–10	per0308008a	IPB002
Perchlorate	0.00	0	NA	08–MAR–10	per0308010a	IPB003
Perchlorate–101	0.00	0	NA	08–MAR–10	per0308010a	IPB003
Perchlorate	0.00	0	NA	08–MAR–10	per0308022a	IPB004
Perchlorate–101	0.00	0	NA	08–MAR–10	per0308022a	IPB004
Perchlorate	0.00	0	NA	08–MAR–10	per0308035a	IPB005
Perchlorate–101	0.00	0	NA	08–MAR–10	per0308035a	IPB005
Perchlorate	0.00	0	NA	08–MAR–10	per0308048a	IPB006
Perchlorate–101	0.00	0	NA	08–MAR–10	per0308048a	IPB006
Perchlorate	0.00	0	NA	08–MAR–10	per0308052a	IPB007
Perchlorate–101	0.00	0	NA	08–MAR–10	per0308052a	IPB007
Perchlorate	0.00	0	NA	09–MAR–10	per0308061a	IPB008

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1886

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate–101	0.00	0	NA	09–MAR–10	per0308061a	IPB008
Perchlorate	0.00	0	NA	09–MAR–10	per0308074a	IPB009
Perchlorate–101	0.00	0	NA	09–MAR–10	per0308074a	IPB009

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308008a
Date: 08-Mar-2010
Time: 16:48:15
ID: IPB002
Vial: 1:1,A

CWW 03-09-10

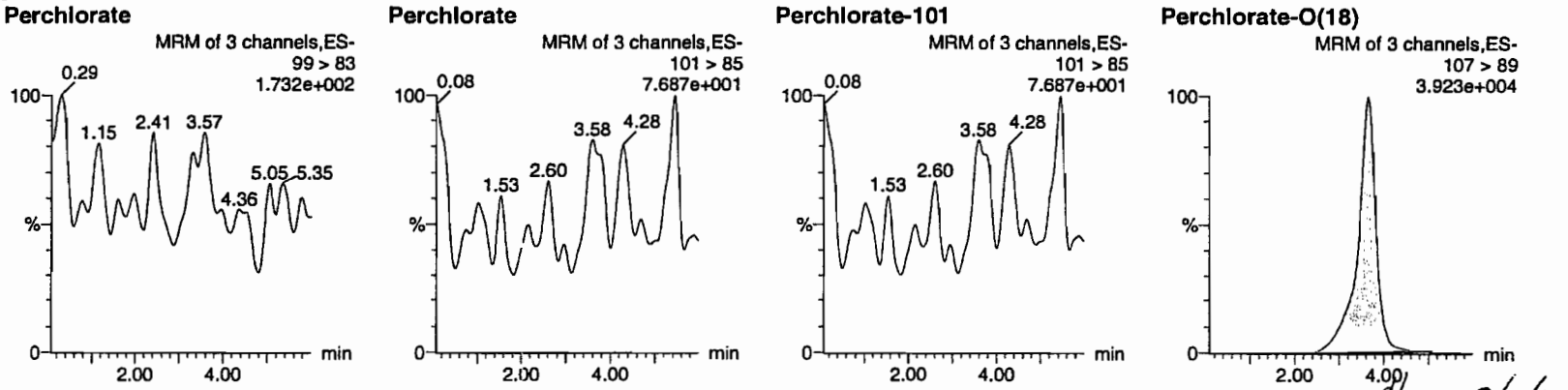

HMC 03/16/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	3.64	18817.344	18817.344	bb			0.4819	96.38	-3.62	1274.8...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308010a
Date: 08-Mar-2010
Time: 17:06:27
ID: IPB003
Vial: 1:1,A

3/3 03-09-10

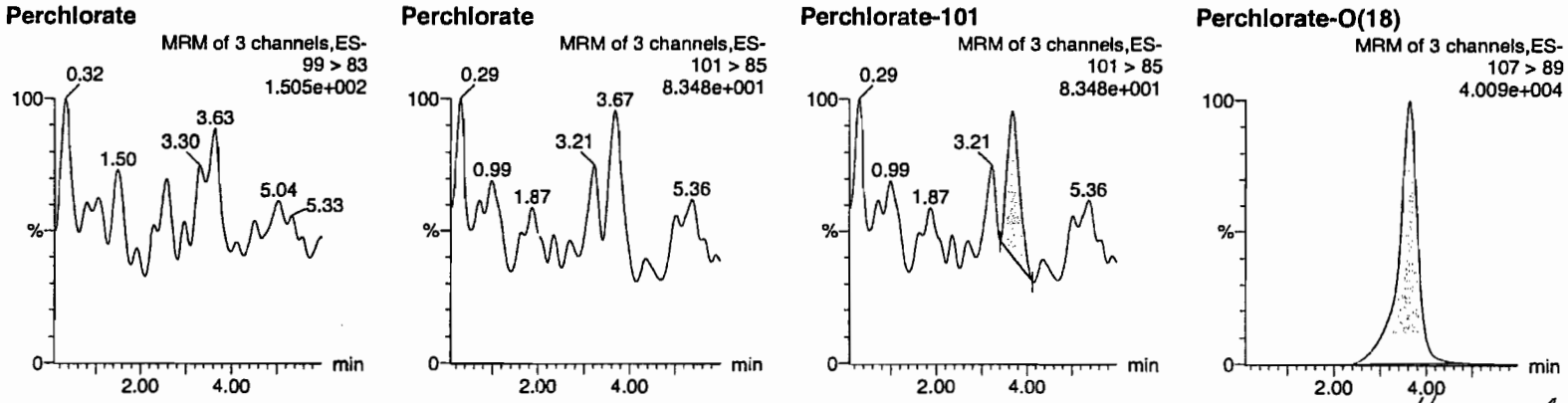

bm mc 03/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85	3.67	15.122	15.122	bb			0.0011			7.773	
IPB003	Perchlorate-O(18)	107 > 89	3.63	19271.525	19271.525	bb			0.4935	98.70	-1.30	2273.8...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308022a
Date: 08-Mar-2010
Time: 18:55:24
ID: IPB004
Vial: 1:1,A

CWW 03-09-10

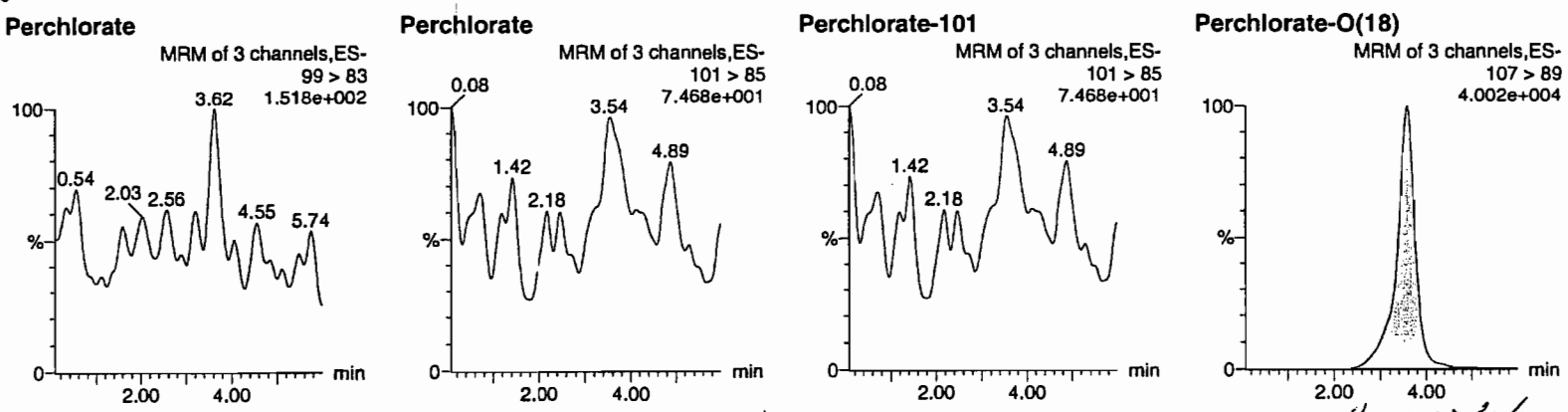

HMW 03/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	3.58	19034.945	19034.945	bb			0.4875	97.49	-2.51	1930.8...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308035a
Date: 08-Mar-2010
Time: 20:53:11
ID: IPB005
Vial: 1:1,A

03-09-10

Perchlorate

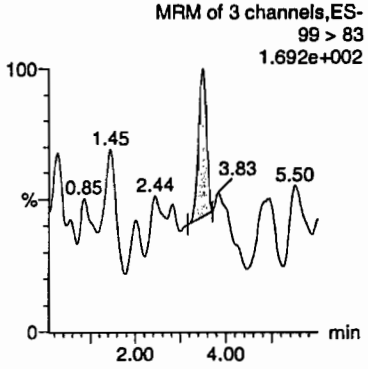

Perchlorate

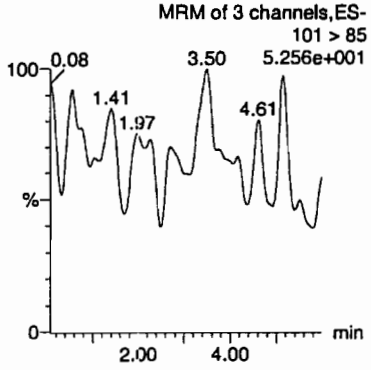

Perchlorate-101

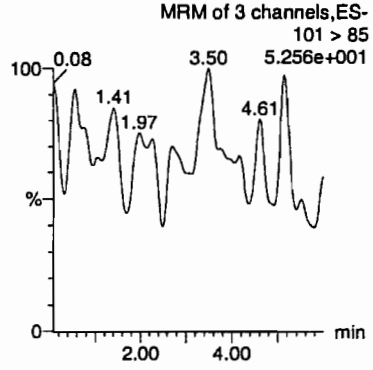

Perchlorate-O(18)

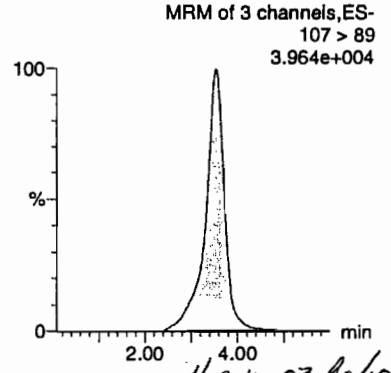

HMW 03/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83	3.50	20.240	20.240	bb			0.0004			12.166	0.00
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	3.53	18853.305	18853.305	bb			0.4828	96.56 ✓	-3.44	2233.7...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308048a
Date: 08-Mar-2010
Time: 22:51:21
ID: IPB006
Vial: 1:1,A

03-09-10

Perchlorate

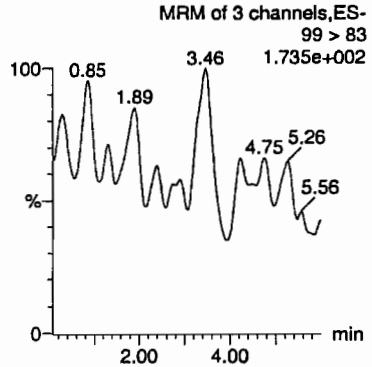

Perchlorate

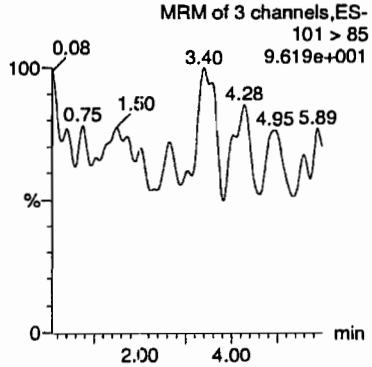

Perchlorate-101

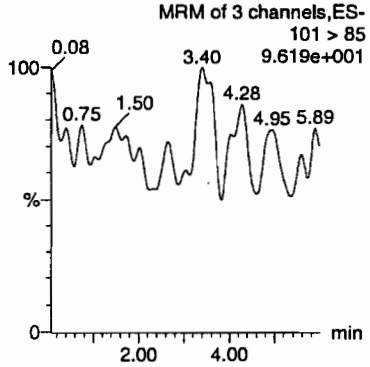

Perchlorate-O(18)

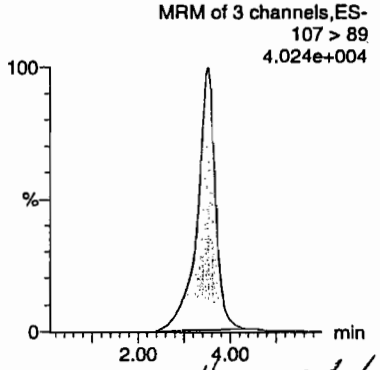

HMW 03/16/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83											0.00
IPB006	Perchlorate-101	101 > 85											
IPB006	Perchlorate-O(18)	107 > 89	3.51	18258.602	18258.602	bb			0.4676	93.52	-6.48	1018.6...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308052a
Date: 08-Mar-2010
Time: 23:27:41
ID: IPB007
Vial: 1:1,A

03-04-10

Perchlorate

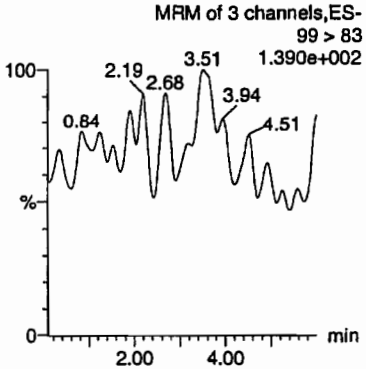

Perchlorate

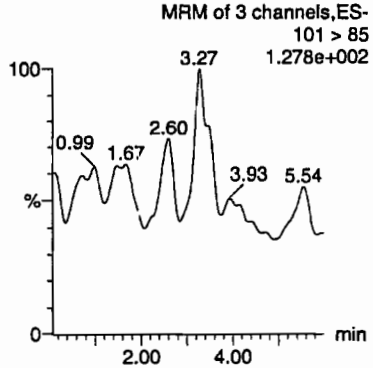

Perchlorate-101

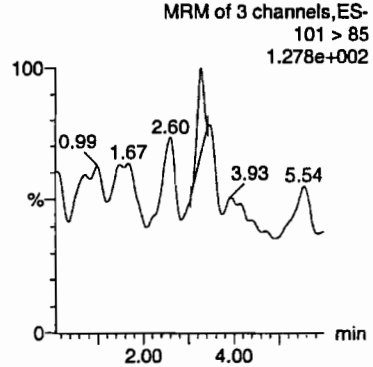

Perchlorate-O(18)

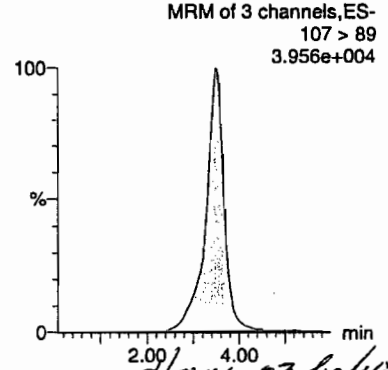

Hmc 03/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83											0.00
IPB007	Perchlorate-101	101 > 85	3.27	7.250	7.250	bb			0.0005			11.574	
IPB007	Perchlorate-O(18)	107 > 89	3.50	18495.547	18495.547	bb			0.4736	94.73	-5.27	613.571	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308061a
Date: 09-Mar-2010
Time: 00:50:02
ID: IPB008
Vial: 1:1,A

CWJ 03-09-10

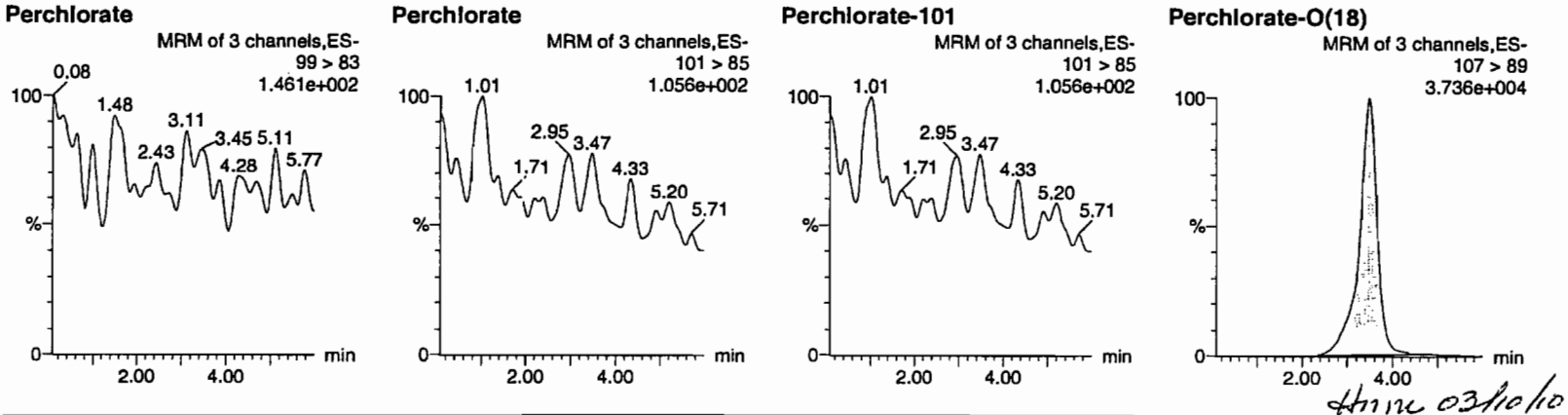

HMM 03/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB008	Perchlorate	99 > 83											0.00
IPB008	Perchlorate-101	101 > 85											
IPB008	Perchlorate-O(18)	107 > 89	3.48	17193.295	17193.295	bb			0.4403	88.06	-11.94	1235.1...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308074a
Date: 09-Mar-2010
Time: 02:48:02
ID: IPB009
Vial: 1:1,A

339
03-09-10

Perchlorate

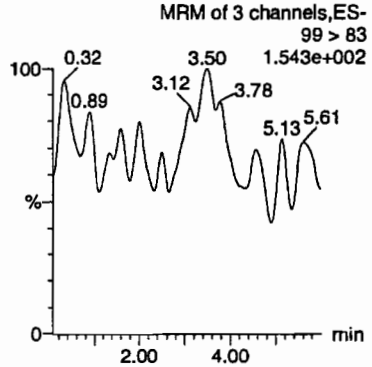

Perchlorate

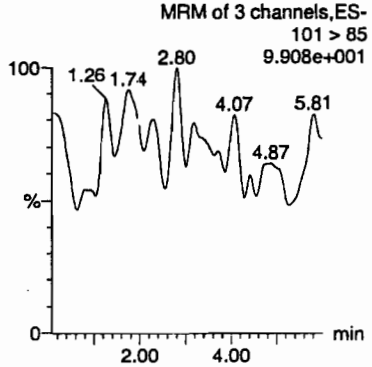

Perchlorate-101

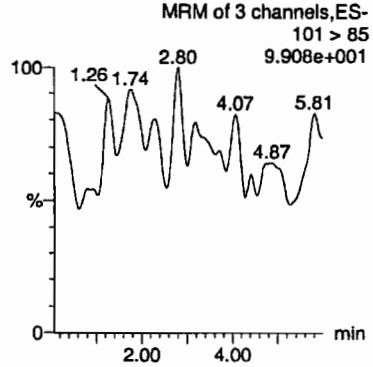

Perchlorate-O(18)

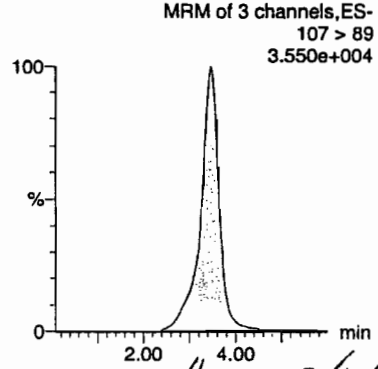

HMM 03/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB009	Perchlorate	99 > 83											0.00
IPB009	Perchlorate-101	101 > 85											
IPB009	Perchlorate-O(18)	107 > 89	3.47	16711.643	16711.643	bb			0.4280	85.59 ✓	-14.41	2348.6...	

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWW 01-09-08

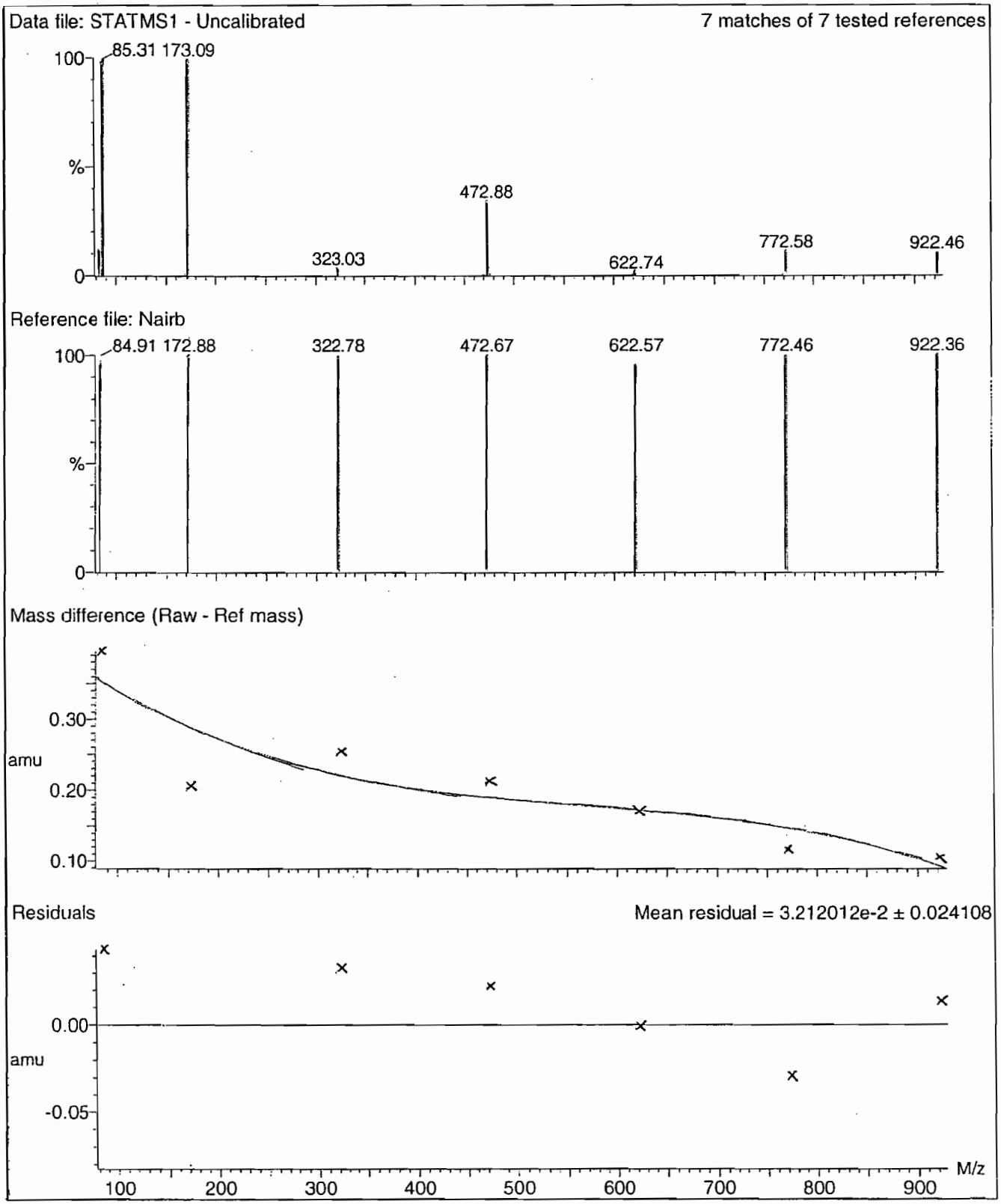

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Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

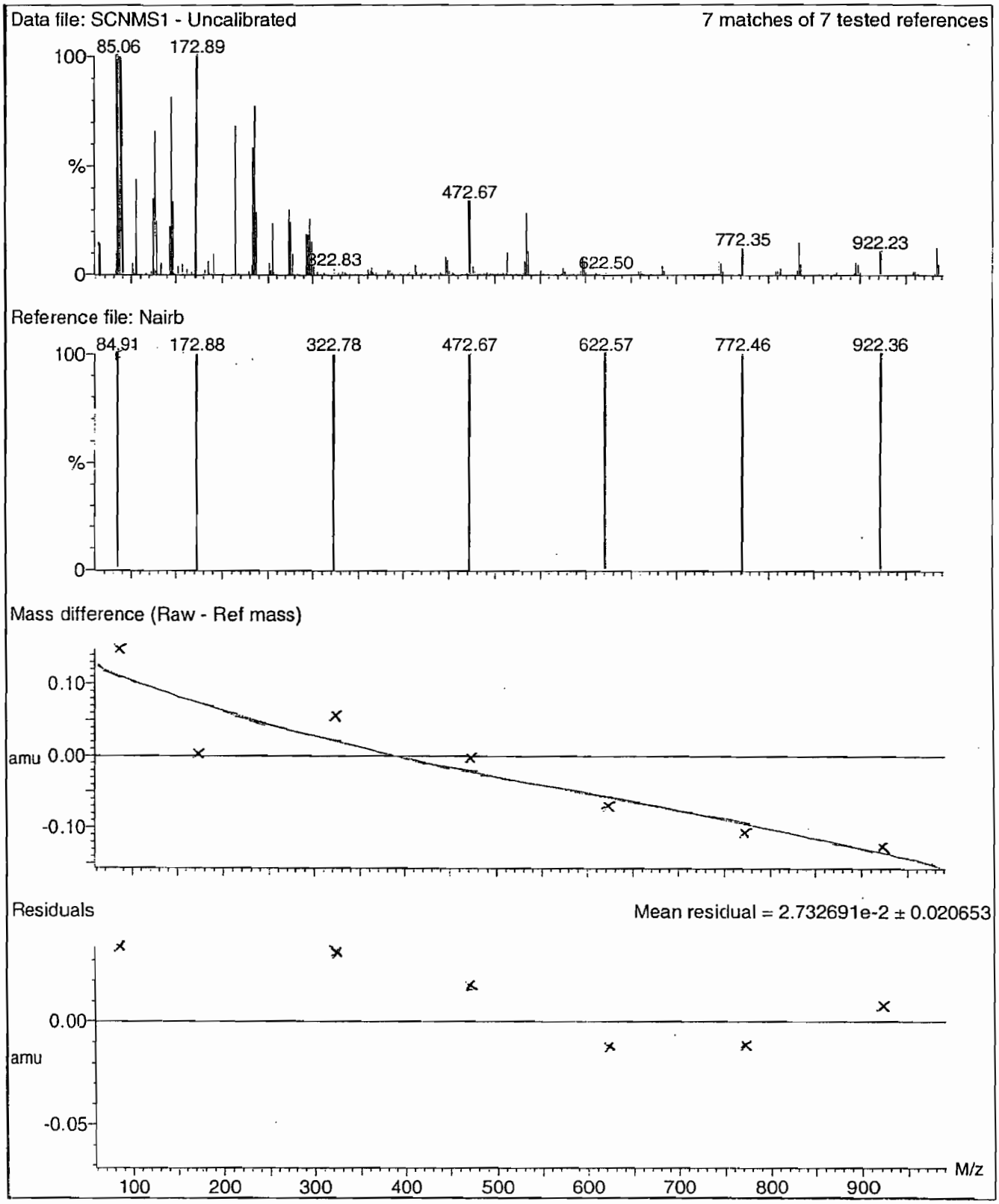

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

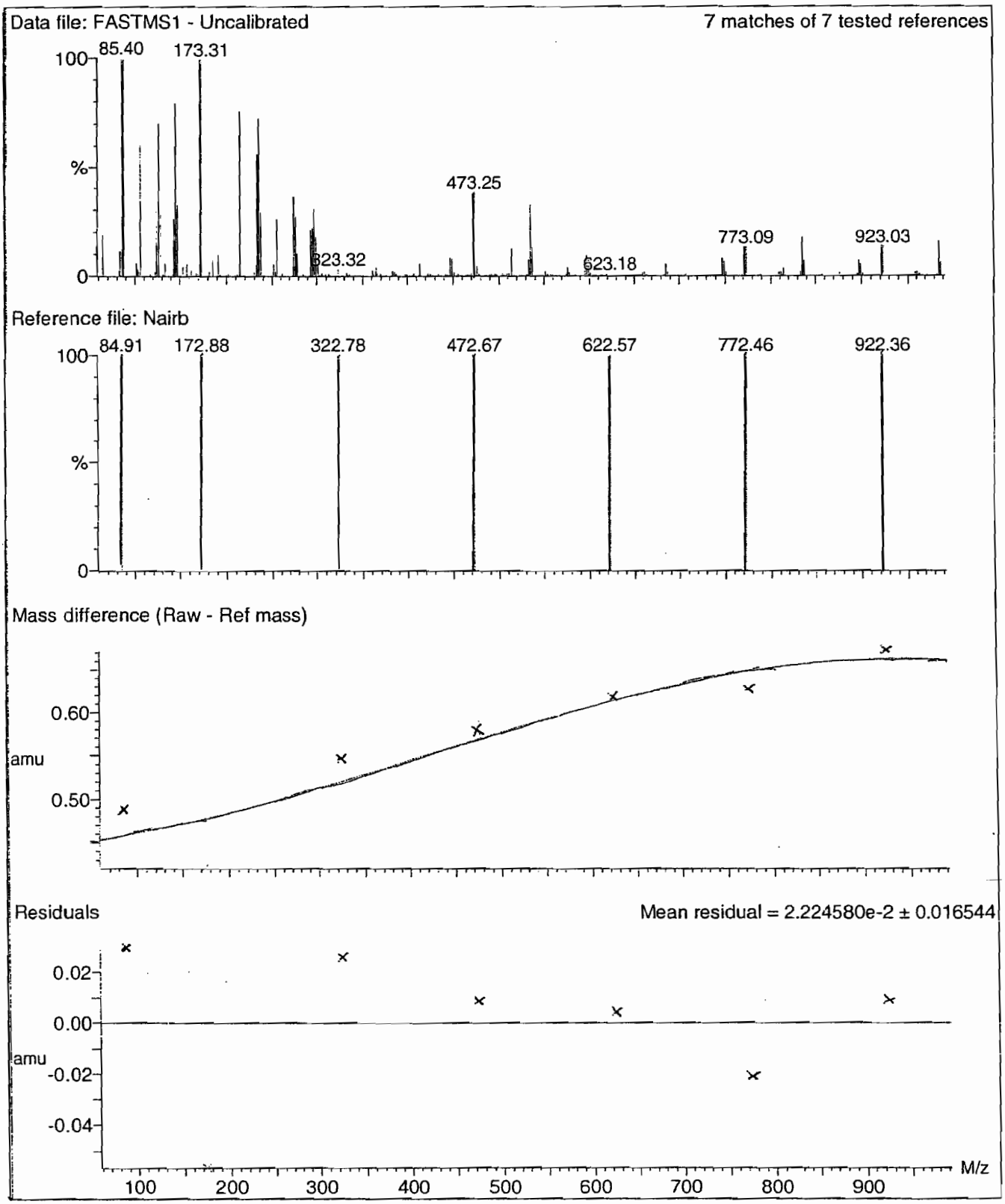

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

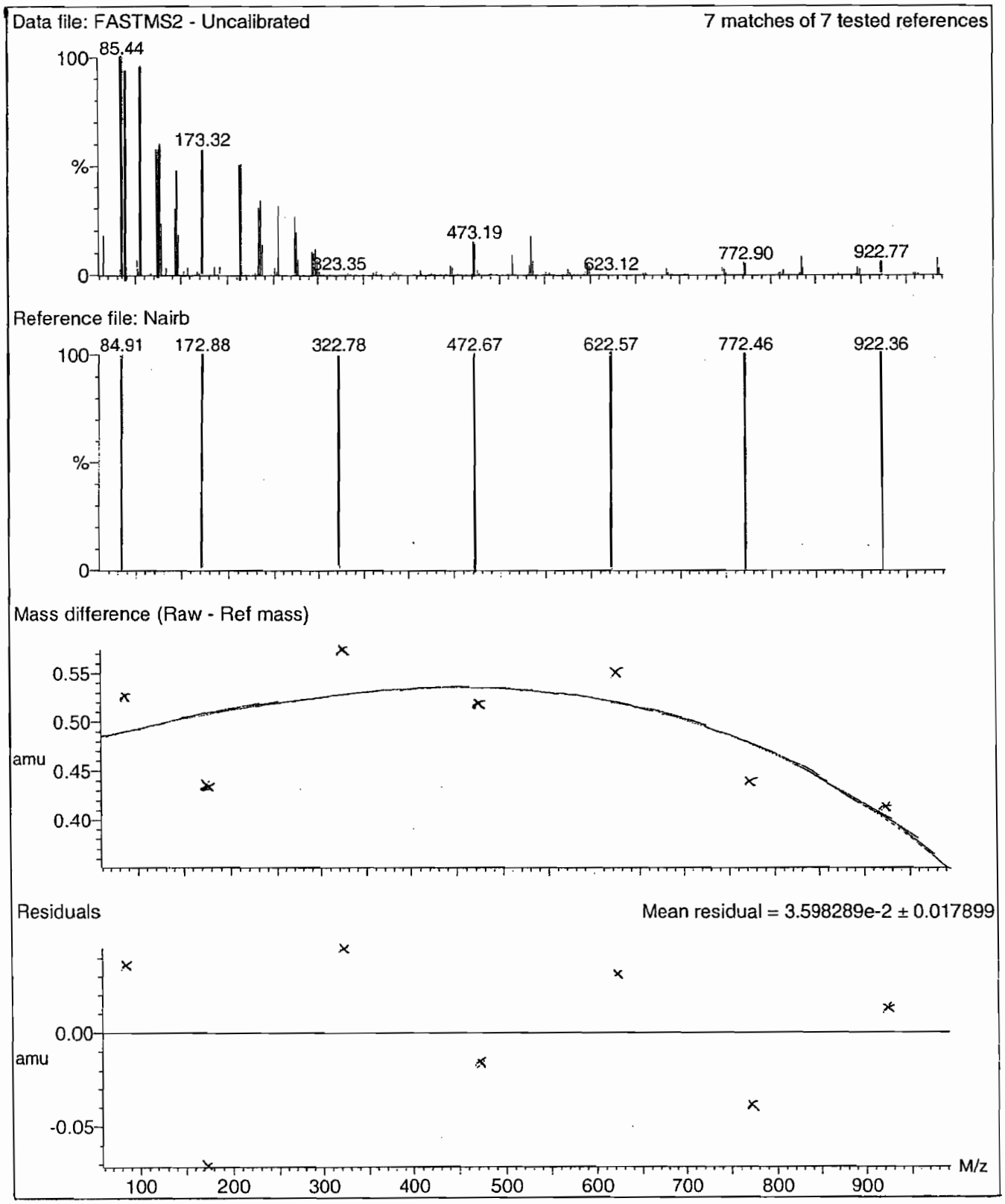

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

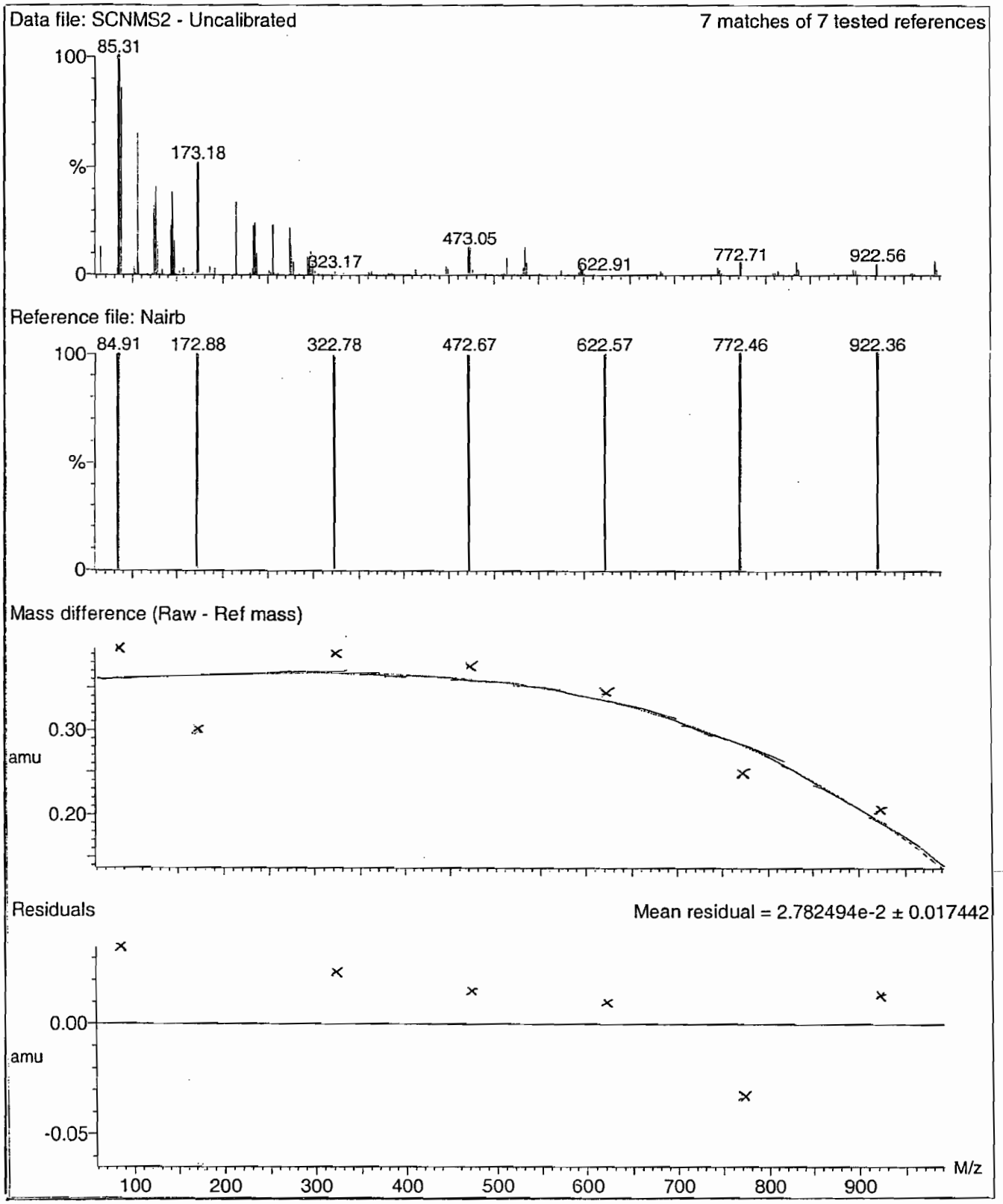

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

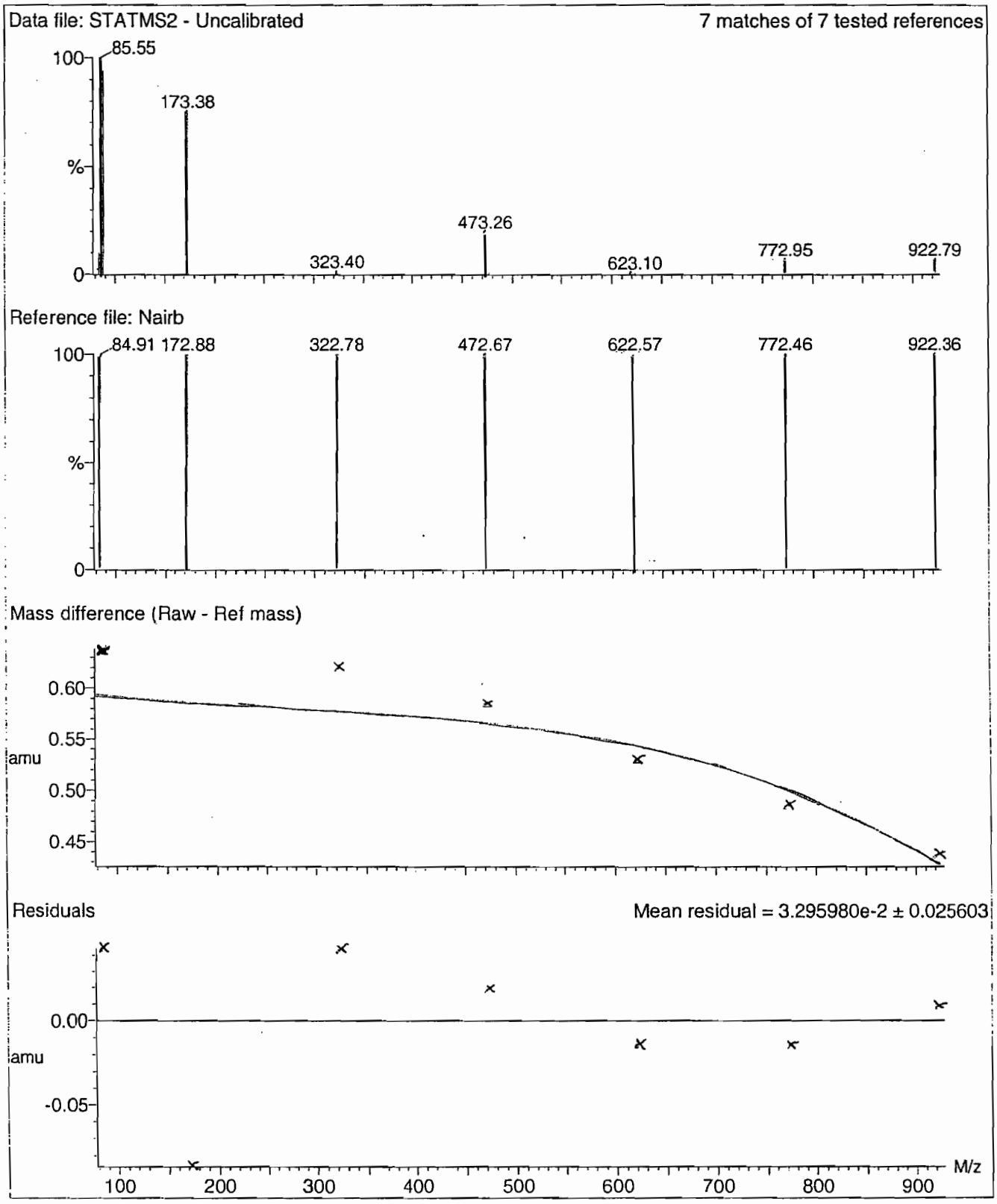

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Monday, March 08, 2010 10:18:13 Eastern Standard Time

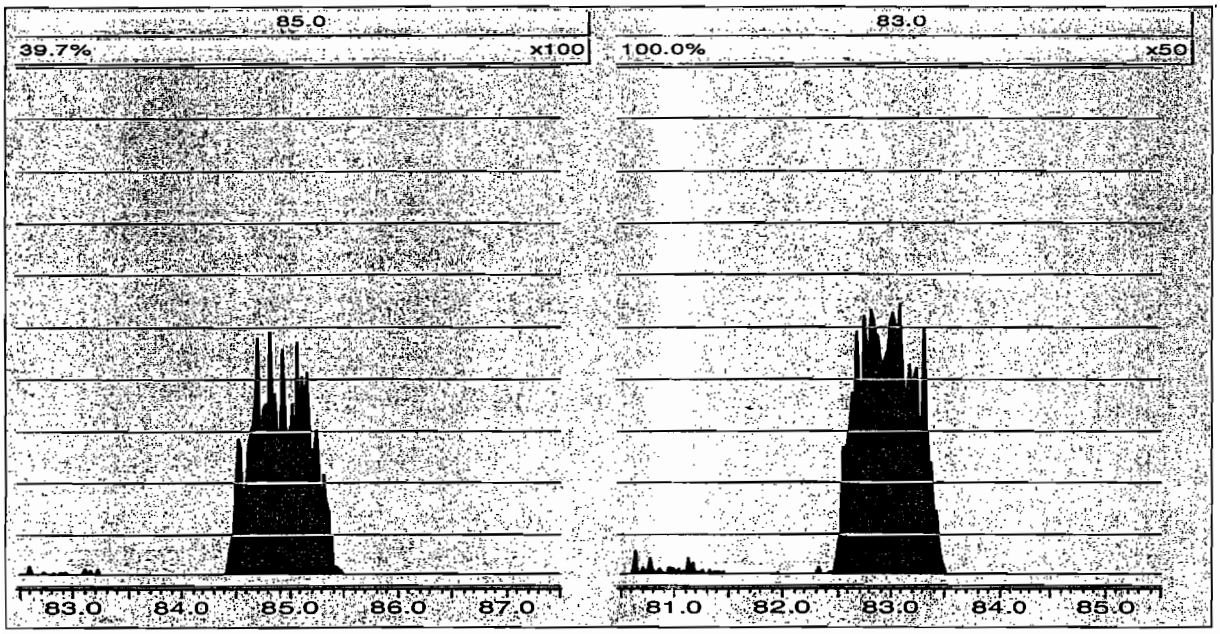

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1886

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0308006a**	**08–MAR–10**	**19792.7**				
Lower Area Limit			**9896.35**				
Upper Area Limit			**39585.4**				
1202049064	per0308053a	08–MAR–10 23:36	18100.7	3.5	3.45795	.988	
1202049065	per0308054a	08–MAR–10 23:46	18433.8	3.48	3.50768	1.008	
1202049068	per0308055a	08–MAR–10 23:55	18920.4	3.52	3.53253	1.004	
247261004	per0308070a	09–MAR–10 02:11	17292.8	3.48	3.49522	1.004	
1202049066	per0308071a	09–MAR–10 02:20	16996.7	3.48	3.49523	1.004	
1202049067	per0308072a	09–MAR–10 02:29	17526	3.48	3.49523	1.004	

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SAMPLE
DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 955723

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-12692

Date Received: 17-FEB-10

GEL Job No (SDG): 10-1886

GEL Sample ID: 247261004

Date Filtered: 04-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.196	ug/L	J	1	09-MAR-10 02:11	per0308070a
	Perchlorate Isotope Ratio			3.05			1	09-MAR-10 02:11	per0308070a
14797-73-0	Perchlorate-101	.05	.2	0.212	ug/L		1	09-MAR-10 02:11	per0308070a
	Perchlorate-O(18)			0.443	ug/L		1	09-MAR-10 02:11	per0308070a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308070a
Date: 09-Mar-2010
Time: 02:11:39
ID: 247261004
Vial: 2:3,C

|LANL|955724|LCQ|1|

03-09-10

Perchlorate

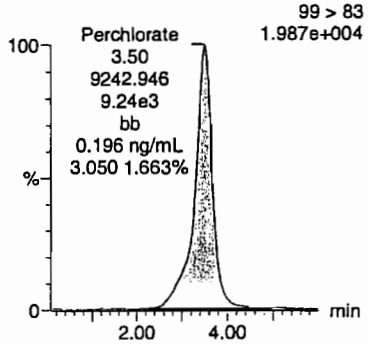

Perchlorate

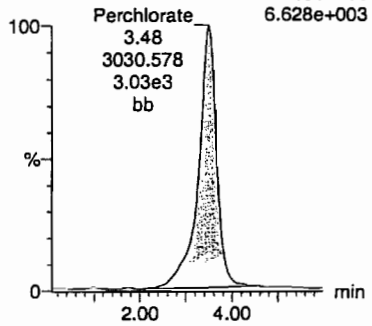

Perchlorate-101

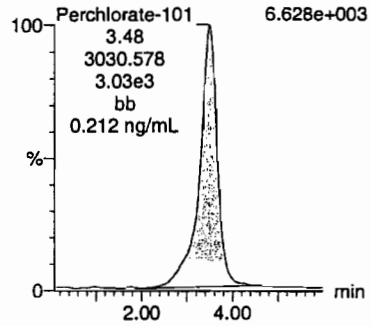

Perchlorate-O(18)

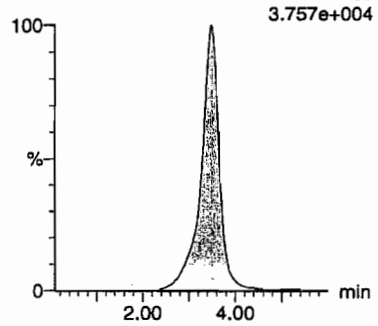

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
247261004	Perchlorate	99 > 83	3.50	9242.946	9242.946	bb			0.1965			370.070	3.05
247261004	Perchlorate-101	101 > 85	3.48	3030.578	3030.578	bb			0.2120			481.637	
247261004	Perchlorate-O(18)	107 > 89	3.48	17292.818	17292.818	bb			0.4428	88.57	-11.43	744.969	

MTT 3/10/10

$$\frac{9242.946}{47047.4} = 0.1965$$

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STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1886

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 08–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 47047.38

Response Type: External Standard

Curve Type: RF

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Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1886

Lab Code: GEL

Instrument ID: LCMSMS **Date Analvzed:** 08–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 14296.94

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per030810a.mdb 09 Mar 2010 12:48:33
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per030810a.cdb 09 Mar 2010 12:48:47

Compound name: Perchlorate
Response Factor: 47047.4
RRF SD: 838.521, % Relative SD: 1.78229
Response type: External Std, Area
Curve type: RF

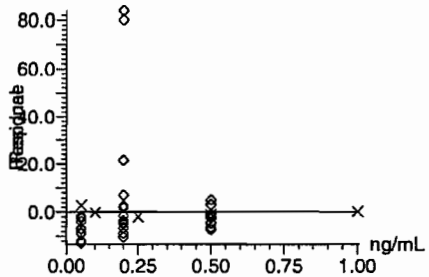

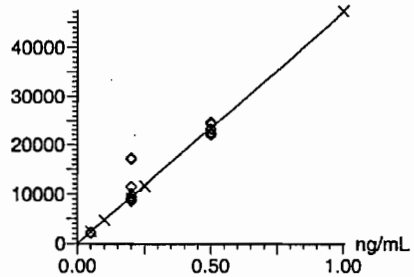

CWW
03-09-10

Compound name: Perchlorate-101
Response Factor: 14297
RRF SD: 749.315, % Relative SD: 5.24108
Response type: External Std, Area
Curve type: RF

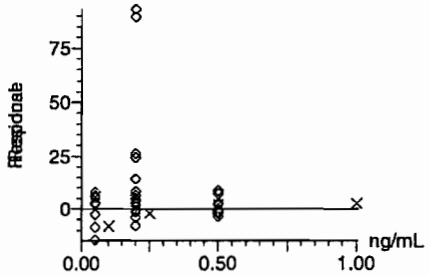

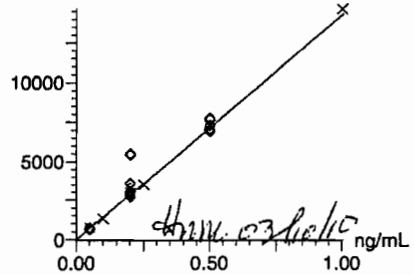

HMM 03/16/10

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Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 39049
RRF SD: 832.552, % Relative SD: 2.13207
Response type: External Std, Area
Curve type: RF

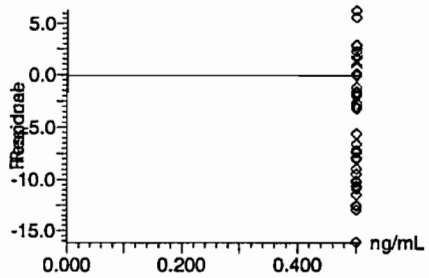

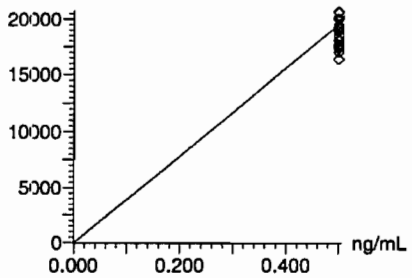

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308003a
Date: 08-Mar-2010
Time: 16:02:55
ID: WCL100227-01
Vial: 1:1,B

CWW 03-09-10

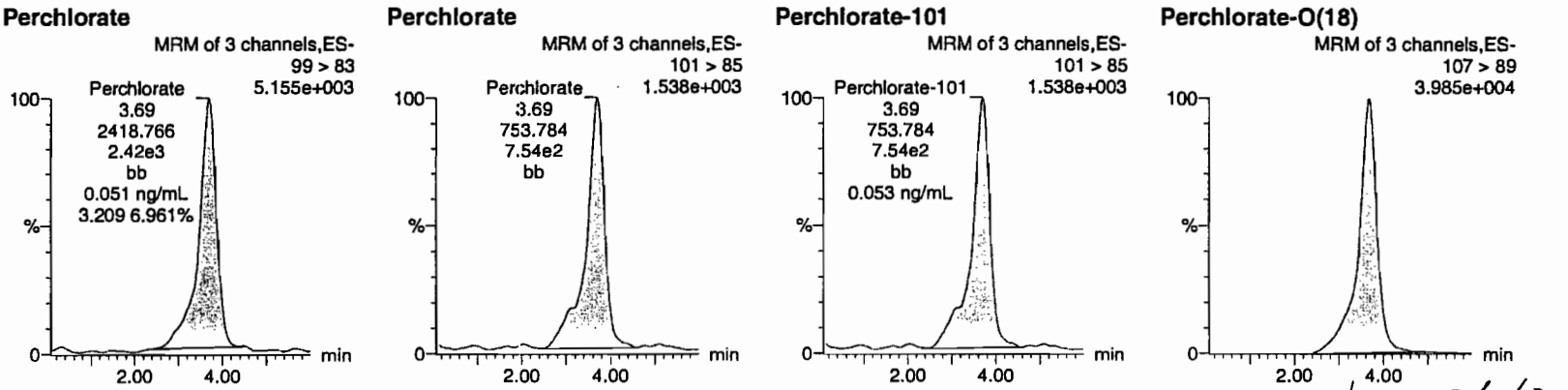

Hmw 03/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-01	Perchlorate	99 > 83	3.69	2418.766	2418.766	bb			0.0514	102.82	2.82	306.789	3.21
WCL100227-01	Perchlorate-101	101 > 85	3.69	753.784	753.784	bb			0.0527	105.45	5.45	135.781	
WCL100227-01	Perchlorate-O(18)	107 > 89	3.67	19749.188	19749.188	bb			0.5058	101.15	1.15	959.580	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308004a
Date: 08-Mar-2010
Time: 16:11:57
ID: WCL100227-02
Vial: 1:1,C

CWJ 03-09-10

Perchlorate

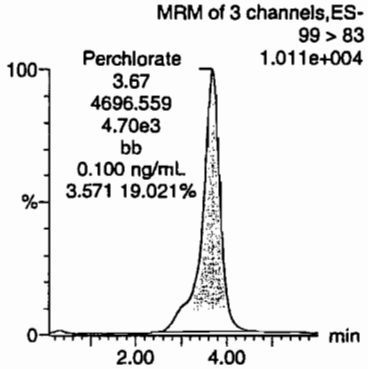

Perchlorate

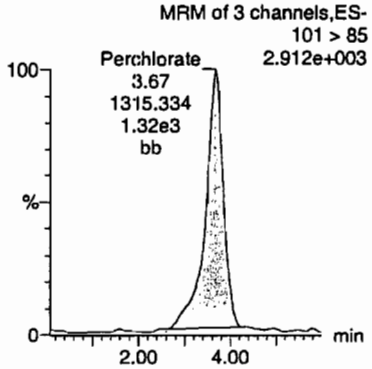

Perchlorate-101

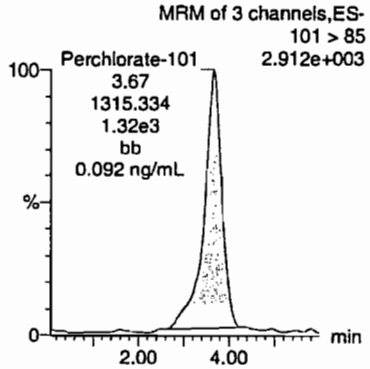

Perchlorate-O(18)

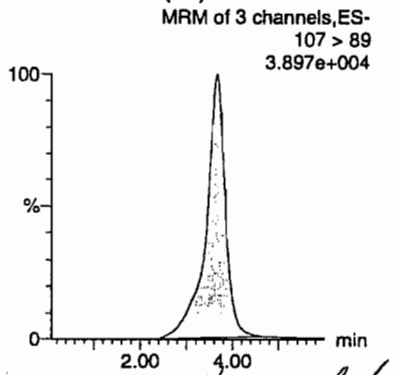

HMW 03/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-02	Perchlorate	99 > 83	3.67	4696.559	4696.559	bb			0.0998	99.83	-0.17	494.638	3.57
WCL100227-02	Perchlorate-101	101 > 85	3.67	1315.334	1315.334	bb			0.0920	92.00	-8.00	97.628	
WCL100227-02	Perchlorate-O(18)	107 > 89	3.66	19116.215	19116.215	bb			0.4895	97.91	-2.09	768.870	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308005a
Date: 08-Mar-2010
Time: 16:20:59
ID: WCL100227-03
Vial: 1:1,D

03-29-10

Perchlorate

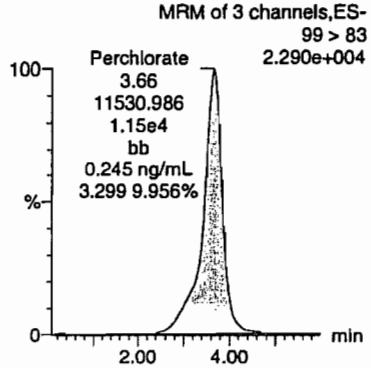

Perchlorate

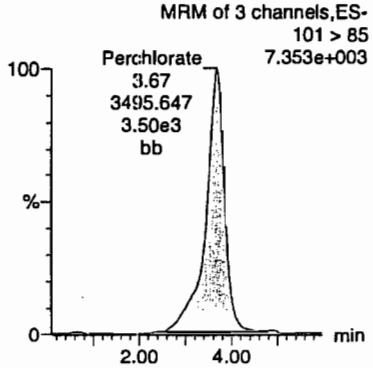

Perchlorate-101

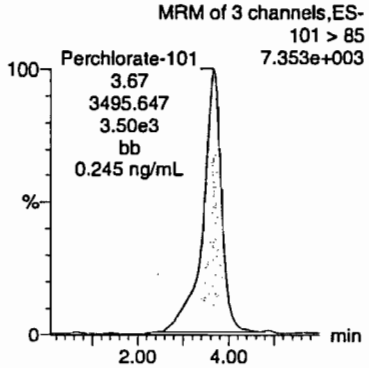

Perchlorate-O(18)

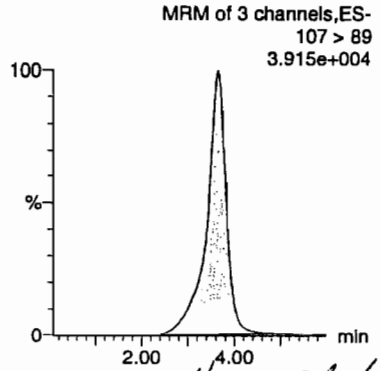

HMW 03/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-03	Perchlorate	99 > 83	3.66	11530.986	11530.986	bb			0.2451	98.04	-1.96	421.111	3.30
WCL100227-03	Perchlorate-101	101 > 85	3.67	3495.647	3495.647	bb			0.2445	97.80	-2.20	498.218	
WCL100227-03	Perchlorate-O(18)	107 > 89	3.64	19034.785	19034.785	bb			0.4875	97.49	-2.51	1254.1...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308006a
Date: 08-Mar-2010
Time: 16:29:59
ID: WCL100227-04
Vial: 1:1,E

CWW 03-04-10

Perchlorate

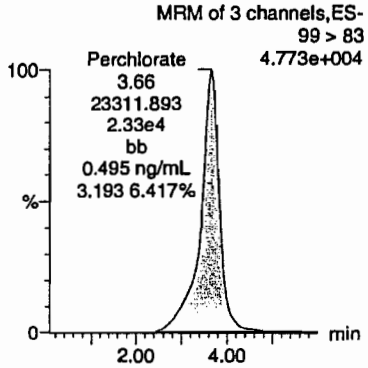

Perchlorate

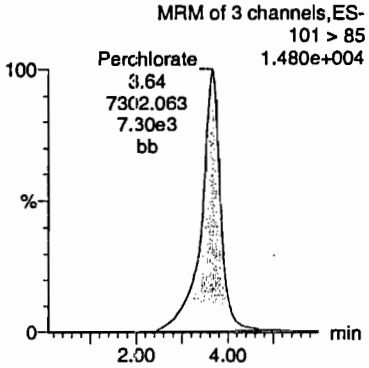

Perchlorate-101

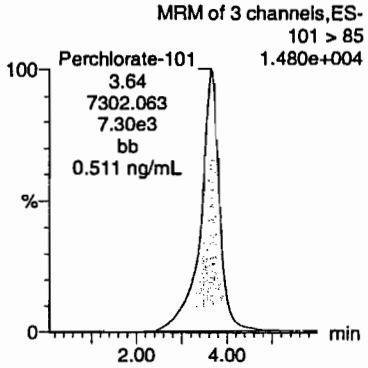

Perchlorate-O(18)

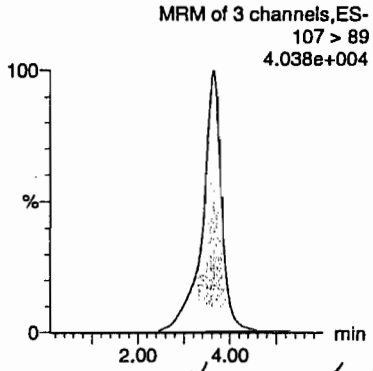

4/11/10 03/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-04	Perchlorate	99 > 83	3.66	23311.893	23311.893	bb			0.4955	99.10	-0.90	1353.0...	3.19
WCL100227-04	Perchlorate-101	101 > 85	3.64	7302.063	7302.063	bb			0.5107	102.15	2.15	664.867	
WCL100227-04	Perchlorate-O(18)	107 > 89	3.63	19792.721	19792.721	bb			0.5069	101.37	1.37	1734.6...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308007a
Date: 08-Mar-2010
Time: 16:39:08
ID: WCL100227-05
Vial: 1:1,F

03-09-10

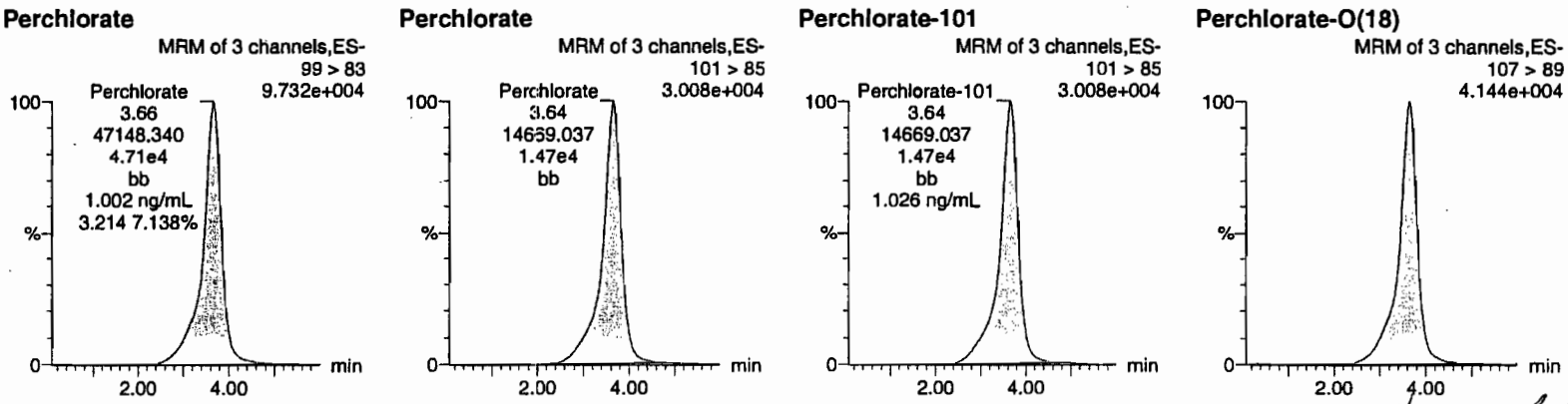

Hmm 03/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-05	Perchlorate	99 > 83	3.66	47148.340	47148.340	bb			1.0021	100.21	0.21	1111.8...	3.21
WCL100227-05	Perchlorate-101	101 > 85	3.64	14669.037	14669.037	bb			1.0260	102.60	2.60	884.040	
WCL100227-05	Perchlorate-O(18)	107 > 89	3.64	19929.713	19929.713	bb			0.5104	102.08	2.08	1244.3...	

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1886

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.53	105.14	08–MAR–10 16:57	per0308009a
Perchlorate Isotope Ratio		3.18		08–MAR–10 16:57	per0308009a
Perchlorate–101	.5	.54	108.66	08–MAR–10 16:57	per0308009a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308009a
Date: 08-Mar-2010
Time: 16:57:17
ID: WCL100227-06ICV
Vial: 1:2,A

Perch
03-09-10

Perchlorate

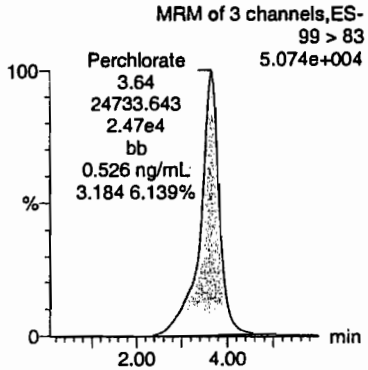

Perchlorate

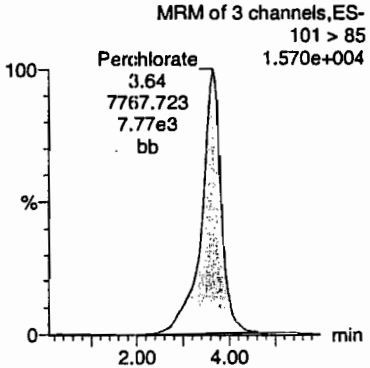

Perchlorate-101

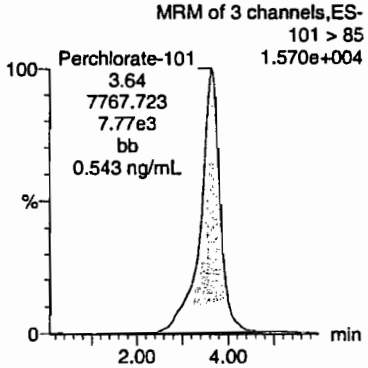

Perchlorate-O(18)

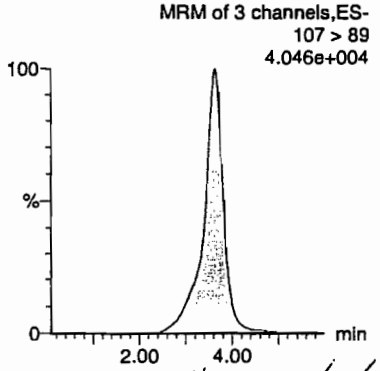

HWL. 03/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-06ICV	Perchlorate	99 > 83	3.64	24733.643	24733.643	bb			0.5257	105.14	5.14	543.107	3.18
WCL100227-06ICV	Perchlorate-101	101 > 85	3.64	7767.723	7767.723	bb			0.5433	108.66	8.66	159.570	
WCL100227-06ICV	Perchlorate-O(18)	107 > 89	3.63	19967.303	19967.303	bb			0.5113	102.27	2.27	1535.3...	

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1886

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.52	103.28	08-MAR-10 18:46	per0308021a
Perchlorate Isotope Ratio		3.14		08-MAR-10 18:46	per0308021a
Perchlorate-101	.5	.54	108.41	08-MAR-10 18:46	per0308021a
Perchlorate	.5	.53	105.15	08-MAR-10 20:44	per0308034a
Perchlorate Isotope Ratio		3.23		08-MAR-10 20:44	per0308034a
Perchlorate-101	.5	.54	107.08	08-MAR-10 20:44	per0308034a
Perchlorate	.5	.52	103.16	08-MAR-10 22:42	per0308047a
Perchlorate Isotope Ratio		3.13		08-MAR-10 22:42	per0308047a
Perchlorate-101	.5	.54	108.56	08-MAR-10 22:42	per0308047a
Perchlorate	.5	.5	99.29	09-MAR-10 00:40	per0308060a
Perchlorate Isotope Ratio		3.17		09-MAR-10 00:40	per0308060a
Perchlorate-101	.5	.51	102.95	09-MAR-10 00:40	per0308060a
Perchlorate	.5	.48	95.1	09-MAR-10 02:38	per0308073a

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1886

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		3.07		09–MAR–10 02:38	per0308073a
Perchlorate–101	.5	.51	101.9	09–MAR–10 02:38	per0308073a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308021a
Date: 08-Mar-2010
Time: 18:46:13
ID: WCL100227-06CCV
Vial: 1:2,A

Pass
03-09-10

Perchlorate

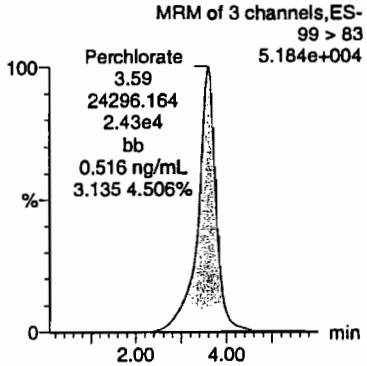

Perchlorate

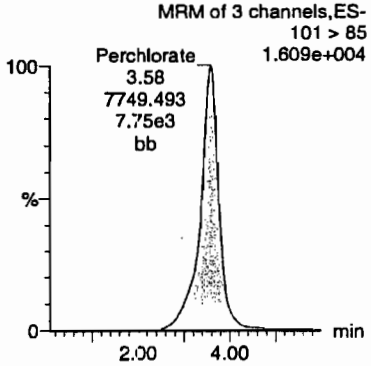

Perchlorate-101

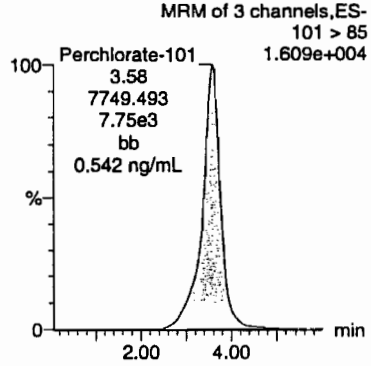

Perchlorate-O(18)

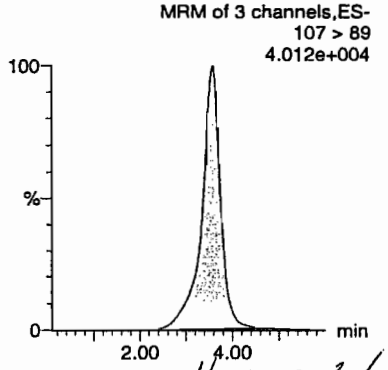

Hmk 03/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-06CCV	Perchlorate	99 > 83	3.59	24296.164	24296.164	bb			0.5164	103.28	3.28	2058.4...	3.14
WCL100227-06CCV	Perchlorate-101	101 > 85	3.58	7749.493	7749.493	bb			0.5420	108.41	8.41	842.163	
WCL100227-06CCV	Perchlorate-O(18)	107 > 89	3.57	18892.500	18892.500	bb			0.4838	96.76	-3.24	3961.4...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308034a
Date: 08-Mar-2010
Time: 20:44:08
ID: WCL100227-06CCV
Vial: 1:2,A

PWD
03-29-10

Perchlorate

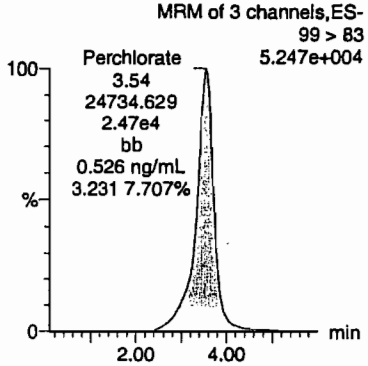

Perchlorate

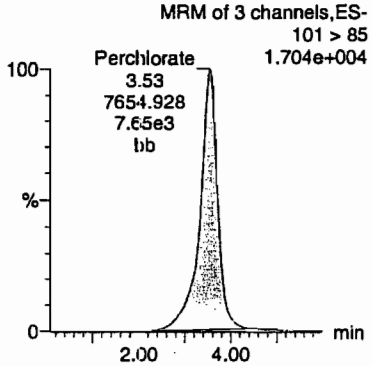

Perchlorate-101

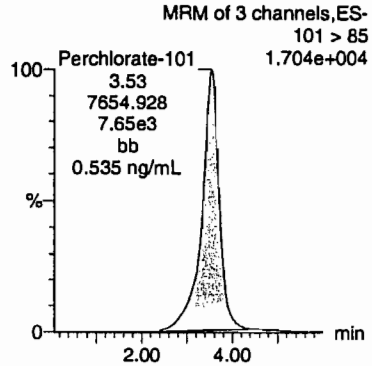

Perchlorate-O(18)

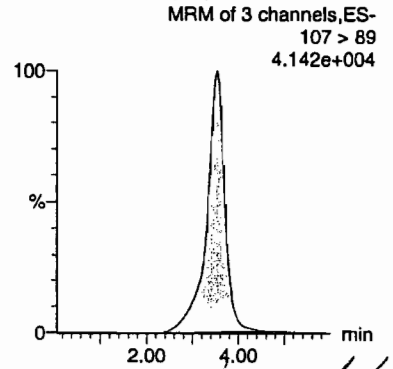

ETM 03/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-06CCV	Perchlorate	99 > 83	3.54	24734.629	24734.629	bb			0.5257	105.15	5.15	2200.8...	3.23
WCL100227-06CCV	Perchlorate-101	101 > 85	3.53	7654.928	7654.928	bb			0.5354	107.08	7.08	2331.6...	
WCL100227-06CCV	Perchlorate-O(18)	107 > 89	3.53	19141.506	19141.506	bb			0.4902	98.04	-1.96	1232.7...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308047a
Date: 08-Mar-2010
Time: 22:42:18
ID: WCL100227-06CCV
Vial: 1:2,A

Pass
aso
03-09-10

Perchlorate

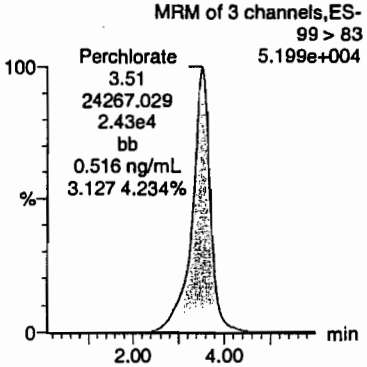

Perchlorate

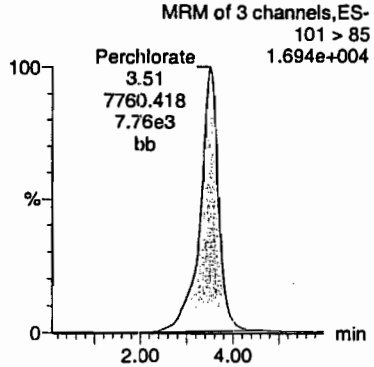

Perchlorate-101

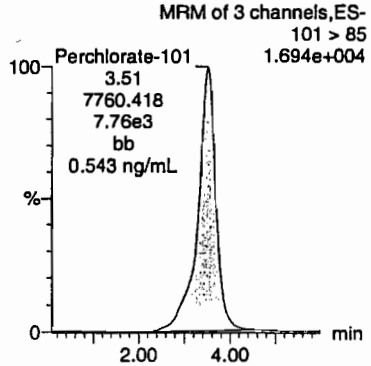

Perchlorate-O(18)

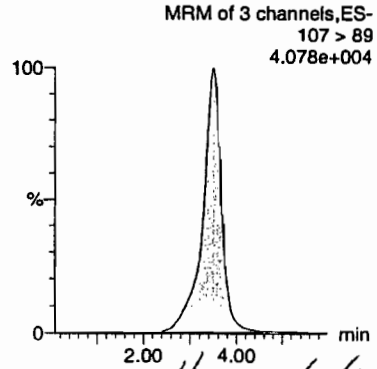

HMC 03/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-06CCV	Perchlorate	99 > 83	3.51	24267.029	24267.029	bb			0.5158	103.16	3.16	1490.7...	3.13
WCL100227-06CCV	Perchlorate-101	101 > 85	3.51	7760.418	7760.418	bb			0.5428	108.56	8.56	1343.7...	
WCL100227-06CCV	Perchlorate-O(18)	107 > 89	3.50	18936.834	18936.834	bb			0.4849	96.99	-3.01	1821.0...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308060a
Date: 09-Mar-2010
Time: 00:40:46
ID: WCL100227-06CCV
Vial: 1:2,A

P333
03-05-10

Perchlorate

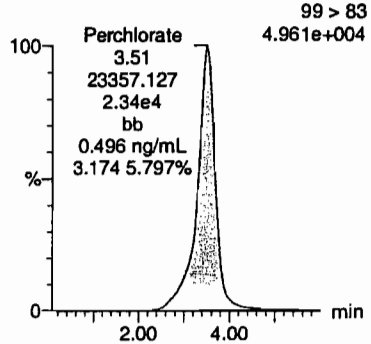

Perchlorate

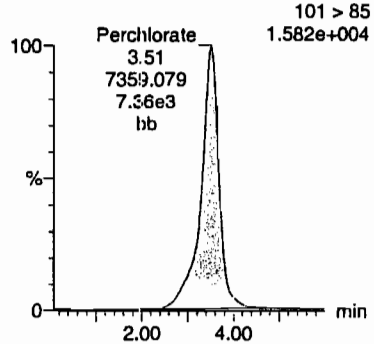

Perchlorate-101

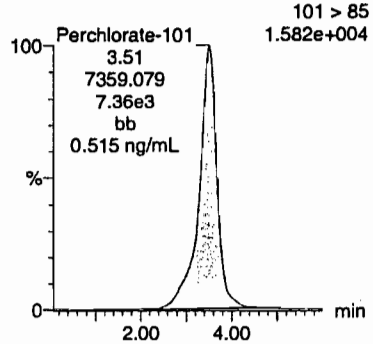

Perchlorate-O(18)

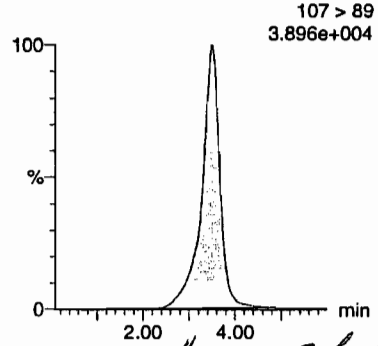

dmw 03/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-06CCV	Perchlorate	99 > 83	3.51	23357.127	23357.127	bb			0.4965	99.29	-0.71	1630.4...	3.17
WCL100227-06CCV	Perchlorate-101	101 > 85	3.51	7359.079	7359.079	bb			0.5147	102.95	2.95	1965.3...	
WCL100227-06CCV	Perchlorate-O(18)	107 > 89	3.48	18080.102	18080.102	bb			0.4630	92.60	-7.40	1265.2...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308073a
Date: 09-Mar-2010
Time: 02:38:45
ID: WCL100227-06CCV
Vial: 1:2,A

Pm
333
03-04-10

Perchlorate

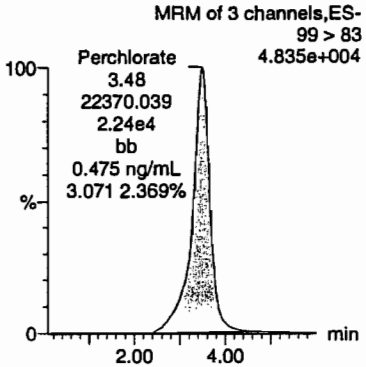

Perchlorate

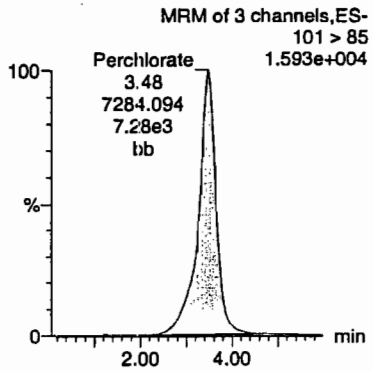

Perchlorate-101

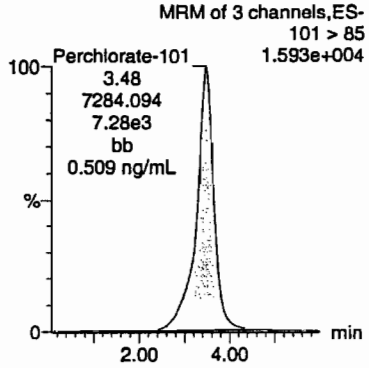

Perchlorate-O(18)

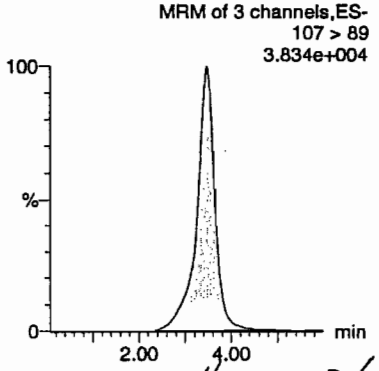

Hmw 03/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-06CCV	Perchlorate	99 > 83	3.48	22370.039	22370.039	bb			0.4755	95.10	-4.90	2051.0...	3.07
WCL100227-06CCV	Perchlorate-101	101 > 85	3.48	7284.094	7284.094	bb			0.5095	101.90	1.90	930.289	
WCL100227-06CCV	Perchlorate-O(18)	107 > 89	3.47	17683.076	17683.076	bb			0.4528	90.57	-9.43	2477.5...	

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1886

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	91.57	08–MAR–10 17:15	per0308011a
Perchlorate Isotope Ratio		2.95		08–MAR–10 17:15	per0308011a
Perchlorate–101	.05	.05	102.06	08–MAR–10 17:15	per0308011a
Perchlorate	.05	.05	97.28	08–MAR–10 19:04	per0308023a
Perchlorate Isotope Ratio		2.97		08–MAR–10 19:04	per0308023a
Perchlorate–101	.05	.05	107.82	08–MAR–10 19:04	per0308023a
Perchlorate	.05	.05	97.48	08–MAR–10 21:02	per0308036a
Perchlorate Isotope Ratio		3.14		08–MAR–10 21:02	per0308036a
Perchlorate–101	.05	.05	102.17	08–MAR–10 21:02	per0308036a
Perchlorate	.05	.05	98.41	08–MAR–10 23:00	per0308049a
Perchlorate Isotope Ratio		3.08		08–MAR–10 23:00	per0308049a

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1886

Lab Code: GEL

Reporting Units: ug/L

Perchlorate-101	.05	.05	105.1	08-MAR-10 23:00	per0308049a
Perchlorate	.05	.05	92.76	09-MAR-10 00:59	per0308062a
Perchlorate Isotope Ratio		3.13		09-MAR-10 00:59	per0308062a
Perchlorate-101	.05	.05	97.6	09-MAR-10 00:59	per0308062a
Perchlorate	.05	.04	87.02	09-MAR-10 02:57	per0308075a
Perchlorate Isotope Ratio		2.95		09-MAR-10 02:57	per0308075a
Perchlorate-101	.05	.05	97.15	09-MAR-10 02:57	per0308075a

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308011a
Date: 08-Mar-2010
Time: 17:15:29
ID: WCL100227-07CRI
Vial: 1:2,B

Pass 03-09-10

Perchlorate

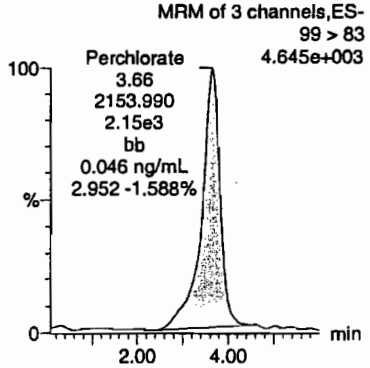

Perchlorate

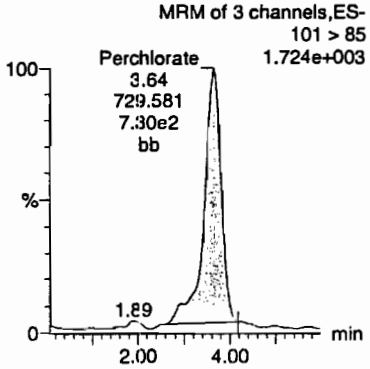

Perchlorate-101

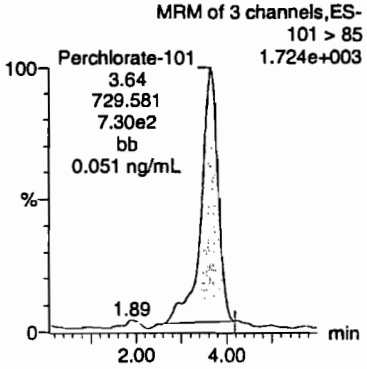

Perchlorate-O(18)

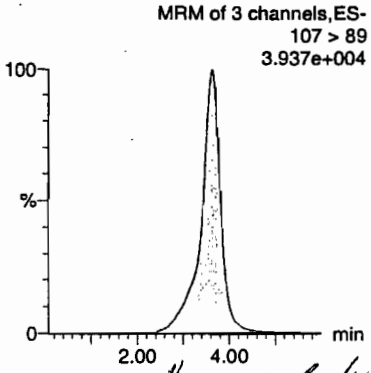

Hmk 03/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.66	2153.990	2153.990	bb			0.0458	91.57	-8.43	192.273	2.95
WCL100227-07CRI	Perchlorate-101	101 > 85	3.64	729.581	729.581	bb			0.0510	102.06	2.06	143.835	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.63	19505.877	19505.877	bb			0.4995	99.90	-0.10	1304.1...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Rwo
CWJ 03-09-10

Name: per0308023a
Date: 08-Mar-2010
Time: 19:04:27
ID: WCL100227-07CRI
Vial: 1:2,B

Perchlorate

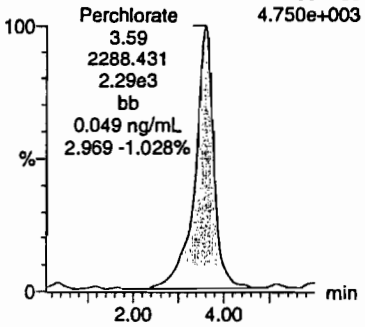

Perchlorate

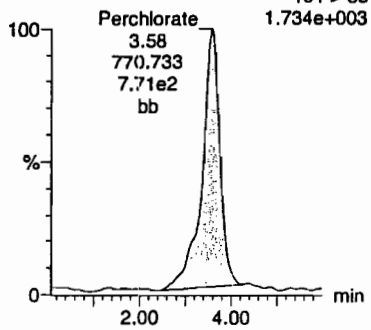

Perchlorate-101

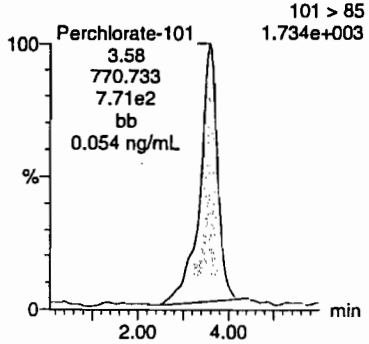

Perchlorate-O(18)

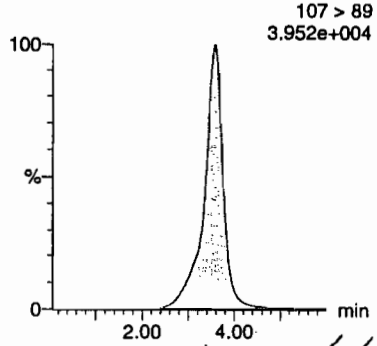

HMW 03/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.59	2288.431	2288.431	bb			0.0486	97.28	-2.72	379.669	2.97
WCL100227-07CRI	Perchlorate-101	101 > 85	3.58	770.733	770.733	bb			0.0539	107.82	7.82	84.015	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.57	18985.990	18985.990	bb			0.4862	97.24	-2.76	3992.9...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308036a
Date: 08-Mar-2010
Time: 21:02:14
ID: WCL100227-07CRI
Vial: 1:2,B

Pwo
03.09-10

Perchlorate

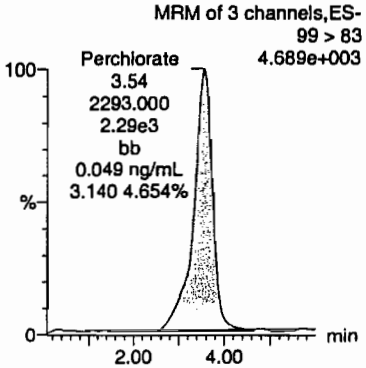

Perchlorate

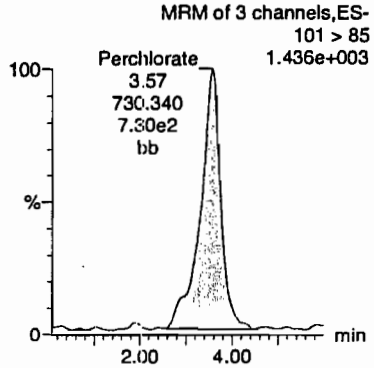

Perchlorate-101

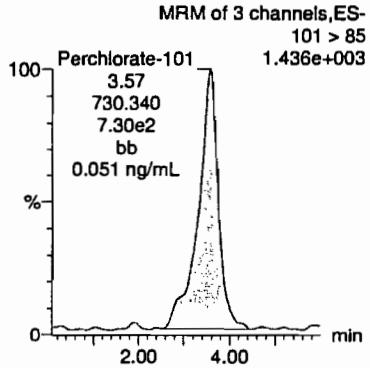

Perchlorate-O(18)

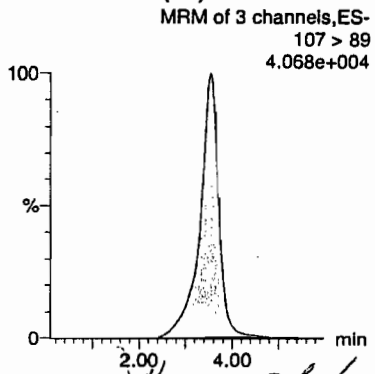

03/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.54	2293.000	2293.000	bb			0.0487	97.48	-2.52	112.560	3.14
WCL100227-07CRI	Perchlorate-101	101 > 85	3.57	730.340	730.340	bb			0.0511	102.17	2.17	21.006	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.53	19152.959	19152.959	bb			0.4905	98.10	-1.90	2778.2...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308049a
Date: 08-Mar-2010
Time: 23:00:24
ID: WCL100227-07CRI
Vial: 1:2,B

Pwo
03-09-10

Perchlorate

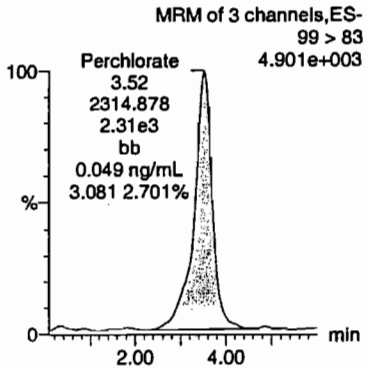

Perchlorate

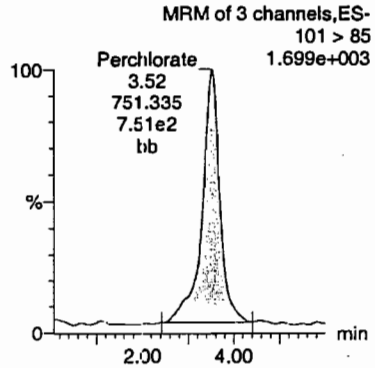

Perchlorate-101

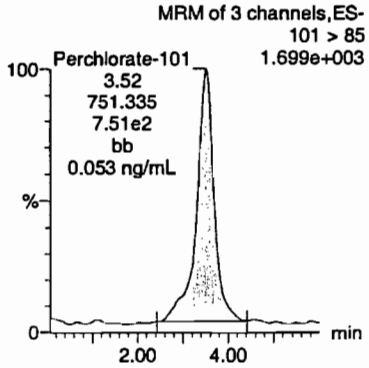

Perchlorate-O(18)

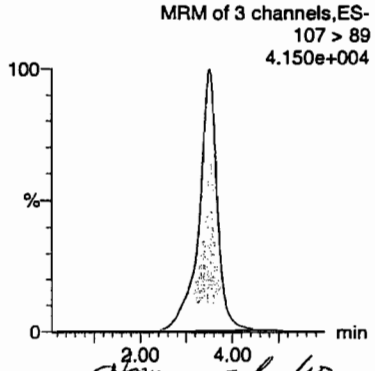

AMM 03/16/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.52	2314.878	2314.878	bb			0.0492	98.41	-1.59	318.865	3.08
WCL100227-07CRI	Perchlorate-101	101 > 85	3.52	751.335	751.335	bb			0.0526	105.10	5.10	86.661	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.51	19220.762	19220.762	bb			0.4922	98.44	-1.56	1856.7...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308062a
Date: 09-Mar-2010
Time: 00:59:13
ID: WCL100227-07CRI
Vial: 1:2,B

Pass
03-09-10

Perchlorate

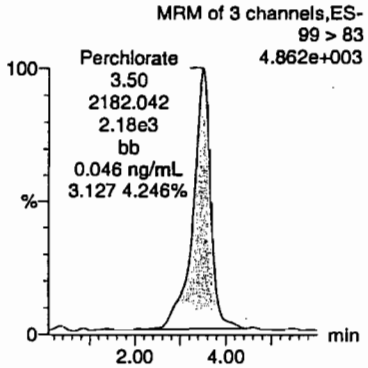

Perchlorate

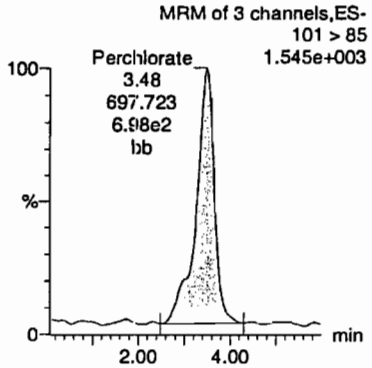

Perchlorate-101

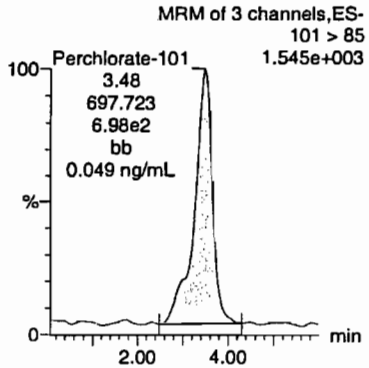

Perchlorate-O(18)

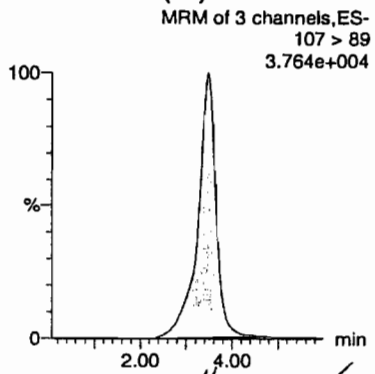

HMK 03/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.50	2182.042	2182.042	bb			0.0464	92.76	-7.24	176.942	3.13
WCL100227-07CRI	Perchlorate-101	101 > 85	3.48	697.723	697.723	bb			0.0488	97.60	-2.40	55.243	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.47	17393.770	17393.770	bb			0.4454	89.09	-10.91	764.961	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308075a
Date: 09-Mar-2010
Time: 02:57:04
ID: WCL100227-07CRI
Vial: 1:2,B

Per 03-09-10

Perchlorate

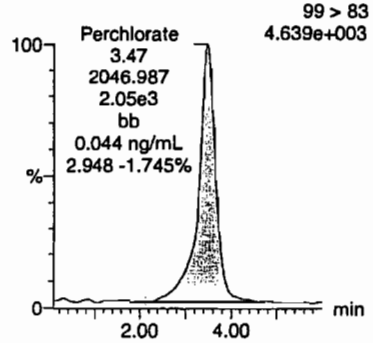

Perchlorate

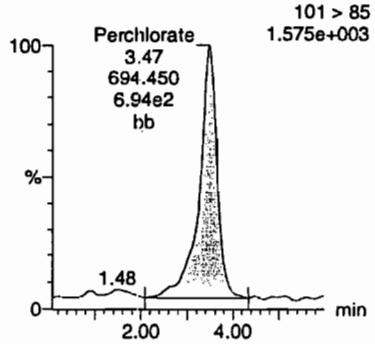

Perchlorate-101

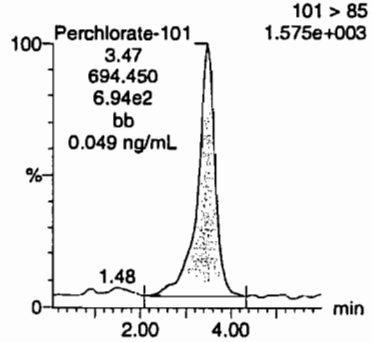

Perchlorate-O(18)

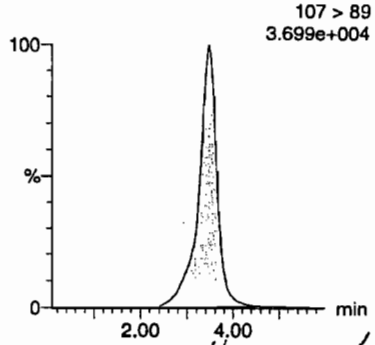

Hmm 03/10/10

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL100227-07CRI	Perchlorate	99 > 83	3.47	2046.987	2046.987	bb			0.0435	87.02	-12.98	175.388	2.95
WCL100227-07CRI	Perchlorate-101	101 > 85	3.47	694.450	694.450	bb			0.0486	97.15	-2.85	110.840	
WCL100227-07CRI	Perchlorate-O(18)	107 > 89	3.47	17056.256	17056.256	bb			0.4368	87.36	-12.64	2127.1...	

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QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 955723

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
MB

Date Received: 04-MAR-10

GEL Job No (SDG): 10-1886

GEL Sample ID: 1202049064

Date Filtered: 04-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	08-MAR-10 23:36	per0308053a
	Perchlorate Isotope Ratio						1	08-MAR-10 23:36	per0308053a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	08-MAR-10 23:36	per0308053a
	Perchlorate-O(18)			0.464	ug/L		1	08-MAR-10 23:36	per0308053a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308053a
Date: 08-Mar-2010
Time: 23:36:44
ID: 1202049064
Vial: 2:1,A

|LANL|955724|LZQ|MB|1|

CW 03-09-10

Perchlorate

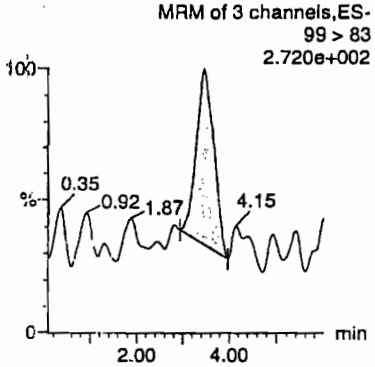

Perchlorate

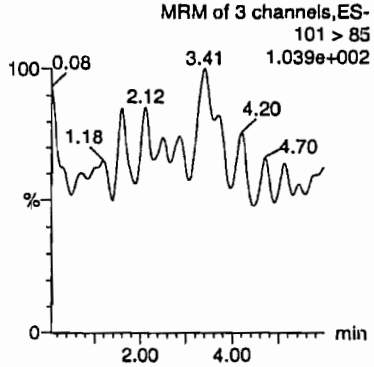

Perchlorate-101

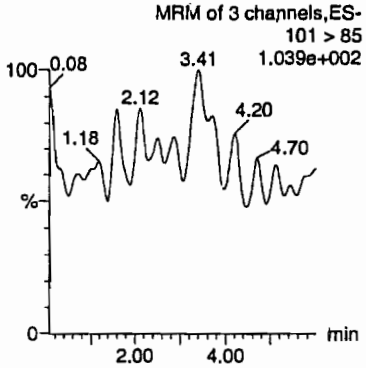

Perchlorate-O(18)

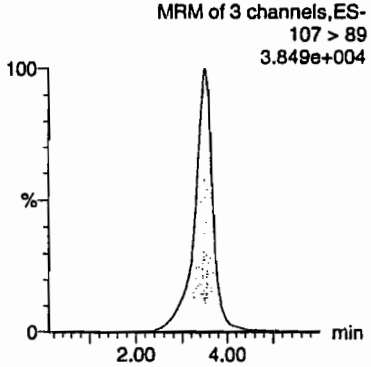

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202049064	Perchlorate	99 > 83	3.46	81.254	81.254	bb			0.0017			28.813	0.00
1202049064	Perchlorate-101	101 > 85											
1202049064	Perchlorate-O(18)	107 > 89	3.50	18100.689	18100.689	bb			0.4635	92.71	-7.29	1752.8...	

MM 3/10/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 955723

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
LCS

Date Received: 04-MAR-10

GEL Job No (SDG): 10-1886

GEL Sample ID: 1202049065

Date Filtered: 04-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.206	ug/L		1	08-MAR-10 23:46	per0308054a
	Perchlorate Isotope Ratio			3.18			1	08-MAR-10 23:46	per0308054a
14797-73-0	Perchlorate-101	.05	.2	0.213	ug/L		1	08-MAR-10 23:46	per0308054a
	Perchlorate-O(18)			0.472	ug/L		1	08-MAR-10 23:46	per0308054a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308054a
Date: 08-Mar-2010
Time: 23:46:04
ID: 1202049065
Vial: 2:1,B

|LANL|955724|LZQ|LCS|1|

CWJ 03-09-10

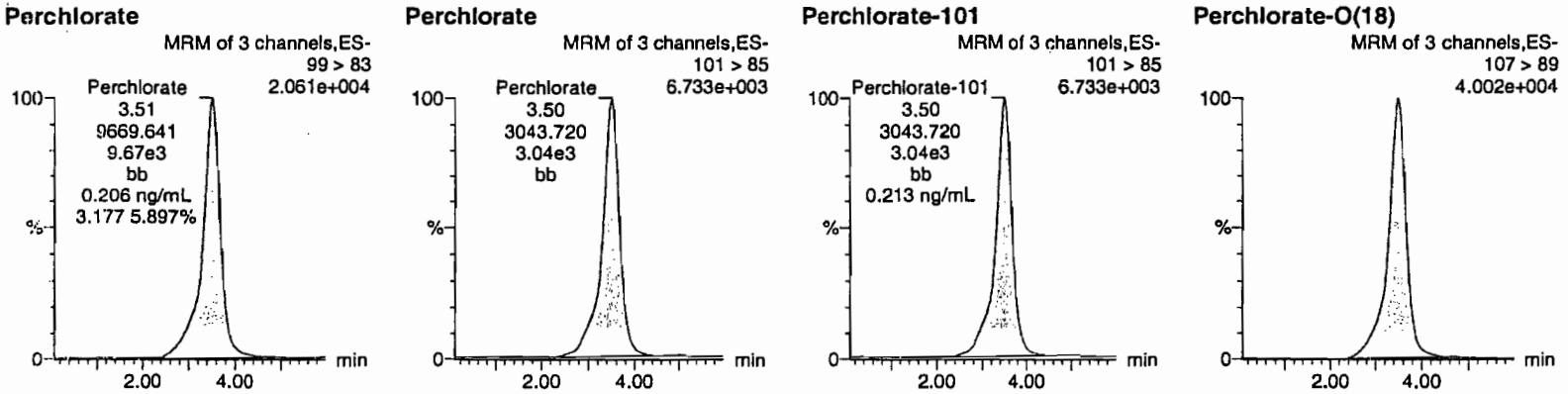

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202049065	Perchlorate	99 > 83	3.51	9669.641	9669.641	bb			0.2055	102.76	2.76	566.316	3.18
1202049065	Perchlorate-101	101 > 85	3.50	3043.720	3043.720	bb			0.2129	106.45	6.45	1160.1...	
1202049065	Perchlorate-O(18)	107 > 89	3.48	18433.822	18433.822	bb			0.4721	94.41	-5.59	1952.9...	

MAT 3/10/10

$\frac{9669.641}{47047.4} = 0.2055$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 955723

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-12692MS

Date Received: 17-FEB-10

GEL Job No (SDG): 10-1886

GEL Sample ID: 1202049066

Date Filtered: 04-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.360	ug/L		1	09-MAR-10 02:20	per0308071a
	Perchlorate Isotope Ratio			3.13			1	09-MAR-10 02:20	per0308071a
14797-73-0	Perchlorate-101	.05	.2	0.379	ug/L		1	09-MAR-10 02:20	per0308071a
	Perchlorate-O(18)			0.435	ug/L		1	09-MAR-10 02:20	per0308071a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308071a
Date: 09-Mar-2010
Time: 02:20:42
ID: 1202049066
Vial: 2:3,D

|LANL|955724|LZQ|MS|1|

03-09-10

Perchlorate

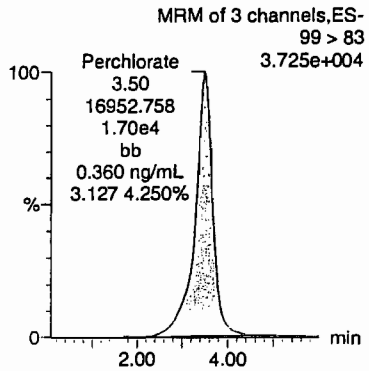

Perchlorate

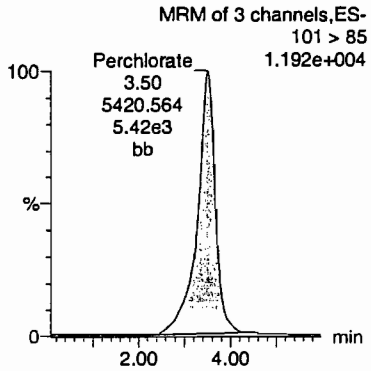

Perchlorate-101

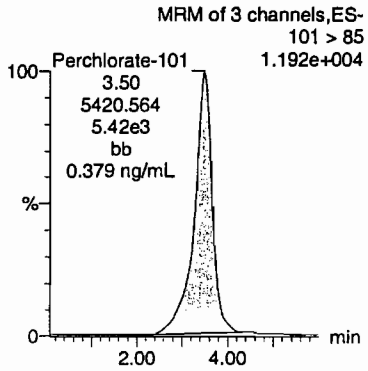

Perchlorate-O(18)

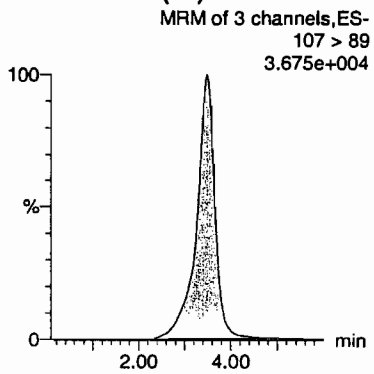

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202049066	Perchlorate	99 > 83	3.50	16952.758	16952.758	bb			0.3603	180.17	80.17	2160.7...	3.13
1202049066	Perchlorate-101	101 > 85	3.50	5420.564	5420.564	bb			0.3791	189.57	89.57	645.575	
1202049066	Perchlorate-O(18)	107 > 89	3.48	16996.682	16996.682	bb			0.4353	87.05	-12.95	676.185	

MM 3/10/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 955723

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-12692MSD

Date Received: 17-FEB-10

GEL Job No (SDG): 10-1886

GEL Sample ID: 1202049067

Date Filtered: 04-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.368	ug/L		1	09-MAR-10 02:29	per0308072a
	Perchlorate Isotope Ratio			3.13			1	09-MAR-10 02:29	per0308072a
14797-73-0	Perchlorate-101	.05	.2	0.386	ug/L		1	09-MAR-10 02:29	per0308072a
	Perchlorate-O(18)			0.449	ug/L		1	09-MAR-10 02:29	per0308072a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per030810a.qld

Last Altered: Tuesday, March 09, 2010 12:57:27 PM Eastern Standard Time
Printed: Tuesday, March 09, 2010 1:04:52 PM Eastern Standard Time

Name: per0308072a
Date: 09-Mar-2010
Time: 02:29:43
ID: 1202049067
Vial: 2:3,E

|LANL|955724|LCQ|MSD|1|

GW
03-09-10

Perchlorate

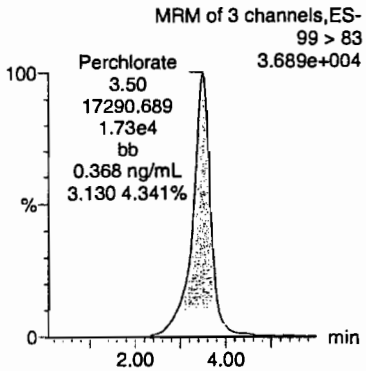

Perchlorate

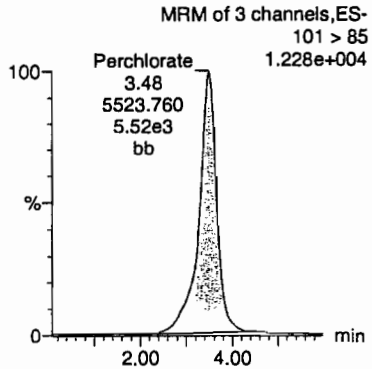

Perchlorate-101

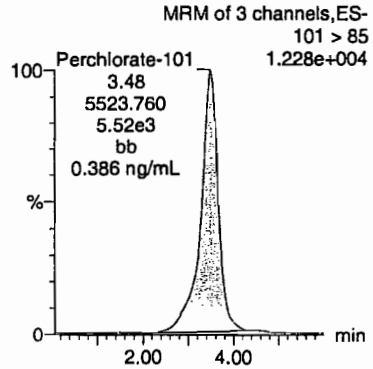

Perchlorate-O(18)

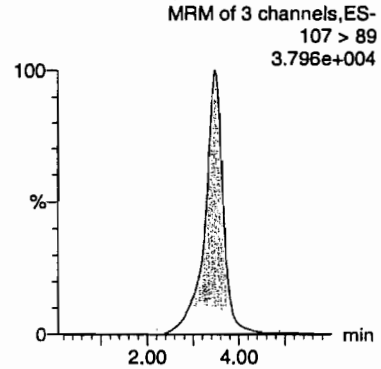

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202049067	Perchlorate	99 > 83	3.50	17290.689	17290.689	bb			0.3675	183.76	83.76	2085.9...	3.13
1202049067	Perchlorate-101	101 > 85	3.48	5523.760	5523.760	bb			0.3864	193.18	93.18	608.230	
1202049067	Perchlorate-O(18)	107 > 89	3.48	17526.020	17526.020	bb			0.4488	89.76	-10.24	2215.9...	

MM
3/10/10

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 955723 Verified by:

Analyst: Kaylie Westmoreland

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202049064 MB	04-MAR-2010 15:11:13	10	10	1
1202049065 LCS	04-MAR-2010 15:11:13	10	10	1
246964002	04-MAR-2010 15:11:13	10	10	1
246964004	04-MAR-2010 15:11:13	10	10	1
246967001	04-MAR-2010 15:11:13	10	10	1
246967004	04-MAR-2010 15:11:13	10	10	1
247036002	04-MAR-2010 15:11:13	10	10	1
247036003	04-MAR-2010 15:11:13	10	10	1
247036006	04-MAR-2010 15:11:13	10	10	1
247037001	04-MAR-2010 15:11:13	10	10	1
247042002	04-MAR-2010 15:11:13	10	10	1
247042004	04-MAR-2010 15:11:13	10	10	1
247042006	04-MAR-2010 15:11:13	10	10	1
247261004	04-MAR-2010 15:11:13	10	10	1
1202049066 MS (247261004)	04-MAR-2010 15:11:13	10	10	1
1202049067 MSD (247261004)	04-MAR-2010 15:11:13	10	10	1
1202049068 ICS	04-MAR-2010 15:11:13	10	10	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202049068	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
LCS	1202049065	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
MS	1202049066	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
MSD	1202049067	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1267890	10	mL
RGNT	All	O2SI HPLC Grade Water	1271949	10	mL

Comments:

Desalting cartridges used:100204-1-Ba &100217-1-H

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 03/08/10
Extr. Injection Volume: 20uL
Sequence Number: per030810a
Initial Calibration Date: 03/08/10

Method: EPA 6850-Modified
Int. Std.: UCL100126-01
Mobile Phase Lot#: 1278668, 1271949
Standard-Samp Reagent Lot#:: 1271949

Reviewed BY: [illegible]
Date: 3/10/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100227-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0308001a	IPB001	CWW	3/8/2010 15:44			1		USE	B
per0308002a	IPB001	CWW	3/8/2010 15:53			1		USE	B
per0308003a	WCLICAL-01	CWW	3/8/2010 16:02			1		USE	I
per0308004a	WCLICAL-02	CWW	3/8/2010 16:11			1		USE	I
per0308005a	WCLICAL-03	CWW	3/8/2010 16:20			1		USE	I
per0308006a	WCLICAL-04	CWW	3/8/2010 16:29			1		USE	I
per0308007a	WCLICAL-05	CWW	3/8/2010 16:39			1		USE	I
per0308008a	IPB002	CWW	3/8/2010 16:48			1		USE	B
per0308009a	WCLICV	CWW	3/8/2010 16:57			1		USE	C
per0308010a	IPB003	CWW	3/8/2010 17:06			1		USE	B
per0308011a	WCLCRI	CWW	3/8/2010 17:15			1		USE	C
per0308012a	246870009	CWW	3/8/2010 17:24	955688	10-1782	1	LANL	USE	S
per0308013a	246870010	CWW	3/8/2010 17:33	955688	10-1782	1	LANL	USE	S
per0308014a	246982001	CWW	3/8/2010 17:42	955688	10-1812	1	LANL	USE	S
per0308015a	246982002	CWW	3/8/2010 17:51	955688	10-1812	1	LANL	USE	S
per0308016a	246982003	CWW	3/8/2010 18:01	955688	10-1812	1	LANL	USE	S
per0308017a	246982004	CWW	3/8/2010 18:10	955688	10-1812	1	LANL	USE	S
per0308018a	246982005	CWW	3/8/2010 18:19	955688	10-1812	1	LANL	USE	S
per0308019a	246982006	CWW	3/8/2010 18:28	955688	10-1812	1	LANL	USE	S
per0308020a	246982007	CWW	3/8/2010 18:37	955688	10-1812	1	LANL	USE	S
per0308021a	WCLCCV	CWW	3/8/2010 18:46			1		USE	C
per0308022a	IPB004	CWW	3/8/2010 18:55			1		USE	B
per0308023a	WCLCRI	CWW	3/8/2010 19:04			1		USE	C
per0308024a	1202049003	CWW	3/8/2010 19:13	955691	10-1809	1	LANL	USE	S
per0308025a	1202049004	CWW	3/8/2010 19:22	955691	10-1809	1	LANL	USE	S
per0308026a	1202049007	CWW	3/8/2010 19:31	955691	10-1809	1	LANL	USE	S
per0308027a	246974001	CWW	3/8/2010 19:40	955691	10-1809	1	LANL	USE	S
per0308028a	1202049005	CWW	3/8/2010 19:49	955691	10-1809	1	LANL	USE	S
per0308029a	1202049006	CWW	3/8/2010 19:58	955691	10-1809	1	LANL	USE	S

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per0308030a	246974002	CWW	3/8/2010 20:07	955691	10-1809	1	LANL	USE	S
per0308031a	246974003	CWW	3/8/2010 20:16	955691	10-1809	1	LANL	USE	S
per0308032a	246974004	CWW	3/8/2010 20:26	955691	10-1809	1	LANL	USE	S
per0308033a	246974005	CWW	3/8/2010 20:35	955691	10-1809	1	LANL	USE	S
per0308034a	WCLCCV	CWW	3/8/2010 20:44			1		USE	C
per0308035a	IPB005	CWW	3/8/2010 20:53			1		USE	B
per0308036a	WCLCRI	CWW	3/8/2010 21:02			1		USE	C
per0308037a	246974006	CWW	3/8/2010 21:11	955691	10-1809	1	LANL	USE	S
per0308038a	246974007	CWW	3/8/2010 21:20	955691	10-1809	1	LANL	USE	S
per0308039a	246974008	CWW	3/8/2010 21:29	955691	10-1809	1	LANL	USE	S
per0308040a	246974009	CWW	3/8/2010 21:38	955691	10-1809	1	LANL	USE	S
per0308041a	246974010	CWW	3/8/2010 21:47	955691	10-1809	1	LANL	USE	S
per0308042a	246974011	CWW	3/8/2010 21:56	955691	10-1809	1	LANL	USE	S
per0308043a	246974012	CWW	3/8/2010 22:05	955691	10-1809	1	LANL	USE	S
per0308044a	246974013	CWW	3/8/2010 22:14	955691	10-1809	1	LANL	USE	S
per0308045a	246974014	CWW	3/8/2010 22:23	955691	10-1809	1	LANL	USE	S
per0308046a	246974015	CWW	3/8/2010 22:32	955691	10-1809	1	LANL	USE	S
per0308047a	WCLCCV	CWW	3/8/2010 22:42			1		USE	C
per0308048a	IPB006	CWW	3/8/2010 22:51			1		USE	B
per0308049a	WCLCRI	CWW	3/8/2010 23:00			1		USE	C
per0308050a	246974016	CWW	3/8/2010 23:09	955691	10-1809	1	LANL	USE	S
per0308051a	246974017	CWW	3/8/2010 23:18	955691	10-1809	1	LANL	USE	S
per0308052a	IPB007	CWW	3/8/2010 23:27			1		USE	B
per0308053a	1202049064	CWW	3/8/2010 23:36	955724	VARIOUS	1	LANL	USE	S
per0308054a	1202049065	CWW	3/8/2010 23:46	955724	VARIOUS	1	LANL	USE	S
per0308055a	1202049068	CWW	3/8/2010 23:55	955724	VARIOUS	1	LANL	USE	S
per0308056a	246964002	CWW	3/9/2010 0:04	955724	10-1802	1	LANL	USE	S
per0308057a	246964004	CWW	3/9/2010 0:13	955724	10-1802	1	LANL	USE	S
per0308058a	246967001	CWW	3/9/2010 0:22	955724	10-1807	1	LANL	USE	S
per0308059a	246967004	CWW	3/9/2010 0:31	955724	10-1807	1	LANL	DUSE-DL	S
per0308060a	WCLCCV	CWW	3/9/2010 0:40			1		USE	C
per0308061a	IPB008	CWW	3/9/2010 0:50			1		USE	B
per0308062a	WCLCRI	CWW	3/9/2010 0:59			1		USE	C
per0308063a	247036002	CWW	3/9/2010 1:08	955724	10-1826	1	LANL	USE	S
per0308064a	247036003	CWW	3/9/2010 1:17	955724	10-1826	1	LANL	USE	S
per0308065a	247036006	CWW	3/9/2010 1:26	955724	10-1826	1	LANL	USE	S
per0308066a	247037001	CWW	3/9/2010 1:35	955724	10-1823	1	LANL	DUSE-DL	S

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per0308067a	247042002	CWW	3/9/2010 1:44	955724	10-1817	1	LANL	DUSE-RA	S
per0308068a	247042004	CWW	3/9/2010 1:53	955724	10-1817	1	LANL	USE	S
per0308069a	247042006	CWW	3/9/2010 2:02	955724	10-1817	1	LANL	USE	S
per0308070a	247261004	CWW	3/9/2010 2:11	955724	10-1886	1	LANL	USE	S
per0308071a	1202049066	CWW	3/9/2010 2:20	955724	10-1886	1	LANL	USE	S
per0308072a	1202049067	CWW	3/9/2010 2:29	955724	10-1886	1	LANL	USE	S
per0308073a	WCLCCV	CWW	3/9/2010 2:38			1		USE	C
per0308074a	IPB009	CWW	3/9/2010 2:48			1		USE	B
per0308075a	WCLCRI	CWW	3/9/2010 2:57			1		USE	C
per0308076a	1202056710	CWW	3/9/2010 3:06	959044	VARIOUS	1	LANL	USE	S
per0308077a	1202056711	CWW	3/9/2010 3:15	959044	VARIOUS	1	LANL	USE	S
per0308078a	1202056714	CWW	3/9/2010 3:24	959044	VARIOUS	1	LANL	USE	S
per0308079a	247908001	CWW	3/9/2010 3:33	959044	10-2013-1	1	LANL	USE	S
per0308080a	1202056712	CWW	3/9/2010 3:42	959044	10-2013-1	1	LANL	USE	S
per0308081a	1202056713	CWW	3/9/2010 3:51	959044	10-2013-1	1	LANL	USE	S
per0308082a	247908002	CWW	3/9/2010 4:00	959044	10-2013-1	1	LANL	USE	S
per0308083a	247908003	CWW	3/9/2010 4:09	959044	10-2013-1	1	LANL	USE	S
per0308084a	247919001	CWW	3/9/2010 4:18	959044	10-2016-1	1	LANL	USE	S
per0308085a	247919002	CWW	3/9/2010 4:27	959044	10-2016-1	1	LANL	USE	S
per0308086a	WCLCCV	CWW	3/9/2010 4:36			1		USE	C
per0308087a	IPB010	CWW	3/9/2010 4:46			1		USE	B
per0308088a	WCLCRI	CWW	3/9/2010 4:55			1		USE	C
per0308089a	247922004	CWW	3/9/2010 5:04	959044	10-2022	1	LANL	USE	S
per0308090a	247997001	CWW	3/9/2010 5:13	959044	10-2025	1	LANL	USE	S
per0308091a	248001001	CWW	3/9/2010 5:22	959044	10-2028	1	LANL	USE	S
per0308092a	248019001	CWW	3/9/2010 5:31	959044	10-2052	1	LANL	USE	S
per0308093a	248019002	CWW	3/9/2010 5:40	959044	10-2052	1	LANL	USE	S
per0308094a	248034001	CWW	3/9/2010 5:49	959044	10-2072-1	1	LANL	USE	S
per0308095a	248038001	CWW	3/9/2010 5:58	959044	10-2066-1	1	LANL	USE	S
per0308096a	248038002	CWW	3/9/2010 6:07	959044	10-2066-1	1	LANL	USE	S
per0308097a	248039001	CWW	3/9/2010 6:16	959044	10-2069	1	LANL	USE	S
per0308098a	248046001	CWW	3/9/2010 6:25	959044	10-2075-1	1	LANL	USE	S
per0308099a	WCLCCV	CWW	3/9/2010 6:34			1		USE	C
per0308100a	IPB011	CWW	3/9/2010 6:44			1		USE	B
per0308101a	WCLCRI	CWW	3/9/2010 6:53			1		USE	C
per0308102a	248046002	CWW	3/9/2010 7:02	959044	10-2075-1	1	LANL	USE	S
per0308103a	248053001	CWW	3/9/2010 7:11	959044	10-2081	1	LANL	USE	S

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per0308104a	248053002	CWW	3/9/2010 7:20	959044	10-2081	1	LANL	USE	S
per0308105a	248053003	CWW	3/9/2010 7:29	959044	10-2081	1	LANL	USE	S
per0308106a	IPB012	CWW	3/9/2010 7:38			1		USE	B
per0308107a	1202056715	CWW	3/9/2010 7:47	959047	VARIOUS	1	LANL	USE	S
per0308108a	1202056716	CWW	3/9/2010 7:57	959047	VARIOUS	1	LANL	USE	S
per0308109a	1202056719	CWW	3/9/2010 8:06	959047	VARIOUS	1	LANL	USE	S
per0308110a	248108001	CWW	3/9/2010 8:15	959047	10-2090	1	LANL	USE	S
per0308111a	248117001	CWW	3/9/2010 8:24	959047	10-2093	1	LANL	USE	S
per0308112a	WCLCCV	CWW	3/9/2010 8:33			1		USE	C
per0308113a	IPB013	CWW	3/9/2010 8:42			1		USE	B
per0308114a	WCLCRI	CWW	3/9/2010 8:51			1		USE	C
per0308115a	248127001	CWW	3/9/2010 9:00	959047	10-2096	1	LANL	USE	S
per0308116a	248127002	CWW	3/9/2010 9:09	959047	10-2096	1	LANL	USE	S
per0308117a	248162001	CWW	3/9/2010 9:18	959047	10-2103	1	LANL	USE	S
per0308118a	248162002	CWW	3/9/2010 9:27	959047	10-2103	1	LANL	USE	S
per0308119a	1202056717	CWW	3/9/2010 9:37	959047	10-2103	1	LANL	USE	S
per0308120a	1202056718	CWW	3/9/2010 9:46	959047	10-2103	1	LANL	USE	S
per0308121a	248162003	CWW	3/9/2010 9:55	959047	10-2103	1	LANL	USE	S
per0308122a	248162004	CWW	3/9/2010 10:04	959047	10-2103	1	LANL	USE	S
per0308123a	248168006	CWW	3/9/2010 10:13	959047	10-2107	1	LANL	USE	S
per0308124a	248169004	CWW	3/9/2010 10:22	959047	10-2108	1	LANL	USE	S
per0308125a	WCLCCV	CWW	3/9/2010 10:31			1		USE	C
per0308126a	IPB014	CWW	3/9/2010 10:40			1		USE	B
per0308127a	WCLCRI	CWW	3/9/2010 10:49			1		USE	C
per0308128a	248188001	CWW	3/9/2010 10:58	959047	10-2120	1	LANL	USE	S
per0308129a	248199001	CWW	3/9/2010 11:07	959047	10-2122-1	1	LANL	USE	S
per0308130a	248238001	CWW	3/9/2010 11:16	959047	10-2132-1	1	LANL	USE	S
per0308131a	248238002	CWW	3/9/2010 11:25	959047	10-2132-1	1	LANL	USE	S
per0308132a	248242001	CWW	3/9/2010 11:34	959047	10-2135-1	1	LANL	USE	S
per0308133a	248245001	CWW	3/9/2010 11:43	959047	10-2138	1	LANL	USE	S
per0308134a	248257001	CWW	3/9/2010 11:52	959047	10-2146-1	1	LANL	USE	S
per0308135a	248257002	CWW	3/9/2010 12:02	959047	10-2146-1	1	LANL	USE	S
per0308136a	248261001	CWW	3/9/2010 12:11	959047	10-2149	1	LANL	USE	S
per0308137a	WCLCCV	CWW	3/9/2010 12:20			1		USE	C
per0308138a	IPB015	CWW	3/9/2010 12:29			1		USE	B
per0308139a	WCLCRI	CWW	3/9/2010 12:38			1		USE	C

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

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LC/MS/MS EXPLOSIVES ANALYSIS

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LC/MS/MS Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1886

Method/Analysis Information

Procedure:	**Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)**
Analytical Method:	SW846 3535/8321A Modified
Prep Method:	SW846 Method 3535
Analytical Batch Number:	954941
Prep Batch Number:	954940

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 3535/8321A Modified :

Sample ID	Client ID
247261003	CAPA-10-12691
1202047270	Method Blank (MB)
1202047271	Laboratory Control Sample (LCS)
1202047272	247261003(CAPA-10-12691) Matrix Spike (MS)
1202047273	247261003(CAPA-10-12691) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

Primary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

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Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

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

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Sample 247261003 (CAPA-10-12691) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recovered Tetryl at 15.4%. The limits are 26-116%. The MS recovered 2,6-Dinitrotoluene 82.3%. The limits are 83-114%. The LCS and MSD have passing recoveries for all spiked analytes. The failures may be attributed to matrix and were not confirmed by the MSD possibly due to non-homogeneous sample matrix. The failing analytes were not detected in the parent sample. The data are reported. Please see data exception report 810715.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The MS/MSD RPD for Tetryl was 79.8%. The limit is 30%. Failing RPD may be attributed to non-homogeneous sample matrix. Tetryl was not detected in the parent sample. The data are reported. Please see data exception report 810715.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC in this SDG.

Technical Information

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

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Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Secondary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

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

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Sample 247261003 (CAPA-10-12691) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

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Internal Standard (ISTD) Acceptance
The internal standards were not added to the secondary analyte extracts.

Technical Information

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

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report 810715 was generated for this SDG.

The MS recovered Tetryl at 15.4%. The limits are 26-116%. The MS recovered 2,6-Dinitrotoluene 82.3%. The limits are 83-114%. The LCS and MSD have passing recoveries for all spiked analytes. The failures may be attributed to matrix and were not confirmed by the MSD possibly due to non-homogeneous sample matrix. The failing analytes were not detected in the parent sample. The data are reported.

The MS/MSD RPD for Tetryl was 79.8%. The limit is 30%. Failing RPD may be attributed to non-homogeneous sample matrix. Tetryl was not detected in the parent sample. The data are reported.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

Flagging Convention
The sample was not originally analyzed using SW-846 Method 8330.

Additional Comments
Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

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System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

Certification Statement

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

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: Herbert M Mauer **Date:** 03/30/10

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SAMPLE DATA SUMMARY

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12691

Lab Code: GEL

GEL Job No (SDG) 10-1886

Matrix: GROUND WATER

GEL Sample ID: 247261003

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 17-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 954940

Concentrated Extract Volume (mL) 5

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0322015.wiff

Date Analyzed: 22-MAR-10 21:42

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	U
121-14-2	2,4-Dinitrotoluene	0.325	U
121-82-4	RDX	0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	U
2691-41-0	HMX	0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	U
479-45-8	Tetryl	0.649	U
606-20-2	2,6-Dinitrotoluene	0.325	U
78-11-5	PETN	1.3	U
88-72-2	o-Nitrotoluene	0.325	U
98-95-3	Nitrobenzene	0.124	J
99-08-1	m-Nitrotoluene	0.325	U
99-35-4	1,3,5-Trinitrobenzene	0.325	U
99-65-0	m-Dinitrobenzene	0.325	U
99-99-0	p-Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12691

Lab Code: GEL

GEL Job No (SDG) 10-1886

Matrix: GROUND WATER

GEL Sample ID: 247261003

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 17-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 954940

Concentrated Extract Volume (mL) 5

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03160139.wiff

Date Analyzed: 17-MAR-10 20:25

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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QUALITY CONTROL SUMMARY

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2

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1886

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
247261003	CAPA–10–12691	90	67 – 134	
247261003	CAPA–10–12691	86.4	67 – 134	
1202047270	MB for batch 954940	89.6	67 – 134	
1202047270	MB for batch 954940	88.4	67 – 134	
1202047271	LCS for batch 954940	89.2	67 – 134	
1202047271	LCS for batch 954940	90.8	67 – 134	
1202047272	CAPA–10–12691(247261003MS)	71.6	67 – 134	
1202047272	CAPA–10–12691(247261003MS)	85.6	67 – 134	
1202047273	CAPA–10–12691(247261003MSD)	80.8	67 – 134	
1202047273	CAPA–10–12691(247261003MSD)	87.2	67 – 134	

DNT = 3,4–Dinitrotoluene

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10–1886

Extract Batch Code: 954940

Date Extracted: 19–FEB–10

GEL LCS ID: 1202047271

GEL LCSDUP ID:

Analysis Date/Time: 22–MAR–10 21:16

DUP Analysis Date/Time:

Reporting Units: ug/L

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
1,3,5–Trinitrobenzene	6.49351	5.51	84.8					64 – 129
2,4,6–Trinitrotoluene	6.49351	5.9	90.8					67 – 150
2,4–Dinitrotoluene	6.49351	6.19	95.4					76.9 – 126
2,6–Dinitrotoluene	6.49351	5.62	86.6					73 – 123
2–Amino–4,6–dinitrotoluene	6.49351	6.1	94					66 – 143
4–Amino–2,6–dinitrotoluene	6.49351	6.19	95.4					68 – 141
HMX	6.49351	4.92	75.8					57 – 129
Nitrobenzene	6.49351	6.25	96.2					56 – 125
PETN	6.49351	6.74	104					59 – 142
RDX	6.49351	6.3	97					66 – 150
Tetryl	6.49351	5.7	87.8					53 – 123
m–Dinitrobenzene	6.49351	6.06	93.4					70 – 128
m–Nitrotoluene	6.49351	5.65	87					55 – 119
o–Nitrotoluene	6.49351	5.55	85.4					54 – 121
p–Nitrotoluene	6.49351	5.23	80.6					56 – 129

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10–1886

Extract Batch Code: 954940

Date Extracted: 19–FEB–10

GEL LCS ID: 1202047271

GEL LCSDUP ID:

Analysis Date/Time: 17–MAR–10 20:09

DUP Analysis Date/Time:

Reporting Units: ug/L

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec	#	LCSD Conc	LCSD Rec	#	RPD	#	RPD	Recovery Limits
2,4–Diamino–6–nitrotoluene	6.49351	4.94	76								38 – 114
2,6–Diamino–4–nitrotoluene	6.49351	5.58	86								59.1 – 123
3,5–Dinitroaniline	6.49351	5.3	81.6								64 – 117
TATB	6.49351	5.36	82.6								27 – 141
tris(o–cresyl) phosphate	6.49351	2.43	37.4								17 – 73

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: CAPA-10-12691

Lab Code: GEL

GEL Job No (SDG) 10-1886

Extract Batch Code: 954940

Date Extracted: 19-FEB-10

GEL Spike ID: 1202047272

GEL SpikeDup ID: 1202047273

Analysis Date/Time: 22-MAR-10 22:08

MSD Analysis Date/Time:

Reporting Units: ug/L

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
HMX	6.49351	0	5.55	85.4	5.7	87.8	2.77	30	53 – 150
Nitrobenzene	6.49351	.124	5.97	90.1	6.58	99.5	9.72	30	65 – 114
PETN	6.49351	0	5.81	89.4	6.25	96.2	7.33	30	47 – 145
2,4,6-Trinitrotoluene	6.49351	0	4.56	70.2	5.01	77.2	9.5	30	68 – 147
4-Amino-2,6-dinitrotoluene	6.49351	0	5	77	5.75	88.6	14	30	73 – 140
2-Amino-4,6-dinitrotoluene	6.49351	0	5.62	86.6	5.96	91.8	5.83	30	70 – 149
2,6-Dinitrotoluene	6.49351	.0708	5.42	82.3 *	5.97	90.9	9.81	30	83 – 114
2,4-Dinitrotoluene	6.49351	0	5.82	89.6	6.53	101	11.6	30	77.5 – 131
1,3,5-Trinitrobenzene	6.49351	0	4.96	76.4	5.38	82.8	8.04	30	28 – 140
RDX	6.49351	0	6.04	93	6.13	94.4	1.49	30	63 – 156
Tetryl	6.49351	0	.999	15.4 *	2.32	35.8	79.8 *	30	26 – 116
m-Dinitrobenzene	6.49351	0	6.29	96.8	6.53	101	3.85	30	79 – 117
m-Nitrotoluene	6.49351	0	5.82	89.6	6.39	98.4	9.36	30	66 – 111
o-Nitrotoluene	6.49351	0	5.62	86.6	6.35	97.8	12.1	30	65 – 115
p-Nitrotoluene	6.49351	0	5.9	90.8	6.6	102	11.2	30	66 – 121

#Column to be used to flag recovery and RPD values with an asterisk

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: CAPA-10-12691

Lab Code: GEL

GEL Job No (SDG) 10-1886

Extract Batch Code: 954940

Date Extracted: 19-FEB-10

GEL Spike ID: 1202047272

GEL SpikeDup ID: 1202047273

Analysis Date/Time: 17-MAR-10 20:41

MSD Analysis Date/Time:

Reporting Units: ug/L

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
2,4-Diamino-6-nitrotoluene	6.49351	0	5.08	78.2	4.9	75.4	3.65	30	31 – 125
2,6-Diamino-4-nitrotoluene	6.49351	0	5.92	91.2	5.71	88	3.57	30	50.3 – 136
TATB	6.49351	0	5.32	82	5.56	85.6	4.3	30	21 – 150
3,5-Dinitroaniline	6.49351	0	5.56	85.6	5.79	89.2	4.12	30	60 – 128
tris(o-cresyl) phosphate	6.49351	0	2.66	41	2.75	42.4	3.36	30	14 – 78

#Column to be used to flag recovery and RPD values with an asterisk

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1886

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 22–MAR–10 15:33

GEL Data File: EXP0322001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	2.67
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322001.wiff	**Acquisition Date**	3/22/2010 3:33:15 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

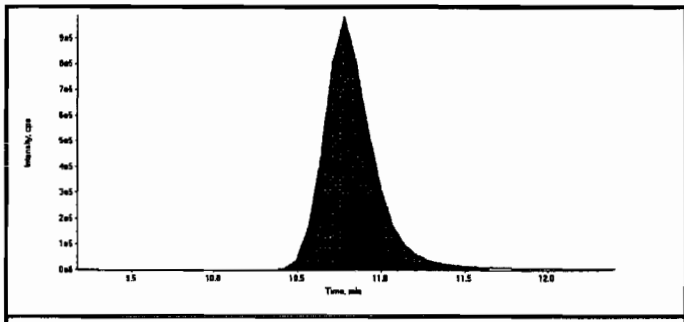

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	20000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

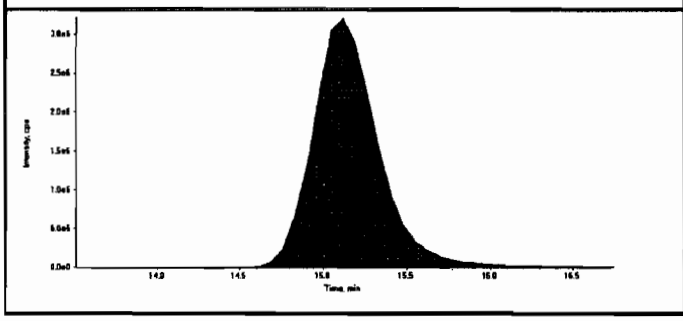

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.10
Area Counts:	88600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

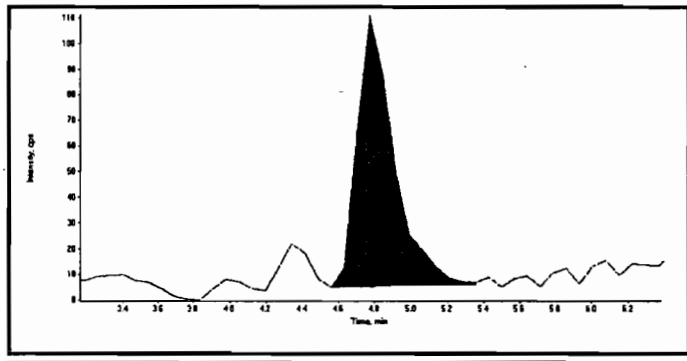

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	1.49e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

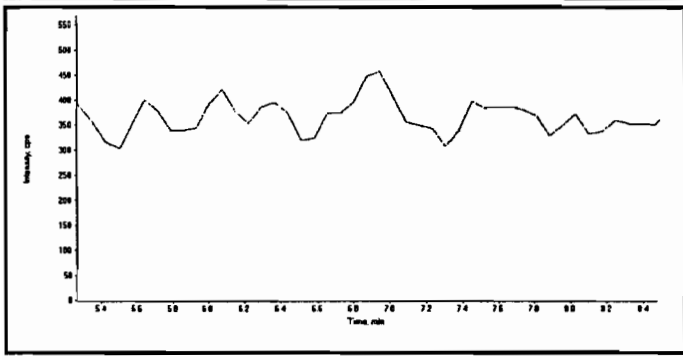

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

dmw 03/28/10
Lan 3/28/10

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Data File	EXP0322001.wiff	**Acquisition Date**	3/22/2010 3:33:15 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

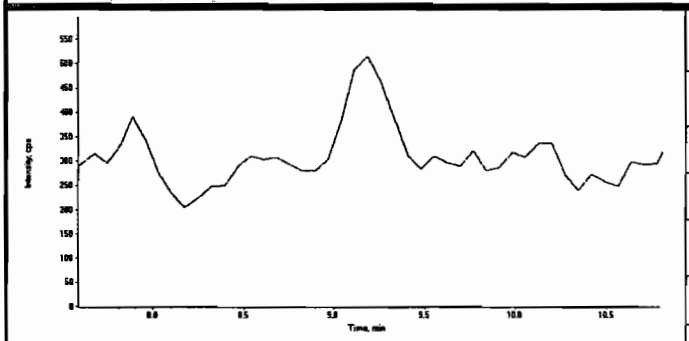

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

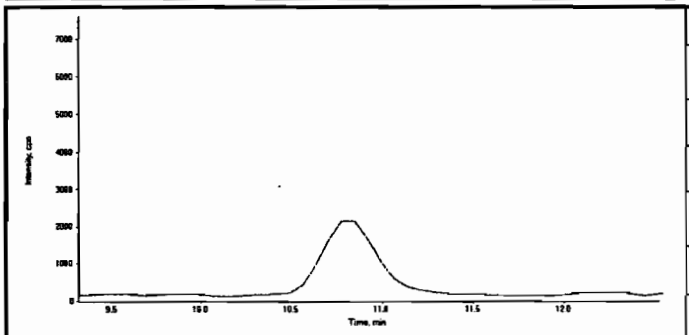

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

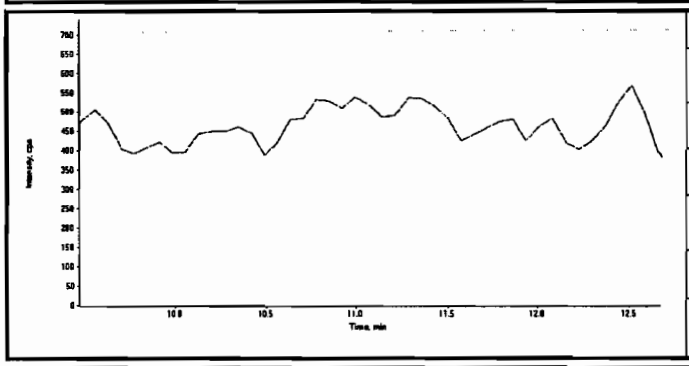

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

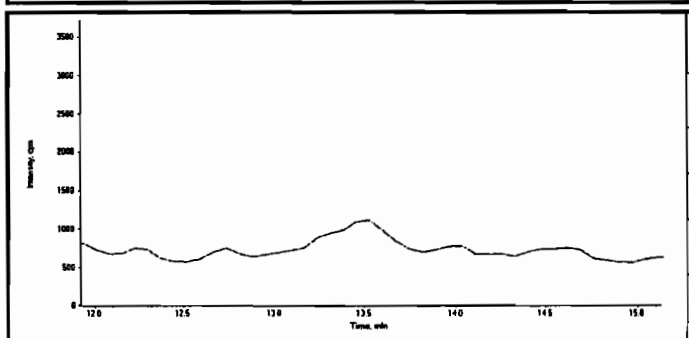

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322001.wiff	Acquisition Date	3/22/2010 3:33:15 PM
Sample Name	XIBLK01	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

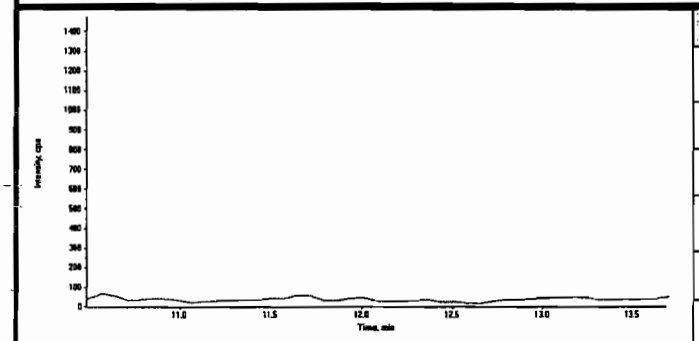

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

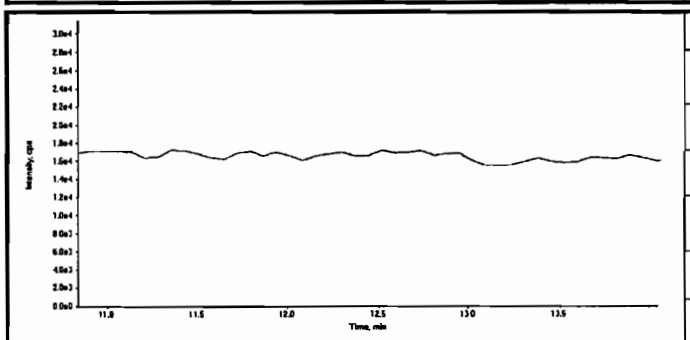

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

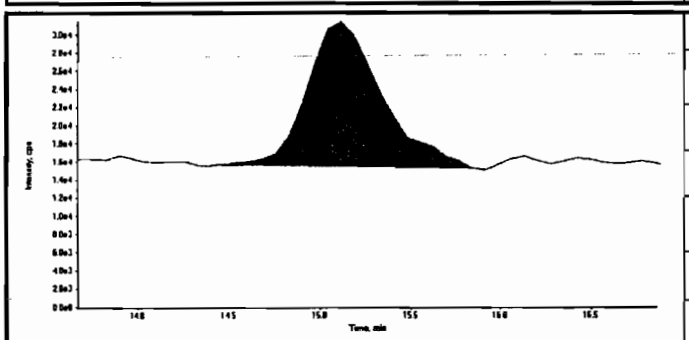

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.1
Area Counts:	4.61e+005
Manual Modification	No
Amount:	2.67 (ng/mL)
% Accuracy:	N/A

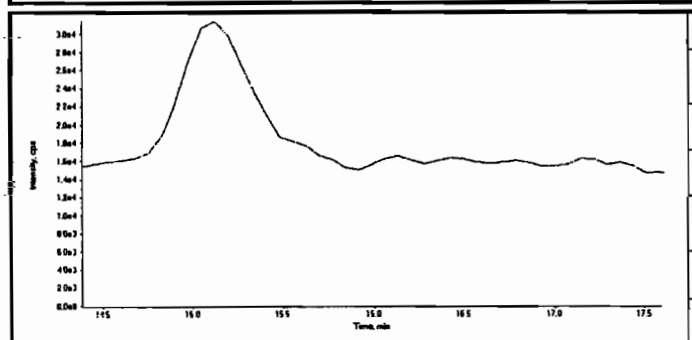

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322001.wiff	**Acquisition Date**	3/22/2010 3:33:15 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

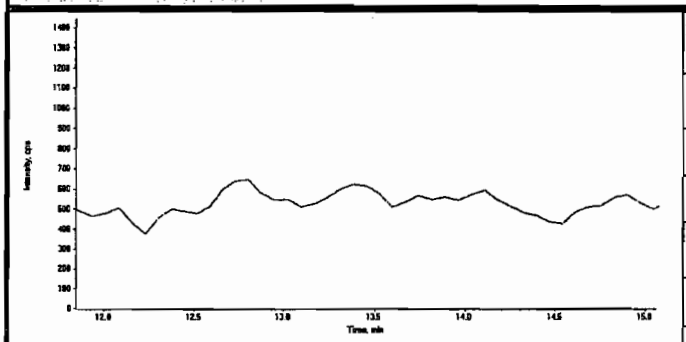

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

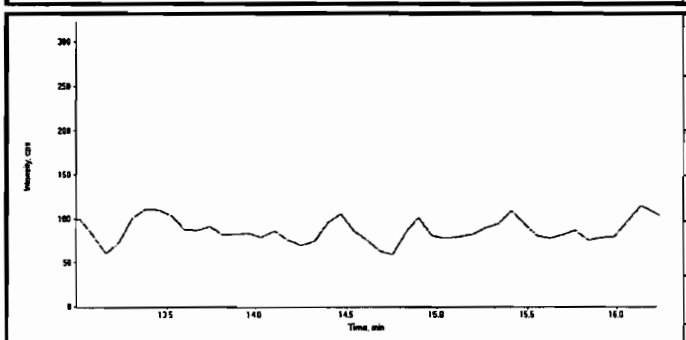

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

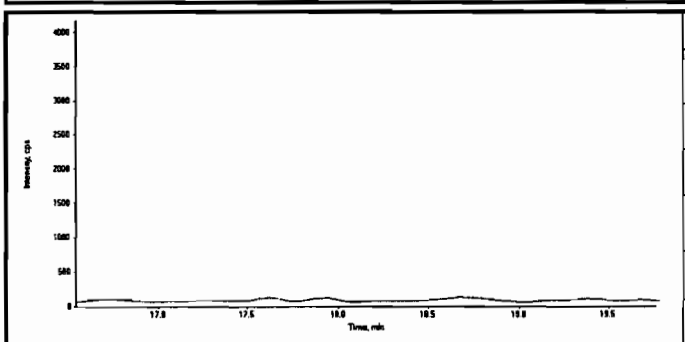

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

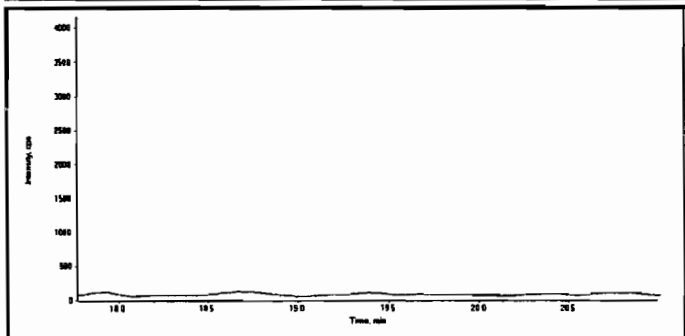

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322001.wiff	**Acquisition Date**	3/22/2010 3:33:15 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

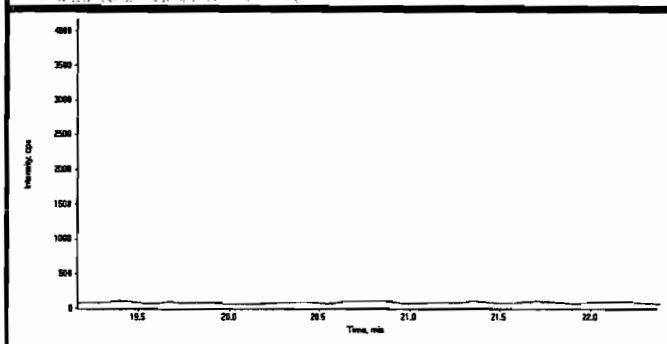

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

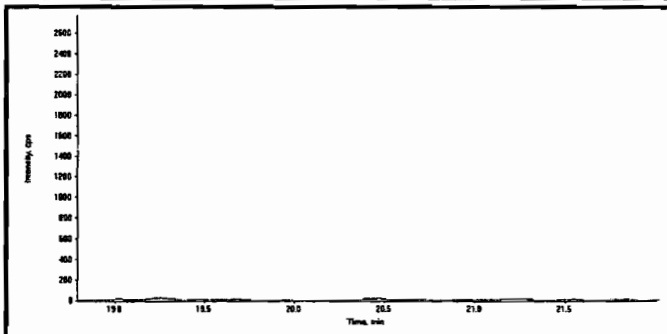

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1886

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 22–MAR–10 15:59

GEL Data File: EXP0322002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	2.8
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322002.wiff	**Acquisition Date**	3/22/2010 3:59:34 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

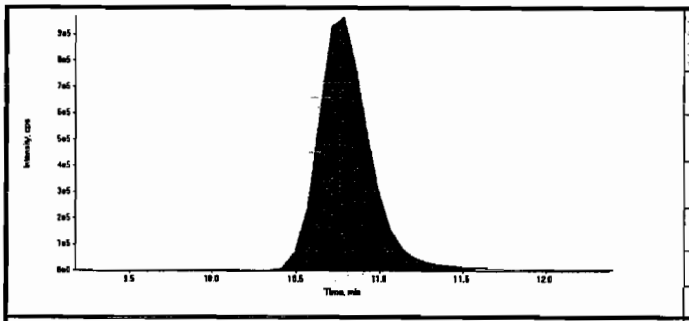

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	20800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

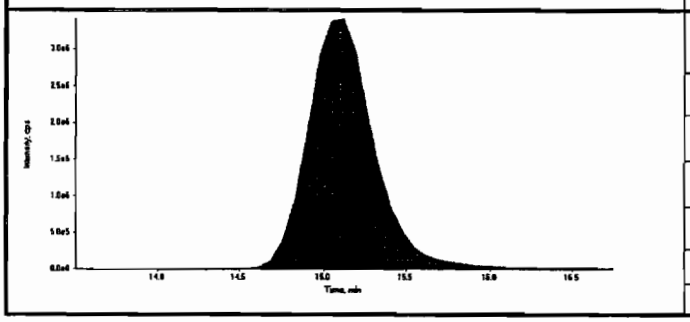

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.10
Area Counts:	96000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

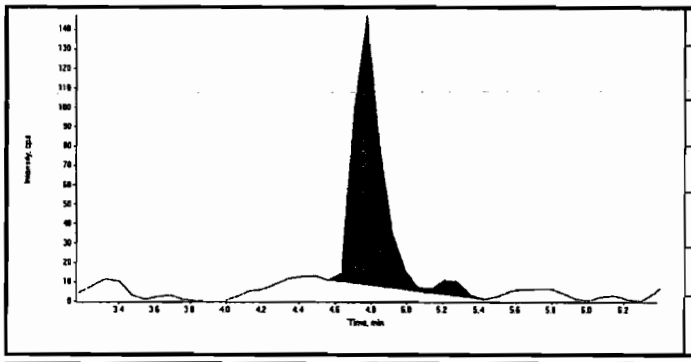

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	1.57e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

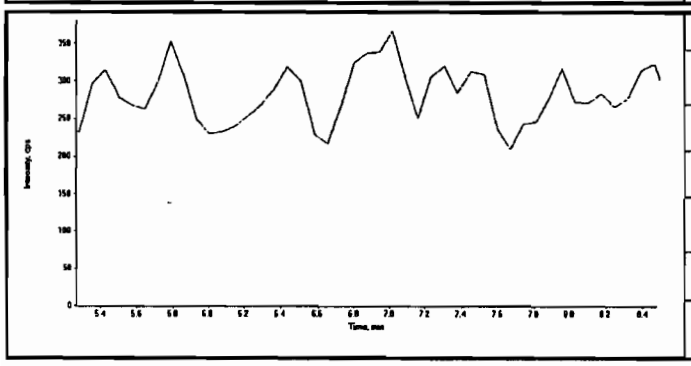

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Ran 3/28/10 dmw 03/25/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Data File	EXP0322002.wiff	**Acquisition Date**	3/22/2010 3:59:34 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

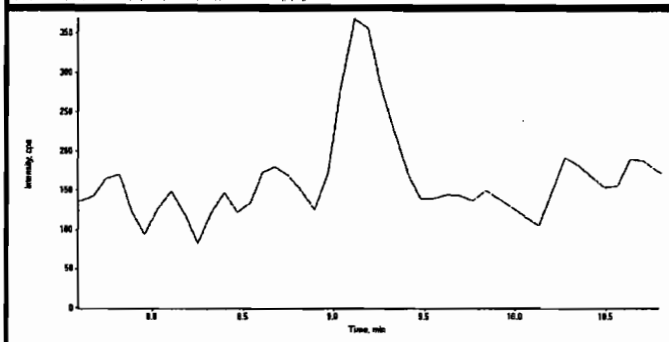

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

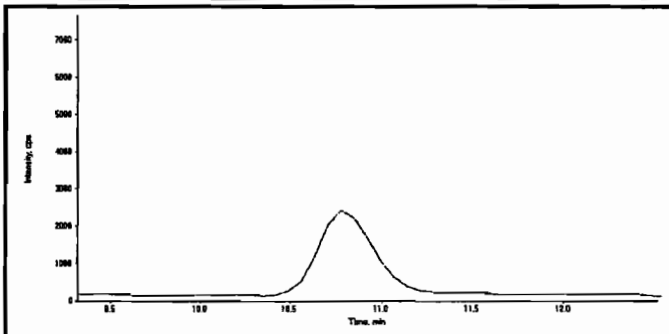

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

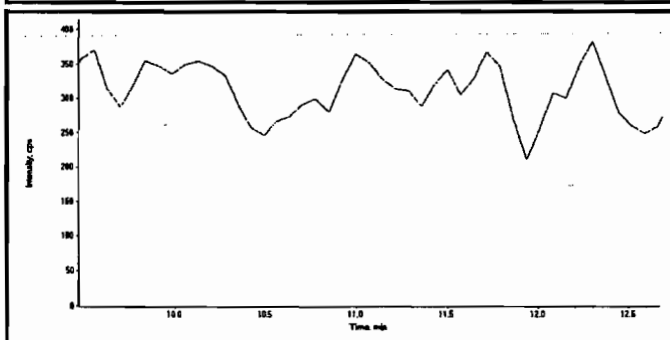

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

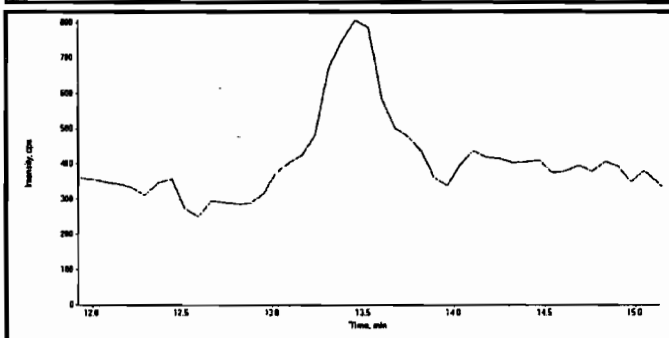

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322002.wiff	Acquisition Date	3/22/2010 3:59:34 PM
Sample Name	XIBLK01	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

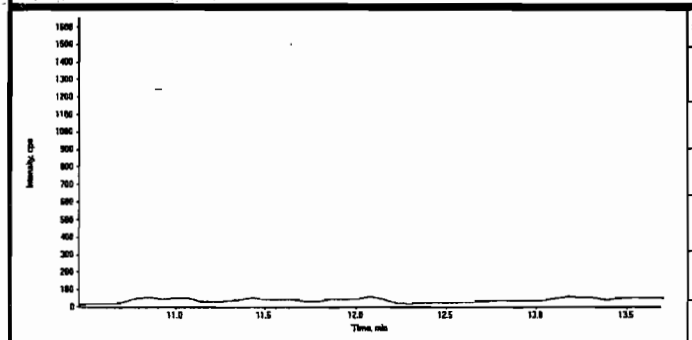

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

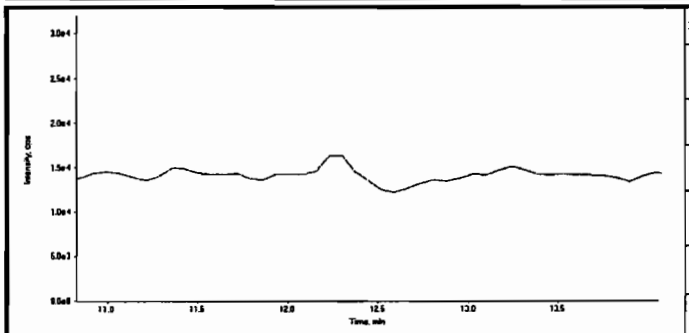

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

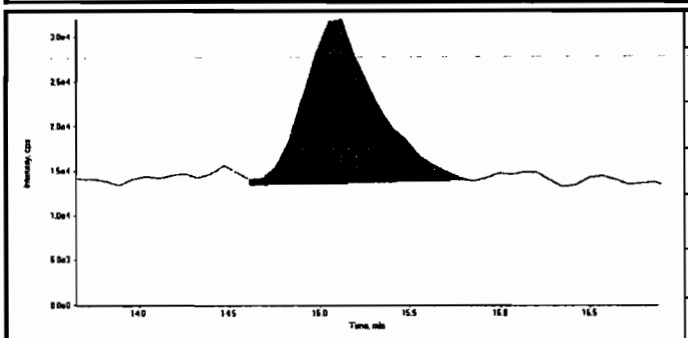

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.1
Area Counts:	5.22e+005
Manual Modification	No
Amount:	2.80 (ng/mL)
% Accuracy:	N/A

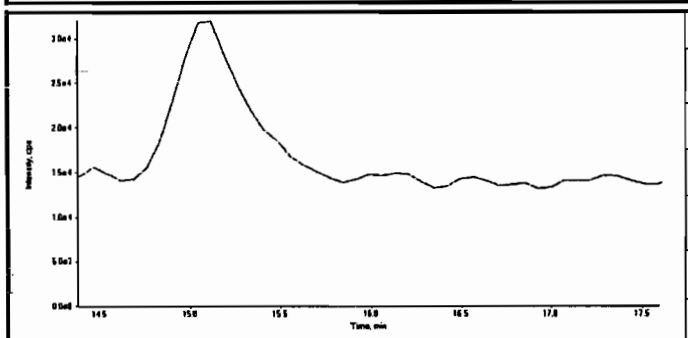

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322002.wiff	**Acquisition Date**	3/22/2010 3:59:34 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

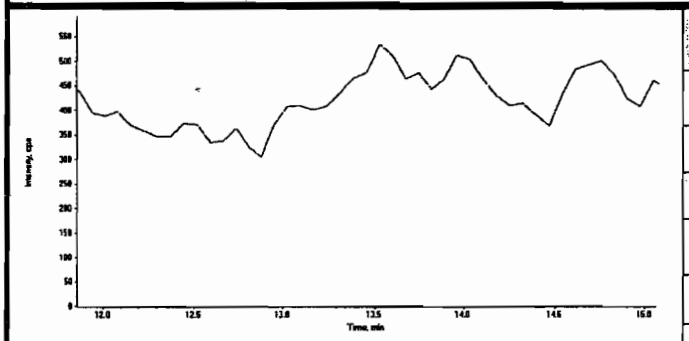

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

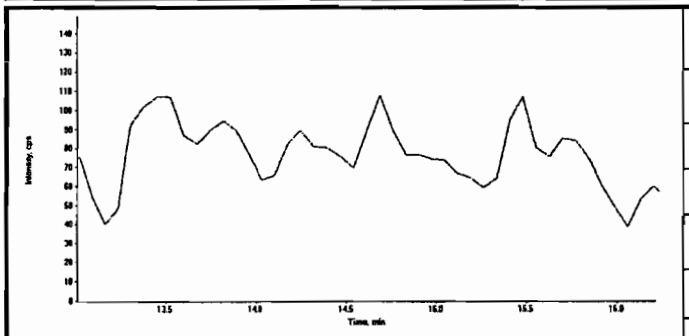

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

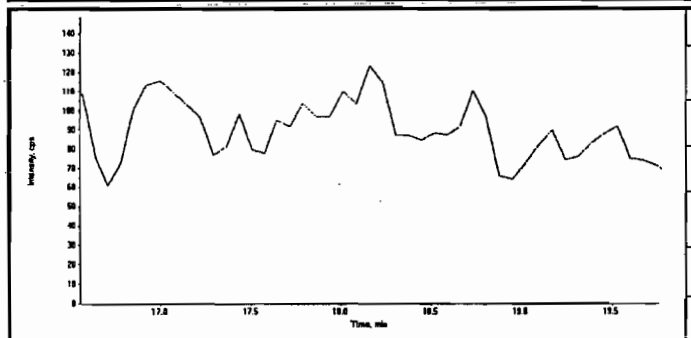

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

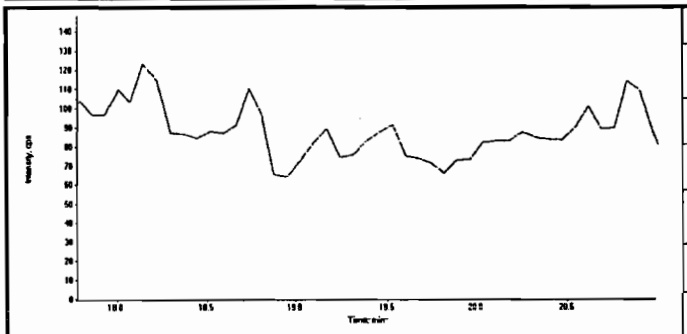

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322002.wiff	**Acquisition Date**	3/22/2010 3:59:34 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

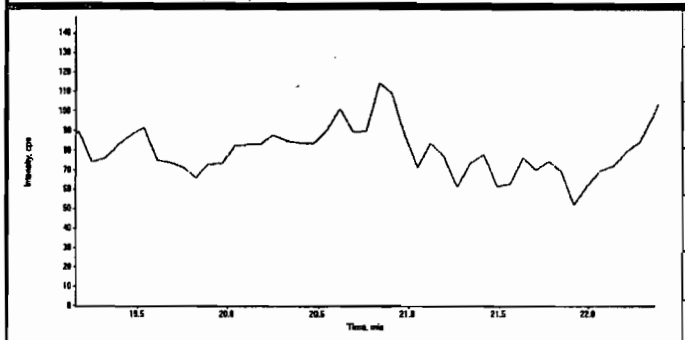

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

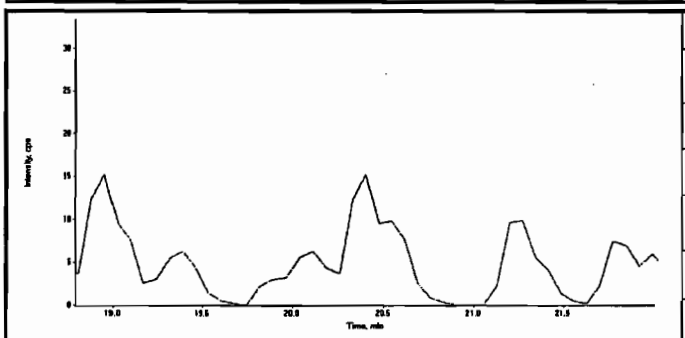

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1886

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 16–MAR–10 08:17

GEL Data File: EXS03160001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

LCM 3/18/10

ample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03160001.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/16/2010
. Time: 8:17:47 AM
ified: No

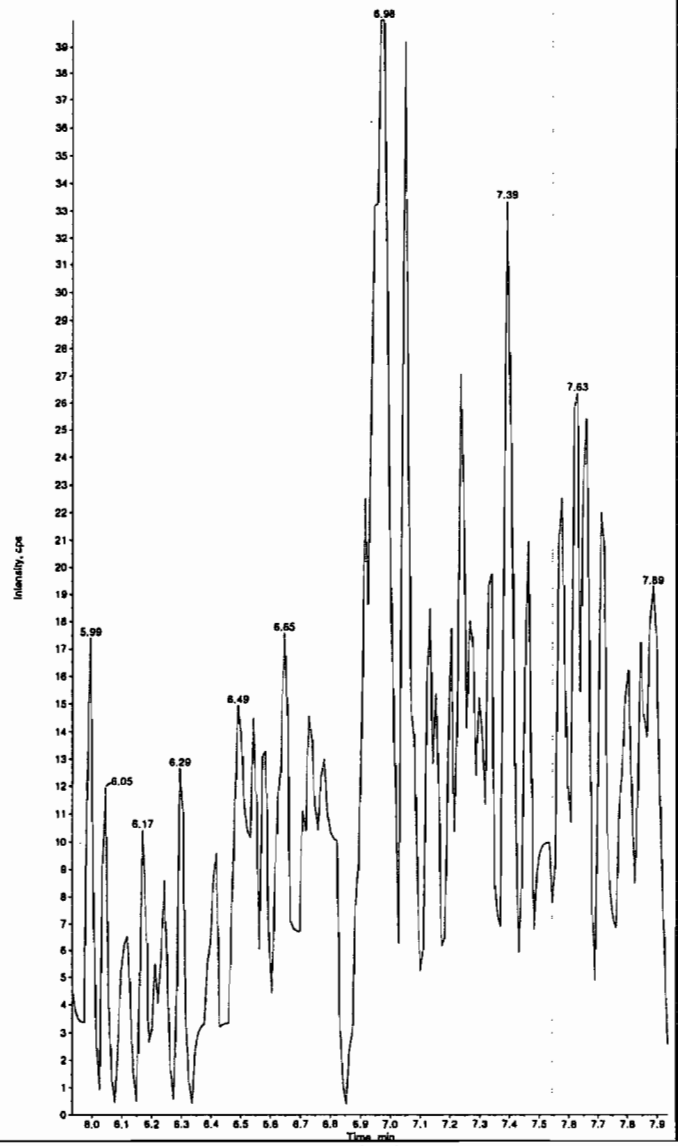

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03160001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/16/2010
Acq. Time: 8:17:47 AM

Modified: No

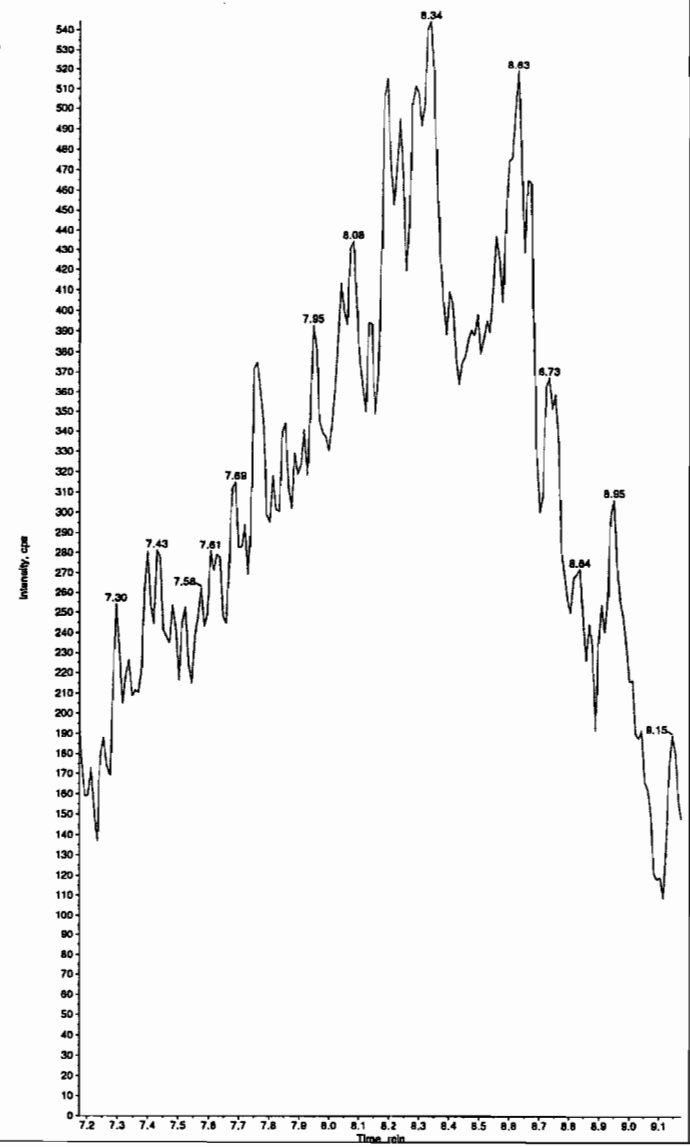

Hrm 03/22/10

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03160001.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/16/2010
. Time: 8:17:47 AM
ified: No

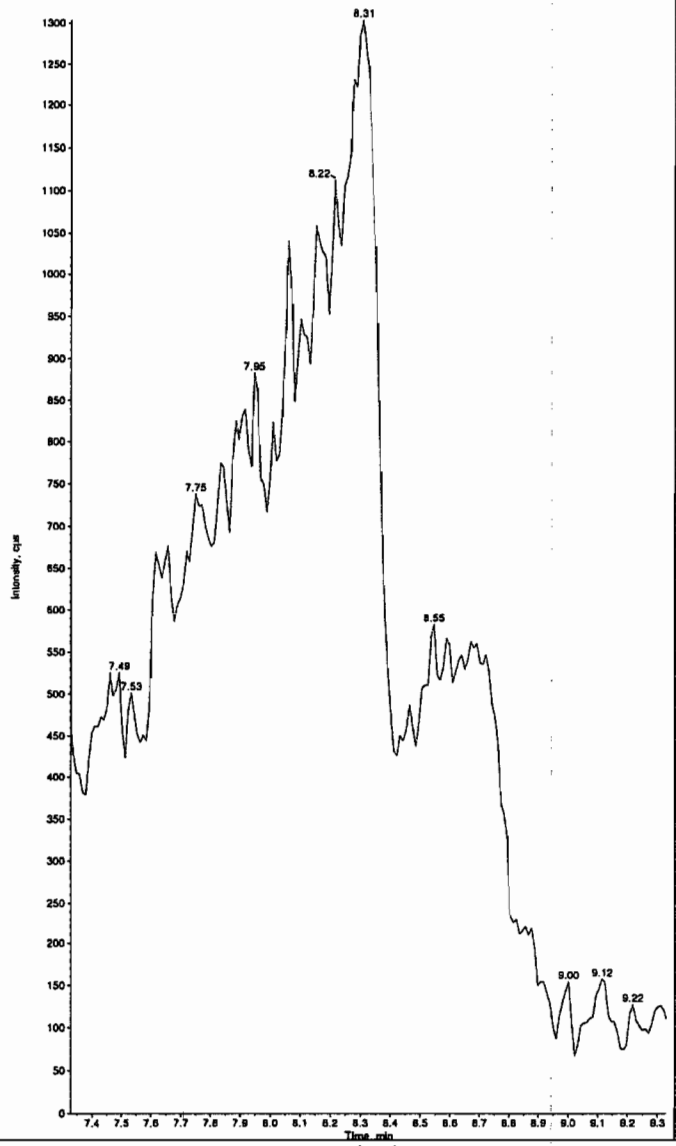

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03160001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/16/2010
Acq. Time: 8:17:47 AM

Modified: No

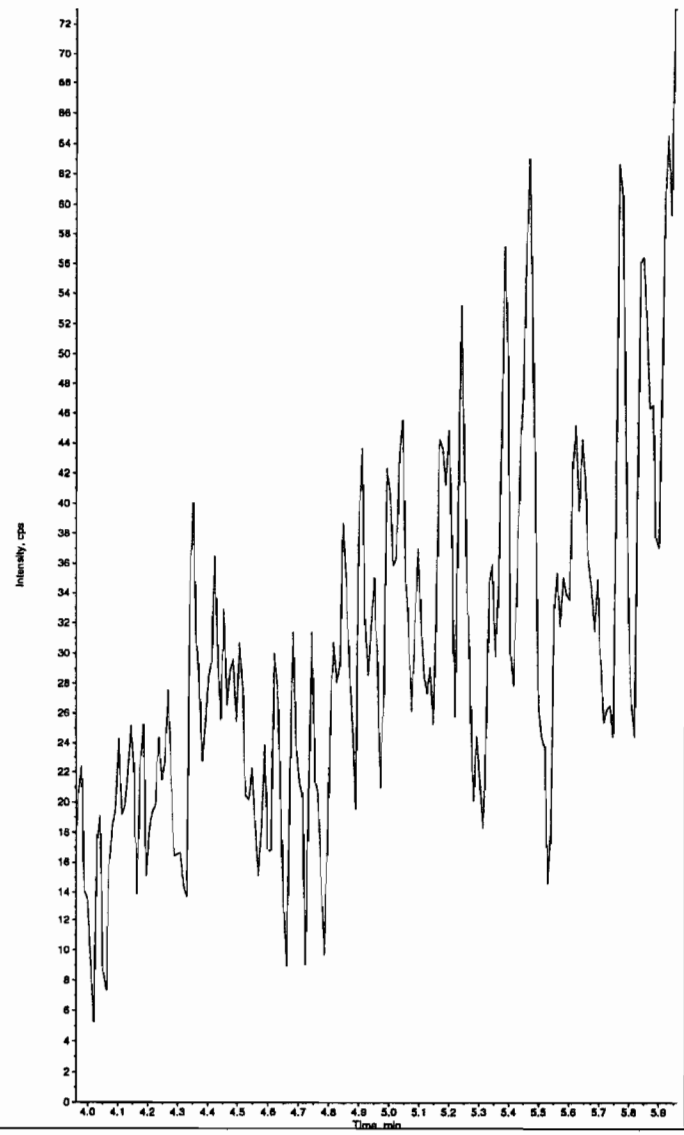

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XI8LK01" Sample ID: "|1|LER" File: "EXS03160001.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
entration: N/A
culated Conc: 0.00 ng/mL
Date: 3/16/2010
Time: 8:17:47 AM

fied: No

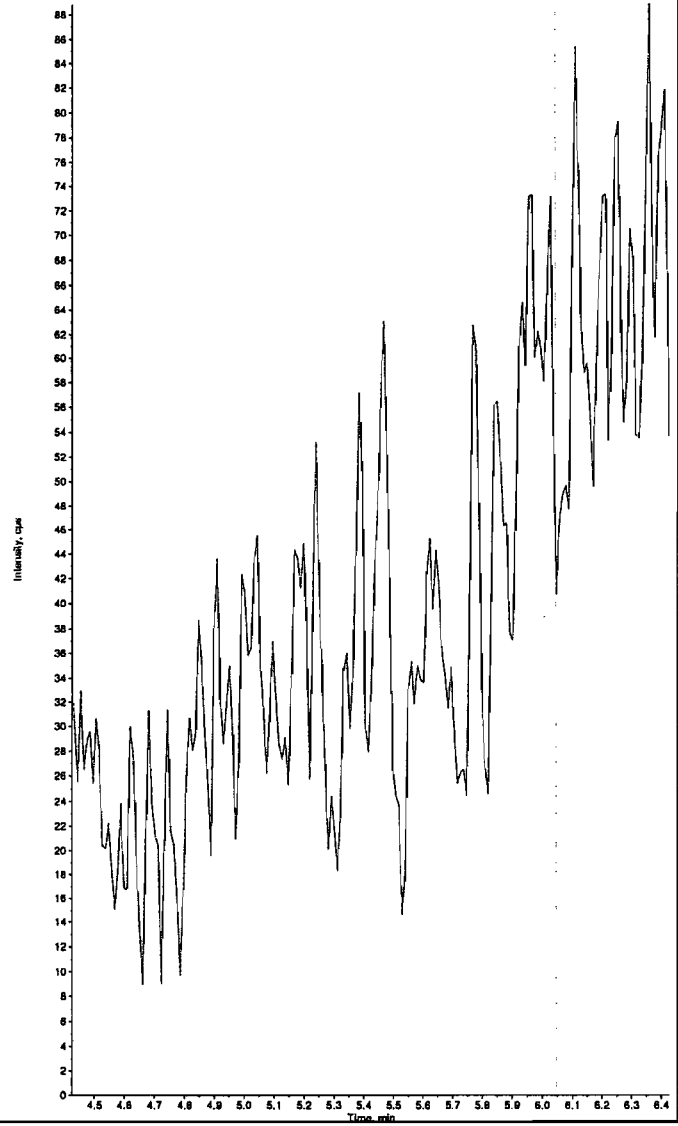

Sample Name: "XI8LK01" Sample ID: "|1|LER" File: "EXS03160001.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/16/2010
Acq. Time: 8:17:47 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 4.77e+004 counts
Height: 9390.677 cps
Start Time: 10.8 min
End Time: 11.0 min

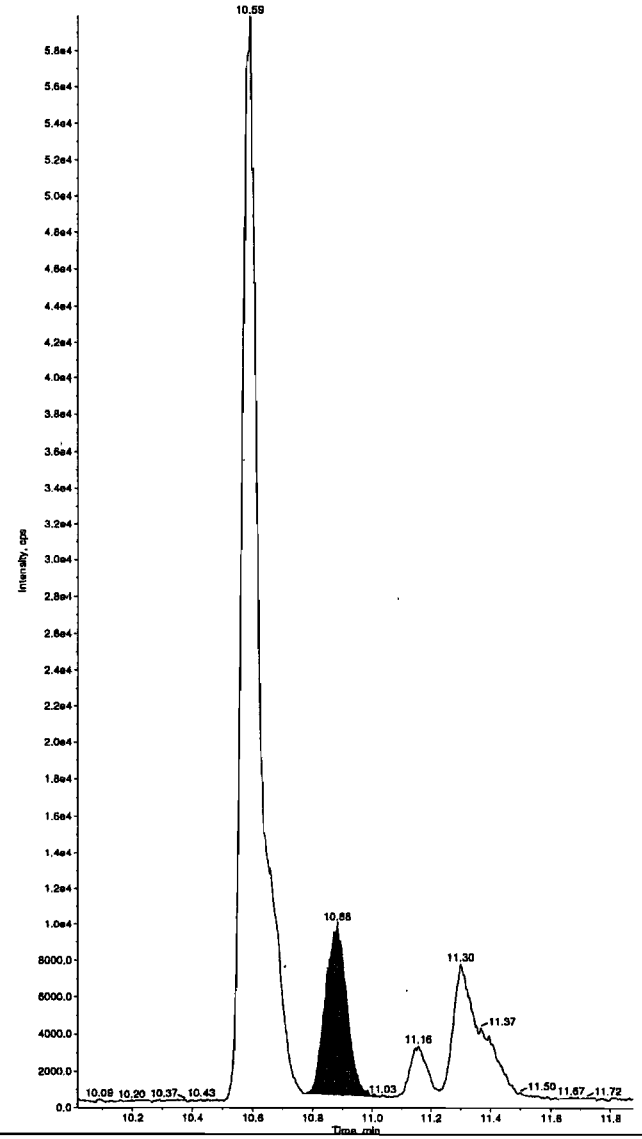

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1886

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 16–MAR–10 08:33

GEL Data File: EXS03160002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

LCW 3/18/10

ample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03160002.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/16/2010
. Time: 8:33:34 AM
ified: No

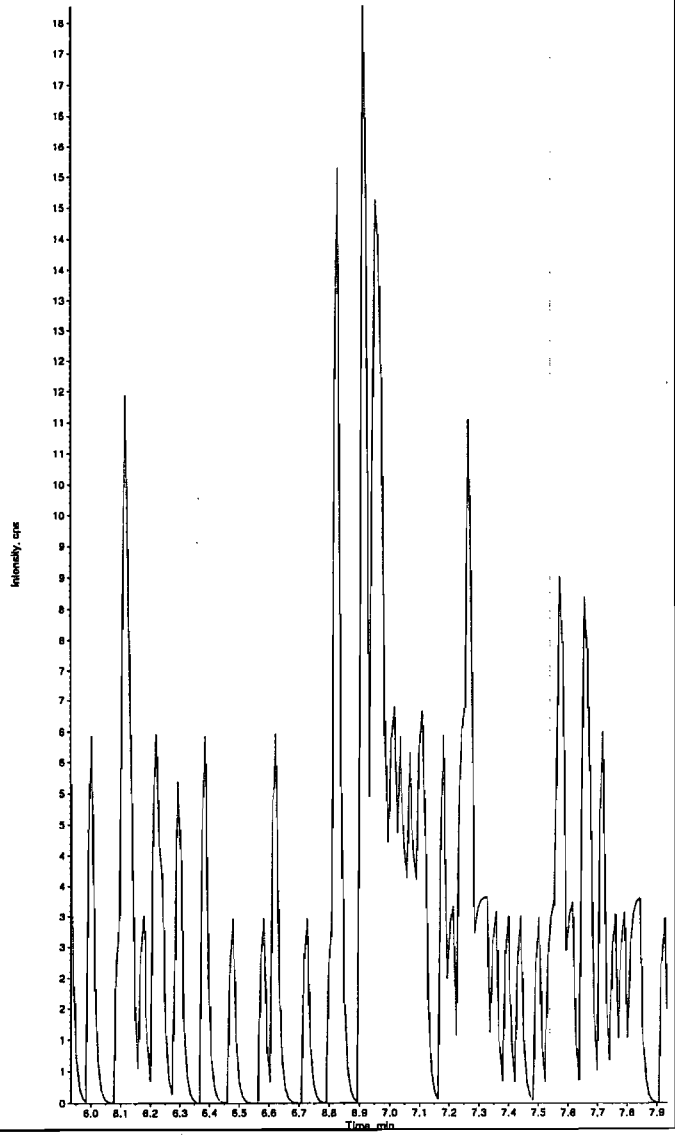

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03160002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/16/2010
Acq. Time: 8:33:34 AM

Modified: No

Hnm 03/22/10

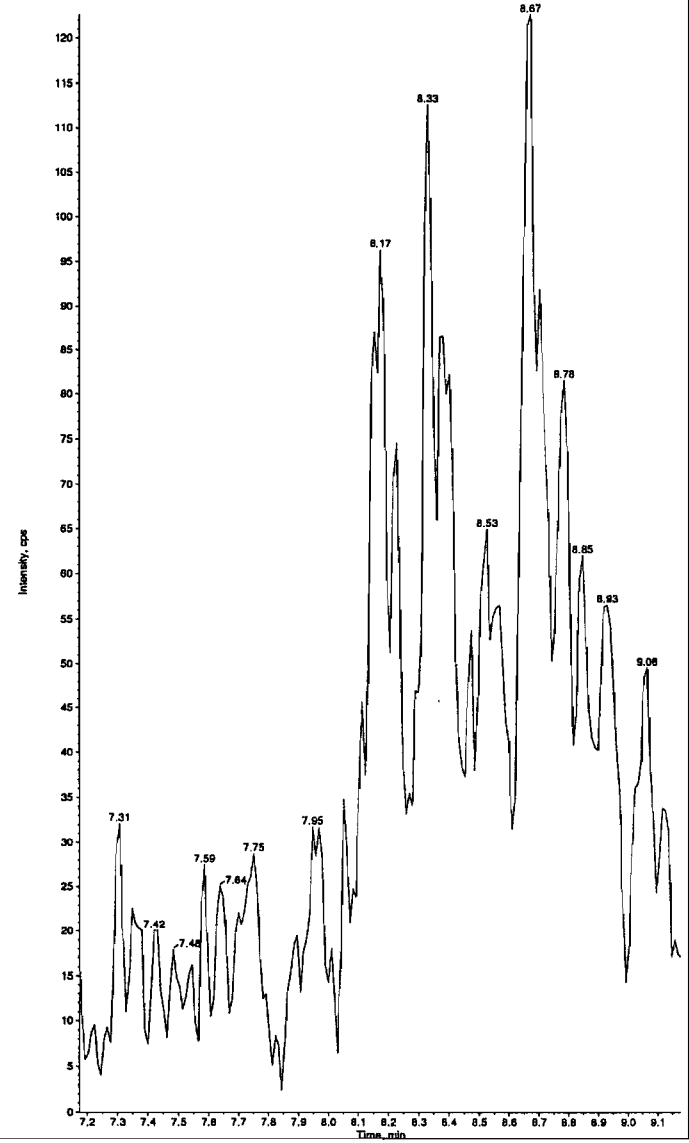

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03160002.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/16/2010
. Time: 8:33:34 AM
ified: No

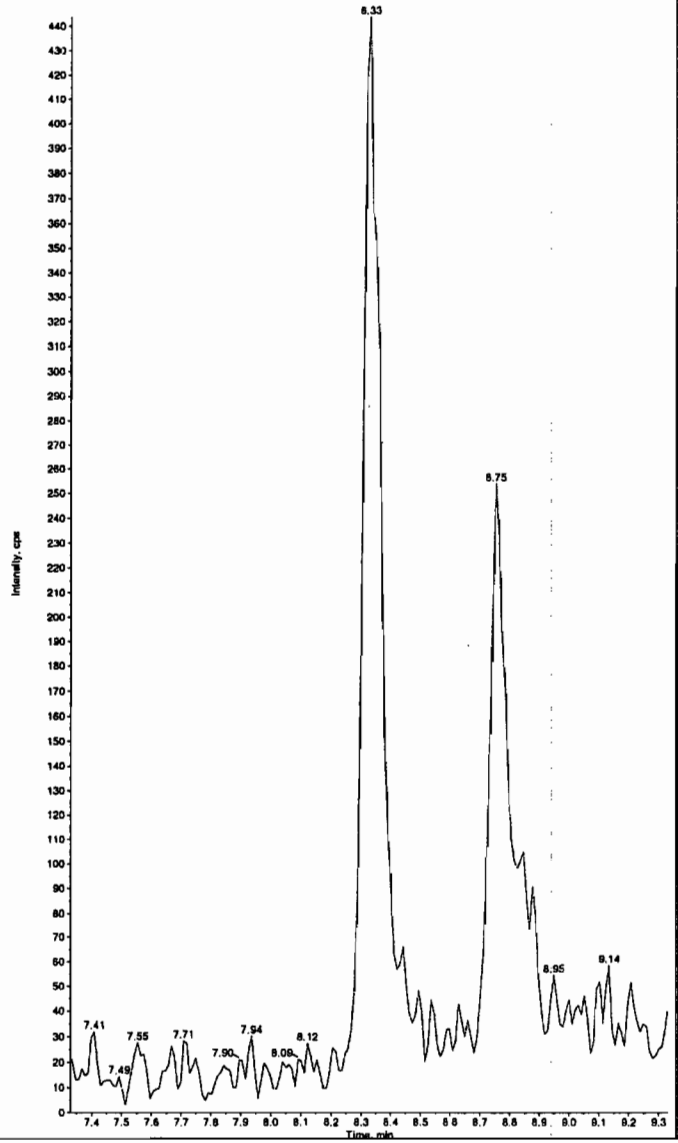

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03160002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/16/2010
Acq. Time: 8:33:34 AM

Modified: No

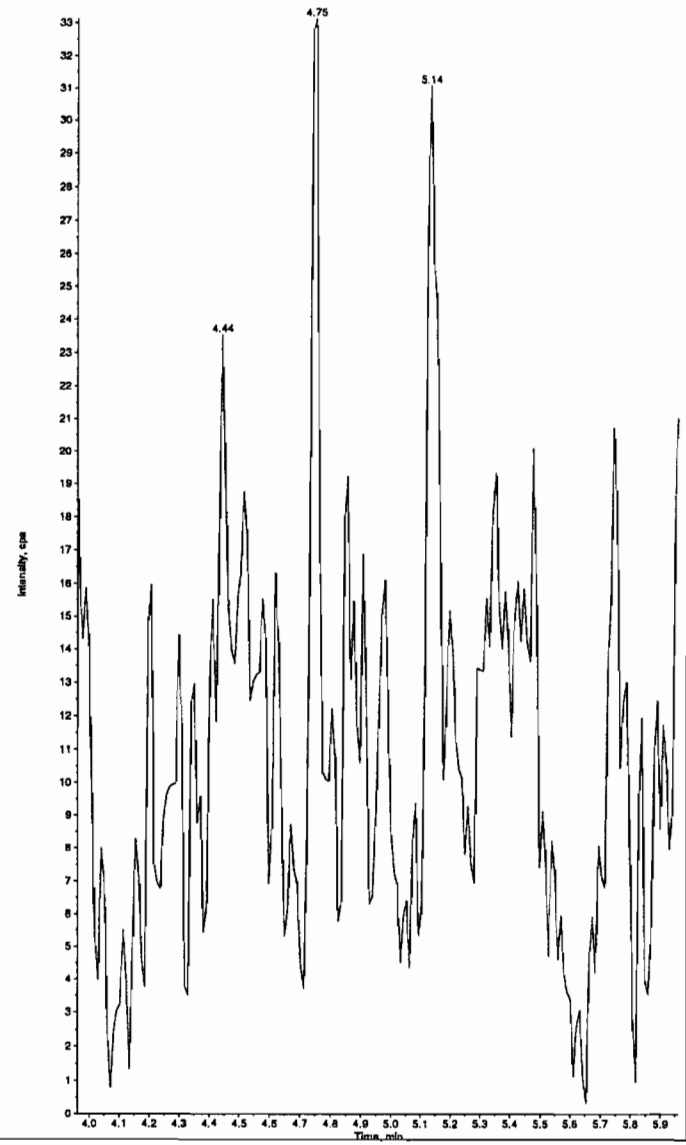

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03160002.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/16/2010
. Time: 8:33:34 AM
ified: No

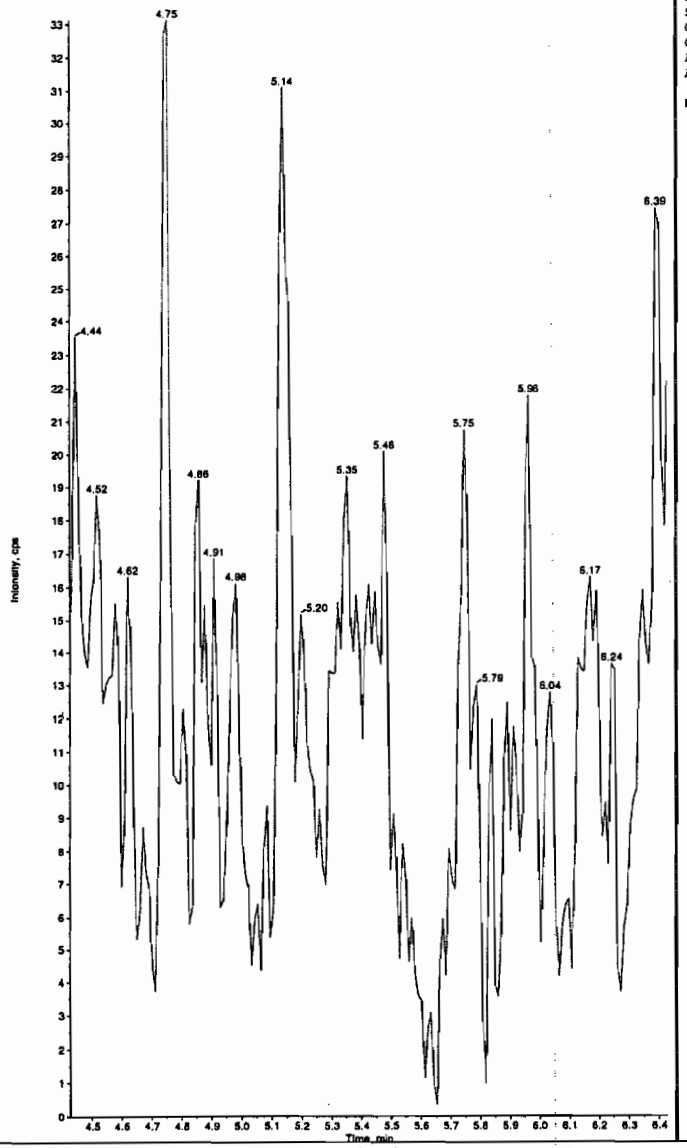

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03160002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/16/2010
Acq. Time: 8:33:34 AM

Modified: No

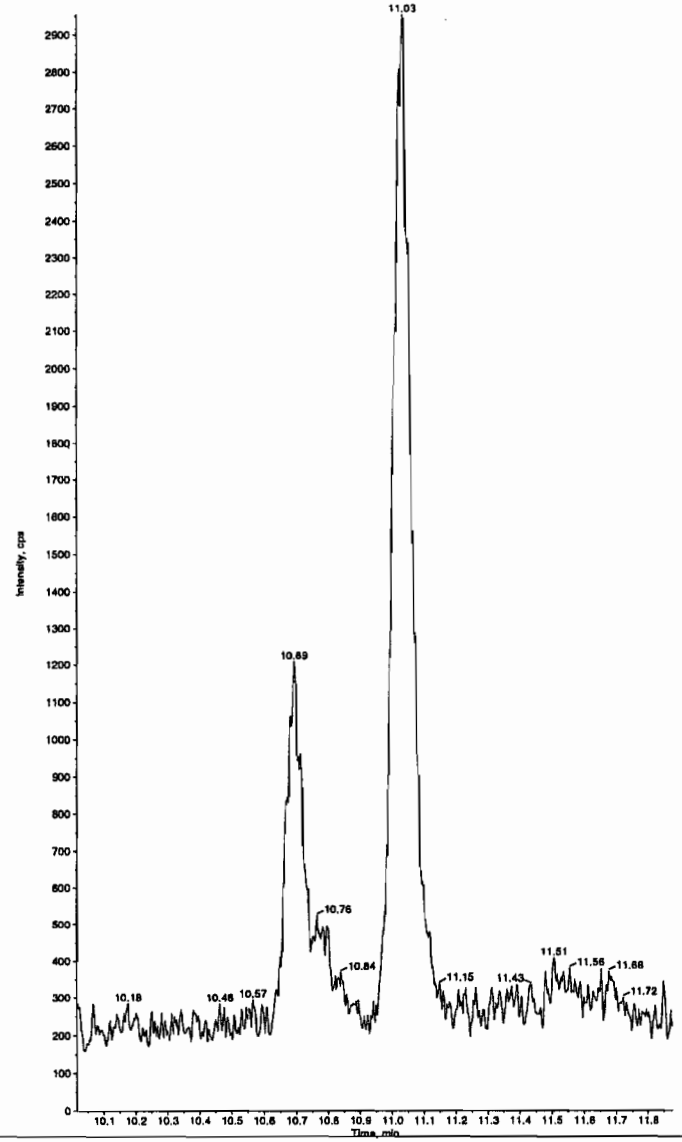

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1886

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 22–MAR–10 19:04

GEL Data File: EXP0322009.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	3.03
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322009.wiff	Acquisition Date	3/22/2010 7:04:06 PM
Sample Name	XIBLK02	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

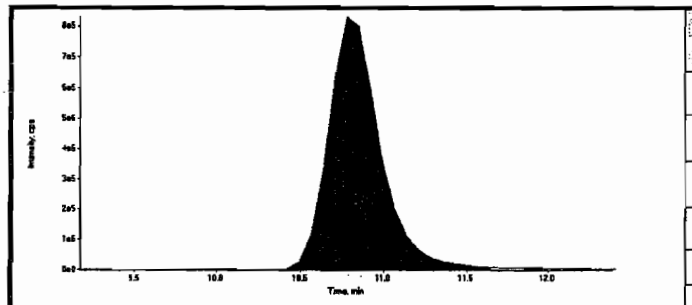

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	18200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

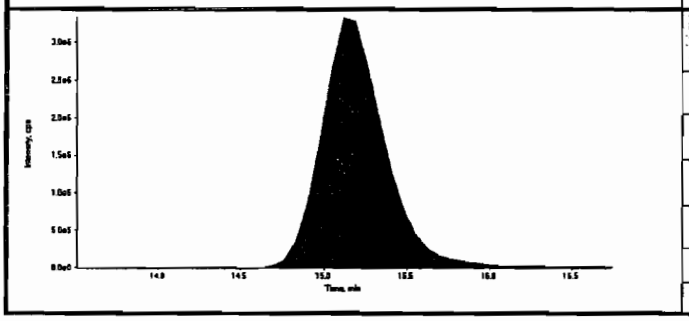

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.10
Area Counts:	89700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

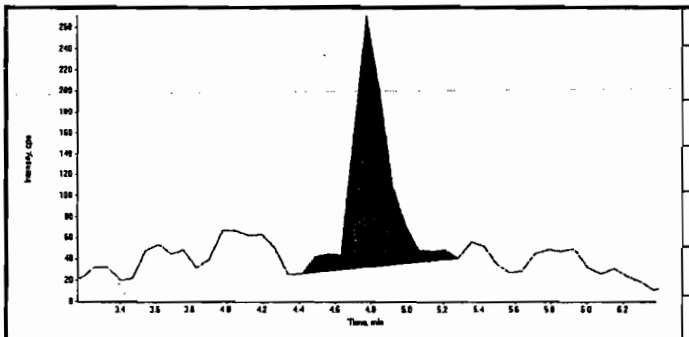

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	3.13e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

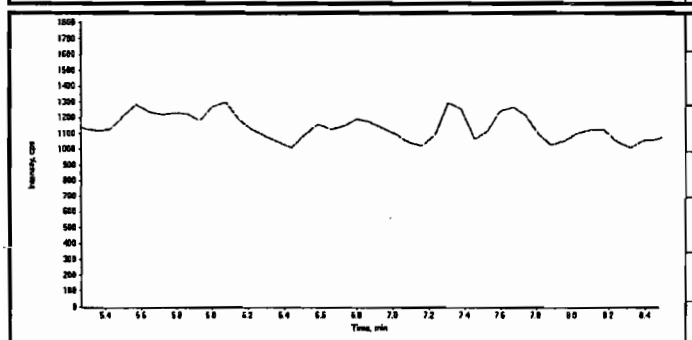

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

AMW 03/30/10 Lan 3/28/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322009.wiff	**Acquisition Date**	3/22/2010 7:04:06 PM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

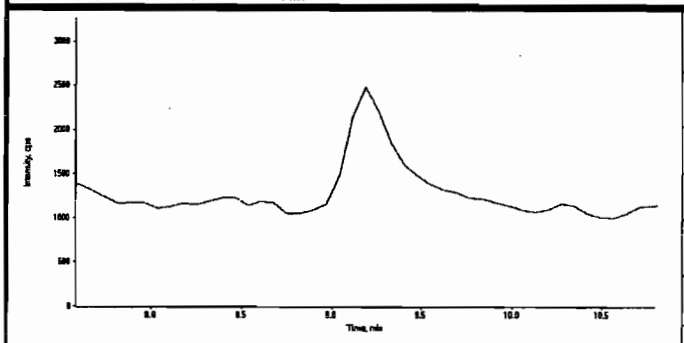

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

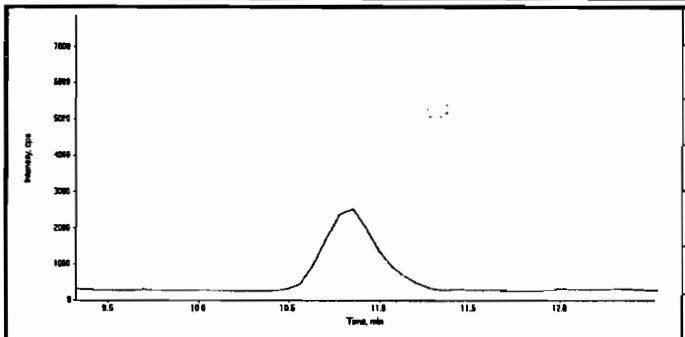

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

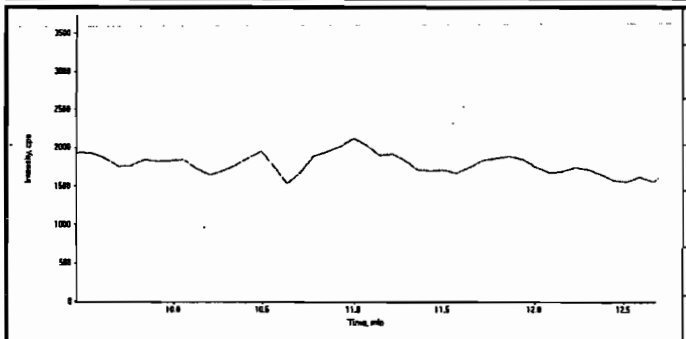

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

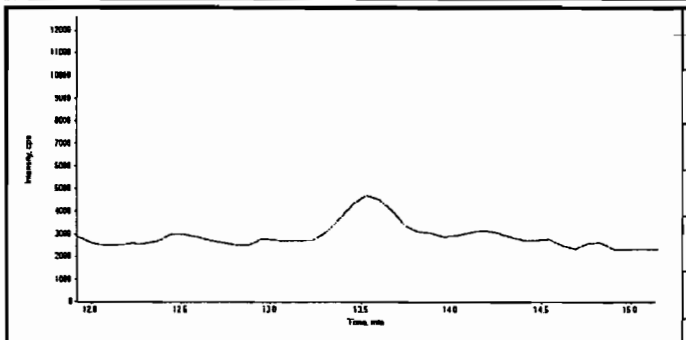

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322009.wiff	**Acquisition Date**	3/22/2010 7:04:06 PM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

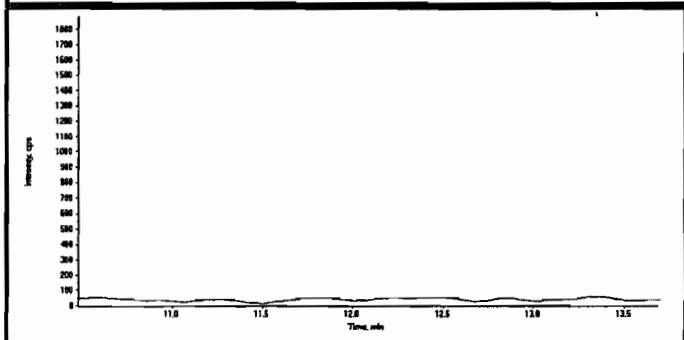

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

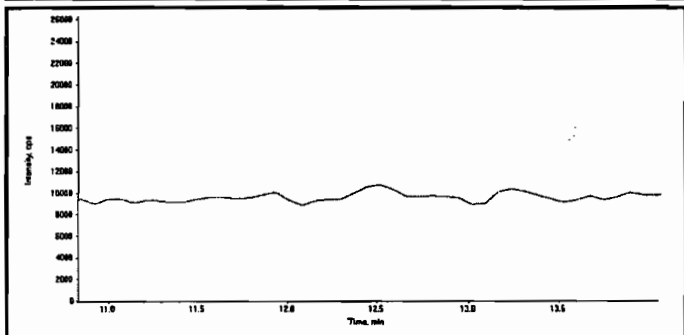

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

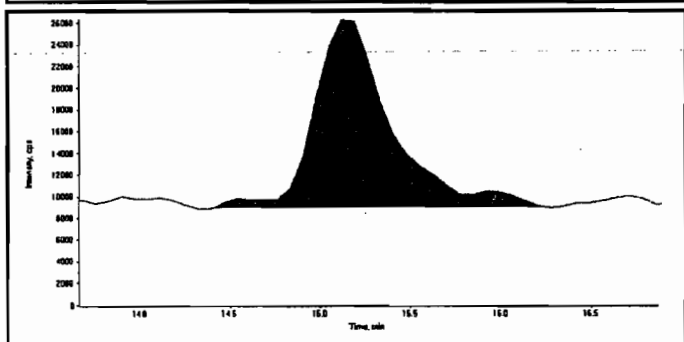

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.1
Area Counts:	5.29e+005
Manual Modification	No
Amount:	3.03 (ng/mL)
% Accuracy:	N/A

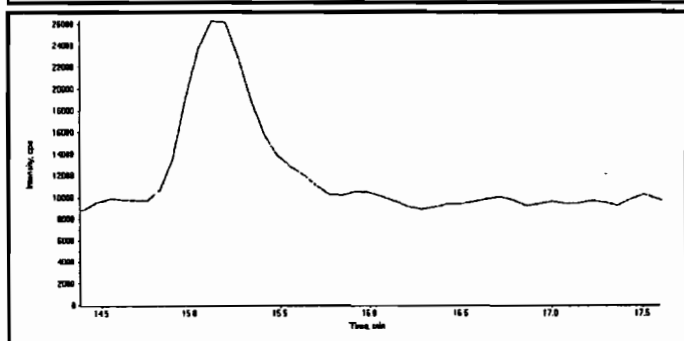

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322009.wiff	**Acquisition Date**	3/22/2010 7:04:06 PM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

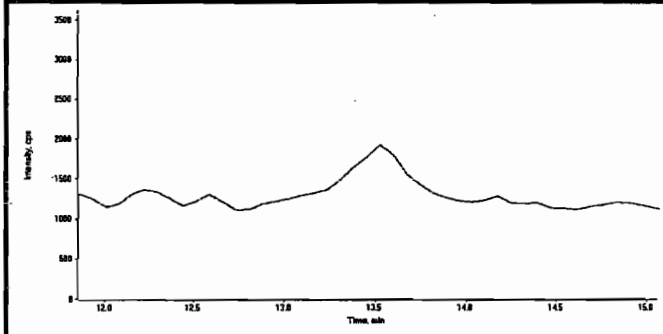

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

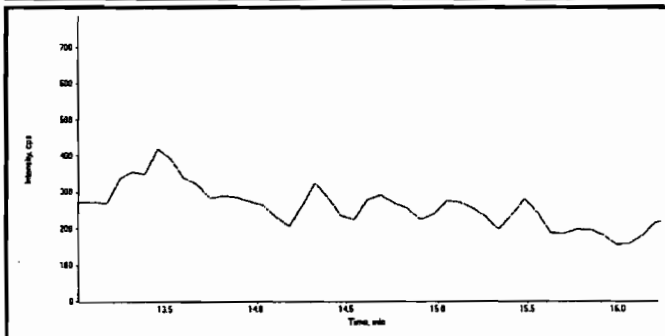

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

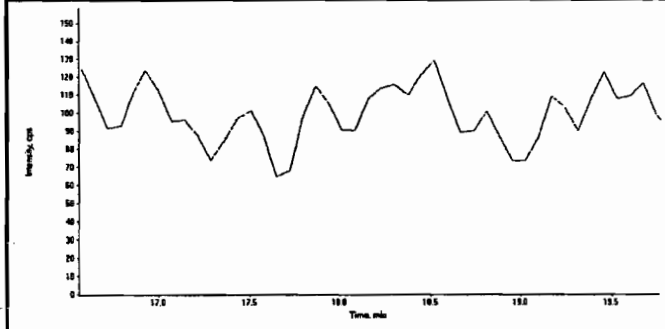

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

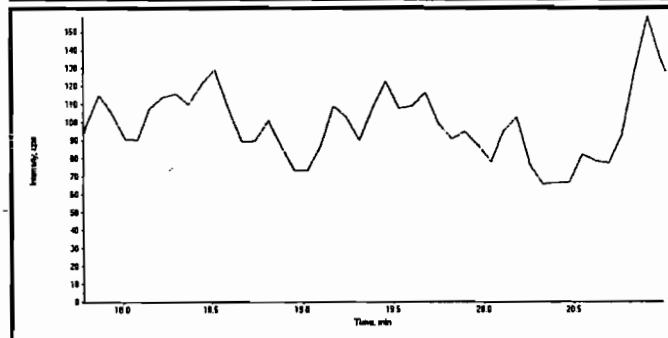

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322009.wiff	**Acquisition Date**	3/22/2010 7:04:06 PM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

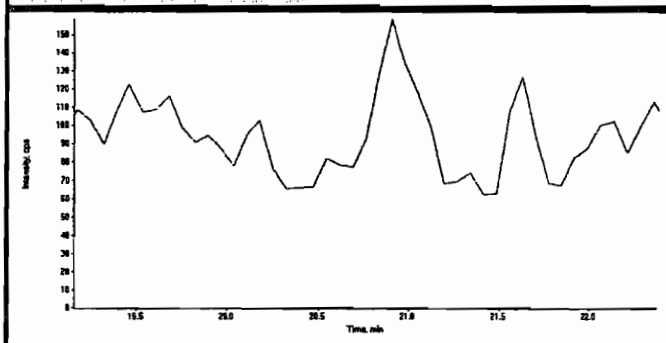

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

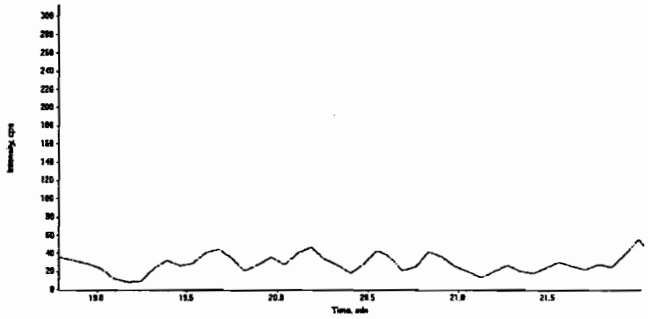

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1886

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 22–MAR–10 19:56

GEL Data File: EXP0322011.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	2.91
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322011.wiff	**Acquisition Date**	3/22/2010 7:56:51 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

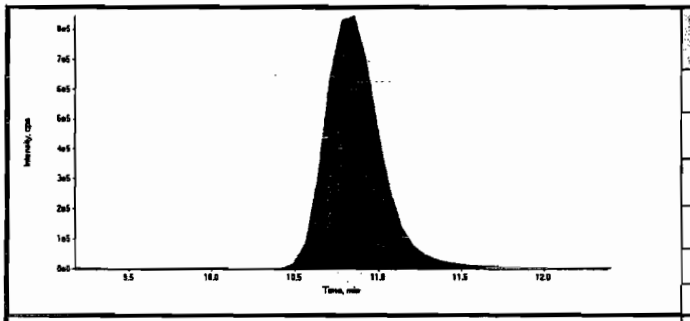

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	19500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

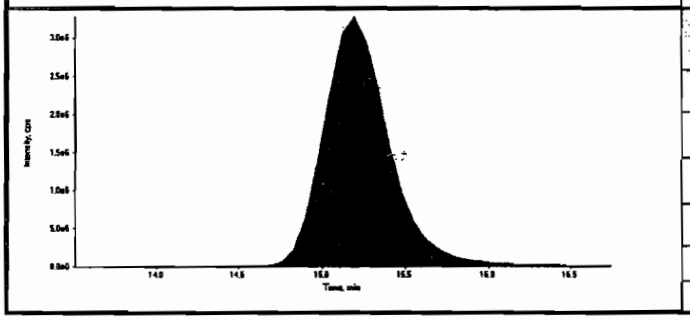

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.20
Area Counts:	90200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

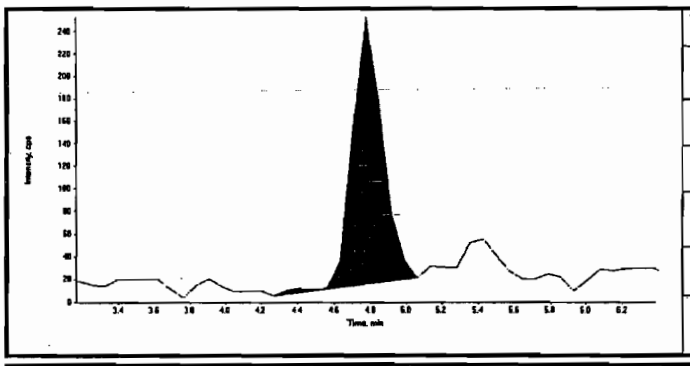

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	2.80e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

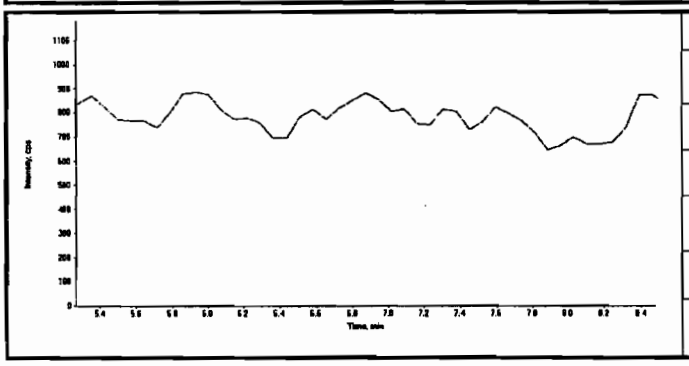

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

3/28/10

3/28/10

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Data File	EXP0322011.wiff	**Acquisition Date**	3/22/2010 7:56:51 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

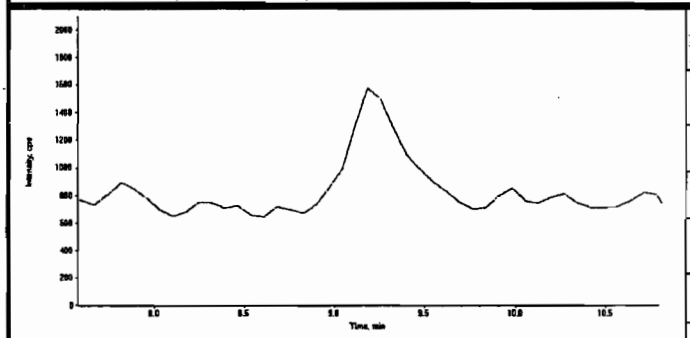

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

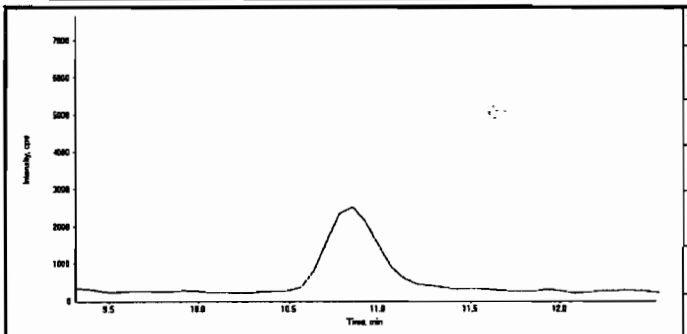

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

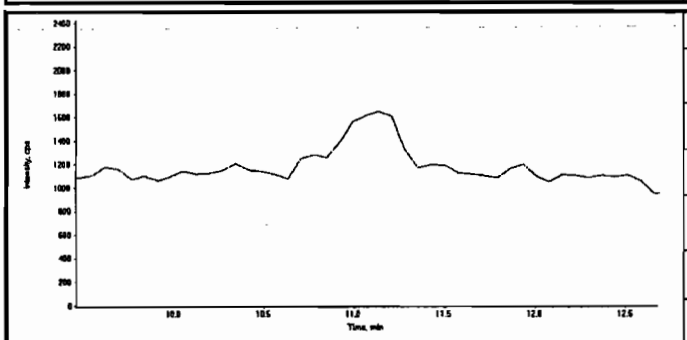

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

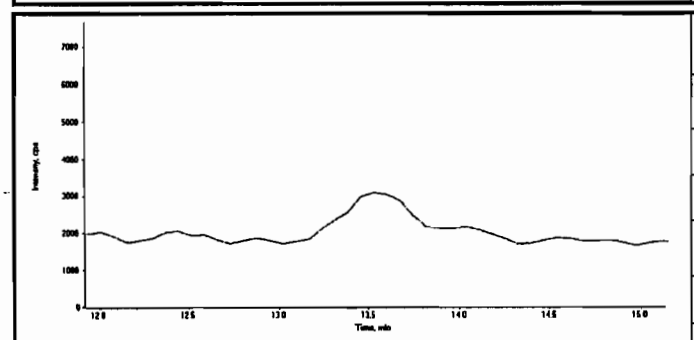

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322011.wiff	**Acquisition Date**	3/22/2010 7:56:51 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

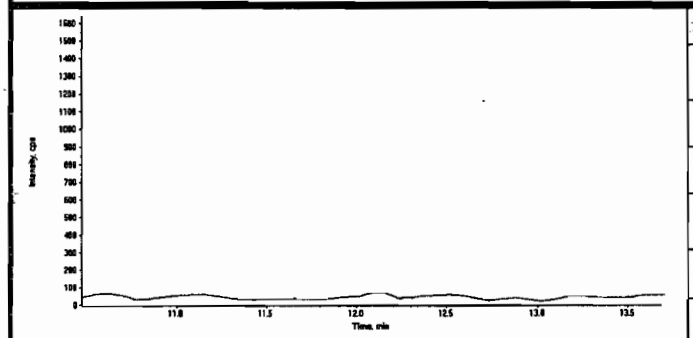

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

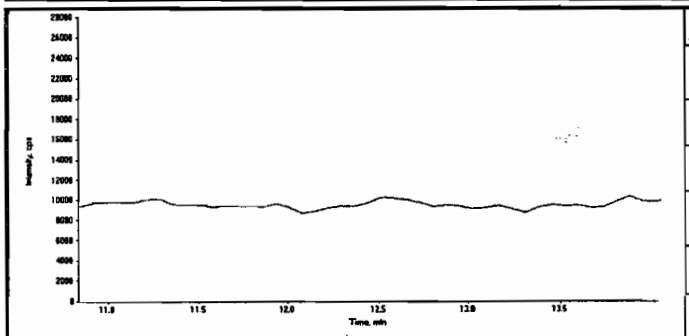

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

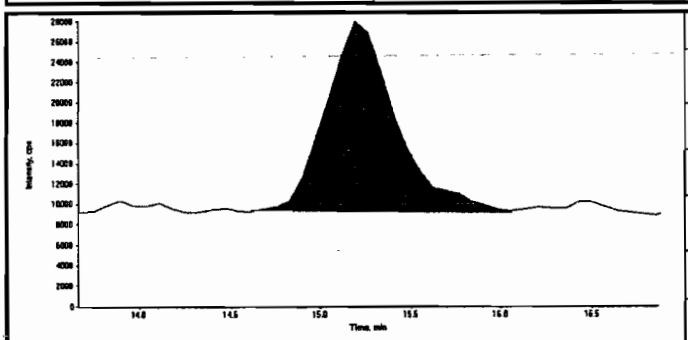

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.2
Area Counts:	5.10e+005
Manual Modification	No
Amount:	2.91 (ng/mL)
% Accuracy:	N/A

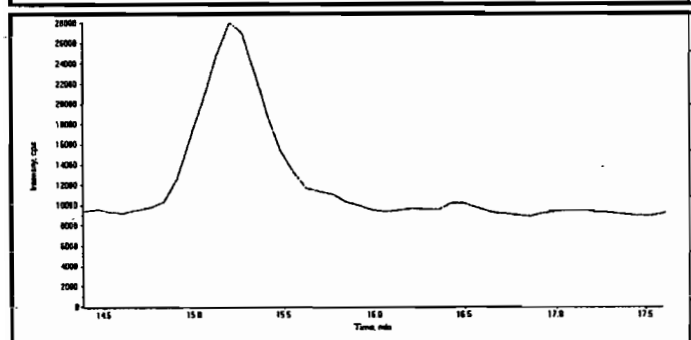

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322011.wiff	Acquisition Date	3/22/2010 7:56:51 PM
Sample Name	XIBLK03	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

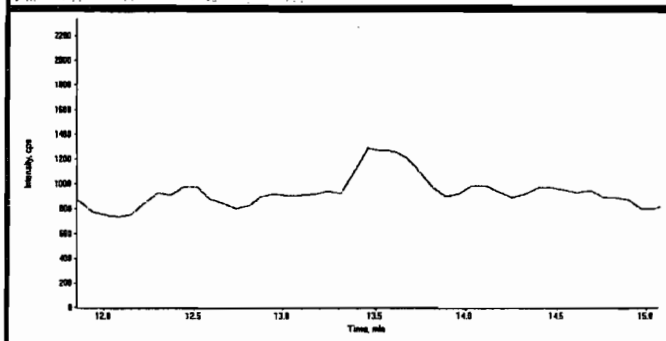

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

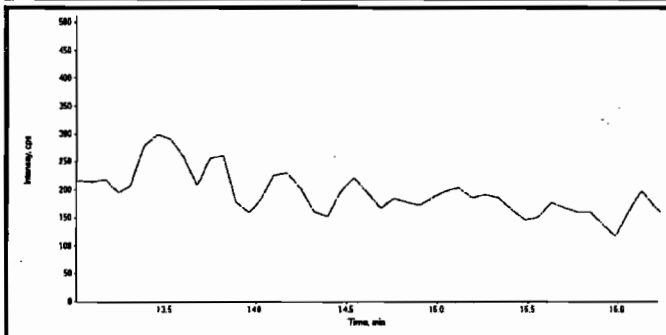

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

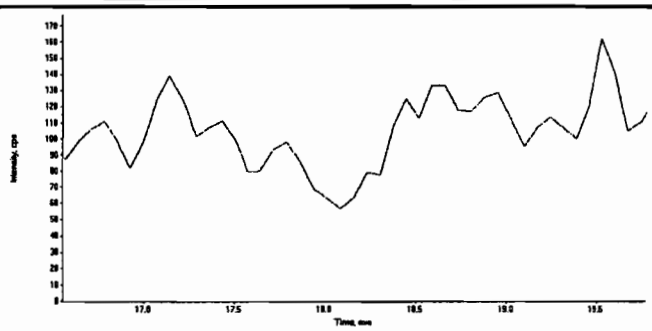

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

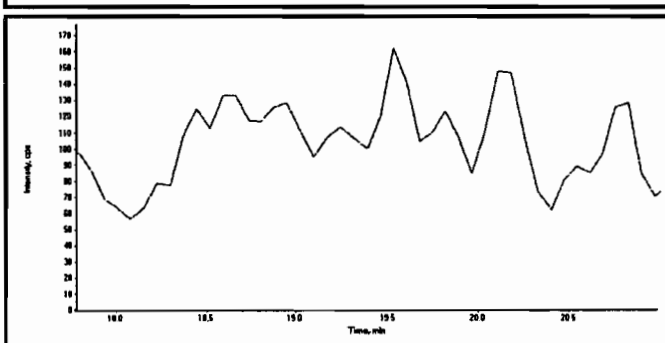

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322011.wiff	**Acquisition Date**	3/22/2010 7:56:51 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

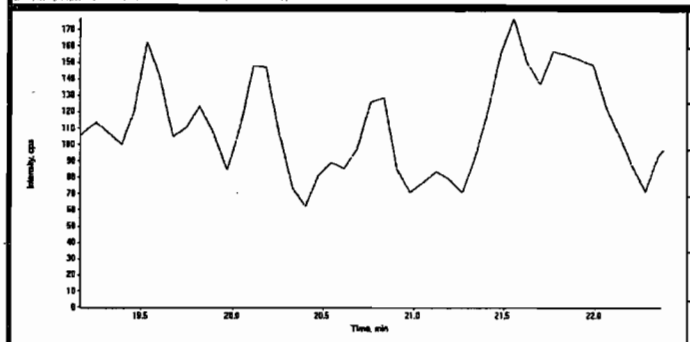

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

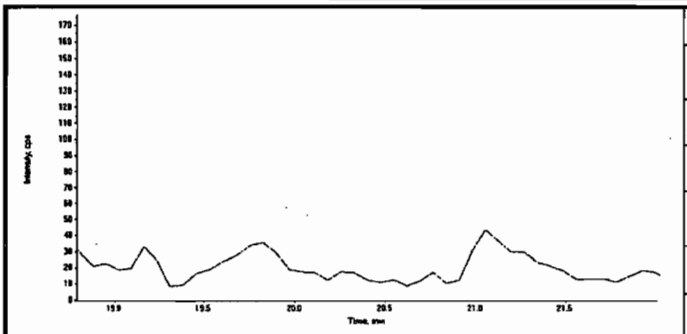

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1886

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 22–MAR–10 23:27

GEL Data File: EXP0322019.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	3.41
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322019.wiff	**Acquisition Date**	3/22/2010 11:27:58 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

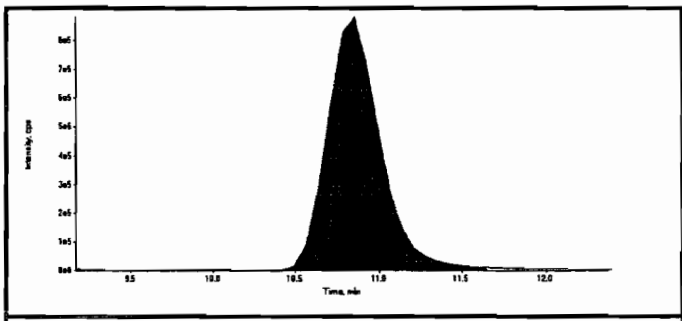

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	19700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

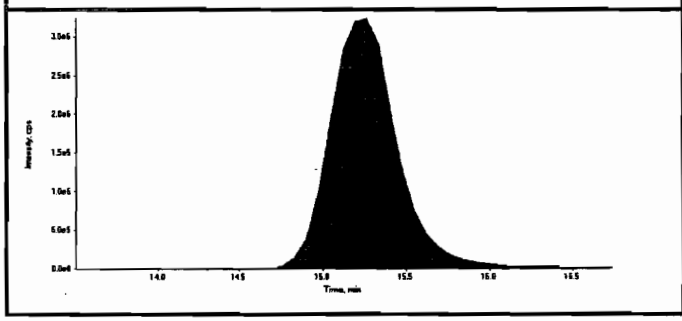

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.30
Area Counts:	92500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

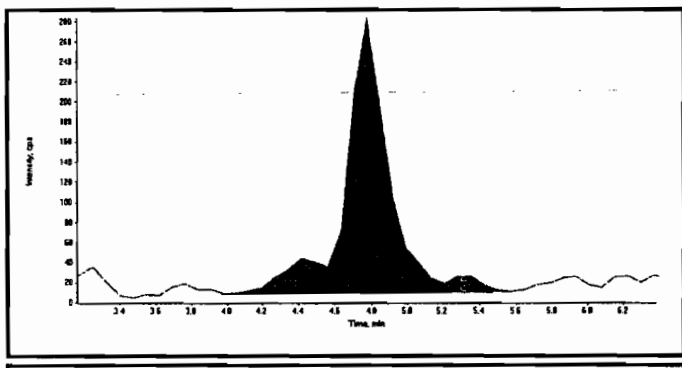

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	4.78e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

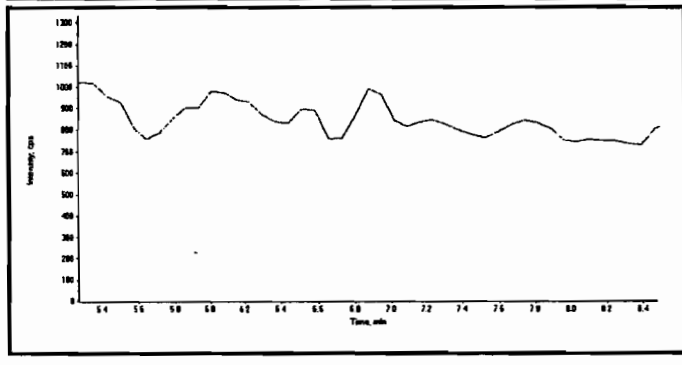

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

HMK 03/28/10

LCM 3/28/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322019.wiff	**Acquisition Date**	3/22/2010 11:27:58 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

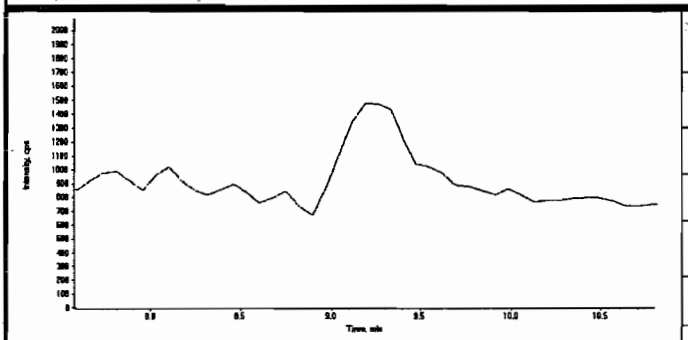

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

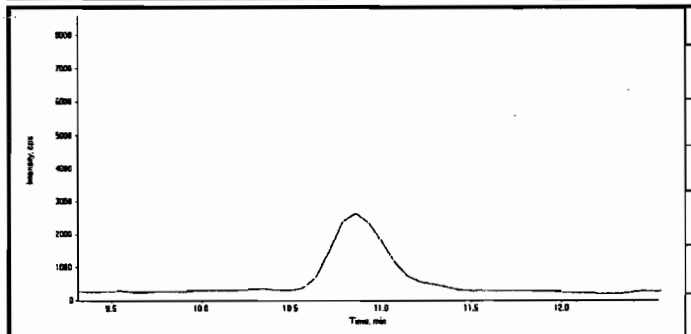

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

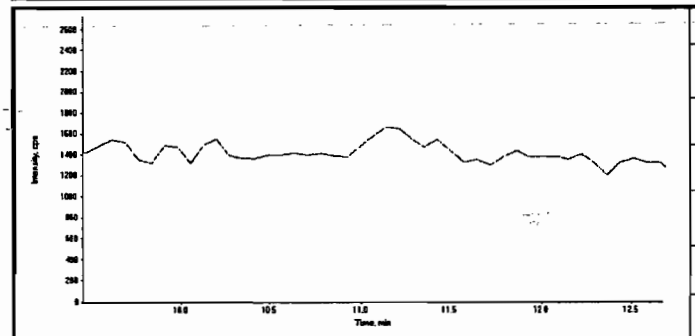

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

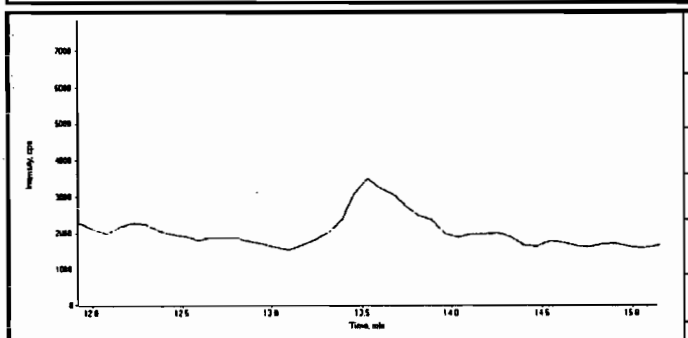

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322019.wiff	**Acquisition Date**	3/22/2010 11:27:58 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

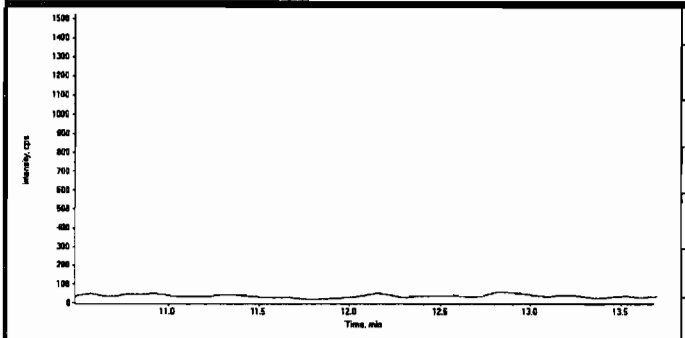

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

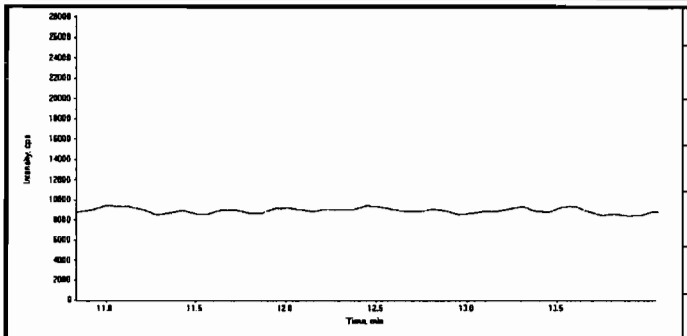

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

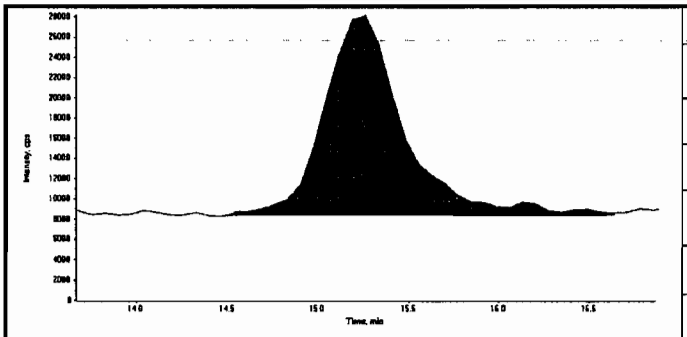

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	6.13e+005
Manual Modification	No
Amount:	3.41 (ng/mL)
% Accuracy:	N/A

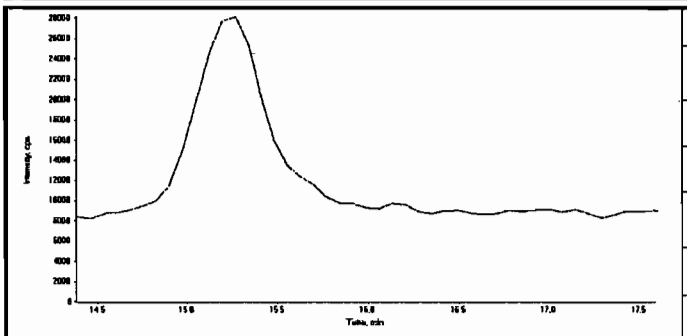

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322019.wiff	**Acquisition Date**	3/22/2010 11:27:58 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

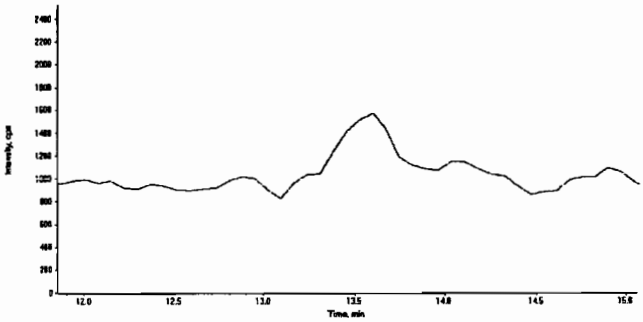

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

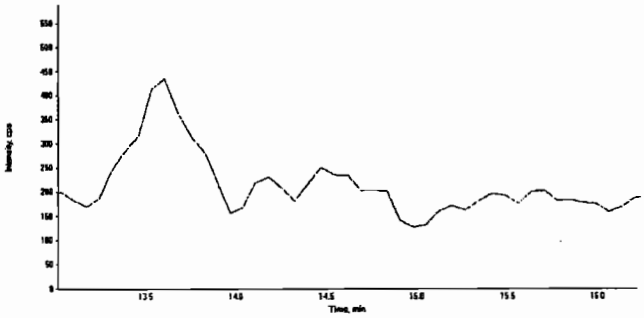

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

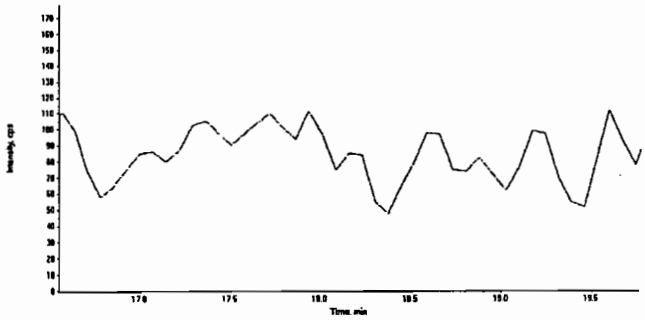

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

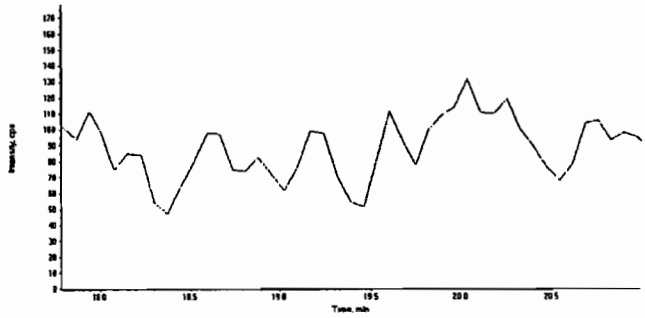

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322019.wiff	**Acquisition Date**	3/22/2010 11:27:58 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

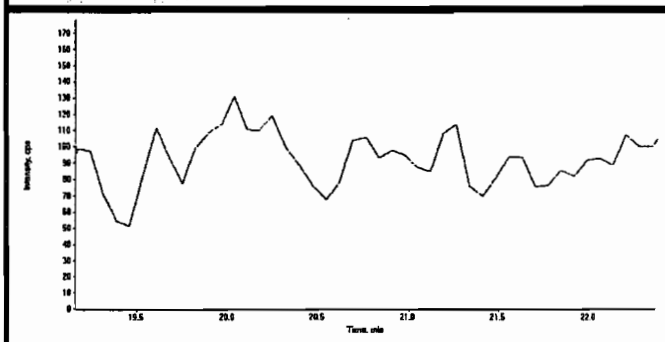

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

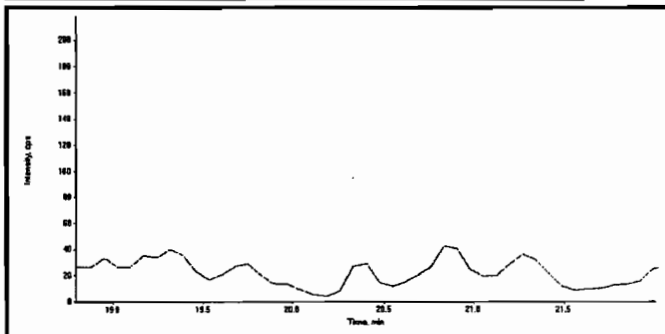

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1886

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 16–MAR–10 10:39

GEL Data File: EXS03160010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	3.31
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lan 3/18/10

ample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS03160010.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/16/2010
. Time: 10:39:10 AM
ified: No

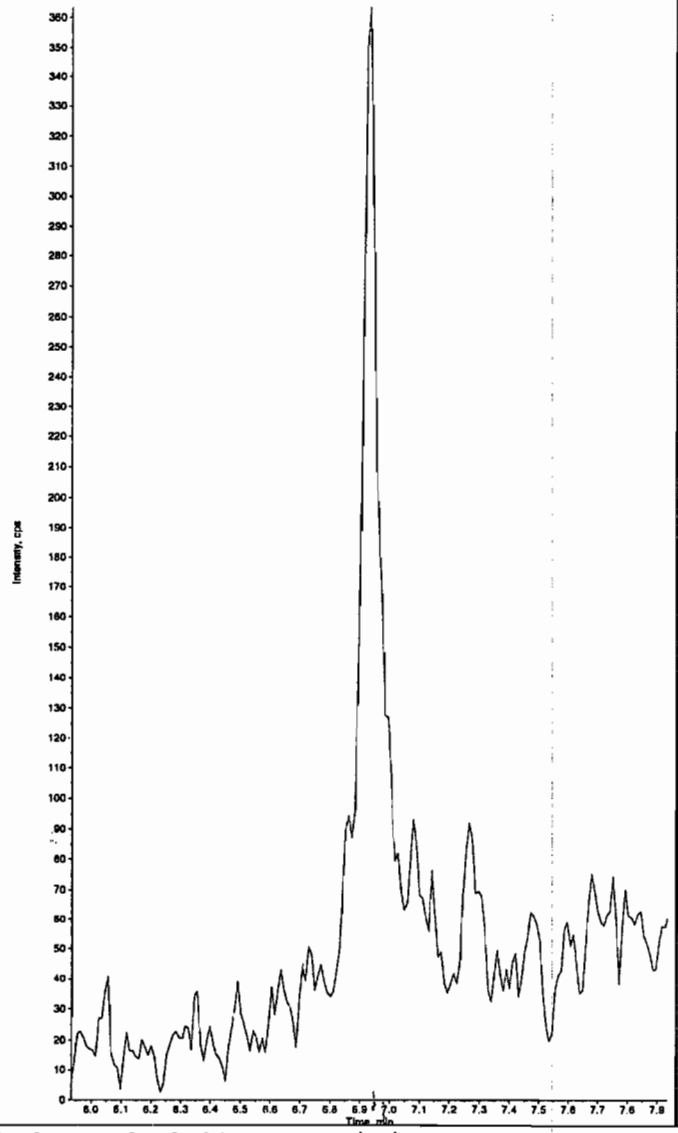

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS03160010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/16/2010
Acq. Time: 10:39:10 AM

Modified: No

HM 03/22/10

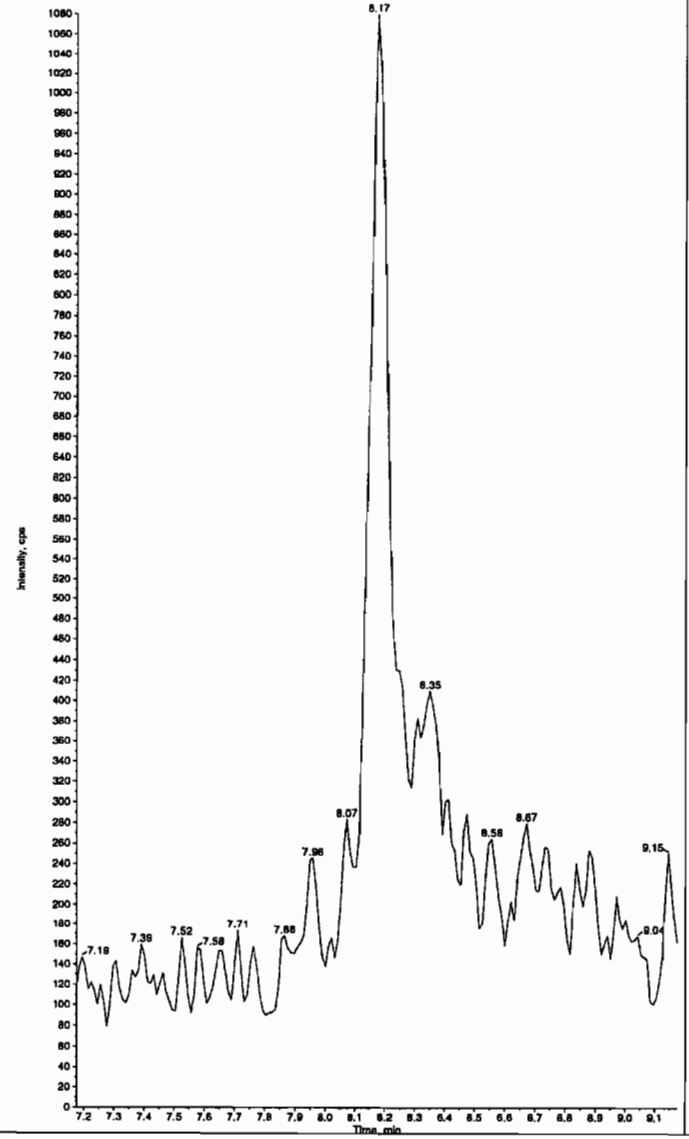

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK02" Sample ID: "j1|LER" File: "EXS03160010.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 3/16/2010
Time: 10:39:10 AM

fied: No

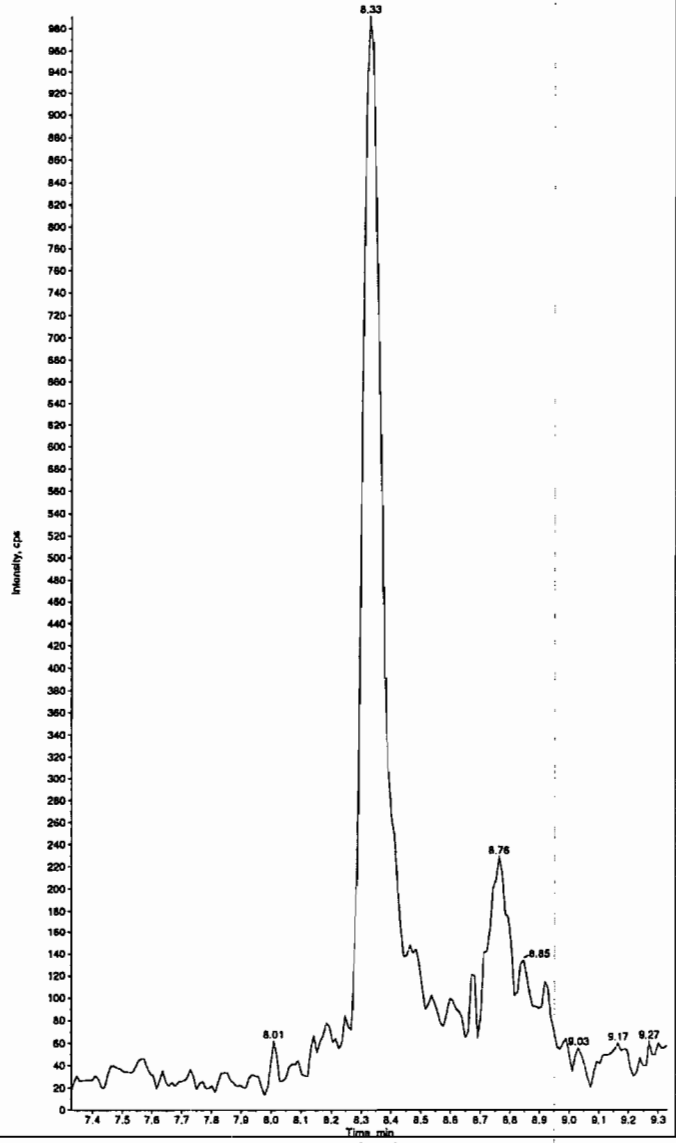

Sample Name: "XIBLK02" Sample ID: "j1|LER" File: "EXS03160010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/16/2010
Acq. Time: 10:39:10 AM

Modified: No

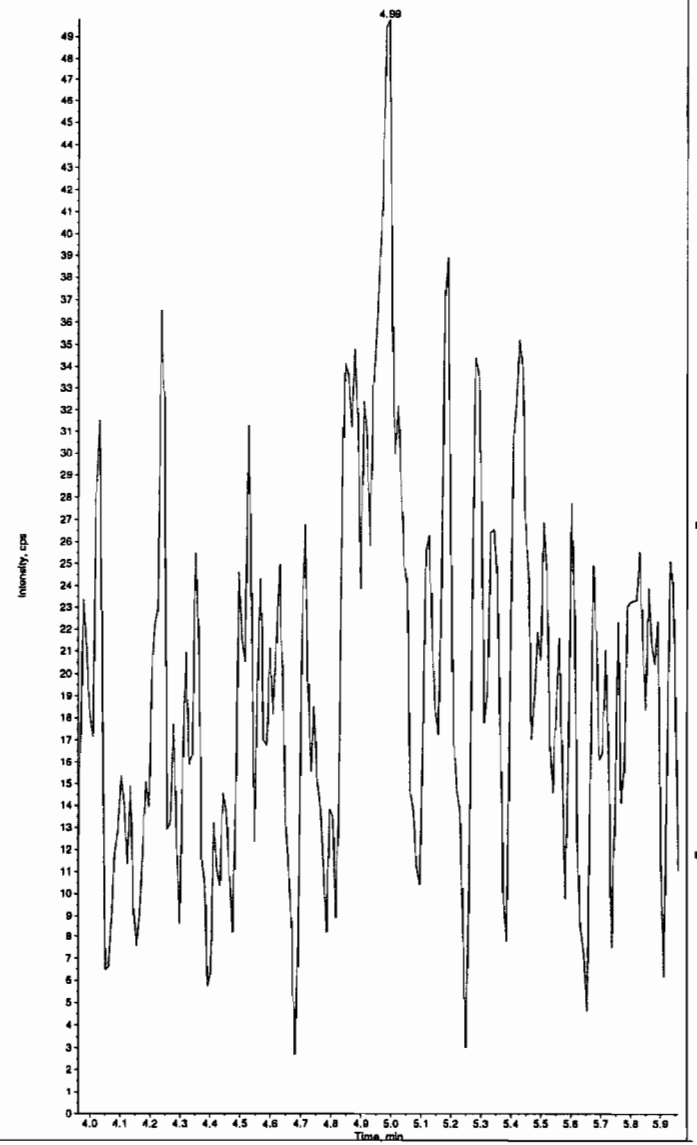

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS03160010.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
entration: N/A
culated Conc: 0.00 ng/mL
Date: 3/16/2010
Time: 10:39:10 AM

fied: No

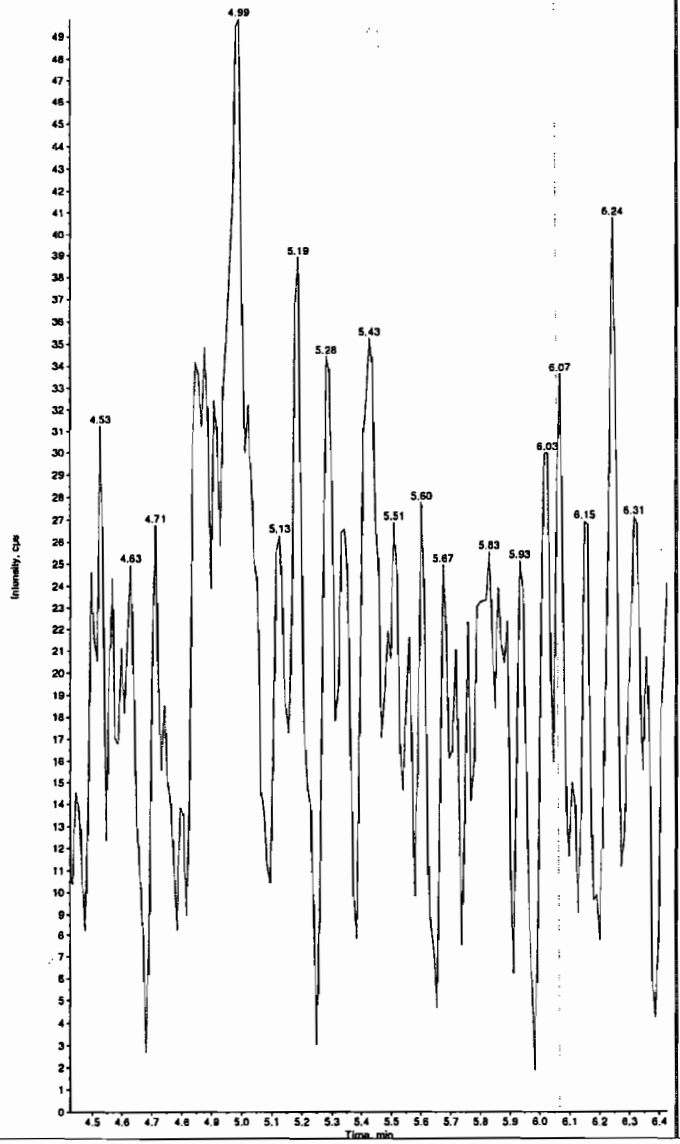

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS03160010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	3.31	ng/mL
Acq. Date:	3/16/2010	
Acq. Time:	10:39:10 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	1.10e+005	counts
Height:	26001.421	cps
Start Time:	10.8	min
End Time:	11.1	min

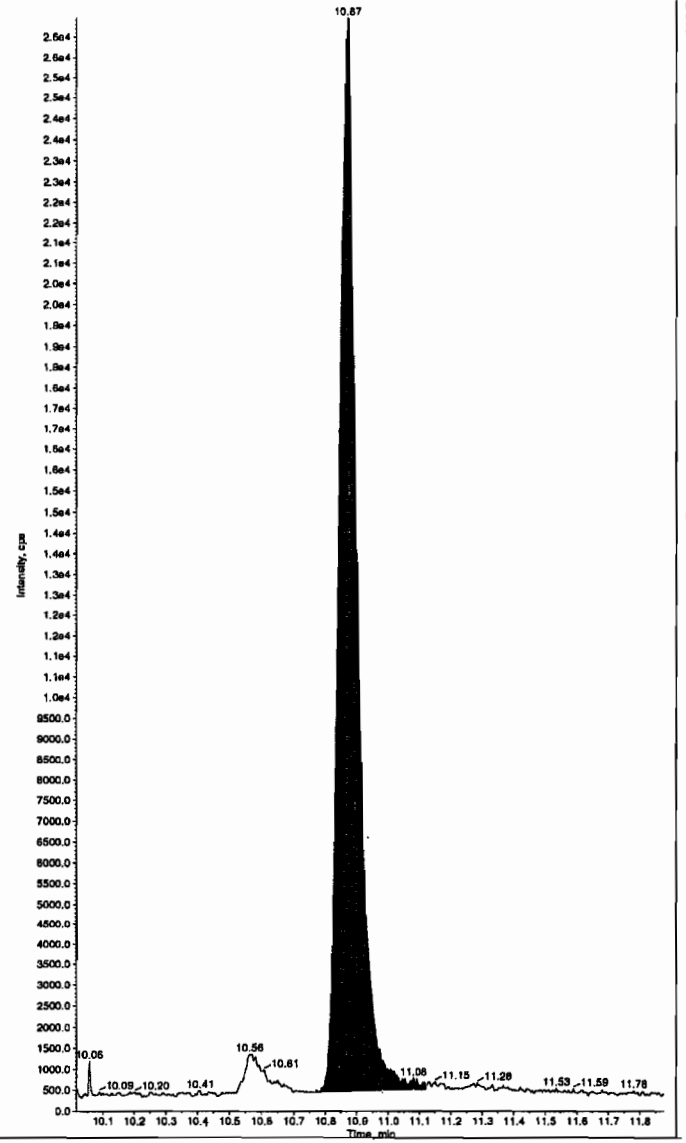

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1886

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 16–MAR–10 11:10

GEL Data File: EXS03160012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0

Lar 3/18/10

umple Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS03160012.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/16/2010
. Time: 11:10:32 AM
ified: No

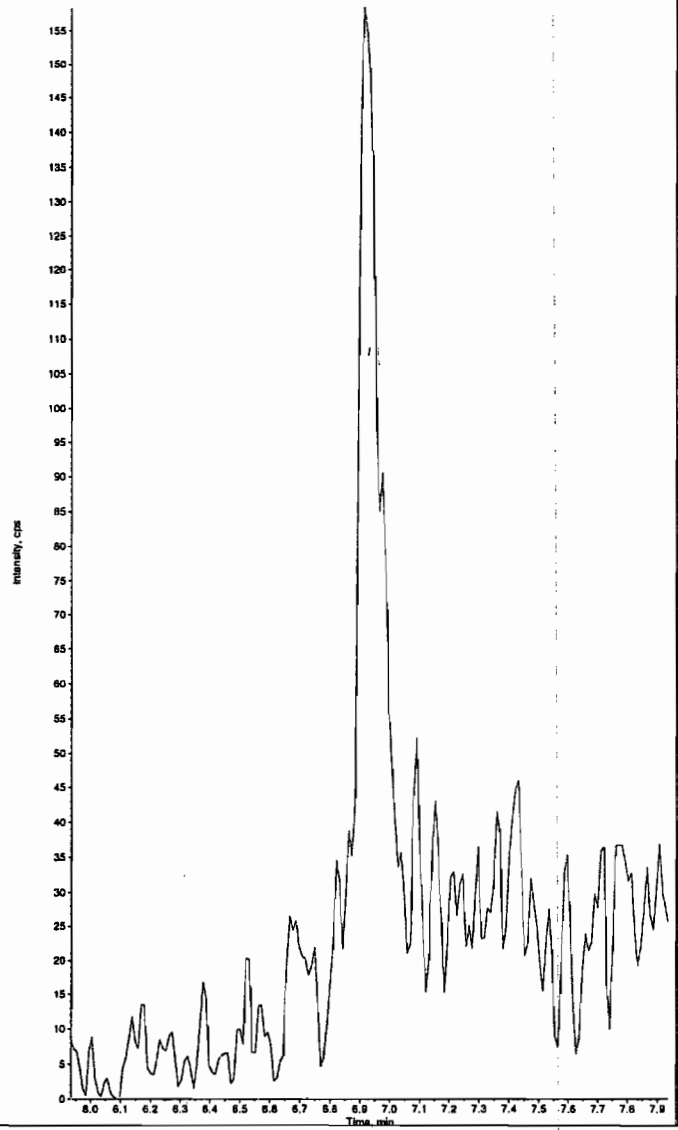

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS03160012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/16/2010
Acq. Time: 11:10:32 AM

Modified: No

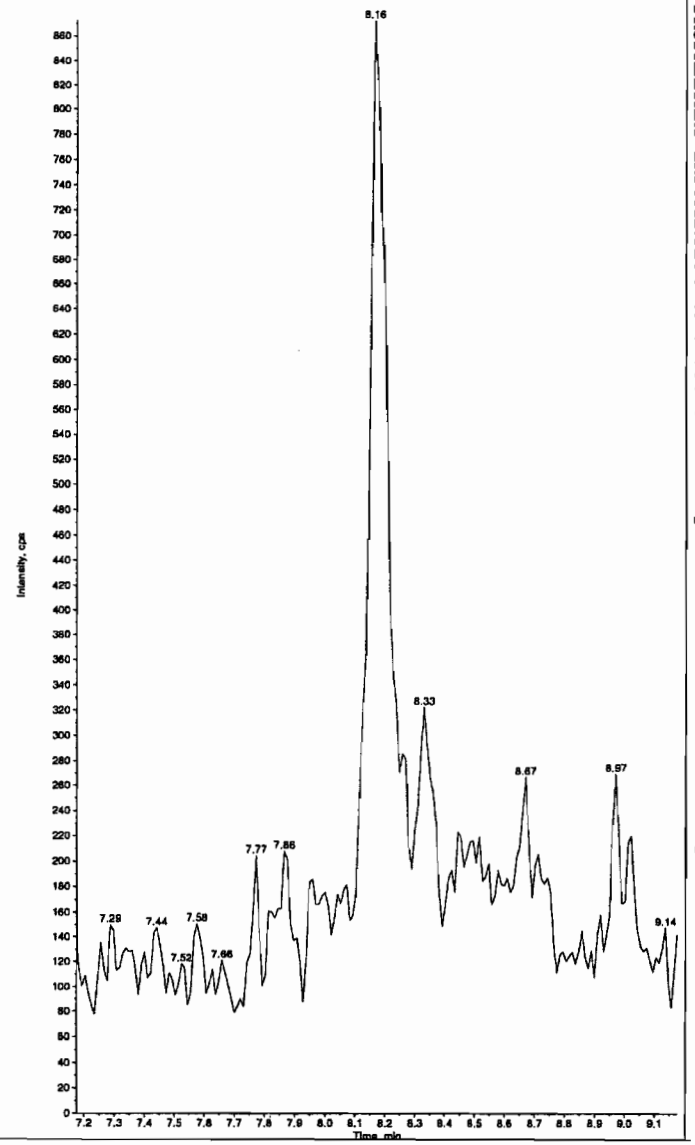

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:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS03160012.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/16/2010
. Time: 11:10:32 AM
ified: No

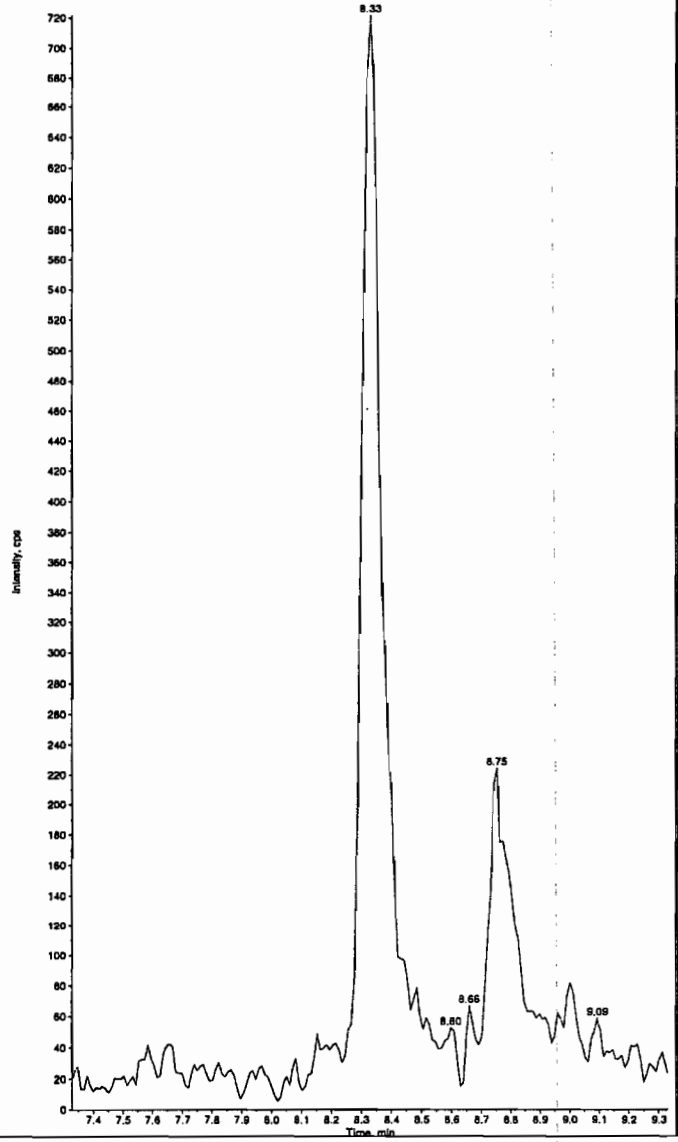

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS03160012.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/16/2010
Acq. Time: 11:10:32 AM

Modified: No

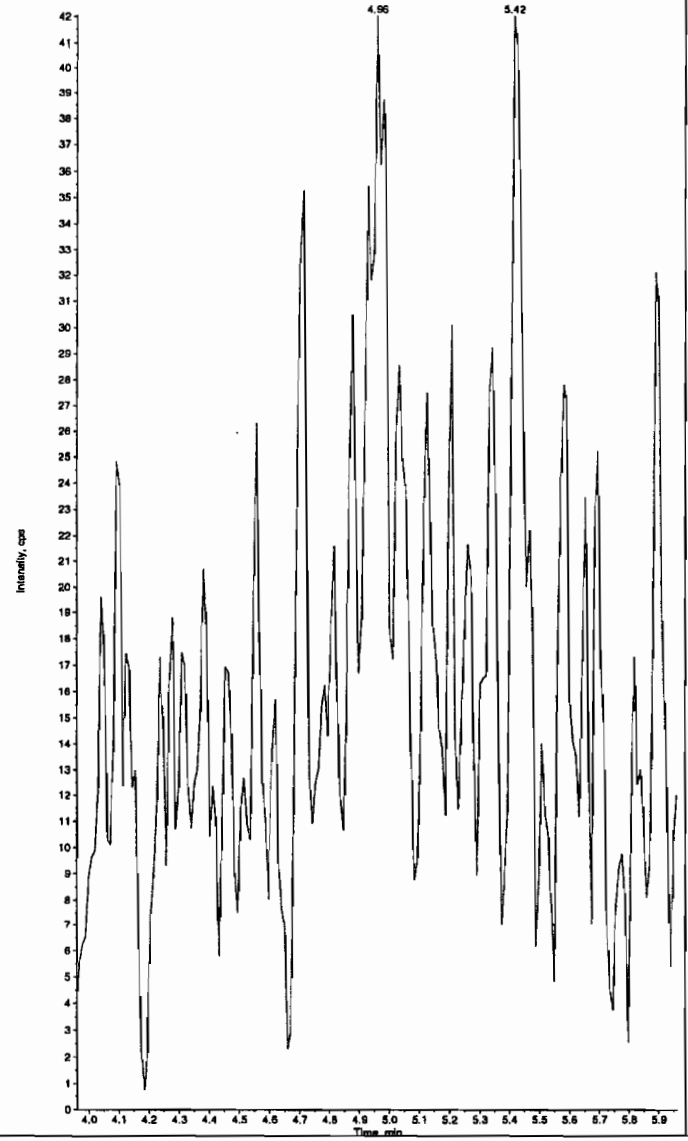

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS03160012.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""

```
le Index:        1
le Type:      Unknown
entration:       N/A
culated Conc:    0.00     ng/mL
 Date:        3/16/2010
 Time:        11:10:32 AM

fied:            No
```

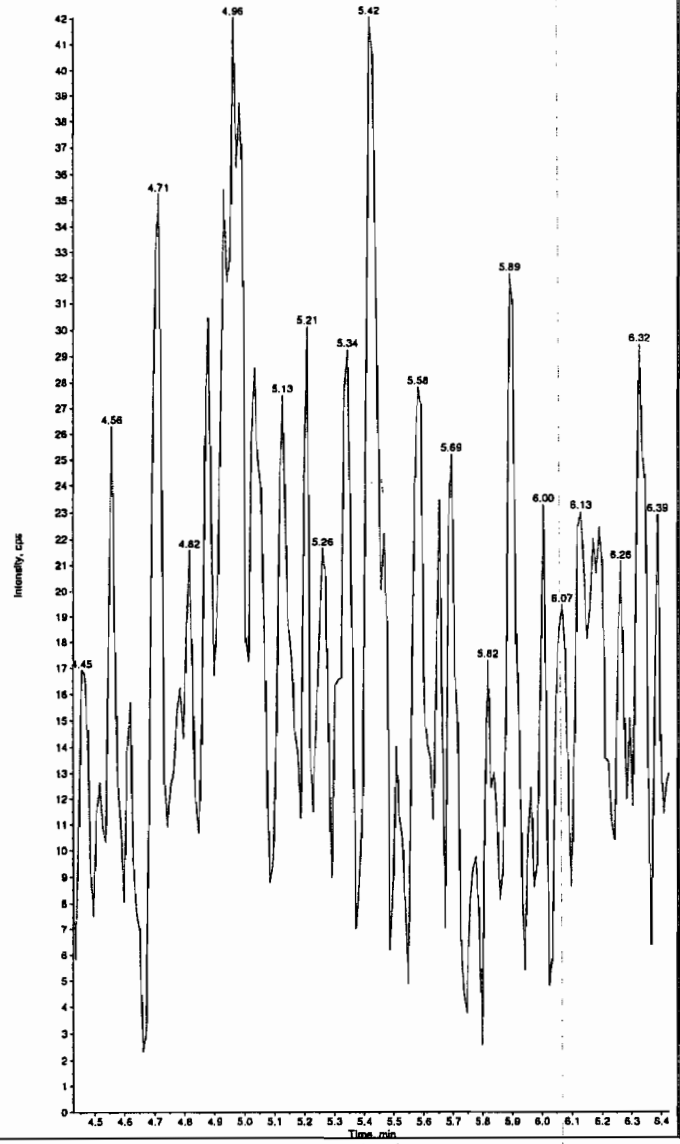

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS03160012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:       N/A
Calculated Conc:     < 0
Acq. Date:        3/16/2010
Acq. Time:        11:10:32 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:         10.9   min
Use Relative RT:     No

Int. Type:        Valley
Retention Time:      10.9   min
Area:          5.81e+004   counts
Height:        14021.447   cps
Start Time:          10.7   min
End Time:            11.1   min
```

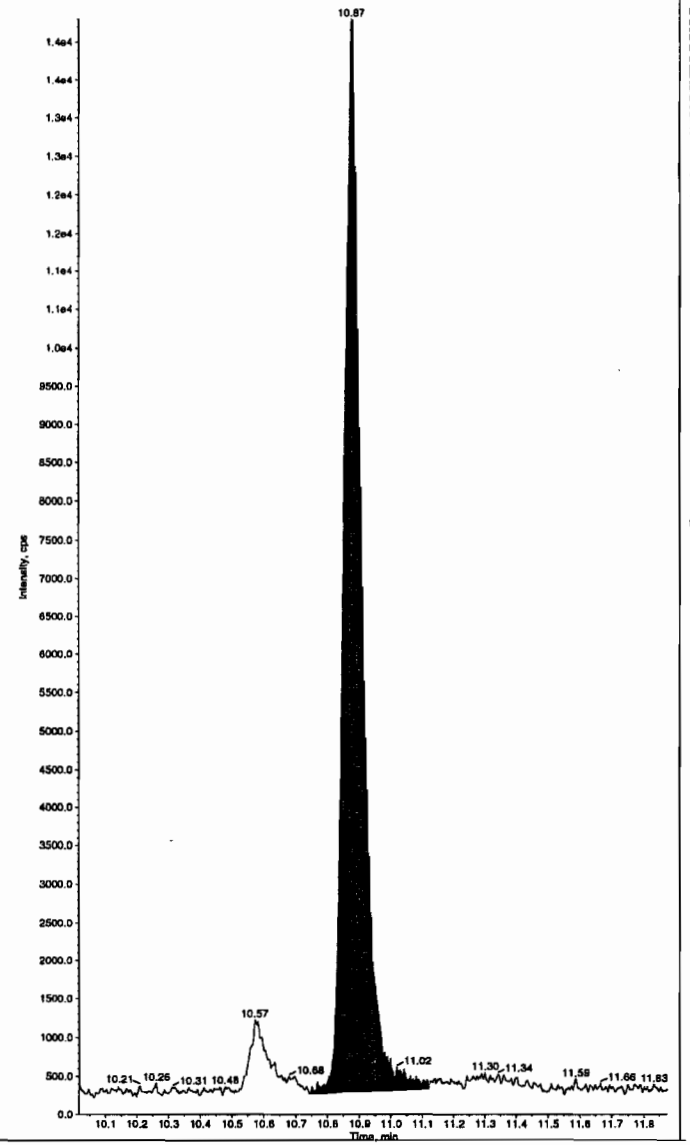

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1886

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 16–MAR–10 14:34

GEL Data File: EXS03160025.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lcr 3/16/10

mple Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS03160025.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 3/16/2010
Time: 2:34:37 PM

fied: No

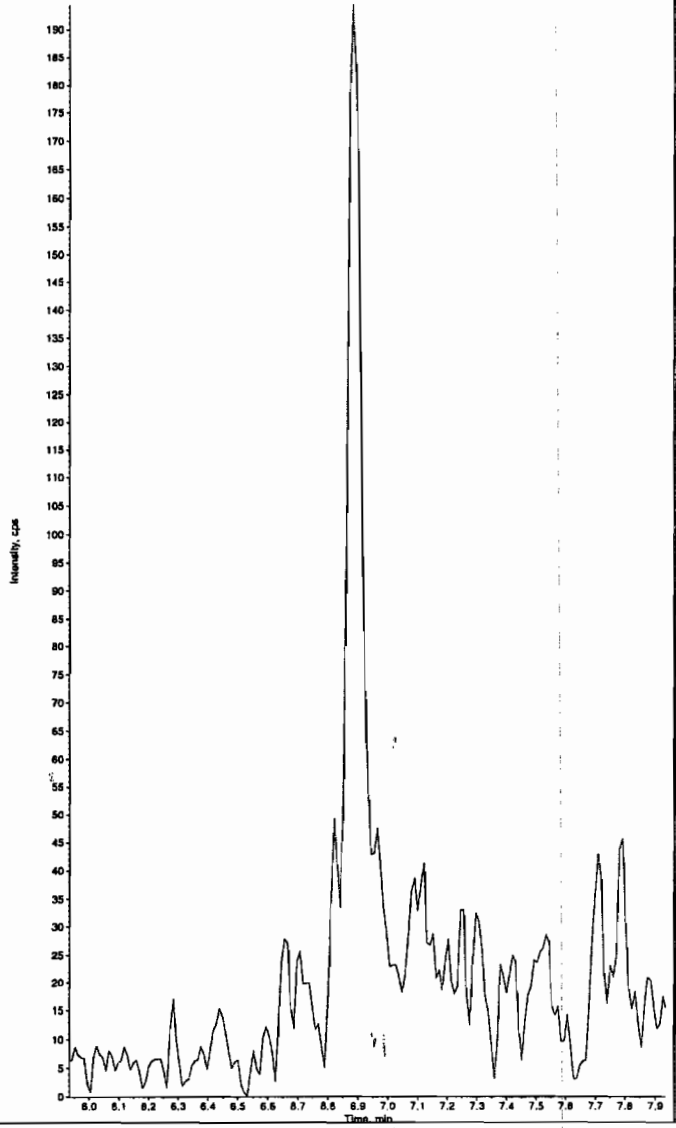

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS03160025.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/16/2010
Acq. Time: 2:34:37 PM

Modified: No

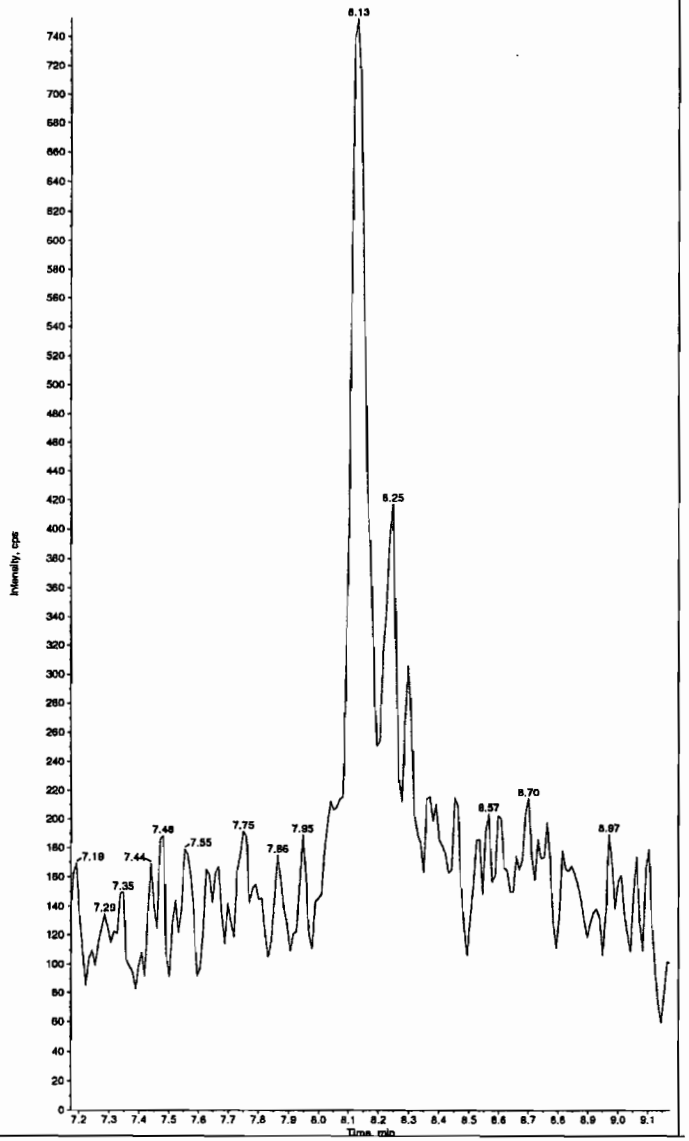

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS03160025.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/16/2010
. Time: 2:34:37 PM
ified: No

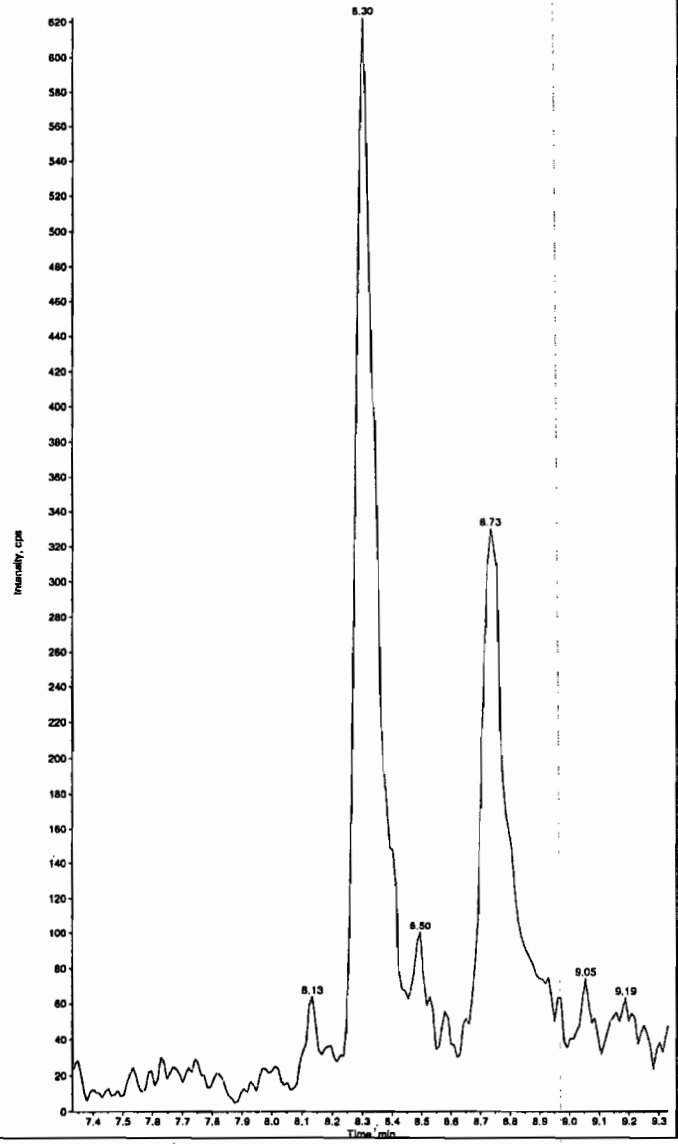

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS03160025.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/16/2010
Acq. Time: 2:34:37 PM

Modified: No

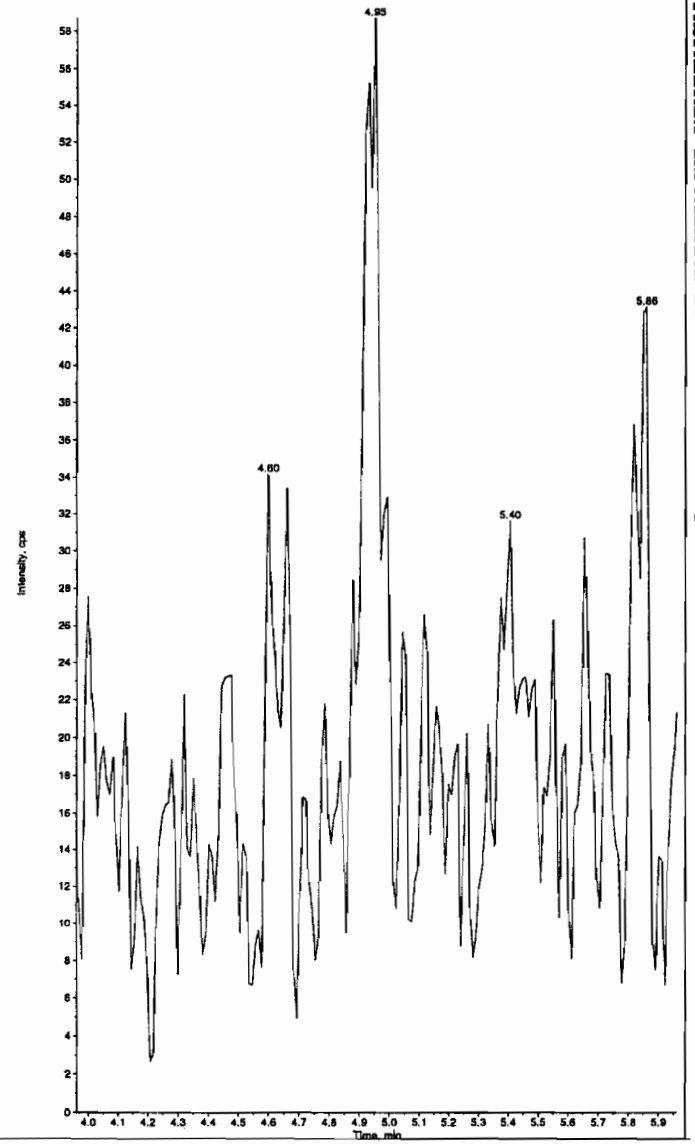

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS03160025.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/16/2010
. Time: 2:34:37 PM

ified: No

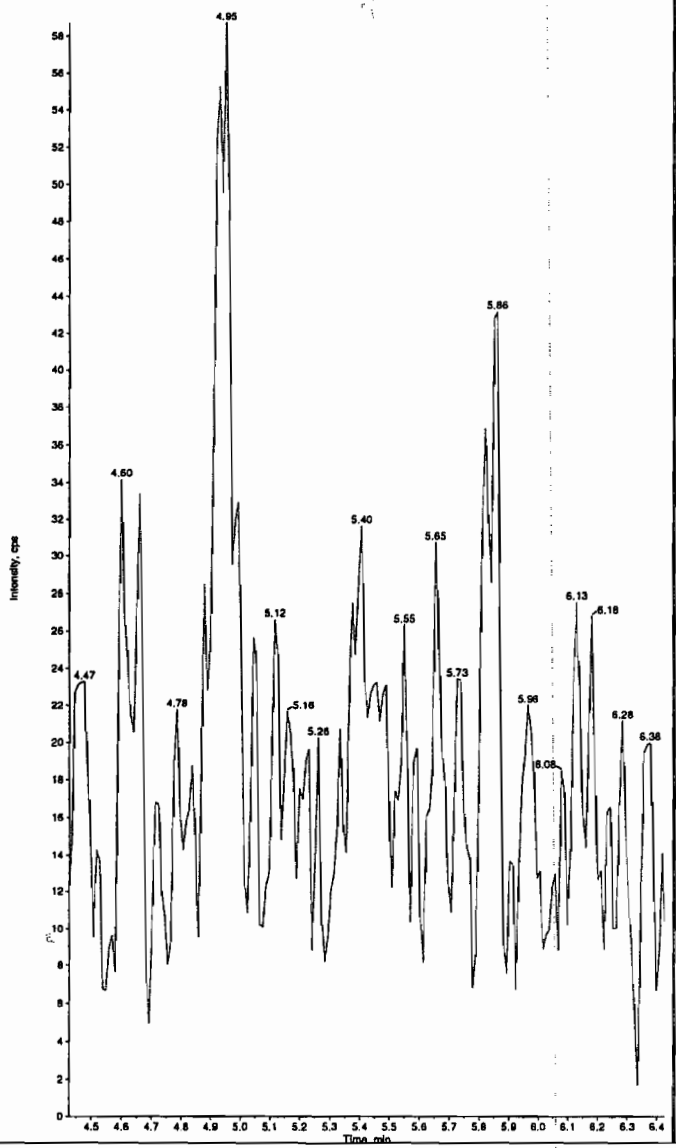

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS03160025.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	No Intercept
Acq. Date:	3/16/2010
Acq. Time:	2:34:37 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.9 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.9 min
Area:	4.30e+004 counts
Height:	10482.743 cps
Start Time:	10.8 min
End Time:	11.0 min

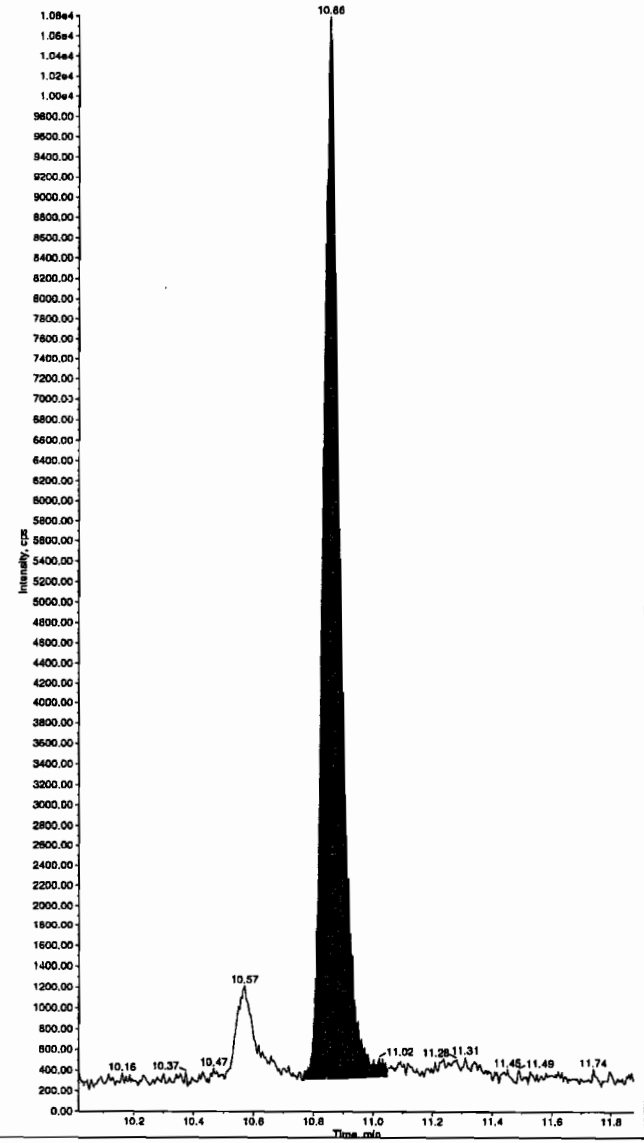

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1886

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 16–MAR–10 21:23

GEL Data File: EXS03160051.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6–Diamino–4–nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0

Clar 3/18/10

mple Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS03160051.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/16/2010
. Time: 9:23:13 PM
ified: No

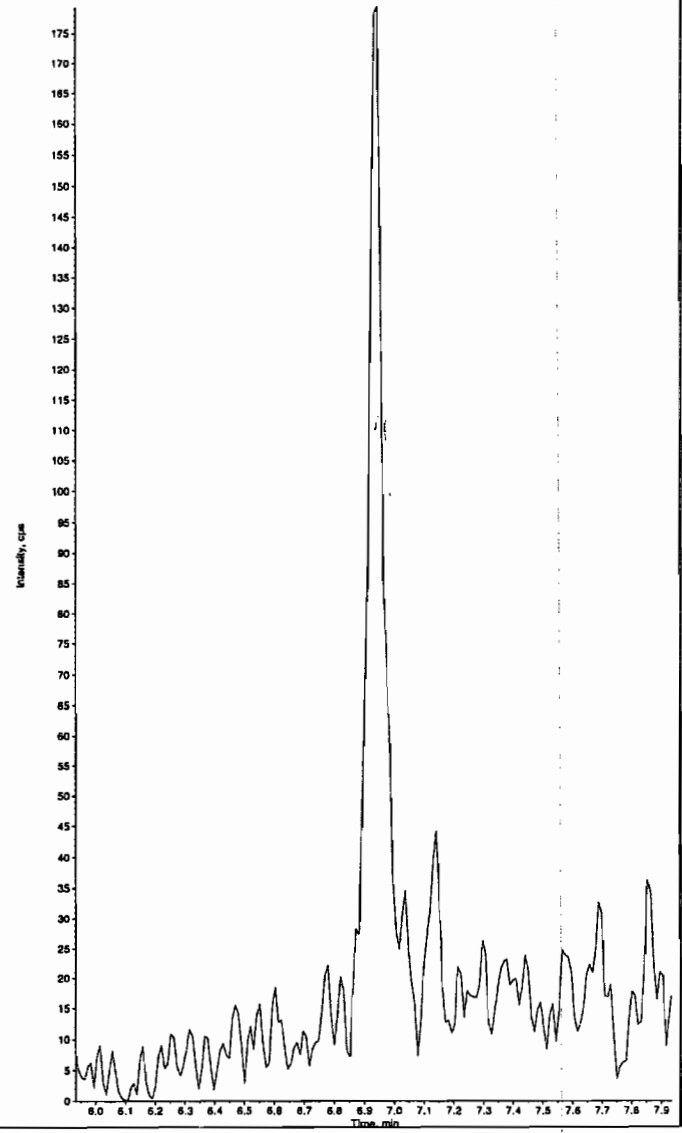

Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS03160051.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/16/2010
Acq. Time: 9:23:13 PM

Modified: No

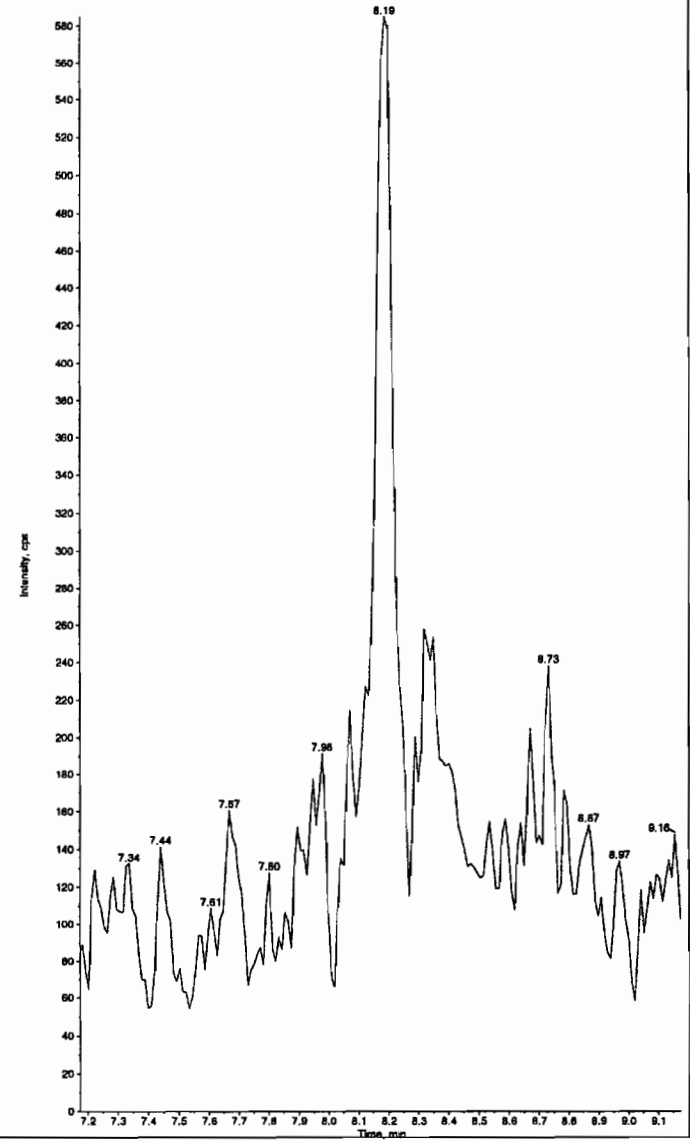

AL 03/22/10

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS03160051.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
Date: 3/16/2010
Time: 9:23:13 PM
fied: No

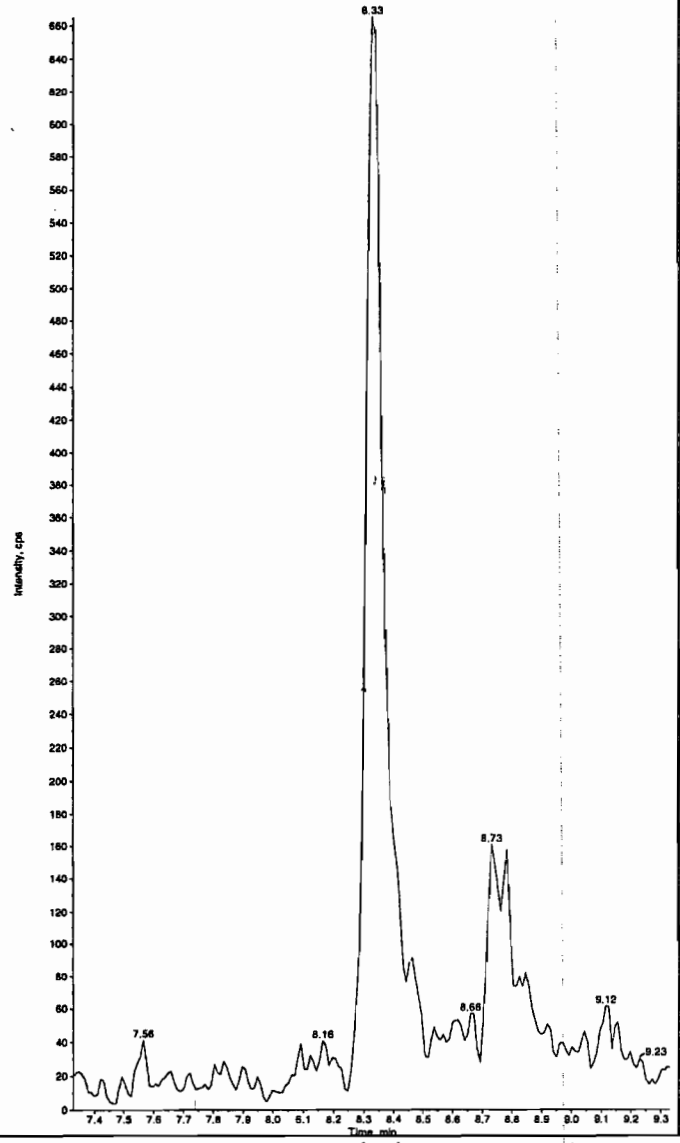

Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS03160051.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/16/2010
Acq. Time: 9:23:13 PM

Modified: No

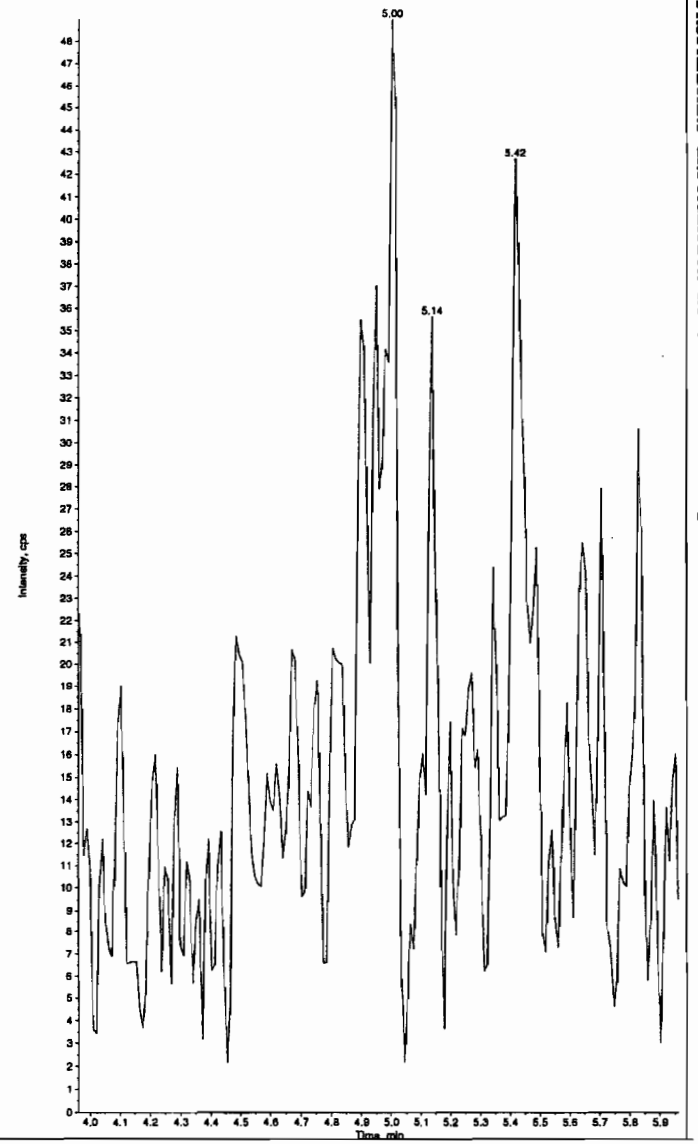

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS03160051.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/16/2010
. Time: 9:23:13 PM

.fied: No

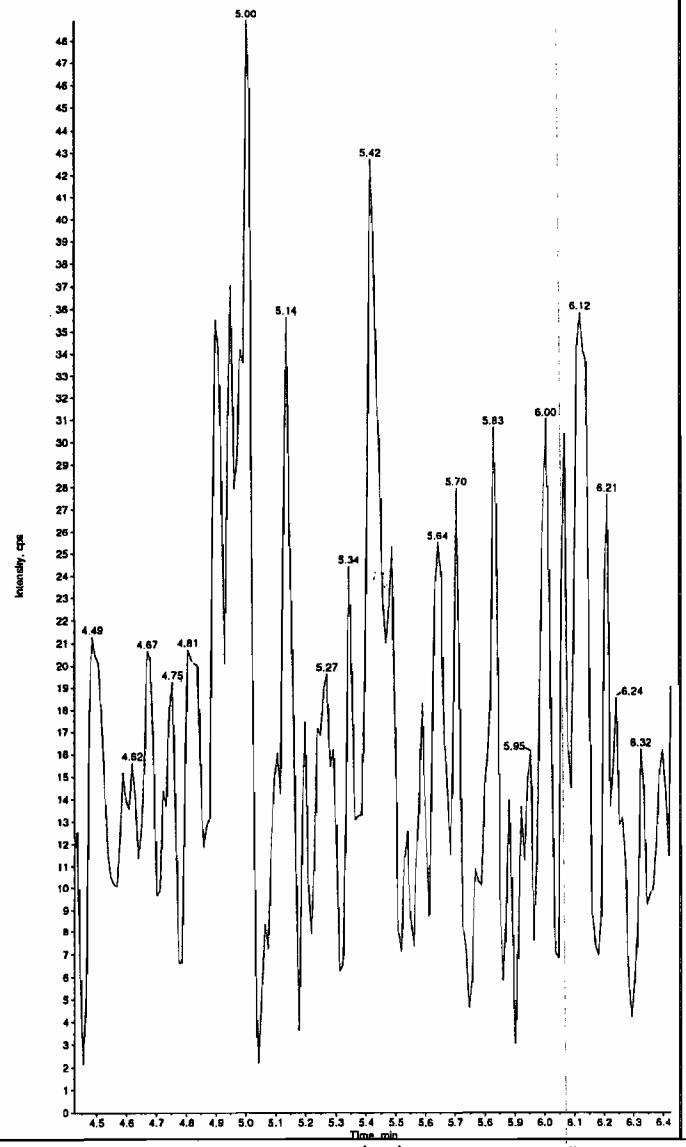

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS03160051.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/16/2010
Acq. Time: 9:23:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 4.17e+004 counts
Height: 10536.640 cps
Start Time: 10.8 min
End Time: 11.1 min

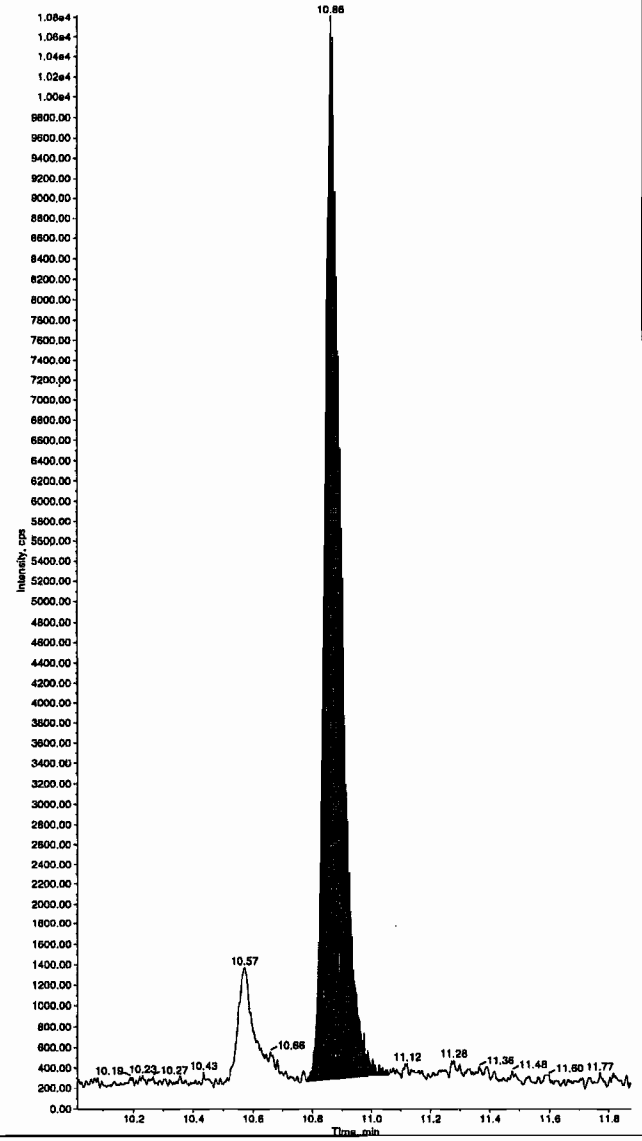

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1886

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 17–MAR–10 00:31

GEL Data File: EXS03160063.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Ran 3/19/10

ample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS03160063.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/17/2010
. Time: 12:31:46 AM

ified: No

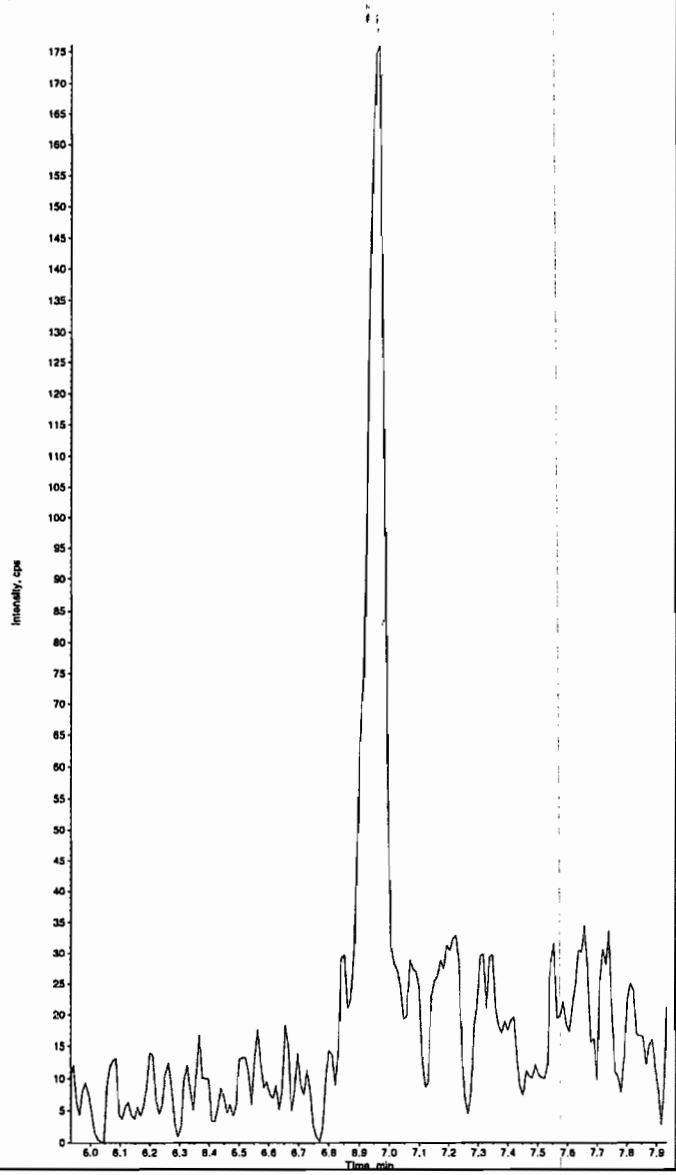

Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS03160063.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 12:31:46 AM

Modified: No

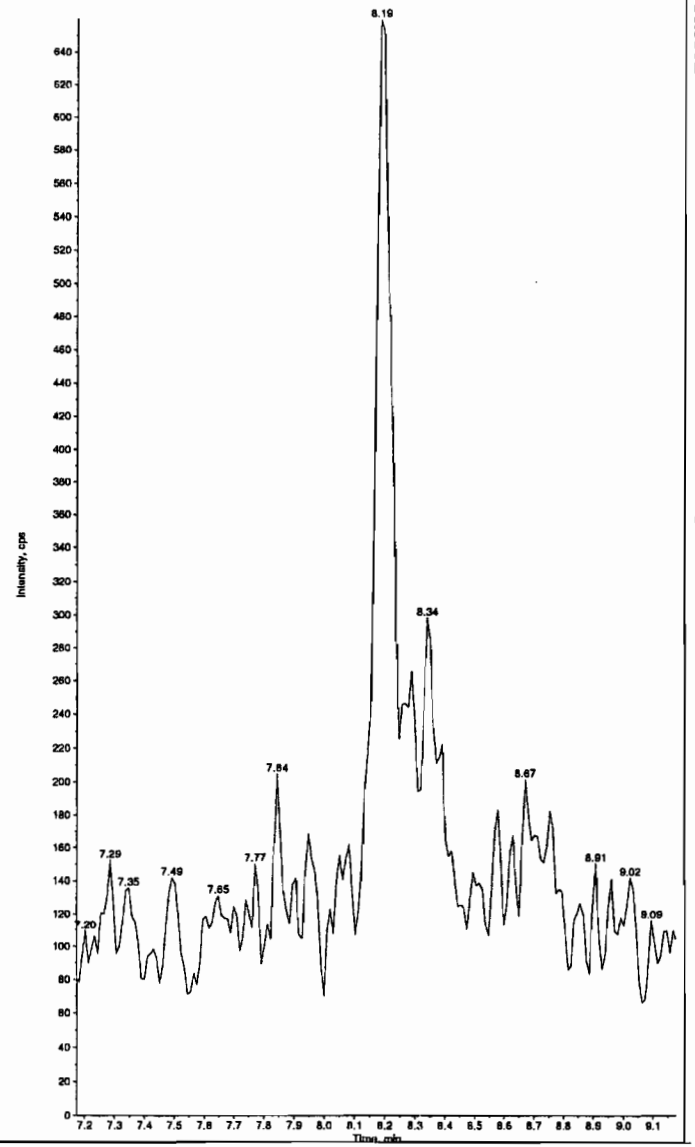

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:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS03160063.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 3/17/2010
Time: 12:31:46 AM
fied: No

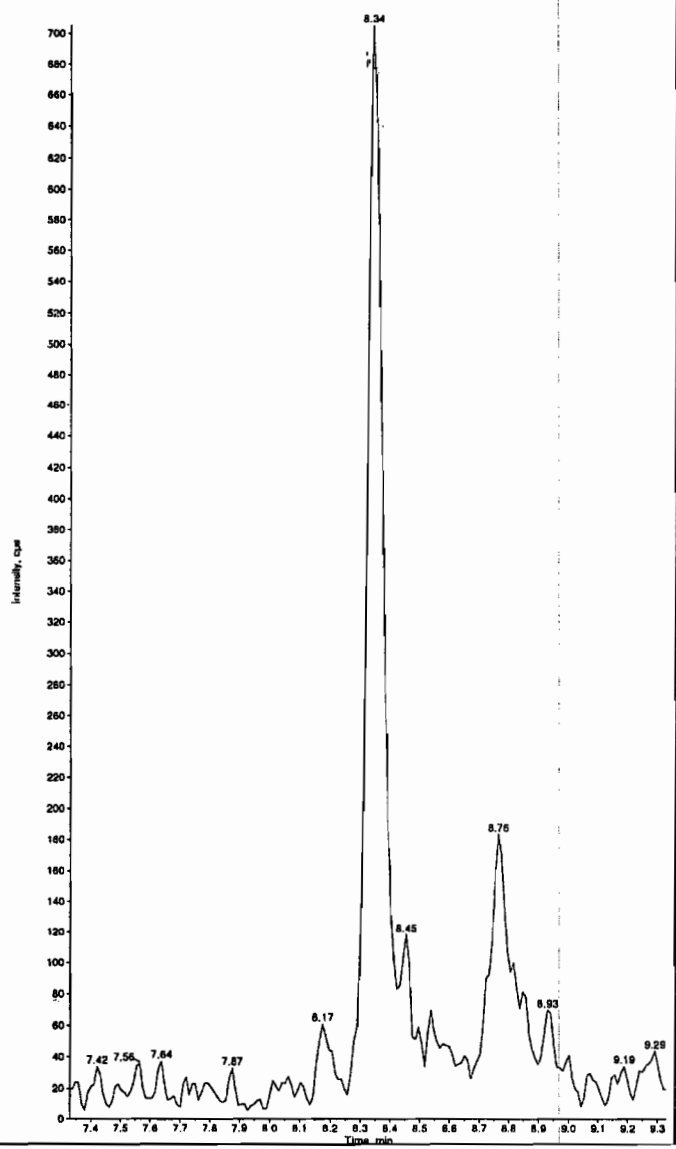

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS03160063.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 12:31:46 AM

Modified: No

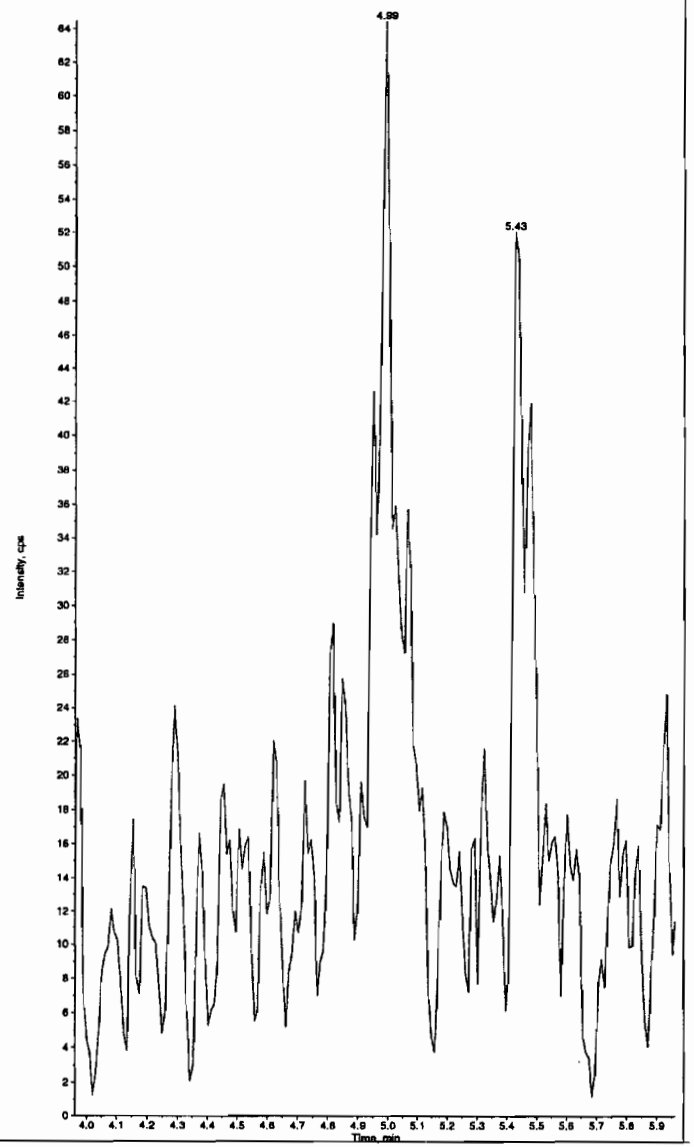

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS03160063.wiff"
(Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_B" Annotation: ""

```
e Index:          1
e Type:       Unknown
ntration:       N/A
lated Conc:     0.00     ng/mL
Date:        3/17/2010
Time:        12:31:46 AM

ied:             No
```

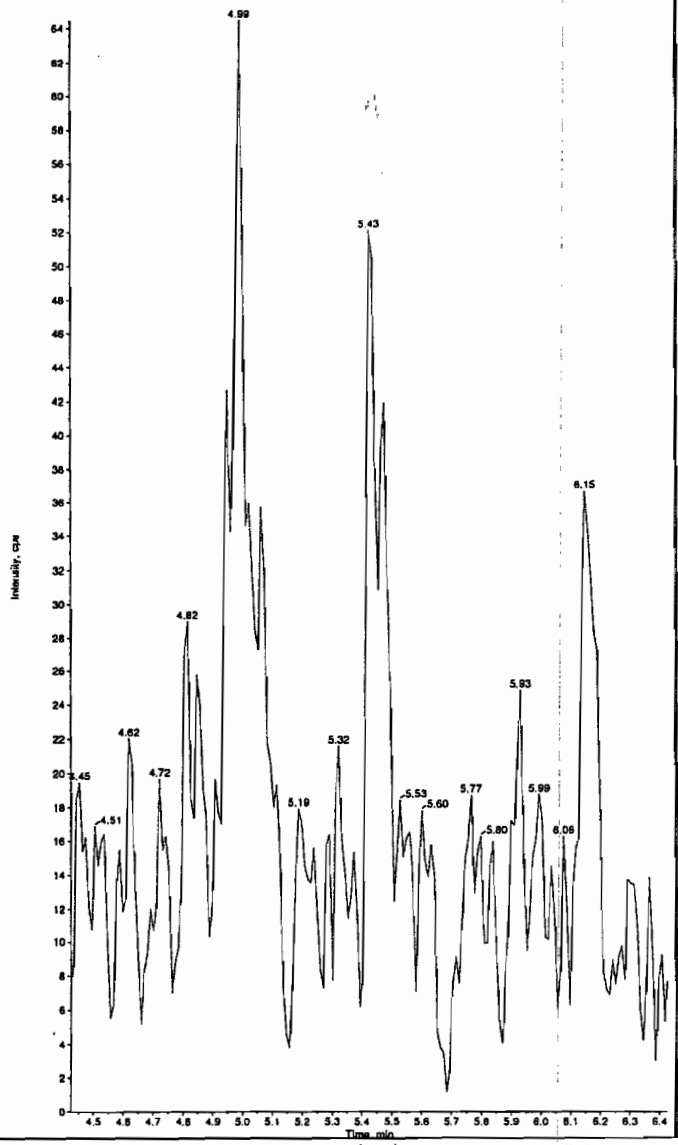

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS03160063.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
Sample Index:        1
Sample Type:     Unknown
Concentration:     N/A
Calculated Conc: No Intercept
Acq. Date:       3/17/2010
Acq. Time:       12:31:46 AM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:       10.9    min
Use Relative RT:    No

Int. Type:       Valley
Retention Time:    10.9    min
Area:        4.54e+004   counts
Height:        11211.111  cps
Start Time:        10.8    min
End Time:          11.0    min
```

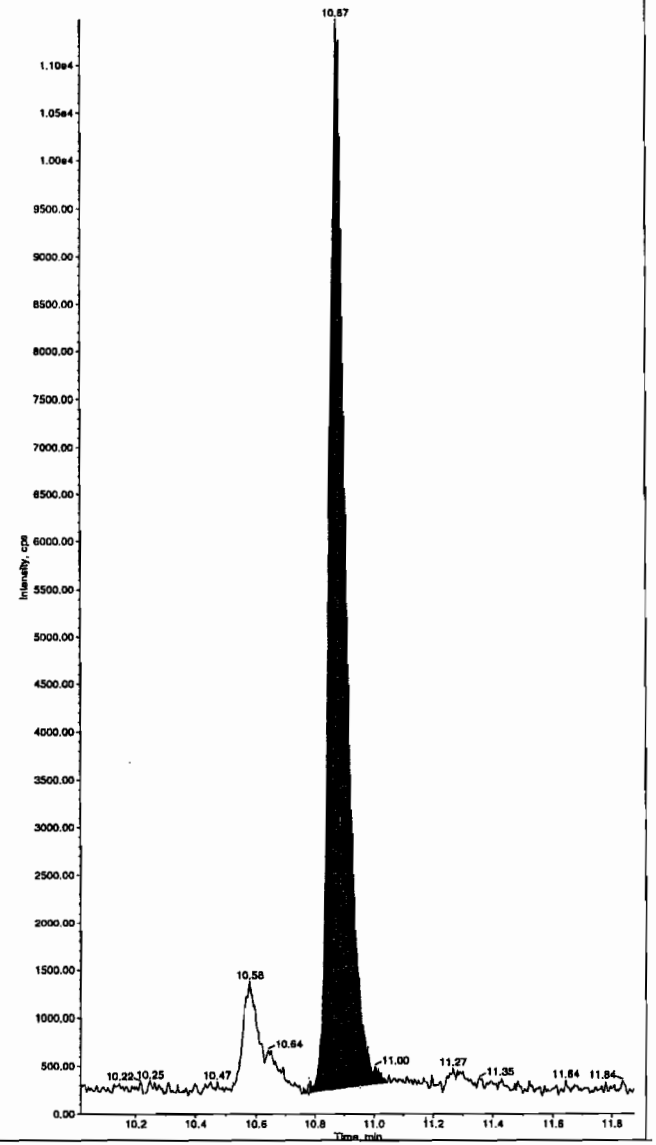

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1886

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 17–MAR–10 03:55

GEL Data File: EXS03160076.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Han 3/19/10

ample Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS03160076.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/17/2010
. Time: 3:55:59 AM

ified: No

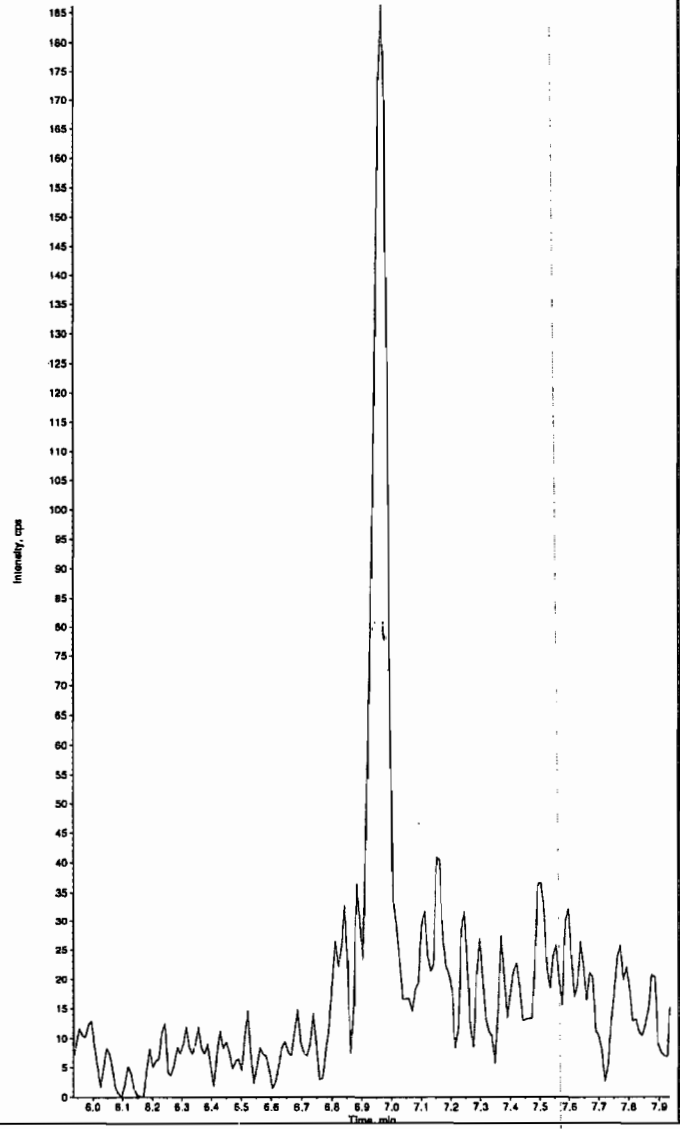

Sample Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS03160076.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 3:55:59 AM

Modified: No

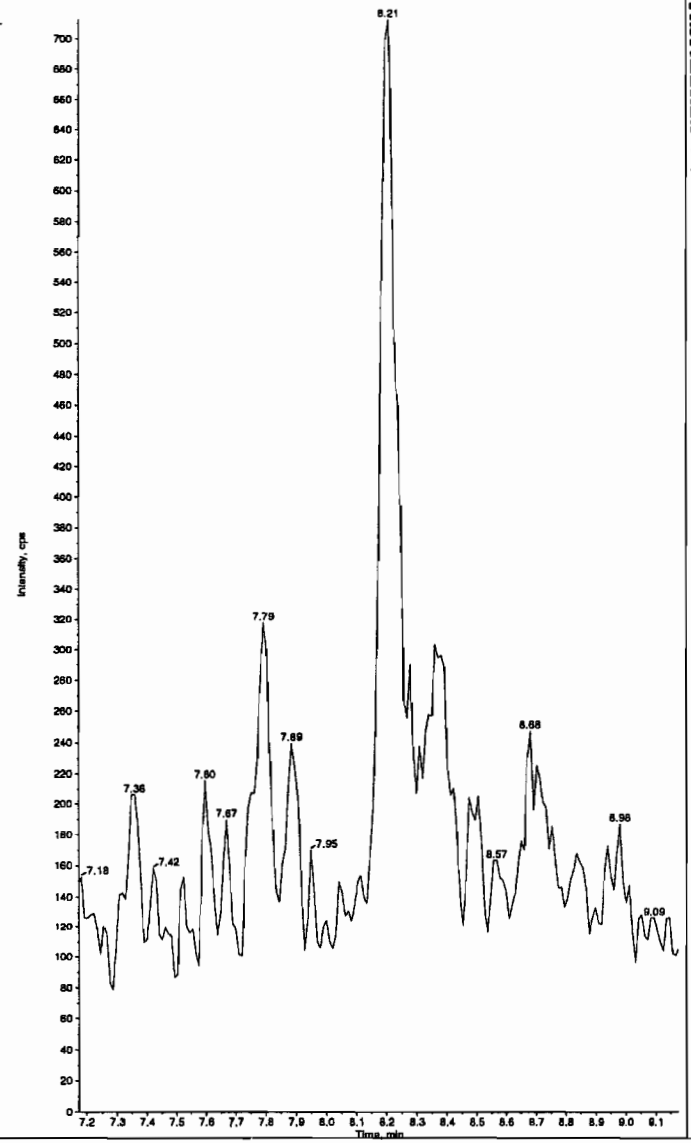

Hmc 03/22/10

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS03160076.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 3/17/2010
Time: 3:55:59 AM

fied: No

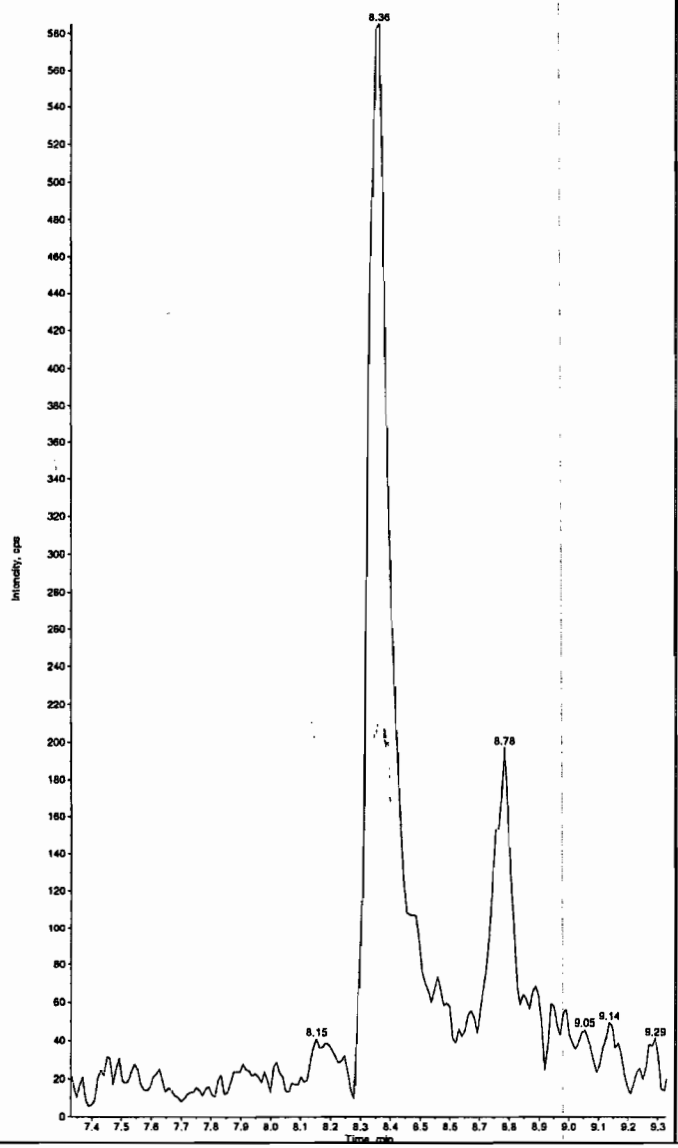

Sample Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS03160076.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 3:55:59 AM

Modified: No

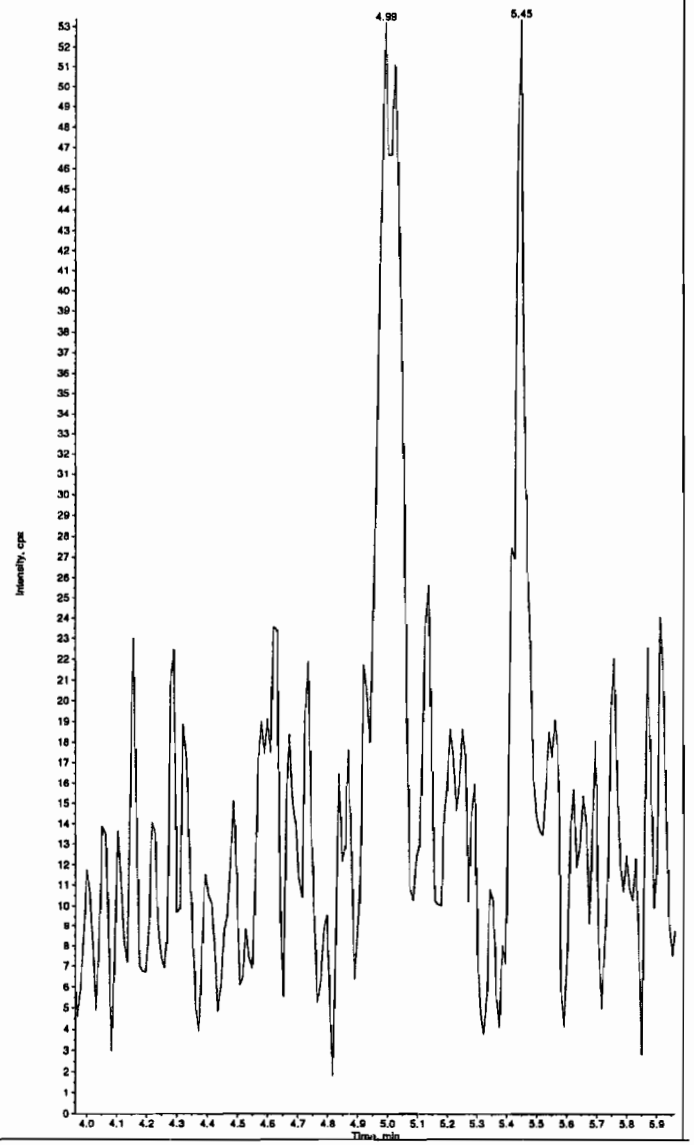

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS03160076.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
ple Index:        1
ple Type:       Unknown
centration:       N/A
culated Conc:     0.00      ng/mL
. Date:         3/17/2010
. Time:         3:55:59 AM

ified:            No
```

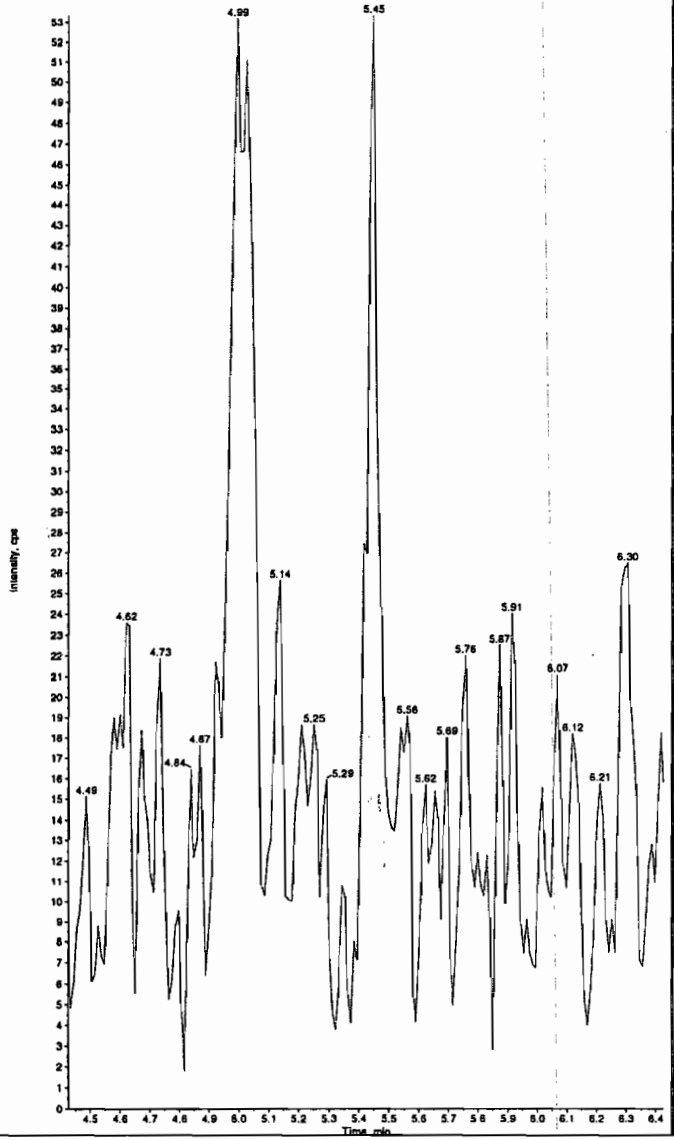

Sample Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS03160076.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
Sample Index:        1
Sample Type:       Unknown
Concentration:       N/A
Calculated Conc:   No Intercept
Acq. Date:         3/17/2010
Acq. Time:         3:55:59 AM

Modified:            No
Proc. Algorithm:   IntelliQuan - IQA
Min. Peak Height:  8000.00    cps
Min. Peak Width:      0.00    sec
Smoothing Width:   3          points
RT Window:           30.0     sec
Expected RT:         10.9     min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      10.9     min
Area:          4.28e+004     counts
Height:        10545.054     cps
Start Time:          10 8     min
End Time:            11.1     min
```

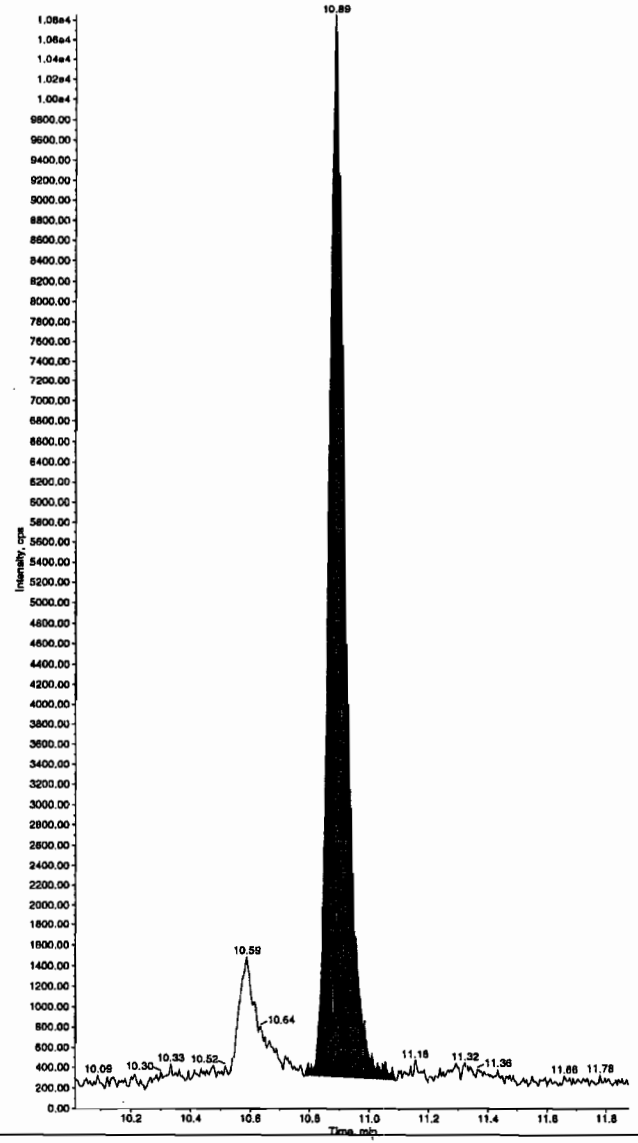

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1886

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 17-MAR-10 07:20

GEL Data File: EXS03160089.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Rcvd 3/19/10

ample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS03160089.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/17/2010
. Time: 7:20:06 AM

ified: No

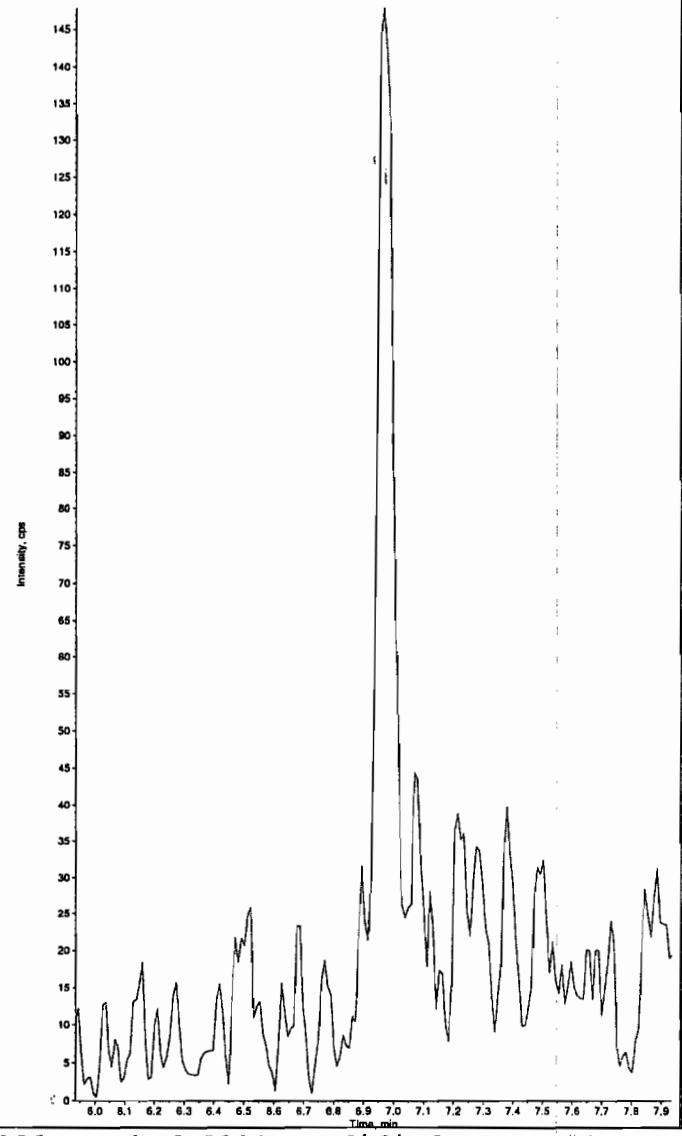

Sample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS03160089.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 7:20:06 AM

Modified: No

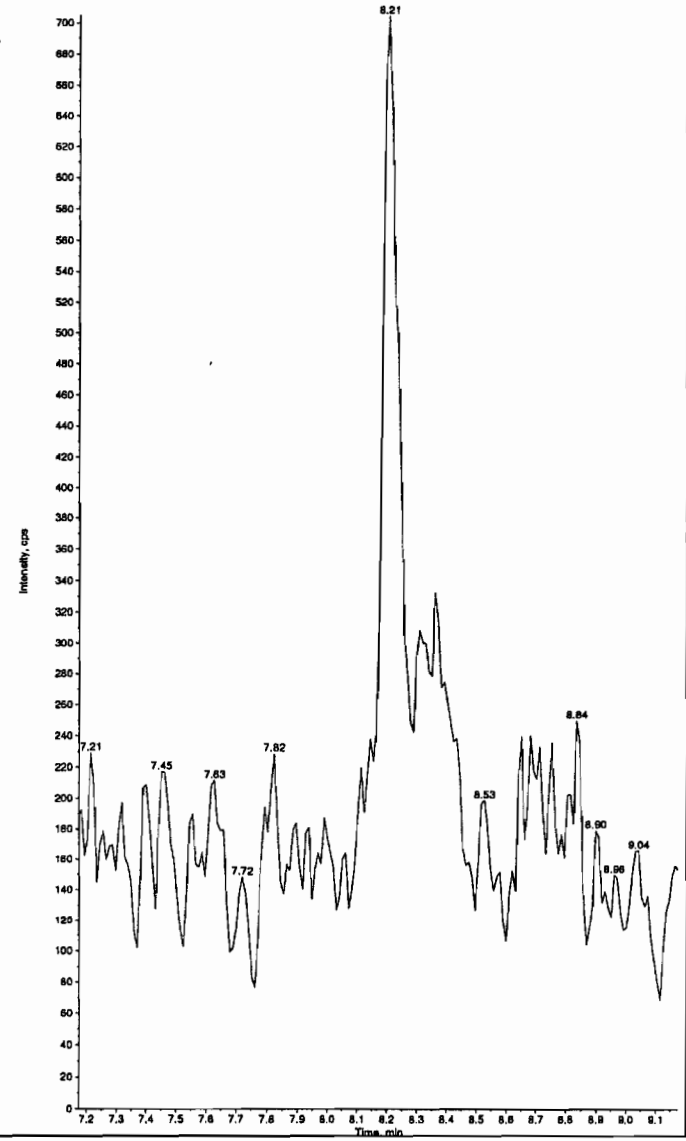

dtm 03/22/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS03160089.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/17/2010
. Time: 7:20:06 AM

ified: No

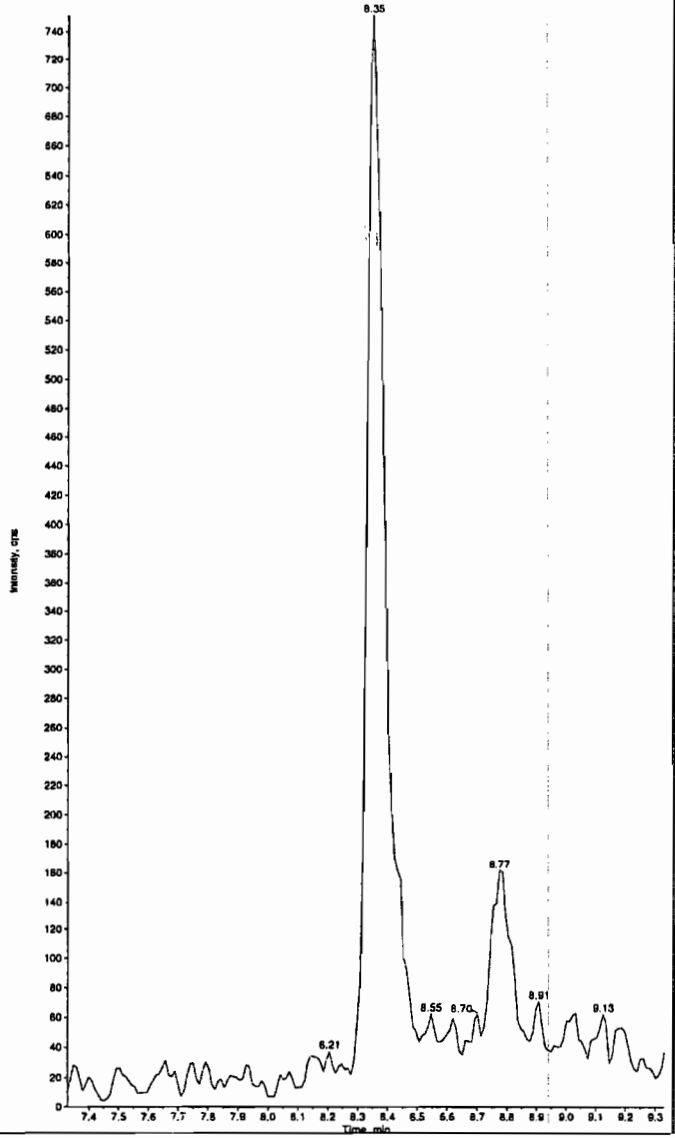

Sample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS03160089.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 7:20:06 AM

Modified: No

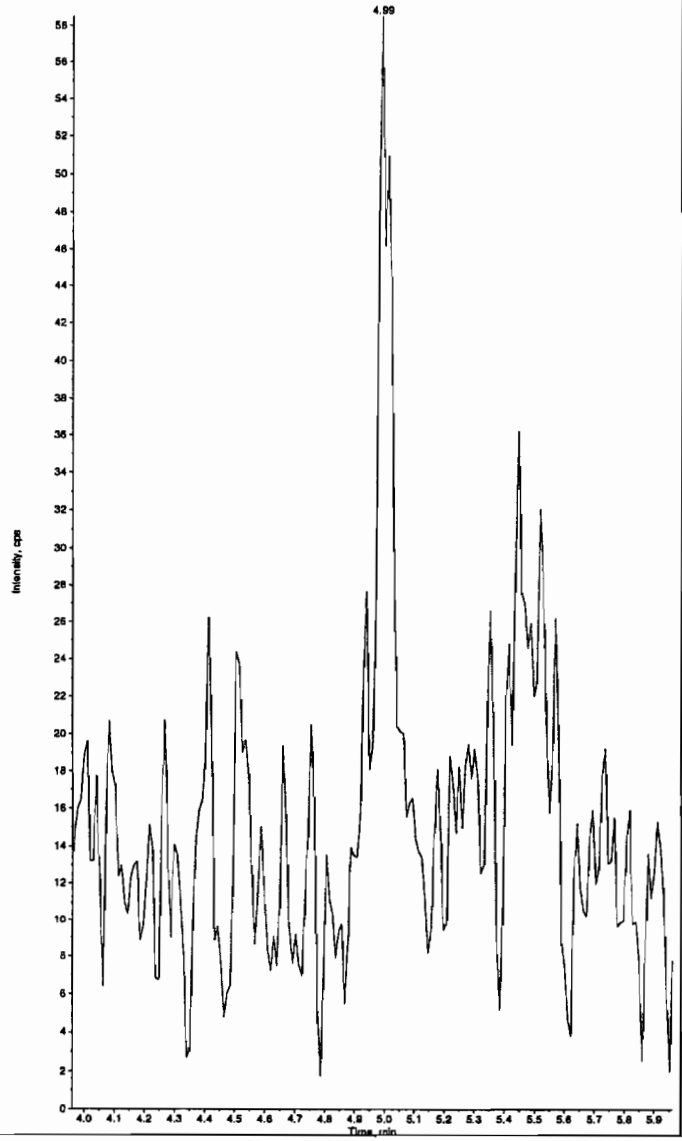

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS03160089.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/17/2010
. Time: 7:20:06 AM

ified: No

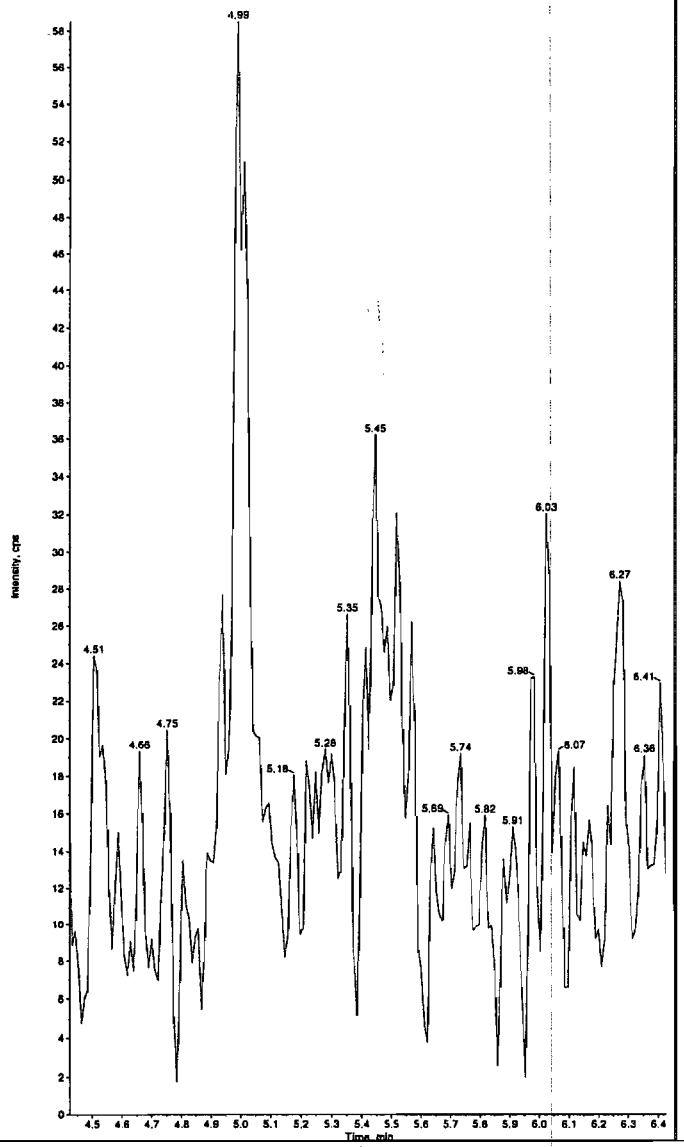

Sample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS03160089.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/17/2010
Acq. Time: 7:20:06 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 4.88e+004 counts
Height: 11313.847 cps
Start Time: 10.8 min
End Time: 11.0 min

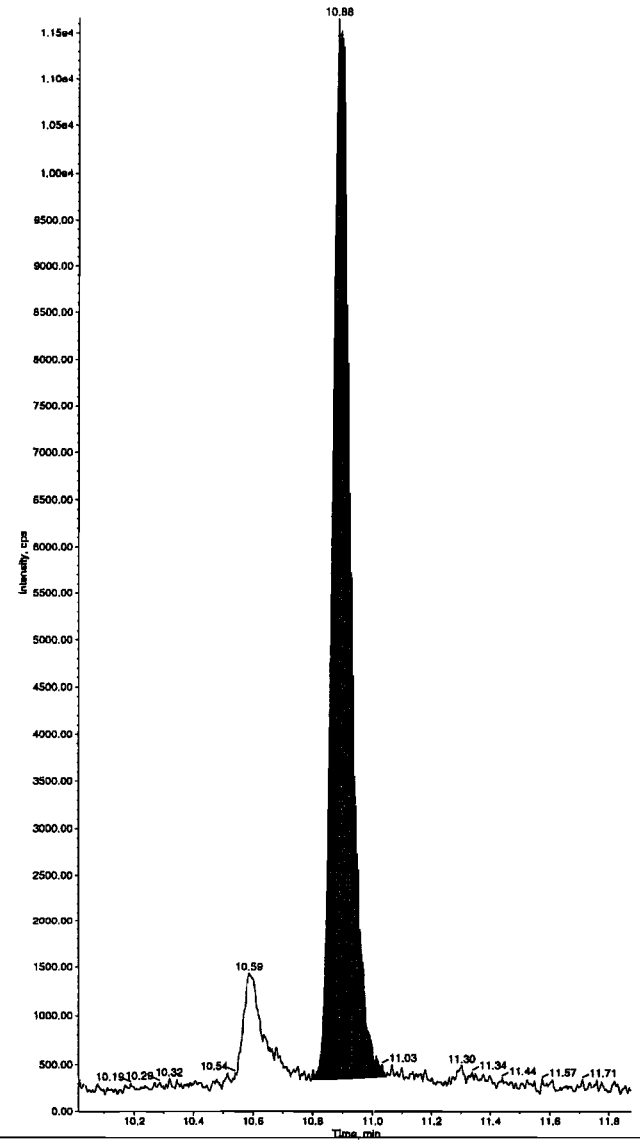

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1886

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 17–MAR–10 10:44

GEL Data File: EXS03160102.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

LCM 3/19/10

mple Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS03160102.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
Date: 3/17/2010
Time: 10:44:14 AM

fied: No

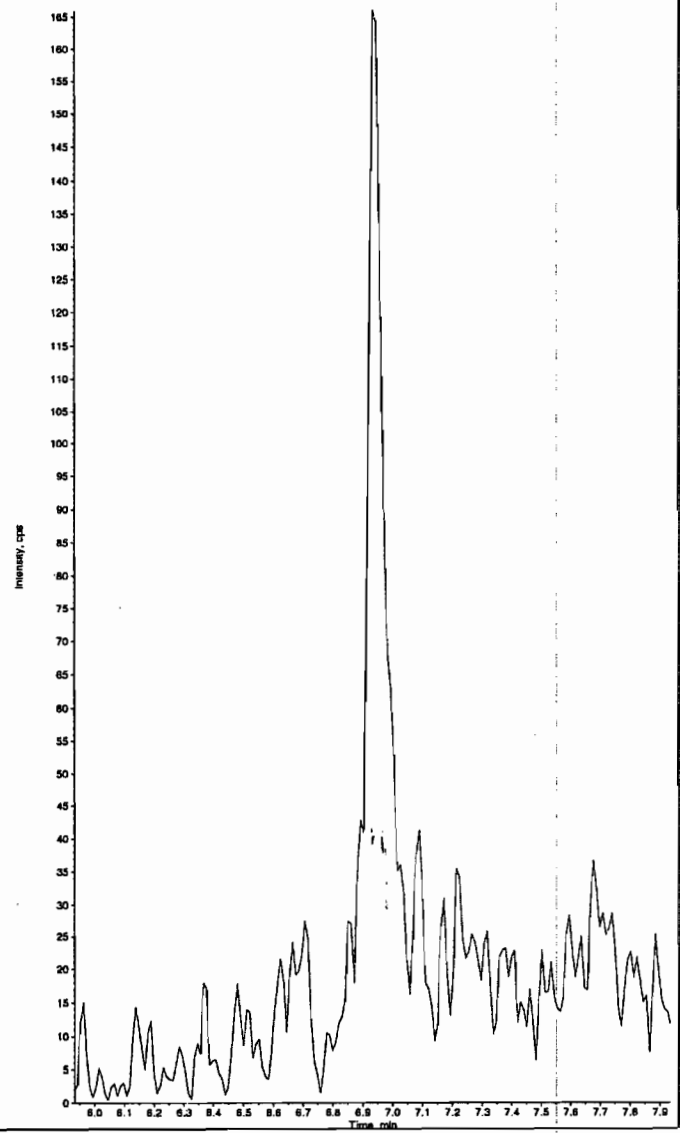

Sample Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS03160102.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 10:44:14 AM

Modified: No

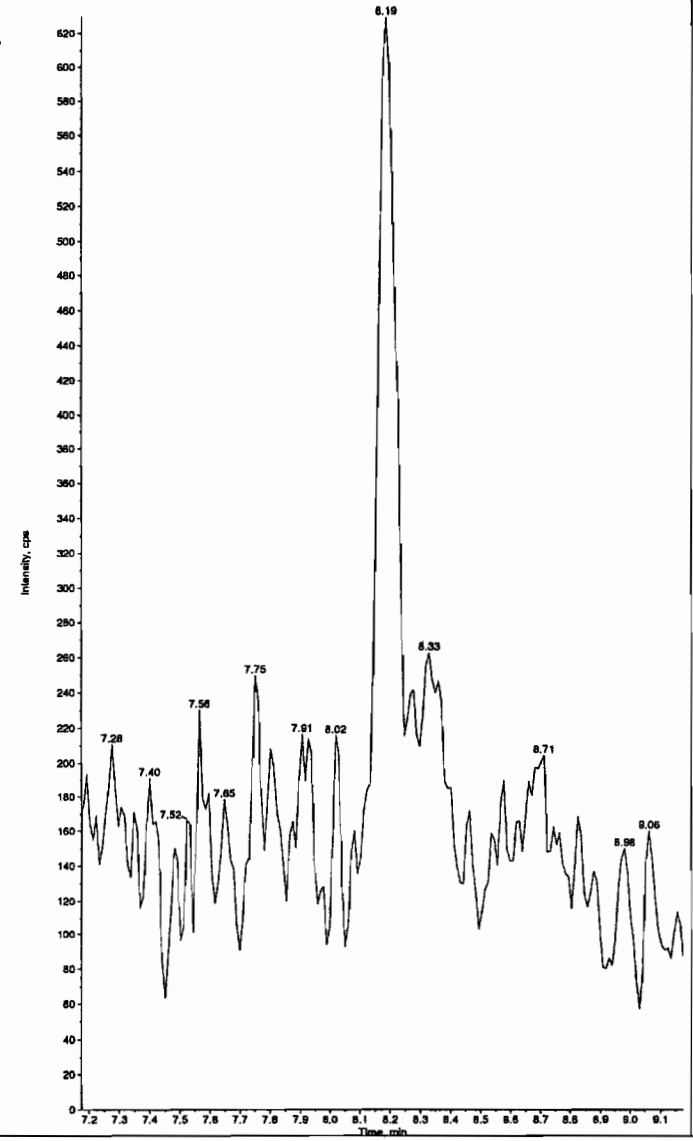

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK11" Sample ID: "[1]LER" File: "EXS03160102.wiff"
eak Name: "34-Dinitrotoluene" Mass(as): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/17/2010
. Time: 10:44:14 AM
ified: No

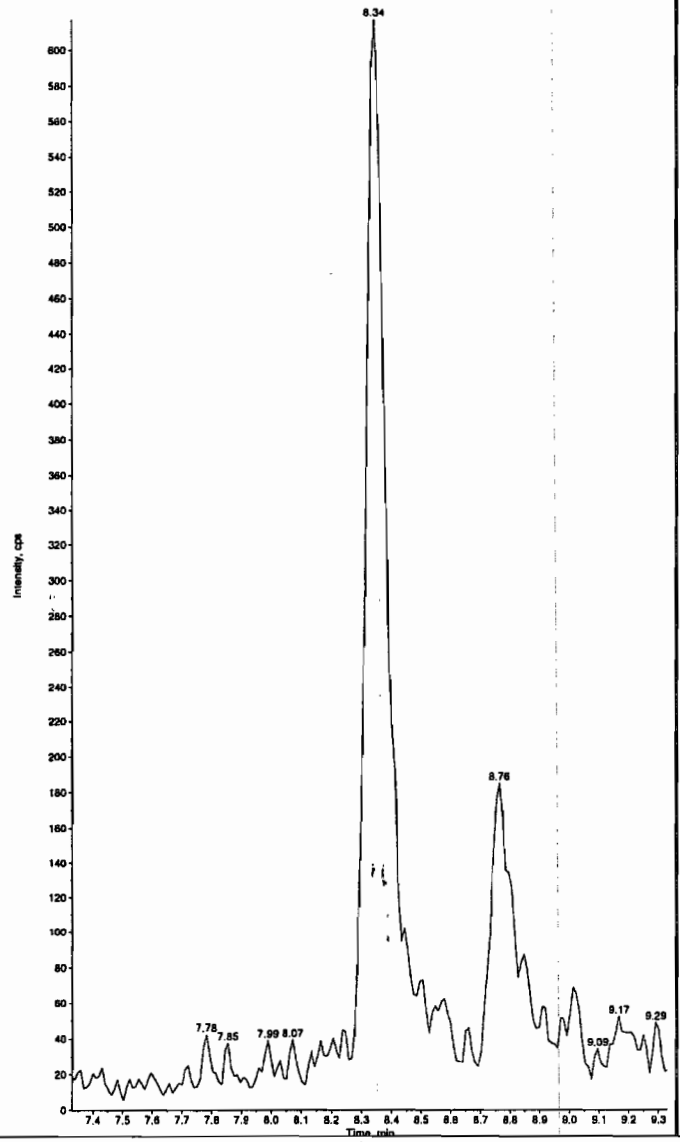

Sample Name: "XIBLK11" Sample ID: "[1]LER" File: "EXS03160102.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 10:44:14 AM

Modified: No

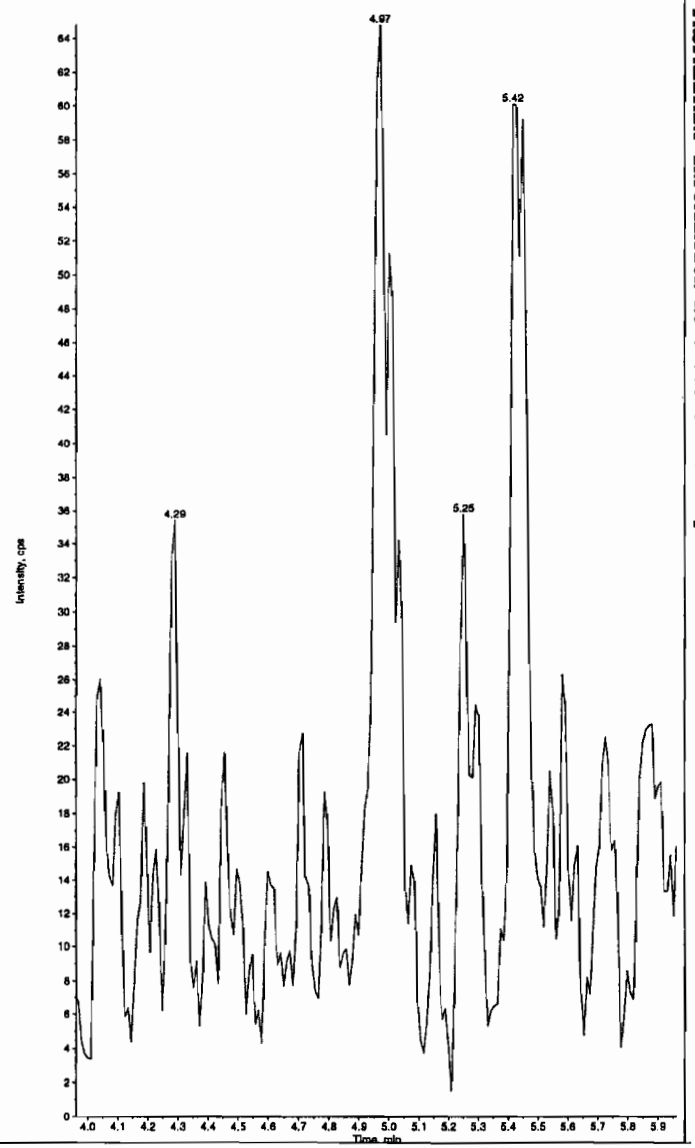

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS03160102.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/17/2010
. Time: 10:44:14 AM

ified: No

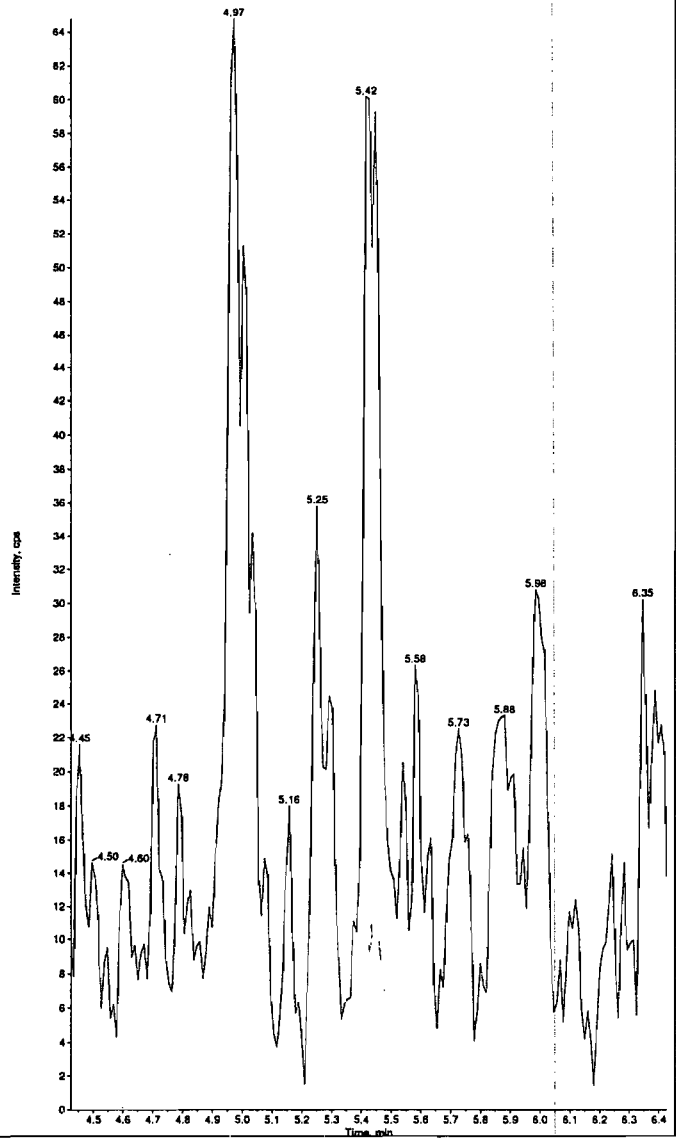

Sample Name: "XIBLK11" Sample ID: "|1|LER" File: "EXS03160102.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_S" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	No Intercept	
Acq. Date:	3/17/2010	
Acq. Time:	10:44:14 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	4.75e+004	counts
Height:	11242.225	cps
Start Time:	10.8	min
End Time:	11.0	min

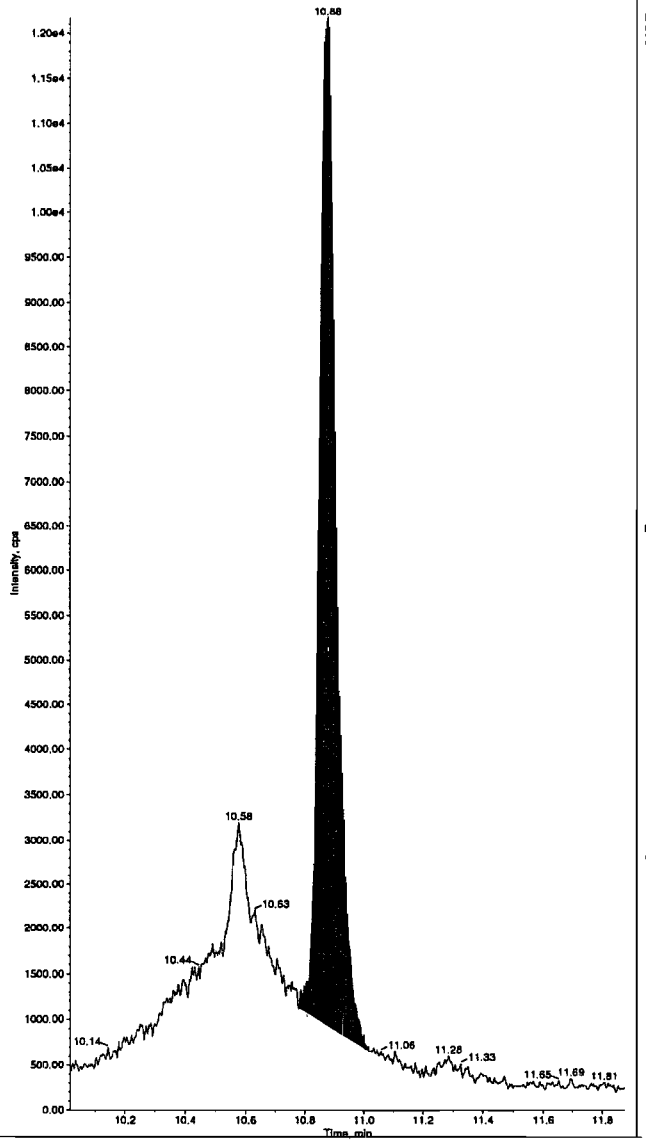

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1886

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 17–MAR–10 12:34

GEL Data File: EXS03160109.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

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mple Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS03160109.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
culated Conc: 0.00 ng/mL
Date: 3/17/2010
Time: 12:34:10 PM
fied: No

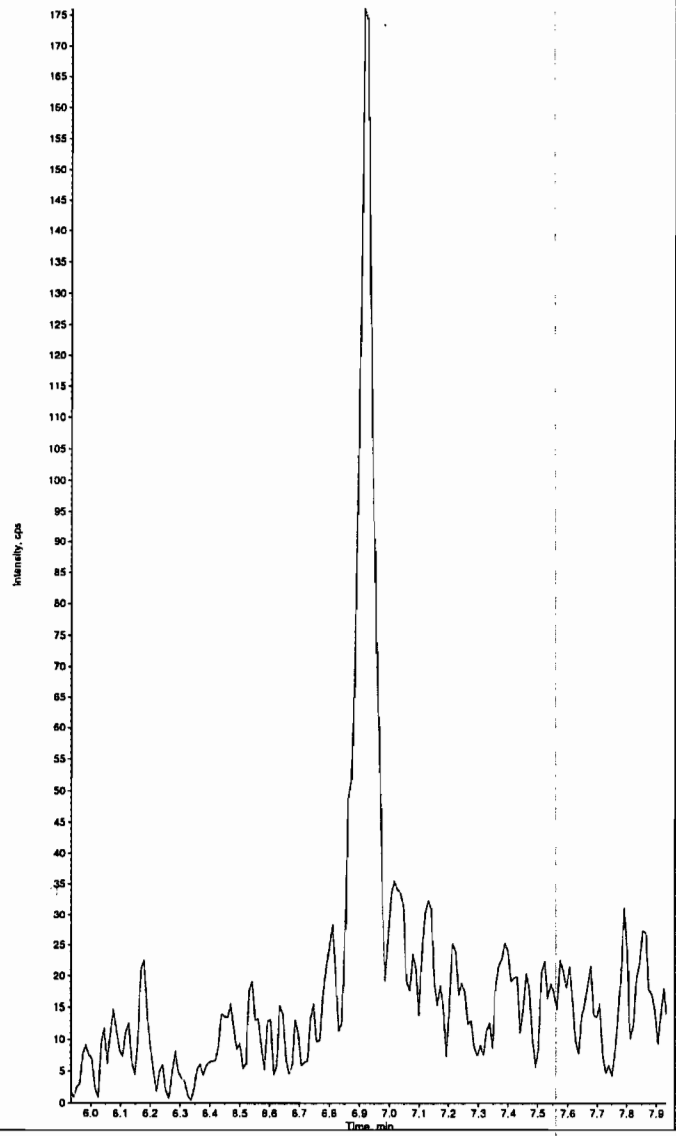

Sample Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS03160109.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 12:34:10 PM

Modified: No

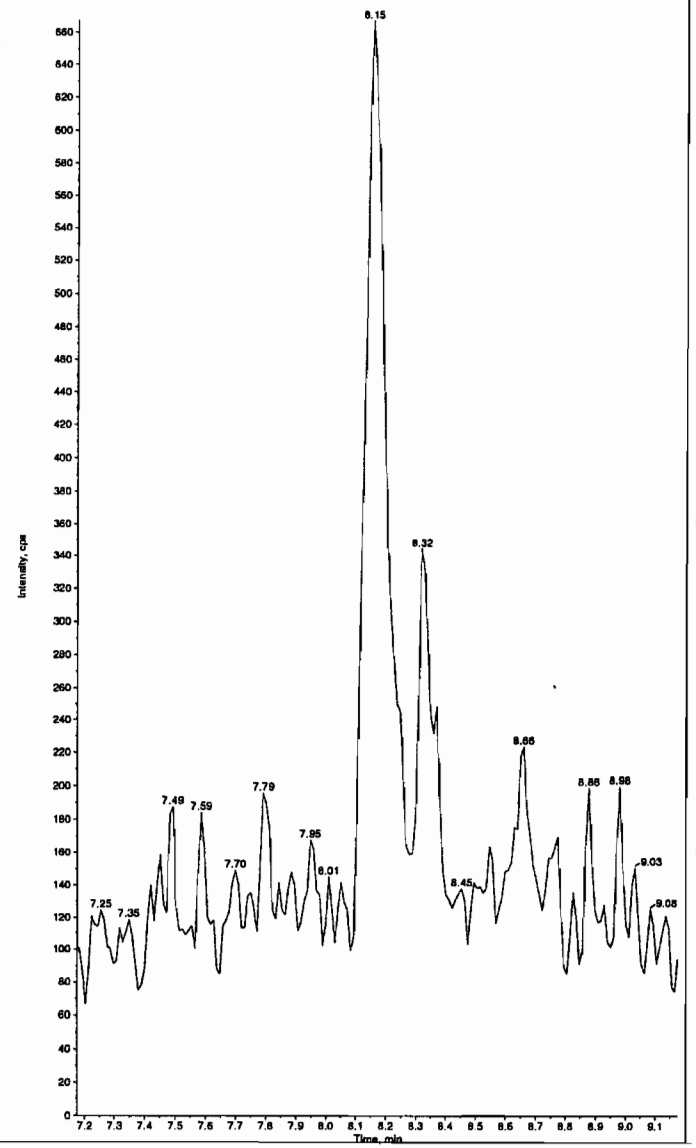

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS03160109.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/17/2010
. Time: 12:34:10 PM
fied: No

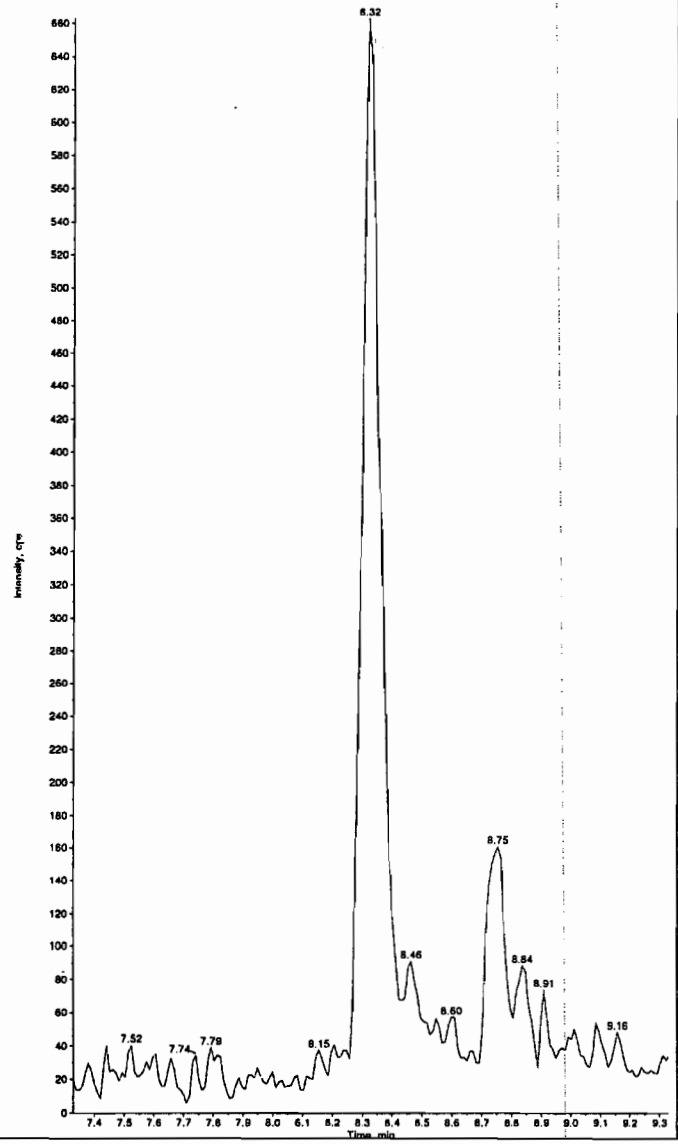

Sample Name: "XIBLK12" Sample ID: "[1]LER" File: "EXS03160109.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 12:34:10 PM

Modified: No

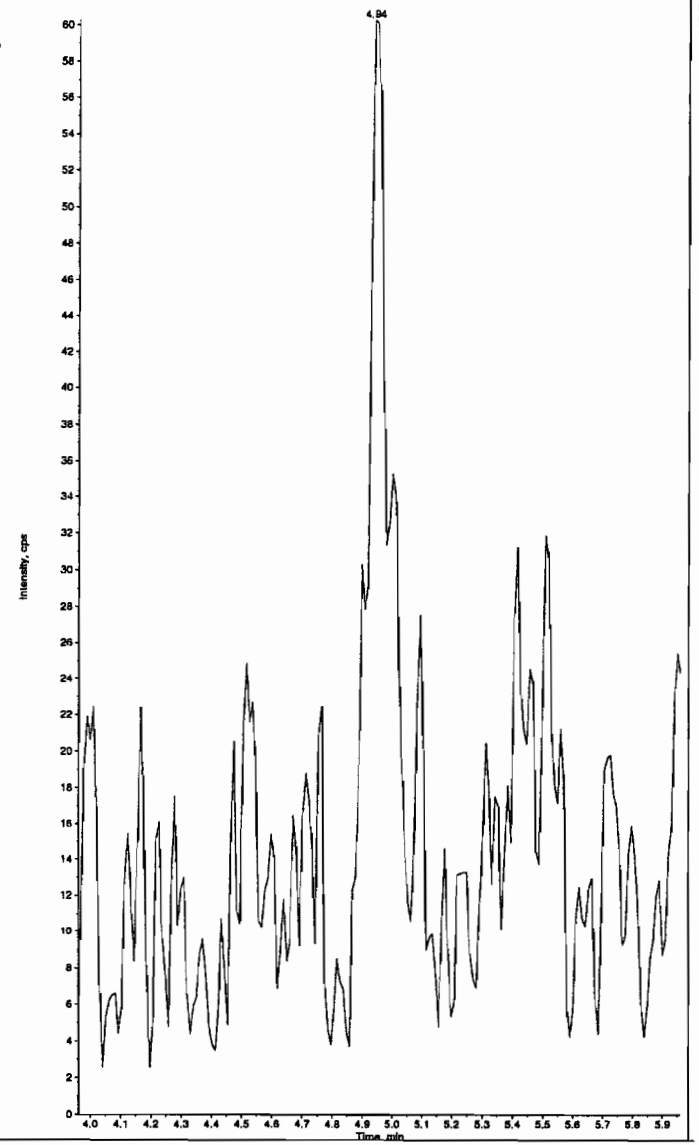

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "XIBLK12" Sample ID: "|1|LER" File: "EXS03160109.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 3/17/2010
Time: 12:34:10 PM

fied: No

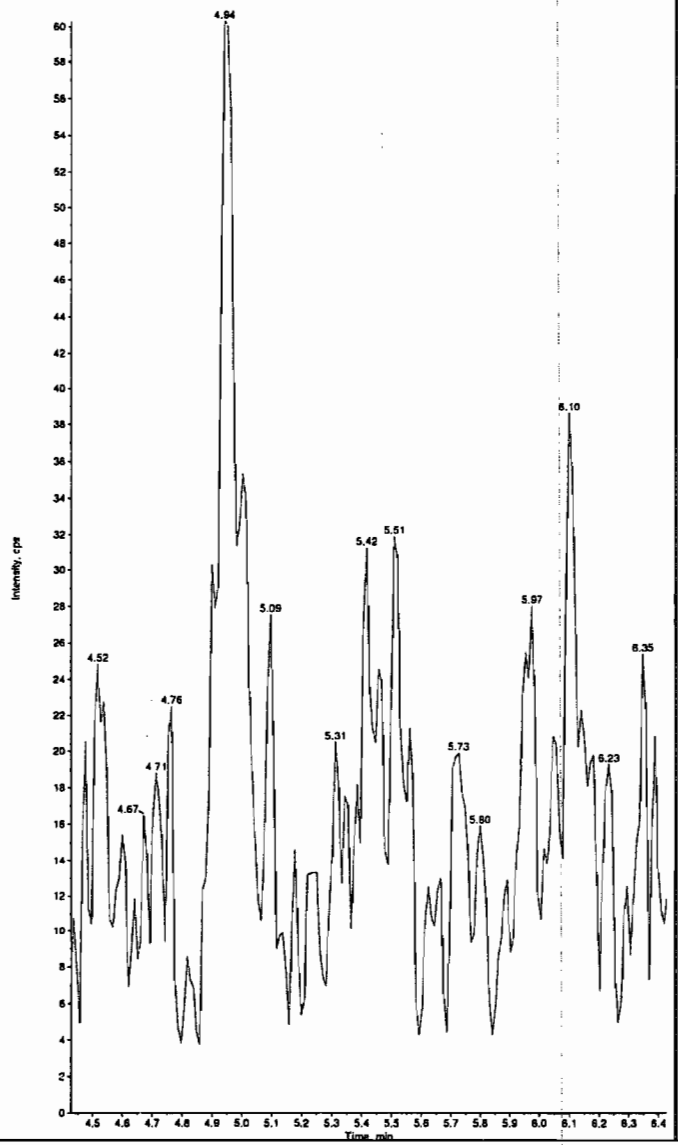

Sample Name: "XIBLK12" Sample ID: "|1|LER" File: "EXS03160109.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: < 0
Acq. Date: 3/17/2010
Acq. Time: 12:34:10 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 5.50e+004 counts
Height: 13307.583 cps
Start Time: 10.7 min
End Time: 11.1 min

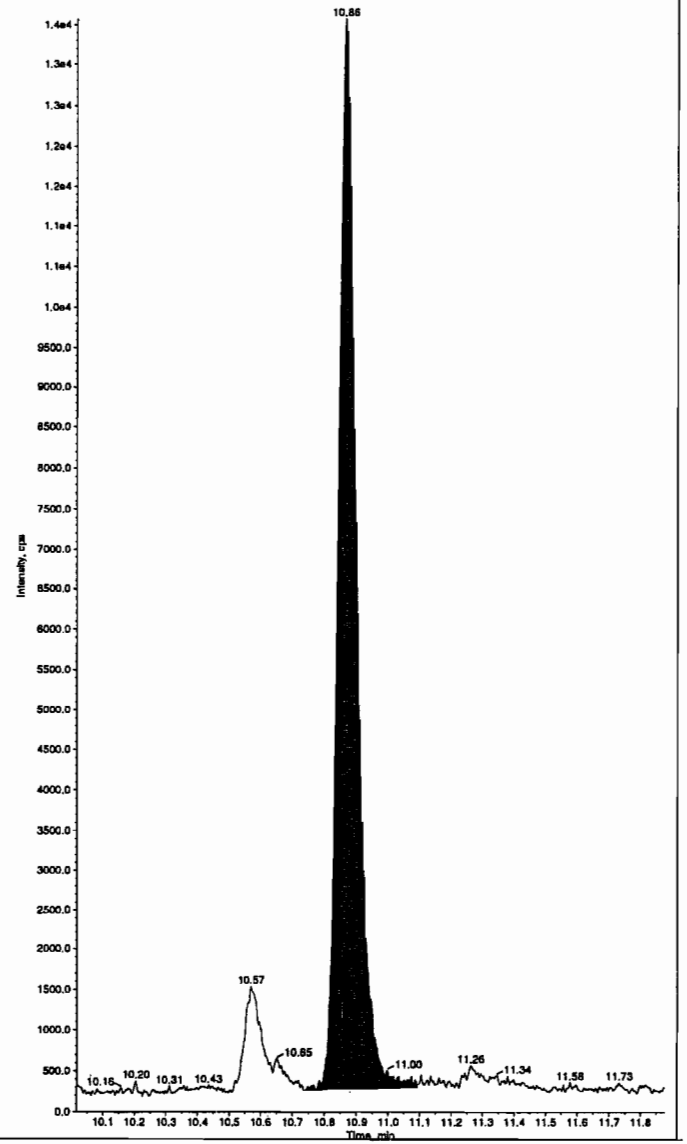

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1886

Lab Code: GEL

Lab Sample ID: XIBLK15

Analysis Date: 17–MAR–10 19:22

GEL Data File: EXS03160135.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

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vmple Name: "XIBLK15" Sample ID: "[1]LER" File: "EXS03160135.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
xmment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/17/2010
. Time: 7:22:46 PM
.fied: No

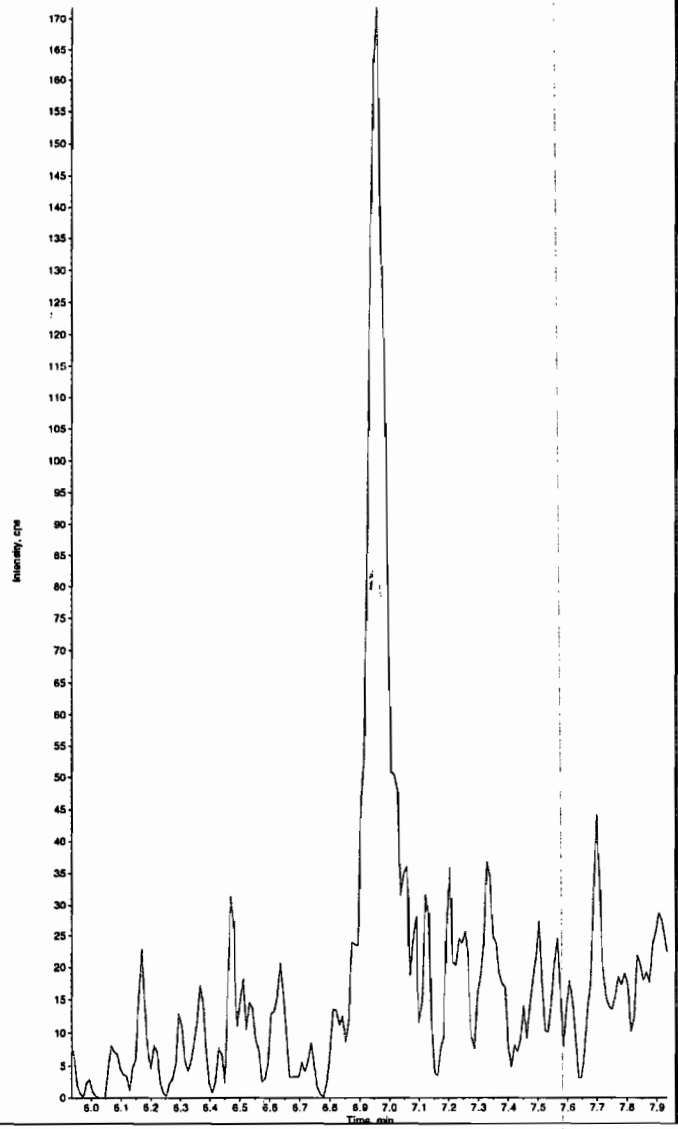

Sample Name: "XIBLK15" Sample ID: "[1]LER" File: "EXS03160135.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 7:22:46 PM

Modified: No

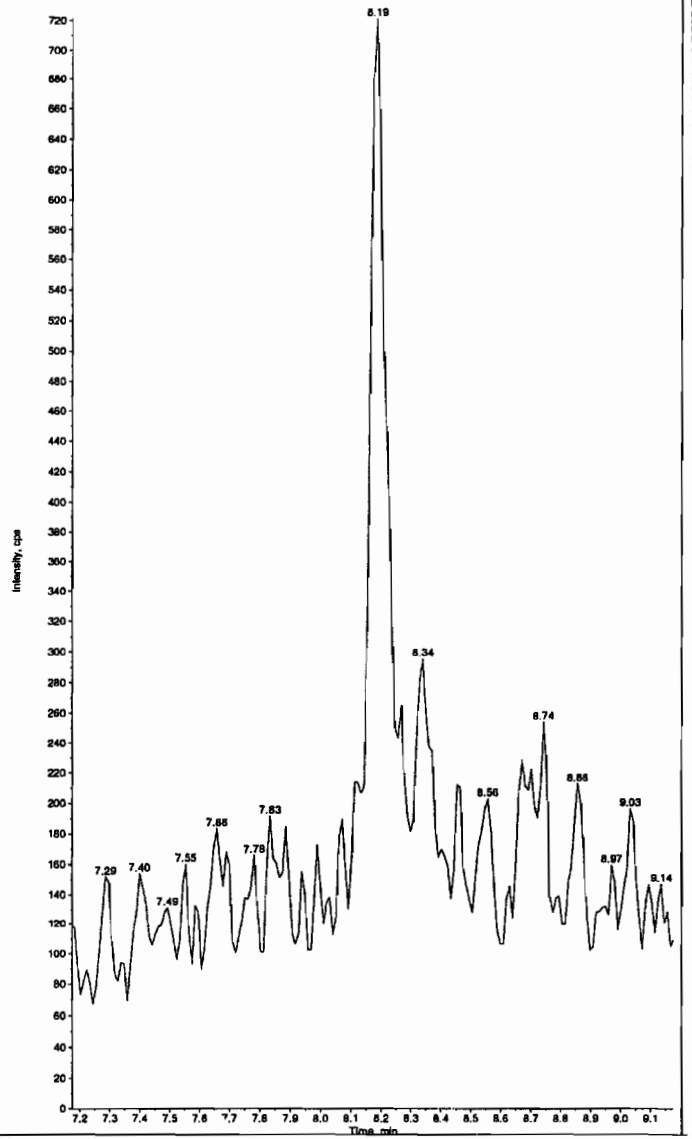

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK15" Sample ID: "[1]LER" File: "EXS03160135.wiff"
eak Name: "34-Dinitrotoluene" Mass(as): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/17/2010
. Time: 7:22:46 PM

ified: No

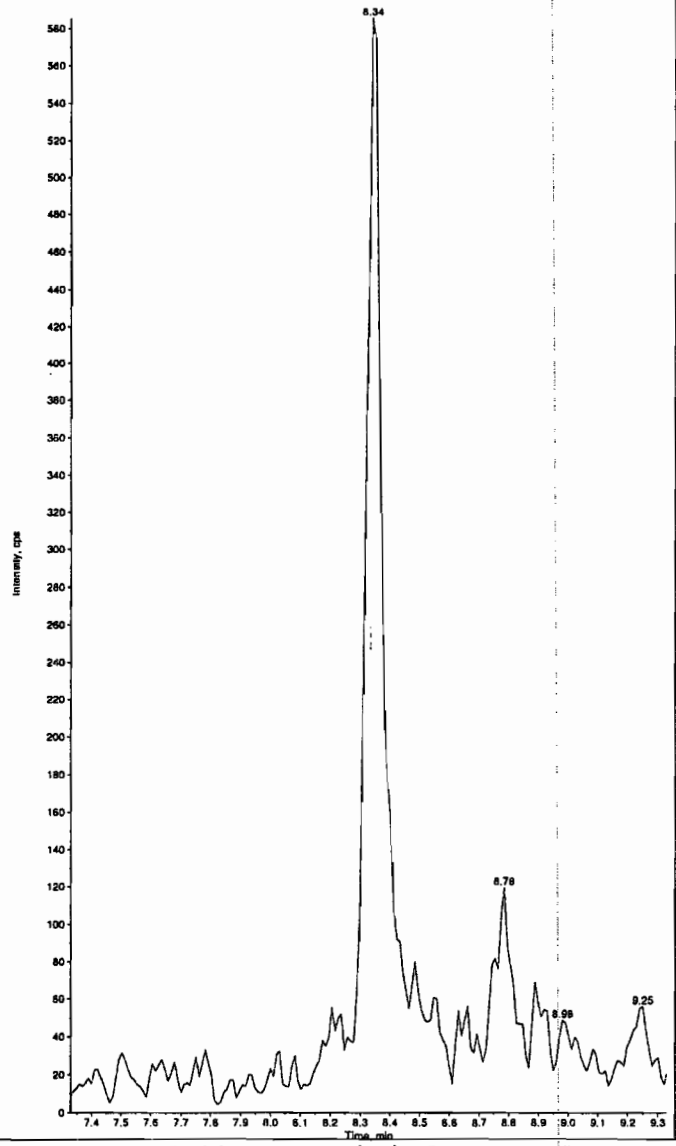

Sample Name: "XIBLK15" Sample ID: "[1]LER" File: "EXS03160135.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 7:22:46 PM

Modified: No

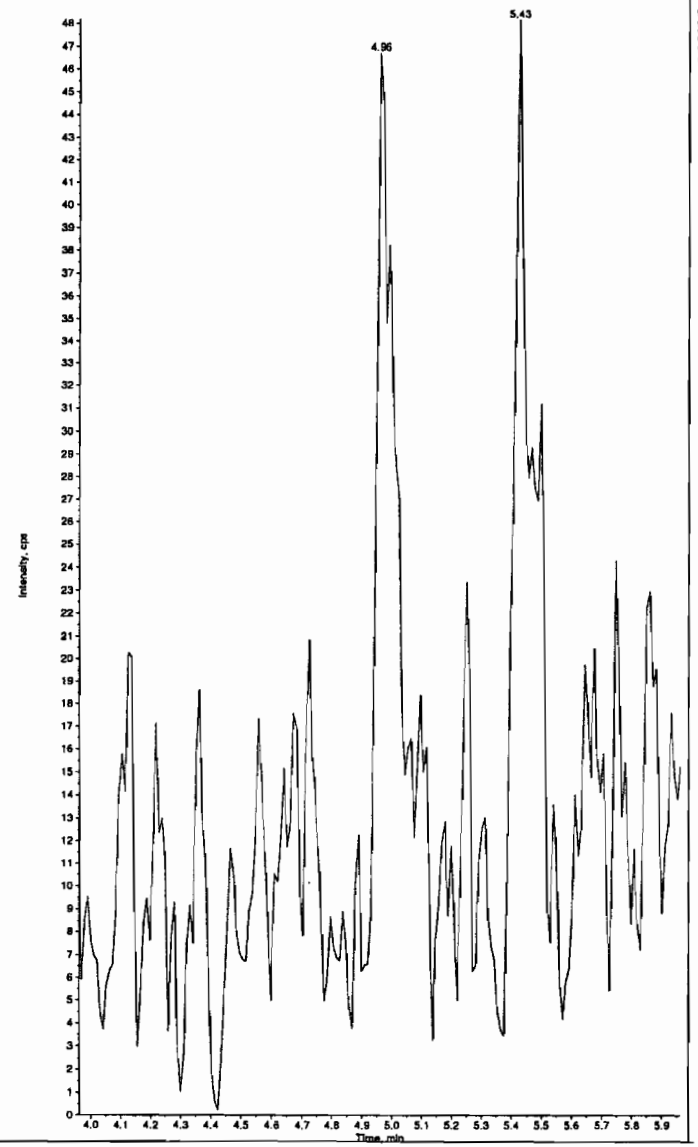

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK15" Sample ID: "[1]LER" File: "EXS03160135.wiff"
. Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/17/2010
Time: 7:22:46 PM

ied: No

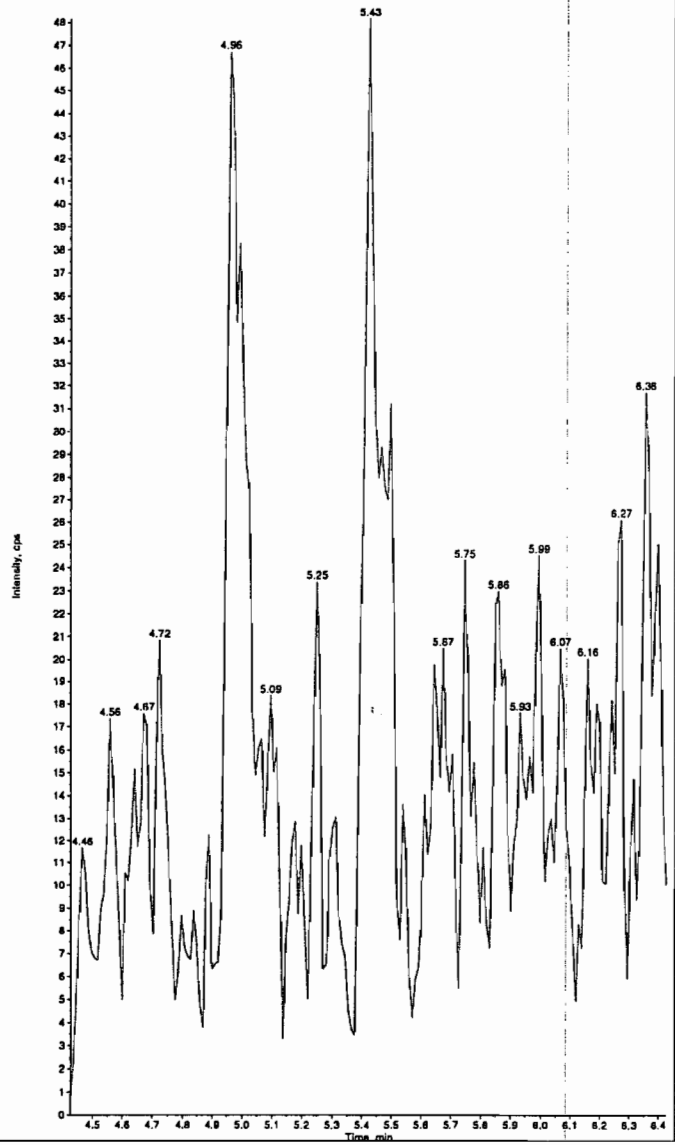

Sample Name: "XIBLK15" Sample ID: "[1]LER" File: "EXS03160135.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: < 0
Acq. Date: 3/17/2010
Acq. Time: 7:22:46 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 5.59e+004 counts
Height: 13799.625 cps
Start Time: 10.8 min
End Time: 11.1 min

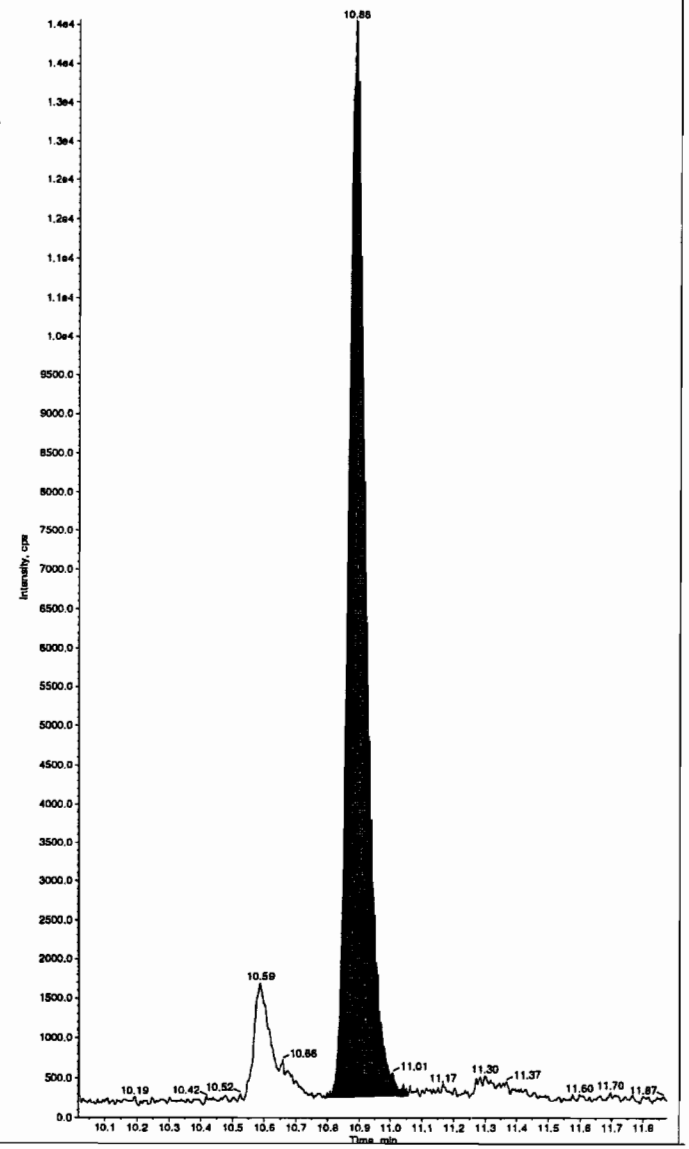

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1886

Lab Code: GEL

Lab Sample ID: XIBLK16

Analysis Date: 17–MAR–10 21:28

GEL Data File: EXS03160143.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	.513
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Dan 3/19/10

ample Name: "XIBLK16" Sample ID: "[1]LER" File: "EXS03160143.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/17/2010
. Time: 9:28:25 PM

ified: No

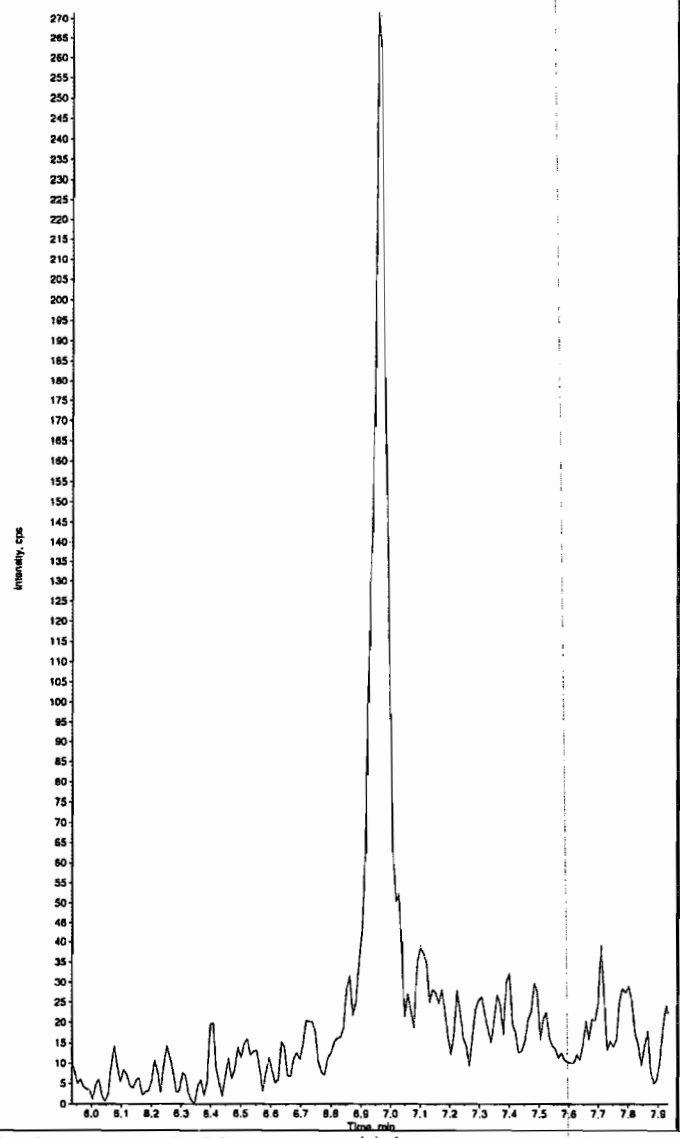

Sample Name: "XIBLK16" Sample ID: "[1]LER" File: "EXS03160143.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 9:28:25 PM

Modified: No

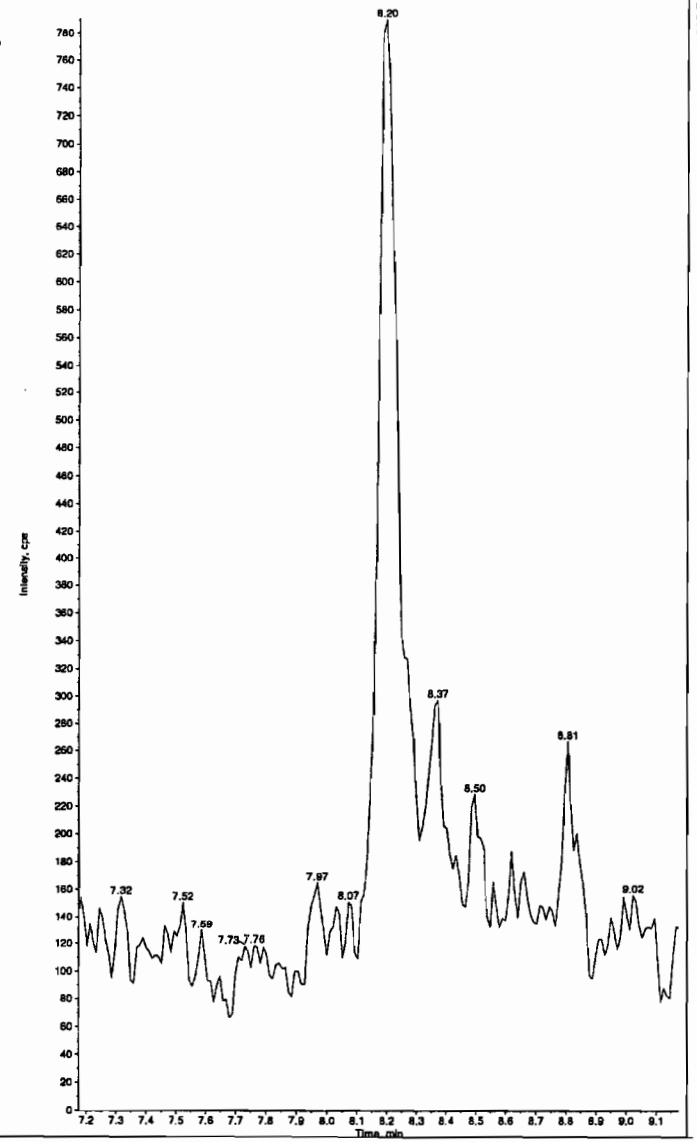

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK16" Sample ID: "|1|LER" File: "EXS03160143.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/17/2010
. Time: 9:28:25 PM

ified: No

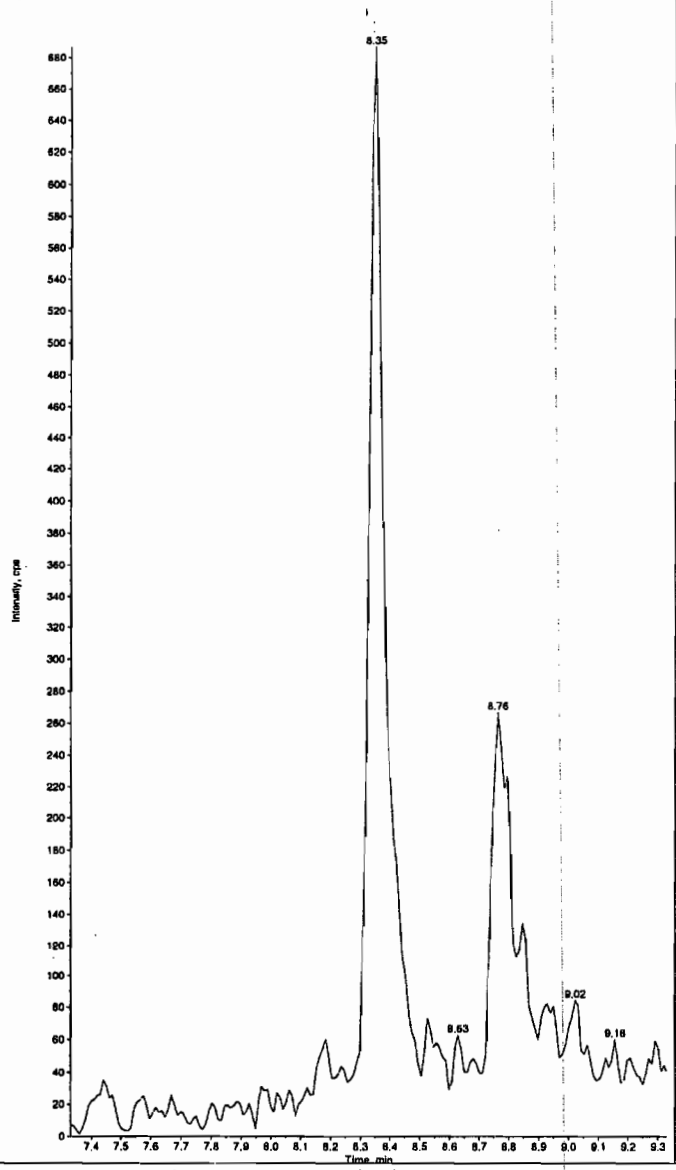

Sample Name: "XIBLK16" Sample ID: "|1|LER" File: "EXS03160143.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 9:28:25 PM

Modified: No

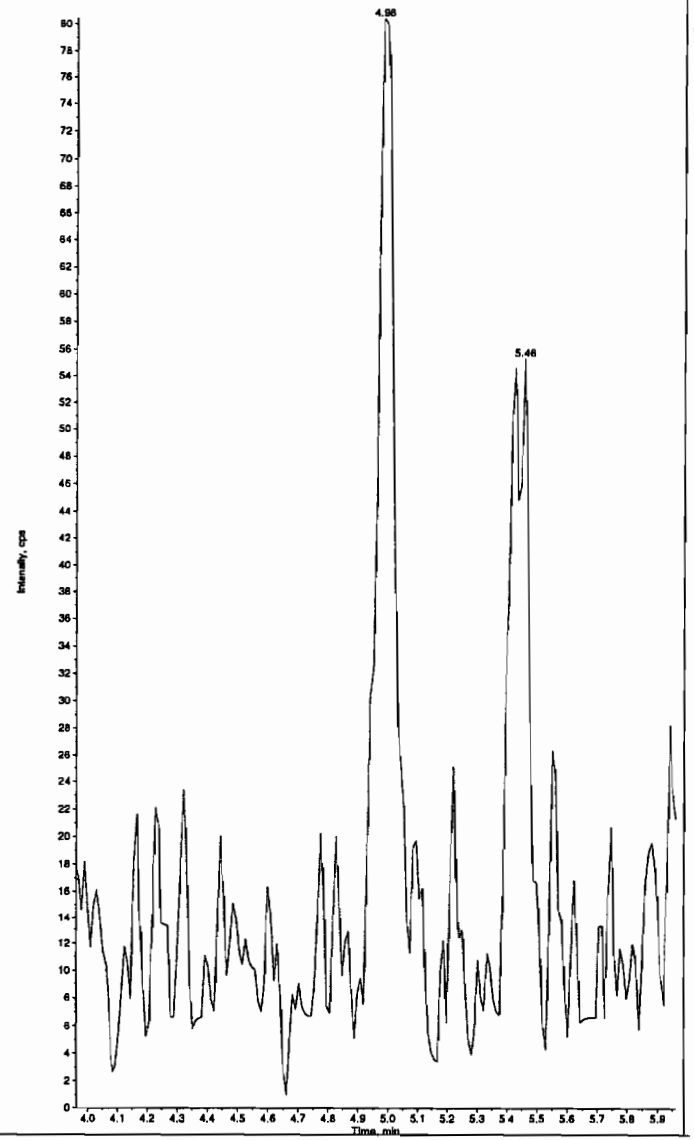

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "XIBLK16" Sample ID: "|1|LER" File: "EXS03160143.wiff"
ik Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 3/17/2010
Time: 9:28:25 PM
fied: No

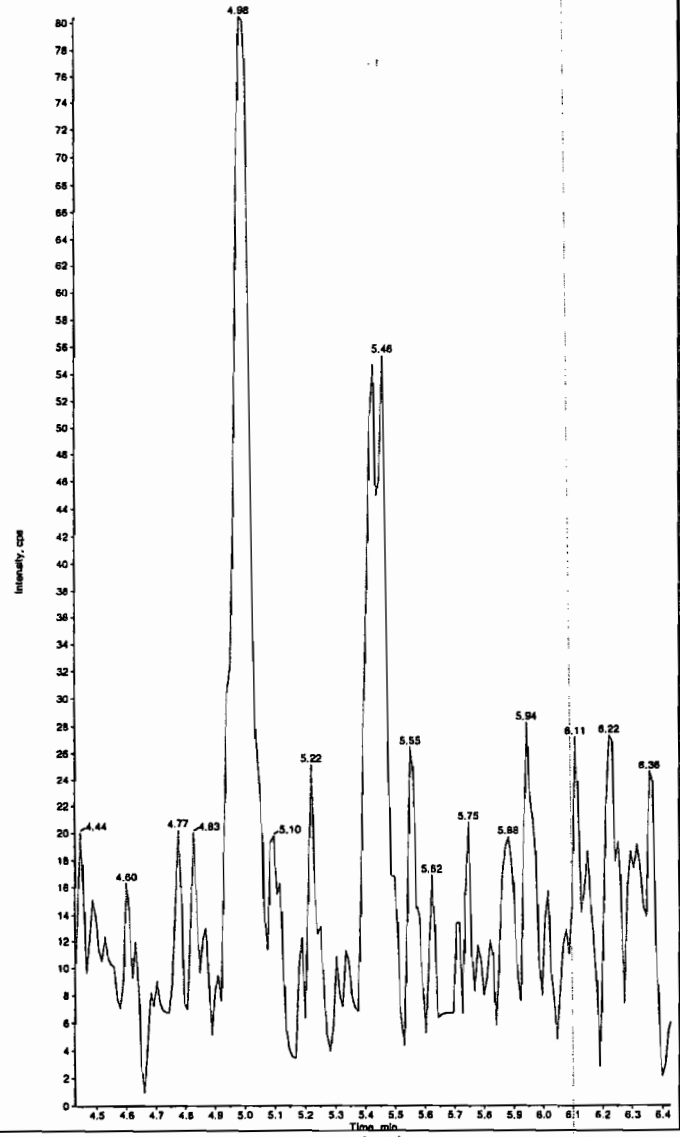

Sample Name: "XIBLK16" Sample ID: "|1|LER" File: "EXS03160143.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.513 ng/mL
Acq. Date:	3/17/2010
Acq. Time:	9:28:25 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.9 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.9 min
Area:	7.36e+004 counts
Height:	18096.106 cps
Start Time:	10.8 min
End Time:	11.1 min

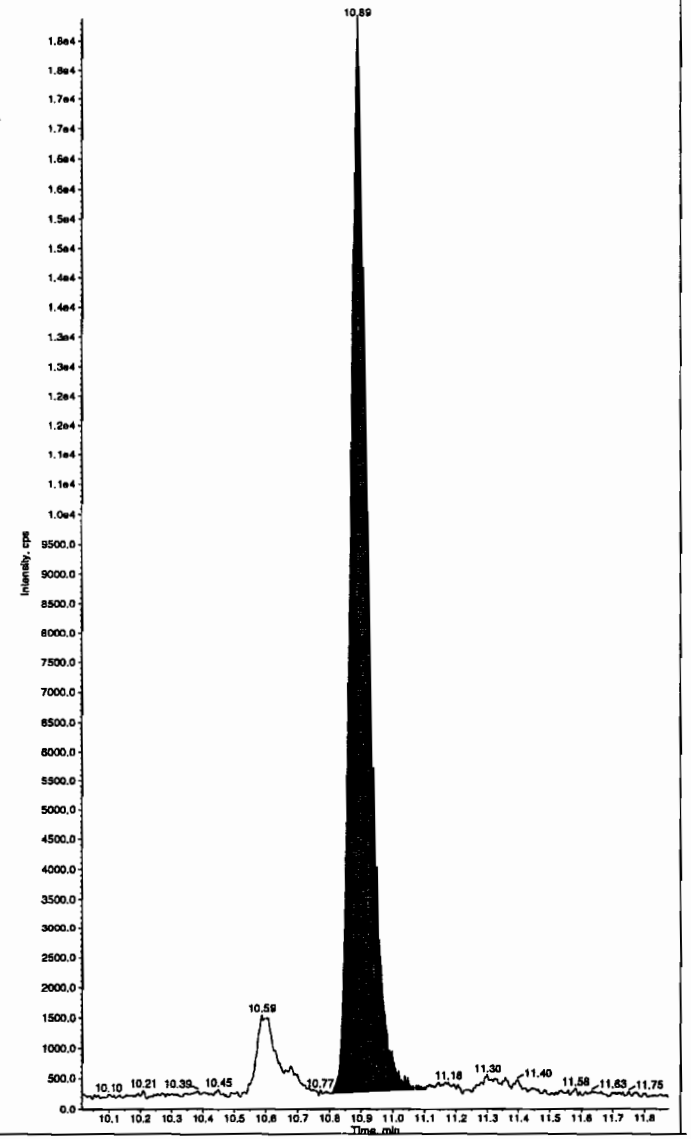

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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Calibration Report - MS1 Static

Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

15 matches of 15 tested references

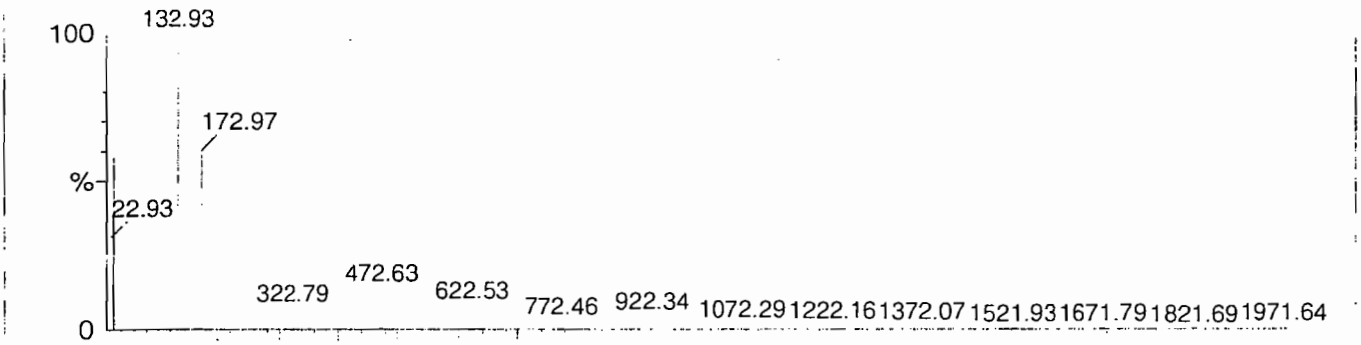

Reference file: Naics2

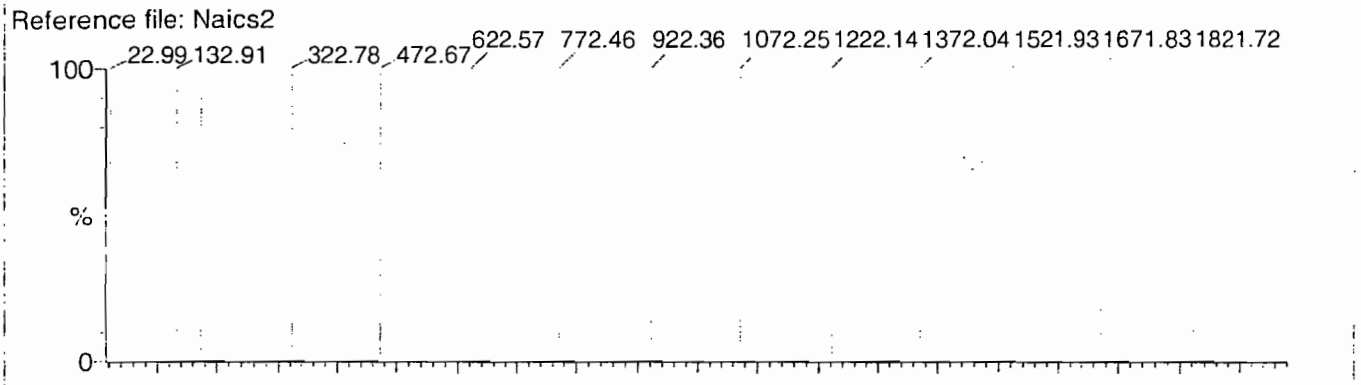

Mass difference (Raw - Ref mass)

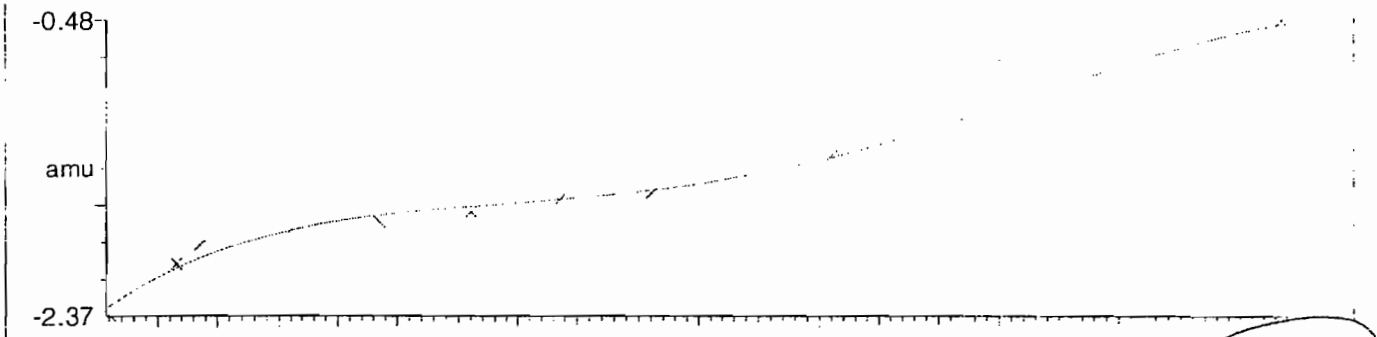

Residuals

Mean residual = -1.673470e-9 ± 0.036953

ok
lm

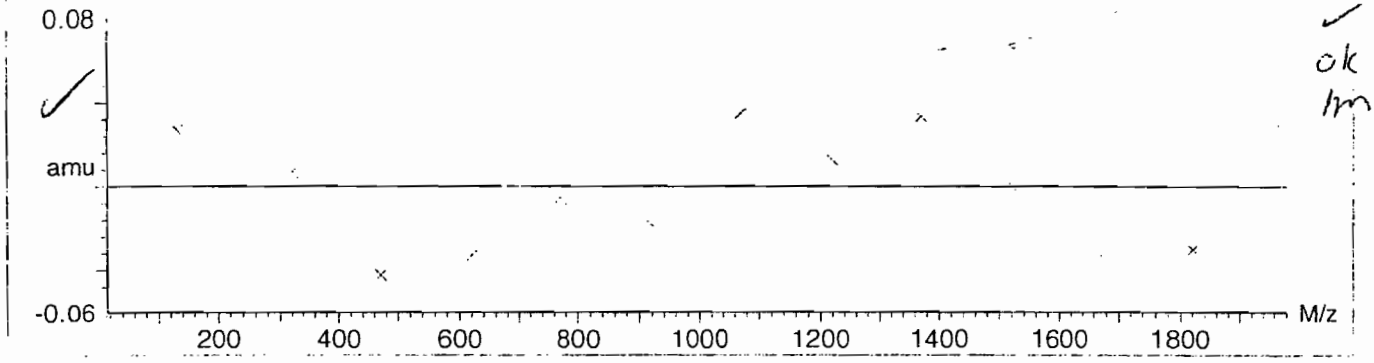

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Calibration Report - MS1 Scanning

Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

15 matches of 15 tested references

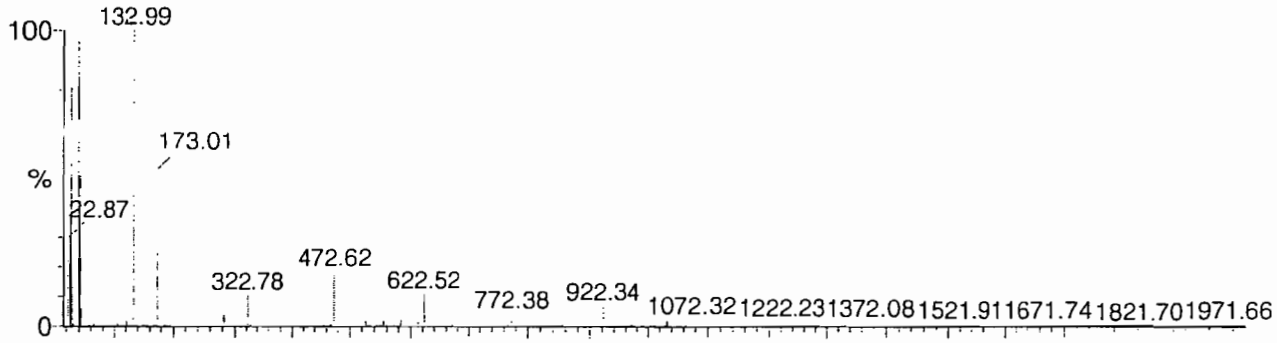

Reference file: Naics2

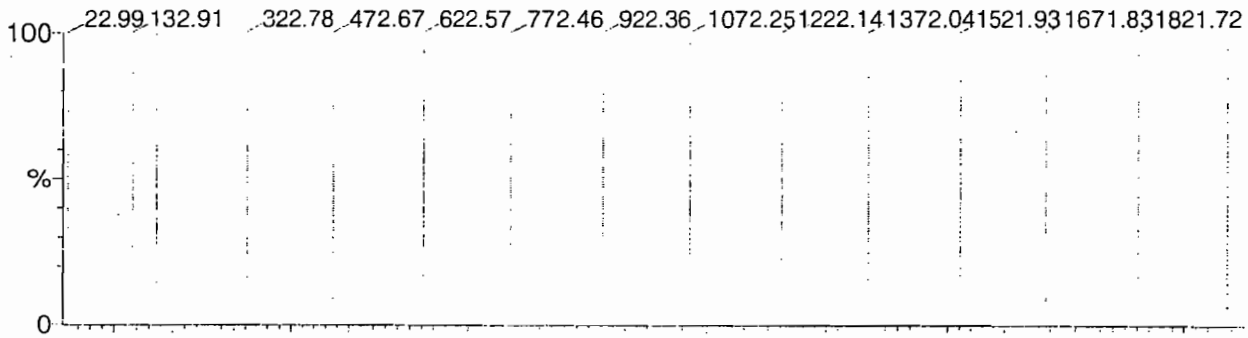

Mass difference (Raw - Ref mass)

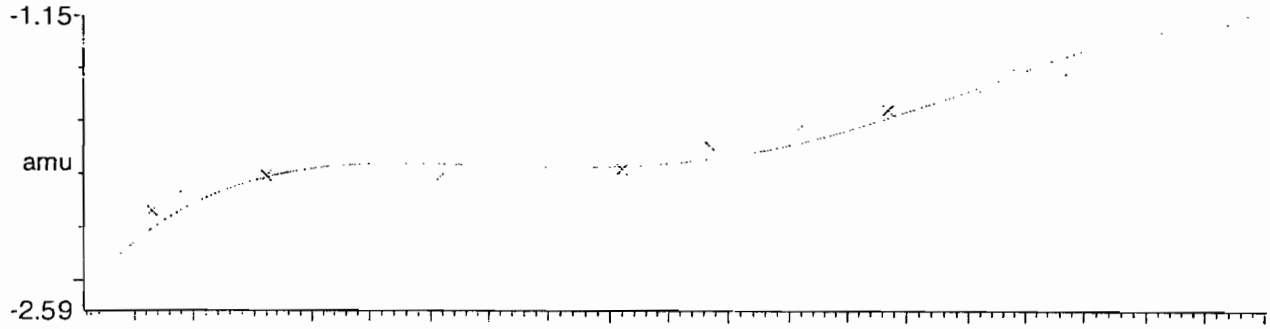

Residuals

Mean residual = -5.432715e-9 ± 0.069858

ok
m

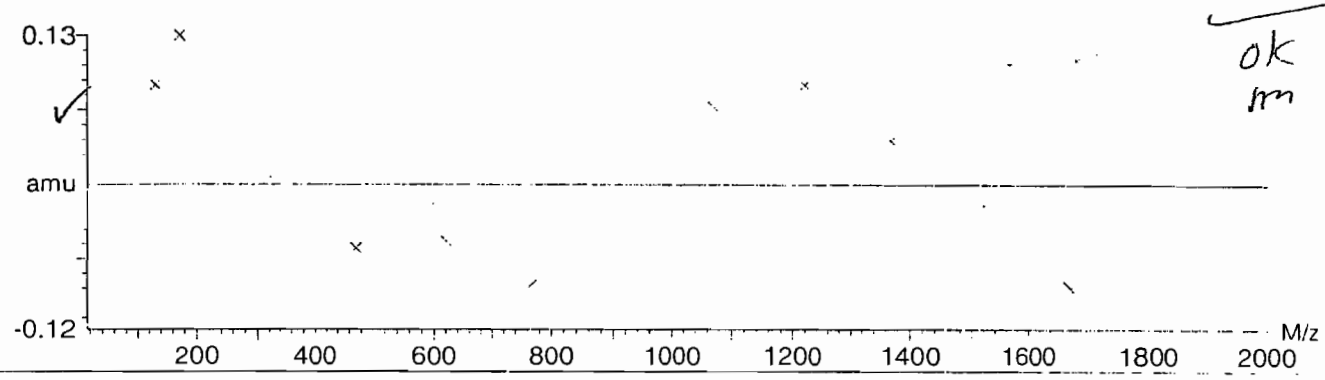

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Calibration Report - MS1 Scan Speed Compensation

Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

15 matches of 15 tested references

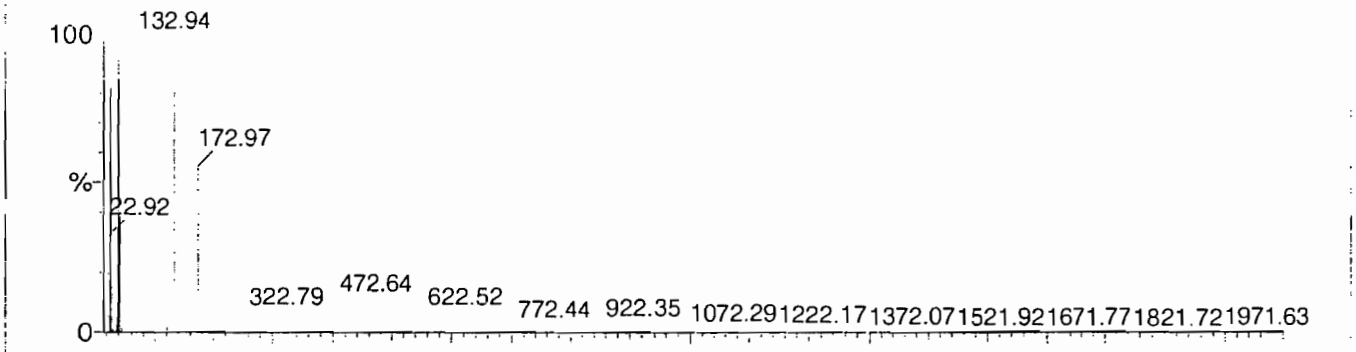

Reference file: Naics2

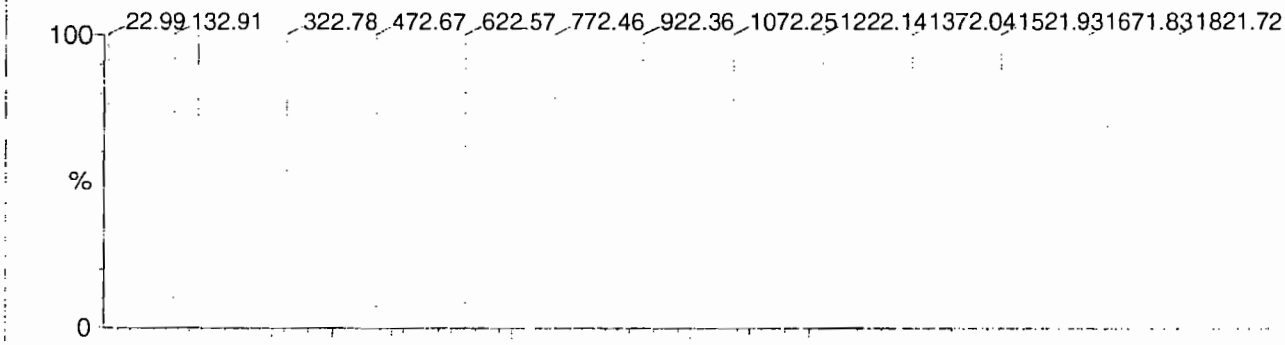

Mass difference (Raw - Ref mass)

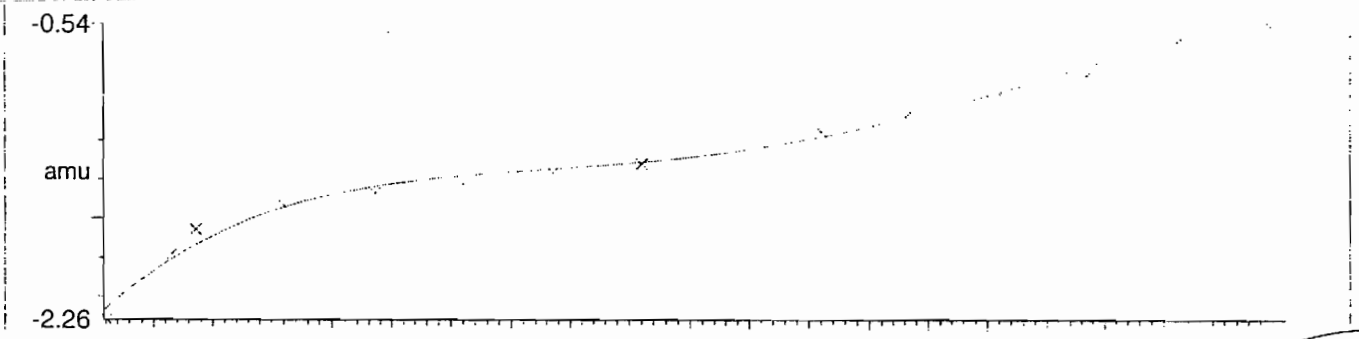

Residuals

Mean residual = 3.486639e-9 ± 0.040487

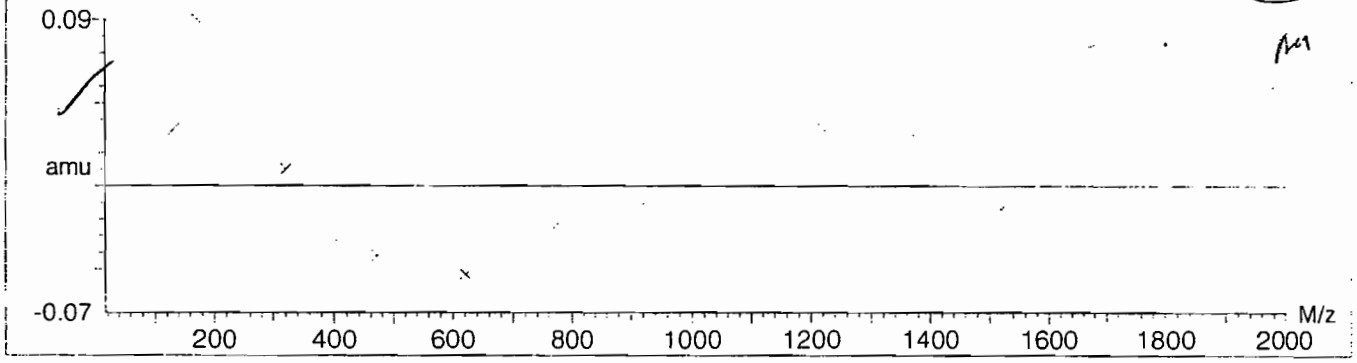

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Calibration Report - MS2 Static

Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

15 matches of 15 tested references

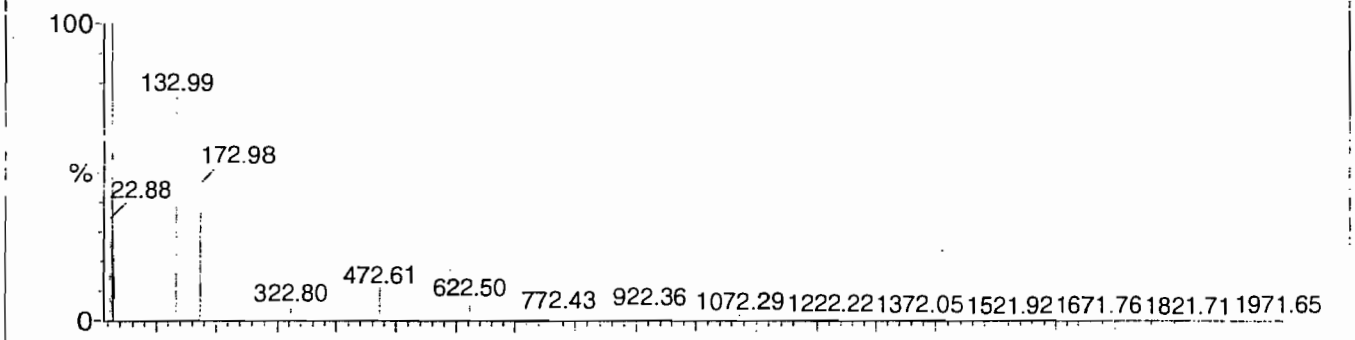

Reference file: Naics2

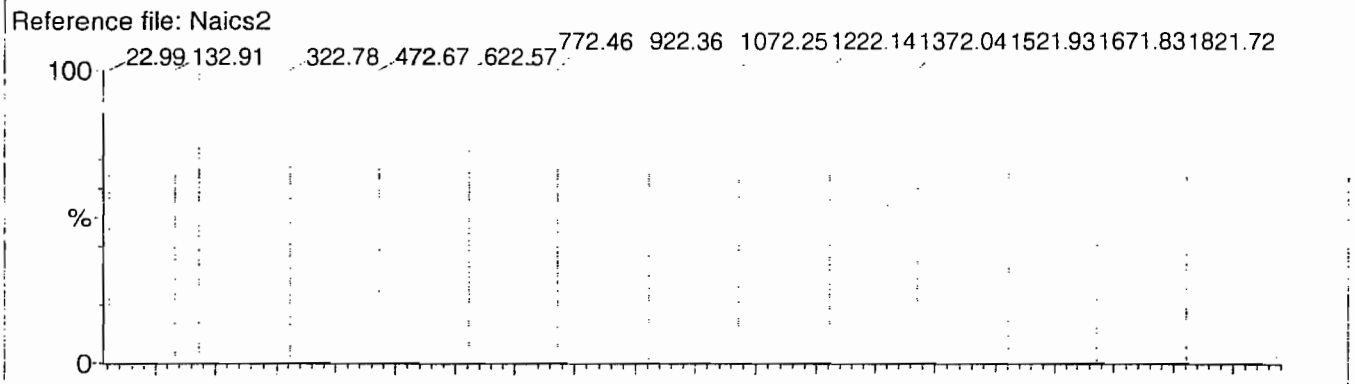

Mass difference (Raw - Ref mass)

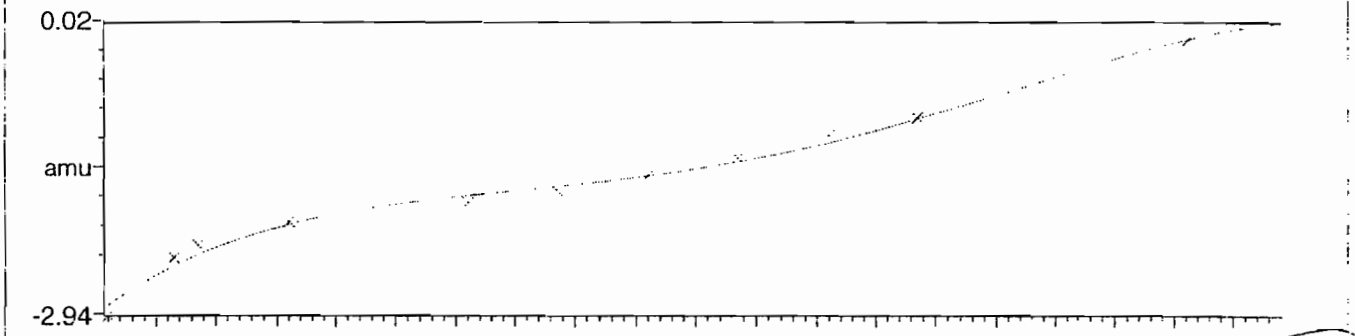

Residuals

Mean residual = 2.048910e-9 ± 0.057803

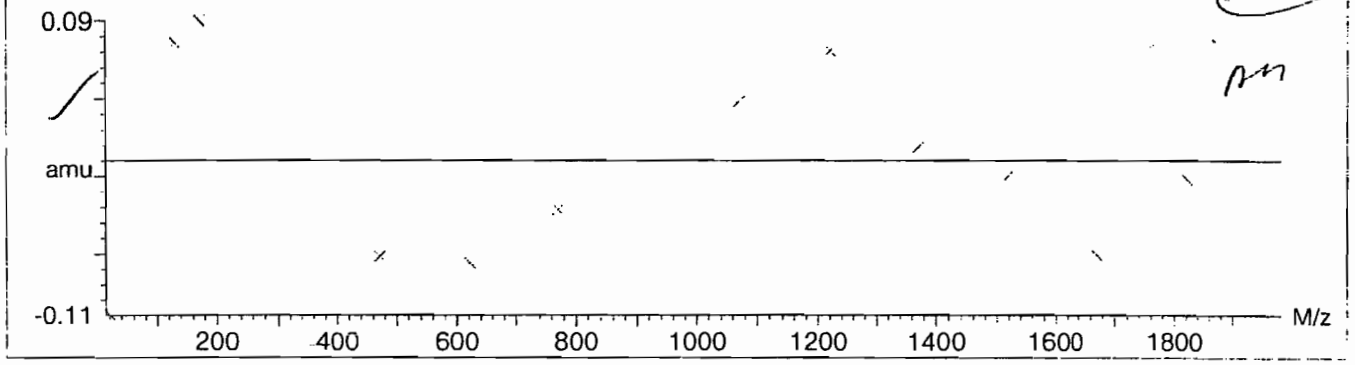

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Calibration Report - MS2 Scanning

Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

14 matches of 15 tested references

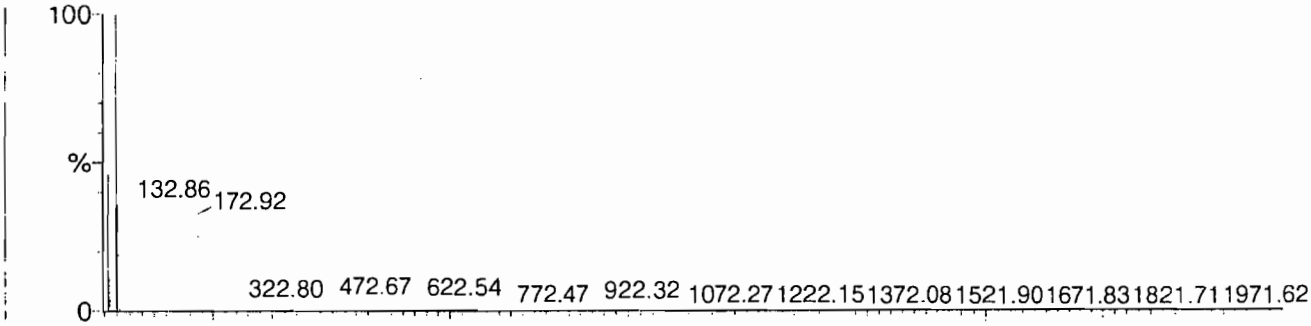

Reference file: Naics2

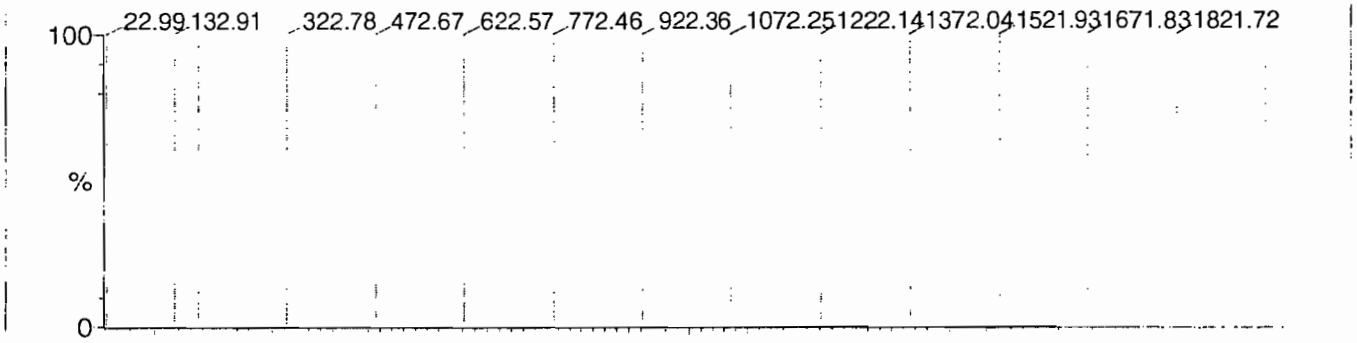

Mass difference (Raw - Ref mass)

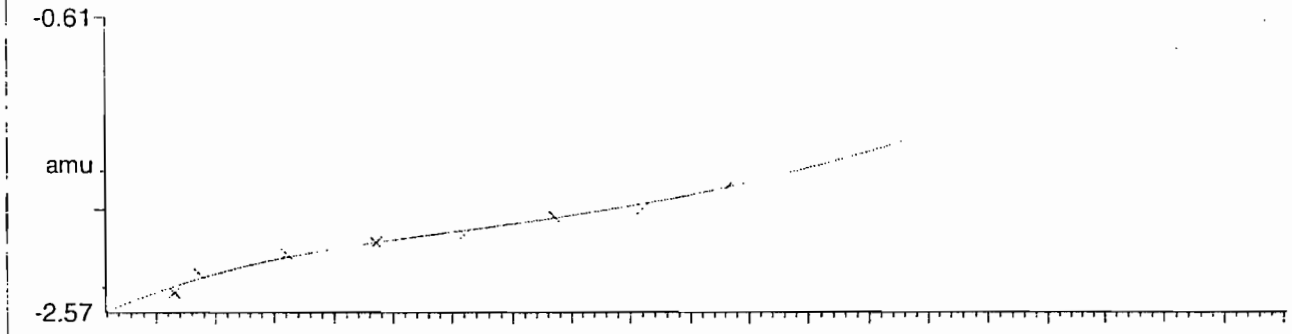

Residuals

Mean residual = -2.623502e-9 ± 0.025622

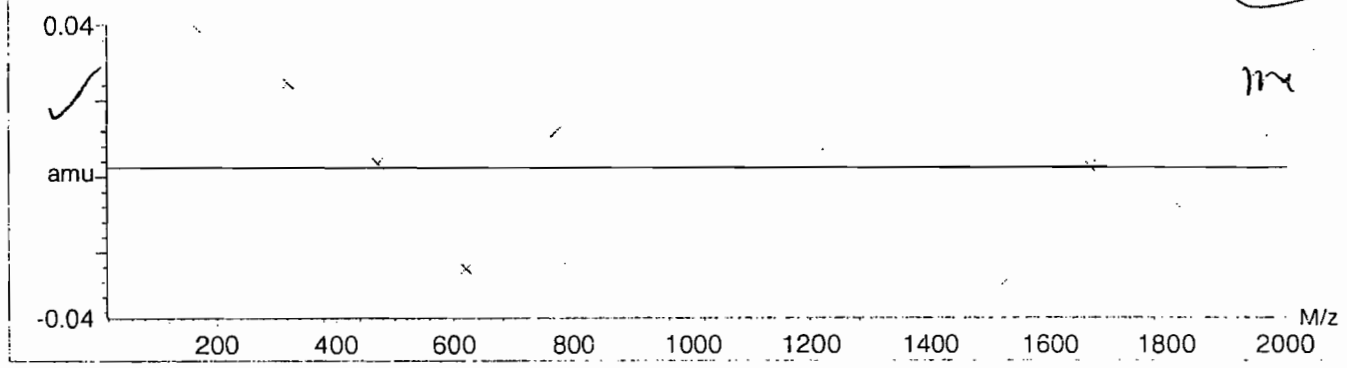

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Calibration Report - MS2 Scan Speed Compensation

Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

14 matches of 15 tested references

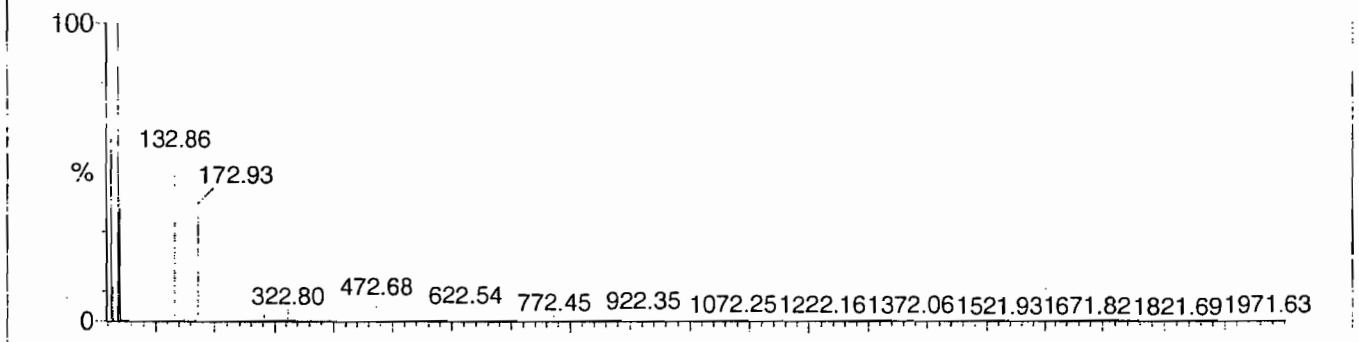

Reference file: Naics2

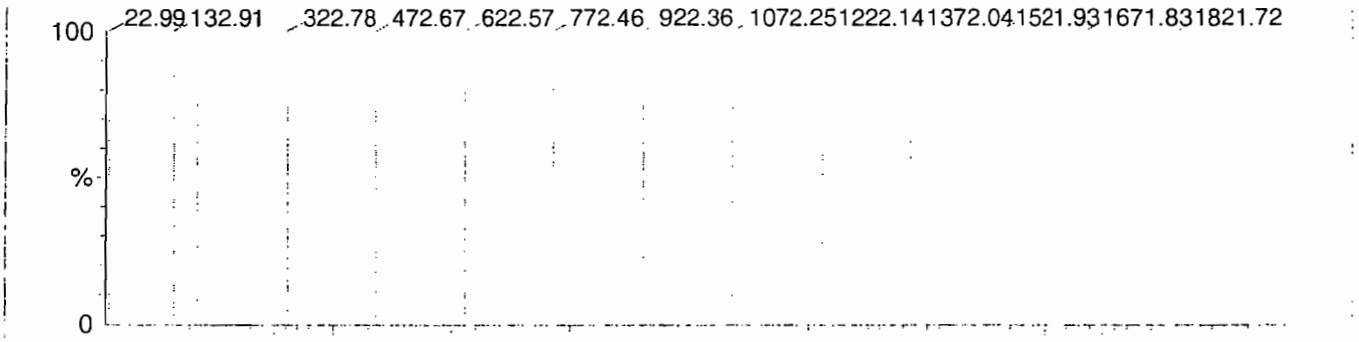

Mass difference (Raw - Ref mass)

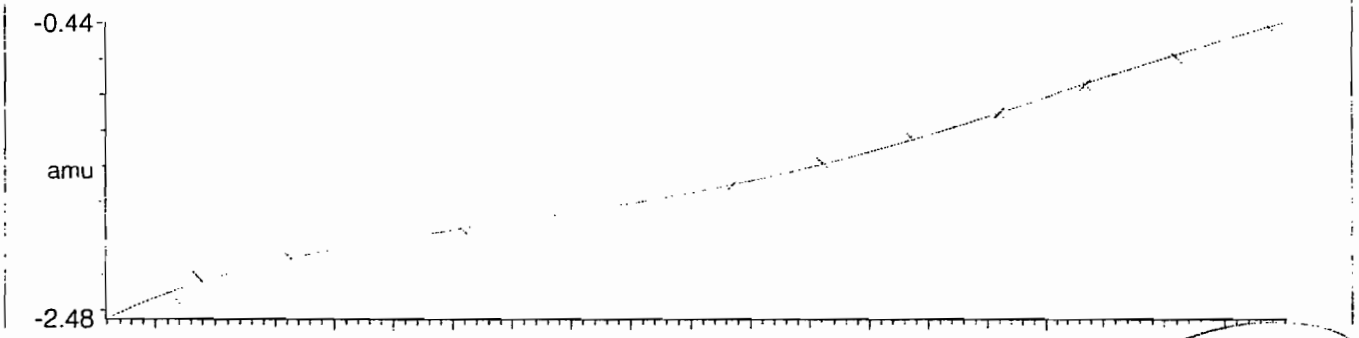

Residuals

Mean residual = -6.785350e-9 ± 0.023134

m

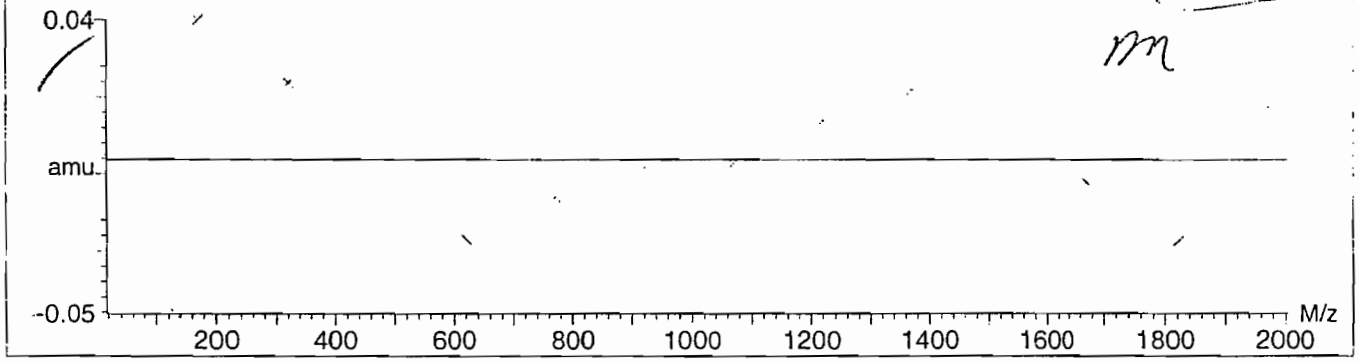

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1886

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			20900000	10.767	90983333.333	15.067
Upper Limit			27170000	11.267	118278333.333	15.567
Lower Limit			14630000	10.267	63688333.3331	14.567
MB for batch 954940	22-mar-10 20:49	EXP0322013.w	18200000	10.9	84300000	15.3
LCS for batch 954940	22-mar-10 21:16	EXP0322014.w	18700000	10.9	83100000	15.3
CAPA-10-12691	22-mar-10 21:42	EXP0322015.w	19900000	10.9	92300000	15.3
CAPA-10-12691(247261003MS	22-mar-10 22:08	EXP0322016.w	19500000	10.9	91300000	15.3
CAPA-10-12691(247261003MS	22-mar-10 22:35	EXP0322017.w	19200000	10.9	88600000	15.3

IS1 (DNB) = 1,3-Dinitrobenzene-d4
IS2 (DNT) = 2,6-Dinitrotoluene-d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = - 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = -0.5 of average multipoint RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits

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SAMPLE
DATA

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12691

Lab Code: GEI

GEL Job No (SDG) 10-1886

Matrix: GROUND WATER

GEL Sample ID: 247261003

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 17-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 954940

Concentrated Extract Volume (mL) 5

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0322015.wiff

Date Analyzed: 22-MAR-10 21:42

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	U
121-14-2	2,4-Dinitrotoluene	0.325	U
121-82-4	RDX	0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	U
2691-41-0	HMX	0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	U
479-45-8	Tetryl	0.649	U
606-20-2	2,6-Dinitrotoluene	0.325	U
78-11-5	PETN	1.3	U
88-72-2	o-Nitrotoluene	0.325	U
98-95-3	Nitrobenzene	0.124	J
99-08-1	m-Nitrotoluene	0.325	U
99-35-4	1,3,5-Trinitrobenzene	0.325	U
99-65-0	m-Dinitrobenzene	0.325	U
99-99-0	p-Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322015.wiff	**Acquisition Date**	3/22/2010 9:42:28 PM
Sample Name	247261003	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954941|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

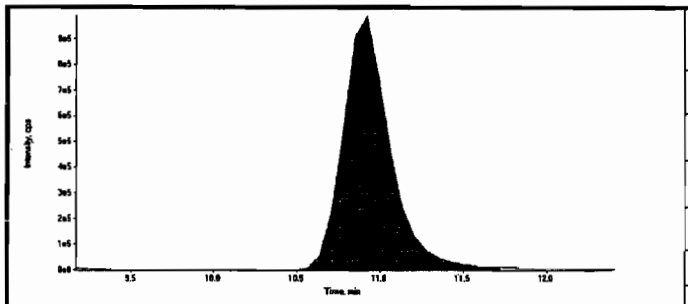

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	19900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

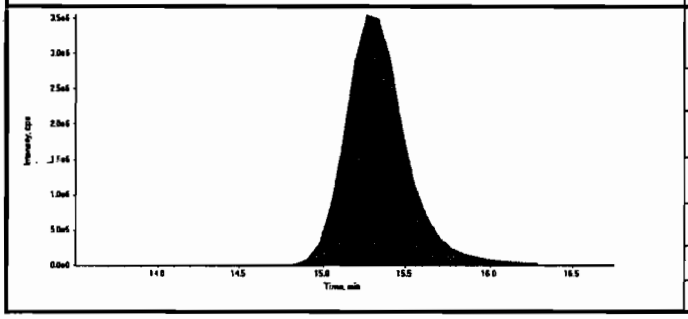

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.30
Area Counts:	92300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

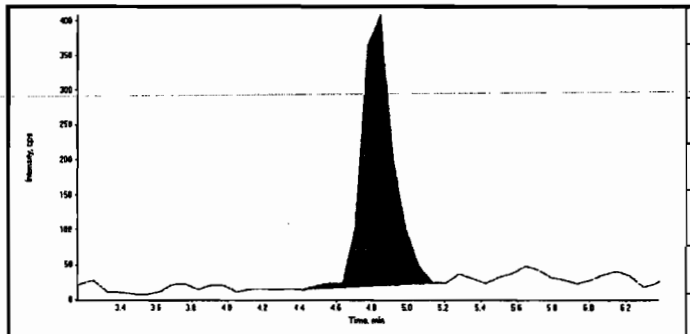

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.85
Area Counts:	4.89e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

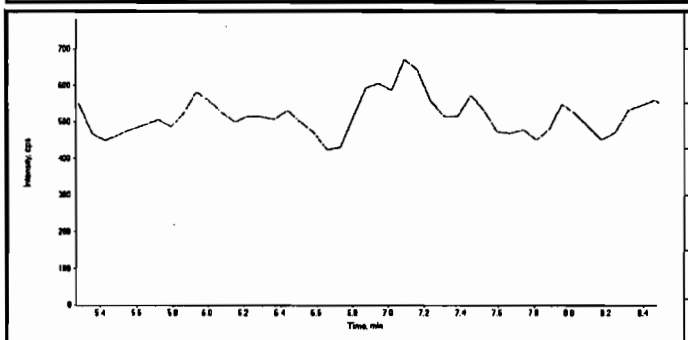

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

LCer 3/28/10

HMM 03/28/10

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Data File	EXP0322015.wiff	**Acquisition Date**	3/22/2010 9:42:28 PM
Sample Name	247261003	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954941|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

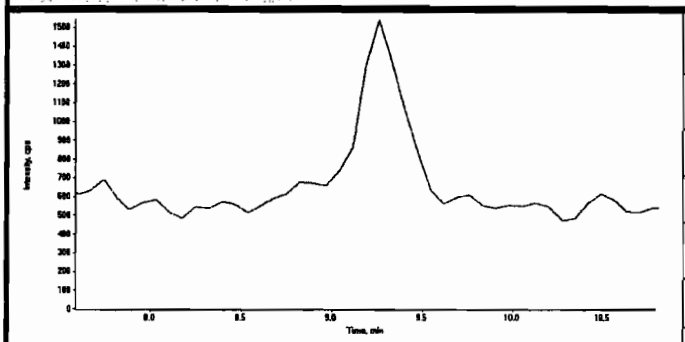

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

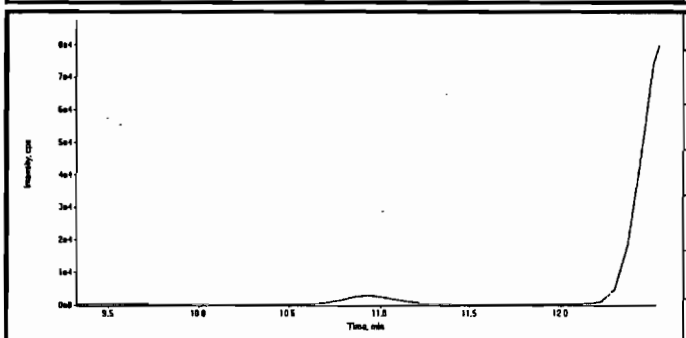

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

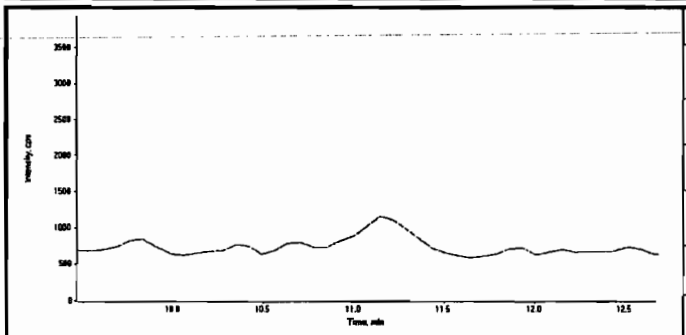

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

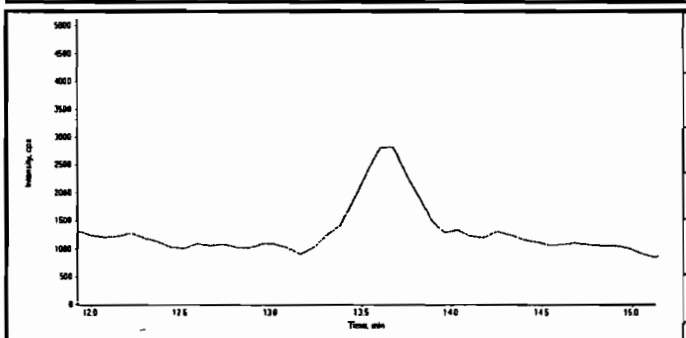

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322015.wiff	**Acquisition Date**	3/22/2010 9:42:28 PM
Sample Name	247261003	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954941|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

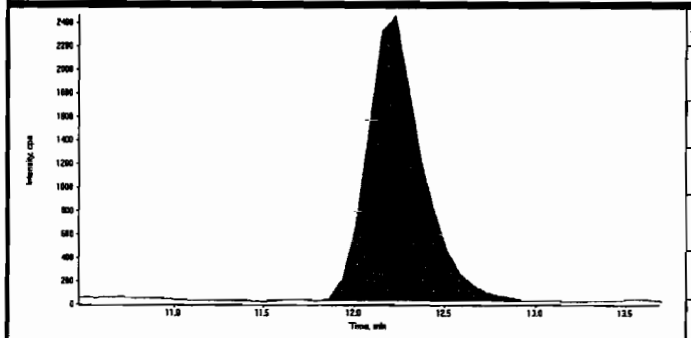

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	5.14e+004
Manual Modification	No
Amount:	9.57 (ng/mL)
% Accuracy:	N/A

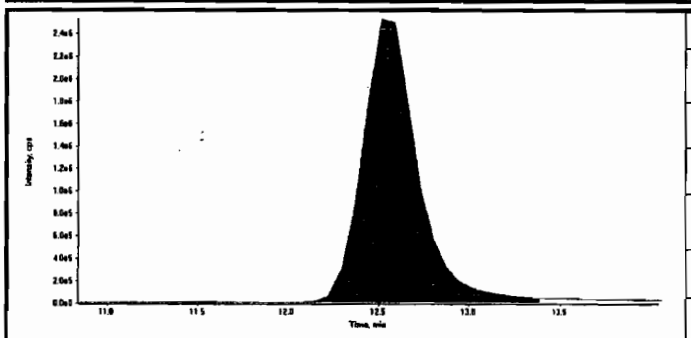

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.5
Area Counts:	5.37e+007
Manual Modification	No
Amount:	2.92/225. (ng/mL)
% Accuracy:	N/A

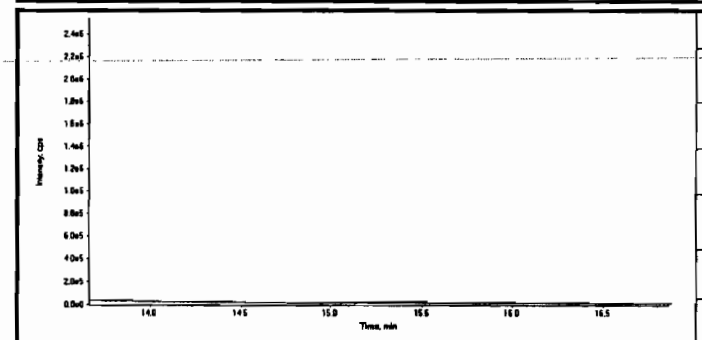

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	9.78e+005
Manual Modification	No
Amount:	5.45 (ng/mL)
% Accuracy:	N/A

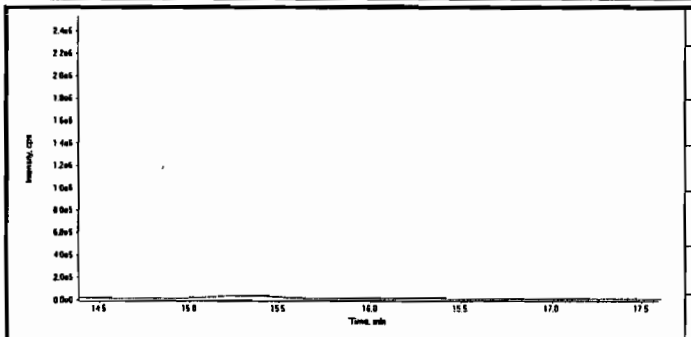

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322015.wiff	**Acquisition Date**	3/22/2010 9:42:28 PM
Sample Name	247261003	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954941|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

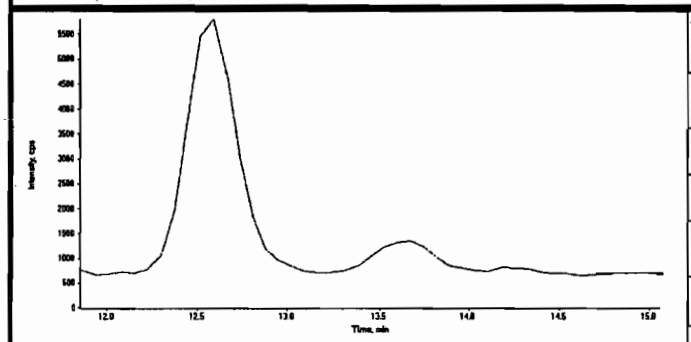

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

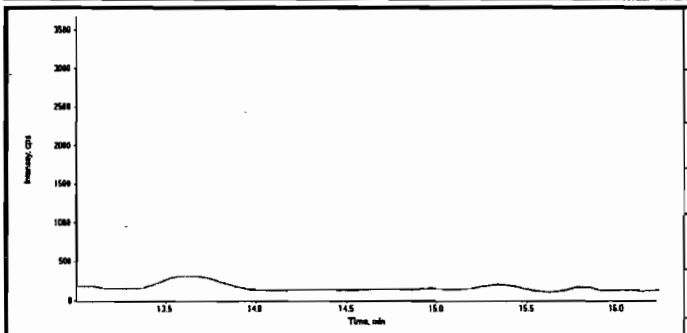

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

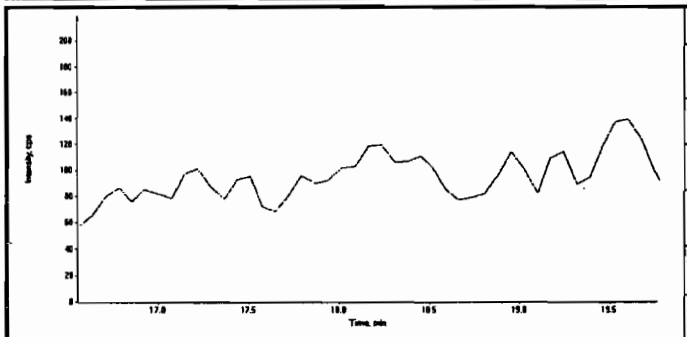

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

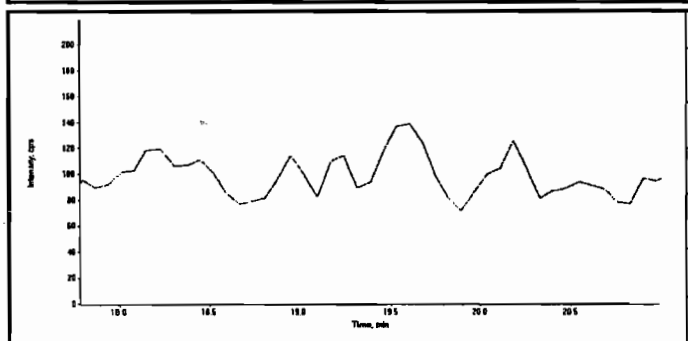

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322015.wiff	**Acquisition Date**	3/22/2010 9:42:28 PM
Sample Name	247261003	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954941|2|LER-	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

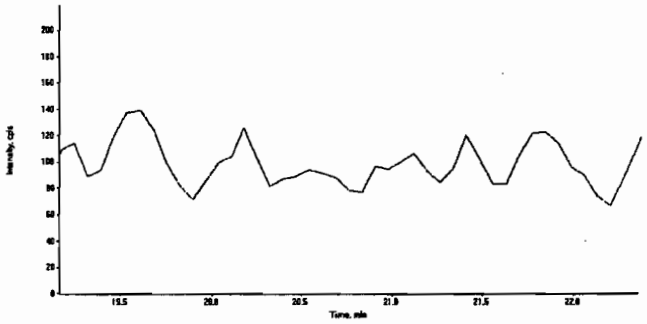

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

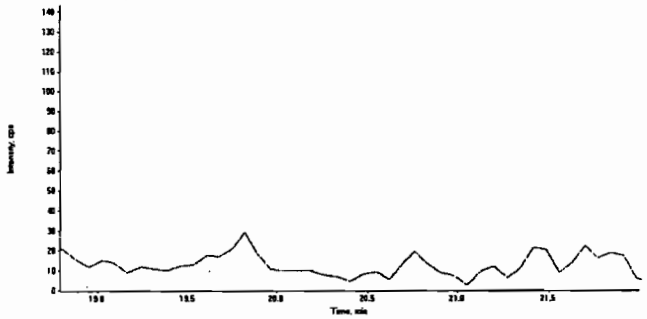

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12691

Lab Code: GEL

GEL Job No (SDG) 10-1886

Matrix: GROUND WATER

GEL Sample ID: 247261003

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 17-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 954940

Concentrated Extract Volume (mL) 5

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03160139.wiff

Date Analyzed: 17-MAR-10 20:25

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

LCM 3/19/10

ple Name: "247261003" Sample ID: "954941|2|LER" File: "EXS03160139.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCX83212L" Annotation: ""
le Index: 1
le Type: Unknown
ntration: N/A
ilated Conc: 0.00 ng/mL
Date: 3/17/2010
Time: 8:25:39 PM

fied: No

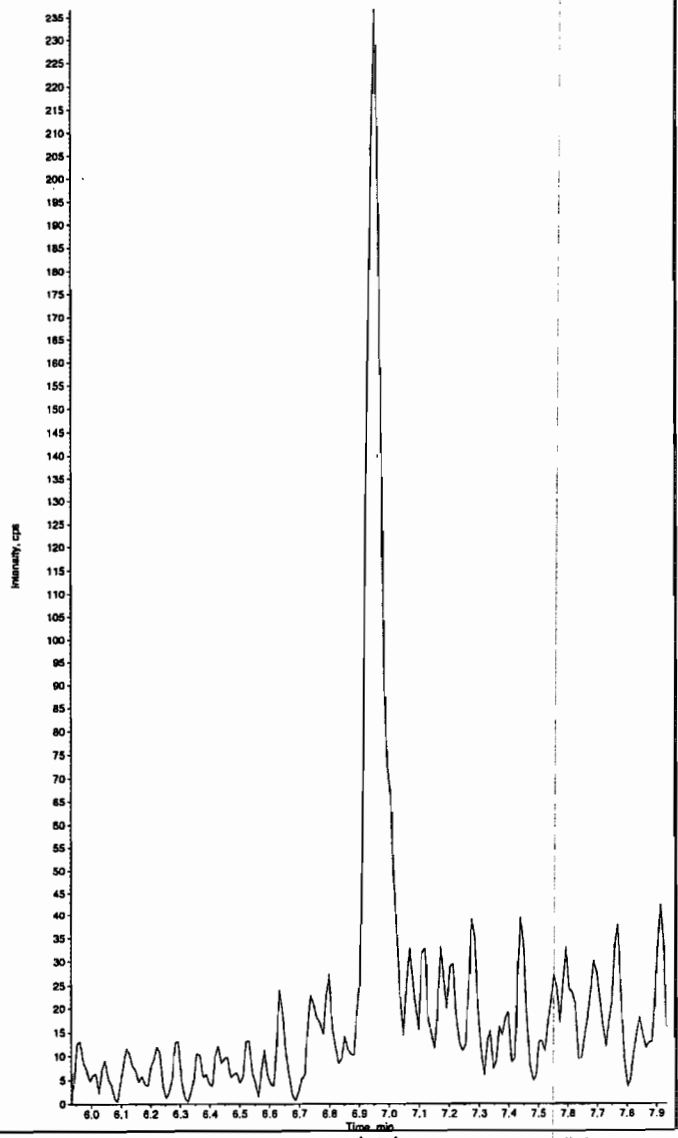

Sample Name: "247261003" Sample ID: "954941|2|LER" File: "EXS03160139.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 8:25:39 PM

Modified: No

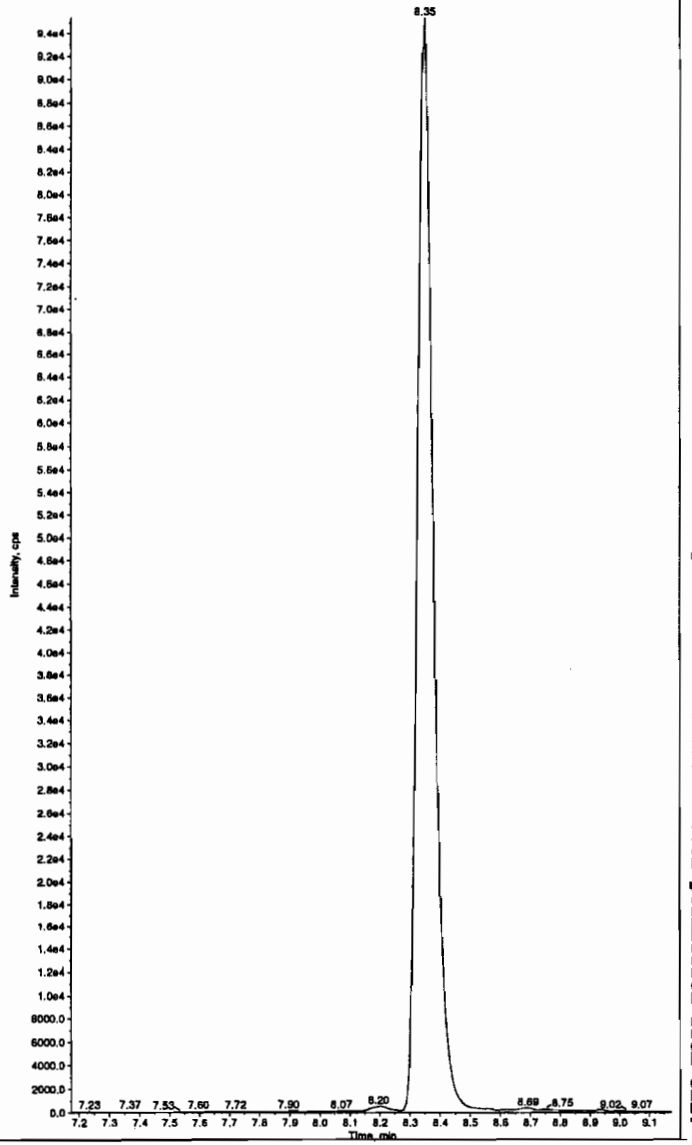

HMM 03/22/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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nple Name: "247261003" Sample ID: "954941|2|LER" File: "EXS03160139.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCX83212L" Annotation: ""

le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 216. ng/mL
Date: 3/17/2010
Time: 8:25:39 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.33 min
Relative RT: No

Type: Valley
ntion Time: 8.34 min
: 2.75e+006 counts
ht: 732506.226 cps
t Time: 8.23 min
Time: 8.69 min

2.80

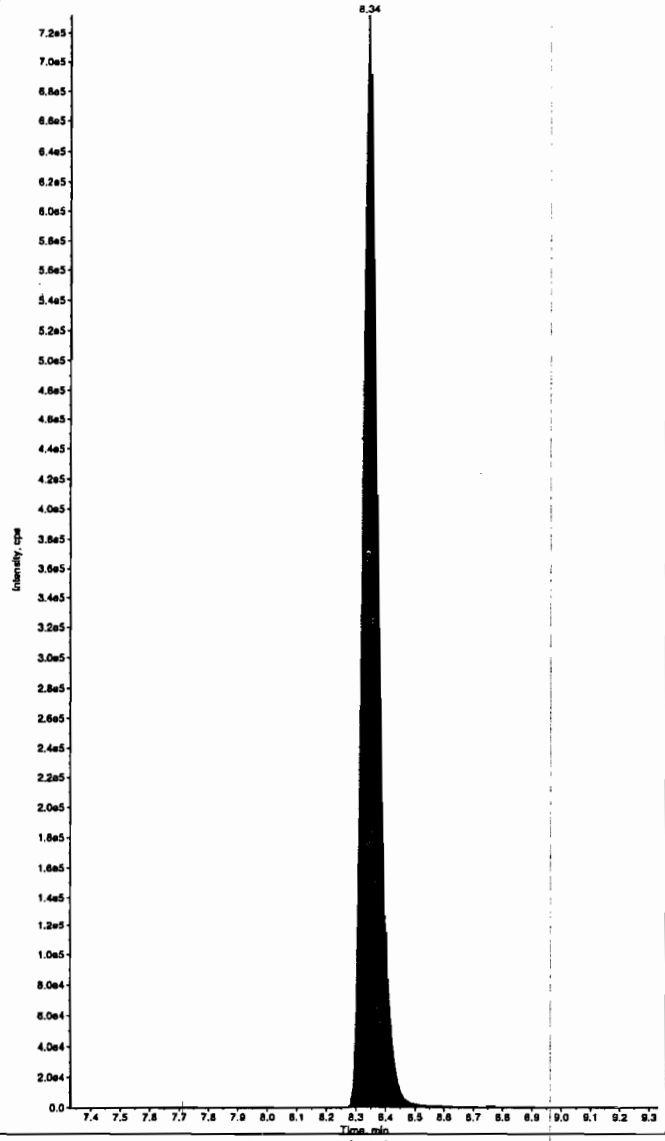

Sample Name: "247261003" Sample ID: "954941|2|LER" File: "EXS03160139.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 8:25:39 PM

Modified: No

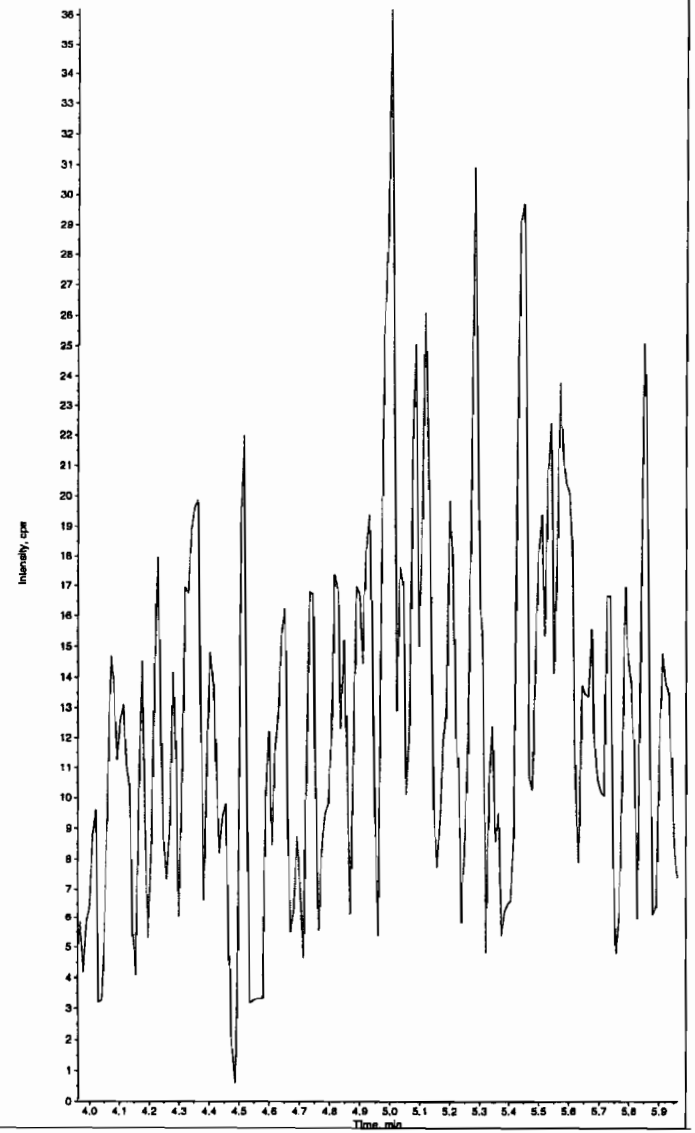

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "247261003" Sample ID: "954941|2|LER" File: "EXS03160139.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCX83212L" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 3/17/2010
Time: 8:25:39 PM

fied: No

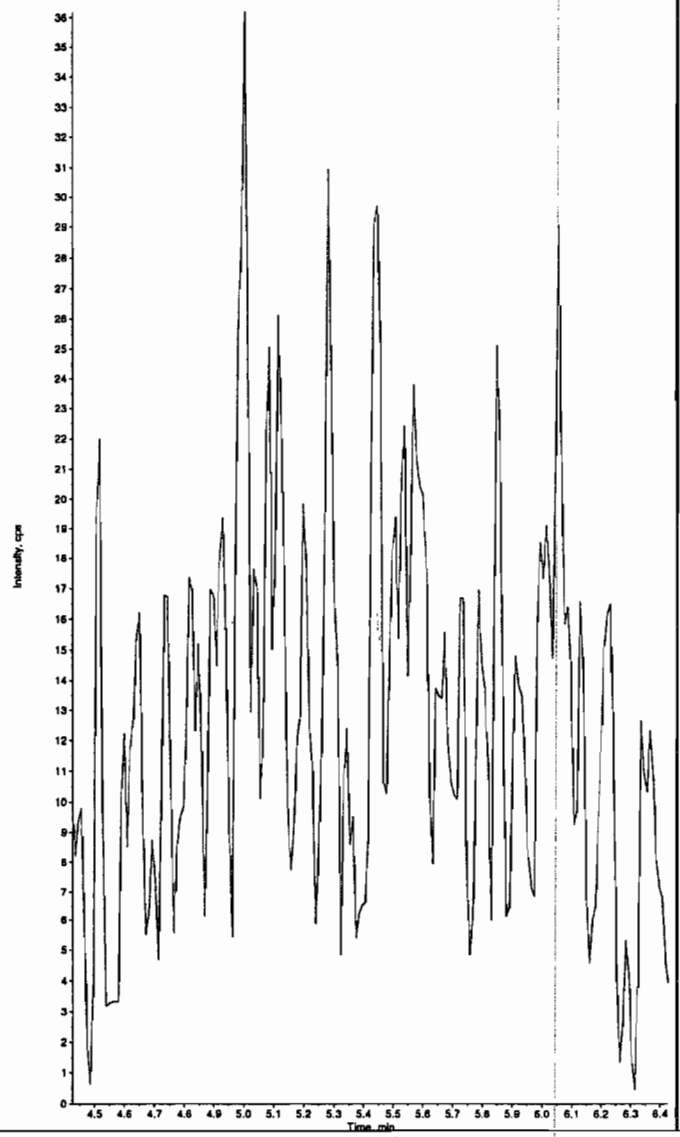

Sample Name: "247261003" Sample ID: "954941|2|LER" File: "EXS03160139.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 8:25:39 PM

Modified: No

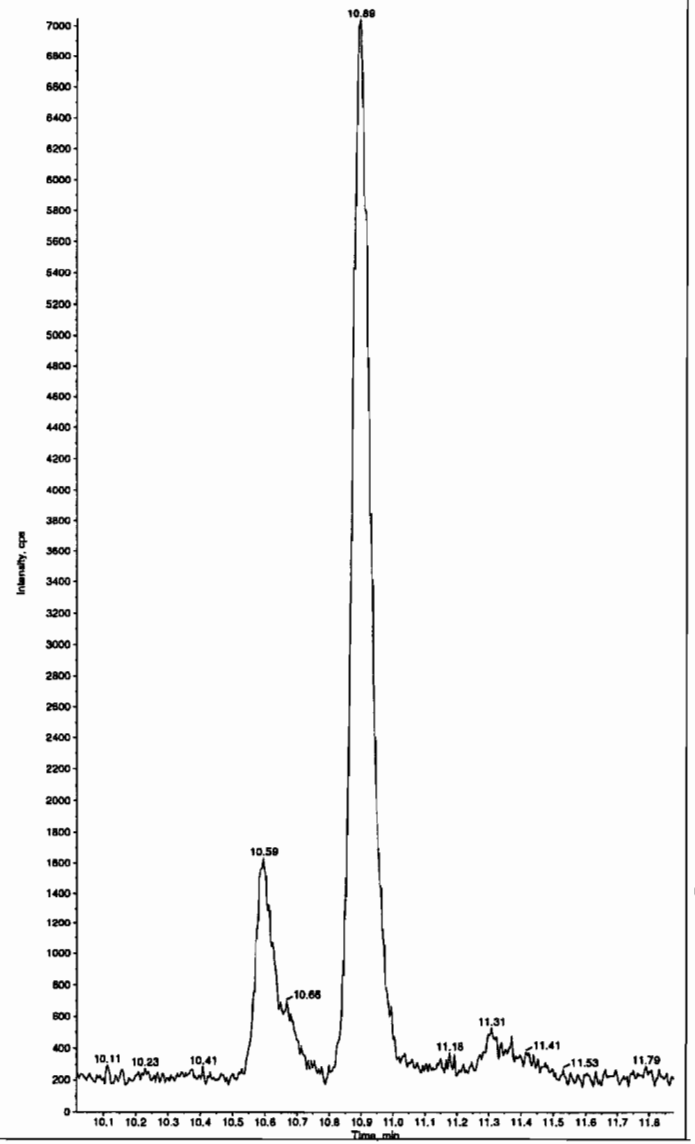

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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STANDARDS DATA

SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MNX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1886

Lab Code: GEL

Run Date: 16-MAR-10,22-MAR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	50	51	52	53	54	55	Ave RF	RSD	Q
Data File:	EXP0322003.wi	EXP0322004.wi	EXP0322005.wi	EXP0322006.wi	EXP0322007.wi	EXP0322008.wi			
Parmname									
1,3,5-Trinitrobenzene	7.75	7.28	6.98	6.36	5.48	5.07	6.487	16.2	
2,4-Dinitrotoluene	.57	.651	.566	.564	.599	.561	0.585	6.02	
2,6-Dinitrotoluene	1.11	1.15	1.01	.937	.831	.801	0.973	14.7	
2-Amino-4,6-dinitrotoluene	.032	.033	.034	.031	.038	.034	0.034	7.31	
3,4-Dinitrotoluene	1.36	1.42	1.31	1.25	1.28	1.14	1.293	7.44	
4-Amino-2,6-dinitrotoluene	1.12	1.23	1.1	1	1.01	.88	1.057	11.5	
Nitrobenzene	.125	.126	.138	.136	.143	.144	0.135	6.11	
PETN	.011	.012	.012	.011	.013	.013	0.012	7.75	
RDX	1.47	1.58	1.47	1.53	1.6	1.54	1.532	3.6	
Tetryl	4.44	4.71	4.46	4.11	4.11	3.81	4.273	7.57	
m-Dinitrobenzene	2.83	2.67	2.81	2.58	2.64	2.44	2.662	5.53	
m-Nitrotoluene	.008	.01	.009	.009	.01	.01	0.009	8.63	
o-Nitrotoluene	.014	.016	.016	.015	.017	.016	0.016	5.74	
p-Nitrotoluene	.007	.008	.008	.008	.009	.008	0.008	6.86	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1886

Lab Code: GEL

Run Date: 16-MAR-10,22-MAR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Linear

Calibration Level:	50	51	52	53	54	55	Slope	Intercept	COD	Q
Data File:	EXP0322003.w	EXP0322004.w	EXP0322005.w	EXP0322006.w	EXP0322007.w	EXP0322008.w				
Parmname										
HMX	2580000	5050000	21000000	38800000	65900000	82000000	2.13	.043	.9997	

Linear fit : Y=mx +b
where b is Intercept and m is slope

COD is Coefficient of Determination

Q column used to flag COD values outside of Limit (<0.990)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1886

Lab Code: GEL

Run Date: 16-MAR-10,22-MAR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	50	51	52	53	54	55	X	X^2	Intercept	COD	Q
Data File:	EXP0322003.wiff	EXP0322004.wiff	EXP0322005.wiff	EXP0322006.wiff	EXP0322007.wiff	EXP0322008.wiff					
Parmname:											
2,4,6-Trinitrotoluene	15900000	30600000	116000000	195000000	301000000	345000000	.029	3.07	-.564	.9979	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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032210ICAL

Peak Name: 13-Dinitrobenzene-d4
Use as Internal Standard
Q1/Q3 Masses: 172.05/46.10 amu
Peak Name: 26-Dinitrotoluene-d3
Use as Internal Standard
Q1/Q3 Masses: 184.99/155.00 amu

Peak Name: HMX
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 341.20/46.00 amu

Fit Linear Weighting None Iterate No
Intercept 0.0425
Slope 2.13
Correlation coefficient 0.9997
Use Area

Peak Name: RDX
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 267.01/46.10 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.53
Standard deviation 0.0551
%RSD 3.6
Use Area

Peak Name: 135-Trinitrobenzene
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 212.97/182.80 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 6.49
Standard deviation 1.05
%RSD 16.2
Use Area

Peak Name: 13-Dinitrobenzene
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 167.95/137.90 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 2.66
Standard deviation 0.147

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Page 1

thm 03/28/10

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%RSD 5.53
Use Area

Peak Name: Tetryl
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 240.95/180.80 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 4.27
Standard deviation 0.323
%RSD 7.57
Use Area

Peak Name: 246-Trinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 227.12/209.80 amu

Fit Quadratic Weighting None Iterate No
a0 0.029
a1 3.07
a2 -0.564
Correlation coefficient 0.9979
Use Area

Peak Name: Nitrobenzene
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 123.04/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.135
Standard deviation 0.00826
%RSD 6.11
Use Area

Peak Name: 34-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 182.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.29
Standard deviation 0.0962
%RSD 7.44
Use Area

Peak Name: 26-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 182.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.972
Standard deviation 0.143
%RSD 14.7
Use Area

Peak Name: 24-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 182.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.585
Standard deviation 0.0352
%RSD 6.02
Use Area

Peak Name: 4-Amino-26-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 197.02/167.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.06
Standard deviation 0.121
%RSD 11.5
Use Area

Peak Name: 2-Amino-46-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 197.02/180.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.0333
Standard deviation 0.00244
%RSD 7.31
Use Area

Peak Name: 2-Nitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 137.00/46.00 amu

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Fit Mean Response Factor Weighting None Iterate No
Factor 0.0156
Standard deviation 0.000896
%RSD 5.74
Use Area

Peak Name: 4-Nitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 137.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.0078
Standard deviation 0.000535
%RSD 6.86
Use Area

Peak Name: 3-Nitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 137.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.00928
Standard deviation 0.0008
%RSD 8.63
Use Area

Peak Name: PETN
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 361.06/62.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.0119
Standard deviation 0.000925
%RSD 7.75
Use Area

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GEL SOP GL-OA-E-056, Method 8321A-Modified

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LCMSMS#3

032210.rdb
Analyte Name: HMX

Regression Equation: y = 2.13 x + 0.0425 (r = 0.9997)

Expected Concentration	Calculated Concentration	% Accuracy
25	17.67	70.7
50	47.17	94.3
200	207.55	103.8
400	402.17	100.5
800	812.43	101.6
1000	988.00	98.8

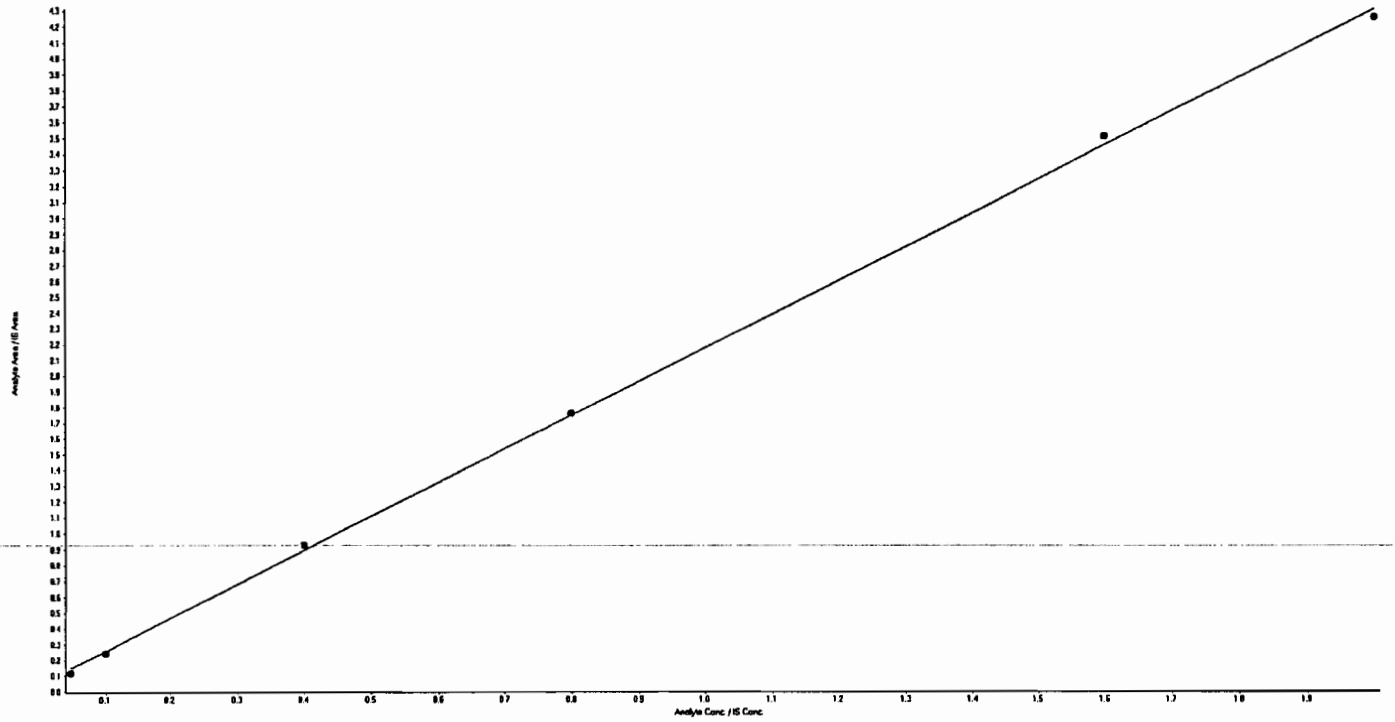

Anne 03/28/10
Lcu 3/28/10

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Analyte Name: RDX

Regression Equation: y = 1.53 x (std. dev. = 0.0551)

Expected Concentration	Calculated Concentration	% Accuracy
25	23.98	95.9
50	51.74	103.5
200	191.69	95.8
400	398.64	99.7
800	834.01	104.3
1000	1008.48	100.8

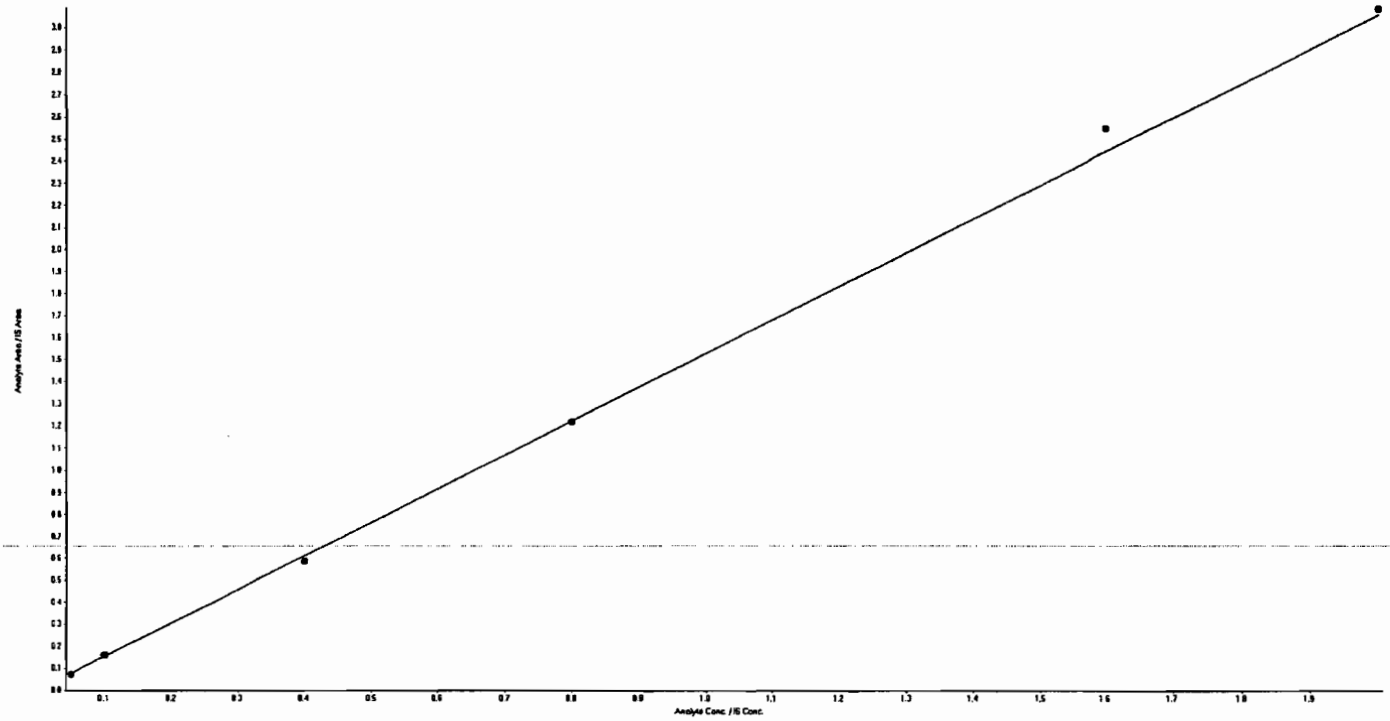

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LCMSMS#3

Analyte Name: 135-Trinitrobenzene

Regression Equation: y = 6.49 x (std. dev. = 1.05)

Expected Concentration	Calculated Concentration	% Accuracy
25	29.86	119.4
50	56.14	112.3
200	215.29	107.6
400	392.08	98.0
800	675.96	84.5
1000	781.12	78.1

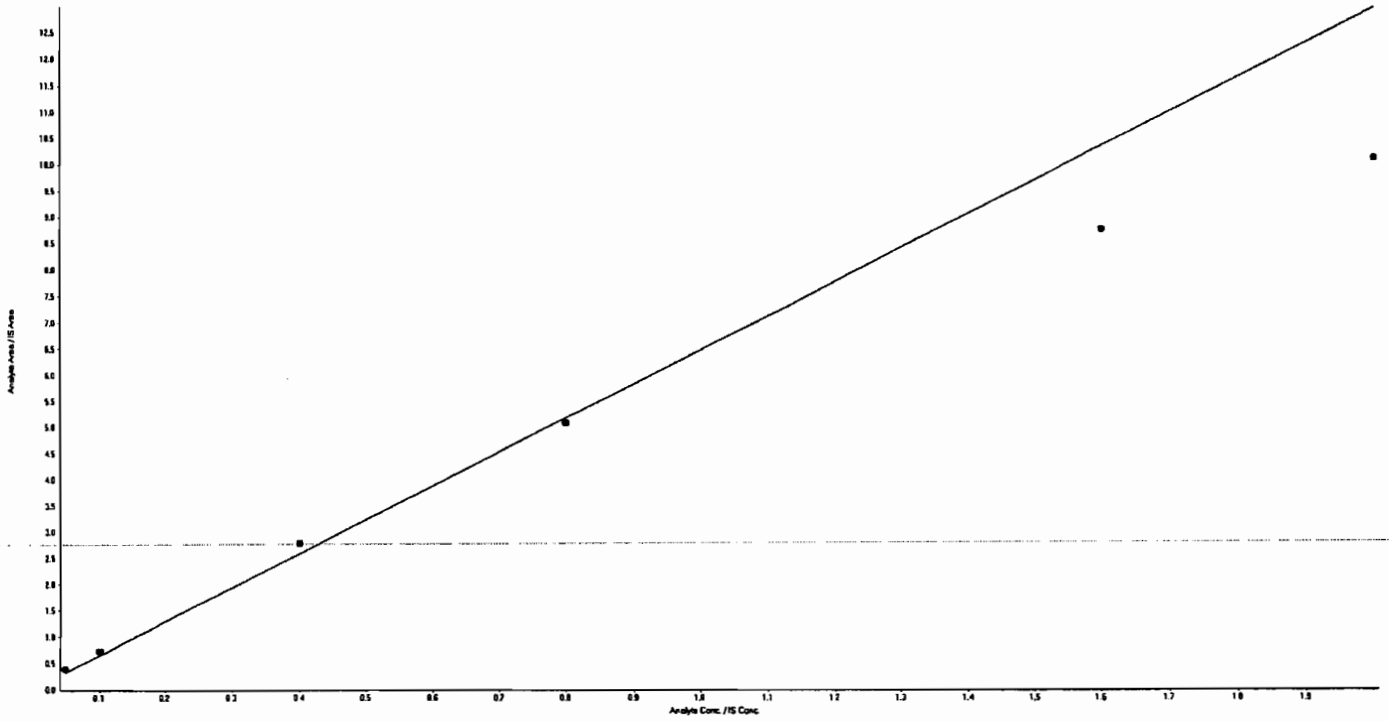

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LCMSMS#3

Analyte Name: 13-Dinitrobenzene

Regression Equation: y = 2.66 x (std. dev. = 0.147)

Expected Concentration	Calculated Concentration	% Accuracy
25	26.60	106.4
50	50.25	100.5
200	211.01	105.5
400	387.47	96.9
800	793.17	99.1
1000	915.87	91.6

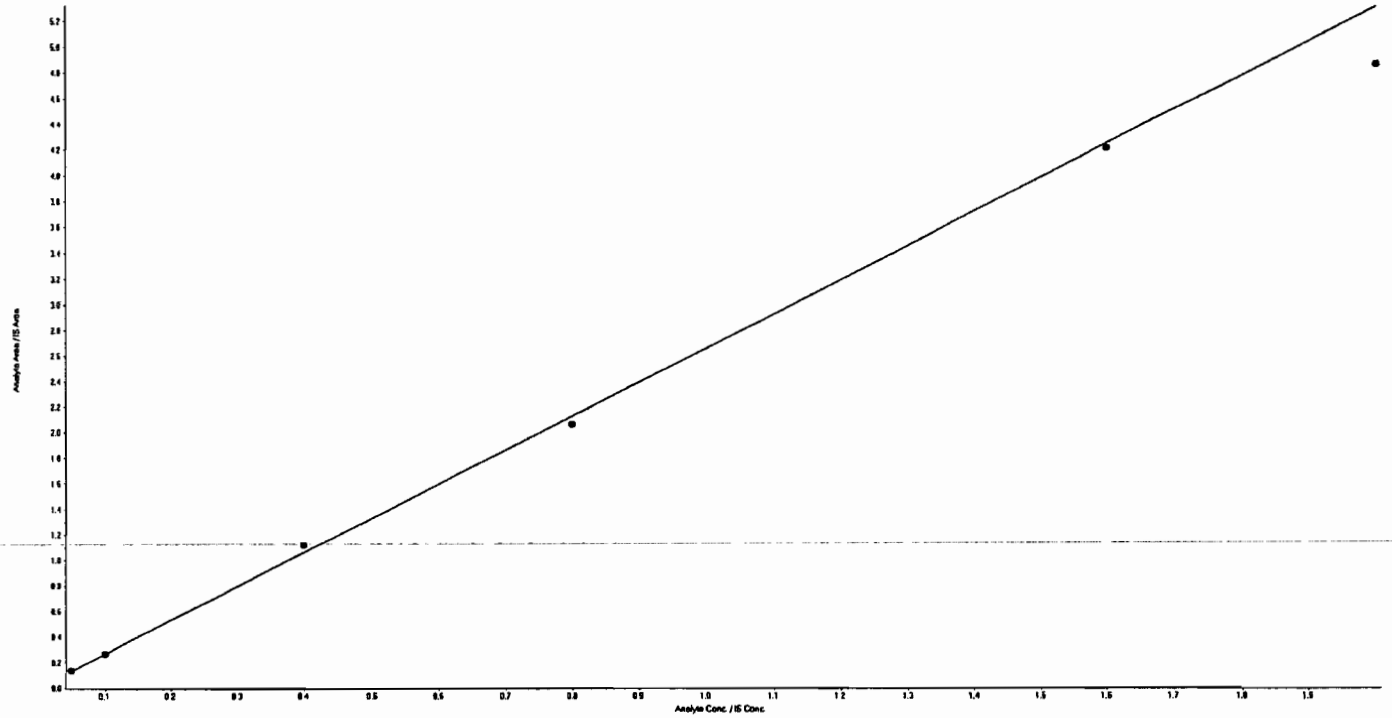

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Analyte Name: Tetryl

Regression Equation: y = 4.27 x (std. dev. = 0.323)

Expected Concentration	Calculated Concentration	% Accuracy
25	25.97	103.9
50	55.09	110.2
200	208.81	104.4
400	384.84	96.2
800	770.32	96.3
1000	890.43	89.0

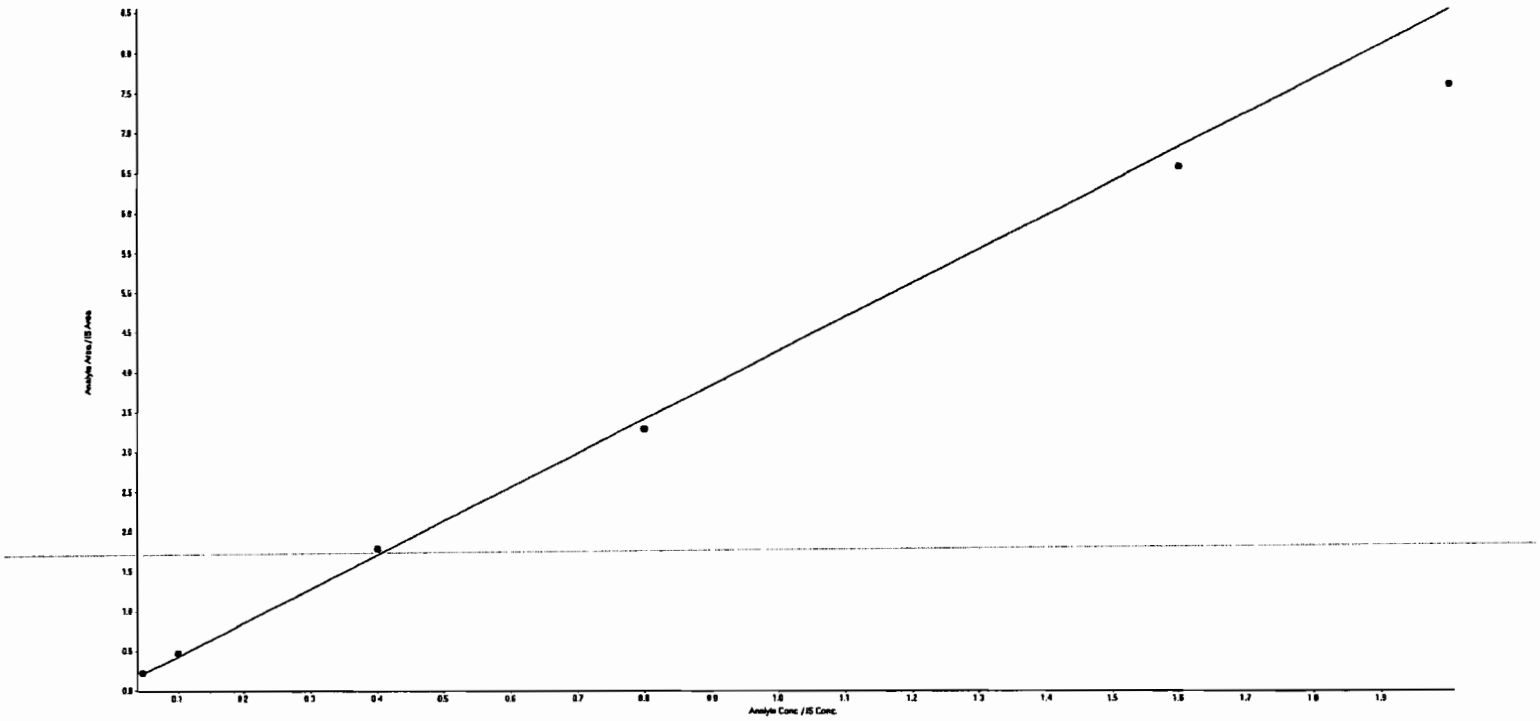

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LCMSMS#3

Analyte Name: 246-Trinitrotoluene

Regression Equation: y = -0.564 x^2 + 3.07 x + 0.029 (r = 0.9979)

Expected Concentration	Calculated Concentration	% Accuracy
25	22.16	88.6
50	56.76	113.5
200	206.79	103.4
400	369.28	92.3
800	866.39	108.3
1000	953.30	95.3

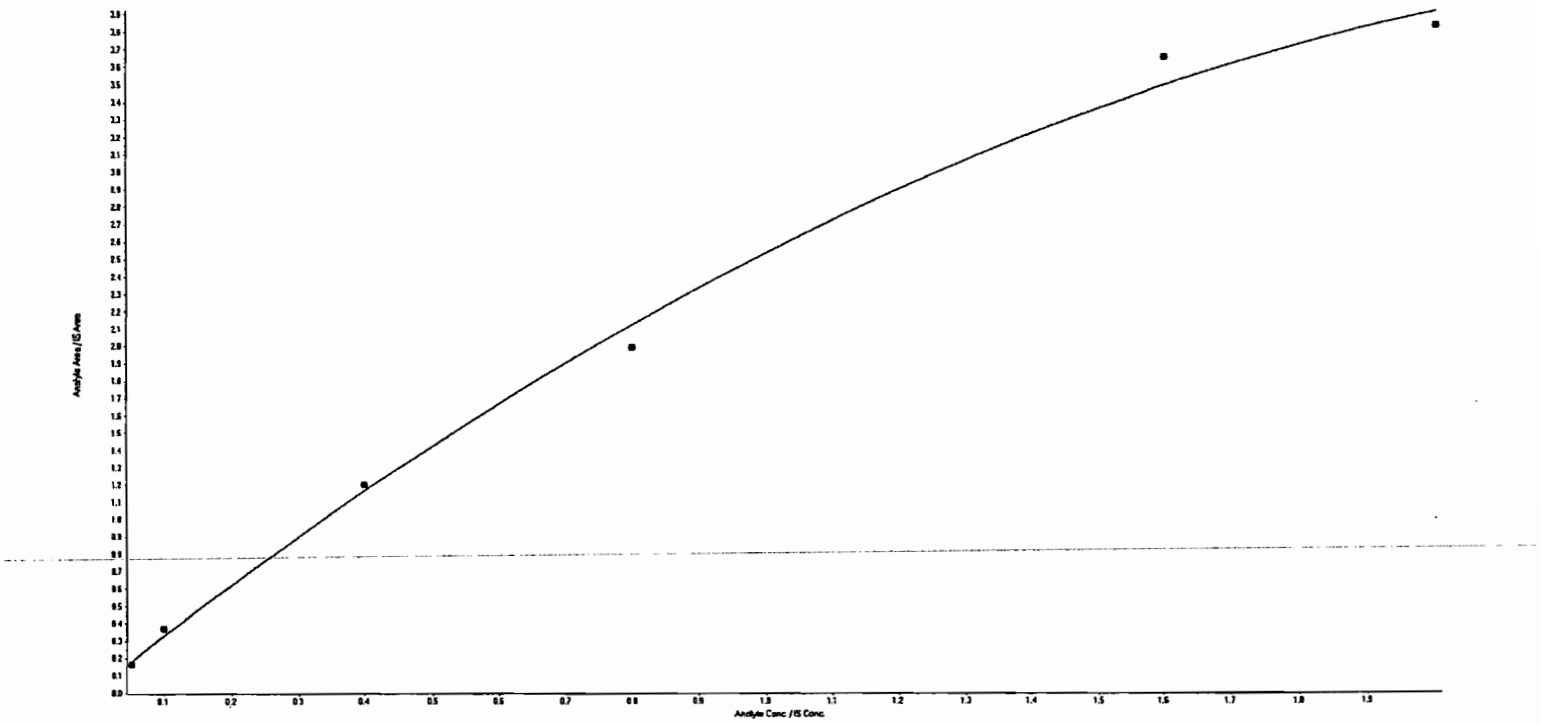

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Analyte Name: Nitrobenzene

Regression Equation: y = 0.135 x (std. dev. = 0.00826)

Expected Concentration	Calculated Concentration	% Accuracy
25	23.08	92.3
50	46.47	92.9
200	204.02	102.0
400	402.37	100.6
800	847.42	105.9
1000	1061.98	106.2

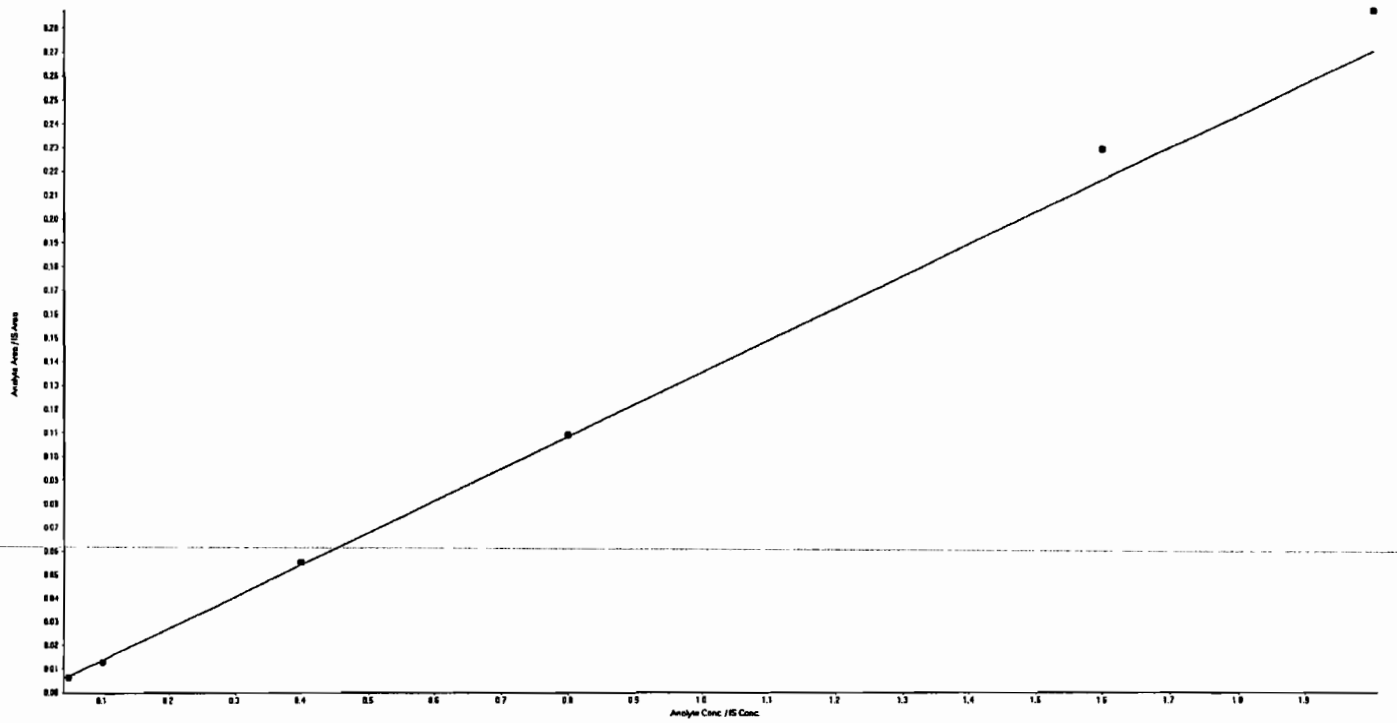

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Analyte Name: 34-dinitrotoluene

Regression Equation: y = 1.29 x (std. dev. = 0.0962)

Expected Concentration	Calculated Concentration	% Accuracy
12.5	13.12	104.9
25	27.51	110.0
100	101.29	101.3
200	192.98	96.5
400	395.66	98.9
500	441.68	88.3

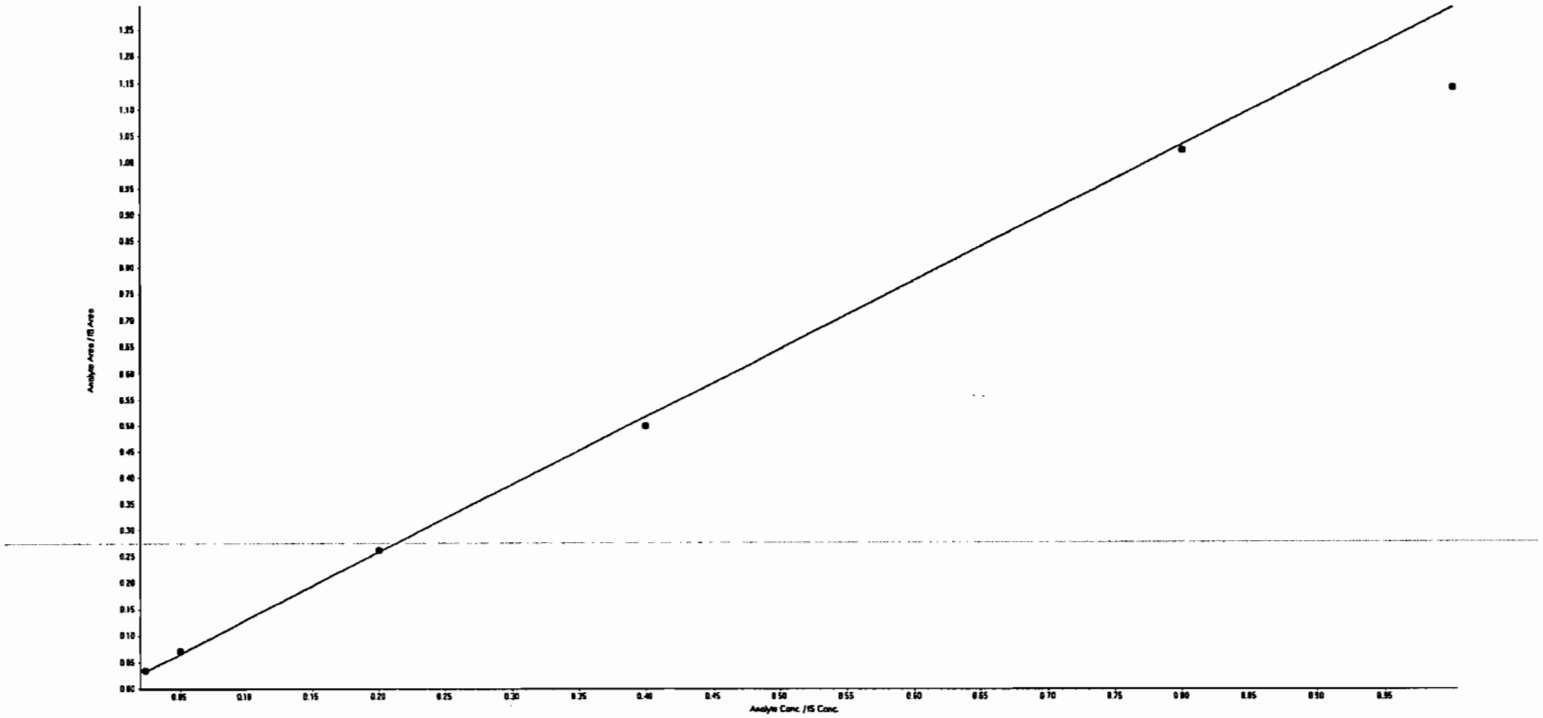

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Analyte Name: 26-dinitrotoluene

Regression Equation: y = 0.972 x (std. dev. = 0.143)

Expected Concentration	Calculated Concentration	% Accuracy
25	28.54	114.2
50	59.03	118.1
200	207.17	103.6
400	385.41	96.4
800	683.74	85.5
1000	823.74	82.4

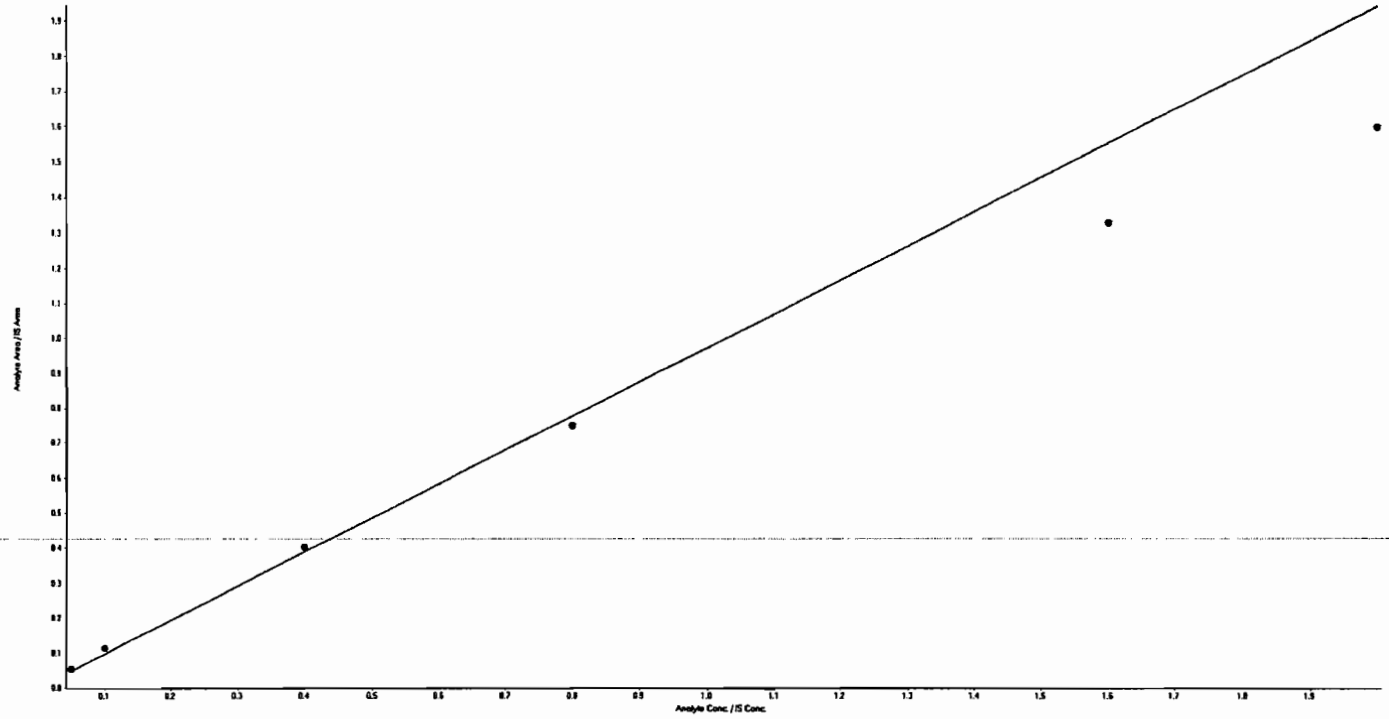

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LCMSMS#3

Analyte Name: 24-dinitrotoluene

Regression Equation: y = 0.585 x (std. dev. = 0.0352)

Expected Concentration	Calculated Concentration	% Accuracy
25	24.36	97.4
50	55.65	111.3
200	193.35	96.7
400	385.77	96.4
800	818.76	102.3
1000	957.97	95.8

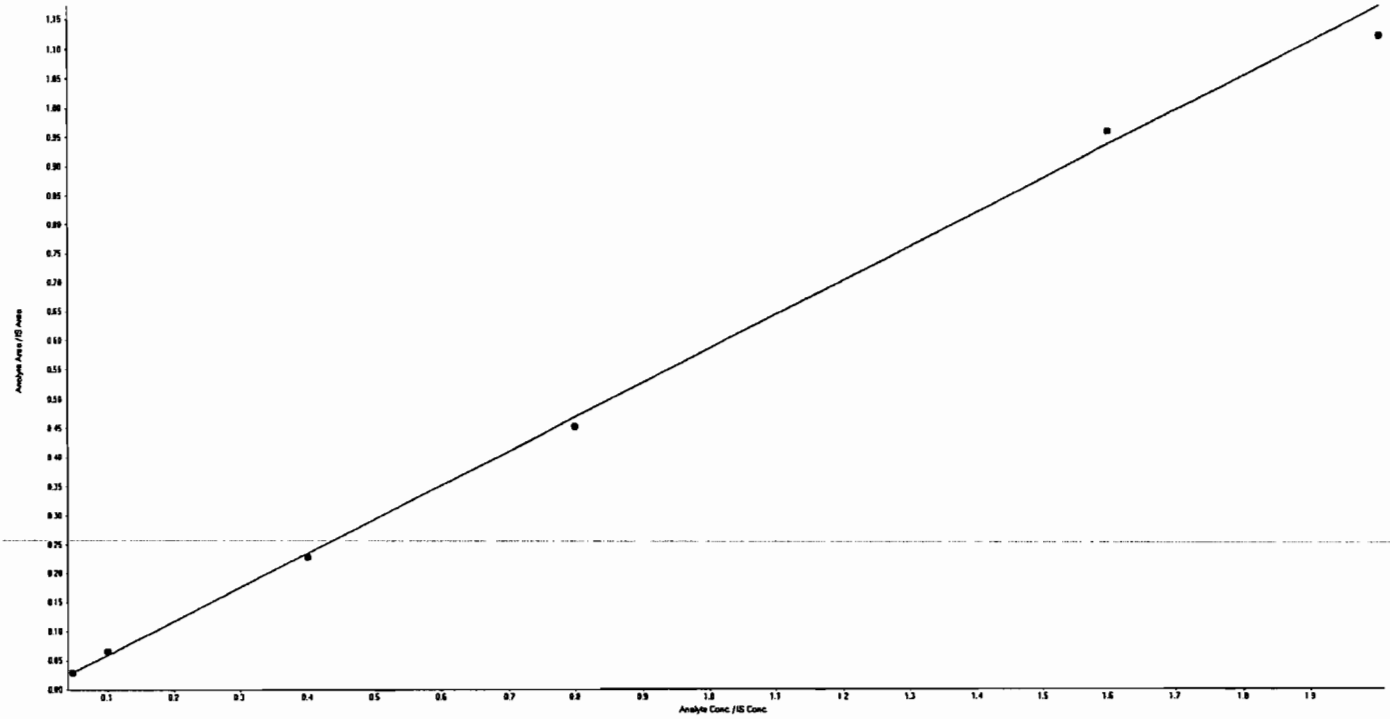

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Analyte Name: 4-Amino-26-dinitrotoluene

Regression Equation: y = 1.06 x (std. dev. = 0.121)

Expected Concentration	Calculated Concentration	% Accuracy
25	26.53	106.1
50	58.36	116.7
200	207.65	103.8
400	379.08	94.8
800	762.25	95.3
1000	832.96	83.3

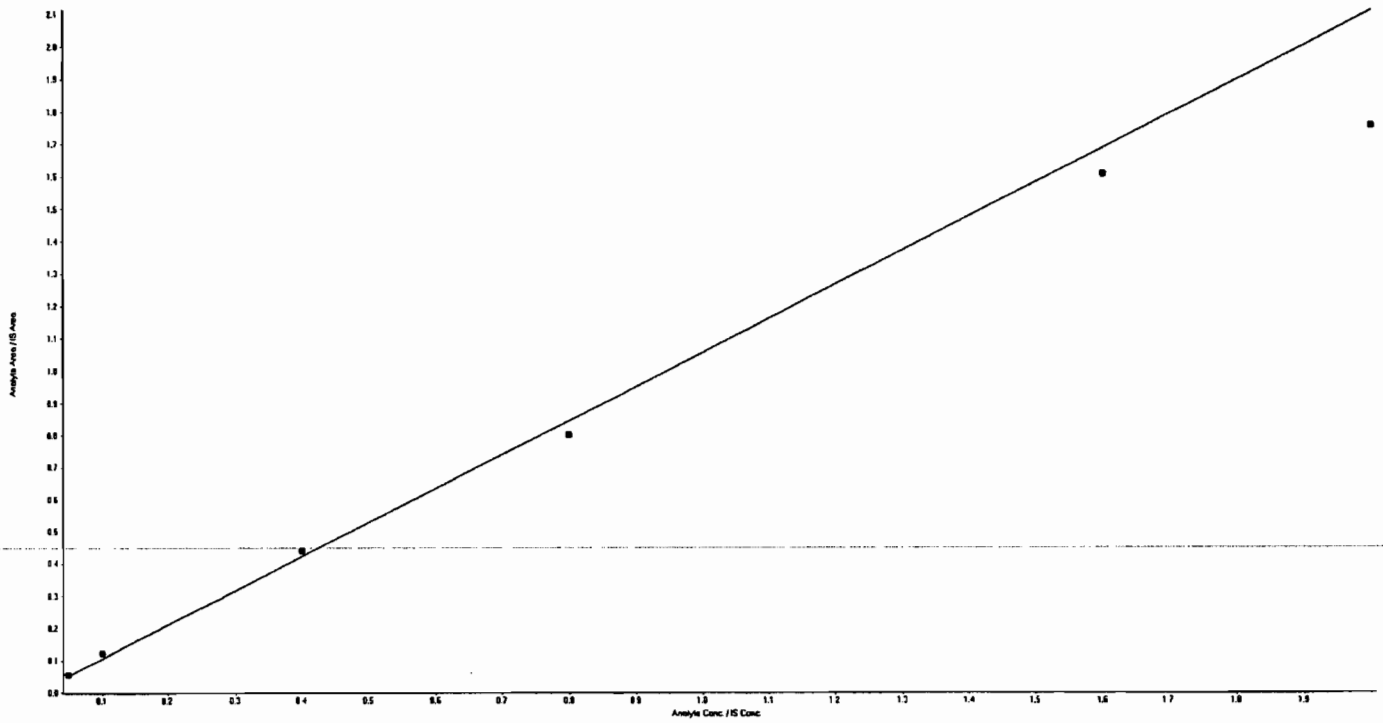

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Analyte Name: 2-Amino-46-dinitrotoluene

Regression Equation: y = 0.0333 x (std. dev. = 0.00244)

Expected Concentration	Calculated Concentration	% Accuracy
25	23.60	94.4
50	49.60	99.2
200	201.96	101.0
400	366.01	91.5
800	901.45	112.7
1000	1012.46	101.2

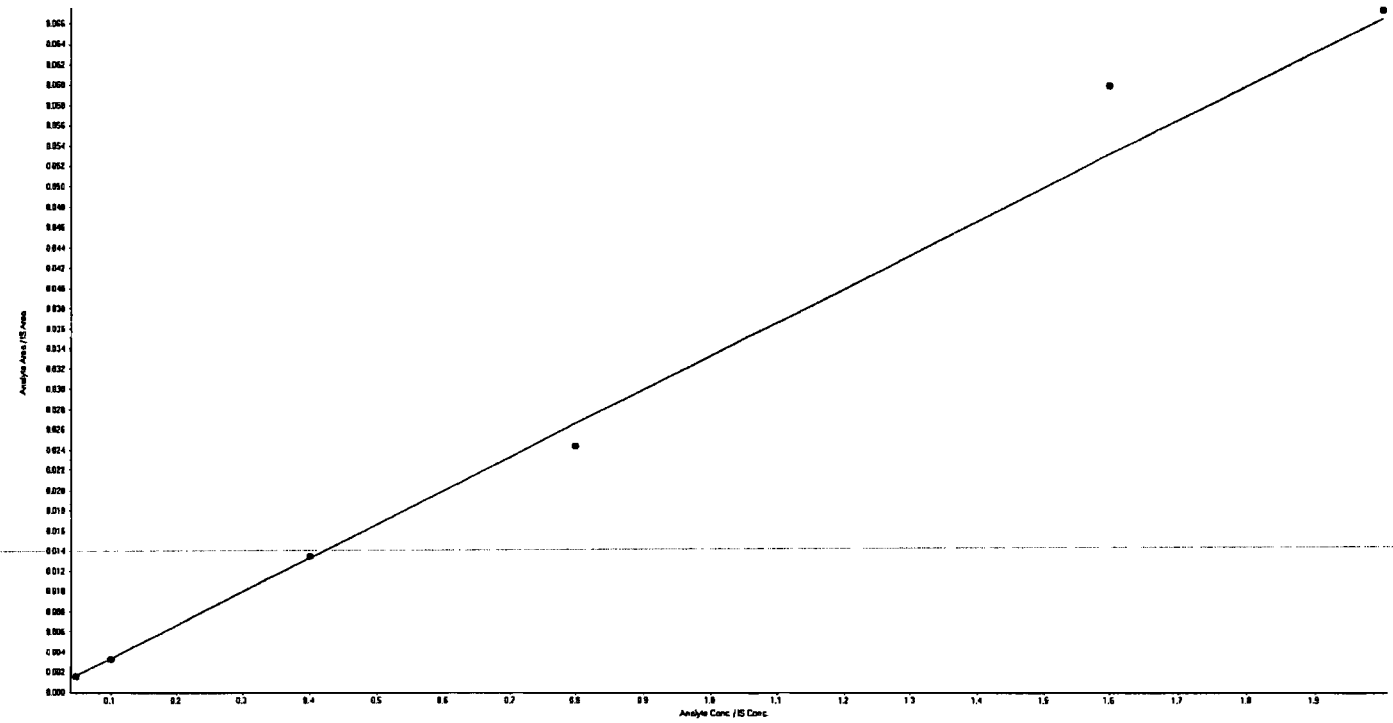

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LCMSMS#3

Analyte Name: 2-Nitrotoluene

Regression Equation: y = 0.0156 x (std. dev. = 0.000896)

Expected Concentration	Calculated Concentration	% Accuracy
25	22.95	91.8
50	51.85	103.7
200	206.35	103.2
400	381.16	95.3
800	856.88	107.1
1000	989.18	98.9

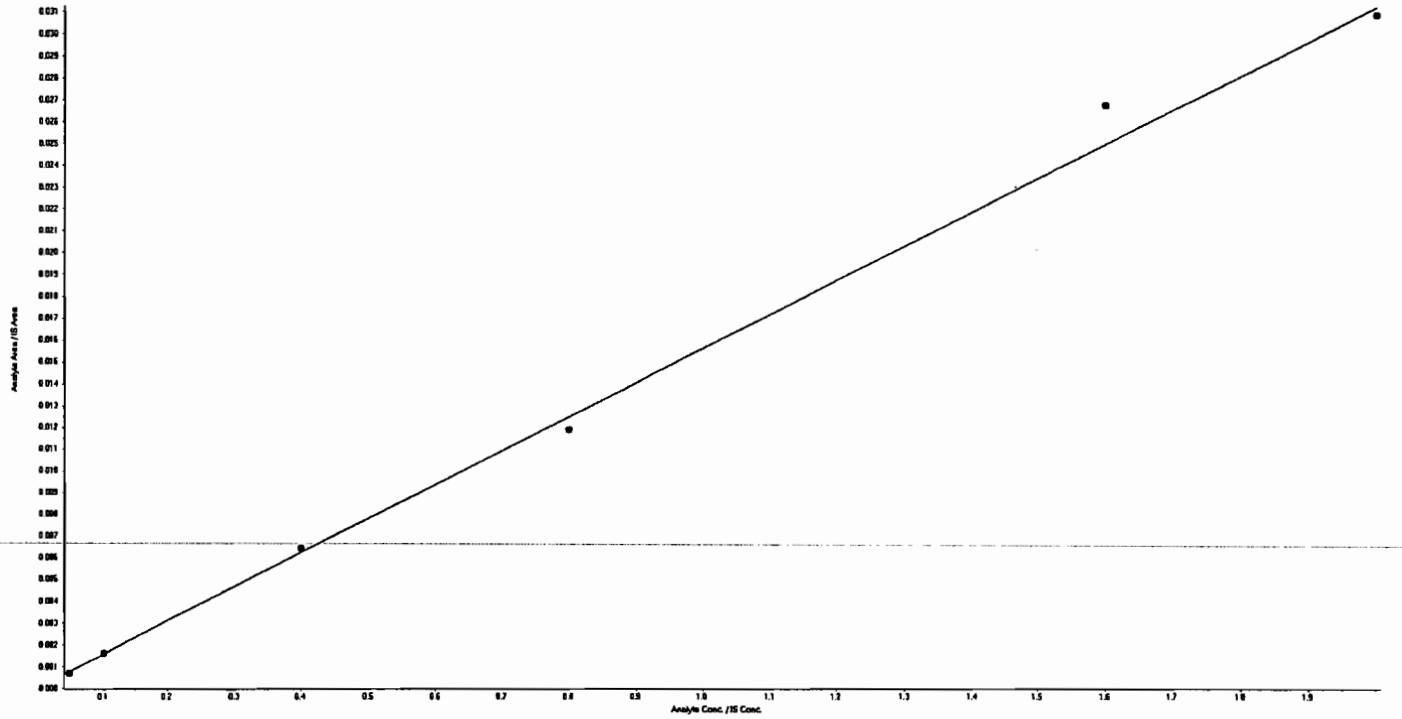

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Analyte Name: 4-Nitrotoluene

Regression Equation: y = 0.0078 x (std. dev. = 0.000535)

Expected Concentration	Calculated Concentration	% Accuracy
25	22.70	90.8
50	52.10	104.2
200	197.04	98.5
400	389.79	97.4
800	887.73	111.0
1000	980.90	98.1

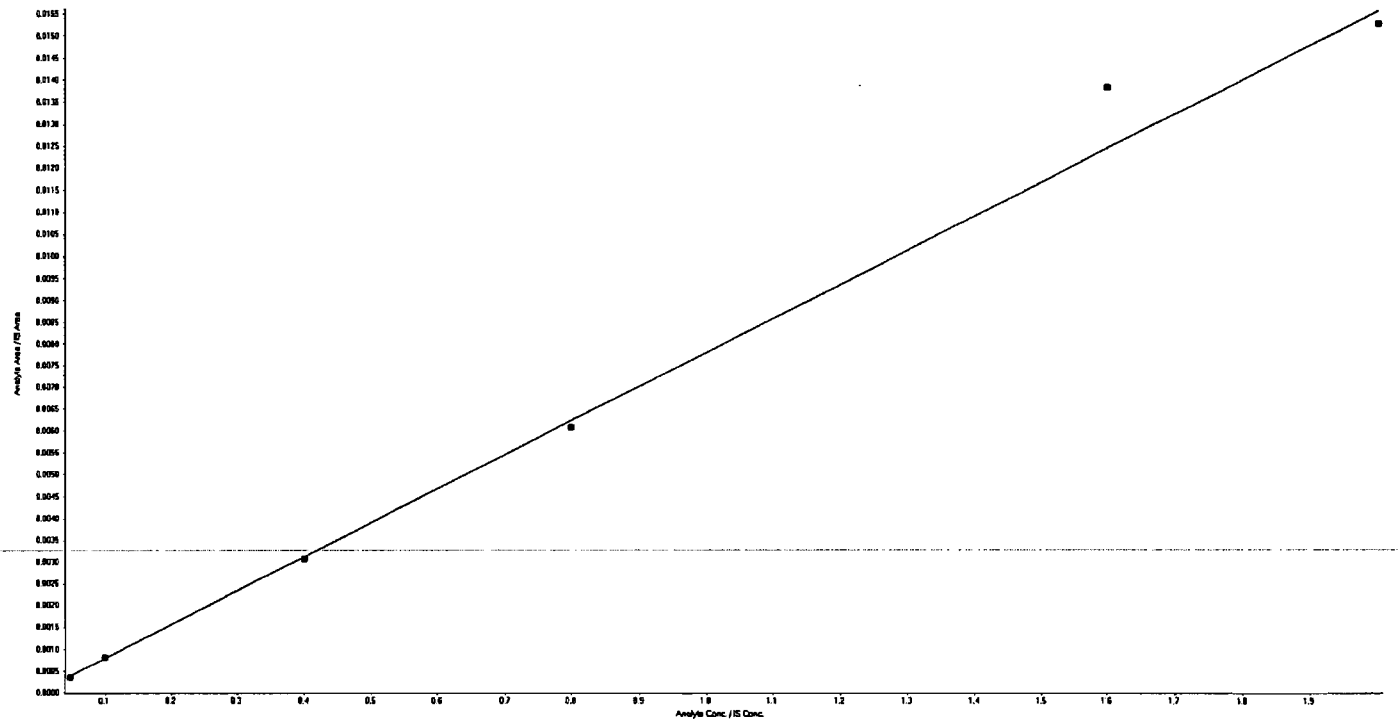

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Analyte Name: 3-Nitrotoluene

Regression Equation: y = 0.00928 x (std. dev. = 0.0008)

Expected Concentration	Calculated Concentration	% Accuracy
25	20.97	83.9
50	51.99	104.0
200	203.43	101.7
400	391.41	97.9
800	868.43	108.6
1000	1040.03	104.0

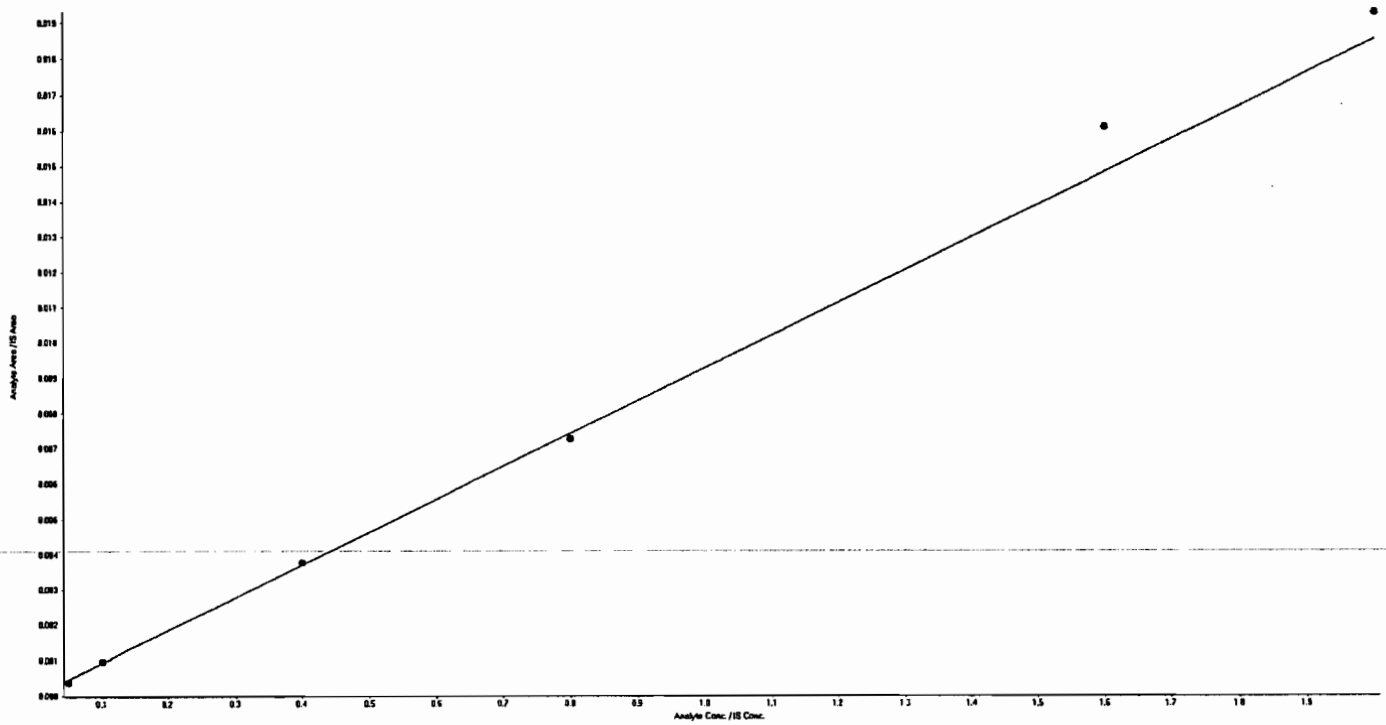

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Analyte Name: PETN

Regression Equation: y = 0.0119 x (std. dev. = 0.000925)

Expected Concentration	Calculated Concentration	% Accuracy
25	23.35	93.4
50	50.44	100.9
200	194.08	97.0
400	363.79	90.9
800	886.90	110.9
1000	1068.61	106.9

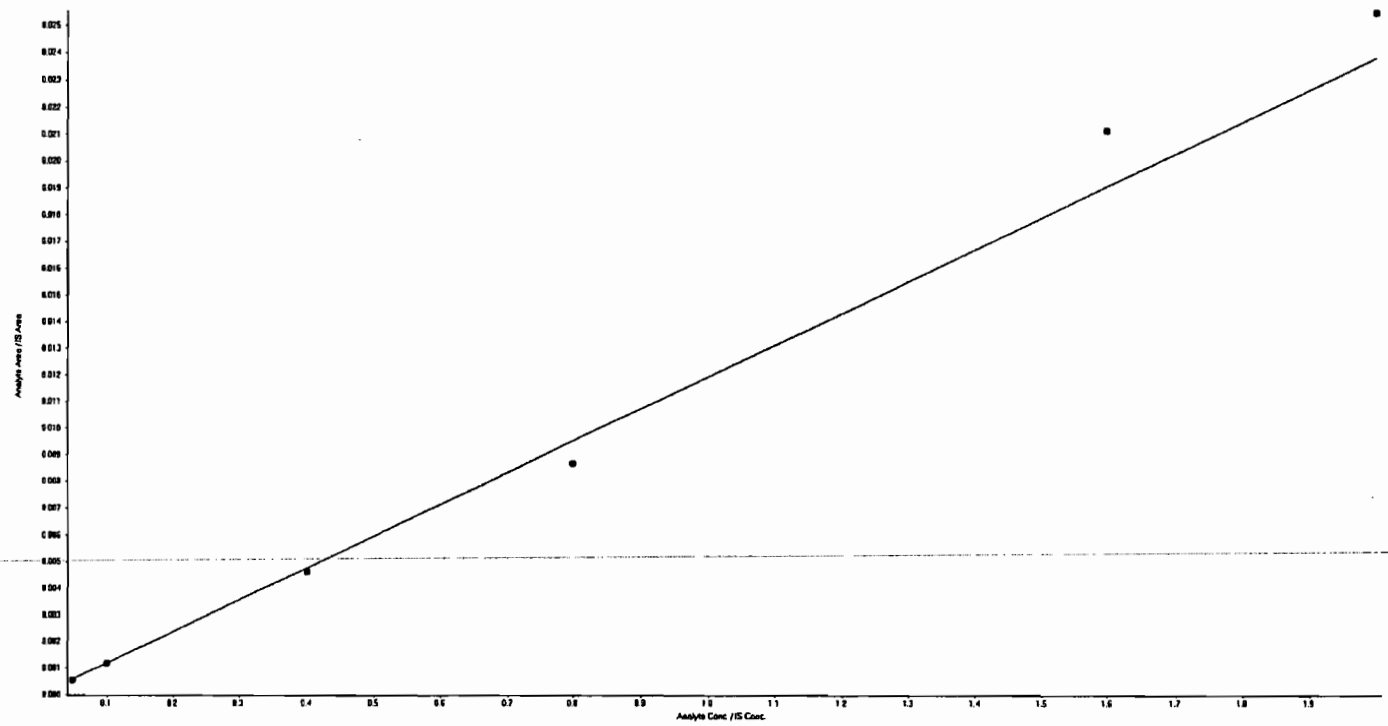

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322003.wiff	**Acquisition Date**	3/22/2010 4:25:52 PM
Sample Name	WXX100322-50	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

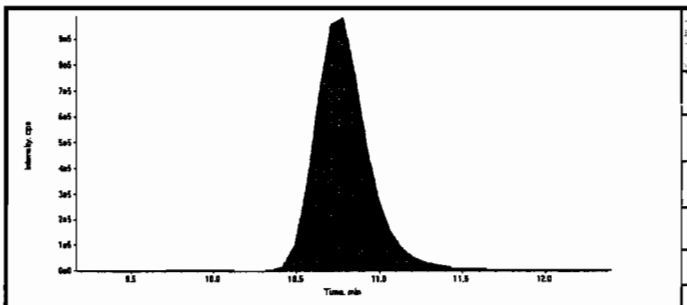

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	21900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

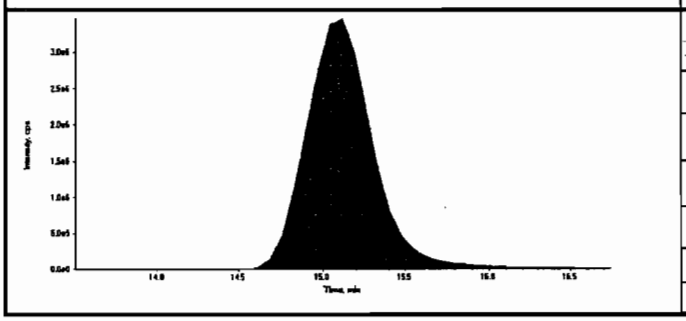

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.10
Area Counts:	96900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

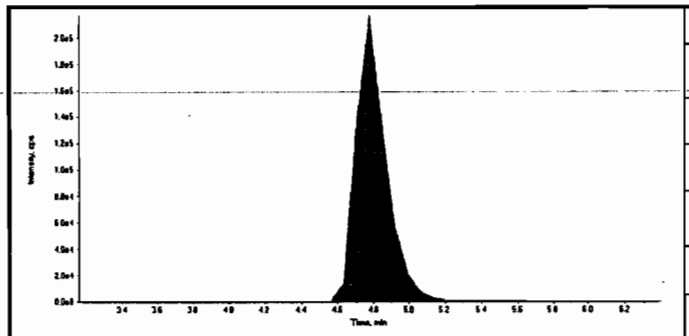

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	2.58e+006
Manual Modification	No
Amount:	17.7 (ng/mL)
% Accuracy:	70.70

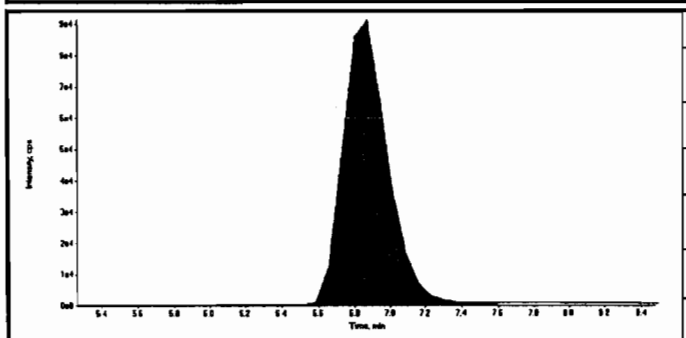

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	1.61e+006
Manual Modification	No
Amount:	24.0 (ng/mL)
% Accuracy:	95.90

LCM 3/28/10 Hmc 03/28/10

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Data File	EXP0322003.wiff	**Acquisition Date**	3/22/2010 4:25:52 PM
Sample Name	WXX100322-50	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

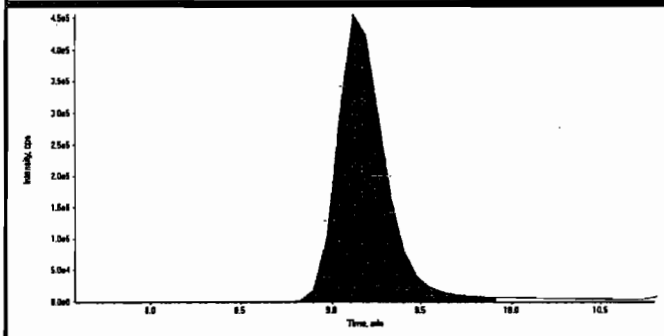

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.12
Area Counts:	8.49e+006
Manual Modification	No
Amount:	29.9 (ng/mL)
% Accuracy:	119.00

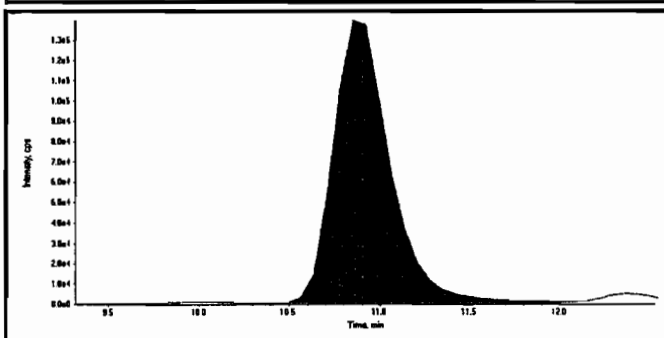

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	3.10e+006
Manual Modification	No
Amount:	26.6 (ng/mL)
% Accuracy:	106.00

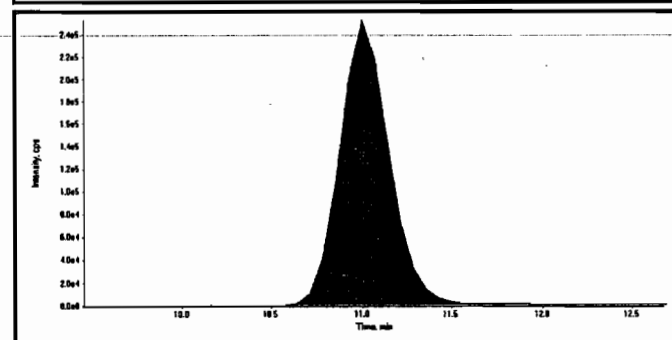

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.0
Area Counts:	4.86e+006
Manual Modification	No
Amount:	26.0 (ng/mL)
% Accuracy:	104.00

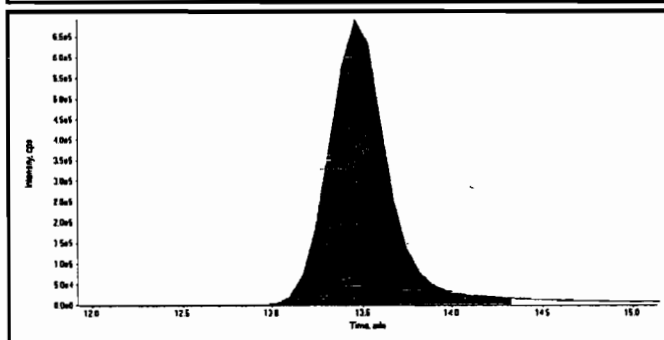

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.59e+007
Manual Modification	No
Amount:	22.2 (ng/mL)
% Accuracy:	88.60

Before Lan 3/28/10

nple Name: "WXX100322-50" Sample ID: "[1]LER" File: "EXP0322003.wlf"
sk Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
rument: "LCMSEXP_1" Annotation: "
.e Index: 1
.e Type: Standard
ntration: 25.0 ng/mL
ulated Conc: 0.00 ng/mL
Date: 3/22/2010
Time: 4:25:52 PM

ied: Yes

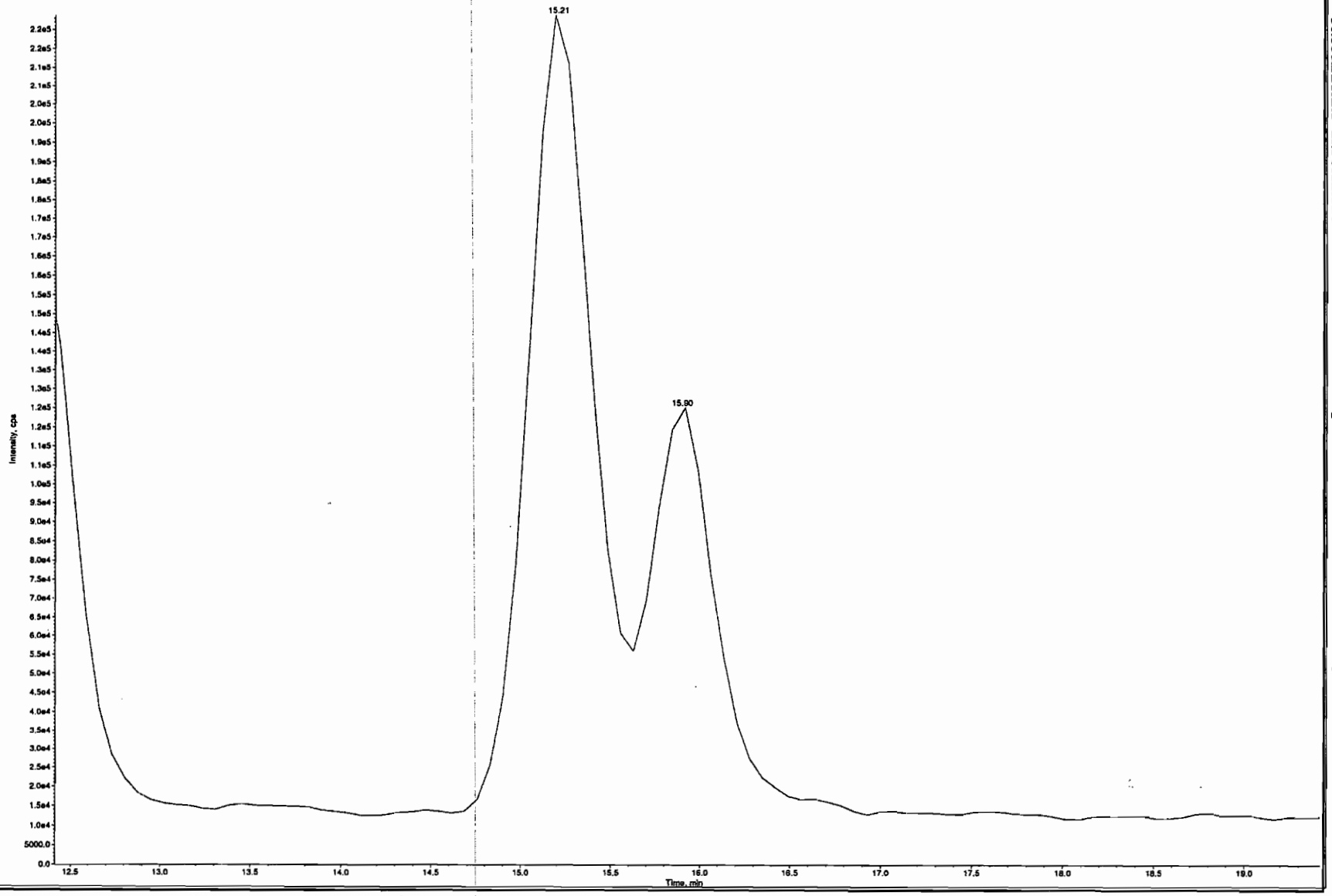

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322003.wiff	**Acquisition Date**	3/22/2010 4:25:52 PM
Sample Name	WXX100322-50	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

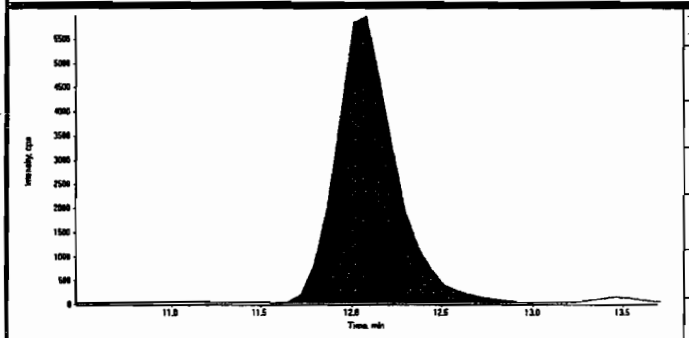

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	1.37e+005
Manual Modification	No
Amount:	23.1 (ng/mL)
% Accuracy:	92.30

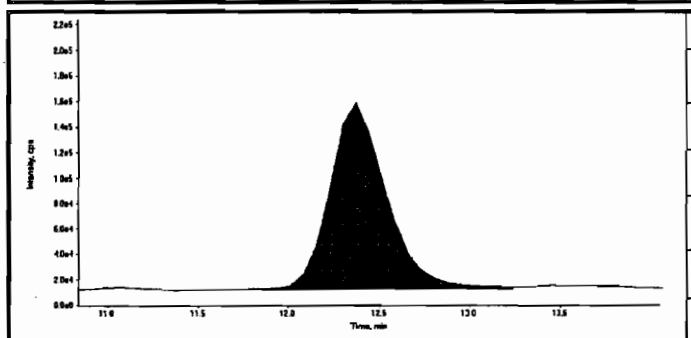

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	3.29e+006
Manual Modification	No
Amount:	13.1 (ng/mL)
% Accuracy:	105.00

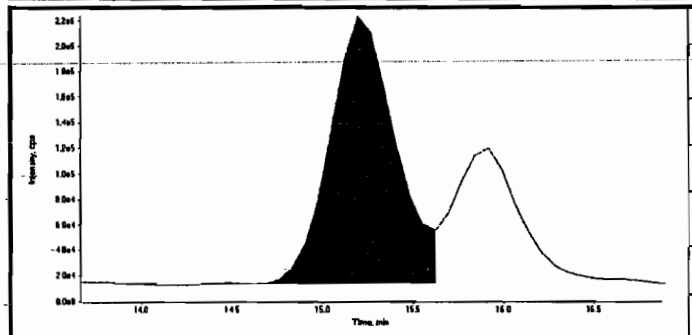

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.2
Area Counts:	5.38e+006
Manual Modification	No
Amount:	28.5 (ng/mL)
% Accuracy:	114.00

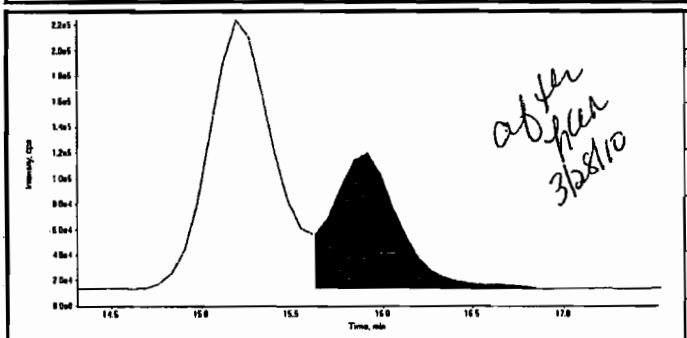

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.9
Actual RT:	15.9
Area Counts:	2.76e+006
Manual Modification	Yes
Amount:	24.4 (ng/mL)
% Accuracy:	97.40

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Data File	EXP0322003.wiff	**Acquisition Date**	3/22/2010 4:25:52 PM
Sample Name	WXX100322-50	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

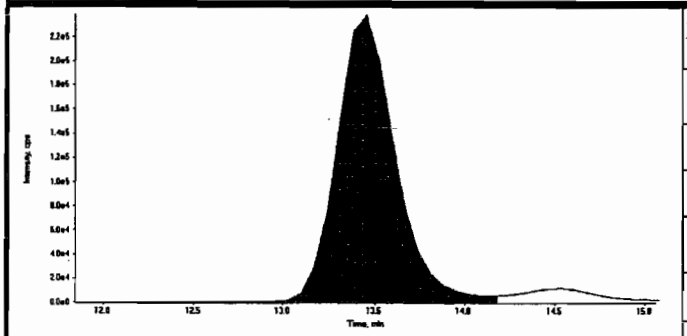

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	5.43e+006
Manual Modification	No
Amount:	26.5 (ng/mL)
% Accuracy:	106.00

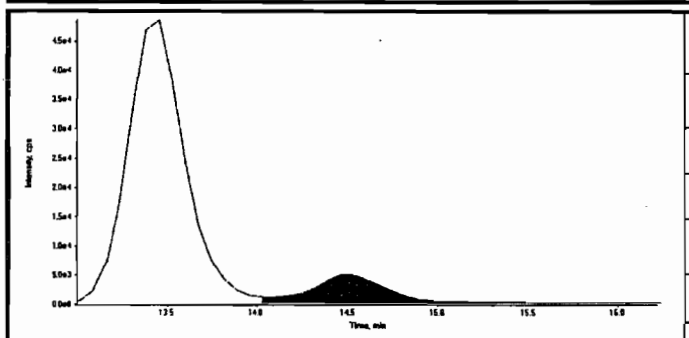

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.5
Area Counts:	1.52e+005
Manual Modification	No
Amount:	23.6 (ng/mL)
% Accuracy:	94.40

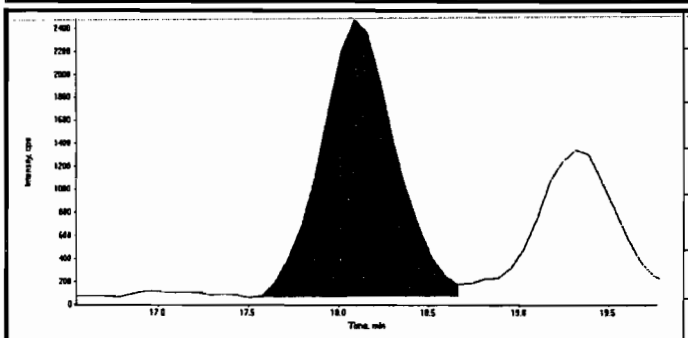

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.1
Area Counts:	6.95e+004
Manual Modification	No
Amount:	23.0 (ng/mL)
% Accuracy:	91.80

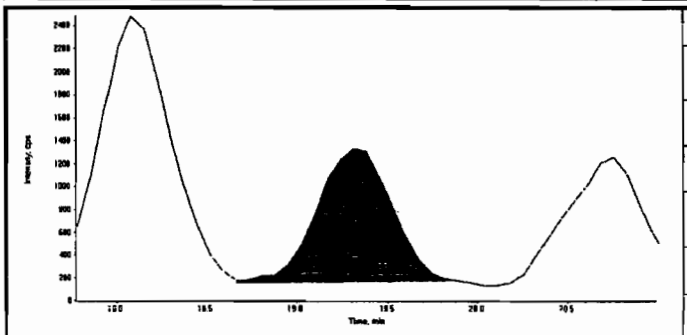

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.3
Area Counts:	3.43e+004
Manual Modification	No
Amount:	22.7 (ng/mL)
% Accuracy:	90.80

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GEL SOP GL-OA-E-056, Method 8321A-Modified

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LCMSMS#3

Data File	EXP0322003.wiff	**Acquisition Date**	3/22/2010 4:25:52 PM
Sample Name	WXX100322-50	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

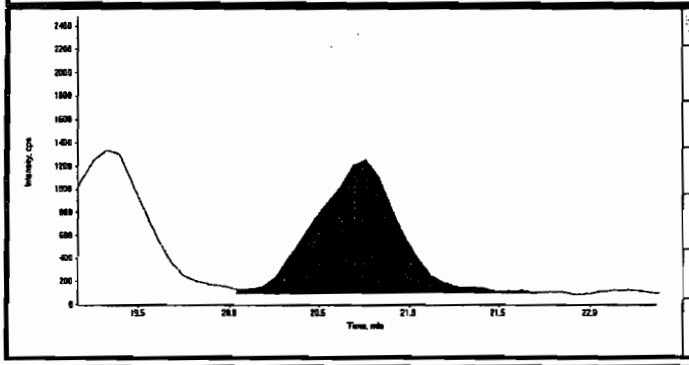

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.8
Area Counts:	3.77e+004
Manual Modification	No
Amount:	21.0 (ng/mL)
% Accuracy:	83.90

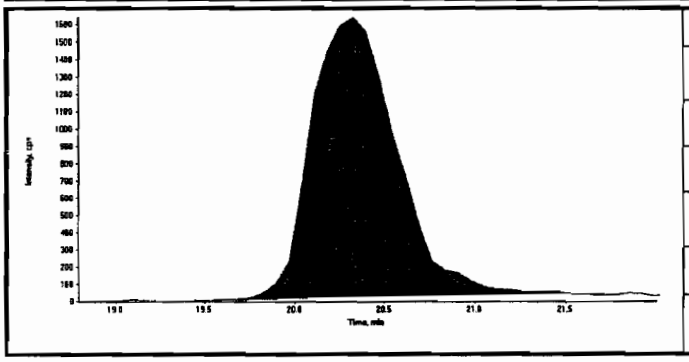

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.3
Area Counts:	5.40e+004
Manual Modification	No
Amount:	23.4 (ng/mL)
% Accuracy:	93.40

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322004.wiff	**Acquisition Date**	3/22/2010 4:52:08 PM
Sample Name	WXX100322-51	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

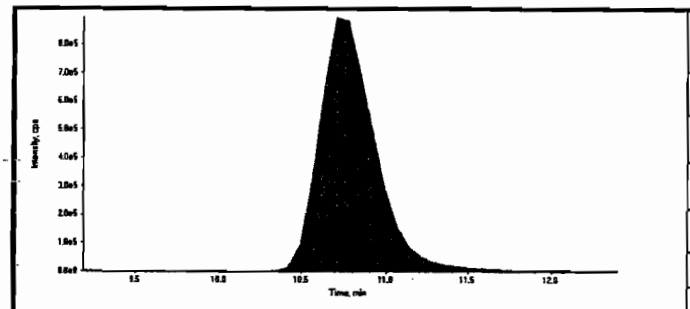

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.70
Area Counts:	20700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

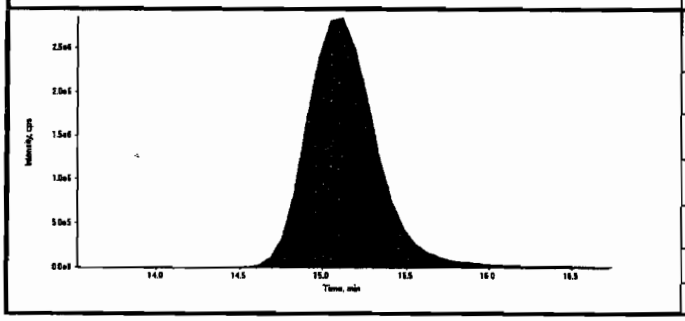

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.10
Area Counts:	82500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

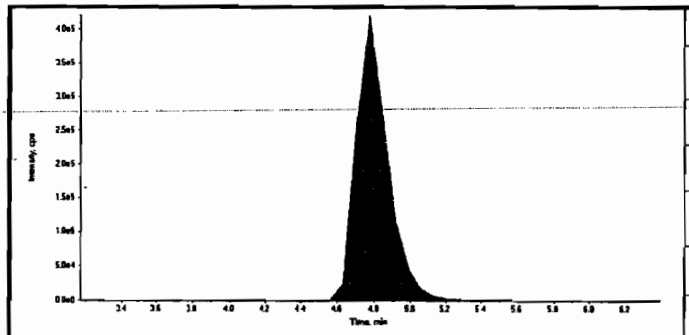

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	5.05e+006
Manual Modification	No
Amount:	47.2 (ng/mL)
% Accuracy:	94.30

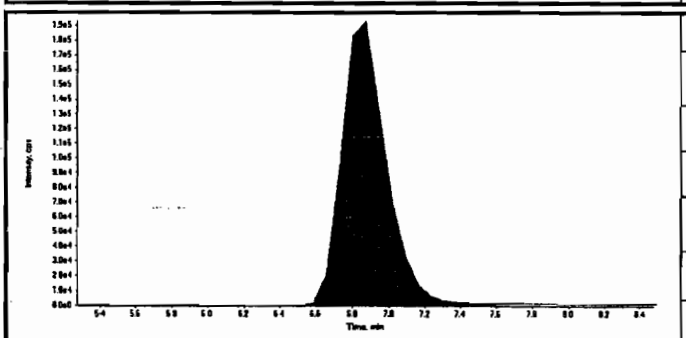

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	3.28e+006
Manual Modification	No
Amount:	51.7 (ng/mL)
% Accuracy:	103.00

Lcr 3/28/10 03/26/10

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Data File	EXP0322004.wiff	**Acquisition Date**	3/22/2010 4:52:08 PM
Sample Name	WXX100322-51	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

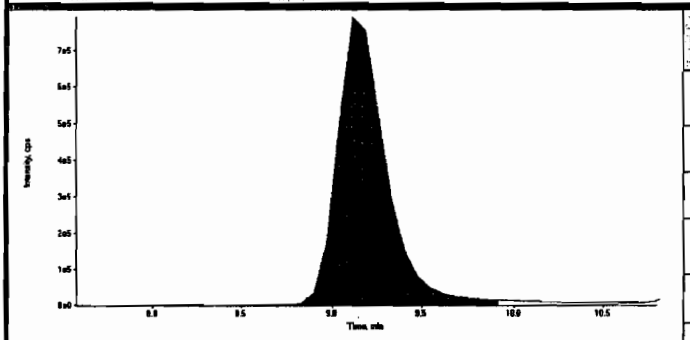

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.12
Area Counts:	1.51e+007
Manual Modification	No
Amount:	56.1 (ng/mL)
% Accuracy:	112.00

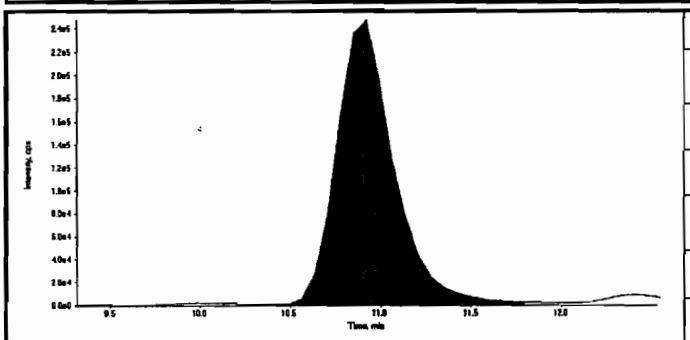

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	5.54e+006
Manual Modification	No
Amount:	50.3 (ng/mL)
% Accuracy:	101.00

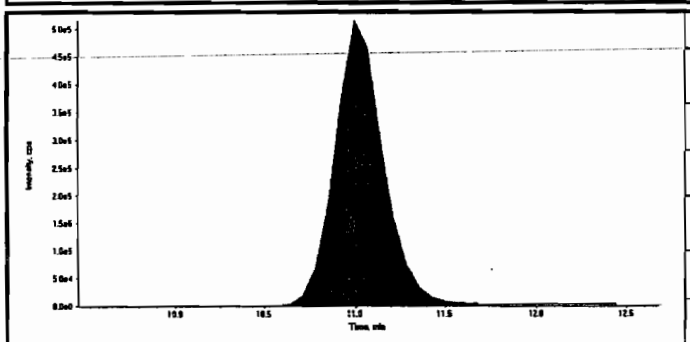

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.0
Area Counts:	9.75e+006
Manual Modification	No
Amount:	55.1 (ng/mL)
% Accuracy:	110.00

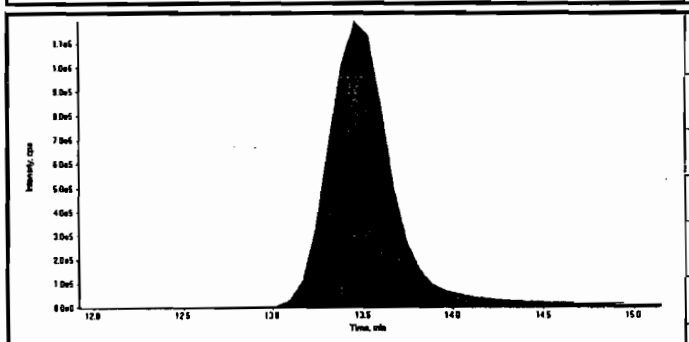

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	3.06e+007
Manual Modification	No
Amount:	56.8 (ng/mL)
% Accuracy:	114.00

Before Lan 3/28/10

Sample Name: "WXX100322-51" Sample ID: "]1]LER" File: "EXP0322004.wiff"
Peak Name: "2,4-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_1" Annotation: ""
ple Index: 1
ple Type: Standard
centration: 50.0 ng/mL
culated Conc: 0.00 ng/mL
. Date: 3/22/2010
. Time: 4:52:08 PM

ified: Yes

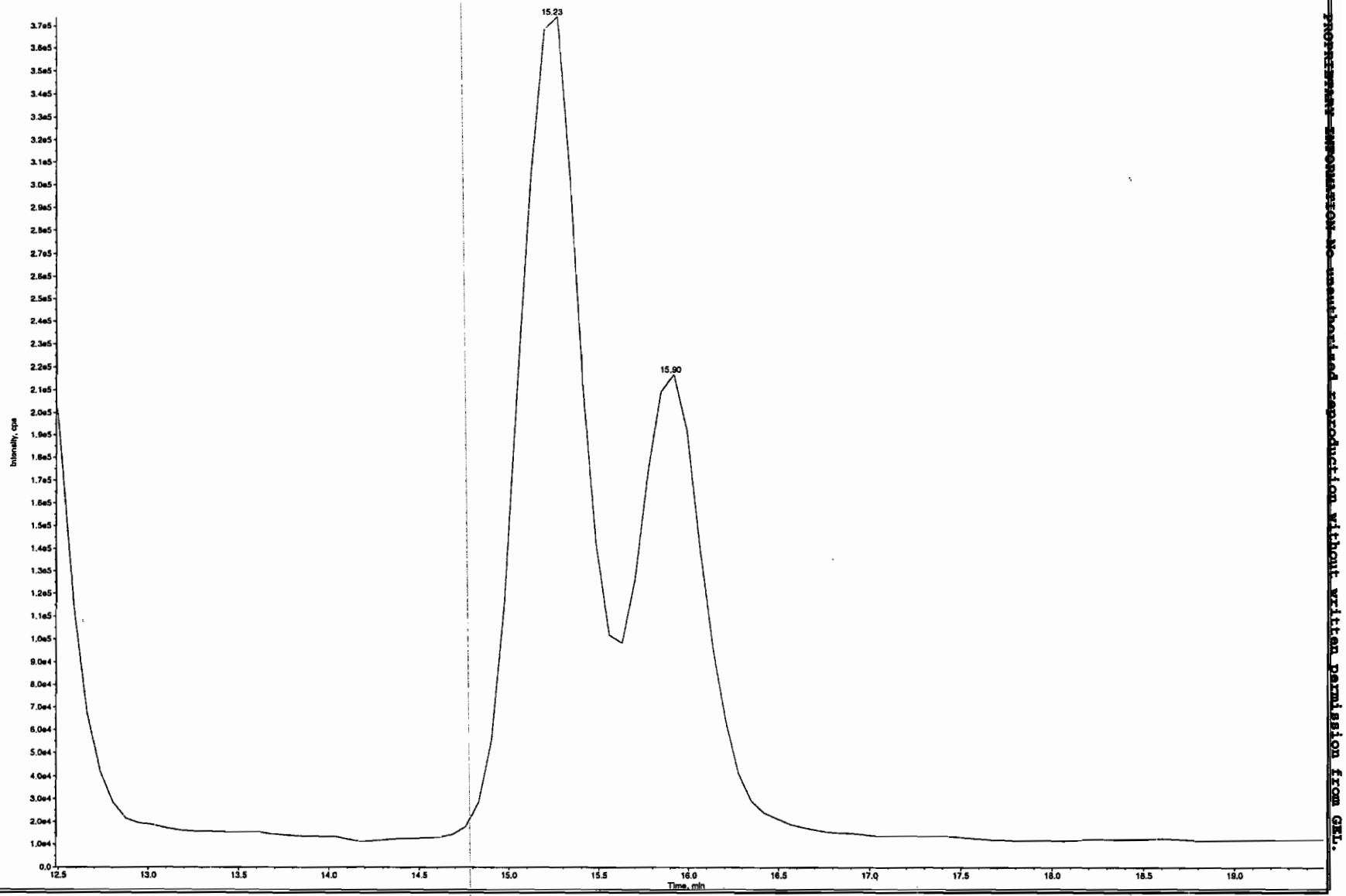

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322004.wiff	**Acquisition Date**	3/22/2010 4:52:08 PM
Sample Name	WXX100322-51	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

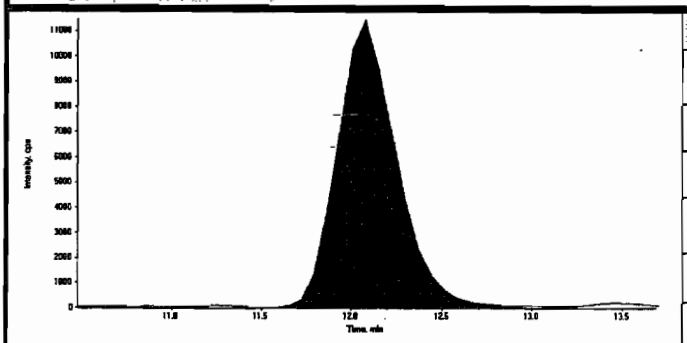

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	2.60e+005
Manual Modification	No
Amount:	46.5 (ng/mL)
% Accuracy:	92.90

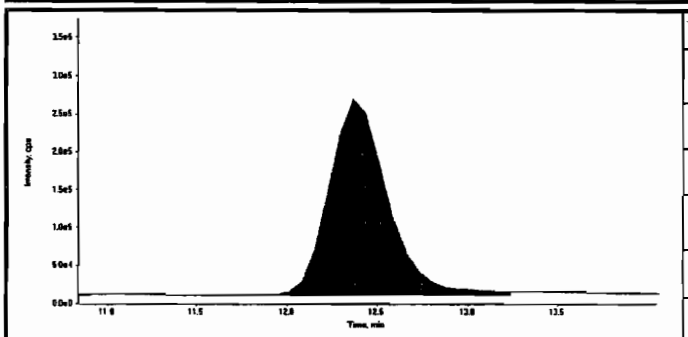

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	5.88e+006
Manual Modification	No
Amount:	27.5 (ng/mL)
% Accuracy:	110.00

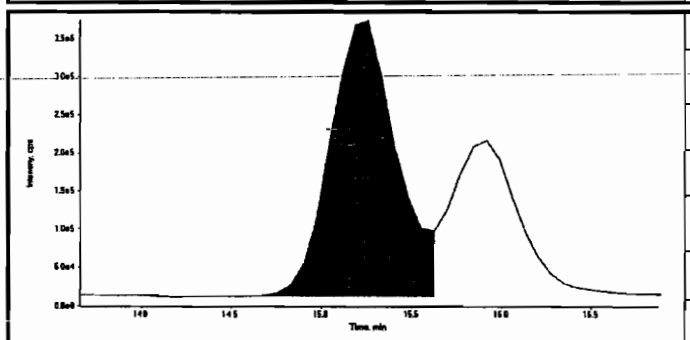

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	9.48e+006
Manual Modification	No
Amount:	59.0 (ng/mL)
% Accuracy:	118.00

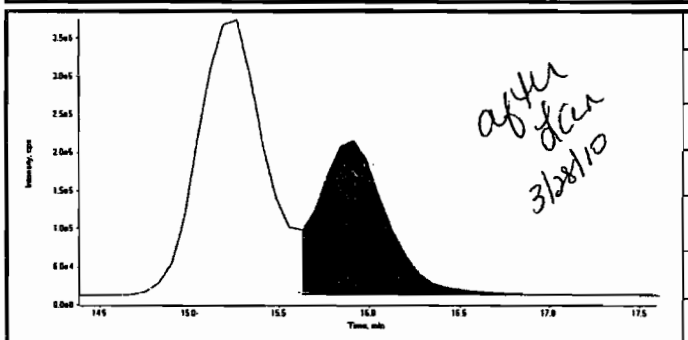

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	15.9
Area Counts:	5.38e+006
Manual Modification	Yes
Amount:	55.6 (ng/mL)
% Accuracy:	111.00

Before Ken 3/28/10

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Sample Name: "WXX100322-S1" Sample ID: "[1]LER" File: "EXP0322004.wiff"
Peak Name: "2-Amino-4&-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_1" Annotation: ""

ple Index: 1
ple Type: Standard
centration: 50.0 ng/mL
culated Conc: 32.4 ng/mL
. Date: 3/22/2010
. Time: 4:52:08 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1000.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 14.6 min
Relative RT: No

. Type: Valley
ection Time: 14.5 min
a: 1.92e+005 counts
ght: 1.18e+004 cps
rt Time: 14.1 min
Time: 15.3 min

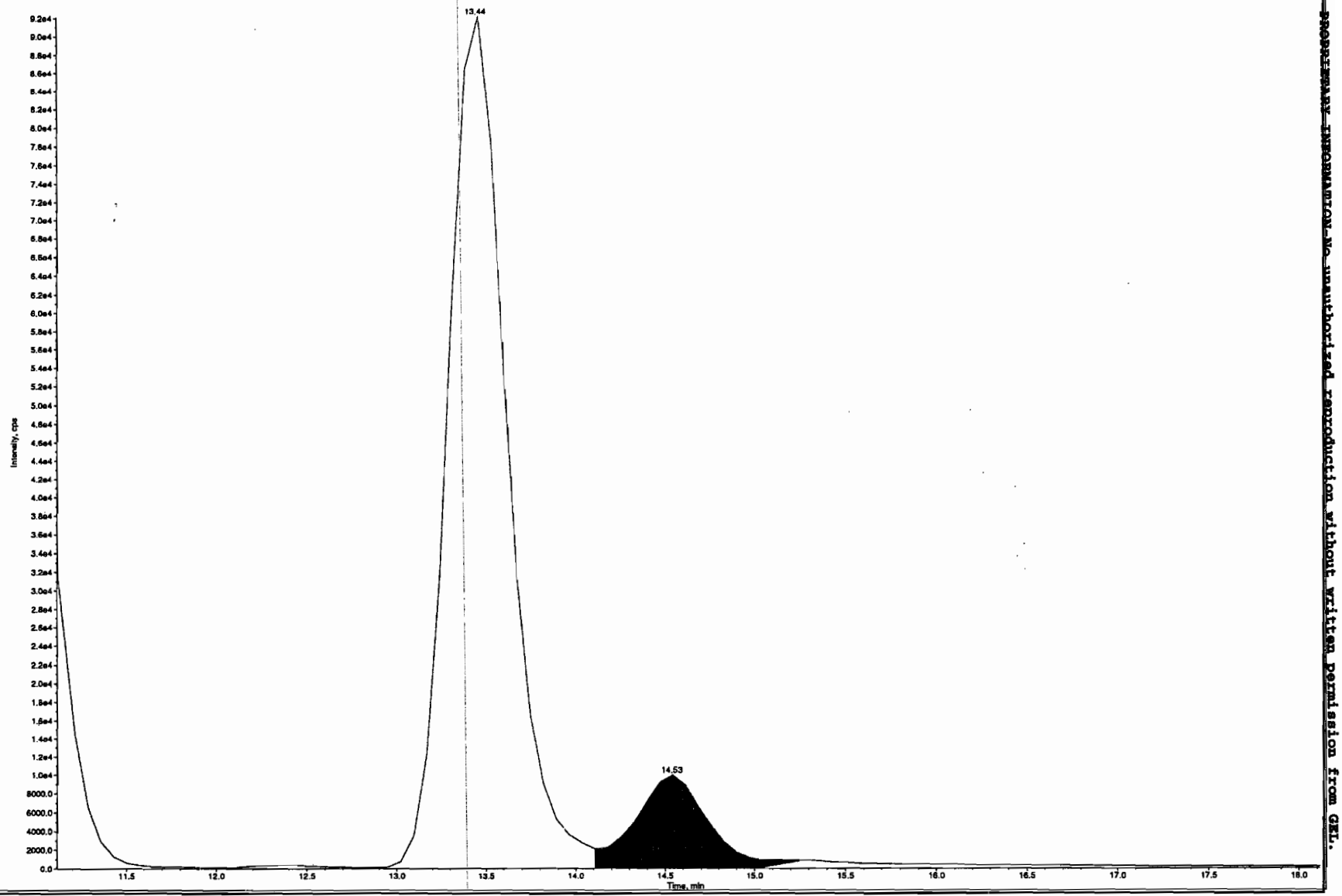

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GEL SOP GL-OA-E-056, Method 8321A-Modified

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LCMSMS#3

Data File	EXP0322004.wiff	Acquisition Date	3/22/2010 4:52:08 PM
Sample Name	WXX100322-51	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_I	Sample Type	Standard

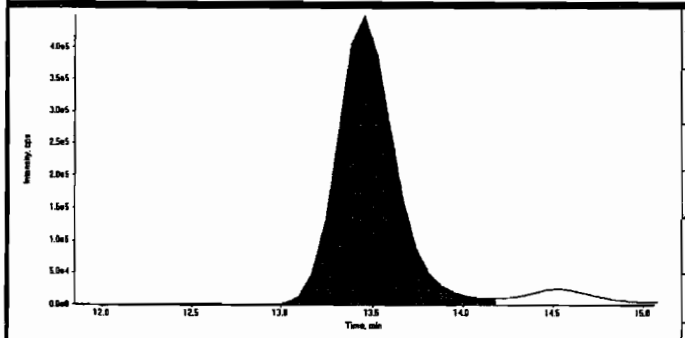

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.02e+007
Manual Modification	No
Amount:	58.4 (ng/mL)
% Accuracy:	117.00

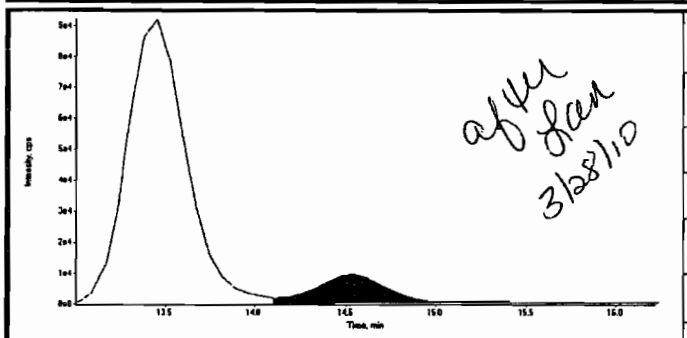

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.5
Area Counts:	2.73e+005
Manual Modification	Yes
Amount:	49.6 (ng/mL)
% Accuracy:	99.20

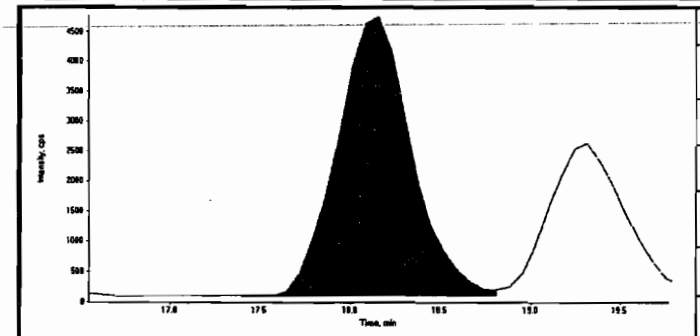

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.2
Area Counts:	1.34e+005
Manual Modification	No
Amount:	51.8 (ng/mL)
% Accuracy:	104.00

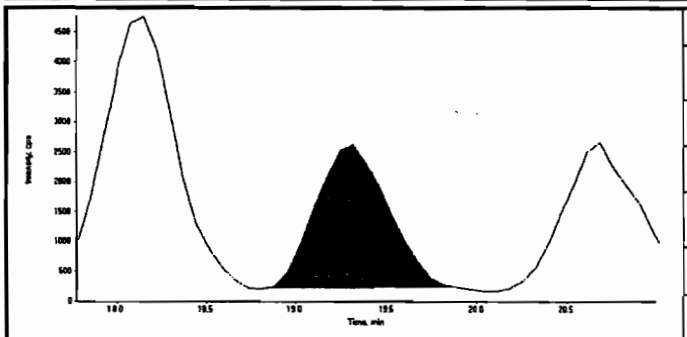

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.3
Area Counts:	6.71e+004
Manual Modification	No
Amount:	52.1 (ng/mL)
% Accuracy:	104.00

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322004.wiff	**Acquisition Date**	3/22/2010 4:52:08 PM
Sample Name	WXX100322-51	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

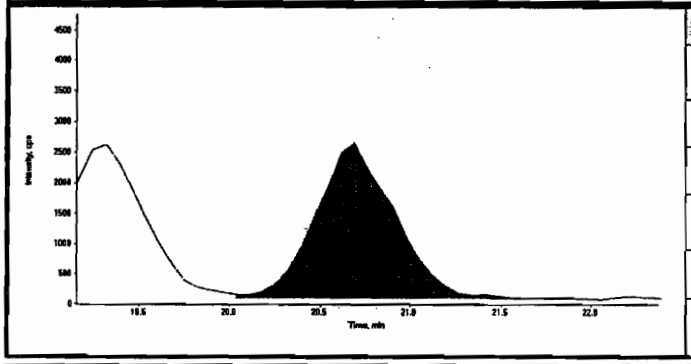

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.7
Area Counts:	7.96e+004
Manual Modification	No
Amount:	52.0 (ng/mL)
% Accuracy:	104.00

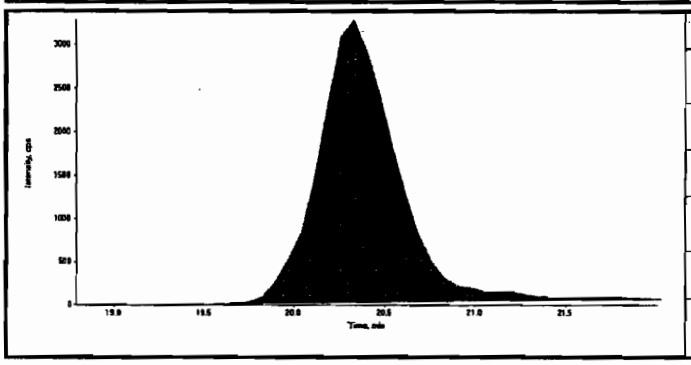

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.3
Area Counts:	9.94e+004
Manual Modification	No
Amount:	50.4 (ng/mL)
% Accuracy:	101.00

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322005.wiff	**Acquisition Date**	3/22/2010 5:18:27 PM
Sample Name	WXX100322-52	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

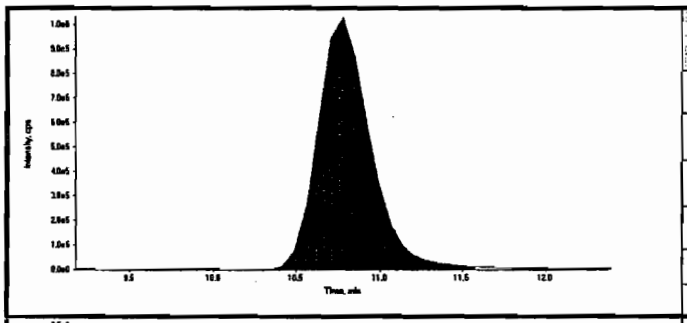

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	22600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

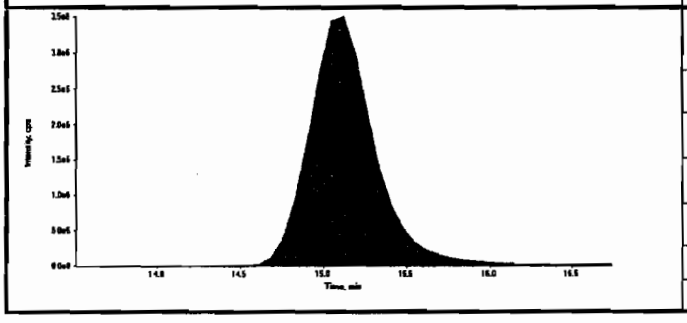

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.10
Area Counts:	96300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

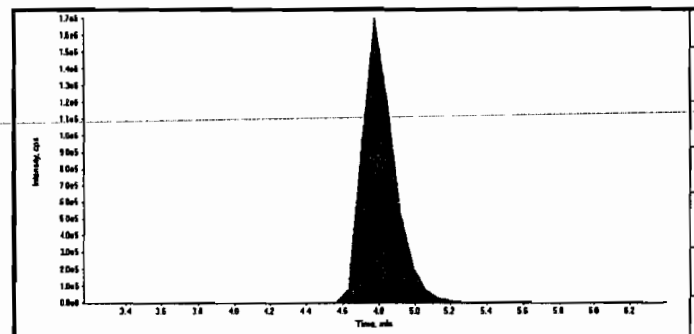

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	2.10e+007
Manual Modification	No
Amount:	208. (ng/mL)
% Accuracy:	104.00

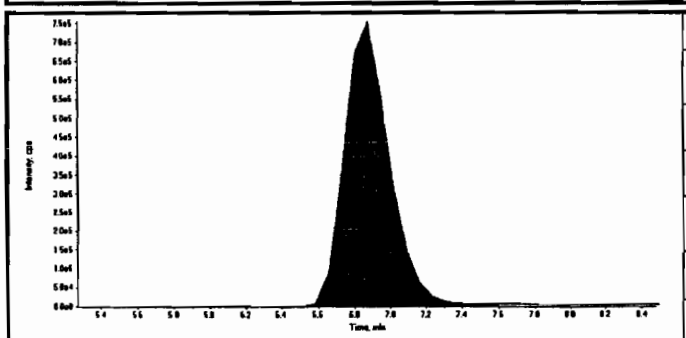

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	1.32e+007
Manual Modification	No
Amount:	192. (ng/mL)
% Accuracy:	95.80

JMK 03/28/10
LCM 3/28/10

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Data File	EXP0322005.wiff	**Acquisition Date**	3/22/2010 5:18:27 PM
Sample Name	WXX100322-52	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

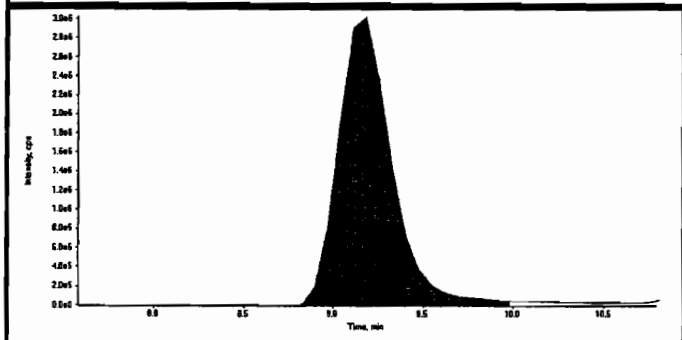

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.19
Area Counts:	6.30e+007
Manual Modification	No
Amount:	215. (ng/mL)
% Accuracy:	108.00

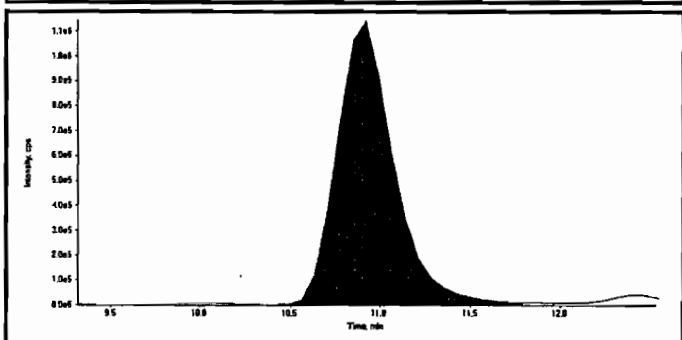

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	2.53e+007
Manual Modification	No
Amount:	211. (ng/mL)
% Accuracy:	106.00

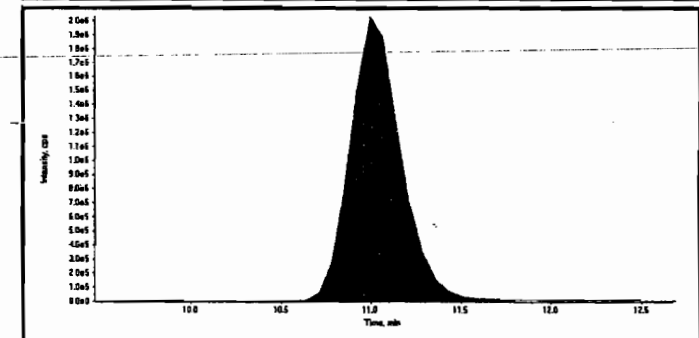

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.0
Area Counts:	4.03e+007
Manual Modification	No
Amount:	209. (ng/mL)
% Accuracy:	104.00

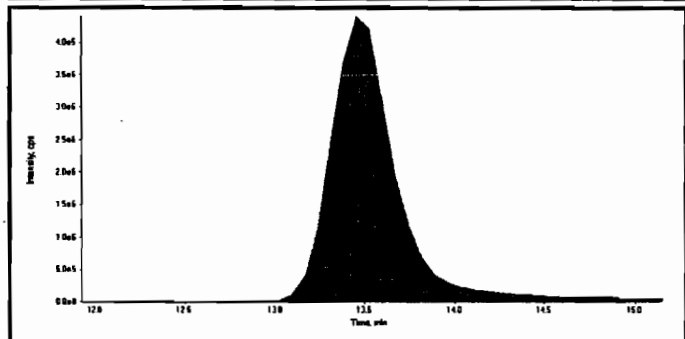

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.16e+008
Manual Modification	No
Amount:	207. (ng/mL)
% Accuracy:	103.00

Before Ran 3/28/10

Sample Name: "WXX100322-52" Sample ID: "[1]LER" File: "EXP0322005.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

mple Index:	1	
mple Type:	Standard	
ncentration:	200.	ng/mL
lculated Conc:	0.00	ng/mL
q. Date:	3/22/2010	
q. Time:	5:18:27 PM	
diflad:	Yes	

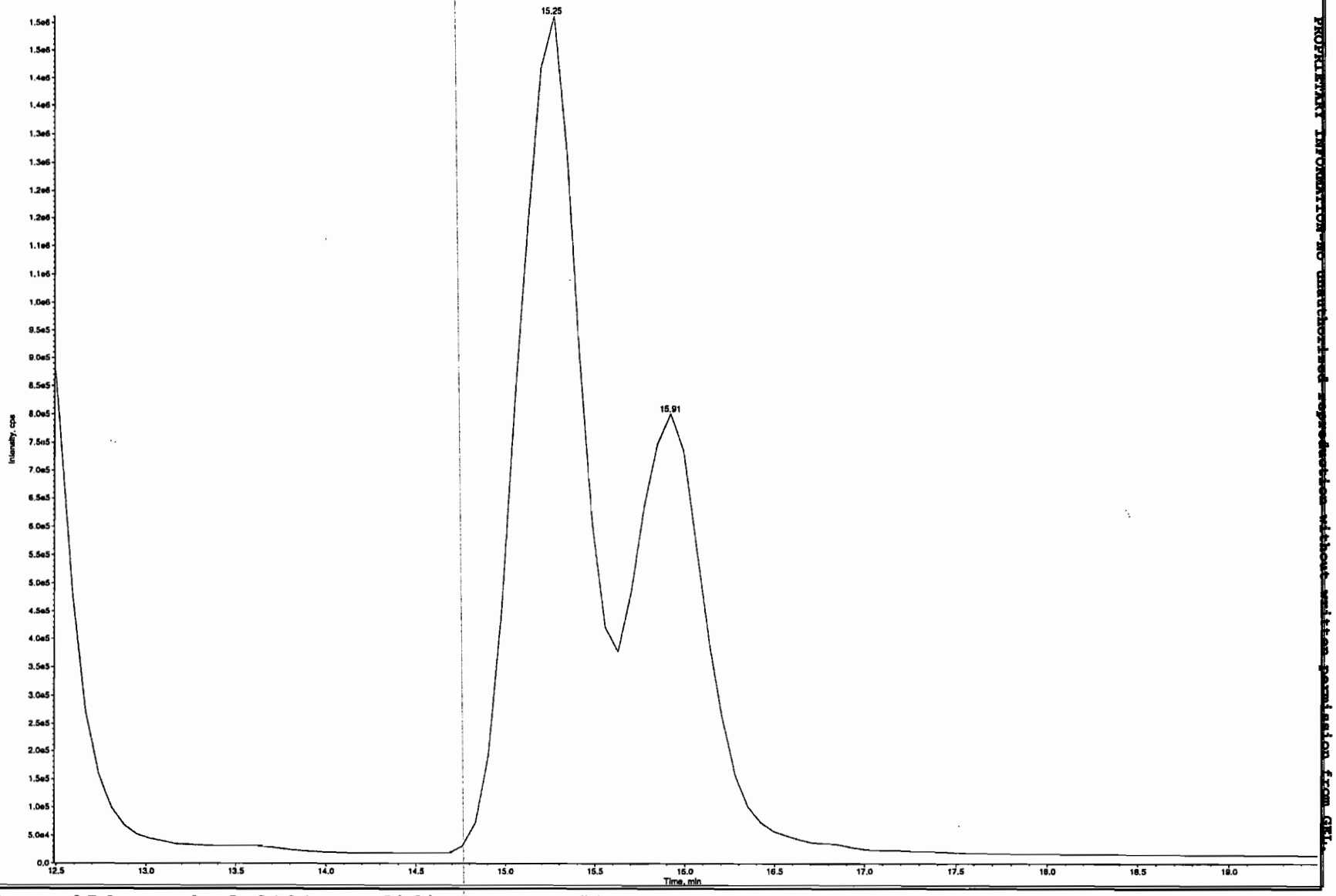

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

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LCMSMS#3

Data File	EXP0322005.wiff	**Acquisition Date**	3/22/2010 5:18:27 PM
Sample Name	WXX100322-52	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

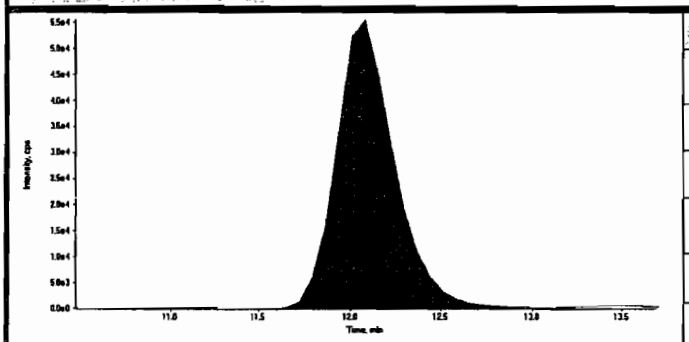

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	1.25e+006
Manual Modification	No
Amount:	204. (ng/mL)
% Accuracy:	102.00

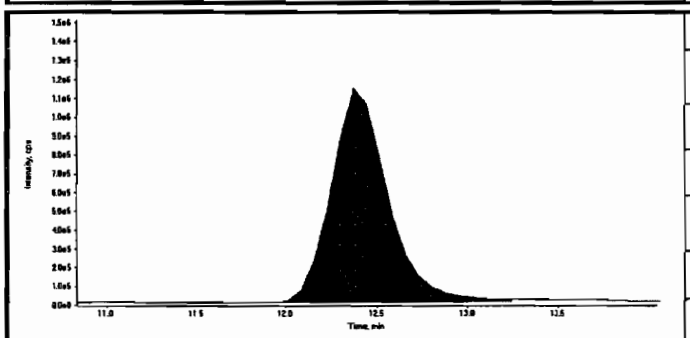

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	2.52e+007
Manual Modification	No
Amount:	101. (ng/mL)
% Accuracy:	101.00

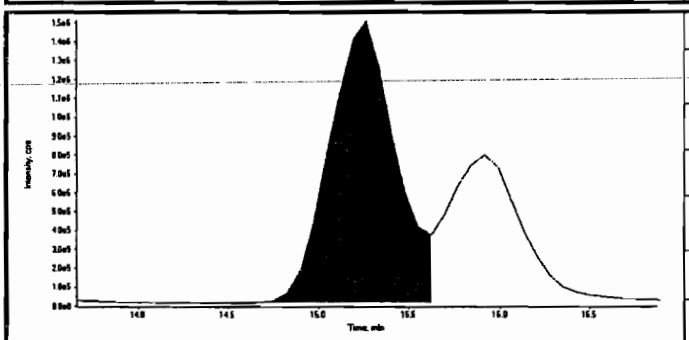

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	3.88e+007
Manual Modification	No
Amount:	207. (ng/mL)
% Accuracy:	104.00

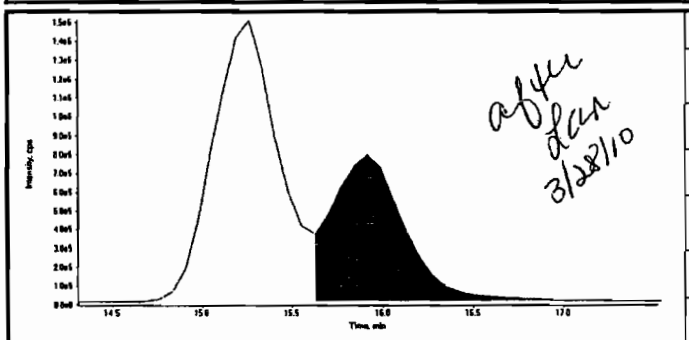

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dcn
3/28/10

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.9
Actual RT:	15.9
Area Counts:	2.18e+007
Manual Modification	Yes
Amount:	193. (ng/mL)
% Accuracy:	96.70

Before Lcn 3/28/10

Sample Name: "WXX100322-S2" Sample ID: "[1]LER" File: "EXP0322005.wiff"
Peak Name: "2-Amino-4-6-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

ample Index:	1	
ample Type:	Standard	
oncentration:	200.	ng/mL
alculated Conc:	244.	ng/mL
eq. Date:	3/22/2010	
eq. Time:	5:18:27 PM	
odified:	No	
or. Algorithm:	IntelliQuan - IQA	
n. Peak Height:	1000.00	cps
n. Peak Width:	0.00	sec
moothing Width:	3	points
Window:	30.0	sec
pected RT:	14.6	min
e Relative RT:	No	
t. Type:	Valley	
tention Time:	14.5	min
ea:	3.60e+006	counts
eight:	6.20e+004	cps
art Time:	14.1	min
d Time:	17.1	min

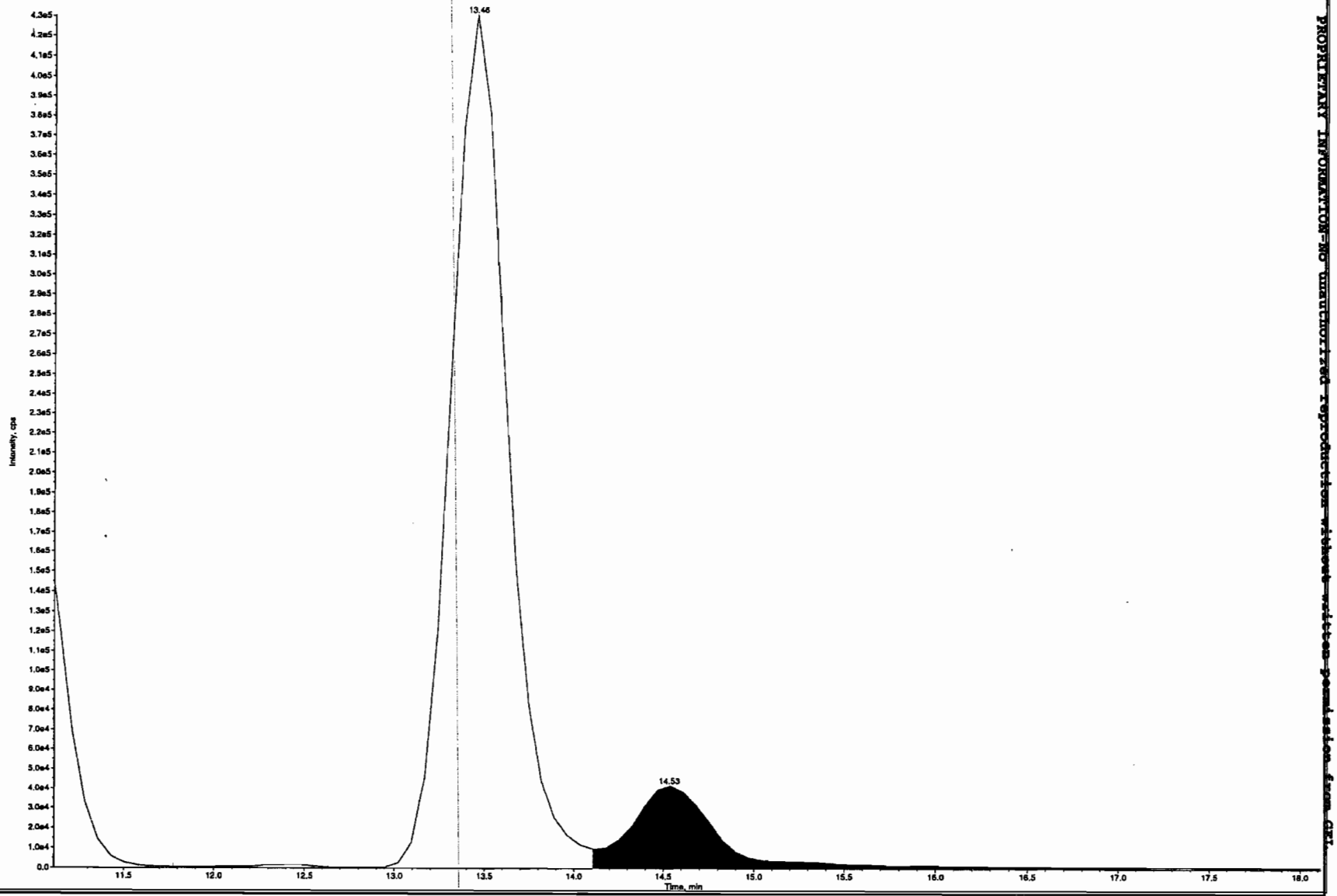

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Data File	EXP0322005.wiff	**Acquisition Date**	3/22/2010 5:18:27 PM
Sample Name	WXX100322-52	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

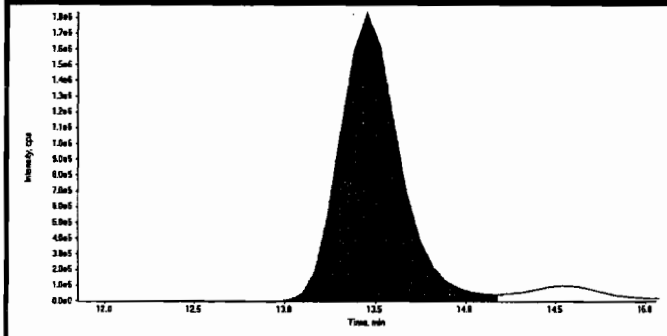

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	4.22e+007
Manual Modification	No
Amount:	208. (ng/mL)
% Accuracy:	104.00

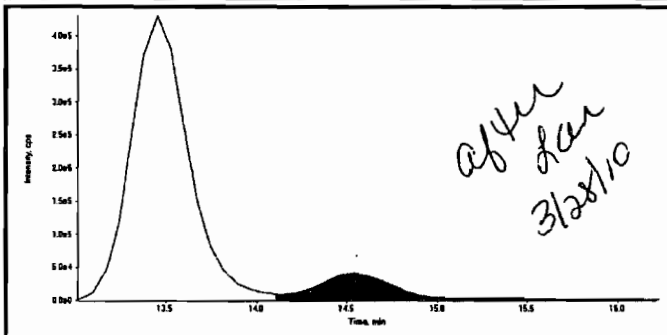

after Lan 3/28/10

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.5
Area Counts:	1.30e+006
Manual Modification	Yes
Amount:	202. (ng/mL)
% Accuracy:	101.00

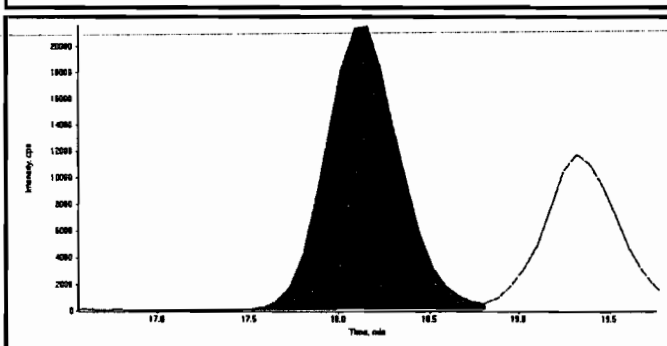

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.2
Area Counts:	6.21e+005
Manual Modification	No
Amount:	206. (ng/mL)
% Accuracy:	103.00

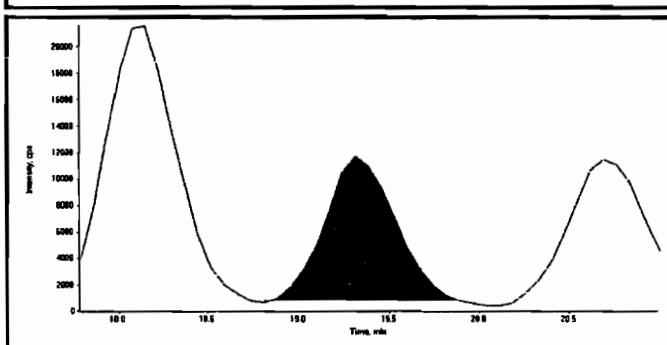

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.3
Area Counts:	2.96e+005
Manual Modification	No
Amount:	197. (ng/mL)
% Accuracy:	98.50

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322005.wiff	**Acquisition Date**	3/22/2010 5:18:27 PM
Sample Name	WXX100322-52	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

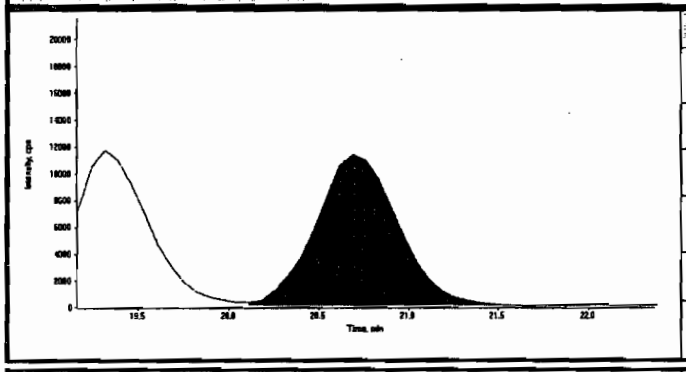

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.7
Area Counts:	3.63e+005
Manual Modification	No
Amount:	203. (ng/mL)
% Accuracy:	102.00

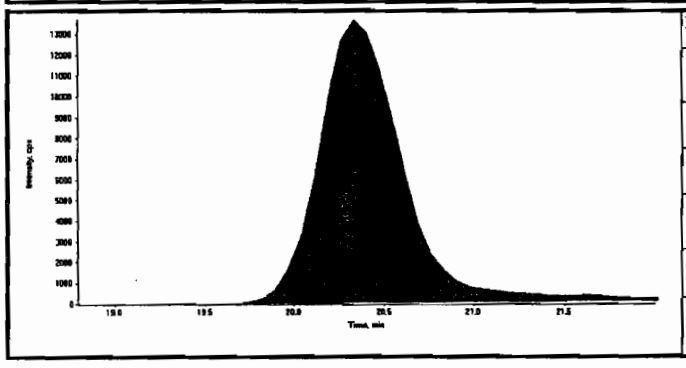

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.3
Area Counts:	4.46e+005
Manual Modification	No
Amount:	194. (ng/mL)
% Accuracy:	97.00

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322006.wiff	**Acquisition Date**	3/22/2010 5:44:50 PM
Sample Name	WXX100322-53	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

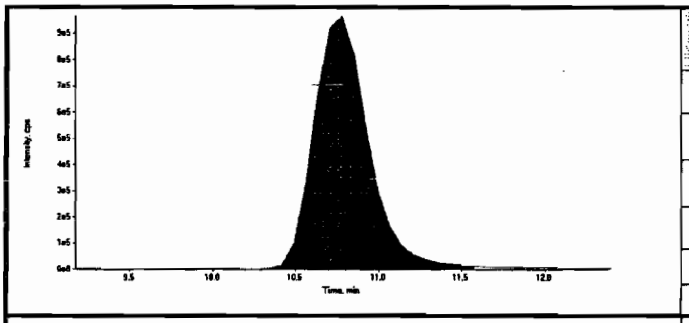

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	22100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

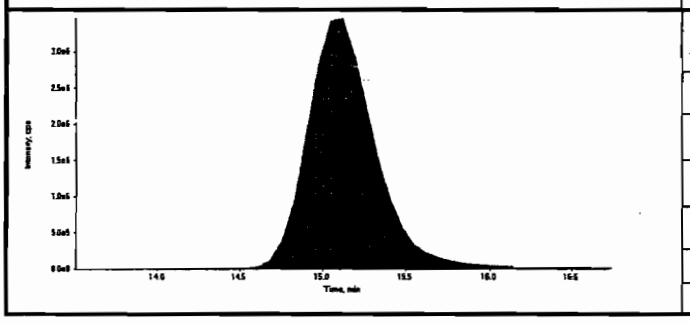

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.10
Area Counts:	98000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

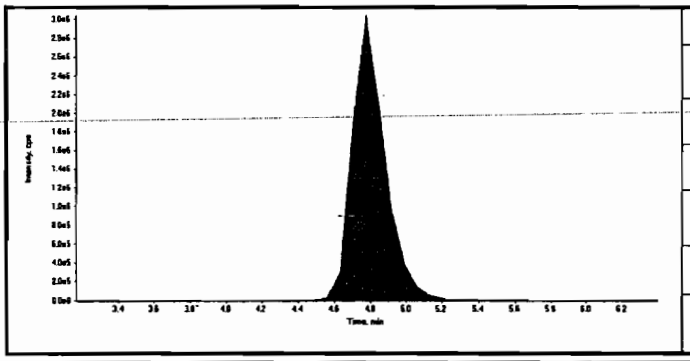

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	3.88e+007
Manual Modification	No
Amount:	402. (ng/mL)
% Accuracy:	101.00

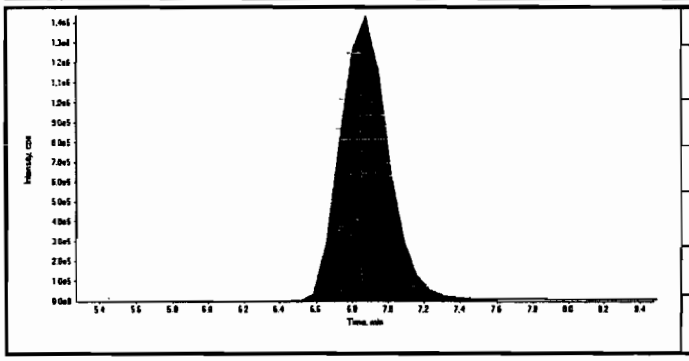

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	2.69e+007
Manual Modification	No
Amount:	399. (ng/mL)
% Accuracy:	99.70

AMK 03/26/10 Lan 3/28/10

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Data File	EXP0322006.wiff	**Acquisition Date**	3/22/2010 5:44:50 PM
Sample Name	WXX100322-53	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

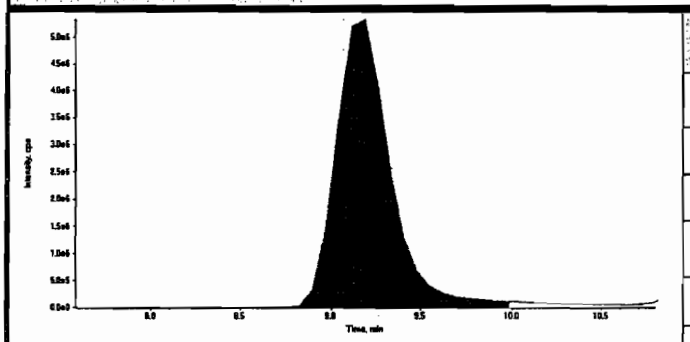

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.19
Area Counts:	1.12e+008
Manual Modification	No
Amount:	392. (ng/mL)
% Accuracy:	98.00

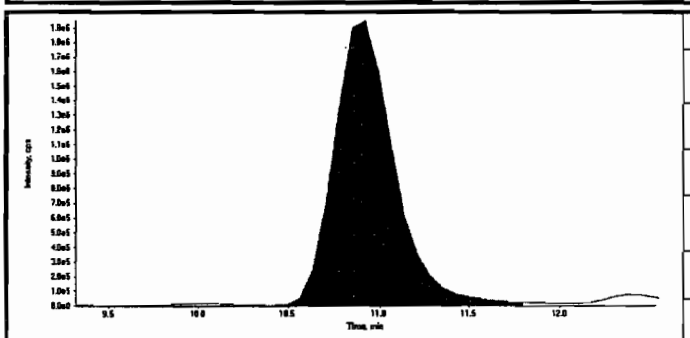

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	4.55e+007
Manual Modification	No
Amount:	387. (ng/mL)
% Accuracy:	96.90

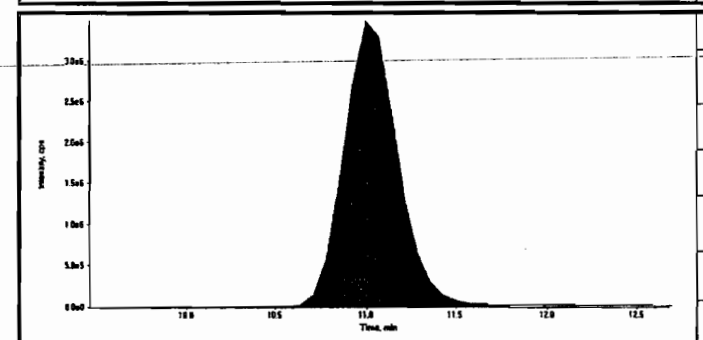

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.0
Area Counts:	7.26e+007
Manual Modification	No
Amount:	385. (ng/mL)
% Accuracy:	96.20

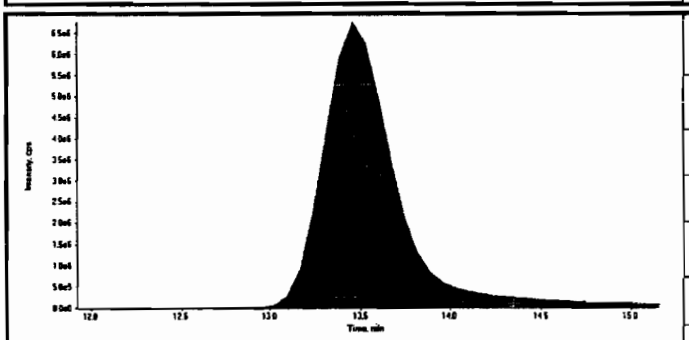

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.95e+008
Manual Modification	No
Amount:	369. (ng/mL)
% Accuracy:	92.30

Before Ken 3/28/10

Sample Name: "WXX100322-53" Sample ID: "[1]LER" File: "EXP0322006.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/48.0 amu"
Comment: "LCMSEXP_1" Annotation: ""

ample Index:	1	
ample Type:	Standard	
ncentration:	400.	ng/mL
alculated Conc:	0.00	ng/mL
q. Date:	3/22/2010	
q. Time:	5:44:50 PM	
odified:	No	

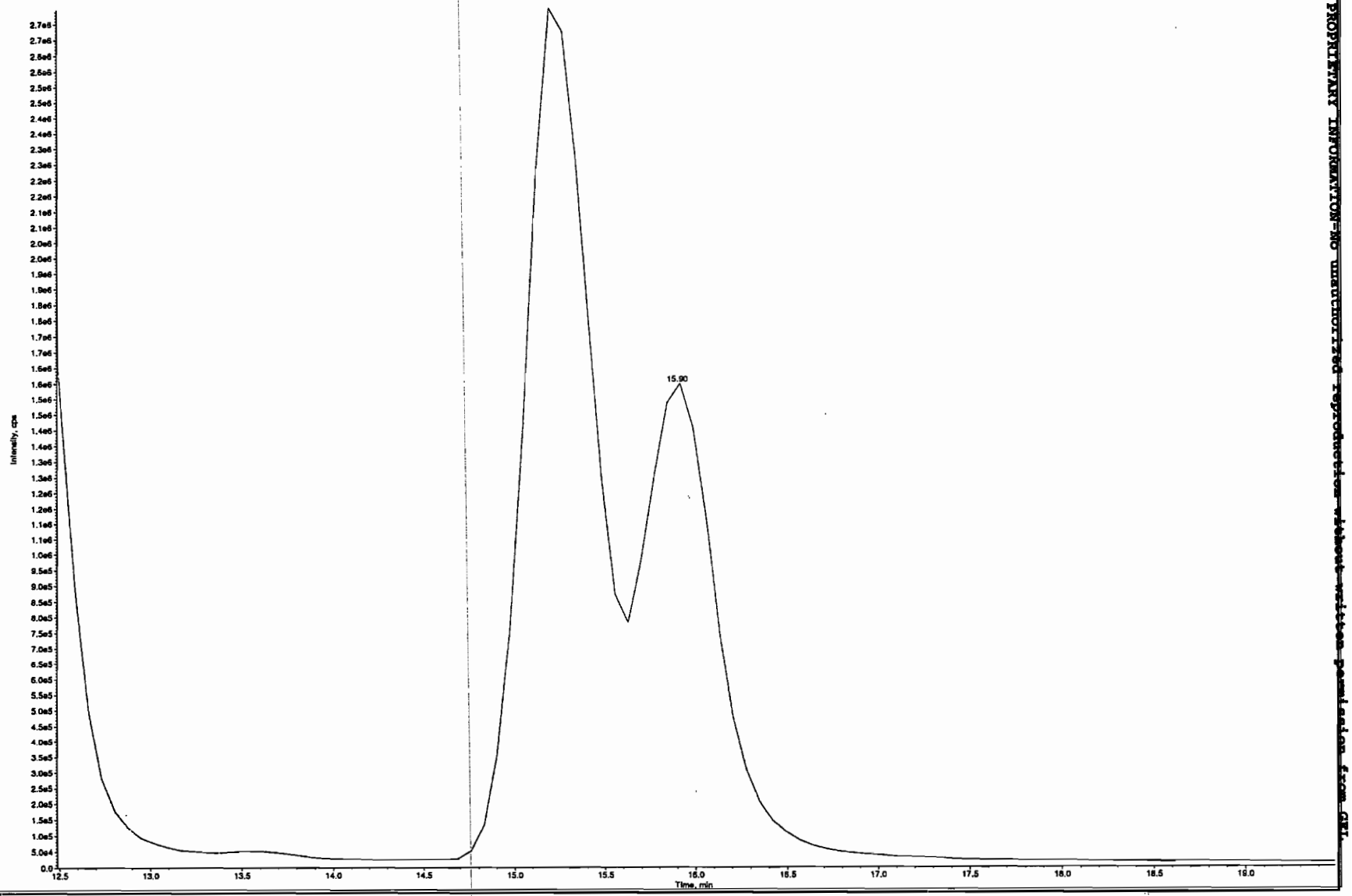

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322006.wiff	**Acquisition Date**	3/22/2010 5:44:50 PM
Sample Name	WXX100322-53	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

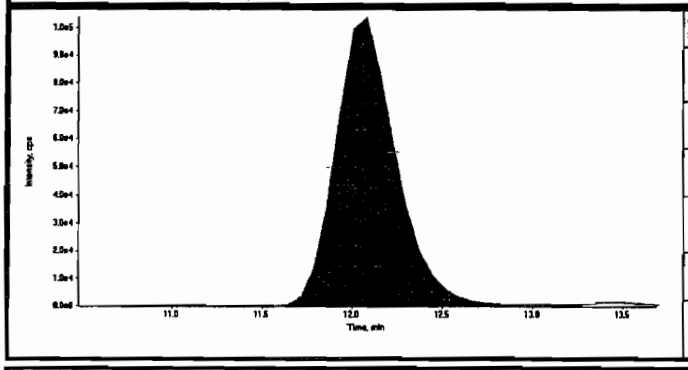

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	2.40e+006
Manual Modification	No
Amount:	402. (ng/mL)
% Accuracy:	101.00

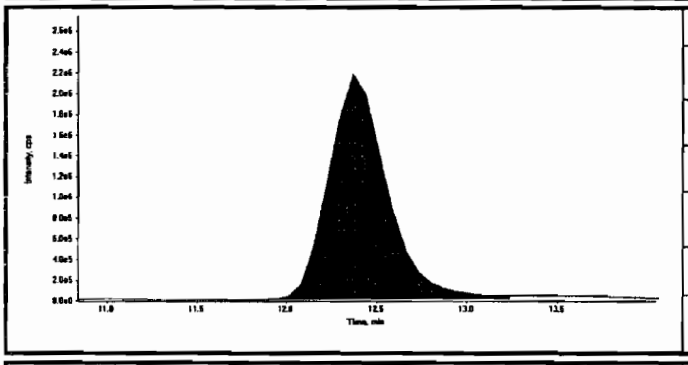

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	4.89e+007
Manual Modification	No
Amount:	193. (ng/mL)
% Accuracy:	96.50

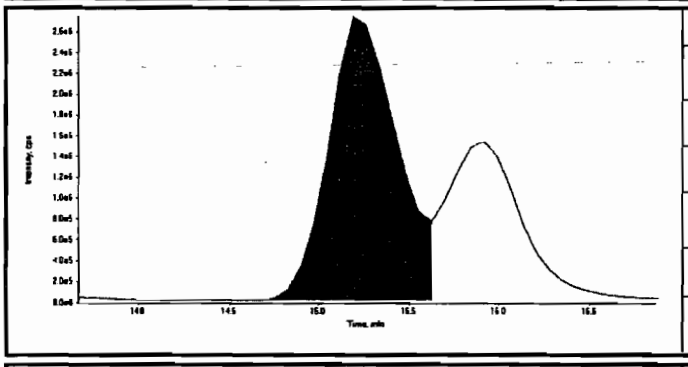

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.2
Area Counts:	7.34e+007
Manual Modification	No
Amount:	385. (ng/mL)
% Accuracy:	96.40

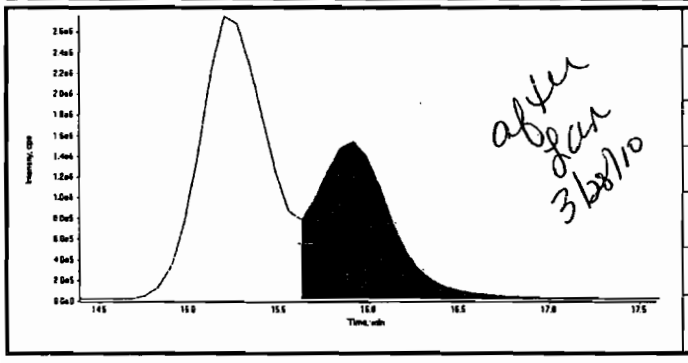

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	15.9
Area Counts:	4.42e+007
Manual Modification	Yes
Amount:	386. (ng/mL)
% Accuracy:	96.40

Before Chan 3/28/10

nple Name: "WXX100322-53" Sample ID: "[1]LER" File: "EXP0322006.wiff"
sk Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
nment: "LCMSEXP_1" Annotation: ""

.e Index:	1	
.e Type:	Standard	
ntration:	400.	ng/mL
lated Conc:	313.	ng/mL
Date:	3/23/2010	
Time:	5:44:50 PM	
.ied:	No	
Algorithm:	IntelliQuan - IQA	
Peak Height:	1880.00	cps
Peak Width:	0.00	sec
hing Width:	3	points
ndow:	10.0	sec
ted RT:	14.6	min
elective RT:	No	
Type:	Valley	
tion Time:	14.5	min
	3.73e+006	counts
t:	1.00e+005	cps
Time:	14.1	min
ime:	15.2	min

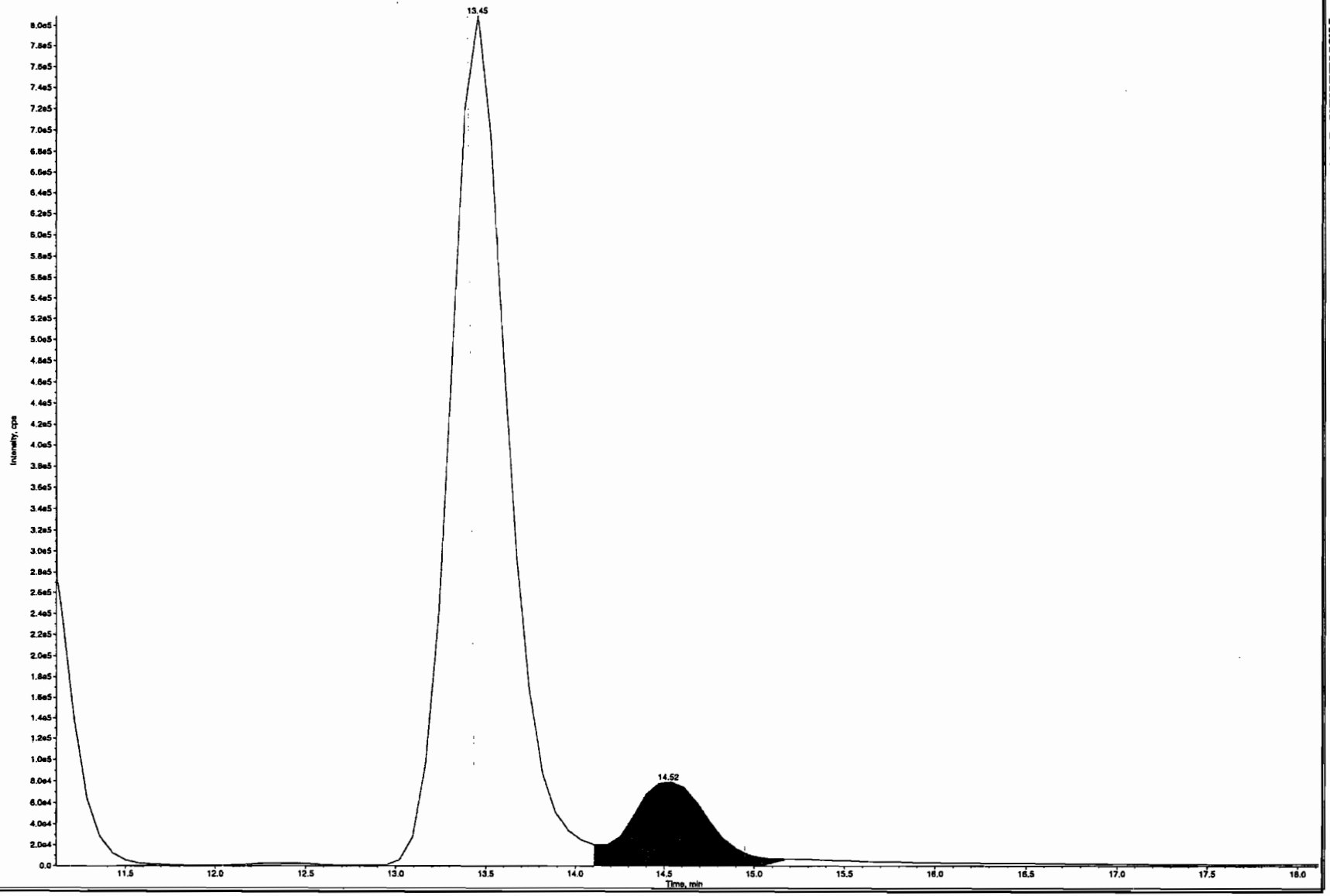

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Data File	EXP0322006.wiff	**Acquisition Date**	3/22/2010 5:44:50 PM
Sample Name	WXX100322-53	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

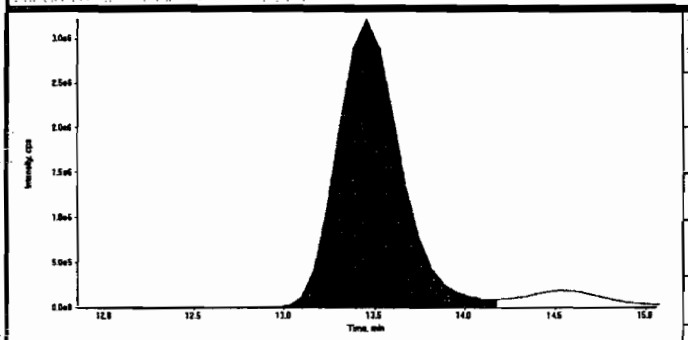

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	7.84e+007
Manual Modification	No
Amount:	379. (ng/mL)
% Accuracy:	94.80

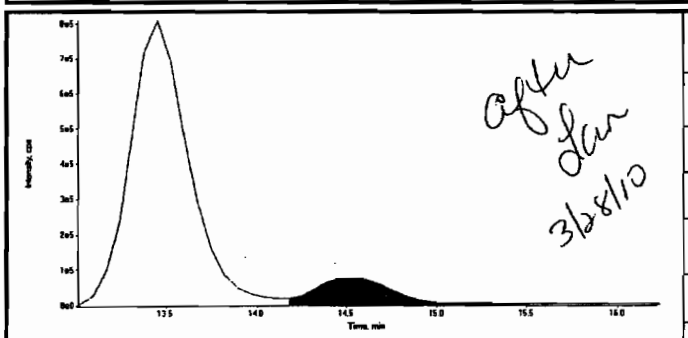

after flow 3/28/10

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.5
Area Counts:	2.39e+006
Manual Modification	Yes
Amount:	366. (ng/mL)
% Accuracy:	91.50

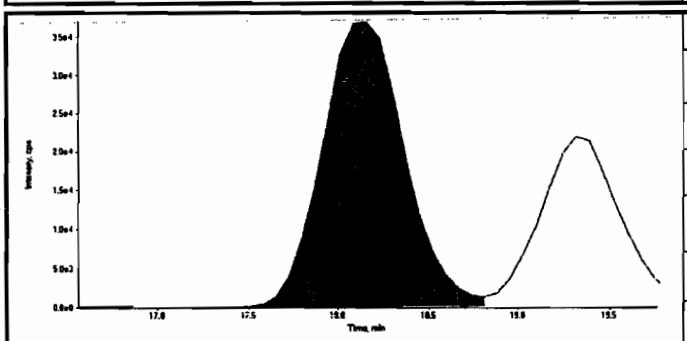

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.2
Area Counts:	1.17e+006
Manual Modification	No
Amount:	381. (ng/mL)
% Accuracy:	95.30

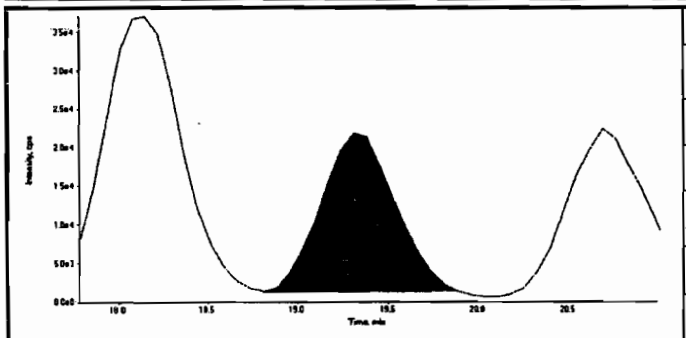

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.3
Area Counts:	5.96e+005
Manual Modification	No
Amount:	390. (ng/mL)
% Accuracy:	97.40

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322006.wiff	**Acquisition Date**	3/22/2010 5:44:50 PM
Sample Name	WXX100322-53	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

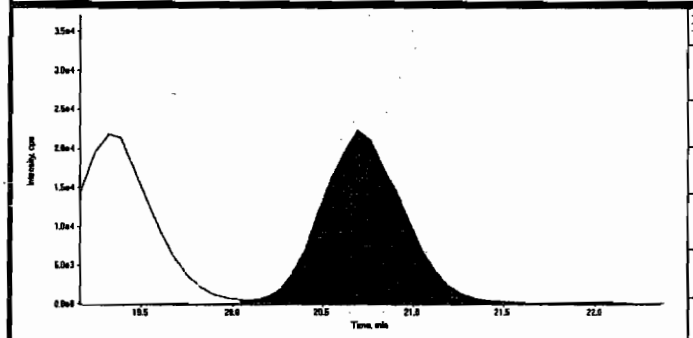

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.7
Area Counts:	7.11e+005
Manual Modification	No
Amount:	391. (ng/mL)
% Accuracy:	97.90

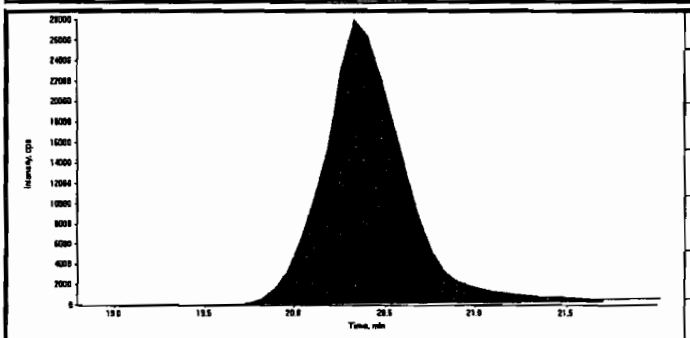

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.3
Area Counts:	8.51e+005
Manual Modification	No
Amount:	364. (ng/mL)
% Accuracy:	90.90

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322007.wiff	**Acquisition Date**	3/22/2010 6:11:20 PM
Sample Name	WXX100322-54	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	Standard

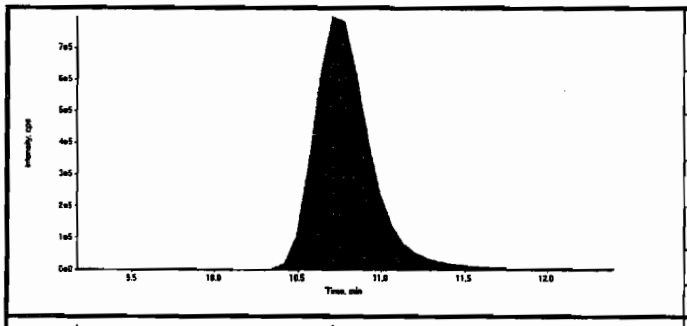

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.70
Area Counts:	18800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

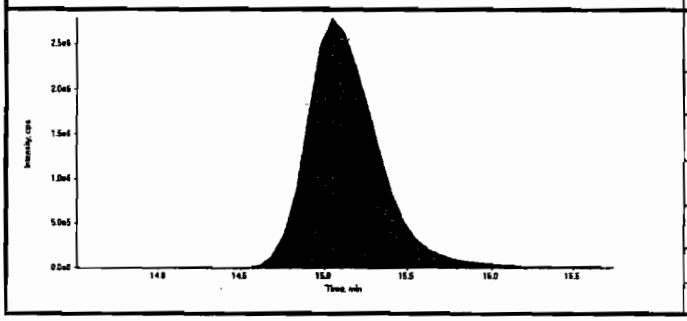

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.00
Area Counts:	82400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

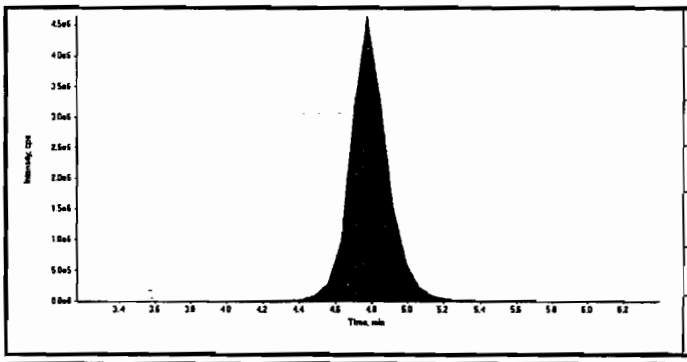

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	6.59e+007
Manual Modification	No
Amount:	812. (ng/mL)
% Accuracy:	102.00

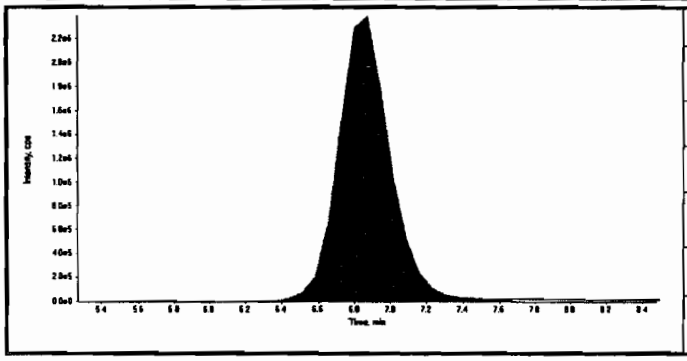

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	4.79e+007
Manual Modification	No
Amount:	834. (ng/mL)
% Accuracy:	104.00

dhmc 03/26/10
Lan 3/28/10

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Data File	EXP0322007.wiff	**Acquisition Date**	3/22/2010 6:11:20 PM
Sample Name	WXX100322-54	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

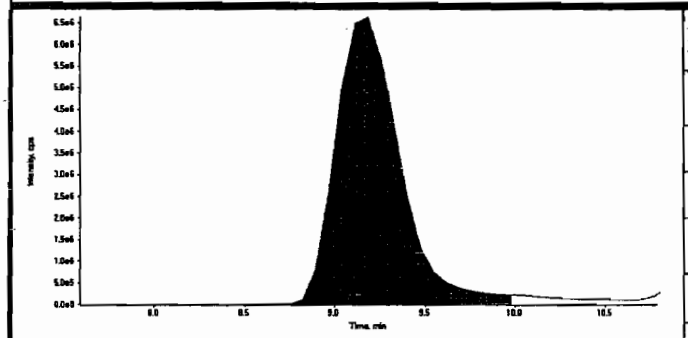

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.19
Area Counts:	1.65e+008
Manual Modification	No
Amount:	676. (ng/mL)
% Accuracy:	84.50

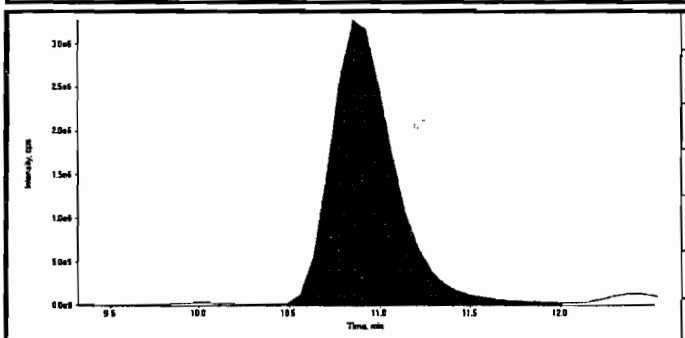

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	7.92e+007
Manual Modification	No
Amount:	793. (ng/mL)
% Accuracy:	99.10

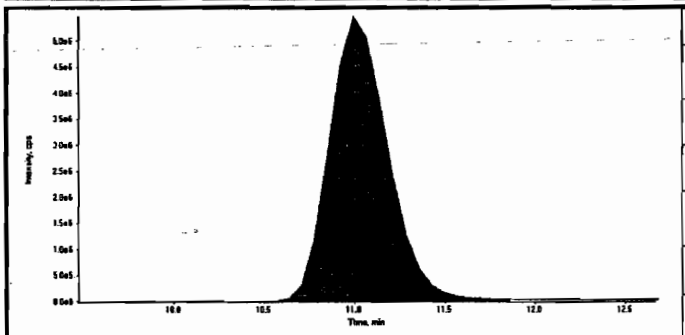

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.0
Area Counts:	1.24e+008
Manual Modification	No
Amount:	770. (ng/mL)
% Accuracy:	96.30

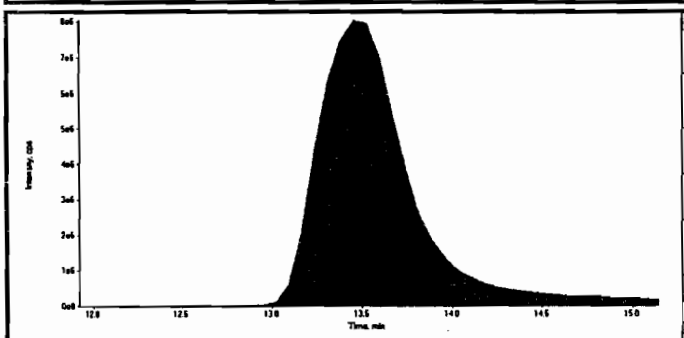

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	3.01e+008
Manual Modification	No
Amount:	866. (ng/mL)
% Accuracy:	108.00

Before Lan 3/28/10

mple Name: "WXX100322-54" Sample ID: "]1jLER" File: "EXP0322007.wiff"
sk Name: "24-dinitrotoluene" Mass(es): "182.0/48.0 amu"
mment: "LCMSEXP_I" Annotation: ""
le Index: 1
le Type: Standard
ntration: 800. ng/mL
ilated Conc: 0.00 ng/mL
Date: 3/22/2010
Time: 6:11:20 PM

led: No

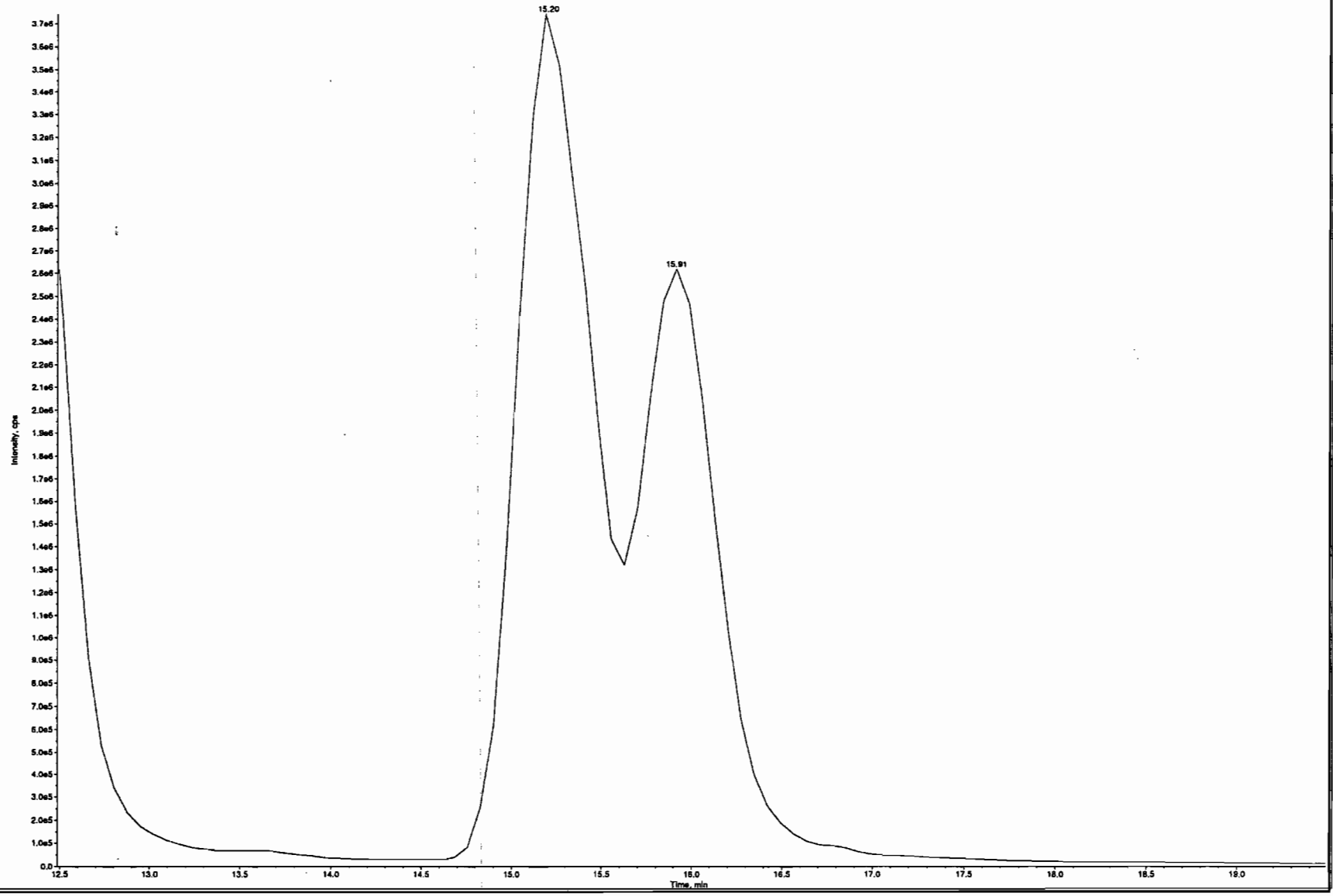

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322007.wiff	Acquisition Date	3/22/2010 6:11:20 PM
Sample Name	WXX100322-54	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_I	Sample Type	Standard

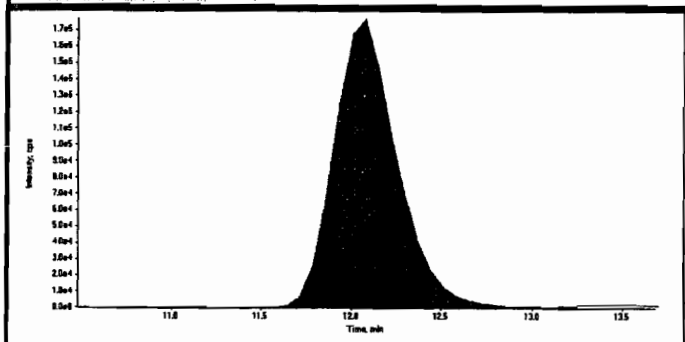

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	4.30e+006
Manual Modification	No
Amount:	847. (ng/mL)
% Accuracy:	106.00

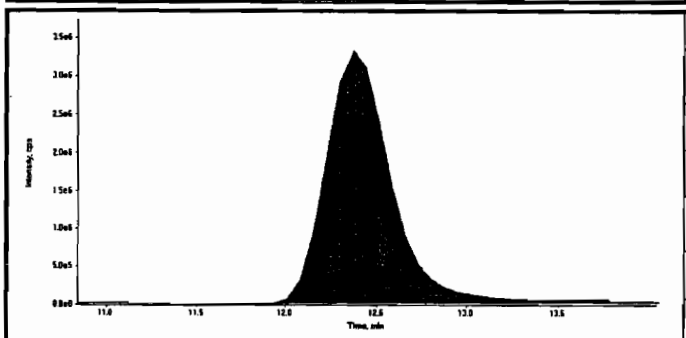

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	8.43e+007
Manual Modification	No
Amount:	396. (ng/mL)
% Accuracy:	98.90

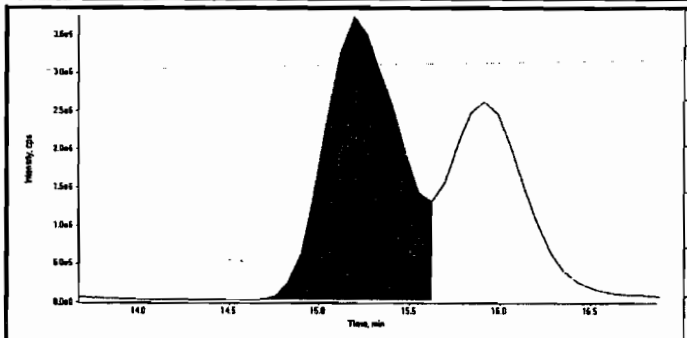

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.2
Area Counts:	1.10e+008
Manual Modification	No
Amount:	684. (ng/mL)
% Accuracy:	85.50

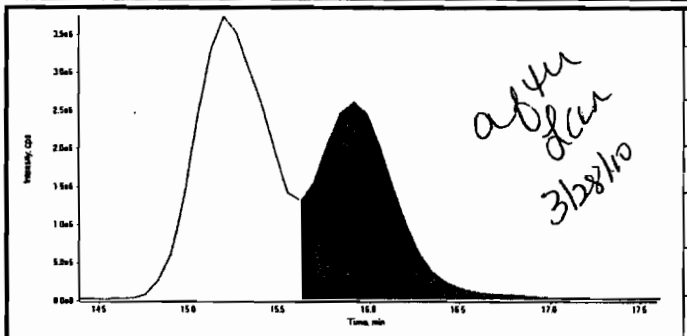

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	15.9
Area Counts:	7.89e+007
Manual Modification	Yes
Amount:	819. (ng/mL)
% Accuracy:	102.00

Before Lan 3/28/10

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ple Name: "WXX100322-54" Sample ID: "[1]LER" File: "EXP0322007.wiff"
k Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
ment: "LCMSEXP_I" Annotation: ""
e Index: 1
e Type: Standard
ntration: 800. ng/mL
lated Conc: 1520. ng/mL
Date: 3/22/2010
Time: 6:11:20 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1000.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 14.6 min
elative RT: No

Type: Valley
tion Time: 14.5 min
1.45e+007 counts
t: 2.14e+005 cps
Time: 14.1 min
ime: 17.9 min

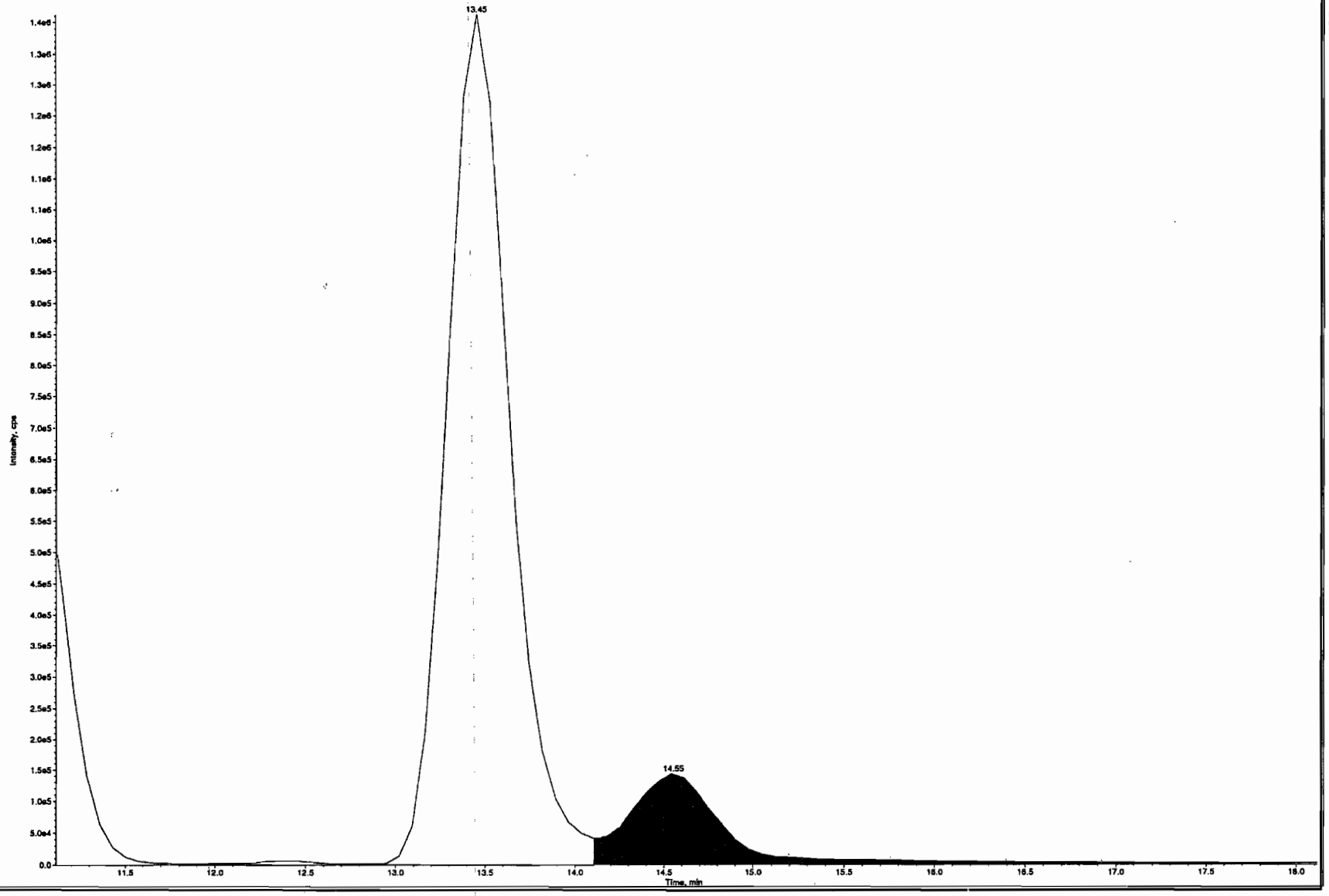

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322007.wiff	**Acquisition Date**	3/22/2010 6:11:20 PM
Sample Name	WXX100322-54	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

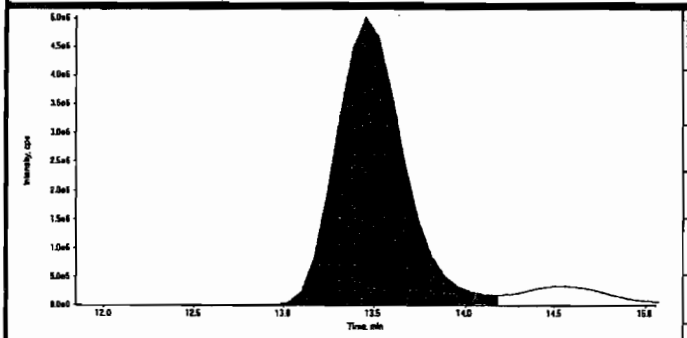

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.33e+008
Manual Modification	No
Amount:	762. (ng/mL)
% Accuracy:	95.30

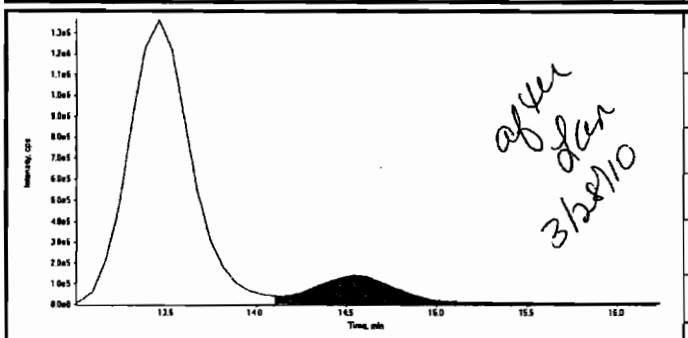

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.6
Area Counts:	4.95e+006
Manual Modification	Yes
Amount:	901. (ng/mL)
% Accuracy:	113.00

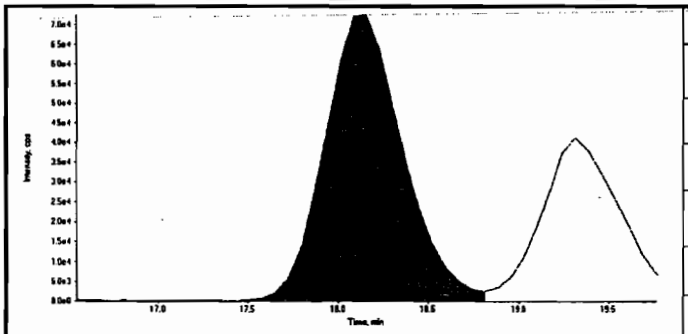

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.2
Area Counts:	2.20e+006
Manual Modification	No
Amount:	857. (ng/mL)
% Accuracy:	107.00

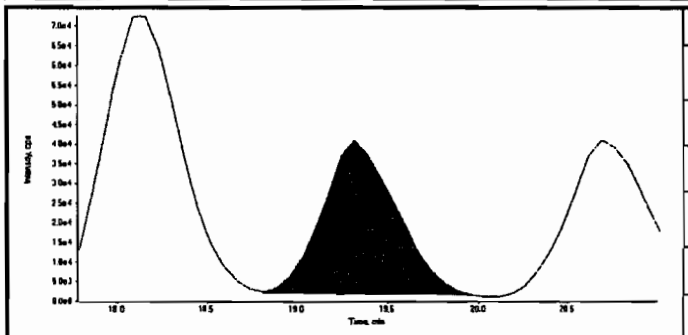

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.3
Area Counts:	1.14e+006
Manual Modification	No
Amount:	888. (ng/mL)
% Accuracy:	111.00

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322007.wiff	**Acquisition Date**	3/22/2010 6:11:20 PM
Sample Name	WXX100322-54	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

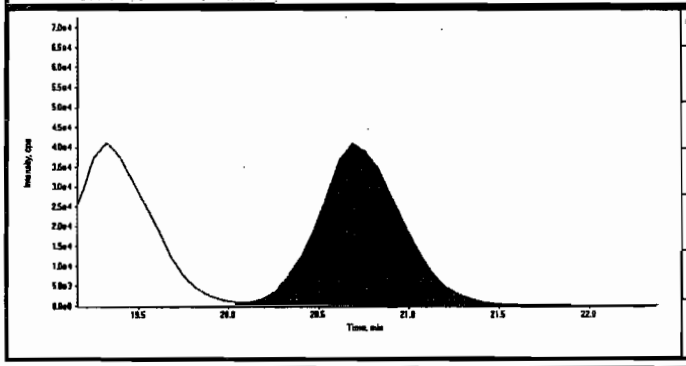

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.7
Area Counts:	1.33e+006
Manual Modification	No
Amount:	868. (ng/mL)
% Accuracy:	109.00

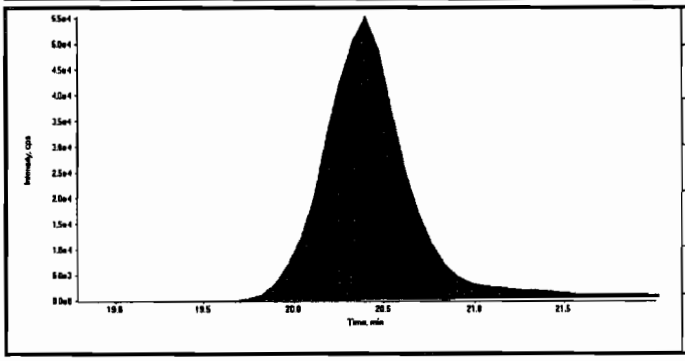

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.4
Area Counts:	1.74e+006
Manual Modification	No
Amount:	887. (ng/mL)
% Accuracy:	111.00

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322008.wiff	Acquisition Date	3/22/2010 6:37:39 PM
Sample Name	WXX100322-55	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_I	Sample Type	Standard

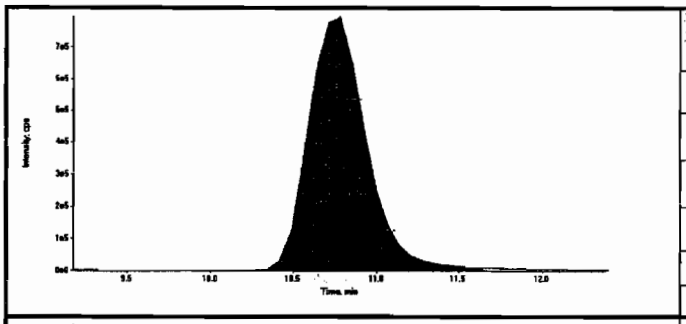

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	19300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

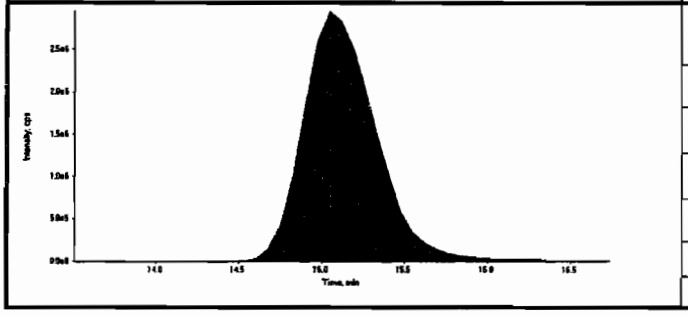

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.00
Area Counts:	89800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

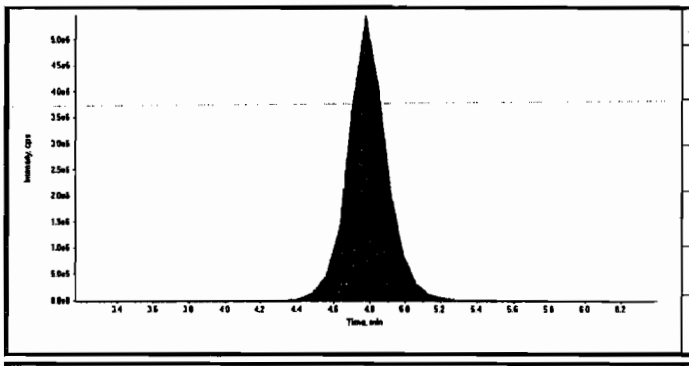

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	8.20e+007
Manual Modification	No
Amount:	988. (ng/mL)
% Accuracy:	98.80

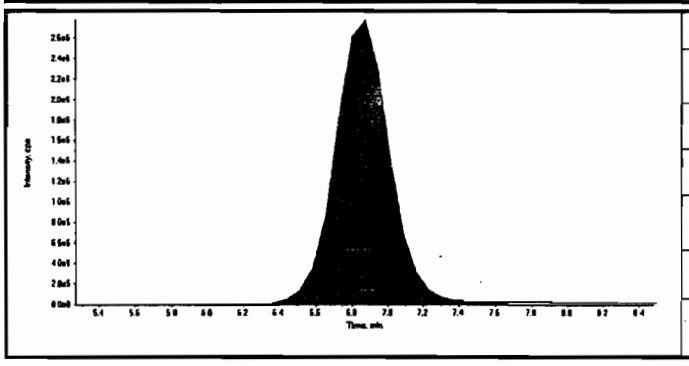

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	5.94e+007
Manual Modification	No
Amount:	1010. (ng/mL)
% Accuracy:	101.00

3/28/10 3/28/10

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Data File	EXP0322008.wiff	**Acquisition Date**	3/22/2010 6:37:39 PM
Sample Name	WXX100322-55	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

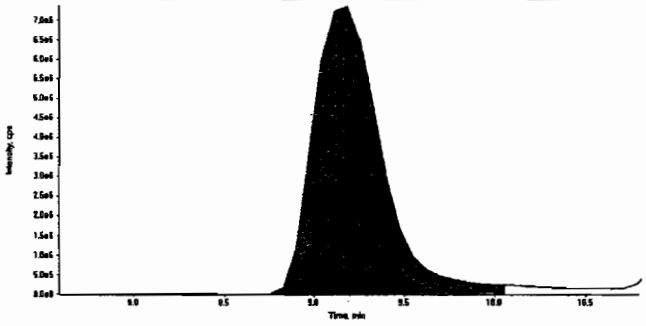

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.19
Area Counts:	1.95e+008
Manual Modification	No
Amount:	781. (ng/mL)
% Accuracy:	78.10

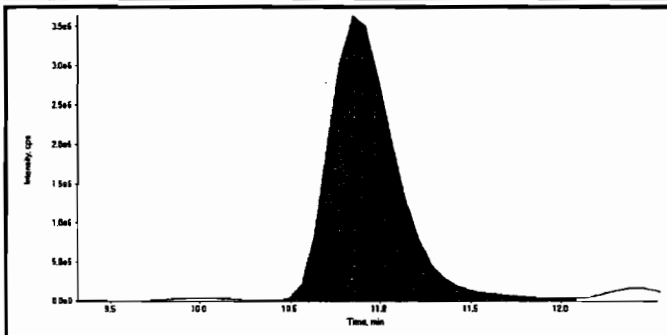

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	9.38e+007
Manual Modification	No
Amount:	916. (ng/mL)
% Accuracy:	91.60

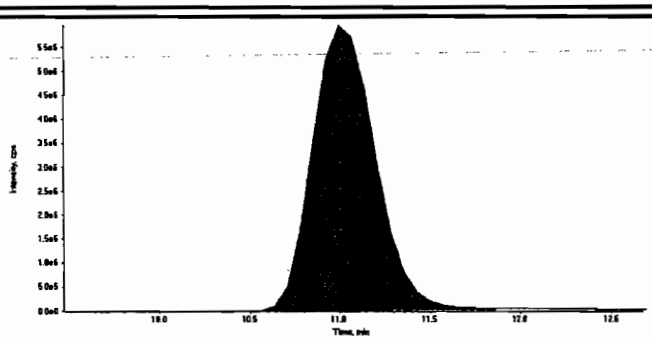

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.0
Area Counts:	1.47e+008
Manual Modification	No
Amount:	890. (ng/mL)
% Accuracy:	89.00

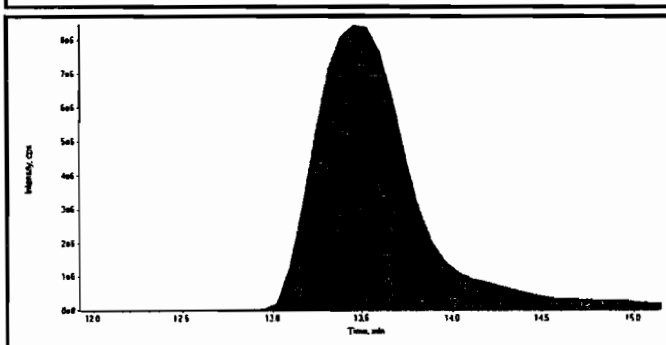

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	3.45e+008
Manual Modification	No
Amount:	953. (ng/mL)
% Accuracy:	95.30

Before Kan 3/28/10

mple Name: "WXX100322-55" Sample ID: "1)LER" File: "EXP0322008.wlf"
ak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
mment: "LCMSEXP_1" Annotation: ""
le Index: 1
le Type: Standard
entration: 1000. ng/mL
ulated Conc: 0.00 ng/mL
Date: 3/22/2010
Time: 6:27:39 PM

fied: No

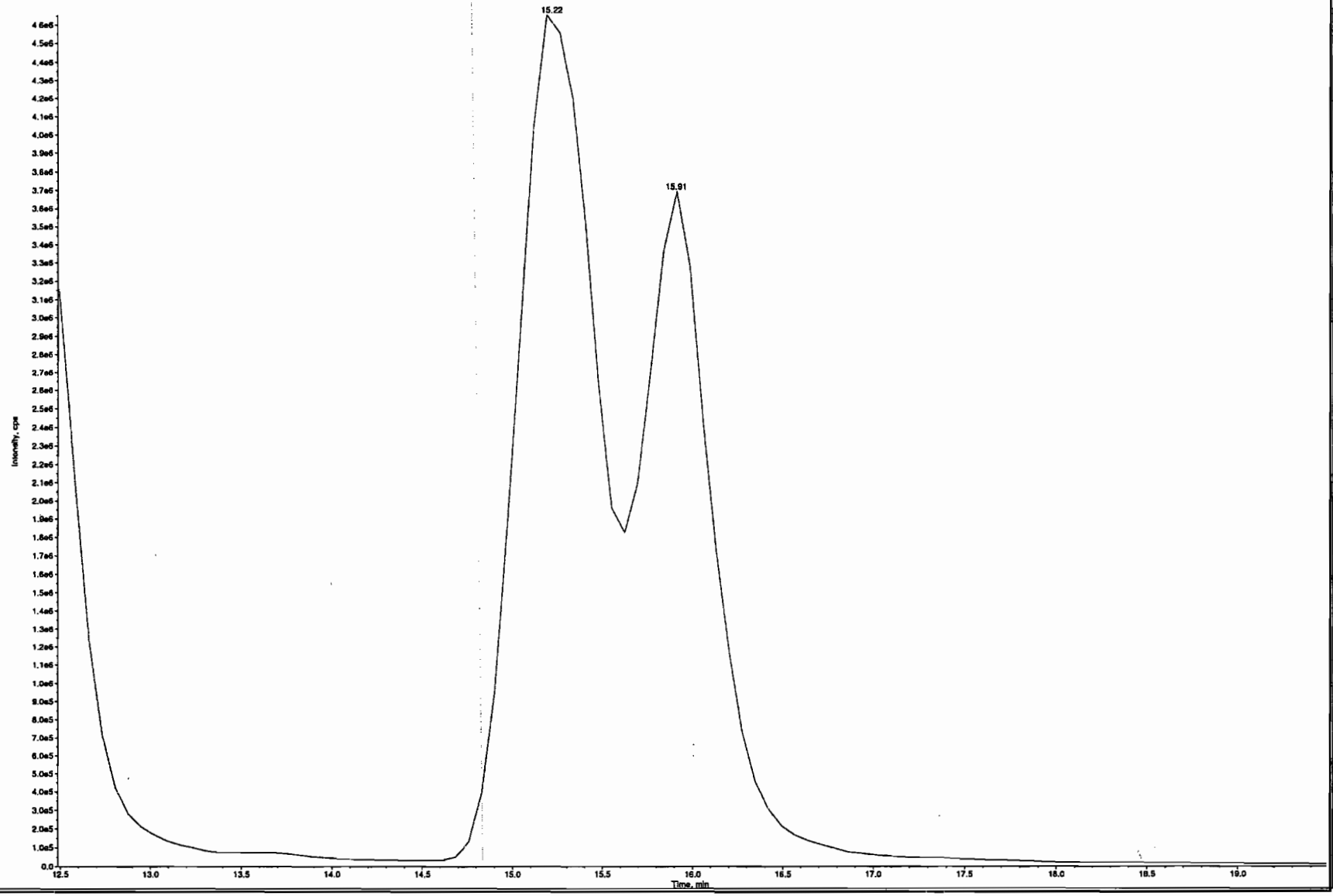

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:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322008.wiff	**Acquisition Date**	3/22/2010 6:37:39 PM
Sample Name	WXX100322-55	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

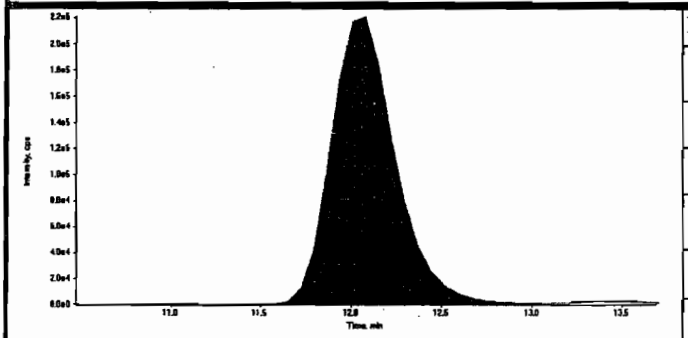

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	5.53e+006
Manual Modification	No
Amount:	1060. (ng/mL)
% Accuracy:	106.00

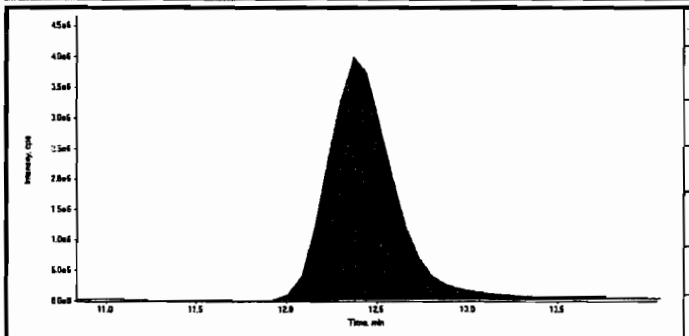

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	1.03e+008
Manual Modification	No
Amount:	442. (ng/mL)
% Accuracy:	88.30

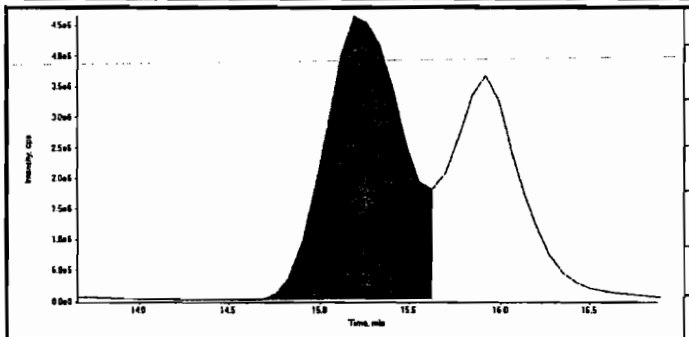

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.2
Area Counts:	1.44e+008
Manual Modification	No
Amount:	824. (ng/mL)
% Accuracy:	82.40

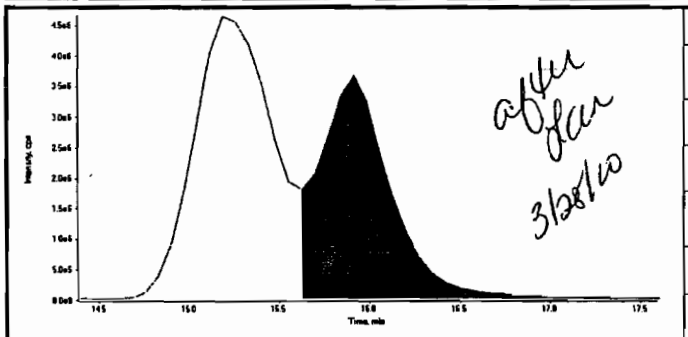

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	15.9
Area Counts:	1.01e+008
Manual Modification	Yes
Amount:	958. (ng/mL)
% Accuracy:	95.80

Before Lan 3/28/10

mple Name: "WXX100322-55" Sample ID: "1|LER" File: "EXP0322008.wiff"
ek Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
mment: "LCMS|EXP_|" Annotation: ""
le Index: 1
le Type: Standard
entration: 1000. ng/mL
lated Conc: 2370. ng/mL
Date: 1/22/2010
Time: 6:37:35 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1000.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 10.0 sec
cted RT: 14.6 min
Relative RT: No

Type: Valley
tion Time: 14.5 min
: 1.96e+007 counts
ts: 2.80e+005 cps
: Time: 14.1 min
Time: 17.9 min

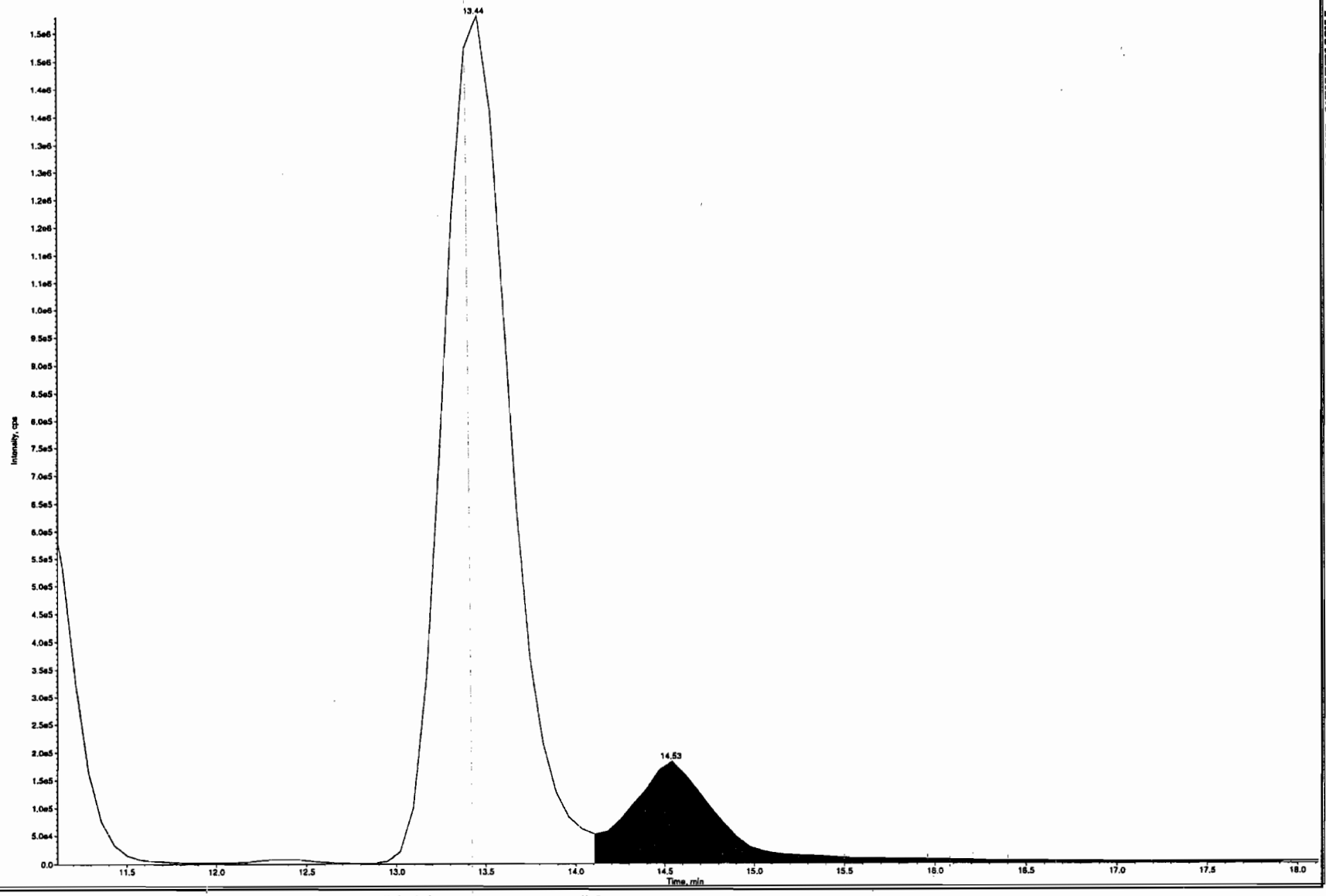

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322008.wiff	**Acquisition Date**	3/22/2010 6:37:39 PM
Sample Name	WXX100322-55	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

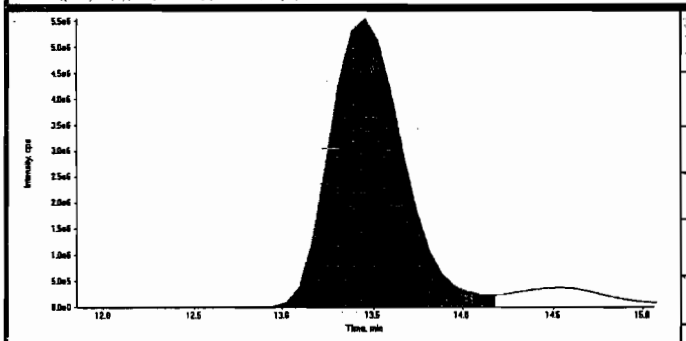

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.58e+008
Manual Modification	No
Amount:	833. (ng/mL)
% Accuracy:	83.30

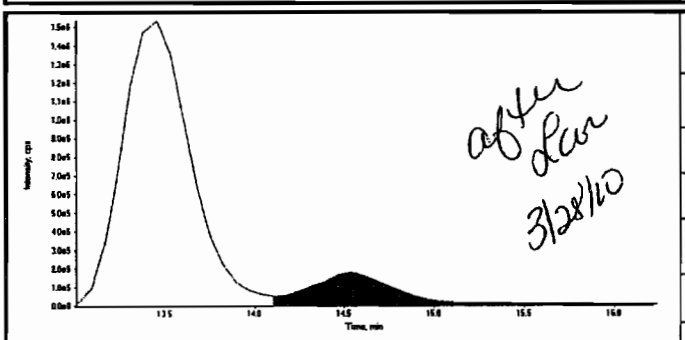

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.5
Area Counts:	6.06e+006
Manual Modification	Yes
Amount:	1010. (ng/mL)
% Accuracy:	101.00

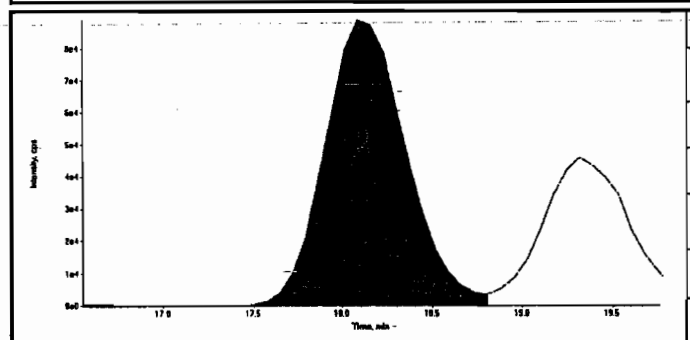

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.1
Area Counts:	2.78e+006
Manual Modification	No
Amount:	989. (ng/mL)
% Accuracy:	98.90

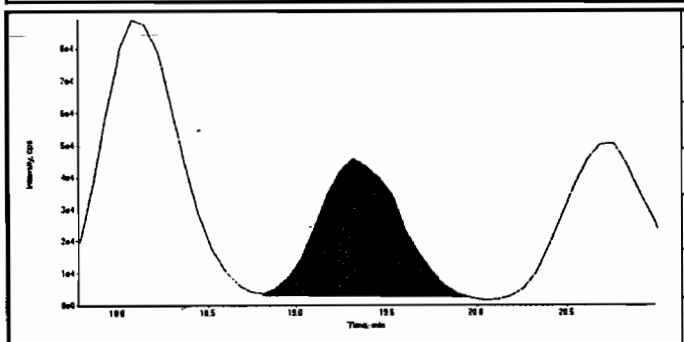

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.3
Area Counts:	1.38e+006
Manual Modification	No
Amount:	981. (ng/mL)
% Accuracy:	98.10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322008.wiff	**Acquisition Date**	3/22/2010 6:37:39 PM
Sample Name	WXX100322-55	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

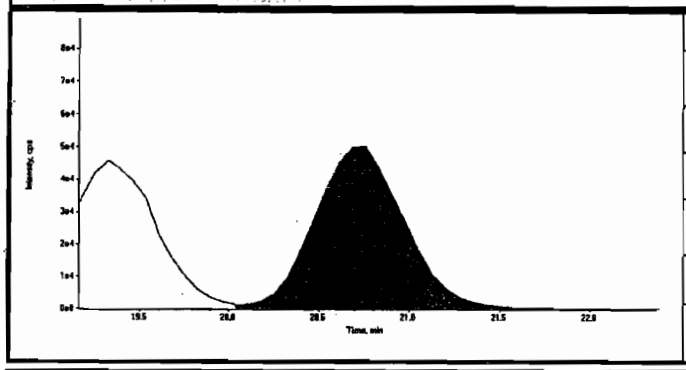

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.8
Area Counts:	1.73e+006
Manual Modification	No
Amount:	1040. (ng/mL)
% Accuracy:	104.00

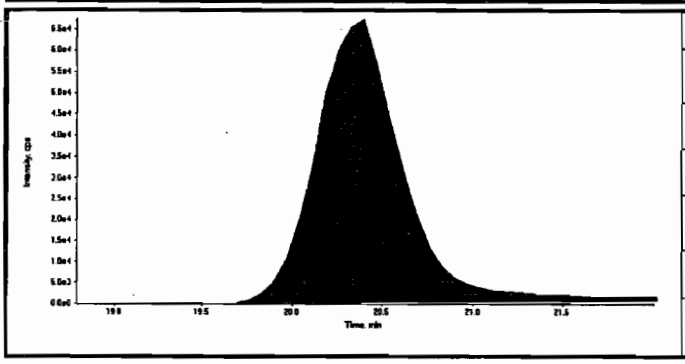

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.4
Area Counts:	2.29e+006
Manual Modification	No
Amount:	1070. (ng/mL)
% Accuracy:	107.00

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1886

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0322010.wiff

Analysis Date: 22–MAR–10 19:30

LCMSMS ID: 1189

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	514	86	
2,4,6–Trinitrotoluene	600	517	86	
2,4–Dinitrotoluene	600	571	95	
2,6–Dinitrotoluene	600	492	82	
2–Amino–4,6–dinitrotoluene	600	570	95	
3,4–Dinitrotoluene	300	265	88	
4–Amino–2,6–dinitrotoluene	600	540	90	
HMX	600	521	87	
Nitrobenzene	600	595	99	
PETN	600	570	95	
RDX	600	578	96	
Tetryl	600	571	95	
m–Dinitrobenzene	600	559	93	
m–Nitrotoluene	600	588	98	
o–Nitrotoluene	600	563	94	
p–Nitrotoluene	600	571	95	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322010.wiff	**Acquisition Date**	3/22/2010 7:30:24 PM
Sample Name	WXX100322-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

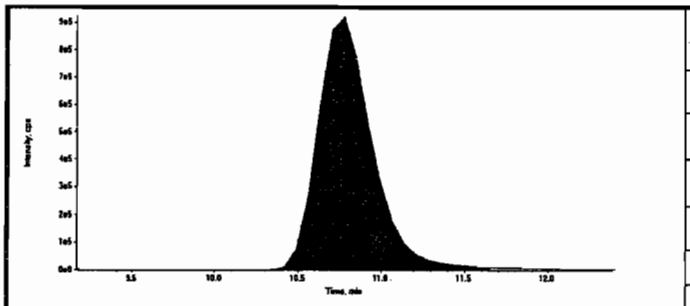

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	21000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

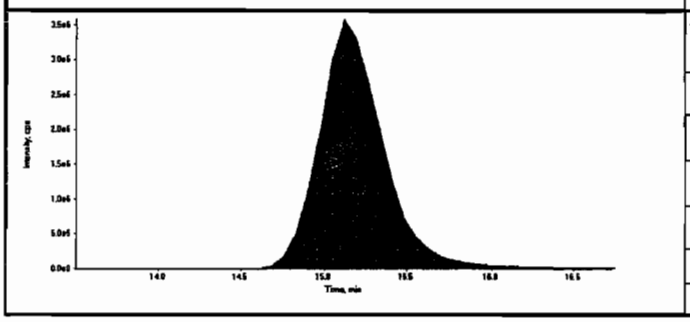

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.10
Area Counts:	96500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

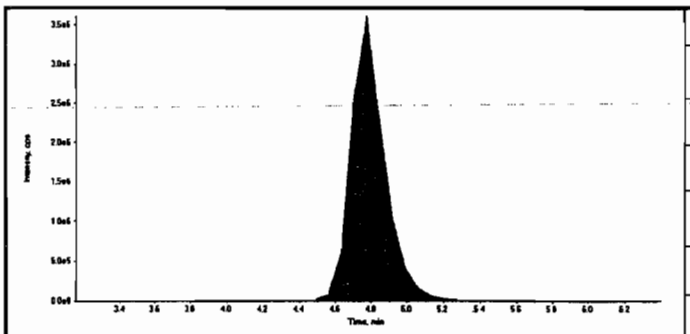

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	4.77e+007
Manual Modification	No
Amount:	521. (ng/mL)
% Accuracy:	86.90

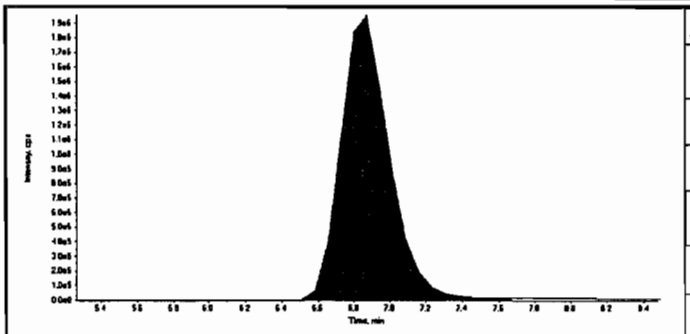

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	3.72e+007
Manual Modification	No
Amount:	578. (ng/mL)
% Accuracy:	96.30

Ler 3/28/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Data File	EXP0322010.wiff	**Acquisition Date**	3/22/2010 7:30:24 PM
Sample Name	WXX100322-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

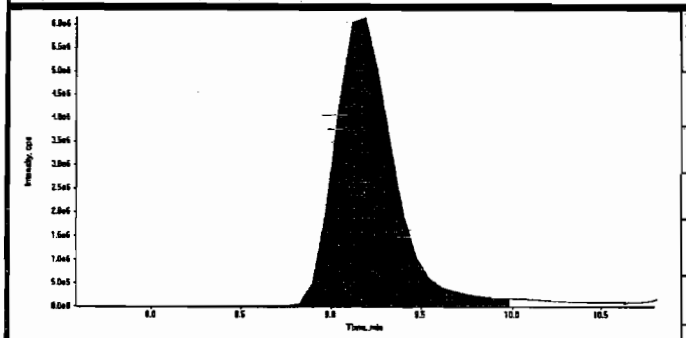

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.19
Area Counts:	1.40e+008
Manual Modification	No
Amount:	514. (ng/mL)
% Accuracy:	85.60

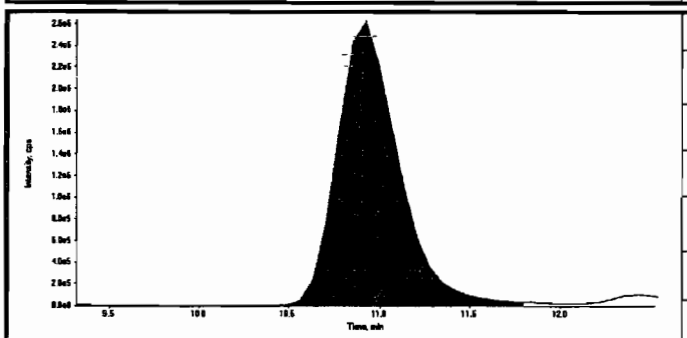

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	6.25e+007
Manual Modification	No
Amount:	559. (ng/mL)
% Accuracy:	93.10

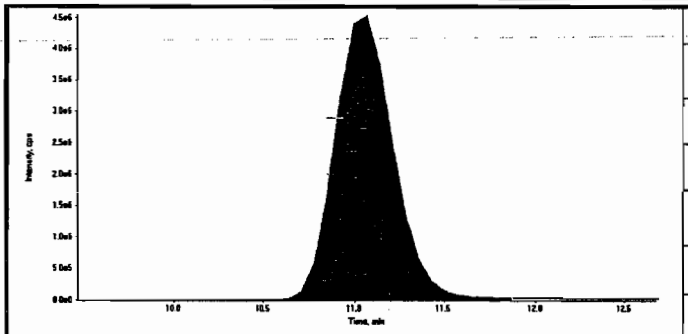

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.1
Area Counts:	1.03e+008
Manual Modification	No
Amount:	571. (ng/mL)
% Accuracy:	95.10

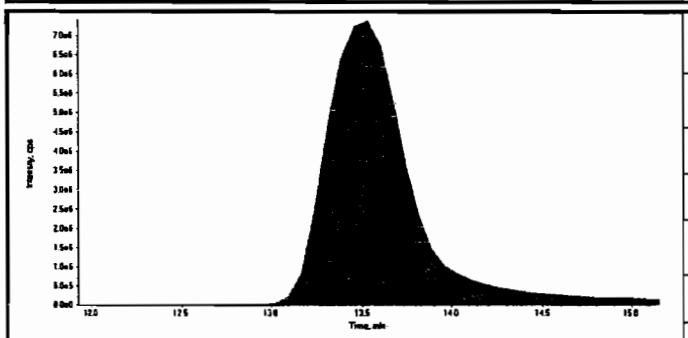

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	2.51e+008
Manual Modification	No
Amount:	517. (ng/mL)
% Accuracy:	86.20

Before LCR 3/28/10

nple Name: "WXX100322-56ICV" Sample ID: "[1]LER" File: "EXP0322010.wiff"
k Name: "26-dinitrotoluene" Mass(es): "182.0/48.0 amu"
nment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 600. ng/mL
lated Conc: 352. ng/mL
Date: 3/22/2010
Time: 7:30:24 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1.00e4 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 15.3 min
elative RT: No

Type: Valley
tion Time: 15.3 min
6.61e+007 counts
r: 2.78e-006 cps
Time: 14.8 min
Time: 15.6 min

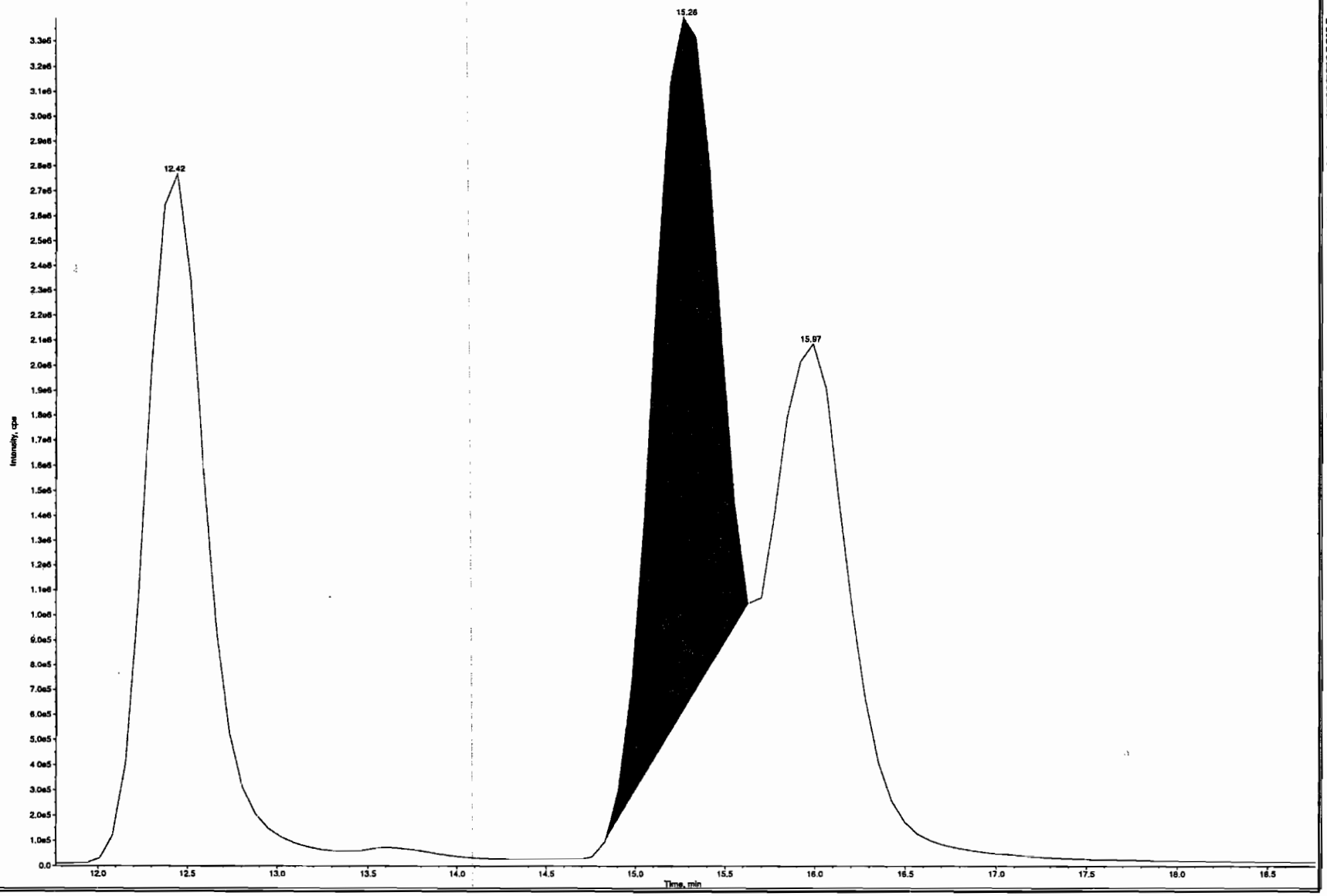

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Before Lab 3/28/10

mple Name: "WXX100322-56ICV" Sample ID: "1|LER" File: "EXP0322010.wiff"
ak Name: "24-dinitrotoluene" Mass(es): "182.0/48.0 amu"
mment: "LCMS/EXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 600. ng/mL
lated Conc: 0.00 ng/mL
Date: 3/22/2010
Time: 7:10:24 PM

fied: No

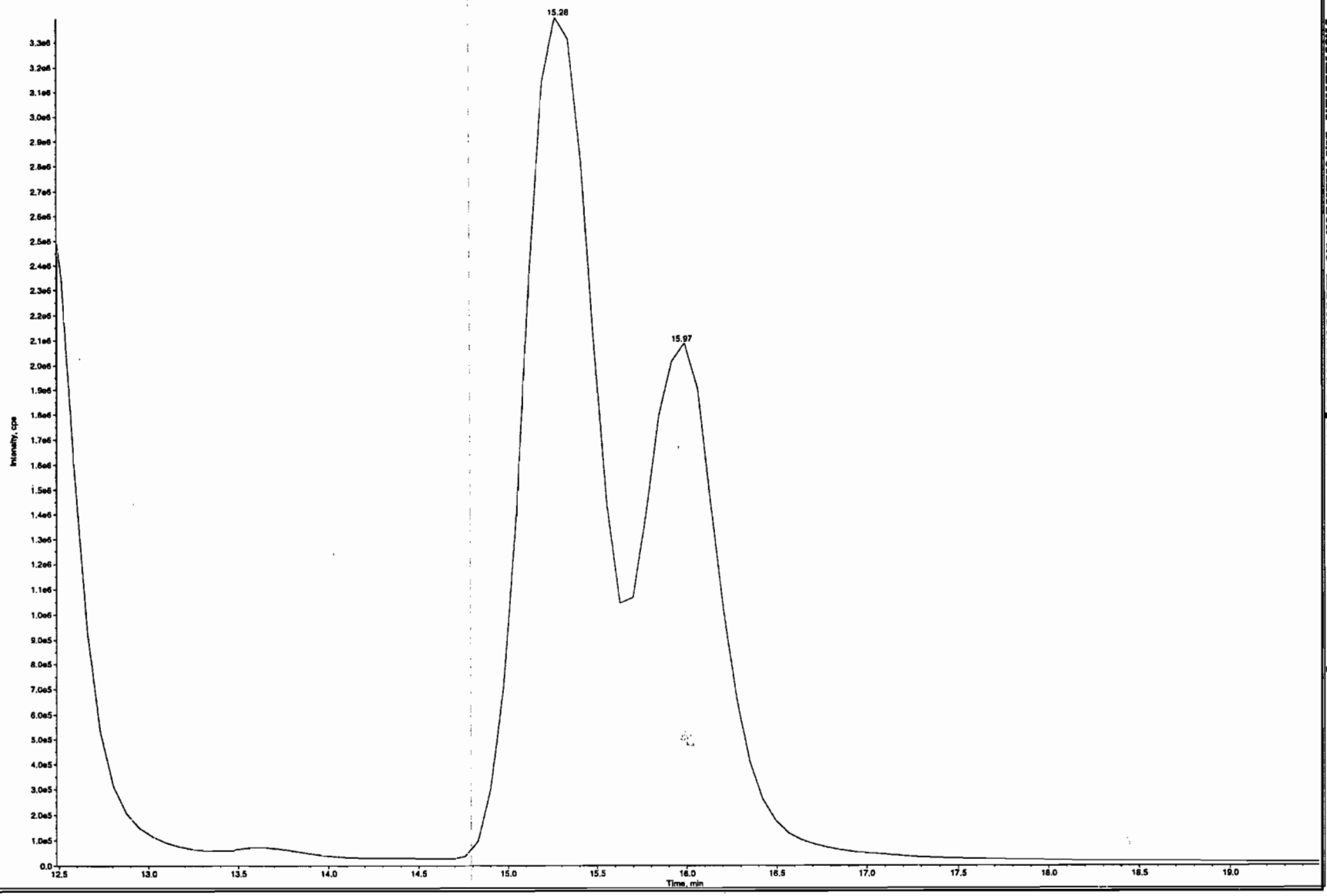

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322010.wiff	**Acquisition Date**	3/22/2010 7:30:24 PM
Sample Name	WXX100322-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

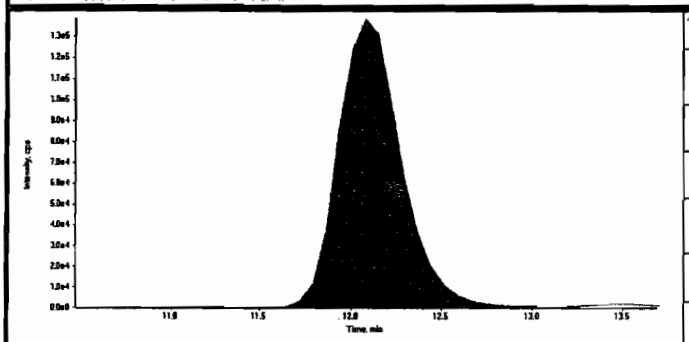

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	3.39e+006
Manual Modification	No
Amount:	595. (ng/mL)
% Accuracy:	99.20

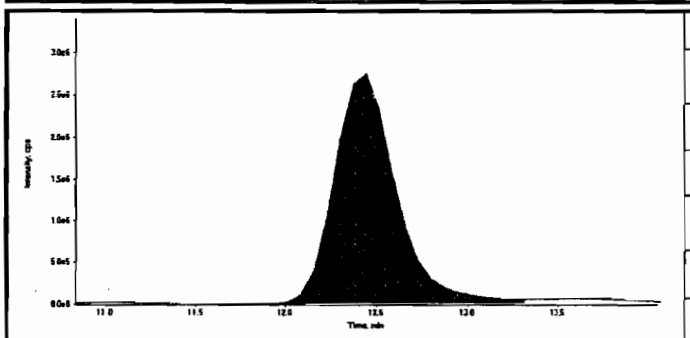

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	6.61e+007
Manual Modification	No
Amount:	265. (ng/mL)
% Accuracy:	88.30

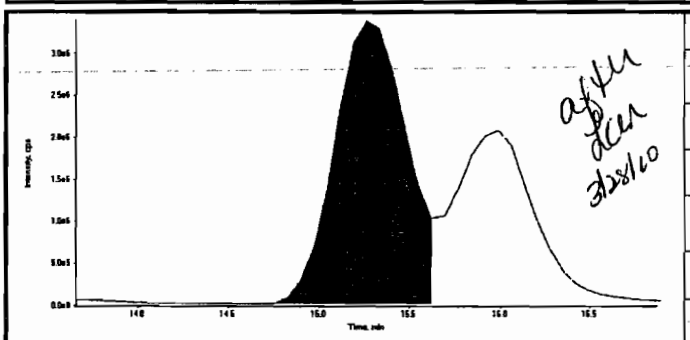

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	9.23e+007
Manual Modification	Yes
Amount:	492. (ng/mL)
% Accuracy:	82.10

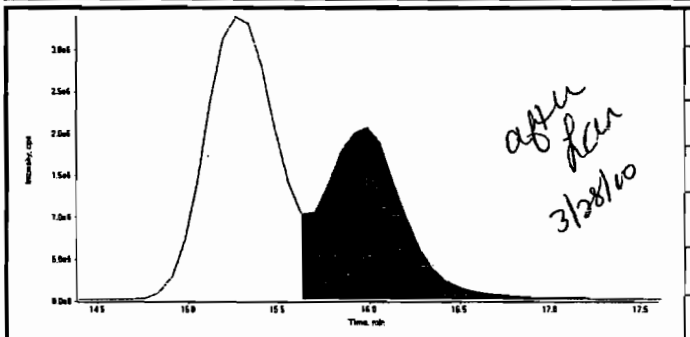

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	16.0
Area Counts:	6.45e+007
Manual Modification	Yes
Amount:	571. (ng/mL)
% Accuracy:	95.20

Before Ran 3/28/10

mple Name: "WXX100322-56ICV" Sample ID: "[1]LER" File: "EXP0322010.wiff"
ak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
mment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 600. ng/mL
ulated Conc: 1940. ng/mL
Date: 3/22/2010
Time: 7:38:24 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1000.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 14.6 min
Relative RT: No

Type: Valley
ntion Time: 14.5 min
: 1.24e+007 counts
ht: 1.88e+005 cps
t Time: 14.2 min
Time: 17.8 min

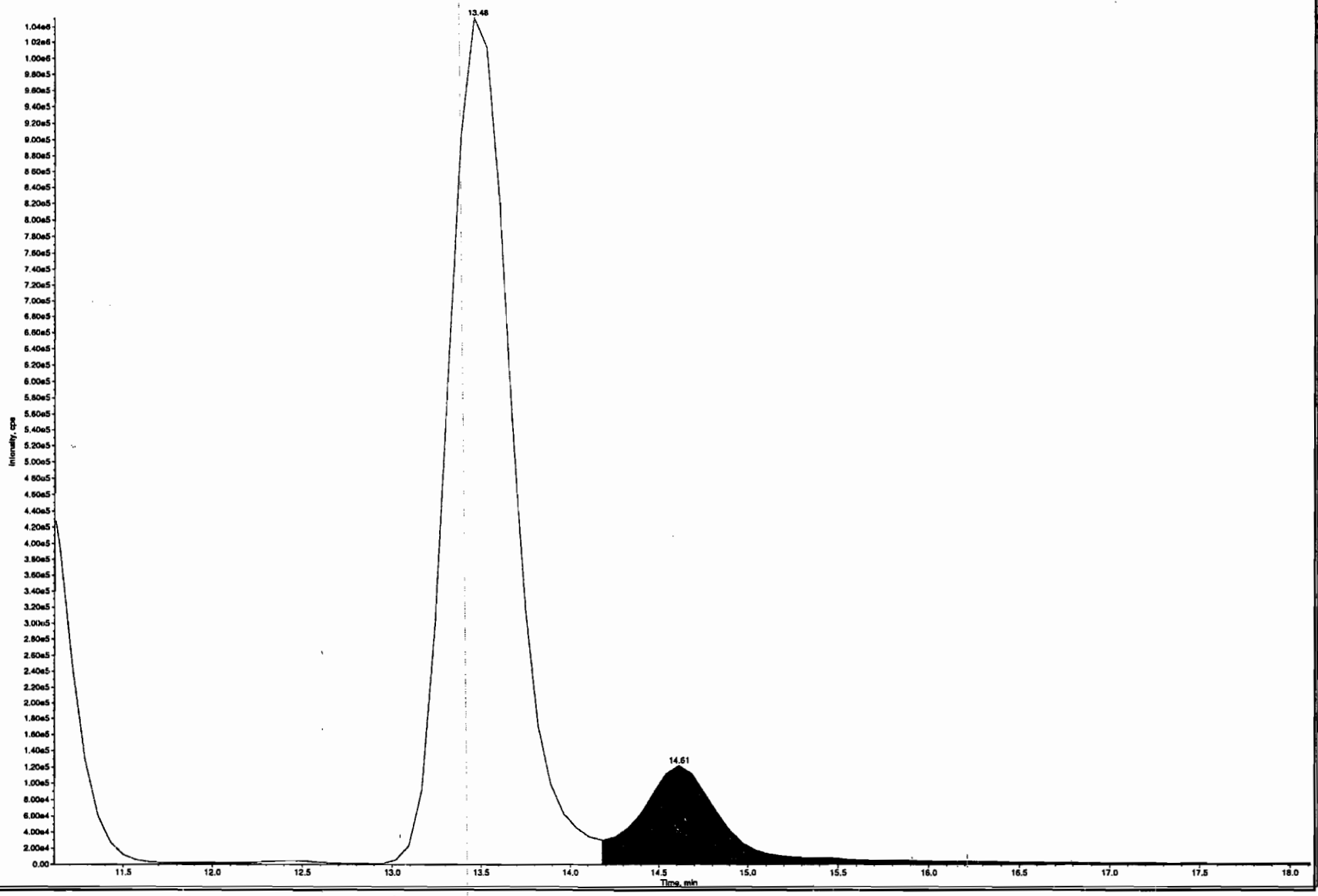

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Data File	EXP0322010.wiff	**Acquisition Date**	3/22/2010 7:30:24 PM
Sample Name	WXX100322-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

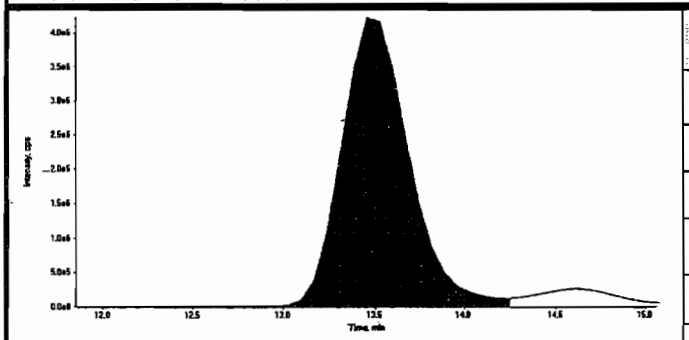

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.10e+008
Manual Modification	No
Amount:	540. (ng/mL)
% Accuracy:	90.00

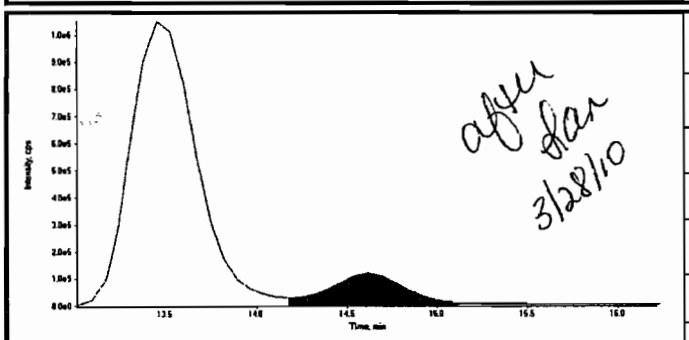

after flan 3/28/10

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.6
Area Counts:	3.66e+006
Manual Modification	Yes
Amount:	570. (ng/mL)
% Accuracy:	95.00

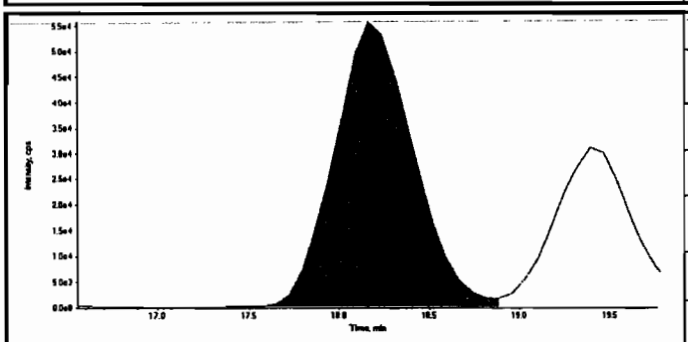

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.2
Area Counts:	1.70e+006
Manual Modification	No
Amount:	563. (ng/mL)
% Accuracy:	93.90

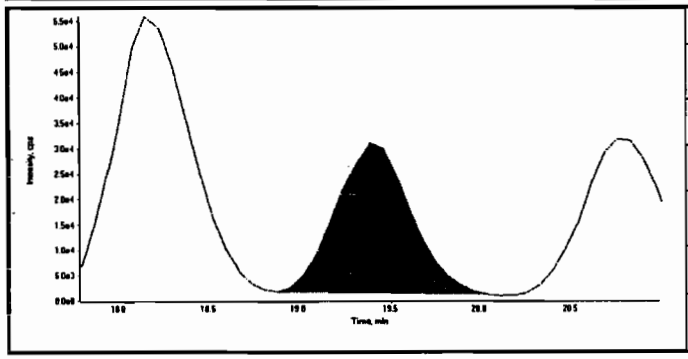

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.4
Area Counts:	8.60e+005
Manual Modification	No
Amount:	571. (ng/mL)
% Accuracy:	95.20

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322010.wiff	**Acquisition Date**	3/22/2010 7:30:24 PM
Sample Name	WXX100322-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

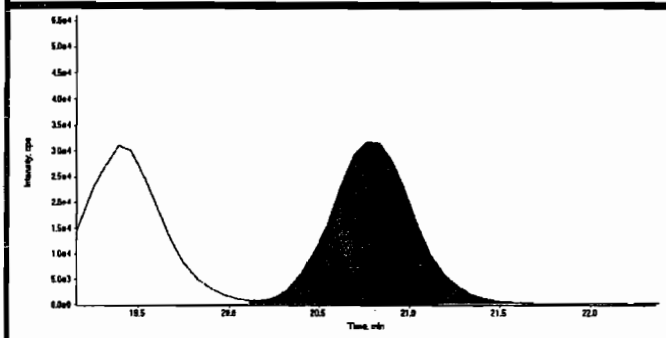

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.8
Area Counts:	1.05e+006
Manual Modification	No
Amount:	588. (ng/mL)
% Accuracy:	97.90

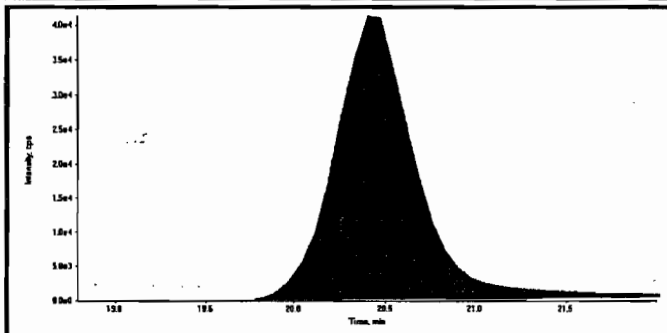

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.4
Area Counts:	1.31e+006
Manual Modification	No
Amount:	570. (ng/mL)
% Accuracy:	95.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/22/10
Time of Injection 1930
Standard Number WXX100322-56ICV
Data File EXP0322010a

HMX	86.9
RDX	96.3
135-Trinitrobenzene	85.6
13-Dinitrobenzene	93.1
Tetryl	95.1
246-Trinitrotoluene	86.2
Nitrobenzene	99.2
34-dinitrotoluene	88.3
26-dinitrotoluene	82.1
24-dinitrotoluene	95.2
4-Amino-26-dinitrotoluene	90.0
2-Amino-46-dinitrotoluene	95.0
2-Nitrotoluene	93.9
4-Nitrotoluene	95.2
3-Nitrotoluene	97.9
PETN	95.0
TOTAL	1475.0
AVERAGE	92.2

HAM-03/28/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lcn 3/28/10

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1886

Lab Code: GEL

Run Date: 16-MAR-10.22-MAR-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8O

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS03160003.wifl	EXS03160004.wifl	EXS03160005.wifl	EXS03160006.wifl	EXS03160007.wifl	EXS03160008.wifl	EXS03160009.wifl					
Parmname:												
2,4-Diamino-6-nitrotoluene	59900	111000	285000	537000	842000	1070000	2160000	6780	1080	-.004	.9998	
2,6-Diamino-4-nitrotoluene	85600	172000	418000	822000	1180000	1600000	3140000	11900	1600	-.02	1	
3,4-Dinitrotoluene	347000	655000	1590000	2900000	4380000	5970000	10900000	-18900	13400	-2.47	.9989	
3,5-Dinitroaniline	519000	994000	2340000	4410000	6370000	8180000	14100000	84100	9190	-1.08	1	
TATB	75500	160000	398000	824000	1270000	1770000	3610000	-19600	1700	.059	.9999	
tris(o-cresyl) phosphate	709000	1340000	3260000	6150000	8920000	11800000	20800000	66900	12900	-1.26	1	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.96e+004			
a1	1.7e+003			
a2	0.0593			

Correlation coefficient 0.9999
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	8.41e+004			
a1	9.19e+003			
a2	-1.08			

Correlation coefficient 1.0000
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.89e+004			
a1	1.34e+004			
a2	-2.47			

Correlation coefficient 0.9989
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	1.19e+004			
a1	1.6e+003			
a2	-0.0198			

Correlation coefficient 1.0000
Use Area

Dan 3/18/10

HMM 03/22/10

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Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	6.78e+003			
a1	1.08e+003			
a2	-0.00433			

Correlation coefficient 0.9998
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	6.69e+004			
a1	1.29e+004			
a2	-1.26			

Correlation coefficient 1.0000
Use Area

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031610.rdb (TATB): "Quadratic" Regression ("No" weighting): y = 0.0593 x^2 + 1.7e+003 x + -1.96e+004 (r = 0.9999)

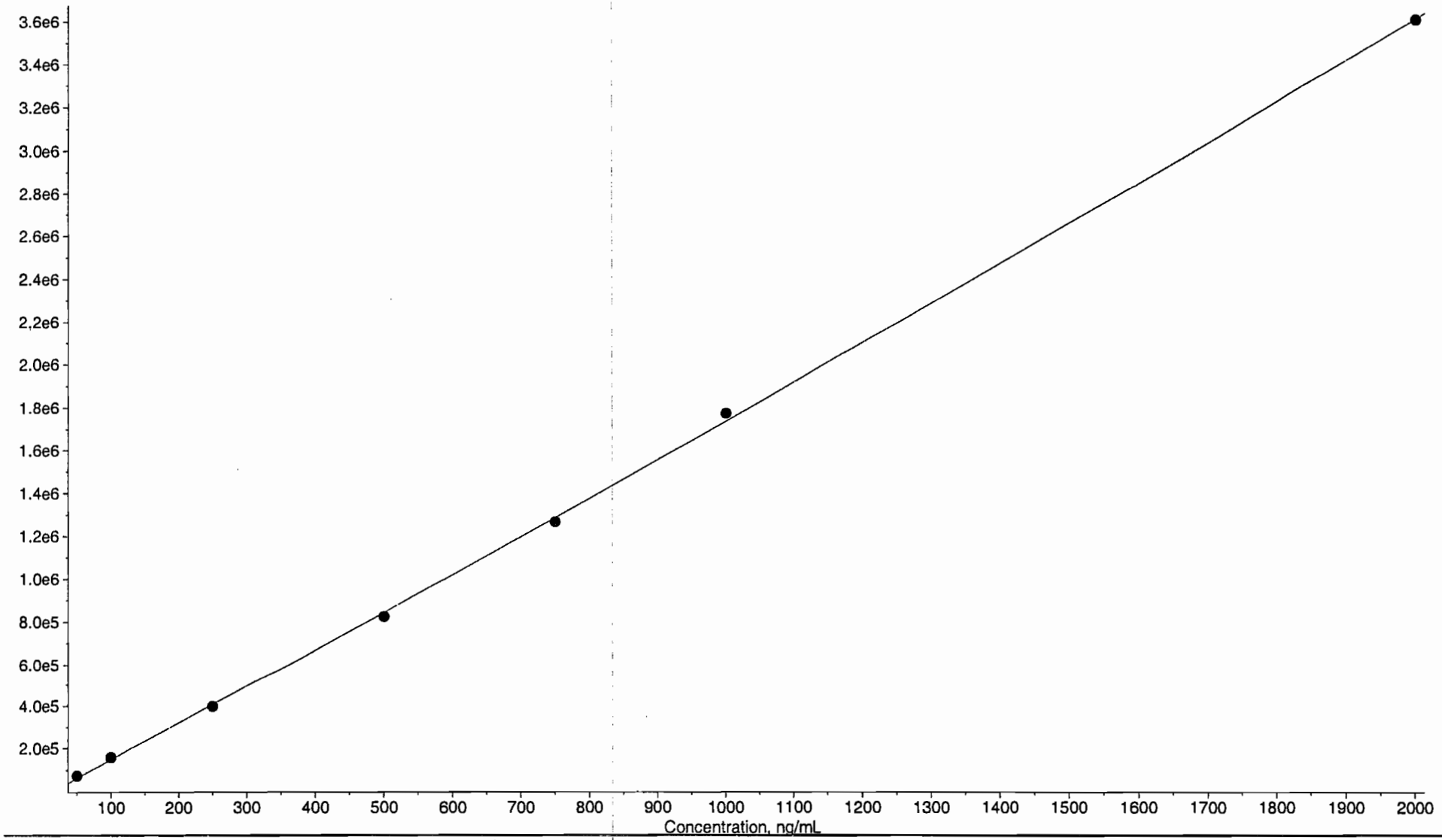

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

031610.rdb (35-Dinitroaniline): "Quadratic" Regression ("No" weighting): y = -1.08 x^2 + 9.19e+003 x + 8.41e+004 (r = 1.0000)

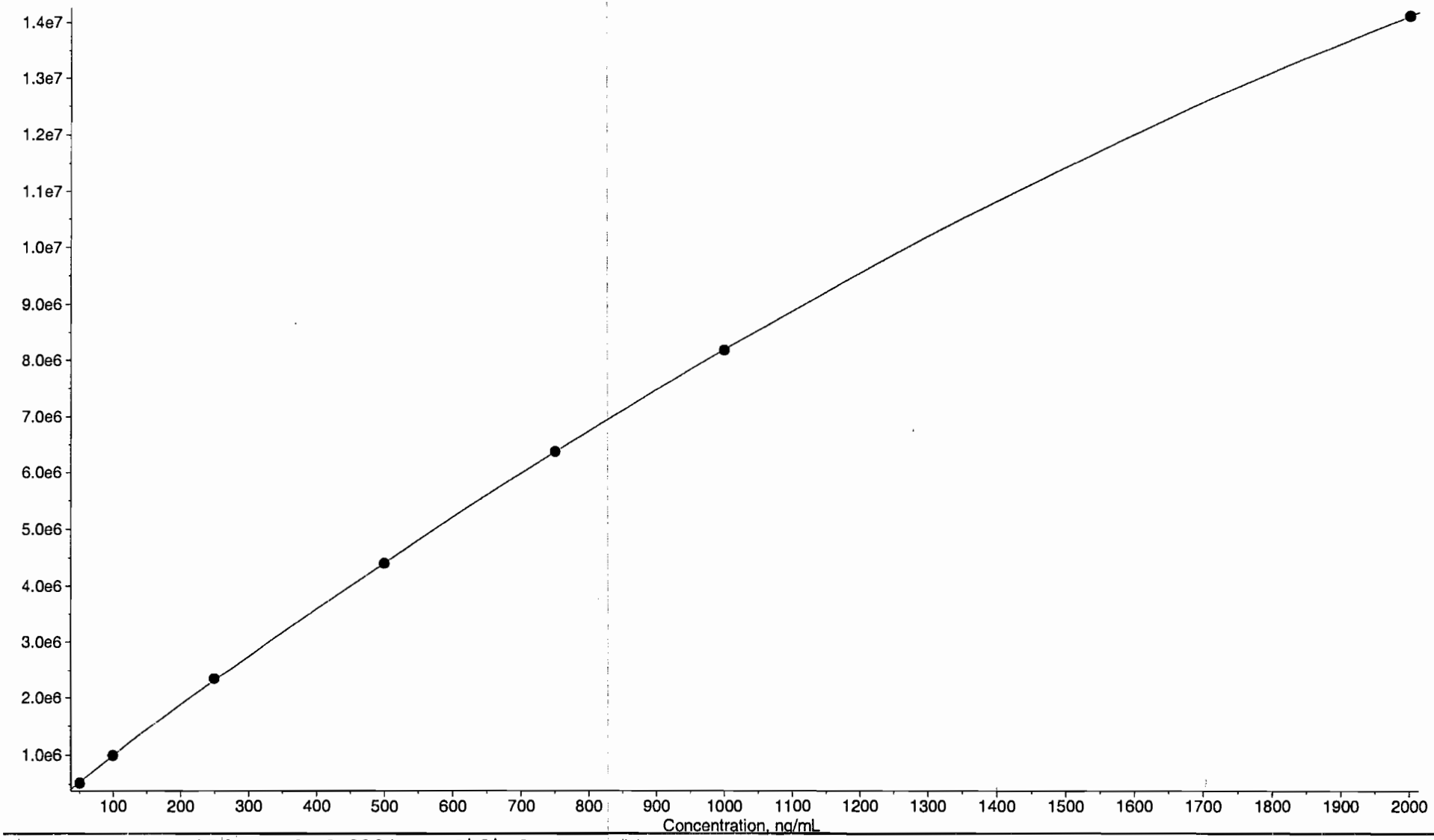

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

031610.rdb (34-Dinitrotoluene): "Quadratic" Regression ("No" weighting): y = -2.47 x^2 + 1.34e+004 x + -1.89e+004 (r = 0.9989)

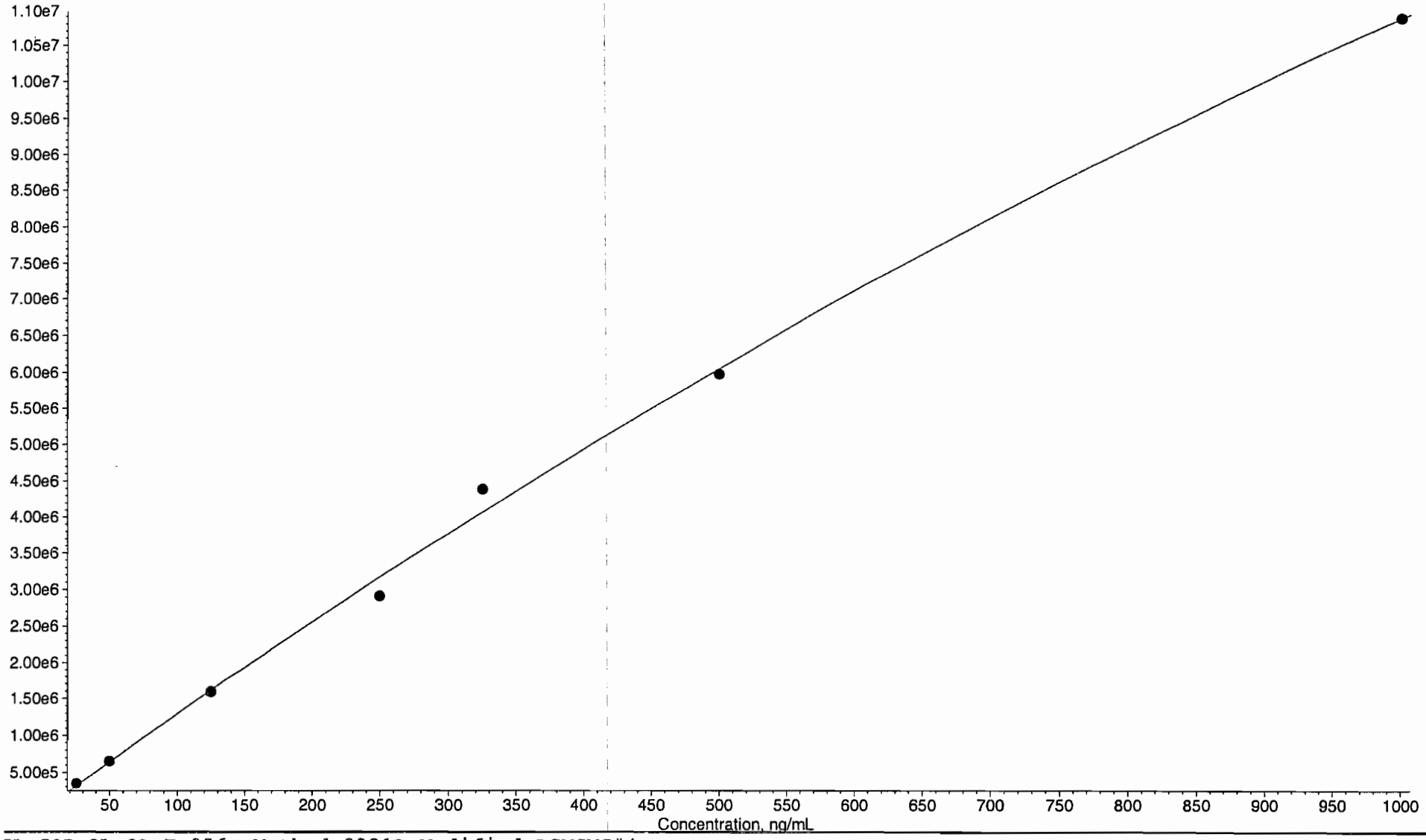

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

031610.rdb (26-Diamino-4-nitrotoluene): "Quadratic" Regression ("No" weighting): y = -0.0198 x^2 + 1.6e+003 x + 1.19e+004 (r = 1.0000)

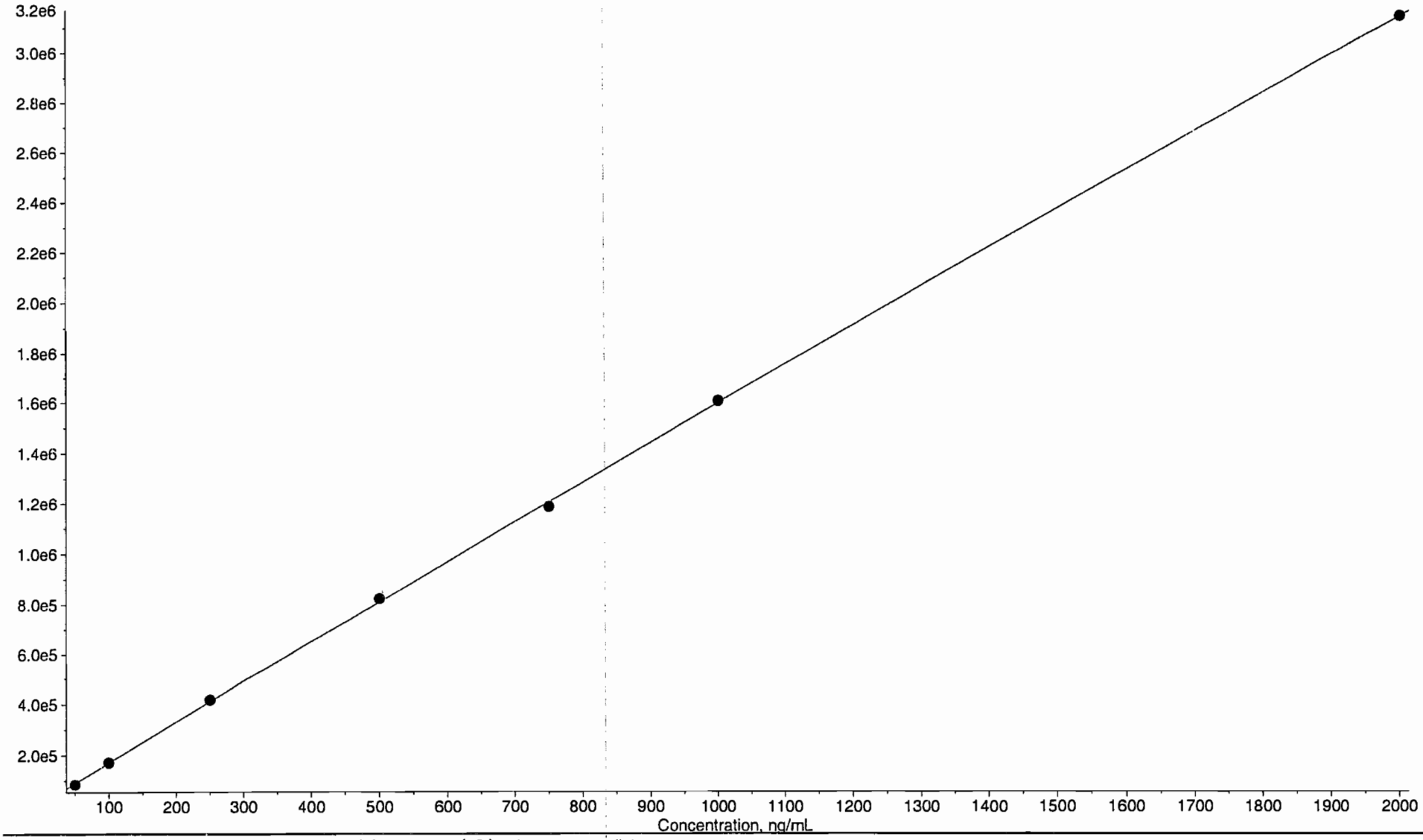

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

031610.rdb (24-Diamino-6-nitrotoluene): "Quadratic" Regression ("No" weighting): y = -0.00433 x^2 + 1.08e+003 x + 6.78e+003 (r = 0.9998)

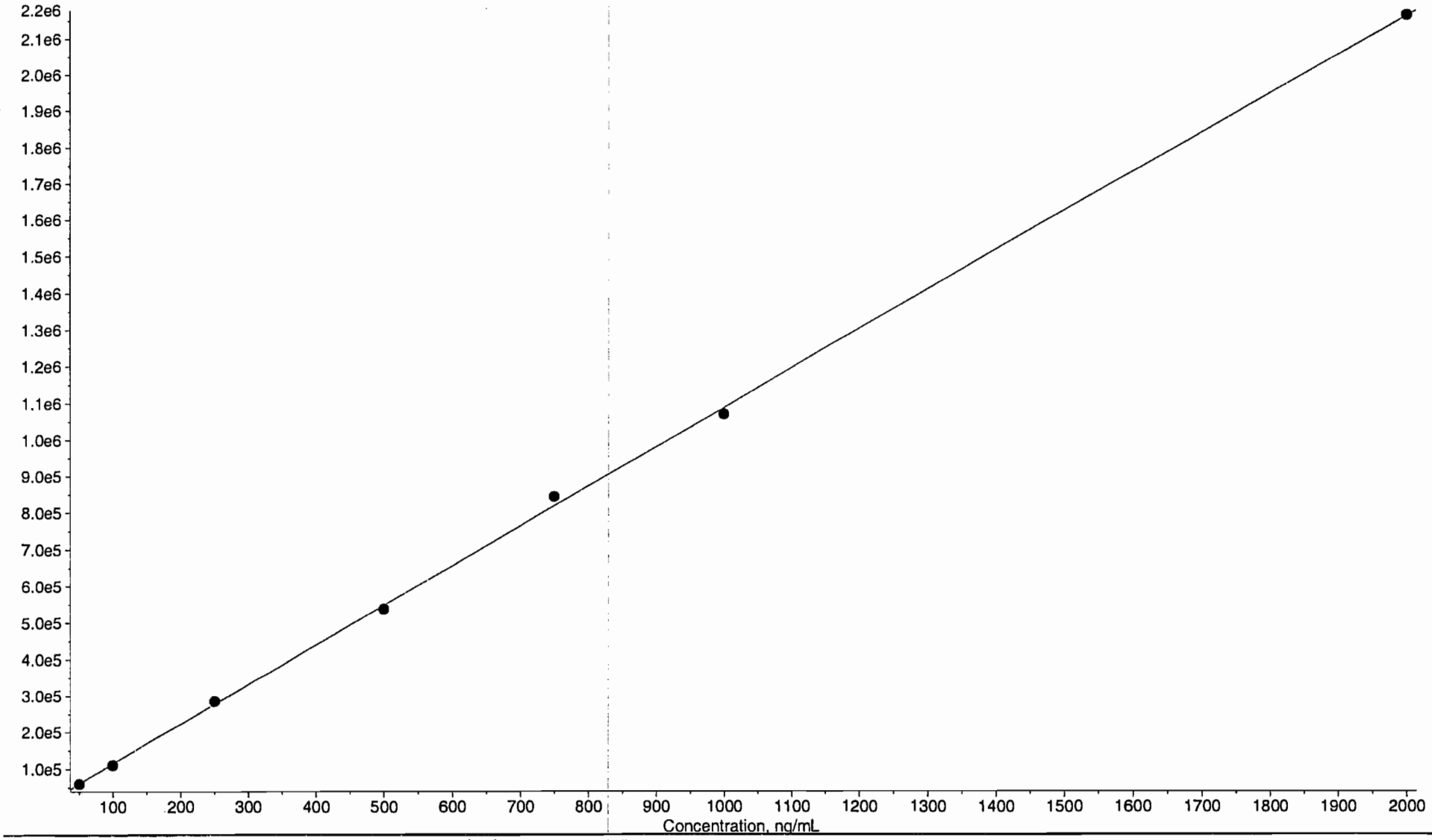

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

031610.rdb (tris(o-cresyl) phosphate): "Quadratic" Regression ("No" weighting): y = -1.26 x^2 + 1.29e+004 x + 6.69e+004 (r = 1.0000)

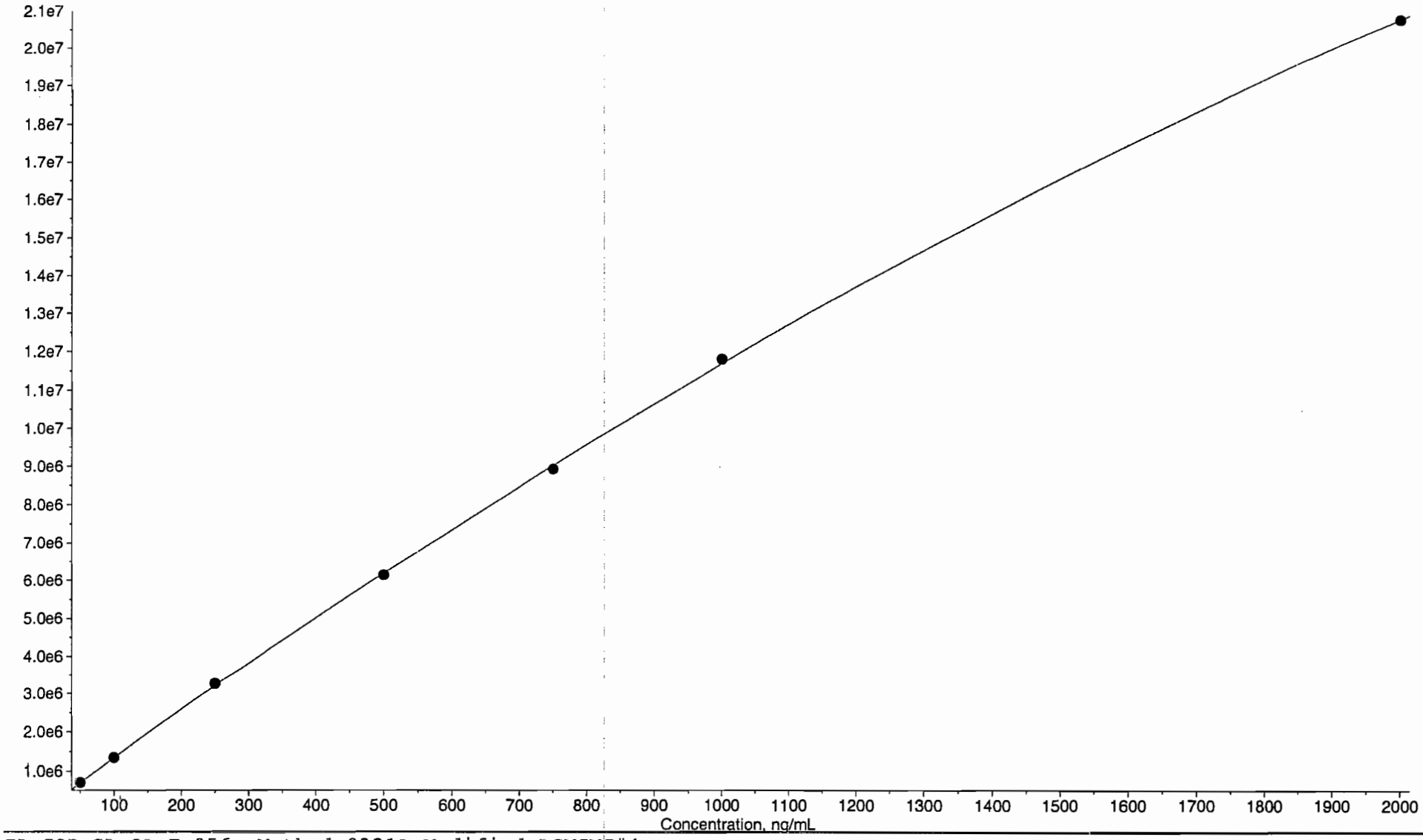

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GHL.

LCM 3/18/10

Sample Name: "WXX100316-19" Sample ID: "|1|LER" File: "EXS03160003.wiff"
Peak Name: "TATB" Mass(as): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1
Sample Type:	Standard
Concentration:	50.0 ng/mL
Calculated Conc:	55.9 ng/mL
Acq. Date:	3/16/2010
Acq. Time:	8:49:16 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	2500.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	6.93 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	6.93 min
Area:	7.55e+004 counts
Height:	18972.801 cps
Start Time:	6.84 min
End Time:	7.40 min

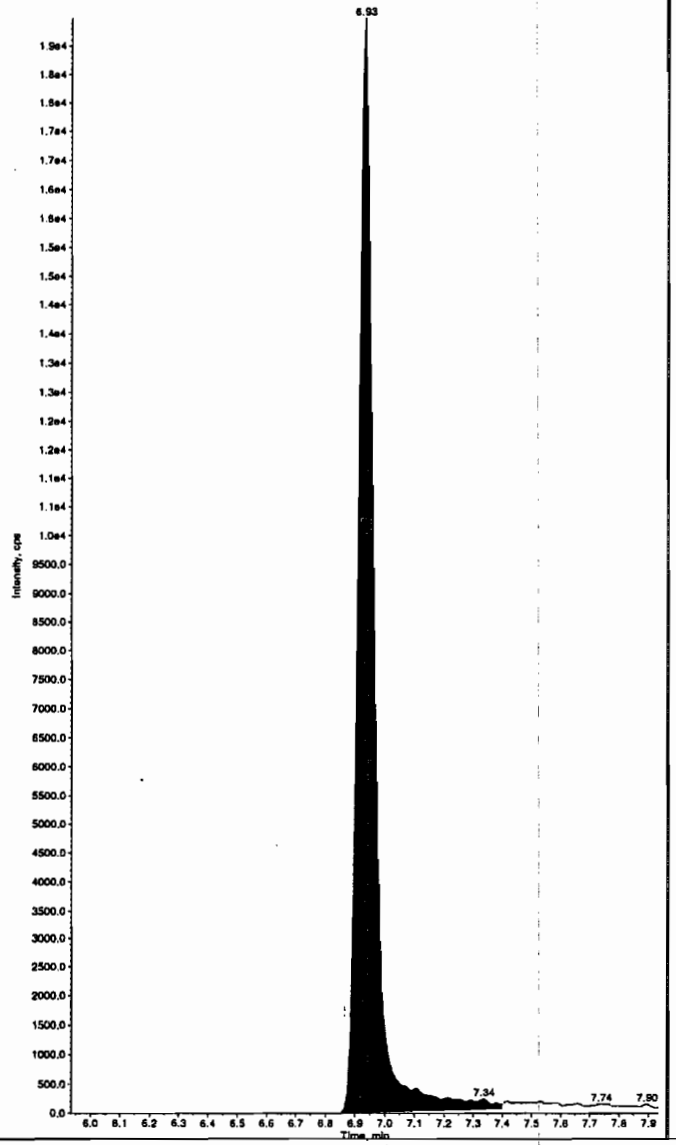

Sample Name: "WXX100316-19" Sample ID: "|1|LER" File: "EXS03160003.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1
Sample Type:	Standard
Concentration:	50.0 ng/mL
Calculated Conc:	47.6 ng/mL
Acq. Date:	3/16/2010
Acq. Time:	8:49:16 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	2000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	15.0 sec
Expected RT:	8.17 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	8.17 min
Area:	5.19e+005 counts
Height:	134173.431 cps
Start Time:	8.09 min
End Time:	8.29 min

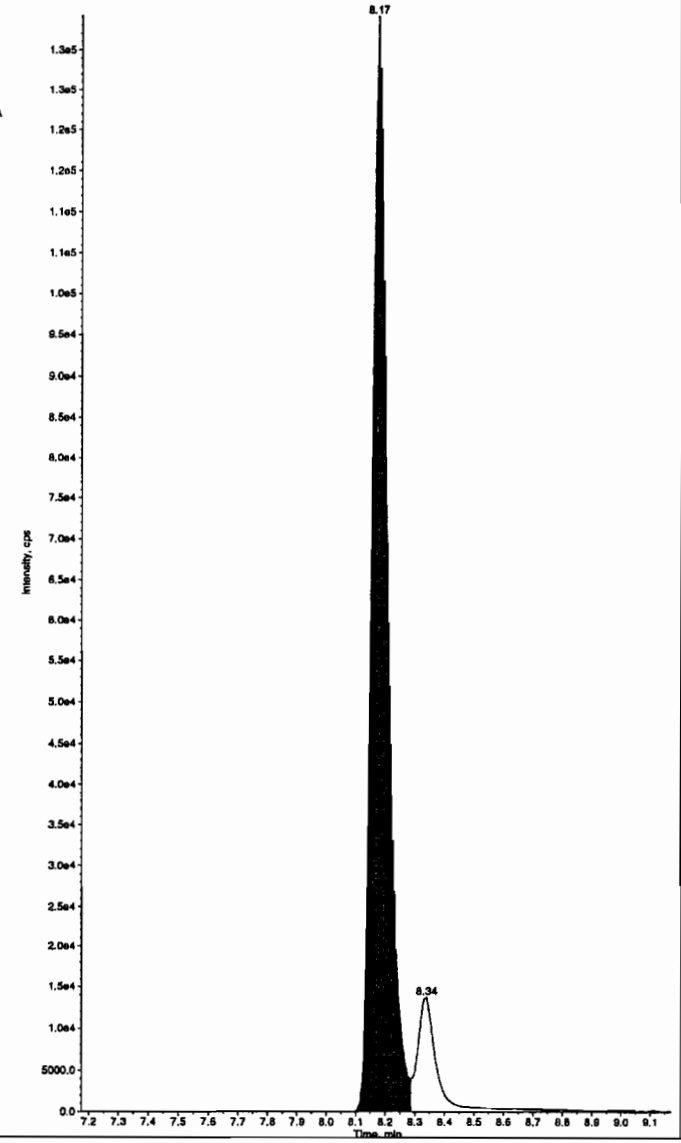

HMM 03/22/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100316-19" Sample ID: "[1]LER" File: "EXS03160003.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_I" Annotation: ""

ple Index: 1
ple Type: Standard
centration: 25 0 ng/mL
culated Conc: 27.5 ng/mL
. Date: 3/16/2010
. Time: 8:49:16 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
ected RT: 8.33 min
Relative RT: No

. Type: Valley
ention Time: 8.33 min
a: 3.47e+005 counts
ght: 94400.650 cps
rt Time: 8.26 min
Time: 8.53 min

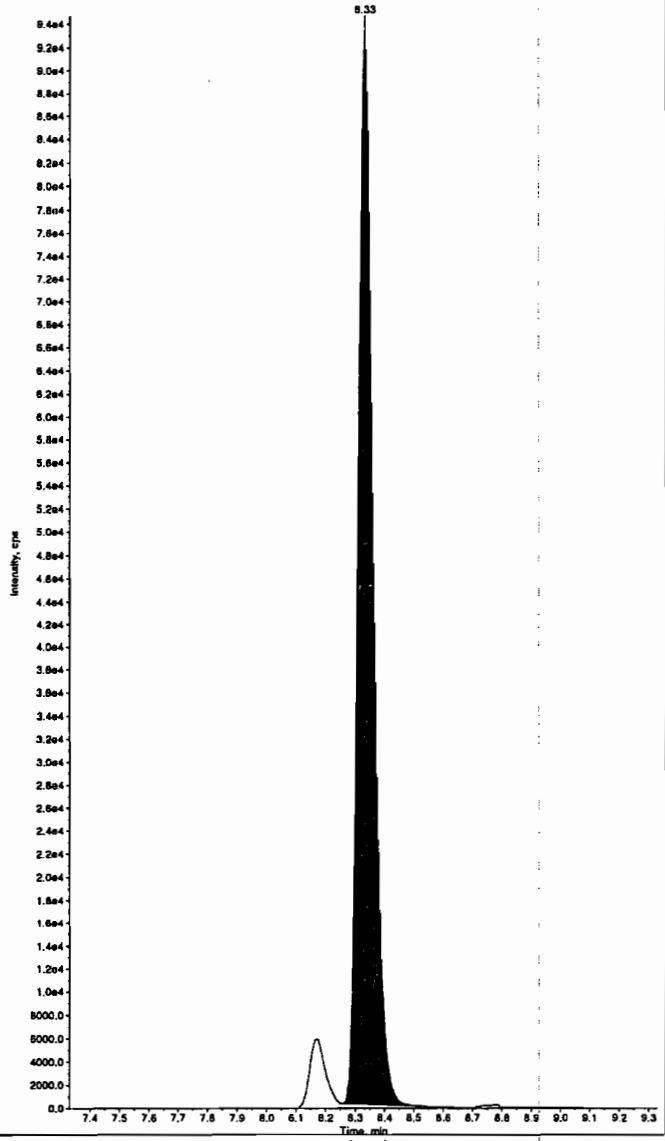

Sample Name: "WXX100316-19" Sample ID: "[1]LER" File: "EXS03160003.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 50.0 ng/mL
Calculated Conc: 46.0 ng/mL
Acq. Date: 3/16/2010
Acq. Time: 8:49:16 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.96 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.98 min
Area: 8.56e+004 counts
Height: 20734.379 cps
Start Time: 4.89 min
End Time: 5.29 min

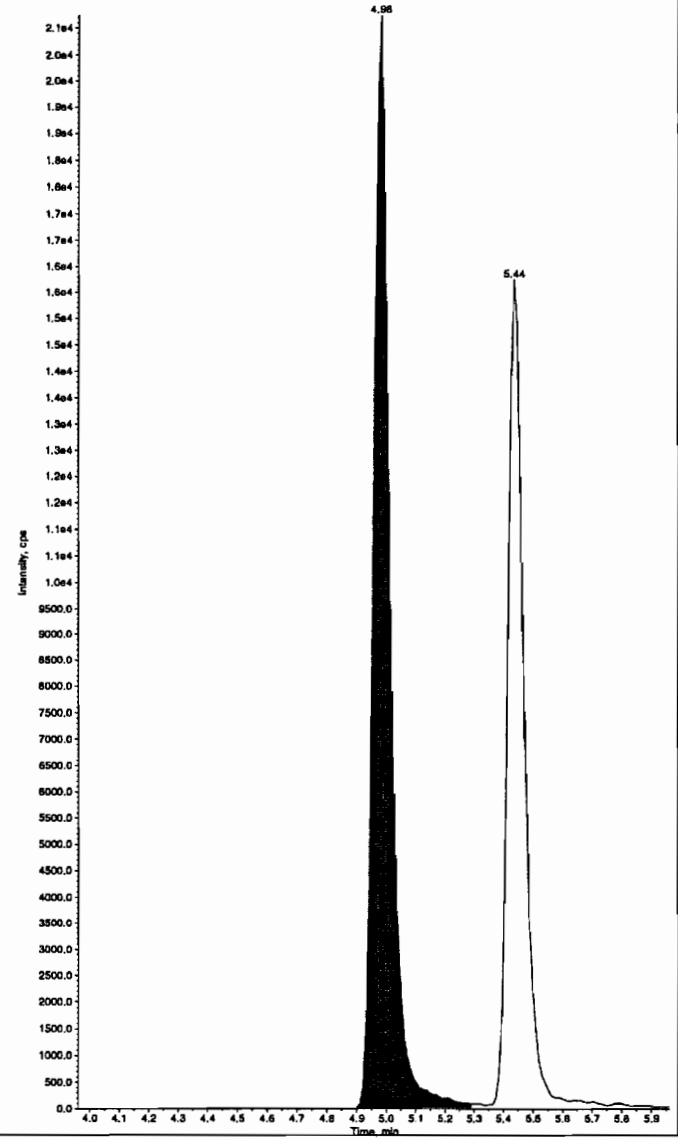

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100316-19" Sample ID: "|1|LER" File: "EXS03160003.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_I" Annotation: ""

```
ple Index:        1
ple Type:      Standard
icentration:      50.0    ng/mL
culated Conc:     49.0    ng/mL
. Date:        3/16/2010
. Time:        8:49:16 AM

ified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00   cps
. Peak Width:    0.00   sec
othing Width:  3        points
Window:         30.0    sec
ected RT:        5.43   min
Relative RT:     No

. Type:        Valley
ention Time:     5.44   min
a:          5.99e+004   counts
ght:        15678.700   cps
rt Time:         5.34   min
Time:            5.76   min
```

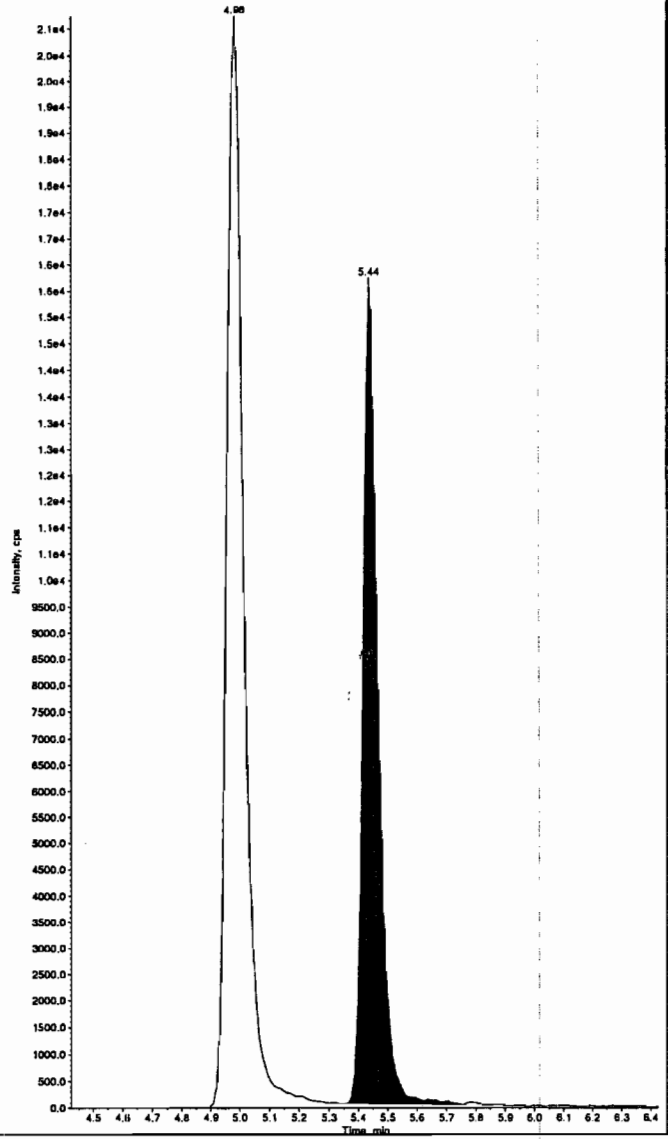

Sample Name: "WXX100316-19" Sample ID: "|1|LER" File: "EXS03160003.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:      50.0    ng/mL
Calculated Conc:    50.0    ng/mL
Acq. Date:        3/16/2010
Acq. Time:        8:49:16 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:       10.9    min
Use Relative RT:   No

Int. Type:        Valley
Retention Time:    10.9    min
Area:         7.09e+005   counts
Height:       179088.593  cps
Start Time:        10.8    min
End Time:          11.2    min
```

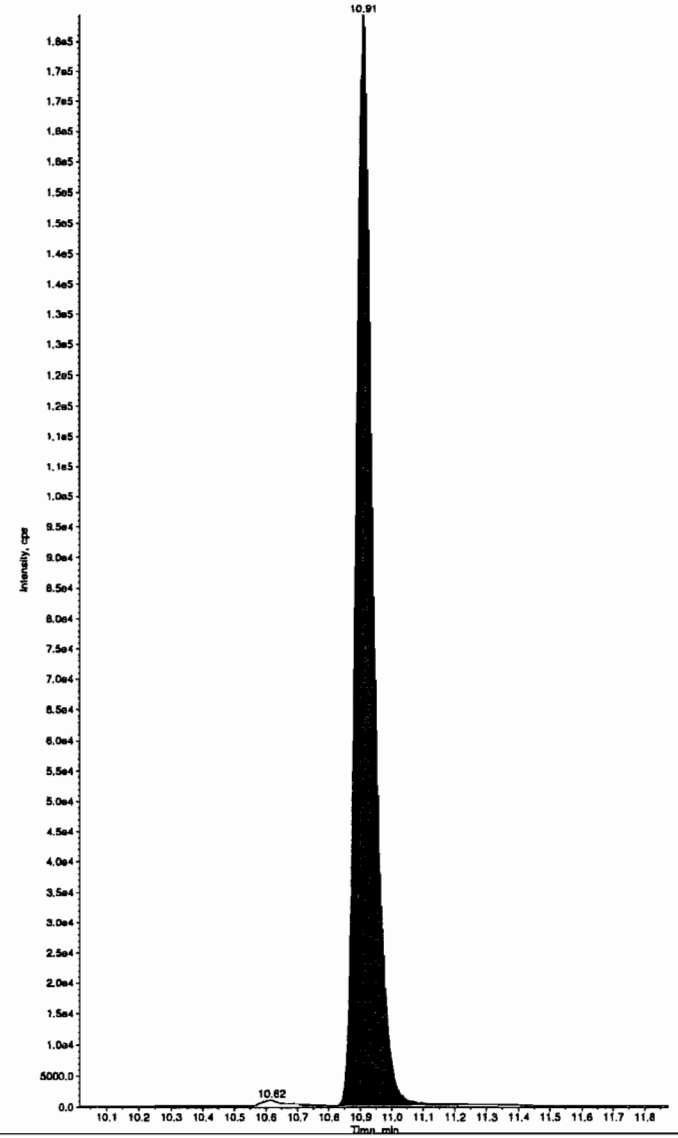

Lan 3/18/10

ample Name: "WXX100316-20" Sample ID: "[1]LER" File: "EXS03160004.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_I" Annotation: ""

ple Index: 1
ple Type: Standard
centration: 100. ng/mL
culated Conc: 105. ng/mL
. Date: 3/16/2010
. Time: 9:04:58 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 6.93 min
Relative RT: No

. Type: Valley
ention Time: 6.96 min
a: 1.60e+005 counts
ght: 39787.724 cps
rt Time: 6.86 min
Time: 7.45 min

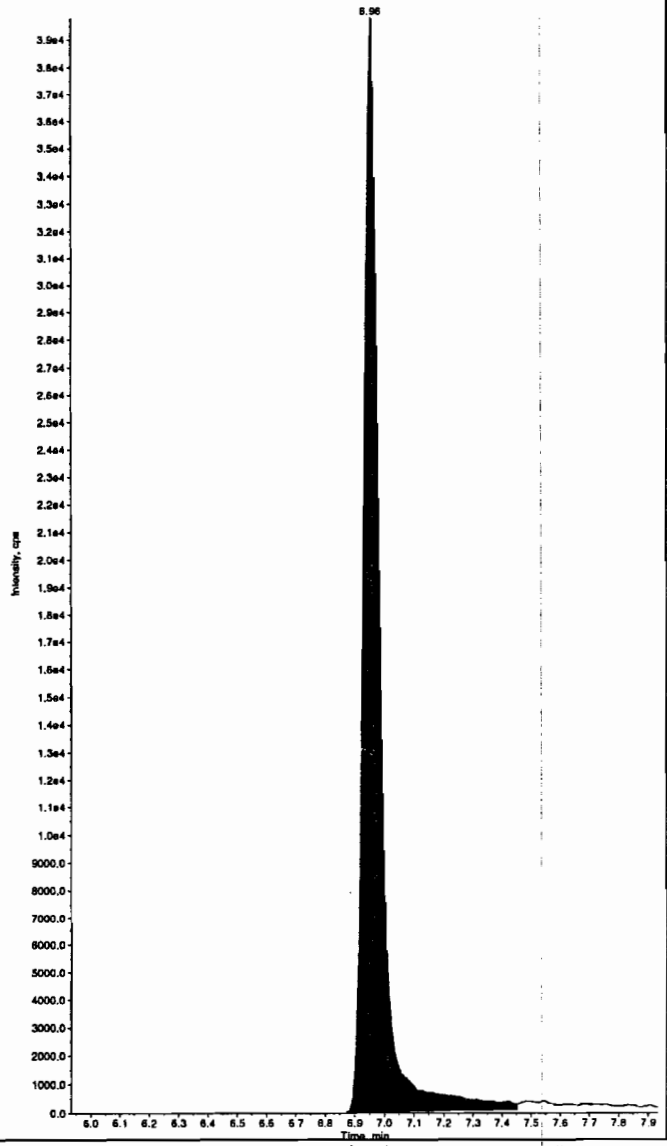

Sample Name: "WXX100316-20" Sample ID: "[1]LER" File: "EXS03160004.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 100. ng/mL
Calculated Conc: 100. ng/mL
Acq. Date: 3/16/2010
Acq. Time: 9:04:58 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.16 min
Area: 9.94e+005 counts
Height: 253871.613 cps
Start Time: 8.03 min
End Time: 8.27 min

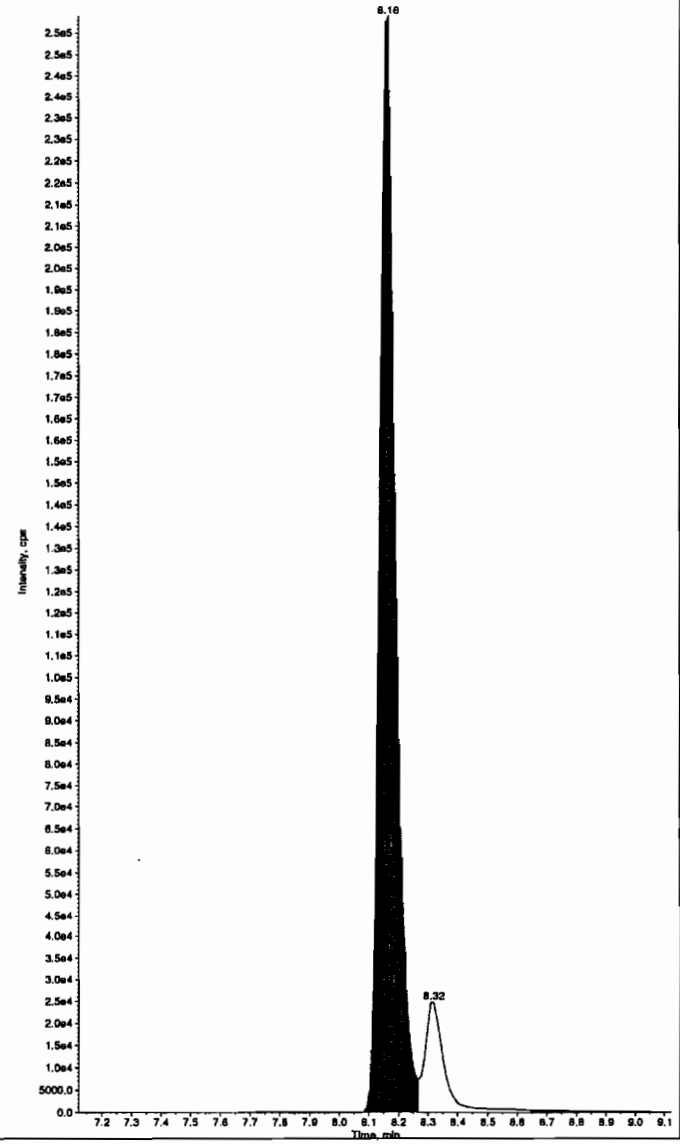

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100316-20" Sample ID: "[1]LER" File: "EXS03160004.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1
Sample Type:	Standard
Concentration:	50.0 ng/mL
Calculated Conc:	50.9 ng/mL
Acq. Date:	3/16/2010
Acq. Time:	9:04:58 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	1460.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	15.0 sec
Expected RT:	8.33 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	8.31 min
Area:	6.55e+005 counts
Height:	174513.046 cps
Start Time:	8.24 min
End Time:	8.61 min

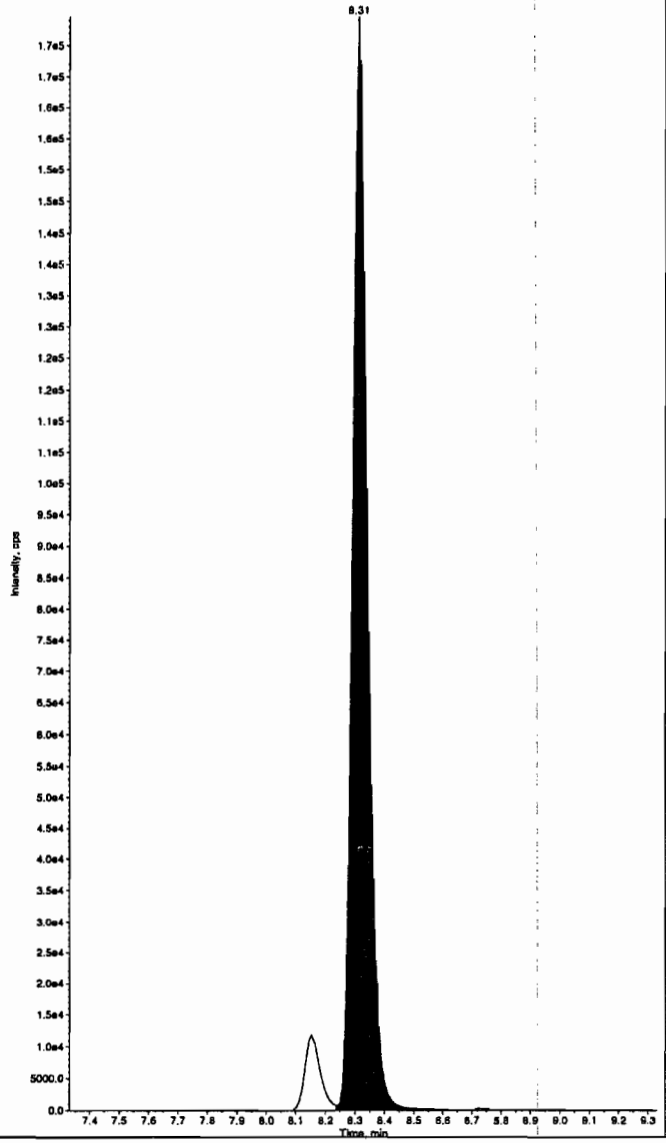

Sample Name: "WXX100316-20" Sample ID: "[1]LER" File: "EXS03160004.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1
Sample Type:	Standard
Concentration:	100. ng/mL
Calculated Conc:	100. ng/mL
Acq. Date:	3/16/2010
Acq. Time:	9:04:58 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	450.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	4.96 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	4.97 min
Area:	1.72e+005 counts
Height:	41247.883 cps
Start Time:	4.88 min
End Time:	5.26 min

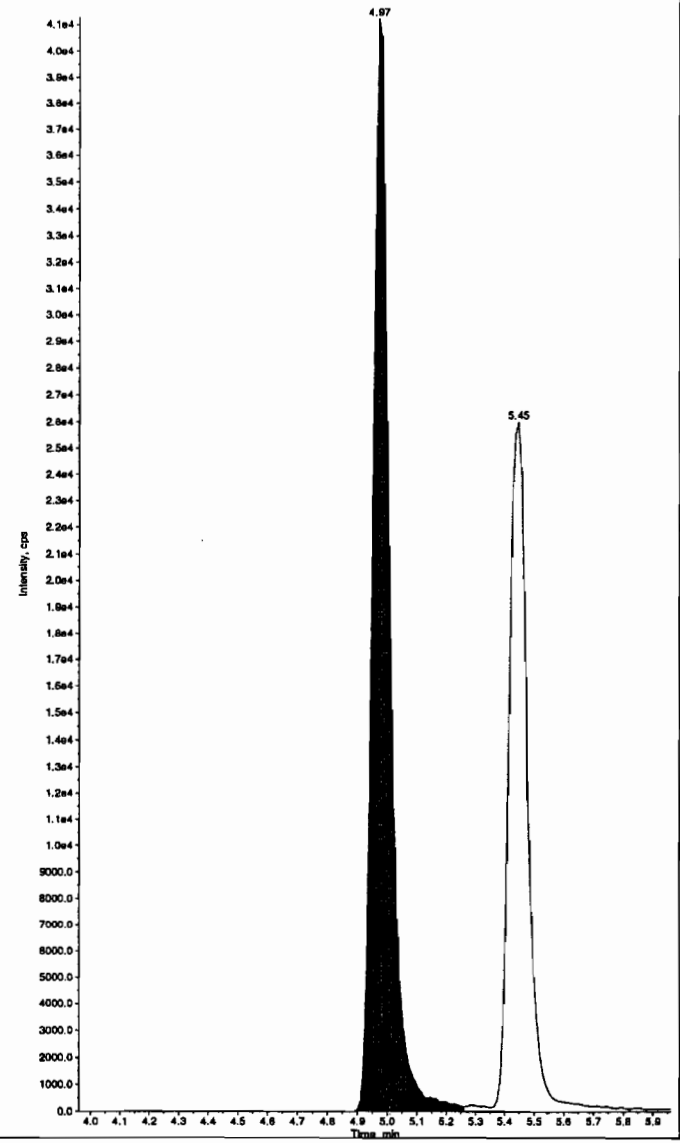

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100316-20" Sample ID: "[1]LER" File: "EXS03160004.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_I" Annotation: ""

```
ple Index:        1
ple Type:      Standard
centration:       100.     ng/mL
culated Conc:     96.0     ng/mL
. Date:        3/16/2010
. Time:        9:04:58 AM

ified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00    cps
. Peak Width:    0.00    sec
oothing Width:  3        pcints
window:         30.0     sec
ected RT:        5.43    min
Relative RT:     No

. Type:        Valley
ention Time:     5.45    min
a:          1.11e+005   counts
ght:        25898.268   cps
rt Time:         5.35    min
Time:            5.78    min
```

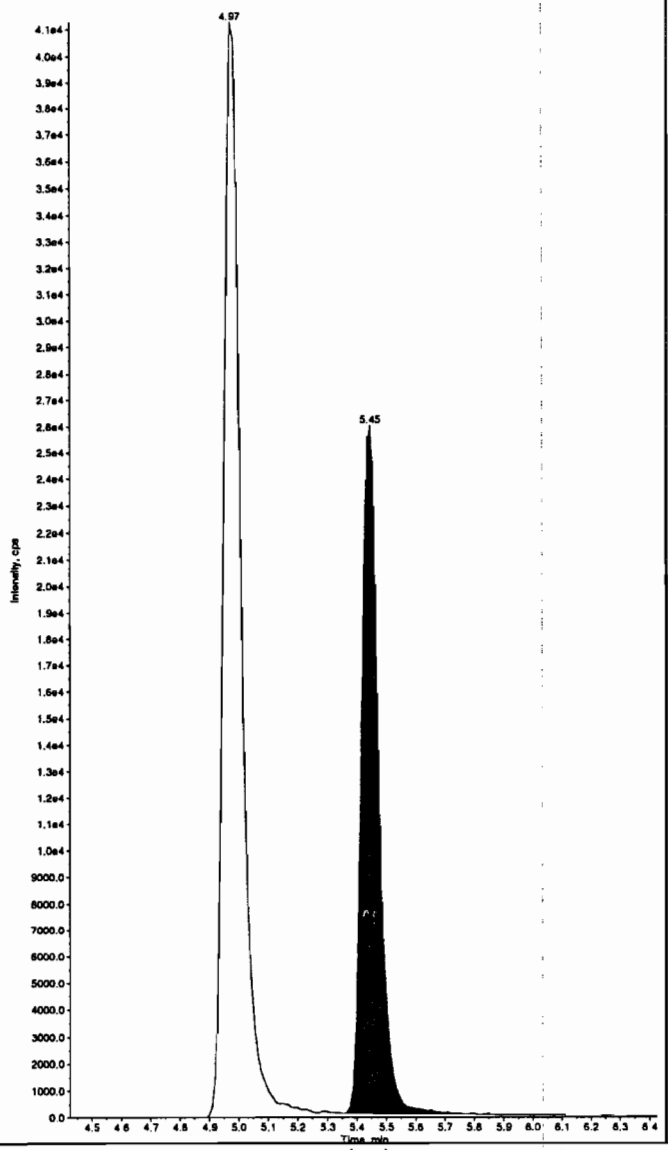

Sample Name: "WXX100316-20" Sample ID: "[1]LER" File: "EXS03160004.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:       100.     ng/mL
Calculated Conc:     100.     ng/mL
Acq. Date:        3/16/2010
Acq. Time:        9:04:58 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00     cps
Min. Peak Width:     0.00    sec
Smoothing Width:  3          points
RT Window:          30.0     sec
Expected RT:        10.9     min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.9     min
Area:          1.34e+006    counts
Height:        334073.120   cps
Start Time:         10.8     min
End Time:           11.2     min
```

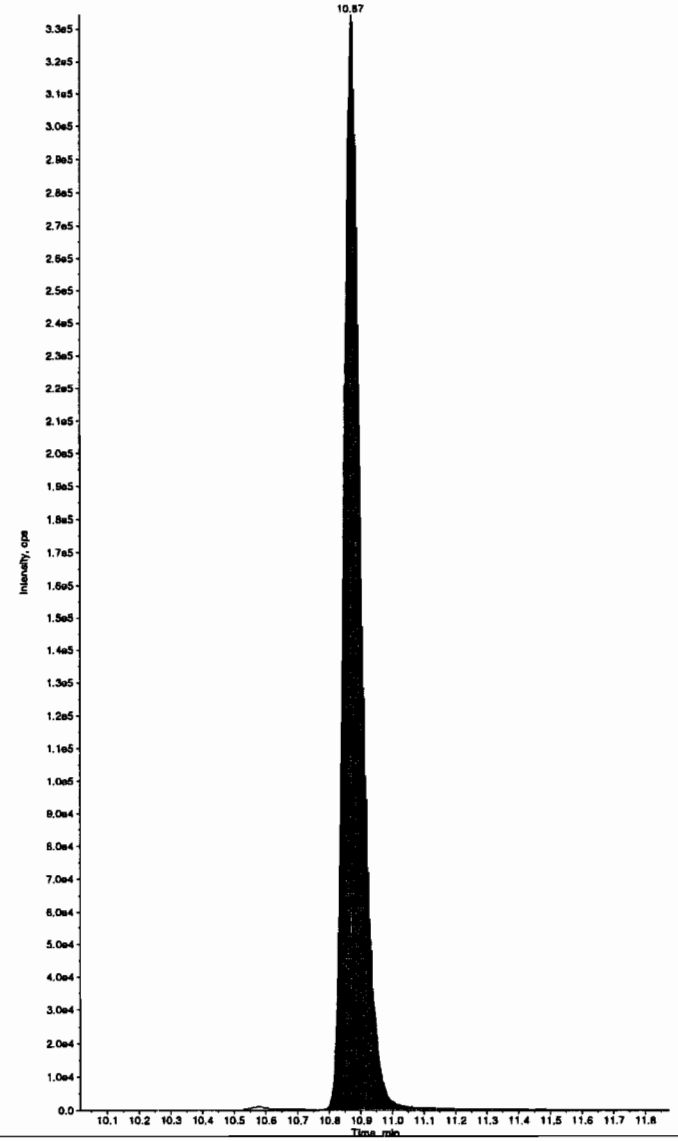

Rcn 3/18/10

ample Name: "WXX100316-21" Sample ID: "[1]LER" File: "EXS03160005.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_I" Annotation: ""
ple Index: 1
pie Type: Standard
centration: 250. ng/mL
culated Conc: 244. ng/mL
. Date: 3/16/2010
. Time: 9:20:40 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 6.93 min
Relative RT: No

. Type: Valley
ention Time: 6.93 min
a: 3.98e+005 counts
ght: 94332.092 cps
rt Time: 6.84 min
Time: 7.67 min

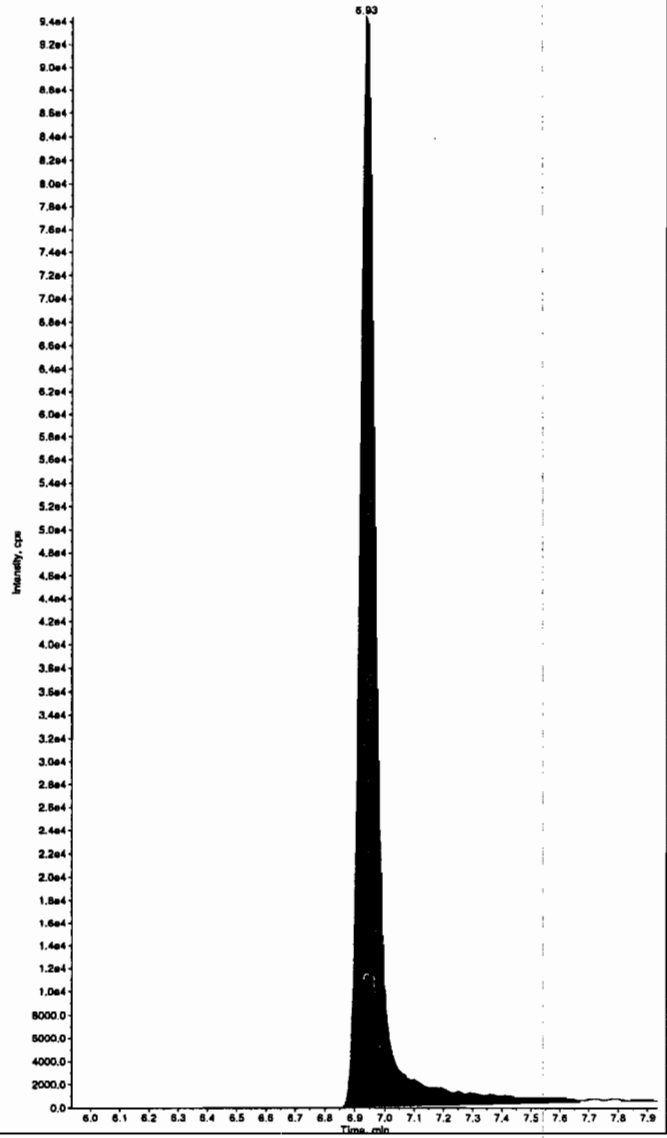

Sample Name: "WXX100316-21" Sample ID: "[1]LER" File: "EXS03160005.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 250. ng/mL
Calculated Conc: 253. ng/mL
Acq. Date: 3/16/2010
Acq. Time: 9:20:40 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.17 min
Area: 2.34e+006 counts
Height: 593272.461 cps
Start Time: 8.08 min
End Time: 8.29 min

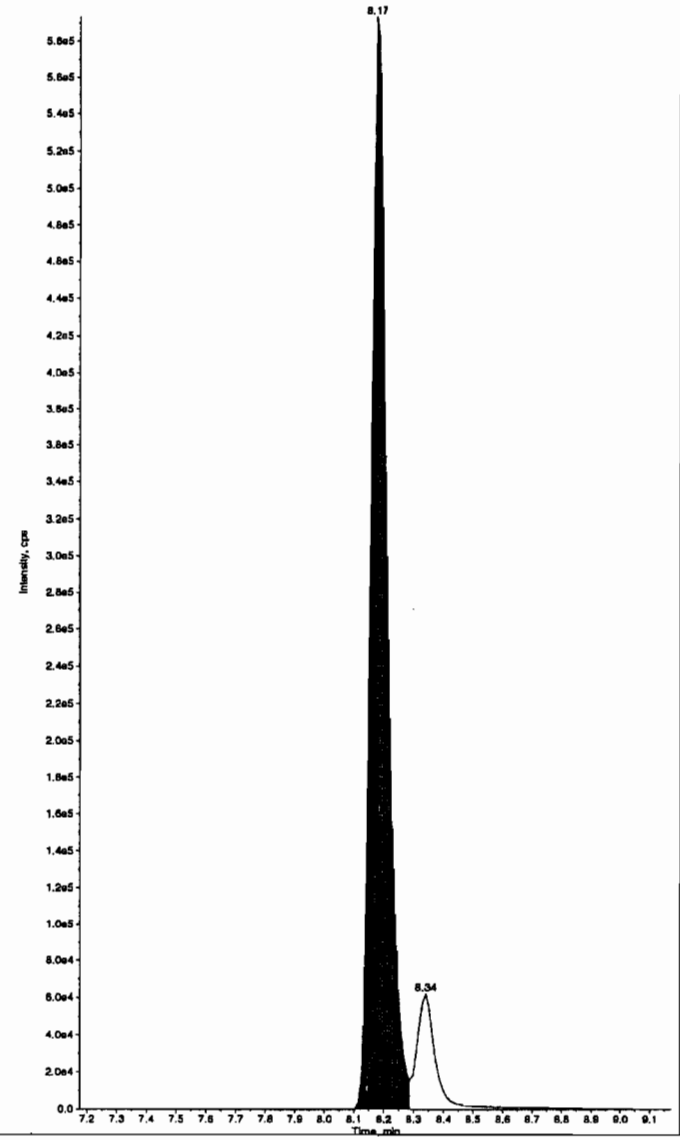

Hum 03/22/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100316-21" Sample ID: "[1]LER" File: "EXS03160005.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

mple Index:	1
mple Type:	Standard
ncentration:	125. ng/mL
lculated Conc:	123. ng/mL
q. Date:	3/16/2010
q. Time:	9:20:40 AM
dified:	No
oc. Algorithm:	IntelliQuan - IQA
n. Peak Height:	1460.00 cps
n. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	15.0 sec
pected RT:	8.33 min
e Relative RT:	No
t. Type:	Valley
tention Time:	8.33 min
ea:	1.59e+006 counts
ight:	446448.608 cps
art Time:	8.26 min
d Time:	8.56 min

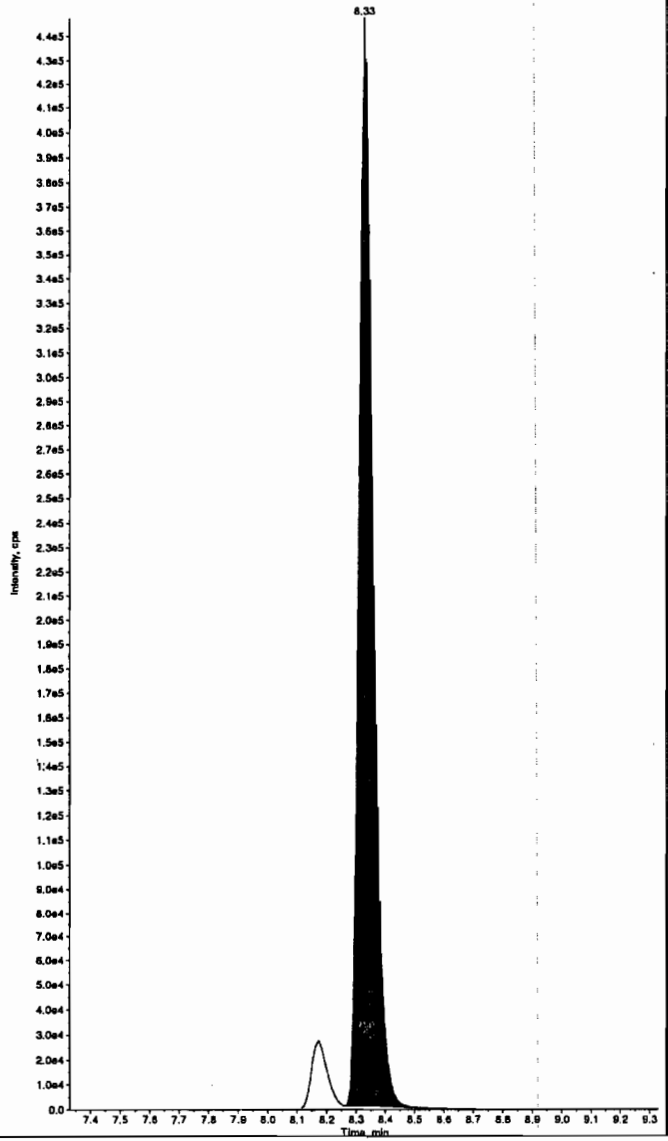

Sample Name: "WXX100316-21" Sample ID: "[1]LER" File: "EXS03160005.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1
Sample Type:	Standard
Concentration:	250. ng/mL
Calculated Conc:	254. ng/mL
Acq. Date:	3/16/2010
Acq. Time:	9:20:40 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	450.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	4.96 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	4.97 min
Area:	4.18e+005 counts
Height:	100111.832 cps
Start Time:	4.88 min
End Time:	5.28 min

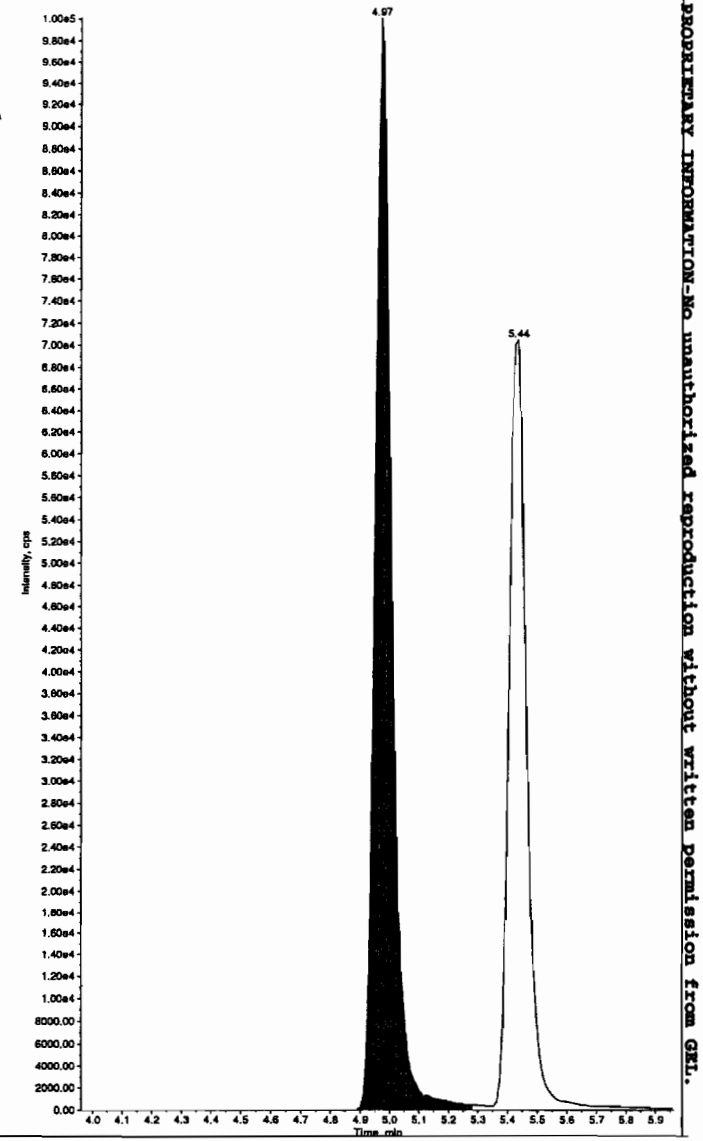

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100316-21" Sample ID: "[1]LER" File: "EXS03160005.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_I" Annotation: ""

```
ple Index:        1
ple Type:      Standard
centration:       250.     ng/mL
culated Conc:     257.     ng/mL
. Date:        3/16/2010
. Time:        9:20:40 AM

ified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00    cps
. Peak Width:    0.00    sec
othing Width:  3        points
Window:          30.0    sec
ected RT:         5.43   min
 Relative RT:     No

. Type:        Valley
ention Time:      5.44   min
a:          2.85e+005   counts
ght:          70206.314  cps
rt Time:          5.34   min
 Time:            5.70   min
```

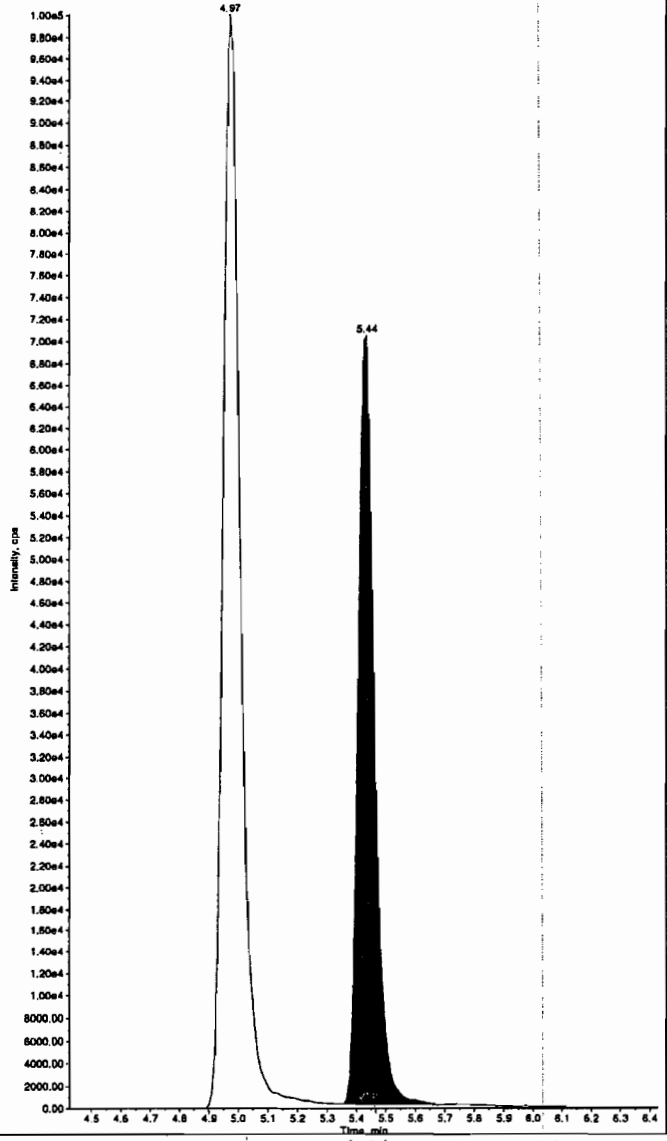

Sample Name: "WXX100316-21" Sample ID: "[1]LER" File: "EXS03160005.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:       250.     ng/mL
Calculated Conc:     254.     ng/mL
Acq. Date:        3/16/2010
Acq. Time:        9:20:40 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:         10.9   min
Use Relative RT:     No

Int. Type:        Valley
Retention Time:      10.9   min
Area:          3.26e+006   counts
Height:        808841.370  cps
Start Time:          10.7   min
End Time:            11.2   min
```

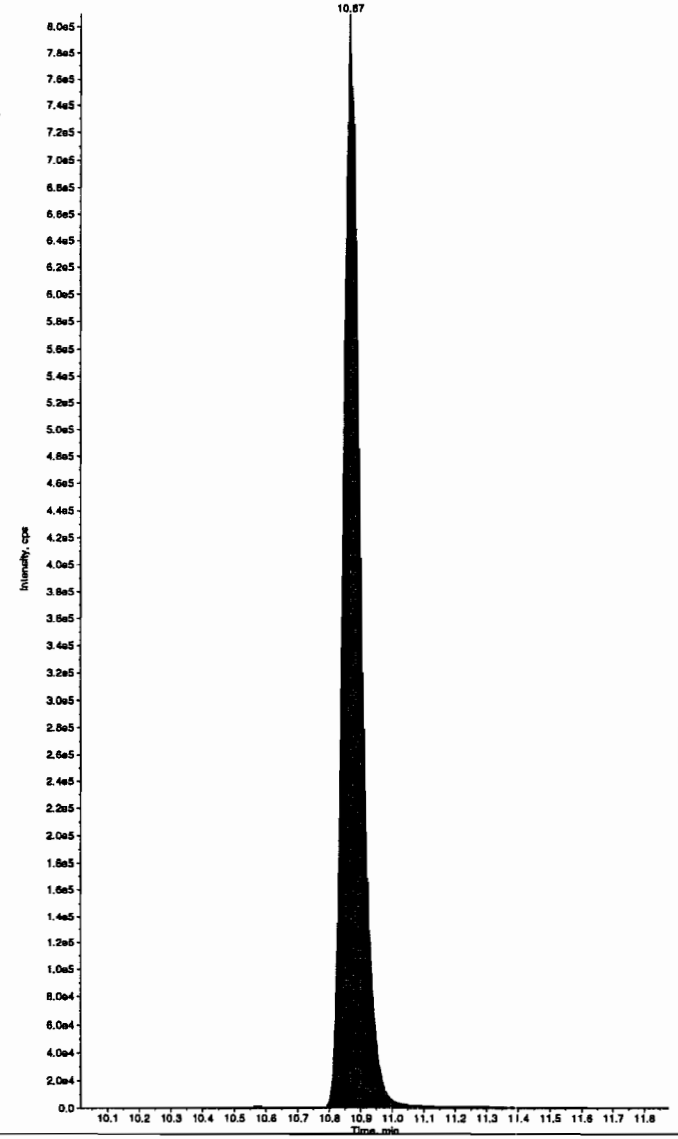

LER 3/18/10

ample Name: "WXX100316-22" Sample ID: "|1|LER" File: "EXS03160006.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_I" Annotation: ""

ple Index:	1	
ple Type:	Standard	
centration:	500.	ng/mL
culated Conc:	489.	ng/mL
. Date:	3/16/2010	
. Time:	9:36:23 AM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	6.93	min
Relative RT:	No	
. Type:	Valley	
ention Time:	6.93	min
a:	8.24e+005	counts
ght:	188409.760	cps
rt Time:	6.83	min
Time:	7.86	min

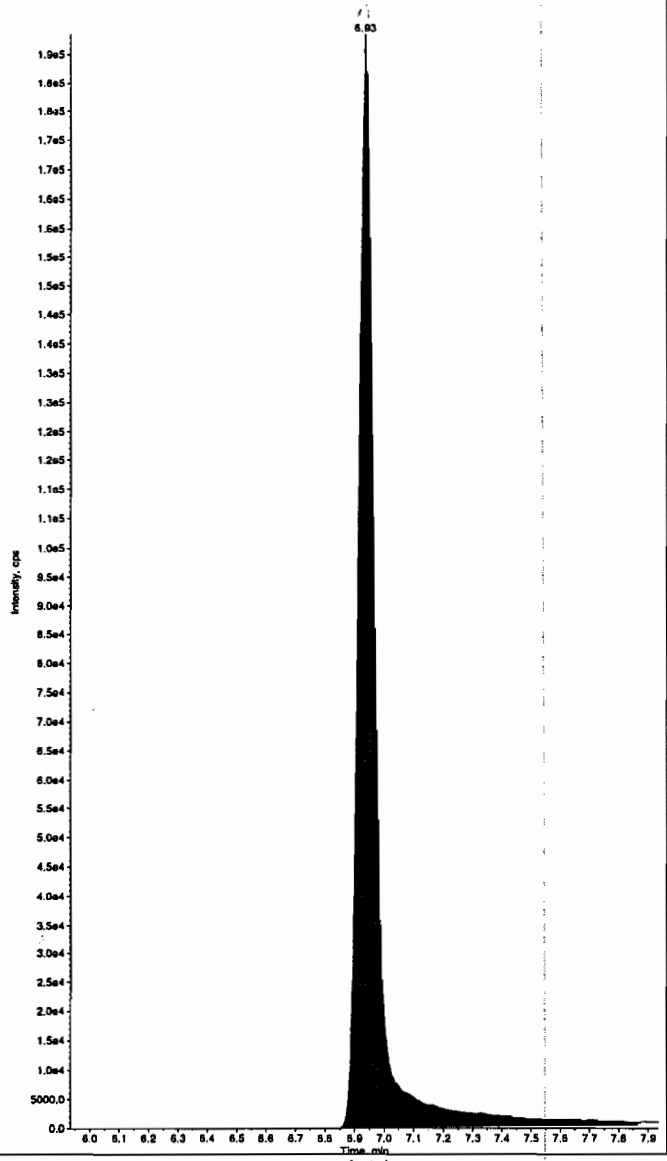

Sample Name: "WXX100316-22" Sample ID: "|1|LER" File: "EXS03160006.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	500.	ng/mL
Calculated Conc:	500.	ng/mL
Acq. Date:	3/16/2010	
Acq. Time:	9:36:23 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.17	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.17	min
Area:	4.41e+006	counts
Height:	1107565.186	cps
Start Time:	8.08	min
End Time:	8.29	min

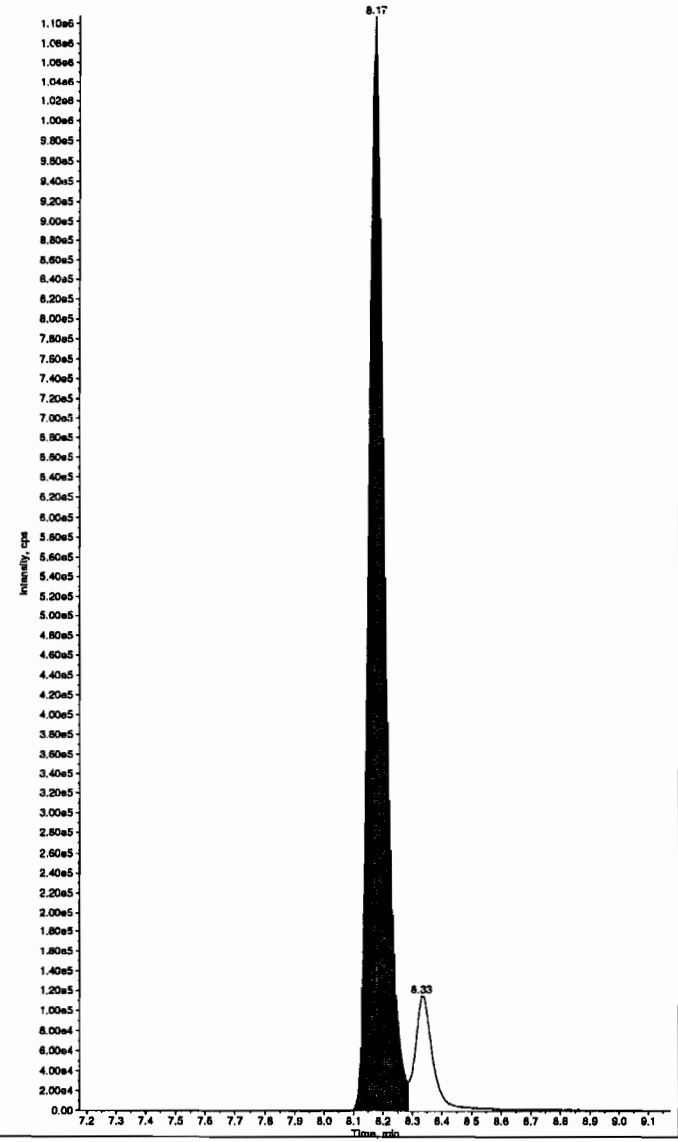

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100316-22" Sample ID: "[1]LER" File: "EXS03160006.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_I" Annotation: ""

```
ple Index:        1
ple Type:      Standard
centration:       250.     ng/mL
culated Conc:     228.     ng/mL
. Date:        3/16/2010
. Time:        9:36:23 AM

ified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00    cps
. Peak Width:     0.00    sec
oothing Width:  3        points
Window:          15.0     sec
ected RT:         8.33    min
 Relative RT:     No

. Type:         Valley
ention Time:      8.33    min
a:          2.90e+006    counts
ght:          799453.186  cps
rt Time:          8.26    min
 Time:            8.66    min
```

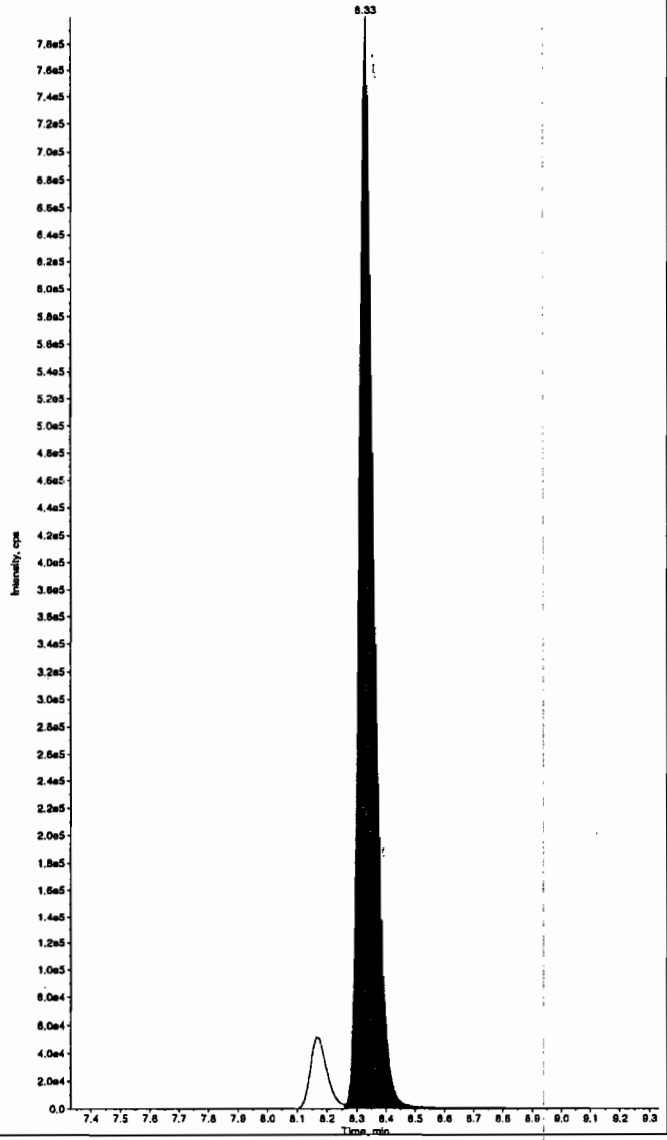

Sample Name: "WXX100316-22" Sample ID: "[1]LER" File: "EXS03160006.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:       500.     ng/mL
Calculated Conc:     508.     ng/mL
Acq. Date:        3/16/2010
Acq. Time:        9:36:23 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:        4.96    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     4.97    min
Area:         8.22e+005    counts
Height:        205936.081  cps
Start Time:         4.87    min
End Time:           5.27    min
```

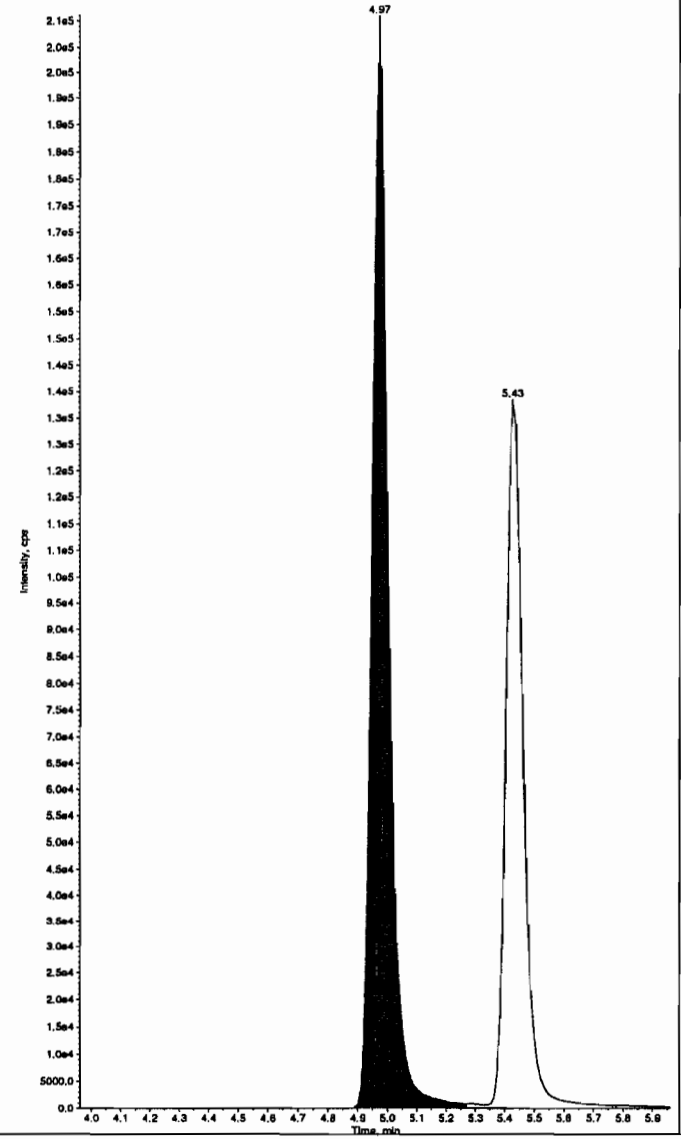

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ample Name: "WXX100316-22" Sample ID: "[1]LER" File: "EXS03160006.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_I" Annotation: ""

```
ple Index:        1
ple Type:      Standard
centration:      500.     ng/mL
culated Conc:    490.     ng/mL
. Date:        3/16/2010
. Time:        9:36:23 AM

ified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00   cps
. Peak Width:    0.00   sec
oothing Width:  3       points
Window:         30.0    sec
ected RT:        5.43   min
 Relative RT:    No

. Type:        Valley
ention Time:     5.43   min
a:          5.37e+005   counts
ght:         132934.280  cps
rt Time:         5.34   min
 Time:           5.98   min
```

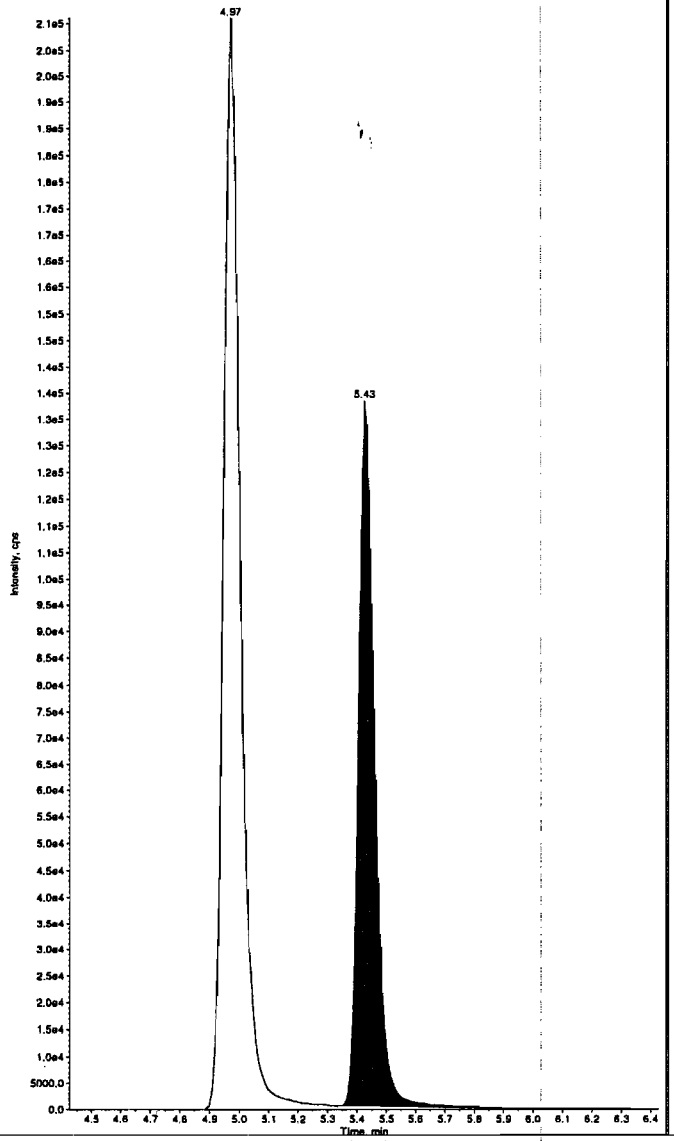

Sample Name: "WXX100316-22" Sample ID: "[1]LER" File: "EXS03160006.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:      500.     ng/mL
Calculated Conc:    496.     ng/mL
Acq. Date:        3/16/2010
Acq. Time:        9:36:23 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         30.0    sec
Expected RT:        10.9   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.9   min
Area:         6.15e+006   counts
Height:        1487069.946  cps
Start Time:         10.8   min
End Time:           11.2   min
```

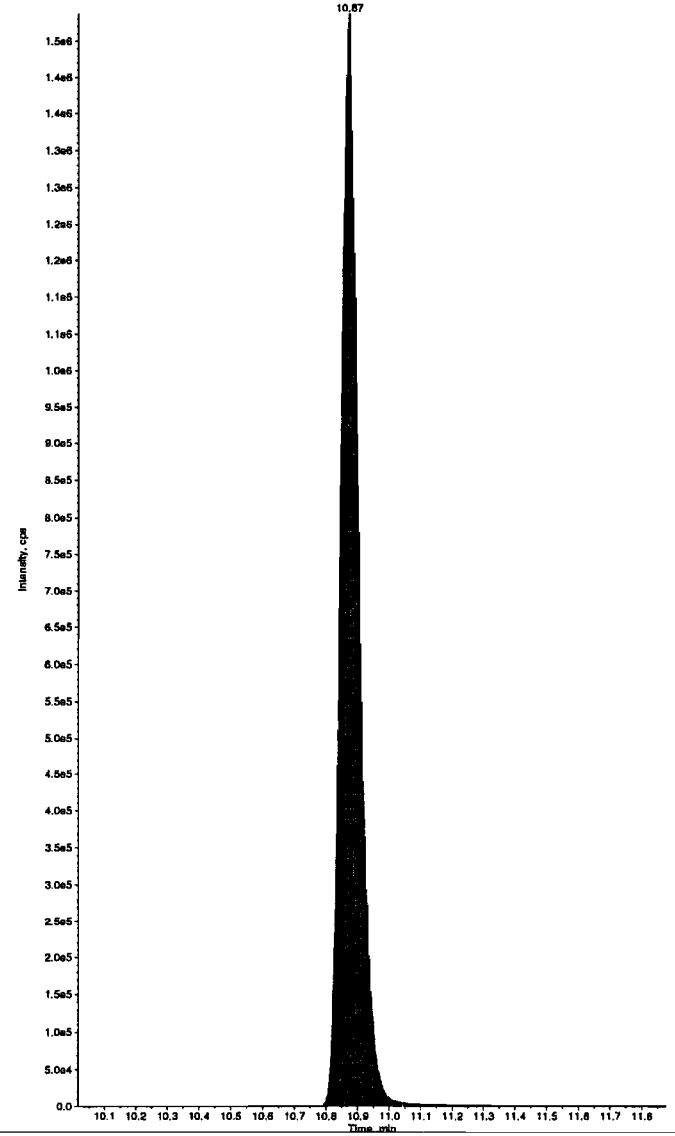

Before Lab 3/18/10

ample Name: "WXX100316-23" Sample ID: "|1|LER" File: "EXS03160007.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_I" Annotation: ""
ple Index: 1
ple Type: Standard
centration: 750. ng/mL
culated Conc: 739. ng/mL
. Date: 3/16/2010
. Time: 9:52:04 AM

ified: No
c. Algorithm: IntelliQuan - IQA
.. Peak Height: 2500.00 cps
.. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
ected RT: 6.93 min
Relative RT: No

. Type: Valley
ention Time: 6.93 min
a: 1.27e+006 counts
ght: 289087.463 cps
rt Time: 6.84 min
Time: 7.90 min

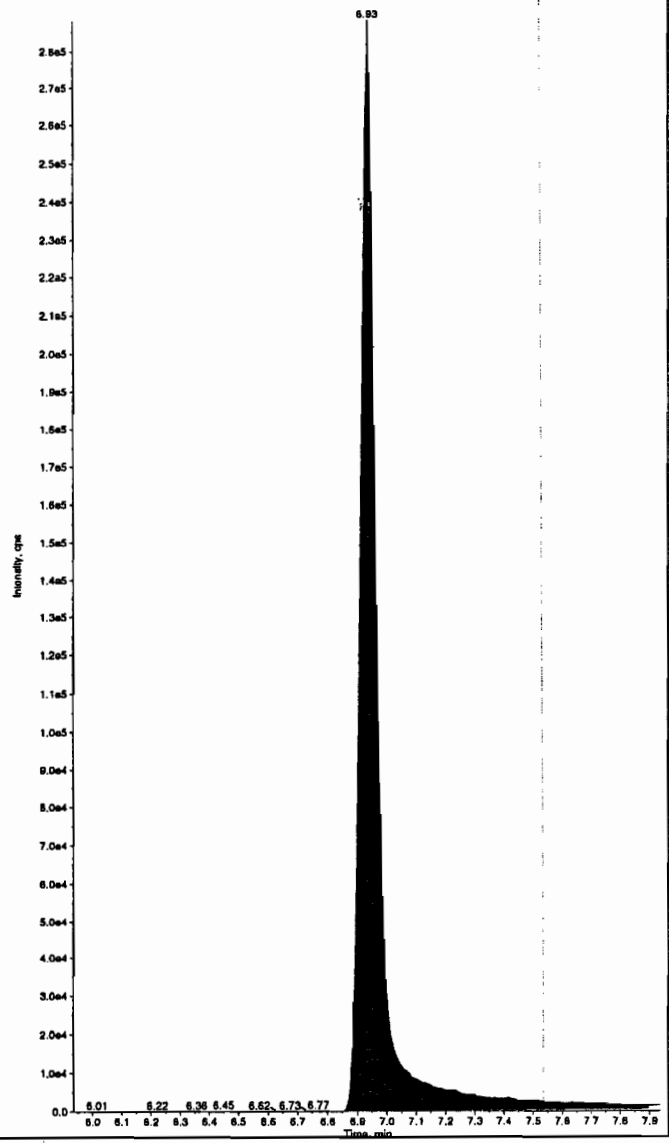

Sample Name: "WXX100316-23" Sample ID: "|1|LER" File: "EXS03160007.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 750. ng/mL
Calculated Conc: 741. ng/mL
Acq. Date: 3/16/2010
Acq. Time: 9:52:04 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.17 min
Area: 6.13e+006 counts
Height: 1567304.443 cps
Start Time: 8.10 min
End Time: 8.29 min

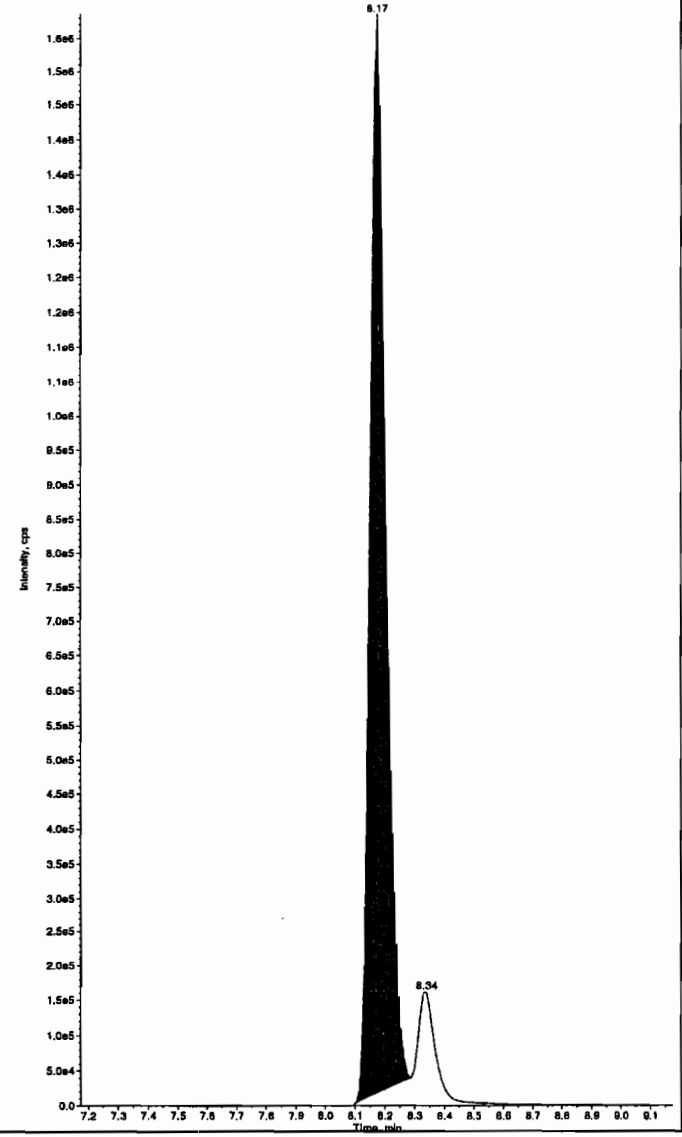

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after Lar 3/18/10

ample Name: "WXX100316-23" Sample ID: "|1|LER" File: "EXS03160007.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_I" Annotation: ""
ple Index: 1
ple Type: Standard
centration: 750. ng/mL
culated Conc: 739. ng/mL
. Date: 3/16/2010
. Time: 9:52:04 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 6.93 min
Relative RT: No

. Type: Valley
ention Time: 6.93 min
a: 1.27e+006 counts
ght: 288087.463 cps
rt Time: 6.84 min
Time: 7.90 min

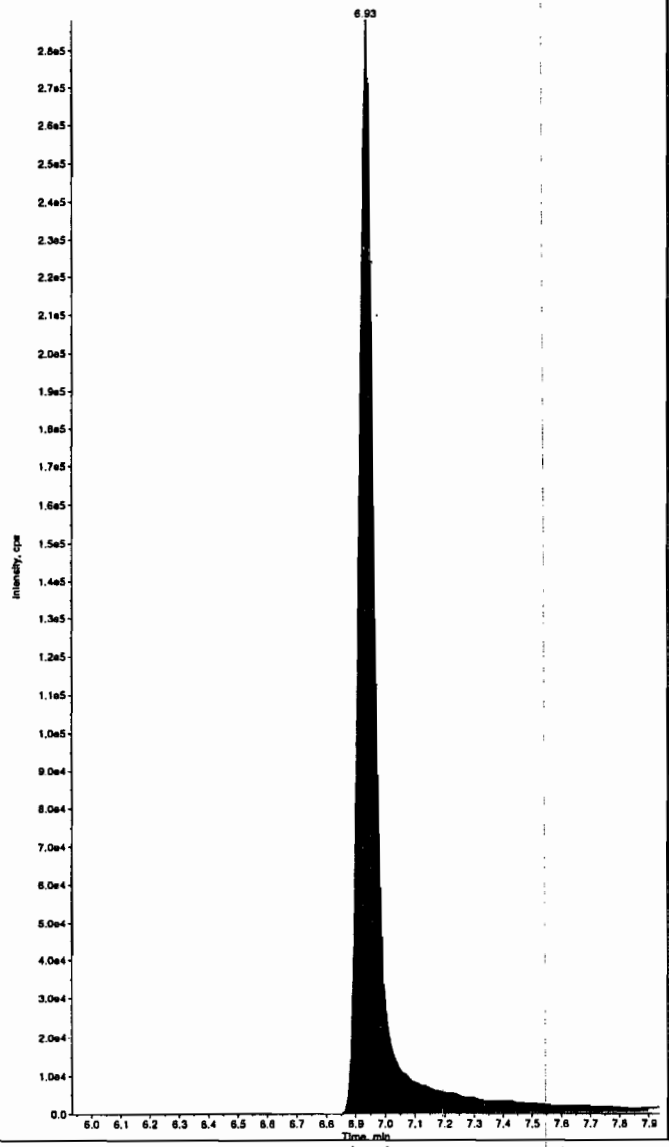

Sample Name: "WXX100316-23" Sample ID: "|1|LER" File: "EXS03160007.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 750. ng/mL
Calculated Conc: 751. ng/mL
Acq. Date: 3/16/2010
Acq. Time: 9:52:04 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.17 min
Area: 6.37e+006 counts
Height: 1585990.888 cps
Start Time: 8.08 min
End Time: 8.29 min

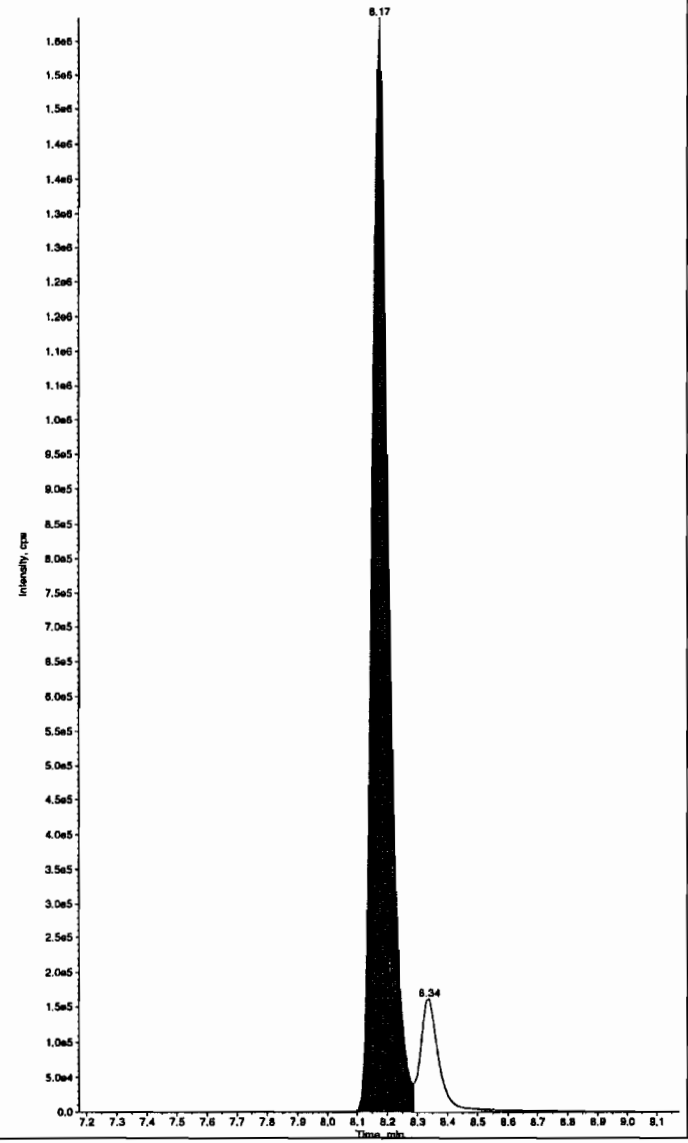

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100316-23" Sample ID: "[1]LER" File: "EXS03160007.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_I" Annotation: ""

```
ple Index:        1
ple Type:      Standard
centration:       325.     ng/mL
culated Conc:     352.     ng/mL
. Date:       3/16/2010
. Time:       9:52:04 AM

ified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00   cps
. Peak Width:     0.00   sec
oothing Width:  3        points
Window:          15.0    sec
ected RT:         8.33   min
 Relative RT:     No

. Type:        Valley
ention Time:      8.33   min
a:          4.38e+006   counts
ght:          1181003.296  cps
rt Time:          8.26   min
 Time:            8.65   min
```

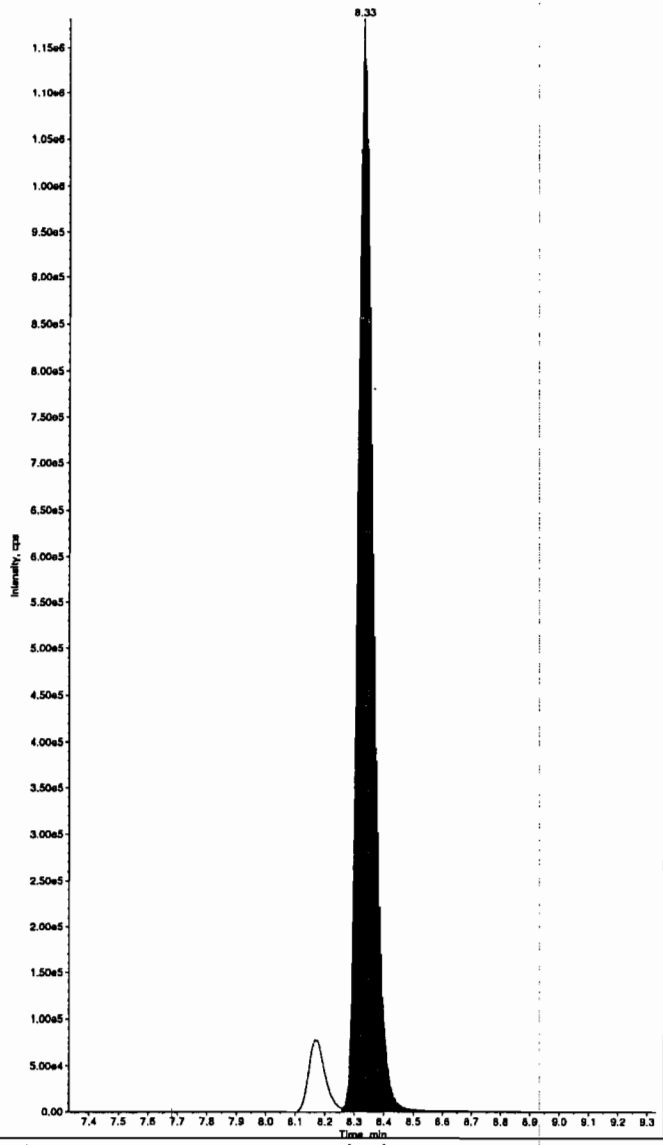

Sample Name: "WXX100316-23" Sample ID: "[1]LER" File: "EXS03160007.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:       750.     ng/mL
Calculated Conc:     737.     ng/mL
Acq. Date:       3/16/2010
Acq. Time:       9:52:04 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:          30.0   sec
Expected RT:         4.96  min
Use Relative RT:     No

Int. Type:        Valley
Retention Time:      4.97  min
Area:         1.18e+006   counts
Height:        278563.843  cps
Start Time:          4.88  min
End Time:            5.27  min
```

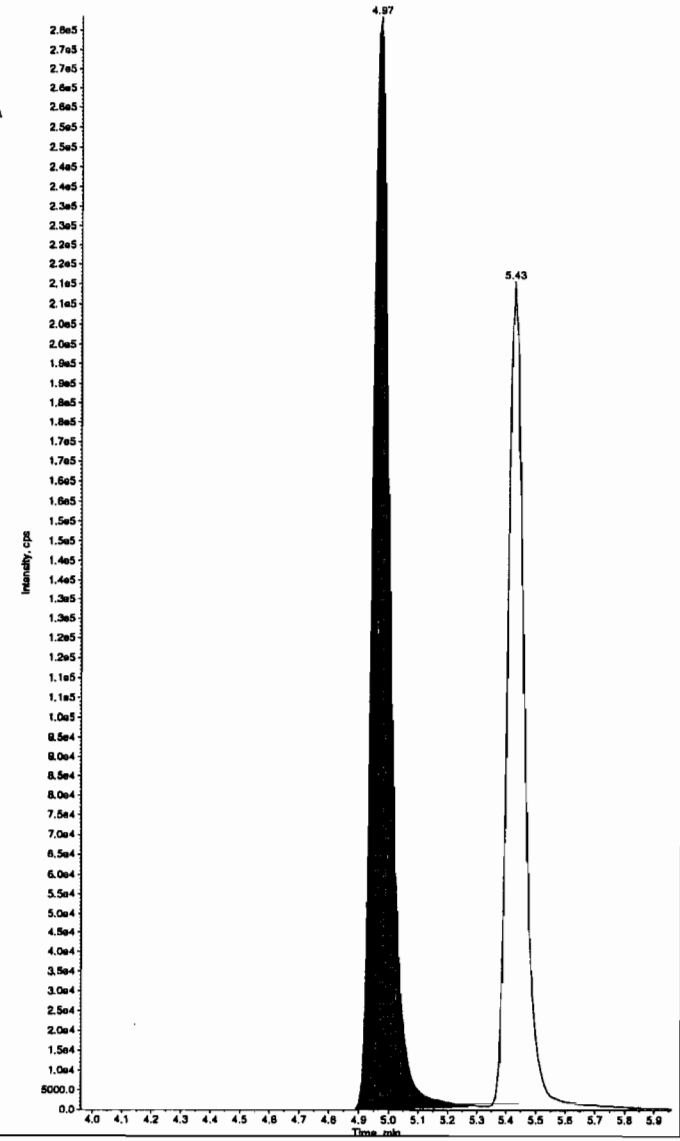

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mple Name: "WXX100316-23" Sample ID: "[1]LER" File: "EXS03160007.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_I" Annotation: ""

```
ıle Index:        1
ıle Type:      Standard
:entration:       750.     ng/mL
:ulated Conc:     773.     ng/mL
  Date:       3/16/2010
  Time:       9:52:04 AM

fied:             No
:. Algorithm: IntelliQuan - IQA
  Peak Height: 350.00    cps
  Peak Width:    0.00    sec
ıthing Width:  3        points
'indow:          30.0    sec
ıcted RT:         5.43   min
 Relative RT:     No

 Type:         Valley
ntion Time:       5.43   min
:          8.42e+005   counts
ht:          210580.521  cps
t Time:           5.34   min
Time:             5.98   min
```

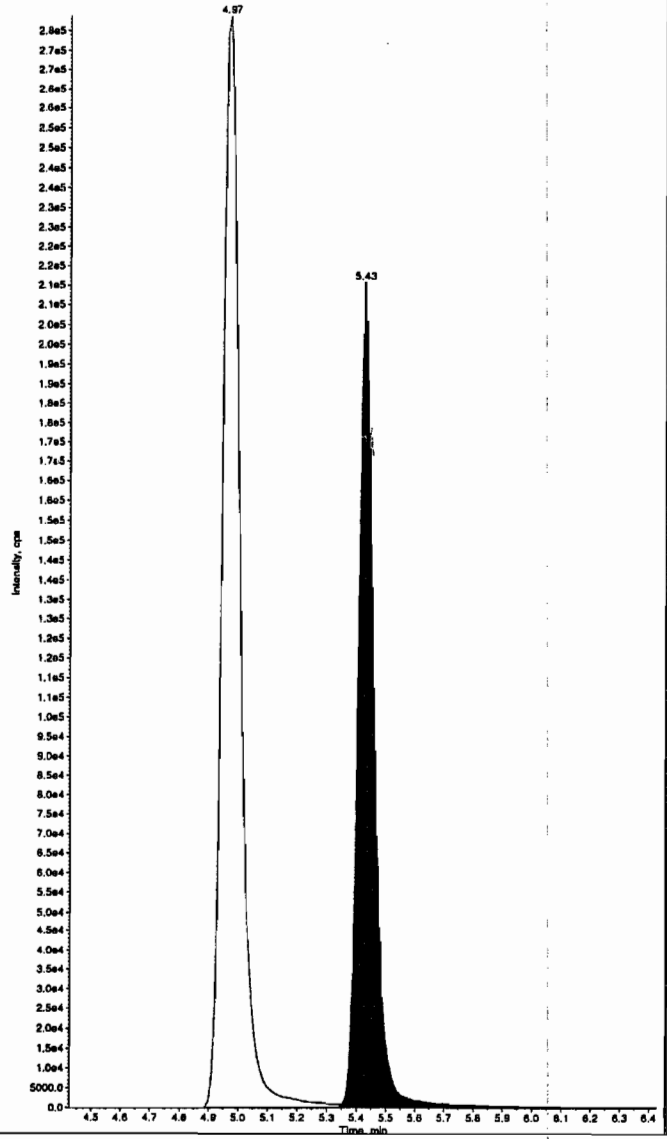

Sample Name: "WXX100316-23" Sample ID: "[1]LER" File: "EXS03160007.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:       750.     ng/mL
Calculated Conc:     741.     ng/mL
Acq. Date:       3/16/2010
Acq. Time:       9:52:04 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:         10.9   min
Use Relative RT:     No

Int. Type:        Valley
Retention Time:      10.9   min
Area:          8.92e+006   counts
Height:        2150261.719  cps
Start Time:          10.8   min
End Time:            11.2   min
```

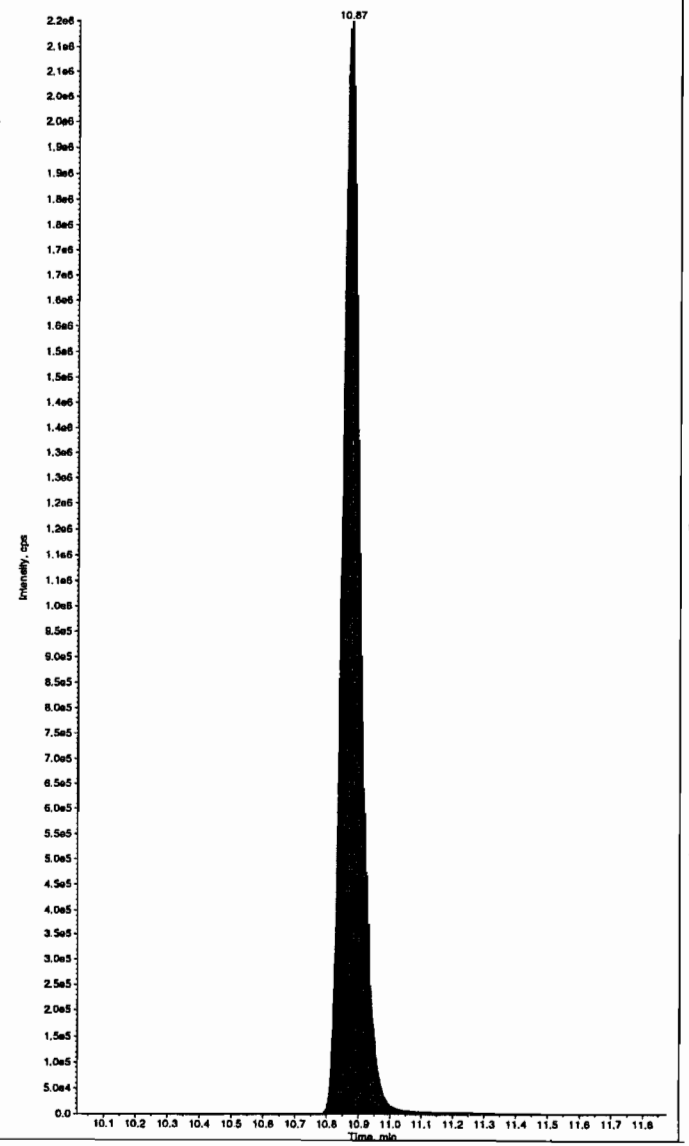

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Before Lev 3/18/10

ample Name: "WXX100316-24" Sample ID: "[1]LER" File: "EXS03160008.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_I" Annotation: ""

ple Index:	1	
ple Type:	Standard	
centration:	1000.	ng/mL
culated Conc:	1020.	ng/mL
. Date:	3/16/2010	
. Time:	10:07:46 AM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
ected RT:	6.93	min
Relative RT:	No	
. Type:	Valley	
ention Time:	6.93	min
a:	1.77e+006	counts
ght:	386415.619	cps
rt Time:	6.79	min
Time:	8.22	min

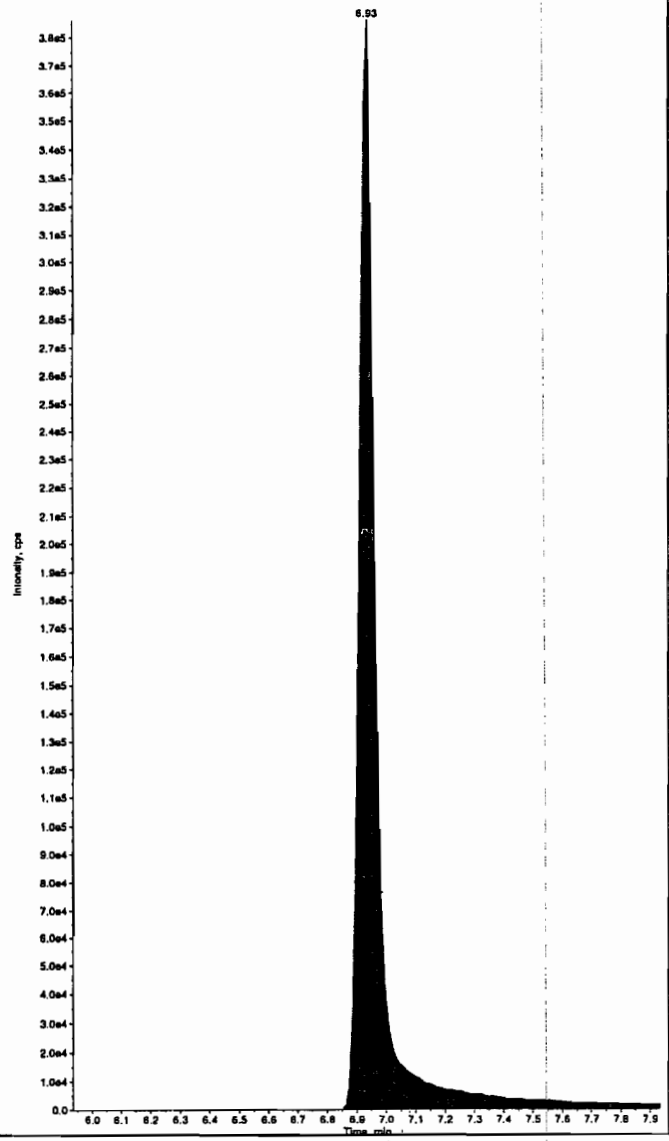

Sample Name: "WXX100316-24" Sample ID: "[1]LER" File: "EXS03160008.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	1000.	ng/mL
Calculated Conc:	982.	ng/mL
Acq. Date:	3/16/2010	
Acq. Time:	10:07:46 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.17	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.17	min
Area:	7.92e+006	counts
Height:	1972214.722	cps
Start Time:	8.09	min
End Time:	8.29	min

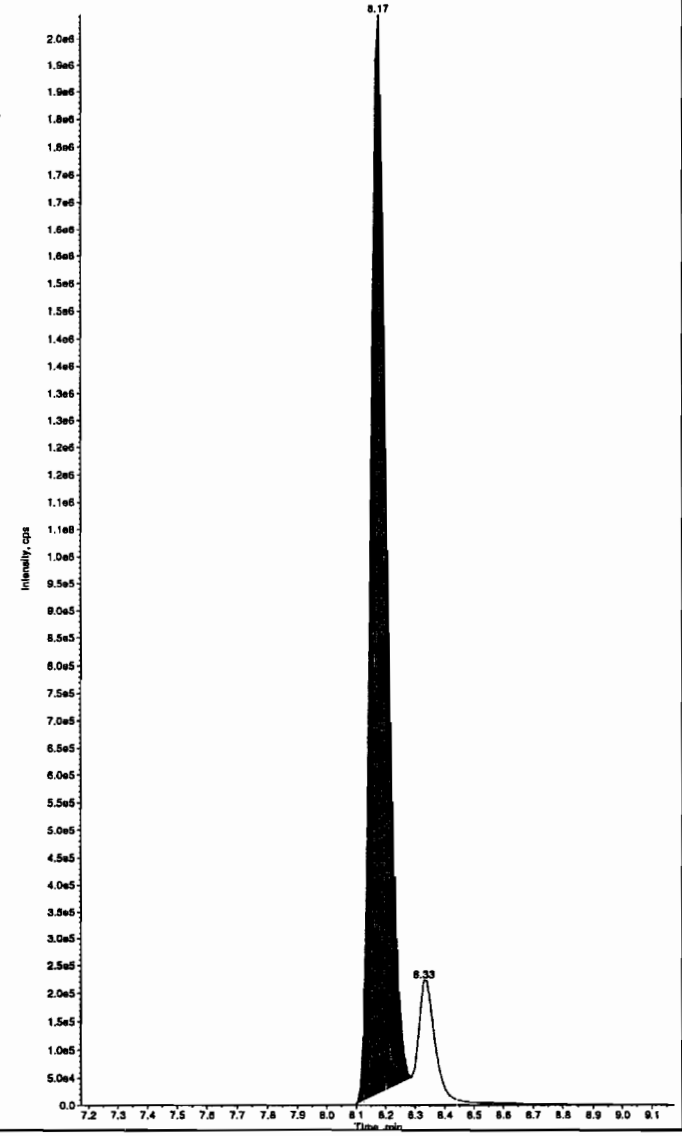

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

after Ran 3/18/10

ample Name: "WXX100316-24" Sample ID: "[1]LER" File: "EXS03160008.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_]" Annotation: ""
ple Index: 1
ple Type: Standard
centration: 1000. ng/mL
culated Conc: 1020. ng/mL
. Date: 3/16/2010
. Time: 10:07:46 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
ected RT: 6.93 min
Relative RT: No

. Type: Valley
ention Time: 6.93 min
a: 1.77e+006 counts
ght: 386415.619 cps
rt Time: 6.79 min
Time: 8.22 min

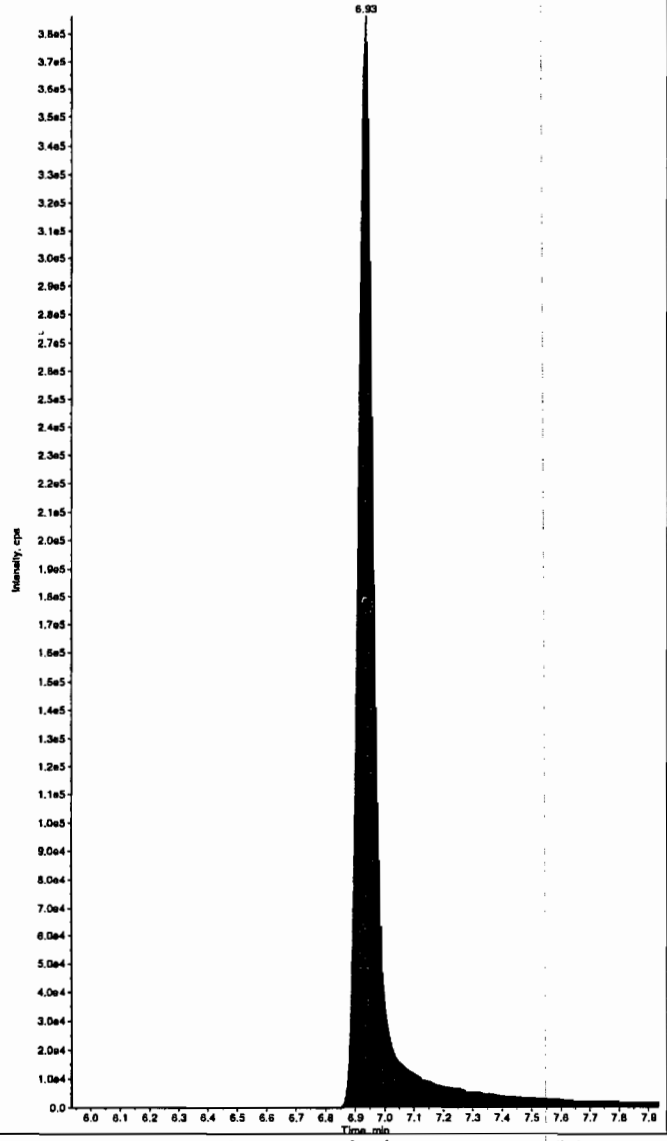

Sample Name: "WXX100316-24" Sample ID: "[1]LER" File: "EXS03160008.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_]" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 1000. ng/mL
Calculated Conc: 998. ng/mL
Acq. Date: 3/16/2010
Acq. Time: 10:07:46 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.17 min
Area: 8.18e+006 counts
Height: 1995107.812 cps
Start Time: 8.10 min
End Time: 8.29 min

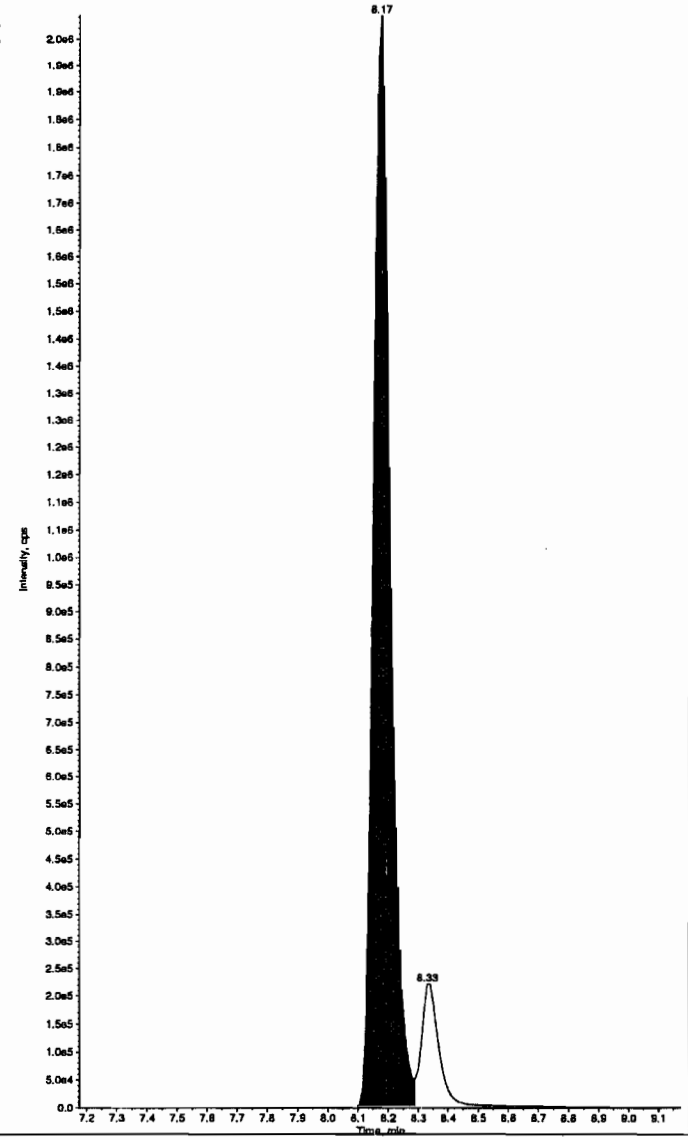

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100316-24" Sample ID: "[1]LER" File: "EXS03160008.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_I" Annotation: ""

ple Index:	1	
ple Type:	Standard	
centration:	500.	ng/mL
culated Conc:	493.	ng/mL
. Date:	3/16/2010	
. Time:	10:07:46 AM	
lified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	1460.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	15.0	sec
ected RT:	8.33	min
Relative RT:	No	
.. Type:	Valley	
ention Time:	8.33	min
a:	5.97e+006	counts
ght:	1593297.607	cps
rt Time:	8.26	min
. Time:	8.57	min

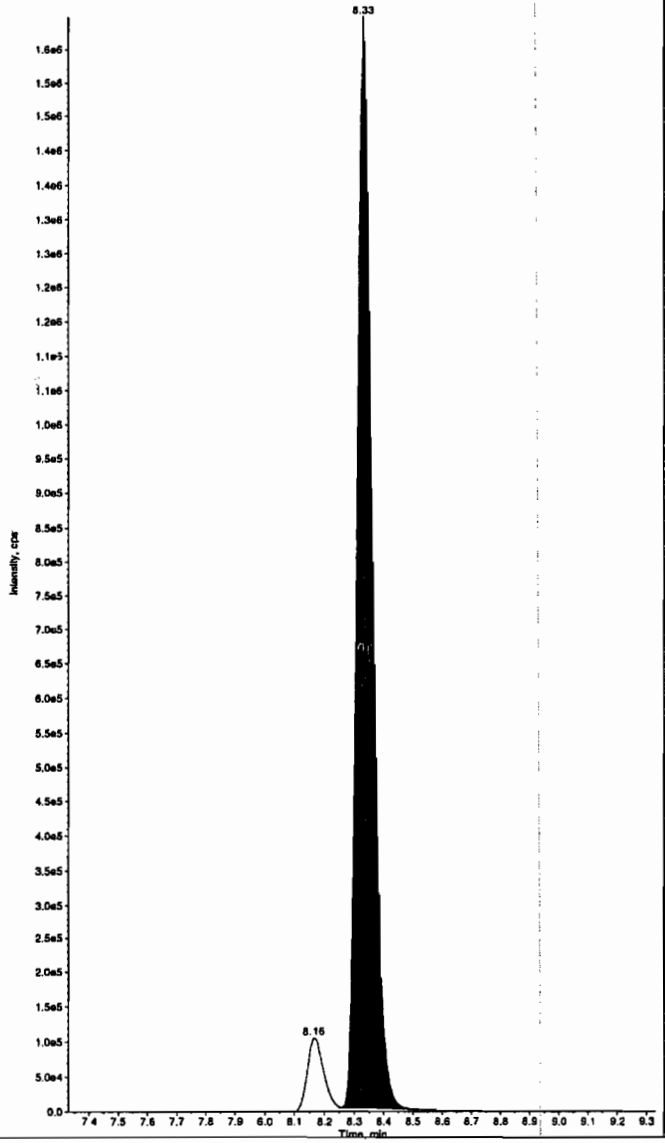

Sample Name: "WXX100316-24" Sample ID: "[1]LER" File: "EXS03160008.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	1000.	ng/mL
Calculated Conc:	1000.	ng/mL
Acq. Date:	3/16/2010	
Acq. Time:	10:07:46 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	4.96	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	4.97	min
Area:	1.60e+006	counts
Height:	386956.512	cps
Start Time:	4.81	min
End Time:	5.27	min

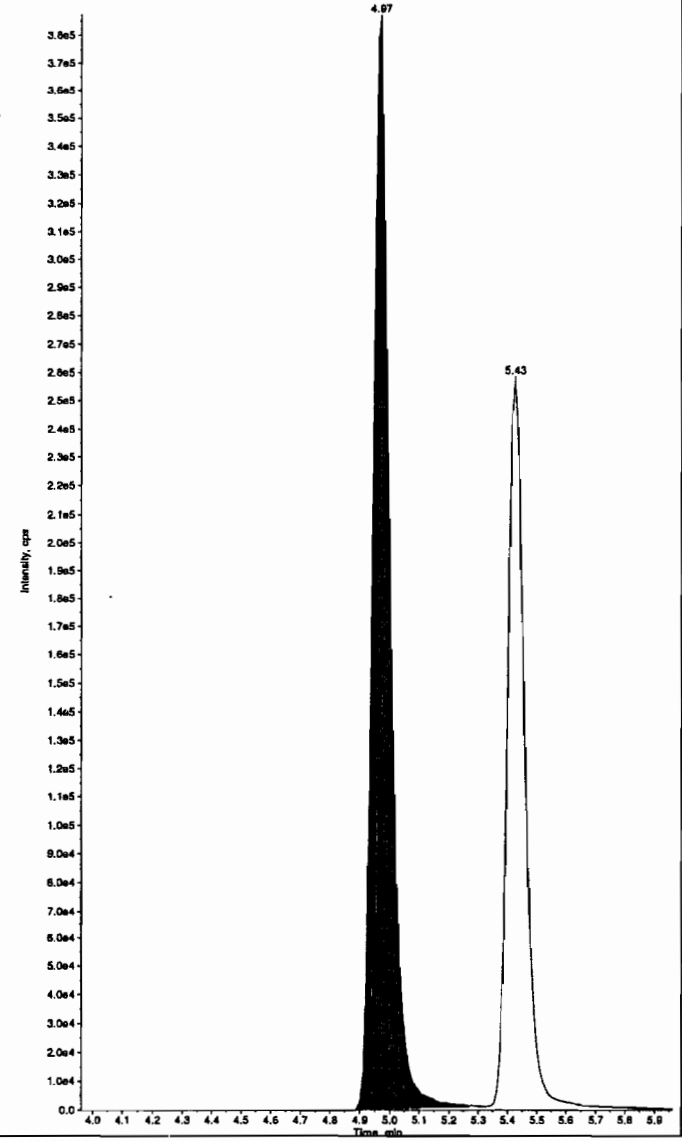

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ample Name: "WXX100316-24" Sample ID: "|1|LER" File: "EXS03160008.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_I" Annotation: ""

```
ple Index:        1
ple Type:      Standard
icentration:     1000.     ng/mL
culated Conc:     984.     ng/mL
. Date:        3/16/2010
. Time:        10:07:46 AM

lified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00    cps
. Peak Width:    0.00    sec
othing Width:  3        points
Window:         30.0     sec
ected RT:        5.43    min
Relative RT:     No

. Type:         Valley
ention Time:     5.43    min
a:          1.07e+006   counts
ght:         258402.832  cps
rt Time:         5.32    min
. Time:          5.97    min
```

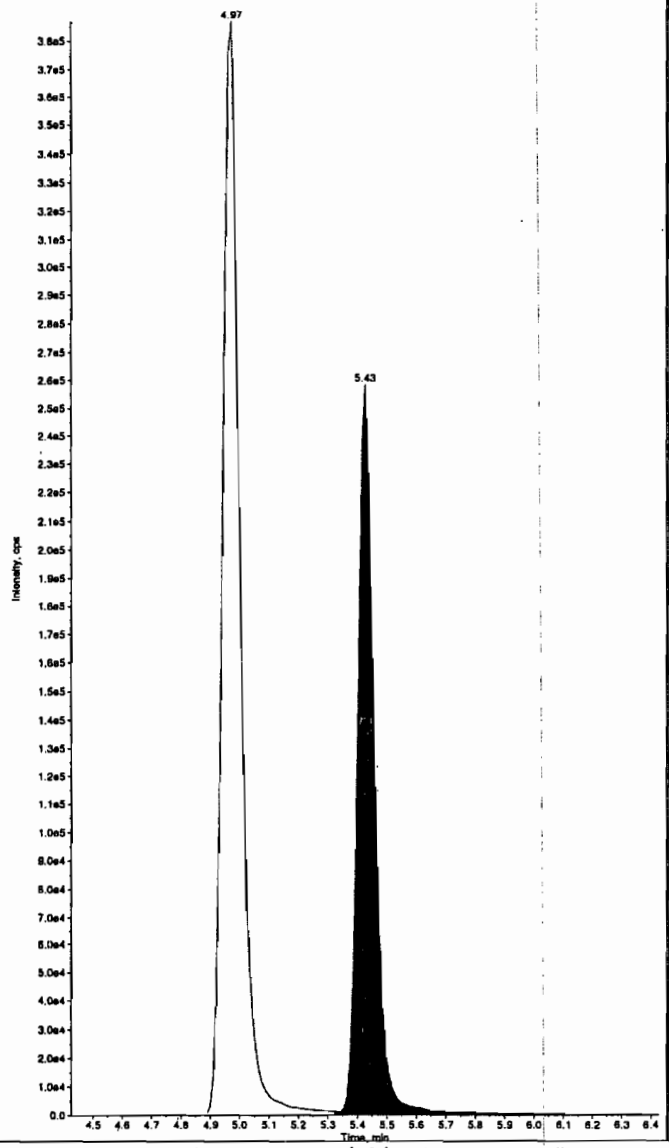

Sample Name: "WXX100316-24" Sample ID: "|1|LER" File: "EXS03160008.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:     1000.     ng/mL
Calculated Conc:   1010.     ng/mL
Acq. Date:        3/16/2010
Acq. Time:        10:07:46 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:        10.9    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.9    min
Area:          1.18e+007   counts
Height:        2741577.881  cps
Start Time:         10.8    min
End Time:           11.2    min
```

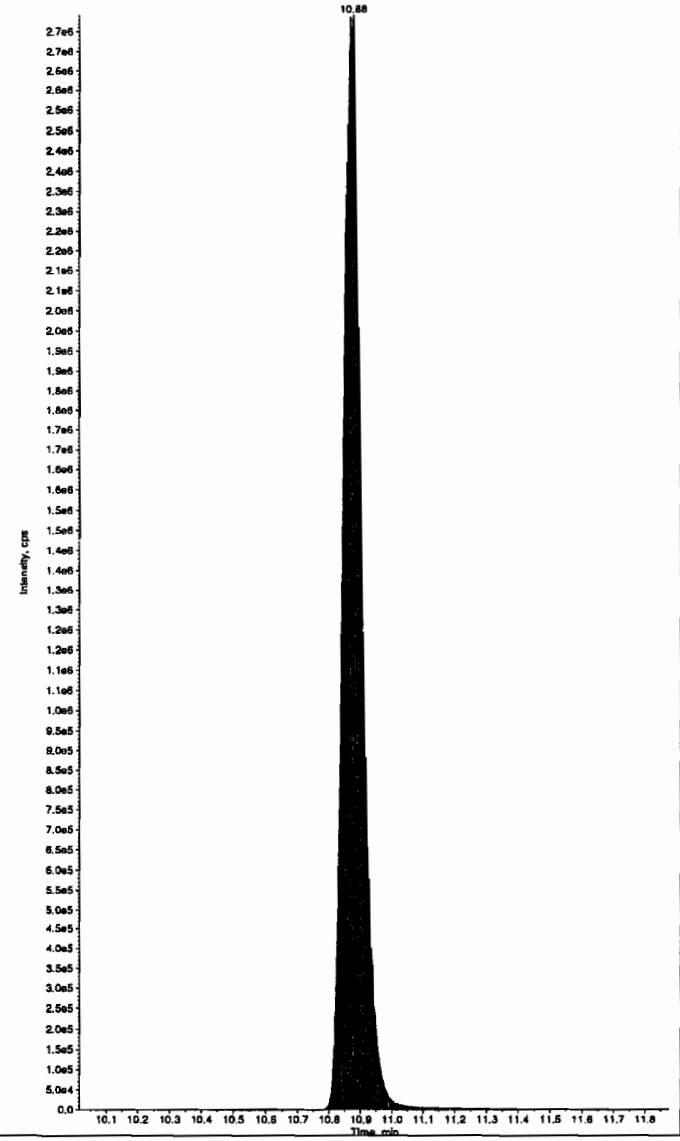

Before Lab 3/18/10

Sample Name: "WXX100316-25" Sample ID: "[1]LER" File: "EXS03160009.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

ample Index: 1
ample Type: Standard
ncentration: 2000. ng/mL
lculated Conc: 2000. ng/mL
q. Date: 3/16/2010
q. Time: 10:23:28 AM

lified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 2500.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 6.93 min
Relative RT: No

. Type: Valley
etention Time: 6.93 min
a: 3.61e+006 counts
ght: 765417.236 cps
rt Time: 6.83 min
Time: 8.10 min

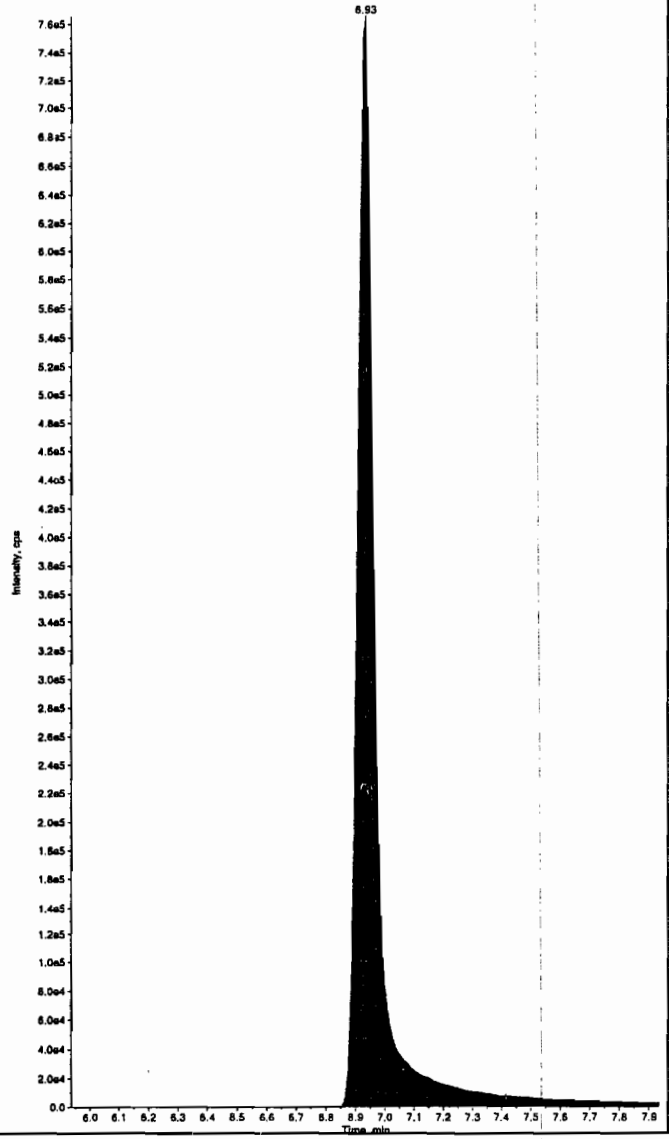

Sample Name: "WXX100316-25" Sample ID: "[1]LER" File: "EXS03160009.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 2000. ng/mL
Calculated Conc: 2000. ng/mL
Acq. Date: 3/16/2010
Acq. Time: 10:23:28 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.16 min
Area: 1.36e+007 counts
Height: 3163049.805 cps
Start Time: 8.09 min
End Time: 8.28 min

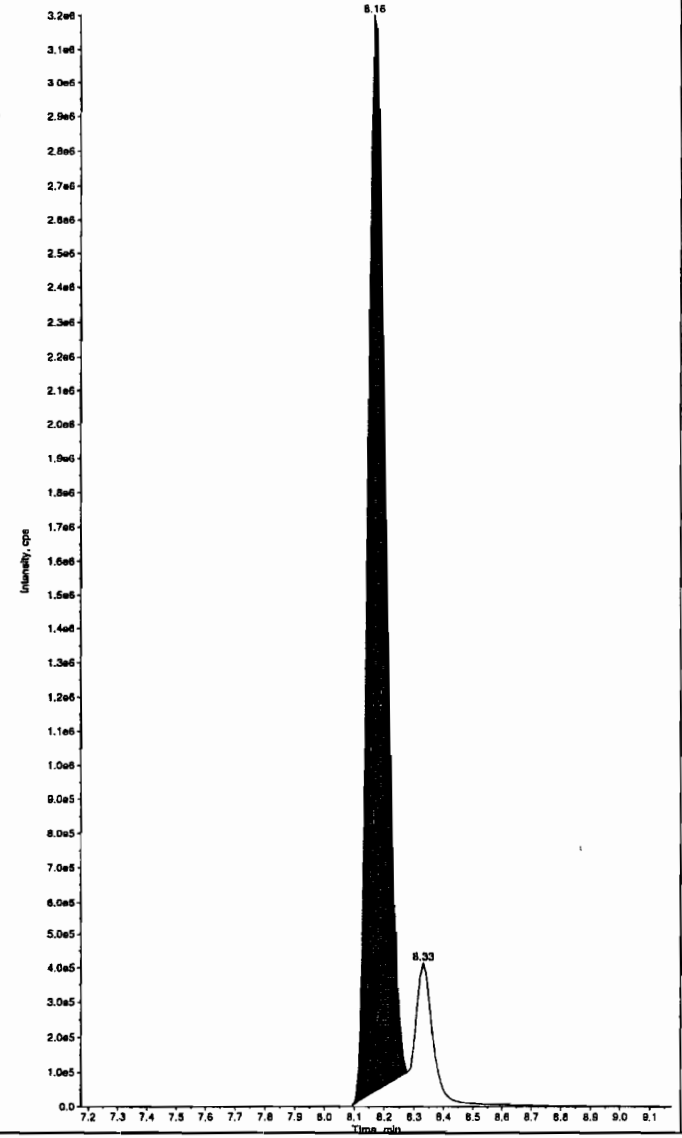

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after Lan 3/18/10

ample Name: "WXX100316-25" Sample ID: "|1|LER" File: "EXS03160009.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_I" Annotation: ""

```
ple Index:          1
ple Type:       Standard
.centration:      2000.     ng/mL
culated Conc:     2000.     ng/mL
:. Date:        3/16/2010
.. Time:        10:23:28 AM

ified:              No
c. Algorithm: IntelliQuan - IQA
. Peak Height:2500.00    cps
. Peak Width:     0.00    sec
othing Width:  3        points
Window:          30.0     sec
ected RT:         6.93    min
 Relative RT:     No

. Type:         Valley
ention Time:      6.93    min
a:          3.61e+006   counts
ght:          765417.236  cps
rt Time:          6.83    min
 Time:            8.10    min
```

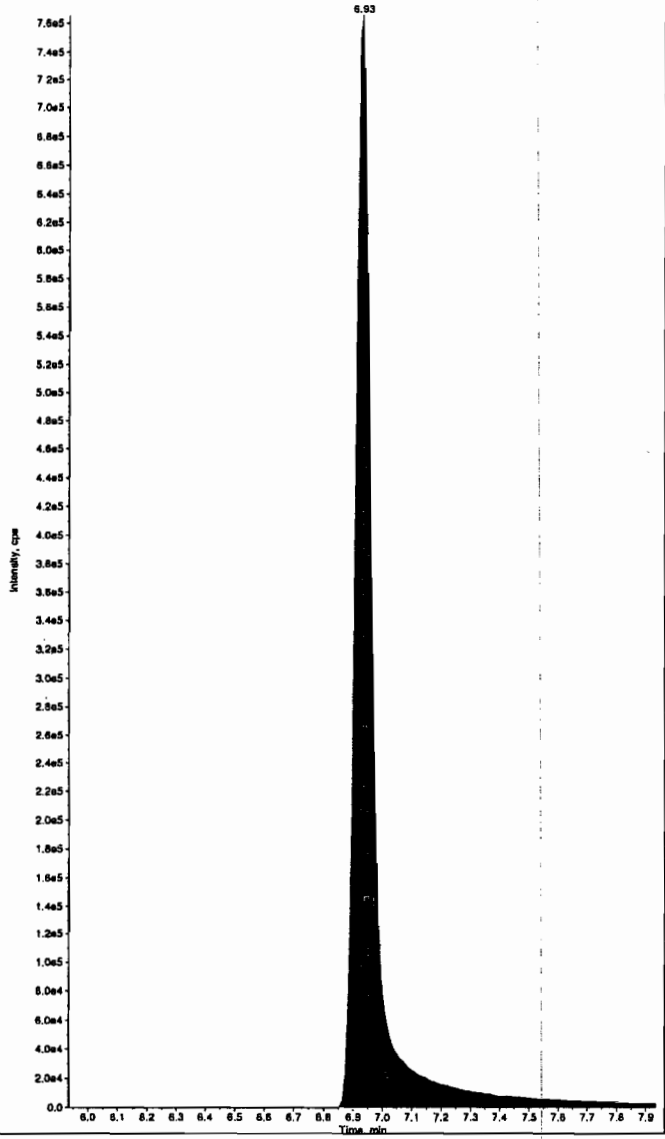

Sample Name: "WXX100316-25" Sample ID: "|1|LER" File: "EXS03160009.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:          1
Sample Type:       Standard
Concentration:      2000.     ng/mL
Calculated Conc:    2000.     ng/mL
Acq. Date:        3/16/2010
Acq. Time:        10:23:28 AM

Modified:             Yes
RT Window:           15.0     sec
Expected RT:          8.17    min
Use Relative RT:      No

Int. Type:          Manual
Retention Time:       8.17    min
Area:          1.41e+007   counts
Height:        3232732.055  cps
Start Time:           8.09    min
End Time:             8.28    min
```

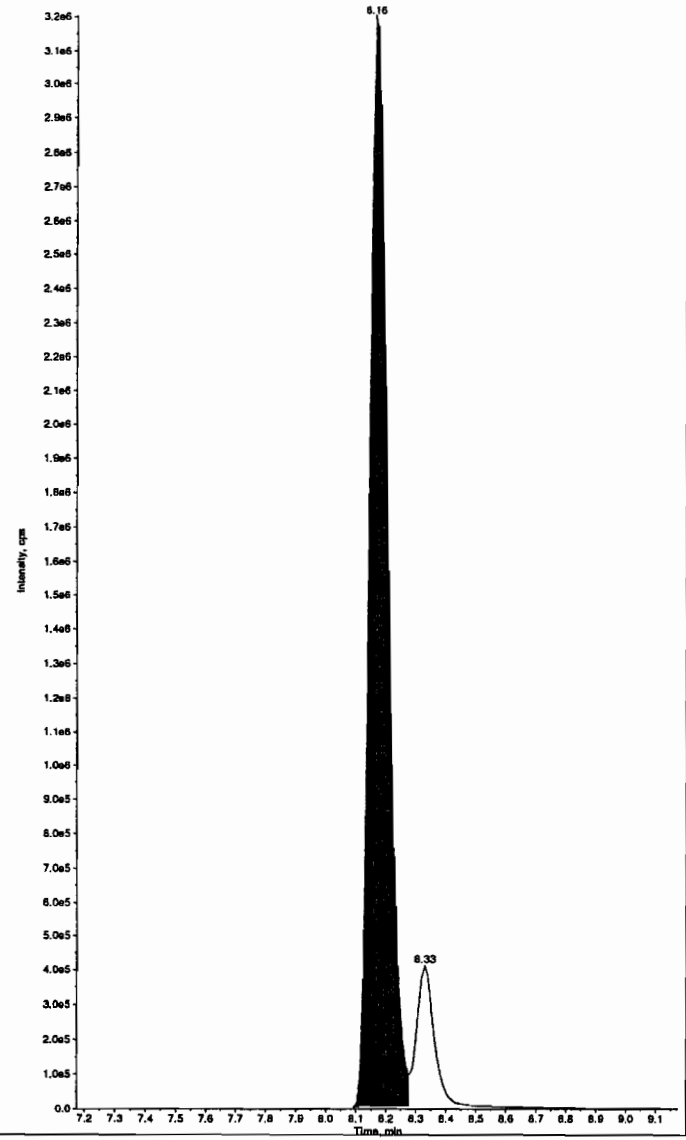

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ample Name: "WXX100316-25" Sample ID: "|1|LER" File: "EXS03160009.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_I" Annotation: ""
ple Index: 1
ple Type: Standard
centration: 1000. ng/mL
culated Conc: 1000. ng/mL
. Date: 3/16/2010
. Time: 10:23:28 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
ected RT: 8.33 min
Relative RT: No

.. Type: Valley
ention Time: 8.32 min
a: 1.09e+007 counts
ght: 2798149.658 cps
rt Time: 8.25 min
Time: 8.66 min

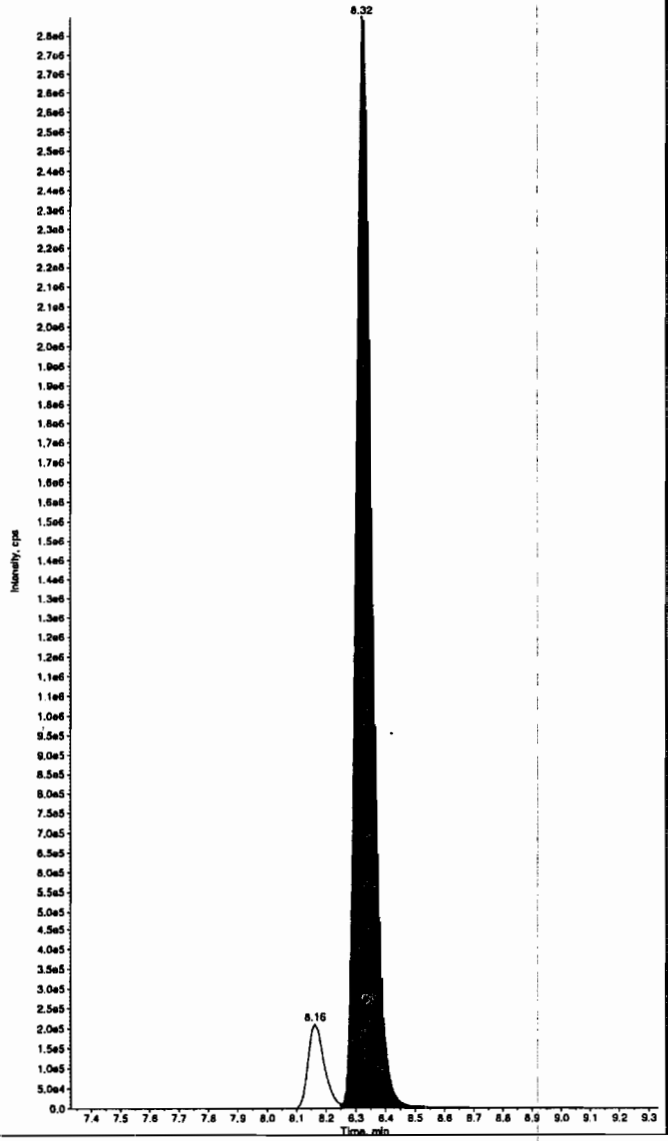

Sample Name: "WXX100316-25" Sample ID: "|1|LER" File: "EXS03160009.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 2000. ng/mL
Calculated Conc: 2000. ng/mL
Acq. Date: 3/16/2010
Acq. Time: 10:23:28 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.96 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.96 min
Area: 3.14e+006 counts
Height: 740282.166 cps
Start Time: 4.87 min
End Time: 5.27 min

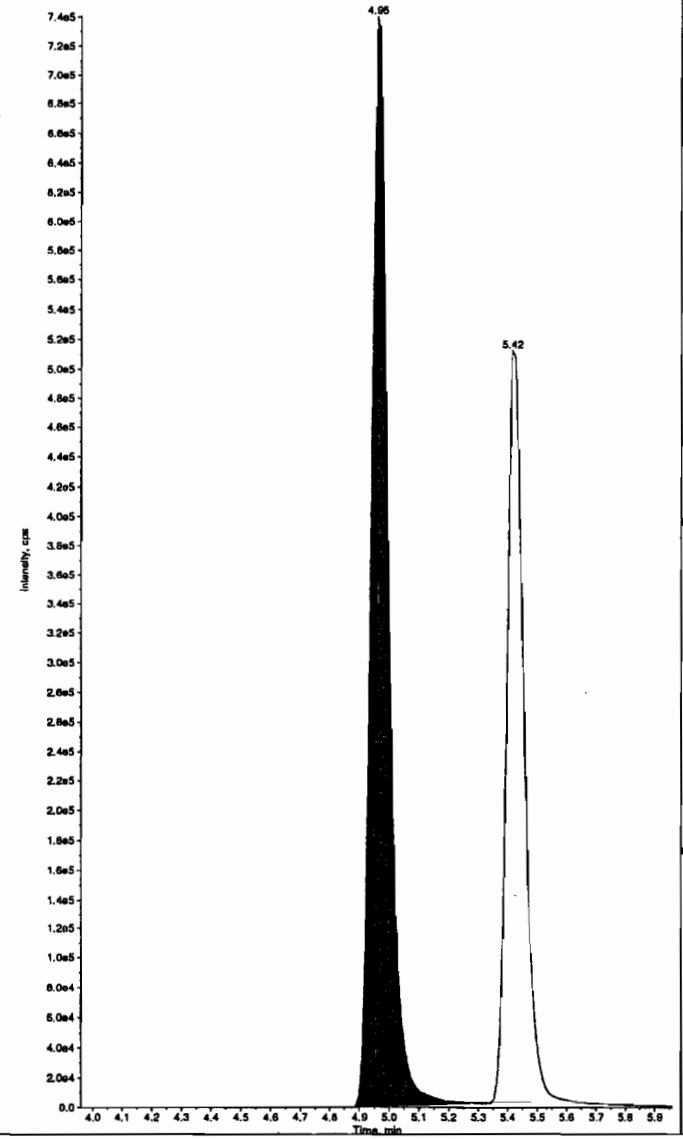

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ample Name: "WXX100316-25" Sample ID: "|1|LER" File: "EXS03160009.wiff"
'eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

ple Index: 1
ple Type: Standard
ncentration: 2000. ng/mL
.culated Conc: 2000. ng/mL
I. Date: 3/16/2010
I. Time: 10:23:28 AM

lified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
ected RT: 5.43 min
Relative RT: No

.. Type: Valley
ention Time: 5.42 min
a: 2.16e+006 counts
ght: 512693.481 cps
rt Time: 5.31 min
Time: 6.09 min

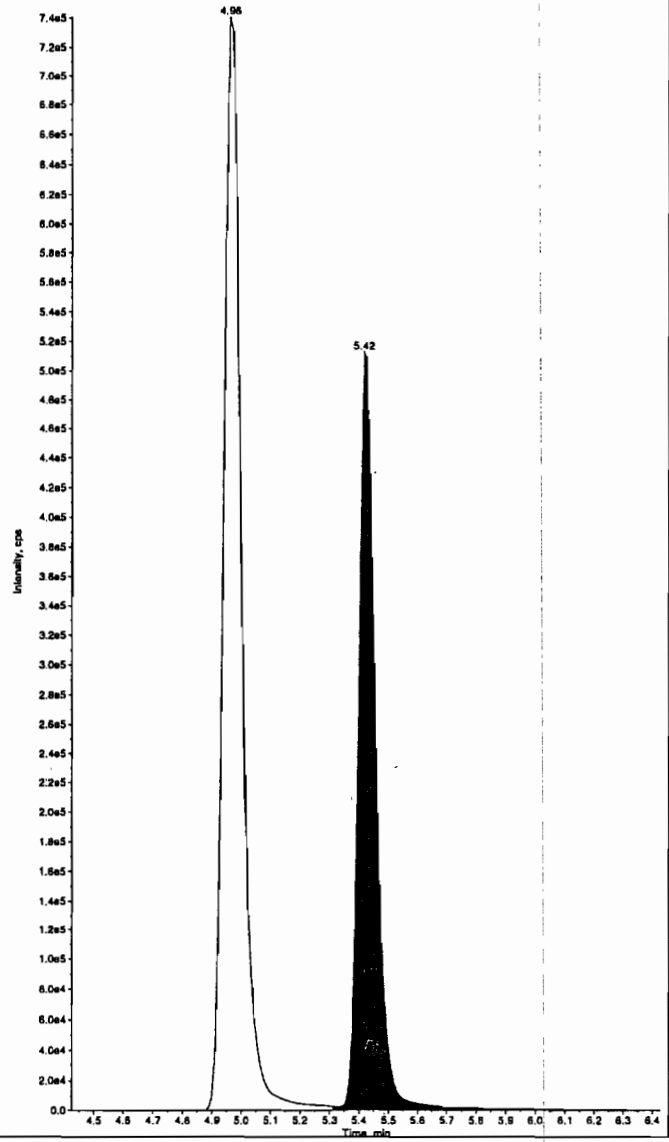

Sample Name: "WXX100316-25" Sample ID: "|1|LER" File: "EXS03160009.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 2000. ng/mL
Calculated Conc: 2000. ng/mL
Acq. Date: 3/16/2010
Acq. Time: 10:23:28 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.08e+007 counts
Height: 4731256.836 cps
Start Time: 10.8 min
End Time: 11.2 min

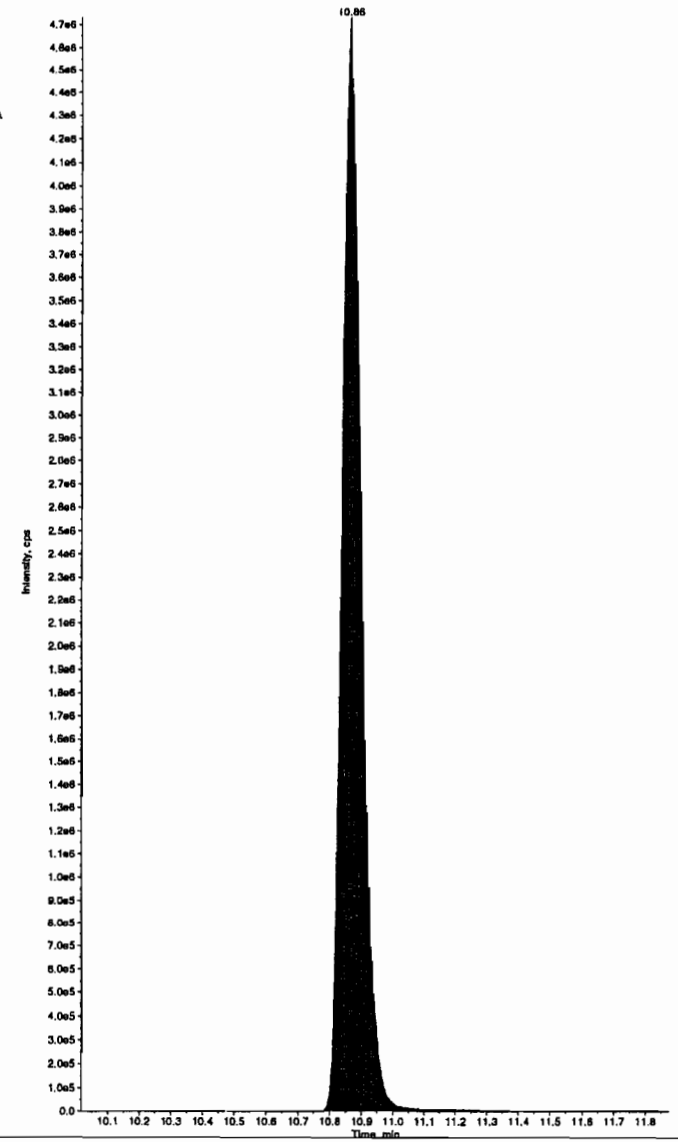

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Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1886

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS03160011.wiff

Analysis Date: 16–MAR–10 10:54

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
TATB	500	494	99	
tris(o–cresyl) phosphate	500	490	98	
2,4–Diamino–6–nitrotoluene	500	487	97	
2,6–Diamino–4–nitrotoluene	500	468	94	
3,4–Dinitrotoluene	250	232	93	
3,5–Dinitroaniline	500	486	97	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 3/18/10

ample Name: "WXX100316-26ICV" Sample ID: "|1|LER" File: "EXS03160011.wiff"
eak Name: "TATB" Mass(as): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	500.	ng/mL
culated Conc:	494.	ng/mL
. Date:	3/16/2010	
. Time:	10:54:51 AM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	6.93	min
Relative RT:	No	
. Type:	Valley	
ention Time:	6.93	min
a:	8.33e+005	counts
ght:	188188.568	cps
rt Time:	6.81	min
Time:	7.99	min

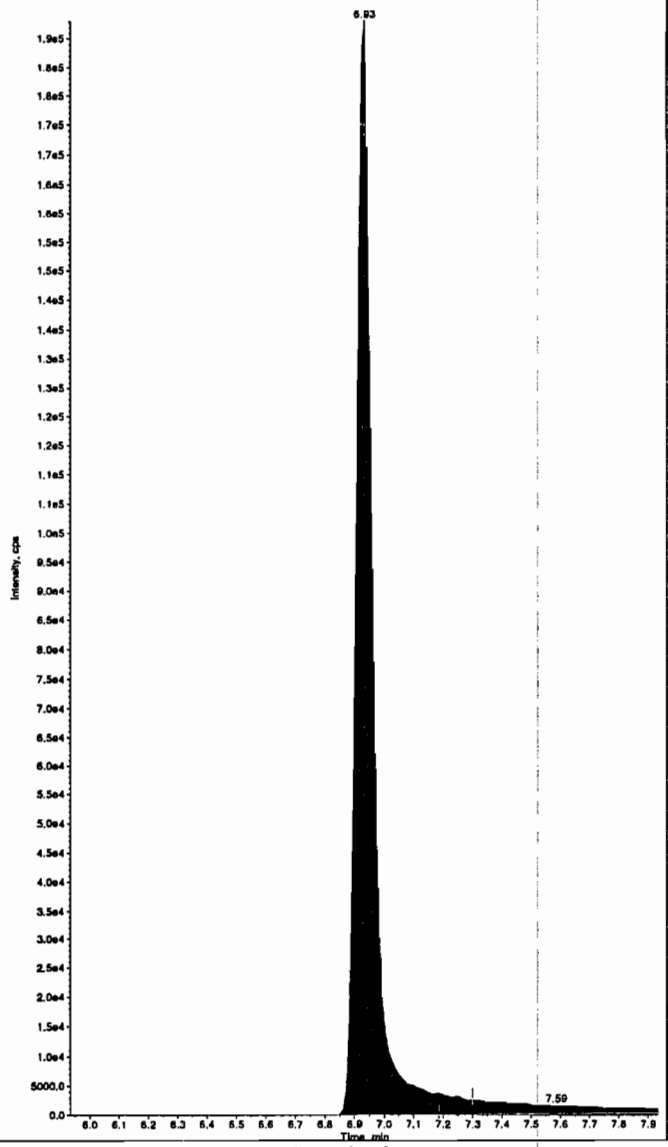

Sample Name: "WXX100316-26ICV" Sample ID: "|1|LER" File: "EXS03160011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	486.	ng/mL
Acq. Date:	3/16/2010	
Acq. Time:	10:54:51 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.17	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.17	min
Area:	4.29e+006	counts
Height:	1084942.261	cps
Start Time:	8.08	min
End Time:	8.29	min

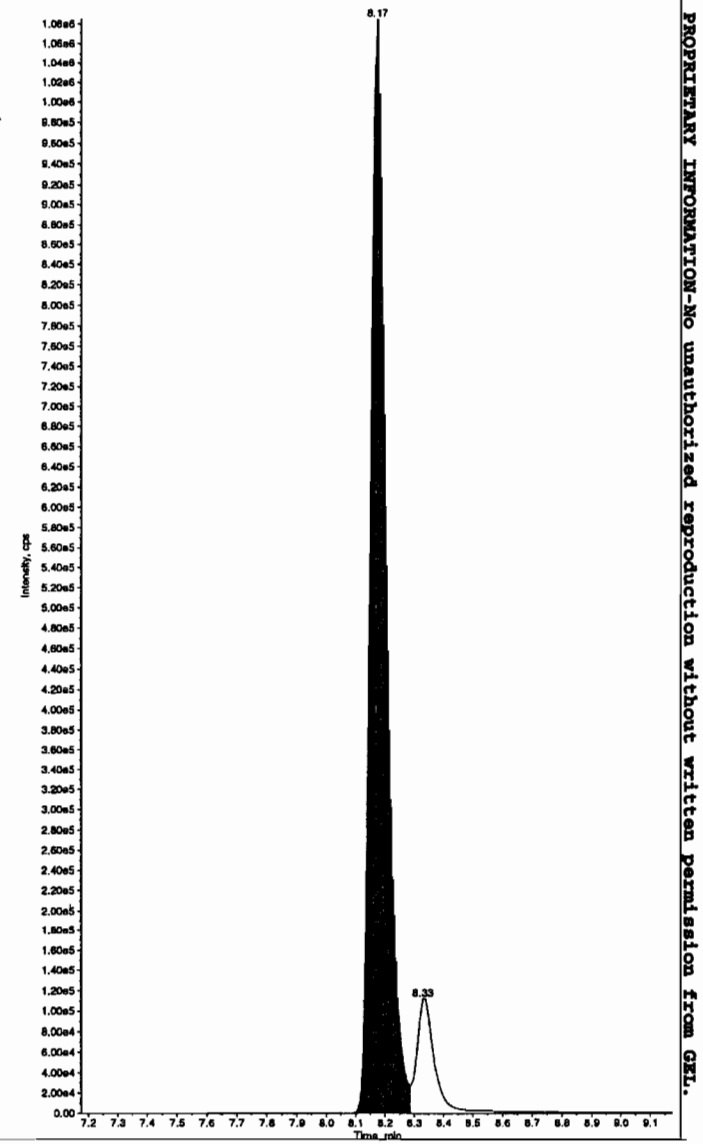

dtm 03/22/10

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ample Name: "WXX100316-26ICV" Sample ID: "|1|LER" File: "EXS03160011.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
centration:       250.     ng/mL
culated Conc:     232.     ng/mL
. Date:        3/16/2010
. Time:        10:54:51 AM

ified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00    cps
. Peak Width:     0.00   sec
othing Width:  3        points
Window:          15.0    sec
ected RT:         8.33   min
 Relative RT:     No

. Type:         Valley
ention Time:      8.33   min
a:          2.95e+006   counts
ght:          807097.900  cps
rt Time:          8.26   min
 Time:            8.67   min
```

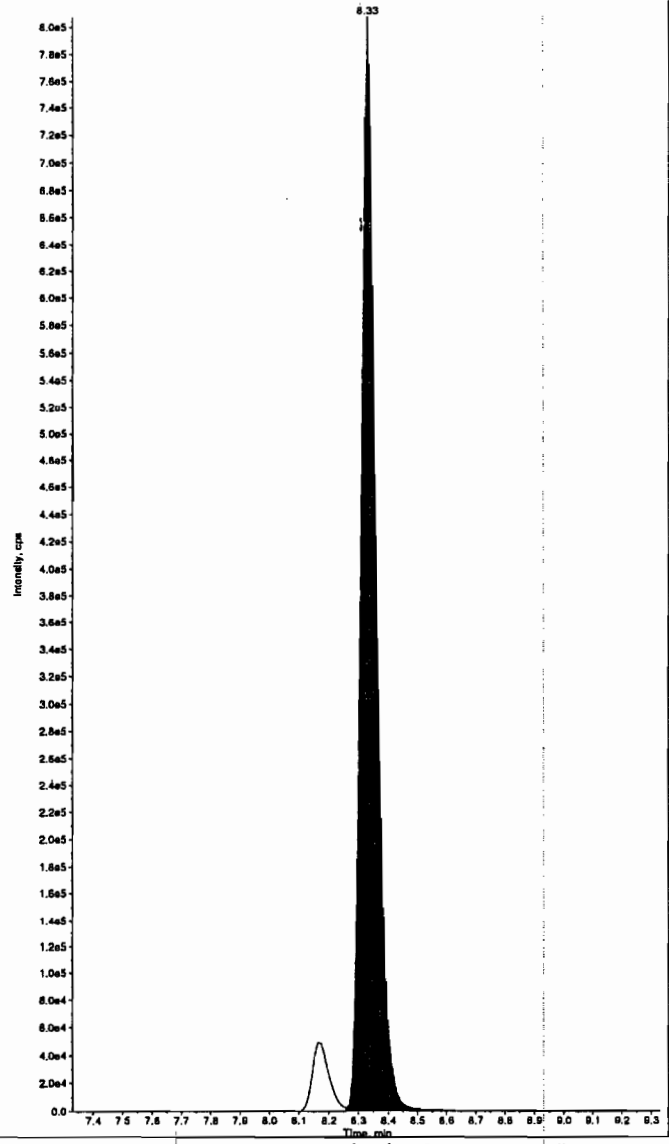

Sample Name: "WXX100316-26ICV" Sample ID: "|1|LER" File: "EXS03160011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:     500.     ng/mL
Calculated Conc:   468.     ng/mL
Acq. Date:       3/16/2010
Acq. Time:       10:54:51 AM

Modified:          No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:        4.96   min
Use Relative RT:   No

Int. Type:       Valley
Retention Time:     4.96   min
Area:        7.58e+005   counts
Height:        181494.614  cps
Start Time:         4.87   min
End Time:           5.27   min
```

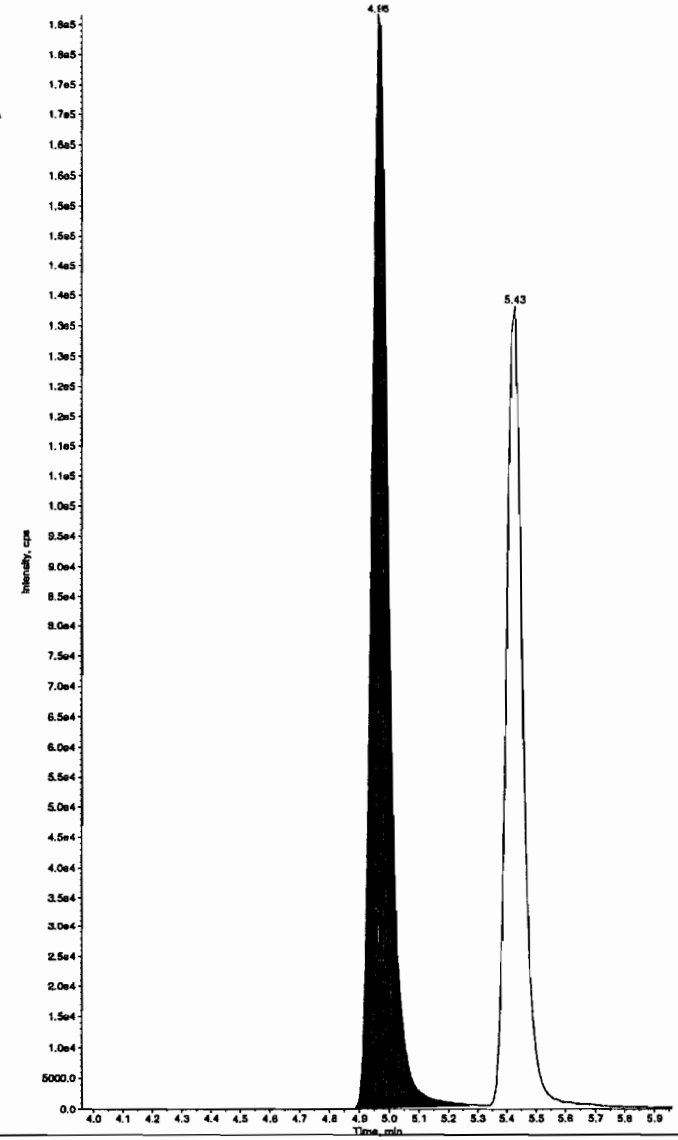

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mple Name: "WXX100316-26ICV" Sample ID: "|1|LER" File: "EXS03160011.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
entration:        500.     ng/mL
culated Conc:     487.     ng/mL
 Date:        3/16/2010
 Time:        10:54:51 AM

fied:             No
. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00    cps
 Peak Width:    0.00    sec
thing Width:  3        points
Window:         30.0    sec
cted RT:         5.43   min
Relative RT:     No

 Type:         Valley
ntion Time:      5.43   min
:          5.34e+005   counts
ht:          133140.213  cps
t Time:          5.33   min
Time:            5.90   min
```

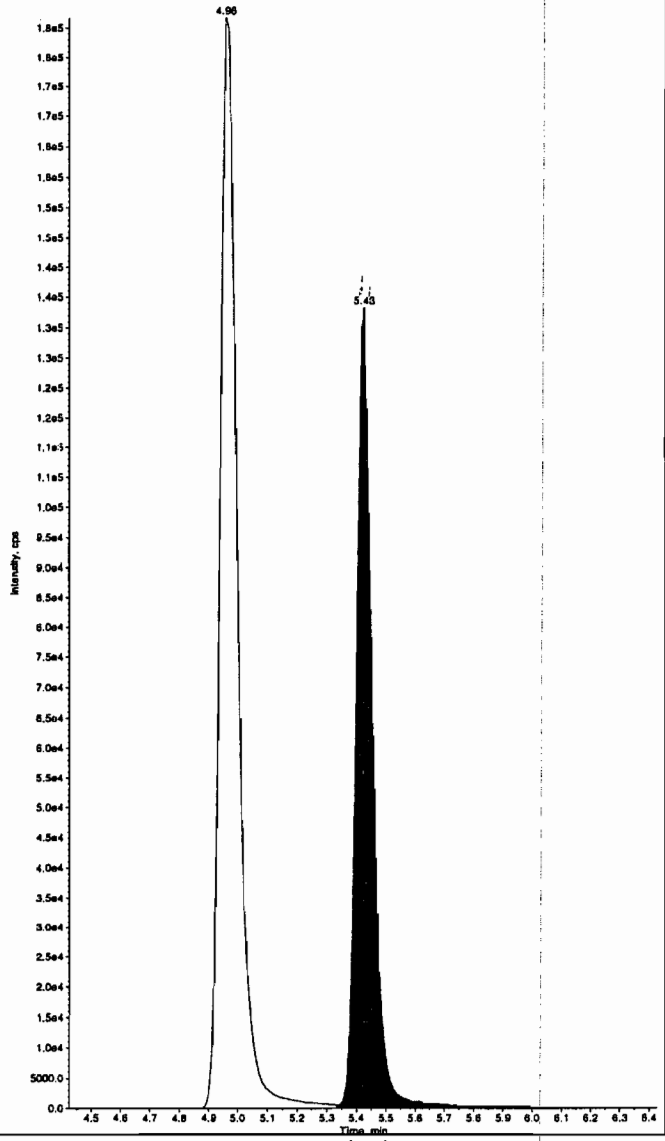

Sample Name: "WXX100316-26ICV" Sample ID: "|1|LER" File: "EXS03160011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       500.     ng/mL
Calculated Conc:     490.     ng/mL
Acq. Date:        3/16/2010
Acq. Time:        10:54:51 AM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:         10.9   min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      10.9   min
Area:          6.08e+006   counts
Height:        1516141.724  cps
Start Time:          10.8   min
End Time:            11.2   min
```

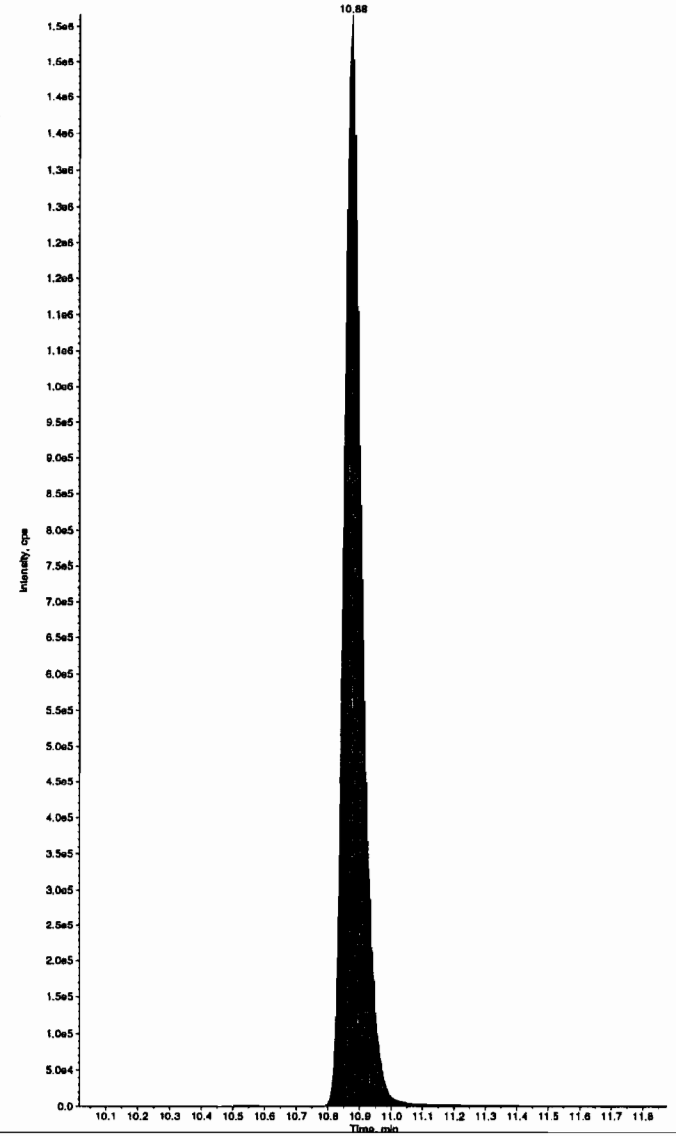

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1886

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0322012.wiff

Analysis Date: 22–MAR–10 20:23

LCMSMS ID: 1189

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,6–Dinitrotoluene	40	44.6	112	
2–Amino–4,6–dinitrotoluene	40	41.8	104	
3,4–Dinitrotoluene	20	22	110	
4–Amino–2,6–dinitrotoluene	40	45.4	113	
HMX	40	47.1	118	
Nitrobenzene	40	39.5	99	
PETN	40	40.6	102	
RDX	40	42	105	
Tetryl	40	33.7	84	
m–Dinitrobenzene	40	44.7	112	
m–Nitrotoluene	40	37.6	94	
o–Nitrotoluene	40	40.8	102	
p–Nitrotoluene	40	35.6	89	
1,3,5–Trinitrobenzene	40	44.6	112	
2,4,6–Trinitrotoluene	40	37.6	94	
2,4–Dinitrotoluene	40	45.1	113	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322012.wiff	**Acquisition Date**	3/22/2010 8:23:14 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

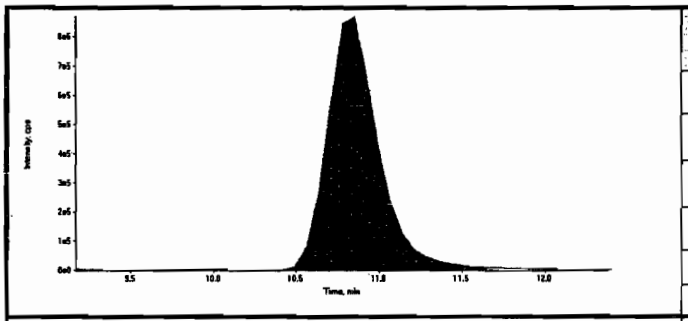

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	18800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

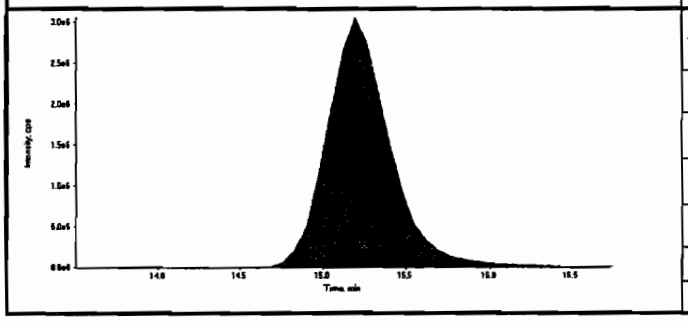

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.20
Area Counts:	81200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

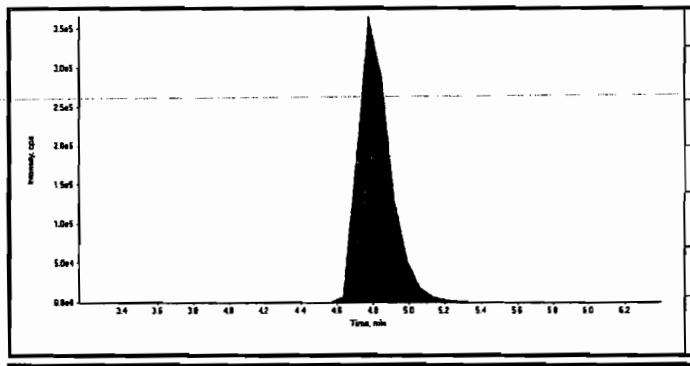

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	4.58e+006
Manual Modification	No
Amount:	47.1 (ng/mL)
% Accuracy:	118.00

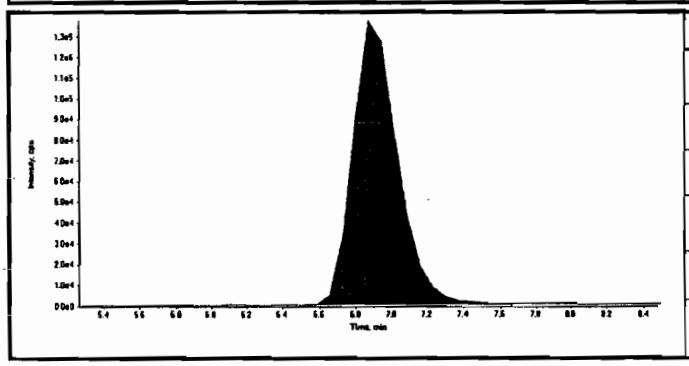

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	2.42e+006
Manual Modification	No
Amount:	42.0 (ng/mL)
% Accuracy:	105.00

AMW 03/25/10
Lan 3/28/10

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Data File	EXP0322012.wiff	Acquisition Date	3/22/2010 8:23:14 PM
Sample Name	WXX100322-57CRI	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

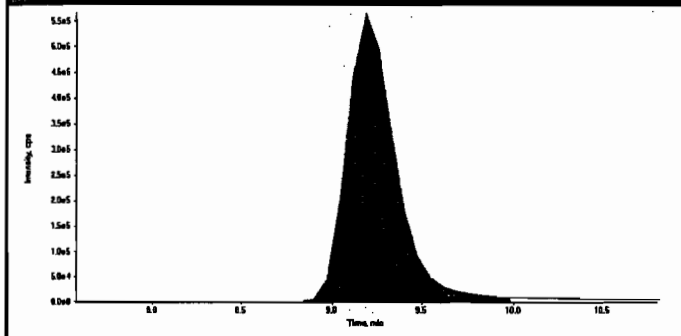

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.19
Area Counts:	1.09e+007
Manual Modification	No
Amount:	44.6 (ng/mL)
% Accuracy:	112.00

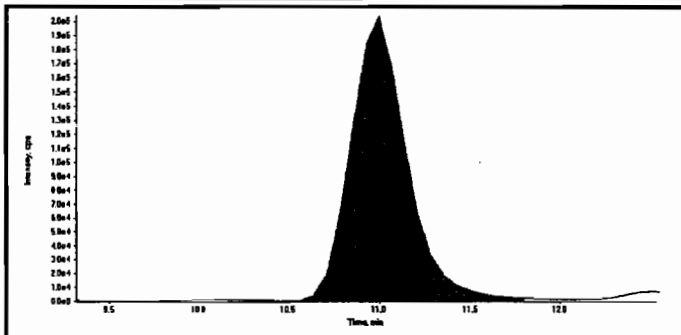

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	11.0
Area Counts:	4.47e+006
Manual Modification	No
Amount:	44.7 (ng/mL)
% Accuracy:	112.00

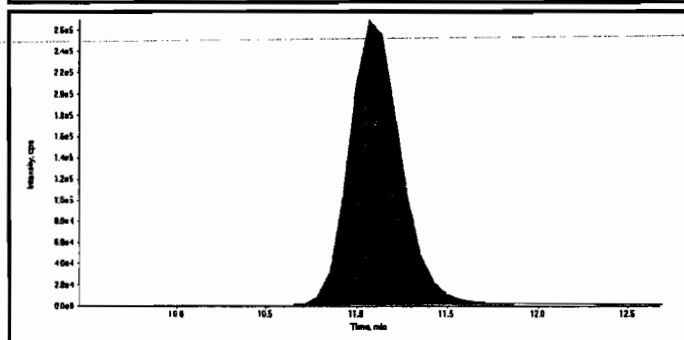

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.1
Area Counts:	5.43e+006
Manual Modification	No
Amount:	33.7 (ng/mL)
% Accuracy:	84.30

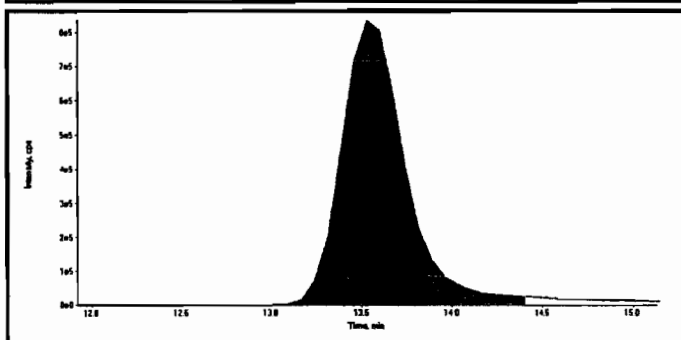

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	2.08e+007
Manual Modification	No
Amount:	37.6 (ng/mL)
% Accuracy:	93.90

Before Lan 3/28/10

mple Name: "WXX100322-57CRI" Sample ID: "[1]LER" File: "EXP0322012.wiff"
ak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
nment: "\LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 40.0 ng/mL
lated Conc: 0.00 ng/mL
Date: 3/22/2010
Time: 8:23:14 PM
fied: No

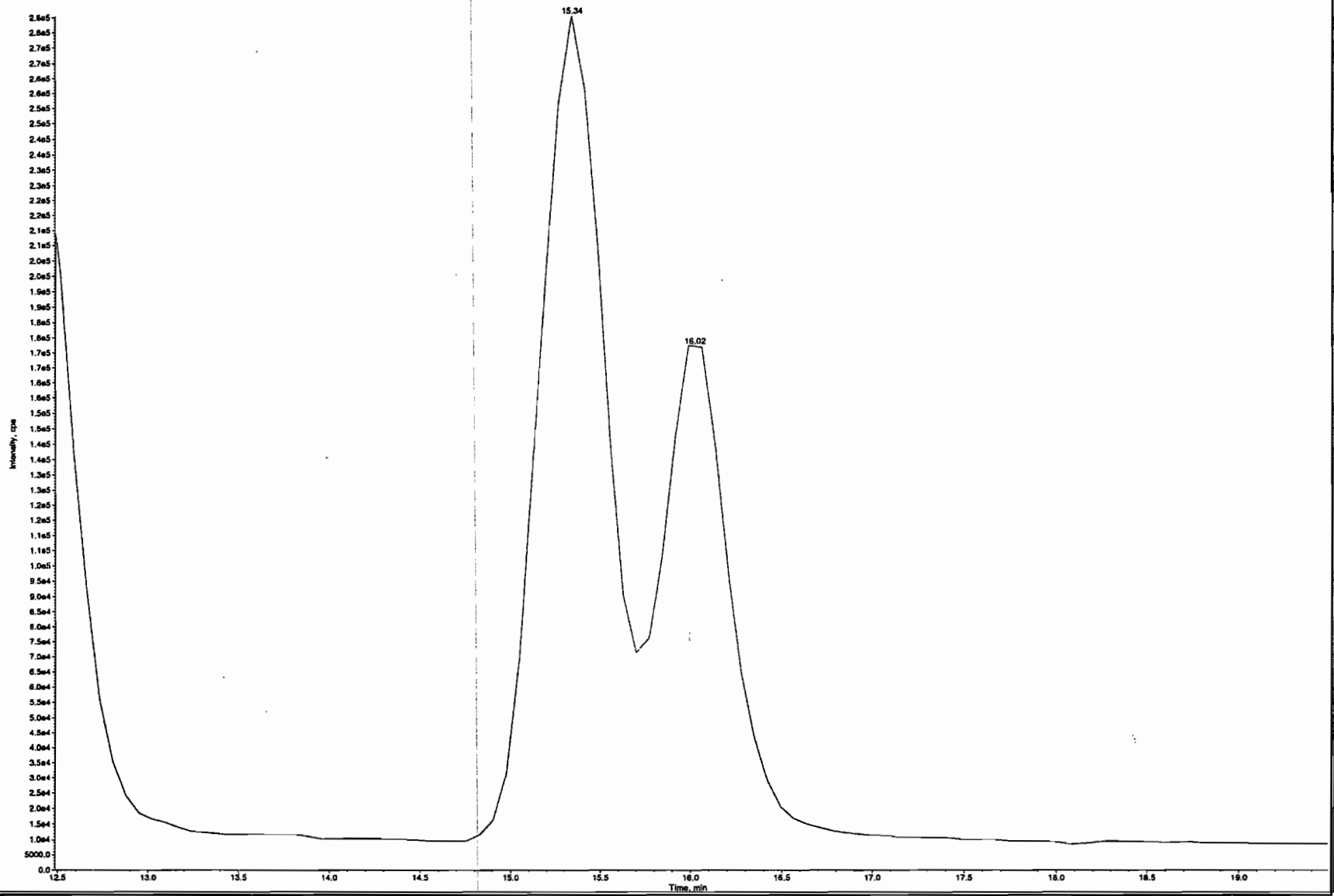

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322012.wiff	**Acquisition Date**	3/22/2010 8:23:14 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

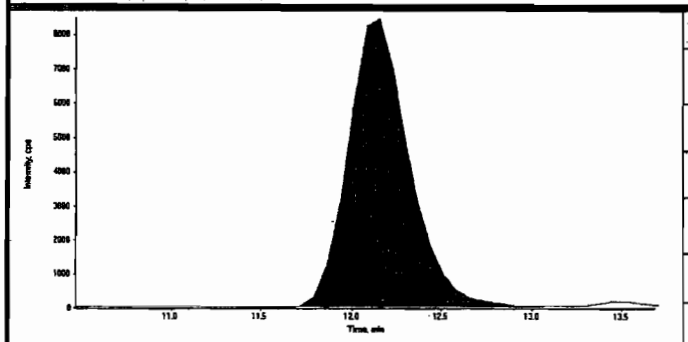

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	2.01e+005
Manual Modification	No
Amount:	39.5 (ng/mL)
% Accuracy:	98.60

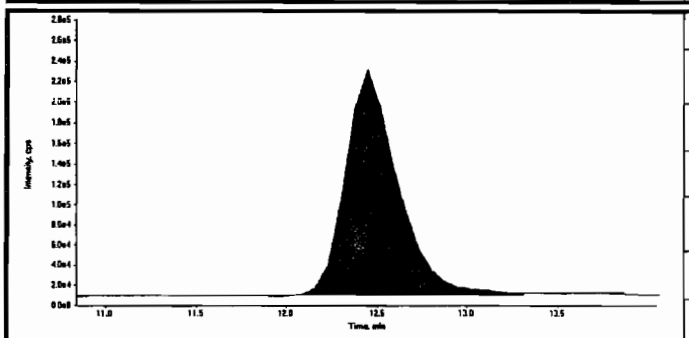

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	4.62e+006
Manual Modification	No
Amount:	22.0 (ng/mL)
% Accuracy:	110.00

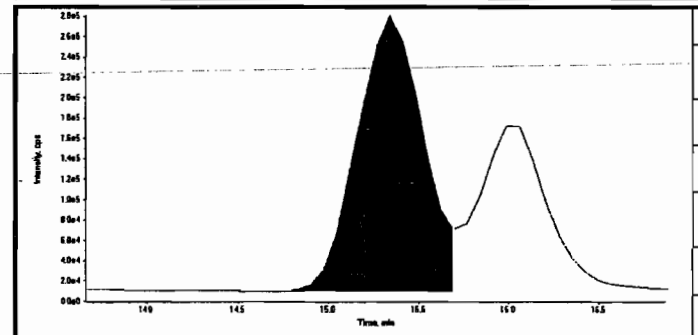

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	7.05e+006
Manual Modification	No
Amount:	44.6 (ng/mL)
% Accuracy:	112.00

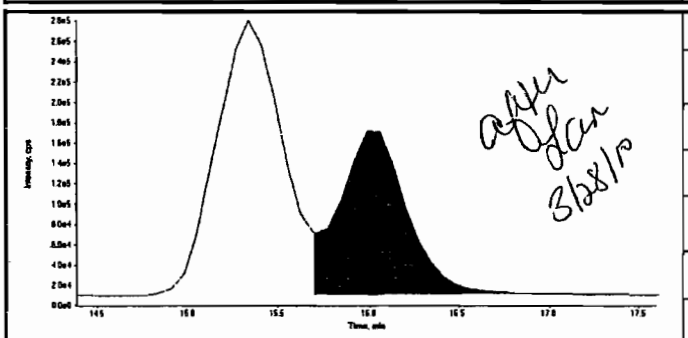

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	16.0
Area Counts:	4.28e+006
Manual Modification	Yes
Amount:	45.1 (ng/mL)
% Accuracy:	113.00

Before Lab 3/28/10

ample Name: "WXX100322-57CRI" Sample ID: "[1]LER" File: "EXP0322012.wiff"
eak Name: "2-Amino-4,6-dinitrotoluene" Mass(es): "197.0/180.0 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
entration:	40.0	ng/mL
culated Conc:	58.1	ng/mL
Date:	3/22/2010	
Time:	8:23:14 PM	
fied:	No	
Algorithm:	IntelliQuan - IQA	
Peak Height:	1000.00	cps
Peak Width:	0.00	sec
thing Width:	3	points
indow:	30.0	sec
cted RT:	14.6	min
Relative RT:	No	
Type:	Valley	
ntion Time:	14.7	min
:	5.31e+005	counts
ht:	1.14e+004	cps
t Time:	14.3	min
Time:	16.3	min

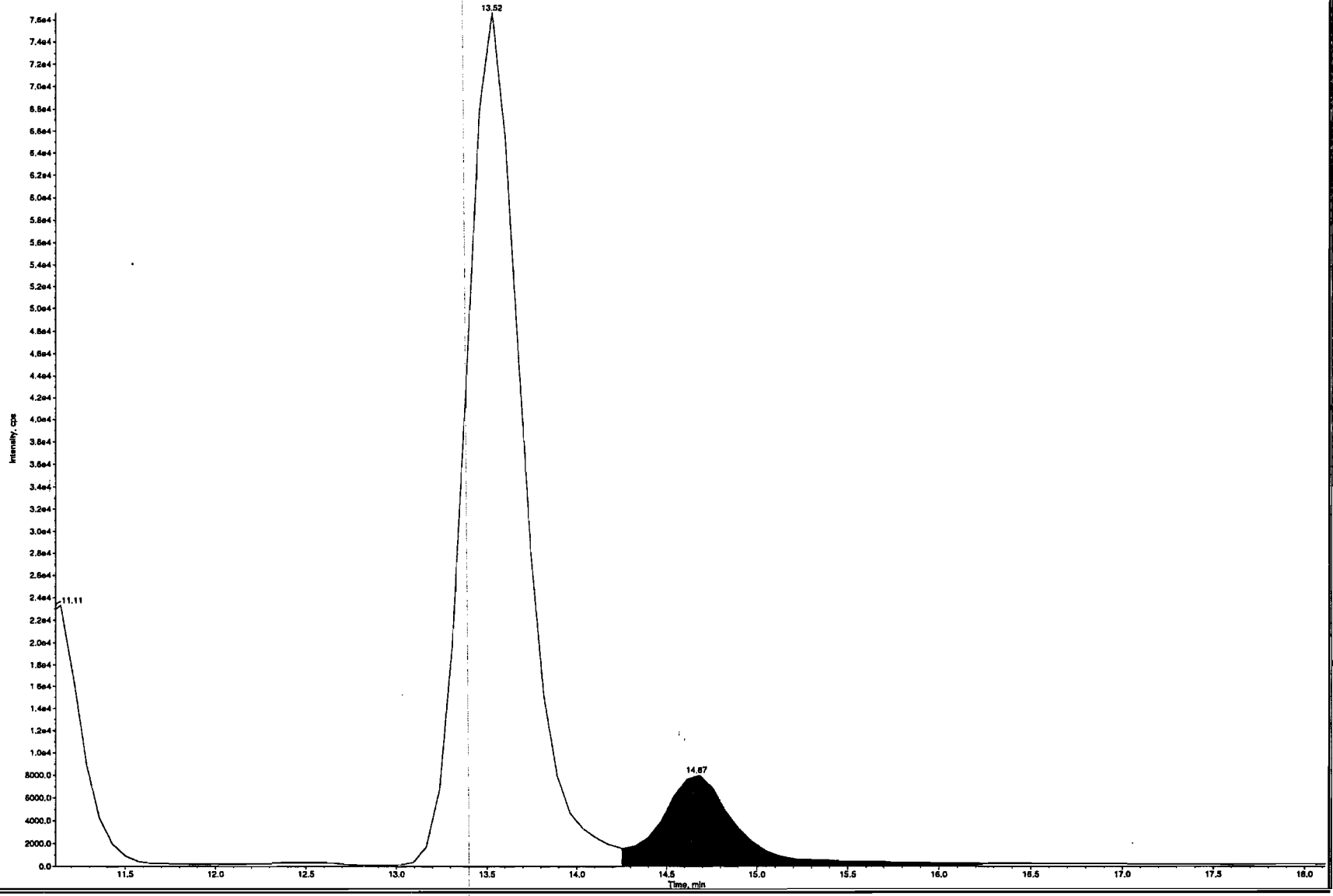

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Data File	EXP0322012.wiff	**Acquisition Date**	3/22/2010 8:23:14 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

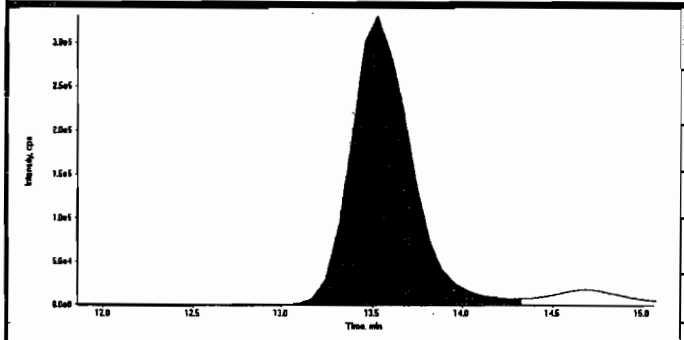

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	7.78e+006
Manual Modification	No
Amount:	45.4 (ng/mL)
% Accuracy:	113.00

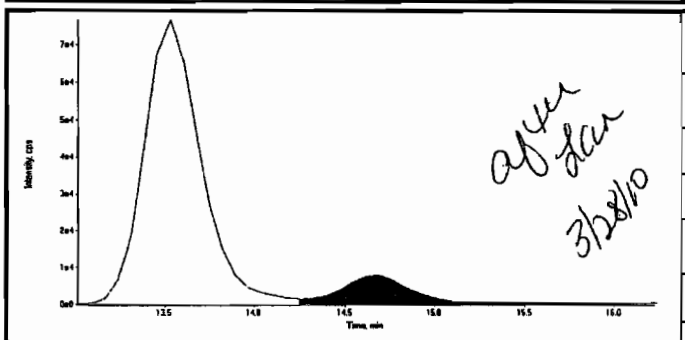

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.7
Area Counts:	2.26e+005
Manual Modification	Yes
Amount:	41.8 (ng/mL)
% Accuracy:	104.00

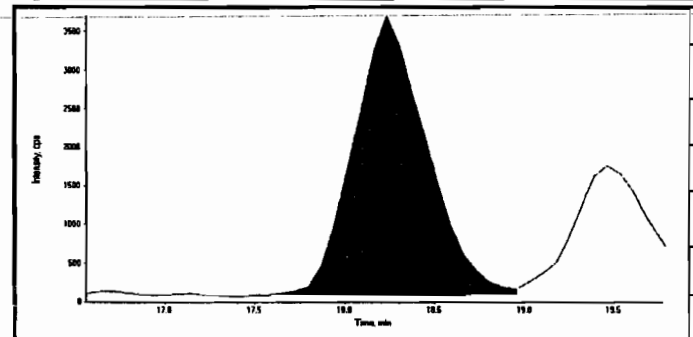

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.2
Area Counts:	1.04e+005
Manual Modification	No
Amount:	40.8 (ng/mL)
% Accuracy:	102.00

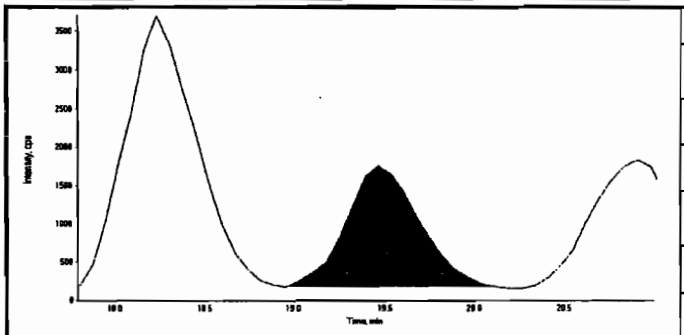

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.5
Area Counts:	4.51e+004
Manual Modification	No
Amount:	35.6 (ng/mL)
% Accuracy:	89.10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322012.wiff	**Acquisition Date**	3/22/2010 8:23:14 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

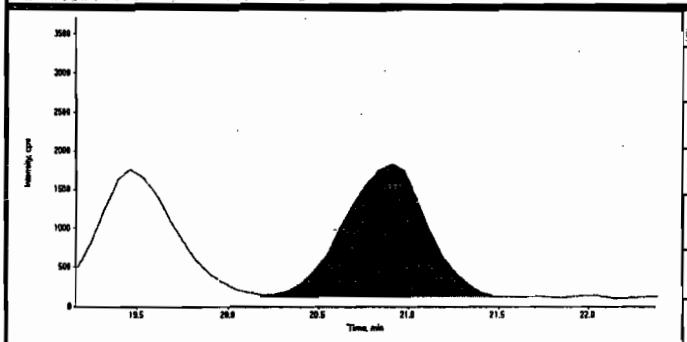

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.9
Area Counts:	5.66e+004
Manual Modification	No
Amount:	37.6 (ng/mL)
% Accuracy:	93.90

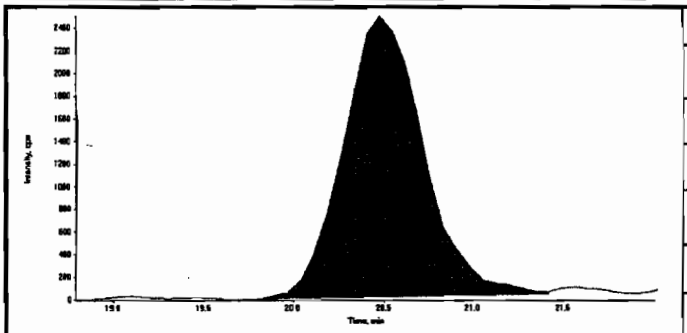

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.5
Area Counts:	7.88e+004
Manual Modification	No
Amount:	40.6 (ng/mL)
% Accuracy:	102.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/22/10
Time of Injection 2023
Standard Number WXX100322-57CRI
Data File EXP0322012a

HMX	118.0
RDX	105.0
135-Trinitrobenzene	112.0
13-Dinitrobenzene	112.0
Tetryl	84.3
246-Trinitrotoluene	93.9
Nitrobenzene	98.6
34-dinitrotoluene	110.0
26-dinitrotoluene	112.0
24-dinitrotoluene	113.0
4-Amino-26-dinitrotoluene	113.0
2-Amino-46-dinitrotoluene	104.0
2-Nitrotoluene	102.0
4-Nitrotoluene	89.1
3-Nitrotoluene	93.9
PETN	102.0
TOTAL	1662.8
AVERAGE	103.9

Hmc 03/28/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lcr 3/28/10

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1886

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0322018.wiff

Analysis Date: 22–MAR–10 23:01

LCMSMS ID: 1189

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
PETN	600	697	116	
RDX	600	617	103	
Tetryl	600	666	111	
m–Dinitrobenzene	600	595	99	
m–Nitrotoluene	600	647	108	
o–Nitrotoluene	600	619	103	
p–Nitrotoluene	600	676	113	
1,3,5–Trinitrobenzene	600	571	95	
2,4,6–Trinitrotoluene	600	550	92	
2,4–Dinitrotoluene	600	626	104	
2,6–Dinitrotoluene	600	530	88	
2–Amino–4,6–dinitrotoluene	600	633	105	
3,4–Dinitrotoluene	300	278	93	
4–Amino–2,6–dinitrotoluene	600	583	97	
HMX	600	582	97	
Nitrobenzene	600	648	108	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322018.wiff	**Acquisition Date**	3/22/2010 11:01:27 PM
Sample Name	WXX100322-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

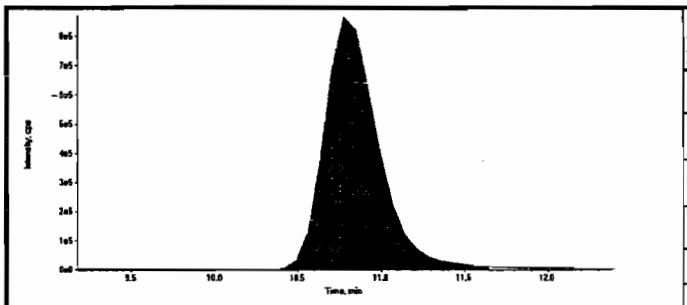

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	19500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

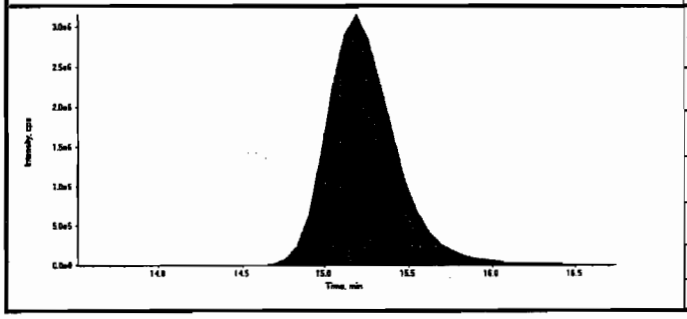

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.20
Area Counts:	89700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

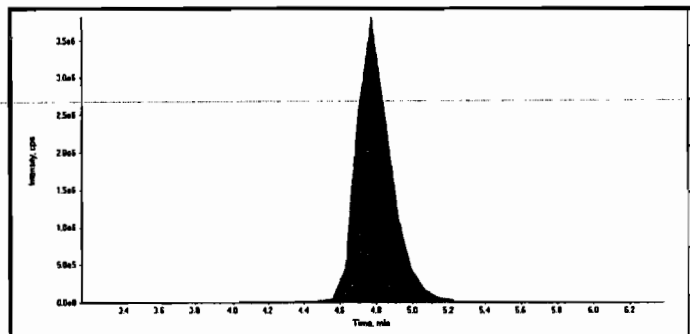

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	4.92e+007
Manual Modification	No
Amount:	582. (ng/mL)
% Accuracy:	97.00

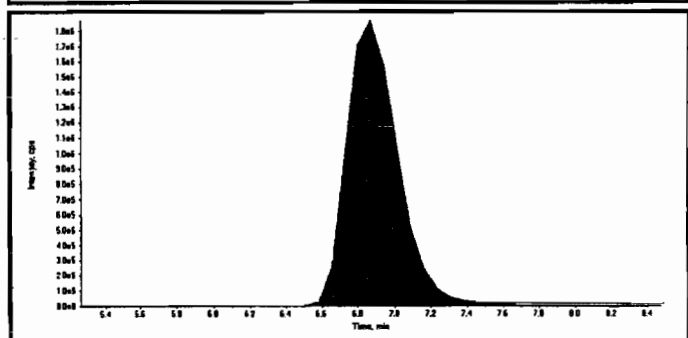

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	3.68e+007
Manual Modification	No
Amount:	617. (ng/mL)
% Accuracy:	103.00

Lar 3/28/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322018.wiff	Acquisition Date	3/22/2010 11:01:27 PM
Sample Name	WXX100322-56CCV	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	032210.rdb
Procedure Code	LCMSEXP_C	Sample Type	Quality Control

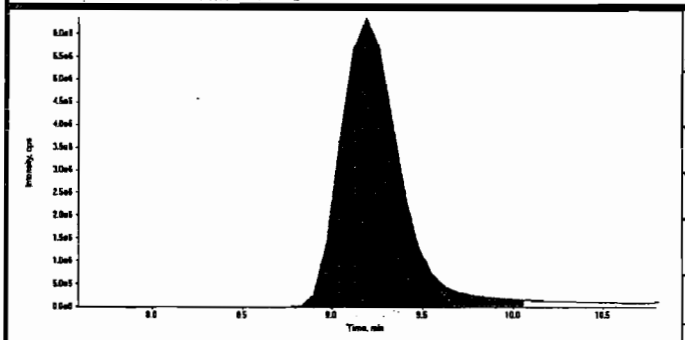

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.19
Area Counts:	1.44e+008
Manual Modification	No
Amount:	571. (ng/mL)
% Accuracy:	95.20

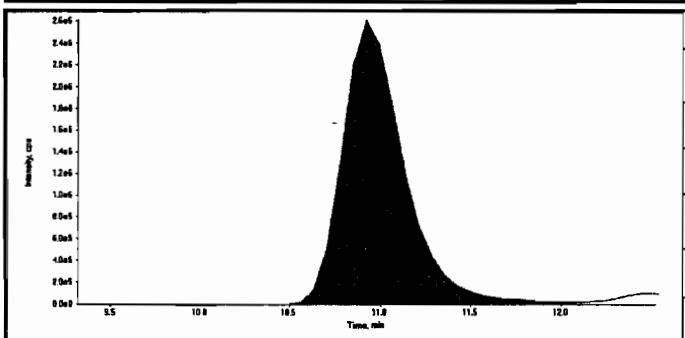

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	6.16e+007
Manual Modification	No
Amount:	595. (ng/mL)
% Accuracy:	99.10

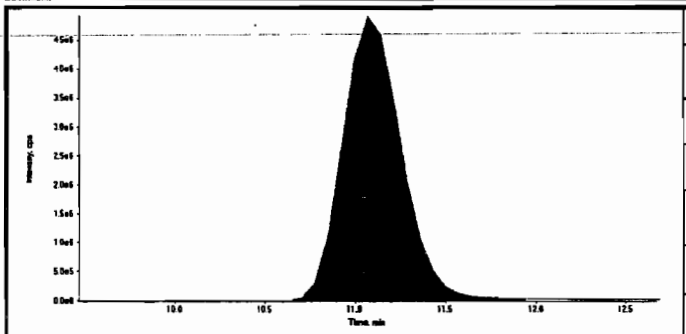

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.1
Area Counts:	1.11e+008
Manual Modification	No
Amount:	666. (ng/mL)
% Accuracy:	111.00

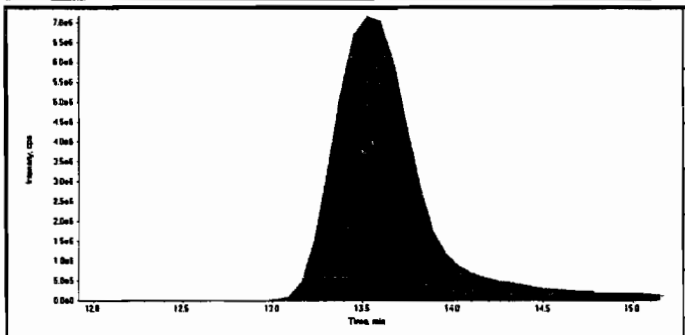

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	2.45e+008
Manual Modification	No
Amount:	550. (ng/mL)
% Accuracy:	91.70

Before Run 3/28/10

ple Name: "WXX100322-56CCV" Sample ID: "1|LER" File: "EXP0322018.wiff"
(Name: "26-dinitrotoluene" Mass(es): "182.0/48.0 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index:	1	
e Type:	QC	
ntration:	600.	ng/mL
lated Conc:	365.	ng/mL
Date:	3/22/2010	
Time:	11:01:27 PM	
ted:	No	
Algorithm:	IntelliQuan - IQA	
Peak Height:	1.00e4	cps
Peak Width:	0.00	sec
ning Width:	3	points
ndow:	30.0	sec
ted RT:	15.3	min
riative RT:	No	
Type:	Valley	
tion Time:	15.3	min
	6.37e+007	counts
t:	2.74e+006	cps
Time:	14.9	min
ime:	15.7	min

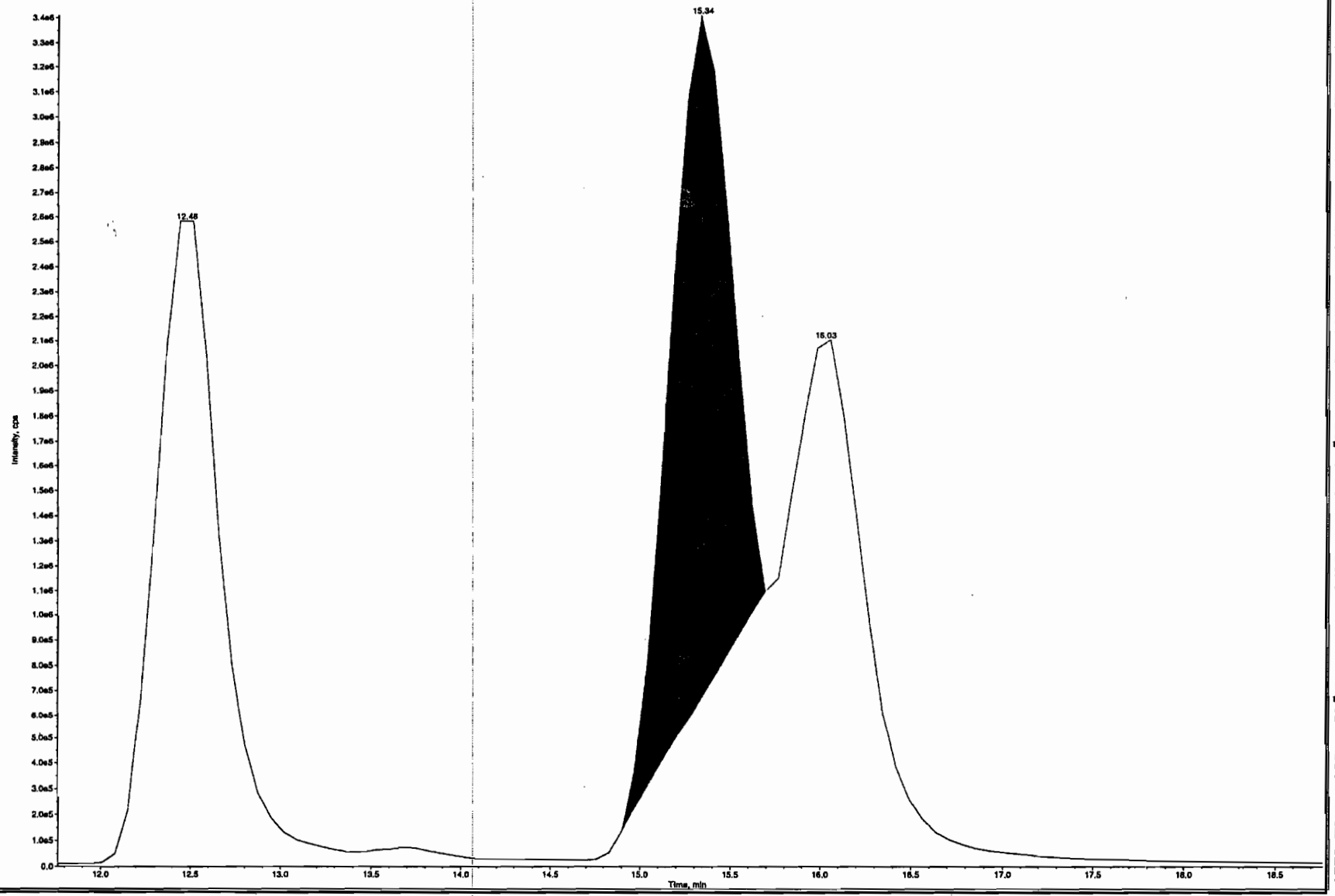

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Before Lcer 3/28/10

ple Name: "WXX100322-56CCV" Sample ID: "[1]LER" File: "EXP0322018.wiff"
k Name: "24-dinitrotoluene" Mass(es): "182.0/48.0 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 600. ng/mL
lated Conc: 0.00 ng/mL
Date: 3/22/2010
Time: 11:01:27 PM

ied: No

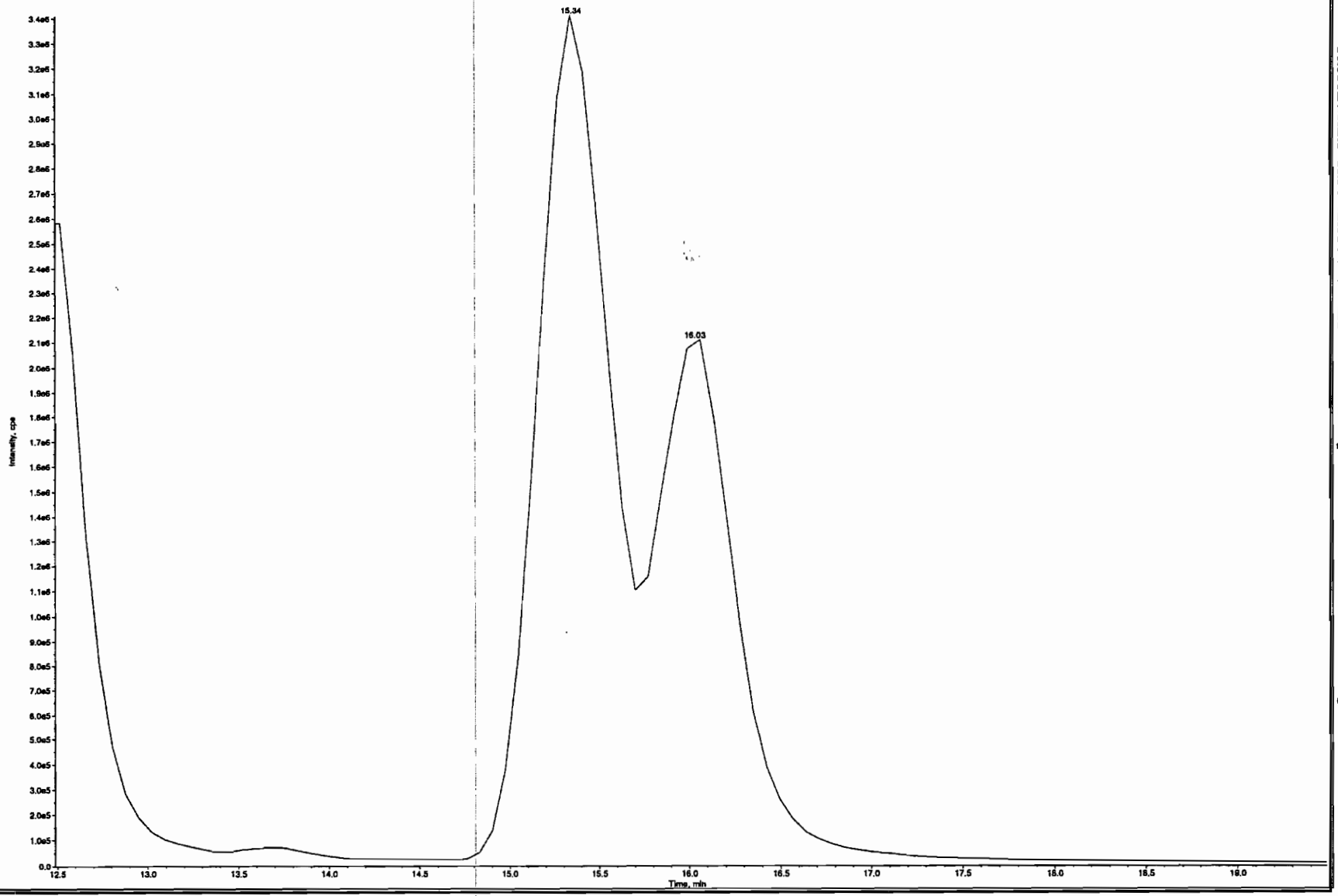

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322018.wiff	**Acquisition Date**	3/22/2010 11:01:27 PM
Sample Name	WXX100322-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

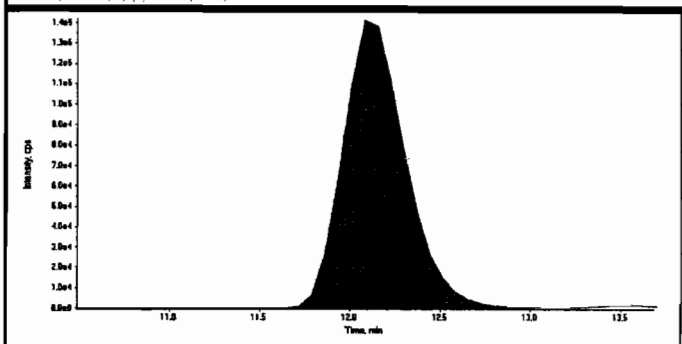

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	3.42e+006
Manual Modification	No
Amount:	648. (ng/mL)
% Accuracy:	108.00

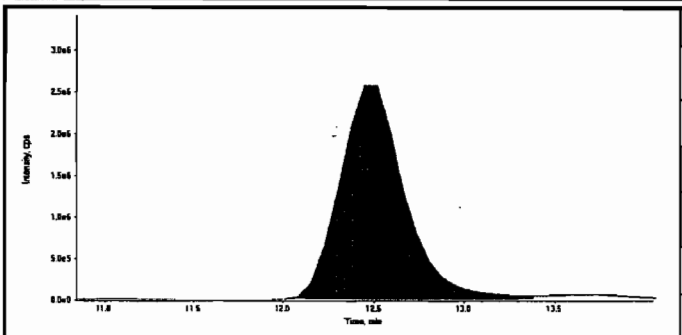

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	6.44e+007
Manual Modification	No
Amount:	278. (ng/mL)
% Accuracy:	92.60

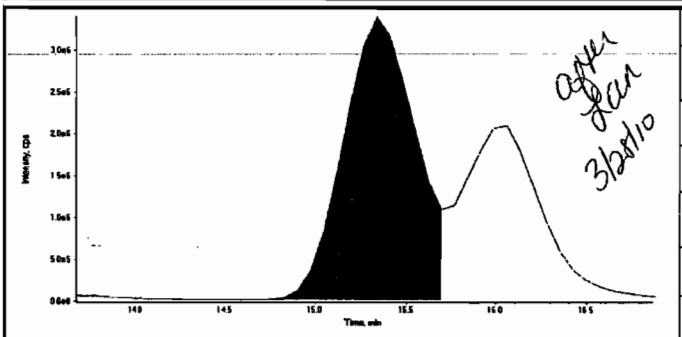

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	9.24e+007
Manual Modification	Yes
Amount:	530. (ng/mL)
% Accuracy:	88.30

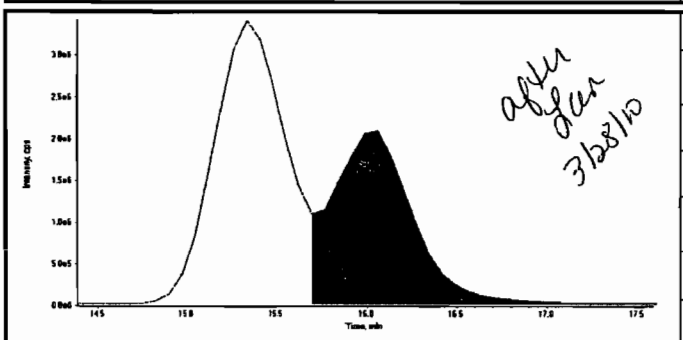

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	16.0
Area Counts:	6.58e+007
Manual Modification	Yes
Amount:	626. (ng/mL)
% Accuracy:	104.00

Before Lab 3/28/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100322-56CCV" Sample ID: "[1]LER" File: "EXP0322018.wiff"
e Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 600. ng/mL
lated Conc: 2130. ng/mL
Date: 1/22/2010
Time: 11:01:27 PM

ified: No
Algorithm: IntelliQuan - IQA
Peak Height: 1000.00 cps
Peak Width: 0.00 sec
ning Width: 3 points
dow: 30.0 sec
ted RT: 14.6 min
elative RT: No

Type: Valley
tion Time: 14.7 min
1.27e+007 counts
: 1.84e+005 cps
Time: 14.3 min
me: 17.9 min

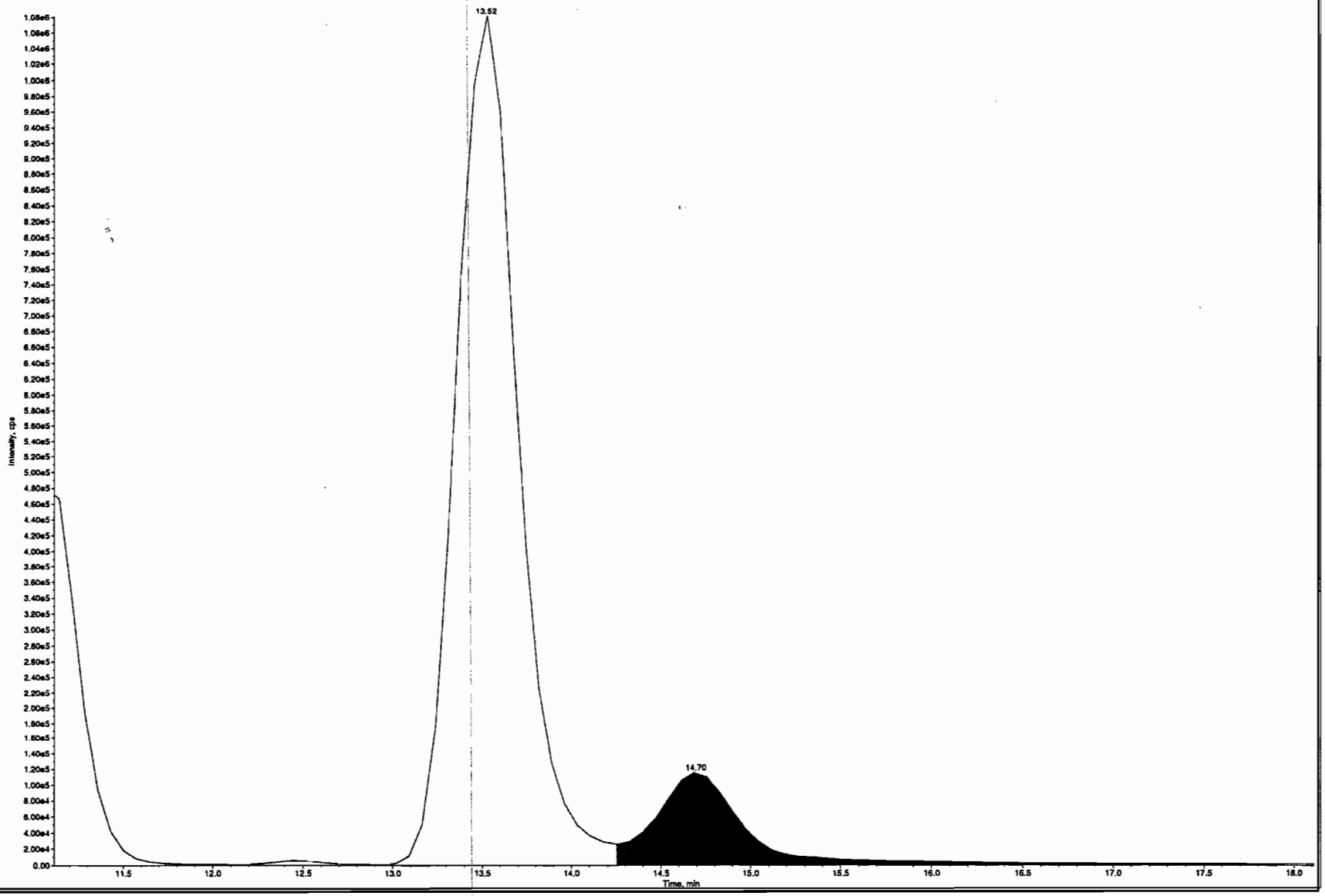

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Data File	EXP0322018.wiff	**Acquisition Date**	3/22/2010 11:01:27 PM
Sample Name	WXX100322-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

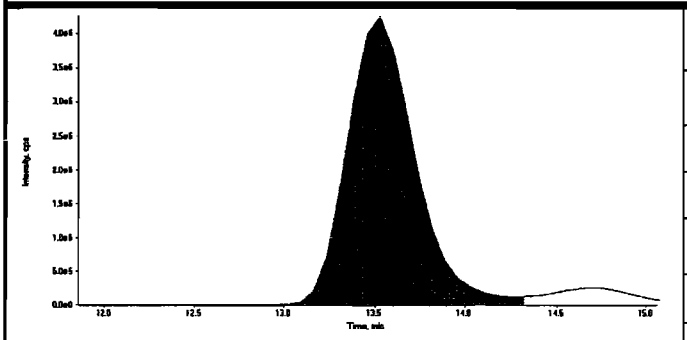

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.10e+008
Manual Modification	No
Amount:	583. (ng/mL)
% Accuracy:	97.20

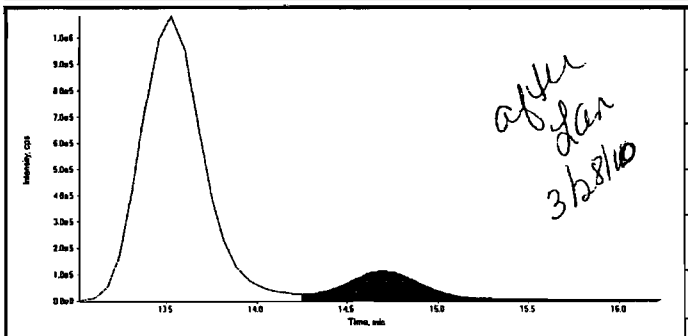

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.7
Area Counts:	3.78e+006
Manual Modification	Yes
Amount:	633. (ng/mL)
% Accuracy:	105.00

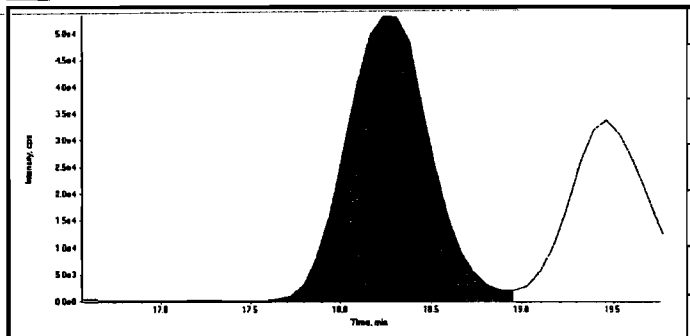

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.2
Area Counts:	1.74e+006
Manual Modification	No
Amount:	619. (ng/mL)
% Accuracy:	103.00

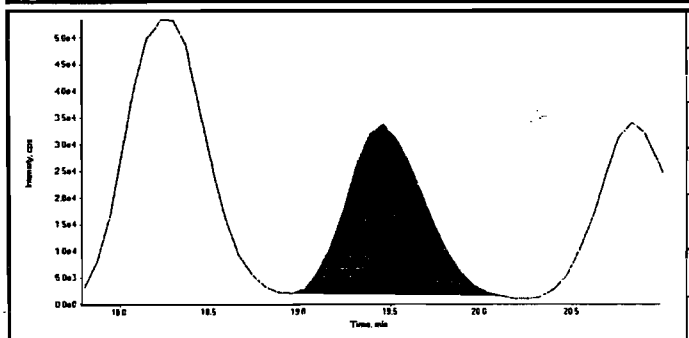

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.5
Area Counts:	9.46e+005
Manual Modification	No
Amount:	676. (ng/mL)
% Accuracy:	113.00

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322018.wiff	**Acquisition Date**	3/22/2010 11:01:27 PM
Sample Name	WXX100322-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

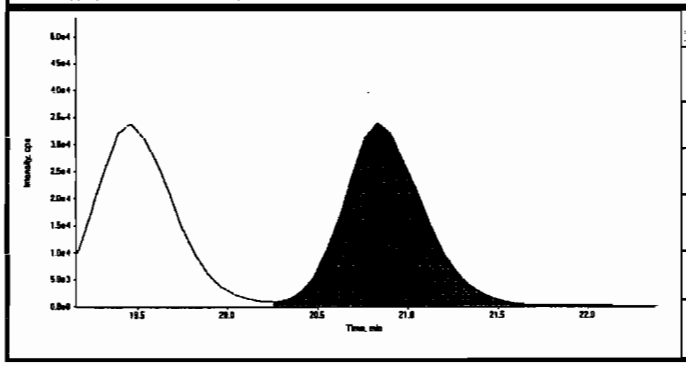

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.8
Area Counts:	1.08e+006
Manual Modification	No
Amount:	647. (ng/mL)
% Accuracy:	108.00

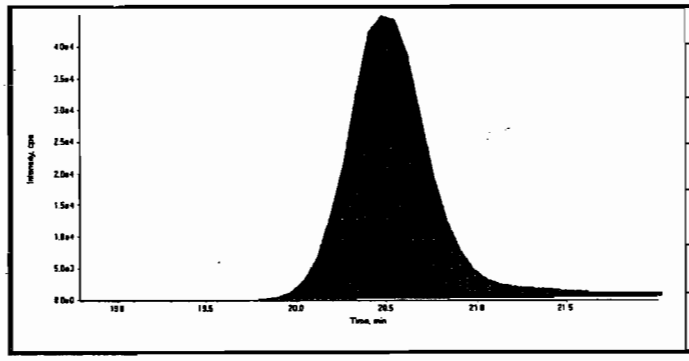

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.5
Area Counts:	1.49e+006
Manual Modification	No
Amount:	697. (ng/mL)
% Accuracy:	116.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/22/10
Time of Injection 2301
Standard Number WXX100322-56CCV
Data File EXP0322018a

HMX	97.0
RDX	103.0
135-Trinitrobenzene	95.2
13-Dinitrobenzene	99.1
Tetryl	111.0
246-Trinitrotoluene	91.7
Nitrobenzene	108.0
34-dinitrotoluene	92.6
26-dinitrotoluene	88.3
24-dinitrotoluene	104.0
4-Amino-26-dinitrotoluene	97.2
2-Amino-46-dinitrotoluene	105.0
2-Nitrotoluene	103.0
4-Nitrotoluene	113.0
3-Nitrotoluene	108.0
PETN	116.0
TOTAL	1632.1
AVERAGE	102.0

HMM 03/28/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

LCM 3/28/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1886

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0322020.wiff

Analysis Date: 22–MAR–10 23:54

LCMSMS ID: 1189

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	42.3	106	
2,4,6–Trinitrotoluene	40	33.9	85	
2,4–Dinitrotoluene	40	42.4	106	
2,6–Dinitrotoluene	40	43.5	109	
2–Amino–4,6–dinitrotoluene	40	35.7	89	
3,4–Dinitrotoluene	20	19.9	100	
4–Amino–2,6–dinitrotoluene	40	40.7	102	
HMX	40	36.7	92	
Nitrobenzene	40	40.2	100	
PETN	40	37.3	93	
RDX	40	39	97	
Tetryl	40	27.5	69	
m–Dinitrobenzene	40	42.2	106	
m–Nitrotoluene	40	36.3	91	
o–Nitrotoluene	40	35.8	90	
p–Nitrotoluene	40	38.3	96	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322020.wiff	**Acquisition Date**	3/22/2010 11:54:20 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

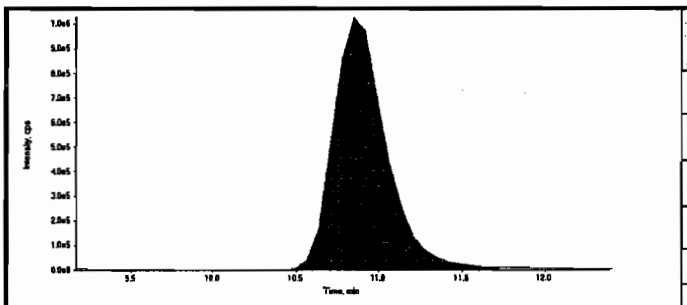

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	23000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

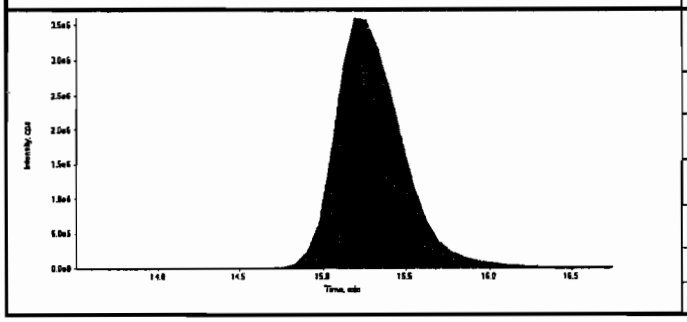

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.20
Area Counts:	102000000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

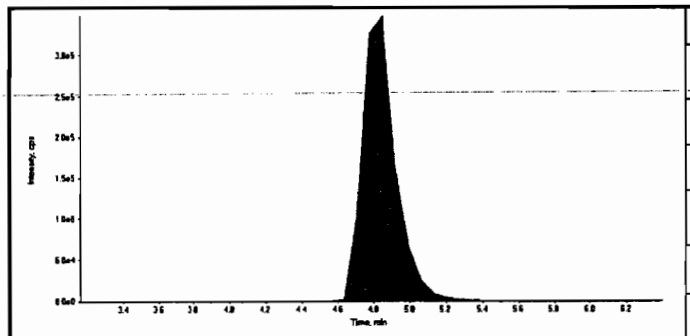

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.85
Area Counts:	4.58e+006
Manual Modification	No
Amount:	36.7 (ng/mL)
% Accuracy:	91.70

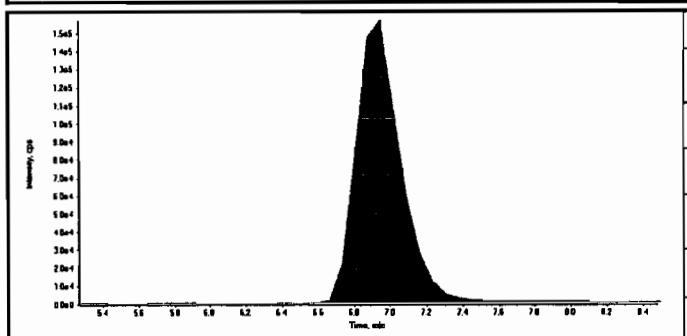

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.94
Area Counts:	2.74e+006
Manual Modification	No
Amount:	39.0 (ng/mL)
% Accuracy:	97.40

HMM 03/28/10

3/28/10

Before Scan 3/28/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100322-S7CRI" Sample ID: "[1]LER" File: "EXP0322020.wlf"
k Name: "246-Trinitrotoluene" Mass(es): "227.1/209.8 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index:	1	
e Type:	QC	
ntration:	40.0	ng/mL
lated Conc:	32.6	ng/mL
Date:	3/22/2010	
Time:	11:54:20 PM	
led:	No	
Algorithm:	IntelliQuan - IQA	
Peak Height:	1.00e4	cps
Peak Width:	0.00	sec
ling Width:	3	points
ndow:	60.0	sec
ted RT:	13.5	min
elative RT:	No	
Type:	Valley	
tion Time:	13.6	min
	2.32e+007	counts
:	9.61e+005	cps
Time:	13.0	min
me:	14.5	min

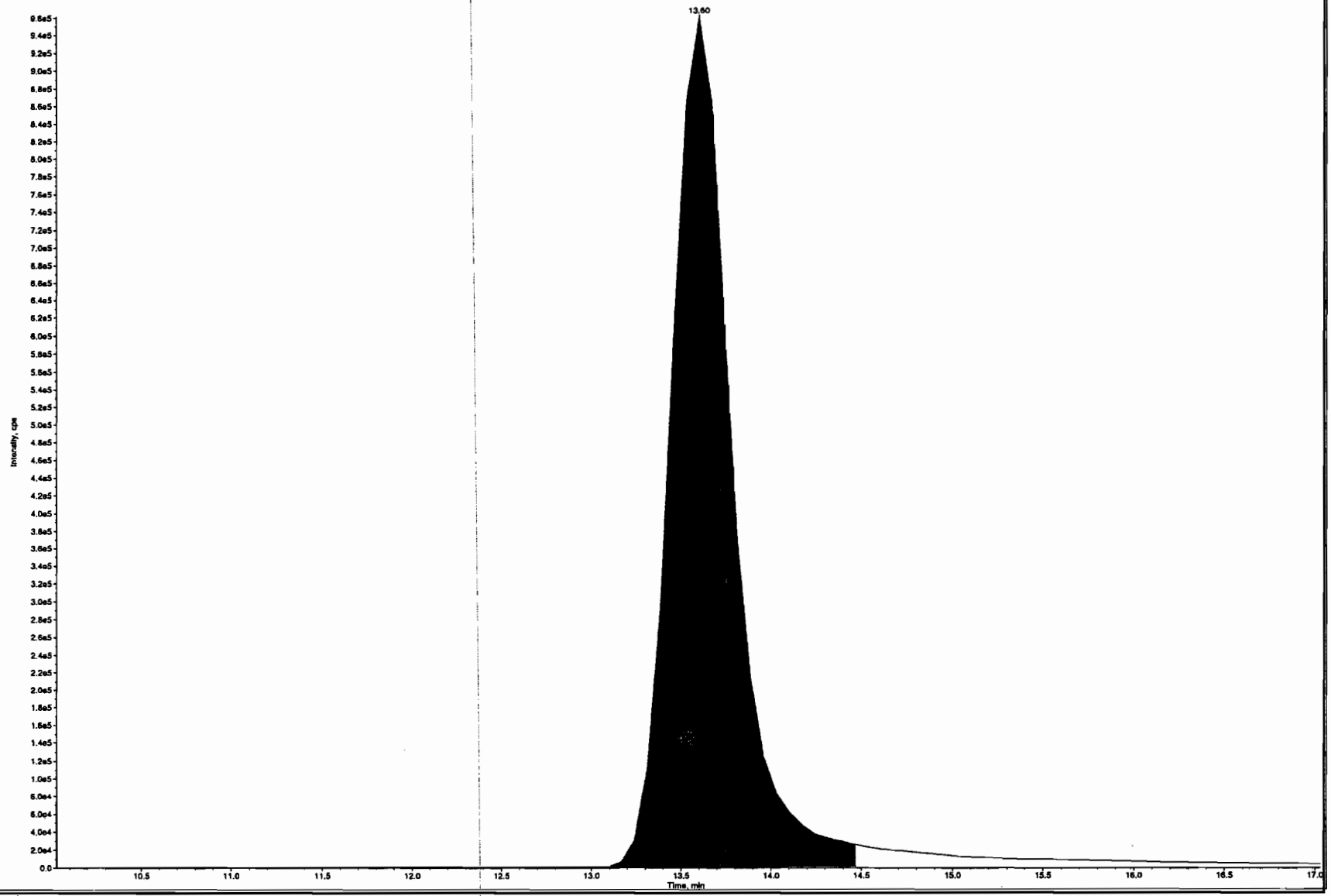

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Data File	EXP0322020.wiff	**Acquisition Date**	3/22/2010 11:54:20 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

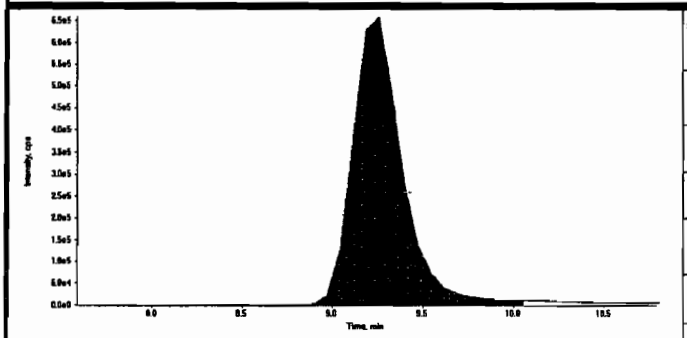

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.26
Area Counts:	1.26e+007
Manual Modification	No
Amount:	42.3 (ng/mL)
% Accuracy:	106.00

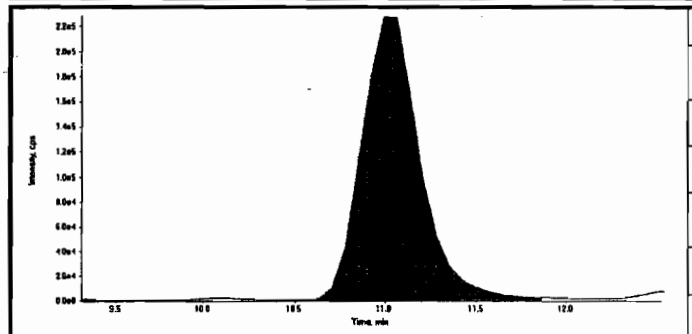

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	11.0
Area Counts:	5.17e+006
Manual Modification	No
Amount:	42.2 (ng/mL)
% Accuracy:	106.00

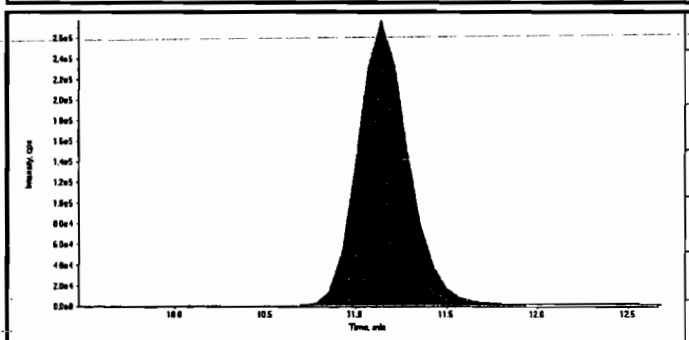

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.1
Area Counts:	5.41e+006
Manual Modification	No
Amount:	27.5 (ng/mL)
% Accuracy:	68.70

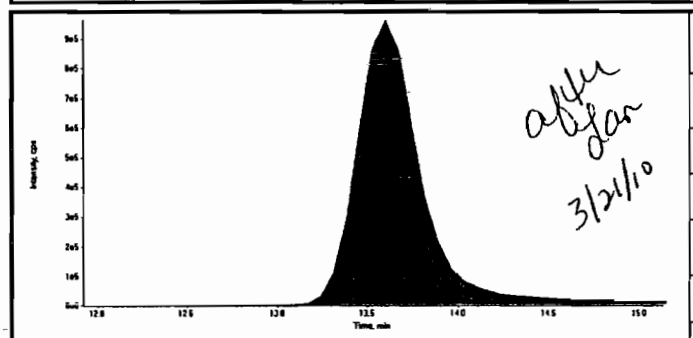

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	2.40e+007
Manual Modification	Yes
Amount:	33.9 (ng/mL)
% Accuracy:	84.80

Before Lar 3/28/10

ple Name: "WXX100322-57CRI" Sample ID: "[1]LER" File: "EXP0322020.wiff"
k Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 40.0 ng/mL
lated Conc: 0.00 ng/mL
Date: 3/22/2010
Time: 11:54:20 PM

ied: No

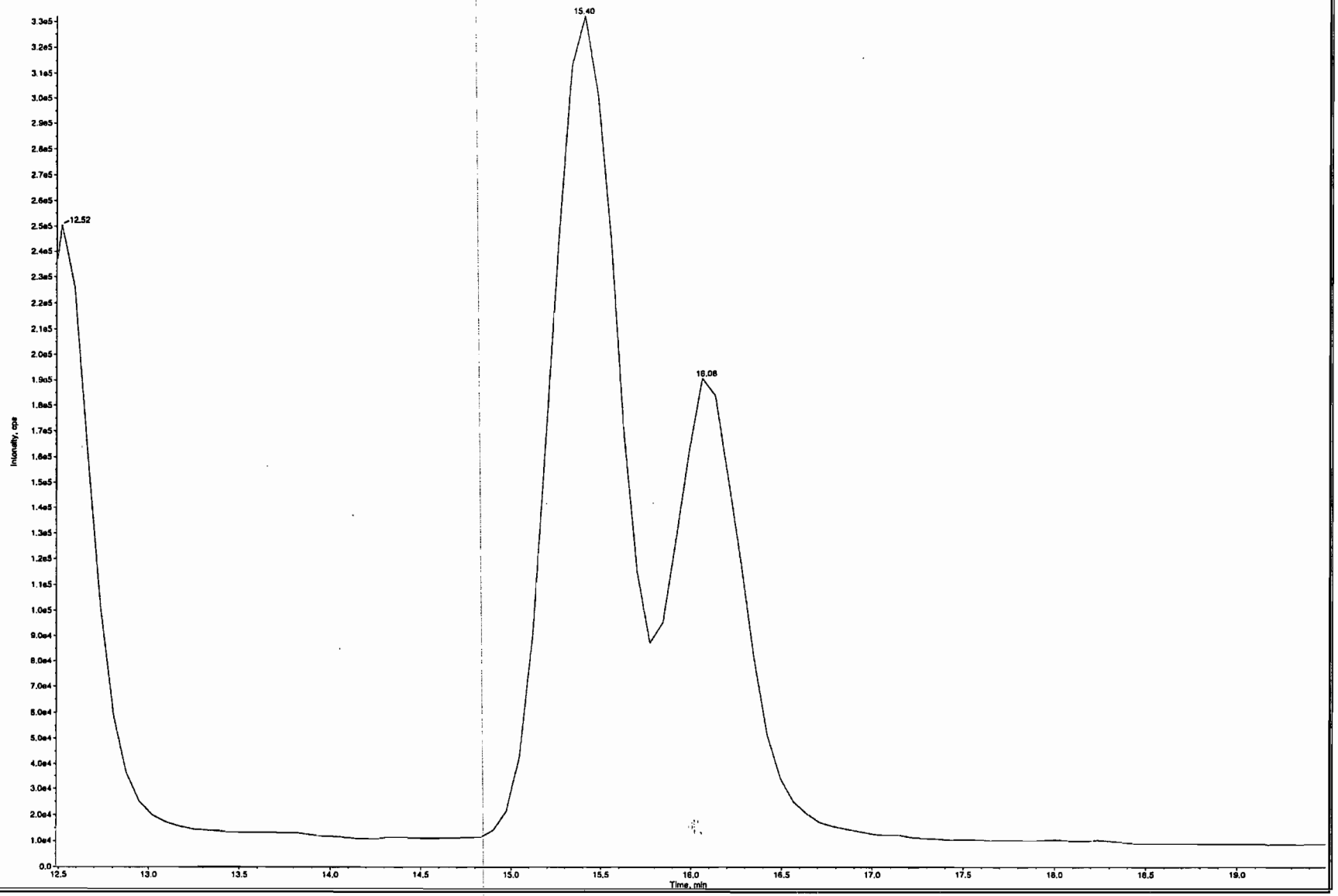

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322020.wiff	**Acquisition Date**	3/22/2010 11:54:20 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

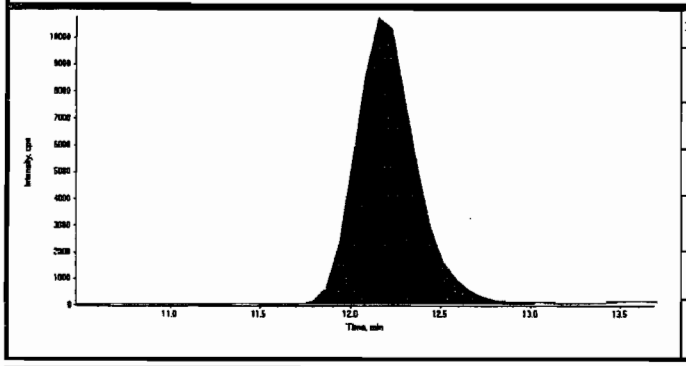

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	2.50e+005
Manual Modification	No
Amount:	40.2 (ng/mL)
% Accuracy:	100.00

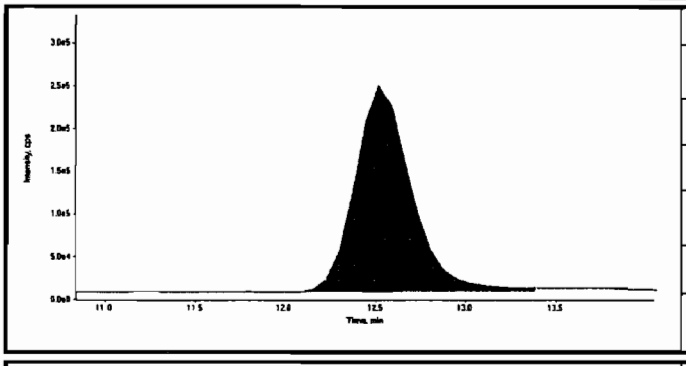

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.5
Area Counts:	5.27e+006
Manual Modification	No
Amount:	19.9 (ng/mL)
% Accuracy:	99.60

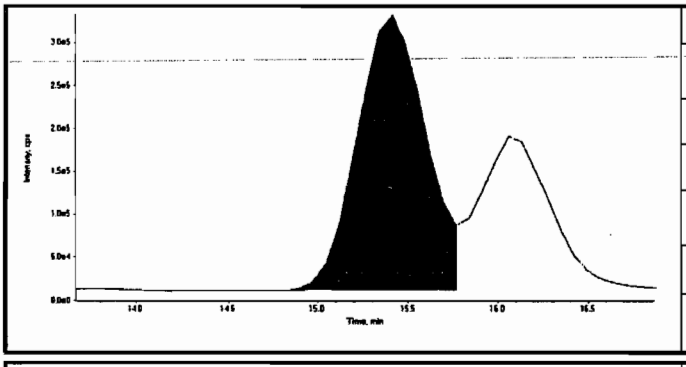

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.4
Area Counts:	8.66e+006
Manual Modification	No
Amount:	43.5 (ng/mL)
% Accuracy:	109.00

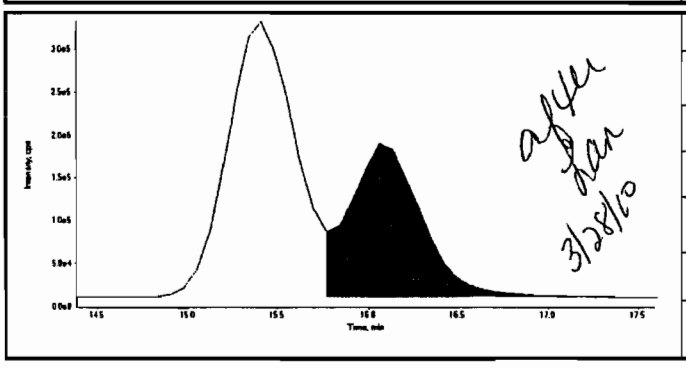

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	16.1
Area Counts:	5.07e+006
Manual Modification	Yes
Amount:	42.4 (ng/mL)
% Accuracy:	106.00

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Data File	EXP0322020.wiff	**Acquisition Date**	3/22/2010 11:54:20 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

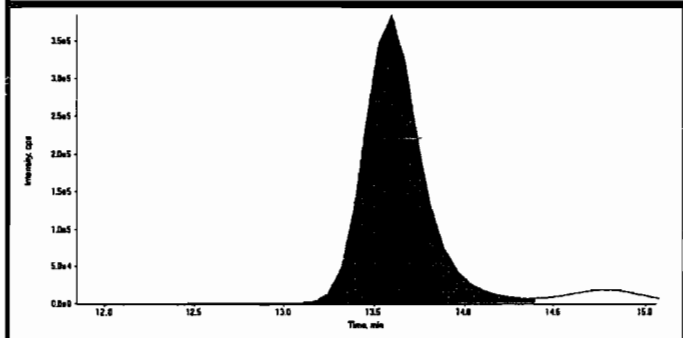

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	8.80e+006
Manual Modification	No
Amount:	40.7 (ng/mL)
% Accuracy:	102.00

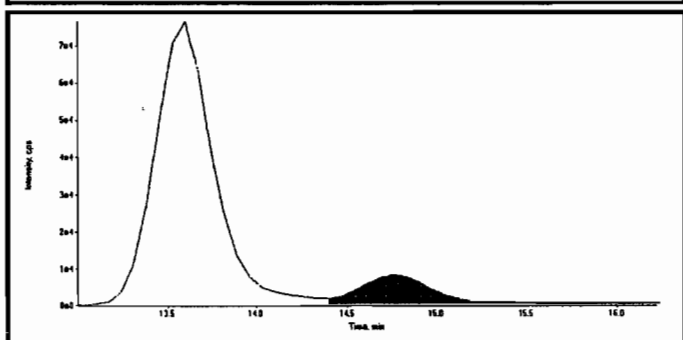

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.8
Area Counts:	2.44e+005
Manual Modification	No
Amount:	35.7 (ng/mL)
% Accuracy:	89.30

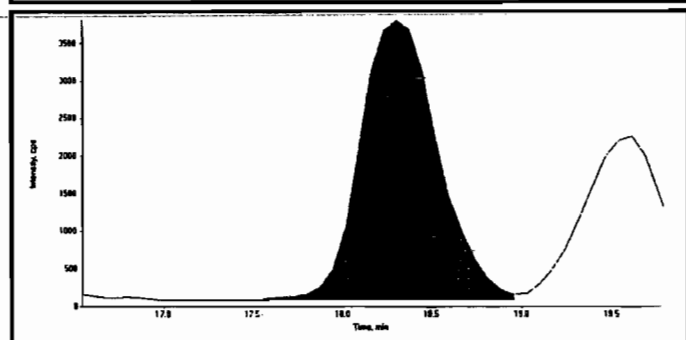

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.3
Area Counts:	1.15e+005
Manual Modification	No
Amount:	35.8 (ng/mL)
% Accuracy:	89.50

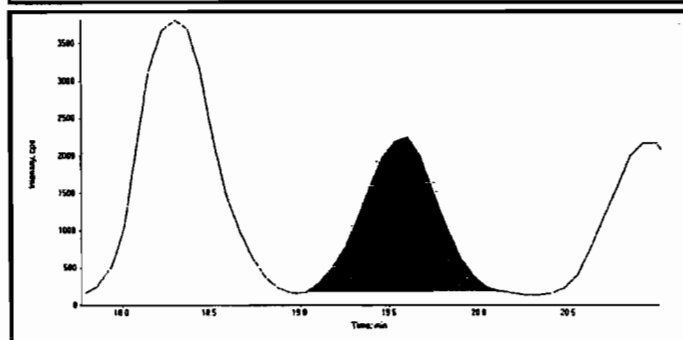

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.6
Area Counts:	6.12e+004
Manual Modification	No
Amount:	38.3 (ng/mL)
% Accuracy:	95.80

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322020.wiff	**Acquisition Date**	3/22/2010 11:54:20 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

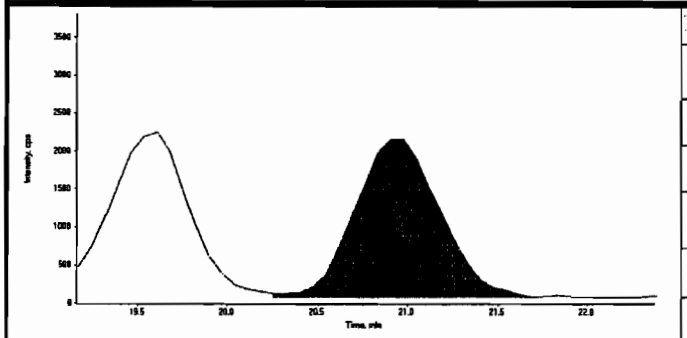

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	21.0
Area Counts:	6.89e+004
Manual Modification	No
Amount:	36.3 (ng/mL)
% Accuracy:	90.70

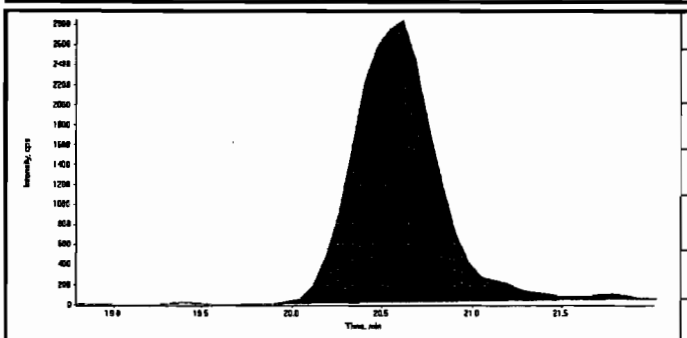

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.6
Area Counts:	9.12e+004
Manual Modification	No
Amount:	37.3 (ng/mL)
% Accuracy:	93.40

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/22/10
Time of Injection 2354
Standard Number WXX100322-57CRI
Data File EXP0322020a

HMX	91.7
RDX	97.4
135-Trinitrobenzene	106.0
13-Dinitrobenzene	106.0
Tetryl	68.7
246-Trinitrotoluene	84.8
Nitrobenzene	100.0
34-dinitrotoluene	99.6
26-dinitrotoluene	109.0
24-dinitrotoluene	106.0
4-Amino-26-dinitrotoluene	102.0
2-Amino-46-dinitrotoluene	89.3
2-Nitrotoluene	89.5
4-Nitrotoluene	95.8
3-Nitrotoluene	90.7
PETN	93.4
TOTAL	1529.9
AVERAGE	95.6

HMW 03/28/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

LCW 3/28/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1886

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03160013.wiff

Analysis Date: 16–MAR–10 11:26

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,6–Diamino–4–nitrotoluene	100	87.6	88	
3,4–Dinitrotoluene	50	46.1	92	
3,5–Dinitroaniline	100	92.4	92	
TATB	100	98.9	99	
tris(o–cresyl) phosphate	100	102	102	
2,4–Diamino–6–nitrotoluene	100	81.8	82	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 3/18/10

ample Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160013.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	100.	ng/mL
culated Conc:	98.9	ng/mL
. Date:	3/16/2010	
. Time:	11:26:15 AM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
ected RT:	6.93	min
Relative RT:	No	
. Type:	Valley	
ention Time:	6.92	min
a:	1.49e+005	counts
ght:	37091.831	cps
rt Time:	6.81	min
Time:	7.27	min

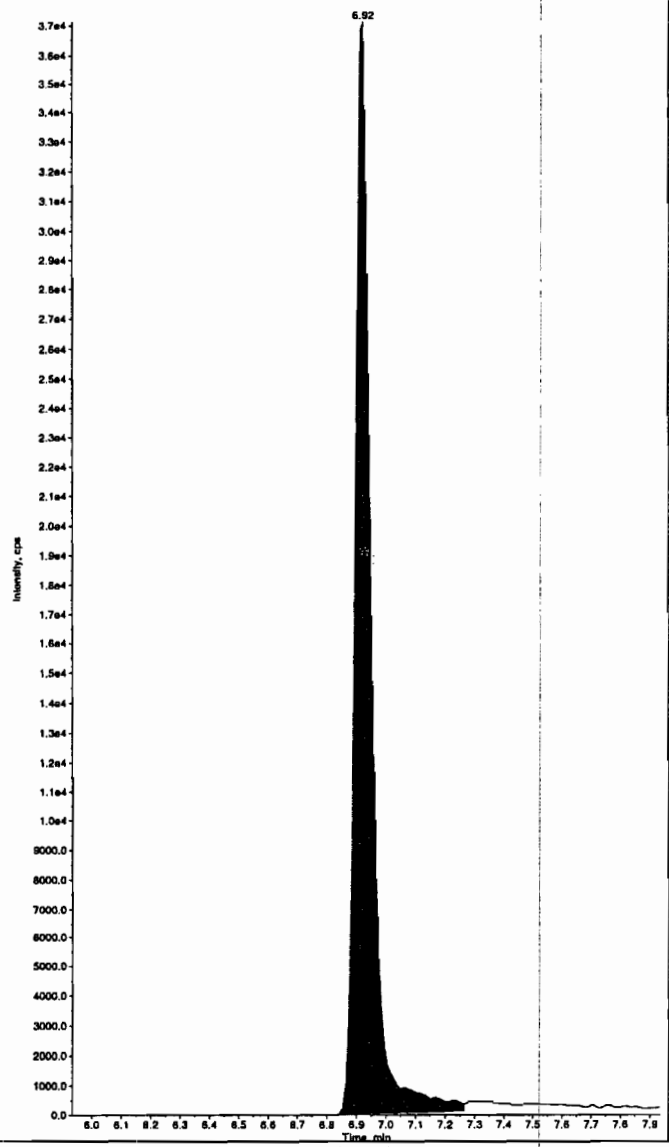

Sample Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	92.4	ng/mL
Acq. Date:	3/16/2010	
Acq. Time:	11:26:15 AM	
Modified:	Yes	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.12	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.16	min
Area:	9.24e+005	counts
Height:	229011.108	cps
Start Time:	8.06	min
End Time:	8.28	min

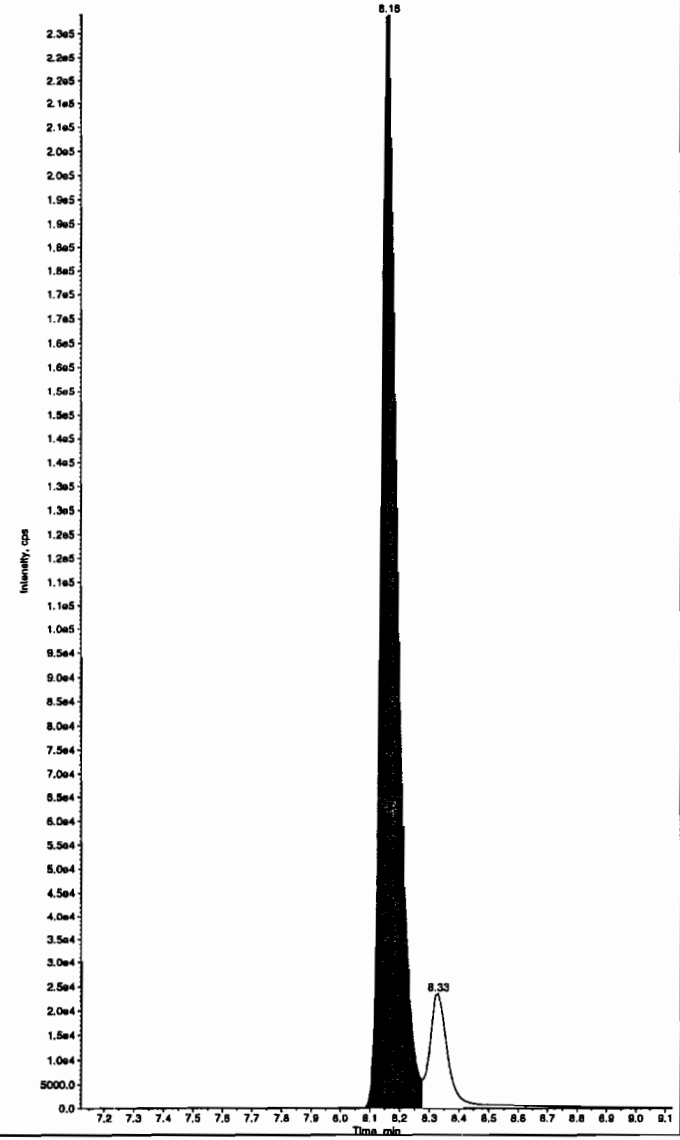

dmm 03/22/10

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mple Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160013.wiff"
ak Name: "34-Dinitrotoluene" Mass(as): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 50.0 ng/mL
ulated Conc: 46.1 ng/mL
Date: 3/16/2010
Time: 11:26:15 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
'indow: 15.0 sec
cted RT: 8.33 min
Relative RT: No

Type: Valley
ntion Time: 8.32 min
: 5.92e+005 counts
ht: 159719.818 cps
c Time: 8.25 min
Time: 8.59 min

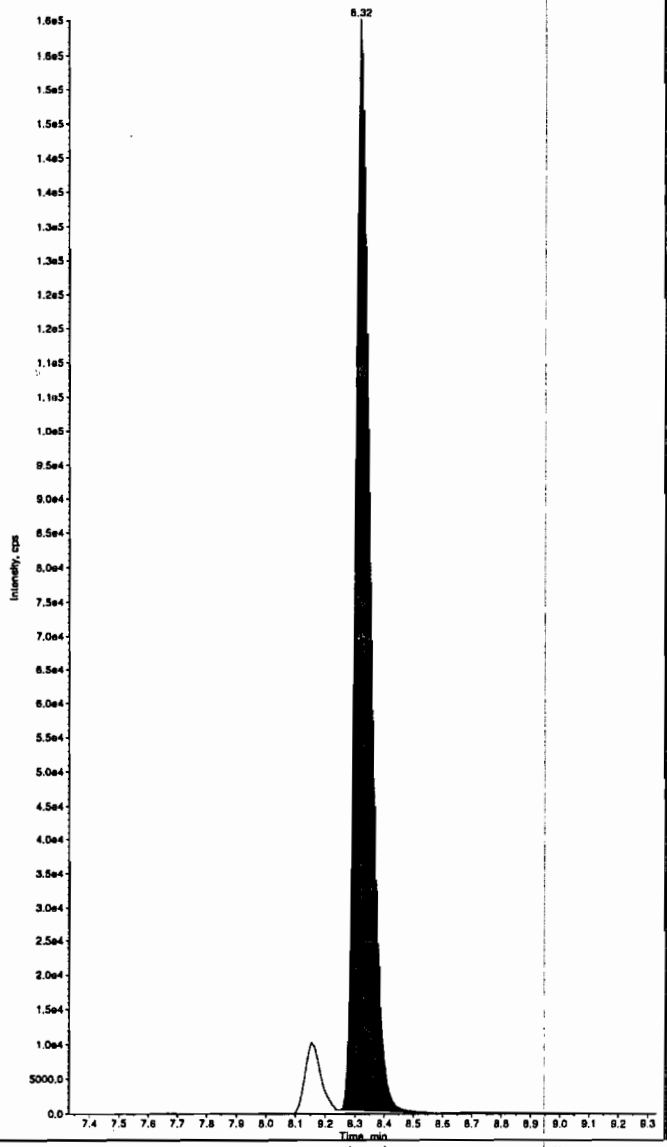

Sample Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 87.6 ng/mL
Acq. Date: 3/16/2010
Acq. Time: 11:26:15 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.96 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.96 min
Area: 1.52e+005 counts
Height: 37749.512 cps
Start Time: 4.84 min
End Time: 5.23 min

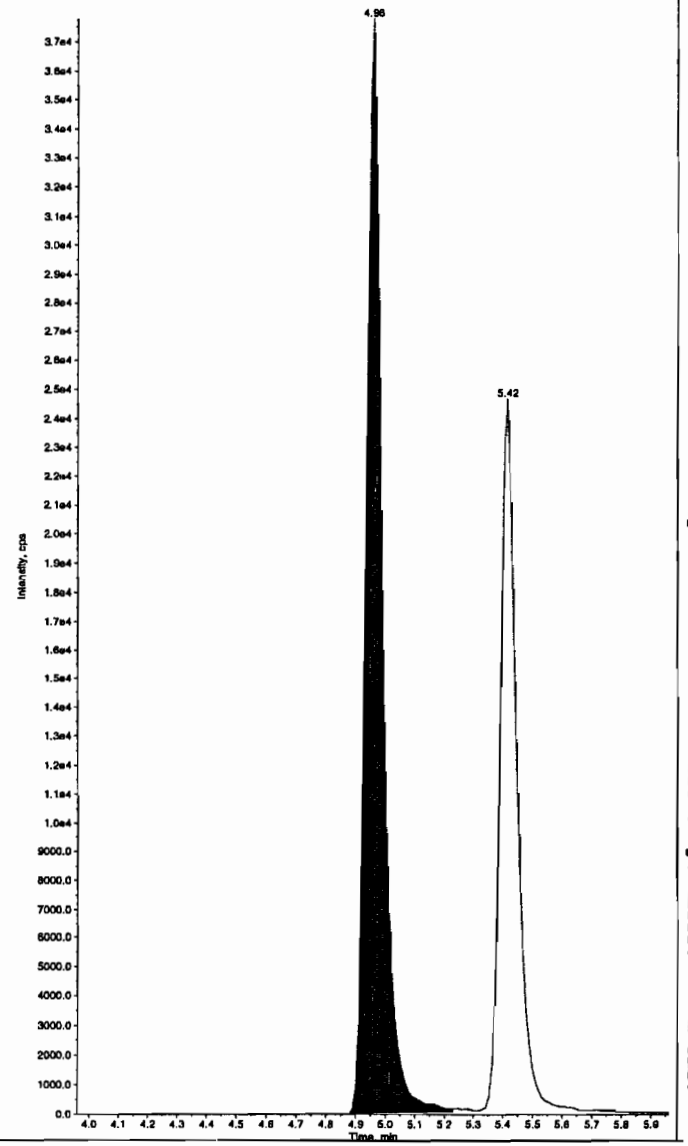

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ample Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160013.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
icentration:	100.	ng/mL
culated Conc:	81.8	ng/mL
. Date:	3/16/2010	
. Time:	11:26:15 AM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	350.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	5.43	min
Relative RT:	No	
. Type:	Valley	
ention Time:	5.42	min
a:	9.54e+004	counts
ght:	24547.277	cps
rt Time:	5.31	min
Time:	5.68	min

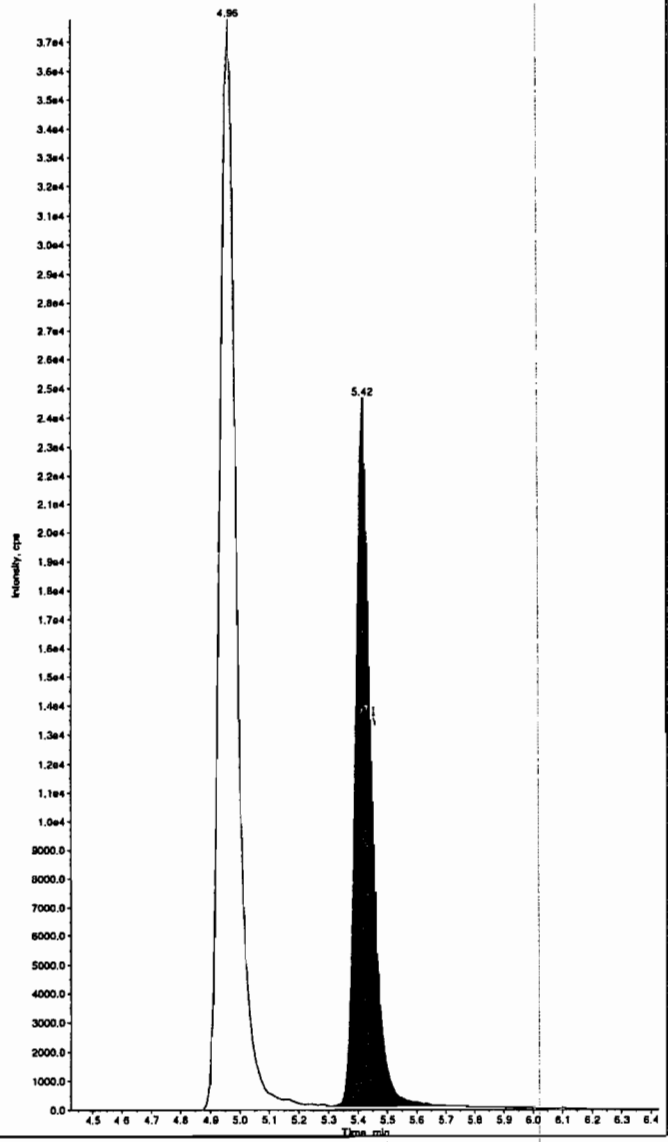

Sample Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	102.	ng/mL
Acq. Date:	3/16/2010	
Acq. Time:	11:26:15 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	1.37e+006	counts
Height:	354615.601	cps
Start Time:	10.8	min
End Time:	11.2	min

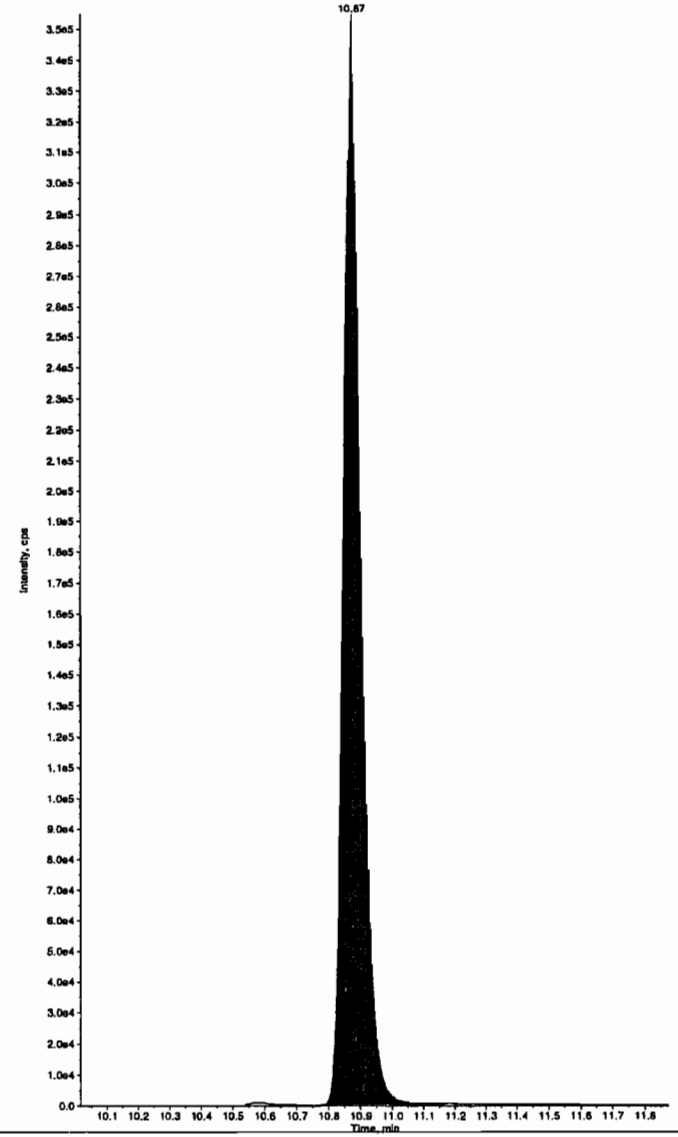

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1886

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03160024.wiff

Analysis Date: 16–MAR–10 14:18

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	446	89	
2,6–Diamino–4–nitrotoluene	500	441	88	
3,4–Dinitrotoluene	250	221	88	
3,5–Dinitroaniline	500	503	101	
TATB	500	499	100	
tris(o–cresyl) phosphate	500	487	97	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Dan 3/18/10

Sample Name: "WXX100316-26CCV" Sample ID: "1|LER" File: "EXS03160024.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index: 1
mple Type: QC
ncentration: 500. ng/mL
lculated Conc: 499. ng/mL
q. Date: 3/16/2010
q. Time: 2:18:55 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 2500.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 6.93 min
e Relative RT: No

c. Type: Valley
tention Time: 6.90 min
ea: 8.42e+005 counts
ight: 192589.706 cps
art Time: 6.80 min
d Time: 7.82 min

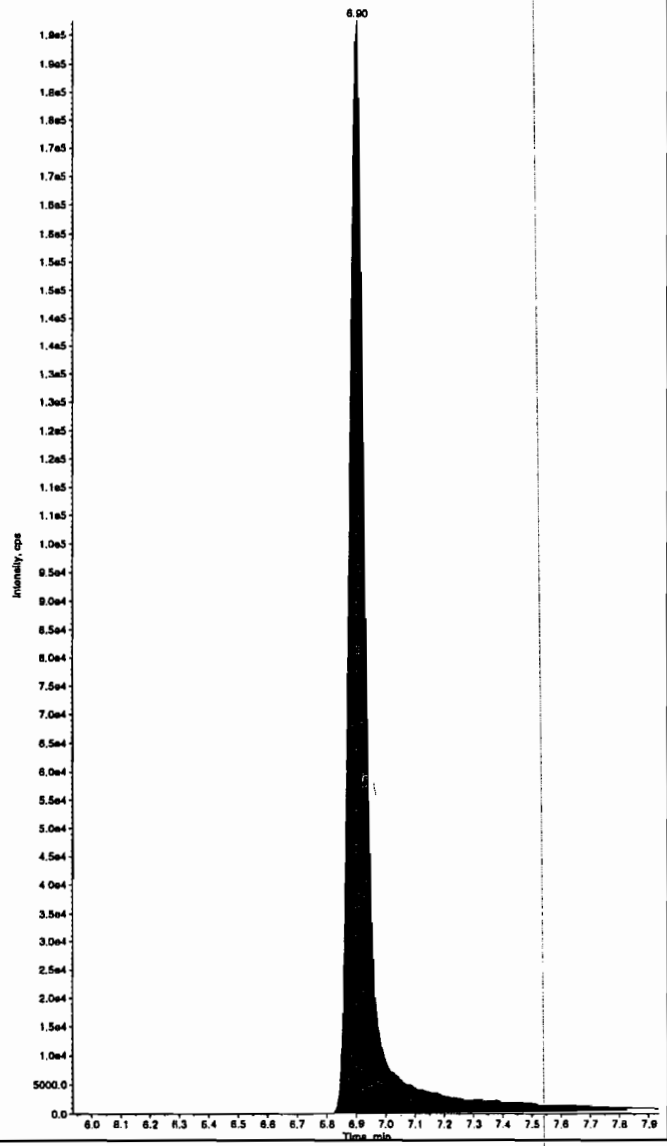

Sample Name: "WXX100316-26CCV" Sample ID: "1|LER" File: "EXS03160024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 489. ng/mL
Acq. Date: 3/16/2010
Acq. Time: 2:18:55 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.09 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.14 min
Area: 4.32e+006 counts
Height: 1136671.021 cps
Start Time: 8.07 min
End Time: 8.27 min

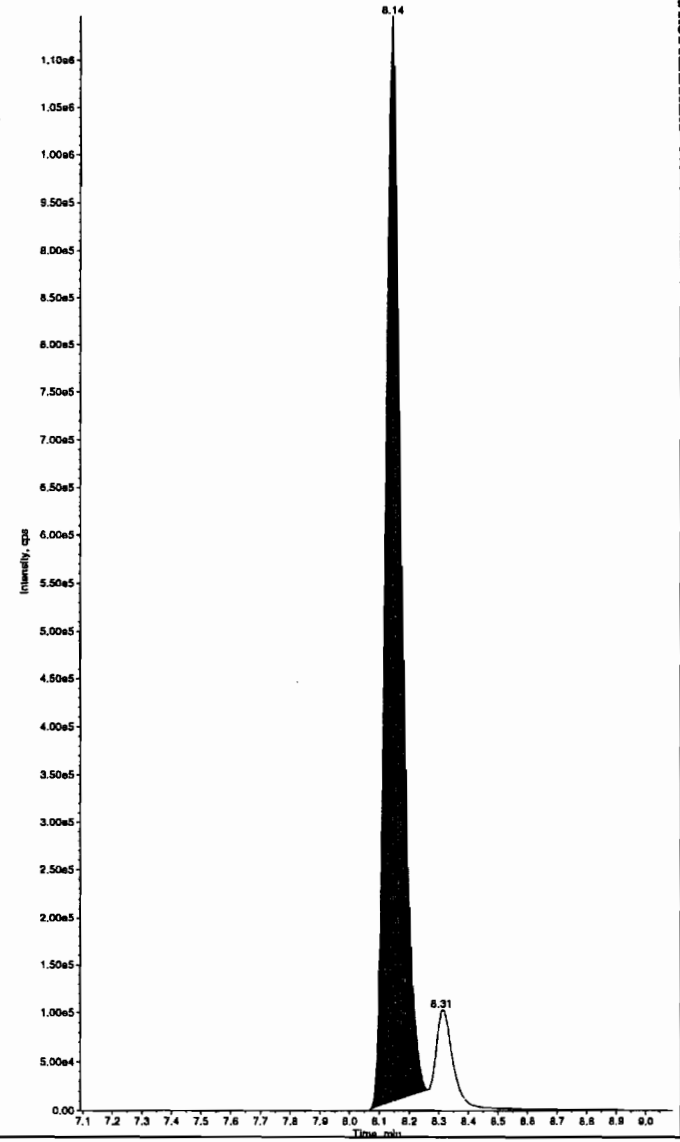

Hmm 03/22/10

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mple Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160024.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
entration:        500.    ng/mL
ulated Conc:      499.    ng/mL
  Date:        3/16/2010
  Time:        2:18:55 PM

fied:             No
. Algorithm: IntelliQuan - IQA
  Peak Height:2500.00   cps
  Peak Width:    0.00   sec
thing Width:  3        points
indow:          30.0   sec
cted RT:         6.93  min
Relative RT:     No

  Type:         Valley
ntion Time:      6.90  min
:          8.42e+005   counts
ht:          192589.706  cps
t Time:          6.80  min
Time:            7.82  min
```

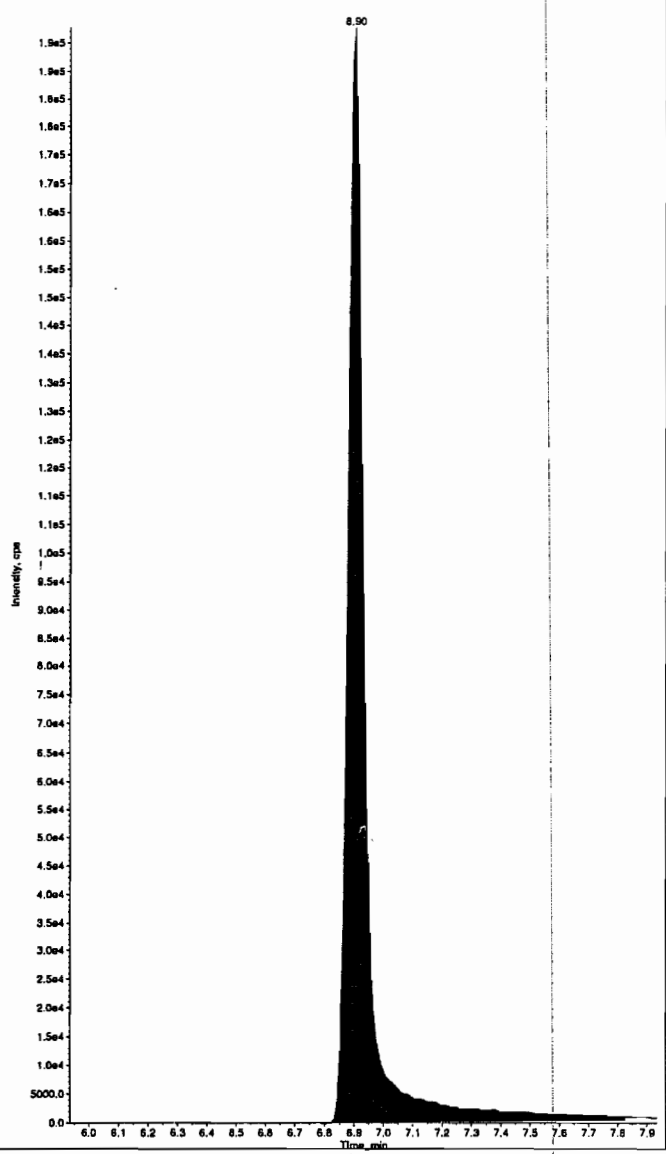

Sample Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:     500.    ng/mL
Calculated Conc:   503.    ng/mL
Acq. Date:       3/16/2010
Acq. Time:       2:18:55 PM

Modified:          Yes
RT Window:        15.0    sec
Expected RT:       8.09   min
Use Relative RT:   No

Int. Type:       Manual
Retention Time:    8.14   min
Area:        4.43e+006   counts
Height:      1143650.593  cps
Start Time:        8.07   min
End Time:          8.27   min
```

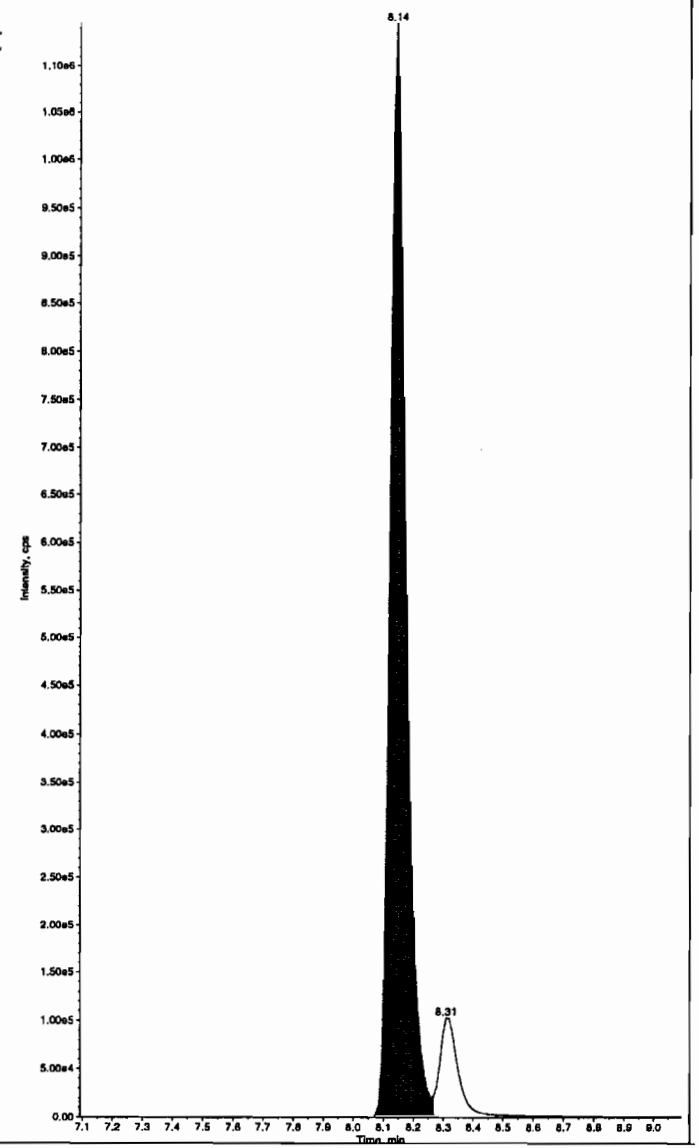

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160024.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

```
le Index:          1
le Type:          QC
entration:       250.     ng/mL
ulated Conc:     221.     ng/mL
  Date:        3/16/2010
  Time:        2:18:55 PM

fied:             No
. Algorithm: IntelliQuan - IQA
  Peak Height:1460.00    cps
  Peak Width:    0.00    sec
othing Width:  3        points
Window:         15.0     sec
ected RT:        8.33    min
 Relative RT:    No

. Type:         Valley
ntion Time:      8.31    min
:          2.81e+006   counts
ht:          776187.988  cps
t Time:          8.24    min
 Time:           8.60    min
```

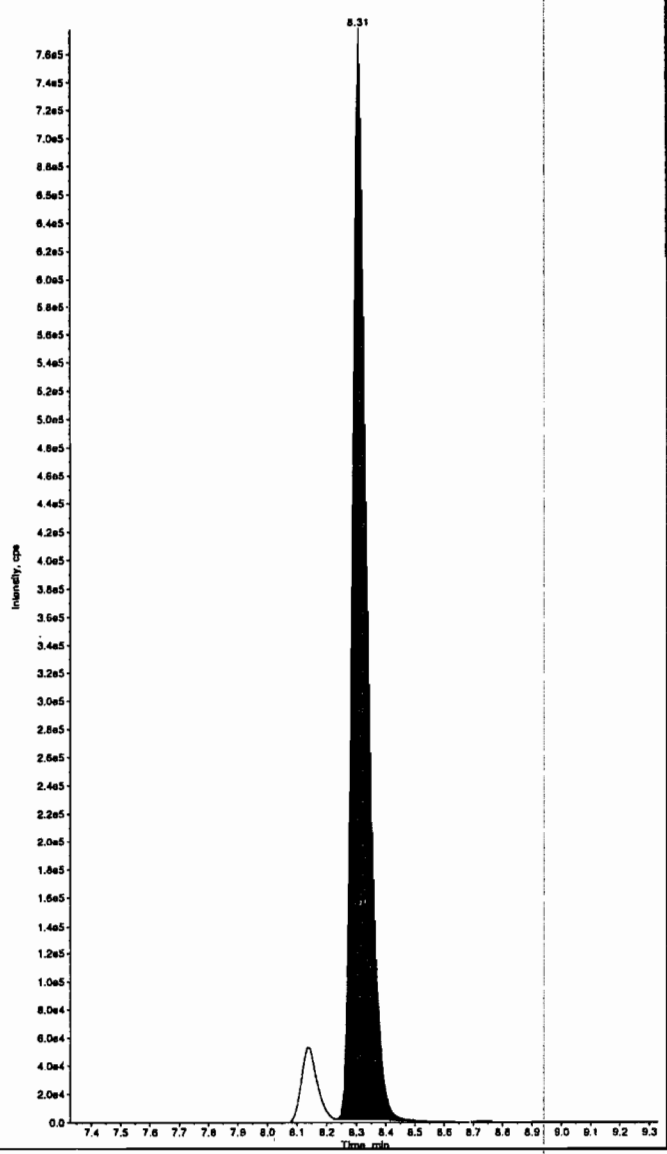

Sample Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:     500.     ng/mL
Calculated Conc:   441.     ng/mL
Acq. Date:       3/16/2010
Acq. Time:       2:18:55 PM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:        4.96    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     4.95    min
Area:         7.16e+005   counts
Height:        167627.060  cps
Start Time:         4.83    min
End Time:           5.25    min
```

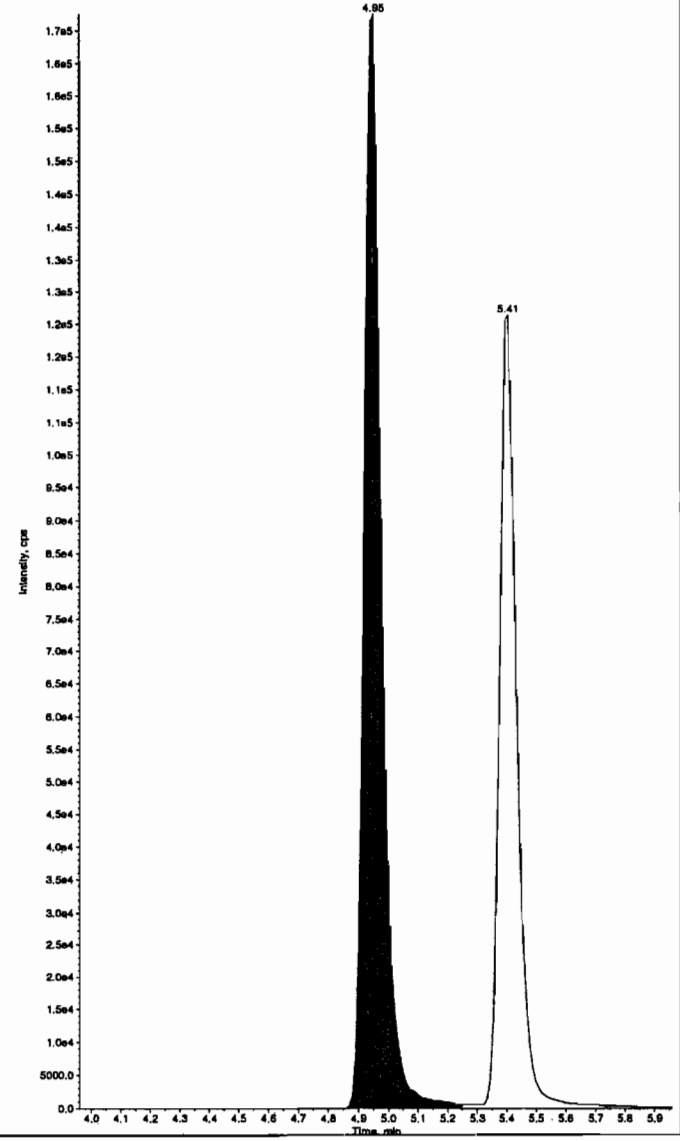

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160024.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 446. ng/mL
. Date: 3/16/2010
. Time: 2:18:55 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 5.43 min
Relative RT: No

. Type: Valley
ention Time: 5.41 min
a: 4.90e+005 counts
ght: 120965.355 cps
rt Time: 5.31 min
Time: 5.75 min

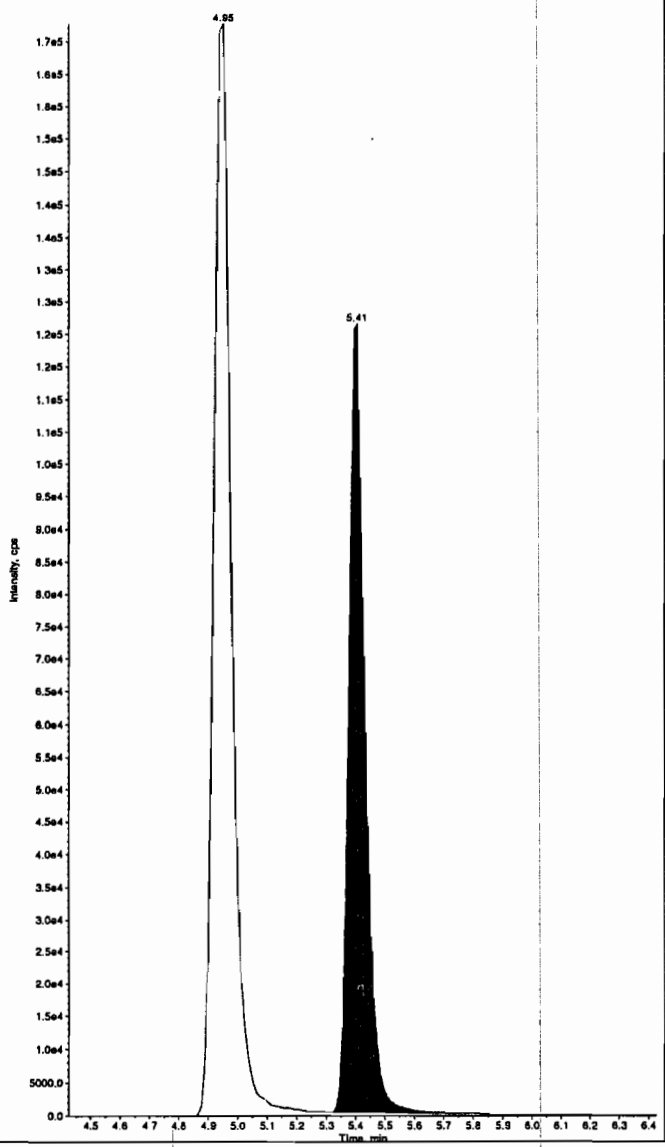

Sample Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160024.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 487. ng/mL
Acq. Date: 3/16/2010
Acq. Time: 2:18:55 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 6.04e+006 counts
Height: 1525121.582 cps
Start Time: 10.8 min
End Time: 11.2 min

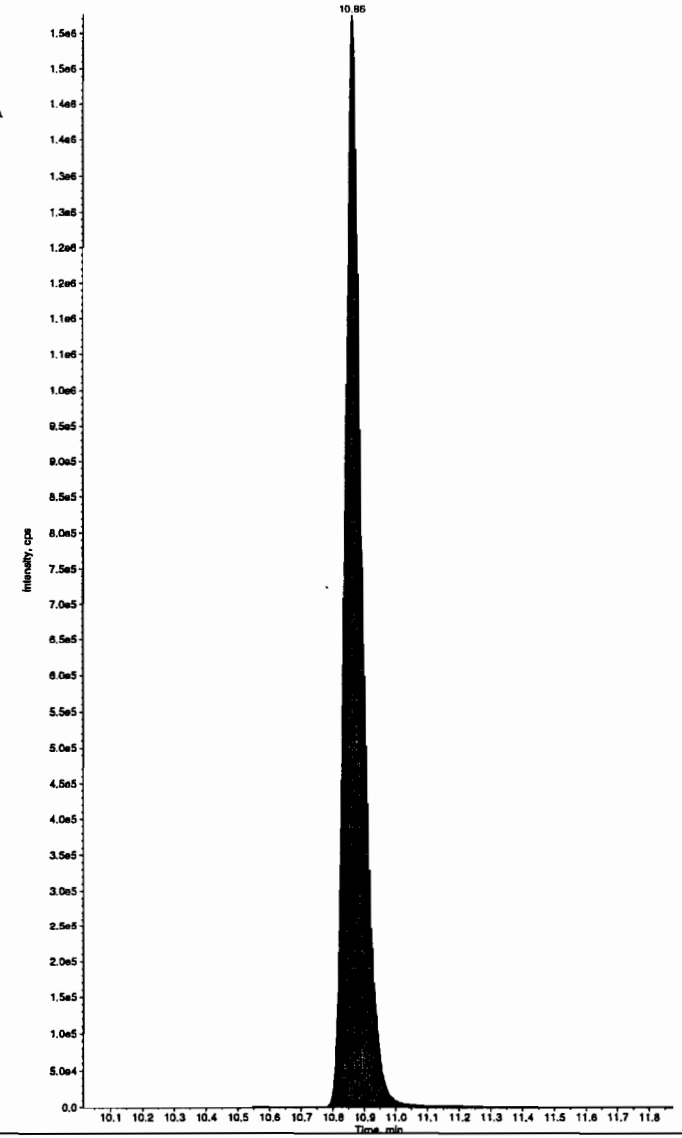

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1886

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03160026.wiff

Analysis Date: 16–MAR–10 14:50

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	87.3	87	
2,6–Diamino–4–nitrotoluene	100	83.1	83	
3,4–Dinitrotoluene	50	46.2	92	
3,5–Dinitroaniline	100	89.4	89	
TATB	100	100	100	
tris(o–cresyl) phosphate	100	96.9	97	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

LER 3/18/10

mple Name: "WXX100316-27CRI" Sample ID: "|1|LER" File: "EXS03160026.wiff"
ak Name: "TATB" Mass(as): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:        1
ple Type:          QC
centration:      100.     ng/mL
culated Conc:    100.     ng/mL
. Date:        3/16/2010
. Time:        2:50:19 PM

ified:             No
c. Algorithm: IntelliQuan - IQA
. Peak Height:2500.00    cps
. Peak Width:    0.00    sec
oothing Width:  3        points
Window:         30.0     sec
ected RT:        6.93    min
 Relative RT:    No

. Type:        Valley
ention Time:     6.89    min
a:          1.51e+005    counts
ght:         36352.856   cps
rt Time:         6.78    min
 Time:           7.37    min
```

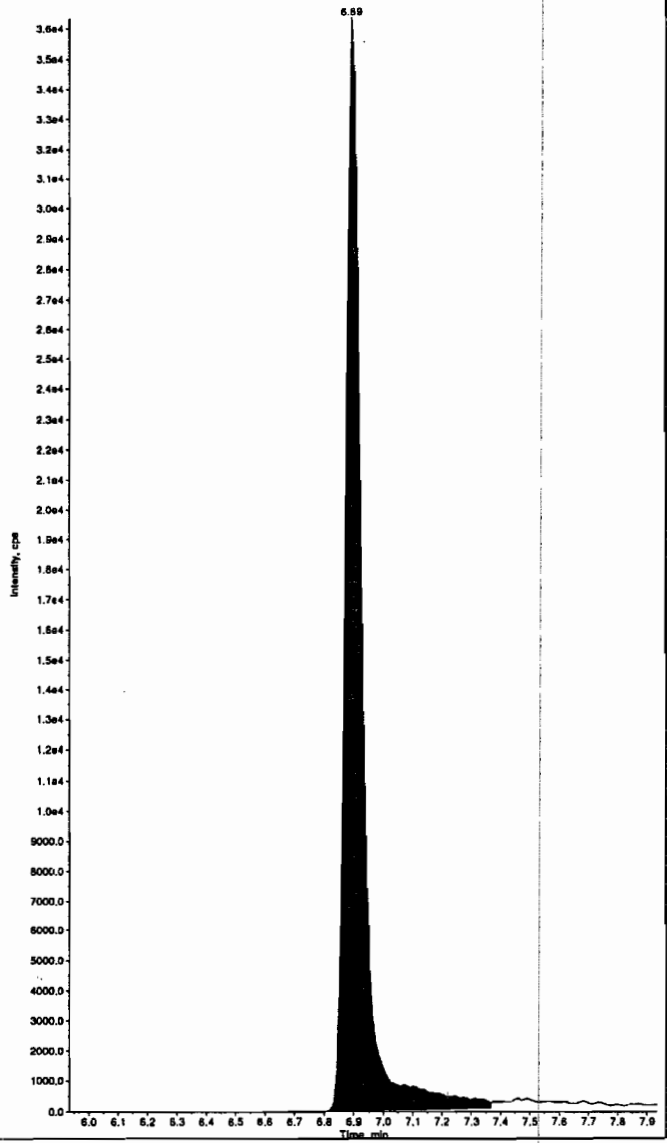

Sample Name: "WXX100316-27CRI" Sample ID: "|1|LER" File: "EXS03160026.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:          QC
Concentration:      100.     ng/mL
Calculated Conc:     89.4    ng/mL
Acq. Date:       3/16/2010
Acq. Time:       2:50:19 PM

Modified:            Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:          15.0    sec
Expected RT:         8.12   min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      8.13   min
Area:          8.97e+005    counts
Height:        225674.927   cps
Start Time:          8.04   min
End Time:            8.26   min
```

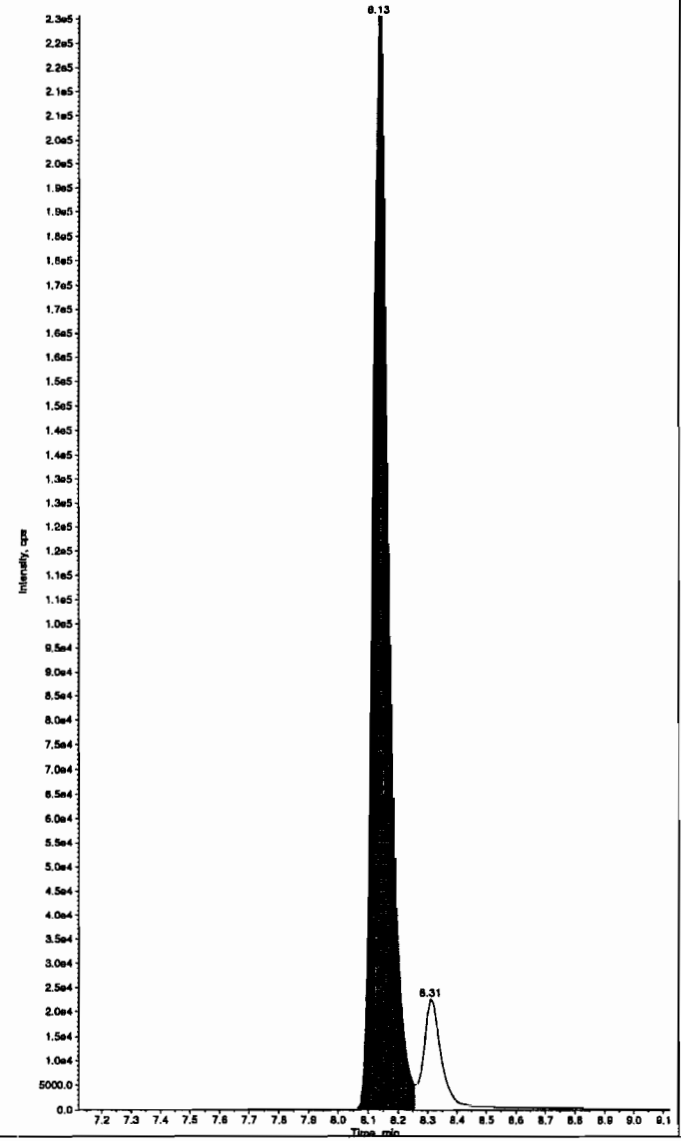

HM 03/22/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100316-27CRI" Sample ID: "|1|LER" File: "EXS03160026.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
mple Index:          1
mple Type:          QC
ncentration:      50.0    ng/mL
lculated Conc:    46.2    ng/mL
q. Date:       3/16/2010
q. Time:       2:50:19 PM

dified:            No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height:1460.00   cps
n. Peak Width:    0.00   sec
oothing Width:  3        points
 Window:         15.0    sec
pected RT:        8.33   min
e Relative RT:    No

t. Type:        Valley
tention Time:     8.31   min
ea:         5.93e+005   counts
ight:        159680.450  cps
art Time:         8.24   min
d Time:           8.61   min
```

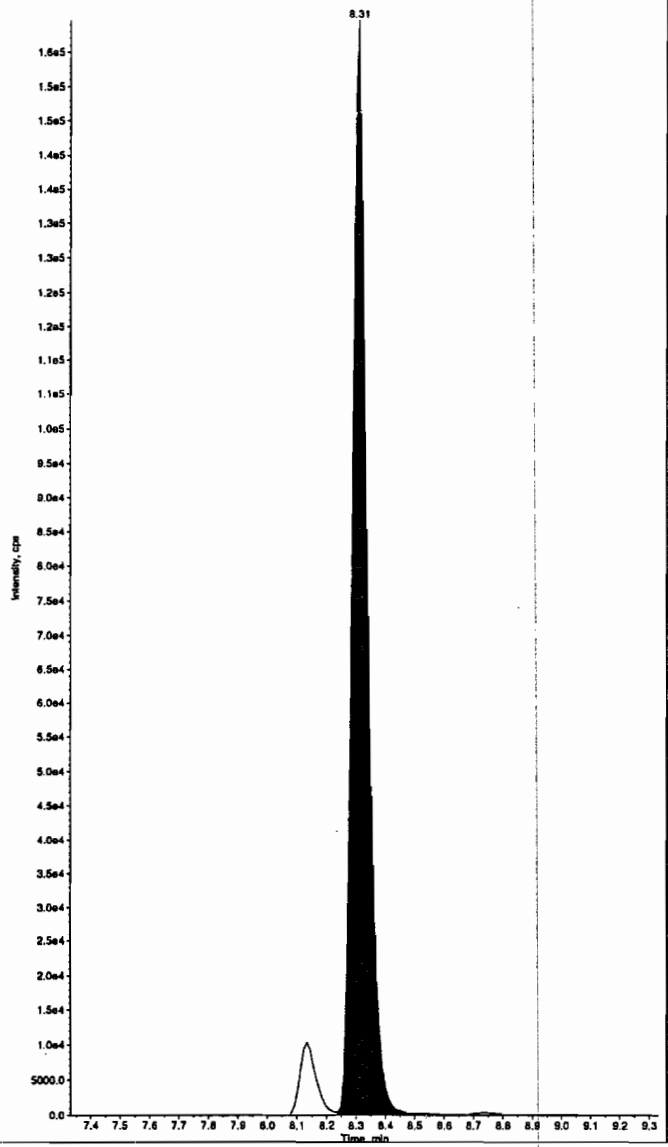

Sample Name: "WXX100316-27CRI" Sample ID: "|1|LER" File: "EXS03160026.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:     100.    ng/mL
Calculated Conc:    83.1   ng/mL
Acq. Date:     3/16/2010
Acq. Time:     2:50:19 PM

Modified:          No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:        4.96   min
Use Relative RT:   No

Int. Type:       Valley
Retention Time:     4.94   min
Area:        1.45e+005   counts
Height:      35828.499   cps
Start Time:         4.86   min
End Time:           5.19   min
```

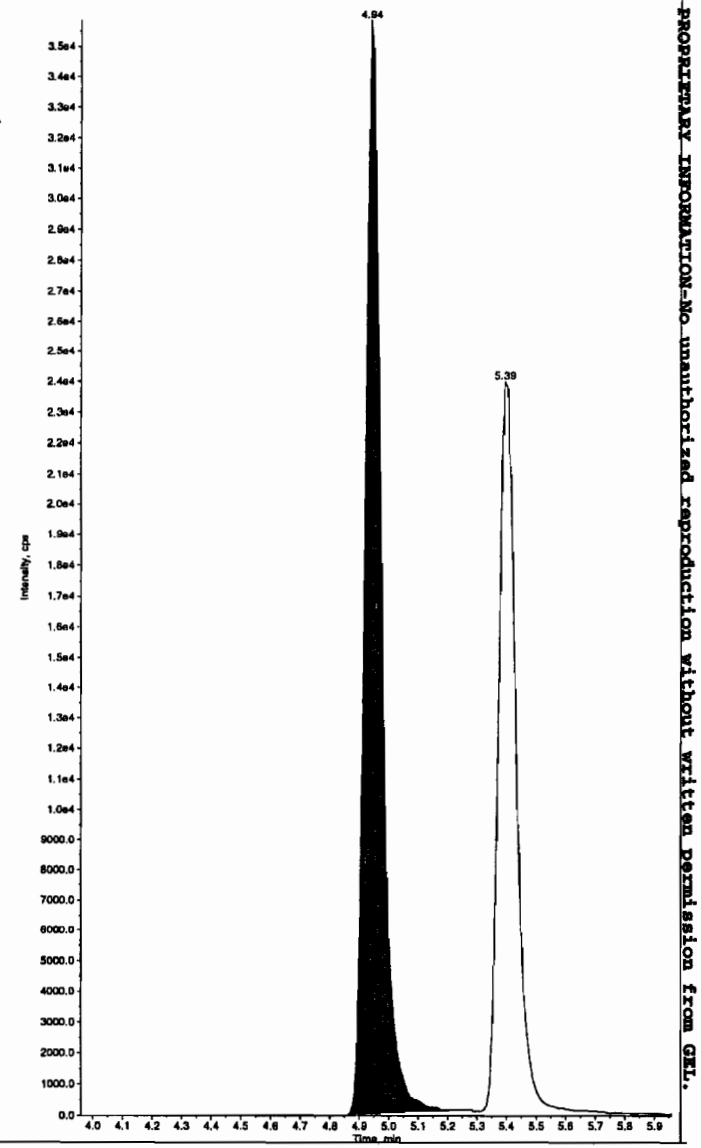

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mple Name: "WXX100316-27CRI" Sample ID: "|1|LER" File: "EXS03160026.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
entration:        100.     ng/mL
culated Conc:      87.3     ng/mL
. Date:        3/16/2010
. Time:        2:50:19 PM

.fied:              No
:. Algorithm: IntelliQuan - IQA
  Peak Height: 350.00    cps
  Peak Width:    0.00    sec
othing Width:  3        points
Window:         30.0     sec
icted RT:        5.43    min
 Relative RT:    No

 Type:         Valley
ntion Time:      5.39    min
:          1.01e+005    counts
ht:          23956.850  cps
t Time:          5.31    min
Time:            5.81    min
```

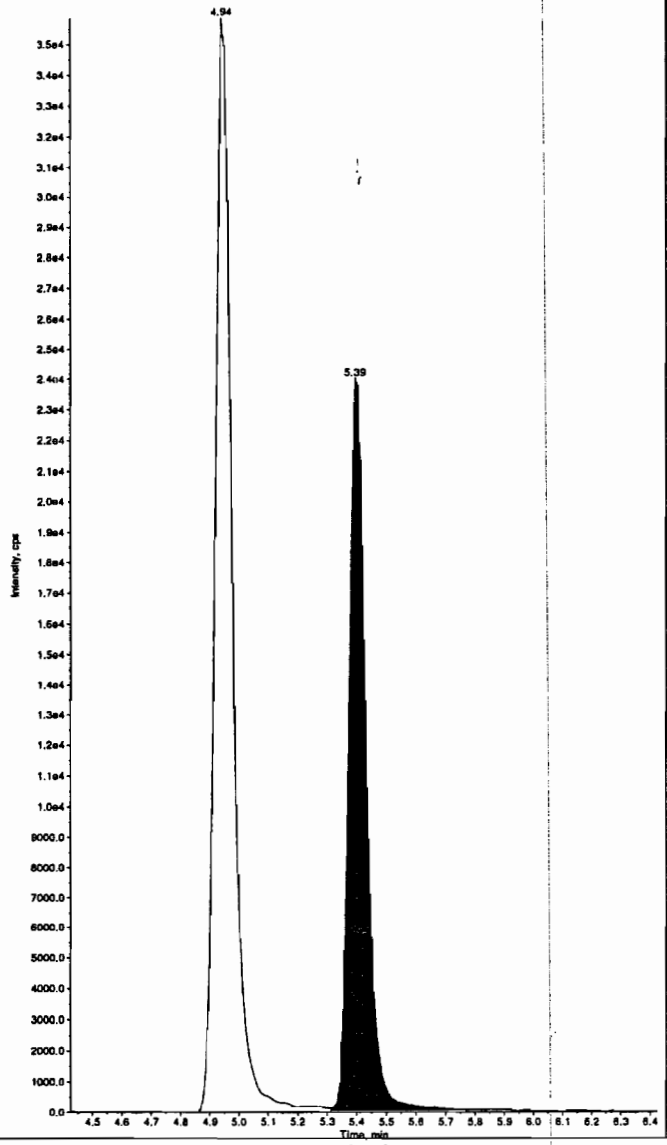

Sample Name: "WXX100316-27CRI" Sample ID: "|1|LER" File: "EXS03160026.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       100.     ng/mL
Calculated Conc:      96.9     ng/mL
Acq. Date:        3/16/2010
Acq. Time:        2:50:19 PM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3        points
RT Window:          30.0     sec
Expected RT:        10.9     min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.9     min
Area:          1.30e+006    counts
Height:        339953.827   cps
Start Time:         10.8     min
End Time:           11.2     min
```

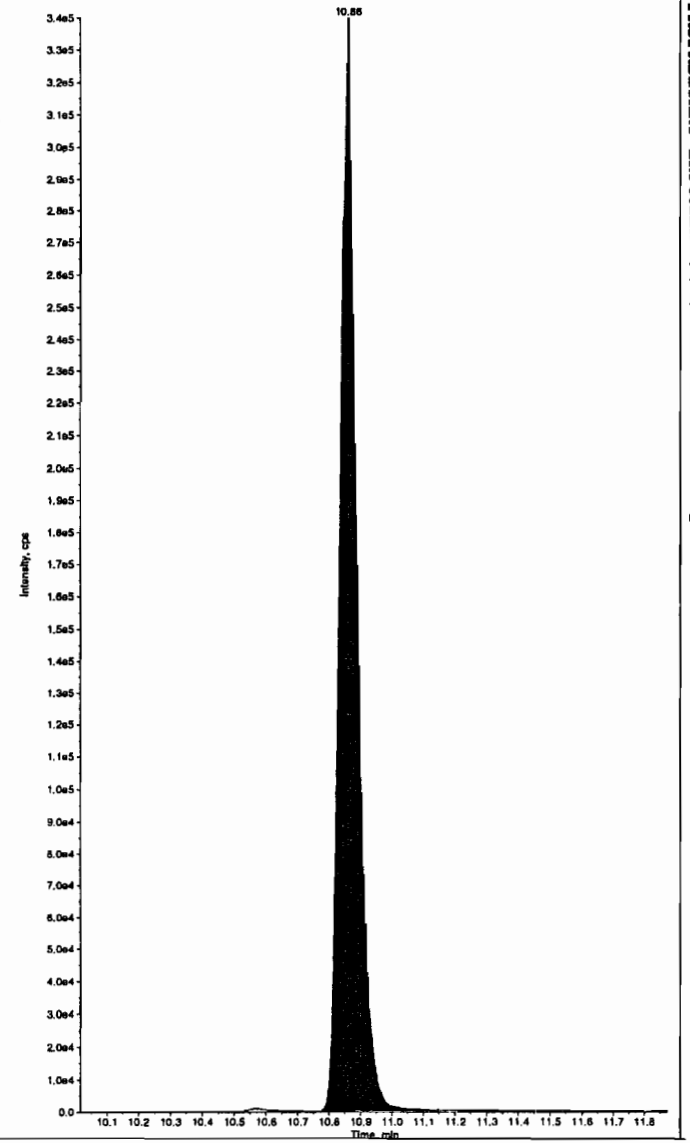

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1886

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXS03160050.wiff

Analysis Date: 16–MAR–10 21:07

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	513	103	
2,6–Diamino–4–nitrotoluene	500	535	107	
3,4–Dinitrotoluene	250	212	85	
3,5–Dinitroaniline	500	477	95	
TATB	500	496	99	
tris(o–cresyl) phosphate	500	505	101	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

LCM 3/18/10

mple Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160050.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
entration: 500. ng/mL
ulated Conc: 496. ng/mL
Date: 3/16/2010
Time: 9:07:31 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.93 min
Relative RT: No

Type: Valley
ntion Time: 6.94 min
: 8.36e+005 counts
ht: 194692.963 cps
t Time: 6.84 min
Time: 7.74 min

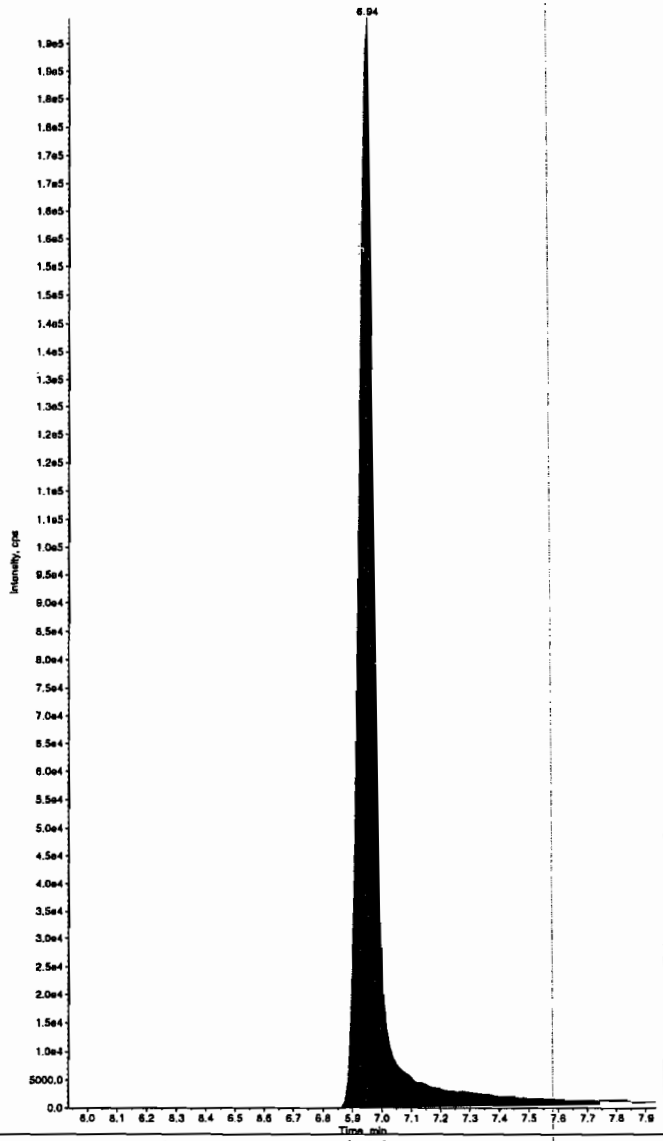

Sample Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160050.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 477. ng/mL
Acq. Date: 3/16/2010
Acq. Time: 9:07:31 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.17 min
Area: 4.22e+006 counts
Height: 1057959.595 cps
Start Time: 8.08 min
End Time: 8.30 min

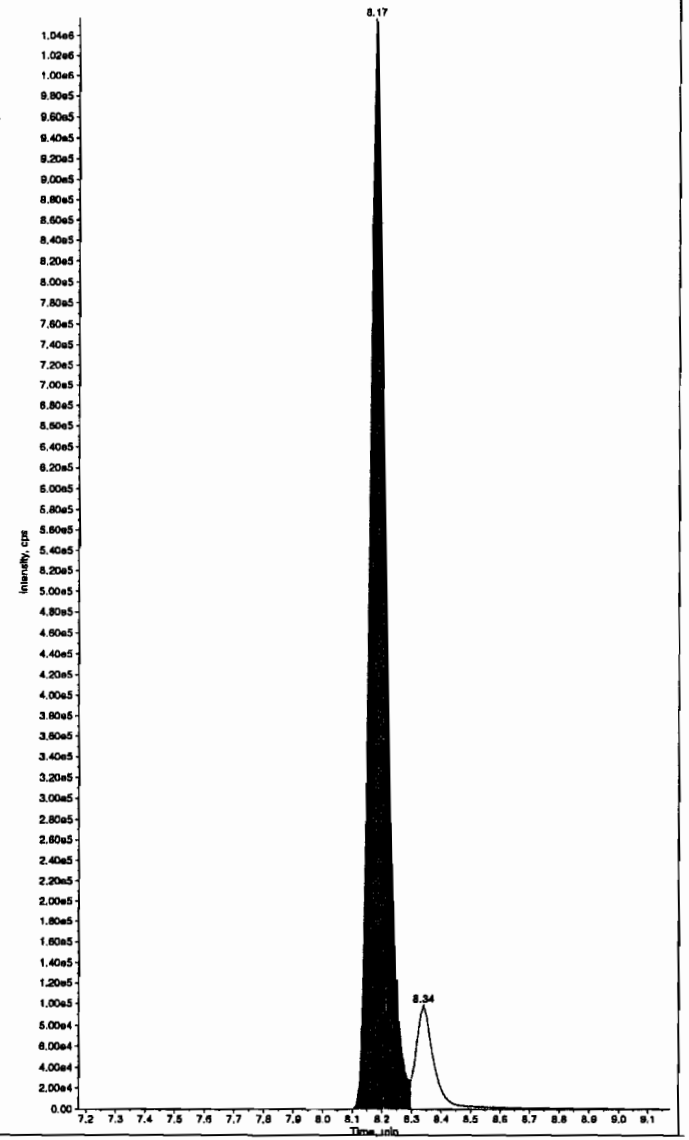

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160050.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
centration: 250. ng/mL
culated Conc: 212. ng/mL
. Date: 3/16/2010
. Time: 9:07:31 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.33 min
Relative RT: No

. Type: Valley
ention Time: 8.34 min
a: 2.71e+006 counts
ght: 709708.313 cps
ct Time: 8.26 min
Time: 8.56 min

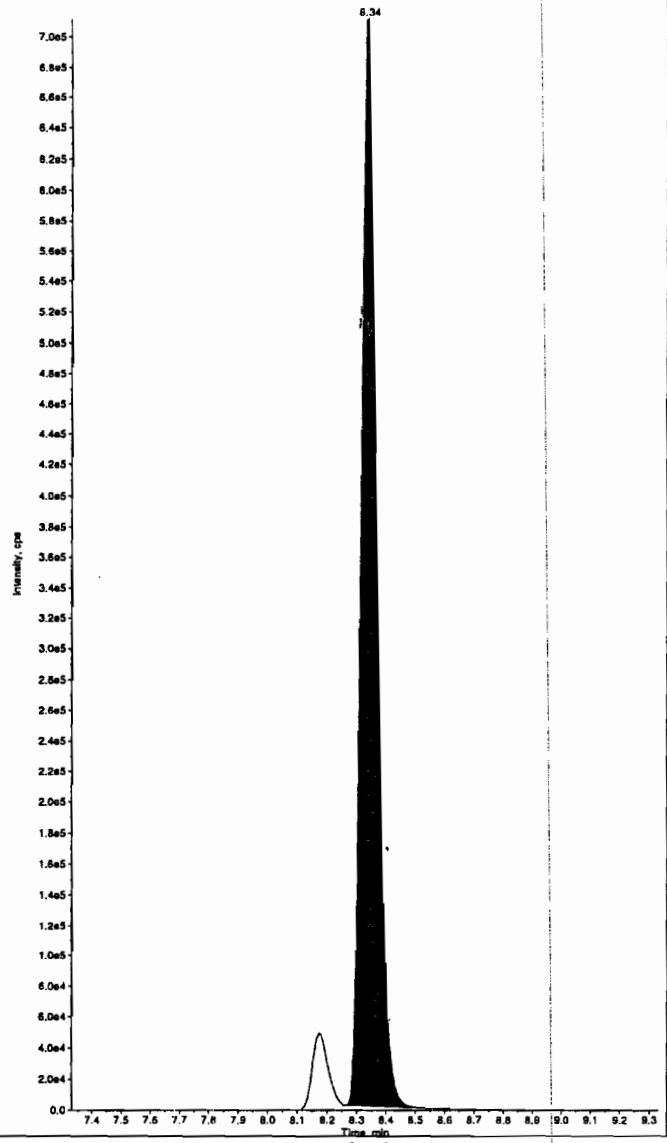

Sample Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160050.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 535. ng/mL
Acq. Date: 3/16/2010
Acq. Time: 9:07:31 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.96 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.98 min
Area: 8.64e+005 counts
Height: 211119.217 cps
Start Time: 4.88 min
End Time: 5.28 min

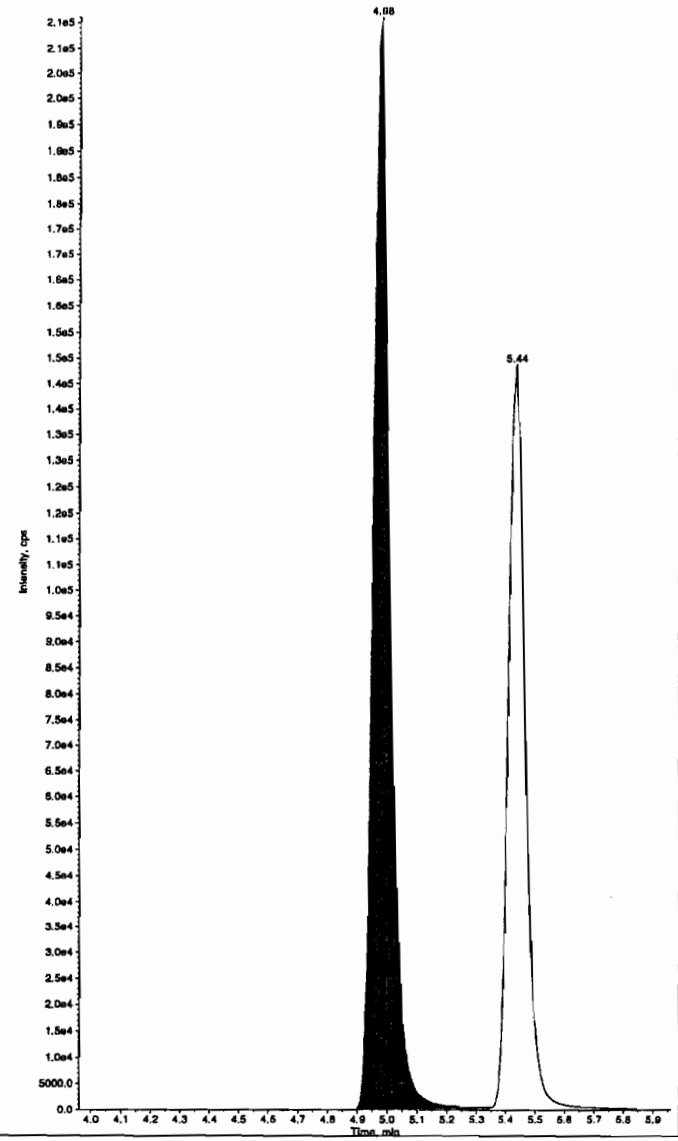

ample Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160050.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

```
ple Index:        1
ple Type:         QC
centration:       500.     ng/mL
culated Conc:     513.     ng/mL
. Date:        3/16/2010
. Time:        9:07:31 PM

ified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00    cps
. Peak Width:    0.00    sec
othing Width:  3        points
Window:         30.0     sec
ected RT:        5.43    min
 Relative RT:    No

. Type:        Valley
ention Time:     5.44    min
a:          5.62e+005   counts
ght:        143355.576   cps
rt Time:         5.35    min
 Time:           5.72    min
```

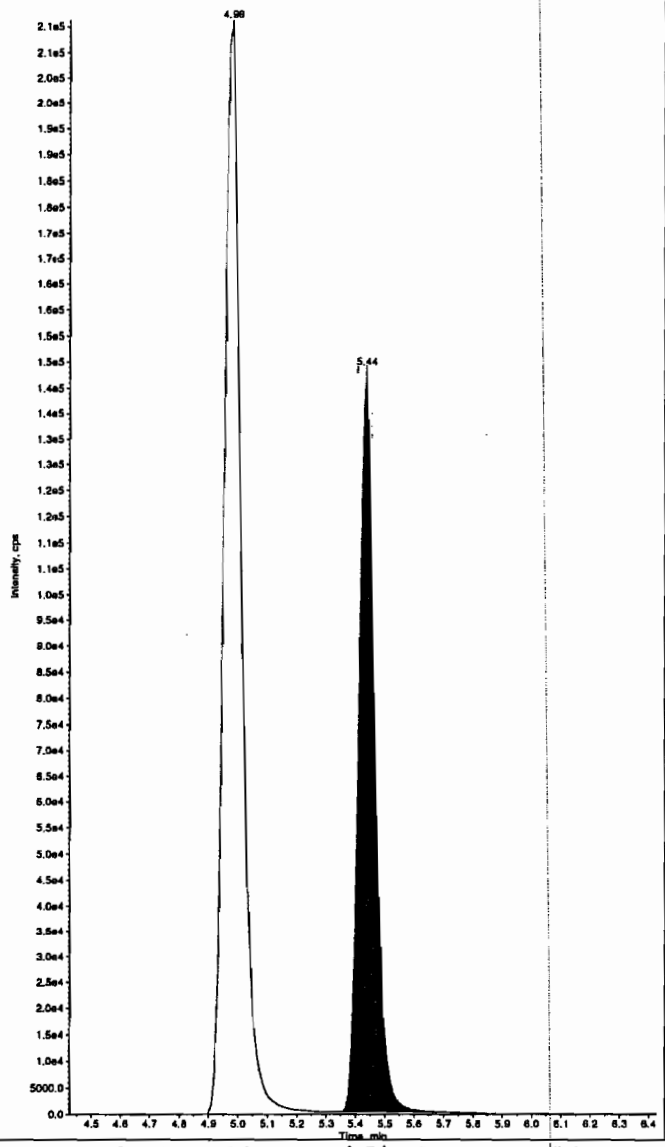

Sample Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160050.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:       500.     ng/mL
Calculated Conc:     505.     ng/mL
Acq. Date:        3/16/2010
Acq. Time:        9:07:31 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:       10.9     min
Use Relative RT:   No

Int. Type:        Valley
Retention Time:    10.9     min
Area:        6.25e+006   counts
Height:      1499623.047   cps
Start Time:        10.8     min
End Time:          11.2     min
```

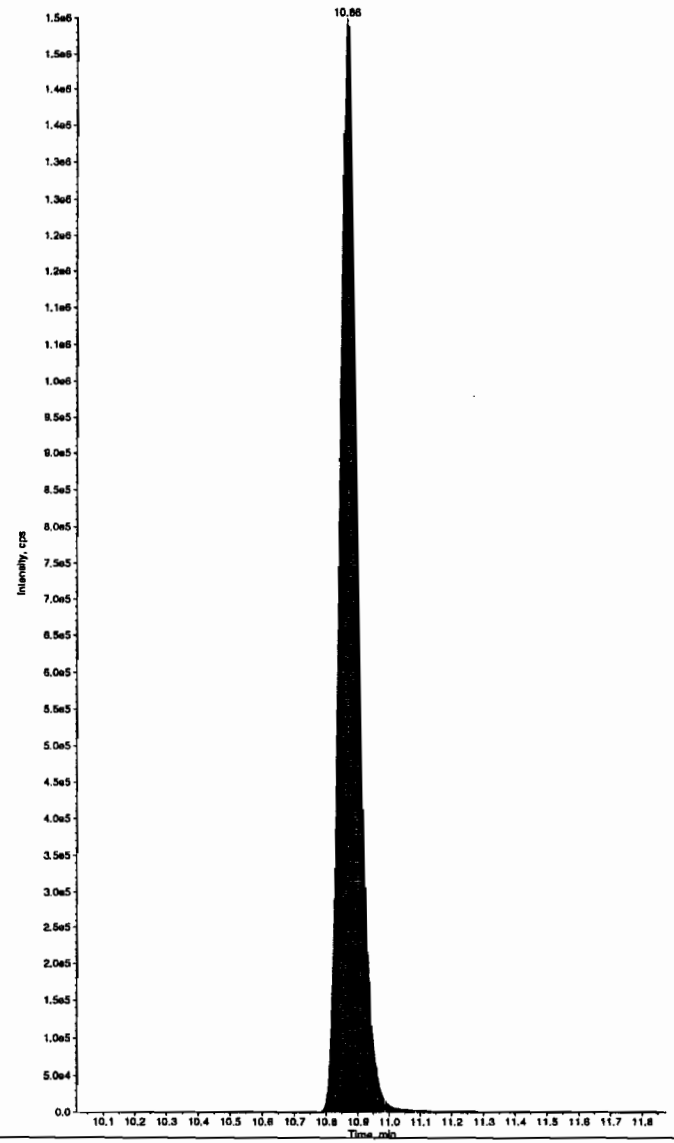

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1886

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03160052.wiff

Analysis Date: 16–MAR–10 21:38

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	99.1	99	
2,6–Diamino–4–nitrotoluene	100	103	103	
3,4–Dinitrotoluene	50	43.8	88	
3,5–Dinitroaniline	100	88.7	89	
TATB	100	103	103	
tris(o–cresyl) phosphate	100	104	104	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Gen 3/18/10

mple Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160052.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
entration: 100. ng/mL
culated Conc: 103. ng/mL
Date: 3/16/2010
Time: 9:38:56 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 30.0 sec
cted RT: 6.93 min
Relative RT: No

Type: Valley
ntion Time: 6.93 min
: 1.56e+005 counts
ht: 37996.288 cps
t Time: 6.84 min
Time: 7.47 min

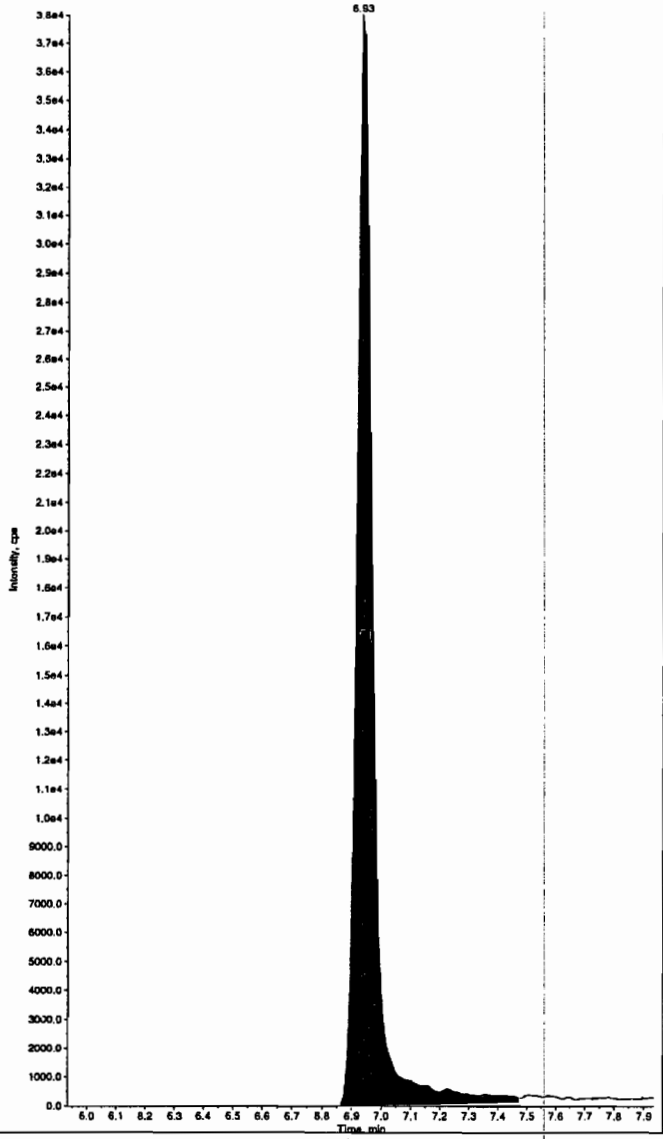

Sample Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160052.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 88.7 ng/mL
Acq. Date: 3/16/2010
Acq. Time: 9:38:56 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.17 min
Area: 8.90e+005 counts
Height: 227161.377 cps
Start Time: 8.07 min
End Time: 8.29 min

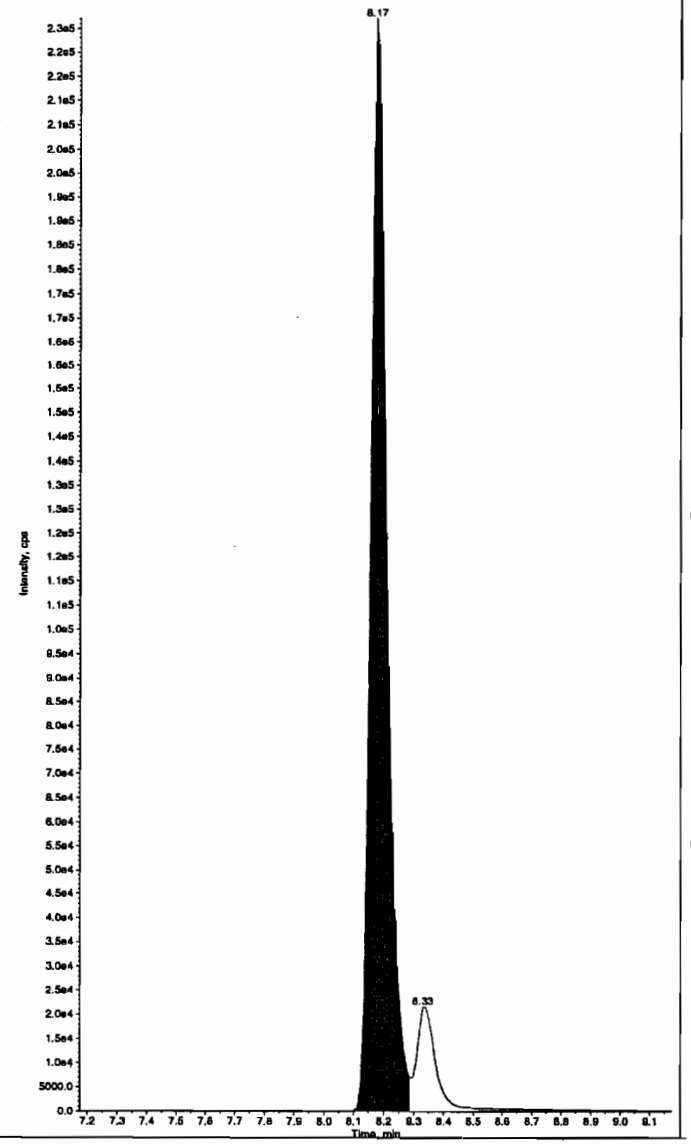

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100316-27CRI" Sample ID: "|1|LER" File: "EXS03160052.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
centration:         50.0      ng/mL
culated Conc:       43.8      ng/mL
. Date:          3/16/2010
. Time:          9:38:56 PM

ified:              No
:. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00     cps
. Peak Width:       0.00    sec
othing Width:  3          points
Window:            15.0     sec
ected RT:           8.33    min
Relative RT:        No

Type:            Valley
ntion Time:         8.33    min
:            5.61e+005      counts
ht:             155961.243  cps
t Time:             8.26    min
Time:               8.55    min
```

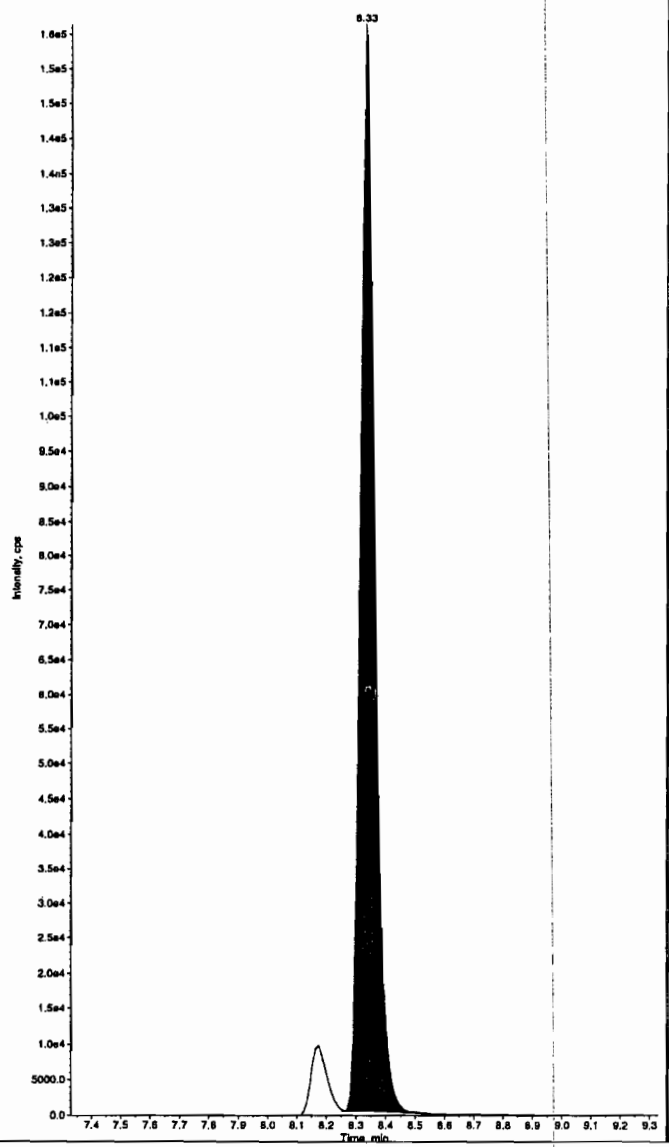

Sample Name: "WXX100316-27CRI" Sample ID: "|1|LER" File: "EXS03160052.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         100.      ng/mL
Calculated Conc:       103.      ng/mL
Acq. Date:          3/16/2010
Acq. Time:          9:38:56 PM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00     cps
Min. Peak Width:      0.00   sec
Smoothing Width:  3          points
RT Window:           30.0    sec
Expected RT:          4.96   min
Use Relative RT:      No

Int. Type:           Valley
Retention Time:       4.98   min
Area:            1.77e+005   counts
Height:          44645.008   cps
Start Time:           4.88   min
End Time:             5.25   min
```

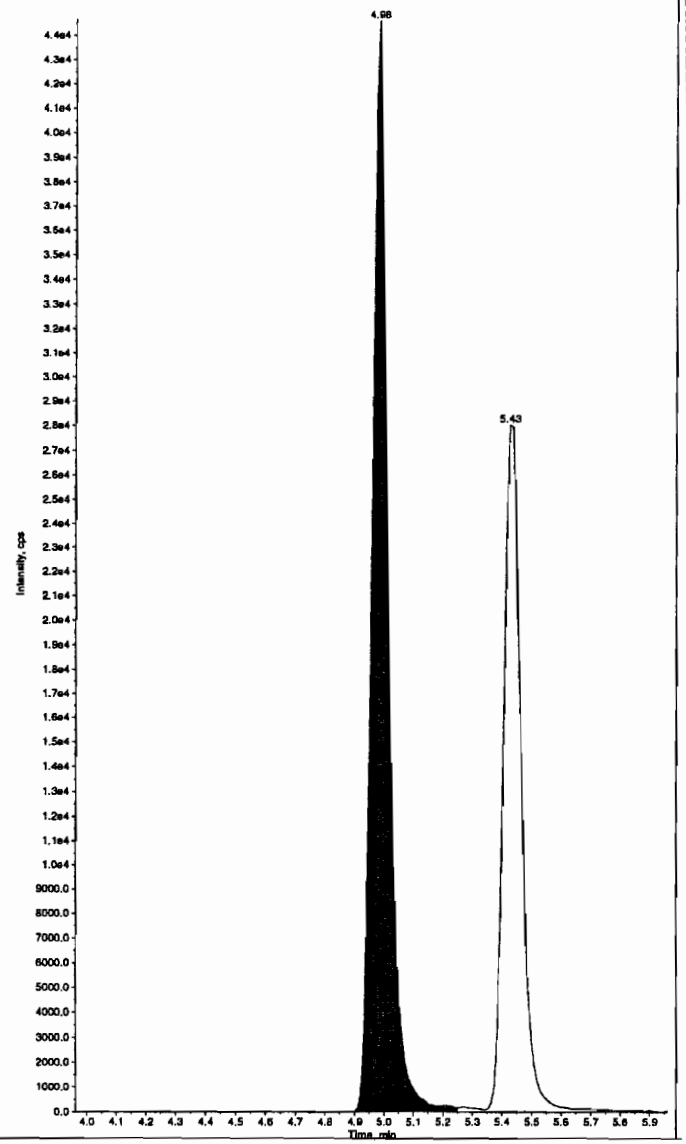

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ımple Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160052.wiff"
ıak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ımment: "LCMSEXP_C" Annotation: ""

ɔle Index: 1
ɔle Type: QC
:entration: 100. ng/mL
:ulated Conc: 99.1 ng/mL
. Date: 3/16/2010
. Time: 9:38:56 PM

.fied: No
:. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
Peak Width: 0.00 sec
ɔthing Width: 3 points
/indow: 30.0 sec
:cted RT: 5.43 min
Relative RT: No

Type: Valley
ıntion Time: 5.43 min
ı: 1.14e+005 counts
ıht: 28014.862 cps
't Time: 5.34 min
Time: 5.74 min

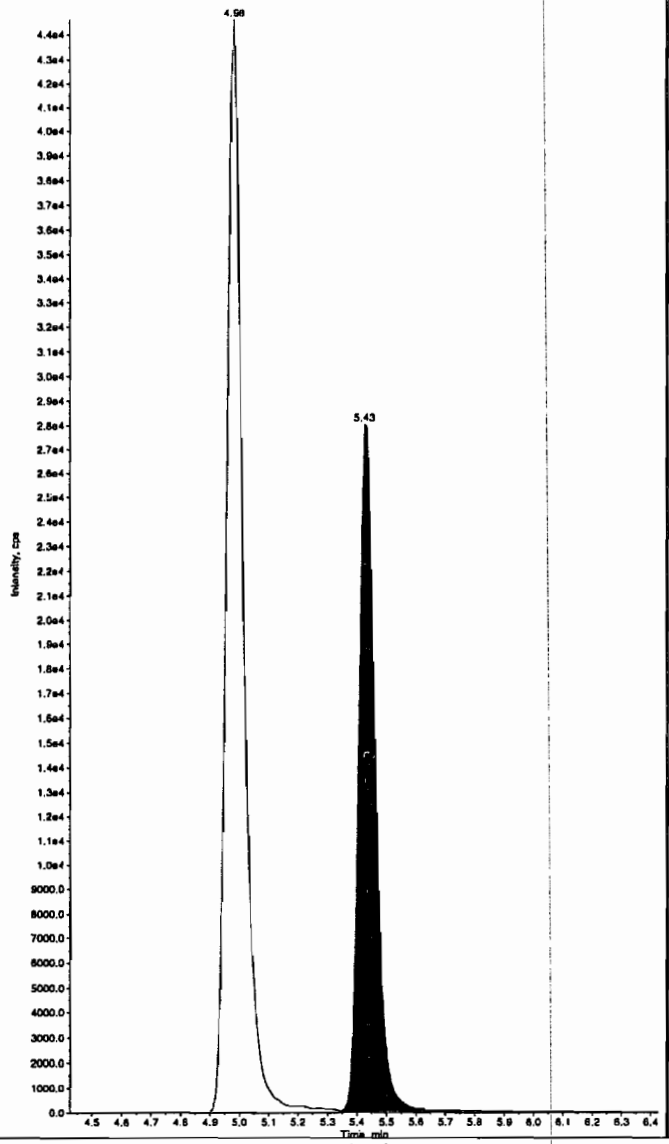

Sample Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160052.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 3/16/2010
Acq. Time: 9:38:56 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.40e+006 counts
Height: 346738.220 cps
Start Time: 10.8 min
End Time: 11.1 min

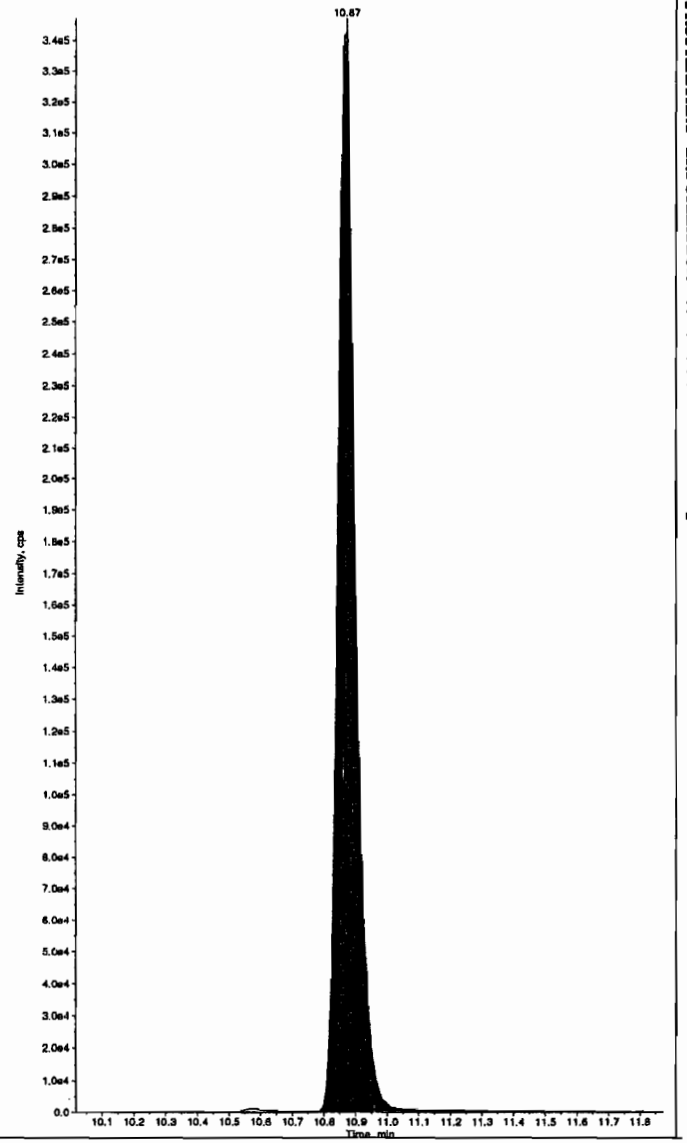

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1886

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03160062.wiff

Analysis Date: 17–MAR–10 00:16

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	571	114	
2,6–Diamino–4–nitrotoluene	500	558	112	
3,4–Dinitrotoluene	250	229	91	
3,5–Dinitroaniline	500	491	98	
TATB	500	520	104	
tris(o–cresyl) phosphate	500	514	103	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ran 3/19/10

ple Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160062.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 520. ng/mL
Date: 3/17/2010
Time: 12:16:04 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.93 min
Relative RT: No

Type: Valley
ntion Time: 6.96 min
: 8.79e+005 counts
ht: 200727.402 cps
Time: 6.85 min
Time: 7.80 min

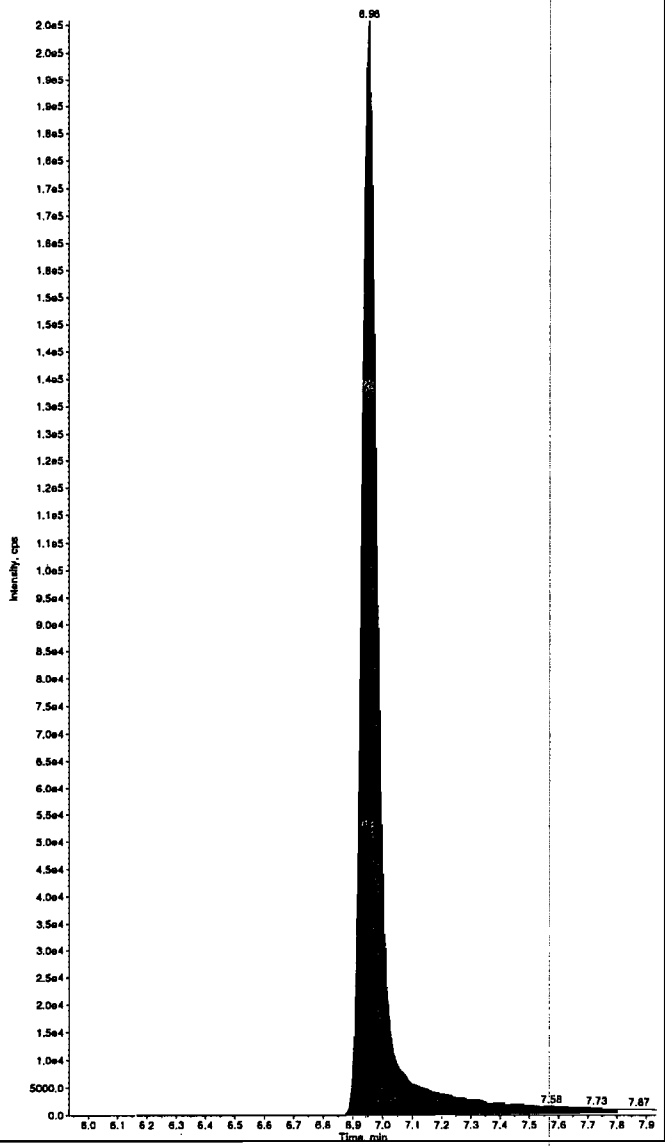

Sample Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160062.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 491. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 12:16:04 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.20 min
Area: 4.34e+006 counts
Height: 1093172.729 cps
Start Time: 8.09 min
End Time: 8.30 min

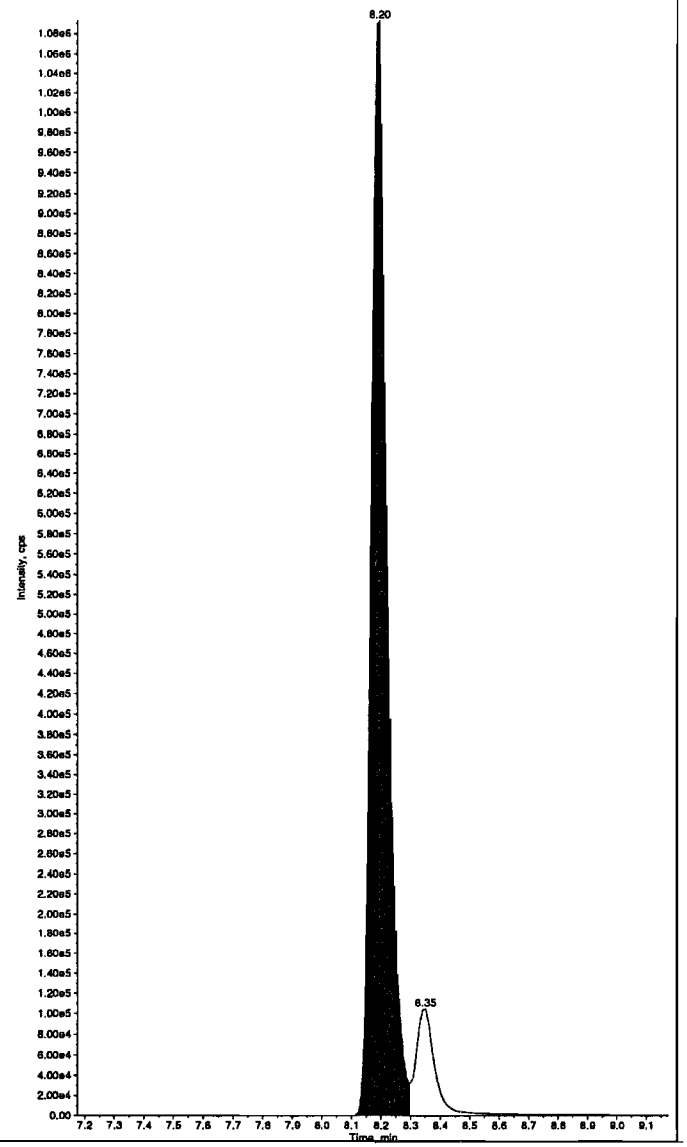

Hm 03/22/10

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160062.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 250. ng/mL
ulated Conc: 229. ng/mL
Date: 3/17/2010
Time: 12:16:04 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.33 min
Relative RT: No

Type: Valley
ntion Time: 8.34 min
: 2.91e+006 counts
ht: 793351.807 cps
t Time: 8.27 min
Time: 8.66 min

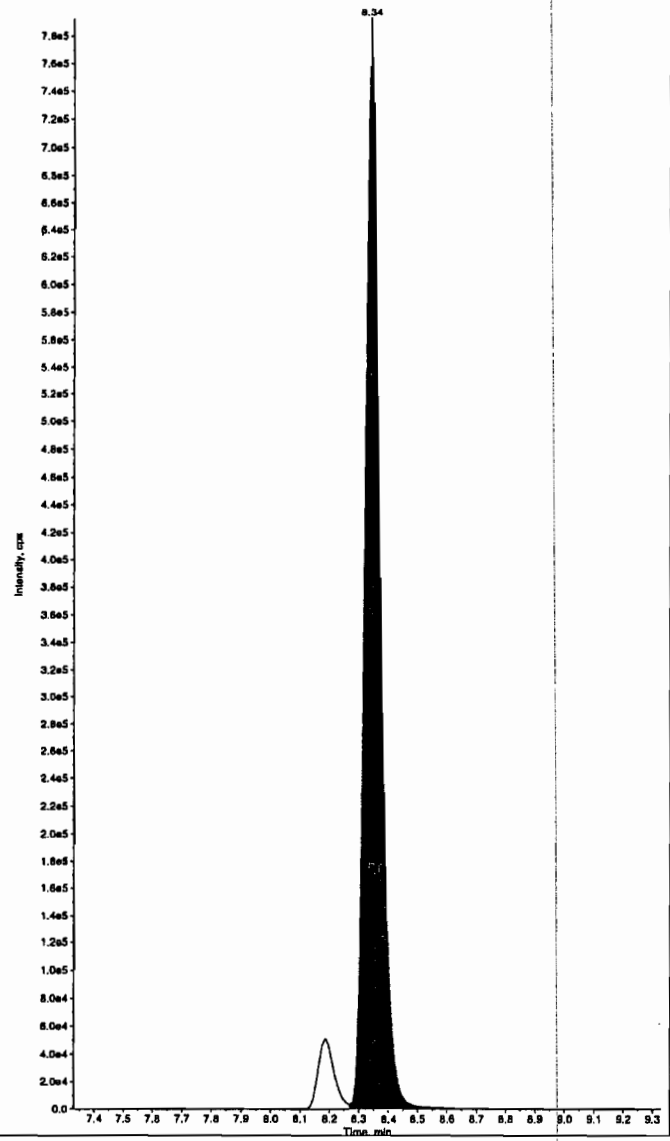

Sample Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160062.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 558. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 12:16:04 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.96 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.98 min
Area: 9.01e+005 counts
Height: 210318.283 cps
Start Time: 4.88 min
End Time: 5.25 min

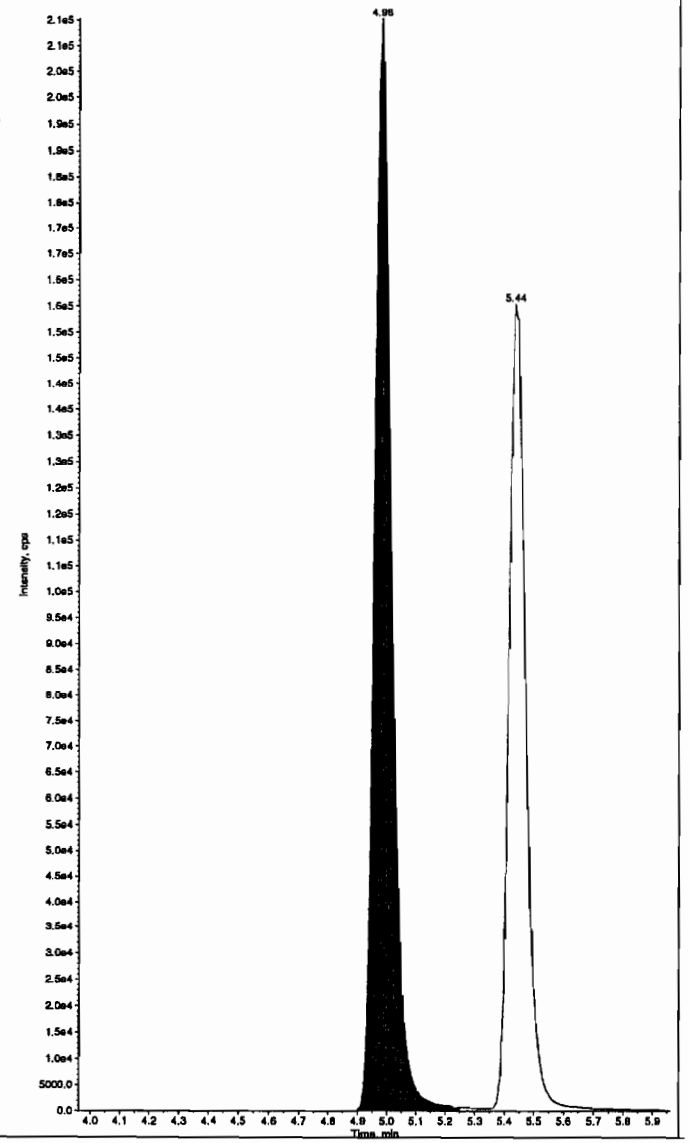

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160062.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 571. ng/mL
. Date: 3/17/2010
. Time: 12:16:04 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 5.43 min
Relative RT: No

. Type: Valley
ention Time: 5.44 min
a: 6.24e+005 counts
ght: 155423.828 cps
t Time: 5.34 min
Time: 5.96 min

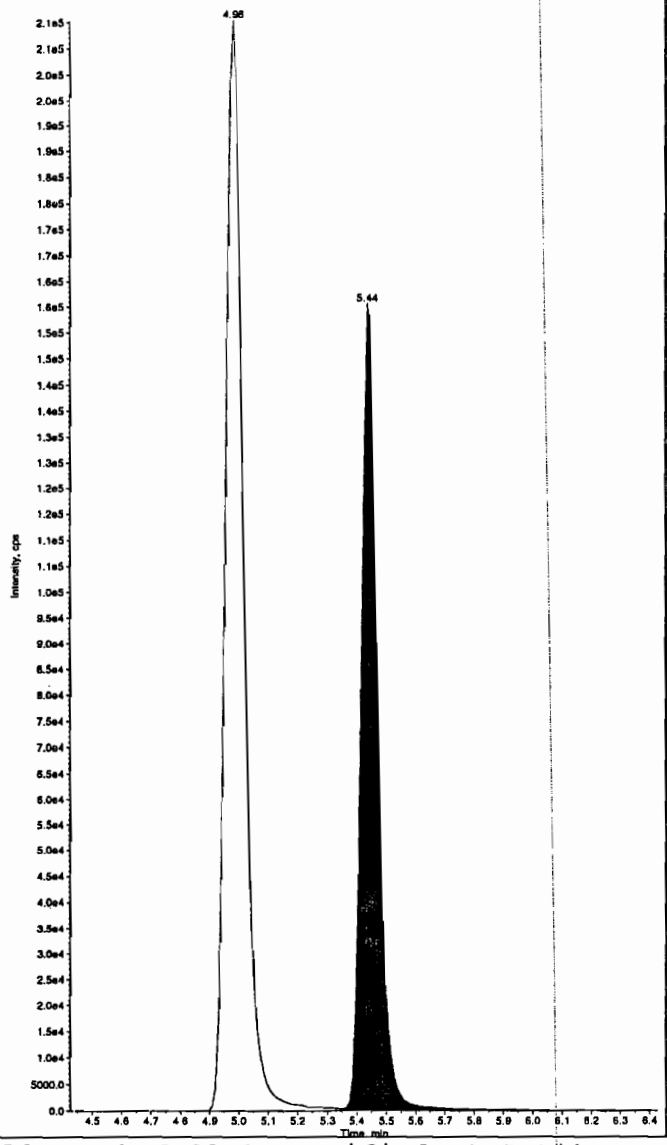

Sample Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160062.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 514. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 12:16:04 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 6.36e+006 counts
Height: 1567386.475 cps
Start Time: 10.8 min
End Time: 11.2 min

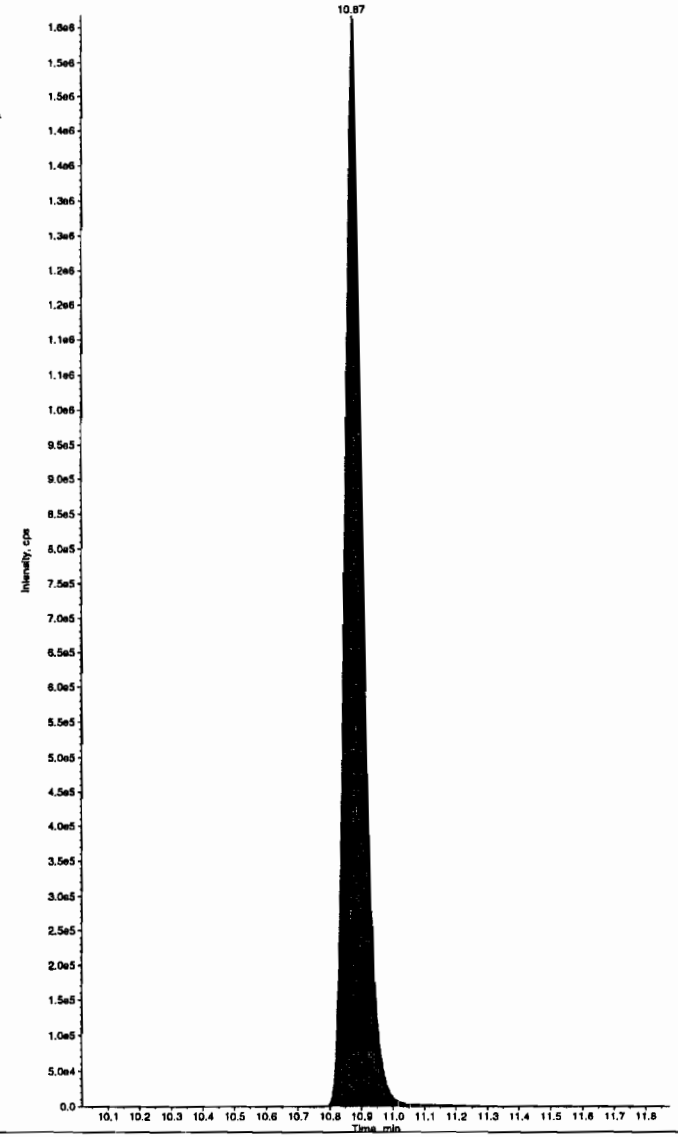

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1886

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03160064.wiff

Analysis Date: 17–MAR–10 00:47

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	106	106	
2,6–Diamino–4–nitrotoluene	100	112	112	
3,4–Dinitrotoluene	50	45.8	92	
3,5–Dinitroaniline	100	89.7	90	
TATB	100	104	104	
tris(o–cresyl) phosphate	100	105	105	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Sar 3/19/10

le Name: "WXX100316-27CRI" Sample ID: "|1|LER" File: "EXS03160064.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index:	1
e Type:	QC
ntration:	100. ng/mL
lated Conc:	104. ng/mL
Date:	3/17/2010
Time:	12:47:28 AM
ied:	No
Algorithm:	IntelliQuan - IQA
Peak Height:	2500.00 cps
Peak Width:	0.00 sec
hing Width:	3 points
ndow:	30.0 sec
ted RT:	6.93 min
elative RT:	No
Type:	Valley
tion Time:	6.96 min
	1.58e+005 counts
t:	39818.138 cps
Time:	6.86 min
ime:	7.31 min

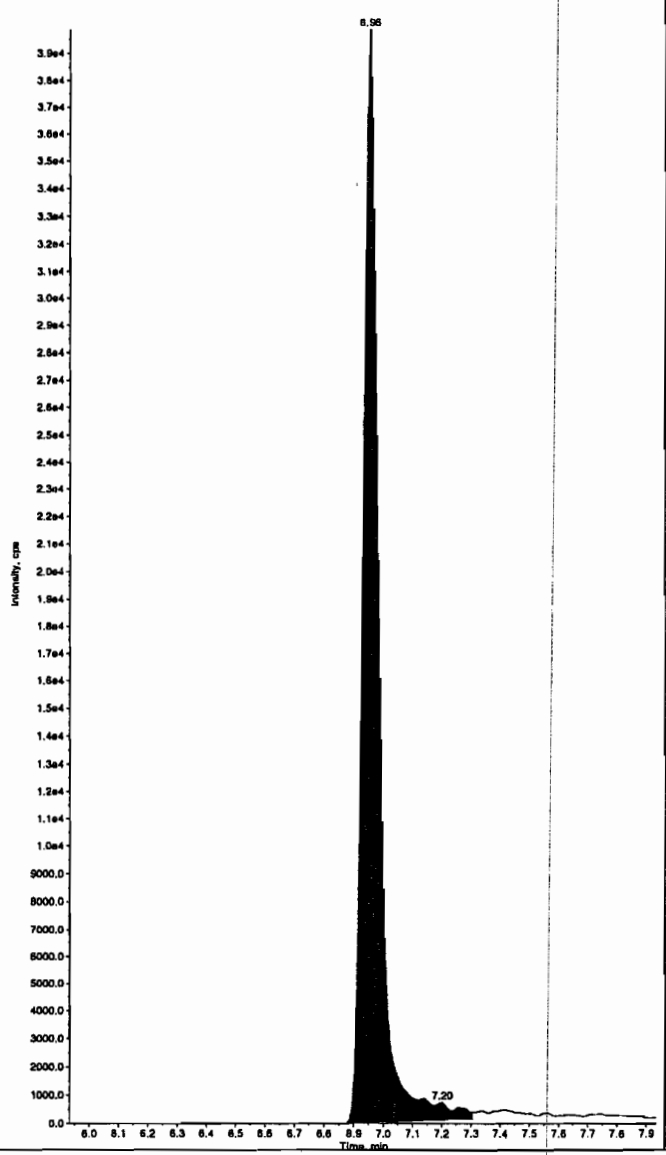

Sample Name: "WXX100316-27CRI" Sample ID: "|1|LER" File: "EXS03160064.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	100. ng/mL
Calculated Conc:	89.7 ng/mL
Acq. Date:	3/17/2010
Acq. Time:	12:47:28 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	2000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	15.0 sec
Expected RT:	8.17 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	8.20 min
Area:	9.00e+005 counts
Height:	224020.081 cps
Start Time:	8.10 min
End Time:	8.30 min

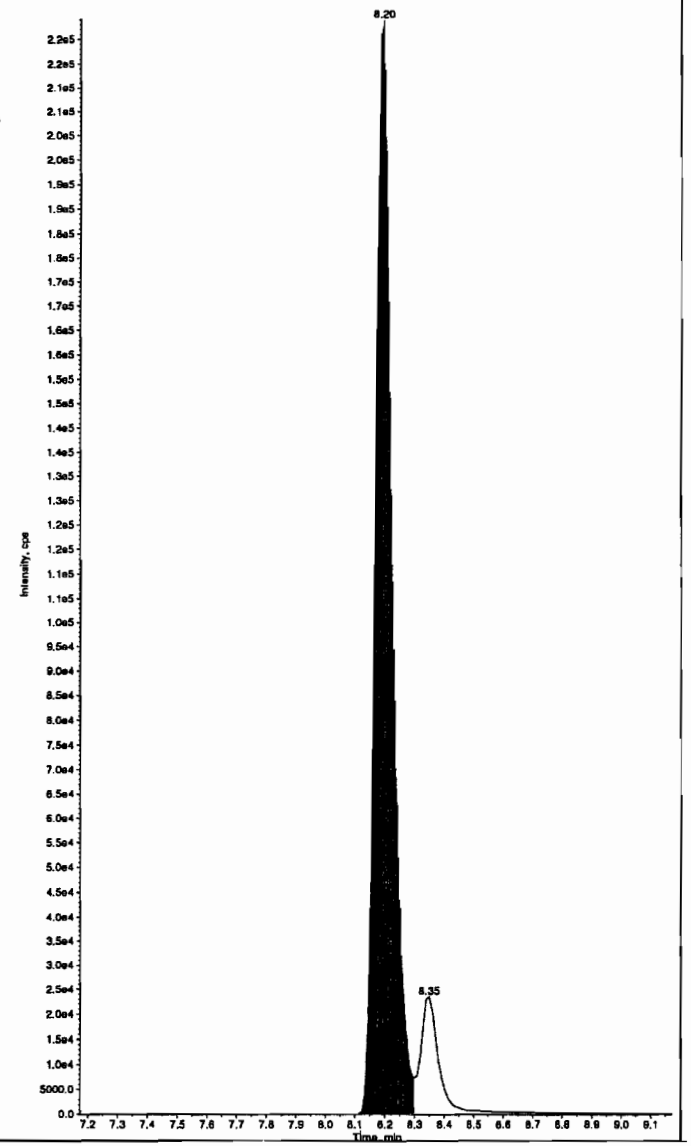

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ample Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160064.wiff"
eak Name: "34-Dinitrotoluene" Mass(as): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
centration: 50.0 ng/mL
culated Conc: 45.8 ng/mL
. Date: 3/17/2010
. Time: 12:47:28 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.33 min
Relative RT: No

. Type: Valley
ention Time: 8.34 min
: 5.87e+005 counts
ght: 163681.259 cps
t Time: 8.27 min
Time: 8.58 min

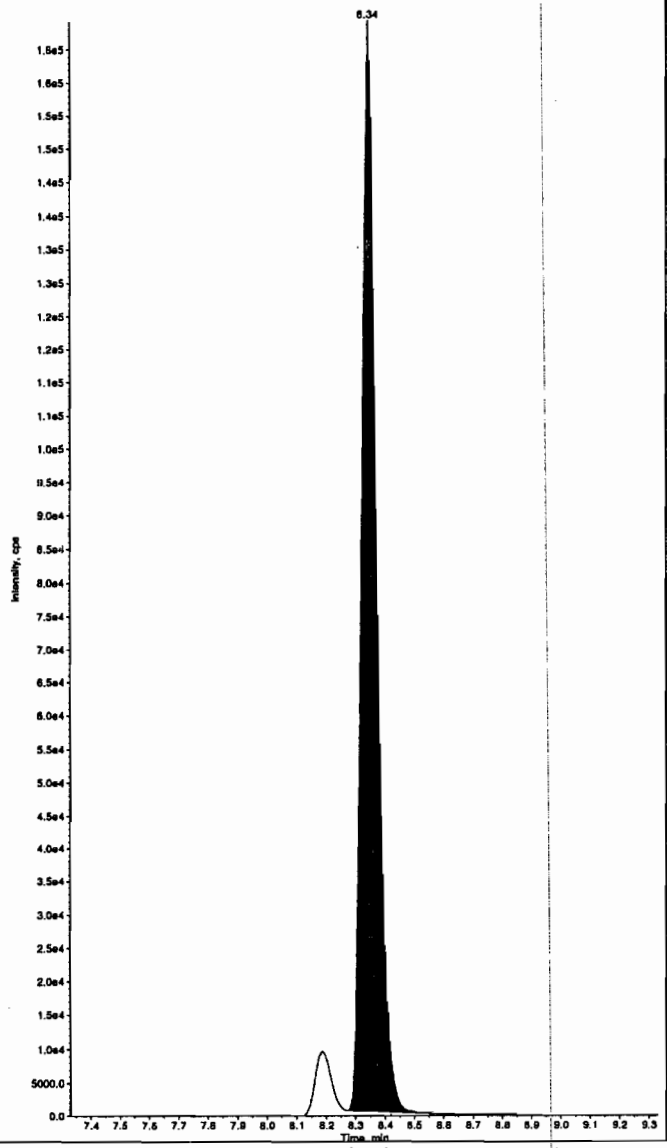

Sample Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160064.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 112. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 12:47:28 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.96 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.98 min
Area: 1.91e+005 counts
Height: 47756.405 cps
Start Time: 4.89 min
End Time: 5.29 min

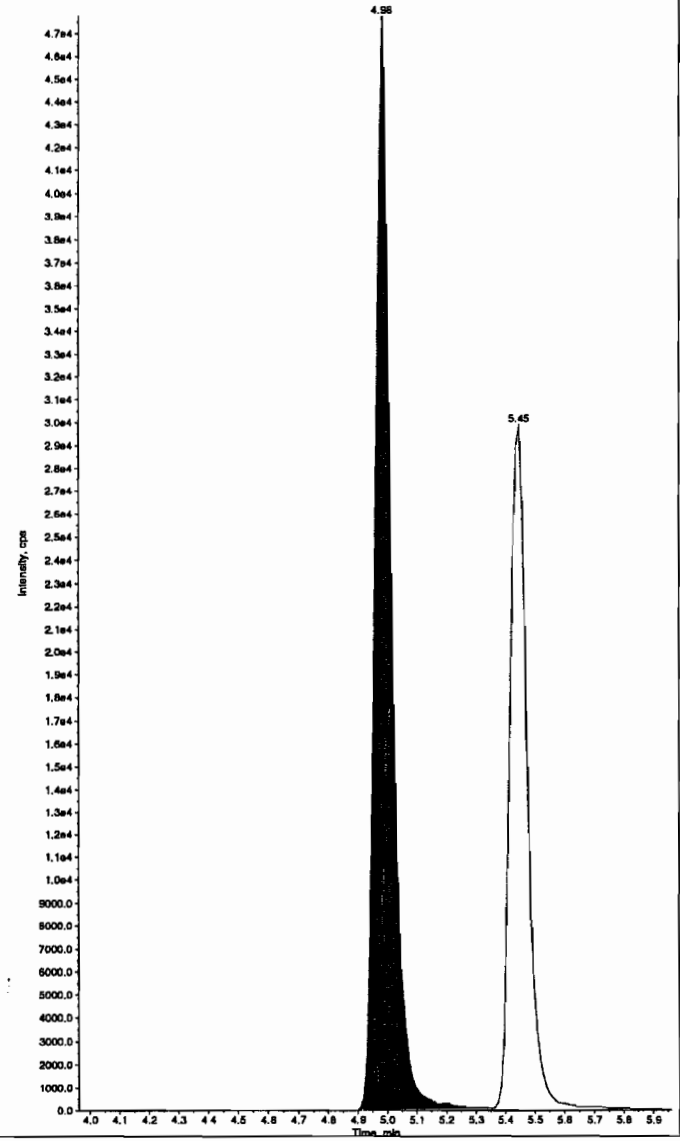

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ample Name: "WXX100316-27CRI" Sample ID: "|1|LER" File: "EXS03160064.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
centration:         100.     ng/mL
culated Conc:       106.     ng/mL
. Date:         3/17/2010
. Time:         12:47:28 AM

ified:              No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00    cps
. Peak Width:    0.00    sec
othing Width:  3         points
Window:          30.0    sec
ected RT:         5.43   min
 Relative RT:     No

. Type:         Valley
ention Time:      5.45   min
:          1.21e+005    counts
ght:          29822.828  cps
:c Time:          5.35   min
 Time:            5.65   min
```

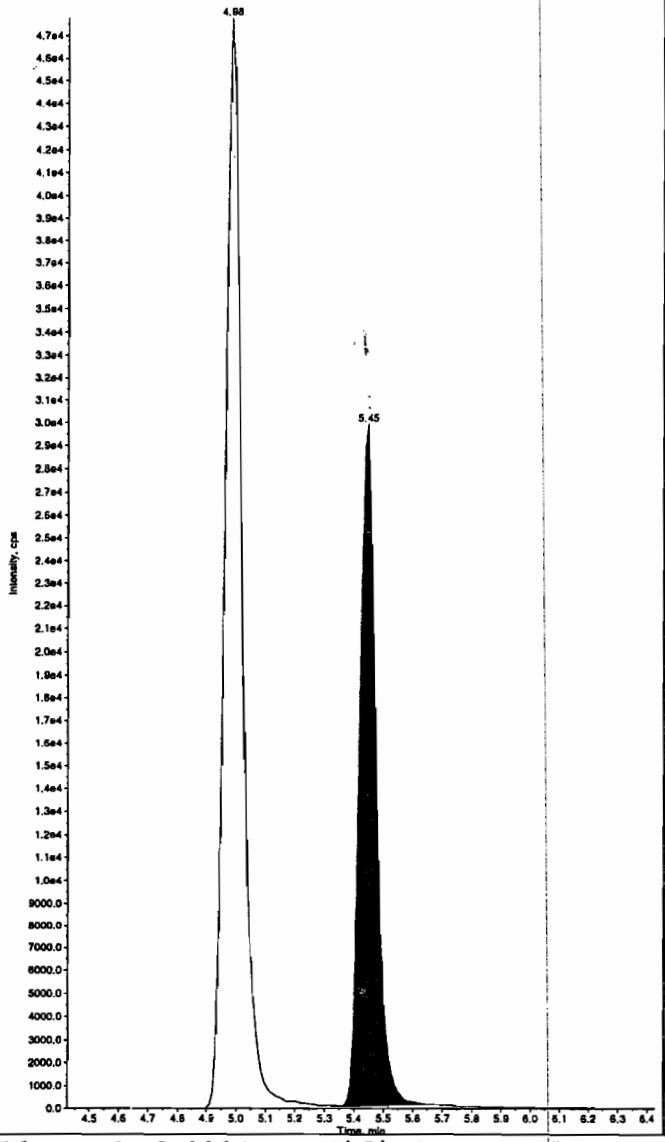

Sample Name: "WXX100316-27CRI" Sample ID: "|1|LER" File: "EXS03160064.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:       100.     ng/mL
Calculated Conc:     105.     ng/mL
Acq. Date:       3/17/2010
Acq. Time:       12:47:28 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3         points
RT Window:          30.0    sec
Expected RT:        10.9    min
Use Relative RT:    No

Int. Type:       Valley
Retention Time:     10.9    min
Area:        1.41e+006    counts
Height:        343816.864  cps
Start Time:         10.8    min
End Time:           11.1    min
```

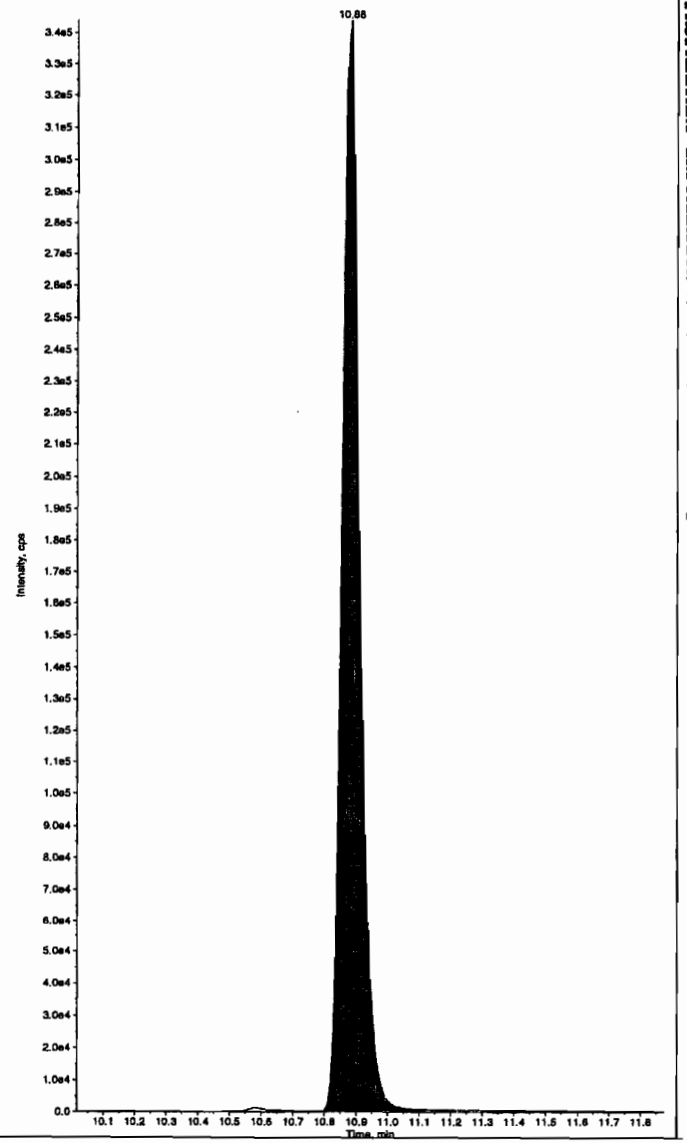

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1886

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03160075.wiff

Analysis Date: 17–MAR–10 03:40

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	579	116	
2,6–Diamino–4–nitrotoluene	500	549	110	
3,4–Dinitrotoluene	250	221	89	
3,5–Dinitroaniline	500	487	97	
TATB	500	544	109	
tris(o–cresyl) phosphate	500	515	103	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
*-Value outside of Recovery Limits

Before Clan 3/18/10

mple Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160075.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 544. ng/mL
Date: 3/17/2010
Time: 3:40:17 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.93 min
Relative RT: No

Type: Valley
ntion Time: 6.97 min
: 9.21e+005 counts
ht: 207015.823 cps
t Time: 6.87 min
Time: 8.11 min

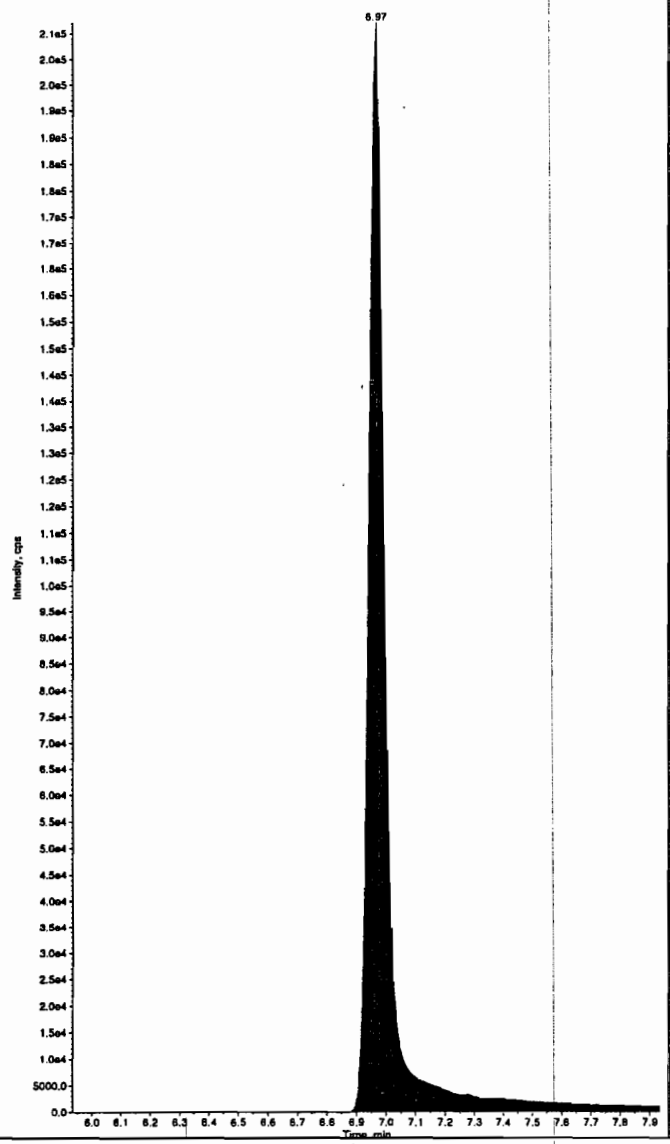

Sample Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160075.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 466. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 3:40:17 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.21 min
Area: 4.13e+006 counts
Height: 1071901.245 cps
Start Time: 8.13 min
End Time: 8.31 min

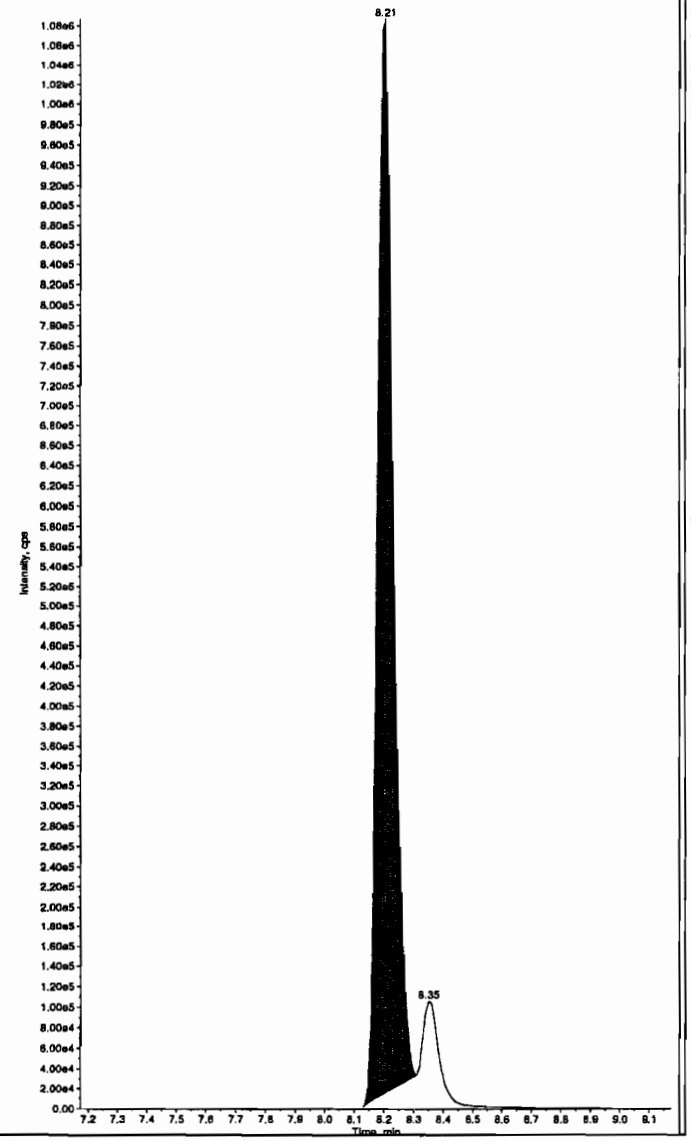

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after Run 3/19/10

mple Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160075.wiff"
ak Name: "TATB" Mass(as): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:        1
ple Type:         QC
entration:        500.     ng/mL
culated Conc:     544.     ng/mL
  Date:        3/17/2010
  Time:        3:40:17 AM

fied:             No
:. Algorithm: IntelliQuan - IQA
  Peak Height:2500.00    cps
  Peak Width:    0.00    sec
thing Width:  3        points
Window:         30.0     sec
cted RT:         6.93    min
Relative RT:     No

Type:          Valley
ntion Time:      6.97    min
:            9.21e+005   counts
ht:          207015.823  cps
t Time:          6.87    min
Time:            8.11    min
```

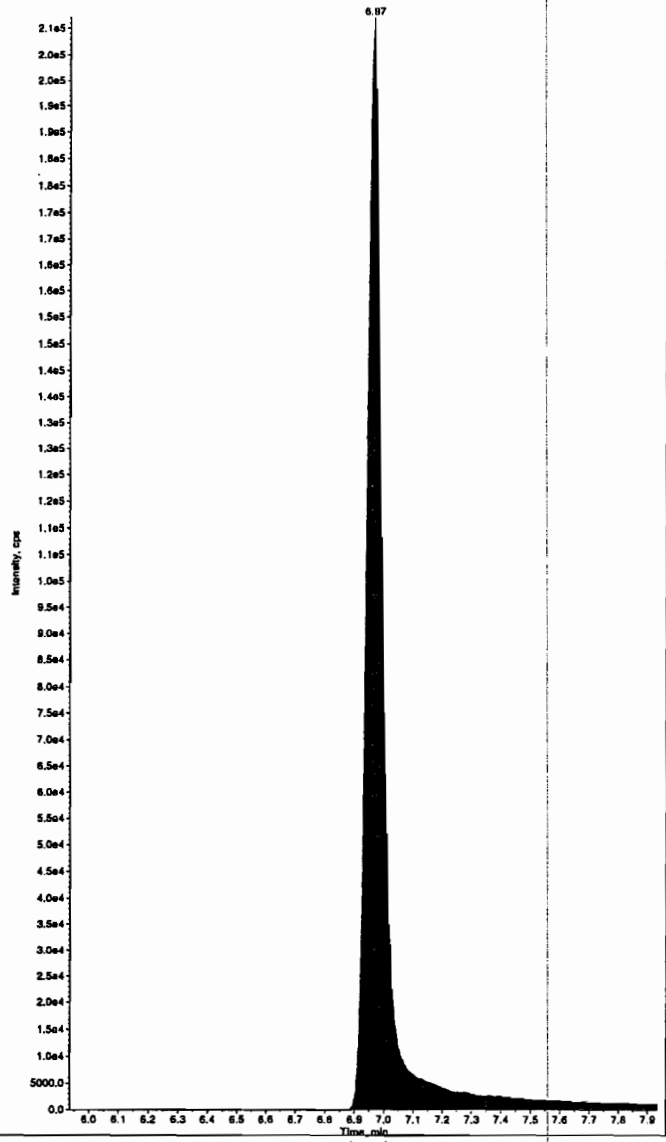

Sample Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160075.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:       500.     ng/mL
Calculated Conc:     487.     ng/mL
Acq. Date:        3/17/2010
Acq. Time:        3:40:17 AM

Modified:            Yes
RT Window:          15.0      sec
Expected RT:         8.17     min
Use Relative RT:     No

Int. Type:         Manual
Retention Time:      8.20     min
Area:          4.30e+006    counts
Height:        1099980.016  cps
Start Time:          8.13     min
End Time:            8.31     min
```

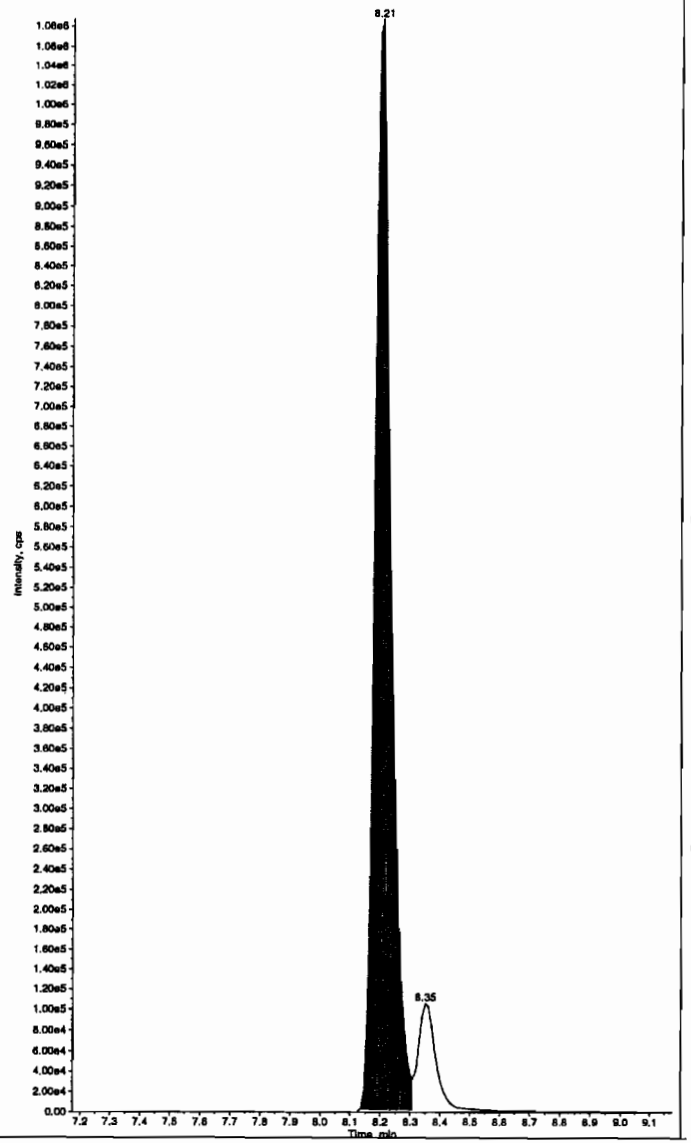

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160075.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

ıle Index:	1	
ıle Type:	QC	
:entration:	250.	ng/mL
:ulated Conc:	221.	ng/mL
Date:	3/17/2010	
Time:	3:40:17 AM	
fied:	No	
·. Algorithm:	IntelliQuan - IQA	
Peak Height:	1460.00	cps
Peak Width:	0.00	sec
ıthing Width:	3	points
Window:	15.0	sec
·cted RT:	8.33	min
Relative RT:	No	
Type:	Valley	
·ntion Time:	8.35	min
:	2.82e+006	counts
ht:	764865.356	cps
t Time:	8.28	min
Time:	8.56	min

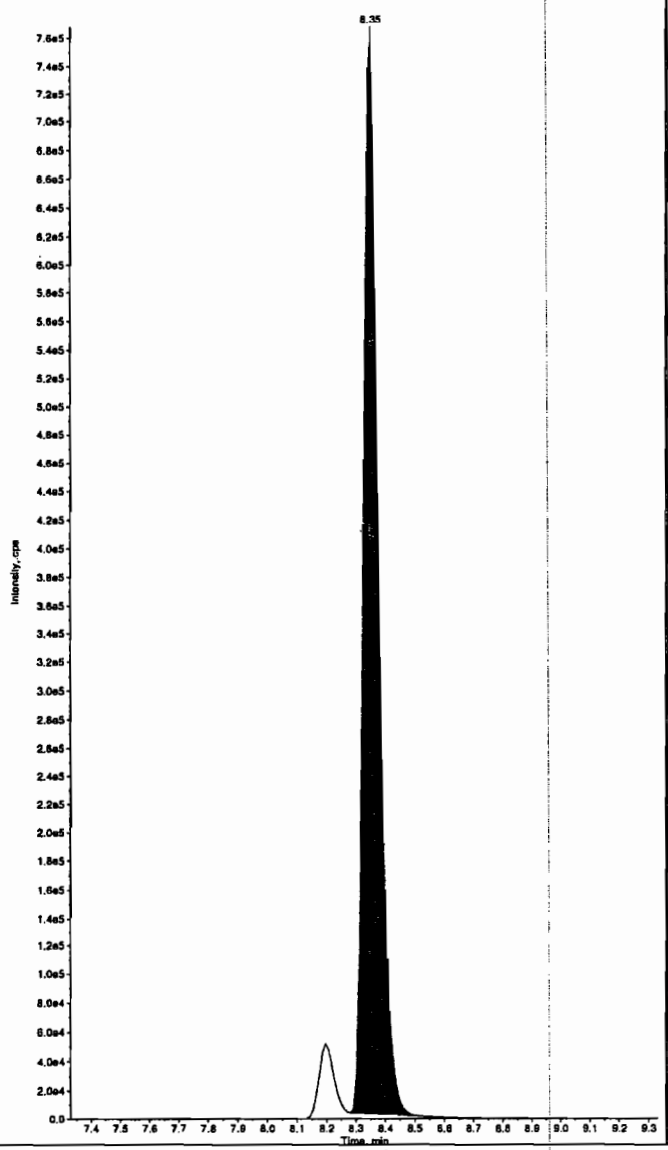

Sample Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160075.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	549.	ng/mL
Acq. Date:	3/17/2010	
Acq. Time:	3:40:17 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	4.96	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	4.99	min
Area:	8.86e+005	counts
Height:	212553.741	cps
Start Time:	4.89	min
End Time:	5.26	min

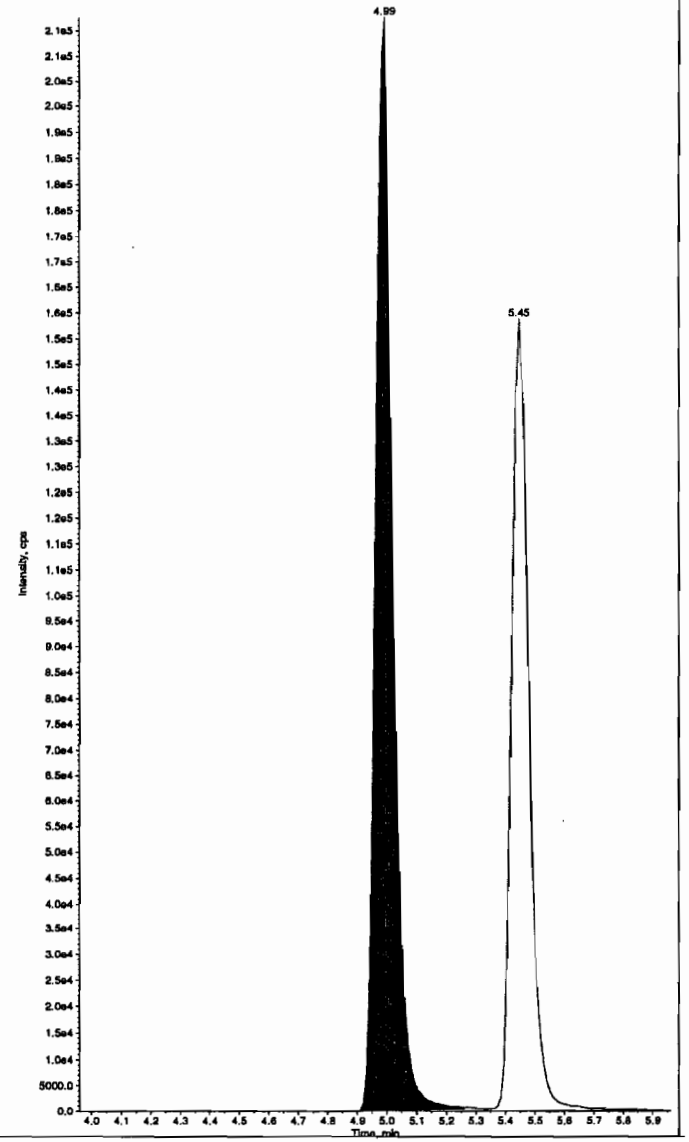

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160075.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
le Index:          1
le Type:           QC
entration:       500.     ng/mL
ulated Conc:     579.     ng/mL
 Date:        3/17/2010
 Time:        3:40:17 AM

fied:              No
. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00    cps
 Peak Width:    0.00    sec
thing Width:  3        points
indow:          30.0    sec
cted RT:         5.43   min
 Relative RT:    No

 Type:          Valley
ntion Time:      5.45   min
:          6.33e+005   counts
ht:         153815.674  cps
c Time:          5.33   min
Time:            5.95   min
```

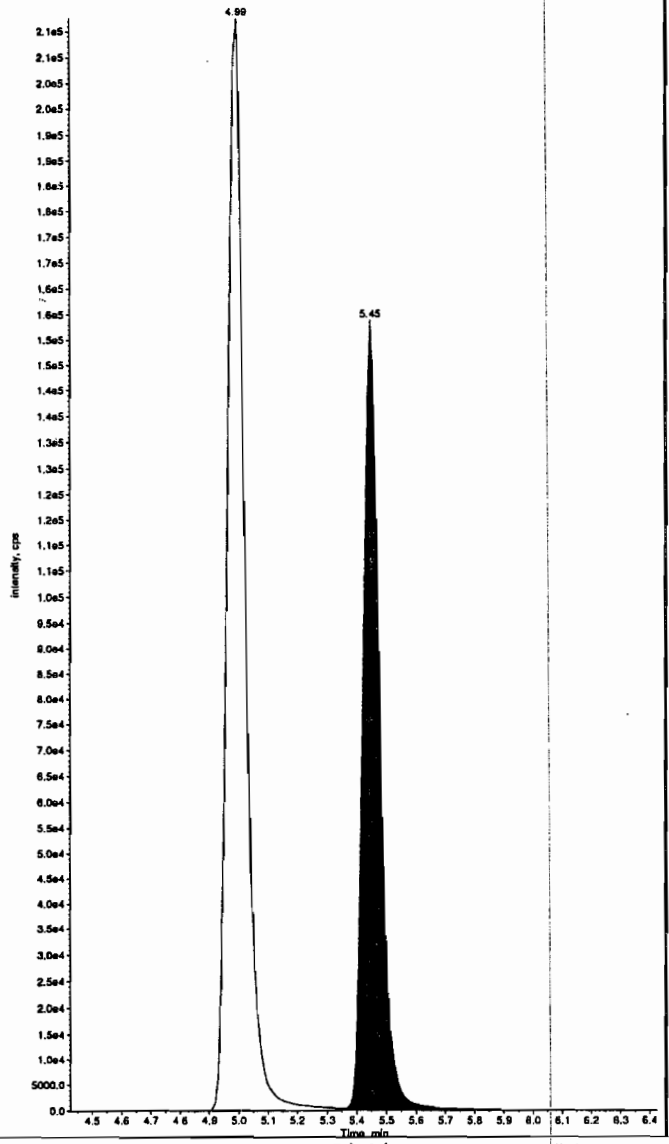

Sample Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160075.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       500.     ng/mL
Calculated Conc:     515.     ng/mL
Acq. Date:        3/17/2010
Acq. Time:        3:40:17 AM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:        10.9    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.9    min
Area:          6.37e+006   counts
Height:        1550127.319  cps
Start Time:         10.8    min
End Time:           11.2    min
```

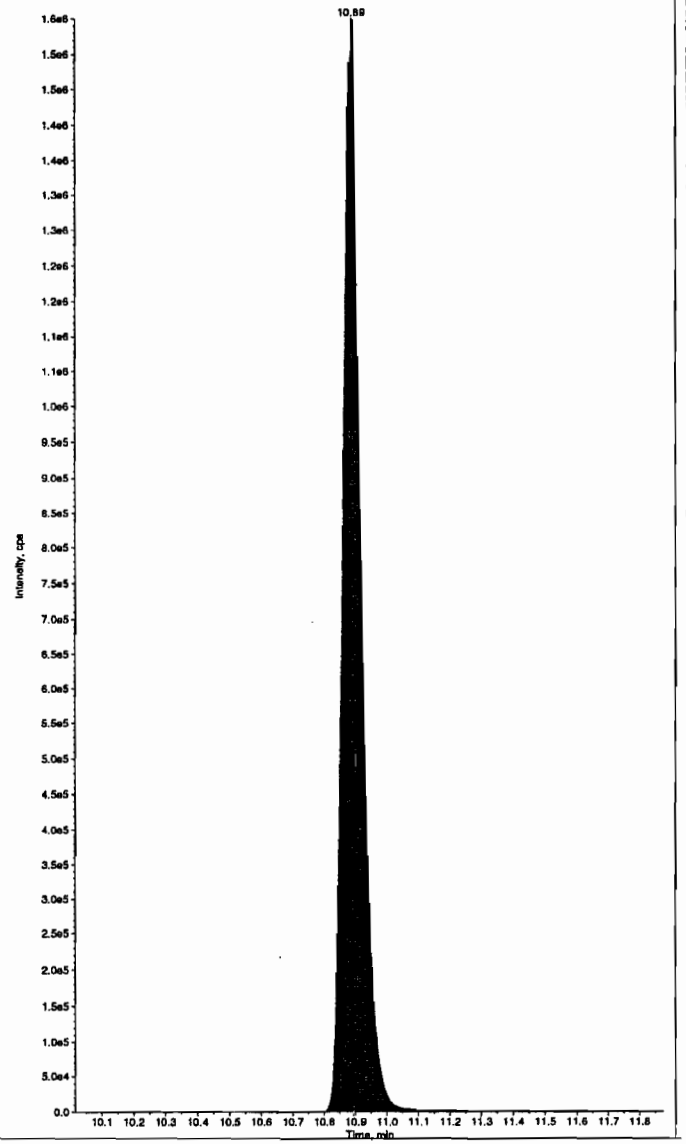

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1886

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03160077.wiff

Analysis Date: 17–MAR–10 04:11

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	113	113	
2,6–Diamino–4–nitrotoluene	100	115	115	
3,4–Dinitrotoluene	50	46.8	94	
3,5–Dinitroaniline	100	94.8	95	
TATB	100	112	112	
tris(o–cresyl) phosphate	100	105	105	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Pan 3/19/10

nple Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160077.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 112. ng/mL
Date: 3/17/2010
Time: 4:11:41 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.93 min
Relative RT: No

Type: Valley
ntion Time: 6.96 min
: 1.72e+005 counts
ht: 41019.512 cps
t Time: 6.85 min
Time: 7.55 min

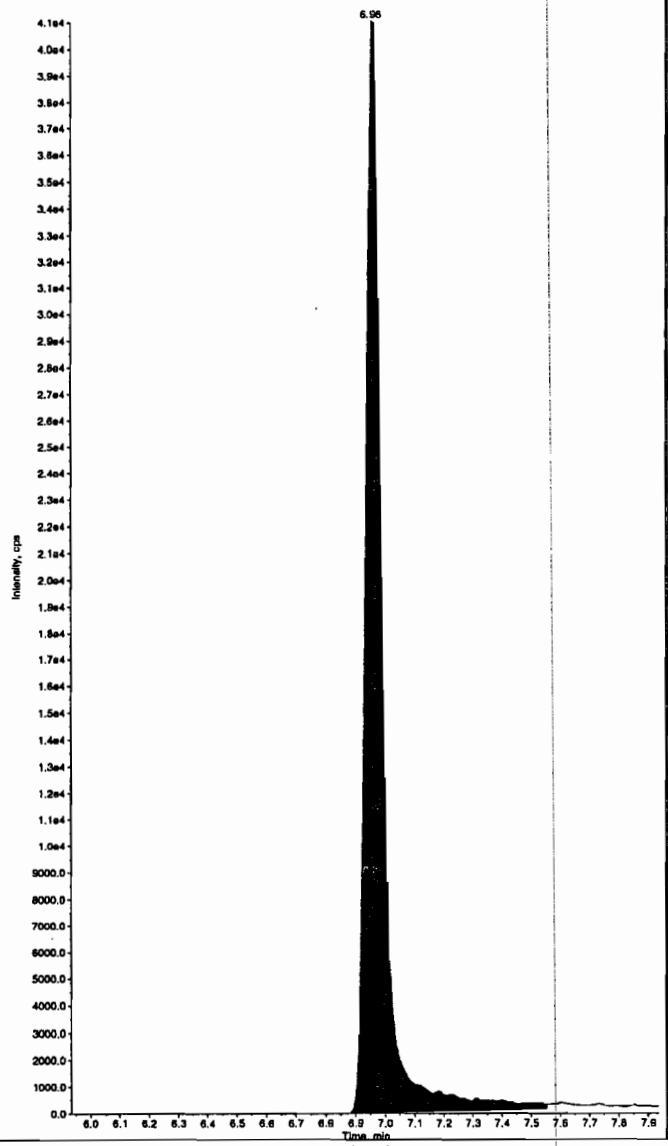

Sample Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160077.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 94.8 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 4:11:41 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.20 min
Area: 9.46e+005 counts
Height: 243613.953 cps
Start Time: 8.10 min
End Time: 8.31 min

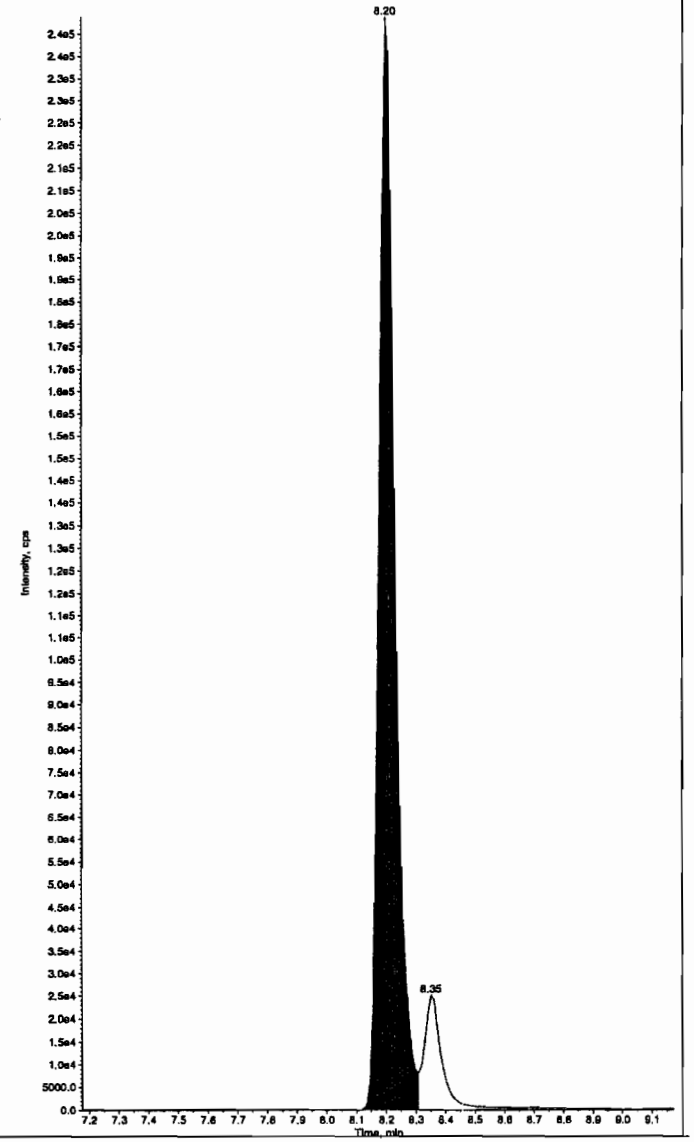

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100316-27CRI" Sample ID: "|1|LER" File: "EXS03160077.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

```
le Index:          1
le Type:           QC
entration:         50.0     ng/mL
ulated Conc:       46.8     ng/mL
  Date:        3/17/2010
  Time:        4:11:41 AM

fied:              No
:. Algorithm: IntelliQuan - IQA
 Peak Height:1460.00    cps
 Peak Width:    0.00    sec
thing Width:  3        points
indow:          15.0    sec
cted RT:         8.33   min
 Relative RT:    No

 Type:         Valley
ntion Time:      8.35   min
:          6.01e+005   counts
ht:          165406.525  cps
t Time:          8.28   min
Time:            8.56   min
```

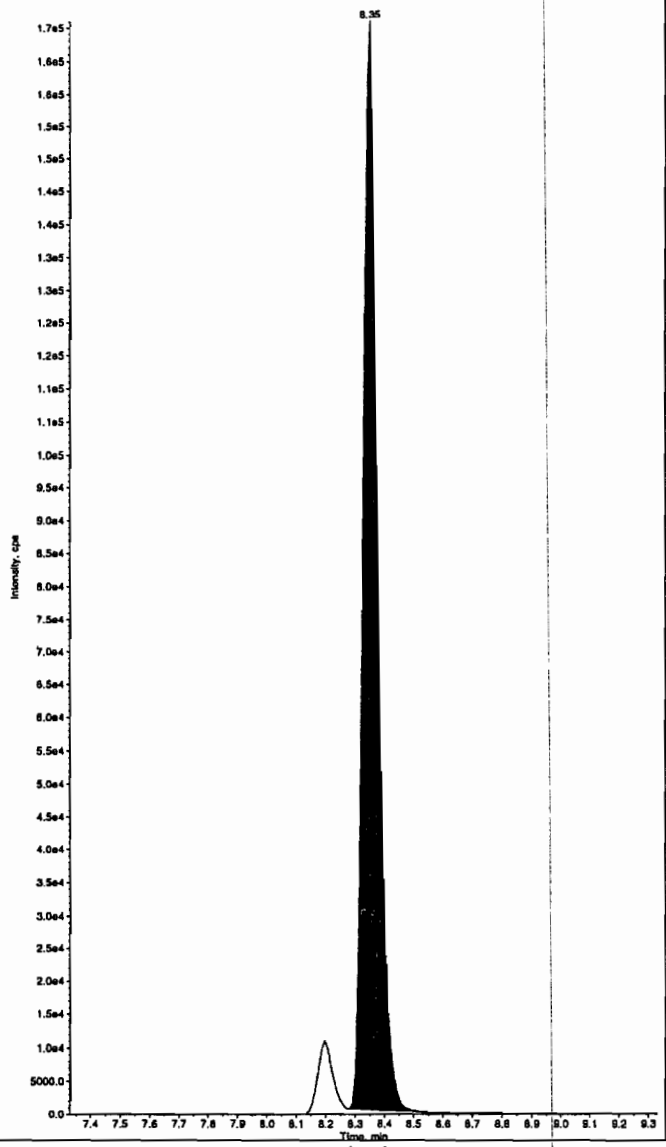

Sample Name: "WXX100316-27CRI" Sample ID: "|1|LER" File: "EXS03160077.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         100.     ng/mL
Calculated Conc:       115.     ng/mL
Acq. Date:         3/17/2010
Acq. Time:         4:11:41 AM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:         4.96   min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:      4.98   min
Area:          1.97e+005   counts
Height:        48802.704   cps
Start Time:          4.89   min
End Time:            5.25   min
```

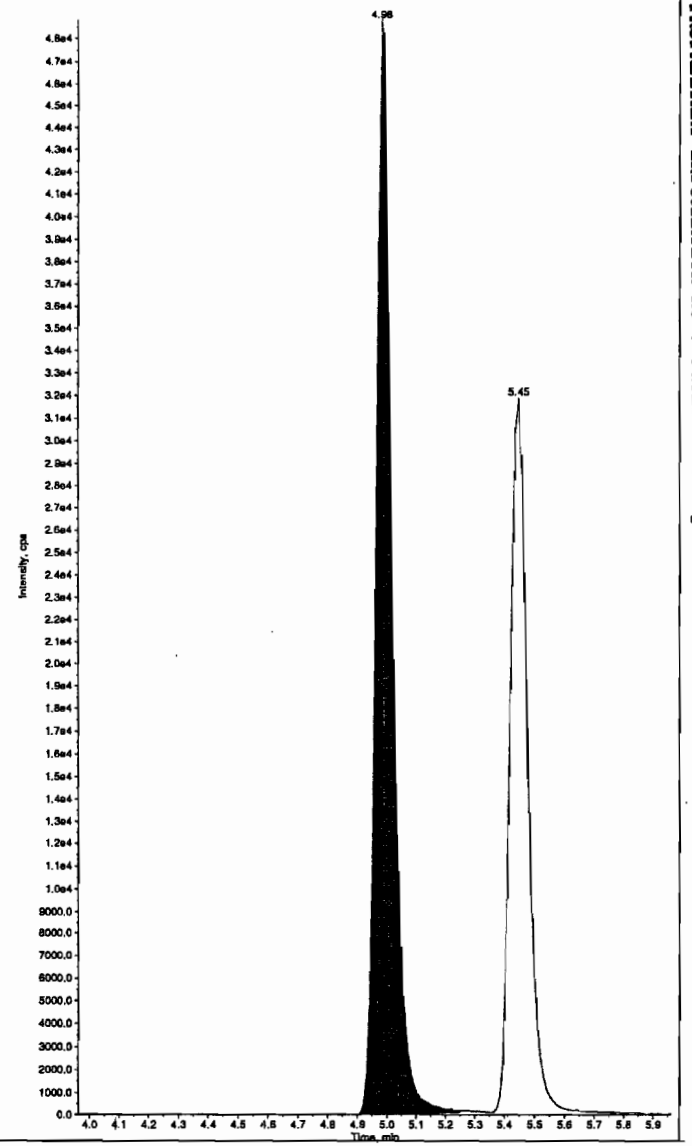

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160077.wiff"
: Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index: 1
e Type: QC
ntration: 100. ng/mL
lated Conc: 113. ng/mL
Date: 3/17/2010
Time: 4:11:41 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 5.43 min
elative RT: No

Type: Valley
tion Time: 5.45 min
1.29e+005 counts
t: 31845.469 cps
Time: 5.35 min
ime: 5.80 min

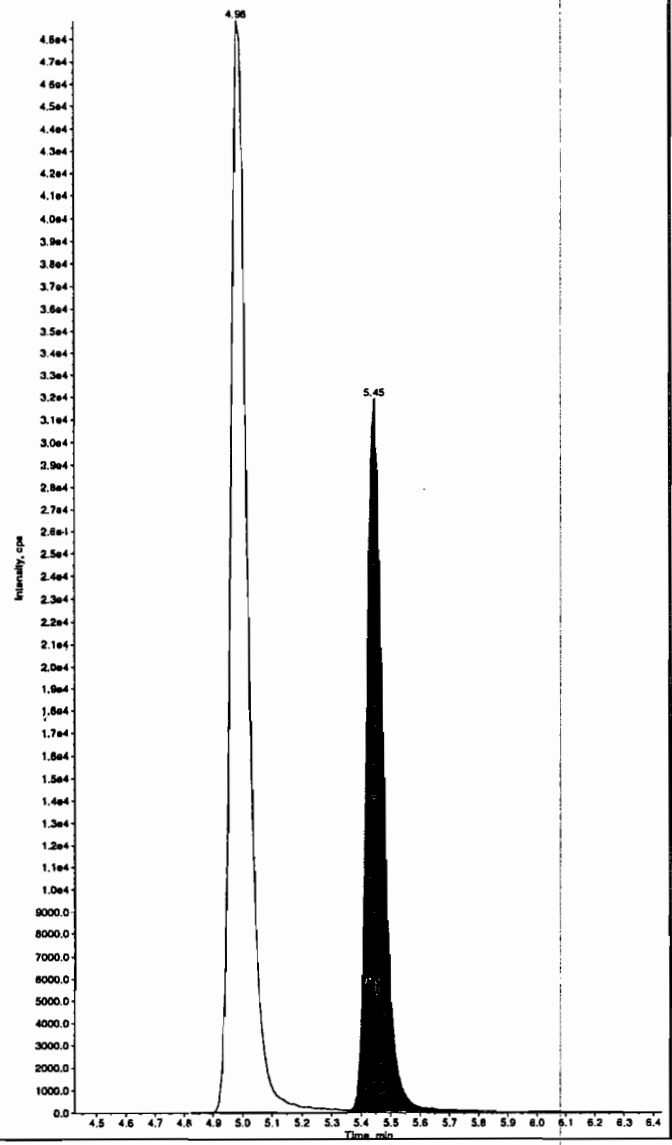

Sample Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160077.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 105. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 4:11:41 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.40e+006 counts
Height: 347575.867 cps
Start Time: 10.8 min
End Time: 11.2 min

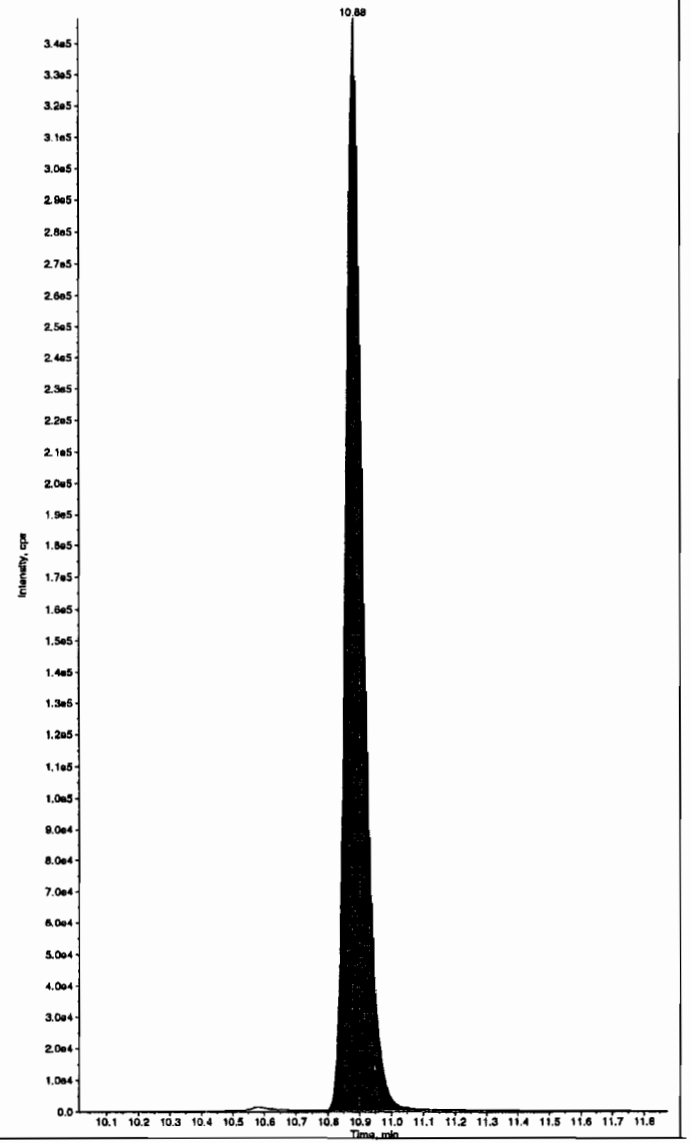

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1886

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03160088.wiff

Analysis Date: 17–MAR–10 07:04

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	528	106	
2,6–Diamino–4–nitrotoluene	500	571	114	
3,4–Dinitrotoluene	250	222	89	
3,5–Dinitroaniline	500	499	100	
TATB	500	540	108	
tris(o–cresyl) phosphate	500	544	109	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Lab 3/18/10

Sample Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160088.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 540. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 7:04:24 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.93 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.97 min
Area: 9.15e+005 counts
Height: 207859.329 cps
Start Time: 6.86 min
End Time: 7.92 min

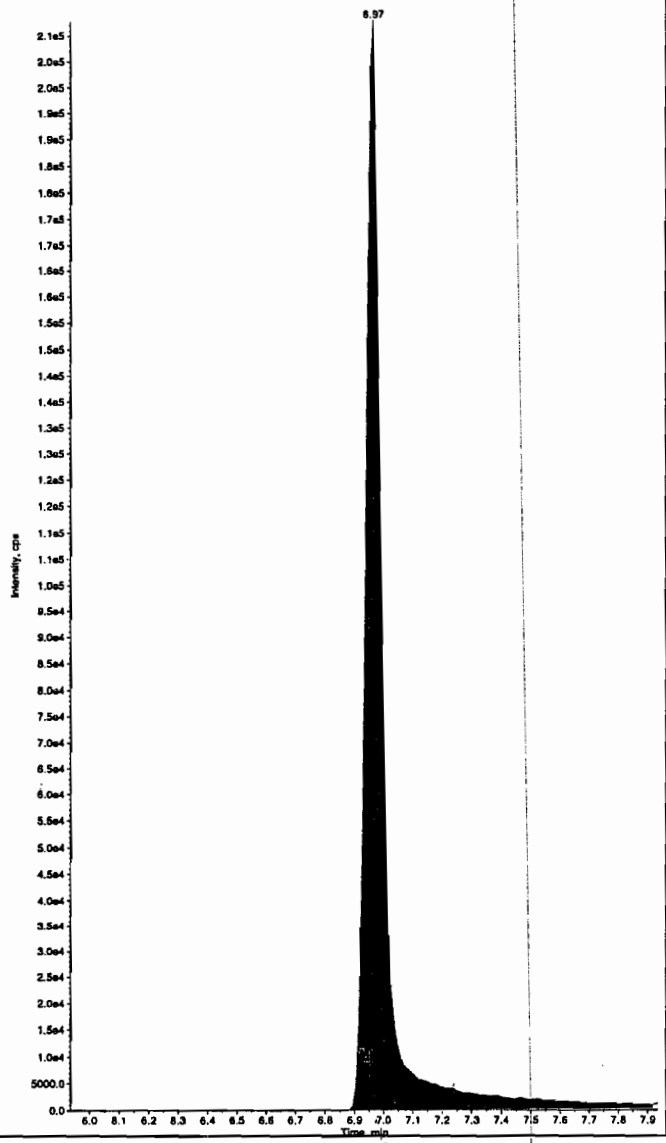

Sample Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160088.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 478. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 7:04:24 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.20 min
Area: 4.23e+006 counts
Height: 1106106.567 cps
Start Time: 8.13 min
End Time: 8.31 min

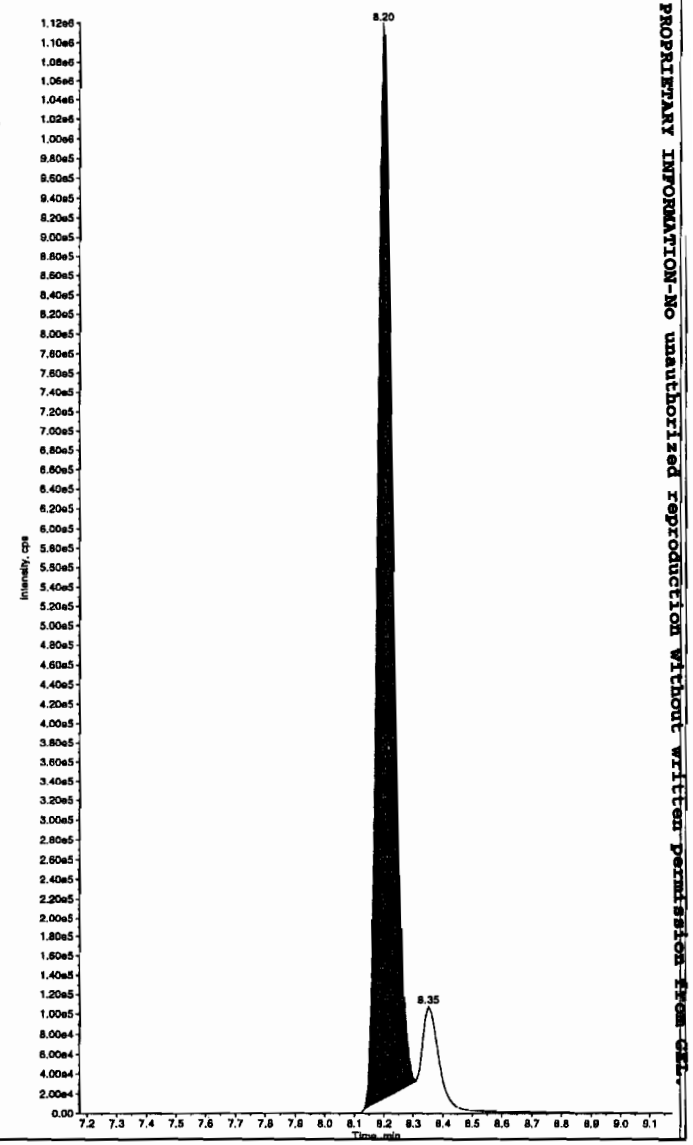

Hmm 03/22/10

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after Ran 3/19/10

Sample Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160088.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index:	1
mple Type:	QC
ncentration:	500. ng/mL
lculated Conc:	540. ng/mL
q. Date:	3/17/2010
q. Time:	7:04:24 AM
dified:	No
oc. Algorithm:	IntelliQuan - IQA
n. Peak Height:	2500.00 cps
n. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	30.0 sec
pected RT:	6.93 min
e Relative RT:	No
t. Type:	Valley
tention Time:	6.97 min
ea:	9.15e+005 counts
ight:	207859.329 cps
art Time:	6.86 min
d Time:	7.92 min

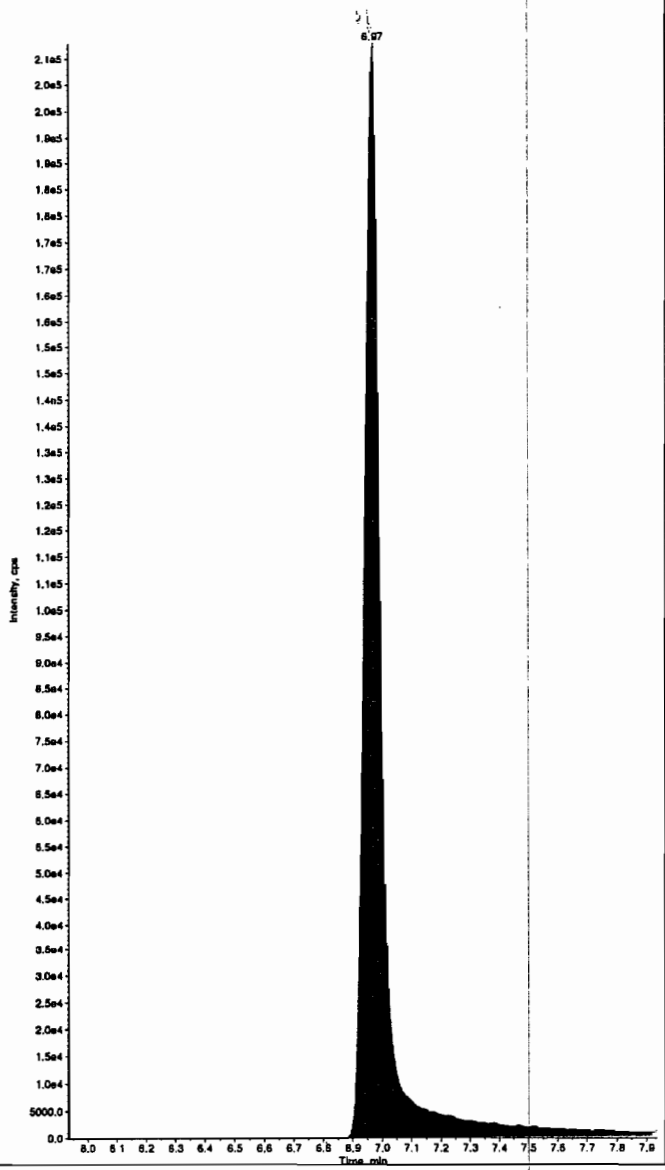

Sample Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160088.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	499 ng/mL
Acq. Date:	3/17/2010
Acq. Time:	7:04:24 AM
Modified:	Yes
RT Window:	15.0 sec
Expected RT:	8.17 min
Use Relative RT:	No
Int. Type:	Manual
Retention Time:	8.20 min
Area:	4.40e+006 counts
Height:	1130308.745 cps
Start Time:	8.12 min
End Time:	8.31 min

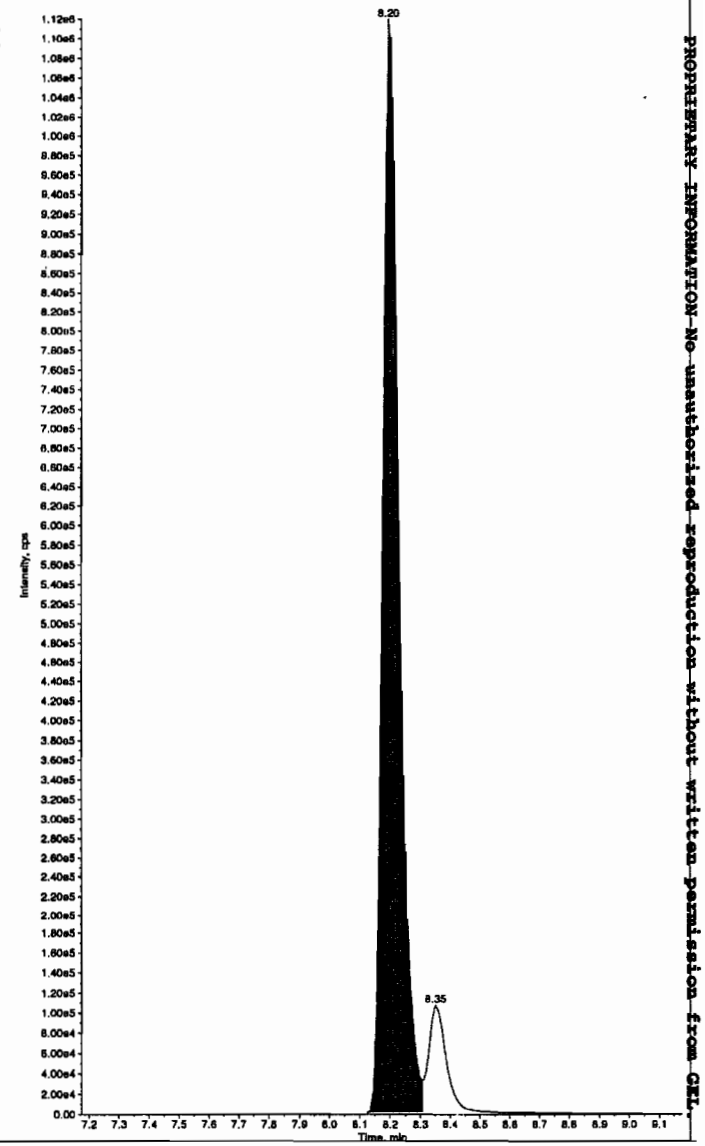

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Sample Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160088.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:      250.     ng/mL
Calculated Conc:    222.     ng/mL
Acq. Date:       3/17/2010
Acq. Time:       7:04:24 AM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:1460.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         15.0    sec
Expected RT:        8.33   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     8.35   min
Area:        2.83e+006   counts
Height:        770004.761  cps
Start Time:         8.28   min
End Time:           8.55   min
```

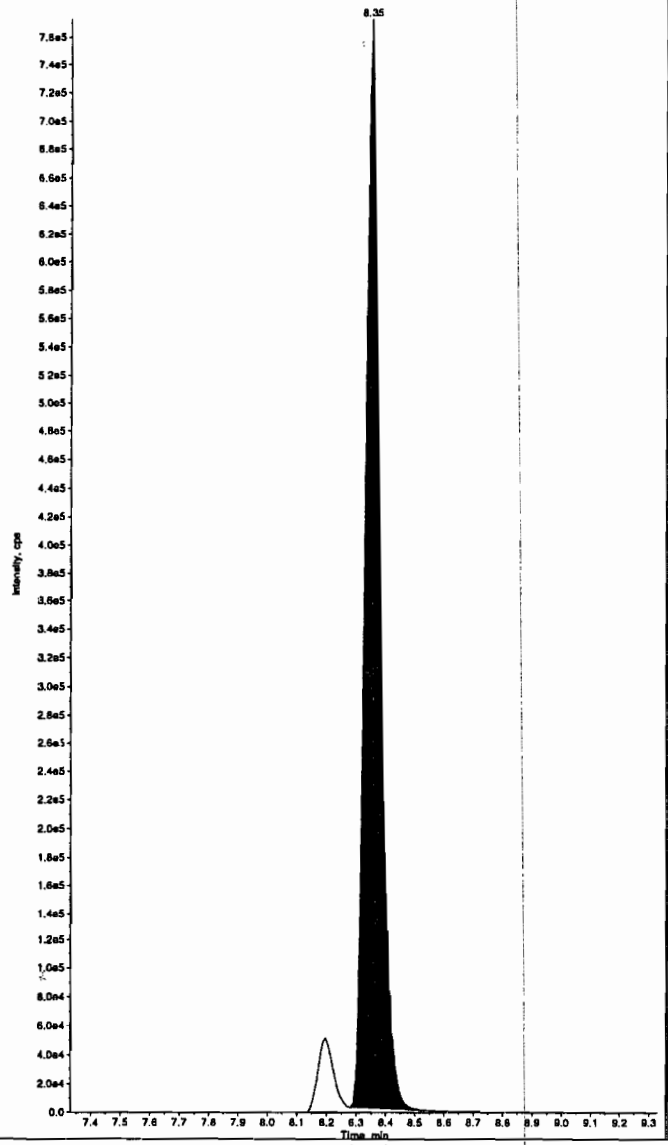

Sample Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160088.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:      500.     ng/mL
Calculated Conc:    571.     ng/mL
Acq. Date:       3/17/2010
Acq. Time:       7:04:24 AM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:        4.96   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     4.99   min
Area:        9.21e+005   counts
Height:        218436.356  cps
Start Time:         4.88   min
End Time:           5.29   min
```

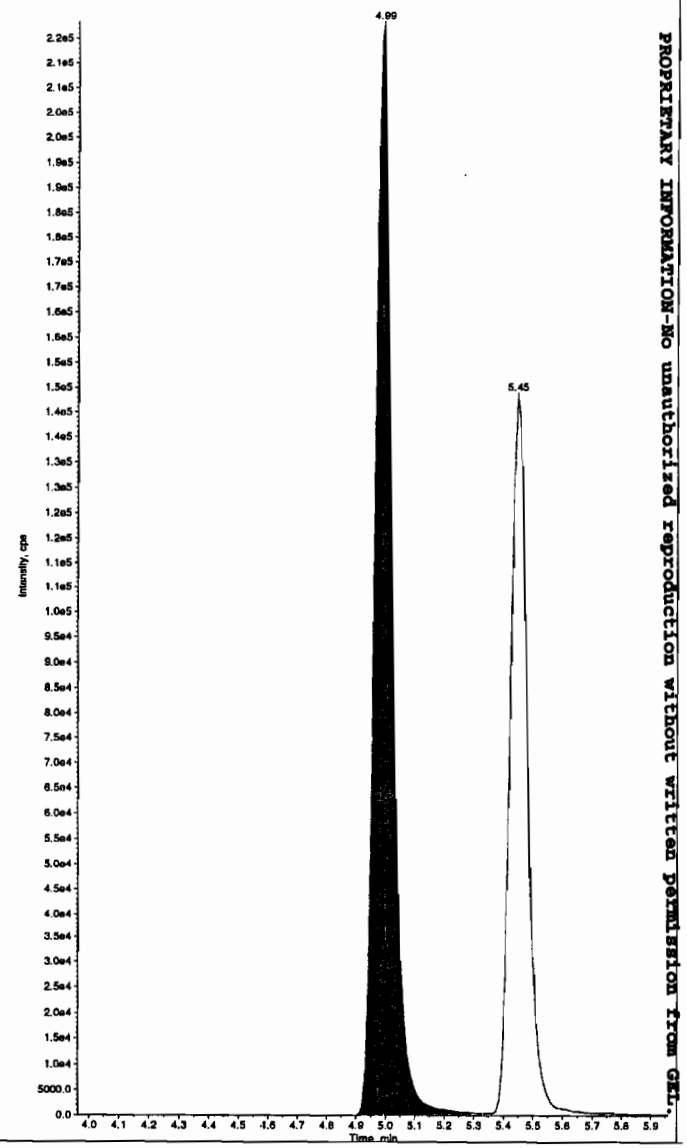

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Sample Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160088.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 528. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 7:04:24 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.43 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.45 min
Area: 5.78e+005 counts
Height: 143684.952 cps
Start Time: 5.33 min
End Time: 5.73 min

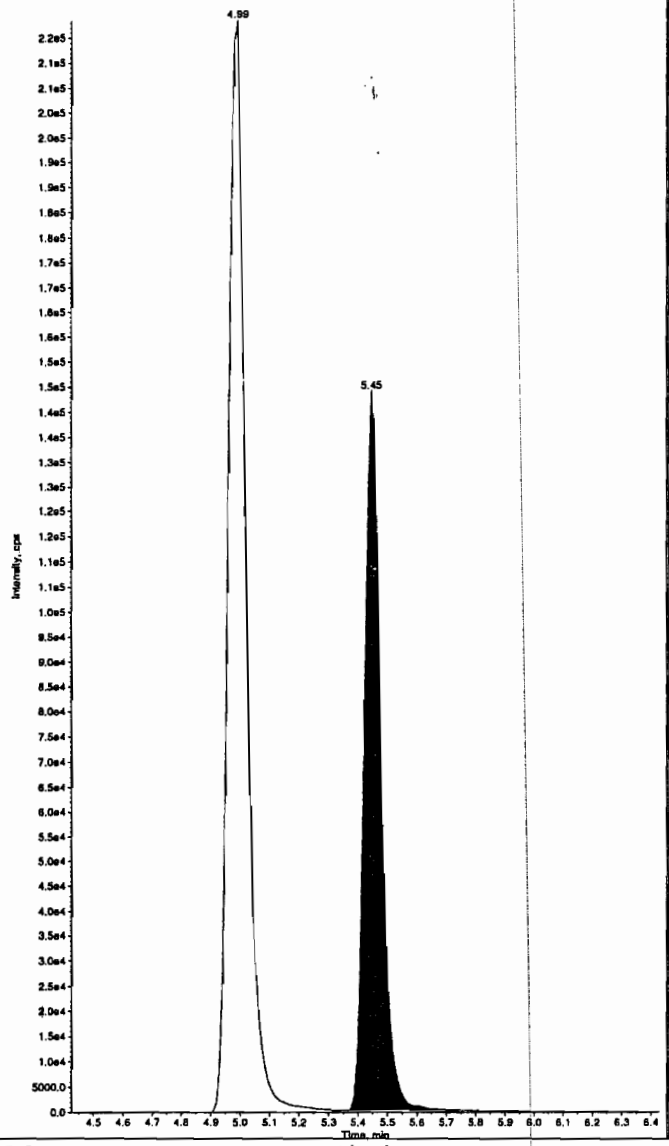

Sample Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160088.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 544. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 7:04:24 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 6.70e+006 counts
Height: 1645946.655 cps
Start Time: 10.8 min
End Time: 11.2 min

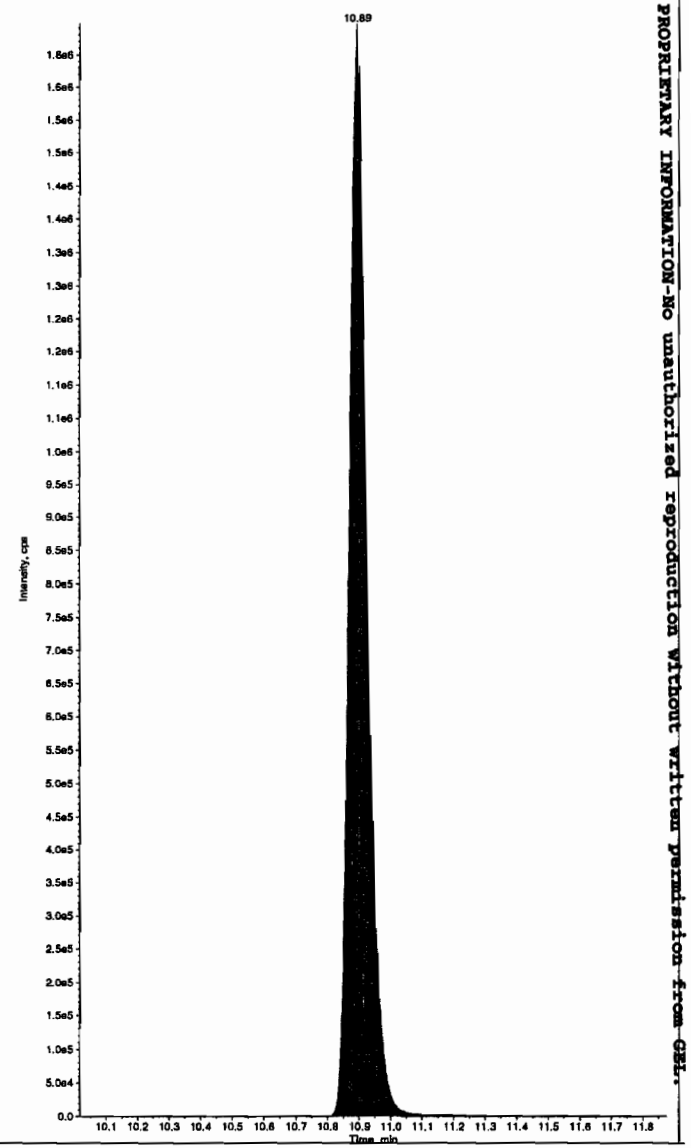

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1886

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03160090.wiff

Analysis Date: 17-MAR-10 07:35

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	50	46.1	92	
3,5-Dinitroaniline	100	90.4	90	
TATB	100	111	111	
tris(o-cresyl) phosphate	100	108	108	
2,4-Diamino-6-nitrotoluene	100	112	112	
2,6-Diamino-4-nitrotoluene	100	113	113	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Acl 3/19/10

nple Name: "WXX100316-27CRI" Sample ID: "|1|LER" File: "EXS03160090.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 111. ng/mL
Date: 3/17/2010
Time: 7:35:49 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.93 min
Relative RT: No

Type: Valley
ation Time: 6.97 min
: 1.70e+005 counts
at: 41117.401 cps
t Time: 6.85 min
Time: 7.65 min

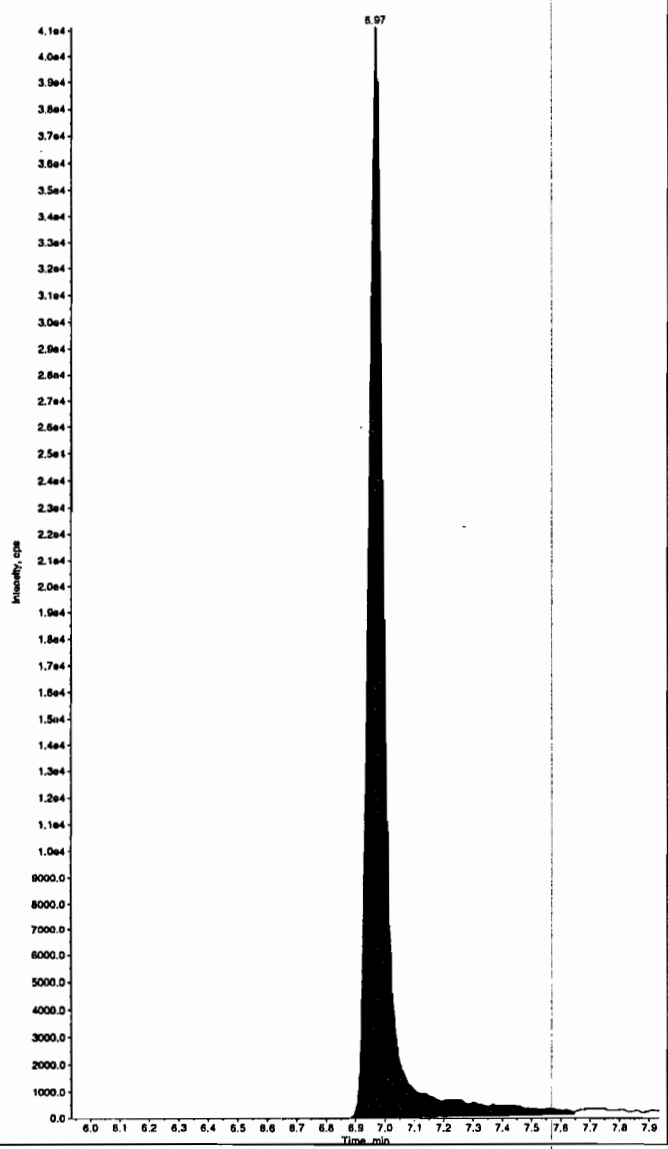

Sample Name: "WXX100316-27CRI" Sample ID: "|1|LER" File: "EXS03160090.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 90.4 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 7:35:49 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.21 min
Area: 9.06e+005 counts
Height: 234618.408 cps
Start Time: 8.10 min
End Time: 8.31 min

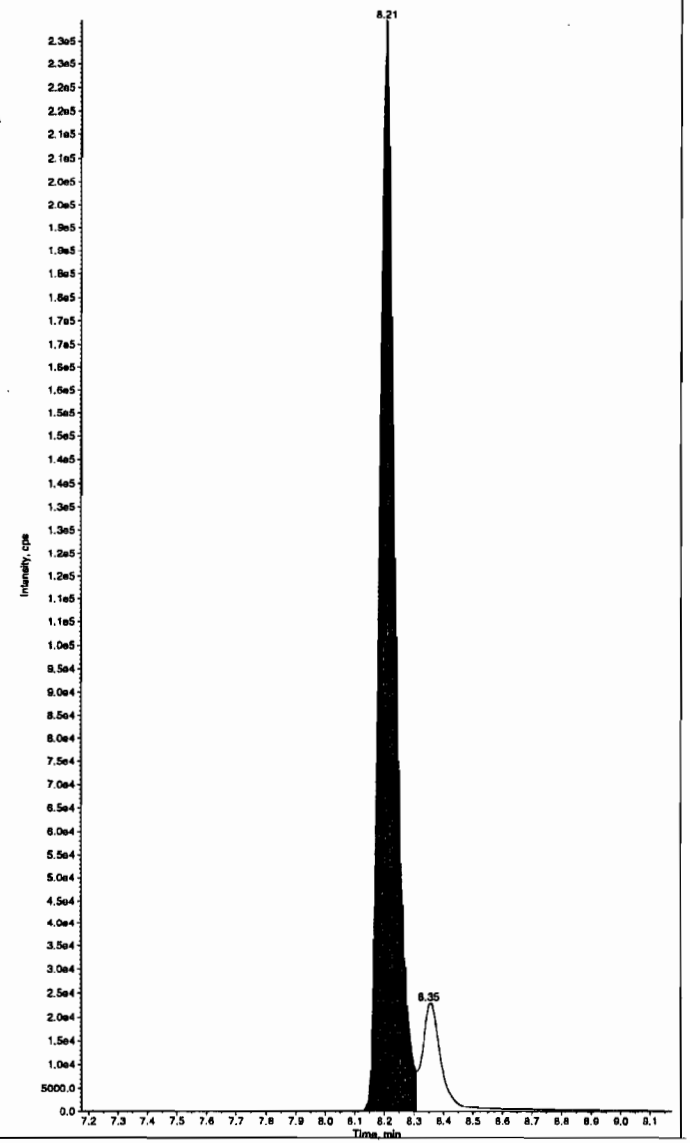

dhim 03/22/10

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100316-27CRI" Sample ID: "|1|LER" File: "EXS03160090.wiff"
sk Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 50.0 ng/mL
ulated Conc: 46.1 ng/mL
Date: 3/17/2010
Time: 7:35:49 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.33 min
Relative RT: No

Type: Valley
ntion Time: 8.35 min
: 5.92e+005 counts
ht: 165481.323 cps
t Time: 8.28 min
Time: 8.54 min

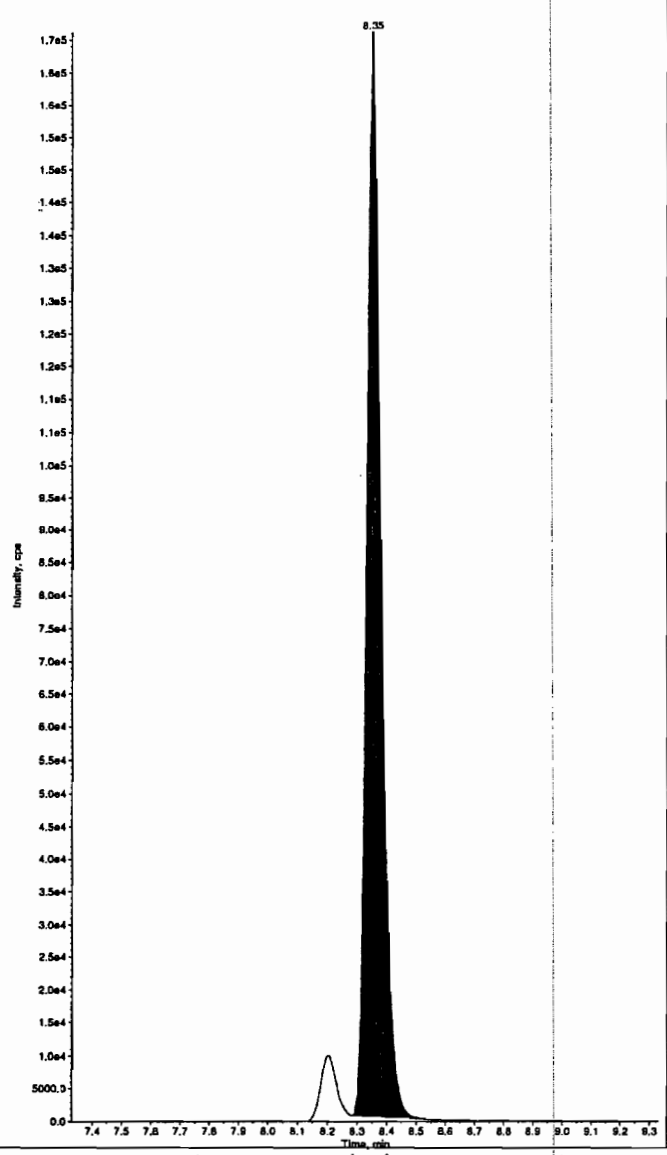

Sample Name: "WXX100316-27CRI" Sample ID: "|1|LER" File: "EXS03160090.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 113. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 7:35:49 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.96 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.99 min
Area: 1.92e+005 counts
Height: 48250.282 cps
Start Time: 4.90 min
End Time: 5.28 min

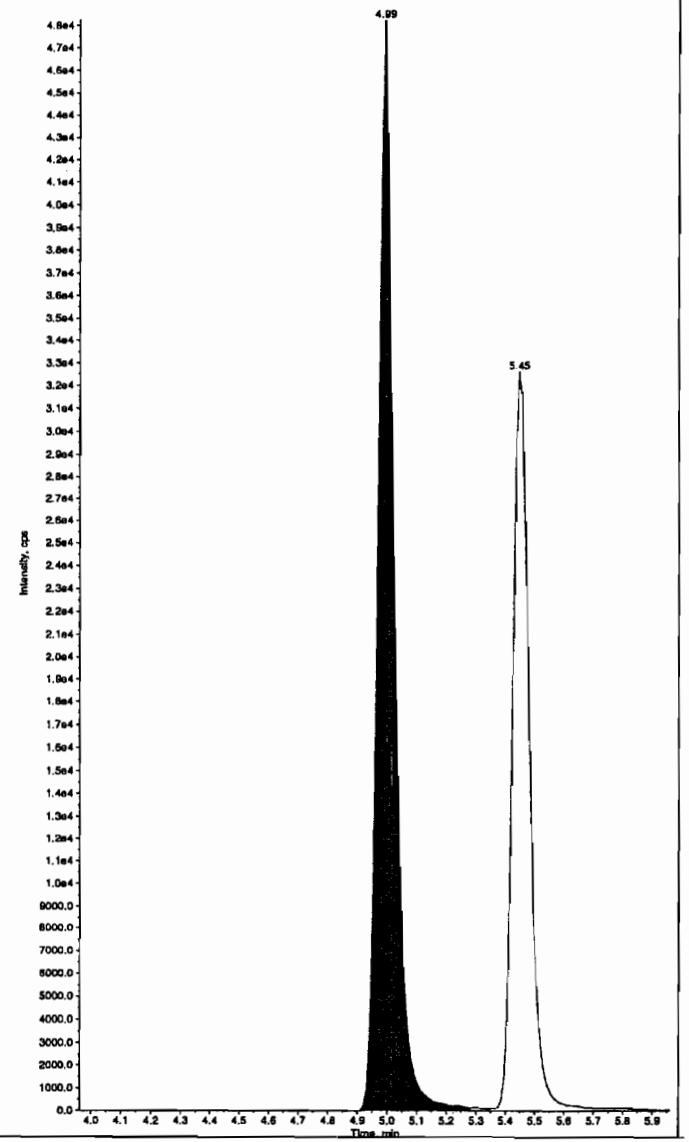

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mple Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160090.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:        1
ple Type:         QC
centration:       100.    ng/mL
culated Conc:     112.    ng/mL
. Date:        3/17/2010
. Time:        7:35:49 AM

ified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00   cps
. Peak Width:    0.00   sec
othing Width:  3        points
Window:         30.0    sec
ected RT:        5.43   min
Relative RT:     No

. Type:         Valley
ention Time:     5.45   min
a:          1.28e+005   counts
ght:        32551.216   cps
rt Time:         5.33   min
Time:            5.72   min
```

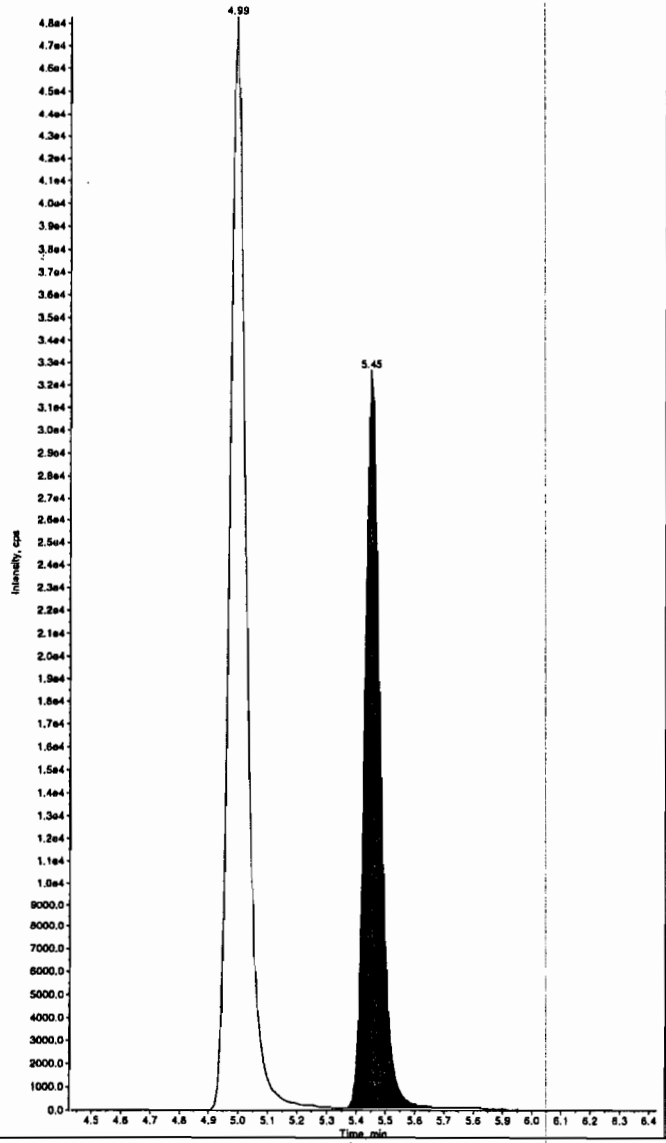

Sample Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160090.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:       100.    ng/mL
Calculated Conc:     108.    ng/mL
Acq. Date:        3/17/2010
Acq. Time:        7:35:49 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:       10.9    min
Use Relative RT:   No

Int. Type:         Valley
Retention Time:    10.9    min
Area:        1.45e+006   counts
Height:      359624.390   cps
Start Time:        10.8    min
End Time:          11.2    min
```

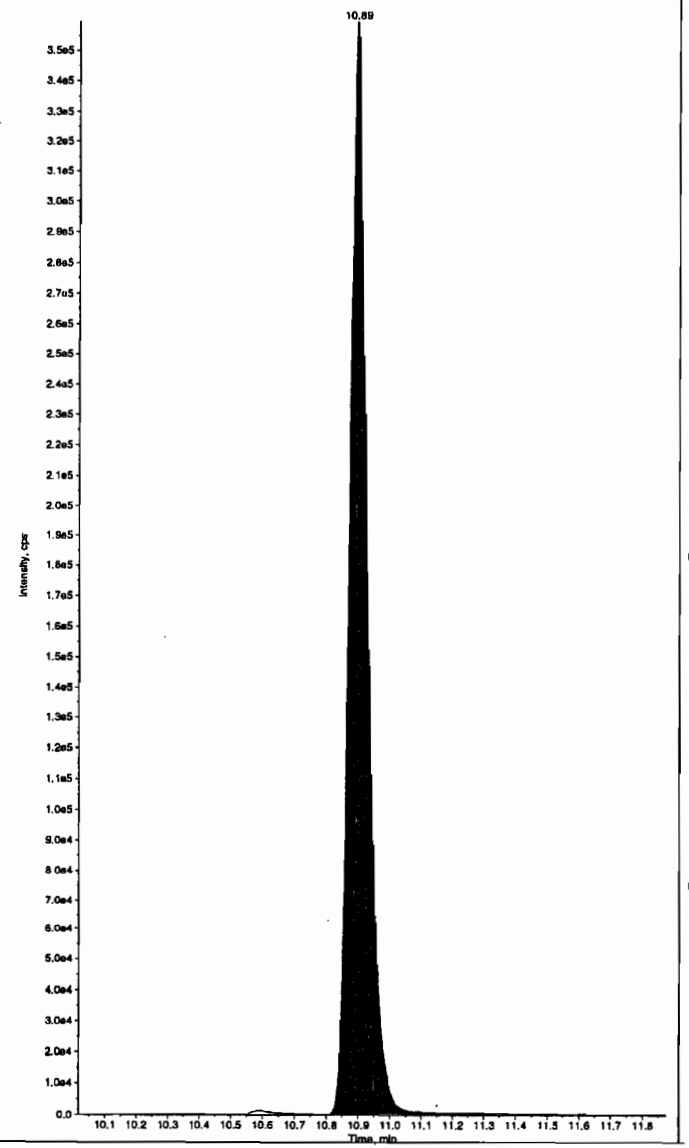

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1886

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXS03160101.wiff

Analysis Date: 17–MAR–10 10:28

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	485	97	
2,6–Diamino–4–nitrotoluene	500	530	106	
3,4–Dinitrotoluene	250	230	92	
3,5–Dinitroaniline	500	501	100	
TATB	500	535	107	
tris(o–cresyl) phosphate	500	560	112	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Chan 3/18/10

ple Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160101.wiff"
: Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index: 1
e Type: QC
ncration: 500. ng/mL
lated Conc: 535. ng/mL
Date: 3/17/2010
Time: 10:28:32 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 6.93 min
elative RT: No

Type: Valley
tion Time: 6.94 min
9.05e+005 counts
t: 206104.446 cps
Time: 6.85 min
ime: 7.95 min

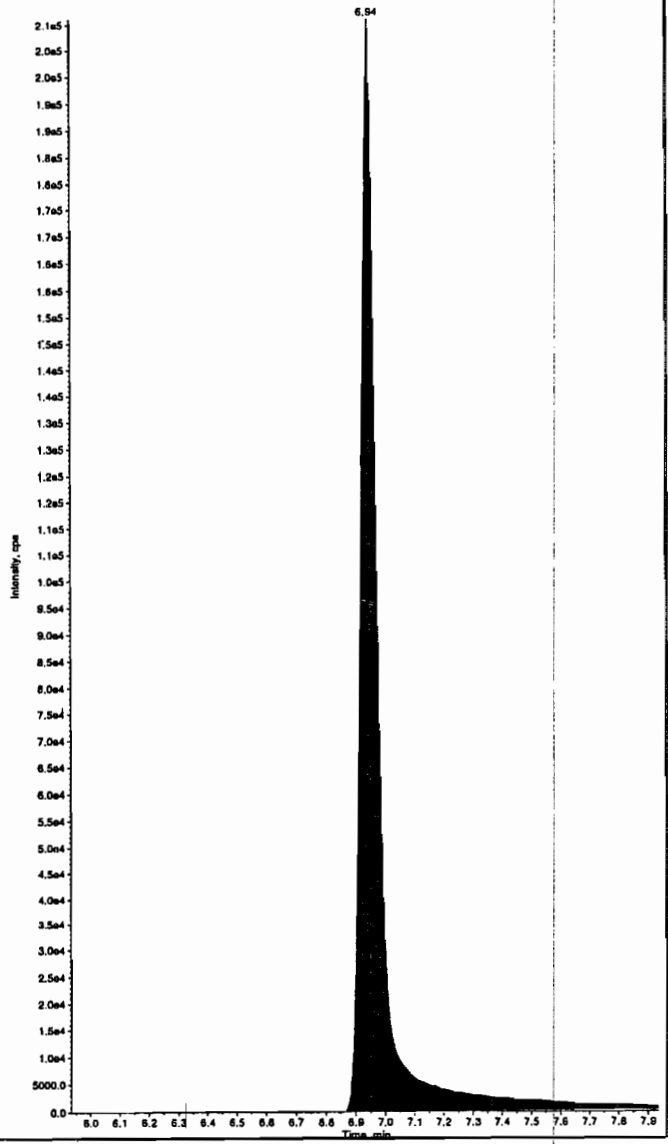

Sample Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160101.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 483. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 10:28:32 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.19 min
Area: 4.27e+006 counts
Height: 1122194.946 cps
Start Time: 8.11 min
End Time: 8.30 min

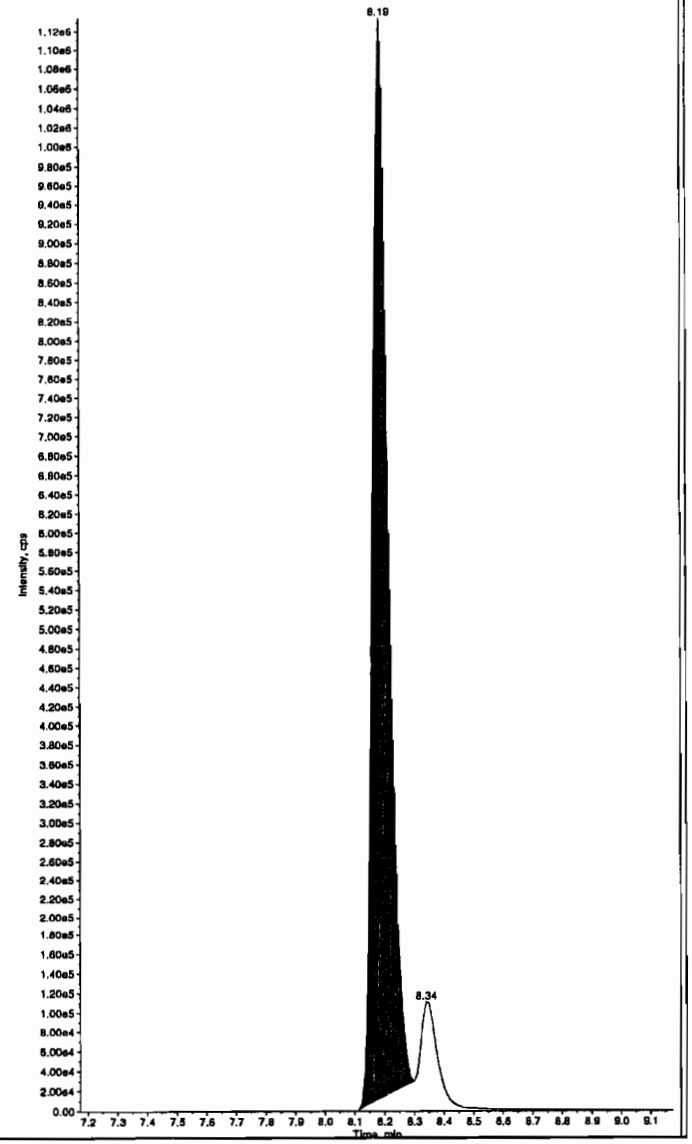

AMM 03/22/10

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after Scan 3/19/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

le Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160101.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
nent: "LCMSEXP_C" Annotation: ""
: Index: 1
: Type: QC
ıtration: 500. ng/mL
ated Conc: 535. ng/mL
ate: 3/17/2010
ime: 10:28:32 AM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 2500.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 6.93 min
elative RT: No

Type: Valley
ion Time: 6.94 min
9.05e+005 counts
: 206104.446 cps
Time: 6.85 min
ime: 7.95 min

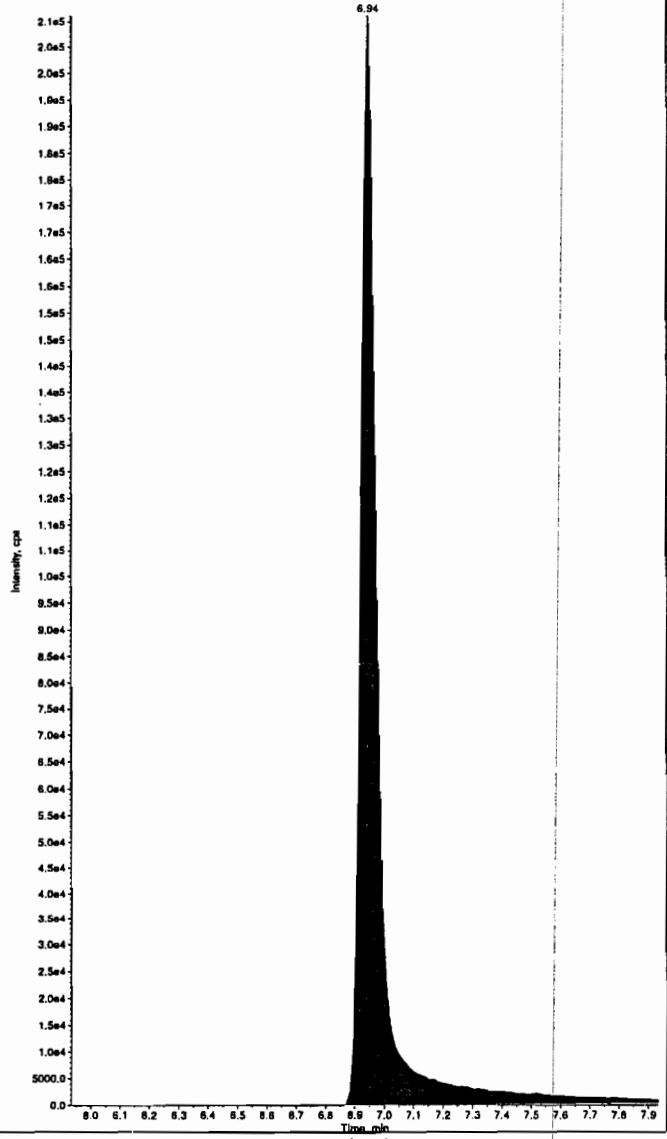

Sample Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160101.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 501. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 10:28:32 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.19 min
Area: 4.42e+006 counts
Height: 1135090.429 cps
Start Time: 8.11 min
End Time: 8.30 min

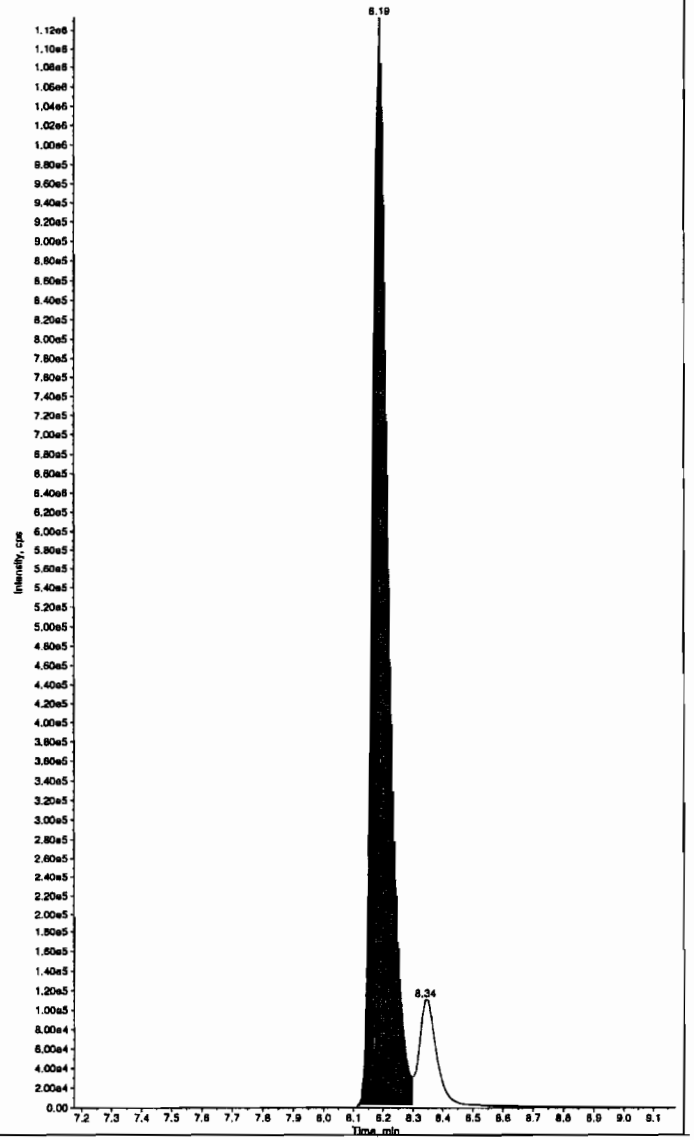

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160101.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 250. ng/mL
ulated Conc: 230. ng/mL
Date: 3/17/2010
Time: 10:28:32 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 15.0 sec
cted RT: 8.33 min
Relative RT: No

Type: Valley
ntion Time: 8.34 min
: 2.92e+006 counts
ht: 791423.401 cps
t Time: 8.27 min
Time: 8.54 min

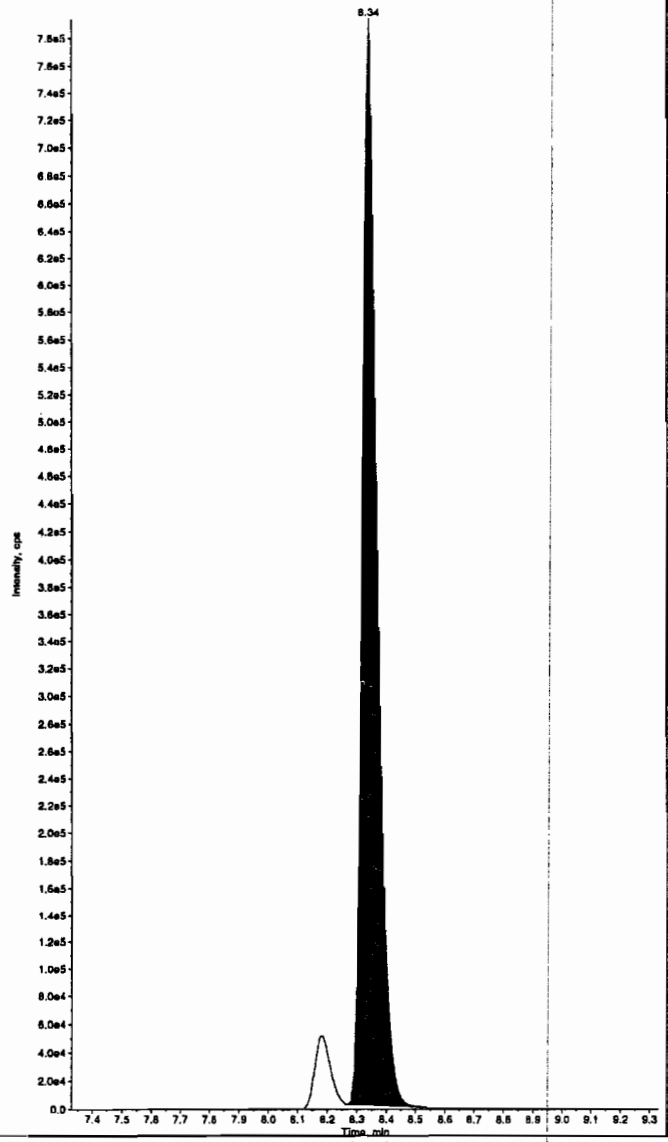

Sample Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160101.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 530. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 10:28:32 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.96 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.97 min
Area: 8.57e+005 counts
Height: 201217.102 cps
Start Time: 4.87 min
End Time: 5.28 min

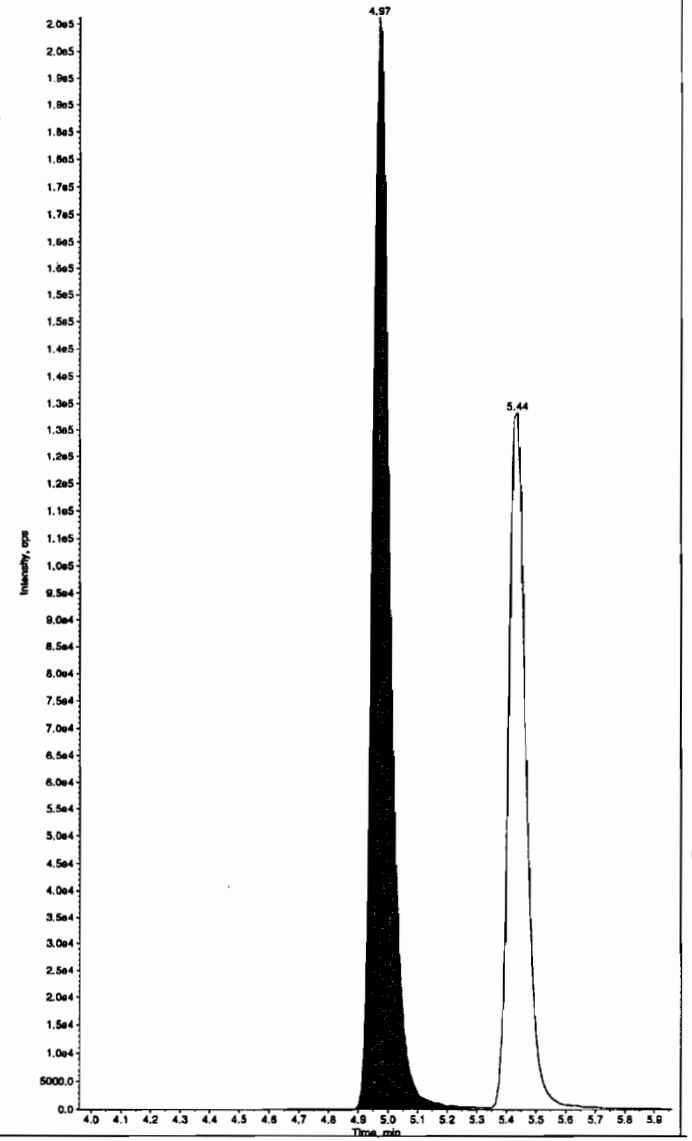

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160101.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "165.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 485. ng/mL
Date: 3/17/2010
Time: 10:28:32 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.43 min
Relative RT: No

Type: Valley
ntion Time: 5.44 min
: 5.32e+005 counts
ht: 128268.845 cps
t Time: 5.34 min
Time: 5.96 min

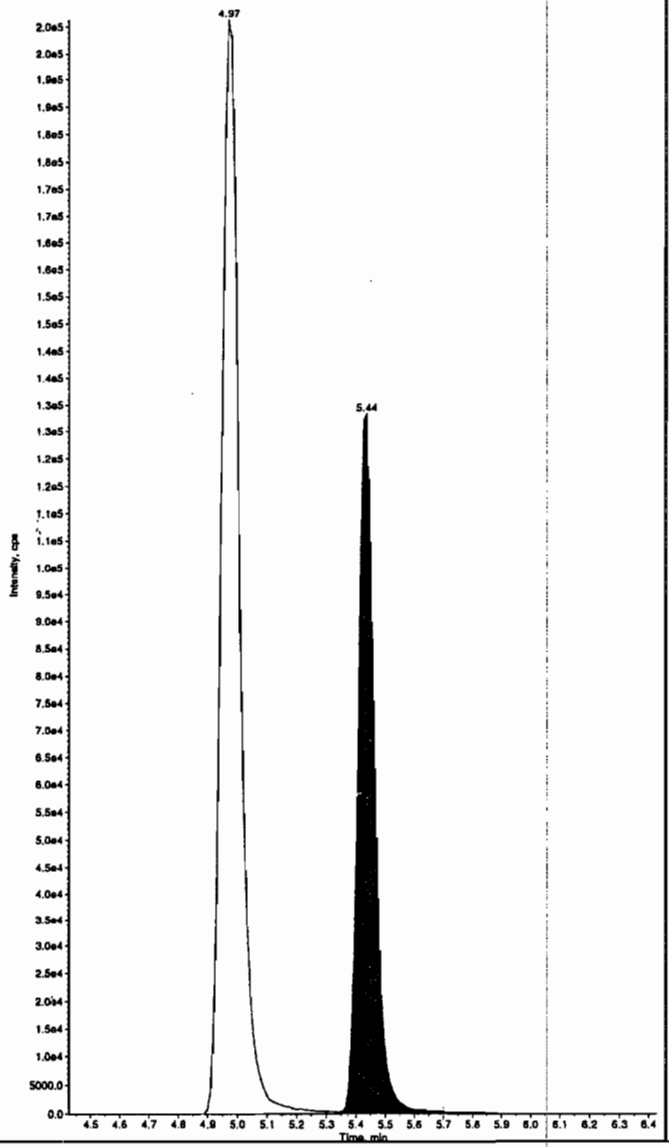

Sample Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160101.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 560. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 10:28:32 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 6.88e+006 counts
Height: 1624080.078 cps
Start Time: 10.8 min
End Time: 11.2 min

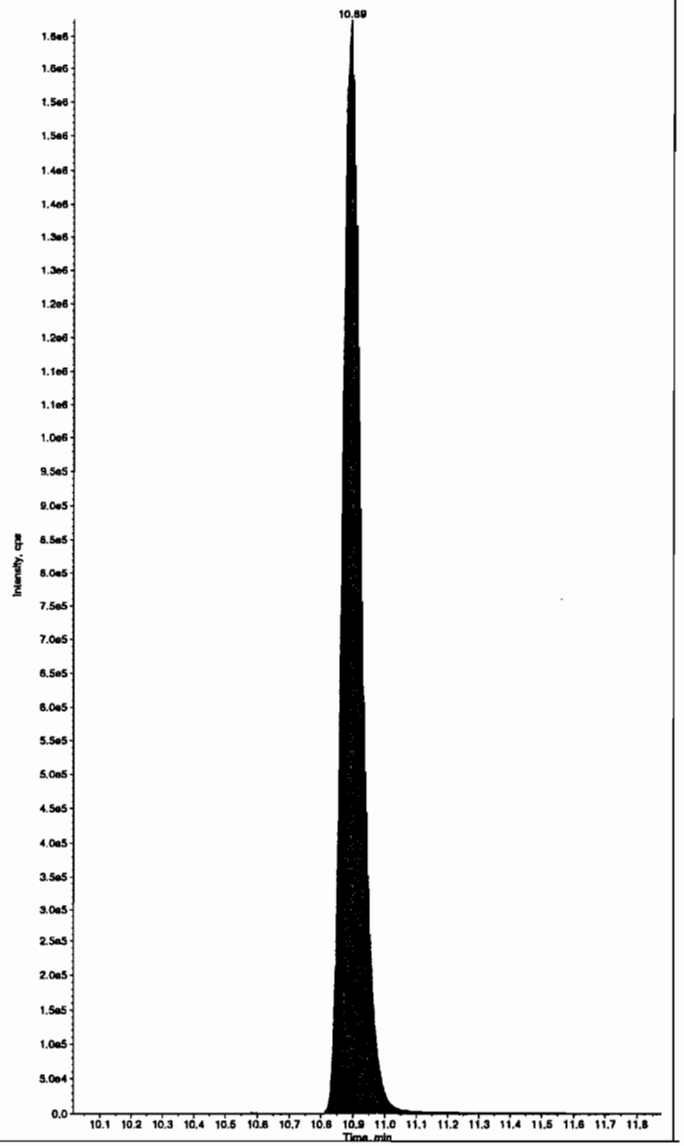

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1886

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03160103.wiff

Analysis Date: 17–MAR–10 10:59

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	94.3	94	
2,6–Diamino–4–nitrotoluene	100	102	102	
3,4–Dinitrotoluene	50	47.8	96	
3,5–Dinitroaniline	100	92	92	
TATB	100	106	106	
tris(o–cresyl) phosphate	100	113	113	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 3/19/10

nple Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160103.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 106. ng/mL
Date: 3/17/2010
Time: 10:59:58 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.93 min
Relative RT: No

Type: Valley
ntion Time: 6.93 min
: 1.61e+005 counts
ht: 39746.597 cps
t Time: 6.82 min
Time: 7.39 min

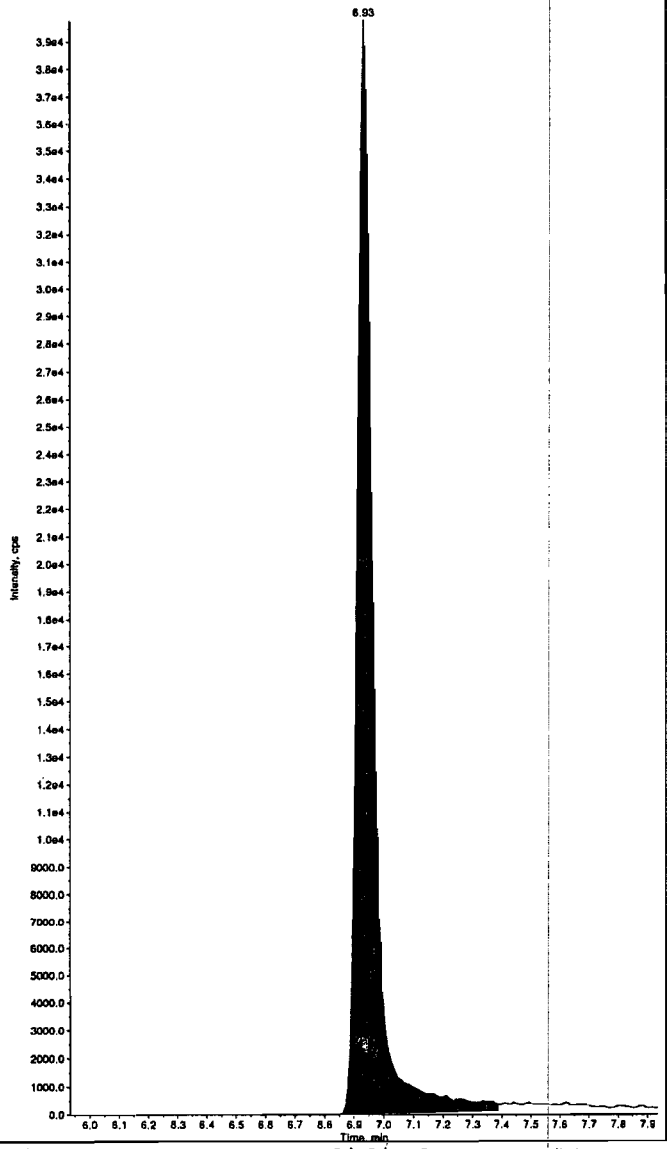

Sample Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160103.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 92.0 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 10:59:58 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.17 min
Area: 9.21e+005 counts
Height: 235489.853 cps
Start Time: 8.06 min
End Time: 8.29 min

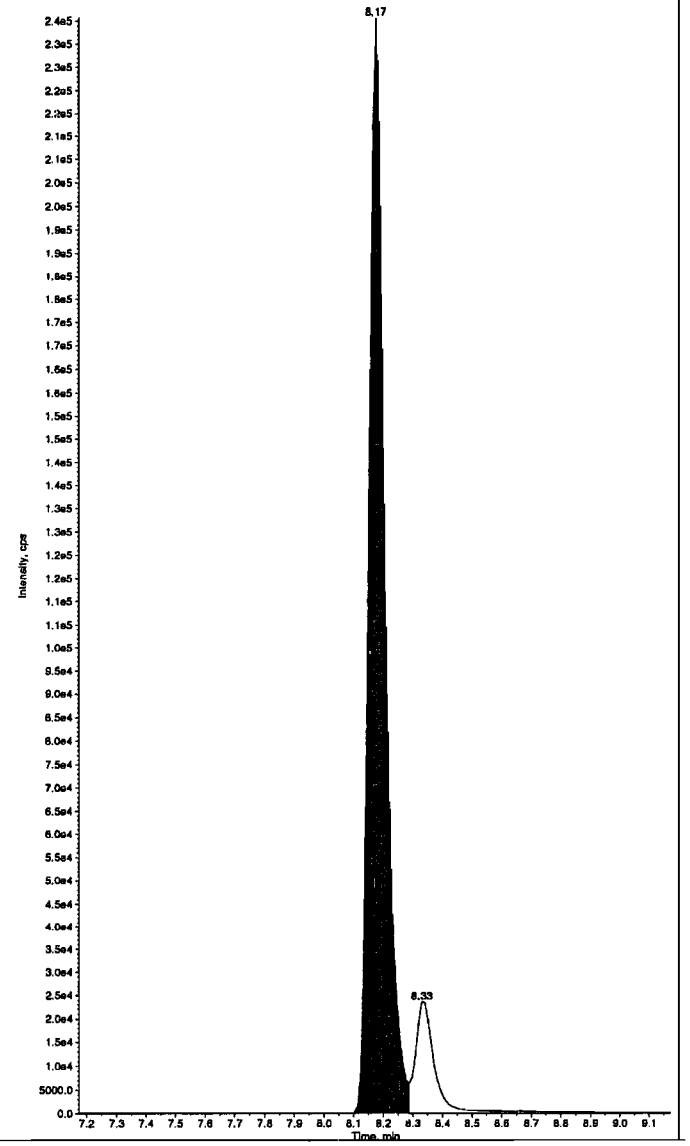

Hmm 03/22/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160103.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:          QC
entration:       50.0    ng/mL
ulated Conc:     47.8    ng/mL
 Date:        3/17/2010
 Time:        10:59:58 AM

fied:            No
:. Algorithm: IntelliQuan - IQA
 Peak Height:1460.00   cps
 Peak Width:    0.00   sec
thing Width:  3       points
Window:         15.0   sec
cted RT:         8.33  min
 Relative RT:    No

 Type:         Valley
ntion Time:      8.33  min
:          6.13e+005  counts
ht:          165180.801  cps
t Time:          8.26  min
Time:            8.62  min
```

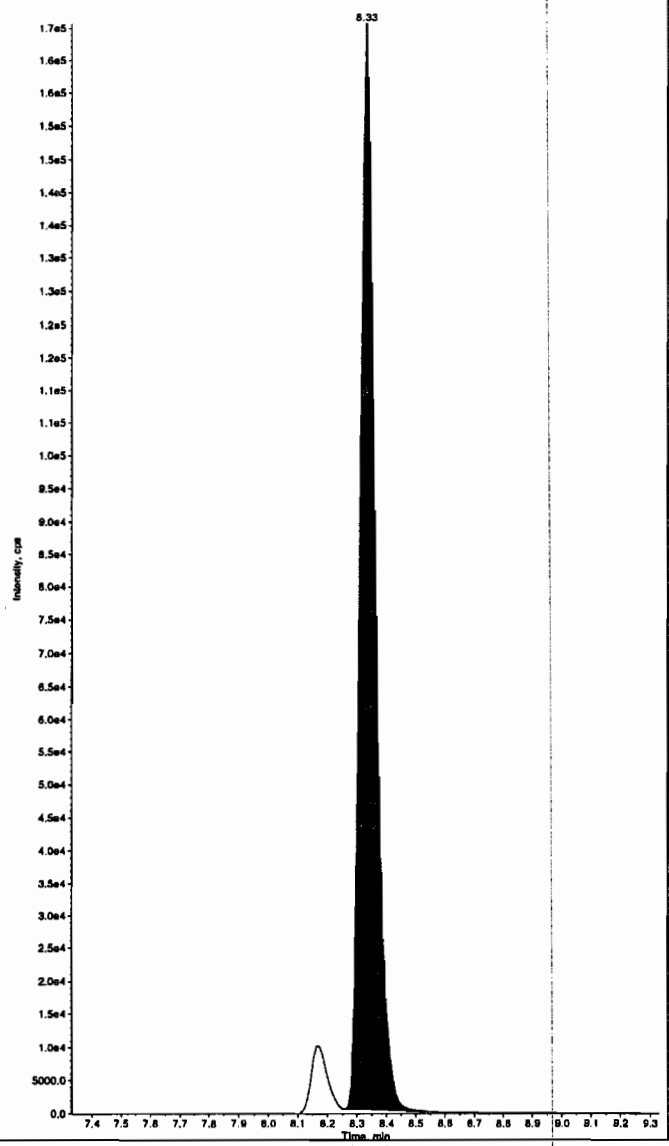

Sample Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160103.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:     100.    ng/mL
Calculated Conc:   102.    ng/mL
Acq. Date:       3/17/2010
Acq. Time:       10:59:58 AM

Modified:          No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         30.0    sec
Expected RT:        4.96   min
Use Relative RT:   No

Int. Type:       Valley
Retention Time:     4.97   min
Area:        1.76e+005   counts
Height:        42826.344  cps
Start Time:         4.87   min
End Time:           5.27   min
```

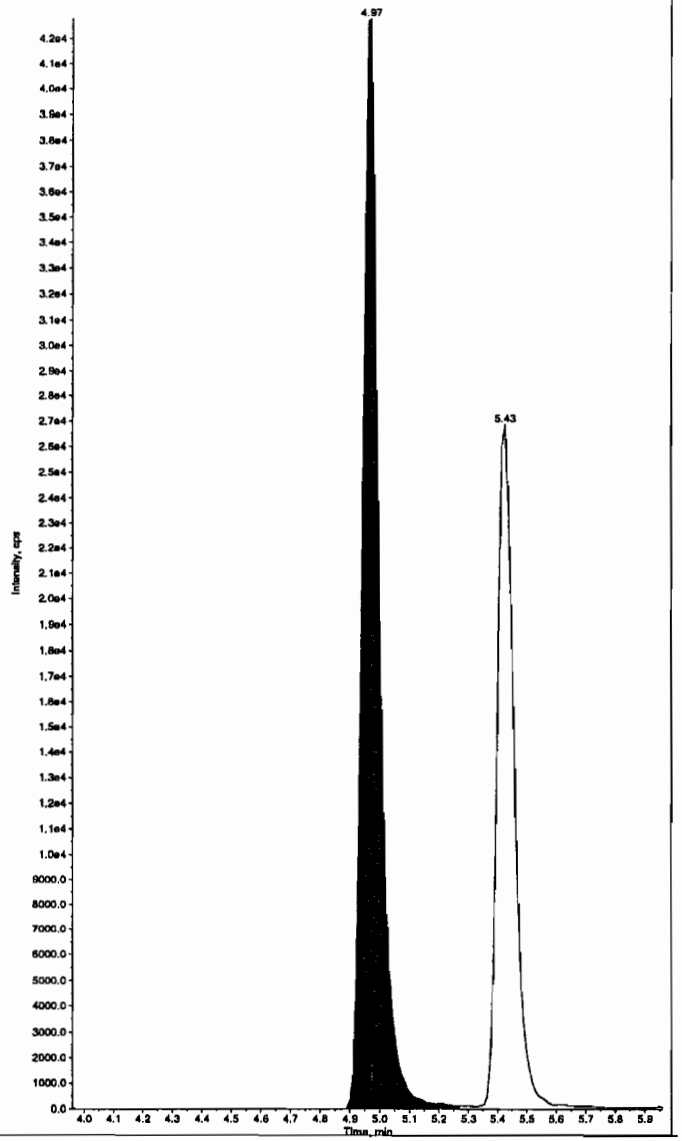

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ple Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160103.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""

.e Index: 1
.e Type: QC
ntration: 100. ng/mL
ulated Conc: 94.3 ng/mL
Date: 3/17/2010
Time: 10:59:58 AM

fied: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
cted RT: 5.43 min
elative RT: No

Type: Valley
ction Time: 5.43 min
1.09e+005 counts
t: 26826.241 cps
Time: 5.32 min
ime: 5.75 min

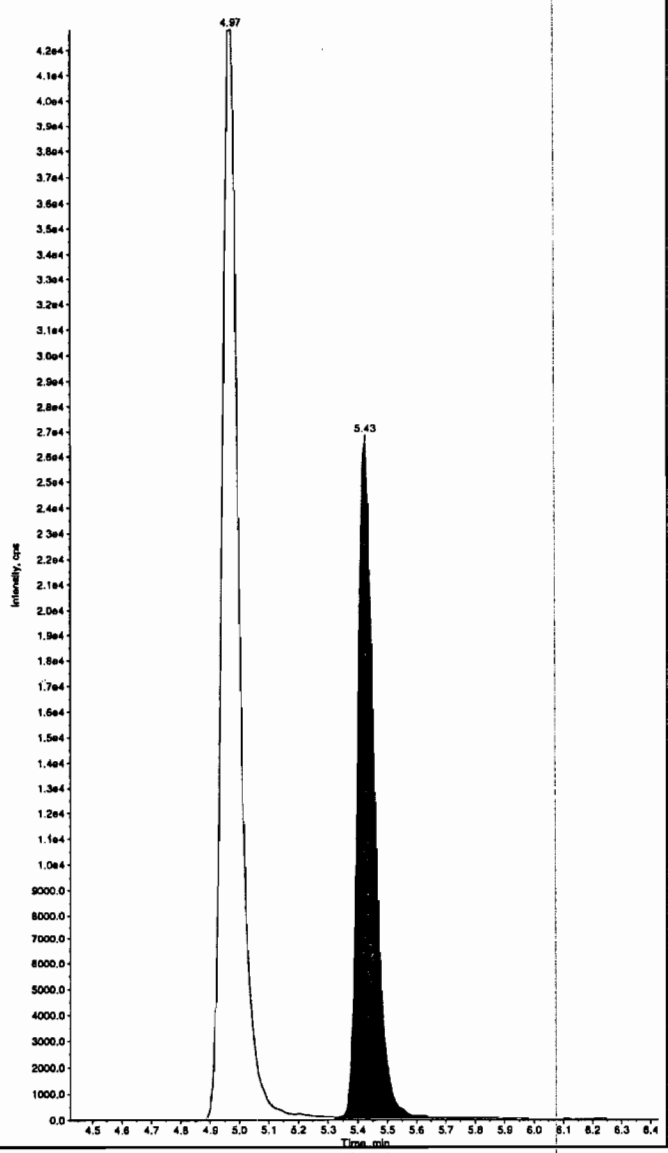

Sample Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160103.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 113. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 10:59:58 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.50e+006 counts
Height: 359985.321 cps
Start Time: 10.8 min
End Time: 11.2 min

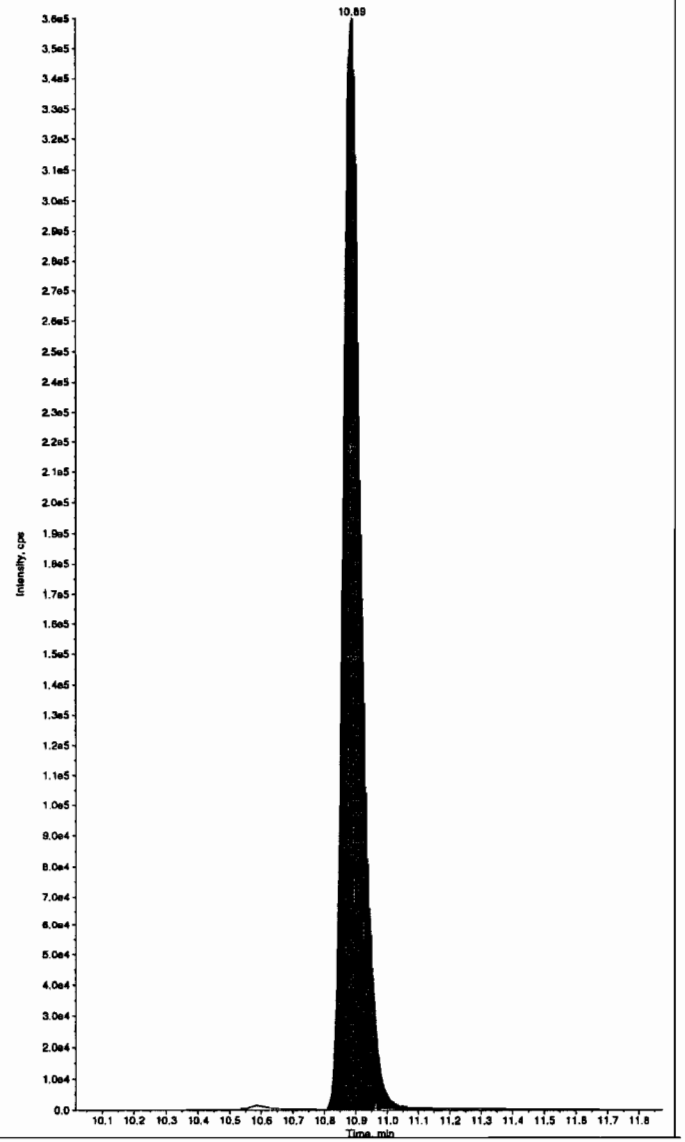

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1886

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03160108.wiff

Analysis Date: 17–MAR–10 12:18

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	492	98	
2,6–Diamino–4–nitrotoluene	500	544	109	
3,4–Dinitrotoluene	250	228	91	
3,5–Dinitroaniline	500	494	99	
TATB	500	535	107	
tris(o–cresyl) phosphate	500	564	113	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ofer 3/19/10

mple Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160108.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index:	1
le Type:	QC
entration:	500. ng/mL
ulated Conc:	535. ng/mL
Date:	3/17/2010
Time:	12:18:28 PM
fied:	No
. Algorithm:	IntelliQuan - IQA
Peak Height:	2500.00 cps
Peak Width:	0.00 sec
thing Width:	3 points
indow:	30.0 sec
cted RT:	6.93 min
Relative RT:	No
Type:	Valley
ntion Time:	6.92 min
:	9.05e+005 counts
ht:	208643.005 cps
t Time:	6.82 min
Time:	7.80 min

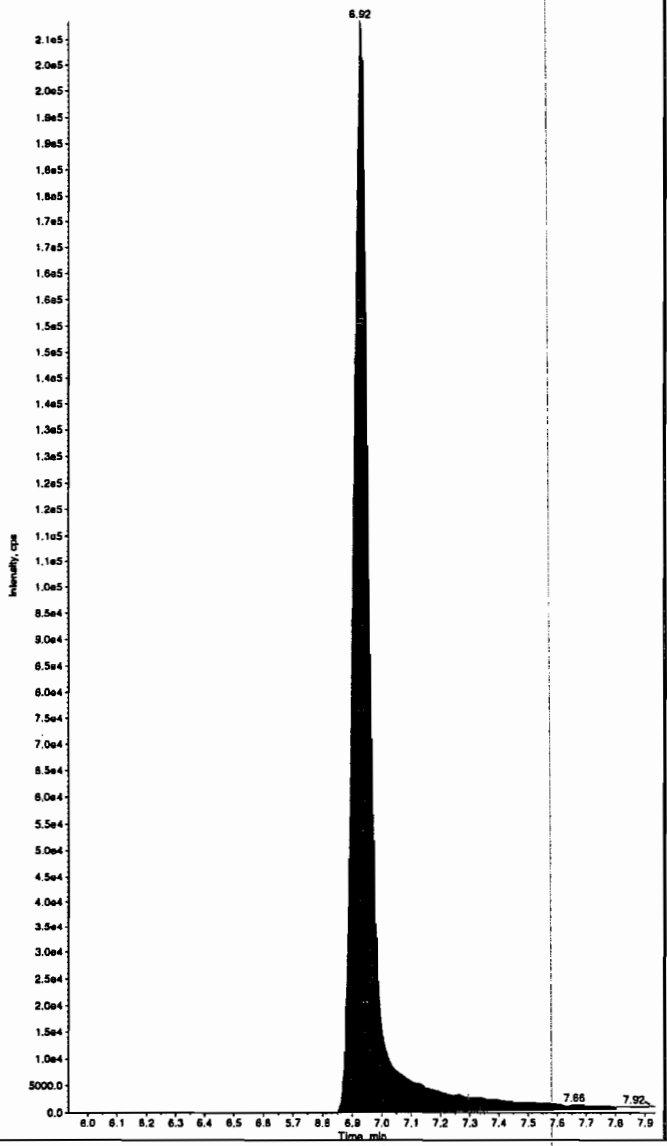

Sample Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160108.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	494. ng/mL
Acq. Date:	3/17/2010
Acq. Time:	12:18:28 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	2000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	15.0 sec
Expected RT:	8.17 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	8.17 min
Area:	4.36e+006 counts
Height:	1092010.986 cps
Start Time:	8.08 min
End Time:	8.29 min

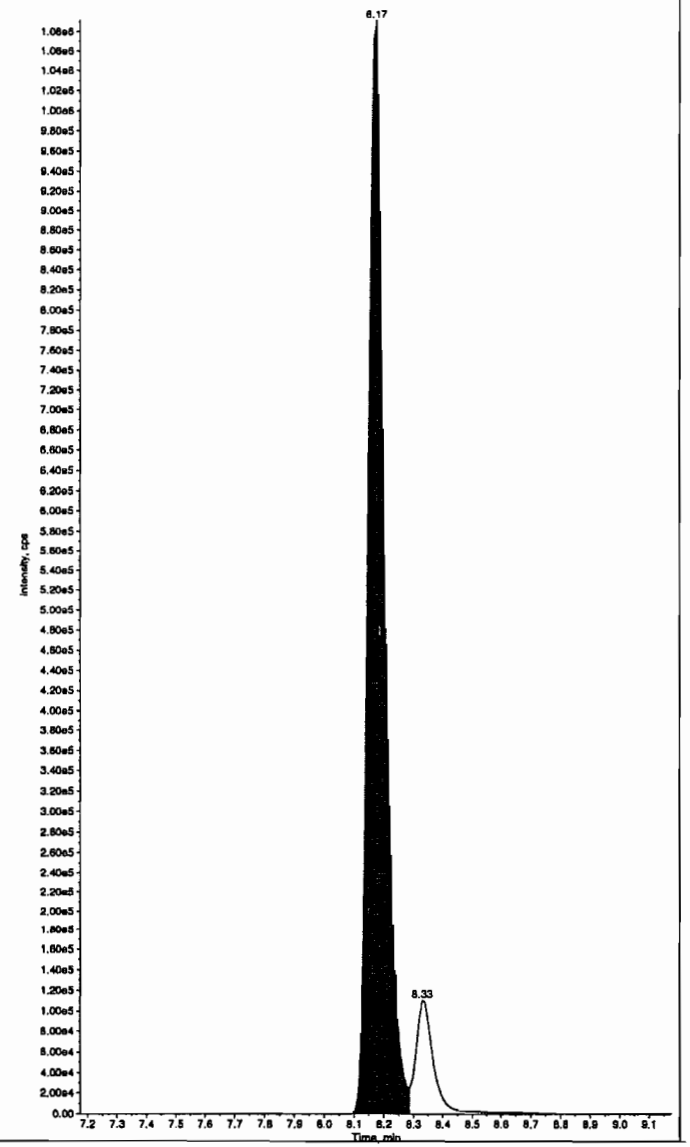

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160108.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 250. ng/mL
ulated Conc: 228. ng/mL
Date: 3/17/2010
Time: 12:18:28 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.33 min
Relative RT: No

Type: Valley
ntion Time: 8.33 min
: 2.90e+006 counts
ht: 794457.214 cps
t Time: 8.26 min
Time: 8.58 min

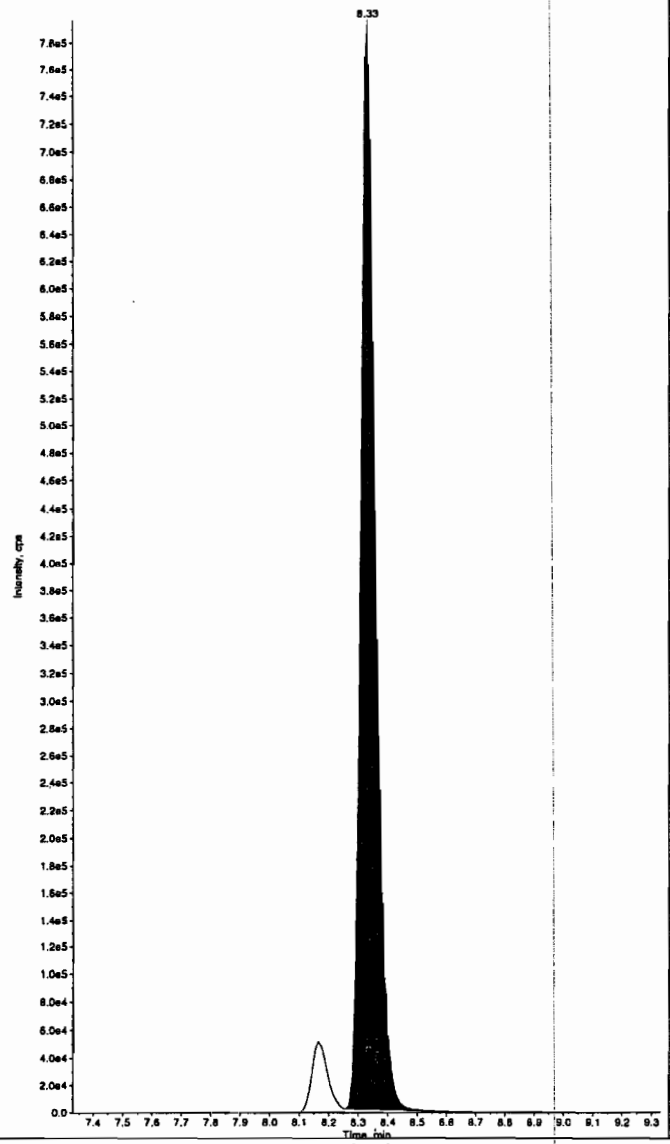

Sample Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160108.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 544. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 12:18:28 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.96 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.96 min
Area: 8.79e+005 counts
Height: 218748.459 cps
Start Time: 4.83 min
End Time: 5.26 min

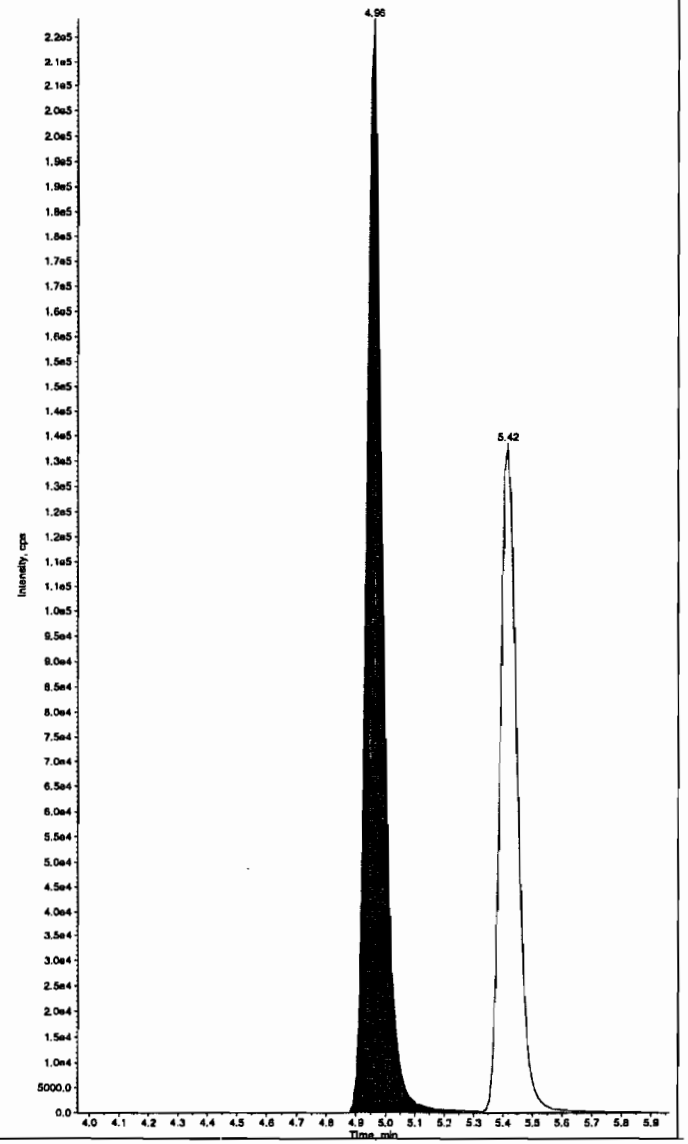

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mple Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160108.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
le Index:          1
le Type:           QC
entration:       500.     ng/mL
ulated Conc:     492.     ng/mL
 Date:        3/17/2010
 Time:        12:18:28 PM

fied:              No
. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00    cps
 Peak Width:    0.00    sec
thing Width:  3        points
indow:          30.0    sec
cted RT:         5.43   min
Relative RT:     No

 Type:         Valley
ntion Time:      5.42   min
:          5.39e+005   counts
ht:          133474.976  cps
t Time:          5.32   min
Time:            5.81   min
```

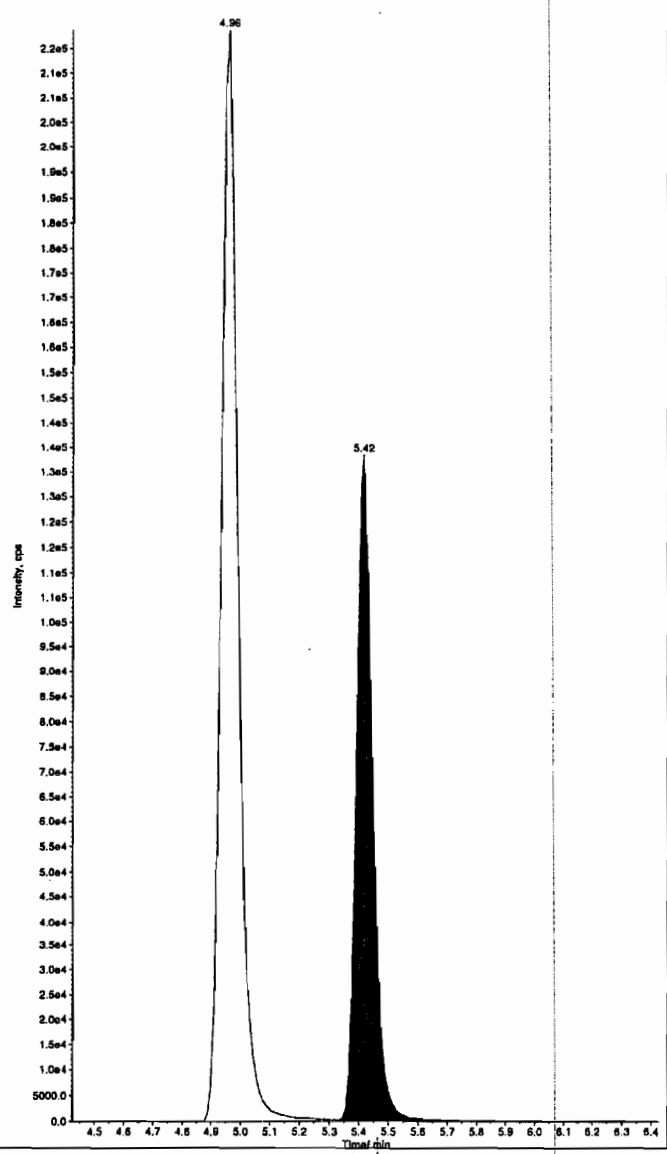

Sample Name: "WXX100316-26CCV" Sample ID: "|1|LER" File: "EXS03160108.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       500.     ng/mL
Calculated Conc:     564.     ng/mL
Acq. Date:        3/17/2010
Acq. Time:        12:18:28 PM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:         10.9   min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      10.9   min
Area:          6.93e+006   counts
Height:        1658963.745  cps
Start Time:          10.8   min
End Time:            11.2   min
```

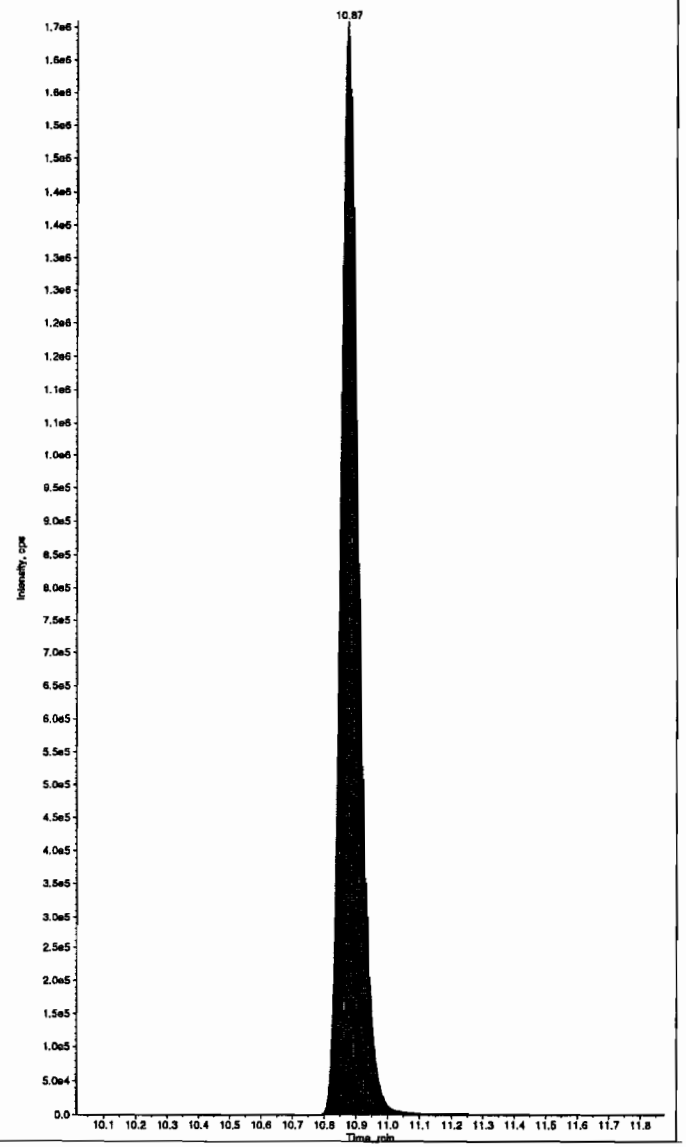

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1886

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03160110.wiff

Analysis Date: 17-MAR-10 12:49

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	94.2	94	
2,6-Diamino-4-nitrotoluene	100	108	108	
3,4-Dinitrotoluene	50	47.6	95	
3,5-Dinitroaniline	100	93.2	93	
TATB	100	110	110	
tris(o-cresyl) phosphate	100	115	115	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

LCM 3/19/10

mple Name: "WXX100316-27CRI" Sample ID: "|1|LER" File: "EXS03160110.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 110. ng/mL
Date: 3/17/2010
Time: 12:49:52 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.93 min
Relative RT: No

Type: Valley
ntion Time: 6.92 min
: 1.69e+005 counts
ht: 40851.681 cps
t Time: 6.82 min
Time: 7.40 min

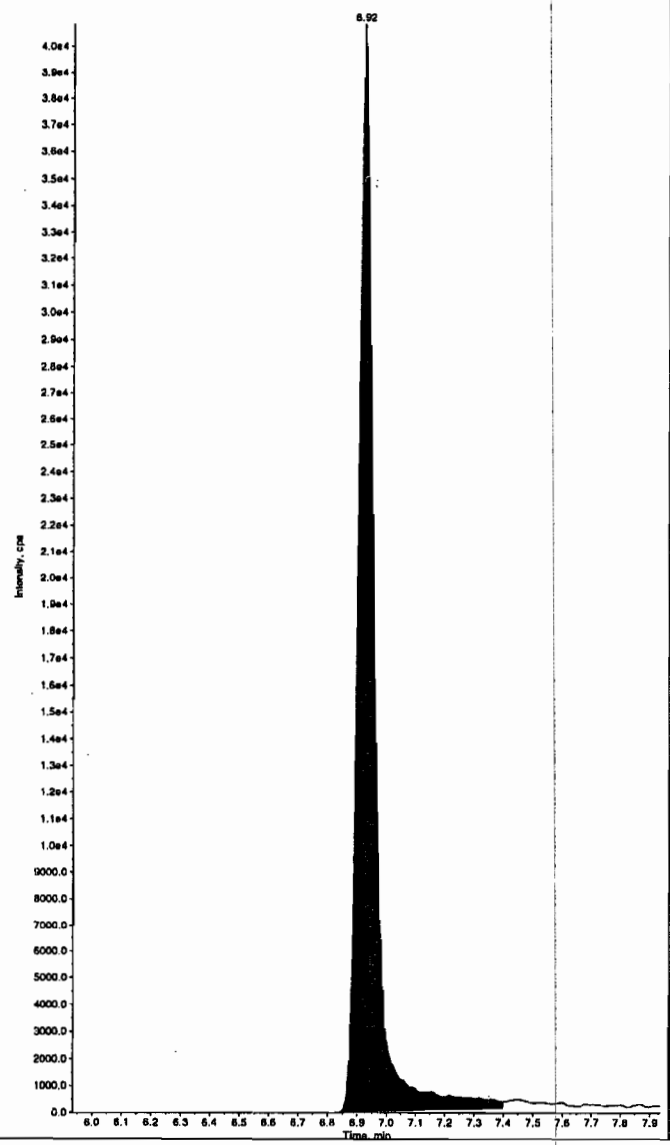

Sample Name: "WXX100316-27CRI" Sample ID: "|1|LER" File: "EXS03160110.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 93.2 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 12:49:52 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.16 min
Area: 9.31e+005 counts
Height: 241389.099 cps
Start Time: 8.06 min
End Time: 8.28 min

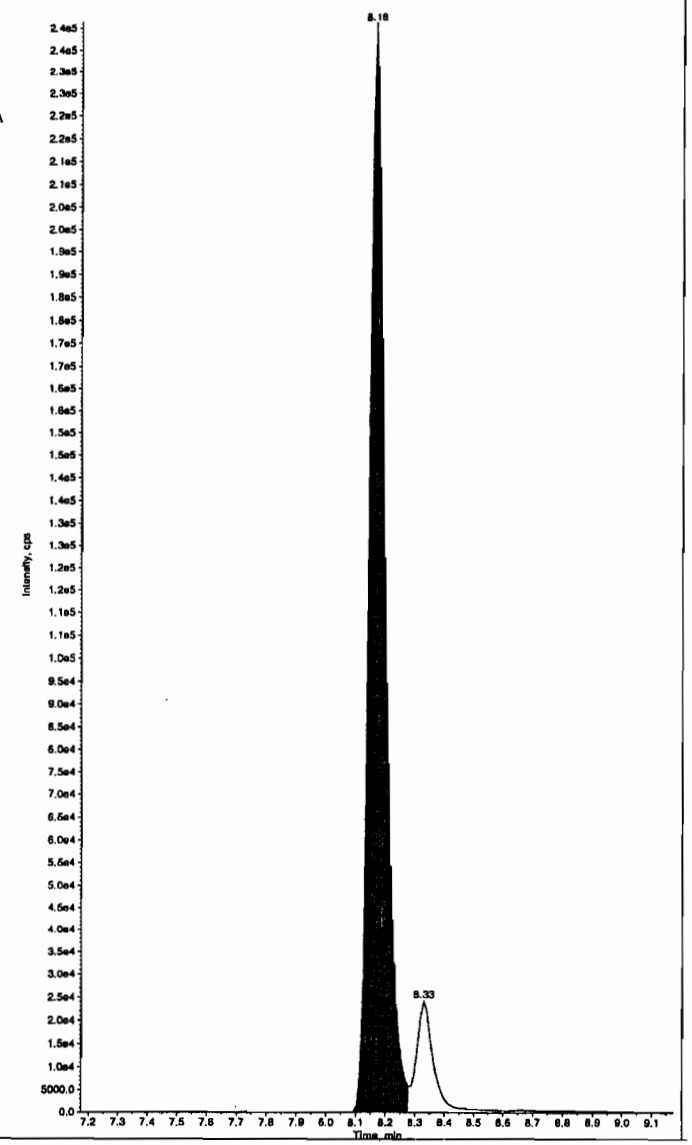

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160110.wiff"
ak Name: "34-Dinitrotoluene" Mass(as): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	50.0	ng/mL
culated Conc:	47.5	ng/mL
. Date:	3/17/2010	
. Time:	12:49:52 PM	
ified:	No	
. Algorithm:	IntelliQuan - IQA	
. Peak Height:	1460.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	15.0	sec
cted RT:	8.33	min
Relative RT:	No	
Type:	Valley	
ntion Time:	8.33	min
:	6.11e+005	counts
ht:	165304.001	cps
t Time:	8.26	min
Time:	8.55	min

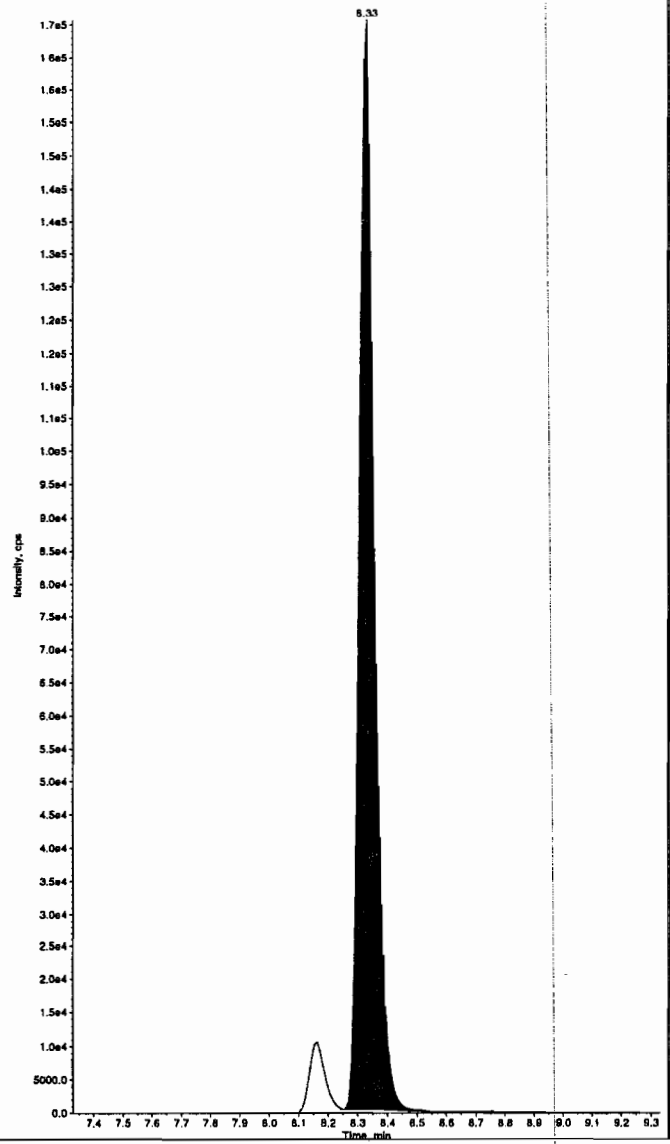

Sample Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160110.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	108.	ng/mL
Acq. Date:	3/17/2010	
Acq. Time:	12:49:52 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	4.96	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	4.95	min
Area:	1.85e+005	counts
Height:	45633.869	cps
Start Time:	4.84	min
End Time:	5.25	min

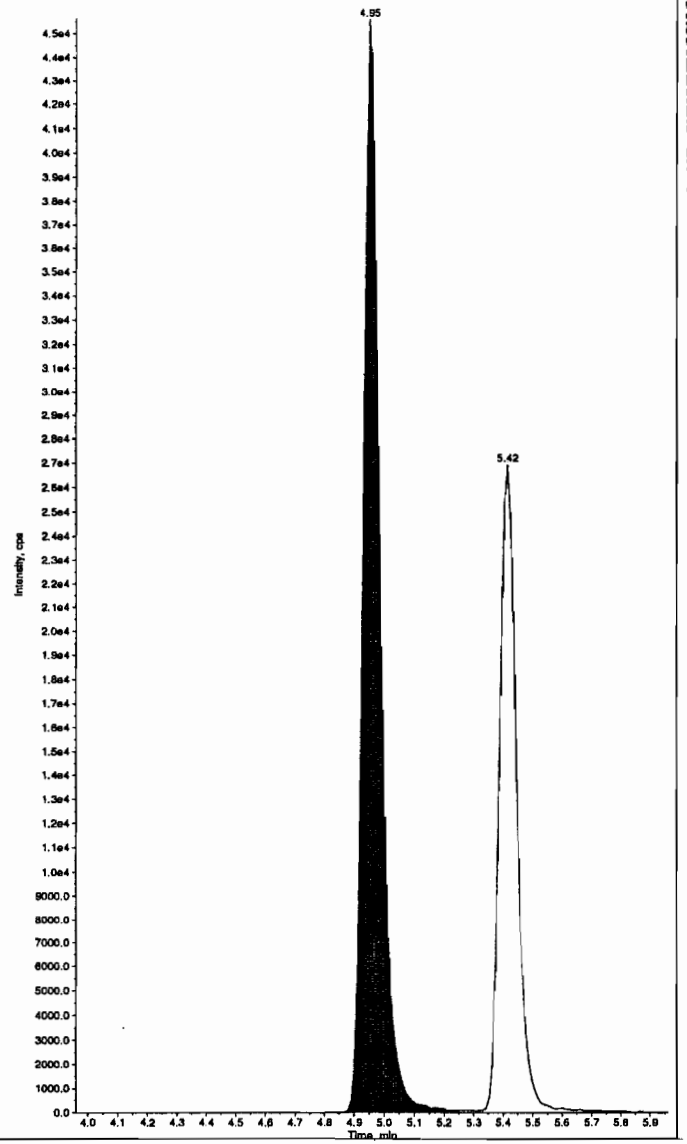

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mple Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160110.wiff"
ak Name: "24-Diamino-6-nitrotoluens" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:          QC
entration:       100.     ng/mL
culated Conc:     94.2     ng/mL
 Date:        3/17/2010
 Time:        12:49:52 PM

fied:              No
. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00    cps
 Peak Width:    0.00    sec
thing Width:  3        points
indow:         30.0    sec
cted RT:        5.43   min
 Relative RT:    No

 Type:         Valley
ntion Time:     5.42   min
:          1.09e+005   counts
ht:         26921.499  cps
t Time:         5.31   min
Time:           5.68   min
```

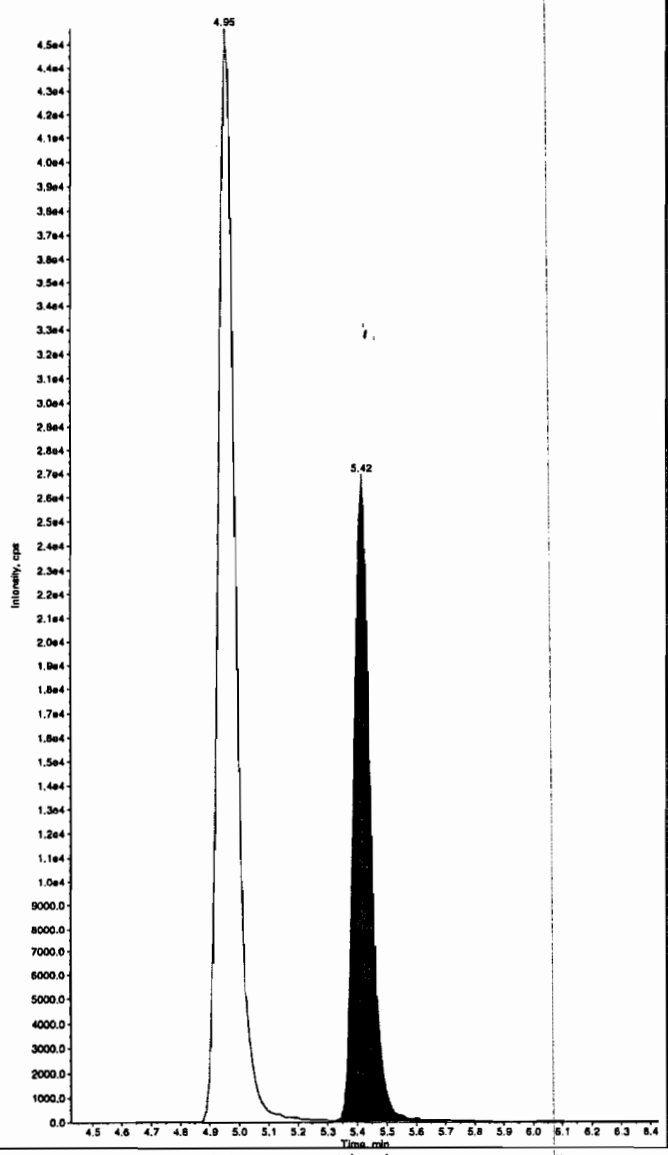

Sample Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160110.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       100.     ng/mL
Calculated Conc:     115.     ng/mL
Acq. Date:        3/17/2010
Acq. Time:        12:49:52 PM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:        10.9   min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.9   min
Area:          1.53e+006   counts
Height:         397921.478  cps
Start Time:         10.8   min
End Time:           11.1   min
```

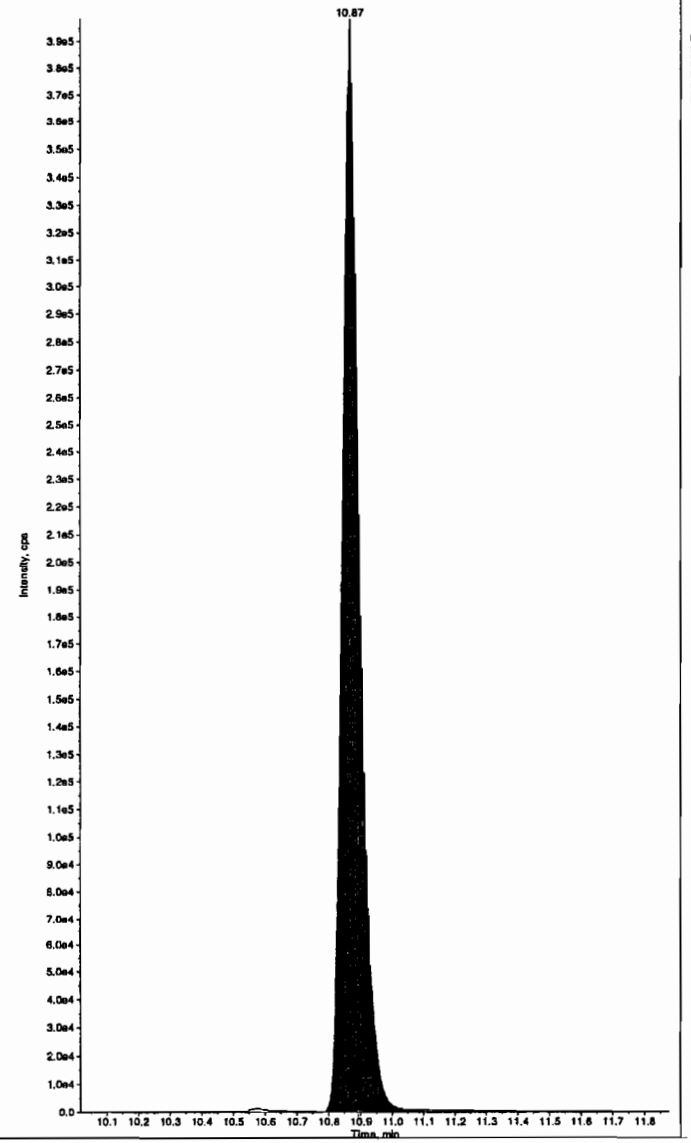

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1886

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03160134.wiff

Analysis Date: 17–MAR–10 19:07

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	433	87	
2,6–Diamino–4–nitrotoluene	500	459	92	
3,4–Dinitrotoluene	250	210	84	
3,5–Dinitroaniline	500	454	91	
TATB	500	498	100	
tris(o–cresyl) phosphate	500	514	103	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ok 3/19/10

mple Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160134.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	500.	ng/mL
culated Conc:	498.	ng/mL
. Date:	3/17/2010	
. Time:	7:07:05 PM	
ified:	No	
. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
cted RT:	6.93	min
Relative RT:	No	
. Type:	Valley	
ention Time:	6.94	min
:	8.40e+005	counts
ght:	185825.287	cps
t Time:	6.85	min
Time:	7.94	min

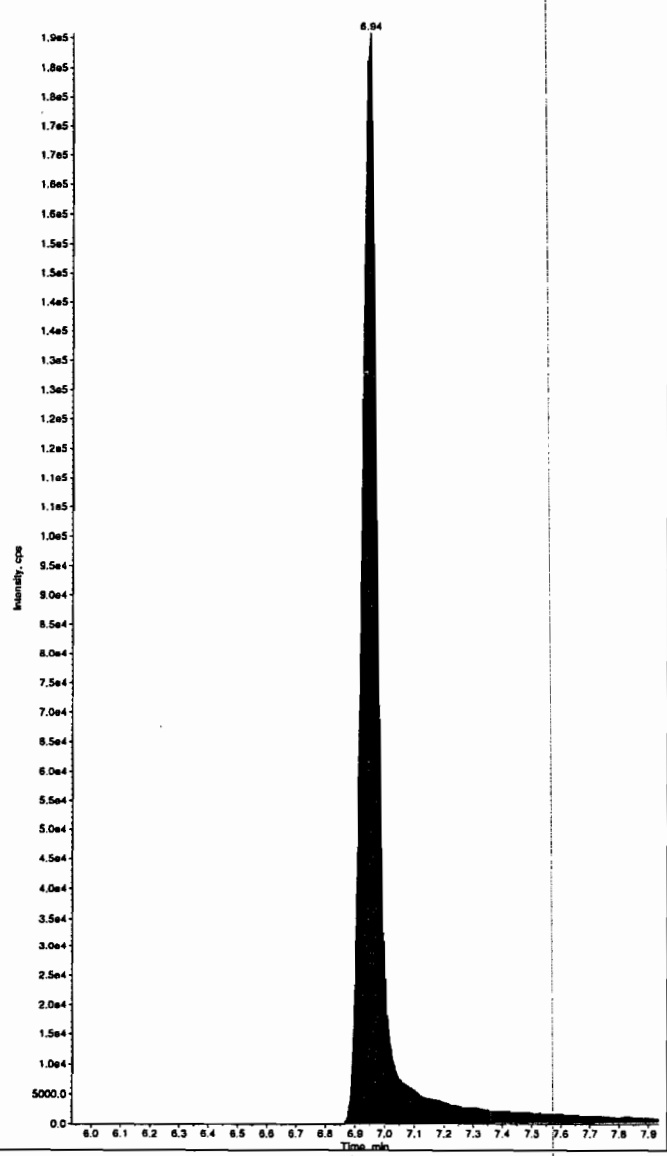

Sample Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160134.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	454.	ng/mL
Acq. Date:	3/17/2010	
Acq. Time:	7:07:05 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.17	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.19	min
Area:	4.03e+006	counts
Height:	1002285.950	cps
Start Time:	8.08	min
End Time:	8.29	min

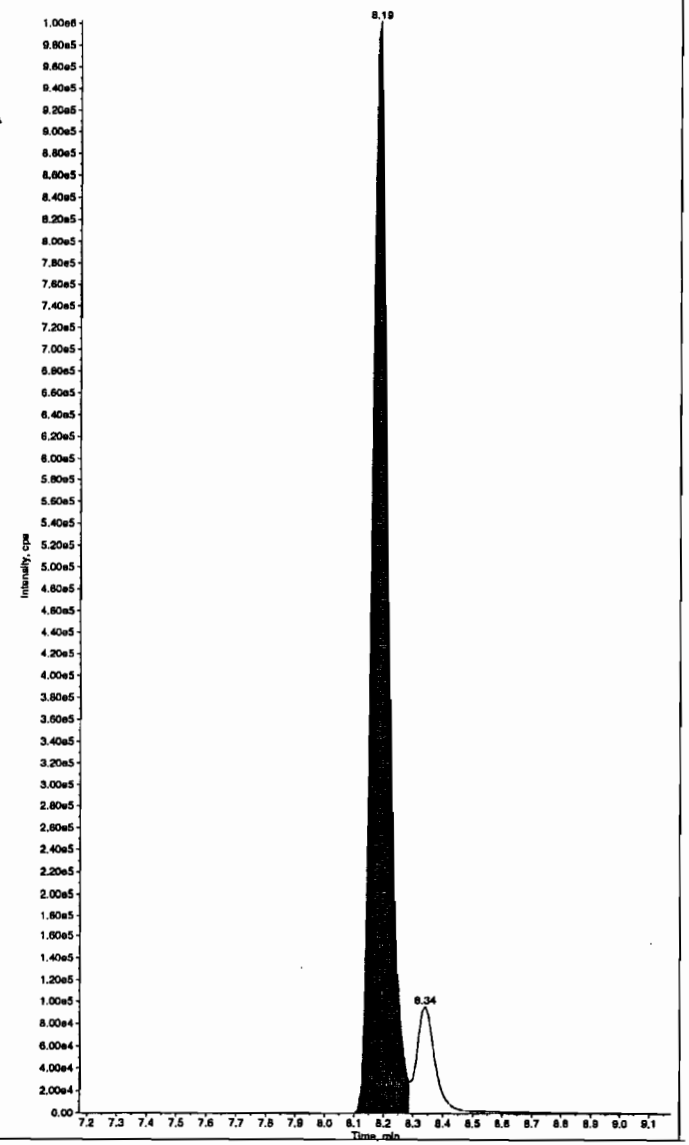

AMM 03/22/10

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mple Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160134.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
entration: 250. ng/mL
culated Conc: 210. ng/mL
Date: 3/17/2010
Time: 7:07:05 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 15.0 sec
cted RT: 8.33 min
Relative RT: No

Type: Valley
ntion Time: 8.33 min
: 2.68e+006 counts
ht: 724177.246 cps
t Time: 8.26 min
Time: 8.53 min

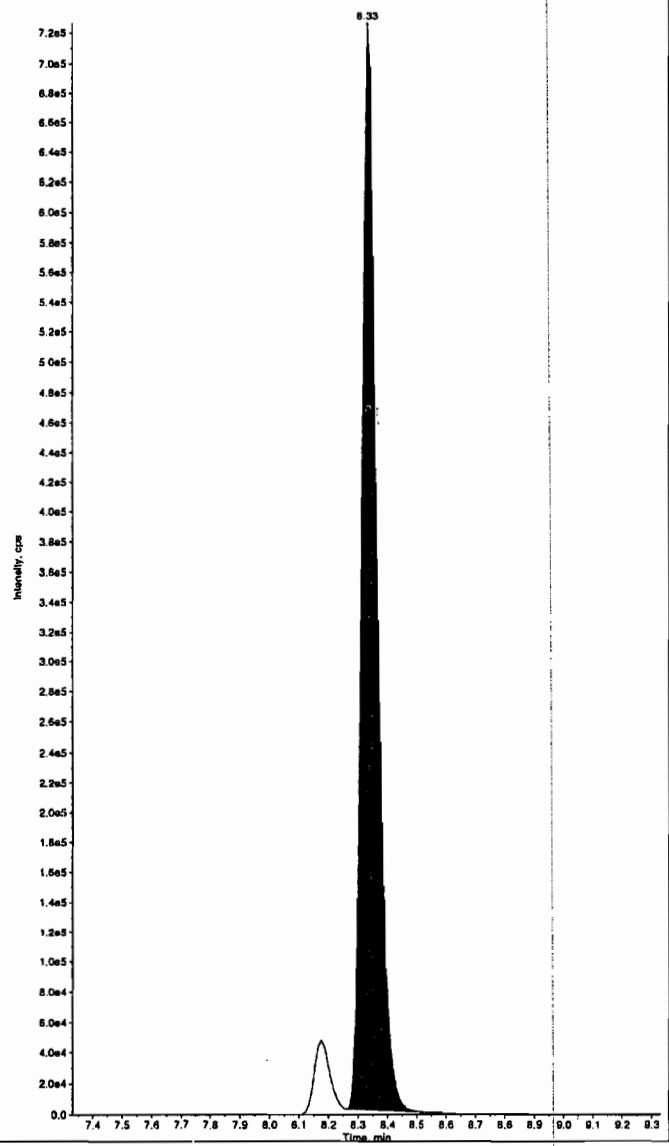

Sample Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160134.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 459. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 7:07:05 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.96 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.97 min
Area: 7.45e+005 counts
Height: 179336.594 cps
Start Time: 4.88 min
End Time: 5.26 min

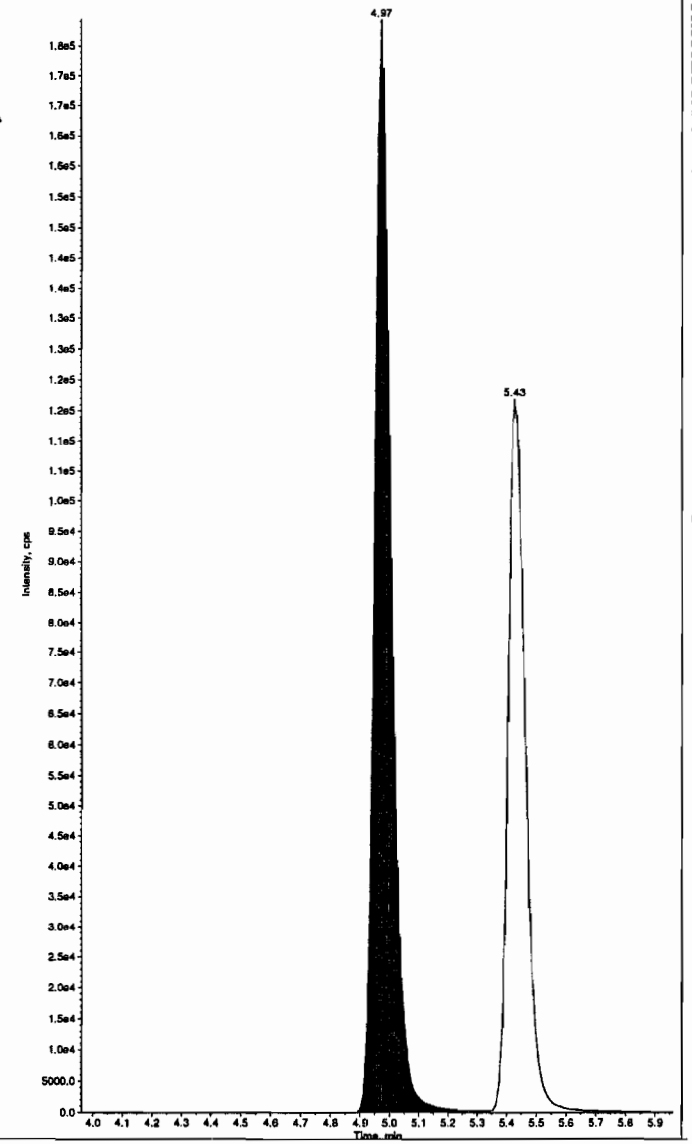

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ımple Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160134.wiff"
ıak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ımment: "LCMSEXP_C" Annotation: ""

ɔle Index: 1
ɔle Type: QC
:entration: 500. ng/mL
:ulated Conc: 433. ng/mL
. Date: 3/17/2010
. Time: 7:07:05 PM

ıfied: No
:. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
Peak Width: 0.00 sec
ɔthing Width: 3 points
/indow: 30.0 sec
ɔcted RT: 5.43 min
Relative RT: No

Type: Valley
ıntion Time: 5.43 min
ı: 4.76e+005 counts
ıht: 116834.641 cps
't Time: 5.31 min
Time: 5.85 min

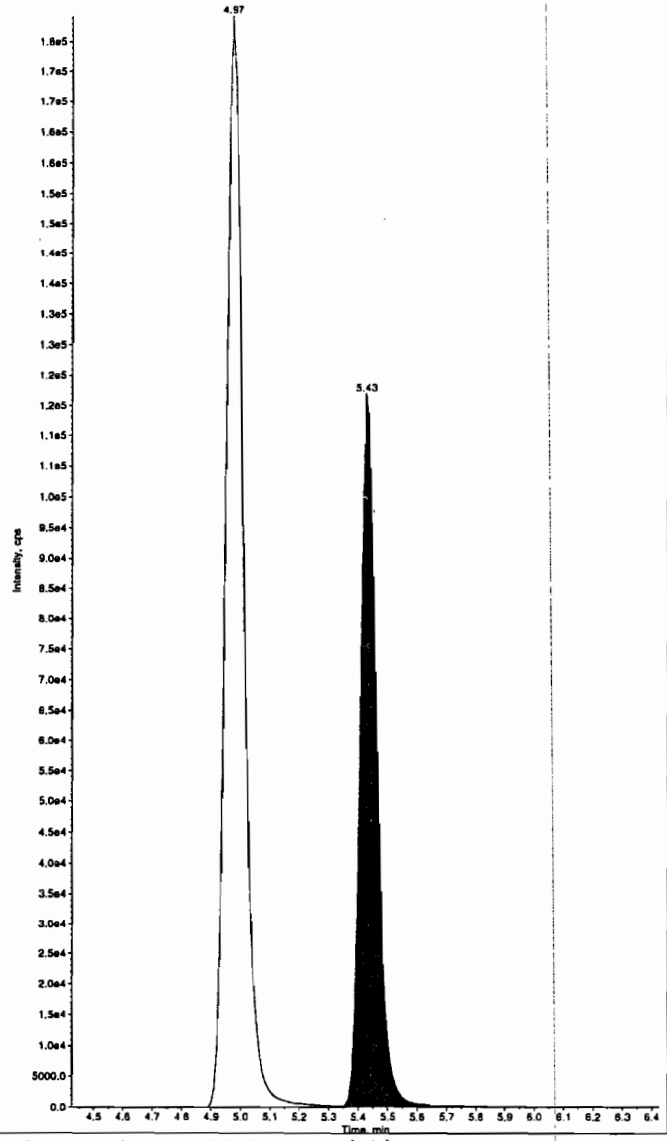

Sample Name: "WXX100316-26CCV" Sample ID: "[1]LER" File: "EXS03160134.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 514. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 7:07:05 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 6.36e+006 counts
Height: 1572083.740 cps
Start Time: 10.8 min
End Time: 11.2 min

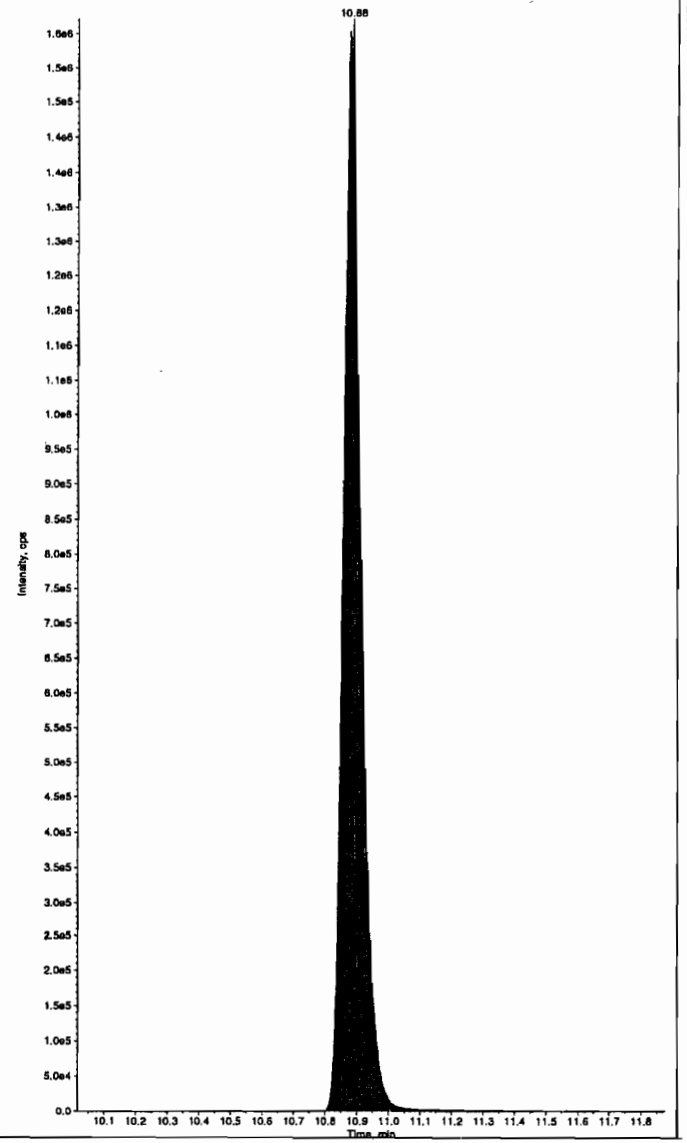

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1886

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03160136.wiff

Analysis Date: 17–MAR–10 19:38

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	90.8	91	
2,6–Diamino–4–nitrotoluene	100	93.5	94	
3,4–Dinitrotoluene	50	44	88	
3,5–Dinitroaniline	100	86.8	87	
TATB	100	99.9	100	
tris(o–cresyl) phosphate	100	103	103	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Rcn 3/19/10

nple Name: "WXX100316-27CRI" Sample ID: "|1|LER" File: "EXS03160136.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 99.9 ng/mL
Date: 3/17/2010
Time: 7:38:28 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.93 min
Relative RT: No

Type: Valley
ntion Time: 6.84 min
: 1.50e+005 counts
ht: 38175.850 cps
t Time: 6.75 min
Time: 7.23 min

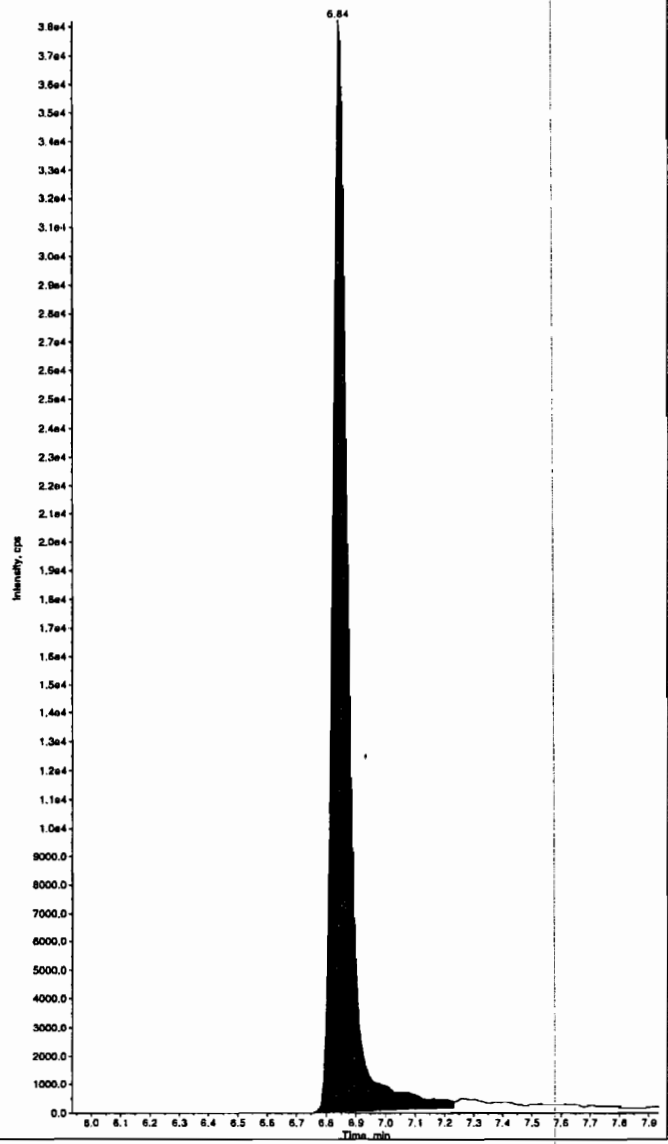

Sample Name: "WXX100316-27CRI" Sample ID: "|1|LER" File: "EXS03160136.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 86.8 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 7:38:28 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.06 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.06 min
Area: 8.74e+005 counts
Height: 214417.801 cps
Start Time: 7.96 min
End Time: 8.18 min

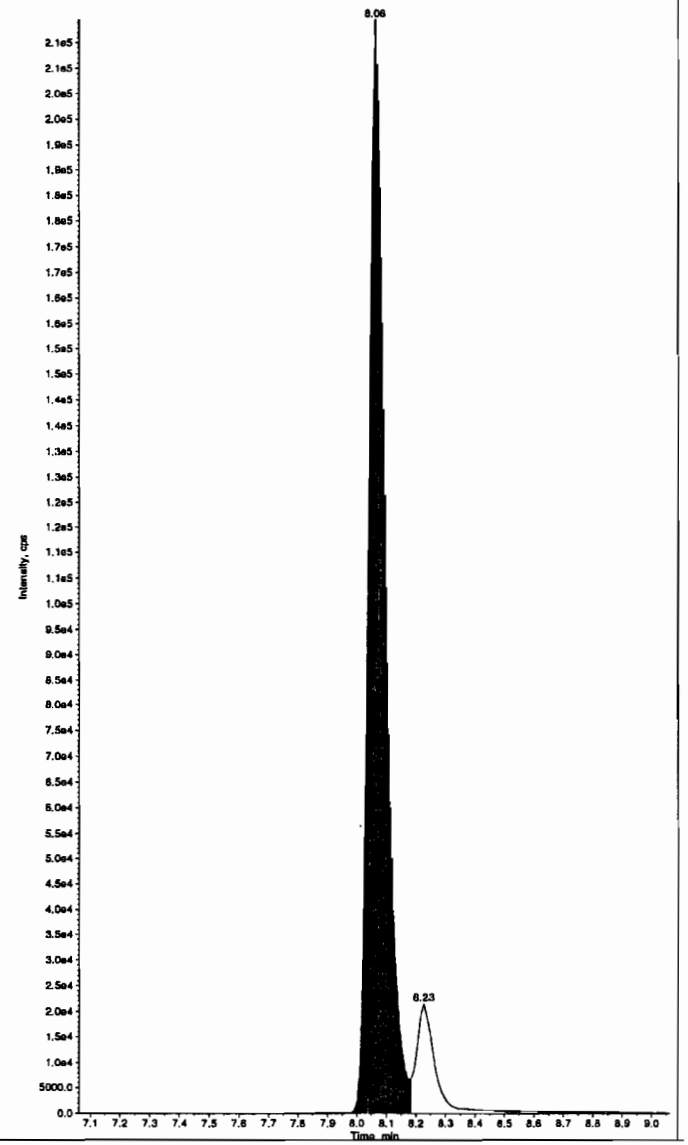

HMM 03/22/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100316-27CRI" Sample ID: "|1|LER" File: "EXS03160136.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	50.0	ng/mL
culated Conc:	44.0	ng/mL
. Date:	3/17/2010	
. Time:	7:38:28 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	1460.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	15.0	sec
ected RT:	8.33	min
Relative RT:	No	
. Type:	Valley	
ention Time:	8.23	min
a:	5.64e+005	counts
ght:	146981.705	cps
t Time:	8.14	min
Time:	8.57	min

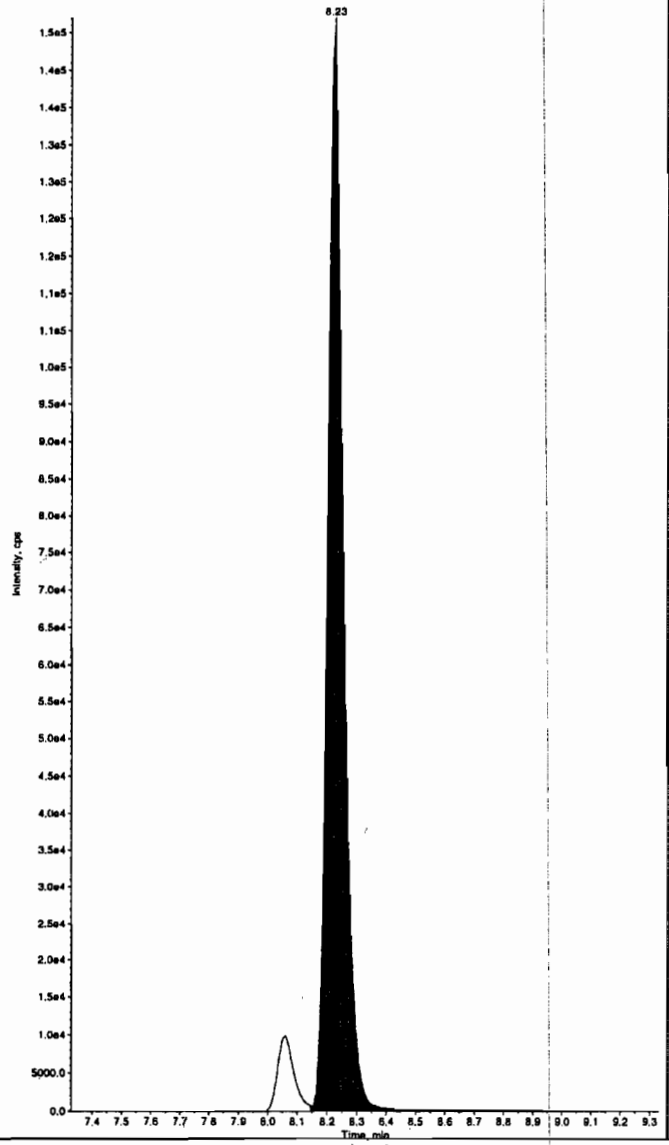

Sample Name: "WXX100316-27CRI" Sample ID: "|1|LER" File: "EXS03160136.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	93.5	ng/mL
Acq. Date:	3/17/2010	
Acq. Time:	7:38:28 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	4.96	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	5.08	min
Area:	1.62e+005	counts
Height:	38230.968	cps
Start Time:	4.96	min
End Time:	5.34	min

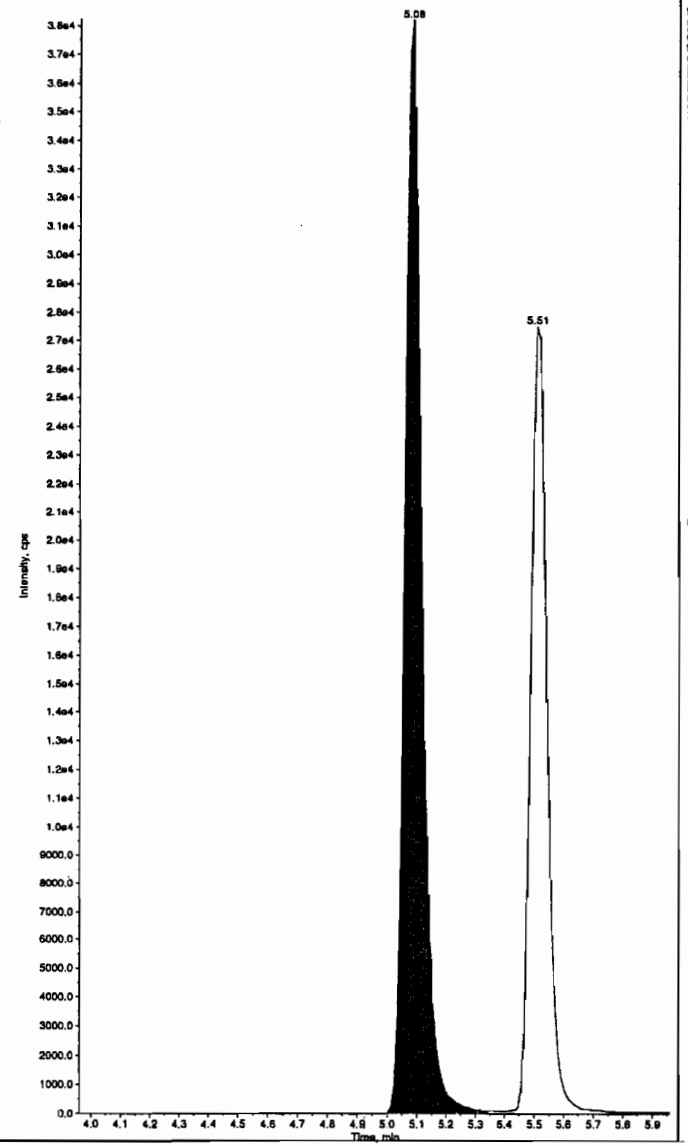

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160136.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ommant: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
centration: 100. ng/mL
culated Conc: 90.8 ng/mL
. Date: 3/17/2010
. Time: 7:38:28 PM

ified: No
:. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 5.43 min
Relative RT: No

. Type: Valley
ention Time: 5.51 min
: 1.05e+005 counts
ght: 27500.357 cps
:t Time: 5.39 min
Time: 5.81 min

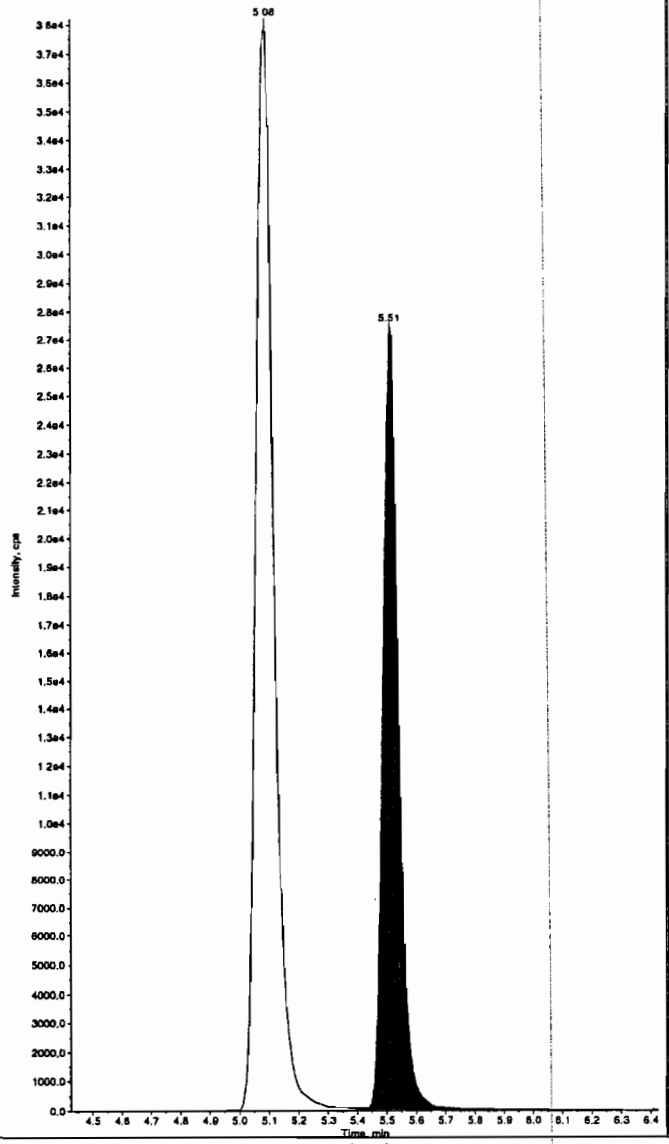

Sample Name: "WXX100316-27CRI" Sample ID: "[1]LER" File: "EXS03160136.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 7:38:28 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.38e+006 counts
Height: 344009.857 cps
Start Time: 10.8 min
End Time: 11.2 min

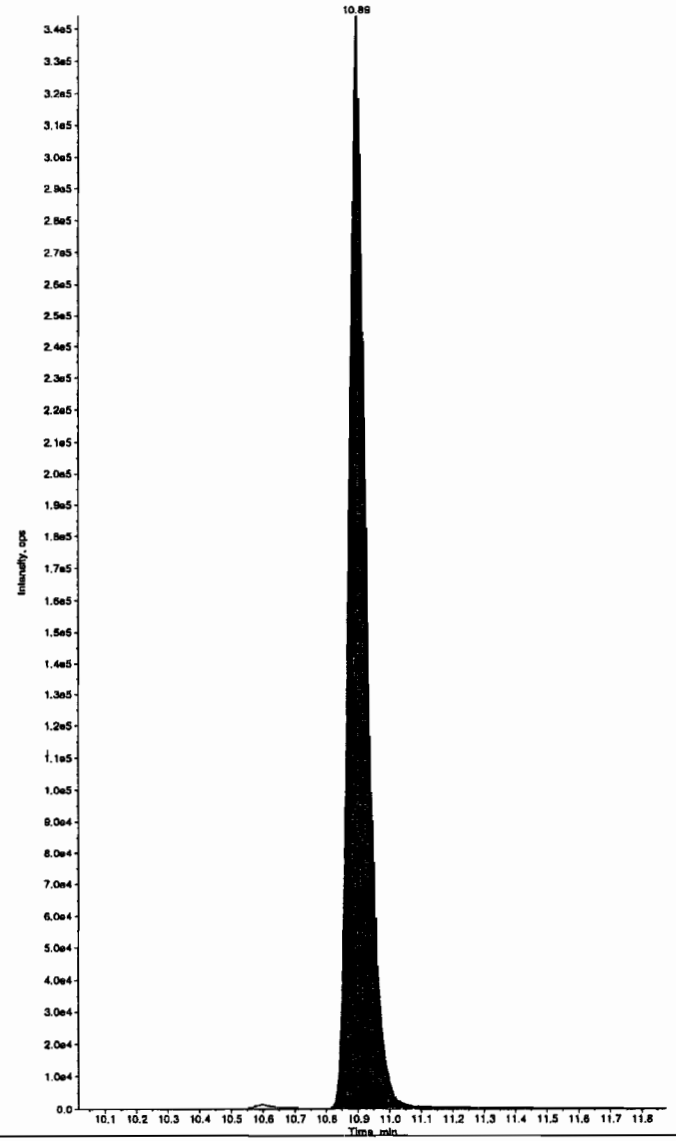

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1886

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03160142.wiff

Analysis Date: 17–MAR–10 21:12

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	466	93	
2,6–Diamino–4–nitrotoluene	500	492	98	
3,4–Dinitrotoluene	250	211	85	
3,5–Dinitroaniline	500	473	95	
TATB	500	499	100	
tris(o–cresyl) phosphate	500	514	103	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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KCR 3/19/10

mple Name: "WXX100317-26CCV" Sample ID: "[1]LER" File: "EXS03160142.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
entration:        500.     ng/mL
culated Conc:     499.     ng/mL
 Date:        3/17/2010
 Time:        9:12:44 PM

fied:             No
. Algorithm: IntelliQuan - IQA
 Peak Height:2500.00   cps
 Peak Width:    0.00   sec
thing Width:  3        points
indow:          30.0   sec
cted RT:         6.93  min
Relative RT:     No

 Type:         Valley
ntion Time:      6.96  min
:          8.42e+005   counts
ht:         196776.184  cps
t Time:          6.86  min
Time:            7.60  min
```

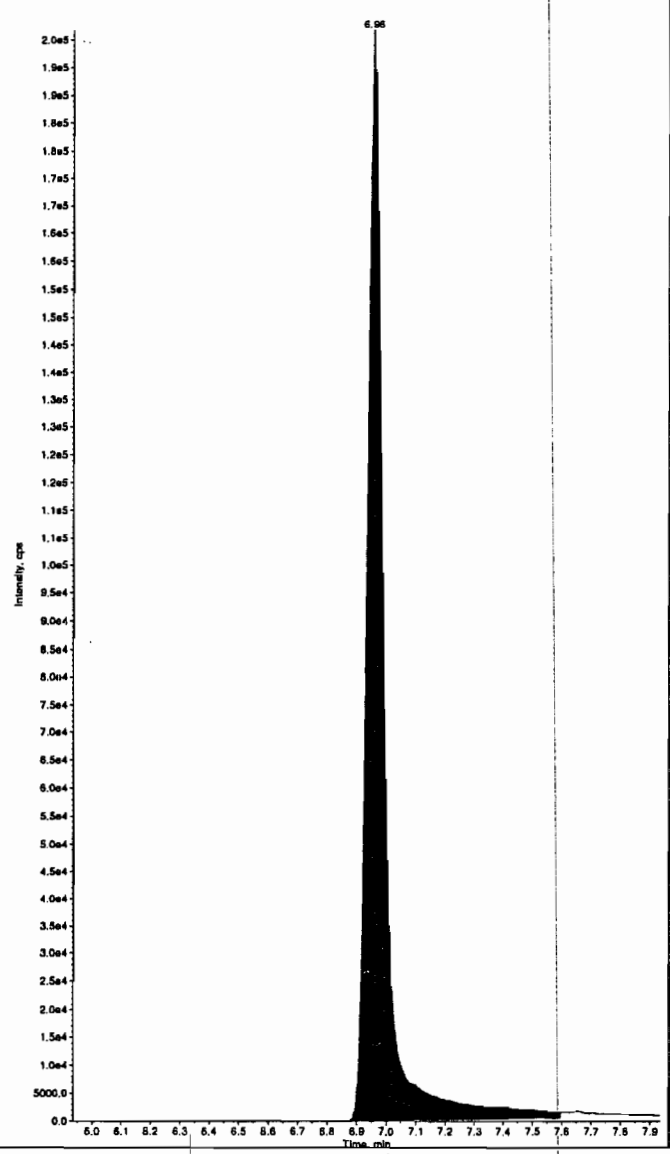

Sample Name: "WXX100317-26CCV" Sample ID: "[1]LER" File: "EXS03160142.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       500.     ng/mL
Calculated Conc:     473.     ng/mL
Acq. Date:        3/17/2010
Acq. Time:        9:12:44 PM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:          15.0   sec
Expected RT:         8.17  min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      8.20  min
Area:          4.19e+006   counts
Height:        1043227.905 cps
Start Time:          8.07  min
End Time:            8.31  min
```

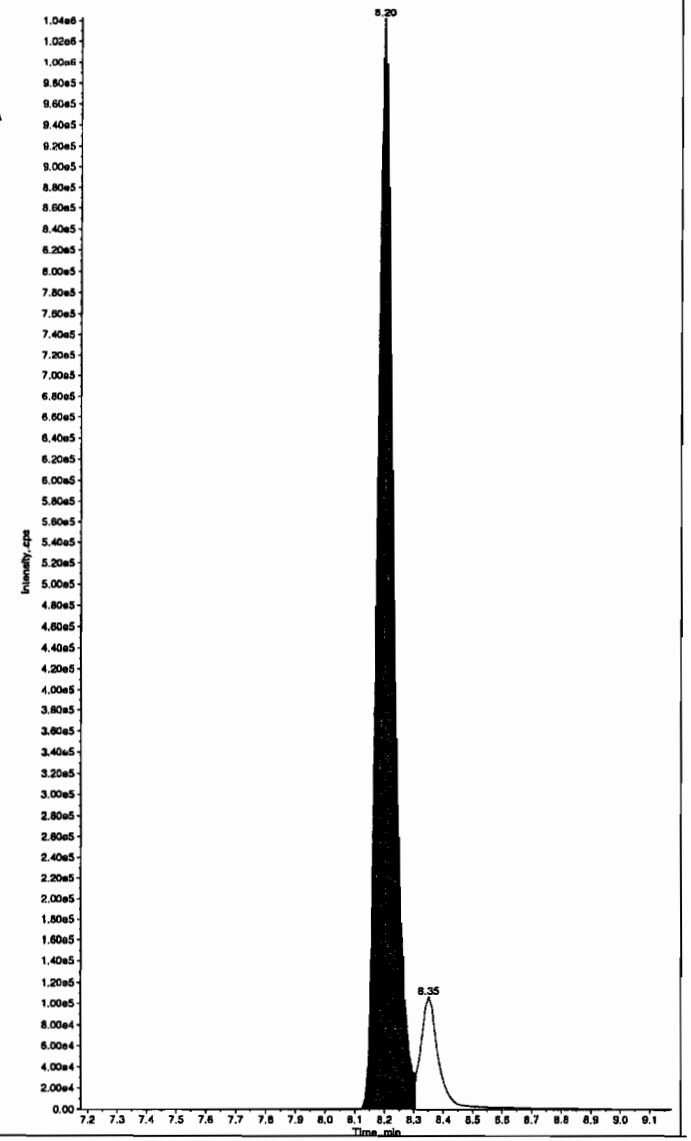

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100317-26CCV" Sample ID: "|1|LER" File: "EXS03160142.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
centration: 250. ng/mL
culated Conc: 211. ng/mL
. Date: 3/17/2010
. Time: 9:12:44 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.33 min
Relative RT: No

. Type: Valley
ention Time: 8.34 min
: 2.69e+006 counts
ght: 721553.589 cps
t Time: 8.28 min
Time: 8.54 min

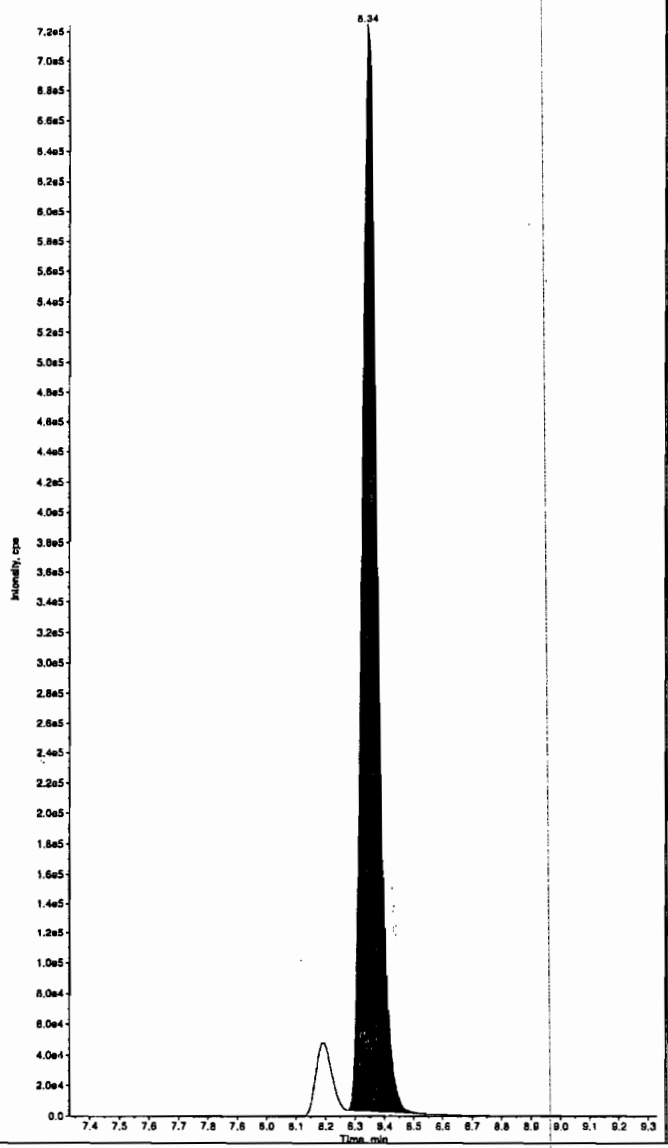

Sample Name: "WXX100317-26CCV" Sample ID: "|1|LER" File: "EXS03160142.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 492. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 9:12:44 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.96 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.98 min
Area: 7.96e+005 counts
Height: 195705.643 cps
Start Time: 4.88 min
End Time: 5.27 min

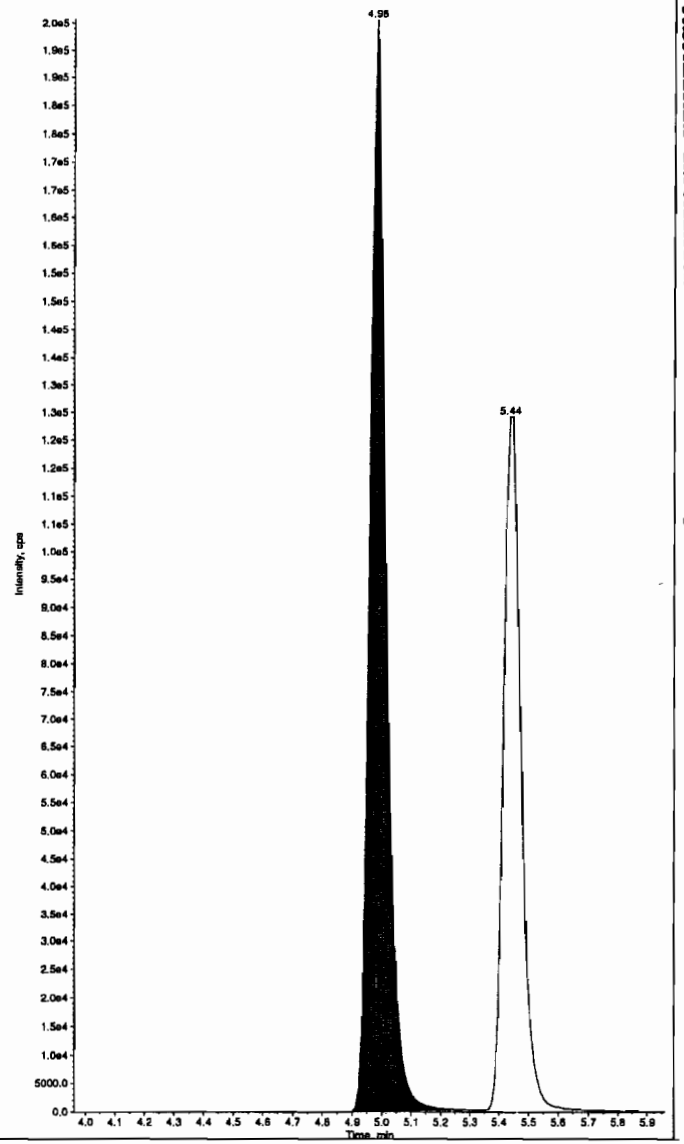

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100317-26CCV" Sample ID: "[1]LER" File: "EXS03160142.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
le Index:        1
le Type:         QC
entration:       500.    ng/mL
ulated Conc:     466.    ng/mL
 Date:        3/17/2010
 Time:        9:12:44 PM

fied:            No
. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00   cps
 Peak Width:    0.00   sec
thing Width:  3        points
indow:         30.0    sec
cted RT:        5.43   min
Relative RT:    No

 Type:         Valley
ntion Time:     5.44   min
:          5.11e+005   counts
ht:         124246.376  cps
t Time:         5.32   min
Time:           5.82   min
```

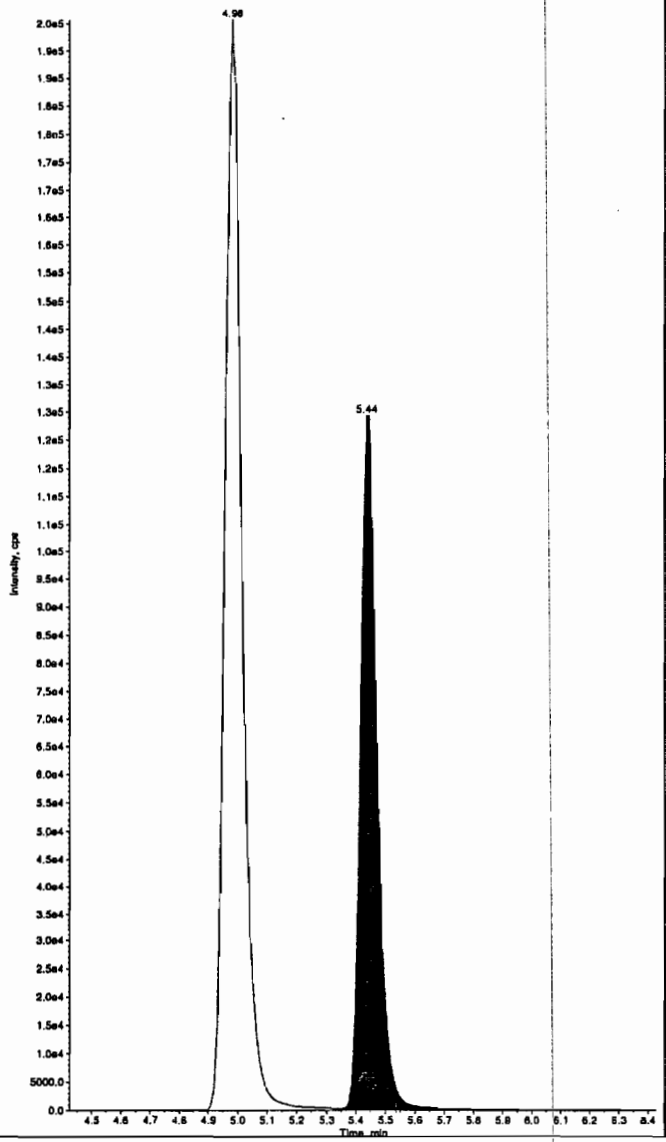

Sample Name: "WXX100317-26CCV" Sample ID: "[1]LER" File: "EXS03160142.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:       500.    ng/mL
Calculated Conc:     514.    ng/mL
Acq. Date:        3/17/2010
Acq. Time:        9:12:44 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:        10.9   min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.9   min
Area:          6.36e+006   counts
Height:        1606607.666  cps
Start Time:         10.8   min
End Time:           11.2   min
```

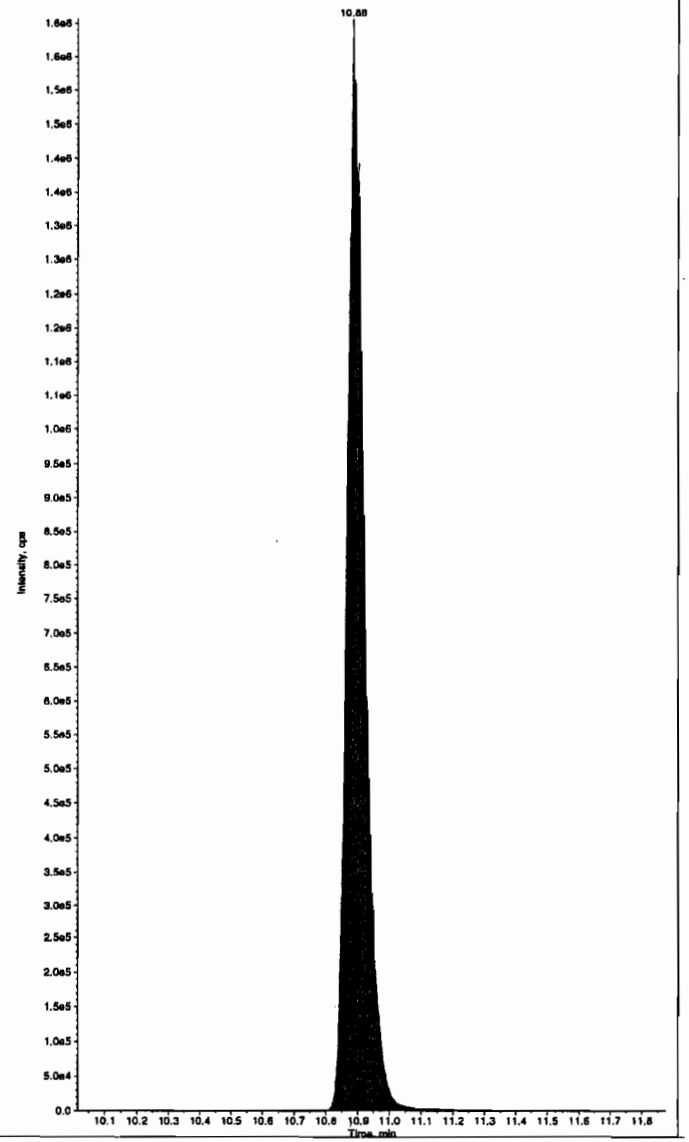

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1886

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03160144.wiff

Analysis Date: 17–MAR–10 21:44

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	91.5	92	
2,6–Diamino–4–nitrotoluene	100	95.7	96	
3,4–Dinitrotoluene	50	47	94	
3,5–Dinitroaniline	100	89.7	90	
TATB	100	100	100	
tris(o–cresyl) phosphate	100	104	104	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lee 3/19/10

ample Name: "WXX100317-27CRI" Sample ID: "|1|LER" File: "EXS03160144.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
centration: 100. ng/mL
culated Conc: 100. ng/mL
. Date: 3/17/2010
. Time: 9:44:08 PM

ified: No
:. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
cted RT: 6.93 min
Relative RT: No

Type: Valley
ention Time: 6.97 min
: 1.52e+005 counts
ht: 37428.635 cps
t Time: 6.86 min
Time: 7.34 min

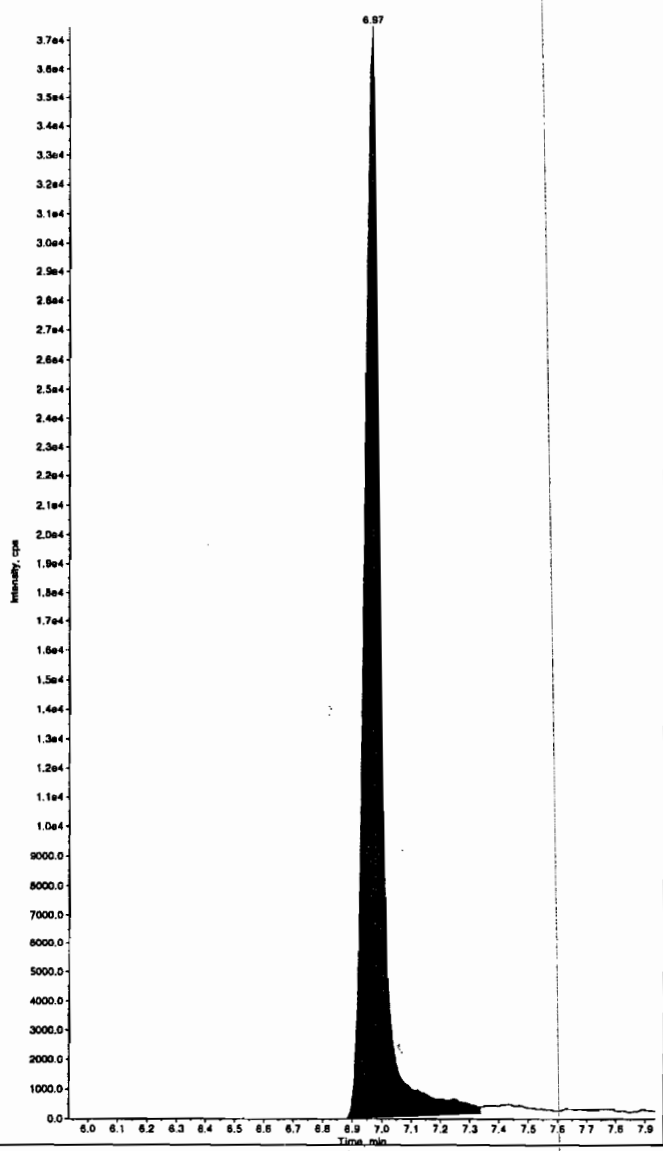

Sample Name: "WXX100317-27CRI" Sample ID: "|1|LER" File: "EXS03160144.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 89.7 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 9:44:08 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.20 min
Area: 9.00e+005 counts
Height: 222857.437 cps
Start Time: 8.09 min
End Time: 8.31 min

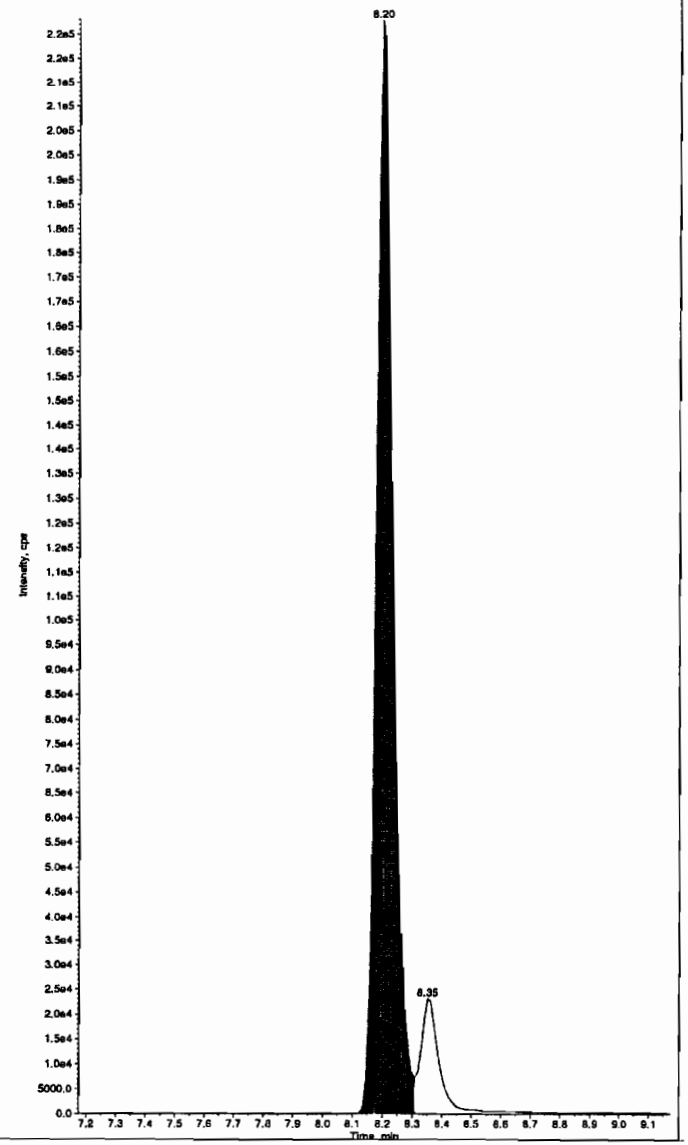

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100317-27CRI" Sample ID: "[1]LER" File: "EXS03160144.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 50.0 ng/mL
ulated Conc: 47.0 ng/mL
Date: 3/17/2010
Time: 9:44:08 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.33 min
Relative RT: No

Type: Valley
ation Time: 8.35 min
: 6.04e+005 counts
it: 166785.965 cps
: Time: 8.28 min
Time: 8.56 min

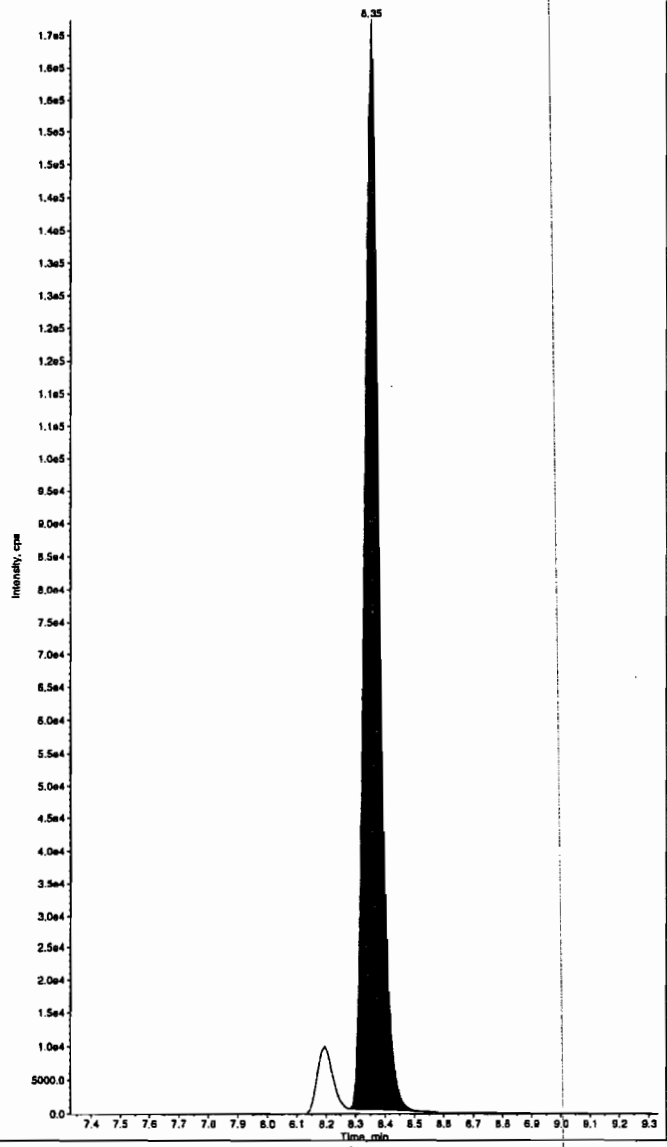

Sample Name: "WXX100317-27CRI" Sample ID: "[1]LER" File: "EXS03160144.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 95.7 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 9:44:08 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.96 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.99 min
Area: 1.65e+005 counts
Height: 39264.076 cps
Start Time: 4.88 min
End Time: 5.24 min

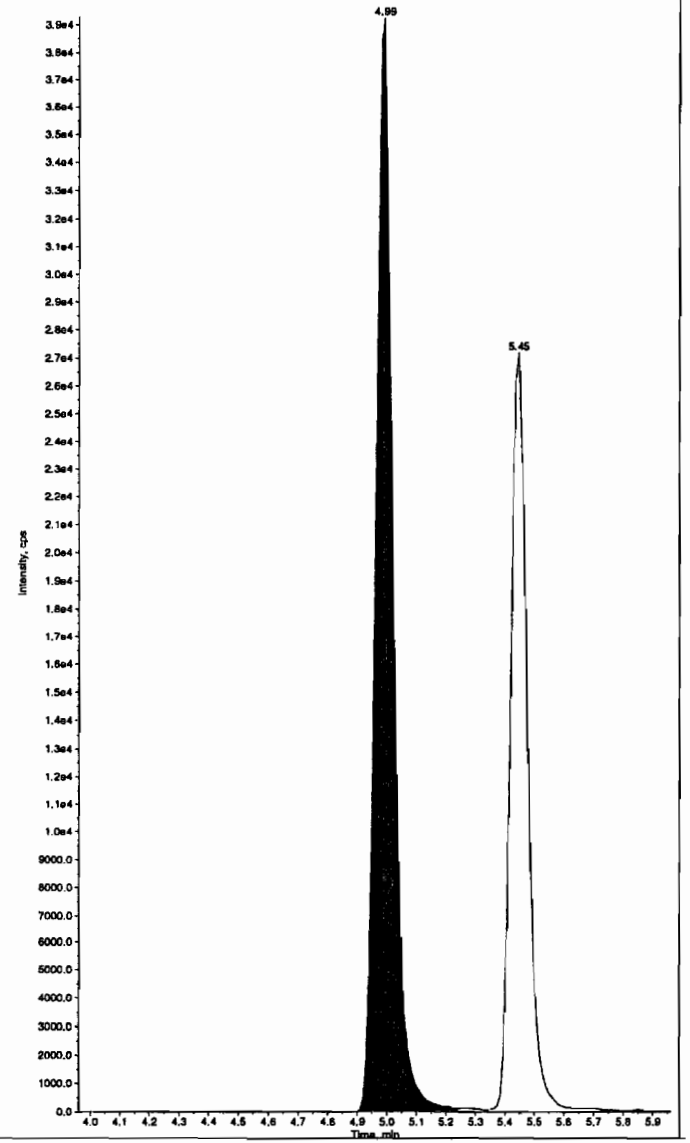

mple Name: "WXX100317-27CRI" Sample ID: "[1]LER" File: "EXS03160144.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 91.5 ng/mL
Date: 3/17/2010
Time: 9:44:08 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.43 min
Relative RT: No

Type: Valley
ntion Time: 5.45 min
: 1.06e+005 counts
ht: 27065.044 cps
: Time: 5.36 min
Time: 5.60 min

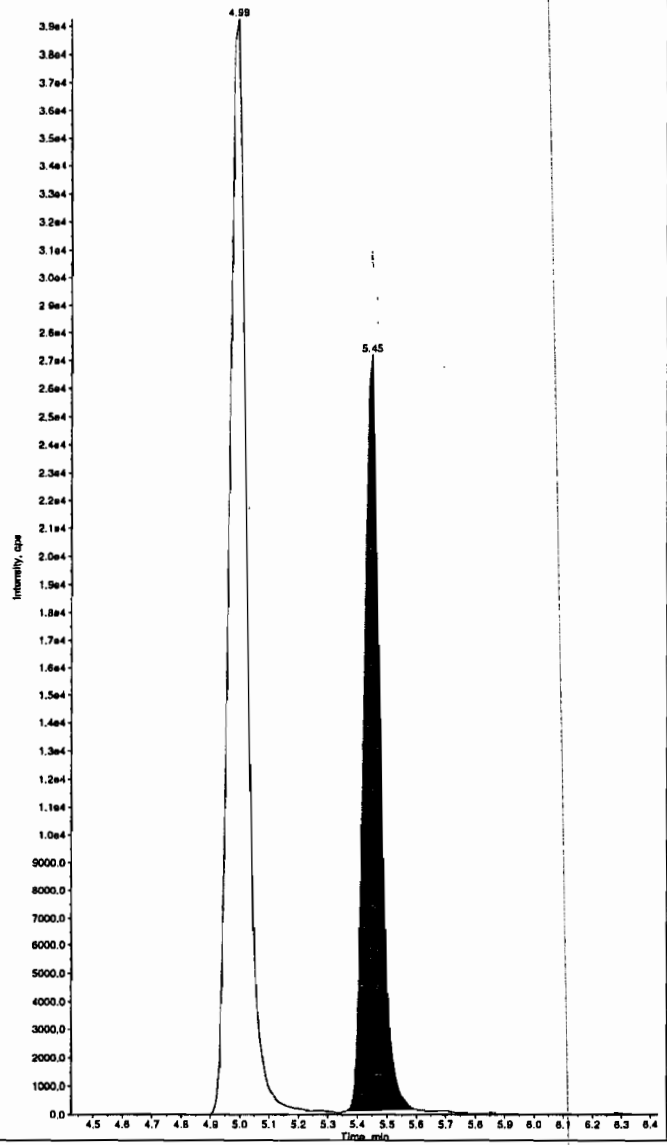

Sample Name: "WXX100317-27CRI" Sample ID: "[1]LER" File: "EXS03160144.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 9:44:08 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.40e+006 counts
Height: 360372.437 cps
Start Time: 10.8 min
End Time: 11.2 min

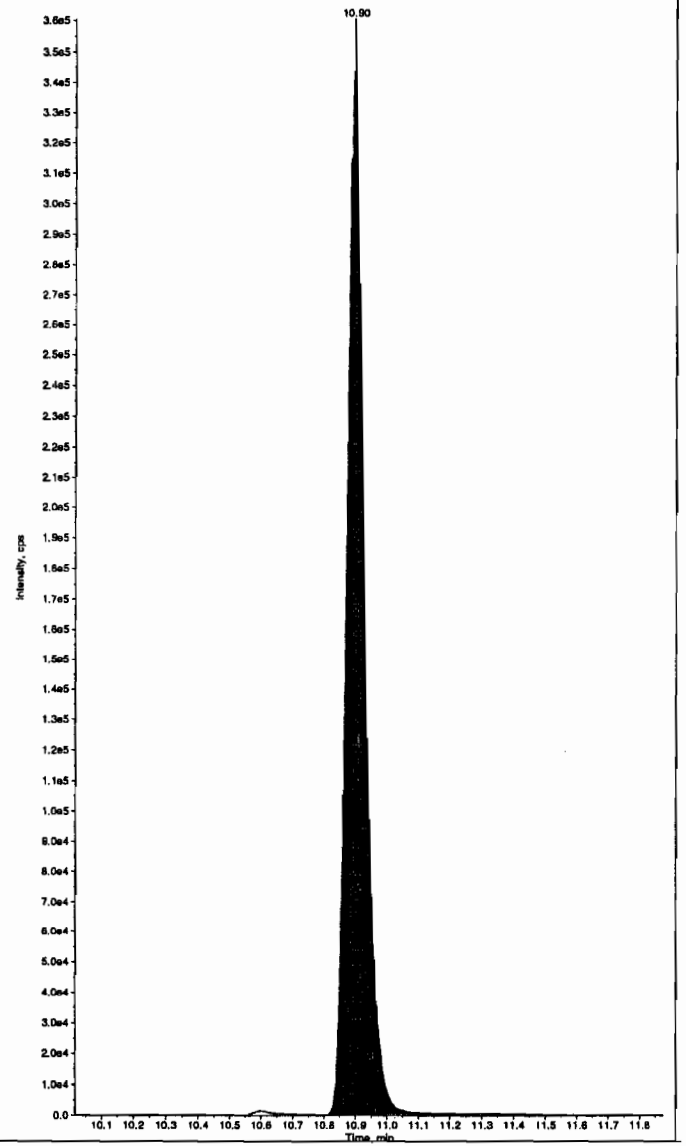

, SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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QUALITY CONTROL DATA

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 954940

Lab Code: GEL

GEL Job No (SDG) 10-1886

Matrix: GROUND WATER

GEL Sample ID: 1202047270

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 18-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 954940

Concentrated Extract Volume (mL) 5

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0322013.wiff

Date Analyzed: 22-MAR-10 20:49

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	U
121-14-2	2,4-Dinitrotoluene	0.325	U
121-82-4	RDX	0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	U
2691-41-0	HMX	0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	U
479-45-8	Tetryl	0.649	U
606-20-2	2,6-Dinitrotoluene	0.325	U
78-11-5	PETN	1.3	U
88-72-2	o-Nitrotoluene	0.325	U
98-95-3	Nitrobenzene	0.325	U
99-08-1	m-Nitrotoluene	0.325	U
99-35-4	1,3,5-Trinitrobenzene	0.325	U
99-65-0	m-Dinitrobenzene	0.325	U
99-99-0	p-Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322013.wiff	**Acquisition Date**	3/22/2010 8:49:40 PM
Sample Name	1202047270	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954941|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

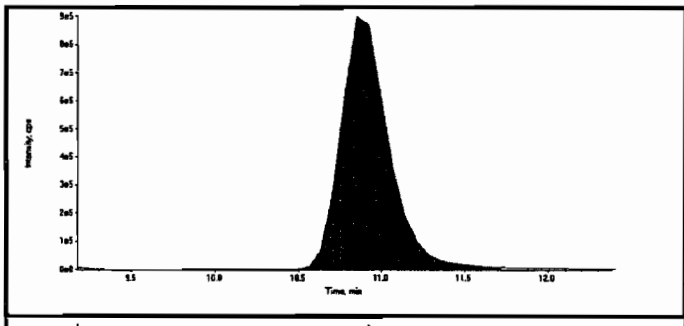

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	18200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

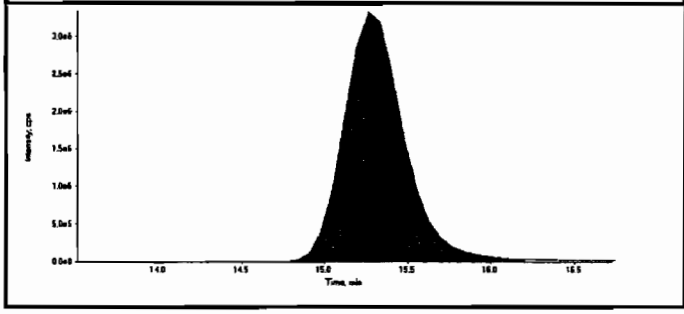

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.30
Area Counts:	84300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

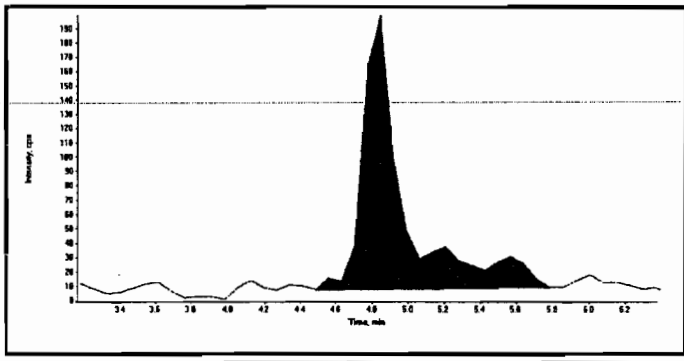

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.85
Area Counts:	3.09e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

HMW 03/28/10

Lan 3/28/10

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Data File	EXP0322013.wiff	**Acquisition Date**	3/22/2010 8:49:40 PM
Sample Name	1202047270	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954941|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

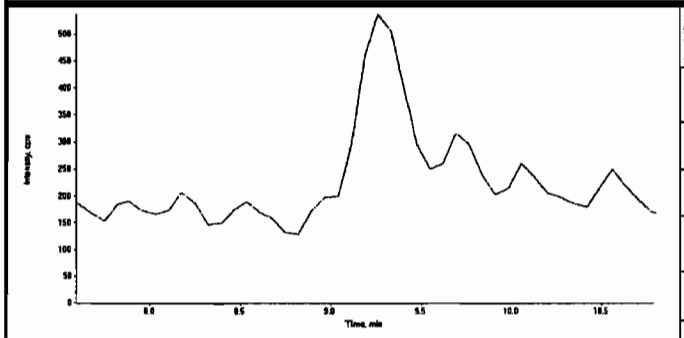

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

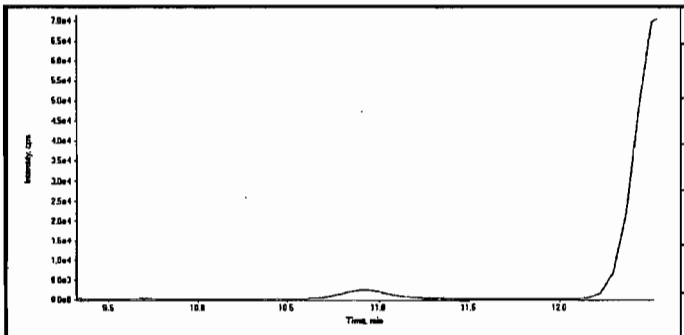

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

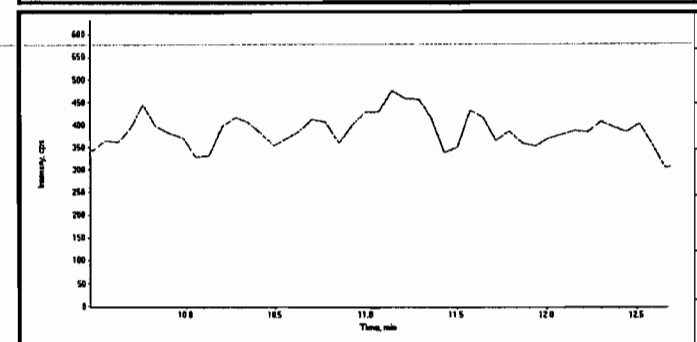

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

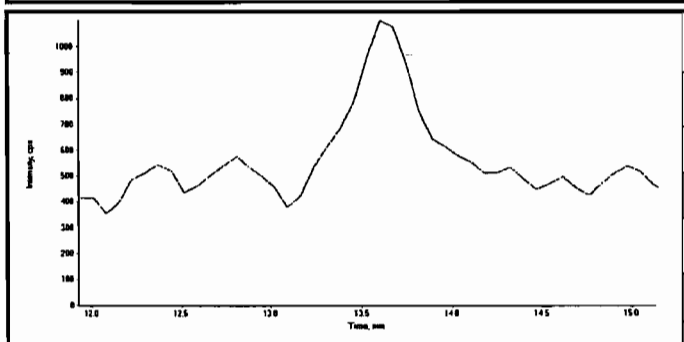

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322013.wiff	**Acquisition Date**	3/22/2010 8:49:40 PM
Sample Name	1202047270	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954941|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

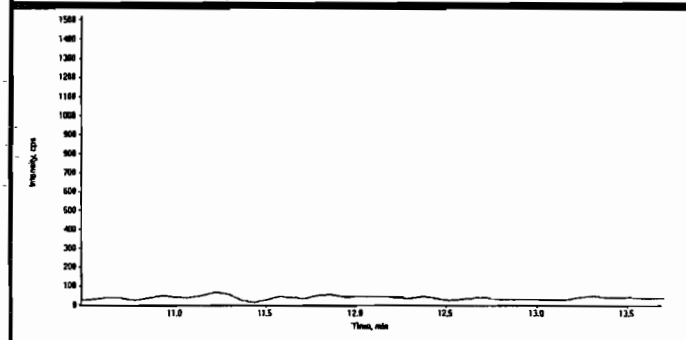

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

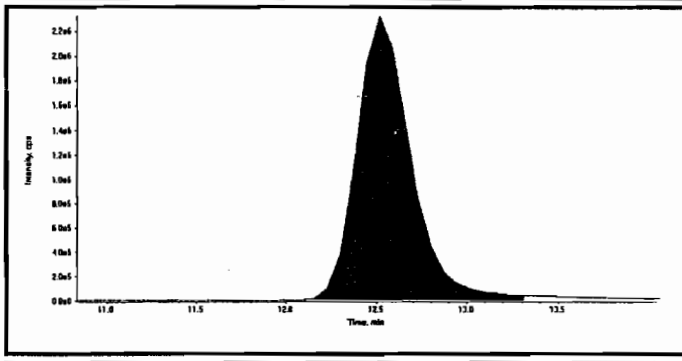

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.5
Area Counts:	4.88e+007
Manual Modification	No
Amount:	2.91 224. (ng/mL)
% Accuracy:	N/A

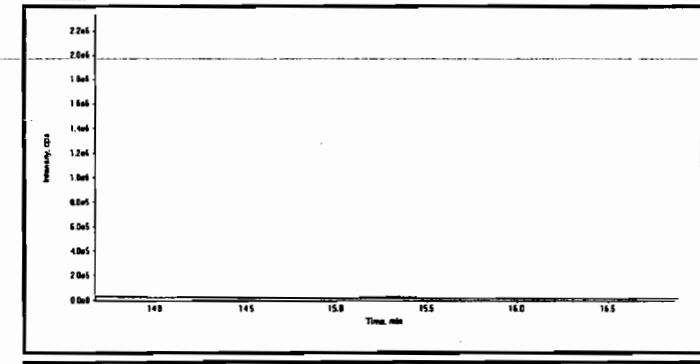

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	5.62e+005
Manual Modification	No
Amount:	3.43 (ng/mL)
% Accuracy:	N/A

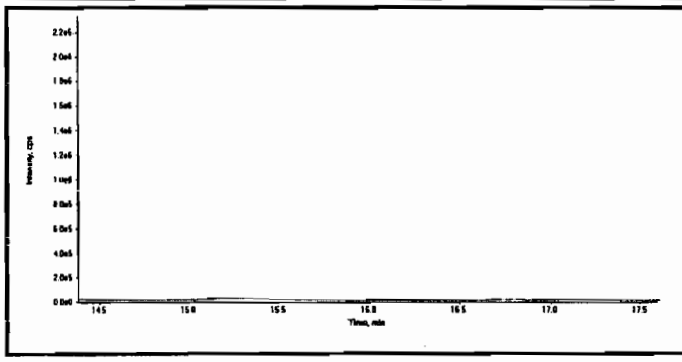

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322013.wiff	**Acquisition Date**	3/22/2010 8:49:40 PM
Sample Name	1202047270	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954941|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

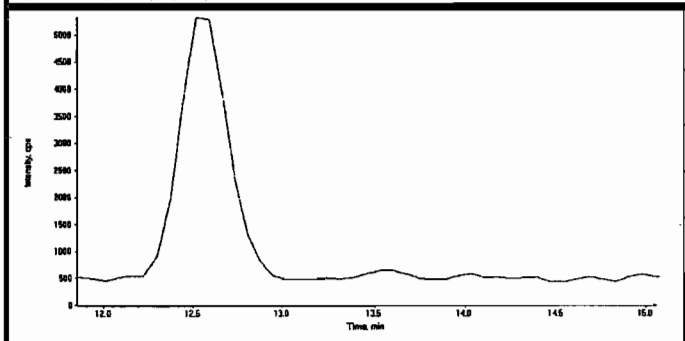

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

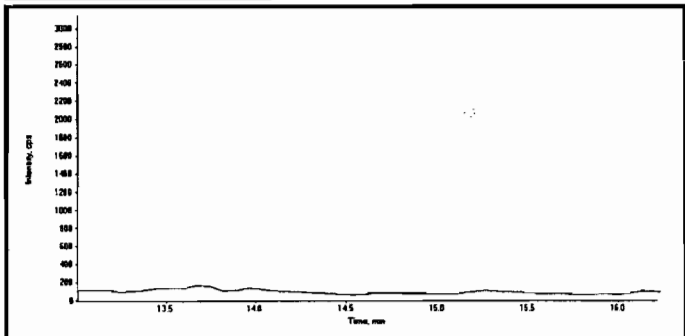

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

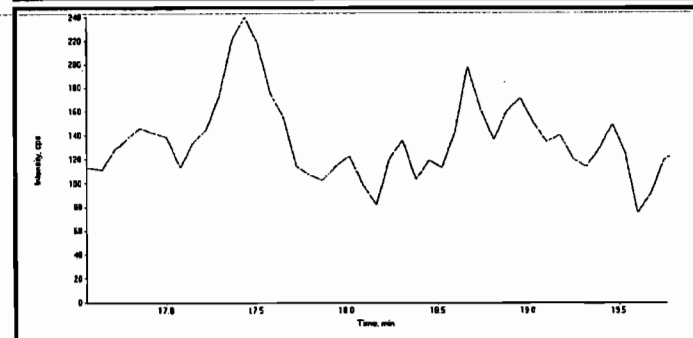

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

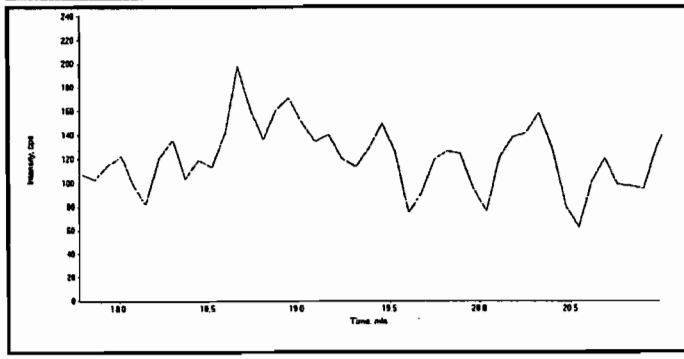

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322013.wiff	**Acquisition Date**	3/22/2010 8:49:40 PM
Sample Name	1202047270	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954941|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

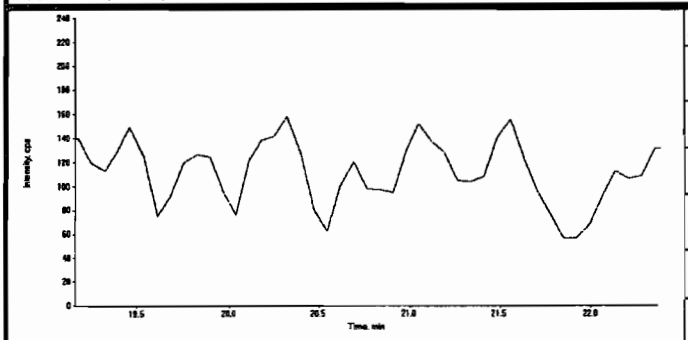

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

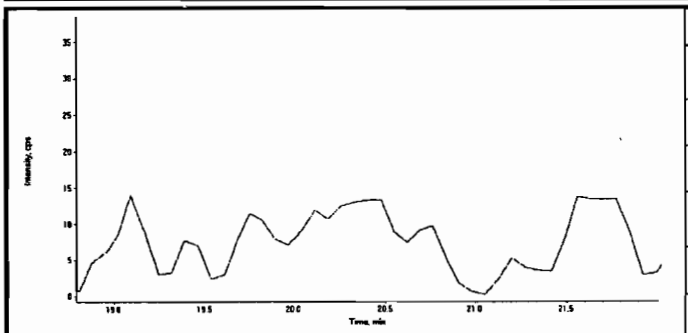

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 954940

Lab Code: GEL

GEL Job No (SDG) 10-1886

Matrix: GROUND WATER

GEL Sample ID: 1202047270

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 18-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 954940

Concentrated Extract Volume (mL) 5

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03160137.wiff

Date Analyzed: 17-MAR-10 19:54

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 3/19/10

mple Name: "1202047270" Sample ID: "954941|2|LER" File: "EXS03160137.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCX83212L" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 3/17/2010
Time: 7:54:10 PM

fied: No

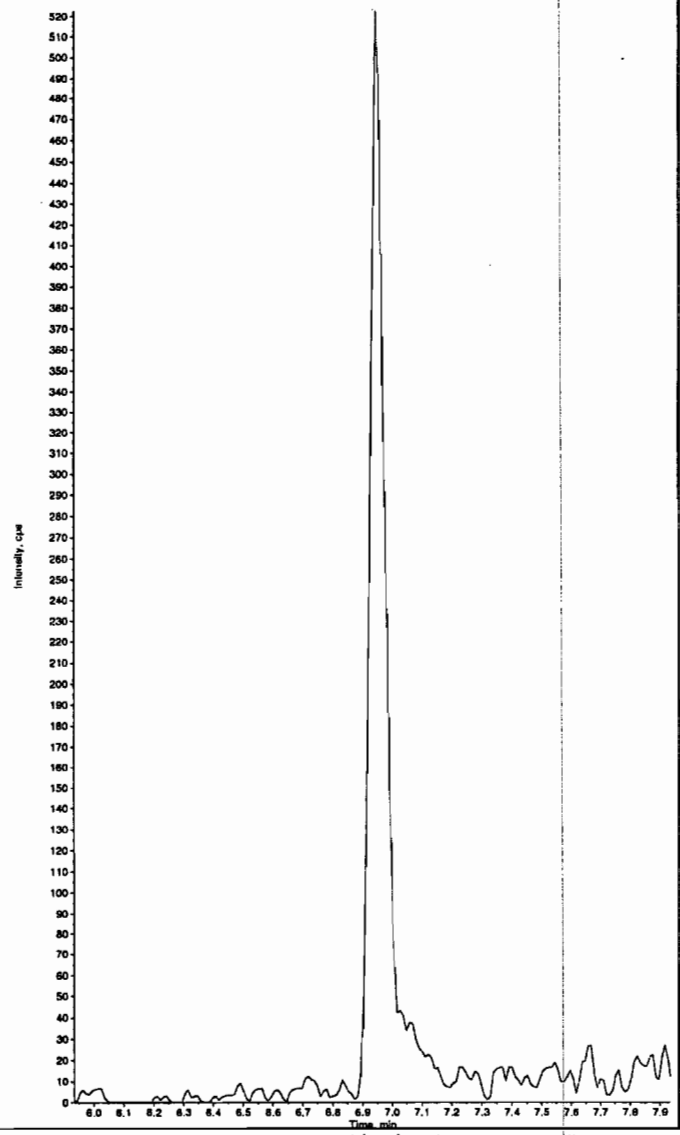

Sample Name: "1202047270" Sample ID: "954941|2|LER" File: "EXS03160137.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 7:54:10 PM

Modified: No

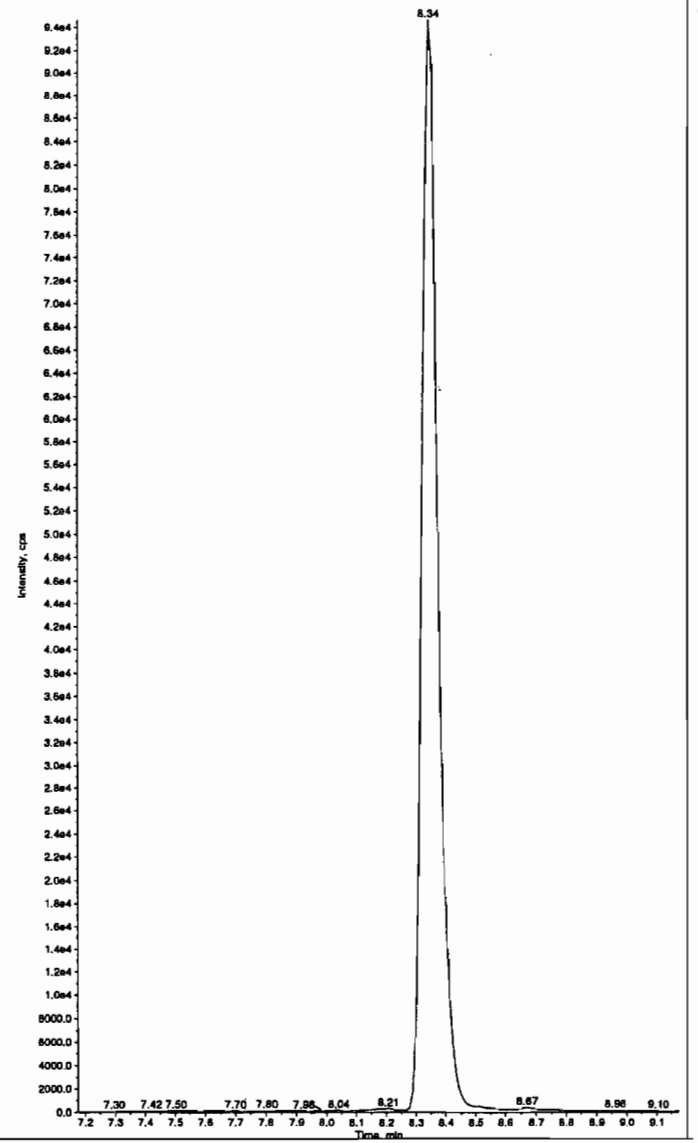

Hnm 03/22/10

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "1202047270" Sample ID: "954941|2|LER" File: "EXS03160137.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCX83212L" Annotation: ""

le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 221. ng/mL
Date: 3/17/2010
Time: 7:54:10 PM

2.87

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.33 min
Relative RT: No

Type: Valley
ation Time: 8.34 min
: 2.81e+006 counts
at: 747678.772 cps
t Time: 8.22 min
Time: 8.74 min

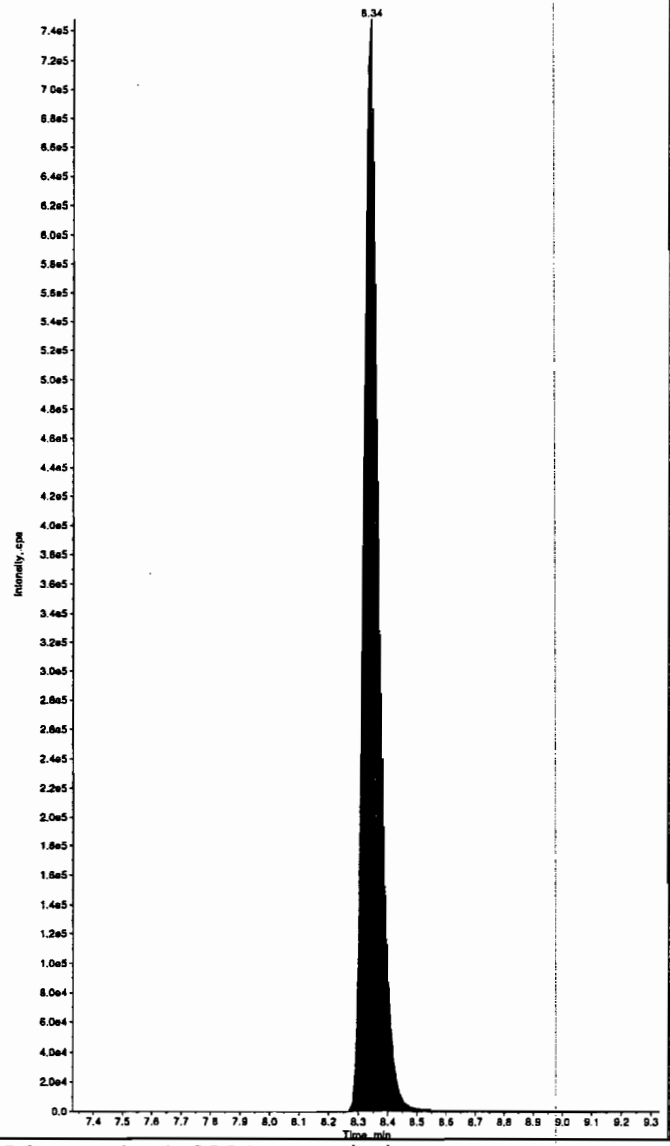

Sample Name: "1202047270" Sample ID: "954941|2|LER" File: "EXS03160137.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "156.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/17/2010
Acq. Time: 7:54:10 PM

Modified: No

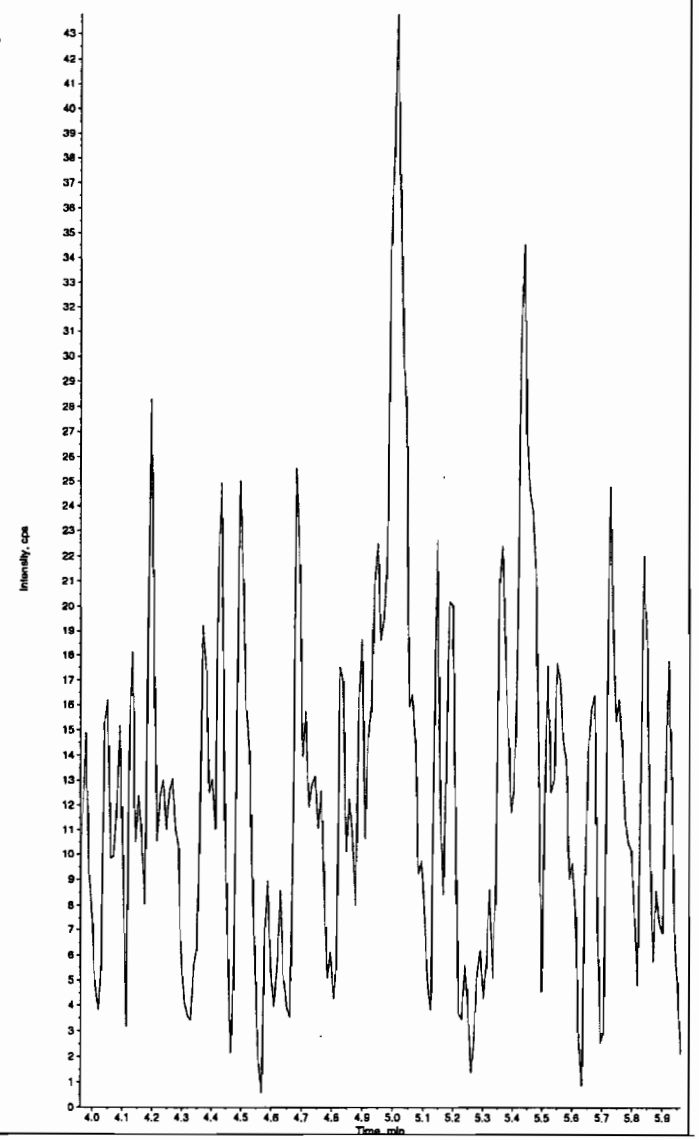

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mple Name: "1202047270" Sample ID: "954941|2|LER" File: "EXS03160137.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCX83212L" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
Date: 3/17/2010
Time: 7:54:10 PM

fied: No

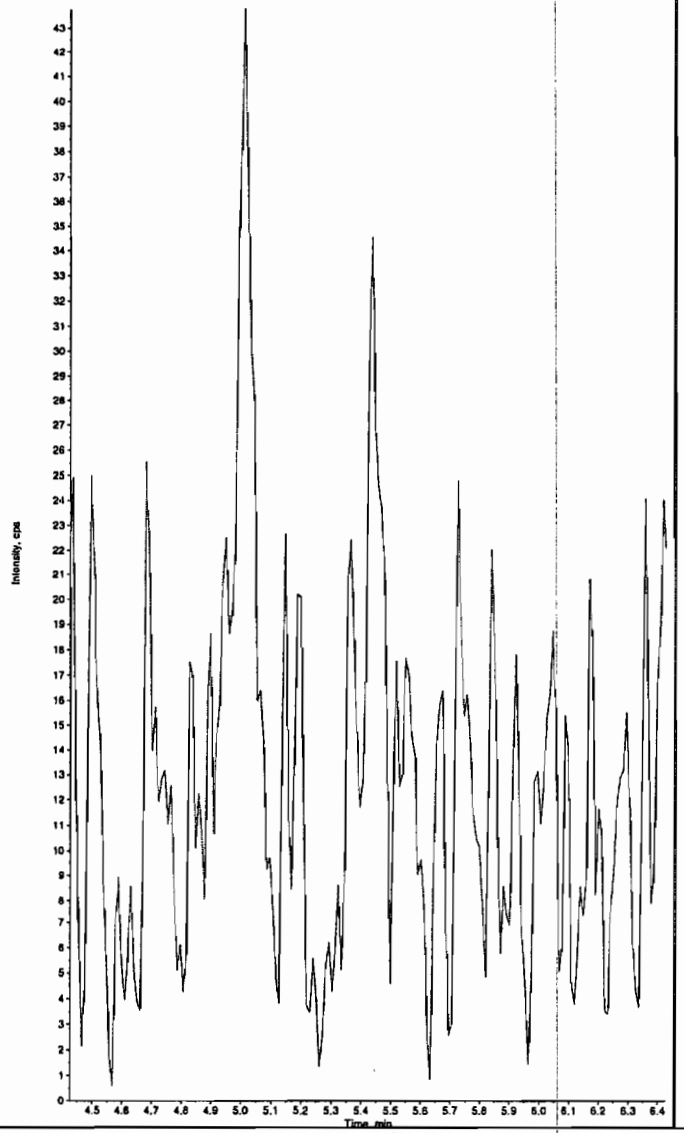

Sample Name: "1202047270" Sample ID: "954941|2|LER" File: "EXS03160137.wiff"
Peak Name: "tris(o-crasyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	No Intercept
Acq. Date:	3/17/2010
Acq. Time:	7:54:10 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.9 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.9 min
Area:	4.67e+004 counts
Height:	11491.824 cps
Start Time:	10.8 min
End Time:	11.1 min

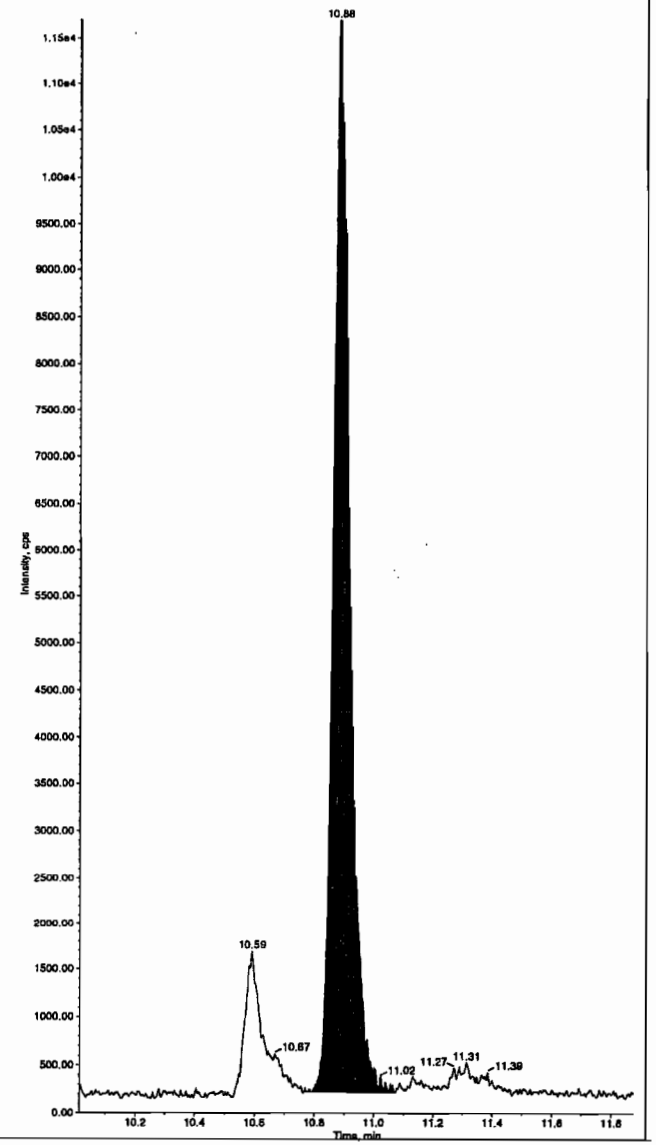

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 954940

Lab Code: GEL

GEL Job No (SDG) 10–1886

Matrix: GROUND WATER

GEL Sample ID: 1202047271

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 18–FEB–10

Extraction Type Sol Exchange

Extraction Batch ID: 954940

Concentrated Extract Volume (mL) 5

Date Extracted: 19–FEB–10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0322014.wiff

Date Analyzed: 22–MAR–10 21:16

Units: ug/L

Cas No.	Compound	Concentration*	Q
118–96–7	2,4,6–Trinitrotoluene	5.9	
121–14–2	2,4–Dinitrotoluene	6.19	
121–82–4	RDX	6.3	
19406–51–0	4–Amino–2,6–dinitrotoluene	6.19	
2691–41–0	HMX	4.92	
35572–78–2	2–Amino–4,6–dinitrotoluene	6.1	
479–45–8	Tetryl	5.7	
606–20–2	2,6–Dinitrotoluene	5.62	
78–11–5	PETN	6.74	
88–72–2	o–Nitrotoluene	5.55	
98–95–3	Nitrobenzene	6.25	
99–08–1	m–Nitrotoluene	5.65	
99–35–4	1,3,5–Trinitrobenzene	5.51	
99–65–0	m–Dinitrobenzene	6.06	
99–99–0	p–Nitrotoluene	5.23	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322014.wiff	**Acquisition Date**	3/22/2010 9:16:02 PM
Sample Name	1202047271	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954941|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

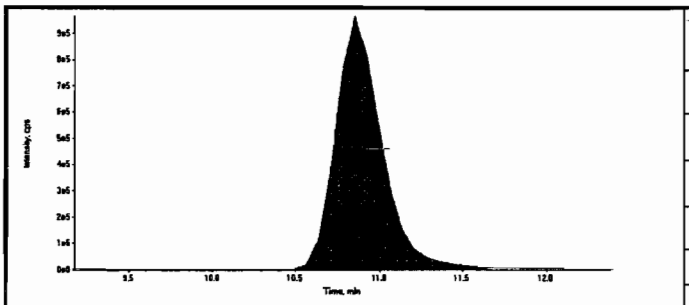

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	18700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

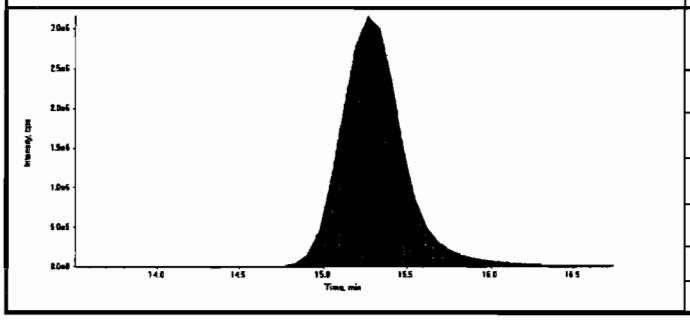

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.30
Area Counts:	83100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

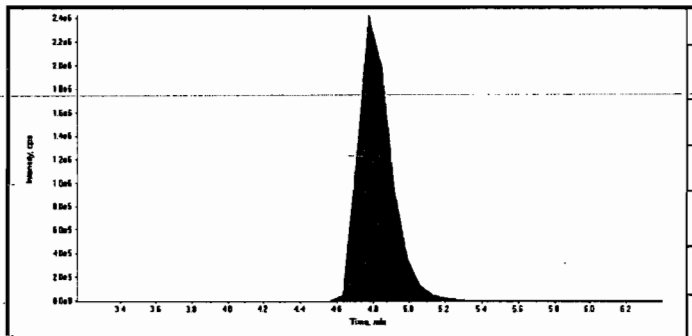

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	3.11e+007
Manual Modification	No
Amount:	379. (ng/mL)
% Accuracy:	N/A

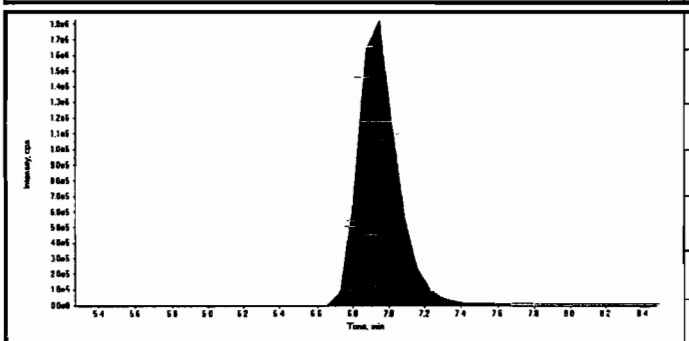

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.94
Area Counts:	2.77e+007
Manual Modification	No
Amount:	485. (ng/mL)
% Accuracy:	N/A

Ran 3/28/10

HMM 03/28/10

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Data File	EXP0322014.wiff	**Acquisition Date**	3/22/2010 9:16:02 PM
Sample Name	1202047271	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954941|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

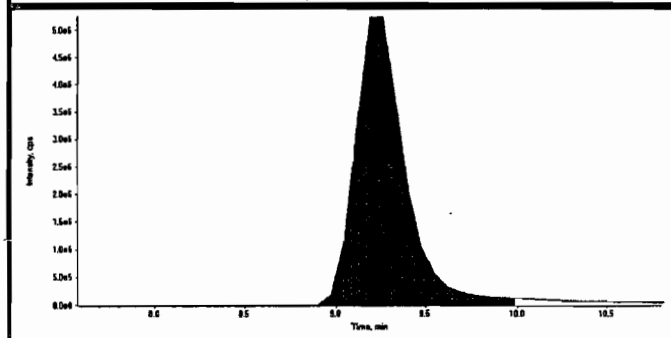

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.26
Area Counts:	1.03e+008
Manual Modification	No
Amount:	424. (ng/mL)
% Accuracy:	N/A

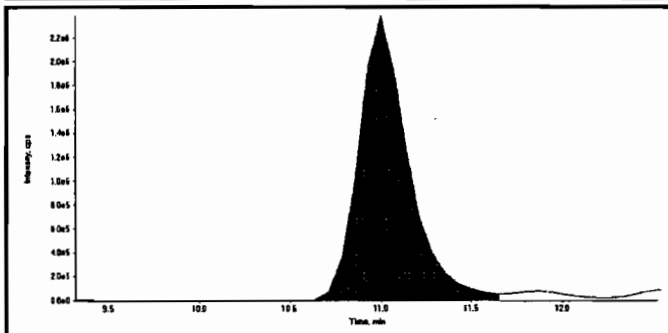

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	11.0
Area Counts:	4.64e+007
Manual Modification	No
Amount:	467. (ng/mL)
% Accuracy:	N/A

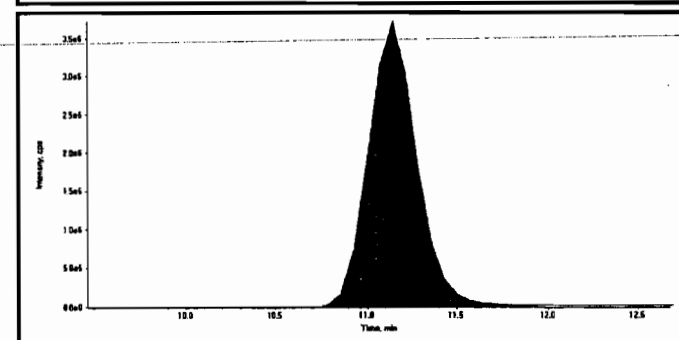

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.1
Area Counts:	7.02e+007
Manual Modification	No
Amount:	439. (ng/mL)
% Accuracy:	N/A

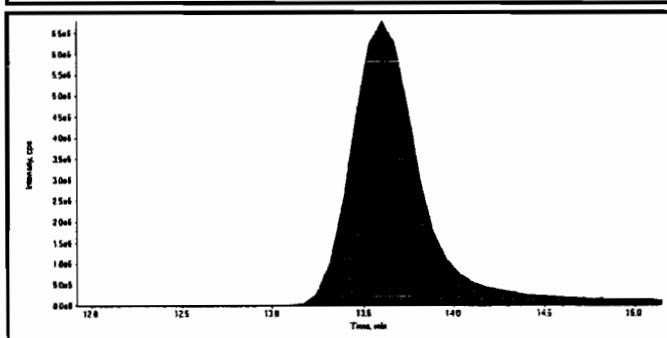

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	1.96e+008
Manual Modification	No
Amount:	454. (ng/mL)
% Accuracy:	N/A

Before Run 3/28/10

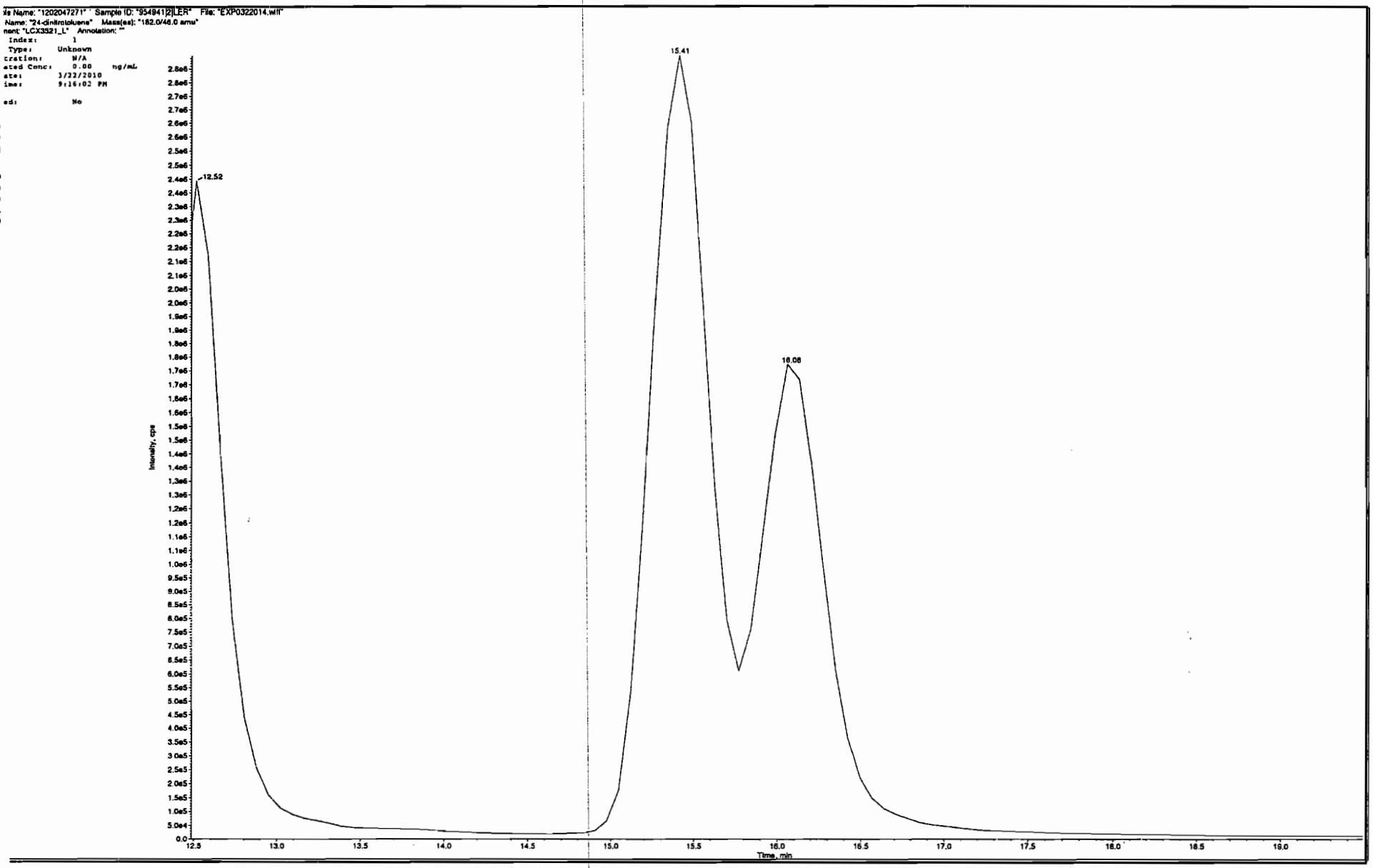

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322014.wiff	**Acquisition Date**	3/22/2010 9:16:02 PM
Sample Name	1202047271	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954941|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

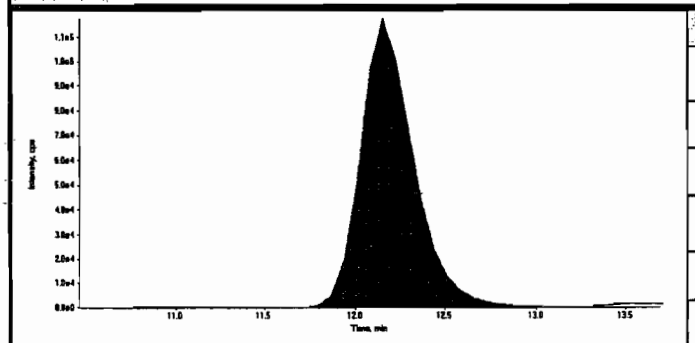

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	2.43e+006
Manual Modification	No
Amount:	481. (ng/mL)
% Accuracy:	N/A

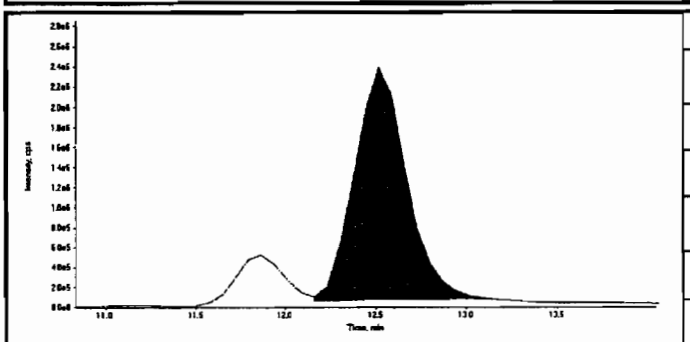

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.5
Area Counts:	4.79e+007
Manual Modification	No
Amount:	2.90 223. (ng/mL)
% Accuracy:	N/A

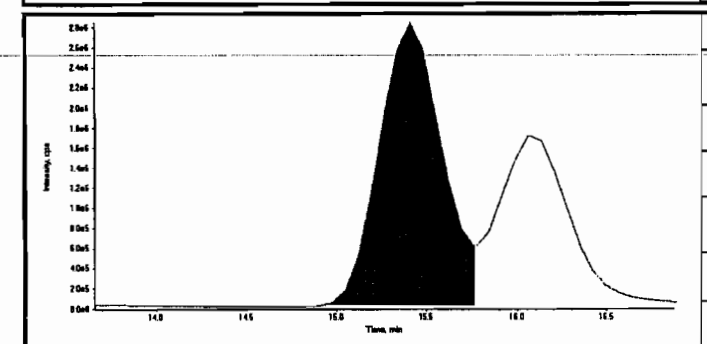

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.4
Area Counts:	7.00e+007
Manual Modification	No
Amount:	433. (ng/mL)
% Accuracy:	N/A

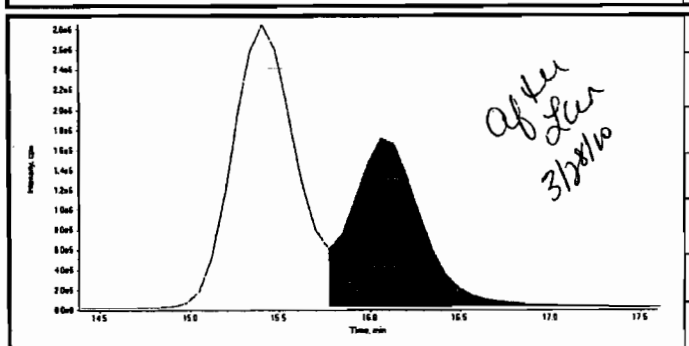

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	16.1
Area Counts:	4.64e+007
Manual Modification	Yes
Amount:	477. (ng/mL)
% Accuracy:	N/A

Before Lan 3/28/10

le Name: "1202047271" Sample ID: "954941[2]LER" File: "EXP0322014.wiff"
Name: "2-Amino-4-dinitrotoluene" Mass(es): "197.0/180.0 amu"
nent: "LCX3521_L" Annotation: ""

Index:	1	
Type:	Unknown	
tration:	N/A	
ated Conc:	731.	ng/mL
ate:	3/22/2010	
ime:	9:16:02 PM	
ed:	No	
Algorithm:	IntelliQuan - IQA	
eak Height:	1000.00	cps
eak Width:	0.00	sec
ing Width:	3	points
dow:	30.0	sec
ed RT:	14.6	min
lative RT:	No	
ype:	Valley	
ion Time:	14.8	min
	4.05e+006	counts
	1.25e+005	cps
Time:	14.4	min
e:	15.5	min

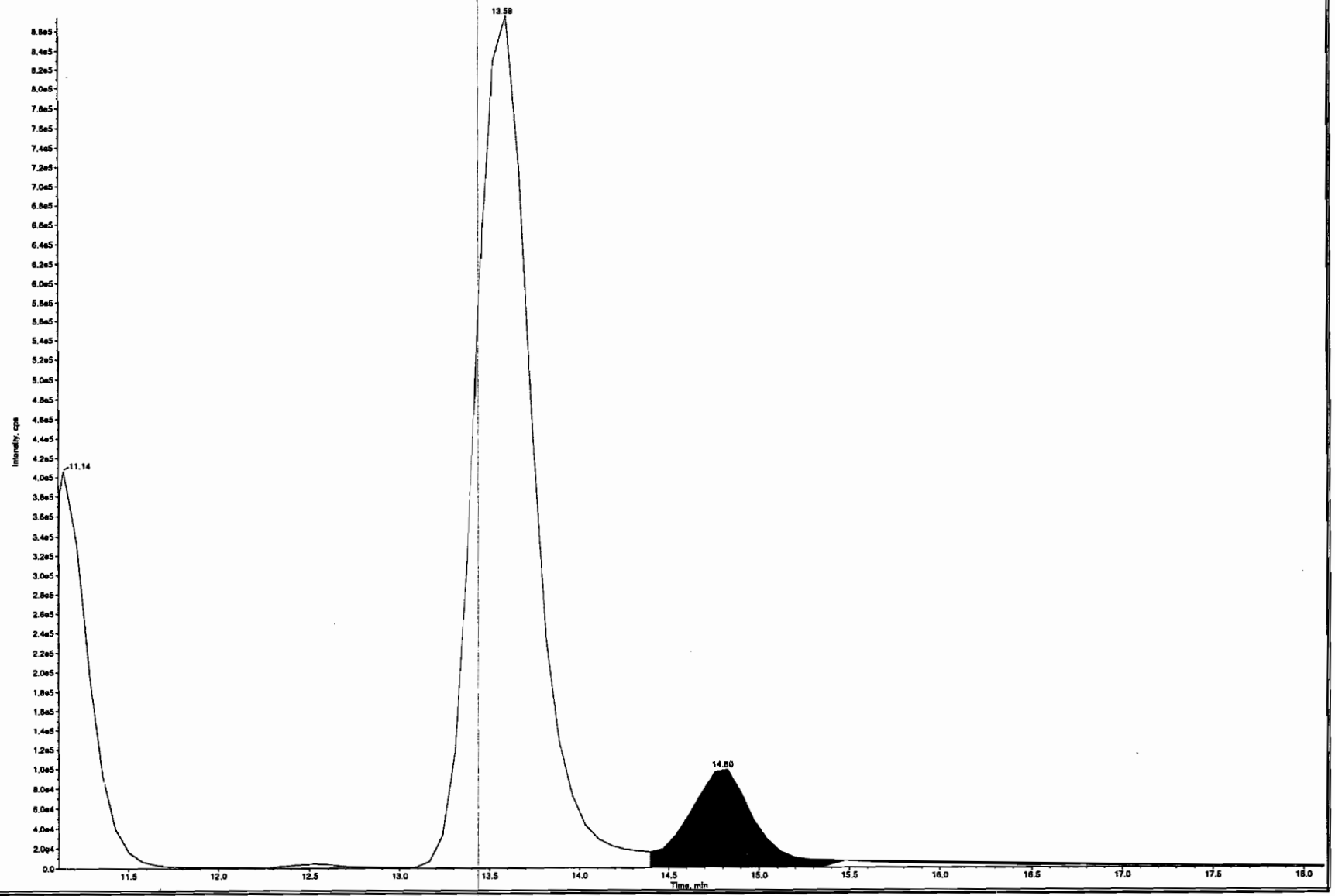

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322014.wiff	**Acquisition Date**	3/22/2010 9:16:02 PM
Sample Name	1202047271	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954941|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

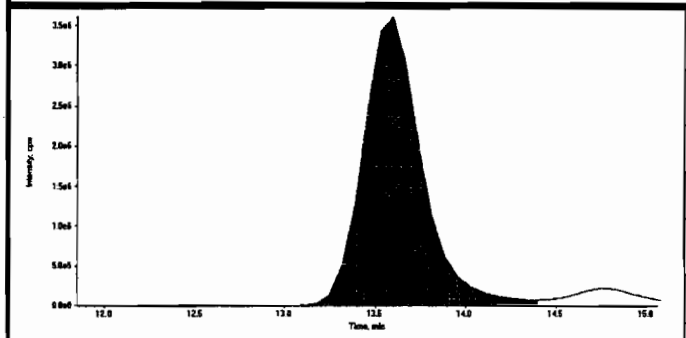

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	8.37e+007
Manual Modification	No
Amount:	477. (ng/mL)
% Accuracy:	N/A

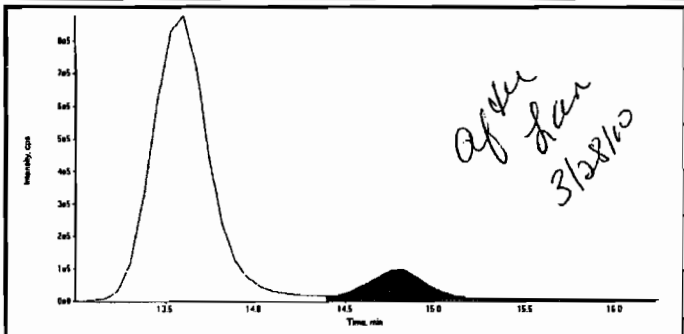

after Lan 3/28/10

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.8
Area Counts:	2.60e+006
Manual Modification	Yes
Amount:	470. (ng/mL)
% Accuracy:	N/A

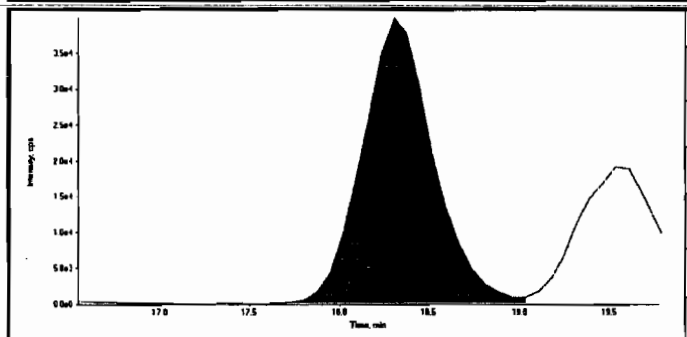

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.3
Area Counts:	1.11e+006
Manual Modification	No
Amount:	427. (ng/mL)
% Accuracy:	N/A

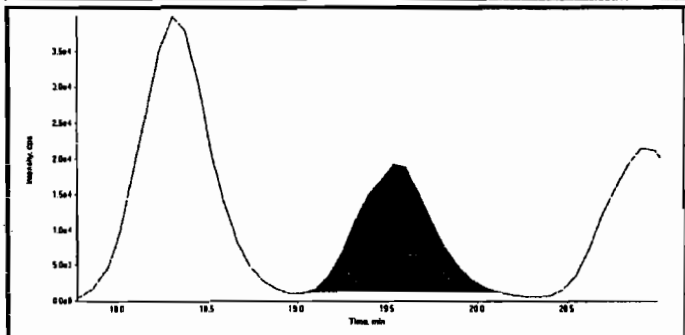

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.5
Area Counts:	5.23e+005
Manual Modification	No
Amount:	403. (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322014.wiff	**Acquisition Date**	3/22/2010 9:16:02 PM
Sample Name	1202047271	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954941|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

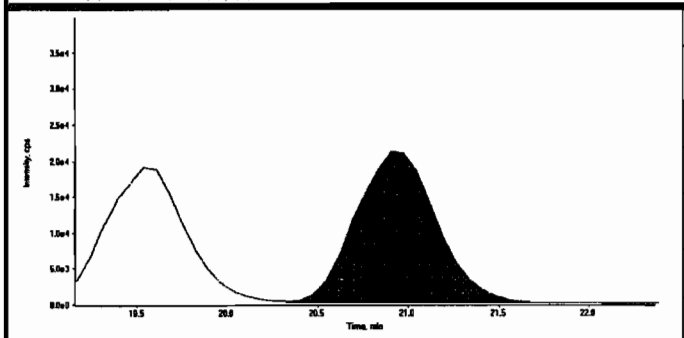

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.9
Area Counts:	6.70e+005
Manual Modification	No
Amount:	435. (ng/mL)
% Accuracy:	N/A

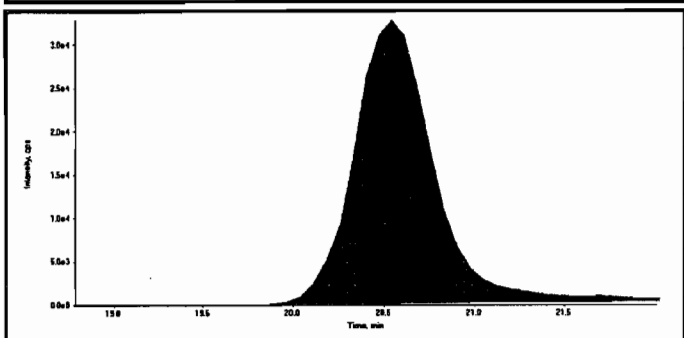

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.5
Area Counts:	1.03e+006
Manual Modification	No
Amount:	519. (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 954940

Lab Code: GEL

GEL Job No (SDG) 10–1886

Matrix: GROUND WATER

GEL Sample ID: 1202047271

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 18–FEB–10

Extraction Type Sol Exchange

Extraction Batch ID: 954940

Concentrated Extract Volume (mL) 5

Date Extracted: 19–FEB–10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03160138.wiff

Date Analyzed: 17–MAR–10 20:09

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058–38–6	TATB	5.36	
59229–75–3	2,6–Diamino–4–nitrotoluene	5.58	
618–87–1	3,5–Dinitroaniline	5.3	
6629–29–4	2,4–Diamino–6–nitrotoluene	4.94	
78–30–8	tris(o–cresyl) phosphate	2.43	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dan 3/19/10

nple Name: "1202047271" Sample ID: "954941|2|LER" File: "EXS03160138.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCX83212L" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 413. ng/mL
Date: 3/17/2010
Time: 8:09:57 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.93 min
Relative RT: No

Type: Valley
ntion Time: 6.96 min
: 6.91e+005 counts
ht: 155604.294 cps
t Time: 6.84 min
Time: 7.94 min

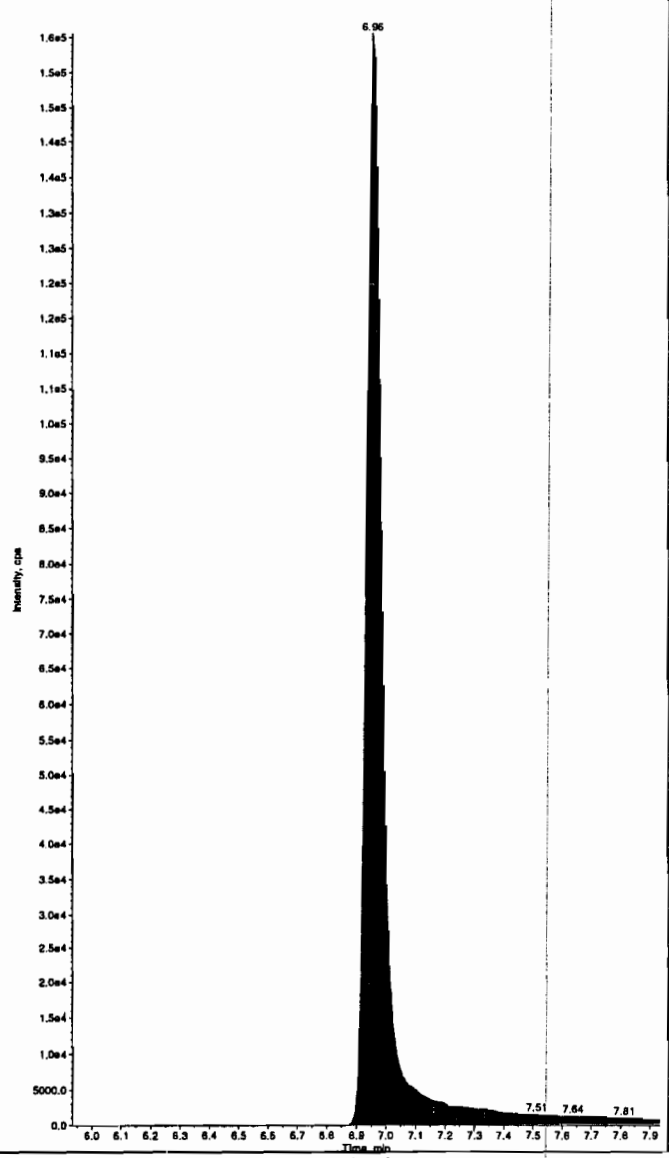

Sample Name: "1202047271" Sample ID: "954941|2|LER" File: "EXS03160138.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 408. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 8:09:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.20 min
Area: 3.65e+006 counts
Height: 957630.371 cps
Start Time: 8.13 min
End Time: 8.31 min

Hmm 03/22/10

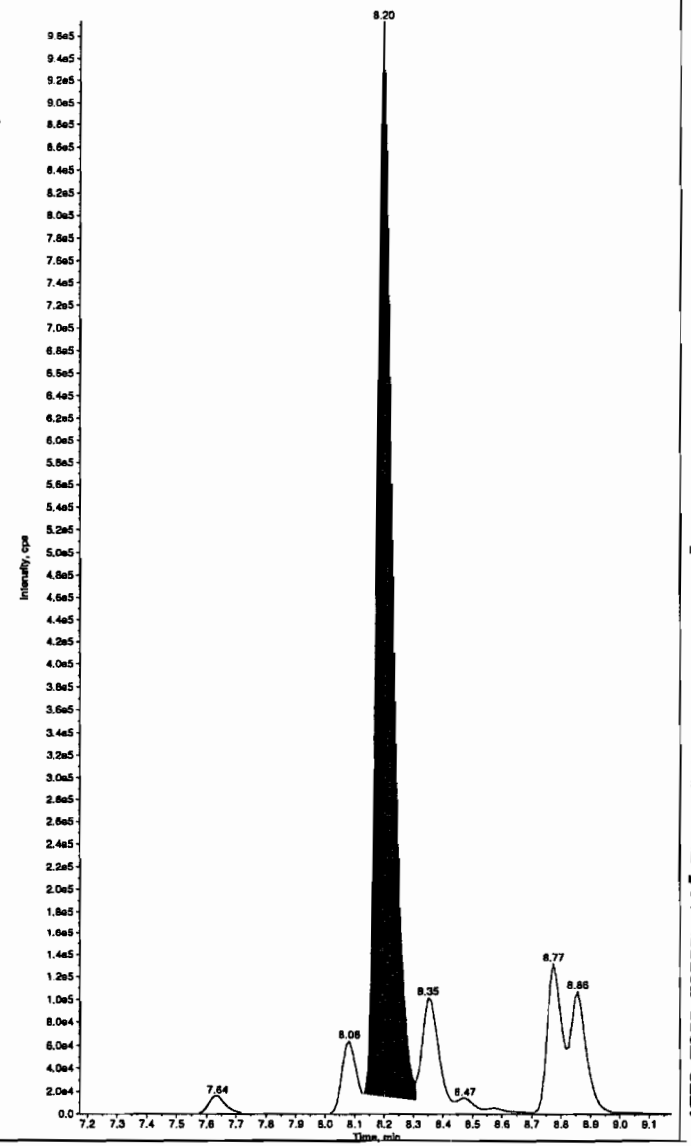

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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nple Name: "1202047271" Sample ID: "954941|2|LER" File: "EXS03160138.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCX83212L" Annotation: ""

le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 227. ng/mL
Date: 3/17/2010
Time: 8:09:57 PM

2.93

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.33 min
Relative RT: No

Type: Valley
ntion Time: 8.35 min
: 2.89e+006 counts
ht: 789033.264 cps
t Time: 8.28 min
Time: 8.54 min

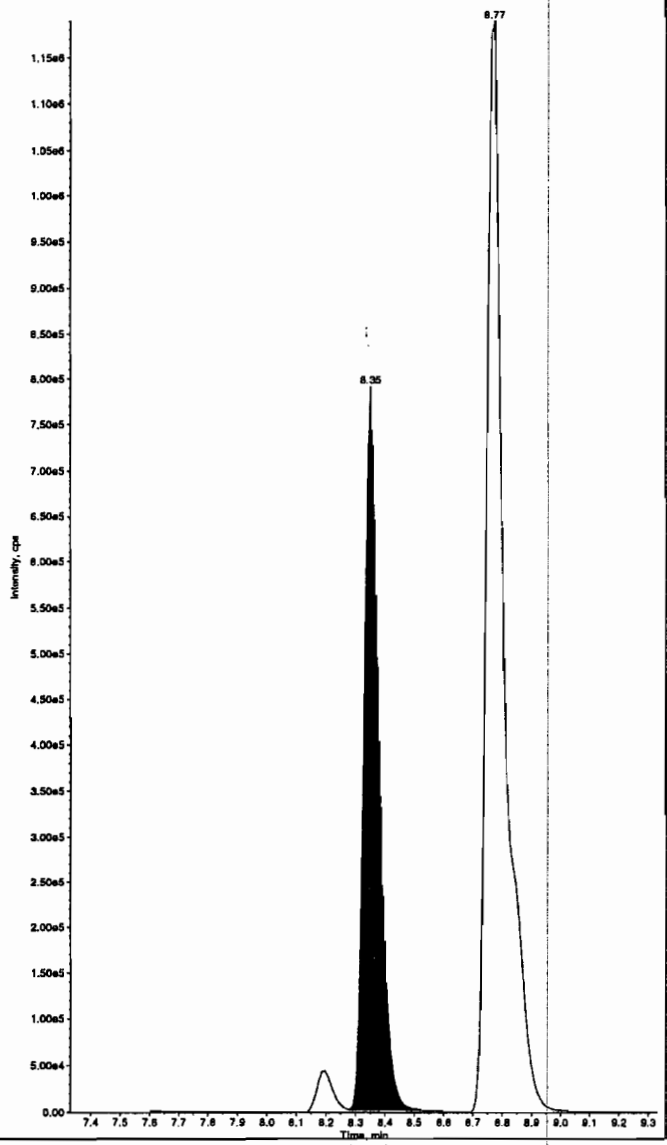

Sample Name: "1202047271" Sample ID: "954941|2|LER" File: "EXS03160138.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 430. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 8:09:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.96 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.98 min
Area: 6.98e+005 counts
Height: 168993.927 cps
Start Time: 4.86 min
End Time: 5.24 min

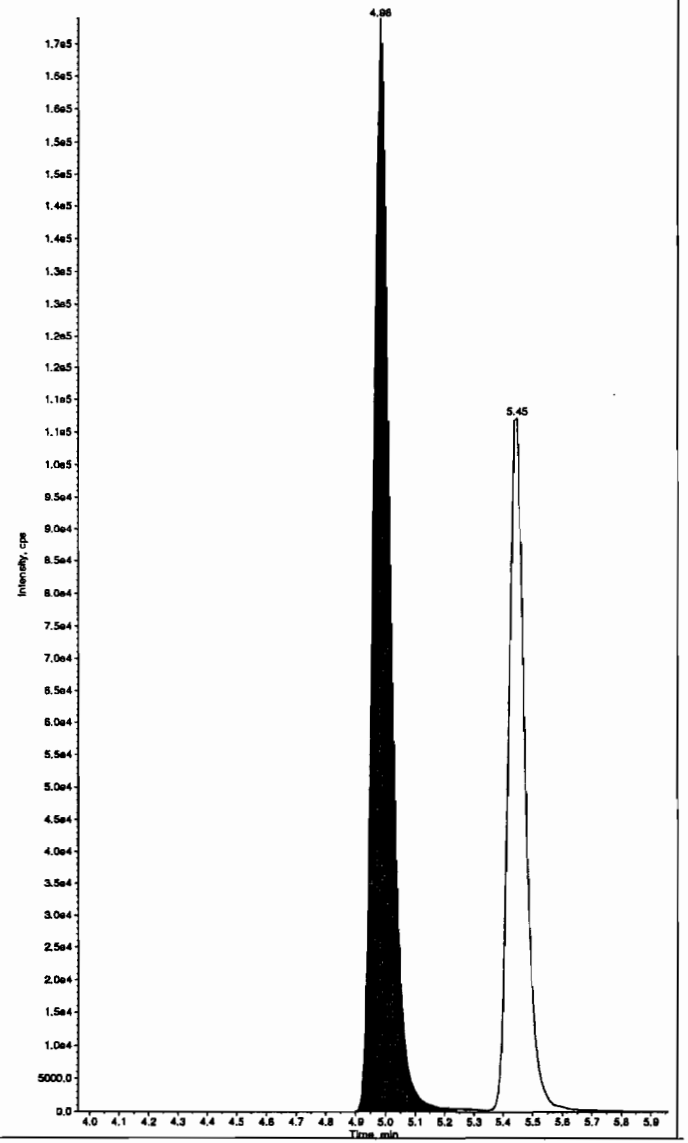

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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le Name: "1202047271" Sample ID: "954941|2|LER" File: "EXS03160138.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nent: "LCX83212L" Annotation: **

e Index:	1
e Type:	Unknown
ntration:	N/A
lated Conc:	380. ng/mL
Date:	3/17/2010
Time:	8:09:57 PM
ied:	No
Algorithm:	IntelliQuan - IQA
Peak Height:	350.00 cps
Peak Width:	0.00 sec
hing Width:	3 points
ndow:	30.0 sec
ted RT:	5.43 min
elative RT:	No
Type:	Valley
tion Time:	5.45 min
	4.18e+005 counts
t:	107104.706 cps
Time:	5.34 min
ime:	5.75 min

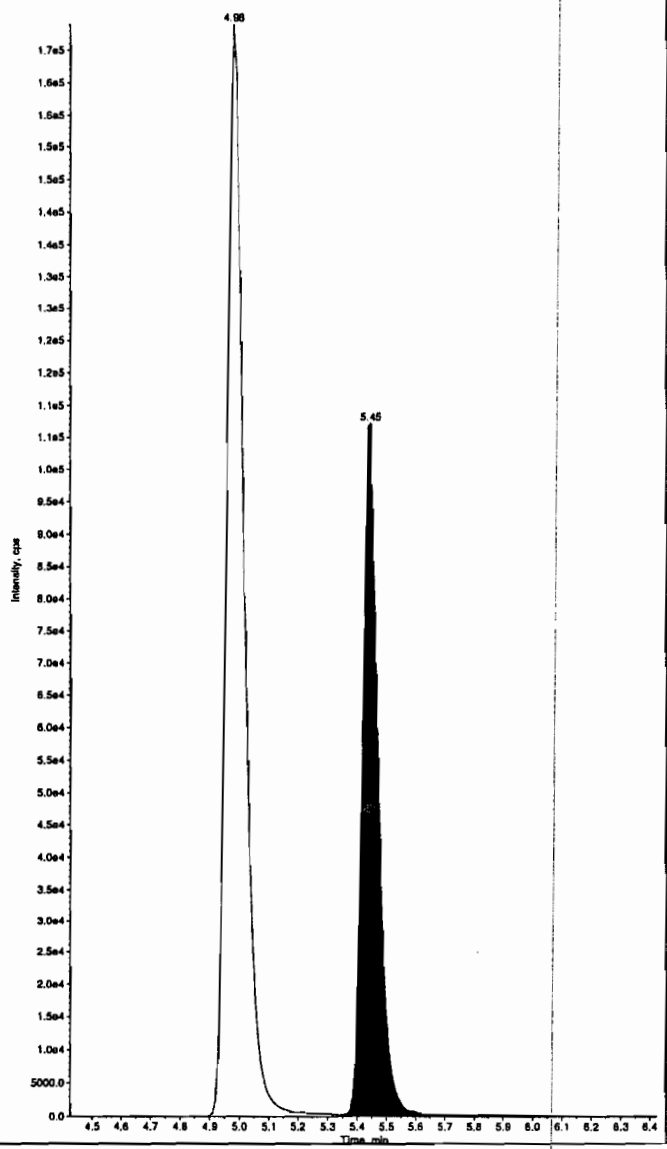

Sample Name: "1202047271" Sample ID: "954941|2|LER" File: "EXS03160138.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: **

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	187. ng/mL
Acq. Date:	3/17/2010
Acq. Time:	8:09:57 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.9 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.9 min
Area:	2.43e+006 counts
Height:	613174.316 cps
Start Time:	10.8 min
End Time:	11.2 min

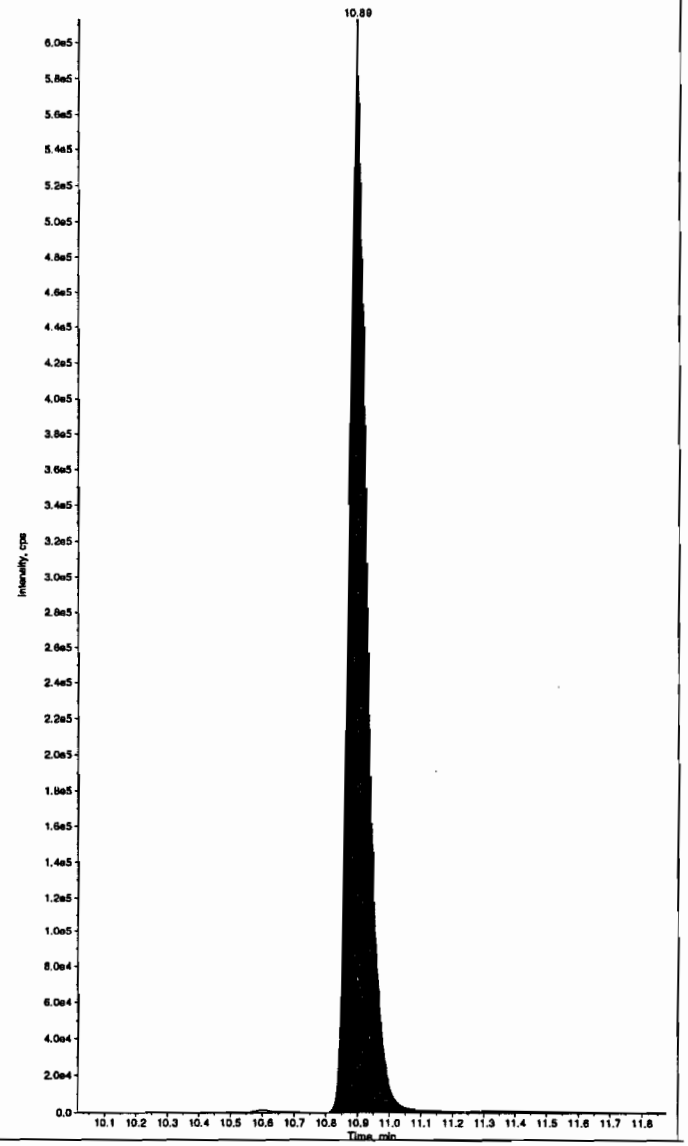

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12691(247261003MS)

Lab Code: GEL

GEL Job No (SDG) 10-1886

Matrix: GROUND WATER

GEL Sample ID: 1202047272

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 17-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 954940

Concentrated Extract Volume (mL) 5

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0322016.wiff

Date Analyzed: 22-MAR-10 22:08

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4.56	
121-14-2	2,4-Dinitrotoluene	5.82	
121-82-4	RDX	6.04	
19406-51-0	4-Amino-2,6-dinitrotoluene	5.0	
2691-41-0	HMX	5.55	
35572-78-2	2-Amino-4,6-dinitrotoluene	5.62	
479-45-8	Tetryl	0.999	
606-20-2	2,6-Dinitrotoluene	5.42	
78-11-5	PETN	5.81	
88-72-2	o-Nitrotoluene	5.62	
98-95-3	Nitrobenzene	5.97	
99-08-1	m-Nitrotoluene	5.82	
99-35-4	1,3,5-Trinitrobenzene	4.96	
99-65-0	m-Dinitrobenzene	6.29	
99-99=0	p-Nitrotoluene	5.9	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322016.wiff	**Acquisition Date**	3/22/2010 10:08:52 PM
Sample Name	1202047272	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954941|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

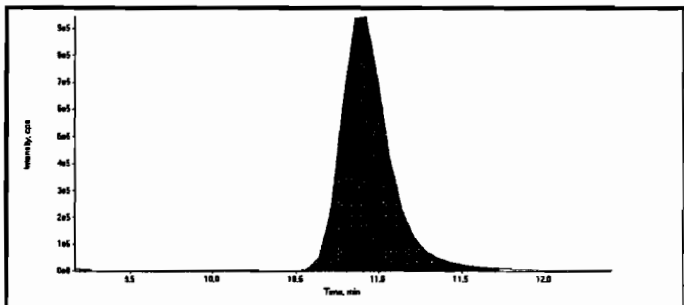

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	19500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

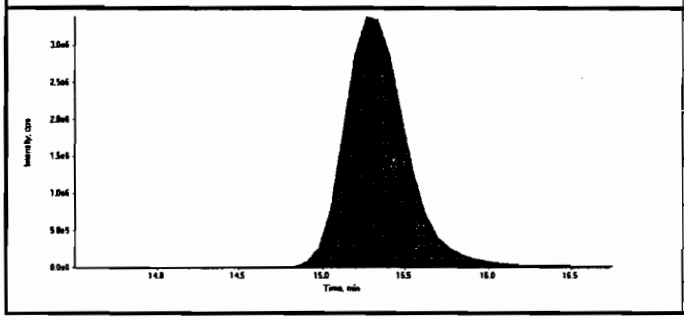

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.30
Area Counts:	91300000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

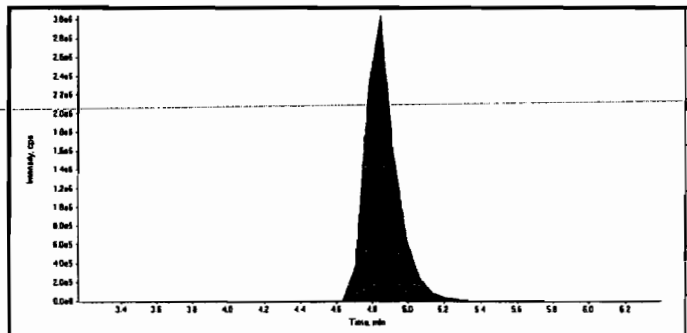

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.85
Area Counts:	3.65e+007
Manual Modification	No
Amount:	427. (ng/mL)
% Accuracy:	N/A

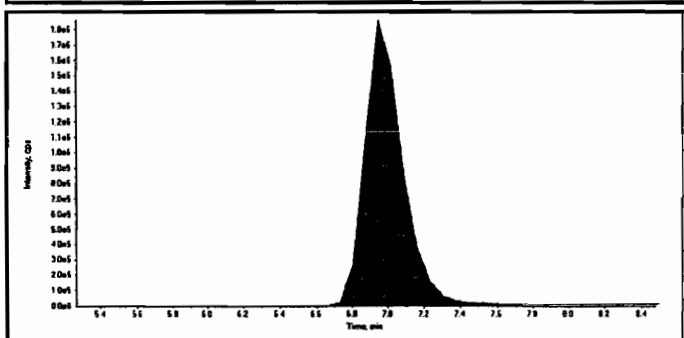

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.94
Area Counts:	2.78e+007
Manual Modification	No
Amount:	465. (ng/mL)
% Accuracy:	N/A

Lan 3/28/10 AMM 03/30/10

Before Ian 3/28/10

mple Name: "1202047272" Sample ID: "954941|2|LER" File: "EXP0322016.wiff"
ak Name: "246-Trinitrotoluene" Mass(es): "227.1/209.8 amu"
mment: "LCX3521_L" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 334. ng/mL
Date: 3/22/2010
Time: 10:08:52 PM

fied: Yes
. Algorithm: IntelliQuan - IQA
Peak Height: 1.00e4 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 60.0 sec
ated RT: 13.7 min
Relative RT: No

Type: Valley
ation Time: 13.7 min
: 1.67e+008 counts
ht: 6.47e+006 cps
t Time: 13.0 min
Time: 14.5 min

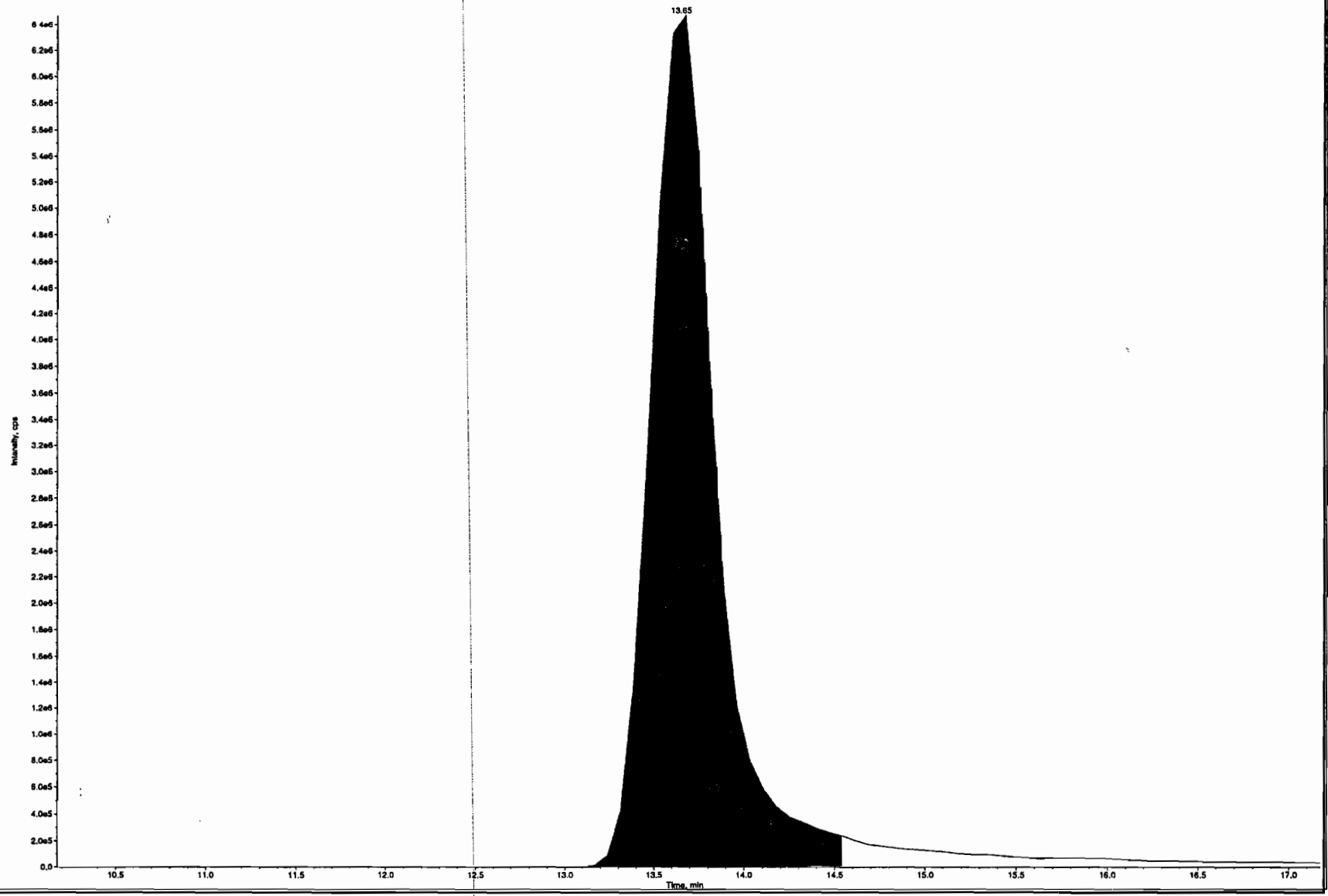

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322016.wiff	**Acquisition Date**	3/22/2010 10:08:52 PM
Sample Name	1202047272	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954941|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

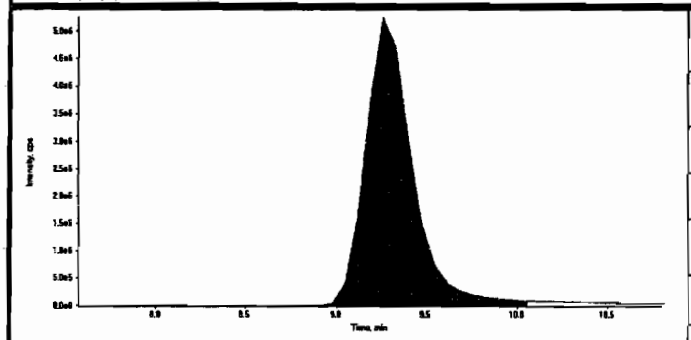

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.26
Area Counts:	9.68e+007
Manual Modification	No
Amount:	382. (ng/mL)
% Accuracy:	N/A

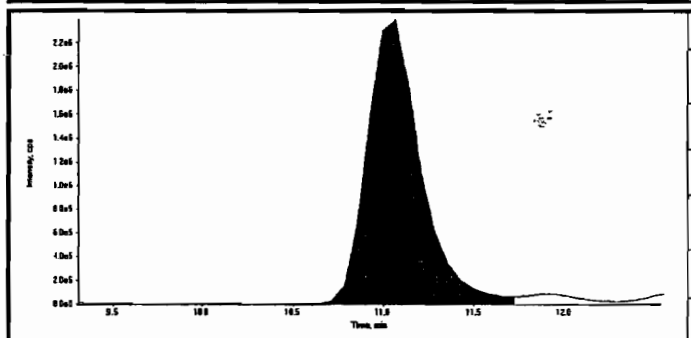

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	11.1
Area Counts:	5.02e+007
Manual Modification	No
Amount:	484. (ng/mL)
% Accuracy:	N/A

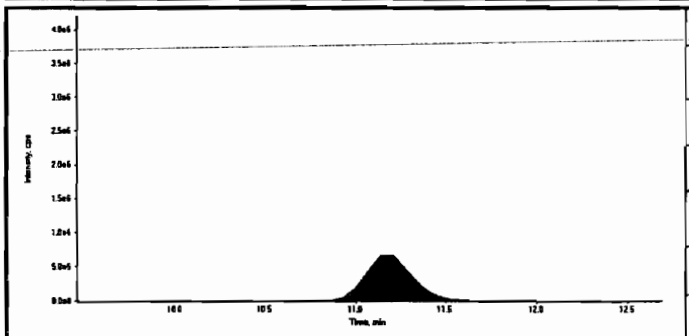

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.2
Area Counts:	1.28e+007
Manual Modification	No
Amount:	76.9 (ng/mL)
% Accuracy:	N/A

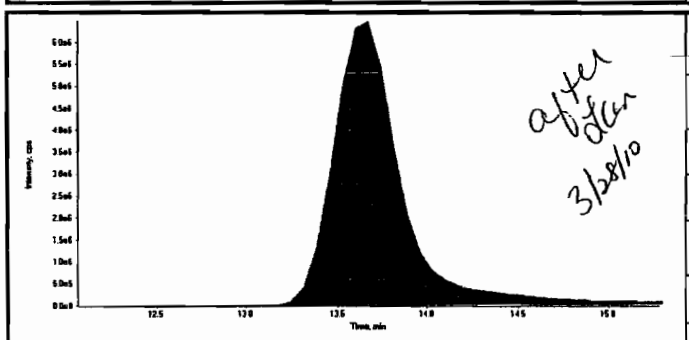

after flex 3/28/10

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.7
Actual RT:	13.6
Area Counts:	1.74e+008
Manual Modification	Yes
Amount:	351. (ng/mL)
% Accuracy:	N/A

Before Lab 3/28/10

nple Name: "1202047272" Sample ID: "954941[2]LER" File: "EXP0322016.wiff"
k Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
nment: "LCX3521_L" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/22/2010
Time: 10:08:52 PM

ied: No

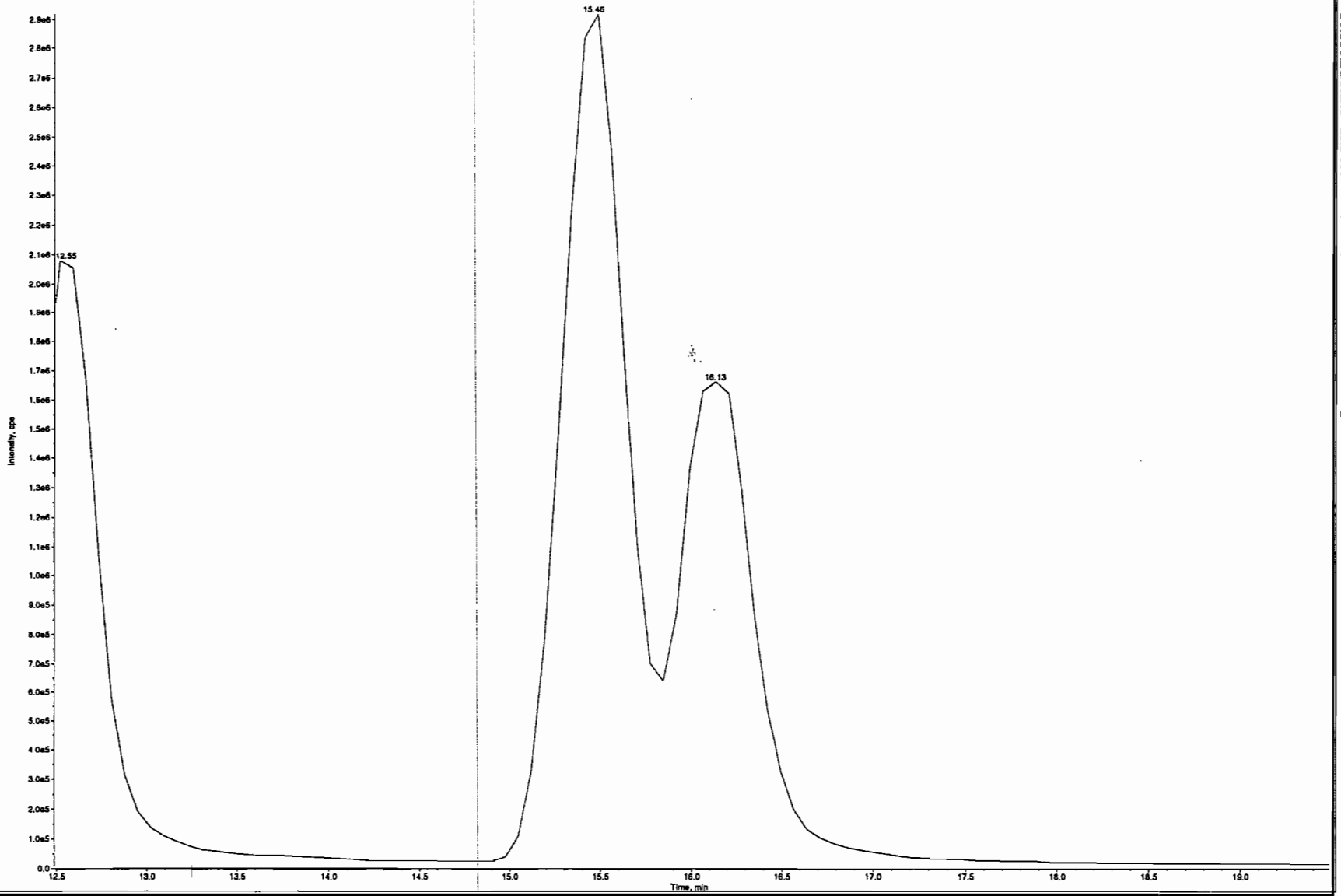

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322016.wiff	Acquisition Date	3/22/2010 10:08:52 PM
Sample Name	1202047272	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954941|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

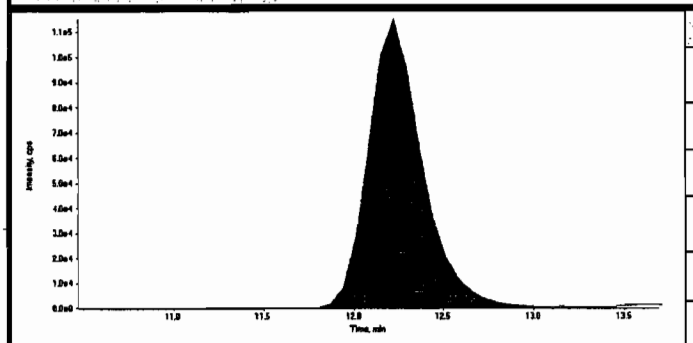

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	2.43e+006
Manual Modification	No
Amount:	460. (ng/mL)
% Accuracy:	N/A

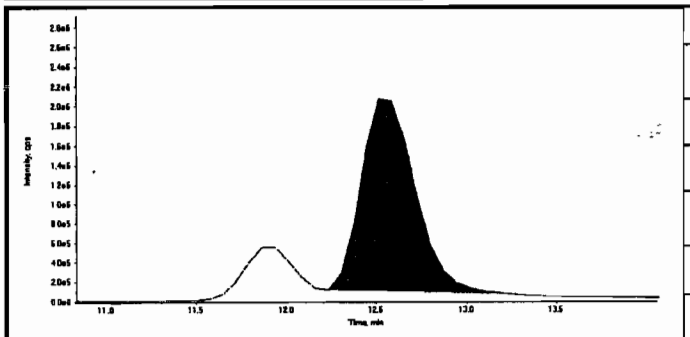

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.5
Area Counts:	4.22e+007
Manual Modification	No
Amount:	7.37179. (ng/mL)
% Accuracy:	N/A

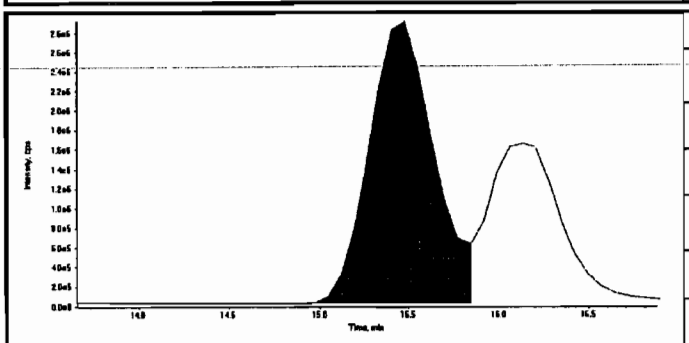

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.5
Area Counts:	7.40e+007
Manual Modification	No
Amount:	417. (ng/mL)
% Accuracy:	N/A

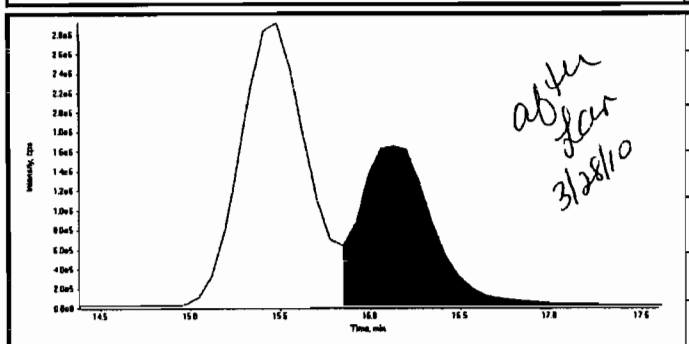

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	16.1
Area Counts:	4.79e+007
Manual Modification	Yes
Amount:	448. (ng/mL)
% Accuracy:	N/A

Before Lab 3/28/10

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mple Name: "1202047272" Sample ID: "95494112|LER" File: "EXP0322016.wiff"
al Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
nment: "LCX3521_L" Annotation: "
.e Index: 1
.e Type: Unknown
ntration: N/A
alated Conc: 620. ng/mL
Date: 3/23/2010
Time: 10:08:52 PM

fied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1000.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
cted RT: 14.6 min
alative RT: No

Type: Valley
ction Time: 14.8 min
3.77e+006 counts
t: 1.19e+005 cps
Time: 14.5 min
Time: 15.6 min

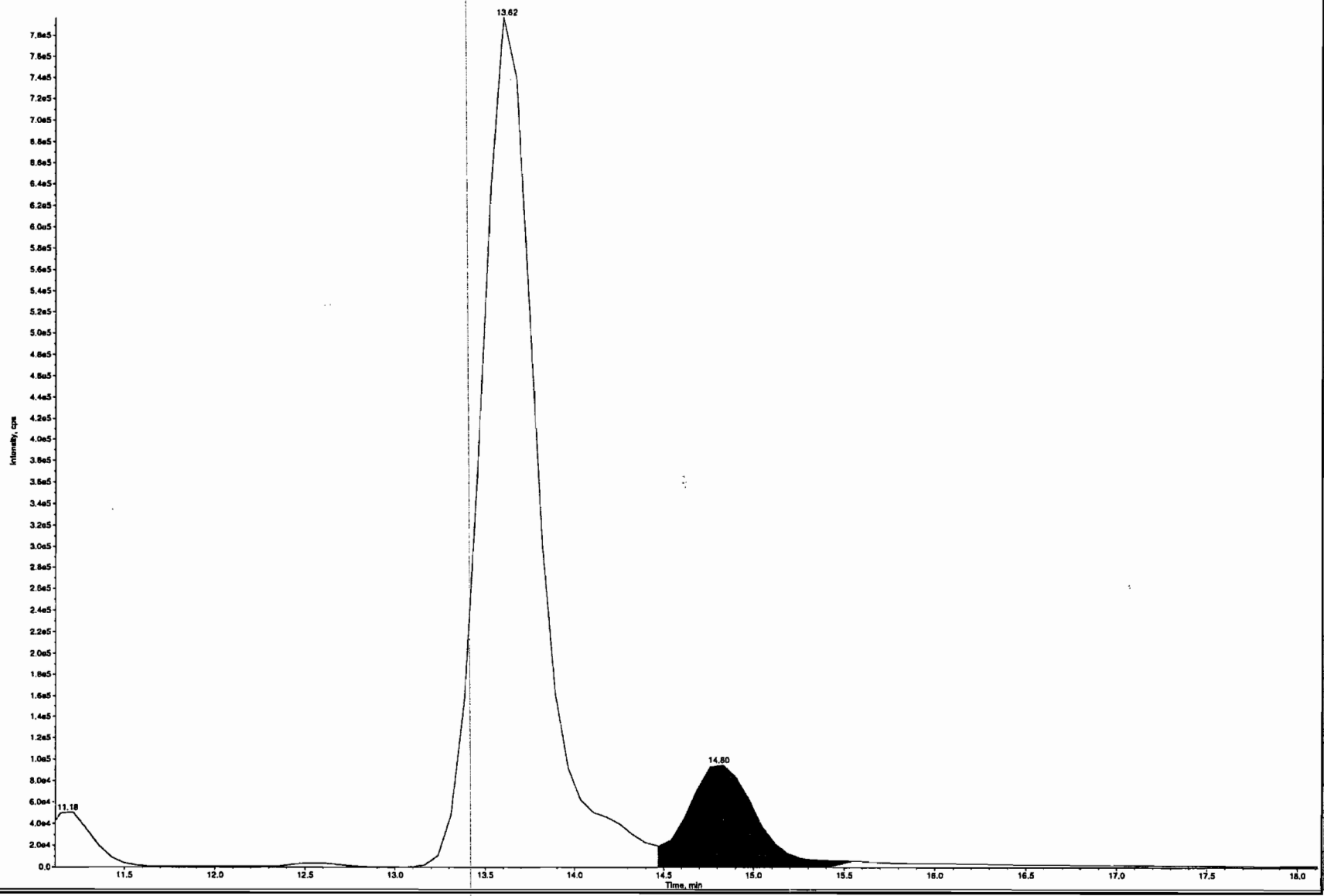

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322016.wiff	**Acquisition Date**	3/22/2010 10:08:52 PM
Sample Name	1202047272	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954941|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

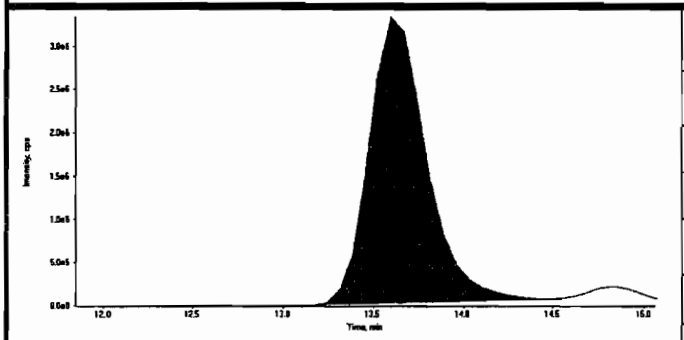

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	7.43e+007
Manual Modification	No
Amount:	385. (ng/mL)
% Accuracy:	N/A

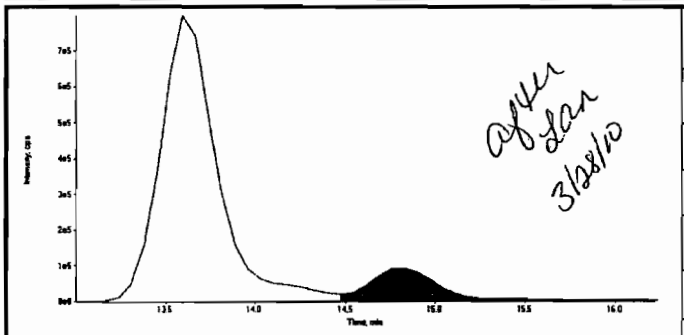

after Lan 3/28/10

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.8
Area Counts:	2.63e+006
Manual Modification	Yes
Amount:	433. (ng/mL)
% Accuracy:	N/A

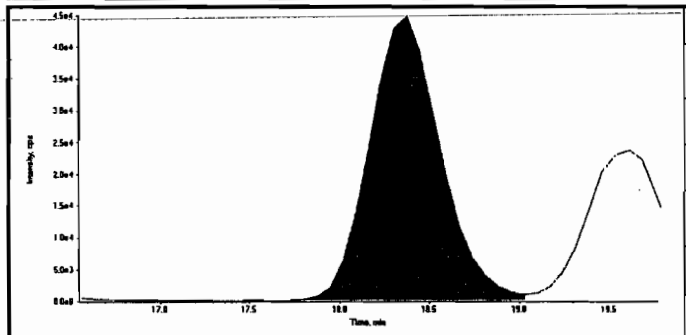

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.4
Area Counts:	1.24e+006
Manual Modification	No
Amount:	433. (ng/mL)
% Accuracy:	N/A

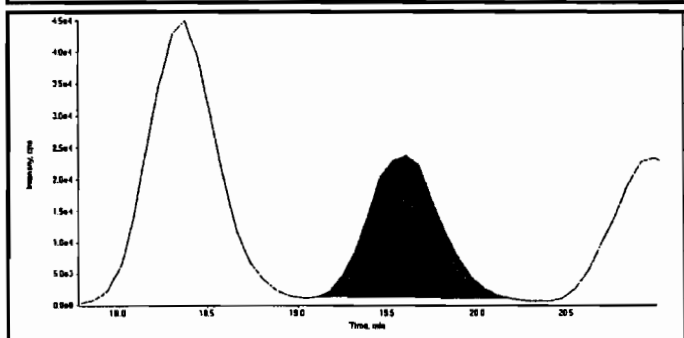

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.6
Area Counts:	6.46e+005
Manual Modification	No
Amount:	454. (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322016.wiff	**Acquisition Date**	3/22/2010 10:08:52 PM
Sample Name	1202047272	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954941|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

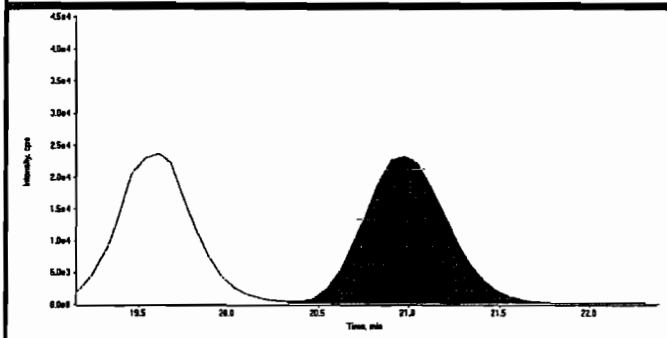

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	21.0
Area Counts:	7.59e+005
Manual Modification	No
Amount:	448. (ng/mL)
% Accuracy:	N/A

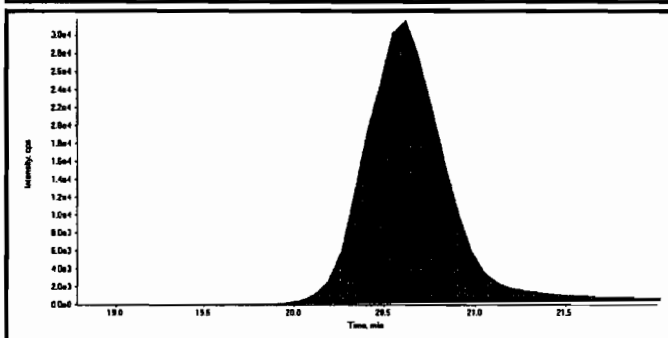

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.6
Area Counts:	9.74e+005
Manual Modification	No
Amount:	447. (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12691(247261003MS)

Lab Code: GEL

GEL Job No (SDG) 10-1886

Matrix: GROUND WATER

GEL Sample ID: 1202047272

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 17-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 954940

Concentrated Extract Volume (mL) 5

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03160140.wiff

Date Analyzed: 17-MAR-10 20:41

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5.32	
59229-75-3	2,6-Diamino-4-nitrotoluene	5.92	
618-87-1	3,5-Dinitroaniline	5.56	
6629-29-4	2,4-Diamino-6-nitrotoluene	5.08	
78-30-8	tris(o-cresyl) phosphate	2.66	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sample Name: "1202047272" Sample ID: "954941|2|LER" File: "EXS03160140.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212L" Annotation: ""

ample Index:	1
ample Type:	Unknown
oncentration:	N/A
alculated Conc:	410. ng/mL
1. Date:	3/17/2010
1. Time:	8:41:20 PM
odified:	No
oc. Algorithm:	IntelliQuan - IQA
1. Peak Height:	2500.00 cps
1. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	30.0 sec
pected RT:	6.93 min
Relative RT:	No
.. Type:	Valley
etention Time:	6.96 min
a:	6.86e+005 counts
ght:	157086.563 cps
art Time:	6.85 min
d Time:	7.85 min

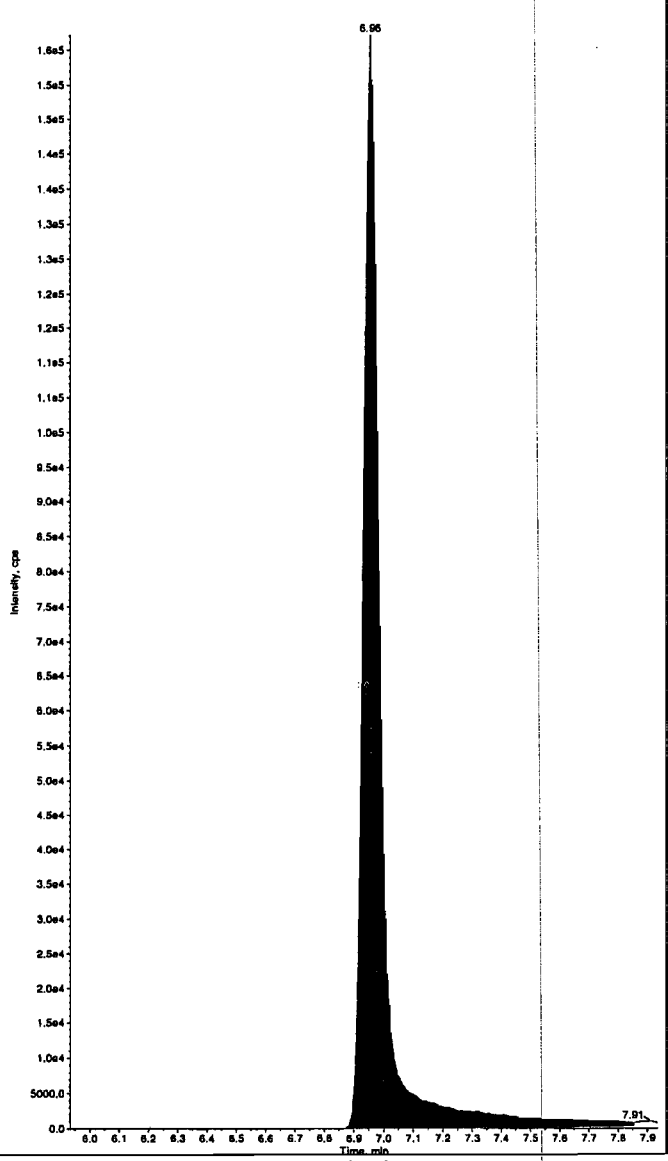

Sample Name: "1202047272" Sample ID: "954941|2|LER" File: "EXS03160140.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	428. ng/mL
Acq. Date:	3/17/2010
Acq. Time:	8:41:20 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	2000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	15.0 sec
Expected RT:	8.17 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	8.20 min
Area:	3.82e+006 counts
Height:	986587.036 cps
Start Time:	8.12 min
End Time:	8.31 min

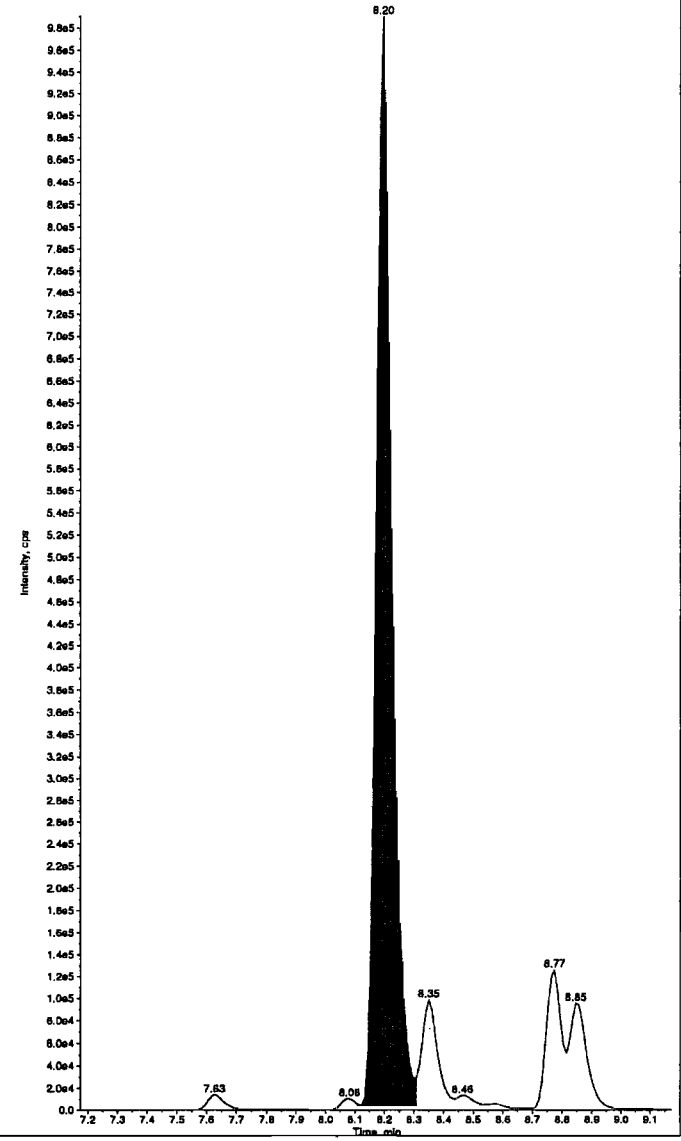

Hnnc 03/22/10

Ocen 3/19/10

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ample Name: "1202047272" Sample ID: "954941|2|LER" File: "EXS03160140.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212L" Annotation: ""

```
ple Index:        1
ple Type:      Unknown
centration:       N/A
culated Conc:     214.     ng/mL
. Date:        3/17/2010
. Time:        8:41:20 PM

ified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00    cps
. Peak Width:     0.00    sec
oothing Width:  3        points
Window:          15.0     sec
ected RT:         8.33    min
Relative RT:      No

. Type:        Valley
ention Time:      8.34    min
a:          2.73e+006    counts
ght:         735481.995   cps
rt Time:          8.27    min
Time:             8.55    min
```

2176

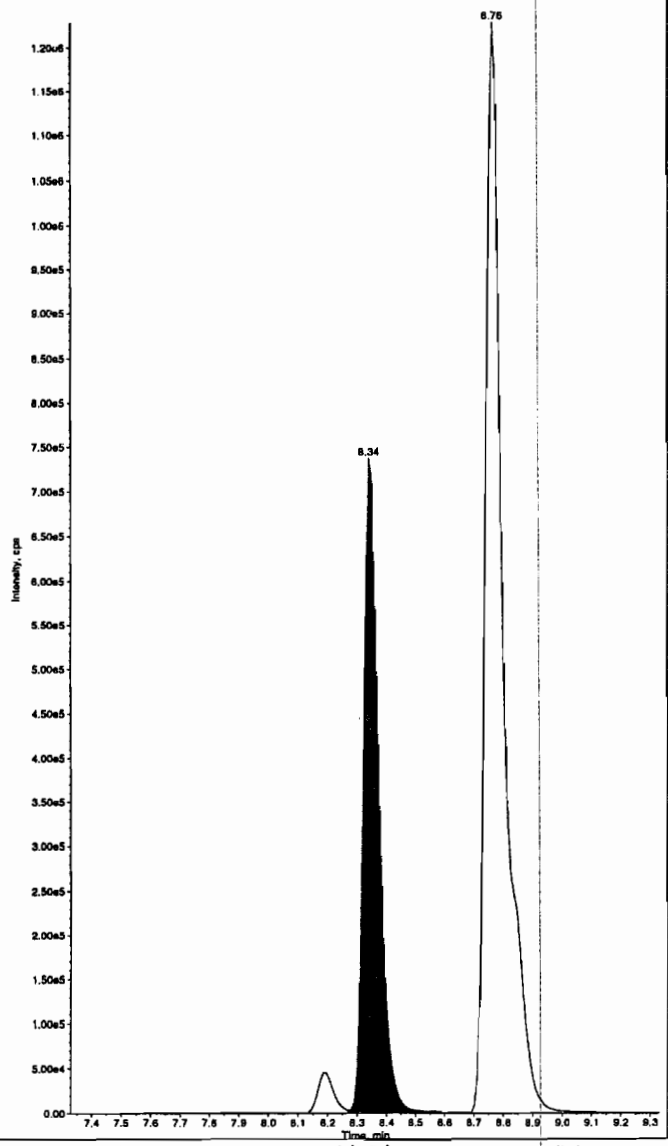

Sample Name: "1202047272" Sample ID: "954941|2|LER" File: "EXS03160140.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212L" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:       N/A
Calculated Conc:     456.     ng/mL
Acq. Date:        3/17/2010
Acq. Time:        8:41:20 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:          30.0    sec
Expected RT:         4.96   min
Use Relative RT:     No

Int. Type:        Valley
Retention Time:      4.98   min
Area:          7.39e+005    counts
Height:        182925.354   cps
Start Time:          4.88   min
End Time:            5.28   min
```

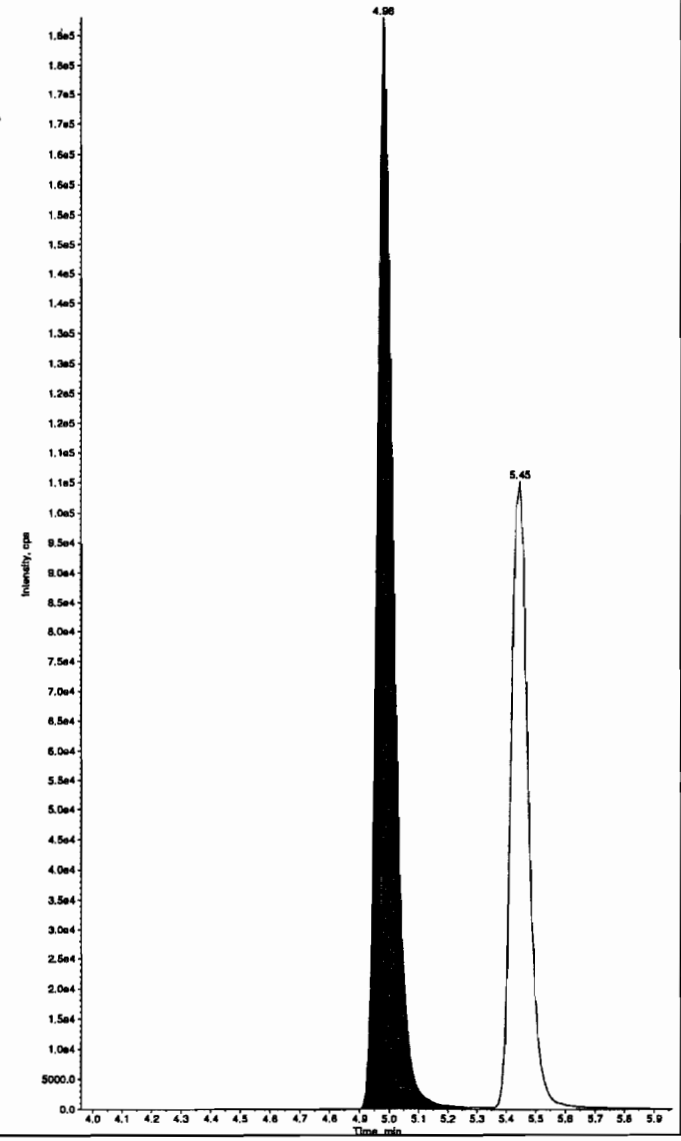

ample Name: "1202047272" Sample ID: "954941|2|LER" File: "EXS03160140.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCX83212L" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 391. ng/mL
. Date: 3/17/2010
. Time: 8:41:20 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 5.43 min
Relative RT: No

. Type: Valley
ention Time: 5.45 min
a: 4.30e+005 counts
ght: 105139.870 cps
rt Time: 5.34 min
Time: 5.87 min

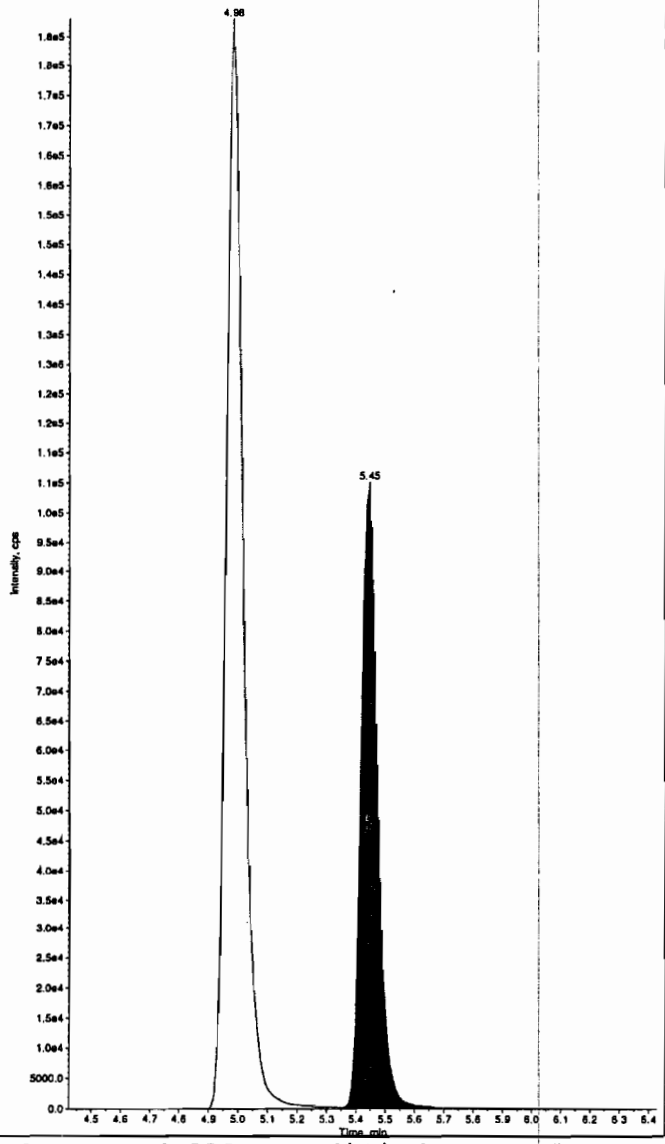

Sample Name: "1202047272" Sample ID: "954941|2|LER" File: "EXS03160140.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 205. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 8:41:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.65e+006 counts
Height: 647036.316 cps
Start Time: 10.8 min
End Time: 11.2 min

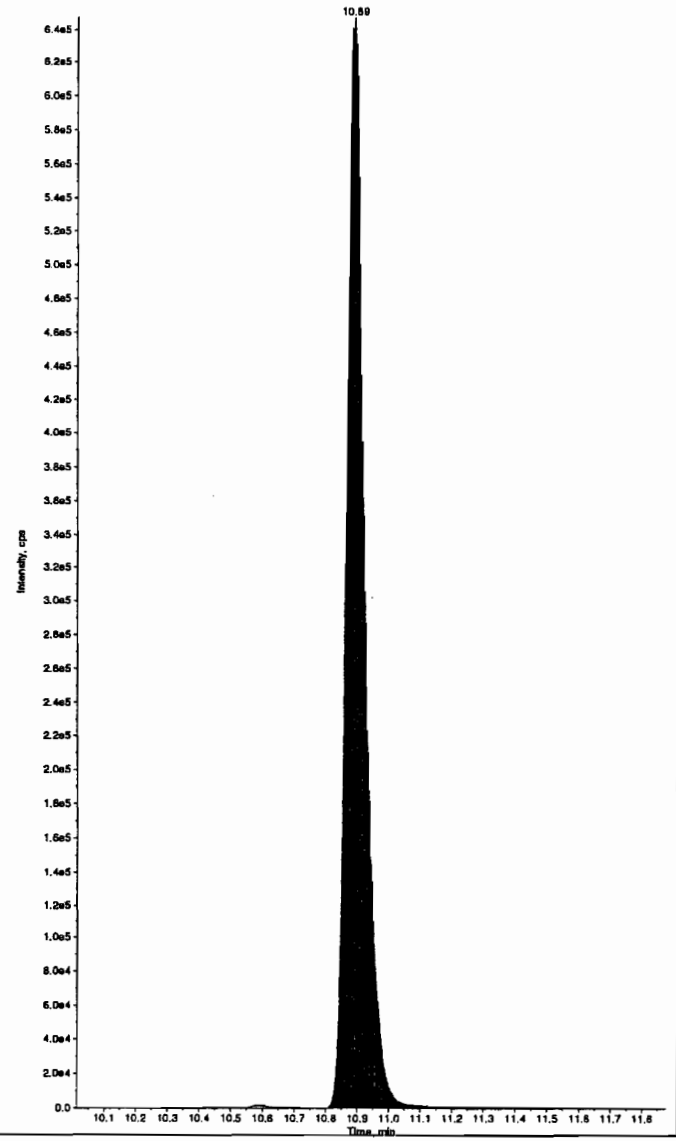

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12691(247261003MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1886

Matrix: GROUND WATER

GEL Sample ID: 1202047273

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 17-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 954940

Concentrated Extract Volume (mL) 5

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0322017.wiff

Date Analyzed: 22-MAR-10 22:35

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5.01	
121-14-2	2,4-Dinitrotoluene	6.53	
121-82-4	RDX	6.13	
19406-51-0	4-Amino-2,6-dinitrotoluene	5.75	
2691-41-0	HMX	5.7	
35572-78-2	2-Amino-4,6-dinitrotoluene	5.96	
479-45-8	Tetryl	2.32	
606-20-2	2,6-Dinitrotoluene	5.97	
78-11-5	PETN	6.25	
88-72-2	o-Nitrotoluene	6.35	
98-95-3	Nitrobenzene	6.58	
99-08-1	m-Nitrotoluene	6.39	
99-35-4	1,3,5-Trinitrobenzene	5.38	
99-65-0	m-Dinitrobenzene	6.53	
99-99-0	p-Nitrotoluene	6.6	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322017.wiff	**Acquisition Date**	3/22/2010 10:35:08 PM
Sample Name	1202047273	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954941|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

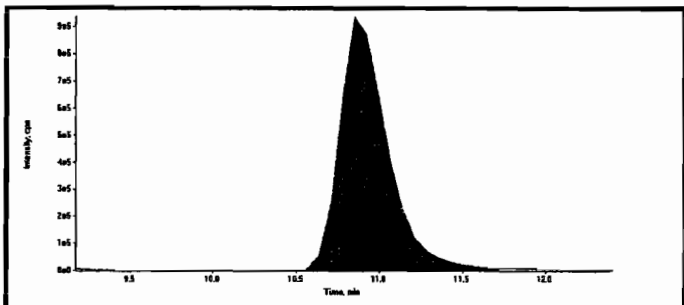

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	19200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

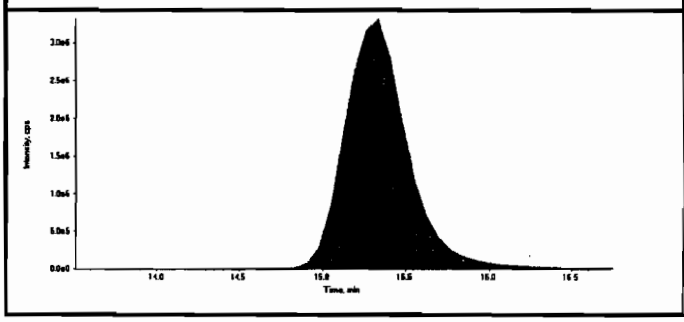

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.30
Area Counts:	88600000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

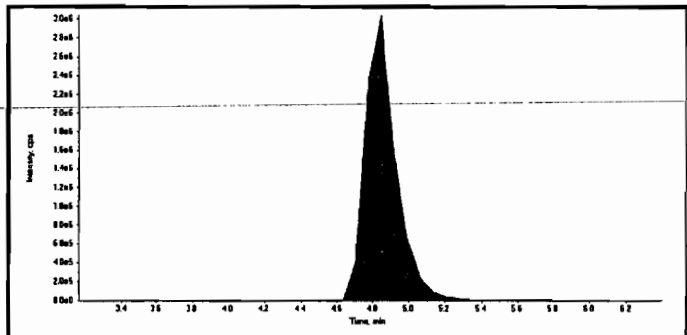

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.85
Area Counts:	3.68e+007
Manual Modification	No
Amount:	439. (ng/mL)
% Accuracy:	N/A

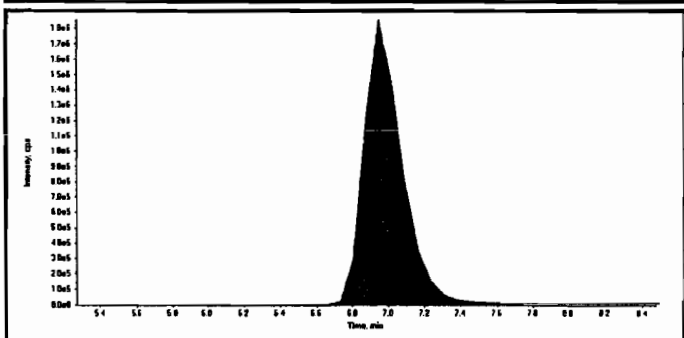

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.94
Area Counts:	2.77e+007
Manual Modification	No
Amount:	472. (ng/mL)
% Accuracy:	N/A

LCer 3/28/10

HMM 03/28/10

Before Lar 3/28/10

mple Name: "1202047273" Sample ID: "954941|2|LER" File: "EXP0322017.wlf"
ak Name: "246-Trinitrotoluene" Mass(es): "227.1/209.6 amu"
mment: "LCX3521_L" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
alated Conc: 348. ng/mL
Date: 3/22/2010
Time: 10:15:08 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1.00e4 cps
Peak Width: 0.00 sec
ching Width: 3 points
Window: 60.0 sec
cted RT: 13.5 min
Relative RT: No

Type: Valley
ation Time: 13.7 min
: 1.68e+008 counts
ht: 6.35e+006 cps
: Time: 13.0 min
Time: 14.5 min

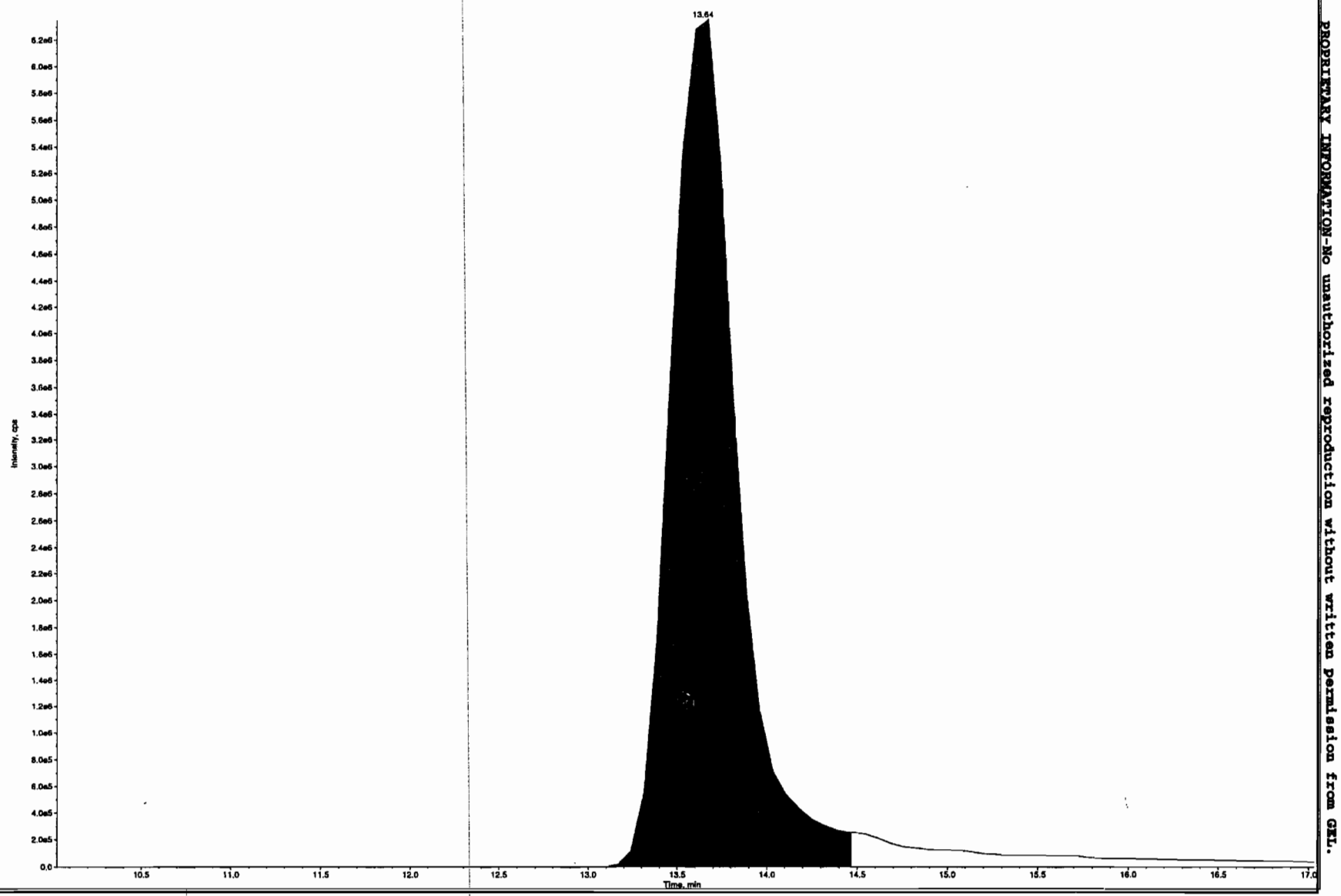

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Data File	EXP0322017.wiff	**Acquisition Date**	3/22/2010 10:35:08 PM
Sample Name	1202047273	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954941|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

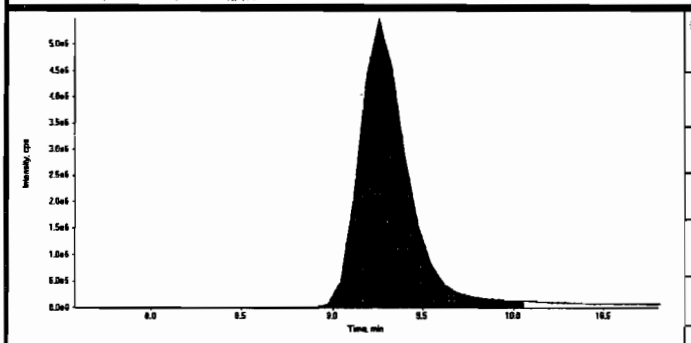

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.26
Area Counts:	1.03e+008
Manual Modification	No
Amount:	414. (ng/mL)
% Accuracy:	N/A

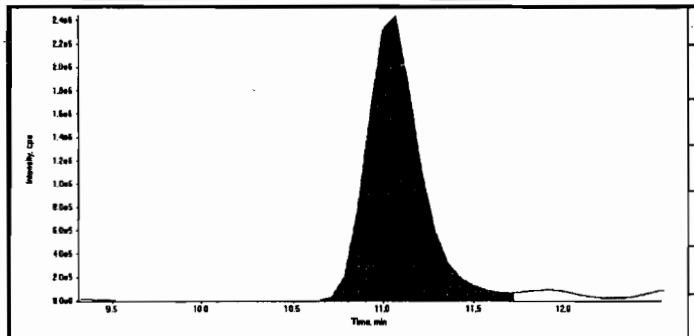

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	11.1
Area Counts:	5.13e+007
Manual Modification	No
Amount:	503. (ng/mL)
% Accuracy:	N/A

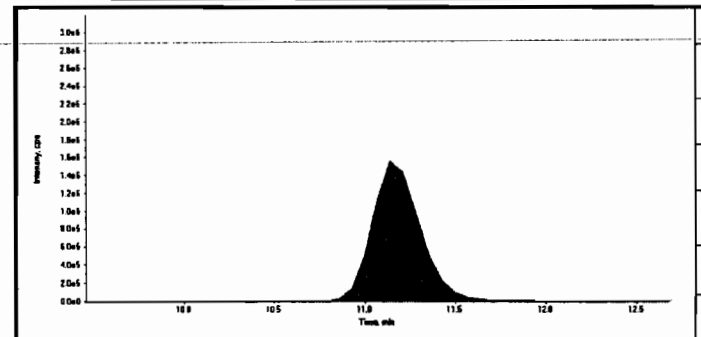

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.1
Area Counts:	2.93e+007
Manual Modification	No
Amount:	179. (ng/mL)
% Accuracy:	N/A

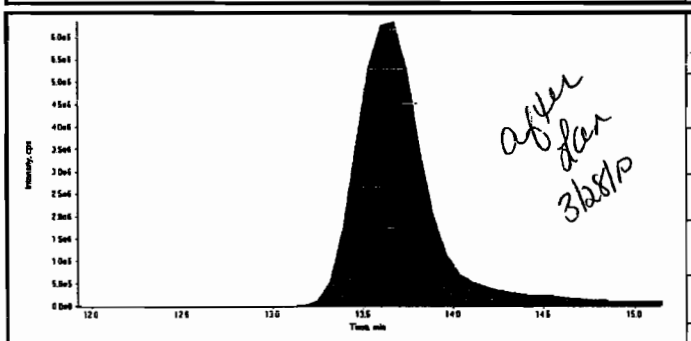

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	1.83e+008
Manual Modification	Yes
Amount:	386. (ng/mL)
% Accuracy:	N/A

Before Lar 3/28/10

ample Name: "1202047273" Sample ID: "954941|2|LER" File: "EXP0322017.wiff"
eak Name: "24-dinitrotoluene" Meas(ess): "182.0/46.0 amu"
omment: "LCX3521_L" Annotation: ""
ple Index: 1
ple Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 3/22/2010
Time: 10:35:08 PM

fied: No

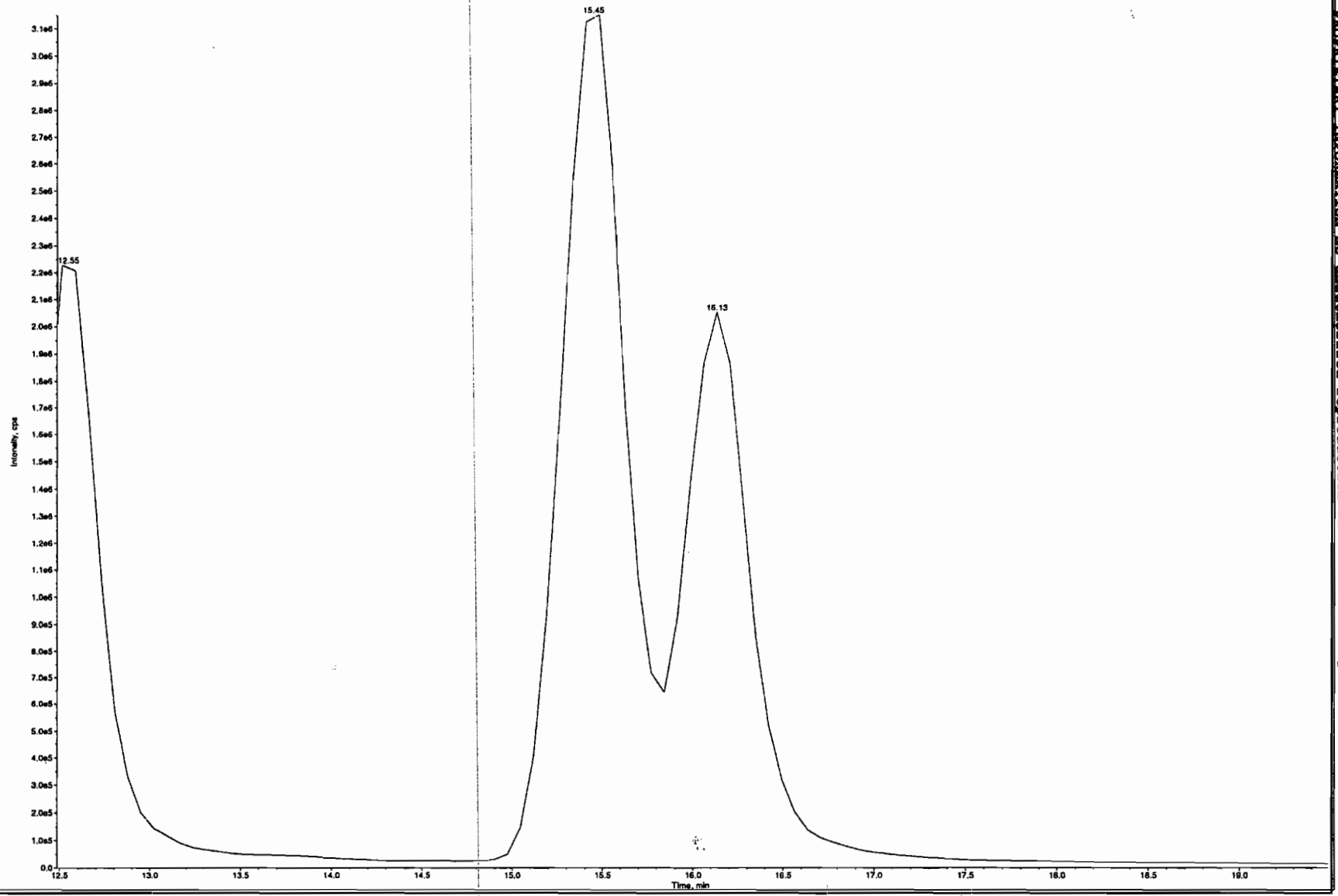

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322017.wiff	**Acquisition Date**	3/22/2010 10:35:08 PM
Sample Name	1202047273	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954941|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

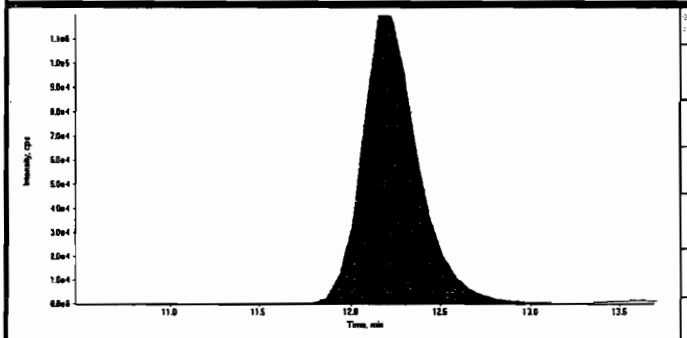

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	2.63e+006
Manual Modification	No
Amount:	507. (ng/mL)
% Accuracy:	N/A

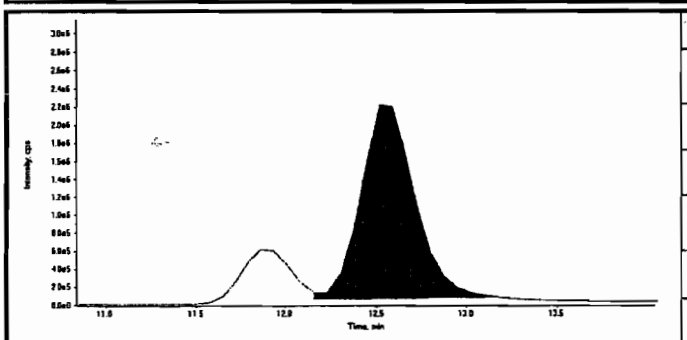

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.5
Area Counts:	4.62e+007
Manual Modification	No
Amount:	2.62 202. (ng/mL)
% Accuracy:	N/A

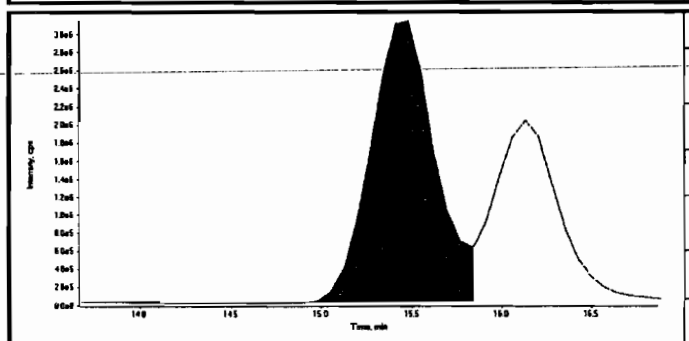

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.5
Area Counts:	7.93e+007
Manual Modification	No
Amount:	460. (ng/mL)
% Accuracy:	N/A

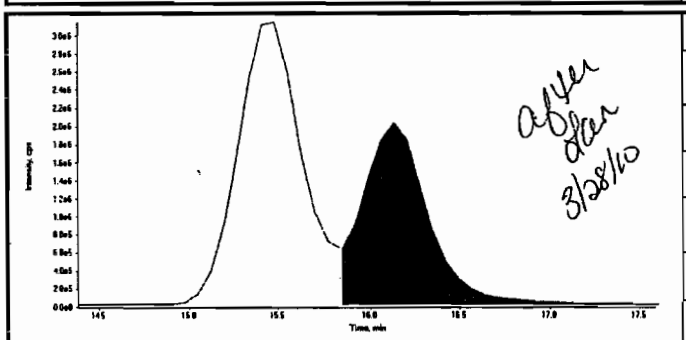

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	16.1
Area Counts:	5.22e+007
Manual Modification	Yes
Amount:	503. (ng/mL)
% Accuracy:	N/A

Before Clean 3/28/10

mple Name: "1202047273" Sample ID: "954941|2|LER" File: "EXP0322017.wiff"
ask Name: "2-Amino-4B-dinitrotoluene" Mass(es): "197.0/180.0 amu"
mment: "LCX3521_L" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 636. ng/mL
Date: 3/22/2010
Time: 10:35:08 PM

fied: Yes
. Algorithm: IntelliQuan - IQA
Peak Height: 1600.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Index: 30.0 sec
cted RT: 14.8 min
Relative RT: No

Type: Valley
ntion Time: 14.8 min
: 3.75e+006 counts
ht: 1.37e+005 cps
t Time: 14.5 min
Time: 15.5 min

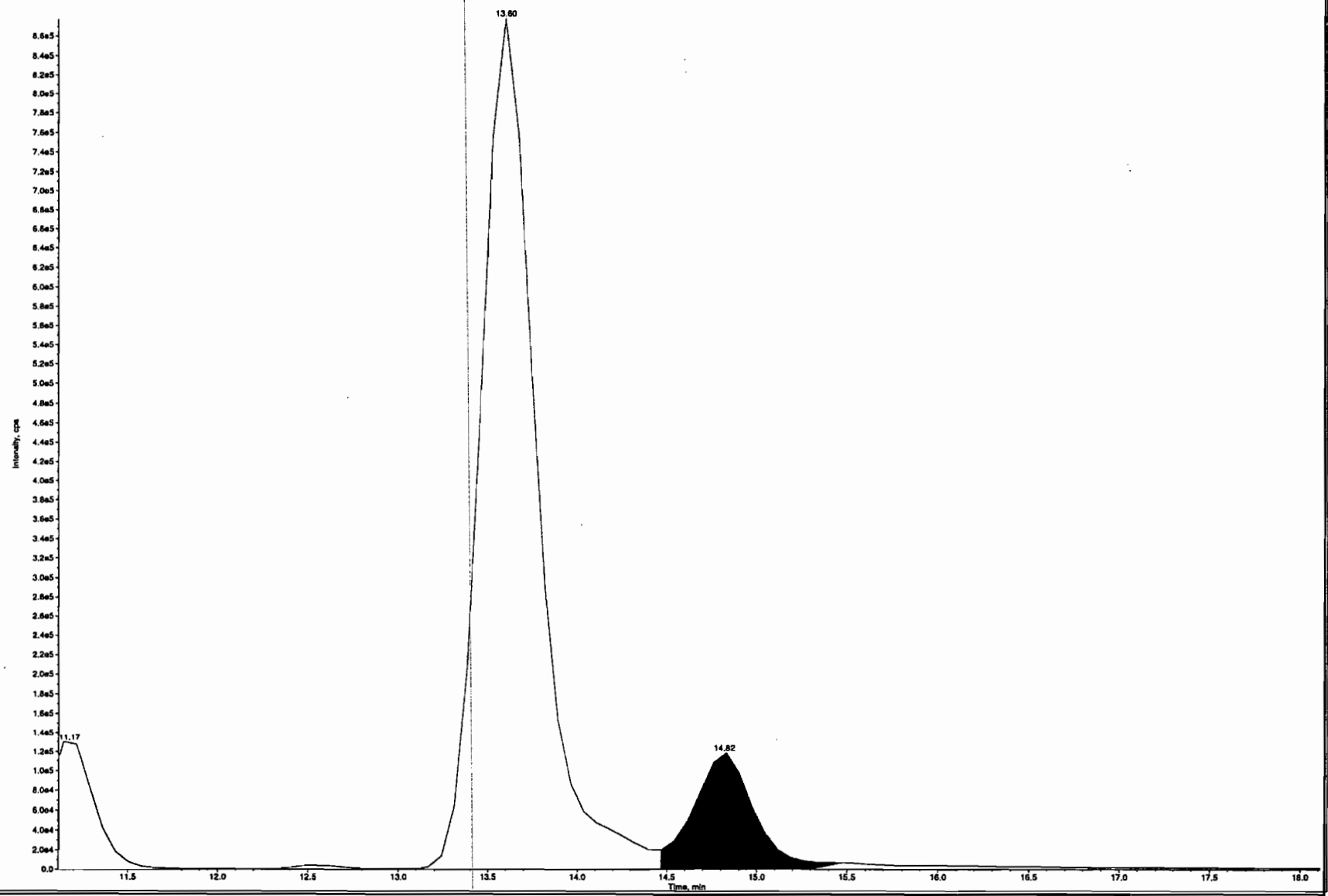

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Data File	EXP0322017.wiff	**Acquisition Date**	3/22/2010 10:35:08 PM
Sample Name	1202047273	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954941|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

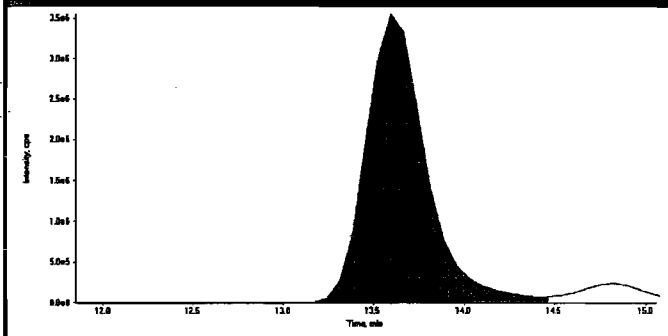

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	8.28e+007
Manual Modification	No
Amount:	443. (ng/mL)
% Accuracy:	N/A

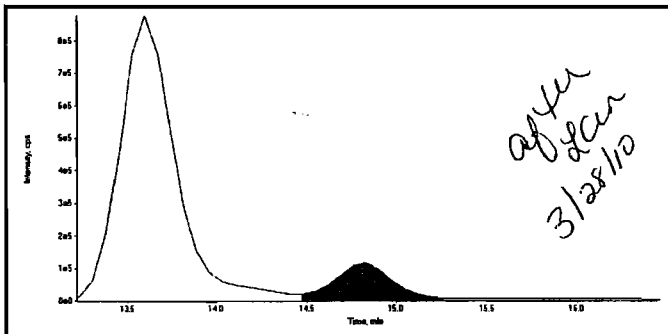

after LCM 3/28/10

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.8
Actual RT:	14.8
Area Counts:	2.71e+006
Manual Modification	Yes
Amount:	459. (ng/mL)
% Accuracy:	N/A

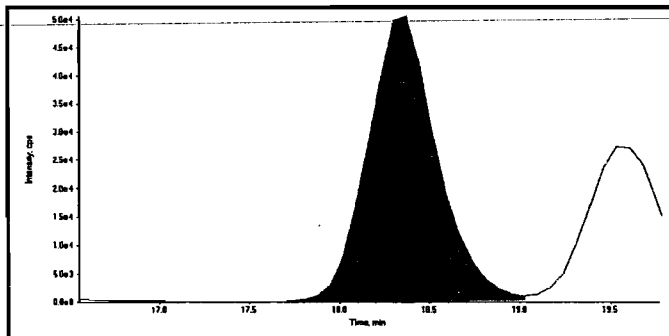

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.4
Area Counts:	1.35e+006
Manual Modification	No
Amount:	489. (ng/mL)
% Accuracy:	N/A

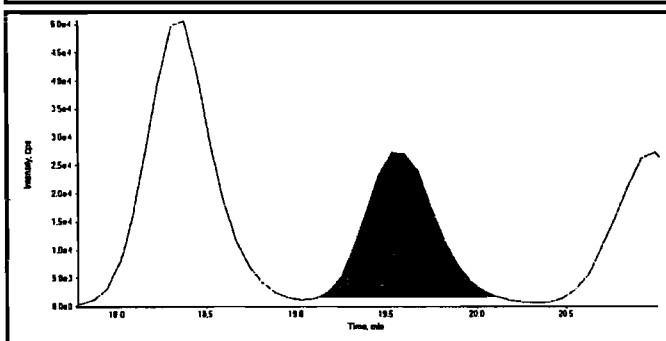

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.5
Area Counts:	7.02e+005
Manual Modification	No
Amount:	508. (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322017.wiff	**Acquisition Date**	3/22/2010 10:35:08 PM
Sample Name	1202047273	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954941|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

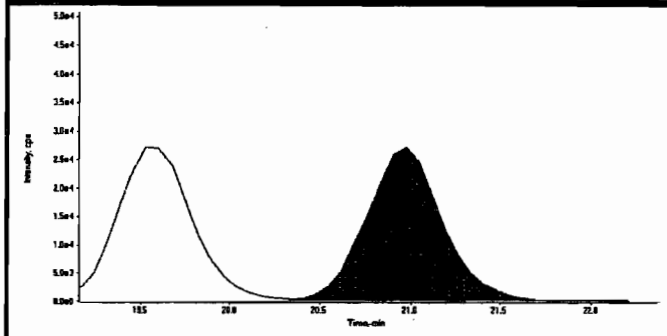

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	21.0
Area Counts:	8.09e+005
Manual Modification	No
Amount:	492. (ng/mL)
% Accuracy:	N/A

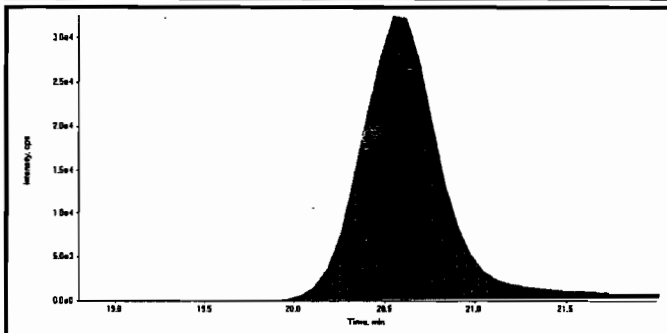

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.5
Area Counts:	1.02e+006
Manual Modification	No
Amount:	481. (ng/mL)
% Accuracy:	N/A

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12691(247261003MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1886

Matrix: GROUND WATER

GEL Sample ID: 1202047273

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 17-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 954940

Concentrated Extract Volume (mL) 5

Date Extracted: 19-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03160141.wiff

Date Analyzed: 17-MAR-10 20:57

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5.56	
59229-75-3	2,6-Diamino-4-nitrotoluene	5.71	
618-87-1	3,5-Dinitroaniline	5.79	
6629-29-4	2,4-Diamino-6-nitrotoluene	4.9	
78-30-8	tris(o-cresyl) phosphate	2.75	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

LAN 3/19/10

ample Name: "1202047273" Sample ID: "954941|2|LER" File: "EXS03160141.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212L" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 428. ng/mL
. Date: 3/17/2010
. Time: 8:57:02 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 6.93 min
Relative RT: No

. Type: Valley
ention Time: 6.96 min
a: 7.18e+005 counts
ght: 165928.589 cps
rt Time: 6.86 min
Time: 7.69 min

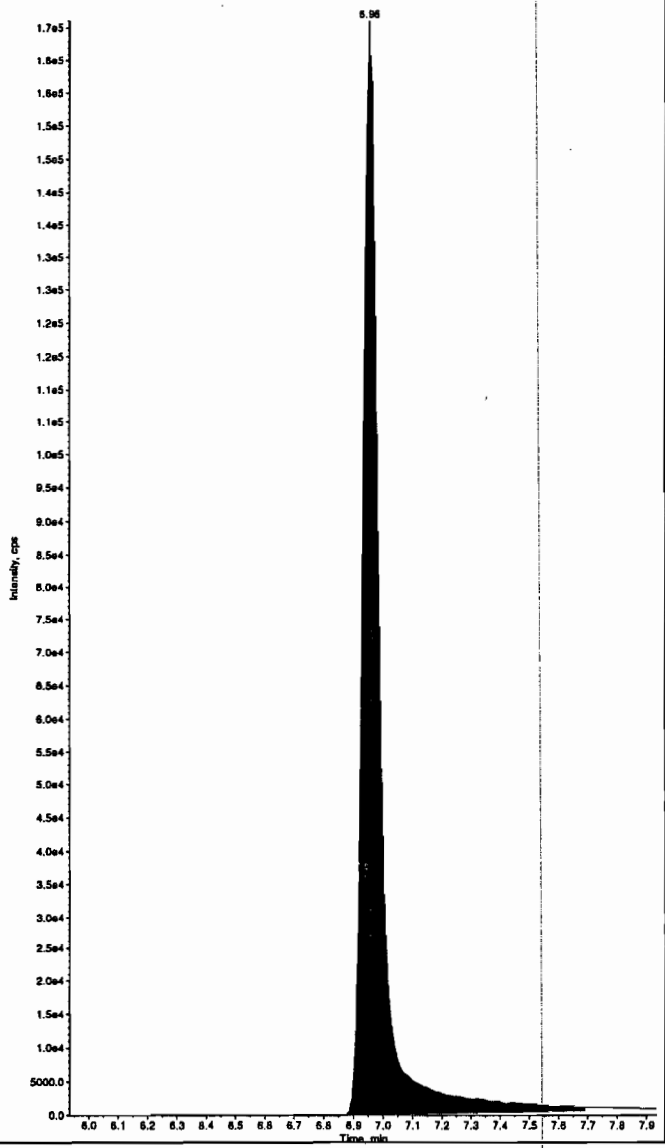

Sample Name: "1202047273" Sample ID: "954941|2|LER" File: "EXS03160141.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 446. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 8:57:02 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.20 min
Area: 3.97e+006 counts
Height: 1009694.824 cps
Start Time: 8.12 min
End Time: 8.31 min

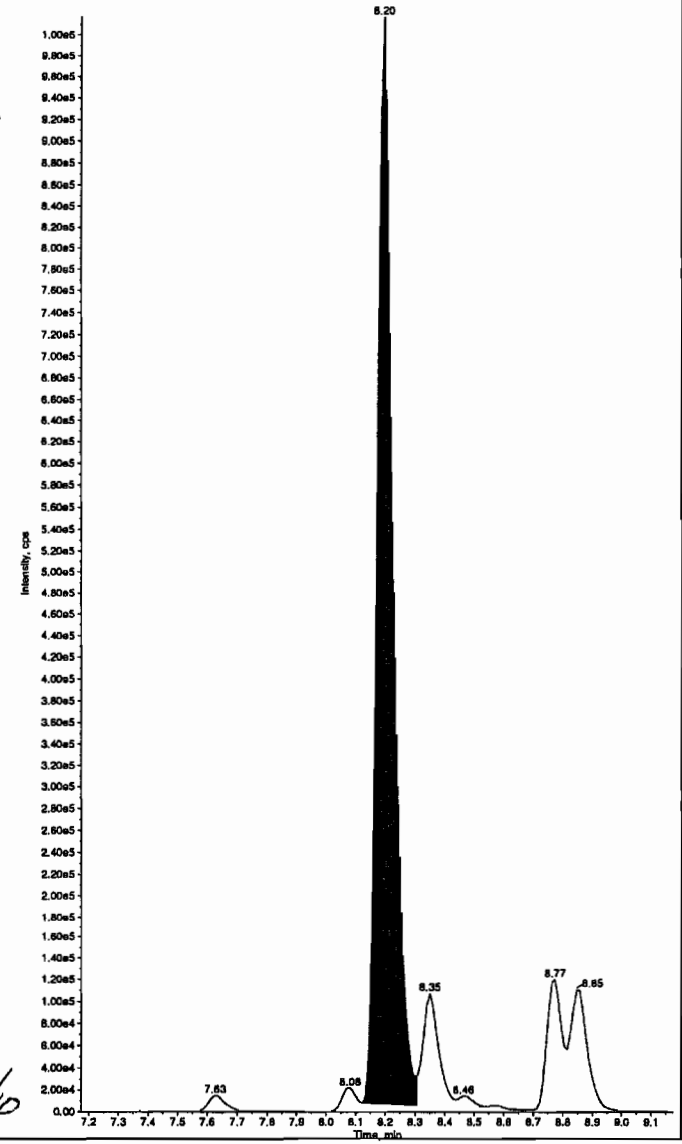

HNM 03/22/10

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Sample Name: "1202047273" Sample ID: "954941|2|LER" File: "EXS03160141.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212L" Annotation: ""

2,83

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 218. ng/mL
q. Date: 3/17/2010
q. Time: 8:57:02 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 1460.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 15.0 sec
xpected RT: 8.33 min
se Relative RT: No

nt. Type: Valley
etention Time: 8.34 min
rea: 2.78e+006 counts
eight: 724620.972 cps
tart Time: 8.28 min
nd Time: 8.57 min

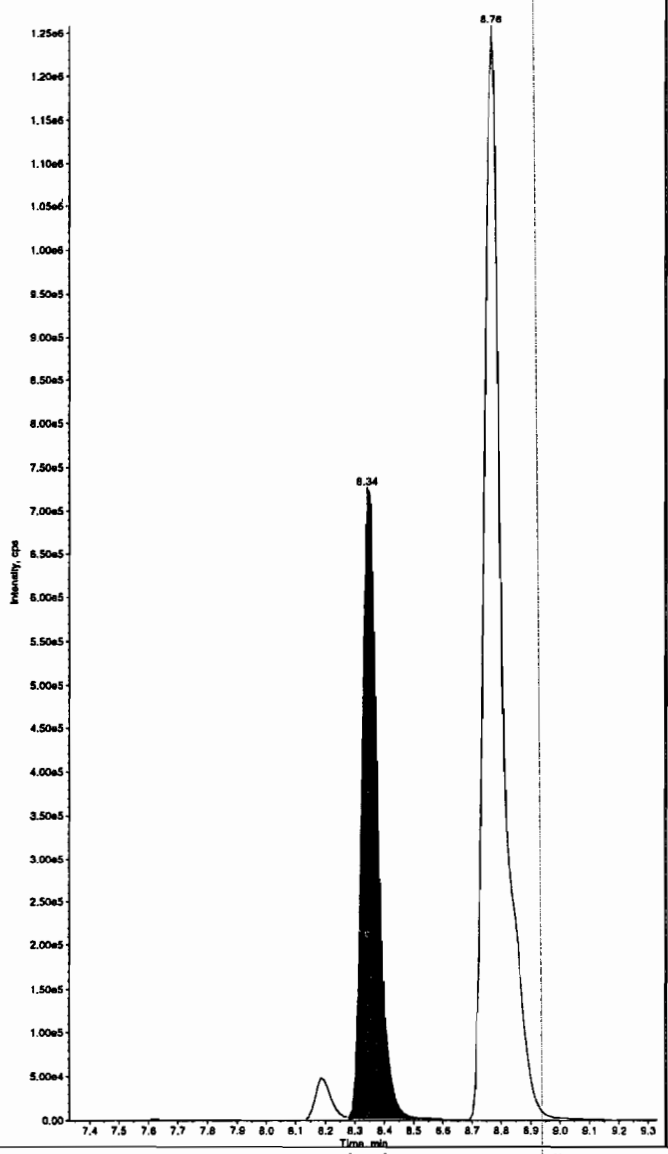

Sample Name: "1202047273" Sample ID: "954941|2|LER" File: "EXS03160141.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 440. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 8:57:02 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.96 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.98 min
Area: 7.14e+005 counts
Height: 176696.762 cps
Start Time: 4.88 min
End Time: 5.28 min

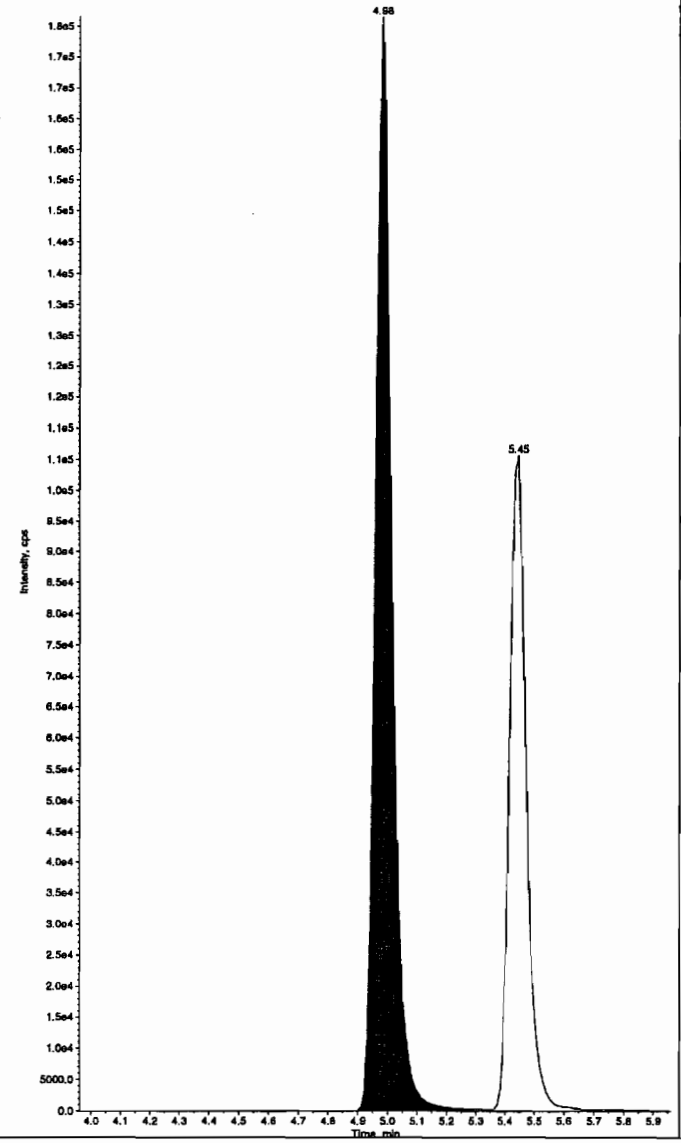

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ample Name: "1202047273" Sample ID: "954941|2|LER" File: "EXS03160141.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCX83212L" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 377. ng/mL
. Date: 3/17/2010
. Time: 8:57:02 PM

ified: No
c. Algorithm: IntelliQuan - IQA
.. Peak Height: 350.00 cps
.. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
ected RT: 5.43 min
Relative RT: No

. Type: Valley
ention Time: 5.45 min
a: 4.15e+005 counts
ght: 105446.426 cps
rt Time: 5.36 min
Time: 5.65 min

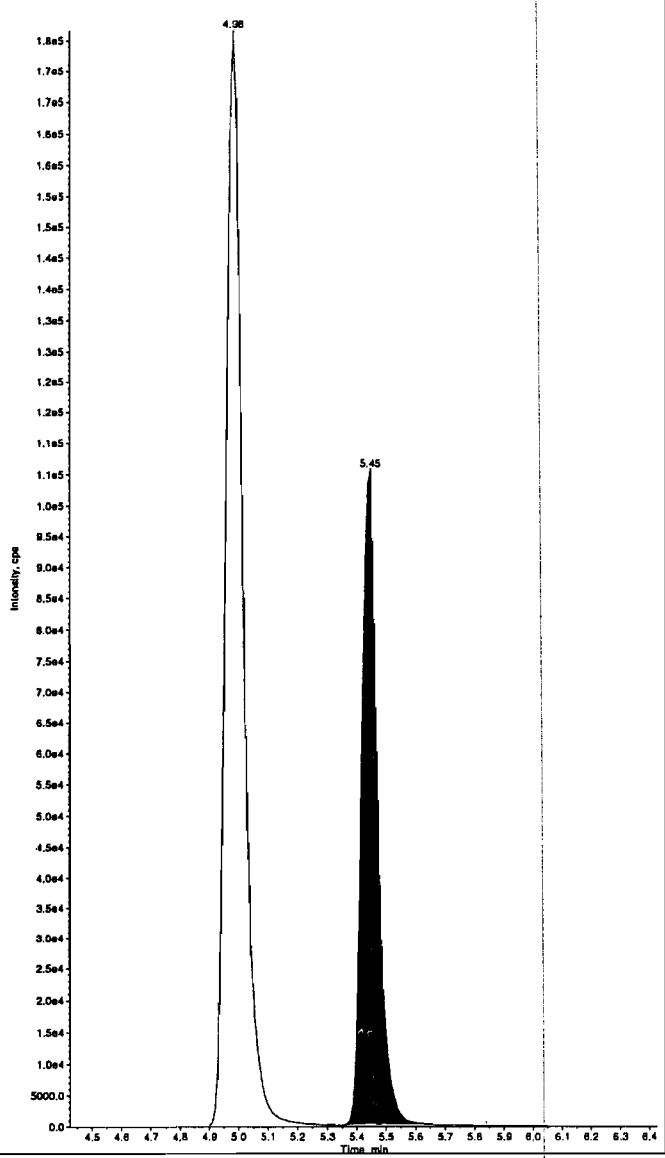

Sample Name: "1202047273" Sample ID: "954941|2|LER" File: "EXS03160141.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 212. ng/mL
Acq. Date: 3/17/2010
Acq. Time: 8:57:02 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.74e+006 counts
Height: 673171.997 cps
Start Time: 10.8 min
End Time: 11.2 min

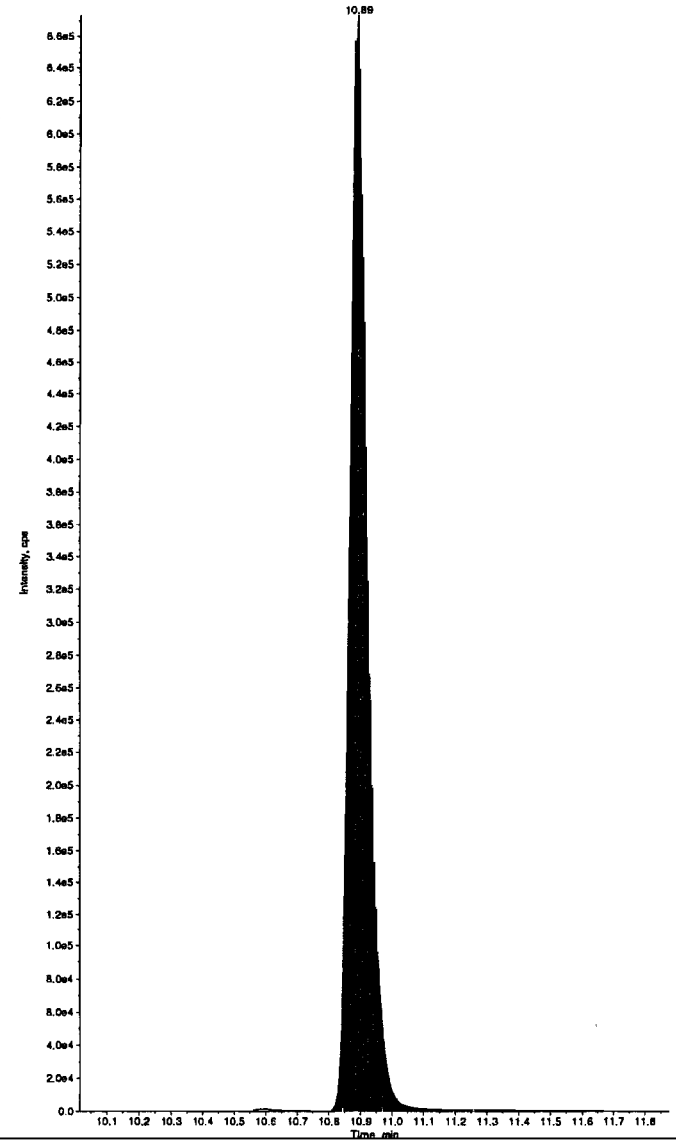

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 954940 **Verified by:** _____

Analyst: Sirena White

Method: SW846 Method 3535

Lab SOP: GL-OA-E-033 REV# 17

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Ph 1	Final Volume (mL)	Prepped Factor (mL/mL)
1202047270 MB	19-FEB-2010 11:48:00	770	5	5	0.00649
1202047271 LCS	19-FEB-2010 11:48:00	770	5	5	0.00649
247261003	19-FEB-2010 11:48:00	770	6	5	0.00649
1202047272 MS (247261003)	19-FEB-2010 11:48:00	770	6	5	0.00649
1202047273 MSD (247261003)	19-FEB-2010 11:48:00	770	6	5	0.00649

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202047271	8321 Explosives LCS	IXX100208-03	.05	mL
LCS	1202047271	8321 LANL Explosives Mix 10mg/L	UXX100122-01.4	.5	mL
MS	1202047272	8321 Explosives LCS	IXX100208-03	.05	mL
MS	1202047272	8321 LANL Explosives Mix 10mg/L	UXX100122-01.4	.5	mL
MSD	1202047273	8321 Explosives LCS	IXX100208-03	.05	mL
MSD	1202047273	8321 LANL Explosives Mix 10mg/L	UXX100122-01.4	.5	mL
SURR	All	3,4-Dinitrotoluene (8330 Surr.) 100ppm	IXP100218-02	.025	mL

Comments:

SPE Cartridge: 003339260A

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#3

Date: 03/22/10
Extr. Injection Volume: 10uL
Sequence Number: 032210
Initial Calibration Date: 032210

Method: 8321A-Modified
Int. Std.: UXX1003090-01.3
Mobile Phase Lot#:1290941, 1281642
Standard-Samp Reagent Lot#:1284736, 1283379

Reviewed BY: [illegible]
Date: 03/28/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100322-56

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXP0322001.wiff	XIBLK01	LER	3/22/2010 15:33			1		USE	B
EXP0322002.wiff	XIBLK01	LER	3/22/2010 15:59			1		USE	B
EXP0322003.wiff	WXXICAL-50	LER	3/22/2010 16:25			1		USE	I
EXP0322004.wiff	WXXICAL-51	LER	3/22/2010 16:52			1		USE	I
EXP0322005.wiff	WXXICAL-52	LER	3/22/2010 17:18			1		USE	I
EXP0322006.wiff	WXXICAL-53	LER	3/22/2010 17:44			1		USE	I
EXP0322007.wiff	WXXICAL-54	LER	3/22/2010 18:11			1		USE	I
EXP0322008.wiff	WXXICAL-55	LER	3/22/2010 18:37			1		USE	I
EXP0322009.wiff	XIBLK02	LER	3/22/2010 19:04			1		USE	B
EXP0322010.wiff	WXXICV	LER	3/22/2010 19:30			1		USE	C
EXP0322011.wiff	XIBLK03	LER	3/22/2010 19:56			1		USE	B
EXP0322012.wiff	WXXCRI	LER	3/22/2010 20:23			1		USE	C
EXP0322013.wiff	1202047270	LER	3/22/2010 20:49	954941	10-1886	2	LANL	USE	S
EXP0322014.wiff	1202047271	LER	3/22/2010 21:16	954941	10-1886	2	LANL	USE	S
EXP0322015.wiff	247261003	LER	3/22/2010 21:42	954941	10-1886	2	LANL	USE	S
EXP0322016.wiff	1202047272	LER	3/22/2010 22:08	954941	10-1886	2	LANL	USE	S
EXP0322017.wiff	1202047273	LER	3/22/2010 22:35	954941	10-1886	2	LANL	USE	S
EXP0322018.wiff	WXXCCV	LER	3/22/2010 23:01			1		USE	C
EXP0322019.wiff	XIBLK04	LER	3/22/2010 23:27			1		USE	B
EXP0322020.wiff	WXXCRI	LER	3/22/2010 23:54			1		USE	C
EXP0322021.wiff	1202052389	LER	3/23/2010 0:20	957192	VARIOUS	2	LANL	USE	S
EXP0322022.wiff	1202052390	LER	3/23/2010 0:47	957192	VARIOUS	2	LANL	USE	S
EXP0322023.wiff	247824003	LER	3/23/2010 1:13	957192	10-2005	2	LANL	USE	S
EXP0322024.wiff	247828003	LER	3/23/2010 1:40	957192	10-2000	2	LANL	USE	S
EXP0322025.wiff	1202052393	LER	3/23/2010 2:06	957192	10-2000	2	LANL	USE	S
EXP0322026.wiff	1202052394	LER	3/23/2010 2:32	957192	10-2000	2	LANL	USE	S
EXP0322027.wiff	247830002	LER	3/23/2010 2:59	957192	10-2007	2	LANL	DUSE-RA	S
EXP0322028.wiff	1202052391	LER	3/23/2010 3:25	957192	10-2007	2	LANL	USE	S
EXP0322029.wiff	1202052392	LER	3/23/2010 3:52	957192	10-2007	2	LANL	USE	S

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EXP0322030.wiff	WXXCCV	LER	3/23/2010 4:18			1		USE	C
EXP0322031.wiff	XIBLK05	LER	3/23/2010 4:44			1		USE	B
EXP0322032.wiff	WXXCRI	LER	3/23/2010 5:11			1		USE	C
EXP0322033.wiff	1202073689	LER	3/23/2010 5:37	966289	VARIOUS	2	LANL	USE	S
EXP0322034.wiff	1202073690	LER	3/23/2010 6:04	966289	VARIOUS	2	LANL	USE	S
EXP0322035.wiff	249327010	LER	3/23/2010 6:30	966289	10-2428	2	LANL	USE	S
EXP0322036.wiff	1202073691	LER	3/23/2010 6:57	966289	10-2428	2	LANL	DUSE-RA	S
EXP0322037.wiff	1202073692	LER	3/23/2010 7:23	966289	10-2428	2	LANL	USE	S
EXP0322038.wiff	249373002	LER	3/23/2010 7:49	966289	10-2453	2	LANL	USE	S
EXP0322039.wiff	249375003	LER	3/23/2010 8:16	966289	10-2445	2	LANL	USE	S
EXP0322040.wiff	249375009	LER	3/23/2010 8:42	966289	10-2445	2	LANL	USE	S
EXP0322041.wiff	WXXCCV	LER	3/23/2010 9:09			1		USE	C
EXP0322042.wiff	XIBLK06	LER	3/23/2010 9:35			1		USE	B
EXP0322043.wiff	WXXCRI	LER	3/23/2010 10:02			1		USE	C
EXP0322044.wiff	XIBLK07	LER	3/23/2010 11:36			1		USE	B
EXP0322045.wiff	WXXCCV	LER	3/23/2010 12:02			1		USE	C
EXP0322046.wiff	XIBLK08	LER	3/23/2010 12:29			1		USE	B
EXP0322047.wiff	WXXCRI	LER	3/23/2010 12:55			1		USE	C
EXP0322048.wiff	1202041953	LER	3/23/2010 13:22	952706	10-1758	2	LANL	USE	S
EXP0322049.wiff	1202041954	LER	3/23/2010 13:48	952706	10-1758	2	LANL	DUSE-RA	S
EXP0322050.wiff	246866002	LER	3/23/2010 14:14	952706	10-1758	2	LANL	USE	S
EXP0322051.wiff	1202041955	LER	3/23/2010 14:41	952706	10-1758	2	LANL	USE	S
EXP0322052.wiff	1202041956	LER	3/23/2010 15:07	952706	10-1758	2	LANL	USE	S
EXP0322053.wiff	246866003	LER	3/23/2010 15:33	952706	10-1758	2	LANL	USE	S
EXP0322054.wiff	246866004	LER	3/23/2010 16:00	952706	10-1758	2	LANL	USE	S
EXP0322055.wiff	246866005	LER	3/23/2010 16:26	952706	10-1758	2	LANL	USE	S
EXP0322056.wiff	246866006	LER	3/23/2010 16:53	952706	10-1758	2	LANL	USE	S
EXP0322057.wiff	246866007	LER	3/23/2010 17:19	952706	10-1758	2	LANL	USE	S
EXP0322058.wiff	WXXCCV	LER	3/23/2010 17:46			1		USE	C
EXP0322059.wiff	XIBLK09	LER	3/23/2010 18:12			1		USE	B
EXP0322060.wiff	WXXCRI	LER	3/23/2010 18:39			1		USE	C
EXP0322061.wiff	246866008	LER	3/23/2010 19:05	952706	10-1758	2	LANL	USE	S
EXP0322062.wiff	246866009	LER	3/23/2010 19:31	952706	10-1758	2	LANL	USE	S
EXP0322063.wiff	WXXCCV	LER	3/23/2010 19:58			1		USE	C
EXP0322064.wiff	XIBLK10	LER	3/23/2010 20:24			1		USE	B
EXP0322065.wiff	WXXCRI	LER	3/23/2010 20:51			1		USE	C
EXP0322066.wiff	1202045643	LER	3/23/2010 21:17	954271	VARIOUS	2	LANL	DUSE-RA	S

EXP0322067.wiff	1202045644	LER	3/23/2010 21:43	954271	VARIOUS	2	LANL	DUSE-RA	S
EXP0322068.wiff	247172001	LER	3/23/2010 22:10	954271	10-1866	2	LANL	DUSE-RA	S
EXP0322069.wiff	247172002	LER	3/23/2010 22:36	954271	10-1866	2	LANL	DUSE-RA	S
EXP0322070.wiff	247175001	LER	3/23/2010 23:03	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322071.wiff	247175002	LER	3/23/2010 23:29	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322072.wiff	247175003	LER	3/23/2010 23:56	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322073.wiff	247175004	LER	3/24/2010 0:22	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322074.wiff	247175005	LER	3/24/2010 0:48	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322075.wiff	247175006	LER	3/24/2010 1:15	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322076.wiff	WXXCCV	LER	3/24/2010 1:41			1		DUSE	C
EXP0322077.wiff	XIBLK11	LER	3/24/2010 2:08			1		DUSE	B
EXP0322078.wiff	WXXCRI	LER	3/24/2010 2:34			1		DUSE	C
EXP0322079.wiff	247175007	LER	3/24/2010 3:01	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322080.wiff	247175008	LER	3/24/2010 3:27	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322081.wiff	247175009	LER	3/24/2010 3:54	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322082.wiff	247175010	LER	3/24/2010 4:20	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322083.wiff	247181001	LER	3/24/2010 4:46	954271	10-1871-1	2	LANL	DUSE-RA	S
EXP0322084.wiff	247181002	LER	3/24/2010 5:13	954271	10-1871-1	2	LANL	DUSE-RA	S
EXP0322085.wiff	247187001	LER	3/24/2010 5:39	954271	10-1867	2	LANL	DUSE-RA	S
EXP0322086.wiff	247187002	LER	3/24/2010 6:06	954271	10-1867	2	LANL	DUSE-RA	S
EXP0322087.wiff	247187003	LER	3/24/2010 6:32	954271	10-1867	2	LANL	DUSE-RA	S
EXP0322088.wiff	WXXCCV	LER	3/24/2010 6:59			1		DUSE	C
EXP0322089.wiff	XIBLK12	LER	3/24/2010 7:25			1		DUSE	B
EXP0322090.wiff	WXXCRI	LER	3/24/2010 7:52			1		DUSE	C

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS4

Date: 03/16/10 Method: 8321A-Modified Reviewed By: Hmm
Extr. Injection Volume: 10uL Int. Std.: N/A Date: 03/22/10
Sequence Number: 031610exs Mobile Phase Lot#:1268566, 1268568 SOP: GL-OA-E-056 Rev.12
Initial Calibration Date: 031610 Standard-Samp Reagent Lot# :1274562, 1261217 Alt Check Std. ID: WXX100316-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS03160001.wiff	XIBLK01	LER	3/16/2010 8:17			1		USE	B
EXS03160002.wiff	XIBLK01	LER	3/16/2010 8:33			1		USE	B
EXS03160003.wiff	WXXICAL-19	LER	3/16/2010 8:49			1		USE	I
EXS03160004.wiff	WXXICAL-20	LER	3/16/2010 9:04			1		USE	I
EXS03160005.wiff	WXXICAL-21	LER	3/16/2010 9:20			1		USE	I
EXS03160006.wiff	WXXICAL-22	LER	3/16/2010 9:36			1		USE	I
EXS03160007.wiff	WXXICAL-23	LER	3/16/2010 9:52			1		USE	I
EXS03160008.wiff	WXXICAL-24	LER	3/16/2010 10:07			1		USE	I
EXS03160009.wiff	WXXICAL-25	LER	3/16/2010 10:23			1		USE	I
EXS03160010.wiff	XIBLK02	LER	3/16/2010 10:39			1		USE	B
EXS03160011.wiff	WXXICV	LER	3/16/2010 10:54			1		USE	C
EXS03160012.wiff	XIBLK03	LER	3/16/2010 11:10			1		USE	B
EXS03160013.wiff	WXXCRI	LER	3/16/2010 11:26			1		USE	C
EXS03160014.wiff	1202049932	LER	3/16/2010 11:41	956053	VARIOUS	2	LANL	USE	S
EXS03160015.wiff	1202049933	LER	3/16/2010 11:57	956053	VARIOUS	2	LANL	USE	S
EXS03160016.wiff	247545001	LER	3/16/2010 12:13	956053	10-1964	2	LANL	USE	S
EXS03160017.wiff	247545002	LER	3/16/2010 12:29	956053	10-1964	2	LANL	USE	S
EXS03160018.wiff	247551001	LER	3/16/2010 12:44	956053	10-1969	2	LANL	USE	S
EXS03160019.wiff	247551002	LER	3/16/2010 13:00	956053	10-1969	2	LANL	USE	S
EXS03160020.wiff	247552002	LER	3/16/2010 13:16	956053	10-1970	2	LANL	USE	S
EXS03160021.wiff	247556001	LER	3/16/2010 13:31	956053	10-1953	2	LANL	USE	S
EXS03160022.wiff	1202049934	LER	3/16/2010 13:47	956053	10-1953	2	LANL	USE	S
EXS03160023.wiff	1202049935	LER	3/16/2010 14:03	956053	10-1953	2	LANL	USE	S
EXS03160024.wiff	WXXCCV	LER	3/16/2010 14:18			1		USE	C
EXS03160025.wiff	XIBLK04	LER	3/16/2010 14:34			1		USE	B
EXS03160026.wiff	WXXCRI	LER	3/16/2010 14:50			1		USE	C
EXS03160027.wiff	247556002	LER	3/16/2010 15:06	956053	10-1953	2	LANL	DUSE-RA	S
EXS03160028.wiff	247556003	LER	3/16/2010 15:21	956053	10-1953	2	LANL	DUSE-RA	S
EXS03160029.wiff	247556004	LER	3/16/2010 15:37	956053	10-1953	2	LANL	DUSE-RA	S
EXS03160030.wiff	247556005	LER	3/16/2010 15:53	956053	10-1953	2	LANL	DUSE-RA	S

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EXS03160031.wiff	247565001	LER	3/16/2010 16:08	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160032.wiff	247565002	LER	3/16/2010 16:24	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160033.wiff	247565003	LER	3/16/2010 16:40	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160034.wiff	247565004	LER	3/16/2010 16:56	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160035.wiff	247565005	LER	3/16/2010 17:11	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160036.wiff	247565006	LER	3/16/2010 17:27	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160037.wiff	WXXCCV	LER	3/16/2010 17:43			1		DUSE	C
EXS03160038.wiff	XIBLK05	LER	3/16/2010 17:58			1		DUSE	B
EXS03160039.wiff	WXXCRI	LER	3/16/2010 18:14			1		DUSE	C
EXS03160040.wiff	247565007	LER	3/16/2010 18:30	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160041.wiff	247565008	LER	3/16/2010 18:45	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160042.wiff	247565009	LER	3/16/2010 19:01	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160043.wiff	247565010	LER	3/16/2010 19:17	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160044.wiff	XIBLK06	LER	3/16/2010 19:33			1		DUSE-RA	B
EXS03160045.wiff	1202055047	LER	3/16/2010 19:48	958273	VARIOUS	2	LANL	DUSE-RA	S
EXS03160046.wiff	1202055048	LER	3/16/2010 20:04	958273	VARIOUS	2	LANL	DUSE-RA	S
EXS03160047.wiff	248059002	LER	3/16/2010 20:20	958273	10-2082	2	LANL	DUSE-RA	S
EXS03160048.wiff	248059003	LER	3/16/2010 20:36	958273	10-2082	2	LANL	DUSE-RA	S
EXS03160049.wiff	248059004	LER	3/16/2010 20:51	958273	10-2082	2	LANL	DUSE-RA	S
EXS03160050.wiff	WXXCCV	LER	3/16/2010 21:07			1		USE	C
EXS03160051.wiff	XIBLK07	LER	3/16/2010 21:23			1		USE	B
EXS03160052.wiff	WXXCRI	LER	3/16/2010 21:38			1		USE	C
EXS03160053.wiff	248059005	LER	3/16/2010 21:54	958273	10-2082	2	LANL	USE	S
EXS03160054.wiff	248059006	LER	3/16/2010 22:10	958273	10-2082	2	LANL	USE	S
EXS03160055.wiff	248059007	LER	3/16/2010 22:26	958273	10-2082	2	LANL	USE	S
EXS03160056.wiff	248059008	LER	3/16/2010 22:41	958273	10-2082	2	LANL	USE	S
EXS03160057.wiff	248059009	LER	3/16/2010 22:57	958273	10-2082	2	LANL	USE	S
EXS03160058.wiff	248060003	LER	3/16/2010 23:13	958273	10-2080	2	LANL	USE	S
EXS03160059.wiff	248060004	LER	3/16/2010 23:28	958273	10-2080	2	LANL	USE	S
EXS03160060.wiff	248060005	LER	3/16/2010 23:44	958273	10-2080	2	LANL	USE	S
EXS03160061.wiff	248060006	LER	3/17/2010 0:00	958273	10-2080	2	LANL	USE	S
EXS03160062.wiff	WXXCCV	LER	3/17/2010 0:16			1		USE	C
EXS03160063.wiff	XIBLK08	LER	3/17/2010 0:31			1		USE	B
EXS03160064.wiff	WXXCRI	LER	3/17/2010 0:47			1		USE	C
EXS03160065.wiff	248064001	LER	3/17/2010 1:03	958273	10-2085	2	LANL	USE	S
EXS03160066.wiff	1202055049	LER	3/17/2010 1:18	958273	10-2085	2	LANL	USE	S
EXS03160067.wiff	1202055050	LER	3/17/2010 1:34	958273	10-2085	2	LANL	USE	S

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EXS03160068.wiff	248064002	LER	3/17/2010 1:50	958273	10-2085	2	LANL	USE	S
EXS03160069.wiff	248064003	LER	3/17/2010 2:06	958273	10-2085	2	LANL	USE	S
EXS03160070.wiff	248064004	LER	3/17/2010 2:21	958273	10-2085	2	LANL	USE	S
EXS03160071.wiff	248064005	LER	3/17/2010 2:37	958273	10-2085	2	LANL	USE	S
EXS03160072.wiff	248064006	LER	3/17/2010 2:53	958273	10-2085	2	LANL	USE	S
EXS03160073.wiff	248064007	LER	3/17/2010 3:08	958273	10-2085	2	LANL	USE	S
EXS03160074.wiff	248064008	LER	3/17/2010 3:24	958273	10-2085	2	LANL	USE	S
EXS03160075.wiff	WXXCCV	LER	3/17/2010 3:40			1		USE	C
EXS03160076.wiff	XIBLK09	LER	3/17/2010 3:55			1		USE	B
EXS03160077.wiff	WXXCRI	LER	3/17/2010 4:11			1		USE	C
EXS03160078.wiff	1202057490	LER	3/17/2010 4:27	959334	VARIOUS	2	LANL	USE	S
EXS03160079.wiff	1202057491	LER	3/17/2010 4:43	959334	VARIOUS	2	LANL	USE	S
EXS03160080.wiff	248202001	LER	3/17/2010 4:58	959334	10-2124	2	LANL	USE	S
EXS03160081.wiff	248202002	LER	3/17/2010 5:14	959334	10-2124	2	LANL	USE	S
EXS03160082.wiff	248203002	LER	3/17/2010 5:30	959334	10-2125	2	LANL	USE	S
EXS03160083.wiff	248234001	LER	3/17/2010 5:45	959334	10-2131	2	LANL	USE	S
EXS03160084.wiff	248234002	LER	3/17/2010 6:01	959334	10-2131	2	LANL	USE	S
EXS03160085.wiff	248234003	LER	3/17/2010 6:17	959334	10-2131	2	LANL	USE	S
EXS03160086.wiff	248234004	LER	3/17/2010 6:32	959334	10-2131	2	LANL	USE	S
EXS03160087.wiff	248234005	LER	3/17/2010 6:48	959334	10-2131	2	LANL	USE	S
EXS03160088.wiff	WXXCCV	LER	3/17/2010 7:04			1		USE	C
EXS03160089.wiff	XIBLK10	LER	3/17/2010 7:20			1		USE	B
EXS03160090.wiff	WXXCRI	LER	3/17/2010 7:35			1		USE	C
EXS03160091.wiff	248234006	LER	3/17/2010 7:51	959334	10-2131	2	LANL	USE	S
EXS03160092.wiff	248234007	LER	3/17/2010 8:07	959334	10-2131	2	LANL	USE	S
EXS03160093.wiff	248240001	LER	3/17/2010 8:22	959334	10-2134	2	LANL	USE	S
EXS03160094.wiff	1202057492	LER	3/17/2010 8:38	959334	10-2134	2	LANL	USE	S
EXS03160095.wiff	1202057493	LER	3/17/2010 8:54	959334	10-2134	2	LANL	USE	S
EXS03160096.wiff	248240002	LER	3/17/2010 9:10	959334	10-2134	2	LANL	USE	S
EXS03160097.wiff	248240003	LER	3/17/2010 9:25	959334	10-2134	2	LANL	USE	S
EXS03160098.wiff	248240004	LER	3/17/2010 9:41	959334	10-2134	2	LANL	USE	S
EXS03160099.wiff	248240005	LER	3/17/2010 9:57	959334	10-2134	2	LANL	USE	S
EXS03160100.wiff	248240006	LER	3/17/2010 10:12	959334	10-2134	2	LANL	USE	S
EXS03160101.wiff	WXXCCV	LER	3/17/2010 10:28			1		USE	C
EXS03160102.wiff	XIBLK11	LER	3/17/2010 10:44			1		USE	B
EXS03160103.wiff	WXXCRI	LER	3/17/2010 10:59			1		USE	C
EXS03160104.wiff	248240007	LER	3/17/2010 11:15	959334	10-2134	2	LANL	USE	S

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EXS03160105.wiff	248240008	LER	3/17/2010 11:31	959334	10-2134	2	LANL	USE	S
EXS03160106.wiff	248240009	LER	3/17/2010 11:47	959334	10-2134	2	LANL	USE	S
EXS03160107.wiff	248240010	LER	3/17/2010 12:02	959334	10-2134	2	LANL	USE	S
EXS03160108.wiff	WXXCCV	LER	3/17/2010 12:18			1		USE	C
EXS03160109.wiff	XIBLK12	LER	3/17/2010 12:34			1		USE	B
EXS03160110.wiff	WXXCRI	LER	3/17/2010 12:49			1		USE	C
EXS03160111.wiff	247556002	LER	3/17/2010 13:05	956053	10-1953	2	LANL	DUSE-RA	S
EXS03160112.wiff	247556003	LER	3/17/2010 13:21	956053	10-1953	2	LANL	DUSE-RA	S
EXS03160113.wiff	247556004	LER	3/17/2010 13:37	956053	10-1953	2	LANL	DUSE-RA	S
EXS03160114.wiff	247556005	LER	3/17/2010 13:52	956053	10-1953	2	LANL	DUSE-RA	S
EXS03160115.wiff	247565001	LER	3/17/2010 14:08	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160116.wiff	247565002	LER	3/17/2010 14:24	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160117.wiff	247565003	LER	3/17/2010 14:39	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160118.wiff	247565004	LER	3/17/2010 14:55	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160119.wiff	247565005	LER	3/17/2010 15:11	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160120.wiff	247565006	LER	3/17/2010 15:27	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160121.wiff	WXXCCV	LER	3/17/2010 15:42			1		DUSE	C
EXS03160122.wiff	XIBLK13	LER	3/17/2010 15:58			1		DUSE	B
EXS03160123.wiff	WXXCRI	LER	3/17/2010 16:14			1		DUSE	C
EXS03160124.wiff	247565007	LER	3/17/2010 16:29	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160125.wiff	247565008	LER	3/17/2010 16:45	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160126.wiff	247565009	LER	3/17/2010 17:01	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160127.wiff	247565010	LER	3/17/2010 17:17	956053	10-1956	2	LANL	DUSE-RA	S
EXS03160128.wiff	XIBLK14	LER	3/17/2010 17:32			1		DUSE-RA	B
EXS03160129.wiff	1202055047	LER	3/17/2010 17:48	958273	VARIOUS	2	LANL	DUSE-RA	S
EXS03160130.wiff	1202055048	LER	3/17/2010 18:04	958273	VARIOUS	2	LANL	DUSE-RA	S
EXS03160131.wiff	248059002	LER	3/17/2010 18:19	958273	10-2082	2	LANL	DUSE-RA	S
EXS03160132.wiff	248059003	LER	3/17/2010 18:35	958273	10-2082	2	LANL	DUSE-RA	S
EXS03160133.wiff	248059004	LER	3/17/2010 18:51	958273	10-2082	2	LANL	DUSE-RA	S
EXS03160134.wiff	WXXCCV	LER	3/17/2010 19:07			1		USE	C
EXS03160135.wiff	XIBLK15	LER	3/17/2010 19:22			1		USE	B
EXS03160136.wiff	WXXCRI	LER	3/17/2010 19:38			1		USE	C
EXS03160137.wiff	1202047270	LER	3/17/2010 19:54	954941	10-1886	2	LANL	USE	S
EXS03160138.wiff	1202047271	LER	3/17/2010 20:09	954941	10-1886	2	LANL	USE	S
EXS03160139.wiff	247261003	LER	3/17/2010 20:25	954941	10-1886	2	LANL	USE	S
EXS03160140.wiff	1202047272	LER	3/17/2010 20:41	954941	10-1886	2	LANL	USE	S
EXS03160141.wiff	1202047273	LER	3/17/2010 20:57	954941	10-1886	2	LANL	USE	S

EXS03160142.wiff	WXXCCV	LER	3/17/2010 21:12			1		USE	C
EXS03160143.wiff	XIBLK16	LER	3/17/2010 21:28			1		USE	B
EXS03160144.wiff	WXXCRI	LER	3/17/2010 21:44			1		USE	C
EXS03160145.wiff	UXX100223-02.2	LER	3/17/2010 21:59	SCREEN	SOLID	2	O2SI	USE	S
EXS03160146.wiff	XIBLK17	LER	3/17/2010 22:15			1		USE	B
EXS03160147.wiff	1202055940	LER	3/17/2010 22:31	958640	VARIOUS	2	LANL	USE	S
EXS03160148.wiff	1202055941	LER	3/17/2010 22:46	958640	VARIOUS	2	LANL	USE	S
EXS03160149.wiff	248130002	LER	3/17/2010 23:02	958640	10-2097	2	LANL	USE	S
EXS03160150.wiff	248130003	LER	3/17/2010 23:18	958640	10-2097	2	LANL	USE	S
EXS03160151.wiff	248130004	LER	3/17/2010 23:34	958640	10-2097	2	LANL	USE	S
EXS03160152.wiff	248130005	LER	3/17/2010 23:49	958640	10-2097	2	LANL	USE	S
EXS03160153.wiff	248184002	LER	3/18/2010 0:05	958640	10-2119	2	LANL	USE	S
EXS03160154.wiff	248184003	LER	3/18/2010 0:21	958640	10-2119	2	LANL	USE	S
EXS03160155.wiff	WXXCCV	LER	3/18/2010 0:36			1		USE	C
EXS03160156.wiff	XIBLK18	LER	3/18/2010 0:52			1		USE	B
EXS03160157.wiff	WXXCRI	LER	3/18/2010 1:08			1		USE	C
EXS03160158.wiff	248197001	LER	3/18/2010 1:23	958640	10-2121	2	LANL	USE	S
EXS03160159.wiff	1202055942	LER	3/18/2010 1:39	958640	10-2121	2	LANL	USE	S
EXS03160160.wiff	1202055943	LER	3/18/2010 1:55	958640	10-2121	2	LANL	USE	S
EXS03160161.wiff	248197002	LER	3/18/2010 2:11	958640	10-2121	2	LANL	USE	S
EXS03160162.wiff	248197003	LER	3/18/2010 2:26	958640	10-2121	2	LANL	USE	S
EXS03160163.wiff	248197004	LER	3/18/2010 2:42	958640	10-2121	2	LANL	USE	S
EXS03160164.wiff	248197005	LER	3/18/2010 2:58	958640	10-2121	2	LANL	USE	S
EXS03160165.wiff	248197007	LER	3/18/2010 3:13	958640	10-2121	2	LANL	USE	S
EXS03160166.wiff	248197008	LER	3/18/2010 3:29	958640	10-2121	2	LANL	USE	S
EXS03160167.wiff	248197009	LER	3/18/2010 3:45	958640	10-2121	2	LANL	USE	S
EXS03160168.wiff	WXXCCV	LER	3/18/2010 4:00			1		USE	C
EXS03160169.wiff	XIBLK19	LER	3/18/2010 4:16			1		USE	B
EXS03160170.wiff	WXXCRI	LER	3/18/2010 4:32			1		USE	C
EXS03160171.wiff	248197010	LER	3/18/2010 4:48	958640	10-2121	2	LANL	USE	S
EXS03160172.wiff	248197011	LER	3/18/2010 5:03	958640	10-2121	2	LANL	USE	S
EXS03160173.wiff	248197012	LER	3/18/2010 5:19	958640	10-2121	2	LANL	USE	S
EXS03160174.wiff	248197013	LER	3/18/2010 5:35	958640	10-2121	2	LANL	USE	S
EXS03160175.wiff	WXXCCV	LER	3/18/2010 5:50			1		USE	C
EXS03160176.wiff	XIBLK20	LER	3/18/2010 6:06			1		USE	B
EXS03160177.wiff	WXXCRI	LER	3/18/2010 6:22			1		USE	C

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DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
28-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LC-MS/MS	SW846 3535/8321A Modified	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
954941	See Below		

Potentially affected work order(s)(SDG): 247261(10-1886)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The MS(1202047272) did not meet acceptance criteria for the recovery of Tetryl at 15.4% and for the recovery of 2,6-Dinitrotoluene 82.3%. The limits are 26-116% and 83-114% respectively.	1. The LCS(1202047271) and MSD(1202047273) have passing recoveries for all spiked analytes. The failures may be attributed to matrix and were not confirmed by the MSD due to non-homogeneous sample matrix. The failing analytes were not detected in the parent sample. The data are reported.
2. The MS(1202047272)/MSD(1202047273) did not meet acceptance criteria for RPD limits for Tetryl at 79.8%. The limit is 30%.	2. Failing RPD may be attributed to non-homogeneous sample matrix. Tetryl was not detected in the parent sample. The data are reported.

Originator's Name:

Lynne Russell 28-MAR-10

Data Validator/Group Leader:

Herbert Maier 28-MAR-10

GC SEMIVOLATILE PESTICIDE ANALYSIS

Pesticide Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1886

Method/Analysis Information

Procedure:	**Analysis of Organochlorine Pesticides and Chlorinated Hydrocarbons by ECD**
Analytical Method:	SW846 8081A
Prep Method:	SW846 3510C
Analytical Batch Number:	955055
Prep Batch Number:	955054

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8081A:

Sample ID	Client ID
247261006	CAPA-10-12691
1202047509	Method Blank (MB)
1202047510	Laboratory Control Sample (LCS)
1202047513	Laboratory Control Sample (LCS)-Toxaphene LCS Only
1202047511	247261006(CAPA-10-12691) Matrix Spike (MS)
1202047512	247261006(CAPA-10-12691) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-041 REV# 10.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

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

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
The calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

Several target analytes failed to meet the acceptance criteria with positive bias on one analytical column in the standard bracketing the sample in this SDG. The positive bias for the analytical data is a result of instrument response increasing after the initial calibration. These target analytes were not detected in the associated samples; therefore, the non-compliance has no adverse effects on the data.

Quality Control (QC) Information

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

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 247261006 (CAPA-10-12691) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information:

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

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. Florisil was used during sample preparation.

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

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information:

Electronic Package Comment

This package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates

are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this pesticide fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The lower results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-Pesticide analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD7A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide I)
ECD7A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

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

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: Jimi Cao Date: 3/18/10

Roadmap for LANL 10-1886 PEST

This roadmap was analyzed by jam00798 on 02-22-2010, 12:02.
This roadmap was reviewed by jim01140 on 02-23-2010, 09:58.
This roadmap was packaged by yml on 03-18-2010, 06:31.
This roadmap was validated by jim01140 on 03-18-2010, 09:03.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd7a.i/022010.b/019f1901.d	247261006	sample	20-FEB-2010	17:37	10-1886.sub	CAPA-10-12691	1.00000	955055	USE: LOWER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd7a.i/022010.b/019b1901.d	247261006	sample	20-FEB-2010	17:37	10-1886.sub	CAPA-10-12691	1.00000	955055	USE: LOWER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd7a.i/022010.b/016f1601.d	1202047509	mb	20-FEB-2010	16:46	10-1886.sub	PBLK01	1.00000	955055	USE: LOWER
☐	N	/chem/ecd7a.i/022010.b/017f1701.d	1202047510	lcs	20-FEB-2010	17:03	10-1886.sub	PBLK01LCS	1.00000	955055	USE: LOWER
☐	N	/chem/ecd7a.i/022010.b/018f1801.d	1202047513	lcs	20-FEB-2010	17:20	10-1886.sub	PBLK01TLCS	1.00000	955055	USE: LOWER
☐	N	/chem/ecd7a.i/022010.b/020f2001.d	1202047511	ms	20-FEB-2010	17:54	10-1886.sub	CAPA-10-12691MS	1.00000	955055	USE: LOWER
☐	N	/chem/ecd7a.i/022010.b/021f2101.d	1202047512	msd	20-FEB-2010	18:11	10-1886.sub	CAPA-10-12691MSD	1.00000	955055	USE: LOWER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd7a.i/022010.b/016b1601.d	1202047509	mb	20-FEB-2010	16:46	10-1886.sub	PBLK01	1.00000	955055	USE: LOWER
☐	N	/chem/ecd7a.i/022010.b/017b1701.d	1202047510	lcs	20-FEB-2010	17:03	10-1886.sub	PBLK01LCS	1.00000	955055	USE: LOWER
☐	N	/chem/ecd7a.i/022010.b/018b1801.d	1202047513	lcs	20-FEB-2010	17:20	10-1886.sub	PBLK01TLCS	1.00000	955055	USE: LOWER
☐	N	/chem/ecd7a.i/022010.b/020b2001.d	1202047511	ms	20-FEB-2010	17:54	10-1886.sub	CAPA-10-12691MS	1.00000	955055	USE: LOWER
☐	N	/chem/ecd7a.i/022010.b/021b2101.d	1202047512	msd	20-FEB-2010	18:11	10-1886.sub	CAPA-10-12691MSD	1.00000	955055	USE: LOWER

SAMPLE DATA SUMMARY

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261006**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA–10–12691**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**955055**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**02/20/2010 17:37**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/19/2010 14:35**	**Aliquot:**	**880 mL**	**Final Volume:**	**5 mL**
Data File:	**019f1901.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	019b1901.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.0227	ug/L	0.00568	0.0227	1
58–89–9	gamma–BHC (Lindane)	U	0.0227	ug/L	0.00568	0.0227	1
319–85–7	beta–BHC	U	0.0227	ug/L	0.00682	0.0227	1
319–86–8	delta–BHC	U	0.0227	ug/L	0.00568	0.0227	1
76–44–8	Heptachlor	U	0.0227	ug/L	0.00568	0.0227	1
309–00–2	Aldrin	U	0.0227	ug/L	0.00568	0.0227	1
1024–57–3	Heptachlor epoxide	U	0.0227	ug/L	0.00568	0.0227	1
5103–74–2	gamma–Chlordane	U	0.0227	ug/L	0.00568	0.0227	1
5103–71–9	alpha–Chlordane	U	0.0227	ug/L	0.00568	0.0227	1
959–98–8	Endosulfan I	U	0.0227	ug/L	0.00568	0.0227	1
72–55–9	4,4'–DDE	U	0.0455	ug/L	0.00568	0.0455	1
60–57–1	Dieldrin	U	0.0455	ug/L	0.0114	0.0455	1
72–20–8	Endrin	U	0.0455	ug/L	0.0114	0.0455	1
72–54–8	4,4'–DDD	U	0.0455	ug/L	0.0114	0.0455	1
33213–65–9	Endosulfan II	U	0.0455	ug/L	0.0114	0.0455	1
7421–93–4	Endrin aldehyde	U	0.0455	ug/L	0.00568	0.0455	1
50–29–3	4,4'–DDT	U	0.0455	ug/L	0.0114	0.0455	1
1031–07–8	Endosulfan sulfate	U	0.0455	ug/L	0.0114	0.0455	1
72–43–5	Methoxychlor	U	0.227	ug/L	0.0568	0.227	1
53494–70–5	Endrin ketone	U	0.0455	ug/L	0.0114	0.0455	1
8001–35–2	Toxaphene	U	0.568	ug/L	0.170	0.568	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.979	1.14	ug/L	86.1	(30%–105%)
Decachlorobiphenyl	0.876	1.14	ug/L	77.1	(30%–126%)

QUALITY CONTROL SUMMARY

Pesticide

Surrogate Recovery Report

SDG Number: 10–1886

Matrix Type: LIQUID

CAP Column (1) : CLP–1 **CAP Column (2) : CLP–2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202047509	MB for batch 955054	92	88	99	96
1202047510	LCS for batch 955054	89	85	105	100
1202047513	LCS for batch 955054	99	93	114	107
247261006	CAPA–10–12691	92	86	83	77
1202047511	CAPA–10–12691MS	75	71	72	65
1202047512	CAPA–10–12691MSD	80	75	73	67

Surrogate	Acceptance Limits
4CMX = 4cmx	(30%–105%)
DCB = Decachlorobiphenyl	(30%–126%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886
Client ID: LCS for batch 955054
Lab Sample ID: 1202047510
Instrument: ECD7A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 02/20/2010 17:03
Prep Batch ID 955054
Batch ID: 955055
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
319-84-6	LCS	alpha-BHC	0.500	0.0	0.501	100	43-132
58-89-9	LCS	gamma-BHC (Lindane)	0.500	0.0	0.513	103	41-133
319-85-7	LCS	beta-BHC	0.500	0.0	0.498	100	44-130
319-86-8	LCS	delta-BHC	0.500	0.0	0.519	104	45-132
76-44-8	LCS	Heptachlor	0.500	0.0	0.478	96	31-118
309-00-2	LCS	Aldrin	0.500	0.0	0.460	92	30-113
1024-57-3	LCS	Heptachlor epoxide	0.500	0.0	0.499	100	42-121
5103-74-2	LCS	gamma-Chlordane	0.500	0.0	0.522	104	40-128
5103-71-9	LCS	alpha-Chlordane	0.500	0.0	0.515	103	45-127
959-98-8	LCS	Endosulfan I	0.500	0.0	0.511	102	40-128
72-55-9	LCS	4,4'-DDE	1.25	0.0	1.22	98	43-130
60-57-1	LCS	Dieldrin	1.25	0.0	1.22	98	44-129
72-20-8	LCS	Endrin	1.25	0.0	1.35	108	53-141
72-54-8	LCS	4,4'-DDD	1.25	0.0	1.22	97	48-138
33213-65-9	LCS	Endosulfan II	1.25	0.0	1.27	101	42-133
7421-93-4	LCS	Endrin aldehyde	1.25	0.0	1.16	93	39-128
50-29-3	LCS	4,4'-DDT	1.25	0.0	1.42	113	43-157
1031-07-8	LCS	Endosulfan sulfate	1.25	0.0	1.27	102	51-140
72-43-5	LCS	Methoxychlor	5.00	0.0	5.14	103	55-142
53494-70-5	LCS	Endrin ketone	1.25	0.0	1.19	96	47-140

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: **10-1886**
Client ID: **LCS for batch 955054**
Lab Sample ID: **1202047513**
Instrument: **ECD7A.I**
Analyst: **HXJ1**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **GROUND WATER**
Analysis Date: **02/20/2010 17:20**
Prep Batch ID: **955054**
Batch ID: **955055**
Dilution: 1

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
8001-35-2	LCS Toxaphene	4.00	0.0	4.73	118	33-136

Pesticide
Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886
Client ID: CAPA-10-12691MS
Lab Sample ID: 1202047511
Instrument: ECD7A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 02/20/2010 17:54
Prep Batch ID: 955054
Batch ID: 955055
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
319-84-6	MS	alpha-BHC	0.500	0.00	U	0.442	88	33-129
58-89-9	MS	gamma-BHC (Lindane)	0.500	0.00	U	0.447	89	38-125
319-85-7	MS	beta-BHC	0.500	0.00	U	0.557	111	33-131
319-86-8	MS	delta-BHC	0.500	0.00	U	0.459	92	31-130
76-44-8	MS	Heptachlor	0.500	0.00	U	0.415	83	27-118
309-00-2	MS	Aldrin	0.500	0.00	U	0.403	81	29-115
1024-57-3	MS	Heptachlor epoxide	0.500	0.00	U	0.434	87	33-118
5103-74-2	MS	gamma-Chlordane	0.500	0.00	U	0.453	91	31-128
5103-71-9	MS	alpha-Chlordane	0.500	0.00	U	0.437	87	31-129
959-98-8	MS	Endosulfan I	0.500	0.00	U	0.442	88	26-132
72-55-9	MS	4,4'-DDE	1.25	0.00	U	1.09	87	31-129
60-57-1	MS	Dieldrin	1.25	0.00	U	1.06	85	31-127
72-20-8	MS	Endrin	1.25	0.00	U	1.21	97	43-139
72-54-8	MS	4,4'-DDD	1.25	0.00	U	1.16	93	38-137
33213-65-9	MS	Endosulfan II	1.25	0.00	U	1.14	91	31-132
7421-93-4	MS	Endrin aldehyde	1.25	0.00	U	1.00	80	25-125
50-29-3	MS	4,4'-DDT	1.25	0.00	U	1.13	91	31-157
1031-07-8	MS	Endosulfan sulfate	1.25	0.00	U	1.18	95	31-143
72-43-5	MS	Methoxychlor	5.00	0.00	U	4.39	88	42-156
53494-70-5	MS	Endrin ketone	1.25	0.00	U	1.11	89	32-141

Pesticide
Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886
Client ID: CAPA-10-12691MSD
Lab Sample ID: 1202047512
Instrument: ECD7A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 02/20/2010 18:11
Prep Batch ID: 955054
Batch ID: 955055
Dilution: 1

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
319-84-6	MSD alpha-BHC	0.500	0.00	U	0.475	95	33-129	7	0-28
58-89-9	MSD gamma-BHC (Lindane)	0.500	0.00	U	0.479	96	38-125	7	0-22
319-85-7	MSD beta-BHC	0.500	0.00	U	0.640	128	33-131	14	0-28
319-86-8	MSD delta-BHC	0.500	0.00	U	0.486	97	31-130	6	0-29
76-44-8	MSD Heptachlor	0.500	0.00	U	0.444	89	27-118	7	0-23
309-00-2	MSD Aldrin	0.500	0.00	U	0.424	85	29-115	5	0-28
1024-57-3	MSD Heptachlor epoxide	0.500	0.00	U	0.458	92	33-118	5	0-23
5103-74-2	MSD gamma-Chlordane	0.500	0.00	U	0.471	94	31-128	4	0-29
5103-71-9	MSD alpha-Chlordane	0.500	0.00	U	0.455	91	31-129	4	0-30
959-98-8	MSD Endosulfan I	0.500	0.00	U	0.467	93	26-132	5	0-27
72-55-9	MSD 4,4'-DDE	1.25	0.00	U	1.14	91	31-129	5	0-27
60-57-1	MSD Dieldrin	1.25	0.00	U	1.12	90	31-127	5	0-29
72-20-8	MSD Endrin	1.25	0.00	U	1.27	101	43-139	5	0-22
72-54-8	MSD 4,4'-DDD	1.25	0.00	U	1.22	98	38-137	5	0-28
33213-65-9	MSD Endosulfan II	1.25	0.00	U	1.20	96	31-132	5	0-28
7421-93-4	MSD Endrin aldehyde	1.25	0.00	U	1.04	83	25-125	4	0-31
50-29-3	MSD 4,4'-DDT	1.25	0.00	U	1.18	94	31-157	4	0-29
1031-07-8	MSD Endosulfan sulfate	1.25	0.00	U	1.24	99	31-143	5	0-29
72-43-5	MSD Methoxychlor	5.00	0.00	U	4.61	92	42-156	5	0-23
53494-70-5	MSD Endrin ketone	1.25	0.00	U	1.16	93	32-141	4	0-30

Method Blank Summary

SDG Number:	10-1886	Client:	LANL010	Matrix:	GROUND WATER
Client ID:	MB for batch 955054	Instrument ID:	ECD7A.I_2 ECD7A.I_1	Data File:	016b1601.d 016f1601.d
Lab Sample ID:	1202047509			Analyzed:	02/20/10 16:46
Column:	CLP-2 CLP-1	Prep Date:	02/19/2010 14:35		
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 955054	1202047510	017f1701.d 017b1701.d	02/20/10	1703
02 LCS for batch 955054	1202047513	018f1801.d 018b1801.d	02/20/10	1720
03 CAPA-10-12691	247261006	019f1901.d 019b1901.d	02/20/10	1737
04 CAPA-10-12691MS	1202047511	020f2001.d 020b2001.d	02/20/10	1754
05 CAPA-10-12691MSD	1202047512	021f2101.d 021b2101.d	02/20/10	1811

SAMPLE DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261006**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12691**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**955055**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**02/20/2010 17:37**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/19/2010 14:35**	**Aliquot:**	**880 mL**	**Final Volume:**	**5 mL**
Data File:	**019f1901.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	019b1901.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.0227	ug/L	0.00568	0.0227	1
58-89-9	gamma-BHC (Lindane)	U	0.0227	ug/L	0.00568	0.0227	1
319-85-7	beta-BHC	U	0.0227	ug/L	0.00682	0.0227	1
319-86-8	delta-BHC	U	0.0227	ug/L	0.00568	0.0227	1
76-44-8	Heptachlor	U	0.0227	ug/L	0.00568	0.0227	1
309-00-2	Aldrin	U	0.0227	ug/L	0.00568	0.0227	1
1024-57-3	Heptachlor epoxide	U	0.0227	ug/L	0.00568	0.0227	1
5103-74-2	gamma-Chlordane	U	0.0227	ug/L	0.00568	0.0227	1
5103-71-9	alpha-Chlordane	U	0.0227	ug/L	0.00568	0.0227	1
959-98-8	Endosulfan I	U	0.0227	ug/L	0.00568	0.0227	1
72-55-9	4,4'-DDE	U	0.0455	ug/L	0.00568	0.0455	1
60-57-1	Dieldrin	U	0.0455	ug/L	0.0114	0.0455	1
72-20-8	Endrin	U	0.0455	ug/L	0.0114	0.0455	1
72-54-8	4,4'-DDD	U	0.0455	ug/L	0.0114	0.0455	1
33213-65-9	Endosulfan II	U	0.0455	ug/L	0.0114	0.0455	1
7421-93-4	Endrin aldehyde	U	0.0455	ug/L	0.00568	0.0455	1
50-29-3	4,4'-DDT	U	0.0455	ug/L	0.0114	0.0455	1
1031-07-8	Endosulfan sulfate	U	0.0455	ug/L	0.0114	0.0455	1
72-43-5	Methoxychlor	U	0.227	ug/L	0.0568	0.227	1
53494-70-5	Endrin ketone	U	0.0455	ug/L	0.0114	0.0455	1
8001-35-2	Toxaphene	U	0.568	ug/L	0.170	0.568	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.979	1.14	ug/L	86.1	(30%-105%)
Decachlorobiphenyl	0.876	1.14	ug/L	77.1	(30%-126%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022010.b/019f1901.d
Lab Smp Id: 247261006 Client Smp ID: CAPA-10-12691
Inj Date : 20-FEB-2010 17:37
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |247261006|1|
Misc Info : |ECD81A_1L|955055|SVP|LANL|GROUND WATER|CAPA-10-12691||
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Meth Date : 23-Feb-2010 09:05 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031f3101.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1886.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	880.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.884	2.883	0.001	116053148	184.578	1.05	80.00- 120.00	100.00(M)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.105	8.106	-0.001	67068444	165.117	0.938	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022010.b/019f1901.d
Date : 20-FEB-2010 17:37
Client ID: CAPA-10-12691
Sample Info: |247261006|1|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

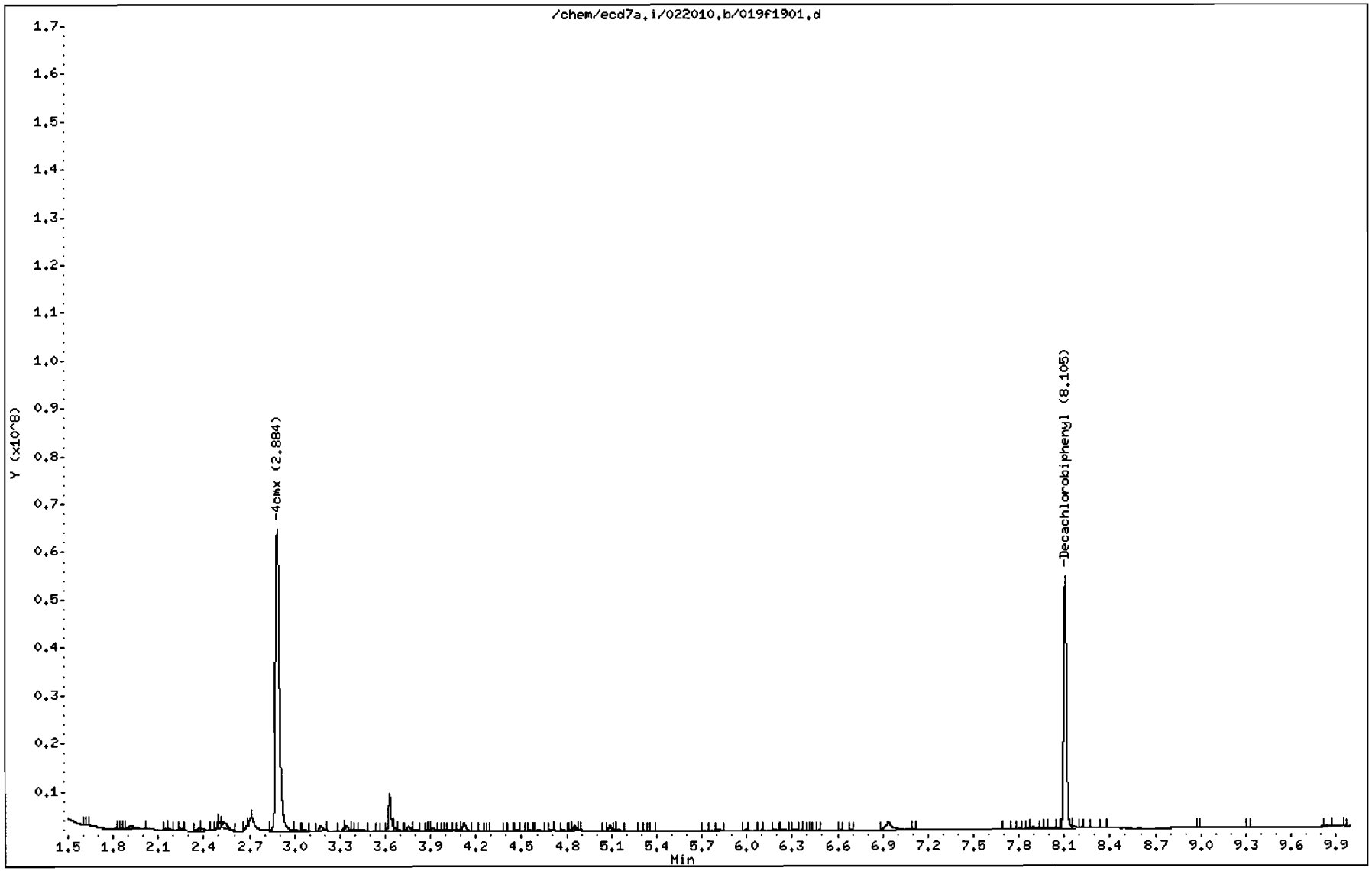

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022010.b/019b1901.d
Lab Smp Id: 247261006 Client Smp ID: CAPA-10-12691
Inj Date : 20-FEB-2010 17:37
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |247261006|1|
Misc Info : |ECD81A_1L|955055|SVP|LANL|GROUND WATER|CAPA-10-12691||
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Meth Date : 23-Feb-2010 09:06 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031b3101.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1886.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	880.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.198	-0.001	87120905	172.271	0.979	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.301	9.302	-0.001	43746229	154.220	0.876	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022010.b/019b1901.d
Date : 20-FEB-2010 17:37
Client ID: CAPA-10-12691
Sample Info: 1247261006111
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

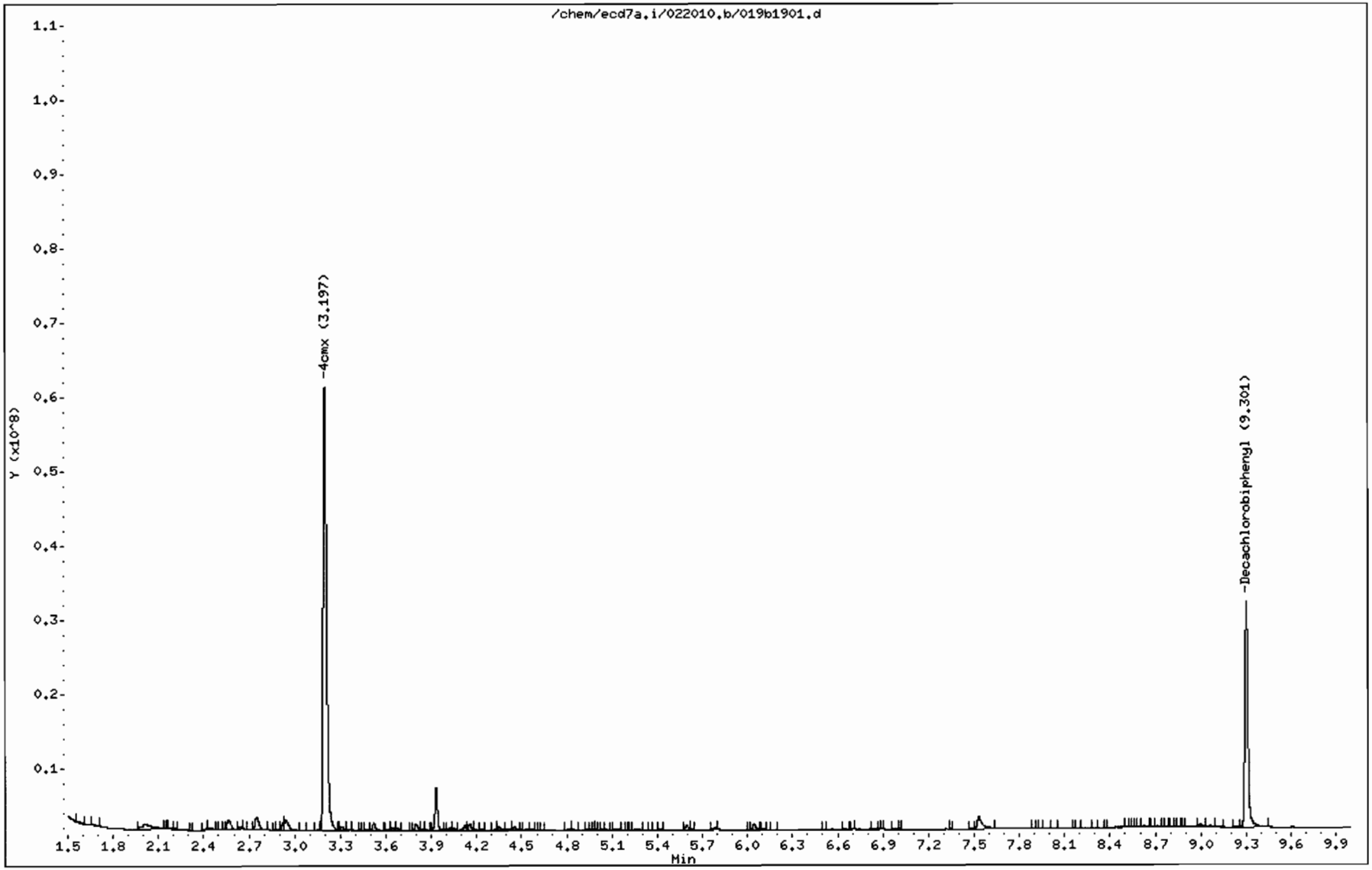

STANDARDS DATA

Report Date: 22-Feb-2010 09:30

Calibration History

Method : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Start Cal Date: 08-SEP-2009 19:34
End Cal Date : 20-FEB-2010 15:55

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
17-FEB-2010 07:36	ar1660	/chem/ecd7a.i/021610a-608.b/027f2701.d
17-FEB-2010 05:53	gapa	/chem/ecd7a.i/021610a-608.b/021f2101.d
17-FEB-2010 22:36	chlor	/chem/ecd7a.i/021710-608.B/024f2401.d
20-FEB-2010 14:46	tox	/chem/ecd7a.i/022010.b/009f0901.d
20-FEB-2010 13:04	indab	/chem/ecd7a.i/022010.b/003f0301.d
Cal Level: 2 , Cal Amount: 10.00000		
17-FEB-2010 07:53	ar1660	/chem/ecd7a.i/021610a-608.b/028f2801.d
17-FEB-2010 06:10	gapa	/chem/ecd7a.i/021610a-608.b/022f2201.d
17-FEB-2010 22:53	chlor	/chem/ecd7a.i/021710-608.B/025f2501.d
20-FEB-2010 15:03	tox	/chem/ecd7a.i/022010.b/010f1001.d
20-FEB-2010 13:21	indab	/chem/ecd7a.i/022010.b/004f0401.d
Cal Level: 3 , Cal Amount: 50.00000		
17-FEB-2010 08:10	ar1660	/chem/ecd7a.i/021610a-608.b/029f2901.d
17-FEB-2010 06:27	gapa	/chem/ecd7a.i/021610a-608.b/023f2301.d
17-FEB-2010 23:10	chlor	/chem/ecd7a.i/021710-608.B/026f2601.d
20-FEB-2010 15:20	tox	/chem/ecd7a.i/022010.b/011f1101.d
20-FEB-2010 13:38	indab	/chem/ecd7a.i/022010.b/005f0501.d
Cal Level: 4 , Cal Amount: 100.00000		
17-FEB-2010 10:26	ar1221	/chem/ecd7a.i/021610a-608.b/037f3701.d
17-FEB-2010 10:09	ar1232	/chem/ecd7a.i/021610a-608.b/036f3601.d
17-FEB-2010 09:52	ar1248	/chem/ecd7a.i/021610a-608.b/035f3501.d
17-FEB-2010 09:35	ar1242	/chem/ecd7a.i/021610a-608.b/034f3401.d
17-FEB-2010 09:18	ar1254	/chem/ecd7a.i/021610a-608.b/033f3301.d
17-FEB-2010 08:27	ar1660	/chem/ecd7a.i/021610a-608.b/030f3001.d
17-FEB-2010 06:44	gapa	/chem/ecd7a.i/021610a-608.b/024f2401.d
17-FEB-2010 23:27	chlor	/chem/ecd7a.i/021710-608.B/027f2701.d
20-FEB-2010 15:37	tox	/chem/ecd7a.i/022010.b/012f1201.d
20-FEB-2010 13:55	indab	/chem/ecd7a.i/022010.b/006f0601.d
Cal Level: 5 , Cal Amount: 200.00000		
17-FEB-2010 08:44	ar1660	/chem/ecd7a.i/021610a-608.b/031f3101.d
17-FEB-2010 07:01	gapa	/chem/ecd7a.i/021610a-608.b/025f2501.d
17-FEB-2010 23:44	chlor	/chem/ecd7a.i/021710-608.B/028f2801.d
20-FEB-2010 15:55	tox	/chem/ecd7a.i/022010.b/013f1301.d
20-FEB-2010 14:12	indab	/chem/ecd7a.i/022010.b/007f0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
20-FEB-2010 16:12	tox	/chem/ecd7a.i/022010.b/014f1401.d
Ccal Level: 4 , Ccal Amount: 100		
20-FEB-2010 15:37	tox	/chem/ecd7a.i/022010.b/012f1201.d
Ccal Level: 4 , Ccal Amount: 100		
20-FEB-2010 14:29	indab	/chem/ecd7a.i/022010.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 100		
20-FEB-2010 13:55	indab	/chem/ecd7a.i/022010.b/006f0601.d

Report Date: 22-Feb-2010 09:30

Calibration History

Method : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Start Cal Date: 08-SEP-2009 19:34
End Cal Date : 20-FEB-2010 15:55

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
17-FEB-2010 07:36	ar1660	/chem/ecd7a.i/021610a-608.b/027b2701.d
17-FEB-2010 05:53	gapa	/chem/ecd7a.i/021610a-608.b/021b2101.d
17-FEB-2010 22:36	chlor	/chem/ecd7a.i/021710-608.B/024b2401.d
20-FEB-2010 14:46	tox	/chem/ecd7a.i/022010.b/009b0901.d
20-FEB-2010 13:04	indab	/chem/ecd7a.i/022010.b/003b0301.d
Cal Level: 2 , Cal Amount: 10.00000		
17-FEB-2010 07:53	ar1660	/chem/ecd7a.i/021610a-608.b/028b2801.d
17-FEB-2010 06:10	gapa	/chem/ecd7a.i/021610a-608.b/022b2201.d
17-FEB-2010 22:53	chlor	/chem/ecd7a.i/021710-608.B/025b2501.d
20-FEB-2010 15:03	tox	/chem/ecd7a.i/022010.b/010b1001.d
20-FEB-2010 13:21	indab	/chem/ecd7a.i/022010.b/004b0401.d
Cal Level: 3 , Cal Amount: 50.00000		
17-FEB-2010 08:10	ar1660	/chem/ecd7a.i/021610a-608.b/029b2901.d
17-FEB-2010 06:27	gapa	/chem/ecd7a.i/021610a-608.b/023b2301.d
17-FEB-2010 23:10	chlor	/chem/ecd7a.i/021710-608.B/026b2601.d
20-FEB-2010 15:20	tox	/chem/ecd7a.i/022010.b/011b1101.d
20-FEB-2010 13:38	indab	/chem/ecd7a.i/022010.b/005b0501.d
Cal Level: 4 , Cal Amount: 100.00000		
17-FEB-2010 10:26	ar1221	/chem/ecd7a.i/021610a-608.b/037b3701.d
17-FEB-2010 10:09	ar1232	/chem/ecd7a.i/021610a-608.b/036b3601.d
17-FEB-2010 09:52	ar1248	/chem/ecd7a.i/021610a-608.b/035b3501.d
17-FEB-2010 09:35	ar1242	/chem/ecd7a.i/021610a-608.b/034b3401.d
17-FEB-2010 09:18	ar1254	/chem/ecd7a.i/021610a-608.b/033b3301.d
17-FEB-2010 08:27	ar1660	/chem/ecd7a.i/021610a-608.b/030b3001.d
17-FEB-2010 06:44	gapa	/chem/ecd7a.i/021610a-608.b/024b2401.d
17-FEB-2010 23:27	chlor	/chem/ecd7a.i/021710-608.B/027b2701.d
20-FEB-2010 15:37	tox	/chem/ecd7a.i/022010.b/012b1201.d
20-FEB-2010 13:55	indab	/chem/ecd7a.i/022010.b/006b0601.d
Cal Level: 5 , Cal Amount: 200.00000		
17-FEB-2010 08:44	ar1660	/chem/ecd7a.i/021610a-608.b/031b3101.d
17-FEB-2010 07:01	gapa	/chem/ecd7a.i/021610a-608.b/025b2501.d
17-FEB-2010 23:44	chlor	/chem/ecd7a.i/021710-608.B/028b2801.d
20-FEB-2010 15:55	tox	/chem/ecd7a.i/022010.b/013b1301.d
20-FEB-2010 14:12	indab	/chem/ecd7a.i/022010.b/007b0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

```
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                             |
+==============================================================================+
|20-FEB-2010 16:12 |tox              |/chem/ecd7a.i/022010.b/014b1401.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                             |
+==============================================================================+
|20-FEB-2010 15:37 |tox              |/chem/ecd7a.i/022010.b/012b1201.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                             |
+==============================================================================+
|20-FEB-2010 14:29 |indab            |/chem/ecd7a.i/022010.b/008b0801.d        |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                             |
+==============================================================================+
|20-FEB-2010 13:55 |indab            |/chem/ecd7a.i/022010.b/006b0601.d        |
+------------------+-----------------+----------------------------------------+
```

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Quant Method : ESTD Target Version : 3.50
Last Update : 22-Feb-2010 09:29 Number of Cpnds : 42
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1814.000000
Initial:End Threshold	907.000000
Initial:Area Threshold	18140.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	4.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.883	2.853-2.913	6.287e+05
61 2,4,5-TCP	2.900	2.800-3.000	
59 Hexachlorobenzene	3.189	3.089-3.289	4.069e+06
2 Aroclor-1221	3.011	2.981-3.041	4.048e+04
	3.120	3.090-3.150	1.964e+04
	3.152	3.122-3.182	9.646e+04
3 Aroclor-1016	3.421	3.391-3.451	1.270e+05
	3.794	3.764-3.824	1.610e+05
	3.905	3.875-3.935	1.085e+05
	3.958	3.928-3.988	7.296e+04
	4.250	4.220-4.280	7.843e+04
4 Aroclor-1232	3.421	3.391-3.451	5.669e+04
	3.904	3.874-3.934	5.223e+04
	3.956	3.926-3.986	3.560e+04
	4.248	4.218-4.278	3.736e+04
	4.651	4.621-4.681	3.927e+04
5 alpha-BHC	3.301	3.271-3.331	7.550e+05
6 Aroclor-1242	3.422	3.322-3.522	1.041e+05
	3.903	3.803-4.003	8.708e+04
	3.956	3.856-4.056	5.910e+04
	4.247	4.147-4.347	6.485e+04
	4.623	4.523-4.723	6.619e+04
7 gamma-BHC (Lindane)	3.553	3.523-3.583	6.511e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.897	3.797-3.997	1.359e+05
	4.719	4.619-4.819	7.663e+04
	4.898	4.798-4.998	4.207e+05
	5.004	4.904-5.104	3.322e+05
	5.023	4.923-5.123	3.104e+05
9 Aroclor-1248	3.794	3.694-3.894	9.767e+04
	4.051	3.951-4.151	1.008e+05
	4.248	4.148-4.348	1.374e+05
	4.623	4.523-4.723	1.613e+05
	4.652	4.552-4.752	1.574e+05
10 Heptachlor	3.948	3.918-3.978	4.733e+05
11 Aldrin	4.213	4.183-4.243	7.302e+05
12 beta-BHC	3.617	3.587-3.647	2.863e+05
13 delta-BHC	3.772	3.742-3.802	6.342e+05
14 Heptachlor epoxide	4.761	4.731-4.791	5.794e+05
15 Aroclor-1254	4.584	4.554-4.614	1.209e+05
	4.819	4.789-4.849	2.110e+05
	5.086	5.056-5.116	1.345e+05
	5.202	5.172-5.232	2.241e+05
	5.472	5.442-5.502	1.709e+05
16 Endosulfan I	5.139	5.109-5.169	5.179e+05
17 gamma-Chlordane	4.878	4.848-4.908	6.224e+05
18 alpha-Chlordane	5.003	4.973-5.033	6.301e+05
19 4,4'-DDE	5.066	5.036-5.096	5.354e+05
20 Dieldrin	5.371	5.341-5.401	5.440e+05
21 Aroclor-1260	5.379	5.279-5.479	1.477e+05
	5.651	5.551-5.751	2.218e+05
	6.311	6.211-6.411	1.386e+05
	6.633	6.533-6.733	3.027e+05
	6.939	6.839-7.039	1.660e+05
22 Endrin	5.604	5.574-5.634	4.058e+05
23 Toxaphene	5.270	5.240-5.300	4.628e+03
	5.374	5.344-5.404	7.057e+03
	5.462	5.432-5.492	7.917e+03
	5.521	5.491-5.551	1.030e+04
	5.626	5.596-5.656	1.027e+04
24 Endosulfan II	5.830	5.800-5.860	4.634e+05
25 4,4'-DDD	5.657	5.627-5.687	3.379e+05
26 4,4'-DDT	5.940	5.910-5.970	3.490e+05
27 Endrin aldehyde	6.259	6.229-6.289	3.656e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m

Compound	RT	RT Window	RF
28 Methoxychlor	6.441	6.411-6.471	1.376e+05
29 Endosulfan sulfate	6.715	6.685-6.745	4.220e+05
30 Aroclor-1268	13.480	13.380-13.580	
	13.587	13.487-13.687	
	13.984	13.884-14.084	
	14.586	14.486-14.686	
	15.182	15.082-15.282	
31 Endrin ketone	7.019	6.989-7.049	4.840e+05
51 Mirex	6.630	6.600-6.660	2.374e+06
52 C-Nonachlor	5.654	5.624-5.684	3.769e+06
53 O-Chlordane	4.686	4.656-4.716	3.137e+06
54 T-Nonachlor	5.006	4.976-5.036	3.798e+06
55 1,2-Dichlorobenzene	6.525	6.495-6.555	
56 2,4-DDE	4.761	4.731-4.791	2.192e+06
58 2,4-DDD	5.258	5.228-5.288	1.966e+06
57 2,4-DDT	5.509	5.479-5.539	2.204e+06
$ 32 Decachlorobiphenyl	8.106	8.076-8.136	4.062e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Quant Method : ESTD Target Version : 3.50
Last Update : 22-Feb-2010 09:29 Number of Cpnds : 42
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1475.000000
Initial:End Threshold	737.500000
Initial:Area Threshold	14750.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	4.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	3.198	3.168-3.228	5.057e+05
60 2,4,5-TCP	3.116	3.016-3.216	
59 Hexachlorobenzene	3.622	3.592-3.652	1.580e+07
2 Aroclor-1221	3.435	3.405-3.465	1.038e+05
	3.555	3.525-3.585	7.569e+04
	3.609	3.579-3.639	2.446e+05
3 Aroclor-1016	3.965	3.935-3.995	1.852e+05
	4.391	4.361-4.421	4.278e+05
	4.518	4.488-4.548	2.739e+05
	4.618	4.588-4.648	1.794e+05
	4.970	4.940-5.000	2.076e+05
4 Aroclor-1232	4.193	4.163-4.223	6.642e+04
	4.388	4.358-4.418	2.162e+05
	4.515	4.485-4.545	1.379e+05
	4.614	4.584-4.644	9.106e+04
	4.966	4.936-4.996	9.932e+04
5 alpha-BHC	3.724	3.694-3.754	5.495e+05
6 Aroclor-1242	3.962	3.932-3.992	1.532e+05
	4.387	4.357-4.417	3.640e+05
	4.514	4.484-4.544	2.262e+05
	4.615	4.585-4.645	1.482e+05
	4.966	4.936-4.996	1.744e+05
7 gamma-BHC (Lindane)	4.053	4.023-4.083	4.575e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	4.363	4.333-4.393	3.953e+05
	5.365	5.335-5.395	2.238e+05
	5.605	5.575-5.635	1.065e+06
	5.698	5.668-5.728	9.336e+05
	5.756	5.726-5.786	9.262e+05
9 Aroclor-1248	4.695	4.665-4.725	2.868e+05
	4.966	4.936-4.996	3.922e+05
	5.091	5.061-5.121	3.805e+05
	5.342	5.312-5.372	4.521e+05
	5.393	5.363-5.423	5.501e+05
10 Heptachlor	4.490	4.460-4.520	3.172e+05
11 Aldrin	4.820	4.790-4.850	5.214e+05
12 beta-BHC	4.117	4.087-4.147	2.177e+05
13 delta-BHC	4.407	4.377-4.437	4.698e+05
14 Heptachlor epoxide	5.390	5.360-5.420	3.961e+05
15 Aroclor-1254	5.387	5.357-5.417	3.790e+05
	5.573	5.543-5.603	4.139e+05
	5.941	5.911-5.971	3.516e+05
	6.065	6.035-6.095	6.117e+05
	6.301	6.271-6.331	4.516e+05
16 Endosulfan I	5.808	5.778-5.838	3.787e+05
17 gamma-Chlordane	5.587	5.557-5.617	4.403e+05
18 alpha-Chlordane	5.737	5.707-5.767	4.426e+05
19 4,4'-DDE	5.887	5.857-5.917	4.071e+05
20 Dieldrin	6.096	6.066-6.126	3.433e+05
21 Aroclor-1260	6.274	6.244-6.304	3.460e+05
	6.490	6.460-6.520	4.543e+05
	7.316	7.286-7.346	3.488e+05
	7.586	7.556-7.616	8.141e+05
	8.006	7.976-8.036	5.421e+05
22 Endrin	6.426	6.396-6.456	2.657e+05
23 Toxaphene	6.057	6.027-6.087	6.963e+03
	6.125	6.095-6.155	3.125e+03
	6.188	6.158-6.218	3.588e+03
	6.252	6.222-6.282	3.991e+03
	6.383	6.353-6.413	5.434e+03
24 Endosulfan II	6.650	6.620-6.680	3.287e+05
25 4,4'-DDD	6.506	6.476-6.536	2.391e+05
26 4,4'-DDT	6.853	6.823-6.883	2.096e+05
27 Endrin aldehyde	7.011	6.981-7.041	2.457e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m

Compound	RT	RT Window	RF
28 Methoxychlor	7.598	7.568-7.628	8.000e+04
29 Endosulfan sulfate	7.318	7.288-7.348	2.956e+05
30 Aroclor-1268	13.562	13.532-13.592	
	13.571	13.541-13.601	
	13.999	13.969-14.029	
	14.579	14.549-14.609	
	15.083	15.053-15.113	
31 Endrin ketone	7.927	7.897-7.957	3.077e+05
51 Mirex	7.925	7.895-7.955	5.871e+06
52 C-Nonachlor	6.523	6.493-6.553	1.035e+07
53 O-Chlordane	5.316	5.286-5.346	9.547e+06
54 T-Nonachlor	5.700	5.670-5.730	1.045e+07
55 1,2-Dichlorobenzene	6.621	6.591-6.651	
56 2,4-DDE	5.583	5.553-5.613	6.240e+06
58 2,4-DDD	6.124	6.094-6.154	5.315e+06
57 2,4-DDT	6.458	6.428-6.488	5.678e+06
$ 32 Decachlorobiphenyl	9.302	9.272-9.332	2.837e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 08-SEP-2009 19:34
End Cal Date : 20-FEB-2010 15:55
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Cal Date : 22-Feb-2010 09:29 jam00798
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd7a.i/021610a-608.b/027f2701.d
Level 2: /chem/ecd7a.i/021610a-608.b/028f2801.d
Level 3: /chem/ecd7a.i/021610a-608.b/029f2901.d
Level 4: /chem/ecd7a.i/021610a-608.b/037f3701.d
Level 5: /chem/ecd7a.i/021610a-608.b/031f3101.d

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
61 2,4,5-TCP	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Hexachlorobenzene	4745465	4129798	3783039	3820494	3867305	4069220	9.872
2 Aroclor-1221(1)	+++++	+++++	+++++	40480	+++++	40480	0.000
(2)	+++++	+++++	+++++	19641	+++++	19641	0.000
(3)	+++++	+++++	+++++	96462	+++++	96462	0.000
3 Aroclor-1016(1)	161246	136135	124914	114838	97691	126965	18.753
(2)	202566	167405	158908	145833	130493	161041	16.817
(3)	139350	115212	106252	96798	84821	108487	19.000
(4)	92657	76544	70643	65621	59311	72955	17.424
(5)	98338	83180	76986	70907	62758	78434	17.143
4 Aroclor-1232(1)	+++++	+++++	+++++	56686	+++++	56686	0.000
(2)	+++++	+++++	+++++	52230	+++++	52230	0.000
(3)	+++++	+++++	+++++	35602	+++++	35602	0.000
(4)	+++++	+++++	+++++	37358	+++++	37358	0.000
(5)	+++++	+++++	+++++	39266	+++++	39266	0.000
5 alpha-BHC	675095	702988	770174	806528	820100	754977	8.433
6 Aroclor-1242(1)	+++++	+++++	+++++	104090	+++++	104090	0.000
(2)	+++++	+++++	+++++	87081	+++++	87081	0.000
(3)	+++++	+++++	+++++	59104	+++++	59104	0.000
(4)	+++++	+++++	+++++	64853	+++++	64853	0.000
(5)	+++++	+++++	+++++	66192	+++++	66192	0.000
7 gamma-BHC (Lindane)	607922	616794	658619	681231	690821	651078	5.738
8 Chlordane (tech.)(1)	143677	138235	132424	130771	134308	135883	3.804
(2)	82827	81055	75026	72255	71999	76633	6.562
(3)	434088	433732	421186	412470	401981	420691	3.293
(4)	347425	334307	331416	328254	319802	332241	3.033
(5)	323226	326420	311764	298817	291723	310390	4.849

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 08-SEP-2009 19:34
End Cal Date : 20-FEB-2010 15:55
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Cal Date : 22-Feb-2010 09:29 jam00798
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
9 Aroclor-1248(1)	+++++	+++++	+++++	97672	+++++	97672	0.000
(2)	+++++	+++++	+++++	100840	+++++	100840	0.000
(3)	+++++	+++++	+++++	137367	+++++	137367	0.000
(4)	+++++	+++++	+++++	161342	+++++	161342	0.000
(5)	+++++	+++++	+++++	157428	+++++	157428	0.000
10 Heptachlor	462596	458761	471197	486390	487598	473308	2.807
11 Aldrin	666252	694312	751288	773281	765907	730208	6.479
12 beta-BHC	307220	286990	278354	278293	280646	286301	4.268
13 delta-BHC	587089	613510	638534	660665	671075	634175	5.420
14 Heptachlor epoxide	562099	565637	585160	596465	587669	579406	2.562
15 Aroclor-1254(1)	+++++	+++++	+++++	120864	+++++	120864	0.000
(2)	+++++	+++++	+++++	211021	+++++	211021	0.000
(3)	+++++	+++++	+++++	134502	+++++	134502	0.000
(4)	+++++	+++++	+++++	224085	+++++	224085	0.000
(5)	+++++	+++++	+++++	170912	+++++	170912	0.000
16 Endosulfan I	510434	513514	515270	528177	522057	517890	1.382
17 gamma-Chlordane	577960	588994	634894	656428	653825	622420	5.899
18 alpha-Chlordane	597060	604262	638431	657641	652881	630055	4.423
19 4,4'-DDE	521839	536233	546585	544129	528308	535419	1.950
20 Dieldrin	519107	537227	554637	559284	549508	543953	2.968
21 Aroclor-1260(1)	186990	156690	145865	132481	116634	147732	17.988
(2)	279551	232730	218031	200712	177967	221798	17.220
(3)	171832	144038	135692	125824	115564	138590	15.460
(4)	364536	312659	298570	280267	257643	302735	13.288
(5)	217363	168061	154904	150998	138922	166050	18.375
22 Endrin	406003	406194	408811	407423	400782	405843	0.750
23 Toxaphene(1)	4679	4470	4639	4589	4761	4628	2.337
(2)	7680	6991	7079	6716	6820	7057	5.323
(3)	7236	7953	8131	8010	8255	7917	5.029
(4)	9877	10153	10325	10346	10810	10302	3.304
(5)	10077	9998	10308	10274	10680	10267	2.583
24 Endosulfan II	463508	462442	466994	467382	456839	463433	0.920
25 4,4'-DDD	340651	339268	341474	339379	328587	337872	1.560

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 08-SEP-2009 19:34
End Cal Date : 20-FEB-2010 15:55
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Cal Date : 22-Feb-2010 09:29 jam00798
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
26 4,4'-DDT	331704	335360	354699	361645	361618	349005	4.144
27 Endrin aldehyde	376231	372050	364067	363377	352234	365592	2.524
28 Methoxychlor	150330	145359	133366	130226	128911	137638	6.988
29 Endosulfan sulfate	419943	411828	421407	428250	428814	422048	1.648
30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Endrin ketone	515017	491689	478003	474003	461255	483993	4.227
51 Mirex	2874541	2394110	2185444	2195564	2218163	2373564	12.330
52 C-Nonachlor	4367236	3895982	3582100	3534290	3465184	3768959	9.895
53 O-Chlordane	3646342	3221397	2972906	2941236	2901469	3136670	9.920
54 T-Nonachlor	4870016	3888892	3476942	3429886	3323796	3797906	16.761
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 2,4-DDE	2691512	2366295	2074150	1975189	1852776	2191984	15.401
58 2,4-DDD	2408988	2104035	1851186	1773714	1689825	1965550	14.870
57 2,4-DDT	2567671	2280531	2107545	2065712	1998360	2203964	10.367
$ 1 4cmx	612501	624955	633182	641351	631752	628748	1.716
$ 32 Decachlorobiphenyl	439008	412537	394439	394257	390694	406187	4.982

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 08-SEP-2009 19:34
End Cal Date : 20-FEB-2010 15:55
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Cal Date : 22-Feb-2010 09:29 jam00798

Calibration File Names:
Level 1: /chem/ecd7a.i/021610a-608.b/027b2701.d
Level 2: /chem/ecd7a.i/021610a-608.b/028b2801.d
Level 3: /chem/ecd7a.i/021610a-608.b/029b2901.d
Level 4: /chem/ecd7a.i/021610a-608.b/037b3701.d
Level 5: /chem/ecd7a.i/021610a-608.b/031b3101.d

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
60 2,4,5-TCP	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
59 Hexachlorobenzene	17151110	16341393	17203114	16510316	11775354	AVRG		15796257		14.43241
2 Aroclor-1221 (1)	+++++	+++++	+++++	103818	+++++	AVRG		103818		0.000e+00
(2)	+++++	+++++	+++++	75693	+++++	AVRG		75693		0.000e+00
(3)	+++++	+++++	+++++	244641	+++++	AVRG		244641		0.000e+00
3 Aroclor-1016 (1)	230287	193857	178267	170253	153136	AVRG		185160		15.76271
(2)	486169	428836	418932	399099	405955	AVRG		427798		8.08704
(3)	327681	277611	266797	252636	244662	AVRG		273877		11.92068
(4)	209021	179207	174610	166383	167576	AVRG		179360		9.69550
(5)	246125	210424	202923	191642	186826	AVRG		207588		11.29810
4 Aroclor-1232 (1)	+++++	+++++	+++++	66422	+++++	AVRG		66422		0.000e+00
(2)	+++++	+++++	+++++	216222	+++++	AVRG		216222		0.000e+00
(3)	+++++	+++++	+++++	137873	+++++	AVRG		137873		0.000e+00
(4)	+++++	+++++	+++++	91056	+++++	AVRG		91056		0.000e+00
(5)	+++++	+++++	+++++	99316	+++++	AVRG		99316		0.000e+00
5 alpha-BHC	539334	544861	556649	558160	548650	AVRG		549531		1.44350
6 Aroclor-1242 (1)	+++++	+++++	+++++	153233	+++++	AVRG		153233		0.000e+00
(2)	+++++	+++++	+++++	363964	+++++	AVRG		363964		0.000e+00
(3)	+++++	+++++	+++++	226209	+++++	AVRG		226209		0.000e+00
(4)	+++++	+++++	+++++	148242	+++++	AVRG		148242		0.000e+00
(5)	+++++	+++++	+++++	174426	+++++	AVRG		174426		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 08-SEP-2009 19:34
End Cal Date : 20-FEB-2010 15:55
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Cal Date : 22-Feb-2010 09:29 jam00798

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
7 gamma-BHC (Lindane)	464471	460411	458093	457034	447398	AVRG		457481		1.38111
8 Chlordane (tech.) (1)	370576	373442	388383	402292	441633	AVRG		395265		7.30247
(2)	206518	210121	219870	229172	253463	AVRG		223829		8.38815
(3)	996972	1024883	1102555	1140915	1060160	AVRG		1065097		5.44109
(4)	849527	870126	937566	974143	1036860	AVRG		933644		8.19551
(5)	863248	882597	941444	963116	980585	AVRG		926198		5.50980
9 Aroclor-1248 (1)	+++++	+++++	+++++	286795	+++++	AVRG		286795		0.000e+00
(2)	+++++	+++++	+++++	392185	+++++	AVRG		392185		0.000e+00
(3)	+++++	+++++	+++++	380482	+++++	AVRG		380482		0.000e+00
(4)	+++++	+++++	+++++	452085	+++++	AVRG		452085		0.000e+00
(5)	+++++	+++++	+++++	550081	+++++	AVRG		550081		0.000e+00
10 Heptachlor	334262	325150	313801	311064	301868	AVRG		317229		3.98293
11 Aldrin	523162	528091	531053	523930	500864	AVRG		521420		2.28774
12 beta-BHC	242182	223409	211291	207872	203611	AVRG		217673		7.14698
13 delta-BHC	476263	472367	471315	470172	458826	AVRG		469789		1.39269
14 Heptachlor epoxide	415473	407154	394727	389627	373439	AVRG		396084		4.09983
15 Aroclor-1254 (1)	+++++	+++++	+++++	378984	+++++	AVRG		378984		0.000e+00
(2)	+++++	+++++	+++++	413854	+++++	AVRG		413854		0.000e+00
(3)	+++++	+++++	+++++	351576	+++++	AVRG		351576		0.000e+00
(4)	+++++	+++++	+++++	611721	+++++	AVRG		611721		0.000e+00
(5)	+++++	+++++	+++++	451599	+++++	AVRG		451599		0.000e+00
16 Endosulfan I	395008	388039	377356	373157	360003	AVRG		378712		3.58003
17 gamma-Chlordane	449840	443424	442005	439490	426819	AVRG		440316		1.92065
18 alpha-Chlordane	457141	450972	442084	438478	424332	AVRG		442602		2.84112

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 08-SEP-2009 19:34
End Cal Date : 20-FEB-2010 15:55
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Cal Date : 22-Feb-2010 09:29 jam00798

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
19 4,4'-DDE	421456	424305	413054	399983	376699	AVRG		407099		4.77646
20 Dieldrin	365762	355382	344713	333726	316757	AVRG		343268		5.54406
21 Aroclor-1260(1)	407999	353532	341081	318538	308622	AVRG		345954		11.26585
(2)	519584	458617	450603	428046	414422	AVRG		454254		8.92437
(3)	396251	347085	341204	329078	330370	AVRG		348798		7.90492
(4)	899606	807339	810400	784326	768659	AVRG		814066		6.24014
(5)	607471	530329	525168	512257	535514	AVRG		542148		6.92163
22 Endrin	290168	278574	261766	256592	241237	AVRG		265667		7.19448
23 Toxaphene(1)	7215	7086	7055	6659	6798	AVRG		6963		3.26325
(2)	3160	3234	3234	2980	3016	AVRG		3125		3.86001
(3)	3513	3749	3567	3509	3604	AVRG		3588		2.73545
(4)	3851	4258	4100	3821	3925	AVRG		3991		4.61909
(5)	5280	5465	5497	5436	5494	AVRG		5434		1.65594
24 Endosulfan II	352142	341930	326247	319904	303149	AVRG		328674		5.81432
25 4,4'-DDD	262494	250401	233713	236416	212563	AVRG		239118		7.86681
26 4,4'-DDT	211250	209749	210292	210568	206338	AVRG		209639		0.91734
27 Endrin aldehyde	278434	259746	236921	228697	224469	AVRG		245654		9.29568
28 Methoxychlor	91198	84994	76590	74382	72839	AVRG		80001		9.77901
29 Endosulfan sulfate	311121	304556	288677	293086	280718	AVRG		295632		4.13190
30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 08-SEP-2009 19:34
End Cal Date : 20-FEB-2010 15:55
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Cal Date : 22-Feb-2010 09:29 jam00798

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
31 Endrin ketone	354524	330496	296386	284957	271967	AVRG		307666		11.06315
51 Mirex	39467891	152301584	533858152	1.104e+09	2.374e+09	LINR	1.61063	5870689		0.99740
52 C-Nonachlor	11446960	10705789	10386682	10743891	8463689	AVRG		10349402		10.85093
53 O-Chlordane	11688212	9506586	9202658	9372721	7962953	AVRG		9546626		14.09699
54 T-Nonachlor	11584650	10846562	10571494	10854963	8397237	AVRG		10450981		11.55894
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
56 2,4-DDE	7224117	6589314	5986342	5814529	5586444	AVRG		6240149		10.63904
58 2,4-DDD	5955576	5437704	5124582	5051026	5006859	AVRG		5315150		7.44459
57 2,4-DDT	6133162	5645846	5445265	5549001	5616943	AVRG		5678043		4.68236
$ 1 4cmx	545782	535598	503402	485055	458769	AVRG		505721		7.08442
$ 32 Decachlorobiphenyl	322315	302190	274427	262436	256938	AVRG		283661		9.79410

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 08-SEP-2009 19:34
End Cal Date : 20-FEB-2010 15:55
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Cal Date : 22-Feb-2010 09:29 jam00798

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022010.b/003f0301.d
Lab Smp Id: WPE100220-01AB Client Smp ID: INDAB01
Inj Date : 20-FEB-2010 13:04
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100220-01AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Meth Date : 23-Feb-2010 09:05 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 07:36 Cal File: 027f2701.d
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.299	3.301	-0.002	2700381	4.00000	3.58	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.552	3.553	-0.001	2431690	4.00000	3.73	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.617	3.617	0.000	1228882	4.00000	4.29	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.947	3.948	-0.001	1850384	4.00000	3.91	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.771	3.772	-0.001	2348355	4.00000	3.70	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.212	4.213	-0.001	2665007	4.00000	3.65	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.759	4.761	-0.002	2248395	4.00000	3.88	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.876	4.878	-0.002	2311840	4.00000	3.71	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.002	5.003	-0.001	2388242	4.00000	3.79	80.00- 120.00	100.00

```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                CAS #: 959-98-8
  5.138   5.139  -0.001         2041734 4.00000     3.94  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   19 4,4'-DDE                                    CAS #: 72-55-9
  5.065   5.066  -0.001         4174709 8.00000     7.80  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   20 Dieldrin                                    CAS #: 60-57-1
  5.370   5.371  -0.001         4152856 8.00000     7.63  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   22 Endrin                                      CAS #: 72-20-8
  5.604   5.604   0.000         3248023 8.00000     8.00  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   25 4,4'-DDD                                    CAS #: 72-54-8
  5.657   5.657   0.000         2725211 8.00000     8.06  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   24 Endosulfan II                               CAS #: 33213-65-9
  5.830   5.830   0.000         3708064 8.00000     8.00  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   27 Endrin aldehyde                             CAS #: 7421-93-4
  6.258   6.259  -0.001         3009846 8.00000     8.23  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   26 4,4'-DDT                                    CAS #: 50-29-3
  5.940   5.940   0.000         2653634 8.00000     7.60  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   29 Endosulfan sulfate                          CAS #: 1031-07-8
  6.715   6.715   0.000         3359547 8.00000     7.96  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   28 Methoxychlor                                CAS #: 72-43-5
  6.441   6.441   0.000         6013186 40.0000     43.7  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   31 Endrin ketone                               CAS #: 53494-70-5
  7.019   7.019   0.000         4120136 8.00000     8.51  80.00- 120.00   100.00
--------------------------------------------------------------------------------
$   1 4cmx                                        CAS #: 877-09-8
  2.882   2.883  -0.001         4900005 8.00000     7.79  80.00- 120.00   100.00
--------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                          CAS #: 2051-24-3
  8.104   8.106  -0.002         3512061 8.00000     8.65  80.00- 120.00   100.00
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Data File: /chem/ecd7a.i/022010.b/003f0301.d

Date : 20-FEB-2010 13:04

Client ID: INDAB01

Sample Info: IWPE100220-01AB

Column phase: CLP-1

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

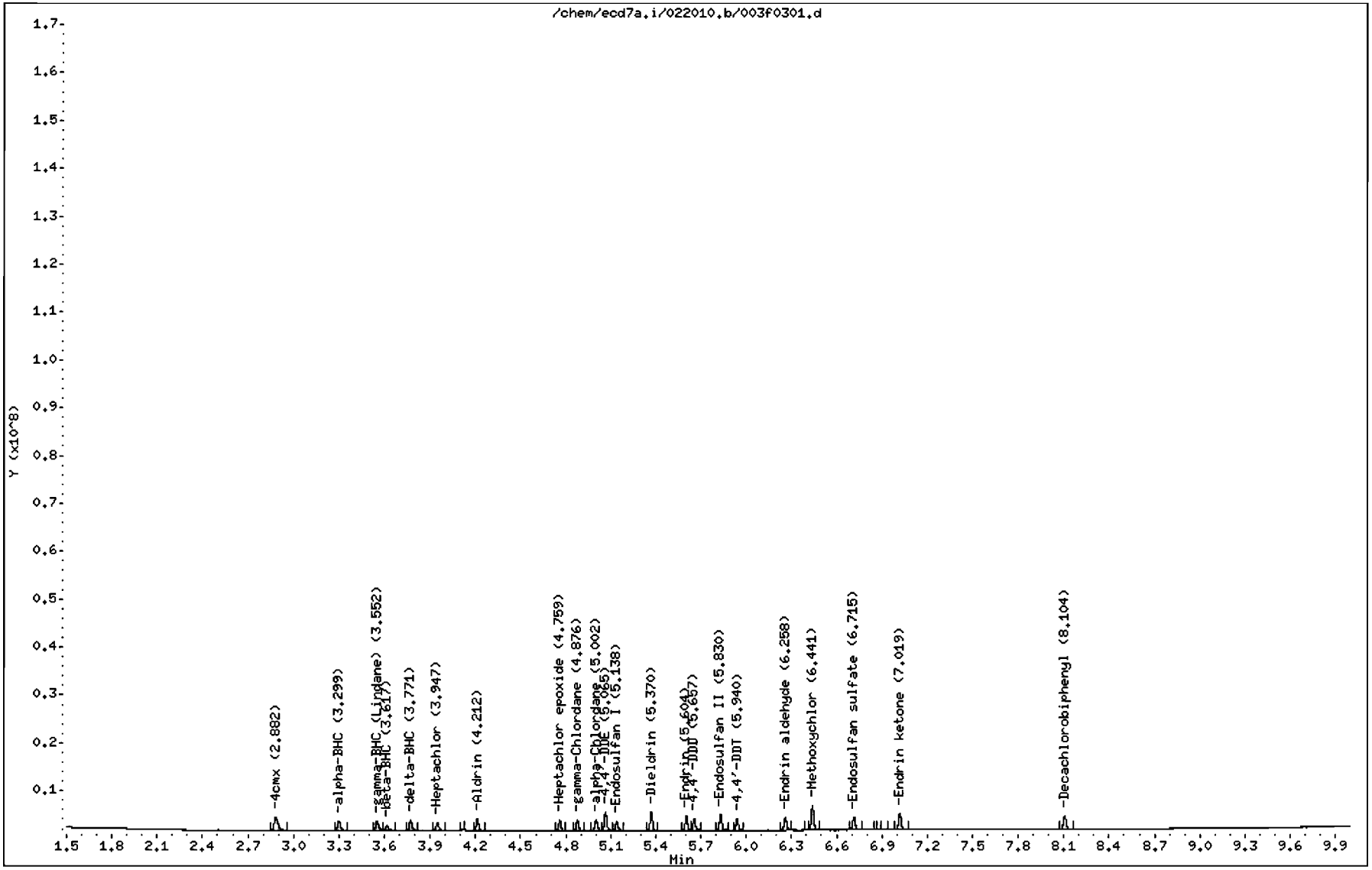

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022010.b/003b0301.d
Lab Smp Id: WPE100220-01AB Client Smp ID: INDAB01
Inj Date : 20-FEB-2010 13:04
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100220-01AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Meth Date : 23-Feb-2010 09:06 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 07:36 Cal File: 027b2701.d
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.723	3.724	-0.001	2157334	4.00000	3.92	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.052	4.053	-0.001	1857884	4.00000	4.06	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.115	4.117	-0.002	968726	4.00000	4.45	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.489	4.490	-0.001	1337046	4.00000	4.21	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.406	4.407	-0.001	1905051	4.00000	4.06	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.819	4.820	-0.001	2092647	4.00000	4.01	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.388	5.390	-0.002	1661893	4.00000	4.20	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.585	5.587	-0.002	1799362	4.00000	4.09	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.736	5.737	-0.001	1828564	4.00000	4.13	80.00- 120.00	100.00

```
                                        AMOUNTS
                                      CAL-AMT   ON-COL
   RT   EXP RT  DLT RT         RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========        ======== =======  =======   ============    =====

   16 Endosulfan I                                     CAS #: 959-98-8
  5.806   5.808  -0.002         1580030 4.00000     4.17  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   19 4,4'-DDE                                         CAS #: 72-55-9
  5.886   5.887  -0.001         3371650 8.00000     8.28  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   20 Dieldrin                                         CAS #: 60-57-1
  6.094   6.096  -0.002         2926097 8.00000     8.52  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   22 Endrin                                           CAS #: 72-20-8
  6.424   6.426  -0.002         2321340 8.00000     8.74  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   25 4,4'-DDD                                         CAS #: 72-54-8
  6.506   6.506   0.000         2099954 8.00000     8.78  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   24 Endosulfan II                                    CAS #: 33213-65-9
  6.649   6.650  -0.001         2817134 8.00000     8.57  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   27 Endrin aldehyde                                  CAS #: 7421-93-4
  7.010   7.011  -0.001         2227476 8.00000     9.07  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   26 4,4'-DDT                                         CAS #: 50-29-3
  6.851   6.853  -0.002         1689996 8.00000     8.06  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   29 Endosulfan sulfate                               CAS #: 1031-07-8
  7.317   7.318  -0.001         2488969 8.00000     8.42  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   28 Methoxychlor                                     CAS #: 72-43-5
  7.596   7.598  -0.002         3647936 40.0000     45.6  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   31 Endrin ketone                                    CAS #: 53494-70-5
  7.927   7.927   0.000         2836190 8.00000     9.22  80.00- 120.00   100.00
--------------------------------------------------------------------------------
$   1 4cmx                                             CAS #: 877-09-8
  3.198   3.198   0.000         4366255 8.00000     8.63  80.00- 120.00   100.00
--------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                               CAS #: 2051-24-3
  9.301   9.302  -0.001         2578523 8.00000     9.09  80.00- 120.00   100.00
--------------------------------------------------------------------------------
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Data File: /chem/ecd7a.i/022010.b/003b0301.d

Date : 20-FEB-2010 13:04

Client ID: INDAB01

Sample Info: IWPE100220-01AB

Column phase: CLP-2

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

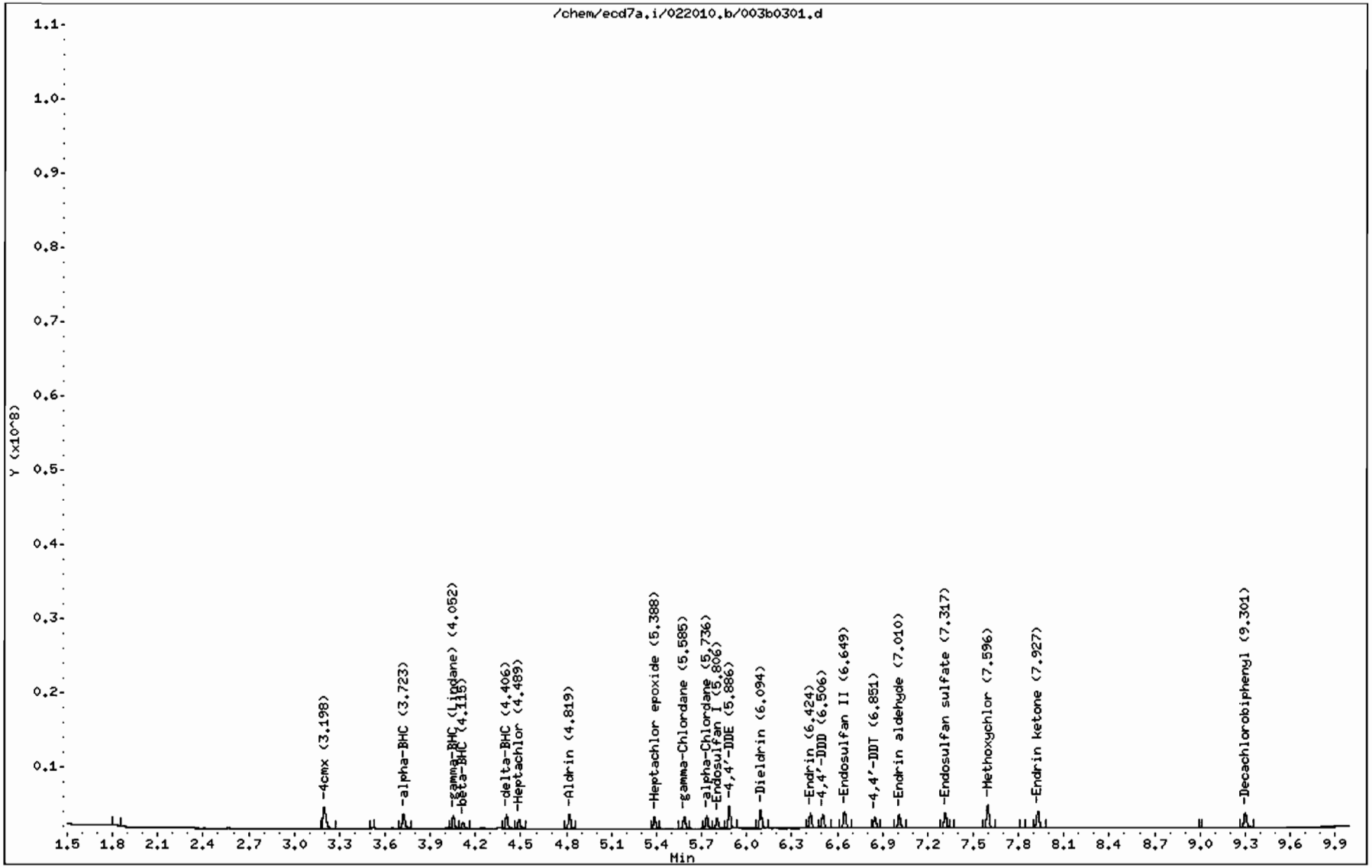

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022010.b/004f0401.d
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Inj Date : 20-FEB-2010 13:21
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100220-02AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Meth Date : 23-Feb-2010 09:05 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 07:53 Cal File: 028f2801.d
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.300	3.301	-0.001	7029880	10.0000	9.31	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.553	3.553	0.000	6167937	10.0000	9.47	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.617	3.617	0.000	2869902	10.0000	10.0	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.947	3.948	-0.001	4587611	10.0000	9.69	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.772	3.772	0.000	6135102	10.0000	9.67	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.213	4.213	0.000	6943121	10.0000	9.51	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.760	4.761	-0.001	5656369	10.0000	9.76	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.878	4.878	0.000	5889935	10.0000	9.46	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.003	5.003	0.000	6042625	10.0000	9.59	80.00- 120.00	100.00

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.139	5.139	0.000	5135138	10.0000	9.92	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.066	5.066	0.000	10724659	20.0000	20.0	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.370	5.371	-0.001	10744545	20.0000	19.8	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.605	5.604	0.001	8123890	20.0000	20.0	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.657	5.657	0.000	6785367	20.0000	20.1	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.832	5.830	0.002	9248839	20.0000	20.0	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.259	6.259	0.000	7441007	20.0000	20.4	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.941	5.940	0.001	6707206	20.0000	19.2	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.716	6.715	0.001	8236554	20.0000	19.5	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.442	6.441	0.001	14535907	100.000	106	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.020	7.019	0.001	9833781	20.0000	20.3	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.884	2.883	0.001	12499103	20.0000	19.9	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.106	8.106	0.000	8250734	20.0000	20.3	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022010.b/004f0401.d
Date : 20-FEB-2010 13:21
Client ID: INDAB02
Sample Info: IWPE100220-02AB
Column phase: CLP-1

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

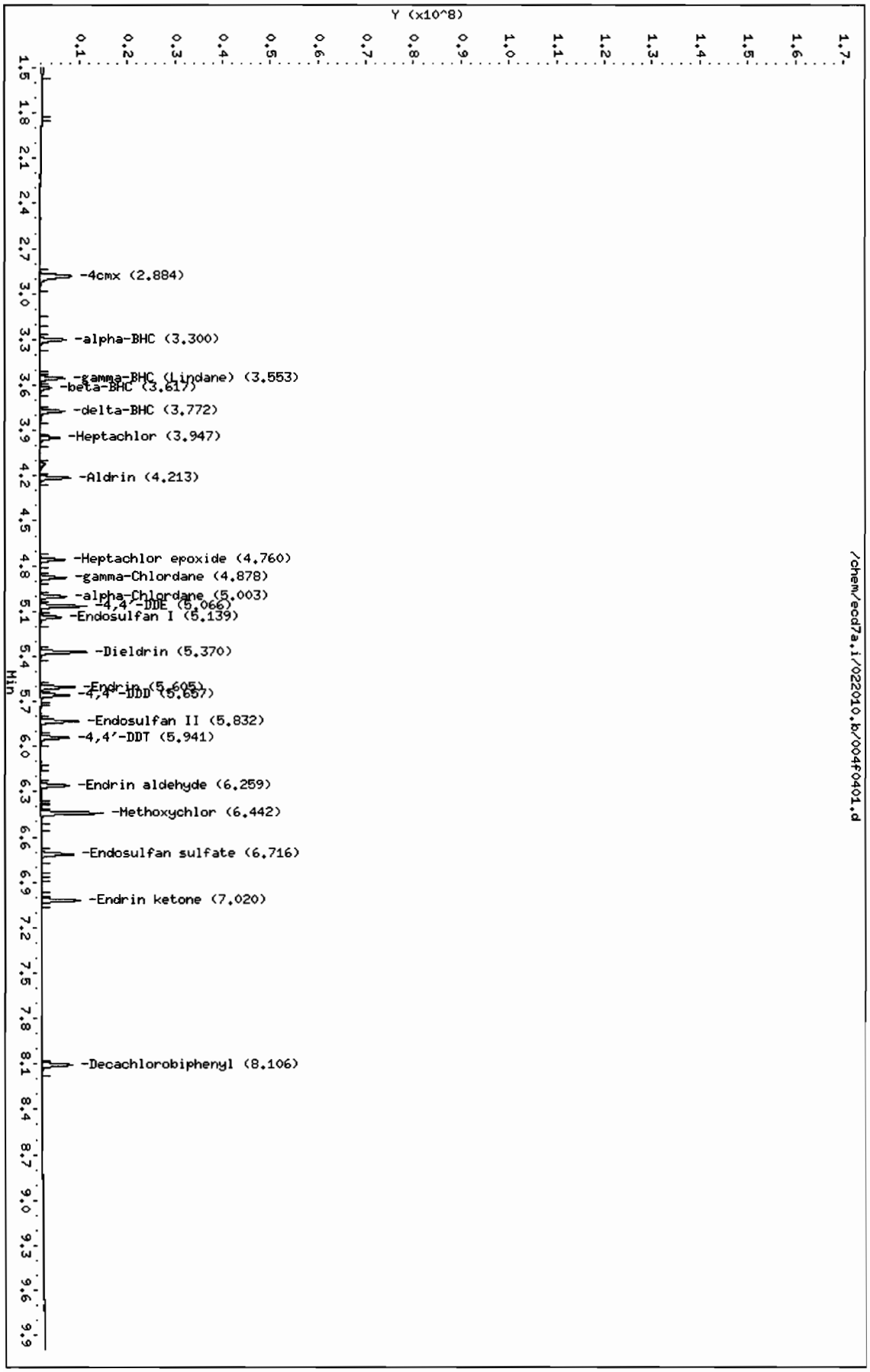

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022010.b/004b0401.d
Lab Smp Id: WPE100220-02AB Client Smp ID: INDAB02
Inj Date : 20-FEB-2010 13:21
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100220-02AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Meth Date : 23-Feb-2010 09:06 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 07:53 Cal File: 028b2801.d
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.723	3.724	-0.001	5448614	10.0000	9.92	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.053	4.053	0.000	4604110	10.0000	10.1	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.117	4.117	0.000	2234093	10.0000	10.3	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.490	4.490	0.000	3251503	10.0000	10.2	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.407	4.407	0.000	4723666	10.0000	10.0	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.820	4.820	0.000	5280914	10.0000	10.1	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.390	5.390	0.000	4071535	10.0000	10.3	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.586	5.587	-0.001	4434238	10.0000	10.1	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.736	5.737	-0.001	4509725	10.0000	10.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.807	5.808	-0.001	3880391	10.0000	10.2	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.886	5.887	-0.001	8486092	20.0000	20.8	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.094	6.096	-0.002	7107637	20.0000	20.7	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.425	6.426	-0.001	5571489	20.0000	21.0	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.507	6.506	0.001	5008015	20.0000	20.9	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.650	6.650	0.000	6838592	20.0000	20.8	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.011	7.011	0.000	5194930	20.0000	21.1	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.853	6.853	0.000	4194985	20.0000	20.0	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.318	7.318	0.000	6091122	20.0000	20.6	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.597	7.598	-0.001	8499392	100.000	106	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.926	7.927	-0.001	6609917	20.0000	21.5	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.198	3.198	0.000	10711966	20.0000	21.2	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.302	9.302	0.000	6043790	20.0000	21.3	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022010.b/004b0401.d
Date : 20-FEB-2010 13:21
Client ID: INDAB02
Sample Info: IWPE100220-02AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

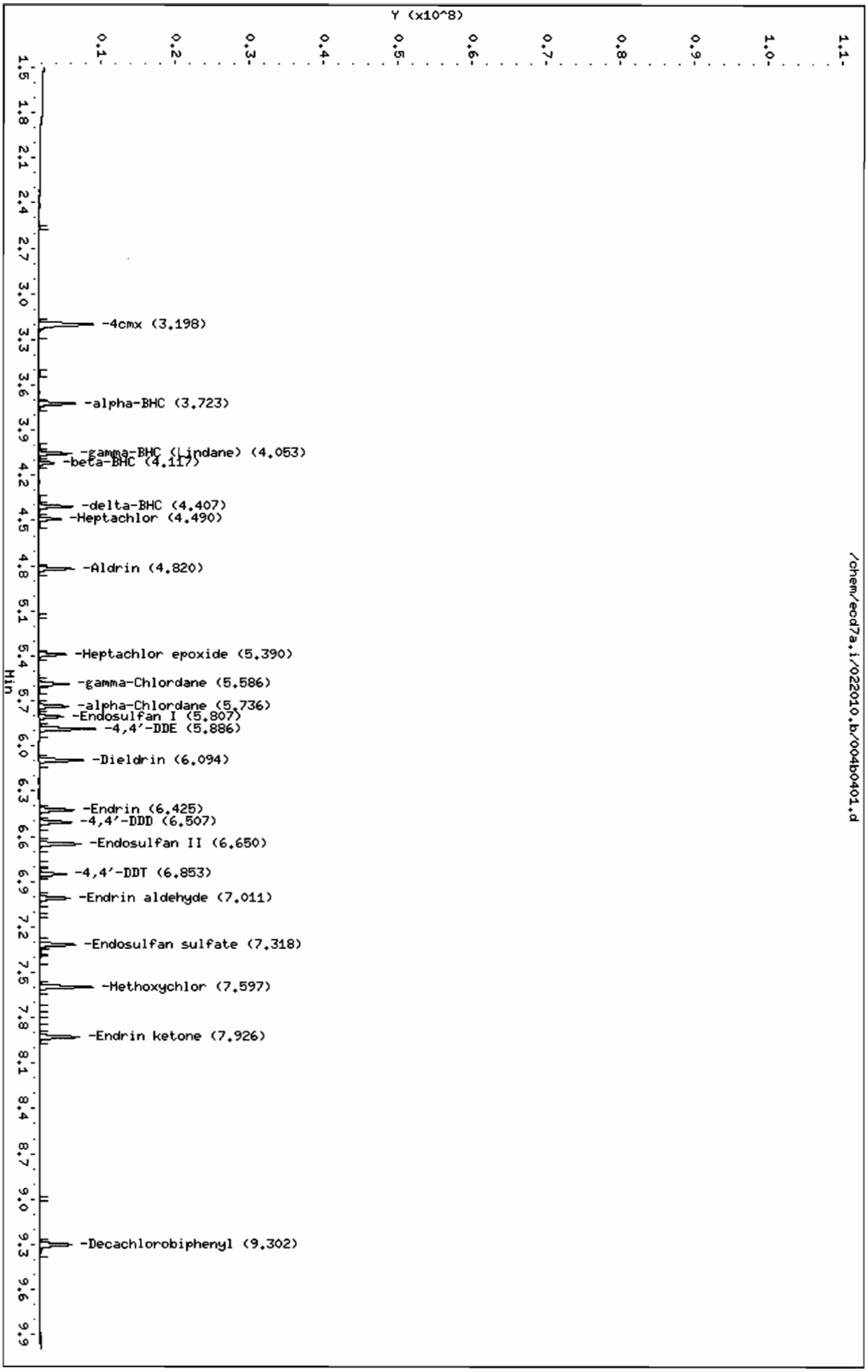

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CLP-1

Data file : /chem/ecd7a.i/022010.b/005f0501.d
Lab Smp Id: WPE100220-03AB Client Smp ID: INDAB03
Inj Date : 20-FEB-2010 13:38
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100220-03AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Meth Date : 23-Feb-2010 09:05 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:10 Cal File: 029f2901.d
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.300	3.301	-0.001	38508677	50.0000	51.0	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.552	3.553	-0.001	32930958	50.0000	50.6	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.617	3.617	0.000	13917700	50.0000	48.6	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.947	3.948	-0.001	23559831	50.0000	49.8	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.772	3.772	0.000	31926714	50.0000	50.3	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.213	4.213	0.000	37564378	50.0000	51.4	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.761	4.761	0.000	29258007	50.0000	50.5	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.877	4.878	-0.001	31744675	50.0000	51.0	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.003	5.003	0.000	31921559	50.0000	50.7	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.139	5.139	0.000	25763506	50.0000	49.7	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.065	5.066	-0.001	54658548	100.000	102	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.370	5.371	-0.001	55463709	100.000	102	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.604	5.604	0.000	40881110	100.000	101	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.656	5.657	-0.001	34147419	100.000	101	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.830	5.830	0.000	46699418	100.000	101	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.258	6.259	-0.001	36406733	100.000	99.6	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.940	5.940	0.000	35469910	100.000	102	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.715	6.715	0.000	42140658	100.000	99.8	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.440	6.441	-0.001	66683000	500.000	484	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.018	7.019	-0.001	47800339	100.000	98.8	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.883	2.883	0.000	63318189	100.000	101	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.105	8.106	-0.001	39443942	100.000	97.1	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022010.b/005f0501.d
Date : 20-FEB-2010 13:38
Client ID: INDAB03
Sample Info: IWPE100220-03AB
Column phase: CLP-1

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

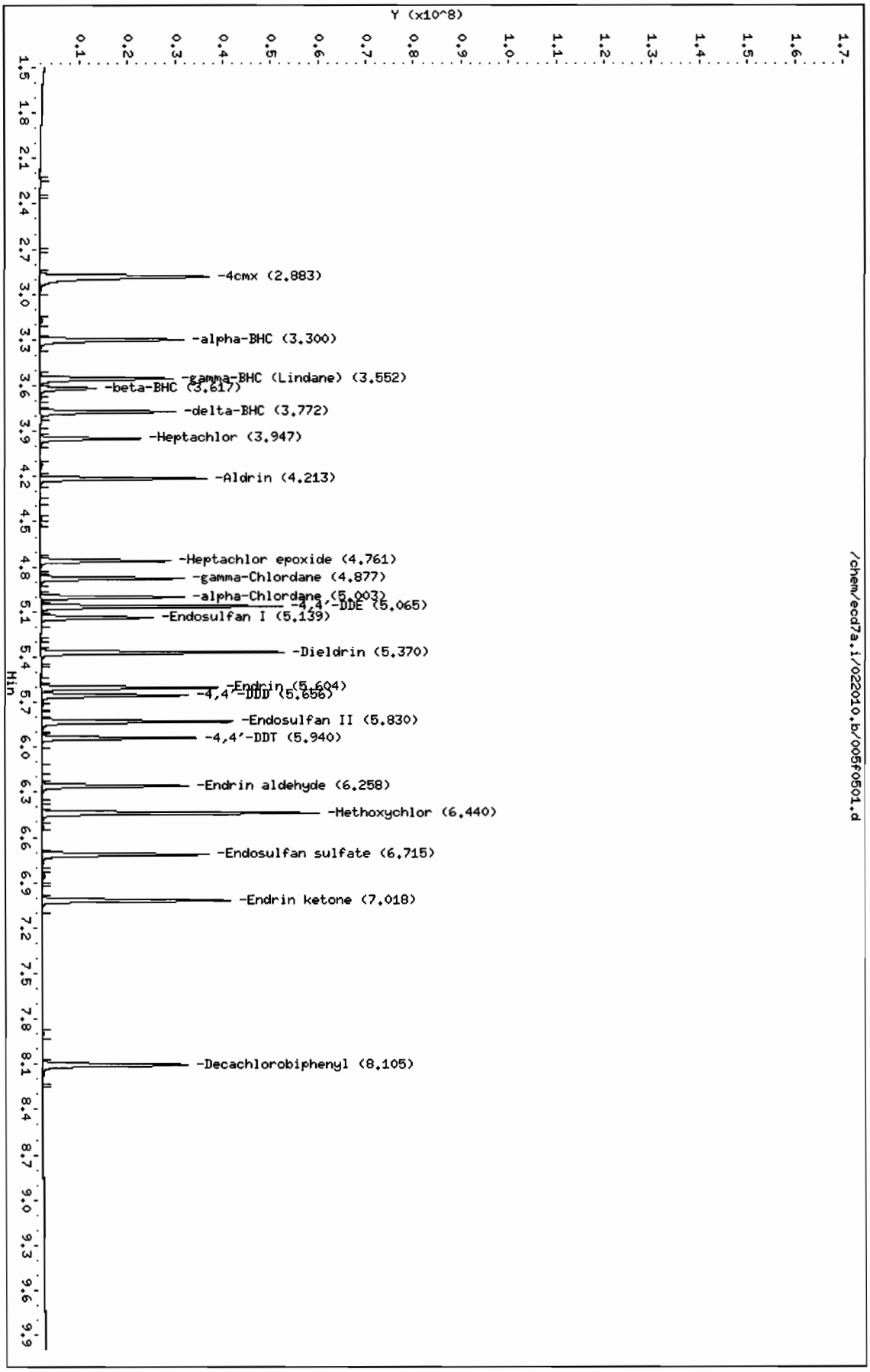

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CLP-2

Data file : /chem/ecd7a.i/022010.b/005b0501.d
Lab Smp Id: WPE100220-03AB Client Smp ID: INDAB03
Inj Date : 20-FEB-2010 13:38
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100220-03AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Meth Date : 23-Feb-2010 09:06 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:10 Cal File: 029b2901.d
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.724	3.724	0.000	27832435	50.0000	50.6	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.053	4.053	0.000	22904638	50.0000	50.1	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.116	4.117	-0.001	10564553	50.0000	48.5	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.489	4.490	-0.001	15690049	50.0000	49.4	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.406	4.407	-0.001	23565765	50.0000	50.2	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.820	4.820	0.000	26552671	50.0000	50.9	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.389	5.390	-0.001	19736342	50.0000	49.8	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.585	5.587	-0.002	22100262	50.0000	50.2	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.736	5.737	-0.001	22104225	50.0000	49.9	80.00- 120.00	100.00

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.807	5.808	-0.001	18867778	50.0000	49.8	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.886	5.887	-0.001	41305388	100.000	101	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.095	6.096	-0.001	34471342	100.000	100	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.424	6.426	-0.002	26176558	100.000	98.5	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.506	6.506	0.000	23371325	100.000	97.7	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.650	6.650	0.000	32624741	100.000	99.3	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.011	7.011	0.000	23692148	100.000	96.4	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.852	6.853	-0.001	21029190	100.000	100	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.317	7.318	-0.001	28867652	100.000	97.6	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.597	7.598	-0.001	38295000	500.000	479	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.926	7.927	-0.001	29638599	100.000	96.3	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.199	3.198	0.001	50340211	100.000	99.5	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.301	9.302	-0.001	27442658	100.000	96.7	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022010.b/005b0501.d
Date : 20-FEB-2010 13:38
Client ID: INDAB03
Sample Info: IWPE100220-03AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

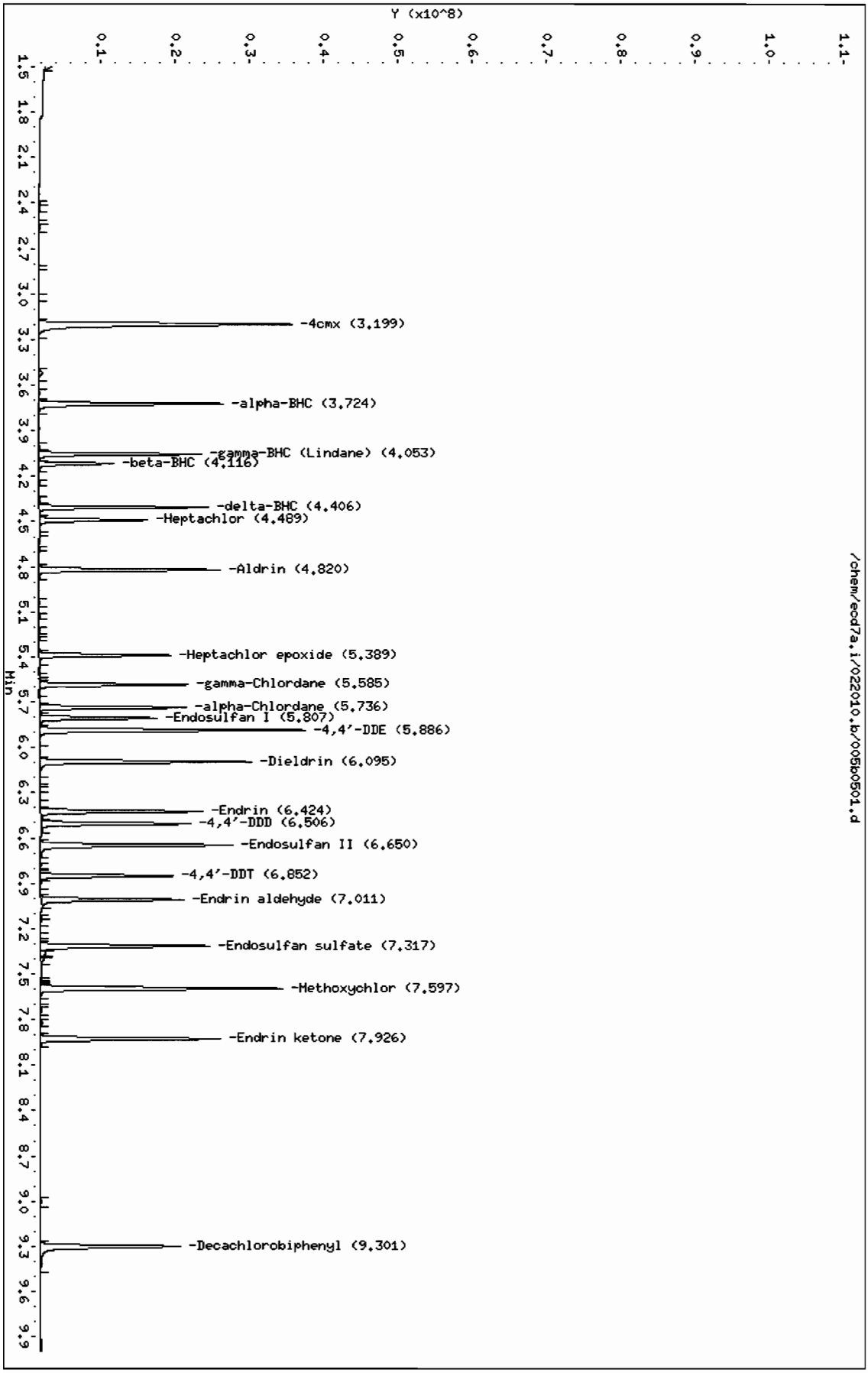

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CLP-1

Data file : /chem/ecd7a.i/022010.b/006f0601.d
Lab Smp Id: WPE100220-04AB Client Smp ID: INDAB04
Inj Date : 20-FEB-2010 13:55
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100220-04AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Meth Date : 23-Feb-2010 09:05 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 10:26 Cal File: 037f3701.d
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.300	3.301	-0.001	80652802	100.000	107	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.553	3.553	0.000	68123124	100.000	105	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.617	3.617	0.000	27829278	100.000	97.2	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.947	3.948	-0.001	48638979	100.000	103	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.772	3.772	0.000	66066484	100.000	104	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.214	4.213	0.001	77328073	100.000	106	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.761	4.761	0.000	59646511	100.000	103	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.877	4.878	-0.001	65642781	100.000	105	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.003	5.003	0.000	65764093	100.000	104	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.139	5.139	0.000	52817738	100.000	102	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.065	5.066	-0.001	108825729	200.000	203	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.370	5.371	-0.001	111856831	200.000	206	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.604	5.604	0.000	81484521	200.000	201	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.656	5.657	-0.001	67875836	200.000	201	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.830	5.830	0.000	93476355	200.000	202	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.257	6.259	-0.002	72675380	200.000	199	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.940	5.940	0.000	72329061	200.000	207	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.714	6.715	-0.001	85649920	200.000	203	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.439	6.441	-0.002	130226103	1000.00	946	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.018	7.019	-0.001	94800596	200.000	196	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.883	2.883	0.000	128270116	200.000	204	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.106	8.106	0.000	78851448	200.000	194	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022010.b/006f0601.d
Date : 20-FEB-2010 13:55
Client ID: INDAB04
Sample Info: IWPE100220-04AB
Column phase: CLP-1

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

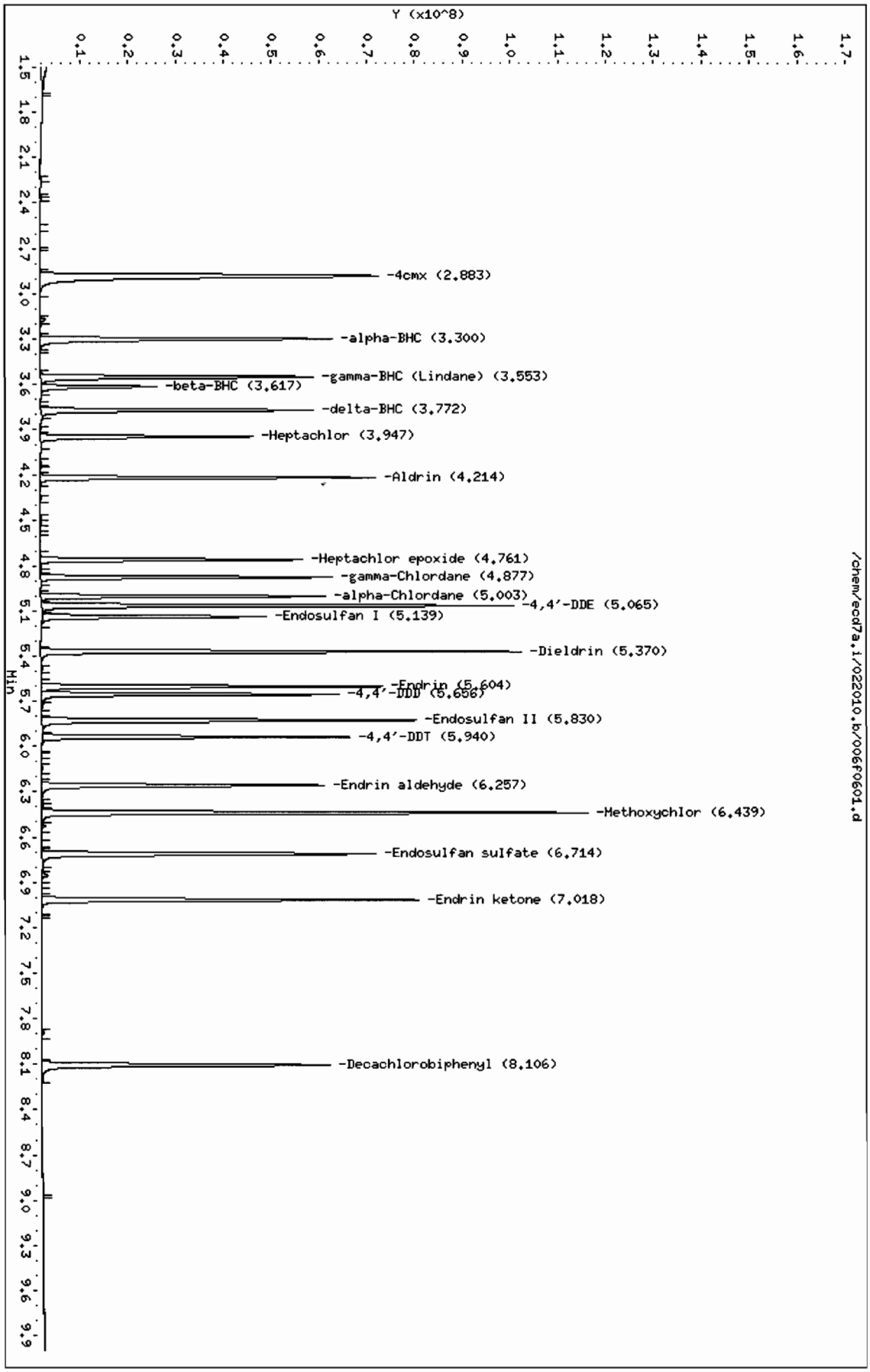

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022010.b/006b0601.d
Lab Smp Id: WPE100220-04AB Client Smp ID: INDAB04
Inj Date : 20-FEB-2010 13:55
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100220-04AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Meth Date : 23-Feb-2010 09:06 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 10:26 Cal File: 037b3701.d
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.723	3.724	-0.001	55816038	100.000	102	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.053	4.053	0.000	45703428	100.000	99.9	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.116	4.117	-0.001	20787224	100.000	95.5	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.489	4.490	-0.001	31106365	100.000	98.0	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.406	4.407	-0.001	47017245	100.000	100	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.820	4.820	0.000	52392990	100.000	100	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.389	5.390	-0.001	38962705	100.000	98.4	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.585	5.587	-0.002	43949018	100.000	99.8	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.736	5.737	-0.001	43847822	100.000	99.1	80.00- 120.00	100.00

```
                                        AMOUNTS
                                      CAL-AMT   ON-COL
   RT   EXP RT  DLT RT        RESPONSE ( ug/L)  ( ug/L)   TARGET RANGE    RATIO
   ==   ====== ========       ======== =======  =======   ============    =====

   16 Endosulfan I                                      CAS #: 959-98-8
  5.806   5.808  -0.002      37315680 100.000     98.5  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   19 4,4'-DDE                                          CAS #: 72-55-9
  5.887   5.887   0.000      79996666 200.000      196  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   20 Dieldrin                                          CAS #: 60-57-1
  6.094   6.096  -0.002      66745231 200.000      194  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   22 Endrin                                            CAS #: 72-20-8
  6.425   6.426  -0.001      51318437 200.000      193  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   25 4,4'-DDD                                          CAS #: 72-54-8
  6.506   6.506   0.000      47283227 200.000      198  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   24 Endosulfan II                                     CAS #: 33213-65-9
  6.649   6.650  -0.001      63980798 200.000      195  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   27 Endrin aldehyde                                   CAS #: 7421-93-4
  7.010   7.011  -0.001      45739308 200.000      186  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   26 4,4'-DDT                                          CAS #: 50-29-3
  6.852   6.853  -0.001      42113637 200.000      201  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   29 Endosulfan sulfate                                CAS #: 1031-07-8
  7.316   7.318  -0.002      58617285 200.000      198  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   28 Methoxychlor                                      CAS #: 72-43-5
  7.597   7.598  -0.001      74382340 1000.00      930  80.00- 120.00   100.00
--------------------------------------------------------------------------------
   31 Endrin ketone                                     CAS #: 53494-70-5
  7.926   7.927  -0.001      56991491 200.000      185  80.00- 120.00   100.00
--------------------------------------------------------------------------------
$   1 4cmx                                              CAS #: 877-09-8
  3.198   3.198   0.000      97011061 200.000      192  80.00- 120.00   100.00
--------------------------------------------------------------------------------
$  32 Decachlorobiphenyl                                CAS #: 2051-24-3
  9.301   9.302  -0.001      52487263 200.000      185  80.00- 120.00   100.00
--------------------------------------------------------------------------------
```

Data File: /chem/ecd7a.i/022010.b/006b0601.d
Date : 20-FEB-2010 13:55
Client ID: INDAB04
Sample Info: IWPE100220-04AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

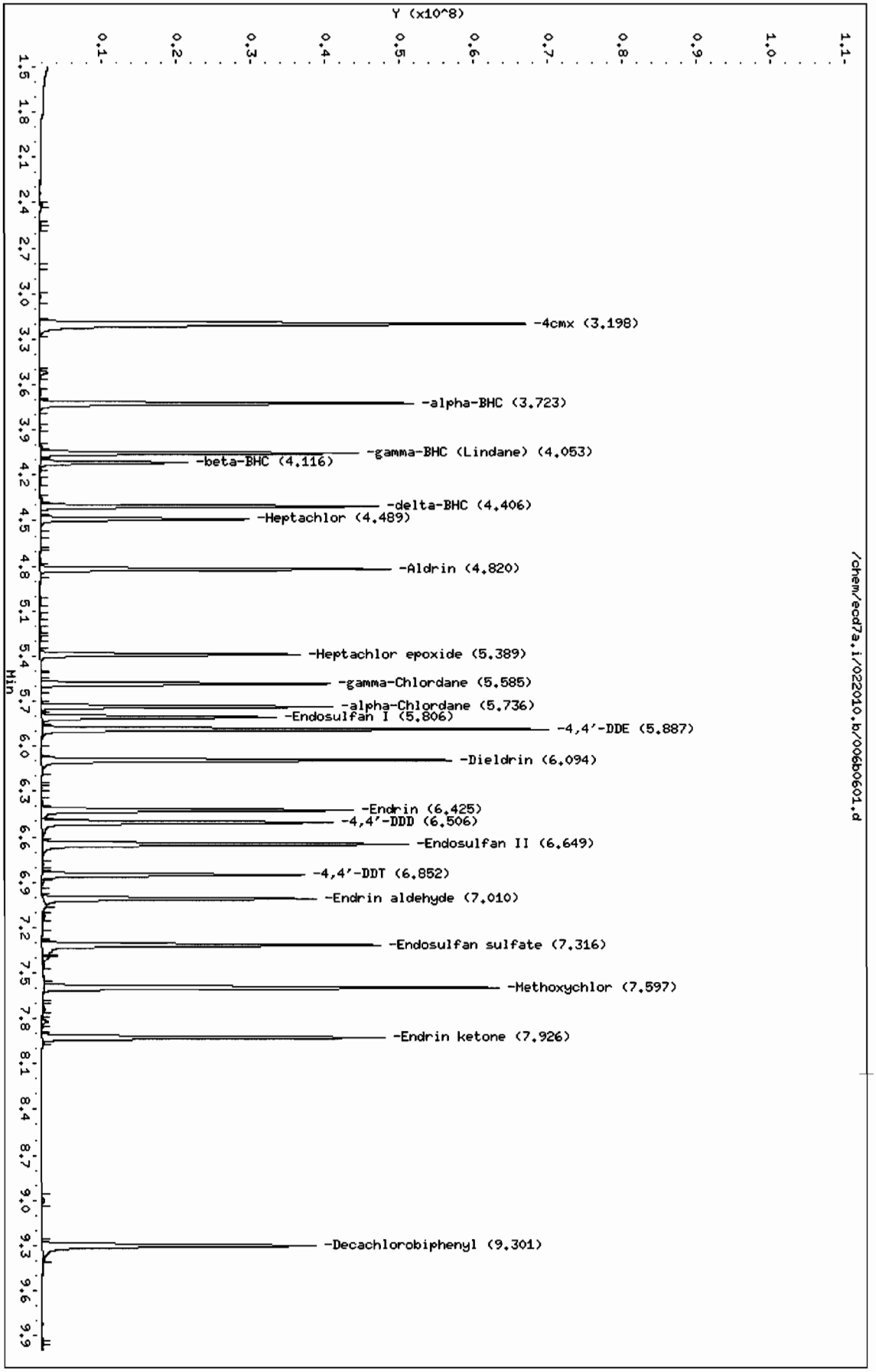

Page 1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022010.b/007f0701.d
Lab Smp Id: IPE100204-02AB Client Smp ID: INDAB05
Inj Date : 20-FEB-2010 14:12
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |IPE100204-02AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Meth Date : 23-Feb-2010 09:05 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031f3101.d
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.301	3.301	0.000	164019953	200.000	217	80.00- 120.00	100.00(A)
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.553	3.553	0.000	138164190	200.000	212	80.00- 120.00	100.00(A)
12 beta-BHC					CAS #: 319-85-7		
3.618	3.617	0.001	56129222	200.000	196	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.948	3.948	0.000	97519532	200.000	206	80.00- 120.00	100.00(A)
13 delta-BHC					CAS #: 319-86-8		
3.773	3.772	0.001	134215084	200.000	212	80.00- 120.00	100.00(A)
11 Aldrin					CAS #: 309-00-2		
4.214	4.213	0.001	153181328	200.000	210	80.00- 120.00	100.00(A)
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.761	4.761	0.000	117533887	200.000	203	80.00- 120.00	100.00(A)
17 gamma-Chlordane					CAS #: 5103-74-2		
4.878	4.878	0.000	130764952	200.000	210	80.00- 120.00	100.00(A)
18 alpha-Chlordane					CAS #: 5103-71-9		
5.003	5.003	0.000	130576172	200.000	207	80.00- 120.00	100.00(A)

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.140	5.139	0.001	104411396	200.000	202	80.00- 120.00	100.00(A)
19 4,4'-DDE					CAS #: 72-55-9		
5.066	5.066	0.000	211323085	400.000	395	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.371	5.371	0.000	219803329	400.000	404	80.00- 120.00	100.00(A)
22 Endrin					CAS #: 72-20-8		
5.604	5.604	0.000	160312788	400.000	395	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.656	5.657	-0.001	131434887	400.000	389	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.830	5.830	0.000	182735667	400.000	394	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.257	6.259	-0.002	140893466	400.000	385	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.940	5.940	0.000	144647012	400.000	414	80.00- 120.00	100.00(A)
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.716	6.715	0.001	171525672	400.000	406	80.00- 120.00	100.00(A)
28 Methoxychlor					CAS #: 72-43-5		
6.440	6.441	-0.001	257822337	2000.00	1870	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.018	7.019	-0.001	184501868	400.000	381	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.883	2.883	0.000	252700818	400.000	402	80.00- 120.00	100.00(A)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.105	8.106	-0.001	156277412	400.000	385	80.00- 120.00	100.00

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/ecd7a.i/022010.b/007f0701.d

Date : 20-FEB-2010 14:12

Client ID: INDAB05

Sample Info: IIPE100204-02AB

Column phase: CLP-1

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

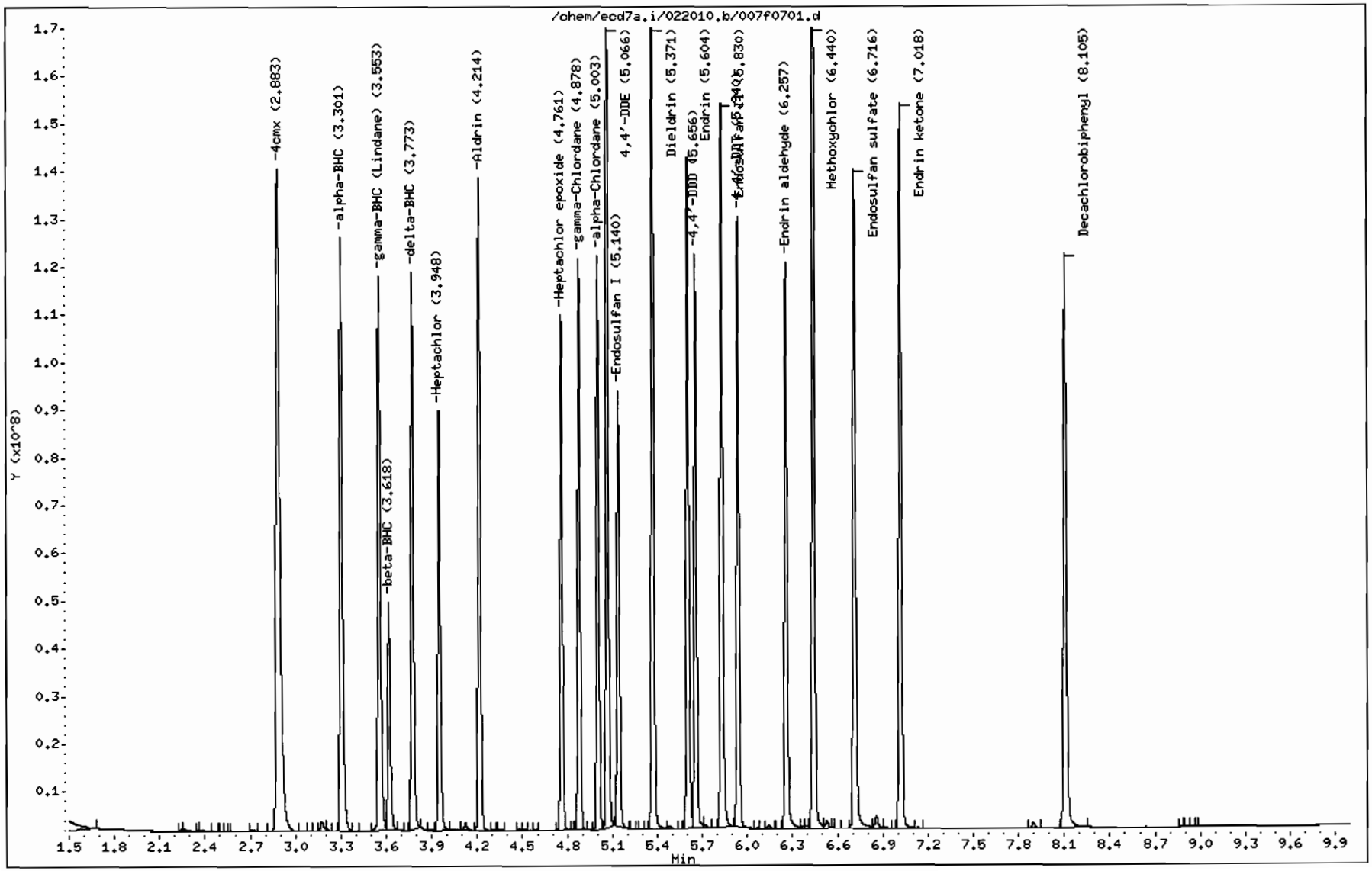

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022010.b/007b0701.d
Lab Smp Id: IPE100204-02AB Client Smp ID: INDAB05
Inj Date : 20-FEB-2010 14:12
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |IPE100204-02AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Meth Date : 23-Feb-2010 09:06 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031b3101.d
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.724	3.724	0.000	109729971	200.000	200	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.053	4.053	0.000	89479602	200.000	196	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.116	4.117	-0.001	40722250	200.000	187	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.490	4.490	0.000	60373610	200.000	190	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.407	4.407	0.000	91765117	200.000	195	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.820	4.820	0.000	100172873	200.000	192	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.390	5.390	0.000	74687861	200.000	188	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.587	5.587	0.000	85363799	200.000	194	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.737	5.737	0.000	84866449	200.000	192	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.808	5.808	0.000	72000529	200.000	190	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.887	5.887	0.000	150679569	400.000	370	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.095	6.096	-0.001	126702696	400.000	369	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.425	6.426	-0.001	96494731	400.000	363	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.506	6.506	0.000	85025378	400.000	356	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.650	6.650	0.000	121259443	400.000	369	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.012	7.011	0.001	89787571	400.000	366	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.853	6.853	0.000	82535135	400.000	394	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.317	7.318	-0.001	112287115	400.000	380	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.598	7.598	0.000	145677335	2000.00	1820	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.927	7.927	0.000	108786623	400.000	354	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.198	3.198	0.000	183507781	400.000	363	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.302	9.302	0.000	102775042	400.000	362	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022010.b/007b0701.d
Date : 20-FEB-2010 14:12
Client ID: INDAB05
Sample Info: IIPE100204-02AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

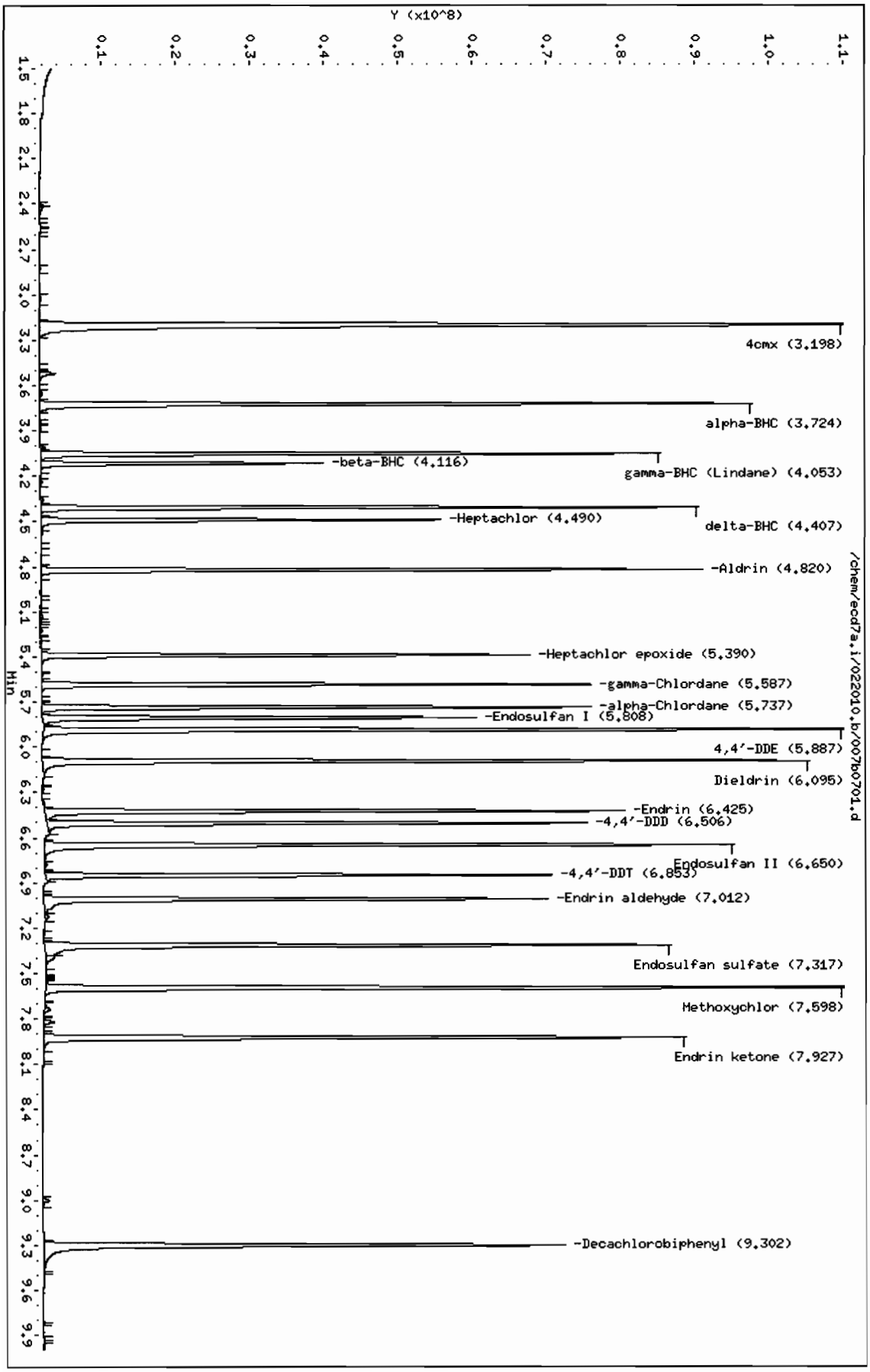

Page 1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022010.b/009f0901.d
Lab Smp Id: WPE100220-11TX Client Smp ID: TOXAPH01
Inj Date : 20-FEB-2010 14:46
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100220-11TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Meth Date : 23-Feb-2010 09:05 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 07:36 Cal File: 027f2701.d
Als bottle: 9 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.270	5.270	0.000	467878	100.000	101	80.00- 120.00	100.00(M)
5.375	5.374	0.001	767964	100.000	109	132.12- 172.12	164.14
5.463	5.462	0.001	723595	100.000	91.4	171.26- 211.26	154.65
5.524	5.521	0.003	987722	100.000	95.9	190.60- 230.60	211.11
5.624	5.626	-0.002	1007676	100.000	98.1	205.24- 245.24	215.37
Average of Peak Amounts =					99.1		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022010.b/009f0901.d

Page 1

Date : 20-FEB-2010 14:46

Client ID: TOXAPH01

Instrument: ecd7a.i

Sample Info: IWPE100220-11TX

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

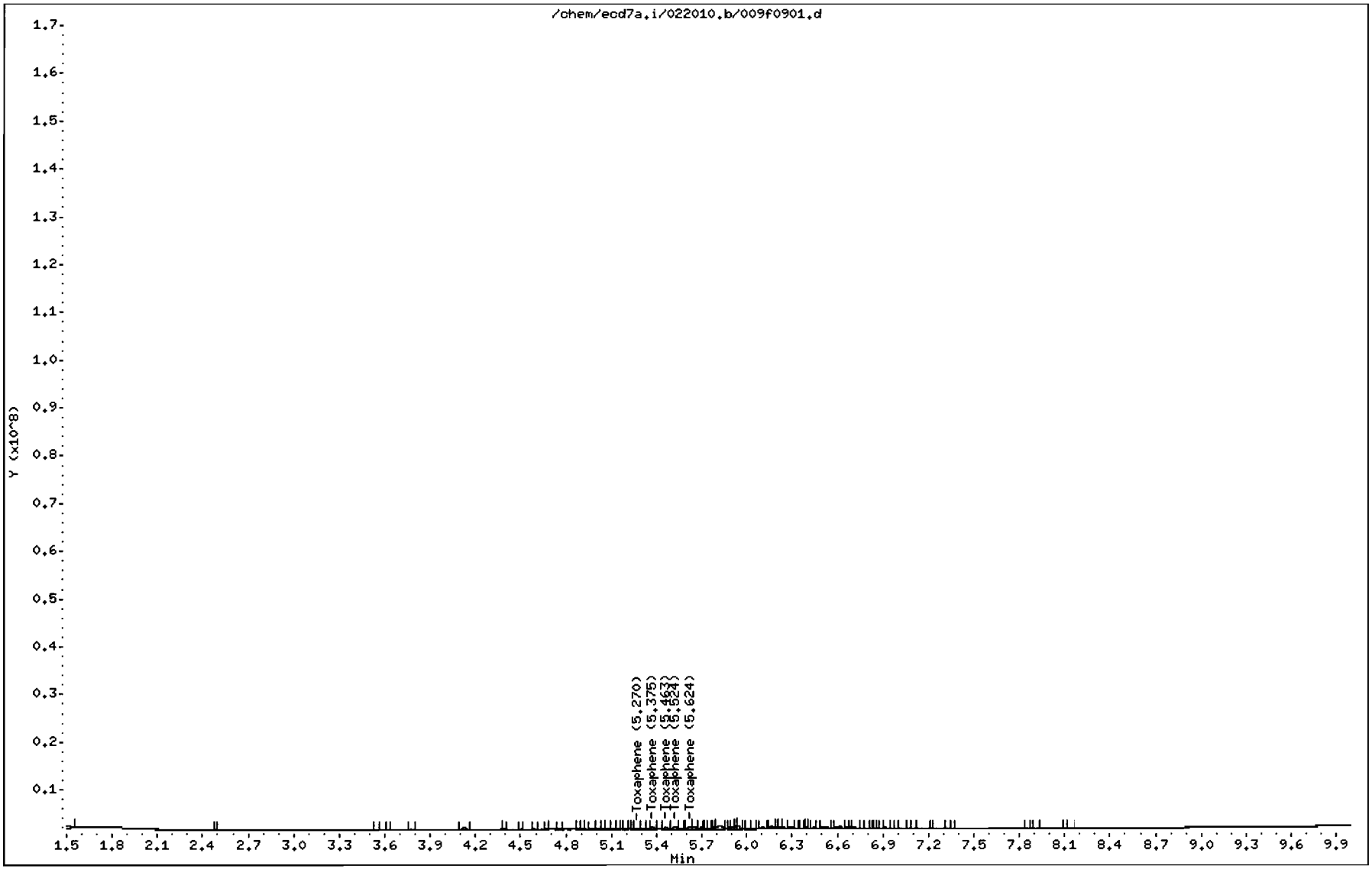

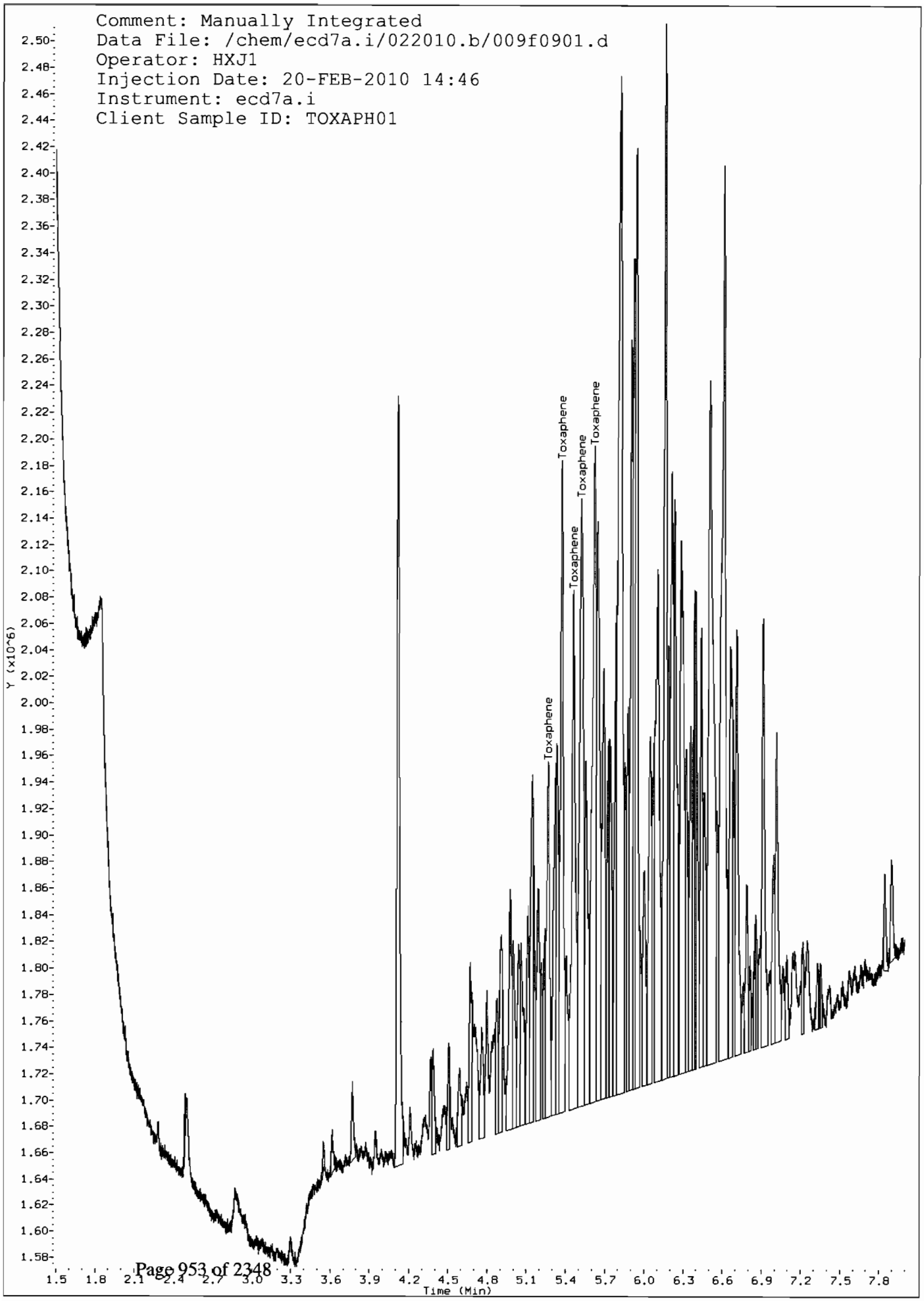
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Operator: HXJ1
Injection Date: 20-FEB-2010 14:46
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)

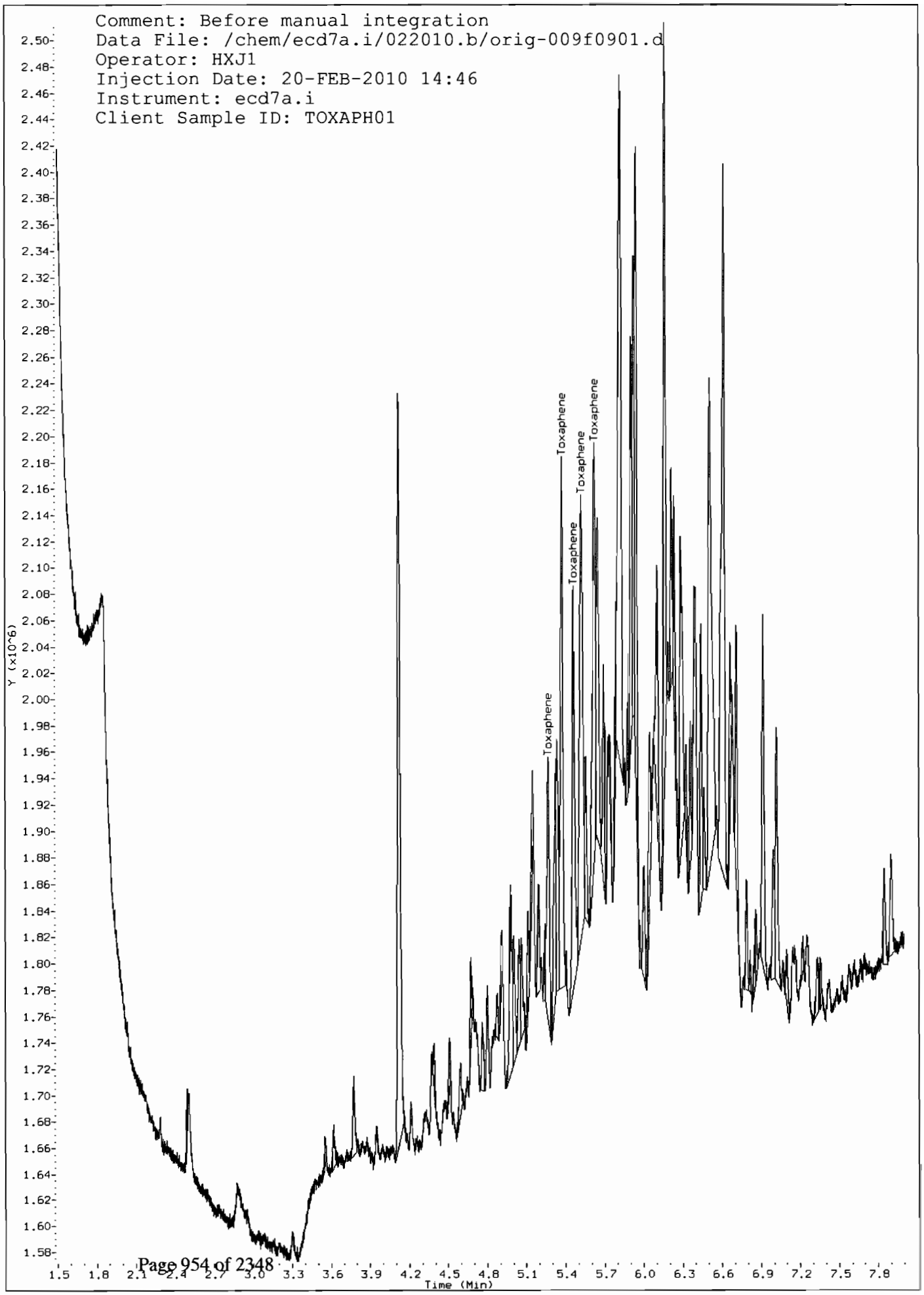
Comment: Before manual integration
Data File: /chem/ecd7a.i/022010.b/orig-009f0901.d
Operator: HXJ1
Injection Date: 20-FEB-2010 14:46
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022010.b/009b0901.d
Lab Smp Id: WPE100220-11TX Client Smp ID: TOXAPH01
Inj Date : 20-FEB-2010 14:46
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100220-11TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Meth Date : 23-Feb-2010 09:06 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 07:36 Cal File: 027b2701.d
Als bottle: 9 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
6.061	6.057	0.004	721471	100.000	104	80.00- 120.00	100.00(M)
6.127	6.125	0.002	315992	100.000	101	23.59- 63.59	43.80
6.191	6.188	0.003	351308	100.000	97.9	35.17- 75.17	48.69
6.252	6.252	0.000	385144	100.000	96.5	34.86- 74.86	53.38
6.381	6.383	-0.002	527961	100.000	97.2	55.22- 95.22	73.18
		Average of Peak Amounts =			99.3		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022010.b/009b0901.d

Page 1

Date : 20-FEB-2010 14:46

Client ID: TOXAPH01

Instrument: ecd7a.i

Sample Info: IWPE100220-11TX

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

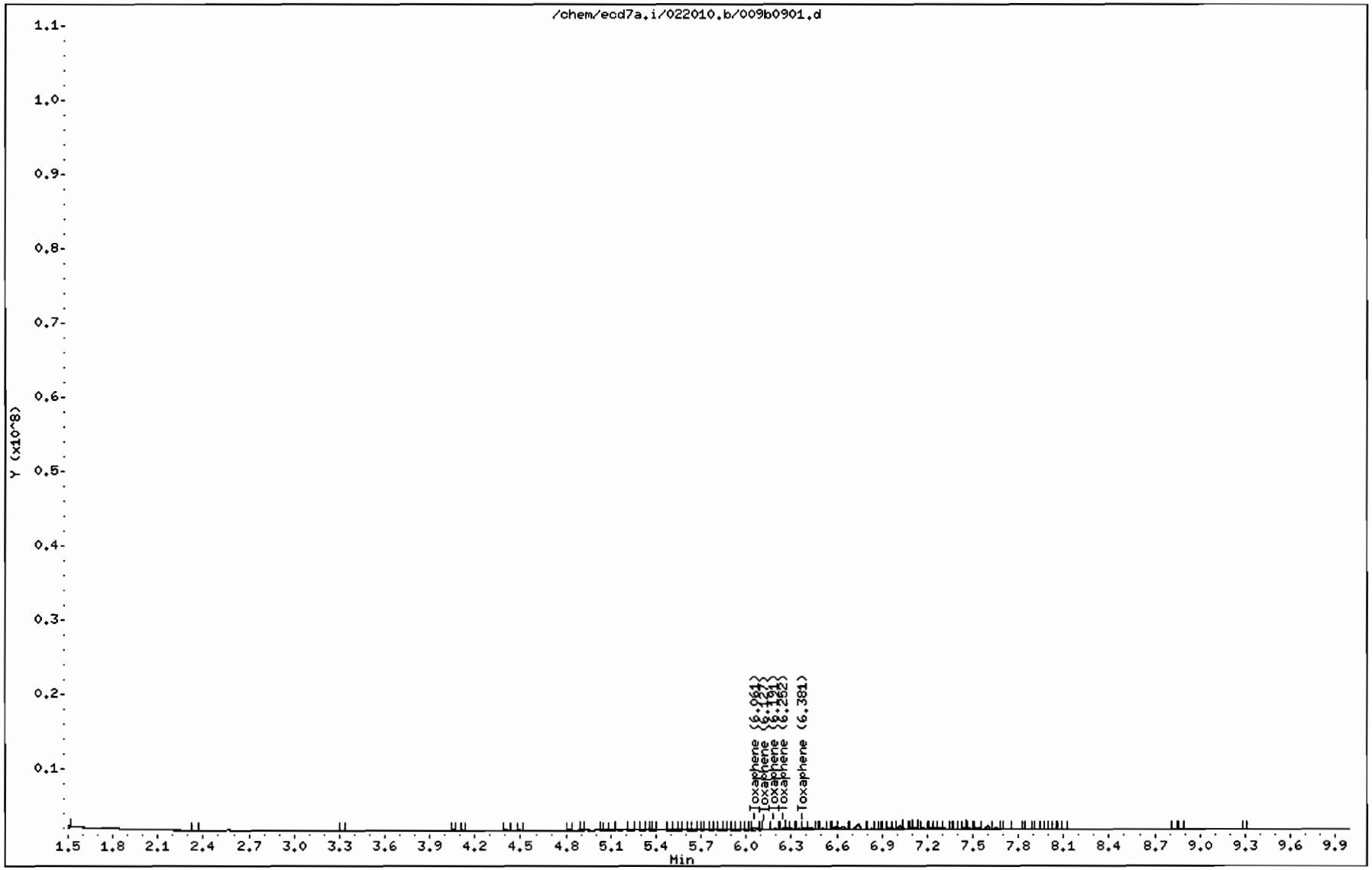

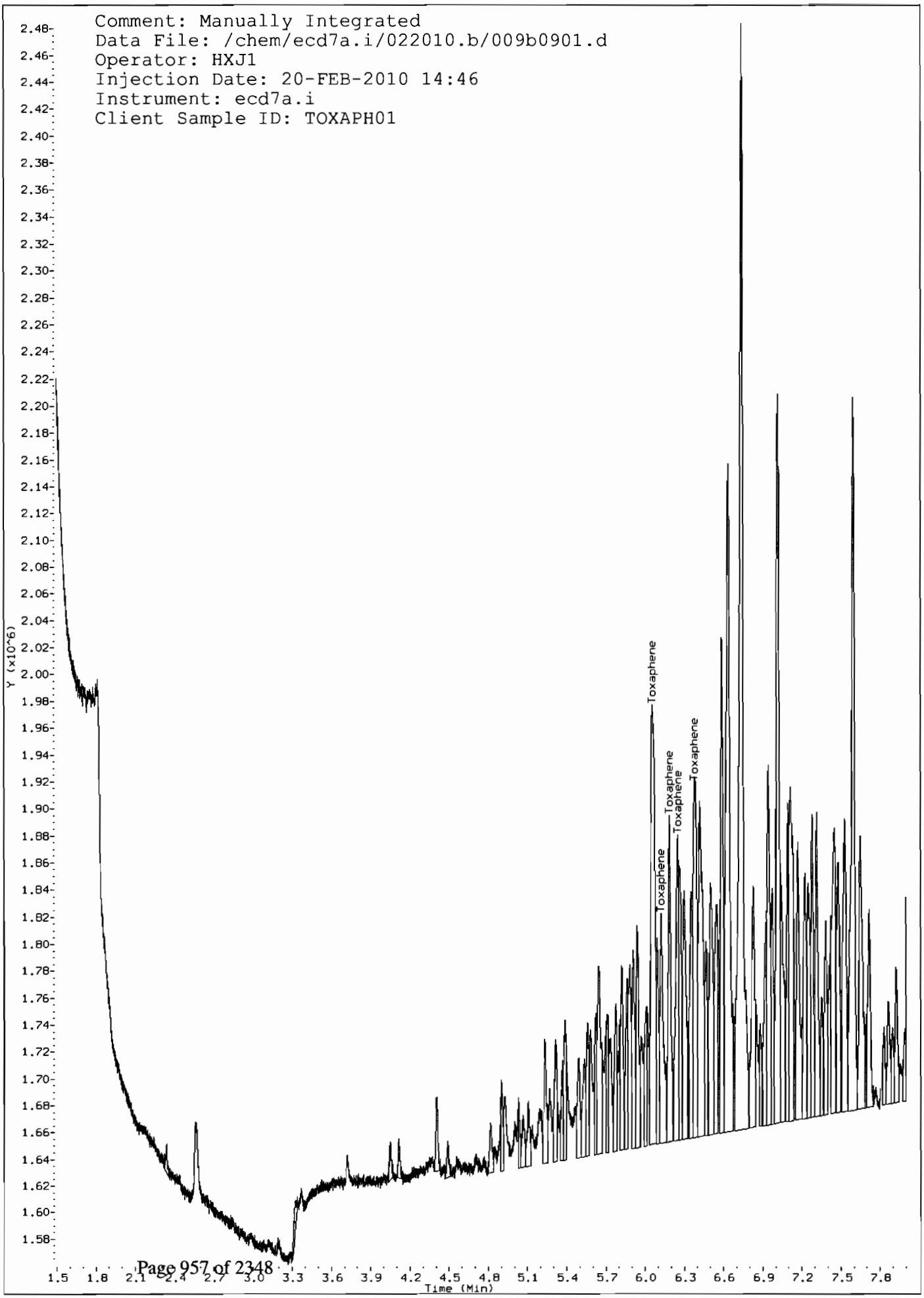
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Data File: /chem/ecd7a.i/022010.b/009b0901.d
Operator: HXJ1
Injection Date: 20-FEB-2010 14:46
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)

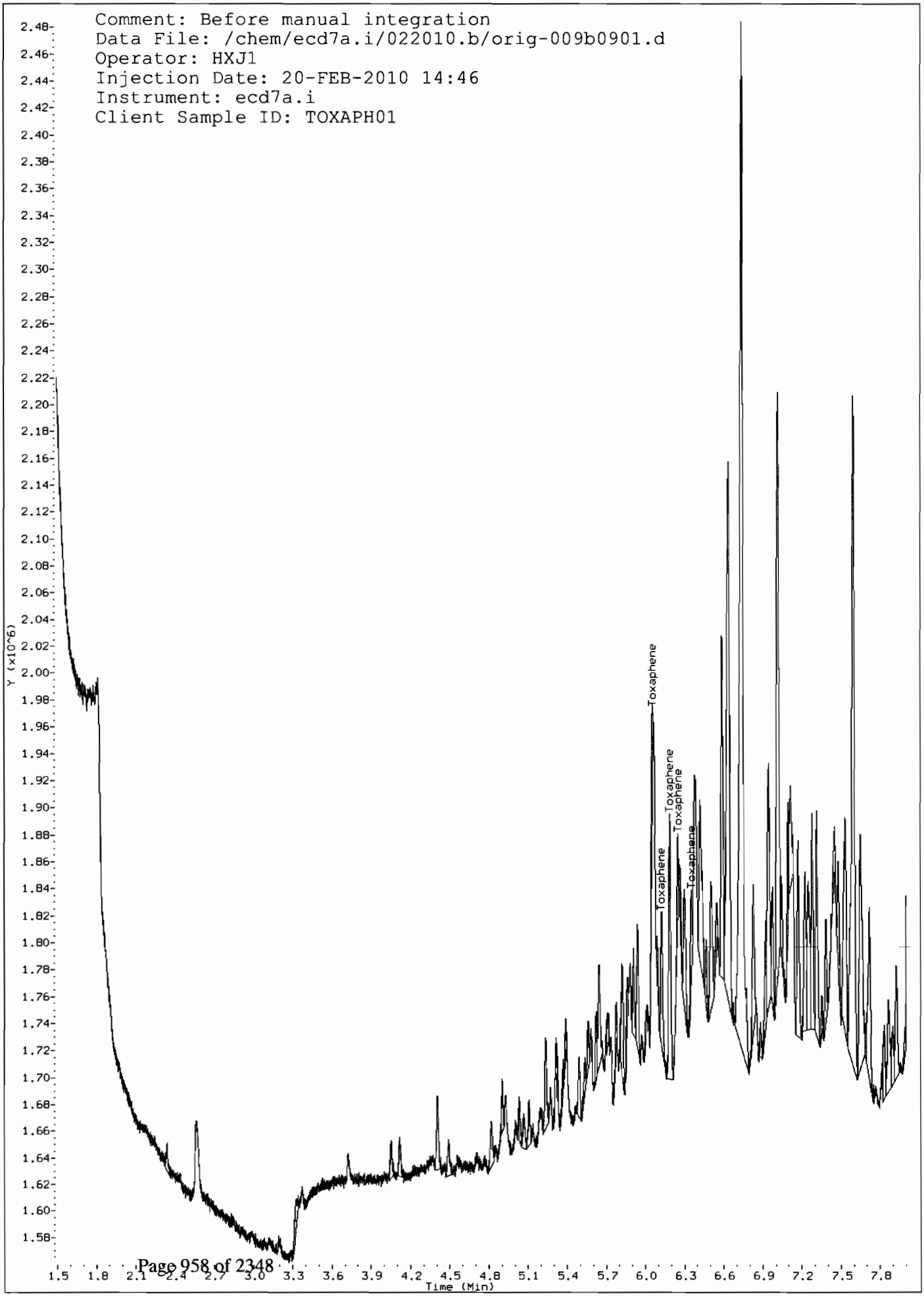
Comment: Before manual integration
Data File: /chem/ecd7a.i/022010.b/orig-009b0901.d
Operator: HXJ1
Injection Date: 20-FEB-2010 14:46
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
Y (x10^6)
Time (Min)
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022010.b/010f1001.d
Lab Smp Id: WPE100220-12TX Client Smp ID: TOXAPH02
Inj Date : 20-FEB-2010 15:03
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100220-12TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Meth Date : 23-Feb-2010 09:05 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 07:53 Cal File: 028f2801.d
Als bottle: 10 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.271	5.270	0.001	2235117	500.000	483	80.00- 120.00	100.00(M)
5.376	5.374	0.002	3495720	500.000	495	132.12- 172.12	156.40
5.464	5.462	0.002	3976268	500.000	502	171.26- 211.26	177.90
5.525	5.521	0.004	5076522	500.000	493	190.60- 230.60	227.13
5.625	5.626	-0.001	4998792	500.000	487	205.24- 245.24	223.65
Average of Peak Amounts =					492		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022010.b/010f1001.d

Page 1

Date : 20-FEB-2010 15:03

Client ID: TOXAPH02

Instrument: ecd7a.i

Sample Info: IWPE100220-12TX

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

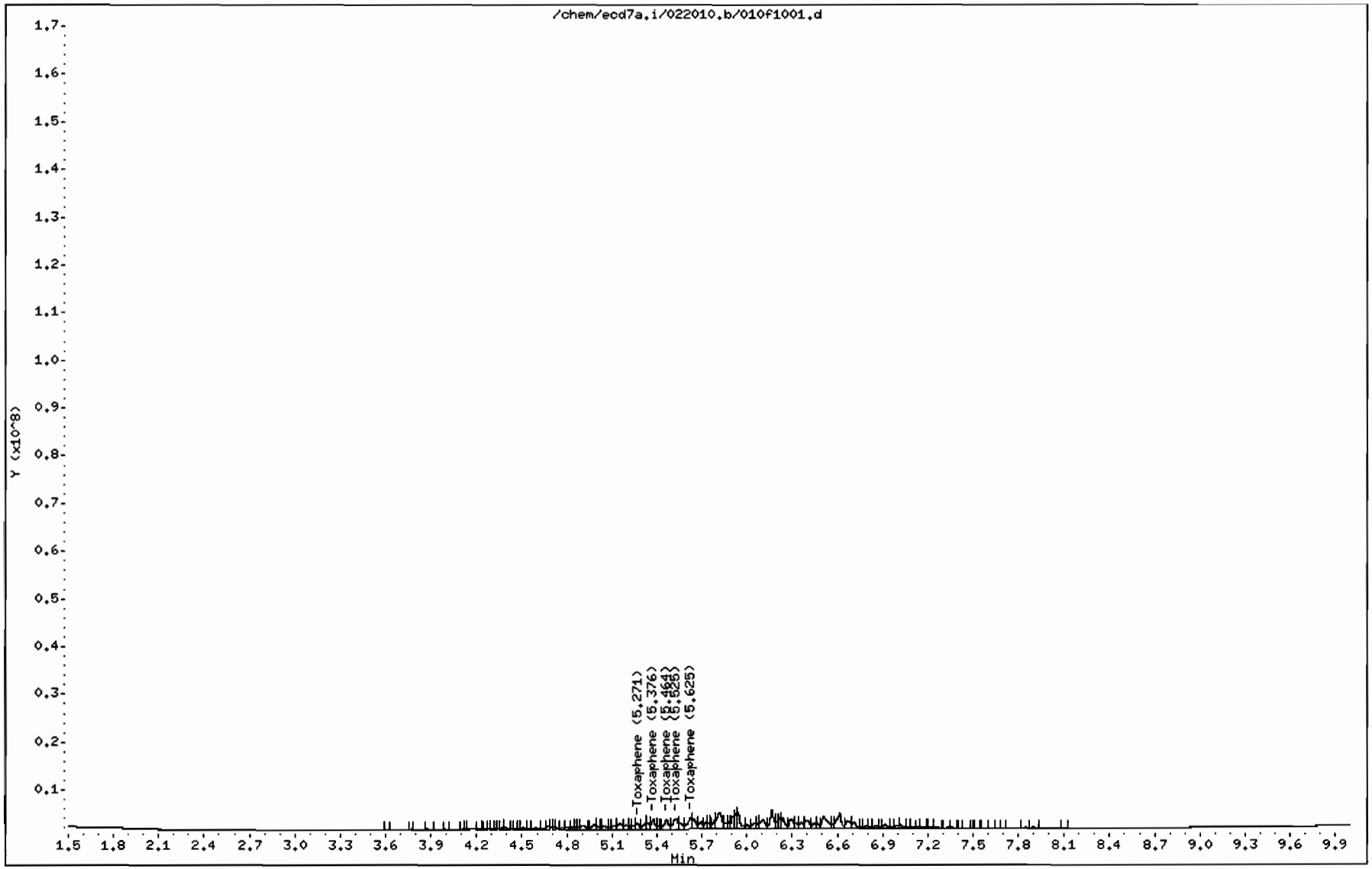

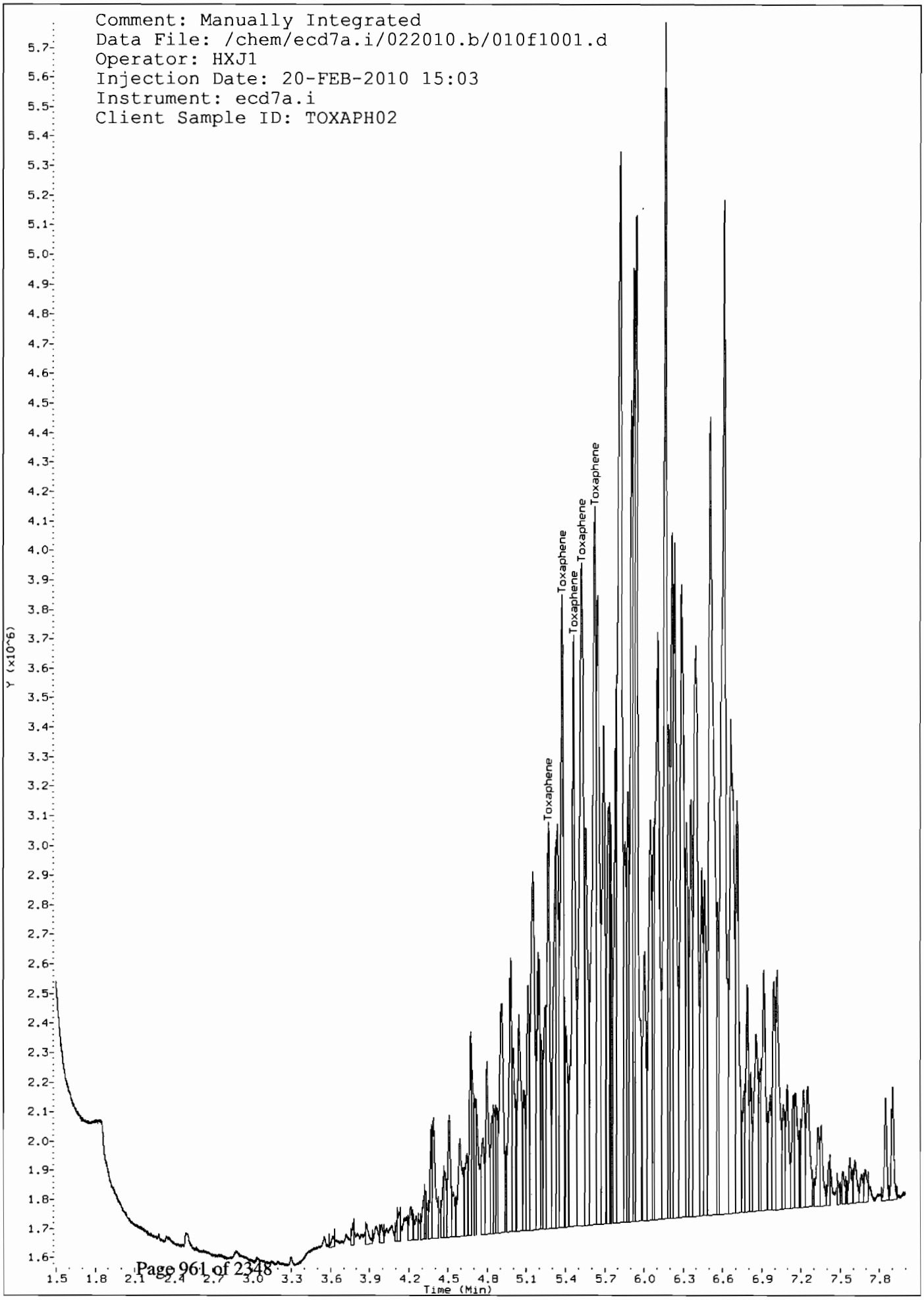
Comment: Manually Integrated
Data File: /chem/ecd7a.i/022010.b/010f1001.d
Operator: HXJ1
Injection Date: 20-FEB-2010 15:03
Instrument: ecd7a.i
Client Sample ID: TOXAPH02
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)

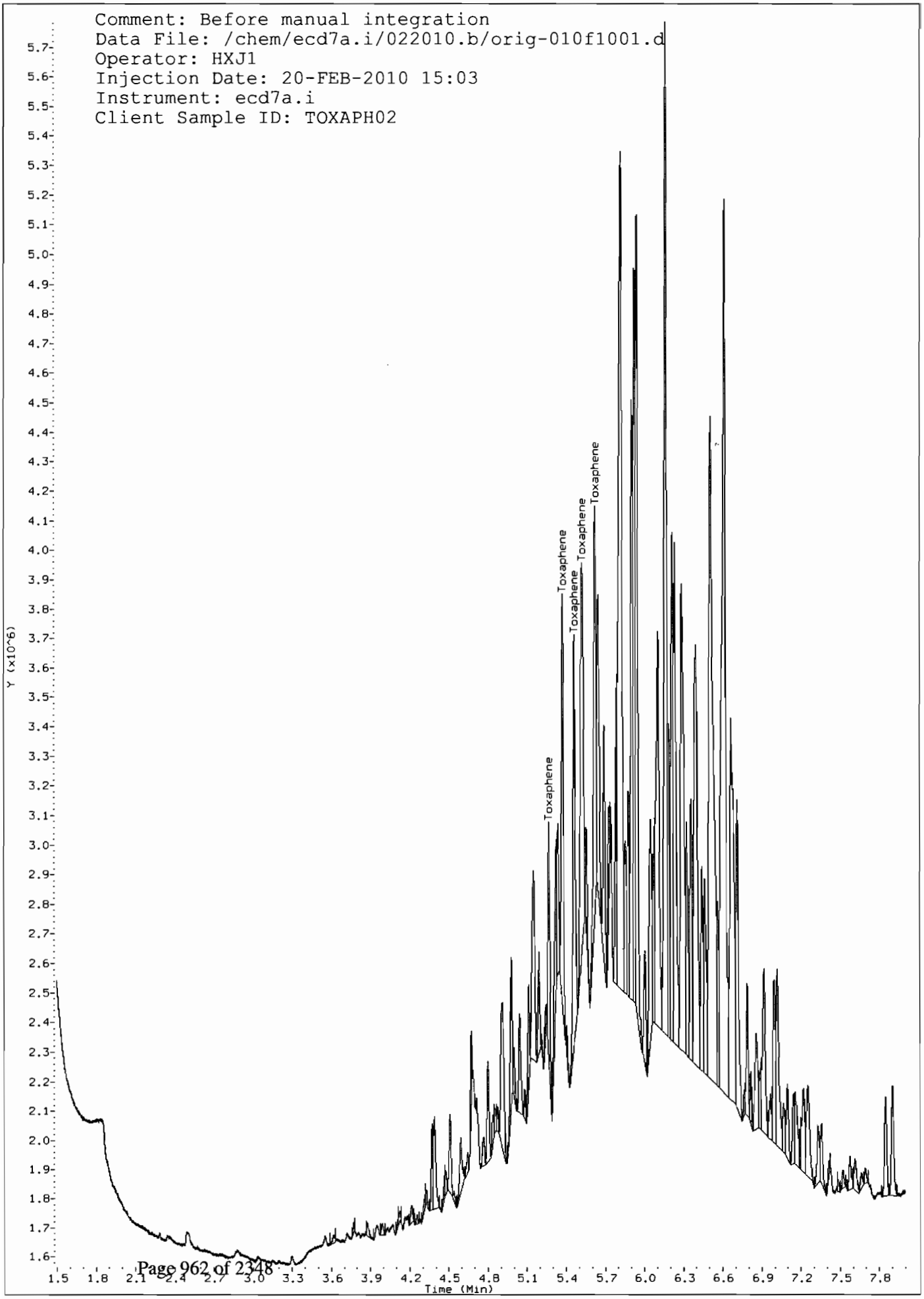
Comment: Before manual integration
Data File: /chem/ecd7a.i/022010.b/orig-010f1001.d
Operator: HXJ1
Injection Date: 20-FEB-2010 15:03
Instrument: ecd7a.i
Client Sample ID: TOXAPH02
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022010.b/010b1001.d
Lab Smp Id: WPE100220-12TX Client Smp ID: TOXAPH02
Inj Date : 20-FEB-2010 15:03
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100220-12TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Meth Date : 23-Feb-2010 09:06 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 07:53 Cal File: 028b2801.d
Als bottle: 10 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
6.069	6.057	0.012	3542795	500.000	509	80.00- 120.00	100.00(M)
6.127	6.125	0.002	1617232	500.000	518	23.59- 63.59	45.65
6.190	6.188	0.002	1874603	500.000	522	35.17- 75.17	52.91
6.252	6.252	0.000	2128855	500.000	533	34.86- 74.86	60.09
6.382	6.383	-0.001	2732595	500.000	503	55.22- 95.22	77.13
Average of Peak Amounts =					517		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022010.b/010b1001.d

Date : 20-FEB-2010 15:03

Client ID: TOXAPH02

Sample Info: IWPE100220-12TX

Column phase: CLP-2

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

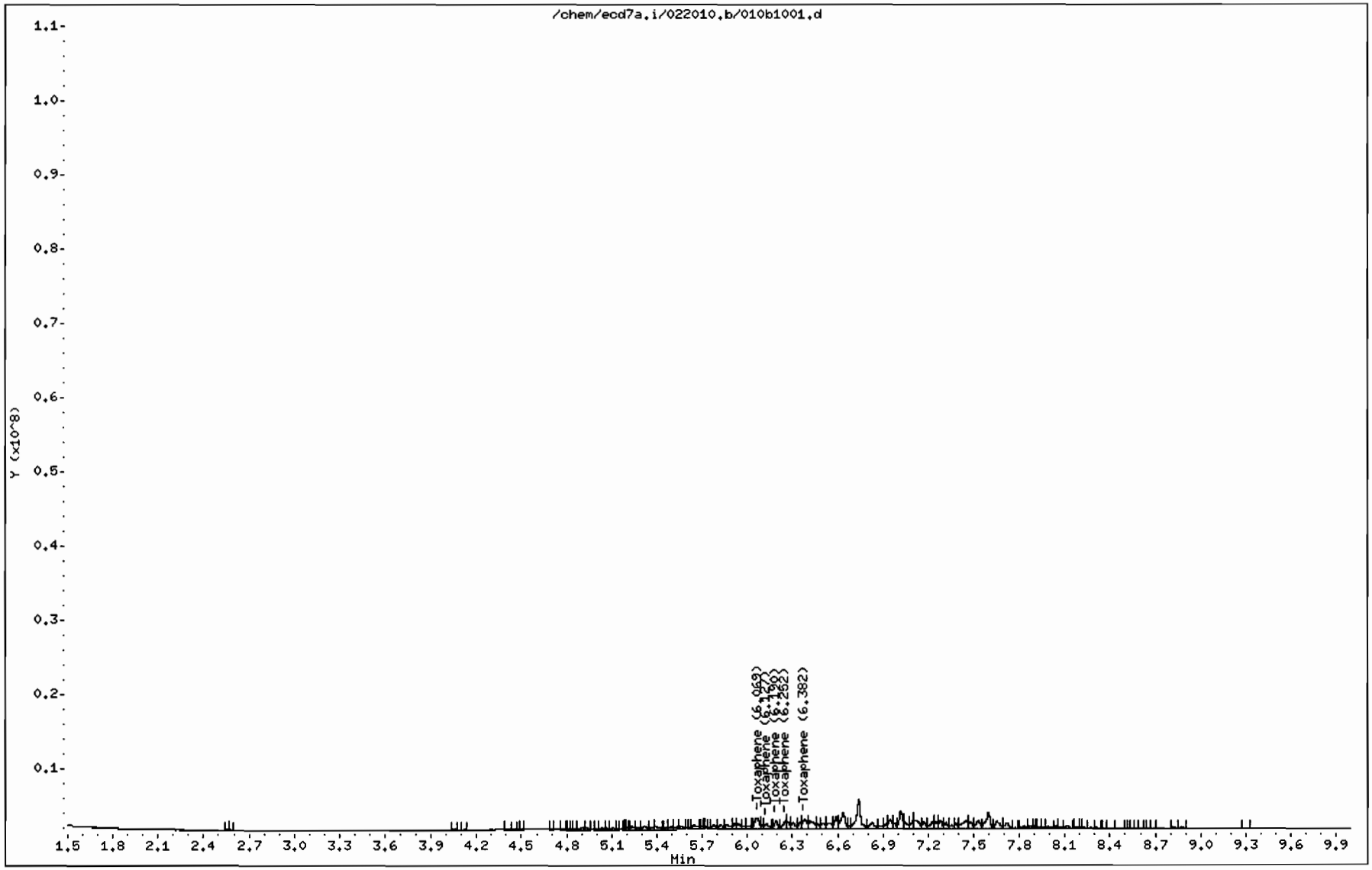

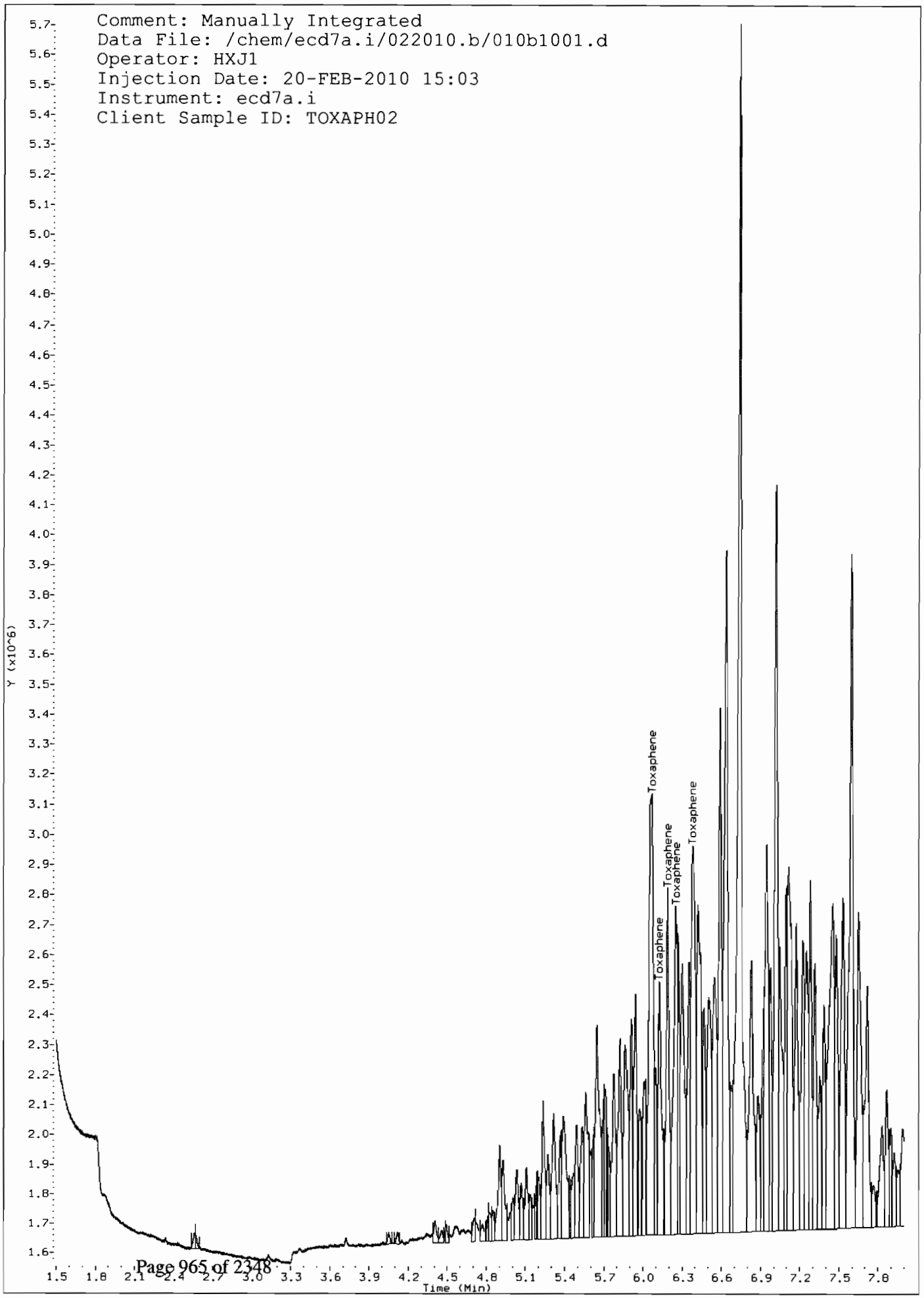
Comment: Manually Integrated
Data File: /chem/ecd7a.i/022010.b/010b1001.d
Operator: HXJ1
Injection Date: 20-FEB-2010 15:03
Instrument: ecd7a.i
Client Sample ID: TOXAPH02
Y (x10^6)
Time (Min)
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene

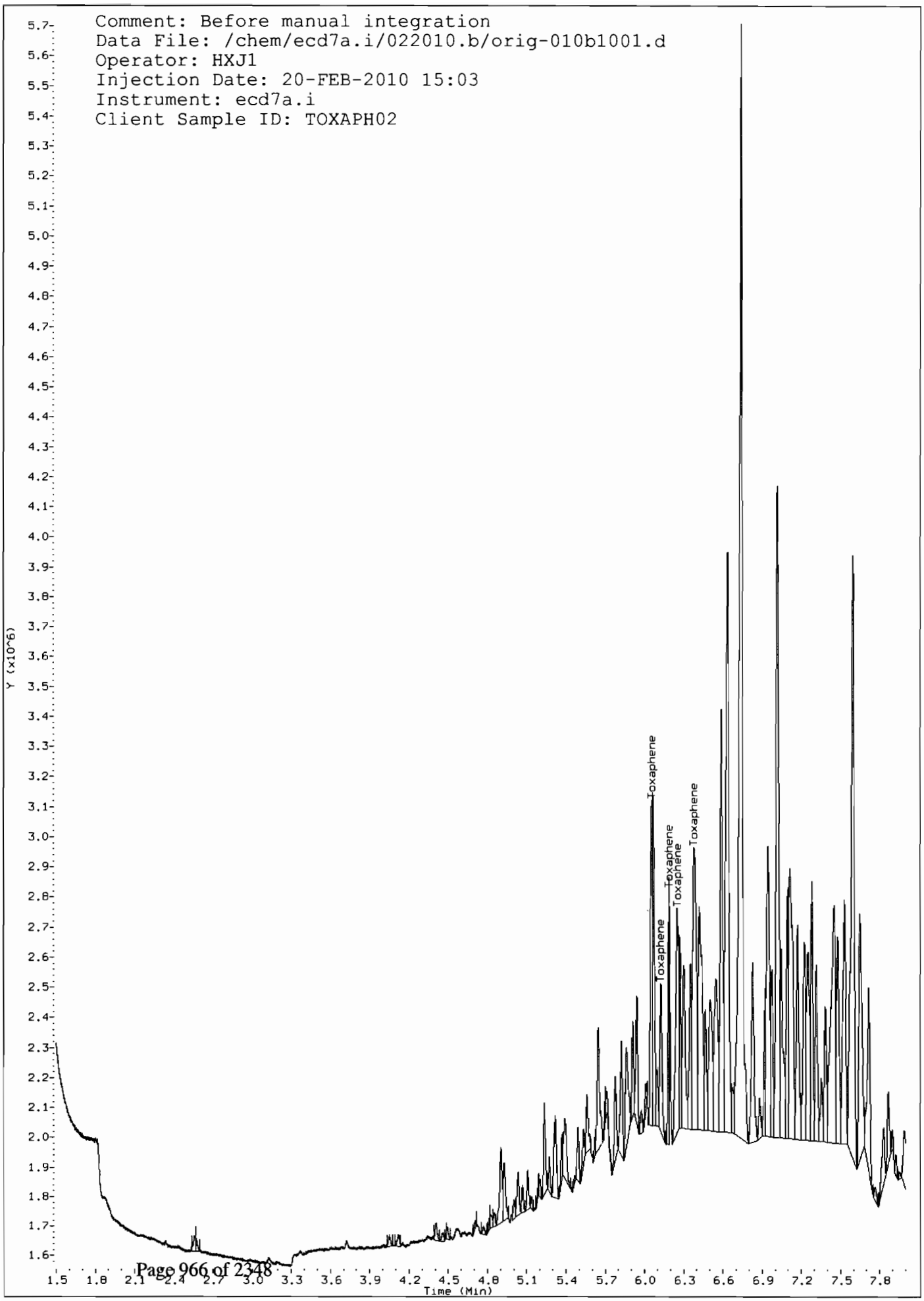
Comment: Before manual integration
Data File: /chem/ecd7a.i/022010.b/orig-010b1001.d
Operator: HXJ1
Injection Date: 20-FEB-2010 15:03
Instrument: ecd7a.i
Client Sample ID: TOXAPH02
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022010.b/011f1101.d
Lab Smp Id: WPE100220-13TX Client Smp ID: TOXAPH03
Inj Date : 20-FEB-2010 15:20
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100220-13TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Meth Date : 23-Feb-2010 09:05 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:10 Cal File: 029f2901.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.268	5.270	-0.002	4639220	1000.00	1000	80.00- 120.00	100.00(M)
5.375	5.374	0.001	7079015	1000.00	1000	132.12- 172.12	152.59
5.463	5.462	0.001	8131167	1000.00	1030	171.26- 211.26	175.27
5.524	5.521	0.003	10324805	1000.00	1000	190.60- 230.60	222.55
5.624	5.626	-0.002	10307662	1000.00	1000	205.24- 245.24	222.19

Average of Peak Amounts = 1.01e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022010.b/011f1101.d

Page 1

Date : 20-FEB-2010 15:20

Client ID: TOXAPH03

Instrument: ecd7a.i

Sample Info: IWPE100220-13TX

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

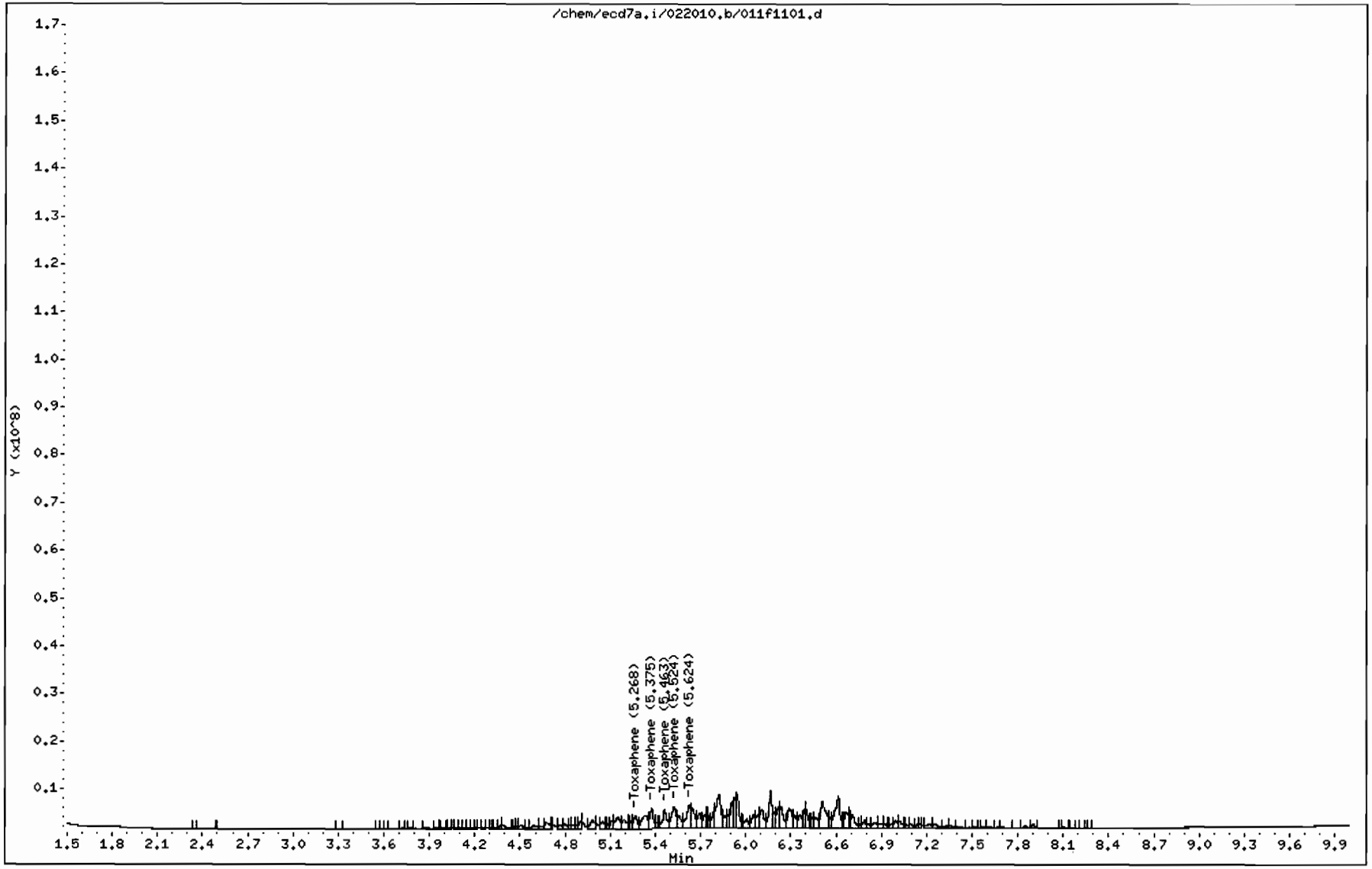

Comment: Manually Integrated
Data File: /chem/ecd7a.i/022010.b/011f1101.d
Operator: HXJ1
Injection Date: 20-FEB-2010 15:20
Instrument: ecd7a.i
Client Sample ID: TOXAPH03

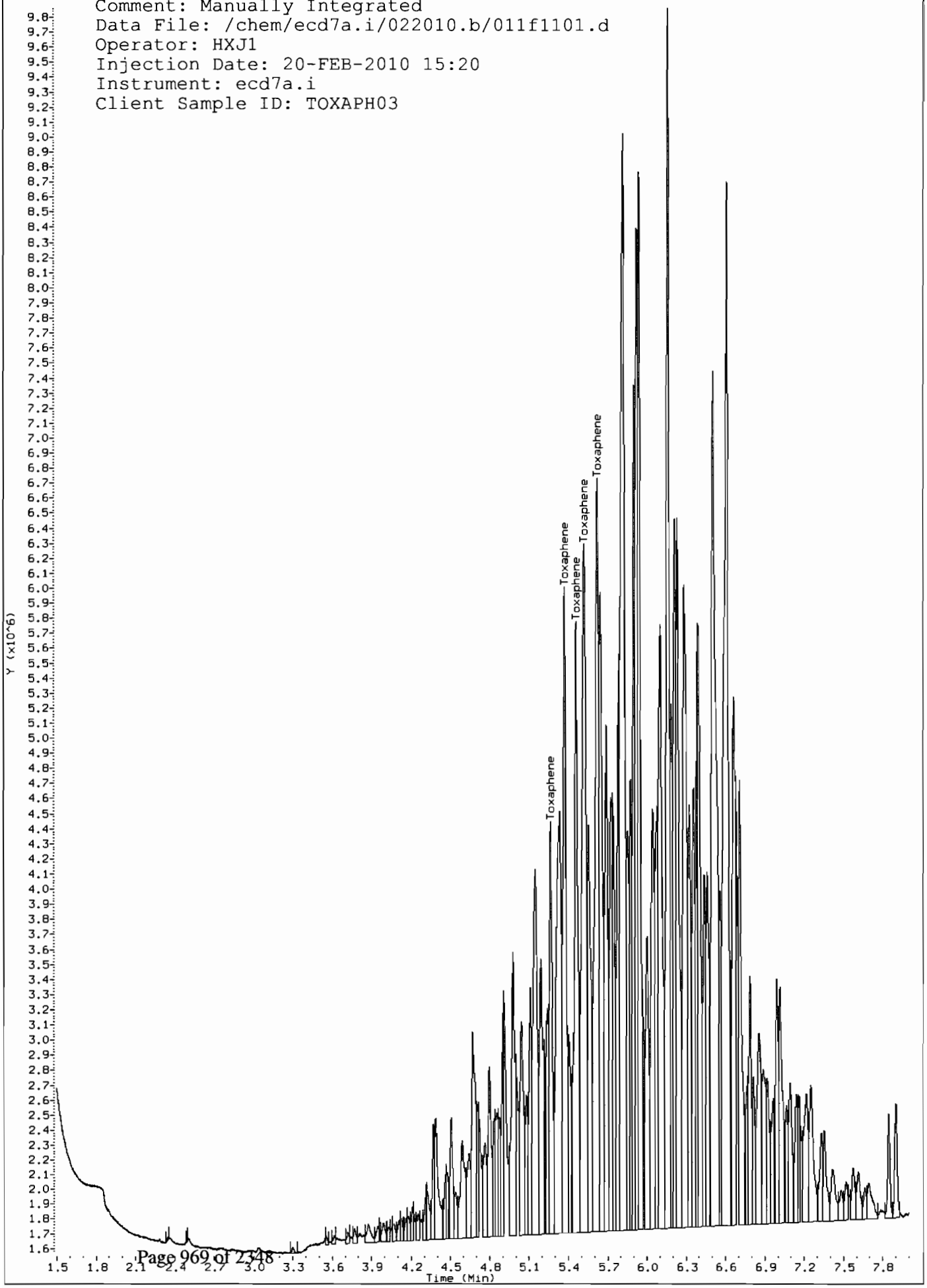

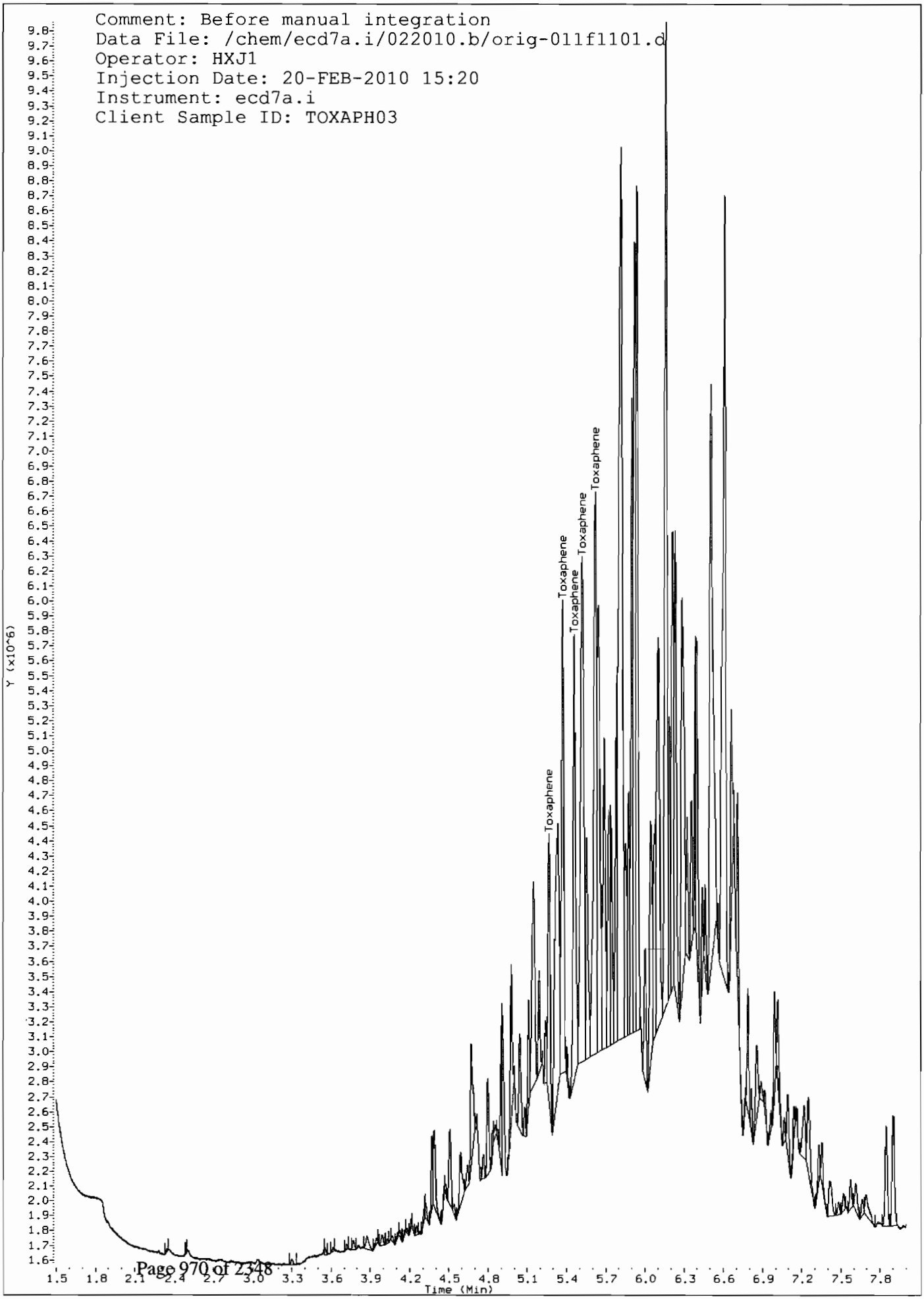
Comment: Before manual integration
Data File: /chem/ecd7a.i/022010.b/orig-011f1101.d
Operator: HXJ1
Injection Date: 20-FEB-2010 15:20
Instrument: ecd7a.i
Client Sample ID: TOXAPH03
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022010.b/011b1101.d
Lab Smp Id: WPE100220-13TX Client Smp ID: TOXAPH03
Inj Date : 20-FEB-2010 15:20
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100220-13TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Meth Date : 23-Feb-2010 09:06 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:10 Cal File: 029b2901.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
6.057	6.057	0.000	7055323	1000.00	1010	80.00- 120.00	100.00(M)
6.126	6.125	0.001	3234313	1000.00	1040	23.59- 63.59	45.84
6.189	6.188	0.001	3567271	1000.00	994	35.17- 75.17	50.56
6.251	6.252	-0.001	4099885	1000.00	1030	34.86- 74.86	58.11
6.380	6.383	-0.003	5496814	1000.00	1010	55.22- 95.22	77.91

Average of Peak Amounts = 1.02e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022010.b/011b1101.d

Page 1

Date : 20-FEB-2010 15:20

Client ID: TOXAPH03

Instrument: ecd7a.i

Sample Info: IWPE100220-13TX

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

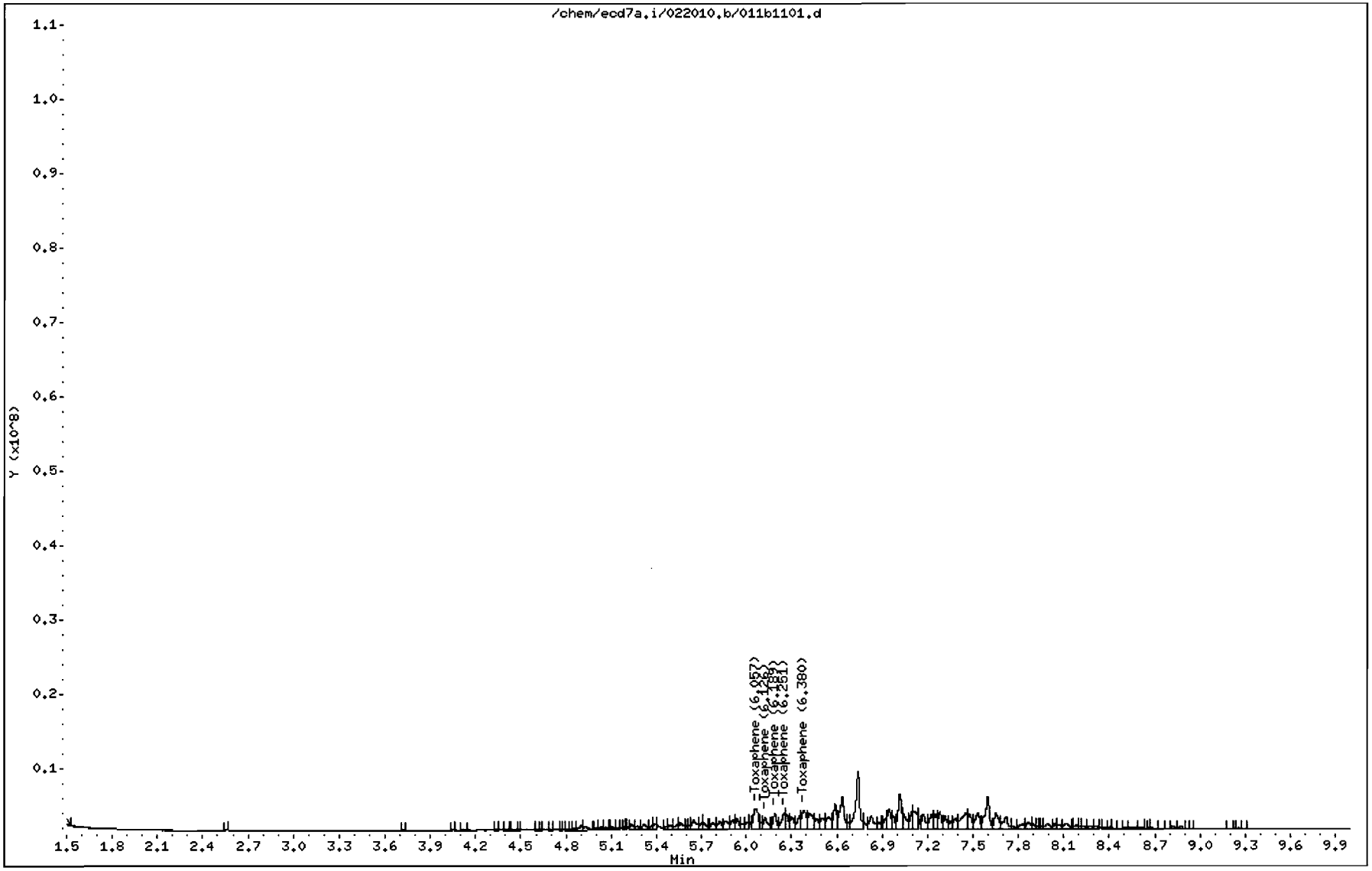

Comment: Manually Integrated
Data File: /chem/ecd7a.i/022010.b/011b1101.d
Operator: HXJ1
Injection Date: 20-FEB-2010 15:20
Instrument: ecd7a.i
Client Sample ID: TOXAPH03

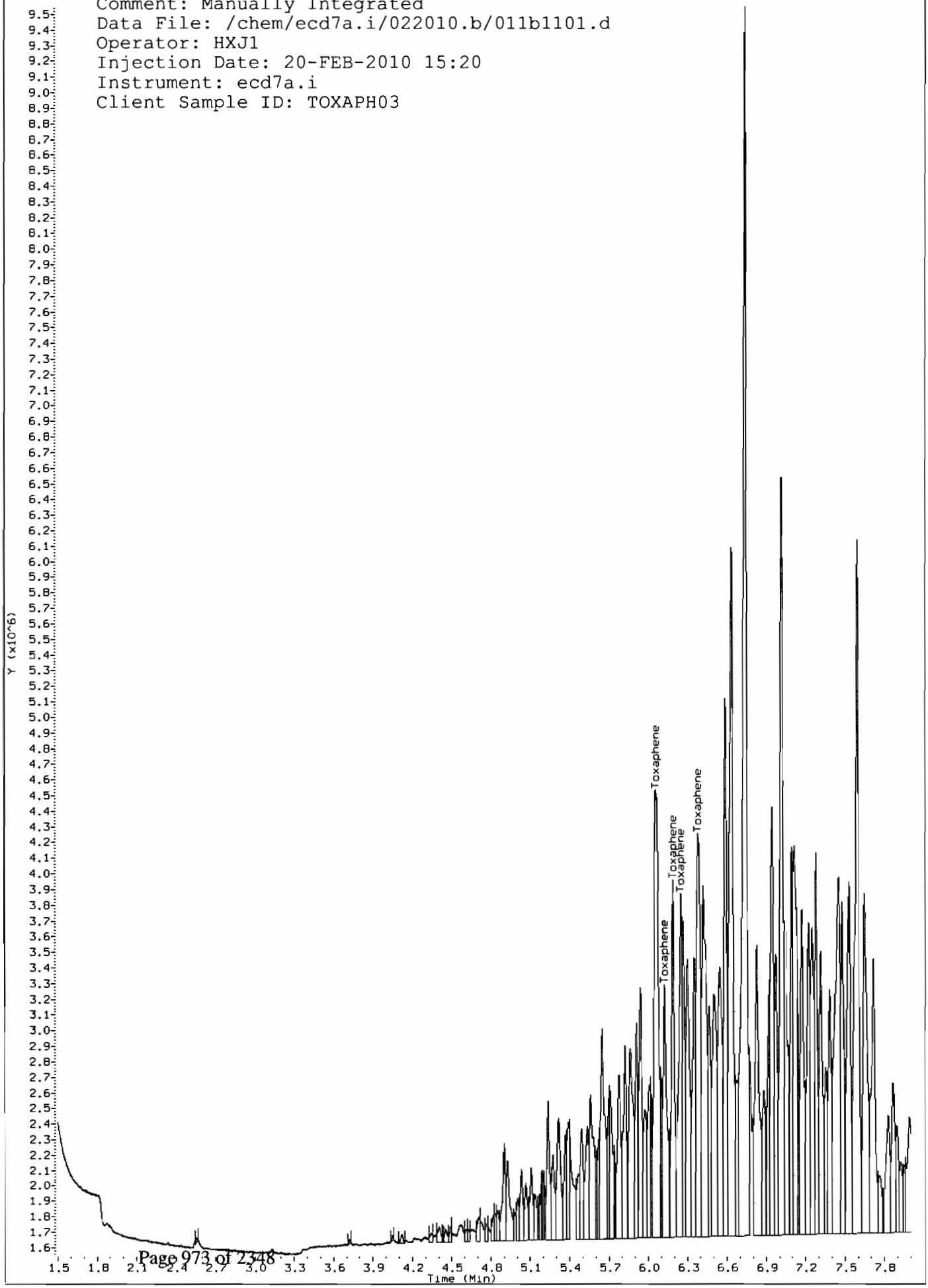

Comment: Before manual integration
Data File: /chem/ecd7a.i/022010.b/orig-011b1101.d
Operator: HXJ1
Injection Date: 20-FEB-2010 15:20
Instrument: ecd7a.i
Client Sample ID: TOXAPH03

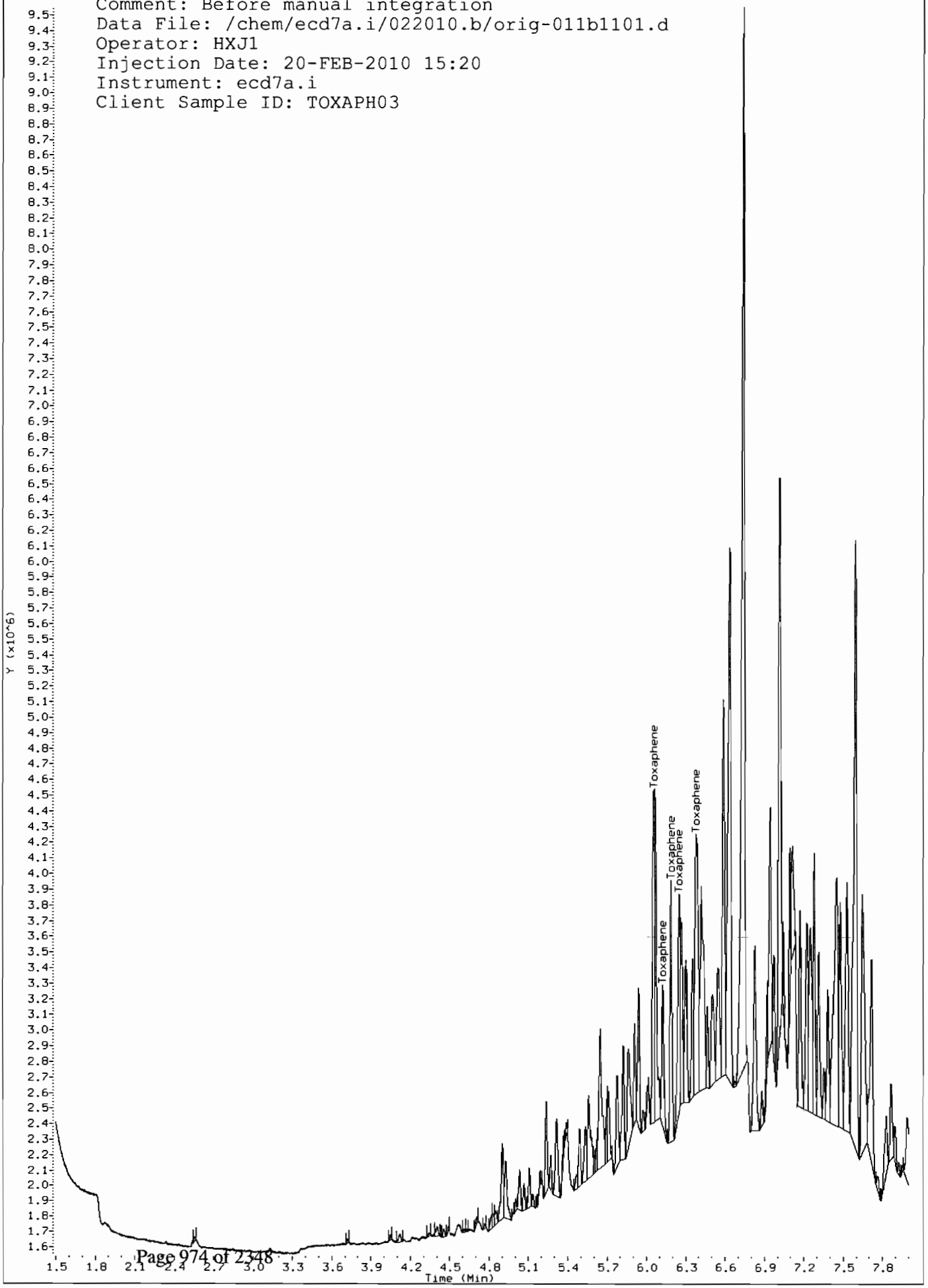

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022010.b/012f1201.d
Lab Smp Id: WPE100220-14TX Client Smp ID: TOXAPH04
Inj Date : 20-FEB-2010 15:37
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100220-14TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Meth Date : 23-Feb-2010 09:05 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 10:26 Cal File: 037f3701.d
Als bottle: 12 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.270	5.270	0.000	9177954	2000.00	1980	80.00- 120.00	100.00(M)
5.374	5.374	0.000	13432758	2000.00	1900	132.12- 172.12	146.36
5.462	5.462	0.000	16019463	2000.00	2020	171.26- 211.26	174.54
5.523	5.521	0.002	20692273	2000.00	2010	190.60- 230.60	225.46
5.623	5.626	-0.003	20548346	2000.00	2000	205.24- 245.24	223.89

Average of Peak Amounts = 1.98e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022010.b/012f1201.d
Date : 20-FEB-2010 15:37
Client ID: TOXAPH04
Sample Info: IWPE100220-14TX

Instrument: ecd7a.i

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

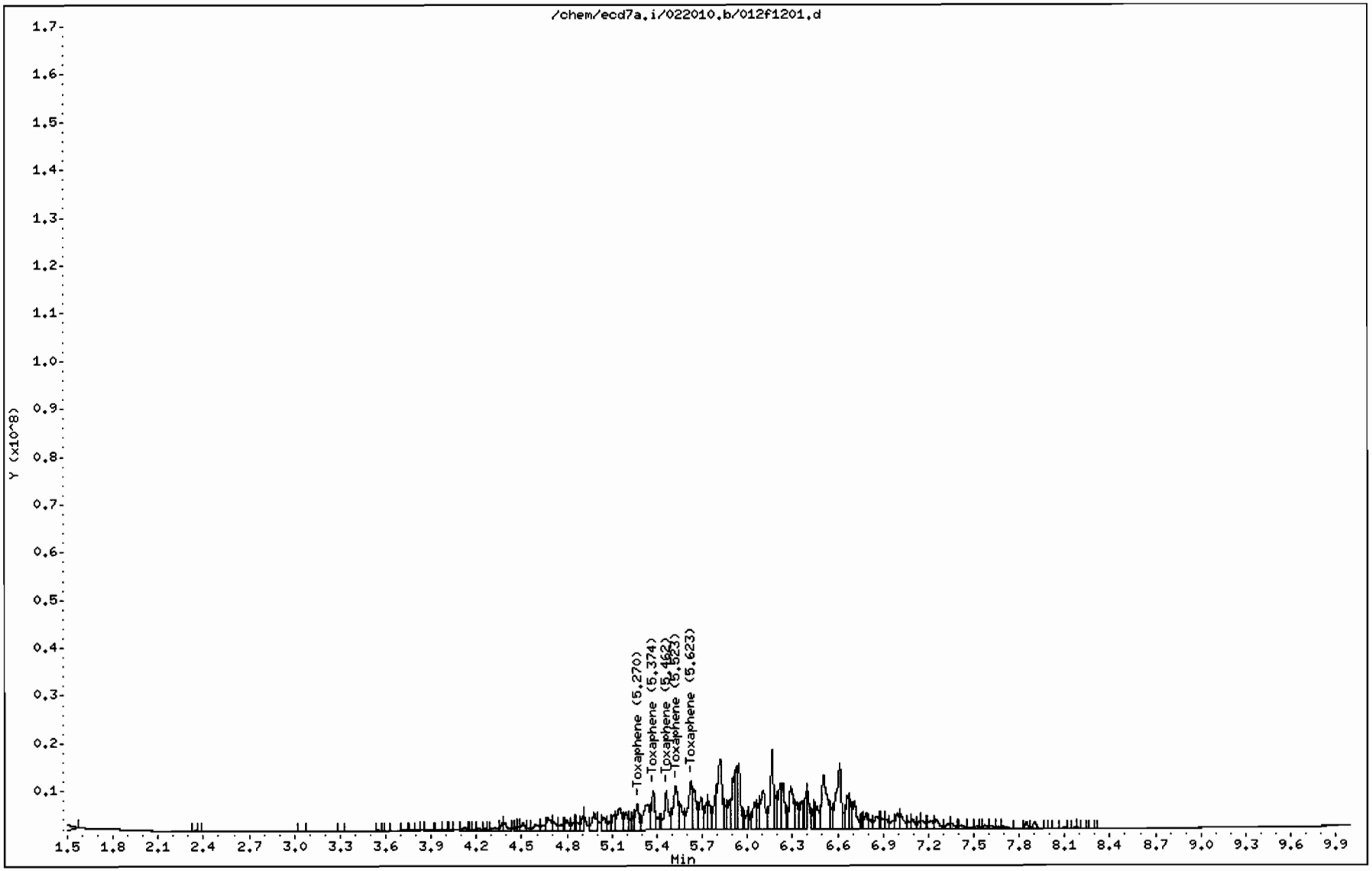

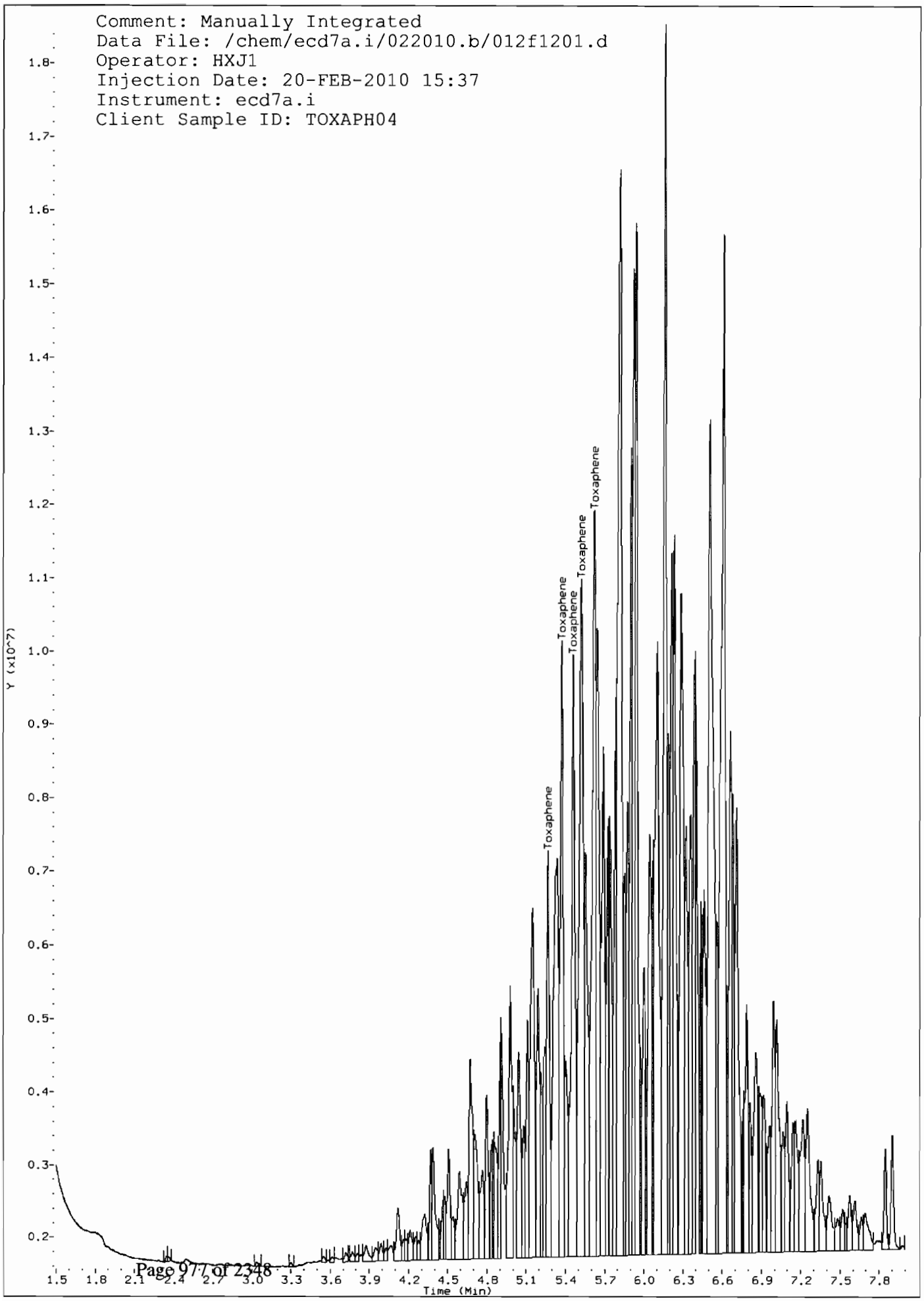
Comment: Manually Integrated
Data File: /chem/ecd7a.i/022010.b/012f1201.d
Operator: HXJ1
Injection Date: 20-FEB-2010 15:37
Instrument: ecd7a.i
Client Sample ID: TOXAPH04
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

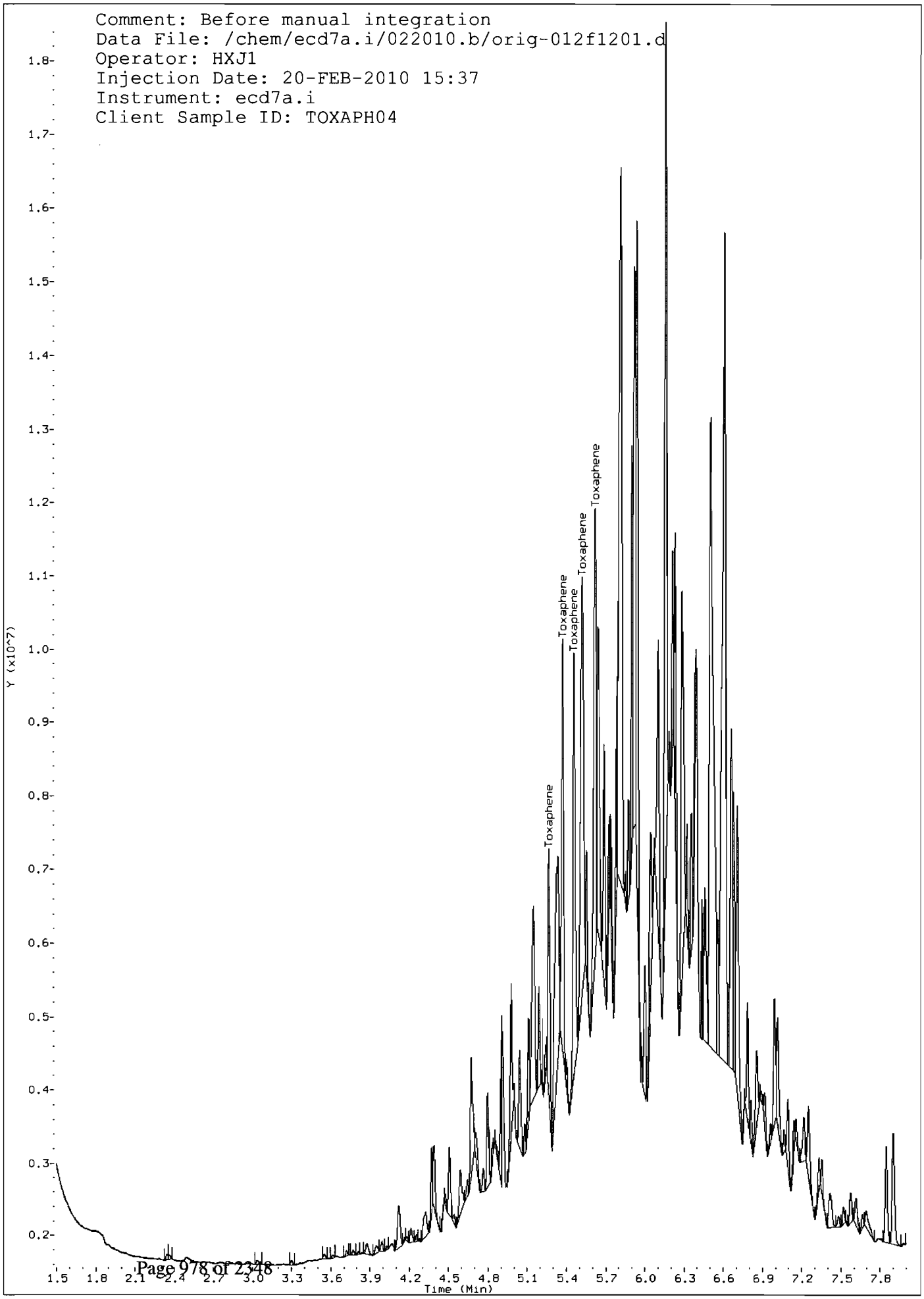
Comment: Before manual integration
Data File: /chem/ecd7a.i/022010.b/orig-012f1201.d
Operator: HXJ1
Injection Date: 20-FEB-2010 15:37
Instrument: ecd7a.i
Client Sample ID: TOXAPH04
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022010.b/012b1201.d
Lab Smp Id: WPE100220-14TX Client Smp ID: TOXAPH04
Inj Date : 20-FEB-2010 15:37
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100220-14TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Meth Date : 23-Feb-2010 09:06 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 10:26 Cal File: 037b3701.d
Als bottle: 12 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
6.067	6.057	0.010	13318723	2000.00	1910	80.00- 120.00	100.00(M)
6.125	6.125	0.000	5959460	2000.00	1910	23.59- 63.59	44.74
6.189	6.188	0.001	7017656	2000.00	1960	35.17- 75.17	52.69
6.252	6.252	0.000	7641023	2000.00	1910	34.86- 74.86	57.37
6.383	6.383	0.000	10872413	2000.00	2000	55.22- 95.22	81.63

Average of Peak Amounts = 1.94e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022010.b/012b1201.d
Date : 20-FEB-2010 15:37
Client ID: TOXAPH04
Sample Info: IWPE100220-14TX

Column phase: CLP-2

Instrument: ecd7a.i

Operator: HXJ1
Column diameter: 0.25

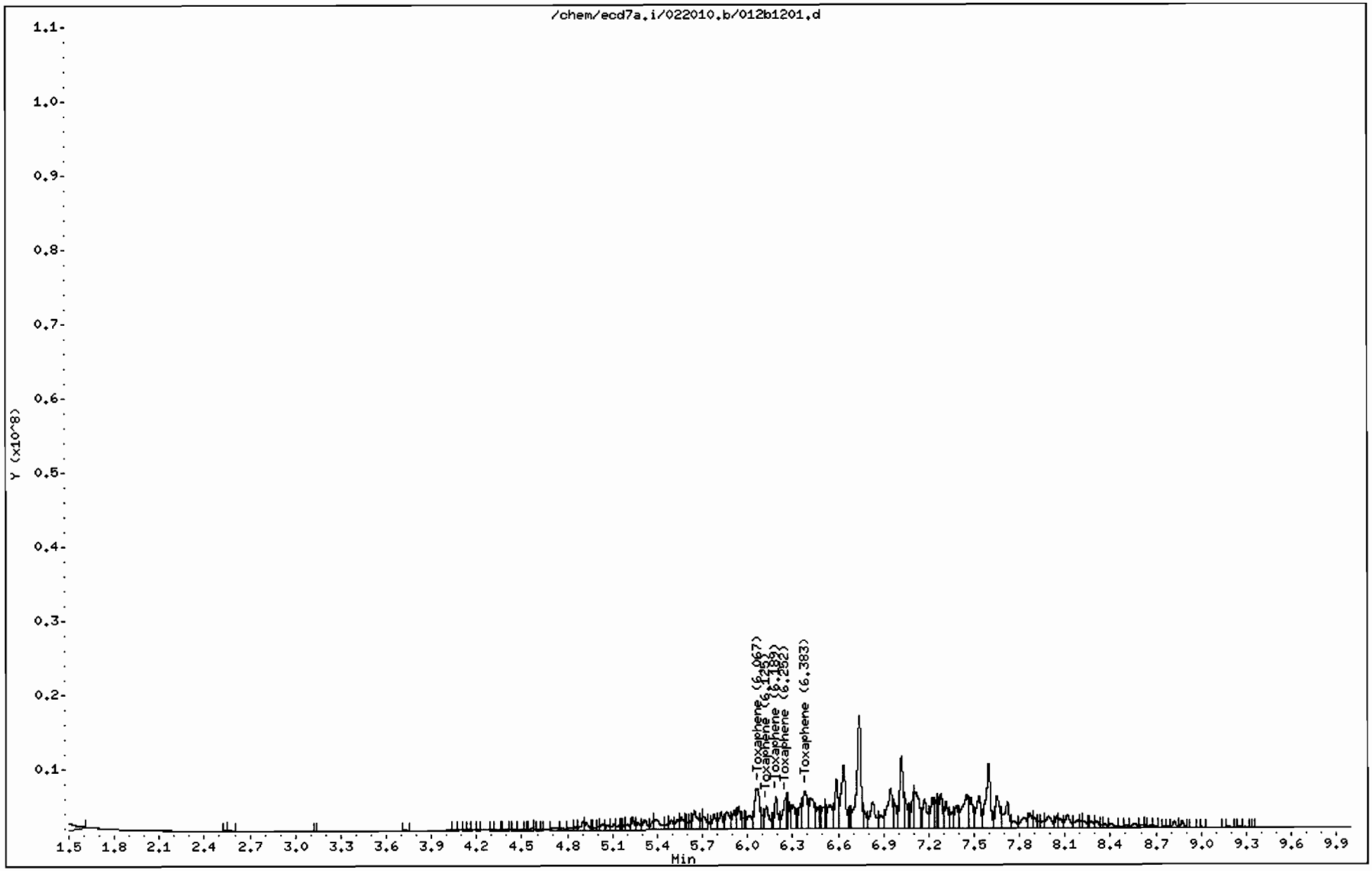

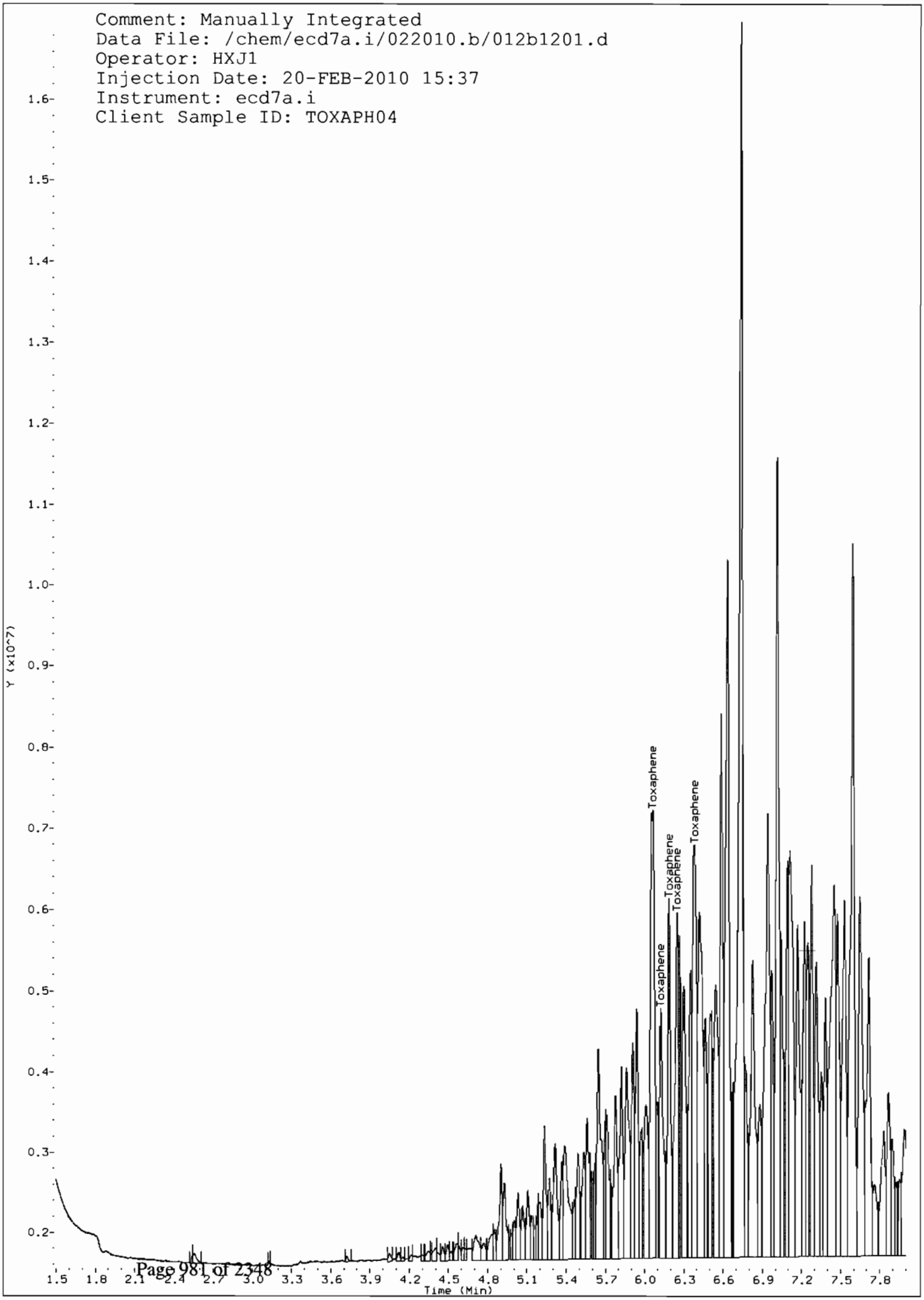
Comment: Manually Integrated
Data File: /chem/ecd7a.i/022010.b/012b1201.d
Operator: HXJ1
Injection Date: 20-FEB-2010 15:37
Instrument: ecd7a.i
Client Sample ID: TOXAPH04
Y (x10^7)
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8 5.1 5.4 5.7 6.0 6.3 6.6 6.9 7.2 7.5 7.8
Time (Min)

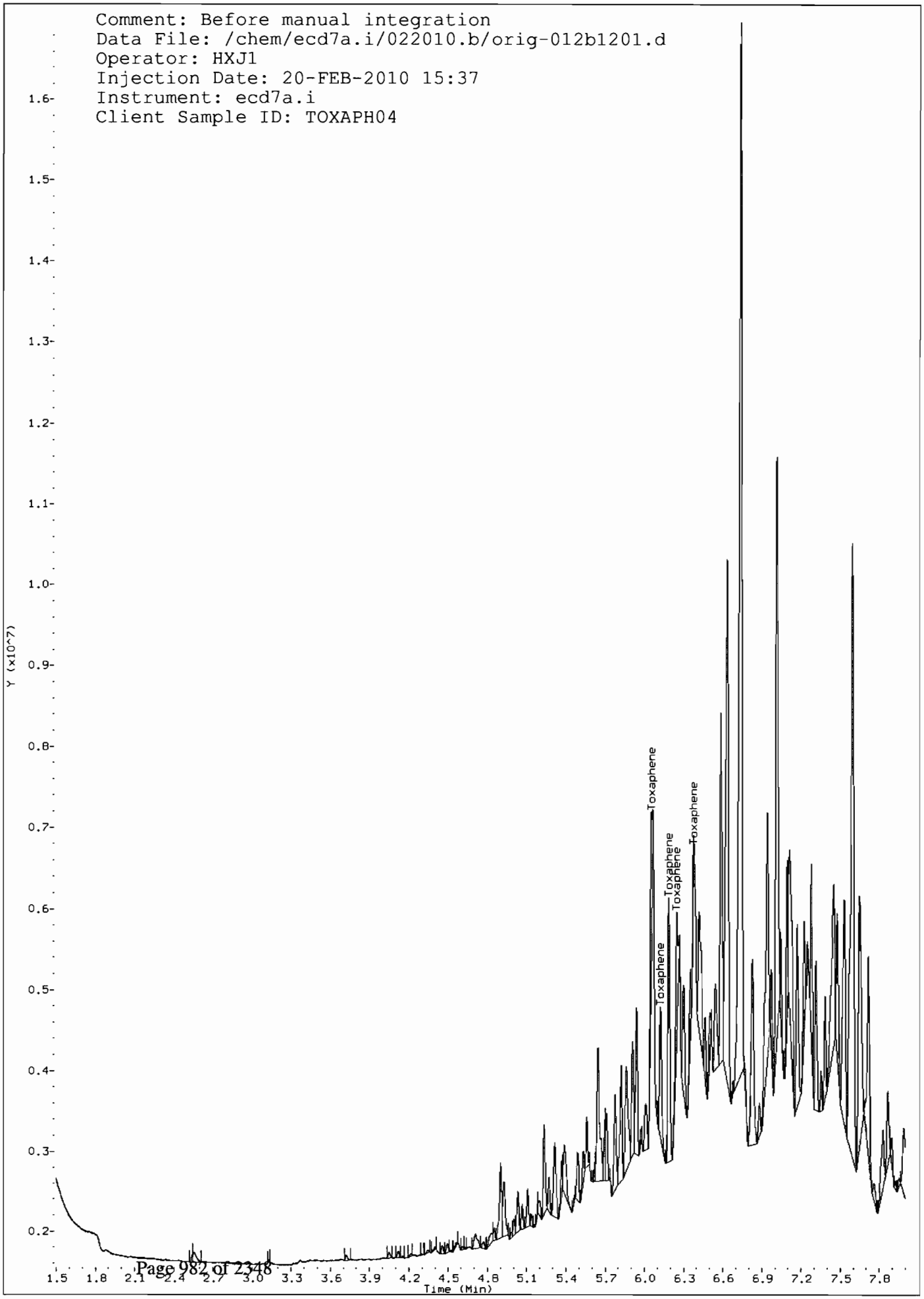
Comment: Before manual integration
Data File: /chem/ecd7a.i/022010.b/orig-012b1201.d
Operator: HXJ1
Injection Date: 20-FEB-2010 15:37
Instrument: ecd7a.i
Client Sample ID: TOXAPH04
Y (x10^7)
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8 5.1 5.4 5.7 6.0 6.3 6.6 6.9 7.2 7.5 7.8
Time (Min)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022010.b/013f1301.d
Lab Smp Id: IPE100204-40TX Client Smp ID: TOXAPH05
Inj Date : 20-FEB-2010 15:55
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |IPE100204-40TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Meth Date : 23-Feb-2010 09:05 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031f3101.d
Als bottle: 13 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.270	5.270	0.000	14282560	3000.00	3090	80.00- 120.00	100.00(AM)
5.374	5.374	0.000	20460615	3000.00	2900	132.12- 172.12	143.26
5.462	5.462	0.000	24766324	3000.00	3130	171.26- 211.26	173.40
5.522	5.521	0.001	32430727	3000.00	3150	190.60- 230.60	227.07
5.625	5.626	-0.001	32040730	3000.00	3120	205.24- 245.24	224.33

Average of Peak Amounts = 3.08e+03

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022010.b/013f1301.d

Date : 20-FEB-2010 15:55

Client ID: TOXAPH05

Sample Info: IIPE100204-40TX

Column phase: CLP-1

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

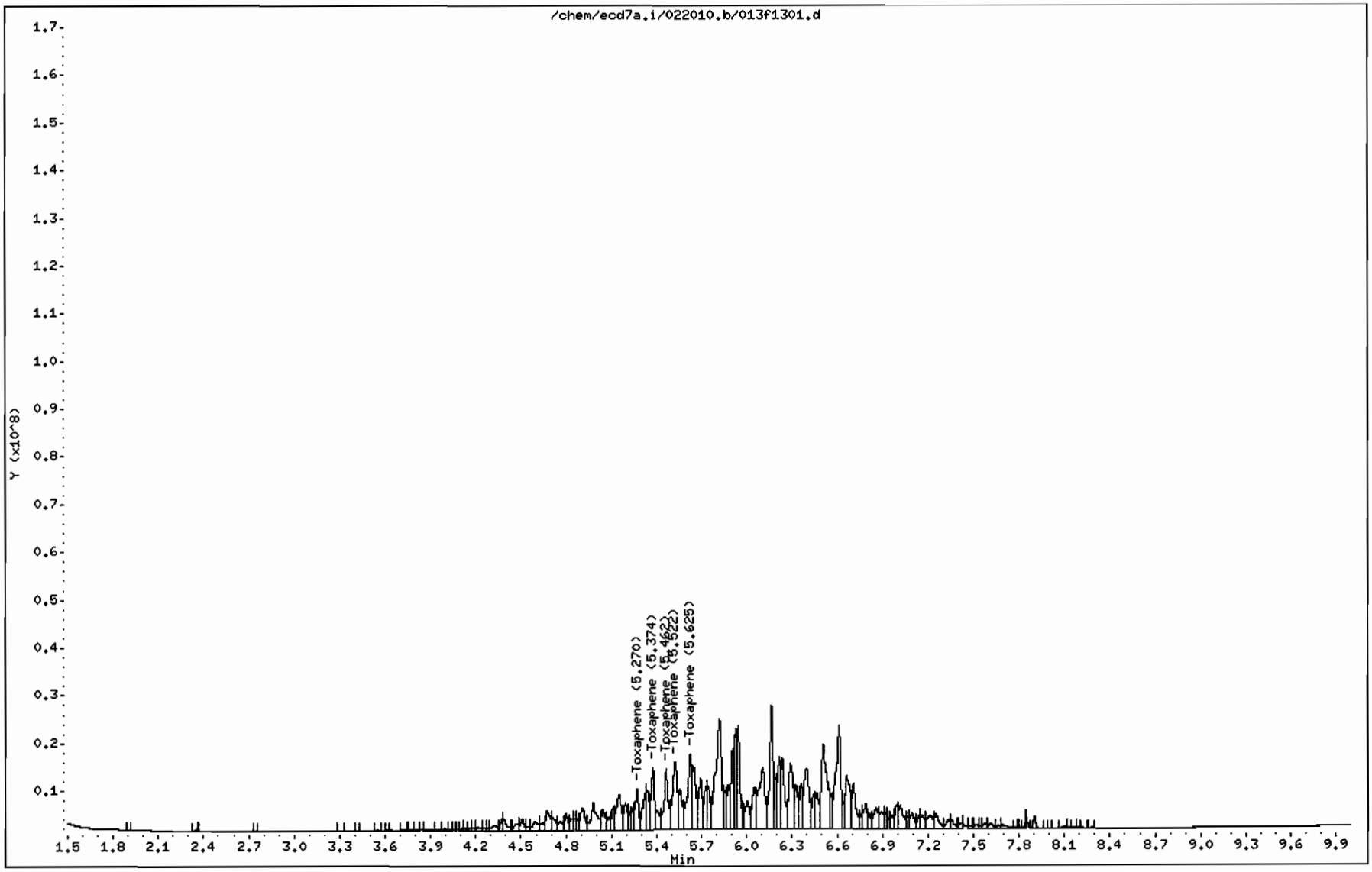

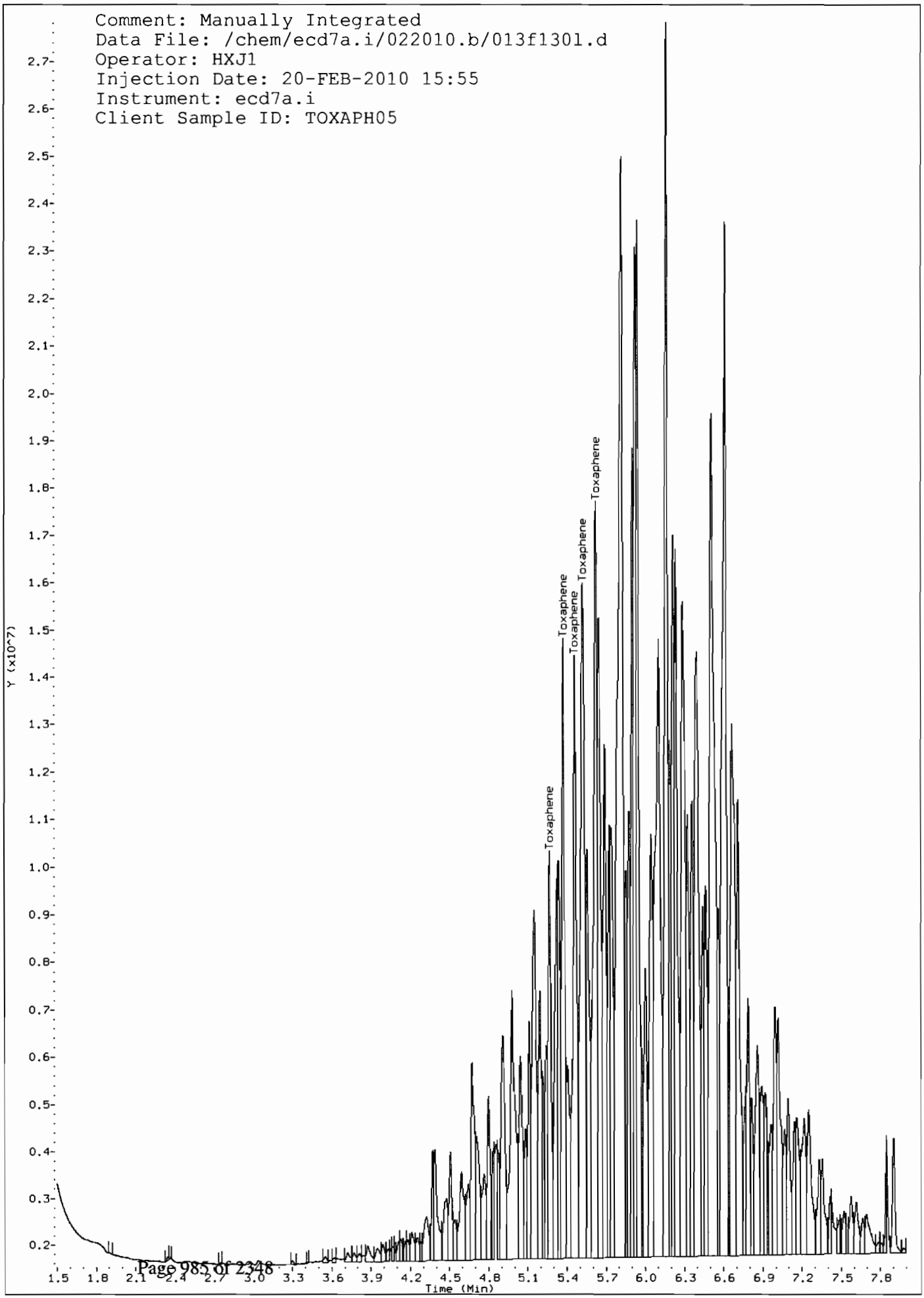
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Operator: HXJ1
Injection Date: 20-FEB-2010 15:55
Instrument: ecd7a.i
Client Sample ID: TOXAPH05
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

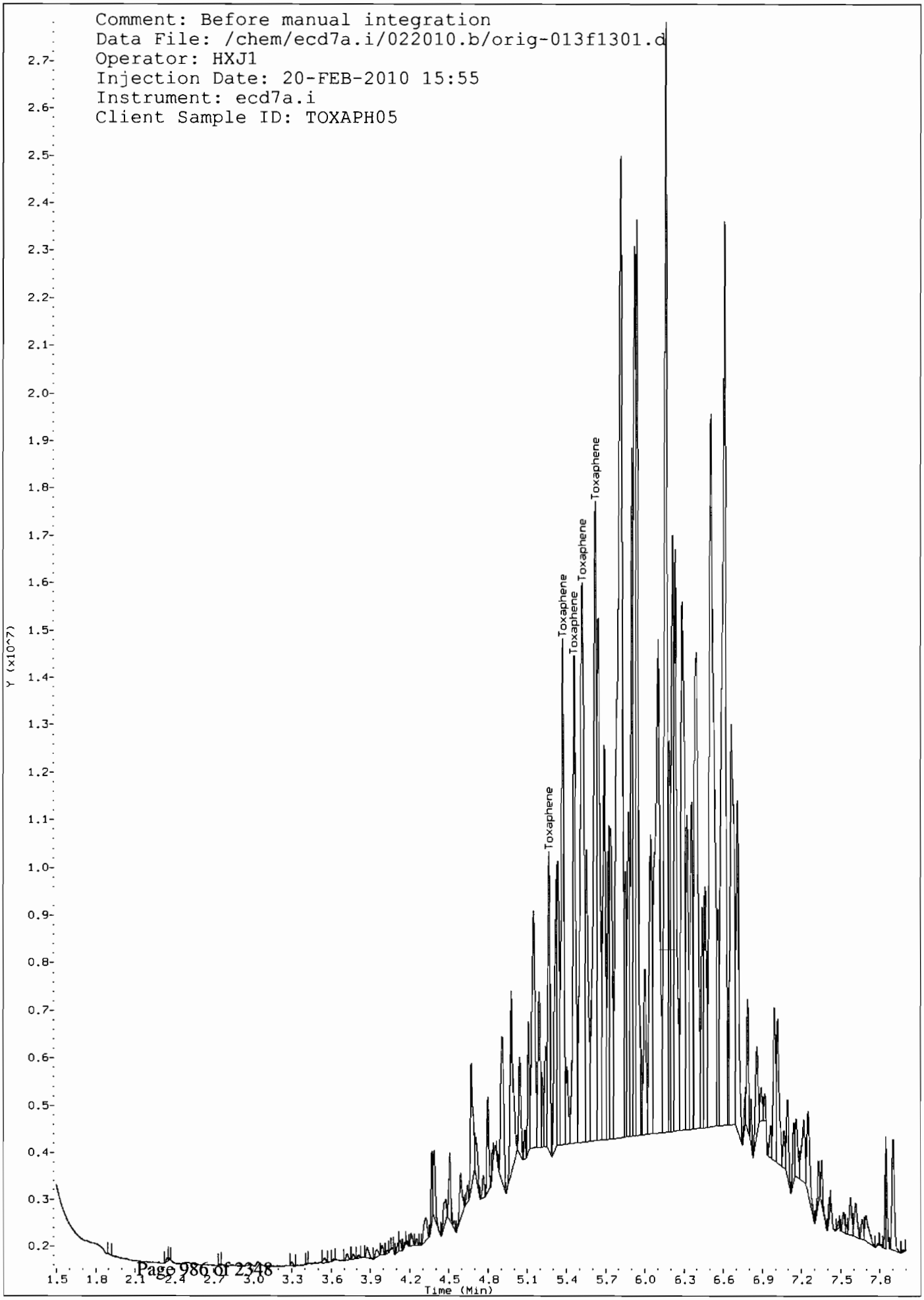
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Instrument: ecd7a.i
Client Sample ID: TOXAPH05
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022010.b/013b1301.d
Lab Smp Id: IPE100204-40TX Client Smp ID: TOXAPH05
Inj Date : 20-FEB-2010 15:55
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |IPE100204-40TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Meth Date : 23-Feb-2010 09:06 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031b3101.d
Als bottle: 13 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
6.056	6.057	-0.001	20392576	3000.00	2930	80.00- 120.00	100.00(M)
6.126	6.125	0.001	9047174	3000.00	2900	23.59- 63.59	44.37
6.189	6.188	0.001	10810784	3000.00	3010	35.17- 75.17	53.01
6.251	6.252	-0.001	11774162	3000.00	2950	34.86- 74.86	57.74
6.382	6.383	-0.001	16482865	3000.00	3030	55.22- 95.22	80.83

Average of Peak Amounts = 2.96e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022010.b/013b1301.d

Date : 20-FEB-2010 15:55

Client ID: TOXAPH05

Sample Info: IIPE100204-40TX

Column phase: CLP-2

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

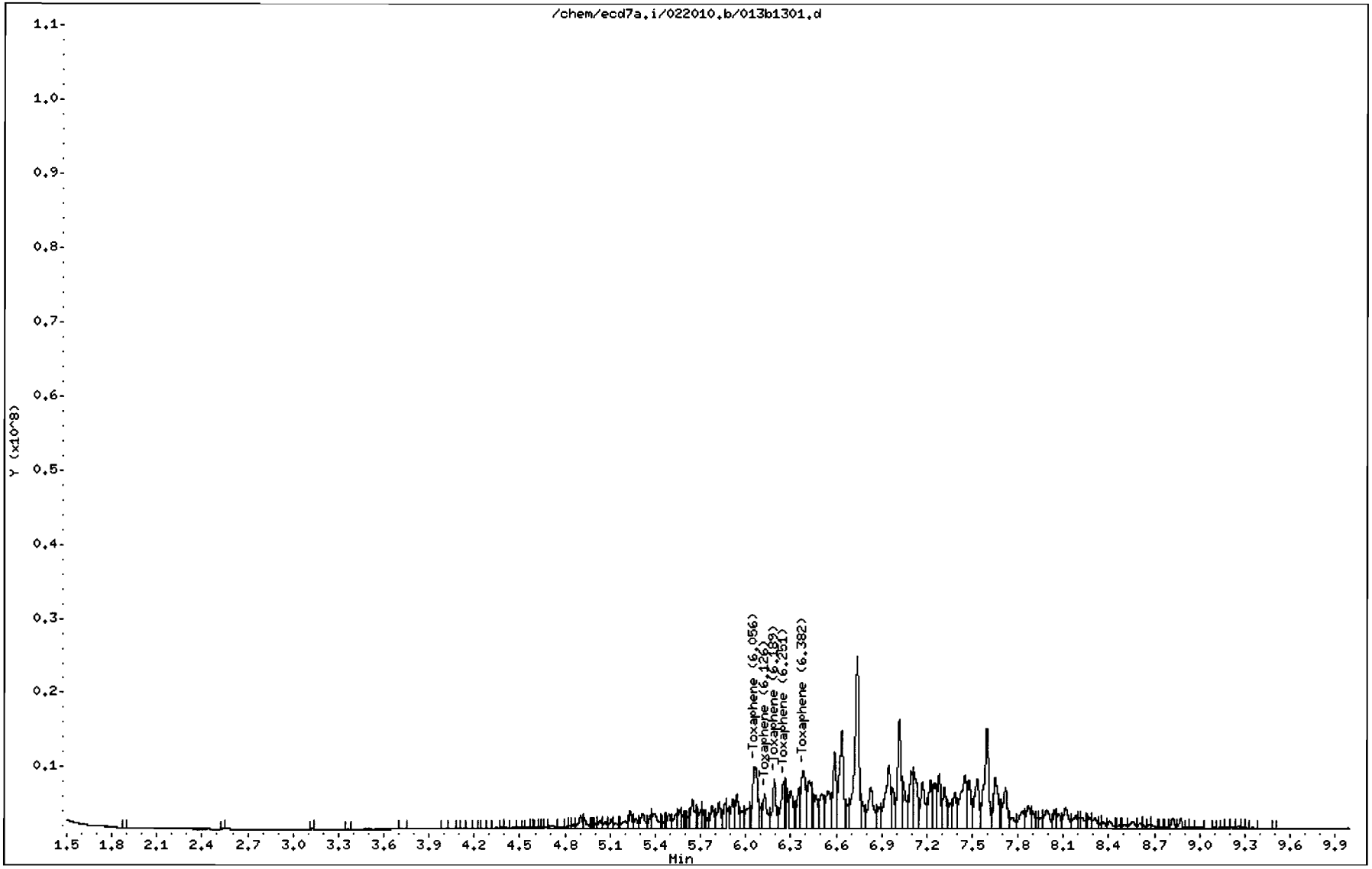

Comment: Manually Integrated
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Operator: HXJ1
Injection Date: 20-FEB-2010 15:55
Instrument: ecd7a.i
Client Sample ID: TOXAPH05

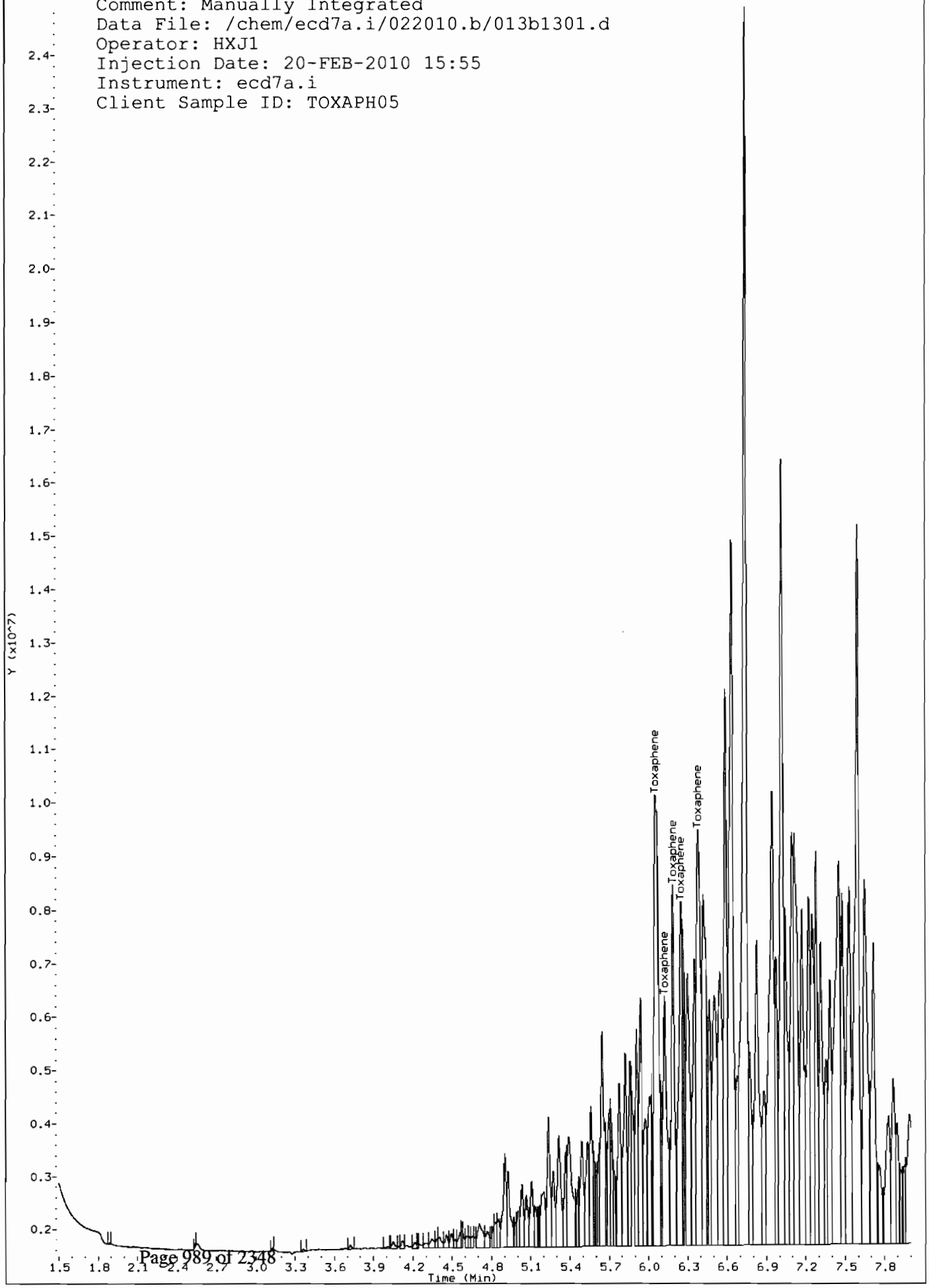

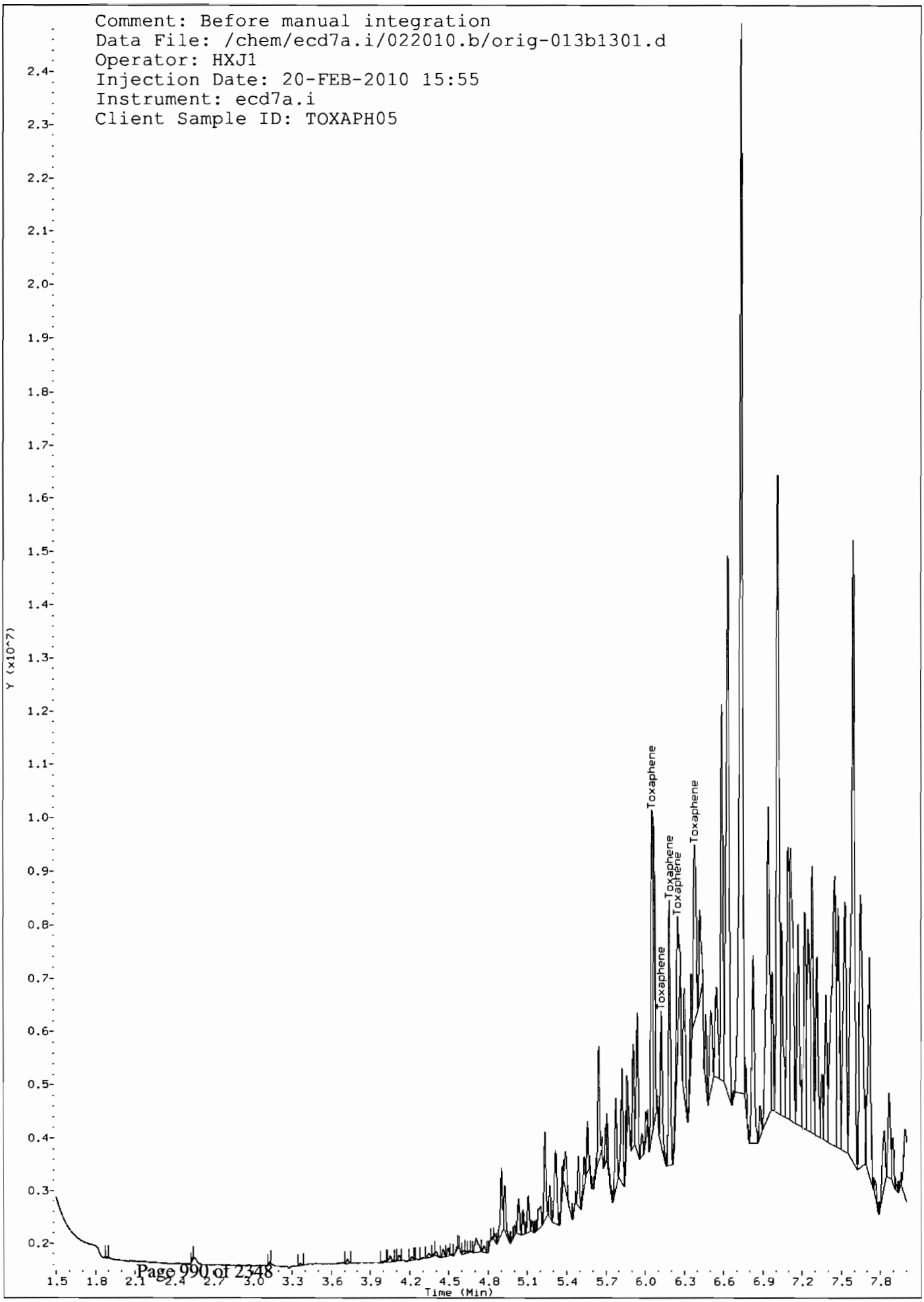
Comment: Before manual integration
Data File: /chem/ecd7a.i/022010.b/orig-013b1301.d
Operator: HXJ1
Injection Date: 20-FEB-2010 15:55
Instrument: ecd7a.i
Client Sample ID: TOXAPH05
Y (x10^7)
Time (Min)
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1886

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/20/10 02/20/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :02/20/10

Lab Sample ID (PEM): WPE100211-99 Time Analyzed :1246

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.21	4.18	4.24	131	100	31.0
4,4'-DDE						
Endrin	5.60	5.57	5.63	122	100	22.0
4,4'-DDD						
4,4'-DDT	5.94	5.91	5.97	109	100	9.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 2.50 Endrin % breakdown (1): 3.90

Combined % breakdown (1): 6.40

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1886

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/20/10 02/20/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :02/20/10

Lab Sample ID (PEM): WPE100211-99 Time Analyzed :1247

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.82	4.79	4.85	122	100	22.0
4,4'-DDE						
Endrin	6.42	6.40	6.46	118	100	18.0
4,4'-DDD						
4,4'-DDT	6.85	6.82	6.88	105	100	5.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 4.50 Endrin % breakdown (1): 4.30

Combined % breakdown (1): 8.80

FORM VII PEST-1 OLM03.0

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1886

Instrument ID: ECD7A Calibration Date: 02/20/10 Time: 1429

Lab File ID: 008F0801 Init. Calib. Date(s): 02/20/10 02/20/10

Heated Purge: (Y/N) N Init. Calib. Times: 1304 1412

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	754976.92	823593.70	0.01	9.1	15.0
beta-BHC	286300.72	288186.93	0.01	0.6	15.0
delta-BHC	634174.70	673099.62	0.01	6.1	15.0
gamma-BHC (Lindane)	651077.51	717610.50	0.01	10.2	15.0
Heptachlor	473308.23	477764.99	0.01	0.9	15.0
Aldrin	730207.76	754498.34	0.01	3.3	15.0
Heptachlor epoxide	579406.07	604877.57	0.01	4.4	15.0
Endosulfan I	517890.36	558331.94	0.01	7.8	15.0
Dieldrin	543952.76	564729.83	0.01	3.8	15.0
4,4'-DDE	535418.68	547206.24	0.01	2.2	15.0
Endrin	405842.61	437341.65	0.01	7.8	15.0
Endosulfan II	463433.02	480733.42	0.01	3.7	15.0
4,4'-DDD	337872.06	340822.95	0.01	0.9	15.0
Endosulfan sulfate	422048.29	441499.53	0.01	4.6	15.0
4,4'-DDT	349005.30	381754.76	0.01	9.4	15.0
Methoxychlor	137638.40	132910.54	0.01	-3.4	15.0
Endrin ketone	483993.42	473812.28	0.01	-2.1	15.0
Endrin aldehyde	365591.80	362884.70	0.01	-0.7	15.0
gamma-Chlordane	622419.91	696479.36	0.01	11.9	15.0
alpha-Chlordane	630055.19	623839.56	0.01	-1.0	15.0
4cmx	628748.06	663607.70	0.01	5.5	15.0
Decachlorobiphenyl	406186.90	407839.55	0.01	0.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1886

Instrument ID: ECD7A Calibration Date: 02/20/10 Time: 1429

Lab File ID: 008B0801 Init. Calib. Date(s): 02/20/10 02/20/10

Heated Purge: (Y/N) N Init. Calib. Times: 1304 1412

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	549530.77	576919.35	0.01	5.0	15.0
beta-BHC	217673.07	213946.44	0.01	-1.7	15.0
delta-BHC	469788.54	477475.79	0.01	1.6	15.0
gamma-BHC (Lindane)	457481.41	485594.37	0.01	6.1	15.0
Heptachlor	317228.90	306285.17	0.01	-3.4	15.0
Aldrin	521420.17	516442.36	0.01	-1.0	15.0
Heptachlor epoxide	396083.99	401975.26	0.01	1.5	15.0
Endosulfan I	378712.32	396862.65	0.01	4.8	15.0
Dieldrin	343268.06	341976.95	0.01	-0.4	15.0
4,4'-DDE	407099.40	409796.27	0.01	0.7	15.0
Endrin	265667.31	277375.27	0.01	4.4	15.0
Endosulfan II	328674.27	331506.72	0.01	0.9	15.0
4,4'-DDD	239117.57	231180.65	0.01	-3.3	15.0
Endosulfan sulfate	295631.59	301868.58	0.01	2.1	15.0
4,4'-DDT	209639.33	223886.54	0.01	6.8	15.0
Methoxychlor	80000.666	76238.540	0.01	-4.7	15.0
Endrin ketone	307665.92	290268.53	0.01	-5.6	15.0
Endrin aldehyde	245653.59	238313.36	0.01	-3.0	15.0
gamma-Chlordane	440315.74	469931.54	0.01	6.7	15.0
alpha-Chlordane	442601.69	421803.28	0.01	-4.7	15.0
4cmx	505721.41	505412.00	0.01	-0.1	15.0
Decachlorobiphenyl	283661.08	276575.62	0.01	-2.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1886

Instrument ID: ECD7A Calibration Date: 02/20/10 Time: 1612

Lab File ID: 014F1401 Init. Calib. Date(s): 02/20/10 02/20/10

Heated Purge: (Y/N) N Init. Calib. Times: 1446 1555

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
Toxaphene	4627.613	4463.202	0.01	-3.6	15.0
(2)	7057.336	6814.325	0.01	-3.4	15.0
(3)	7916.965	8521.978	0.01	7.6	15.0
(4)	10302.289	9604.206	0.01	-6.8	15.0
(5)	10267.284	9923.782	0.01	-3.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1886

Instrument ID: ECD7A Calibration Date: 02/20/10 Time: 1612

Lab File ID: 014B1401 Init. Calib. Date(s): 02/20/10 02/20/10

Heated Purge: (Y/N) N Init. Calib. Times: 1446 1555

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
Toxaphene	6962.502	6866.568	0.01	-1.4	15.0
(2)	3124.830	2917.014	0.01	-6.6	15.0
(3)	3588.396	3670.010	0.01	2.3	15.0
(4)	3990.854	3754.428	0.01	-5.9	15.0
(5)	5434.422	5237.002	0.01	-3.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1886

Instrument ID: ECD7A Calibration Date: 02/20/10 Time: 1828

Lab File ID: 022F2201 Init. Calib. Date(s): 02/20/10 02/20/10

Heated Purge: (Y/N) N Init. Calib. Times: 1446 1555

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
Toxaphene	4627.613	4710.990	0.01	1.8	15.0
(2)	7057.336	7528.066	0.01	6.7	15.0
(3)	7916.965	9103.834	0.01	15.0	15.0
(4)	10302.289	10351.559	0.01	0.5	15.0
(5)	10267.284	10726.032	0.01	4.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1886

Instrument ID: ECD7A Calibration Date: 02/20/10 Time: 1828

Lab File ID: 022B2201 Init. Calib. Date(s): 02/20/10 02/20/10

Heated Purge: (Y/N) N Init. Calib. Times: 1446 1555

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
Toxaphene	6962.502	7021.748	0.01	0.8	15.0
(2)	3124.830	3035.008	0.01	-2.9	15.0
(3)	3588.396	3789.871	0.01	5.6	15.0
(4)	3990.854	3999.090	0.01	0.2	15.0
(5)	5434.422	5296.780	0.01	-2.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1886

Instrument ID: ECD7A Calibration Date: 02/20/10 Time: 1845

Lab File ID: 023F2301 Init. Calib. Date(s): 02/20/10 02/20/10

Heated Purge: (Y/N) N Init. Calib. Times: 1304 1412

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
alpha-BHC	754976.92	898553.86	0.01	19.0	15.0	<-
beta-BHC	286300.72	323188.17	0.01	12.9	15.0	
delta-BHC	634174.70	754546.63	0.01	19.0	15.0	<-
gamma-BHC (Lindane)	651077.51	783773.11	0.01	20.4	15.0	<-
Heptachlor	473308.23	511865.84	0.01	8.1	15.0	
Aldrin	730207.76	796585.32	0.01	9.1	15.0	
Heptachlor epoxide	579406.07	649880.76	0.01	12.2	15.0	
Endosulfan I	517890.36	607072.65	0.01	17.2	15.0	<-
Dieldrin	543952.76	604519.05	0.01	11.1	15.0	
4,4'-DDE	535418.68	612553.33	0.01	14.4	15.0	
Endrin	405842.61	467833.73	0.01	15.3	15.0	<-
Endosulfan II	463433.02	517104.03	0.01	11.6	15.0	
4,4'-DDD	337872.06	391071.24	0.01	15.7	15.0	<-
Endosulfan sulfate	422048.29	465741.55	0.01	10.4	15.0	
4,4'-DDT	349005.30	408905.11	0.01	17.2	15.0	<-
Methoxychlor	137638.40	145162.80	0.01	5.5	15.0	
Endrin ketone	483993.42	511656.11	0.01	5.7	15.0	
Endrin aldehyde	365591.80	394921.31	0.01	8.0	15.0	
gamma-Chlordane	622419.91	742420.50	0.01	19.3	15.0	<-
alpha-Chlordane	630055.19	663021.10	0.01	5.2	15.0	
4cmx	628748.06	699112.06	0.01	11.2	15.0	
Decachlorobiphenyl	406186.90	438537.67	0.01	8.0	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1886

Instrument ID: ECD7A Calibration Date: 02/20/10 Time: 1845

Lab File ID: 023B2301 Init. Calib. Date(s): 02/20/10 02/20/10

Heated Purge: (Y/N) N Init. Calib. Times: 1304 1412

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	549530.77	589977.32	0.01	7.4	15.0
beta-BHC	217673.07	222806.78	0.01	2.4	15.0
delta-BHC	469788.54	498046.72	0.01	6.0	15.0
gamma-BHC (Lindane)	457481.41	502476.36	0.01	9.8	15.0
Heptachlor	317228.90	315380.49	0.01	-0.6	15.0
Aldrin	521420.17	517888.44	0.01	-0.7	15.0
Heptachlor epoxide	396083.99	412058.63	0.01	4.0	15.0
Endosulfan I	378712.32	406364.31	0.01	7.3	15.0
Dieldrin	343268.06	354320.97	0.01	3.2	15.0
4,4'-DDE	407099.40	414624.90	0.01	1.8	15.0
Endrin	265667.31	286758.71	0.01	7.9	15.0
Endosulfan II	328674.27	338018.51	0.01	2.8	15.0
4,4'-DDD	239117.57	245209.64	0.01	2.5	15.0
Endosulfan sulfate	295631.59	284644.36	0.01	-3.7	15.0
4,4'-DDT	209639.33	221814.65	0.01	5.8	15.0
Methoxychlor	80000.666	78722.642	0.01	-1.6	15.0
Endrin ketone	307665.92	299562.00	0.01	-2.6	15.0
Endrin aldehyde	245653.59	251188.48	0.01	2.2	15.0
gamma-Chlordane	440315.74	477291.15	0.01	8.4	15.0
alpha-Chlordane	442601.69	426747.51	0.01	-3.6	15.0
4cmx	505721.41	516875.84	0.01	2.2	15.0
Decachlorobiphenyl	283661.08	281688.96	0.01	-0.7	15.0

FORM VII PEST

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022010.b/002f0201.d
Lab Smp Id: WPE100211-99DG Client Smp ID: PEM01
Inj Date : 20-FEB-2010 12:46
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Meth Date : 23-Feb-2010 09:05 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031f3101.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.213	4.213	0.000	95030624	130.719	131	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.065	5.066	-0.001	247827	0.46589	0.466	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.603	5.604	-0.001	49066473	121.667	122	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.656	5.657	-0.001	739805	2.23886	2.24	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.260	6.259	0.001	587761	1.64434	1.64	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.940	5.940	0.000	37783849	109.285	109	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.020	7.019	0.001	1413689	2.95086	2.95	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.882	2.883	-0.001	137375548	221.606	222	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.105	8.106	-0.001	86168086	216.701	217	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022010.b/002f0201.d
Date : 20-FEB-2010 12:46
Client ID: PEM01
Sample Info: IWPE100211-99DG
Column phase: CLP-1

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

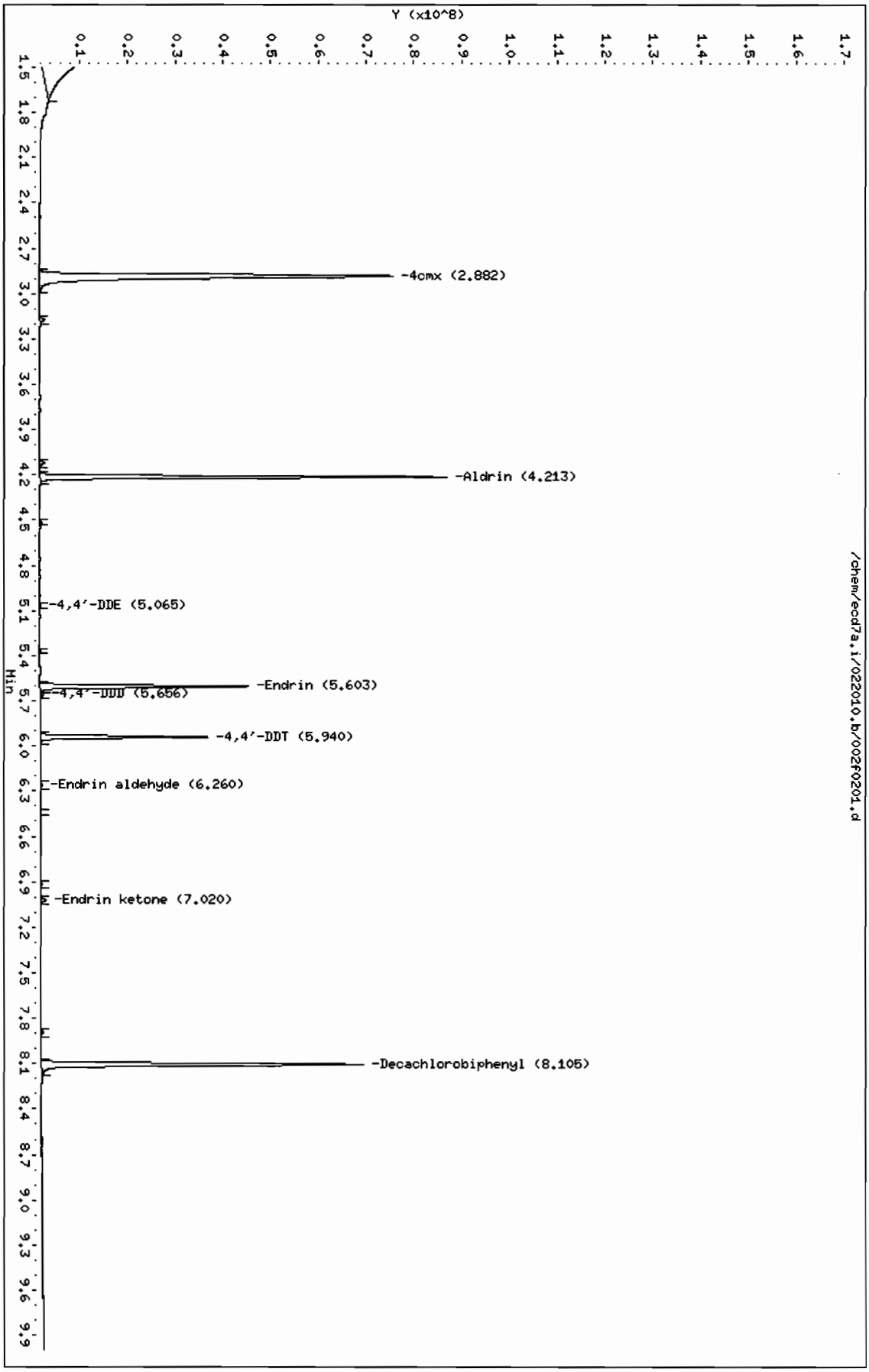

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022010.b/002b0201.d
Lab Smp Id: WPE100211-99DG Client Smp ID: PEM01
Inj Date : 20-FEB-2010 12:47
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Meth Date : 23-Feb-2010 09:06 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031b3101.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.819	4.820	-0.001	63103879	121.671	122	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.885	5.887	-0.002	213459	0.52986	0.530	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
6.423	6.426	-0.003	30883647	118.440	118	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.508	6.506	0.002	809685	3.47374	3.47	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.010	7.011	-0.001	415646	1.72830	1.73	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.851	6.853	-0.002	21825291	105.127	105	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.926	7.927	-0.001	987284	3.24005	3.24	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.198	-0.001	103530978	207.202	207	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.300	9.302	-0.002	55854887	202.726	203	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022010.b/002b0201.d
Date : 20-FEB-2010 12:47
Client ID: PEM01
Sample Info: WPE100211-99DG
Column phase: CLP-2

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

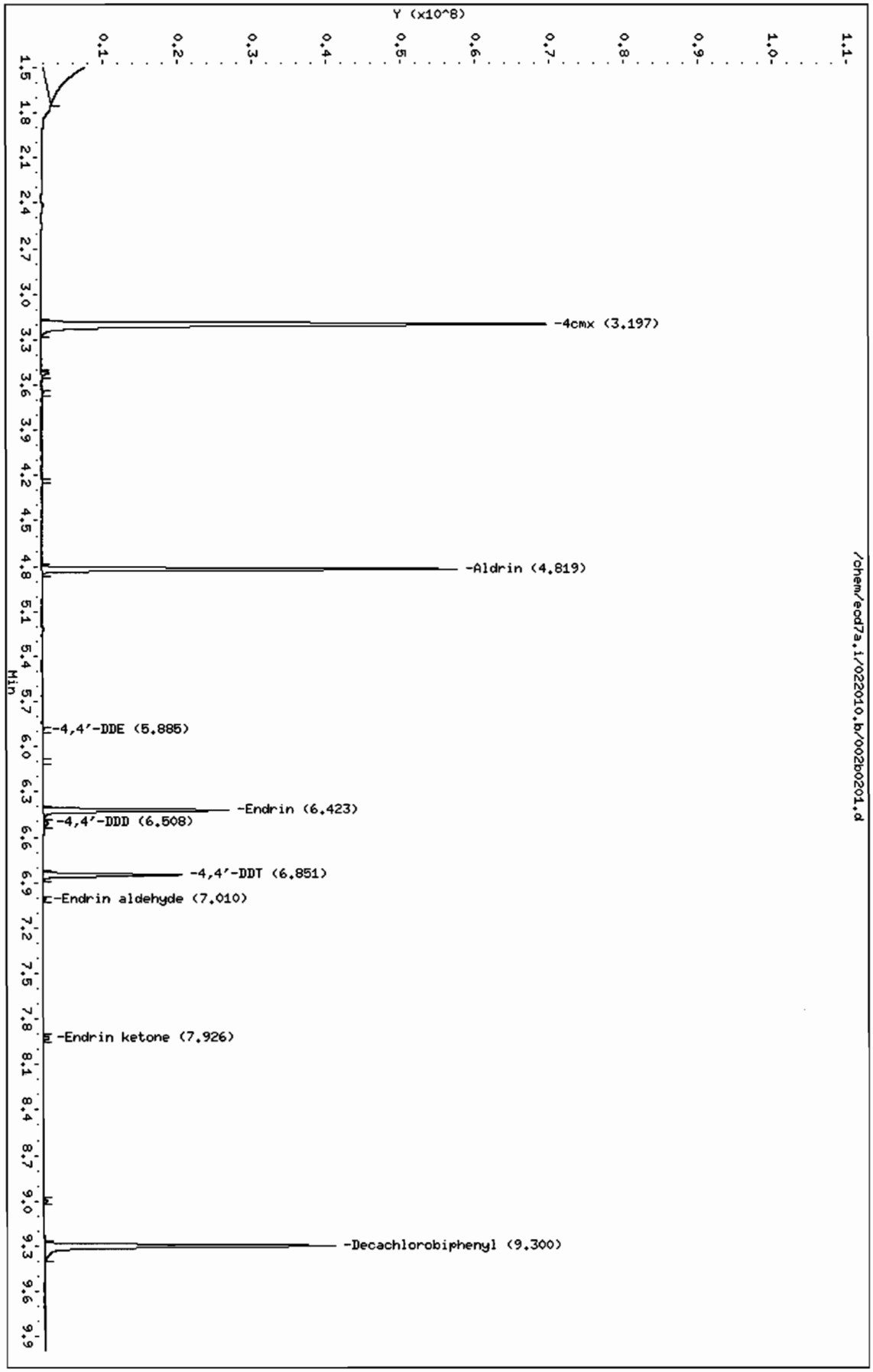

/chem/ecd7a.i/022010.b/002b0201.d

Page 1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022010.b/008f0801.d
Lab Smp Id: WPE100211-10AB Client Smp ID: INDAB01
Inj Date : 20-FEB-2010 14:29
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Meth Date : 23-Feb-2010 09:05 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031f3101.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.301	3.301	0.000	82359370	100.000	109	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.553	3.553	0.000	71761050	100.000	110	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.617	3.617	0.000	28818693	100.000	101	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.948	3.948	0.000	47776499	100.000	101	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.772	3.772	0.000	67309962	100.000	106	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.213	4.213	0.000	75449834	100.000	103	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.761	4.761	0.000	60487757	100.000	104	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.878	4.878	0.000	69647936	100.000	112	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.003	5.003	0.000	62383956	100.000	99.0	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.139	5.139	0.000	55833194	100.000	108	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.066	5.066	0.000	109441248	200.000	204	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.371	5.371	0.000	112945967	200.000	208	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.604	5.604	0.000	87468329	200.000	216	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.657	5.657	0.000	68164589	200.000	202	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.830	5.830	0.000	96146684	200.000	207	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.259	6.259	0.000	72576939	200.000	198	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.940	5.940	0.000	76350952	200.000	219	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.715	6.715	0.000	88299907	200.000	209	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.441	6.441	0.000	132910536	1000.00	966	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.019	7.019	0.000	94762456	200.000	196	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.883	2.883	0.000	132721540	200.000	211	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.106	8.106	0.000	81567910	200.000	201	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022010.b/008F0801.d
Date : 20-FEB-2010 14:29
Client ID: INDAB01
Sample Info: IWPE100211-10AB
Column phase: CLP-1

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

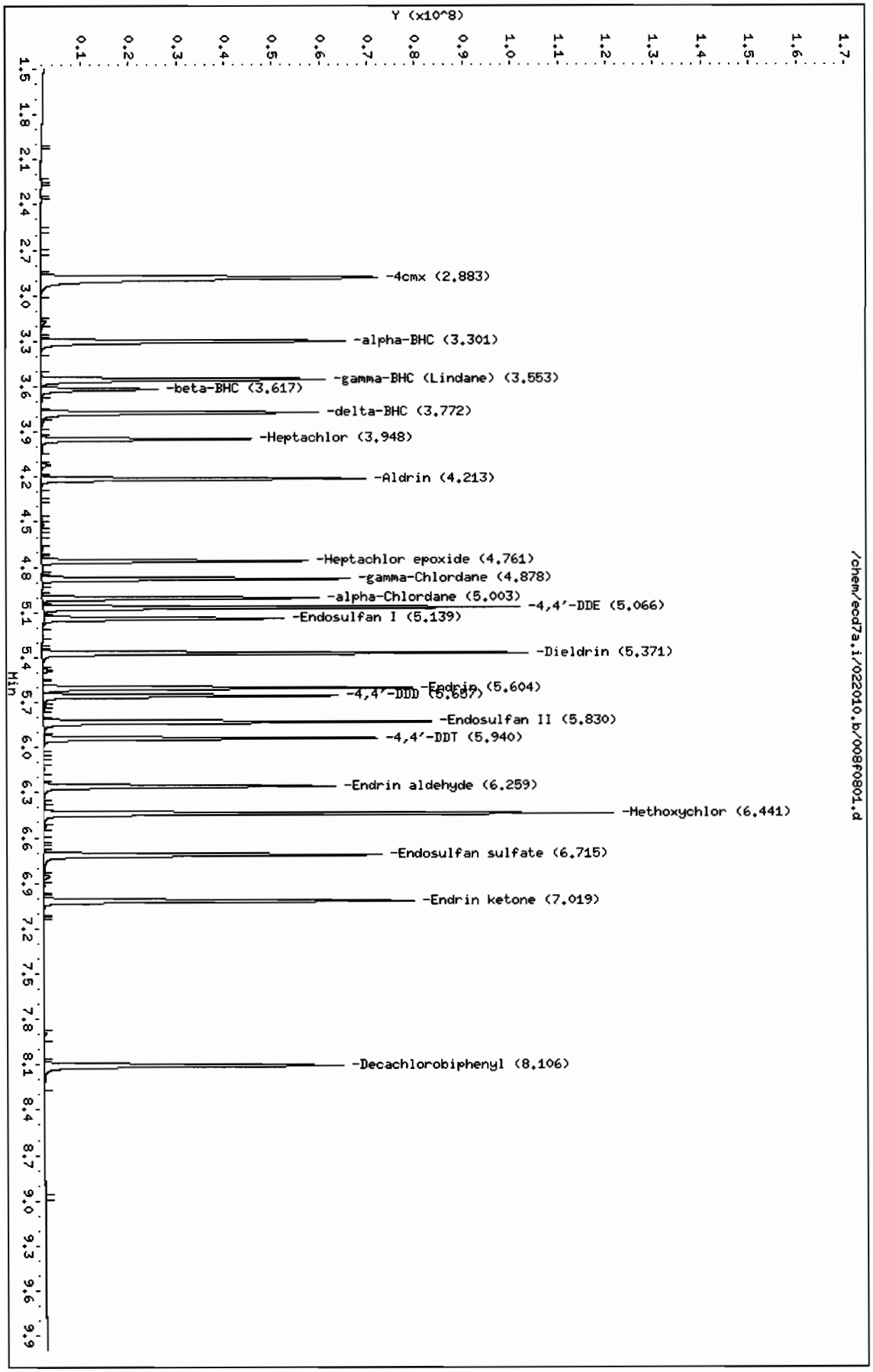

Page 1

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022010.b/008b0801.d
Lab Smp Id: WPE100211-10AB Client Smp ID: INDAB01
Inj Date : 20-FEB-2010 14:29
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Meth Date : 23-Feb-2010 09:06 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031b3101.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.724	3.724	0.000	57691935	100.000	105	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.053	4.053	0.000	48559437	100.000	106	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.117	4.117	0.000	21394644	100.000	98.3	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.490	4.490	0.000	30628517	100.000	96.6	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.407	4.407	0.000	47747579	100.000	102	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.820	4.820	0.000	51644236	100.000	99.0	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.390	5.390	0.000	40197526	100.000	101	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.587	5.587	0.000	46993154	100.000	107	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.737	5.737	0.000	42180328	100.000	95.3	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.808	5.808	0.000	39686265	100.000	105	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.887	5.887	0.000	81959254	200.000	201	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.096	6.096	0.000	68395389	200.000	199	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.426	6.426	0.000	55475053	200.000	209	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.506	6.506	0.000	46236131	200.000	193	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.650	6.650	0.000	66301343	200.000	202	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.011	7.011	0.000	47662672	200.000	194	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.853	6.853	0.000	44777308	200.000	214	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.318	7.318	0.000	60373716	200.000	204	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.598	7.598	0.000	76238540	1000.00	953	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.927	7.927	0.000	58053705	200.000	189	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.198	3.198	0.000	101082400	200.000	200	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.302	9.302	0.000	55315124	200.000	195	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022010.b/008b0801.d
Date : 20-FEB-2010 14:29
Client ID: INDAB01
Sample Info: IWPE100211-10AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

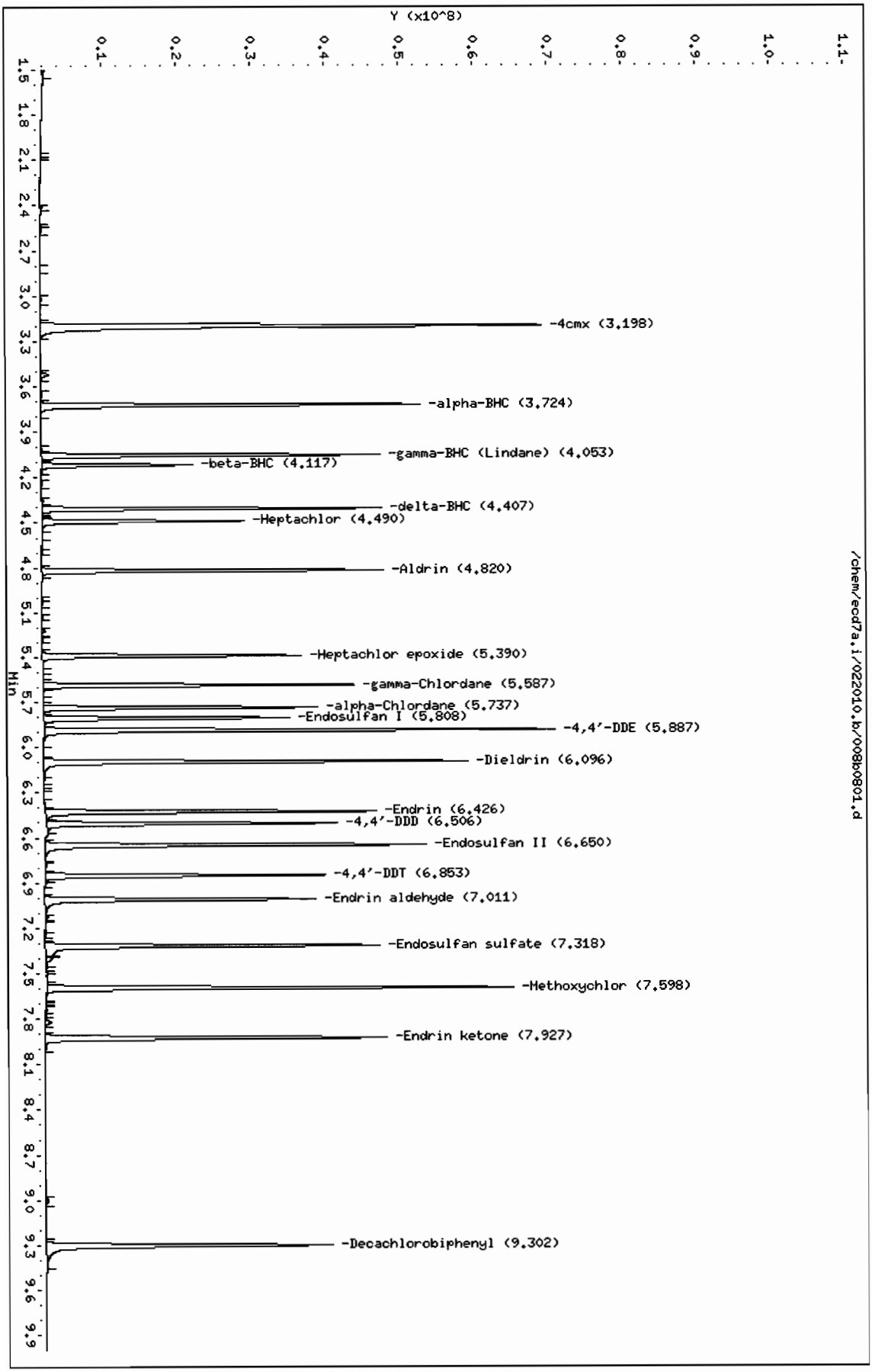

Page 1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022010.b/014f1401.d
Lab Smp Id: WPE100125-52TX Client Smp ID: TOXAPH01
Inj Date : 20-FEB-2010 16:12
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100125-52TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Meth Date : 23-Feb-2010 09:05 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031f3101.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.270	5.270	0.000	8926404	2000.00	1930	80.00- 120.00	100.00(M)
5.374	5.374	0.000	13628650	2000.00	1930	132.12- 172.12	152.68
5.462	5.462	0.000	17043956	2000.00	2150	171.26- 211.26	190.94
5.521	5.521	0.000	19208412	2000.00	1860	190.60- 230.60	215.19
5.626	5.626	0.000	19847564	2000.00	1930	205.24- 245.24	222.35

Average of Peak Amounts = 1.96e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022010.b/014f1401.d

Page 1

Date : 20-FEB-2010 16:12

Client ID: TOXAPH01

Instrument: ecd7a.i

Sample Info: IWPE100125-52TX

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

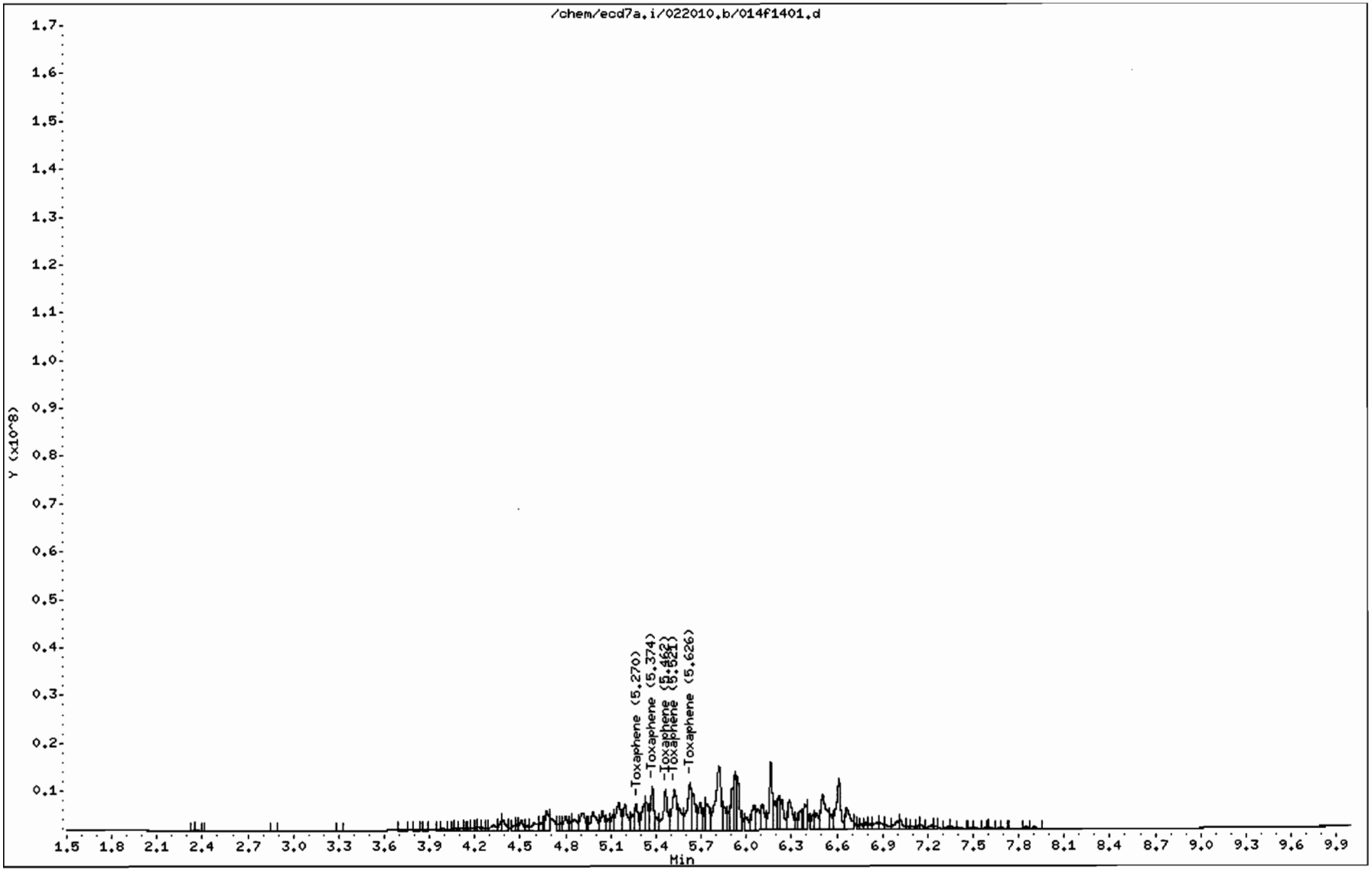

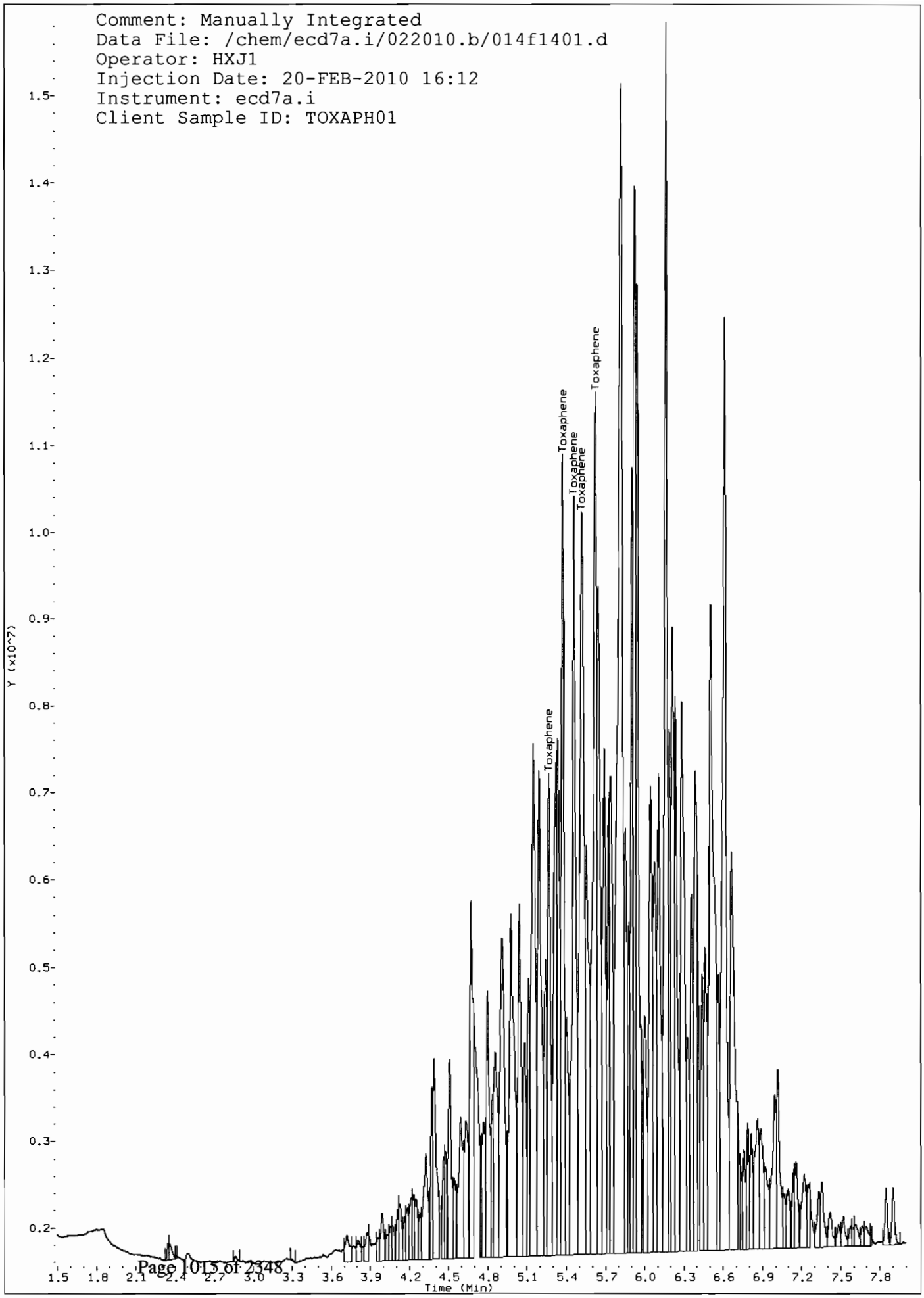
Comment: Manually Integrated
Data File: /chem/ecd7a.i/022010.b/014f1401.d
Operator: HXJ1
Injection Date: 20-FEB-2010 16:12
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

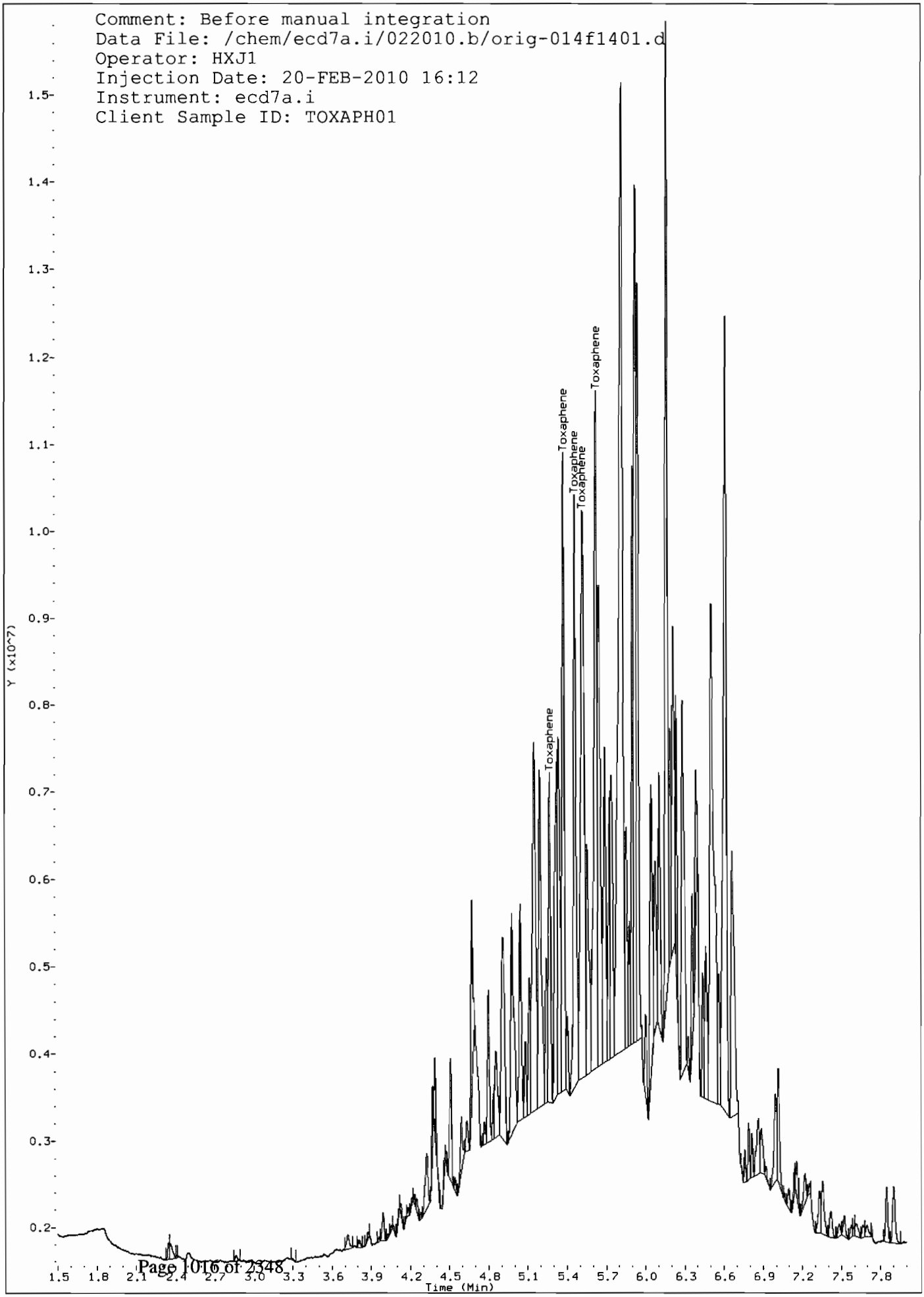
Comment: Before manual integration
Data File: /chem/ecd7a.i/022010.b/orig-014f1401.d
Operator: HXJ1
Injection Date: 20-FEB-2010 16:12
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8 5.1 5.4 5.7 6.0 6.3 6.6 6.9 7.2 7.5 7.8
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022010.b/014b1401.d
Lab Smp Id: WPE100125-52TX Client Smp ID: TOXAPH01
Inj Date : 20-FEB-2010 16:12
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100125-52TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Meth Date : 23-Feb-2010 09:06 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031b3101.d
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
6.057	6.057	0.000	13733135	2000.00	1970	80.00- 120.00	100.00(M)
6.125	6.125	0.000	5834029	2000.00	1870	23.59- 63.59	42.48
6.188	6.188	0.000	7340020	2000.00	2040	35.17- 75.17	53.45
6.252	6.252	0.000	7508856	2000.00	1880	34.86- 74.86	54.68
6.383	6.383	0.000	10474005	2000.00	1930	55.22- 95.22	76.27

Average of Peak Amounts = 1.94e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022010.b/014b1401.d

Page 1

Date : 20-FEB-2010 16:12

Client ID: TOXAPH01

Instrument: ecd7a.i

Sample Info: IWPE100125-52TX

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

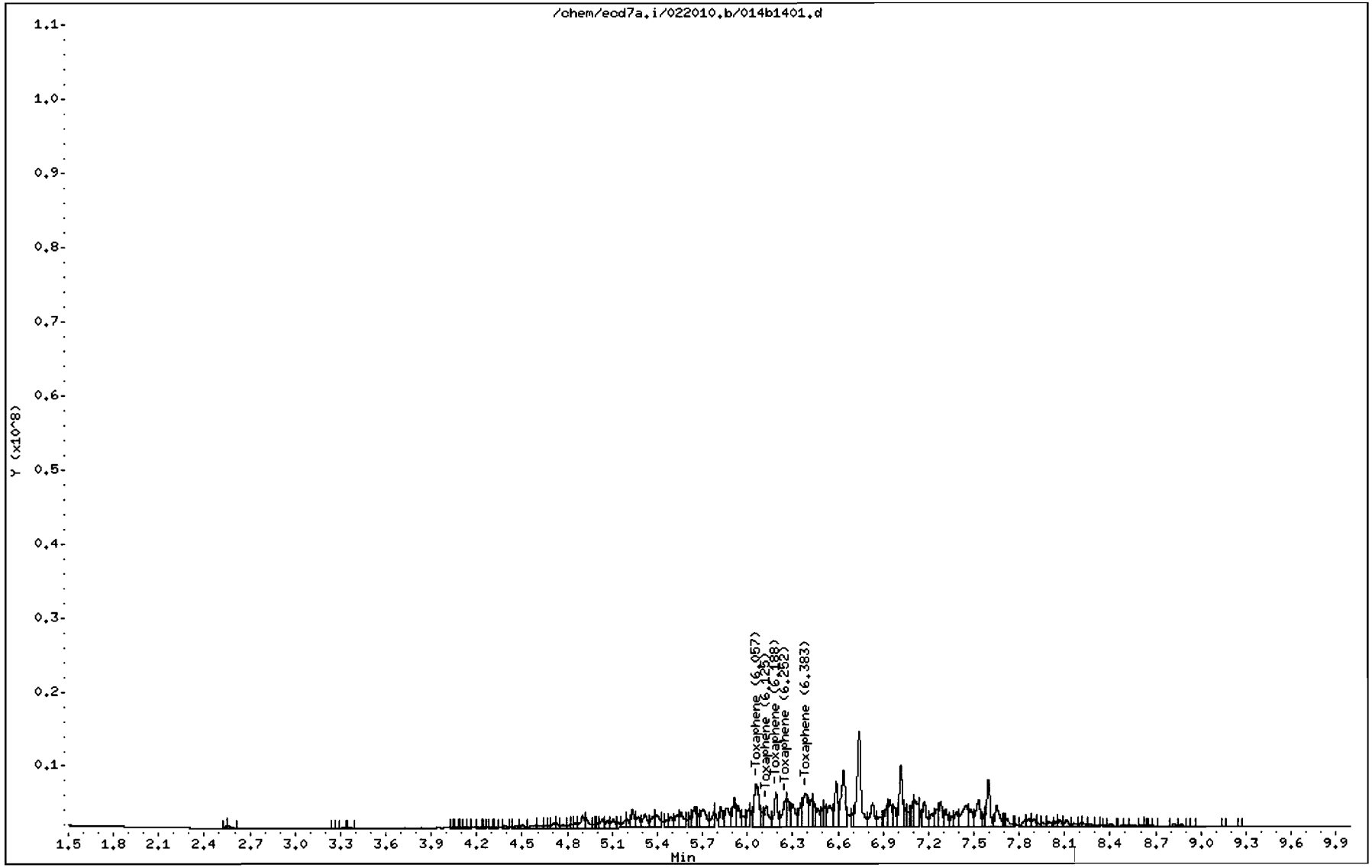

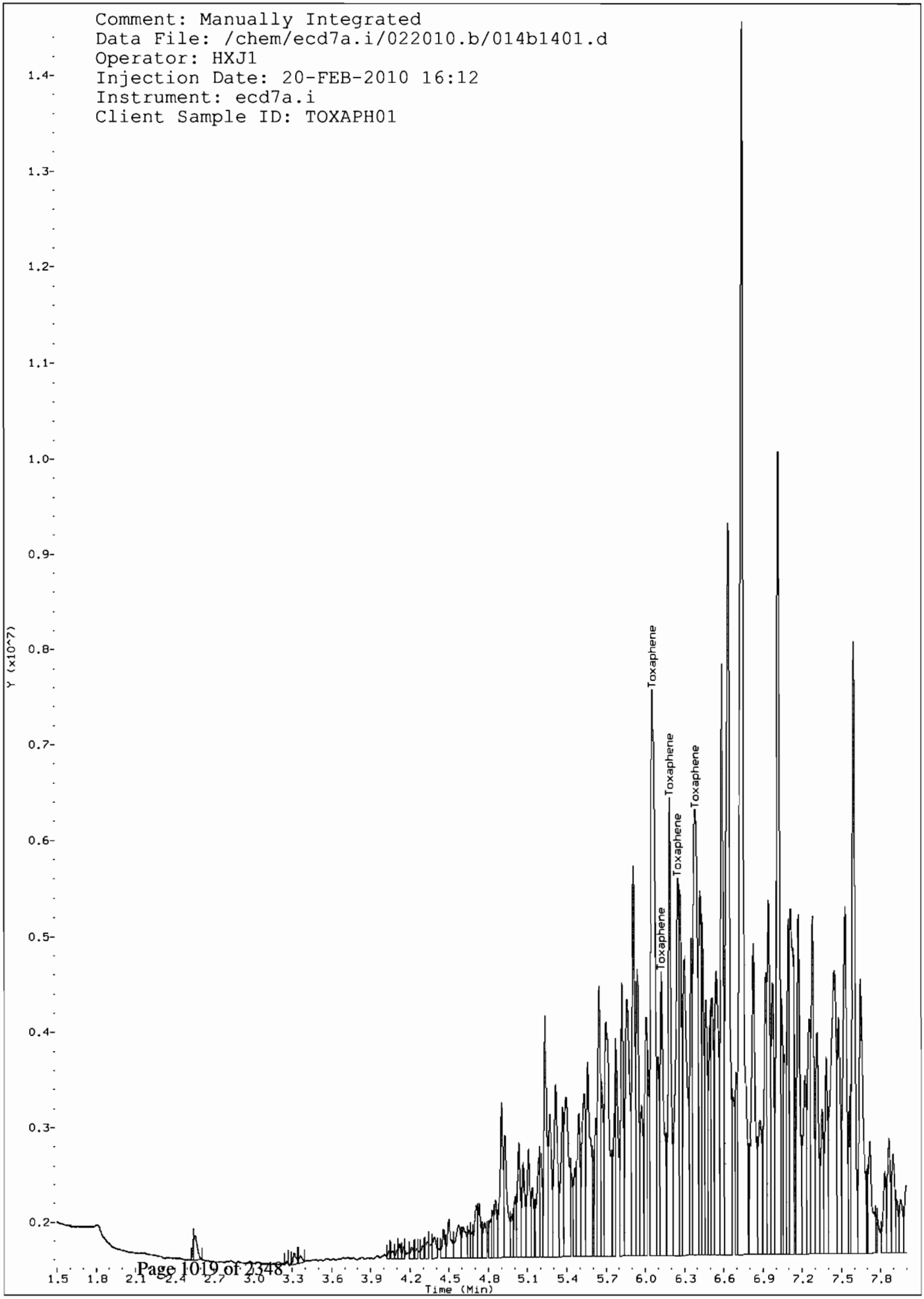
Comment: Manually Integrated
Data File: /chem/ecd7a.i/022010.b/014b1401.d
Operator: HXJ1
Injection Date: 20-FEB-2010 16:12
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
Y (x10^7)
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8 5.1 5.4 5.7 6.0 6.3 6.6 6.9 7.2 7.5 7.8
Time (Min)

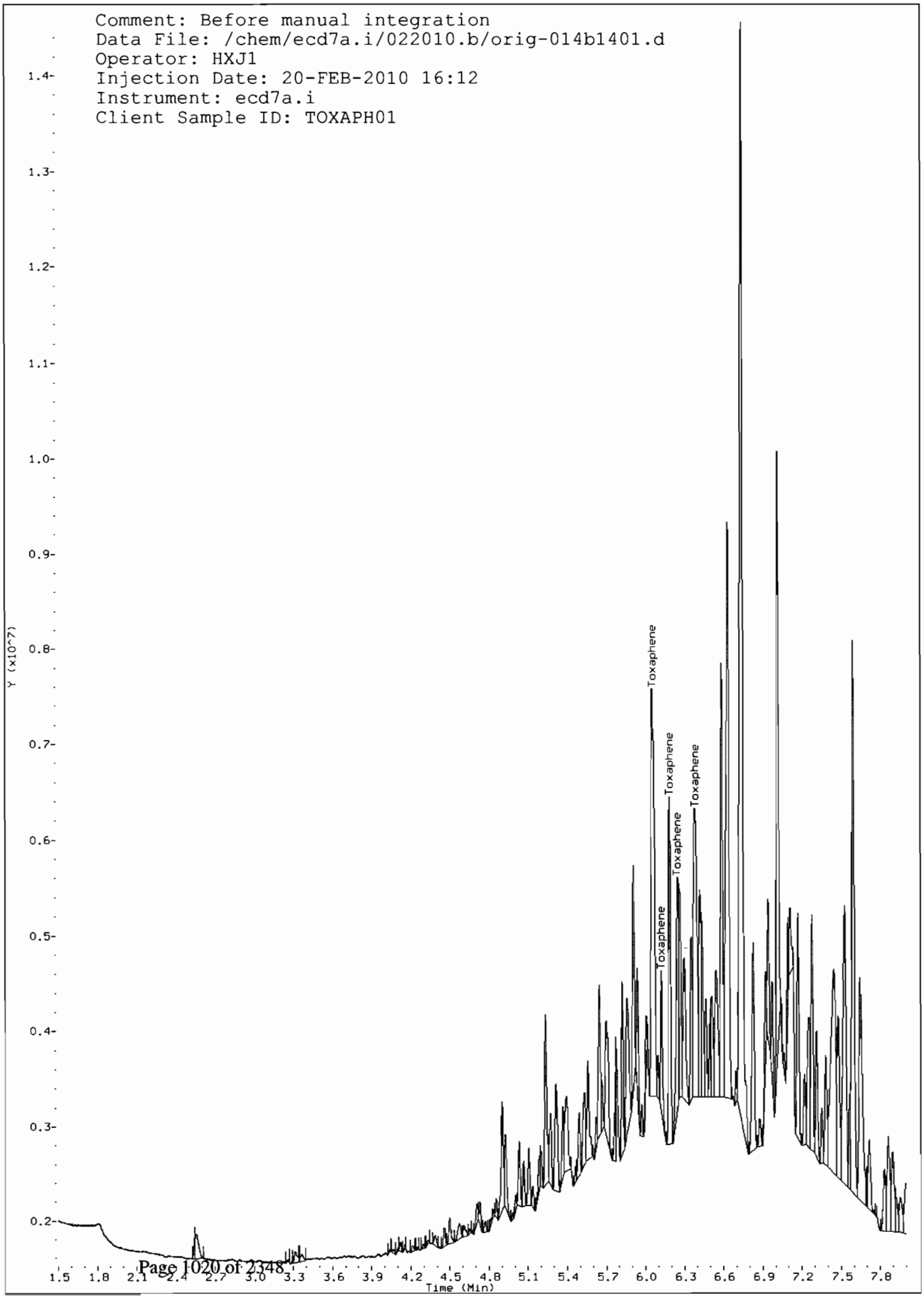
Comment: Before manual integration
Data File: /chem/ecd7a.i/022010.b/orig-014b1401.d
Operator: HXJ1
Injection Date: 20-FEB-2010 16:12
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
Y (x10^7)
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8 5.1 5.4 5.7 6.0 6.3 6.6 6.9 7.2 7.5 7.8
Time (Min)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022010.b/022f2201.d
Lab Smp Id: WPE100125-52TX Client Smp ID: TOXAPH02
Inj Date : 20-FEB-2010 18:28
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100125-52TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Meth Date : 23-Feb-2010 09:05 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031f3101.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.270	5.270	0.000	9421979	2000.00	2040	80.00- 120.00	100.00(M)
5.374	5.374	0.000	15056133	2000.00	2130	132.12- 172.12	159.80
5.463	5.462	0.001	18207668	2000.00	2300	171.26- 211.26	193.25
5.523	5.521	0.002	20703118	2000.00	2010	190.60- 230.60	219.73
5.625	5.626	-0.001	21452064	2000.00	2090	205.24- 245.24	227.68

Average of Peak Amounts = 2.11e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022010.b/022f2201.d

Date : 20-FEB-2010 18:28

Client ID: TOXAPH02

Sample Info: IWPE100125-52TX

Column phase: CLP-1

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

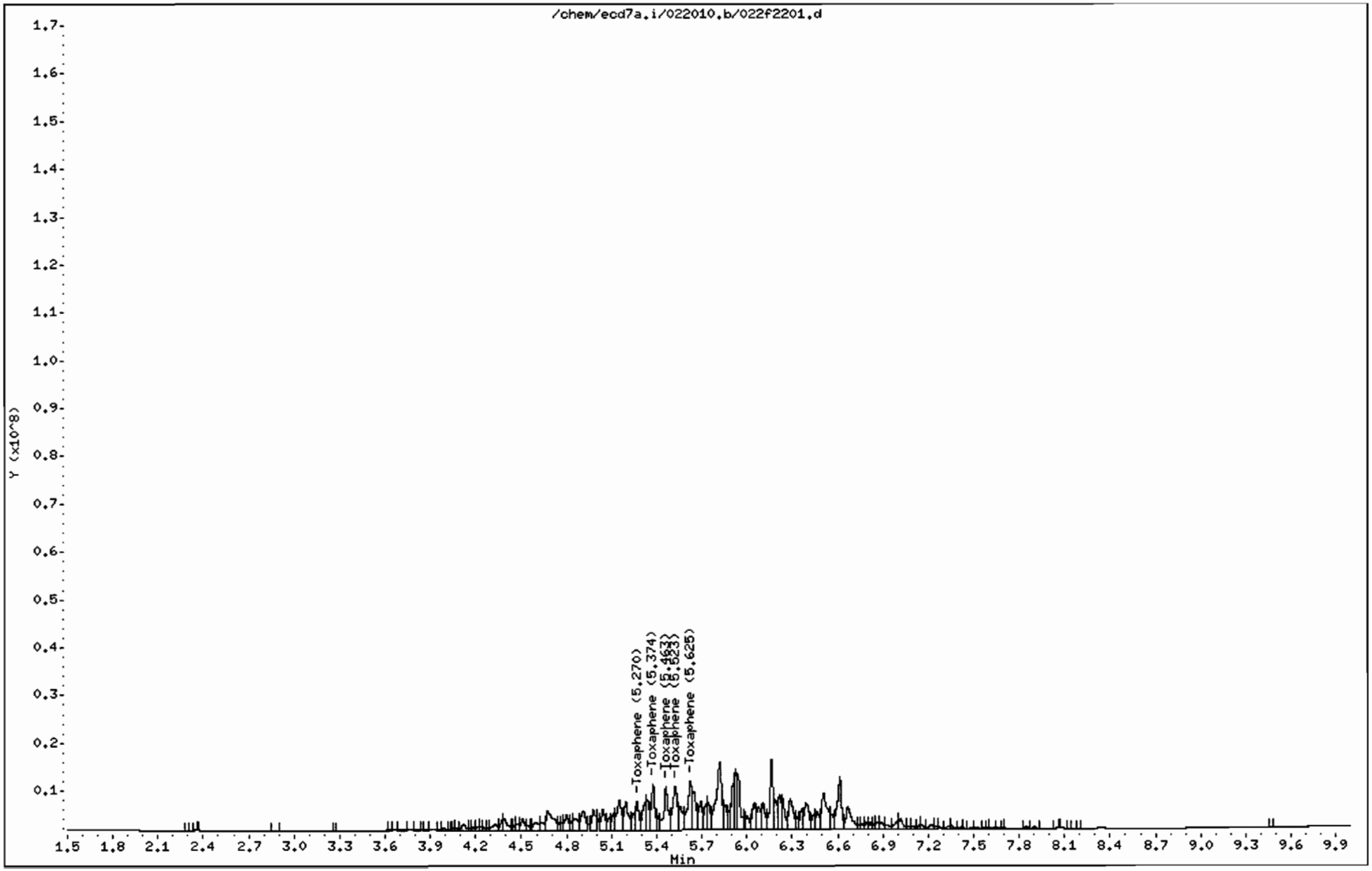

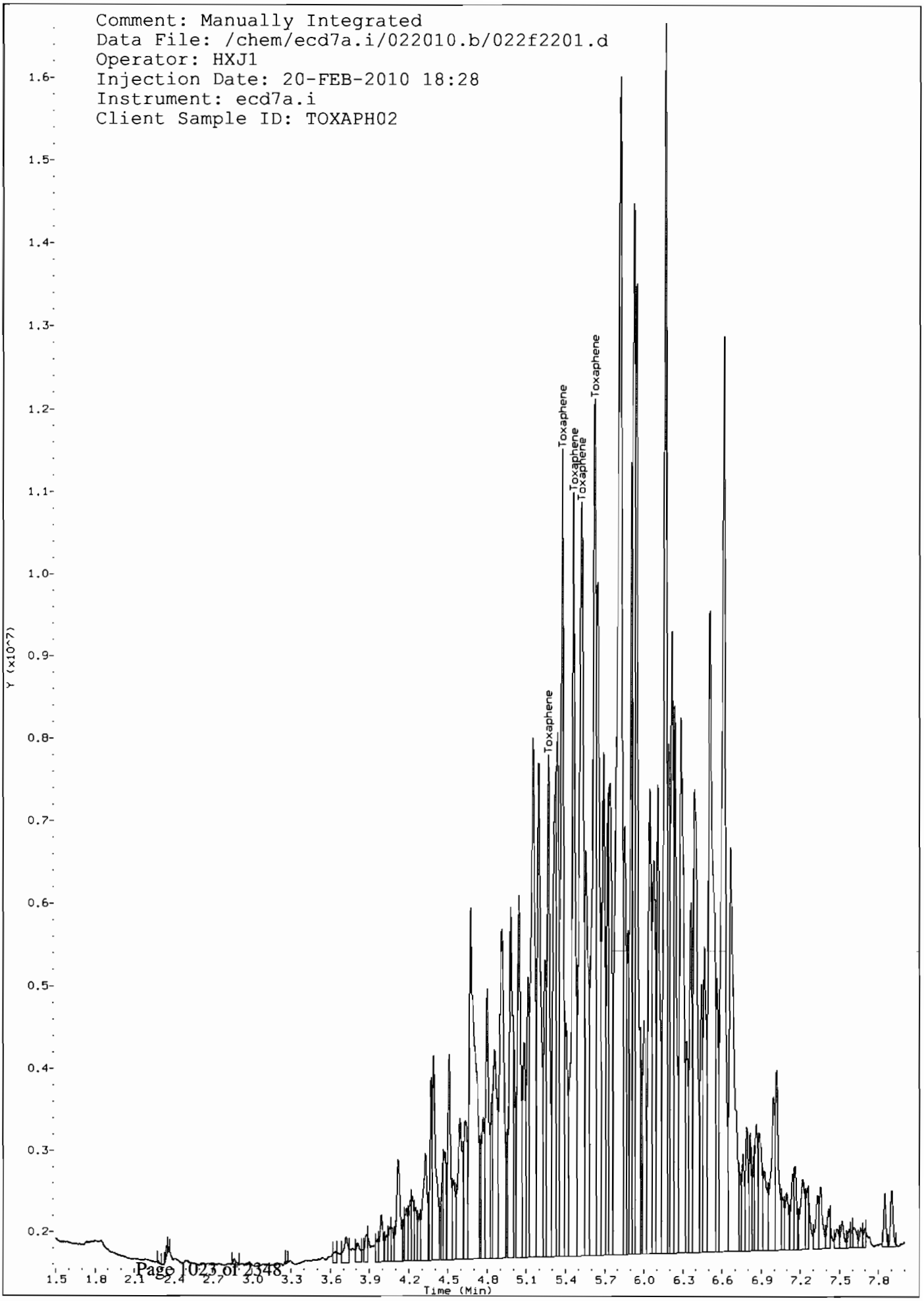
Comment: Manually Integrated
Data File: /chem/ecd7a.i/022010.b/022f2201.d
Operator: HXJ1
Injection Date: 20-FEB-2010 18:28
Instrument: ecd7a.i
Client Sample ID: TOXAPH02
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

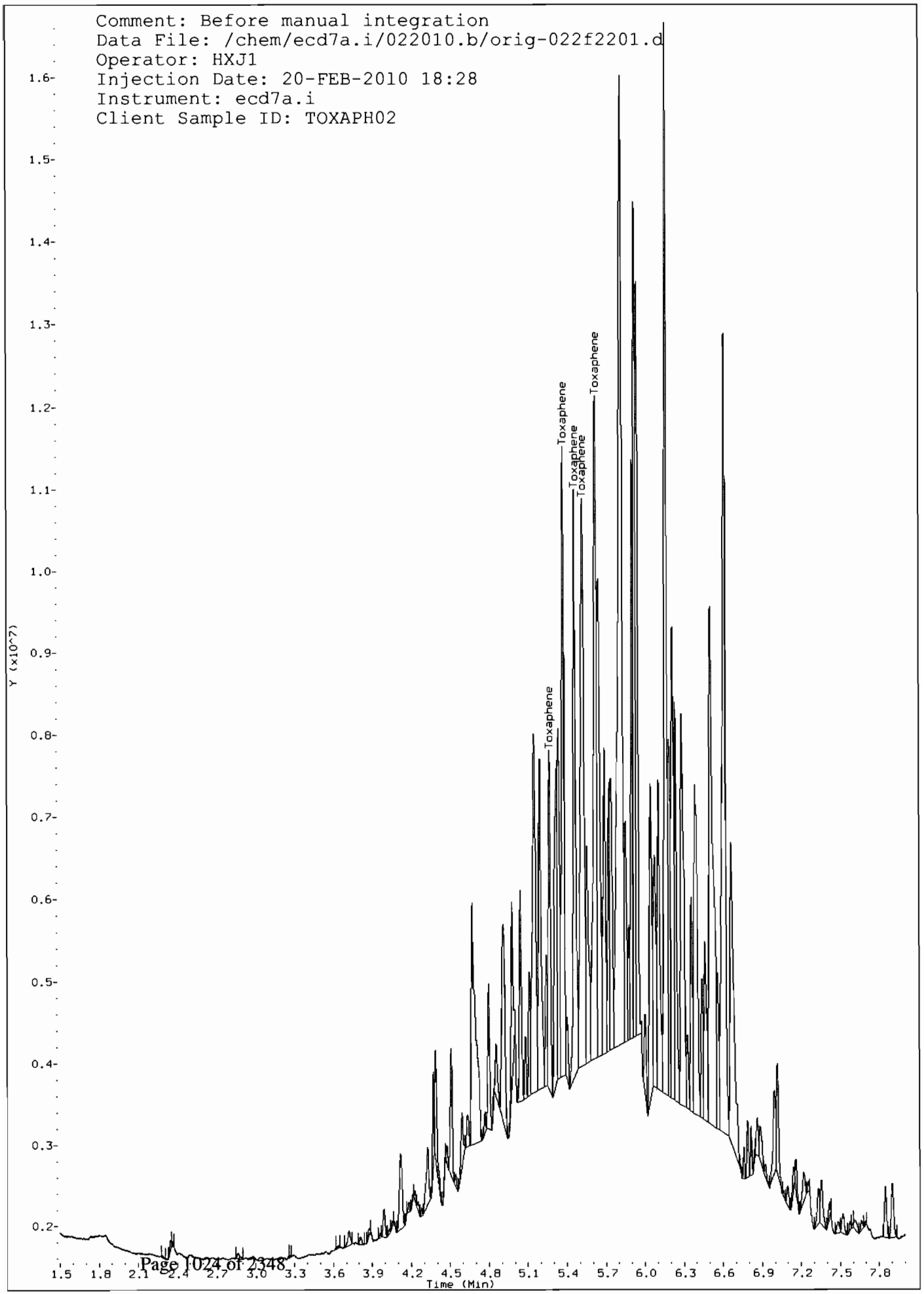
Comment: Before manual integration
Data File: /chem/ecd7a.i/022010.b/orig-022f2201.d
Operator: HXJ1
Injection Date: 20-FEB-2010 18:28
Instrument: ecd7a.i
Client Sample ID: TOXAPH02
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8 5.1 5.4 5.7 6.0 6.3 6.6 6.9 7.2 7.5 7.8
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022010.b/022b2201.d
Lab Smp Id: WPE100125-52TX Client Smp ID: TOXAPH02
Inj Date : 20-FEB-2010 18:28
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100125-52TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Meth Date : 23-Feb-2010 09:06 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031b3101.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
6.056	6.057	-0.001	14043496	2000.00	2020	80.00- 120.00	100.00(M)
6.126	6.125	0.001	6070016	2000.00	1940	23.59- 63.59	43.22
6.189	6.188	0.001	7579742	2000.00	2110	35.17- 75.17	53.97
6.252	6.252	0.000	7998180	2000.00	2000	34.86- 74.86	56.95
6.380	6.383	-0.003	10593559	2000.00	1950	55.22- 95.22	75.43

Average of Peak Amounts = 2.01e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022010.b/022b2201.d

Page 1

Date : 20-FEB-2010 18:28

Client ID: TOXAPH02

Instrument: ecd7a.i

Sample Info: IWPE100125-52TX

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

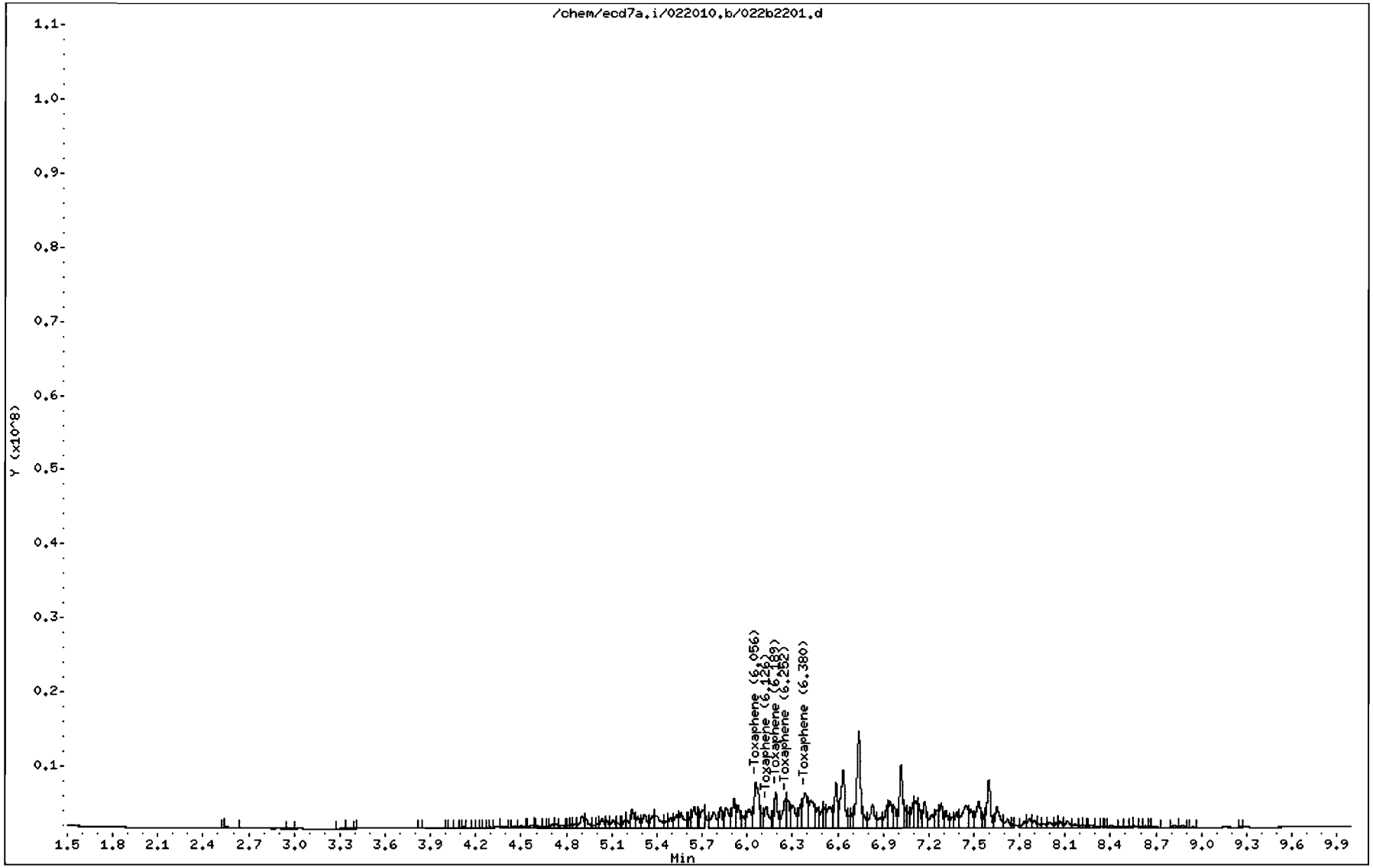

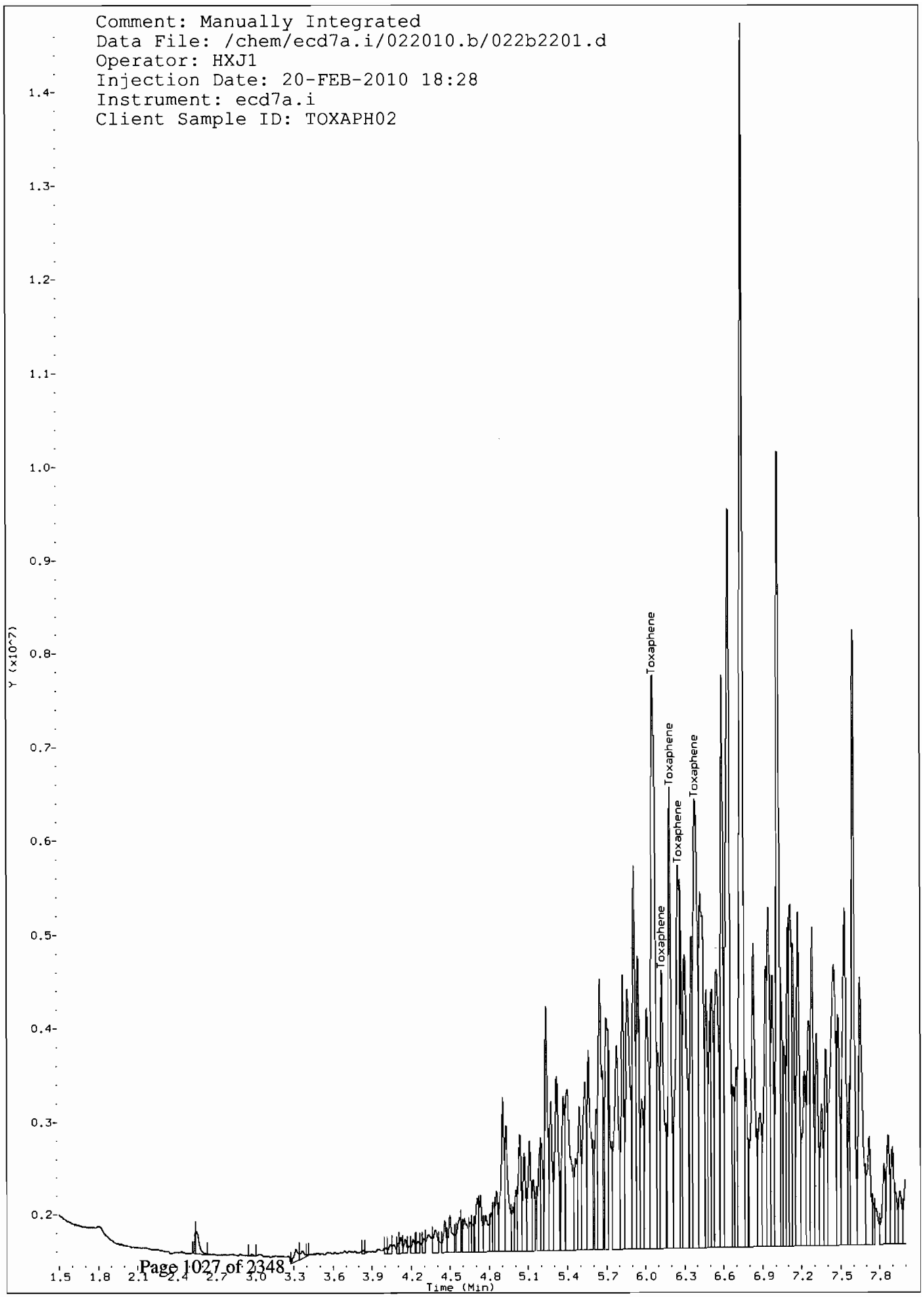
Comment: Manually Integrated
Data File: /chem/ecd7a.i/022010.b/022b2201.d
Operator: HXJ1
Injection Date: 20-FEB-2010 18:28
Instrument: ecd7a.i
Client Sample ID: TOXAPH02
Y (x10^7)
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8 5.1 5.4 5.7 6.0 6.3 6.6 6.9 7.2 7.5 7.8
Time (Min)

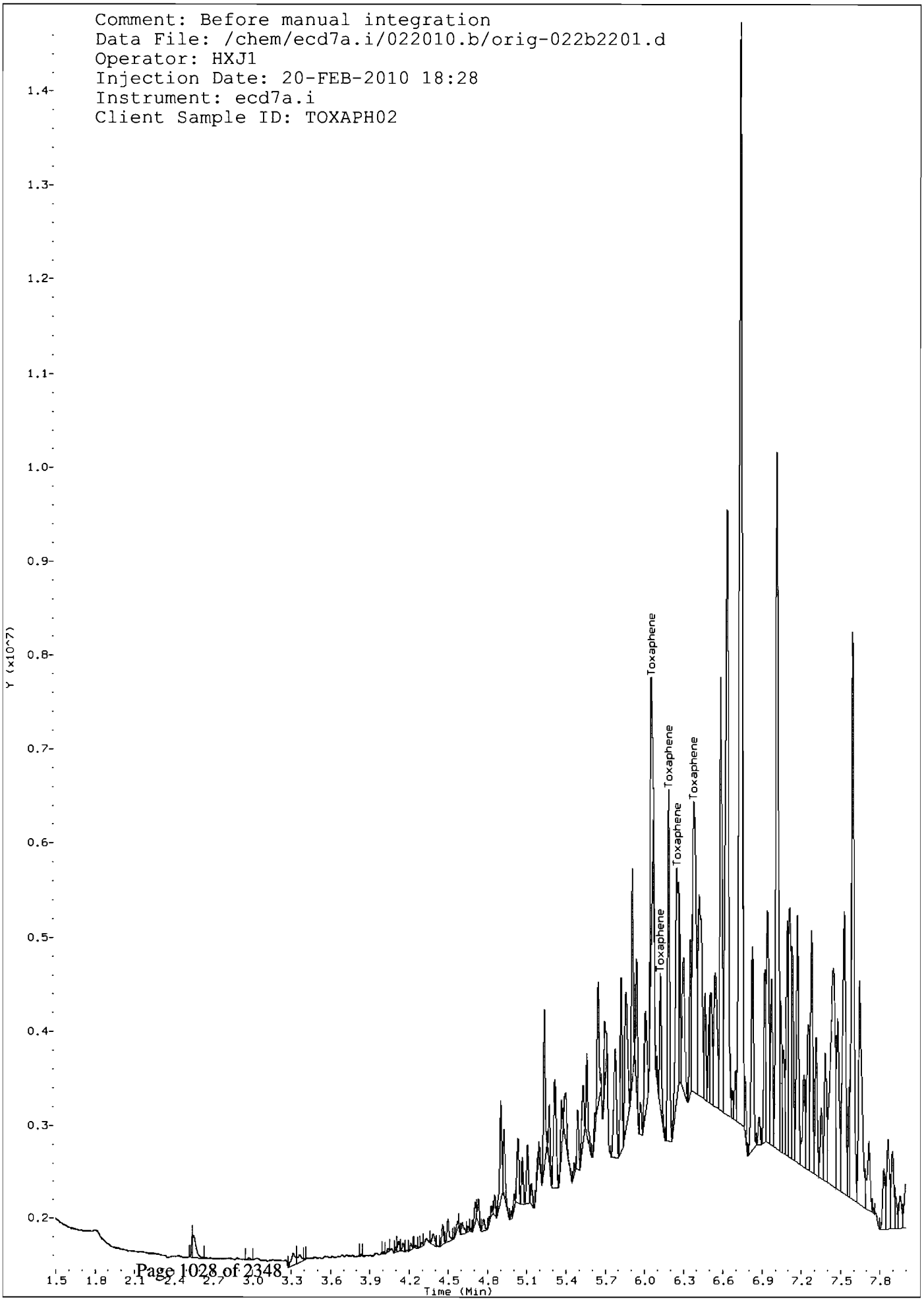
Comment: Before manual integration
Data File: /chem/ecd7a.i/022010.b/orig-022b2201.d
Operator: HXJ1
Injection Date: 20-FEB-2010 18:28
Instrument: ecd7a.i
Client Sample ID: TOXAPH02
Y (x10^7)
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8 5.1 5.4 5.7 6.0 6.3 6.6 6.9 7.2 7.5 7.8
Time (Min)

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CLP-1

Data file : /chem/ecd7a.i/022010.b/023f2301.d
Lab Smp Id: WPE100211-10AB Client Smp ID: INDAB02
Inj Date : 20-FEB-2010 18:45
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Meth Date : 23-Feb-2010 09:05 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031f3101.d
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.299	3.301	-0.002	89855386	100.000	119	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.551	3.553	-0.002	78377311	100.000	120	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.615	3.617	-0.002	32318817	100.000	113	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.946	3.948	-0.002	51186584	100.000	108	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.771	3.772	-0.001	75454663	100.000	119	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.212	4.213	-0.001	79658532	100.000	109	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.759	4.761	-0.002	64988076	100.000	112	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.877	4.878	-0.001	74242050	100.000	119	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.002	5.003	-0.001	66302110	100.000	105	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.139	5.139	0.000	60707265	100.000	117	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.065	5.066	-0.001	122510667	200.000	229	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.370	5.371	-0.001	120903809	200.000	222	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.604	5.604	0.000	93566747	200.000	230	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.656	5.657	-0.001	78214248	200.000	231	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.829	5.830	-0.001	103420806	200.000	223	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 742I-93-4		
6.257	6.259	-0.002	78984262	200.000	216	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.939	5.940	-0.001	81781022	200.000	234	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.713	6.715	-0.002	93148311	200.000	221	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.439	6.441	-0.002	145162796	1000.00	1050	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.018	7.019	-0.001	102331223	200.000	211	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.880	2.883	-0.003	139822412	200.000	222	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.105	8.106	-0.001	87707535	200.000	216	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022010.b/023f2301.d
Date : 20-FEB-2010 18:45
Client ID: INDAB02
Sample Info: IWPE100211-10AB
Column phase: CLP-1

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

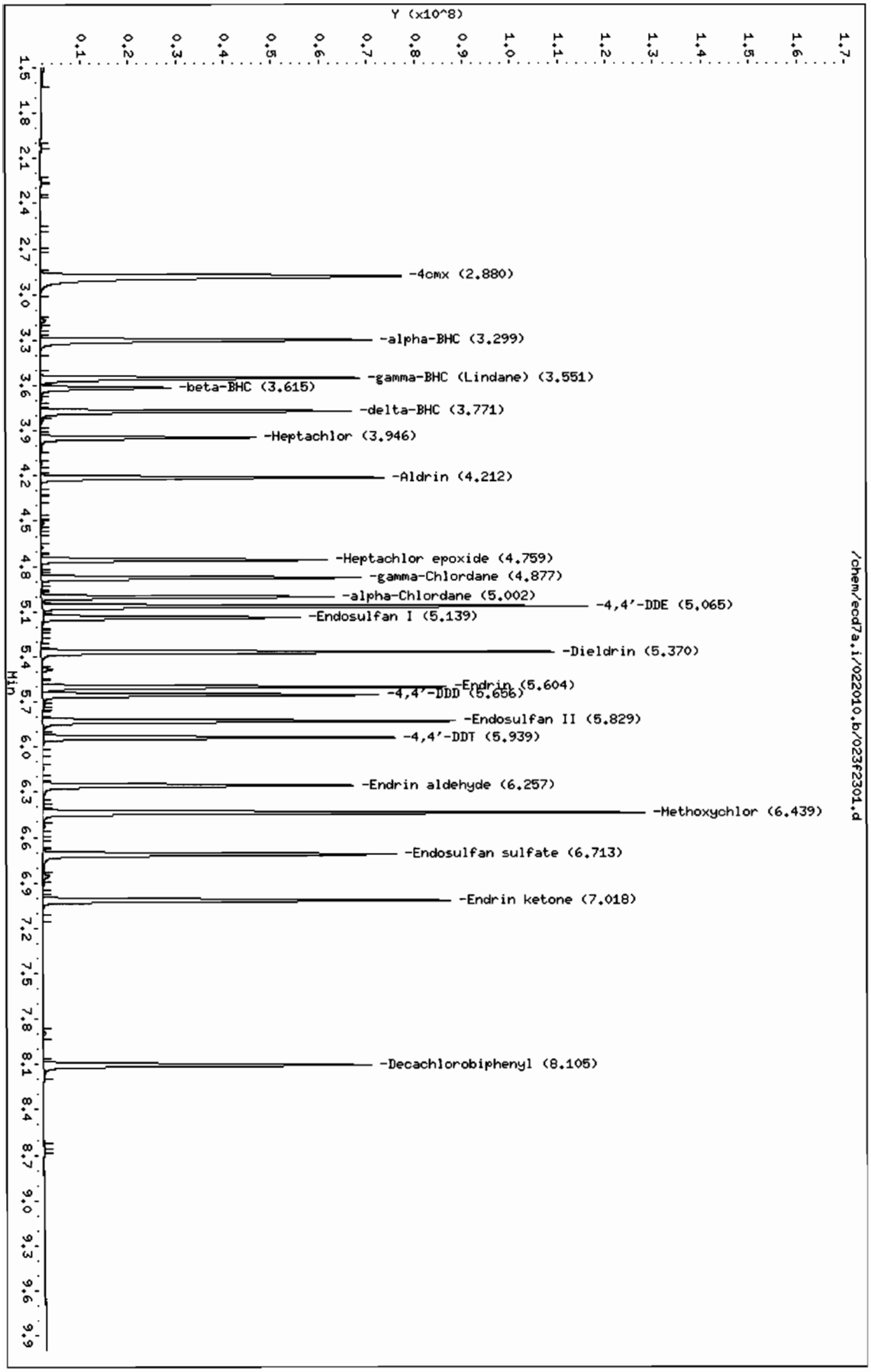

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022010.b/023b2301.d
Lab Smp Id: WPE100211-10AB Client Smp ID: INDAB02
Inj Date : 20-FEB-2010 18:45
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Meth Date : 23-Feb-2010 09:06 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031b3101.d
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.722	3.724	-0.002	58997732	100.000	107	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.052	4.053	-0.001	50247636	100.000	110	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.116	4.117	-0.001	22280678	100.000	102	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.489	4.490	-0.001	31538049	100.000	99.4	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.406	4.407	-0.001	49804672	100.000	106	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.819	4.820	-0.001	51788844	100.000	99.3	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.389	5.390	-0.001	41205863	100.000	104	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.585	5.587	-0.002	47729115	100.000	108	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.736	5.737	-0.001	42674751	100.000	96.4	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.806	5.808	-0.002	40636431	100.000	107	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.886	5.887	-0.001	82924980	200.000	204	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.094	6.096	-0.002	70864193	200.000	206	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.424	6.426	-0.002	57351741	200.000	216	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.505	6.506	-0.001	49041927	200.000	205	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.649	6.650	-0.001	67603702	200.000	206	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.010	7.011	-0.001	50237697	200.000	204	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.851	6.853	-0.002	44362930	200.000	212	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.317	7.318	-0.001	56928873	200.000	192	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.596	7.598	-0.002	78722642	1000.00	984	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.925	7.927	-0.002	59912400	200.000	195	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.198	-0.001	103375168	200.000	204	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.301	9.302	-0.001	56337792	200.000	199	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022010.b/023b2301.d
Date : 20-FEB-2010 18:45
Client ID: INDAB02
Sample Info: IWPE100211-10AB

Column phase: CLP-2

Instrument: ecd7a.i

Operator: HXJ1
Column diameter: 0.25

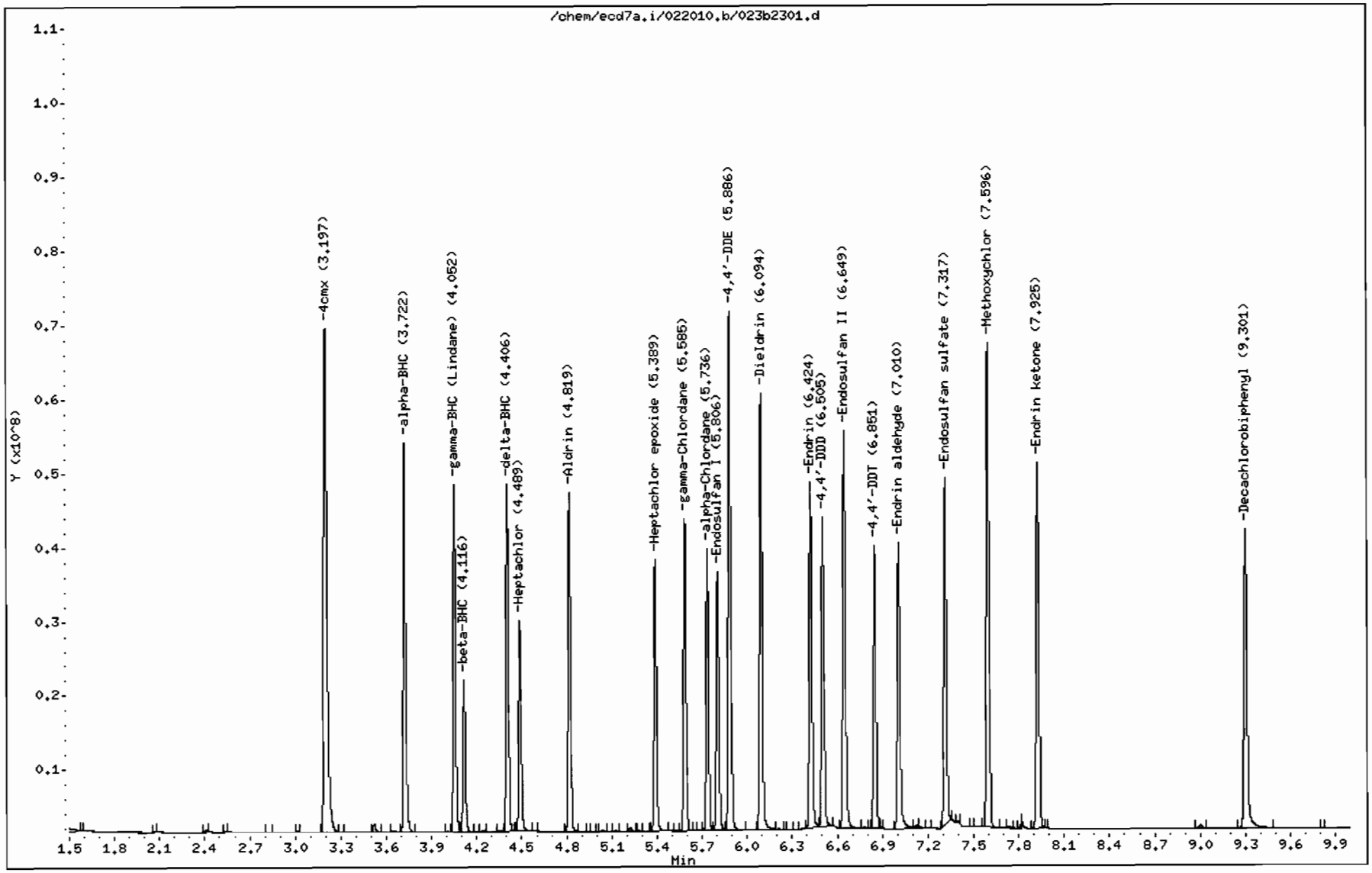

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1886

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/20/10 02/20/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.88 DCB: 8.11

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100104-99	02/20/10	1229	2.88	8.10
02	PEM01	WPE100211-99	02/20/10	1246	2.88	8.11
03	INDAB01	WPE100220-01	02/20/10	1304	2.88	8.10
04	INDAB02	WPE100220-02	02/20/10	1321	2.88	8.11
05	INDAB03	WPE100220-03	02/20/10	1338	2.88	8.10
06	INDAB04	WPE100220-04	02/20/10	1355	2.88	8.11
07	INDAB05	IPE100204-02	02/20/10	1412	2.88	8.11
08	INDAB01	WPE100211-10	02/20/10	1429	2.88	8.11
09	TOXAPH01	WPE100220-11	02/20/10	1446		
10	TOXAPH02	WPE100220-12	02/20/10	1503		
11	TOXAPH03	WPE100220-13	02/20/10	1520		
12	TOXAPH04	WPE100220-14	02/20/10	1537		
13	TOXAPH05	IPE100204-40	02/20/10	1555		
14	TOXAPH01	WPE100125-52	02/20/10	1612		
15	PIBLK02	WAR100104-99	02/20/10	1629	2.88	8.11
16	PBLK01	1202047509	02/20/10	1646	2.88	8.10
17	PBLK01LCS	1202047510	02/20/10	1703	2.88	8.11
18	PBLK01TLCS	1202047513	02/20/10	1720	2.88	8.10
19	CAPA-10-12691	247261006	02/20/10	1737	2.88	8.10
20	CAPA-10-12691MS	1202047511	02/20/10	1754	2.88	8.10
21	CAPA-10-12691MSD	1202047512	02/20/10	1811	2.88	8.10
22	TOXAPH02	WPE100125-52	02/20/10	1828		
23	INDAB02	WPE100211-10	02/20/10	1845	2.88	8.11
24	PIBLK03	WAR100104-99	02/20/10	1902	2.88	8.11
25	ZZZZZ	ZZZZZ	02/20/10	1919	2.88	8.10
26	ZZZZZ	ZZZZZ	02/20/10	1936	2.88	8.10
27	ZZZZZ	ZZZZZ	02/20/10	1954	2.88	8.10
28	ZZZZZ	ZZZZZ	02/20/10	2011	2.88	8.10
29	ZZZZZ	ZZZZZ	02/20/10	2028	2.88	8.10
30	ZZZZZ	ZZZZZ	02/20/10	2045	2.88	8.10
31	ZZZZZ	ZZZZZ	02/20/10	2102	2.88	8.10
32	ZZZZZ	ZZZZZ	02/20/10	2119	2.88	8.10

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1886

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/20/10 02/20/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.20 DCB: 9.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100104-99	02/20/10	1229	3.20	9.30
02	PEM01	WPE100211-99	02/20/10	1247	3.20	9.30
03	INDAB01	WPE100220-01	02/20/10	1304	3.20	9.30
04	INDAB02	WPE100220-02	02/20/10	1321	3.20	9.30
05	INDAB03	WPE100220-03	02/20/10	1338	3.20	9.30
06	INDAB04	WPE100220-04	02/20/10	1355	3.20	9.30
07	INDAB05	IPE100204-02	02/20/10	1412	3.20	9.30
08	INDAB01	WPE100211-10	02/20/10	1429	3.20	9.30
09	TOXAPH01	WPE100220-11	02/20/10	1446		
10	TOXAPH02	WPE100220-12	02/20/10	1503		
11	TOXAPH03	WPE100220-13	02/20/10	1520		
12	TOXAPH04	WPE100220-14	02/20/10	1537		
13	TOXAPH05	IPE100204-40	02/20/10	1555		
14	TOXAPH01	WPE100125-52	02/20/10	1612		
15	PIBLK02	WAR100104-99	02/20/10	1629	3.20	9.30
16	PBLK01	1202047509	02/20/10	1646	3.20	9.30
17	PBLK01LCS	1202047510	02/20/10	1703	3.20	9.30
18	PBLK01TLCS	1202047513	02/20/10	1720	3.20	9.30
19	CAPA-10-12691	247261006	02/20/10	1737	3.20	9.30
20	CAPA-10-12691MS	1202047511	02/20/10	1754	3.20	9.30
21	CAPA-10-12691MSD	1202047512	02/20/10	1811	3.20	9.30
22	TOXAPH02	WPE100125-52	02/20/10	1828		
23	INDAB02	WPE100211-10	02/20/10	1845	3.20	9.30
24	PIBLK03	WAR100104-99	02/20/10	1902	3.20	9.30
25	ZZZZZ	ZZZZZ	02/20/10	1919	3.20	9.30
26	ZZZZZ	ZZZZZ	02/20/10	1936	3.20	9.30
27	ZZZZZ	ZZZZZ	02/20/10	1954	3.20	9.30
28	ZZZZZ	ZZZZZ	02/20/10	2011	3.20	9.30
29	ZZZZZ	ZZZZZ	02/20/10	2028	3.20	9.30
30	ZZZZZ	ZZZZZ	02/20/10	2045	3.20	9.30
31	ZZZZZ	ZZZZZ	02/20/10	2102	3.20	9.30
32	ZZZZZ	ZZZZZ	02/20/10	2119	3.20	9.30

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

Identification Summary

SDG Number: 10–1886 **Client ID:** CAPA–10–12691MS

Lab Sample ID: 1202047511

Data File:	020f2001.d	**Data File:**	020b2001.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	20–FEB–10 17:54	**Analyzed:**	20–FEB–10 17:54

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							8.52
Column 1	1	3.3	3.27 – 3.33	.442		ug/L	
Column 2	1	3.72	3.69 – 3.75	.405		ug/L	
gamma–BHC (Lindane)							5.77
Column 1	1	3.55	3.52 – 3.58	.447		ug/L	
Column 2	1	4.05	4.02 – 4.08	.422		ug/L	
beta–BHC							27.1
Column 1	1	3.62	3.59 – 3.65	.557		ug/L	
Column 2	1	4.12	4.09 – 4.15	.424		ug/L	
delta–BHC							7.73
Column 1	1	3.77	3.74 – 3.8	.459		ug/L	
Column 2	1	4.41	4.38 – 4.44	.425		ug/L	
Heptachlor							4.29
Column 1	1	3.95	3.92 – 3.98	.415		ug/L	
Column 2	1	4.49	4.46 – 4.52	.397		ug/L	

Identification Summary

SDG Number: 10–1886 **Client ID:** CAPA–10–12691MS

Lab Sample ID: 1202047511

Data File:	020f2001.d	**Data File:**	020b2001.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	20–FEB–10 17:54	**Analyzed:**	20–FEB–10 17:54

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							7.56
Column 1	1	4.21	4.18 – 4.24	.403		ug/L	
Column 2	1	4.82	4.79 – 4.85	.373		ug/L	
Heptachlor epoxide							7.63
Column 1	1	4.76	4.73 – 4.79	.434		ug/L	
Column 2	1	5.39	5.36 – 5.42	.402		ug/L	
gamma–Chlordane							5.99
Column 1	1	4.88	4.85 – 4.91	.453		ug/L	
Column 2	1	5.59	5.56 – 5.62	.426		ug/L	
alpha–Chlordane							5.96
Column 1	1	5	4.97 – 5.03	.437		ug/L	
Column 2	1	5.74	5.71 – 5.77	.412		ug/L	
Endosulfan I							4.98
Column 1	1	5.14	5.11 – 5.17	.442		ug/L	
Column 2	1	5.81	5.78 – 5.84	.421		ug/L	

Identification Summary

SDG Number: 10-1886 **Client ID:** CAPA-10-12691MS

Lab Sample ID: 1202047511

Data File:	020f2001.d	**Data File:**	020b2001.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	20-FEB-10 17:54	**Analyzed:**	20-FEB-10 17:54

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'-DDE								10.3
	Column 1	1	5.06	5.04 – 5.1	1.09		ug/L	
	Column 2	1	5.89	5.86 – 5.92	.981		ug/L	
Dieldrin								5.58
	Column 1	1	5.37	5.34 – 5.4	1.06		ug/L	
	Column 2	1	6.09	6.07 – 6.13	1.01		ug/L	
Endrin								6.74
	Column 1	1	5.6	5.57 – 5.63	1.21		ug/L	
	Column 2	1	6.42	6.4 – 6.46	1.13		ug/L	
4,4'-DDD								13.3
	Column 1	1	5.66	5.63 – 5.69	1.16		ug/L	
	Column 2	1	6.5	6.48 – 6.54	1.01		ug/L	
Endosulfan II								5.3
	Column 1	1	5.83	5.8 – 5.86	1.14		ug/L	
	Column 2	1	6.65	6.62 – 6.68	1.08		ug/L	

Identification Summary

SDG Number: 10–1886 **Client ID:** CAPA–10–12691MS

Lab Sample ID: 1202047511

Data File:	020f2001.d	**Data File:**	020b2001.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	20–FEB–10 17:54	**Analyzed:**	20–FEB–10 17:54

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							4.15
Column 1	1	6.26	6.23 – 6.29	1		ug/L	
Column 2	1	7.01	6.98 – 7.04	.959		ug/L	
4,4'–DDT							2.64
Column 1	1	5.94	5.91 – 5.97	1.13		ug/L	
Column 2	1	6.85	6.82 – 6.88	1.11		ug/L	
Endosulfan sulfate							6.98
Column 1	1	6.71	6.69 – 6.75	1.18		ug/L	
Column 2	1	7.32	7.29 – 7.35	1.1		ug/L	
Methoxychlor							4.01
Column 1	1	6.44	6.41 – 6.47	4.39		ug/L	
Column 2	1	7.6	7.57 – 7.63	4.57		ug/L	
Endrin ketone							7.77
Column 1	1	7.02	6.99 – 7.05	1.11		ug/L	
Column 2	1	7.93	7.9 – 7.96	1.03		ug/L	

Identification Summary

SDG Number: 10–1886 **Client ID:** CAPA–10–12691MSD

Lab Sample ID: 1202047512

Data File:	021f2101.d	**Data File:**	021b2101.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	20–FEB–10 18:11	**Analyzed:**	20–FEB–10 18:11

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							9.78
Column 1	1	3.3	3.27 – 3.33	.475		ug/L	
Column 2	1	3.72	3.69 – 3.75	.431		ug/L	
gamma–BHC (Lindane)							8.84
Column 1	1	3.55	3.52 – 3.58	.479		ug/L	
Column 2	1	4.05	4.02 – 4.08	.439		ug/L	
beta–BHC							37.7
Column 1	1	3.62	3.59 – 3.65	.64		ug/L	
Column 2	1	4.12	4.09 – 4.15	.437		ug/L	
delta–BHC							8.6
Column 1	1	3.77	3.74 – 3.8	.486		ug/L	
Column 2	1	4.41	4.38 – 4.44	.446		ug/L	
Heptachlor							5.37
Column 1	1	3.95	3.92 – 3.98	.444		ug/L	
Column 2	1	4.49	4.46 – 4.52	.421		ug/L	

Identification Summary

SDG Number: 10–1886 **Client ID:** CAPA–10–12691MSD

Lab Sample ID: 1202047512

Data File:	021f2101.d	**Data File:**	021b2101.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	20–FEB–10 18:11	**Analyzed:**	20–FEB–10 18:11

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							8.27
Column 1	1	4.21	4.18 – 4.24	.424		ug/L	
Column 2	1	4.82	4.79 – 4.85	.39		ug/L	
Heptachlor epoxide							8.75
Column 1	1	4.76	4.73 – 4.79	.458		ug/L	
Column 2	1	5.39	5.36 – 5.42	.42		ug/L	
gamma–Chlordane							6.17
Column 1	1	4.88	4.85 – 4.91	.471		ug/L	
Column 2	1	5.59	5.56 – 5.62	.443		ug/L	
alpha–Chlordane							6.5
Column 1	1	5	4.97 – 5.03	.455		ug/L	
Column 2	1	5.74	5.71 – 5.77	.427		ug/L	
Endosulfan I							5.54
Column 1	1	5.14	5.11 – 5.17	.467		ug/L	
Column 2	1	5.81	5.78 – 5.84	.441		ug/L	

Identification Summary

SDG Number: 10–1886 **Client ID:** CAPA–10–12691MSD

Lab Sample ID: 1202047512

Data File:	021f2101.d	**Data File:**	021b2101.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	20–FEB–10 18:11	**Analyzed:**	20–FEB–10 18:11

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE								12.1
	Column 1	1	5.06	5.04 – 5.1	1.14		ug/L	
	Column 2	1	5.89	5.86 – 5.92	1.01		ug/L	
Dieldrin								5.81
	Column 1	1	5.37	5.34 – 5.4	1.12		ug/L	
	Column 2	1	6.09	6.07 – 6.13	1.06		ug/L	
Endrin								7.55
	Column 1	1	5.6	5.57 – 5.63	1.27		ug/L	
	Column 2	1	6.42	6.4 – 6.46	1.18		ug/L	
4,4'–DDD								14.9
	Column 1	1	5.65	5.63 – 5.69	1.22		ug/L	
	Column 2	1	6.51	6.48 – 6.54	1.05		ug/L	
Endosulfan II								7.21
	Column 1	1	5.83	5.8 – 5.86	1.2		ug/L	
	Column 2	1	6.65	6.62 – 6.68	1.11		ug/L	

Identification Summary

SDG Number: 10–1886 **Client ID:** CAPA–10–12691MSD

Lab Sample ID: 1202047512

Data File:	021f2101.d	**Data File:**	021b2101.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	20–FEB–10 18:11	**Analyzed:**	20–FEB–10 18:11

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							6.43
Column 1	1	6.26	6.23 – 6.29	1.04		ug/L	
Column 2	1	7.01	6.98 – 7.04	.977		ug/L	
4,4'–DDT							5.58
Column 1	1	5.94	5.91 – 5.97	1.18		ug/L	
Column 2	1	6.85	6.82 – 6.88	1.11		ug/L	
Endosulfan sulfate							8.03
Column 1	1	6.71	6.69 – 6.75	1.24		ug/L	
Column 2	1	7.32	7.29 – 7.35	1.14		ug/L	
Methoxychlor							2.36
Column 1	1	6.44	6.41 – 6.47	4.61		ug/L	
Column 2	1	7.6	7.57 – 7.63	4.72		ug/L	
Endrin ketone							9.66
Column 1	1	7.02	6.99 – 7.05	1.16		ug/L	
Column 2	1	7.93	7.9 – 7.96	1.05		ug/L	

Identification Summary

SDG Number: 10–1886 **Client ID:** LCS for batch 955054

Lab Sample ID: 1202047510

Data File:	017f1701.d	**Data File:**	017b1701.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	20–FEB–10 17:03	**Analyzed:**	20–FEB–10 17:03

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							6.2
Column 1	1	3.3	3.27 – 3.33	.533		ug/L	
Column 2	1	3.72	3.69 – 3.75	.501		ug/L	
gamma–BHC (Lindane)							5.95
Column 1	1	3.55	3.52 – 3.58	.544		ug/L	
Column 2	1	4.05	4.02 – 4.08	.513		ug/L	
beta–BHC							17.8
Column 1	1	3.62	3.59 – 3.65	.596		ug/L	
Column 2	1	4.12	4.09 – 4.15	.498		ug/L	
delta–BHC							5.45
Column 1	1	3.77	3.74 – 3.8	.548		ug/L	
Column 2	1	4.41	4.38 – 4.44	.519		ug/L	
Heptachlor							4.55
Column 1	1	3.95	3.92 – 3.98	.5		ug/L	
Column 2	1	4.49	4.46 – 4.52	.478		ug/L	

Identification Summary

SDG Number: 10-1886 **Client ID:** LCS for batch 955054

Lab Sample ID: 1202047510

Data File:	017f1701.d	**Data File:**	017b1701.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	20-FEB-10 17:03	**Analyzed:**	20-FEB-10 17:03

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							6.65
Column 1	1	4.21	4.18 – 4.24	.492		ug/L	
Column 2	1	4.82	4.79 – 4.85	.46		ug/L	
Heptachlor epoxide							7.29
Column 1	1	4.76	4.73 – 4.79	.536		ug/L	
Column 2	1	5.39	5.36 – 5.42	.499		ug/L	
gamma-Chlordane							5.54
Column 1	1	4.88	4.85 – 4.91	.552		ug/L	
Column 2	1	5.59	5.56 – 5.62	.522		ug/L	
alpha-Chlordane							6.39
Column 1	1	5	4.97 – 5.03	.549		ug/L	
Column 2	1	5.74	5.71 – 5.77	.515		ug/L	
Endosulfan I							5.47
Column 1	1	5.14	5.11 – 5.17	.54		ug/L	
Column 2	1	5.81	5.78 – 5.84	.511		ug/L	

Identification Summary

SDG Number: 10–1886 **Client ID:** LCS for batch 955054

Lab Sample ID: 1202047510

Data File:	017f1701.d	**Data File:**	017b1701.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	20–FEB–10 17:03	**Analyzed:**	20–FEB–10 17:03

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE								6.01
	Column 1	1	5.06	5.04 – 5.1	1.29		ug/L	
	Column 2	1	5.89	5.86 – 5.92	1.22		ug/L	
Dieldrin								6.23
	Column 1	1	5.37	5.34 – 5.4	1.3		ug/L	
	Column 2	1	6.09	6.07 – 6.13	1.22		ug/L	
Endrin								6.52
	Column 1	1	5.6	5.57 – 5.63	1.44		ug/L	
	Column 2	1	6.42	6.4 – 6.46	1.35		ug/L	
4,4'–DDD								9.19
	Column 1	1	5.65	5.63 – 5.69	1.33		ug/L	
	Column 2	1	6.5	6.48 – 6.54	1.22		ug/L	
Endosulfan II								5.85
	Column 1	1	5.83	5.8 – 5.86	1.34		ug/L	
	Column 2	1	6.65	6.62 – 6.68	1.27		ug/L	

Identification Summary

SDG Number: 10–1886 **Client ID:** LCS for batch 955054

Lab Sample ID: 1202047510

Data File:	017f1701.d	**Data File:**	017b1701.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	20–FEB–10 17:03	**Analyzed:**	20–FEB–10 17:03

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							5.05
Column 1	1	6.26	6.23 – 6.29	1.22		ug/L	
Column 2	1	7.01	6.98 – 7.04	1.16		ug/L	
4,4'–DDT							.0371
Column 1	1	5.94	5.91 – 5.97	1.42		ug/L	
Column 2	1	6.85	6.82 – 6.88	1.42		ug/L	
Endosulfan sulfate							6.27
Column 1	1	6.71	6.69 – 6.75	1.36		ug/L	
Column 2	1	7.32	7.29 – 7.35	1.27		ug/L	
Methoxychlor							2.96
Column 1	1	6.44	6.41 – 6.47	5.14		ug/L	
Column 2	1	7.6	7.57 – 7.63	5.29		ug/L	
Endrin ketone							6.49
Column 1	1	7.02	6.99 – 7.05	1.28		ug/L	
Column 2	1	7.93	7.9 – 7.96	1.19		ug/L	

Identification Summary

SDG Number: 10–1886 **Client ID:** LCS for batch 955054

Lab Sample ID: 1202047513

Data File:	018f1801.d	**Data File:**	018b1801.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	20–FEB–10 17:20	**Analyzed:**	20–FEB–10 17:20

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Toxaphene							.641
Column 1	1	5.27	5.24 – 5.3	4.64		ug/L	
	2	5.37	5.34 – 5.4	4.68		ug/L	
	3	5.46	5.43 – 5.49	4.99		ug/L	
	4	5.52	5.49 – 5.55	4.75		ug/L	
	5	5.62	5.6 – 5.66	4.61		ug/L	
					4.73		
Column 2	1	6.06	6.03 – 6.09	4.72		ug/L	
	2	6.13	6.1 – 6.16	4.71		ug/L	
	3	6.19	6.16 – 6.22	4.78		ug/L	
	4	6.25	6.22 – 6.28	4.86		ug/L	
	5	6.38	6.35 – 6.41	4.75		ug/L	
					4.76		

QUALITY CONTROL DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–1886**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202047509**				
Client Sample:	**QC for batch 955054**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 955054**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**955055**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**02/20/2010 16:46**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/19/2010 14:35**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**016f1601.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	016b1601.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.020	ug/L	0.005	0.020	1
58–89–9	gamma–BHC (Lindane)	U	0.020	ug/L	0.005	0.020	1
319–85–7	beta–BHC	U	0.020	ug/L	0.006	0.020	1
319–86–8	delta–BHC	U	0.020	ug/L	0.005	0.020	1
76–44–8	Heptachlor	U	0.020	ug/L	0.005	0.020	1
309–00–2	Aldrin	U	0.020	ug/L	0.005	0.020	1
1024–57–3	Heptachlor epoxide	U	0.020	ug/L	0.005	0.020	1
5103–74–2	gamma–Chlordane	U	0.020	ug/L	0.005	0.020	1
5103–71–9	alpha–Chlordane	U	0.020	ug/L	0.005	0.020	1
959–98–8	Endosulfan I	U	0.020	ug/L	0.005	0.020	1
72–55–9	4,4'–DDE	U	0.040	ug/L	0.005	0.040	1
60–57–1	Dieldrin	U	0.040	ug/L	0.010	0.040	1
72–20–8	Endrin	U	0.040	ug/L	0.010	0.040	1
72–54–8	4,4'–DDD	U	0.040	ug/L	0.010	0.040	1
33213–65–9	Endosulfan II	U	0.040	ug/L	0.010	0.040	1
7421–93–4	Endrin aldehyde	U	0.040	ug/L	0.005	0.040	1
50–29–3	4,4'–DDT	U	0.040	ug/L	0.010	0.040	1
1031–07–8	Endosulfan sulfate	U	0.040	ug/L	0.010	0.040	1
72–43–5	Methoxychlor	U	0.200	ug/L	0.050	0.200	1
53494–70–5	Endrin ketone	U	0.040	ug/L	0.010	0.040	1
8001–35–2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
4cmx	0.881	1.00	ug/L	88.1	(30%–105%)
Decachlorobiphenyl	0.961	1.00	ug/L	96.1	(30%–126%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022010.b/016f1601.d
Lab Smp Id: 1202047509 Client Smp ID: PBLK01
Inj Date : 20-FEB-2010 16:46
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202047509|1|
Misc Info : |ECD81A_1L|955055|SVP|MB|GROUND WATER|MB|||
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Meth Date : 23-Feb-2010 09:05 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031f3101.d
Als bottle: 16 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1886.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.882	2.883	-0.001	115133310	183.115	0.916	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.105	8.106	-0.001	80574690	198.369	0.992	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022010.b/016f1601.d

Page 1

Date : 20-FEB-2010 16:46

Client ID: PBLK01

Instrument: ecd7a.i

Sample Info: |1202047509|1|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

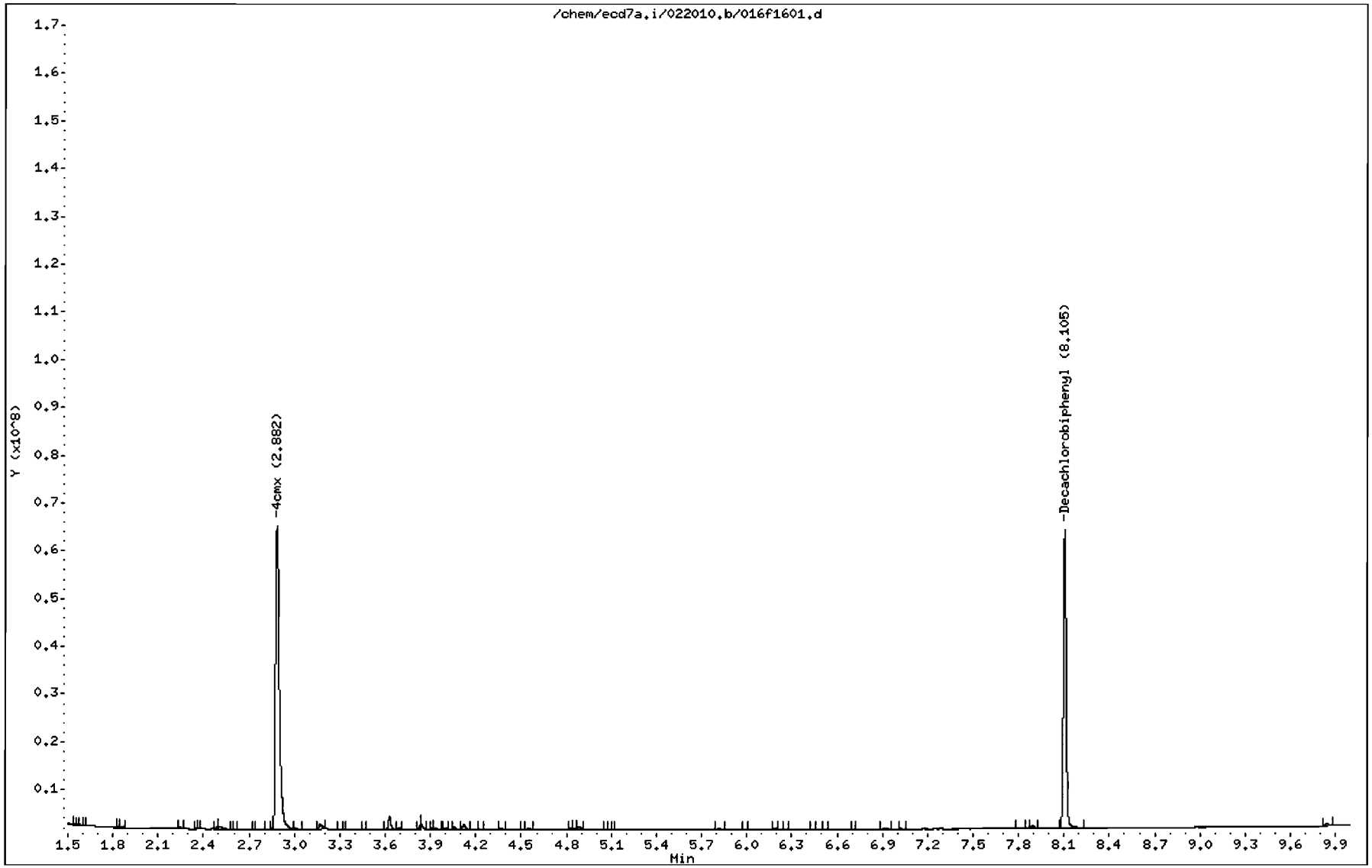

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022010.b/016b1601.d
Lab Smp Id: 1202047509 Client Smp ID: PBLK01
Inj Date : 20-FEB-2010 16:46
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202047509|1|
Misc Info : |ECD81A_1L|955055|SVP|MB|GROUND WATER|MB|||
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Meth Date : 23-Feb-2010 09:06 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031b3101.d
Als bottle: 16 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1886.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.198	3.198	0.000	89093378	176.171	0.881	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.300	9.302	-0.002	54494700	192.112	0.960	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022010.b/016b1601.d

Page 1

Date : 20-FEB-2010 16:46

Client ID: PBLK01

Instrument: ecd7a.i

Sample Info: |1202047509|1|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

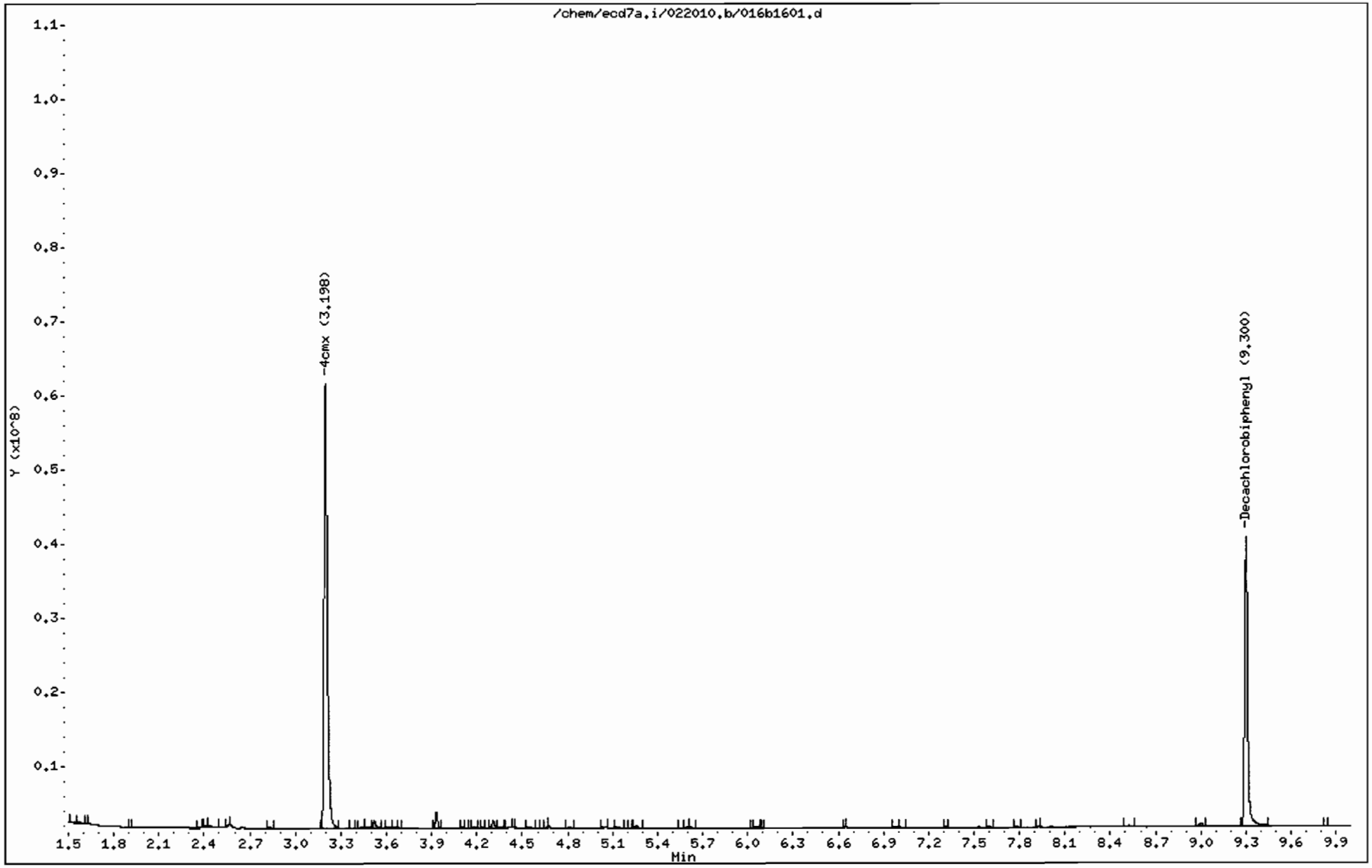

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–1886**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202047510**				
Client Sample:	**QC for batch 955054**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 955054**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**955055**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**02/20/2010 17:03**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/19/2010 14:35**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**017f1701.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	017b1701.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC		0.501	ug/L	0.005	0.020	2
58–89–9	gamma–BHC (Lindane)		0.513	ug/L	0.005	0.020	2
319–85–7	beta–BHC		0.498	ug/L	0.006	0.020	2
319–86–8	delta–BHC		0.519	ug/L	0.005	0.020	2
76–44–8	Heptachlor		0.478	ug/L	0.005	0.020	2
309–00–2	Aldrin		0.460	ug/L	0.005	0.020	2
1024–57–3	Heptachlor epoxide		0.499	ug/L	0.005	0.020	2
5103–74–2	gamma–Chlordane		0.522	ug/L	0.005	0.020	2
5103–71–9	alpha–Chlordane		0.515	ug/L	0.005	0.020	2
959–98–8	Endosulfan I		0.511	ug/L	0.005	0.020	2
72–55–9	4,4'–DDE		1.22	ug/L	0.005	0.040	2
60–57–1	Dieldrin		1.22	ug/L	0.010	0.040	2
72–20–8	Endrin		1.35	ug/L	0.010	0.040	2
72–54–8	4,4'–DDD		1.22	ug/L	0.010	0.040	2
33213–65–9	Endosulfan II		1.27	ug/L	0.010	0.040	2
7421–93–4	Endrin aldehyde		1.16	ug/L	0.005	0.040	2
50–29–3	4,4'–DDT		1.42	ug/L	0.010	0.040	1
1031–07–8	Endosulfan sulfate		1.27	ug/L	0.010	0.040	2
72–43–5	Methoxychlor		5.14	ug/L	0.050	0.200	1
53494–70–5	Endrin ketone		1.19	ug/L	0.010	0.040	2
8001–35–2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.849	1.00	ug/L	84.9	(30%–105%)
Decachlorobiphenyl	0.998	1.00	ug/L	99.8	(30%–126%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022010.b/017f1701.d
Lab Smp Id: 1202047510 Client Smp ID: PBLK01LCS
Inj Date : 20-FEB-2010 17:03
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202047510|1|
Misc Info : |ECD81A_1L|955055|SVP|LCS|GROUND WATER|LCS|||
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Meth Date : 23-Feb-2010 09:05 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031f3101.d
Als bottle: 17 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1886.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.882	2.883	-0.001	111683701	177.629	0.888	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.105	8.106	-0.001	84973743	209.199	1.04	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.299	3.301	-0.002	80555410	106.699	0.533	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.552	3.553	-0.001	70843629	108.810	0.544	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.617	3.617	0.000	34103365	119.117	0.596	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
13 delta-BHC					CAS #: 319-86-8		
3.771	3.772	-0.001	69521243	109.625	0.548	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.946	3.948	-0.002	47330825	100.000	0.500	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.212	4.213	-0.001	71834490	98.3754	0.492	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.759	4.761	-0.002	62151529	107.268	0.536	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.877	4.878	-0.001	68715828	110.401	0.552	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.002	5.003	-0.001	69148196	109.749	0.549	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.137	5.139	-0.002	55926457	107.989	0.540	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.064	5.066	-0.002	138617870	258.896	1.29	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.370	5.371	-0.001	141240279	259.655	1.30	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.603	5.604	-0.001	116613877	287.338	1.44	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.655	5.657	-0.002	90171645	266.881	1.33	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.828	5.830	-0.002	124531613	268.715	1.34	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.256	6.259	-0.003	89453438	244.681	1.22	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.938	5.940	-0.002	98816341	283.137	1.42	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.714	6.715	-0.001	114544052	271.400	1.36	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.438	6.441	-0.003	141473111	1027.86	5.14	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.017	7.019	-0.002	123420309	255.004	1.28	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022010.b/017f1701.d
Date : 20-FEB-2010 17:03
Client ID: PBLK01LCS
Sample Info: 1120204751011
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd7a.i
Operator: HX11
Column diameter: 0.25

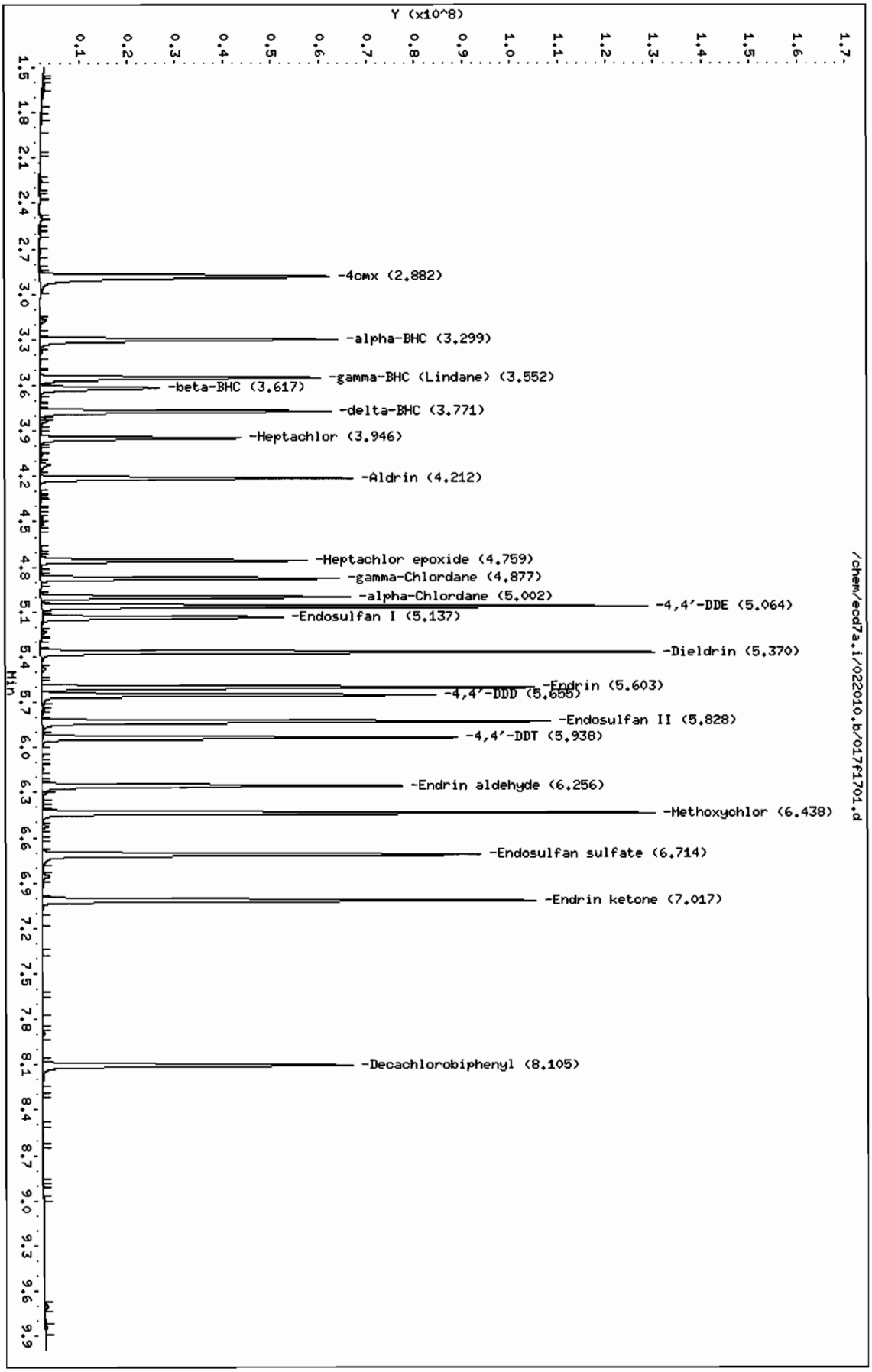

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022010.b/017b1701.d
Lab Smp Id: 1202047510 Client Smp ID: PBLK01LCS
Inj Date : 20-FEB-2010 17:03
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202047510|1|
Misc Info : |ECD81A_1L|955055|SVP|LCS|GROUND WATER|LCS|||
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Meth Date : 23-Feb-2010 09:06 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031b3101.d
Als bottle: 17 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1886.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.198	-0.001	85845692	169.749	0.849	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.302	9.302	0.000	56597982	199.527	0.998	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.723	3.724	-0.001	55110835	100.287	0.501	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.052	4.053	-0.001	46904010	102.527	0.513	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.116	4.117	-0.001	21683146	99.6134	0.498	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
13 delta-BHC					CAS #: 319-86-8		
4.406	4.407	-0.001	48767665	103.808	0.519	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.489	4.490	-0.001	30311183	95.5499	0.478	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.819	4.820	-0.001	47993883	92.0445	0.460	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.389	5.390	-0.001	39499650	99.7254	0.499	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.585	5.587	-0.002	45988738	104.445	0.522	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.736	5.737	-0.001	45568543	102.956	0.515	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.806	5.808	-0.002	38720574	102.243	0.511	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.885	5.887	-0.002	99249992	243.798	1.22	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.094	6.096	-0.002	83745708	243.966	1.22	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.424	6.426	-0.002	71518231	269.202	1.35	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.505	6.506	-0.001	58211574	243.443	1.22	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.649	6.650	-0.001	83297529	253.435	1.27	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.010	7.011	-0.001	57144615	232.623	1.16	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.852	6.853	-0.001	59378683	283.242	1.42	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.316	7.318	-0.002	75355077	254.895	1.27	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.596	7.598	-0.002	84699475	1058.73	5.29	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.926	7.927	-0.001	73525728	238.979	1.19	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022010.b/017b1701.d
Date : 20-FEB-2010 17:03
Client ID: PBLK01LCS
Sample Info: 1120204751011
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

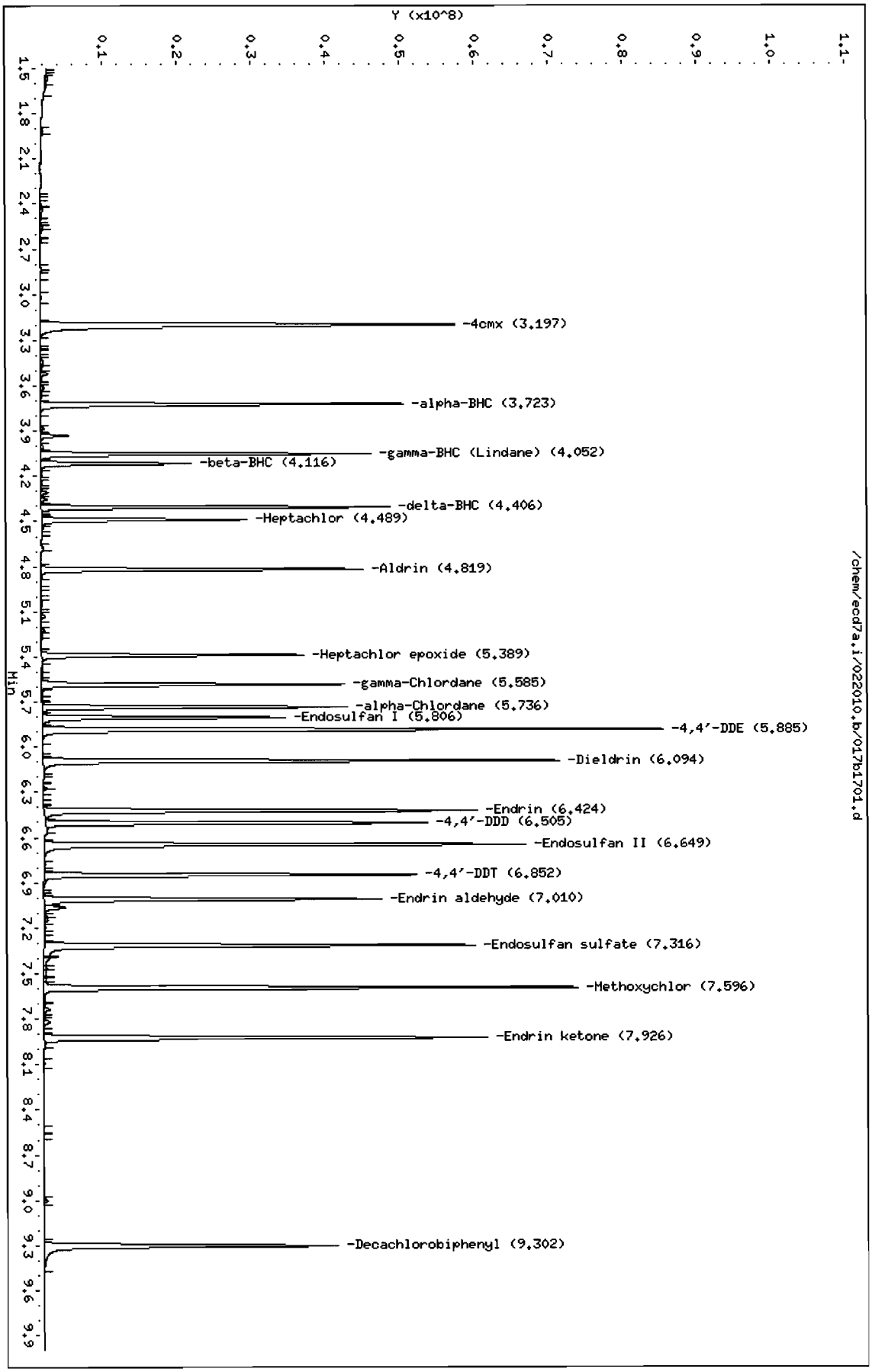

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Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–1886**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202047513**				
Client Sample:	**QC for batch 955054**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 955054**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**955055**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**02/20/2010 17:20**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/19/2010 14:35**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**018f1801.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	018b1801.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.020	ug/L	0.005	0.020	1
58–89–9	gamma–BHC (Lindane)	U	0.020	ug/L	0.005	0.020	1
319–85–7	beta–BHC	U	0.020	ug/L	0.006	0.020	1
319–86–8	delta–BHC	U	0.020	ug/L	0.005	0.020	1
76–44–8	Heptachlor	U	0.020	ug/L	0.005	0.020	1
309–00–2	Aldrin	U	0.020	ug/L	0.005	0.020	1
1024–57–3	Heptachlor epoxide	U	0.020	ug/L	0.005	0.020	1
5103–74–2	gamma–Chlordane	U	0.020	ug/L	0.005	0.020	1
5103–71–9	alpha–Chlordane	U	0.020	ug/L	0.005	0.020	1
959–98–8	Endosulfan I	U	0.020	ug/L	0.005	0.020	1
72–55–9	4,4'–DDE	U	0.040	ug/L	0.005	0.040	1
60–57–1	Dieldrin	U	0.040	ug/L	0.010	0.040	1
72–20–8	Endrin	U	0.040	ug/L	0.010	0.040	1
72–54–8	4,4'–DDD	U	0.040	ug/L	0.010	0.040	1
33213–65–9	Endosulfan II	U	0.040	ug/L	0.010	0.040	1
7421–93–4	Endrin aldehyde	U	0.040	ug/L	0.005	0.040	1
50–29–3	4,4'–DDT	U	0.040	ug/L	0.010	0.040	1
1031–07–8	Endosulfan sulfate	U	0.040	ug/L	0.010	0.040	1
72–43–5	Methoxychlor	U	0.200	ug/L	0.050	0.200	1
53494–70–5	Endrin ketone	U	0.040	ug/L	0.010	0.040	1
8001–35–2	Toxaphene		4.73	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.931	1.00	ug/L	93.1	(30%–105%)
Decachlorobiphenyl	1.07	1.00	ug/L	107	(30%–126%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022010.b/018f1801.d
Lab Smp Id: 1202047513 Client Smp ID: PBLK01TLCS
Inj Date : 20-FEB-2010 17:20
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202047513|1|
Misc Info : |ECD81A_1L|955055|SVP|TLCS|GROUND WATER|TLCS|||
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Meth Date : 23-Feb-2010 09:05 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031f3101.d
Als bottle: 18 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1886.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.884	2.883	0.001	124374029	197.812	0.989	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.105	8.106	-0.001	92936536	228.802	1.14	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.269	5.270	-0.001	4291335	927.332	4.64	80.00- 120.00	100.00(M)
5.374	5.374	0.000	6605579	935.988	4.68	132.12- 172.12	153.93
5.462	5.462	0.000	7895783	997.324	4.99	171.26- 211.26	183.99
5.522	5.521	0.001	9784212	949.712	4.75	190.60- 230.60	228.00
5.624	5.626	-0.002	9472883	922.628	4.61	205.24- 245.24	220.74

Average of Peak Concentrations = 4.73

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022010.b/018f1801.d

Page 1

Date : 20-FEB-2010 17:20

Client ID: PBLK01TLCS

Instrument: ecd7a.i

Sample Info: |1202047513|1|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

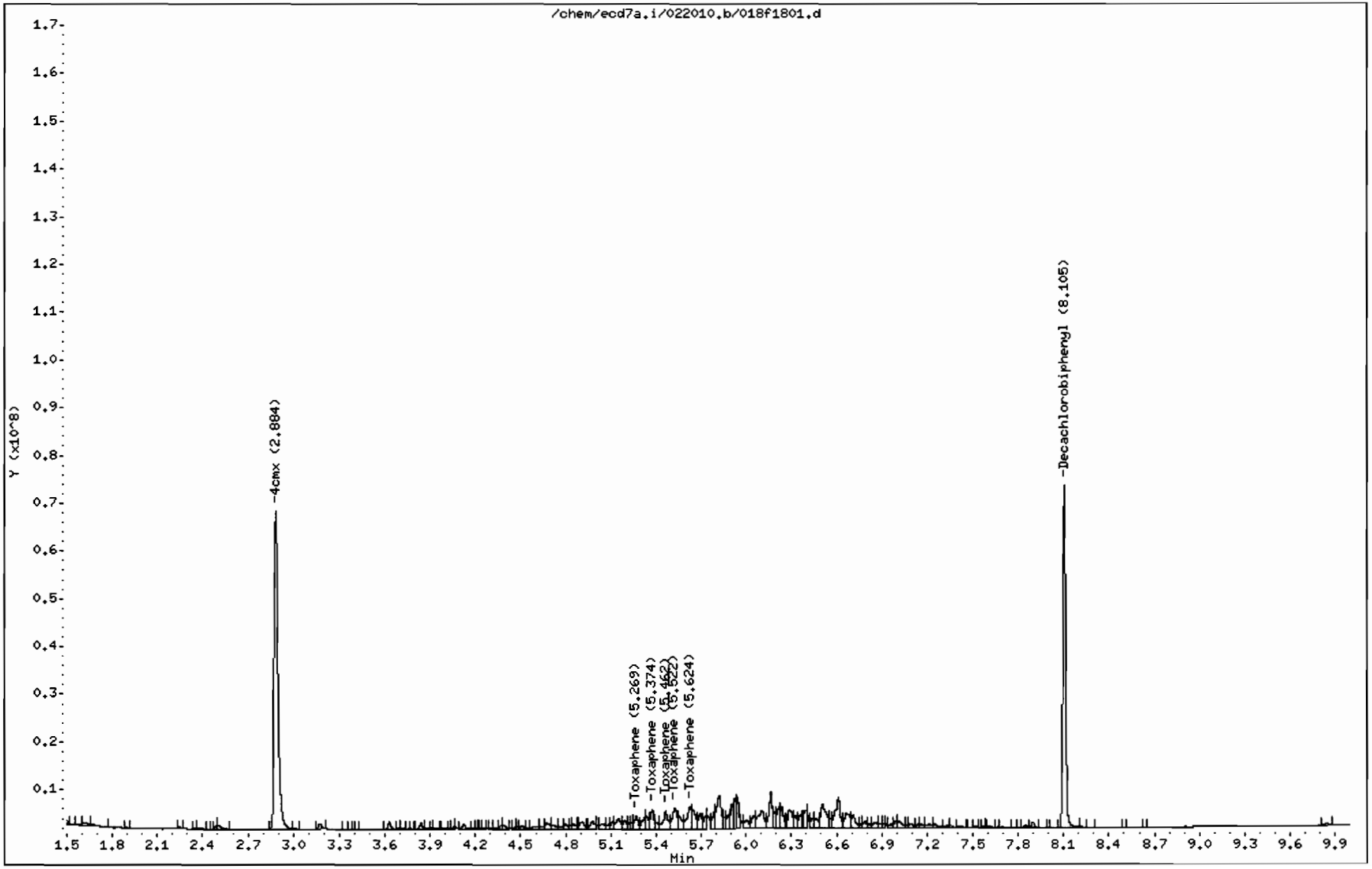

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Data File: /chem/ecd7a.i/022010.b/018f1801.d
Operator: HXJ1
Injection Date: 20-FEB-2010 17:20
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS

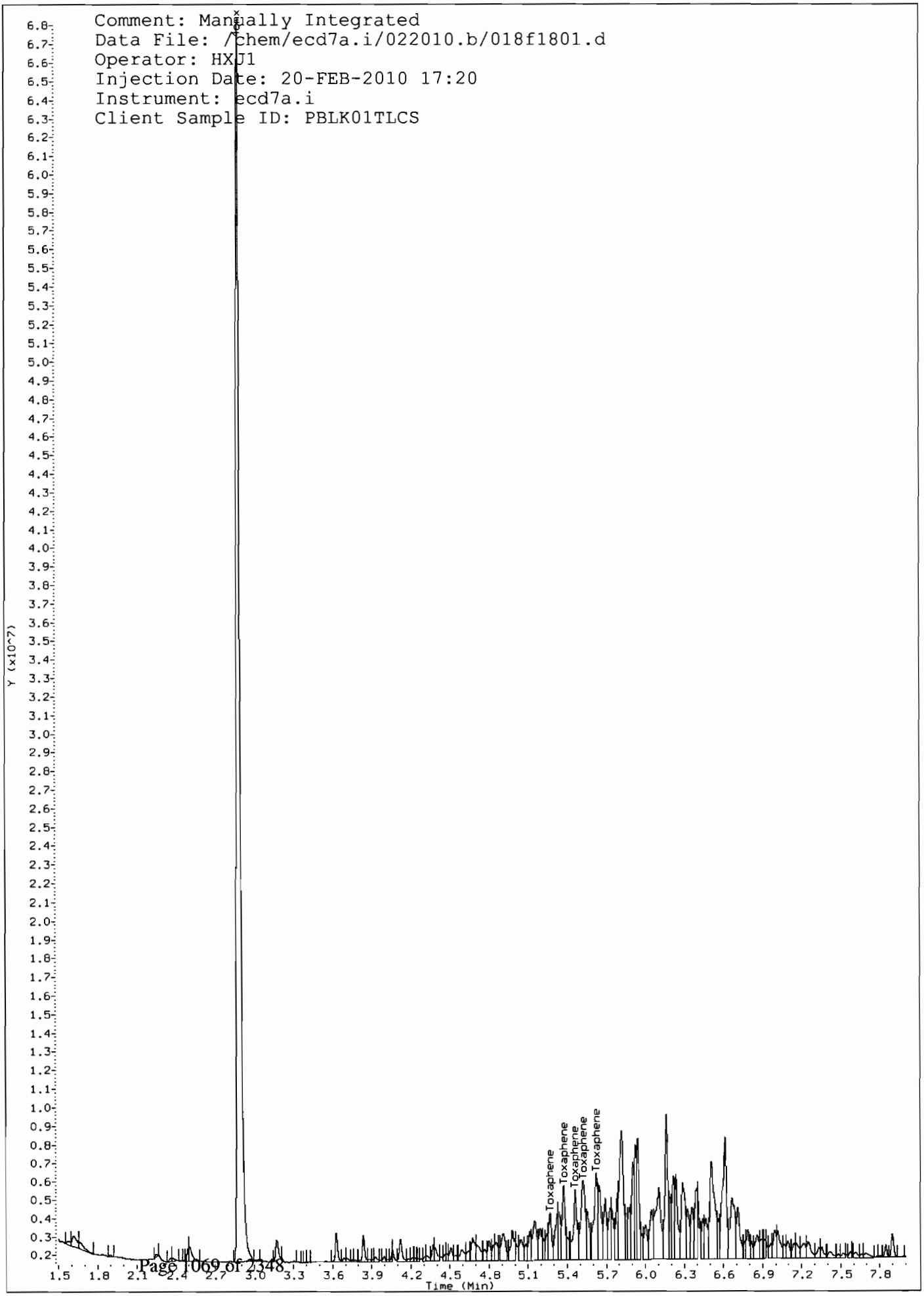

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Operator: HXJ1
Injection Date: 20-FEB-2010 17:20
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS

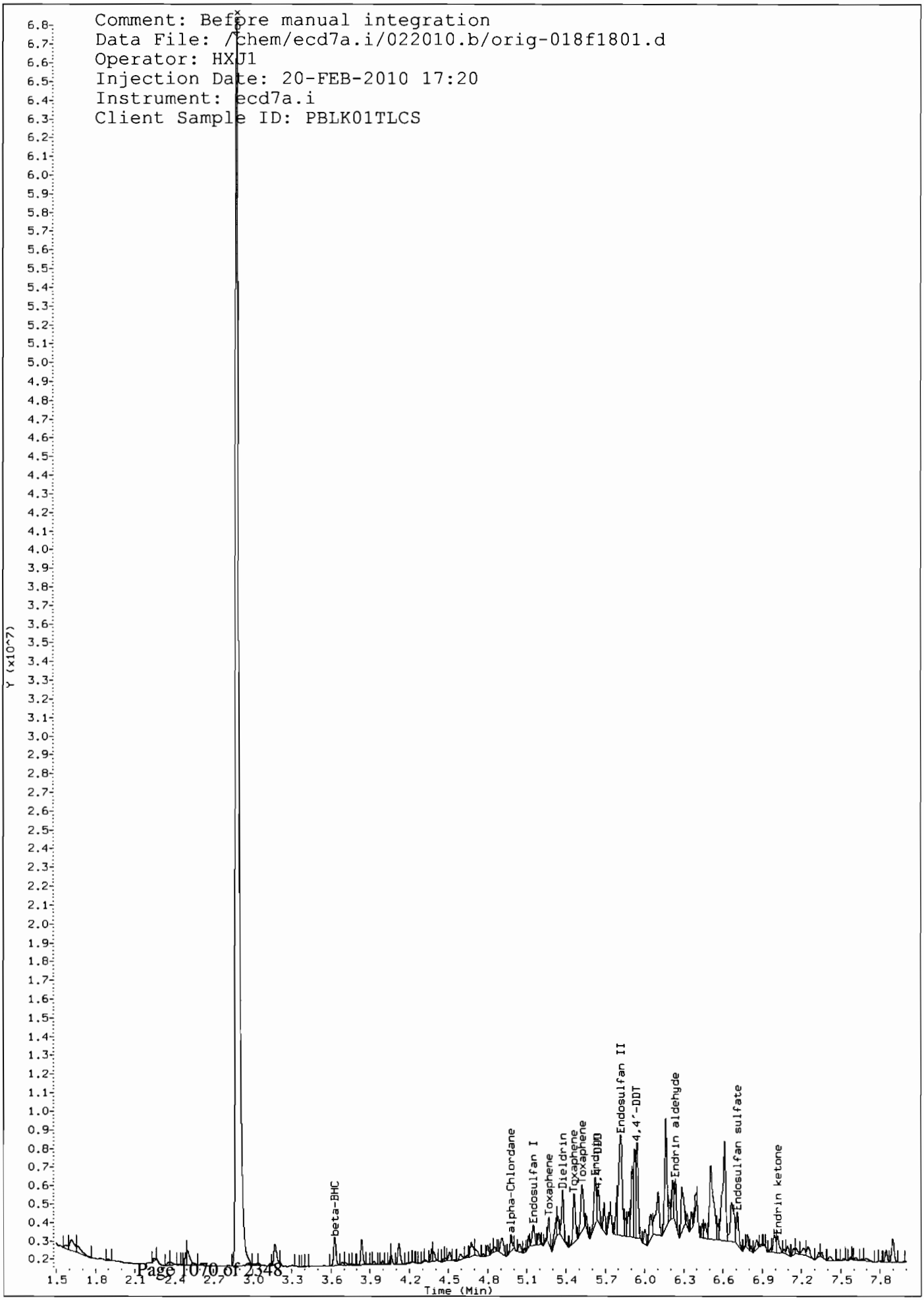

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022010.b/018b1801.d
Lab Smp Id: 1202047513 Client Smp ID: PBLK01TLCS
Inj Date : 20-FEB-2010 17:20
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202047513|1|
Misc Info : |ECD81A_1L|955055|SVP|TLCS|GROUND WATER|TLCS|||
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Meth Date : 23-Feb-2010 09:06 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031b3101.d
Als bottle: 18 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1886.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.198	-0.001	94164772	186.199	0.931	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.302	9.302	0.000	60829879	214.446	1.07	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
6.058	6.057	0.001	6575956	944.482	4.72	80.00- 120.00	100.00(M)
6.125	6.125	0.000	2941342	941.281	4.71	23.59- 63.59	87.56
6.189	6.188	0.001	3427957	955.290	4.78	35.17- 75.17	102.05
6.253	6.252	0.001	3881488	972.596	4.86	34.86- 74.86	145.06
6.382	6.383	-0.001	5161595	949.797	4.75	55.22- 95.22	153.66
Average of Peak Concentrations =					4.76		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022010.b/018b1801.d

Date : 20-FEB-2010 17:20

Client ID: PBLK01TLCS

Sample Info: |1202047513|1|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

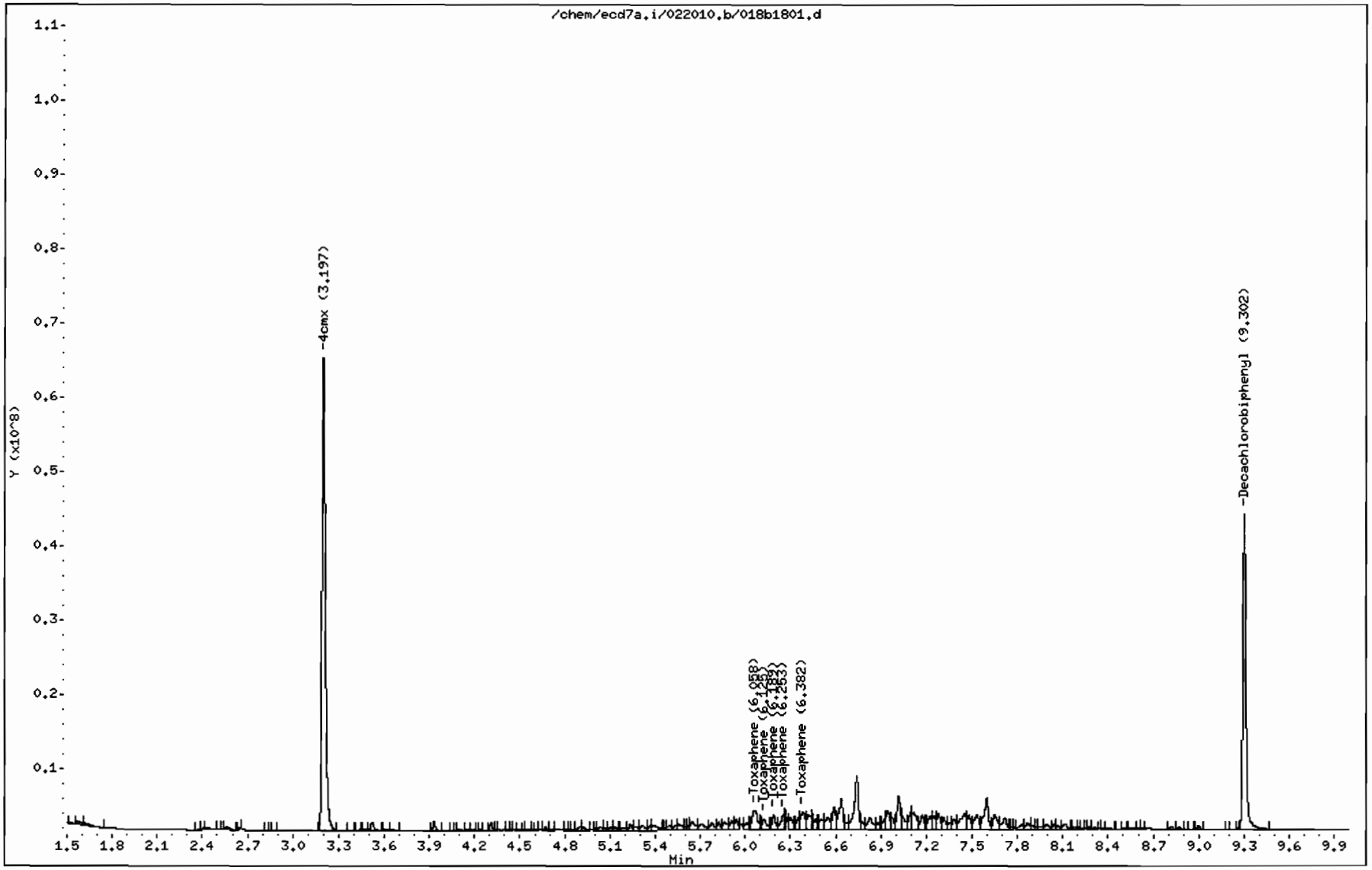

Comment: Manually Integrated
Data File: /chem/ecd7a.i/022010.b/018b1801.d
Operator: HXJ1
Injection Date: 20-FEB-2010 17:20
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS

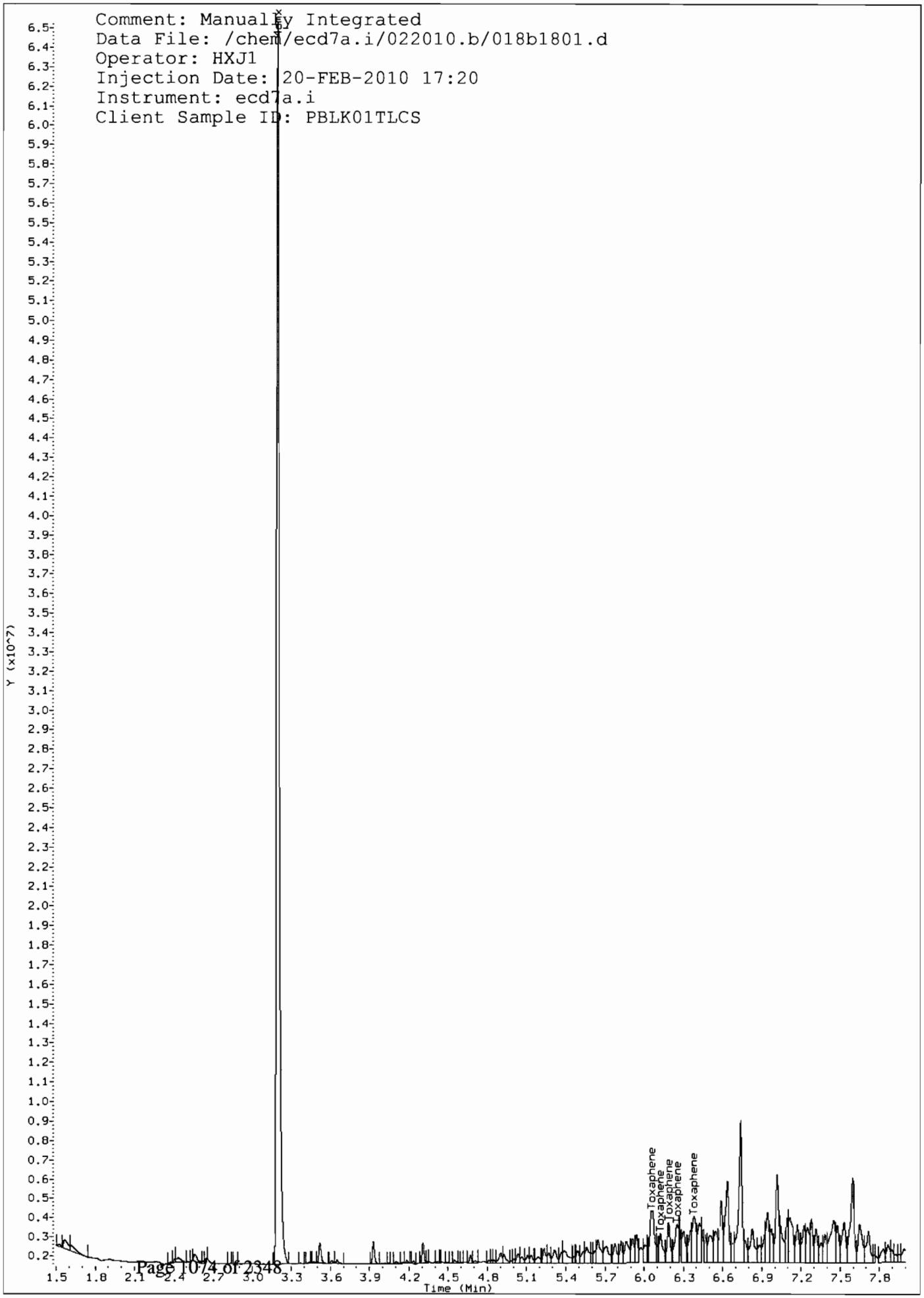

Comment: Before manual integration
Data File: /chem/ecd7a.i/022010.b/orig-018b1801.d
Operator: HXJ1
Injection Date: 20-FEB-2010 17:20
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS

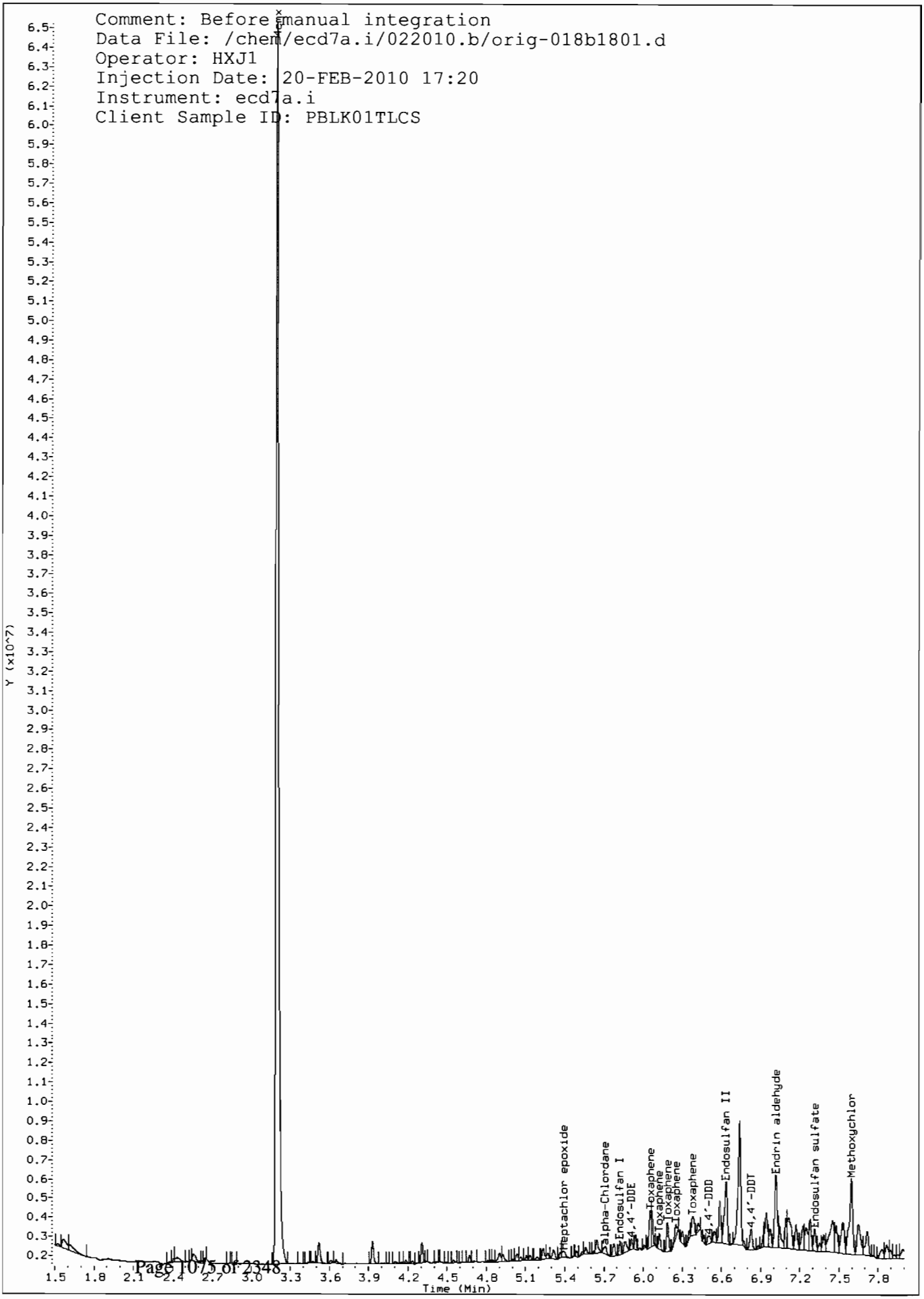

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202047511**	**Date Received:**	**02/17/2010 08:45**		
Client Sample:	**QC for batch 955054**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA–10–12691MS**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**955055**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**02/20/2010 17:54**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/19/2010 14:35**	**Aliquot:**	**500 mL**	**Final Volume:**	**2.5 mL**
Data File:	**020f2001.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	020b2001.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC		0.442	ug/L	0.005	0.020	1
58–89–9	gamma–BHC (Lindane)		0.447	ug/L	0.005	0.020	1
319–85–7	beta–BHC		0.557	ug/L	0.006	0.020	1
319–86–8	delta–BHC		0.459	ug/L	0.005	0.020	1
76–44–8	Heptachlor		0.415	ug/L	0.005	0.020	1
309–00–2	Aldrin		0.403	ug/L	0.005	0.020	1
1024–57–3	Heptachlor epoxide		0.434	ug/L	0.005	0.020	1
5103–74–2	gamma–Chlordane		0.453	ug/L	0.005	0.020	1
5103–71–9	alpha–Chlordane		0.437	ug/L	0.005	0.020	1
959–98–8	Endosulfan I		0.442	ug/L	0.005	0.020	1
72–55–9	4,4'–DDE		1.09	ug/L	0.005	0.040	1
60–57–1	Dieldrin		1.06	ug/L	0.010	0.040	1
72–20–8	Endrin		1.21	ug/L	0.010	0.040	1
72–54–8	4,4'–DDD		1.16	ug/L	0.010	0.040	1
33213–65–9	Endosulfan II		1.14	ug/L	0.010	0.040	1
7421–93–4	Endrin aldehyde		1.00	ug/L	0.005	0.040	1
50–29–3	4,4'–DDT		1.13	ug/L	0.010	0.040	1
1031–07–8	Endosulfan sulfate		1.18	ug/L	0.010	0.040	1
72–43–5	Methoxychlor		4.39	ug/L	0.050	0.200	1
53494–70–5	Endrin ketone		1.11	ug/L	0.010	0.040	1
8001–35–2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.707	1.00	ug/L	70.7	(30%–105%)
Decachlorobiphenyl	0.655	1.00	ug/L	65.5	(30%–126%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022010.b/020f2001.d
Lab Smp Id: 1202047511 Client Smp ID: CAPA-10-12691MS
Inj Date : 20-FEB-2010 17:54
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202047511|1|
Misc Info : |ECD81A_1L|955055|SVP|MS|GROUND WATER|MS|||
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Meth Date : 23-Feb-2010 09:05 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031f3101.d
Als bottle: 20 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1886.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.882	2.883	-0.001	94200277	149.822	0.749	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.105	8.106	-0.001	58587142	144.237	0.721	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.300	3.301	-0.001	66670553	88.3081	0.442	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.552	3.553	-0.001	58248771	89.4652	0.447	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.618	3.617	0.001	31881678	111.357	0.557	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
13 delta-BHC					CAS #: 319-86-8		
3.772	3.772	0.000	58242495	91.8398	0.459	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.947	3.948	-0.001	39271701	82.9728	0.415	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.213	4.213	0.000	58810783	80.5398	0.403	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.760	4.761	-0.001	50318494	86.8450	0.434	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.877	4.878	-0.001	56359860	90.5496	0.453	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.003	5.003	0.000	55041577	87.3599	0.437	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.139	5.139	0.000	45818399	88.4712	0.442	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.064	5.066	-0.002	116481688	217.553	1.09	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.370	5.371	-0.001	115816114	212.916	1.06	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.603	5.604	-0.001	97982963	241.431	1.21	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.656	5.657	-0.001	78325658	231.820	1.16	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.829	5.830	-0.001	105296792	227.210	1.14	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.257	6.259	-0.002	73123488	200.014	1.00	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.938	5.940	-0.002	79209944	226.959	1.13	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.714	6.715	-0.001	99733445	236.308	1.18	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.439	6.441	-0.002	120741816	877.239	4.39	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.017	7.019	-0.002	107365996	221.834	1.11	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022010.b/020f2001.d
Date : 20-FEB-2010 17:54
Client ID: CAPA-10-12691MS
Sample Info: |1202047511|1|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd7a.i

Operator: HXJ1
Column diameter: 0.25

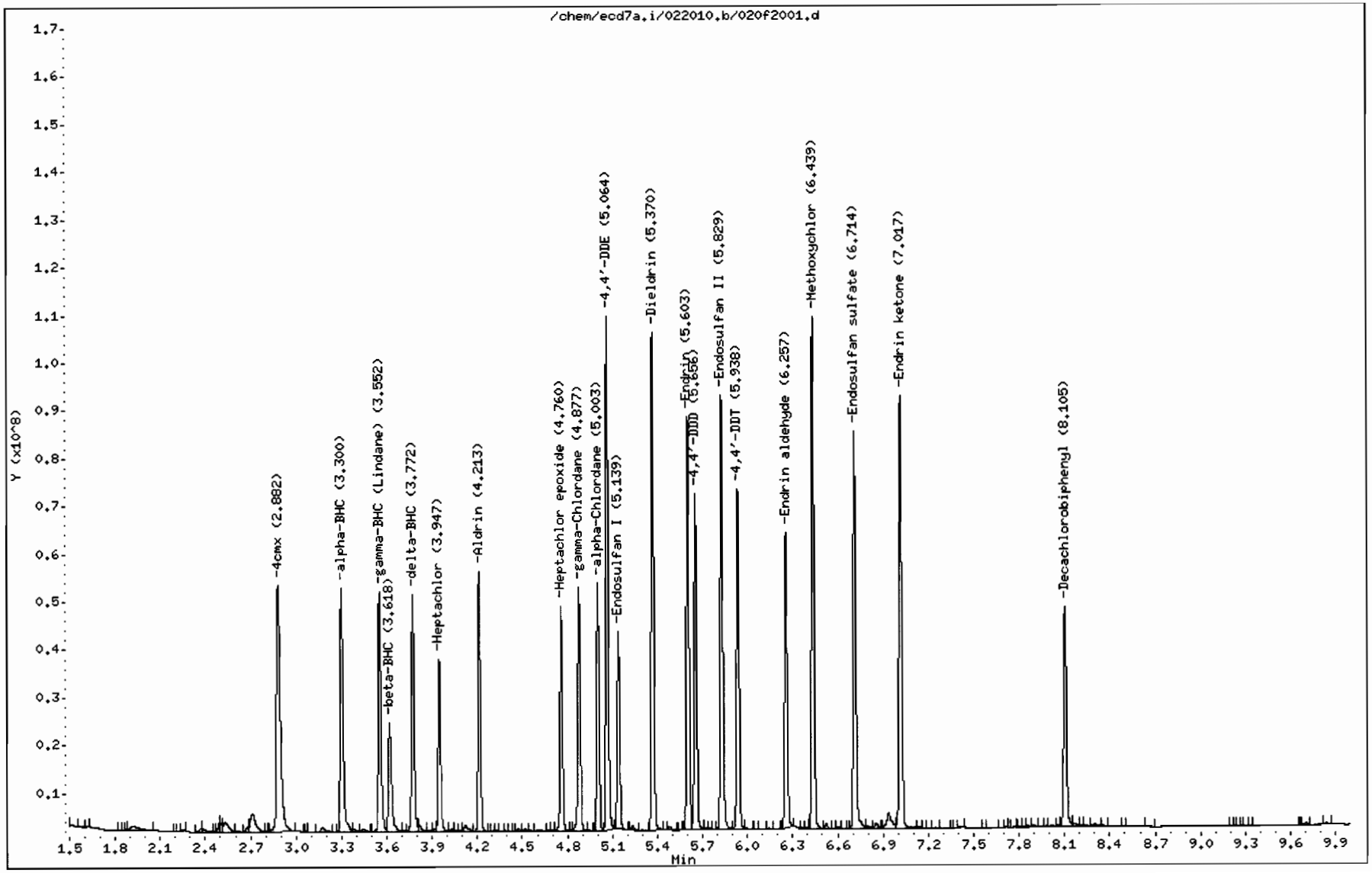

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022010.b/020b2001.d
Lab Smp Id: 1202047511 Client Smp ID: CAPA-10-12691MS
Inj Date : 20-FEB-2010 17:54
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202047511|1|
Misc Info : |ECD81A_1L|955055|SVP|MS|GROUND WATER|MS|||
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Meth Date : 23-Feb-2010 09:06 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031b3101.d
Als bottle: 20 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1886.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.198	-0.001	71510122	141.402	0.707	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.302	9.302	0.000	37149357	130.964	0.655	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.723	3.724	-0.001	44563372	81.0935	0.405	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.052	4.053	-0.001	38632525	84.4461	0.422	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.116	4.117	-0.001	18453293	84.7753	0.424	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
13 delta-BHC					CAS #: 319-86-8		
4.406	4.407	-0.001	39935575	85.0076	0.425	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.490	4.490	0.000	25215667	79.4873	0.397	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.820	4.820	0.000	38937045	74.6750	0.373	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.389	5.390	-0.001	31868226	80.4583	0.402	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.585	5.587	-0.002	37551012	85.2820	0.426	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.735	5.737	-0.002	36429652	82.3080	0.412	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.806	5.808	-0.002	31878665	84.1765	0.421	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.886	5.887	-0.001	79851547	196.148	0.981	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.094	6.096	-0.002	69120568	201.360	1.01	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.424	6.426	-0.002	59960941	225.699	1.13	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.505	6.506	-0.001	48510263	202.872	1.01	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.648	6.650	-0.002	70822372	215.479	1.08	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.010	7.011	-0.001	47138315	191.889	0.959	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.851	6.853	-0.002	46340754	221.050	1.10	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.316	7.318	-0.002	65149258	220.373	1.10	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.596	7.598	-0.002	73050538	913.124	4.56	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.926	7.927	-0.001	63145599	205.241	1.03	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022010.b/020b2001.d
Date : 20-FEB-2010 17:54
Client ID: CAPA-10-12691MS
Sample Info: 1120204751111
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i
Operator: HX31
Column diameter: 0.25

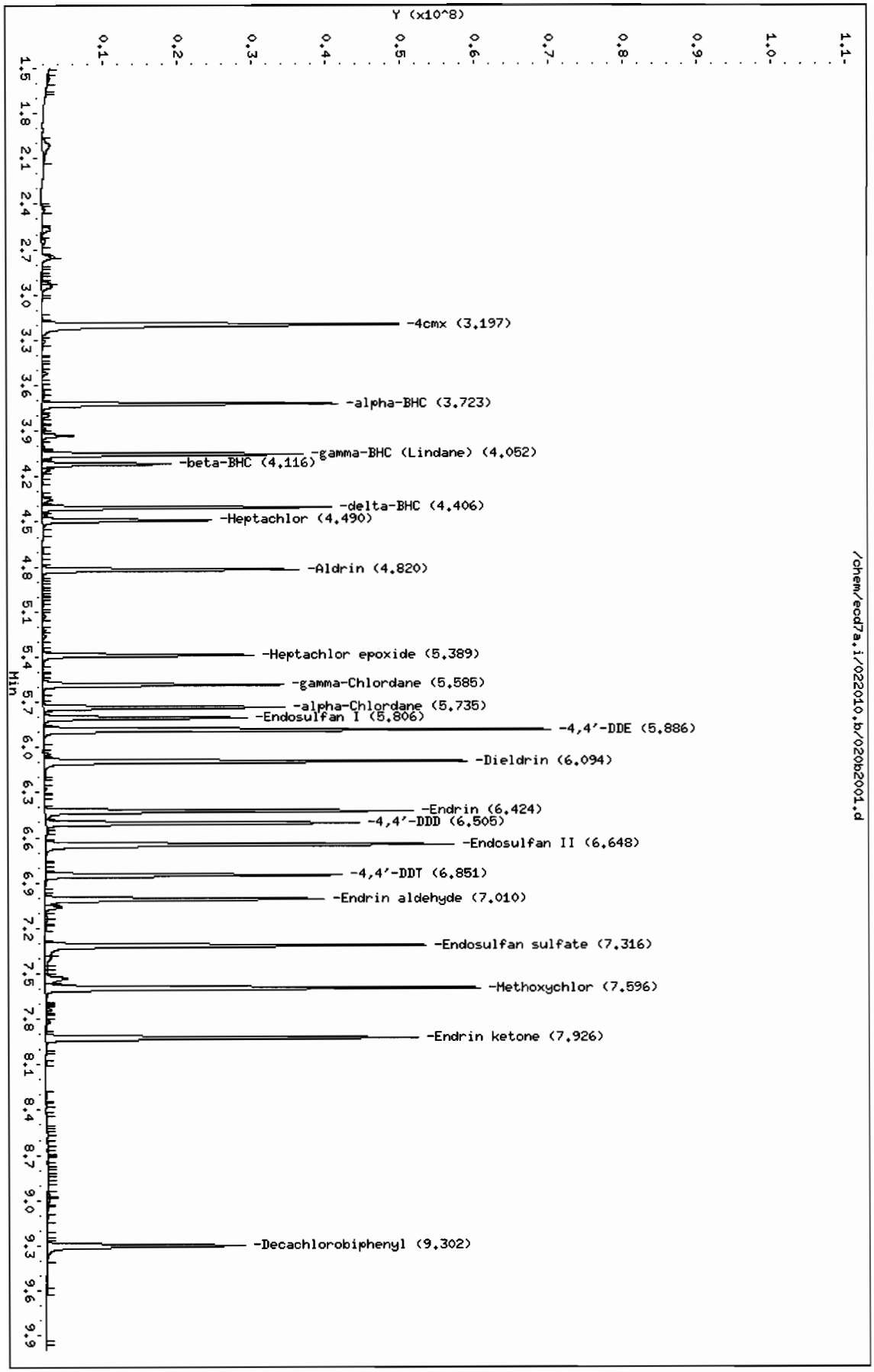

Page 1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202047512**	**Date Received:**	**02/17/2010 08:45**		
Client Sample:	**QC for batch 955054**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12691MSD**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**955055**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**02/20/2010 18:11**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/19/2010 14:35**	**Aliquot:**	**500 mL**	**Final Volume:**	**2.5 mL**
Data File:	**021f2101.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	021b2101.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC		0.475	ug/L	0.005	0.020	1
58-89-9	gamma-BHC (Lindane)		0.479	ug/L	0.005	0.020	1
319-85-7	beta-BHC		0.640	ug/L	0.006	0.020	1
319-86-8	delta-BHC		0.486	ug/L	0.005	0.020	1
76-44-8	Heptachlor		0.444	ug/L	0.005	0.020	1
309-00-2	Aldrin		0.424	ug/L	0.005	0.020	1
1024-57-3	Heptachlor epoxide		0.458	ug/L	0.005	0.020	1
5103-74-2	gamma-Chlordane		0.471	ug/L	0.005	0.020	1
5103-71-9	alpha-Chlordane		0.455	ug/L	0.005	0.020	1
959-98-8	Endosulfan I		0.467	ug/L	0.005	0.020	1
72-55-9	4,4'-DDE		1.14	ug/L	0.005	0.040	1
60-57-1	Dieldrin		1.12	ug/L	0.010	0.040	1
72-20-8	Endrin		1.27	ug/L	0.010	0.040	1
72-54-8	4,4'-DDD		1.22	ug/L	0.010	0.040	1
33213-65-9	Endosulfan II		1.20	ug/L	0.010	0.040	1
7421-93-4	Endrin aldehyde		1.04	ug/L	0.005	0.040	1
50-29-3	4,4'-DDT		1.18	ug/L	0.010	0.040	1
1031-07-8	Endosulfan sulfate		1.24	ug/L	0.010	0.040	1
72-43-5	Methoxychlor		4.61	ug/L	0.050	0.200	1
53494-70-5	Endrin ketone		1.16	ug/L	0.010	0.040	1
8001-35-2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
4cmx	0.748	1.00	ug/L	74.8	(30%-105%)
Decachlorobiphenyl	0.671	1.00	ug/L	67.1	(30%-126%)

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CLP-1

Data file : /chem/ecd7a.i/022010.b/021f2101.d
Lab Smp Id: 1202047512 Client Smp ID: CAPA-10-12691MSD
Inj Date : 20-FEB-2010 18:11
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202047512|1|
Misc Info : |ECD81A_1L|955055|SVP|MSD|GROUND WATER|MSD|||
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Meth Date : 23-Feb-2010 09:05 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031f3101.d
Als bottle: 21 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1886.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.882	2.883	-0.001	100830237	160.367	0.802	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.105	8.106	-0.001	59402913	146.245	0.731	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.300	3.301	-0.001	71728715	95.0078	0.475	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.552	3.553	-0.001	62422208	95.8752	0.479	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.618	3.617	0.001	36659053	128.044	0.640	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
13 delta-BHC					CAS #: 319-86-8		
3.771	3.772	-0.001	61657187	97.2243	0.486	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.946	3.948	-0.002	42025607	88.7912	0.444	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.213	4.213	0.000	61932270	84.8146	0.424	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.760	4.761	-0.001	53078192	91.6079	0.458	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.877	4.878	-0.001	58676437	94.2715	0.471	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.002	5.003	-0.001	57368101	91.0525	0.455	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.138	5.139	-0.001	48335462	93.3315	0.467	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.065	5.066	-0.001	121970494	227.804	1.14	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.370	5.371	-0.001	121728602	223.785	1.12	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.604	5.604	0.000	102965350	253.708	1.27	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.655	5.657	-0.002	82435532	243.984	1.22	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.829	5.830	-0.001	111050939	239.627	1.20	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.258	6.259	-0.001	76183261	208.383	1.04	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.939	5.940	-0.001	82195343	235.513	1.18	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.713	6.715	-0.002	104373388	247.302	1.24	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.439	6.441	-0.002	126960445	922.420	4.61	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.017	7.019	-0.002	112094093	231.603	1.16	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022010.b/021f2101.d
Date : 20-FEB-2010 18:11
Client ID: CAPA-10-12691MSD
Sample Info: 1120204751211
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

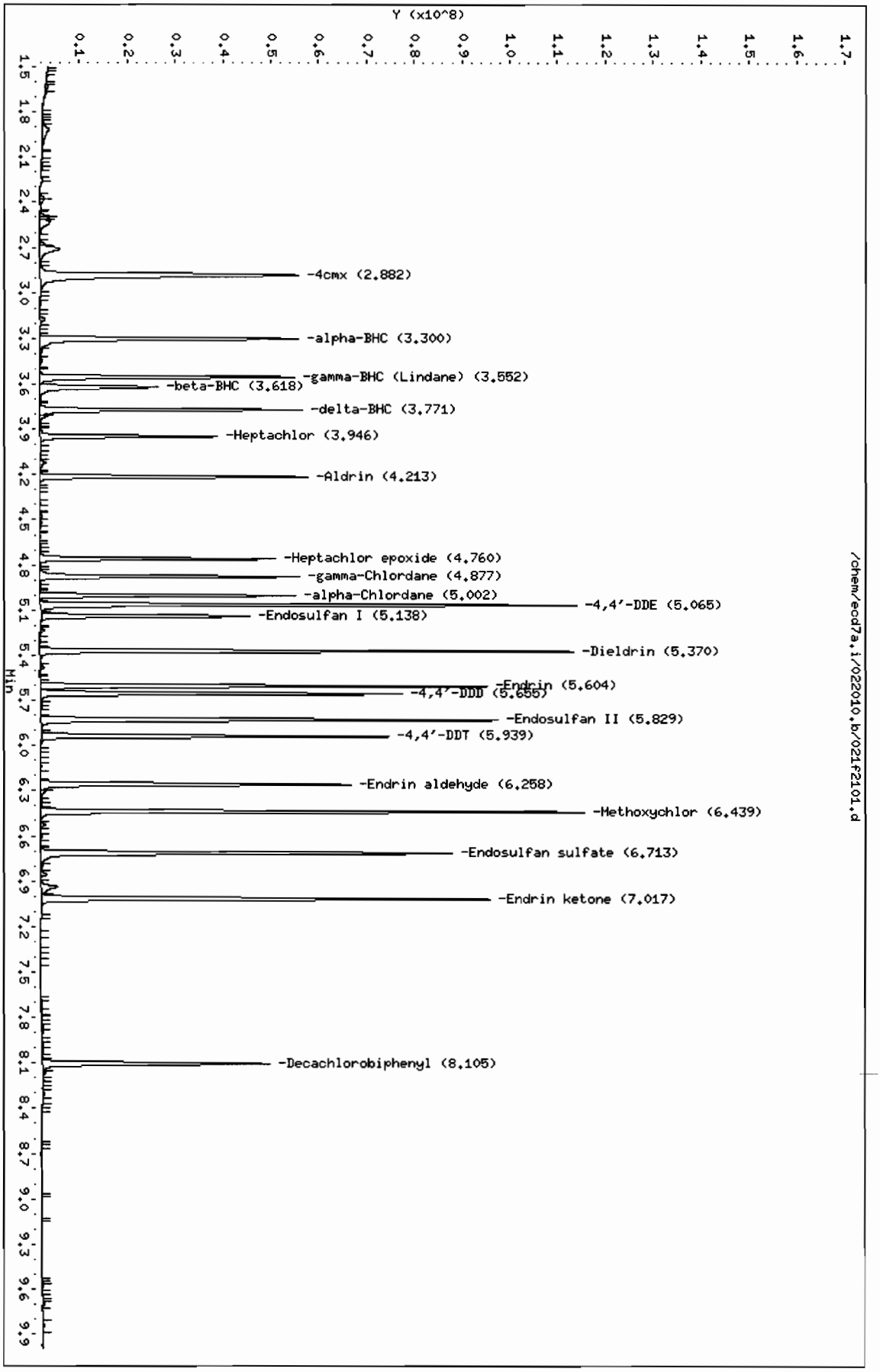

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Data file : /chem/ecd7a.i/022010.b/021b2101.d
Lab Smp Id: 1202047512 Client Smp ID: CAPA-10-12691MSD
Inj Date : 20-FEB-2010 18:11
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202047512|1|
Misc Info : |ECD81A_1L|955055|SVP|MSD|GROUND WATER|MSD|||
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Meth Date : 23-Feb-2010 09:06 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031b3101.d
Als bottle: 21 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1886.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.198	-0.001	75660537	149.609	0.748	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.301	9.302	-0.001	38053025	134.150	0.671	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.723	3.724	-0.001	47343950	86.1534	0.431	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.052	4.053	-0.001	40148801	87.7605	0.439	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.116	4.117	-0.001	19039037	87.4662	0.437	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
13 delta-BHC					CAS #: 319-86-8		
4.406	4.407	-0.001	41906824	89.2036	0.446	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.490	4.490	0.000	26694106	84.1478	0.421	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.820	4.820	0.000	40712520	78.0801	0.390	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.389	5.390	-0.001	33242200	83.9272	0.420	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.586	5.587	-0.001	39026148	88.6322	0.443	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.735	5.737	-0.002	37762064	85.3184	0.426	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.806	5.808	-0.002	33438988	88.2965	0.441	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.886	5.887	-0.001	82143445	201.777	1.01	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.094	6.096	-0.002	72483254	211.156	1.06	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.424	6.426	-0.002	62499031	235.253	1.18	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.505	6.506	-0.001	50233998	210.081	1.05	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.648	6.650	-0.002	73278779	222.953	1.11	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.010	7.011	-0.001	48002748	195.408	0.977	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.852	6.853	-0.001	46694795	222.739	1.11	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.316	7.318	-0.002	67464521	228.205	1.14	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.597	7.598	-0.001	75558180	944.469	4.72	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.926	7.927	-0.001	64689886	210.260	1.05	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022010.b/021b2101.d
Date : 20-FEB-2010 18:11
Client ID: CAPA-10-12691MSD
Sample Info: 1120204751211
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

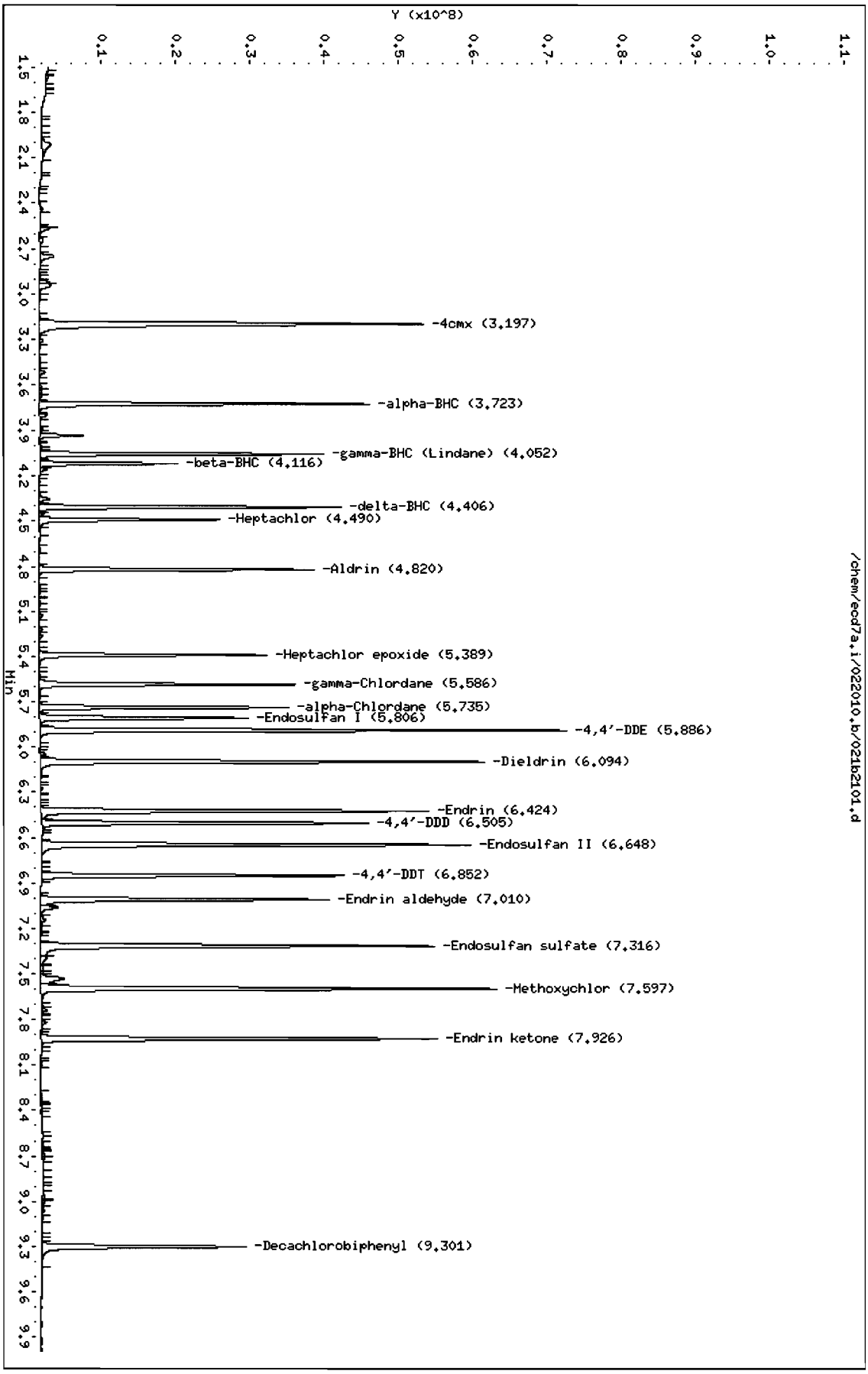

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MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD7

DATE: 02/20/2010 METHOD: ECD7-B-8081-022010.m OPERATOR:HXJ1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT
MERCURY LOT

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-041 Organochlorine Pesticides and Chlorinated Hydrocarbons: EPA 8081
8121
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, BD-Percent Endrin and 4,4'-DDT Breakdown, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd7a.i/022010.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR100104-99IB	HXJ1	20-FEB-2010 12:29		022010	1.0		CLEAN
002b0201.d	WPE100211-99DG	HXJ1	20-FEB-2010 12:47		022010	1.0		(B)DDT 4.5, ENDRIN 4.3 (F)DDT 2.5, ENDRIN 3.9
003b0301.d	WPE100220-01AB	HXJ1	20-FEB-2010 13:04		022010	1.0		INDAB LEVEL 1
004b0401.d	WPE100220-02AB	HXJ1	20-FEB-2010 13:21		022010	1.0		INDAB LEVEL 2
005b0501.d	WPE100220-03AB	HXJ1	20-FEB-2010 13:38		022010	1.0		INDAB LEVEL 3
006b0601.d	WPE100220-04AB	HXJ1	20-FEB-2010 13:55		022010	1.0		INDAB LEVEL 4
007b0701.d	IPE100204-02AB	HXJ1	20-FEB-2010 14:12		022010	1.0		INDAB LEVEL 5
008b0801.d	WPE100211-10AB	HXJ1	20-FEB-2010 14:29		022010	1.0		PASSES BOTH COLUMNS
009b0901.d	WPE100220-11TX	HXJ1	20-FEB-2010 14:46		022010	1.0		TOXAPH LEVEL 1
010b1001.d	WPE100220-12TX	HXJ1	20-FEB-2010 15:03		022010	1.0		TOXAPH LEVEL 2
011b1101.d	WPE100220-13TX	HXJ1	20-FEB-2010 15:20		022010	1.0		TOXAPH LEVEL 3
012b1201.d	WPE100220-14TX	HXJ1	20-FEB-2010 15:37		022010	1.0		TOXAPH LEVEL 4
013b1301.d	IPE100204-40TX	HXJ1	20-FEB-2010 15:55		022010	1.0		TOXAPH LEVEL 5
014b1401.d	WPE100125-52TX	HXJ1	20-FEB-2010 16:12		022010	1.0		PASSES BOTH COLUMNS
015b1501.d	WAR100104-99IB	HXJ1	20-FEB-2010 16:29		022010	1.0		CLEAN

Instrument Batch: /chem/ecd7a.i/022010.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016b1601.d	1202047509	HXJ1	20-FEB-2010 16:46	955055	10-1886	1.0	MB	USE: LOWER
017b1701.d	1202047510	HXJ1	20-FEB-2010 17:03	955055	10-1886	1.0	LCS	USE: LOWER
018b1801.d	1202047513	HXJ1	20-FEB-2010 17:20	955055	10-1886	1.0	TLCS	USE: LOWER
019b1901.d	247261006	HXJ1	20-FEB-2010 17:37	955055	10-1886	1.0	LANL	USE: LOWER
020b2001.d	1202047511	HXJ1	20-FEB-2010 17:54	955055	10-1886	1.0	MS	USE: LOWER
021b2101.d	1202047512	HXJ1	20-FEB-2010 18:11	955055	10-1886	1.0	MSD	USE: LOWER
022b2201.d	WPE100125-52TX	HXJ1	20-FEB-2010 18:28		022010	1.0		PASSES BOTH COLUMNS
023b2301.d	WPE100211-10AB	HXJ1	20-FEB-2010 18:45		022010	1.0		MULTIPLE ANALYTES HIGH ON FRONT, PASSES ON BACK
024b2401.d	WAR100104-99IB	HXJ1	20-FEB-2010 19:02		022010	1.0		CLEAN
025b2501.d	1202047465	HXJ1	20-FEB-2010 19:19	955034	246932	1.0	MB	USE: HIGHER
026b2601.d	1202047466	HXJ1	20-FEB-2010 19:36	955034	246932	1.0	LCS	USE: HIGHER
027b2701.d	1202047469	HXJ1	20-FEB-2010 19:54	955034	246932	1.0	TLCS	USE: HIGHER
028b2801.d	246932003	HXJ1	20-FEB-2010 20:11	955034	246932	10.0	BY12	USE: HIGHER
029b2901.d	1202047467	HXJ1	20-FEB-2010 20:28	955034	246932	10.0	MS	USE: HIGHER
030b3001.d	1202047468	HXJ1	20-FEB-2010 20:45	955034	246932	10.0	MSD	USE: HIGHER
031b3101.d	246932010	HXJ1	20-FEB-2010 21:02	955034	246932	10.0	BY12	USE: HIGHER
032b3201.d	246932016	HXJ1	20-FEB-2010 21:19	955034	246932	10.0	BY12	USE: HIGHER
033b3301.d	246932017	HXJ1	20-FEB-2010 21:36	955034	246932	10.0	BY12	USE: HIGHER
034b3401.d	246932022	HXJ1	20-FEB-2010 21:53	955034	246932	10.0	BY12	USE: HIGHER
035b3501.d	WAR100104-99IB	HXJ1	20-FEB-2010 22:10		022010	1.0		CLEAN

Instrument Batch: /chem/ecd7a.i/022010.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	WPE100125-52TX	HXJ1	20-FEB-2010 22:27		022010	1.0		PASSES AVERAGE ON FRONT, PASSES ON BACK
037b3701.d	WPE100211-10AB	HXJ1	20-FEB-2010 22:44		022010	1.0		MULTIPLE ANALYTES HIGH ON FRONT, PASSES ON BACK
038b3801.d	WAR100104-99IB	HXJ1	20-FEB-2010 23:01		022010	1.0		CLEAN
039b3901.d	247061001	HXJ1	20-FEB-2010 23:18	955034	247061	10.0	BY12	USE: HIGHER
040b4001.d	247061004	HXJ1	20-FEB-2010 23:35	955034	247061	10.0	BY12	USE: HIGHER

041b4101.d	247061005	HXJ1	20-FEB-2010 23:52	955034	247061	10.0	BY12	USE: HIGHER
042b4201.d	WAR100104-99IB	HXJ1	21-FEB-2010 00:09		022010	1.0		CLEAN
043b4301.d	WPE100125-52TX	HXJ1	21-FEB-2010 00:26		022010	1.0		PASSES AVERAGE ON FRONT, PASSES ON BACK
044b4401.d	WPE100211-10AB	HXJ1	21-FEB-2010 00:43		022010	1.0		MULTIPLE ANALYTES HIGH ON FRONT, PASSES ON BACK
045b4501.d	WAR100104-99IB	HXJ1	21-FEB-2010 01:00		022010	1.0		CLEAN

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CLP-2

Data file : /chem/ecd7a.i/022010.b/001b0101.d
Lab Smp Id: WAR100104-99IB Client Smp ID: PIBLK01
Inj Date : 20-FEB-2010 12:29
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WAR100104-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Meth Date : 23-Feb-2010 09:06 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031b3101.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.198	-0.001	103565931	204.789	205	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.300	9.302	-0.002	54858632	193.395	193	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/022010.b/001b0101.d

Date : 20-FEB-2010 12:29

Client ID: PIBLK01

Sample Info: IWAR100104-99IB

Column phase: CLP-2

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

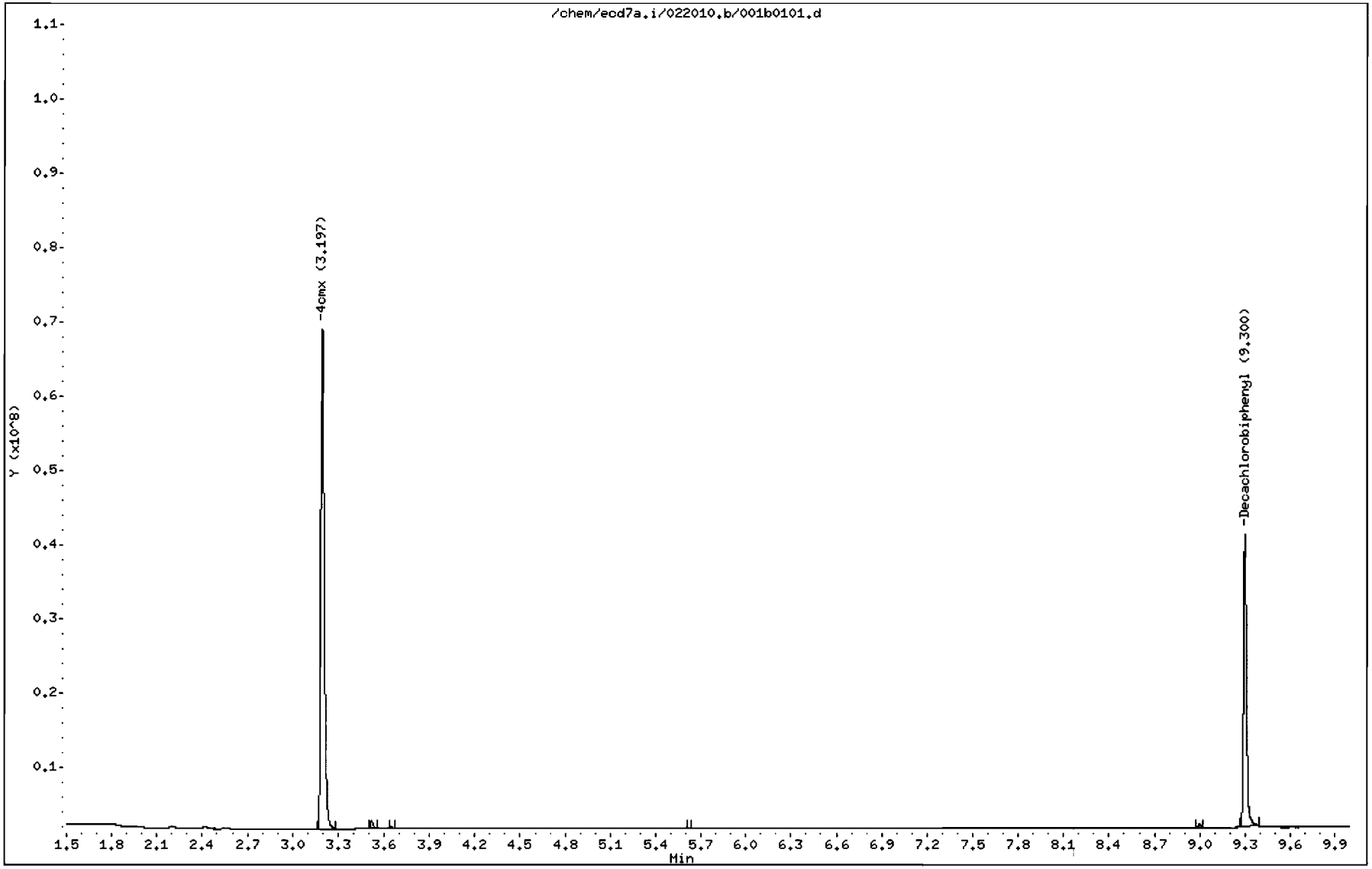

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022010.b/001f0101.d
Lab Smp Id: WAR100104-99IB Client Smp ID: PIBLK01
Inj Date : 20-FEB-2010 12:29
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WAR100104-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Meth Date : 23-Feb-2010 09:05 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031f3101.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.879	2.883	-0.004	133560689	212.423	212	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.103	8.106	-0.003	85936758	211.569	212	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/022010.b/001f0101.d

Page 1

Date : 20-FEB-2010 12:29

Client ID: PIBLK01

Instrument: ecd7a.i

Sample Info: IWAR100104-99IB

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

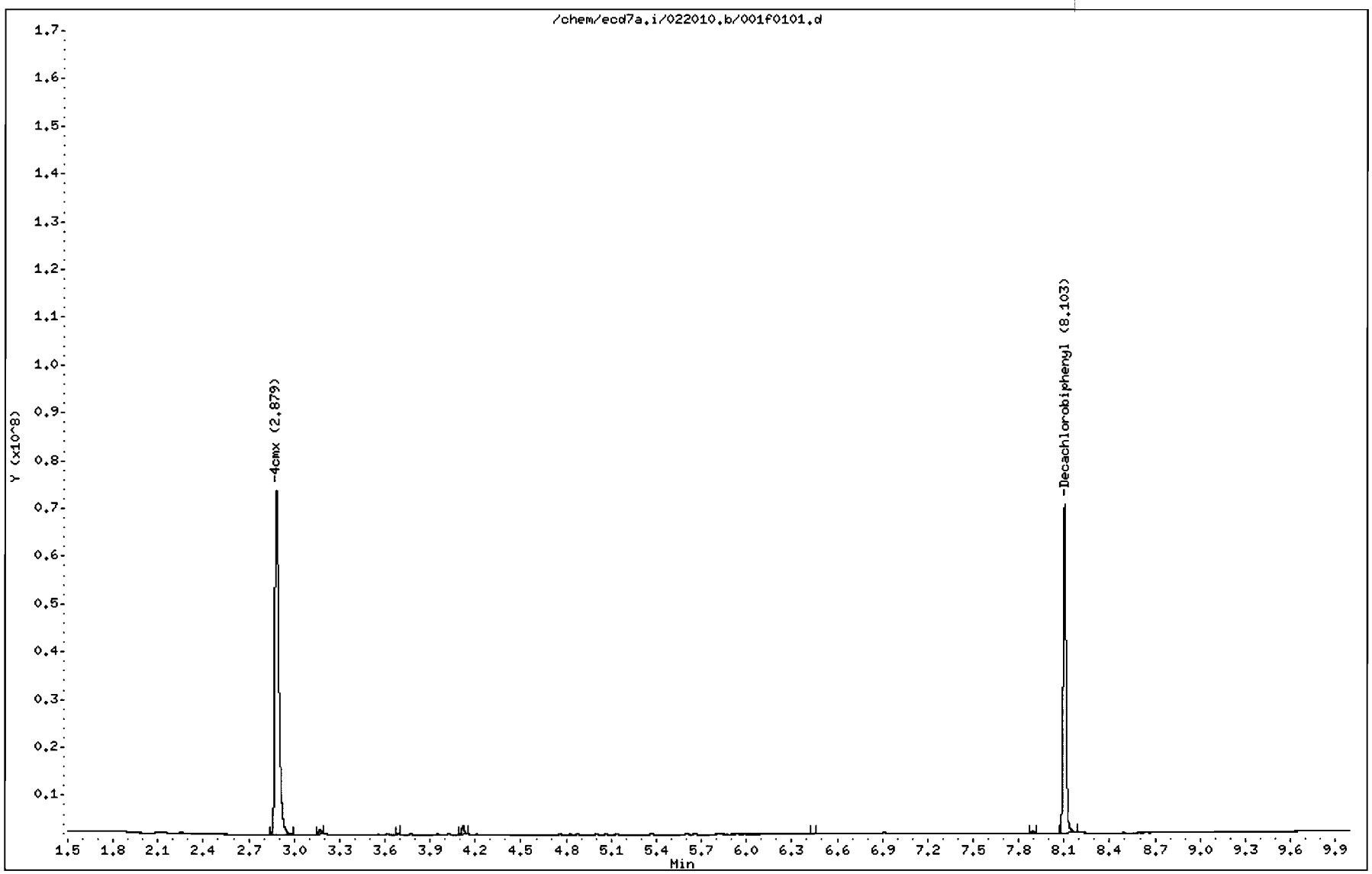

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022010.b/015b1501.d
Lab Smp Id: WAR100104-99IB Client Smp ID: PIBLK02
Inj Date : 20-FEB-2010 16:29
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WAR100104-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-B-8081-022010.m
Meth Date : 23-Feb-2010 09:06 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031b3101.d
Als bottle: 15 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.198	-0.001	105531906	208.676	209	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.301	9.302	-0.001	56604032	199.548	200	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/022010.b/015b1501.d

Date : 20-FEB-2010 16:29

Client ID: PIBLK02

Sample Info: IWAR100104-99IB

Column phase: CLP-2

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

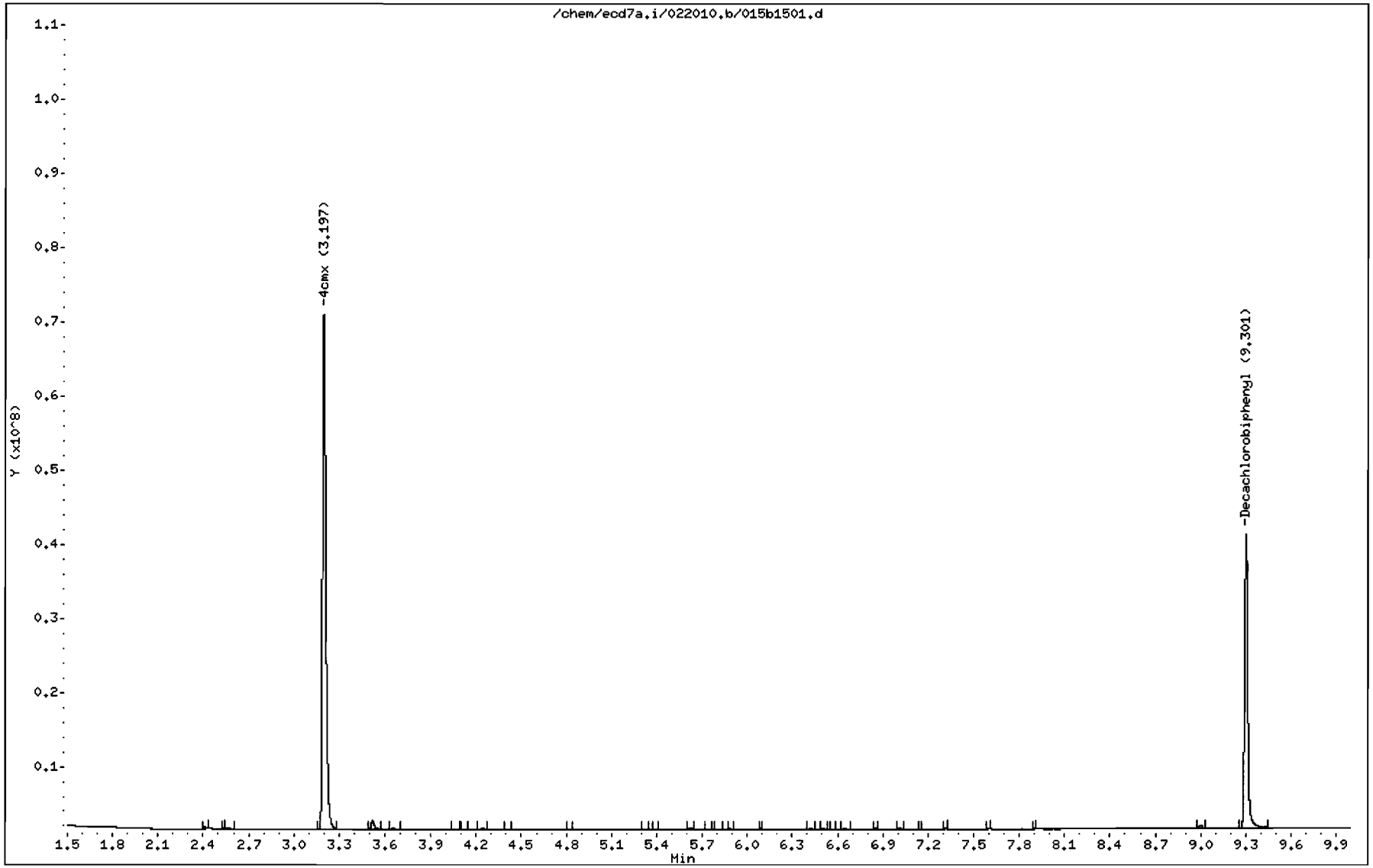

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022010.b/015f1501.d
Lab Smp Id: WAR100104-99IB Client Smp ID: PIBLK02
Inj Date : 20-FEB-2010 16:29
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WAR100104-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022010.b/ECD7-F-8081-022010.m
Meth Date : 23-Feb-2010 09:05 jc Quant Type: ESTD
Cal Date : 17-FEB-2010 08:44 Cal File: 031f3101.d
Als bottle: 15 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.883	2.883	0.000	137204973	218.219	218	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.105	8.106	-0.001	82543599	203.216	203	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/022010.b/015f1501.d

Date : 20-FEB-2010 16:29

Client ID: PIBLK02

Sample Info: IWAR100104-99IB

Column phase: CLP-1

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

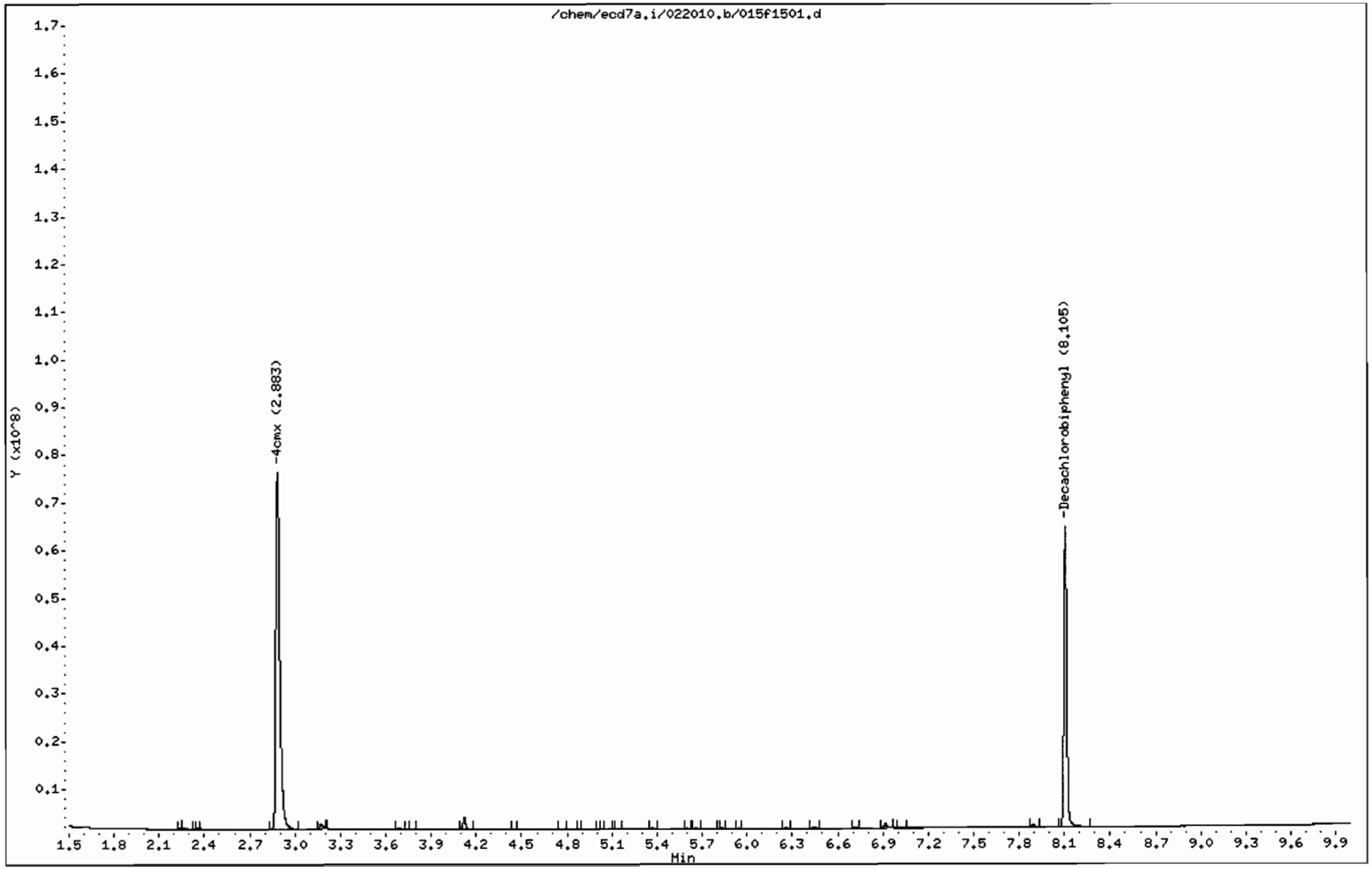

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 955054 **Verified by:** _____

Analyst: Rodricous Corbett

Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202047509 MB	19-FEB-2010 14:35:00	1000	5	5	Florisil	5	1	10	5	0.005
1202047510 LCS	19-FEB-2010 14:35:00	1000	5	5	Florisil	5	1	10	5	0.005
1202047513 LCS	19-FEB-2010 14:35:00	1000	5	5	Florisil	5	1	10	5	0.005
247261006	19-FEB-2010 14:35:00	880	5	5	Florisil	5	1	10	5	0.00568
1202047511 MS (247261006)	19-FEB-2010 14:35:00	500	5	5	Florisil	2.5	1	10	2.5	0.005
1202047512 MSD (247261006)	19-FEB-2010 14:35:00	500	5	5	Florisil	2.5	1	10	2.5	0.005

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202047510	PESTSPIKE	UE100204-04	1	mL
LCS	1202047513	Toxaphene TCLP LCS	WE100206-11	2	mL
MS	1202047511	PESTSPIKE	UE100204-04	.5	mL
MSD	1202047512	PESTSPIKE	UE100204-04	.5	mL
SURR	All	PEST SURROGATE 1000 UG/L	UE091217-07	.5	mL
SURR	All	PEST SURROGATE 1000 UG/L	UE091217-07	1	mL
REGNT	All	Hexane	1256896-B2	5	mL
REGNT	All	Florisil cartridge 1000mg per cartridge	1269340-28	1	g
REGNT	All	Methylene Chloride	1270181-D	180	mL
SOURC	All	SODIUM SULFATE	1269268	30	g

Comments:

247261006 and its MS/MSD were emulsive during the extraction. No additional CH2Cl2 was needed to break the emulsion.

Clean up Date: 2-19-10

Clean up Initials: RLC

Verified By: SCC

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-036

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1886

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3510C
Analytical Batch Number:	955010
Prep Batch Number:	955009

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
247261001	CAPA-10-12691
1202047426	Method Blank (MB)
1202047427	Laboratory Control Sample (LCS)
1202047428	247261001(CAPA-10-12691) Matrix Spike (MS)
1202047429	247261001(CAPA-10-12691) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

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

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
The calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

One of the standards bracketing the samples in this SDG failed to meet the acceptance criteria with positive bias. The positive bias for the analytical data is a result of the instrument response increasing after the initial calibration. There were no Aroclors detected in the associated samples; therefore, the non-compliance has no adverse effects on the data.

Quality Control (QC) Information

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

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 247261001 (CAPA-10-12691) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

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

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

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

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD8A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide I)
ECD8A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

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

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: Jimi Cao Date: 3/18/10

Roadmap for LANL 10-1886 PCB

This roadmap was analyzed by jen01212 on 02-24-2010, 11:53.
This roadmap was reviewed by jcb on 02-24-2010, 18:45.
This roadmap was packaged by yml on 03-18-2010, 12:31.
This roadmap was validated by jim01140 on 03-18-2010, 13:58.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/022210.b/066f6601.d	247261001	sample	22-FEB-2010	23:29	10-1886.sub	CAPA-10-12691	1.00000	955010	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/022210.b/066b6601.d	247261001	sample	22-FEB-2010	23:29	10-1886.sub	CAPA-10-12691	1.00000	955010	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/022210.b/064f6401.d	1202047426	mb	22-FEB-2010	23:04	10-1886.sub	PBLK01	1.00000	955010	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/022210.b/065f6501.d	1202047427	lcs	22-FEB-2010	23:17	10-1886.sub	PBLK01LCS	1.00000	955010	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/022210.b/067f6701.d	1202047428	ms	22-FEB-2010	23:41	10-1886.sub	CAPA-10-12691MS	1.00000	955010	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/022210.b/068f6801.d	1202047429	msd	22-FEB-2010	23:54	10-1886.sub	CAPA-10-12691MSD	1.00000	955010	UPLOAD BOTH, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd8a.i/022210.b/064b6401.d	1202047426	mb	22-FEB-2010	23:04	10-1886.sub	PBLK01	1.00000	955010	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/022210.b/065b6501.d	1202047427	lcs	22-FEB-2010	23:17	10-1886.sub	PBLK01LCS	1.00000	955010	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/022210.b/067b6701.d	1202047428	ms	22-FEB-2010	23:41	10-1886.sub	CAPA-10-12691MS	1.00000	955010	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd8a.i/022210.b/068b6801.d	1202047429	msd	22-FEB-2010	23:54	10-1886.sub	CAPA-10-12691MSD	1.00000	955010	UPLOAD BOTH, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261001**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12691**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**955010**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/22/2010 23:29**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/19/2010 14:14**	**Aliquot:**	**840 mL**	**Final Volume:**	**1 mL**
Data File:	**066f6601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	066b6601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.119	ug/L	0.0396	0.119	1
11104-28-2	Aroclor-1221	U	0.119	ug/L	0.0396	0.119	1
11141-16-5	Aroclor-1232	U	0.119	ug/L	0.0396	0.119	1
53469-21-9	Aroclor-1242	U	0.119	ug/L	0.0396	0.119	1
12672-29-6	Aroclor-1248	U	0.119	ug/L	0.0396	0.119	1
11097-69-1	Aroclor-1254	U	0.119	ug/L	0.0396	0.119	1
11096-82-5	Aroclor-1260	U	0.119	ug/L	0.0396	0.119	1
37324-23-5	Aroclor-1262	U	0.119	ug/L	0.0396	0.119	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.158	0.238	ug/L	66.5	(30%-105%)
Decachlorobiphenyl	0.135	0.238	ug/L	56.8	(30%-126%)

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10-1886

Matrix Type: LIQUID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202047426	MB for batch 955009	63	68	71	77
1202047427	LCS for batch 955009	67	67	69	76
247261001	CAPA-10-12691	60	67	51	57
1202047428	CAPA-10-12691MS	49	54	48	50
1202047429	CAPA-10-12691MSD	39	43	36	41

Surrogate	Acceptance Limits
4CMX = 4cmx	(30%-105%)
DCB = Decachlorobiphenyl	(30%-126%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: **10–1886**
Client ID: **LCS for batch 955009**
Lab Sample ID: **1202047427**
Instrument: **ECD8A.I**
Analyst: **JAOC**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **GROUND WATER**
Analysis Date: **02/22/2010 23:17**
Prep Batch ID: **955009**
Batch ID: **955010**
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
12674–11–2	LCS	Aroclor–1016	1.00	0.0	0.810	81	40–110
11096–82–5	LCS	Aroclor–1260	1.00	0.0	0.880	88	48–110

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1886
Client ID: CAPA-10-12691MS
Lab Sample ID: 1202047428
Instrument: ECD8A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 02/22/2010 23:41
Prep Batch ID: 955009
Batch ID: 955010
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	1.00	0.00	U	0.600	60	25-116
11096-82-5	MS	Aroclor-1260	1.00	0.00	U	0.590	59	34-116

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: **10-1886**
Client ID: **CAPA-10-12691MSD**
Lab Sample ID: **1202047429**
Instrument: **ECD8A.I**
Analyst: **JAOC**
Inj. Vol: **1 uL**

Sample Type: **Matrix Spike Duplicate**
Matrix: **GROUND WATER**
Analysis Date: **02/22/2010 23:54**
Dilution: **1**
Prep Batch ID: **955009**
Batch ID: **955010**

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	1.00	0.00	U	0.480	48	25-116	22	0-31
11096-82-5	MSD Aroclor-1260	1.00	0.00	U	0.510	51	34-116	15	0-29

Method Blank Summary

SDG Number:	10–1886	Client:	LANL010	Matrix:	GROUND WATER
Client ID:	MB for batch 955009	Instrument ID:	ECD8A.I_2 ECD8A.I_1	Data File:	064b6401.d 064f6401.d
Lab Sample ID:	1202047426				
Column:	CLP2 CLP1	Prep Date:	02/19/2010 14:14	Analyzed:	02/22/10 23:04
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 955009	1202047427	065f6501.d 065b6501.d	02/22/10	2317
02 CAPA–10–12691	247261001	066f6601.d 066b6601.d	02/22/10	2329
03 CAPA–10–12691MS	1202047428	067f6701.d 067b6701.d	02/22/10	2341
04 CAPA–10–12691MSD	1202047429	068f6801.d 068b6801.d	02/22/10	2354

SAMPLE
DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247261001**	**Date Received:**	**02/17/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12691**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**955010**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/22/2010 23:29**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/19/2010 14:14**	**Aliquot:**	**840 mL**	**Final Volume:**	**1 mL**
Data File:	**066f6601.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	066b6601.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.119	ug/L	0.0396	0.119	1
11104-28-2	Aroclor-1221	U	0.119	ug/L	0.0396	0.119	1
11141-16-5	Aroclor-1232	U	0.119	ug/L	0.0396	0.119	1
53469-21-9	Aroclor-1242	U	0.119	ug/L	0.0396	0.119	1
12672-29-6	Aroclor-1248	U	0.119	ug/L	0.0396	0.119	1
11097-69-1	Aroclor-1254	U	0.119	ug/L	0.0396	0.119	1
11096-82-5	Aroclor-1260	U	0.119	ug/L	0.0396	0.119	1
37324-23-5	Aroclor-1262	U	0.119	ug/L	0.0396	0.119	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.158	0.238	ug/L	66.5	(30%-105%)
Decachlorobiphenyl	0.135	0.238	ug/L	56.8	(30%-126%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/066f6601.d
Lab Smp Id: 247261001 Client Smp ID: CAPA-10-12691
Inj Date : 22-FEB-2010 23:29
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |247261001|1|
Misc Info : |ECD82P_1L|955010|SVA|LANL|GROUND WATER|CAPA-10-12691||
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-F-8082-020310a.m
Meth Date : 23-Feb-2010 09:36 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 66
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1886.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)
Vo	840.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.253	2.252	0.001	15874601	120.806	0.14	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.243	6.244	-0.001	10206625	102.085	0.12	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/022210.b/066f6601.d

Page 1

Date : 22-FEB-2010 23:29

Client ID: CAPA-10-12691

Instrument: ecd8a.i

Sample Info: |247261001|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

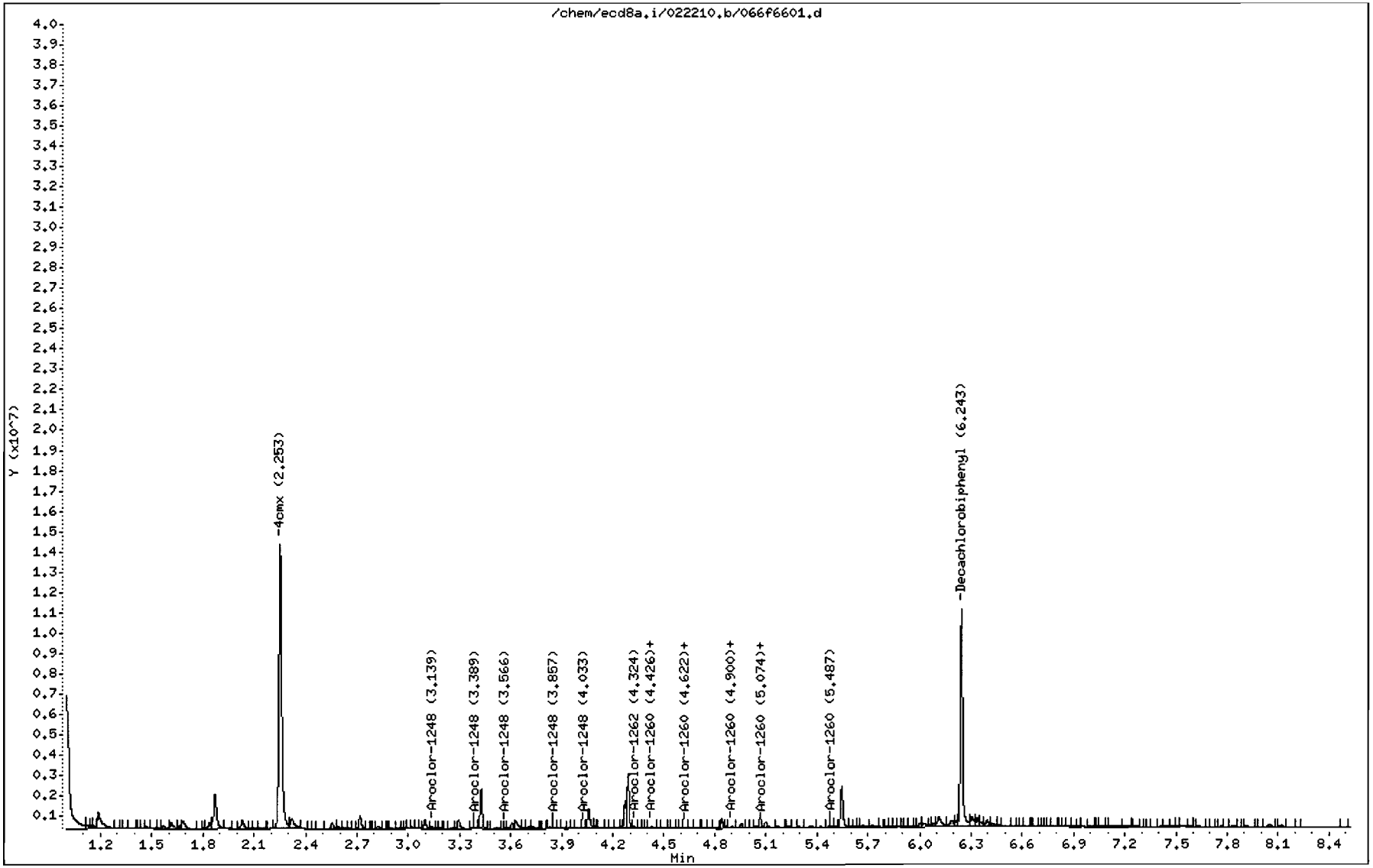

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/066b6601.d
Lab Smp Id: 247261001 Client Smp ID: CAPA-10-12691
Inj Date : 22-FEB-2010 23:29
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |247261001|1|
Misc Info : |ECD82P_1L|955010|SVA|LANL|GROUND WATER|CAPA-10-12691||
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-B-8082-020310a.m
Meth Date : 23-Feb-2010 09:39 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 66
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1886.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)
Vo	840.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.483	2.484	-0.001	11558231	133.093	0.16	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.832	6.832	0.000	7369546	113.651	0.14	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/022210.b/066b6601.d

Date : 22-FEB-2010 23:29

Client ID: CAPA-10-12691

Sample Info: |247261001|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

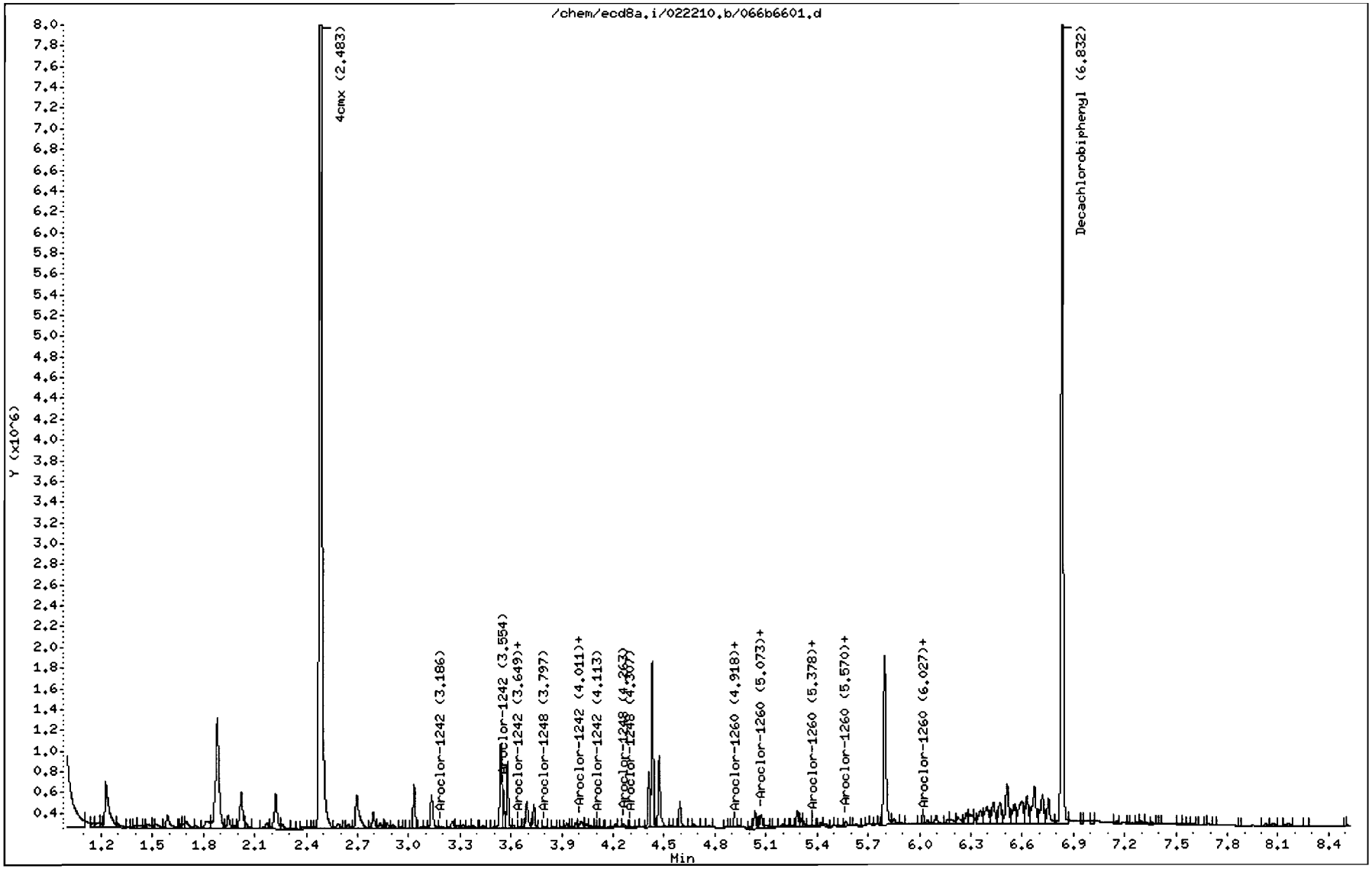

STANDARDS DATA

Report Date: 23-Feb-2010 15:15

Calibration History

Method : /chem/ecd8a.i/022210.b/ECD8-F-8082-020310a.m
Start Cal Date: 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028f2801.d
03-FEB-2010 14:07	AR1248	/chem/ecd8a.i/020310a.b/020f2001.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014f1401.d
03-FEB-2010 11:39	AR1254	/chem/ecd8a.i/020310a.b/008f0801.d
03-FEB-2010 10:24	AR1660	/chem/ecd8a.i/020310a.b/002f0201.d
Cal Level: 2 , Cal Amount: 250.00000		
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029f2901.d
03-FEB-2010 14:19	AR1248	/chem/ecd8a.i/020310a.b/021f2101.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015f1501.d
03-FEB-2010 11:51	AR1254	/chem/ecd8a.i/020310a.b/009f0901.d
03-FEB-2010 10:37	AR1660	/chem/ecd8a.i/020310a.b/003f0301.d
Cal Level: 3 , Cal Amount: 500.00000		
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030f3001.d
03-FEB-2010 14:32	AR1248	/chem/ecd8a.i/020310a.b/022f2201.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016f1601.d
03-FEB-2010 12:03	AR1254	/chem/ecd8a.i/020310a.b/010f1001.d
03-FEB-2010 10:49	AR1660	/chem/ecd8a.i/020310a.b/004f0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036f3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034f3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031f3101.d
03-FEB-2010 15:34	AR1221	/chem/ecd8a.i/020310a.b/027f2701.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026f2601.d
03-FEB-2010 14:44	AR1248	/chem/ecd8a.i/020310a.b/023f2301.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017f1701.d
03-FEB-2010 12:16	AR1254	/chem/ecd8a.i/020310a.b/011f1101.d
03-FEB-2010 11:01	AR1660	/chem/ecd8a.i/020310a.b/005f0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032f3201.d
03-FEB-2010 14:57	AR1248	/chem/ecd8a.i/020310a.b/024f2401.d
03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018f1801.d
03-FEB-2010 12:28	AR1254	/chem/ecd8a.i/020310a.b/012f1201.d
03-FEB-2010 11:14	AR1660	/chem/ecd8a.i/020310a.b/006f0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
23-FEB-2010 00:06	AR1660	/chem/ecd8a.i/022210.b/069f6901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 22:39	AR1660	/chem/ecd8a.i/022210.b/062f6201.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 20:03	AR1660	/chem/ecd8a.i/022210.b/052f5201.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 17:01	AR1660	/chem/ecd8a.i/022210.b/040f4001.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 13:56	AR1660	/chem/ecd8a.i/022210.b/028f2801.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 12:25	AR1660	/chem/ecd8a.i/022210.b/021f2101.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 09:52	AR1268	/chem/ecd8a.i/022210.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 09:40	AR1262	/chem/ecd8a.i/022210.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 09:27	AR1221	/chem/ecd8a.i/022210.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 09:15	AR1232	/chem/ecd8a.i/022210.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 09:02	AR1248	/chem/ecd8a.i/022210.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 08:50	AR1242	/chem/ecd8a.i/022210.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 08:37	AR1254	/chem/ecd8a.i/022210.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 08:25	AR1660	/chem/ecd8a.i/022210.b/002f0201.d

Report Date: 23-Feb-2010 15:14

Calibration History

Method : /chem/ecd8a.i/022210.b/ECD8-B-8082-020310a.m
Start Cal Date: 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
03-FEB-2010 15:46	AR1262	/chem/ecd8a.i/020310a.b/028b2801.d
03-FEB-2010 14:07	AR1248	/chem/ecd8a.i/020310a.b/020b2001.d
03-FEB-2010 12:53	AR1242	/chem/ecd8a.i/020310a.b/014b1401.d
03-FEB-2010 11:39	AR1254	/chem/ecd8a.i/020310a.b/008b0801.d
03-FEB-2010 10:24	AR1660	/chem/ecd8a.i/020310a.b/002b0201.d
Cal Level: 2 , Cal Amount: 250.00000		
03-FEB-2010 15:58	AR1262	/chem/ecd8a.i/020310a.b/029b2901.d
03-FEB-2010 14:19	AR1248	/chem/ecd8a.i/020310a.b/021b2101.d
03-FEB-2010 13:05	AR1242	/chem/ecd8a.i/020310a.b/015b1501.d
03-FEB-2010 11:51	AR1254	/chem/ecd8a.i/020310a.b/009b0901.d
03-FEB-2010 10:37	AR1660	/chem/ecd8a.i/020310a.b/003b0301.d
Cal Level: 3 , Cal Amount: 500.00000		
03-FEB-2010 16:11	AR1262	/chem/ecd8a.i/020310a.b/030b3001.d
03-FEB-2010 14:32	AR1248	/chem/ecd8a.i/020310a.b/022b2201.d
03-FEB-2010 13:18	AR1242	/chem/ecd8a.i/020310a.b/016b1601.d
03-FEB-2010 12:03	AR1254	/chem/ecd8a.i/020310a.b/010b1001.d
03-FEB-2010 10:49	AR1660	/chem/ecd8a.i/020310a.b/004b0401.d
Cal Level: 4 , Cal Amount: 1000.00000		
03-FEB-2010 17:25	DDT	/chem/ecd8a.i/020310a.b/036b3601.d
03-FEB-2010 17:00	AR1268	/chem/ecd8a.i/020310a.b/034b3401.d
03-FEB-2010 16:23	AR1262	/chem/ecd8a.i/020310a.b/031b3101.d
03-FEB-2010 15:34	AR1221	/chem/ecd8a.i/020310a.b/027b2701.d
03-FEB-2010 15:21	AR1232	/chem/ecd8a.i/020310a.b/026b2601.d
03-FEB-2010 14:44	AR1248	/chem/ecd8a.i/020310a.b/023b2301.d
03-FEB-2010 13:30	AR1242	/chem/ecd8a.i/020310a.b/017b1701.d
03-FEB-2010 12:16	AR1254	/chem/ecd8a.i/020310a.b/011b1101.d
03-FEB-2010 11:01	AR1660	/chem/ecd8a.i/020310a.b/005b0501.d
Cal Level: 5 , Cal Amount: 4000.00000		
03-FEB-2010 16:36	AR1262	/chem/ecd8a.i/020310a.b/032b3201.d
03-FEB-2010 14:57	AR1248	/chem/ecd8a.i/020310a.b/024b2401.d
03-FEB-2010 13:42	AR1242	/chem/ecd8a.i/020310a.b/018b1801.d
03-FEB-2010 12:28	AR1254	/chem/ecd8a.i/020310a.b/012b1201.d
03-FEB-2010 11:14	AR1660	/chem/ecd8a.i/020310a.b/006b0601.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

| Ccal Level: 4 , Ccal Amount: 1000 |

23-FEB-2010 00:06	AR1660	/chem/ecd8a.i/022210.b/069b6901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 22:39	AR1660	/chem/ecd8a.i/022210.b/062b6201.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 20:03	AR1660	/chem/ecd8a.i/022210.b/052b5201.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 17:01	AR1660	/chem/ecd8a.i/022210.b/040b4001.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 13:56	AR1660	/chem/ecd8a.i/022210.b/028b2801.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 12:25	AR1660	/chem/ecd8a.i/022210.b/021b2101.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 09:52	AR1268	/chem/ecd8a.i/022210.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 09:40	AR1262	/chem/ecd8a.i/022210.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 09:27	AR1221	/chem/ecd8a.i/022210.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 09:15	AR1232	/chem/ecd8a.i/022210.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 09:02	AR1248	/chem/ecd8a.i/022210.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 08:50	AR1242	/chem/ecd8a.i/022210.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 08:37	AR1254	/chem/ecd8a.i/022210.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 08:25	AR1660	/chem/ecd8a.i/022210.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/022210.b/ECD8-F-8082-020310a.m
Quant Method : ESTD Target Version : 3.50
Last Update : 23-Feb-2010 09:36 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	758.000000
Initial:End Threshold	379.000000
Initial:Area Threshold	734.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.500000
6.500:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.810	2.780-2.840	4.665e+03
	3.162	3.132-3.192	5.770e+03
	3.305	3.275-3.335	2.454e+03
	3.397	3.367-3.427	2.198e+03
	3.560	3.530-3.590	3.142e+03
2 Aroclor-1221	1.854	1.824-1.884	1.100e+03
	2.393	2.363-2.423	1.460e+03
	2.539	2.509-2.569	3.385e+03
3 Aroclor-1232	2.540	2.510-2.570	2.601e+03
	2.812	2.782-2.842	2.261e+03
	3.307	3.277-3.337	1.243e+03
	3.561	3.531-3.591	1.479e+03
	3.623	3.593-3.653	9.227e+02
4 Aroclor-1242	2.811	2.781-2.841	3.974e+03
	3.162	3.132-3.192	4.796e+03
	3.398	3.368-3.428	1.805e+03
	3.415	3.385-3.445	1.889e+03
	3.560	3.530-3.590	2.645e+03
5 Aroclor-1248	3.146	3.116-3.176	2.990e+03
	3.397	3.367-3.427	3.823e+03
	3.560	3.530-3.590	5.000e+03
	3.866	3.836-3.896	5.990e+03
	4.025	3.995-4.055	4.826e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/022210.b/ECD8-F-8082-020310a.m

Compound	RT	RT Window	RF
6 Aroclor-1254	3.835	3.805-3.865	4.785e+03
	4.022	3.992-4.052	6.569e+03
	4.218	4.188-4.248	5.138e+03
	4.304	4.274-4.334	8.797e+03
	4.500	4.470-4.530	6.914e+03
7 Aroclor-1260	4.434	4.404-4.464	6.739e+03
	4.629	4.599-4.659	1.026e+04
	4.905	4.875-4.935	6.130e+03
	5.076	5.046-5.106	6.386e+03
	5.488	5.458-5.518	6.860e+03
8 Aroclor-1262	4.336	4.306-4.366	3.367e+03
	4.434	4.404-4.464	5.243e+03
	4.629	4.599-4.659	7.103e+03
	4.905	4.875-4.935	8.580e+03
	5.077	5.047-5.107	7.966e+03
9 Aroclor-1268	5.513	5.483-5.543	1.632e+04
	5.539	5.509-5.569	1.572e+04
	5.672	5.642-5.702	1.207e+04
	5.918	5.888-5.948	6.023e+03
	6.114	6.084-6.144	3.601e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.252	2.222-2.282	1.314e+05
$ 12 Decachlorobiphenyl	6.244	6.214-6.274	9.998e+04
13 4,4'-DDT	4.852	4.832-4.872	2.393e+04
14 4,4'-DDD	4.658	4.638-4.678	1.570e+05
15 4,4'-DDE	4.234	4.214-4.254	1.340e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/022210.b/ECD8-B-8082-020310a.m
Quant Method : ESTD Target Version : 3.50
Last Update : 23-Feb-2010 09:39 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	733.000000
Initial:End Threshold	366.500000
Initial:Area Threshold	522.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	2.000000
9.000:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.556	3.526-3.586	3.766e+03
	3.655	3.625-3.685	2.494e+03
	3.731	3.701-3.761	1.515e+03
	3.806	3.776-3.836	1.493e+03
	4.003	3.973-4.033	2.036e+03
2 Aroclor-1221	2.724	2.694-2.754	8.949e+02
	2.837	2.807-2.867	5.569e+02
	2.885	2.855-2.915	2.060e+03
3 Aroclor-1232	3.204	3.174-3.234	1.515e+03
	3.558	3.528-3.588	1.744e+03
	3.657	3.627-3.687	1.176e+03
	3.733	3.703-3.763	7.101e+02
	3.808	3.778-3.838	6.182e+02
4 Aroclor-1242	3.203	3.173-3.233	2.677e+03
	3.556	3.526-3.586	3.126e+03
	3.656	3.626-3.686	2.127e+03
	4.003	3.973-4.033	1.703e+03
	4.093	4.063-4.123	1.567e+03
5 Aroclor-1248	3.655	3.625-3.685	1.427e+03
	3.806	3.776-3.836	2.467e+03
	4.003	3.973-4.033	3.089e+03
	4.281	4.251-4.311	3.647e+03
	4.313	4.283-4.343	4.004e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd8a.i/022210.b/ECD8-B-8082-020310a.m

Compound	RT	RT Window	RF
6 Aroclor-1254	4.310	4.280-4.340	3.450e+03
	4.448	4.418-4.478	3.910e+03
	4.777	4.747-4.807	5.500e+03
	4.939	4.909-4.969	4.011e+03
	5.064	5.034-5.094	2.549e+03
7 Aroclor-1260	4.915	4.885-4.945	4.084e+03
	5.065	5.035-5.095	4.969e+03
	5.381	5.351-5.411	3.788e+03
	5.588	5.558-5.618	3.953e+03
	6.020	5.990-6.050	6.227e+03
8 Aroclor-1262	4.917	4.887-4.947	3.276e+03
	5.065	5.035-5.095	3.827e+03
	5.382	5.352-5.412	5.446e+03
	5.588	5.558-5.618	5.047e+03
	6.018	5.988-6.048	7.196e+03
9 Aroclor-1268	6.015	5.985-6.045	1.138e+04
	6.048	6.018-6.078	1.041e+04
	6.226	6.196-6.256	8.192e+03
	6.423	6.393-6.453	4.057e+03
	6.652	6.622-6.682	2.464e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.484	2.454-2.514	8.684e+04
$ 12 Decachlorobiphenyl	6.832	6.802-6.862	6.484e+04
13 4,4'-DDT	5.323	5.303-5.343	1.460e+04
14 4,4'-DDD	5.102	5.082-5.122	1.001e+05
15 4,4'-DDE	4.691	4.671-4.711	8.898e+04

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/022210.b/ECD8-F-8082-020310a.m
Cal Date : 23-Feb-2010 09:36 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/020310a.b/028f2801.d
Level 2: /chem/ecd8a.i/020310a.b/029f2901.d
Level 3: /chem/ecd8a.i/020310a.b/030f3001.d
Level 4: /chem/ecd8a.i/020310a.b/036f3601.d
Level 5: /chem/ecd8a.i/020310a.b/032f3201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	5614	5138	4704	4321	3545	4665	16.943
(2)	6383	6264	5935	5475	4791	5770	11.275
(3)	2817	2639	2454	2319	2042	2454	12.124
(4)	2629	2406	2216	2019	1720	2198	15.914
(5)	3708	3411	3117	2938	2537	3142	14.248
2 Aroclor-1221(1)	+++++	+++++	+++++	1100	+++++	1100	0.000
(2)	+++++	+++++	+++++	1460	+++++	1460	0.000
(3)	+++++	+++++	+++++	3385	+++++	3385	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	2601	+++++	2601	0.000
(2)	+++++	+++++	+++++	2261	+++++	2261	0.000
(3)	+++++	+++++	+++++	1243	+++++	1243	0.000
(4)	+++++	+++++	+++++	1479	+++++	1479	0.000
(5)	+++++	+++++	+++++	923	+++++	923	0.000
4 Aroclor-1242(1)	4726	4372	4070	3706	2998	3974	16.680
(2)	5172	5152	4949	4680	4027	4796	9.873
(3)	2139	1968	1820	1683	1417	1805	15.251
(4)	2229	2050	1908	1759	1500	1889	14.735
(5)	3065	2855	2678	2500	2127	2645	13.507
5 Aroclor-1248(1)	3599	3150	2999	2805	2397	2990	14.793
(2)	4688	4030	3804	3549	3043	3823	15.884
(3)	6028	5281	4903	4737	4053	5000	14.533
(4)	7068	6330	5909	5676	4965	5990	13.024
(5)	5743	5075	4737	4591	3986	4826	13.394
6 Aroclor-1254(1)	5857	5096	4715	4450	3806	4785	15.921
(2)	7961	7038	6468	6172	5208	6569	15.558
(3)	6032	5571	5105	4741	4242	5138	13.582
(4)	10107	9649	8877	8173	7180	8797	13.271
(5)	7953	7619	6996	6322	5678	6914	13.452

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/022210.b/ECD8-F-8082-020310a.m
Cal Date : 23-Feb-2010 09:36 jen01212
Curve Type : Average

	Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
	7 Aroclor-1260(1)	7706	7225	6868	6425	5470	6739	12.628
	(2)	11735	10983	10481	9771	8329	10260	12.630
	(3)	7075	6577	6171	5792	5035	6130	12.657
	(4)	7317	6857	6397	6058	5301	6386	12.066
	(5)	7655	7335	6855	6540	5914	6860	9.924
	8 Aroclor-1262(1)	3851	3558	3311	3256	2859	3367	10.954
	(2)	5935	5551	5239	5102	4386	5243	10.995
	(3)	7996	7523	7022	6963	6012	7103	10.414
	(4)	9555	9028	8567	8433	7318	8580	9.694
	(5)	8875	8357	7946	7802	6850	7966	9.421
	9 Aroclor-1268(1)	+++++	+++++	+++++	16324	+++++	16324	0.000
	(2)	+++++	+++++	+++++	15723	+++++	15723	0.000
	(3)	+++++	+++++	+++++	12075	+++++	12075	0.000
	(4)	+++++	+++++	+++++	6023	+++++	6023	0.000
	(5)	+++++	+++++	+++++	36012	+++++	36012	0.000
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 4,4'-DDT	+++++	+++++	+++++	23929	+++++	23929	0.000
	14 4,4'-DDD	+++++	+++++	+++++	157020	+++++	157020	0.000
	15 4,4'-DDE	+++++	+++++	+++++	133975	+++++	133975	0.000
$	11 4cmx	141196	137660	133177	129355	115643	131406	7.521
$	12 Decachlorobiphenyl	111693	106508	99006	96244	86457	99981	9.718

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/022210.b/ECD8-B-8082-020310a.m
Cal Date : 23-Feb-2010 09:39 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd8a.i/020310a.b/028b2801.d
Level 2: /chem/ecd8a.i/020310a.b/029b2901.d
Level 3: /chem/ecd8a.i/020310a.b/030b3001.d
Level 4: /chem/ecd8a.i/020310a.b/036b3601.d
Level 5: /chem/ecd8a.i/020310a.b/032b3201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	___ RRF	% RSD
1 Aroclor-1016(1)	3955	3879	3768	3829	3401	3766	5.726
(2)	2683	2623	2522	2463	2181	2494	7.814
(3)	1588	1565	1522	1510	1392	1515	5.000
(4)	1644	1573	1498	1453	1297	1493	8.812
(5)	2161	2107	2068	2025	1817	2036	6.473
2 Aroclor-1221(1)	+++++	+++++	+++++	895	+++++	895	0.000
(2)	+++++	+++++	+++++	557	+++++	557	0.000
(3)	+++++	+++++	+++++	2060	+++++	2060	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	1515	+++++	1515	0.000
(2)	+++++	+++++	+++++	1744	+++++	1744	0.000
(3)	+++++	+++++	+++++	1176	+++++	1176	0.000
(4)	+++++	+++++	+++++	710	+++++	710	0.000
(5)	+++++	+++++	+++++	618	+++++	618	0.000
4 Aroclor-1242(1)	2949	2857	2758	2609	2213	2677	10.779
(2)	3213	3196	3180	3232	2808	3126	5.721
(3)	2287	2232	2178	2099	1842	2127	8.178
(4)	1820	1782	1741	1678	1497	1703	7.463
(5)	1675	1595	1607	1522	1434	1567	5.872
5 Aroclor-1248(1)	1621	1511	1422	1366	1213	1427	10.773
(2)	2779	2594	2491	2383	2090	2467	10.392
(3)	3403	3233	3131	3022	2657	3089	9.043
(4)	3964	3788	3692	3588	3204	3647	7.785
(5)	4333	4155	4060	3948	3526	4004	7.553
6 Aroclor-1254(1)	3700	3695	3475	3389	2993	3450	8.395
(2)	4204	4194	3940	3836	3377	3910	8.648
(3)	5766	5885	5570	5452	4827	5500	7.494
(4)	4254	4252	4044	3942	3562	4011	7.104
(5)	2775	2711	2546	2462	2250	2549	8.187

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INITIAL CALIBRATION DATA

Start Cal Date : 03-FEB-2010 10:24
End Cal Date : 03-FEB-2010 17:25
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd8a.i/022210.b/ECD8-B-8082-020310a.m
Cal Date : 23-Feb-2010 09:39 jen01212
Curve Type : Average

	Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
	7 Aroclor-1260(1)	4328	4278	4140	4064	3611	4084	6.976
	(2)	5221	5198	5036	4963	4428	4969	6.467
	(3)	3970	3947	3809	3790	3427	3788	5.744
	(4)	4121	4108	3975	3957	3605	3953	5.268
	(5)	6395	6455	6249	6250	5789	6227	4.190
	8 Aroclor-1262(1)	3545	3367	3269	3249	2948	3276	6.635
	(2)	4038	3929	3844	3825	3498	3827	5.277
	(3)	5683	5613	5515	5463	4958	5446	5.255
	(4)	5266	5178	5090	5067	4633	5047	4.838
	(5)	7327	7356	7286	7270	6740	7196	3.572
	9 Aroclor-1268(1)	+++++	+++++	+++++	11384	+++++	11384	0.000
	(2)	+++++	+++++	+++++	10412	+++++	10412	0.000
	(3)	+++++	+++++	+++++	8192	+++++	8192	0.000
	(4)	+++++	+++++	+++++	4057	+++++	4057	0.000
	(5)	+++++	+++++	+++++	24640	+++++	24640	0.000
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 4,4'-DDT	+++++	+++++	+++++	14596	+++++	14596	0.000
	14 4,4'-DDD	+++++	+++++	+++++	100145	+++++	100145	0.000
	15 4,4'-DDE	+++++	+++++	+++++	88982	+++++	88982	0.000
$	11 4cmx	86244	88409	88291	88885	82388	86843	3.097
$	12 Decachlorobiphenyl	68541	67257	64616	64263	59541	64844	5.342

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/002f0201.d
Lab Smp Id: WAR100203-01 60 Client Smp ID: AR166001
Inj Date : 03-FEB-2010 10:24
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-01 60
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-F-8082-020310a.m
Meth Date : 03-Feb-2010 14:11 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 10:24 Cal File: 002f0201.d
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.255	2.257	-0.002	1411956	10.0000	10.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.248	6.248	0.000	1116929	10.0000	11.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.813	2.814	-0.001	561435	100.000	120	80.00- 120.00	100.00
3.165	3.166	-0.001	638336	100.000	111	111.73- 151.73	113.70
3.308	3.309	-0.001	281697	100.000	115	34.10- 74.10	50.17
3.401	3.402	-0.001	262907	100.000	120	27.89- 67.89	46.83
3.563	3.564	-0.001	370835	100.000	118	49.06- 89.06	66.05
Average of Peak Amounts =					117		
7 Aroclor-1260					CAS #: 11096-82-5		
4.437	4.438	-0.001	770618	100.000	114	80.00- 120.00	100.00
4.633	4.634	-0.001	1173504	100.000	114	130.78- 170.78	152.28
4.908	4.908	0.000	707467	100.000	115	68.65- 108.65	91.81
5.080	5.081	-0.001	731710	100.000	114	72.88- 112.88	94.95
5.492	5.493	-0.001	765467	100.000	112	81.06- 121.06	99.33
Average of Peak Amounts =					114		

Data File: /chem/ecd8a.i/020310a.b/002f0201.d

Date : 03-FEB-2010 10:24

Client ID: AR166001

Sample Info: IWAR100203-01 60

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

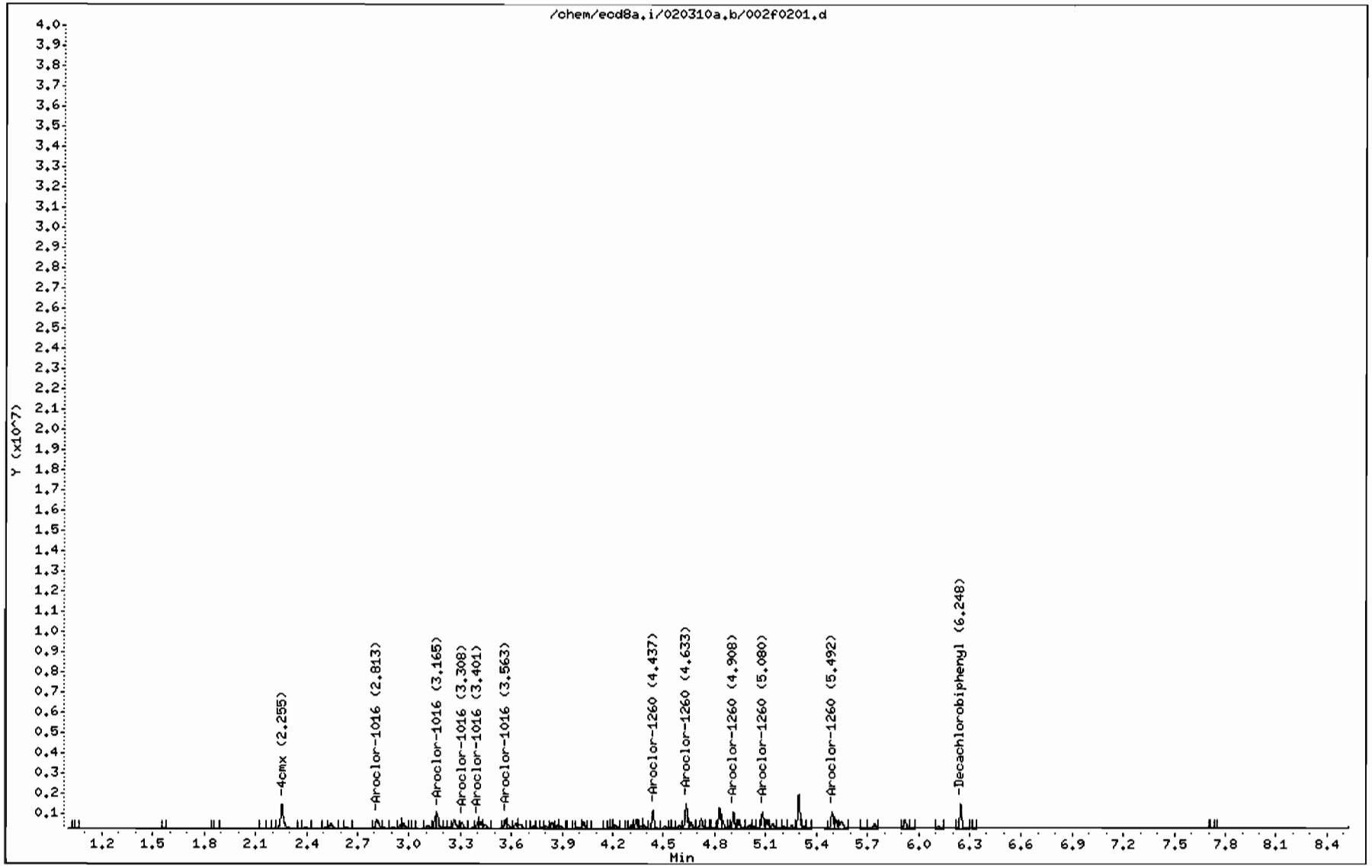

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/002b0201.d
Lab Smp Id: WAR100203-01 60 Client Smp ID: AR166001
Inj Date : 03-FEB-2010 10:24
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-01 60
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-B-8082-020310a.m
Meth Date : 03-Feb-2010 14:11 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 10:24 Cal File: 002b0201.d
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.488	2.490	-0.002	862436	10.0000	9.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.839	6.840	-0.001	685409	10.0000	10.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.562	3.563	-0.001	395547	100.000	105	80.00- 120.00	100.00
3.661	3.663	-0.002	268284	100.000	108	45.35- 85.35	67.83
3.738	3.738	0.000	158782	100.000	105	20.06- 60.06	40.14
3.813	3.813	0.000	164428	100.000	110	18.56- 58.56	41.57
4.009	4.010	-0.001	216080	100.000	106	33.79- 73.79	54.63
Average of Peak Amounts =					107		
7 Aroclor-1260					CAS #: 11096-82-5		
4.923	4.923	0.000	432838	100.000	106	80.00- 120.00	100.00
5.071	5.073	-0.002	522051	100.000	105	102.19- 142.19	120.61
5.388	5.388	0.000	397025	100.000	105	73.37- 113.37	91.73
5.594	5.596	-0.002	412060	100.000	104	77.44- 117.44	95.20
6.026	6.027	-0.001	639464	100.000	103	134.59- 174.59	147.74
Average of Peak Amounts =					105		

Data File: /chem/ecd8a.i/020310a.b/002b0201.d

Page 1

Date : 03-FEB-2010 10:24

Client ID: AR166001

Instrument: ecd8a.i

Sample Info: IWAR100203-01 60

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

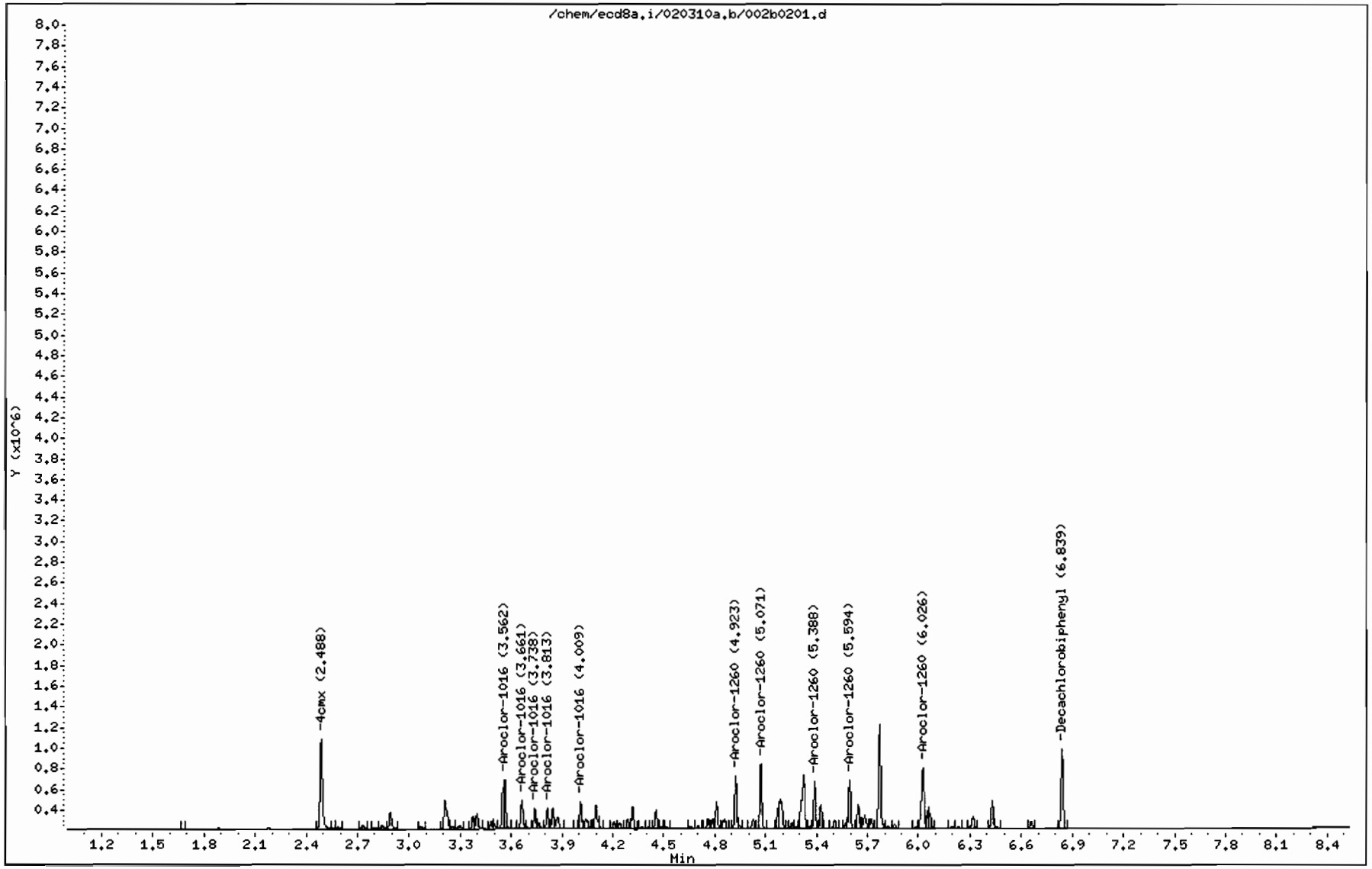

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/003f0301.d
Lab Smp Id: WAR100203-02 60 Client Smp ID: AR166002
Inj Date : 03-FEB-2010 10:37
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-02 60
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-F-8082-020310a.m
Meth Date : 03-Feb-2010 14:11 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 10:37 Cal File: 003f0301.d
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.255	2.257	-0.002	3441488	25.0000	26.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.248	6.248	0.000	2662697	25.0000	26.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.813	2.814	-0.001	1284528	250.000	275	80.00- 120.00	100.00
3.165	3.166	-0.001	1565948	250.000	271	111.73- 151.73	121.91
3.309	3.309	0.000	659671	250.000	269	34.10- 74.10	51.36
3.401	3.402	-0.001	601528	250.000	274	27.89- 67.89	46.83
3.563	3.564	-0.001	852652	250.000	271	49.06- 89.06	66.38
Average of Peak Amounts =					272		
7 Aroclor-1260					CAS #: 11096-82-5		
4.437	4.438	-0.001	1806230	250.000	268	80.00- 120.00	100.00
4.633	4.634	-0.001	2745787	250.000	268	130.78- 170.78	152.02
4.908	4.908	0.000	1644232	250.000	268	68.65- 108.65	91.03
5.080	5.081	-0.001	1714216	250.000	268	72.88- 112.88	94.91
5.492	5.493	-0.001	1833775	250.000	267	81.06- 121.06	101.52
Average of Peak Amounts =					268		

Data File: /chem/ecd8a.i/020310a.b/003f0301.d

Page 1

Date : 03-FEB-2010 10:37

Client ID: AR166002

Instrument: ecd8a.i

Sample Info: IWAR100203-02 60

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

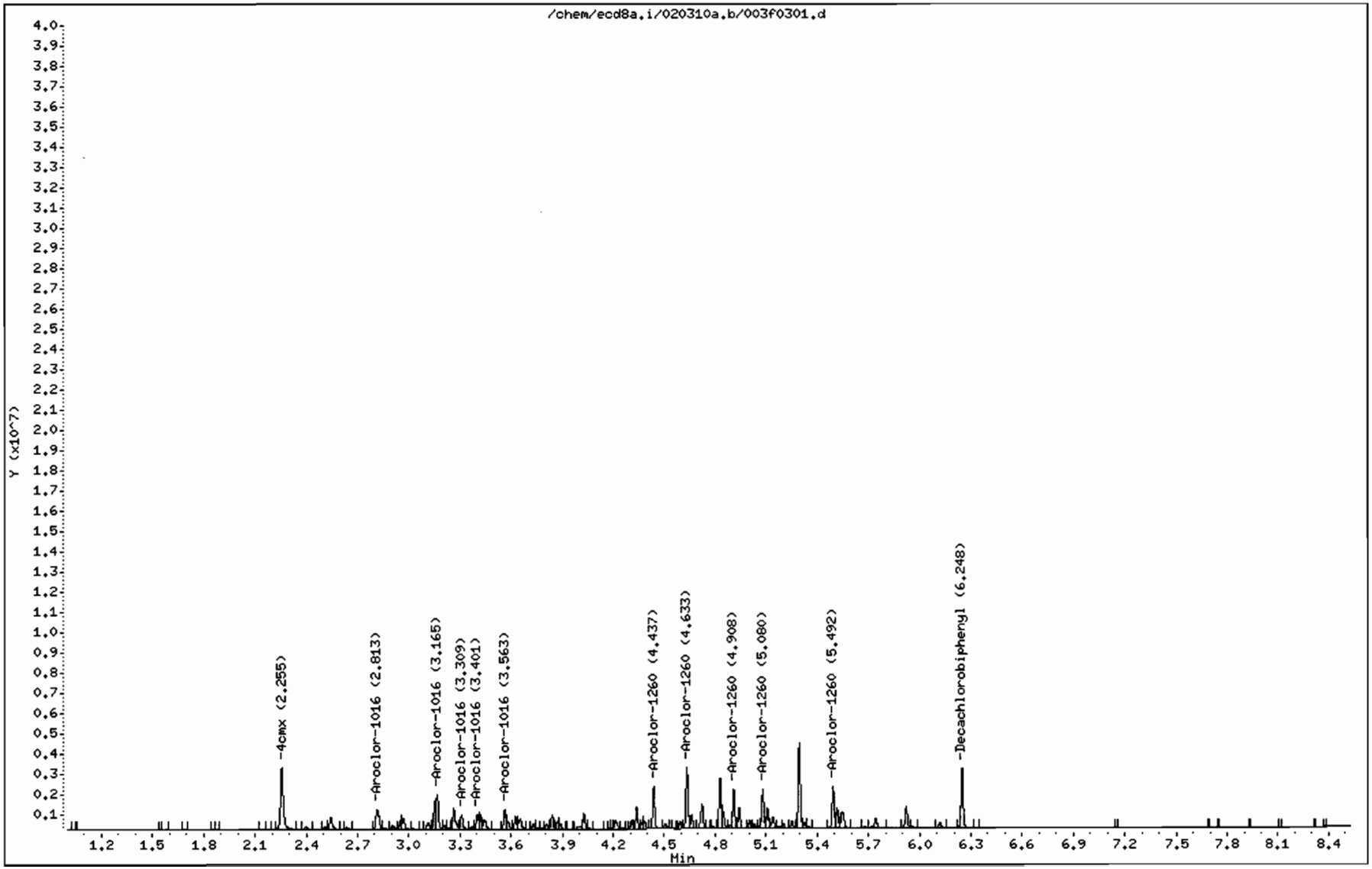

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/003b0301.d
Lab Smp Id: WAR100203-02 60 Client Smp ID: AR166002
Inj Date : 03-FEB-2010 10:37
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-02 60
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-B-8082-020310a.m
Meth Date : 03-Feb-2010 14:11 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 10:37 Cal File: 003b0301.d
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.489	2.490	-0.001	2210231	25.0000	25.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.840	6.840	0.000	1681435	25.0000	25.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.563	3.563	0.000	969683	250.000	257	80.00- 120.00	100.00
3.662	3.663	-0.001	655671	250.000	263	45.35- 85.35	67.62
3.738	3.738	0.000	391183	250.000	258	20.06- 60.06	40.34
3.813	3.813	0.000	393220	250.000	263	18.56- 58.56	40.55
4.009	4.010	-0.001	526703	250.000	259	33.79- 73.79	54.32
Average of Peak Amounts =					260		
7 Aroclor-1260					CAS #: 11096-82-5		
4.923	4.923	0.000	1069603	250.000	262	80.00- 120.00	100.00
5.072	5.073	-0.001	1299466	250.000	262	102.19- 142.19	121.49
5.388	5.388	0.000	986635	250.000	260	73.37- 113.37	92.24
5.595	5.596	-0.001	1026890	250.000	260	77.44- 117.44	96.01
6.027	6.027	0.000	1613674	250.000	259	134.59- 174.59	150.87
Average of Peak Amounts =					261		

Data File: /chem/ecd8a.i/020310a.b/003b0301.d

Page 1

Date : 03-FEB-2010 10:37

Client ID: AR166002

Instrument: ecd8a.i

Sample Info: IWAR100203-02 60

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

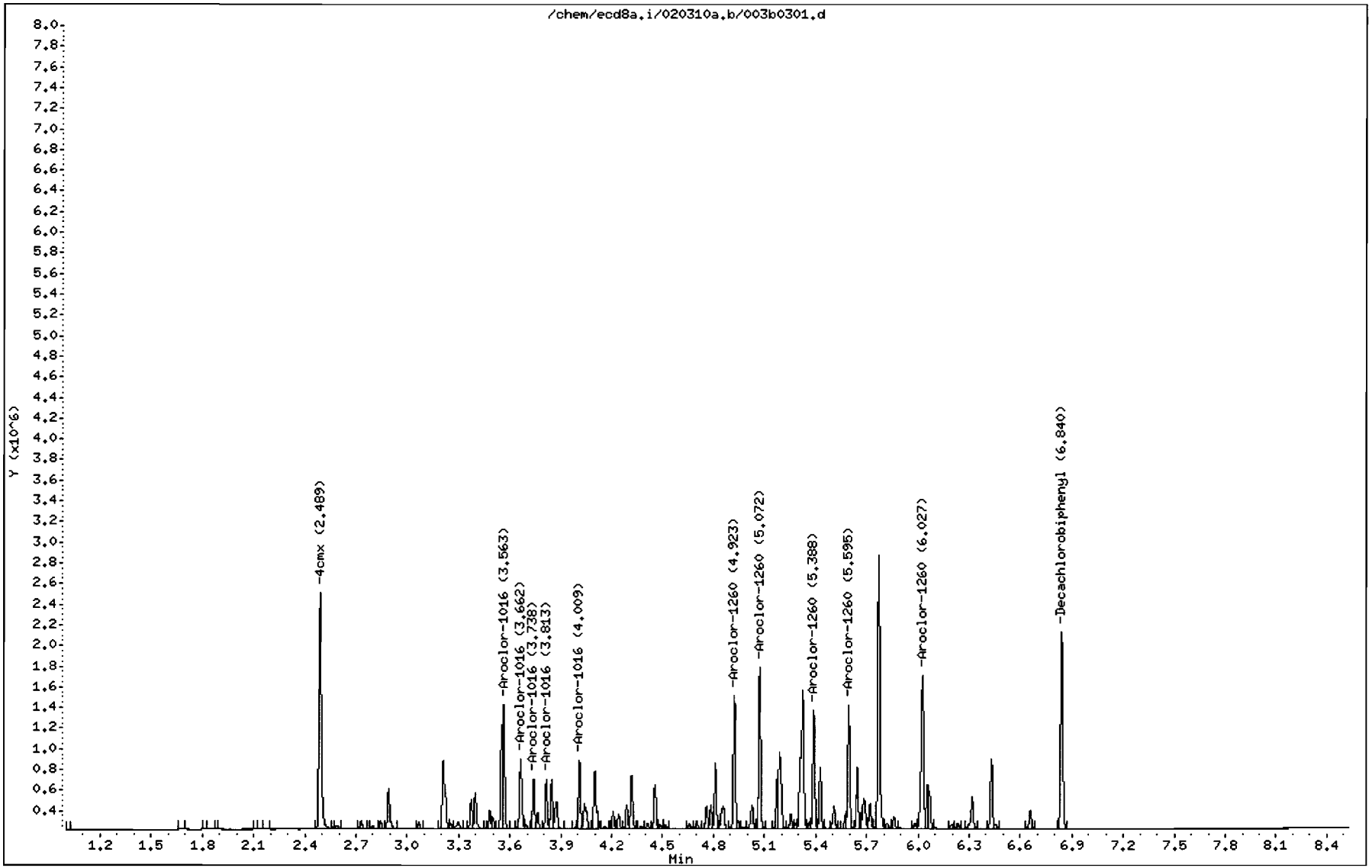

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/004f0401.d
Lab Smp Id: WAR100203-03 60 Client Smp ID: AR166003
Inj Date : 03-FEB-2010 10:49
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-03 60
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-F-8082-020310a.m
Meth Date : 03-Feb-2010 14:11 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 10:49 Cal File: 004f0401.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.256	2.257	-0.001	6658869	50.0000	50.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.248	6.248	0.000	4950280	50.0000	49.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.814	2.814	0.000	2351995	500.000	504	80.00- 120.00	100.00
3.166	3.166	0.000	2967296	500.000	514	111.73- 151.73	126.16
3.309	3.309	0.000	1227211	500.000	500	34.10- 74.10	52.18
3.401	3.402	-0.001	1108013	500.000	504	27.89- 67.89	47.11
3.564	3.564	0.000	1558718	500.000	496	49.06- 89.06	66.27
		Average of Peak Amounts =			504		
7 Aroclor-1260					CAS #: 11096-82-5		
4.438	4.438	0.000	3434090	500.000	510	80.00- 120.00	100.00
4.634	4.634	0.000	5240459	500.000	511	130.78- 170.78	152.60
4.909	4.908	0.001	3085505	500.000	503	68.65- 108.65	89.85
5.081	5.081	0.000	3198570	500.000	501	72.88- 112.88	93.14
5.492	5.493	-0.001	3427496	500.000	500	81.06- 121.06	99.81
		Average of Peak Amounts =			505		

Data File: /chem/ecd8a.i/020310a.b/004f0401.d

Page 1

Date : 03-FEB-2010 10:49

Client ID: AR166003

Instrument: ecd8a.i

Sample Info: IWAR100203-03 60

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

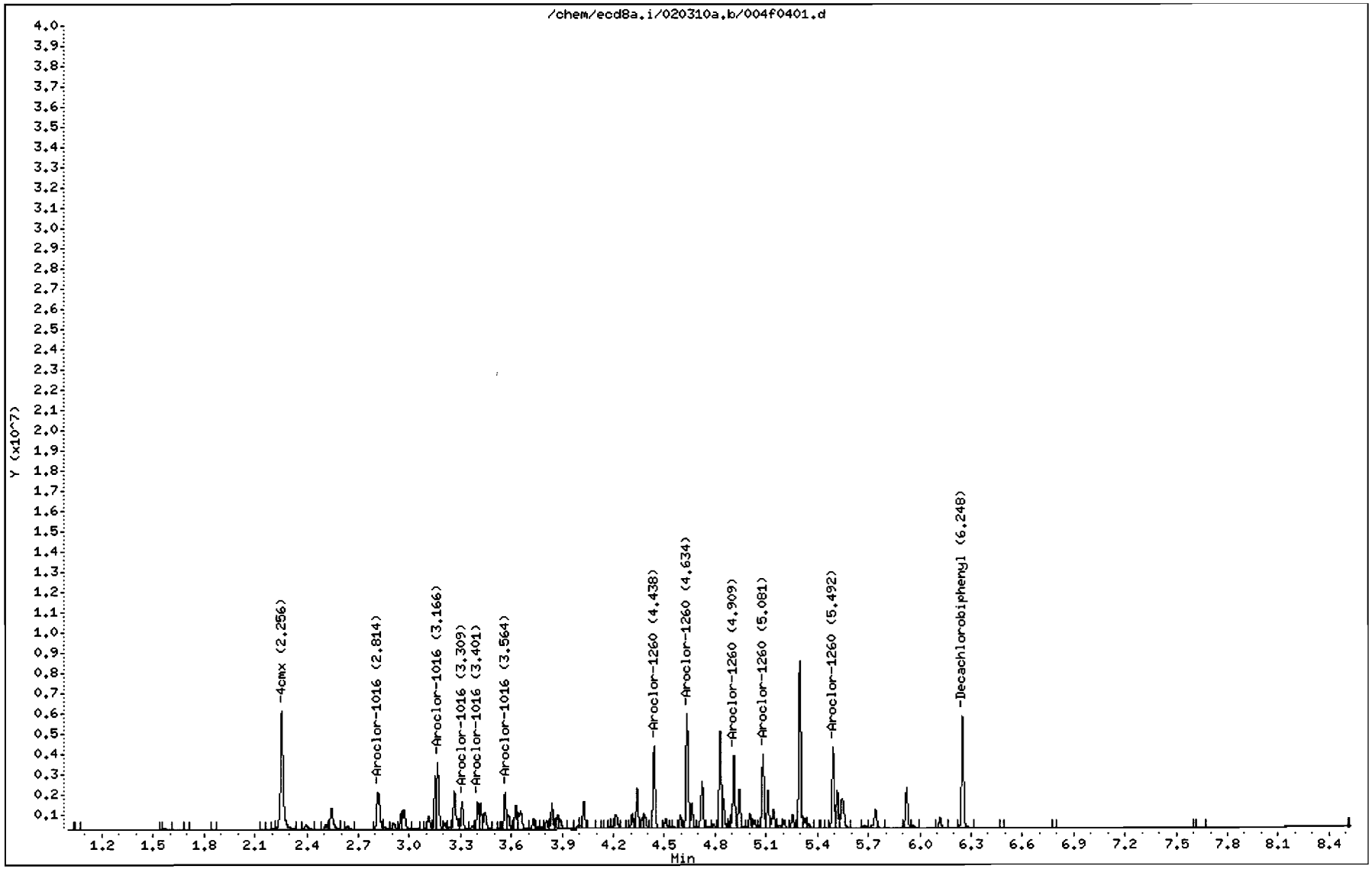

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/004b0401.d
Lab Smp Id: WAR100203-03 60 Client Smp ID: AR166003
Inj Date : 03-FEB-2010 10:49
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-03 60
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-B-8082-020310a.m
Meth Date : 03-Feb-2010 14:11 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 10:49 Cal File: 004b0401.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.489	2.490	-0.001	4414540	50.0000	50.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.840	6.840	0.000	3230790	50.0000	49.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.562	3.563	-0.001	1884230	500.000	500	80.00- 120.00	100.00
3.661	3.663	-0.002	1261162	500.000	506	45.35- 85.35	66.93
3.738	3.738	0.000	761184	500.000	502	20.06- 60.06	40.40
3.813	3.813	0.000	749123	500.000	502	18.56- 58.56	39.76
4.010	4.010	0.000	1033787	500.000	508	33.79- 73.79	54.87
Average of Peak Amounts =					504		
7 Aroclor-1260					CAS #: 11096-82-5		
4.923	4.923	0.000	2070017	500.000	507	80.00- 120.00	100.00
5.072	5.073	-0.001	2517826	500.000	507	102.19- 142.19	121.63
5.388	5.388	0.000	1904590	500.000	503	73.37- 113.37	92.01
5.595	5.596	-0.001	1987397	500.000	503	77.44- 117.44	96.01
6.027	6.027	0.000	3124258	500.000	502	134.59- 174.59	150.93
Average of Peak Amounts =					504		

Data File: /chem/ecd8a.i/020310a.b/004b0401.d

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Date : 03-FEB-2010 10:49

Client ID: AR166003

Instrument: ecd8a.i

Sample Info: IWAR100203-03 60

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

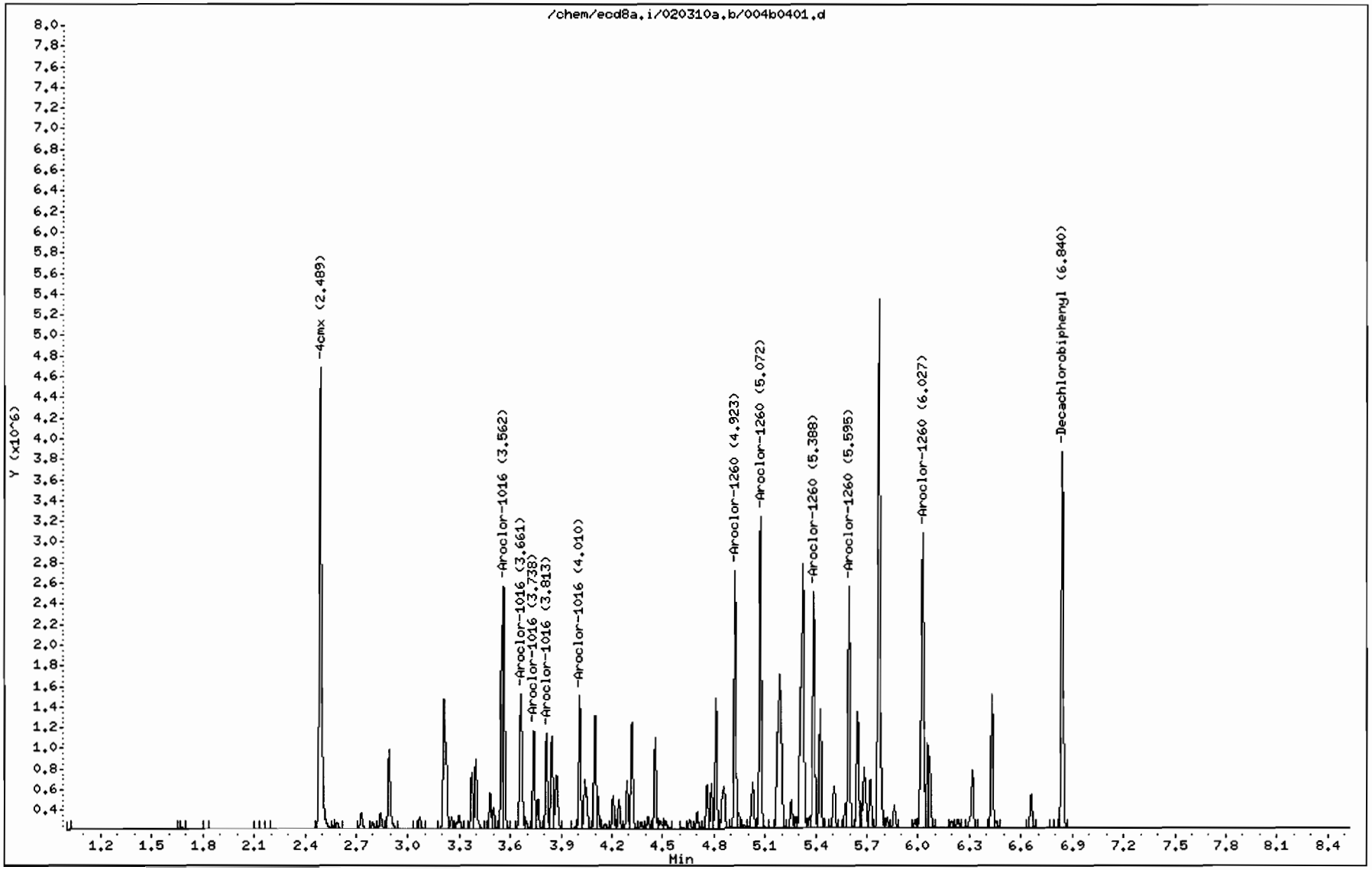

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/005f0501.d
Lab Smp Id: WAR100203-04 60 Client Smp ID: AR166004
Inj Date : 03-FEB-2010 11:01
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-04 60
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-F-8082-020310a.m
Meth Date : 03-Feb-2010 14:11 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 11:01 Cal File: 005f0501.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.256	2.257	-0.001	12935461	100.000	98.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.248	6.248	0.000	9624376	100.000	96.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.814	2.814	0.000	4321427	1000.00	926	80.00- 120.00	100.00
3.165	3.166	-0.001	5475344	1000.00	949	111.73- 151.73	126.70
3.309	3.309	0.000	2319417	1000.00	945	34.10- 74.10	53.67
3.402	3.402	0.000	2019305	1000.00	919	27.89- 67.89	46.73
3.564	3.564	0.000	2937750	1000.00	935	49.06- 89.06	67.98
Average of Peak Amounts =					935		
7 Aroclor-1260					CAS #: 11096-82-5		
4.437	4.438	-0.001	6425462	1000.00	953	80.00- 120.00	100.00
4.633	4.634	-0.001	9771350	1000.00	952	130.78- 170.78	152.07
4.909	4.908	0.001	5791831	1000.00	945	68.65- 108.65	90.14
5.080	5.081	-0.001	6057592	1000.00	948	72.88- 112.88	94.27
5.492	5.493	-0.001	6539536	1000.00	953	81.06- 121.06	101.78
Average of Peak Amounts =					951		

Data File: /chem/ecd8a.i/020310a.b/005f0501.d

Date : 03-FEB-2010 11:01

Client ID: AR166004

Sample Info: IWAR100203-04 60

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

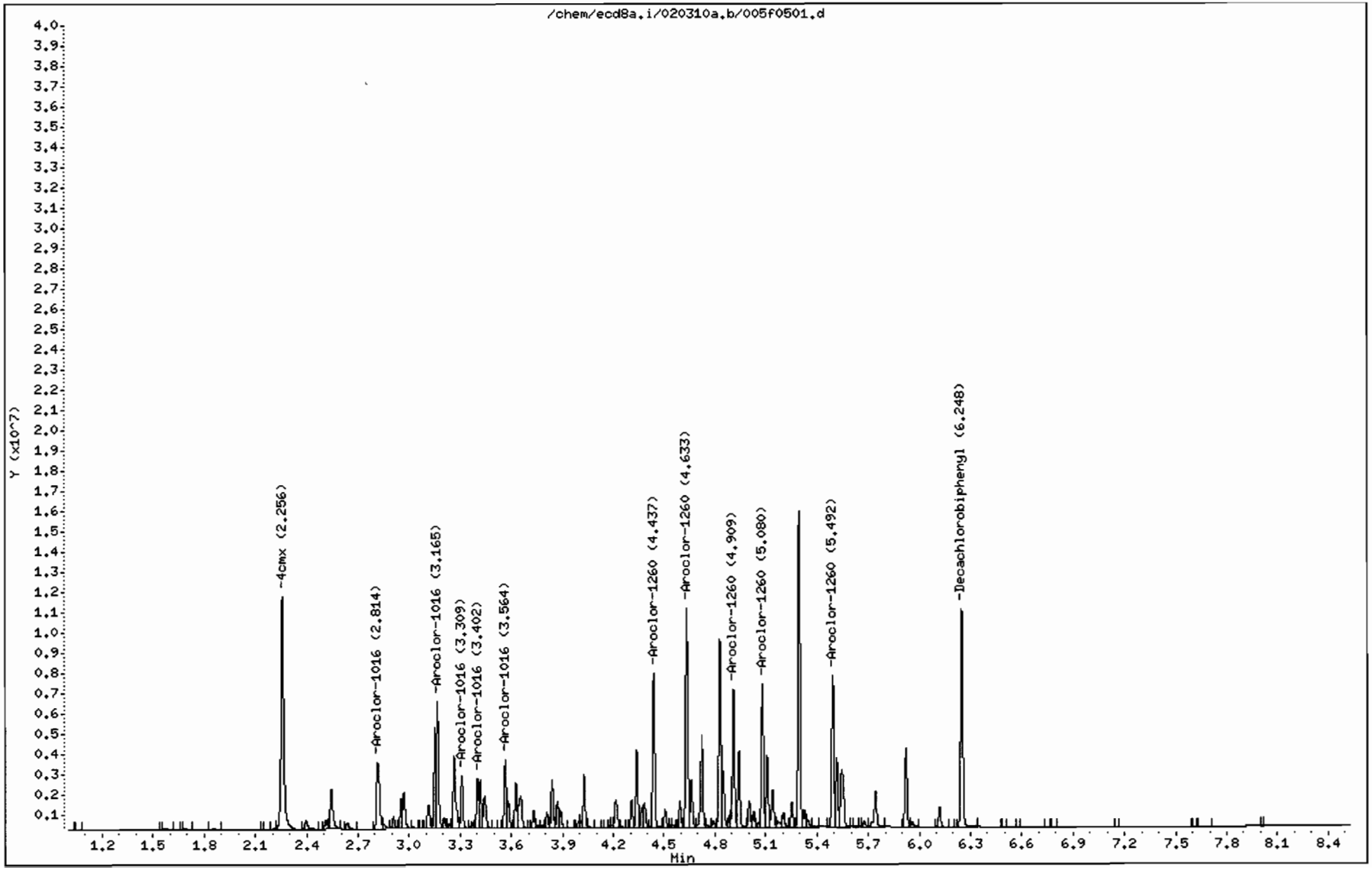

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/005b0501.d
Lab Smp Id: WAR100203-04 60 Client Smp ID: AR166004
Inj Date : 03-FEB-2010 11:01
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-04 60
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-B-8082-020310a.m
Meth Date : 03-Feb-2010 14:11 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 11:01 Cal File: 005b0501.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.490	2.490	0.000	8888536	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.840	6.840	0.000	6426331	100.000	99.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.563	3.563	0.000	3828751	1000.00	1020	80.00- 120.00	100.00
3.662	3.663	-0.001	2463332	1000.00	988	45.35- 85.35	64.34
3.739	3.738	0.001	1510477	1000.00	997	20.06- 60.06	39.45
3.813	3.813	0.000	1453339	1000.00	973	18.56- 58.56	37.96
4.010	4.010	0.000	2025411	1000.00	995	33.79- 73.79	52.90
Average of Peak Amounts =					994		
7 Aroclor-1260					CAS #: 11096-82-5		
4.923	4.923	0.000	4064241	1000.00	995	80.00- 120.00	100.00
5.071	5.073	-0.002	4962681	1000.00	999	102.19- 142.19	122.11
5.389	5.388	0.001	3789517	1000.00	1000	73.37- 113.37	93.24
5.595	5.596	-0.001	3957455	1000.00	1000	77.44- 117.44	97.37
6.027	6.027	0.000	6249843	1000.00	1000	134.59- 174.59	153.78
Average of Peak Amounts =					1e+03		

Data File: /chem/ecd8a.i/020310a.b/005b0501.d
Date : 03-FEB-2010 11:01
Client ID: AR166004
Sample Info: IWAR100203-04 60
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

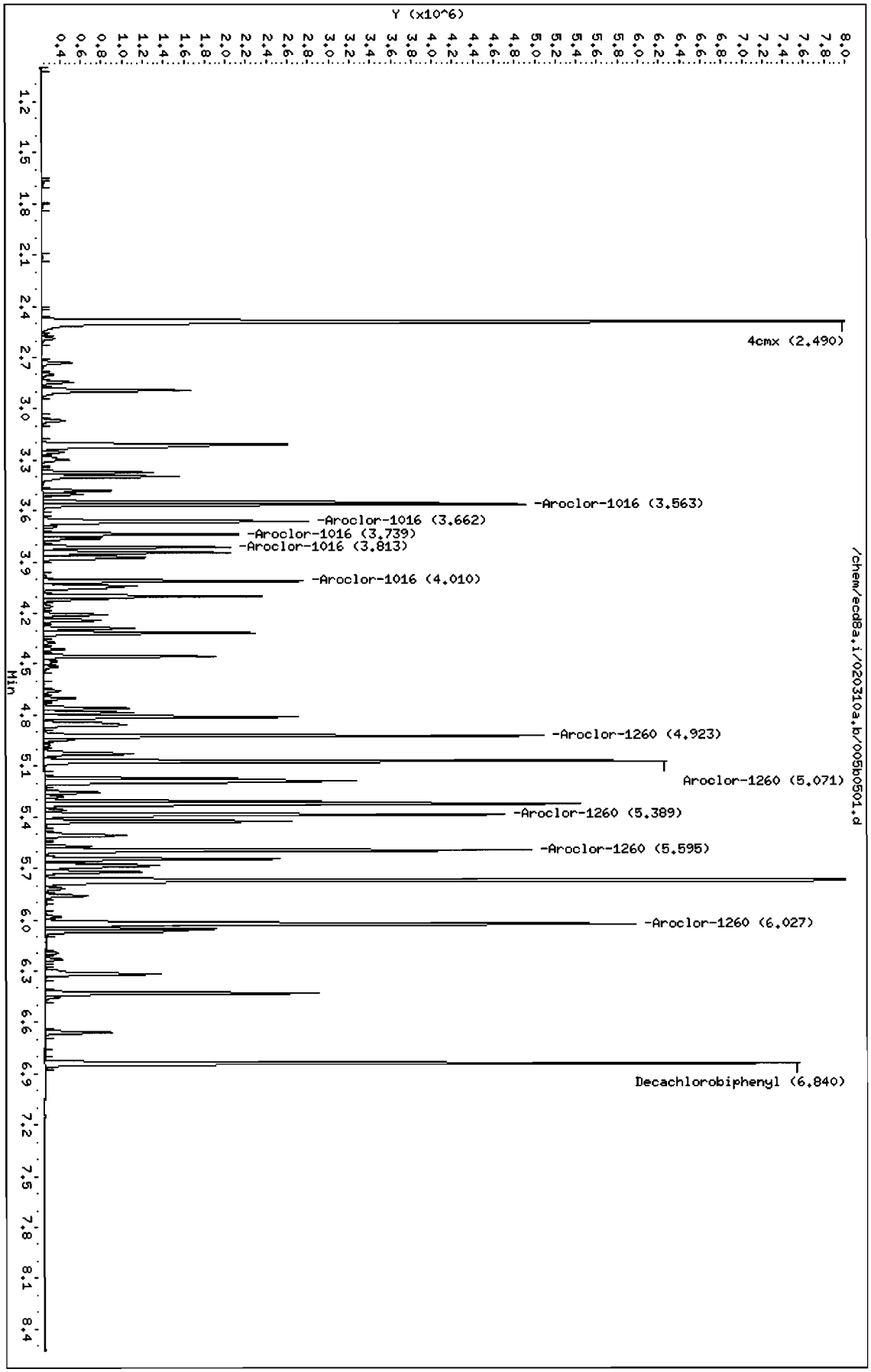

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/006f0601.d
Lab Smp Id: IAR100104-01 60 Client Smp ID: AR166005
Inj Date : 03-FEB-2010 11:14
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |IAR100104-01 60
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-F-8082-020310a.m
Meth Date : 03-Feb-2010 14:11 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 11:14 Cal File: 006f0601.d
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.256	2.257	-0.001	46257346	400.000	352	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.247	6.248	-0.001	34582659	400.000	346	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.815	2.814	0.001	14180968	4000.00	3040	80.00- 120.00	100.00
3.166	3.166	0.000	19163404	4000.00	3320	111.73- 151.73	135.13
3.310	3.309	0.001	8166054	4000.00	3330	34.10- 74.10	57.58
3.402	3.402	0.000	6881538	4000.00	3130	27.89- 67.89	48.53
3.565	3.564	0.001	10146540	4000.00	3230	49.06- 89.06	71.55
Average of Peak Amounts =				3.21e+03			
7 Aroclor-1260					CAS #: 11096-82-5		
4.437	4.438	-0.001	21880403	4000.00	3250	80.00- 120.00	100.00
4.633	4.634	-0.001	33314104	4000.00	3250	130.78- 170.78	152.26
4.908	4.908	0.000	20139259	4000.00	3280	68.65- 108.65	92.04
5.081	5.081	0.000	21202552	4000.00	3320	72.88- 112.88	96.90
5.491	5.493	-0.002	23657994	4000.00	3450	81.06- 121.06	108.12
Average of Peak Amounts =				3.31e+03			

Data File: /chem/ecd8a.i/020310a.b/006f0601.d

Date : 03-FEB-2010 11:14

Client ID: AR166005

Sample Info: IIAR100104-01 60

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

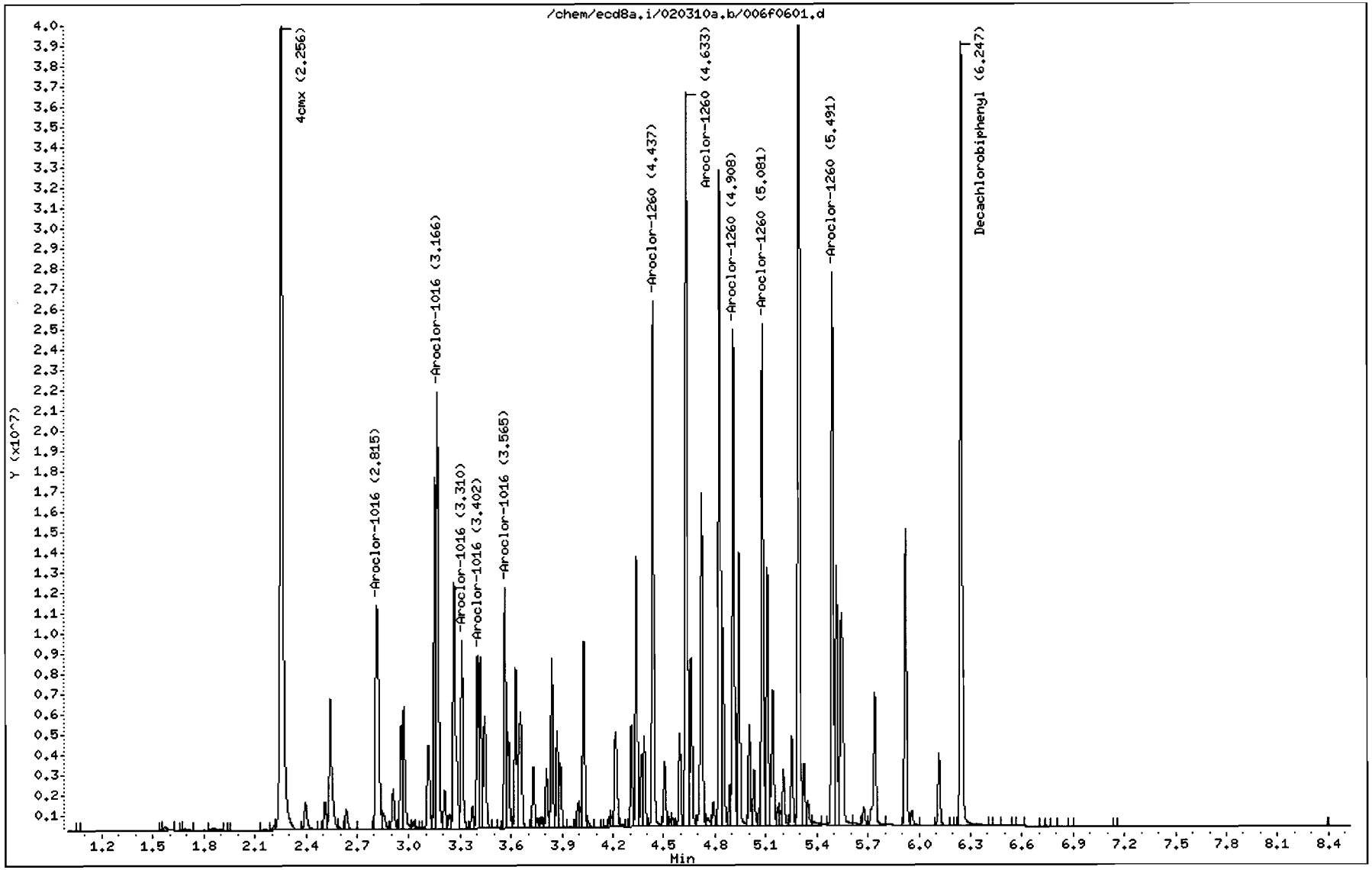

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/020310a.b/006b0601.d
Lab Smp Id: IAR100104-01 60 Client Smp ID: AR166005
Inj Date : 03-FEB-2010 11:14
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |IAR100104-01 60
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/020310a.b/ECD8-B-8082-020310a.m
Meth Date : 03-Feb-2010 14:11 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 11:14 Cal File: 006b0601.d
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.490	2.490	0.000	32955103	400.000	379	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.840	6.840	0.000	23816553	400.000	367	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.563	3.563	0.000	13602363	4000.00	3610	80.00- 120.00	100.00
3.662	3.663	-0.001	8723825	4000.00	3500	45.35- 85.35	64.13
3.739	3.738	0.001	5568252	4000.00	3670	20.06- 60.06	40.94
3.813	3.813	0.000	5188284	4000.00	3470	18.56- 58.56	38.14
4.011	4.010	0.001	7269963	4000.00	3570	33.79- 73.79	53.45
Average of Peak Amounts =				3.57e+03			
7 Aroclor-1260					CAS #: 11096-82-5		
4.923	4.923	0.000	14444069	4000.00	3540	80.00- 120.00	100.00
5.071	5.073	-0.002	17711217	4000.00	3560	102.19- 142.19	122.62
5.388	5.388	0.000	13706416	4000.00	3620	73.37- 113.37	94.89
5.596	5.596	0.000	14420489	4000.00	3650	77.44- 117.44	99.84
6.026	6.027	-0.001	23157961	4000.00	3720	134.59- 174.59	160.33
Average of Peak Amounts =				3.62e+03			

Data File: /chem/ecd8a.i/020310a.b/006b0601.d

Date : 03-FEB-2010 11:14

Client ID: AR166005

Sample Info: !IAR100104-01 60

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

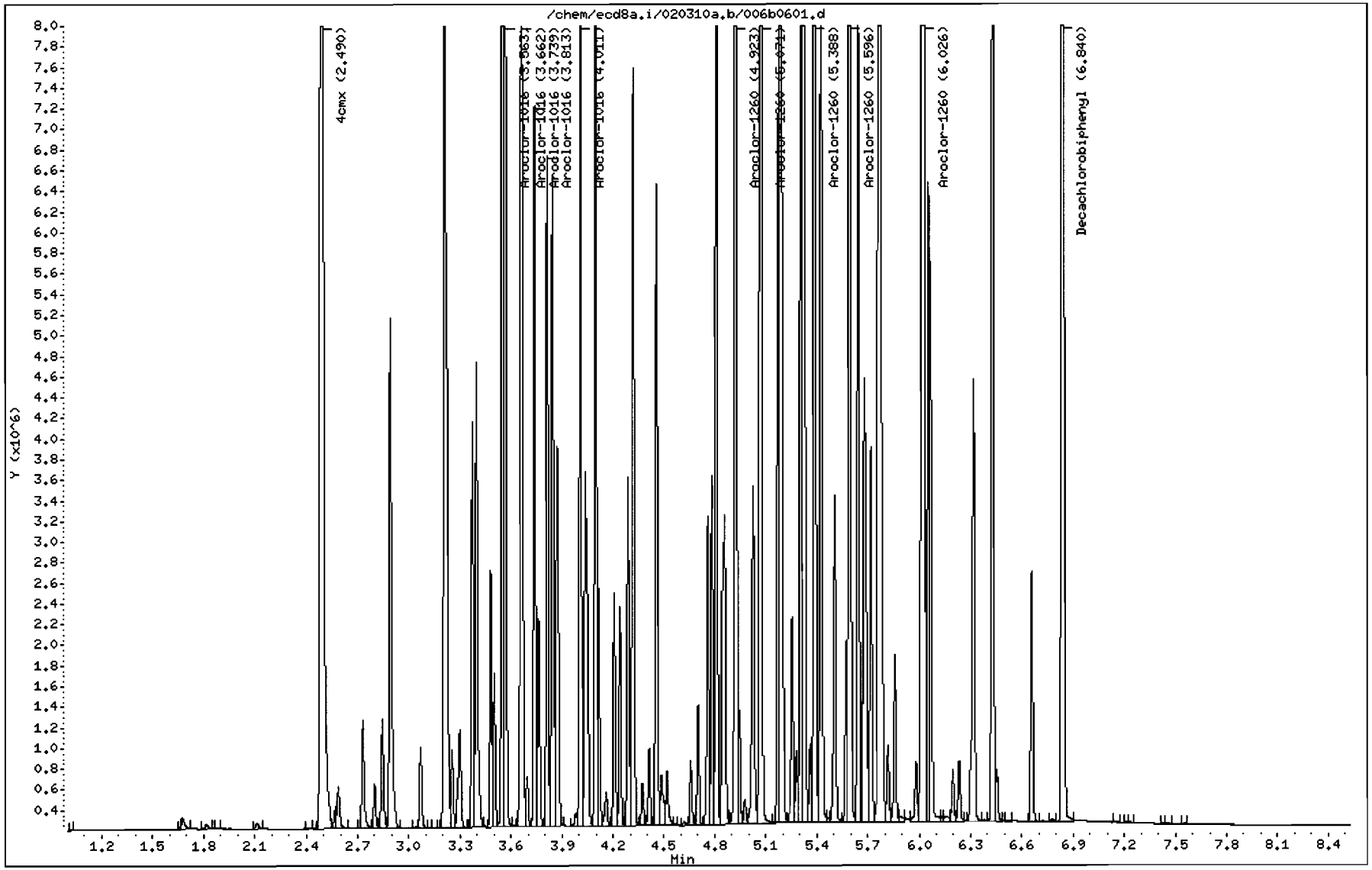

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1886

Instrument ID: ECD8A Calibration Date: 02/22/10 Time: 0825

Lab File ID: 002F0201 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4664.624	4647.104	0.01	-0.4	15.0
(2)	5769.588	5940.841	0.01	3.0	15.0
(3)	2454.201	2482.678	0.01	1.2	15.0
(4)	2198.179	2188.975	0.01	-0.4	15.0
(5)	3142.156	3209.538	0.01	2.1	15.0
Aroclor-1260	6738.969	7236.850	0.01	7.4	15.0
(2)	10259.796	10754.993	0.01	4.8	15.0
(3)	6129.851	6308.834	0.01	2.9	15.0
(4)	6385.867	6648.649	0.01	4.1	15.0
(5)	6859.759	6994.936	0.01	2.0	15.0
4cmx	131406.10	138912.23	0.01	5.7	15.0
Decachlorobiphenyl	99981.358	92218.870	0.01	-7.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1886

Instrument ID: ECD8A Calibration Date: 02/22/10 Time: 0825

Lab File ID: 002B0201 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3766.401	3913.591	0.01	3.9	15.0
(2)	2494.427	2618.569	0.01	5.0	15.0
(3)	1515.492	1551.579	0.01	2.4	15.0
(4)	1493.163	1512.999	0.01	1.3	15.0
(5)	2035.618	2120.668	0.01	4.2	15.0
Aroclor-1260	4084.417	4621.381	0.01	13.1	15.0
(2)	4968.902	5546.002	0.01	11.6	15.0
(3)	3788.418	4245.047	0.01	12.0	15.0
(4)	3953.106	4412.666	0.01	11.6	15.0
(5)	6227.437	6855.873	0.01	10.1	15.0
4cmx	86843.352	94359.600	0.01	8.6	15.0
Decachlorobiphenyl	64843.758	65732.300	0.01	1.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1886

Instrument ID: ECD8A Calibration Date: 02/22/10 Time: 2239

Lab File ID: 062F6201 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4664.624	4267.488	0.01	-8.5	15.0
(2)	5769.588	5593.557	0.01	-3.0	15.0
(3)	2454.201	2261.435	0.01	-7.8	15.0
(4)	2198.179	1982.475	0.01	-9.8	15.0
(5)	3142.156	2857.566	0.01	-9.0	15.0
Aroclor-1260	6738.969	7260.106	0.01	7.7	15.0
(2)	10259.796	11052.702	0.01	7.7	15.0
(3)	6129.851	6664.443	0.01	8.7	15.0
(4)	6385.867	7187.887	0.01	12.6	15.0
(5)	6859.759	7611.407	0.01	11.0	15.0
4cmx	131406.10	127386.64	0.01	-3.0	15.0
Decachlorobiphenyl	99981.358	95726.150	0.01	-4.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1886

Instrument ID: ECD8A Calibration Date: 02/22/10 Time: 2239

Lab File ID: 062B6201 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	3766.401	4245.636	0.01	12.7	15.0	
(2)	2494.427	2688.323	0.01	7.8	15.0	
(3)	1515.492	1653.024	0.01	9.1	15.0	
(4)	1493.163	1590.515	0.01	6.5	15.0	
(5)	2035.618	2220.550	0.01	9.1	15.0	
Aroclor-1260	4084.417	4800.000	0.01	17.5	15.0	<-
(2)	4968.902	5892.499	0.01	18.6	15.0	<-
(3)	3788.418	4465.192	0.01	17.9	15.0	<-
(4)	3953.106	4659.838	0.01	17.9	15.0	<-
(5)	6227.437	7299.730	0.01	17.2	15.0	<-
4cmx	86843.352	93890.970	0.01	8.1	15.0	
Decachlorobiphenyl	64843.758	65193.120	0.01	0.5	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1886

Instrument ID: ECD8A Calibration Date: 02/23/10 Time: 0006

Lab File ID: 069F6901 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4664.624	4251.688	0.01	-8.8	15.0
(2)	5769.588	5573.948	0.01	-3.4	15.0
(3)	2454.201	2318.016	0.01	-5.5	15.0
(4)	2198.179	2000.653	0.01	-9.0	15.0
(5)	3142.156	2944.790	0.01	-6.3	15.0
Aroclor-1260	6738.969	7203.489	0.01	6.9	15.0
(2)	10259.796	11253.484	0.01	9.7	15.0
(3)	6129.851	6687.072	0.01	9.1	15.0
(4)	6385.867	6945.542	0.01	8.8	15.0
(5)	6859.759	7476.778	0.01	9.0	15.0
4cmx	131406.10	125215.51	0.01	-4.7	15.0
Decachlorobiphenyl	99981.358	92982.460	0.01	-7.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1886

Instrument ID: ECD8A Calibration Date: 02/23/10 Time: 0006

Lab File ID: 069B6901 Init. Calib. Date(s): 02/03/10 02/03/10

Heated Purge: (Y/N) N Init. Calib. Times: 1024 1114

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	3766.401	4018.496	0.01	6.7	15.0
(2)	2494.427	2545.634	0.01	2.0	15.0
(3)	1515.492	1570.837	0.01	3.6	15.0
(4)	1493.163	1511.957	0.01	1.2	15.0
(5)	2035.618	2106.092	0.01	3.5	15.0
Aroclor-1260	4084.417	4540.810	0.01	11.2	15.0
(2)	4968.902	5603.774	0.01	12.8	15.0
(3)	3788.418	4150.036	0.01	9.5	15.0
(4)	3953.106	4380.638	0.01	10.8	15.0
(5)	6227.437	7005.443	0.01	12.5	15.0
4cmx	86843.352	89394.430	0.01	2.9	15.0
Decachlorobiphenyl	64843.758	64048.890	0.01	-1.2	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/002f0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 22-FEB-2010 08:25
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-F-8082-020310a.m
Meth Date : 22-Feb-2010 14:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.252	2.252	0.000	13891223	100.000	106	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.244	6.244	0.000	9221887	100.000	92.2	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 12674-11-2		
2.810	2.810	0.000	4647104	1000.00	996	80.00- 120.00	100.00
3.162	3.162	0.000	5940841	1000.00	1030	106.62- 146.62	127.84
3.305	3.305	0.000	2482678	1000.00	1010	33.13- 73.13	53.42
3.397	3.397	0.000	2188975	1000.00	996	25.94- 65.94	47.10
3.560	3.560	0.000	3209538	1000.00	1020	47.28- 87.28	69.07
Average of Peak Amounts =				1.01e+03			
7 Aroclor-1260					CAS #: 11096-82-5		
4.434	4.434	0.000	7236850	1000.00	1070	80.00- 120.00	100.00
4.629	4.629	0.000	10754993	1000.00	1050	129.90- 169.90	148.61
4.905	4.905	0.000	6308834	1000.00	1030	67.91- 107.91	87.18
5.076	5.076	0.000	6648649	1000.00	1040	73.20- 113.20	91.87
5.488	5.488	0.000	6994936	1000.00	1020	82.70- 122.70	96.66
Average of Peak Amounts =				1.04e+03			

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/022210.b/002f0201.d

Page 1

Date : 22-FEB-2010 08:25

Client ID: AR166001

Instrument: ecd8a.i

Sample Info: IWAR100203-60 01

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

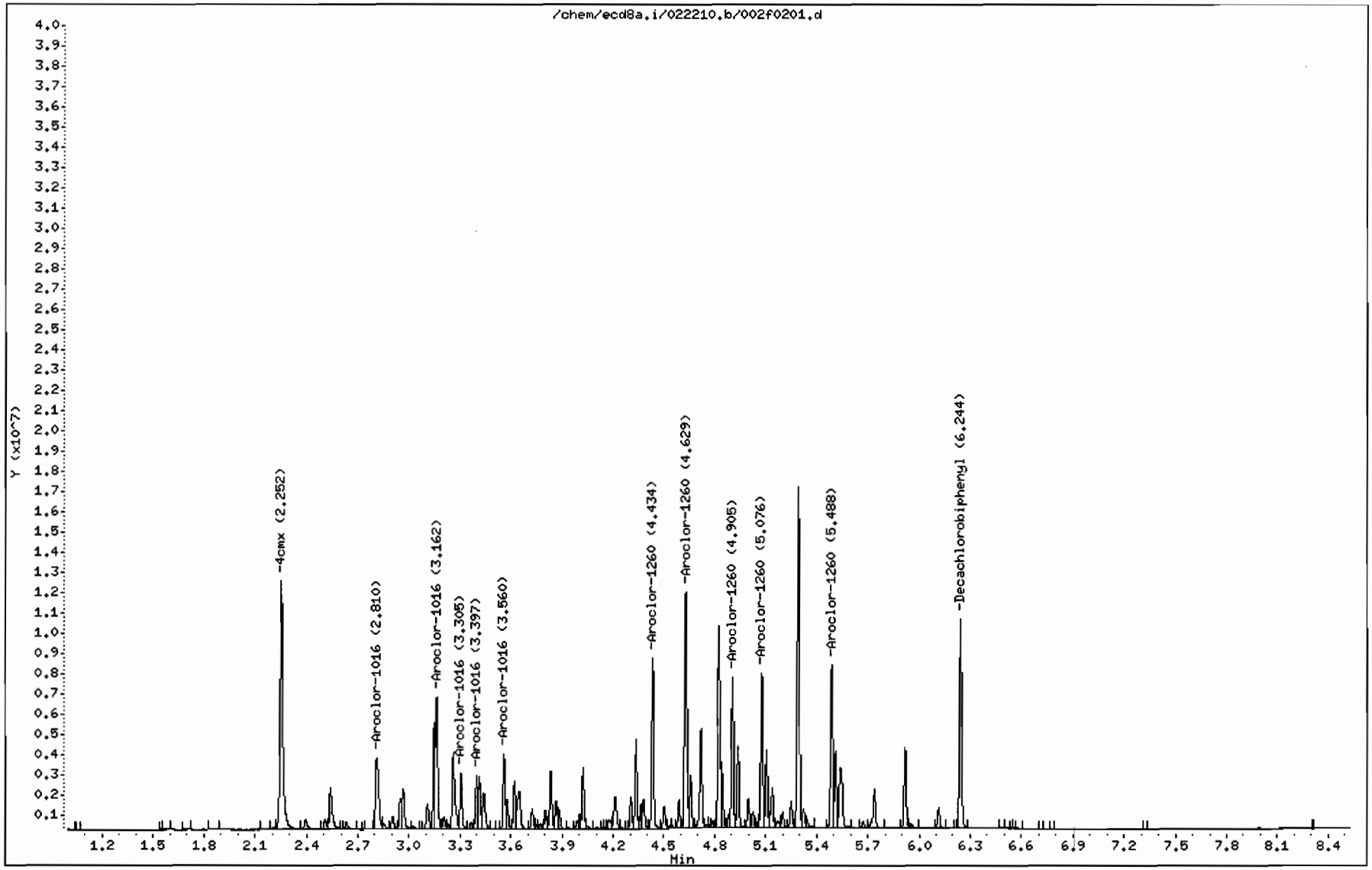

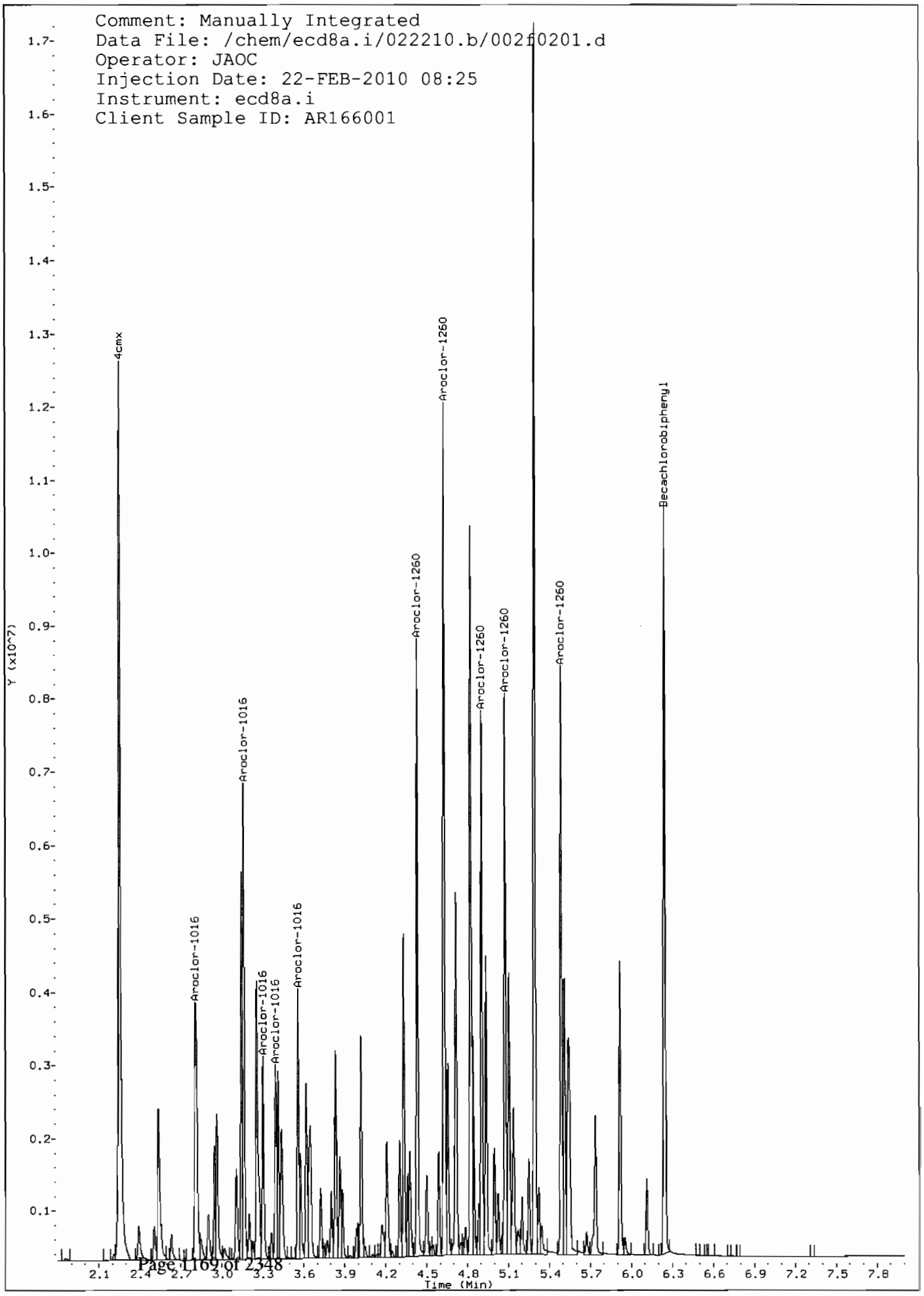
Comment: Manually Integrated
Data File: /chem/ecd8a.i/022210.b/002f0201.d
Operator: JAOC
Injection Date: 22-FEB-2010 08:25
Instrument: ecd8a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

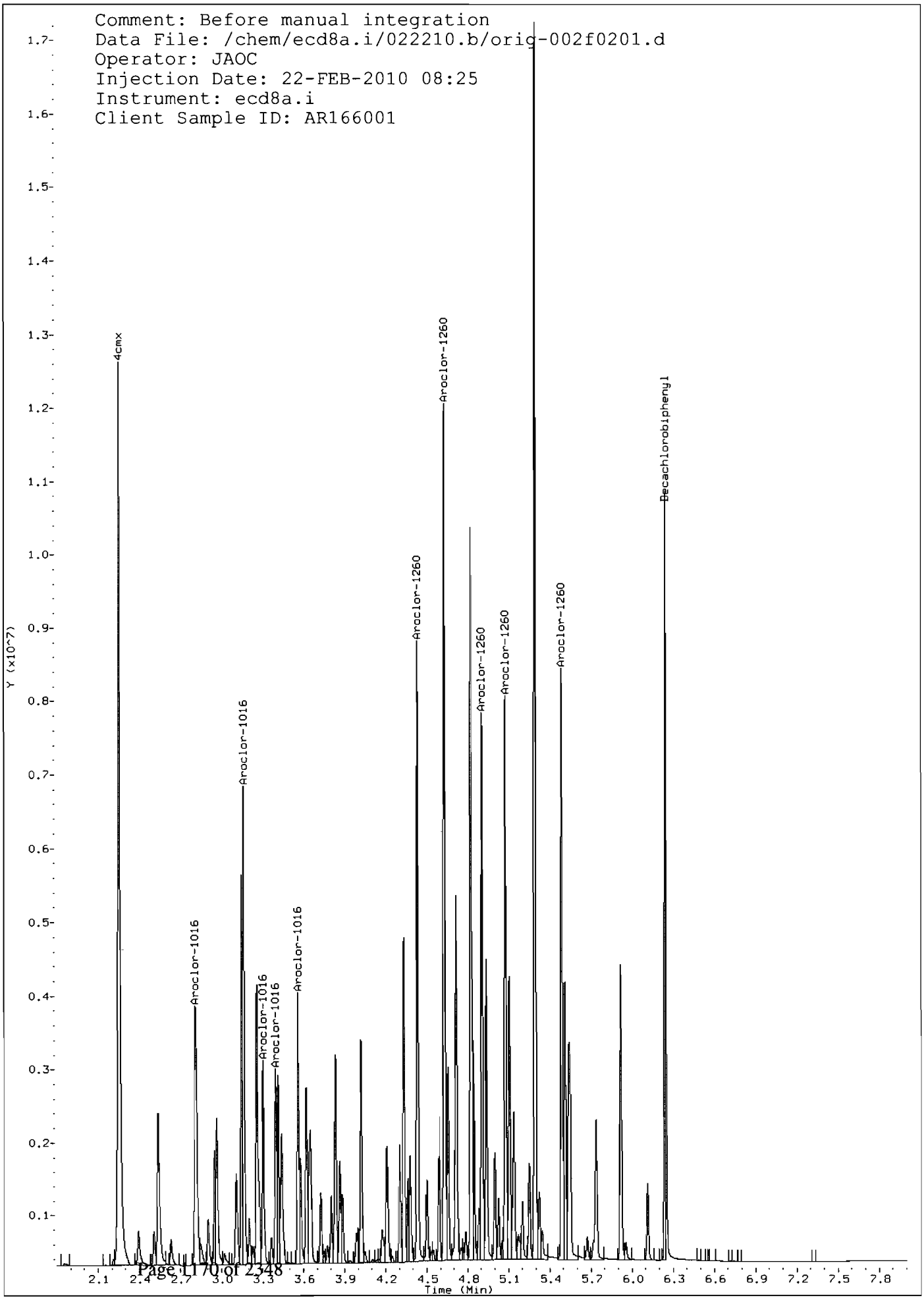
Comment: Before manual integration
Data File: /chem/ecd8a.i/022210.b/orig-002f0201.d
Operator: JAOC
Injection Date: 22-FEB-2010 08:25
Instrument: ecd8a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/002b0201.d
Lab Smp Id: WAR100203-60 01 Client Smp ID: AR166001
Inj Date : 22-FEB-2010 08:25
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100203-60 01
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-B-8082-020310a.m
Meth Date : 22-Feb-2010 14:05 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.484	2.484	0.000	9435960	100.000	109	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.832	6.832	0.000	6573230	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.556	3.556	0.000	3913591	1000.00	1040	80.00- 120.00	100.00
3.655	3.655	0.000	2618568	1000.00	1050	45.76- 85.76	66.91
3.731	3.731	0.000	1551579	1000.00	1020	19.69- 59.69	39.65
3.806	3.806	0.000	1512999	1000.00	1010	18.33- 58.33	38.66
4.003	4.003	0.000	2120668	1000.00	1040	33.60- 73.60	54.19
Average of Peak Amounts =				1.03e+03			
7 Aroclor-1260					CAS #: 11096-82-5		
4.915	4.915	0.000	4621381	1000.00	1130	80.00- 120.00	100.00
5.065	5.065	0.000	5546002	1000.00	1120	101.78- 141.78	120.01
5.381	5.381	0.000	4245047	1000.00	1120	72.14- 112.14	91.86
5.588	5.588	0.000	4412666	1000.00	1120	73.65- 113.65	95.48
6.020	6.020	0.000	6855872	1000.00	1100	130.14- 170.14	148.35
Average of Peak Amounts =				1.12e+03			

Data File: /chem/ecd8a.i/022210.b/002b0201.d
Date : 22-FEB-2010 08:25
Client ID: AR166001
Sample Info: IWAR100203-60 01
Column phase: CLP2

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

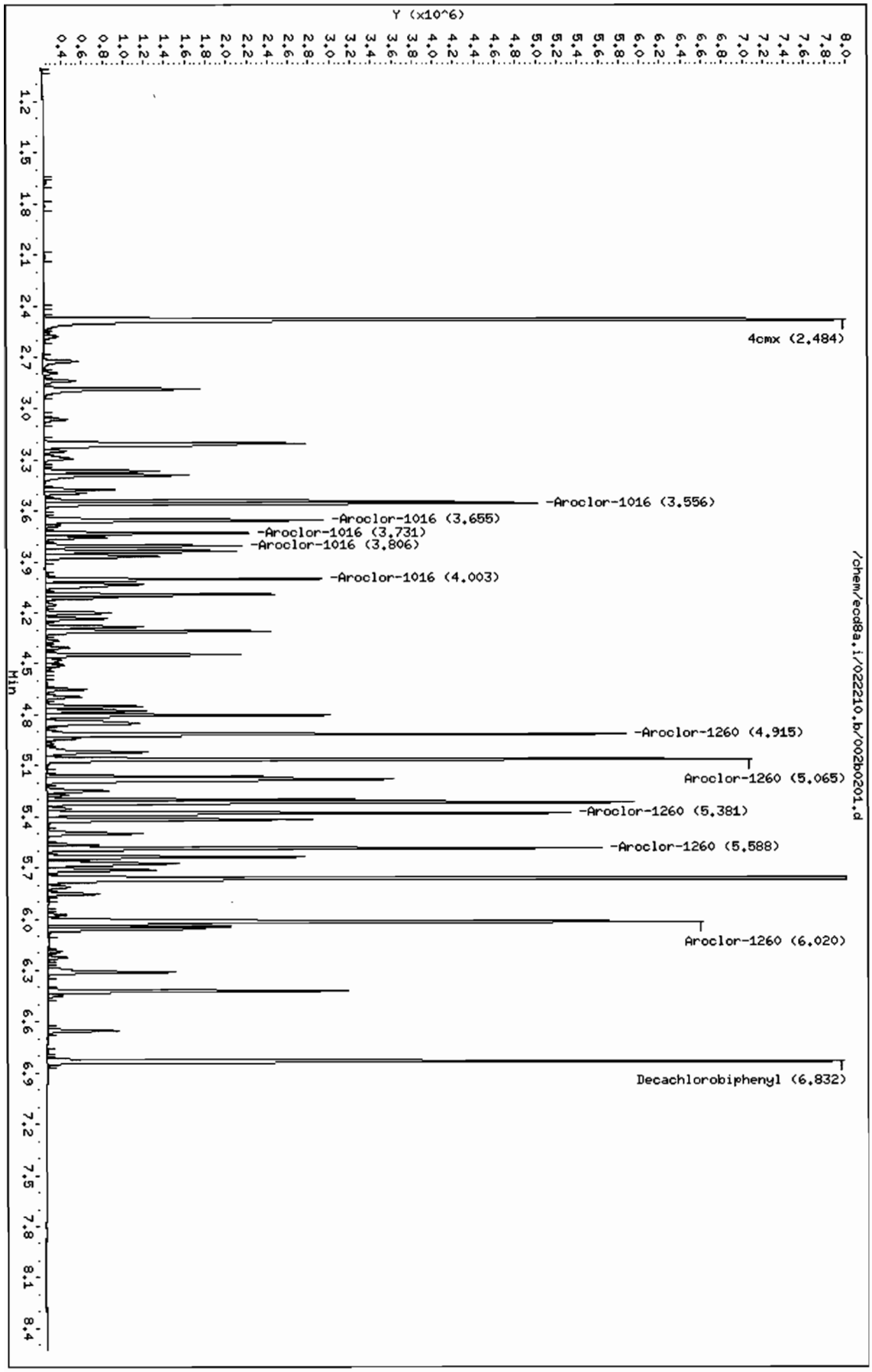

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/003f0301.d
Lab Smp Id: WAR100201-54 Client Smp ID: AR125401
Inj Date : 22-FEB-2010 08:37
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100201-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-F-8082-020310a.m
Meth Date : 22-Feb-2010 14:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.835	3.835	0.000	4864380	1000.00	1020	80.00- 120.00	100.00
4.022	4.022	0.000	6635702	1000.00	1010	116.41- 156.41	136.41
4.218	4.218	0.000	5166194	1000.00	1000	86.20- 126.20	106.20
4.304	4.304	0.000	8944113	1000.00	1020	163.87- 203.87	183.87
4.500	4.500	0.000	6716606	1000.00	972	118.08- 158.08	138.08

Average of Peak Amounts = 1e+03

Data File: /chem/ecd8a.i/022210.b/003f0301.d

Page 1

Date : 22-FEB-2010 08:37

Client ID: AR125401

Instrument: ecd8a.i

Sample Info: |WAR100201-54

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

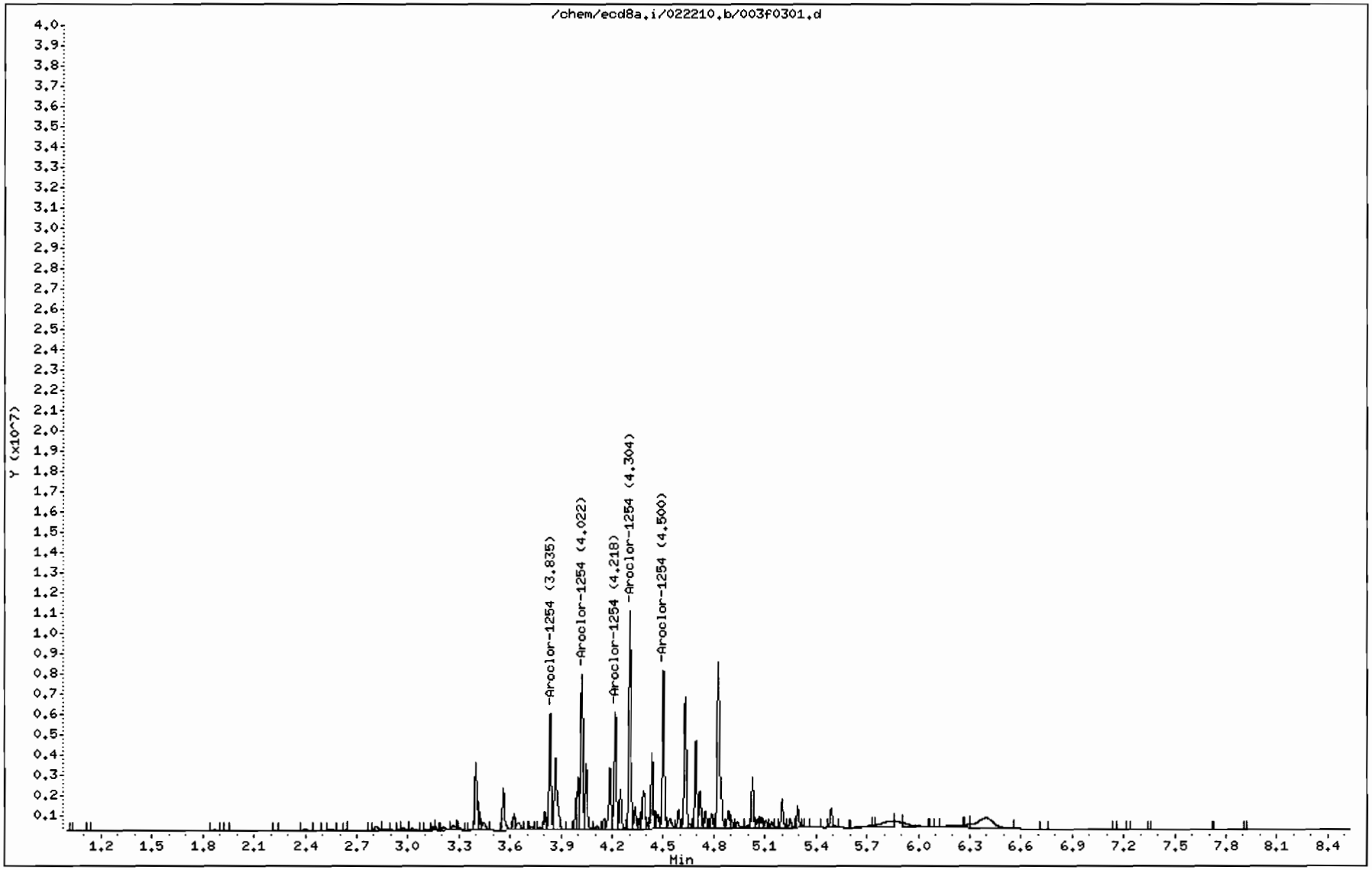

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/003b0301.d
Lab Smp Id: WAR100201-54 Client Smp ID: AR125401
Inj Date : 22-FEB-2010 08:37
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100201-54
Misc Info : |1254
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-B-8082-020310a.m
Meth Date : 22-Feb-2010 14:05 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
4.310	4.310	0.000	3454785	1000.00	1000	80.00- 120.00	100.00
4.448	4.448	0.000	3882885	1000.00	993	92.39- 132.39	112.39
4.777	4.777	0.000	5518260	1000.00	1000	139.73- 179.73	159.73
4.939	4.939	0.000	3907776	1000.00	974	93.11- 133.11	113.11
5.064	5.064	0.000	2503756	1000.00	982	52.47- 92.47	72.47
		Average of Peak Amounts =			991		

Data File: /chem/ecd8a.i/022210.b/003b0301.d

Date : 22-FEB-2010 08:37

Client ID: AR125401

Sample Info: IWAR100201-54

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

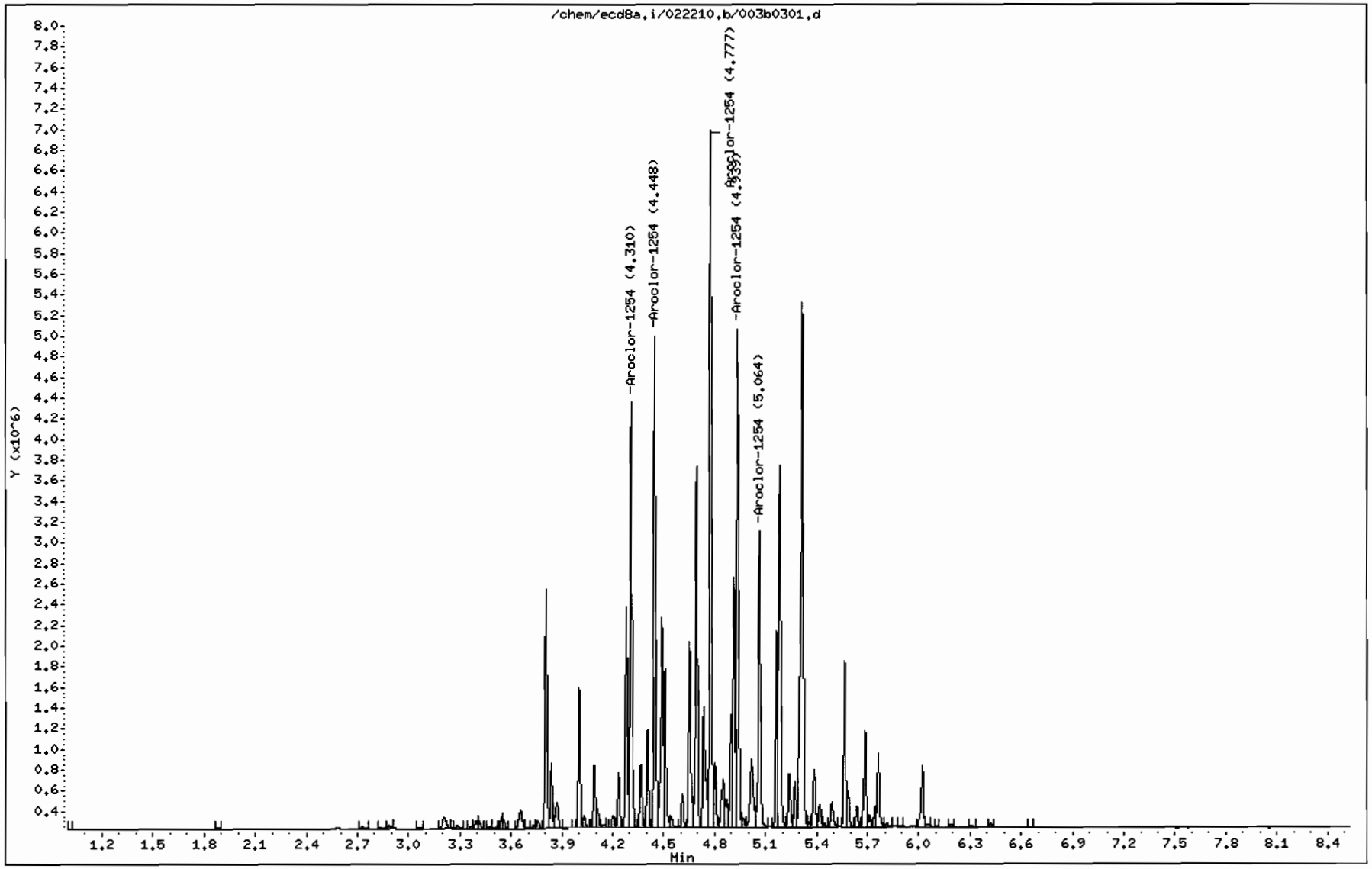

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/004f0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 22-FEB-2010 08:50
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-F-8082-020310a.m
Meth Date : 22-Feb-2010 14:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.811	2.811	0.000	3877977	1000.00	976	80.00- 120.00	100.00
3.162	3.162	0.000	4640782	1000.00	968	99.67- 139.67	119.67
3.398	3.398	0.000	1737990	1000.00	963	24.82- 64.82	44.82
3.415	3.415	0.000	1822349	1000.00	965	26.99- 66.99	46.99
3.560	3.560	0.000	2605289	1000.00	985	47.18- 87.18	67.18
		Average of Peak Amounts =			971		

Data File: /chem/ecd8a.i/022210.b/004f0401.d

Date : 22-FEB-2010 08:50

Client ID: AR124201

Sample Info: IWAR091217-42

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

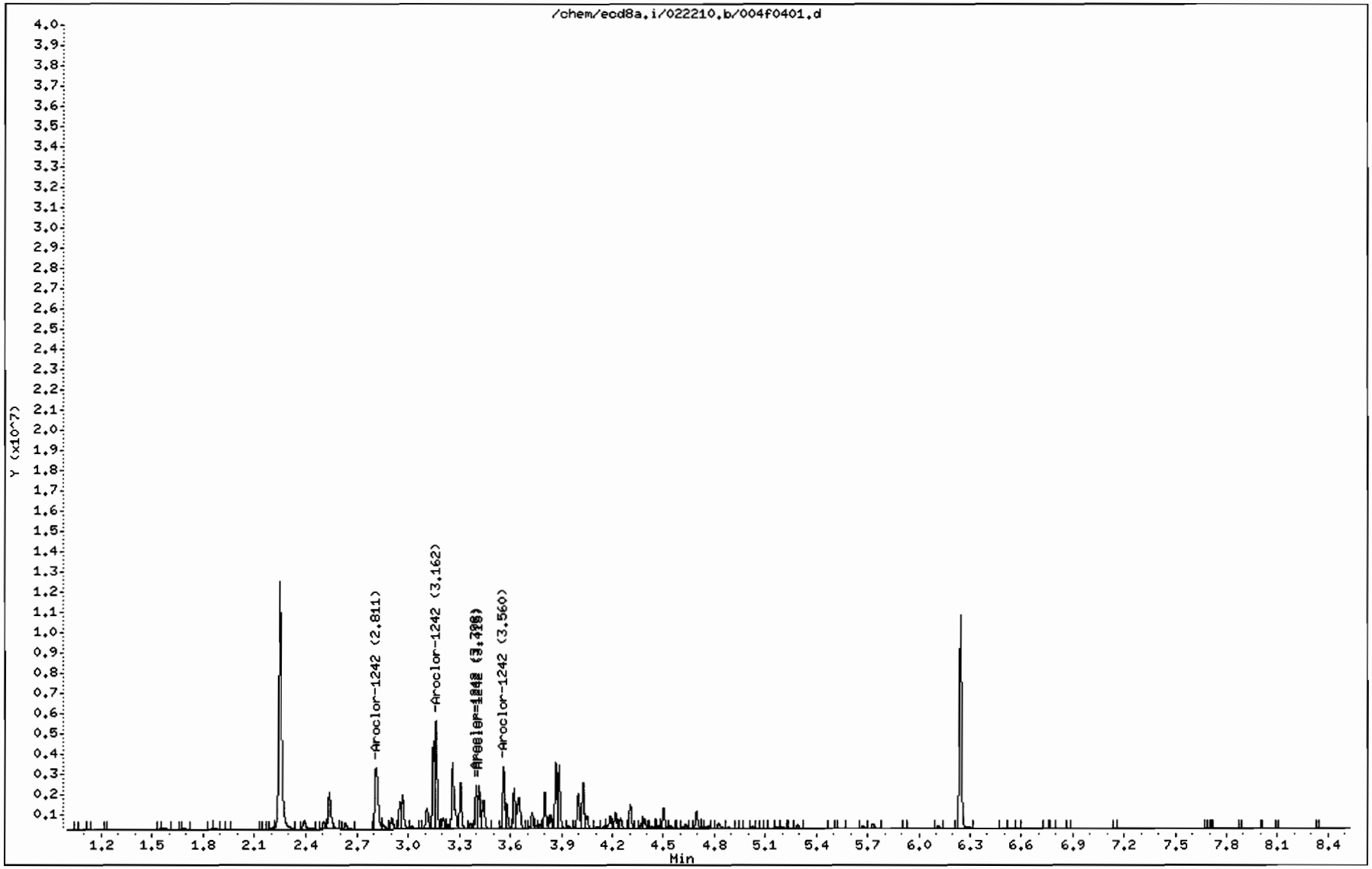

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/004b0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 22-FEB-2010 08:50
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-42
Misc Info : |1242
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-B-8082-020310a.m
Meth Date : 22-Feb-2010 14:05 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.203	3.203	0.000	2756091	1000.00	1030	80.00- 120.00	100.00
3.556	3.556	0.000	3204361	1000.00	1020	96.26- 136.26	116.26
3.656	3.656	0.000	2224541	1000.00	1040	60.71- 100.71	80.71
4.003	4.003	0.000	1760032	1000.00	1030	43.86- 83.86	63.86
4.093	4.093	0.000	1651181	1000.00	1050	39.91- 79.91	59.91

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd8a.i/022210.b/004b0401.d

Date : 22-FEB-2010 08:50

Client ID: AR124201

Sample Info: IWAR091217-42

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

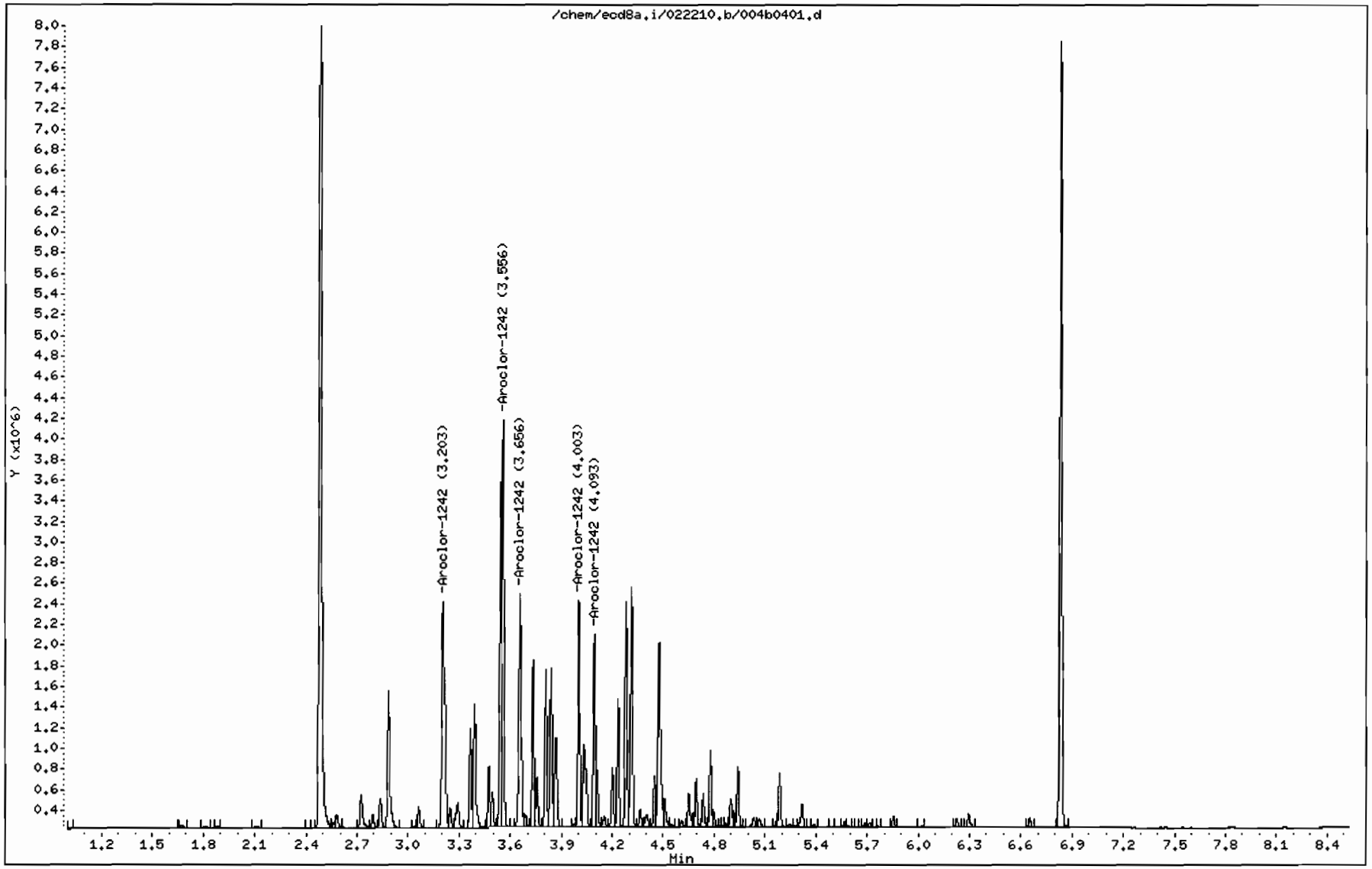

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/005f0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 22-FEB-2010 09:02
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-F-8082-020310a.m
Meth Date : 22-Feb-2010 14:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.146	3.146	0.000	2835499	1000.00	948	80.00- 120.00	100.00
3.397	3.397	0.000	3612245	1000.00	945	107.39- 147.39	127.39
3.560	3.560	0.000	4843494	1000.00	969	150.82- 190.82	170.82
3.866	3.866	0.000	5868924	1000.00	980	186.98- 226.98	206.98
4.025	4.025	0.000	4709191	1000.00	976	146.08- 186.08	166.08
Average of Peak Amounts =					963		

Data File: /chem/ecd8a.i/022210.b/005f0501.d

Page 1

Date : 22-FEB-2010 09:02

Client ID: AR124801

Instrument: ecd8a.i

Sample Info: IWAR091217-48

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

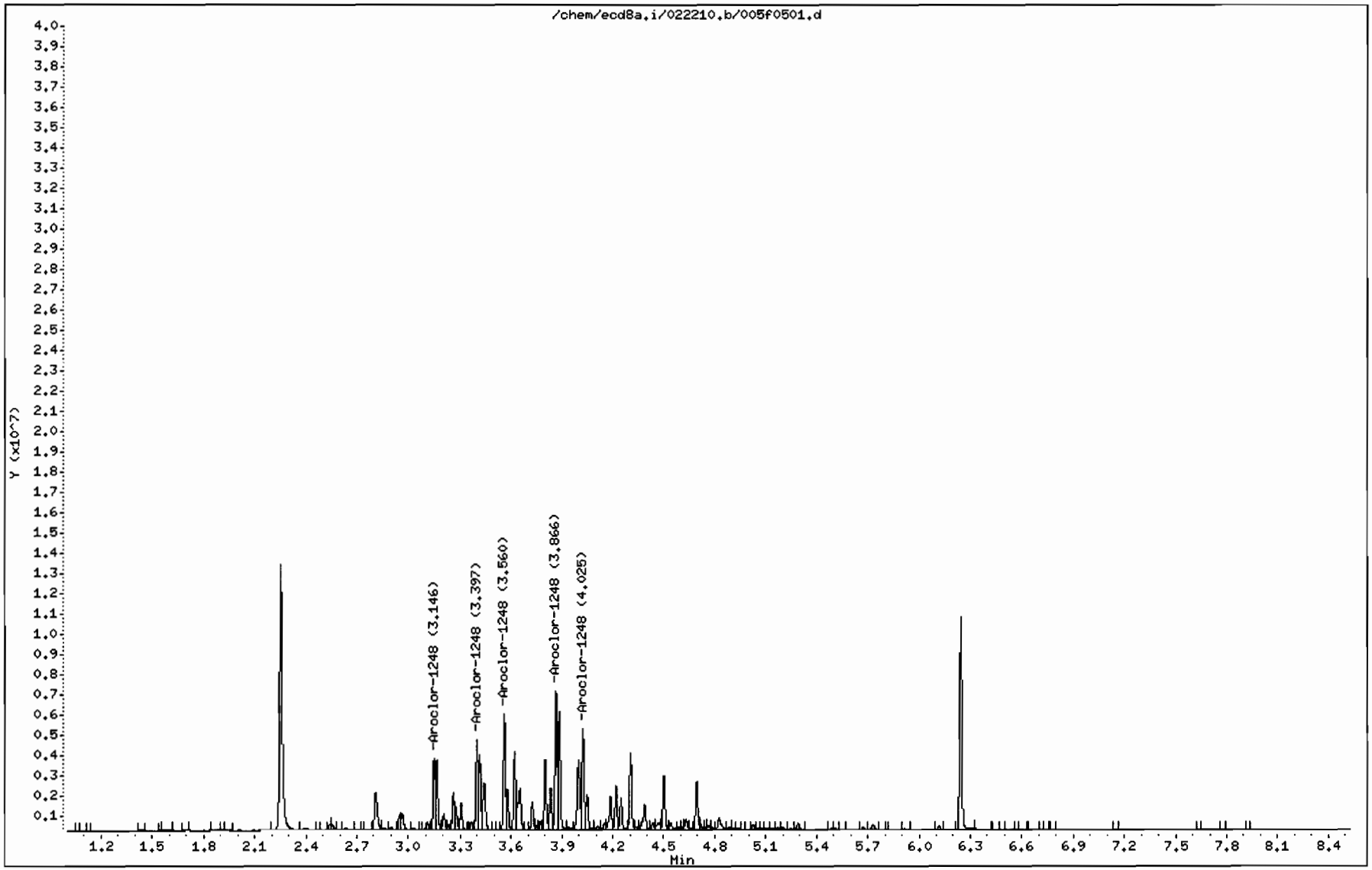

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/005b0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 22-FEB-2010 09:02
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR091217-48
Misc Info : |1248
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-B-8082-020310a.m
Meth Date : 22-Feb-2010 14:05 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.655	3.655	0.000	1427227	1000.00	1000	80.00- 120.00	100.00
3.806	3.806	0.000	2386187	1000.00	967	147.19- 187.19	167.19
4.003	4.003	0.000	3028741	1000.00	980	192.21- 232.21	212.21
4.281	4.281	0.000	3508241	1000.00	962	225.81- 265.81	245.81
4.313	4.313	0.000	3847378	1000.00	961	249.57- 289.57	269.57
Average of Peak Amounts =					974		

Data File: /chem/ecd8a.i/022210.b/005b0501.d

Date : 22-FEB-2010 09:02

Client ID: AR124801

Sample Info: IWAR091217-48

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

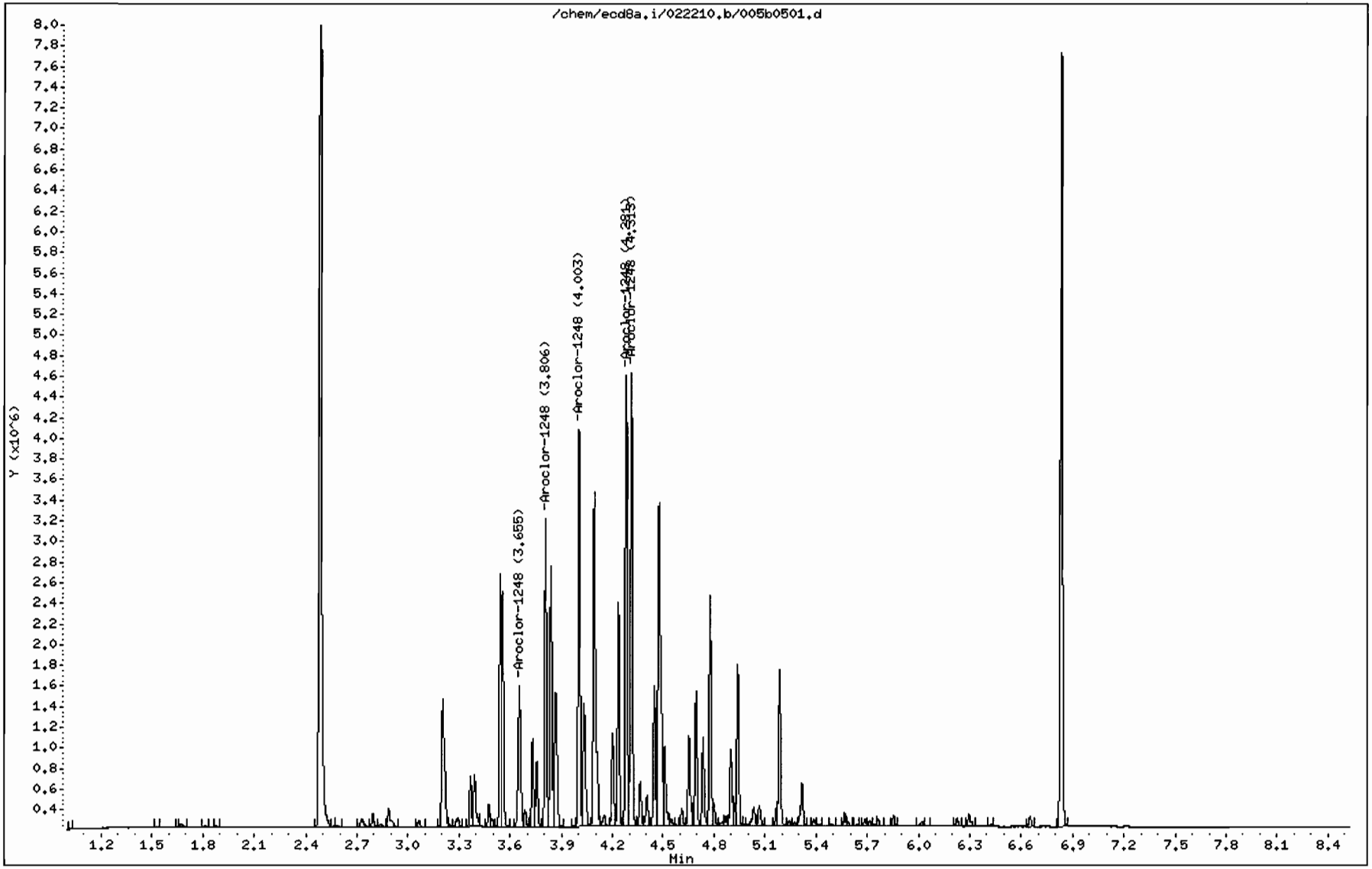

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/006f0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 22-FEB-2010 09:15
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-F-8082-020310a.m
Meth Date : 22-Feb-2010 14:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.540	2.540	0.000	2508618	1000.00	965	80.00- 120.00	100.00
2.812	2.812	0.000	2155902	1000.00	954	65.94- 105.94	85.94
3.307	3.307	0.000	1139513	1000.00	916	25.42- 65.42	45.42
3.561	3.561	0.000	1373939	1000.00	929	34.77- 74.77	54.77
3.623	3.623	0.000	835649	1000.00	906	13.31- 53.31	33.31
Average of Peak Amounts =					934		

Data File: /chem/ecd8a.i/022210.b/006f0601.d

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Date : 22-FEB-2010 09:15

Client ID: AR123201

Instrument: ecd8a.i

Sample Info: IWAR100104-32

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

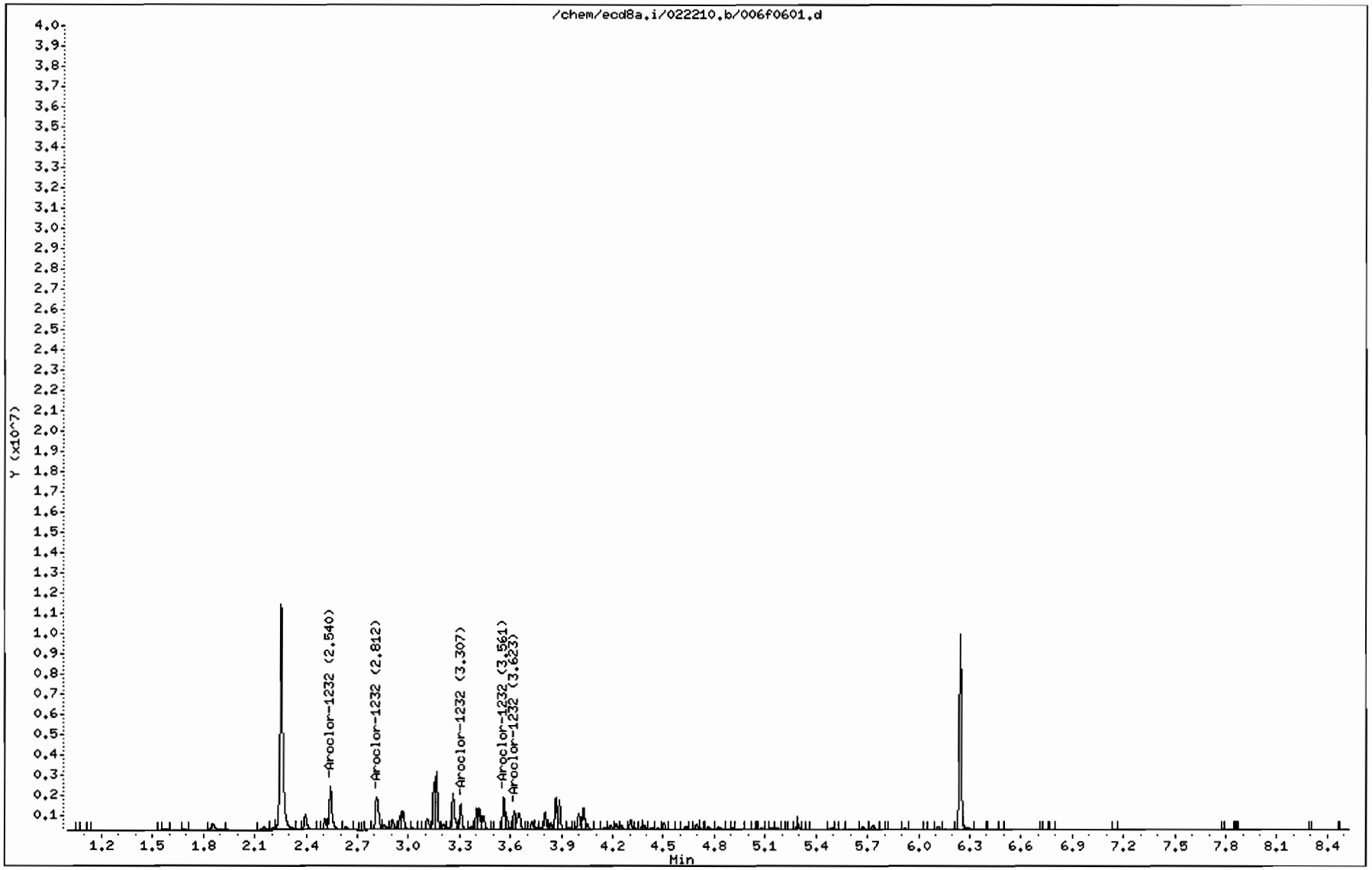

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/006b0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 22-FEB-2010 09:15
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-32
Misc Info : |1232
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-B-8082-020310a.m
Meth Date : 22-Feb-2010 14:05 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
3.204	3.204	0.000	1543729	1000.00	1020	80.00- 120.00	100.00
3.558	3.558	0.000	1695172	1000.00	972	89.81- 129.81	109.81
3.657	3.657	0.000	1207361	1000.00	1030	58.21- 98.21	78.21
3.733	3.733	0.000	700423	1000.00	986	25.37- 65.37	45.37
3.808	3.808	0.000	613111	1000.00	992	19.72- 59.72	39.72
		Average of Peak Amounts =			999		

Data File: /chem/ecd8a.i/022210.b/006b0601.d

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Date : 22-FEB-2010 09:15

Client ID: AR123201

Instrument: ecd8a.i

Sample Info: IWAR100104-32

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

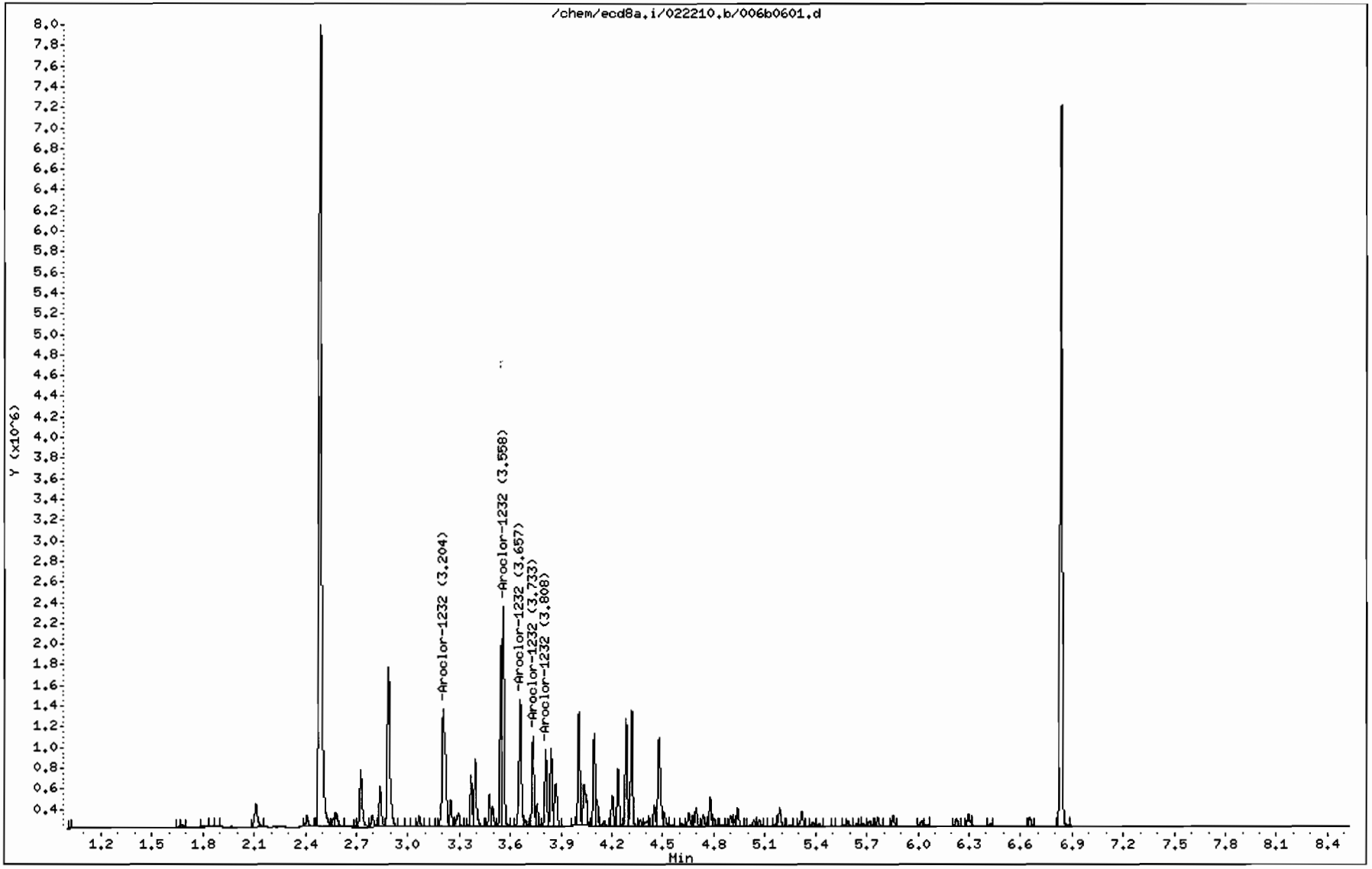

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/007f0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 22-FEB-2010 09:27
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-F-8082-020310a.m
Meth Date : 22-Feb-2010 14:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
1.854	1.854	0.000	1161201	1000.00	1060	80.00- 120.00	100.00
2.393	2.393	0.000	1497627	1000.00	1020	108.97- 148.97	128.97
2.539	2.539	0.000	3451343	1000.00	1020	277.22- 317.22	297.22

Average of Peak Amounts = 1.03e+03

Data File: /chem/ecd8a.i/022210.b/007f0701.d

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Date : 22-FEB-2010 09:27

Client ID: AR122101

Instrument: ecd8a.i

Sample Info: IWAR100104-21

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

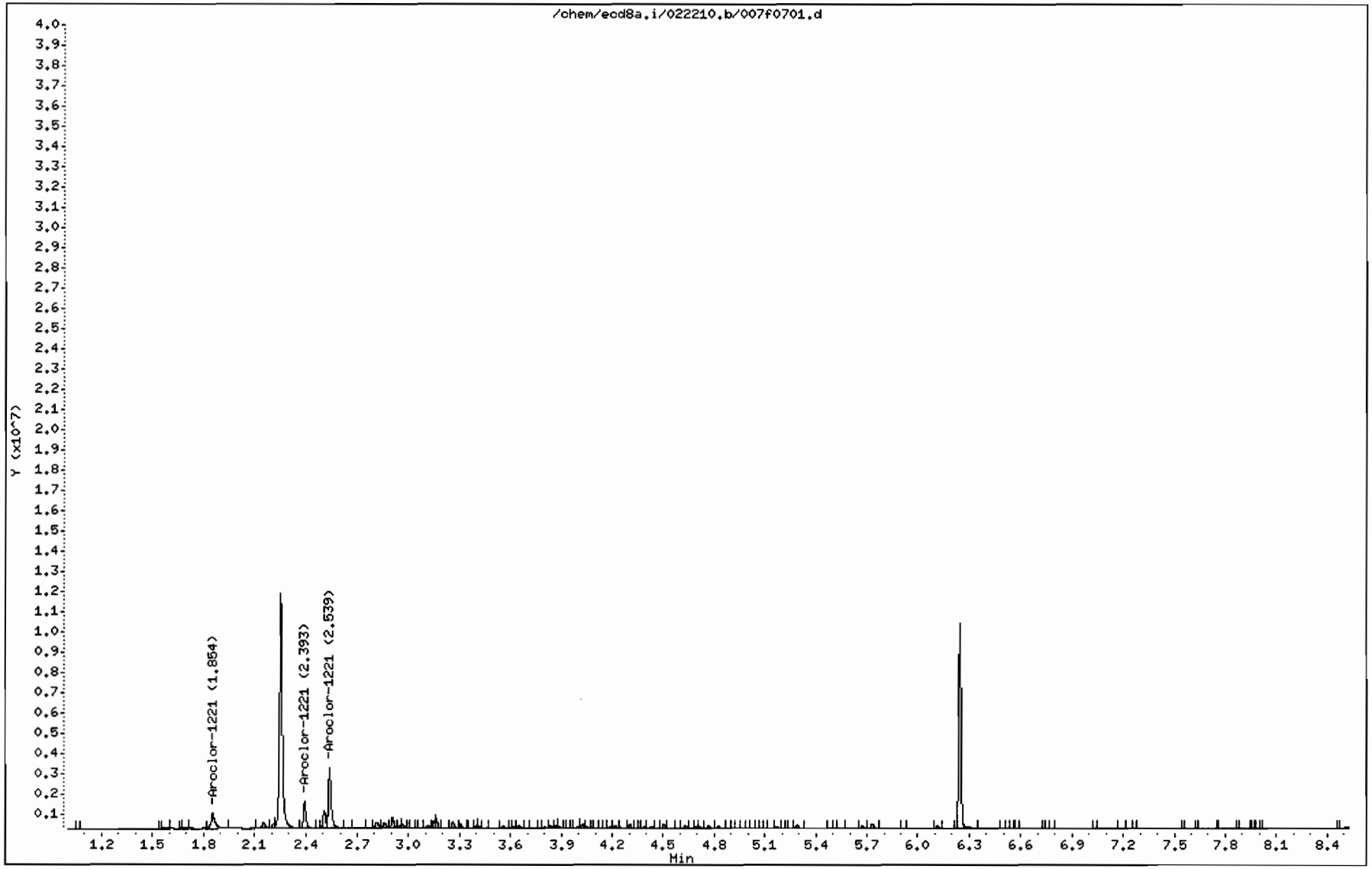

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/007b0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 22-FEB-2010 09:27
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-21
Misc Info : |1221
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-B-8082-020310a.m
Meth Date : 22-Feb-2010 14:05 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.724	2.724	0.000	965707	1000.00	1080	80.00- 120.00	100.00
2.837	2.837	0.000	598915	1000.00	1080	42.02- 82.02	62.02
2.885	2.885	0.000	2224836	1000.00	1080	210.38- 250.38	230.38

Average of Peak Amounts = 1.08e+03

Data File: /chem/ecd8a.i/022210.b/007b0701.d

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Date : 22-FEB-2010 09:27

Client ID: AR122101

Instrument: ecd8a.i

Sample Info: IWAR100104-21

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

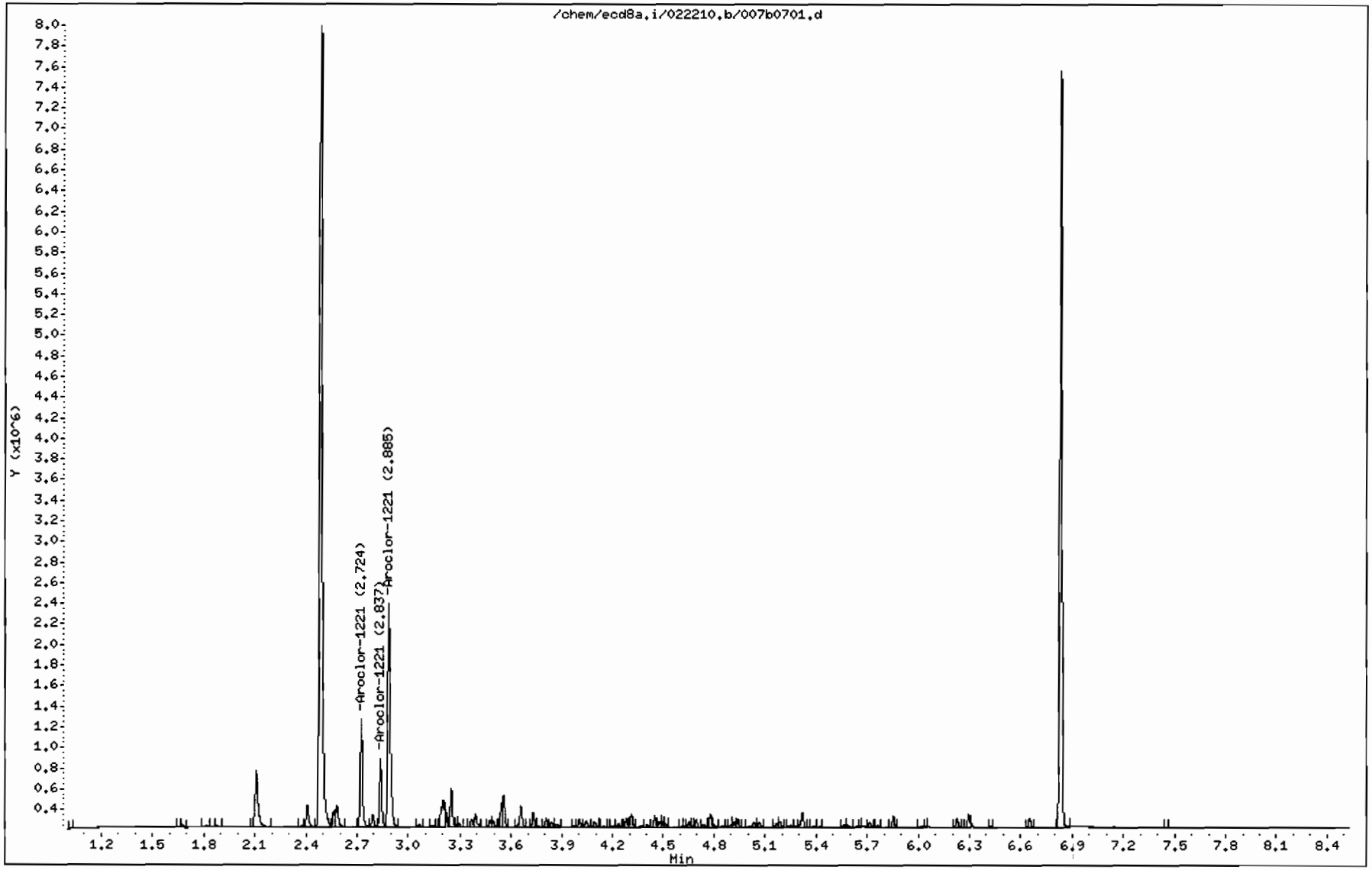

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/008f0801.d
Lab Smp Id: WAR100104-62 Client Smp ID: AR126201
Inj Date : 22-FEB-2010 09:40
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-62
Misc Info : |1262
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-F-8082-020310a.m
Meth Date : 22-Feb-2010 14:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1262.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
8 Aroclor-1262					CAS #: 37324-23-5		
4.336	4.336	0.000	3564912	1000.00	1060	80.00- 120.00	100.00
4.434	4.434	0.000	5652911	1000.00	1080	138.57- 178.57	158.57
4.629	4.629	0.000	7501608	1000.00	1060	190.43- 230.43	210.43
4.905	4.905	0.000	8858171	1000.00	1030	228.48- 268.48	248.48
5.077	5.077	0.000	8081580	1000.00	1010	206.70- 246.70	226.70

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd8a.i/022210.b/008f0801.d

Date : 22-FEB-2010 09:40

Client ID: AR126201

Sample Info: IWAR100104-62

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

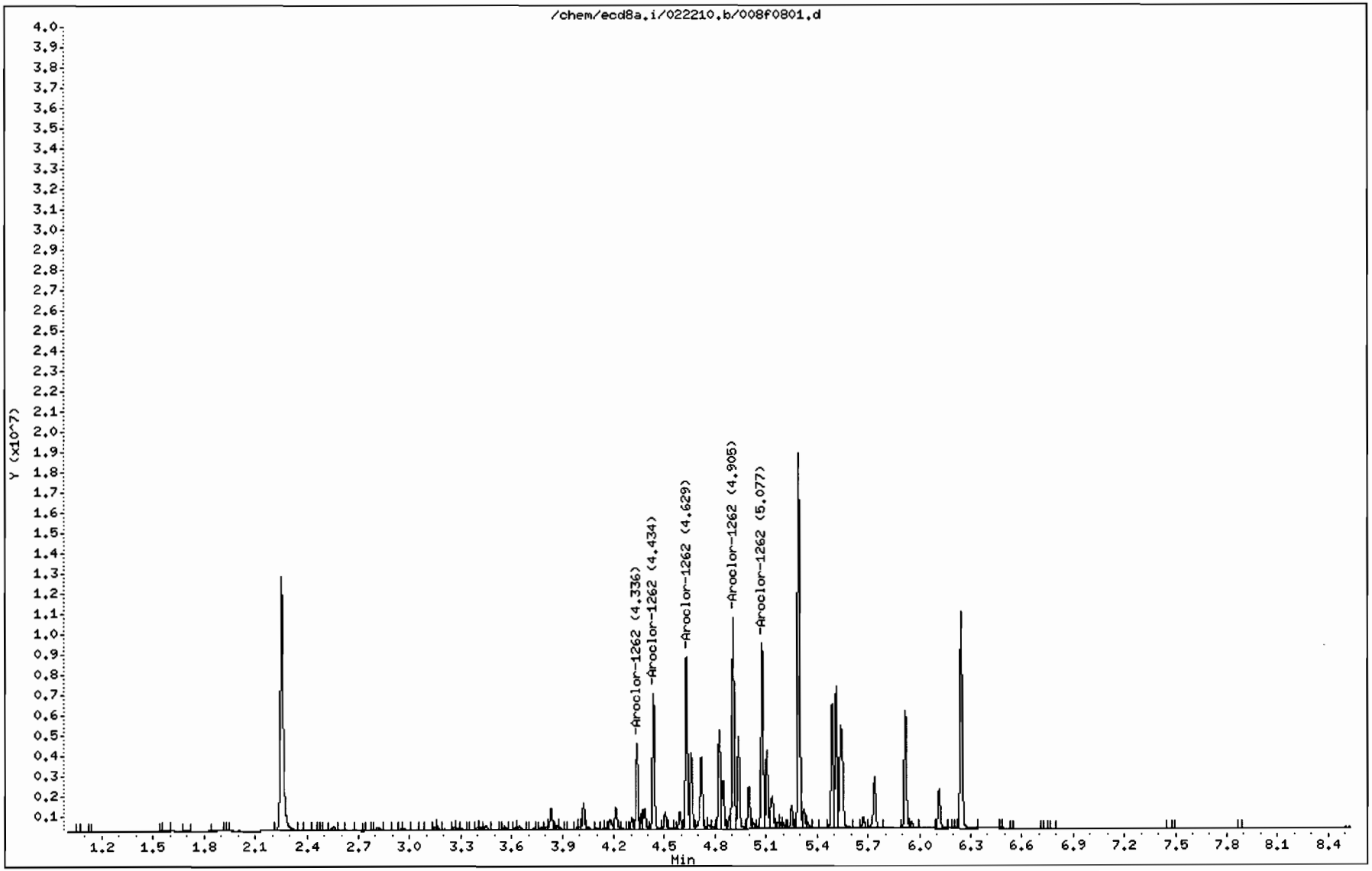

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/008b0801.d
Lab Smp Id: WAR100104-62 Client Smp ID: AR126201
Inj Date : 22-FEB-2010 09:40
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100104-62
Misc Info : |1262
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-B-8082-020310a.m
Meth Date : 22-Feb-2010 14:05 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1262.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
8 Aroclor-1262					CAS #: 37324-23-5		
4.917	4.917	0.000	3463358	1000.00	1060	80.00- 120.00	100.00
5.065	5.065	0.000	4032266	1000.00	1050	96.43- 136.43	116.43
5.382	5.382	0.000	5763439	1000.00	1060	146.41- 186.41	166.41
5.588	5.588	0.000	5274717	1000.00	1040	132.30- 172.30	152.30
6.018	6.018	0.000	7467056	1000.00	1040	195.60- 235.60	215.60

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd8a.i/022210.b/008b0801.d

Date : 22-FEB-2010 09:40

Client ID: AR126201

Sample Info: IWAR100104-62

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

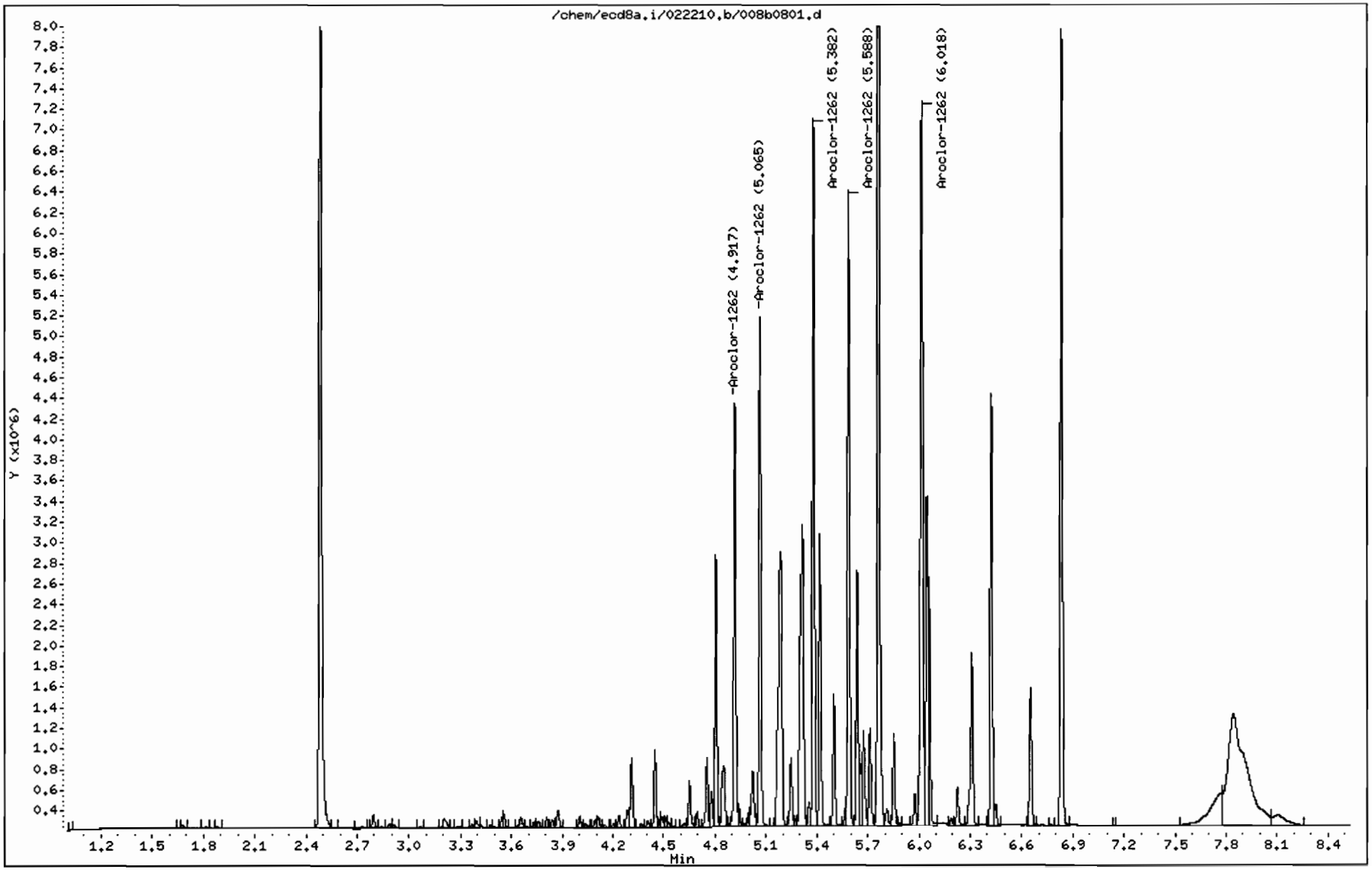

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/062f6201.d
Lab Smp Id: WAR100222-60 06 Client Smp ID: AR166006
Inj Date : 22-FEB-2010 22:39
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100222-60 06
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-F-8082-020310a.m
Meth Date : 23-Feb-2010 09:36 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 62 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.251	2.252	-0.001	12738664	100.000	96.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.241	6.244	-0.003	9572615	100.000	95.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.808	2.810	-0.002	4267488	1000.00	915	80.00- 120.00	100.00
3.159	3.162	-0.003	5593557	1000.00	969	111.10- 151.10	131.07
3.303	3.305	-0.002	2261435	1000.00	921	34.52- 74.52	52.99
3.395	3.397	-0.002	1982475	1000.00	902	27.06- 67.06	46.46
3.558	3.560	-0.002	2857565	1000.00	909	49.26- 89.26	66.96
Average of Peak Amounts =					923		
7 Aroclor-1260					CAS #: 11096-82-5		
4.431	4.434	-0.003	7260105	1000.00	1080	80.00- 120.00	100.00
4.627	4.629	-0.002	11052702	1000.00	1080	136.22- 176.22	152.24
4.902	4.905	-0.003	6664442	1000.00	1090	72.83- 112.83	91.80
5.074	5.076	-0.002	7187887	1000.00	1120	76.42- 116.42	99.01
5.485	5.488	-0.003	7611406	1000.00	1110	83.79- 123.79	104.84
Average of Peak Amounts =					1.1e+03		

Data File: /chem/ecd8a.i/022210.b/062f6201.d
Date : 22-FEB-2010 22:39
Client ID: AR166006
Sample Info: IWAR100222-60 06
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

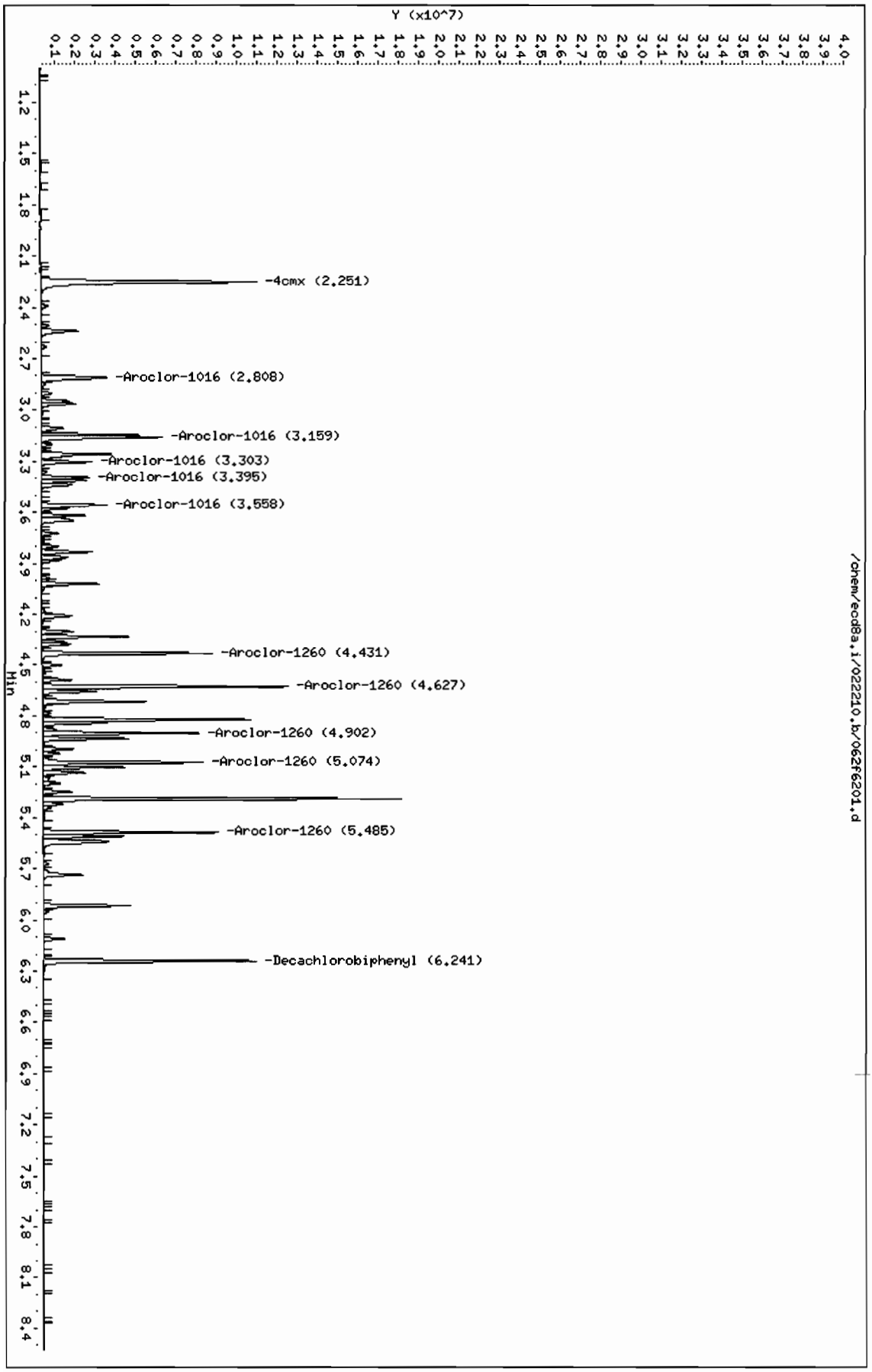

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/062b6201.d
Lab Smp Id: WAR100222-60 06 Client Smp ID: AR166006
Inj Date : 22-FEB-2010 22:39
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100222-60 06
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-B-8082-020310a.m
Meth Date : 23-Feb-2010 09:39 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 62 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.483	2.484	-0.001	9389097	100.000	108	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.831	6.832	-0.001	6519312	100.000	100	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.554	3.556	-0.002	4245636	1000.00	1130	80.00- 120.00	100.00
3.653	3.655	-0.002	2688322	1000.00	1080	43.35- 83.35	63.32
3.729	3.731	-0.002	1653023	1000.00	1090	19.09- 59.09	38.93
3.804	3.806	-0.002	1590515	1000.00	1060	17.62- 57.62	37.46
4.001	4.003	-0.002	2220550	1000.00	1090	32.41- 72.41	52.30
Average of Peak Amounts =					1.09e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.914	4.915	-0.001	4800000	1000.00	1180	80.00- 120.00	100.00
5.063	5.065	-0.002	5892498	1000.00	1180	103.41- 143.41	122.76
5.379	5.381	-0.002	4465191	1000.00	1180	71.39- 111.39	93.02
5.587	5.588	-0.001	4659838	1000.00	1180	76.47- 116.47	97.08
6.018	6.020	-0.002	7299729	1000.00	1170	134.28- 174.28	152.08
Average of Peak Amounts =					1.18e+03		

Data File: /chem/ecd8a.i/022210.b/062b6201.d

Date : 22-FEB-2010 22:39

Client ID: AR166006

Sample Info: |WAR100222-60 06

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

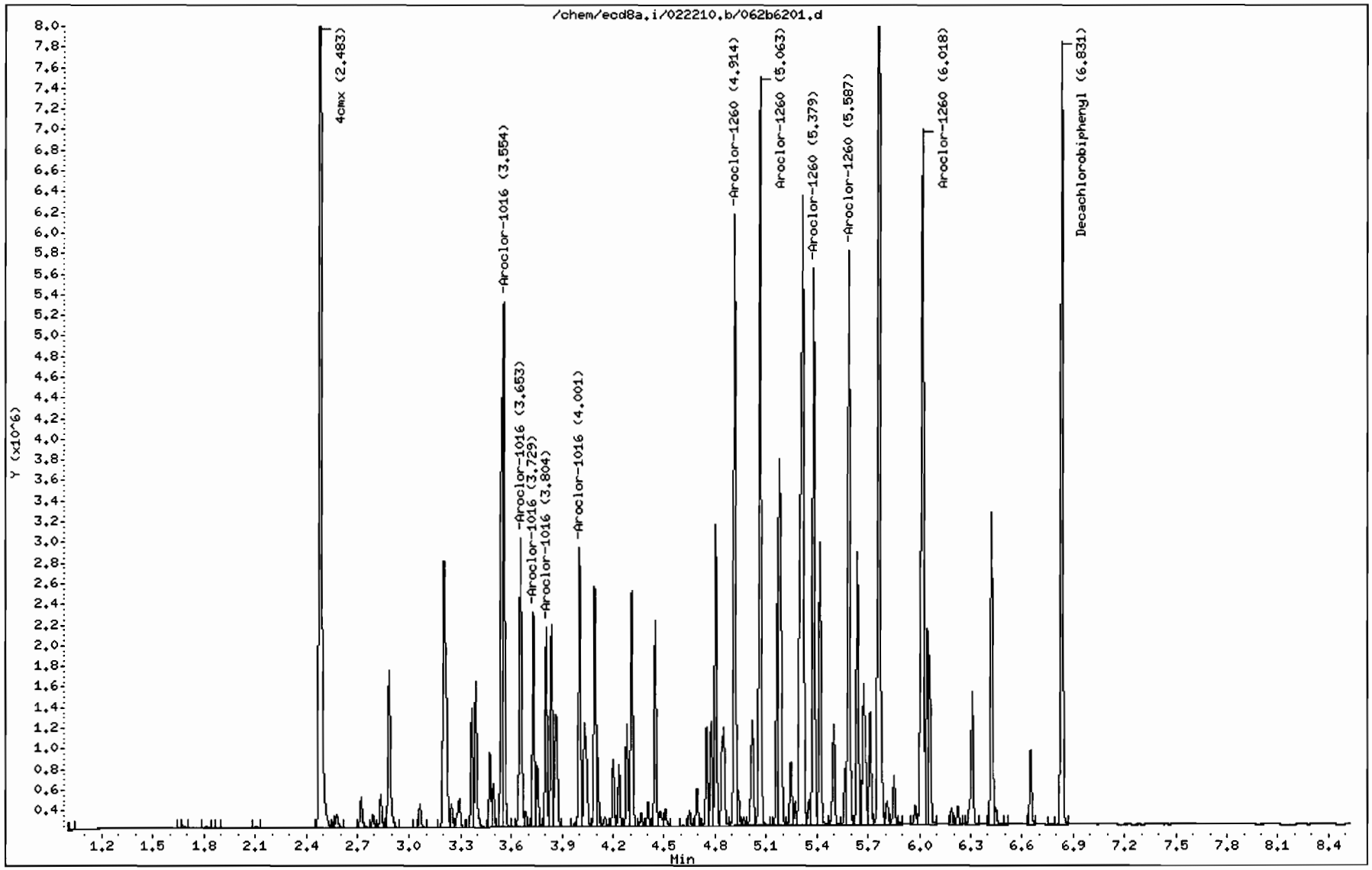

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/069f6901.d
Lab Smp Id: WAR100222-60 07 Client Smp ID: AR166007
Inj Date : 23-FEB-2010 00:06
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100222-60 07
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-F-8082-020310a.m
Meth Date : 23-Feb-2010 09:36 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 69 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.252	2.252	0.000	12521551	100.000	95.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.243	6.244	-0.001	9298246	100.000	93.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.809	2.810	-0.001	4251687	1000.00	911	80.00- 120.00	100.00
3.162	3.162	0.000	5573948	1000.00	966	111.10- 151.10	131.10
3.305	3.305	0.000	2318016	1000.00	944	34.52- 74.52	54.52
3.397	3.397	0.000	2000652	1000.00	910	27.06- 67.06	47.06
3.560	3.560	0.000	2944789	1000.00	937	49.26- 89.26	69.26
Average of Peak Amounts =					934		
7 Aroclor-1260					CAS #: 11096-82-5		
4.433	4.434	-0.001	7203489	1000.00	1070	80.00- 120.00	100.00
4.629	4.629	0.000	11253484	1000.00	1100	136.22- 176.22	156.22
4.905	4.905	0.000	6687072	1000.00	1090	72.83- 112.83	92.83
5.077	5.076	0.001	6945542	1000.00	1090	76.42- 116.42	96.42
5.488	5.488	0.000	7476778	1000.00	1090	83.79- 123.79	103.79
Average of Peak Amounts =					1.09e+03		

Data File: /chem/ecd8a.i/022210.b/069f6901.d
Date : 23-FEB-2010 00:06
Client ID: AR166007
Sample Info: IWAR100222-60 07

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

Column phase: CLP1

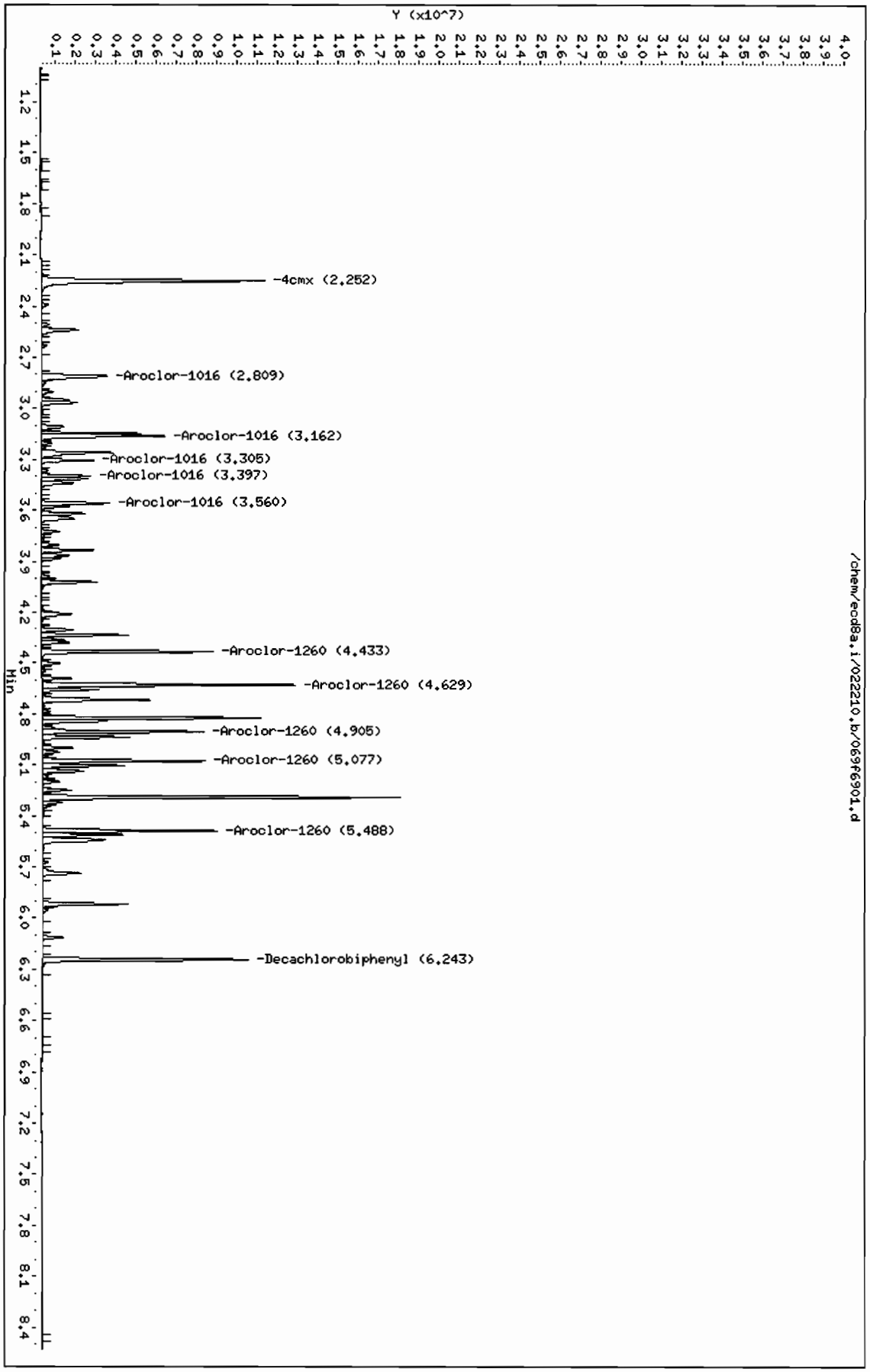

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/069b6901.d
Lab Smp Id: WAR100222-60 07 Client Smp ID: AR166007
Inj Date : 23-FEB-2010 00:06
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100222-60 07
Misc Info : |1660
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-B-8082-020310a.m
Meth Date : 23-Feb-2010 09:39 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 69 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.483	2.484	-0.001	8939443	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.832	6.832	0.000	6404889	100.000	98.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.556	3.556	0.000	4018495	1000.00	1070	80.00- 120.00	100.00
3.655	3.655	0.000	2545634	1000.00	1020	43.35- 83.35	63.35
3.731	3.731	0.000	1570837	1000.00	1040	19.09- 59.09	39.09
3.806	3.806	0.000	1511956	1000.00	1010	17.62- 57.62	37.62
4.002	4.003	-0.001	2106092	1000.00	1030	32.41- 72.41	52.41
Average of Peak Amounts =					1.03e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.916	4.915	0.001	4540810	1000.00	1110	80.00- 120.00	100.00
5.065	5.065	0.000	5603774	1000.00	1130	103.41- 143.41	123.41
5.381	5.381	0.000	4150035	1000.00	1100	71.39- 111.39	91.39
5.588	5.588	0.000	4380638	1000.00	1110	76.47- 116.47	96.47
6.019	6.020	-0.001	7005443	1000.00	1120	134.28- 174.28	154.28
Average of Peak Amounts =					1.11e+03		

Data File: /chem/ecd8a.i/022210.b/069b6901.d
Date : 23-FEB-2010 00:06
Client ID: AR166007
Sample Info: IWAR100222-60 07

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC
Column diameter: 0.25

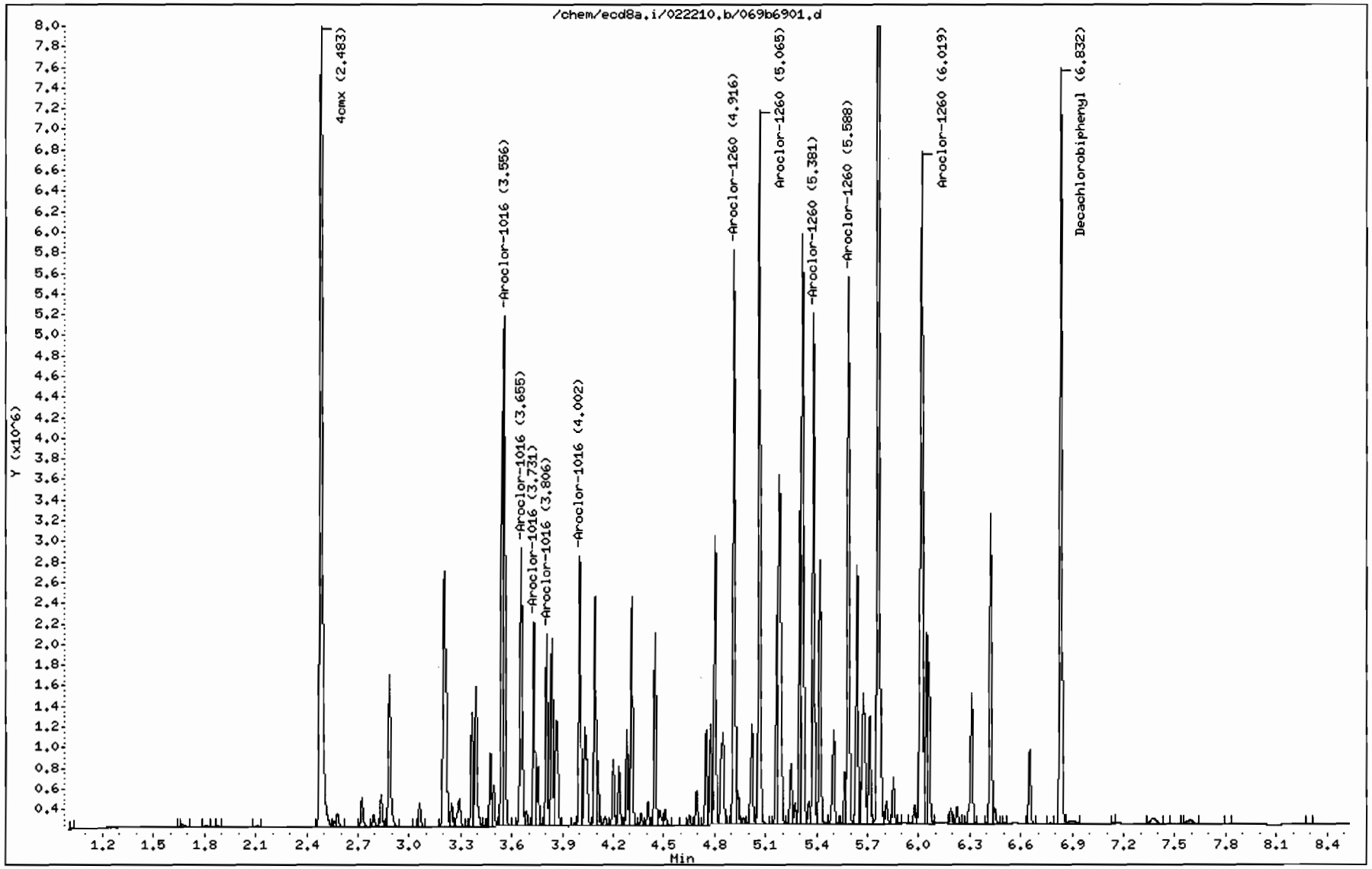

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1886

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.26 DCB: 6.25

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	02/03/10	1012	2.25	6.24
02	AR166001	WAR100203-01	02/03/10	1024	2.26	6.25
03	AR166002	WAR100203-02	02/03/10	1037	2.26	6.25
04	AR166003	WAR100203-03	02/03/10	1049	2.26	6.25
05	AR166004	WAR100203-04	02/03/10	1101	2.26	6.25
06	AR166005	IAR100104-01	02/03/10	1114	2.26	6.25
07	AR166001	WAR100203-60	02/03/10	1126	2.26	6.25
08	AR125401	WAR100203-05	02/03/10	1139		
09	AR125402	WAR100203-06	02/03/10	1151		
10	AR125403	WAR100203-07	02/03/10	1203		
11	AR125404	WAR100203-08	02/03/10	1216		
12	AR125405	IAR091027-01	02/03/10	1228		
13	AR125401	WAR091216-54	02/03/10	1240		
14	AR124201	WAR100203-09	02/03/10	1253		
15	AR124202	WAR100203-10	02/03/10	1305		
16	AR124203	WAR100203-11	02/03/10	1318		
17	AR124204	WAR100203-12	02/03/10	1330		
18	AR124205	IAR091111-01	02/03/10	1342		
19	AR124201	WAR091217-42	02/03/10	1355		
20	AR124801	WAR100203-13	02/03/10	1407		
21	AR124802	WAR100203-14	02/03/10	1419		
22	AR124803	WAR100203-15	02/03/10	1432		
23	AR124804	WAR100203-16	02/03/10	1444		
24	AR124805	IAR091027-02	02/03/10	1457		
25	AR124801	WAR091217-48	02/03/10	1509		
26	AR123201	WAR100104-32	02/03/10	1521		
27	AR122101	WAR100104-21	02/03/10	1534		
28	AR126201	WAR100203-17	02/03/10	1546		
29	AR126202	WAR100203-18	02/03/10	1558		
30	AR126203	WAR100203-19	02/03/10	1611		
31	AR126204	WAR100203-20	02/03/10	1623		
32	AR126205	IAR100104-04	02/03/10	1636		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1886

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.26 DCB: 6.25

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR126201	WAR100104-62	02/03/10	1648		
02	AR126801	WAR091107-68	02/03/10	1700		
03	AR124801	WAR091217-48	02/03/10	1713		
04	DDTANALOGSTD	WAR091219-DD	02/03/10	1725		
05	PIBLK02	WAR091130-99	02/03/10	1738	2.26	6.25
06	ZZZZZ	ZZZZZ	02/03/10	1750	2.26	6.25
07	ZZZZZ	ZZZZZ	02/03/10	1802	2.26	6.25
08	ZZZZZ	ZZZZZ	02/03/10	1815	2.26	6.25
09	ZZZZZ	ZZZZZ	02/03/10	1827	2.26	6.25
10	ZZZZZ	ZZZZZ	02/03/10	1839	2.26	6.25
11	ZZZZZ	ZZZZZ	02/03/10	1852	2.26	6.25
12	ZZZZZ	ZZZZZ	02/03/10	1904	2.26	6.25
13	ZZZZZ	ZZZZZ	02/03/10	1916	2.26	6.25
14	ZZZZZ	ZZZZZ	02/03/10	1929	2.26	6.25
15	ZZZZZ	ZZZZZ	02/03/10	1941	2.26	6.25
16	AR166002	WAR100203-60	02/03/10	1954	2.26	6.25
17	PIBLK03	WAR091130-99	02/03/10	2006	2.26	6.25
18	ZZZZZ	ZZZZZ	02/03/10	2018	2.26	6.25
19	ZZZZZ	ZZZZZ	02/03/10	2031	2.26	6.25
20	ZZZZZ	ZZZZZ	02/03/10	2043	2.26	6.25
21	ZZZZZ	ZZZZZ	02/03/10	2055	2.26	6.25
22	AR166003	WAR100203-60	02/03/10	2108	2.26	6.25
23	PIBLK04	WAR091130-99	02/03/10	2120	2.26	6.25
24	ZZZZZ	ZZZZZ	02/03/10	2133	2.26	6.25
25	ZZZZZ	ZZZZZ	02/03/10	2145	2.26	6.25
26	ZZZZZ	ZZZZZ	02/03/10	2157	2.26	6.25
27	AR166004	WAR100203-60	02/03/10	2210	2.26	6.25
28	PIBLK05	WAR091130-99	02/03/10	2222	2.26	6.25
29	ZZZZZ	ZZZZZ	02/03/10	2234	2.26	6.25
30	ZZZZZ	ZZZZZ	02/03/10	2247	2.26	6.25
31	ZZZZZ	ZZZZZ	02/03/10	2259		
32	ZZZZZ	ZZZZZ	02/03/10	2312		

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1886

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.49 DCB: 6.84

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	02/03/10	1012	2.49	6.84
02	AR166001	WAR100203-01	02/03/10	1024	2.49	6.84
03	AR166002	WAR100203-02	02/03/10	1037	2.49	6.84
04	AR166003	WAR100203-03	02/03/10	1049	2.49	6.84
05	AR166004	WAR100203-04	02/03/10	1101	2.49	6.84
06	AR166005	IAR100104-01	02/03/10	1114	2.49	6.84
07	AR166001	WAR100203-60	02/03/10	1126	2.49	6.84
08	AR125401	WAR100203-05	02/03/10	1139		
09	AR125402	WAR100203-06	02/03/10	1151		
10	AR125403	WAR100203-07	02/03/10	1203		
11	AR125404	WAR100203-08	02/03/10	1216		
12	AR125405	IAR091027-01	02/03/10	1228		
13	AR125401	WAR091216-54	02/03/10	1240		
14	AR124201	WAR100203-09	02/03/10	1253		
15	AR124202	WAR100203-10	02/03/10	1305		
16	AR124203	WAR100203-11	02/03/10	1318		
17	AR124204	WAR100203-12	02/03/10	1330		
18	AR124205	IAR091111-01	02/03/10	1342		
19	AR124201	WAR091217-42	02/03/10	1355		
20	AR124801	WAR100203-13	02/03/10	1407		
21	AR124802	WAR100203-14	02/03/10	1419		
22	AR124803	WAR100203-15	02/03/10	1432		
23	AR124804	WAR100203-16	02/03/10	1444		
24	AR124805	IAR091027-02	02/03/10	1457		
25	AR124801	WAR091217-48	02/03/10	1509		
26	AR123201	WAR100104-32	02/03/10	1521		
27	AR122101	WAR100104-21	02/03/10	1534		
28	AR126201	WAR100203-17	02/03/10	1546		
29	AR126202	WAR100203-18	02/03/10	1558		
30	AR126203	WAR100203-19	02/03/10	1611		
31	AR126204	WAR100203-20	02/03/10	1623		
32	AR126205	IAR100104-04	02/03/10	1636		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1886

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.49 DCB: 6.84

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR126201	WAR100104-62	02/03/10	1648		
02	AR126801	WAR091107-68	02/03/10	1700		
03	AR124801	WAR091217-48	02/03/10	1713		
04	DDTANALOGSTD	WAR091219-DD	02/03/10	1725		
05	PIBLK02	WAR091130-99	02/03/10	1738	2.49	6.84
06	ZZZZZ	ZZZZZ	02/03/10	1750	2.49	6.84
07	ZZZZZ	ZZZZZ	02/03/10	1802	2.49	6.84
08	ZZZZZ	ZZZZZ	02/03/10	1815	2.49	6.84
09	ZZZZZ	ZZZZZ	02/03/10	1827	2.49	6.84
10	ZZZZZ	ZZZZZ	02/03/10	1839	2.49	6.84
11	ZZZZZ	ZZZZZ	02/03/10	1852	2.49	6.84
12	ZZZZZ	ZZZZZ	02/03/10	1904	2.49	6.84
13	ZZZZZ	ZZZZZ	02/03/10	1916	2.49	6.84
14	ZZZZZ	ZZZZZ	02/03/10	1929	2.49	6.84
15	ZZZZZ	ZZZZZ	02/03/10	1941	2.49	6.84
16	AR166002	WAR100203-60	02/03/10	1954	2.49	6.84
17	PIBLK03	WAR091130-99	02/03/10	2006	2.49	6.84
18	ZZZZZ	ZZZZZ	02/03/10	2018	2.49	6.84
19	ZZZZZ	ZZZZZ	02/03/10	2031	2.49	6.84
20	ZZZZZ	ZZZZZ	02/03/10	2043	2.49	6.84
21	ZZZZZ	ZZZZZ	02/03/10	2055	2.49	6.84
22	AR166003	WAR100203-60	02/03/10	2108	2.49	6.84
23	PIBLK04	WAR091130-99	02/03/10	2120	2.49	6.84
24	ZZZZZ	ZZZZZ	02/03/10	2133	2.49	6.84
25	ZZZZZ	ZZZZZ	02/03/10	2145	2.49	6.84
26	ZZZZZ	ZZZZZ	02/03/10	2157	2.49	6.84
27	AR166004	WAR100203-60	02/03/10	2210	2.49	6.84
28	PIBLK05	WAR091130-99	02/03/10	2222	2.49	6.84
29	ZZZZZ	ZZZZZ	02/03/10	2234	2.49	6.84
30	ZZZZZ	ZZZZZ	02/03/10	2247	2.49	6.84
31	ZZZZZ	ZZZZZ	02/03/10	2259		
32	ZZZZZ	ZZZZZ	02/03/10	2312		

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1886

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/22/10	0813	2.25	6.24
02	AR166001	WAR100203-60	02/22/10	0825	2.25	6.24
03	AR125401	WAR100201-54	02/22/10	0837		
04	AR124201	WAR091217-42	02/22/10	0850		
05	AR124801	WAR091217-48	02/22/10	0902		
06	AR123201	WAR100104-32	02/22/10	0915		
07	AR122101	WAR100104-21	02/22/10	0927		
08	AR126201	WAR100104-62	02/22/10	0940		
09	AR126801	WAR100107-68	02/22/10	0952		
10	DDTANALOGSTD	WAR091219-DD	02/22/10	1004		
11	PIBLK02	WAR100105-99	02/22/10	1017	2.25	6.24
12	ZZZZZ	ZZZZZ	02/22/10	1029	2.25	6.24
13	ZZZZZ	ZZZZZ	02/22/10	1042	2.25	6.24
14	ZZZZZ	ZZZZZ	02/22/10	1054	2.25	6.24
15	ZZZZZ	ZZZZZ	02/22/10	1106	2.25	6.24
16	ZZZZZ	ZZZZZ	02/22/10	1119	2.25	6.24
17	ZZZZZ	ZZZZZ	02/22/10	1131	2.25	6.24
18	ZZZZZ	ZZZZZ	02/22/10	1144	2.25	6.24
19	ZZZZZ	ZZZZZ	02/22/10	1156	2.25	6.24
20	ZZZZZ	ZZZZZ	02/22/10	1212	2.25	6.24
21	AR166002	WAR100203-60	02/22/10	1225	2.25	6.24
22	PIBLK03	WAR100105-99	02/22/10	1237	2.25	6.24
23	ZZZZZ	ZZZZZ	02/22/10	1250	2.25	6.24
24	ZZZZZ	ZZZZZ	02/22/10	1302	2.25	6.24
25	ZZZZZ	ZZZZZ	02/22/10	1314	2.25	6.24
26	ZZZZZ	ZZZZZ	02/22/10	1327	2.25	6.24
27	ZZZZZ	ZZZZZ	02/22/10	1339	2.25	6.24
28	AR166003	WAR100203-60	02/22/10	1356	2.25	6.24
29	PIBLK04	WAR100105-99	02/22/10	1408	2.25	6.24
30	ZZZZZ	ZZZZZ	02/22/10	1420	2.25	6.24
31	ZZZZZ	ZZZZZ	02/22/10	1433	2.25	6.24
32	ZZZZZ	ZZZZZ	02/22/10	1445	2.26	6.26

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1886

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	02/22/10	1502	2.26	6.26
02	ZZZZZ	ZZZZZ	02/22/10	1518	2.26	6.26
03	ZZZZZ	ZZZZZ	02/22/10	1535	2.26	6.26
04	ZZZZZ	ZZZZZ	02/22/10	1551	2.25	6.26
05	ZZZZZ	ZZZZZ	02/22/10	1608	2.25	6.24
06	ZZZZZ	ZZZZZ	02/22/10	1624	2.25	6.24
07	ZZZZZ	ZZZZZ	02/22/10	1641	2.25	6.24
08	AR166004	WAR100222-60	02/22/10	1701	2.25	6.25
09	PIBLK05	WAR100105-99	02/22/10	1713	2.25	6.24
10	ZZZZZ	ZZZZZ	02/22/10	1726	2.25	6.24
11	ZZZZZ	ZZZZZ	02/22/10	1738	2.25	6.24
12	ZZZZZ	ZZZZZ	02/22/10	1751	2.25	6.24
13	ZZZZZ	ZZZZZ	02/22/10	1807	2.25	6.24
14	ZZZZZ	ZZZZZ	02/22/10	1823	2.25	6.24
15	ZZZZZ	ZZZZZ	02/22/10	1840	2.25	6.24
16	ZZZZZ	ZZZZZ	02/22/10	1856	2.25	6.24
17	ZZZZZ	ZZZZZ	02/22/10	1913	2.25	6.24
18	ZZZZZ	ZZZZZ	02/22/10	1929	2.25	6.24
19	ZZZZZ	ZZZZZ	02/22/10	1946	2.25	6.24
20	AR166005	WAR100222-60	02/22/10	2003	2.25	6.24
21	PIBLK06	WAR100105-99	02/22/10	2015	2.25	6.24
22	ZZZZZ	ZZZZZ	02/22/10	2027	2.25	6.24
23	ZZZZZ	ZZZZZ	02/22/10	2044	2.25	6.24
24	ZZZZZ	ZZZZZ	02/22/10	2100	2.25	6.24
25	ZZZZZ	ZZZZZ	02/22/10	2117	2.25	6.24
26	ZZZZZ	ZZZZZ	02/22/10	2133	2.25	6.24
27	ZZZZZ	ZZZZZ	02/22/10	2150	2.25	6.24
28	ZZZZZ	ZZZZZ	02/22/10	2206	2.25	6.24
29	ZZZZZ	ZZZZZ	02/22/10	2223	2.25	6.24
30	AR166006	WAR100222-60	02/22/10	2239	2.25	6.24
31	PIBLK07	WAR100105-99	02/22/10	2252	2.25	6.24
32	PBLK01	1202047426	02/22/10	2304	2.25	6.24

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1886

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.25 DCB: 6.24

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PBLK01LCS	1202047427	02/22/10	2317	2.25	6.24
02	CAPA-10-12691	247261001	02/22/10	2329	2.25	6.24
03	CAPA-10-12691MS	1202047428	02/22/10	2341	2.25	6.24
04	CAPA-10-12691MSD	1202047429	02/22/10	2354	2.25	6.24
05	AR166007	WAR100222-60	02/23/10	0006	2.25	6.24
06	PIBLK08	WAR100105-99	02/23/10	0019	2.25	6.24
07						
08						
09						
10						
11						
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26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1886

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.83

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100105-99	02/22/10	0813	2.48	6.83
02	AR166001	WAR100203-60	02/22/10	0825	2.48	6.83
03	AR125401	WAR100201-54	02/22/10	0837		
04	AR124201	WAR091217-42	02/22/10	0850		
05	AR124801	WAR091217-48	02/22/10	0902		
06	AR123201	WAR100104-32	02/22/10	0915		
07	AR122101	WAR100104-21	02/22/10	0927		
08	AR126201	WAR100104-62	02/22/10	0940		
09	AR126801	WAR100107-68	02/22/10	0952		
10	DDTANALOGSTD	WAR091219-DD	02/22/10	1004		
11	PIBLK02	WAR100105-99	02/22/10	1017	2.48	6.83
12	ZZZZZ	ZZZZZ	02/22/10	1029	2.48	6.83
13	ZZZZZ	ZZZZZ	02/22/10	1042	2.48	6.83
14	ZZZZZ	ZZZZZ	02/22/10	1054	2.48	6.82
15	ZZZZZ	ZZZZZ	02/22/10	1106	2.48	6.83
16	ZZZZZ	ZZZZZ	02/22/10	1119	2.48	6.83
17	ZZZZZ	ZZZZZ	02/22/10	1131	2.48	6.83
18	ZZZZZ	ZZZZZ	02/22/10	1144	2.48	6.83
19	ZZZZZ	ZZZZZ	02/22/10	1156	2.48	6.82
20	ZZZZZ	ZZZZZ	02/22/10	1212	2.48	6.83
21	AR166002	WAR100203-60	02/22/10	1225	2.48	6.83
22	PIBLK03	WAR100105-99	02/22/10	1237	2.48	6.83
23	ZZZZZ	ZZZZZ	02/22/10	1250	2.48	6.83
24	ZZZZZ	ZZZZZ	02/22/10	1302	2.48	6.83
25	ZZZZZ	ZZZZZ	02/22/10	1314	2.48	6.83
26	ZZZZZ	ZZZZZ	02/22/10	1327	2.48	6.83
27	ZZZZZ	ZZZZZ	02/22/10	1339	2.48	6.83
28	AR166003	WAR100203-60	02/22/10	1356	2.48	6.83
29	PIBLK04	WAR100105-99	02/22/10	1408	2.48	6.83
30	ZZZZZ	ZZZZZ	02/22/10	1420	2.48	6.83
31	ZZZZZ	ZZZZZ	02/22/10	1433	2.48	6.83
32	ZZZZZ	ZZZZZ	02/22/10	1445	2.49	6.84

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1886

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.83

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	02/22/10	1502	2.49	6.84
02	ZZZZZ	ZZZZZ	02/22/10	1518	2.49	6.84
03	ZZZZZ	ZZZZZ	02/22/10	1535	2.49	6.84
04	ZZZZZ	ZZZZZ	02/22/10	1551	2.49	6.84
05	ZZZZZ	ZZZZZ	02/22/10	1608	2.48	6.83
06	ZZZZZ	ZZZZZ	02/22/10	1624	2.48	6.83
07	ZZZZZ	ZZZZZ	02/22/10	1641	2.48	6.83
08	AR166004	WAR100222-60	02/22/10	1701	2.48	6.83
09	PIBLK05	WAR100105-99	02/22/10	1713	2.48	6.83
10	ZZZZZ	ZZZZZ	02/22/10	1726	2.48	6.83
11	ZZZZZ	ZZZZZ	02/22/10	1738	2.48	6.83
12	ZZZZZ	ZZZZZ	02/22/10	1751	2.48	6.83
13	ZZZZZ	ZZZZZ	02/22/10	1807	2.48	6.83
14	ZZZZZ	ZZZZZ	02/22/10	1823	2.48	6.83
15	ZZZZZ	ZZZZZ	02/22/10	1840	2.48	6.83
16	ZZZZZ	ZZZZZ	02/22/10	1856	2.48	6.83
17	ZZZZZ	ZZZZZ	02/22/10	1913	2.48	6.83
18	ZZZZZ	ZZZZZ	02/22/10	1929	2.48	6.83
19	ZZZZZ	ZZZZZ	02/22/10	1946	2.48	6.83
20	AR166005	WAR100222-60	02/22/10	2003	2.48	6.83
21	PIBLK06	WAR100105-99	02/22/10	2015	2.48	6.83
22	ZZZZZ	ZZZZZ	02/22/10	2027	2.48	6.83
23	ZZZZZ	ZZZZZ	02/22/10	2044	2.48	6.83
24	ZZZZZ	ZZZZZ	02/22/10	2100	2.48	6.83
25	ZZZZZ	ZZZZZ	02/22/10	2117	2.48	6.83
26	ZZZZZ	ZZZZZ	02/22/10	2133	2.48	6.83
27	ZZZZZ	ZZZZZ	02/22/10	2150	2.48	6.83
28	ZZZZZ	ZZZZZ	02/22/10	2206	2.48	6.83
29	ZZZZZ	ZZZZZ	02/22/10	2223	2.48	6.83
30	AR166006	WAR100222-60	02/22/10	2239	2.48	6.83
31	PIBLK07	WAR100105-99	02/22/10	2252	2.48	6.83
32	PBLK01	1202047426	02/22/10	2304	2.48	6.83

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1886

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/03/10 02/03/10

Instrument ID: ECD8A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.48 DCB: 6.83

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PBLK01LCS	1202047427	02/22/10	2317	2.48	6.83
02	CAPA-10-12691	247261001	02/22/10	2329	2.48	6.83
03	CAPA-10-12691MS	1202047428	02/22/10	2341	2.48	6.83
04	CAPA-10-12691MSD	1202047429	02/22/10	2354	2.48	6.83
05	AR166007	WAR100222-60	02/23/10	0006	2.48	6.83
06	PIBLK08	WAR100105-99	02/23/10	0019	2.48	6.83
07						
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28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10–1886 **Client ID:** CAPA–10–12691MS

Lab Sample ID: 1202047428

Data File:	067f6701.d	**Data File:**	067b6701.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22–FEB–10 23:41	**Analyzed:**	22–FEB–10 23:41

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							13.7
Column 1	1	2.81	2.78 – 2.84	.574		ug/L	
	2	3.16	3.13 – 3.19	.594		ug/L	
	3	3.31	3.28 – 3.34	.713		ug/L	
	4	3.4	3.37 – 3.43	.555		ug/L	
	5	3.56	3.53 – 3.59	.554		ug/L	
					.598		
Column 2	1	3.55	3.53 – 3.59	.604		ug/L	
	2	3.65	3.63 – 3.69	.628		ug/L	
	3	3.73	3.7 – 3.76	.915		ug/L	
	4	3.81	3.78 – 3.84	.626		ug/L	
	5	4	3.97 – 4.03	.659		ug/L	
					.686		
Aroclor–1260							8.9
Column 1	1	4.43	4.4 – 4.46	.597		ug/L	
	2	4.63	4.6 – 4.66	.592		ug/L	
	3	4.9	4.87 – 4.93	.567		ug/L	
	4	5.08	5.05 – 5.11	.578		ug/L	
	5	5.49	5.46 – 5.52	.601		ug/L	
					.587		
Column 2	1	4.92	4.89 – 4.95	.668		ug/L	
	2	5.06	5.03 – 5.09	.695		ug/L	
	3	5.38	5.35 – 5.41	.608		ug/L	
	4	5.59	5.56 – 5.62	.634		ug/L	
	5	6.02	5.99 – 6.05	.604		ug/L	
					.642		

Identification Summary

SDG Number: 10–1886 **Client ID:** CAPA–10–12691MSD

Lab Sample ID: 1202047429

Data File:	068f6801.d	**Data File:**	068b6801.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22–FEB–10 23:54	**Analyzed:**	22–FEB–10 23:54

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							11.1
Column 1	1	2.81	2.78 – 2.84	.46		ug/L	
	2	3.16	3.13 – 3.19	.455		ug/L	
	3	3.3	3.28 – 3.34	.598		ug/L	
	4	3.4	3.37 – 3.43	.437		ug/L	
	5	3.56	3.53 – 3.59	.438		ug/L	
					.478		
Column 2	1	3.55	3.53 – 3.59	.543		ug/L	
	2	3.65	3.63 – 3.69	.49		ug/L	
	3	3.73	3.7 – 3.76	.637		ug/L	
	4	3.81	3.78 – 3.84	.488		ug/L	
	5	4	3.97 – 4.03	.509		ug/L	
					.534		
Aroclor–1260							1.7
Column 1	1	4.43	4.4 – 4.46	.523		ug/L	
	2	4.63	4.6 – 4.66	.525		ug/L	
	3	4.9	4.87 – 4.93	.499		ug/L	
	4	5.08	5.05 – 5.11	.491		ug/L	
	5	5.49	5.46 – 5.52	.505		ug/L	
					.509		
Column 2	1	4.91	4.89 – 4.95	.516		ug/L	
	2	5.06	5.03 – 5.09	.553		ug/L	
	3	5.38	5.35 – 5.41	.475		ug/L	
	4	5.59	5.56 – 5.62	.485		ug/L	
	5	6.02	5.99 – 6.05	.473		ug/L	
					.5		

Identification Summary

SDG Number: 10–1886 **Client ID:** LCS for batch 955009

Lab Sample ID: 1202047427

Data File:	065f6501.d	**Data File:**	065b6501.d
Inst:	ECD8A.I_1	**Inst:**	ECD8A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	22–FEB–10 23:17	**Analyzed:**	22–FEB–10 23:17

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							6.48
Column 1	1	2.81	2.78 – 2.84	.75		ug/L	
	2	3.16	3.13 – 3.19	.809		ug/L	
	3	3.31	3.28 – 3.34	.812		ug/L	
	4	3.4	3.37 – 3.43	.684		ug/L	
	5	3.56	3.53 – 3.59	.729		ug/L	
					.757		
Column 2	1	3.56	3.53 – 3.59	.792		ug/L	
	2	3.66	3.63 – 3.69	.773		ug/L	
	3	3.73	3.7 – 3.76	.772		ug/L	
	4	3.81	3.78 – 3.84	.923		ug/L	
	5	4	3.97 – 4.03	.776		ug/L	
					.807		
Aroclor–1260							4.34
Column 1	1	4.43	4.4 – 4.46	.819		ug/L	
	2	4.63	4.6 – 4.66	.827		ug/L	
	3	4.9	4.87 – 4.93	.845		ug/L	
	4	5.08	5.05 – 5.11	.864		ug/L	
	5	5.49	5.46 – 5.52	.855		ug/L	
					.842		
Column 2	1	4.92	4.89 – 4.95	.862		ug/L	
	2	5.06	5.03 – 5.09	.888		ug/L	
	3	5.38	5.35 – 5.41	.871		ug/L	
	4	5.59	5.56 – 5.62	.883		ug/L	
	5	6.02	5.99 – 6.05	.893		ug/L	
					.879		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1886**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202047426**				
Client Sample:	**QC for batch 955009**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 955009**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**955010**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/22/2010 23:04**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/19/2010 14:14**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**064f6401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	064b6401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	0.100	ug/L	0.0333	0.100	1
11104–28–2	Aroclor–1221	U	0.100	ug/L	0.0333	0.100	1
11141–16–5	Aroclor–1232	U	0.100	ug/L	0.0333	0.100	1
53469–21–9	Aroclor–1242	U	0.100	ug/L	0.0333	0.100	1
12672–29–6	Aroclor–1248	U	0.100	ug/L	0.0333	0.100	1
11097–69–1	Aroclor–1254	U	0.100	ug/L	0.0333	0.100	1
11096–82–5	Aroclor–1260	U	0.100	ug/L	0.0333	0.100	1
37324–23–5	Aroclor–1262	U	0.100	ug/L	0.0333	0.100	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.136	0.200	ug/L	68.0	(30%–105%)
Decachlorobiphenyl	0.154	0.200	ug/L	76.9	(30%–126%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/064f6401.d
Lab Smp Id: 1202047426 Client Smp ID: PBLK01
Inj Date : 22-FEB-2010 23:04
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202047426|1|
Misc Info : |ECD82P_1L|955010|SVA|QC A|GROUND WATER|MB|||
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-F-8082-020310a.m
Meth Date : 23-Feb-2010 09:36 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 64 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1886.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.252	2.252	0.000	16532570	125.813	0.12	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.243	6.244	-0.001	14137533	141.402	0.14	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/022210.b/064f6401.d
Date : 22-FEB-2010 23:04
Client ID: PBLK01
Sample Info: 1120204742611I
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

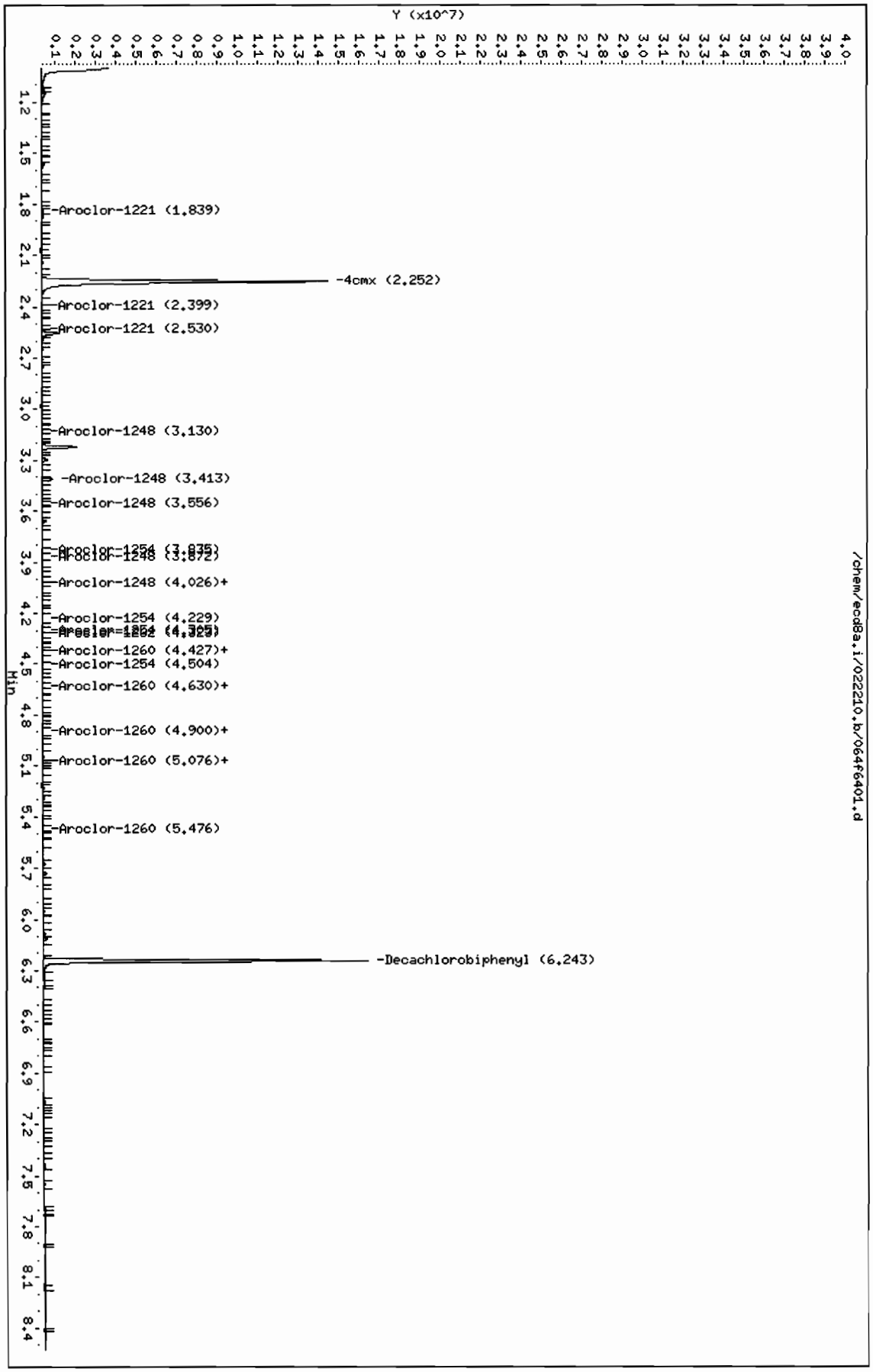

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/064b6401.d
Lab Smp Id: 1202047426 Client Smp ID: PBLK01
Inj Date : 22-FEB-2010 23:04
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202047426|1|
Misc Info : |ECD82P_1L|955010|SVA|QC A|GROUND WATER|MB|||
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-B-8082-020310a.m
Meth Date : 23-Feb-2010 09:39 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 64 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1886.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.484	2.484	0.000	11813335	136.030	0.14	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.832	6.832	0.000	9971804	153.782	0.15	80.00- 120.00	100.00

Data File: /chem/ecd8a.i/022210.b/064b6401.d

Page 1

Date : 22-FEB-2010 23:04

Client ID: PBLK01

Instrument: ecd8a.i

Sample Info: |1202047426|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

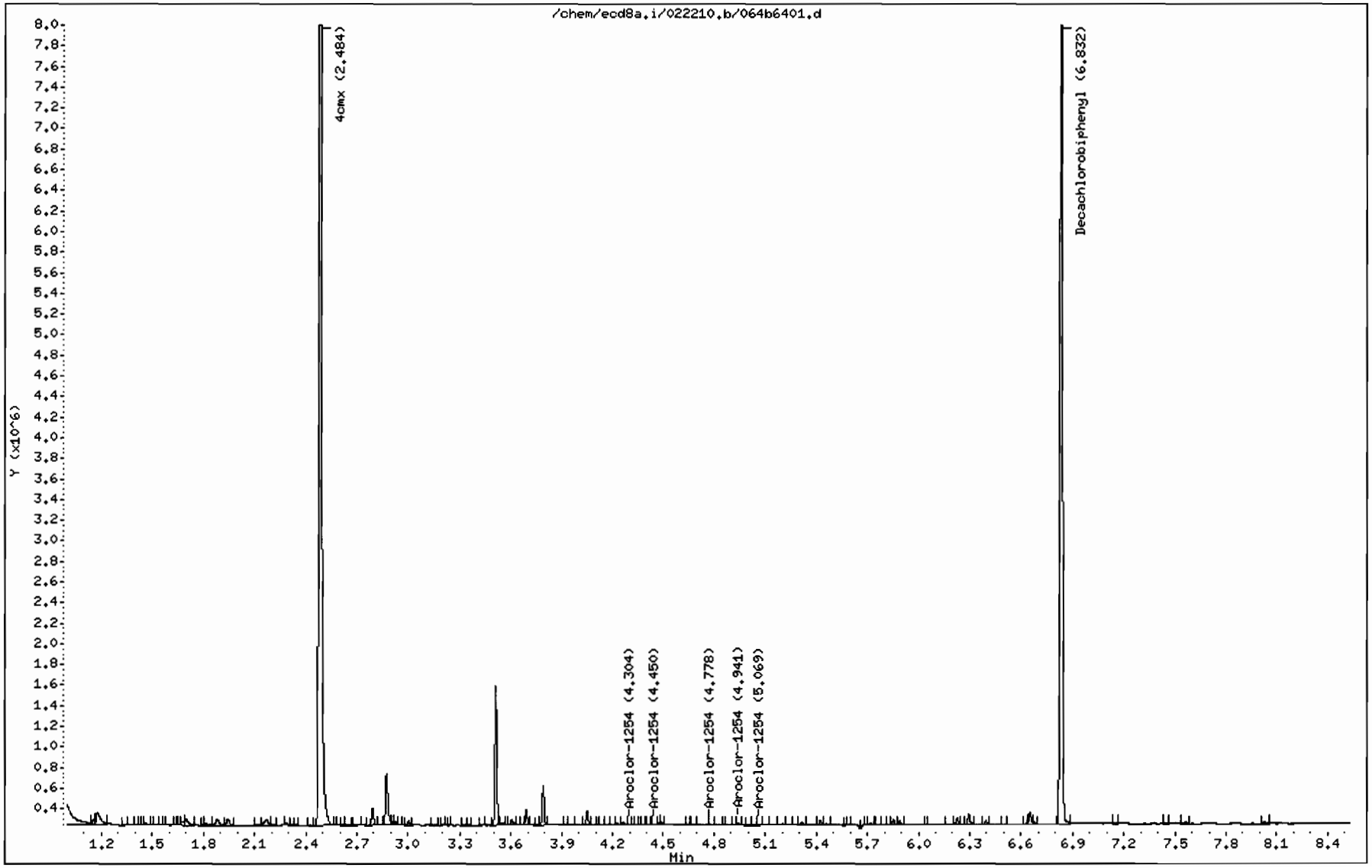

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202047427**				
Client Sample:	**QC for batch 955009**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 955009**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**955010**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/22/2010 23:17**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/19/2010 14:14**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**065f6501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	065b6501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		0.810	ug/L	0.0333	0.100	2
11104-28-2	Aroclor-1221	U	0.100	ug/L	0.0333	0.100	1
11141-16-5	Aroclor-1232	U	0.100	ug/L	0.0333	0.100	1
53469-21-9	Aroclor-1242	U	0.100	ug/L	0.0333	0.100	1
12672-29-6	Aroclor-1248	U	0.100	ug/L	0.0333	0.100	1
11097-69-1	Aroclor-1254	U	0.100	ug/L	0.0333	0.100	1
11096-82-5	Aroclor-1260		0.880	ug/L	0.0333	0.100	2
37324-23-5	Aroclor-1262	U	0.100	ug/L	0.0333	0.100	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.134	0.200	ug/L	67.1	(30%-105%)
Decachlorobiphenyl	0.152	0.200	ug/L	76.0	(30%-126%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/065f6501.d
Lab Smp Id: 1202047427 Client Smp ID: PBLK01LCS
Inj Date : 22-FEB-2010 23:17
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202047427|1|
Misc Info : |ECD82P_1L|955010|SVA|QC A|GROUND WATER|LCS|||
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-F-8082-020310a.m
Meth Date : 23-Feb-2010 09:36 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 65 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1886.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.253	2.252	0.001	17630883	134.171	0.13	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.243	6.244	-0.001	13806502	138.091	0.14	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.810	2.810	0.000	3496438	749.565	0.75	80.00- 120.00	100.00
3.162	3.162	0.000	4668314	809.124	0.81	111.10- 151.10	133.52
3.305	3.305	0.000	1992278	811.783	0.81	34.52- 74.52	56.98
3.398	3.397	0.001	1503015	683.754	0.68	27.06- 67.06	42.99
3.559	3.560	-0.001	2289788	728.732	0.73	49.26- 89.26	65.49

Average of Peak Concentrations = 0.76

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.434	4.434	0.000	5516197	818.552	0.82	80.00- 120.00	100.00
4.629	4.629	0.000	8487266	827.235	0.83	136.22- 176.22	153.86
4.904	4.905	-0.001	5182078	845.384	0.84	72.83- 112.83	93.94
5.077	5.076	0.001	5515360	863.682	0.86	76.42- 116.42	99.98
5.488	5.488	0.000	5866667	855.229	0.86	83.79- 123.79	106.35
			Average of Peak Concentrations =		0.84		

Data File: /chem/ecd8a.i/022210.b/065f6501.d

Page 1

Date : 22-FEB-2010 23:17

Client ID: PBLK01LCS

Instrument: ecd8a.i

Sample Info: |1202047427|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

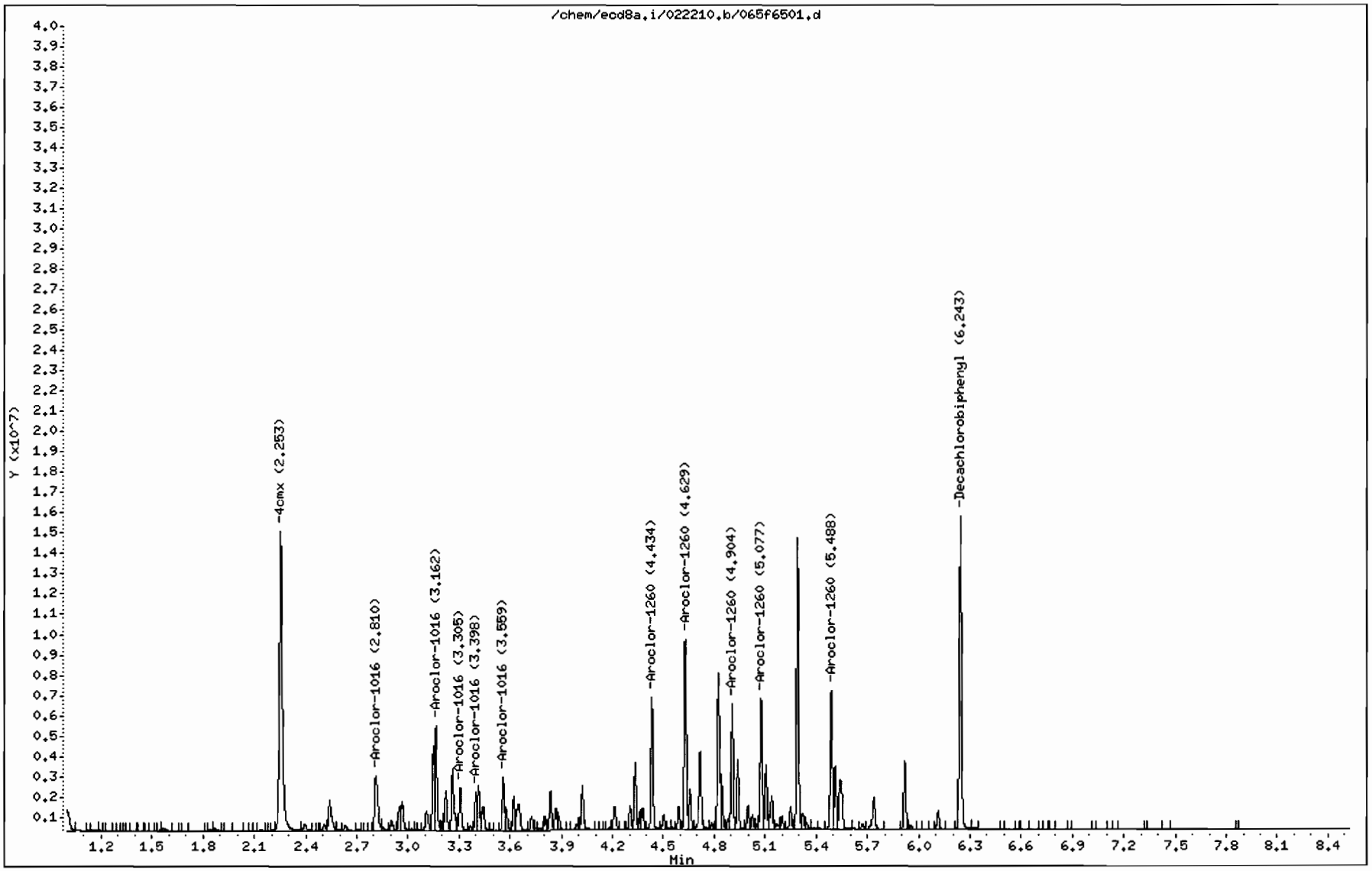

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/065b6501.d
Lab Smp Id: 1202047427 Client Smp ID: PBLK01LCS
Inj Date : 22-FEB-2010 23:17
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202047427|1|
Misc Info : |ECD82P_1L|955010|SVA|QC A|GROUND WATER|LCS|||
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-B-8082-020310a.m
Meth Date : 23-Feb-2010 09:39 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 65 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1886.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.484	2.484	0.000	11628226	133.899	0.13	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.832	6.832	0.000	9861572	152.082	0.15	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.556	3.556	0.000	2983799	792.215	0.79	80.00- 120.00	100.00
3.655	3.655	0.000	1927477	772.713	0.77	43.35- 83.35	64.60
3.731	3.731	0.000	1170549	772.389	0.77	19.09- 59.09	39.23
3.806	3.806	0.000	1377694	922.668	0.92	17.62- 57.62	46.17
4.003	4.003	0.000	1580501	776.423	0.78	32.41- 72.41	52.97

Average of Peak Concentrations = 0.81

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.916	4.915	0.001	3520478	861.929	0.86	80.00- 120.00	100.00
5.064	5.065	-0.001	4412057	887.934	0.89	103.41- 143.41	125.33
5.380	5.381	-0.001	3298894	870.784	0.87	71.39- 111.39	93.71
5.588	5.588	0.000	3492164	883.397	0.88	76.47- 116.47	99.20
6.019	6.020	-0.001	5560171	892.851	0.89	134.28- 174.28	157.94
Average of Peak Concentrations =					0.88		

Data File: /chem/ecd8a.i/022210.b/065b6501.d

Date : 22-FEB-2010 23:17

Client ID: PBLK01LCS

Sample Info: |1202047427|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

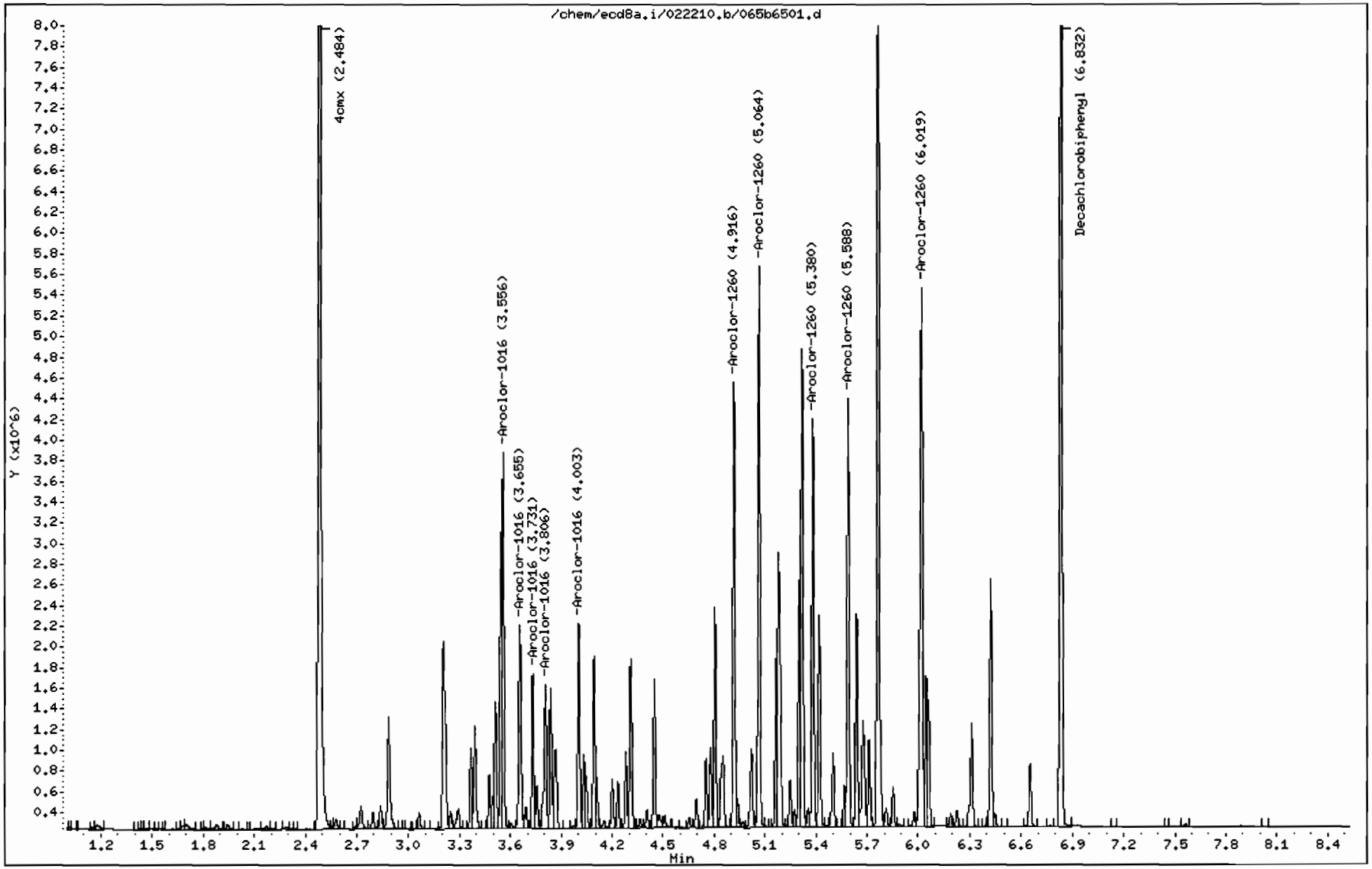

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202047428**	**Date Received:**	**02/17/2010 08:45**		
Client Sample:	**QC for batch 955009**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA–10–12691MS**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**955010**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/22/2010 23:41**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/19/2010 14:14**	**Aliquot:**	**500 mL**	**Final Volume:**	**.5 mL**
Data File:	**067f6701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	067b6701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		0.600	ug/L	0.0333	0.100	1
11104–28–2	Aroclor–1221	U	0.100	ug/L	0.0333	0.100	1
11141–16–5	Aroclor–1232	U	0.100	ug/L	0.0333	0.100	1
53469–21–9	Aroclor–1242	U	0.100	ug/L	0.0333	0.100	1
12672–29–6	Aroclor–1248	U	0.100	ug/L	0.0333	0.100	1
11097–69–1	Aroclor–1254	U	0.100	ug/L	0.0333	0.100	1
11096–82–5	Aroclor–1260		0.590	ug/L	0.0333	0.100	1
37324–23–5	Aroclor–1262	U	0.100	ug/L	0.0333	0.100	1

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
4cmx	0.107	0.200	ug/L	53.7	(30%–105%)
Decachlorobiphenyl	0.101	0.200	ug/L	50.3	(30%–126%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/067f6701.d
Lab Smp Id: 1202047428 Client Smp ID: CAPA-10-12691MS
Inj Date : 22-FEB-2010 23:41
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202047428|1|
Misc Info : |ECD82P_1L|955010|SVA|QC A|GROUND WATER|MS|||
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-F-8082-020310a.m
Meth Date : 23-Feb-2010 09:36 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 67 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1886.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.253	2.252	0.001	12967054	98.6792	0.099	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.242	6.244	-0.002	9678774	96.8058	0.097	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 12674-11-2		
2.811	2.810	0.001	2677383	573.976	0.57	80.00- 120.00	100.00(M)
3.162	3.162	0.000	3429144	594.348	0.59	111.10- 151.10	128.08
3.306	3.305	0.001	1750433	713.239	0.71	34.52- 74.52	65.38
3.397	3.397	0.000	1220219	555.104	0.56	27.06- 67.06	45.58
3.560	3.560	0.000	1740652	553.967	0.55	49.26- 89.26	65.01

Average of Peak Concentrations = 0.60

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.433	4.434	-0.001	4020138	596.551	0.60	80.00- 120.00	100.00(M)
4.628	4.629	-0.001	6075246	592.141	0.59	136.22- 176.22	151.12
4.904	4.905	-0.001	3476745	567.183	0.57	72.83- 112.83	86.48
5.076	5.076	0.000	3691950	578.144	0.58	76.42- 116.42	91.84
5.487	5.488	-0.001	4120303	600.648	0.60	83.79- 123.79	102.49
			Average of Peak Concentrations =		0.59		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/022210.b/067f6701.d
Date : 22-FEB-2010 23:41
Client ID: CAPA-10-12691MS
Sample Info: |1202047428|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd8a.i
Operator: JAOC
Column diameter: 0.25

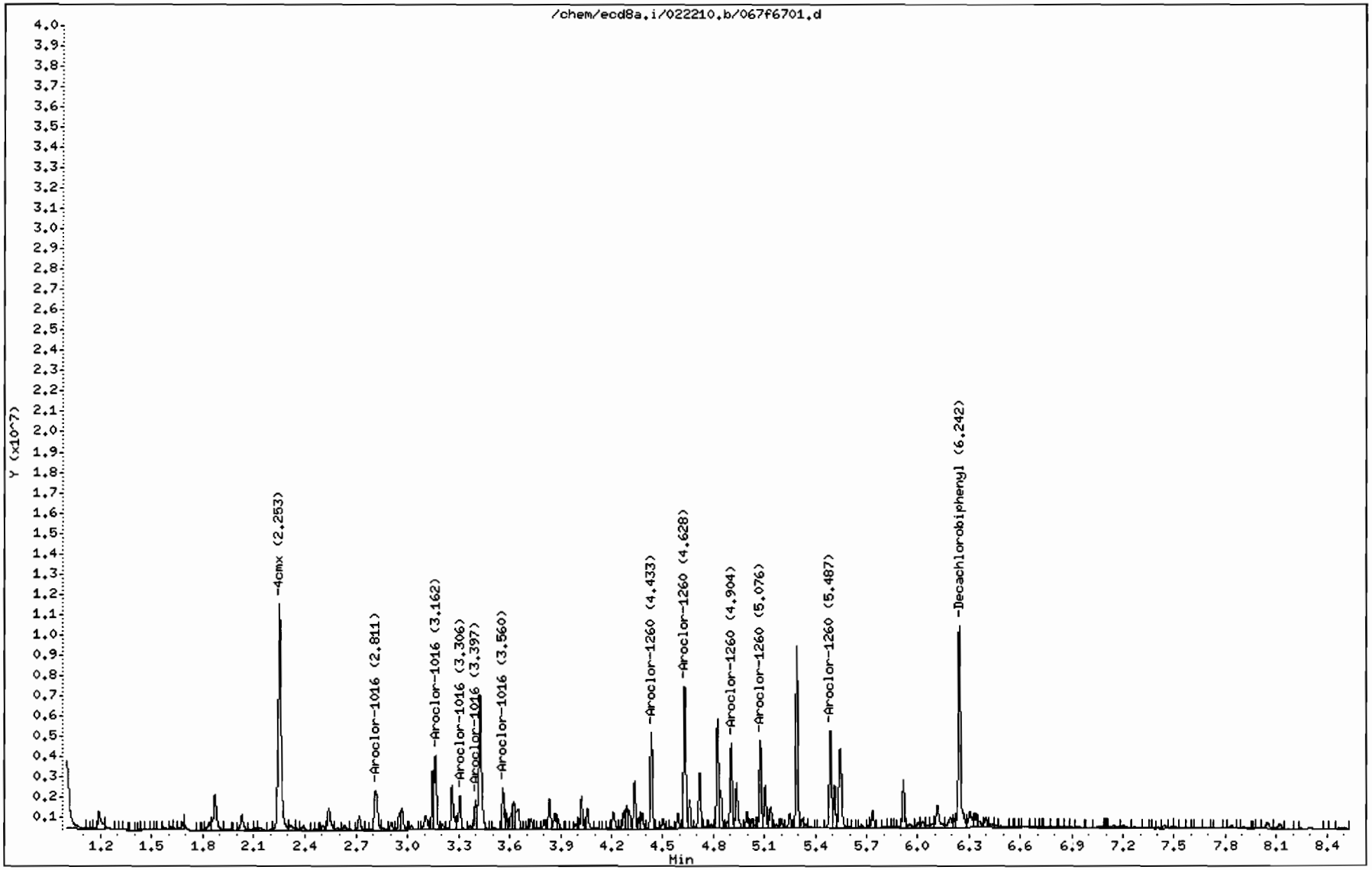

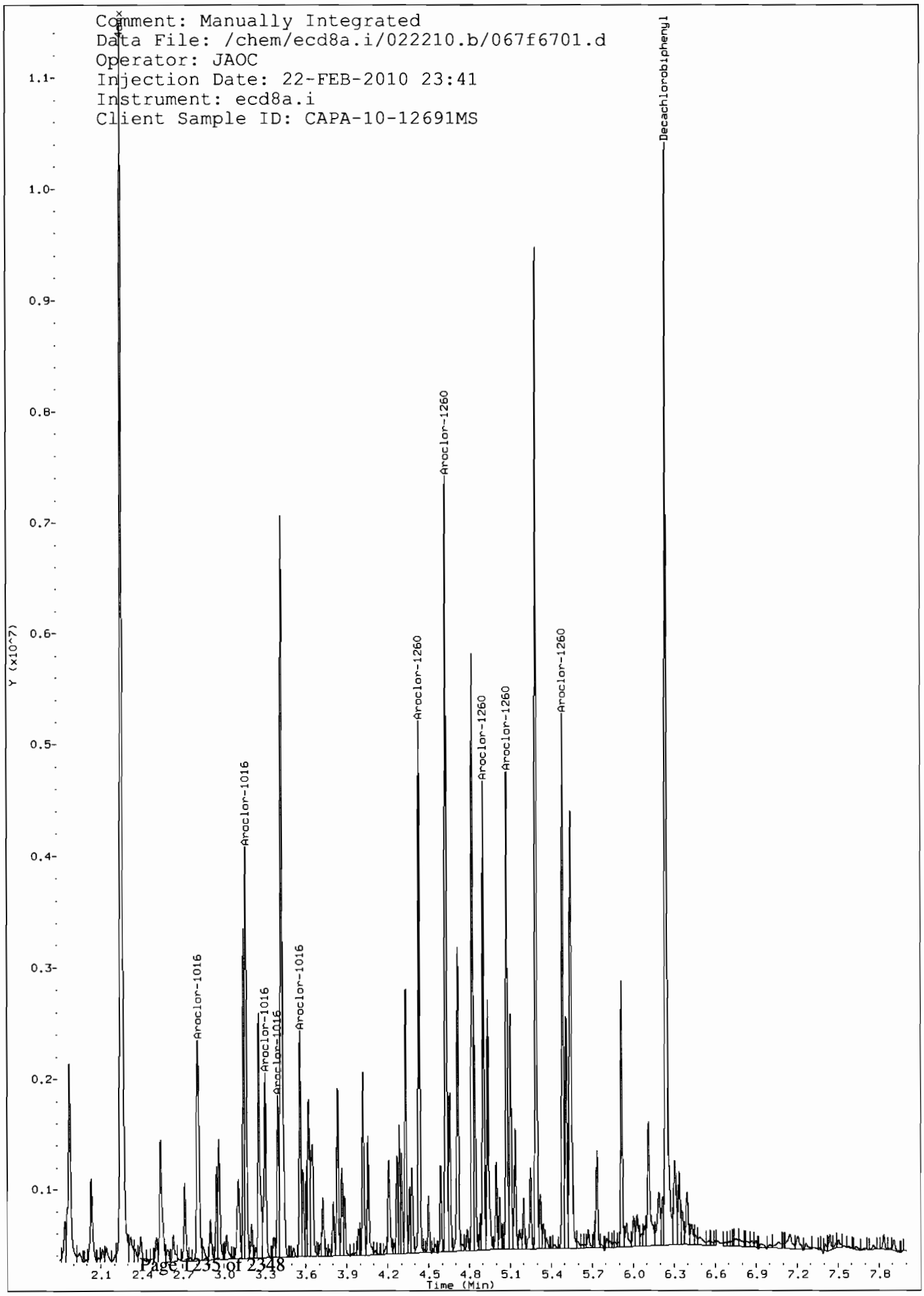
Comment: Manually Integrated
Data File: /chem/ecd8a.i/022210.b/067f6701.d
Operator: JAOC
Injection Date: 22-FEB-2010 23:41
Instrument: ecd8a.i
Client Sample ID: CAPA-10-12691MS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Y (x10^7)
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2
4.5
4.8
5.1
5.4
5.7
6.0
6.3
6.6
6.9
7.2
7.5
7.8
Time (Min)

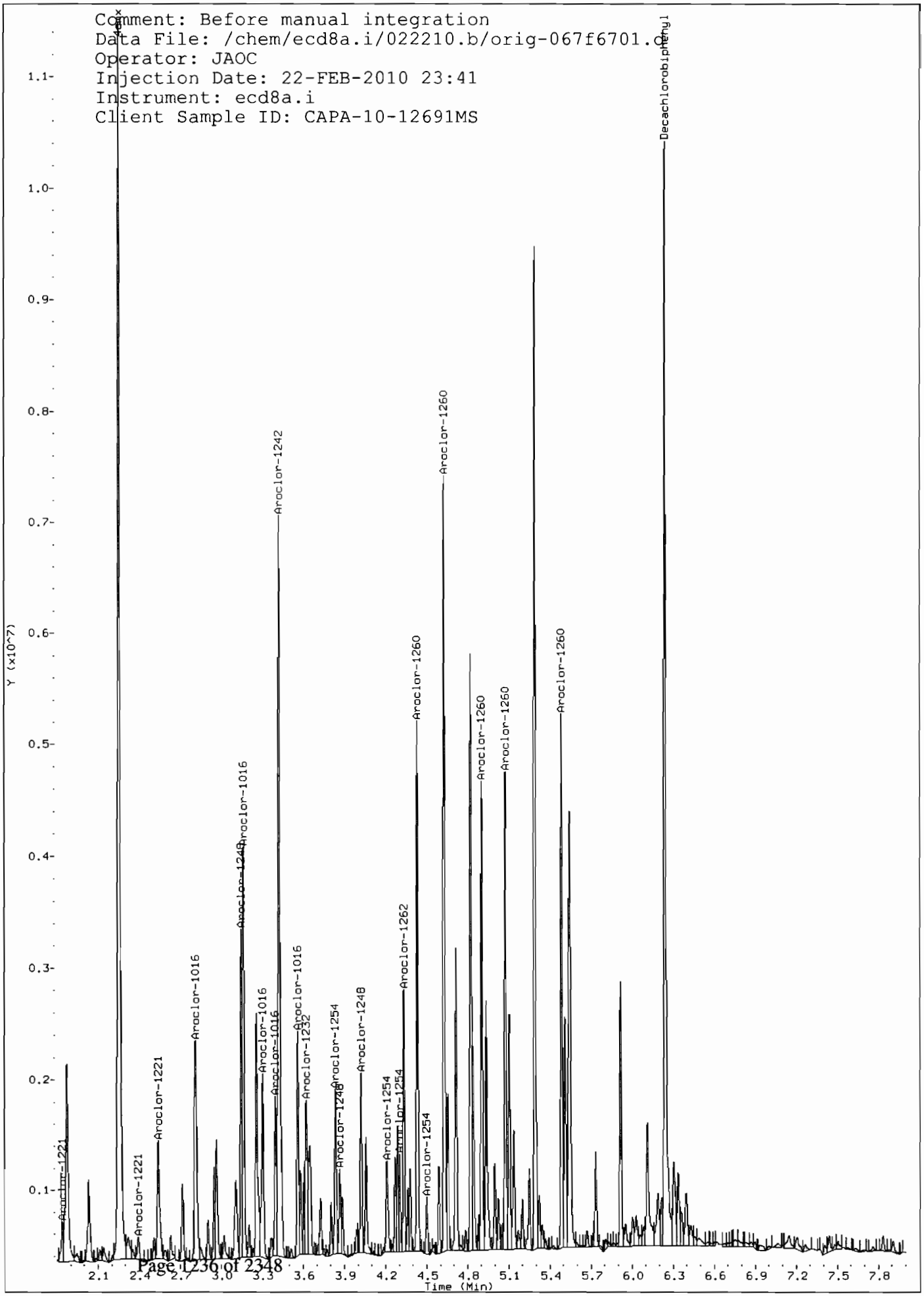
Comment: Before manual integration
Data File: /chem/ecd8a.i/022210.b/orig-067f6701.c
Operator: JAOC
Injection Date: 22-FEB-2010 23:41
Instrument: ecd8a.i
Client Sample ID: CAPA-10-12691MS
Y (x10^7)
Time (Min)
Decachlorobiphenyl
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1242
Aroclor-1232
Aroclor-1254
Aroclor-1262
Aroclor-1260

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/067b6701.d
Lab Smp Id: 1202047428 Client Smp ID: CAPA-10-12691MS
Inj Date : 22-FEB-2010 23:41
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202047428|1|
Misc Info : |ECD82P_1L|955010|SVA|QC A|GROUND WATER|MS|||
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-B-8082-020310a.m
Meth Date : 23-Feb-2010 09:39 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 67 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1886.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.484	2.484	0.000	9325423	107.382	0.11	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.832	6.832	0.000	6519403	100.540	0.10	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.555	3.556	-0.001	2275071	604.044	0.60	80.00- 120.00	100.00(M)
3.655	3.655	0.000	1567478	628.392	0.63	43.35- 83.35	68.90
3.732	3.731	0.001	1386704	915.019	0.92	19.09- 59.09	60.95
3.806	3.806	0.000	934464	625.828	0.62	17.62- 57.62	41.07
4.002	4.003	-0.001	1340884	658.711	0.66	32.41- 72.41	58.94
			Average of Peak Concentrations =		0.69		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.916	4.915	0.001	2729767	668.337	0.67	80.00- 120.00	100.00(M)
5.064	5.065	-0.001	3450931	694.506	0.69	103.41- 143.41	126.42
5.381	5.381	0.000	2303417	608.016	0.61	71.39- 111.39	84.38
5.587	5.588	-0.001	2504422	633.533	0.63	76.47- 116.47	91.74
6.019	6.020	-0.001	3759541	603.706	0.60	134.28- 174.28	137.72
			Average of Peak Concentrations =		0.64		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/022210.b/067b6701.d

Date : 22-FEB-2010 23:41

Client ID: CAPA-10-12691MS

Sample Info: |1202047428|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

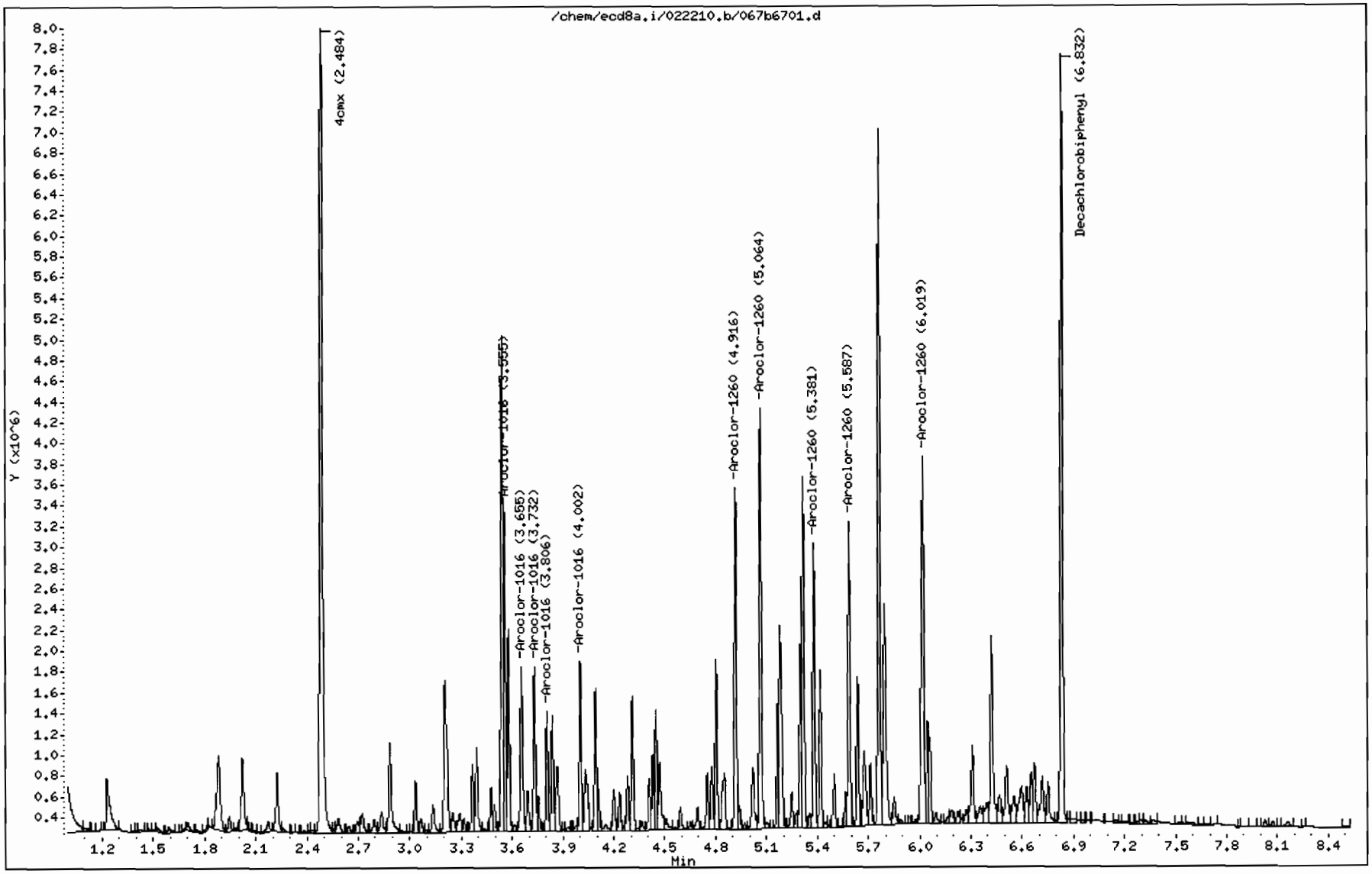

Comment: Manually Integrated
Data File: /chem/ecd8a.i/022210.b/067b6701.d
Operator: JAOC
Injection Date: 22-FEB-2010 23:41
Instrument: ecd8a.i
Client Sample ID: CAPA-10-12691MS

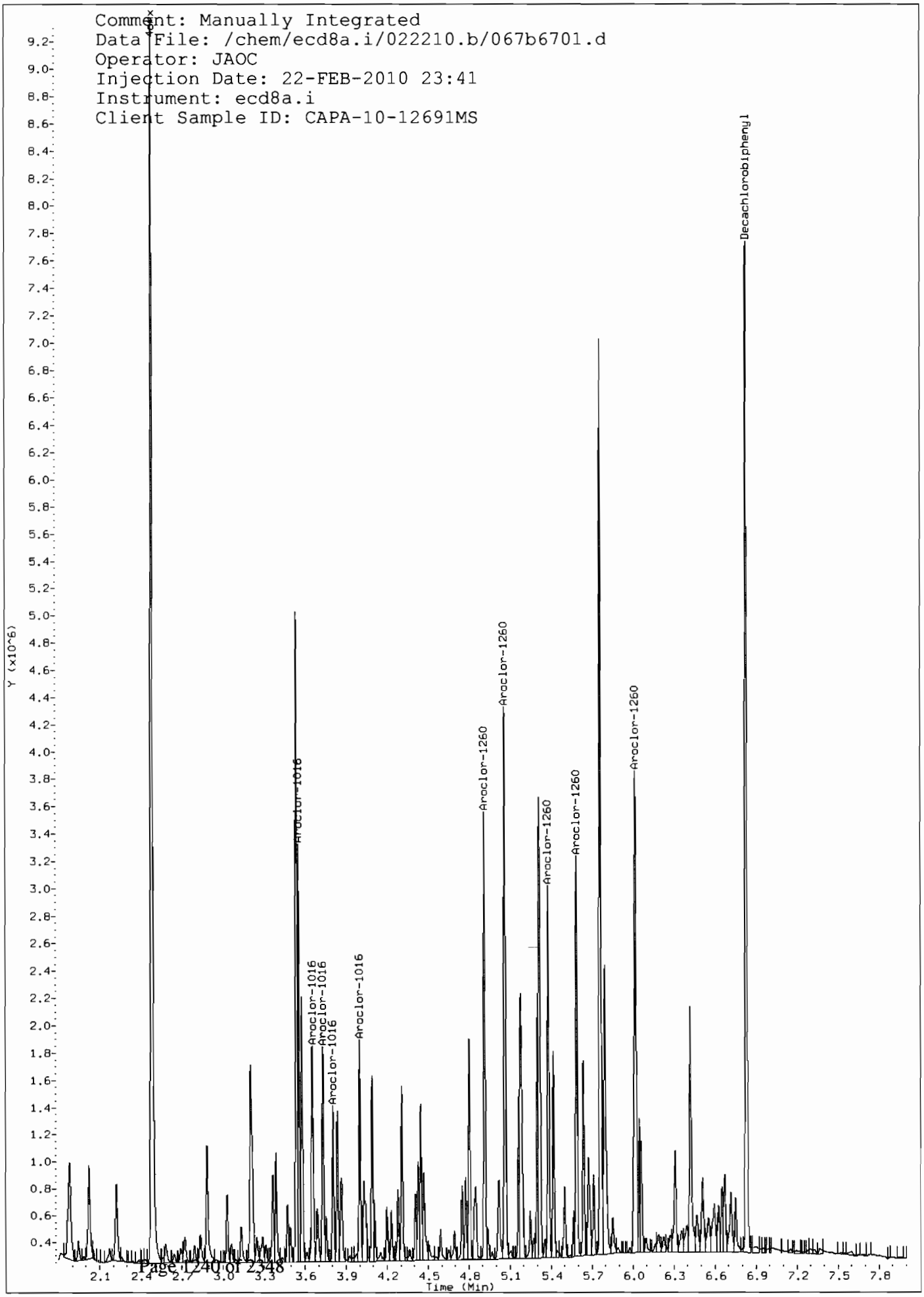

Comment: Before manual integration
Data File: /chem/ecd8a.i/022210.b/orig-067b6701.d
Operator: JAOC
Injection Date: 22-FEB-2010 23:41
Instrument: ecd8a.i
Client Sample ID: CAPA-10-12691MS

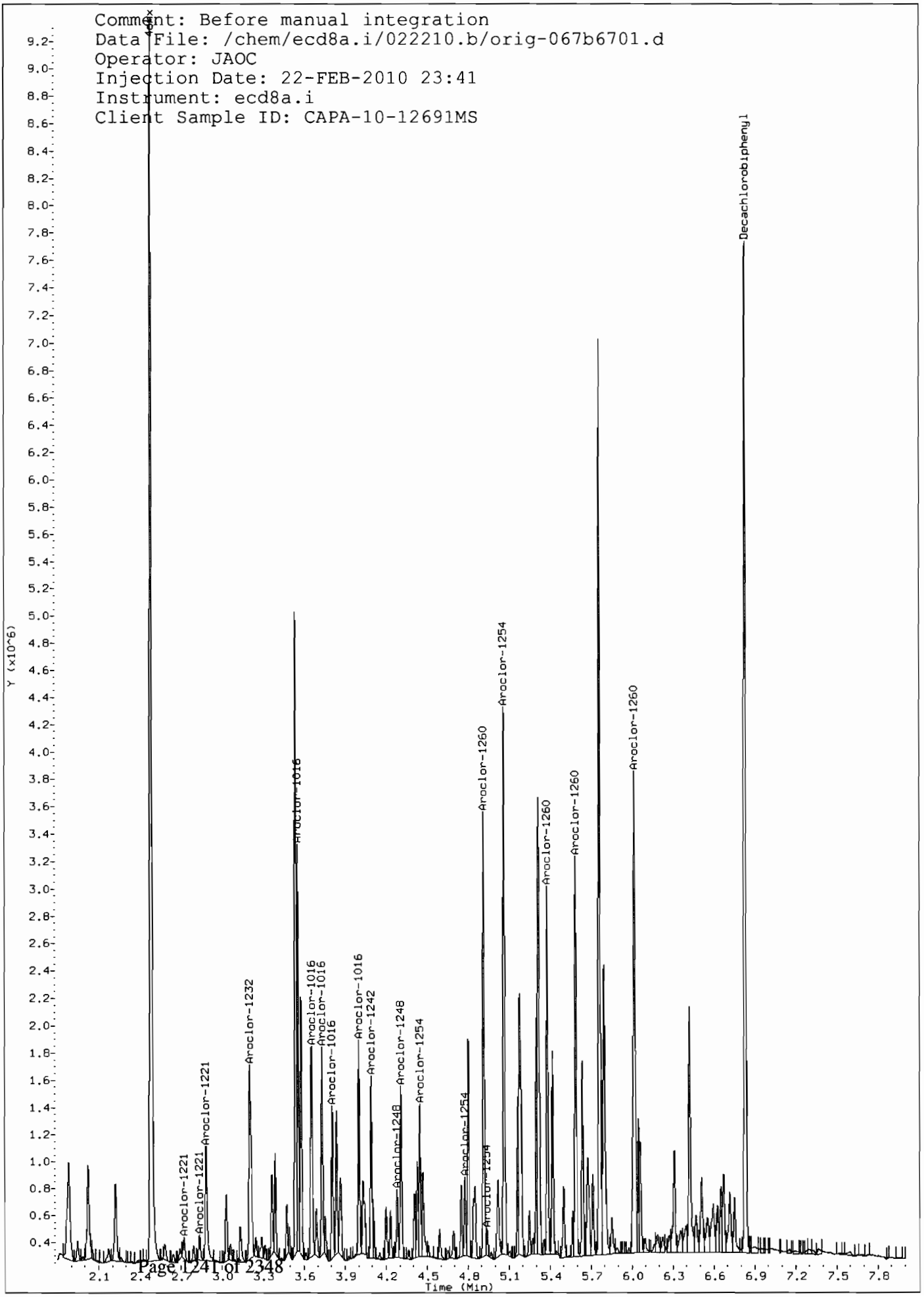

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1886**	**Date Collected:**	**02/15/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202047429**	**Date Received:**	**02/17/2010 08:45**		
Client Sample:	**QC for batch 955009**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12691MSD**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**955010**	**Inst:**	**ECD8A.I**	**Dilution:**	**1**
Run Date:	**02/22/2010 23:54**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/19/2010 14:14**	**Aliquot:**	**500 mL**	**Final Volume:**	**.5 mL**
Data File:	**068f6801.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	068b6801.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		0.480	ug/L	0.0333	0.100	1
11104-28-2	Aroclor-1221	U	0.100	ug/L	0.0333	0.100	1
11141-16-5	Aroclor-1232	U	0.100	ug/L	0.0333	0.100	1
53469-21-9	Aroclor-1242	U	0.100	ug/L	0.0333	0.100	1
12672-29-6	Aroclor-1248	U	0.100	ug/L	0.0333	0.100	1
11097-69-1	Aroclor-1254	U	0.100	ug/L	0.0333	0.100	1
11096-82-5	Aroclor-1260		0.510	ug/L	0.0333	0.100	1
37324-23-5	Aroclor-1262	U	0.100	ug/L	0.0333	0.100	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.0861	0.200	ug/L	43.0	(30%-105%)
Decachlorobiphenyl	0.0811	0.200	ug/L	40.6	(30%-126%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/068f6801.d
Lab Smp Id: 1202047429 Client Smp ID: CAPA-10-12691MSD
Inj Date : 22-FEB-2010 23:54
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202047429|1|
Misc Info : |ECD82P_1L|955010|SVA|QC A|GROUND WATER|MSD|||
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-F-8082-020310a.m
Meth Date : 23-Feb-2010 09:36 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 68 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1886.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.252	2.252	0.000	10220724	77.7797	0.078	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.242	6.244	-0.002	7245351	72.4670	0.072	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 12674-11-2		
2.811	2.810	0.001	2146579	460.183	0.46	80.00- 120.00	100.00(M)
3.162	3.162	0.000	2625982	455.142	0.46	111.10- 151.10	122.33
3.305	3.305	0.000	1466417	597.513	0.60	34.52- 74.52	68.31
3.397	3.397	0.000	960317	436.869	0.44	27.06- 67.06	44.74
3.560	3.560	0.000	1376253	437.996	0.44	49.26- 89.26	64.11

Average of Peak Concentrations = 0.48

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.433	4.434	-0.001	3526890	523.358	0.52	80.00- 120.00	100.00(M)
4.628	4.629	-0.001	5390138	525.365	0.52	136.22- 176.22	152.83
4.904	4.905	-0.001	3061654	499.466	0.50	72.83- 112.83	86.81
5.076	5.076	0.000	3134267	490.813	0.49	76.42- 116.42	88.87
5.487	5.488	-0.001	3463492	504.900	0.50	83.79- 123.79	98.20
			Average of Peak Concentrations =		0.51		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd8a.i/022210.b/068f6801.d

Page 1

Date : 22-FEB-2010 23:54

Client ID: CAPA-10-12691MSD

Instrument: ecd8a.i

Sample Info: |1202047429|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

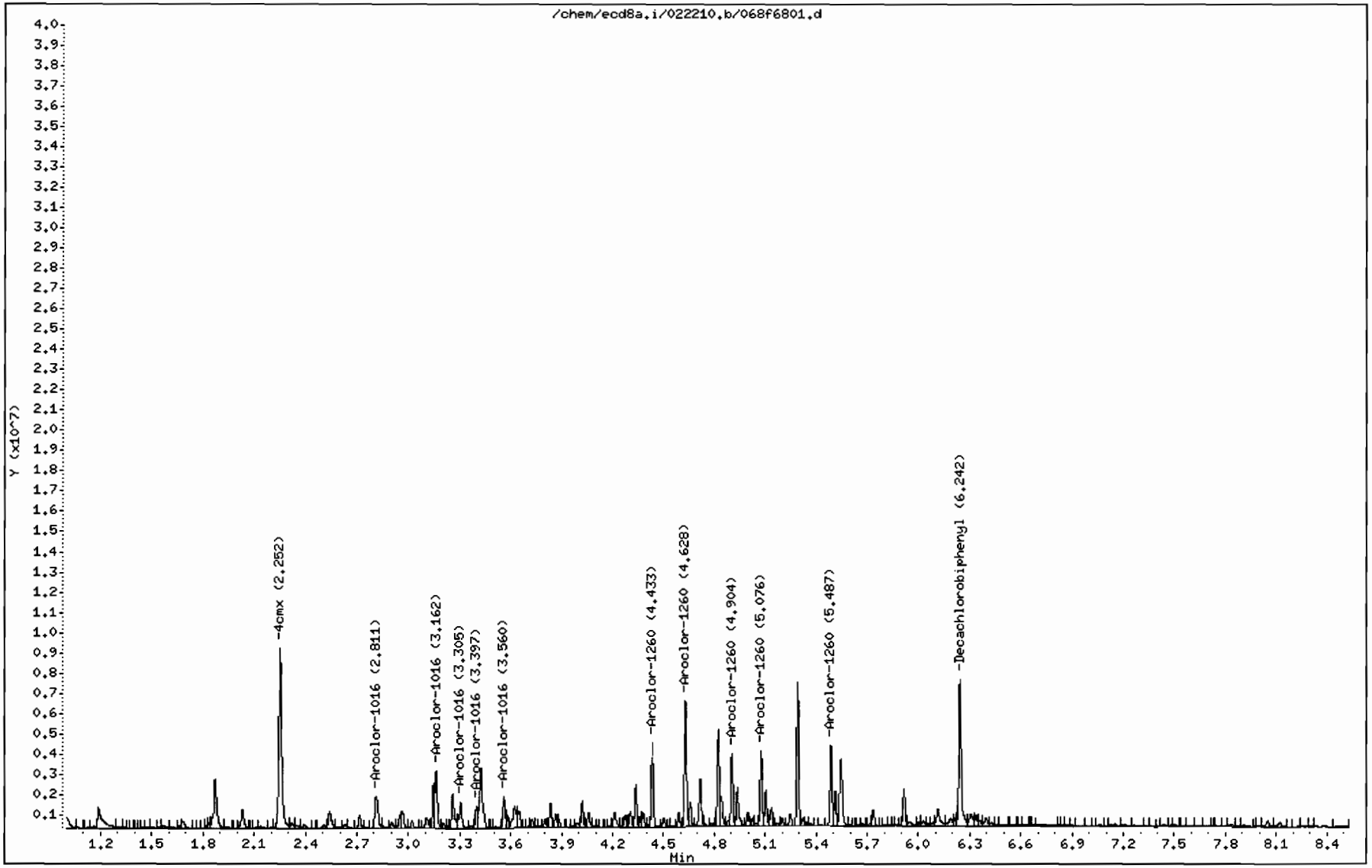

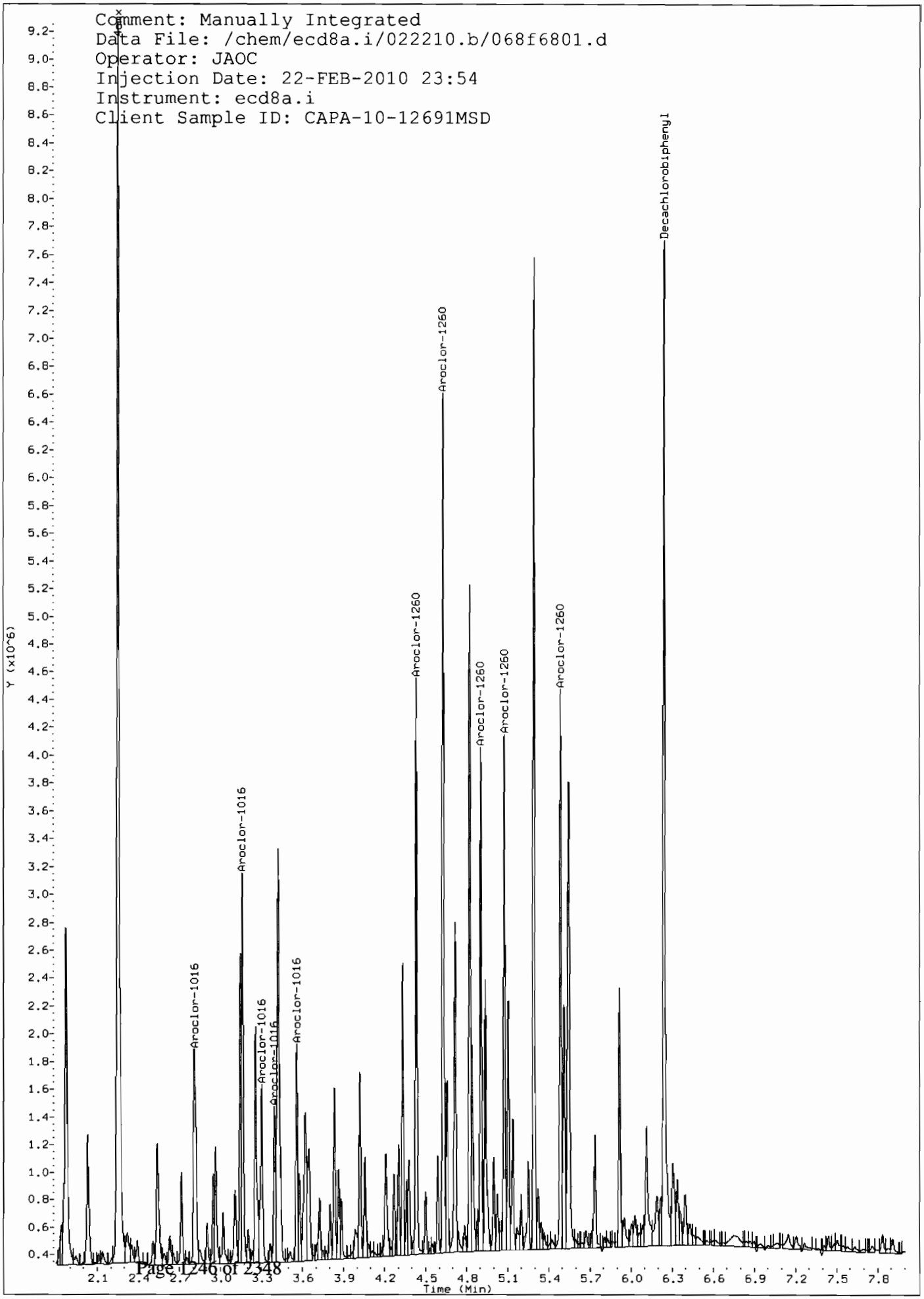
Comment: Manually Integrated
Data File: /chem/ecd8a.i/022210.b/068f6801.d
Operator: JAOC
Injection Date: 22-FEB-2010 23:54
Instrument: ecd8a.i
Client Sample ID: CAPA-10-12691MSD
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
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Y (x10^6)
Time (Min)

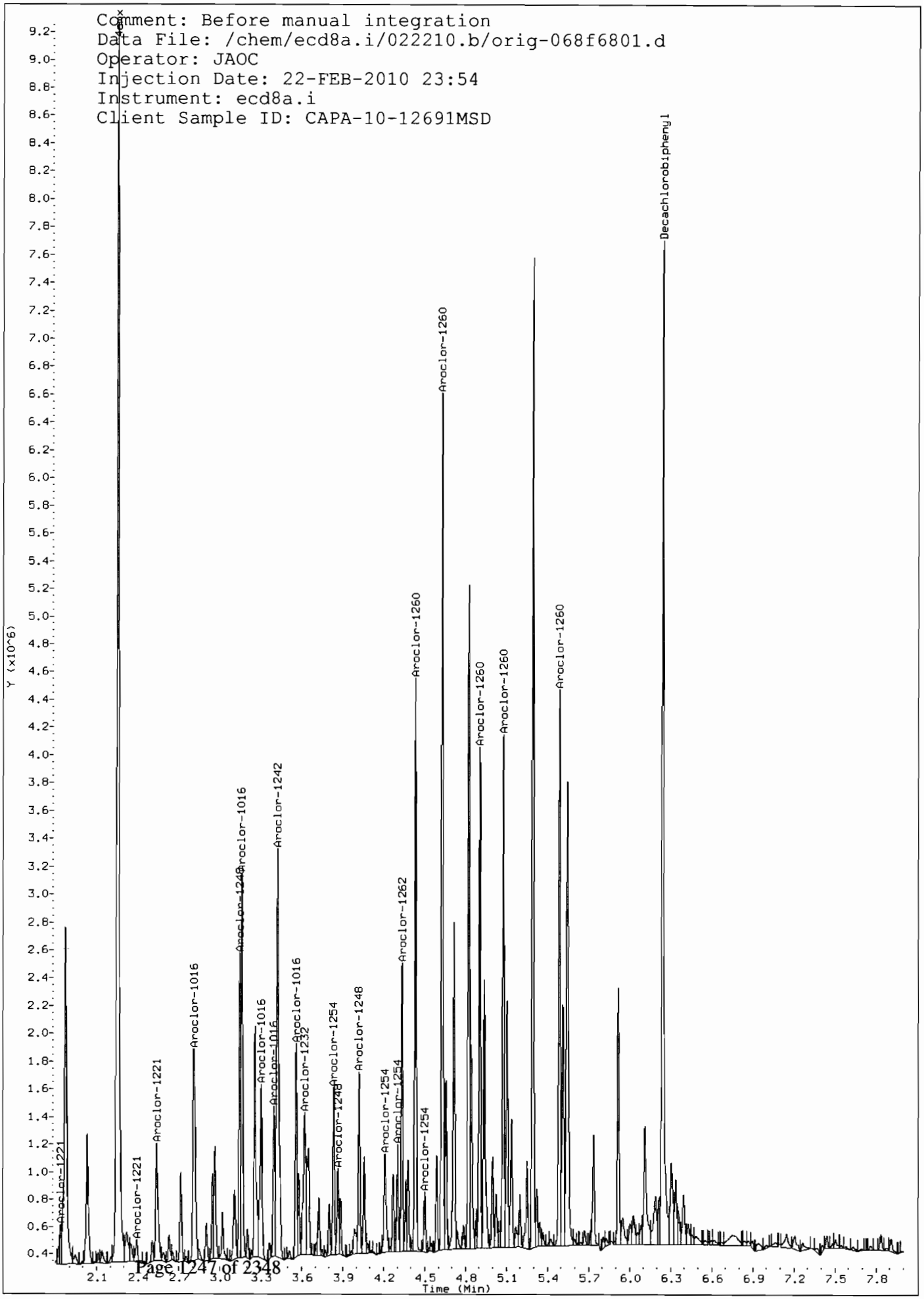
Comment: Before manual integration
Data File: /chem/ecd8a.i/022210.b/orig-068f6801.d
Operator: JAOC
Injection Date: 22-FEB-2010 23:54
Instrument: ecd8a.i
Client Sample ID: CAPA-10-12691MSD
Y (x10^6)
Time (Min)
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1016
Aroclor-1248
Aroclor-1016
Aroclor-1242
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1232
Aroclor-1254
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Aroclor-1262
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/068b6801.d
Lab Smp Id: 1202047429 Client Smp ID: CAPA-10-12691MSD
Inj Date : 22-FEB-2010 23:54
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |1202047429|1|
Misc Info : |ECD82P_1L|955010|SVA|QC A|GROUND WATER|MSD|||
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-B-8082-020310a.m
Meth Date : 23-Feb-2010 09:39 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 68 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1886.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.483	2.484	-0.001	7474503	86.0688	0.086	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.832	6.832	0.000	5261514	81.1414	0.081	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.555	3.556	-0.001	2046537	543.367	0.54	80.00- 120.00	100.00
3.655	3.655	0.000	1222993	490.290	0.49	43.35- 83.35	59.76
3.732	3.731	0.001	965840	637.311	0.64	19.09- 59.09	47.19
3.806	3.806	0.000	729193	488.355	0.49	17.62- 57.62	35.63
4.002	4.003	-0.001	1037143	509.498	0.51	32.41- 72.41	50.68
Average of Peak Concentrations =					0.53		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.915	4.915	0.000	2107124	515.893	0.52	80.00- 120.00	100.00
5.064	5.065	-0.001	2746418	552.721	0.55	103.41- 143.41	130.34
5.381	5.381	0.000	1799045	474.880	0.47	71.39- 111.39	85.38
5.587	5.588	-0.001	1916483	484.804	0.48	76.47- 116.47	90.95
6.018	6.020	-0.002	2943654	472.691	0.47	134.28- 174.28	139.70
Average of Peak Concentrations =					0.50		

Data File: /chem/ecd8a.i/022210.b/068b6801.d

Date : 22-FEB-2010 23:54

Client ID: CAPA-10-12691MSD

Sample Info: |1202047429|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

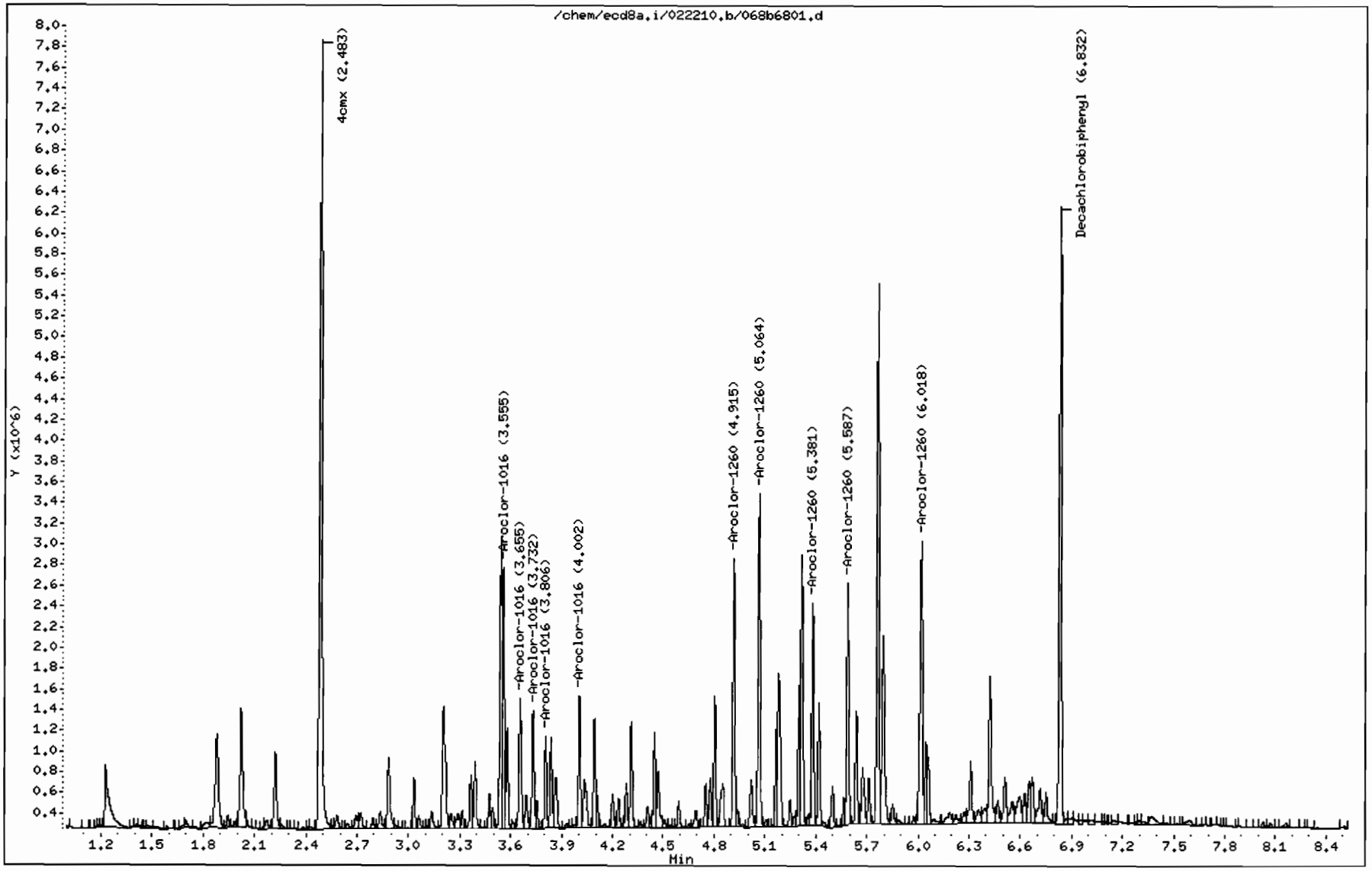

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 02/04/2010 METHOD: ECD8-F-8082-020310a.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/020310a.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	JAOC	03-FEB-2010 10:12		020310a	1.0		CLEAN
002f0201.d	WAR100203-01 60	JAOC	03-FEB-2010 10:24		020310a	1.0		1660 LEVEL 1
003f0301.d	WAR100203-02 60	JAOC	03-FEB-2010 10:37		020310a	1.0		1660 LEVEL 2
004f0401.d	WAR100203-03 60	JAOC	03-FEB-2010 10:49		020310a	1.0		1660 LEVEL 3
005f0501.d	WAR100203-04 60	JAOC	03-FEB-2010 11:01		020310a	1.0		1660 LEVEL 4
006f0601.d	IAR100104-01 60	JAOC	03-FEB-2010 11:14		020310a	1.0		1660 LEVEL 5
007f0701.d	WAR100203-60 01	JAOC	03-FEB-2010 11:26		020310a	1.0		PASSES BOTH COLUMNS
008f0801.d	WAR100203-05 54	JAOC	03-FEB-2010 11:39		020310a	1.0		1254 LEVEL 1
009f0901.d	WAR100203-06 54	JAOC	03-FEB-2010 11:51		020310a	1.0		1254 LEVEL 2
010f1001.d	WAR100203-07 54	JAOC	03-FEB-2010 12:03		020310a	1.0		1254 LEVEL 3
011f1101.d	WAR100203-08 54	JAOC	03-FEB-2010 12:16		020310a	1.0		1254 LEVEL 4
012f1201.d	IAR091027-01 54	JAOC	03-FEB-2010 12:28		020310a	1.0		1254 LEVEL 5
013f1301.d	WAR100201-54	JAOC	03-FEB-2010 12:40		020310a	1.0		PASSES BOTH COLUMNS
014f1401.d	WAR100203-09 42	JAOC	03-FEB-2010 12:53		020310a	1.0		1242 LEVEL 1
015f1501.d	WAR100203-10 42	JAOC	03-FEB-2010 13:05		020310a	1.0		1242 LEVEL 2

Instrument Batch: /chem/ecd8a.i/020310a.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR100203-11 42	JAOC	03-FEB-2010 13:18		020310a	1.0		1242 LEVEL 3
017f1701.d	WAR100203-12 42	JAOC	03-FEB-2010 13:30		020310a	1.0		1242 LEVEL 4

018f1801.d	IAR091111-01 42	JAOC	03-FEB-2010 13:42			020310a		1.0	1242 LEVEL 5
019f1901.d	WAR091217-42	JAOC	03-FEB-2010 13:55			020310a		1.0	PASSES BOTH COLUMNS
020f2001.d	WAR100203-13 48	JAOC	03-FEB-2010 14:07			020310a		1.0	1248 LEVEL 1
021f2101.d	WAR100203-14 48	JAOC	03-FEB-2010 14:19			020310a		1.0	1248 LEVEL 2
022f2201.d	WAR100203-15 48	JAOC	03-FEB-2010 14:32			020310a		1.0	1248 LEVEL 3
023f2301.d	WAR100203-16 48	JAOC	03-FEB-2010 14:44			020310a		1.0	1248 LEVEL 4
024f2401.d	IAR091027-02 48	JAOC	03-FEB-2010 14:57			020310a		1.0	1248 LEVEL 5
025f2501.d	WAR091217-48	JAOC	03-FEB-2010 15:09			020310a		1.0	DUSE RE-RUN
026f2601.d	WAR100104-32	JAOC	03-FEB-2010 15:21			020310a		1.0	PATTERN ONLY
027f2701.d	WAR100104-21	JAOC	03-FEB-2010 15:34			020310a		1.0	PATTERN ONLY
028f2801.d	WAR100203-17 62	JAOC	03-FEB-2010 15:46			020310a		1.0	1262 LEVEL 1
029f2901.d	WAR100203-18 62	JAOC	03-FEB-2010 15:58			020310a		1.0	1262 LEVEL 2
030f3001.d	WAR100203-19 62	JAOC	03-FEB-2010 16:11			020310a		1.0	1262 LEVEL 3
031f3101.d	WAR100203-20 62	JAOC	03-FEB-2010 16:23			020310a		1.0	1262 LEVEL 4
032f3201.d	IAR100104-04 62	JAOC	03-FEB-2010 16:36			020310a		1.0	1262 LEVEL 5
033f3301.d	WAR100104-62	JAOC	03-FEB-2010 16:48			020310a		1.0	PASSES BOTH COLUMNS
034f3401.d	WAR091107-68	JAOC	03-FEB-2010 17:00			020310a		1.0	PATTERN ONLY
035f3501.d	WAR091217-48	JAOC	03-FEB-2010 17:13			020310a		1.0	PASSES BOTH COLUMNS

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR091219-DDT	JAOC	03-FEB-2010 17:25		020310a	1.0		DDT
037f3701.d	WAR091130-99 02	JAOC	03-FEB-2010 17:38		020310a	1.0		CLEAN
038f3801.d	1202026314	JAOC	03-FEB-2010 17:50	946047	2010AR1262MDL-L	1.0	QC A	UPLOAD BOTH, USE BOTH
039f3901.d	1202026315	JAOC	03-FEB-2010 18:02	946047	2010AR1262MDL-L	1.0	QC A	UPLOAD BOTH, USE BOTH
040f4001.d	243859001	JAOC	03-FEB-2010 18:15	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
041f4101.d	243859002	JAOC	03-FEB-2010 18:27	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH

042f4201.d	243859003	JAOC	03-FEB-2010 18:39	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
043f4301.d	243859004	JAOC	03-FEB-2010 18:52	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
044f4401.d	243859005	JAOC	03-FEB-2010 19:04	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
045f4501.d	243859006	JAOC	03-FEB-2010 19:16	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
046f4601.d	243859007	JAOC	03-FEB-2010 19:29	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
047f4701.d	243859008	JAOC	03-FEB-2010 19:41	946047	2010AR1262MDL-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
048f4801.d	WAR100203-60 02	JAOC	03-FEB-2010 19:54		020310a	1.0		PASSES BOTH COLUMNS
049f4901.d	WAR091130-99 03	JAOC	03-FEB-2010 20:06		020310a	1.0		CLEAN
050f5001.d	243865001	JAOC	03-FEB-2010 20:18	946047	2010MDLVECD81262-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
051f5101.d	243865002	JAOC	03-FEB-2010 20:31	946047	2010MDLVECD81262-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
052f5201.d	243865003	JAOC	03-FEB-2010 20:43	946047	2010MDLVECD81262-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
053f5301.d	243865004	JAOC	03-FEB-2010 20:55	946047	2010MDLVECD81262-L	1.0	QCQA	UPLOAD BOTH, USE BOTH
054f5401.d	WAR100203-60 03	JAOC	03-FEB-2010 21:08		020310a	1.0		PASSES BOTH COLUMNS
055f5501.d	WAR091130-99 04	JAOC	03-FEB-2010 21:20		020310a	1.0		CLEAN

Instrument Batch: /chem/ecd8a.i/020310a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	245679008	JAOC	03-FEB-2010 21:33	947574	10-1449	5.0	LANL	UPLOAD BOTH, USE HIGHER
057f5701.d	245679011	JAOC	03-FEB-2010 21:45	947574	10-1449	10.0	LANL	UPLOAD BOTH, USE HIGHER
058f5801.d	245686001	JAOC	03-FEB-2010 21:57	947574	10-1432	1.0	LANL	UPLOAD BOTH, USE HIGHER
059f5901.d	WAR100203-60 04	JAOC	03-FEB-2010 22:10		020310a	1.0		PASSES BOTH COLUMNS
060f6001.d	WAR091130-99 05	JAOC	03-FEB-2010 22:22		020310a	1.0		CLEAN
061f6101.d	1202030643	JAOC	03-FEB-2010 22:34	947944	245873	1.0	QC A	UPLOAD BOTH, USE HIGHER
062f6201.d	1202030644	JAOC	03-FEB-2010 22:47	947944	245873	1.0	QC A	UPLOAD BOTH, USE HIGHER
063f6301.d	245873001	JAOC	03-FEB-2010 22:59	947944	245873	50.0	GEEL	UPLOAD BOTH, USE HIGHER
064f6401.d	1202030645	JAOC	03-FEB-2010 23:12	947944	245873	50.0	QC A	UPLOAD BOTH, USE HIGHER
065f6501.d	1202030646	JAOC	03-FEB-2010 23:24	947944	245873	50.0	QC A	UPLOAD BOTH, USE HIGHER
066f6601.d	245873002	JAOC	03-FEB-2010 23:36	947944	245873	1.0	GEEL	UPLOAD BOTH, USE HIGHER

067f6701.d	WAR100203-60 05	JAOC	03-FEB-2010 23:49		020310a	1.0	PASSES BOTH COLUMNS
068f6801.d	WAR091130-99 06	JAOC	04-FEB-2010 00:01		020310a	1.0	CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD8

DATE: 02/23/2010 METHOD: ECD8-F-8082-020310a.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: /chem/ecd8a.i/022210.b Injection Volume: 1.0 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100105-99 01	JAOC	22-FEB-2010 08:13		022210	1.0		CLEAN
002f0201.d	WAR100203-60 01	JAOC	22-FEB-2010 08:25		022210	1.0		PASSES BOTH COLUMNS
003f0301.d	WAR100201-54	JAOC	22-FEB-2010 08:37		022210	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR091217-42	JAOC	22-FEB-2010 08:50		022210	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR091217-48	JAOC	22-FEB-2010 09:02		022210	1.0		PASSES BOTH COLUMNS
006f0601.d	WAR100104-32	JAOC	22-FEB-2010 09:15		022210	1.0		PATTERN ONLY
007f0701.d	WAR100104-21	JAOC	22-FEB-2010 09:27		022210	1.0		PATTERN ONLY
008f0801.d	WAR100104-62	JAOC	22-FEB-2010 09:40		022210	1.0		PATTERN ONLY
009f0901.d	WAR100107-68	JAOC	22-FEB-2010 09:52		022210	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	JAOC	22-FEB-2010 10:04		022210	1.0		DDT
011f1101.d	WAR100105-99 02	JAOC	22-FEB-2010 10:17		022210	1.0		CLEAN
012f1201.d	1202047441	JAOC	22-FEB-2010 10:29	955022	246932	1.0	QC A	UPLOAD BOTH, USE FRONT
013f1301.d	1202047442	JAOC	22-FEB-2010 10:42	955022	246932	1.0	QC A	UPLOAD BOTH, USE FRONT
014f1401.d	246932003	JAOC	22-FEB-2010 10:54	955022	246932	1.0	BY12	DUSE, RE-RUN
015f1501.d	246932010	JAOC	22-FEB-2010 11:06	955022	246932	1.0	BY12	DUSE, RE-RUN

Instrument Batch: /chem/ecd8a.i/022210.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	246932016	JAOC	22-FEB-2010 11:19	955022	246932	1.0	BY12	UPLOAD BOTH, USE FRONT
017f1701.d	246932017	JAOC	22-FEB-2010 11:31	955022	246932	1.0	BY12	UPLOAD BOTH, USE FRONT

018f1801.d	246932022	JAOC	22-FEB-2010 11:44	955022	246932		1.0	BY12	UPLOAD BOTH, USE FRONT
019f1901.d	246932003	JAOC	22-FEB-2010 11:56	955022	246932		20.0	BY12	UPLOAD BOTH, USE FRONT
020f2001.d	246932010	JAOC	22-FEB-2010 12:12	955022	246932		1.0	BY12	UPLOAD BOTH, USE FRONT
021f2101.d	WAR100203-60 02	JAOC	22-FEB-2010 12:25		022210		1.0		PASSES BOTH COLUMNS
022f2201.d	WAR100105-99 03	JAOC	22-FEB-2010 12:37		022210		1.0		CLEAN
023f2301.d	247061001	JAOC	22-FEB-2010 12:50	955022	247061		1.0	BY12	UPLOAD BOTH, USE FRONT
024f2401.d	1202047443	JAOC	22-FEB-2010 13:02	955022	247061		1.0	QC A	UPLOAD BOTH, USE FRONT
025f2501.d	1202047444	JAOC	22-FEB-2010 13:14	955022	247061		1.0	QC A	UPLOAD BOTH, USE FRONT
026f2601.d	247061004	JAOC	22-FEB-2010 13:27	955022	247061		1.0	BY12	UPLOAD BOTH, USE FRONT
027f2701.d	247061005	JAOC	22-FEB-2010 13:39	955022	247061		1.0	BY12	UPLOAD BOTH, USE FRONT
028f2801.d	WAR100203-60 03	JAOC	22-FEB-2010 13:56		022210		1.0		PASSES BOTH COLUMNS, DCB LOW ON FRONT
029f2901.d	WAR100105-99 04	JAOC	22-FEB-2010 14:08		022210		1.0		CLEAN
030f3001.d	1202048301	JAOC	22-FEB-2010 14:20	955393	247412		1.0	QC A	UPLOAD BOTH, USE FRONT
031f3101.d	1202048302	JAOC	22-FEB-2010 14:33	955393	247412		1.0	QC A	UPLOAD BOTH, USE FRONT
032f3201.d	247412001	JAOC	22-FEB-2010 14:45	955393	247412		5.0	BJCO	UPLOAD BOTH, USE FRONT
033f3301.d	1202048303	JAOC	22-FEB-2010 15:02	955393	247412		5.0	QC A	UPLOAD BOTH, USE FRONT
034f3401.d	1202048304	JAOC	22-FEB-2010 15:18	955393	247412		5.0	QC A	UPLOAD BOTH, USE FRONT
035f3501.d	247412002	JAOC	22-FEB-2010 15:35	955393	247412		5.0	BJCO	UPLOAD BOTH, USE FRONT

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	247412003	JAOC	22-FEB-2010 15:51	955393	247412	5.0	BJCO	UPLOAD BOTH, USE FRONT
037f3701.d	247412004	JAOC	22-FEB-2010 16:08	955393	247412	50.0	BJCO	UPLOAD BOTH, USE FRONT
038f3801.d	247412011	JAOC	22-FEB-2010 16:24	955393	247412	50.0	BJCO	UPLOAD BOTH, USE FRONT
039f3901.d	247412012	JAOC	22-FEB-2010 16:41	955393	247412	50.0	BJCO	UPLOAD BOTH, USE FRONT
040f4001.d	WAR100222-60 04	JAOC	22-FEB-2010 17:01		022210	1.0		PASSES BOTH COLUMNS AVG
041f4101.d	WAR100105-99 05	JAOC	22-FEB-2010 17:13		022210	1.0		CLEAN

042f4201.d	1202048507	JAOC	22-FEB-2010 17:26	955472	246948		1.0	QC A	UPLOAD BOTH, USE HIGHER
043f4301.d	1202048508	JAOC	22-FEB-2010 17:38	955472	246948		1.0	QC A	UPLOAD BOTH, USE HIGHER
044f4401.d	246948001	JAOC	22-FEB-2010 17:51	955472	246948		5.0	BBES	UPLOAD BOTH, USE HIGHER
045f4501.d	1202048509	JAOC	22-FEB-2010 18:07	955472	246948		5.0	QC A	UPLOAD BOTH, USE HIGHER
046f4601.d	1202048510	JAOC	22-FEB-2010 18:23	955472	246948		5.0	QC A	UPLOAD BOTH, USE HIGHER
047f4701.d	246948002	JAOC	22-FEB-2010 18:40	955472	246948		5.0	BBES	UPLOAD BOTH, USE HIGHER
048f4801.d	246948003	JAOC	22-FEB-2010 18:56	955472	246948		5.0	BBES	UPLOAD BOTH, USE HIGHER
049f4901.d	246948004	JAOC	22-FEB-2010 19:13	955472	246948		5.0	BBES	UPLOAD BOTH, USE HIGHER
050f5001.d	246948005	JAOC	22-FEB-2010 19:29	955472	246948		5.0	BBES	UPLOAD BOTH, USE HIGHER
051f5101.d	246948006	JAOC	22-FEB-2010 19:46	955472	246948		5.0	BBES	UPLOAD BOTH, USE HIGHER
052f5201.d	WAR100222-60 05	JAOC	22-FEB-2010 20:03		022210		1.0		PASSES BOTH COLUMNS 20%
053f5301.d	WAR100105-99 06	JAOC	22-FEB-2010 20:15		022210		1.0		CLEAN
054f5401.d	246948007	JAOC	22-FEB-2010 20:27	955472	246948		5.0	BBES	UPLOAD BOTH, USE HIGHER
055f5501.d	246948008	JAOC	22-FEB-2010 20:44	955472	246948		5.0	BBES	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd8a.i/022210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	246948009	JAOC	22-FEB-2010 21:00	955472	246948		5.0	BBES	UPLOAD BOTH, USE HIGHER
057f5701.d	246948010	JAOC	22-FEB-2010 21:17	955472	246948		5.0	BBES	UPLOAD BOTH, USE HIGHER
058f5801.d	246948011	JAOC	22-FEB-2010 21:33	955472	246948		5.0	BBES	UPLOAD BOTH, USE HIGHER
059f5901.d	246948012	JAOC	22-FEB-2010 21:50	955472	246948		5.0	BBES	UPLOAD BOTH, USE HIGHER
060f6001.d	246948013	JAOC	22-FEB-2010 22:06	955472	246948		5.0	BBES	UPLOAD BOTH, USE HIGHER
061f6101.d	246948014	JAOC	22-FEB-2010 22:23	955472	246948		5.0	BBES	UPLOAD BOTH, USE HIGHER
062f6201.d	WAR100222-60 06	JAOC	22-FEB-2010 22:39		022210		1.0		PASSES BOTH COLUMNS 20%, HIGH FOR 15%
063f6301.d	WAR100105-99 07	JAOC	22-FEB-2010 22:52		022210		1.0		CLEAN
064f6401.d	1202047426	JAOC	22-FEB-2010 23:04	955010	10-1886		1.0	QC A	UPLOAD BOTH, USE HIGHER
065f6501.d	1202047427	JAOC	22-FEB-2010 23:17	955010	10-1886		1.0	QC A	UPLOAD BOTH, USE HIGHER
066f6601.d	247261001	JAOC	22-FEB-2010 23:29	955010	10-1886		1.0	LANL	UPLOAD BOTH, USE HIGHER

067f6701.d	1202047428	JAOC	22-FEB-2010 23:41	955010	10-1886		1.0	QC A	UPLOAD BOTH, USE HIGHER
068f6801.d	1202047429	JAOC	22-FEB-2010 23:54	955010	10-1886		1.0	QC A	UPLOAD BOTH, USE HIGHER
069f6901.d	WAR100222-60 07	JAOC	23-FEB-2010 00:06		022210		1.0		PASSES BOTH COLUMNS
070f7001.d	WAR100105-99 08	JAOC	23-FEB-2010 00:19		022210		1.0		CLEAN

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/001b0101.d
Lab Smp Id: WAR100105-99 01 Client Smp ID: PIBLK01
Inj Date : 22-FEB-2010 08:13
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100105-99 01
Misc Info : |INSTRUMENT BLANK|
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-B-8082-020310a.m
Meth Date : 22-Feb-2010 14:05 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.483	2.484	-0.001	19262316	221.805	222	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.832	6.832	0.000	13082441	201.753	202	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd8a.i/022210.b/001b0101.d

Date : 22-FEB-2010 08:13

Client ID: PIBLK01

Sample Info: IWAR100105-99 01

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

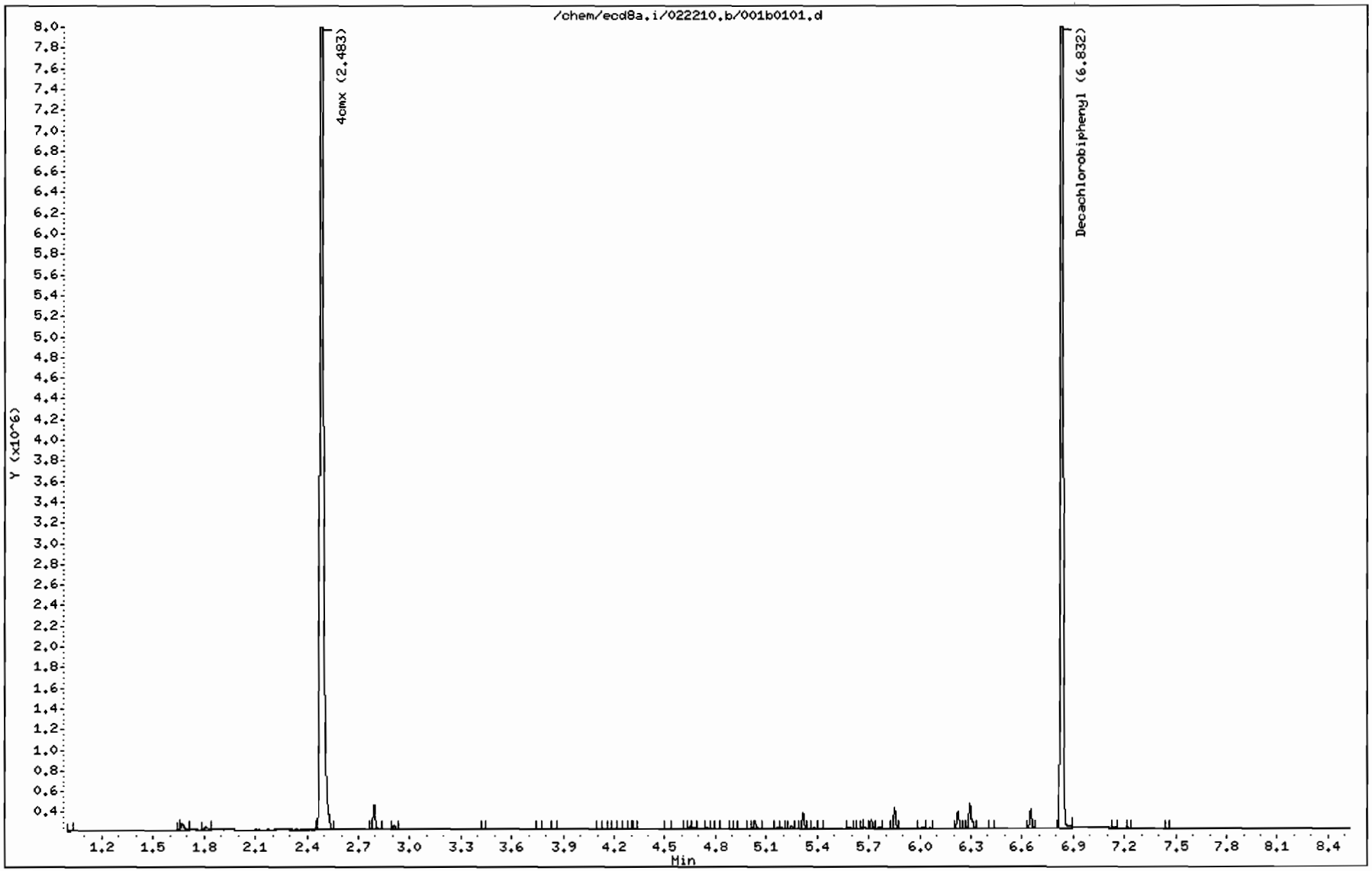

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/001f0101.d
Lab Smp Id: WAR100105-99 01 Client Smp ID: PIBLK01
Inj Date : 22-FEB-2010 08:13
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100105-99 01
Misc Info : |INSTRUMENT BLANK|
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-F-8082-020310a.m
Meth Date : 22-Feb-2010 14:06 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.251	2.252	-0.001	28116591	213.967	214	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.243	6.244	-0.001	18741116	187.446	187	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd8a.i/022210.b/001f0101.d

Date : 22-FEB-2010 08:13

Client ID: PIBLK01

Sample Info: IWAR100105-99 01

Column phase: CLP1

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

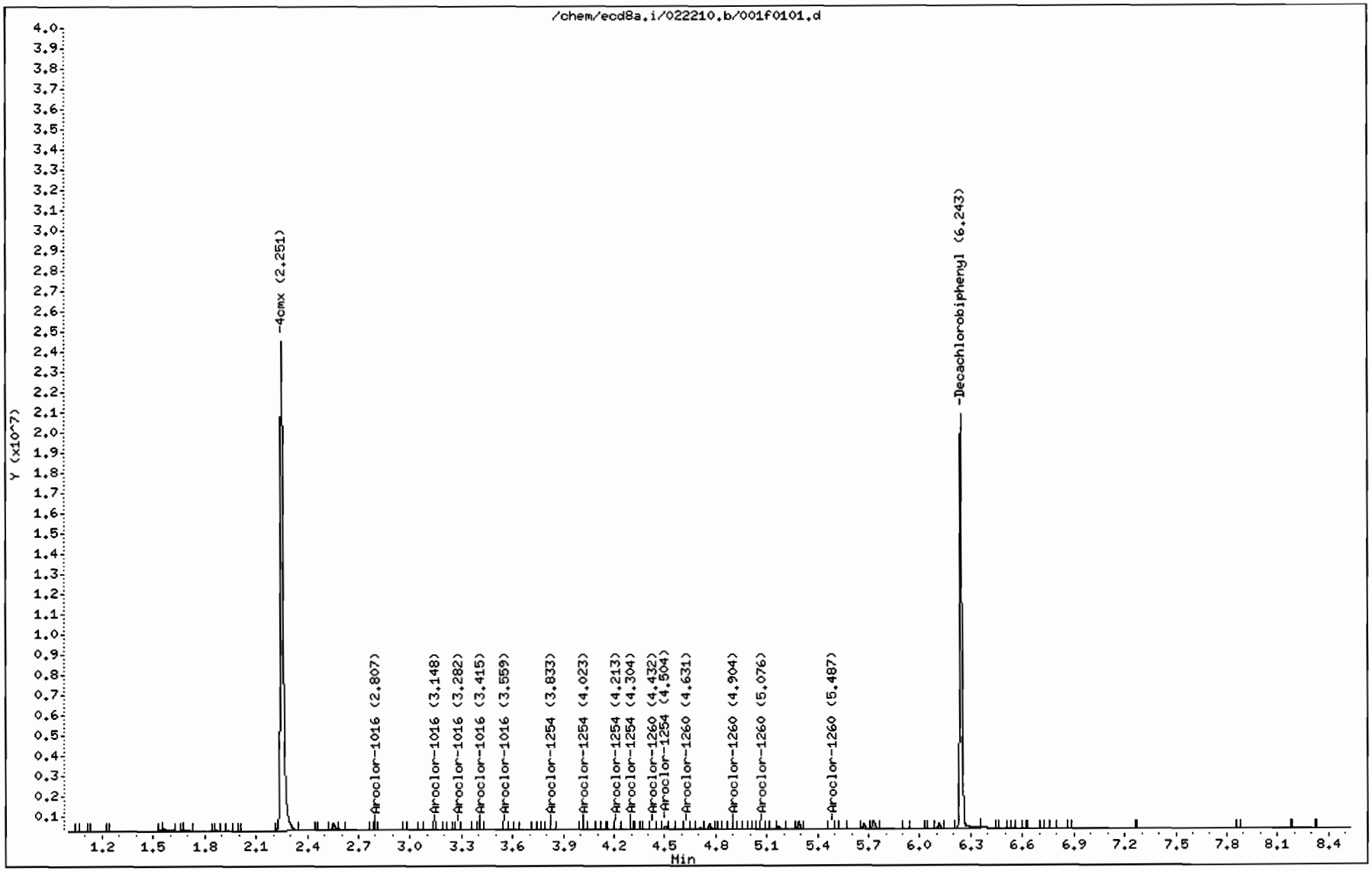

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/063b6301.d
Lab Smp Id: WAR100105-99 07 Client Smp ID: PIBLK07
Inj Date : 22-FEB-2010 22:52
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100105-99 07
Misc Info : |INSTRUMENT BLANK|
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-B-8082-020310a.m
Meth Date : 23-Feb-2010 09:39 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036b3601.d
Als bottle: 63 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.484	2.484	0.000	19685387	226.677	227	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.831	6.832	-0.001	13765261	212.284	212	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd8a.i/022210.b/063b6301.d

Date : 22-FEB-2010 22:52

Client ID: PIBLK07

Sample Info: IWAR100105-99 07

Column phase: CLP2

Instrument: ecd8a.i

Operator: JAOC

Column diameter: 0.25

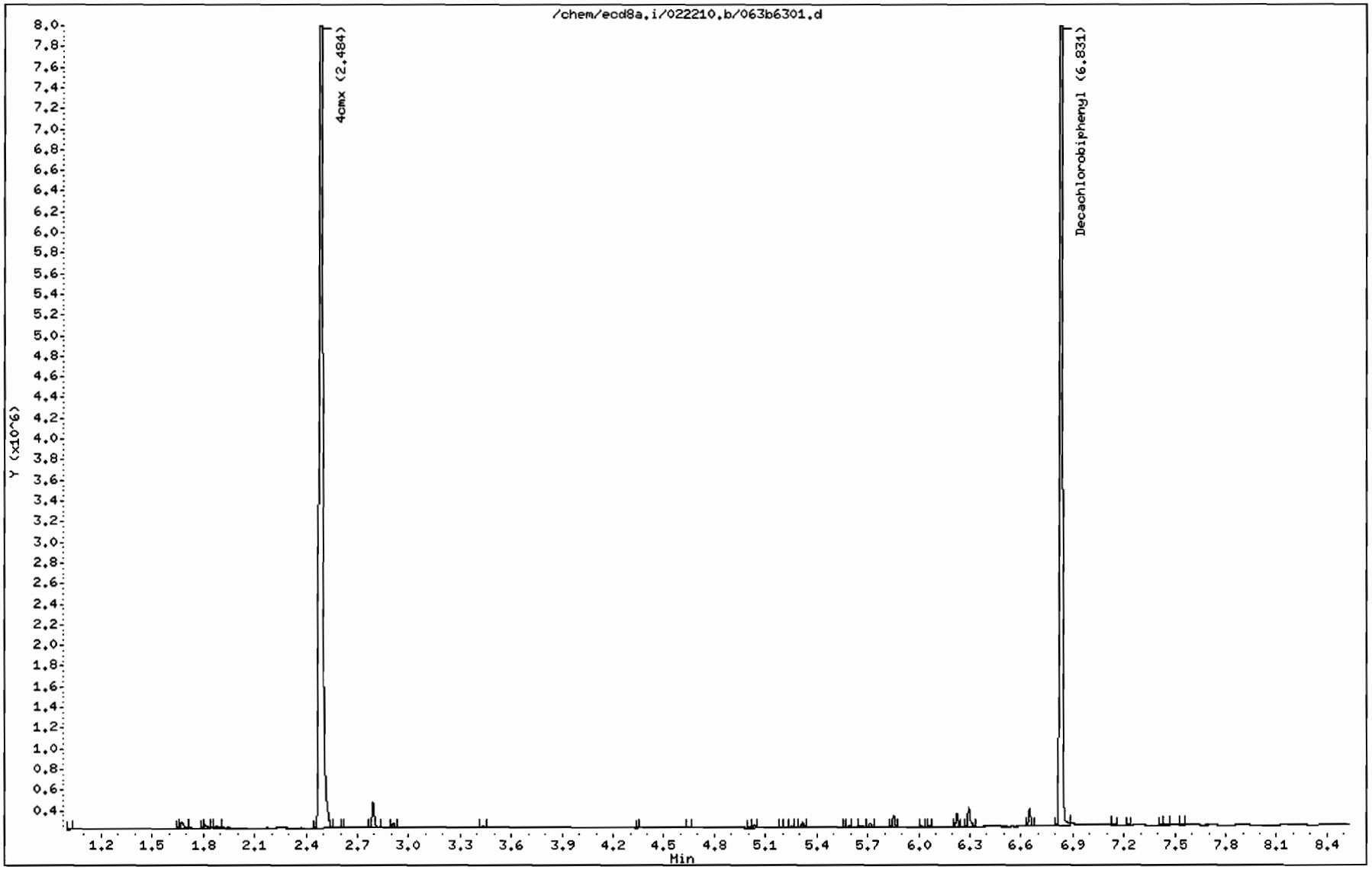

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd8a.i/022210.b/063f6301.d
Lab Smp Id: WAR100105-99 07 Client Smp ID: PIBLK07
Inj Date : 22-FEB-2010 22:52
Operator : JAOC Inst ID: ecd8a.i
Smp Info : |WAR100105-99 07
Misc Info : |INSTRUMENT BLANK|
Comment :
Method : /chem/ecd8a.i/022210.b/ECD8-F-8082-020310a.m
Meth Date : 23-Feb-2010 09:36 jen01212 Quant Type: ESTD
Cal Date : 03-FEB-2010 17:25 Cal File: 036f3601.d
Als bottle: 63 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.252	2.252	0.000	29252835	222.614	223	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.243	6.244	-0.001	19497443	195.011	195	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd8a.i/022210.b/063f6301.d

Page 1

Date : 22-FEB-2010 22:52

Client ID: PIBLK07

Instrument: ecd8a.i

Sample Info: IWAR100105-99 07

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

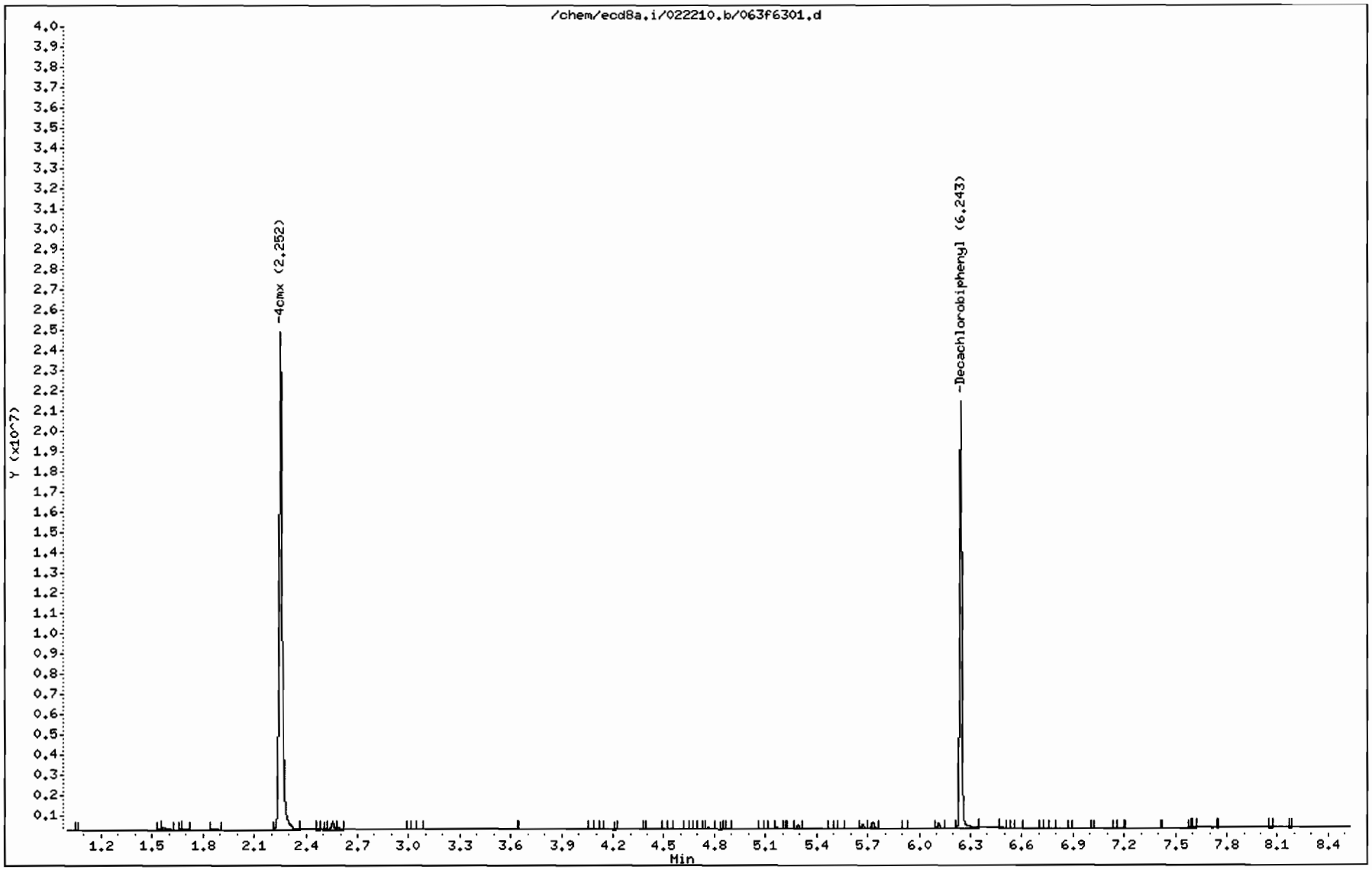

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 955009 **Verified by:** _____

Analyst: Sophia Cox

Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202047426 MB	19-FEB-2010 14:14:00	1000	5	H2SO4/KMl2		2	8	1	0.001
1202047427 LCS	19-FEB-2010 14:14:00	1000	5	H2SO4/KMl2		2	8	1	0.001
247261001	19-FEB-2010 14:14:00	840	5	H2SO4/KMl2		2	8	1	0.00119
1202047428 MS (247261001)	19-FEB-2010 14:14:00	500	5	H2SO4/KMl2		2	8	0.5	0.001
1202047429 MSD (247261001)	19-FEB-2010 14:14:00	500	5	H2SO4/KMl2		2	8	0.5	0.001

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202047427	PCB Laboratory Control	WE100105-07	1	mL
MS	1202047428	PCB Laboratory Control	WE100105-07	.5	mL
MSD	1202047429	PCB Laboratory Control	WE100105-07	.5	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100203-15	.5	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100203-15	1	mL
REGNT	All	Hexane	1256896-B2	5	mL
REGNT	All	Sulfuric Acid Sol., 1:1	1266761	5	mL
REGNT	All	Methylene Chloride	1270181-D	180	mL
REGNT	All	5% Potassium Permanganate	B1202457-F	5	mL
SOURC	All	SODIUM SULFATE	1269268	30	g

Comments:

Clean up Date: 2-19-10

Clean up Initials: SCC

Verified By: RLC

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-037

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1886

Sample Analysis

Sample ID	Client ID
247261003	CAPA-10-12691
247261004	CAPA-10-12692
1202047754	Method Blank (MB) **ICP**
1202047755	Laboratory Control Sample (LCS)
1202047758	247261003(CAPA-10-12691L) Serial Dilution (SD)
1202047756	247261003(CAPA-10-12691D) Sample Duplicate (DUP)
1202047757	247261003(CAPA-10-12691S) Matrix Spike (MS)
1202047761	Method Blank (MB) **ICP-MS**
1202047762	Laboratory Control Sample (LCS)
1202047765	247261003(CAPA-10-12691L) Serial Dilution (SD)
1202047763	247261003(CAPA-10-12691D) Sample Duplicate (DUP)
1202047764	247261003(CAPA-10-12691S) Matrix Spike (MS)
1202055828	Method Blank (MB) **CVAA**
1202055829	Laboratory Control Sample (LCS)
1202055832	247036001(CASA-10-9464L) Serial Dilution (SD)
1202055830	247036001(CASA-10-9464D) Sample Duplicate (DUP)
1202055831	247036001(CASA-10-9464S) Matrix Spike (MS)

Method/Analysis Information

Analytical Batch: 955153, 955155, 958578 and 966820

Prep Batch :	955152, 955154 and 958577
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21, GL-MA-E-010 REV# 23 and GL-GC-E-107 REV# 5
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 DOE-AL, EPA 245.1/245.2 and SM 2340 B
Prep Method :	SW846 3005A and EPA 245.1/245.2 Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Hardness as CaCO3 is calculated from Calcium and Magnesium results.

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standards met the advisory control limits with the exceptions of uranium, magnesium and potassium, which recovered outside of the advisory limits of 70-130%.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verification (CCV) bracketing this SDG met the established acceptance criteria.

Quality Control (QC) Information

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

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 247261003 (CAPA-10-12691) and 247036001 (CASA-10-9464).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS met the recommended quality control acceptance criteria for percent recoveries for all applicable analytes with the exceptions of aluminum, iron, antimony, chromium, nickel and thallium, as indicated by the "N" qualifiers.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exceptions of aluminum, barium and iron, as indicated by the "*" qualifiers.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

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

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instruments. Dilutions were required for this SDG in order to minimize tin suppression due to matrix interferences. Samples in this SDG required dilutions for sodium after repeated attempts to analyze undiluted resulted in instrument QC failures.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DERs were generated for this SDG: 805903 and 807109. A copy of each DER is included in the Miscellaneous Data section of this package.

Additional Comments
Total Hardness by Calculation is determined using the results of Total Calcium (Ca) and Total Magnesium (Mg) determined by ICP or ICP-MS.

Hardness = 2.497 (Ca) + 4.118 (Mg)

Please refer to the Total Ca and Total Mg data to validate results appearing on the Hardness Summary sheet. Both results are in the Inorganic/metals section of the package. There is no Batch QC for calculated results, and thus no QC Summary for the Hardness by Calculation Batch. The MDLs and PQLs are calculated using the higher of the two calculated values of Ca or Mg.

Certification Statement

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

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: Kristen Parson **Date:** 3/22/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1886 **METHOD TYPE:** EPA

SAMPLE ID: 247261003 **CLIENT ID:** CAPA-10-12691

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 17-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	030210W3-6
7429-90-5	Aluminum	1710	ug/L		*N	P	68	1	OPTIMA3	031610-1
7440-36-0	Antimony	0.5	ug/L	U	N	MS	0.5	1	ICPMS5	100318-3
7440-38-2	Arsenic	1.58	ug/L	J		MS	1.5	1	ICPMS5	100318-3
7440-39-3	Barium	66	ug/L		*	P	1	1	OPTIMA3	031610-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	031610-1
7440-42-8	Boron	22.9	ug/L	J		P	15	1	OPTIMA3	031610-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100318-3
7440-70-2	Calcium	10700	ug/L			P	50	1	OPTIMA3	031610-1
7440-47-3	Chromium	143	ug/L		N	MS	2.5	1	ICPMS5	100319-4
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	031610-1
7440-50-8	Copper	16.2	ug/L			P	3	1	OPTIMA3	031610-1
7439-89-6	Iron	1890	ug/L		*N	P	30	1	OPTIMA3	031610-1
7439-92-1	Lead	9.8	ug/L			MS	0.5	1	ICPMS5	100319-4
7439-95-4	Magnesium	3640	ug/L			P	85	1	OPTIMA3	031610-1
7439-96-5	Manganese	65.5	ug/L			P	2	1	OPTIMA3	031610-1
7439-98-7	Molybdenum	7.53	ug/L			MS	0.1	1	ICPMS5	100318-3
7440-02-0	Nickel	49.4	ug/L		N	MS	0.5	1	ICPMS5	100318-3
7440-09-7	Potassium	2030	ug/L			P	50	1	OPTIMA3	031610-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100319-4
7440-22-4	Silver	0.764	ug/L	J		MS	0.2	1	ICPMS5	100318-3
7440-23-5	Sodium	19000	ug/L			P	500	5	OPTIMA3	031710-2
7440-24-6	Strontium	80.7	ug/L			P	1	1	OPTIMA3	031610-1
7440-28-0	Thallium	0.575	ug/L	J	N	MS	0.3	1	ICPMS5	100319-4
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	031710-2
7440-61-1	Uranium	3.25	ug/L			MS	0.05	1	ICPMS5	100319-4

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1886 **METHOD TYPE:** EPA

SAMPLE ID: 247261003 **CLIENT ID:** CAPA-10-12691

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 17-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	4.13	ug/L	J		P	1	1	OPTIMA3	031610-1
7440-66-6	Zinc	186	ug/L			P	3.3	1	OPTIMA3	031610-1
	Hardness as CaCO3	41.8	mg/L				0.35	1	CALC001	

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1886 **METHOD TYPE:** EPA

SAMPLE ID: 247261004 **CLIENT ID:** CAPA-10-12692

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 17-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	030210W3-6
7631-86-9	Silica	72.1	mg/L			P	0.053	1	OPTIMA3	031610-1
7429-90-5	Aluminum	87.3	ug/L	J	*N	P	68	1	OPTIMA3	031610-1
7440-36-0	Antimony	0.5	ug/L	U	N	MS	0.5	1	ICPMS5	100318-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100318-3
7440-39-3	Barium	9.3	ug/L		*	P	1	1	OPTIMA3	031610-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	031610-1
7440-42-8	Boron	19	ug/L	J		P	15	1	OPTIMA3	031610-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100318-3
7440-70-2	Calcium	8280	ug/L			P	50	1	OPTIMA3	031610-1
7440-47-3	Chromium	11.1	ug/L		N	MS	2.5	1	ICPMS5	100319-4
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	031610-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	031610-1
7439-89-6	Iron	133	ug/L		*N	P	30	1	OPTIMA3	031610-1
7439-92-1	Lead	0.918	ug/L	J		MS	0.5	1	ICPMS5	100319-4
7439-95-4	Magnesium	2750	ug/L			P	85	1	OPTIMA3	031610-1
7439-96-5	Manganese	42.1	ug/L			P	2	1	OPTIMA3	031610-1
7439-98-7	Molybdenum	5.1	ug/L			MS	0.1	1	ICPMS5	100318-3
7440-02-0	Nickel	8.3	ug/L		N	MS	0.5	1	ICPMS5	100318-3
7440-09-7	Potassium	1040	ug/L			P	50	1	OPTIMA3	031610-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100319-5
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100318-3
7440-23-5	Sodium	18900	ug/L			P	500	5	OPTIMA3	031710-2
7440-24-6	Strontium	47.2	ug/L			P	1	1	OPTIMA3	031610-1
7440-28-0	Thallium	0.3	ug/L	U	N	MS	0.3	1	ICPMS5	100319-4
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	031710-2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1886 **METHOD TYPE:** EPA

SAMPLE ID: 247261004 **CLIENT ID:** CAPA-10-12692

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 17-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	0.682	ug/L			MS	0.05	1	ICPMS5	100319-4
7440-62-2	Vanadium	3.24	ug/L	J		P	1	1	OPTIMA3	031610-1
7440-66-6	Zinc	60.5	ug/L			P	3.3	1	OPTIMA3	031610-1
	Hardness as CaCO3	32	mg/L				0.35	1	CALC001	

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1886

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.2	ug/L	5	ug/L	104	90.0 – 110.0	AV	02–MAR–10 08:39	030210W3–6
	Aluminum	4950	ug/L	5000	ug/L	99.1	90.0 – 110.0	P	16–MAR–10 15:22	031610–1
	Barium	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	16–MAR–10 15:22	031610–1
	Beryllium	265	ug/L	250	ug/L	106.1	90.0 – 110.0	P	16–MAR–10 15:22	031610–1
	Boron	516	ug/L	500	ug/L	103.3	90.0 – 110.0	P	16–MAR–10 15:22	031610–1
	Calcium	4980	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	16–MAR–10 15:22	031610–1
	Cobalt	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	16–MAR–10 15:22	031610–1
	Copper	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	16–MAR–10 15:22	031610–1
	Iron	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	16–MAR–10 15:22	031610–1
	Magnesium	5400	ug/L	5000	ug/L	108	90.0 – 110.0	P	16–MAR–10 15:22	031610–1
	Manganese	520	ug/L	500	ug/L	104	90.0 – 110.0	P	16–MAR–10 15:22	031610–1
	Potassium	2480	ug/L	2500	ug/L	99.4	90.0 – 110.0	P	16–MAR–10 15:22	031610–1
	Silica	10500	ug/L	10700	ug/L	98.1	90.0 – 110.0	P	16–MAR–10 15:22	031610–1
	Strontium	536	ug/L	500	ug/L	107.2	90.0 – 110.0	P	16–MAR–10 15:22	031610–1
	Vanadium	522	ug/L	500	ug/L	104.4	90.0 – 110.0	P	16–MAR–10 15:22	031610–1
	Zinc	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	16–MAR–10 15:22	031610–1
	Sodium	2450	ug/L	2500	ug/L	98.2	90.0 – 110.0	P	17–MAR–10 16:19	031710–2
	Tin	536	ug/L	500	ug/L	107.2	90.0 – 110.0	P	17–MAR–10 16:19	031710–2
	Antimony	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	19–MAR–10 02:44	100318–3
	Arsenic	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	19–MAR–10 02:44	100318–3
	Cadmium	50.4	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	19–MAR–10 02:44	100318–3
	Molybdenum	49.1	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	19–MAR–10 02:44	100318–3
	Nickel	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	19–MAR–10 02:44	100318–3
	Silver	50.9	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	19–MAR–10 02:44	100318–3
	Chromium	52.3	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	19–MAR–10 13:03	100319–4
	Lead	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	19–MAR–10 13:03	100319–4
	Selenium	53.3	ug/L	50	ug/L	106.7	90.0 – 110.0	MS	19–MAR–10 13:03	100319–4
	Thallium	50.2	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	19–MAR–10 13:03	100319–4
	Uranium	53.1	ug/L	50	ug/L	106.1	90.0 – 110.0	MS	19–MAR–10 13:03	100319–4
	Selenium	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	19–MAR–10 17:16	100319–5

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1886

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV01										
	Mercury	5.16	ug/L	5	ug/L	103.1	80.0 – 120.0	AV	02–MAR–10 08:45	030210W3–6
	Aluminum	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	16–MAR–10 16:17	031610–1
	Barium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	16–MAR–10 16:17	031610–1
	Beryllium	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	16–MAR–10 16:17	031610–1
	Boron	523	ug/L	500	ug/L	104.7	90.0 – 110.0	P	16–MAR–10 16:17	031610–1
	Calcium	5150	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	16–MAR–10 16:17	031610–1
	Cobalt	519	ug/L	500	ug/L	103.8	90.0 – 110.0	P	16–MAR–10 16:17	031610–1
	Copper	505	ug/L	500	ug/L	101	90.0 – 110.0	P	16–MAR–10 16:17	031610–1
	Iron	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	16–MAR–10 16:17	031610–1
	Magnesium	5360	ug/L	5000	ug/L	107.2	90.0 – 110.0	P	16–MAR–10 16:17	031610–1
	Manganese	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	16–MAR–10 16:17	031610–1
	Potassium	5280	ug/L	5000	ug/L	105.5	90.0 – 110.0	P	16–MAR–10 16:17	031610–1
	Silica	5410	ug/L	5350	ug/L	101.1	90.0 – 110.0	P	16–MAR–10 16:17	031610–1
	Strontium	522	ug/L	500	ug/L	104.3	90.0 – 110.0	P	16–MAR–10 16:17	031610–1
	Vanadium	514	ug/L	500	ug/L	102.9	90.0 – 110.0	P	16–MAR–10 16:17	031610–1
	Zinc	515	ug/L	500	ug/L	102.9	90.0 – 110.0	P	16–MAR–10 16:17	031610–1
	Sodium	9880	ug/L	10000	ug/L	98.8	90.0 – 110.0	P	17–MAR–10 17:08	031710–2
	Tin	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	17–MAR–10 17:08	031710–2
	Antimony	54.8	ug/L	50	ug/L	109.5	90.0 – 110.0	MS	19–MAR–10 03:01	100318–3
	Arsenic	54.2	ug/L	50	ug/L	108.4	90.0 – 110.0	MS	19–MAR–10 03:01	100318–3
	Cadmium	53.6	ug/L	50	ug/L	107.2	90.0 – 110.0	MS	19–MAR–10 03:01	100318–3
	Molybdenum	52	ug/L	50	ug/L	104	90.0 – 110.0	MS	19–MAR–10 03:01	100318–3
	Nickel	53.1	ug/L	50	ug/L	106.1	90.0 – 110.0	MS	19–MAR–10 03:01	100318–3
	Silver	53.9	ug/L	50	ug/L	107.8	90.0 – 110.0	MS	19–MAR–10 03:01	100318–3
	Chromium	48.5	ug/L	50	ug/L	97	90.0 – 110.0	MS	19–MAR–10 13:21	100319–4
	Lead	50.7	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	19–MAR–10 13:21	100319–4
	Selenium	52.3	ug/L	50	ug/L	104.6	90.0 – 110.0	MS	19–MAR–10 13:21	100319–4
	Thallium	49	ug/L	50	ug/L	98	90.0 – 110.0	MS	19–MAR–10 13:21	100319–4
	Uranium	52	ug/L	50	ug/L	104	90.0 – 110.0	MS	19–MAR–10 13:21	100319–4
	Selenium	50.4	ug/L	50	ug/L	100.9	90.0 – 110.0	MS	19–MAR–10 17:32	100319–5

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1886

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV02										
	Mercury	5.13	ug/L	5	ug/L	102.6	80.0 – 120.0	AV	02–MAR–10 09:08	030210W3–6
	Aluminum	4970	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	16–MAR–10 16:37	031610–1
	Barium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	16–MAR–10 16:37	031610–1
	Beryllium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	16–MAR–10 16:37	031610–1
	Boron	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	16–MAR–10 16:37	031610–1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	16–MAR–10 16:37	031610–1
	Cobalt	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	16–MAR–10 16:37	031610–1
	Copper	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	16–MAR–10 16:37	031610–1
	Iron	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	16–MAR–10 16:37	031610–1
	Magnesium	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	16–MAR–10 16:37	031610–1
	Manganese	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	16–MAR–10 16:37	031610–1
	Potassium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	16–MAR–10 16:37	031610–1
	Silica	5280	ug/L	5350	ug/L	98.7	90.0 – 110.0	P	16–MAR–10 16:37	031610–1
	Strontium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	16–MAR–10 16:37	031610–1
	Vanadium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	16–MAR–10 16:37	031610–1
	Zinc	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	16–MAR–10 16:37	031610–1
	Sodium	9690	ug/L	10000	ug/L	96.9	90.0 – 110.0	P	17–MAR–10 17:27	031710–2
	Tin	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	17–MAR–10 17:27	031710–2
	Antimony	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	19–MAR–10 03:33	100318–3
	Arsenic	51.3	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	19–MAR–10 03:33	100318–3
	Cadmium	49.1	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	19–MAR–10 03:33	100318–3
	Molybdenum	49.5	ug/L	50	ug/L	99.1	90.0 – 110.0	MS	19–MAR–10 03:33	100318–3
	Nickel	50.2	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	19–MAR–10 03:33	100318–3
	Silver	50.9	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	19–MAR–10 03:33	100318–3
	Chromium	48.7	ug/L	50	ug/L	97.3	90.0 – 110.0	MS	19–MAR–10 13:31	100319–4
	Lead	50	ug/L	50	ug/L	100.1	90.0 – 110.0	MS	19–MAR–10 13:31	100319–4
	Selenium	52.9	ug/L	50	ug/L	105.8	90.0 – 110.0	MS	19–MAR–10 13:31	100319–4
	Thallium	49.1	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	19–MAR–10 13:31	100319–4
	Uranium	52.3	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	19–MAR–10 13:31	100319–4
	Selenium	50.3	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	19–MAR–10 17:39	100319–5

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1886

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV03										
	Mercury	5.06	ug/L	5	ug/L	101.1	80.0 – 120.0	AV	02–MAR–10 09:31	030210W3–6
	Aluminum	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	16–MAR–10 17:06	031610–1
	Barium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	16–MAR–10 17:06	031610–1
	Beryllium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	16–MAR–10 17:06	031610–1
	Boron	500	ug/L	500	ug/L	100	90.0 – 110.0	P	16–MAR–10 17:06	031610–1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	16–MAR–10 17:06	031610–1
	Cobalt	513	ug/L	500	ug/L	102.6	90.0 – 110.0	P	16–MAR–10 17:06	031610–1
	Copper	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	16–MAR–10 17:06	031610–1
	Iron	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	16–MAR–10 17:06	031610–1
	Magnesium	5310	ug/L	5000	ug/L	106.3	90.0 – 110.0	P	16–MAR–10 17:06	031610–1
	Manganese	495	ug/L	500	ug/L	99	90.0 – 110.0	P	16–MAR–10 17:06	031610–1
	Potassium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	16–MAR–10 17:06	031610–1
	Silica	5270	ug/L	5350	ug/L	98.5	90.0 – 110.0	P	16–MAR–10 17:06	031610–1
	Strontium	515	ug/L	500	ug/L	102.9	90.0 – 110.0	P	16–MAR–10 17:06	031610–1
	Vanadium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	16–MAR–10 17:06	031610–1
	Zinc	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	16–MAR–10 17:06	031610–1
	Sodium	9470	ug/L	10000	ug/L	94.7	90.0 – 110.0	P	17–MAR–10 18:33	031710–2
	Tin	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	17–MAR–10 18:33	031710–2
	Antimony	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	19–MAR–10 04:05	100318–3
	Arsenic	49	ug/L	50	ug/L	98	90.0 – 110.0	MS	19–MAR–10 04:05	100318–3
	Cadmium	49.6	ug/L	50	ug/L	99.2	90.0 – 110.0	MS	19–MAR–10 04:05	100318–3
	Molybdenum	47.6	ug/L	50	ug/L	95.1	90.0 – 110.0	MS	19–MAR–10 04:05	100318–3
	Nickel	48.9	ug/L	50	ug/L	97.7	90.0 – 110.0	MS	19–MAR–10 04:05	100318–3
	Silver	49.5	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	19–MAR–10 04:05	100318–3
	Chromium	50.1	ug/L	50	ug/L	100.1	90.0 – 110.0	MS	19–MAR–10 13:58	100319–4
	Lead	50.8	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	19–MAR–10 13:58	100319–4
	Selenium	51.7	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	19–MAR–10 13:58	100319–4
	Thallium	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	19–MAR–10 13:58	100319–4
	Uranium	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	19–MAR–10 13:58	100319–4
	Selenium	50.5	ug/L	50	ug/L	101.1	90.0 – 110.0	MS	19–MAR–10 17:59	100319–5

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1886

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV04										
	Mercury	5.02	ug/L	5	ug/L	100.3	80.0 – 120.0	AV	02–MAR–10 09:54	030210W3–6
	Aluminum	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	16–MAR–10 18:29	031610–1
	Barium	516	ug/L	500	ug/L	103.1	90.0 – 110.0	P	16–MAR–10 18:29	031610–1
	Beryllium	524	ug/L	500	ug/L	104.8	90.0 – 110.0	P	16–MAR–10 18:29	031610–1
	Boron	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	16–MAR–10 18:29	031610–1
	Calcium	5240	ug/L	5000	ug/L	104.8	90.0 – 110.0	P	16–MAR–10 18:29	031610–1
	Cobalt	523	ug/L	500	ug/L	104.6	90.0 – 110.0	P	16–MAR–10 18:29	031610–1
	Copper	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	16–MAR–10 18:29	031610–1
	Iron	5300	ug/L	5000	ug/L	106	90.0 – 110.0	P	16–MAR–10 18:29	031610–1
	Magnesium	5400	ug/L	5000	ug/L	107.9	90.0 – 110.0	P	16–MAR–10 18:29	031610–1
	Manganese	522	ug/L	500	ug/L	104.3	90.0 – 110.0	P	16–MAR–10 18:29	031610–1
	Potassium	5360	ug/L	5000	ug/L	107.2	90.0 – 110.0	P	16–MAR–10 18:29	031610–1
	Silica	5540	ug/L	5350	ug/L	103.6	90.0 – 110.0	P	16–MAR–10 18:29	031610–1
	Strontium	545	ug/L	500	ug/L	109	90.0 – 110.0	P	16–MAR–10 18:29	031610–1
	Vanadium	521	ug/L	500	ug/L	104.3	90.0 – 110.0	P	16–MAR–10 18:29	031610–1
	Zinc	518	ug/L	500	ug/L	103.6	90.0 – 110.0	P	16–MAR–10 18:29	031610–1
	Chromium	49.2	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	19–MAR–10 14:22	100319–4
	Lead	51.2	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	19–MAR–10 14:22	100319–4
	Selenium	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	19–MAR–10 14:22	100319–4
	Thallium	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	19–MAR–10 14:22	100319–4
	Uranium	51.7	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	19–MAR–10 14:22	100319–4
CCV05										
	Chromium	46.4	ug/L	50	ug/L	92.8	90.0 – 110.0	MS	19–MAR–10 14:53	100319–4
	Lead	52	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	19–MAR–10 14:53	100319–4
	Selenium	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	19–MAR–10 14:53	100319–4
	Thallium	50.8	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	19–MAR–10 14:53	100319–4
	Uranium	51.8	ug/L	50	ug/L	103.6	90.0 – 110.0	MS	19–MAR–10 14:53	100319–4
CCV06										
	Chromium	45.9	ug/L	50	ug/L	91.9	90.0 – 110.0	MS	19–MAR–10 15:25	100319–4
	Lead	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	19–MAR–10 15:25	100319–4

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1886

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Selenium	51.3	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	19–MAR–10 15:25	100319–4
	Thallium	49	ug/L	50	ug/L	98	90.0 – 110.0	MS	19–MAR–10 15:25	100319–4
	Uranium	51.3	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	19–MAR–10 15:25	100319–4
CCV07										
	Chromium	47	ug/L	50	ug/L	94	90.0 – 110.0	MS	19–MAR–10 16:06	100319–4
	Lead	52.4	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	19–MAR–10 16:06	100319–4
	Selenium	51	ug/L	50	ug/L	101.9	90.0 – 110.0	MS	19–MAR–10 16:06	100319–4
	Thallium	50.8	ug/L	50	ug/L	101.7	90.0 – 110.0	MS	19–MAR–10 16:06	100319–4
	Uranium	52.1	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	19–MAR–10 16:06	100319–4
CCV08										
	Chromium	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	19–MAR–10 16:41	100319–4
	Lead	52.5	ug/L	50	ug/L	105.1	90.0 – 110.0	MS	19–MAR–10 16:41	100319–4
	Selenium	54.8	ug/L	50	ug/L	109.6	90.0 – 110.0	MS	19–MAR–10 16:41	100319–4
	Thallium	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	19–MAR–10 16:41	100319–4
	Uranium	54.3	ug/L	50	ug/L	108.6	90.0 – 110.0	MS	19–MAR–10 16:41	100319–4

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–1886

Contract: ESHL01000 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.24	ug/L	.2	ug/L	120	70.0 – 130.0	AV	02–MAR–10 08:43	030210W3–6
	Nickel	2.24	ug/L	2	ug/L	112.1	70.0 – 130.0	MS	19–MAR–10 02:51	100318–3
	Silver	1.06	ug/L	1	ug/L	105.5	70.0 – 130.0	MS	19–MAR–10 02:51	100318–3
	Antimony	3.27	ug/L	3	ug/L	108.9	70.0 – 130.0	MS	19–MAR–10 02:51	100318–3
	Molybdenum	.582	ug/L	.5	ug/L	116.4	70.0 – 130.0	MS	19–MAR–10 02:51	100318–3
	Cadmium	1.12	ug/L	1	ug/L	112.3	70.0 – 130.0	MS	19–MAR–10 02:51	100318–3
	Arsenic	5.76	ug/L	5	ug/L	115.3	70.0 – 130.0	MS	19–MAR–10 02:51	100318–3
	Lead	2.36	ug/L	2	ug/L	117.8	70.0 – 130.0	MS	19–MAR–10 13:10	100319–4
	Chromium	12	ug/L	10	ug/L	120.2	70.0 – 130.0	MS	19–MAR–10 13:10	100319–4
	Uranium	.268	ug/L	.2	ug/L	134	70.0 – 130.0	MS	19–MAR–10 13:10	100319–4
	Selenium	6.23	ug/L	5	ug/L	124.6	70.0 – 130.0	MS	19–MAR–10 13:10	100319–4
	Thallium	1.22	ug/L	1	ug/L	121.6	70.0 – 130.0	MS	19–MAR–10 13:10	100319–4
	Selenium	5.58	ug/L	5	ug/L	111.5	70.0 – 130.0	MS	19–MAR–10 17:22	100319–5
PQL01										
	Iron	127	ug/L	100	ug/L	127.1	70.0 – 130.0	P	16–MAR–10 15:37	031610–1
	Magnesium	405	ug/L	300	ug/L	134.8	70.0 – 130.0	P	16–MAR–10 15:37	031610–1
	Manganese	10.4	ug/L	10	ug/L	103.8	70.0 – 130.0	P	16–MAR–10 15:37	031610–1
	Potassium	198	ug/L	150	ug/L	131.7	70.0 – 130.0	P	16–MAR–10 15:37	031610–1
	Barium	5.09	ug/L	5	ug/L	101.8	70.0 – 130.0	P	16–MAR–10 15:37	031610–1
	Beryllium	5.06	ug/L	5	ug/L	101.2	70.0 – 130.0	P	16–MAR–10 15:37	031610–1
	Cobalt	4.91	ug/L	5	ug/L	98.3	70.0 – 130.0	P	16–MAR–10 15:37	031610–1
	Copper	9.7	ug/L	10	ug/L	97	70.0 – 130.0	P	16–MAR–10 15:37	031610–1
	Vanadium	5.3	ug/L	5	ug/L	105.9	70.0 – 130.0	P	16–MAR–10 15:37	031610–1
	Aluminum	226	ug/L	200	ug/L	113	70.0 – 130.0	P	16–MAR–10 15:37	031610–1
	Silica	216	ug/L	213	ug/L	101.6	70.0 – 130.0	P	16–MAR–10 15:37	031610–1
	Zinc	12.7	ug/L	10	ug/L	126.8	70.0 – 130.0	P	16–MAR–10 15:37	031610–1
	Calcium	211	ug/L	200	ug/L	105.4	70.0 – 130.0	P	16–MAR–10 15:37	031610–1
	Boron	52.9	ug/L	50	ug/L	105.7	70.0 – 130.0	P	16–MAR–10 15:37	031610–1
	Strontium	5.24	ug/L	5	ug/L	104.8	70.0 – 130.0	P	16–MAR–10 15:37	031610–1
	Sodium	300	ug/L	300	ug/L	99.9	70.0 – 130.0	P	17–MAR–10 16:34	031710–2

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–1886

Contract: ESHL01000 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
	Tin	10.6	ug/L	10	ug/L	106.2	70.0 – 130.0	P	17–MAR–10 16:34	031710–2
PQL02										
	Boron	57.7	ug/L	50	ug/L	115.4	70.0 – 130.0	P	16–MAR–10 17:13	031610–1
	Strontium	5.16	ug/L	5	ug/L	103.1	70.0 – 130.0	P	16–MAR–10 17:13	031610–1
	Silica	218	ug/L	213	ug/L	102.6	70.0 – 130.0	P	16–MAR–10 17:13	031610–1
	Aluminum	209	ug/L	200	ug/L	104.7	70.0 – 130.0	P	16–MAR–10 17:13	031610–1
	Iron	112	ug/L	100	ug/L	111.6	70.0 – 130.0	P	16–MAR–10 17:13	031610–1
	Magnesium	414	ug/L	300	ug/L	138	70.0 – 130.0	P	16–MAR–10 17:13	031610–1
	Manganese	10.5	ug/L	10	ug/L	105.1	70.0 – 130.0	P	16–MAR–10 17:13	031610–1
	Potassium	228	ug/L	150	ug/L	151.8	70.0 – 130.0	P	16–MAR–10 17:13	031610–1
	Barium	5.29	ug/L	5	ug/L	105.9	70.0 – 130.0	P	16–MAR–10 17:13	031610–1
	Beryllium	5.04	ug/L	5	ug/L	100.7	70.0 – 130.0	P	16–MAR–10 17:13	031610–1
	Cobalt	4.96	ug/L	5	ug/L	99.3	70.0 – 130.0	P	16–MAR–10 17:13	031610–1
	Copper	10.1	ug/L	10	ug/L	101.4	70.0 – 130.0	P	16–MAR–10 17:13	031610–1
	Vanadium	4.91	ug/L	5	ug/L	98.3	70.0 – 130.0	P	16–MAR–10 17:13	031610–1
	Zinc	14	ug/L	10	ug/L	140.3	70.0 – 130.0	P	16–MAR–10 17:13	031610–1
	Calcium	208	ug/L	200	ug/L	104.1	70.0 – 130.0	P	16–MAR–10 17:13	031610–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1886

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 08:41	030210W3–6
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	16–MAR–10 15:29	031610–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	16–MAR–10 15:29	031610–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	16–MAR–10 15:29	031610–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	16–MAR–10 15:29	031610–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	16–MAR–10 15:29	031610–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	16–MAR–10 15:29	031610–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	16–MAR–10 15:29	031610–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	16–MAR–10 15:29	031610–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	16–MAR–10 15:29	031610–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	16–MAR–10 15:29	031610–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	16–MAR–10 15:29	031610–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	16–MAR–10 15:29	031610–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	16–MAR–10 15:29	031610–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	16–MAR–10 15:29	031610–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	16–MAR–10 15:29	031610–1
	Sodium	100	+/–300	U	100	300	LIQ	P	17–MAR–10 16:26	031710–2
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	17–MAR–10 16:26	031710–2
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	19–MAR–10 02:47	100318–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	19–MAR–10 02:47	100318–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	19–MAR–10 02:47	100318–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	19–MAR–10 02:47	100318–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	19–MAR–10 02:47	100318–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	19–MAR–10 02:47	100318–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	19–MAR–10 13:07	100319–4
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	19–MAR–10 13:07	100319–4
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	19–MAR–10 13:07	100319–4
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	19–MAR–10 13:07	100319–4
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	19–MAR–10 13:07	100319–4
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	19–MAR–10 17:19	100319–5

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1886

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 08:47	030210W3–6
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	16–MAR–10 16:24	031610–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	16–MAR–10 16:24	031610–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	16–MAR–10 16:24	031610–1
	Boron	17.56	+/–50	J	15.0	50.0	LIQ	P	16–MAR–10 16:24	031610–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	16–MAR–10 16:24	031610–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	16–MAR–10 16:24	031610–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	16–MAR–10 16:24	031610–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	16–MAR–10 16:24	031610–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	16–MAR–10 16:24	031610–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	16–MAR–10 16:24	031610–1
	Potassium	83.14	+/–150	J	50.0	150	LIQ	P	16–MAR–10 16:24	031610–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	16–MAR–10 16:24	031610–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	16–MAR–10 16:24	031610–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	16–MAR–10 16:24	031610–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	16–MAR–10 16:24	031610–1
	Sodium	100	+/–300	U	100	300	LIQ	P	17–MAR–10 17:15	031710–2
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	17–MAR–10 17:15	031710–2
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	19–MAR–10 03:05	100318–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	19–MAR–10 03:05	100318–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	19–MAR–10 03:05	100318–3
	Molybdenum	0.145	+/–.5	J	0.1	0.5	LIQ	MS	19–MAR–10 03:05	100318–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	19–MAR–10 03:05	100318–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	19–MAR–10 03:05	100318–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	19–MAR–10 13:24	100319–4
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	19–MAR–10 13:24	100319–4
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	19–MAR–10 13:24	100319–4
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	19–MAR–10 13:24	100319–4
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	19–MAR–10 13:24	100319–4
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	19–MAR–10 17:36	100319–5

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1886

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB02										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 09:10	030210W3–6
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	16–MAR–10 16:44	031610–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	16–MAR–10 16:44	031610–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	16–MAR–10 16:44	031610–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	16–MAR–10 16:44	031610–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	16–MAR–10 16:44	031610–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	16–MAR–10 16:44	031610–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	16–MAR–10 16:44	031610–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	16–MAR–10 16:44	031610–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	16–MAR–10 16:44	031610–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	16–MAR–10 16:44	031610–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	16–MAR–10 16:44	031610–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	16–MAR–10 16:44	031610–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	16–MAR–10 16:44	031610–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	16–MAR–10 16:44	031610–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	16–MAR–10 16:44	031610–1
	Sodium	100	+/–300	U	100	300	LIQ	P	17–MAR–10 17:34	031710–2
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	17–MAR–10 17:34	031710–2
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	19–MAR–10 03:37	100318–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	19–MAR–10 03:37	100318–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	19–MAR–10 03:37	100318–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	19–MAR–10 03:37	100318–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	19–MAR–10 03:37	100318–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	19–MAR–10 03:37	100318–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	19–MAR–10 13:34	100319–4
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	19–MAR–10 13:34	100319–4
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	19–MAR–10 13:34	100319–4
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	19–MAR–10 13:34	100319–4
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	19–MAR–10 13:34	100319–4
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	19–MAR–10 17:42	100319–5

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1886

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB03										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 09:33	030210W3–6
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	16–MAR–10 17:19	031610–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	16–MAR–10 17:19	031610–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	16–MAR–10 17:19	031610–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	16–MAR–10 17:19	031610–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	16–MAR–10 17:19	031610–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	16–MAR–10 17:19	031610–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	16–MAR–10 17:19	031610–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	16–MAR–10 17:19	031610–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	16–MAR–10 17:19	031610–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	16–MAR–10 17:19	031610–1
	Potassium	78.47	+/–150	J	50.0	150	LIQ	P	16–MAR–10 17:19	031610–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	16–MAR–10 17:19	031610–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	16–MAR–10 17:19	031610–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	16–MAR–10 17:19	031610–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	16–MAR–10 17:19	031610–1
	Sodium	100	+/–300	U	100	300	LIQ	P	17–MAR–10 18:40	031710–2
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	17–MAR–10 18:40	031710–2
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	19–MAR–10 04:09	100318–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	19–MAR–10 04:09	100318–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	19–MAR–10 04:09	100318–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	19–MAR–10 04:09	100318–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	19–MAR–10 04:09	100318–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	19–MAR–10 04:09	100318–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	19–MAR–10 14:02	100319–4
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	19–MAR–10 14:02	100319–4
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	19–MAR–10 14:02	100319–4
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	19–MAR–10 14:02	100319–4
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	19–MAR–10 14:02	100319–4
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	19–MAR–10 18:02	100319–5

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1886

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB04										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 09:56	030210W3–6
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	16–MAR–10 18:36	031610–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	16–MAR–10 18:36	031610–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	16–MAR–10 18:36	031610–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	16–MAR–10 18:36	031610–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	16–MAR–10 18:36	031610–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	16–MAR–10 18:36	031610–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	16–MAR–10 18:36	031610–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	16–MAR–10 18:36	031610–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	16–MAR–10 18:36	031610–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	16–MAR–10 18:36	031610–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	16–MAR–10 18:36	031610–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	16–MAR–10 18:36	031610–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	16–MAR–10 18:36	031610–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	16–MAR–10 18:36	031610–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	16–MAR–10 18:36	031610–1
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	19–MAR–10 14:26	100319–4
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	19–MAR–10 14:26	100319–4
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	19–MAR–10 14:26	100319–4
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	19–MAR–10 14:26	100319–4
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	19–MAR–10 14:26	100319–4
CCB05										
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	19–MAR–10 14:57	100319–4
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	19–MAR–10 14:57	100319–4
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	19–MAR–10 14:57	100319–4
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	19–MAR–10 14:57	100319–4
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	19–MAR–10 14:57	100319–4
CCB06										
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	19–MAR–10 15:28	100319–4
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	19–MAR–10 15:28	100319–4
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	19–MAR–10 15:28	100319–4

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1886

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	19–MAR–10 15:28	100319–4
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	19–MAR–10 15:28	100319–4
CCB07										
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	19–MAR–10 16:09	100319–4
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	19–MAR–10 16:09	100319–4
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	19–MAR–10 16:09	100319–4
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	19–MAR–10 16:09	100319–4
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	19–MAR–10 16:09	100319–4
CCB08										
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	19–MAR–10 16:44	100319–4
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	19–MAR–10 16:44	100319–4
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	19–MAR–10 16:44	100319–4
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	19–MAR–10 16:44	100319–4
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	19–MAR–10 16:44	100319–4

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–1886
Contract: ESHL01000
Matrix: GROUND WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202047754								
	Aluminum	68	ug/L	+/–200	U	P	68	200
	Barium	1	ug/L	+/–5	U	P	1	5
	Beryllium	1	ug/L	+/–5	U	P	1	5
	Boron	15	ug/L	+/–50	U	P	15	50
	Calcium	50	ug/L	+/–200	U	P	50	200
	Cobalt	1	ug/L	+/–5	U	P	1	5
	Copper	3	ug/L	+/–10	U	P	3	10
	Iron	30	ug/L	+/–100	U	P	30	100
	Magnesium	85	ug/L	+/–300	U	P	85	300
	Manganese	2	ug/L	+/–10	U	P	2	10
	Potassium	50.4	ug/L	+/–150	J	P	50	150
	Silica	0.053	mg/L	+/–0.213	U	P	0.053	0.213
	Sodium	100	ug/L	+/–300	U	P	100	300
	Strontium	1	ug/L	+/–5	U	P	1	5
	Tin	2.5	ug/L	+/–10	U	P	2.5	10
	Vanadium	1	ug/L	+/–5	U	P	1	5
	Zinc	3.3	ug/L	+/–10	U	P	3.3	10
1202047761								
	Antimony	0.5	ug/L	+/–3	U	MS	0.5	3
	Arsenic	1.5	ug/L	+/–5	U	MS	1.5	5
	Cadmium	0.11	ug/L	+/–1	U	MS	0.11	1
	Chromium	2.5	ug/L	+/–10	U	MS	2.5	10
	Lead	0.5	ug/L	+/–2	U	MS	0.5	2
	Molybdenum	0.1	ug/L	+/–0.5	U	MS	0.1	0.5
	Nickel	0.5	ug/L	+/–2	U	MS	0.5	2
	Selenium	1	ug/L	+/–5	U	MS	1	5
	Silver	0.2	ug/L	+/–1	U	MS	0.2	1
	Thallium	0.3	ug/L	+/–1	U	MS	0.3	1
	Uranium	0.05	ug/L	+/–0.2	U	MS	0.05	0.2
1202055828								
	Mercury	0.066	ug/L	+/–0.2	U	AV	0.066	0.2

METALS
–4–
Interference Check Sample

SDG No: 10–1886

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	523000	ug/L	500000	ug/L	105	80.0 – 120.0	16–MAR–10 15:44	031610–1
	Barium	0.433	ug/L					16–MAR–10 15:44	031610–1
	Beryllium	–0.518	ug/L					16–MAR–10 15:44	031610–1
	Boron	–12.0	ug/L					16–MAR–10 15:44	031610–1
	Calcium	484000	ug/L	500000	ug/L	96.8	80.0 – 120.0	16–MAR–10 15:44	031610–1
	Cobalt	–1.49	ug/L					16–MAR–10 15:44	031610–1
	Copper	2.91	ug/L					16–MAR–10 15:44	031610–1
	Iron	187000	ug/L	200000	ug/L	93.3	80.0 – 120.0	16–MAR–10 15:44	031610–1
	Magnesium	489000	ug/L	500000	ug/L	97.9	80.0 – 120.0	16–MAR–10 15:44	031610–1
	Manganese	–2.58	ug/L					16–MAR–10 15:44	031610–1
	Potassium	–170.0	ug/L					16–MAR–10 15:44	031610–1
	Silica	–3.44	ug/L					16–MAR–10 15:44	031610–1
	Strontium	0.154	ug/L					16–MAR–10 15:44	031610–1
	Vanadium	–2.55	ug/L					16–MAR–10 15:44	031610–1
	Zinc	0.843	ug/L					16–MAR–10 15:44	031610–1
ICSAB01									
	Aluminum	521000	ug/L	500000	ug/L	104	80.0 – 120.0	16–MAR–10 15:50	031610–1
	Barium	500	ug/L	500	ug/L	100	80.0 – 120.0	16–MAR–10 15:50	031610–1
	Beryllium	252	ug/L	250	ug/L	101	80.0 – 120.0	16–MAR–10 15:50	031610–1
	Boron	519	ug/L	500	ug/L	104	80.0 – 120.0	16–MAR–10 15:50	031610–1
	Calcium	481000	ug/L	500000	ug/L	96.2	80.0 – 120.0	16–MAR–10 15:50	031610–1
	Cobalt	452	ug/L	500	ug/L	90.5	80.0 – 120.0	16–MAR–10 15:50	031610–1
	Copper	558	ug/L	500	ug/L	112	80.0 – 120.0	16–MAR–10 15:50	031610–1
	Iron	186000	ug/L	200000	ug/L	93.2	80.0 – 120.0	16–MAR–10 15:50	031610–1
	Magnesium	495000	ug/L	500000	ug/L	98.9	80.0 – 120.0	16–MAR–10 15:50	031610–1
	Manganese	484	ug/L	500	ug/L	96.8	80.0 – 120.0	16–MAR–10 15:50	031610–1
	Potassium	5350	ug/L	5000	ug/L	107	80.0 – 120.0	16–MAR–10 15:50	031610–1
	Silica	11200	ug/L	10700	ug/L	105	80.0 – 120.0	16–MAR–10 15:50	031610–1
	Strontium	518	ug/L	500	ug/L	104	80.0 – 120.0	16–MAR–10 15:50	031610–1

METALS
–4–
Interference Check Sample

SDG No: 10–1886

Contract: ESHL01000 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Vanadium	520	ug/L	500	ug/L	104	80.0 – 120.0	16–MAR–10 15:50	031610–1
	Zinc	499	ug/L	500	ug/L	99.8	80.0 – 120.0	16–MAR–10 15:50	031610–1

METALS
–4–
Interference Check Sample

SDG No: 10–1886

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Sodium	16.2	ug/L					17–MAR–10 16:40	031710–2
	Tin	–11.9	ug/L					17–MAR–10 16:40	031710–2
ICSAB01									
	Sodium	5010	ug/L	5000	ug/L	100	80.0 – 120.0	17–MAR–10 16:47	031710–2
	Tin	482	ug/L	500	ug/L	96.4	80.0 – 120.0	17–MAR–10 16:47	031710–2

METALS
–4–
Interference Check Sample

SDG No: 10–1886

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.174	ug/L					19–MAR–10 02:54	100318–3
	Arsenic	0.145	ug/L					19–MAR–10 02:54	100318–3
	Cadmium	0.358	ug/L					19–MAR–10 02:54	100318–3
	Molybdenum	1750	ug/L	2000	ug/L	87.5	80.0 – 120.0	19–MAR–10 02:54	100318–3
	Nickel	3.27	ug/L					19–MAR–10 02:54	100318–3
	Silver	0.081	ug/L					19–MAR–10 02:54	100318–3
ICSAB01									
	Antimony	22.0	ug/L	20	ug/L	110	80.0 – 120.0	19–MAR–10 02:58	100318–3
	Arsenic	21.7	ug/L	20	ug/L	108	80.0 – 120.0	19–MAR–10 02:58	100318–3
	Cadmium	20.6	ug/L	20.44	ug/L	101	80.0 – 120.0	19–MAR–10 02:58	100318–3
	Molybdenum	1860	ug/L	2000	ug/L	93.3	80.0 – 120.0	19–MAR–10 02:58	100318–3
	Nickel	24.4	ug/L	23.31	ug/L	105	80.0 – 120.0	19–MAR–10 02:58	100318–3
	Silver	20.2	ug/L	20	ug/L	101	80.0 – 120.0	19–MAR–10 02:58	100318–3

METALS
–4–
Interference Check Sample

SDG No: 10–1886

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Chromium	3.77	ug/L					19–MAR–10 13:14	100319–4
	Lead	0.202	ug/L					19–MAR–10 13:14	100319–4
	Selenium	–0.688	ug/L					19–MAR–10 13:14	100319–4
	Thallium	0.02	ug/L					19–MAR–10 13:14	100319–4
	Uranium	–0.014	ug/L					19–MAR–10 13:14	100319–4
ICSAB01									
	Chromium	24.5	ug/L	23.3	ug/L	105	80.0 – 120.0	19–MAR–10 13:17	100319–4
	Lead	20.6	ug/L	20.19	ug/L	102	80.0 – 120.0	19–MAR–10 13:17	100319–4
	Selenium	20.9	ug/L	20	ug/L	105	80.0 – 120.0	19–MAR–10 13:17	100319–4
	Thallium	20.0	ug/L	20	ug/L	100	80.0 – 120.0	19–MAR–10 13:17	100319–4
	Uranium	22.9	ug/L	20	ug/L	115	80.0 – 120.0	19–MAR–10 13:17	100319–4

METALS
-4-
Interference Check Sample

SDG No: 10-1886

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Selenium	-0.803	ug/L					19-MAR-10 17:26	100319-5
ICSAB01									
	Selenium	20.8	ug/L	20	ug/L	104	80.0 - 120.0	19-MAR-10 17:29	100319-5

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1886 **Client ID** CAPA–10–12691S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 247261003 **Spike ID:** 1202047757

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75–125	12800		1710		5000	222	N	P
Barium	ug/L	75–125	615		66		500	110		P
Beryllium	ug/L	75–125	516		1	U	500	103		P
Boron	ug/L	75–125	524		22.9	J	500	100		P
Calcium	ug/L	75–125	16800		10700		5000	121		P
Cobalt	ug/L	75–125	503		1	U	500	100		P
Copper	ug/L	75–125	538		16.2		500	104		P
Iron	ug/L	75–125	8750		1890		5000	137	N	P
Magnesium	ug/L	75–125	9700		3640		5000	121		P
Manganese	ug/L	75–125	578		65.5		500	102		P
Potassium	ug/L	75–125	7500		2030		5000	110		P
Silica	mg/L		118		75.4		10.7	398	N/A	P
Sodium	ug/L	75–125	25200		19000		5000	124		P
Strontium	ug/L	75–125	631		80.7		500	110		P
Tin	ug/L	75–125	495		12.5	U	500	98.9		P
Vanadium	ug/L	75–125	519		4.13	J	500	103		P
Zinc	ug/L	75–125	700		186		500	103		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1886 **Client ID:** CAPA–10–12691S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 247261003 **Spike ID:** 1202047764

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75–125	150		0.5	U	200	74.8	N	MS
Arsenic	ug/L	75–125	70.6		1.58	J	80	86.3		MS
Cadmium	ug/L	75–125	9.27		0.11	U	10	91.8		MS
Chromium	ug/L	75–125	175		143		50	64	N	MS
Lead	ug/L	75–125	52.9		9.8		40	108		MS
Molybdenum	ug/L	75–125	50.3		7.53		50	85.5		MS
Nickel	ug/L	75–125	85		49.4		50	71.3	N	MS
Selenium	ug/L	75–125	20.7		1	U	20	101		MS
Silver	ug/L	75–125	46.2		0.764	J	50	90.9		MS
Thallium	ug/L	75–125	45.5		0.575	J	100	44.9	N	MS
Uranium	ug/L	75–125	57.6		3.25		50	109		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1886 **Client ID** CASA–10–9464S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 247036001 **Spike ID:** 1202055831

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75–125	2.11		0.066	U	2	104		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1886

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAPA–10–12691D

Sample ID: 247261003 **Duplicate ID:** 1202047756 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	+/–20%	1710		3890		77.9	*	P
Barium	ug/L	+/–20%	66		109		49.2	*	P
Beryllium	ug/L		1	U	1	U			P
Boron	ug/L	+/–50	22.9	J	24.4	J	6.49		P
Calcium	ug/L	+/–20%	10700		11600		7.54		P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L	+/–10	16.2		19.3		17.1		P
Iron	ug/L	+/–20%	1890		2720		36.3	*	P
Magnesium	ug/L	+/–20%	3640		4100		11.9		P
Manganese	ug/L	+/–20%	65.5		75.2		13.7		P
Potassium	ug/L	+/–20%	2030		2280		11.9		P
Silica	mg/L	+/–20%	75.4		91.9		19.8		P
Sodium	ug/L	+/–20%	19000		20900		9.42		P
Strontium	ug/L	+/–20%	80.7		97.3		18.6		P
Tin	ug/L		12.5	U	12.5	U			P
Vanadium	ug/L	+/–5	4.13	J	4.98	J	18.6		P
Zinc	ug/L	+/–20%	186		202		8.5		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1886

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAPA–10–12691D

Sample ID: 247261003 **Duplicate ID:** 1202047763 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		0.5	U	0.5	U			MS
Arsenic	ug/L	+/–5	1.58	J	2.11	J	28.8		MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Chromium	ug/L	+/–20%	143		141		1.55		MS
Lead	ug/L	+/–2	9.8		9.74		.573		MS
Molybdenum	ug/L	+/–20%	7.53		7.56		.411		MS
Nickel	ug/L	+/–20%	49.4		49.7		.576		MS
Selenium	ug/L		1	U	1	U			MS
Silver	ug/L	+/–1	0.764	J	0.719	J	6.07		MS
Thallium	ug/L		0.575	J	0.3	U	200		MS
Uranium	ug/L	+/–20%	3.25		3.21		1.45		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1886

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CASA–10–9464D

Sample ID: 247036001 **Duplicate ID:** 1202055830 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1886

Contract: ESHL01000

Aqueous LCS Source: OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202047755								
	Aluminum	ug/L	5000	5040		101	80–120	P
	Barium	ug/L	500	514		103	80–120	P
	Beryllium	ug/L	500	511		102	80–120	P
	Boron	ug/L	500	497		99.4	80–120	P
	Calcium	ug/L	5000	5070		101	80–120	P
	Cobalt	ug/L	500	505		101	80–120	P
	Copper	ug/L	500	508		102	80–120	P
	Iron	ug/L	5000	5100		102	80–120	P
	Magnesium	ug/L	5000	5210		104	80–120	P
	Manganese	ug/L	500	495		99.1	80–120	P
	Potassium	ug/L	5000	5160		103	80–120	P
	Silica	mg/L	10.7	10.4		96.9	80–120	P
	Sodium	ug/L	5000	4790		95.9	80–120	P
	Strontium	ug/L	500	527		105	80–120	P
	Tin	ug/L	500	499		99.8	80–120	P
	Vanadium	ug/L	500	513		103	80–120	P
	Zinc	ug/L	500	495		99	80–120	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1886

Contract: ESHL01000

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202047762								
	Arsenic	ug/L	50	44.9		89.7	80–120	MS
	Cadmium	ug/L	50	45.6		91.2	80–120	MS
	Chromium	ug/L	50	48.3		96.6	80–120	MS
	Lead	ug/L	50	51.8		104	80–120	MS
	Molybdenum	ug/L	50	44.9		89.7	80–120	MS
	Nickel	ug/L	50	46.5		93	80–120	MS
	Selenium	ug/L	50	53.3		107	80–120	MS
	Silver	ug/L	50	47.3		94.5	80–120	MS
	Thallium	ug/L	50	48.1		96.2	80–120	MS
	Uranium	ug/L	50	52.6		105	80–120	MS
	Antimony	ug/L	50	46.1		92.2	80–120	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1886

Contract: ESHL01000

Aqueous LCS Source:GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202055829								
	Mercury	ug/L	2	2.12		106	85–115	AV

METALS
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Serial Dilution Sample Summary

SDG NO. 10–1886 **Client ID** CAPA–10–12691L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 247261003 **Serial Dilution ID:** 1202047758

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	1710		1800		4.97			P
Barium	66		66.5		.758		10	P
Beryllium	1	U	5	U				P
Boron	22.9	J	75	U	100			P
Calcium	10700		10600		.935		10	P
Cobalt	1	U	5	U				P
Copper	16.2		15		7.41			P
Iron	1890		1780		5.82		10	P
Magnesium	3640		3910		7.28			P
Manganese	65.5		66		.763			P
Potassium	2030		2220		9.36			P
Silica	75400		76000		.796		10	P
Sodium	3800		3940		3.68			P
Strontium	80.7		77.5		3.97		10	P
Tin	2.5	U	12.5	U				P
Vanadium	4.13	J	5	U	100			P
Zinc	186		191		2.42		10	P

METALS
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Serial Dilution Sample Summary

SDG NO. 10-1886 **Client ID:** CAPA-10-12691L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 247261003 **Serial Dilution ID:** 1202047765

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	.5	U	2.5	U				MS
Arsenic	1.58	J	7.5	U	100			MS
Cadmium	.11	U	.55	U				MS
Chromium	143		162		13.3			MS
Lead	9.8		10.5		6.63			MS
Molybdenum	7.53		8.3		10.2			MS
Nickel	49.4		63.5		28.5			MS
Selenium	1	U	5	U				MS
Silver	.764	J	1	U	100			MS
Thallium	.575	J	2.62	J	356			MS
Uranium	3.25		3.22		1.08			MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1886 **Client ID** CASA-10-9464L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 247036001 **Serial Dilution ID:** 1202055832

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-1886 **Method Type:** P

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 955152							
1202047754	MB for batch 955152	MB	G	01-MAR-10	50mL	50mL	
1202047755	LCS for batch 955152	LCS	G	01-MAR-10	50mL	50mL	
1202047757	CAPA-10-12691S	MS	G	01-MAR-10	50mL	50mL	
1202047756	CAPA-10-12691D	DUP	G	01-MAR-10	50mL	50mL	
247261003	CAPA-10-12691	SAMPLE	G	01-MAR-10	50mL	50mL	
247261004	CAPA-10-12692	SAMPLE	G	01-MAR-10	50mL	50mL	

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10–1886 **Method Type:** MS

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 955154							
1202047761	MB for batch 955154	MB	G	03–MAR–10	50mL	50mL	
1202047762	LCS for batch 955154	LCS	G	03–MAR–10	50mL	50mL	
1202047764	CAPA–10–12691S	MS	G	03–MAR–10	50mL	50mL	
1202047763	CAPA–10–12691D	DUP	G	03–MAR–10	50mL	50mL	
247261003	CAPA–10–12691	SAMPLE	G	03–MAR–10	50mL	50mL	
247261004	CAPA–10–12692	SAMPLE	G	03–MAR–10	50mL	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–1886 **Method Type:** AV

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	958577						
1202055828	MB for batch 958577	MB	G	01–MAR–10	20mL	20mL	
1202055829	LCS for batch 958577	LCS	G	01–MAR–10	20mL	20mL	
1202055831	CASA–10–9464S	MS	G	01–MAR–10	20mL	20mL	
1202055830	CASA–10–9464D	DUP	G	01–MAR–10	20mL	20mL	
247261003	CAPA–10–12691	SAMPLE	G	01–MAR–10	20mL	20mL	
247261004	CAPA–10–12692	SAMPLE	G	01–MAR–10	20mL	20mL	

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 19–MAR–10 **End Date:** 19–MAR–10

Client Sdg: 10–1886
Method MS
Data File: 100318–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	02:34		X	X				X											X	X				X							
S10	1	02:37		X	X				X											X	X				X							
S100	1	02:41		X	X				X											X	X				X							
ICV01	1	02:44		X	X				X											X	X				X							
ICB01	1	02:47		X	X				X											X	X				X							
CRDL01	1	02:51		X	X				X											X	X				X							
ICSA01	1	02:54		X	X				X											X	X				X							
ICSAB01	1	02:58		X	X				X											X	X				X							
CCV01	1	03:01		X	X				X											X	X				X							
CCB01	1	03:05		X	X				X											X	X				X							
ZZZZZZ	1	03:09																														
ZZZZZZ	1	03:12																														
ZZZZZZ	1	03:16																														
ZZZZZZ	1	03:19																														
ZZZZZZ	1	03:23																														
ZZZZZZ	5	03:26																														
ZZZZZZ	1	03:30																														
CCV02	1	03:33		X	X				X											X	X				X							
CCB02	1	03:37		X	X				X											X	X				X							
1202047761	1	03:40		X	X				X											X	X				X							
1202047762	1	03:44		X	X				X											X	X				X							
247261003	1	03:47		X	X				X											X	X				X							
1202047763	1	03:51		X	X				X											X	X				X							
1202047764	1	03:54		X	X				X											X	X				X							
1202047765	5	03:58		X	X				X											X	X				X							
247261004	1	04:02		X	X				X											X	X				X							
CCV03	1	04:05		X	X				X											X	X				X							
CCB03	1	04:09		X	X				X											X	X				X							

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 19–MAR–10 **End Date:** 19–MAR–10

Client Sdg: 10–1886
Method MS
Data File: 100319–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	12:53									X					X							X					X		X		
S10	1	12:57									X					X							X					X		X		
S100	1	13:00									X					X							X					X		X		
ICV01	1	13:03									X					X							X					X		X		
ICB01	1	13:07									X					X							X					X		X		
CRDL01	1	13:10									X					X							X					X		X		
ICSA01	1	13:14									X					X							X					X		X		
ICSAB01	1	13:17									X					X							X					X		X		
CCV01	1	13:21									X					X							X					X		X		
CCB01	1	13:24									X					X							X					X		X		
LR01	1	13:27									X					X							X					X		X		
CCV02	1	13:31									X					X							X					X		X		
CCB02	1	13:34									X					X							X					X		X		
ZZZZZZ	1	13:38																														
ZZZZZZ	1	13:41																														
ZZZZZZ	1	13:45																														
ZZZZZZ	1	13:48																														
ZZZZZZ	1	13:51																														
ZZZZZZ	5	13:55																														
CCV03	1	13:58									X					X							X					X		X		
CCB03	1	14:02									X					X							X					X		X		
ZZZZZZ	1	14:05																														
ZZZZZZ	1	14:09																														
ZZZZZZ	1	14:12																														
ZZZZZZ	1	14:15																														
ZZZZZZ	1	14:19																														
CCV04	1	14:22									X					X							X					X		X		
CCB04	1	14:26									X					X							X					X		X		
ZZZZZZ	1	14:29																														
ZZZZZZ	1	14:33																														
ZZZZZZ	1	14:36																														
ZZZZZZ	1	14:40																														
ZZZZZZ	1	14:43																														
ZZZZZZ	5	14:46																														
ZZZZZZ	1	14:50																														
CCV05	1	14:53									X					X							X					X		X		
CCB05	1	14:57									X					X							X					X		X		
1202047761	1	15:00									X					X							X					X		X		
1202047762	1	15:04									X					X							X					X		X		
247261003	1	15:07									X					X							X					X		X		

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																													
1202047763	1	15:11								X					X							X					X		X		
1202047764	1	15:14								X					X							X					X		X		
1202047765	5	15:18								X					X							X					X		X		
ZZZZZZ	1	15:21																													
CCV06	1	15:25								X					X							X					X		X		
CCB06	1	15:28								X					X							X					X		X		
ZZZZZZ	2	15:31																													
ZZZZZZ	40	15:35																													
ZZZZZZ	2	15:38																													
ZZZZZZ	2	15:42																													
ZZZZZZ	2	15:45																													
ZZZZZZ	2	15:49																													
ZZZZZZ	2	15:52																													
ZZZZZZ	2	15:56																													
ZZZZZZ	2	15:59																													
ZZZZZZ	10	16:02																													
CCV07	1	16:06								X					X							X					X		X		
CCB07	1	16:09								X					X							X					X		X		
ZZZZZZ	2	16:13																													
ZZZZZZ	2	16:16																													
ZZZZZZ	2	16:20																													
ZZZZZZ	2	16:23																													
ZZZZZZ	2	16:27																													
ZZZZZZ	2	16:30																													
247261004	1	16:38								X					X												X		X		
CCV08	1	16:41								X					X							X					X		X		
CCB08	1	16:44								X					X							X					X		X		

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 19–MAR–10 **End Date:** 19–MAR–10

Client Sdg: 10–1886
Method MS
Data File: 100319–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	17:06																					X									
S10	1	17:09																					X									
S100	1	17:12																					X									
ICV01	1	17:16																					X									
ICB01	1	17:19																					X									
CRDL01	1	17:22																					X									
ICSA01	1	17:26																					X									
ICSAB01	1	17:29																					X									
CCV01	1	17:32																					X									
CCB01	1	17:36																					X									
CCV02	1	17:39																					X									
CCB02	1	17:42																					X									
247261004	1	17:46																					X									
ZZZZZZ	2	17:49																														
ZZZZZZ	40	17:52																														
ZZZZZZ	2	17:56																														
CCV03	1	17:59																					X									
CCB03	1	18:02																					X									

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 16–MAR–10 **End Date:** 16–MAR–10

Client Sdg: 10–1886
Method P
Data File: 031610–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Ti	Sn	U	V	Zn
S0.0	1	14:49	X			X	X	X		X		X	X		X		X	X				X		X			X				X	X
S0.1	1	14:57				X	X	X				X	X					X				X		X			X				X	X
S0.5	1	15:03	X			X	X	X		X		X	X				X	X				X		X			X				X	X
SCAL	1	15:10	X			X	X	X		X		X	X		X		X	X				X		X			X				X	X
S10	1	15:17	X							X					X		X															
ICV01	1	15:22	X			X	X	X		X		X	X		X		X	X				X		X			X				X	X
ICB01	1	15:29	X			X	X	X		X		X	X		X		X	X				X		X			X				X	X
PQL01	1	15:37	X			X	X	X		X		X	X		X		X	X				X		X			X				X	X
ICSA01	1	15:44	X			X	X	X		X		X	X		X		X	X				X		X			X				X	X
ICSAB01	1	15:50	X			X	X	X		X		X	X		X		X	X				X		X			X				X	X
LR01	1	15:56	X			X	X	X		X		X	X		X		X	X				X		X			X				X	X
LR02	1	16:03	X			X	X	X		X		X	X		X		X	X				X		X			X				X	X
ZZZZZZ	1	16:10																														
CCV01	1	16:17	X			X	X	X		X		X	X		X		X	X				X		X			X				X	X
CCB01	1	16:24	X			X	X	X		X		X	X		X		X	X				X		X			X				X	X
LR03	1	16:30	X			X	X	X		X		X	X		X		X	X				X		X			X				X	X
CCV02	1	16:37	X			X	X	X		X		X	X		X		X	X				X		X			X				X	X
CCB02	1	16:44	X			X	X	X		X		X	X		X		X	X				X		X			X				X	X
ZZZZZZ	1	16:52																														
ZZZZZZ	5	16:59																														
CCV03	1	17:06	X			X	X	X		X		X	X		X		X	X				X		X			X				X	X
PQL02	1	17:13	X			X	X	X		X		X	X		X		X	X				X		X			X				X	X
CCB03	1	17:19	X			X	X	X		X		X	X		X		X	X				X		X			X				X	X
1202047754	1	17:39	X			X	X	X		X		X	X		X		X	X				X		X			X				X	X
1202047755	1	17:47	X			X	X	X		X		X	X		X		X	X				X		X			X				X	X
247261003	1	17:54	X			X	X	X		X		X	X		X		X	X				X					X				X	X
1202047756	1	18:01	X			X	X	X		X		X	X		X		X	X				X		X			X				X	X
1202047757	1	18:08	X			X	X	X		X		X	X		X		X	X				X		X			X				X	X
1202047758	5	18:15	X			X	X	X		X		X	X		X		X	X				X		X			X				X	X
247261004	1	18:22	X			X	X	X		X		X	X		X		X	X				X		X			X				X	X
CCV04	1	18:29	X			X	X	X		X		X	X		X		X	X				X		X			X				X	X
CCB04	1	18:36	X			X	X	X		X		X	X		X		X	X				X		X			X				X	X

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 17–MAR–10 **End Date:** 17–MAR–10

Client Sdg: 10–1886
Method P
Data File: 031710–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	15:45																								X			X			
S0.1	1	15:53																											X			
S0.5	1	16:00																											X			
SCAL	1	16:07																								X			X			
S10	1	16:14																								X						
ICV01	1	16:19																								X			X			
ICB01	1	16:26																								X			X			
PQL01	1	16:34																								X			X			
ICSA01	1	16:40																								X			X			
ICSAB01	1	16:47																								X			X			
LR01	1	16:54																								X			X			
LR02	1	17:01																								X			X			
CCV01	1	17:08																								X			X			
CCB01	1	17:15																								X			X			
LR03	1	17:20																								X			X			
CCV02	1	17:27																								X			X			
CCB02	1	17:34																								X			X			
1202047754	1	17:45																								X			X			
1202047755	1	17:52																								X			X			
247261003	5	17:59																								X			X			
1202047756	5	18:06																								X			X			
1202047757	5	18:13																								X			X			
1202047758	25	18:20																								X			X			
247261004	5	18:26																								X			X			
CCV03	1	18:33																								X			X			
CCB03	1	18:40																								X			X			

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: HG3
Start Date: 02–MAR–10 **End Date:** 02–MAR–10

Client Sdg: 10–1886
Method AV
Data File: 030210W3–6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	08:28																	X													
S0.2	1	08:30																	X													
S0.5	1	08:31																	X													
S2.0	1	08:33																	X													
S5.0	1	08:35																	X													
S10.0	1	08:37																	X													
ICV01	1	08:39																	X													
ICB01	1	08:41																	X													
CRDL01	1	08:43																	X													
CCV01	1	08:45																	X													
CCB01	1	08:47																	X													
ZZZZZZ	1	08:49																														
ZZZZZZ	1	08:51																														
ZZZZZZ	1	08:53																														
ZZZZZZ	1	08:55																														
ZZZZZZ	1	08:57																														
ZZZZZZ	5	08:58																														
ZZZZZZ	1	09:00																														
ZZZZZZ	1	09:02																														
ZZZZZZ	1	09:04																														
ZZZZZZ	1	09:06																														
CCV02	1	09:08																	X													
CCB02	1	09:10																	X													
ZZZZZZ	1	09:12																														
ZZZZZZ	1	09:14																														
ZZZZZZ	1	09:16																														
1202055828	1	09:18																	X													
1202055829	1	09:20																	X													
ZZZZZZ	1	09:21																														
1202055830	1	09:23																	X													
1202055831	1	09:25																	X													
1202055832	5	09:27																	X													
ZZZZZZ	1	09:29																														
CCV03	1	09:31																	X													
CCB03	1	09:33																	X													
ZZZZZZ	1	09:35																														
ZZZZZZ	1	09:37																														
ZZZZZZ	1	09:39																														
ZZZZZZ	1	09:41																														
247261003	1	09:43																	X													

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																														
247261004	1	09:45																X														
ZZZZZZ	1	09:47																														
ZZZZZZ	1	09:48																														
ZZZZZZ	1	09:50																														
ZZZZZZ	1	09:52																														
CCV04	1	09:54																X														
CCB04	1	09:56																X														

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1886

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01–FEB–09
Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01–MAR–10

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		10.0	30
	Antimony		0.5	3
	Arsenic		1.5	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.11	1
	Calcium		20.0	200
	Chromium		2.5	10
	Cobalt		0.1	1
	Iron		10.0	100
	Lead		0.5	2
	Magnesium		5.0	15
	Manganese		1.0	5
	Molybdenum		0.1	.5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Strontium		2.0	10
	Thallium		0.3	1
	Tin		1.0	5
	Uranium		0.05	.2
	Vanadium		3.0	10
LIQUID	Copper		0.14	1
	Zinc		2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1886

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Mercury		0.066	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1886

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	15.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Molybdenum	202.031	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silica		53.0	213
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Strontium	421.552	1.0	5
	Thallium	190.801	5.0	20
	Tin	189.927	2.5	10
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1886
Effective Dates: 01-FEB-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02697	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.48147	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.21356	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05186	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.18741	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
–11–
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10–1886
Contract: ESHL01000
Instrument: OPTIMA3
Effective Dates: 01–FEB–10
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.85580	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.44491	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	–29.9151	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.57616
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.60374	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	198.62
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	4.37985	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.36147	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	2.23785	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.36818	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.35273

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1886
Effective Dates: 01-FEB-10

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	48.4946
Antimony	206.836	-0.02515	0.00000	0.00000	0.00000	-20.5057
Arsenic	188.979	-0.23424	0.00000	0.00000	0.00000	2.41902
Barium	233.527	-0.03042	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.16240	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.10329	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01944	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01444	0.00000	0.00000	0.00000	-2.33100
Copper	324.752	-0.05293	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09554	0.00000	0.00000	0.00000	-2.48774
Magnesium	279.077	1.04597	0.00000	0.00000	0.00000	-10.4683
Manganese	257.61	-0.09877	0.00000	0.04089	0.00000	0.00000
Molybdenum	202.031	-0.07763	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80543	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.39429	1.18725
Selenium	196.026	-3.27508	0.00000	0.00000	0.00000	-3.07287
Silica	251.611	0.00000	0.00000	0.00000	0.00000	27.2377
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	12.3082
Silver	328.068	-0.32385	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-4.77918	0.00000
Tin	189.927	-0.01682	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.08168	0.00000	0.00000
Uranium	409.014	0.11400	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.14564	0.00000	-0.01931	0.00000	-14.1293
Zinc	213.857	0.09701	0.00000	0.00000	0.00000	0.00000

METALS
–11–
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10–1886
Effective Dates: 01–FEB–10

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silica
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	–0.84443	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	–0.63547	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.37026	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1886
Effective Dates: 01-FEB-10

Parmname	Wavelength	Silicon	Silver	Strontium	Sulfur	Thallium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1886
Effective Dates: 01-FEB-10

Parmname	Wavelength	Tin	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-15.4932	3.30431	0.00000	-2.81282	0.00000
Arsenic	188.979	0.00000	-8.66313	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-2.20293	0.00000
Beryllium	313.107	0.00000	-2.27027	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	-0.19473	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.39645	-1.41250	0.00000
Cobalt	228.616	0.00000	2.09497	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.55360	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-9.37529	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.81635	-4.04400	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-8.29801	0.00000	1.88584	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.43915	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	1.05947	-1.91382	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–1886

Contract: ESHL01000 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Boron	1000	200	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Molybdenum	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Strontium	1000	1000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Tin	1000	1000	ug/L	01–FEB–10
Uranium	1000	5000	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–1886

Contract: ESHL01000 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Uranium	20	15000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10
Molybdenum	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silica	20	107000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Strontium	20	10000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Tin	20	10000	ug/L	01–FEB–10
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Boron	20	5000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10

Raw Data

Calculation Data Logbook

Report run on: March 22, 2010 3:07 PM

Batch Id: **966820** **Sop:** **GL-GC-E-107**
Employee: **Octavia Doster**
Instrument: **No instrument-calculation method**

Samp Id	Sample Type	Parmname	Run Date	Calcium mg/L	Magnesium mg/L	Result	Units
247261003	SAMPLE	Hardness as CaCO3	18-MAR-2010 12:33	10.7	3.64	41.8	mg/L
247261004	SAMPLE	Hardness as CaCO3	18-MAR-2010 12:33	8.28	2.75	32.0	mg/L

Calculation: **(2.497 * Calcium) + (4.118 * Magnesium)**

Method: Hg_ReAlign
Result: 032210

Sample ID: Hg_ReAlign

Hg 253.652 **Rep: 1**

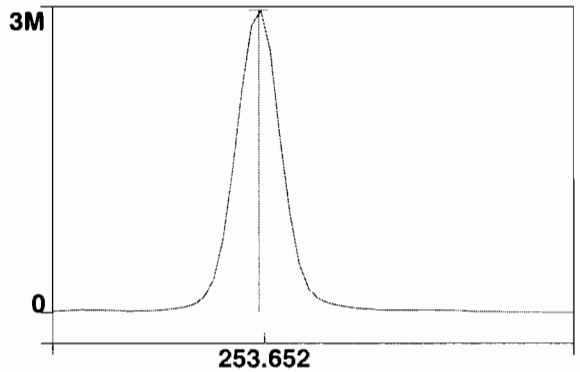

Intensity: 3060858.1 cps
Conc:

1

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Analysis Begun

Start Time: 3/16/2010 14:49:42 **Plasma On Time: 3/15/2010 06:51:19**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\031610.sif
Batch ID:
Results Data Set: 031610
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 3/15/2010 08:46:50**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 3/16/2010 14:49:49**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4550.6	4550.6	0.000	%	14:51:42
1	Y RADIAL	4905.6	4905.6	0.000	%	14:51:42
1	Al 396.153Radial†	-84.5	-85.2	[0.00]	ug/L	14:52:02

1	Ca 317.933Radial†	28.5	28.8	[0.00] ug/L	14:52:02
1	Fe 238.204 Radial†	7.0	7.1	[0.00] ug/L	14:52:02
1	K 766.490 Radial†	2578.0	2598.9	[0.00] ug/L	14:51:42
1	Mg 279.077 IEC†	0.1	0.1	[0.00] ug/L	14:52:02
1	Na 589.592 Radial†	-789.8	-796.2	[0.00] ug/L	14:51:42
1	Sr 421.552†	26.4	26.6	[0.00] ug/L	14:51:42
1	Sc 361.383	812544.2	812544.2	0.0000 %	14:52:59
1	Y 371.029	690661.6	690661.6	0.0000 %	14:52:59
1	Ag 328.068†	208.4	208.5	[0.00] ug/L	14:52:59
1	As 188.979†	-12.9	-12.9	[0.00] ug/L	14:53:19
1	B 249.677†	-424.3	-424.5	[0.00] ug/L	14:53:19
1	Ba 233.527†	18.3	18.3	[0.00] ug/L	14:53:19
1	Be 313.107†	-3782.6	-3784.4	[0.00] ug/L	14:52:59
1	Cd 226.502†	-163.4	-163.5	[0.00] ug/L	14:53:19
1	Co 228.616†	-33.7	-33.7	[0.00] ug/L	14:53:19
1	Cr 267.716†	73.8	73.8	[0.00] ug/L	14:53:19
1	Cu 324.752†	5434.2	5436.7	[0.00] ug/L	14:52:59
1	Mn 257.610†	559.2	559.4	[0.00] ug/L	14:53:19
1	Mo 202.031†	6.4	6.4	[0.00] ug/L	14:53:19
1	Ni 231.604†	81.3	81.4	[0.00] ug/L	14:53:19
1	P 214.914†	176.8	176.9	[0.00] ug/L	14:53:19
1	Pb 220.353†	-50.8	-50.8	[0.00] ug/L	14:53:19
1	S 181.975 Axial†	31.1	31.1	[0.00] ug/L	14:53:19
1	Sb 206.836†	16.4	16.4	[0.00] ug/L	14:53:19
1	Se 196.026†	-20.9	-20.9	[0.00] ug/L	14:53:19
1	Si 251.611†	501.0	501.2	[0.00] ug/L	14:53:19
1	Sn 189.927†	10.8	10.8	[0.00] ug/L	14:53:19
1	Ti 334.940†	-1118.0	-1118.5	[0.00] ug/L	14:52:59
1	Tl 190.801†	-32.9	-32.9	[0.00] ug/L	14:53:19
1	U 409.014†	-2102.3	-2103.3	[0.00] ug/L	14:52:59
1	V 292.402†	-1326.2	-1326.9	[0.00] ug/L	14:52:59
1	Zn 213.857†	612.9	613.2	[0.00] ug/L	14:53:19
1	SiO2†	495.9	496.1	[0.00] ug/L	14:54:30
2	Sc Radial	4629.6	4629.6	0.000 %	14:52:07
2	Y RADIAL	4972.6	4972.6	0.000 %	14:52:07
2	Al 396.153Radial†	-87.9	-87.1	[0.00] ug/L	14:52:27
2	Ca 317.933Radial†	25.8	25.6	[0.00] ug/L	14:52:27
2	Fe 238.204 Radial†	8.0	7.9	[0.00] ug/L	14:52:27
2	K 766.490 Radial†	2566.7	2543.3	[0.00] ug/L	14:52:07
2	Mg 279.077 IEC†	-1.4	-1.4	[0.00] ug/L	14:52:27
2	Na 589.592 Radial†	-802.0	-794.7	[0.00] ug/L	14:52:07
2	Sr 421.552†	26.6	26.4	[0.00] ug/L	14:52:07
2	Sc 361.383	813378.1	813378.1	0.0000 %	14:53:24
2	Y 371.029	688892.5	688892.5	0.0000 %	14:53:24
2	Ag 328.068†	207.0	206.9	[0.00] ug/L	14:53:24
2	As 188.979†	-17.0	-17.0	[0.00] ug/L	14:53:44
2	B 249.677†	-416.7	-416.5	[0.00] ug/L	14:53:44
2	Ba 233.527†	13.6	13.6	[0.00] ug/L	14:53:44
2	Be 313.107†	-3741.6	-3739.5	[0.00] ug/L	14:53:24
2	Cd 226.502†	-185.2	-185.1	[0.00] ug/L	14:53:44
2	Co 228.616†	-40.4	-40.4	[0.00] ug/L	14:53:44
2	Cr 267.716†	72.7	72.7	[0.00] ug/L	14:53:44
2	Cu 324.752†	5474.4	5471.4	[0.00] ug/L	14:53:24
2	Mn 257.610†	548.8	548.5	[0.00] ug/L	14:53:44
2	Mo 202.031†	12.9	12.9	[0.00] ug/L	14:53:44
2	Ni 231.604†	76.3	76.3	[0.00] ug/L	14:53:44
2	P 214.914†	191.8	191.7	[0.00] ug/L	14:53:44
2	Pb 220.353†	-38.1	-38.1	[0.00] ug/L	14:53:44
2	S 181.975 Axial†	33.8	33.8	[0.00] ug/L	14:53:44
2	Sb 206.836†	29.5	29.5	[0.00] ug/L	14:53:44
2	Se 196.026†	-25.1	-25.1	[0.00] ug/L	14:53:44
2	Si 251.611†	502.2	501.9	[0.00] ug/L	14:53:44
2	Sn 189.927†	6.4	6.4	[0.00] ug/L	14:53:44
2	Ti 334.940†	-1067.2	-1066.6	[0.00] ug/L	14:53:24
2	Tl 190.801†	-31.6	-31.6	[0.00] ug/L	14:53:44
2	U 409.014†	-2083.2	-2082.0	[0.00] ug/L	14:53:24
2	V 292.402†	-1348.4	-1347.6	[0.00] ug/L	14:53:24
2	Zn 213.857†	625.5	625.1	[0.00] ug/L	14:53:44
2	SiO2†	490.3	490.0	[0.00] ug/L	14:54:50
3	Sc Radial	4582.5	4582.5	0.000 %	14:52:32
3	Y RADIAL	4924.6	4924.6	0.000 %	14:52:32

3	Al 396.153Radial†	-85.0	-85.1	[0.00] ug/L	14:52:52
3	Ca 317.933Radial†	29.2	29.2	[0.00] ug/L	14:52:52
3	Fe 238.204 Radial†	8.5	8.5	[0.00] ug/L	14:52:52
3	K 766.490 Radial†	2522.1	2524.9	[0.00] ug/L	14:52:32
3	Mg 279.077 IEC†	1.5	1.5	[0.00] ug/L	14:52:52
3	Na 589.592 Radial†	-823.5	-824.4	[0.00] ug/L	14:52:32
3	Sr 421.552†	24.2	24.3	[0.00] ug/L	14:52:32
3	Sc 361.383	812863.5	812863.5	0.0000 %	14:53:49
3	Y 371.029	688754.4	688754.4	0.0000 %	14:53:49
3	Ag 328.068†	216.4	216.4	[0.00] ug/L	14:53:49
3	As 188.979†	-21.2	-21.2	[0.00] ug/L	14:54:09
3	B 249.677†	-405.1	-405.1	[0.00] ug/L	14:54:09
3	Ba 233.527†	5.6	5.6	[0.00] ug/L	14:54:09
3	Be 313.107†	-3662.9	-3663.1	[0.00] ug/L	14:53:49
3	Cd 226.502†	-180.4	-180.4	[0.00] ug/L	14:54:09
3	Co 228.616†	-45.5	-45.5	[0.00] ug/L	14:54:09
3	Cr 267.716†	92.1	92.1	[0.00] ug/L	14:54:09
3	Cu 324.752†	5490.2	5490.6	[0.00] ug/L	14:53:49
3	Mn 257.610†	544.8	544.9	[0.00] ug/L	14:54:09
3	Mo 202.031†	19.2	19.2	[0.00] ug/L	14:54:09
3	Ni 231.604†	86.6	86.6	[0.00] ug/L	14:54:09
3	P 214.914†	183.2	183.2	[0.00] ug/L	14:54:09
3	Pb 220.353†	-39.4	-39.4	[0.00] ug/L	14:54:09
3	S 181.975 Axial†	25.5	25.6	[0.00] ug/L	14:54:09
3	Sb 206.836†	27.6	27.6	[0.00] ug/L	14:54:09
3	Se 196.026†	-10.4	-10.4	[0.00] ug/L	14:54:09
3	Si 251.611†	491.5	491.5	[0.00] ug/L	14:54:09
3	Sn 189.927†	6.7	6.7	[0.00] ug/L	14:54:09
3	Ti 334.940†	-1076.8	-1076.9	[0.00] ug/L	14:53:49
3	Tl 190.801†	-30.8	-30.8	[0.00] ug/L	14:54:09
3	U 409.014†	-2057.5	-2057.7	[0.00] ug/L	14:53:49
3	V 292.402†	-1278.6	-1278.7	[0.00] ug/L	14:53:49
3	Zn 213.857†	613.0	613.1	[0.00] ug/L	14:54:09
3	SiO2†	499.8	499.8	[0.00] ug/L	14:55:10

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	812928.6	420.71	0.05%	0.0000	%
Sc Radial	4587.6	39.75	0.87%	0.000	%
Y 371.029	689436.1	1063.49	0.15%	0.0000	%
Y RADIAL	4934.3	34.53	0.70%	0.000	%
Ag 328.068†	210.6	5.07	2.41%	[0.00]	ug/L
Al 396.153Radial†	-85.8	1.10	1.29%	[0.00]	ug/L
As 188.979†	-17.0	4.16	24.42%	[0.00]	ug/L
B 249.677†	-415.4	9.71	2.34%	[0.00]	ug/L
Ba 233.527†	12.5	6.42	51.36%	[0.00]	ug/L
Be 313.107†	-3729.0	61.29	1.64%	[0.00]	ug/L
Ca 317.933Radial†	27.9	2.00	7.17%	[0.00]	ug/L
Cd 226.502†	-176.3	11.38	6.45%	[0.00]	ug/L
Co 228.616†	-39.8	5.90	14.81%	[0.00]	ug/L
Cr 267.716†	79.5	10.87	13.67%	[0.00]	ug/L
Cu 324.752†	5466.2	27.31	0.50%	[0.00]	ug/L
Fe 238.204 Radial†	7.9	0.72	9.15%	[0.00]	ug/L
K 766.490 Radial†	2555.7	38.51	1.51%	[0.00]	ug/L
Mg 279.077 IEC†	0.1	1.47	>999.9%	[0.00]	ug/L
Mn 257.610†	550.9	7.58	1.38%	[0.00]	ug/L
Mo 202.031†	12.8	6.40	49.88%	[0.00]	ug/L
Na 589.592 Radial†	-805.1	16.73	2.08%	[0.00]	ug/L
Ni 231.604†	81.4	5.15	6.32%	[0.00]	ug/L
P 214.914†	183.9	7.44	4.04%	[0.00]	ug/L
Pb 220.353†	-42.8	6.99	16.34%	[0.00]	ug/L
S 181.975 Axial†	30.2	4.21	13.96%	[0.00]	ug/L
Sb 206.836†	24.5	7.06	28.80%	[0.00]	ug/L
Se 196.026†	-18.8	7.59	40.38%	[0.00]	ug/L
Si 251.611†	498.2	5.82	1.17%	[0.00]	ug/L
Sn 189.927†	8.0	2.49	31.12%	[0.00]	ug/L
Sr 421.552†	25.8	1.31	5.07%	[0.00]	ug/L
Ti 334.940†	-1087.3	27.50	2.53%	[0.00]	ug/L
Tl 190.801†	-31.8	1.07	3.38%	[0.00]	ug/L

U 409.014†	-2081.0	22.83	1.10%	[0.00] ug/L
V 292.402†	-1317.7	35.38	2.68%	[0.00] ug/L
Zn 213.857†	617.1	6.92	1.12%	[0.00] ug/L
SiO2†	495.3	4.95	1.00%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 3/16/2010 14:57:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4559.6	4559.6	99.4	%	14:59:18
1	Y RADIAL	4882.5	4882.5	98.95	%	14:59:18
1	K 766.490 Radial†	8107.8	5601.9	[1000]	ug/L	14:59:13
1	Sr 421.552†	13708.8	13767.3	[100]	ug/L	14:59:18
1	Sc 361.383	807698.8	807698.8	99.357	%	14:59:45
1	Y 371.029	683212.9	683212.9	99.097	%	14:59:45
1	Ag 328.068†	20948.4	20873.4	[100]	ug/L	14:59:45
1	As 188.979†	168.6	186.7	[100]	ug/L	15:00:05
1	B 249.677†	3219.7	3656.0	[100]	ug/L	14:59:45
1	Ba 233.527†	11503.7	11565.7	[100]	ug/L	14:59:45
1	Be 313.107†	246383.8	251708.1	[100]	ug/L	14:59:45
1	Cd 226.502†	7029.0	7250.8	[100]	ug/L	15:00:05
1	Co 228.616†	4114.6	4181.1	[100]	ug/L	15:00:05
1	Cr 267.716†	8045.9	8018.5	[100]	ug/L	14:59:45
1	Cu 324.752†	37328.2	32103.7	[100]	ug/L	14:59:45
1	Mn 257.610†	82603.8	82587.7	[100]	ug/L	14:59:45
1	Mo 202.031†	1223.5	1218.6	[100]	ug/L	15:00:05
1	Ni 231.604†	3466.1	3407.1	[100]	ug/L	15:00:05
1	P 214.914†	892.0	713.9	[500]	ug/L	15:00:05
1	Pb 220.353†	663.9	711.0	[100]	ug/L	15:00:05
1	S 181.975 Axial†	153.3	124.1	[200]	ug/L	15:00:05
1	Sb 206.836†	279.3	256.6	[100]	ug/L	15:00:05
1	Se 196.026†	115.6	135.1	[100]	ug/L	15:00:05
1	Si 251.611†	14528.9	14124.7	[500]	ug/L	14:59:45
1	Sn 189.927†	470.0	465.1	[100]	ug/L	15:00:05
1	Ti 334.940†	60260.7	61738.2	[100]	ug/L	14:59:45
1	Tl 190.801†	245.6	279.0	[100]	ug/L	15:00:05
1	U 409.014†	1405.3	3495.4	[100]	ug/L	14:59:45
1	V 292.402†	11916.1	13311.0	[100]	ug/L	14:59:45
1	Zn 213.857†	9578.0	9022.9	[100]	ug/L	14:59:45
1	SiO2†	14699.6	14299.5	[1069.5]	ug/L	15:01:01
2	Sc Radial	4716.8	4716.8	103	%	14:59:28
2	Y RADIAL	5073.0	5073.0	102.8	%	14:59:28
2	K 766.490 Radial†	8018.1	5242.7	[1000]	ug/L	14:59:23
2	Sr 421.552†	14317.9	13900.0	[100]	ug/L	14:59:28
2	Sc 361.383	807921.9	807921.9	99.384	%	15:00:10
2	Y 371.029	681525.8	681525.8	98.853	%	15:00:10
2	Ag 328.068†	21011.0	20930.6	[100]	ug/L	15:00:10
2	As 188.979†	175.1	193.2	[100]	ug/L	15:00:30
2	B 249.677†	3301.8	3737.6	[100]	ug/L	15:00:10
2	Ba 233.527†	11552.4	11611.5	[100]	ug/L	15:00:10
2	Be 313.107†	246189.4	251444.1	[100]	ug/L	15:00:10
2	Cd 226.502†	7109.1	7329.5	[100]	ug/L	15:00:30
2	Co 228.616†	4140.5	4206.0	[100]	ug/L	15:00:30
2	Cr 267.716†	8078.6	8049.1	[100]	ug/L	15:00:10
2	Cu 324.752†	37385.0	32150.4	[100]	ug/L	15:00:10
2	Mn 257.610†	83145.2	83109.5	[100]	ug/L	15:00:10
2	Mo 202.031†	1222.9	1217.6	[100]	ug/L	15:00:30
2	Ni 231.604†	3488.0	3428.2	[100]	ug/L	15:00:30
2	P 214.914†	881.0	702.6	[500]	ug/L	15:00:30
2	Pb 220.353†	660.5	707.4	[100]	ug/L	15:00:30
2	S 181.975 Axial†	143.9	114.6	[200]	ug/L	15:00:30
2	Sb 206.836†	282.0	259.2	[100]	ug/L	15:00:30
2	Se 196.026†	109.4	128.8	[100]	ug/L	15:00:30
2	Si 251.611†	14588.8	14181.0	[500]	ug/L	15:00:10
2	Sn 189.927†	484.6	479.6	[100]	ug/L	15:00:30
2	Ti 334.940†	60552.2	62014.7	[100]	ug/L	15:00:10
2	Tl 190.801†	257.1	290.5	[100]	ug/L	15:00:30
2	U 409.014†	1471.5	3561.7	[100]	ug/L	15:00:10

2	V 292.402†	11988.7	13380.7	[100]	ug/L	15:00:10
2	Zn 213.857†	9586.0	9028.2	[100]	ug/L	15:00:10
2	SiO2†	14849.2	14445.9	[1069.5]	ug/L	15:01:06
3	Sc Radial	4692.5	4692.5	102	%	14:59:38
3	Y RADIAL	5028.4	5028.4	101.9	%	14:59:38
3	K 766.490 Radial†	8038.8	5303.3	[1000]	ug/L	14:59:33
3	Sr 421.552†	14152.5	13810.3	[100]	ug/L	14:59:38
3	Sc 361.383	820359.1	820359.1	100.91	%	15:00:36
3	Y 371.029	693189.2	693189.2	100.54	%	15:00:36
3	Ag 328.068†	21431.1	21026.3	[100]	ug/L	15:00:36
3	As 188.979†	167.3	182.8	[100]	ug/L	15:00:56
3	B 249.677†	3317.1	3702.4	[100]	ug/L	15:00:36
3	Ba 233.527†	11758.9	11639.9	[100]	ug/L	15:00:36
3	Be 313.107†	249967.0	251431.9	[100]	ug/L	15:00:36
3	Cd 226.502†	7111.0	7223.0	[100]	ug/L	15:00:56
3	Co 228.616†	4146.5	4148.8	[100]	ug/L	15:00:56
3	Cr 267.716†	8249.3	8095.1	[100]	ug/L	15:00:36
3	Cu 324.752†	38040.9	32230.1	[100]	ug/L	15:00:36
3	Mn 257.610†	84391.0	83075.7	[100]	ug/L	15:00:36
3	Mo 202.031†	1221.8	1197.9	[100]	ug/L	15:00:56
3	Ni 231.604†	3480.9	3368.0	[100]	ug/L	15:00:56
3	P 214.914†	889.6	697.6	[500]	ug/L	15:00:56
3	Pb 220.353†	660.9	697.7	[100]	ug/L	15:00:56
3	S 181.975 Axial†	147.4	116.0	[200]	ug/L	15:00:56
3	Sb 206.836†	285.8	258.7	[100]	ug/L	15:00:56
3	Se 196.026†	112.5	130.3	[100]	ug/L	15:00:56
3	Si 251.611†	14800.1	14167.9	[500]	ug/L	15:00:36
3	Sn 189.927†	481.9	469.5	[100]	ug/L	15:00:56
3	Ti 334.940†	61658.9	62187.7	[100]	ug/L	15:00:36
3	Tl 190.801†	249.4	278.9	[100]	ug/L	15:00:56
3	U 409.014†	1476.8	3544.4	[100]	ug/L	15:00:36
3	V 292.402†	12155.0	13362.7	[100]	ug/L	15:00:36
3	Zn 213.857†	9741.2	9035.9	[100]	ug/L	15:00:36
3	SiO2†	14671.1	14042.8	[1069.5]	ug/L	15:01:11

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	811993.3	7245.86	0.89%	99.885	%
Sc Radial	4656.3	84.63	1.82%	101	%
Y 371.029	685976.0	6303.53	0.92%	99.498	%
Y RADIAL	4994.6	99.64	1.99%	101.2	%
Ag 328.068†	20943.5	77.26	0.37%	[100]	ug/L
As 188.979†	187.6	5.26	2.81%	[100]	ug/L
B 249.677†	3698.6	40.94	1.11%	[100]	ug/L
Ba 233.527†	11605.7	37.41	0.32%	[100]	ug/L
Be 313.107†	251528.0	156.04	0.06%	[100]	ug/L
Cd 226.502†	7267.8	55.24	0.76%	[100]	ug/L
Co 228.616†	4178.6	28.71	0.69%	[100]	ug/L
Cr 267.716†	8054.2	38.55	0.48%	[100]	ug/L
Cu 324.752†	32161.4	63.92	0.20%	[100]	ug/L
K 766.490 Radial†	5382.6	192.27	3.57%	[1000]	ug/L
Mn 257.610†	82924.3	291.98	0.35%	[100]	ug/L
Mo 202.031†	1211.4	11.69	0.96%	[100]	ug/L
Ni 231.604†	3401.1	30.56	0.90%	[100]	ug/L
P 214.914†	704.7	8.35	1.18%	[500]	ug/L
Pb 220.353†	705.4	6.89	0.98%	[100]	ug/L
S 181.975 Axial†	118.2	5.16	4.36%	[200]	ug/L
Sb 206.836†	258.1	1.37	0.53%	[100]	ug/L
Se 196.026†	131.4	3.29	2.50%	[100]	ug/L
Si 251.611†	14157.9	29.45	0.21%	[500]	ug/L
Sn 189.927†	471.4	7.43	1.58%	[100]	ug/L
Sr 421.552†	13825.9	67.69	0.49%	[100]	ug/L
Ti 334.940†	61980.2	226.71	0.37%	[100]	ug/L
Tl 190.801†	282.8	6.67	2.36%	[100]	ug/L
U 409.014†	3533.8	34.38	0.97%	[100]	ug/L
V 292.402†	13351.5	36.19	0.27%	[100]	ug/L
Zn 213.857†	9029.0	6.54	0.07%	[100]	ug/L
SiO2†	14262.7	204.03	1.43%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 3/16/2010 15:03:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4424.1	4424.1	96.4	%	15:05:15
1	Y RADIAL	4738.7	4738.7	96.04	%	15:05:15
1	Al 396.153Radial†	5103.5	5377.9	[5000]	ug/L	15:05:15
1	Ca 317.933Radial†	2841.6	2918.8	[5000]	ug/L	15:05:35
1	K 766.490 Radial†	28275.5	26765.0	[5000]	ug/L	15:05:15
1	Mg 279.077 IEC†	135.6	140.6	[5000]	ug/L	15:05:35
1	Sr 421.552†	63930.2	66267.6	[500]	ug/L	15:05:15
1	Sc 361.383	811747.2	811747.2	99.855	%	15:06:32
1	Y 371.029	677144.2	677144.2	98.217	%	15:06:32
1	Ag 328.068†	98624.7	98557.7	[500]	ug/L	15:06:37
1	As 188.979†	899.0	917.4	[500]	ug/L	15:06:57
1	B 249.677†	17528.0	17968.8	[500]	ug/L	15:06:37
1	Ba 233.527†	54355.7	54422.3	[500]	ug/L	15:06:37
1	Be 313.107†	1186305.8	1191761.4	[500]	ug/L	15:06:32
1	Cd 226.502†	34911.7	35138.9	[500]	ug/L	15:06:37
1	Co 228.616†	19828.1	19896.8	[500]	ug/L	15:06:37
1	Cr 267.716†	37886.5	37862.1	[500]	ug/L	15:06:37
1	Cu 324.752†	157591.5	152354.6	[500]	ug/L	15:06:37
1	Mn 257.610†	383812.4	383820.1	[500]	ug/L	15:06:32
1	Mo 202.031†	5767.0	5762.6	[500]	ug/L	15:06:57
1	Ni 231.604†	16279.9	16222.1	[500]	ug/L	15:06:37
1	P 214.914†	3547.4	3368.7	[2500]	ug/L	15:06:57
1	Pb 220.353†	3274.4	3322.0	[500]	ug/L	15:06:57
1	S 181.975 Axial†	596.4	567.1	[1000]	ug/L	15:06:57
1	Sb 206.836†	1234.6	1211.9	[500]	ug/L	15:06:57
1	Se 196.026†	590.5	610.1	[500]	ug/L	15:06:57
1	Si 251.611†	68068.8	67669.6	[2500]	ug/L	15:06:37
1	Sn 189.927†	2250.7	2246.0	[500]	ug/L	15:06:57
1	Ti 334.940†	286010.3	287513.9	[500]	ug/L	15:06:37
1	Tl 190.801†	1295.7	1329.4	[500]	ug/L	15:06:57
1	U 409.014†	14969.6	17072.4	[500]	ug/L	15:06:37
1	V 292.402†	62008.4	63416.4	[500]	ug/L	15:06:37
1	Zn 213.857†	43350.4	42796.4	[500]	ug/L	15:06:37
1	SiO2†	68511.4	68115.8	[5347.5]	ug/L	15:08:05
2	Sc Radial	4490.7	4490.7	97.9	%	15:05:40
2	Y RADIAL	4795.4	4795.4	97.19	%	15:05:40
2	Al 396.153Radial†	5137.4	5334.0	[5000]	ug/L	15:05:40
2	Ca 317.933Radial†	2847.9	2881.5	[5000]	ug/L	15:06:00
2	K 766.490 Radial†	28370.9	26427.2	[5000]	ug/L	15:05:40
2	Mg 279.077 IEC†	135.7	138.5	[5000]	ug/L	15:06:00
2	Sr 421.552†	64470.6	65835.6	[500]	ug/L	15:05:40
2	Sc 361.383	819125.5	819125.5	100.76	%	15:07:03
2	Y 371.029	682127.0	682127.0	98.940	%	15:07:03
2	Ag 328.068†	98678.6	97721.5	[500]	ug/L	15:07:08
2	As 188.979†	909.3	919.5	[500]	ug/L	15:07:28
2	B 249.677†	17569.1	17851.6	[500]	ug/L	15:07:08
2	Ba 233.527†	54438.0	54013.7	[500]	ug/L	15:07:08
2	Be 313.107†	1196382.0	1191060.0	[500]	ug/L	15:07:03
2	Cd 226.502†	35080.8	34991.8	[500]	ug/L	15:07:08
2	Co 228.616†	19915.8	19805.0	[500]	ug/L	15:07:08
2	Cr 267.716†	37973.1	37606.3	[500]	ug/L	15:07:08
2	Cu 324.752†	157572.7	150914.4	[500]	ug/L	15:07:08
2	Mn 257.610†	387972.8	384486.8	[500]	ug/L	15:07:03
2	Mo 202.031†	5826.2	5769.2	[500]	ug/L	15:07:28
2	Ni 231.604†	16353.4	16148.3	[500]	ug/L	15:07:08
2	P 214.914†	3604.2	3393.0	[2500]	ug/L	15:07:28
2	Pb 220.353†	3289.5	3307.4	[500]	ug/L	15:07:28
2	S 181.975 Axial†	600.8	566.1	[1000]	ug/L	15:07:28
2	Sb 206.836†	1257.9	1223.9	[500]	ug/L	15:07:28

2	Se 196.026†	605.6	619.8	[500]	ug/L	15:07:28
2	Si 251.611†	68317.7	67302.6	[2500]	ug/L	15:07:08
2	Sn 189.927†	2268.4	2243.2	[500]	ug/L	15:07:28
2	Ti 334.940†	285957.6	284881.6	[500]	ug/L	15:07:08
2	Tl 190.801†	1318.6	1340.4	[500]	ug/L	15:07:28
2	U 409.014†	14939.0	16907.0	[500]	ug/L	15:07:08
2	V 292.402†	62172.3	63019.7	[500]	ug/L	15:07:08
2	Zn 213.857†	43470.0	42524.0	[500]	ug/L	15:07:08
2	SiO2†	69384.6	68364.4	[5347.5]	ug/L	15:08:10
3	Sc Radial	4520.4	4520.4	98.5	%	15:06:05
3	Y RADIAL	4824.7	4824.7	97.78	%	15:06:05
3	Al 396.153Radial†	5172.1	5334.9	[5000]	ug/L	15:06:05
3	Ca 317.933Radial†	2854.2	2868.7	[5000]	ug/L	15:06:25
3	K 766.490 Radial†	28510.0	26378.3	[5000]	ug/L	15:06:05
3	Mg 279.077 IEC†	136.8	138.7	[5000]	ug/L	15:06:25
3	Sr 421.552†	64559.0	65493.4	[500]	ug/L	15:06:05
3	Sc 361.383	834641.8	834641.8	102.67	%	15:07:34
3	Y 371.029	694468.1	694468.1	100.73	%	15:07:34
3	Ag 328.068†	99953.3	97142.4	[500]	ug/L	15:07:39
3	As 188.979†	896.3	890.0	[500]	ug/L	15:07:59
3	B 249.677†	17860.0	17810.7	[500]	ug/L	15:07:39
3	Ba 233.527†	54899.7	53459.0	[500]	ug/L	15:07:39
3	Be 313.107†	1217368.2	1189427.4	[500]	ug/L	15:07:34
3	Cd 226.502†	35315.0	34572.7	[500]	ug/L	15:07:39
3	Co 228.616†	20045.7	19564.1	[500]	ug/L	15:07:39
3	Cr 267.716†	38383.9	37305.9	[500]	ug/L	15:07:39
3	Cu 324.752†	159693.5	150072.8	[500]	ug/L	15:07:39
3	Mn 257.610†	395095.8	384266.4	[500]	ug/L	15:07:34
3	Mo 202.031†	5755.1	5592.5	[500]	ug/L	15:07:59
3	Ni 231.604†	16464.5	15954.8	[500]	ug/L	15:07:39
3	P 214.914†	3536.0	3260.1	[2500]	ug/L	15:07:59
3	Pb 220.353†	3251.7	3209.9	[500]	ug/L	15:07:59
3	S 181.975 Axial†	594.6	549.0	[1000]	ug/L	15:07:59
3	Sb 206.836†	1242.7	1185.9	[500]	ug/L	15:07:59
3	Se 196.026†	590.8	594.2	[500]	ug/L	15:07:59
3	Si 251.611†	68952.8	66660.8	[2500]	ug/L	15:07:39
3	Sn 189.927†	2262.2	2195.4	[500]	ug/L	15:07:59
3	Ti 334.940†	289436.8	282994.4	[500]	ug/L	15:07:39
3	Tl 190.801†	1300.3	1298.3	[500]	ug/L	15:07:59
3	U 409.014†	15144.6	16831.6	[500]	ug/L	15:07:39
3	V 292.402†	62842.1	62525.0	[500]	ug/L	15:07:39
3	Zn 213.857†	43861.0	42102.8	[500]	ug/L	15:07:39
3	SiO2†	68736.5	66452.9	[5347.5]	ug/L	15:08:15

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	821838.2	11685.89	1.42%	101.10	%
Sc Radial	4478.4	49.32	1.10%	97.6	%
Y 371.029	684579.8	8918.61	1.30%	99.296	%
Y RADIAL	4786.3	43.73	0.91%	97.00	%
Ag 328.068†	97807.2	711.51	0.73%	[500]	ug/L
Al 396.153Radial†	5348.9	25.10	0.47%	[5000]	ug/L
As 188.979†	908.9	16.44	1.81%	[500]	ug/L
B 249.677†	17877.1	82.08	0.46%	[500]	ug/L
Ba 233.527†	53965.0	483.50	0.90%	[500]	ug/L
Be 313.107†	1190749.6	1197.59	0.10%	[500]	ug/L
Ca 317.933Radial†	2889.7	26.00	0.90%	[5000]	ug/L
Cd 226.502†	34901.1	293.80	0.84%	[500]	ug/L
Co 228.616†	19755.3	171.84	0.87%	[500]	ug/L
Cr 267.716†	37591.4	278.43	0.74%	[500]	ug/L
Cu 324.752†	151113.9	1153.94	0.76%	[500]	ug/L
K 766.490 Radial†	26523.5	210.56	0.79%	[5000]	ug/L
Mg 279.077 IEC†	139.3	1.12	0.80%	[5000]	ug/L
Mn 257.610†	384191.1	339.66	0.09%	[500]	ug/L
Mo 202.031†	5708.1	100.17	1.75%	[500]	ug/L
Ni 231.604†	16108.4	138.06	0.86%	[500]	ug/L
P 214.914†	3340.6	70.77	2.12%	[2500]	ug/L
Pb 220.353†	3279.8	60.96	1.86%	[500]	ug/L
S 181.975 Axial†	560.7	10.19	1.82%	[1000]	ug/L

Sb 206.836†	1207.2	19.44	1.61%	[500]	ug/L
Se 196.026†	608.0	12.95	2.13%	[500]	ug/L
Si 251.611†	67211.0	510.60	0.76%	[2500]	ug/L
Sn 189.927†	2228.2	28.45	1.28%	[500]	ug/L
Sr 421.552†	65865.5	387.96	0.59%	[500]	ug/L
Ti 334.940†	285129.9	2269.95	0.80%	[500]	ug/L
Tl 190.801†	1322.7	21.84	1.65%	[500]	ug/L
U 409.014†	16937.0	123.18	0.73%	[500]	ug/L
V 292.402†	62987.0	446.60	0.71%	[500]	ug/L
Zn 213.857†	42474.4	349.41	0.82%	[500]	ug/L
SiO2†	67644.4	1039.26	1.54%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 3/16/2010 15:10:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4476.0	4476.0	97.6	%	15:12:19
1	Y RADIAL	4771.9	4771.9	96.71	%	15:12:19
1	Al 396.153Radial†	10203.0	10543.2	[10000]	ug/L	15:12:19
1	Ca 317.933Radial†	5637.9	5750.6	[10000]	ug/L	15:12:19
1	Fe 238.204 Radial†	948.9	964.7	[10000]	ug/L	15:12:39
1	K 766.490 Radial†	53581.7	52361.9	[10000]	ug/L	15:12:19
1	Mg 279.077 IEC†	267.7	274.3	[10000]	ug/L	15:12:39
1	Na 589.592 Radial†	26813.9	28287.5	[10000]	ug/L	15:12:19
1	Sr 421.552†	128339.1	131513.2	[1000]	ug/L	15:12:19
1	Sc 361.383	810472.5	810472.5	99.698	%	15:13:38
1	Y 371.029	674237.0	674237.0	97.795	%	15:13:38
1	Ag 328.068†	193754.1	194130.6	[1000]	ug/L	15:13:38
1	As 188.979†	1781.1	1803.5	[1000]	ug/L	15:13:58
1	B 249.677†	35007.2	35528.7	[1000]	ug/L	15:13:38
1	Ba 233.527†	106207.2	106516.6	[1000]	ug/L	15:13:38
1	Be 313.107†	2319643.5	2330402.0	[1000]	ug/L	15:13:38
1	Cd 226.502†	68232.0	68615.1	[1000]	ug/L	15:13:38
1	Co 228.616†	38363.2	38519.3	[1000]	ug/L	15:13:58
1	Cr 267.716†	74056.0	74200.9	[1000]	ug/L	15:13:38
1	Cu 324.752†	305928.0	301388.8	[1000]	ug/L	15:13:38
1	Mn 257.610†	754063.1	755797.3	[1000]	ug/L	15:13:38
1	Mo 202.031†	11412.4	11434.1	[1000]	ug/L	15:13:58
1	Ni 231.604†	31401.1	31414.8	[1000]	ug/L	15:13:58
1	P 214.914†	6841.0	6677.8	[5000]	ug/L	15:13:58
1	Pb 220.353†	6444.3	6506.6	[1000]	ug/L	15:13:58
1	S 181.975 Axial†	1162.4	1135.7	[2000]	ug/L	15:13:58
1	Sb 206.836†	2456.9	2439.8	[1000]	ug/L	15:13:58
1	Se 196.026†	1185.3	1207.7	[1000]	ug/L	15:13:58
1	Si 251.611†	132142.0	132044.3	[5000]	ug/L	15:13:38
1	Sn 189.927†	4466.5	4472.0	[1000]	ug/L	15:13:58
1	Ti 334.940†	577056.2	579892.3	[1000]	ug/L	15:13:38
1	Tl 190.801†	2563.0	2602.5	[1000]	ug/L	15:13:58
1	U 409.014†	30525.0	32698.5	[1000]	ug/L	15:13:38
1	V 292.402†	123186.5	124877.5	[1000]	ug/L	15:13:38
1	Zn 213.857†	82416.1	82048.7	[1000]	ug/L	15:13:38
1	SiO2†	133865.1	133775.5	[10695]	ug/L	15:14:58
2	Sc Radial	4537.7	4537.7	98.9	%	15:12:44
2	Y RADIAL	4830.9	4830.9	97.90	%	15:12:44
2	Al 396.153Radial†	10159.4	10356.9	[10000]	ug/L	15:12:44
2	Ca 317.933Radial†	5599.0	5632.7	[10000]	ug/L	15:12:44
2	Fe 238.204 Radial†	946.9	949.4	[10000]	ug/L	15:13:04
2	K 766.490 Radial†	53228.7	51257.7	[10000]	ug/L	15:12:44
2	Mg 279.077 IEC†	266.1	269.0	[10000]	ug/L	15:13:04
2	Na 589.592 Radial†	26598.5	27695.8	[10000]	ug/L	15:12:44
2	Sr 421.552†	127710.0	129087.2	[1000]	ug/L	15:12:44
2	Sc 361.383	821377.0	821377.0	101.04	%	15:14:05
2	Y 371.029	682748.7	682748.7	99.030	%	15:14:05
2	Ag 328.068†	196646.0	194412.8	[1000]	ug/L	15:14:05
2	As 188.979†	1781.7	1780.4	[1000]	ug/L	15:14:26
2	B 249.677†	35697.2	35745.4	[1000]	ug/L	15:14:05
2	Ba 233.527†	107563.2	106444.4	[1000]	ug/L	15:14:05
2	Be 313.107†	2349684.6	2329245.5	[1000]	ug/L	15:14:05
2	Cd 226.502†	69286.8	68750.5	[1000]	ug/L	15:14:05
2	Co 228.616†	38431.6	38076.1	[1000]	ug/L	15:14:26
2	Cr 267.716†	75022.8	74171.6	[1000]	ug/L	15:14:05
2	Cu 324.752†	310557.0	301896.5	[1000]	ug/L	15:14:05
2	Mn 257.610†	764916.7	756498.1	[1000]	ug/L	15:14:05
2	Mo 202.031†	11473.4	11342.6	[1000]	ug/L	15:14:26
2	Ni 231.604†	31470.1	31064.9	[1000]	ug/L	15:14:26

2	P 214.914†	6885.2	6630.4	[5000]	ug/L	15:14:26
2	Pb 220.353†	6467.9	6444.2	[1000]	ug/L	15:14:26
2	S 181.975 Axial†	1155.6	1113.6	[2000]	ug/L	15:14:26
2	Sb 206.836†	2450.5	2400.8	[1000]	ug/L	15:14:26
2	Se 196.026†	1192.7	1199.2	[1000]	ug/L	15:14:26
2	Si 251.611†	134384.6	132504.1	[5000]	ug/L	15:14:05
2	Sn 189.927†	4474.0	4420.0	[1000]	ug/L	15:14:26
2	Ti 334.940†	585007.8	580077.9	[1000]	ug/L	15:14:05
2	Tl 190.801†	2589.8	2594.9	[1000]	ug/L	15:14:26
2	U 409.014†	31218.3	32978.2	[1000]	ug/L	15:14:05
2	V 292.402†	124750.0	124784.6	[1000]	ug/L	15:14:05
2	Zn 213.857†	83577.5	82100.7	[1000]	ug/L	15:14:05
2	SiO2†	134959.2	133075.7	[10695]	ug/L	15:15:03
3	Sc Radial	4447.2	4447.2	96.9	%	15:13:09
3	Y RADIAL	4758.1	4758.1	96.43	%	15:13:09
3	Al 396.153Radial†	10118.3	10523.4	[10000]	ug/L	15:13:09
3	Ca 317.933Radial†	5609.8	5759.0	[10000]	ug/L	15:13:09
3	Fe 238.204 Radial†	942.6	964.5	[10000]	ug/L	15:13:29
3	K 766.490 Radial†	53165.1	52287.3	[10000]	ug/L	15:13:09
3	Mg 279.077 IEC†	263.9	272.1	[10000]	ug/L	15:13:29
3	Na 589.592 Radial†	26432.4	28071.7	[10000]	ug/L	15:13:09
3	Sr 421.552†	127270.7	131261.6	[1000]	ug/L	15:13:09
3	Sc 361.383	819570.1	819570.1	100.82	%	15:14:33
3	Y 371.029	681188.0	681188.0	98.804	%	15:14:33
3	Ag 328.068†	196568.0	194764.5	[1000]	ug/L	15:14:33
3	As 188.979†	1785.9	1788.4	[1000]	ug/L	15:14:53
3	B 249.677†	35746.8	35872.5	[1000]	ug/L	15:14:33
3	Ba 233.527†	107464.6	106581.2	[1000]	ug/L	15:14:33
3	Be 313.107†	2349370.3	2334060.9	[1000]	ug/L	15:14:33
3	Cd 226.502†	69379.9	68994.0	[1000]	ug/L	15:14:33
3	Co 228.616†	38282.5	38012.1	[1000]	ug/L	15:14:53
3	Cr 267.716†	75036.6	74349.1	[1000]	ug/L	15:14:33
3	Cu 324.752†	310370.9	302389.6	[1000]	ug/L	15:14:33
3	Mn 257.610†	764263.9	757519.7	[1000]	ug/L	15:14:33
3	Mo 202.031†	11387.2	11282.1	[1000]	ug/L	15:14:53
3	Ni 231.604†	31395.5	31059.7	[1000]	ug/L	15:14:53
3	P 214.914†	6805.9	6566.8	[5000]	ug/L	15:14:53
3	Pb 220.353†	6428.1	6418.8	[1000]	ug/L	15:14:53
3	S 181.975 Axial†	1147.7	1108.3	[2000]	ug/L	15:14:53
3	Sb 206.836†	2444.0	2399.7	[1000]	ug/L	15:14:53
3	Se 196.026†	1187.5	1196.6	[1000]	ug/L	15:14:53
3	Si 251.611†	134192.4	132606.8	[5000]	ug/L	15:14:33
3	Sn 189.927†	4456.7	4412.6	[1000]	ug/L	15:14:53
3	Ti 334.940†	584709.8	581058.8	[1000]	ug/L	15:14:33
3	Tl 190.801†	2539.6	2550.8	[1000]	ug/L	15:14:53
3	U 409.014†	31189.9	33018.2	[1000]	ug/L	15:14:33
3	V 292.402†	124684.6	124991.9	[1000]	ug/L	15:14:33
3	Zn 213.857†	83616.9	82322.2	[1000]	ug/L	15:14:33
3	SiO2†	133802.4	132222.7	[10695]	ug/L	15:15:09

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	817139.9	5844.35	0.72%	100.52	%
Sc Radial	4487.0	46.25	1.03%	97.8	%
Y 371.029	679391.3	4531.41	0.67%	98.543	%
Y RADIAL	4786.9	38.66	0.81%	97.01	%
Ag 328.068†	194435.9	317.55	0.16%	[1000]	ug/L
Al 396.153Radial†	10474.5	102.34	0.98%	[10000]	ug/L
As 188.979†	1790.8	11.75	0.66%	[1000]	ug/L
B 249.677†	35715.5	173.86	0.49%	[1000]	ug/L
Ba 233.527†	106514.0	68.45	0.06%	[1000]	ug/L
Be 313.107†	2331236.1	2513.70	0.11%	[1000]	ug/L
Ca 317.933Radial†	5714.1	70.65	1.24%	[10000]	ug/L
Cd 226.502†	68786.6	192.01	0.28%	[1000]	ug/L
Co 228.616†	38202.5	276.21	0.72%	[1000]	ug/L
Cr 267.716†	74240.5	95.12	0.13%	[1000]	ug/L
Cu 324.752†	301891.6	500.40	0.17%	[1000]	ug/L
Fe 238.204 Radial†	959.6	8.77	0.91%	[10000]	ug/L
K 766.490 Radial†	51969.0	617.08	1.19%	[10000]	ug/L

Mg 279.077 IEC†	271.8	2.69	0.99%	[10000]	ug/L
Mn 257.610†	756605.0	866.13	0.11%	[1000]	ug/L
Mo 202.031†	11352.9	76.55	0.67%	[1000]	ug/L
Na 589.592 Radial†	28018.3	299.42	1.07%	[10000]	ug/L
Ni 231.604†	31179.8	203.54	0.65%	[1000]	ug/L
P 214.914†	6625.0	55.69	0.84%	[5000]	ug/L
Pb 220.353†	6456.5	45.20	0.70%	[1000]	ug/L
S 181.975 Axial†	1119.2	14.56	1.30%	[2000]	ug/L
Sb 206.836†	2413.4	22.86	0.95%	[1000]	ug/L
Se 196.026†	1201.2	5.77	0.48%	[1000]	ug/L
Si 251.611†	132385.1	299.57	0.23%	[5000]	ug/L
Sn 189.927†	4434.9	32.38	0.73%	[1000]	ug/L
Sr 421.552†	130620.7	1333.97	1.02%	[1000]	ug/L
Ti 334.940†	580343.0	626.84	0.11%	[1000]	ug/L
Tl 190.801†	2582.8	27.91	1.08%	[1000]	ug/L
U 409.014†	32898.3	174.17	0.53%	[1000]	ug/L
V 292.402†	124884.7	103.85	0.08%	[1000]	ug/L
Zn 213.857†	82157.2	145.23	0.18%	[1000]	ug/L
SiO2†	133024.7	777.63	0.58%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/16/2010 15:17:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4382.5	4382.5	95.5	%	15:19:39
1	Y RADIAL	4661.4	4661.4	94.47	%	15:19:39
1	Al 396.153Radial†	50629.9	53085.4	[50000]	ug/L	15:19:18
1	Ca 317.933Radial†	26980.9	28215.8	[50000]	ug/L	15:19:18
1	Fe 238.204 Radial†	1827.4	1905.1	[20000]	ug/L	15:19:39
1	Mg 279.077 IEC†	1251.9	1310.4	[50000]	ug/L	15:19:39
1	Na 589.592 Radial†	54090.9	57427.6	[20000]	ug/L	15:19:18
1	Sc 361.383	801030.0	801030.0	98.536	%	15:20:36
1	Y 371.029	663754.4	663754.4	96.275	%	15:20:36
2	Sc Radial	4397.1	4397.1	95.8	%	15:20:04
2	Y RADIAL	4678.7	4678.7	94.82	%	15:20:04
2	Al 396.153Radial†	50492.7	52766.4	[50000]	ug/L	15:19:44
2	Ca 317.933Radial†	26897.0	28034.6	[50000]	ug/L	15:19:44
2	Fe 238.204 Radial†	1836.5	1908.3	[20000]	ug/L	15:20:04
2	Mg 279.077 IEC†	1257.2	1311.6	[50000]	ug/L	15:20:04
2	Na 589.592 Radial†	53666.4	56796.9	[20000]	ug/L	15:19:44
2	Sc 361.383	792948.9	792948.9	97.542	%	15:20:41
2	Y 371.029	656739.7	656739.7	95.258	%	15:20:41
3	Sc Radial	4396.7	4396.7	95.8	%	15:20:29
3	Y RADIAL	4692.4	4692.4	95.10	%	15:20:29
3	Al 396.153Radial†	51471.4	53792.1	[50000]	ug/L	15:20:09
3	Ca 317.933Radial†	27395.8	28557.5	[50000]	ug/L	15:20:09
3	Fe 238.204 Radial†	1833.9	1905.6	[20000]	ug/L	15:20:29
3	Mg 279.077 IEC†	1257.4	1312.0	[50000]	ug/L	15:20:29
3	Na 589.592 Radial†	54620.6	57797.3	[20000]	ug/L	15:20:09
3	Sc 361.383	800989.6	800989.6	98.531	%	15:20:47
3	Y 371.029	663470.5	663470.5	96.234	%	15:20:47

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	798322.8	4654.04	0.58%	98.203	%
Sc Radial	4392.1	8.32	0.19%	95.7	%
Y 371.029	661321.5	3970.54	0.60%	95.922	%
Y RADIAL	4677.5	15.53	0.33%	94.80	%
Al 396.153Radial†	53214.6	524.89	0.99%	[50000]	ug/L
Ca 317.933Radial†	28269.3	265.52	0.94%	[50000]	ug/L
Fe 238.204 Radial†	1906.3	1.71	0.09%	[20000]	ug/L
Mg 279.077 IEC†	1311.3	0.80	0.06%	[50000]	ug/L
Na 589.592 Radial†	57340.6	505.86	0.88%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	194.8	0.00000	0.999974	
Al 396.153Radial	3	Lin Thru 0	0.0	1.064	0.00000	0.999995	
As 188.979	3	Lin Thru 0	0.0	1.797	0.00000	0.999974	
B 249.677	3	Lin Thru 0	0.0	35.73	0.00000	0.999995	
Ba 233.527	3	Lin Thru 0	0.0	106.9	0.00000	0.999957	
Be 313.107	3	Lin Thru 0	0.0	2343	0.00000	0.999942	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5657	0.00000	0.999996	
Cd 226.502	3	Lin Thru 0	0.0	69.02	0.00000	0.999972	
Co 228.616	3	Lin Thru 0	0.0	38.49	0.00000	0.999879	
Cr 267.716	3	Lin Thru 0	0.0	74.48	0.00000	0.999961	
Cu 324.752	3	Lin Thru 0	0.0	302.1	0.00000	0.999983	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0954	0.00000	0.999996	
K 766.490 Radial	3	Lin Thru 0	0.0	5.220	0.00000	0.999962	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0263	0.00000	0.999959
Mn 257.610	3	Lin Thru 0	0.0	759.5	0.00000	0.999947
Mo 202.031	3	Lin Thru 0	0.0	11.37	0.00000	0.999981
Na 589.592 Radia	2	Lin Thru 0	0.0	2.854	0.00000	0.999958
Ni 231.604	3	Lin Thru 0	0.0	31.41	0.00000	0.999886
P 214.914	3	Lin Thru 0	0.0	1.328	0.00000	0.999979
Pb 220.353	3	Lin Thru 0	0.0	6.482	0.00000	0.999949
S 181.975 Axial	3	Lin Thru 0	0.0	0.5601	0.00000	0.999987
Sb 206.836	3	Lin Thru 0	0.0	2.415	0.00000	0.999981
Se 196.026	3	Lin Thru 0	0.0	1.205	0.00000	0.999955
Si 251.611	3	Lin Thru 0	0.0	26.57	0.00000	0.999964
Sn 189.927	3	Lin Thru 0	0.0	4.441	0.00000	0.999983
Sr 421.552	3	Lin Thru 0	0.0	130.9	0.00000	0.999982
Ti 334.940	3	Lin Thru 0	0.0	578.7	0.00000	0.999956
Tl 190.801	3	Lin Thru 0	0.0	2.597	0.00000	0.999922
U 409.014	3	Lin Thru 0	0.0	33.11	0.00000	0.999913
V 292.402	3	Lin Thru 0	0.0	125.2	0.00000	0.999976
Zn 213.857	3	Lin Thru 0	0.0	82.78	0.00000	0.999877
SiO2	3	Lin Thru 0	0.0	12.49	0.00000	0.999959

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/16/2010 15:22:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4533.5	4533.5	98.8	%			15:24:51
1	Y RADIAL	4824.0	4824.0	97.77	%			15:24:51
1	Al 396.153Radial†	5145.8	5292.9	4949.5	ug/L	4949.5	ppb	15:24:51
1	Ca 317.933Radial†	2836.7	2842.7	5024.8	ug/L	5024.8	ppb	15:25:11
1	Fe 238.204 Radial†	497.6	495.7	5209.2	ug/L	5209.2	ppb	15:25:11
1	K 766.490 Radial†	15357.9	12985.3	2484.2	ug/L	2484.2	ppb	15:24:51
1	Mg 279.077 IEC†	140.9	142.5	5424.1	ug/L	5424.1	ppb	15:25:11
1	Na 589.592 Radial†	6415.6	7297.2	2556.8	ug/L	2556.8	ppb	15:24:51
1	Sr 421.552†	69256.5	70056.6	535.15	ug/L	535.15	ppb	15:24:51
1	Sc 361.383	818220.5	818220.5	100.65	%			15:26:08
1	Y 371.029	683712.4	683712.4	99.170	%			15:26:08
1	Ag 328.068†	50326.2	49790.1	258.81	ug/L	258.81	ppb	15:26:08
1	As 188.979†	859.6	871.1	489.02	ug/L	489.02	ppb	15:26:28
1	B 249.677†	18223.3	18520.8	515.99	ug/L	515.99	ppb	15:26:08
1	Ba 233.527†	54927.9	54560.2	511.82	ug/L	511.82	ppb	15:26:08
1	Be 313.107†	618720.3	618447.7	265.13	ug/L	265.13	ppb	15:26:08
1	Cd 226.502†	34603.8	34556.3	500.57	ug/L	500.57	ppb	15:26:08
1	Co 228.616†	19943.2	19854.0	515.99	ug/L	515.99	ppb	15:26:08
1	Cr 267.716†	36833.3	36515.5	491.36	ug/L	491.36	ppb	15:26:08
1	Cu 324.752†	160410.1	153906.4	509.42	ug/L	509.42	ppb	15:26:08
1	Mn 257.610†	397880.0	394755.7	520.04	ug/L	520.04	ppb	15:26:08
1	Mo 202.031†	6251.1	6197.8	545.49	ug/L	545.49	ppb	15:26:28
1	Ni 231.604†	16556.4	16367.9	520.83	ug/L	520.83	ppb	15:26:08
1	P 214.914†	3572.3	3365.3	2435.3	ug/L	2435.3	ppb	15:26:28
1	Pb 220.353†	3242.7	3264.5	505.15	ug/L	505.15	ppb	15:26:28
1	S 181.975 Axial†	1457.7	1418.2	2531.2	ug/L	2531.2	ppb	15:26:28
1	Sb 206.836†	1268.6	1235.9	531.45	ug/L	531.45	ppb	15:26:28
1	Se 196.026†	3134.8	3133.3	2618.4	ug/L	2618.4	ppb	15:26:28
1	Si 251.611†	132803.4	131446.2	4940.0	ug/L	4940.0	ppb	15:26:08
1	Sn 189.927†	2453.7	2429.8	547.68	ug/L	547.68	ppb	15:26:28
1	Ti 334.940†	290898.5	290104.4	501.17	ug/L	501.17	ppb	15:26:08
1	Tl 190.801†	1389.2	1412.0	547.10	ug/L	547.10	ppb	15:26:28
1	U 409.014†	14812.0	16797.2	505.61	ug/L	505.61	ppb	15:26:08
1	V 292.402†	63463.3	64370.6	521.58	ug/L	521.58	ppb	15:26:08
1	Zn 213.857†	43839.9	42939.2	513.96	ug/L	513.96	ppb	15:26:08
1	SiO2†	132321.0	130969.9	10474	ug/L	10474	ppb	15:27:26
2	Sc Radial	4542.7	4542.7	99.0	%			15:25:16
2	Y RADIAL	4866.3	4866.3	98.62	%			15:25:16
2	Al 396.153Radial†	5195.5	5332.7	4987.3	ug/L	4987.3	ppb	15:25:16
2	Ca 317.933Radial†	2809.5	2809.4	4966.0	ug/L	4966.0	ppb	15:25:36
2	Fe 238.204 Radial†	491.2	488.2	5130.1	ug/L	5130.1	ppb	15:25:36
2	K 766.490 Radial†	15436.6	13033.4	2493.4	ug/L	2493.4	ppb	15:25:16
2	Mg 279.077 IEC†	143.5	144.8	5511.8	ug/L	5511.8	ppb	15:25:36
2	Na 589.592 Radial†	6401.8	7270.1	2547.4	ug/L	2547.4	ppb	15:25:16
2	Sr 421.552†	69644.9	70307.3	537.06	ug/L	537.06	ppb	15:25:16
2	Sc 361.383	824607.9	824607.9	101.44	%			15:26:34
2	Y 371.029	688870.1	688870.1	99.918	%			15:26:34
2	Ag 328.068†	50777.4	49847.6	259.09	ug/L	259.09	ppb	15:26:34
2	As 188.979†	853.4	858.4	481.97	ug/L	481.97	ppb	15:26:54
2	B 249.677†	18391.3	18546.2	516.70	ug/L	516.70	ppb	15:26:34
2	Ba 233.527†	55621.1	54820.8	514.25	ug/L	514.25	ppb	15:26:34
2	Be 313.107†	624368.7	619254.5	265.48	ug/L	265.48	ppb	15:26:34
2	Cd 226.502†	34967.8	34648.8	501.92	ug/L	501.92	ppb	15:26:34
2	Co 228.616†	20246.6	19999.7	519.75	ug/L	519.75	ppb	15:26:34
2	Cr 267.716†	37115.8	36510.6	491.29	ug/L	491.29	ppb	15:26:34
2	Cu 324.752†	161774.7	154017.1	509.79	ug/L	509.79	ppb	15:26:34
2	Mn 257.610†	401655.2	395415.4	520.89	ug/L	520.89	ppb	15:26:34
2	Mo 202.031†	6209.0	6108.2	537.61	ug/L	537.61	ppb	15:26:54
2	Ni 231.604†	16745.6	16427.0	522.71	ug/L	522.71	ppb	15:26:34

2	P 214.914†	3559.7	3325.4	2405.2 ug/L	2405.2 ppb	15:26:54
2	Pb 220.353†	3234.4	3231.3	500.03 ug/L	500.03 ppb	15:26:54
2	S 181.975 Axial†	1446.2	1395.6	2490.8 ug/L	2490.8 ppb	15:26:54
2	Sb 206.836†	1274.7	1232.1	529.59 ug/L	529.59 ppb	15:26:54
2	Se 196.026†	3109.9	3084.6	2577.8 ug/L	2577.8 ppb	15:26:54
2	Si 251.611†	134259.5	131859.7	4955.7 ug/L	4955.7 ppb	15:26:34
2	Sn 189.927†	2435.2	2392.7	539.32 ug/L	539.32 ppb	15:26:54
2	Ti 334.940†	293824.1	290749.8	502.28 ug/L	502.28 ppb	15:26:34
2	Tl 190.801†	1383.3	1395.5	540.72 ug/L	540.72 ppb	15:26:54
2	U 409.014†	14763.9	16635.8	500.74 ug/L	500.74 ppb	15:26:34
2	V 292.402†	64083.7	64493.8	522.45 ug/L	522.45 ppb	15:26:34
2	Zn 213.857†	44278.6	43034.4	515.10 ug/L	515.10 ppb	15:26:34
2	SiO2†	134353.7	131955.5	10553 ug/L	10553 ppb	15:27:31
3	Sc Radial	4613.4	4613.4	101 %		15:25:41
3	Y RADIAL	4940.4	4940.4	100.1 %		15:25:41
3	Al 396.153Radial†	5207.2	5263.9	4922.7 ug/L	4922.7 ppb	15:25:41
3	Ca 317.933Radial†	2838.9	2795.2	4940.8 ug/L	4940.8 ppb	15:26:01
3	Fe 238.204 Radial†	490.6	480.0	5044.3 ug/L	5044.3 ppb	15:26:01
3	K 766.490 Radial†	15587.2	12944.3	2476.4 ug/L	2476.4 ppb	15:25:41
3	Mg 279.077 IEC†	139.3	138.5	5269.9 ug/L	5269.9 ppb	15:26:01
3	Na 589.592 Radial†	6455.2	7224.2	2531.3 ug/L	2531.3 ppb	15:25:41
3	Sr 421.552†	70552.0	70131.7	535.72 ug/L	535.72 ppb	15:25:41
3	Sc 361.383	828696.0	828696.0	101.94 %		15:27:01
3	Y 371.029	693691.2	693691.2	100.62 %		15:27:01
3	Ag 328.068†	50949.4	49769.4	258.66 ug/L	258.66 ppb	15:27:01
3	As 188.979†	846.4	847.3	475.79 ug/L	475.79 ppb	15:27:21
3	B 249.677†	18475.4	18539.3	516.54 ug/L	516.54 ppb	15:27:01
3	Ba 233.527†	55623.0	54552.2	511.74 ug/L	511.74 ppb	15:27:01
3	Be 313.107†	626248.8	618062.3	264.97 ug/L	264.97 ppb	15:27:01
3	Cd 226.502†	34844.4	34357.7	497.71 ug/L	497.71 ppb	15:27:01
3	Co 228.616†	20142.1	19798.7	514.53 ug/L	514.53 ppb	15:27:01
3	Cr 267.716†	37119.9	36334.1	488.91 ug/L	488.91 ppb	15:27:01
3	Cu 324.752†	162161.2	153609.6	508.43 ug/L	508.43 ppb	15:27:01
3	Mn 257.610†	402017.7	393817.7	518.79 ug/L	518.79 ppb	15:27:01
3	Mo 202.031†	6207.8	6076.9	534.84 ug/L	534.84 ppb	15:27:21
3	Ni 231.604†	16718.7	16319.2	519.28 ug/L	519.28 ppb	15:27:01
3	P 214.914†	3559.5	3307.8	2392.2 ug/L	2392.2 ppb	15:27:21
3	Pb 220.353†	3250.8	3231.7	500.08 ug/L	500.08 ppb	15:27:21
3	S 181.975 Axial†	1444.1	1386.5	2474.6 ug/L	2474.6 ppb	15:27:21
3	Sb 206.836†	1256.5	1208.1	519.53 ug/L	519.53 ppb	15:27:21
3	Se 196.026†	3106.5	3066.2	2562.2 ug/L	2562.2 ppb	15:27:21
3	Si 251.611†	134172.3	131121.3	4927.9 ug/L	4927.9 ppb	15:27:01
3	Sn 189.927†	2424.7	2370.6	534.34 ug/L	534.34 ppb	15:27:21
3	Ti 334.940†	294607.2	290089.0	501.15 ug/L	501.15 ppb	15:27:01
3	Tl 190.801†	1371.9	1377.6	533.84 ug/L	533.84 ppb	15:27:21
3	U 409.014†	14945.8	16742.5	503.98 ug/L	503.98 ppb	15:27:01
3	V 292.402†	64317.5	64411.4	521.77 ug/L	521.77 ppb	15:27:01
3	Zn 213.857†	44344.2	42883.4	513.32 ug/L	513.32 ppb	15:27:01
3	SiO2†	133820.4	130778.9	10459 ug/L	10459 ppb	15:27:36

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	823841.5	101.34	%	0.649				0.64%
Sc Radial	4563.2	99.5	%	0.95				0.96%
Y 371.029	688757.9	99.902	%	0.7238				0.72%
Y RADIAL	4876.9	98.84	%	1.194				1.21%
Ag 328.068†	49802.4	258.86	ug/L	0.220	258.86	ppb	0.220	0.08%
QC value within limits for Ag 328.068 Recovery = 103.54%								
Al 396.153Radial†	5296.5	4953.2	ug/L	32.43	4953.2	ppb	32.43	0.65%
QC value within limits for Al 396.153Radial Recovery = 99.06%								
As 188.979†	858.9	482.26	ug/L	6.623	482.26	ppb	6.623	1.37%
QC value within limits for As 188.979 Recovery = 96.45%								
B 249.677†	18535.4	516.41	ug/L	0.373	516.41	ppb	0.373	0.07%
QC value within limits for B 249.677 Recovery = 103.28%								
Ba 233.527†	54644.4	512.60	ug/L	1.432	512.60	ppb	1.432	0.28%
QC value within limits for Ba 233.527 Recovery = 102.52%								
Be 313.107†	618588.2	265.19	ug/L	0.261	265.19	ppb	0.261	0.10%
QC value within limits for Be 313.107 Recovery = 106.08%								
Ca 317.933Radial†	2815.8	4977.2	ug/L	43.09	4977.2	ppb	43.09	0.87%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.54%
Cd 226.502†            34521.0      500.07 ug/L         2.150      500.07 ppb          2.150   0.43%
   QC value within limits for Cd 226.502  Recovery = 100.01%
Co 228.616†            19884.1      516.76 ug/L         2.695      516.76 ppb          2.695   0.52%
   QC value within limits for Co 228.616  Recovery = 103.35%
Cr 267.716†            36453.4      490.52 ug/L         1.395      490.52 ppb          1.395   0.28%
   QC value within limits for Cr 267.716  Recovery = 98.10%
Cu 324.752†           153844.4      509.22 ug/L         0.701      509.22 ppb          0.701   0.14%
   QC value within limits for Cu 324.752  Recovery = 101.84%
Fe 238.204 Radial†       488.0      5127.9 ug/L        82.47      5127.9 ppb         82.47   1.61%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.56%
K 766.490 Radial†      12987.7      2484.7 ug/L         8.53      2484.7 ppb          8.53   0.34%
   QC value within limits for K 766.490 Radial  Recovery = 99.39%
Mg 279.077 IEC†          141.9      5401.9 ug/L       122.43      5401.9 ppb        122.43   2.27%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.04%
Mn 257.610†           394663.0      519.91 ug/L         1.057      519.91 ppb          1.057   0.20%
   QC value within limits for Mn 257.610  Recovery = 103.98%
Mo 202.031†             6127.6      539.31 ug/L         5.527      539.31 ppb          5.527   1.02%
   QC value within limits for Mo 202.031  Recovery = 107.86%
Na 589.592 Radial†      7263.8      2545.1 ug/L        12.93      2545.1 ppb         12.93   0.51%
   QC value within limits for Na 589.592 Radial  Recovery = 101.81%
Ni 231.604†            16371.4      520.94 ug/L         1.717      520.94 ppb          1.717   0.33%
   QC value within limits for Ni 231.604  Recovery = 104.19%
P 214.914†              3332.9      2410.9 ug/L        22.11      2410.9 ppb         22.11   0.92%
   QC value within limits for P 214.914  Recovery = 96.44%
Pb 220.353†             3242.5      501.75 ug/L         2.941      501.75 ppb          2.941   0.59%
   QC value within limits for Pb 220.353  Recovery = 100.35%
S 181.975 Axial†        1400.1      2498.9 ug/L        29.12      2498.9 ppb         29.12   1.17%
   QC value within limits for S 181.975 Axial  Recovery = 99.96%
Sb 206.836†             1225.4      526.85 ug/L         6.415      526.85 ppb          6.415   1.22%
   QC value within limits for Sb 206.836  Recovery = 105.37%
Se 196.026†             3094.7      2586.1 ug/L        29.03      2586.1 ppb         29.03   1.12%
   QC value within limits for Se 196.026  Recovery = 103.45%
Si 251.611†           131475.7      4941.2 ug/L        13.92      4941.2 ppb         13.92   0.28%
   QC value within limits for Si 251.611  Recovery = 98.82%
Sn 189.927†             2397.7      540.45 ug/L         6.741      540.45 ppb          6.741   1.25%
   QC value within limits for Sn 189.927  Recovery = 108.09%
Sr 421.552†            70165.2      535.98 ug/L         0.983      535.98 ppb          0.983   0.18%
   QC value within limits for Sr 421.552  Recovery = 107.20%
Ti 334.940†           290314.4      501.53 ug/L         0.643      501.53 ppb          0.643   0.13%
   QC value within limits for Ti 334.940  Recovery = 100.31%
Tl 190.801†             1395.0      540.55 ug/L         6.629      540.55 ppb          6.629   1.23%
   QC value within limits for Tl 190.801  Recovery = 108.11%
U 409.014†             16725.2      503.44 ug/L         2.476      503.44 ppb          2.476   0.49%
   QC value within limits for U 409.014  Recovery = 100.69%
V 292.402†             64425.3      521.93 ug/L         0.460      521.93 ppb          0.460   0.09%
   QC value within limits for V 292.402  Recovery = 104.39%
Zn 213.857†            42952.3      514.13 ug/L         0.906      514.13 ppb          0.906   0.18%
   QC value within limits for Zn 213.857  Recovery = 102.83%
SiO2†                 131234.7       10495 ug/L          50.6       10495 ppb           50.6   0.48%
   QC value within limits for SiO2  Recovery = 98.13%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 3/16/2010 15:29:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4346.6	4346.6	94.7	%			15:32:00
1	Y RADIAL	4767.4	4767.4	96.62	%			15:31:40
1	Al 396.153Radial†	-74.7	7.0	6.6025	ug/L	6.6025	ppb	15:32:00
1	Ca 317.933Radial†	21.0	-5.7	-10.025	ug/L	-10.025	ppb	15:32:00
1	Fe 238.204 Radial†	9.4	2.0	21.153	ug/L	21.153	ppb	15:32:00
1	K 766.490 Radial†	2521.3	105.3	20.189	ug/L	20.189	ppb	15:31:40
1	Mg 279.077 IEC†	0.4	0.3	11.753	ug/L	11.753	ppb	15:32:00
1	Na 589.592 Radial†	-835.5	-76.7	-26.888	ug/L	-26.888	ppb	15:31:40
1	Sr 421.552†	27.5	3.3	0.0250	ug/L	0.0250	ppb	15:31:40
1	Sc 361.383	811254.7	811254.7	99.794	%			15:32:57
1	Y 371.029	685428.7	685428.7	99.419	%			15:32:57
1	Ag 328.068†	144.0	-66.3	-0.3339	ug/L	-0.3339	ppb	15:32:57
1	As 188.979†	-16.7	0.3	0.1866	ug/L	0.1866	ppb	15:33:17
1	B 249.677†	-130.4	284.7	7.9650	ug/L	7.9650	ppb	15:33:17
1	Ba 233.527†	4.7	-7.8	-0.0727	ug/L	-0.0727	ppb	15:33:17
1	Be 313.107†	-3969.7	-248.9	-0.1065	ug/L	-0.1065	ppb	15:32:57
1	Cd 226.502†	-172.9	3.1	0.0430	ug/L	0.0430	ppb	15:33:17
1	Co 228.616†	-43.6	-3.9	-0.1013	ug/L	-0.1013	ppb	15:33:17
1	Cr 267.716†	66.6	-12.8	-0.1701	ug/L	-0.1701	ppb	15:33:17
1	Cu 324.752†	5379.5	-75.6	-0.2491	ug/L	-0.2491	ppb	15:32:57
1	Mn 257.610†	423.8	-126.2	-0.1646	ug/L	-0.1646	ppb	15:33:17
1	Mo 202.031†	11.4	-1.5	-0.1273	ug/L	-0.1273	ppb	15:33:17
1	Ni 231.604†	92.0	10.7	0.3418	ug/L	0.3418	ppb	15:33:17
1	P 214.914†	191.0	7.5	5.7024	ug/L	5.7024	ppb	15:33:17
1	Pb 220.353†	-48.3	-5.6	-0.8653	ug/L	-0.8653	ppb	15:33:17
1	S 181.975 Axial†	25.2	-4.9	-8.7887	ug/L	-8.7887	ppb	15:33:17
1	Sb 206.836†	27.9	3.4	1.4489	ug/L	1.4489	ppb	15:33:17
1	Se 196.026†	-11.6	7.2	6.0050	ug/L	6.0050	ppb	15:33:17
1	Si 251.611†	542.1	45.0	1.6957	ug/L	1.6957	ppb	15:33:17
1	Sn 189.927†	17.2	9.3	2.0804	ug/L	2.0804	ppb	15:33:17
1	Ti 334.940†	-1160.3	-75.4	-0.1324	ug/L	-0.1324	ppb	15:32:57
1	Tl 190.801†	-24.1	7.7	2.9604	ug/L	2.9604	ppb	15:33:17
1	U 409.014†	-2086.9	-10.2	-0.3091	ug/L	-0.3091	ppb	15:32:57
1	V 292.402†	-1332.9	-18.0	-0.1487	ug/L	-0.1487	ppb	15:32:57
1	Zn 213.857†	673.5	57.8	0.6930	ug/L	0.6930	ppb	15:33:17
1	SiO2†	503.6	9.3	0.7473	ug/L	0.7473	ppb	15:34:28
2	Sc Radial	4369.0	4369.0	95.2	%			15:32:25
2	Y RADIAL	4930.3	4930.3	99.92	%			15:32:05
2	Al 396.153Radial†	-74.6	7.5	7.0298	ug/L	7.0298	ppb	15:32:25
2	Ca 317.933Radial†	22.8	-3.9	-6.8180	ug/L	-6.8180	ppb	15:32:25
2	Fe 238.204 Radial†	7.3	-0.2	-2.0698	ug/L	-2.0698	ppb	15:32:25
2	K 766.490 Radial†	2469.6	37.4	7.1773	ug/L	7.1773	ppb	15:32:05
2	Mg 279.077 IEC†	1.0	1.0	38.703	ug/L	38.703	ppb	15:32:25
2	Na 589.592 Radial†	-854.9	-92.5	-32.427	ug/L	-32.427	ppb	15:32:05
2	Sr 421.552†	38.8	15.0	0.1145	ug/L	0.1145	ppb	15:32:05
2	Sc 361.383	803882.5	803882.5	98.887	%			15:33:22
2	Y 371.029	677768.4	677768.4	98.308	%			15:33:22
2	Ag 328.068†	114.6	-94.7	-0.4855	ug/L	-0.4855	ppb	15:33:22
2	As 188.979†	-14.5	2.4	1.3338	ug/L	1.3338	ppb	15:33:42
2	B 249.677†	-117.8	296.2	8.2909	ug/L	8.2909	ppb	15:33:42
2	Ba 233.527†	4.6	-7.8	-0.0726	ug/L	-0.0726	ppb	15:33:42
2	Be 313.107†	-3902.4	-217.3	-0.0928	ug/L	-0.0928	ppb	15:33:22
2	Cd 226.502†	-156.9	17.6	0.2557	ug/L	0.2557	ppb	15:33:42
2	Co 228.616†	-51.5	-12.3	-0.3197	ug/L	-0.3197	ppb	15:33:42
2	Cr 267.716†	84.3	5.8	0.0777	ug/L	0.0777	ppb	15:33:42
2	Cu 324.752†	5313.1	-93.3	-0.3088	ug/L	-0.3088	ppb	15:33:22
2	Mn 257.610†	436.2	-109.8	-0.1463	ug/L	-0.1463	ppb	15:33:42
2	Mo 202.031†	10.5	-2.2	-0.1979	ug/L	-0.1979	ppb	15:33:42
2	Ni 231.604†	89.3	8.9	0.2837	ug/L	0.2837	ppb	15:33:42

2	P 214.914†	195.0	13.3	10.042 ug/L	10.042 ppb	15:33:42
2	Pb 220.353†	-42.9	-0.6	-0.0915 ug/L	-0.0915 ppb	15:33:42
2	S 181.975 Axial†	24.8	-5.1	-9.0431 ug/L	-9.0431 ppb	15:33:42
2	Sb 206.836†	35.4	11.3	4.6753 ug/L	4.6753 ppb	15:33:42
2	Se 196.026†	-14.8	3.8	3.1602 ug/L	3.1602 ppb	15:33:42
2	Si 251.611†	517.3	24.9	0.9403 ug/L	0.9403 ppb	15:33:42
2	Sn 189.927†	6.0	-1.9	-0.4294 ug/L	-0.4294 ppb	15:33:42
2	Ti 334.940†	-1077.9	-2.7	-0.0087 ug/L	-0.0087 ppb	15:33:22
2	Tl 190.801†	-25.5	6.0	2.2967 ug/L	2.2967 ppb	15:33:42
2	U 409.014†	-2065.4	-7.7	-0.2315 ug/L	-0.2315 ppb	15:33:22
2	V 292.402†	-1275.1	28.2	0.2234 ug/L	0.2234 ppb	15:33:22
2	Zn 213.857†	674.8	65.3	0.7873 ug/L	0.7873 ppb	15:33:42
2	SiO2†	517.3	27.8	2.2295 ug/L	2.2295 ppb	15:34:48
3	Sc Radial	4361.4	4361.4	95.1 %		15:32:50
3	Y RADIAL	4779.0	4779.0	96.85 %		15:32:30
3	Al 396.153Radial†	-82.2	-0.7	-0.6477 ug/L	-0.6477 ppb	15:32:50
3	Ca 317.933Radial†	22.2	-4.5	-7.9023 ug/L	-7.9023 ppb	15:32:50
3	Fe 238.204 Radial†	7.6	0.1	1.2445 ug/L	1.2445 ppb	15:32:50
3	K 766.490 Radial†	2469.1	41.4	7.9561 ug/L	7.9561 ppb	15:32:30
3	Mg 279.077 IEC†	2.9	3.0	112.65 ug/L	112.65 ppb	15:32:50
3	Na 589.592 Radial†	-866.3	-106.1	-37.189 ug/L	-37.189 ppb	15:32:30
3	Sr 421.552†	23.7	-0.8	-0.0060 ug/L	-0.0060 ppb	15:32:30
3	Sc 361.383	807937.3	807937.3	99.386 %		15:33:48
3	Y 371.029	682559.5	682559.5	99.003 %		15:33:48
3	Ag 328.068†	223.2	14.0	0.0705 ug/L	0.0705 ppb	15:33:48
3	As 188.979†	-20.6	-3.7	-2.0499 ug/L	-2.0499 ppb	15:34:08
3	B 249.677†	-163.2	251.2	7.0295 ug/L	7.0295 ppb	15:34:08
3	Ba 233.527†	10.9	-1.5	-0.0150 ug/L	-0.0150 ppb	15:34:08
3	Be 313.107†	-3821.2	-115.8	-0.0496 ug/L	-0.0496 ppb	15:33:48
3	Cd 226.502†	-179.9	-4.6	-0.0673 ug/L	-0.0673 ppb	15:34:08
3	Co 228.616†	-51.7	-12.2	-0.3159 ug/L	-0.3159 ppb	15:34:08
3	Cr 267.716†	102.2	23.4	0.3131 ug/L	0.3131 ppb	15:34:08
3	Cu 324.752†	5250.8	-183.0	-0.6057 ug/L	-0.6057 ppb	15:33:48
3	Mn 257.610†	454.9	-93.2	-0.1272 ug/L	-0.1272 ppb	15:34:08
3	Mo 202.031†	14.4	1.7	0.1477 ug/L	0.1477 ppb	15:34:08
3	Ni 231.604†	87.3	6.5	0.2058 ug/L	0.2058 ppb	15:34:08
3	P 214.914†	194.8	12.1	9.2431 ug/L	9.2431 ppb	15:34:08
3	Pb 220.353†	-47.0	-4.5	-0.6895 ug/L	-0.6895 ppb	15:34:08
3	S 181.975 Axial†	26.8	-3.2	-5.6531 ug/L	-5.6531 ppb	15:34:08
3	Sb 206.836†	29.7	5.3	2.2447 ug/L	2.2447 ppb	15:34:08
3	Se 196.026†	-20.8	-2.1	-1.7572 ug/L	-1.7572 ppb	15:34:08
3	Si 251.611†	517.8	22.8	0.8550 ug/L	0.8550 ppb	15:34:08
3	Sn 189.927†	17.4	9.5	2.1314 ug/L	2.1314 ppb	15:34:08
3	Ti 334.940†	-1128.8	-48.4	-0.0941 ug/L	-0.0941 ppb	15:33:48
3	Tl 190.801†	-36.1	-4.6	-1.7555 ug/L	-1.7555 ppb	15:34:08
3	U 409.014†	-2069.2	-1.0	-0.0313 ug/L	-0.0313 ppb	15:33:48
3	V 292.402†	-1366.0	-56.7	-0.4492 ug/L	-0.4492 ppb	15:33:48
3	Zn 213.857†	671.9	58.9	0.7112 ug/L	0.7112 ppb	15:34:08
3	SiO2†	517.6	25.4	2.0331 ug/L	2.0331 ppb	15:35:08

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	807691.5	99.356	%	0.4542				0.46%
Sc Radial	4359.0	95.0	%	0.25				0.26%
Y 371.029	681918.9	98.910	%	0.5613				0.57%
Y RADIAL	4825.6	97.80	%	1.842				1.88%
Ag 328.068†	-49.0	-0.2496	ug/L	0.28739	-0.2496	ppb	0.28739	115.13%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.6	4.3282	ug/L	4.31456	4.3282	ppb	4.31456	99.68%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.3	-0.1765	ug/L	1.72083	-0.1765	ppb	1.72083	975.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	277.4	7.7618	ug/L	0.65483	7.7618	ppb	0.65483	8.44%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.7	-0.0534	ug/L	0.03330	-0.0534	ppb	0.03330	62.34%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-194.0	-0.0830	ug/L	0.02969	-0.0830	ppb	0.02969	35.78%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-4.7	-8.2485	ug/L	1.63139	-8.2485	ppb	1.63139	19.78%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                5.4      0.0772 ug/L       0.16420      0.0772 ppb        0.16420 212.82%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -9.4     -0.2456 ug/L       0.12500     -0.2456 ppb        0.12500  50.89%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                5.4      0.0736 ug/L       0.24162      0.0736 ppb        0.24162 328.41%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -117.3     -0.3879 ug/L       0.19100     -0.3879 ppb        0.19100  49.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.6      6.7759 ug/L      12.56075      6.7759 ppb       12.56075 185.37%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         61.4      11.774 ug/L        7.2976      11.774 ppb         7.2976  61.98%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.4      54.369 ug/L       52.2413      54.369 ppb        52.2413  96.09%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -109.8     -0.1461 ug/L       0.01868     -0.1461 ppb        0.01868  12.79%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -0.7     -0.0592 ug/L       0.18260     -0.0592 ppb        0.18260 308.58%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -91.8     -32.168 ug/L        5.1556     -32.168 ppb         5.1556  16.03%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                8.7      0.2771 ug/L       0.06824      0.2771 ppb        0.06824  24.63%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                10.9      8.3292 ug/L       2.30972      8.3292 ppb        2.30972  27.73%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -3.6     -0.5487 ug/L       0.40563     -0.5487 ppb        0.40563  73.92%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -4.4     -7.8283 ug/L       1.88804     -7.8283 ppb        1.88804  24.12%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                6.7      2.7896 ug/L       1.68082      2.7896 ppb        1.68082  60.25%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.0      2.4693 ug/L       3.92697      2.4693 ppb        3.92697 159.03%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               30.9      1.1637 ug/L       0.46268      1.1637 ppb        0.46268  39.76%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.6      1.2608 ug/L       1.46400      1.2608 ppb        1.46400 116.12%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                5.8      0.0445 ug/L       0.06255      0.0445 ppb        0.06255 140.60%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -42.2     -0.0784 ug/L       0.06333     -0.0784 ppb        0.06333  80.77%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.0      1.1672 ug/L       2.55279      1.1672 ppb        2.55279 218.71%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -6.3     -0.1907 ug/L       0.14334     -0.1907 ppb        0.14334  75.18%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -15.5     -0.1248 ug/L       0.33691     -0.1248 ppb        0.33691 269.90%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               60.7      0.7305 ug/L       0.05002      0.7305 ppb        0.05002   6.85%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     20.8      1.6700 ug/L       0.80508      1.6700 ppb        0.80508  48.21%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 3/16/2010 15:37:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4070.7	4070.7	88.7	%			15:39:32
1	Y RADIAL	5315.4	5315.4	107.7	%			15:39:12
1	Al 396.153Radial†	152.0	257.1	241.24	ug/L	241.24	ppb	15:39:32
1	Ca 317.933Radial†	138.9	128.7	227.56	ug/L	227.56	ppb	15:39:32
1	Fe 238.204 Radial†	17.6	12.0	126.03	ug/L	126.03	ppb	15:39:32
1	K 766.490 Radial†	3286.9	1148.6	219.85	ug/L	219.85	ppb	15:39:12
1	Mg 279.077 IEC†	7.4	8.3	316.42	ug/L	316.42	ppb	15:39:32
1	Na 589.592 Radial†	-19.1	783.6	274.57	ug/L	274.57	ppb	15:39:12
1	Sr 421.552†	656.5	714.1	5.4537	ug/L	5.4537	ppb	15:39:12
1	Sc 361.383	822604.4	822604.4	101.19	%			15:40:29
1	Y 371.029	694677.7	694677.7	100.76	%			15:40:29
1	Ag 328.068†	1134.4	910.5	4.6912	ug/L	4.6912	ppb	15:40:29
1	As 188.979†	30.5	47.1	26.289	ug/L	26.289	ppb	15:40:49
1	B 249.677†	1467.8	1865.9	52.182	ug/L	52.182	ppb	15:40:29
1	Ba 233.527†	571.1	551.9	5.1796	ug/L	5.1796	ppb	15:40:49
1	Be 313.107†	8161.2	11794.2	5.0462	ug/L	5.0462	ppb	15:40:29
1	Cd 226.502†	172.0	346.3	5.0177	ug/L	5.0177	ppb	15:40:49
1	Co 228.616†	153.8	191.8	4.9943	ug/L	4.9943	ppb	15:40:49
1	Cr 267.716†	456.0	371.2	4.9848	ug/L	4.9848	ppb	15:40:49
1	Cu 324.752†	8486.5	2920.5	9.6463	ug/L	9.6463	ppb	15:40:29
1	Mn 257.610†	8532.5	7881.2	10.376	ug/L	10.376	ppb	15:40:29
1	Mo 202.031†	124.0	109.7	9.6555	ug/L	9.6555	ppb	15:40:49
1	Ni 231.604†	251.8	167.4	5.3260	ug/L	5.3260	ppb	15:40:49
1	P 214.914†	390.5	202.0	150.25	ug/L	150.25	ppb	15:40:49
1	Pb 220.353†	11.7	54.3	8.4405	ug/L	8.4405	ppb	15:40:49
1	S 181.975 Axial†	83.5	52.4	93.510	ug/L	93.510	ppb	15:40:49
1	Sb 206.836†	54.7	29.6	12.604	ug/L	12.604	ppb	15:40:49
1	Se 196.026†	14.5	33.1	27.912	ug/L	27.912	ppb	15:40:49
1	Si 251.611†	3111.6	2576.8	96.854	ug/L	96.854	ppb	15:40:49
1	Sn 189.927†	58.4	49.7	11.222	ug/L	11.222	ppb	15:40:49
1	Ti 334.940†	1916.5	2981.3	5.1334	ug/L	5.1334	ppb	15:40:29
1	Tl 190.801†	36.1	67.5	26.033	ug/L	26.033	ppb	15:40:49
1	U 409.014†	-464.6	1621.9	48.957	ug/L	48.957	ppb	15:40:29
1	V 292.402†	-670.4	655.2	5.4452	ug/L	5.4452	ppb	15:40:29
1	Zn 213.857†	1684.0	1047.1	12.584	ug/L	12.584	ppb	15:40:49
1	SiO2†	3243.2	2709.7	216.74	ug/L	216.74	ppb	15:41:45
2	Sc Radial	4397.3	4397.3	95.9	%			15:39:57
2	Y RADIAL	4946.8	4946.8	100.3	%			15:39:37
2	Al 396.153Radial†	141.3	233.2	218.79	ug/L	218.79	ppb	15:39:57
2	Ca 317.933Radial†	139.5	117.7	208.10	ug/L	208.10	ppb	15:39:57
2	Fe 238.204 Radial†	20.3	13.3	139.33	ug/L	139.33	ppb	15:39:57
2	K 766.490 Radial†	3351.9	941.1	180.11	ug/L	180.11	ppb	15:39:37
2	Mg 279.077 IEC†	11.6	12.0	457.28	ug/L	457.28	ppb	15:39:57
2	Na 589.592 Radial†	-6.5	798.3	279.71	ug/L	279.71	ppb	15:39:37
2	Sr 421.552†	679.0	682.6	5.2132	ug/L	5.2132	ppb	15:39:37
2	Sc 361.383	821706.8	821706.8	101.08	%			15:40:55
2	Y 371.029	694526.9	694526.9	100.74	%			15:40:55
2	Ag 328.068†	1127.9	905.3	4.6653	ug/L	4.6653	ppb	15:40:55
2	As 188.979†	29.3	46.0	25.679	ug/L	25.679	ppb	15:41:15
2	B 249.677†	1469.9	1869.6	52.283	ug/L	52.283	ppb	15:40:55
2	Ba 233.527†	549.2	530.9	4.9826	ug/L	4.9826	ppb	15:41:15
2	Be 313.107†	8151.2	11793.2	5.0453	ug/L	5.0453	ppb	15:40:55
2	Cd 226.502†	190.8	365.1	5.2897	ug/L	5.2897	ppb	15:41:15
2	Co 228.616†	158.3	196.5	5.1146	ug/L	5.1146	ppb	15:41:15
2	Cr 267.716†	454.9	370.5	4.9759	ug/L	4.9759	ppb	15:41:15
2	Cu 324.752†	8535.0	2977.6	9.8342	ug/L	9.8342	ppb	15:40:55
2	Mn 257.610†	8491.7	7850.0	10.331	ug/L	10.331	ppb	15:40:55
2	Mo 202.031†	123.4	109.3	9.6238	ug/L	9.6238	ppb	15:41:15
2	Ni 231.604†	253.5	169.4	5.3894	ug/L	5.3894	ppb	15:41:15

2	P 214.914†	399.1	210.9	156.91 ug/L	156.91 ppb	15:41:15
2	Pb 220.353†	15.1	57.7	8.9568 ug/L	8.9568 ppb	15:41:15
2	S 181.975 Axial†	80.2	49.2	87.860 ug/L	87.860 ppb	15:41:15
2	Sb 206.836†	49.7	24.7	10.543 ug/L	10.543 ppb	15:41:15
2	Se 196.026†	15.6	34.2	28.911 ug/L	28.911 ppb	15:41:15
2	Si 251.611†	3099.6	2568.3	96.535 ug/L	96.535 ppb	15:41:15
2	Sn 189.927†	49.5	40.9	9.2463 ug/L	9.2463 ppb	15:41:15
2	Ti 334.940†	1796.4	2864.5	4.9162 ug/L	4.9162 ppb	15:40:55
2	Tl 190.801†	16.6	48.3	18.640 ug/L	18.640 ppb	15:41:15
2	U 409.014†	-358.2	1726.6	52.119 ug/L	52.119 ppb	15:40:55
2	V 292.402†	-698.3	626.9	5.2256 ug/L	5.2256 ppb	15:40:55
2	Zn 213.857†	1705.8	1070.4	12.863 ug/L	12.863 ppb	15:41:15
2	SiO2†	3200.1	2670.6	213.60 ug/L	213.60 ppb	15:41:50
3	Sc Radial	4388.6	4388.6	95.7 %		15:40:23
3	Y RADIAL	4819.5	4819.5	97.67 %		15:40:02
3	Al 396.153Radial†	140.3	232.5	218.13 ug/L	218.13 ppb	15:40:23
3	Ca 317.933Radial†	133.1	111.3	196.78 ug/L	196.78 ppb	15:40:23
3	Fe 238.204 Radial†	18.1	11.1	115.95 ug/L	115.95 ppb	15:40:23
3	K 766.490 Radial†	3408.9	1007.7	192.86 ug/L	192.86 ppb	15:40:02
3	Mg 279.077 IEC†	11.1	11.6	439.86 ug/L	439.86 ppb	15:40:23
3	Na 589.592 Radial†	-17.9	786.3	275.52 ug/L	275.52 ppb	15:40:02
3	Sr 421.552†	657.9	661.9	5.0551 ug/L	5.0551 ppb	15:40:02
3	Sc 361.383	825707.9	825707.9	101.57 %		15:41:20
3	Y 371.029	698806.2	698806.2	101.36 %		15:41:20
3	Ag 328.068†	1221.0	991.5	5.1000 ug/L	5.1000 ppb	15:41:20
3	As 188.979†	23.7	40.4	22.534 ug/L	22.534 ppb	15:41:40
3	B 249.677†	1541.7	1933.2	54.069 ug/L	54.069 ppb	15:41:20
3	Ba 233.527†	565.2	544.0	5.1044 ug/L	5.1044 ppb	15:41:40
3	Be 313.107†	8282.3	11883.1	5.0839 ug/L	5.0839 ppb	15:41:20
3	Cd 226.502†	176.9	350.5	5.0807 ug/L	5.0807 ppb	15:41:40
3	Co 228.616†	140.4	178.0	4.6356 ug/L	4.6356 ppb	15:41:40
3	Cr 267.716†	439.5	353.1	4.7399 ug/L	4.7399 ppb	15:41:40
3	Cu 324.752†	8508.3	2910.4	9.6102 ug/L	9.6102 ppb	15:41:20
3	Mn 257.610†	8608.4	7924.2	10.427 ug/L	10.427 ppb	15:41:20
3	Mo 202.031†	122.6	107.9	9.4986 ug/L	9.4986 ppb	15:41:40
3	Ni 231.604†	248.6	163.3	5.1965 ug/L	5.1965 ppb	15:41:40
3	P 214.914†	391.2	201.3	149.72 ug/L	149.72 ppb	15:41:40
3	Pb 220.353†	26.3	68.7	10.648 ug/L	10.648 ppb	15:41:40
3	S 181.975 Axial†	88.1	56.6	101.02 ug/L	101.02 ppb	15:41:40
3	Sb 206.836†	47.2	22.0	9.4692 ug/L	9.4692 ppb	15:41:40
3	Se 196.026†	20.8	39.2	33.003 ug/L	33.003 ppb	15:41:40
3	Si 251.611†	3107.1	2560.8	96.252 ug/L	96.252 ppb	15:41:40
3	Sn 189.927†	59.8	50.8	11.476 ug/L	11.476 ppb	15:41:40
3	Ti 334.940†	1853.5	2912.1	4.9980 ug/L	4.9980 ppb	15:41:20
3	Tl 190.801†	31.3	62.6	24.154 ug/L	24.154 ppb	15:41:40
3	U 409.014†	-326.6	1759.4	53.113 ug/L	53.113 ppb	15:41:20
3	V 292.402†	-703.2	625.4	5.2170 ug/L	5.2170 ppb	15:41:20
3	Zn 213.857†	1692.0	1048.7	12.606 ug/L	12.606 ppb	15:41:40
3	SiO2†	3283.7	2737.5	218.97 ug/L	218.97 ppb	15:41:55

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	823339.7	101.28	%	0.258				0.25%
Sc Radial	4285.5	93.4	%	4.06				4.34%
Y 371.029	696003.6	100.95	%	0.352				0.35%
Y RADIAL	5027.2	101.9	%	5.22				5.12%
Ag 328.068†	935.7	4.8188	ug/L	0.24384	4.8188	ppb	0.24384	5.06%
QC value within limits for Ag 328.068 Recovery = 96.38%								
Al 396.153Radial†	240.9	226.05	ug/L	13.156	226.05	ppb	13.156	5.82%
QC value within limits for Al 396.153Radial Recovery = 113.02%								
As 188.979†	44.5	24.834	ug/L	2.0149	24.834	ppb	2.0149	8.11%
QC value within limits for As 188.979 Recovery = 82.78%								
B 249.677†	1889.6	52.845	ug/L	1.0617	52.845	ppb	1.0617	2.01%
QC value within limits for B 249.677 Recovery = 105.69%								
Ba 233.527†	542.2	5.0888	ug/L	0.09939	5.0888	ppb	0.09939	1.95%
QC value within limits for Ba 233.527 Recovery = 101.78%								
Be 313.107†	11823.5	5.0585	ug/L	0.02201	5.0585	ppb	0.02201	0.44%
QC value within limits for Be 313.107 Recovery = 101.17%								
Ca 317.933Radial†	119.3	210.81	ug/L	15.573	210.81	ppb	15.573	7.39%

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   QC value within limits for Ca 317.933Radial  Recovery = 105.41%
Cd 226.502†              354.0      5.1293 ug/L       0.14236      5.1293 ppb        0.14236   2.78%
   QC value within limits for Cd 226.502  Recovery = 102.59%
Co 228.616†              188.8      4.9148 ug/L       0.24919      4.9148 ppb        0.24919   5.07%
   QC value within limits for Co 228.616  Recovery = 98.30%
Cr 267.716†              364.9      4.9002 ug/L       0.13887      4.9002 ppb        0.13887   2.83%
   QC value within limits for Cr 267.716  Recovery = 98.00%
Cu 324.752†             2936.2      9.6969 ug/L       0.12027      9.6969 ppb        0.12027   1.24%
   QC value within limits for Cu 324.752  Recovery = 96.97%
Fe 238.204 Radial†       12.1      127.10 ug/L        11.724      127.10 ppb         11.724   9.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 127.10%
K 766.490 Radial†       1032.5      197.61 ug/L        20.289      197.61 ppb         20.289  10.27%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 131.74%
Mg 279.077 IEC†          10.6      404.52 ug/L        76.789      404.52 ppb         76.789  18.98%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 134.84%
Mn 257.610†             7885.2      10.378 ug/L        0.0481      10.378 ppb         0.0481   0.46%
   QC value within limits for Mn 257.610  Recovery = 103.78%
Mo 202.031†              108.9      9.5927 ug/L       0.08297      9.5927 ppb        0.08297   0.86%
   QC value within limits for Mo 202.031  Recovery = 95.93%
Na 589.592 Radial†       789.4      276.60 ug/L         2.734      276.60 ppb          2.734   0.99%
   QC value within limits for Na 589.592 Radial  Recovery = 92.20%
Ni 231.604†              166.7      5.3040 ug/L       0.09832      5.3040 ppb        0.09832   1.85%
   QC value within limits for Ni 231.604  Recovery = 106.08%
P 214.914†               204.7      152.29 ug/L         4.005      152.29 ppb          4.005   2.63%
   QC value within limits for P 214.914  Recovery = 101.53%
Pb 220.353†               60.2      9.3486 ug/L       1.15490      9.3486 ppb        1.15490  12.35%
   QC value within limits for Pb 220.353  Recovery = 93.49%
S 181.975 Axial†          52.7      94.131 ug/L        6.6031      94.131 ppb         6.6031   7.01%
   QC value within limits for S 181.975 Axial  Recovery = 94.13%
Sb 206.836†               25.4      10.872 ug/L        1.5931      10.872 ppb         1.5931  14.65%
   QC value within limits for Sb 206.836  Recovery = 108.72%
Se 196.026†               35.5      29.942 ug/L        2.6974      29.942 ppb         2.6974   9.01%
   QC value within limits for Se 196.026  Recovery = 99.81%
Si 251.611†             2568.6      96.547 ug/L        0.3011      96.547 ppb         0.3011   0.31%
   QC value within limits for Si 251.611  Recovery = 96.55%
Sn 189.927†               47.2      10.648 ug/L        1.2205      10.648 ppb         1.2205  11.46%
   QC value within limits for Sn 189.927  Recovery = 106.48%
Sr 421.552†              686.2      5.2407 ug/L       0.20072      5.2407 ppb        0.20072   3.83%
   QC value within limits for Sr 421.552  Recovery = 104.81%
Ti 334.940†             2919.3      5.0159 ug/L       0.10973      5.0159 ppb        0.10973   2.19%
   QC value within limits for Ti 334.940  Recovery = 100.32%
Tl 190.801†               59.4      22.942 ug/L        3.8426      22.942 ppb         3.8426  16.75%
   QC value within limits for Tl 190.801  Recovery = 114.71%
U 409.014†              1702.6      51.396 ug/L        2.1699      51.396 ppb         2.1699   4.22%
   QC value within limits for U 409.014  Recovery = 102.79%
V 292.402†               635.9      5.2959 ug/L       0.12933      5.2959 ppb        0.12933   2.44%
   QC value within limits for V 292.402  Recovery = 105.92%
Zn 213.857†             1055.4      12.684 ug/L        0.1554      12.684 ppb         0.1554   1.23%
   QC value within limits for Zn 213.857  Recovery = 126.84%
SiO2†                   2705.9      216.44 ug/L         2.697      216.44 ppb          2.697   1.25%
   QC value within limits for SiO2  Recovery = 101.61%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 3/16/2010 15:44:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4059.4	4059.4	88.5	%			15:46:05
1	Y RADIAL	4338.0	4338.0	87.92	%			15:46:05
1	Al 396.153Radial†	493213.6	557467.5	524080	ug/L	524080	ppb	15:46:00
1	Ca 317.933Radial†	243383.1	275019.9	486130	ug/L	486130	ppb	15:46:00
1	Fe 238.204 Radial†	15734.4	17773.6	186220	ug/L	186220	ppb	15:46:05
1	K 766.490 Radial†	2270.9	10.6	-160.54	ug/L	-160.54	ppb	15:46:05
1	Mg 279.077 IEC†	11357.1	12834.6	488220	ug/L	488220	ppb	15:46:05
1	Na 589.592 Radial†	-749.6	-42.0	-14.728	ug/L	-14.728	ppb	15:46:05
1	Sr 421.552†	453.5	486.7	0.0882	ug/L	0.0882	ppb	15:46:05
1	Sc 361.383	701153.6	701153.6	86.250	%			15:46:32
1	Y 371.029	579484.6	579484.6	84.052	%			15:46:32
1	Ag 328.068†	-8589.0	-10168.8	-1.1942	ug/L	-1.1942	ppb	15:46:32
1	As 188.979†	-65.5	-58.9	10.673	ug/L	10.673	ppb	15:46:52
1	B 249.677†	267.8	725.9	-9.9315	ug/L	-9.9315	ppb	15:46:32
1	Ba 233.527†	-480.9	-570.1	0.3652	ug/L	0.3652	ppb	15:46:52
1	Be 313.107†	-4145.5	-1077.3	-0.5198	ug/L	-0.5198	ppb	15:46:32
1	Cd 226.502†	1065.1	1411.3	1.2236	ug/L	1.2236	ppb	15:46:52
1	Co 228.616†	4.1	44.6	-1.5256	ug/L	-1.5256	ppb	15:46:52
1	Cr 267.716†	-1197.1	-1467.4	0.0332	ug/L	0.0332	ppb	15:46:52
1	Cu 324.752†	2817.8	-2199.3	2.5558	ug/L	2.5558	ppb	15:46:32
1	Mn 257.610†	-127.7	-699.0	-2.4977	ug/L	-2.4977	ppb	15:46:32
1	Mo 202.031†	-221.8	-270.0	-3.4997	ug/L	-3.4997	ppb	15:46:52
1	Ni 231.604†	237.1	193.5	6.1602	ug/L	6.1602	ppb	15:46:52
1	P 214.914†	156.4	-2.6	-20.670	ug/L	-20.670	ppb	15:46:52
1	Pb 220.353†	-601.3	-654.3	-4.7426	ug/L	-4.7426	ppb	15:46:52
1	S 181.975 Axial†	47.4	24.8	-53.872	ug/L	-53.872	ppb	15:46:52
1	Sb 206.836†	70.2	56.9	5.6102	ug/L	5.6102	ppb	15:46:52
1	Se 196.026†	-756.1	-857.8	-9.6599	ug/L	-9.6599	ppb	15:46:52
1	Si 251.611†	414.9	-17.1	-0.3524	ug/L	-0.3524	ppb	15:46:52
1	Sn 189.927†	-338.6	-400.6	-14.520	ug/L	-14.520	ppb	15:46:52
1	Ti 334.940†	-14105.8	-15267.2	-1.0838	ug/L	-1.0838	ppb	15:46:32
1	Tl 190.801†	-57.8	-35.2	-13.825	ug/L	-13.825	ppb	15:46:52
1	U 409.014†	-691.0	1279.8	17.466	ug/L	17.466	ppb	15:46:32
1	V 292.402†	523.4	1924.5	-2.5399	ug/L	-2.5399	ppb	15:46:52
1	Zn 213.857†	2594.5	2391.0	0.9876	ug/L	0.9876	ppb	15:46:52
1	SiO2†	399.1	-32.6	-1.9632	ug/L	-1.9632	ppb	15:47:49
2	Sc Radial	4126.3	4126.3	89.9	%			15:46:15
2	Y RADIAL	4414.2	4414.2	89.46	%			15:46:15
2	Al 396.153Radial†	498476.5	554290.1	521100	ug/L	521100	ppb	15:46:10
2	Ca 317.933Radial†	245772.3	273220.9	482950	ug/L	482950	ppb	15:46:10
2	Fe 238.204 Radial†	16066.6	17854.9	187070	ug/L	187070	ppb	15:46:15
2	K 766.490 Radial†	2221.7	-85.6	-177.93	ug/L	-177.93	ppb	15:46:15
2	Mg 279.077 IEC†	11600.8	12897.6	490610	ug/L	490610	ppb	15:46:15
2	Na 589.592 Radial†	-754.2	-33.5	-11.724	ug/L	-11.724	ppb	15:46:15
2	Sr 421.552†	481.5	509.6	0.2868	ug/L	0.2868	ppb	15:46:15
2	Sc 361.383	704610.5	704610.5	86.676	%			15:46:58
2	Y 371.029	581977.8	581977.8	84.414	%			15:46:58
2	Ag 328.068†	-8594.2	-10126.0	-0.6650	ug/L	-0.6650	ppb	15:46:58
2	As 188.979†	-72.2	-66.2	6.7990	ug/L	6.7990	ppb	15:47:18
2	B 249.677†	220.5	669.7	-11.640	ug/L	-11.640	ppb	15:46:58
2	Ba 233.527†	-468.5	-553.0	0.5514	ug/L	0.5514	ppb	15:47:18
2	Be 313.107†	-4160.6	-1071.2	-0.5160	ug/L	-0.5160	ppb	15:46:58
2	Cd 226.502†	1081.8	1424.4	1.3250	ug/L	1.3250	ppb	15:47:18
2	Co 228.616†	-7.6	31.1	-1.8859	ug/L	-1.8859	ppb	15:47:18
2	Cr 267.716†	-1172.9	-1432.7	0.5909	ug/L	0.5909	ppb	15:47:18
2	Cu 324.752†	2970.8	-2038.8	3.1334	ug/L	3.1334	ppb	15:46:58
2	Mn 257.610†	-149.7	-723.6	-2.5440	ug/L	-2.5440	ppb	15:46:58
2	Mo 202.031†	-205.6	-250.0	-1.7162	ug/L	-1.7162	ppb	15:47:18
2	Ni 231.604†	222.9	175.8	5.5957	ug/L	5.5957	ppb	15:47:18

2	P 214.914†	155.7	-4.2	-23.461 ug/L	-23.461 ppb	15:47:18
2	Pb 220.353†	-651.7	-709.1	-14.023 ug/L	-14.023 ppb	15:47:18
2	S 181.975 Axial†	29.8	4.2	-90.149 ug/L	-90.149 ppb	15:47:18
2	Sb 206.836†	70.2	56.5	5.5061 ug/L	5.5061 ppb	15:47:18
2	Se 196.026†	-750.5	-847.1	0.7430 ug/L	0.7430 ppb	15:47:18
2	Si 251.611†	410.4	-24.7	-0.6584 ug/L	-0.6584 ppb	15:47:18
2	Sn 189.927†	-344.7	-405.7	-16.290 ug/L	-16.290 ppb	15:47:18
2	Ti 334.940†	-13930.6	-14984.8	-1.2171 ug/L	-1.2171 ppb	15:46:58
2	Tl 190.801†	-65.3	-43.5	-17.013 ug/L	-17.013 ppb	15:47:18
2	U 409.014†	-761.1	1202.9	15.046 ug/L	15.046 ppb	15:46:58
2	V 292.402†	553.6	1956.5	-2.3429 ug/L	-2.3429 ppb	15:47:18
2	Zn 213.857†	2599.4	2381.8	0.7526 ug/L	0.7526 ppb	15:47:18
2	SiO2†	411.3	-20.8	-1.0655 ug/L	-1.0655 ppb	15:47:54
3	Sc Radial	4128.3	4128.3	90.0 %		15:46:26
3	Y RADIAL	4429.7	4429.7	89.77 %		15:46:26
3	Al 396.153Radial†	500050.4	555770.2	522490 ug/L	522490 ppb	15:46:20
3	Ca 317.933Radial†	245872.1	273199.2	482910 ug/L	482910 ppb	15:46:20
3	Fe 238.204 Radial†	16035.6	17811.8	186620 ug/L	186620 ppb	15:46:26
3	K 766.490 Radial†	2254.9	-49.9	-171.08 ug/L	-171.08 ppb	15:46:26
3	Mg 279.077 IEC†	11564.8	12851.4	488850 ug/L	488850 ppb	15:46:26
3	Na 589.592 Radial†	-703.3	23.6	8.2545 ug/L	8.2545 ppb	15:46:26
3	Sr 421.552†	458.2	483.4	0.0867 ug/L	0.0867 ppb	15:46:26
3	Sc 361.383	699261.6	699261.6	86.018 %		15:47:23
3	Y 371.029	577938.5	577938.5	83.828 %		15:47:23
3	Ag 328.068†	-8666.3	-10285.6	-1.6232 ug/L	-1.6232 ppb	15:47:23
3	As 188.979†	-71.5	-66.1	6.7590 ug/L	6.7590 ppb	15:47:43
3	B 249.677†	127.8	563.9	-14.529 ug/L	-14.529 ppb	15:47:23
3	Ba 233.527†	-479.2	-569.6	0.3817 ug/L	0.3817 ppb	15:47:43
3	Be 313.107†	-4131.2	-1073.7	-0.5185 ug/L	-0.5185 ppb	15:47:23
3	Cd 226.502†	1046.8	1393.3	0.9205 ug/L	0.9205 ppb	15:47:43
3	Co 228.616†	19.4	62.4	-1.0660 ug/L	-1.0660 ppb	15:47:43
3	Cr 267.716†	-1192.2	-1465.5	0.1027 ug/L	0.1027 ppb	15:47:43
3	Cu 324.752†	2931.8	-2057.8	3.0478 ug/L	3.0478 ppb	15:47:23
3	Mn 257.610†	-267.2	-861.6	-2.6983 ug/L	-2.6983 ppb	15:47:23
3	Mo 202.031†	-211.5	-258.7	-2.5162 ug/L	-2.5162 ppb	15:47:43
3	Ni 231.604†	234.7	191.4	6.0924 ug/L	6.0924 ppb	15:47:43
3	P 214.914†	159.7	1.7	-18.196 ug/L	-18.196 ppb	15:47:43
3	Pb 220.353†	-629.5	-689.0	-10.546 ug/L	-10.546 ppb	15:47:43
3	S 181.975 Axial†	41.9	18.5	-64.824 ug/L	-64.824 ppb	15:47:43
3	Sb 206.836†	59.6	44.8	0.7020 ug/L	0.7020 ppb	15:47:43
3	Se 196.026†	-743.3	-845.3	1.3600 ug/L	1.3600 ppb	15:47:43
3	Si 251.611†	385.7	-49.9	-1.5965 ug/L	-1.5965 ppb	15:47:43
3	Sn 189.927†	-325.6	-386.5	-11.956 ug/L	-11.956 ppb	15:47:43
3	Ti 334.940†	-14118.4	-15326.1	-1.6671 ug/L	-1.6671 ppb	15:47:23
3	Tl 190.801†	-68.3	-47.6	-18.588 ug/L	-18.588 ppb	15:47:43
3	U 409.014†	-827.8	1118.7	12.555 ug/L	12.555 ppb	15:47:23
3	V 292.402†	503.3	1902.8	-2.7545 ug/L	-2.7545 ppb	15:47:43
3	Zn 213.857†	2577.5	2379.4	0.7873 ug/L	0.7873 ppb	15:47:43
3	SiO2†	341.0	-98.9	-7.3007 ug/L	-7.3007 ppb	15:47:59

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	701675.2	86.314	%	0.3337				0.39%
Sc Radial	4104.7	89.5	%	0.85				0.95%
Y 371.029	579800.3	84.098	%	0.2956				0.35%
Y RADIAL	4394.0	89.05	%	0.994				1.12%
Ag 328.068†	-10193.5	-1.1608	ug/L	0.48000	-1.1608	ppb	0.48000	41.35%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	555842.6	522560	ug/L	1494.7	522560	ppb	1494.7	0.29%
QC value within limits for Al 396.153Radial Recovery = 104.51%								
As 188.979†	-63.7	8.0771	ug/L	2.24859	8.0771	ppb	2.24859	27.84%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	653.2	-12.033	ug/L	2.3238	-12.033	ppb	2.3238	19.31%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-564.2	0.4328	ug/L	0.10307	0.4328	ppb	0.10307	23.82%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1074.1	-0.5181	ug/L	0.00189	-0.5181	ppb	0.00189	0.36%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	273813.3	484000	ug/L	1847.1	484000	ppb	1847.1	0.38%

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   QC value within limits for Ca 317.933Radial  Recovery = 96.80%
Cd 226.502†            1409.6      1.1564 ug/L       0.21043      1.1564 ppb        0.21043  18.20%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              46.0     -1.4925 ug/L       0.41098     -1.4925 ppb        0.41098  27.54%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†           -1455.2      0.2423 ug/L       0.30392      0.2423 ppb        0.30392 125.45%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -2098.6      2.9123 ug/L       0.31174      2.9123 ppb        0.31174  10.70%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    17813.4      186640 ug/L         426.0      186640 ppb          426.0   0.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.32%
K 766.490 Radial†       -41.6     -169.85 ug/L         8.758     -169.85 ppb          8.758   5.16%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       12861.2      489230 ug/L        1240.8      489230 ppb         1240.8   0.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.85%
Mn 257.610†            -761.4     -2.5800 ug/L       0.10501     -2.5800 ppb        0.10501   4.07%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -259.5     -2.5774 ug/L       0.89332     -2.5774 ppb        0.89332  34.66%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -17.3     -6.0657 ug/L      12.49227     -6.0657 ppb       12.49227 205.95%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             186.9      5.9494 ug/L       0.30821      5.9494 ppb        0.30821   5.18%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -1.7     -20.776 ug/L        2.6338     -20.776 ppb         2.6338  12.68%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -684.2     -9.7705 ug/L       4.68849     -9.7705 ppb        4.68849  47.99%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         15.9     -69.615 ug/L       18.6068     -69.615 ppb        18.6068  26.73%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              52.7      3.9395 ug/L       2.80419      3.9395 ppb        2.80419  71.18%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -850.1     -2.5190 ug/L       6.19192     -2.5190 ppb        6.19192 245.81%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -30.6     -0.8691 ug/L       0.64828     -0.8691 ppb        0.64828  74.59%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -397.6     -14.255 ug/L        2.1793     -14.255 ppb         2.1793  15.29%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             493.2      0.1539 ug/L       0.11514      0.1539 ppb        0.11514  74.81%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -15192.7     -1.3227 ug/L       0.30563     -1.3227 ppb        0.30563  23.11%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -42.1     -16.475 ug/L        2.4262     -16.475 ppb         2.4262  14.73%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             1200.5      15.022 ug/L        2.4556      15.022 ppb         2.4556  16.35%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             1927.9     -2.5458 ug/L       0.20585     -2.5458 ppb        0.20585   8.09%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2384.1      0.8425 ug/L       0.12684      0.8425 ppb        0.12684  15.06%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -50.8     -3.4432 ug/L       3.37079     -3.4432 ppb        3.37079  97.90%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 3/16/2010 15:50:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4113.8	4113.8	89.7	%			15:52:22
1	Y RADIAL	4411.2	4411.2	89.40	%			15:52:22
1	Al 396.153Radial†	500130.7	557817.6	524390	ug/L	524390	ppb	15:52:02
1	Ca 317.933Radial†	245814.3	274097.4	484500	ug/L	484500	ppb	15:52:02
1	Fe 238.204 Radial†	16002.2	17837.4	186900	ug/L	186900	ppb	15:52:22
1	K 766.490 Radial†	28373.2	29085.2	5407.1	ug/L	5407.1	ppb	15:52:02
1	Mg 279.077 IEC†	11688.8	13034.9	495840	ug/L	495840	ppb	15:52:22
1	Na 589.592 Radial†	13723.6	16109.3	5644.5	ug/L	5644.5	ppb	15:52:02
1	Sr 421.552†	61877.8	68978.6	523.33	ug/L	523.33	ppb	15:52:02
1	Sc 361.383	723552.7	723552.7	89.006	%			15:53:20
1	Y 371.029	596200.2	596200.2	86.476	%			15:53:20
1	Ag 328.068†	38936.2	43535.2	276.41	ug/L	276.41	ppb	15:53:20
1	As 188.979†	771.9	884.3	539.05	ug/L	539.05	ppb	15:53:40
1	B 249.677†	17133.5	19665.2	518.69	ug/L	518.69	ppb	15:53:20
1	Ba 233.527†	47013.1	52807.9	500.98	ug/L	500.98	ppb	15:53:20
1	Be 313.107†	520282.7	588279.0	252.23	ug/L	252.23	ppb	15:53:20
1	Cd 226.502†	29696.1	33540.7	467.05	ug/L	467.05	ppb	15:53:40
1	Co 228.616†	15443.6	17391.1	449.22	ug/L	449.22	ppb	15:53:40
1	Cr 267.716†	31503.2	35315.1	494.51	ug/L	494.51	ppb	15:53:20
1	Cu 324.752†	152535.2	165910.6	558.75	ug/L	558.75	ppb	15:53:20
1	Mn 257.610†	328995.0	369082.8	484.12	ug/L	484.12	ppb	15:53:20
1	Mo 202.031†	4756.8	5331.5	489.12	ug/L	489.12	ppb	15:53:40
1	Ni 231.604†	12817.5	14319.3	455.64	ug/L	455.64	ppb	15:53:40
1	P 214.914†	3157.4	3363.5	2408.0	ug/L	2408.0	ppb	15:53:40
1	Pb 220.353†	2052.9	2349.3	459.51	ug/L	459.51	ppb	15:53:40
1	S 181.975 Axial†	1359.8	1497.6	2575.7	ug/L	2575.7	ppb	15:53:40
1	Sb 206.836†	1184.2	1306.0	540.75	ug/L	540.75	ppb	15:53:40
1	Se 196.026†	1982.8	2246.6	2570.1	ug/L	2570.1	ppb	15:53:40
1	Si 251.611†	125651.0	140673.7	5288.2	ug/L	5288.2	ppb	15:53:20
1	Sn 189.927†	1622.4	1814.8	483.96	ug/L	483.96	ppb	15:53:40
1	Ti 334.940†	252426.8	284694.8	516.05	ug/L	516.05	ppb	15:53:20
1	Tl 190.801†	971.0	1122.8	435.74	ug/L	435.74	ppb	15:53:40
1	U 409.014†	14199.9	18034.9	522.31	ug/L	522.31	ppb	15:53:20
1	V 292.402†	57989.7	66470.5	520.38	ug/L	520.38	ppb	15:53:20
1	Zn 213.857†	39747.9	44040.6	500.43	ug/L	500.43	ppb	15:53:20
1	SiO2†	124317.9	139178.8	11133	ug/L	11133	ppb	15:54:38
2	Sc Radial	4132.8	4132.8	90.1	%			15:52:48
2	Y RADIAL	4431.0	4431.0	89.80	%			15:52:48
2	Al 396.153Radial†	495042.5	549610.3	516670	ug/L	516670	ppb	15:52:28
2	Ca 317.933Radial†	243710.0	270503.7	478150	ug/L	478150	ppb	15:52:28
2	Fe 238.204 Radial†	16008.2	17762.1	186110	ug/L	186110	ppb	15:52:48
2	K 766.490 Radial†	28106.3	28643.8	5324.7	ug/L	5324.7	ppb	15:52:28
2	Mg 279.077 IEC†	11675.1	12960.0	492990	ug/L	492990	ppb	15:52:48
2	Na 589.592 Radial†	13440.4	15724.7	5509.7	ug/L	5509.7	ppb	15:52:28
2	Sr 421.552†	61153.5	67858.0	514.82	ug/L	514.82	ppb	15:52:28
2	Sc 361.383	713071.2	713071.2	87.716	%			15:53:46
2	Y 371.029	587827.1	587827.1	85.262	%			15:53:46
2	Ag 328.068†	38221.8	43363.7	275.37	ug/L	275.37	ppb	15:53:46
2	As 188.979†	735.7	855.8	522.97	ug/L	522.97	ppb	15:54:06
2	B 249.677†	16846.4	19620.9	517.57	ug/L	517.57	ppb	15:53:46
2	Ba 233.527†	46300.1	52771.5	500.62	ug/L	500.62	ppb	15:53:46
2	Be 313.107†	511474.6	586829.8	251.61	ug/L	251.61	ppb	15:53:46
2	Cd 226.502†	29407.5	33702.0	469.48	ug/L	469.48	ppb	15:54:06
2	Co 228.616†	15349.2	17538.5	453.07	ug/L	453.07	ppb	15:54:06
2	Cr 267.716†	31148.5	35431.0	495.98	ug/L	495.98	ppb	15:53:46
2	Cu 324.752†	149743.6	165247.2	556.52	ug/L	556.52	ppb	15:53:46
2	Mn 257.610†	323911.4	368720.5	483.68	ug/L	483.68	ppb	15:53:46
2	Mo 202.031†	4739.2	5390.0	494.13	ug/L	494.13	ppb	15:54:06
2	Ni 231.604†	12709.9	14408.4	458.47	ug/L	458.47	ppb	15:54:06

2	P 214.914†	3110.6	3362.2	2406.2 ug/L	2406.2 ppb	15:54:06
2	Pb 220.353†	2050.4	2380.3	462.63 ug/L	462.63 ppb	15:54:06
2	S 181.975 Axial†	1349.0	1507.8	2595.3 ug/L	2595.3 ppb	15:54:06
2	Sb 206.836†	1192.3	1334.8	553.06 ug/L	553.06 ppb	15:54:06
2	Se 196.026†	1938.7	2228.9	2550.8 ug/L	2550.8 ppb	15:54:06
2	Si 251.611†	123706.8	140532.3	5282.8 ug/L	5282.8 ppb	15:53:46
2	Sn 189.927†	1609.8	1827.3	485.69 ug/L	485.69 ppb	15:54:06
2	Ti 334.940†	248631.7	284537.0	515.16 ug/L	515.16 ppb	15:53:46
2	Tl 190.801†	966.6	1133.8	439.95 ug/L	439.95 ppb	15:54:06
2	U 409.014†	13890.1	17916.2	518.81 ug/L	518.81 ppb	15:53:46
2	V 292.402†	57029.9	66334.0	519.41 ug/L	519.41 ppb	15:53:46
2	Zn 213.857†	39034.8	43884.0	498.64 ug/L	498.64 ppb	15:53:46
2	SiO2†	123611.3	140426.3	11233 ug/L	11233 ppb	15:54:43
3	Sc Radial	4150.5	4150.5	90.5 %		15:53:13
3	Y RADIAL	4446.2	4446.2	90.11 %		15:53:13
3	Al 396.153Radial†	501050.0	553895.4	520700 ug/L	520700 ppb	15:52:53
3	Ca 317.933Radial†	246195.4	272091.5	480950 ug/L	480950 ppb	15:52:53
3	Fe 238.204 Radial†	16100.8	17788.3	186390 ug/L	186390 ppb	15:53:13
3	K 766.490 Radial†	28150.7	28559.2	5307.6 ug/L	5307.6 ppb	15:52:53
3	Mg 279.077 IEC†	11765.7	13004.5	494690 ug/L	494690 ppb	15:53:13
3	Na 589.592 Radial†	13514.0	15742.1	5515.8 ug/L	5515.8 ppb	15:52:53
3	Sr 421.552†	61699.8	68170.9	517.19 ug/L	517.19 ppb	15:52:53
3	Sc 361.383	714565.0	714565.0	87.900 %		15:54:12
3	Y 371.029	588870.0	588870.0	85.413 %		15:54:12
3	Ag 328.068†	38539.5	43634.1	276.80 ug/L	276.80 ppb	15:54:12
3	As 188.979†	748.5	868.5	530.14 ug/L	530.14 ppb	15:54:32
3	B 249.677†	17009.4	19766.2	521.59 ug/L	521.59 ppb	15:54:12
3	Ba 233.527†	46267.4	52623.8	499.24 ug/L	499.24 ppb	15:54:12
3	Be 313.107†	512413.5	586678.9	251.55 ug/L	251.55 ppb	15:54:12
3	Cd 226.502†	29599.2	33850.0	471.59 ug/L	471.59 ppb	15:54:32
3	Co 228.616†	15446.3	17612.3	454.99 ug/L	454.99 ppb	15:54:32
3	Cr 267.716†	31047.0	35241.2	493.46 ug/L	493.46 ppb	15:54:12
3	Cu 324.752†	150554.5	165812.8	558.40 ug/L	558.40 ppb	15:54:12
3	Mn 257.610†	324431.5	368540.2	483.40 ug/L	483.40 ppb	15:54:12
3	Mo 202.031†	4765.6	5408.8	495.83 ug/L	495.83 ppb	15:54:32
3	Ni 231.604†	12832.1	14517.1	461.93 ug/L	461.93 ppb	15:54:32
3	P 214.914†	3154.4	3404.7	2438.5 ug/L	2438.5 ppb	15:54:32
3	Pb 220.353†	2051.7	2376.9	463.01 ug/L	463.01 ppb	15:54:32
3	S 181.975 Axial†	1362.2	1519.5	2615.5 ug/L	2615.5 ppb	15:54:32
3	Sb 206.836†	1195.1	1335.1	553.14 ug/L	553.14 ppb	15:54:32
3	Se 196.026†	1972.7	2263.0	2581.1 ug/L	2581.1 ppb	15:54:32
3	Si 251.611†	123907.2	140465.4	5280.3 ug/L	5280.3 ppb	15:54:12
3	Sn 189.927†	1617.9	1832.6	487.36 ug/L	487.36 ppb	15:54:32
3	Ti 334.940†	248943.8	284299.5	514.99 ug/L	514.99 ppb	15:54:12
3	Tl 190.801†	982.7	1149.8	446.09 ug/L	446.09 ppb	15:54:32
3	U 409.014†	14010.4	18020.0	521.92 ug/L	521.92 ppb	15:54:12
3	V 292.402†	57099.1	66276.8	518.98 ug/L	518.98 ppb	15:54:12
3	Zn 213.857†	39095.8	43860.5	498.29 ug/L	498.29 ppb	15:54:12
3	SiO2†	123775.4	140318.4	11224 ug/L	11224 ppb	15:54:48

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	717062.9	88.207	%	0.6974				0.79%
Sc Radial	4132.4	90.1	%	0.40				0.44%
Y 371.029	590965.8	85.717	%	0.6618				0.77%
Y RADIAL	4429.5	89.77	%	0.355				0.40%
Ag 328.068†	43511.0	276.19	ug/L	0.739	276.19	ppb	0.739	0.27%
QC value within limits for Ag 328.068 Recovery = 110.48%								
Al 396.153Radial†	553774.4	520590	ug/L	3859.3	520590	ppb	3859.3	0.74%
QC value within limits for Al 396.153Radial Recovery = 104.12%								
As 188.979†	869.5	530.72	ug/L	8.056	530.72	ppb	8.056	1.52%
QC value within limits for As 188.979 Recovery = 106.14%								
B 249.677†	19684.1	519.28	ug/L	2.072	519.28	ppb	2.072	0.40%
QC value within limits for B 249.677 Recovery = 103.86%								
Ba 233.527†	52734.4	500.28	ug/L	0.918	500.28	ppb	0.918	0.18%
QC value within limits for Ba 233.527 Recovery = 100.06%								
Be 313.107†	587262.6	251.80	ug/L	0.378	251.80	ppb	0.378	0.15%
QC value within limits for Be 313.107 Recovery = 100.72%								
Ca 317.933Radial†	272230.8	481200	ug/L	3183.3	481200	ppb	3183.3	0.66%

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   QC value within limits for Ca 317.933Radial  Recovery = 96.24%
Cd 226.502†            33697.6      469.37 ug/L         2.271      469.37 ppb          2.271   0.48%
   QC value within limits for Cd 226.502  Recovery = 93.87%
Co 228.616†            17514.0      452.43 ug/L         2.940      452.43 ppb          2.940   0.65%
   QC value within limits for Co 228.616  Recovery = 90.49%
Cr 267.716†            35329.1      494.65 ug/L         1.266      494.65 ppb          1.266   0.26%
   QC value within limits for Cr 267.716  Recovery = 98.93%
Cu 324.752†           165656.9      557.89 ug/L         1.202      557.89 ppb          1.202   0.22%
   QC value within limits for Cu 324.752  Recovery = 111.58%
Fe 238.204 Radial†     17795.9      186470 ug/L         400.1      186470 ppb          400.1   0.21%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.23%
K 766.490 Radial†      28762.7      5346.5 ug/L         53.22      5346.5 ppb          53.22   1.00%
   QC value within limits for K 766.490 Radial  Recovery = 106.93%
Mg 279.077 IEC†        12999.8      494510 ug/L        1434.3      494510 ppb         1434.3   0.29%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.90%
Mn 257.610†           368781.2      483.73 ug/L         0.362      483.73 ppb          0.362   0.07%
   QC value within limits for Mn 257.610  Recovery = 96.75%
Mo 202.031†             5376.8      493.03 ug/L         3.489      493.03 ppb          3.489   0.71%
   QC value within limits for Mo 202.031  Recovery = 98.61%
Na 589.592 Radial†     15858.7      5556.7 ug/L         76.10      5556.7 ppb          76.10   1.37%
   QC value within limits for Na 589.592 Radial  Recovery = 111.13%
Ni 231.604†            14414.9      458.68 ug/L         3.152      458.68 ppb          3.152   0.69%
   QC value within limits for Ni 231.604  Recovery = 91.74%
P 214.914†              3376.8      2417.6 ug/L         18.21      2417.6 ppb          18.21   0.75%
   QC value within limits for P 214.914  Recovery = 96.70%
Pb 220.353†             2368.8      461.71 ug/L         1.917      461.71 ppb          1.917   0.42%
   QC value within limits for Pb 220.353  Recovery = 92.34%
S 181.975 Axial†        1508.3      2595.5 ug/L         19.90      2595.5 ppb          19.90   0.77%
   QC value within limits for S 181.975 Axial  Recovery = 103.82%
Sb 206.836†             1325.3      548.98 ug/L         7.131      548.98 ppb          7.131   1.30%
   QC value within limits for Sb 206.836  Recovery = 109.80%
Se 196.026†             2246.2      2567.3 ug/L         15.38      2567.3 ppb          15.38   0.60%
   QC value within limits for Se 196.026  Recovery = 102.69%
Si 251.611†           140557.2      5283.8 ug/L          4.05      5283.8 ppb           4.05   0.08%
   QC value within limits for Si 251.611  Recovery = 105.68%
Sn 189.927†             1824.9      485.67 ug/L         1.700      485.67 ppb          1.700   0.35%
   QC value within limits for Sn 189.927  Recovery = 97.13%
Sr 421.552†            68335.9      518.45 ug/L         4.394      518.45 ppb          4.394   0.85%
   QC value within limits for Sr 421.552  Recovery = 103.69%
Ti 334.940†           284510.4      515.40 ug/L         0.571      515.40 ppb          0.571   0.11%
   QC value within limits for Ti 334.940  Recovery = 103.08%
Tl 190.801†             1135.4      440.59 ug/L         5.206      440.59 ppb          5.206   1.18%
   QC value within limits for Tl 190.801  Recovery = 88.12%
U 409.014†             17990.4      521.01 ug/L         1.917      521.01 ppb          1.917   0.37%
   QC value within limits for U 409.014  Recovery = 104.20%
V 292.402†             66360.5      519.59 ug/L         0.716      519.59 ppb          0.716   0.14%
   QC value within limits for V 292.402  Recovery = 103.92%
Zn 213.857†            43928.4      499.12 ug/L         1.147      499.12 ppb          1.147   0.23%
   QC value within limits for Zn 213.857  Recovery = 99.82%
SiO2†                 139974.5       11197 ug/L          55.3       11197 ppb           55.3   0.49%
   QC value within limits for SiO2  Recovery = 104.69%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 3/16/2010 15:56:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3922.8	3922.8	85.5	%			15:59:11
1	Y RADIAL	4231.7	4231.7	85.76	%			15:59:11
1	Al 396.153Radial†	468774.9	548301.6	515470	ug/L	515470	ppb	15:58:51
1	Ca 317.933Radial†	231360.2	270539.8	478210	ug/L	478210	ppb	15:58:51
1	Fe 238.204 Radial†	34873.2	40775.2	427220	ug/L	427220	ppb	15:59:11
1	K 766.490 Radial†	2564.1	442.9	-279.20	ug/L	-279.20	ppb	15:58:51
1	Mg 279.077 IEC†	11042.3	12913.5	490970	ug/L	490970	ppb	15:59:11
1	Na 589.592 Radial†	1276475.4	1493598.3	523340	ug/L	523340	ppb	15:58:51
1	Sr 421.552†	1438.8	1656.9	9.0869	ug/L	9.0869	ppb	15:59:11
1	Sc 361.383	686146.2	686146.2	84.404	%			16:00:09
1	Y 371.029	568220.1	568220.1	82.418	%			16:00:09
1	Ag 328.068†	-19678.6	-23525.3	-7.4421	ug/L	-7.4421	ppb	16:00:09
1	As 188.979†	-166.1	-179.7	-0.0348	ug/L	-0.0348	ppb	16:00:29
1	B 249.677†	1032.0	1638.0	-23.558	ug/L	-23.558	ppb	16:00:09
1	Ba 233.527†	-1344.6	-1605.6	-1.9760	ug/L	-1.9760	ppb	16:00:29
1	Be 313.107†	-9786.5	-7865.8	-3.4088	ug/L	-3.4088	ppb	16:00:09
1	Cd 226.502†	2628.4	3290.4	6.5010	ug/L	6.5010	ppb	16:00:29
1	Co 228.616†	199.4	276.1	0.9499	ug/L	0.9499	ppb	16:00:29
1	Cr 267.716†	-931.7	-1183.3	23.396	ug/L	23.396	ppb	16:00:29
1	Cu 324.752†	527.7	-4841.1	-1.8030	ug/L	-1.8030	ppb	16:00:09
1	Mn 257.610†	-19426.7	-23567.2	-8.9271	ug/L	-8.9271	ppb	16:00:09
1	Mo 202.031†	-397.2	-483.5	-3.6599	ug/L	-3.6599	ppb	16:00:29
1	Ni 231.604†	230.8	192.0	6.1091	ug/L	6.1091	ppb	16:00:29
1	P 214.914†	454.8	354.9	53.977	ug/L	53.977	ppb	16:00:29
1	Pb 220.353†	-451.0	-491.5	-15.975	ug/L	-15.975	ppb	16:00:29
1	S 181.975 Axial†	51.3	30.6	-42.030	ug/L	-42.030	ppb	16:00:29
1	Sb 206.836†	74.3	63.5	5.4190	ug/L	5.4190	ppb	16:00:29
1	Se 196.026†	-1748.4	-2052.7	-311.18	ug/L	-311.18	ppb	16:00:29
1	Si 251.611†	-433.1	-1011.3	-37.536	ug/L	-37.536	ppb	16:00:29
1	Sn 189.927†	-353.1	-426.4	-35.570	ug/L	-35.570	ppb	16:00:29
1	Ti 334.940†	-11921.1	-13036.5	-5.1774	ug/L	-5.1774	ppb	16:00:09
1	Tl 190.801†	-90.7	-75.7	-29.562	ug/L	-29.562	ppb	16:00:29
1	U 409.014†	421878.6	501912.1	15110	ug/L	15110	ppb	16:00:09
1	V 292.402†	1274.4	2827.6	-1.7007	ug/L	-1.7007	ppb	16:00:29
1	Zn 213.857†	4556.7	4781.5	-6.1854	ug/L	-6.1854	ppb	16:00:29
1	SiO2†	-481.0	-1065.2	-84.148	ug/L	-84.148	ppb	16:01:26
2	Sc Radial	3913.6	3913.6	85.3	%			15:59:37
2	Y RADIAL	4227.4	4227.4	85.67	%			15:59:37
2	Al 396.153Radial†	478777.1	561312.9	527700	ug/L	527700	ppb	15:59:17
2	Ca 317.933Radial†	235551.9	276088.3	488020	ug/L	488020	ppb	15:59:17
2	Fe 238.204 Radial†	34813.1	40800.4	427480	ug/L	427480	ppb	15:59:37
2	K 766.490 Radial†	2442.1	306.9	-313.04	ug/L	-313.04	ppb	15:59:17
2	Mg 279.077 IEC†	11023.1	12921.4	491270	ug/L	491270	ppb	15:59:37
2	Na 589.592 Radial†	1301627.0	1526584.6	534890	ug/L	534890	ppb	15:59:17
2	Sr 421.552†	1446.6	1670.0	9.1135	ug/L	9.1135	ppb	15:59:37
2	Sc 361.383	683895.2	683895.2	84.127	%			16:00:35
2	Y 371.029	566721.5	566721.5	82.201	%			16:00:35
2	Ag 328.068†	-19570.4	-23473.5	-7.2435	ug/L	-7.2435	ppb	16:00:35
2	As 188.979†	-151.6	-163.2	9.2306	ug/L	9.2306	ppb	16:00:55
2	B 249.677†	1100.8	1723.8	-21.200	ug/L	-21.200	ppb	16:00:35
2	Ba 233.527†	-1333.6	-1597.7	-1.8919	ug/L	-1.8919	ppb	16:00:55
2	Be 313.107†	-9893.9	-8031.6	-3.4794	ug/L	-3.4794	ppb	16:00:35
2	Cd 226.502†	2689.6	3373.4	7.6819	ug/L	7.6819	ppb	16:00:55
2	Co 228.616†	200.4	278.0	0.9926	ug/L	0.9926	ppb	16:00:55
2	Cr 267.716†	-1028.3	-1301.9	21.824	ug/L	21.824	ppb	16:00:55
2	Cu 324.752†	512.5	-4857.0	-1.8553	ug/L	-1.8553	ppb	16:00:35
2	Mn 257.610†	-19247.4	-23429.9	-8.7323	ug/L	-8.7323	ppb	16:00:35
2	Mo 202.031†	-415.7	-506.9	-5.5887	ug/L	-5.5887	ppb	16:00:55
2	Ni 231.604†	237.7	201.1	6.3985	ug/L	6.3985	ppb	16:00:55

2	P 214.914†	466.8	371.0	68.984 ug/L	68.984 ppb	16:00:55
2	Pb 220.353†	-456.7	-500.1	-14.501 ug/L	-14.501 ppb	16:00:55
2	S 181.975 Axial†	48.3	27.2	-50.248 ug/L	-50.248 ppb	16:00:55
2	Sb 206.836†	71.2	60.1	3.7022 ug/L	3.7022 ppb	16:00:55
2	Se 196.026†	-1760.9	-2074.3	-324.47 ug/L	-324.47 ppb	16:00:55
2	Si 251.611†	-437.4	-1018.1	-37.767 ug/L	-37.767 ppb	16:00:55
2	Sn 189.927†	-335.3	-406.5	-29.369 ug/L	-29.369 ppb	16:00:55
2	Ti 334.940†	-11859.0	-13009.2	-3.8494 ug/L	-3.8494 ppb	16:00:35
2	Tl 190.801†	-94.0	-79.9	-31.181 ug/L	-31.181 ppb	16:00:55
2	U 409.014†	421181.3	502728.4	15134 ug/L	15134 ppb	16:00:35
2	V 292.402†	1378.6	2956.4	-0.6859 ug/L	-0.6859 ppb	16:00:55
2	Zn 213.857†	4565.9	4810.2	-5.8803 ug/L	-5.8803 ppb	16:00:55
2	SiO2†	-530.0	-1125.3	-88.902 ug/L	-88.902 ppb	16:01:31
3	Sc Radial	3934.9	3934.9	85.8 %		16:00:02
3	Y RADIAL	4243.0	4243.0	85.99 %		16:00:02
3	Al 396.153Radial†	471581.4	549891.2	516960 ug/L	516960 ppb	15:59:42
3	Ca 317.933Radial†	232060.8	270526.2	478190 ug/L	478190 ppb	15:59:42
3	Fe 238.204 Radial†	34802.3	40567.3	425040 ug/L	425040 ppb	16:00:02
3	K 766.490 Radial†	2414.6	259.3	-313.37 ug/L	-313.37 ppb	15:59:42
3	Mg 279.077 IEC†	11031.6	12861.4	488990 ug/L	488990 ppb	16:00:02
3	Na 589.592 Radial†	1274215.8	1486382.7	520810 ug/L	520810 ppb	15:59:42
3	Sr 421.552†	1441.7	1655.0	9.0728 ug/L	9.0728 ppb	16:00:02
3	Sc 361.383	682833.4	682833.4	83.997 %		16:01:01
3	Y 371.029	564299.4	564299.4	81.849 %		16:01:01
3	Ag 328.068†	-19690.6	-23652.6	-8.7741 ug/L	-8.7741 ppb	16:01:01
3	As 188.979†	-144.4	-154.8	13.296 ug/L	13.296 ppb	16:01:21
3	B 249.677†	1089.9	1712.9	-21.111 ug/L	-21.111 ppb	16:01:01
3	Ba 233.527†	-1307.1	-1568.7	-1.6963 ug/L	-1.6963 ppb	16:01:21
3	Be 313.107†	-9909.8	-8068.8	-3.4953 ug/L	-3.4953 ppb	16:01:01
3	Cd 226.502†	2670.2	3355.2	7.6673 ug/L	7.6673 ppb	16:01:21
3	Co 228.616†	203.9	282.6	1.1537 ug/L	1.1537 ppb	16:01:21
3	Cr 267.716†	-951.6	-1212.4	22.772 ug/L	22.772 ppb	16:01:21
3	Cu 324.752†	491.5	-4881.1	-2.0545 ug/L	-2.0545 ppb	16:01:01
3	Mn 257.610†	-19018.4	-23192.8	-8.5682 ug/L	-8.5682 ppb	16:01:01
3	Mo 202.031†	-381.0	-466.4	-2.3311 ug/L	-2.3311 ppb	16:01:21
3	Ni 231.604†	247.1	212.8	6.7712 ug/L	6.7712 ppb	16:01:21
3	P 214.914†	485.1	393.6	85.316 ug/L	85.316 ppb	16:01:21
3	Pb 220.353†	-445.3	-487.3	-14.687 ug/L	-14.687 ppb	16:01:21
3	S 181.975 Axial†	52.2	32.0	-39.746 ug/L	-39.746 ppb	16:01:21
3	Sb 206.836†	29.6	10.8	-16.341 ug/L	-16.341 ppb	16:01:21
3	Se 196.026†	-1766.1	-2083.8	-342.73 ug/L	-342.73 ppb	16:01:21
3	Si 251.611†	-465.3	-1052.2	-39.091 ug/L	-39.091 ppb	16:01:21
3	Sn 189.927†	-336.7	-408.9	-31.508 ug/L	-31.508 ppb	16:01:21
3	Ti 334.940†	-11840.0	-13008.4	-4.9730 ug/L	-4.9730 ppb	16:01:01
3	Tl 190.801†	-93.6	-79.6	-31.053 ug/L	-31.053 ppb	16:01:21
3	U 409.014†	420026.3	502131.9	15117 ug/L	15117 ppb	16:01:01
3	V 292.402†	1280.7	2842.4	-1.2694 ug/L	-1.2694 ppb	16:01:21
3	Zn 213.857†	4619.9	4883.0	-4.6373 ug/L	-4.6373 ppb	16:01:21
3	SiO2†	-441.0	-1020.4	-80.596 ug/L	-80.596 ppb	16:01:36

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	684291.6	84.176	%	0.2081				0.25%
Sc Radial	3923.8	85.5	%	0.23				0.27%
Y 371.029	566413.7	82.156	%	0.2870				0.35%
Y RADIAL	4234.0	85.81	%	0.163				0.19%
Ag 328.068†	-23550.5	-7.8199	ug/L	0.83230	-7.8199	ppb	0.83230	10.64%
Al 396.153Radial†	553168.6	520040	ug/L	6672.9	520040	ppb	6672.9	1.28%
QC value within limits for Al 396.153Radial Recovery = 104.01%								
As 188.979†	-165.9	7.4972	ug/L	6.83226	7.4972	ppb	6.83226	91.13%
B 249.677†	1691.6	-21.956	ug/L	1.3880	-21.956	ppb	1.3880	6.32%
Ba 233.527†	-1590.7	-1.8547	ug/L	0.14349	-1.8547	ppb	0.14349	7.74%
Be 313.107†	-7988.7	-3.4612	ug/L	0.04606	-3.4612	ppb	0.04606	1.33%
Ca 317.933Radial†	272384.8	481470	ug/L	5669.3	481470	ppb	5669.3	1.18%
QC value within limits for Ca 317.933Radial Recovery = 96.29%								
Cd 226.502†	3339.7	7.2834	ug/L	0.67762	7.2834	ppb	0.67762	9.30%
Co 228.616†	278.9	1.0321	ug/L	0.10750	1.0321	ppb	0.10750	10.42%
Cr 267.716†	-1232.6	22.664	ug/L	0.7917	22.664	ppb	0.7917	3.49%
Cu 324.752†	-4859.7	-1.9043	ug/L	0.13273	-1.9043	ppb	0.13273	6.97%

Fe 238.204 Radial†	40714.3	426580	ug/L	1340.5	426580	ppb	1340.5	0.31%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 85.32%								
K 766.490 Radial†	336.4	-301.87	ug/L	19.633	-301.87	ppb	19.633	6.50%
Mg 279.077 IEC†	12898.8	490410	ug/L	1238.0	490410	ppb	1238.0	0.25%
QC value within limits for Mg 279.077 IEC Recovery = 98.08%								
Mn 257.610†	-23396.6	-8.7425	ug/L	0.17965	-8.7425	ppb	0.17965	2.05%
Mo 202.031†	-485.6	-3.8599	ug/L	1.63798	-3.8599	ppb	1.63798	42.44%
Na 589.592 Radial†	1502188.5	526350	ug/L	7510.0	526350	ppb	7510.0	1.43%
QC value within limits for Na 589.592 Radial Recovery = 105.27%								
Ni 231.604†	202.0	6.4263	ug/L	0.33194	6.4263	ppb	0.33194	5.17%
P 214.914†	373.2	69.426	ug/L	15.6744	69.426	ppb	15.6744	22.58%
Pb 220.353†	-493.0	-15.054	ug/L	0.8027	-15.054	ppb	0.8027	5.33%
S 181.975 Axial†	29.9	-44.008	ug/L	5.5234	-44.008	ppb	5.5234	12.55%
Sb 206.836†	44.8	-2.4067	ug/L	12.09823	-2.4067	ppb	12.09823	502.69%
Se 196.026†	-2070.3	-326.13	ug/L	15.841	-326.13	ppb	15.841	4.86%
Si 251.611†	-1027.2	-38.132	ug/L	0.8388	-38.132	ppb	0.8388	2.20%
Sn 189.927†	-413.9	-32.149	ug/L	3.1499	-32.149	ppb	3.1499	9.80%
Sr 421.552†	1660.6	9.0911	ug/L	0.02065	9.0911	ppb	0.02065	0.23%
Ti 334.940†	-13018.1	-4.6666	ug/L	0.71504	-4.6666	ppb	0.71504	15.32%
Tl 190.801†	-78.4	-30.599	ug/L	0.9002	-30.599	ppb	0.9002	2.94%
U 409.014†	502257.5	15120	ug/L	12.7	15120	ppb	12.7	0.08%
QC value within limits for U 409.014 Recovery = 100.80%								
V 292.402†	2875.5	-1.2187	ug/L	0.50933	-1.2187	ppb	0.50933	41.79%
Zn 213.857†	4824.9	-5.5677	ug/L	0.82002	-5.5677	ppb	0.82002	14.73%
SiO2†	-1070.3	-84.549	ug/L	4.1674	-84.549	ppb	4.1674	4.93%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 3/16/2010 16:03:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4480.9	4480.9	97.7	%			16:05:44
1	Y RADIAL	4757.3	4757.3	96.41	%			16:05:44
1	Al 396.153Radial†	418.0	513.8	11.798	ug/L	11.798	ppb	16:05:44
1	Ca 317.933Radial†	32.6	5.5	9.7331	ug/L	9.7331	ppb	16:06:04
1	Fe 238.204 Radial†	-18.8	-27.1	10.466	ug/L	10.466	ppb	16:06:04
1	K 766.490 Radial†	1523862.7	1557593.0	298390	ug/L	298390	ppb	16:05:39
1	Mg 279.077 IEC†	-2.8	-3.0	-11.281	ug/L	-11.281	ppb	16:06:04
1	Na 589.592 Radial†	-265.3	533.4	186.91	ug/L	186.91	ppb	16:05:44
1	Sr 421.552†	1244641.7	1274253.1	9734.4	ug/L	9734.4	ppb	16:05:39
1	Sc 361.383	781308.1	781308.1	96.110	%			16:07:22
1	Y 371.029	644485.3	644485.3	93.480	%			16:07:22
1	Ag 328.068†	-6474.4	-6947.1	5.6652	ug/L	5.6652	ppb	16:07:27
1	As 188.979†	17196.3	17909.3	10029	ug/L	10029	ppb	16:07:27
1	B 249.677†	174931.1	182426.1	5077.1	ug/L	5077.1	ppb	16:07:22
1	Ba 233.527†	1434600.3	1492647.9	13989	ug/L	13989	ppb	16:07:22
1	Be 313.107†	6571188.8	6840862.3	2942.6	ug/L	2942.6	ppb	16:07:15
1	Cd 226.502†	655948.6	682672.1	9897.5	ug/L	9897.5	ppb	16:07:22
1	Co 228.616†	364291.3	379074.5	9846.2	ug/L	9846.2	ppb	16:07:22
1	Cr 267.716†	1763290.5	1834573.6	24647	ug/L	24647	ppb	16:07:22
1	Cu 324.752†	5912643.8	6146469.8	20345	ug/L	20345	ppb	16:07:15
1	Mn 257.610†	6971470.1	7253063.6	9549.5	ug/L	9549.5	ppb	16:07:15
1	Mo 202.031†	106203.8	110489.2	9716.3	ug/L	9716.3	ppb	16:07:27
1	Ni 231.604†	305183.5	317453.3	10101	ug/L	10101	ppb	16:07:22
1	P 214.914†	23223.9	23979.8	14114	ug/L	14114	ppb	16:07:27
1	Pb 220.353†	153613.7	159873.5	24678	ug/L	24678	ppb	16:07:22
1	S 181.975 Axial†	27836.6	28933.0	51660	ug/L	51660	ppb	16:07:27
1	Sb 206.836†	24144.9	25097.6	10754	ug/L	10754	ppb	16:07:27
1	Se 196.026†	11645.7	12135.8	10100	ug/L	10100	ppb	16:07:27
1	Si 251.611†	1221809.2	1270759.2	47703	ug/L	47703	ppb	16:07:22
1	Sn 189.927†	43557.6	45312.4	10202	ug/L	10202	ppb	16:07:27
1	Ti 334.940†	5509498.8	5733562.6	9899.5	ug/L	9899.5	ppb	16:07:15
1	Tl 190.801†	24057.4	25062.8	9715.5	ug/L	9715.5	ppb	16:07:27
1	U 409.014†	-1186.7	846.3	-29.533	ug/L	-29.533	ppb	16:07:22
1	V 292.402†	1231447.4	1282603.3	10365	ug/L	10365	ppb	16:07:22
1	Zn 213.857†	1142518.8	1188140.9	14262	ug/L	14262	ppb	16:07:22
1	SiO2†	1205104.6	1253381.5	100110	ug/L	100110	ppb	16:08:13
2	Sc Radial	4458.1	4458.1	97.2	%			16:06:15
2	Y RADIAL	4769.3	4769.3	96.66	%			16:06:15
2	Al 396.153Radial†	397.9	495.2	-4.7881	ug/L	-4.7881	ppb	16:06:15
2	Ca 317.933Radial†	34.3	7.5	13.202	ug/L	13.202	ppb	16:06:35
2	Fe 238.204 Radial†	-15.6	-23.9	43.560	ug/L	43.560	ppb	16:06:35
2	K 766.490 Radial†	1518865.6	1560426.0	298930	ug/L	298930	ppb	16:06:10
2	Mg 279.077 IEC†	-5.6	-5.9	-121.21	ug/L	-121.21	ppb	16:06:35
2	Na 589.592 Radial†	-271.0	526.3	184.40	ug/L	184.40	ppb	16:06:15
2	Sr 421.552†	1237766.6	1273692.3	9730.1	ug/L	9730.1	ppb	16:06:10
2	Sc 361.383	779036.4	779036.4	95.831	%			16:07:42
2	Y 371.029	642700.6	642700.6	93.221	%			16:07:42
2	Ag 328.068†	-6377.4	-6865.4	6.0514	ug/L	6.0514	ppb	16:07:47
2	As 188.979†	17149.9	17913.1	10031	ug/L	10031	ppb	16:07:47
2	B 249.677†	174494.8	182501.6	5079.3	ug/L	5079.3	ppb	16:07:42
2	Ba 233.527†	1429098.3	1491259.2	13976	ug/L	13976	ppb	16:07:42
2	Be 313.107†	6499500.1	6785992.0	2919.1	ug/L	2919.1	ppb	16:07:35
2	Cd 226.502†	653425.8	682029.7	9888.2	ug/L	9888.2	ppb	16:07:42
2	Co 228.616†	362857.0	378683.1	9836.1	ug/L	9836.1	ppb	16:07:42
2	Cr 267.716†	1756841.4	1833193.9	24628	ug/L	24628	ppb	16:07:42
2	Cu 324.752†	5855774.6	6105065.8	20208	ug/L	20208	ppb	16:07:35
2	Mn 257.610†	6913450.6	7213671.6	9497.7	ug/L	9497.7	ppb	16:07:35
2	Mo 202.031†	105707.9	110293.9	9699.1	ug/L	9699.1	ppb	16:07:47
2	Ni 231.604†	303925.4	317066.3	10089	ug/L	10089	ppb	16:07:42

2	P 214.914†	23072.0	23891.8	14074	ug/L	14074 ppb	16:07:47
2	Pb 220.353†	153016.7	159716.5	24654	ug/L	24654 ppb	16:07:42
2	S 181.975 Axial†	27687.5	28861.9	51533	ug/L	51533 ppb	16:07:47
2	Sb 206.836†	24056.7	25078.7	10746	ug/L	10746 ppb	16:07:47
2	Se 196.026†	11650.7	12176.3	10134	ug/L	10134 ppb	16:07:47
2	Si 251.611†	1219167.7	1271709.7	47739	ug/L	47739 ppb	16:07:42
2	Sn 189.927†	43257.1	45131.0	10162	ug/L	10162 ppb	16:07:47
2	Ti 334.940†	5460836.3	5699499.1	9840.7	ug/L	9840.7 ppb	16:07:35
2	Tl 190.801†	23936.4	25009.6	9694.4	ug/L	9694.4 ppb	16:07:47
2	U 409.014†	-1419.7	599.6	-36.946	ug/L	-36.946 ppb	16:07:42
2	V 292.402†	1226403.4	1281076.3	10352	ug/L	10352 ppb	16:07:42
2	Zn 213.857†	1138533.4	1187448.6	14254	ug/L	14254 ppb	16:07:42
2	SiO2†	1189114.2	1240351.7	99066	ug/L	99066 ppb	16:08:19
3	Sc Radial	4257.7	4257.7	92.8	%		16:06:45
3	Y RADIAL	4576.2	4576.2	92.74	%		16:06:45
3	Al 396.153Radial†	397.5	514.1	12.051	ug/L	12.051 ppb	16:06:45
3	Ca 317.933Radial†	31.9	6.5	11.526	ug/L	11.526 ppb	16:07:05
3	Fe 238.204 Radial†	-16.9	-26.0	22.757	ug/L	22.757 ppb	16:07:05
3	K 766.490 Radial†	1476676.9	1588542.6	304320	ug/L	304320 ppb	16:06:40
3	Mg 279.077 IEC†	-5.0	-5.4	-105.37	ug/L	-105.37 ppb	16:07:05
3	Na 589.592 Radial†	-366.1	410.6	143.87	ug/L	143.87 ppb	16:06:45
3	Sr 421.552†	1204386.7	1297683.7	9913.4	ug/L	9913.4 ppb	16:06:40
3	Sc 361.383	775849.2	775849.2	95.439	%		16:08:02
3	Y 371.029	640172.2	640172.2	92.854	%		16:08:02
3	Ag 328.068†	-6256.4	-6766.0	6.6607	ug/L	6.6607 ppb	16:08:07
3	As 188.979†	17105.9	17940.5	10046	ug/L	10046 ppb	16:08:07
3	B 249.677†	173656.9	182371.7	5075.5	ug/L	5075.5 ppb	16:08:02
3	Ba 233.527†	1427778.9	1496002.9	14021	ug/L	14021 ppb	16:08:02
3	Be 313.107†	6445018.8	6756768.3	2906.5	ug/L	2906.5 ppb	16:07:55
3	Cd 226.502†	652973.8	684357.1	9922.0	ug/L	9922.0 ppb	16:08:02
3	Co 228.616†	363060.8	380452.1	9882.2	ug/L	9882.2 ppb	16:08:02
3	Cr 267.716†	1754648.9	1838427.6	24699	ug/L	24699 ppb	16:08:02
3	Cu 324.752†	5815557.9	6088028.9	20151	ug/L	20151 ppb	16:07:55
3	Mn 257.610†	6859598.7	7186881.9	9462.4	ug/L	9462.4 ppb	16:07:55
3	Mo 202.031†	105478.8	110507.1	9717.9	ug/L	9717.9 ppb	16:08:07
3	Ni 231.604†	303827.9	318267.0	10127	ug/L	10127 ppb	16:08:02
3	P 214.914†	23088.7	24008.2	14173	ug/L	14173 ppb	16:08:07
3	Pb 220.353†	152925.4	160276.8	24740	ug/L	24740 ppb	16:08:02
3	S 181.975 Axial†	27633.2	28923.7	51643	ug/L	51643 ppb	16:08:07
3	Sb 206.836†	24030.7	25154.7	10779	ug/L	10779 ppb	16:08:07
3	Se 196.026†	11617.7	12191.7	10147	ug/L	10147 ppb	16:08:07
3	Si 251.611†	1215370.6	1272957.4	47786	ug/L	47786 ppb	16:08:02
3	Sn 189.927†	43294.2	45355.4	10212	ug/L	10212 ppb	16:08:07
3	Ti 334.940†	5418595.2	5678648.2	9804.6	ug/L	9804.6 ppb	16:07:55
3	Tl 190.801†	23976.5	25154.2	9749.3	ug/L	9749.3 ppb	16:08:07
3	U 409.014†	-1326.8	690.8	-34.345	ug/L	-34.345 ppb	16:08:02
3	V 292.402†	1224571.1	1284413.5	10379	ug/L	10379 ppb	16:08:02
3	Zn 213.857†	1137209.3	1190941.7	14296	ug/L	14296 ppb	16:08:02
3	SiO2†	1214824.2	1272387.8	101630	ug/L	101630 ppb	16:08:25

Mean Data: LR2

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	778731.2	95.793	%	0.3373				0.35%
Sc Radial	4398.9	95.9	%	2.68				2.79%
Y 371.029	642452.7	93.185	%	0.3143				0.34%
Y RADIAL	4701.0	95.27	%	2.193				2.30%
Ag 328.068†	-6859.5	6.1258	ug/L	0.50188	6.1258	ppb	0.50188	8.19%
Al 396.153Radial†	507.7	6.3536	ug/L	9.64978	6.3536	ppb	9.64978	151.88%
As 188.979†	17921.0	10035	ug/L	9.1	10035	ppb	9.1	0.09%
QC value within limits for As 188.979 Recovery = 100.35%								
B 249.677†	182433.2	5077.3	ug/L	1.89	5077.3	ppb	1.89	0.04%
QC value within limits for B 249.677 Recovery = 101.55%								
Ba 233.527†	1493303.4	13996	ug/L	22.8	13996	ppb	22.8	0.16%
QC value within limits for Ba 233.527 Recovery = 93.30%								
Be 313.107†	6794540.9	2922.7	ug/L	18.33	2922.7	ppb	18.33	0.63%
QC value within limits for Be 313.107 Recovery = 97.42%								
Ca 317.933Radial†	6.5	11.487	ug/L	1.7346	11.487	ppb	1.7346	15.10%
Cd 226.502†	683019.6	9902.6	ug/L	17.43	9902.6	ppb	17.43	0.18%
QC value within limits for Cd 226.502 Recovery = 99.03%								

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Co 228.616†          379403.2      9854.8 ug/L        24.22      9854.8 ppb        24.22   0.25%
   QC value within limits for Co 228.616  Recovery = 98.55%
Cr 267.716†         1835398.3       24658 ug/L         36.4       24658 ppb         36.4   0.15%
   QC value within limits for Cr 267.716  Recovery = 98.63%
Cu 324.752†         6113188.2       20235 ug/L         99.5       20235 ppb         99.5   0.49%
   QC value within limits for Cu 324.752  Recovery = 101.17%
Fe 238.204 Radial†      -25.7      25.594 ug/L      16.7285      25.594 ppb      16.7285  65.36%
K 766.490 Radial†   1568853.9      300550 ug/L      3277.9      300550 ppb       3277.9   1.09%
   QC value within limits for K 766.490 Radial  Recovery = 100.18%
Mg 279.077 IEC†          -4.8     -79.289 ug/L      59.4268     -79.289 ppb      59.4268  74.95%
Mn 257.610†         7217872.4      9503.2 ug/L        43.83      9503.2 ppb        43.83   0.46%
   QC value within limits for Mn 257.610  Recovery = 95.03%
Mo 202.031†          110430.1      9711.1 ug/L        10.40      9711.1 ppb        10.40   0.11%
   QC value within limits for Mo 202.031  Recovery = 97.11%
Na 589.592 Radial†      490.1      171.73 ug/L       24.152      171.73 ppb       24.152  14.06%
Ni 231.604†          317595.5       10106 ug/L         19.5       10106 ppb         19.5   0.19%
   QC value within limits for Ni 231.604  Recovery = 101.06%
P 214.914†            23959.9       14120 ug/L         50.0       14120 ppb         50.0   0.35%
   QC value within limits for P 214.914  Recovery = 94.14%
Pb 220.353†          159955.6       24691 ug/L         44.6       24691 ppb         44.6   0.18%
   QC value within limits for Pb 220.353  Recovery = 98.76%
S 181.975 Axial†      28906.2       51612 ug/L         69.0       51612 ppb         69.0   0.13%
   QC value within limits for S 181.975 Axial  Recovery = 103.22%
Sb 206.836†           25110.3       10760 ug/L         17.0       10760 ppb         17.0   0.16%
   QC value within limits for Sb 206.836  Recovery = 107.60%
Se 196.026†           12167.9       10127 ug/L         24.0       10127 ppb         24.0   0.24%
   QC value within limits for Se 196.026  Recovery = 101.27%
Si 251.611†         1271808.8       47742 ug/L         41.5       47742 ppb         41.5   0.09%
   QC value within limits for Si 251.611  Recovery = 95.48%
Sn 189.927†           45266.2       10192 ug/L         26.8       10192 ppb         26.8   0.26%
   QC value within limits for Sn 189.927  Recovery = 101.92%
Sr 421.552†         1281876.4      9792.7 ug/L       104.60      9792.7 ppb       104.60   1.07%
   QC value within limits for Sr 421.552  Recovery = 97.93%
Ti 334.940†         5703903.3      9848.3 ug/L        47.91      9848.3 ppb        47.91   0.49%
   QC value within limits for Ti 334.940  Recovery = 98.48%
Tl 190.801†           25075.5      9719.7 ug/L        27.72      9719.7 ppb        27.72   0.29%
   QC value within limits for Tl 190.801  Recovery = 97.20%
U 409.014†              712.2     -33.608 ug/L       3.7613     -33.608 ppb       3.7613  11.19%
V 292.402†          1282697.7       10365 ug/L         13.5       10365 ppb         13.5   0.13%
   QC value within limits for V 292.402  Recovery = 103.65%
Zn 213.857†         1188843.7       14270 ug/L         22.3       14270 ppb         22.3   0.16%
   QC value within limits for Zn 213.857  Recovery = 95.14%
SiO2†               1255373.6      100270 ug/L       1289.9      100270 ppb       1289.9   1.29%
   QC value within limits for SiO2  Recovery = 93.71%
All analyte(s) passed QC.
```

User canceled analysis.

==========

Analysis Begun

Start Time: 3/16/2010 16:17:19 **Plasma On Time: 3/15/2010 06:51:19**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\031610.sif
Batch ID:
Results Data Set: 031610
Results Library: C:\pe\Optima3\Results\Results.mdb

==========

Sequence No.: 13 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/16/2010 16:17:20**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4343.1	4343.1	94.7	%			16:19:12
1	Y RADIAL	4667.4	4667.4	94.59	%			16:19:12
1	Al 396.153Radial†	5020.2	5388.5	5041.5	ug/L	5041.5	ppb	16:19:12
1	Ca 317.933Radial†	2796.8	2926.3	5172.6	ug/L	5172.6	ppb	16:19:32
1	Fe 238.204 Radial†	476.8	495.8	5209.6	ug/L	5209.6	ppb	16:19:32
1	K 766.490 Radial†	28584.9	27638.0	5288.2	ug/L	5288.2	ppb	16:19:12
1	Mg 279.077 IEC†	135.1	142.6	5426.9	ug/L	5426.9	ppb	16:19:32
1	Na 589.592 Radial†	27865.8	30239.3	10595	ug/L	10595	ppb	16:19:12
1	Sr 421.552†	64758.6	68377.8	522.32	ug/L	522.32	ppb	16:19:12
1	Sc 361.383	801728.6	801728.6	98.622	%			16:20:30
1	Y 371.029	668731.2	668731.2	96.997	%			16:20:30
1	Ag 328.068†	97247.0	98394.9	508.29	ug/L	508.29	ppb	16:20:35
1	As 188.979†	902.1	931.7	522.82	ug/L	522.82	ppb	16:20:55
1	B 249.677†	18102.9	18771.1	523.00	ug/L	523.00	ppb	16:20:35
1	Ba 233.527†	53314.7	54047.0	506.99	ug/L	506.99	ppb	16:20:35
1	Be 313.107†	1175567.6	1195719.1	511.53	ug/L	511.53	ppb	16:20:30
1	Cd 226.502†	34282.8	34938.1	506.10	ug/L	506.10	ppb	16:20:35
1	Co 228.616†	19502.7	19814.9	514.88	ug/L	514.88	ppb	16:20:35
1	Cr 267.716†	37257.1	37698.1	507.23	ug/L	507.23	ppb	16:20:35
1	Cu 324.752†	155590.7	152298.1	504.09	ug/L	504.09	ppb	16:20:35
1	Mn 257.610†	373031.4	377691.6	497.57	ug/L	497.57	ppb	16:20:35
1	Mo 202.031†	5650.7	5716.8	503.19	ug/L	503.19	ppb	16:20:55
1	Ni 231.604†	16033.9	16176.4	514.73	ug/L	514.73	ppb	16:20:35
1	P 214.914†	3481.1	3345.9	2421.3	ug/L	2421.3	ppb	16:20:55
1	Pb 220.353†	3199.3	3286.8	508.50	ug/L	508.50	ppb	16:20:55
1	S 181.975 Axial†	585.8	563.8	1005.8	ug/L	1005.8	ppb	16:20:55
1	Sb 206.836†	1216.8	1209.2	518.83	ug/L	518.83	ppb	16:20:55
1	Se 196.026†	583.5	610.4	524.67	ug/L	524.67	ppb	16:20:55
1	Si 251.611†	67236.5	67677.6	2540.7	ug/L	2540.7	ppb	16:20:35
1	Sn 189.927†	2206.7	2229.5	502.61	ug/L	502.61	ppb	16:20:55
1	Ti 334.940†	281528.0	286548.2	495.04	ug/L	495.04	ppb	16:20:35
1	Tl 190.801†	1264.3	1313.7	509.11	ug/L	509.11	ppb	16:20:55
1	U 409.014†	14865.8	17154.4	516.36	ug/L	516.36	ppb	16:20:35
1	V 292.402†	61041.0	63211.4	511.74	ug/L	511.74	ppb	16:20:35
1	Zn 213.857†	42805.4	42786.2	512.15	ug/L	512.15	ppb	16:20:35
1	SiO2†	66827.4	67265.7	5373.1	ug/L	5373.1	ppb	16:22:02
2	Sc Radial	4264.4	4264.4	93.0	%			16:19:37
2	Y RADIAL	4570.7	4570.7	92.63	%			16:19:37
2	Al 396.153Radial†	4921.6	5380.4	5033.8	ug/L	5033.8	ppb	16:19:37
2	Ca 317.933Radial†	2780.8	2963.8	5238.8	ug/L	5238.8	ppb	16:19:58
2	Fe 238.204 Radial†	479.3	507.8	5335.8	ug/L	5335.8	ppb	16:19:58
2	K 766.490 Radial†	28189.9	27770.7	5313.6	ug/L	5313.6	ppb	16:19:37
2	Mg 279.077 IEC†	133.5	143.6	5463.6	ug/L	5463.6	ppb	16:19:58
2	Na 589.592 Radial†	27392.6	30273.8	10608	ug/L	10608	ppb	16:19:37
2	Sr 421.552†	63432.6	68214.5	521.07	ug/L	521.07	ppb	16:19:37
2	Sc 361.383	799128.2	799128.2	98.302	%			16:21:00

2	Y 371.029	666294.2	666294.2	96.643 %			16:21:00
2	Ag 328.068†	98225.5	99711.2	515.12 ug/L	515.12	ppb	16:21:06
2	As 188.979†	896.9	929.4	521.64 ug/L	521.64	ppb	16:21:26
2	B 249.677†	18287.8	19019.0	529.89 ug/L	529.89	ppb	16:21:06
2	Ba 233.527†	54141.0	55063.5	516.53 ug/L	516.53	ppb	16:21:06
2	Be 313.107†	1170272.5	1194211.3	510.91 ug/L	510.91	ppb	16:21:00
2	Cd 226.502†	34890.8	35669.7	516.70 ug/L	516.70	ppb	16:21:06
2	Co 228.616†	19824.0	20206.1	525.03 ug/L	525.03	ppb	16:21:06
2	Cr 267.716†	37881.3	38456.0	517.42 ug/L	517.42	ppb	16:21:06
2	Cu 324.752†	156749.2	153989.9	509.70 ug/L	509.70	ppb	16:21:06
2	Mn 257.610†	378562.7	384549.3	506.61 ug/L	506.61	ppb	16:21:06
2	Mo 202.031†	5635.1	5719.6	503.45 ug/L	503.45	ppb	16:21:26
2	Ni 231.604†	16293.7	16493.7	524.82 ug/L	524.82	ppb	16:21:06
2	P 214.914†	3466.3	3342.3	2417.4 ug/L	2417.4	ppb	16:21:26
2	Pb 220.353†	3231.6	3330.2	515.18 ug/L	515.18	ppb	16:21:26
2	S 181.975 Axial†	582.5	562.4	1003.3 ug/L	1003.3	ppb	16:21:26
2	Sb 206.836†	1217.5	1214.0	520.88 ug/L	520.88	ppb	16:21:26
2	Se 196.026†	575.2	603.9	519.63 ug/L	519.63	ppb	16:21:26
2	Si 251.611†	68118.6	68796.8	2582.8 ug/L	2582.8	ppb	16:21:06
2	Sn 189.927†	2213.4	2243.6	505.80 ug/L	505.80	ppb	16:21:26
2	Ti 334.940†	284648.4	290651.4	502.13 ug/L	502.13	ppb	16:21:06
2	Tl 190.801†	1263.4	1317.0	510.40 ug/L	510.40	ppb	16:21:26
2	U 409.014†	15018.5	17358.8	522.50 ug/L	522.50	ppb	16:21:06
2	V 292.402†	61921.3	64308.4	520.49 ug/L	520.49	ppb	16:21:06
2	Zn 213.857†	43332.6	43463.8	520.25 ug/L	520.25	ppb	16:21:06
2	SiO2†	67694.4	68368.1	5461.4 ug/L	5461.4	ppb	16:22:07
3	Sc Radial	4478.7	4478.7	97.6 %			16:20:03
3	Y RADIAL	4774.3	4774.3	96.76 %			16:20:03
3	Al 396.153Radial†	5169.4	5380.8	5034.3 ug/L	5034.3	ppb	16:20:03
3	Ca 317.933Radial†	2804.6	2844.9	5028.7 ug/L	5028.7	ppb	16:20:23
3	Fe 238.204 Radial†	479.6	483.4	5079.9 ug/L	5079.9	ppb	16:20:23
3	K 766.490 Radial†	29165.1	27318.2	5227.0 ug/L	5227.0	ppb	16:20:03
3	Mg 279.077 IEC†	133.4	136.5	5195.3 ug/L	5195.3	ppb	16:20:23
3	Na 589.592 Radial†	28716.0	30219.0	10588 ug/L	10588	ppb	16:20:03
3	Sr 421.552†	66660.6	68254.9	521.38 ug/L	521.38	ppb	16:20:03
3	Sc 361.383	803091.7	803091.7	98.790 %			16:21:31
3	Y 371.029	668158.6	668158.6	96.914 %			16:21:31
3	Ag 328.068†	97205.9	98186.0	507.18 ug/L	507.18	ppb	16:21:36
3	As 188.979†	899.9	927.9	520.69 ug/L	520.69	ppb	16:21:56
3	B 249.677†	17936.5	18571.5	517.43 ug/L	517.43	ppb	16:21:36
3	Ba 233.527†	53594.2	54238.2	508.78 ug/L	508.78	ppb	16:21:36
3	Be 313.107†	1171475.8	1189554.0	508.90 ug/L	508.90	ppb	16:21:31
3	Cd 226.502†	34559.4	35159.0	509.32 ug/L	509.32	ppb	16:21:36
3	Co 228.616†	19593.9	19873.8	516.41 ug/L	516.41	ppb	16:21:36
3	Cr 267.716†	37400.3	37778.8	508.30 ug/L	508.30	ppb	16:21:36
3	Cu 324.752†	154781.1	151210.7	500.49 ug/L	500.49	ppb	16:21:36
3	Mn 257.610†	373954.1	377983.6	497.95 ug/L	497.95	ppb	16:21:36
3	Mo 202.031†	5637.0	5693.2	501.11 ug/L	501.11	ppb	16:21:56
3	Ni 231.604†	16066.6	16182.0	514.91 ug/L	514.91	ppb	16:21:36
3	P 214.914†	3459.4	3317.9	2401.1 ug/L	2401.1	ppb	16:21:56
3	Pb 220.353†	3194.5	3276.4	506.92 ug/L	506.92	ppb	16:21:56
3	S 181.975 Axial†	575.6	552.5	985.49 ug/L	985.49	ppb	16:21:56
3	Sb 206.836†	1221.5	1211.9	519.89 ug/L	519.89	ppb	16:21:56
3	Se 196.026†	578.8	604.7	519.55 ug/L	519.55	ppb	16:21:56
3	Si 251.611†	67179.4	67504.1	2534.2 ug/L	2534.2	ppb	16:21:36
3	Sn 189.927†	2206.4	2225.4	501.66 ug/L	501.66	ppb	16:21:56
3	Ti 334.940†	281584.9	286121.3	494.30 ug/L	494.30	ppb	16:21:36
3	Tl 190.801†	1264.4	1311.6	508.30 ug/L	508.30	ppb	16:21:56
3	U 409.014†	14736.1	16997.6	511.64 ug/L	511.64	ppb	16:21:36
3	V 292.402†	61051.5	63117.1	510.96 ug/L	510.96	ppb	16:21:36
3	Zn 213.857†	42816.2	42723.5	511.42 ug/L	511.42	ppb	16:21:36
3	SiO2†	67251.3	67579.7	5398.3 ug/L	5398.3	ppb	16:22:12

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	801316.2	98.572	%	0.2477				0.25%
Sc Radial	4362.1	95.1	%	2.36				2.49%
Y 371.029	667728.0	96.851	%	0.1848				0.19%
Y RADIAL	4670.8	94.66	%	2.064				2.18%

```
Ag 328.068†            98764.0      510.20 ug/L         4.297      510.20 ppb          4.297   0.84%
   QC value within limits for Ag 328.068  Recovery = 102.04%
Al 396.153Radial†       5383.3      5036.5 ug/L          4.29      5036.5 ppb           4.29   0.09%
   QC value within limits for Al 396.153Radial  Recovery = 100.73%
As 188.979†              929.7      521.72 ug/L         1.067      521.72 ppb          1.067   0.20%
   QC value within limits for As 188.979  Recovery = 104.34%
B 249.677†             18787.2      523.44 ug/L         6.240      523.44 ppb          6.240   1.19%
   QC value within limits for B 249.677  Recovery = 104.69%
Ba 233.527†            54449.6      510.77 ug/L         5.069      510.77 ppb          5.069   0.99%
   QC value within limits for Ba 233.527  Recovery = 102.15%
Be 313.107†          1193161.5      510.45 ug/L         1.375      510.45 ppb          1.375   0.27%
   QC value within limits for Be 313.107  Recovery = 102.09%
Ca 317.933Radial†       2911.7      5146.7 ug/L        107.43      5146.7 ppb         107.43   2.09%
   QC value within limits for Ca 317.933Radial  Recovery = 102.93%
Cd 226.502†            35255.6      510.70 ug/L         5.432      510.70 ppb          5.432   1.06%
   QC value within limits for Cd 226.502  Recovery = 102.14%
Co 228.616†            19964.9      518.77 ug/L         5.471      518.77 ppb          5.471   1.05%
   QC value within limits for Co 228.616  Recovery = 103.75%
Cr 267.716†            37977.6      510.98 ug/L         5.605      510.98 ppb          5.605   1.10%
   QC value within limits for Cr 267.716  Recovery = 102.20%
Cu 324.752†           152499.6      504.76 ug/L         4.639      504.76 ppb          4.639   0.92%
   QC value within limits for Cu 324.752  Recovery = 100.95%
Fe 238.204 Radial†       495.6      5208.4 ug/L        127.96      5208.4 ppb         127.96   2.46%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.17%
K 766.490 Radial†      27575.7      5276.3 ug/L         44.53      5276.3 ppb          44.53   0.84%
   QC value within limits for K 766.490 Radial  Recovery = 105.53%
Mg 279.077 IEC†          140.9      5361.9 ug/L        145.51      5361.9 ppb         145.51   2.71%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.24%
Mn 257.610†           380074.9      500.71 ug/L         5.113      500.71 ppb          5.113   1.02%
   QC value within limits for Mn 257.610  Recovery = 100.14%
Mo 202.031†             5709.9      502.58 ug/L         1.284      502.58 ppb          1.284   0.26%
   QC value within limits for Mo 202.031  Recovery = 100.52%
Na 589.592 Radial†     30244.1       10597 ug/L           9.7       10597 ppb            9.7   0.09%
   QC value within limits for Na 589.592 Radial  Recovery = 105.97%
Ni 231.604†            16284.0      518.15 ug/L         5.778      518.15 ppb          5.778   1.12%
   QC value within limits for Ni 231.604  Recovery = 103.63%
P 214.914†              3335.3      2413.3 ug/L         10.75      2413.3 ppb          10.75   0.45%
   QC value within limits for P 214.914  Recovery = 96.53%
Pb 220.353†             3297.8      510.20 ug/L         4.388      510.20 ppb          4.388   0.86%
   QC value within limits for Pb 220.353  Recovery = 102.04%
S 181.975 Axial†         559.6      998.18 ug/L        11.067      998.18 ppb         11.067   1.11%
   QC value within limits for S 181.975 Axial  Recovery = 99.82%
Sb 206.836†             1211.7      519.87 ug/L         1.023      519.87 ppb          1.023   0.20%
   QC value within limits for Sb 206.836  Recovery = 103.97%
Se 196.026†              606.4      521.28 ug/L         2.933      521.28 ppb          2.933   0.56%
   QC value within limits for Se 196.026  Recovery = 104.26%
Si 251.611†            67992.8      2552.6 ug/L         26.39      2552.6 ppb          26.39   1.03%
   QC value within limits for Si 251.611  Recovery = 102.10%
Sn 189.927†             2232.8      503.36 ug/L         2.166      503.36 ppb          2.166   0.43%
   QC value within limits for Sn 189.927  Recovery = 100.67%
Sr 421.552†            68282.4      521.59 ug/L         0.650      521.59 ppb          0.650   0.12%
   QC value within limits for Sr 421.552  Recovery = 104.32%
Ti 334.940†           287773.6      497.15 ug/L         4.322      497.15 ppb          4.322   0.87%
   QC value within limits for Ti 334.940  Recovery = 99.43%
Tl 190.801†             1314.1      509.27 ug/L         1.059      509.27 ppb          1.059   0.21%
   QC value within limits for Tl 190.801  Recovery = 101.85%
U 409.014†             17170.3      516.83 ug/L         5.445      516.83 ppb          5.445   1.05%
   QC value within limits for U 409.014  Recovery = 103.37%
V 292.402†             63545.6      514.40 ug/L         5.291      514.40 ppb          5.291   1.03%
   QC value within limits for V 292.402  Recovery = 102.88%
Zn 213.857†            42991.2      514.61 ug/L         4.899      514.61 ppb          4.899   0.95%
   QC value within limits for Zn 213.857  Recovery = 102.92%
SiO2†                  67737.8      5410.9 ug/L         45.47      5410.9 ppb          45.47   0.84%
   QC value within limits for SiO2  Recovery = 101.19%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/16/2010 16:24:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4371.9	4371.9	95.3	%			16:26:15
1	Y RADIAL	4746.6	4746.6	96.20	%			16:26:15
1	Al 396.153Radial†	-85.9	-4.3	-4.0396	ug/L	-4.0396	ppb	16:26:35
1	Ca 317.933Radial†	33.7	7.5	13.220	ug/L	13.220	ppb	16:26:35
1	Fe 238.204 Radial†	8.6	1.2	12.506	ug/L	12.506	ppb	16:26:35
1	K 766.490 Radial†	2867.5	453.2	86.808	ug/L	86.808	ppb	16:26:15
1	Mg 279.077 IEC†	1.8	1.9	70.436	ug/L	70.436	ppb	16:26:35
1	Na 589.592 Radial†	-715.9	53.9	18.879	ug/L	18.879	ppb	16:26:15
1	Sr 421.552†	36.2	12.2	0.0929	ug/L	0.0929	ppb	16:26:15
1	Sc 361.383	787326.6	787326.6	96.851	%			16:27:32
1	Y 371.029	666916.4	666916.4	96.734	%			16:27:32
1	Ag 328.068†	101.6	-105.7	-0.5389	ug/L	-0.5389	ppb	16:27:32
1	As 188.979†	-13.3	3.3	1.8405	ug/L	1.8405	ppb	16:27:52
1	B 249.677†	204.0	626.0	17.517	ug/L	17.517	ppb	16:27:52
1	Ba 233.527†	28.9	17.3	0.1621	ug/L	0.1621	ppb	16:27:52
1	Be 313.107†	-3550.2	63.3	0.0269	ug/L	0.0269	ppb	16:27:32
1	Cd 226.502†	-102.7	70.3	1.0182	ug/L	1.0182	ppb	16:27:52
1	Co 228.616†	-37.1	1.6	0.0415	ug/L	0.0415	ppb	16:27:52
1	Cr 267.716†	92.8	16.3	0.2209	ug/L	0.2209	ppb	16:27:52
1	Cu 324.752†	5277.9	-16.7	-0.0539	ug/L	-0.0539	ppb	16:27:32
1	Mn 257.610†	544.4	11.2	0.0131	ug/L	0.0131	ppb	16:27:52
1	Mo 202.031†	16.8	4.5	0.3979	ug/L	0.3979	ppb	16:27:52
1	Ni 231.604†	105.1	27.0	0.8611	ug/L	0.8611	ppb	16:27:52
1	P 214.914†	188.9	11.1	8.3668	ug/L	8.3668	ppb	16:27:52
1	Pb 220.353†	-25.7	16.2	2.4986	ug/L	2.4986	ppb	16:27:52
1	S 181.975 Axial†	27.6	-1.7	-2.9863	ug/L	-2.9863	ppb	16:27:52
1	Sb 206.836†	37.4	14.1	5.8614	ug/L	5.8614	ppb	16:27:52
1	Se 196.026†	-24.7	-6.7	-5.5157	ug/L	-5.5157	ppb	16:27:52
1	Si 251.611†	549.0	68.7	2.5789	ug/L	2.5789	ppb	16:27:52
1	Sn 189.927†	11.6	3.9	0.8903	ug/L	0.8903	ppb	16:27:52
1	Ti 334.940†	-1083.1	-31.0	-0.0571	ug/L	-0.0571	ppb	16:27:32
1	Tl 190.801†	-24.7	6.3	2.4378	ug/L	2.4378	ppb	16:27:52
1	U 409.014†	-2059.7	-45.7	-1.3813	ug/L	-1.3813	ppb	16:27:32
1	V 292.402†	-1307.6	-32.4	-0.2568	ug/L	-0.2568	ppb	16:27:32
1	Zn 213.857†	727.4	134.0	1.6113	ug/L	1.6113	ppb	16:27:52
1	SiO2†	563.9	86.9	6.9473	ug/L	6.9473	ppb	16:29:03
2	Sc Radial	4415.2	4415.2	96.2	%			16:26:40
2	Y RADIAL	4775.2	4775.2	96.78	%			16:26:40
2	Al 396.153Radial†	-89.9	-7.6	-7.2116	ug/L	-7.2116	ppb	16:27:00
2	Ca 317.933Radial†	29.0	2.2	3.9596	ug/L	3.9596	ppb	16:27:00
2	Fe 238.204 Radial†	7.7	0.1	1.5514	ug/L	1.5514	ppb	16:27:00
2	K 766.490 Radial†	2875.7	432.2	82.806	ug/L	82.806	ppb	16:26:40
2	Mg 279.077 IEC†	1.3	1.2	47.470	ug/L	47.470	ppb	16:27:00
2	Na 589.592 Radial†	-771.3	3.7	1.2838	ug/L	1.2838	ppb	16:26:40
2	Sr 421.552†	48.0	24.2	0.1845	ug/L	0.1845	ppb	16:26:40
2	Sc 361.383	788692.8	788692.8	97.019	%			16:27:57
2	Y 371.029	667249.3	667249.3	96.782	%			16:27:57
2	Ag 328.068†	169.6	-35.8	-0.1832	ug/L	-0.1832	ppb	16:27:57
2	As 188.979†	-18.3	-1.8	-1.0102	ug/L	-1.0102	ppb	16:28:17
2	B 249.677†	208.5	630.3	17.638	ug/L	17.638	ppb	16:28:17
2	Ba 233.527†	30.0	18.4	0.1724	ug/L	0.1724	ppb	16:28:17
2	Be 313.107†	-3734.5	-120.2	-0.0515	ug/L	-0.0515	ppb	16:27:57
2	Cd 226.502†	-113.5	59.4	0.8600	ug/L	0.8600	ppb	16:28:17
2	Co 228.616†	-48.2	-9.9	-0.2548	ug/L	-0.2548	ppb	16:28:17
2	Cr 267.716†	78.3	1.2	0.0159	ug/L	0.0159	ppb	16:28:17
2	Cu 324.752†	5476.9	178.9	0.5924	ug/L	0.5924	ppb	16:27:57
2	Mn 257.610†	547.4	13.3	0.0157	ug/L	0.0157	ppb	16:28:17
2	Mo 202.031†	18.5	6.2	0.5495	ug/L	0.5495	ppb	16:28:17
2	Ni 231.604†	88.5	9.8	0.3118	ug/L	0.3118	ppb	16:28:17

2	P 214.914†	190.2	12.1	9.0413 ug/L	9.0413 ppb	16:28:17
2	Pb 220.353†	-41.2	0.3	0.0418 ug/L	0.0418 ppb	16:28:17
2	S 181.975 Axial†	30.6	1.4	2.4851 ug/L	2.4851 ppb	16:28:17
2	Sb 206.836†	41.0	17.8	7.3939 ug/L	7.3939 ppb	16:28:17
2	Se 196.026†	-17.6	0.6	0.5421 ug/L	0.5421 ppb	16:28:17
2	Si 251.611†	543.1	61.6	2.3110 ug/L	2.3110 ppb	16:28:17
2	Sn 189.927†	14.3	6.7	1.5178 ug/L	1.5178 ppb	16:28:17
2	Ti 334.940†	-1089.5	-35.7	-0.0651 ug/L	-0.0651 ppb	16:27:57
2	Tl 190.801†	-23.6	7.5	2.8713 ug/L	2.8713 ppb	16:28:17
2	U 409.014†	-2019.7	-0.8	-0.0230 ug/L	-0.0230 ppb	16:27:57
2	V 292.402†	-1273.3	5.3	0.0505 ug/L	0.0505 ppb	16:27:57
2	Zn 213.857†	720.8	125.8	1.5166 ug/L	1.5166 ppb	16:28:17
2	SiO2†	536.5	57.7	4.6059 ug/L	4.6059 ppb	16:29:23
3	Sc Radial	4316.8	4316.8	94.1 %		16:27:05
3	Y RADIAL	4662.5	4662.5	94.49 %		16:27:05
3	Al 396.153Radial†	-76.3	4.8	4.4700 ug/L	4.4700 ppb	16:27:25
3	Ca 317.933Radial†	30.5	4.5	7.9905 ug/L	7.9905 ppb	16:27:25
3	Fe 238.204 Radial†	9.3	2.0	20.846 ug/L	20.846 ppb	16:27:25
3	K 766.490 Radial†	2796.8	416.5	79.797 ug/L	79.797 ppb	16:27:05
3	Mg 279.077 IEC†	-0.8	-0.9	-35.942 ug/L	-35.942 ppb	16:27:25
3	Na 589.592 Radial†	-752.1	5.8	2.0443 ug/L	2.0443 ppb	16:27:05
3	Sr 421.552†	43.8	20.8	0.1588 ug/L	0.1588 ppb	16:27:05
3	Sc 361.383	793987.8	793987.8	97.670 %		16:28:22
3	Y 371.029	670892.2	670892.2	97.310 %		16:28:22
3	Ag 328.068†	154.4	-52.5	-0.2614 ug/L	-0.2614 ppb	16:28:22
3	As 188.979†	-10.9	5.9	3.2669 ug/L	3.2669 ppb	16:28:42
3	B 249.677†	205.8	626.1	17.518 ug/L	17.518 ppb	16:28:42
3	Ba 233.527†	29.0	17.2	0.1611 ug/L	0.1611 ppb	16:28:42
3	Be 313.107†	-3687.1	-46.1	-0.0195 ug/L	-0.0195 ppb	16:28:22
3	Cd 226.502†	-102.3	71.6	1.0340 ug/L	1.0340 ppb	16:28:42
3	Co 228.616†	-49.4	-10.8	-0.2802 ug/L	-0.2802 ppb	16:28:42
3	Cr 267.716†	69.3	-8.6	-0.1115 ug/L	-0.1115 ppb	16:28:42
3	Cu 324.752†	5399.0	61.6	0.2072 ug/L	0.2072 ppb	16:28:22
3	Mn 257.610†	532.4	-5.8	-0.0041 ug/L	-0.0041 ppb	16:28:42
3	Mo 202.031†	14.8	2.3	0.2024 ug/L	0.2024 ppb	16:28:42
3	Ni 231.604†	81.3	1.8	0.0576 ug/L	0.0576 ppb	16:28:42
3	P 214.914†	199.4	20.2	15.156 ug/L	15.156 ppb	16:28:42
3	Pb 220.353†	-45.6	-3.9	-0.5985 ug/L	-0.5985 ppb	16:28:42
3	S 181.975 Axial†	33.8	4.5	7.9707 ug/L	7.9707 ppb	16:28:42
3	Sb 206.836†	25.3	1.4	0.5872 ug/L	0.5872 ppb	16:28:42
3	Se 196.026†	-10.0	8.5	7.1357 ug/L	7.1357 ppb	16:28:42
3	Si 251.611†	522.2	36.4	1.3687 ug/L	1.3687 ppb	16:28:42
3	Sn 189.927†	7.5	-0.3	-0.0734 ug/L	-0.0734 ppb	16:28:42
3	Ti 334.940†	-1022.9	40.0	0.0749 ug/L	0.0749 ppb	16:28:22
3	Tl 190.801†	-20.9	10.4	4.0094 ug/L	4.0094 ppb	16:28:42
3	U 409.014†	-2162.2	-132.8	-4.0135 ug/L	-4.0135 ppb	16:28:22
3	V 292.402†	-1328.0	-42.0	-0.3439 ug/L	-0.3439 ppb	16:28:22
3	Zn 213.857†	722.9	123.1	1.4830 ug/L	1.4830 ppb	16:28:42
3	SiO2†	538.1	55.6	4.4503 ug/L	4.4503 ppb	16:29:43

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	790002.4	97.180	%	0.4328				0.45%
Sc Radial	4368.0	95.2	%	1.07				1.13%
Y 371.029	668352.7	96.942	%	0.3199				0.33%
Y RADIAL	4728.1	95.82	%	1.187				1.24%
Ag 328.068†	-64.7	-0.3279	ug/L	0.18691	-0.3279	ppb	0.18691	57.01%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.4	-2.2604	ug/L	6.04060	-2.2604	ppb	6.04060	267.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.5	1.3657	ug/L	2.17775	1.3657	ppb	2.17775	159.46%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	627.5	17.558	ug/L	0.0695	17.558	ppb	0.0695	0.40%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	17.7	0.1652	ug/L	0.00623	0.1652	ppb	0.00623	3.77%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-34.3	-0.0147	ug/L	0.03941	-0.0147	ppb	0.03941	268.36%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.7	8.3902	ug/L	4.64331	8.3902	ppb	4.64331	55.34%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                67.1      0.9707 ug/L       0.09621      0.9707 ppb        0.09621   9.91%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -6.4     -0.1645 ug/L       0.17887     -0.1645 ppb        0.17887 108.76%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 3.0      0.0418 ug/L       0.16771      0.0418 ppb        0.16771 401.70%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                74.6      0.2486 ug/L       0.32512      0.2486 ppb        0.32512 130.79%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.1      11.635 ug/L        9.6768      11.635 ppb         9.6768  83.17%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         434.0      83.137 ug/L        3.5173      83.137 ppb         3.5173   4.23%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.7      27.321 ug/L       55.9783      27.321 ppb        55.9783 204.89%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 6.2      0.0082 ug/L       0.01077      0.0082 ppb        0.01077 131.03%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.3      0.3833 ug/L       0.17402      0.3833 ppb        0.17402  45.40%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         21.1      7.4025 ug/L       9.94649      7.4025 ppb        9.94649 134.37%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                12.9      0.4102 ug/L       0.41069      0.4102 ppb        0.41069 100.12%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 14.5      10.855 ug/L        3.7405      10.855 ppb         3.7405  34.46%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 4.2      0.6473 ug/L       1.63496      0.6473 ppb        1.63496 252.58%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.4      2.4899 ug/L       5.47851      2.4899 ppb        5.47851 220.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                11.1      4.6142 ug/L       3.57069      4.6142 ppb        3.57069  77.39%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.8      0.7207 ug/L       6.32757      0.7207 ppb        6.32757 877.95%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                55.6      2.0862 ug/L       0.63563      2.0862 ppb        0.63563  30.47%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.5      0.7783 ug/L       0.80147      0.7783 ppb        0.80147 102.98%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                19.0      0.1454 ug/L       0.04725      0.1454 ppb        0.04725  32.50%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                -8.9     -0.0157 ug/L       0.07859     -0.0157 ppb        0.07859 499.33%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 8.1      3.1062 ug/L       0.81173      3.1062 ppb        0.81173  26.13%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -59.8     -1.8059 ug/L       2.02889     -1.8059 ppb        2.02889 112.34%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -23.1     -0.1834 ug/L       0.20722     -0.1834 ppb        0.20722 113.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               127.6      1.5370 ug/L       0.06652      1.5370 ppb        0.06652   4.33%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      66.7      5.3345 ug/L       1.39889      5.3345 ppb        1.39889  26.22%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 3/16/2010 16:30:36 **Plasma On Time: 3/15/2010 06:51:19**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\031610.sif
Batch ID:
Results Data Set: 031610
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 3/15/2010 08:46:50**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 35**
Sample ID: LR1 **Date Collected: 3/16/2010 16:30:38**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4178.0	4178.0	91.1	%			16:32:51
1	Y RADIAL	4673.3	4673.3	94.71	%			16:32:31
1	Al 396.153Radial†	-102.3	-26.5	-23.594	ug/L	-23.594	ppb	16:32:51

1	Ca 317.933Radial†	19.3	-6.7	-11.798	ug/L	-11.798 ppb	16:32:51
1	Fe 238.204 Radial†	33758.8	37060.8	388300	ug/L	388300 ppb	16:32:31
1	K 766.490 Radial†	2362.6	38.5	7.4411	ug/L	7.4411 ppb	16:32:31
1	Mg 279.077 IEC†	6.5	7.0	-139.40	ug/L	-139.40 ppb	16:32:51
1	Na 589.592 Radial†	-779.9	-51.3	-17.977	ug/L	-17.977 ppb	16:32:31
1	Sr 421.552†	87.2	70.0	0.5348	ug/L	0.5348 ppb	16:32:31
1	Sc 361.383	764780.4	764780.4	94.077	%		16:33:48
1	Y 371.029	642331.2	642331.2	93.168	%		16:33:48
1	Ag 328.068†	-21658.0	-23232.1	0.9837	ug/L	0.9837 ppb	16:33:48
1	As 188.979†	-158.8	-151.8	6.5554	ug/L	6.5554 ppb	16:34:08
1	B 249.677†	1692.3	2214.2	-1.1446	ug/L	-1.1446 ppb	16:33:48
1	Ba 233.527†	-1588.7	-1701.2	-3.9853	ug/L	-3.9853 ppb	16:33:48
1	Be 313.107†	-3659.4	-160.8	-0.0691	ug/L	-0.0691 ppb	16:33:48
1	Cd 226.502†	2527.2	2862.6	1.3801	ug/L	1.3801 ppb	16:33:48
1	Co 228.616†	617.5	696.3	12.414	ug/L	12.414 ppb	16:34:08
1	Cr 267.716†	-453.6	-561.7	33.650	ug/L	33.650 ppb	16:34:08
1	Cu 324.752†	-1160.1	-6699.4	-1.6549	ug/L	-1.6549 ppb	16:33:48
1	Mn 257.610†	-29841.1	-32270.7	-4.1484	ug/L	-4.1484 ppb	16:33:48
1	Mo 202.031†	-275.5	-305.7	3.2627	ug/L	3.2627 ppb	16:33:48
1	Ni 231.604†	146.4	74.2	2.3514	ug/L	2.3514 ppb	16:34:08
1	P 214.914†	599.1	452.9	32.637	ug/L	32.637 ppb	16:34:08
1	Pb 220.353†	183.3	237.6	-18.650	ug/L	-18.650 ppb	16:34:08
1	S 181.975 Axial†	41.2	13.6	24.338	ug/L	24.338 ppb	16:34:08
1	Sb 206.836†	27.2	4.4	-2.9939	ug/L	-2.9939 ppb	16:34:08
1	Se 196.026†	-1541.1	-1619.3	-227.53	ug/L	-227.53 ppb	16:34:08
1	Si 251.611†	-393.0	-916.0	-34.140	ug/L	-34.140 ppb	16:33:48
1	Sn 189.927†	-13.5	-22.3	-27.322	ug/L	-27.322 ppb	16:34:08
1	Ti 334.940†	-1126.4	-110.0	-0.2367	ug/L	-0.2367 ppb	16:33:48
1	Tl 190.801†	-33.7	-4.0	-1.9193	ug/L	-1.9193 ppb	16:34:08
1	U 409.014†	-111.7	1962.2	15.012	ug/L	15.012 ppb	16:33:48
1	V 292.402†	5142.6	6784.1	-2.6119	ug/L	-2.6119 ppb	16:33:48
1	Zn 213.857†	3645.6	3258.0	-18.735	ug/L	-18.735 ppb	16:34:08
1	SiO2†	-444.1	-967.4	-76.741	ug/L	-76.741 ppb	16:35:05
2	Sc Radial	4172.9	4172.9	91.0	%		16:33:16
2	Y RADIAL	4662.2	4662.2	94.49	%		16:32:56
2	Al 396.153Radial†	-89.5	-12.5	-10.503	ug/L	-10.503 ppb	16:33:16
2	Ca 317.933Radial†	19.3	-6.7	-11.776	ug/L	-11.776 ppb	16:33:16
2	Fe 238.204 Radial†	33500.5	36821.7	385800	ug/L	385800 ppb	16:32:56
2	K 766.490 Radial†	2258.6	-72.7	-13.881	ug/L	-13.881 ppb	16:32:56
2	Mg 279.077 IEC†	11.8	12.9	86.864	ug/L	86.864 ppb	16:33:16
2	Na 589.592 Radial†	-737.8	-6.1	-2.1238	ug/L	-2.1238 ppb	16:32:56
2	Sr 421.552†	98.1	82.1	0.6276	ug/L	0.6276 ppb	16:32:56
2	Sc 361.383	783031.3	783031.3	96.322	%		16:34:14
2	Y 371.029	657998.2	657998.2	95.440	%		16:34:14
2	Ag 328.068†	-22196.5	-23254.6	0.0883	ug/L	0.0883 ppb	16:34:14
2	As 188.979†	-157.0	-145.9	9.2238	ug/L	9.2238 ppb	16:34:34
2	B 249.677†	1716.1	2196.9	-1.2203	ug/L	-1.2203 ppb	16:34:14
2	Ba 233.527†	-1551.7	-1623.4	-3.3346	ug/L	-3.3346 ppb	16:34:14
2	Be 313.107†	-3723.3	-136.4	-0.0588	ug/L	-0.0588 ppb	16:34:14
2	Cd 226.502†	2555.9	2829.9	1.1656	ug/L	1.1656 ppb	16:34:14
2	Co 228.616†	618.5	681.9	12.080	ug/L	12.080 ppb	16:34:34
2	Cr 267.716†	-478.4	-576.2	33.188	ug/L	33.188 ppb	16:34:34
2	Cu 324.752†	-1234.5	-6747.9	-1.9503	ug/L	-1.9503 ppb	16:34:14
2	Mn 257.610†	-30914.3	-32645.6	-4.8985	ug/L	-4.8985 ppb	16:34:14
2	Mo 202.031†	-279.3	-302.8	3.3239	ug/L	3.3239 ppb	16:34:14
2	Ni 231.604†	175.0	100.3	3.1822	ug/L	3.1822 ppb	16:34:34
2	P 214.914†	591.7	430.4	17.797	ug/L	17.797 ppb	16:34:34
2	Pb 220.353†	155.7	204.5	-23.407	ug/L	-23.407 ppb	16:34:34
2	S 181.975 Axial†	38.7	10.0	17.932	ug/L	17.932 ppb	16:34:34
2	Sb 206.836†	14.3	-9.7	-8.7838	ug/L	-8.7838 ppb	16:34:34
2	Se 196.026†	-1549.6	-1590.0	-210.41	ug/L	-210.41 ppb	16:34:34
2	Si 251.611†	-430.9	-945.6	-35.257	ug/L	-35.257 ppb	16:34:14
2	Sn 189.927†	-13.1	-21.6	-27.013	ug/L	-27.013 ppb	16:34:34
2	Ti 334.940†	-1185.8	-143.8	-0.3151	ug/L	-0.3151 ppb	16:34:14
2	Tl 190.801†	-31.9	-1.3	-0.8870	ug/L	-0.8870 ppb	16:34:34
2	U 409.014†	15.4	2097.0	19.368	ug/L	19.368 ppb	16:34:14
2	V 292.402†	5197.3	6713.5	-2.7956	ug/L	-2.7956 ppb	16:34:14
2	Zn 213.857†	3629.1	3150.5	-19.663	ug/L	-19.663 ppb	16:34:34
2	SiO2†	-403.4	-914.1	-72.480	ug/L	-72.480 ppb	16:35:10
3	Sc Radial	4104.7	4104.7	89.5	%		16:33:41
3	Y RADIAL	4660.7	4660.7	94.46	%		16:33:21

3	Al 396.153Radial†	-105.0	-31.6	-28.511	ug/L	-28.511 ppb	16:33:41
3	Ca 317.933Radial†	20.5	-4.9	-8.6467	ug/L	-8.6467 ppb	16:33:41
3	Fe 238.204 Radial†	33559.2	37499.5	392900	ug/L	392900 ppb	16:33:21
3	K 766.490 Radial†	2342.2	62.0	11.942	ug/L	11.942 ppb	16:33:21
3	Mg 279.077 IEC†	10.3	11.5	25.641	ug/L	25.641 ppb	16:33:41
3	Na 589.592 Radial†	-784.4	-71.6	-25.101	ug/L	-25.101 ppb	16:33:21
3	Sr 421.552†	66.7	48.7	0.3723	ug/L	0.3723 ppb	16:33:21
3	Sc 361.383	785853.1	785853.1	96.669	%		16:34:40
3	Y 371.029	661029.2	661029.2	95.880	%		16:34:40
3	Ag 328.068†	-22125.7	-23098.6	3.0871	ug/L	3.0871 ppb	16:34:40
3	As 188.979†	-160.5	-149.0	9.1814	ug/L	9.1814 ppb	16:35:00
3	B 249.677†	1620.9	2092.1	-5.3085	ug/L	-5.3085 ppb	16:34:40
3	Ba 233.527†	-1600.3	-1668.0	-3.5346	ug/L	-3.5346 ppb	16:34:40
3	Be 313.107†	-3747.1	-147.2	-0.0630	ug/L	-0.0630 ppb	16:34:40
3	Cd 226.502†	2533.2	2796.8	-0.0473	ug/L	-0.0473 ppb	16:34:40
3	Co 228.616†	621.3	682.5	11.998	ug/L	11.998 ppb	16:35:00
3	Cr 267.716†	-442.2	-536.9	34.468	ug/L	34.468 ppb	16:35:00
3	Cu 324.752†	-1423.8	-6939.1	-2.2069	ug/L	-2.2069 ppb	16:34:40
3	Mn 257.610†	-30998.2	-32617.1	-4.1575	ug/L	-4.1575 ppb	16:34:40
3	Mo 202.031†	-248.4	-269.8	6.7716	ug/L	6.7716 ppb	16:34:40
3	Ni 231.604†	178.9	103.6	3.2886	ug/L	3.2886 ppb	16:35:00
3	P 214.914†	607.7	444.7	22.974	ug/L	22.974 ppb	16:35:00
3	Pb 220.353†	172.2	220.9	-21.879	ug/L	-21.879 ppb	16:35:00
3	S 181.975 Axial†	39.8	11.0	19.628	ug/L	19.628 ppb	16:35:00
3	Sb 206.836†	15.5	-8.5	-8.2826	ug/L	-8.2826 ppb	16:35:00
3	Se 196.026†	-1553.6	-1588.4	-188.62	ug/L	-188.62 ppb	16:35:00
3	Si 251.611†	-458.3	-972.3	-36.298	ug/L	-36.298 ppb	16:34:40
3	Sn 189.927†	-11.8	-20.2	-27.109	ug/L	-27.109 ppb	16:35:00
3	Ti 334.940†	-1097.1	-47.6	-0.1438	ug/L	-0.1438 ppb	16:34:40
3	Tl 190.801†	-26.2	4.7	1.4145	ug/L	1.4145 ppb	16:35:00
3	U 409.014†	-16.4	2064.1	17.562	ug/L	17.562 ppb	16:34:40
3	V 292.402†	5258.1	6757.0	-3.4443	ug/L	-3.4443 ppb	16:34:40
3	Zn 213.857†	3619.6	3127.2	-21.008	ug/L	-21.008 ppb	16:35:00
3	SiO2†	-364.6	-872.5	-69.227	ug/L	-69.227 ppb	16:35:15

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	777888.3	95.690	%	1.4071				1.47%
Sc Radial	4151.8	90.5	%	0.89				0.99%
Y 371.029	653786.2	94.829	%	1.4556				1.53%
Y RADIAL	4665.4	94.55	%	0.139				0.15%
Ag 328.068†	-23195.1	1.3864	ug/L	1.53941	1.3864	ppb	1.53941	111.04%
Al 396.153Radial†	-23.5	-20.869	ug/L	9.3079	-20.869	ppb	9.3079	44.60%
As 188.979†	-148.9	8.3202	ug/L	1.52849	8.3202	ppb	1.52849	18.37%
B 249.677†	2167.7	-2.5578	ug/L	2.38247	-2.5578	ppb	2.38247	93.15%
Ba 233.527†	-1664.2	-3.6182	ug/L	0.33328	-3.6182	ppb	0.33328	9.21%
Be 313.107†	-148.1	-0.0636	ug/L	0.00516	-0.0636	ppb	0.00516	8.12%
Ca 317.933Radial†	-6.1	-10.740	ug/L	1.8133	-10.740	ppb	1.8133	16.88%
Cd 226.502†	2829.7	0.8328	ug/L	0.76968	0.8328	ppb	0.76968	92.42%
Co 228.616†	686.9	12.164	ug/L	0.2206	12.164	ppb	0.2206	1.81%
Cr 267.716†	-558.3	33.769	ug/L	0.6484	33.769	ppb	0.6484	1.92%
Cu 324.752†	-6795.5	-1.9374	ug/L	0.27623	-1.9374	ppb	0.27623	14.26%
Fe 238.204 Radial†	37127.3	389000	ug/L	3601.3	389000	ppb	3601.3	0.93%
K 766.490 Radial†	9.3	1.8342	ug/L	13.79430	1.8342	ppb	13.79430	752.07%
Mg 279.077 IEC†	10.5	-8.9642	ug/L	117.03310	-8.9642	ppb	117.03310	>999.9%
Mn 257.610†	-32511.1	-4.4015	ug/L	0.43044	-4.4015	ppb	0.43044	9.78%
Mo 202.031†	-292.8	4.4527	ug/L	2.00843	4.4527	ppb	2.00843	45.11%
Na 589.592 Radial†	-43.0	-15.067	ug/L	11.7617	-15.067	ppb	11.7617	78.06%
Ni 231.604†	92.7	2.9407	ug/L	0.51311	2.9407	ppb	0.51311	17.45%
P 214.914†	442.7	24.469	ug/L	7.5320	24.469	ppb	7.5320	30.78%
Pb 220.353†	221.0	-21.312	ug/L	2.4287	-21.312	ppb	2.4287	11.40%
S 181.975 Axial†	11.6	20.633	ug/L	3.3194	20.633	ppb	3.3194	16.09%
Sb 206.836†	-4.6	-6.6867	ug/L	3.20791	-6.6867	ppb	3.20791	47.97%
Se 196.026†	-1599.2	-208.86	ug/L	19.500	-208.86	ppb	19.500	9.34%
Si 251.611†	-944.6	-35.231	ug/L	1.0792	-35.231	ppb	1.0792	3.06%
Sn 189.927†	-21.4	-27.148	ug/L	0.1584	-27.148	ppb	0.1584	0.58%
Sr 421.552†	67.0	0.5116	ug/L	0.12919	0.5116	ppb	0.12919	25.25%
Ti 334.940†	-100.4	-0.2319	ug/L	0.08576	-0.2319	ppb	0.08576	36.98%
Tl 190.801†	-0.2	-0.4639	ug/L	1.70669	-0.4639	ppb	1.70669	367.90%

U 409.014†	2041.1	17.314	ug/L	2.1885	17.314	ppb	2.1885 12.64%
V 292.402†	6751.5	-2.9506	ug/L	0.43730	-2.9506	ppb	0.43730 14.82%
Zn 213.857†	3178.6	-19.802	ug/L	1.1425	-19.802	ppb	1.1425 5.77%
SiO2†	-918.0	-72.816	ug/L	3.7681	-72.816	ppb	3.7681 5.17%

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/16/2010 16:37:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4315.2	4315.2	94.1	%			16:39:19
1	Y RADIAL	4632.6	4632.6	93.88	%			16:39:19
1	Al 396.153Radial†	4927.8	5324.7	4981.8	ug/L	4981.8	ppb	16:39:19
1	Ca 317.933Radial†	2725.2	2869.4	5071.9	ug/L	5071.9	ppb	16:39:39
1	Fe 238.204 Radial†	463.1	484.5	5091.4	ug/L	5091.4	ppb	16:39:39
1	K 766.490 Radial†	27434.8	26611.1	5091.7	ug/L	5091.7	ppb	16:39:19
1	Mg 279.077 IEC†	129.3	137.3	5226.0	ug/L	5226.0	ppb	16:39:39
1	Na 589.592 Radial†	26481.5	28958.5	10147	ug/L	10147	ppb	16:39:19
1	Sr 421.552†	62652.8	66582.5	508.61	ug/L	508.61	ppb	16:39:19
1	Sc 361.383	801745.1	801745.1	98.624	%			16:40:36
1	Y 371.029	667993.0	667993.0	96.890	%			16:40:36
1	Ag 328.068†	96168.2	97299.1	502.61	ug/L	502.61	ppb	16:40:41
1	As 188.979†	868.3	897.5	503.71	ug/L	503.71	ppb	16:41:01
1	B 249.677†	17206.6	17862.0	497.59	ug/L	497.59	ppb	16:40:41
1	Ba 233.527†	52747.2	53470.5	501.58	ug/L	501.58	ppb	16:40:41
1	Be 313.107†	1161545.8	1181477.2	505.44	ug/L	505.44	ppb	16:40:36
1	Cd 226.502†	33881.3	34530.2	500.20	ug/L	500.20	ppb	16:40:41
1	Co 228.616†	19296.5	19605.5	509.43	ug/L	509.43	ppb	16:40:41
1	Cr 267.716†	36883.4	37318.3	502.11	ug/L	502.11	ppb	16:40:41
1	Cu 324.752†	153095.3	149764.5	495.71	ug/L	495.71	ppb	16:40:41
1	Mn 257.610†	368709.7	373301.9	491.79	ug/L	491.79	ppb	16:40:41
1	Mo 202.031†	5567.3	5632.1	495.74	ug/L	495.74	ppb	16:41:01
1	Ni 231.604†	15807.7	15946.8	507.42	ug/L	507.42	ppb	16:40:41
1	P 214.914†	3421.5	3285.3	2377.4	ug/L	2377.4	ppb	16:41:01
1	Pb 220.353†	3144.4	3231.0	499.88	ug/L	499.88	ppb	16:41:01
1	S 181.975 Axial†	567.3	545.1	972.34	ug/L	972.34	ppb	16:41:01
1	Sb 206.836†	1186.0	1178.0	505.59	ug/L	505.59	ppb	16:41:01
1	Se 196.026†	578.2	605.0	519.78	ug/L	519.78	ppb	16:41:01
1	Si 251.611†	66187.1	66612.1	2500.7	ug/L	2500.7	ppb	16:40:41
1	Sn 189.927†	2163.4	2185.6	492.72	ug/L	492.72	ppb	16:41:01
1	Ti 334.940†	277617.5	282577.3	488.18	ug/L	488.18	ppb	16:40:41
1	Tl 190.801†	1247.7	1296.9	502.58	ug/L	502.58	ppb	16:41:01
1	U 409.014†	14548.0	16831.9	506.64	ug/L	506.64	ppb	16:40:41
1	V 292.402†	60211.4	62369.0	504.91	ug/L	504.91	ppb	16:40:41
1	Zn 213.857†	42023.6	41992.6	502.64	ug/L	502.64	ppb	16:40:41
1	SiO2†	65516.6	65935.2	5266.7	ug/L	5266.7	ppb	16:42:08
2	Sc Radial	4370.0	4370.0	95.3	%			16:39:44
2	Y RADIAL	4678.0	4678.0	94.81	%			16:39:44
2	Al 396.153Radial†	4955.6	5288.2	4947.7	ug/L	4947.7	ppb	16:39:44
2	Ca 317.933Radial†	2742.6	2851.4	5040.1	ug/L	5040.1	ppb	16:40:04
2	Fe 238.204 Radial†	459.9	474.9	4990.8	ug/L	4990.8	ppb	16:40:04
2	K 766.490 Radial†	27720.6	26545.3	5079.1	ug/L	5079.1	ppb	16:39:44
2	Mg 279.077 IEC†	127.4	133.6	5085.7	ug/L	5085.7	ppb	16:40:04
2	Na 589.592 Radial†	26677.7	28811.2	10095	ug/L	10095	ppb	16:39:44
2	Sr 421.552†	63286.9	66412.6	507.31	ug/L	507.31	ppb	16:39:44
2	Sc 361.383	809268.5	809268.5	99.550	%			16:41:07
2	Y 371.029	674590.1	674590.1	97.847	%			16:41:07
2	Ag 328.068†	95983.0	96206.5	496.95	ug/L	496.95	ppb	16:41:12
2	As 188.979†	863.9	884.9	496.61	ug/L	496.61	ppb	16:41:32
2	B 249.677†	17126.9	17619.7	490.84	ug/L	490.84	ppb	16:41:12
2	Ba 233.527†	52564.3	52789.6	495.19	ug/L	495.19	ppb	16:41:12
2	Be 313.107†	1169968.8	1178989.2	504.36	ug/L	504.36	ppb	16:41:07
2	Cd 226.502†	33737.4	34066.3	493.48	ug/L	493.48	ppb	16:41:12
2	Co 228.616†	19233.6	19360.4	503.07	ug/L	503.07	ppb	16:41:12
2	Cr 267.716†	36758.6	36845.4	495.74	ug/L	495.74	ppb	16:41:12
2	Cu 324.752†	152629.8	147853.9	489.38	ug/L	489.38	ppb	16:41:12
2	Mn 257.610†	367263.0	368373.1	485.29	ug/L	485.29	ppb	16:41:12
2	Mo 202.031†	5567.7	5580.0	491.15	ug/L	491.15	ppb	16:41:32
2	Ni 231.604†	15822.5	15812.7	503.16	ug/L	503.16	ppb	16:41:12

2	P 214.914†	3423.8	3255.4	2356.1 ug/L	2356.1 ppb	16:41:32
2	Pb 220.353†	3147.0	3204.1	495.73 ug/L	495.73 ppb	16:41:32
2	S 181.975 Axial†	569.1	541.6	966.02 ug/L	966.02 ppb	16:41:32
2	Sb 206.836†	1181.6	1162.4	499.03 ug/L	499.03 ppb	16:41:32
2	Se 196.026†	569.5	590.8	507.70 ug/L	507.70 ppb	16:41:32
2	Si 251.611†	66069.2	65869.8	2472.8 ug/L	2472.8 ppb	16:41:12
2	Sn 189.927†	2175.3	2177.1	490.81 ug/L	490.81 ppb	16:41:32
2	Ti 334.940†	276699.2	279037.9	482.08 ug/L	482.08 ppb	16:41:12
2	Tl 190.801†	1261.8	1299.3	503.48 ug/L	503.48 ppb	16:41:32
2	U 409.014†	14441.7	16588.1	499.31 ug/L	499.31 ppb	16:41:12
2	V 292.402†	60031.5	61620.7	498.87 ug/L	498.87 ppb	16:41:12
2	Zn 213.857†	41955.8	41528.4	497.08 ug/L	497.08 ppb	16:41:12
2	SiO2†	65960.1	65763.1	5253.1 ug/L	5253.1 ppb	16:42:13
3	Sc Radial	4337.2	4337.2	94.5 %		16:40:09
3	Y RADIAL	4644.1	4644.1	94.12 %		16:40:09
3	Al 396.153Radial†	4936.7	5307.4	4965.6 ug/L	4965.6 ppb	16:40:09
3	Ca 317.933Radial†	2749.3	2880.1	5090.9 ug/L	5090.9 ppb	16:40:29
3	Fe 238.204 Radial†	466.5	485.5	5102.7 ug/L	5102.7 ppb	16:40:29
3	K 766.490 Radial†	27628.7	26667.7	5102.5 ug/L	5102.5 ppb	16:40:09
3	Mg 279.077 IEC†	129.1	136.5	5195.0 ug/L	5195.0 ppb	16:40:29
3	Na 589.592 Radial†	26738.1	29086.5	10192 ug/L	10192 ppb	16:40:09
3	Sr 421.552†	63022.6	66634.4	509.00 ug/L	509.00 ppb	16:40:09
3	Sc 361.383	802959.7	802959.7	98.774 %		16:41:38
3	Y 371.029	670274.4	670274.4	97.221 %		16:41:38
3	Ag 328.068†	96345.5	97331.0	502.79 ug/L	502.79 ppb	16:41:43
3	As 188.979†	870.7	898.6	504.33 ug/L	504.33 ppb	16:42:03
3	B 249.677†	17355.7	17986.5	501.06 ug/L	501.06 ppb	16:41:43
3	Ba 233.527†	53076.5	53723.0	503.95 ug/L	503.95 ppb	16:41:43
3	Be 313.107†	1163258.5	1181429.7	505.42 ug/L	505.42 ppb	16:41:38
3	Cd 226.502†	34072.8	34672.1	502.26 ug/L	502.26 ppb	16:41:43
3	Co 228.616†	19499.0	19781.0	513.99 ug/L	513.99 ppb	16:41:43
3	Cr 267.716†	37061.9	37442.5	503.78 ug/L	503.78 ppb	16:41:43
3	Cu 324.752†	153412.4	149850.8	496.00 ug/L	496.00 ppb	16:41:43
3	Mn 257.610†	370844.8	374898.0	493.89 ug/L	493.89 ppb	16:41:43
3	Mo 202.031†	5565.2	5621.5	494.80 ug/L	494.80 ppb	16:42:03
3	Ni 231.604†	15975.6	16092.5	512.06 ug/L	512.06 ppb	16:41:43
3	P 214.914†	3423.0	3281.6	2374.5 ug/L	2374.5 ppb	16:42:03
3	Pb 220.353†	3133.4	3215.0	497.41 ug/L	497.41 ppb	16:42:03
3	S 181.975 Axial†	567.9	544.8	971.79 ug/L	971.79 ppb	16:42:03
3	Sb 206.836†	1188.8	1179.1	506.01 ug/L	506.01 ppb	16:42:03
3	Se 196.026†	577.8	603.8	518.81 ug/L	518.81 ppb	16:42:03
3	Si 251.611†	66589.6	66918.1	2512.2 ug/L	2512.2 ppb	16:41:43
3	Sn 189.927†	2161.7	2180.6	491.58 ug/L	491.58 ppb	16:42:03
3	Ti 334.940†	279058.1	283610.0	489.97 ug/L	489.97 ppb	16:41:43
3	Tl 190.801†	1243.7	1290.9	500.29 ug/L	500.29 ppb	16:42:03
3	U 409.014†	14494.5	16755.5	504.33 ug/L	504.33 ppb	16:41:43
3	V 292.402†	60590.3	62660.2	507.21 ug/L	507.21 ppb	16:41:43
3	Zn 213.857†	42324.8	42233.1	505.52 ug/L	505.52 ppb	16:41:43
3	SiO2†	66350.3	66678.7	5326.3 ug/L	5326.3 ppb	16:42:19

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	804657.8	98.983	%	0.4968				0.50%
Sc Radial	4340.8	94.6	%	0.60				0.64%
Y 371.029	670952.5	97.319	%	0.4860				0.50%
Y RADIAL	4651.6	94.27	%	0.479				0.51%
Ag 328.068†	96945.6	500.79	ug/L	3.319	500.79	ppb	3.319	0.66%
QC value within limits for Ag 328.068 Recovery = 100.16%								
Al 396.153Radial†	5306.8	4965.0	ug/L	17.07	4965.0	ppb	17.07	0.34%
QC value within limits for Al 396.153Radial Recovery = 99.30%								
As 188.979†	893.6	501.55	ug/L	4.285	501.55	ppb	4.285	0.85%
QC value within limits for As 188.979 Recovery = 100.31%								
B 249.677†	17822.7	496.50	ug/L	5.195	496.50	ppb	5.195	1.05%
QC value within limits for B 249.677 Recovery = 99.30%								
Ba 233.527†	53327.7	500.24	ug/L	4.529	500.24	ppb	4.529	0.91%
QC value within limits for Ba 233.527 Recovery = 100.05%								
Be 313.107†	1180632.0	505.07	ug/L	0.617	505.07	ppb	0.617	0.12%
QC value within limits for Be 313.107 Recovery = 101.01%								
Ca 317.933Radial†	2866.9	5067.6	ug/L	25.67	5067.6	ppb	25.67	0.51%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.35%
Cd 226.502†            34422.9      498.65 ug/L         4.588      498.65 ppb          4.588   0.92%
   QC value within limits for Cd 226.502  Recovery = 99.73%
Co 228.616†            19582.3      508.83 ug/L         5.484      508.83 ppb          5.484   1.08%
   QC value within limits for Co 228.616  Recovery = 101.77%
Cr 267.716†            37202.1      500.54 ug/L         4.242      500.54 ppb          4.242   0.85%
   QC value within limits for Cr 267.716  Recovery = 100.11%
Cu 324.752†           149156.4      493.70 ug/L         3.738      493.70 ppb          3.738   0.76%
   QC value within limits for Cu 324.752  Recovery = 98.74%
Fe 238.204 Radial†       481.6      5061.6 ug/L         61.61      5061.6 ppb          61.61   1.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.23%
K 766.490 Radial†      26608.0      5091.1 ug/L         11.71      5091.1 ppb          11.71   0.23%
   QC value within limits for K 766.490 Radial  Recovery = 101.82%
Mg 279.077 IEC†          135.8      5168.9 ug/L         73.72      5168.9 ppb          73.72   1.43%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.38%
Mn 257.610†           372191.0      490.32 ug/L         4.482      490.32 ppb          4.482   0.91%
   QC value within limits for Mn 257.610  Recovery = 98.06%
Mo 202.031†             5611.2      493.90 ug/L         2.426      493.90 ppb          2.426   0.49%
   QC value within limits for Mo 202.031  Recovery = 98.78%
Na 589.592 Radial†     28952.1       10144 ug/L          48.3       10144 ppb           48.3   0.48%
   QC value within limits for Na 589.592 Radial  Recovery = 101.44%
Ni 231.604†            15950.7      507.55 ug/L         4.454      507.55 ppb          4.454   0.88%
   QC value within limits for Ni 231.604  Recovery = 101.51%
P 214.914†              3274.1      2369.3 ug/L         11.52      2369.3 ppb          11.52   0.49%
   QC value within limits for P 214.914  Recovery = 94.77%
Pb 220.353†             3216.7      497.67 ug/L         2.092      497.67 ppb          2.092   0.42%
   QC value within limits for Pb 220.353  Recovery = 99.53%
S 181.975 Axial†         543.8      970.05 ug/L         3.502      970.05 ppb          3.502   0.36%
   QC value within limits for S 181.975 Axial  Recovery = 97.01%
Sb 206.836†             1173.2      503.54 ug/L         3.913      503.54 ppb          3.913   0.78%
   QC value within limits for Sb 206.836  Recovery = 100.71%
Se 196.026†              599.9      515.43 ug/L         6.714      515.43 ppb          6.714   1.30%
   QC value within limits for Se 196.026  Recovery = 103.09%
Si 251.611†            66466.7      2495.3 ug/L         20.26      2495.3 ppb          20.26   0.81%
   QC value within limits for Si 251.611  Recovery = 99.81%
Sn 189.927†             2181.1      491.70 ug/L         0.961      491.70 ppb          0.961   0.20%
   QC value within limits for Sn 189.927  Recovery = 98.34%
Sr 421.552†            66543.2      508.31 ug/L         0.886      508.31 ppb          0.886   0.17%
   QC value within limits for Sr 421.552  Recovery = 101.66%
Ti 334.940†           281741.8      486.75 ug/L         4.139      486.75 ppb          4.139   0.85%
   QC value within limits for Ti 334.940  Recovery = 97.35%
Tl 190.801†             1295.7      502.11 ug/L         1.643      502.11 ppb          1.643   0.33%
   QC value within limits for Tl 190.801  Recovery = 100.42%
U 409.014†             16725.2      503.43 ug/L         3.752      503.43 ppb          3.752   0.75%
   QC value within limits for U 409.014  Recovery = 100.69%
V 292.402†             62216.6      503.66 ug/L         4.307      503.66 ppb          4.307   0.86%
   QC value within limits for V 292.402  Recovery = 100.73%
Zn 213.857†            41918.0      501.75 ug/L         4.286      501.75 ppb          4.286   0.85%
   QC value within limits for Zn 213.857  Recovery = 100.35%
SiO2†                  66125.6      5282.1 ug/L         38.94      5282.1 ppb          38.94   0.74%
   QC value within limits for SiO2  Recovery = 98.78%
All analyte(s) passed QC.
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Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/16/2010 16:44:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4387.0	4387.0	95.6	%			16:46:22
1	Y RADIAL	4715.2	4715.2	95.56	%			16:46:22
1	Al 396.153Radial†	-63.7	19.2	18.038	ug/L	18.038	ppb	16:46:42
1	Ca 317.933Radial†	32.9	6.5	11.549	ug/L	11.549	ppb	16:46:42
1	Fe 238.204 Radial†	8.7	1.2	13.058	ug/L	13.058	ppb	16:46:42
1	K 766.490 Radial†	2648.5	213.9	40.977	ug/L	40.977	ppb	16:46:22
1	Mg 279.077 IEC†	1.9	1.9	71.985	ug/L	71.985	ppb	16:46:42
1	Na 589.592 Radial†	-843.2	-76.7	-26.871	ug/L	-26.871	ppb	16:46:22
1	Sr 421.552†	43.8	20.0	0.1530	ug/L	0.1530	ppb	16:46:22
1	Sc 361.383	788216.0	788216.0	96.960	%			16:47:39
1	Y 371.029	665925.8	665925.8	96.590	%			16:47:39
1	Ag 328.068†	95.6	-112.0	-0.5679	ug/L	-0.5679	ppb	16:47:39
1	As 188.979†	-17.1	-0.6	-0.3326	ug/L	-0.3326	ppb	16:47:59
1	B 249.677†	-50.6	363.2	10.161	ug/L	10.161	ppb	16:47:59
1	Ba 233.527†	29.0	17.4	0.1637	ug/L	0.1637	ppb	16:47:59
1	Be 313.107†	-3693.8	-80.6	-0.0347	ug/L	-0.0347	ppb	16:47:39
1	Cd 226.502†	-145.4	26.4	0.3809	ug/L	0.3809	ppb	16:47:59
1	Co 228.616†	-33.6	5.2	0.1345	ug/L	0.1345	ppb	16:47:59
1	Cr 267.716†	61.4	-16.2	-0.2154	ug/L	-0.2154	ppb	16:47:59
1	Cu 324.752†	5376.1	78.4	0.2614	ug/L	0.2614	ppb	16:47:39
1	Mn 257.610†	522.4	-12.2	-0.0177	ug/L	-0.0177	ppb	16:47:59
1	Mo 202.031†	10.9	-1.6	-0.1390	ug/L	-0.1390	ppb	16:47:59
1	Ni 231.604†	69.7	-9.6	-0.3046	ug/L	-0.3046	ppb	16:47:59
1	P 214.914†	186.3	8.2	6.1310	ug/L	6.1310	ppb	16:47:59
1	Pb 220.353†	-40.6	0.9	0.1480	ug/L	0.1480	ppb	16:47:59
1	S 181.975 Axial†	33.4	4.3	7.6688	ug/L	7.6688	ppb	16:47:59
1	Sb 206.836†	28.0	4.3	1.8083	ug/L	1.8083	ppb	16:47:59
1	Se 196.026†	-22.2	-4.1	-3.3885	ug/L	-3.3885	ppb	16:47:59
1	Si 251.611†	515.0	33.0	1.2423	ug/L	1.2423	ppb	16:47:59
1	Sn 189.927†	11.1	3.5	0.7907	ug/L	0.7907	ppb	16:47:59
1	Ti 334.940†	-1124.9	-72.9	-0.1292	ug/L	-0.1292	ppb	16:47:39
1	Tl 190.801†	-20.5	10.7	4.1124	ug/L	4.1124	ppb	16:47:59
1	U 409.014†	-2091.8	-76.4	-2.3074	ug/L	-2.3074	ppb	16:47:39
1	V 292.402†	-1246.4	32.2	0.2508	ug/L	0.2508	ppb	16:47:39
1	Zn 213.857†	666.7	70.5	0.8516	ug/L	0.8516	ppb	16:47:59
1	SiO2†	520.5	41.5	3.3296	ug/L	3.3296	ppb	16:49:10
2	Sc Radial	4377.6	4377.6	95.4	%			16:46:47
2	Y RADIAL	4720.4	4720.4	95.66	%			16:46:47
2	Al 396.153Radial†	-79.9	2.1	1.9430	ug/L	1.9430	ppb	16:47:07
2	Ca 317.933Radial†	29.2	2.7	4.8267	ug/L	4.8267	ppb	16:47:07
2	Fe 238.204 Radial†	6.6	-0.9	-9.4197	ug/L	-9.4197	ppb	16:47:07
2	K 766.490 Radial†	2782.9	360.7	69.111	ug/L	69.111	ppb	16:46:47
2	Mg 279.077 IEC†	2.9	2.9	112.10	ug/L	112.10	ppb	16:47:07
2	Na 589.592 Radial†	-849.1	-84.8	-29.702	ug/L	-29.702	ppb	16:46:47
2	Sr 421.552†	13.7	-11.4	-0.0870	ug/L	-0.0870	ppb	16:46:47
2	Sc 361.383	786625.0	786625.0	96.764	%			16:48:04
2	Y 371.029	664837.3	664837.3	96.432	%			16:48:04
2	Ag 328.068†	100.3	-107.0	-0.5472	ug/L	-0.5472	ppb	16:48:04
2	As 188.979†	-14.0	2.6	1.4529	ug/L	1.4529	ppb	16:48:24
2	B 249.677†	-87.3	325.1	9.1001	ug/L	9.1001	ppb	16:48:24
2	Ba 233.527†	20.3	8.5	0.0789	ug/L	0.0789	ppb	16:48:24
2	Be 313.107†	-3657.3	-50.6	-0.0218	ug/L	-0.0218	ppb	16:48:04
2	Cd 226.502†	-131.6	40.3	0.5842	ug/L	0.5842	ppb	16:48:24
2	Co 228.616†	-42.2	-3.8	-0.0988	ug/L	-0.0988	ppb	16:48:24
2	Cr 267.716†	64.9	-12.5	-0.1660	ug/L	-0.1660	ppb	16:48:24
2	Cu 324.752†	5368.6	81.9	0.2741	ug/L	0.2741	ppb	16:48:04
2	Mn 257.610†	519.6	-14.0	-0.0239	ug/L	-0.0239	ppb	16:48:24
2	Mo 202.031†	10.9	-1.5	-0.1361	ug/L	-0.1361	ppb	16:48:24
2	Ni 231.604†	89.1	10.7	0.3409	ug/L	0.3409	ppb	16:48:24

2	P 214.914†	185.7	8.0	5.9713 ug/L	5.9713 ppb	16:48:24
2	Pb 220.353†	-31.4	10.3	1.5968 ug/L	1.5968 ppb	16:48:24
2	S 181.975 Axial†	26.0	-3.3	-5.8602 ug/L	-5.8602 ppb	16:48:24
2	Sb 206.836†	33.5	10.1	4.2006 ug/L	4.2006 ppb	16:48:24
2	Se 196.026†	-11.3	7.1	5.9034 ug/L	5.9034 ppb	16:48:24
2	Si 251.611†	502.6	21.2	0.8008 ug/L	0.8008 ppb	16:48:24
2	Sn 189.927†	8.0	0.3	0.0702 ug/L	0.0702 ppb	16:48:24
2	Ti 334.940†	-1111.3	-61.2	-0.1113 ug/L	-0.1113 ppb	16:48:04
2	Tl 190.801†	-21.2	9.9	3.8130 ug/L	3.8130 ppb	16:48:24
2	U 409.014†	-2222.6	-215.9	-6.5201 ug/L	-6.5201 ppb	16:48:04
2	V 292.402†	-1290.6	-16.0	-0.1388 ug/L	-0.1388 ppb	16:48:04
2	Zn 213.857†	668.9	74.2	0.8948 ug/L	0.8948 ppb	16:48:24
2	SiO2†	531.1	53.5	4.2890 ug/L	4.2890 ppb	16:49:30
3	Sc Radial	4420.1	4420.1	96.3 %		16:47:12
3	Y RADIAL	4763.4	4763.4	96.54 %		16:47:12
3	Al 396.153Radial†	-73.2	9.8	9.2108 ug/L	9.2108 ppb	16:47:32
3	Ca 317.933Radial†	33.3	6.7	11.929 ug/L	11.929 ppb	16:47:32
3	Fe 238.204 Radial†	8.3	0.8	8.1641 ug/L	8.1641 ppb	16:47:32
3	K 766.490 Radial†	2543.0	83.7	16.029 ug/L	16.029 ppb	16:47:12
3	Mg 279.077 IEC†	0.7	0.6	24.008 ug/L	24.008 ppb	16:47:32
3	Na 589.592 Radial†	-821.5	-47.5	-16.649 ug/L	-16.649 ppb	16:47:12
3	Sr 421.552†	48.0	24.1	0.1838 ug/L	0.1838 ppb	16:47:12
3	Sc 361.383	791550.2	791550.2	97.370 %		16:48:29
3	Y 371.029	669772.0	669772.0	97.148 %		16:48:29
3	Ag 328.068†	158.7	-47.6	-0.2362 ug/L	-0.2362 ppb	16:48:29
3	As 188.979†	-18.3	-1.8	-0.9848 ug/L	-0.9848 ppb	16:48:50
3	B 249.677†	-101.4	311.2	8.7068 ug/L	8.7068 ppb	16:48:50
3	Ba 233.527†	13.5	1.4	0.0125 ug/L	0.0125 ppb	16:48:50
3	Be 313.107†	-3761.2	-133.7	-0.0568 ug/L	-0.0568 ppb	16:48:29
3	Cd 226.502†	-140.0	32.6	0.4695 ug/L	0.4695 ppb	16:48:50
3	Co 228.616†	-30.5	8.6	0.2227 ug/L	0.2227 ppb	16:48:50
3	Cr 267.716†	88.3	11.1	0.1533 ug/L	0.1533 ppb	16:48:50
3	Cu 324.752†	5453.5	134.5	0.4506 ug/L	0.4506 ppb	16:48:29
3	Mn 257.610†	531.9	-4.6	-0.0063 ug/L	-0.0063 ppb	16:48:50
3	Mo 202.031†	15.1	2.7	0.2370 ug/L	0.2370 ppb	16:48:50
3	Ni 231.604†	80.7	1.5	0.0466 ug/L	0.0466 ppb	16:48:50
3	P 214.914†	183.2	4.3	3.1330 ug/L	3.1330 ppb	16:48:50
3	Pb 220.353†	-37.1	4.7	0.7236 ug/L	0.7236 ppb	16:48:50
3	S 181.975 Axial†	31.2	1.8	3.2952 ug/L	3.2952 ppb	16:48:50
3	Sb 206.836†	38.0	14.5	5.9992 ug/L	5.9992 ppb	16:48:50
3	Se 196.026†	-22.1	-3.9	-3.2267 ug/L	-3.2267 ppb	16:48:50
3	Si 251.611†	505.5	21.0	0.7870 ug/L	0.7870 ppb	16:48:50
3	Sn 189.927†	9.7	2.0	0.4476 ug/L	0.4476 ppb	16:48:50
3	Ti 334.940†	-999.7	60.6	0.1082 ug/L	0.1082 ppb	16:48:29
3	Tl 190.801†	-34.3	-3.4	-1.3201 ug/L	-1.3201 ppb	16:48:50
3	U 409.014†	-2315.5	-297.0	-8.9724 ug/L	-8.9724 ppb	16:48:29
3	V 292.402†	-1328.0	-46.2	-0.3835 ug/L	-0.3835 ppb	16:48:29
3	Zn 213.857†	679.8	81.1	0.9771 ug/L	0.9771 ppb	16:48:50
3	SiO2†	537.4	56.6	4.5246 ug/L	4.5246 ppb	16:49:50

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	788797.1	97.032	%	0.3092				0.32%
Sc Radial	4394.9	95.8	%	0.49				0.51%
Y 371.029	666845.0	96.723	%	0.3760				0.39%
Y RADIAL	4733.0	95.92	%	0.537				0.56%
Ag 328.068†	-88.8	-0.4504	ug/L	0.18585	-0.4504	ppb	0.18585	41.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.3	9.7304	ug/L	8.05984	9.7304	ppb	8.05984	82.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.1	0.0452	ug/L	1.26202	0.0452	ppb	1.26202	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	333.2	9.3226	ug/L	0.75203	9.3226	ppb	0.75203	8.07%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.1	0.0851	ug/L	0.07580	0.0851	ppb	0.07580	89.11%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-88.3	-0.0378	ug/L	0.01771	-0.0378	ppb	0.01771	46.85%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.3	9.4347	ug/L	3.99516	9.4347	ppb	3.99516	42.35%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                33.1      0.4782 ug/L       0.10193      0.4782 ppb        0.10193  21.31%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.3      0.0861 ug/L       0.16614      0.0861 ppb        0.16614 192.92%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -5.9     -0.0760 ug/L       0.20012     -0.0760 ppb        0.20012 263.28%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                98.3      0.3287 ug/L       0.10576      0.3287 ppb        0.10576  32.17%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.4      3.9342 ug/L      11.82078      3.9342 ppb       11.82078 300.47%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         219.4      42.039 ug/L       26.5572      42.039 ppb        26.5572  63.17%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.8      69.365 ug/L       44.1060      69.365 ppb        44.1060  63.59%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -10.3     -0.0160 ug/L       0.00893     -0.0160 ppb        0.00893  55.96%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -0.1     -0.0127 ug/L       0.21627     -0.0127 ppb        0.21627 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -69.7     -24.407 ug/L        6.8664     -24.407 ppb         6.8664  28.13%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 0.9      0.0276 ug/L       0.32317      0.0276 ppb        0.32317 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  6.8      5.0784 ug/L       1.68671      5.0784 ppb        1.68671  33.21%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 5.3      0.8228 ug/L       0.72946      0.8228 ppb        0.72946  88.66%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.0      1.7013 ug/L       6.90389      1.7013 ppb        6.90389 405.81%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 9.7      4.0027 ug/L       2.10244      4.0027 ppb        2.10244  52.53%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.3     -0.2373 ug/L       5.31857     -0.2373 ppb        5.31857 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                25.1      0.9434 ug/L       0.25897      0.9434 ppb        0.25897  27.45%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.9      0.4362 ug/L       0.36038      0.4362 ppb        0.36038  82.62%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                10.9      0.0833 ug/L       0.14827      0.0833 ppb        0.14827 178.10%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -24.5     -0.0441 ug/L       0.13220     -0.0441 ppb        0.13220 299.77%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.7      2.2018 ug/L       3.05368      2.2018 ppb        3.05368 138.69%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -196.5     -5.9333 ug/L       3.37103     -5.9333 ppb        3.37103  56.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -10.0     -0.0905 ug/L       0.31987     -0.0905 ppb        0.31987 353.45%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                75.2      0.9078 ug/L       0.06377      0.9078 ppb        0.06377   7.02%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      50.5      4.0477 ug/L       0.63299      4.0477 ppb        0.63299  15.64%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 6
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/16/2010 17:06:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4387.0	4387.0	95.6	%			17:07:53
1	Y RADIAL	4674.3	4674.3	94.73	%			17:07:53
1	Al 396.153Radial†	5005.1	5319.7	4976.7	ug/L	4976.7	ppb	17:07:53
1	Ca 317.933Radial†	2764.5	2863.1	5060.8	ug/L	5060.8	ppb	17:08:13
1	Fe 238.204 Radial†	467.7	481.2	5057.5	ug/L	5057.5	ppb	17:08:13
1	K 766.490 Radial†	28267.5	27004.2	5166.9	ug/L	5166.9	ppb	17:07:53
1	Mg 279.077 IEC†	134.3	140.4	5341.1	ug/L	5341.1	ppb	17:08:13
1	Na 589.592 Radial†	27781.2	29856.6	10461	ug/L	10461	ppb	17:07:53
1	Sr 421.552†	64305.2	67219.8	513.48	ug/L	513.48	ppb	17:07:53
1	Sc 361.383	799642.2	799642.2	98.366	%			17:09:10
1	Y 371.029	667318.0	667318.0	96.792	%			17:09:10
1	Ag 328.068†	96816.1	98214.2	507.32	ug/L	507.32	ppb	17:09:15
1	As 188.979†	877.1	908.7	509.94	ug/L	509.94	ppb	17:09:35
1	B 249.677†	17318.8	18021.9	502.06	ug/L	502.06	ppb	17:09:15
1	Ba 233.527†	53191.1	54062.4	507.13	ug/L	507.13	ppb	17:09:15
1	Be 313.107†	1165588.6	1188684.5	508.53	ug/L	508.53	ppb	17:09:10
1	Cd 226.502†	34217.6	34962.5	506.47	ug/L	506.47	ppb	17:09:15
1	Co 228.616†	19451.0	19814.1	514.86	ug/L	514.86	ppb	17:09:15
1	Cr 267.716†	37182.0	37720.3	507.51	ug/L	507.51	ppb	17:09:15
1	Cu 324.752†	154406.8	151506.1	501.47	ug/L	501.47	ppb	17:09:15
1	Mn 257.610†	371373.7	376993.4	496.64	ug/L	496.64	ppb	17:09:15
1	Mo 202.031†	5643.8	5724.8	503.88	ug/L	503.88	ppb	17:09:35
1	Ni 231.604†	15945.7	16129.3	513.23	ug/L	513.23	ppb	17:09:15
1	P 214.914†	3468.1	3341.8	2418.9	ug/L	2418.9	ppb	17:09:35
1	Pb 220.353†	3192.4	3288.2	508.73	ug/L	508.73	ppb	17:09:35
1	S 181.975 Axial†	597.4	577.1	1029.6	ug/L	1029.6	ppb	17:09:35
1	Sb 206.836†	1215.3	1211.0	519.62	ug/L	519.62	ppb	17:09:35
1	Se 196.026†	585.5	614.0	527.20	ug/L	527.20	ppb	17:09:35
1	Si 251.611†	66837.1	67449.4	2532.1	ug/L	2532.1	ppb	17:09:15
1	Sn 189.927†	2211.4	2240.2	505.00	ug/L	505.00	ppb	17:09:35
1	Ti 334.940†	279573.5	285306.0	492.88	ug/L	492.88	ppb	17:09:15
1	Tl 190.801†	1277.2	1330.2	515.44	ug/L	515.44	ppb	17:09:35
1	U 409.014†	14670.6	16995.4	511.57	ug/L	511.57	ppb	17:09:15
1	V 292.402†	60820.8	63149.1	511.26	ug/L	511.26	ppb	17:09:15
1	Zn 213.857†	42581.5	42671.9	510.81	ug/L	510.81	ppb	17:09:15
1	SiO2†	66084.0	66686.7	5326.7	ug/L	5326.7	ppb	17:10:42
2	Sc Radial	4319.4	4319.4	94.2	%			17:08:18
2	Y RADIAL	4620.9	4620.9	93.65	%			17:08:18
2	Al 396.153Radial†	4900.2	5290.3	4949.5	ug/L	4949.5	ppb	17:08:18
2	Ca 317.933Radial†	2760.2	2903.7	5132.6	ug/L	5132.6	ppb	17:08:38
2	Fe 238.204 Radial†	470.6	492.0	5169.9	ug/L	5169.9	ppb	17:08:38
2	K 766.490 Radial†	28079.0	27266.7	5217.2	ug/L	5217.2	ppb	17:08:18
2	Mg 279.077 IEC†	133.1	141.2	5374.4	ug/L	5374.4	ppb	17:08:38
2	Na 589.592 Radial†	27304.4	29804.8	10443	ug/L	10443	ppb	17:08:18
2	Sr 421.552†	63403.3	67314.3	514.20	ug/L	514.20	ppb	17:08:18
2	Sc 361.383	808758.9	808758.9	99.487	%			17:09:41
2	Y 371.029	673856.3	673856.3	97.740	%			17:09:41
2	Ag 328.068†	97333.5	97624.7	504.32	ug/L	504.32	ppb	17:09:46
2	As 188.979†	863.5	885.0	496.78	ug/L	496.78	ppb	17:10:06
2	B 249.677†	17423.6	17928.8	499.44	ug/L	499.44	ppb	17:09:46
2	Ba 233.527†	53602.5	53866.3	505.30	ug/L	505.30	ppb	17:09:46
2	Be 313.107†	1176744.4	1186540.3	507.61	ug/L	507.61	ppb	17:09:41
2	Cd 226.502†	34596.1	34950.8	506.29	ug/L	506.29	ppb	17:09:46
2	Co 228.616†	19599.2	19740.1	512.92	ug/L	512.92	ppb	17:09:46
2	Cr 267.716†	37475.8	37589.5	505.76	ug/L	505.76	ppb	17:09:46
2	Cu 324.752†	155177.3	150511.1	498.18	ug/L	498.18	ppb	17:09:46
2	Mn 257.610†	374676.1	376056.9	495.41	ug/L	495.41	ppb	17:09:46
2	Mo 202.031†	5614.5	5630.6	495.61	ug/L	495.61	ppb	17:10:06
2	Ni 231.604†	16096.8	16098.3	512.25	ug/L	512.25	ppb	17:09:46

2	P 214.914†	3466.4	3300.4	2388.2	ug/L	2388.2 ppb	17:10:06
2	Pb 220.353†	3185.5	3244.7	501.97	ug/L	501.97 ppb	17:10:06
2	S 181.975 Axial†	588.8	561.7	1002.0	ug/L	1002.0 ppb	17:10:06
2	Sb 206.836†	1196.1	1177.7	505.57	ug/L	505.57 ppb	17:10:06
2	Se 196.026†	581.5	603.2	518.53	ug/L	518.53 ppb	17:10:06
2	Si 251.611†	67233.3	67081.7	2518.4	ug/L	2518.4 ppb	17:09:46
2	Sn 189.927†	2205.5	2208.9	497.95	ug/L	497.95 ppb	17:10:06
2	Ti 334.940†	281831.1	284371.5	491.28	ug/L	491.28 ppb	17:09:46
2	Tl 190.801†	1248.4	1286.6	498.64	ug/L	498.64 ppb	17:10:06
2	U 409.014†	14855.0	17012.6	512.08	ug/L	512.08 ppb	17:09:46
2	V 292.402†	61234.6	62868.0	508.89	ug/L	508.89 ppb	17:09:46
2	Zn 213.857†	42921.0	42525.1	509.03	ug/L	509.03 ppb	17:09:46
2	SiO2†	66194.3	66040.3	5275.2	ug/L	5275.2 ppb	17:10:47
3	Sc Radial	4427.5	4427.5	96.5	%		17:08:43
3	Y RADIAL	4754.7	4754.7	96.36	%		17:08:43
3	Al 396.153Radial†	5069.8	5339.0	4995.2	ug/L	4995.2 ppb	17:08:43
3	Ca 317.933Radial†	2765.0	2837.2	5015.0	ug/L	5015.0 ppb	17:09:03
3	Fe 238.204 Radial†	469.3	478.4	5027.5	ug/L	5027.5 ppb	17:09:03
3	K 766.490 Radial†	28641.2	27121.2	5189.3	ug/L	5189.3 ppb	17:08:43
3	Mg 279.077 IEC†	132.6	137.3	5225.8	ug/L	5225.8 ppb	17:09:03
3	Na 589.592 Radial†	28011.2	29829.3	10452	ug/L	10452 ppb	17:08:43
3	Sr 421.552†	65275.1	67610.0	516.46	ug/L	516.46 ppb	17:08:43
3	Sc 361.383	802839.7	802839.7	98.759	%		17:10:12
3	Y 371.029	669426.8	669426.8	97.098	%		17:10:12
3	Ag 328.068†	96378.4	97378.9	503.01	ug/L	503.01 ppb	17:10:17
3	As 188.979†	867.4	895.4	502.50	ug/L	502.50 ppb	17:10:37
3	B 249.677†	17236.0	17867.9	497.76	ug/L	497.76 ppb	17:10:17
3	Ba 233.527†	52937.9	53590.7	502.71	ug/L	502.71 ppb	17:10:17
3	Be 313.107†	1166701.1	1185091.5	506.98	ug/L	506.98 ppb	17:10:12
3	Cd 226.502†	34089.7	34694.4	502.58	ug/L	502.58 ppb	17:10:17
3	Co 228.616†	19384.4	19667.8	511.06	ug/L	511.06 ppb	17:10:17
3	Cr 267.716†	37071.2	37457.5	503.97	ug/L	503.97 ppb	17:10:17
3	Cu 324.752†	153259.4	149719.1	495.55	ug/L	495.55 ppb	17:10:17
3	Mn 257.610†	370097.9	374197.8	492.96	ug/L	492.96 ppb	17:10:17
3	Mo 202.031†	5593.0	5650.4	497.34	ug/L	497.34 ppb	17:10:37
3	Ni 231.604†	15902.1	16020.5	509.77	ug/L	509.77 ppb	17:10:17
3	P 214.914†	3439.3	3298.6	2387.5	ug/L	2387.5 ppb	17:10:37
3	Pb 220.353†	3170.9	3253.5	503.37	ug/L	503.37 ppb	17:10:37
3	S 181.975 Axial†	589.9	567.2	1011.7	ug/L	1011.7 ppb	17:10:37
3	Sb 206.836†	1201.7	1192.3	511.61	ug/L	511.61 ppb	17:10:37
3	Se 196.026†	559.9	585.7	503.59	ug/L	503.59 ppb	17:10:37
3	Si 251.611†	66364.3	66700.0	2504.0	ug/L	2504.0 ppb	17:10:17
3	Sn 189.927†	2178.9	2198.3	495.57	ug/L	495.57 ppb	17:10:37
3	Ti 334.940†	278575.3	283163.4	489.19	ug/L	489.19 ppb	17:10:17
3	Tl 190.801†	1252.9	1300.5	503.96	ug/L	503.96 ppb	17:10:37
3	U 409.014†	14535.0	16798.6	505.64	ug/L	505.64 ppb	17:10:17
3	V 292.402†	60502.0	62580.0	506.62	ug/L	506.62 ppb	17:10:17
3	Zn 213.857†	42302.0	42216.4	505.34	ug/L	505.34 ppb	17:10:17
3	SiO2†	64811.9	65131.0	5202.3	ug/L	5202.3 ppb	17:10:52

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	803746.9	98.871	%	0.5690				0.58%
Sc Radial	4377.9	95.4	%	1.19				1.25%
Y 371.029	670200.4	97.210	%	0.4840				0.50%
Y RADIAL	4683.3	94.91	%	1.366				1.44%
Ag 328.068†	97739.3	504.88	ug/L	2.210	504.88	ppb	2.210	0.44%
QC value within limits for Ag 328.068 Recovery = 100.98%								
Al 396.153Radial†	5316.3	4973.8	ug/L	22.99	4973.8	ppb	22.99	0.46%
QC value within limits for Al 396.153Radial Recovery = 99.48%								
As 188.979†	896.3	503.07	ug/L	6.599	503.07	ppb	6.599	1.31%
QC value within limits for As 188.979 Recovery = 100.61%								
B 249.677†	17939.5	499.75	ug/L	2.163	499.75	ppb	2.163	0.43%
QC value within limits for B 249.677 Recovery = 99.95%								
Ba 233.527†	53839.8	505.04	ug/L	2.223	505.04	ppb	2.223	0.44%
QC value within limits for Ba 233.527 Recovery = 101.01%								
Be 313.107†	1186772.1	507.70	ug/L	0.776	507.70	ppb	0.776	0.15%
QC value within limits for Be 313.107 Recovery = 101.54%								
Ca 317.933Radial†	2868.0	5069.5	ug/L	59.30	5069.5	ppb	59.30	1.17%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.39%
Cd 226.502†            34869.2      505.11 ug/L         2.192      505.11 ppb          2.192   0.43%
   QC value within limits for Cd 226.502  Recovery = 101.02%
Co 228.616†            19740.6      512.95 ug/L         1.904      512.95 ppb          1.904   0.37%
   QC value within limits for Co 228.616  Recovery = 102.59%
Cr 267.716†            37589.1      505.75 ug/L         1.768      505.75 ppb          1.768   0.35%
   QC value within limits for Cr 267.716  Recovery = 101.15%
Cu 324.752†           150578.8      498.40 ug/L         2.963      498.40 ppb          2.963   0.59%
   QC value within limits for Cu 324.752  Recovery = 99.68%
Fe 238.204 Radial†       483.9      5085.0 ug/L         75.08      5085.0 ppb          75.08   1.48%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.70%
K 766.490 Radial†      27130.7      5191.1 ug/L         25.19      5191.1 ppb          25.19   0.49%
   QC value within limits for K 766.490 Radial  Recovery = 103.82%
Mg 279.077 IEC†          139.6      5313.8 ug/L         77.98      5313.8 ppb          77.98   1.47%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.28%
Mn 257.610†           375749.4      495.00 ug/L         1.874      495.00 ppb          1.874   0.38%
   QC value within limits for Mn 257.610  Recovery = 99.00%
Mo 202.031†             5668.6      498.95 ug/L         4.361      498.95 ppb          4.361   0.87%
   QC value within limits for Mo 202.031  Recovery = 99.79%
Na 589.592 Radial†     29830.2       10452 ug/L           9.1       10452 ppb            9.1   0.09%
   QC value within limits for Na 589.592 Radial  Recovery = 104.52%
Ni 231.604†            16082.7      511.75 ug/L         1.784      511.75 ppb          1.784   0.35%
   QC value within limits for Ni 231.604  Recovery = 102.35%
P 214.914†              3313.6      2398.2 ug/L         17.94      2398.2 ppb          17.94   0.75%
   QC value within limits for P 214.914  Recovery = 95.93%
Pb 220.353†             3262.1      504.69 ug/L         3.568      504.69 ppb          3.568   0.71%
   QC value within limits for Pb 220.353  Recovery = 100.94%
S 181.975 Axial†         568.7      1014.4 ug/L         13.99      1014.4 ppb          13.99   1.38%
   QC value within limits for S 181.975 Axial  Recovery = 101.44%
Sb 206.836†             1193.7      512.27 ug/L         7.047      512.27 ppb          7.047   1.38%
   QC value within limits for Sb 206.836  Recovery = 102.45%
Se 196.026†              601.0      516.44 ug/L        11.940      516.44 ppb         11.940   2.31%
   QC value within limits for Se 196.026  Recovery = 103.29%
Si 251.611†            67077.0      2518.2 ug/L         14.06      2518.2 ppb          14.06   0.56%
   QC value within limits for Si 251.611  Recovery = 100.73%
Sn 189.927†             2215.8      499.51 ug/L         4.903      499.51 ppb          4.903   0.98%
   QC value within limits for Sn 189.927  Recovery = 99.90%
Sr 421.552†            67381.4      514.71 ug/L         1.555      514.71 ppb          1.555   0.30%
   QC value within limits for Sr 421.552  Recovery = 102.94%
Ti 334.940†           284280.3      491.12 ug/L         1.853      491.12 ppb          1.853   0.38%
   QC value within limits for Ti 334.940  Recovery = 98.22%
Tl 190.801†             1305.8      506.01 ug/L         8.585      506.01 ppb          8.585   1.70%
   QC value within limits for Tl 190.801  Recovery = 101.20%
U 409.014†             16935.5      509.77 ug/L         3.581      509.77 ppb          3.581   0.70%
   QC value within limits for U 409.014  Recovery = 101.95%
V 292.402†             62865.7      508.93 ug/L         2.321      508.93 ppb          2.321   0.46%
   QC value within limits for V 292.402  Recovery = 101.79%
Zn 213.857†            42471.1      508.39 ug/L         2.789      508.39 ppb          2.789   0.55%
   QC value within limits for Zn 213.857  Recovery = 101.68%
SiO2†                  65952.7      5268.1 ug/L         62.51      5268.1 ppb          62.51   1.19%
   QC value within limits for SiO2  Recovery = 98.51%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 3/16/2010 17:13:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4384.4	4384.4	95.6	%			17:14:56
1	Y RADIAL	4732.5	4732.5	95.91	%			17:14:56
1	Al 396.153Radial†	129.7	221.6	207.83	ug/L	207.83	ppb	17:15:16
1	Ca 317.933Radial†	142.0	120.8	213.49	ug/L	213.49	ppb	17:15:16
1	Fe 238.204 Radial†	16.3	9.2	96.515	ug/L	96.515	ppb	17:15:16
1	K 766.490 Radial†	3625.2	1237.5	236.88	ug/L	236.88	ppb	17:14:56
1	Mg 279.077 IEC†	10.4	10.8	412.43	ug/L	412.43	ppb	17:15:16
1	Na 589.592 Radial†	66.8	875.0	306.58	ug/L	306.58	ppb	17:14:56
1	Sr 421.552†	690.0	696.2	5.3170	ug/L	5.3170	ppb	17:14:56
1	Sc 361.383	783381.6	783381.6	96.365	%			17:16:13
1	Y 371.029	662615.7	662615.7	96.110	%			17:16:13
1	Ag 328.068†	1199.7	1034.3	5.3187	ug/L	5.3187	ppb	17:16:13
1	As 188.979†	32.3	50.5	28.169	ug/L	28.169	ppb	17:16:33
1	B 249.677†	1594.3	2069.8	57.893	ug/L	57.893	ppb	17:16:13
1	Ba 233.527†	565.1	573.9	5.3834	ug/L	5.3834	ppb	17:16:33
1	Be 313.107†	7718.7	11738.8	5.0223	ug/L	5.0223	ppb	17:16:13
1	Cd 226.502†	184.6	367.9	5.3326	ug/L	5.3326	ppb	17:16:33
1	Co 228.616†	143.9	189.1	4.9249	ug/L	4.9249	ppb	17:16:33
1	Cr 267.716†	449.2	386.6	5.1901	ug/L	5.1901	ppb	17:16:33
1	Cu 324.752†	8253.4	3098.5	10.236	ug/L	10.236	ppb	17:16:13
1	Mn 257.610†	8257.8	8018.4	10.550	ug/L	10.550	ppb	17:16:13
1	Mo 202.031†	119.1	110.8	9.7495	ug/L	9.7495	ppb	17:16:33
1	Ni 231.604†	249.1	177.0	5.6339	ug/L	5.6339	ppb	17:16:33
1	P 214.914†	379.6	210.0	156.16	ug/L	156.16	ppb	17:16:33
1	Pb 220.353†	21.3	64.9	10.064	ug/L	10.064	ppb	17:16:33
1	S 181.975 Axial†	95.7	69.1	123.40	ug/L	123.40	ppb	17:16:33
1	Sb 206.836†	48.0	25.3	10.798	ug/L	10.798	ppb	17:16:33
1	Se 196.026†	17.4	36.8	30.937	ug/L	30.937	ppb	17:16:33
1	Si 251.611†	3024.9	2640.8	99.259	ug/L	99.259	ppb	17:16:33
1	Sn 189.927†	46.9	40.7	9.1969	ug/L	9.1969	ppb	17:16:33
1	Ti 334.940†	1767.9	2921.9	5.0227	ug/L	5.0227	ppb	17:16:13
1	Tl 190.801†	28.8	61.6	23.797	ug/L	23.797	ppb	17:16:33
1	U 409.014†	-564.9	1494.8	45.123	ug/L	45.123	ppb	17:16:13
1	V 292.402†	-711.8	579.1	4.8369	ug/L	4.8369	ppb	17:16:13
1	Zn 213.857†	1734.8	1183.1	14.229	ug/L	14.229	ppb	17:16:33
1	SiO2†	3120.4	2742.7	219.38	ug/L	219.38	ppb	17:17:29
2	Sc Radial	4325.7	4325.7	94.3	%			17:15:21
2	Y RADIAL	4679.5	4679.5	94.84	%			17:15:21
2	Al 396.153Radial†	132.8	226.6	212.55	ug/L	212.55	ppb	17:15:41
2	Ca 317.933Radial†	133.9	114.2	201.81	ug/L	201.81	ppb	17:15:41
2	Fe 238.204 Radial†	17.5	10.7	112.12	ug/L	112.12	ppb	17:15:41
2	K 766.490 Radial†	3502.5	1158.8	221.80	ug/L	221.80	ppb	17:15:21
2	Mg 279.077 IEC†	7.5	7.8	298.69	ug/L	298.69	ppb	17:15:41
2	Na 589.592 Radial†	78.0	887.8	311.07	ug/L	311.07	ppb	17:15:21
2	Sr 421.552†	638.3	651.2	4.9734	ug/L	4.9734	ppb	17:15:21
2	Sc 361.383	788805.9	788805.9	97.033	%			17:16:39
2	Y 371.029	667358.2	667358.2	96.798	%			17:16:39
2	Ag 328.068†	1091.3	914.0	4.7054	ug/L	4.7054	ppb	17:16:39
2	As 188.979†	29.3	47.2	26.313	ug/L	26.313	ppb	17:16:59
2	B 249.677†	1635.9	2101.2	58.771	ug/L	58.771	ppb	17:16:39
2	Ba 233.527†	557.9	562.5	5.2774	ug/L	5.2774	ppb	17:16:59
2	Be 313.107†	7848.2	11817.2	5.0554	ug/L	5.0554	ppb	17:16:39
2	Cd 226.502†	199.3	381.7	5.5313	ug/L	5.5313	ppb	17:16:59
2	Co 228.616†	146.4	190.8	4.9683	ug/L	4.9683	ppb	17:16:59
2	Cr 267.716†	454.2	388.6	5.2174	ug/L	5.2174	ppb	17:16:59
2	Cu 324.752†	8327.3	3115.8	10.293	ug/L	10.293	ppb	17:16:39
2	Mn 257.610†	8263.2	7965.0	10.486	ug/L	10.486	ppb	17:16:39
2	Mo 202.031†	126.1	117.1	10.309	ug/L	10.309	ppb	17:16:59
2	Ni 231.604†	253.3	179.6	5.7161	ug/L	5.7161	ppb	17:16:59

2	P 214.914†	388.2	216.2	160.81 ug/L	160.81 ppb	17:16:59
2	Pb 220.353†	41.1	85.1	13.184 ug/L	13.184 ppb	17:16:59
2	S 181.975 Axial†	100.5	73.4	131.07 ug/L	131.07 ppb	17:16:59
2	Sb 206.836†	53.7	30.8	13.094 ug/L	13.094 ppb	17:16:59
2	Se 196.026†	22.5	42.0	35.294 ug/L	35.294 ppb	17:16:59
2	Si 251.611†	3066.3	2661.9	100.05 ug/L	100.05 ppb	17:16:59
2	Sn 189.927†	47.9	41.4	9.3524 ug/L	9.3524 ppb	17:16:59
2	Ti 334.940†	1671.3	2809.8	4.8358 ug/L	4.8358 ppb	17:16:39
2	Tl 190.801†	23.4	55.9	21.588 ug/L	21.588 ppb	17:16:59
2	U 409.014†	-511.8	1553.5	46.894 ug/L	46.894 ppb	17:16:39
2	V 292.402†	-698.6	597.7	4.9932 ug/L	4.9932 ppb	17:16:39
2	Zn 213.857†	1745.0	1181.3	14.204 ug/L	14.204 ppb	17:16:59
2	SiO2†	3172.5	2774.2	221.88 ug/L	221.88 ppb	17:17:34
3	Sc Radial	4425.5	4425.5	96.5 %		17:15:46
3	Y RADIAL	4804.3	4804.3	97.37 %		17:15:46
3	Al 396.153Radial†	130.8	221.4	207.65 ug/L	207.65 ppb	17:16:06
3	Ca 317.933Radial†	141.0	118.3	209.15 ug/L	209.15 ppb	17:16:06
3	Fe 238.204 Radial†	19.2	12.0	126.12 ug/L	126.12 ppb	17:16:06
3	K 766.490 Radial†	3596.7	1172.7	224.45 ug/L	224.45 ppb	17:15:46
3	Mg 279.077 IEC†	13.5	14.0	530.86 ug/L	530.86 ppb	17:16:06
3	Na 589.592 Radial†	105.8	914.8	320.54 ug/L	320.54 ppb	17:15:46
3	Sr 421.552†	679.2	678.3	5.1799 ug/L	5.1799 ppb	17:15:46
3	Sc 361.383	793549.4	793549.4	97.616 %		17:17:04
3	Y 371.029	670214.8	670214.8	97.212 %		17:17:04
3	Ag 328.068†	1191.6	1010.1	5.1961 ug/L	5.1961 ppb	17:17:04
3	As 188.979†	21.8	39.4	21.986 ug/L	21.986 ppb	17:17:24
3	B 249.677†	1566.1	2019.7	56.486 ug/L	56.486 ppb	17:17:04
3	Ba 233.527†	555.5	556.6	5.2225 ug/L	5.2225 ppb	17:17:24
3	Be 313.107†	7846.2	11766.8	5.0340 ug/L	5.0340 ppb	17:17:04
3	Cd 226.502†	187.1	368.0	5.3334 ug/L	5.3334 ppb	17:17:24
3	Co 228.616†	148.4	191.9	4.9978 ug/L	4.9978 ppb	17:17:24
3	Cr 267.716†	447.2	378.6	5.0821 ug/L	5.0821 ppb	17:17:24
3	Cu 324.752†	8257.7	2993.1	9.8836 ug/L	9.8836 ppb	17:17:04
3	Mn 257.610†	8325.7	7978.1	10.495 ug/L	10.495 ppb	17:17:04
3	Mo 202.031†	126.0	116.3	10.237 ug/L	10.237 ppb	17:17:24
3	Ni 231.604†	262.1	187.1	5.9540 ug/L	5.9540 ppb	17:17:24
3	P 214.914†	387.1	212.6	158.21 ug/L	158.21 ppb	17:17:24
3	Pb 220.353†	25.9	69.3	10.743 ug/L	10.743 ppb	17:17:24
3	S 181.975 Axial†	92.0	64.1	114.48 ug/L	114.48 ppb	17:17:24
3	Sb 206.836†	49.6	26.3	11.271 ug/L	11.271 ppb	17:17:24
3	Se 196.026†	22.9	42.2	35.495 ug/L	35.495 ppb	17:17:24
3	Si 251.611†	3034.6	2610.5	98.114 ug/L	98.114 ppb	17:17:24
3	Sn 189.927†	56.6	50.0	11.292 ug/L	11.292 ppb	17:17:24
3	Ti 334.940†	1720.4	2849.7	4.8835 ug/L	4.8835 ppb	17:17:04
3	Tl 190.801†	18.4	50.6	19.546 ug/L	19.546 ppb	17:17:24
3	U 409.014†	-264.8	1809.7	54.631 ug/L	54.631 ppb	17:17:04
3	V 292.402†	-715.0	585.2	4.9093 ug/L	4.9093 ppb	17:17:04
3	Zn 213.857†	1712.6	1137.3	13.669 ug/L	13.669 ppb	17:17:24
3	SiO2†	3096.5	2676.8	214.09 ug/L	214.09 ppb	17:17:39

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	788579.0	97.005	%	0.6258				0.65%
Sc Radial	4378.5	95.4	%	1.09				1.15%
Y 371.029	666729.6	96.706	%	0.5567				0.58%
Y RADIAL	4738.8	96.04	%	1.269				1.32%
Ag 328.068†	986.2	5.0734	ug/L	0.32455	5.0734	ppb	0.32455	6.40%
QC value within limits for Ag 328.068 Recovery = 101.47%								
Al 396.153Radial†	223.2	209.34	ug/L	2.782	209.34	ppb	2.782	1.33%
QC value within limits for Al 396.153Radial Recovery = 104.67%								
As 188.979†	45.7	25.489	ug/L	3.1731	25.489	ppb	3.1731	12.45%
QC value within limits for As 188.979 Recovery = 84.96%								
B 249.677†	2063.6	57.717	ug/L	1.1530	57.717	ppb	1.1530	2.00%
QC value within limits for B 249.677 Recovery = 115.43%								
Ba 233.527†	564.3	5.2944	ug/L	0.08181	5.2944	ppb	0.08181	1.55%
QC value within limits for Ba 233.527 Recovery = 105.89%								
Be 313.107†	11774.3	5.0372	ug/L	0.01675	5.0372	ppb	0.01675	0.33%
QC value within limits for Be 313.107 Recovery = 100.74%								
Ca 317.933Radial†	117.8	208.15	ug/L	5.906	208.15	ppb	5.906	2.84%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.08%
Cd 226.502†              372.5      5.3991 ug/L       0.11452      5.3991 ppb        0.11452   2.12%
   QC value within limits for Cd 226.502  Recovery = 107.98%
Co 228.616†              190.6      4.9636 ug/L       0.03668      4.9636 ppb        0.03668   0.74%
   QC value within limits for Co 228.616  Recovery = 99.27%
Cr 267.716†              384.6      5.1632 ug/L       0.07154      5.1632 ppb        0.07154   1.39%
   QC value within limits for Cr 267.716  Recovery = 103.26%
Cu 324.752†             3069.1      10.138 ug/L        0.2218      10.138 ppb         0.2218   2.19%
   QC value within limits for Cu 324.752  Recovery = 101.38%
Fe 238.204 Radial†        10.6      111.59 ug/L        14.811      111.59 ppb         14.811  13.27%
   QC value within limits for Fe 238.204 Radial  Recovery = 111.59%
K 766.490 Radial†       1189.7      227.71 ug/L         8.051      227.71 ppb          8.051   3.54%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = 151.81%
Mg 279.077 IEC†           10.9      413.99 ug/L       116.097      413.99 ppb        116.097  28.04%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 138.00%
Mn 257.610†             7987.1      10.510 ug/L        0.0347      10.510 ppb         0.0347   0.33%
   QC value within limits for Mn 257.610  Recovery = 105.10%
Mo 202.031†              114.7      10.099 ug/L        0.3044      10.099 ppb         0.3044   3.01%
   QC value within limits for Mo 202.031  Recovery = 100.99%
Na 589.592 Radial†       892.5      312.73 ug/L         7.124      312.73 ppb          7.124   2.28%
   QC value within limits for Na 589.592 Radial  Recovery = 104.24%
Ni 231.604†              181.3      5.7680 ug/L       0.16621      5.7680 ppb        0.16621   2.88%
   QC value within limits for Ni 231.604  Recovery = 115.36%
P 214.914†               212.9      158.39 ug/L         2.329      158.39 ppb          2.329   1.47%
   QC value within limits for P 214.914  Recovery = 105.60%
Pb 220.353†               73.1      11.330 ug/L        1.6411      11.330 ppb         1.6411  14.48%
   QC value within limits for Pb 220.353  Recovery = 113.30%
S 181.975 Axial†          68.9      122.98 ug/L         8.305      122.98 ppb          8.305   6.75%
   QC value within limits for S 181.975 Axial  Recovery = 122.98%
Sb 206.836†               27.4      11.721 ug/L        1.2125      11.721 ppb         1.2125  10.34%
   QC value within limits for Sb 206.836  Recovery = 117.21%
Se 196.026†               40.4      33.909 ug/L        2.5758      33.909 ppb         2.5758   7.60%
   QC value within limits for Se 196.026  Recovery = 113.03%
Si 251.611†             2637.7      99.140 ug/L        0.9722      99.140 ppb         0.9722   0.98%
   QC value within limits for Si 251.611  Recovery = 99.14%
Sn 189.927†               44.0      9.9473 ug/L       1.16759      9.9473 ppb        1.16759  11.74%
   QC value within limits for Sn 189.927  Recovery = 99.47%
Sr 421.552†              675.2      5.1568 ug/L       0.17292      5.1568 ppb        0.17292   3.35%
   QC value within limits for Sr 421.552  Recovery = 103.14%
Ti 334.940†             2860.4      4.9140 ug/L       0.09709      4.9140 ppb        0.09709   1.98%
   QC value within limits for Ti 334.940  Recovery = 98.28%
Tl 190.801†               56.1      21.643 ug/L        2.1260      21.643 ppb         2.1260   9.82%
   QC value within limits for Tl 190.801  Recovery = 108.22%
U 409.014†              1619.4      48.883 ug/L        5.0563      48.883 ppb         5.0563  10.34%
   QC value within limits for U 409.014  Recovery = 97.77%
V 292.402†               587.3      4.9131 ug/L       0.07820      4.9131 ppb        0.07820   1.59%
   QC value within limits for V 292.402  Recovery = 98.26%
Zn 213.857†             1167.2      14.034 ug/L        0.3159      14.034 ppb         0.3159   2.25%
   QC value greater than the upper limit for Zn 213.857  Recovery = 140.34%
SiO2†                   2731.2      218.45 ug/L         3.981      218.45 ppb          3.981   1.82%
   QC value within limits for SiO2  Recovery = 102.56%
QC Failed.  Continue with analysis.
```

Sequence No.: 8
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/16/2010 17:19:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4286.8	4286.8	93.4	%			17:22:03
1	Y RADIAL	4717.4	4717.4	95.60	%			17:21:43
1	Al 396.153Radial†	-82.6	-2.6	-2.4024	ug/L	-2.4024	ppb	17:22:03
1	Ca 317.933Radial†	31.5	5.9	10.342	ug/L	10.342	ppb	17:22:03
1	Fe 238.204 Radial†	10.1	2.9	30.374	ug/L	30.374	ppb	17:22:03
1	K 766.490 Radial†	2798.7	439.4	84.178	ug/L	84.178	ppb	17:21:43
1	Mg 279.077 IEC†	0.3	0.3	11.127	ug/L	11.127	ppb	17:22:03
1	Na 589.592 Radial†	-802.2	-53.4	-18.700	ug/L	-18.700	ppb	17:21:43
1	Sr 421.552†	7.2	-18.0	-0.1379	ug/L	-0.1379	ppb	17:21:43
1	Sc 361.383	793206.0	793206.0	97.574	%			17:23:00
1	Y 371.029	672267.0	672267.0	97.510	%			17:23:00
1	Ag 328.068†	216.7	11.5	0.0671	ug/L	0.0671	ppb	17:23:00
1	As 188.979†	-21.8	-5.3	-2.9255	ug/L	-2.9255	ppb	17:23:20
1	B 249.677†	-218.6	191.3	5.3485	ug/L	5.3485	ppb	17:23:20
1	Ba 233.527†	24.0	12.1	0.1146	ug/L	0.1146	ppb	17:23:20
1	Be 313.107†	-3753.8	-118.1	-0.0504	ug/L	-0.0504	ppb	17:23:00
1	Cd 226.502†	-154.2	18.3	0.2626	ug/L	0.2626	ppb	17:23:20
1	Co 228.616†	-37.3	1.6	0.0400	ug/L	0.0400	ppb	17:23:20
1	Cr 267.716†	70.7	-7.1	-0.0929	ug/L	-0.0929	ppb	17:23:20
1	Cu 324.752†	5334.4	0.8	0.0030	ug/L	0.0030	ppb	17:23:00
1	Mn 257.610†	563.3	26.4	0.0373	ug/L	0.0373	ppb	17:23:20
1	Mo 202.031†	11.3	-1.3	-0.1085	ug/L	-0.1085	ppb	17:23:20
1	Ni 231.604†	82.1	2.7	0.0855	ug/L	0.0855	ppb	17:23:20
1	P 214.914†	186.4	7.2	5.3703	ug/L	5.3703	ppb	17:23:20
1	Pb 220.353†	-36.9	4.9	0.7541	ug/L	0.7541	ppb	17:23:20
1	S 181.975 Axial†	40.4	11.3	20.173	ug/L	20.173	ppb	17:23:20
1	Sb 206.836†	23.7	-0.3	-0.0905	ug/L	-0.0905	ppb	17:23:20
1	Se 196.026†	-15.0	3.4	2.9464	ug/L	2.9464	ppb	17:23:20
1	Si 251.611†	526.0	40.9	1.5400	ug/L	1.5400	ppb	17:23:20
1	Sn 189.927†	12.9	5.2	1.1768	ug/L	1.1768	ppb	17:23:20
1	Ti 334.940†	-1054.7	6.3	0.0105	ug/L	0.0105	ppb	17:23:00
1	Tl 190.801†	-25.4	5.7	2.2087	ug/L	2.2087	ppb	17:23:20
1	U 409.014†	-1962.9	69.3	2.0899	ug/L	2.0899	ppb	17:23:00
1	V 292.402†	-1268.0	18.2	0.1437	ug/L	0.1437	ppb	17:23:00
1	Zn 213.857†	681.5	81.4	0.9778	ug/L	0.9778	ppb	17:23:20
1	SiO2†	503.9	21.1	1.6954	ug/L	1.6954	ppb	17:24:31
2	Sc Radial	4236.8	4236.8	92.4	%			17:22:28
2	Y RADIAL	4670.1	4670.1	94.65	%			17:22:08
2	Al 396.153Radial†	-66.0	14.3	13.506	ug/L	13.506	ppb	17:22:28
2	Ca 317.933Radial†	25.8	0.1	0.1057	ug/L	0.1057	ppb	17:22:28
2	Fe 238.204 Radial†	8.7	1.6	16.856	ug/L	16.856	ppb	17:22:28
2	K 766.490 Radial†	2761.4	434.3	83.205	ug/L	83.205	ppb	17:22:08
2	Mg 279.077 IEC†	0.4	0.4	13.805	ug/L	13.805	ppb	17:22:28
2	Na 589.592 Radial†	-729.4	15.3	5.3599	ug/L	5.3599	ppb	17:22:08
2	Sr 421.552†	40.3	17.8	0.1362	ug/L	0.1362	ppb	17:22:08
2	Sc 361.383	777169.7	777169.7	95.601	%			17:23:25
2	Y 371.029	657325.1	657325.1	95.342	%			17:23:25
2	Ag 328.068†	69.6	-137.8	-0.6983	ug/L	-0.6983	ppb	17:23:25
2	As 188.979†	-13.9	2.5	1.3698	ug/L	1.3698	ppb	17:23:45
2	B 249.677†	-219.9	185.3	5.1837	ug/L	5.1837	ppb	17:23:45
2	Ba 233.527†	18.4	6.8	0.0627	ug/L	0.0627	ppb	17:23:45
2	Be 313.107†	-3702.1	-143.5	-0.0618	ug/L	-0.0618	ppb	17:23:25
2	Cd 226.502†	-144.2	25.5	0.3671	ug/L	0.3671	ppb	17:23:45
2	Co 228.616†	-35.8	2.4	0.0620	ug/L	0.0620	ppb	17:23:45
2	Cr 267.716†	48.4	-28.9	-0.3835	ug/L	-0.3835	ppb	17:23:45
2	Cu 324.752†	5289.4	66.5	0.2250	ug/L	0.2250	ppb	17:23:25
2	Mn 257.610†	560.4	35.3	0.0475	ug/L	0.0475	ppb	17:23:45
2	Mo 202.031†	6.0	-6.5	-0.5735	ug/L	-0.5735	ppb	17:23:45
2	Ni 231.604†	84.3	6.7	0.2146	ug/L	0.2146	ppb	17:23:45

2	P 214.914†	197.7	22.9	17.160 ug/L	17.160 ppb	17:23:45
2	Pb 220.353†	-39.6	1.4	0.2118 ug/L	0.2118 ppb	17:23:45
2	S 181.975 Axial†	41.3	13.0	23.287 ug/L	23.287 ppb	17:23:45
2	Sb 206.836†	24.4	1.0	0.3859 ug/L	0.3859 ppb	17:23:45
2	Se 196.026†	-17.4	0.6	0.5749 ug/L	0.5749 ppb	17:23:45
2	Si 251.611†	503.5	28.4	1.0773 ug/L	1.0773 ppb	17:23:45
2	Sn 189.927†	8.5	0.9	0.2104 ug/L	0.2104 ppb	17:23:45
2	Ti 334.940†	-1176.2	-143.0	-0.2450 ug/L	-0.2450 ppb	17:23:25
2	Tl 190.801†	-27.7	2.8	1.0873 ug/L	1.0873 ppb	17:23:45
2	U 409.014†	-2214.5	-235.4	-7.1111 ug/L	-7.1111 ppb	17:23:25
2	V 292.402†	-1315.9	-58.8	-0.4931 ug/L	-0.4931 ppb	17:23:25
2	Zn 213.857†	683.3	97.6	1.1751 ug/L	1.1751 ppb	17:23:45
2	SiO2†	519.8	48.4	3.8936 ug/L	3.8936 ppb	17:24:51
3	Sc Radial	4234.6	4234.6	92.3 %		17:22:53
3	Y RADIAL	4735.9	4735.9	95.98 %		17:22:33
3	Al 396.153Radial†	-79.3	-0.1	-0.0667 ug/L	-0.0667 ppb	17:22:53
3	Ca 317.933Radial†	29.9	4.6	8.0854 ug/L	8.0854 ppb	17:22:53
3	Fe 238.204 Radial†	8.6	1.4	14.759 ug/L	14.759 ppb	17:22:53
3	K 766.490 Radial†	2686.8	355.0	68.015 ug/L	68.015 ppb	17:22:33
3	Mg 279.077 IEC†	3.1	3.3	124.47 ug/L	124.47 ppb	17:22:53
3	Na 589.592 Radial†	-817.8	-80.9	-28.351 ug/L	-28.351 ppb	17:22:33
3	Sr 421.552†	43.8	21.7	0.1656 ug/L	0.1656 ppb	17:22:33
3	Sc 361.383	786092.2	786092.2	96.699 %		17:23:50
3	Y 371.029	664621.0	664621.0	96.401 %		17:23:50
3	Ag 328.068†	150.4	-55.0	-0.2754 ug/L	-0.2754 ppb	17:23:50
3	As 188.979†	-17.8	-1.4	-0.7690 ug/L	-0.7690 ppb	17:24:11
3	B 249.677†	-221.1	186.7	5.2238 ug/L	5.2238 ppb	17:24:11
3	Ba 233.527†	34.6	23.3	0.2164 ug/L	0.2164 ppb	17:24:11
3	Be 313.107†	-3734.4	-132.9	-0.0569 ug/L	-0.0569 ppb	17:23:50
3	Cd 226.502†	-150.0	21.2	0.3043 ug/L	0.3043 ppb	17:24:11
3	Co 228.616†	-46.7	-8.5	-0.2212 ug/L	-0.2212 ppb	17:24:11
3	Cr 267.716†	78.3	1.4	0.0224 ug/L	0.0224 ppb	17:24:11
3	Cu 324.752†	5231.9	-55.7	-0.1799 ug/L	-0.1799 ppb	17:23:50
3	Mn 257.610†	548.9	16.7	0.0184 ug/L	0.0184 ppb	17:24:11
3	Mo 202.031†	10.0	-2.5	-0.2211 ug/L	-0.2211 ppb	17:24:11
3	Ni 231.604†	92.1	13.9	0.4416 ug/L	0.4416 ppb	17:24:11
3	P 214.914†	194.9	17.7	13.357 ug/L	13.357 ppb	17:24:11
3	Pb 220.353†	-51.3	-10.3	-1.5862 ug/L	-1.5862 ppb	17:24:11
3	S 181.975 Axial†	38.9	10.1	18.005 ug/L	18.005 ppb	17:24:11
3	Sb 206.836†	24.2	0.5	0.2178 ug/L	0.2178 ppb	17:24:11
3	Se 196.026†	-12.1	6.3	5.2626 ug/L	5.2626 ppb	17:24:11
3	Si 251.611†	493.9	12.5	0.4746 ug/L	0.4746 ppb	17:24:11
3	Sn 189.927†	13.8	6.3	1.4135 ug/L	1.4135 ppb	17:24:11
3	Ti 334.940†	-1081.8	-31.4	-0.0603 ug/L	-0.0603 ppb	17:23:50
3	Tl 190.801†	-20.3	10.8	4.1709 ug/L	4.1709 ppb	17:24:11
3	U 409.014†	-2230.8	-226.0	-6.8261 ug/L	-6.8261 ppb	17:23:50
3	V 292.402†	-1363.9	-92.8	-0.7572 ug/L	-0.7572 ppb	17:23:50
3	Zn 213.857†	688.4	94.8	1.1406 ug/L	1.1406 ppb	17:24:11
3	SiO2†	505.1	27.0	2.1662 ug/L	2.1662 ppb	17:25:11

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	785489.3	96.625	%	0.9884				1.02%
Sc Radial	4252.8	92.7	%	0.64				0.69%
Y 371.029	664737.7	96.418	%	1.0837				1.12%
Y RADIAL	4707.8	95.41	%	0.688				0.72%
Ag 328.068†	-60.4	-0.3022	ug/L	0.38337	-0.3022	ppb	0.38337	126.86%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	3.9	3.6789	ug/L	8.59008	3.6789	ppb	8.59008	233.50%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.4	-0.7749	ug/L	2.14763	-0.7749	ppb	2.14763	277.14%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	187.8	5.2520	ug/L	0.08591	5.2520	ppb	0.08591	1.64%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	14.0	0.1312	ug/L	0.07820	0.1312	ppb	0.07820	59.59%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-131.5	-0.0564	ug/L	0.00571	-0.0564	ppb	0.00571	10.14%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.5	6.1776	ug/L	5.37813	6.1776	ppb	5.37813	87.06%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                21.7      0.3113 ug/L       0.05264      0.3113 ppb        0.05264  16.91%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -1.5     -0.0397 ug/L       0.15752     -0.0397 ppb        0.15752 396.58%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -11.5     -0.1514 ug/L       0.20918     -0.1514 ppb        0.20918 138.20%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 3.9      0.0160 ug/L       0.20278      0.0160 ppb        0.20278 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.0      20.663 ug/L        8.4754      20.663 ppb         8.4754  41.02%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         409.6      78.466 ug/L        9.0642      78.466 ppb         9.0642  11.55%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.3      49.802 ug/L       64.6816      49.802 ppb        64.6816 129.88%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                26.1      0.0344 ug/L       0.01481      0.0344 ppb        0.01481  43.05%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -3.4     -0.3010 ug/L       0.24262     -0.3010 ppb        0.24262  80.60%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -39.7     -13.897 ug/L       17.3610     -13.897 ppb        17.3610 124.93%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 7.8      0.2472 ug/L       0.18029      0.2472 ppb        0.18029  72.92%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 15.9      11.962 ug/L        6.0173      11.962 ppb         6.0173  50.30%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -1.3     -0.2068 ug/L       1.22503     -0.2068 ppb        1.22503 592.44%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           11.5      20.488 ug/L        2.6552      20.488 ppb         2.6552  12.96%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.4      0.1711 ug/L       0.24164      0.1711 ppb        0.24164 141.26%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.5      2.9280 ug/L       2.34390      2.9280 ppb        2.34390  80.05%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                27.3      1.0306 ug/L       0.53421      1.0306 ppb        0.53421  51.83%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.1      0.9336 ug/L       0.63737      0.9336 ppb        0.63737  68.27%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 7.2      0.0546 ug/L       0.16739      0.0546 ppb        0.16739 306.48%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -56.0     -0.0982 ug/L       0.13190     -0.0982 ppb        0.13190 134.25%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 6.5      2.4890 ug/L       1.56078      2.4890 ppb        1.56078  62.71%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -130.7     -3.9491 ug/L       5.23186     -3.9491 ppb        5.23186 132.48%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -44.5     -0.3689 ug/L       0.46313     -0.3689 ppb        0.46313 125.56%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                91.3      1.0978 ug/L       0.10540      1.0978 ppb        0.10540   9.60%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      32.2      2.5851 ug/L       1.15741      2.5851 ppb        1.15741  44.77%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 3/16/2010 17:39:46 **Plasma On Time: 3/15/2010 06:51:19**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\031610.sif
Batch ID:
Results Data Set: 031610
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 38**
Sample ID: 1202047754|955153|1 **Date Collected: 3/16/2010 17:39:47**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202047754|955153|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4295.8	4295.8	93.6	%			17:42:00
1	Y RADIAL	4804.6	4804.6	97.37	%			17:41:40
1	Al 396.153Radial†	-80.3	0.0	0.0323	ug/L	0.0323	ppb	17:42:00
1	Ca 317.933Radial†	23.3	-3.0	-5.3020	ug/L	-5.3020	ppb	17:42:00
1	Fe 238.204 Radial†	8.8	1.6	16.322	ug/L	16.322	ppb	17:42:00
1	K 766.490 Radial†	2540.3	157.1	30.113	ug/L	30.113	ppb	17:41:40
1	Mg 279.077 IEC†	0.5	0.4	16.226	ug/L	16.226	ppb	17:42:00
1	Na 589.592 Radial†	-800.9	-50.2	-17.595	ug/L	-17.595	ppb	17:41:40
1	Sr 421.552†	-1.1	-27.0	-0.2061	ug/L	-0.2061	ppb	17:41:40
1	Sc 361.383	801142.2	801142.2	98.550	%			17:42:56
1	Y 371.029	675987.2	675987.2	98.049	%			17:42:56
1	Ag 328.068†	98.5	-110.6	-0.5618	ug/L	-0.5618	ppb	17:42:56
1	As 188.979†	-12.8	4.1	2.2723	ug/L	2.2723	ppb	17:43:16
1	B 249.677†	-276.1	135.2	3.7817	ug/L	3.7817	ppb	17:43:16
1	Ba 233.527†	0.9	-11.6	-0.1084	ug/L	-0.1084	ppb	17:43:16
1	Be 313.107†	-3854.5	-182.2	-0.0780	ug/L	-0.0780	ppb	17:42:56
1	Cd 226.502†	-168.6	5.3	0.0742	ug/L	0.0742	ppb	17:43:16
1	Co 228.616†	-45.6	-6.4	-0.1672	ug/L	-0.1672	ppb	17:43:16
1	Cr 267.716†	80.1	1.7	0.0255	ug/L	0.0255	ppb	17:43:16
1	Cu 324.752†	5422.1	35.6	0.1202	ug/L	0.1202	ppb	17:42:56
1	Mn 257.610†	473.9	-70.1	-0.0913	ug/L	-0.0913	ppb	17:43:16
1	Mo 202.031†	10.1	-2.6	-0.2290	ug/L	-0.2290	ppb	17:43:16
1	Ni 231.604†	91.7	11.6	0.3691	ug/L	0.3691	ppb	17:43:16
1	P 214.914†	187.1	6.0	4.4498	ug/L	4.4498	ppb	17:43:16
1	Pb 220.353†	-32.6	9.7	1.4925	ug/L	1.4925	ppb	17:43:16
1	S 181.975 Axial†	39.8	10.2	18.248	ug/L	18.248	ppb	17:43:16
1	Sb 206.836†	42.5	18.6	7.6934	ug/L	7.6934	ppb	17:43:16
1	Se 196.026†	-10.9	7.8	6.4844	ug/L	6.4844	ppb	17:43:16
1	Si 251.611†	729.7	242.2	9.1183	ug/L	9.1183	ppb	17:43:16
1	Sn 189.927†	7.5	-0.4	-0.0862	ug/L	-0.0862	ppb	17:43:16
1	Ti 334.940†	-1131.8	-61.1	-0.1065	ug/L	-0.1065	ppb	17:42:56
1	Tl 190.801†	-26.9	4.5	1.7262	ug/L	1.7262	ppb	17:43:16
1	U 409.014†	-2133.8	-84.2	-2.5453	ug/L	-2.5453	ppb	17:42:56
1	V 292.402†	-1331.0	-32.9	-0.2728	ug/L	-0.2728	ppb	17:42:56
1	Zn 213.857†	667.4	60.1	0.7206	ug/L	0.7206	ppb	17:43:16
1	SiO2†	761.2	277.1	22.194	ug/L	22.194	ppb	17:44:27
2	Sc Radial	4289.0	4289.0	93.5	%			17:42:25
2	Y RADIAL	4799.3	4799.3	97.26	%			17:42:05
2	Al 396.153Radial†	-73.9	6.8	6.4058	ug/L	6.4058	ppb	17:42:25
2	Ca 317.933Radial†	19.0	-7.5	-13.239	ug/L	-13.239	ppb	17:42:25
2	Fe 238.204 Radial†	7.4	0.1	0.9609	ug/L	0.9609	ppb	17:42:25
2	K 766.490 Radial†	2667.3	297.3	56.970	ug/L	56.970	ppb	17:42:05
2	Mg 279.077 IEC†	1.5	1.6	59.894	ug/L	59.894	ppb	17:42:25
2	Na 589.592 Radial†	-786.6	-36.2	-12.698	ug/L	-12.698	ppb	17:42:05
2	Sr 421.552†	38.5	15.4	0.1175	ug/L	0.1175	ppb	17:42:05
2	Sc 361.383	790709.6	790709.6	97.267	%			17:43:22
2	Y 371.029	668400.1	668400.1	96.949	%			17:43:22

2	Ag 328.068†	102.5	-105.2	-0.5381 ug/L	-0.5381 ppb	17:43:22
2	As 188.979†	-19.8	-3.3	-1.8586 ug/L	-1.8586 ppb	17:43:42
2	B 249.677†	-260.8	147.2	4.1213 ug/L	4.1213 ppb	17:43:42
2	Ba 233.527†	11.7	-0.4	-0.0047 ug/L	-0.0047 ppb	17:43:42
2	Be 313.107†	-3793.2	-170.7	-0.0725 ug/L	-0.0725 ppb	17:43:22
2	Cd 226.502†	-176.1	-4.7	-0.0685 ug/L	-0.0685 ppb	17:43:42
2	Co 228.616†	-49.4	-10.9	-0.2843 ug/L	-0.2843 ppb	17:43:42
2	Cr 267.716†	68.5	-9.1	-0.1214 ug/L	-0.1214 ppb	17:43:42
2	Cu 324.752†	5342.5	26.4	0.0892 ug/L	0.0892 ppb	17:43:22
2	Mn 257.610†	486.1	-51.2	-0.0697 ug/L	-0.0697 ppb	17:43:42
2	Mo 202.031†	10.7	-1.9	-0.1652 ug/L	-0.1652 ppb	17:43:42
2	Ni 231.604†	80.5	1.4	0.0437 ug/L	0.0437 ppb	17:43:42
2	P 214.914†	192.0	13.5	10.122 ug/L	10.122 ppb	17:43:42
2	Pb 220.353†	-30.8	11.1	1.7146 ug/L	1.7146 ppb	17:43:42
2	S 181.975 Axial†	37.1	7.9	14.172 ug/L	14.172 ppb	17:43:42
2	Sb 206.836†	37.8	14.4	5.9107 ug/L	5.9107 ppb	17:43:42
2	Se 196.026†	-15.6	2.8	2.3110 ug/L	2.3110 ppb	17:43:42
2	Si 251.611†	726.3	248.5	9.3534 ug/L	9.3534 ppb	17:43:42
2	Sn 189.927†	-2.1	-10.1	-2.2858 ug/L	-2.2858 ppb	17:43:42
2	Ti 334.940†	-960.2	100.1	0.1679 ug/L	0.1679 ppb	17:43:22
2	Tl 190.801†	-26.8	4.2	1.6363 ug/L	1.6363 ppb	17:43:42
2	U 409.014†	-2136.3	-115.3	-3.4829 ug/L	-3.4829 ppb	17:43:22
2	V 292.402†	-1322.9	-42.4	-0.3468 ug/L	-0.3468 ppb	17:43:22
2	Zn 213.857†	670.8	72.5	0.8753 ug/L	0.8753 ppb	17:43:42
2	SiO2†	753.3	279.1	22.358 ug/L	22.358 ppb	17:44:47
3	Sc Radial	4313.0	4313.0	94.0 %		17:42:50
3	Y RADIAL	4748.4	4748.4	96.23 %		17:42:30
3	Al 396.153Radial†	-73.4	7.8	7.3431 ug/L	7.3431 ppb	17:42:50
3	Ca 317.933Radial†	26.6	0.5	0.8418 ug/L	0.8418 ppb	17:42:50
3	Fe 238.204 Radial†	9.1	1.8	19.299 ug/L	19.299 ppb	17:42:50
3	K 766.490 Radial†	2717.2	334.5	64.072 ug/L	64.072 ppb	17:42:30
3	Mg 279.077 IEC†	1.2	1.2	44.441 ug/L	44.441 ppb	17:42:50
3	Na 589.592 Radial†	-711.7	48.0	16.833 ug/L	16.833 ppb	17:42:30
3	Sr 421.552†	42.1	19.0	0.1453 ug/L	0.1453 ppb	17:42:30
3	Sc 361.383	791486.1	791486.1	97.362 %		17:43:47
3	Y 371.029	669091.8	669091.8	97.049 %		17:43:47
3	Ag 328.068†	202.4	-2.7	-0.0085 ug/L	-0.0085 ppb	17:43:47
3	As 188.979†	-19.6	-3.1	-1.7020 ug/L	-1.7020 ppb	17:44:07
3	B 249.677†	-284.0	123.7	3.4583 ug/L	3.4583 ppb	17:44:07
3	Ba 233.527†	20.5	8.6	0.0818 ug/L	0.0818 ppb	17:44:07
3	Be 313.107†	-3744.1	-116.5	-0.0494 ug/L	-0.0494 ppb	17:43:47
3	Cd 226.502†	-158.5	13.6	0.1953 ug/L	0.1953 ppb	17:44:07
3	Co 228.616†	-50.0	-11.5	-0.3005 ug/L	-0.3005 ppb	17:44:07
3	Cr 267.716†	87.0	9.8	0.1333 ug/L	0.1333 ppb	17:44:07
3	Cu 324.752†	5361.2	40.2	0.1326 ug/L	0.1326 ppb	17:43:47
3	Mn 257.610†	464.7	-73.6	-0.0968 ug/L	-0.0968 ppb	17:44:07
3	Mo 202.031†	4.2	-8.5	-0.7462 ug/L	-0.7462 ppb	17:44:07
3	Ni 231.604†	79.2	-0.1	-0.0039 ug/L	-0.0039 ppb	17:44:07
3	P 214.914†	195.7	17.0	12.783 ug/L	12.783 ppb	17:44:07
3	Pb 220.353†	-43.2	-1.5	-0.2415 ug/L	-0.2415 ppb	17:44:07
3	S 181.975 Axial†	34.5	5.3	9.4091 ug/L	9.4091 ppb	17:44:07
3	Sb 206.836†	44.1	20.7	8.5456 ug/L	8.5456 ppb	17:44:07
3	Se 196.026†	-19.1	-0.8	-0.5917 ug/L	-0.5917 ppb	17:44:07
3	Si 251.611†	749.1	271.2	10.214 ug/L	10.214 ppb	17:44:07
3	Sn 189.927†	1.2	-6.8	-1.5239 ug/L	-1.5239 ppb	17:44:07
3	Ti 334.940†	-967.5	93.5	0.1568 ug/L	0.1568 ppb	17:43:47
3	Tl 190.801†	-29.9	1.1	0.4058 ug/L	0.4058 ppb	17:44:07
3	U 409.014†	-1934.1	94.5	2.8510 ug/L	2.8510 ppb	17:43:47
3	V 292.402†	-1234.0	50.3	0.3943 ug/L	0.3943 ppb	17:43:47
3	Zn 213.857†	683.4	84.8	1.0211 ug/L	1.0211 ppb	17:44:07
3	SiO2†	747.8	272.7	21.860 ug/L	21.860 ppb	17:45:07

Mean Data: 1202047754|955153|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	794446.0	97.726	%	0.7150				0.73%
Sc Radial	4299.2	93.7	%	0.27				0.29%
Y 371.029	671159.7	97.349	%	0.6085				0.63%
Y RADIAL	4784.1	96.96	%	0.628				0.65%
Ag 328.068†	-72.8	-0.3695	ug/L	0.31284	-0.3695	ppb	0.31284	84.67%

Al 396.153Radial†	4.9	4.5937	ug/L	3.97802	4.5937	ppb	3.97802	86.60%
As 188.979†	-0.8	-0.4295	ug/L	2.34109	-0.4295	ppb	2.34109	545.13%
B 249.677†	135.4	3.7871	ug/L	0.33156	3.7871	ppb	0.33156	8.75%
Ba 233.527†	-1.1	-0.0104	ug/L	0.09525	-0.0104	ppb	0.09525	913.79%
Be 313.107†	-156.5	-0.0666	ug/L	0.01520	-0.0666	ppb	0.01520	22.81%
Ca 317.933Radial†	-3.3	-5.8997	ug/L	7.05941	-5.8997	ppb	7.05941	119.66%
Cd 226.502†	4.7	0.0670	ug/L	0.13201	0.0670	ppb	0.13201	197.08%
Co 228.616†	-9.6	-0.2507	ug/L	0.07272	-0.2507	ppb	0.07272	29.01%
Cr 267.716†	0.8	0.0125	ug/L	0.12785	0.0125	ppb	0.12785	>999.9%
Cu 324.752†	34.1	0.1140	ug/L	0.02234	0.1140	ppb	0.02234	19.59%
Fe 238.204 Radial†	1.2	12.194	ug/L	9.8415	12.194	ppb	9.8415	80.71%
K 766.490 Radial†	263.0	50.385	ug/L	17.9117	50.385	ppb	17.9117	35.55%
Mg 279.077 IEC†	1.1	40.187	ug/L	22.1426	40.187	ppb	22.1426	55.10%
Mn 257.610†	-64.9	-0.0859	ug/L	0.01431	-0.0859	ppb	0.01431	16.65%
Mo 202.031†	-4.3	-0.3801	ug/L	0.31864	-0.3801	ppb	0.31864	83.82%
Na 589.592 Radial†	-12.8	-4.4867	ug/L	18.62458	-4.4867	ppb	18.62458	415.11%
Ni 231.604†	4.3	0.1363	ug/L	0.20301	0.1363	ppb	0.20301	148.96%
P 214.914†	12.2	9.1183	ug/L	4.25632	9.1183	ppb	4.25632	46.68%
Pb 220.353†	6.4	0.9886	ug/L	1.07099	0.9886	ppb	1.07099	108.34%
S 181.975 Axial†	7.8	13.943	ug/L	4.4241	13.943	ppb	4.4241	31.73%
Sb 206.836†	17.9	7.3832	ug/L	1.34457	7.3832	ppb	1.34457	18.21%
Se 196.026†	3.3	2.7346	ug/L	3.55701	2.7346	ppb	3.55701	130.08%
Si 251.611†	254.0	9.5618	ug/L	0.57672	9.5618	ppb	0.57672	6.03%
Sn 189.927†	-5.8	-1.2986	ug/L	1.11697	-1.2986	ppb	1.11697	86.01%
Sr 421.552†	2.5	0.0189	ug/L	0.19534	0.0189	ppb	0.19534	>999.9%
Ti 334.940†	44.2	0.0728	ug/L	0.15536	0.0728	ppb	0.15536	213.54%
Tl 190.801†	3.3	1.2561	ug/L	0.73774	1.2561	ppb	0.73774	58.73%
U 409.014†	-35.0	-1.0591	ug/L	3.41850	-1.0591	ppb	3.41850	322.79%
V 292.402†	-8.3	-0.0751	ug/L	0.40820	-0.0751	ppb	0.40820	543.61%
Zn 213.857†	72.4	0.8723	ug/L	0.15027	0.8723	ppb	0.15027	17.23%
SiO2†	276.3	22.138	ug/L	0.2539	22.138	ppb	0.2539	1.15%

Sequence No.: 2
Sample ID: 1202047755|955153|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 39
Date Collected: 3/16/2010 17:47:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202047755|955153|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4380.9	4380.9	95.5	%			17:49:11
1	Y RADIAL	4697.4	4697.4	95.20	%			17:49:11
1	Al 396.153Radial†	5078.1	5403.5	5055.6	ug/L	5055.6	ppb	17:49:11
1	Ca 317.933Radial†	2774.4	2877.5	5086.2	ug/L	5086.2	ppb	17:49:31
1	Fe 238.204 Radial†	476.4	491.0	5160.2	ug/L	5160.2	ppb	17:49:31
1	K 766.490 Radial†	28277.6	27056.0	5178.8	ug/L	5178.8	ppb	17:49:11
1	Mg 279.077 IEC†	132.9	139.1	5292.0	ug/L	5292.0	ppb	17:49:31
1	Na 589.592 Radial†	13990.7	15455.8	5415.5	ug/L	5415.5	ppb	17:49:11
1	Sr 421.552†	66082.1	69174.0	528.40	ug/L	528.40	ppb	17:49:11
1	Sc 361.383	796835.9	796835.9	98.020	%			17:50:28
1	Y 371.029	665942.4	665942.4	96.592	%			17:50:28
1	Ag 328.068†	94780.0	96483.5	498.49	ug/L	498.49	ppb	17:50:33
1	As 188.979†	881.7	916.5	514.43	ug/L	514.43	ppb	17:50:53
1	B 249.677†	17405.8	18172.7	506.26	ug/L	506.26	ppb	17:50:33
1	Ba 233.527†	54760.8	55854.3	523.93	ug/L	523.93	ppb	17:50:33
1	Be 313.107†	1165921.7	1193197.4	510.48	ug/L	510.48	ppb	17:50:28
1	Cd 226.502†	34330.2	35199.9	509.91	ug/L	509.91	ppb	17:50:33
1	Co 228.616†	19401.3	19833.0	515.33	ug/L	515.33	ppb	17:50:33
1	Cr 267.716†	37572.2	38251.4	514.66	ug/L	514.66	ppb	17:50:33
1	Cu 324.752†	158819.9	156561.1	518.19	ug/L	518.19	ppb	17:50:33
1	Mn 257.610†	376238.0	383285.5	504.93	ug/L	504.93	ppb	17:50:33
1	Mo 202.031†	5596.6	5696.8	501.43	ug/L	501.43	ppb	17:50:53
1	Ni 231.604†	16218.2	16464.4	523.90	ug/L	523.90	ppb	17:50:33
1	P 214.914†	933.9	768.8	477.98	ug/L	477.98	ppb	17:50:53
1	Pb 220.353†	3190.7	3298.0	510.22	ug/L	510.22	ppb	17:50:53
1	S 181.975 Axial†	2801.9	2828.3	5049.0	ug/L	5049.0	ppb	17:50:53
1	Sb 206.836†	1252.8	1253.6	537.34	ug/L	537.34	ppb	17:50:53
1	Se 196.026†	564.5	594.7	511.49	ug/L	511.49	ppb	17:50:53
1	Si 251.611†	130508.4	132645.9	4985.7	ug/L	4985.7	ppb	17:50:33
1	Sn 189.927†	2236.5	2273.6	512.53	ug/L	512.53	ppb	17:50:53
1	Ti 334.940†	284446.1	291278.0	503.20	ug/L	503.20	ppb	17:50:33
1	Tl 190.801†	1258.5	1315.7	509.95	ug/L	509.95	ppb	17:50:53
1	U 409.014†	15635.4	18032.2	542.86	ug/L	542.86	ppb	17:50:33
1	V 292.402†	62138.2	64710.8	523.74	ug/L	523.74	ppb	17:50:33
1	Zn 213.857†	41918.2	42147.7	504.37	ug/L	504.37	ppb	17:50:33
1	SiO2†	128258.3	130353.3	10425	ug/L	10425	ppb	17:52:00
2	Sc Radial	4473.1	4473.1	97.5	%			17:49:36
2	Y RADIAL	4794.2	4794.2	97.16	%			17:49:36
2	Al 396.153Radial†	5166.0	5384.0	5037.4	ug/L	5037.4	ppb	17:49:36
2	Ca 317.933Radial†	2773.0	2816.1	4977.8	ug/L	4977.8	ppb	17:49:56
2	Fe 238.204 Radial†	468.9	473.1	4971.3	ug/L	4971.3	ppb	17:49:56
2	K 766.490 Radial†	28710.9	26889.7	5147.0	ug/L	5147.0	ppb	17:49:36
2	Mg 279.077 IEC†	132.3	135.6	5161.7	ug/L	5161.7	ppb	17:49:56
2	Na 589.592 Radial†	14234.8	15404.0	5397.4	ug/L	5397.4	ppb	17:49:36
2	Sr 421.552†	67369.6	69067.3	527.59	ug/L	527.59	ppb	17:49:36
2	Sc 361.383	808387.9	808387.9	99.441	%			17:50:59
2	Y 371.029	674252.5	674252.5	97.798	%			17:50:59
2	Ag 328.068†	93240.4	93553.6	483.33	ug/L	483.33	ppb	17:51:04
2	As 188.979†	882.3	904.3	507.44	ug/L	507.44	ppb	17:51:24
2	B 249.677†	17059.5	17570.7	489.49	ug/L	489.49	ppb	17:51:04
2	Ba 233.527†	53783.2	54072.8	507.22	ug/L	507.22	ppb	17:51:04
2	Be 313.107†	1184958.0	1195342.9	511.35	ug/L	511.35	ppb	17:50:59
2	Cd 226.502†	33681.5	34047.1	493.22	ug/L	493.22	ppb	17:51:04
2	Co 228.616†	18978.8	19125.2	496.97	ug/L	496.97	ppb	17:51:04
2	Cr 267.716†	36899.0	37026.8	498.17	ug/L	498.17	ppb	17:51:04
2	Cu 324.752†	155821.7	151230.7	500.54	ug/L	500.54	ppb	17:51:04
2	Mn 257.610†	369385.0	370908.9	488.63	ug/L	488.63	ppb	17:51:04
2	Mo 202.031†	5636.6	5655.4	497.78	ug/L	497.78	ppb	17:51:24
2	Ni 231.604†	16003.6	16012.1	509.51	ug/L	509.51	ppb	17:51:04

2	P 214.914†	948.0	769.4	481.99 ug/L	481.99 ppb	17:51:24
2	Pb 220.353†	3192.5	3253.2	503.34 ug/L	503.34 ppb	17:51:24
2	S 181.975 Axial†	2820.0	2805.7	5008.6 ug/L	5008.6 ppb	17:51:24
2	Sb 206.836†	1273.5	1256.1	538.18 ug/L	538.18 ppb	17:51:24
2	Se 196.026†	565.0	586.9	504.44 ug/L	504.44 ppb	17:51:24
2	Si 251.611†	128029.8	128250.7	4820.3 ug/L	4820.3 ppb	17:51:04
2	Sn 189.927†	2235.0	2239.6	504.86 ug/L	504.86 ppb	17:51:24
2	Ti 334.940†	279085.6	281740.5	486.72 ug/L	486.72 ppb	17:51:04
2	Tl 190.801†	1279.3	1318.3	510.86 ug/L	510.86 ppb	17:51:24
2	U 409.014†	15579.2	17747.7	534.32 ug/L	534.32 ppb	17:51:04
2	V 292.402†	60909.0	62568.8	506.61 ug/L	506.61 ppb	17:51:04
2	Zn 213.857†	41239.2	40853.7	488.88 ug/L	488.88 ppb	17:51:04
2	SiO2†	129655.4	129888.3	10388 ug/L	10388 ppb	17:52:05
3	Sc Radial	4390.9	4390.9	95.7 %		17:50:01
3	Y RADIAL	4690.6	4690.6	95.06 %		17:50:01
3	Al 396.153Radial†	5054.0	5366.2	5020.8 ug/L	5020.8 ppb	17:50:01
3	Ca 317.933Radial†	2811.5	2909.5	5142.9 ug/L	5142.9 ppb	17:50:21
3	Fe 238.204 Radial†	478.1	491.7	5166.6 ug/L	5166.6 ppb	17:50:21
3	K 766.490 Radial†	28267.0	26977.2	5163.7 ug/L	5163.7 ppb	17:50:01
3	Mg 279.077 IEC†	130.3	136.1	5178.0 ug/L	5178.0 ppb	17:50:21
3	Na 589.592 Radial†	13809.5	15233.1	5337.5 ug/L	5337.5 ppb	17:50:01
3	Sr 421.552†	65957.5	68885.7	526.20 ug/L	526.20 ppb	17:50:01
3	Sc 361.383	809157.9	809157.9	99.536 %		17:51:29
3	Y 371.029	675159.4	675159.4	97.929 %		17:51:29
3	Ag 328.068†	93967.0	94194.3	486.70 ug/L	486.70 ppb	17:51:35
3	As 188.979†	874.2	895.3	502.53 ug/L	502.53 ppb	17:51:55
3	B 249.677†	17273.6	17769.5	495.01 ug/L	495.01 ppb	17:51:35
3	Ba 233.527†	54295.7	54536.2	511.57 ug/L	511.57 ppb	17:51:35
3	Be 313.107†	1183858.7	1193104.5	510.41 ug/L	510.41 ppb	17:51:29
3	Cd 226.502†	33985.2	34319.9	497.15 ug/L	497.15 ppb	17:51:35
3	Co 228.616†	19180.8	19310.1	501.76 ug/L	501.76 ppb	17:51:35
3	Cr 267.716†	37158.8	37252.4	501.23 ug/L	501.23 ppb	17:51:35
3	Cu 324.752†	157006.3	152271.7	504.00 ug/L	504.00 ppb	17:51:35
3	Mn 257.610†	372533.6	373718.7	492.34 ug/L	492.34 ppb	17:51:35
3	Mo 202.031†	5606.0	5619.2	494.61 ug/L	494.61 ppb	17:51:55
3	Ni 231.604†	16119.8	16113.5	512.73 ug/L	512.73 ppb	17:51:35
3	P 214.914†	928.4	748.8	465.60 ug/L	465.60 ppb	17:51:55
3	Pb 220.353†	3187.1	3244.7	501.99 ug/L	501.99 ppb	17:51:55
3	S 181.975 Axial†	2795.9	2778.8	4960.6 ug/L	4960.6 ppb	17:51:55
3	Sb 206.836†	1266.1	1247.5	534.48 ug/L	534.48 ppb	17:51:55
3	Se 196.026†	562.8	584.2	502.74 ug/L	502.74 ppb	17:51:55
3	Si 251.611†	129117.3	129220.8	4856.9 ug/L	4856.9 ppb	17:51:35
3	Sn 189.927†	2215.7	2218.0	500.02 ug/L	500.02 ppb	17:51:55
3	Ti 334.940†	281562.7	283962.1	490.58 ug/L	490.58 ppb	17:51:35
3	Tl 190.801†	1280.9	1318.6	511.00 ug/L	511.00 ppb	17:51:55
3	U 409.014†	15484.0	17637.2	530.96 ug/L	530.96 ppb	17:51:35
3	V 292.402†	61417.7	63021.6	510.14 ug/L	510.14 ppb	17:51:35
3	Zn 213.857†	41516.2	41092.6	491.71 ug/L	491.71 ppb	17:51:35
3	SiO2†	128945.2	129050.8	10321 ug/L	10321 ppb	17:52:10

Mean Data: 1202047755|955153|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	804793.9	98.999	%	0.8491				0.86%
Sc Radial	4415.0	96.2	%	1.10				1.15%
Y 371.029	671784.8	97.440	%	0.7368				0.76%
Y RADIAL	4727.4	95.81	%	1.174				1.23%
Ag 328.068†	94743.8	489.51	ug/L	7.961	489.51	ppb	7.961	1.63%
Al 396.153Radial†	5384.5	5038.0	ug/L	17.38	5038.0	ppb	17.38	0.35%
As 188.979†	905.4	508.14	ug/L	5.984	508.14	ppb	5.984	1.18%
B 249.677†	17837.6	496.92	ug/L	8.544	496.92	ppb	8.544	1.72%
Ba 233.527†	54821.1	514.24	ug/L	8.671	514.24	ppb	8.671	1.69%
Be 313.107†	1193881.6	510.75	ug/L	0.528	510.75	ppb	0.528	0.10%
Ca 317.933Radial†	2867.7	5069.0	ug/L	83.91	5069.0	ppb	83.91	1.66%
Cd 226.502†	34522.3	500.09	ug/L	8.727	500.09	ppb	8.727	1.75%
Co 228.616†	19422.7	504.69	ug/L	9.524	504.69	ppb	9.524	1.89%
Cr 267.716†	37510.2	504.69	ug/L	8.769	504.69	ppb	8.769	1.74%
Cu 324.752†	153354.5	507.57	ug/L	9.353	507.57	ppb	9.353	1.84%
Fe 238.204 Radial†	485.3	5099.4	ug/L	110.99	5099.4	ppb	110.99	2.18%
K 766.490 Radial†	26974.3	5163.1	ug/L	15.91	5163.1	ppb	15.91	0.31%

Mg 279.077 IEC†	136.9	5210.6	ug/L	71.01	5210.6	ppb	71.01	1.36%
Mn 257.610†	375971.0	495.30	ug/L	8.547	495.30	ppb	8.547	1.73%
Mo 202.031†	5657.2	497.94	ug/L	3.413	497.94	ppb	3.413	0.69%
Na 589.592 Radial†	15364.3	5383.4	ug/L	40.84	5383.4	ppb	40.84	0.76%
Ni 231.604†	16196.6	515.38	ug/L	7.550	515.38	ppb	7.550	1.47%
P 214.914†	762.4	475.19	ug/L	8.545	475.19	ppb	8.545	1.80%
Pb 220.353†	3265.3	505.18	ug/L	4.414	505.18	ppb	4.414	0.87%
S 181.975 Axial†	2804.3	5006.1	ug/L	44.26	5006.1	ppb	44.26	0.88%
Sb 206.836†	1252.4	536.66	ug/L	1.940	536.66	ppb	1.940	0.36%
Se 196.026†	588.6	506.23	ug/L	4.641	506.23	ppb	4.641	0.92%
Si 251.611†	130039.1	4887.6	ug/L	86.86	4887.6	ppb	86.86	1.78%
Sn 189.927†	2243.7	505.80	ug/L	6.311	505.80	ppb	6.311	1.25%
Sr 421.552†	69042.3	527.40	ug/L	1.114	527.40	ppb	1.114	0.21%
Ti 334.940†	285660.2	493.50	ug/L	8.617	493.50	ppb	8.617	1.75%
Tl 190.801†	1317.5	510.60	ug/L	0.568	510.60	ppb	0.568	0.11%
U 409.014†	17805.7	536.05	ug/L	6.134	536.05	ppb	6.134	1.14%
V 292.402†	63433.8	513.49	ug/L	9.046	513.49	ppb	9.046	1.76%
Zn 213.857†	41364.7	494.99	ug/L	8.247	494.99	ppb	8.247	1.67%
SiO2†	129764.1	10378	ug/L	52.8	10378	ppb	52.8	0.51%

Sequence No.: 3
Sample ID: 247261003|955153|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 40
Date Collected: 3/16/2010 17:54:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 247261003|955153|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4245.2	4245.2	92.5	%			17:56:33
1	Y RADIAL	4471.7	4471.7	90.63	%			17:56:13
1	Al 396.153Radial†	1612.5	1828.3	1718.5	ug/L	1718.5	ppb	17:56:13
1	Ca 317.933Radial†	5683.0	6113.4	10806	ug/L	10806	ppb	17:56:13
1	Fe 238.204 Radial†	177.9	184.4	1932.3	ug/L	1932.3	ppb	17:56:33
1	K 766.490 Radial†	12399.0	10843.1	2064.6	ug/L	2064.6	ppb	17:56:13
1	Mg 279.077 IEC†	88.6	95.7	3639.7	ug/L	3639.7	ppb	17:56:33
1	Na 589.592 Radial†	60878.3	66592.5	23333	ug/L	23333	ppb	17:56:13
1	Sr 421.552†	9897.7	10670.1	81.432	ug/L	81.432	ppb	17:56:13
1	Sc 361.383	796717.9	796717.9	98.006	%			17:57:30
1	Y 371.029	666892.1	666892.1	96.730	%			17:57:30
1	Ag 328.068†	39.2	-170.6	-0.4001	ug/L	-0.4001	ppb	17:57:35
1	As 188.979†	-13.9	2.9	2.1594	ug/L	2.1594	ppb	17:57:55
1	B 249.677†	406.2	829.8	22.906	ug/L	22.906	ppb	17:57:55
1	Ba 233.527†	7058.2	7189.3	67.339	ug/L	67.339	ppb	17:57:35
1	Be 313.107†	-3223.2	440.2	0.2218	ug/L	0.2218	ppb	17:57:35
1	Cd 226.502†	-129.7	44.0	0.4571	ug/L	0.4571	ppb	17:57:55
1	Co 228.616†	-18.0	21.5	0.5236	ug/L	0.5236	ppb	17:57:55
1	Cr 267.716†	3590.1	3583.6	48.331	ug/L	48.331	ppb	17:57:35
1	Cu 324.752†	10372.7	5117.5	17.046	ug/L	17.046	ppb	17:57:35
1	Mn 257.610†	50291.9	50764.2	66.879	ug/L	66.879	ppb	17:57:35
1	Mo 202.031†	74.1	62.7	5.7947	ug/L	5.7947	ppb	17:57:55
1	Ni 231.604†	1060.0	1000.2	31.844	ug/L	31.844	ppb	17:57:55
1	P 214.914†	289.8	111.8	79.521	ug/L	79.521	ppb	17:57:55
1	Pb 220.353†	-21.4	20.9	3.4879	ug/L	3.4879	ppb	17:57:55
1	S 181.975 Axial†	489.1	468.9	836.91	ug/L	836.91	ppb	17:57:55
1	Sb 206.836†	41.1	17.4	6.9486	ug/L	6.9486	ppb	17:57:55
1	Se 196.026†	-24.3	-6.0	1.1018	ug/L	1.1018	ppb	17:57:55
1	Si 251.611†	919293.3	937499.9	35281	ug/L	35281	ppb	17:57:30
1	Sn 189.927†	-72.9	-82.3	-16.729	ug/L	-16.729	ppb	17:57:55
1	Ti 334.940†	7393.0	8630.7	16.053	ug/L	16.053	ppb	17:57:35
1	Tl 190.801†	-34.0	-2.9	-0.6974	ug/L	-0.6974	ppb	17:57:55
1	U 409.014†	-2307.6	-273.5	-8.5891	ug/L	-8.5891	ppb	17:57:30
1	V 292.402†	-742.8	559.8	4.2898	ug/L	4.2898	ppb	17:57:35
1	Zn 213.857†	16006.0	15714.6	189.33	ug/L	189.33	ppb	17:57:35
1	SiO2†	925119.2	943447.1	75553	ug/L	75553	ppb	17:59:02
2	Sc Radial	4294.2	4294.2	93.6	%			17:56:58
2	Y RADIAL	4721.0	4721.0	95.68	%			17:56:38
2	Al 396.153Radial†	1626.9	1823.9	1714.4	ug/L	1714.4	ppb	17:56:38
2	Ca 317.933Radial†	5717.7	6080.4	10748	ug/L	10748	ppb	17:56:38
2	Fe 238.204 Radial†	174.2	178.3	1867.8	ug/L	1867.8	ppb	17:56:58
2	K 766.490 Radial†	12409.7	10701.8	2037.5	ug/L	2037.5	ppb	17:56:38
2	Mg 279.077 IEC†	88.3	94.2	3584.7	ug/L	3584.7	ppb	17:56:58
2	Na 589.592 Radial†	61431.4	66433.5	23277	ug/L	23277	ppb	17:56:38
2	Sr 421.552†	9937.8	10591.0	80.828	ug/L	80.828	ppb	17:56:38
2	Sc 361.383	802463.5	802463.5	98.713	%			17:58:01
2	Y 371.029	670711.9	670711.9	97.284	%			17:58:01
2	Ag 328.068†	21.0	-189.4	-0.5168	ug/L	-0.5168	ppb	17:58:06
2	As 188.979†	-8.1	8.9	5.4834	ug/L	5.4834	ppb	17:58:26
2	B 249.677†	400.8	821.4	22.680	ug/L	22.680	ppb	17:58:26
2	Ba 233.527†	6870.5	6947.6	65.075	ug/L	65.075	ppb	17:58:06
2	Be 313.107†	-3242.3	444.4	0.2219	ug/L	0.2219	ppb	17:58:06
2	Cd 226.502†	-133.7	40.9	0.4180	ug/L	0.4180	ppb	17:58:26
2	Co 228.616†	-5.2	34.5	0.8648	ug/L	0.8648	ppb	17:58:26
2	Cr 267.716†	3508.4	3474.7	46.861	ug/L	46.861	ppb	17:58:06
2	Cu 324.752†	10070.5	4735.6	15.779	ug/L	15.779	ppb	17:58:06
2	Mn 257.610†	49013.6	49101.9	64.687	ug/L	64.687	ppb	17:58:06
2	Mo 202.031†	77.9	66.1	6.0876	ug/L	6.0876	ppb	17:58:26
2	Ni 231.604†	1067.2	999.7	31.829	ug/L	31.829	ppb	17:58:26

2	P 214.914†	295.0	114.9	82.150 ug/L	82.150 ppb	17:58:26
2	Pb 220.353†	-10.9	31.8	5.1707 ug/L	5.1707 ppb	17:58:26
2	S 181.975 Axial†	487.8	464.0	828.23 ug/L	828.23 ppb	17:58:26
2	Sb 206.836†	35.4	11.3	4.4113 ug/L	4.4113 ppb	17:58:26
2	Se 196.026†	-22.3	-3.8	2.7704 ug/L	2.7704 ppb	17:58:26
2	Si 251.611†	927939.9	939543.2	35358 ug/L	35358 ppb	17:58:01
2	Sn 189.927†	-79.8	-88.8	-18.200 ug/L	-18.200 ppb	17:58:26
2	Ti 334.940†	7035.9	8215.0	15.332 ug/L	15.332 ppb	17:58:06
2	Tl 190.801†	-39.1	-7.8	-2.5860 ug/L	-2.5860 ppb	17:58:26
2	U 409.014†	-2351.3	-301.0	-9.4076 ug/L	-9.4076 ppb	17:58:01
2	V 292.402†	-800.9	506.4	3.8751 ug/L	3.8751 ppb	17:58:06
2	Zn 213.857†	15672.3	15259.6	183.85 ug/L	183.85 ppb	17:58:06
2	SiO2†	926854.1	938446.0	75153 ug/L	75153 ppb	17:59:08
3	Sc Radial	4310.3	4310.3	94.0 %		17:57:24
3	Y RADIAL	4699.2	4699.2	95.24 %		17:57:04
3	Al 396.153Radial†	1609.0	1798.3	1690.4 ug/L	1690.4 ppb	17:57:04
3	Ca 317.933Radial†	5673.4	6010.4	10624 ug/L	10624 ppb	17:57:04
3	Fe 238.204 Radial†	173.7	177.0	1854.9 ug/L	1854.9 ppb	17:57:24
3	K 766.490 Radial†	12139.0	10364.1	1973.0 ug/L	1973.0 ppb	17:57:04
3	Mg 279.077 IEC†	91.2	97.0	3687.7 ug/L	3687.7 ppb	17:57:24
3	Na 589.592 Radial†	60776.9	65491.0	22947 ug/L	22947 ppb	17:57:04
3	Sr 421.552†	9850.8	10458.7	79.818 ug/L	79.818 ppb	17:57:04
3	Sc 361.383	802323.0	802323.0	98.695 %		17:58:31
3	Y 371.029	670795.1	670795.1	97.296 %		17:58:31
3	Ag 328.068†	151.4	-57.2	0.1591 ug/L	0.1591 ppb	17:58:36
3	As 188.979†	-15.0	1.8	1.5600 ug/L	1.5600 ppb	17:58:56
3	B 249.677†	410.9	831.7	22.973 ug/L	22.973 ppb	17:58:56
3	Ba 233.527†	6931.2	7010.3	65.663 ug/L	65.663 ppb	17:58:36
3	Be 313.107†	-3114.1	573.7	0.2774 ug/L	0.2774 ppb	17:58:36
3	Cd 226.502†	-141.6	32.9	0.3037 ug/L	0.3037 ppb	17:58:56
3	Co 228.616†	-7.3	32.4	0.8075 ug/L	0.8075 ppb	17:58:56
3	Cr 267.716†	3505.7	3472.5	46.830 ug/L	46.830 ppb	17:58:36
3	Cu 324.752†	10103.9	4771.2	15.895 ug/L	15.895 ppb	17:58:36
3	Mn 257.610†	49276.4	49376.8	65.043 ug/L	65.043 ppb	17:58:36
3	Mo 202.031†	63.0	51.0	4.7536 ug/L	4.7536 ppb	17:58:56
3	Ni 231.604†	1075.6	1008.4	32.105 ug/L	32.105 ppb	17:58:56
3	P 214.914†	284.4	104.3	74.121 ug/L	74.121 ppb	17:58:56
3	Pb 220.353†	-28.1	14.3	2.4674 ug/L	2.4674 ppb	17:58:56
3	S 181.975 Axial†	487.4	463.7	827.54 ug/L	827.54 ppb	17:58:56
3	Sb 206.836†	27.4	3.2	1.0308 ug/L	1.0308 ppb	17:58:56
3	Se 196.026†	-28.1	-9.7	-2.1443 ug/L	-2.1443 ppb	17:58:56
3	Si 251.611†	925557.0	937293.3	35273 ug/L	35273 ppb	17:58:31
3	Sn 189.927†	-83.3	-92.4	-19.029 ug/L	-19.029 ppb	17:58:56
3	Ti 334.940†	7109.6	8290.9	15.438 ug/L	15.438 ppb	17:58:36
3	Tl 190.801†	-33.6	-2.2	-0.4417 ug/L	-0.4417 ppb	17:58:56
3	U 409.014†	-2280.9	-230.1	-7.2639 ug/L	-7.2639 ppb	17:58:31
3	V 292.402†	-754.6	553.2	4.2381 ug/L	4.2381 ppb	17:58:36
3	Zn 213.857†	15679.3	15269.5	183.96 ug/L	183.96 ppb	17:58:36
3	SiO2†	929735.5	941530.0	75400 ug/L	75400 ppb	17:59:14

Mean Data: 247261003|955153|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	800501.5	98.471	%	0.4032				0.41%
Sc Radial	4283.3	93.4	%	0.74				0.79%
Y 371.029	669466.4	97.103	%	0.3234				0.33%
Y RADIAL	4630.6	93.85	%	2.798				2.98%
Ag 328.068†	-139.0	-0.2526	ug/L	0.36131	-0.2526	ppb	0.36131	143.02%
Al 396.153Radial†	1816.8	1707.8	ug/L	15.18	1707.8	ppb	15.18	0.89%
As 188.979†	4.5	3.0676	ug/L	2.11348	3.0676	ppb	2.11348	68.90%
B 249.677†	827.6	22.853	ug/L	0.1533	22.853	ppb	0.1533	0.67%
Ba 233.527†	7049.1	66.026	ug/L	1.1751	66.026	ppb	1.1751	1.78%
Be 313.107†	486.1	0.2404	ug/L	0.03208	0.2404	ppb	0.03208	13.34%
Ca 317.933Radial†	6068.1	10726	ug/L	93.0	10726	ppb	93.0	0.87%
Cd 226.502†	39.3	0.3929	ug/L	0.07969	0.3929	ppb	0.07969	20.28%
Co 228.616†	29.5	0.7320	ug/L	0.18274	0.7320	ppb	0.18274	24.97%
Cr 267.716†	3510.2	47.341	ug/L	0.8576	47.341	ppb	0.8576	1.81%
Cu 324.752†	4874.8	16.240	ug/L	0.7004	16.240	ppb	0.7004	4.31%
Fe 238.204 Radial†	179.9	1885.0	ug/L	41.48	1885.0	ppb	41.48	2.20%
K 766.490 Radial†	10636.3	2025.0	ug/L	47.04	2025.0	ppb	47.04	2.32%

Mg 279.077 IEC†	95.6	3637.4	ug/L	51.55	3637.4	ppb	51.55	1.42%
Mn 257.610†	49747.6	65.536	ug/L	1.1767	65.536	ppb	1.1767	1.80%
Mo 202.031†	59.9	5.5453	ug/L	0.70110	5.5453	ppb	0.70110	12.64%
Na 589.592 Radial†	66172.3	23186	ug/L	208.6	23186	ppb	208.6	0.90%
Ni 231.604†	1002.8	31.926	ug/L	0.1552	31.926	ppb	0.1552	0.49%
P 214.914†	110.3	78.597	ug/L	4.0936	78.597	ppb	4.0936	5.21%
Pb 220.353†	22.3	3.7087	ug/L	1.36514	3.7087	ppb	1.36514	36.81%
S 181.975 Axial†	465.5	830.89	ug/L	5.222	830.89	ppb	5.222	0.63%
Sb 206.836†	10.6	4.1302	ug/L	2.96893	4.1302	ppb	2.96893	71.88%
Se 196.026†	-6.5	0.5760	ug/L	2.49914	0.5760	ppb	2.49914	433.91%
Si 251.611†	938112.1	35304	ug/L	46.8	35304	ppb	46.8	0.13%
Sn 189.927†	-87.9	-17.986	ug/L	1.1648	-17.986	ppb	1.1648	6.48%
Sr 421.552†	10573.2	80.692	ug/L	0.8153	80.692	ppb	0.8153	1.01%
Ti 334.940†	8378.9	15.608	ug/L	0.3894	15.608	ppb	0.3894	2.49%
Tl 190.801†	-4.3	-1.2417	ug/L	1.17124	-1.2417	ppb	1.17124	94.33%
U 409.014†	-268.2	-8.4202	ug/L	1.08177	-8.4202	ppb	1.08177	12.85%
V 292.402†	539.8	4.1344	ug/L	0.22599	4.1344	ppb	0.22599	5.47%
Zn 213.857†	15414.6	185.71	ug/L	3.133	185.71	ppb	3.133	1.69%
SiO2†	941141.1	75369	ug/L	202.1	75369	ppb	202.1	0.27%

Sequence No.: 4
Sample ID: 1202047756|955153|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 41
Date Collected: 3/16/2010 18:01:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202047756|955153|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4273.1	4273.1	93.1	%			18:03:37
1	Y RADIAL	4745.9	4745.9	96.18	%			18:03:17
1	Al 396.153Radial†	3806.8	4172.8	3922.6	ug/L	3922.6	ppb	18:03:17
1	Ca 317.933Radial†	6203.1	6631.7	11722	ug/L	11722	ppb	18:03:17
1	Fe 238.204 Radial†	252.5	263.2	2757.9	ug/L	2757.9	ppb	18:03:37
1	K 766.490 Radial†	13609.5	12055.3	2296.5	ug/L	2296.5	ppb	18:03:17
1	Mg 279.077 IEC†	101.3	108.7	4131.9	ug/L	4131.9	ppb	18:03:37
1	Na 589.592 Radial†	61132.6	66436.5	23278	ug/L	23278	ppb	18:03:17
1	Sr 421.552†	11990.9	12847.6	98.059	ug/L	98.059	ppb	18:03:17
1	Sc 361.383	800086.8	800086.8	98.420	%			18:04:34
1	Y 371.029	670102.4	670102.4	97.196	%			18:04:34
1	Ag 328.068†	144.5	-63.8	0.3955	ug/L	0.3955	ppb	18:04:39
1	As 188.979†	-23.9	-7.2	-3.1552	ug/L	-3.1552	ppb	18:04:59
1	B 249.677†	454.1	876.8	24.085	ug/L	24.085	ppb	18:04:59
1	Ba 233.527†	11446.6	11617.8	108.80	ug/L	108.80	ppb	18:04:39
1	Be 313.107†	-3159.7	518.6	0.2838	ug/L	0.2838	ppb	18:04:39
1	Cd 226.502†	-129.2	45.1	0.3959	ug/L	0.3959	ppb	18:04:59
1	Co 228.616†	-1.2	38.6	0.9311	ug/L	0.9311	ppb	18:04:59
1	Cr 267.716†	6976.7	7009.2	94.415	ug/L	94.415	ppb	18:04:39
1	Cu 324.752†	11038.1	5749.1	19.181	ug/L	19.181	ppb	18:04:39
1	Mn 257.610†	56704.2	57063.4	75.234	ug/L	75.234	ppb	18:04:39
1	Mo 202.031†	89.2	77.8	7.1984	ug/L	7.1984	ppb	18:04:59
1	Ni 231.604†	1519.7	1462.7	46.569	ug/L	46.569	ppb	18:04:59
1	P 214.914†	313.6	134.7	96.215	ug/L	96.215	ppb	18:04:59
1	Pb 220.353†	-2.6	40.1	6.8348	ug/L	6.8348	ppb	18:04:59
1	S 181.975 Axial†	571.4	550.4	982.03	ug/L	982.03	ppb	18:04:59
1	Sb 206.836†	39.4	15.5	6.0586	ug/L	6.0586	ppb	18:04:59
1	Se 196.026†	-37.6	-19.4	-6.9047	ug/L	-6.9047	ppb	18:04:59
1	Si 251.611†	1103121.8	1120329.3	42161	ug/L	42161	ppb	18:04:34
1	Sn 189.927†	-86.8	-96.2	-19.727	ug/L	-19.727	ppb	18:04:59
1	Ti 334.940†	14583.3	15904.7	28.691	ug/L	28.691	ppb	18:04:39
1	Tl 190.801†	-39.5	-8.3	-2.6289	ug/L	-2.6289	ppb	18:04:59
1	U 409.014†	-2380.0	-337.2	-10.709	ug/L	-10.709	ppb	18:04:34
1	V 292.402†	-651.4	655.8	4.9313	ug/L	4.9313	ppb	18:04:39
1	Zn 213.857†	17139.9	16797.9	202.20	ug/L	202.20	ppb	18:04:39
1	SiO2†	1133751.7	1151453.6	92211	ug/L	92211	ppb	18:06:07
2	Sc Radial	4297.5	4297.5	93.7	%			18:04:03
2	Y RADIAL	4713.3	4713.3	95.52	%			18:03:42
2	Al 396.153Radial†	3788.3	4129.8	3882.2	ug/L	3882.2	ppb	18:03:42
2	Ca 317.933Radial†	6132.7	6518.8	11523	ug/L	11523	ppb	18:03:42
2	Fe 238.204 Radial†	248.4	257.4	2696.4	ug/L	2696.4	ppb	18:04:03
2	K 766.490 Radial†	13693.4	12062.0	2298.0	ug/L	2298.0	ppb	18:03:42
2	Mg 279.077 IEC†	100.5	107.3	4078.8	ug/L	4078.8	ppb	18:04:03
2	Na 589.592 Radial†	60531.8	65422.9	22923	ug/L	22923	ppb	18:03:42
2	Sr 421.552†	11956.5	12737.8	97.222	ug/L	97.222	ppb	18:03:42
2	Sc 361.383	804849.8	804849.8	99.006	%			18:05:05
2	Y 371.029	672885.2	672885.2	97.599	%			18:05:05
2	Ag 328.068†	138.8	-70.4	0.3439	ug/L	0.3439	ppb	18:05:10
2	As 188.979†	-15.9	1.0	1.4266	ug/L	1.4266	ppb	18:05:30
2	B 249.677†	462.2	882.2	24.249	ug/L	24.249	ppb	18:05:30
2	Ba 233.527†	11528.7	11631.9	108.93	ug/L	108.93	ppb	18:05:10
2	Be 313.107†	-3136.1	561.5	0.3022	ug/L	0.3022	ppb	18:05:10
2	Cd 226.502†	-127.0	48.0	0.4443	ug/L	0.4443	ppb	18:05:30
2	Co 228.616†	-3.0	36.8	0.8845	ug/L	0.8845	ppb	18:05:30
2	Cr 267.716†	6953.4	6943.7	93.529	ug/L	93.529	ppb	18:05:10
2	Cu 324.752†	11113.1	5758.4	19.207	ug/L	19.207	ppb	18:05:10
2	Mn 257.610†	56753.5	56772.3	74.847	ug/L	74.847	ppb	18:05:10
2	Mo 202.031†	83.5	71.5	6.6349	ug/L	6.6349	ppb	18:05:30
2	Ni 231.604†	1475.2	1408.6	44.848	ug/L	44.848	ppb	18:05:30

2	P 214.914†	299.1	118.2	83.828 ug/L	83.828 ppb	18:05:30
2	Pb 220.353†	-11.7	31.0	5.4186 ug/L	5.4186 ppb	18:05:30
2	S 181.975 Axial†	580.8	556.5	992.86 ug/L	992.86 ppb	18:05:30
2	Sb 206.836†	32.1	7.9	2.9079 ug/L	2.9079 ppb	18:05:30
2	Se 196.026†	-25.3	-6.7	3.4264 ug/L	3.4264 ppb	18:05:30
2	Si 251.611†	1112618.3	1123288.3	42273 ug/L	42273 ppb	18:05:05
2	Sn 189.927†	-87.7	-96.6	-19.850 ug/L	-19.850 ppb	18:05:30
2	Ti 334.940†	14711.9	15946.9	28.740 ug/L	28.740 ppb	18:05:10
2	Tl 190.801†	-33.2	-1.7	-0.0913 ug/L	-0.0913 ppb	18:05:30
2	U 409.014†	-2315.0	-257.3	-8.2864 ug/L	-8.2864 ppb	18:05:05
2	V 292.402†	-628.4	683.0	5.1529 ug/L	5.1529 ppb	18:05:10
2	Zn 213.857†	17194.9	16750.4	201.64 ug/L	201.64 ppb	18:05:10
2	SiO2†	1132112.6	1142981.1	91532 ug/L	91532 ppb	18:06:12
3	Sc Radial	4310.1	4310.1	94.0 %		18:04:28
3	Y RADIAL	4721.1	4721.1	95.68 %		18:04:08
3	Al 396.153Radial†	3768.2	4096.6	3851.0 ug/L	3851.0 ppb	18:04:08
3	Ca 317.933Radial†	6115.7	6481.6	11457 ug/L	11457 ppb	18:04:08
3	Fe 238.204 Radial†	250.0	258.2	2705.3 ug/L	2705.3 ppb	18:04:28
3	K 766.490 Radial†	13508.3	11822.2	2252.2 ug/L	2252.2 ppb	18:04:08
3	Mg 279.077 IEC†	100.8	107.2	4078.0 ug/L	4078.0 ppb	18:04:28
3	Na 589.592 Radial†	60106.0	64780.5	22698 ug/L	22698 ppb	18:04:08
3	Sr 421.552†	11907.6	12648.4	96.540 ug/L	96.540 ppb	18:04:08
3	Sc 361.383	801580.6	801580.6	98.604 %		18:05:35
3	Y 371.029	671309.0	671309.0	97.371 %		18:05:35
3	Ag 328.068†	155.5	-52.9	0.4363 ug/L	0.4363 ppb	18:05:40
3	As 188.979†	-10.3	6.6	4.5046 ug/L	4.5046 ppb	18:06:00
3	B 249.677†	480.7	902.9	24.825 ug/L	24.825 ppb	18:06:00
3	Ba 233.527†	11561.4	11712.6	109.69 ug/L	109.69 ppb	18:05:40
3	Be 313.107†	-3153.3	531.1	0.2895 ug/L	0.2895 ppb	18:05:40
3	Cd 226.502†	-117.6	57.1	0.5755 ug/L	0.5755 ppb	18:06:00
3	Co 228.616†	8.2	48.1	1.1778 ug/L	1.1778 ppb	18:06:00
3	Cr 267.716†	6997.5	7017.0	94.514 ug/L	94.514 ppb	18:05:40
3	Cu 324.752†	11142.9	5834.4	19.459 ug/L	19.459 ppb	18:05:40
3	Mn 257.610†	56976.4	57232.1	75.453 ug/L	75.453 ppb	18:05:40
3	Mo 202.031†	79.7	68.0	6.3289 ug/L	6.3289 ppb	18:06:00
3	Ni 231.604†	1484.9	1424.5	45.353 ug/L	45.353 ppb	18:06:00
3	P 214.914†	308.6	129.0	91.937 ug/L	91.937 ppb	18:06:00
3	Pb 220.353†	-3.3	39.4	6.7103 ug/L	6.7103 ppb	18:06:00
3	S 181.975 Axial†	571.2	549.1	979.77 ug/L	979.77 ppb	18:06:00
3	Sb 206.836†	43.4	19.5	7.7023 ug/L	7.7023 ppb	18:06:00
3	Se 196.026†	-39.7	-21.5	-8.8325 ug/L	-8.8325 ppb	18:06:00
3	Si 251.611†	1105800.3	1120956.9	42185 ug/L	42185 ppb	18:05:35
3	Sn 189.927†	-80.8	-89.9	-18.368 ug/L	-18.368 ppb	18:06:00
3	Ti 334.940†	14715.0	16010.7	28.841 ug/L	28.841 ppb	18:05:40
3	Tl 190.801†	-32.8	-1.5	0.0054 ug/L	0.0054 ppb	18:06:00
3	U 409.014†	-2296.2	-247.7	-7.9990 ug/L	-7.9990 ppb	18:05:35
3	V 292.402†	-660.1	648.3	4.8700 ug/L	4.8700 ppb	18:05:40
3	Zn 213.857†	17217.3	16843.9	202.77 ug/L	202.77 ppb	18:05:40
3	SiO2†	1132779.7	1148321.2	91960 ug/L	91960 ppb	18:06:18

Mean Data: 1202047756|955153|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	802172.4	98.677	%	0.2997				0.30%
Sc Radial	4293.6	93.6	%	0.41				0.44%
Y 371.029	671432.2	97.389	%	0.2024				0.21%
Y RADIAL	4726.7	95.79	%	0.345				0.36%
Ag 328.068†	-62.4	0.3919	ug/L	0.04631	0.3919	ppb	0.04631	11.82%
Al 396.153Radial†	4133.1	3885.2	ug/L	35.89	3885.2	ppb	35.89	0.92%
As 188.979†	0.1	0.9253	ug/L	3.85440	0.9253	ppb	3.85440	416.54%
B 249.677†	887.3	24.386	ug/L	0.3883	24.386	ppb	0.3883	1.59%
Ba 233.527†	11654.1	109.14	ug/L	0.478	109.14	ppb	0.478	0.44%
Be 313.107†	537.1	0.2918	ug/L	0.00945	0.2918	ppb	0.00945	3.24%
Ca 317.933Radial†	6544.0	11567	ug/L	138.2	11567	ppb	138.2	1.19%
Cd 226.502†	50.1	0.4719	ug/L	0.09291	0.4719	ppb	0.09291	19.69%
Co 228.616†	41.2	0.9978	ug/L	0.15760	0.9978	ppb	0.15760	15.79%
Cr 267.716†	6990.0	94.152	ug/L	0.5425	94.152	ppb	0.5425	0.58%
Cu 324.752†	5780.6	19.283	ug/L	0.1536	19.283	ppb	0.1536	0.80%
Fe 238.204 Radial†	259.6	2719.9	ug/L	33.25	2719.9	ppb	33.25	1.22%
K 766.490 Radial†	11979.8	2282.2	ug/L	26.05	2282.2	ppb	26.05	1.14%

Mg 279.077 IEC†	107.7	4096.2	ug/L	30.93	4096.2	ppb	30.93	0.76%
Mn 257.610†	57022.6	75.178	ug/L	0.3070	75.178	ppb	0.3070	0.41%
Mo 202.031†	72.5	6.7207	ug/L	0.44105	6.7207	ppb	0.44105	6.56%
Na 589.592 Radial†	65546.7	22967	ug/L	292.5	22967	ppb	292.5	1.27%
Ni 231.604†	1431.9	45.590	ug/L	0.8843	45.590	ppb	0.8843	1.94%
P 214.914†	127.3	90.660	ug/L	6.2918	90.660	ppb	6.2918	6.94%
Pb 220.353†	36.8	6.3213	ug/L	0.78419	6.3213	ppb	0.78419	12.41%
S 181.975 Axial†	552.0	984.89	ug/L	6.999	984.89	ppb	6.999	0.71%
Sb 206.836†	14.3	5.5563	ug/L	2.43636	5.5563	ppb	2.43636	43.85%
Se 196.026†	-15.9	-4.1036	ug/L	6.59205	-4.1036	ppb	6.59205	160.64%
Si 251.611†	1121524.8	42206	ug/L	58.7	42206	ppb	58.7	0.14%
Sn 189.927†	-94.2	-19.315	ug/L	0.8221	-19.315	ppb	0.8221	4.26%
Sr 421.552†	12744.6	97.274	ug/L	0.7609	97.274	ppb	0.7609	0.78%
Ti 334.940†	15954.1	28.757	ug/L	0.0768	28.757	ppb	0.0768	0.27%
Tl 190.801†	-3.8	-0.9049	ug/L	1.49377	-0.9049	ppb	1.49377	165.07%
U 409.014†	-280.7	-8.9982	ug/L	1.48871	-8.9982	ppb	1.48871	16.54%
V 292.402†	662.4	4.9847	ug/L	0.14883	4.9847	ppb	0.14883	2.99%
Zn 213.857†	16797.4	202.20	ug/L	0.563	202.20	ppb	0.563	0.28%
SiO2†	1147585.3	91901	ug/L	343.1	91901	ppb	343.1	0.37%

Sequence No.: 5
Sample ID: 1202047757|955153|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 42
Date Collected: 3/16/2010 18:08:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202047757|955153|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4247.9	4247.9	92.6	%			18:10:41
1	Y RADIAL	4849.0	4849.0	98.27	%			18:10:21
1	Al 396.153Radial†	12830.1	13941.9	13083	ug/L	13083	ppb	18:10:21
1	Ca 317.933Radial†	9008.0	9700.4	17147	ug/L	17147	ppb	18:10:21
1	Fe 238.204 Radial†	781.9	836.5	8779.6	ug/L	8779.6	ppb	18:10:41
1	K 766.490 Radial†	39561.1	40168.8	7677.4	ug/L	7677.4	ppb	18:10:21
1	Mg 279.077 IEC†	236.2	255.1	9702.0	ug/L	9702.0	ppb	18:10:41
1	Na 589.592 Radial†	77818.4	84846.1	29729	ug/L	29729	ppb	18:10:21
1	Sr 421.552†	78358.1	84598.1	646.14	ug/L	646.14	ppb	18:10:21
1	Sc 361.383	795821.0	795821.0	97.896	%			18:11:39
1	Y 371.029	663157.3	663157.3	96.188	%			18:11:39
1	Ag 328.068†	92471.7	94248.9	487.98	ug/L	487.98	ppb	18:11:44
1	As 188.979†	876.6	912.5	513.11	ug/L	513.11	ppb	18:12:04
1	B 249.677†	17927.7	18728.4	521.26	ug/L	521.26	ppb	18:11:44
1	Ba 233.527†	64216.1	65584.0	615.07	ug/L	615.07	ppb	18:11:44
1	Be 313.107†	1175110.2	1204100.3	515.14	ug/L	515.14	ppb	18:11:39
1	Cd 226.502†	33679.0	34579.3	500.56	ug/L	500.56	ppb	18:11:44
1	Co 228.616†	18915.4	19361.8	503.03	ug/L	503.03	ppb	18:11:44
1	Cr 267.716†	42814.1	43654.9	587.60	ug/L	587.60	ppb	18:11:44
1	Cu 324.752†	163482.9	161531.0	534.84	ug/L	534.84	ppb	18:11:44
1	Mn 257.610†	429842.2	438531.5	577.85	ug/L	577.85	ppb	18:11:39
1	Mo 202.031†	5551.8	5658.3	498.47	ug/L	498.47	ppb	18:12:04
1	Ni 231.604†	17095.4	17381.5	553.11	ug/L	553.11	ppb	18:11:44
1	P 214.914†	1026.9	865.0	546.00	ug/L	546.00	ppb	18:12:04
1	Pb 220.353†	3103.5	3213.0	498.53	ug/L	498.53	ppb	18:12:04
1	S 181.975 Axial†	3298.9	3339.6	5960.4	ug/L	5960.4	ppb	18:12:04
1	Sb 206.836†	1188.0	1189.0	509.87	ug/L	509.87	ppb	18:12:04
1	Se 196.026†	560.3	591.1	521.42	ug/L	521.42	ppb	18:12:04
1	Si 251.611†	1440756.2	1471229.6	55361	ug/L	55361	ppb	18:11:39
1	Sn 189.927†	2129.6	2167.4	490.54	ug/L	490.54	ppb	18:12:04
1	Ti 334.940†	287814.7	295089.1	511.02	ug/L	511.02	ppb	18:11:44
1	Tl 190.801†	1218.0	1276.0	495.13	ug/L	495.13	ppb	18:12:04
1	U 409.014†	14748.3	17146.4	515.53	ug/L	515.53	ppb	18:11:44
1	V 292.402†	61599.8	64241.7	519.42	ug/L	519.42	ppb	18:11:44
1	Zn 213.857†	57770.3	58395.1	699.90	ug/L	699.90	ppb	18:11:44
1	SiO2†	1448252.5	1478889.9	118420	ug/L	118420	ppb	18:13:14
2	Sc Radial	4289.3	4289.3	93.5	%			18:11:07
2	Y RADIAL	4701.4	4701.4	95.28	%			18:10:46
2	Al 396.153Radial†	12487.9	13442.0	12613	ug/L	12613	ppb	18:10:46
2	Ca 317.933Radial†	8789.2	9372.5	16567	ug/L	16567	ppb	18:10:46
2	Fe 238.204 Radial†	788.1	835.1	8764.6	ug/L	8764.6	ppb	18:11:07
2	K 766.490 Radial†	38491.2	38611.9	7379.8	ug/L	7379.8	ppb	18:10:46
2	Mg 279.077 IEC†	238.0	254.5	9679.7	ug/L	9679.7	ppb	18:11:07
2	Na 589.592 Radial†	75243.8	81280.9	28480	ug/L	28480	ppb	18:10:46
2	Sr 421.552†	76135.3	81403.5	621.74	ug/L	621.74	ppb	18:10:46
2	Sc 361.383	797825.8	797825.8	98.142	%			18:12:10
2	Y 371.029	664430.6	664430.6	96.373	%			18:12:10
2	Ag 328.068†	92642.4	94185.5	487.65	ug/L	487.65	ppb	18:12:15
2	As 188.979†	868.3	901.8	507.15	ug/L	507.15	ppb	18:12:35
2	B 249.677†	18080.4	18838.0	524.33	ug/L	524.33	ppb	18:12:15
2	Ba 233.527†	64277.6	65481.9	614.11	ug/L	614.11	ppb	18:12:15
2	Be 313.107†	1178603.3	1204643.2	515.37	ug/L	515.37	ppb	18:12:10
2	Cd 226.502†	33535.2	34346.4	497.18	ug/L	497.18	ppb	18:12:15
2	Co 228.616†	18954.7	19353.4	502.81	ug/L	502.81	ppb	18:12:15
2	Cr 267.716†	42758.9	43488.8	585.36	ug/L	585.36	ppb	18:12:15
2	Cu 324.752†	164668.3	162319.2	537.45	ug/L	537.45	ppb	18:12:15
2	Mn 257.610†	431481.1	439098.1	578.60	ug/L	578.60	ppb	18:12:10
2	Mo 202.031†	5563.9	5656.4	498.29	ug/L	498.29	ppb	18:12:35
2	Ni 231.604†	16990.2	17230.4	548.29	ug/L	548.29	ppb	18:12:15

2	P 214.914†	1032.0	867.6	547.33 ug/L	547.33 ppb	18:12:35
2	Pb 220.353†	3095.3	3196.7	495.90 ug/L	495.90 ppb	18:12:35
2	S 181.975 Axial†	3311.0	3343.6	5967.5 ug/L	5967.5 ppb	18:12:35
2	Sb 206.836†	1178.6	1176.4	504.67 ug/L	504.67 ppb	18:12:35
2	Se 196.026†	555.5	584.8	516.03 ug/L	516.03 ppb	18:12:35
2	Si 251.611†	1446196.4	1473074.6	55430 ug/L	55430 ppb	18:12:10
2	Sn 189.927†	2137.2	2169.7	490.96 ug/L	490.96 ppb	18:12:35
2	Ti 334.940†	288272.4	294816.7	510.48 ug/L	510.48 ppb	18:12:15
2	Tl 190.801†	1212.2	1266.9	491.62 ug/L	491.62 ppb	18:12:35
2	U 409.014†	14858.6	17220.8	517.79 ug/L	517.79 ppb	18:12:15
2	V 292.402†	61603.9	64087.8	518.19 ug/L	518.19 ppb	18:12:15
2	Zn 213.857†	57819.7	58297.2	698.75 ug/L	698.75 ppb	18:12:15
2	SiO2†	1443163.4	1469987.0	117710 ug/L	117710 ppb	18:13:21
3	Sc Radial	4274.9	4274.9	93.2 %		18:11:32
3	Y RADIAL	4728.6	4728.6	95.83 %		18:11:12
3	Al 396.153Radial†	12573.9	13579.3	12742 ug/L	12742 ppb	18:11:12
3	Ca 317.933Radial†	8799.6	9415.4	16643 ug/L	16643 ppb	18:11:12
3	Fe 238.204 Radial†	779.4	828.6	8696.4 ug/L	8696.4 ppb	18:11:32
3	K 766.490 Radial†	38709.8	38985.1	7451.2 ug/L	7451.2 ppb	18:11:12
3	Mg 279.077 IEC†	238.4	255.8	9728.8 ug/L	9728.8 ppb	18:11:32
3	Na 589.592 Radial†	75438.7	81761.1	28648 ug/L	28648 ppb	18:11:12
3	Sr 421.552†	76285.0	81838.4	625.07 ug/L	625.07 ppb	18:11:12
3	Sc 361.383	792938.3	792938.3	97.541 %		18:12:41
3	Y 371.029	660910.7	660910.7	95.862 %		18:12:41
3	Ag 328.068†	92813.8	94943.1	491.52 ug/L	491.52 ppb	18:12:46
3	As 188.979†	864.4	903.2	507.93 ug/L	507.93 ppb	18:13:06
3	B 249.677†	18062.4	18933.1	527.00 ug/L	527.00 ppb	18:12:46
3	Ba 233.527†	64148.5	65753.2	616.66 ug/L	616.66 ppb	18:12:46
3	Be 313.107†	1173123.3	1206427.3	516.14 ug/L	516.14 ppb	18:12:41
3	Cd 226.502†	33420.6	34439.5	498.54 ug/L	498.54 ppb	18:12:46
3	Co 228.616†	18874.4	19390.1	503.77 ug/L	503.77 ppb	18:12:46
3	Cr 267.716†	42708.4	43705.6	588.27 ug/L	588.27 ppb	18:12:46
3	Cu 324.752†	164815.8	163504.6	541.37 ug/L	541.37 ppb	18:12:46
3	Mn 257.610†	427819.9	438054.5	577.21 ug/L	577.21 ppb	18:12:41
3	Mo 202.031†	5565.8	5693.2	501.53 ug/L	501.53 ppb	18:13:06
3	Ni 231.604†	17008.9	17356.3	552.30 ug/L	552.30 ppb	18:12:46
3	P 214.914†	1026.6	868.6	547.38 ug/L	547.38 ppb	18:13:06
3	Pb 220.353†	3097.2	3218.0	499.24 ug/L	499.24 ppb	18:13:06
3	S 181.975 Axial†	3300.5	3353.6	5985.4 ug/L	5985.4 ppb	18:13:06
3	Sb 206.836†	1189.9	1195.3	512.61 ug/L	512.61 ppb	18:13:06
3	Se 196.026†	560.0	593.0	522.63 ug/L	522.63 ppb	18:13:06
3	Si 251.611†	1433119.2	1468750.6	55267 ug/L	55267 ppb	18:12:41
3	Sn 189.927†	2130.3	2176.0	492.41 ug/L	492.41 ppb	18:13:06
3	Ti 334.940†	288038.4	296387.3	513.19 ug/L	513.19 ppb	18:12:46
3	Tl 190.801†	1225.3	1288.0	499.74 ug/L	499.74 ppb	18:13:06
3	U 409.014†	15024.9	17484.7	525.76 ug/L	525.76 ppb	18:12:46
3	V 292.402†	61533.2	64402.2	520.77 ug/L	520.77 ppb	18:12:46
3	Zn 213.857†	57745.9	58584.5	702.20 ug/L	702.20 ppb	18:12:46
3	SiO2†	1434829.3	1470506.7	117750 ug/L	117750 ppb	18:13:28

Mean Data: 1202047757|955153|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	795528.4	97.860	%	0.3022				0.31%
Sc Radial	4270.7	93.1	%	0.46				0.49%
Y 371.029	662832.9	96.141	%	0.2585				0.27%
Y RADIAL	4759.7	96.46	%	1.592				1.65%
Ag 328.068†	94459.2	489.05	ug/L	2.146	489.05	ppb	2.146	0.44%
Al 396.153Radial†	13654.4	12812	ug/L	242.8	12812	ppb	242.8	1.89%
As 188.979†	905.9	509.40	ug/L	3.240	509.40	ppb	3.240	0.64%
B 249.677†	18833.2	524.19	ug/L	2.872	524.19	ppb	2.872	0.55%
Ba 233.527†	65606.4	615.28	ug/L	1.284	615.28	ppb	1.284	0.21%
Be 313.107†	1205056.9	515.55	ug/L	0.523	515.55	ppb	0.523	0.10%
Ca 317.933Radial†	9496.1	16785	ug/L	315.1	16785	ppb	315.1	1.88%
Cd 226.502†	34455.1	498.76	ug/L	1.699	498.76	ppb	1.699	0.34%
Co 228.616†	19368.4	503.20	ug/L	0.502	503.20	ppb	0.502	0.10%
Cr 267.716†	43616.5	587.08	ug/L	1.521	587.08	ppb	1.521	0.26%
Cu 324.752†	162451.6	537.89	ug/L	3.283	537.89	ppb	3.283	0.61%
Fe 238.204 Radial†	833.4	8746.9	ug/L	44.33	8746.9	ppb	44.33	0.51%
K 766.490 Radial†	39255.3	7502.8	ug/L	155.35	7502.8	ppb	155.35	2.07%

Mg 279.077 IEC†	255.1	9703.5	ug/L	24.60	9703.5	ppb	24.60	0.25%
Mn 257.610†	438561.4	577.89	ug/L	0.692	577.89	ppb	0.692	0.12%
Mo 202.031†	5669.3	499.43	ug/L	1.819	499.43	ppb	1.819	0.36%
Na 589.592 Radial†	82629.3	28952	ug/L	677.9	28952	ppb	677.9	2.34%
Ni 231.604†	17322.7	551.23	ug/L	2.578	551.23	ppb	2.578	0.47%
P 214.914†	867.1	546.90	ug/L	0.785	546.90	ppb	0.785	0.14%
Pb 220.353†	3209.3	497.89	ug/L	1.757	497.89	ppb	1.757	0.35%
S 181.975 Axial†	3345.6	5971.1	ug/L	12.85	5971.1	ppb	12.85	0.22%
Sb 206.836†	1186.9	509.05	ug/L	4.032	509.05	ppb	4.032	0.79%
Se 196.026†	589.6	520.03	ug/L	3.513	520.03	ppb	3.513	0.68%
Si 251.611†	1471018.3	55353	ug/L	81.7	55353	ppb	81.7	0.15%
Sn 189.927†	2171.0	491.30	ug/L	0.981	491.30	ppb	0.981	0.20%
Sr 421.552†	82613.3	630.98	ug/L	13.233	630.98	ppb	13.233	2.10%
Ti 334.940†	295431.0	511.56	ug/L	1.436	511.56	ppb	1.436	0.28%
Tl 190.801†	1276.9	495.50	ug/L	4.070	495.50	ppb	4.070	0.82%
U 409.014†	17284.0	519.69	ug/L	5.373	519.69	ppb	5.373	1.03%
V 292.402†	64243.9	519.46	ug/L	1.290	519.46	ppb	1.290	0.25%
Zn 213.857†	58425.6	700.28	ug/L	1.757	700.28	ppb	1.757	0.25%
SiO2†	1473127.9	117960	ug/L	400.2	117960	ppb	400.2	0.34%

Sequence No.: 6
Sample ID: 1202047758|955153|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 43
Date Collected: 3/16/2010 18:15:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202047758|955153|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4258.1	4258.1	92.8	%			18:17:52
1	Y RADIAL	4716.3	4716.3	95.58	%			18:17:32
1	Al 396.153Radial†	286.1	394.1	370.43	ug/L	370.43	ppb	18:17:52
1	Ca 317.933Radial†	1139.5	1199.9	2120.9	ug/L	2120.9	ppb	18:17:52
1	Fe 238.204 Radial†	36.9	31.9	334.37	ug/L	334.37	ppb	18:17:52
1	K 766.490 Radial†	4495.9	2288.1	436.04	ug/L	436.04	ppb	18:17:32
1	Mg 279.077 IEC†	17.7	19.0	721.90	ug/L	721.90	ppb	18:17:52
1	Na 589.592 Radial†	10176.0	11768.6	4123.6	ug/L	4123.6	ppb	18:17:32
1	Sr 421.552†	1885.1	2005.2	15.303	ug/L	15.303	ppb	18:17:32
1	Sc 361.383	798983.7	798983.7	98.285	%			18:18:49
1	Y 371.029	671773.2	671773.2	97.438	%			18:18:49
1	Ag 328.068†	173.3	-34.3	-0.0938	ug/L	-0.0938	ppb	18:18:49
1	As 188.979†	-18.3	-1.6	-0.7674	ug/L	-0.7674	ppb	18:19:09
1	B 249.677†	-156.3	256.4	7.1201	ug/L	7.1201	ppb	18:19:09
1	Ba 233.527†	1404.6	1416.6	13.267	ug/L	13.267	ppb	18:19:09
1	Be 313.107†	-3585.0	81.4	0.0409	ug/L	0.0409	ppb	18:18:49
1	Cd 226.502†	-166.0	7.5	0.0765	ug/L	0.0765	ppb	18:19:09
1	Co 228.616†	-36.1	3.1	0.0755	ug/L	0.0755	ppb	18:19:09
1	Cr 267.716†	771.8	705.7	9.5148	ug/L	9.5148	ppb	18:19:09
1	Cu 324.752†	6242.1	884.8	2.9499	ug/L	2.9499	ppb	18:18:49
1	Mn 257.610†	10458.0	10089.6	13.288	ug/L	13.288	ppb	18:18:49
1	Mo 202.031†	23.6	11.2	1.0343	ug/L	1.0343	ppb	18:19:09
1	Ni 231.604†	277.2	200.6	6.3861	ug/L	6.3861	ppb	18:19:09
1	P 214.914†	203.7	23.3	16.757	ug/L	16.757	ppb	18:19:09
1	Pb 220.353†	-36.6	5.6	0.9269	ug/L	0.9269	ppb	18:19:09
1	S 181.975 Axial†	124.3	96.3	171.81	ug/L	171.81	ppb	18:19:09
1	Sb 206.836†	25.6	1.5	0.5445	ug/L	0.5445	ppb	18:19:09
1	Se 196.026†	-11.5	7.1	6.9685	ug/L	6.9685	ppb	18:19:09
1	Si 251.611†	187691.2	190468.8	7167.9	ug/L	7167.9	ppb	18:18:49
1	Sn 189.927†	-12.8	-21.0	-4.3762	ug/L	-4.3762	ppb	18:19:09
1	Ti 334.940†	474.9	1570.5	2.9389	ug/L	2.9389	ppb	18:18:49
1	Tl 190.801†	-37.1	-6.0	-2.2248	ug/L	-2.2248	ppb	18:19:09
1	U 409.014†	-2252.4	-210.7	-6.4236	ug/L	-6.4236	ppb	18:18:49
1	V 292.402†	-1218.8	77.6	0.5809	ug/L	0.5809	ppb	18:18:49
1	Zn 213.857†	3691.9	3139.2	37.830	ug/L	37.830	ppb	18:19:09
1	SiO2†	188218.6	191008.3	15296	ug/L	15296	ppb	18:20:05
2	Sc Radial	4277.9	4277.9	93.2	%			18:18:17
2	Y RADIAL	4790.7	4790.7	97.09	%			18:17:57
2	Al 396.153Radial†	278.7	384.7	361.64	ug/L	361.64	ppb	18:18:17
2	Ca 317.933Radial†	1143.5	1198.4	2118.4	ug/L	2118.4	ppb	18:18:17
2	Fe 238.204 Radial†	39.8	34.8	364.32	ug/L	364.32	ppb	18:18:17
2	K 766.490 Radial†	4578.7	2354.4	448.72	ug/L	448.72	ppb	18:17:57
2	Mg 279.077 IEC†	21.6	23.1	878.57	ug/L	878.57	ppb	18:18:17
2	Na 589.592 Radial†	10336.0	11889.4	4165.9	ug/L	4165.9	ppb	18:17:57
2	Sr 421.552†	1954.7	2070.4	15.801	ug/L	15.801	ppb	18:17:57
2	Sc 361.383	793399.0	793399.0	97.598	%			18:19:14
2	Y 371.029	668025.0	668025.0	96.894	%			18:19:14
2	Ag 328.068†	230.7	25.8	0.2241	ug/L	0.2241	ppb	18:19:14
2	As 188.979†	-20.6	-4.0	-2.1275	ug/L	-2.1275	ppb	18:19:34
2	B 249.677†	-161.8	249.5	6.9235	ug/L	6.9235	ppb	18:19:34
2	Ba 233.527†	1405.9	1428.0	13.375	ug/L	13.375	ppb	18:19:34
2	Be 313.107†	-3663.5	-24.6	-0.0039	ug/L	-0.0039	ppb	18:19:14
2	Cd 226.502†	-154.9	17.6	0.2210	ug/L	0.2210	ppb	18:19:34
2	Co 228.616†	-25.6	13.6	0.3464	ug/L	0.3464	ppb	18:19:34
2	Cr 267.716†	747.7	686.6	9.2606	ug/L	9.2606	ppb	18:19:34
2	Cu 324.752†	6276.1	964.3	3.2140	ug/L	3.2140	ppb	18:19:14
2	Mn 257.610†	10316.8	10019.8	13.192	ug/L	13.192	ppb	18:19:14
2	Mo 202.031†	24.5	12.2	1.1287	ug/L	1.1287	ppb	18:19:34
2	Ni 231.604†	285.5	211.1	6.7199	ug/L	6.7199	ppb	18:19:34

2	P 214.914†	215.8	37.2	27.099 ug/L	27.099 ppb	18:19:34
2	Pb 220.353†	-40.6	1.2	0.2385 ug/L	0.2385 ppb	18:19:34
2	S 181.975 Axial†	126.3	99.3	177.17 ug/L	177.17 ppb	18:19:34
2	Sb 206.836†	24.7	0.8	0.2587 ug/L	0.2587 ppb	18:19:34
2	Se 196.026†	-24.6	-6.4	-4.1714 ug/L	-4.1714 ppb	18:19:34
2	Si 251.611†	185895.4	189973.0	7149.2 ug/L	7149.2 ppb	18:19:14
2	Sn 189.927†	-18.1	-26.5	-5.6164 ug/L	-5.6164 ppb	18:19:34
2	Ti 334.940†	574.6	1676.0	3.1077 ug/L	3.1077 ppb	18:19:14
2	Tl 190.801†	-30.4	0.7	0.3379 ug/L	0.3379 ppb	18:19:34
2	U 409.014†	-2197.3	-170.3	-5.2066 ug/L	-5.2066 ppb	18:19:14
2	V 292.402†	-1175.6	113.2	0.8669 ug/L	0.8669 ppb	18:19:14
2	Zn 213.857†	3712.4	3186.7	38.396 ug/L	38.396 ppb	18:19:34
2	SiO2†	186140.4	190227.0	15234 ug/L	15234 ppb	18:20:10
3	Sc Radial	4267.7	4267.7	93.0 %		18:18:42
3	Y RADIAL	4687.9	4687.9	95.01 %		18:18:22
3	Al 396.153Radial†	262.3	367.8	345.71 ug/L	345.71 ppb	18:18:42
3	Ca 317.933Radial†	1141.0	1198.6	2118.7 ug/L	2118.7 ppb	18:18:42
3	Fe 238.204 Radial†	40.0	35.2	368.39 ug/L	368.39 ppb	18:18:42
3	K 766.490 Radial†	4554.4	2340.1	446.00 ug/L	446.00 ppb	18:18:22
3	Mg 279.077 IEC†	18.3	19.6	744.00 ug/L	744.00 ppb	18:18:42
3	Na 589.592 Radial†	10145.5	11711.0	4103.4 ug/L	4103.4 ppb	18:18:22
3	Sr 421.552†	1888.0	2003.7	15.291 ug/L	15.291 ppb	18:18:22
3	Sc 361.383	800615.8	800615.8	98.485 %		18:19:39
3	Y 371.029	674009.6	674009.6	97.762 %		18:19:39
3	Ag 328.068†	216.3	9.0	0.1377 ug/L	0.1377 ppb	18:19:39
3	As 188.979†	-17.0	-0.2	-0.0197 ug/L	-0.0197 ppb	18:19:59
3	B 249.677†	-156.3	256.6	7.1225 ug/L	7.1225 ppb	18:19:59
3	Ba 233.527†	1397.9	1406.9	13.179 ug/L	13.179 ppb	18:19:59
3	Be 313.107†	-3583.6	90.3	0.0452 ug/L	0.0452 ppb	18:19:39
3	Cd 226.502†	-160.6	13.2	0.1575 ug/L	0.1575 ppb	18:19:59
3	Co 228.616†	-40.2	-1.0	-0.0319 ug/L	-0.0319 ppb	18:19:59
3	Cr 267.716†	738.6	670.4	9.0426 ug/L	9.0426 ppb	18:19:59
3	Cu 324.752†	6218.3	847.7	2.8262 ug/L	2.8262 ppb	18:19:39
3	Mn 257.610†	10420.7	10030.0	13.212 ug/L	13.212 ppb	18:19:39
3	Mo 202.031†	25.0	12.6	1.1595 ug/L	1.1595 ppb	18:19:59
3	Ni 231.604†	284.7	207.6	6.6105 ug/L	6.6105 ppb	18:19:59
3	P 214.914†	216.5	35.9	26.227 ug/L	26.227 ppb	18:19:59
3	Pb 220.353†	-41.0	1.2	0.2349 ug/L	0.2349 ppb	18:19:59
3	S 181.975 Axial†	120.1	91.8	163.78 ug/L	163.78 ppb	18:19:59
3	Sb 206.836†	29.1	5.0	1.9996 ug/L	1.9996 ppb	18:19:59
3	Se 196.026†	-28.1	-9.7	-6.8947 ug/L	-6.8947 ppb	18:19:59
3	Si 251.611†	187446.4	189830.9	7143.9 ug/L	7143.9 ppb	18:19:39
3	Sn 189.927†	-17.1	-25.4	-5.3563 ug/L	-5.3563 ppb	18:19:59
3	Ti 334.940†	590.7	1687.1	3.1362 ug/L	3.1362 ppb	18:19:39
3	Tl 190.801†	-17.7	13.8	5.3989 ug/L	5.3989 ppb	18:19:59
3	U 409.014†	-2092.9	-44.1	-1.3948 ug/L	-1.3948 ppb	18:19:39
3	V 292.402†	-1140.9	159.3	1.2401 ug/L	1.2401 ppb	18:19:39
3	Zn 213.857†	3711.9	3151.9	37.976 ug/L	37.976 ppb	18:19:59
3	SiO2†	185055.1	187405.8	15008 ug/L	15008 ppb	18:20:15

Mean Data: 1202047758|955153|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	797666.2	98.123	%	0.4655				0.47%
Sc Radial	4267.9	93.0	%	0.22				0.23%
Y 371.029	671269.2	97.365	%	0.4386				0.45%
Y RADIAL	4731.7	95.89	%	1.076				1.12%
Ag 328.068†	0.2	0.0894	ug/L	0.16437	0.0894	ppb	0.16437	183.96%
Al 396.153Radial†	382.2	359.26	ug/L	12.530	359.26	ppb	12.530	3.49%
As 188.979†	-1.9	-0.9715	ug/L	1.06863	-0.9715	ppb	1.06863	109.99%
B 249.677†	254.2	7.0554	ug/L	0.11421	7.0554	ppb	0.11421	1.62%
Ba 233.527†	1417.2	13.274	ug/L	0.0981	13.274	ppb	0.0981	0.74%
Be 313.107†	49.0	0.0274	ug/L	0.02721	0.0274	ppb	0.02721	99.37%
Ca 317.933Radial†	1199.0	2119.3	ug/L	1.37	2119.3	ppb	1.37	0.06%
Cd 226.502†	12.8	0.1517	ug/L	0.07242	0.1517	ppb	0.07242	47.75%
Co 228.616†	5.2	0.1300	ug/L	0.19492	0.1300	ppb	0.19492	149.93%
Cr 267.716†	687.6	9.2727	ug/L	0.23635	9.2727	ppb	0.23635	2.55%
Cu 324.752†	898.9	2.9967	ug/L	0.19806	2.9967	ppb	0.19806	6.61%
Fe 238.204 Radial†	33.9	355.69	ug/L	18.580	355.69	ppb	18.580	5.22%
K 766.490 Radial†	2327.6	443.59	ug/L	6.678	443.59	ppb	6.678	1.51%

Mg 279.077 IEC†	20.5	781.49	ug/L	84.795	781.49	ppb	84.795	10.85%
Mn 257.610†	10046.5	13.231	ug/L	0.0504	13.231	ppb	0.0504	0.38%
Mo 202.031†	12.0	1.1075	ug/L	0.06526	1.1075	ppb	0.06526	5.89%
Na 589.592 Radial†	11789.7	4130.9	ug/L	31.89	4130.9	ppb	31.89	0.77%
Ni 231.604†	206.4	6.5722	ug/L	0.17015	6.5722	ppb	0.17015	2.59%
P 214.914†	32.1	23.361	ug/L	5.7359	23.361	ppb	5.7359	24.55%
Pb 220.353†	2.6	0.4668	ug/L	0.39848	0.4668	ppb	0.39848	85.37%
S 181.975 Axial†	95.8	170.92	ug/L	6.738	170.92	ppb	6.738	3.94%
Sb 206.836†	2.4	0.9343	ug/L	0.93361	0.9343	ppb	0.93361	99.93%
Se 196.026†	-3.0	-1.3659	ug/L	7.34511	-1.3659	ppb	7.34511	537.77%
Si 251.611†	190090.9	7153.7	ug/L	12.60	7153.7	ppb	12.60	0.18%
Sn 189.927†	-24.3	-5.1163	ug/L	0.65403	-5.1163	ppb	0.65403	12.78%
Sr 421.552†	2026.5	15.465	ug/L	0.2911	15.465	ppb	0.2911	1.88%
Ti 334.940†	1644.5	3.0609	ug/L	0.10663	3.0609	ppb	0.10663	3.48%
Tl 190.801†	2.8	1.1707	ug/L	3.87947	1.1707	ppb	3.87947	331.39%
U 409.014†	-141.7	-4.3417	ug/L	2.62357	-4.3417	ppb	2.62357	60.43%
V 292.402†	116.7	0.8960	ug/L	0.33059	0.8960	ppb	0.33059	36.90%
Zn 213.857†	3159.3	38.068	ug/L	0.2940	38.068	ppb	0.2940	0.77%
SiO2†	189547.0	15179	ug/L	151.8	15179	ppb	151.8	1.00%

Sequence No.: 7
Sample ID: 247261004|955153|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 44
Date Collected: 3/16/2010 18:22:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 247261004|955153|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4041.1	4041.1	88.1	%			18:24:38
1	Y RADIAL	4680.5	4680.5	94.86	%			18:24:18
1	Al 396.153Radial†	4.3	90.7	85.042	ug/L	85.042	ppb	18:24:38
1	Ca 317.933Radial†	4276.7	4827.2	8532.7	ug/L	8532.7	ppb	18:24:18
1	Fe 238.204 Radial†	18.6	13.2	138.79	ug/L	138.79	ppb	18:24:38
1	K 766.490 Radial†	7387.7	5831.0	1105.2	ug/L	1105.2	ppb	18:24:18
1	Mg 279.077 IEC†	66.6	75.6	2875.7	ug/L	2875.7	ppb	18:24:38
1	Na 589.592 Radial†	57699.5	66307.7	23233	ug/L	23233	ppb	18:24:18
1	Sr 421.552†	5619.7	6354.0	48.476	ug/L	48.476	ppb	18:24:18
1	Sc 361.383	790475.8	790475.8	97.238	%			18:25:35
1	Y 371.029	658875.4	658875.4	95.567	%			18:25:35
1	Ag 328.068†	179.6	-25.8	-0.1910	ug/L	-0.1910	ppb	18:25:40
1	As 188.979†	-14.4	2.2	1.2466	ug/L	1.2466	ppb	18:26:00
1	B 249.677†	256.0	678.7	18.970	ug/L	18.970	ppb	18:26:00
1	Ba 233.527†	979.5	994.8	9.3195	ug/L	9.3195	ppb	18:26:00
1	Be 313.107†	-3790.2	-168.8	-0.0709	ug/L	-0.0709	ppb	18:25:40
1	Cd 226.502†	-142.9	29.4	0.4148	ug/L	0.4148	ppb	18:26:00
1	Co 228.616†	-36.8	2.0	0.0636	ug/L	0.0636	ppb	18:26:00
1	Cr 267.716†	326.0	255.7	3.4537	ug/L	3.4537	ppb	18:26:00
1	Cu 324.752†	5858.6	558.8	1.8585	ug/L	1.8585	ppb	18:25:40
1	Mn 257.610†	32075.4	32435.6	42.602	ug/L	42.602	ppb	18:25:40
1	Mo 202.031†	72.1	61.4	5.5081	ug/L	5.5081	ppb	18:26:00
1	Ni 231.604†	273.2	199.5	6.3515	ug/L	6.3515	ppb	18:26:00
1	P 214.914†	228.4	51.0	37.764	ug/L	37.764	ppb	18:26:00
1	Pb 220.353†	-48.7	-7.3	-0.9973	ug/L	-0.9973	ppb	18:26:00
1	S 181.975 Axial†	487.6	471.3	841.52	ug/L	841.52	ppb	18:26:00
1	Sb 206.836†	39.1	15.7	6.3669	ug/L	6.3669	ppb	18:26:00
1	Se 196.026†	-14.4	4.0	3.7213	ug/L	3.7213	ppb	18:26:00
1	Si 251.611†	886657.3	911343.8	34297	ug/L	34297	ppb	18:25:35
1	Sn 189.927†	-64.0	-73.8	-15.118	ug/L	-15.118	ppb	18:26:00
1	Ti 334.940†	-769.4	296.1	1.4212	ug/L	1.4212	ppb	18:25:40
1	Tl 190.801†	-34.3	-3.4	-1.1223	ug/L	-1.1223	ppb	18:26:00
1	U 409.014†	-2119.2	-98.4	-2.9939	ug/L	-2.9939	ppb	18:25:35
1	V 292.402†	-907.8	384.2	3.1732	ug/L	3.1732	ppb	18:25:40
1	Zn 213.857†	5531.4	5071.4	61.203	ug/L	61.203	ppb	18:26:00
1	SiO2†	887716.5	912436.0	73070	ug/L	73070	ppb	18:27:07
2	Sc Radial	4300.1	4300.1	93.7	%			18:25:03
2	Y RADIAL	4728.9	4728.9	95.84	%			18:24:43
2	Al 396.153Radial†	1.8	87.8	82.308	ug/L	82.308	ppb	18:25:03
2	Ca 317.933Radial†	4377.6	4642.3	8205.9	ug/L	8205.9	ppb	18:24:43
2	Fe 238.204 Radial†	18.4	11.8	123.64	ug/L	123.64	ppb	18:25:03
2	K 766.490 Radial†	7416.7	5356.8	1014.8	ug/L	1014.8	ppb	18:24:43
2	Mg 279.077 IEC†	67.9	72.3	2751.6	ug/L	2751.6	ppb	18:25:03
2	Na 589.592 Radial†	58731.2	63462.4	22236	ug/L	22236	ppb	18:24:43
2	Sr 421.552†	5797.6	6159.4	46.993	ug/L	46.993	ppb	18:24:43
2	Sc 361.383	799682.0	799682.0	98.371	%			18:26:06
2	Y 371.029	667890.9	667890.9	96.875	%			18:26:06
2	Ag 328.068†	111.3	-97.4	-0.5557	ug/L	-0.5557	ppb	18:26:11
2	As 188.979†	-22.1	-5.4	-2.9759	ug/L	-2.9759	ppb	18:26:31
2	B 249.677†	269.4	689.2	19.269	ug/L	19.269	ppb	18:26:31
2	Ba 233.527†	994.8	998.8	9.3574	ug/L	9.3574	ppb	18:26:31
2	Be 313.107†	-3751.4	-84.5	-0.0352	ug/L	-0.0352	ppb	18:26:11
2	Cd 226.502†	-152.0	21.8	0.3066	ug/L	0.3066	ppb	18:26:31
2	Co 228.616†	-52.1	-13.2	-0.3310	ug/L	-0.3310	ppb	18:26:31
2	Cr 267.716†	306.6	232.1	3.1367	ug/L	3.1367	ppb	18:26:31
2	Cu 324.752†	5980.7	613.5	2.0400	ug/L	2.0400	ppb	18:26:11
2	Mn 257.610†	32134.5	32115.9	42.184	ug/L	42.184	ppb	18:26:11
2	Mo 202.031†	63.3	51.6	4.6405	ug/L	4.6405	ppb	18:26:31
2	Ni 231.604†	279.7	202.9	6.4599	ug/L	6.4599	ppb	18:26:31

2	P 214.914†	222.0	41.8	30.807	ug/L	30.807	ppb	18:26:31
2	Pb 220.353†	-66.9	-25.2	-3.7610	ug/L	-3.7610	ppb	18:26:31
2	S 181.975 Axial†	491.0	468.9	837.26	ug/L	837.26	ppb	18:26:31
2	Sb 206.836†	34.2	10.3	4.0923	ug/L	4.0923	ppb	18:26:31
2	Se 196.026†	-9.0	9.7	8.4373	ug/L	8.4373	ppb	18:26:31
2	Si 251.611†	888841.3	903066.6	33985	ug/L	33985	ppb	18:26:06
2	Sn 189.927†	-67.2	-76.3	-15.730	ug/L	-15.730	ppb	18:26:31
2	Ti 334.940†	-861.8	211.3	1.2420	ug/L	1.2420	ppb	18:26:11
2	Tl 190.801†	-26.6	4.8	2.0455	ug/L	2.0455	ppb	18:26:31
2	U 409.014†	-2205.9	-161.4	-4.8960	ug/L	-4.8960	ppb	18:26:06
2	V 292.402†	-873.5	429.7	3.5215	ug/L	3.5215	ppb	18:26:11
2	Zn 213.857†	5525.5	4999.9	60.341	ug/L	60.341	ppb	18:26:31
2	SiO2†	879694.3	893771.0	71575	ug/L	71575	ppb	18:27:13
3	Sc Radial	4309.9	4309.9	93.9	%			18:25:29
3	Y RADIAL	4670.1	4670.1	94.65	%			18:25:08
3	Al 396.153Radial†	14.1	100.8	94.507	ug/L	94.507	ppb	18:25:29
3	Ca 317.933Radial†	4324.0	4574.8	8086.5	ug/L	8086.5	ppb	18:25:08
3	Fe 238.204 Radial†	19.6	13.0	136.07	ug/L	136.07	ppb	18:25:29
3	K 766.490 Radial†	7403.4	5324.7	1008.9	ug/L	1008.9	ppb	18:25:08
3	Mg 279.077 IEC†	64.8	68.9	2621.3	ug/L	2621.3	ppb	18:25:29
3	Na 589.592 Radial†	57605.1	62121.8	21767	ug/L	21767	ppb	18:25:08
3	Sr 421.552†	5687.9	6028.6	45.994	ug/L	45.994	ppb	18:25:08
3	Sc 361.383	803968.9	803968.9	98.898	%			18:26:36
3	Y 371.029	672038.2	672038.2	97.476	%			18:26:36
3	Ag 328.068†	276.2	68.7	0.2982	ug/L	0.2982	ppb	18:26:41
3	As 188.979†	-23.3	-6.5	-3.6146	ug/L	-3.6146	ppb	18:27:01
3	B 249.677†	248.8	666.9	18.642	ug/L	18.642	ppb	18:27:01
3	Ba 233.527†	986.1	984.6	9.2235	ug/L	9.2235	ppb	18:27:01
3	Be 313.107†	-3698.8	-11.0	-0.0036	ug/L	-0.0036	ppb	18:26:41
3	Cd 226.502†	-154.3	20.3	0.2836	ug/L	0.2836	ppb	18:27:01
3	Co 228.616†	-56.9	-17.7	-0.4463	ug/L	-0.4463	ppb	18:27:01
3	Cr 267.716†	312.5	236.4	3.1938	ug/L	3.1938	ppb	18:27:01
3	Cu 324.752†	5903.6	503.2	1.6738	ug/L	1.6738	ppb	18:26:41
3	Mn 257.610†	31777.4	31580.6	41.486	ug/L	41.486	ppb	18:26:41
3	Mo 202.031†	78.3	66.3	5.9398	ug/L	5.9398	ppb	18:27:01
3	Ni 231.604†	280.4	202.1	6.4357	ug/L	6.4357	ppb	18:27:01
3	P 214.914†	226.9	45.5	33.656	ug/L	33.656	ppb	18:27:01
3	Pb 220.353†	-54.3	-12.1	-1.7452	ug/L	-1.7452	ppb	18:27:01
3	S 181.975 Axial†	478.3	453.5	809.62	ug/L	809.62	ppb	18:27:01
3	Sb 206.836†	26.4	2.2	0.7492	ug/L	0.7492	ppb	18:27:01
3	Se 196.026†	-18.4	0.2	0.5806	ug/L	0.5806	ppb	18:27:01
3	Si 251.611†	880802.5	890120.3	33498	ug/L	33498	ppb	18:26:36
3	Sn 189.927†	-70.0	-78.8	-16.314	ug/L	-16.314	ppb	18:27:01
3	Ti 334.940†	-810.4	267.9	1.3332	ug/L	1.3332	ppb	18:26:41
3	Tl 190.801†	-36.3	-4.9	-1.7024	ug/L	-1.7024	ppb	18:27:01
3	U 409.014†	-2118.6	-61.2	-1.8711	ug/L	-1.8711	ppb	18:26:36
3	V 292.402†	-941.8	365.4	3.0275	ug/L	3.0275	ppb	18:26:41
3	Zn 213.857†	5522.4	4966.9	59.940	ug/L	59.940	ppb	18:27:01
3	SiO2†	886546.4	895931.1	71748	ug/L	71748	ppb	18:27:19

Mean Data: 247261004|955153|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	798042.2	98.169	%	0.8481				0.86%
Sc Radial	4217.0	91.9	%	3.32				3.62%
Y 371.029	666268.2	96.640	%	0.9761				1.01%
Y RADIAL	4693.2	95.11	%	0.636				0.67%
Ag 328.068†	-18.2	-0.1495	ug/L	0.42848	-0.1495	ppb	0.42848	286.68%
Al 396.153Radial†	93.1	87.285	ug/L	6.4015	87.285	ppb	6.4015	7.33%
As 188.979†	-3.2	-1.7813	ug/L	2.64162	-1.7813	ppb	2.64162	148.30%
B 249.677†	678.3	18.960	ug/L	0.3137	18.960	ppb	0.3137	1.65%
Ba 233.527†	992.7	9.3001	ug/L	0.06902	9.3001	ppb	0.06902	0.74%
Be 313.107†	-88.1	-0.0366	ug/L	0.03366	-0.0366	ppb	0.03366	91.97%
Ca 317.933Radial†	4681.5	8275.0	ug/L	231.01	8275.0	ppb	231.01	2.79%
Cd 226.502†	23.8	0.3350	ug/L	0.07006	0.3350	ppb	0.07006	20.92%
Co 228.616†	-9.6	-0.2379	ug/L	0.26740	-0.2379	ppb	0.26740	112.41%
Cr 267.716†	241.4	3.2614	ug/L	0.16894	3.2614	ppb	0.16894	5.18%
Cu 324.752†	558.5	1.8575	ug/L	0.18313	1.8575	ppb	0.18313	9.86%
Fe 238.204 Radial†	12.7	132.83	ug/L	8.077	132.83	ppb	8.077	6.08%
K 766.490 Radial†	5504.2	1043.0	ug/L	53.96	1043.0	ppb	53.96	5.17%

Mg 279.077 IEC†	72.3	2749.5	ug/L	127.20	2749.5	ppb	127.20	4.63%
Mn 257.610†	32044.0	42.091	ug/L	0.5637	42.091	ppb	0.5637	1.34%
Mo 202.031†	59.7	5.3628	ug/L	0.66174	5.3628	ppb	0.66174	12.34%
Na 589.592 Radial†	63964.0	22412	ug/L	749.0	22412	ppb	749.0	3.34%
Ni 231.604†	201.5	6.4157	ug/L	0.05688	6.4157	ppb	0.05688	0.89%
P 214.914†	46.1	34.075	ug/L	3.4973	34.075	ppb	3.4973	10.26%
Pb 220.353†	-14.9	-2.1678	ug/L	1.42948	-2.1678	ppb	1.42948	65.94%
S 181.975 Axial†	464.6	829.47	ug/L	17.319	829.47	ppb	17.319	2.09%
Sb 206.836†	9.4	3.7362	ug/L	2.82573	3.7362	ppb	2.82573	75.63%
Se 196.026†	4.6	4.2464	ug/L	3.95457	4.2464	ppb	3.95457	93.13%
Si 251.611†	901510.2	33926	ug/L	402.6	33926	ppb	402.6	1.19%
Sn 189.927†	-76.3	-15.721	ug/L	0.5979	-15.721	ppb	0.5979	3.80%
Sr 421.552†	6180.7	47.154	ug/L	1.2489	47.154	ppb	1.2489	2.65%
Ti 334.940†	258.4	1.3321	ug/L	0.08965	1.3321	ppb	0.08965	6.73%
Tl 190.801†	-1.2	-0.2597	ug/L	2.01735	-0.2597	ppb	2.01735	776.81%
U 409.014†	-107.0	-3.2537	ug/L	1.52908	-3.2537	ppb	1.52908	47.00%
V 292.402†	393.1	3.2407	ug/L	0.25386	3.2407	ppb	0.25386	7.83%
Zn 213.857†	5012.7	60.495	ug/L	0.6453	60.495	ppb	0.6453	1.07%
SiO2†	900712.7	72131	ug/L	817.6	72131	ppb	817.6	1.13%

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/16/2010 18:29:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4235.2	4235.2	92.3	%			18:31:42
1	Y RADIAL	4603.5	4603.5	93.30	%			18:31:22
1	Al 396.153Radial†	4972.8	5472.3	5118.6	ug/L	5118.6	ppb	18:31:22
1	Ca 317.933Radial†	2765.7	2968.0	5246.2	ug/L	5246.2	ppb	18:31:42
1	Fe 238.204 Radial†	471.4	502.8	5284.6	ug/L	5284.6	ppb	18:31:42
1	K 766.490 Radial†	27719.8	27470.1	5255.8	ug/L	5255.8	ppb	18:31:22
1	Mg 279.077 IEC†	130.5	141.3	5375.8	ug/L	5375.8	ppb	18:31:42
1	Na 589.592 Radial†	28173.9	31322.8	10975	ug/L	10975	ppb	18:31:22
1	Sr 421.552†	64529.8	69872.3	533.74	ug/L	533.74	ppb	18:31:22
1	Sc 361.383	742939.3	742939.3	91.390	%			18:32:39
1	Y 371.029	619371.4	619371.4	89.837	%			18:32:39
1	Ag 328.068†	97366.9	106328.9	549.18	ug/L	549.18	ppb	18:32:45
1	As 188.979†	864.8	963.3	540.70	ug/L	540.70	ppb	18:33:05
1	B 249.677†	17080.2	19104.6	532.20	ug/L	532.20	ppb	18:32:45
1	Ba 233.527†	53386.7	58403.6	547.85	ug/L	547.85	ppb	18:32:45
1	Be 313.107†	1198484.8	1315118.2	562.59	ug/L	562.59	ppb	18:32:39
1	Cd 226.502†	34312.6	37721.4	546.46	ug/L	546.46	ppb	18:32:45
1	Co 228.616†	19479.2	21354.1	554.86	ug/L	554.86	ppb	18:32:45
1	Cr 267.716†	37358.3	40798.1	548.90	ug/L	548.90	ppb	18:32:45
1	Cu 324.752†	155366.4	164536.6	544.58	ug/L	544.58	ppb	18:32:45
1	Mn 257.610†	389700.0	425861.2	561.00	ug/L	561.00	ppb	18:32:39
1	Mo 202.031†	5567.9	6079.6	535.10	ug/L	535.10	ppb	18:33:05
1	Ni 231.604†	16038.7	17468.2	555.84	ug/L	555.84	ppb	18:32:45
1	P 214.914†	3413.4	3551.0	2568.0	ug/L	2568.0	ppb	18:33:05
1	Pb 220.353†	3136.9	3475.2	537.64	ug/L	537.64	ppb	18:33:05
1	S 181.975 Axial†	562.8	585.7	1044.8	ug/L	1044.8	ppb	18:33:05
1	Sb 206.836†	1189.8	1277.4	548.23	ug/L	548.23	ppb	18:33:05
1	Se 196.026†	565.2	637.2	547.21	ug/L	547.21	ppb	18:33:05
1	Si 251.611†	67105.7	72929.3	2738.0	ug/L	2738.0	ppb	18:32:45
1	Sn 189.927†	2174.0	2370.9	534.44	ug/L	534.44	ppb	18:33:05
1	Ti 334.940†	281417.6	309016.2	533.84	ug/L	533.84	ppb	18:32:45
1	Tl 190.801†	1245.6	1394.8	540.69	ug/L	540.69	ppb	18:33:05
1	U 409.014†	15091.1	18593.8	559.73	ug/L	559.73	ppb	18:32:45
1	V 292.402†	61325.7	68420.6	553.82	ug/L	553.82	ppb	18:32:45
1	Zn 213.857†	42563.8	45956.5	550.12	ug/L	550.12	ppb	18:32:45
1	SiO2†	66850.3	72652.7	5803.6	ug/L	5803.6	ppb	18:34:12
2	Sc Radial	4188.0	4188.0	91.3	%			18:32:07
2	Y RADIAL	4796.3	4796.3	97.20	%			18:31:47
2	Al 396.153Radial†	5102.4	5675.0	5311.0	ug/L	5311.0	ppb	18:31:47
2	Ca 317.933Radial†	2745.2	2979.3	5266.3	ug/L	5266.3	ppb	18:32:07
2	Fe 238.204 Radial†	469.3	506.3	5319.4	ug/L	5319.4	ppb	18:32:07
2	K 766.490 Radial†	28418.7	28574.3	5467.3	ug/L	5467.3	ppb	18:31:47
2	Mg 279.077 IEC†	130.5	142.9	5438.4	ug/L	5438.4	ppb	18:32:07
2	Na 589.592 Radial†	28825.8	32381.0	11346	ug/L	11346	ppb	18:31:47
2	Sr 421.552†	66413.6	72724.1	555.52	ug/L	555.52	ppb	18:31:47
2	Sc 361.383	808148.4	808148.4	99.412	%			18:33:11
2	Y 371.029	674321.9	674321.9	97.808	%			18:33:11
2	Ag 328.068†	96018.4	96375.8	497.93	ug/L	497.93	ppb	18:33:16
2	As 188.979†	883.3	905.6	508.20	ug/L	508.20	ppb	18:33:36
2	B 249.677†	16913.6	17429.0	485.45	ug/L	485.45	ppb	18:33:16
2	Ba 233.527†	52615.6	52914.3	496.38	ug/L	496.38	ppb	18:33:16
2	Be 313.107†	1167339.0	1177972.8	503.93	ug/L	503.93	ppb	18:33:11
2	Cd 226.502†	33844.1	34220.7	495.69	ug/L	495.69	ppb	18:33:16
2	Co 228.616†	19229.2	19382.8	503.66	ug/L	503.66	ppb	18:33:16
2	Cr 267.716†	36868.2	37006.8	497.95	ug/L	497.95	ppb	18:33:16
2	Cu 324.752†	152992.1	148430.8	491.31	ug/L	491.31	ppb	18:33:16
2	Mn 257.610†	378718.9	380408.1	501.16	ug/L	501.16	ppb	18:33:11
2	Mo 202.031†	5631.8	5652.2	497.53	ug/L	497.53	ppb	18:33:36
2	Ni 231.604†	15800.8	15812.9	503.16	ug/L	503.16	ppb	18:33:16

2	P 214.914†	3461.4	3298.0	2387.7 ug/L	2387.7 ppb	18:33:36
2	Pb 220.353†	3174.1	3235.7	500.65 ug/L	500.65 ppb	18:33:36
2	S 181.975 Axial†	577.6	550.8	982.48 ug/L	982.48 ppb	18:33:36
2	Sb 206.836†	1229.4	1212.1	519.86 ug/L	519.86 ppb	18:33:36
2	Se 196.026†	582.4	604.6	520.22 ug/L	520.22 ppb	18:33:36
2	Si 251.611†	66188.1	66081.4	2480.7 ug/L	2480.7 ppb	18:33:16
2	Sn 189.927†	2210.1	2215.2	499.39 ug/L	499.39 ppb	18:33:36
2	Ti 334.940†	277347.3	280075.1	483.87 ug/L	483.87 ppb	18:33:16
2	Tl 190.801†	1271.2	1310.6	507.88 ug/L	507.88 ppb	18:33:36
2	U 409.014†	14608.0	16775.4	504.92 ug/L	504.92 ppb	18:33:16
2	V 292.402†	60353.6	62028.3	502.18 ug/L	502.18 ppb	18:33:16
2	Zn 213.857†	42002.4	41633.8	498.31 ug/L	498.31 ppb	18:33:16
2	SiO2†	67871.8	67777.9	5414.3 ug/L	5414.3 ppb	18:34:17
3	Sc Radial	4217.6	4217.6	91.9 %		18:32:32
3	Y RADIAL	4669.2	4669.2	94.63 %		18:32:12
3	Al 396.153Radial†	5028.0	5554.8	5197.8 ug/L	5197.8 ppb	18:32:12
3	Ca 317.933Radial†	2733.5	2945.4	5206.3 ug/L	5206.3 ppb	18:32:32
3	Fe 238.204 Radial†	470.3	503.7	5292.9 ug/L	5292.9 ppb	18:32:32
3	K 766.490 Radial†	28121.0	28032.0	5363.5 ug/L	5363.5 ppb	18:32:12
3	Mg 279.077 IEC†	129.9	141.2	5372.2 ug/L	5372.2 ppb	18:32:32
3	Na 589.592 Radial†	28483.4	31787.0	11138 ug/L	11138 ppb	18:32:12
3	Sr 421.552†	65639.3	71371.3	545.19 ug/L	545.19 ppb	18:32:12
3	Sc 361.383	794311.8	794311.8	97.710 %		18:33:42
3	Y 371.029	663445.7	663445.7	96.230 %		18:33:42
3	Ag 328.068†	95679.6	97711.5	504.80 ug/L	504.80 ppb	18:33:47
3	As 188.979†	859.3	896.5	503.21 ug/L	503.21 ppb	18:34:07
3	B 249.677†	16826.2	17635.9	491.23 ug/L	491.23 ppb	18:33:47
3	Ba 233.527†	52389.6	53605.0	502.85 ug/L	502.85 ppb	18:33:47
3	Be 313.107†	1150254.1	1180942.4	505.21 ug/L	505.21 ppb	18:33:42
3	Cd 226.502†	33741.8	34709.0	502.77 ug/L	502.77 ppb	18:33:47
3	Co 228.616†	19148.0	19636.6	510.25 ug/L	510.25 ppb	18:33:47
3	Cr 267.716†	36686.3	37466.6	504.12 ug/L	504.12 ppb	18:33:47
3	Cu 324.752†	152133.8	150233.3	497.27 ug/L	497.27 ppb	18:33:47
3	Mn 257.610†	373296.8	381495.1	502.59 ug/L	502.59 ppb	18:33:42
3	Mo 202.031†	5585.7	5703.8	502.06 ug/L	502.06 ppb	18:34:07
3	Ni 231.604†	15651.5	15936.9	507.11 ug/L	507.11 ppb	18:33:47
3	P 214.914†	3436.7	3333.3	2413.2 ug/L	2413.2 ppb	18:34:07
3	Pb 220.353†	3134.2	3250.5	502.92 ug/L	502.92 ppb	18:34:07
3	S 181.975 Axial†	565.3	548.4	978.14 ug/L	978.14 ppb	18:34:07
3	Sb 206.836†	1202.4	1206.1	517.50 ug/L	517.50 ppb	18:34:07
3	Se 196.026†	568.0	600.1	516.36 ug/L	516.36 ppb	18:34:07
3	Si 251.611†	65832.9	66877.7	2510.6 ug/L	2510.6 ppb	18:33:47
3	Sn 189.927†	2185.1	2228.4	502.35 ug/L	502.35 ppb	18:34:07
3	Ti 334.940†	275641.6	283189.3	489.25 ug/L	489.25 ppb	18:33:47
3	Tl 190.801†	1256.5	1317.7	510.66 ug/L	510.66 ppb	18:34:07
3	U 409.014†	14485.8	16906.3	508.86 ug/L	508.86 ppb	18:33:47
3	V 292.402†	59984.7	62708.4	507.68 ug/L	507.68 ppb	18:33:47
3	Zn 213.857†	41870.6	42234.8	505.54 ug/L	505.54 ppb	18:33:47
3	SiO2†	66708.3	67776.5	5414.0 ug/L	5414.0 ppb	18:34:22

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	781799.8	96.171	%	4.2264				4.39%
Sc Radial	4213.6	91.8	%	0.52				0.57%
Y 371.029	652379.7	94.625	%	4.2206				4.46%
Y RADIAL	4689.7	95.04	%	1.986				2.09%
Ag 328.068†	100138.7	517.30	ug/L	27.818	517.30	ppb	27.818	5.38%
QC value within limits for Ag 328.068 Recovery = 103.46%								
Al 396.153Radial†	5567.4	5209.2	ug/L	96.69	5209.2	ppb	96.69	1.86%
QC value within limits for Al 396.153Radial Recovery = 104.18%								
As 188.979†	921.8	517.37	ug/L	20.359	517.37	ppb	20.359	3.94%
QC value within limits for As 188.979 Recovery = 103.47%								
B 249.677†	18056.5	502.96	ug/L	25.488	502.96	ppb	25.488	5.07%
QC value within limits for B 249.677 Recovery = 100.59%								
Ba 233.527†	54974.3	515.69	ug/L	28.038	515.69	ppb	28.038	5.44%
QC value within limits for Ba 233.527 Recovery = 103.14%								
Be 313.107†	1224677.8	523.91	ug/L	33.502	523.91	ppb	33.502	6.39%
QC value within limits for Be 313.107 Recovery = 104.78%								
Ca 317.933Radial†	2964.2	5239.6	ug/L	30.52	5239.6	ppb	30.52	0.58%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.79%
Cd 226.502†            35550.4      514.97 ug/L        27.497      514.97 ppb         27.497   5.34%
   QC value within limits for Cd 226.502  Recovery = 102.99%
Co 228.616†            20124.5      522.92 ug/L        27.853      522.92 ppb         27.853   5.33%
   QC value within limits for Co 228.616  Recovery = 104.58%
Cr 267.716†            38423.8      516.99 ug/L        27.806      516.99 ppb         27.806   5.38%
   QC value within limits for Cr 267.716  Recovery = 103.40%
Cu 324.752†           154400.2      511.05 ug/L        29.191      511.05 ppb         29.191   5.71%
   QC value within limits for Cu 324.752  Recovery = 102.21%
Fe 238.204 Radial†       504.3      5299.0 ug/L         18.17      5299.0 ppb          18.17   0.34%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.98%
K 766.490 Radial†      28025.5      5362.2 ug/L        105.74      5362.2 ppb         105.74   1.97%
   QC value within limits for K 766.490 Radial  Recovery = 107.24%
Mg 279.077 IEC†          141.8      5395.5 ug/L         37.21      5395.5 ppb          37.21   0.69%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.91%
Mn 257.610†           395921.5      521.58 ug/L        34.145      521.58 ppb         34.145   6.55%
   QC value within limits for Mn 257.610  Recovery = 104.32%
Mo 202.031†             5811.9      511.56 ug/L        20.513      511.56 ppb         20.513   4.01%
   QC value within limits for Mo 202.031  Recovery = 102.31%
Na 589.592 Radial†     31830.3       11153 ug/L         185.9       11153 ppb          185.9   1.67%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = 111.53%
Ni 231.604†            16406.0      522.03 ug/L        29.338      522.03 ppb         29.338   5.62%
   QC value within limits for Ni 231.604  Recovery = 104.41%
P 214.914†              3394.1      2456.3 ug/L         97.57      2456.3 ppb          97.57   3.97%
   QC value within limits for P 214.914  Recovery = 98.25%
Pb 220.353†             3320.5      513.74 ug/L        20.729      513.74 ppb         20.729   4.03%
   QC value within limits for Pb 220.353  Recovery = 102.75%
S 181.975 Axial†         561.6      1001.8 ug/L         37.31      1001.8 ppb          37.31   3.72%
   QC value within limits for S 181.975 Axial  Recovery = 100.18%
Sb 206.836†             1231.9      528.53 ug/L        17.102      528.53 ppb         17.102   3.24%
   QC value within limits for Sb 206.836  Recovery = 105.71%
Se 196.026†              614.0      527.93 ug/L        16.807      527.93 ppb         16.807   3.18%
   QC value within limits for Se 196.026  Recovery = 105.59%
Si 251.611†            68629.4      2576.4 ug/L        140.68      2576.4 ppb         140.68   5.46%
   QC value within limits for Si 251.611  Recovery = 103.06%
Sn 189.927†             2271.5      512.06 ug/L        19.441      512.06 ppb         19.441   3.80%
   QC value within limits for Sn 189.927  Recovery = 102.41%
Sr 421.552†            71322.6      544.82 ug/L        10.898      544.82 ppb         10.898   2.00%
   QC value within limits for Sr 421.552  Recovery = 108.96%
Ti 334.940†           290760.2      502.32 ug/L        27.433      502.32 ppb         27.433   5.46%
   QC value within limits for Ti 334.940  Recovery = 100.46%
Tl 190.801†             1341.0      519.74 ug/L        18.191      519.74 ppb         18.191   3.50%
   QC value within limits for Tl 190.801  Recovery = 103.95%
U 409.014†             17425.2      524.50 ug/L        30.569      524.50 ppb         30.569   5.83%
   QC value within limits for U 409.014  Recovery = 104.90%
V 292.402†             64385.8      521.23 ug/L        28.359      521.23 ppb         28.359   5.44%
   QC value within limits for V 292.402  Recovery = 104.25%
Zn 213.857†            43275.0      517.99 ug/L        28.064      517.99 ppb         28.064   5.42%
   QC value within limits for Zn 213.857  Recovery = 103.60%
SiO2†                  69402.3      5544.0 ug/L        224.87      5544.0 ppb         224.87   4.06%
   QC value within limits for SiO2  Recovery = 103.67%
QC Failed.  Continue with analysis.
```

Sequence No.: 9 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/16/2010 18:36:33**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4174.4	4174.4	91.0	%			18:38:45
1	Y RADIAL	4757.7	4757.7	96.42	%			18:38:25
1	Al 396.153Radial†	-86.3	-9.1	-8.5640	ug/L	-8.5640	ppb	18:38:45
1	Ca 317.933Radial†	25.7	0.4	0.7636	ug/L	0.7636	ppb	18:38:45
1	Fe 238.204 Radial†	9.0	2.0	21.144	ug/L	21.144	ppb	18:38:45
1	K 766.490 Radial†	2542.6	238.5	45.698	ug/L	45.698	ppb	18:38:25
1	Mg 279.077 IEC†	-0.7	-0.8	-31.865	ug/L	-31.865	ppb	18:38:45
1	Na 589.592 Radial†	-786.8	-59.6	-20.894	ug/L	-20.894	ppb	18:38:25
1	Sr 421.552†	24.6	1.3	0.0097	ug/L	0.0097	ppb	18:38:25
1	Sc 361.383	786282.5	786282.5	96.722	%			18:39:42
1	Y 371.029	664770.7	664770.7	96.422	%			18:39:42
1	Ag 328.068†	148.9	-56.7	-0.2825	ug/L	-0.2825	ppb	18:39:42
1	As 188.979†	-17.5	-1.1	-0.6057	ug/L	-0.6057	ppb	18:40:02
1	B 249.677†	-232.4	175.1	4.8971	ug/L	4.8971	ppb	18:40:02
1	Ba 233.527†	19.5	7.7	0.0723	ug/L	0.0723	ppb	18:40:02
1	Be 313.107†	-3667.8	-63.1	-0.0269	ug/L	-0.0269	ppb	18:39:42
1	Cd 226.502†	-165.1	5.6	0.0792	ug/L	0.0792	ppb	18:40:02
1	Co 228.616†	-43.8	-5.4	-0.1397	ug/L	-0.1397	ppb	18:40:02
1	Cr 267.716†	87.4	10.8	0.1486	ug/L	0.1486	ppb	18:40:02
1	Cu 324.752†	5347.5	62.5	0.2093	ug/L	0.2093	ppb	18:39:42
1	Mn 257.610†	549.3	16.9	0.0257	ug/L	0.0257	ppb	18:40:02
1	Mo 202.031†	18.7	6.5	0.5760	ug/L	0.5760	ppb	18:40:02
1	Ni 231.604†	98.0	19.9	0.6325	ug/L	0.6325	ppb	18:40:02
1	P 214.914†	191.9	14.5	10.894	ug/L	10.894	ppb	18:40:02
1	Pb 220.353†	-44.4	-3.1	-0.4818	ug/L	-0.4818	ppb	18:40:02
1	S 181.975 Axial†	32.2	3.1	5.5336	ug/L	5.5336	ppb	18:40:02
1	Sb 206.836†	29.8	6.3	2.6392	ug/L	2.6392	ppb	18:40:02
1	Se 196.026†	-23.6	-5.6	-4.5907	ug/L	-4.5907	ppb	18:40:02
1	Si 251.611†	537.5	57.5	2.1576	ug/L	2.1576	ppb	18:40:02
1	Sn 189.927†	14.6	7.1	1.5948	ug/L	1.5948	ppb	18:40:02
1	Ti 334.940†	-1050.3	1.4	0.0061	ug/L	0.0061	ppb	18:39:42
1	Tl 190.801†	-24.3	6.7	2.5714	ug/L	2.5714	ppb	18:40:02
1	U 409.014†	-2096.0	-86.0	-2.6002	ug/L	-2.6002	ppb	18:39:42
1	V 292.402†	-1280.8	-6.5	-0.0522	ug/L	-0.0522	ppb	18:39:42
1	Zn 213.857†	646.5	51.3	0.6119	ug/L	0.6119	ppb	18:40:02
1	SiO2†	530.9	53.6	4.2739	ug/L	4.2739	ppb	18:41:13
2	Sc Radial	4188.3	4188.3	91.3	%			18:39:11
2	Y RADIAL	4372.4	4372.4	88.61	%			18:38:51
2	Al 396.153Radial†	-79.7	-1.5	-1.4389	ug/L	-1.4389	ppb	18:39:11
2	Ca 317.933Radial†	25.5	0.1	0.1531	ug/L	0.1531	ppb	18:39:11
2	Fe 238.204 Radial†	7.6	0.5	5.0780	ug/L	5.0780	ppb	18:39:11
2	K 766.490 Radial†	2516.8	201.0	38.515	ug/L	38.515	ppb	18:38:51
2	Mg 279.077 IEC†	2.9	3.1	117.65	ug/L	117.65	ppb	18:39:11
2	Na 589.592 Radial†	-792.4	-62.9	-22.042	ug/L	-22.042	ppb	18:38:51
2	Sr 421.552†	-5.1	-31.3	-0.2394	ug/L	-0.2394	ppb	18:38:51
2	Sc 361.383	780067.4	780067.4	95.958	%			18:40:08
2	Y 371.029	660414.6	660414.6	95.791	%			18:40:08
2	Ag 328.068†	171.7	-31.7	-0.1566	ug/L	-0.1566	ppb	18:40:08
2	As 188.979†	-17.6	-1.3	-0.7468	ug/L	-0.7468	ppb	18:40:28
2	B 249.677†	-235.8	169.6	4.7451	ug/L	4.7451	ppb	18:40:28
2	Ba 233.527†	8.9	-3.2	-0.0306	ug/L	-0.0306	ppb	18:40:28
2	Be 313.107†	-3663.1	-88.3	-0.0380	ug/L	-0.0380	ppb	18:40:08
2	Cd 226.502†	-169.2	0.0	-0.0011	ug/L	-0.0011	ppb	18:40:28
2	Co 228.616†	-41.3	-3.2	-0.0820	ug/L	-0.0820	ppb	18:40:28
2	Cr 267.716†	54.4	-22.9	-0.3044	ug/L	-0.3044	ppb	18:40:28
2	Cu 324.752†	5263.2	18.7	0.0656	ug/L	0.0656	ppb	18:40:08
2	Mn 257.610†	518.3	-10.8	-0.0186	ug/L	-0.0186	ppb	18:40:28
2	Mo 202.031†	14.2	2.0	0.1749	ug/L	0.1749	ppb	18:40:28
2	Ni 231.604†	104.1	27.0	0.8609	ug/L	0.8609	ppb	18:40:28

2	P 214.914†	180.7	4.4	3.3200 ug/L	3.3200 ppb	18:40:28
2	Pb 220.353†	-34.1	7.3	1.1226 ug/L	1.1226 ppb	18:40:28
2	S 181.975 Axial†	34.4	5.7	10.220 ug/L	10.220 ppb	18:40:28
2	Sb 206.836†	29.0	5.8	2.4064 ug/L	2.4064 ppb	18:40:28
2	Se 196.026†	-17.4	0.6	0.5538 ug/L	0.5538 ppb	18:40:28
2	Si 251.611†	551.7	76.7	2.8849 ug/L	2.8849 ppb	18:40:28
2	Sn 189.927†	13.5	6.1	1.3718 ug/L	1.3718 ppb	18:40:28
2	Ti 334.940†	-1118.7	-78.5	-0.1423 ug/L	-0.1423 ppb	18:40:08
2	Tl 190.801†	-23.5	7.3	2.8040 ug/L	2.8040 ppb	18:40:28
2	U 409.014†	-2204.8	-216.7	-6.5453 ug/L	-6.5453 ppb	18:40:08
2	V 292.402†	-1289.7	-26.3	-0.2183 ug/L	-0.2183 ppb	18:40:08
2	Zn 213.857†	660.2	70.9	0.8500 ug/L	0.8500 ppb	18:40:28
2	SiO2†	527.1	54.0	4.3192 ug/L	4.3192 ppb	18:41:33
3	Sc Radial	4221.5	4221.5	92.0 %		18:39:36
3	Y RADIAL	4718.4	4718.4	95.63 %		18:39:16
3	Al 396.153Radial†	-78.4	0.6	0.4991 ug/L	0.4991 ppb	18:39:36
3	Ca 317.933Radial†	25.0	-0.7	-1.2858 ug/L	-1.2858 ppb	18:39:36
3	Fe 238.204 Radial†	8.2	1.1	11.251 ug/L	11.251 ppb	18:39:36
3	K 766.490 Radial†	2560.8	227.1	43.523 ug/L	43.523 ppb	18:39:16
3	Mg 279.077 IEC†	1.0	1.1	39.974 ug/L	39.974 ppb	18:39:36
3	Na 589.592 Radial†	-838.7	-106.3	-37.258 ug/L	-37.258 ppb	18:39:16
3	Sr 421.552†	14.9	-9.5	-0.0729 ug/L	-0.0729 ppb	18:39:16
3	Sc 361.383	782250.0	782250.0	96.226 %		18:40:33
3	Y 371.029	662461.1	662461.1	96.087 %		18:40:33
3	Ag 328.068†	186.8	-16.4	-0.0747 ug/L	-0.0747 ppb	18:40:33
3	As 188.979†	-26.0	-10.0	-5.5601 ug/L	-5.5601 ppb	18:40:53
3	B 249.677†	-263.9	141.1	3.9478 ug/L	3.9478 ppb	18:40:53
3	Ba 233.527†	6.1	-6.2	-0.0581 ug/L	-0.0581 ppb	18:40:53
3	Be 313.107†	-3584.5	3.9	0.0018 ug/L	0.0018 ppb	18:40:33
3	Cd 226.502†	-160.8	9.3	0.1316 ug/L	0.1316 ppb	18:40:53
3	Co 228.616†	-38.6	-0.3	-0.0042 ug/L	-0.0042 ppb	18:40:53
3	Cr 267.716†	88.0	11.9	0.1643 ug/L	0.1643 ppb	18:40:53
3	Cu 324.752†	5363.0	107.1	0.3600 ug/L	0.3600 ppb	18:40:33
3	Mn 257.610†	533.9	3.9	0.0046 ug/L	0.0046 ppb	18:40:53
3	Mo 202.031†	27.2	15.4	1.3587 ug/L	1.3587 ppb	18:40:53
3	Ni 231.604†	86.1	8.1	0.2573 ug/L	0.2573 ppb	18:40:53
3	P 214.914†	194.9	18.6	13.943 ug/L	13.943 ppb	18:40:53
3	Pb 220.353†	-40.8	0.4	0.0664 ug/L	0.0664 ppb	18:40:53
3	S 181.975 Axial†	33.6	4.8	8.5061 ug/L	8.5061 ppb	18:40:53
3	Sb 206.836†	21.8	-1.8	-0.7261 ug/L	-0.7261 ppb	18:40:53
3	Se 196.026†	-23.7	-5.8	-4.7867 ug/L	-4.7867 ppb	18:40:53
3	Si 251.611†	525.9	48.3	1.8009 ug/L	1.8009 ppb	18:40:53
3	Sn 189.927†	10.4	2.8	0.6270 ug/L	0.6270 ppb	18:40:53
3	Ti 334.940†	-1027.5	19.5	0.0342 ug/L	0.0342 ppb	18:40:33
3	Tl 190.801†	-30.9	-0.3	-0.1150 ug/L	-0.1150 ppb	18:40:53
3	U 409.014†	-2290.4	-299.3	-9.0400 ug/L	-9.0400 ppb	18:40:33
3	V 292.402†	-1304.2	-37.6	-0.2999 ug/L	-0.2999 ppb	18:40:33
3	Zn 213.857†	649.3	57.7	0.6930 ug/L	0.6930 ppb	18:40:53
3	SiO2†	516.8	41.7	3.3051 ug/L	3.3051 ppb	18:41:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	782866.6	96.302	%	0.3879				0.40%
Sc Radial	4194.7	91.4	%	0.53				0.58%
Y 371.029	662548.8	96.100	%	0.3161				0.33%
Y RADIAL	4616.2	93.55	%	4.297				4.59%
Ag 328.068†	-34.9	-0.1713	ug/L	0.10467	-0.1713	ppb	0.10467	61.12%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.3	-3.1679	ug/L	4.77253	-3.1679	ppb	4.77253	150.65%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.1	-2.3042	ug/L	2.82058	-2.3042	ppb	2.82058	122.41%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	161.9	4.5300	ug/L	0.50993	4.5300	ppb	0.50993	11.26%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.6	-0.0055	ug/L	0.06874	-0.0055	ppb	0.06874	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-49.2	-0.0211	ug/L	0.02053	-0.0211	ppb	0.02053	97.43%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.1	-0.1230	ug/L	1.05227	-0.1230	ppb	1.05227	855.29%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                5.0      0.0699 ug/L       0.06682      0.0699 ppb        0.06682  95.59%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -3.0     -0.0753 ug/L       0.06799     -0.0753 ppb        0.06799  90.29%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -0.0      0.0028 ug/L       0.26619      0.0028 ppb        0.26619 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               62.7      0.2117 ug/L       0.14721      0.2117 ppb        0.14721  69.55%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.2      12.491 ug/L        8.1043      12.491 ppb         8.1043  64.88%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        222.2      42.579 ug/L        3.6829      42.579 ppb         3.6829   8.65%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.1      41.920 ug/L       74.7765      41.920 ppb        74.7765 178.38%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                3.3       0.0039 ug/L       0.02215      0.0039 ppb        0.02215 564.72%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                8.0       0.7032 ug/L       0.60203      0.7032 ppb        0.60203  85.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -76.3     -26.731 ug/L        9.1342     -26.731 ppb         9.1342  34.17%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               18.3       0.5835 ug/L       0.30477      0.5835 ppb        0.30477  52.23%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                12.5       9.3857 ug/L       5.46984      9.3857 ppb        5.46984  58.28%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                1.5       0.2357 ug/L       0.81552      0.2357 ppb        0.81552 345.95%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           4.5       8.0866 ug/L       2.37129      8.0866 ppb        2.37129  29.32%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                3.4       1.4398 ug/L       1.87939      1.4398 ppb        1.87939 130.53%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.6      -2.9412 ug/L       3.02834     -2.9412 ppb        3.02834 102.96%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               60.8       2.2811 ug/L       0.55246      2.2811 ppb        0.55246  24.22%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.3       1.1979 ug/L       0.50679      1.1979 ppb        0.50679  42.31%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -13.2      -0.1009 ug/L       0.12691     -0.1009 ppb        0.12691 125.82%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -19.2      -0.0340 ug/L       0.09482     -0.0340 ppb        0.09482 278.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                4.6       1.7535 ug/L       1.62232      1.7535 ppb        1.62232  92.52%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -200.7      -6.0619 ug/L       3.24701     -6.0619 ppb        3.24701  53.56%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -23.5      -0.1901 ug/L       0.12618     -0.1901 ppb        0.12618  66.37%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               59.9       0.7183 ug/L       0.12102      0.7183 ppb        0.12102  16.85%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     49.8       3.9661 ug/L       0.57287      3.9661 ppb        0.57287  14.44%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 3/17/2010 15:45:32 **Plasma On Time: 3/15/2010 06:51:19**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\031710.sif
Batch ID:
Results Data Set: 031710
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 3/17/2010 15:45:33**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4421.9	4421.9	100	%	15:47:26
1	Y RADIAL	4808.5	4808.5	100.1	%	15:47:26
1	Al 396.153Radial†	-81.2	-81.1	[0.00]	ug/L	15:47:46
1	Ca 317.933Radial†	20.0	20.0	[0.00]	ug/L	15:47:46
1	Fe 238.204 Radial†	6.0	6.0	[0.00]	ug/L	15:47:46
1	K 766.490 Radial†	2663.3	2660.0	[0.00]	ug/L	15:47:26
1	Mg 279.077 IEC†	0.3	0.3	[0.00]	ug/L	15:47:46
1	Na 589.592 Radial†	-937.5	-936.4	[0.00]	ug/L	15:47:26
1	Sr 421.552†	36.0	36.0	[0.00]	ug/L	15:47:26
1	Sc 361.383	837073.6	837073.6	101.20	%	15:48:42
1	Y 371.029	711756.6	711756.6	101.23	%	15:48:42
1	Ag 328.068†	249.6	246.6	[0.00]	ug/L	15:48:47
1	As 188.979†	-22.1	-21.9	[0.00]	ug/L	15:49:07
1	B 249.677†	-165.8	-163.8	[0.00]	ug/L	15:49:07
1	Ba 233.527†	16.6	16.4	[0.00]	ug/L	15:49:07
1	Be 313.107†	-3740.5	-3696.1	[0.00]	ug/L	15:48:47
1	Cd 226.502†	-156.7	-154.9	[0.00]	ug/L	15:49:07
1	Co 228.616†	-57.7	-57.0	[0.00]	ug/L	15:49:07
1	Cr 267.716†	78.7	77.8	[0.00]	ug/L	15:49:07
1	Cu 324.752†	5757.5	5689.0	[0.00]	ug/L	15:48:47
1	Mn 257.610†	409.9	405.1	[0.00]	ug/L	15:49:07
1	Mo 202.031†	8.7	8.6	[0.00]	ug/L	15:49:07
1	Ni 231.604†	95.6	94.5	[0.00]	ug/L	15:49:07
1	P 214.914†	182.9	180.7	[0.00]	ug/L	15:49:07
1	Pb 220.353†	-50.2	-49.6	[0.00]	ug/L	15:49:07
1	S 181.975 Axial†	25.5	25.2	[0.00]	ug/L	15:49:07
1	Sb 206.836†	25.9	25.6	[0.00]	ug/L	15:49:07
1	Se 196.026†	-16.3	-16.1	[0.00]	ug/L	15:49:07
1	Si 251.611†	494.3	488.4	[0.00]	ug/L	15:49:07
1	Sn 189.927†	4.9	4.9	[0.00]	ug/L	15:49:07
1	Ti 334.940†	-1130.4	-1116.9	[0.00]	ug/L	15:48:47
1	Tl 190.801†	-31.0	-30.6	[0.00]	ug/L	15:49:07
1	U 409.014†	-2307.2	-2279.8	[0.00]	ug/L	15:48:42
1	V 292.402†	-1293.6	-1278.3	[0.00]	ug/L	15:48:47
1	Zn 213.857†	917.9	907.0	[0.00]	ug/L	15:49:07
1	SiO2†	501.6	495.6	[0.00]	ug/L	15:50:28
2	Sc Radial	4413.0	4413.0	99.9	%	15:47:51
2	Y RADIAL	4793.0	4793.0	99.81	%	15:47:51
2	Al 396.153Radial†	-68.7	-68.8	[0.00]	ug/L	15:48:11
2	Ca 317.933Radial†	17.6	17.6	[0.00]	ug/L	15:48:11
2	Fe 238.204 Radial†	5.8	5.8	[0.00]	ug/L	15:48:11
2	K 766.490 Radial†	2635.2	2637.4	[0.00]	ug/L	15:47:51
2	Mg 279.077 IEC†	2.7	2.7	[0.00]	ug/L	15:48:11
2	Na 589.592 Radial†	-903.6	-904.3	[0.00]	ug/L	15:47:51
2	Sr 421.552†	7.7	7.7	[0.00]	ug/L	15:47:51
2	Sc 361.383	820567.8	820567.8	99.207	%	15:49:13
2	Y 371.029	697955.1	697955.1	99.266	%	15:49:13

2	Ag 328.068†	242.3	244.2	[0.00]	ug/L	15:49:18
2	As 188.979†	-20.1	-20.3	[0.00]	ug/L	15:49:38
2	B 249.677†	-184.8	-186.3	[0.00]	ug/L	15:49:38
2	Ba 233.527†	11.4	11.5	[0.00]	ug/L	15:49:38
2	Be 313.107†	-3797.8	-3828.2	[0.00]	ug/L	15:49:18
2	Cd 226.502†	-149.9	-151.1	[0.00]	ug/L	15:49:38
2	Co 228.616†	-43.9	-44.2	[0.00]	ug/L	15:49:38
2	Cr 267.716†	80.4	81.1	[0.00]	ug/L	15:49:38
2	Cu 324.752†	5782.0	5828.2	[0.00]	ug/L	15:49:18
2	Mn 257.610†	449.2	452.8	[0.00]	ug/L	15:49:38
2	Mo 202.031†	15.0	15.1	[0.00]	ug/L	15:49:38
2	Ni 231.604†	99.4	100.2	[0.00]	ug/L	15:49:38
2	P 214.914†	186.9	188.4	[0.00]	ug/L	15:49:38
2	Pb 220.353†	-45.2	-45.6	[0.00]	ug/L	15:49:38
2	S 181.975 Axial†	34.8	35.1	[0.00]	ug/L	15:49:38
2	Sb 206.836†	24.9	25.1	[0.00]	ug/L	15:49:38
2	Se 196.026†	-23.7	-23.9	[0.00]	ug/L	15:49:38
2	Si 251.611†	508.9	513.0	[0.00]	ug/L	15:49:38
2	Sn 189.927†	-1.3	-1.3	[0.00]	ug/L	15:49:38
2	Ti 334.940†	-1131.8	-1140.8	[0.00]	ug/L	15:49:18
2	Tl 190.801†	-26.7	-27.0	[0.00]	ug/L	15:49:38
2	U 409.014†	-2205.4	-2223.0	[0.00]	ug/L	15:49:13
2	V 292.402†	-1275.1	-1285.3	[0.00]	ug/L	15:49:18
2	Zn 213.857†	924.0	931.4	[0.00]	ug/L	15:49:38
2	SiO2†	526.2	530.4	[0.00]	ug/L	15:50:49
3	Sc Radial	4414.7	4414.7	100.0	%	15:48:16
3	Y RADIAL	4805.4	4805.4	100.1	%	15:48:16
3	Al 396.153Radial†	-70.0	-70.1	[0.00]	ug/L	15:48:36
3	Ca 317.933Radial†	25.7	25.7	[0.00]	ug/L	15:48:36
3	Fe 238.204 Radial†	10.5	10.5	[0.00]	ug/L	15:48:36
3	K 766.490 Radial†	2543.5	2544.6	[0.00]	ug/L	15:48:16
3	Mg 279.077 IEC†	0.2	0.2	[0.00]	ug/L	15:48:36
3	Na 589.592 Radial†	-880.9	-881.2	[0.00]	ug/L	15:48:16
3	Sr 421.552†	18.5	18.5	[0.00]	ug/L	15:48:16
3	Sc 361.383	823736.9	823736.9	99.590	%	15:49:43
3	Y 371.029	699641.9	699641.9	99.506	%	15:49:43
3	Ag 328.068†	255.4	256.5	[0.00]	ug/L	15:49:48
3	As 188.979†	-24.0	-24.1	[0.00]	ug/L	15:50:08
3	B 249.677†	-203.5	-204.3	[0.00]	ug/L	15:50:08
3	Ba 233.527†	9.4	9.4	[0.00]	ug/L	15:50:08
3	Be 313.107†	-3776.6	-3792.1	[0.00]	ug/L	15:49:48
3	Cd 226.502†	-163.7	-164.4	[0.00]	ug/L	15:50:08
3	Co 228.616†	-43.7	-43.8	[0.00]	ug/L	15:50:08
3	Cr 267.716†	84.3	84.7	[0.00]	ug/L	15:50:08
3	Cu 324.752†	5810.8	5834.7	[0.00]	ug/L	15:49:48
3	Mn 257.610†	417.8	419.5	[0.00]	ug/L	15:50:08
3	Mo 202.031†	9.0	9.0	[0.00]	ug/L	15:50:08
3	Ni 231.604†	68.8	69.1	[0.00]	ug/L	15:50:08
3	P 214.914†	178.9	179.6	[0.00]	ug/L	15:50:08
3	Pb 220.353†	-54.1	-54.3	[0.00]	ug/L	15:50:08
3	S 181.975 Axial†	26.4	26.5	[0.00]	ug/L	15:50:08
3	Sb 206.836†	34.9	35.0	[0.00]	ug/L	15:50:08
3	Se 196.026†	-19.2	-19.2	[0.00]	ug/L	15:50:08
3	Si 251.611†	505.0	507.0	[0.00]	ug/L	15:50:08
3	Sn 189.927†	8.2	8.3	[0.00]	ug/L	15:50:08
3	Ti 334.940†	-1068.0	-1072.4	[0.00]	ug/L	15:49:48
3	Tl 190.801†	-19.8	-19.9	[0.00]	ug/L	15:50:08
3	U 409.014†	-2234.0	-2243.2	[0.00]	ug/L	15:49:43
3	V 292.402†	-1309.1	-1314.5	[0.00]	ug/L	15:49:48
3	Zn 213.857†	923.9	927.7	[0.00]	ug/L	15:50:08
3	SiO2†	495.4	497.4	[0.00]	ug/L	15:51:09

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	827126.1	8759.28	1.06%	100.00	%
Sc Radial	4416.5	4.74	0.11%	100	%
Y 371.029	703117.9	7528.73	1.07%	100.00	%
Y RADIAL	4802.3	8.19	0.17%	100.0	%
Ag 328.068†	249.1	6.50	2.61%	[0.00]	ug/L

Al 396.153Radial†	-73.3	6.80	9.27%	[0.00]	ug/L
As 188.979†	-22.1	1.93	8.73%	[0.00]	ug/L
B 249.677†	-184.8	20.28	10.97%	[0.00]	ug/L
Ba 233.527†	12.4	3.59	28.93%	[0.00]	ug/L
Be 313.107†	-3772.1	68.28	1.81%	[0.00]	ug/L
Ca 317.933Radial†	21.1	4.16	19.72%	[0.00]	ug/L
Cd 226.502†	-156.8	6.84	4.36%	[0.00]	ug/L
Co 228.616†	-48.3	7.47	15.46%	[0.00]	ug/L
Cr 267.716†	81.2	3.43	4.23%	[0.00]	ug/L
Cu 324.752†	5784.0	82.28	1.42%	[0.00]	ug/L
Fe 238.204 Radial†	7.4	2.66	35.82%	[0.00]	ug/L
K 766.490 Radial†	2614.0	61.17	2.34%	[0.00]	ug/L
Mg 279.077 IEC†	1.0	1.41	136.18%	[0.00]	ug/L
Mn 257.610†	425.8	24.45	5.74%	[0.00]	ug/L
Mo 202.031†	10.9	3.63	33.32%	[0.00]	ug/L
Na 589.592 Radial†	-907.3	27.72	3.06%	[0.00]	ug/L
Ni 231.604†	87.9	16.54	18.81%	[0.00]	ug/L
P 214.914†	182.9	4.79	2.62%	[0.00]	ug/L
Pb 220.353†	-49.8	4.34	8.72%	[0.00]	ug/L
S 181.975 Axial†	28.9	5.38	18.58%	[0.00]	ug/L
Sb 206.836†	28.6	5.57	19.48%	[0.00]	ug/L
Se 196.026†	-19.8	3.89	19.71%	[0.00]	ug/L
Si 251.611†	502.8	12.81	2.55%	[0.00]	ug/L
Sn 189.927†	3.9	4.87	123.46%	[0.00]	ug/L
Sr 421.552†	20.7	14.28	68.90%	[0.00]	ug/L
Ti 334.940†	-1110.1	34.73	3.13%	[0.00]	ug/L
Tl 190.801†	-25.8	5.47	21.19%	[0.00]	ug/L
U 409.014†	-2248.7	28.76	1.28%	[0.00]	ug/L
V 292.402†	-1292.7	19.23	1.49%	[0.00]	ug/L
Zn 213.857†	922.0	13.15	1.43%	[0.00]	ug/L
SiO2†	507.8	19.56	3.85%	[0.00]	ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 3/17/2010 15:53:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4390.6	4390.6	99.4	%	15:55:31
1	Y RADIAL	4784.2	4784.2	99.62	%	15:55:31
1	K 766.490 Radial†	7594.8	5025.8	[1000]	ug/L	15:55:11
1	Sr 421.552†	12916.1	12971.9	[100]	ug/L	15:55:31
1	Sc 361.383	805485.3	805485.3	97.384	%	15:56:28
1	Y 371.029	683381.4	683381.4	97.193	%	15:56:28
1	Ag 328.068†	19864.5	20149.1	[100]	ug/L	15:56:28
1	As 188.979†	162.9	189.4	[100]	ug/L	15:56:48
1	B 249.677†	3173.7	3443.8	[100]	ug/L	15:56:28
1	Ba 233.527†	10839.4	11118.2	[100]	ug/L	15:56:28
1	Be 313.107†	234222.7	244287.6	[100]	ug/L	15:56:28
1	Cd 226.502†	6654.8	6990.4	[100]	ug/L	15:56:48
1	Co 228.616†	3861.5	4013.6	[100]	ug/L	15:56:48
1	Cr 267.716†	7685.1	7810.4	[100]	ug/L	15:56:28
1	Cu 324.752†	36116.7	31303.1	[100]	ug/L	15:56:28
1	Mn 257.610†	78160.3	79834.5	[100]	ug/L	15:56:28
1	Mo 202.031†	1157.8	1178.0	[100]	ug/L	15:56:48
1	Ni 231.604†	3273.9	3274.0	[100]	ug/L	15:56:48
1	P 214.914†	855.3	695.3	[500]	ug/L	15:56:48
1	Pb 220.353†	595.0	660.8	[100]	ug/L	15:56:48
1	S 181.975 Axial†	134.4	109.1	[200]	ug/L	15:56:48
1	Sb 206.836†	262.7	241.1	[100]	ug/L	15:56:48
1	Se 196.026†	102.9	125.4	[100]	ug/L	15:56:48
1	Si 251.611†	13813.6	13682.0	[500]	ug/L	15:56:28
1	Sn 189.927†	451.8	459.9	[100]	ug/L	15:56:48
1	Ti 334.940†	56763.1	59398.2	[100]	ug/L	15:56:28
1	Tl 190.801†	231.3	263.3	[100]	ug/L	15:56:48
1	U 409.014†	1428.6	3715.6	[100]	ug/L	15:56:28
1	V 292.402†	11266.6	12862.0	[100]	ug/L	15:56:28
1	Zn 213.857†	9125.4	8448.6	[100]	ug/L	15:56:28
1	SiO2†	14003.5	13872.0	[1069.5]	ug/L	15:57:45
2	Sc Radial	4438.7	4438.7	101	%	15:55:57
2	Y RADIAL	4814.8	4814.8	100.3	%	15:55:57
2	K 766.490 Radial†	7740.8	5088.1	[1000]	ug/L	15:55:37
2	Sr 421.552†	13024.5	12938.6	[100]	ug/L	15:55:57
2	Sc 361.383	800271.0	800271.0	96.753	%	15:56:54
2	Y 371.029	680189.0	680189.0	96.739	%	15:56:54
2	Ag 328.068†	19715.1	20127.6	[100]	ug/L	15:56:54
2	As 188.979†	165.9	193.6	[100]	ug/L	15:57:14
2	B 249.677†	3194.2	3486.2	[100]	ug/L	15:56:54
2	Ba 233.527†	10737.2	11085.1	[100]	ug/L	15:56:54
2	Be 313.107†	232938.6	244527.6	[100]	ug/L	15:56:54
2	Cd 226.502†	6613.3	6992.0	[100]	ug/L	15:57:14
2	Co 228.616†	3859.4	4037.3	[100]	ug/L	15:57:14
2	Cr 267.716†	7652.9	7828.6	[100]	ug/L	15:56:54
2	Cu 324.752†	35794.2	31211.4	[100]	ug/L	15:56:54
2	Mn 257.610†	77456.3	79629.7	[100]	ug/L	15:56:54
2	Mo 202.031†	1156.7	1184.6	[100]	ug/L	15:57:14
2	Ni 231.604†	3258.7	3280.1	[100]	ug/L	15:57:14
2	P 214.914†	840.3	685.6	[500]	ug/L	15:57:14
2	Pb 220.353†	612.2	682.6	[100]	ug/L	15:57:14
2	S 181.975 Axial†	140.0	115.8	[200]	ug/L	15:57:14
2	Sb 206.836†	274.5	255.2	[100]	ug/L	15:57:14
2	Se 196.026†	99.9	123.0	[100]	ug/L	15:57:14
2	Si 251.611†	13706.4	13663.5	[500]	ug/L	15:56:54
2	Sn 189.927†	444.0	454.9	[100]	ug/L	15:57:14
2	Ti 334.940†	56459.9	59464.6	[100]	ug/L	15:56:54
2	Tl 190.801†	233.5	267.1	[100]	ug/L	15:57:14
2	U 409.014†	1238.3	3528.5	[100]	ug/L	15:56:54

2	V 292.402†	11155.3	12822.3	[100]	ug/L	15:56:54
2	Zn 213.857†	9056.2	8438.0	[100]	ug/L	15:56:54
2	SiO2†	13810.6	13766.2	[1069.5]	ug/L	15:57:50
3	Sc Radial	4425.1	4425.1	100	%	15:56:22
3	Y RADIAL	4804.2	4804.2	100.0	%	15:56:22
3	K 766.490 Radial†	7602.2	4973.5	[1000]	ug/L	15:56:02
3	Sr 421.552†	13062.9	13017.0	[100]	ug/L	15:56:22
3	Sc 361.383	798538.5	798538.5	96.544	%	15:57:19
3	Y 371.029	680350.3	680350.3	96.762	%	15:57:19
3	Ag 328.068†	19624.8	20078.2	[100]	ug/L	15:57:19
3	As 188.979†	159.3	187.1	[100]	ug/L	15:57:39
3	B 249.677†	3113.5	3409.8	[100]	ug/L	15:57:19
3	Ba 233.527†	10713.1	11084.2	[100]	ug/L	15:57:19
3	Be 313.107†	233155.4	245274.5	[100]	ug/L	15:57:19
3	Cd 226.502†	6652.2	7047.2	[100]	ug/L	15:57:39
3	Co 228.616†	3861.7	4048.3	[100]	ug/L	15:57:39
3	Cr 267.716†	7637.2	7829.4	[100]	ug/L	15:57:19
3	Cu 324.752†	35502.5	30989.5	[100]	ug/L	15:57:19
3	Mn 257.610†	77182.7	79520.1	[100]	ug/L	15:57:19
3	Mo 202.031†	1164.0	1194.7	[100]	ug/L	15:57:39
3	Ni 231.604†	3289.1	3319.0	[100]	ug/L	15:57:39
3	P 214.914†	852.7	700.3	[500]	ug/L	15:57:39
3	Pb 220.353†	599.7	671.0	[100]	ug/L	15:57:39
3	S 181.975 Axial†	136.6	112.6	[200]	ug/L	15:57:39
3	Sb 206.836†	264.6	245.5	[100]	ug/L	15:57:39
3	Se 196.026†	100.6	124.0	[100]	ug/L	15:57:39
3	Si 251.611†	13663.1	13649.4	[500]	ug/L	15:57:19
3	Sn 189.927†	458.0	470.5	[100]	ug/L	15:57:39
3	Ti 334.940†	56186.5	59308.0	[100]	ug/L	15:57:19
3	Tl 190.801†	232.5	266.6	[100]	ug/L	15:57:39
3	U 409.014†	1294.4	3589.4	[100]	ug/L	15:57:19
3	V 292.402†	11180.0	12872.9	[100]	ug/L	15:57:19
3	Zn 213.857†	9039.4	8441.0	[100]	ug/L	15:57:19
3	SiO2†	13590.4	13569.1	[1069.5]	ug/L	15:57:55

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	801431.6	3615.89	0.45%	96.894	%
Sc Radial	4418.1	24.84	0.56%	100	%
Y 371.029	681306.9	1798.39	0.26%	96.898	%
Y RADIAL	4801.1	15.53	0.32%	99.97	%
Ag 328.068†	20118.3	36.33	0.18%	[100]	ug/L
As 188.979†	190.0	3.30	1.73%	[100]	ug/L
B 249.677†	3446.6	38.26	1.11%	[100]	ug/L
Ba 233.527†	11095.8	19.36	0.17%	[100]	ug/L
Be 313.107†	244696.6	514.66	0.21%	[100]	ug/L
Cd 226.502†	7009.9	32.30	0.46%	[100]	ug/L
Co 228.616†	4033.0	17.74	0.44%	[100]	ug/L
Cr 267.716†	7822.8	10.72	0.14%	[100]	ug/L
Cu 324.752†	31168.0	161.22	0.52%	[100]	ug/L
K 766.490 Radial†	5029.1	57.36	1.14%	[1000]	ug/L
Mn 257.610†	79661.4	159.58	0.20%	[100]	ug/L
Mo 202.031†	1185.8	8.44	0.71%	[100]	ug/L
Ni 231.604†	3291.0	24.41	0.74%	[100]	ug/L
P 214.914†	693.7	7.47	1.08%	[500]	ug/L
Pb 220.353†	671.5	10.93	1.63%	[100]	ug/L
S 181.975 Axial†	112.5	3.35	2.98%	[200]	ug/L
Sb 206.836†	247.3	7.17	2.90%	[100]	ug/L
Se 196.026†	124.1	1.22	0.98%	[100]	ug/L
Si 251.611†	13665.0	16.32	0.12%	[500]	ug/L
Sn 189.927†	461.8	7.93	1.72%	[100]	ug/L
Sr 421.552†	12975.8	39.31	0.30%	[100]	ug/L
Ti 334.940†	59390.3	78.60	0.13%	[100]	ug/L
Tl 190.801†	265.7	2.06	0.77%	[100]	ug/L
U 409.014†	3611.1	95.45	2.64%	[100]	ug/L
V 292.402†	12852.4	26.59	0.21%	[100]	ug/L
Zn 213.857†	8442.5	5.43	0.06%	[100]	ug/L
SiO2†	13735.8	153.69	1.12%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 3/17/2010 16:00:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4255.2	4255.2	96.3	%	16:02:18
1	Y RADIAL	4657.3	4657.3	96.98	%	16:01:58
1	Al 396.153Radial†	4942.2	5203.0	[5000]	ug/L	16:01:58
1	Ca 317.933Radial†	2763.2	2846.9	[5000]	ug/L	16:02:18
1	K 766.490 Radial†	27768.2	26207.4	[5000]	ug/L	16:01:58
1	Mg 279.077 IEC†	127.1	130.8	[5000]	ug/L	16:02:18
1	Sr 421.552†	62895.0	65259.8	[500]	ug/L	16:01:58
1	Sc 361.383	821969.8	821969.8	99.377	%	16:03:15
1	Y 371.029	689711.5	689711.5	98.093	%	16:03:15
1	Ag 328.068†	98443.9	98812.3	[500]	ug/L	16:03:21
1	As 188.979†	895.4	923.1	[500]	ug/L	16:03:41
1	B 249.677†	17550.9	17845.8	[500]	ug/L	16:03:21
1	Ba 233.527†	54126.4	54453.5	[500]	ug/L	16:03:21
1	Be 313.107†	1203796.9	1215120.7	[500]	ug/L	16:03:15
1	Cd 226.502†	35229.0	35606.7	[500]	ug/L	16:03:21
1	Co 228.616†	19845.7	20018.6	[500]	ug/L	16:03:21
1	Cr 267.716†	38259.2	38418.1	[500]	ug/L	16:03:21
1	Cu 324.752†	157468.2	152672.1	[500]	ug/L	16:03:21
1	Mn 257.610†	388119.2	390128.1	[500]	ug/L	16:03:15
1	Mo 202.031†	5749.4	5774.6	[500]	ug/L	16:03:41
1	Ni 231.604†	16381.5	16396.3	[500]	ug/L	16:03:21
1	P 214.914†	3536.1	3375.3	[2500]	ug/L	16:03:41
1	Pb 220.353†	3240.2	3310.3	[500]	ug/L	16:03:41
1	S 181.975 Axial†	587.9	562.6	[1000]	ug/L	16:03:41
1	Sb 206.836†	1232.6	1211.8	[500]	ug/L	16:03:41
1	Se 196.026†	600.4	623.9	[500]	ug/L	16:03:41
1	Si 251.611†	67524.0	67444.8	[2500]	ug/L	16:03:21
1	Sn 189.927†	2233.1	2243.2	[500]	ug/L	16:03:41
1	Ti 334.940†	285398.5	288298.9	[500]	ug/L	16:03:21
1	Tl 190.801†	1281.3	1315.2	[500]	ug/L	16:03:41
1	U 409.014†	15098.2	17441.6	[500]	ug/L	16:03:21
1	V 292.402†	62493.6	64178.3	[500]	ug/L	16:03:21
1	Zn 213.857†	42712.8	42058.7	[500]	ug/L	16:03:21
1	SiO2†	67783.0	67700.5	[5347.5]	ug/L	16:04:48
2	Sc Radial	4206.5	4206.5	95.2	%	16:02:43
2	Y RADIAL	4710.5	4710.5	98.09	%	16:02:23
2	Al 396.153Radial†	5024.4	5348.6	[5000]	ug/L	16:02:23
2	Ca 317.933Radial†	2724.3	2839.2	[5000]	ug/L	16:02:43
2	K 766.490 Radial†	27931.7	26712.5	[5000]	ug/L	16:02:23
2	Mg 279.077 IEC†	126.9	132.2	[5000]	ug/L	16:02:43
2	Sr 421.552†	63277.2	66416.3	[500]	ug/L	16:02:23
2	Sc 361.383	809556.0	809556.0	97.876	%	16:03:47
2	Y 371.029	681120.7	681120.7	96.871	%	16:03:47
2	Ag 328.068†	97773.6	99646.5	[500]	ug/L	16:03:52
2	As 188.979†	892.6	934.1	[500]	ug/L	16:04:12
2	B 249.677†	17388.2	17950.4	[500]	ug/L	16:03:52
2	Ba 233.527†	53726.1	54879.7	[500]	ug/L	16:03:52
2	Be 313.107†	1183584.6	1213044.6	[500]	ug/L	16:03:47
2	Cd 226.502†	34895.1	35809.3	[500]	ug/L	16:03:52
2	Co 228.616†	19683.6	20159.1	[500]	ug/L	16:03:52
2	Cr 267.716†	37983.8	38727.0	[500]	ug/L	16:03:52
2	Cu 324.752†	156249.0	153856.2	[500]	ug/L	16:03:52
2	Mn 257.610†	380305.3	388133.5	[500]	ug/L	16:03:47
2	Mo 202.031†	5736.5	5850.1	[500]	ug/L	16:04:12
2	Ni 231.604†	16232.9	16497.3	[500]	ug/L	16:03:52
2	P 214.914†	3533.5	3427.3	[2500]	ug/L	16:04:12
2	Pb 220.353†	3239.3	3359.4	[500]	ug/L	16:04:12
2	S 181.975 Axial†	591.0	574.9	[1000]	ug/L	16:04:12
2	Sb 206.836†	1232.7	1230.9	[500]	ug/L	16:04:12

2	Se 196.026†	592.6	625.2	[500]	ug/L	16:04:12
2	Si 251.611†	66857.6	67805.9	[2500]	ug/L	16:03:52
2	Sn 189.927†	2223.7	2268.0	[500]	ug/L	16:04:12
2	Ti 334.940†	283136.2	290391.3	[500]	ug/L	16:03:52
2	Tl 190.801†	1284.2	1337.9	[500]	ug/L	16:04:12
2	U 409.014†	14728.8	17297.1	[500]	ug/L	16:03:52
2	V 292.402†	62002.0	64640.3	[500]	ug/L	16:03:52
2	Zn 213.857†	42379.5	42377.2	[500]	ug/L	16:03:52
2	SiO2†	68266.6	69240.5	[5347.5]	ug/L	16:04:53
3	Sc Radial	4248.9	4248.9	96.2	%	16:03:08
3	Y RADIAL	4759.6	4759.6	99.11	%	16:02:48
3	Al 396.153Radial†	5074.7	5348.2	[5000]	ug/L	16:02:48
3	Ca 317.933Radial†	2765.7	2853.7	[5000]	ug/L	16:03:08
3	K 766.490 Radial†	28458.8	26967.4	[5000]	ug/L	16:02:48
3	Mg 279.077 IEC†	131.9	136.1	[5000]	ug/L	16:03:08
3	Sr 421.552†	64452.1	66973.8	[500]	ug/L	16:02:48
3	Sc 361.383	819293.2	819293.2	99.053	%	16:04:18
3	Y 371.029	689037.0	689037.0	97.997	%	16:04:18
3	Ag 328.068†	98493.0	99185.5	[500]	ug/L	16:04:23
3	As 188.979†	894.1	924.7	[500]	ug/L	16:04:43
3	B 249.677†	17641.8	17995.3	[500]	ug/L	16:04:23
3	Ba 233.527†	54132.3	54637.4	[500]	ug/L	16:04:23
3	Be 313.107†	1201770.9	1217032.7	[500]	ug/L	16:04:18
3	Cd 226.502†	35183.3	35676.4	[500]	ug/L	16:04:23
3	Co 228.616†	19778.7	20016.1	[500]	ug/L	16:04:23
3	Cr 267.716†	38280.0	38564.8	[500]	ug/L	16:04:23
3	Cu 324.752†	157556.8	153279.2	[500]	ug/L	16:04:23
3	Mn 257.610†	386109.5	389375.2	[500]	ug/L	16:04:18
3	Mo 202.031†	5728.7	5772.6	[500]	ug/L	16:04:43
3	Ni 231.604†	16371.4	16440.1	[500]	ug/L	16:04:23
3	P 214.914†	3546.4	3397.4	[2500]	ug/L	16:04:43
3	Pb 220.353†	3216.1	3296.7	[500]	ug/L	16:04:43
3	S 181.975 Axial†	579.9	556.5	[1000]	ug/L	16:04:43
3	Sb 206.836†	1221.5	1204.6	[500]	ug/L	16:04:43
3	Se 196.026†	593.1	618.6	[500]	ug/L	16:04:43
3	Si 251.611†	67391.0	67532.5	[2500]	ug/L	16:04:23
3	Sn 189.927†	2243.6	2261.1	[500]	ug/L	16:04:43
3	Ti 334.940†	285379.4	289217.9	[500]	ug/L	16:04:23
3	Tl 190.801†	1275.8	1313.9	[500]	ug/L	16:04:43
3	U 409.014†	14988.6	17380.6	[500]	ug/L	16:04:23
3	V 292.402†	62617.5	64508.8	[500]	ug/L	16:04:23
3	Zn 213.857†	42841.7	42329.3	[500]	ug/L	16:04:23
3	SiO2†	67132.1	67266.2	[5347.5]	ug/L	16:04:58

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	816939.6	6532.98	0.80%	98.768	%
Sc Radial	4236.9	26.49	0.63%	95.9	%
Y 371.029	686623.1	4777.11	0.70%	97.654	%
Y RADIAL	4709.1	51.15	1.09%	98.06	%
Ag 328.068†	99214.8	417.88	0.42%	[500]	ug/L
Al 396.153Radial†	5299.9	83.95	1.58%	[5000]	ug/L
As 188.979†	927.3	5.92	0.64%	[500]	ug/L
B 249.677†	17930.5	76.70	0.43%	[500]	ug/L
Ba 233.527†	54656.9	213.77	0.39%	[500]	ug/L
Be 313.107†	1215066.0	1994.63	0.16%	[500]	ug/L
Ca 317.933Radial†	2846.6	7.28	0.26%	[5000]	ug/L
Cd 226.502†	35697.5	102.88	0.29%	[500]	ug/L
Co 228.616†	20064.6	81.87	0.41%	[500]	ug/L
Cr 267.716†	38570.0	154.55	0.40%	[500]	ug/L
Cu 324.752†	153269.2	592.12	0.39%	[500]	ug/L
K 766.490 Radial†	26629.1	386.78	1.45%	[5000]	ug/L
Mg 279.077 IEC†	133.1	2.72	2.04%	[5000]	ug/L
Mn 257.610†	389212.3	1007.25	0.26%	[500]	ug/L
Mo 202.031†	5799.1	44.22	0.76%	[500]	ug/L
Ni 231.604†	16444.6	50.65	0.31%	[500]	ug/L
P 214.914†	3400.0	26.08	0.77%	[2500]	ug/L
Pb 220.353†	3322.1	32.99	0.99%	[500]	ug/L
S 181.975 Axial†	564.7	9.36	1.66%	[1000]	ug/L

Sb 206.836†	1215.7	13.58	1.12%	[500]	ug/L
Se 196.026†	622.6	3.53	0.57%	[500]	ug/L
Si 251.611†	67594.4	188.32	0.28%	[2500]	ug/L
Sn 189.927†	2257.4	12.81	0.57%	[500]	ug/L
Sr 421.552†	66216.7	874.29	1.32%	[500]	ug/L
Ti 334.940†	289302.7	1048.73	0.36%	[500]	ug/L
Tl 190.801†	1322.3	13.50	1.02%	[500]	ug/L
U 409.014†	17373.1	72.54	0.42%	[500]	ug/L
V 292.402†	64442.5	238.04	0.37%	[500]	ug/L
Zn 213.857†	42255.1	171.74	0.41%	[500]	ug/L
SiO2†	68069.0	1037.47	1.52%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 3/17/2010 16:07:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4348.3	4348.3	98.5	%	16:09:02
1	Y RADIAL	4690.2	4690.2	97.67	%	16:09:02
1	Al 396.153Radial†	9868.0	10096.1	[10000]	ug/L	16:09:02
1	Ca 317.933Radial†	5435.7	5499.9	[10000]	ug/L	16:09:02
1	Fe 238.204 Radial†	910.6	917.5	[10000]	ug/L	16:09:22
1	K 766.490 Radial†	52583.1	50794.0	[10000]	ug/L	16:09:02
1	Mg 279.077 IEC†	255.0	257.9	[10000]	ug/L	16:09:22
1	Na 589.592 Radial†	27106.1	28438.7	[10000]	ug/L	16:09:02
1	Sr 421.552†	125856.8	127810.5	[1000]	ug/L	16:09:02
1	Sc 361.383	802756.5	802756.5	97.054	%	16:10:25
1	Y 371.029	674610.5	674610.5	95.946	%	16:10:25
1	Ag 328.068†	196295.3	202005.2	[1000]	ug/L	16:10:25
1	As 188.979†	1764.8	1840.4	[1000]	ug/L	16:10:45
1	B 249.677†	35602.1	36867.6	[1000]	ug/L	16:10:25
1	Ba 233.527†	107064.2	110302.0	[1000]	ug/L	16:10:25
1	Be 313.107†	2337117.8	2411838.9	[1000]	ug/L	16:10:20
1	Cd 226.502†	69528.8	71796.3	[1000]	ug/L	16:10:25
1	Co 228.616†	37816.4	39012.7	[1000]	ug/L	16:10:45
1	Cr 267.716†	75604.0	77817.9	[1000]	ug/L	16:10:25
1	Cu 324.752†	307903.5	311466.7	[1000]	ug/L	16:10:25
1	Mn 257.610†	751469.8	773856.7	[1000]	ug/L	16:10:20
1	Mo 202.031†	11289.7	11621.5	[1000]	ug/L	16:10:45
1	Ni 231.604†	31143.3	32000.8	[1000]	ug/L	16:10:45
1	P 214.914†	6805.0	6828.7	[5000]	ug/L	16:10:45
1	Pb 220.353†	6394.4	6638.3	[1000]	ug/L	16:10:45
1	S 181.975 Axial†	1124.7	1129.9	[2000]	ug/L	16:10:45
1	Sb 206.836†	2390.6	2434.6	[1000]	ug/L	16:10:45
1	Se 196.026†	1191.6	1247.5	[1000]	ug/L	16:10:45
1	Si 251.611†	133960.1	137524.0	[5000]	ug/L	16:10:25
1	Sn 189.927†	4422.8	4553.1	[1000]	ug/L	16:10:45
1	Ti 334.940†	570888.3	589329.0	[1000]	ug/L	16:10:25
1	Tl 190.801†	2525.6	2628.1	[1000]	ug/L	16:10:45
1	U 409.014†	31814.4	35028.9	[1000]	ug/L	16:10:25
1	V 292.402†	125227.4	130321.7	[1000]	ug/L	16:10:25
1	Zn 213.857†	83877.4	85501.6	[1000]	ug/L	16:10:25
1	SiO2†	131948.3	135446.1	[10695]	ug/L	16:11:54
2	Sc Radial	4376.2	4376.2	99.1	%	16:09:27
2	Y RADIAL	4735.4	4735.4	98.61	%	16:09:27
2	Al 396.153Radial†	10046.9	10212.8	[10000]	ug/L	16:09:27
2	Ca 317.933Radial†	5495.4	5524.9	[10000]	ug/L	16:09:27
2	Fe 238.204 Radial†	902.8	903.7	[10000]	ug/L	16:09:47
2	K 766.490 Radial†	53415.8	51294.1	[10000]	ug/L	16:09:27
2	Mg 279.077 IEC†	254.3	255.6	[10000]	ug/L	16:09:47
2	Na 589.592 Radial†	27528.6	28689.6	[10000]	ug/L	16:09:27
2	Sr 421.552†	127674.7	128830.7	[1000]	ug/L	16:09:27
2	Sc 361.383	804753.7	804753.7	97.295	%	16:10:57
2	Y 371.029	677440.2	677440.2	96.348	%	16:10:57
2	Ag 328.068†	196998.2	202225.8	[1000]	ug/L	16:10:57
2	As 188.979†	1780.2	1851.7	[1000]	ug/L	16:11:17
2	B 249.677†	35723.2	36901.1	[1000]	ug/L	16:10:57
2	Ba 233.527†	107000.2	109962.4	[1000]	ug/L	16:10:57
2	Be 313.107†	2340160.6	2408990.1	[1000]	ug/L	16:10:51
2	Cd 226.502†	69489.3	71577.9	[1000]	ug/L	16:10:57
2	Co 228.616†	37962.5	39066.2	[1000]	ug/L	16:11:17
2	Cr 267.716†	75559.5	77578.9	[1000]	ug/L	16:10:57
2	Cu 324.752†	309283.5	312097.7	[1000]	ug/L	16:10:57
2	Mn 257.610†	750585.8	771026.6	[1000]	ug/L	16:10:51
2	Mo 202.031†	11335.3	11639.6	[1000]	ug/L	16:11:17
2	Ni 231.604†	31283.8	32065.6	[1000]	ug/L	16:11:17

2	P 214.914†	6813.5	6820.0	[5000]	ug/L	16:11:17
2	Pb 220.353†	6440.2	6669.1	[1000]	ug/L	16:11:17
2	S 181.975 Axial†	1133.8	1136.3	[2000]	ug/L	16:11:17
2	Sb 206.836†	2424.1	2463.0	[1000]	ug/L	16:11:17
2	Se 196.026†	1188.3	1241.1	[1000]	ug/L	16:11:17
2	Si 251.611†	134265.8	137495.6	[5000]	ug/L	16:10:57
2	Sn 189.927†	4444.5	4564.1	[1000]	ug/L	16:11:17
2	Ti 334.940†	571451.0	588447.6	[1000]	ug/L	16:10:57
2	Tl 190.801†	2534.7	2631.0	[1000]	ug/L	16:11:17
2	U 409.014†	31858.9	34993.2	[1000]	ug/L	16:10:57
2	V 292.402†	125595.8	130380.1	[1000]	ug/L	16:10:57
2	Zn 213.857†	83941.8	85353.3	[1000]	ug/L	16:10:57
2	SiO2†	134394.1	137622.5	[10695]	ug/L	16:11:59
3	Sc Radial	4386.5	4386.5	99.3	%	16:09:52
3	Y RADIAL	4729.1	4729.1	98.48	%	16:09:52
3	Al 396.153Radial†	10024.7	10166.8	[10000]	ug/L	16:09:52
3	Ca 317.933Radial†	5510.8	5527.4	[10000]	ug/L	16:09:52
3	Fe 238.204 Radial†	908.9	907.7	[10000]	ug/L	16:10:12
3	K 766.490 Radial†	53457.2	51209.6	[10000]	ug/L	16:09:52
3	Mg 279.077 IEC†	262.1	262.9	[10000]	ug/L	16:10:12
3	Na 589.592 Radial†	27616.0	28712.6	[10000]	ug/L	16:09:52
3	Sr 421.552†	128060.8	128917.8	[1000]	ug/L	16:09:52
3	Sc 361.383	796083.0	796083.0	96.247	%	16:11:28
3	Y 371.029	669224.3	669224.3	95.180	%	16:11:28
3	Ag 328.068†	194636.7	201977.4	[1000]	ug/L	16:11:28
3	As 188.979†	1776.3	1867.6	[1000]	ug/L	16:11:48
3	B 249.677†	35195.1	36752.3	[1000]	ug/L	16:11:28
3	Ba 233.527†	106144.7	110271.3	[1000]	ug/L	16:11:28
3	Be 313.107†	2327000.0	2421513.1	[1000]	ug/L	16:11:23
3	Cd 226.502†	69010.0	71857.8	[1000]	ug/L	16:11:28
3	Co 228.616†	38110.1	39644.6	[1000]	ug/L	16:11:48
3	Cr 267.716†	75058.4	77904.1	[1000]	ug/L	16:11:28
3	Cu 324.752†	304861.8	310965.9	[1000]	ug/L	16:11:28
3	Mn 257.610†	747222.6	775934.6	[1000]	ug/L	16:11:23
3	Mo 202.031†	11360.3	11792.4	[1000]	ug/L	16:11:48
3	Ni 231.604†	31404.7	32541.5	[1000]	ug/L	16:11:48
3	P 214.914†	6852.8	6937.1	[5000]	ug/L	16:11:48
3	Pb 220.353†	6425.6	6726.0	[1000]	ug/L	16:11:48
3	S 181.975 Axial†	1150.6	1166.5	[2000]	ug/L	16:11:48
3	Sb 206.836†	2440.4	2507.0	[1000]	ug/L	16:11:48
3	Se 196.026†	1204.4	1271.1	[1000]	ug/L	16:11:48
3	Si 251.611†	132766.1	137440.5	[5000]	ug/L	16:11:28
3	Sn 189.927†	4455.3	4625.1	[1000]	ug/L	16:11:48
3	Ti 334.940†	565404.9	588562.8	[1000]	ug/L	16:11:28
3	Tl 190.801†	2548.5	2673.7	[1000]	ug/L	16:11:48
3	U 409.014†	31488.5	34965.0	[1000]	ug/L	16:11:28
3	V 292.402†	124210.3	130346.5	[1000]	ug/L	16:11:28
3	Zn 213.857†	83147.6	85467.9	[1000]	ug/L	16:11:28
3	SiO2†	134732.0	139478.1	[10695]	ug/L	16:12:04

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	801197.7	4540.65	0.57%	96.865	%
Sc Radial	4370.3	19.74	0.45%	99.0	%
Y 371.029	673758.3	4173.72	0.62%	95.824	%
Y RADIAL	4718.2	24.47	0.52%	98.25	%
Ag 328.068†	202069.4	136.09	0.07%	[1000]	ug/L
Al 396.153Radial†	10158.6	58.76	0.58%	[10000]	ug/L
As 188.979†	1853.3	13.65	0.74%	[1000]	ug/L
B 249.677†	36840.4	78.03	0.21%	[1000]	ug/L
Ba 233.527†	110178.6	187.84	0.17%	[1000]	ug/L
Be 313.107†	2414114.0	6564.19	0.27%	[1000]	ug/L
Ca 317.933Radial†	5517.4	15.22	0.28%	[10000]	ug/L
Cd 226.502†	71744.0	147.11	0.21%	[1000]	ug/L
Co 228.616†	39241.2	350.38	0.89%	[1000]	ug/L
Cr 267.716†	77767.0	168.47	0.22%	[1000]	ug/L
Cu 324.752†	311510.1	567.16	0.18%	[1000]	ug/L
Fe 238.204 Radial†	909.6	7.09	0.78%	[10000]	ug/L
K 766.490 Radial†	51099.2	267.69	0.52%	[10000]	ug/L

Mg 279.077 IEC†	258.8	3.72	1.44%	[10000]	ug/L
Mn 257.610†	773606.0	2463.60	0.32%	[1000]	ug/L
Mo 202.031†	11684.5	93.90	0.80%	[1000]	ug/L
Na 589.592 Radial†	28613.6	151.97	0.53%	[10000]	ug/L
Ni 231.604†	32202.6	295.21	0.92%	[1000]	ug/L
P 214.914†	6861.9	65.27	0.95%	[5000]	ug/L
Pb 220.353†	6677.8	44.51	0.67%	[1000]	ug/L
S 181.975 Axial†	1144.2	19.54	1.71%	[2000]	ug/L
Sb 206.836†	2468.2	36.48	1.48%	[1000]	ug/L
Se 196.026†	1253.2	15.76	1.26%	[1000]	ug/L
Si 251.611†	137486.7	42.48	0.03%	[5000]	ug/L
Sn 189.927†	4580.8	38.80	0.85%	[1000]	ug/L
Sr 421.552†	128519.7	615.71	0.48%	[1000]	ug/L
Ti 334.940†	588779.8	479.11	0.08%	[1000]	ug/L
Tl 190.801†	2644.3	25.54	0.97%	[1000]	ug/L
U 409.014†	34995.7	32.01	0.09%	[1000]	ug/L
V 292.402†	130349.4	29.33	0.02%	[1000]	ug/L
Zn 213.857†	85441.0	77.73	0.09%	[1000]	ug/L
SiO2†	137515.6	2018.10	1.47%	[10695]	ug/L

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Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/17/2010 16:14:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4302.8	4302.8	97.4	%	16:16:29
1	Y RADIAL	4646.6	4646.6	96.76	%	16:16:29
1	Al 396.153Radial†	50254.6	51656.2	[50000]	ug/L	16:16:09
1	Ca 317.933Radial†	26631.6	27314.4	[50000]	ug/L	16:16:09
1	Fe 238.204 Radial†	1750.5	1789.4	[20000]	ug/L	16:16:29
1	Mg 279.077 IEC†	1222.4	1253.7	[50000]	ug/L	16:16:29
1	Na 589.592 Radial†	56532.3	58933.8	[20000]	ug/L	16:16:09
1	Sc 361.383	788340.0	788340.0	95.311	%	16:17:26
1	Y 371.029	657542.8	657542.8	93.518	%	16:17:26
2	Sc Radial	4274.3	4274.3	96.8	%	16:16:54
2	Y RADIAL	4586.1	4586.1	95.50	%	16:16:54
2	Al 396.153Radial†	49779.3	51509.3	[50000]	ug/L	16:16:34
2	Ca 317.933Radial†	26423.5	27281.7	[50000]	ug/L	16:16:34
2	Fe 238.204 Radial†	1732.3	1782.6	[20000]	ug/L	16:16:54
2	Mg 279.077 IEC†	1212.4	1251.7	[50000]	ug/L	16:16:54
2	Na 589.592 Radial†	56221.9	59000.2	[20000]	ug/L	16:16:34
2	Sc 361.383	785655.0	785655.0	94.986	%	16:17:32
2	Y 371.029	654738.8	654738.8	93.119	%	16:17:32
3	Sc Radial	4280.1	4280.1	96.9	%	16:17:19
3	Y RADIAL	4592.0	4592.0	95.62	%	16:17:19
3	Al 396.153Radial†	49481.2	51132.0	[50000]	ug/L	16:16:59
3	Ca 317.933Radial†	26235.9	27051.2	[50000]	ug/L	16:16:59
3	Fe 238.204 Radial†	1735.0	1782.8	[20000]	ug/L	16:17:19
3	Mg 279.077 IEC†	1218.9	1256.7	[50000]	ug/L	16:17:19
3	Na 589.592 Radial†	55609.1	58289.3	[20000]	ug/L	16:16:59
3	Sc 361.383	794480.0	794480.0	96.053	%	16:17:38
3	Y 371.029	662770.1	662770.1	94.262	%	16:17:38

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	789491.6	4523.82	0.57%	95.450	%
Sc Radial	4285.7	15.07	0.35%	97.0	%
Y 371.029	658350.6	4076.14	0.62%	93.633	%
Y RADIAL	4608.2	33.37	0.72%	95.96	%
Al 396.153Radial†	51432.5	270.40	0.53%	[50000]	ug/L
Ca 317.933Radial†	27215.8	143.45	0.53%	[50000]	ug/L
Fe 238.204 Radial†	1784.9	3.86	0.22%	[20000]	ug/L
Mg 279.077 IEC†	1254.0	2.51	0.20%	[50000]	ug/L
Na 589.592 Radial†	58741.1	392.68	0.67%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	201.3	0.00000	0.999974	
Al 396.153Radial	3	Lin Thru 0	0.0	1.028	0.00000	0.999993	
As 188.979	3	Lin Thru 0	0.0	1.854	0.00000	0.999997	
B 249.677	3	Lin Thru 0	0.0	36.63	0.00000	0.999929	
Ba 233.527	3	Lin Thru 0	0.0	110.0	0.00000	0.999995	
Be 313.107	3	Lin Thru 0	0.0	2418	0.00000	0.999996	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5448	0.00000	0.999987	
Cd 226.502	3	Lin Thru 0	0.0	71.66	0.00000	0.999996	
Co 228.616	3	Lin Thru 0	0.0	39.43	0.00000	0.999958	
Cr 267.716	3	Lin Thru 0	0.0	77.65	0.00000	0.999995	
Cu 324.752	3	Lin Thru 0	0.0	310.5	0.00000	0.999980	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0896	0.00000	0.999971	
K 766.490 Radial	3	Lin Thru 0	0.0	5.152	0.00000	0.999858	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0251	0.00000	0.999965
Mn 257.610	3	Lin Thru 0	0.0	774.7	0.00000	0.999994
Mo 202.031	3	Lin Thru 0	0.0	11.67	0.00000	0.999995
Na 589.592 Radia	2	Lin Thru 0	0.0	2.922	0.00000	0.999946
Ni 231.604	3	Lin Thru 0	0.0	32.34	0.00000	0.999963
P 214.914	3	Lin Thru 0	0.0	1.370	0.00000	0.999993
Pb 220.353	3	Lin Thru 0	0.0	6.671	0.00000	0.999998
S 181.975 Axial	3	Lin Thru 0	0.0	0.5706	0.00000	0.999986
Sb 206.836	3	Lin Thru 0	0.0	2.461	0.00000	0.999982
Se 196.026	3	Lin Thru 0	0.0	1.252	0.00000	0.999996
Si 251.611	3	Lin Thru 0	0.0	27.40	0.00000	0.999978
Sn 189.927	3	Lin Thru 0	0.0	4.568	0.00000	0.999983
Sr 421.552	3	Lin Thru 0	0.0	129.3	0.00000	0.999927
Ti 334.940	3	Lin Thru 0	0.0	586.8	0.00000	0.999976
Tl 190.801	3	Lin Thru 0	0.0	2.644	0.00000	1.000000
U 409.014	3	Lin Thru 0	0.0	34.96	0.00000	0.999992
V 292.402	3	Lin Thru 0	0.0	130.0	0.00000	0.999989
Zn 213.857	3	Lin Thru 0	0.0	85.25	0.00000	0.999990
SiO2	3	Lin Thru 0	0.0	12.83	0.00000	0.999992

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/17/2010 16:19:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4373.7	4373.7	99.0	%			16:21:42
1	Y RADIAL	4744.8	4744.8	98.80	%			16:21:42
1	Al 396.153Radial†	5121.4	5244.8	5073.7	ug/L	5073.7	ppb	16:21:42
1	Ca 317.933Radial†	2741.9	2747.7	5043.1	ug/L	5043.1	ppb	16:22:02
1	Fe 238.204 Radial†	461.5	458.6	5134.7	ug/L	5134.7	ppb	16:22:02
1	K 766.490 Radial†	15388.8	12925.4	2505.3	ug/L	2505.3	ppb	16:21:42
1	Mg 279.077 IEC†	134.8	135.1	5377.7	ug/L	5377.7	ppb	16:22:02
1	Na 589.592 Radial†	6208.5	7176.6	2456.1	ug/L	2456.1	ppb	16:21:42
1	Sr 421.552†	67722.0	68364.2	528.66	ug/L	528.66	ppb	16:21:42
1	Sc 361.383	818414.3	818414.3	98.947	%			16:22:59
1	Y 371.029	691276.9	691276.9	98.316	%			16:22:59
1	Ag 328.068†	51004.2	51298.0	257.96	ug/L	257.96	ppb	16:22:59
1	As 188.979†	841.3	872.3	474.81	ug/L	474.81	ppb	16:23:19
1	B 249.677†	18448.5	18829.7	511.79	ug/L	511.79	ppb	16:22:59
1	Ba 233.527†	55031.3	55604.6	506.72	ug/L	506.72	ppb	16:22:59
1	Be 313.107†	633489.8	644005.3	267.54	ug/L	267.54	ppb	16:22:59
1	Cd 226.502†	34783.6	35310.7	492.64	ug/L	492.64	ppb	16:22:59
1	Co 228.616†	20081.2	20343.3	516.13	ug/L	516.13	ppb	16:22:59
1	Cr 267.716†	37320.8	37636.8	485.79	ug/L	485.79	ppb	16:22:59
1	Cu 324.752†	162615.5	158562.6	510.63	ug/L	510.63	ppb	16:22:59
1	Mn 257.610†	400342.3	404178.1	521.98	ug/L	521.98	ppb	16:22:59
1	Mo 202.031†	6194.3	6249.3	536.02	ug/L	536.02	ppb	16:23:19
1	Ni 231.604†	16600.6	16689.4	515.68	ug/L	515.68	ppb	16:22:59
1	P 214.914†	3540.5	3395.2	2378.9	ug/L	2378.9	ppb	16:23:19
1	Pb 220.353†	3213.3	3297.3	495.75	ug/L	495.75	ppb	16:23:19
1	S 181.975 Axial†	1421.5	1407.7	2466.2	ug/L	2466.2	ppb	16:23:19
1	Sb 206.836†	1247.3	1232.0	519.91	ug/L	519.91	ppb	16:23:19
1	Se 196.026†	3050.5	3102.7	2497.1	ug/L	2497.1	ppb	16:23:19
1	Si 251.611†	131664.8	132563.6	4830.6	ug/L	4830.6	ppb	16:22:59
1	Sn 189.927†	2421.8	2443.6	535.55	ug/L	535.55	ppb	16:23:19
1	Ti 334.940†	292834.7	297062.0	506.08	ug/L	506.08	ppb	16:22:59
1	Tl 190.801†	1352.6	1392.8	530.18	ug/L	530.18	ppb	16:23:19
1	U 409.014†	14797.2	17203.4	490.49	ug/L	490.49	ppb	16:22:59
1	V 292.402†	64434.2	66412.8	517.85	ug/L	517.85	ppb	16:22:59
1	Zn 213.857†	43677.3	43220.2	502.25	ug/L	502.25	ppb	16:22:59
1	SiO2†	130623.5	131506.1	10234	ug/L	10234	ppb	16:24:17
2	Sc Radial	4418.0	4418.0	100	%			16:22:07
2	Y RADIAL	4759.8	4759.8	99.11	%			16:22:07
2	Al 396.153Radial†	5174.3	5246.0	5074.7	ug/L	5074.7	ppb	16:22:07
2	Ca 317.933Radial†	2720.1	2698.1	4952.1	ug/L	4952.1	ppb	16:22:27
2	Fe 238.204 Radial†	463.0	455.4	5098.5	ug/L	5098.5	ppb	16:22:27
2	K 766.490 Radial†	15461.1	12842.0	2489.1	ug/L	2489.1	ppb	16:22:07
2	Mg 279.077 IEC†	133.7	132.6	5279.8	ug/L	5279.8	ppb	16:22:27
2	Na 589.592 Radial†	6286.7	7192.0	2461.4	ug/L	2461.4	ppb	16:22:07
2	Sr 421.552†	68626.4	68583.2	530.36	ug/L	530.36	ppb	16:22:07
2	Sc 361.383	816400.8	816400.8	98.703	%			16:23:25
2	Y 371.029	688970.6	688970.6	97.988	%			16:23:25
2	Ag 328.068†	50778.9	51196.9	257.45	ug/L	257.45	ppb	16:23:25
2	As 188.979†	836.4	869.5	473.30	ug/L	473.30	ppb	16:23:46
2	B 249.677†	18364.9	18791.0	510.73	ug/L	510.73	ppb	16:23:25
2	Ba 233.527†	55103.6	55815.0	508.63	ug/L	508.63	ppb	16:23:25
2	Be 313.107†	632142.2	644219.0	267.62	ug/L	267.62	ppb	16:23:25
2	Cd 226.502†	34766.0	35379.6	493.60	ug/L	493.60	ppb	16:23:25
2	Co 228.616†	20052.9	20364.6	516.68	ug/L	516.68	ppb	16:23:25
2	Cr 267.716†	37341.5	37750.9	487.26	ug/L	487.26	ppb	16:23:25
2	Cu 324.752†	161937.6	158281.0	509.72	ug/L	509.72	ppb	16:23:25
2	Mn 257.610†	399709.9	404535.3	522.44	ug/L	522.44	ppb	16:23:25
2	Mo 202.031†	6211.8	6282.5	538.86	ug/L	538.86	ppb	16:23:46
2	Ni 231.604†	16519.3	16648.4	514.41	ug/L	514.41	ppb	16:23:25

2	P 214.914†	3539.6	3403.2	2384.9 ug/L	2384.9 ppb	16:23:46
2	Pb 220.353†	3205.5	3297.4	495.78 ug/L	495.78 ppb	16:23:46
2	S 181.975 Axial†	1418.4	1408.1	2467.0 ug/L	2467.0 ppb	16:23:46
2	Sb 206.836†	1245.0	1232.8	520.31 ug/L	520.31 ppb	16:23:46
2	Se 196.026†	3064.1	3124.1	2514.1 ug/L	2514.1 ppb	16:23:46
2	Si 251.611†	131381.9	132605.1	4832.1 ug/L	4832.1 ppb	16:23:25
2	Sn 189.927†	2428.4	2456.4	538.33 ug/L	538.33 ppb	16:23:46
2	Ti 334.940†	292115.2	297062.9	506.08 ug/L	506.08 ppb	16:23:25
2	Tl 190.801†	1343.3	1386.8	527.89 ug/L	527.89 ppb	16:23:46
2	U 409.014†	14718.9	17160.9	489.27 ug/L	489.27 ppb	16:23:25
2	V 292.402†	64333.9	66471.8	518.34 ug/L	518.34 ppb	16:23:25
2	Zn 213.857†	43617.3	43268.3	502.83 ug/L	502.83 ppb	16:23:25
2	SiO2†	131626.5	132847.9	10338 ug/L	10338 ppb	16:24:22
3	Sc Radial	4349.5	4349.5	98.5 %		16:22:32
3	Y RADIAL	4692.6	4692.6	97.71 %		16:22:32
3	Al 396.153Radial†	5042.6	5193.7	5024.1 ug/L	5024.1 ppb	16:22:32
3	Ca 317.933Radial†	2733.6	2754.7	5056.0 ug/L	5056.0 ppb	16:22:52
3	Fe 238.204 Radial†	459.7	459.3	5142.6 ug/L	5142.6 ppb	16:22:52
3	K 766.490 Radial†	15268.9	12890.5	2498.5 ug/L	2498.5 ppb	16:22:32
3	Mg 279.077 IEC†	136.2	137.3	5463.0 ug/L	5463.0 ppb	16:22:52
3	Na 589.592 Radial†	6138.3	7140.3	2443.7 ug/L	2443.7 ppb	16:22:32
3	Sr 421.552†	67075.0	68089.0	526.53 ug/L	526.53 ppb	16:22:32
3	Sc 361.383	820489.3	820489.3	99.198 %		16:23:52
3	Y 371.029	691614.2	691614.2	98.364 %		16:23:52
3	Ag 328.068†	50986.8	51150.1	257.23 ug/L	257.23 ppb	16:23:52
3	As 188.979†	839.7	868.6	472.83 ug/L	472.83 ppb	16:24:12
3	B 249.677†	18488.8	18823.1	511.61 ug/L	511.61 ppb	16:23:52
3	Ba 233.527†	55295.3	55730.1	507.86 ug/L	507.86 ppb	16:23:52
3	Be 313.107†	633896.1	642795.8	267.04 ug/L	267.04 ppb	16:23:52
3	Cd 226.502†	34899.8	35338.9	493.03 ug/L	493.03 ppb	16:23:52
3	Co 228.616†	20117.8	20328.9	515.76 ug/L	515.76 ppb	16:23:52
3	Cr 267.716†	37420.1	37641.6	485.85 ug/L	485.85 ppb	16:23:52
3	Cu 324.752†	162740.9	158273.4	509.69 ug/L	509.69 ppb	16:23:52
3	Mn 257.610†	401460.5	404282.1	522.11 ug/L	522.11 ppb	16:23:52
3	Mo 202.031†	6191.4	6230.6	534.42 ug/L	534.42 ppb	16:24:12
3	Ni 231.604†	16560.0	16606.0	513.10 ug/L	513.10 ppb	16:23:52
3	P 214.914†	3538.9	3384.6	2371.3 ug/L	2371.3 ppb	16:24:12
3	Pb 220.353†	3214.1	3289.9	494.63 ug/L	494.63 ppb	16:24:12
3	S 181.975 Axial†	1418.1	1400.6	2453.9 ug/L	2453.9 ppb	16:24:12
3	Sb 206.836†	1240.3	1221.7	515.66 ug/L	515.66 ppb	16:24:12
3	Se 196.026†	3052.1	3096.5	2492.1 ug/L	2492.1 ppb	16:24:12
3	Si 251.611†	131894.4	132458.5	4826.8 ug/L	4826.8 ppb	16:23:52
3	Sn 189.927†	2419.3	2434.9	533.65 ug/L	533.65 ppb	16:24:12
3	Ti 334.940†	293453.9	296937.7	505.87 ug/L	505.87 ppb	16:23:52
3	Tl 190.801†	1360.2	1397.0	531.77 ug/L	531.77 ppb	16:24:12
3	U 409.014†	14909.7	17279.0	492.65 ug/L	492.65 ppb	16:23:52
3	V 292.402†	64569.0	66384.0	517.61 ug/L	517.61 ppb	16:23:52
3	Zn 213.857†	43815.0	43247.4	502.58 ug/L	502.58 ppb	16:23:52
3	SiO2†	130802.3	131352.5	10222 ug/L	10222 ppb	16:24:27

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	818434.8	98.949	%	0.2472				0.25%
Sc Radial	4380.4	99.2	%	0.79				0.79%
Y 371.029	690620.5	98.223	%	0.2046				0.21%
Y RADIAL	4732.4	98.54	%	0.735				0.75%
Ag 328.068†	51215.0	257.55	ug/L	0.377	257.55	ppb	0.377	0.15%
QC value within limits for Ag 328.068 Recovery = 103.02%								
Al 396.153Radial†	5228.2	5057.5	ug/L	28.95	5057.5	ppb	28.95	0.57%
QC value within limits for Al 396.153Radial Recovery = 101.15%								
As 188.979†	870.1	473.64	ug/L	1.038	473.64	ppb	1.038	0.22%
QC value within limits for As 188.979 Recovery = 94.73%								
B 249.677†	18814.6	511.37	ug/L	0.563	511.37	ppb	0.563	0.11%
QC value within limits for B 249.677 Recovery = 102.27%								
Ba 233.527†	55716.6	507.73	ug/L	0.962	507.73	ppb	0.962	0.19%
QC value within limits for Ba 233.527 Recovery = 101.55%								
Be 313.107†	643673.3	267.40	ug/L	0.318	267.40	ppb	0.318	0.12%
QC value within limits for Be 313.107 Recovery = 106.96%								
Ca 317.933Radial†	2733.5	5017.1	ug/L	56.65	5017.1	ppb	56.65	1.13%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.34%
Cd 226.502†            35343.0      493.09 ug/L         0.485      493.09 ppb          0.485   0.10%
   QC value within limits for Cd 226.502  Recovery = 98.62%
Co 228.616†            20345.6      516.19 ug/L         0.462      516.19 ppb          0.462   0.09%
   QC value within limits for Co 228.616  Recovery = 103.24%
Cr 267.716†            37676.4      486.30 ug/L         0.829      486.30 ppb          0.829   0.17%
   QC value within limits for Cr 267.716  Recovery = 97.26%
Cu 324.752†           158372.3      510.01 ug/L         0.531      510.01 ppb          0.531   0.10%
   QC value within limits for Cu 324.752  Recovery = 102.00%
Fe 238.204 Radial†       457.8      5125.3 ug/L         23.55      5125.3 ppb          23.55   0.46%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.51%
K 766.490 Radial†      12886.0      2497.6 ug/L          8.12      2497.6 ppb           8.12   0.32%
   QC value within limits for K 766.490 Radial  Recovery = 99.91%
Mg 279.077 IEC†          135.0      5373.5 ug/L         91.67      5373.5 ppb          91.67   1.71%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.47%
Mn 257.610†           404331.8      522.18 ug/L         0.238      522.18 ppb          0.238   0.05%
   QC value within limits for Mn 257.610  Recovery = 104.44%
Mo 202.031†             6254.1      536.43 ug/L         2.250      536.43 ppb          2.250   0.42%
   QC value within limits for Mo 202.031  Recovery = 107.29%
Na 589.592 Radial†      7169.6      2453.7 ug/L          9.09      2453.7 ppb           9.09   0.37%
   QC value within limits for Na 589.592 Radial  Recovery = 98.15%
Ni 231.604†            16648.0      514.40 ug/L         1.289      514.40 ppb          1.289   0.25%
   QC value within limits for Ni 231.604  Recovery = 102.88%
P 214.914†              3394.3      2378.4 ug/L          6.83      2378.4 ppb           6.83   0.29%
   QC value within limits for P 214.914  Recovery = 95.14%
Pb 220.353†             3294.9      495.39 ug/L         0.656      495.39 ppb          0.656   0.13%
   QC value within limits for Pb 220.353  Recovery = 99.08%
S 181.975 Axial†        1405.5      2462.4 ug/L          7.35      2462.4 ppb           7.35   0.30%
   QC value within limits for S 181.975 Axial  Recovery = 98.49%
Sb 206.836†             1228.8      518.63 ug/L         2.575      518.63 ppb          2.575   0.50%
   QC value within limits for Sb 206.836  Recovery = 103.73%
Se 196.026†             3107.8      2501.1 ug/L         11.50      2501.1 ppb          11.50   0.46%
   QC value within limits for Se 196.026  Recovery = 100.04%
Si 251.611†           132542.4      4829.9 ug/L          2.73      4829.9 ppb           2.73   0.06%
   QC value within limits for Si 251.611  Recovery = 96.60%
Sn 189.927†             2445.0      535.84 ug/L         2.355      535.84 ppb          2.355   0.44%
   QC value within limits for Sn 189.927  Recovery = 107.17%
Sr 421.552†            68345.5      528.52 ug/L         1.915      528.52 ppb          1.915   0.36%
   QC value within limits for Sr 421.552  Recovery = 105.70%
Ti 334.940†           297020.9      506.01 ug/L         0.125      506.01 ppb          0.125   0.02%
   QC value within limits for Ti 334.940  Recovery = 101.20%
Tl 190.801†             1392.2      529.94 ug/L         1.951      529.94 ppb          1.951   0.37%
   QC value within limits for Tl 190.801  Recovery = 105.99%
U 409.014†             17214.4      490.80 ug/L         1.710      490.80 ppb          1.710   0.35%
   QC value within limits for U 409.014  Recovery = 98.16%
V 292.402†             66422.8      517.93 ug/L         0.374      517.93 ppb          0.374   0.07%
   QC value within limits for V 292.402  Recovery = 103.59%
Zn 213.857†            43245.3      502.55 ug/L         0.291      502.55 ppb          0.291   0.06%
   QC value within limits for Zn 213.857  Recovery = 100.51%
SiO2†                 131902.2       10264 ug/L          64.0       10264 ppb           64.0   0.62%
   QC value within limits for SiO2  Recovery = 95.97%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 3/17/2010 16:26:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4360.3	4360.3	98.7	%			16:28:31
1	Y RADIAL	4743.1	4743.1	98.77	%			16:28:31
1	Al 396.153Radial†	-71.7	0.7	0.6933	ug/L	0.6933	ppb	16:28:51
1	Ca 317.933Radial†	13.8	-7.1	-13.047	ug/L	-13.047	ppb	16:28:51
1	Fe 238.204 Radial†	7.6	0.3	3.1518	ug/L	3.1518	ppb	16:28:51
1	K 766.490 Radial†	2641.1	61.2	11.877	ug/L	11.877	ppb	16:28:31
1	Mg 279.077 IEC†	1.8	0.7	29.578	ug/L	29.578	ppb	16:28:51
1	Na 589.592 Radial†	-879.1	16.9	5.7809	ug/L	5.7809	ppb	16:28:31
1	Sr 421.552†	10.3	-10.3	-0.0793	ug/L	-0.0793	ppb	16:28:31
1	Sc 361.383	798558.0	798558.0	96.546	%			16:29:48
1	Y 371.029	680732.1	680732.1	96.816	%			16:29:48
1	Ag 328.068†	168.0	-75.1	-0.3742	ug/L	-0.3742	ppb	16:29:48
1	As 188.979†	-25.4	-4.3	-2.2964	ug/L	-2.2964	ppb	16:30:08
1	B 249.677†	-132.3	47.8	1.3038	ug/L	1.3038	ppb	16:30:08
1	Ba 233.527†	12.5	0.5	0.0029	ug/L	0.0029	ppb	16:30:08
1	Be 313.107†	-3770.9	-133.7	-0.0556	ug/L	-0.0556	ppb	16:29:48
1	Cd 226.502†	-178.3	-27.9	-0.3896	ug/L	-0.3896	ppb	16:30:08
1	Co 228.616†	-53.2	-6.8	-0.1708	ug/L	-0.1708	ppb	16:30:08
1	Cr 267.716†	62.1	-16.8	-0.2171	ug/L	-0.2171	ppb	16:30:08
1	Cu 324.752†	5694.1	113.8	0.3680	ug/L	0.3680	ppb	16:29:48
1	Mn 257.610†	400.5	-11.0	-0.0151	ug/L	-0.0151	ppb	16:30:08
1	Mo 202.031†	12.3	1.9	0.1600	ug/L	0.1600	ppb	16:30:08
1	Ni 231.604†	92.7	8.0	0.2489	ug/L	0.2489	ppb	16:30:08
1	P 214.914†	186.2	9.9	7.1815	ug/L	7.1815	ppb	16:30:08
1	Pb 220.353†	-53.1	-5.2	-0.7803	ug/L	-0.7803	ppb	16:30:08
1	S 181.975 Axial†	25.3	-2.7	-4.7955	ug/L	-4.7955	ppb	16:30:08
1	Sb 206.836†	32.5	5.1	2.1152	ug/L	2.1152	ppb	16:30:08
1	Se 196.026†	-20.5	-1.5	-1.1890	ug/L	-1.1890	ppb	16:30:08
1	Si 251.611†	492.7	7.5	0.2716	ug/L	0.2716	ppb	16:30:08
1	Sn 189.927†	12.1	8.6	1.8744	ug/L	1.8744	ppb	16:30:08
1	Ti 334.940†	-1140.2	-70.9	-0.1239	ug/L	-0.1239	ppb	16:29:48
1	Tl 190.801†	-17.5	7.7	2.9250	ug/L	2.9250	ppb	16:30:08
1	U 409.014†	-2244.0	-75.7	-2.1643	ug/L	-2.1643	ppb	16:29:48
1	V 292.402†	-1371.8	-128.3	-0.9878	ug/L	-0.9878	ppb	16:29:48
1	Zn 213.857†	879.2	-11.4	-0.1363	ug/L	-0.1363	ppb	16:30:08
1	SiO2†	504.3	14.6	1.1325	ug/L	1.1325	ppb	16:31:19
2	Sc Radial	4351.9	4351.9	98.5	%			16:28:56
2	Y RADIAL	4776.0	4776.0	99.45	%			16:28:56
2	Al 396.153Radial†	-84.0	-11.9	-11.613	ug/L	-11.613	ppb	16:29:17
2	Ca 317.933Radial†	18.6	-2.2	-4.1206	ug/L	-4.1206	ppb	16:29:17
2	Fe 238.204 Radial†	8.7	1.4	16.149	ug/L	16.149	ppb	16:29:17
2	K 766.490 Radial†	2475.6	-101.5	-19.706	ug/L	-19.706	ppb	16:28:56
2	Mg 279.077 IEC†	1.2	0.2	7.2182	ug/L	7.2182	ppb	16:29:17
2	Na 589.592 Radial†	-899.0	-5.1	-1.7450	ug/L	-1.7450	ppb	16:28:56
2	Sr 421.552†	27.5	7.2	0.0554	ug/L	0.0554	ppb	16:28:56
2	Sc 361.383	801948.0	801948.0	96.956	%			16:30:14
2	Y 371.029	683950.3	683950.3	97.274	%			16:30:14
2	Ag 328.068†	111.7	-133.9	-0.6639	ug/L	-0.6639	ppb	16:30:14
2	As 188.979†	-27.6	-6.4	-3.4330	ug/L	-3.4330	ppb	16:30:34
2	B 249.677†	-143.7	36.6	0.9984	ug/L	0.9984	ppb	16:30:34
2	Ba 233.527†	11.8	-0.3	-0.0037	ug/L	-0.0037	ppb	16:30:34
2	Be 313.107†	-3675.3	-18.5	-0.0074	ug/L	-0.0074	ppb	16:30:14
2	Cd 226.502†	-155.8	-3.9	-0.0554	ug/L	-0.0554	ppb	16:30:34
2	Co 228.616†	-61.1	-14.7	-0.3725	ug/L	-0.3725	ppb	16:30:34
2	Cr 267.716†	70.2	-8.8	-0.1127	ug/L	-0.1127	ppb	16:30:34
2	Cu 324.752†	5722.8	118.5	0.3820	ug/L	0.3820	ppb	16:30:14
2	Mn 257.610†	442.0	30.0	0.0401	ug/L	0.0401	ppb	16:30:34
2	Mo 202.031†	10.5	-0.1	-0.0076	ug/L	-0.0076	ppb	16:30:34
2	Ni 231.604†	99.1	14.3	0.4428	ug/L	0.4428	ppb	16:30:34

2	P 214.914†	172.4	-5.1	-3.7798	ug/L	-3.7798 ppb	16:30:34
2	Pb 220.353†	-58.5	-10.5	-1.5833	ug/L	-1.5833 ppb	16:30:34
2	S 181.975 Axial†	32.7	4.8	8.3774	ug/L	8.3774 ppb	16:30:34
2	Sb 206.836†	38.5	11.2	4.5475	ug/L	4.5475 ppb	16:30:34
2	Se 196.026†	-21.7	-2.6	-2.0657	ug/L	-2.0657 ppb	16:30:34
2	Si 251.611†	486.8	-0.7	-0.0254	ug/L	-0.0254 ppb	16:30:34
2	Sn 189.927†	5.7	1.9	0.4239	ug/L	0.4239 ppb	16:30:34
2	Ti 334.940†	-1010.5	67.9	0.1141	ug/L	0.1141 ppb	16:30:14
2	Tl 190.801†	-24.6	0.5	0.1820	ug/L	0.1820 ppb	16:30:34
2	U 409.014†	-2149.3	31.9	0.9101	ug/L	0.9101 ppb	16:30:14
2	V 292.402†	-1355.7	-105.6	-0.8125	ug/L	-0.8125 ppb	16:30:14
2	Zn 213.857†	865.4	-29.5	-0.3517	ug/L	-0.3517 ppb	16:30:34
2	SiO2†	508.5	16.7	1.2980	ug/L	1.2980 ppb	16:31:39
3	Sc Radial	4341.4	4341.4	98.3	%		16:29:22
3	Y RADIAL	4698.0	4698.0	97.83	%		16:29:22
3	Al 396.153Radial†	-73.4	-1.3	-1.2736	ug/L	-1.2736 ppb	16:29:42
3	Ca 317.933Radial†	15.8	-5.0	-9.2150	ug/L	-9.2150 ppb	16:29:42
3	Fe 238.204 Radial†	9.5	2.2	24.767	ug/L	24.767 ppb	16:29:42
3	K 766.490 Radial†	2614.0	45.2	8.7829	ug/L	8.7829 ppb	16:29:22
3	Mg 279.077 IEC†	2.4	1.5	57.883	ug/L	57.883 ppb	16:29:42
3	Na 589.592 Radial†	-918.4	-27.0	-9.2301	ug/L	-9.2301 ppb	16:29:22
3	Sr 421.552†	37.5	17.5	0.1351	ug/L	0.1351 ppb	16:29:22
3	Sc 361.383	811498.4	811498.4	98.111	%		16:30:39
3	Y 371.029	690880.7	690880.7	98.260	%		16:30:39
3	Ag 328.068†	146.9	-99.4	-0.4877	ug/L	-0.4877 ppb	16:30:39
3	As 188.979†	-12.6	9.2	4.9849	ug/L	4.9849 ppb	16:30:59
3	B 249.677†	-129.2	53.1	1.4454	ug/L	1.4454 ppb	16:30:59
3	Ba 233.527†	-6.7	-19.2	-0.1755	ug/L	-0.1755 ppb	16:30:59
3	Be 313.107†	-3873.3	-175.7	-0.0728	ug/L	-0.0728 ppb	16:30:39
3	Cd 226.502†	-160.8	-7.0	-0.1014	ug/L	-0.1014 ppb	16:30:59
3	Co 228.616†	-50.0	-2.6	-0.0657	ug/L	-0.0657 ppb	16:30:59
3	Cr 267.716†	107.1	27.9	0.3617	ug/L	0.3617 ppb	16:30:59
3	Cu 324.752†	5717.2	43.4	0.1414	ug/L	0.1414 ppb	16:30:39
3	Mn 257.610†	421.6	3.9	0.0052	ug/L	0.0052 ppb	16:30:59
3	Mo 202.031†	13.2	2.5	0.2185	ug/L	0.2185 ppb	16:30:59
3	Ni 231.604†	72.9	-13.7	-0.4222	ug/L	-0.4222 ppb	16:30:59
3	P 214.914†	184.0	4.6	3.3206	ug/L	3.3206 ppb	16:30:59
3	Pb 220.353†	-65.0	-16.4	-2.4668	ug/L	-2.4668 ppb	16:30:59
3	S 181.975 Axial†	27.7	-0.7	-1.2769	ug/L	-1.2769 ppb	16:30:59
3	Sb 206.836†	32.9	5.0	2.0316	ug/L	2.0316 ppb	16:30:59
3	Se 196.026†	-21.4	-2.1	-1.6035	ug/L	-1.6035 ppb	16:30:59
3	Si 251.611†	499.4	6.2	0.2244	ug/L	0.2244 ppb	16:30:59
3	Sn 189.927†	8.2	4.4	0.9659	ug/L	0.9659 ppb	16:30:59
3	Ti 334.940†	-1111.2	-22.5	-0.0440	ug/L	-0.0440 ppb	16:30:39
3	Tl 190.801†	-29.8	-4.5	-1.7021	ug/L	-1.7021 ppb	16:30:59
3	U 409.014†	-2238.7	-33.1	-0.9512	ug/L	-0.9512 ppb	16:30:39
3	V 292.402†	-1347.2	-80.4	-0.6200	ug/L	-0.6200 ppb	16:30:39
3	Zn 213.857†	861.7	-43.8	-0.5149	ug/L	-0.5149 ppb	16:30:59
3	SiO2†	516.1	18.3	1.4173	ug/L	1.4173 ppb	16:31:59

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	804001.5	97.204	%	0.8113				0.83%
Sc Radial	4351.2	98.5	%	0.21				0.22%
Y 371.029	685187.7	97.450	%	0.7376				0.76%
Y RADIAL	4739.1	98.68	%	0.816				0.83%
Ag 328.068†	-102.8	-0.5086	ug/L	0.14595	-0.5086	ppb	0.14595	28.70%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.2	-4.0643	ug/L	6.61061	-4.0643	ppb	6.61061	162.65%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.5	-0.2482	ug/L	4.56749	-0.2482	ppb	4.56749	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	45.8	1.2492	ug/L	0.22846	1.2492	ppb	0.22846	18.29%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.3	-0.0588	ug/L	0.10116	-0.0588	ppb	0.10116	172.07%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-109.3	-0.0453	ug/L	0.03389	-0.0453	ppb	0.03389	74.89%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-4.8	-8.7943	ug/L	4.47813	-8.7943	ppb	4.47813	50.92%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -12.9     -0.1821 ug/L       0.18115     -0.1821 ppb        0.18115  99.46%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -8.0     -0.2030 ug/L       0.15589     -0.2030 ppb        0.15589  76.79%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                0.8      0.0106 ug/L       0.30852      0.0106 ppb        0.30852 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               91.9      0.2971 ug/L       0.13501      0.2971 ppb        0.13501  45.44%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.3      14.689 ug/L       10.8814      14.689 ppb        10.8814  74.08%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          1.6      0.3180 ug/L      17.40990      0.3180 ppb       17.40990 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.8      31.560 ug/L       25.3903      31.560 ppb        25.3903  80.45%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                7.7      0.0101 ug/L       0.02790      0.0101 ppb        0.02790 277.26%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.4      0.1236 ug/L       0.11738      0.1236 ppb        0.11738  94.94%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -5.1     -1.7314 ug/L       7.50550     -1.7314 ppb        7.50550 433.49%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                2.9      0.0899 ug/L       0.45391      0.0899 ppb        0.45391 505.15%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 3.2      2.2407 ug/L       5.55986      2.2407 ppb        5.55986 248.13%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -10.7     -1.6101 ug/L       0.84361     -1.6101 ppb        0.84361  52.39%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.4      0.7683 ug/L       6.82044      0.7683 ppb        6.82044 887.69%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                7.1      2.8981 ug/L       1.42902      2.8981 ppb        1.42902  49.31%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.1     -1.6194 ug/L       0.43852     -1.6194 ppb        0.43852  27.08%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                4.3      0.1569 ug/L       0.15960      0.1569 ppb        0.15960 101.75%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                5.0      1.0881 ug/L       0.73294      1.0881 ppb        0.73294  67.36%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                4.8      0.0371 ug/L       0.10834      0.0371 ppb        0.10834 292.23%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -8.5     -0.0179 ug/L       0.12115     -0.0179 ppb        0.12115 675.25%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                1.2      0.4683 ug/L       2.32679      0.4683 ppb        2.32679 496.85%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -25.6     -0.7351 ug/L       1.54853     -0.7351 ppb        1.54853 210.65%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -104.8     -0.8067 ug/L       0.18397     -0.8067 ppb        0.18397  22.80%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -28.2     -0.3343 ug/L       0.18988     -0.3343 ppb        0.18988  56.80%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     16.5      1.2826 ug/L       0.14300      1.2826 ppb        0.14300  11.15%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 3/17/2010 16:34:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4445.0	4445.0	101	%			16:36:03
1	Y RADIAL	4837.3	4837.3	100.7	%			16:36:03
1	Al 396.153Radial†	132.2	204.7	198.56	ug/L	198.56	ppb	16:36:23
1	Ca 317.933Radial†	133.3	111.3	204.30	ug/L	204.30	ppb	16:36:23
1	Fe 238.204 Radial†	19.2	11.7	130.81	ug/L	130.81	ppb	16:36:23
1	K 766.490 Radial†	3354.5	719.0	139.36	ug/L	139.36	ppb	16:36:03
1	Mg 279.077 IEC†	8.5	7.4	295.78	ug/L	295.78	ppb	16:36:23
1	Na 589.592 Radial†	-12.5	894.9	306.26	ug/L	306.26	ppb	16:36:03
1	Sr 421.552†	679.4	654.3	5.0584	ug/L	5.0584	ppb	16:36:03
1	Sc 361.383	809163.6	809163.6	97.828	%			16:37:20
1	Y 371.029	688813.6	688813.6	97.966	%			16:37:20
1	Ag 328.068†	1201.2	978.8	4.8829	ug/L	4.8829	ppb	16:37:20
1	As 188.979†	29.6	52.3	28.268	ug/L	28.268	ppb	16:37:40
1	B 249.677†	1529.3	1748.1	47.690	ug/L	47.690	ppb	16:37:20
1	Ba 233.527†	570.1	570.4	5.1989	ug/L	5.1989	ppb	16:37:40
1	Be 313.107†	8126.9	12079.4	5.0080	ug/L	5.0080	ppb	16:37:20
1	Cd 226.502†	179.6	340.4	4.7484	ug/L	4.7484	ppb	16:37:40
1	Co 228.616†	154.3	206.0	5.2382	ug/L	5.2382	ppb	16:37:40
1	Cr 267.716†	456.3	385.2	4.9646	ug/L	4.9646	ppb	16:37:40
1	Cu 324.752†	8764.7	3175.3	10.209	ug/L	10.209	ppb	16:37:20
1	Mn 257.610†	8489.5	8252.2	10.652	ug/L	10.652	ppb	16:37:20
1	Mo 202.031†	129.6	121.6	10.434	ug/L	10.434	ppb	16:37:40
1	Ni 231.604†	260.9	178.7	5.5227	ug/L	5.5227	ppb	16:37:40
1	P 214.914†	375.3	200.7	144.48	ug/L	144.48	ppb	16:37:40
1	Pb 220.353†	6.5	56.5	8.5107	ug/L	8.5107	ppb	16:37:40
1	S 181.975 Axial†	82.1	55.0	96.285	ug/L	96.285	ppb	16:37:40
1	Sb 206.836†	54.0	26.7	11.186	ug/L	11.186	ppb	16:37:40
1	Se 196.026†	18.2	38.4	31.145	ug/L	31.145	ppb	16:37:40
1	Si 251.611†	3100.1	2666.1	97.157	ug/L	97.157	ppb	16:37:40
1	Sn 189.927†	44.4	41.4	9.0975	ug/L	9.0975	ppb	16:37:40
1	Ti 334.940†	1798.0	2948.0	5.0065	ug/L	5.0065	ppb	16:37:20
1	Tl 190.801†	21.3	47.6	18.048	ug/L	18.048	ppb	16:37:40
1	U 409.014†	-738.3	1494.0	42.715	ug/L	42.715	ppb	16:37:20
1	V 292.402†	-670.5	607.3	4.8784	ug/L	4.8784	ppb	16:37:20
1	Zn 213.857†	1946.9	1068.1	12.460	ug/L	12.460	ppb	16:37:40
1	SiO2†	3215.4	2779.0	216.28	ug/L	216.28	ppb	16:38:37
2	Sc Radial	4416.9	4416.9	100	%			16:36:29
2	Y RADIAL	4794.9	4794.9	99.85	%			16:36:29
2	Al 396.153Radial†	134.0	207.3	201.15	ug/L	201.15	ppb	16:36:49
2	Ca 317.933Radial†	134.2	113.1	207.63	ug/L	207.63	ppb	16:36:49
2	Fe 238.204 Radial†	15.7	8.3	92.962	ug/L	92.962	ppb	16:36:49
2	K 766.490 Radial†	3263.2	649.0	125.77	ug/L	125.77	ppb	16:36:29
2	Mg 279.077 IEC†	8.9	7.8	312.41	ug/L	312.41	ppb	16:36:49
2	Na 589.592 Radial†	-45.7	861.6	294.87	ug/L	294.87	ppb	16:36:29
2	Sr 421.552†	669.5	648.7	5.0151	ug/L	5.0151	ppb	16:36:29
2	Sc 361.383	799972.6	799972.6	96.717	%			16:37:46
2	Y 371.029	680559.1	680559.1	96.792	%			16:37:46
2	Ag 328.068†	1187.7	978.9	4.8586	ug/L	4.8586	ppb	16:37:46
2	As 188.979†	36.1	59.4	32.061	ug/L	32.061	ppb	16:38:06
2	B 249.677†	1461.9	1696.4	46.284	ug/L	46.284	ppb	16:37:46
2	Ba 233.527†	557.7	564.2	5.1405	ug/L	5.1405	ppb	16:38:06
2	Be 313.107†	7947.4	11989.3	4.9708	ug/L	4.9708	ppb	16:37:46
2	Cd 226.502†	184.4	347.4	4.8524	ug/L	4.8524	ppb	16:38:06
2	Co 228.616†	152.4	205.9	5.2331	ug/L	5.2331	ppb	16:38:06
2	Cr 267.716†	458.5	392.9	5.0537	ug/L	5.0537	ppb	16:38:06
2	Cu 324.752†	8765.7	3279.3	10.534	ug/L	10.534	ppb	16:37:46
2	Mn 257.610†	8329.2	8186.1	10.563	ug/L	10.563	ppb	16:37:46
2	Mo 202.031†	117.0	110.1	9.4464	ug/L	9.4464	ppb	16:38:06
2	Ni 231.604†	227.5	147.3	4.5510	ug/L	4.5510	ppb	16:38:06

2	P 214.914†	384.1	214.2	154.34 ug/L	154.34 ppb	16:38:06
2	Pb 220.353†	21.9	72.5	10.920 ug/L	10.920 ppb	16:38:06
2	S 181.975 Axial†	82.6	56.5	98.948 ug/L	98.948 ppb	16:38:06
2	Sb 206.836†	46.4	19.4	8.2510 ug/L	8.2510 ppb	16:38:06
2	Se 196.026†	22.4	42.9	34.607 ug/L	34.607 ppb	16:38:06
2	Si 251.611†	3108.3	2711.0	98.807 ug/L	98.807 ppb	16:38:06
2	Sn 189.927†	55.2	53.1	11.658 ug/L	11.658 ppb	16:38:06
2	Ti 334.940†	1824.3	2996.3	5.0820 ug/L	5.0820 ppb	16:37:46
2	Tl 190.801†	18.4	44.9	17.038 ug/L	17.038 ppb	16:38:06
2	U 409.014†	-279.5	1959.7	56.042 ug/L	56.042 ppb	16:37:46
2	V 292.402†	-731.4	536.5	4.3512 ug/L	4.3512 ppb	16:37:46
2	Zn 213.857†	1954.9	1099.2	12.837 ug/L	12.837 ppb	16:38:06
2	SiO2†	3170.3	2770.1	215.61 ug/L	215.61 ppb	16:38:42
3	Sc Radial	4441.9	4441.9	101 %		16:36:54
3	Y RADIAL	4821.5	4821.5	100.4 %		16:36:54
3	Al 396.153Radial†	147.6	220.1	213.49 ug/L	213.49 ppb	16:37:14
3	Ca 317.933Radial†	126.5	104.7	192.19 ug/L	192.19 ppb	16:37:14
3	Fe 238.204 Radial†	18.4	10.9	121.62 ug/L	121.62 ppb	16:37:14
3	K 766.490 Radial†	3201.5	569.3	110.30 ug/L	110.30 ppb	16:36:54
3	Mg 279.077 IEC†	9.6	8.5	338.01 ug/L	338.01 ppb	16:37:14
3	Na 589.592 Radial†	-37.5	870.0	297.74 ug/L	297.74 ppb	16:36:54
3	Sr 421.552†	672.0	647.5	5.0058 ug/L	5.0058 ppb	16:36:54
3	Sc 361.383	815270.4	815270.4	98.567 %		16:38:11
3	Y 371.029	694141.8	694141.8	98.723 %		16:38:11
3	Ag 328.068†	1246.6	1015.6	5.0513 ug/L	5.0513 ppb	16:38:11
3	As 188.979†	32.2	54.8	29.604 ug/L	29.604 ppb	16:38:31
3	B 249.677†	1535.0	1742.1	47.529 ug/L	47.529 ppb	16:38:11
3	Ba 233.527†	553.0	548.7	5.0002 ug/L	5.0002 ppb	16:38:31
3	Be 313.107†	8138.6	12029.1	4.9869 ug/L	4.9869 ppb	16:38:11
3	Cd 226.502†	164.1	323.3	4.5125 ug/L	4.5125 ppb	16:38:31
3	Co 228.616†	149.4	199.9	5.0824 ug/L	5.0824 ppb	16:38:31
3	Cr 267.716†	432.4	357.5	4.6007 ug/L	4.6007 ppb	16:38:31
3	Cu 324.752†	8759.8	3103.2	9.9692 ug/L	9.9692 ppb	16:38:11
3	Mn 257.610†	8508.9	8206.8	10.591 ug/L	10.591 ppb	16:38:11
3	Mo 202.031†	128.2	119.1	10.222 ug/L	10.222 ppb	16:38:31
3	Ni 231.604†	256.6	172.5	5.3290 ug/L	5.3290 ppb	16:38:31
3	P 214.914†	385.3	208.0	149.90 ug/L	149.90 ppb	16:38:31
3	Pb 220.353†	7.0	56.9	8.5864 ug/L	8.5864 ppb	16:38:31
3	S 181.975 Axial†	88.6	60.9	106.77 ug/L	106.77 ppb	16:38:31
3	Sb 206.836†	48.0	20.1	8.5540 ug/L	8.5540 ppb	16:38:31
3	Se 196.026†	19.1	39.2	31.749 ug/L	31.749 ppb	16:38:31
3	Si 251.611†	3115.0	2657.5	96.847 ug/L	96.847 ppb	16:38:31
3	Sn 189.927†	53.7	50.6	11.095 ug/L	11.095 ppb	16:38:31
3	Ti 334.940†	1736.9	2872.2	4.8670 ug/L	4.8670 ppb	16:38:11
3	Tl 190.801†	24.2	50.4	19.114 ug/L	19.114 ppb	16:38:31
3	U 409.014†	-313.2	1930.9	55.215 ug/L	55.215 ppb	16:38:11
3	V 292.402†	-732.6	549.4	4.4566 ug/L	4.4566 ppb	16:38:11
3	Zn 213.857†	1956.8	1063.2	12.406 ug/L	12.406 ppb	16:38:31
3	SiO2†	3237.7	2777.0	216.13 ug/L	216.13 ppb	16:38:47

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	808135.5	97.704	%	0.9310				0.95%
Sc Radial	4434.6	100	%	0.3				0.35%
Y 371.029	687838.2	97.827	%	0.9733				0.99%
Y RADIAL	4817.9	100.3	%	0.45				0.44%
Ag 328.068†	991.1	4.9310	ug/L	0.10494	4.9310	ppb	0.10494	2.13%
QC value within limits for Ag 328.068 Recovery = 98.62%								
Al 396.153Radial†	210.7	204.40	ug/L	7.983	204.40	ppb	7.983	3.91%
QC value within limits for Al 396.153Radial Recovery = 102.20%								
As 188.979†	55.5	29.978	ug/L	1.9242	29.978	ppb	1.9242	6.42%
QC value within limits for As 188.979 Recovery = 99.93%								
B 249.677†	1728.8	47.168	ug/L	0.7694	47.168	ppb	0.7694	1.63%
QC value within limits for B 249.677 Recovery = 94.34%								
Ba 233.527†	561.1	5.1132	ug/L	0.10214	5.1132	ppb	0.10214	2.00%
QC value within limits for Ba 233.527 Recovery = 102.26%								
Be 313.107†	12032.6	4.9886	ug/L	0.01862	4.9886	ppb	0.01862	0.37%
QC value within limits for Be 313.107 Recovery = 99.77%								
Ca 317.933Radial†	109.7	201.37	ug/L	8.125	201.37	ppb	8.125	4.03%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.69%
Cd 226.502†              337.0      4.7044 ug/L       0.17415      4.7044 ppb        0.17415   3.70%
   QC value within limits for Cd 226.502  Recovery = 94.09%
Co 228.616†              204.0      5.1846 ug/L       0.08851      5.1846 ppb        0.08851   1.71%
   QC value within limits for Co 228.616  Recovery = 103.69%
Cr 267.716†              378.5      4.8730 ug/L       0.23997      4.8730 ppb        0.23997   4.92%
   QC value within limits for Cr 267.716  Recovery = 97.46%
Cu 324.752†             3185.9      10.237 ug/L        0.2837      10.237 ppb         0.2837   2.77%
   QC value within limits for Cu 324.752  Recovery = 102.37%
Fe 238.204 Radial†        10.3      115.13 ug/L        19.742      115.13 ppb         19.742  17.15%
   QC value within limits for Fe 238.204 Radial  Recovery = 115.13%
K 766.490 Radial†        645.8      125.14 ug/L        14.540      125.14 ppb         14.540  11.62%
   QC value within limits for K 766.490 Radial  Recovery = 83.43%
Mg 279.077 IEC†           7.9      315.40 ug/L        21.274      315.40 ppb         21.274   6.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.13%
Mn 257.610†             8215.0      10.602 ug/L        0.0459      10.602 ppb         0.0459   0.43%
   QC value within limits for Mn 257.610  Recovery = 106.02%
Mo 202.031†              117.0      10.034 ug/L        0.5198      10.034 ppb         0.5198   5.18%
   QC value within limits for Mo 202.031  Recovery = 100.34%
Na 589.592 Radial†       875.5      299.62 ug/L         5.923      299.62 ppb          5.923   1.98%
   QC value within limits for Na 589.592 Radial  Recovery = 99.87%
Ni 231.604†              166.2      5.1342 ug/L       0.51428      5.1342 ppb        0.51428  10.02%
   QC value within limits for Ni 231.604  Recovery = 102.68%
P 214.914†               207.6      149.58 ug/L         4.939      149.58 ppb          4.939   3.30%
   QC value within limits for P 214.914  Recovery = 99.72%
Pb 220.353†               62.0      9.3389 ug/L       1.36951      9.3389 ppb        1.36951  14.66%
   QC value within limits for Pb 220.353  Recovery = 93.39%
S 181.975 Axial†          57.5      100.67 ug/L         5.447      100.67 ppb          5.447   5.41%
   QC value within limits for S 181.975 Axial  Recovery = 100.67%
Sb 206.836†               22.1      9.3302 ug/L       1.61394      9.3302 ppb        1.61394  17.30%
   QC value within limits for Sb 206.836  Recovery = 93.30%
Se 196.026†               40.1      32.501 ug/L        1.8489      32.501 ppb         1.8489   5.69%
   QC value within limits for Se 196.026  Recovery = 108.34%
Si 251.611†             2678.2      97.604 ug/L        1.0539      97.604 ppb         1.0539   1.08%
   QC value within limits for Si 251.611  Recovery = 97.60%
Sn 189.927†               48.4      10.617 ug/L        1.3454      10.617 ppb         1.3454  12.67%
   QC value within limits for Sn 189.927  Recovery = 106.17%
Sr 421.552†              650.1      5.0265 ug/L       0.02808      5.0265 ppb        0.02808   0.56%
   QC value within limits for Sr 421.552  Recovery = 100.53%
Ti 334.940†             2938.8      4.9852 ug/L       0.10906      4.9852 ppb        0.10906   2.19%
   QC value within limits for Ti 334.940  Recovery = 99.70%
Tl 190.801†               47.6      18.066 ug/L        1.0383      18.066 ppb         1.0383   5.75%
   QC value within limits for Tl 190.801  Recovery = 90.33%
U 409.014†              1794.9      51.324 ug/L        7.4673      51.324 ppb         7.4673  14.55%
   QC value within limits for U 409.014  Recovery = 102.65%
V 292.402†               564.4      4.5621 ug/L       0.27895      4.5621 ppb        0.27895   6.11%
   QC value within limits for V 292.402  Recovery = 91.24%
Zn 213.857†             1076.8      12.568 ug/L        0.2349      12.568 ppb         0.2349   1.87%
   QC value within limits for Zn 213.857  Recovery = 125.68%
SiO2†                   2775.4      216.01 ug/L         0.350      216.01 ppb          0.350   0.16%
   QC value within limits for SiO2  Recovery = 101.41%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 3/17/2010 16:40:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3993.7	3993.7	90.4	%			16:43:11
1	Y RADIAL	4307.9	4307.9	89.70	%			16:43:11
1	Al 396.153Radial†	483919.3	535223.4	520410	ug/L	520410	ppb	16:42:51
1	Ca 317.933Radial†	237874.4	263036.3	482780	ug/L	482780	ppb	16:42:51
1	Fe 238.204 Radial†	15234.4	16839.8	187970	ug/L	187970	ppb	16:43:11
1	K 766.490 Radial†	2071.5	-323.2	-224.21	ug/L	-224.21	ppb	16:42:51
1	Mg 279.077 IEC†	11184.4	12367.4	492030	ug/L	492030	ppb	16:43:11
1	Na 589.592 Radial†	-745.4	83.0	28.420	ug/L	28.420	ppb	16:43:11
1	Sr 421.552†	455.6	483.1	0.1314	ug/L	0.1314	ppb	16:43:11
1	Sc 361.383	698985.3	698985.3	84.508	%			16:44:08
1	Y 371.029	580876.5	580876.5	82.614	%			16:44:08
1	Ag 328.068†	-8710.0	-10555.9	-0.8334	ug/L	-0.8334	ppb	16:44:08
1	As 188.979†	-69.1	-59.7	11.634	ug/L	11.634	ppb	16:44:29
1	B 249.677†	349.3	598.1	-14.199	ug/L	-14.199	ppb	16:44:08
1	Ba 233.527†	-491.4	-593.9	0.3528	ug/L	0.3528	ppb	16:44:29
1	Be 313.107†	-4044.2	-1013.5	-0.4778	ug/L	-0.4778	ppb	16:44:08
1	Cd 226.502†	1031.9	1377.9	-0.1789	ug/L	-0.1789	ppb	16:44:29
1	Co 228.616†	6.7	56.3	-1.2719	ug/L	-1.2719	ppb	16:44:29
1	Cr 267.716†	-1178.2	-1475.4	0.9194	ug/L	0.9194	ppb	16:44:29
1	Cu 324.752†	3111.5	-2102.0	3.1595	ug/L	3.1595	ppb	16:44:08
1	Mn 257.610†	-71.0	-509.8	-2.2191	ug/L	-2.2191	ppb	16:44:08
1	Mo 202.031†	-182.4	-226.7	0.9067	ug/L	0.9067	ppb	16:44:29
1	Ni 231.604†	162.2	104.1	3.2163	ug/L	3.2163	ppb	16:44:29
1	P 214.914†	153.4	-1.4	-22.159	ug/L	-22.159	ppb	16:44:29
1	Pb 220.353†	-640.0	-707.5	-10.943	ug/L	-10.943	ppb	16:44:29
1	S 181.975 Axial†	39.9	18.3	-65.413	ug/L	-65.413	ppb	16:44:29
1	Sb 206.836†	44.3	23.8	-8.0560	ug/L	-8.0560	ppb	16:44:29
1	Se 196.026†	-758.8	-878.2	4.4310	ug/L	4.4310	ppb	16:44:29
1	Si 251.611†	408.4	-19.5	-0.4739	ug/L	-0.4739	ppb	16:44:29
1	Sn 189.927†	-328.9	-393.2	-11.094	ug/L	-11.094	ppb	16:44:29
1	Ti 334.940†	-13742.7	-15152.1	-1.2814	ug/L	-1.2814	ppb	16:44:08
1	Tl 190.801†	-57.4	-42.1	-16.174	ug/L	-16.174	ppb	16:44:29
1	U 409.014†	-815.7	1283.5	15.332	ug/L	15.332	ppb	16:44:08
1	V 292.402†	543.9	1936.3	-3.1500	ug/L	-3.1500	ppb	16:44:29
1	Zn 213.857†	2799.8	2391.0	-0.0929	ug/L	-0.0929	ppb	16:44:29
1	SiO2†	375.5	-63.5	-4.4177	ug/L	-4.4177	ppb	16:45:25
2	Sc Radial	3989.2	3989.2	90.3	%			16:43:36
2	Y RADIAL	4322.3	4322.3	90.00	%			16:43:36
2	Al 396.153Radial†	481032.8	532633.1	517890	ug/L	517890	ppb	16:43:16
2	Ca 317.933Radial†	236686.0	262018.1	480910	ug/L	480910	ppb	16:43:16
2	Fe 238.204 Radial†	15195.0	16815.2	187690	ug/L	187690	ppb	16:43:36
2	K 766.490 Radial†	2093.5	-296.3	-218.36	ug/L	-218.36	ppb	16:43:16
2	Mg 279.077 IEC†	11178.5	12374.9	492330	ug/L	492330	ppb	16:43:36
2	Na 589.592 Radial†	-790.9	31.7	10.852	ug/L	10.852	ppb	16:43:36
2	Sr 421.552†	475.5	505.7	0.3203	ug/L	0.3203	ppb	16:43:36
2	Sc 361.383	700154.6	700154.6	84.649	%			16:44:34
2	Y 371.029	581267.7	581267.7	82.670	%			16:44:34
2	Ag 328.068†	-8717.0	-10546.9	-0.8516	ug/L	-0.8516	ppb	16:44:34
2	As 188.979†	-68.9	-59.3	11.790	ug/L	11.790	ppb	16:44:54
2	B 249.677†	306.9	547.4	-15.540	ug/L	-15.540	ppb	16:44:34
2	Ba 233.527†	-479.9	-579.4	0.4765	ug/L	0.4765	ppb	16:44:54
2	Be 313.107†	-3981.5	-931.4	-0.4445	ug/L	-0.4445	ppb	16:44:34
2	Cd 226.502†	1038.5	1383.6	-0.0694	ug/L	-0.0694	ppb	16:44:54
2	Co 228.616†	18.0	69.6	-0.9321	ug/L	-0.9321	ppb	16:44:54
2	Cr 267.716†	-1175.0	-1469.2	0.9678	ug/L	0.9678	ppb	16:44:54
2	Cu 324.752†	3208.6	-1993.4	3.4927	ug/L	3.4927	ppb	16:44:34
2	Mn 257.610†	6.9	-417.6	-2.1393	ug/L	-2.1393	ppb	16:44:34
2	Mo 202.031†	-187.9	-232.9	0.3366	ug/L	0.3366	ppb	16:44:54
2	Ni 231.604†	168.3	110.9	3.4277	ug/L	3.4277	ppb	16:44:54

2	P 214.914†	158.1	3.8	-18.818	ug/L	-18.818 ppb	16:44:54
2	Pb 220.353†	-629.1	-693.3	-9.3568	ug/L	-9.3568 ppb	16:44:54
2	S 181.975 Axial†	41.1	19.6	-62.748	ug/L	-62.748 ppb	16:44:54
2	Sb 206.836†	58.5	40.5	-1.2354	ug/L	-1.2354 ppb	16:44:54
2	Se 196.026†	-750.0	-866.3	12.313	ug/L	12.313 ppb	16:44:54
2	Si 251.611†	365.2	-71.4	-2.3580	ug/L	-2.3580 ppb	16:44:54
2	Sn 189.927†	-337.2	-402.3	-13.398	ug/L	-13.398 ppb	16:44:54
2	Ti 334.940†	-13893.6	-15303.1	-1.8153	ug/L	-1.8153 ppb	16:44:34
2	Tl 190.801†	-67.8	-54.3	-20.792	ug/L	-20.792 ppb	16:44:54
2	U 409.014†	-714.0	1405.1	18.844	ug/L	18.844 ppb	16:44:34
2	V 292.402†	526.6	1914.8	-3.2700	ug/L	-3.2700 ppb	16:44:54
2	Zn 213.857†	2793.5	2378.1	-0.2054	ug/L	-0.2054 ppb	16:44:54
2	SiO2†	410.8	-22.5	-1.2084	ug/L	-1.2084 ppb	16:45:30
3	Sc Radial	4009.4	4009.4	90.8	%		16:44:02
3	Y RADIAL	4329.9	4329.9	90.16	%		16:44:02
3	Al 396.153Radial†	478290.5	526934.2	512350	ug/L	512350 ppb	16:43:42
3	Ca 317.933Radial†	234808.1	258631.7	474700	ug/L	474700 ppb	16:43:42
3	Fe 238.204 Radial†	15259.5	16801.6	187540	ug/L	187540 ppb	16:44:02
3	K 766.490 Radial†	2140.3	-256.4	-208.53	ug/L	-208.53 ppb	16:43:42
3	Mg 279.077 IEC†	11238.7	12379.0	492490	ug/L	492490 ppb	16:44:02
3	Na 589.592 Radial†	-798.7	27.5	9.4202	ug/L	9.4202 ppb	16:44:02
3	Sr 421.552†	473.9	501.3	0.3321	ug/L	0.3321 ppb	16:44:02
3	Sc 361.383	705208.4	705208.4	85.260	%		16:44:59
3	Y 371.029	586302.6	586302.6	83.386	%		16:44:59
3	Ag 328.068†	-8655.5	-10401.0	-0.0873	ug/L	-0.0873 ppb	16:44:59
3	As 188.979†	-75.3	-66.2	8.0314	ug/L	8.0314 ppb	16:45:19
3	B 249.677†	228.4	452.7	-18.100	ug/L	-18.100 ppb	16:44:59
3	Ba 233.527†	-486.7	-583.3	0.4363	ug/L	0.4363 ppb	16:45:19
3	Be 313.107†	-4050.5	-978.6	-0.4634	ug/L	-0.4634 ppb	16:44:59
3	Cd 226.502†	1076.3	1419.1	0.4413	ug/L	0.4413 ppb	16:45:19
3	Co 228.616†	22.1	74.2	-0.8176	ug/L	-0.8176 ppb	16:45:19
3	Cr 267.716†	-1193.5	-1481.0	0.8018	ug/L	0.8018 ppb	16:45:19
3	Cu 324.752†	3193.3	-2038.6	3.3411	ug/L	3.3411 ppb	16:44:59
3	Mn 257.610†	-56.8	-492.4	-2.2576	ug/L	-2.2576 ppb	16:44:59
3	Mo 202.031†	-212.3	-259.9	-2.0678	ug/L	-2.0678 ppb	16:45:19
3	Ni 231.604†	180.8	124.1	3.8353	ug/L	3.8353 ppb	16:45:19
3	P 214.914†	154.3	-2.0	-24.237	ug/L	-24.237 ppb	16:45:19
3	Pb 220.353†	-625.4	-683.7	-9.2184	ug/L	-9.2184 ppb	16:45:19
3	S 181.975 Axial†	38.6	16.4	-67.303	ug/L	-67.303 ppb	16:45:19
3	Sb 206.836†	54.8	35.7	-3.0310	ug/L	-3.0310 ppb	16:45:19
3	Se 196.026†	-760.8	-872.6	5.0644	ug/L	5.0644 ppb	16:45:19
3	Si 251.611†	366.6	-72.8	-2.3823	ug/L	-2.3823 ppb	16:45:19
3	Sn 189.927†	-326.4	-386.8	-11.116	ug/L	-11.116 ppb	16:45:19
3	Ti 334.940†	-13851.7	-15136.3	-2.3766	ug/L	-2.3766 ppb	16:44:59
3	Tl 190.801†	-83.9	-72.6	-27.711	ug/L	-27.711 ppb	16:45:19
3	U 409.014†	-823.9	1282.3	15.347	ug/L	15.347 ppb	16:44:59
3	V 292.402†	516.8	1898.8	-3.4074	ug/L	-3.4074 ppb	16:45:19
3	Zn 213.857†	2806.5	2369.6	-0.2843	ug/L	-0.2843 ppb	16:45:19
3	SiO2†	405.1	-32.6	-1.9364	ug/L	-1.9364 ppb	16:45:35

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	701449.4	84.806	%	0.3999				0.47%
Sc Radial	3997.5	90.5	%	0.24				0.26%
Y 371.029	582815.6	82.890	%	0.4304				0.52%
Y RADIAL	4320.1	89.96	%	0.233				0.26%
Ag 328.068†	-10501.3	-0.5907	ug/L	0.43612	-0.5907	ppb	0.43612	73.83%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	531596.9	516890	ug/L	4123.2	516890	ppb	4123.2	0.80%
QC value within limits for Al 396.153Radial Recovery = 103.38%								
As 188.979†	-61.8	10.485	ug/L	2.1264	10.485	ppb	2.1264	20.28%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	532.7	-15.947	ug/L	1.9821	-15.947	ppb	1.9821	12.43%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-585.5	0.4219	ug/L	0.06309	0.4219	ppb	0.06309	14.96%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-974.5	-0.4619	ug/L	0.01674	-0.4619	ppb	0.01674	3.62%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	261228.7	479460	ug/L	4232.4	479460	ppb	4232.4	0.88%

```
   QC value within limits for Ca 317.933Radial  Recovery = 95.89%
Cd 226.502†            1393.5      0.0643 ug/L       0.33103      0.0643 ppb        0.33103 514.53%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              66.7     -1.0072 ug/L       0.23628     -1.0072 ppb        0.23628  23.46%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†           -1475.2      0.8963 ug/L       0.08534      0.8963 ppb        0.08534   9.52%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -2044.7      3.3311 ug/L       0.16684      3.3311 ppb        0.16684   5.01%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    16818.9      187730 ug/L         215.9      187730 ppb          215.9   0.11%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.87%
K 766.490 Radial†      -291.9     -217.03 ug/L         7.923     -217.03 ppb          7.923   3.65%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       12373.7      492280 ug/L         234.5      492280 ppb          234.5   0.05%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.46%
Mn 257.610†            -473.3     -2.2053 ug/L       0.06031     -2.2053 ppb        0.06031   2.73%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -239.8     -0.2748 ug/L       1.57870     -0.2748 ppb        1.57870 574.44%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       47.4      16.231 ug/L       10.5801      16.231 ppb        10.5801  65.19%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             113.0      3.4931 ug/L       0.31462      3.4931 ppb        0.31462   9.01%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                0.1     -21.738 ug/L        2.7341     -21.738 ppb         2.7341  12.58%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -694.9     -9.8393 ug/L       0.95810     -9.8393 ppb        0.95810   9.74%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         18.1     -65.155 ug/L        2.2888     -65.155 ppb         2.2888   3.51%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              33.4     -4.1075 ug/L       3.53541     -4.1075 ppb        3.53541  86.07%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -872.4      7.2695 ug/L       4.37932      7.2695 ppb        4.37932  60.24%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -54.6     -1.7380 ug/L       1.09488     -1.7380 ppb        1.09488  62.99%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -394.1     -11.869 ug/L        1.3237     -11.869 ppb         1.3237  11.15%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             496.7      0.2613 ug/L       0.11264      0.2613 ppb        0.11264  43.11%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -15197.1     -1.8244 ug/L       0.54764     -1.8244 ppb        0.54764  30.02%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -56.3     -21.559 ug/L        5.8068     -21.559 ppb         5.8068  26.93%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             1323.6      16.507 ug/L        2.0232      16.507 ppb         2.0232  12.26%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             1916.6     -3.2758 ug/L       0.12882     -3.2758 ppb        0.12882   3.93%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2379.6     -0.1942 ug/L       0.09621     -0.1942 ppb        0.09621  49.55%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -39.5     -2.5209 ug/L       1.68255     -2.5209 ppb        1.68255  66.75%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 3/17/2010 16:47:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3895.9	3895.9	88.2	%			16:49:59
1	Y RADIAL	4246.6	4246.6	88.43	%			16:49:59
1	Al 396.153Radial†	480406.6	544679.4	529580	ug/L	529580	ppb	16:49:39
1	Ca 317.933Radial†	231850.5	262812.9	482370	ug/L	482370	ppb	16:49:39
1	Fe 238.204 Radial†	14404.7	16322.2	182200	ug/L	182200	ppb	16:49:59
1	K 766.490 Radial†	27397.9	28445.2	5357.0	ug/L	5357.0	ppb	16:49:39
1	Mg 279.077 IEC†	10849.3	12298.1	489280	ug/L	489280	ppb	16:49:59
1	Na 589.592 Radial†	12203.2	14741.3	5045.1	ug/L	5045.1	ppb	16:49:59
1	Sr 421.552†	56618.4	64163.9	492.62	ug/L	492.62	ppb	16:49:39
1	Sc 361.383	705629.9	705629.9	85.311	%			16:50:57
1	Y 371.029	585816.1	585816.1	83.317	%			16:50:57
1	Ag 328.068†	37586.6	43809.2	269.04	ug/L	269.04	ppb	16:50:57
1	As 188.979†	732.6	880.8	520.86	ug/L	520.86	ppb	16:51:17
1	B 249.677†	16515.2	19543.6	502.69	ug/L	502.69	ppb	16:50:57
1	Ba 233.527†	45536.3	53364.4	491.76	ug/L	491.76	ppb	16:50:57
1	Be 313.107†	505268.2	596038.1	247.65	ug/L	247.65	ppb	16:50:57
1	Cd 226.502†	29443.4	34669.8	465.37	ug/L	465.37	ppb	16:51:17
1	Co 228.616†	15300.8	17983.7	453.61	ug/L	453.61	ppb	16:51:17
1	Cr 267.716†	30801.7	36024.0	483.78	ug/L	483.78	ppb	16:50:57
1	Cu 324.752†	147673.5	167316.2	548.17	ug/L	548.17	ppb	16:50:57
1	Mn 257.610†	319619.7	374226.4	481.01	ug/L	481.01	ppb	16:50:57
1	Mo 202.031†	4710.2	5510.3	492.11	ug/L	492.11	ppb	16:51:17
1	Ni 231.604†	12722.2	14824.8	458.07	ug/L	458.07	ppb	16:51:17
1	P 214.914†	3115.3	3468.8	2414.0	ug/L	2414.0	ppb	16:51:17
1	Pb 220.353†	2018.4	2415.8	460.98	ug/L	460.98	ppb	16:51:17
1	S 181.975 Axial†	1345.8	1548.5	2614.8	ug/L	2614.8	ppb	16:51:17
1	Sb 206.836†	1169.7	1342.5	545.50	ug/L	545.50	ppb	16:51:17
1	Se 196.026†	1987.7	2349.7	2571.4	ug/L	2571.4	ppb	16:51:17
1	Si 251.611†	121931.3	142422.7	5191.2	ug/L	5191.2	ppb	16:50:57
1	Sn 189.927†	1608.9	1882.0	487.24	ug/L	487.24	ppb	16:51:17
1	Ti 334.940†	243564.2	286611.4	512.75	ug/L	512.75	ppb	16:50:57
1	Tl 190.801†	979.4	1173.9	447.28	ug/L	447.28	ppb	16:51:17
1	U 409.014†	13471.7	18039.9	494.28	ug/L	494.28	ppb	16:50:57
1	V 292.402†	56306.0	67293.5	507.36	ug/L	507.36	ppb	16:50:57
1	Zn 213.857†	38710.0	44453.1	490.54	ug/L	490.54	ppb	16:50:57
1	SiO2†	122243.8	142784.1	11114	ug/L	11114	ppb	16:52:15
2	Sc Radial	3934.7	3934.7	89.1	%			16:50:25
2	Y RADIAL	4274.4	4274.4	89.01	%			16:50:25
2	Al 396.153Radial†	477397.4	535930.4	521080	ug/L	521080	ppb	16:50:04
2	Ca 317.933Radial†	230178.0	258343.4	474170	ug/L	474170	ppb	16:50:04
2	Fe 238.204 Radial†	14436.8	16197.3	180810	ug/L	180810	ppb	16:50:25
2	K 766.490 Radial†	27422.3	28166.3	5305.6	ug/L	5305.6	ppb	16:50:04
2	Mg 279.077 IEC†	10853.1	12181.1	484630	ug/L	484630	ppb	16:50:25
2	Na 589.592 Radial†	12219.0	14622.6	5004.5	ug/L	5004.5	ppb	16:50:25
2	Sr 421.552†	56285.2	63156.9	484.89	ug/L	484.89	ppb	16:50:04
2	Sc 361.383	711489.9	711489.9	86.020	%			16:51:23
2	Y 371.029	589706.9	589706.9	83.870	%			16:51:23
2	Ag 328.068†	37902.6	43813.7	268.74	ug/L	268.74	ppb	16:51:23
2	As 188.979†	746.2	889.6	525.32	ug/L	525.32	ppb	16:51:43
2	B 249.677†	16791.1	19705.0	507.35	ug/L	507.35	ppb	16:51:23
2	Ba 233.527†	45918.2	53368.7	491.75	ug/L	491.75	ppb	16:51:23
2	Be 313.107†	508251.7	594628.4	247.07	ug/L	247.07	ppb	16:51:23
2	Cd 226.502†	29244.0	34153.8	458.31	ug/L	458.31	ppb	16:51:43
2	Co 228.616†	15173.7	17688.2	446.11	ug/L	446.11	ppb	16:51:43
2	Cr 267.716†	30994.6	35950.9	482.69	ug/L	482.69	ppb	16:51:23
2	Cu 324.752†	148947.2	167371.2	548.28	ug/L	548.28	ppb	16:51:23
2	Mn 257.610†	322219.6	374163.1	480.98	ug/L	480.98	ppb	16:51:23
2	Mo 202.031†	4654.2	5399.7	482.42	ug/L	482.42	ppb	16:51:43
2	Ni 231.604†	12631.5	14596.5	451.01	ug/L	451.01	ppb	16:51:43

2	P 214.914†	3097.1	3417.6	2375.5 ug/L	2375.5 ppb	16:51:43
2	Pb 220.353†	2013.4	2390.5	455.37 ug/L	455.37 ppb	16:51:43
2	S 181.975 Axial†	1337.3	1525.7	2576.3 ug/L	2576.3 ppb	16:51:43
2	Sb 206.836†	1177.3	1340.1	544.41 ug/L	544.41 ppb	16:51:43
2	Se 196.026†	1956.9	2294.7	2520.6 ug/L	2520.6 ppb	16:51:43
2	Si 251.611†	122869.9	142336.8	5188.2 ug/L	5188.2 ppb	16:51:23
2	Sn 189.927†	1586.1	1839.9	476.65 ug/L	476.65 ppb	16:51:43
2	Ti 334.940†	246134.9	287248.5	513.12 ug/L	513.12 ppb	16:51:23
2	Tl 190.801†	964.8	1147.4	437.32 ug/L	437.32 ppb	16:51:43
2	U 409.014†	13587.7	18044.8	494.58 ug/L	494.58 ppb	16:51:23
2	V 292.402†	56516.5	66994.6	505.04 ug/L	505.04 ppb	16:51:23
2	Zn 213.857†	39022.6	44442.8	490.67 ug/L	490.67 ppb	16:51:23
2	SiO2†	123832.4	143450.7	11166 ug/L	11166 ppb	16:52:20
3	Sc Radial	3908.6	3908.6	88.5 %		16:50:50
3	Y RADIAL	4245.7	4245.7	88.41 %		16:50:50
3	Al 396.153Radial†	478484.7	540735.4	525750 ug/L	525750 ppb	16:50:30
3	Ca 317.933Radial†	229993.7	259859.5	476950 ug/L	476950 ppb	16:50:30
3	Fe 238.204 Radial†	14350.7	16208.1	180930 ug/L	180930 ppb	16:50:50
3	K 766.490 Radial†	27288.7	28220.8	5315.3 ug/L	5315.3 ppb	16:50:30
3	Mg 279.077 IEC†	10835.8	12242.8	487080 ug/L	487080 ppb	16:50:50
3	Na 589.592 Radial†	12077.9	14554.7	4981.2 ug/L	4981.2 ppb	16:50:50
3	Sr 421.552†	56089.0	63356.8	486.41 ug/L	486.41 ppb	16:50:30
3	Sc 361.383	706700.4	706700.4	85.440 %		16:51:49
3	Y 371.029	586352.5	586352.5	83.393 %		16:51:49
3	Ag 328.068†	37507.2	43649.5	267.91 ug/L	267.91 ppb	16:51:49
3	As 188.979†	748.8	898.5	530.12 ug/L	530.12 ppb	16:52:09
3	B 249.677†	16623.3	19640.8	505.56 ug/L	505.56 ppb	16:51:49
3	Ba 233.527†	45462.8	53197.5	490.19 ug/L	490.19 ppb	16:51:49
3	Be 313.107†	503813.5	593438.2	246.58 ug/L	246.58 ppb	16:51:49
3	Cd 226.502†	29387.7	34552.4	463.87 ug/L	463.87 ppb	16:52:09
3	Co 228.616†	15229.2	17872.7	450.81 ug/L	450.81 ppb	16:52:09
3	Cr 267.716†	30584.2	35714.7	479.65 ug/L	479.65 ppb	16:51:49
3	Cu 324.752†	148333.8	167826.7	549.75 ug/L	549.75 ppb	16:51:49
3	Mn 257.610†	318556.7	372414.7	478.64 ug/L	478.64 ppb	16:51:49
3	Mo 202.031†	4680.9	5467.7	488.29 ug/L	488.29 ppb	16:52:09
3	Ni 231.604†	12711.2	14789.4	456.97 ug/L	456.97 ppb	16:52:09
3	P 214.914†	3156.9	3512.0	2445.3 ug/L	2445.3 ppb	16:52:09
3	Pb 220.353†	2006.0	2397.7	457.52 ug/L	457.52 ppb	16:52:09
3	S 181.975 Axial†	1318.4	1514.1	2555.1 ug/L	2555.1 ppb	16:52:09
3	Sb 206.836†	1175.8	1347.6	547.55 ug/L	547.55 ppb	16:52:09
3	Se 196.026†	1955.5	2308.4	2533.5 ug/L	2533.5 ppb	16:52:09
3	Si 251.611†	121786.6	142036.9	5177.1 ug/L	5177.1 ppb	16:51:49
3	Sn 189.927†	1595.6	1863.5	482.30 ug/L	482.30 ppb	16:52:09
3	Ti 334.940†	244175.8	286894.7	512.69 ug/L	512.69 ppb	16:51:49
3	Tl 190.801†	966.4	1156.9	440.88 ug/L	440.88 ppb	16:52:09
3	U 409.014†	13741.4	18331.7	502.78 ug/L	502.78 ppb	16:51:49
3	V 292.402†	56018.5	66857.1	504.11 ug/L	504.11 ppb	16:51:49
3	Zn 213.857†	38640.0	44302.4	488.97 ug/L	488.97 ppb	16:51:49
3	SiO2†	121458.0	141647.4	11026 ug/L	11026 ppb	16:52:25

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	707940.1	85.590	%	0.3773				0.44%
Sc Radial	3913.1	88.6	%	0.45				0.51%
Y 371.029	587291.8	83.527	%	0.2999				0.36%
Y RADIAL	4255.5	88.61	%	0.340				0.38%
Ag 328.068†	43757.5	268.56	ug/L	0.586	268.56	ppb	0.586	0.22%
QC value within limits for Ag 328.068 Recovery = 107.42%								
Al 396.153Radial†	540448.4	525470	ug/L	4260.1	525470	ppb	4260.1	0.81%
QC value within limits for Al 396.153Radial Recovery = 105.09%								
As 188.979†	889.6	525.43	ug/L	4.630	525.43	ppb	4.630	0.88%
QC value within limits for As 188.979 Recovery = 105.09%								
B 249.677†	19629.8	505.20	ug/L	2.348	505.20	ppb	2.348	0.46%
QC value within limits for B 249.677 Recovery = 101.04%								
Ba 233.527†	53310.2	491.23	ug/L	0.900	491.23	ppb	0.900	0.18%
QC value within limits for Ba 233.527 Recovery = 98.25%								
Be 313.107†	594701.6	247.10	ug/L	0.538	247.10	ppb	0.538	0.22%
QC value within limits for Be 313.107 Recovery = 98.84%								
Ca 317.933Radial†	260338.6	477830	ug/L	4171.8	477830	ppb	4171.8	0.87%

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   QC value within limits for Ca 317.933Radial  Recovery = 95.57%
Cd 226.502†            34458.7      462.52 ug/L         3.719      462.52 ppb          3.719   0.80%
   QC value within limits for Cd 226.502  Recovery = 92.50%
Co 228.616†            17848.2      450.18 ug/L         3.789      450.18 ppb          3.789   0.84%
   QC value within limits for Co 228.616  Recovery = 90.04%
Cr 267.716†            35896.5      482.04 ug/L         2.138      482.04 ppb          2.138   0.44%
   QC value within limits for Cr 267.716  Recovery = 96.41%
Cu 324.752†           167504.7      548.73 ug/L         0.879      548.73 ppb          0.879   0.16%
   QC value within limits for Cu 324.752  Recovery = 109.75%
Fe 238.204 Radial†     16242.5      181310 ug/L         772.7      181310 ppb          772.7   0.43%
   QC value within limits for Fe 238.204 Radial  Recovery = 90.66%
K 766.490 Radial†      28277.4      5326.0 ug/L         27.29      5326.0 ppb          27.29   0.51%
   QC value within limits for K 766.490 Radial  Recovery = 106.52%
Mg 279.077 IEC†        12240.6      487000 ug/L        2329.5      487000 ppb         2329.5   0.48%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.40%
Mn 257.610†           373601.4      480.21 ug/L         1.363      480.21 ppb          1.363   0.28%
   QC value within limits for Mn 257.610  Recovery = 96.04%
Mo 202.031†             5459.2      487.61 ug/L         4.879      487.61 ppb          4.879   1.00%
   QC value within limits for Mo 202.031  Recovery = 97.52%
Na 589.592 Radial†     14639.5      5010.3 ug/L         32.34      5010.3 ppb          32.34   0.65%
   QC value within limits for Na 589.592 Radial  Recovery = 100.21%
Ni 231.604†            14736.9      455.35 ug/L         3.796      455.35 ppb          3.796   0.83%
   QC value within limits for Ni 231.604  Recovery = 91.07%
P 214.914†              3466.1      2411.6 ug/L         34.93      2411.6 ppb          34.93   1.45%
   QC value within limits for P 214.914  Recovery = 96.46%
Pb 220.353†             2401.3      457.95 ug/L         2.829      457.95 ppb          2.829   0.62%
   QC value within limits for Pb 220.353  Recovery = 91.59%
S 181.975 Axial†        1529.4      2582.1 ug/L         30.24      2582.1 ppb          30.24   1.17%
   QC value within limits for S 181.975 Axial  Recovery = 103.28%
Sb 206.836†             1343.4      545.82 ug/L         1.596      545.82 ppb          1.596   0.29%
   QC value within limits for Sb 206.836  Recovery = 109.16%
Se 196.026†             2317.6      2541.8 ug/L         26.36      2541.8 ppb          26.36   1.04%
   QC value within limits for Se 196.026  Recovery = 101.67%
Si 251.611†           142265.5      5185.5 ug/L          7.39      5185.5 ppb           7.39   0.14%
   QC value within limits for Si 251.611  Recovery = 103.71%
Sn 189.927†             1861.8      482.06 ug/L         5.298      482.06 ppb          5.298   1.10%
   QC value within limits for Sn 189.927  Recovery = 96.41%
Sr 421.552†            63559.2      487.97 ug/L         4.092      487.97 ppb          4.092   0.84%
   QC value within limits for Sr 421.552  Recovery = 97.59%
Ti 334.940†           286918.2      512.85 ug/L         0.233      512.85 ppb          0.233   0.05%
   QC value within limits for Ti 334.940  Recovery = 102.57%
Tl 190.801†             1159.4      441.83 ug/L         5.049      441.83 ppb          5.049   1.14%
   QC value within limits for Tl 190.801  Recovery = 88.37%
U 409.014†             18138.8      497.21 ug/L         4.825      497.21 ppb          4.825   0.97%
   QC value within limits for U 409.014  Recovery = 99.44%
V 292.402†             67048.4      505.50 ug/L         1.673      505.50 ppb          1.673   0.33%
   QC value within limits for V 292.402  Recovery = 101.10%
Zn 213.857†            44399.4      490.06 ug/L         0.948      490.06 ppb          0.948   0.19%
   QC value within limits for Zn 213.857  Recovery = 98.01%
SiO2†                 142627.4       11102 ug/L          71.1       11102 ppb           71.1   0.64%
   QC value within limits for SiO2  Recovery = 103.81%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 3/17/2010 16:54:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3876.8	3876.8	87.8	%			16:56:49
1	Y RADIAL	4204.1	4204.1	87.54	%			16:56:49
1	Al 396.153Radial†	468204.4	533462.3	518700	ug/L	518700	ppb	16:56:28
1	Ca 317.933Radial†	229136.9	261016.8	479070	ug/L	479070	ppb	16:56:28
1	Fe 238.204 Radial†	34161.1	38909.7	434310	ug/L	434310	ppb	16:56:49
1	K 766.490 Radial†	2736.1	503.0	-264.24	ug/L	-264.24	ppb	16:56:28
1	Mg 279.077 IEC†	10846.1	12355.1	491280	ug/L	491280	ppb	16:56:49
1	Na 589.592 Radial†	1325229.2	1510638.1	517000	ug/L	517000	ppb	16:56:28
1	Sr 421.552†	1434.8	1613.9	8.9038	ug/L	8.9038	ppb	16:56:49
1	Sc 361.383	680371.4	680371.4	82.257	%			16:57:47
1	Y 371.029	566565.1	566565.1	80.579	%			16:57:47
1	Ag 328.068†	-19524.2	-23984.7	-3.0555	ug/L	-3.0555	ppb	16:57:47
1	As 188.979†	-149.0	-159.1	15.834	ug/L	15.834	ppb	16:58:07
1	B 249.677†	1081.2	1499.3	-29.618	ug/L	-29.618	ppb	16:57:47
1	Ba 233.527†	-1309.6	-1604.5	-1.3190	ug/L	-1.3190	ppb	16:58:07
1	Be 313.107†	-9764.1	-8098.1	-3.3990	ug/L	-3.3990	ppb	16:57:47
1	Cd 226.502†	2678.9	3413.5	5.5966	ug/L	5.5966	ppb	16:58:07
1	Co 228.616†	202.1	294.0	1.1314	ug/L	1.1314	ppb	16:58:07
1	Cr 267.716†	-1051.0	-1358.9	22.805	ug/L	22.805	ppb	16:58:07
1	Cu 324.752†	1012.6	-4552.9	0.3091	ug/L	0.3091	ppb	16:57:47
1	Mn 257.610†	-18522.2	-22943.1	-6.8245	ug/L	-6.8245	ppb	16:57:47
1	Mo 202.031†	-400.7	-498.1	-3.2706	ug/L	-3.2706	ppb	16:58:07
1	Ni 231.604†	240.0	203.8	6.2975	ug/L	6.2975	ppb	16:58:07
1	P 214.914†	456.0	371.5	52.697	ug/L	52.697	ppb	16:58:07
1	Pb 220.353†	-450.9	-498.4	-15.130	ug/L	-15.130	ppb	16:58:07
1	S 181.975 Axial†	61.4	45.7	-17.192	ug/L	-17.192	ppb	16:58:07
1	Sb 206.836†	60.7	45.2	-2.6150	ug/L	-2.6150	ppb	16:58:07
1	Se 196.026†	-1744.8	-2101.4	-265.34	ug/L	-265.34	ppb	16:58:07
1	Si 251.611†	-444.7	-1043.4	-37.548	ug/L	-37.548	ppb	16:58:07
1	Sn 189.927†	-344.4	-422.6	-32.334	ug/L	-32.334	ppb	16:58:07
1	Ti 334.940†	-11393.8	-12741.3	-3.9743	ug/L	-3.9743	ppb	16:57:47
1	Tl 190.801†	-89.2	-82.6	-31.633	ug/L	-31.633	ppb	16:58:07
1	U 409.014†	414532.9	506195.5	14432	ug/L	14432	ppb	16:57:47
1	V 292.402†	1454.6	3061.0	-3.0782	ug/L	-3.0782	ppb	16:58:07
1	Zn 213.857†	4805.4	4919.9	-7.3026	ug/L	-7.3026	ppb	16:58:07
1	SiO2†	-397.5	-991.0	-76.064	ug/L	-76.064	ppb	16:59:04
2	Sc Radial	3895.9	3895.9	88.2	%			16:57:14
2	Y RADIAL	4235.7	4235.7	88.20	%			16:57:14
2	Al 396.153Radial†	466879.6	529349.2	514700	ug/L	514700	ppb	16:56:54
2	Ca 317.933Radial†	228442.2	258951.3	475280	ug/L	475280	ppb	16:56:54
2	Fe 238.204 Radial†	34034.4	38575.5	430580	ug/L	430580	ppb	16:57:14
2	K 766.490 Radial†	2709.7	457.8	-269.47	ug/L	-269.47	ppb	16:56:54
2	Mg 279.077 IEC†	10800.3	12242.7	486810	ug/L	486810	ppb	16:57:14
2	Na 589.592 Radial†	1316745.8	1493630.0	511180	ug/L	511180	ppb	16:56:54
2	Sr 421.552†	1438.2	1609.7	8.8997	ug/L	8.8997	ppb	16:57:14
2	Sc 361.383	685016.6	685016.6	82.819	%			16:58:13
2	Y 371.029	569339.7	569339.7	80.974	%			16:58:13
2	Ag 328.068†	-19633.9	-23956.2	-4.0319	ug/L	-4.0319	ppb	16:58:13
2	As 188.979†	-161.7	-173.2	7.3779	ug/L	7.3779	ppb	16:58:33
2	B 249.677†	1154.0	1578.2	-26.856	ug/L	-26.856	ppb	16:58:13
2	Ba 233.527†	-1323.7	-1610.8	-1.4893	ug/L	-1.4893	ppb	16:58:33
2	Be 313.107†	-9863.7	-8137.8	-3.4146	ug/L	-3.4146	ppb	16:58:13
2	Cd 226.502†	2630.4	3332.9	4.8602	ug/L	4.8602	ppb	16:58:33
2	Co 228.616†	190.7	278.5	0.7924	ug/L	0.7924	ppb	16:58:33
2	Cr 267.716†	-1021.4	-1314.5	22.974	ug/L	22.974	ppb	16:58:33
2	Cu 324.752†	866.6	-4737.6	-0.4938	ug/L	-0.4938	ppb	16:58:13
2	Mn 257.610†	-18705.2	-23011.4	-7.0980	ug/L	-7.0980	ppb	16:58:13
2	Mo 202.031†	-401.5	-495.7	-3.4046	ug/L	-3.4046	ppb	16:58:33
2	Ni 231.604†	218.8	176.3	5.4466	ug/L	5.4466	ppb	16:58:33

2	P 214.914†	439.9	348.2	37.858	ug/L	37.858 ppb	16:58:33
2	Pb 220.353†	-428.0	-467.0	-10.834	ug/L	-10.834 ppb	16:58:33
2	S 181.975 Axial†	63.4	47.6	-13.042	ug/L	-13.042 ppb	16:58:33
2	Sb 206.836†	44.5	25.1	-10.600	ug/L	-10.600 ppb	16:58:33
2	Se 196.026†	-1739.7	-2080.8	-260.90	ug/L	-260.90 ppb	16:58:33
2	Si 251.611†	-443.5	-1038.3	-37.364	ug/L	-37.364 ppb	16:58:33
2	Sn 189.927†	-338.0	-412.1	-30.499	ug/L	-30.499 ppb	16:58:33
2	Ti 334.940†	-11292.9	-12525.6	-3.7583	ug/L	-3.7583 ppb	16:58:13
2	Tl 190.801†	-76.1	-66.1	-25.379	ug/L	-25.379 ppb	16:58:33
2	U 409.014†	417930.9	506881.1	14452	ug/L	14452 ppb	16:58:13
2	V 292.402†	1463.3	3059.6	-2.5923	ug/L	-2.5923 ppb	16:58:33
2	Zn 213.857†	4803.1	4877.4	-7.2357	ug/L	-7.2357 ppb	16:58:33
2	SiO2†	-388.1	-976.4	-74.935	ug/L	-74.935 ppb	16:59:09
3	Sc Radial	3907.6	3907.6	88.5	%		16:57:40
3	Y RADIAL	4249.2	4249.2	88.48	%		16:57:40
3	Al 396.153Radial†	468007.3	529031.3	514390	ug/L	514390 ppb	16:57:20
3	Ca 317.933Radial†	229346.5	259194.2	475730	ug/L	475730 ppb	16:57:20
3	Fe 238.204 Radial†	34293.9	38752.8	432560	ug/L	432560 ppb	16:57:40
3	K 766.490 Radial†	2677.3	412.0	-277.25	ug/L	-277.25 ppb	16:57:20
3	Mg 279.077 IEC†	10920.7	12341.9	490760	ug/L	490760 ppb	16:57:40
3	Na 589.592 Radial†	1312410.3	1484238.6	507970	ug/L	507970 ppb	16:57:20
3	Sr 421.552†	1447.5	1615.2	8.9394	ug/L	8.9394 ppb	16:57:40
3	Sc 361.383	689397.8	689397.8	83.349	%		16:58:38
3	Y 371.029	573195.6	573195.6	81.522	%		16:58:38
3	Ag 328.068†	-19822.6	-24031.9	-3.8029	ug/L	-3.8029 ppb	16:58:38
3	As 188.979†	-161.8	-172.0	8.4364	ug/L	8.4364 ppb	16:58:58
3	B 249.677†	1100.5	1505.2	-29.170	ug/L	-29.170 ppb	16:58:38
3	Ba 233.527†	-1293.8	-1564.6	-1.0125	ug/L	-1.0125 ppb	16:58:58
3	Be 313.107†	-9847.9	-8043.2	-3.3753	ug/L	-3.3753 ppb	16:58:38
3	Cd 226.502†	2653.0	3339.8	4.7515	ug/L	4.7515 ppb	16:58:58
3	Co 228.616†	185.3	270.7	0.5683	ug/L	0.5683 ppb	16:58:58
3	Cr 267.716†	-1059.7	-1352.5	22.693	ug/L	22.693 ppb	16:58:58
3	Cu 324.752†	932.3	-4665.4	-0.1538	ug/L	-0.1538 ppb	16:58:38
3	Mn 257.610†	-18975.5	-23192.3	-7.2976	ug/L	-7.2976 ppb	16:58:38
3	Mo 202.031†	-390.6	-479.6	-1.8609	ug/L	-1.8609 ppb	16:58:58
3	Ni 231.604†	212.9	167.5	5.1756	ug/L	5.1756 ppb	16:58:58
3	P 214.914†	471.2	382.4	61.124	ug/L	61.124 ppb	16:58:58
3	Pb 220.353†	-428.6	-464.4	-10.785	ug/L	-10.785 ppb	16:58:58
3	S 181.975 Axial†	46.5	26.9	-49.287	ug/L	-49.287 ppb	16:58:58
3	Sb 206.836†	51.7	33.5	-7.1919	ug/L	-7.1919 ppb	16:58:58
3	Se 196.026†	-1754.2	-2084.9	-258.56	ug/L	-258.56 ppb	16:58:58
3	Si 251.611†	-454.0	-1047.6	-37.719	ug/L	-37.719 ppb	16:58:58
3	Sn 189.927†	-342.1	-414.4	-31.042	ug/L	-31.042 ppb	16:58:58
3	Ti 334.940†	-11320.6	-12472.1	-3.9277	ug/L	-3.9277 ppb	16:58:38
3	Tl 190.801†	-85.5	-76.8	-29.425	ug/L	-29.425 ppb	16:58:58
3	U 409.014†	420457.3	506705.1	14447	ug/L	14447 ppb	16:58:38
3	V 292.402†	1352.5	2915.4	-3.9027	ug/L	-3.9027 ppb	16:58:58
3	Zn 213.857†	4858.5	4907.1	-7.1822	ug/L	-7.1822 ppb	16:58:58
3	SiO2†	-394.7	-981.4	-75.358	ug/L	-75.358 ppb	16:59:14

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	684928.6	82.808	%	0.5457				0.66%
Sc Radial	3893.4	88.2	%	0.35				0.40%
Y 371.029	569700.1	81.025	%	0.4736				0.58%
Y RADIAL	4229.7	88.08	%	0.482				0.55%
Ag 328.068†	-23990.9	-3.6301	ug/L	0.51060	-3.6301	ppb	0.51060	14.07%
Al 396.153Radial†	530614.3	515930	ug/L	2403.2	515930	ppb	2403.2	0.47%
QC value within limits for Al 396.153Radial Recovery = 103.19%								
As 188.979†	-168.1	10.550	ug/L	4.6073	10.550	ppb	4.6073	43.67%
B 249.677†	1527.5	-28.548	ug/L	1.4823	-28.548	ppb	1.4823	5.19%
Ba 233.527†	-1593.3	-1.2736	ug/L	0.24166	-1.2736	ppb	0.24166	18.97%
Be 313.107†	-8093.0	-3.3963	ug/L	0.01981	-3.3963	ppb	0.01981	0.58%
Ca 317.933Radial†	259720.8	476700	ug/L	2072.1	476700	ppb	2072.1	0.43%
QC value within limits for Ca 317.933Radial Recovery = 95.34%								
Cd 226.502†	3362.1	5.0694	ug/L	0.45978	5.0694	ppb	0.45978	9.07%
Co 228.616†	281.1	0.8307	ug/L	0.28347	0.8307	ppb	0.28347	34.12%
Cr 267.716†	-1341.9	22.824	ug/L	0.1412	22.824	ppb	0.1412	0.62%
Cu 324.752†	-4652.0	-0.1128	ug/L	0.40304	-0.1128	ppb	0.40304	357.21%

Fe 238.204 Radial†	38746.0	432480	ug/L	1866.2	432480	ppb	1866.2	0.43%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 86.50%								
K 766.490 Radial†	457.6	-270.32	ug/L	6.547	-270.32	ppb	6.547	2.42%
Mg 279.077 IEC†	12313.2	489620	ug/L	2444.8	489620	ppb	2444.8	0.50%
QC value within limits for Mg 279.077 IEC Recovery = 97.92%								
Mn 257.610†	-23049.0	-7.0734	ug/L	0.23751	-7.0734	ppb	0.23751	3.36%
Mo 202.031†	-491.1	-2.8454	ug/L	0.85519	-2.8454	ppb	0.85519	30.06%
Na 589.592 Radial†	1496168.9	512050	ug/L	4579.7	512050	ppb	4579.7	0.89%
QC value within limits for Na 589.592 Radial Recovery = 102.41%								
Ni 231.604†	182.6	5.6399	ug/L	0.58539	5.6399	ppb	0.58539	10.38%
P 214.914†	367.4	50.559	ug/L	11.7791	50.559	ppb	11.7791	23.30%
Pb 220.353†	-476.6	-12.249	ug/L	2.4944	-12.249	ppb	2.4944	20.36%
S 181.975 Axial†	40.0	-26.507	ug/L	19.8368	-26.507	ppb	19.8368	74.84%
Sb 206.836†	34.6	-6.8021	ug/L	4.00648	-6.8021	ppb	4.00648	58.90%
Se 196.026†	-2089.0	-261.60	ug/L	3.445	-261.60	ppb	3.445	1.32%
Si 251.611†	-1043.1	-37.544	ug/L	0.1777	-37.544	ppb	0.1777	0.47%
Sn 189.927†	-416.4	-31.292	ug/L	0.9425	-31.292	ppb	0.9425	3.01%
Sr 421.552†	1612.9	8.9143	ug/L	0.02183	8.9143	ppb	0.02183	0.24%
Ti 334.940†	-12579.7	-3.8868	ug/L	0.11364	-3.8868	ppb	0.11364	2.92%
Tl 190.801†	-75.1	-28.812	ug/L	3.1717	-28.812	ppb	3.1717	11.01%
U 409.014†	506593.9	14443	ug/L	10.4	14443	ppb	10.4	0.07%
QC value within limits for U 409.014 Recovery = 96.29%								
V 292.402†	3012.0	-3.1911	ug/L	0.66247	-3.1911	ppb	0.66247	20.76%
Zn 213.857†	4901.5	-7.2402	ug/L	0.06034	-7.2402	ppb	0.06034	0.83%
SiO2†	-982.9	-75.452	ug/L	0.5706	-75.452	ppb	0.5706	0.76%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 3/17/2010 17:01:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4310.2	4310.2	97.6	%			17:03:22
1	Y RADIAL	4641.4	4641.4	96.65	%			17:03:22
1	Al 396.153Radial†	384.2	467.0	-17.372	ug/L	-17.372	ppb	17:03:22
1	Ca 317.933Radial†	32.8	12.5	23.024	ug/L	23.024	ppb	17:03:42
1	Fe 238.204 Radial†	-14.2	-22.0	39.831	ug/L	39.831	ppb	17:03:42
1	K 766.490 Radial†	1517838.4	1552666.4	301350	ug/L	301350	ppb	17:03:17
1	Mg 279.077 IEC†	-2.7	-3.8	-50.390	ug/L	-50.390	ppb	17:03:42
1	Na 589.592 Radial†	-255.4	645.6	220.94	ug/L	220.94	ppb	17:03:22
1	Sr 421.552†	1238966.3	1269508.4	9817.9	ug/L	9817.9	ppb	17:03:17
1	Sc 361.383	797637.8	797637.8	96.435	%			17:04:59
1	Y 371.029	661571.4	661571.4	94.091	%			17:04:59
1	Ag 328.068†	-6596.5	-7089.5	5.2067	ug/L	5.2067	ppb	17:05:04
1	As 188.979†	17695.7	18372.0	9971.6	ug/L	9971.6	ppb	17:05:04
1	B 249.677†	176022.4	182714.7	4961.3	ug/L	4961.3	ppb	17:05:04
1	Ba 233.527†	1432746.8	1485702.4	13527	ug/L	13527	ppb	17:04:59
1	Be 313.107†	6653484.0	6903232.7	2877.8	ug/L	2877.8	ppb	17:04:53
1	Cd 226.502†	673306.0	698354.6	9751.4	ug/L	9751.4	ppb	17:04:59
1	Co 228.616†	362681.4	376137.9	9538.2	ug/L	9538.2	ppb	17:05:04
1	Cr 267.716†	1803860.6	1870467.4	24104	ug/L	24104	ppb	17:04:59
1	Cu 324.752†	6001596.0	6217688.6	20023	ug/L	20023	ppb	17:04:53
1	Mn 257.610†	7067754.9	7328621.2	9459.4	ug/L	9459.4	ppb	17:04:53
1	Mo 202.031†	109411.4	113445.4	9722.1	ug/L	9722.1	ppb	17:05:04
1	Ni 231.604†	305735.8	316950.8	9793.5	ug/L	9793.5	ppb	17:05:04
1	P 214.914†	24036.8	24742.6	14178	ug/L	14178	ppb	17:05:04
1	Pb 220.353†	155080.0	160863.0	24125	ug/L	24125	ppb	17:05:04
1	S 181.975 Axial†	28457.2	29480.3	51669	ug/L	51669	ppb	17:05:04
1	Sb 206.836†	24759.1	25645.9	10781	ug/L	10781	ppb	17:05:04
1	Se 196.026†	12191.8	12662.2	10147	ug/L	10147	ppb	17:05:04
1	Si 251.611†	1246843.8	1292436.3	47041	ug/L	47041	ppb	17:04:59
1	Sn 189.927†	44571.6	46215.5	10117	ug/L	10117	ppb	17:05:04
1	Ti 334.940†	5570304.9	5777346.8	9836.8	ug/L	9836.8	ppb	17:04:53
1	Tl 190.801†	24624.2	25560.4	9731.9	ug/L	9731.9	ppb	17:05:04
1	U 409.014†	-1057.3	1152.3	-20.917	ug/L	-20.917	ppb	17:05:04
1	V 292.402†	1255362.1	1303065.0	10138	ug/L	10138	ppb	17:04:59
1	Zn 213.857†	1163239.8	1205322.3	14050	ug/L	14050	ppb	17:04:59
1	SiO2†	1255949.5	1301873.7	101190	ug/L	101190	ppb	17:05:50
2	Sc Radial	4306.6	4306.6	97.5	%			17:03:53
2	Y RADIAL	4643.0	4643.0	96.68	%			17:03:53
2	Al 396.153Radial†	417.2	501.2	13.075	ug/L	13.075	ppb	17:03:53
2	Ca 317.933Radial†	26.9	6.4	11.834	ug/L	11.834	ppb	17:04:13
2	Fe 238.204 Radial†	-15.7	-23.5	25.063	ug/L	25.063	ppb	17:04:13
2	K 766.490 Radial†	1495952.6	1531538.9	297250	ug/L	297250	ppb	17:03:48
2	Mg 279.077 IEC†	-8.0	-9.3	-266.53	ug/L	-266.53	ppb	17:04:13
2	Na 589.592 Radial†	-322.1	577.0	197.48	ug/L	197.48	ppb	17:03:53
2	Sr 421.552†	1222475.3	1253671.5	9695.4	ug/L	9695.4	ppb	17:03:48
2	Sc 361.383	791338.5	791338.5	95.673	%			17:05:19
2	Y 371.029	656112.6	656112.6	93.315	%			17:05:19
2	Ag 328.068†	-6729.3	-7282.7	4.1833	ug/L	4.1833	ppb	17:05:24
2	As 188.979†	17782.7	18609.0	10099	ug/L	10099	ppb	17:05:24
2	B 249.677†	175968.6	184111.4	4999.2	ug/L	4999.2	ppb	17:05:24
2	Ba 233.527†	1420238.2	1484454.8	13515	ug/L	13515	ppb	17:05:19
2	Be 313.107†	6566852.7	6867605.1	2863.0	ug/L	2863.0	ppb	17:05:13
2	Cd 226.502†	666251.8	696539.2	9726.1	ug/L	9726.1	ppb	17:05:19
2	Co 228.616†	362337.1	378771.8	9605.2	ug/L	9605.2	ppb	17:05:24
2	Cr 267.716†	1787099.0	1867837.8	24070	ug/L	24070	ppb	17:05:19
2	Cu 324.752†	5916033.2	6177796.7	19895	ug/L	19895	ppb	17:05:13
2	Mn 257.610†	6985372.7	7300854.3	9423.6	ug/L	9423.6	ppb	17:05:13
2	Mo 202.031†	109193.6	114120.9	9780.0	ug/L	9780.0	ppb	17:05:24
2	Ni 231.604†	305047.2	318754.8	9849.2	ug/L	9849.2	ppb	17:05:24

2	P 214.914†	23942.6	24842.4	14277 ug/L	14277 ppb	17:05:24
2	Pb 220.353†	154828.0	161879.8	24278 ug/L	24278 ppb	17:05:24
2	S 181.975 Axial†	28483.9	29743.1	52129 ug/L	52129 ppb	17:05:24
2	Sb 206.836†	24717.0	25806.3	10848 ug/L	10848 ppb	17:05:24
2	Se 196.026†	12107.9	12675.2	10157 ug/L	10157 ppb	17:05:24
2	Si 251.611†	1235630.1	1291007.6	46988 ug/L	46988 ppb	17:05:19
2	Sn 189.927†	44430.4	46435.8	10165 ug/L	10165 ppb	17:05:24
2	Ti 334.940†	5500544.6	5750412.0	9790.9 ug/L	9790.9 ppb	17:05:13
2	Tl 190.801†	24597.7	25735.9	9797.5 ug/L	9797.5 ppb	17:05:24
2	U 409.014†	-987.8	1216.2	-19.011 ug/L	-19.011 ppb	17:05:24
2	V 292.402†	1243682.2	1301219.4	10125 ug/L	10125 ppb	17:05:19
2	Zn 213.857†	1153435.5	1204676.5	14042 ug/L	14042 ppb	17:05:19
2	SiO2†	1268512.9	1325372.5	103020 ug/L	103020 ppb	17:05:56
3	Sc Radial	4250.6	4250.6	96.2 %		17:04:23
3	Y RADIAL	4573.4	4573.4	95.23 %		17:04:23
3	Al 396.153Radial†	387.5	475.9	-11.795 ug/L	-11.795 ppb	17:04:23
3	Ca 317.933Radial†	36.2	16.6	30.379 ug/L	30.379 ppb	17:04:43
3	Fe 238.204 Radial†	-14.4	-22.3	38.074 ug/L	38.074 ppb	17:04:43
3	K 766.490 Radial†	1535806.0	1593154.7	309210 ug/L	309210 ppb	17:04:18
3	Mg 279.077 IEC†	-1.8	-2.9	-11.544 ug/L	-11.544 ppb	17:04:43
3	Na 589.592 Radial†	-360.8	532.5	182.23 ug/L	182.23 ppb	17:04:23
3	Sr 421.552†	1253393.0	1302308.6	10072 ug/L	10072 ppb	17:04:18
3	Sc 361.383	796608.1	796608.1	96.310 %		17:05:38
3	Y 371.029	661351.2	661351.2	94.060 %		17:05:38
3	Ag 328.068†	-6669.5	-7174.1	4.7136 ug/L	4.7136 ppb	17:05:43
3	As 188.979†	17937.4	18646.6	10119 ug/L	10119 ppb	17:05:43
3	B 249.677†	177576.0	184563.8	5011.6 ug/L	5011.6 ppb	17:05:43
3	Ba 233.527†	1424814.4	1479386.6	13469 ug/L	13469 ppb	17:05:38
3	Be 313.107†	6583178.8	6839152.5	2851.1 ug/L	2851.1 ppb	17:05:32
3	Cd 226.502†	668190.0	693945.1	9689.9 ug/L	9689.9 ppb	17:05:38
3	Co 228.616†	364775.5	378798.4	9606.0 ug/L	9606.0 ppb	17:05:43
3	Cr 267.716†	1796427.9	1865167.8	24035 ug/L	24035 ppb	17:05:38
3	Cu 324.752†	5938986.6	6160725.2	19840 ug/L	19840 ppb	17:05:32
3	Mn 257.610†	6995066.8	7262622.0	9374.2 ug/L	9374.2 ppb	17:05:32
3	Mo 202.031†	109987.8	114190.5	9786.0 ug/L	9786.0 ppb	17:05:43
3	Ni 231.604†	307466.3	319157.4	9861.7 ug/L	9861.7 ppb	17:05:43
3	P 214.914†	24167.5	24910.4	14337 ug/L	14337 ppb	17:05:43
3	Pb 220.353†	156006.9	162033.4	24301 ug/L	24301 ppb	17:05:43
3	S 181.975 Axial†	28764.1	29837.1	52294 ug/L	52294 ppb	17:05:43
3	Sb 206.836†	24915.9	25841.9	10864 ug/L	10864 ppb	17:05:43
3	Se 196.026†	12222.5	12710.4	10185 ug/L	10185 ppb	17:05:43
3	Si 251.611†	1243477.0	1290611.8	46974 ug/L	46974 ppb	17:05:38
3	Sn 189.927†	44847.0	46561.1	10193 ug/L	10193 ppb	17:05:43
3	Ti 334.940†	5514747.0	5727127.1	9751.2 ug/L	9751.2 ppb	17:05:32
3	Tl 190.801†	24732.7	25706.0	9785.6 ug/L	9785.6 ppb	17:05:43
3	U 409.014†	-1012.3	1197.6	-19.467 ug/L	-19.467 ppb	17:05:43
3	V 292.402†	1251556.7	1300796.5	10122 ug/L	10122 ppb	17:05:38
3	Zn 213.857†	1157465.3	1200885.8	13997 ug/L	13997 ppb	17:05:38
3	SiO2†	1261587.4	1309411.0	101770 ug/L	101770 ppb	17:06:02

Mean Data: LR2

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	795194.8	96.139	%	0.4085				0.42%
Sc Radial	4289.1	97.1	%	0.76				0.78%
Y 371.029	659678.4	93.822	%	0.4395				0.47%
Y RADIAL	4619.3	96.19	%	0.827				0.86%
Ag 328.068†	-7182.1	4.7012	ug/L	0.51182	4.7012	ppb	0.51182	10.89%
Al 396.153Radial†	481.4	-5.3639	ug/L	16.21020	-5.3639	ppb	16.21020	302.21%
As 188.979†	18542.5	10063	ug/L	79.9	10063	ppb	79.9	0.79%
QC value within limits for As 188.979 Recovery = 100.63%								
B 249.677†	183796.6	4990.7	ug/L	26.21	4990.7	ppb	26.21	0.53%
QC value within limits for B 249.677 Recovery = 99.81%								
Ba 233.527†	1483181.3	13504	ug/L	30.4	13504	ppb	30.4	0.23%
QC value within limits for Ba 233.527 Recovery = 90.03%								
Be 313.107†	6869996.8	2864.0	ug/L	13.38	2864.0	ppb	13.38	0.47%
QC value within limits for Be 313.107 Recovery = 95.47%								
Ca 317.933Radial†	11.8	21.746	ug/L	9.3385	21.746	ppb	9.3385	42.94%
Cd 226.502†	696279.6	9722.5	ug/L	30.90	9722.5	ppb	30.90	0.32%
QC value within limits for Cd 226.502 Recovery = 97.22%								

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Co 228.616†          377902.7      9583.1 ug/L        38.93      9583.1 ppb        38.93   0.41%
   QC value within limits for Co 228.616  Recovery = 95.83%
Cr 267.716†         1867824.3       24070 ug/L         34.1       24070 ppb         34.1   0.14%
   QC value within limits for Cr 267.716  Recovery = 96.28%
Cu 324.752†         6185403.5       19919 ug/L         94.1       19919 ppb         94.1   0.47%
   QC value within limits for Cu 324.752  Recovery = 99.60%
Fe 238.204 Radial†      -22.6      34.323 ug/L       8.0671      34.323 ppb       8.0671  23.50%
K 766.490 Radial†   1559120.0      302600 ug/L       6077.3      302600 ppb       6077.3   2.01%
   QC value within limits for K 766.490 Radial  Recovery = 100.87%
Mg 279.077 IEC†          -5.3     -109.49 ug/L      137.384     -109.49 ppb      137.384 125.48%
Mn 257.610†         7297365.8      9419.0 ug/L        42.77      9419.0 ppb        42.77   0.45%
   QC value within limits for Mn 257.610  Recovery = 94.19%
Mo 202.031†          113918.9      9762.7 ug/L        35.27      9762.7 ppb        35.27   0.36%
   QC value within limits for Mo 202.031  Recovery = 97.63%
Na 589.592 Radial†      585.0      200.22 ug/L       19.503      200.22 ppb       19.503   9.74%
Ni 231.604†          318287.7      9834.8 ug/L        36.31      9834.8 ppb        36.31   0.37%
   QC value within limits for Ni 231.604  Recovery = 98.35%
P 214.914†            24831.8       14264 ug/L         80.6       14264 ppb         80.6   0.57%
   QC value within limits for P 214.914  Recovery = 95.09%
Pb 220.353†          161592.1       24234 ug/L         95.5       24234 ppb         95.5   0.39%
   QC value within limits for Pb 220.353  Recovery = 96.94%
S 181.975 Axial†      29686.8       52031 ug/L        324.1       52031 ppb        324.1   0.62%
   QC value within limits for S 181.975 Axial  Recovery = 104.06%
Sb 206.836†           25764.7       10831 ug/L         43.9       10831 ppb         43.9   0.41%
   QC value within limits for Sb 206.836  Recovery = 108.31%
Se 196.026†           12682.6       10163 ug/L         20.0       10163 ppb         20.0   0.20%
   QC value within limits for Se 196.026  Recovery = 101.63%
Si 251.611†         1291351.9       47001 ug/L         35.5       47001 ppb         35.5   0.08%
   QC value within limits for Si 251.611  Recovery = 94.00%
Sn 189.927†           46404.1       10159 ug/L         38.3       10159 ppb         38.3   0.38%
   QC value within limits for Sn 189.927  Recovery = 101.59%
Sr 421.552†         1275162.8      9861.6 ug/L       191.85      9861.6 ppb       191.85   1.95%
   QC value within limits for Sr 421.552  Recovery = 98.62%
Ti 334.940†         5751628.6      9793.0 ug/L        42.82      9793.0 ppb        42.82   0.44%
   QC value within limits for Ti 334.940  Recovery = 97.93%
Tl 190.801†           25667.4      9771.7 ug/L        34.94      9771.7 ppb        34.94   0.36%
   QC value within limits for Tl 190.801  Recovery = 97.72%
U 409.014†             1188.7     -19.798 ug/L       0.9953     -19.798 ppb       0.9953   5.03%
V 292.402†          1301693.6       10128 ug/L          8.7       10128 ppb          8.7   0.09%
   QC value within limits for V 292.402  Recovery = 101.28%
Zn 213.857†         1203628.2       14030 ug/L         28.2       14030 ppb         28.2   0.20%
   QC value within limits for Zn 213.857  Recovery = 93.53%
SiO2†               1312219.1      101990 ug/L        934.4      101990 ppb        934.4   0.92%
   QC value within limits for SiO2  Recovery = 95.32%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/17/2010 17:08:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4529.8	4529.8	103	%			17:10:03
1	Y RADIAL	4889.2	4889.2	101.8	%			17:10:03
1	Al 396.153Radial†	5171.9	5115.9	4950.6	ug/L	4950.6	ppb	17:10:03
1	Ca 317.933Radial†	2758.3	2668.3	4897.4	ug/L	4897.4	ppb	17:10:23
1	Fe 238.204 Radial†	462.1	443.1	4961.0	ug/L	4961.0	ppb	17:10:23
1	K 766.490 Radial†	30413.6	27039.4	5241.9	ug/L	5241.9	ppb	17:10:03
1	Mg 279.077 IEC†	132.5	128.2	5102.2	ug/L	5102.2	ppb	17:10:23
1	Na 589.592 Radial†	28874.9	29060.4	9945.7	ug/L	9945.7	ppb	17:10:03
1	Sr 421.552†	66246.5	64569.9	499.32	ug/L	499.32	ppb	17:10:03
1	Sc 361.383	832422.7	832422.7	100.64	%			17:11:21
1	Y 371.029	697894.1	697894.1	99.257	%			17:11:21
1	Ag 328.068†	97708.3	96837.5	483.99	ug/L	483.99	ppb	17:11:26
1	As 188.979†	947.0	963.1	523.65	ug/L	523.65	ppb	17:11:46
1	B 249.677†	18796.5	18861.7	512.73	ug/L	512.73	ppb	17:11:26
1	Ba 233.527†	53805.4	53450.7	487.07	ug/L	487.07	ppb	17:11:26
1	Be 313.107†	1207625.9	1203714.2	499.00	ug/L	499.00	ppb	17:11:21
1	Cd 226.502†	35010.8	34944.8	487.54	ug/L	487.54	ppb	17:11:26
1	Co 228.616†	19765.6	19688.1	499.45	ug/L	499.45	ppb	17:11:26
1	Cr 267.716†	38011.3	37688.2	486.40	ug/L	486.40	ppb	17:11:26
1	Cu 324.752†	156631.4	149850.8	482.57	ug/L	482.57	ppb	17:11:26
1	Mn 257.610†	389268.4	386365.7	498.98	ug/L	498.98	ppb	17:11:21
1	Mo 202.031†	5751.5	5704.0	489.27	ug/L	489.27	ppb	17:11:46
1	Ni 231.604†	16281.5	16090.0	497.16	ug/L	497.16	ppb	17:11:26
1	P 214.914†	3566.1	3360.5	2358.8	ug/L	2358.8	ppb	17:11:46
1	Pb 220.353†	3254.8	3283.9	493.64	ug/L	493.64	ppb	17:11:46
1	S 181.975 Axial†	594.6	561.8	983.79	ug/L	983.79	ppb	17:11:46
1	Sb 206.836†	1264.5	1227.9	516.60	ug/L	516.60	ppb	17:11:46
1	Se 196.026†	592.9	608.9	503.83	ug/L	503.83	ppb	17:11:46
1	Si 251.611†	67322.9	66391.7	2416.6	ug/L	2416.6	ppb	17:11:26
1	Sn 189.927†	2262.7	2244.3	491.91	ug/L	491.91	ppb	17:11:46
1	Ti 334.940†	283364.3	282671.3	481.57	ug/L	481.57	ppb	17:11:26
1	Tl 190.801†	1284.3	1302.0	495.63	ug/L	495.63	ppb	17:11:46
1	U 409.014†	14734.4	16889.3	481.52	ug/L	481.52	ppb	17:11:26
1	V 292.402†	62039.2	62937.1	490.49	ug/L	490.49	ppb	17:11:26
1	Zn 213.857†	42811.7	41617.3	483.63	ug/L	483.63	ppb	17:11:26
1	SiO2†	68217.4	67275.5	5229.4	ug/L	5229.4	ppb	17:12:53
2	Sc Radial	4531.3	4531.3	103	%			17:10:28
2	Y RADIAL	4841.8	4841.8	100.8	%			17:10:28
2	Al 396.153Radial†	5101.4	5045.5	4882.2	ug/L	4882.2	ppb	17:10:28
2	Ca 317.933Radial†	2802.6	2710.6	4975.0	ug/L	4975.0	ppb	17:10:49
2	Fe 238.204 Radial†	468.8	449.5	5032.1	ug/L	5032.1	ppb	17:10:49
2	K 766.490 Radial†	30058.6	26683.4	5172.8	ug/L	5172.8	ppb	17:10:28
2	Mg 279.077 IEC†	131.5	127.2	5060.6	ug/L	5060.6	ppb	17:10:49
2	Na 589.592 Radial†	28618.1	28800.7	9856.8	ug/L	9856.8	ppb	17:10:28
2	Sr 421.552†	65664.3	63980.7	494.76	ug/L	494.76	ppb	17:10:28
2	Sc 361.383	828411.0	828411.0	100.16	%			17:11:52
2	Y 371.029	694153.5	694153.5	98.725	%			17:11:52
2	Ag 328.068†	97813.5	97412.7	486.88	ug/L	486.88	ppb	17:11:57
2	As 188.979†	938.6	959.2	521.60	ug/L	521.60	ppb	17:12:17
2	B 249.677†	18684.2	18840.1	512.12	ug/L	512.12	ppb	17:11:57
2	Ba 233.527†	54113.4	54017.1	492.23	ug/L	492.23	ppb	17:11:57
2	Be 313.107†	1198241.4	1200155.1	497.54	ug/L	497.54	ppb	17:11:52
2	Cd 226.502†	35177.3	35279.5	492.20	ug/L	492.20	ppb	17:11:57
2	Co 228.616†	19885.4	19902.9	504.88	ug/L	504.88	ppb	17:11:57
2	Cr 267.716†	38196.0	38055.5	491.14	ug/L	491.14	ppb	17:11:57
2	Cu 324.752†	156765.4	150738.3	485.43	ug/L	485.43	ppb	17:11:57
2	Mn 257.610†	387102.0	386075.8	498.62	ug/L	498.62	ppb	17:11:52
2	Mo 202.031†	5731.9	5712.1	489.97	ug/L	489.97	ppb	17:12:17
2	Ni 231.604†	16355.1	16241.8	501.85	ug/L	501.85	ppb	17:11:57

2	P 214.914†	3554.8	3366.4	2362.5 ug/L	2362.5 ppb	17:12:17
2	Pb 220.353†	3234.1	3278.9	492.86 ug/L	492.86 ppb	17:12:17
2	S 181.975 Axial†	579.1	549.2	961.70 ug/L	961.70 ppb	17:12:17
2	Sb 206.836†	1237.5	1207.0	508.10 ug/L	508.10 ppb	17:12:17
2	Se 196.026†	606.4	625.2	517.06 ug/L	517.06 ppb	17:12:17
2	Si 251.611†	67589.6	66981.9	2438.1 ug/L	2438.1 ppb	17:11:57
2	Sn 189.927†	2244.8	2237.4	490.40 ug/L	490.40 ppb	17:12:17
2	Ti 334.940†	284644.8	285313.4	486.08 ug/L	486.08 ppb	17:11:57
2	Tl 190.801†	1285.3	1309.2	498.35 ug/L	498.35 ppb	17:12:17
2	U 409.014†	14788.8	17014.6	485.09 ug/L	485.09 ppb	17:11:57
2	V 292.402†	62068.6	63265.0	493.01 ug/L	493.01 ppb	17:11:57
2	Zn 213.857†	42933.4	41944.7	487.42 ug/L	487.42 ppb	17:11:57
2	SiO2†	67640.1	67027.4	5210.0 ug/L	5210.0 ppb	17:12:59
3	Sc Radial	4486.9	4486.9	102 %		17:10:54
3	Y RADIAL	4849.8	4849.8	101.0 %		17:10:54
3	Al 396.153Radial†	5089.8	5083.3	4918.9 ug/L	4918.9 ppb	17:10:54
3	Ca 317.933Radial†	2790.4	2725.6	5002.5 ug/L	5002.5 ppb	17:11:14
3	Fe 238.204 Radial†	465.4	450.7	5045.7 ug/L	5045.7 ppb	17:11:14
3	K 766.490 Radial†	29729.7	26649.5	5166.2 ug/L	5166.2 ppb	17:10:54
3	Mg 279.077 IEC†	134.8	131.7	5241.2 ug/L	5241.2 ppb	17:11:14
3	Na 589.592 Radial†	28315.3	28778.6	9849.2 ug/L	9849.2 ppb	17:10:54
3	Sr 421.552†	65537.0	64488.5	498.69 ug/L	498.69 ppb	17:10:54
3	Sc 361.383	830673.5	830673.5	100.43 %		17:12:23
3	Y 371.029	695154.4	695154.4	98.867 %		17:12:23
3	Ag 328.068†	98177.7	97509.3	487.35 ug/L	487.35 ppb	17:12:28
3	As 188.979†	954.4	972.4	528.70 ug/L	528.70 ppb	17:12:48
3	B 249.677†	18687.3	18792.3	510.82 ug/L	510.82 ppb	17:12:28
3	Ba 233.527†	53922.8	53680.1	489.17 ug/L	489.17 ppb	17:12:28
3	Be 313.107†	1200723.0	1199367.5	497.21 ug/L	497.21 ppb	17:12:23
3	Cd 226.502†	34982.6	34990.0	488.16 ug/L	488.16 ppb	17:12:28
3	Co 228.616†	19828.6	19792.3	502.08 ug/L	502.08 ppb	17:12:28
3	Cr 267.716†	38147.3	37903.2	489.18 ug/L	489.18 ppb	17:12:28
3	Cu 324.752†	157637.1	151179.9	486.85 ug/L	486.85 ppb	17:12:28
3	Mn 257.610†	388128.8	386045.5	498.57 ug/L	498.57 ppb	17:12:23
3	Mo 202.031†	5764.8	5729.3	491.44 ug/L	491.44 ppb	17:12:48
3	Ni 231.604†	16296.6	16139.1	498.67 ug/L	498.67 ppb	17:12:28
3	P 214.914†	3569.1	3370.9	2365.5 ug/L	2365.5 ppb	17:12:48
3	Pb 220.353†	3282.7	3318.5	498.81 ug/L	498.81 ppb	17:12:48
3	S 181.975 Axial†	599.8	568.3	995.19 ug/L	995.19 ppb	17:12:48
3	Sb 206.836†	1269.6	1235.6	519.80 ug/L	519.80 ppb	17:12:48
3	Se 196.026†	598.3	615.5	509.31 ug/L	509.31 ppb	17:12:48
3	Si 251.611†	67607.2	66815.7	2432.1 ug/L	2432.1 ppb	17:12:28
3	Sn 189.927†	2266.7	2253.1	493.83 ug/L	493.83 ppb	17:12:48
3	Ti 334.940†	284747.1	284641.1	484.92 ug/L	484.92 ppb	17:12:28
3	Tl 190.801†	1290.8	1311.1	499.10 ug/L	499.10 ppb	17:12:48
3	U 409.014†	15032.7	17217.1	490.88 ug/L	490.88 ppb	17:12:28
3	V 292.402†	62199.2	63226.2	492.74 ug/L	492.74 ppb	17:12:28
3	Zn 213.857†	42869.1	41764.0	485.32 ug/L	485.32 ppb	17:12:28
3	SiO2†	67502.4	66706.3	5185.0 ug/L	5185.0 ppb	17:13:04

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	830502.4	100.41	%	0.243				0.24%
Sc Radial	4516.0	102	%	0.6				0.56%
Y 371.029	695734.0	98.950	%	0.2754				0.28%
Y RADIAL	4860.3	101.2	%	0.53				0.52%
Ag 328.068†	97253.2	486.07	ug/L	1.819	486.07	ppb	1.819	0.37%
QC value within limits for Ag 328.068 Recovery = 97.21%								
Al 396.153Radial†	5081.6	4917.2	ug/L	34.28	4917.2	ppb	34.28	0.70%
QC value within limits for Al 396.153Radial Recovery = 98.34%								
As 188.979†	964.9	524.65	ug/L	3.654	524.65	ppb	3.654	0.70%
QC value within limits for As 188.979 Recovery = 104.93%								
B 249.677†	18831.4	511.89	ug/L	0.977	511.89	ppb	0.977	0.19%
QC value within limits for B 249.677 Recovery = 102.38%								
Ba 233.527†	53716.0	489.49	ug/L	2.593	489.49	ppb	2.593	0.53%
QC value within limits for Ba 233.527 Recovery = 97.90%								
Be 313.107†	1201078.9	497.92	ug/L	0.953	497.92	ppb	0.953	0.19%
QC value within limits for Be 313.107 Recovery = 99.58%								
Ca 317.933Radial†	2701.5	4958.3	ug/L	54.55	4958.3	ppb	54.55	1.10%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.17%
Cd 226.502†            35071.4      489.30 ug/L         2.533      489.30 ppb          2.533   0.52%
   QC value within limits for Cd 226.502  Recovery = 97.86%
Co 228.616†            19794.4      502.14 ug/L         2.720      502.14 ppb          2.720   0.54%
   QC value within limits for Co 228.616  Recovery = 100.43%
Cr 267.716†            37882.3      488.91 ug/L         2.382      488.91 ppb          2.382   0.49%
   QC value within limits for Cr 267.716  Recovery = 97.78%
Cu 324.752†           150589.7      484.95 ug/L         2.180      484.95 ppb          2.180   0.45%
   QC value within limits for Cu 324.752  Recovery = 96.99%
Fe 238.204 Radial†       447.8      5012.9 ug/L         45.47      5012.9 ppb          45.47   0.91%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.26%
K 766.490 Radial†      26790.8      5193.7 ug/L         41.91      5193.7 ppb          41.91   0.81%
   QC value within limits for K 766.490 Radial  Recovery = 103.87%
Mg 279.077 IEC†          129.0      5134.7 ug/L         94.60      5134.7 ppb          94.60   1.84%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.69%
Mn 257.610†           386162.3      498.72 ug/L         0.225      498.72 ppb          0.225   0.05%
   QC value within limits for Mn 257.610  Recovery = 99.74%
Mo 202.031†             5715.1      490.23 ug/L         1.110      490.23 ppb          1.110   0.23%
   QC value within limits for Mo 202.031  Recovery = 98.05%
Na 589.592 Radial†     28879.9      9883.9 ug/L         53.64      9883.9 ppb          53.64   0.54%
   QC value within limits for Na 589.592 Radial  Recovery = 98.84%
Ni 231.604†            16156.9      499.22 ug/L         2.394      499.22 ppb          2.394   0.48%
   QC value within limits for Ni 231.604  Recovery = 99.84%
P 214.914†              3365.9      2362.3 ug/L          3.35      2362.3 ppb           3.35   0.14%
   QC value within limits for P 214.914  Recovery = 94.49%
Pb 220.353†             3293.8      495.10 ug/L         3.232      495.10 ppb          3.232   0.65%
   QC value within limits for Pb 220.353  Recovery = 99.02%
S 181.975 Axial†         559.8      980.23 ug/L        17.025      980.23 ppb         17.025   1.74%
   QC value within limits for S 181.975 Axial  Recovery = 98.02%
Sb 206.836†             1223.5      514.83 ug/L         6.044      514.83 ppb          6.044   1.17%
   QC value within limits for Sb 206.836  Recovery = 102.97%
Se 196.026†              616.5      510.07 ug/L         6.647      510.07 ppb          6.647   1.30%
   QC value within limits for Se 196.026  Recovery = 102.01%
Si 251.611†            66729.8      2428.9 ug/L         11.10      2428.9 ppb          11.10   0.46%
   QC value within limits for Si 251.611  Recovery = 97.16%
Sn 189.927†             2244.9      492.05 ug/L         1.720      492.05 ppb          1.720   0.35%
   QC value within limits for Sn 189.927  Recovery = 98.41%
Sr 421.552†            64346.4      497.59 ug/L         2.469      497.59 ppb          2.469   0.50%
   QC value within limits for Sr 421.552  Recovery = 99.52%
Ti 334.940†           284208.6      484.19 ug/L         2.344      484.19 ppb          2.344   0.48%
   QC value within limits for Ti 334.940  Recovery = 96.84%
Tl 190.801†             1307.4      497.69 ug/L         1.829      497.69 ppb          1.829   0.37%
   QC value within limits for Tl 190.801  Recovery = 99.54%
U 409.014†             17040.3      485.83 ug/L         4.725      485.83 ppb          4.725   0.97%
   QC value within limits for U 409.014  Recovery = 97.17%
V 292.402†             63142.8      492.08 ug/L         1.386      492.08 ppb          1.386   0.28%
   QC value within limits for V 292.402  Recovery = 98.42%
Zn 213.857†            41775.3      485.46 ug/L         1.902      485.46 ppb          1.902   0.39%
   QC value within limits for Zn 213.857  Recovery = 97.09%
SiO2†                  67003.1      5208.1 ug/L         22.27      5208.1 ppb          22.27   0.43%
   QC value within limits for SiO2  Recovery = 97.39%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/17/2010 17:15:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4499.6	4499.6	102	%			17:17:06
1	Y RADIAL	4901.2	4901.2	102.1	%			17:17:06
1	Al 396.153Radial†	-76.0	-1.2	-1.2256	ug/L	-1.2256	ppb	17:17:26
1	Ca 317.933Radial†	23.0	1.5	2.6744	ug/L	2.6744	ppb	17:17:26
1	Fe 238.204 Radial†	8.4	0.8	8.6935	ug/L	8.6935	ppb	17:17:26
1	K 766.490 Radial†	3056.0	385.6	74.816	ug/L	74.816	ppb	17:17:06
1	Mg 279.077 IEC†	2.9	1.8	71.603	ug/L	71.603	ppb	17:17:26
1	Na 589.592 Radial†	-734.6	186.3	63.761	ug/L	63.761	ppb	17:17:06
1	Sr 421.552†	29.2	8.0	0.0617	ug/L	0.0617	ppb	17:17:06
1	Sc 361.383	812811.4	812811.4	98.269	%			17:18:23
1	Y 371.029	691711.3	691711.3	98.378	%			17:18:23
1	Ag 328.068†	192.1	-53.6	-0.2666	ug/L	-0.2666	ppb	17:18:23
1	As 188.979†	-6.9	15.1	8.1354	ug/L	8.1354	ppb	17:18:43
1	B 249.677†	426.3	618.6	16.887	ug/L	16.887	ppb	17:18:43
1	Ba 233.527†	14.1	2.0	0.0181	ug/L	0.0181	ppb	17:18:43
1	Be 313.107†	-3865.5	-161.4	-0.0671	ug/L	-0.0671	ppb	17:18:23
1	Cd 226.502†	-137.6	16.8	0.2339	ug/L	0.2339	ppb	17:18:43
1	Co 228.616†	-44.8	2.7	0.0709	ug/L	0.0709	ppb	17:18:43
1	Cr 267.716†	80.3	0.5	0.0065	ug/L	0.0065	ppb	17:18:43
1	Cu 324.752†	5821.7	140.3	0.4502	ug/L	0.4502	ppb	17:18:23
1	Mn 257.610†	451.1	33.2	0.0408	ug/L	0.0408	ppb	17:18:43
1	Mo 202.031†	17.1	6.5	0.5577	ug/L	0.5577	ppb	17:18:43
1	Ni 231.604†	73.7	-13.0	-0.4007	ug/L	-0.4007	ppb	17:18:43
1	P 214.914†	183.4	3.7	2.6294	ug/L	2.6294	ppb	17:18:43
1	Pb 220.353†	-38.5	10.7	1.6004	ug/L	1.6004	ppb	17:18:43
1	S 181.975 Axial†	38.3	10.0	17.600	ug/L	17.600	ppb	17:18:43
1	Sb 206.836†	35.1	7.2	2.9510	ug/L	2.9510	ppb	17:18:43
1	Se 196.026†	-15.7	3.8	3.0368	ug/L	3.0368	ppb	17:18:43
1	Si 251.611†	546.0	52.8	1.9201	ug/L	1.9201	ppb	17:18:43
1	Sn 189.927†	9.0	5.2	1.1372	ug/L	1.1372	ppb	17:18:43
1	Ti 334.940†	-1171.0	-81.6	-0.1461	ug/L	-0.1461	ppb	17:18:23
1	Tl 190.801†	-33.4	-8.1	-3.0785	ug/L	-3.0785	ppb	17:18:43
1	U 409.014†	-2080.5	131.6	3.7630	ug/L	3.7630	ppb	17:18:23
1	V 292.402†	-1265.0	5.4	0.0569	ug/L	0.0569	ppb	17:18:23
1	Zn 213.857†	974.3	69.5	0.8155	ug/L	0.8155	ppb	17:18:43
1	SiO2†	560.8	62.9	4.8833	ug/L	4.8833	ppb	17:19:39
2	Sc Radial	4535.7	4535.7	103	%			17:17:31
2	Y RADIAL	4931.6	4931.6	102.7	%			17:17:31
2	Al 396.153Radial†	-83.8	-8.2	-8.0142	ug/L	-8.0142	ppb	17:17:51
2	Ca 317.933Radial†	20.5	-1.1	-2.0859	ug/L	-2.0859	ppb	17:17:51
2	Fe 238.204 Radial†	7.7	0.1	0.6016	ug/L	0.6016	ppb	17:17:51
2	K 766.490 Radial†	3037.4	343.6	66.663	ug/L	66.663	ppb	17:17:31
2	Mg 279.077 IEC†	0.5	-0.5	-20.713	ug/L	-20.713	ppb	17:17:51
2	Na 589.592 Radial†	-740.6	186.2	63.708	ug/L	63.708	ppb	17:17:31
2	Sr 421.552†	36.6	15.0	0.1157	ug/L	0.1157	ppb	17:17:31
2	Sc 361.383	809231.3	809231.3	97.837	%			17:18:49
2	Y 371.029	688474.9	688474.9	97.917	%			17:18:49
2	Ag 328.068†	244.5	0.8	0.0011	ug/L	0.0011	ppb	17:18:49
2	As 188.979†	-9.7	12.1	6.5482	ug/L	6.5482	ppb	17:19:09
2	B 249.677†	416.1	610.1	16.656	ug/L	16.656	ppb	17:19:09
2	Ba 233.527†	6.0	-6.2	-0.0585	ug/L	-0.0585	ppb	17:19:09
2	Be 313.107†	-3766.2	-77.4	-0.0322	ug/L	-0.0322	ppb	17:18:49
2	Cd 226.502†	-141.0	12.7	0.1774	ug/L	0.1774	ppb	17:19:09
2	Co 228.616†	-42.4	5.0	0.1272	ug/L	0.1272	ppb	17:19:09
2	Cr 267.716†	107.4	28.6	0.3676	ug/L	0.3676	ppb	17:19:09
2	Cu 324.752†	5769.6	113.2	0.3649	ug/L	0.3649	ppb	17:18:49
2	Mn 257.610†	437.9	21.8	0.0291	ug/L	0.0291	ppb	17:19:09
2	Mo 202.031†	13.5	2.9	0.2482	ug/L	0.2482	ppb	17:19:09
2	Ni 231.604†	90.5	4.5	0.1402	ug/L	0.1402	ppb	17:19:09

2	P 214.914†	186.9	8.2	5.9019 ug/L	5.9019 ppb	17:19:09
2	Pb 220.353†	-46.6	2.2	0.3318 ug/L	0.3318 ppb	17:19:09
2	S 181.975 Axial†	33.0	4.7	8.3230 ug/L	8.3230 ppb	17:19:09
2	Sb 206.836†	42.4	14.7	6.0164 ug/L	6.0164 ppb	17:19:09
2	Se 196.026†	-5.3	14.3	11.465 ug/L	11.465 ppb	17:19:09
2	Si 251.611†	558.6	68.2	2.4840 ug/L	2.4840 ppb	17:19:09
2	Sn 189.927†	12.9	9.2	2.0136 ug/L	2.0136 ppb	17:19:09
2	Ti 334.940†	-1136.4	-51.5	-0.0863 ug/L	-0.0863 ppb	17:18:49
2	Tl 190.801†	-28.7	-3.5	-1.3384 ug/L	-1.3384 ppb	17:19:09
2	U 409.014†	-2212.9	-13.1	-0.3763 ug/L	-0.3763 ppb	17:18:49
2	V 292.402†	-1364.8	-102.3	-0.7846 ug/L	-0.7846 ppb	17:18:49
2	Zn 213.857†	983.4	83.1	0.9729 ug/L	0.9729 ppb	17:19:09
2	SiO2†	570.2	75.0	5.8402 ug/L	5.8402 ppb	17:19:44
3	Sc Radial	4455.1	4455.1	101 %		17:17:57
3	Y RADIAL	4861.1	4861.1	101.2 %		17:17:57
3	Al 396.153Radial†	-81.1	-7.0	-6.8285 ug/L	-6.8285 ppb	17:18:17
3	Ca 317.933Radial†	22.3	1.0	1.7982 ug/L	1.7982 ppb	17:18:17
3	Fe 238.204 Radial†	8.5	1.0	11.309 ug/L	11.309 ppb	17:18:17
3	K 766.490 Radial†	3020.1	380.0	73.730 ug/L	73.730 ppb	17:17:57
3	Mg 279.077 IEC†	0.2	-0.8	-31.555 ug/L	-31.555 ppb	17:18:17
3	Na 589.592 Radial†	-752.1	161.7	55.346 ug/L	55.346 ppb	17:17:57
3	Sr 421.552†	13.6	-7.2	-0.0559 ug/L	-0.0559 ppb	17:17:57
3	Sc 361.383	809076.7	809076.7	97.818 %		17:19:14
3	Y 371.029	688764.6	688764.6	97.959 %		17:19:14
3	Ag 328.068†	311.0	68.8	0.3406 ug/L	0.3406 ppb	17:19:14
3	As 188.979†	-11.5	10.4	5.5906 ug/L	5.5906 ppb	17:19:34
3	B 249.677†	381.0	574.3	15.677 ug/L	15.677 ppb	17:19:34
3	Ba 233.527†	23.1	11.2	0.1005 ug/L	0.1005 ppb	17:19:34
3	Be 313.107†	-3841.7	-155.3	-0.0644 ug/L	-0.0644 ppb	17:19:14
3	Cd 226.502†	-148.7	4.8	0.0662 ug/L	0.0662 ppb	17:19:34
3	Co 228.616†	-43.4	4.0	0.1005 ug/L	0.1005 ppb	17:19:34
3	Cr 267.716†	78.0	-1.5	-0.0196 ug/L	-0.0196 ppb	17:19:34
3	Cu 324.752†	5829.1	175.2	0.5643 ug/L	0.5643 ppb	17:19:14
3	Mn 257.610†	441.1	25.1	0.0348 ug/L	0.0348 ppb	17:19:34
3	Mo 202.031†	6.6	-4.1	-0.3543 ug/L	-0.3543 ppb	17:19:34
3	Ni 231.604†	81.5	-4.6	-0.1422 ug/L	-0.1422 ppb	17:19:34
3	P 214.914†	177.9	-1.1	-0.8941 ug/L	-0.8941 ppb	17:19:34
3	Pb 220.353†	-48.9	-0.2	-0.0290 ug/L	-0.0290 ppb	17:19:34
3	S 181.975 Axial†	28.9	0.6	1.0970 ug/L	1.0970 ppb	17:19:34
3	Sb 206.836†	37.1	9.4	3.8344 ug/L	3.8344 ppb	17:19:34
3	Se 196.026†	-20.8	-1.5	-1.2089 ug/L	-1.2089 ppb	17:19:34
3	Si 251.611†	556.5	66.1	2.4162 ug/L	2.4162 ppb	17:19:34
3	Sn 189.927†	14.5	10.9	2.3830 ug/L	2.3830 ppb	17:19:34
3	Ti 334.940†	-1125.8	-40.8	-0.0672 ug/L	-0.0672 ppb	17:19:14
3	Tl 190.801†	-25.3	-0.1	-0.0336 ug/L	-0.0336 ppb	17:19:34
3	U 409.014†	-2166.7	33.6	0.9595 ug/L	0.9595 ppb	17:19:14
3	V 292.402†	-1380.1	-118.2	-0.9146 ug/L	-0.9146 ppb	17:19:14
3	Zn 213.857†	967.4	67.0	0.7841 ug/L	0.7841 ppb	17:19:34
3	SiO2†	576.1	81.1	6.3334 ug/L	6.3334 ppb	17:19:49

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	810373.1	97.975	%	0.2555				0.26%
Sc Radial	4496.8	102	%	0.9				0.90%
Y 371.029	689650.3	98.085	%	0.2547				0.26%
Y RADIAL	4898.0	102.0	%	0.74				0.72%
Ag 328.068†	5.3	0.0251	ug/L	0.30431	0.0251	ppb	0.30431	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-5.5	-5.3561	ug/L	3.62594	-5.3561	ppb	3.62594	67.70%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	12.5	6.7581	ug/L	1.28529	6.7581	ppb	1.28529	19.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	601.0	16.407	ug/L	0.6425	16.407	ppb	0.6425	3.92%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.3	0.0200	ug/L	0.07949	0.0200	ppb	0.07949	396.64%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-131.4	-0.0546	ug/L	0.01941	-0.0546	ppb	0.01941	35.57%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.4	0.7956	ug/L	2.53357	0.7956	ppb	2.53357	318.46%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                11.4      0.1592 ug/L       0.08533      0.1592 ppb        0.08533  53.61%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.9      0.0995 ug/L       0.02813      0.0995 ppb        0.02813  28.27%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.2      0.1182 ug/L       0.21640      0.1182 ppb        0.21640 183.14%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               142.9      0.4598 ug/L       0.10004      0.4598 ppb        0.10004  21.76%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.6      6.8681 ug/L       5.58238      6.8681 ppb        5.58238  81.28%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         369.7      71.736 ug/L        4.4270      71.736 ppb         4.4270   6.17%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.2      6.4451 ug/L      56.68799      6.4451 ppb       56.68799 879.55%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                26.7      0.0349 ug/L       0.00588      0.0349 ppb        0.00588  16.84%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.8      0.1506 ug/L       0.46377      0.1506 ppb        0.46377 308.01%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        178.1      60.938 ug/L        4.8433      60.938 ppb         4.8433   7.95%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -4.3     -0.1343 ug/L       0.27057     -0.1343 ppb        0.27057 201.53%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  3.6      2.5457 ug/L       3.39875      2.5457 ppb        3.39875 133.51%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 4.2      0.6344 ug/L       0.85580      0.6344 ppb        0.85580 134.90%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            5.1      9.0065 ug/L       8.27250      9.0065 ppb        8.27250  91.85%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                10.4      4.2673 ug/L       1.57792      4.2673 ppb        1.57792  36.98%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 5.5      4.4311 ug/L       6.45122      4.4311 ppb        6.45122 145.59%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                62.4      2.2735 ug/L       0.30787      2.2735 ppb        0.30787  13.54%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 8.4      1.8446 ug/L       0.63989      1.8446 ppb        0.63989  34.69%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 5.2      0.0405 ug/L       0.08770      0.0405 ppb        0.08770 216.61%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -58.0     -0.0999 ug/L       0.04118     -0.0999 ppb        0.04118  41.22%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -3.9     -1.4835 ug/L       1.52765     -1.4835 ppb        1.52765 102.98%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 50.7      1.4487 ug/L       2.11258      1.4487 ppb        2.11258 145.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -71.7     -0.5474 ug/L       0.52740     -0.5474 ppb        0.52740  96.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                73.2      0.8575 ug/L       0.10116      0.8575 ppb        0.10116  11.80%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      73.0      5.6856 ug/L       0.73732      5.6856 ppb        0.73732  12.97%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

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Analysis Begun

Start Time: 3/17/2010 17:20:31 **Plasma On Time: 3/15/2010 06:51:19**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\031710.sif
Batch ID:
Results Data Set: 031710
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 3/17/2010 15:10:03**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 37**
Sample ID: LR1 **Date Collected: 3/17/2010 17:20:32**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4393.7	4393.7	99.5	%			17:22:26
1	Y RADIAL	4764.8	4764.8	99.22	%			17:22:26
1	Al 396.153Radial†	-84.9	-12.0	-10.422	ug/L	-10.422	ppb	17:22:46

1	Ca 317.933Radial†	17.8	-3.2	-5.8650 ug/L	-5.8650 ppb	17:22:46
1	Fe 238.204 Radial†	33195.7	33361.1	372380 ug/L	372380 ppb	17:22:26
1	K 766.490 Radial†	2540.2	-60.6	-11.728 ug/L	-11.728 ppb	17:22:26
1	Mg 279.077 IEC†	10.0	9.0	-32.519 ug/L	-32.519 ppb	17:22:46
1	Na 589.592 Radial†	-772.0	131.3	44.921 ug/L	44.921 ppb	17:22:26
1	Sr 421.552†	77.6	57.2	0.4428 ug/L	0.4428 ppb	17:22:26
1	Sc 361.383	806962.6	806962.6	97.562 %		17:23:43
1	Y 371.029	680377.0	680377.0	96.766 %		17:23:43
1	Ag 328.068†	-22887.4	-23708.4	-2.4312 ug/L	-2.4312 ppb	17:23:43
1	As 188.979†	-178.0	-160.4	0.7694 ug/L	0.7694 ppb	17:24:03
1	B 249.677†	2075.8	2312.5	2.6133 ug/L	2.6133 ppb	17:23:43
1	Ba 233.527†	-1670.5	-1724.7	-4.2292 ug/L	-4.2292 ppb	17:23:43
1	Be 313.107†	-3797.7	-120.4	-0.0503 ug/L	-0.0503 ppb	17:23:43
1	Cd 226.502†	2655.6	2878.7	1.7212 ug/L	1.7212 ppb	17:23:43
1	Co 228.616†	629.5	693.5	12.149 ug/L	12.149 ppb	17:24:03
1	Cr 267.716†	-486.8	-580.1	32.031 ug/L	32.031 ppb	17:24:03
1	Cu 324.752†	-869.5	-6675.2	-1.8220 ug/L	-1.8220 ppb	17:23:43
1	Mn 257.610†	-31170.5	-32375.1	-5.0246 ug/L	-5.0246 ppb	17:23:43
1	Mo 202.031†	-281.0	-298.9	3.2892 ug/L	3.2892 ppb	17:23:43
1	Ni 231.604†	148.4	64.2	1.9752 ug/L	1.9752 ppb	17:24:03
1	P 214.914†	612.6	445.0	29.082 ug/L	29.082 ppb	17:24:03
1	Pb 220.353†	181.0	235.3	-17.762 ug/L	-17.762 ppb	17:24:03
1	S 181.975 Axial†	40.7	12.8	22.399 ug/L	22.399 ppb	17:24:03
1	Sb 206.836†	22.3	-5.7	-6.8877 ug/L	-6.8877 ppb	17:24:03
1	Se 196.026†	-1565.0	-1584.3	-195.39 ug/L	-195.39 ppb	17:24:03
1	Si 251.611†	-435.2	-948.8	-34.308 ug/L	-34.308 ppb	17:23:43
1	Sn 189.927†	-14.2	-18.5	-25.437 ug/L	-25.437 ppb	17:24:03
1	Ti 334.940†	-1194.1	-113.8	-0.2493 ug/L	-0.2493 ppb	17:23:43
1	Tl 190.801†	-50.2	-25.6	-10.058 ug/L	-10.058 ppb	17:24:03
1	U 409.014†	-16.5	2231.7	21.411 ug/L	21.411 ppb	17:23:43
1	V 292.402†	5558.4	6989.9	-0.7134 ug/L	-0.7134 ppb	17:23:43
1	Zn 213.857†	4097.7	3278.0	-17.257 ug/L	-17.257 ppb	17:24:03
1	SiO2†	-382.6	-899.9	-69.434 ug/L	-69.434 ppb	17:25:00
2	Sc Radial	4408.8	4408.8	99.8 %		17:22:51
2	Y RADIAL	4794.0	4794.0	99.83 %		17:22:51
2	Al 396.153Radial†	-88.1	-15.0	-13.381 ug/L	-13.381 ppb	17:23:11
2	Ca 317.933Radial†	12.7	-8.3	-15.321 ug/L	-15.321 ppb	17:23:11
2	Fe 238.204 Radial†	33361.3	33412.2	372950 ug/L	372950 ppb	17:22:51
2	K 766.490 Radial†	2427.4	-182.4	-35.364 ug/L	-35.364 ppb	17:22:51
2	Mg 279.077 IEC†	11.1	10.1	12.165 ug/L	12.165 ppb	17:23:11
2	Na 589.592 Radial†	-776.7	129.3	44.240 ug/L	44.240 ppb	17:22:51
2	Sr 421.552†	91.8	71.3	0.5513 ug/L	0.5513 ppb	17:22:51
2	Sc 361.383	811274.7	811274.7	98.084 %		17:24:09
2	Y 371.029	684368.8	684368.8	97.333 %		17:24:09
2	Ag 328.068†	-22920.4	-23617.4	-1.8009 ug/L	-1.8009 ppb	17:24:09
2	As 188.979†	-156.5	-137.5	13.268 ug/L	13.268 ppb	17:24:29
2	B 249.677†	2087.1	2312.6	2.5240 ug/L	2.5240 ppb	17:24:09
2	Ba 233.527†	-1619.8	-1663.8	-3.6585 ug/L	-3.6585 ppb	17:24:09
2	Be 313.107†	-3768.3	-69.9	-0.0290 ug/L	-0.0290 ppb	17:24:09
2	Cd 226.502†	2577.3	2784.4	0.3466 ug/L	0.3466 ppb	17:24:09
2	Co 228.616†	644.7	705.6	12.451 ug/L	12.451 ppb	17:24:29
2	Cr 267.716†	-468.2	-558.5	32.371 ug/L	32.371 ppb	17:24:29
2	Cu 324.752†	-846.2	-6646.7	-1.6993 ug/L	-1.6993 ppb	17:24:09
2	Mn 257.610†	-31145.6	-32180.0	-4.7182 ug/L	-4.7182 ppb	17:24:09
2	Mo 202.031†	-263.1	-279.1	5.0303 ug/L	5.0303 ppb	17:24:09
2	Ni 231.604†	177.6	93.2	2.8693 ug/L	2.8693 ppb	17:24:29
2	P 214.914†	608.2	437.2	22.934 ug/L	22.934 ppb	17:24:29
2	Pb 220.353†	171.2	224.4	-19.486 ug/L	-19.486 ppb	17:24:29
2	S 181.975 Axial†	39.5	11.4	19.942 ug/L	19.942 ppb	17:24:29
2	Sb 206.836†	17.5	-10.8	-8.9196 ug/L	-8.9196 ppb	17:24:29
2	Se 196.026†	-1554.3	-1564.9	-178.23 ug/L	-178.23 ppb	17:24:29
2	Si 251.611†	-382.4	-892.6	-32.278 ug/L	-32.278 ppb	17:24:09
2	Sn 189.927†	-10.9	-15.1	-24.712 ug/L	-24.712 ppb	17:24:29
2	Ti 334.940†	-1103.7	-15.2	-0.0856 ug/L	-0.0856 ppb	17:24:09
2	Tl 190.801†	-24.4	1.0	-0.0089 ug/L	-0.0089 ppb	17:24:29
2	U 409.014†	-63.2	2184.2	19.985 ug/L	19.985 ppb	17:24:09
2	V 292.402†	5594.3	6996.3	-0.7255 ug/L	-0.7255 ppb	17:24:09
2	Zn 213.857†	4059.9	3217.2	-18.062 ug/L	-18.062 ppb	17:24:29
2	SiO2†	-421.8	-937.9	-72.434 ug/L	-72.434 ppb	17:25:06
3	Sc Radial	4459.7	4459.7	101 %		17:23:16
3	Y RADIAL	4886.9	4886.9	101.8 %		17:23:16

3	Al 396.153Radial†	-94.7	-20.5	-18.744 ug/L	-18.744 ppb	17:23:36
3	Ca 317.933Radial†	18.1	-3.2	-5.8473 ug/L	-5.8473 ppb	17:23:36
3	Fe 238.204 Radial†	33635.7	33302.7	371720 ug/L	371720 ppb	17:23:16
3	K 766.490 Radial†	2547.9	-90.7	-17.585 ug/L	-17.585 ppb	17:23:16
3	Mg 279.077 IEC†	10.4	9.3	-19.128 ug/L	-19.128 ppb	17:23:36
3	Na 589.592 Radial†	-763.2	151.5	51.841 ug/L	51.841 ppb	17:23:16
3	Sr 421.552†	87.0	65.4	0.5057 ug/L	0.5057 ppb	17:23:16
3	Sc 361.383	816895.0	816895.0	98.763 %		17:24:35
3	Y 371.029	689573.9	689573.9	98.074 %		17:24:35
3	Ag 328.068†	-23208.5	-23748.3	-2.8378 ug/L	-2.8378 ppb	17:24:35
3	As 188.979†	-166.2	-146.2	8.2794 ug/L	8.2794 ppb	17:24:55
3	B 249.677†	1938.8	2147.8	-1.7757 ug/L	-1.7757 ppb	17:24:35
3	Ba 233.527†	-1640.0	-1673.0	-3.7815 ug/L	-3.7815 ppb	17:24:35
3	Be 313.107†	-3851.2	-127.3	-0.0529 ug/L	-0.0529 ppb	17:24:35
3	Cd 226.502†	2608.6	2798.0	0.6632 ug/L	0.6632 ppb	17:24:35
3	Co 228.616†	634.1	690.3	12.080 ug/L	12.080 ppb	17:24:55
3	Cr 267.716†	-478.8	-566.0	32.141 ug/L	32.141 ppb	17:24:55
3	Cu 324.752†	-1071.4	-6868.8	-2.4820 ug/L	-2.4820 ppb	17:24:35
3	Mn 257.610†	-31749.7	-32573.2	-5.3451 ug/L	-5.3451 ppb	17:24:35
3	Mo 202.031†	-273.0	-287.3	4.2368 ug/L	4.2368 ppb	17:24:35
3	Ni 231.604†	161.3	75.4	2.3194 ug/L	2.3194 ppb	17:24:55
3	P 214.914†	606.3	431.0	19.516 ug/L	19.516 ppb	17:24:55
3	Pb 220.353†	160.5	212.4	-21.114 ug/L	-21.114 ppb	17:24:55
3	S 181.975 Axial†	33.1	4.6	8.0328 ug/L	8.0328 ppb	17:24:55
3	Sb 206.836†	24.8	-3.4	-5.9618 ug/L	-5.9618 ppb	17:24:55
3	Se 196.026†	-1584.9	-1585.0	-197.81 ug/L	-197.81 ppb	17:24:55
3	Si 251.611†	-408.3	-916.2	-33.129 ug/L	-33.129 ppb	17:24:35
3	Sn 189.927†	-18.7	-22.9	-26.347 ug/L	-26.347 ppb	17:24:55
3	Ti 334.940†	-1143.9	-48.1	-0.1401 ug/L	-0.1401 ppb	17:24:35
3	Tl 190.801†	-30.2	-4.8	-2.1836 ug/L	-2.1836 ppb	17:24:55
3	U 409.014†	116.5	2366.6	25.344 ug/L	25.344 ppb	17:24:35
3	V 292.402†	5501.4	6862.9	-1.5734 ug/L	-1.5734 ppb	17:24:35
3	Zn 213.857†	4103.1	3232.4	-17.696 ug/L	-17.696 ppb	17:24:55
3	SiO2†	-316.5	-828.3	-63.877 ug/L	-63.877 ppb	17:25:11

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	811710.8	98.136	%	0.6021				0.61%
Sc Radial	4420.7	100	%	0.8				0.78%
Y 371.029	684773.2	97.391	%	0.6559				0.67%
Y RADIAL	4815.2	100.3	%	1.33				1.32%
Ag 328.068†	-23691.4	-2.3566	ug/L	0.52250	-2.3566	ppb	0.52250	22.17%
Al 396.153Radial†	-15.8	-14.182	ug/L	4.2183	-14.182	ppb	4.2183	29.74%
As 188.979†	-148.0	7.4388	ug/L	6.29133	7.4388	ppb	6.29133	84.57%
B 249.677†	2257.6	1.1205	ug/L	2.50864	1.1205	ppb	2.50864	223.88%
Ba 233.527†	-1687.2	-3.8897	ug/L	0.30037	-3.8897	ppb	0.30037	7.72%
Be 313.107†	-105.9	-0.0440	ug/L	0.01311	-0.0440	ppb	0.01311	29.79%
Ca 317.933Radial†	-4.9	-9.0111	ug/L	5.46455	-9.0111	ppb	5.46455	60.64%
Cd 226.502†	2820.4	0.9104	ug/L	0.71985	0.9104	ppb	0.71985	79.07%
Co 228.616†	696.5	12.226	ug/L	0.1972	12.226	ppb	0.1972	1.61%
Cr 267.716†	-568.2	32.181	ug/L	0.1734	32.181	ppb	0.1734	0.54%
Cu 324.752†	-6730.3	-2.0011	ug/L	0.42098	-2.0011	ppb	0.42098	21.04%
Fe 238.204 Radial†	33358.7	372350	ug/L	611.6	372350	ppb	611.6	0.16%
K 766.490 Radial†	-111.2	-21.559	ug/L	12.3092	-21.559	ppb	12.3092	57.09%
Mg 279.077 IEC†	9.5	-13.160	ug/L	22.9319	-13.160	ppb	22.9319	174.25%
Mn 257.610†	-32376.1	-5.0293	ug/L	0.31348	-5.0293	ppb	0.31348	6.23%
Mo 202.031†	-288.5	4.1855	ug/L	0.87170	4.1855	ppb	0.87170	20.83%
Na 589.592 Radial†	137.3	47.001	ug/L	4.2059	47.001	ppb	4.2059	8.95%
Ni 231.604†	77.6	2.3880	ug/L	0.45095	2.3880	ppb	0.45095	18.88%
P 214.914†	437.7	23.844	ug/L	4.8474	23.844	ppb	4.8474	20.33%
Pb 220.353†	224.0	-19.454	ug/L	1.6762	-19.454	ppb	1.6762	8.62%
S 181.975 Axial†	9.6	16.791	ug/L	7.6838	16.791	ppb	7.6838	45.76%
Sb 206.836†	-6.6	-7.2564	ug/L	1.51298	-7.2564	ppb	1.51298	20.85%
Se 196.026†	-1578.1	-190.48	ug/L	10.675	-190.48	ppb	10.675	5.60%
Si 251.611†	-919.2	-33.239	ug/L	1.0193	-33.239	ppb	1.0193	3.07%
Sn 189.927†	-18.8	-25.499	ug/L	0.8192	-25.499	ppb	0.8192	3.21%
Sr 421.552†	64.6	0.4999	ug/L	0.05448	0.4999	ppb	0.05448	10.90%
Ti 334.940†	-59.1	-0.1584	ug/L	0.08335	-0.1584	ppb	0.08335	52.63%
Tl 190.801†	-9.8	-4.0835	ug/L	5.28705	-4.0835	ppb	5.28705	129.47%

U 409.014†	2260.8	22.247	ug/L	2.7755	22.247	ppb	2.7755	12.48%
V 292.402†	6949.7	-1.0041	ug/L	0.49306	-1.0041	ppb	0.49306	49.11%
Zn 213.857†	3242.6	-17.671	ug/L	0.4029	-17.671	ppb	0.4029	2.28%
SiO2†	-888.7	-68.581	ug/L	4.3418	-68.581	ppb	4.3418	6.33%

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/17/2010 17:27:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4543.6	4543.6	103	%			17:29:14
1	Y RADIAL	4915.8	4915.8	102.4	%			17:29:14
1	Al 396.153Radial†	5168.6	5097.4	4932.8	ug/L	4932.8	ppb	17:29:14
1	Ca 317.933Radial†	2792.7	2693.5	4943.7	ug/L	4943.7	ppb	17:29:34
1	Fe 238.204 Radial†	460.4	440.1	4927.6	ug/L	4927.6	ppb	17:29:34
1	K 766.490 Radial†	29281.5	25849.0	5010.9	ug/L	5010.9	ppb	17:29:14
1	Mg 279.077 IEC†	133.9	129.1	5140.1	ug/L	5140.1	ppb	17:29:34
1	Na 589.592 Radial†	28372.6	28486.8	9749.3	ug/L	9749.3	ppb	17:29:14
1	Sr 421.552†	66200.9	64329.5	497.46	ug/L	497.46	ppb	17:29:14
1	Sc 361.383	832399.3	832399.3	100.64	%			17:30:32
1	Y 371.029	696591.9	696591.9	99.072	%			17:30:32
1	Ag 328.068†	98343.2	97471.1	487.13	ug/L	487.13	ppb	17:30:37
1	As 188.979†	901.4	917.8	499.24	ug/L	499.24	ppb	17:30:57
1	B 249.677†	17979.9	18050.8	490.59	ug/L	490.59	ppb	17:30:37
1	Ba 233.527†	54134.7	53779.3	490.06	ug/L	490.06	ppb	17:30:37
1	Be 313.107†	1204485.5	1200627.3	497.73	ug/L	497.73	ppb	17:30:32
1	Cd 226.502†	35192.9	35126.7	490.08	ug/L	490.08	ppb	17:30:37
1	Co 228.616†	19925.5	19847.6	503.48	ug/L	503.48	ppb	17:30:37
1	Cr 267.716†	38180.1	37857.1	488.57	ug/L	488.57	ppb	17:30:37
1	Cu 324.752†	158002.0	151217.1	486.96	ug/L	486.96	ppb	17:30:37
1	Mn 257.610†	390100.4	387203.4	500.06	ug/L	500.06	ppb	17:30:32
1	Mo 202.031†	5714.5	5667.4	486.13	ug/L	486.13	ppb	17:30:57
1	Ni 231.604†	16398.1	16206.3	500.75	ug/L	500.75	ppb	17:30:37
1	P 214.914†	3540.8	3335.5	2339.7	ug/L	2339.7	ppb	17:30:57
1	Pb 220.353†	3247.5	3276.8	492.56	ug/L	492.56	ppb	17:30:57
1	S 181.975 Axial†	583.5	550.8	964.52	ug/L	964.52	ppb	17:30:57
1	Sb 206.836†	1233.1	1196.7	503.80	ug/L	503.80	ppb	17:30:57
1	Se 196.026†	587.0	603.1	499.04	ug/L	499.04	ppb	17:30:57
1	Si 251.611†	67784.6	66852.4	2433.5	ug/L	2433.5	ppb	17:30:37
1	Sn 189.927†	2244.6	2226.4	488.00	ug/L	488.00	ppb	17:30:57
1	Ti 334.940†	285690.9	284991.2	485.52	ug/L	485.52	ppb	17:30:37
1	Tl 190.801†	1271.8	1289.6	490.95	ug/L	490.95	ppb	17:30:57
1	U 409.014†	14941.9	17095.9	487.43	ug/L	487.43	ppb	17:30:37
1	V 292.402†	62314.1	63212.0	492.57	ug/L	492.57	ppb	17:30:37
1	Zn 213.857†	42903.0	41709.2	484.68	ug/L	484.68	ppb	17:30:37
1	SiO2†	68317.8	67377.2	5237.4	ug/L	5237.4	ppb	17:32:04
2	Sc Radial	4403.4	4403.4	99.7	%			17:29:39
2	Y RADIAL	4727.0	4727.0	98.43	%			17:29:39
2	Al 396.153Radial†	4989.2	5077.4	4913.4	ug/L	4913.4	ppb	17:29:39
2	Ca 317.933Radial†	2789.2	2776.4	5095.8	ug/L	5095.8	ppb	17:30:00
2	Fe 238.204 Radial†	464.5	458.5	5132.6	ug/L	5132.6	ppb	17:30:00
2	K 766.490 Radial†	28338.7	25809.3	5003.2	ug/L	5003.2	ppb	17:29:39
2	Mg 279.077 IEC†	132.4	131.7	5242.6	ug/L	5242.6	ppb	17:30:00
2	Na 589.592 Radial†	27195.6	28184.1	9645.8	ug/L	9645.8	ppb	17:29:39
2	Sr 421.552†	63718.4	63888.0	494.05	ug/L	494.05	ppb	17:29:39
2	Sc 361.383	838775.1	838775.1	101.41	%			17:31:03
2	Y 371.029	702071.6	702071.6	99.851	%			17:31:03
2	Ag 328.068†	99268.0	97640.2	488.03	ug/L	488.03	ppb	17:31:08
2	As 188.979†	909.0	918.5	499.66	ug/L	499.66	ppb	17:31:28
2	B 249.677†	18184.4	18116.6	492.36	ug/L	492.36	ppb	17:31:08
2	Ba 233.527†	54519.3	53749.8	489.80	ug/L	489.80	ppb	17:31:08
2	Be 313.107†	1195471.8	1182641.1	490.29	ug/L	490.29	ppb	17:31:03
2	Cd 226.502†	35361.5	35027.2	488.67	ug/L	488.67	ppb	17:31:08
2	Co 228.616†	20011.3	19781.7	501.80	ug/L	501.80	ppb	17:31:08
2	Cr 267.716†	38399.4	37784.9	487.66	ug/L	487.66	ppb	17:31:08
2	Cu 324.752†	159170.2	151175.6	486.84	ug/L	486.84	ppb	17:31:08
2	Mn 257.610†	387387.5	381581.6	492.82	ug/L	492.82	ppb	17:31:03
2	Mo 202.031†	5742.6	5652.0	484.83	ug/L	484.83	ppb	17:31:28
2	Ni 231.604†	16395.9	16080.3	496.85	ug/L	496.85	ppb	17:31:08

2	P 214.914†	3576.0	3343.4	2345.3 ug/L	2345.3 ppb	17:31:28
2	Pb 220.353†	3259.2	3263.8	490.57 ug/L	490.57 ppb	17:31:28
2	S 181.975 Axial†	589.3	552.1	966.77 ug/L	966.77 ppb	17:31:28
2	Sb 206.836†	1247.2	1201.3	505.60 ug/L	505.60 ppb	17:31:28
2	Se 196.026†	599.1	610.6	505.63 ug/L	505.63 ppb	17:31:28
2	Si 251.611†	68134.3	66685.2	2427.4 ug/L	2427.4 ppb	17:31:08
2	Sn 189.927†	2250.8	2215.6	485.63 ug/L	485.63 ppb	17:31:28
2	Ti 334.940†	287850.2	284962.6	485.48 ug/L	485.48 ppb	17:31:08
2	Tl 190.801†	1280.5	1288.6	490.55 ug/L	490.55 ppb	17:31:28
2	U 409.014†	15069.5	17108.9	487.78 ug/L	487.78 ppb	17:31:08
2	V 292.402†	62765.7	63186.7	492.33 ug/L	492.33 ppb	17:31:08
2	Zn 213.857†	43041.5	41521.7	482.48 ug/L	482.48 ppb	17:31:08
2	SiO2†	68122.4	66668.5	5182.2 ug/L	5182.2 ppb	17:32:10
3	Sc Radial	4495.0	4495.0	102 %		17:30:05
3	Y RADIAL	4873.1	4873.1	101.5 %		17:30:05
3	Al 396.153Radial†	5150.2	5133.6	4967.5 ug/L	4967.5 ppb	17:30:05
3	Ca 317.933Radial†	2800.2	2730.2	5011.1 ug/L	5011.1 ppb	17:30:25
3	Fe 238.204 Radial†	466.5	450.9	5048.4 ug/L	5048.4 ppb	17:30:25
3	K 766.490 Radial†	28810.2	25693.4	4980.7 ug/L	4980.7 ppb	17:30:05
3	Mg 279.077 IEC†	132.2	128.9	5129.7 ug/L	5129.7 ppb	17:30:25
3	Na 589.592 Radial†	27873.6	28294.4	9683.5 ug/L	9683.5 ppb	17:30:05
3	Sr 421.552†	65318.1	64157.2	496.13 ug/L	496.13 ppb	17:30:05
3	Sc 361.383	823295.5	823295.5	99.537 %		17:31:34
3	Y 371.029	689547.6	689547.6	98.070 %		17:31:34
3	Ag 328.068†	98630.3	98840.1	493.99 ug/L	493.99 ppb	17:31:39
3	As 188.979†	912.1	938.4	510.44 ug/L	510.44 ppb	17:31:59
3	B 249.677†	18112.7	18381.7	499.59 ug/L	499.59 ppb	17:31:39
3	Ba 233.527†	54505.7	54746.9	498.88 ug/L	498.88 ppb	17:31:39
3	Be 313.107†	1189836.2	1199144.3	497.14 ug/L	497.14 ppb	17:31:34
3	Cd 226.502†	35321.7	35642.8	497.27 ug/L	497.27 ppb	17:31:39
3	Co 228.616†	19947.1	20088.3	509.59 ug/L	509.59 ppb	17:31:39
3	Cr 267.716†	38344.4	38441.6	496.12 ug/L	496.12 ppb	17:31:39
3	Cu 324.752†	158685.9	153640.2	494.77 ug/L	494.77 ppb	17:31:39
3	Mn 257.610†	384337.9	385700.3	498.13 ug/L	498.13 ppb	17:31:34
3	Mo 202.031†	5773.2	5789.1	496.57 ug/L	496.57 ppb	17:31:59
3	Ni 231.604†	16430.4	16419.0	507.32 ug/L	507.32 ppb	17:31:39
3	P 214.914†	3584.0	3417.8	2398.2 ug/L	2398.2 ppb	17:31:59
3	Pb 220.353†	3263.6	3328.6	500.34 ug/L	500.34 ppb	17:31:59
3	S 181.975 Axial†	593.7	567.5	993.78 ug/L	993.78 ppb	17:31:59
3	Sb 206.836†	1255.4	1232.7	518.79 ug/L	518.79 ppb	17:31:59
3	Se 196.026†	600.0	622.5	514.99 ug/L	514.99 ppb	17:31:59
3	Si 251.611†	67982.2	67795.7	2467.8 ug/L	2467.8 ppb	17:31:39
3	Sn 189.927†	2273.2	2279.8	499.69 ug/L	499.69 ppb	17:31:59
3	Ti 334.940†	287037.0	289482.6	493.18 ug/L	493.18 ppb	17:31:39
3	Tl 190.801†	1291.4	1323.3	503.71 ug/L	503.71 ppb	17:31:59
3	U 409.014†	14916.1	17234.1	491.36 ug/L	491.36 ppb	17:31:39
3	V 292.402†	62535.2	64118.8	499.67 ug/L	499.67 ppb	17:31:39
3	Zn 213.857†	43018.7	42296.8	491.50 ug/L	491.50 ppb	17:31:39
3	SiO2†	67571.5	67378.1	5237.2 ug/L	5237.2 ppb	17:32:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	831490.0	100.53	%	0.941				0.94%
Sc Radial	4480.7	101	%	1.6				1.59%
Y 371.029	696070.4	98.998	%	0.8929				0.90%
Y RADIAL	4838.6	100.8	%	2.06				2.05%
Ag 328.068†	97983.8	489.72	ug/L	3.729	489.72	ppb	3.729	0.76%
QC value within limits for Ag 328.068 Recovery = 97.94%								
Al 396.153Radial†	5102.8	4937.9	ug/L	27.38	4937.9	ppb	27.38	0.55%
QC value within limits for Al 396.153Radial Recovery = 98.76%								
As 188.979†	924.9	503.11	ug/L	6.346	503.11	ppb	6.346	1.26%
QC value within limits for As 188.979 Recovery = 100.62%								
B 249.677†	18183.1	494.18	ug/L	4.767	494.18	ppb	4.767	0.96%
QC value within limits for B 249.677 Recovery = 98.84%								
Ba 233.527†	54092.0	492.92	ug/L	5.166	492.92	ppb	5.166	1.05%
QC value within limits for Ba 233.527 Recovery = 98.58%								
Be 313.107†	1194137.6	495.05	ug/L	4.134	495.05	ppb	4.134	0.84%
QC value within limits for Be 313.107 Recovery = 99.01%								
Ca 317.933Radial†	2733.4	5016.9	ug/L	76.22	5016.9	ppb	76.22	1.52%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.34%
Cd 226.502†            35265.6      492.01 ug/L         4.616      492.01 ppb          4.616   0.94%
   QC value within limits for Cd 226.502  Recovery = 98.40%
Co 228.616†            19905.9      504.95 ug/L         4.099      504.95 ppb          4.099   0.81%
   QC value within limits for Co 228.616  Recovery = 100.99%
Cr 267.716†            38027.9      490.79 ug/L         4.643      490.79 ppb          4.643   0.95%
   QC value within limits for Cr 267.716  Recovery = 98.16%
Cu 324.752†           152011.0      489.52 ug/L         4.544      489.52 ppb          4.544   0.93%
   QC value within limits for Cu 324.752  Recovery = 97.90%
Fe 238.204 Radial†       449.8      5036.2 ug/L        103.08      5036.2 ppb         103.08   2.05%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.72%
K 766.490 Radial†      25783.9      4998.3 ug/L         15.70      4998.3 ppb          15.70   0.31%
   QC value within limits for K 766.490 Radial  Recovery = 99.97%
Mg 279.077 IEC†          129.9      5170.8 ug/L         62.40      5170.8 ppb          62.40   1.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.42%
Mn 257.610†           384828.4      497.00 ug/L         3.750      497.00 ppb          3.750   0.75%
   QC value within limits for Mn 257.610  Recovery = 99.40%
Mo 202.031†             5702.9      489.18 ug/L         6.439      489.18 ppb          6.439   1.32%
   QC value within limits for Mo 202.031  Recovery = 97.84%
Na 589.592 Radial†     28321.8      9692.9 ug/L         52.42      9692.9 ppb          52.42   0.54%
   QC value within limits for Na 589.592 Radial  Recovery = 96.93%
Ni 231.604†            16235.2      501.64 ug/L         5.290      501.64 ppb          5.290   1.05%
   QC value within limits for Ni 231.604  Recovery = 100.33%
P 214.914†              3365.5      2361.1 ug/L         32.30      2361.1 ppb          32.30   1.37%
   QC value within limits for P 214.914  Recovery = 94.44%
Pb 220.353†             3289.7      494.49 ug/L         5.162      494.49 ppb          5.162   1.04%
   QC value within limits for Pb 220.353  Recovery = 98.90%
S 181.975 Axial†         556.8      975.02 ug/L        16.284      975.02 ppb         16.284   1.67%
   QC value within limits for S 181.975 Axial  Recovery = 97.50%
Sb 206.836†             1210.3      509.40 ug/L         8.188      509.40 ppb          8.188   1.61%
   QC value within limits for Sb 206.836  Recovery = 101.88%
Se 196.026†              612.1      506.56 ug/L         8.015      506.56 ppb          8.015   1.58%
   QC value within limits for Se 196.026  Recovery = 101.31%
Si 251.611†            67111.1      2442.9 ug/L         21.77      2442.9 ppb          21.77   0.89%
   QC value within limits for Si 251.611  Recovery = 97.71%
Sn 189.927†             2240.6      491.11 ug/L         7.526      491.11 ppb          7.526   1.53%
   QC value within limits for Sn 189.927  Recovery = 98.22%
Sr 421.552†            64124.9      495.88 ug/L         1.722      495.88 ppb          1.722   0.35%
   QC value within limits for Sr 421.552  Recovery = 99.18%
Ti 334.940†           286478.8      488.06 ug/L         4.433      488.06 ppb          4.433   0.91%
   QC value within limits for Ti 334.940  Recovery = 97.61%
Tl 190.801†             1300.5      495.07 ug/L         7.487      495.07 ppb          7.487   1.51%
   QC value within limits for Tl 190.801  Recovery = 99.01%
U 409.014†             17146.3      488.86 ug/L         2.172      488.86 ppb          2.172   0.44%
   QC value within limits for U 409.014  Recovery = 97.77%
V 292.402†             63505.8      494.85 ug/L         4.170      494.85 ppb          4.170   0.84%
   QC value within limits for V 292.402  Recovery = 98.97%
Zn 213.857†            41842.6      486.22 ug/L         4.706      486.22 ppb          4.706   0.97%
   QC value within limits for Zn 213.857  Recovery = 97.24%
SiO2†                  67141.3      5218.9 ug/L         31.80      5218.9 ppb          31.80   0.61%
   QC value within limits for SiO2  Recovery = 97.60%
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/17/2010 17:34:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4354.4	4354.4	98.6	%			17:36:37
1	Y RADIAL	4954.1	4954.1	103.2	%			17:36:17
1	Al 396.153Radial†	-83.2	-11.0	-10.756	ug/L	-10.756	ppb	17:36:37
1	Ca 317.933Radial†	27.1	6.3	11.619	ug/L	11.619	ppb	17:36:37
1	Fe 238.204 Radial†	8.3	1.0	11.492	ug/L	11.492	ppb	17:36:37
1	K 766.490 Radial†	2753.6	179.0	34.717	ug/L	34.717	ppb	17:36:17
1	Mg 279.077 IEC†	-1.0	-2.1	-82.241	ug/L	-82.241	ppb	17:36:37
1	Na 589.592 Radial†	-793.2	102.8	35.184	ug/L	35.184	ppb	17:36:17
1	Sr 421.552†	13.1	-7.5	-0.0580	ug/L	-0.0580	ppb	17:36:17
1	Sc 361.383	810435.2	810435.2	97.982	%			17:37:34
1	Y 371.029	689397.5	689397.5	98.049	%			17:37:34
1	Ag 328.068†	149.4	-96.6	-0.4770	ug/L	-0.4770	ppb	17:37:34
1	As 188.979†	-17.0	4.8	2.5812	ug/L	2.5812	ppb	17:37:54
1	B 249.677†	54.3	240.2	6.5548	ug/L	6.5548	ppb	17:37:54
1	Ba 233.527†	12.6	0.4	0.0029	ug/L	0.0029	ppb	17:37:54
1	Be 313.107†	-3925.0	-233.7	-0.0965	ug/L	-0.0965	ppb	17:37:34
1	Cd 226.502†	-170.6	-17.3	-0.2434	ug/L	-0.2434	ppb	17:37:54
1	Co 228.616†	-40.4	7.2	0.1823	ug/L	0.1823	ppb	17:37:54
1	Cr 267.716†	92.0	12.7	0.1645	ug/L	0.1645	ppb	17:37:54
1	Cu 324.752†	5787.1	122.3	0.3953	ug/L	0.3953	ppb	17:37:34
1	Mn 257.610†	435.3	18.5	0.0283	ug/L	0.0283	ppb	17:37:54
1	Mo 202.031†	16.8	6.3	0.5384	ug/L	0.5384	ppb	17:37:54
1	Ni 231.604†	81.3	-4.9	-0.1527	ug/L	-0.1527	ppb	17:37:54
1	P 214.914†	196.6	17.8	12.883	ug/L	12.883	ppb	17:37:54
1	Pb 220.353†	-30.2	19.0	2.8509	ug/L	2.8509	ppb	17:37:54
1	S 181.975 Axial†	32.3	4.0	7.0882	ug/L	7.0882	ppb	17:37:54
1	Sb 206.836†	30.9	3.0	1.2392	ug/L	1.2392	ppb	17:37:54
1	Se 196.026†	-16.9	2.5	2.0248	ug/L	2.0248	ppb	17:37:54
1	Si 251.611†	505.5	13.1	0.4730	ug/L	0.4730	ppb	17:37:54
1	Sn 189.927†	8.3	4.5	0.9871	ug/L	0.9871	ppb	17:37:54
1	Ti 334.940†	-1051.0	37.4	0.0726	ug/L	0.0726	ppb	17:37:34
1	Tl 190.801†	-24.7	0.6	0.2201	ug/L	0.2201	ppb	17:37:54
1	U 409.014†	-2252.4	-50.2	-1.4368	ug/L	-1.4368	ppb	17:37:34
1	V 292.402†	-1327.0	-61.6	-0.4725	ug/L	-0.4725	ppb	17:37:34
1	Zn 213.857†	904.3	0.9	0.0093	ug/L	0.0093	ppb	17:37:54
1	SiO2†	526.1	29.1	2.2552	ug/L	2.2552	ppb	17:39:05
2	Sc Radial	4342.7	4342.7	98.3	%			17:37:02
2	Y RADIAL	4890.7	4890.7	101.8	%			17:36:42
2	Al 396.153Radial†	-86.2	-14.4	-14.001	ug/L	-14.001	ppb	17:37:02
2	Ca 317.933Radial†	22.3	1.6	2.9641	ug/L	2.9641	ppb	17:37:02
2	Fe 238.204 Radial†	8.0	0.7	7.5296	ug/L	7.5296	ppb	17:37:02
2	K 766.490 Radial†	2749.3	182.0	35.329	ug/L	35.329	ppb	17:36:42
2	Mg 279.077 IEC†	1.8	0.8	32.559	ug/L	32.559	ppb	17:37:02
2	Na 589.592 Radial†	-867.1	25.4	8.7029	ug/L	8.7029	ppb	17:36:42
2	Sr 421.552†	25.0	4.7	0.0360	ug/L	0.0360	ppb	17:36:42
2	Sc 361.383	802566.5	802566.5	97.031	%			17:37:59
2	Y 371.029	682514.3	682514.3	97.070	%			17:37:59
2	Ag 328.068†	297.4	57.4	0.2900	ug/L	0.2900	ppb	17:37:59
2	As 188.979†	-17.4	4.1	2.2127	ug/L	2.2127	ppb	17:38:19
2	B 249.677†	40.8	226.8	6.1906	ug/L	6.1906	ppb	17:38:19
2	Ba 233.527†	3.1	-9.2	-0.0844	ug/L	-0.0844	ppb	17:38:19
2	Be 313.107†	-3845.4	-190.9	-0.0794	ug/L	-0.0794	ppb	17:37:59
2	Cd 226.502†	-154.0	-1.9	-0.0286	ug/L	-0.0286	ppb	17:38:19
2	Co 228.616†	-39.2	7.9	0.2020	ug/L	0.2020	ppb	17:38:19
2	Cr 267.716†	84.8	6.2	0.0826	ug/L	0.0826	ppb	17:38:19
2	Cu 324.752†	5789.4	182.6	0.5917	ug/L	0.5917	ppb	17:37:59
2	Mn 257.610†	421.7	8.8	0.0108	ug/L	0.0108	ppb	17:38:19
2	Mo 202.031†	13.1	2.6	0.2259	ug/L	0.2259	ppb	17:38:19
2	Ni 231.604†	66.9	-19.0	-0.5868	ug/L	-0.5868	ppb	17:38:19

2	P 214.914†	176.9	-0.6	-0.5788	ug/L	-0.5788 ppb	17:38:19
2	Pb 220.353†	-38.9	9.8	1.4618	ug/L	1.4618 ppb	17:38:19
2	S 181.975 Axial†	34.0	6.1	10.629	ug/L	10.629 ppb	17:38:19
2	Sb 206.836†	32.5	4.9	2.0216	ug/L	2.0216 ppb	17:38:19
2	Se 196.026†	-25.7	-6.7	-5.3626	ug/L	-5.3626 ppb	17:38:19
2	Si 251.611†	509.2	22.0	0.7983	ug/L	0.7983 ppb	17:38:19
2	Sn 189.927†	10.8	7.2	1.5654	ug/L	1.5654 ppb	17:38:19
2	Ti 334.940†	-1172.4	-98.2	-0.1671	ug/L	-0.1671 ppb	17:37:59
2	Tl 190.801†	-26.3	-1.3	-0.4960	ug/L	-0.4960 ppb	17:38:19
2	U 409.014†	-2383.9	-208.2	-5.9559	ug/L	-5.9559 ppb	17:37:59
2	V 292.402†	-1316.3	-63.9	-0.5002	ug/L	-0.5002 ppb	17:37:59
2	Zn 213.857†	925.2	31.5	0.3712	ug/L	0.3712 ppb	17:38:19
2	SiO2†	513.2	21.1	1.6357	ug/L	1.6357 ppb	17:39:25
3	Sc Radial	4341.3	4341.3	98.3	%		17:37:27
3	Y RADIAL	4863.0	4863.0	101.3	%		17:37:07
3	Al 396.153Radial†	-77.0	-5.0	-4.9185	ug/L	-4.9185 ppb	17:37:27
3	Ca 317.933Radial†	21.3	0.6	1.1025	ug/L	1.1025 ppb	17:37:27
3	Fe 238.204 Radial†	9.0	1.8	19.623	ug/L	19.623 ppb	17:37:27
3	K 766.490 Radial†	2761.2	195.1	37.863	ug/L	37.863 ppb	17:37:07
3	Mg 279.077 IEC†	1.4	0.4	16.959	ug/L	16.959 ppb	17:37:27
3	Na 589.592 Radial†	-860.9	31.5	10.781	ug/L	10.781 ppb	17:37:07
3	Sr 421.552†	22.1	1.8	0.0136	ug/L	0.0136 ppb	17:37:07
3	Sc 361.383	821376.1	821376.1	99.305	%		17:38:25
3	Y 371.029	700284.4	700284.4	99.597	%		17:38:25
3	Ag 328.068†	126.4	-121.8	-0.6016	ug/L	-0.6016 ppb	17:38:25
3	As 188.979†	-23.1	-1.2	-0.6381	ug/L	-0.6381 ppb	17:38:45
3	B 249.677†	47.1	232.3	6.3385	ug/L	6.3385 ppb	17:38:45
3	Ba 233.527†	21.7	9.4	0.0862	ug/L	0.0862 ppb	17:38:45
3	Be 313.107†	-3857.4	-112.3	-0.0466	ug/L	-0.0466 ppb	17:38:25
3	Cd 226.502†	-154.9	0.8	0.0091	ug/L	0.0091 ppb	17:38:45
3	Co 228.616†	-50.9	-2.9	-0.0722	ug/L	-0.0722 ppb	17:38:45
3	Cr 267.716†	77.2	-3.5	-0.0440	ug/L	-0.0440 ppb	17:38:45
3	Cu 324.752†	5836.1	93.0	0.2991	ug/L	0.2991 ppb	17:38:25
3	Mn 257.610†	434.3	11.6	0.0162	ug/L	0.0162 ppb	17:38:45
3	Mo 202.031†	15.9	5.1	0.4403	ug/L	0.4403 ppb	17:38:45
3	Ni 231.604†	82.1	-5.3	-0.1629	ug/L	-0.1629 ppb	17:38:45
3	P 214.914†	187.2	5.6	3.9977	ug/L	3.9977 ppb	17:38:45
3	Pb 220.353†	-61.4	-12.0	-1.8065	ug/L	-1.8065 ppb	17:38:45
3	S 181.975 Axial†	31.4	2.7	4.7677	ug/L	4.7677 ppb	17:38:45
3	Sb 206.836†	33.5	5.1	2.1157	ug/L	2.1157 ppb	17:38:45
3	Se 196.026†	-8.2	11.5	9.2568	ug/L	9.2568 ppb	17:38:45
3	Si 251.611†	513.5	14.3	0.5169	ug/L	0.5169 ppb	17:38:45
3	Sn 189.927†	9.6	5.7	1.2432	ug/L	1.2432 ppb	17:38:45
3	Ti 334.940†	-1150.8	-48.8	-0.0857	ug/L	-0.0857 ppb	17:38:25
3	Tl 190.801†	-29.4	-3.8	-1.4448	ug/L	-1.4448 ppb	17:38:45
3	U 409.014†	-2135.9	97.8	2.7950	ug/L	2.7950 ppb	17:38:25
3	V 292.402†	-1292.6	-8.9	-0.0596	ug/L	-0.0596 ppb	17:38:25
3	Zn 213.857†	915.8	0.2	-0.0001	ug/L	-0.0001 ppb	17:38:45
3	SiO2†	521.8	17.6	1.3618	ug/L	1.3618 ppb	17:39:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	811459.3	98.106	%	1.1421				1.16%
Sc Radial	4346.1	98.4	%	0.16				0.16%
Y 371.029	690732.1	98.238	%	1.2743				1.30%
Y RADIAL	4902.6	102.1	%	0.97				0.95%
Ag 328.068†	-53.7	-0.2629	ug/L	0.48287	-0.2629	ppb	0.48287	183.69%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-10.2	-9.8919	ug/L	4.60244	-9.8919	ppb	4.60244	46.53%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.6	1.3853	ug/L	1.76198	1.3853	ppb	1.76198	127.19%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	233.1	6.3613	ug/L	0.18315	6.3613	ppb	0.18315	2.88%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.2	0.0016	ug/L	0.08531	0.0016	ppb	0.08531	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-179.0	-0.0742	ug/L	0.02534	-0.0742	ppb	0.02534	34.17%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.8	5.2284	ug/L	5.61188	5.2284	ppb	5.61188	107.33%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -6.2     -0.0877 ug/L       0.13622     -0.0877 ppb        0.13622 155.39%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 4.1      0.1040 ug/L       0.15296      0.1040 ppb        0.15296 147.01%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 5.1      0.0677 ug/L       0.10504      0.0677 ppb        0.10504 155.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               132.6      0.4287 ug/L       0.14913      0.4287 ppb        0.14913  34.79%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.2      12.881 ug/L        6.1651      12.881 ppb         6.1651  47.86%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         185.4      35.969 ug/L        1.6681      35.969 ppb         1.6681   4.64%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.3     -10.907 ug/L       62.2669     -10.907 ppb        62.2669 570.87%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                13.0      0.0184 ug/L       0.00900      0.0184 ppb        0.00900  48.79%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.7      0.4015 ug/L       0.15984      0.4015 ppb        0.15984  39.81%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         53.2      18.222 ug/L       14.7257      18.222 ppb        14.7257  80.81%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -9.7     -0.3008 ug/L       0.24773     -0.3008 ppb        0.24773  82.36%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  7.6      5.4339 ug/L       6.84483      5.4339 ppb        6.84483 125.96%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 5.6      0.8354 ug/L       2.39103      0.8354 ppb        2.39103 286.22%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            4.3      7.4949 ug/L       2.95169      7.4949 ppb        2.95169  39.38%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.3      1.7922 ug/L       0.48119      1.7922 ppb        0.48119  26.85%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.4      1.9730 ug/L       7.30984      1.9730 ppb        7.30984 370.49%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                16.5      0.5961 ug/L       0.17656      0.5961 ppb        0.17656  29.62%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.8      1.2652 ug/L       0.28977      1.2652 ppb        0.28977  22.90%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -0.4     -0.0028 ug/L       0.04908     -0.0028 ppb        0.04908 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -36.6     -0.0601 ug/L       0.12184     -0.0601 ppb        0.12184 202.87%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.5     -0.5736 ug/L       0.83520     -0.5736 ppb        0.83520 145.62%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -53.5     -1.5326 ug/L       4.37623     -1.5326 ppb        4.37623 285.55%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -44.8     -0.3441 ug/L       0.24680     -0.3441 ppb        0.24680  71.73%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                10.9      0.1268 ug/L       0.21168      0.1268 ppb        0.21168 166.95%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      22.6      1.7509 ug/L       0.45767      1.7509 ppb        0.45767  26.14%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 3/17/2010 17:45:57 **Plasma On Time: 3/15/2010 06:51:19**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\031710.sif
Batch ID:
Results Data Set: 031710
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 31**
Sample ID: 1202047754|955153|1 **Date Collected: 3/17/2010 17:45:58**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202047754|955153|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4403.1	4403.1	99.7	%			17:48:11
1	Y RADIAL	4940.5	4940.5	102.9	%			17:47:51
1	Al 396.153Radial†	-67.1	6.0	5.8105	ug/L	5.8105	ppb	17:48:11
1	Ca 317.933Radial†	23.4	2.3	4.2973	ug/L	4.2973	ppb	17:48:11
1	Fe 238.204 Radial†	9.6	2.3	25.197	ug/L	25.197	ppb	17:48:11
1	K 766.490 Radial†	2640.3	34.4	6.6649	ug/L	6.6649	ppb	17:47:51
1	Mg 279.077 IEC†	1.2	0.2	6.1349	ug/L	6.1349	ppb	17:48:11
1	Na 589.592 Radial†	-772.1	132.9	45.468	ug/L	45.468	ppb	17:47:51
1	Sr 421.552†	14.4	-6.2	-0.0483	ug/L	-0.0483	ppb	17:47:51
1	Sc 361.383	830585.4	830585.4	100.42	%			17:49:07
1	Y 371.029	704293.3	704293.3	100.17	%			17:49:07
1	Ag 328.068†	148.6	-101.1	-0.4988	ug/L	-0.4988	ppb	17:49:07
1	As 188.979†	-14.6	7.6	4.0984	ug/L	4.0984	ppb	17:49:27
1	B 249.677†	-64.9	120.2	3.2776	ug/L	3.2776	ppb	17:49:27
1	Ba 233.527†	8.6	-3.9	-0.0345	ug/L	-0.0345	ppb	17:49:27
1	Be 313.107†	-3916.4	-128.0	-0.0526	ug/L	-0.0526	ppb	17:49:07
1	Cd 226.502†	-165.5	-8.0	-0.1133	ug/L	-0.1133	ppb	17:49:27
1	Co 228.616†	-49.6	-1.0	-0.0243	ug/L	-0.0243	ppb	17:49:27
1	Cr 267.716†	75.6	-5.9	-0.0758	ug/L	-0.0758	ppb	17:49:27
1	Cu 324.752†	6002.1	193.1	0.6203	ug/L	0.6203	ppb	17:49:07
1	Mn 257.610†	472.3	44.6	0.0598	ug/L	0.0598	ppb	17:49:27
1	Mo 202.031†	24.4	13.4	1.1532	ug/L	1.1532	ppb	17:49:27
1	Ni 231.604†	87.9	-0.4	-0.0116	ug/L	-0.0116	ppb	17:49:27
1	P 214.914†	192.8	9.1	6.5116	ug/L	6.5116	ppb	17:49:27
1	Pb 220.353†	-53.9	-3.9	-0.5800	ug/L	-0.5800	ppb	17:49:27
1	S 181.975 Axial†	33.5	4.4	7.7928	ug/L	7.7928	ppb	17:49:27
1	Sb 206.836†	47.7	19.0	7.7465	ug/L	7.7465	ppb	17:49:27
1	Se 196.026†	-14.9	4.9	4.0055	ug/L	4.0055	ppb	17:49:27
1	Si 251.611†	739.2	233.3	8.5000	ug/L	8.5000	ppb	17:49:27
1	Sn 189.927†	9.0	5.0	1.1030	ug/L	1.1030	ppb	17:49:27
1	Ti 334.940†	-1022.6	91.8	0.1541	ug/L	0.1541	ppb	17:49:07
1	Tl 190.801†	-30.4	-4.5	-1.6927	ug/L	-1.6927	ppb	17:49:27
1	U 409.014†	-2065.7	191.5	5.4771	ug/L	5.4771	ppb	17:49:07
1	V 292.402†	-1291.4	6.7	0.0744	ug/L	0.0744	ppb	17:49:07
1	Zn 213.857†	906.4	-19.4	-0.2321	ug/L	-0.2321	ppb	17:49:27
1	SiO2†	778.1	267.1	20.780	ug/L	20.780	ppb	17:50:23
2	Sc Radial	4378.1	4378.1	99.1	%			17:48:36
2	Y RADIAL	5030.4	5030.4	104.7	%			17:48:16
2	Al 396.153Radial†	-72.5	0.2	0.1521	ug/L	0.1521	ppb	17:48:36
2	Ca 317.933Radial†	24.4	3.6	6.5195	ug/L	6.5195	ppb	17:48:36
2	Fe 238.204 Radial†	10.5	3.2	35.277	ug/L	35.277	ppb	17:48:36
2	K 766.490 Radial†	2698.8	108.5	21.044	ug/L	21.044	ppb	17:48:16
2	Mg 279.077 IEC†	3.1	2.1	82.248	ug/L	82.248	ppb	17:48:36
2	Na 589.592 Radial†	-773.2	127.3	43.575	ug/L	43.575	ppb	17:48:16
2	Sr 421.552†	21.9	1.4	0.0106	ug/L	0.0106	ppb	17:48:16
2	Sc 361.383	830596.0	830596.0	100.42	%			17:49:33
2	Y 371.029	704207.3	704207.3	100.15	%			17:49:33

2	Ag 328.068†	123.4	-126.2	-0.6216 ug/L	-0.6216 ppb	17:49:33
2	As 188.979†	-12.5	9.7	5.2213 ug/L	5.2213 ppb	17:49:53
2	B 249.677†	-67.2	117.8	3.2118 ug/L	3.2118 ppb	17:49:53
2	Ba 233.527†	16.3	3.8	0.0353 ug/L	0.0353 ppb	17:49:53
2	Be 313.107†	-3938.2	-149.6	-0.0614 ug/L	-0.0614 ppb	17:49:33
2	Cd 226.502†	-173.7	-16.2	-0.2285 ug/L	-0.2285 ppb	17:49:53
2	Co 228.616†	-50.1	-1.5	-0.0399 ug/L	-0.0399 ppb	17:49:53
2	Cr 267.716†	85.2	3.6	0.0476 ug/L	0.0476 ppb	17:49:53
2	Cu 324.752†	5923.1	114.4	0.3668 ug/L	0.3668 ppb	17:49:33
2	Mn 257.610†	457.0	29.3	0.0380 ug/L	0.0380 ppb	17:49:53
2	Mo 202.031†	11.0	0.1	0.0077 ug/L	0.0077 ppb	17:49:53
2	Ni 231.604†	76.8	-11.5	-0.3549 ug/L	-0.3549 ppb	17:49:53
2	P 214.914†	204.8	21.0	15.227 ug/L	15.227 ppb	17:49:53
2	Pb 220.353†	-54.7	-4.6	-0.6964 ug/L	-0.6964 ppb	17:49:53
2	S 181.975 Axial†	29.6	0.5	0.9141 ug/L	0.9141 ppb	17:49:53
2	Sb 206.836†	50.8	22.0	8.9717 ug/L	8.9717 ppb	17:49:53
2	Se 196.026†	-13.2	6.6	5.3675 ug/L	5.3675 ppb	17:49:53
2	Si 251.611†	746.8	240.8	8.7875 ug/L	8.7875 ppb	17:49:53
2	Sn 189.927†	9.2	5.2	1.1314 ug/L	1.1314 ppb	17:49:53
2	Ti 334.940†	-982.8	131.3	0.2152 ug/L	0.2152 ppb	17:49:33
2	Tl 190.801†	-33.1	-7.2	-2.7052 ug/L	-2.7052 ppb	17:49:53
2	U 409.014†	-2041.8	215.4	6.1572 ug/L	6.1572 ppb	17:49:33
2	V 292.402†	-1319.4	-21.2	-0.1552 ug/L	-0.1552 ppb	17:49:33
2	Zn 213.857†	907.2	-18.6	-0.2222 ug/L	-0.2222 ppb	17:49:53
2	SiO2†	759.1	248.1	19.336 ug/L	19.336 ppb	17:50:29
3	Sc Radial	4386.4	4386.4	99.3 %		17:49:01
3	Y RADIAL	5070.6	5070.6	105.6 %		17:48:41
3	Al 396.153Radial†	-71.4	1.4	1.3845 ug/L	1.3845 ppb	17:49:01
3	Ca 317.933Radial†	28.8	7.9	14.494 ug/L	14.494 ppb	17:49:01
3	Fe 238.204 Radial†	6.9	-0.4	-4.7363 ug/L	-4.7363 ppb	17:49:01
3	K 766.490 Radial†	2574.3	-22.0	-4.2895 ug/L	-4.2895 ppb	17:48:41
3	Mg 279.077 IEC†	1.4	0.4	13.998 ug/L	13.998 ppb	17:49:01
3	Na 589.592 Radial†	-781.7	120.2	41.140 ug/L	41.140 ppb	17:48:41
3	Sr 421.552†	4.6	-16.1	-0.1243 ug/L	-0.1243 ppb	17:48:41
3	Sc 361.383	824136.7	824136.7	99.639 %		17:49:58
3	Y 371.029	699384.9	699384.9	99.469 %		17:49:58
3	Ag 328.068†	166.0	-82.5	-0.4170 ug/L	-0.4170 ppb	17:49:58
3	As 188.979†	-21.4	0.6	0.3342 ug/L	0.3342 ppb	17:50:18
3	B 249.677†	-52.9	131.7	3.5963 ug/L	3.5963 ppb	17:50:18
3	Ba 233.527†	10.9	-1.5	-0.0141 ug/L	-0.0141 ppb	17:50:18
3	Be 313.107†	-3977.3	-219.6	-0.0906 ug/L	-0.0906 ppb	17:49:58
3	Cd 226.502†	-169.0	-12.8	-0.1773 ug/L	-0.1773 ppb	17:50:18
3	Co 228.616†	-50.8	-2.6	-0.0655 ug/L	-0.0655 ppb	17:50:18
3	Cr 267.716†	92.4	11.6	0.1458 ug/L	0.1458 ppb	17:50:18
3	Cu 324.752†	5828.8	65.9	0.2089 ug/L	0.2089 ppb	17:49:58
3	Mn 257.610†	475.7	51.6	0.0656 ug/L	0.0656 ppb	17:50:18
3	Mo 202.031†	15.3	4.5	0.3849 ug/L	0.3849 ppb	17:50:18
3	Ni 231.604†	72.0	-15.6	-0.4825 ug/L	-0.4825 ppb	17:50:18
3	P 214.914†	188.3	6.1	4.4080 ug/L	4.4080 ppb	17:50:18
3	Pb 220.353†	-36.8	12.9	1.9323 ug/L	1.9323 ppb	17:50:18
3	S 181.975 Axial†	25.8	-3.0	-5.2882 ug/L	-5.2882 ppb	17:50:18
3	Sb 206.836†	37.1	8.6	3.5321 ug/L	3.5321 ppb	17:50:18
3	Se 196.026†	-15.2	4.5	3.6158 ug/L	3.6158 ppb	17:50:18
3	Si 251.611†	741.6	241.4	8.8055 ug/L	8.8055 ppb	17:50:18
3	Sn 189.927†	9.0	5.1	1.1168 ug/L	1.1168 ppb	17:50:18
3	Ti 334.940†	-1059.1	47.1	0.0785 ug/L	0.0785 ppb	17:49:58
3	Tl 190.801†	-27.7	-2.0	-0.7548 ug/L	-0.7548 ppb	17:50:18
3	U 409.014†	-2040.9	200.4	5.7328 ug/L	5.7328 ppb	17:49:58
3	V 292.402†	-1322.2	-34.3	-0.2467 ug/L	-0.2467 ppb	17:49:58
3	Zn 213.857†	908.4	-10.4	-0.1181 ug/L	-0.1181 ppb	17:50:18
3	SiO2†	737.5	232.4	18.097 ug/L	18.097 ppb	17:50:34

Mean Data: 1202047754|955153|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	828439.4	100.16	%	0.451				0.45%
Sc Radial	4389.2	99.4	%	0.29				0.29%
Y 371.029	702628.5	99.930	%	0.3996				0.40%
Y RADIAL	5013.8	104.4	%	1.39				1.33%
Ag 328.068†	-103.3	-0.5124	ug/L	0.10296	-0.5124	ppb	0.10296	20.09%

Al 396.153Radial†	2.5	2.4490	ug/L	2.97558	2.4490	ppb	2.97558 121.50%
As 188.979†	6.0	3.2180	ug/L	2.55976	3.2180	ppb	2.55976 79.55%
B 249.677†	123.2	3.3619	ug/L	0.20567	3.3619	ppb	0.20567 6.12%
Ba 233.527†	-0.5	-0.0044	ug/L	0.03589	-0.0044	ppb	0.03589 812.44%
Be 313.107†	-165.7	-0.0682	ug/L	0.01993	-0.0682	ppb	0.01993 29.21%
Ca 317.933Radial†	4.6	8.4368	ug/L	5.36173	8.4368	ppb	5.36173 63.55%
Cd 226.502†	-12.3	-0.1730	ug/L	0.05771	-0.1730	ppb	0.05771 33.35%
Co 228.616†	-1.7	-0.0432	ug/L	0.02078	-0.0432	ppb	0.02078 48.07%
Cr 267.716†	3.1	0.0392	ug/L	0.11106	0.0392	ppb	0.11106 283.31%
Cu 324.752†	124.5	0.3986	ug/L	0.20754	0.3986	ppb	0.20754 52.06%
Fe 238.204 Radial†	1.7	18.579	ug/L	20.8113	18.579	ppb	20.8113 112.01%
K 766.490 Radial†	40.3	7.8065	ug/L	12.70530	7.8065	ppb	12.70530 162.75%
Mg 279.077 IEC†	0.9	34.127	ug/L	41.8588	34.127	ppb	41.8588 122.66%
Mn 257.610†	41.8	0.0544	ug/L	0.01455	0.0544	ppb	0.01455 26.72%
Mo 202.031†	6.0	0.5153	ug/L	0.58374	0.5153	ppb	0.58374 113.29%
Na 589.592 Radial†	126.8	43.395	ug/L	2.1696	43.395	ppb	2.1696 5.00%
Ni 231.604†	-9.2	-0.2830	ug/L	0.24354	-0.2830	ppb	0.24354 86.06%
P 214.914†	12.1	8.7157	ug/L	5.73659	8.7157	ppb	5.73659 65.82%
Pb 220.353†	1.5	0.2186	ug/L	1.48521	0.2186	ppb	1.48521 679.27%
S 181.975 Axial†	0.7	1.1396	ug/L	6.54343	1.1396	ppb	6.54343 574.19%
Sb 206.836†	16.5	6.7501	ug/L	2.85341	6.7501	ppb	2.85341 42.27%
Se 196.026†	5.3	4.3296	ug/L	0.91971	4.3296	ppb	0.91971 21.24%
Si 251.611†	238.5	8.6977	ug/L	0.17146	8.6977	ppb	0.17146 1.97%
Sn 189.927†	5.1	1.1171	ug/L	0.01421	1.1171	ppb	0.01421 1.27%
Sr 421.552†	-7.0	-0.0540	ug/L	0.06762	-0.0540	ppb	0.06762 125.20%
Ti 334.940†	90.1	0.1493	ug/L	0.06850	0.1493	ppb	0.06850 45.90%
Tl 190.801†	-4.5	-1.7176	ug/L	0.97545	-1.7176	ppb	0.97545 56.79%
U 409.014†	202.4	5.7890	ug/L	0.34351	5.7890	ppb	0.34351 5.93%
V 292.402†	-16.3	-0.1091	ug/L	0.16542	-0.1091	ppb	0.16542 151.56%
Zn 213.857†	-16.1	-0.1908	ug/L	0.06312	-0.1908	ppb	0.06312 33.08%
SiO2†	249.2	19.404	ug/L	1.3425	19.404	ppb	1.3425 6.92%

Sequence No.: 2
Sample ID: 1202047755|955153|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 32
Date Collected: 3/17/2010 17:52:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202047755|955153|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4493.4	4493.4	102	%			17:54:36
1	Y RADIAL	4844.9	4844.9	100.9	%			17:54:36
1	Al 396.153Radial†	5216.7	5200.8	5033.1	ug/L	5033.1	ppb	17:54:36
1	Ca 317.933Radial†	2848.9	2779.1	5100.8	ug/L	5100.8	ppb	17:54:56
1	Fe 238.204 Radial†	467.3	451.9	5058.8	ug/L	5058.8	ppb	17:54:56
1	K 766.490 Radial†	28806.6	25700.2	4983.9	ug/L	4983.9	ppb	17:54:36
1	Mg 279.077 IEC†	137.1	133.7	5322.3	ug/L	5322.3	ppb	17:54:56
1	Na 589.592 Radial†	13353.9	14032.9	4802.6	ug/L	4802.6	ppb	17:54:36
1	Sr 421.552†	65280.7	64144.0	496.03	ug/L	496.03	ppb	17:54:36
1	Sc 361.383	837951.7	837951.7	101.31	%			17:55:53
1	Y 371.029	702793.7	702793.7	99.954	%			17:55:53
1	Ag 328.068†	96914.7	95413.5	476.96	ug/L	476.96	ppb	17:55:59
1	As 188.979†	929.2	939.3	510.93	ug/L	510.93	ppb	17:56:19
1	B 249.677†	18156.2	18106.5	492.09	ug/L	492.09	ppb	17:55:59
1	Ba 233.527†	56088.4	55351.4	504.38	ug/L	504.38	ppb	17:55:59
1	Be 313.107†	1217086.5	1205134.9	499.61	ug/L	499.61	ppb	17:55:53
1	Cd 226.502†	35575.8	35273.0	492.12	ug/L	492.12	ppb	17:55:59
1	Co 228.616†	19980.9	19771.1	501.54	ug/L	501.54	ppb	17:55:59
1	Cr 267.716†	38794.8	38212.4	493.16	ug/L	493.16	ppb	17:55:59
1	Cu 324.752†	162975.3	155085.8	499.41	ug/L	499.41	ppb	17:55:59
1	Mn 257.610†	385821.3	380411.1	491.30	ug/L	491.30	ppb	17:55:59
1	Mo 202.031†	5820.8	5734.7	491.91	ug/L	491.91	ppb	17:56:19
1	Ni 231.604†	16771.5	16466.9	508.81	ug/L	508.81	ppb	17:55:59
1	P 214.914†	988.8	793.1	481.59	ug/L	481.59	ppb	17:56:19
1	Pb 220.353†	3315.2	3322.2	499.38	ug/L	499.38	ppb	17:56:19
1	S 181.975 Axial†	2930.6	2863.8	5018.3	ug/L	5018.3	ppb	17:56:19
1	Sb 206.836†	1325.5	1279.8	537.91	ug/L	537.91	ppb	17:56:19
1	Se 196.026†	609.8	621.6	514.32	ug/L	514.32	ppb	17:56:19
1	Si 251.611†	134407.3	132168.0	4816.8	ug/L	4816.8	ppb	17:55:59
1	Sn 189.927†	2325.5	2291.5	502.26	ug/L	502.26	ppb	17:56:19
1	Ti 334.940†	291340.8	288687.0	491.81	ug/L	491.81	ppb	17:55:59
1	Tl 190.801†	1306.1	1315.0	500.58	ug/L	500.58	ppb	17:56:19
1	U 409.014†	16007.6	18049.4	514.69	ug/L	514.69	ppb	17:55:59
1	V 292.402†	63831.1	64299.2	501.04	ug/L	501.04	ppb	17:55:59
1	Zn 213.857†	43348.9	41866.8	486.44	ug/L	486.44	ppb	17:55:59
1	SiO2†	133994.9	131756.0	10254	ug/L	10254	ppb	17:57:26
2	Sc Radial	4615.7	4615.7	105	%			17:55:01
2	Y RADIAL	4983.1	4983.1	103.8	%			17:55:01
2	Al 396.153Radial†	5363.1	5205.1	5037.6	ug/L	5037.6	ppb	17:55:01
2	Ca 317.933Radial†	2831.5	2688.2	4933.9	ug/L	4933.9	ppb	17:55:21
2	Fe 238.204 Radial†	466.4	438.9	4914.0	ug/L	4914.0	ppb	17:55:21
2	K 766.490 Radial†	29716.2	25820.1	5007.3	ug/L	5007.3	ppb	17:55:01
2	Mg 279.077 IEC†	136.3	129.4	5150.0	ug/L	5150.0	ppb	17:55:21
2	Na 589.592 Radial†	13701.8	14018.0	4797.5	ug/L	4797.5	ppb	17:55:01
2	Sr 421.552†	67258.6	64336.2	497.51	ug/L	497.51	ppb	17:55:01
2	Sc 361.383	842572.7	842572.7	101.87	%			17:56:24
2	Y 371.029	704839.7	704839.7	100.24	%			17:56:24
2	Ag 328.068†	96995.8	94968.5	474.70	ug/L	474.70	ppb	17:56:29
2	As 188.979†	910.3	915.7	498.18	ug/L	498.18	ppb	17:56:49
2	B 249.677†	18177.0	18028.6	489.99	ug/L	489.99	ppb	17:56:29
2	Ba 233.527†	56200.7	55158.0	502.61	ug/L	502.61	ppb	17:56:29
2	Be 313.107†	1222106.2	1203473.9	498.92	ug/L	498.92	ppb	17:56:24
2	Cd 226.502†	35541.1	35046.3	488.97	ug/L	488.97	ppb	17:56:29
2	Co 228.616†	20049.6	19730.3	500.49	ug/L	500.49	ppb	17:56:29
2	Cr 267.716†	38846.6	38053.2	491.09	ug/L	491.09	ppb	17:56:29
2	Cu 324.752†	163066.1	154292.7	496.85	ug/L	496.85	ppb	17:56:29
2	Mn 257.610†	387018.4	379497.6	490.11	ug/L	490.11	ppb	17:56:29
2	Mo 202.031†	5762.6	5646.1	484.30	ug/L	484.30	ppb	17:56:49
2	Ni 231.604†	16781.7	16386.2	506.31	ug/L	506.31	ppb	17:56:29

2	P 214.914†	978.8	777.9	471.07 ug/L	471.07 ppb	17:56:49
2	Pb 220.353†	3283.4	3273.0	492.01 ug/L	492.01 ppb	17:56:49
2	S 181.975 Axial†	2907.3	2825.1	4950.5 ug/L	4950.5 ppb	17:56:49
2	Sb 206.836†	1302.6	1250.1	525.57 ug/L	525.57 ppb	17:56:49
2	Se 196.026†	597.7	606.5	501.75 ug/L	501.75 ppb	17:56:49
2	Si 251.611†	134648.7	131677.5	4798.9 ug/L	4798.9 ppb	17:56:29
2	Sn 189.927†	2304.5	2258.3	494.98 ug/L	494.98 ppb	17:56:49
2	Ti 334.940†	292204.6	287957.8	490.56 ug/L	490.56 ppb	17:56:29
2	Tl 190.801†	1289.7	1291.9	491.82 ug/L	491.82 ppb	17:56:49
2	U 409.014†	16179.0	18131.1	517.04 ug/L	517.04 ppb	17:56:29
2	V 292.402†	64000.9	64120.2	499.58 ug/L	499.58 ppb	17:56:29
2	Zn 213.857†	43468.2	41749.3	485.11 ug/L	485.11 ppb	17:56:29
2	SiO2†	135252.1	132264.8	10294 ug/L	10294 ppb	17:57:31
3	Sc Radial	4554.9	4554.9	103 %		17:55:26
3	Y RADIAL	4928.4	4928.4	102.6 %		17:55:26
3	Al 396.153Radial†	5335.2	5246.5	5077.7 ug/L	5077.7 ppb	17:55:26
3	Ca 317.933Radial†	2836.4	2729.1	5009.0 ug/L	5009.0 ppb	17:55:46
3	Fe 238.204 Radial†	466.1	444.5	4976.9 ug/L	4976.9 ppb	17:55:46
3	K 766.490 Radial†	29481.7	25972.3	5036.8 ug/L	5036.8 ppb	17:55:26
3	Mg 279.077 IEC†	136.3	131.1	5217.4 ug/L	5217.4 ppb	17:55:46
3	Na 589.592 Radial†	13463.1	13961.5	4778.2 ug/L	4778.2 ppb	17:55:26
3	Sr 421.552†	66680.1	64634.0	499.82 ug/L	499.82 ppb	17:55:26
3	Sc 361.383	842191.8	842191.8	101.82 %		17:56:55
3	Y 371.029	705803.8	705803.8	100.38 %		17:56:55
3	Ag 328.068†	97336.4	95346.1	476.60 ug/L	476.60 ppb	17:57:00
3	As 188.979†	925.4	930.9	506.39 ug/L	506.39 ppb	17:57:20
3	B 249.677†	18172.5	18032.2	490.09 ug/L	490.09 ppb	17:57:00
3	Ba 233.527†	56146.6	55129.8	502.36 ug/L	502.36 ppb	17:57:00
3	Be 313.107†	1221747.2	1203663.9	499.00 ug/L	499.00 ppb	17:56:55
3	Cd 226.502†	35457.4	34979.9	488.04 ug/L	488.04 ppb	17:57:00
3	Co 228.616†	19964.6	19655.8	498.61 ug/L	498.61 ppb	17:57:00
3	Cr 267.716†	38745.1	37970.8	490.04 ug/L	490.04 ppb	17:57:00
3	Cu 324.752†	163806.7	155092.4	499.43 ug/L	499.43 ppb	17:57:00
3	Mn 257.610†	386653.4	379310.9	489.87 ug/L	489.87 ppb	17:57:00
3	Mo 202.031†	5804.3	5689.6	488.04 ug/L	488.04 ppb	17:57:20
3	Ni 231.604†	16782.8	16394.7	506.58 ug/L	506.58 ppb	17:57:00
3	P 214.914†	990.3	789.6	479.12 ug/L	479.12 ppb	17:57:20
3	Pb 220.353†	3329.5	3319.7	499.02 ug/L	499.02 ppb	17:57:20
3	S 181.975 Axial†	2929.8	2848.4	4991.3 ug/L	4991.3 ppb	17:57:20
3	Sb 206.836†	1328.2	1275.9	536.18 ug/L	536.18 ppb	17:57:20
3	Se 196.026†	599.3	608.4	503.49 ug/L	503.49 ppb	17:57:20
3	Si 251.611†	134851.5	131936.4	4808.3 ug/L	4808.3 ppb	17:57:00
3	Sn 189.927†	2326.7	2281.1	499.97 ug/L	499.97 ppb	17:57:20
3	Ti 334.940†	292520.2	288397.5	491.32 ug/L	491.32 ppb	17:57:00
3	Tl 190.801†	1298.0	1300.6	495.14 ug/L	495.14 ppb	17:57:20
3	U 409.014†	16051.6	18013.2	513.66 ug/L	513.66 ppb	17:57:00
3	V 292.402†	63999.1	64147.0	499.82 ug/L	499.82 ppb	17:57:00
3	Zn 213.857†	43370.8	41672.9	484.19 ug/L	484.19 ppb	17:57:00
3	SiO2†	134879.3	131958.7	10270 ug/L	10270 ppb	17:57:36

Mean Data: 1202047755|955153|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	840905.4	101.67	%	0.310				0.31%
Sc Radial	4554.6	103	%	1.4				1.34%
Y 371.029	704479.1	100.19	%	0.219				0.22%
Y RADIAL	4918.8	102.4	%	1.45				1.42%
Ag 328.068†	95242.7	476.09	ug/L	1.214	476.09	ppb	1.214	0.25%
Al 396.153Radial†	5217.5	5049.5	ug/L	24.56	5049.5	ppb	24.56	0.49%
As 188.979†	928.7	505.17	ug/L	6.464	505.17	ppb	6.464	1.28%
B 249.677†	18055.7	490.73	ug/L	1.186	490.73	ppb	1.186	0.24%
Ba 233.527†	55213.0	503.12	ug/L	1.100	503.12	ppb	1.100	0.22%
Be 313.107†	1204090.9	499.18	ug/L	0.377	499.18	ppb	0.377	0.08%
Ca 317.933Radial†	2732.1	5014.6	ug/L	83.56	5014.6	ppb	83.56	1.67%
Cd 226.502†	35099.7	489.71	ug/L	2.139	489.71	ppb	2.139	0.44%
Co 228.616†	19719.1	500.21	ug/L	1.485	500.21	ppb	1.485	0.30%
Cr 267.716†	38078.8	491.43	ug/L	1.588	491.43	ppb	1.588	0.32%
Cu 324.752†	154823.6	498.56	ug/L	1.485	498.56	ppb	1.485	0.30%
Fe 238.204 Radial†	445.1	4983.3	ug/L	72.62	4983.3	ppb	72.62	1.46%
K 766.490 Radial†	25830.9	5009.3	ug/L	26.49	5009.3	ppb	26.49	0.53%

Mg 279.077 IEC†	131.4	5229.9	ug/L	86.81	5229.9	ppb	86.81	1.66%
Mn 257.610†	379739.8	490.43	ug/L	0.763	490.43	ppb	0.763	0.16%
Mo 202.031†	5690.1	488.08	ug/L	3.805	488.08	ppb	3.805	0.78%
Na 589.592 Radial†	14004.1	4792.8	ug/L	12.89	4792.8	ppb	12.89	0.27%
Ni 231.604†	16415.9	507.23	ug/L	1.371	507.23	ppb	1.371	0.27%
P 214.914†	786.9	477.26	ug/L	5.498	477.26	ppb	5.498	1.15%
Pb 220.353†	3305.0	496.80	ug/L	4.156	496.80	ppb	4.156	0.84%
S 181.975 Axial†	2845.8	4986.7	ug/L	34.16	4986.7	ppb	34.16	0.68%
Sb 206.836†	1268.6	533.22	ug/L	6.683	533.22	ppb	6.683	1.25%
Se 196.026†	612.2	506.52	ug/L	6.808	506.52	ppb	6.808	1.34%
Si 251.611†	131927.3	4808.0	ug/L	8.91	4808.0	ppb	8.91	0.19%
Sn 189.927†	2277.0	499.07	ug/L	3.724	499.07	ppb	3.724	0.75%
Sr 421.552†	64371.4	497.78	ug/L	1.910	497.78	ppb	1.910	0.38%
Ti 334.940†	288347.4	491.23	ug/L	0.630	491.23	ppb	0.630	0.13%
Tl 190.801†	1302.5	495.85	ug/L	4.423	495.85	ppb	4.423	0.89%
U 409.014†	18064.6	515.13	ug/L	1.733	515.13	ppb	1.733	0.34%
V 292.402†	64188.8	500.15	ug/L	0.782	500.15	ppb	0.782	0.16%
Zn 213.857†	41763.0	485.25	ug/L	1.131	485.25	ppb	1.131	0.23%
SiO2†	131993.2	10273	ug/L	20.1	10273	ppb	20.1	0.20%

Sequence No.: 3
Sample ID: 247261003|955153|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 33
Date Collected: 3/17/2010 17:59:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 247261003|955153|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4601.3	4601.3	104	%			18:01:40
1	Y RADIAL	4988.7	4988.7	103.9	%			18:01:40
1	Al 396.153Radial†	298.1	359.5	349.49	ug/L	349.49	ppb	18:02:00
1	Ca 317.933Radial†	1190.8	1121.9	2059.2	ug/L	2059.2	ppb	18:02:00
1	Fe 238.204 Radial†	39.1	30.1	335.90	ug/L	335.90	ppb	18:02:00
1	K 766.490 Radial†	4648.2	1847.6	356.42	ug/L	356.42	ppb	18:01:40
1	Mg 279.077 IEC†	21.6	19.7	783.35	ug/L	783.35	ppb	18:02:00
1	Na 589.592 Radial†	10764.5	11239.7	3846.7	ug/L	3846.7	ppb	18:01:40
1	Sr 421.552†	2018.8	1917.1	14.810	ug/L	14.810	ppb	18:01:40
1	Sc 361.383	834255.7	834255.7	100.86	%			18:02:56
1	Y 371.029	703629.7	703629.7	100.07	%			18:02:56
1	Ag 328.068†	124.8	-125.4	-0.5436	ug/L	-0.5436	ppb	18:02:56
1	As 188.979†	-18.9	3.3	1.9064	ug/L	1.9064	ppb	18:03:17
1	B 249.677†	57.0	241.3	6.5338	ug/L	6.5338	ppb	18:03:17
1	Ba 233.527†	1460.5	1435.6	13.063	ug/L	13.063	ppb	18:03:17
1	Be 313.107†	-3744.6	59.5	0.0313	ug/L	0.0313	ppb	18:02:56
1	Cd 226.502†	-153.8	4.3	0.0302	ug/L	0.0302	ppb	18:03:17
1	Co 228.616†	-36.6	12.1	0.2999	ug/L	0.2999	ppb	18:03:17
1	Cr 267.716†	807.8	719.7	9.3047	ug/L	9.3047	ppb	18:03:17
1	Cu 324.752†	6813.4	971.2	3.1433	ug/L	3.1433	ppb	18:02:56
1	Mn 257.610†	10942.3	10423.0	13.455	ug/L	13.455	ppb	18:02:56
1	Mo 202.031†	26.1	15.0	1.3363	ug/L	1.3363	ppb	18:03:17
1	Ni 231.604†	289.7	199.3	6.1624	ug/L	6.1624	ppb	18:03:17
1	P 214.914†	208.1	23.4	16.229	ug/L	16.229	ppb	18:03:17
1	Pb 220.353†	-33.6	16.5	2.5282	ug/L	2.5282	ppb	18:03:17
1	S 181.975 Axial†	127.9	97.9	171.45	ug/L	171.45	ppb	18:03:17
1	Sb 206.836†	40.7	11.8	4.7524	ug/L	4.7524	ppb	18:03:17
1	Se 196.026†	-22.7	-2.8	-1.1242	ug/L	-1.1242	ppb	18:03:17
1	Si 251.611†	196695.7	194511.9	7097.7	ug/L	7097.7	ppb	18:02:56
1	Sn 189.927†	-7.7	-11.5	-2.1813	ug/L	-2.1813	ppb	18:03:17
1	Ti 334.940†	628.5	1733.2	3.1610	ug/L	3.1610	ppb	18:02:56
1	Tl 190.801†	-28.9	-2.8	-0.9804	ug/L	-0.9804	ppb	18:03:17
1	U 409.014†	-2146.4	120.6	3.3910	ug/L	3.3910	ppb	18:02:56
1	V 292.402†	-1111.3	190.8	1.4520	ug/L	1.4520	ppb	18:02:56
1	Zn 213.857†	4127.8	3170.5	37.097	ug/L	37.097	ppb	18:03:17
1	SiO2†	193825.1	191660.8	14936	ug/L	14936	ppb	18:04:13
2	Sc Radial	4482.6	4482.6	101	%			18:02:05
2	Y RADIAL	4859.7	4859.7	101.2	%			18:02:05
2	Al 396.153Radial†	289.1	358.1	348.21	ug/L	348.21	ppb	18:02:25
2	Ca 317.933Radial†	1189.5	1150.9	2112.4	ug/L	2112.4	ppb	18:02:25
2	Fe 238.204 Radial†	37.5	29.6	330.14	ug/L	330.14	ppb	18:02:25
2	K 766.490 Radial†	4668.9	1986.1	383.30	ug/L	383.30	ppb	18:02:05
2	Mg 279.077 IEC†	21.4	20.0	795.63	ug/L	795.63	ppb	18:02:25
2	Na 589.592 Radial†	10320.8	11076.0	3790.7	ug/L	3790.7	ppb	18:02:05
2	Sr 421.552†	1933.1	1883.9	14.553	ug/L	14.553	ppb	18:02:05
2	Sc 361.383	824285.1	824285.1	99.657	%			18:03:22
2	Y 371.029	695204.1	695204.1	98.874	%			18:03:22
2	Ag 328.068†	50.6	-198.3	-0.9113	ug/L	-0.9113	ppb	18:03:22
2	As 188.979†	-19.9	2.1	1.2422	ug/L	1.2422	ppb	18:03:42
2	B 249.677†	56.3	241.3	6.5343	ug/L	6.5343	ppb	18:03:42
2	Ba 233.527†	1456.3	1448.9	13.182	ug/L	13.182	ppb	18:03:42
2	Be 313.107†	-3728.8	30.4	0.0194	ug/L	0.0194	ppb	18:03:22
2	Cd 226.502†	-151.3	5.0	0.0397	ug/L	0.0397	ppb	18:03:42
2	Co 228.616†	-39.4	8.9	0.2167	ug/L	0.2167	ppb	18:03:42
2	Cr 267.716†	796.2	717.8	9.2788	ug/L	9.2788	ppb	18:03:42
2	Cu 324.752†	6777.8	1017.2	3.2915	ug/L	3.2915	ppb	18:03:22
2	Mn 257.610†	10850.1	10461.7	13.504	ug/L	13.504	ppb	18:03:22
2	Mo 202.031†	15.9	5.0	0.4810	ug/L	0.4810	ppb	18:03:42
2	Ni 231.604†	292.9	206.0	6.3690	ug/L	6.3690	ppb	18:03:42

2	P 214.914†	213.8	31.6	22.200	ug/L	22.200 ppb	18:03:42
2	Pb 220.353†	-46.2	3.5	0.5829	ug/L	0.5829 ppb	18:03:42
2	S 181.975 Axial†	132.4	103.9	181.99	ug/L	181.99 ppb	18:03:42
2	Sb 206.836†	32.2	3.8	1.4634	ug/L	1.4634 ppb	18:03:42
2	Se 196.026†	-20.2	-0.5	0.6675	ug/L	0.6675 ppb	18:03:42
2	Si 251.611†	194341.4	194508.4	7097.6	ug/L	7097.6 ppb	18:03:22
2	Sn 189.927†	-12.1	-16.1	-3.1725	ug/L	-3.1725 ppb	18:03:42
2	Ti 334.940†	646.2	1758.5	3.2104	ug/L	3.2104 ppb	18:03:22
2	Tl 190.801†	-28.9	-3.2	-1.1098	ug/L	-1.1098 ppb	18:03:42
2	U 409.014†	-2128.0	113.3	3.1840	ug/L	3.1840 ppb	18:03:22
2	V 292.402†	-1190.0	98.5	0.7306	ug/L	0.7306 ppb	18:03:22
2	Zn 213.857†	4099.4	3191.5	37.343	ug/L	37.343 ppb	18:03:42
2	SiO2†	195403.9	195569.6	15240	ug/L	15240 ppb	18:04:18
3	Sc Radial	4600.4	4600.4	104	%		18:02:30
3	Y RADIAL	4992.6	4992.6	104.0	%		18:02:30
3	Al 396.153Radial†	303.4	364.6	354.43	ug/L	354.43 ppb	18:02:50
3	Ca 317.933Radial†	1187.8	1119.3	2054.3	ug/L	2054.3 ppb	18:02:50
3	Fe 238.204 Radial†	42.4	33.2	371.07	ug/L	371.07 ppb	18:02:50
3	K 766.490 Radial†	4690.1	1888.7	364.43	ug/L	364.43 ppb	18:02:30
3	Mg 279.077 IEC†	18.8	17.0	676.73	ug/L	676.73 ppb	18:02:50
3	Na 589.592 Radial†	10527.2	11013.9	3769.4	ug/L	3769.4 ppb	18:02:30
3	Sr 421.552†	1971.1	1871.6	14.459	ug/L	14.459 ppb	18:02:30
3	Sc 361.383	829000.0	829000.0	100.23	%		18:03:47
3	Y 371.029	700053.8	700053.8	99.564	%		18:03:47
3	Ag 328.068†	172.2	-77.3	-0.2955	ug/L	-0.2955 ppb	18:03:47
3	As 188.979†	-27.0	-4.9	-2.5119	ug/L	-2.5119 ppb	18:04:07
3	B 249.677†	54.9	239.6	6.4797	ug/L	6.4797 ppb	18:04:07
3	Ba 233.527†	1467.8	1452.1	13.212	ug/L	13.212 ppb	18:04:07
3	Be 313.107†	-3735.2	45.3	0.0256	ug/L	0.0256 ppb	18:03:47
3	Cd 226.502†	-155.9	1.2	-0.0171	ug/L	-0.0171 ppb	18:04:07
3	Co 228.616†	-39.8	8.6	0.2110	ug/L	0.2110 ppb	18:04:07
3	Cr 267.716†	778.3	695.3	8.9946	ug/L	8.9946 ppb	18:04:07
3	Cu 324.752†	6917.8	1118.2	3.6194	ug/L	3.6194 ppb	18:03:47
3	Mn 257.610†	10886.1	10435.7	13.479	ug/L	13.479 ppb	18:03:47
3	Mo 202.031†	19.3	8.3	0.7648	ug/L	0.7648 ppb	18:04:07
3	Ni 231.604†	282.3	193.8	5.9913	ug/L	5.9913 ppb	18:04:07
3	P 214.914†	214.7	31.3	21.854	ug/L	21.854 ppb	18:04:07
3	Pb 220.353†	-42.8	7.2	1.1286	ug/L	1.1286 ppb	18:04:07
3	S 181.975 Axial†	135.1	105.9	185.45	ug/L	185.45 ppb	18:04:07
3	Sb 206.836†	33.4	4.8	1.8804	ug/L	1.8804 ppb	18:04:07
3	Se 196.026†	-19.3	0.5	1.5753	ug/L	1.5753 ppb	18:04:07
3	Si 251.611†	194922.4	193979.0	7078.3	ug/L	7078.3 ppb	18:03:47
3	Sn 189.927†	-11.9	-15.8	-3.1121	ug/L	-3.1121 ppb	18:04:07
3	Ti 334.940†	652.5	1761.1	3.2172	ug/L	3.2172 ppb	18:03:47
3	Tl 190.801†	-27.0	-1.1	-0.3179	ug/L	-0.3179 ppb	18:04:07
3	U 409.014†	-2178.8	74.8	2.0782	ug/L	2.0782 ppb	18:03:47
3	V 292.402†	-1191.0	104.4	0.7696	ug/L	0.7696 ppb	18:03:47
3	Zn 213.857†	4114.1	3182.7	37.236	ug/L	37.236 ppb	18:04:07
3	SiO2†	194380.6	193433.4	15074	ug/L	15074 ppb	18:04:23

Mean Data: 247261003|955153|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	829180.3	100.25	%	0.603				0.60%
Sc Radial	4561.4	103	%	1.5				1.50%
Y 371.029	699629.2	99.504	%	0.6014				0.60%
Y RADIAL	4947.0	103.0	%	1.57				1.53%
Ag 328.068†	-133.7	-0.5835	ug/L	0.30979	-0.5835	ppb	0.30979	53.09%
Al 396.153Radial†	360.7	350.71	ug/L	3.288	350.71	ppb	3.288	0.94%
As 188.979†	0.2	0.2122	ug/L	2.38242	0.2122	ppb	2.38242	>999.9%
B 249.677†	240.7	6.5159	ug/L	0.03136	6.5159	ppb	0.03136	0.48%
Ba 233.527†	1445.5	13.152	ug/L	0.0790	13.152	ppb	0.0790	0.60%
Be 313.107†	45.1	0.0254	ug/L	0.00597	0.0254	ppb	0.00597	23.48%
Ca 317.933Radial†	1130.7	2075.3	ug/L	32.21	2075.3	ppb	32.21	1.55%
Cd 226.502†	3.5	0.0176	ug/L	0.03044	0.0176	ppb	0.03044	172.67%
Co 228.616†	9.8	0.2425	ug/L	0.04973	0.2425	ppb	0.04973	20.51%
Cr 267.716†	710.9	9.1927	ug/L	0.17203	9.1927	ppb	0.17203	1.87%
Cu 324.752†	1035.5	3.3514	ug/L	0.24362	3.3514	ppb	0.24362	7.27%
Fe 238.204 Radial†	31.0	345.70	ug/L	22.157	345.70	ppb	22.157	6.41%
K 766.490 Radial†	1907.5	368.05	ug/L	13.801	368.05	ppb	13.801	3.75%

Mg 279.077 IEC†	18.9	751.91	ug/L	65.391	751.91	ppb	65.391	8.70%
Mn 257.610†	10440.1	13.479	ug/L	0.0245	13.479	ppb	0.0245	0.18%
Mo 202.031†	9.4	0.8607	ug/L	0.43562	0.8607	ppb	0.43562	50.61%
Na 589.592 Radial†	11109.9	3802.3	ug/L	39.92	3802.3	ppb	39.92	1.05%
Ni 231.604†	199.7	6.1742	ug/L	0.18914	6.1742	ppb	0.18914	3.06%
P 214.914†	28.7	20.094	ug/L	3.3521	20.094	ppb	3.3521	16.68%
Pb 220.353†	9.0	1.4132	ug/L	1.00341	1.4132	ppb	1.00341	71.00%
S 181.975 Axial†	102.5	179.63	ug/L	7.293	179.63	ppb	7.293	4.06%
Sb 206.836†	6.8	2.6987	ug/L	1.79069	2.6987	ppb	1.79069	66.35%
Se 196.026†	-0.9	0.3729	ug/L	1.37365	0.3729	ppb	1.37365	368.40%
Si 251.611†	194333.1	7091.2	ug/L	11.19	7091.2	ppb	11.19	0.16%
Sn 189.927†	-14.5	-2.8220	ug/L	0.55568	-2.8220	ppb	0.55568	19.69%
Sr 421.552†	1890.9	14.608	ug/L	0.1818	14.608	ppb	0.1818	1.24%
Ti 334.940†	1750.9	3.1962	ug/L	0.03068	3.1962	ppb	0.03068	0.96%
Tl 190.801†	-2.4	-0.8027	ug/L	0.42481	-0.8027	ppb	0.42481	52.92%
U 409.014†	102.9	2.8844	ug/L	0.70582	2.8844	ppb	0.70582	24.47%
V 292.402†	131.3	0.9841	ug/L	0.40570	0.9841	ppb	0.40570	41.23%
Zn 213.857†	3181.6	37.226	ug/L	0.1233	37.226	ppb	0.1233	0.33%
SiO2†	193554.6	15083	ug/L	152.5	15083	ppb	152.5	1.01%

Sequence No.: 4
Sample ID: 1202047756|955153|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 34
Date Collected: 3/17/2010 18:06:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202047756|955153|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4591.6	4591.6	104	%			18:08:27
1	Y RADIAL	4941.6	4941.6	102.9	%			18:08:27
1	Al 396.153Radial†	743.2	788.2	766.34	ug/L	766.34	ppb	18:08:27
1	Ca 317.933Radial†	1306.9	1236.0	2268.5	ug/L	2268.5	ppb	18:08:47
1	Fe 238.204 Radial†	57.4	47.8	533.96	ug/L	533.96	ppb	18:08:47
1	K 766.490 Radial†	4862.0	2062.7	397.94	ug/L	397.94	ppb	18:08:27
1	Mg 279.077 IEC†	21.8	20.0	794.25	ug/L	794.25	ppb	18:08:47
1	Na 589.592 Radial†	11855.3	12310.7	4213.2	ug/L	4213.2	ppb	18:08:27
1	Sr 421.552†	2492.2	2376.5	18.362	ug/L	18.362	ppb	18:08:27
1	Sc 361.383	829268.9	829268.9	100.26	%			18:09:44
1	Y 371.029	700053.6	700053.6	99.564	%			18:09:44
1	Ag 328.068†	158.2	-91.3	-0.3205	ug/L	-0.3205	ppb	18:09:44
1	As 188.979†	-9.2	12.9	7.1439	ug/L	7.1439	ppb	18:10:04
1	B 249.677†	-11.7	173.2	4.6400	ug/L	4.6400	ppb	18:10:04
1	Ba 233.527†	2363.6	2345.0	21.333	ug/L	21.333	ppb	18:10:04
1	Be 313.107†	-3770.0	11.9	0.0175	ug/L	0.0175	ppb	18:09:44
1	Cd 226.502†	-171.5	-14.2	-0.2474	ug/L	-0.2474	ppb	18:10:04
1	Co 228.616†	-33.0	15.4	0.3758	ug/L	0.3758	ppb	18:10:04
1	Cr 267.716†	1473.7	1388.7	17.941	ug/L	17.941	ppb	18:10:04
1	Cu 324.752†	7042.9	1240.7	4.0218	ug/L	4.0218	ppb	18:09:44
1	Mn 257.610†	12335.0	11877.4	15.351	ug/L	15.351	ppb	18:09:44
1	Mo 202.031†	17.6	6.7	0.6421	ug/L	0.6421	ppb	18:10:04
1	Ni 231.604†	367.9	279.1	8.6273	ug/L	8.6273	ppb	18:10:04
1	P 214.914†	203.6	20.1	13.638	ug/L	13.638	ppb	18:10:04
1	Pb 220.353†	-27.8	22.1	3.4344	ug/L	3.4344	ppb	18:10:04
1	S 181.975 Axial†	150.4	121.0	211.99	ug/L	211.99	ppb	18:10:04
1	Sb 206.836†	30.6	2.0	0.7248	ug/L	0.7248	ppb	18:10:04
1	Se 196.026†	-21.4	-1.6	0.5301	ug/L	0.5301	ppb	18:10:04
1	Si 251.611†	235119.8	234009.4	8539.0	ug/L	8539.0	ppb	18:09:44
1	Sn 189.927†	-12.3	-16.2	-3.1775	ug/L	-3.1775	ppb	18:10:04
1	Ti 334.940†	2152.2	3256.7	5.7812	ug/L	5.7812	ppb	18:09:44
1	Tl 190.801†	-26.5	-0.6	-0.1089	ug/L	-0.1089	ppb	18:10:04
1	U 409.014†	-2129.1	125.0	3.4760	ug/L	3.4760	ppb	18:09:44
1	V 292.402†	-1244.7	51.2	0.3338	ug/L	0.3338	ppb	18:09:44
1	Zn 213.857†	4300.4	3367.2	39.359	ug/L	39.359	ppb	18:10:04
1	SiO2†	231954.3	230847.1	17990	ug/L	17990	ppb	18:11:00
2	Sc Radial	4533.1	4533.1	103	%			18:08:52
2	Y RADIAL	4895.7	4895.7	101.9	%			18:08:52
2	Al 396.153Radial†	736.7	791.1	769.14	ug/L	769.14	ppb	18:08:52
2	Ca 317.933Radial†	1279.5	1225.5	2249.3	ug/L	2249.3	ppb	18:09:12
2	Fe 238.204 Radial†	54.8	46.0	513.33	ug/L	513.33	ppb	18:09:12
2	K 766.490 Radial†	4933.6	2192.7	423.22	ug/L	423.22	ppb	18:08:52
2	Mg 279.077 IEC†	21.4	19.8	787.91	ug/L	787.91	ppb	18:09:12
2	Na 589.592 Radial†	11531.8	12142.6	4155.7	ug/L	4155.7	ppb	18:08:52
2	Sr 421.552†	2483.1	2398.5	18.533	ug/L	18.533	ppb	18:08:52
2	Sc 361.383	827968.3	827968.3	100.10	%			18:10:10
2	Y 371.029	698408.2	698408.2	99.330	%			18:10:10
2	Ag 328.068†	134.8	-114.4	-0.4380	ug/L	-0.4380	ppb	18:10:10
2	As 188.979†	-16.0	6.1	3.4690	ug/L	3.4690	ppb	18:10:30
2	B 249.677†	-17.6	167.2	4.4805	ug/L	4.4805	ppb	18:10:30
2	Ba 233.527†	2371.2	2356.4	21.436	ug/L	21.436	ppb	18:10:30
2	Be 313.107†	-3851.2	-75.2	-0.0182	ug/L	-0.0182	ppb	18:10:10
2	Cd 226.502†	-157.6	-0.7	-0.0561	ug/L	-0.0561	ppb	18:10:30
2	Co 228.616†	-24.5	23.9	0.5915	ug/L	0.5915	ppb	18:10:30
2	Cr 267.716†	1452.3	1369.6	17.694	ug/L	17.694	ppb	18:10:30
2	Cu 324.752†	7061.2	1270.1	4.1169	ug/L	4.1169	ppb	18:10:10
2	Mn 257.610†	12297.1	11858.8	15.325	ug/L	15.325	ppb	18:10:10
2	Mo 202.031†	22.3	11.4	1.0447	ug/L	1.0447	ppb	18:10:30
2	Ni 231.604†	390.8	302.5	9.3532	ug/L	9.3532	ppb	18:10:30

2	P 214.914†	221.9	38.8	27.206	ug/L	27.206 ppb	18:10:30
2	Pb 220.353†	-48.0	1.8	0.4055	ug/L	0.4055 ppb	18:10:30
2	S 181.975 Axial†	148.1	119.1	208.52	ug/L	208.52 ppb	18:10:30
2	Sb 206.836†	30.8	2.2	0.7797	ug/L	0.7797 ppb	18:10:30
2	Se 196.026†	-20.0	-0.3	1.5149	ug/L	1.5149 ppb	18:10:30
2	Si 251.611†	235144.8	234402.8	8553.3	ug/L	8553.3 ppb	18:10:10
2	Sn 189.927†	-22.0	-25.9	-5.2983	ug/L	-5.2983 ppb	18:10:30
2	Ti 334.940†	2228.0	3335.8	5.9153	ug/L	5.9153 ppb	18:10:10
2	Tl 190.801†	-35.0	-9.1	-3.3432	ug/L	-3.3432 ppb	18:10:30
2	U 409.014†	-2229.4	21.6	0.5189	ug/L	0.5189 ppb	18:10:10
2	V 292.402†	-1209.9	84.0	0.5890	ug/L	0.5890 ppb	18:10:10
2	Zn 213.857†	4275.8	3349.4	39.148	ug/L	39.148 ppb	18:10:30
2	SiO2†	234712.7	233966.2	18233	ug/L	18233 ppb	18:11:06
3	Sc Radial	4616.3	4616.3	105	%		18:09:17
3	Y RADIAL	5024.1	5024.1	104.6	%		18:09:17
3	Al 396.153Radial†	732.8	774.4	752.96	ug/L	752.96 ppb	18:09:17
3	Ca 317.933Radial†	1298.4	1221.1	2241.3	ug/L	2241.3 ppb	18:09:37
3	Fe 238.204 Radial†	58.7	48.7	543.79	ug/L	543.79 ppb	18:09:37
3	K 766.490 Radial†	4894.3	2068.5	399.10	ug/L	399.10 ppb	18:09:17
3	Mg 279.077 IEC†	19.9	18.0	716.72	ug/L	716.72 ppb	18:09:37
3	Na 589.592 Radial†	11773.2	12171.0	4165.4	ug/L	4165.4 ppb	18:09:17
3	Sr 421.552†	2482.5	2354.4	18.191	ug/L	18.191 ppb	18:09:17
3	Sc 361.383	819893.4	819893.4	99.126	%		18:10:35
3	Y 371.029	692791.8	692791.8	98.531	%		18:10:35
3	Ag 328.068†	199.1	-48.3	-0.0994	ug/L	-0.0994 ppb	18:10:35
3	As 188.979†	-23.7	-1.8	-0.7886	ug/L	-0.7886 ppb	18:10:55
3	B 249.677†	-7.6	177.1	4.7464	ug/L	4.7464 ppb	18:10:55
3	Ba 233.527†	2402.1	2410.9	21.932	ug/L	21.932 ppb	18:10:55
3	Be 313.107†	-3779.1	-40.3	-0.0040	ug/L	-0.0040 ppb	18:10:35
3	Cd 226.502†	-165.3	-9.9	-0.1887	ug/L	-0.1887 ppb	18:10:55
3	Co 228.616†	-26.3	21.8	0.5397	ug/L	0.5397 ppb	18:10:55
3	Cr 267.716†	1489.8	1421.8	18.369	ug/L	18.369 ppb	18:10:55
3	Cu 324.752†	6965.8	1243.3	4.0325	ug/L	4.0325 ppb	18:10:35
3	Mn 257.610†	12183.3	11865.0	15.339	ug/L	15.339 ppb	18:10:35
3	Mo 202.031†	24.2	13.5	1.2285	ug/L	1.2285 ppb	18:10:55
3	Ni 231.604†	386.2	301.6	9.3256	ug/L	9.3256 ppb	18:10:55
3	P 214.914†	209.5	28.4	19.678	ug/L	19.678 ppb	18:10:55
3	Pb 220.353†	-47.0	2.4	0.4819	ug/L	0.4819 ppb	18:10:55
3	S 181.975 Axial†	149.7	122.1	213.90	ug/L	213.90 ppb	18:10:55
3	Sb 206.836†	43.5	15.3	6.1650	ug/L	6.1650 ppb	18:10:55
3	Se 196.026†	-29.1	-9.6	-5.8505	ug/L	-5.8505 ppb	18:10:55
3	Si 251.611†	232132.3	233677.3	8526.9	ug/L	8526.9 ppb	18:10:35
3	Sn 189.927†	-13.0	-17.1	-3.3659	ug/L	-3.3659 ppb	18:10:55
3	Ti 334.940†	2142.1	3271.1	5.8099	ug/L	5.8099 ppb	18:10:35
3	Tl 190.801†	-35.9	-10.4	-3.8066	ug/L	-3.8066 ppb	18:10:55
3	U 409.014†	-2227.8	1.2	-0.0672	ug/L	-0.0672 ppb	18:10:35
3	V 292.402†	-1194.9	87.2	0.6094	ug/L	0.6094 ppb	18:10:35
3	Zn 213.857†	4320.9	3437.0	40.171	ug/L	40.171 ppb	18:10:55
3	SiO2†	231106.3	232637.2	18129	ug/L	18129 ppb	18:11:11

Mean Data: 1202047756|955153|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	825710.2	99.829	%	0.6141				0.62%
Sc Radial	4580.3	104	%	1.0				0.93%
Y 371.029	697084.5	99.142	%	0.5415				0.55%
Y RADIAL	4953.8	103.2	%	1.36				1.31%
Ag 328.068†	-84.7	-0.2859	ug/L	0.17193	-0.2859	ppb	0.17193	60.13%
Al 396.153Radial†	784.6	762.81	ug/L	8.646	762.81	ppb	8.646	1.13%
As 188.979†	5.8	3.2748	ug/L	3.96983	3.2748	ppb	3.96983	121.22%
B 249.677†	172.5	4.6223	ug/L	0.13385	4.6223	ppb	0.13385	2.90%
Ba 233.527†	2370.8	21.567	ug/L	0.3204	21.567	ppb	0.3204	1.49%
Be 313.107†	-34.5	-0.0016	ug/L	0.01798	-0.0016	ppb	0.01798	>999.9%
Ca 317.933Radial†	1227.5	2253.0	ug/L	13.97	2253.0	ppb	13.97	0.62%
Cd 226.502†	-8.3	-0.1641	ug/L	0.09801	-0.1641	ppb	0.09801	59.73%
Co 228.616†	20.4	0.5023	ug/L	0.11262	0.5023	ppb	0.11262	22.42%
Cr 267.716†	1393.4	18.001	ug/L	0.3416	18.001	ppb	0.3416	1.90%
Cu 324.752†	1251.3	4.0571	ug/L	0.05210	4.0571	ppb	0.05210	1.28%
Fe 238.204 Radial†	47.5	530.36	ug/L	15.546	530.36	ppb	15.546	2.93%
K 766.490 Radial†	2108.0	406.76	ug/L	14.270	406.76	ppb	14.270	3.51%

Mg 279.077 IEC†	19.3	766.29	ug/L	43.051	766.29	ppb	43.051	5.62%
Mn 257.610†	11867.1	15.338	ug/L	0.0129	15.338	ppb	0.0129	0.08%
Mo 202.031†	10.5	0.9717	ug/L	0.29995	0.9717	ppb	0.29995	30.87%
Na 589.592 Radial†	12208.1	4178.1	ug/L	30.80	4178.1	ppb	30.80	0.74%
Ni 231.604†	294.4	9.1020	ug/L	0.41133	9.1020	ppb	0.41133	4.52%
P 214.914†	29.1	20.174	ug/L	6.7976	20.174	ppb	6.7976	33.69%
Pb 220.353†	8.8	1.4406	ug/L	1.72708	1.4406	ppb	1.72708	119.88%
S 181.975 Axial†	120.7	211.47	ug/L	2.731	211.47	ppb	2.731	1.29%
Sb 206.836†	6.5	2.5565	ug/L	3.12519	2.5565	ppb	3.12519	122.25%
Se 196.026†	-3.8	-1.2685	ug/L	3.99853	-1.2685	ppb	3.99853	315.21%
Si 251.611†	234029.8	8539.7	ug/L	13.25	8539.7	ppb	13.25	0.16%
Sn 189.927†	-19.7	-3.9472	ug/L	1.17385	-3.9472	ppb	1.17385	29.74%
Sr 421.552†	2376.5	18.362	ug/L	0.1708	18.362	ppb	0.1708	0.93%
Ti 334.940†	3287.9	5.8355	ug/L	0.07065	5.8355	ppb	0.07065	1.21%
Tl 190.801†	-6.7	-2.4196	ug/L	2.01448	-2.4196	ppb	2.01448	83.26%
U 409.014†	49.3	1.3092	ug/L	1.89925	1.3092	ppb	1.89925	145.06%
V 292.402†	74.2	0.5107	ug/L	0.15356	0.5107	ppb	0.15356	30.07%
Zn 213.857†	3384.5	39.559	ug/L	0.5401	39.559	ppb	0.5401	1.37%
SiO2†	232483.5	18117	ug/L	122.0	18117	ppb	122.0	0.67%

Sequence No.: 5
Sample ID: 1202047757|955153|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 35
Date Collected: 3/17/2010 18:13:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202047757|955153|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4609.9	4609.9	104	%			18:15:16
1	Y RADIAL	4963.8	4963.8	103.4	%			18:15:16
1	Al 396.153Radial†	2586.5	2551.4	2475.9	ug/L	2475.9	ppb	18:15:16
1	Ca 317.933Radial†	1835.8	1737.7	3189.3	ug/L	3189.3	ppb	18:15:36
1	Fe 238.204 Radial†	160.9	146.8	1641.4	ug/L	1641.4	ppb	18:15:36
1	K 766.490 Radial†	10332.2	7284.9	1410.8	ug/L	1410.8	ppb	18:15:16
1	Mg 279.077 IEC†	49.5	46.4	1844.4	ug/L	1844.4	ppb	18:15:36
1	Na 589.592 Radial†	14453.7	14754.8	5049.7	ug/L	5049.7	ppb	18:15:16
1	Sr 421.552†	15583.1	14908.7	115.27	ug/L	115.27	ppb	18:15:16
1	Sc 361.383	827294.0	827294.0	100.02	%			18:16:33
1	Y 371.029	696888.4	696888.4	99.114	%			18:16:33
1	Ag 328.068†	19586.5	19333.4	96.811	ug/L	96.811	ppb	18:16:33
1	As 188.979†	163.7	185.8	101.27	ug/L	101.27	ppb	18:16:53
1	B 249.677†	3481.5	3665.6	99.519	ug/L	99.519	ppb	18:16:53
1	Ba 233.527†	13650.3	13635.1	124.21	ug/L	124.21	ppb	18:16:33
1	Be 313.107†	244352.2	248074.8	102.85	ug/L	102.85	ppb	18:16:33
1	Cd 226.502†	6993.4	7148.8	99.681	ug/L	99.681	ppb	18:16:53
1	Co 228.616†	4005.0	4052.5	102.79	ug/L	102.79	ppb	18:16:53
1	Cr 267.716†	8904.4	8821.4	113.89	ug/L	113.89	ppb	18:16:53
1	Cu 324.752†	38954.3	33162.4	106.82	ug/L	106.82	ppb	18:16:33
1	Mn 257.610†	92933.0	92488.4	119.47	ug/L	119.47	ppb	18:16:33
1	Mo 202.031†	1175.9	1164.7	99.980	ug/L	99.980	ppb	18:16:53
1	Ni 231.604†	3730.1	3641.4	112.52	ug/L	112.52	ppb	18:16:53
1	P 214.914†	385.5	202.5	126.79	ug/L	126.79	ppb	18:16:53
1	Pb 220.353†	632.3	682.0	102.77	ug/L	102.77	ppb	18:16:53
1	S 181.975 Axial†	724.6	695.5	1218.6	ug/L	1218.6	ppb	18:16:53
1	Sb 206.836†	277.9	249.3	104.80	ug/L	104.80	ppb	18:16:53
1	Se 196.026†	106.9	126.6	106.96	ug/L	106.96	ppb	18:16:53
1	Si 251.611†	307050.0	306484.9	11182	ug/L	11182	ppb	18:16:33
1	Sn 189.927†	448.0	444.0	97.671	ug/L	97.671	ppb	18:16:53
1	Ti 334.940†	60651.3	61749.0	105.42	ug/L	105.42	ppb	18:16:33
1	Tl 190.801†	231.7	257.5	98.176	ug/L	98.176	ppb	18:16:53
1	U 409.014†	1410.5	3658.8	104.23	ug/L	104.23	ppb	18:16:33
1	V 292.402†	11886.9	13177.1	102.58	ug/L	102.58	ppb	18:16:33
1	Zn 213.857†	13003.5	12078.8	140.58	ug/L	140.58	ppb	18:16:33
1	SiO2†	306545.7	305975.7	23842	ug/L	23842	ppb	18:17:49
2	Sc Radial	4629.1	4629.1	105	%			18:15:41
2	Y RADIAL	5030.7	5030.7	104.8	%			18:15:41
2	Al 396.153Radial†	2612.9	2566.2	2490.3	ug/L	2490.3	ppb	18:15:41
2	Ca 317.933Radial†	1815.4	1710.9	3140.3	ug/L	3140.3	ppb	18:16:01
2	Fe 238.204 Radial†	161.6	146.8	1641.1	ug/L	1641.1	ppb	18:16:01
2	K 766.490 Radial†	10191.7	7109.7	1376.8	ug/L	1376.8	ppb	18:15:41
2	Mg 279.077 IEC†	46.8	43.6	1736.6	ug/L	1736.6	ppb	18:16:01
2	Na 589.592 Radial†	14522.2	14762.7	5052.4	ug/L	5052.4	ppb	18:15:41
2	Sr 421.552†	15740.5	14997.1	115.96	ug/L	115.96	ppb	18:15:41
2	Sc 361.383	820323.6	820323.6	99.178	%			18:16:58
2	Y 371.029	690221.3	690221.3	98.166	%			18:16:58
2	Ag 328.068†	19267.5	19178.1	96.040	ug/L	96.040	ppb	18:16:58
2	As 188.979†	162.9	186.3	101.54	ug/L	101.54	ppb	18:17:18
2	B 249.677†	3487.7	3701.4	100.50	ug/L	100.50	ppb	18:17:18
2	Ba 233.527†	13577.7	13677.9	124.60	ug/L	124.60	ppb	18:16:58
2	Be 313.107†	242148.0	247928.1	102.79	ug/L	102.79	ppb	18:16:58
2	Cd 226.502†	6968.3	7182.9	100.16	ug/L	100.16	ppb	18:17:18
2	Co 228.616†	3980.4	4061.7	103.02	ug/L	103.02	ppb	18:17:18
2	Cr 267.716†	8916.9	8909.6	115.02	ug/L	115.02	ppb	18:17:18
2	Cu 324.752†	38438.3	32973.0	106.21	ug/L	106.21	ppb	18:16:58
2	Mn 257.610†	92269.9	92609.3	119.63	ug/L	119.63	ppb	18:16:58
2	Mo 202.031†	1183.6	1182.5	101.51	ug/L	101.51	ppb	18:17:18
2	Ni 231.604†	3713.8	3656.7	112.99	ug/L	112.99	ppb	18:17:18

2	P 214.914†	370.6	190.8	118.39 ug/L	118.39 ppb	18:17:18
2	Pb 220.353†	626.5	681.5	102.71 ug/L	102.71 ppb	18:17:18
2	S 181.975 Axial†	713.7	690.7	1210.1 ug/L	1210.1 ppb	18:17:18
2	Sb 206.836†	277.2	250.9	105.50 ug/L	105.50 ppb	18:17:18
2	Se 196.026†	110.5	131.2	110.61 ug/L	110.61 ppb	18:17:18
2	Si 251.611†	303786.0	305802.3	11157 ug/L	11157 ppb	18:16:58
2	Sn 189.927†	449.9	449.7	98.904 ug/L	98.904 ppb	18:17:18
2	Ti 334.940†	60049.0	61657.0	105.26 ug/L	105.26 ppb	18:16:58
2	Tl 190.801†	239.2	267.0	101.77 ug/L	101.77 ppb	18:17:18
2	U 409.014†	1413.8	3674.2	104.67 ug/L	104.67 ppb	18:16:58
2	V 292.402†	11774.7	13165.1	102.51 ug/L	102.51 ppb	18:16:58
2	Zn 213.857†	12899.4	12084.3	140.65 ug/L	140.65 ppb	18:16:58
2	SiO2†	301441.5	303433.4	23643 ug/L	23643 ppb	18:17:54
3	Sc Radial	4622.9	4622.9	105 %		18:16:06
3	Y RADIAL	5005.4	5005.4	104.2 %		18:16:06
3	Al 396.153Radial†	2628.7	2584.6	2508.2 ug/L	2508.2 ppb	18:16:06
3	Ca 317.933Radial†	1834.4	1731.4	3177.8 ug/L	3177.8 ppb	18:16:26
3	Fe 238.204 Radial†	167.5	152.6	1706.2 ug/L	1706.2 ppb	18:16:26
3	K 766.490 Radial†	10227.4	7156.8	1385.9 ug/L	1385.9 ppb	18:16:06
3	Mg 279.077 IEC†	52.1	48.7	1938.1 ug/L	1938.1 ppb	18:16:26
3	Na 589.592 Radial†	14422.6	14686.0	5026.2 ug/L	5026.2 ppb	18:16:06
3	Sr 421.552†	15672.0	14951.6	115.61 ug/L	115.61 ppb	18:16:06
3	Sc 361.383	820471.5	820471.5	99.195 %		18:17:23
3	Y 371.029	692137.9	692137.9	98.438 %		18:17:23
3	Ag 328.068†	19259.2	19166.3	95.997 ug/L	95.997 ppb	18:17:23
3	As 188.979†	163.1	186.5	101.66 ug/L	101.66 ppb	18:17:44
3	B 249.677†	3491.8	3704.9	100.58 ug/L	100.58 ppb	18:17:44
3	Ba 233.527†	13446.3	13542.9	123.38 ug/L	123.38 ppb	18:17:23
3	Be 313.107†	241957.2	247691.7	102.69 ug/L	102.69 ppb	18:17:23
3	Cd 226.502†	6961.5	7174.8	100.04 ug/L	100.04 ppb	18:17:44
3	Co 228.616†	3975.3	4055.9	102.87 ug/L	102.87 ppb	18:17:44
3	Cr 267.716†	8903.0	8894.1	114.83 ug/L	114.83 ppb	18:17:44
3	Cu 324.752†	38501.8	33030.1	106.40 ug/L	106.40 ppb	18:17:23
3	Mn 257.610†	91698.3	92016.2	118.86 ug/L	118.86 ppb	18:17:23
3	Mo 202.031†	1185.4	1184.1	101.64 ug/L	101.64 ppb	18:17:44
3	Ni 231.604†	3730.6	3673.0	113.50 ug/L	113.50 ppb	18:17:44
3	P 214.914†	373.0	193.1	120.04 ug/L	120.04 ppb	18:17:44
3	Pb 220.353†	627.7	682.6	102.86 ug/L	102.86 ppb	18:17:44
3	S 181.975 Axial†	712.1	689.0	1207.0 ug/L	1207.0 ppb	18:17:44
3	Sb 206.836†	274.1	247.7	104.23 ug/L	104.23 ppb	18:17:44
3	Se 196.026†	104.9	125.5	106.26 ug/L	106.26 ppb	18:17:44
3	Si 251.611†	302393.7	304343.5	11104 ug/L	11104 ppb	18:17:23
3	Sn 189.927†	455.9	455.6	100.21 ug/L	100.21 ppb	18:17:44
3	Ti 334.940†	60066.0	61663.2	105.26 ug/L	105.26 ppb	18:17:23
3	Tl 190.801†	237.1	264.8	100.94 ug/L	100.94 ppb	18:17:44
3	U 409.014†	1475.4	3736.0	106.43 ug/L	106.43 ppb	18:17:23
3	V 292.402†	11716.9	13104.6	102.04 ug/L	102.04 ppb	18:17:23
3	Zn 213.857†	12848.0	12030.2	140.00 ug/L	140.00 ppb	18:17:23
3	SiO2†	303588.1	305542.6	23808 ug/L	23808 ppb	18:18:00

Mean Data: 1202047757|955153|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	822696.4	99.464	%	0.4815				0.48%
Sc Radial	4620.6	105	%	0.2				0.21%
Y 371.029	693082.6	98.573	%	0.4882				0.50%
Y RADIAL	5000.0	104.1	%	0.70				0.68%
Ag 328.068†	19226.0	96.283	ug/L	0.4581	96.283	ppb	0.4581	0.48%
Al 396.153Radial†	2567.4	2491.5	ug/L	16.16	2491.5	ppb	16.16	0.65%
As 188.979†	186.2	101.49	ug/L	0.197	101.49	ppb	0.197	0.19%
B 249.677†	3690.6	100.20	ug/L	0.590	100.20	ppb	0.590	0.59%
Ba 233.527†	13618.6	124.06	ug/L	0.626	124.06	ppb	0.626	0.50%
Be 313.107†	247898.2	102.78	ug/L	0.080	102.78	ppb	0.080	0.08%
Ca 317.933Radial†	1726.7	3169.1	ug/L	25.65	3169.1	ppb	25.65	0.81%
Cd 226.502†	7168.8	99.958	ug/L	0.2478	99.958	ppb	0.2478	0.25%
Co 228.616†	4056.7	102.89	ug/L	0.120	102.89	ppb	0.120	0.12%
Cr 267.716†	8875.0	114.58	ug/L	0.607	114.58	ppb	0.607	0.53%
Cu 324.752†	33055.2	106.48	ug/L	0.313	106.48	ppb	0.313	0.29%
Fe 238.204 Radial†	148.7	1662.9	ug/L	37.49	1662.9	ppb	37.49	2.25%
K 766.490 Radial†	7183.8	1391.1	ug/L	17.59	1391.1	ppb	17.59	1.26%

Mg 279.077 IEC†	46.2	1839.7 ug/L	100.87	1839.7 ppb	100.87	5.48%
Mn 257.610†	92371.3	119.32 ug/L	0.405	119.32 ppb	0.405	0.34%
Mo 202.031†	1177.1	101.04 ug/L	0.923	101.04 ppb	0.923	0.91%
Na 589.592 Radial†	14734.5	5042.8 ug/L	14.43	5042.8 ppb	14.43	0.29%
Ni 231.604†	3657.0	113.00 ug/L	0.488	113.00 ppb	0.488	0.43%
P 214.914†	195.5	121.74 ug/L	4.450	121.74 ppb	4.450	3.66%
Pb 220.353†	682.0	102.78 ug/L	0.078	102.78 ppb	0.078	0.08%
S 181.975 Axial†	691.7	1211.9 ug/L	5.99	1211.9 ppb	5.99	0.49%
Sb 206.836†	249.3	104.84 ug/L	0.637	104.84 ppb	0.637	0.61%
Se 196.026†	127.7	107.94 ug/L	2.337	107.94 ppb	2.337	2.16%
Si 251.611†	305543.6	11148 ug/L	39.9	11148 ppb	39.9	0.36%
Sn 189.927†	449.8	98.928 ug/L	1.2689	98.928 ppb	1.2689	1.28%
Sr 421.552†	14952.5	115.61 ug/L	0.342	115.61 ppb	0.342	0.30%
Ti 334.940†	61689.8	105.32 ug/L	0.090	105.32 ppb	0.090	0.09%
Tl 190.801†	263.1	100.29 ug/L	1.880	100.29 ppb	1.880	1.87%
U 409.014†	3689.7	105.11 ug/L	1.164	105.11 ppb	1.164	1.11%
V 292.402†	13148.9	102.38 ug/L	0.292	102.38 ppb	0.292	0.29%
Zn 213.857†	12064.4	140.41 ug/L	0.357	140.41 ppb	0.357	0.25%
SiO2†	304983.9	23764 ug/L	106.0	23764 ppb	106.0	0.45%

Sequence No.: 6
Sample ID: 1202047758|955153|25
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 36
Date Collected: 3/17/2010 18:20:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202047758|955153|25

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4669.7	4669.7	106	%			18:22:04
1	Y RADIAL	5038.2	5038.2	104.9	%			18:22:04
1	Al 396.153Radial†	-5.9	67.7	65.856	ug/L	65.856	ppb	18:22:24
1	Ca 317.933Radial†	266.0	230.5	423.10	ug/L	423.10	ppb	18:22:24
1	Fe 238.204 Radial†	14.3	6.1	68.400	ug/L	68.400	ppb	18:22:24
1	K 766.490 Radial†	2970.6	195.6	37.507	ug/L	37.507	ppb	18:22:04
1	Mg 279.077 IEC†	6.2	4.9	193.68	ug/L	193.68	ppb	18:22:24
1	Na 589.592 Radial†	1519.1	2344.1	802.24	ug/L	802.24	ppb	18:22:04
1	Sr 421.552†	418.3	374.9	2.8963	ug/L	2.8963	ppb	18:22:04
1	Sc 361.383	815050.0	815050.0	98.540	%			18:23:21
1	Y 371.029	691448.9	691448.9	98.340	%			18:23:21
1	Ag 328.068†	128.6	-118.6	-0.5758	ug/L	-0.5758	ppb	18:23:21
1	As 188.979†	-23.7	-2.0	-1.0450	ug/L	-1.0450	ppb	18:23:41
1	B 249.677†	-239.1	-57.9	-1.5906	ug/L	-1.5906	ppb	18:23:41
1	Ba 233.527†	288.8	280.7	2.5534	ug/L	2.5534	ppb	18:23:41
1	Be 313.107†	-3852.8	-137.8	-0.0555	ug/L	-0.0555	ppb	18:23:21
1	Cd 226.502†	-161.3	-6.9	-0.1016	ug/L	-0.1016	ppb	18:23:41
1	Co 228.616†	-55.1	-7.5	-0.1934	ug/L	-0.1934	ppb	18:23:41
1	Cr 267.716†	222.8	144.9	1.8725	ug/L	1.8725	ppb	18:23:41
1	Cu 324.752†	6029.1	334.4	1.0791	ug/L	1.0791	ppb	18:23:21
1	Mn 257.610†	2477.0	2087.9	2.6938	ug/L	2.6938	ppb	18:23:41
1	Mo 202.031†	9.7	-1.1	-0.0804	ug/L	-0.0804	ppb	18:23:41
1	Ni 231.604†	121.5	35.4	1.0947	ug/L	1.0947	ppb	18:23:41
1	P 214.914†	201.7	21.7	15.617	ug/L	15.617	ppb	18:23:41
1	Pb 220.353†	-52.0	-3.0	-0.4336	ug/L	-0.4336	ppb	18:23:41
1	S 181.975 Axial†	50.7	22.5	39.509	ug/L	39.509	ppb	18:23:41
1	Sb 206.836†	25.1	-3.1	-1.2465	ug/L	-1.2465	ppb	18:23:41
1	Se 196.026†	-15.1	4.4	3.7271	ug/L	3.7271	ppb	18:23:41
1	Si 251.611†	38765.0	38836.6	1417.1	ug/L	1417.1	ppb	18:23:21
1	Sn 189.927†	5.5	1.7	0.4374	ug/L	0.4374	ppb	18:23:41
1	Ti 334.940†	-719.6	379.8	0.6863	ug/L	0.6863	ppb	18:23:21
1	Tl 190.801†	-39.4	-14.1	-5.3198	ug/L	-5.3198	ppb	18:23:41
1	U 409.014†	-2125.7	91.5	2.6044	ug/L	2.6044	ppb	18:23:21
1	V 292.402†	-1273.5	0.3	-0.0017	ug/L	-0.0017	ppb	18:23:21
1	Zn 213.857†	1544.0	644.8	7.5457	ug/L	7.5457	ppb	18:23:41
1	SiO2†	39322.0	39396.8	3070.1	ug/L	3070.1	ppb	18:24:37
2	Sc Radial	4549.3	4549.3	103	%			18:22:29
2	Y RADIAL	4935.3	4935.3	102.8	%			18:22:29
2	Al 396.153Radial†	1.0	74.3	72.170	ug/L	72.170	ppb	18:22:49
2	Ca 317.933Radial†	254.8	226.2	415.19	ug/L	415.19	ppb	18:22:49
2	Fe 238.204 Radial†	16.3	8.4	93.380	ug/L	93.380	ppb	18:22:49
2	K 766.490 Radial†	3028.2	325.9	62.801	ug/L	62.801	ppb	18:22:29
2	Mg 279.077 IEC†	6.2	4.9	196.88	ug/L	196.88	ppb	18:22:49
2	Na 589.592 Radial†	1428.7	2294.3	785.19	ug/L	785.19	ppb	18:22:29
2	Sr 421.552†	411.6	378.9	2.9269	ug/L	2.9269	ppb	18:22:29
2	Sc 361.383	826651.6	826651.6	99.943	%			18:23:46
2	Y 371.029	700765.3	700765.3	99.665	%			18:23:46
2	Ag 328.068†	257.1	8.1	0.0620	ug/L	0.0620	ppb	18:23:46
2	As 188.979†	-14.9	7.1	3.8748	ug/L	3.8748	ppb	18:24:06
2	B 249.677†	-244.1	-59.4	-1.6366	ug/L	-1.6366	ppb	18:24:06
2	Ba 233.527†	310.4	298.2	2.7132	ug/L	2.7132	ppb	18:24:06
2	Be 313.107†	-3871.4	-101.6	-0.0408	ug/L	-0.0408	ppb	18:23:46
2	Cd 226.502†	-182.0	-25.3	-0.3623	ug/L	-0.3623	ppb	18:24:06
2	Co 228.616†	-58.1	-9.8	-0.2483	ug/L	-0.2483	ppb	18:24:06
2	Cr 267.716†	225.7	144.7	1.8726	ug/L	1.8726	ppb	18:24:06
2	Cu 324.752†	6054.5	274.0	0.8865	ug/L	0.8865	ppb	18:23:46
2	Mn 257.610†	2455.6	2031.2	2.6229	ug/L	2.6229	ppb	18:24:06
2	Mo 202.031†	19.0	8.1	0.7075	ug/L	0.7075	ppb	18:24:06
2	Ni 231.604†	121.1	33.2	1.0278	ug/L	1.0278	ppb	18:24:06

2	P 214.914†	197.7	14.9	10.658	ug/L	10.658 ppb	18:24:06
2	Pb 220.353†	-62.9	-13.1	-1.9520	ug/L	-1.9520 ppb	18:24:06
2	S 181.975 Axial†	47.7	18.8	32.952	ug/L	32.952 ppb	18:24:06
2	Sb 206.836†	28.3	-0.3	-0.1053	ug/L	-0.1053 ppb	18:24:06
2	Se 196.026†	-24.3	-4.6	-3.3868	ug/L	-3.3868 ppb	18:24:06
2	Si 251.611†	39359.8	38879.6	1418.7	ug/L	1418.7 ppb	18:23:46
2	Sn 189.927†	5.1	1.1	0.3120	ug/L	0.3120 ppb	18:24:06
2	Ti 334.940†	-802.3	307.3	0.5620	ug/L	0.5620 ppb	18:23:46
2	Tl 190.801†	-32.0	-6.2	-2.3360	ug/L	-2.3360 ppb	18:24:06
2	U 409.014†	-2194.3	53.1	1.5055	ug/L	1.5055 ppb	18:23:46
2	V 292.402†	-1298.5	-6.6	-0.0490	ug/L	-0.0490 ppb	18:23:46
2	Zn 213.857†	1555.5	634.4	7.4199	ug/L	7.4199 ppb	18:24:06
2	SiO2†	39100.4	38615.0	3009.2	ug/L	3009.2 ppb	18:24:42
3	Sc Radial	4508.1	4508.1	102	%		18:22:54
3	Y RADIAL	4895.5	4895.5	101.9	%		18:22:54
3	Al 396.153Radial†	-4.3	69.1	67.200	ug/L	67.200 ppb	18:23:14
3	Ca 317.933Radial†	268.7	242.1	444.36	ug/L	444.36 ppb	18:23:14
3	Fe 238.204 Radial†	14.9	7.2	80.155	ug/L	80.155 ppb	18:23:14
3	K 766.490 Radial†	2966.7	292.4	56.306	ug/L	56.306 ppb	18:22:54
3	Mg 279.077 IEC†	5.9	4.7	188.96	ug/L	188.96 ppb	18:23:14
3	Na 589.592 Radial†	1393.9	2272.9	777.87	ug/L	777.87 ppb	18:22:54
3	Sr 421.552†	404.9	376.0	2.9041	ug/L	2.9041 ppb	18:22:54
3	Sc 361.383	814797.7	814797.7	98.509	%		18:24:11
3	Y 371.029	690726.4	690726.4	98.238	%		18:24:11
3	Ag 328.068†	179.3	-67.1	-0.3168	ug/L	-0.3168 ppb	18:24:11
3	As 188.979†	-23.0	-1.2	-0.6444	ug/L	-0.6444 ppb	18:24:31
3	B 249.677†	-251.0	-70.0	-1.9231	ug/L	-1.9231 ppb	18:24:31
3	Ba 233.527†	302.5	294.6	2.6791	ug/L	2.6791 ppb	18:24:31
3	Be 313.107†	-3811.1	-96.7	-0.0389	ug/L	-0.0389 ppb	18:24:11
3	Cd 226.502†	-167.9	-13.7	-0.1987	ug/L	-0.1987 ppb	18:24:31
3	Co 228.616†	-53.4	-5.9	-0.1503	ug/L	-0.1503 ppb	18:24:31
3	Cr 267.716†	221.7	143.9	1.8610	ug/L	1.8610 ppb	18:24:31
3	Cu 324.752†	6018.5	325.5	1.0525	ug/L	1.0525 ppb	18:24:11
3	Mn 257.610†	2468.4	2079.9	2.6848	ug/L	2.6848 ppb	18:24:31
3	Mo 202.031†	14.7	4.1	0.3599	ug/L	0.3599 ppb	18:24:31
3	Ni 231.604†	117.9	31.8	0.9834	ug/L	0.9834 ppb	18:24:31
3	P 214.914†	193.8	13.8	9.8141	ug/L	9.8141 ppb	18:24:31
3	Pb 220.353†	-47.2	1.9	0.3005	ug/L	0.3005 ppb	18:24:31
3	S 181.975 Axial†	51.0	22.8	39.956	ug/L	39.956 ppb	18:24:31
3	Sb 206.836†	33.1	5.0	2.0292	ug/L	2.0292 ppb	18:24:31
3	Se 196.026†	-16.4	3.1	2.7017	ug/L	2.7017 ppb	18:24:31
3	Si 251.611†	38785.7	38869.8	1418.4	ug/L	1418.4 ppb	18:24:11
3	Sn 189.927†	-0.3	-4.2	-0.8445	ug/L	-0.8445 ppb	18:24:31
3	Ti 334.940†	-820.3	277.4	0.5161	ug/L	0.5161 ppb	18:24:11
3	Tl 190.801†	-31.9	-6.5	-2.4510	ug/L	-2.4510 ppb	18:24:31
3	U 409.014†	-2206.7	8.6	0.2333	ug/L	0.2333 ppb	18:24:11
3	V 292.402†	-1347.0	-74.7	-0.5782	ug/L	-0.5782 ppb	18:24:11
3	Zn 213.857†	1550.3	651.7	7.6249	ug/L	7.6249 ppb	18:24:31
3	SiO2†	38912.5	38993.5	3038.7	ug/L	3038.7 ppb	18:24:47

Mean Data: 1202047758|955153|25

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	818833.1	98.997	%	0.8188				0.83%
Sc Radial	4575.7	104	%	1.9				1.83%
Y 371.029	694313.5	98.748	%	0.7963				0.81%
Y RADIAL	4956.3	103.2	%	1.53				1.49%
Ag 328.068†	-59.2	-0.2769	ug/L	0.32076	-0.2769	ppb	0.32076	115.85%
Al 396.153Radial†	70.4	68.409	ug/L	3.3257	68.409	ppb	3.3257	4.86%
As 188.979†	1.3	0.7284	ug/L	2.73218	0.7284	ppb	2.73218	375.07%
B 249.677†	-62.4	-1.7168	ug/L	0.18016	-1.7168	ppb	0.18016	10.49%
Ba 233.527†	291.2	2.6486	ug/L	0.08415	2.6486	ppb	0.08415	3.18%
Be 313.107†	-112.0	-0.0451	ug/L	0.00910	-0.0451	ppb	0.00910	20.18%
Ca 317.933Radial†	232.9	427.55	ug/L	15.088	427.55	ppb	15.088	3.53%
Cd 226.502†	-15.3	-0.2208	ug/L	0.13175	-0.2208	ppb	0.13175	59.66%
Co 228.616†	-7.7	-0.1973	ug/L	0.04910	-0.1973	ppb	0.04910	24.88%
Cr 267.716†	144.5	1.8687	ug/L	0.00666	1.8687	ppb	0.00666	0.36%
Cu 324.752†	311.3	1.0060	ug/L	0.10438	1.0060	ppb	0.10438	10.38%
Fe 238.204 Radial†	7.2	80.645	ug/L	12.4970	80.645	ppb	12.4970	15.50%
K 766.490 Radial†	271.3	52.205	ug/L	13.1359	52.205	ppb	13.1359	25.16%

Mg 279.077 IEC†	4.9	193.17	ug/L	3.986	193.17	ppb	3.986	2.06%
Mn 257.610†	2066.3	2.6672	ug/L	0.03861	2.6672	ppb	0.03861	1.45%
Mo 202.031†	3.7	0.3290	ug/L	0.39485	0.3290	ppb	0.39485	120.01%
Na 589.592 Radial†	2303.7	788.44	ug/L	12.505	788.44	ppb	12.505	1.59%
Ni 231.604†	33.5	1.0353	ug/L	0.05604	1.0353	ppb	0.05604	5.41%
P 214.914†	16.8	12.030	ug/L	3.1353	12.030	ppb	3.1353	26.06%
Pb 220.353†	-4.7	-0.6950	ug/L	1.14876	-0.6950	ppb	1.14876	165.28%
S 181.975 Axial†	21.4	37.472	ug/L	3.9213	37.472	ppb	3.9213	10.46%
Sb 206.836†	0.6	0.2258	ug/L	1.66278	0.2258	ppb	1.66278	736.43%
Se 196.026†	1.0	1.0140	ug/L	3.84550	1.0140	ppb	3.84550	379.24%
Si 251.611†	38862.0	1418.1	ug/L	0.82	1418.1	ppb	0.82	0.06%
Sn 189.927†	-0.5	-0.0317	ug/L	0.70671	-0.0317	ppb	0.70671	>999.9%
Sr 421.552†	376.6	2.9091	ug/L	0.01593	2.9091	ppb	0.01593	0.55%
Ti 334.940†	321.5	0.5881	ug/L	0.08809	0.5881	ppb	0.08809	14.98%
Tl 190.801†	-9.0	-3.3690	ug/L	1.69048	-3.3690	ppb	1.69048	50.18%
U 409.014†	51.1	1.4477	ug/L	1.18661	1.4477	ppb	1.18661	81.97%
V 292.402†	-27.0	-0.2096	ug/L	0.32003	-0.2096	ppb	0.32003	152.66%
Zn 213.857†	643.6	7.5302	ug/L	0.10336	7.5302	ppb	0.10336	1.37%
SiO2†	39001.8	3039.3	ug/L	30.48	3039.3	ppb	30.48	1.00%

Sequence No.: 7
Sample ID: 247261004|955153|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 3/17/2010 18:26:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 247261004|955153|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4607.9	4607.9	104	%			18:28:52
1	Y RADIAL	4973.2	4973.2	103.6	%			18:28:52
1	Al 396.153Radial†	-47.2	28.1	27.252	ug/L	27.252	ppb	18:29:12
1	Ca 317.933Radial†	909.3	850.4	1560.9	ug/L	1560.9	ppb	18:29:12
1	Fe 238.204 Radial†	11.1	3.2	36.216	ug/L	36.216	ppb	18:29:12
1	K 766.490 Radial†	3577.4	814.8	156.15	ug/L	156.15	ppb	18:28:52
1	Mg 279.077 IEC†	15.8	14.1	561.94	ug/L	561.94	ppb	18:29:12
1	Na 589.592 Radial†	10607.7	11074.5	3790.1	ug/L	3790.1	ppb	18:28:52
1	Sr 421.552†	1174.7	1105.2	8.5353	ug/L	8.5353	ppb	18:28:52
1	Sc 361.383	812605.4	812605.4	98.244	%			18:30:09
1	Y 371.029	685993.8	685993.8	97.565	%			18:30:09
1	Ag 328.068†	181.0	-64.9	-0.3320	ug/L	-0.3320	ppb	18:30:09
1	As 188.979†	-24.2	-2.5	-1.3584	ug/L	-1.3584	ppb	18:30:29
1	B 249.677†	-151.7	30.3	0.8224	ug/L	0.8224	ppb	18:30:29
1	Ba 233.527†	210.6	202.0	1.8377	ug/L	1.8377	ppb	18:30:29
1	Be 313.107†	-3850.2	-146.9	-0.0605	ug/L	-0.0605	ppb	18:30:09
1	Cd 226.502†	-157.9	-3.9	-0.0574	ug/L	-0.0574	ppb	18:30:29
1	Co 228.616†	-45.0	2.5	0.0680	ug/L	0.0680	ppb	18:30:29
1	Cr 267.716†	132.8	54.0	0.6995	ug/L	0.6995	ppb	18:30:29
1	Cu 324.752†	5891.2	212.5	0.6855	ug/L	0.6855	ppb	18:30:09
1	Mn 257.610†	6928.4	6626.4	8.5336	ug/L	8.5336	ppb	18:30:09
1	Mo 202.031†	29.9	19.6	1.6984	ug/L	1.6984	ppb	18:30:29
1	Ni 231.604†	135.0	49.5	1.5316	ug/L	1.5316	ppb	18:30:29
1	P 214.914†	200.6	21.3	15.353	ug/L	15.353	ppb	18:30:29
1	Pb 220.353†	-50.3	-1.4	-0.1780	ug/L	-0.1780	ppb	18:30:29
1	S 181.975 Axial†	130.0	103.4	181.24	ug/L	181.24	ppb	18:30:29
1	Sb 206.836†	43.3	15.5	6.2770	ug/L	6.2770	ppb	18:30:29
1	Se 196.026†	-15.5	4.0	3.2889	ug/L	3.2889	ppb	18:30:29
1	Si 251.611†	180412.5	183133.6	6682.5	ug/L	6682.5	ppb	18:30:09
1	Sn 189.927†	-14.9	-19.1	-3.9011	ug/L	-3.9011	ppb	18:30:29
1	Ti 334.940†	-1034.0	57.6	0.2607	ug/L	0.2607	ppb	18:30:09
1	Tl 190.801†	-35.0	-9.8	-3.6732	ug/L	-3.6732	ppb	18:30:29
1	U 409.014†	-2162.7	47.3	1.3475	ug/L	1.3475	ppb	18:30:09
1	V 292.402†	-1230.8	39.9	0.3383	ug/L	0.3383	ppb	18:30:09
1	Zn 213.857†	1924.7	1037.1	12.149	ug/L	12.149	ppb	18:30:29
1	SiO2†	183651.7	186425.6	14528	ug/L	14528	ppb	18:31:26
2	Sc Radial	4495.1	4495.1	102	%			18:29:17
2	Y RADIAL	4884.6	4884.6	101.7	%			18:29:17
2	Al 396.153Radial†	-53.7	20.5	19.918	ug/L	19.918	ppb	18:29:38
2	Ca 317.933Radial†	909.3	872.3	1601.0	ug/L	1601.0	ppb	18:29:38
2	Fe 238.204 Radial†	9.1	1.6	17.531	ug/L	17.531	ppb	18:29:38
2	K 766.490 Radial†	3538.1	862.3	165.35	ug/L	165.35	ppb	18:29:17
2	Mg 279.077 IEC†	15.5	14.2	564.00	ug/L	564.00	ppb	18:29:38
2	Na 589.592 Radial†	10308.2	11035.3	3776.7	ug/L	3776.7	ppb	18:29:17
2	Sr 421.552†	1150.4	1109.6	8.5690	ug/L	8.5690	ppb	18:29:17
2	Sc 361.383	825500.9	825500.9	99.804	%			18:30:35
2	Y 371.029	696386.4	696386.4	99.043	%			18:30:35
2	Ag 328.068†	137.7	-111.1	-0.5695	ug/L	-0.5695	ppb	18:30:35
2	As 188.979†	-18.1	3.9	2.1138	ug/L	2.1138	ppb	18:30:55
2	B 249.677†	-187.1	-2.7	-0.0766	ug/L	-0.0766	ppb	18:30:55
2	Ba 233.527†	213.5	201.5	1.8328	ug/L	1.8328	ppb	18:30:55
2	Be 313.107†	-3859.8	-95.3	-0.0392	ug/L	-0.0392	ppb	18:30:35
2	Cd 226.502†	-169.6	-13.2	-0.1843	ug/L	-0.1843	ppb	18:30:55
2	Co 228.616†	-44.7	3.6	0.0930	ug/L	0.0930	ppb	18:30:55
2	Cr 267.716†	136.7	55.8	0.7193	ug/L	0.7193	ppb	18:30:55
2	Cu 324.752†	5866.6	94.2	0.3025	ug/L	0.3025	ppb	18:30:35
2	Mn 257.610†	7010.8	6598.9	8.4961	ug/L	8.4961	ppb	18:30:35
2	Mo 202.031†	24.6	13.7	1.1968	ug/L	1.1968	ppb	18:30:55
2	Ni 231.604†	109.8	22.1	0.6827	ug/L	0.6827	ppb	18:30:55

2	P 214.914†	202.0	19.4	14.089	ug/L	14.089	ppb	18:30:55
2	Pb 220.353†	-66.0	-16.3	-2.4181	ug/L	-2.4181	ppb	18:30:55
2	S 181.975 Axial†	123.6	94.9	166.33	ug/L	166.33	ppb	18:30:55
2	Sb 206.836†	30.6	2.1	0.8204	ug/L	0.8204	ppb	18:30:55
2	Se 196.026†	-26.8	-7.1	-5.5902	ug/L	-5.5902	ppb	18:30:55
2	Si 251.611†	182857.5	182714.6	6667.2	ug/L	6667.2	ppb	18:30:35
2	Sn 189.927†	-9.5	-13.5	-2.6669	ug/L	-2.6669	ppb	18:30:55
2	Ti 334.940†	-1059.5	48.5	0.2497	ug/L	0.2497	ppb	18:30:35
2	Tl 190.801†	-32.7	-7.0	-2.6011	ug/L	-2.6011	ppb	18:30:55
2	U 409.014†	-2134.7	109.8	3.1373	ug/L	3.1373	ppb	18:30:35
2	V 292.402†	-1253.0	37.2	0.3164	ug/L	0.3164	ppb	18:30:35
2	Zn 213.857†	1930.8	1012.6	11.871	ug/L	11.871	ppb	18:30:55
2	SiO2†	183039.7	182892.3	14253	ug/L	14253	ppb	18:31:31
3	Sc Radial	4566.4	4566.4	103	%			18:29:43
3	Y RADIAL	4934.9	4934.9	102.8	%			18:29:43
3	Al 396.153Radial†	-61.7	13.7	13.247	ug/L	13.247	ppb	18:30:03
3	Ca 317.933Radial†	891.5	841.1	1543.8	ug/L	1543.8	ppb	18:30:03
3	Fe 238.204 Radial†	10.0	2.3	25.282	ug/L	25.282	ppb	18:30:03
3	K 766.490 Radial†	3579.8	848.3	162.68	ug/L	162.68	ppb	18:29:43
3	Mg 279.077 IEC†	14.2	12.7	505.96	ug/L	505.96	ppb	18:30:03
3	Na 589.592 Radial†	10372.9	10939.8	3744.1	ug/L	3744.1	ppb	18:29:43
3	Sr 421.552†	1142.6	1084.4	8.3745	ug/L	8.3745	ppb	18:29:43
3	Sc 361.383	827700.7	827700.7	100.07	%			18:31:00
3	Y 371.029	698237.0	698237.0	99.306	%			18:31:00
3	Ag 328.068†	79.0	-170.1	-0.8605	ug/L	-0.8605	ppb	18:31:00
3	As 188.979†	-15.9	6.2	3.3367	ug/L	3.3367	ppb	18:31:20
3	B 249.677†	-204.5	-19.6	-0.5389	ug/L	-0.5389	ppb	18:31:20
3	Ba 233.527†	222.8	210.2	1.9119	ug/L	1.9119	ppb	18:31:20
3	Be 313.107†	-3825.0	-50.2	-0.0205	ug/L	-0.0205	ppb	18:31:00
3	Cd 226.502†	-158.1	-1.2	-0.0177	ug/L	-0.0177	ppb	18:31:20
3	Co 228.616†	-44.8	3.5	0.0928	ug/L	0.0928	ppb	18:31:20
3	Cr 267.716†	123.8	42.5	0.5485	ug/L	0.5485	ppb	18:31:20
3	Cu 324.752†	5862.6	74.6	0.2390	ug/L	0.2390	ppb	18:31:00
3	Mn 257.610†	6952.3	6521.7	8.3997	ug/L	8.3997	ppb	18:31:00
3	Mo 202.031†	25.5	14.6	1.2734	ug/L	1.2734	ppb	18:31:20
3	Ni 231.604†	123.7	35.7	1.1032	ug/L	1.1032	ppb	18:31:20
3	P 214.914†	198.3	15.2	11.029	ug/L	11.029	ppb	18:31:20
3	Pb 220.353†	-41.2	8.7	1.3218	ug/L	1.3218	ppb	18:31:20
3	S 181.975 Axial†	126.4	97.4	170.68	ug/L	170.68	ppb	18:31:20
3	Sb 206.836†	28.1	-0.5	-0.1968	ug/L	-0.1968	ppb	18:31:20
3	Se 196.026†	-21.9	-2.1	-1.5975	ug/L	-1.5975	ppb	18:31:20
3	Si 251.611†	183459.4	182829.2	6671.4	ug/L	6671.4	ppb	18:31:00
3	Sn 189.927†	-7.2	-11.1	-2.1547	ug/L	-2.1547	ppb	18:31:20
3	Ti 334.940†	-1037.3	73.5	0.2889	ug/L	0.2889	ppb	18:31:00
3	Tl 190.801†	-34.2	-8.3	-3.1114	ug/L	-3.1114	ppb	18:31:20
3	U 409.014†	-2098.2	151.9	4.3425	ug/L	4.3425	ppb	18:31:00
3	V 292.402†	-1253.6	40.0	0.3393	ug/L	0.3393	ppb	18:31:00
3	Zn 213.857†	1928.0	1004.6	11.774	ug/L	11.774	ppb	18:31:20
3	SiO2†	182589.2	181954.6	14179	ug/L	14179	ppb	18:31:36

Mean Data: 247261004|955153|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	821935.7	99.372	%	0.9859				0.99%
Sc Radial	4556.5	103	%	1.3				1.25%
Y 371.029	693539.0	98.638	%	0.9386				0.95%
Y RADIAL	4930.9	102.7	%	0.92				0.90%
Ag 328.068†	-115.4	-0.5874	ug/L	0.26467	-0.5874	ppb	0.26467	45.06%
Al 396.153Radial†	20.8	20.139	ug/L	7.0047	20.139	ppb	7.0047	34.78%
As 188.979†	2.5	1.3640	ug/L	2.43571	1.3640	ppb	2.43571	178.57%
B 249.677†	2.7	0.0690	ug/L	0.69224	0.0690	ppb	0.69224	>999.9%
Ba 233.527†	204.6	1.8608	ug/L	0.04429	1.8608	ppb	0.04429	2.38%
Be 313.107†	-97.5	-0.0401	ug/L	0.02003	-0.0401	ppb	0.02003	49.97%
Ca 317.933Radial†	854.6	1568.5	ug/L	29.40	1568.5	ppb	29.40	1.87%
Cd 226.502†	-6.1	-0.0865	ug/L	0.08702	-0.0865	ppb	0.08702	100.64%
Co 228.616†	3.2	0.0846	ug/L	0.01436	0.0846	ppb	0.01436	16.97%
Cr 267.716†	50.8	0.6557	ug/L	0.09341	0.6557	ppb	0.09341	14.25%
Cu 324.752†	127.1	0.4090	ug/L	0.24155	0.4090	ppb	0.24155	59.06%
Fe 238.204 Radial†	2.4	26.343	ug/L	9.3875	26.343	ppb	9.3875	35.64%
K 766.490 Radial†	841.8	161.39	ug/L	4.736	161.39	ppb	4.736	2.93%

Mg 279.077 IEC†	13.7	543.97	ug/L	32.931	543.97	ppb	32.931	6.05%
Mn 257.610†	6582.3	8.4765	ug/L	0.06910	8.4765	ppb	0.06910	0.82%
Mo 202.031†	16.0	1.3895	ug/L	0.27022	1.3895	ppb	0.27022	19.45%
Na 589.592 Radial†	11016.5	3770.3	ug/L	23.70	3770.3	ppb	23.70	0.63%
Ni 231.604†	35.8	1.1059	ug/L	0.42446	1.1059	ppb	0.42446	38.38%
P 214.914†	18.7	13.490	ug/L	2.2236	13.490	ppb	2.2236	16.48%
Pb 220.353†	-3.0	-0.4248	ug/L	1.88214	-0.4248	ppb	1.88214	443.10%
S 181.975 Axial†	98.6	172.75	ug/L	7.665	172.75	ppb	7.665	4.44%
Sb 206.836†	5.7	2.3002	ug/L	3.48136	2.3002	ppb	3.48136	151.35%
Se 196.026†	-1.7	-1.2996	ug/L	4.44701	-1.2996	ppb	4.44701	342.18%
Si 251.611†	182892.5	6673.7	ug/L	7.90	6673.7	ppb	7.90	0.12%
Sn 189.927†	-14.5	-2.9076	ug/L	0.89773	-2.9076	ppb	0.89773	30.88%
Sr 421.552†	1099.7	8.4930	ug/L	0.10394	8.4930	ppb	0.10394	1.22%
Ti 334.940†	59.9	0.2664	ug/L	0.02019	0.2664	ppb	0.02019	7.58%
Tl 190.801†	-8.4	-3.1286	ug/L	0.53623	-3.1286	ppb	0.53623	17.14%
U 409.014†	103.0	2.9424	ug/L	1.50701	2.9424	ppb	1.50701	51.22%
V 292.402†	39.0	0.3313	ug/L	0.01297	0.3313	ppb	0.01297	3.92%
Zn 213.857†	1018.1	11.931	ug/L	0.1949	11.931	ppb	0.1949	1.63%
SiO2†	183757.5	14320	ug/L	183.7	14320	ppb	183.7	1.28%

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/17/2010 18:33:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4313.1	4313.1	97.7	%			18:36:01
1	Y RADIAL	4901.9	4901.9	102.1	%			18:35:40
1	Al 396.153Radial†	5257.0	5456.4	5281.8	ug/L	5281.8	ppb	18:35:40
1	Ca 317.933Radial†	2787.5	2833.3	5200.2	ug/L	5200.2	ppb	18:36:01
1	Fe 238.204 Radial†	451.5	454.9	5092.7	ug/L	5092.7	ppb	18:36:01
1	K 766.490 Radial†	29059.4	27142.3	5261.9	ug/L	5261.9	ppb	18:35:40
1	Mg 279.077 IEC†	128.3	130.3	5185.8	ug/L	5185.8	ppb	18:36:01
1	Na 589.592 Radial†	26639.0	28185.2	9646.1	ug/L	9646.1	ppb	18:35:40
1	Sr 421.552†	64639.2	66168.5	511.68	ug/L	511.68	ppb	18:35:40
1	Sc 361.383	839854.7	839854.7	101.54	%			18:36:58
1	Y 371.029	702835.4	702835.4	99.960	%			18:36:58
1	Ag 328.068†	99562.9	97804.8	488.84	ug/L	488.84	ppb	18:37:03
1	As 188.979†	902.8	911.2	495.74	ug/L	495.74	ppb	18:37:23
1	B 249.677†	17774.2	17689.6	480.69	ug/L	480.69	ppb	18:37:03
1	Ba 233.527†	55045.7	54199.0	493.89	ug/L	493.89	ppb	18:37:03
1	Be 313.107†	1221062.4	1206328.5	500.10	ug/L	500.10	ppb	18:36:58
1	Cd 226.502†	35785.3	35399.7	493.88	ug/L	493.88	ppb	18:37:03
1	Co 228.616†	20240.6	19982.2	506.89	ug/L	506.89	ppb	18:37:03
1	Cr 267.716†	38656.4	37989.3	490.30	ug/L	490.30	ppb	18:37:03
1	Cu 324.752†	159883.2	151676.0	488.45	ug/L	488.45	ppb	18:37:03
1	Mn 257.610†	394572.0	388166.2	501.31	ug/L	501.31	ppb	18:36:58
1	Mo 202.031†	5782.9	5684.3	487.60	ug/L	487.60	ppb	18:37:23
1	Ni 231.604†	16652.0	16311.7	504.01	ug/L	504.01	ppb	18:37:03
1	P 214.914†	3589.8	3352.5	2351.8	ug/L	2351.8	ppb	18:37:23
1	Pb 220.353†	3249.2	3249.8	488.58	ug/L	488.58	ppb	18:37:23
1	S 181.975 Axial†	598.3	560.3	981.02	ug/L	981.02	ppb	18:37:23
1	Sb 206.836†	1254.6	1207.0	507.95	ug/L	507.95	ppb	18:37:23
1	Se 196.026†	597.7	608.4	503.90	ug/L	503.90	ppb	18:37:23
1	Si 251.611†	68621.7	67078.9	2441.7	ug/L	2441.7	ppb	18:37:03
1	Sn 189.927†	2257.6	2219.4	486.49	ug/L	486.49	ppb	18:37:23
1	Ti 334.940†	289832.6	286550.1	488.21	ug/L	488.21	ppb	18:37:03
1	Tl 190.801†	1285.7	1292.0	491.89	ug/L	491.89	ppb	18:37:23
1	U 409.014†	15091.0	17111.0	487.84	ug/L	487.84	ppb	18:37:03
1	V 292.402†	63146.4	63482.0	494.64	ug/L	494.64	ppb	18:37:03
1	Zn 213.857†	43462.8	41882.1	486.66	ug/L	486.66	ppb	18:37:03
1	SiO2†	67676.0	66142.5	5141.1	ug/L	5141.1	ppb	18:38:31
2	Sc Radial	4324.5	4324.5	97.9	%			18:36:26
2	Y RADIAL	4846.2	4846.2	100.9	%			18:36:06
2	Al 396.153Radial†	5181.1	5364.7	5192.1	ug/L	5192.1	ppb	18:36:06
2	Ca 317.933Radial†	2778.6	2816.7	5169.8	ug/L	5169.8	ppb	18:36:26
2	Fe 238.204 Radial†	453.4	455.6	5100.8	ug/L	5100.8	ppb	18:36:26
2	K 766.490 Radial†	28768.6	26767.2	5189.2	ug/L	5189.2	ppb	18:36:06
2	Mg 279.077 IEC†	131.8	133.5	5314.1	ug/L	5314.1	ppb	18:36:26
2	Na 589.592 Radial†	26229.1	27694.9	9478.3	ug/L	9478.3	ppb	18:36:06
2	Sr 421.552†	63963.0	65304.1	505.00	ug/L	505.00	ppb	18:36:06
2	Sc 361.383	820713.9	820713.9	99.225	%			18:37:29
2	Y 371.029	686325.9	686325.9	97.612	%			18:37:29
2	Ag 328.068†	98412.7	98932.5	494.45	ug/L	494.45	ppb	18:37:34
2	As 188.979†	899.5	928.6	505.14	ug/L	505.14	ppb	18:37:54
2	B 249.677†	17456.7	17777.8	483.09	ug/L	483.09	ppb	18:37:34
2	Ba 233.527†	53956.5	54365.6	495.41	ug/L	495.41	ppb	18:37:34
2	Be 313.107†	1183222.1	1196238.7	495.93	ug/L	495.93	ppb	18:37:29
2	Cd 226.502†	35041.6	35472.1	494.89	ug/L	494.89	ppb	18:37:34
2	Co 228.616†	19846.7	20050.1	508.63	ug/L	508.63	ppb	18:37:34
2	Cr 267.716†	38031.6	38247.5	493.62	ug/L	493.62	ppb	18:37:34
2	Cu 324.752†	158202.3	153654.4	494.82	ug/L	494.82	ppb	18:37:34
2	Mn 257.610†	384577.6	387156.5	500.01	ug/L	500.01	ppb	18:37:29
2	Mo 202.031†	5777.1	5811.3	498.48	ug/L	498.48	ppb	18:37:54
2	Ni 231.604†	16311.9	16351.4	505.23	ug/L	505.23	ppb	18:37:34

2	P 214.914†	3575.6	3420.6	2400.2 ug/L	2400.2 ppb	18:37:54
2	Pb 220.353†	3273.1	3348.4	503.36 ug/L	503.36 ppb	18:37:54
2	S 181.975 Axial†	595.2	570.9	999.61 ug/L	999.61 ppb	18:37:54
2	Sb 206.836†	1257.9	1239.1	521.40 ug/L	521.40 ppb	18:37:54
2	Se 196.026†	598.2	622.6	515.28 ug/L	515.28 ppb	18:37:54
2	Si 251.611†	67675.7	67701.6	2464.3 ug/L	2464.3 ppb	18:37:34
2	Sn 189.927†	2251.3	2265.0	496.46 ug/L	496.46 ppb	18:37:54
2	Ti 334.940†	285586.8	288928.1	492.24 ug/L	492.24 ppb	18:37:34
2	Tl 190.801†	1285.9	1321.8	503.15 ug/L	503.15 ppb	18:37:54
2	U 409.014†	14941.5	17306.9	493.44 ug/L	493.44 ppb	18:37:34
2	V 292.402†	62081.8	63859.5	497.70 ug/L	497.70 ppb	18:37:34
2	Zn 213.857†	42684.6	42096.1	489.16 ug/L	489.16 ppb	18:37:34
2	SiO2†	68588.5	68616.5	5333.6 ug/L	5333.6 ppb	18:38:36
3	Sc Radial	4334.5	4334.5	98.1 %		18:36:51
3	Y RADIAL	4823.2	4823.2	100.4 %		18:36:31
3	Al 396.153Radial†	5110.1	5280.2	5110.2 ug/L	5110.2 ppb	18:36:31
3	Ca 317.933Radial†	2792.7	2824.4	5184.0 ug/L	5184.0 ppb	18:36:51
3	Fe 238.204 Radial†	453.8	455.0	5093.5 ug/L	5093.5 ppb	18:36:51
3	K 766.490 Radial†	28513.3	26439.1	5125.6 ug/L	5125.6 ppb	18:36:31
3	Mg 279.077 IEC†	132.2	133.7	5320.8 ug/L	5320.8 ppb	18:36:51
3	Na 589.592 Radial†	25701.9	27095.7	9273.3 ug/L	9273.3 ppb	18:36:31
3	Sr 421.552†	63026.4	64198.7	496.45 ug/L	496.45 ppb	18:36:31
3	Sc 361.383	835884.5	835884.5	101.06 %		18:38:00
3	Y 371.029	700281.7	700281.7	99.597 %		18:38:00
3	Ag 328.068†	99306.3	98016.6	489.88 ug/L	489.88 ppb	18:38:05
3	As 188.979†	910.0	922.6	501.87 ug/L	501.87 ppb	18:38:25
3	B 249.677†	17805.4	17803.6	483.81 ug/L	483.81 ppb	18:38:05
3	Ba 233.527†	54486.7	53903.4	491.20 ug/L	491.20 ppb	18:38:05
3	Be 313.107†	1211801.5	1202876.5	498.67 ug/L	498.67 ppb	18:38:00
3	Cd 226.502†	35332.3	35118.9	489.96 ug/L	489.96 ppb	18:38:05
3	Co 228.616†	20059.1	19897.2	504.74 ug/L	504.74 ppb	18:38:05
3	Cr 267.716†	38429.0	37945.2	489.72 ug/L	489.72 ppb	18:38:05
3	Cu 324.752†	160028.3	152567.5	491.31 ug/L	491.31 ppb	18:38:05
3	Mn 257.610†	391082.9	386559.3	499.23 ug/L	499.23 ppb	18:38:00
3	Mo 202.031†	5819.8	5747.9	493.04 ug/L	493.04 ppb	18:38:25
3	Ni 231.604†	16446.8	16186.6	500.14 ug/L	500.14 ppb	18:38:05
3	P 214.914†	3588.8	3368.2	2362.7 ug/L	2362.7 ppb	18:38:25
3	Pb 220.353†	3286.1	3301.5	496.30 ug/L	496.30 ppb	18:38:25
3	S 181.975 Axial†	595.5	560.3	981.13 ug/L	981.13 ppb	18:38:25
3	Sb 206.836†	1258.2	1216.4	511.97 ug/L	511.97 ppb	18:38:25
3	Se 196.026†	596.2	609.7	504.94 ug/L	504.94 ppb	18:38:25
3	Si 251.611†	68257.4	67039.4	2440.2 ug/L	2440.2 ppb	18:38:05
3	Sn 189.927†	2264.1	2236.4	490.22 ug/L	490.22 ppb	18:38:25
3	Ti 334.940†	288868.9	286952.2	488.87 ug/L	488.87 ppb	18:38:05
3	Tl 190.801†	1302.0	1314.1	500.25 ug/L	500.25 ppb	18:38:25
3	U 409.014†	15436.2	17523.1	499.63 ug/L	499.63 ppb	18:38:05
3	V 292.402†	62806.5	63441.1	494.43 ug/L	494.43 ppb	18:38:05
3	Zn 213.857†	43138.9	41764.8	485.31 ug/L	485.31 ppb	18:38:05
3	SiO2†	68984.5	67753.9	5266.5 ug/L	5266.5 ppb	18:38:41

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	832151.0	100.61	%	1.221				1.21%
Sc Radial	4324.0	97.9	%	0.24				0.25%
Y 371.029	696481.0	99.056	%	1.2639				1.28%
Y RADIAL	4857.1	101.1	%	0.84				0.83%
Ag 328.068†	98251.3	491.06	ug/L	2.985	491.06	ppb	2.985	0.61%
QC value within limits for Ag 328.068 Recovery = 98.21%								
Al 396.153Radial†	5367.1	5194.7	ug/L	85.83	5194.7	ppb	85.83	1.65%
QC value within limits for Al 396.153Radial Recovery = 103.89%								
As 188.979†	920.8	500.92	ug/L	4.769	500.92	ppb	4.769	0.95%
QC value within limits for As 188.979 Recovery = 100.18%								
B 249.677†	17757.0	482.53	ug/L	1.634	482.53	ppb	1.634	0.34%
QC value within limits for B 249.677 Recovery = 96.51%								
Ba 233.527†	54156.0	493.50	ug/L	2.131	493.50	ppb	2.131	0.43%
QC value within limits for Ba 233.527 Recovery = 98.70%								
Be 313.107†	1201814.5	498.23	ug/L	2.116	498.23	ppb	2.116	0.42%
QC value within limits for Be 313.107 Recovery = 99.65%								
Ca 317.933Radial†	2824.8	5184.7	ug/L	15.21	5184.7	ppb	15.21	0.29%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.69%
Cd 226.502†            35330.3      492.91 ug/L         2.604      492.91 ppb          2.604   0.53%
   QC value within limits for Cd 226.502  Recovery = 98.58%
Co 228.616†            19976.5      506.75 ug/L         1.945      506.75 ppb          1.945   0.38%
   QC value within limits for Co 228.616  Recovery = 101.35%
Cr 267.716†            38060.7      491.21 ug/L         2.107      491.21 ppb          2.107   0.43%
   QC value within limits for Cr 267.716  Recovery = 98.24%
Cu 324.752†           152632.6      491.53 ug/L         3.189      491.53 ppb          3.189   0.65%
   QC value within limits for Cu 324.752  Recovery = 98.31%
Fe 238.204 Radial†       455.2      5095.7 ug/L          4.46      5095.7 ppb           4.46   0.09%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.91%
K 766.490 Radial†      26782.8      5192.2 ug/L         68.22      5192.2 ppb          68.22   1.31%
   QC value within limits for K 766.490 Radial  Recovery = 103.84%
Mg 279.077 IEC†          132.5      5273.6 ug/L         76.13      5273.6 ppb          76.13   1.44%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.47%
Mn 257.610†           387294.0      500.19 ug/L         1.051      500.19 ppb          1.051   0.21%
   QC value within limits for Mn 257.610  Recovery = 100.04%
Mo 202.031†             5747.8      493.04 ug/L         5.440      493.04 ppb          5.440   1.10%
   QC value within limits for Mo 202.031  Recovery = 98.61%
Na 589.592 Radial†     27658.6      9465.9 ug/L        186.74      9465.9 ppb         186.74   1.97%
   QC value within limits for Na 589.592 Radial  Recovery = 94.66%
Ni 231.604†            16283.3      503.13 ug/L         2.659      503.13 ppb          2.659   0.53%
   QC value within limits for Ni 231.604  Recovery = 100.63%
P 214.914†              3380.4      2371.6 ug/L         25.43      2371.6 ppb          25.43   1.07%
   QC value within limits for P 214.914  Recovery = 94.86%
Pb 220.353†             3299.9      496.08 ug/L         7.395      496.08 ppb          7.395   1.49%
   QC value within limits for Pb 220.353  Recovery = 99.22%
S 181.975 Axial†         563.8      987.26 ug/L        10.702      987.26 ppb         10.702   1.08%
   QC value within limits for S 181.975 Axial  Recovery = 98.73%
Sb 206.836†             1220.9      513.77 ug/L         6.903      513.77 ppb          6.903   1.34%
   QC value within limits for Sb 206.836  Recovery = 102.75%
Se 196.026†              613.6      508.04 ug/L         6.290      508.04 ppb          6.290   1.24%
   QC value within limits for Se 196.026  Recovery = 101.61%
Si 251.611†            67273.3      2448.7 ug/L         13.50      2448.7 ppb          13.50   0.55%
   QC value within limits for Si 251.611  Recovery = 97.95%
Sn 189.927†             2240.3      491.06 ug/L         5.036      491.06 ppb          5.036   1.03%
   QC value within limits for Sn 189.927  Recovery = 98.21%
Sr 421.552†            65223.8      504.38 ug/L         7.636      504.38 ppb          7.636   1.51%
   QC value within limits for Sr 421.552  Recovery = 100.88%
Ti 334.940†           287476.8      489.77 ug/L         2.162      489.77 ppb          2.162   0.44%
   QC value within limits for Ti 334.940  Recovery = 97.95%
Tl 190.801†             1309.3      498.43 ug/L         5.844      498.43 ppb          5.844   1.17%
   QC value within limits for Tl 190.801  Recovery = 99.69%
U 409.014†             17313.7      493.64 ug/L         5.898      493.64 ppb          5.898   1.19%
   QC value within limits for U 409.014  Recovery = 98.73%
V 292.402†             63594.2      495.59 ug/L         1.833      495.59 ppb          1.833   0.37%
   QC value within limits for V 292.402  Recovery = 99.12%
Zn 213.857†            41914.3      487.04 ug/L         1.952      487.04 ppb          1.952   0.40%
   QC value within limits for Zn 213.857  Recovery = 97.41%
SiO2†                  67504.3      5247.1 ug/L         97.71      5247.1 ppb          97.71   1.86%
   QC value within limits for SiO2  Recovery = 98.12%
All analyte(s) passed QC.
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Sequence No.: 9 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/17/2010 18:40:50**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4526.2	4526.2	102	%			18:42:43
1	Y RADIAL	4943.0	4943.0	102.9	%			18:42:43
1	Al 396.153Radial†	-73.7	1.4	1.3881	ug/L	1.3881	ppb	18:43:03
1	Ca 317.933Radial†	25.4	3.6	6.6985	ug/L	6.6985	ppb	18:43:03
1	Fe 238.204 Radial†	7.3	-0.3	-3.5602	ug/L	-3.5602	ppb	18:43:03
1	K 766.490 Radial†	2535.7	-139.7	-27.129	ug/L	-27.129	ppb	18:42:43
1	Mg 279.077 IEC†	-0.0	-1.1	-42.885	ug/L	-42.885	ppb	18:43:03
1	Na 589.592 Radial†	-825.4	101.9	34.877	ug/L	34.877	ppb	18:42:43
1	Sr 421.552†	27.7	6.3	0.0484	ug/L	0.0484	ppb	18:42:43
1	Sc 361.383	804992.6	804992.6	97.324	%			18:44:00
1	Y 371.029	683231.0	683231.0	97.172	%			18:44:00
1	Ag 328.068†	139.4	-105.9	-0.5271	ug/L	-0.5271	ppb	18:44:00
1	As 188.979†	-20.6	0.9	0.5070	ug/L	0.5070	ppb	18:44:20
1	B 249.677†	-223.1	-44.4	-1.2127	ug/L	-1.2127	ppb	18:44:20
1	Ba 233.527†	12.6	0.5	0.0038	ug/L	0.0038	ppb	18:44:20
1	Be 313.107†	-3856.3	-190.2	-0.0790	ug/L	-0.0790	ppb	18:44:00
1	Cd 226.502†	-168.4	-16.2	-0.2264	ug/L	-0.2264	ppb	18:44:20
1	Co 228.616†	-34.2	13.2	0.3350	ug/L	0.3350	ppb	18:44:20
1	Cr 267.716†	99.0	20.5	0.2636	ug/L	0.2636	ppb	18:44:20
1	Cu 324.752†	5771.4	146.1	0.4709	ug/L	0.4709	ppb	18:44:00
1	Mn 257.610†	438.6	24.9	0.0335	ug/L	0.0335	ppb	18:44:20
1	Mo 202.031†	12.7	2.1	0.1798	ug/L	0.1798	ppb	18:44:20
1	Ni 231.604†	78.7	-7.1	-0.2191	ug/L	-0.2191	ppb	18:44:20
1	P 214.914†	190.6	12.9	9.3454	ug/L	9.3454	ppb	18:44:20
1	Pb 220.353†	-59.6	-11.4	-1.7151	ug/L	-1.7151	ppb	18:44:20
1	S 181.975 Axial†	28.5	0.3	0.5293	ug/L	0.5293	ppb	18:44:20
1	Sb 206.836†	33.5	5.9	2.3870	ug/L	2.3870	ppb	18:44:20
1	Se 196.026†	-23.4	-4.3	-3.4640	ug/L	-3.4640	ppb	18:44:20
1	Si 251.611†	515.5	26.9	0.9786	ug/L	0.9786	ppb	18:44:20
1	Sn 189.927†	3.6	-0.2	-0.0439	ug/L	-0.0439	ppb	18:44:20
1	Ti 334.940†	-1163.4	-85.3	-0.1405	ug/L	-0.1405	ppb	18:44:00
1	Tl 190.801†	-30.6	-5.6	-2.1285	ug/L	-2.1285	ppb	18:44:20
1	U 409.014†	-2232.8	-45.6	-1.3036	ug/L	-1.3036	ppb	18:44:00
1	V 292.402†	-1289.9	-32.7	-0.2517	ug/L	-0.2517	ppb	18:44:00
1	Zn 213.857†	935.6	39.3	0.4619	ug/L	0.4619	ppb	18:44:20
1	SiO2†	530.0	36.7	2.8585	ug/L	2.8585	ppb	18:45:31
2	Sc Radial	4517.0	4517.0	102	%			18:43:08
2	Y RADIAL	4920.6	4920.6	102.5	%			18:43:08
2	Al 396.153Radial†	-71.3	3.6	3.4763	ug/L	3.4763	ppb	18:43:28
2	Ca 317.933Radial†	26.5	4.8	8.7782	ug/L	8.7782	ppb	18:43:28
2	Fe 238.204 Radial†	8.4	0.8	8.4980	ug/L	8.4980	ppb	18:43:28
2	K 766.490 Radial†	2536.5	-133.9	-26.008	ug/L	-26.008	ppb	18:43:08
2	Mg 279.077 IEC†	0.6	-0.4	-17.746	ug/L	-17.746	ppb	18:43:28
2	Na 589.592 Radial†	-859.8	66.7	22.811	ug/L	22.811	ppb	18:43:08
2	Sr 421.552†	30.8	9.4	0.0728	ug/L	0.0728	ppb	18:43:08
2	Sc 361.383	809621.3	809621.3	97.884	%			18:44:25
2	Y 371.029	686577.0	686577.0	97.647	%			18:44:25
2	Ag 328.068†	150.6	-95.2	-0.4748	ug/L	-0.4748	ppb	18:44:25
2	As 188.979†	-24.4	-2.9	-1.5423	ug/L	-1.5423	ppb	18:44:45
2	B 249.677†	-253.8	-74.5	-2.0342	ug/L	-2.0342	ppb	18:44:45
2	Ba 233.527†	15.0	2.9	0.0261	ug/L	0.0261	ppb	18:44:45
2	Be 313.107†	-3910.6	-223.0	-0.0926	ug/L	-0.0926	ppb	18:44:25
2	Cd 226.502†	-158.0	-4.6	-0.0648	ug/L	-0.0648	ppb	18:44:45
2	Co 228.616†	-46.7	0.6	0.0164	ug/L	0.0164	ppb	18:44:45
2	Cr 267.716†	76.2	-3.4	-0.0445	ug/L	-0.0445	ppb	18:44:45
2	Cu 324.752†	5956.7	301.5	0.9692	ug/L	0.9692	ppb	18:44:25
2	Mn 257.610†	417.5	0.7	0.0025	ug/L	0.0025	ppb	18:44:45
2	Mo 202.031†	16.5	6.0	0.5126	ug/L	0.5126	ppb	18:44:45
2	Ni 231.604†	76.8	-9.4	-0.2920	ug/L	-0.2920	ppb	18:44:45

2	P 214.914†	177.0	-2.1	-1.6955 ug/L	-1.6955 ppb	18:44:45
2	Pb 220.353†	-50.6	-1.9	-0.2829 ug/L	-0.2829 ppb	18:44:45
2	S 181.975 Axial†	29.6	1.3	2.2357 ug/L	2.2357 ppb	18:44:45
2	Sb 206.836†	33.6	5.7	2.3552 ug/L	2.3552 ppb	18:44:45
2	Se 196.026†	-19.6	-0.2	-0.1516 ug/L	-0.1516 ppb	18:44:45
2	Si 251.611†	509.3	17.5	0.6331 ug/L	0.6331 ppb	18:44:45
2	Sn 189.927†	8.3	4.6	1.0028 ug/L	1.0028 ppb	18:44:45
2	Ti 334.940†	-1170.7	-85.9	-0.1456 ug/L	-0.1456 ppb	18:44:25
2	Tl 190.801†	-19.3	6.1	2.3026 ug/L	2.3026 ppb	18:44:45
2	U 409.014†	-2065.6	138.4	3.9596 ug/L	3.9596 ppb	18:44:25
2	V 292.402†	-1304.4	-39.9	-0.2933 ug/L	-0.2933 ppb	18:44:25
2	Zn 213.857†	934.4	32.5	0.3809 ug/L	0.3809 ppb	18:44:45
2	SiO2†	602.3	107.5	8.3662 ug/L	8.3662 ppb	18:45:51
3	Sc Radial	4484.3	4484.3	102 %		18:43:33
3	Y RADIAL	4903.4	4903.4	102.1 %		18:43:33
3	Al 396.153Radial†	-80.7	-6.1	-5.9494 ug/L	-5.9494 ppb	18:43:53
3	Ca 317.933Radial†	26.9	5.4	9.8248 ug/L	9.8248 ppb	18:43:53
3	Fe 238.204 Radial†	9.1	1.5	17.182 ug/L	17.182 ppb	18:43:53
3	K 766.490 Radial†	2665.9	11.6	2.2378 ug/L	2.2378 ppb	18:43:33
3	Mg 279.077 IEC†	1.6	0.5	19.965 ug/L	19.965 ppb	18:43:53
3	Na 589.592 Radial†	-862.5	57.9	19.809 ug/L	19.809 ppb	18:43:33
3	Sr 421.552†	37.1	15.9	0.1225 ug/L	0.1225 ppb	18:43:33
3	Sc 361.383	807794.1	807794.1	97.663 %		18:44:51
3	Y 371.029	685654.3	685654.3	97.516 %		18:44:51
3	Ag 328.068†	145.0	-100.6	-0.4950 ug/L	-0.4950 ppb	18:44:51
3	As 188.979†	-23.4	-1.9	-1.0290 ug/L	-1.0290 ppb	18:45:11
3	B 249.677†	-210.0	-30.2	-0.8279 ug/L	-0.8279 ppb	18:45:11
3	Ba 233.527†	20.0	8.1	0.0734 ug/L	0.0734 ppb	18:45:11
3	Be 313.107†	-3891.1	-212.1	-0.0878 ug/L	-0.0878 ppb	18:44:51
3	Cd 226.502†	-152.3	0.9	0.0104 ug/L	0.0104 ppb	18:45:11
3	Co 228.616†	-42.6	4.7	0.1187 ug/L	0.1187 ppb	18:45:11
3	Cr 267.716†	98.9	20.1	0.2607 ug/L	0.2607 ppb	18:45:11
3	Cu 324.752†	5795.6	150.3	0.4853 ug/L	0.4853 ppb	18:44:51
3	Mn 257.610†	424.5	8.9	0.0124 ug/L	0.0124 ppb	18:45:11
3	Mo 202.031†	8.6	-2.1	-0.1820 ug/L	-0.1820 ppb	18:45:11
3	Ni 231.604†	85.3	-0.6	-0.0183 ug/L	-0.0183 ppb	18:45:11
3	P 214.914†	183.7	5.2	3.6630 ug/L	3.6630 ppb	18:45:11
3	Pb 220.353†	-56.7	-8.3	-1.2434 ug/L	-1.2434 ppb	18:45:11
3	S 181.975 Axial†	29.4	1.2	2.0281 ug/L	2.0281 ppb	18:45:11
3	Sb 206.836†	32.1	4.3	1.7381 ug/L	1.7381 ppb	18:45:11
3	Se 196.026†	-21.9	-2.7	-2.1228 ug/L	-2.1228 ppb	18:45:11
3	Si 251.611†	495.5	4.6	0.1691 ug/L	0.1691 ppb	18:45:11
3	Sn 189.927†	7.4	3.7	0.8003 ug/L	0.8003 ppb	18:45:11
3	Ti 334.940†	-1090.9	-7.0	-0.0120 ug/L	-0.0120 ppb	18:44:51
3	Tl 190.801†	-45.8	-21.0	-7.9574 ug/L	-7.9574 ppb	18:45:11
3	U 409.014†	-2215.5	-19.9	-0.5712 ug/L	-0.5712 ppb	18:44:51
3	V 292.402†	-1293.4	-31.7	-0.2494 ug/L	-0.2494 ppb	18:44:51
3	Zn 213.857†	945.7	46.3	0.5402 ug/L	0.5402 ppb	18:45:11
3	SiO2†	518.6	23.2	1.8134 ug/L	1.8134 ppb	18:46:11

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	807469.3	97.623	%	0.2819				0.29%
Sc Radial	4509.2	102	%	0.5				0.49%
Y 371.029	685154.1	97.445	%	0.2458				0.25%
Y RADIAL	4922.4	102.5	%	0.41				0.40%
Ag 328.068†	-100.6	-0.4990	ug/L	0.02638	-0.4990	ppb	0.02638	5.29%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.4	-0.3616	ug/L	4.95051	-0.3616	ppb	4.95051	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.3	-0.6881	ug/L	1.06635	-0.6881	ppb	1.06635	154.97%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-49.7	-1.3583	ug/L	0.61616	-1.3583	ppb	0.61616	45.36%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.8	0.0344	ug/L	0.03556	0.0344	ppb	0.03556	103.31%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-208.4	-0.0864	ug/L	0.00689	-0.0864	ppb	0.00689	7.97%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.6	8.4339	ug/L	1.59133	8.4339	ppb	1.59133	18.87%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -6.7     -0.0936 ug/L       0.12102     -0.0936 ppb        0.12102 129.28%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 6.2      0.1567 ug/L       0.16269      0.1567 ppb        0.16269 103.83%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                12.4      0.1599 ug/L       0.17708      0.1599 ppb        0.17708 110.71%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               199.3      0.6418 ug/L       0.28362      0.6418 ppb        0.28362  44.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.7      7.3731 ug/L      10.41652      7.3731 ppb       10.41652 141.28%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -87.3     -16.966 ug/L       16.6409     -16.966 ppb        16.6409  98.08%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.3     -13.556 ug/L       31.6343     -13.556 ppb        31.6343 233.37%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                11.5      0.0161 ug/L       0.01583      0.0161 ppb        0.01583  98.22%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.0      0.1701 ug/L       0.34741      0.1701 ppb        0.34741 204.22%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         75.5      25.832 ug/L        7.9757      25.832 ppb         7.9757  30.87%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -5.7     -0.1765 ug/L       0.14173     -0.1765 ppb        0.14173  80.32%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  5.3      3.7710 ug/L       5.52123      3.7710 ppb        5.52123 146.41%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -7.2     -1.0805 ug/L       0.72984     -1.0805 ppb        0.72984  67.55%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.9      1.5977 ug/L       0.93107      1.5977 ppb        0.93107  58.28%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 5.3      2.1601 ug/L       0.36580      2.1601 ppb        0.36580  16.93%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.4     -1.9128 ug/L       1.66617     -1.9128 ppb        1.66617  87.11%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                16.3      0.5936 ug/L       0.40620      0.5936 ppb        0.40620  68.43%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.7      0.5864 ug/L       0.55516      0.5864 ppb        0.55516  94.67%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                10.5      0.0812 ug/L       0.03779      0.0812 ppb        0.03779  46.51%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -59.4     -0.0994 ug/L       0.07570     -0.0994 ppb        0.07570  76.18%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -6.9     -2.5944 ug/L       5.14580     -2.5944 ppb        5.14580 198.34%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 24.3      0.6949 ug/L       2.85091      0.6949 ppb        2.85091 410.24%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -34.8     -0.2648 ug/L       0.02469     -0.2648 ppb        0.02469   9.32%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                39.4      0.4610 ug/L       0.07963      0.4610 ppb        0.07963  17.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      55.8      4.3460 ug/L       3.52059      4.3460 ppb        3.52059  81.01%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, March 18, 2010 13:32:09
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.859
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	5223.8	5223.755	95.191	1.8
	Mg	24.0	73610.0	73609.967	583.600	0.8
	Co	58.9	110755.1	110755.084	517.527	0.5
	Rh	102.9	220456.5	220456.498	1763.983	0.8
	In	114.9	299028.0	299027.951	2320.120	0.8
	Pb	208.0	348201.8	348201.830	2481.134	0.7
⌈>	Ba	137.9	307265.7	307265.711	1608.255	0.5
⌊	Ba++	69.0	4313.6	0.014	0.000	1.4
⌈>	Ce	139.9	369035.2	369035.153	2658.374	0.7
⌊	CeO	155.9	8816.0	0.024	0.001	2.8
	Bkgd	220.0	15.7	15.700	2.080	13.2

Current Optimization File Data

Current Value	Description
0.89	Nebulizer Gas Flow
6.75	Lens Voltage
1450.00	ICP RF Power
-1812.50	Analog Stage Voltage
1300.00	Pulse Stage Voltage
200.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	15	7.3	5888.2
Co	59	15	8.0	113356.0
In	115	15	9.0	306684.3

ICPMS #5 Instrument Tuning Report

File Name: 100318c.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	588	2072	0.607
Be	9.0	9.0	2047	2088	0.590
Mg	24.0	24.0	5687	2100	0.592
Mg	25.0	25.0	5939	2100	0.551
Mg	26.0	26.0	6183	2100	0.587
Co	58.9	58.9	14169	2125	0.590
Rh	102.9	102.9	24874	2180	0.582
In	114.9	114.9	27789	2200	0.585
Ce	139.9	139.9	33872	2220	0.595
Pb	206.0	206.0	49948	2305	0.589
Pb	207.0	207.0	50171	2240	0.662
Pb	208.0	208.0	50439	2280	0.700
U	238.1	238.1	57731	2295	0.704

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, March 19, 2010 02:34:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid 2.mth
Dataset File: C:\elandata\Dataset\100318\Blank.254

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		275053	
	Cr	52		ug/L		3365	
	Cr	53		ug/L		76389	
	Ni	60		ug/L		139	
>	Ge	74		ug/L		329372	
	As	75		ug/L		-353	
	Se	77		ug/L		5502	
	Se	82		ug/L		8	
	Kr	83		ug/L		90	
	Mo	98		ug/L		94	
	Ag	107		ug/L		73	
	Cd	111		ug/L		27	
	Cd	114		ug/L		51	
>	In	115		ug/L		231568	
	Sb	121		ug/L		115	
	Sb	123		ug/L		92	
>	Lu	175		ug/L		488476	
	Tl	205		ug/L		6118	
	Pb	208		ug/L		691	
	U	238		ug/L		471	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Ni	60	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Mo	98	Simple Linear	
Ag	107	Simple Linear	
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9997

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45					
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, March 19, 2010 02:37:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid 2.mth
Dataset File: C:\elandata\Dataset\100318\Standard 1.255

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		290768	290768.111
	Cr	52	10.000	ug/L	1.260	45369	0.144
	Cr	53		ug/L		63130	-0.061
	Ni	60	10.000	ug/L	4.220	12421	0.042
>	Ge	74		ug/L		353221	353221.435
	As	75	10.000	ug/L	2.666	9306	0.027
	Se	77		ug/L		4528	-0.004
	Se	82	10.000	ug/L	4.853	1091	0.003
	Kr	83		ug/L		96	-0.000
	Mo	98	10.000	ug/L	2.790	29757	0.119
	Ag	107	10.000	ug/L	2.342	55715	0.222
	Cd	111	10.000	ug/L	1.239	14245	0.057
	Cd	114		ug/L		33071	0.132
>	In	115		ug/L		250239	250239.412
	Sb	121	10.000	ug/L	2.946	43707	0.174
	Sb	123		ug/L		34365	0.137
>	Lu	175		ug/L		522581	522580.884
	Tl	205	10.000	ug/L	1.707	224105	0.416
	Pb	208	10.000	ug/L	1.038	396377	0.757
	U	238	10.000	ug/L	0.448	497300	0.951

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45					
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, March 19, 2010 02:41:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid 2.mth
Dataset File: C:\elandata\Dataset\100318\Standard 2.256

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		283705	283705.439
|	Cr	52	**100.006**	ug/L	1.729	413951	1.447
|	Cr	53		ug/L		99449	0.073
⌊	Ni	60	**99.983**	ug/L	2.150	117883	0.415
⌈>	Ge	74		ug/L		349691	349691.084
|	As	75	**99.997**	ug/L	0.812	95263	0.274
|	Se	77		ug/L		11473	0.016
|	Se	82	**100.033**	ug/L	1.456	11096	0.032
⌊	Kr	83		ug/L		100	0.000
⌈	Mo	98	**100.035**	ug/L	3.478	303892	1.229
|	Ag	107	**99.988**	ug/L	1.735	543141	2.196
|	Cd	111	**100.000**	ug/L	3.329	140512	0.568
|	Cd	114		ug/L		327619	1.325
|>	In	115		ug/L		247331	247331.187
|	Sb	121	**100.058**	ug/L	3.194	457652	1.851
⌊	Sb	123		ug/L		360135	1.457
⌈>	Lu	175		ug/L		517030	517029.517
|	Tl	205	**99.744**	ug/L	1.275	1715609	3.306
|	Pb	208	**99.839**	ug/L	1.482	3367776	6.513
⌊	U	238	**99.726**	ug/L	1.396	3848754	7.444

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Sc	45Linear Thru Zero	
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9997
Pb	208Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45					
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, March 19, 2010 02:44:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid 2.mth
Dataset File: C:\elandata\Dataset\100318\QC Std 1.257

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		287905	287904.749
	Cr	52	**50.075**	**ug/L**	0.658	212150	0.725
	Cr	53		**ug/L**		71751	-0.028
	Ni	60	**50.898**	**ug/L**	3.612	60968	0.211
>	Ge	74		**ug/L**		350611	350611.278
	As	75	**50.809**	**ug/L**	2.863	48344	0.139
	Se	77		**ug/L**		7115	0.004
	Se	82	**50.971**	**ug/L**	1.504	5674	0.016
	Kr	83		**ug/L**		103	0.000
	Mo	98	**49.047**	**ug/L**	2.155	149775	0.603
	Ag	107	**50.861**	**ug/L**	0.591	277620	1.117
	Cd	111	**50.430**	**ug/L**	2.489	71216	0.287
	Cd	114		**ug/L**		167113	0.673
>	In	115		**ug/L**		248432	248432.294
	Sb	121	**52.183**	**ug/L**	1.154	239901	0.965
	Sb	123		**ug/L**		189893	0.764
>	Lu	175		**ug/L**		516102	516102.437
	Tl	205	**59.876**	**ug/L**	2.375	1030618	1.984
	Pb	208	**56.937**	**ug/L**	0.644	1917750	3.714
	U	238	**51.662**	**ug/L**	0.890	1990664	3.856

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		104.7			
	Cr	52	100.150				
	Cr	53					
	Ni	60	101.795				
>	Ge	74		106.4			
	As	75	101.618				
	Se	77					
	Se	82	101.941				
	Kr	83					
	Mo	98	98.095				
	Ag	107	101.723				
	Cd	111	100.860				
	Cd	114					
>	In	115		107.3			
	Sb	121	104.366				
	Sb	123					
>	Lu	175		105.7			
	Tl	205	119.752				
	Pb	208	113.874				
	U	238	103.324				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Tl	205	ICV is out of limits (+/- 10%)
QC Std 1	Pb	208	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, March 19, 2010 02:47:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid 2.mth
Dataset File: C:\elandata\Dataset\100318\QC Std 2.258

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		269596	269596.304
	Cr	52	-0.031	ug/L	258.747	3176	-0.000
	Cr	53		ug/L		62374	-0.046
	Ni	60	0.002	ug/L	362.433	138	0.000
>	Ge	74		ug/L		320587	320587.391
	As	75	-0.182	ug/L	215.717	-501	-0.000
	Se	77		ug/L		4476	-0.003
	Se	82	0.041	ug/L	324.031	12	0.000
	Kr	83		ug/L		89	0.000
	Mo	98	0.099	ug/L	33.834	362	0.001
	Ag	107	0.002	ug/L	155.250	83	0.000
	Cd	111	-0.000	ug/L	888.243	26	-0.000
	Cd	114		ug/L		43	-0.000
>	In	115		ug/L		222990	222990.189
	Sb	121	0.396	ug/L	7.555	1743	0.007
	Sb	123		ug/L		1370	0.006
>	Lu	175		ug/L		469611	469611.367
	Tl	205	0.766	ug/L	18.843	17799	0.025
	Pb	208	0.006	ug/L	26.955	853	0.000
	U	238	0.008	ug/L	31.926	717	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		98.0			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		97.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.3			
	Sb	121					
	Sb	123					
>	Lu	175		96.1			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, March 19, 2010 02:51:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid 2.mth
Dataset File: C:\elandata\Dataset\100318\QC Std 3.259

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		282853	282852.526
	Cr	52	**11.226**	ug/L	1.769	49408	0.162
	Cr	53		ug/L		71459	-0.025
	Ni	60	**2.241**	ug/L	4.529	2773	0.009
>	Ge	74		ug/L		341176	341175.811
	As	75	**5.764**	ug/L	7.678	5012	0.016
	Se	77		ug/L		5032	-0.002
	Se	82	**5.558**	ug/L	12.833	609	0.002
	Kr	83		ug/L		80	-0.000
	Mo	98	**0.582**	ug/L	0.394	1806	0.007
	Ag	107	**1.055**	ug/L	3.405	5614	0.023
	Cd	111	**1.123**	ug/L	0.623	1553	0.006
	Cd	114		ug/L		3503	0.014
>	In	115		ug/L		238981	238981.075
	Sb	121	**3.268**	ug/L	0.918	14564	0.060
	Sb	123		ug/L		11576	0.048
>	Lu	175		ug/L		501322	501321.809
	Tl	205	**1.493**	ug/L	2.958	31088	0.049
	Pb	208	**2.591**	ug/L	1.621	85461	0.169
	U	238	**0.327**	ug/L	1.145	12717	0.024

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		102.8			
	Cr	52	112.258				
	Cr	53					
	Ni	60	112.065				
>	Ge	74		103.6			
	As	75	115.275				
	Se	77					
	Se	82	111.162				
	Kr	83					
	Mo	98	116.374				
	Ag	107	105.517				
	Cd	111	112.269				
	Cd	114					
>	In	115		103.2			
	Sb	121	108.930				
	Sb	123					
>	Lu	175		102.6			
	Tl	205	149.336				
	Pb	208	129.575				
	U	238	163.447				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Tl	205	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, March 19, 2010 02:54:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid 2.mth
Dataset File: C:\elandata\Dataset\100318\QC Std 4.260

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		261772	261771.977
	Cr	52	**2.268**	**ug/L**	3.240	11791	0.033
	Cr	53		**ug/L**		38161	-0.132
	Ni	60	**3.267**	**ug/L**	4.609	3682	0.014
>	Ge	74		**ug/L**		333440	333440.298
	As	75	**0.145**	**ug/L**	416.531	-223	0.000
	Se	77		**ug/L**		3255	-0.007
	Se	82	**-1.359**	**ug/L**	6.806	-136	-0.000
	Kr	83		**ug/L**		284	0.001
	Mo	98	**1750.712**	**ug/L**	3.610	5226825	21.508
	Ag	107	**0.081**	**ug/L**	5.861	510	0.002
	Cd	111	**0.358**	**ug/L**	23.506	523	0.002
	Cd	114		**ug/L**		7821	0.032
>	In	115		**ug/L**		243114	243113.787
	Sb	121	**0.174**	**ug/L**	11.960	905	0.003
	Sb	123		**ug/L**		709	0.003
>	Lu	175		**ug/L**		495679	495678.809
	Tl	205	**-0.001**	**ug/L**	708.717	6187	-0.000
	Pb	208	**0.237**	**ug/L**	1.994	8371	0.015
	U	238	**-0.008**	**ug/L**	4.700	192	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		95.2			
	Cr	52	68.715				
	Cr	53					
	Ni	60	98.706				
>	Ge	74		101.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98	87.536				
	Ag	107					
	Cd	111	80.636				
	Cd	114					
>	In	115		105.0			
	Sb	121					
	Sb	123					
>	Lu	175		101.5			
	Tl	205					
	Pb	208	125.523				
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, March 19, 2010 02:58:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid 2.mth
Dataset File: C:\elandata\Dataset\100318\QC Std 5.261

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		254245	254245.242
	Cr	52	**24.850**	**ug/L**	2.799	94523	0.360
	Cr	53		**ug/L**		47407	-0.091
	Ni	60	**24.434**	**ug/L**	3.274	25913	0.101
>	Ge	74		**ug/L**		326414	326414.384
	As	75	**21.684**	**ug/L**	1.879	19010	0.059
	Se	77		**ug/L**		4884	-0.002
	Se	82	**20.048**	**ug/L**	3.246	2082	0.006
	Kr	83		**ug/L**		290	0.001
	Mo	98	**1864.923**	**ug/L**	2.724	5351791	22.911
	Ag	107	**20.214**	**ug/L**	0.824	103796	0.444
	Cd	111	**20.559**	**ug/L**	4.263	27319	0.117
	Cd	114		**ug/L**		71483	0.306
>	In	115		**ug/L**		233617	233617.288
	Sb	121	**22.037**	**ug/L**	0.834	95337	0.408
	Sb	123		**ug/L**		74910	0.320
>	Lu	175		**ug/L**		476894	476894.100
	Tl	205	**25.263**	**ug/L**	2.255	405206	0.837
	Pb	208	**24.201**	**ug/L**	1.208	753564	1.579
	U	238	**27.888**	**ug/L**	0.985	993119	2.082

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		92.4			
	Cr	52	106.653				
	Cr	53					
	Ni	60	104.822				
>	Ge	74		99.1			
	As	75	108.421				
	Se	77					
	Se	82	100.241				
	Kr	83					
	Mo	98	93.246				
	Ag	107	101.070				
	Cd	111	100.562				
	Cd	114					
>	In	115		100.9			
	Sb	121	110.183				
	Sb	123					
>	Lu	175		97.6			
	Tl	205	126.314				
	Pb	208	119.874				
	U	238	139.440				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Tl	205	ICSAB is out of limits
QC Std 5	U	238	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, March 19, 2010 03:01:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid 2.mth
Dataset File: C:\elandata\Dataset\100318\QC Std 6.262

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		270053	270053.173
	Cr	52	**53.373**	ug/L	2.063	211867	0.772
	Cr	53		ug/L		66891	-0.030
	Ni	60	**53.057**	ug/L	2.756	59598	0.220
>	Ge	74		ug/L		328087	328087.475
	As	75	**54.201**	ug/L	1.558	48290	0.148
	Se	77		ug/L		6675	0.004
	Se	82	**55.444**	ug/L	1.630	5775	0.018
	Kr	83		ug/L		87	-0.000
	Mo	98	**51.991**	ug/L	2.758	149446	0.639
	Ag	107	**53.902**	ug/L	3.007	276879	1.184
	Cd	111	**53.600**	ug/L	2.911	71245	0.305
	Cd	114		ug/L		166396	0.711
>	In	115		ug/L		233876	233876.358
	Sb	121	**54.771**	ug/L	3.855	236948	1.013
	Sb	123		ug/L		187955	0.803
>	Lu	175		ug/L		483389	483389.120
	Tl	205	**64.279**	ug/L	3.015	1035584	2.130
	Pb	208	**60.726**	ug/L	2.535	1915280	3.962
	U	238	**55.570**	ug/L	1.051	2005535	4.148

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		98.2			
	Cr	52	106.745				
	Cr	53					
	Ni	60	106.113				
>	Ge	74		99.6			
	As	75	108.402				
	Se	77					
	Se	82	110.889				
	Kr	83					
	Mo	98	103.983				
	Ag	107	107.805				
	Cd	111	107.201				
	Cd	114					
>	In	115		101.0			
	Sb	121	109.541				
	Sb	123					
>	Lu	175		99.0			
	Tl	205	128.557				
	Pb	208	121.452				
	U	238	111.140				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Se	82	CCV is out of limits (+/- 10%)
QC Std 6	Tl	205	CCV is out of limits (+/- 10%)
QC Std 6	Pb	208	CCV is out of limits (+/- 10%)
QC Std 6	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, March 19, 2010 03:05:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid 2.mth
Dataset File: C:\elandata\Dataset\100318\QC Std 7.263

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		290994	290994.414
	Cr	52	-0.434	ug/L	8.537	1733	-0.006
	Cr	53		ug/L		60936	-0.068
	Ni	60	0.013	ug/L	85.542	162	0.000
>	Ge	74		ug/L		354419	354418.511
	As	75	0.064	ug/L	550.193	-318	0.000
	Se	77		ug/L		4335	-0.004
	Se	82	-0.035	ug/L	382.253	4	-0.000
	Kr	83		ug/L		99	0.000
	Mo	98	0.145	ug/L	26.089	547	0.002
	Ag	107	0.001	ug/L	87.505	83	0.000
	Cd	111	-0.003	ug/L	187.313	26	-0.000
	Cd	114		ug/L		54	-0.000
>	In	115		ug/L		250893	250892.531
	Sb	121	0.094	ug/L	11.837	559	0.002
	Sb	123		ug/L		453	0.001
>	Lu	175		ug/L		521072	521071.517
	Tl	205	0.630	ug/L	19.246	17368	0.021
	Pb	208	0.002	ug/L	63.208	805	0.000
	U	238	0.002	ug/L	94.366	588	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		105.8			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		107.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		108.3			
	Sb	121					
	Sb	123					
>	Lu	175		106.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, March 19, 2010 03:33:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid 2.mth
Dataset File: C:\elandata\Dataset\100318\QC Std 8.271

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		261224	261224.425
	Cr	52	**49.698**	**ug/L**	1.195	191058	0.719
	Cr	53		**ug/L**		79340	0.026
	Ni	60	**50.228**	**ug/L**	2.580	54590	0.209
>	Ge	74		**ug/L**		315957	315957.025
	As	75	**51.329**	**ug/L**	1.906	44011	0.140
	Se	77		**ug/L**		7375	0.007
	Se	82	**50.705**	**ug/L**	1.024	5086	0.016
	Kr	83		**ug/L**		95	0.000
	Mo	98	**49.539**	**ug/L**	1.694	134810	0.609
	Ag	107	**50.932**	**ug/L**	2.917	247681	1.119
	Cd	111	**49.142**	**ug/L**	6.784	61810	0.279
	Cd	114		**ug/L**		149226	0.674
>	In	115		**ug/L**		221405	221404.872
	Sb	121	**52.412**	**ug/L**	2.335	214702	0.969
	Sb	123		**ug/L**		168094	0.759
>	Lu	175		**ug/L**		472561	472561.460
	Tl	205	**60.881**	**ug/L**	1.197	959379	2.018
	Pb	208	**57.689**	**ug/L**	1.699	1778748	3.763
	U	238	**53.322**	**ug/L**	0.945	1881156	3.980

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		95.0			
	Cr	52	99.397				
	Cr	53					
	Ni	60	100.456				
>	Ge	74		95.9			
	As	75	102.658				
	Se	77					
	Se	82	101.410				
	Kr	83					
	Mo	98	99.078				
	Ag	107	101.865				
	Cd	111	98.285				
	Cd	114					
>	In	115		95.6			
	Sb	121	104.824				
	Sb	123					
>	Lu	175		96.7			
	Tl	205	121.762				
	Pb	208	115.377				
	U	238	106.645				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Tl	205	CCV is out of limits (+/- 10%)
QC Std 8	Pb	208	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, March 19, 2010 03:37:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid 2.mth
Dataset File: C:\elandata\Dataset\100318\QC Std 9.272

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		253540	253539.884
	Cr	52	-0.337	ug/L	8.774	1863	-0.005
	Cr	53		ug/L		64322	-0.024
	Ni	60	0.011	ug/L	85.540	139	0.000
>	Ge	74		ug/L		301053	301052.632
	As	75	0.154	ug/L	91.947	-196	0.000
	Se	77		ug/L		4893	-0.000
	Se	82	0.138	ug/L	145.506	20	0.000
	Kr	83		ug/L		78	-0.000
	Mo	98	0.071	ug/L	52.417	270	0.001
	Ag	107	0.002	ug/L	174.432	74	0.000
	Cd	111	0.003	ug/L	397.137	28	0.000
	Cd	114		ug/L		48	0.000
>	In	115		ug/L		210720	210720.243
	Sb	121	0.054	ug/L	24.137	316	0.001
	Sb	123		ug/L		239	0.001
>	Lu	175		ug/L		449145	449144.603
	Tl	205	0.661	ug/L	19.162	15451	0.022
	Pb	208	0.002	ug/L	29.891	690	0.000
	U	238	0.003	ug/L	35.065	527	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		92.2			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		91.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.0			
	Sb	121					
	Sb	123					
>	Lu	175		91.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202047761
Sample Date/Time: Friday, March 19, 2010 03:40:49
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 955155|1|skj
Method File: c:\elandata\Method\lanl liquid 2.mth
Dataset File: C:\elandata\Dataset\100318\1202047761.273

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		245118	245118.176
	Cr	52	1.437	ug/L	3.933	8093	0.021
	Cr	53		ug/L		182475	0.467
	Ni	60	0.032	ug/L	50.068	156	0.000
>	Ge	74		ug/L		284237	284237.306
	As	75	-0.722	ug/L	202.994	-866	-0.002
	Se	77		ug/L		16575	0.042
	Se	82	0.403	ug/L	29.045	43	0.000
	Kr	83		ug/L		66	-0.000
	Mo	98	0.009	ug/L	39.420	103	0.000
	Ag	107	0.001	ug/L	72.515	66	0.000
	Cd	111	-0.007	ug/L	184.518	15	-0.000
	Cd	114		ug/L		29	-0.000
>	In	115		ug/L		197583	197583.380
	Sb	121	0.037	ug/L	19.439	232	0.001
	Sb	123		ug/L		165	0.000
>	Lu	175		ug/L		422704	422704.289
	Tl	205	0.165	ug/L	6.815	7608	0.005
	Pb	208	0.003	ug/L	20.958	685	0.000
	U	238	-0.009	ug/L	4.219	137	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		89.1			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		86.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		85.3			
	Sb	121					
	Sb	123					
>	Lu	175		86.5			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202047762
Sample Date/Time: Friday, March 19, 2010 03:44:21
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 955155|1|skj
Method File: c:\elandata\Method\lanl liquid 2.mth
Dataset File: C:\elandata\Dataset\100318\1202047762.274

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		254982	254982.079
	Cr	52	**48.767**	ug/L	0.752	183044	0.706
	Cr	53		ug/L		215973	0.569
	Ni	60	**46.491**	ug/L	1.397	49332	0.193
>	Ge	74		ug/L		303474	303473.776
	As	75	**44.866**	ug/L	2.868	36923	0.123
	Se	77		ug/L		20254	0.050
	Se	82	**42.563**	ug/L	2.034	4102	0.013
	Kr	83		ug/L		81	-0.000
	Mo	98	**44.871**	ug/L	2.817	115990	0.551
	Ag	107	**47.259**	ug/L	2.750	218264	1.038
	Cd	111	**45.618**	ug/L	3.551	54522	0.259
	Cd	114		ug/L		127097	0.604
>	In	115		ug/L		210270	210269.977
	Sb	121	**46.094**	ug/L	4.800	179300	0.853
	Sb	123		ug/L		141890	0.675
>	Lu	175		ug/L		451153	451152.958
	Tl	205	**51.865**	ug/L	2.234	781089	1.719
	Pb	208	**52.489**	ug/L	3.154	1545168	3.424
	U	238	**50.623**	ug/L	0.514	1705140	3.779

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		92.7			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		92.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.8			
	Sb	121					
	Sb	123					
>	Lu	175		92.4			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 247261003
Sample Date/Time: Friday, March 19, 2010 03:47:53
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 955155|1|skj
Method File: c:\elandata\Method\lanl liquid 2.mth
Dataset File: C:\elandata\Dataset\100318\247261003.275

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		286315	286315.474
	Cr	52	**124.958**	**ug/L**	0.685	521253	1.808
	Cr	53		**ug/L**		228668	0.521
	Ni	60	**49.375**	**ug/L**	2.990	58816	0.205
>	Ge	74		**ug/L**		279157	279157.007
	As	75	**1.576**	**ug/L**	28.523	905	0.004
	Se	77		**ug/L**		13726	0.032
	Se	82	**0.372**	**ug/L**	25.679	39	0.000
	Kr	83		**ug/L**		91	0.000
	Mo	98	**7.530**	**ug/L**	1.452	18327	0.093
	Ag	107	**0.764**	**ug/L**	0.987	3374	0.017
	Cd	111	**0.095**	**ug/L**	15.362	130	0.001
	Cd	114		**ug/L**		167	0.001
>	In	115		**ug/L**		197254	197253.654
	Sb	121	**0.385**	**ug/L**	1.243	1503	0.007
	Sb	123		**ug/L**		1238	0.006
>	Lu	175		**ug/L**		427770	427770.067
	Tl	205	**1.010**	**ug/L**	15.082	19647	0.033
	Pb	208	**10.000**	**ug/L**	1.570	279606	0.652
	U	238	**3.747**	**ug/L**	0.943	120051	0.280

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		104.1			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		84.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		85.2			
	Sb	121					
	Sb	123					
>	Lu	175		87.6			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202047763
Sample Date/Time: Friday, March 19, 2010 03:51:26
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 955155|1|skj
Method File: c:\elandata\Method\lanl liquid 2.mth
Dataset File: C:\elandata\Dataset\100318\1202047763.276

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		284762	284761.921
	Cr	52	**125.163**	ug/L	1.281	519138	1.811
	Cr	53		ug/L		220965	0.499
	Ni	60	**49.660**	ug/L	3.846	58822	0.206
>	Ge	74		ug/L		280761	280761.421
	As	75	**2.107**	ug/L	45.252	1321	0.006
	Se	77		ug/L		12253	0.027
	Se	82	**0.553**	ug/L	38.747	55	0.000
	Kr	83		ug/L		98	0.000
	Mo	98	**7.561**	ug/L	1.618	18675	0.093
	Ag	107	**0.719**	ug/L	2.130	3227	0.016
	Cd	111	**0.099**	ug/L	33.066	136	0.001
	Cd	114		ug/L		173	0.001
>	In	115		ug/L		200226	200225.543
	Sb	121	**0.410**	ug/L	1.763	1617	0.008
	Sb	123		ug/L		1309	0.006
>	Lu	175		ug/L		436573	436572.631
	Tl	205	**0.248**	ug/L	9.364	9057	0.008
	Pb	208	**9.800**	ug/L	2.885	279687	0.639
	U	238	**3.742**	ug/L	2.824	122301	0.279

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		103.5			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		85.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		86.5			
	Sb	121					
	Sb	123					
>	Lu	175		89.4			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202047764
Sample Date/Time: Friday, March 19, 2010 03:54:59
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 955155|1|skj
Method File: c:\elandata\Method\lanl liquid 2.mth
Dataset File: C:\elandata\Dataset\100318\1202047764.277

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		306227	306227.181
	Cr	52	**156.753**	ug/L	2.208	698064	2.268
	Cr	53		ug/L		243881	0.520
	Ni	60	**85.046**	ug/L	4.515	108156	0.353
>	Ge	74		ug/L		294624	294624.491
	As	75	**70.625**	ug/L	1.521	56609	0.193
	Se	77		ug/L		13433	0.029
	Se	82	**17.235**	ug/L	4.665	1617	0.005
	Kr	83		ug/L		106	0.000
	Mo	98	**50.278**	ug/L	1.872	130460	0.618
	Ag	107	**46.192**	ug/L	3.845	214116	1.015
	Cd	111	**9.271**	ug/L	1.961	11143	0.053
	Cd	114		ug/L		25371	0.120
>	In	115		ug/L		211113	211113.234
	Sb	121	**150.059**	ug/L	2.715	585928	2.776
	Sb	123		ug/L		463714	2.196
>	Lu	175		ug/L		462321	462320.812
	Tl	205	**47.682**	ug/L	3.276	736299	1.580
	Pb	208	**51.052**	ug/L	2.385	1540266	3.330
	U	238	**51.797**	ug/L	1.005	1787929	3.866

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		111.3			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		89.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.2			
	Sb	121					
	Sb	123					
>	Lu	175		94.6			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202047765
Sample Date/Time: Friday, March 19, 2010 03:58:31
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 955155|5|skj
Method File: c:\elandata\Method\lanl liquid 2.mth
Dataset File: C:\elandata\Dataset\100318\1202047765.278

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		257797	257797.483
	Cr	52	**31.670**	ug/L	1.415	121278	0.458
	Cr	53		ug/L		92391	0.081
	Ni	60	**12.743**	ug/L	3.396	13763	0.053
>	Ge	74		ug/L		293870	293870.433
	As	75	**1.160**	ug/L	65.197	622	0.003
	Se	77		ug/L		5073	0.001
	Se	82	**0.217**	ug/L	8.338	27	0.000
	Kr	83		ug/L		84	0.000
	Mo	98	**1.657**	ug/L	3.255	4279	0.020
	Ag	107	**0.161**	ug/L	2.314	793	0.004
	Cd	111	**0.004**	ug/L	189.216	29	0.000
	Cd	114		ug/L		63	0.000
>	In	115		ug/L		206190	206190.485
	Sb	121	**0.096**	ug/L	3.815	470	0.002
	Sb	123		ug/L		378	0.001
>	Lu	175		ug/L		445346	445346.476
	Tl	205	**1.062**	ug/L	13.324	21263	0.035
	Pb	208	**2.160**	ug/L	2.344	63358	0.141
	U	238	**0.785**	ug/L	0.785	26530	0.059

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		93.7			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		89.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		89.0			
	Sb	121					
	Sb	123					
>	Lu	175		91.2			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 247261004
Sample Date/Time: Friday, March 19, 2010 04:02:04
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 955155|1|skj
Method File: c:\elandata\Method\lanl liquid 2.mth
Dataset File: C:\elandata\Dataset\100318\247261004.279

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		293435	293434.832
	Cr	52	**9.541**	ug/L	0.637	44101	0.138
	Cr	53		ug/L		171273	0.306
	Ni	60	**8.297**	ug/L	1.250	10257	0.034
>	Ge	74		ug/L		299533	299533.113
	As	75	**0.346**	ug/L	215.639	-38	0.001
	Se	77		ug/L		13191	0.027
	Se	82	**0.755**	ug/L	28.819	79	0.000
	Kr	83		ug/L		81	-0.000
	Mo	98	**5.099**	ug/L	3.084	13683	0.063
	Ag	107	**0.035**	ug/L	13.320	237	0.001
	Cd	111	**-0.003**	ug/L	335.548	21	-0.000
	Cd	114		ug/L		77	0.000
>	In	115		ug/L		217145	217145.223
	Sb	121	**0.348**	ug/L	1.627	1505	0.006
	Sb	123		ug/L		1126	0.005
>	Lu	175		ug/L		478246	478245.698
	Tl	205	**0.196**	ug/L	3.946	9100	0.007
	Pb	208	**0.855**	ug/L	2.174	27344	0.056
	U	238	**0.751**	ug/L	0.835	27265	0.056

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		106.7			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		90.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.8			
	Sb	121					
	Sb	123					
>	Lu	175		97.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, March 19, 2010 04:05:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid 2.mth
Dataset File: C:\elandata\Dataset\100318\QC Std 6.280

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		282478	282478.060
	Cr	52	**49.317**	ug/L	1.336	205048	0.714
	Cr	53		ug/L		84787	0.022
	Ni	60	**48.847**	ug/L	0.415	57428	0.203
>	Ge	74		ug/L		345459	345459.151
	As	75	**48.974**	ug/L	1.343	45903	0.134
	Se	77		ug/L		7438	0.005
	Se	82	**50.116**	ug/L	0.767	5497	0.016
	Kr	83		ug/L		96	0.000
	Mo	98	**47.571**	ug/L	1.985	141371	0.584
	Ag	107	**49.460**	ug/L	3.007	262683	1.086
	Cd	111	**49.597**	ug/L	2.861	68148	0.282
	Cd	114		ug/L		158169	0.654
>	In	115		ug/L		241847	241846.763
	Sb	121	**51.399**	ug/L	2.924	229899	0.951
	Sb	123		ug/L		180326	0.746
>	Lu	175		ug/L		520795	520794.935
	Tl	205	**58.394**	ug/L	1.328	1014455	1.935
	Pb	208	**54.939**	ug/L	1.445	1866925	3.584
	U	238	**50.062**	ug/L	0.517	1946480	3.737

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		102.7			
	Cr	52	98.635				
	Cr	53					
	Ni	60	97.693				
>	Ge	74		104.9			
	As	75	97.949				
	Se	77					
	Se	82	100.232				
	Kr	83					
	Mo	98	95.142				
	Ag	107	98.920				
	Cd	111	99.193				
	Cd	114					
>	In	115		104.4			
	Sb	121	102.797				
	Sb	123					
>	Lu	175		106.6			
	Tl	205	116.788				
	Pb	208	109.879				
	U	238	100.124				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Tl	205	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, March 19, 2010 04:09:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ani liquid 2.mth
Dataset File: C:\elandata\Dataset\100318\QC Std 7.281

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		281137	281137.270
	Cr	52	**-0.563**	**ug/L**	7.714	1152	-0.008
	Cr	53		**ug/L**		66249	-0.042
	Ni	60	**-0.008**	**ug/L**	102.958	133	-0.000
>	Ge	74		**ug/L**		331820	331820.429
	As	75	**-0.015**	**ug/L**	3115.347	-368	-0.000
	Se	77		**ug/L**		4461	-0.003
	Se	82	**-0.061**	**ug/L**	54.219	1	-0.000
	Kr	83		**ug/L**		93	0.000
	Mo	98	**0.068**	**ug/L**	54.428	290	0.001
	Ag	107	**0.000**	**ug/L**	317.681	76	0.000
	Cd	111	**-0.002**	**ug/L**	74.499	25	-0.000
	Cd	114		**ug/L**		53	0.000
>	In	115		**ug/L**		234096	234095.881
	Sb	121	**0.044**	**ug/L**	26.298	306	0.001
	Sb	123		**ug/L**		245	0.001
>	Lu	175		**ug/L**		502715	502715.001
	Tl	205	**0.464**	**ug/L**	20.098	14025	0.015
	Pb	208	**0.002**	**ug/L**	114.290	782	0.000
	U	238	**0.001**	**ug/L**	126.643	535	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9997
Pb	208	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9996

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		102.2			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		100.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.1			
	Sb	121					
	Sb	123					
>	Lu	175		102.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, March 19, 2010 12:25:36
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.870
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	4041.4	4041.372	81.851	2.0
	Mg	24.0	49145.2	49145.195	475.507	1.0
	Co	58.9	89688.7	89688.666	431.875	0.5
	Rh	102.9	173073.4	173073.356	1536.684	0.9
	In	114.9	232515.0	232514.964	989.136	0.4
	Pb	208.0	284730.8	284730.796	1789.725	0.6
⌈>	Ba	137.9	226885.0	226885.033	2712.734	1.2
⌊	Ba++	69.0	3216.2	0.014	0.000	1.4
⌈>	Ce	139.9	274553.1	274553.116	2327.444	0.8
⌊	CeO	155.9	6290.7	0.023	0.000	1.2
	Bkgd	220.0	20.8	20.800	3.054	14.7

Current Optimization File Data

Current Value	Description
0.89	Nebulizer Gas Flow
6.75	Lens Voltage
1450.00	ICP RF Power
-1812.50	Analog Stage Voltage
1300.00	Pulse Stage Voltage
200.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	15	6.8	4773.1
Co	59	15	7.5	77698.4
In	115	15	8.5	221915.7

ICPMS #5 Instrument Tuning Report

File Name: 100319.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	589	2072	0.570
Be	9.0	9.0	2050	2088	0.577
Mg	24.0	24.0	5685	2100	0.538
Mg	25.0	25.0	5937	2100	0.527
Mg	26.0	26.0	6182	2100	0.563
Co	58.9	59.0	14191	2125	0.568
Rh	102.9	102.9	24879	2180	0.563
In	114.9	114.9	27794	2200	0.564
Ce	139.9	139.9	33865	2220	0.573
Pb	206.0	206.0	49948	2305	0.549
Pb	207.0	207.0	50171	2240	0.633
Pb	208.0	208.0	50439	2280	0.676
U	238.1	238.0	57724	2295	0.667

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, March 19, 2010 12:53:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\Blank.001

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		22	
>	Sc	45		ug/L		853817	
	Cr	52		ug/L		-1099	
	Cr	53		ug/L		88042	
	Ni	60		ug/L		179	
>	Ge	74		ug/L		541869	
	As	75		ug/L		160	
	Se	77		ug/L		5196	
	Se	82		ug/L		-3	
	Kr	83		ug/L		141	
>	Lu	175		ug/L		662511	
	Tl	205		ug/L		1612	
	Pb	208		ug/L		1444	
	U	238		ug/L		938	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Simple Linear	
Sc	45	Simple Linear	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Ni	60	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

| Pb 208
| U 238

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, March 19, 2010 12:57:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\Standard 1.002

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	4.061	4302	0.005
>	Sc	45		ug/L		873781	873780.676
	Cr	52	10.000	ug/L	1.896	61838	0.072
	Cr	53		ug/L		92488	0.003
	Ni	60	10.000	ug/L	1.979	18539	0.021
>	Ge	74		ug/L		530233	530233.362
	As	75	10.000	ug/L	3.588	13976	0.026
	Se	77		ug/L		6077	0.002
	Se	82	10.000	ug/L	3.795	1458	0.003
	Kr	83		ug/L		129	-0.000
>	Lu	175		ug/L		661758	661757.977
	Tl	205	10.000	ug/L	2.529	273982	0.412
	Pb	208	10.000	ug/L	0.503	489174	0.737
	U	238	10.000	ug/L	0.919	580364	0.876

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

| Pb 208
| U 238

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, March 19, 2010 13:00:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\Standard 2.003

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	100.031	ug/L	2.855	42213	0.051
>	Sc	45		ug/L		834167	834167.309
	Cr	52	99.975	ug/L	2.881	585135	0.703
	Cr	53		ug/L		150854	0.078
	Ni	60	100.001	ug/L	3.991	175422	0.210
>	Ge	74		ug/L		507269	507268.600
	As	75	100.007	ug/L	0.961	133334	0.263
	Se	77		ug/L		15432	0.021
	Se	82	100.004	ug/L	0.890	14033	0.028
	Kr	83		ug/L		156	0.000
>	Lu	175		ug/L		651035	651034.655
	Tl	205	99.928	ug/L	2.176	2499592	3.838
	Pb	208	99.932	ug/L	2.325	4489085	6.894
	U	238	99.937	ug/L	1.846	5360344	8.233

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					

| Pb 208
| U 238

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, March 19, 2010 13:03:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 1.004

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.912**	**ug/L**	2.041	21459	0.026
>	Sc	45		**ug/L**		832319	832318.571
	Cr	52	**52.262**	**ug/L**	2.920	304820	0.368
	Cr	53		**ug/L**		112617	0.032
	Ni	60	**52.292**	**ug/L**	1.047	91689	0.110
>	Ge	74		**ug/L**		507937	507937.215
	As	75	**51.447**	**ug/L**	1.305	68749	0.135
	Se	77		**ug/L**		10579	0.011
	Se	82	**53.334**	**ug/L**	2.544	7491	0.015
	Kr	83		**ug/L**		157	0.000
>	Lu	175		**ug/L**		648508	648508.451
	Tl	205	**50.233**	**ug/L**	1.391	1252555	1.929
	Pb	208	**50.650**	**ug/L**	0.429	2267508	3.494
	U	238	**53.057**	**ug/L**	1.253	2835638	4.371

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	101.825				
>	Sc	45		97.5			
	Cr	52	104.524				
	Cr	53					
	Ni	60	104.584				
>	Ge	74		93.7			
	As	75	102.894				
	Se	77					
	Se	82	106.668				
	Kr	83					
>	Lu	175		97.9			
	Tl	205	100.466				

Pb	208	101.299
U	238	106.114

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, March 19, 2010 13:07:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\Vanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 2.005

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.005	ug/L	304.903	20	-0.000
>	Sc	45		ug/L		873638	873637.585
	Cr	52	0.120	ug/L	11.592	-386	0.001
	Cr	53		ug/L		84046	-0.007
	Ni	60	0.006	ug/L	71.196	194	0.000
>	Ge	74		ug/L		518987	518986.856
	As	75	-0.138	ug/L	160.668	-34	-0.000
	Se	77		ug/L		5538	0.001
	Se	82	0.123	ug/L	56.819	15	0.000
	Kr	83		ug/L		134	-0.000
>	Lu	175		ug/L		643224	643224.441
	Tl	205	0.176	ug/L	9.620	5905	0.007
	Pb	208	0.002	ug/L	77.298	1483	0.000
	U	238	0.002	ug/L	26.738	1041	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.3			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		95.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.1			
	Tl	205					

| Pb 208
| U 238

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, March 19, 2010 13:10:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 3.006

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.542**	**ug/L**	6.431	259	0.000
>	Sc	45		**ug/L**		862270	862270.420
	Cr	52	**12.024**	**ug/L**	1.453	71799	0.085
	Cr	53		**ug/L**		91961	0.004
	Ni	60	**2.282**	**ug/L**	1.079	4318	0.005
>	Ge	74		**ug/L**		515226	515226.500
	As	75	**6.188**	**ug/L**	3.348	8523	0.016
	Se	77		**ug/L**		6132	0.002
	Se	82	**6.228**	**ug/L**	2.925	885	0.002
	Kr	83		**ug/L**		135	0.000
>	Lu	175		**ug/L**		652293	652292.825
	Tl	205	**1.216**	**ug/L**	0.843	32047	0.047
	Pb	208	**2.355**	**ug/L**	1.399	107401	0.162
	U	238	**0.268**	**ug/L**	1.004	15338	0.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Be	9	108.474				
>	Sc	45		101.0			
	Cr	52	120.237				
	Cr	53					
	Ni	60	114.099				
>	Ge	74		95.1			
	As	75	123.752				
	Se	77					
	Se	82	124.562				
	Kr	83					
>	Lu	175		98.5			
	Tl	205	121.603				

	Pb	208	117.766
	U	238	134.096

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 3	U	238CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, March 19, 2010 13:14:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 4.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.096	ug/L	31.321	58	0.000
>	Sc	45		ug/L		775094	775093.539
	Cr	52	3.769	ug/L	2.271	19539	0.027
	Cr	53		ug/L		62176	-0.023
	Ni	60	3.038	ug/L	4.919	5109	0.006
>	Ge	74		ug/L		451288	451288.012
	As	75	-0.223	ug/L	242.148	-133	-0.001
	Se	77		ug/L		5787	0.003
	Se	82	-0.688	ug/L	24.714	-89	-0.000
	Kr	83		ug/L		308	0.000
>	Lu	175		ug/L		581287	581287.361
	Tl	205	0.020	ug/L	5.674	1863	0.001
	Pb	208	0.202	ug/L	1.928	9369	0.014
	U	238	-0.014	ug/L	1.336	144	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.8			
	Cr	52	114.206				
	Cr	53					
	Ni	60	91.772				
>	Ge	74		83.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		87.7			
	Tl	205					

| Pb 208 106.892
| U 238

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, March 19, 2010 13:17:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 5.008

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**20.660**	**ug/L**	0.577	8186	0.010
>	Sc	45		**ug/L**		781206	781206.395
	Cr	52	**24.469**	**ug/L**	1.029	133428	0.172
	Cr	53		**ug/L**		73548	-0.009
	Ni	60	**22.119**	**ug/L**	1.060	36493	0.047
>	Ge	74		**ug/L**		448684	448684.330
	As	75	**22.339**	**ug/L**	3.151	26446	0.059
	Se	77		**ug/L**		7813	0.008
	Se	82	**20.915**	**ug/L**	4.514	2594	0.006
	Kr	83		**ug/L**		315	0.000
>	Lu	175		**ug/L**		586301	586301.145
	Tl	205	**20.008**	**ug/L**	1.195	451932	0.768
	Pb	208	**20.599**	**ug/L**	0.619	834513	1.421
	U	238	**22.917**	**ug/L**	0.906	1107758	1.888

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	103.301				
>	Sc	45		91.5			
	Cr	52	105.018				
	Cr	53					
	Ni	60	94.889				
>	Ge	74		82.8			
	As	75	111.694				
	Se	77					
	Se	82	104.575				
	Kr	83					
>	Lu	175		88.5			
	Tl	205	100.038				

Pb	208	102.032
U	238	114.584

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, March 19, 2010 13:21:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 6.009

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**47.885**	**ug/L**	2.406	21172	0.024
>	Sc	45		**ug/L**		873326	873325.646
	Cr	52	**48.504**	**ug/L**	2.025	296710	0.341
	Cr	53		**ug/L**		110667	0.024
	Ni	60	**47.837**	**ug/L**	2.726	87986	0.101
>	Ge	74		**ug/L**		496574	496573.593
	As	75	**50.827**	**ug/L**	1.991	66404	0.133
	Se	77		**ug/L**		10850	0.012
	Se	82	**52.316**	**ug/L**	1.641	7184	0.014
	Kr	83		**ug/L**		130	0.000
>	Lu	175		**ug/L**		639034	639033.974
	Tl	205	**49.004**	**ug/L**	2.278	1203960	1.882
	Pb	208	**50.654**	**ug/L**	1.389	2234346	3.495
	U	238	**51.990**	**ug/L**	2.702	2737405	4.283

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	95.770				
>	Sc	45		102.3			
	Cr	52	97.009				
	Cr	53					
	Ni	60	95.674				
>	Ge	74		91.6			
	As	75	101.654				
	Se	77					
	Se	82	104.632				
	Kr	83					
>	Lu	175		96.5			
	Tl	205	98.008				

Pb	208	101.308
U	238	103.981

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, March 19, 2010 13:24:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 7.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.020**	**ug/L**	75.447	31	0.000
>	Sc	45		**ug/L**		860190	860189.874
	Cr	52	**0.443**	**ug/L**	4.094	1574	0.003
	Cr	53		**ug/L**		82515	-0.007
	Ni	60	**-0.015**	**ug/L**	16.106	154	-0.000
>	Ge	74		**ug/L**		498219	498218.668
	As	75	**-0.116**	**ug/L**	195.720	-7	-0.000
	Se	77		**ug/L**		6538	0.004
	Se	82	**0.254**	**ug/L**	34.897	32	0.000
	Kr	83		**ug/L**		128	-0.000
>	Lu	175		**ug/L**		648211	648211.382
	Tl	205	**0.179**	**ug/L**	8.676	6043	0.007
	Pb	208	**0.001**	**ug/L**	175.744	1445	0.000
	U	238	**0.003**	**ug/L**	37.550	1052	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		100.7			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		91.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.8			
	Tl	205					

| Pb 208
| U 238

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Friday, March 19, 2010 13:27:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\Ianl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 10.011

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**969.732**	ug/L	5.616	386301	0.491
>	Sc	45		ug/L		788945	788944.767
	Cr	52	**943.318**	ug/L	5.346	5222803	6.635
	Cr	53		ug/L		688484	0.772
	Ni	60	**854.056**	ug/L	5.699	1413892	1.796
>	Ge	74		ug/L		458159	458159.075
	As	75	**888.808**	ug/L	2.300	1069000	2.333
	Se	77		ug/L		50817	0.101
	Se	82	**485.165**	ug/L	1.011	61493	0.134
	Kr	83		ug/L		191	0.000
>	Lu	175		ug/L		603922	603922.089
	Tl	205	**467.143**	ug/L	0.491	10836109	17.940
	Pb	208	**4724.122**	ug/L	0.519	196838269	325.926
	U	238	**5314.470**	ug/L	1.119	264446232	437.838

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	96.973				
>	Sc	45		92.4			
	Cr	52	94.332				
	Cr	53					
	Ni	60	85.406				
>	Ge	74		84.6			
	As	75	88.881				
	Se	77					
	Se	82	97.033				
	Kr	83					
>	Lu	175		91.2			
	Tl	205	93.429				

Pb	208	94.482
U	238	106.289

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 10	Ni	60LRS is out of limits (+/- 10%)
QC Std 10	As	75LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Friday, March 19, 2010 13:31:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 11.012

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.350**	**ug/L**	3.269	21147	0.024
>	Sc	45		**ug/L**		864079	864079.093
	Cr	52	**48.659**	**ug/L**	2.078	294495	0.342
	Cr	53		**ug/L**		107389	0.021
	Ni	60	**48.113**	**ug/L**	2.824	87552	0.101
>	Ge	74		**ug/L**		486407	486407.337
	As	75	**51.878**	**ug/L**	0.335	66392	0.136
	Se	77		**ug/L**		10298	0.012
	Se	82	**52.888**	**ug/L**	1.601	7115	0.015
	Kr	83		**ug/L**		163	0.000
>	Lu	175		**ug/L**		642556	642556.086
	Tl	205	**49.059**	**ug/L**	0.808	1212239	1.884
	Pb	208	**50.037**	**ug/L**	1.419	2219373	3.452
	U	238	**52.340**	**ug/L**	1.103	2771519	4.312

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	96.699				
>	Sc	45		101.2			
	Cr	52	97.318				
	Cr	53					
	Ni	60	96.227				
>	Ge	74		89.8			
	As	75	103.755				
	Se	77					
	Se	82	105.775				
	Kr	83					
>	Lu	175		97.0			
	Tl	205	98.117				

Pb	208	100.073
U	238	104.681

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Friday, March 19, 2010 13:34:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ani liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 12.013

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.002	ug/L	670.419	22	-0.000
>	Sc	45		ug/L		862119	862118.744
	Cr	52	0.409	ug/L	11.091	1373	0.003
	Cr	53		ug/L		80149	-0.010
	Ni	60	-0.010	ug/L	165.508	162	-0.000
>	Ge	74		ug/L		491255	491255.075
	As	75	0.206	ug/L	169.069	409	0.001
	Se	77		ug/L		5627	0.002
	Se	82	0.208	ug/L	55.565	25	0.000
	Kr	83		ug/L		118	-0.000
>	Lu	175		ug/L		648908	648908.334
	Tl	205	0.267	ug/L	7.113	8230	0.010
	Pb	208	0.031	ug/L	3.252	2797	0.002
	U	238	0.033	ug/L	6.130	2690	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.0			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		90.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.9			
	Tl	205					

| Pb 208
| U 238

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, March 19, 2010 13:58:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 8.020

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**53.665**	**ug/L**	2.834	22002	0.027
>	Sc	45		**ug/L**		809876	809876.147
	Cr	52	**50.048**	**ug/L**	1.662	283991	0.352
	Cr	53		**ug/L**		100027	0.020
	Ni	60	**48.262**	**ug/L**	2.585	82330	0.101
>	Ge	74		**ug/L**		466318	466317.996
	As	75	**50.292**	**ug/L**	1.014	61708	0.132
	Se	77		**ug/L**		9846	0.012
	Se	82	**51.672**	**ug/L**	2.873	6665	0.014
	Kr	83		**ug/L**		121	-0.000
>	Lu	175		**ug/L**		608904	608903.695
	Tl	205	**51.122**	**ug/L**	1.844	1196713	1.963
	Pb	208	**50.844**	**ug/L**	0.697	2137084	3.508
	U	238	**52.111**	**ug/L**	1.304	2614664	4.293

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	107.329				
>	Sc	45		94.9			
	Cr	52	100.096				
	Cr	53					
	Ni	60	96.525				
>	Ge	74		86.1			
	As	75	100.585				
	Se	77					
	Se	82	103.345				
	Kr	83					
>	Lu	175		91.9			
	Tl	205	102.244				

Pb	208	101.688
U	238	104.222

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, March 19, 2010 14:02:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 9.021

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.012**	ug/L	140.016	27	0.000
>	Sc	45		ug/L		836857	836857.424
	Cr	52	**0.456**	ug/L	2.030	1607	0.003
	Cr	53		ug/L		71313	-0.018
	Ni	60	**-0.021**	ug/L	16.221	140	-0.000
>	Ge	74		ug/L		467403	467403.022
	As	75	**-0.076**	ug/L	472.703	47	-0.000
	Se	77		ug/L		5162	0.001
	Se	82	**0.083**	ug/L	49.859	8	0.000
	Kr	83		ug/L		121	-0.000
>	Lu	175		ug/L		604288	604287.716
	Tl	205	**0.262**	ug/L	4.512	7555	0.010
	Pb	208	**0.006**	ug/L	22.960	1557	0.000
	U	238	**0.008**	ug/L	0.852	1248	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		98.0			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		86.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		91.2			
	Tl	205					

| Pb 208
| U 238

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, March 19, 2010 14:22:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 8.027

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**54.180**	ug/L	0.630	22171	0.027
>	Sc	45		ug/L		808050	808049.785
	Cr	52	**49.243**	ug/L	2.093	278820	0.346
	Cr	53		ug/L		97282	0.017
	Ni	60	**47.128**	ug/L	1.746	80248	0.099
>	Ge	74		ug/L		466466	466465.968
	As	75	**49.329**	ug/L	0.731	60546	0.130
	Se	77		ug/L		9318	0.010
	Se	82	**51.199**	ug/L	1.451	6605	0.014
	Kr	83		ug/L		124	0.000
>	Lu	175		ug/L		609407	609407.419
	Tl	205	**51.204**	ug/L	1.072	1199779	1.966
	Pb	208	**51.224**	ug/L	1.497	2154669	3.534
	U	238	**51.733**	ug/L	0.718	2597990	4.262

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	108.360				
>	Sc	45		94.6			
	Cr	52	98.486				
	Cr	53					
	Ni	60	94.256				
>	Ge	74		86.1			
	As	75	98.657				
	Se	77					
	Se	82	102.398				
	Kr	83					
>	Lu	175		92.0			
	Tl	205	102.408				

Pb	208	102.447
U	238	103.465

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, March 19, 2010 14:26:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 9.028

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.009	ug/L	219.534	25	0.000
>	Sc	45		ug/L		810361	810360.776
	Cr	52	0.398	ug/L	5.515	1224	0.003
	Cr	53		ug/L		65616	-0.022
	Ni	60	-0.017	ug/L	30.428	141	-0.000
>	Ge	74		ug/L		460216	460215.747
	As	75	-0.063	ug/L	406.506	59	-0.000
	Se	77		ug/L		4257	-0.000
	Se	82	0.165	ug/L	115.038	18	0.000
	Kr	83		ug/L		117	-0.000
>	Lu	175		ug/L		613064	613063.844
	Tl	205	0.166	ug/L	12.080	5395	0.006
	Pb	208	0.004	ug/L	16.217	1494	0.000
	U	238	0.007	ug/L	19.123	1219	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		94.9			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		84.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		92.5			
	Tl	205					

| Pb 208
| U 238

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, March 19, 2010 14:53:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 8.036

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**53.188**	**ug/L**	0.757	22112	0.027
>	Sc	45		**ug/L**		820930	820929.907
	Cr	52	**46.416**	**ug/L**	0.747	266946	0.326
	Cr	53		**ug/L**		107645	0.028
	Ni	60	**44.916**	**ug/L**	1.029	77702	0.094
>	Ge	74		**ug/L**		461533	461533.336
	As	75	**48.696**	**ug/L**	2.031	59134	0.128
	Se	77		**ug/L**		9638	0.011
	Se	82	**51.411**	**ug/L**	0.780	6562	0.014
	Kr	83		**ug/L**		122	0.000
>	Lu	175		**ug/L**		603172	603172.235
	Tl	205	**50.824**	**ug/L**	1.626	1178771	1.952
	Pb	208	**51.959**	**ug/L**	0.293	2163536	3.585
	U	238	**51.803**	**ug/L**	0.627	2575119	4.268

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	106.377				
>	Sc	45		96.1			
	Cr	52	92.833				
	Cr	53					
	Ni	60	89.832				
>	Ge	74		85.2			
	As	75	97.392				
	Se	77					
	Se	82	102.821				
	Kr	83					
>	Lu	175		91.0			
	Tl	205	101.648				

Pb	208	103.918
U	238	103.607

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 8	Ni	60CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, March 19, 2010 14:57:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 9.037

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.004**	**ug/L**	380.011	23	0.000
>	Sc	45		**ug/L**		803244	803244.080
	Cr	52	**0.402**	**ug/L**	6.507	1235	0.003
	Cr	53		**ug/L**		71924	-0.014
	Ni	60	**-0.015**	**ug/L**	24.627	143	-0.000
>	Ge	74		**ug/L**		458709	458709.200
	As	75	**-0.229**	**ug/L**	81.015	-141	-0.001
	Se	77		**ug/L**		4711	0.001
	Se	82	**0.122**	**ug/L**	188.204	13	0.000
	Kr	83		**ug/L**		119	-0.000
>	Lu	175		**ug/L**		602657	602656.572
	Tl	205	**0.278**	**ug/L**	4.211	7901	0.011
	Pb	208	**0.006**	**ug/L**	21.714	1563	0.000
	U	238	**0.008**	**ug/L**	8.527	1240	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		94.1			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		84.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		91.0			
	Tl	205					

| Pb 208
| U 238

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202047761
Sample Date/Time: Friday, March 19, 2010 15:00:49
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 955155|1|skj
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\1202047761.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.006	ug/L	50.746	18	-0.000
>	Sc	45		ug/L		772194	772194.404
	Cr	52	0.318	ug/L	28.895	737	0.002
	Cr	53		ug/L		239828	0.207
	Ni	60	0.007	ug/L	51.068	173	0.000
>	Ge	74		ug/L		436338	436338.141
	As	75	-1.481	ug/L	14.020	-1566	-0.004
	Se	77		ug/L		17970	0.032
	Se	82	0.485	ug/L	35.935	56	0.000
	Kr	83		ug/L		117	0.000
>	Lu	175		ug/L		577442	577442.451
	Tl	205	0.091	ug/L	5.490	3427	0.004
	Pb	208	-0.006	ug/L	20.097	1019	-0.000
	U	238	-0.013	ug/L	2.972	214	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		90.4			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		80.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		87.2			
	Tl	205					

| Pb 208
| U 238

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202047762
Sample Date/Time: Friday, March 19, 2010 15:04:17
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 955155|1|skj
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\1202047762.039

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**57.389**	**ug/L**	1.626	23307	0.029
>	Sc	45		**ug/L**		802100	802100.010
	Cr	52	**48.304**	**ug/L**	0.827	271467	0.340
	Cr	53		**ug/L**		275027	0.240
	Ni	60	**45.746**	**ug/L**	0.401	77322	0.096
>	Ge	74		**ug/L**		441499	441499.276
	As	75	**50.309**	**ug/L**	3.596	58437	0.132
	Se	77		**ug/L**		23366	0.043
	Se	82	**53.267**	**ug/L**	0.215	6504	0.015
	Kr	83		**ug/L**		127	0.000
>	Lu	175		**ug/L**		606079	606078.712
	Tl	205	**48.116**	**ug/L**	0.865	1121468	1.848
	Pb	208	**51.816**	**ug/L**	0.920	2168071	3.575
	U	238	**52.575**	**ug/L**	0.848	2626089	4.331

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		93.9			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		81.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		91.5			
	Tl	205					

| Pb 208
| U 238

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 247261003
Sample Date/Time: Friday, March 19, 2010 15:07:45
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 955155|1|skj
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\247261003.040

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.552**	ug/L	4.245	243	0.000
>	Sc	45		ug/L		794343	794343.232
	Cr	52	**142.971**	ug/L	0.660	797731	1.006
	Cr	53		ug/L		303387	0.279
	Ni	60	**56.057**	ug/L	0.581	93794	0.118
>	Ge	74		ug/L		416823	416822.617
	As	75	**2.619**	ug/L	22.921	2997	0.007
	Se	77		ug/L		15291	0.027
	Se	82	**0.420**	ug/L	24.598	46	0.000
	Kr	83		ug/L		154	0.000
>	Lu	175		ug/L		579960	579959.894
	Tl	205	**0.575**	ug/L	5.775	14211	0.022
	Pb	208	**9.799**	ug/L	1.489	393324	0.676
	U	238	**3.254**	ug/L	1.788	156276	0.268

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		93.0			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		76.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		87.5			
	Tl	205					

| Pb 208
| U 238

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202047763
Sample Date/Time: Friday, March 19, 2010 15:11:14
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 955155|1|skj
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\1202047763.041

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.506**	**ug/L**	7.870	226	0.000
>	Sc	45		**ug/L**		800520	800520.496
	Cr	52	**140.766**	**ug/L**	0.607	791516	0.990
	Cr	53		**ug/L**		313280	0.288
	Ni	60	**55.083**	**ug/L**	3.097	92868	0.116
>	Ge	74		**ug/L**		409709	409709.421
	As	75	**2.377**	**ug/L**	21.753	2678	0.006
	Se	77		**ug/L**		15223	0.028
	Se	82	**0.743**	**ug/L**	30.099	82	0.000
	Kr	83		**ug/L**		163	0.000
>	Lu	175		**ug/L**		588543	588543.080
	Tl	205	**0.241**	**ug/L**	2.255	6872	0.009
	Pb	208	**9.743**	**ug/L**	1.666	396912	0.672
	U	238	**3.207**	**ug/L**	0.674	156333	0.264

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		93.8			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		75.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		88.8			
	Tl	205					

| Pb 208
| U 238

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202047764
Sample Date/Time: Friday, March 19, 2010 15:14:42
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 955155|1|skj
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\1202047764.042

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**55.230**	ug/L	1.547	22767	0.028
>	Sc	45		ug/L		814031	814031.264
	Cr	52	**174.991**	ug/L	1.084	1000760	1.231
	Cr	53		ug/L		339943	0.315
	Ni	60	**94.312**	ug/L	1.510	161577	0.198
>	Ge	74		ug/L		413435	413434.765
	As	75	**80.234**	ug/L	3.023	87204	0.211
	Se	77		ug/L		16269	0.030
	Se	82	**20.718**	ug/L	3.462	2368	0.006
	Kr	83		ug/L		182	0.000
>	Lu	175		ug/L		565306	565305.617
	Tl	205	**45.517**	ug/L	5.520	987147	1.748
	Pb	208	**52.934**	ug/L	6.300	2059717	3.652
	U	238	**57.579**	ug/L	6.847	2673958	4.744

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		95.3			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		76.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		85.3			
	Tl	205					

| Pb 208
| U 238

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202047765
Sample Date/Time: Friday, March 19, 2010 15:18:11
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 955155|5|skj
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\1202047765.043

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.106**	**ug/L**	14.004	63	0.000
>	Sc	45		**ug/L**		789854	789853.813
	Cr	52	**32.433**	**ug/L**	1.705	179143	0.228
	Cr	53		**ug/L**		105952	0.031
	Ni	60	**12.042**	**ug/L**	1.821	20162	0.025
>	Ge	74		**ug/L**		425999	425998.810
	As	75	**0.484**	**ug/L**	50.321	668	0.001
	Se	77		**ug/L**		5243	0.003
	Se	82	**0.039**	**ug/L**	582.888	2	0.000
	Kr	83		**ug/L**		133	0.000
>	Lu	175		**ug/L**		592010	592009.597
	Tl	205	**0.524**	**ug/L**	3.692	13354	0.020
	Pb	208	**2.088**	**ug/L**	2.105	86573	0.144
	U	238	**0.643**	**ug/L**	0.622	32199	0.053

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		92.5			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		78.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		89.4			
	Tl	205					

| Pb 208
| U 238

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, March 19, 2010 15:25:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 8.045

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.637**	**ug/L**	0.571	21382	0.026
>	Sc	45		**ug/L**		833773	833772.764
	Cr	52	**45.942**	**ug/L**	0.925	268326	0.323
	Cr	53		**ug/L**		96767	0.013
	Ni	60	**44.360**	**ug/L**	0.669	77944	0.093
>	Ge	74		**ug/L**		449127	449127.016
	As	75	**49.939**	**ug/L**	2.034	59016	0.131
	Se	77		**ug/L**		8719	0.010
	Se	82	**51.295**	**ug/L**	3.161	6371	0.014
	Kr	83		**ug/L**		131	0.000
>	Lu	175		**ug/L**		624057	624056.572
	Tl	205	**48.987**	**ug/L**	1.780	1175441	1.881
	Pb	208	**50.372**	**ug/L**	1.034	2169996	3.475
	U	238	**51.308**	**ug/L**	0.554	2638730	4.227

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	101.275				
>	Sc	45		97.7			
	Cr	52	91.884				
	Cr	53					
	Ni	60	88.720				
>	Ge	74		82.9			
	As	75	99.878				
	Se	77					
	Se	82	102.590				
	Kr	83					
>	Lu	175		94.2			
	Tl	205	97.973				

Pb	208	100.745
U	238	102.616

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 8	Ni	60CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, March 19, 2010 15:28:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ani liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 9.046

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.015**	**ug/L**	129.455	28	0.000
|>	Sc	45		**ug/L**		829444	829444.456
|	Cr	52	**0.288**	**ug/L**	11.143	615	0.002
|	Cr	53		**ug/L**		66330	-0.023
⌊	Ni	60	**-0.020**	**ug/L**	41.526	140	-0.000
⌈>	Ge	74		**ug/L**		451099	451098.835
|	As	75	**-0.203**	**ug/L**	35.963	-108	-0.001
|	Se	77		**ug/L**		4044	-0.001
|	Se	82	**0.106**	**ug/L**	112.495	11	0.000
⌊	Kr	83		**ug/L**		115	-0.000
⌈>	Lu	175		**ug/L**		614004	614003.814
|	Tl	205	**0.255**	**ug/L**	3.333	7521	0.010
|	Pb	208	**0.006**	**ug/L**	17.683	1585	0.000
⌊	U	238	**0.008**	**ug/L**	14.654	1254	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈	Be	9					
|>	Sc	45		97.1			
|	Cr	52					
|	Cr	53					
⌊	Ni	60					
⌈>	Ge	74		83.2			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					
⌈>	Lu	175		92.7			
|	Tl	205					

| Pb 208
| U 238

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, March 19, 2010 16:06:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 8.057

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**55.094**	**ug/L**	0.933	21835	0.028
>	Sc	45		**ug/L**		782559	782558.788
	Cr	52	**47.006**	**ug/L**	0.678	257683	0.331
	Cr	53		**ug/L**		88050	0.009
	Ni	60	**45.520**	**ug/L**	1.486	75045	0.096
>	Ge	74		**ug/L**		429730	429729.608
	As	75	**50.281**	**ug/L**	1.126	56847	0.132
	Se	77		**ug/L**		8055	0.009
	Se	82	**50.964**	**ug/L**	2.691	6056	0.014
	Kr	83		**ug/L**		115	0.000
>	Lu	175		**ug/L**		601159	601159.255
	Tl	205	**50.836**	**ug/L**	1.608	1175063	1.952
	Pb	208	**52.361**	**ug/L**	1.275	2172871	3.612
	U	238	**52.135**	**ug/L**	1.204	2582859	4.295

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	110.188				
>	Sc	45		91.7			
	Cr	52	94.011				
	Cr	53					
	Ni	60	91.039				
>	Ge	74		79.3			
	As	75	100.563				
	Se	77					
	Se	82	101.928				
	Kr	83					
>	Lu	175		90.7			
	Tl	205	101.672				

Pb	208	104.721
U	238	104.271

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 8	Be	9CCV is out of limits (+/- 10%)
Ge 74 Int Std for QC	Ge	74

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, March 19, 2010 16:09:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 9.058

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.001	ug/L	435.986	20	-0.000
>	Sc	45		ug/L		783035	783034.774
	Cr	52	0.329	ug/L	16.007	806	0.002
	Cr	53		ug/L		59755	-0.027
	Ni	60	-0.064	ug/L	11.995	59	-0.000
>	Ge	74		ug/L		429837	429837.223
	As	75	-0.016	ug/L	1724.623	110	-0.000
	Se	77		ug/L		3636	-0.001
	Se	82	0.077	ug/L	183.193	7	0.000
	Kr	83		ug/L		110	-0.000
>	Lu	175		ug/L		613800	613799.753
	Tl	205	0.150	ug/L	5.644	5019	0.006
	Pb	208	-0.020	ug/L	2.488	508	-0.001
	U	238	-0.013	ug/L	3.048	202	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		91.7			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		79.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		92.6			
	Tl	205					

| Pb 208
| U 238

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 247261004
Sample Date/Time: Friday, March 19, 2010 16:38:04
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 955155|1|skj
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\247261004.065

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.057	ug/L	30.344	41	0.000
>	Sc	45		ug/L		735831	735830.838
	Cr	52	11.061	ug/L	2.143	56301	0.078
	Cr	53		ug/L		199818	0.168
	Ni	60	8.982	ug/L	1.618	14051	0.019
>	Ge	74		ug/L		392963	392962.544
	As	75	-0.458	ug/L	119.238	-360	-0.001
	Se	77		ug/L		14308	0.027
	Se	82	0.744	ug/L	30.823	78	0.000
	Kr	83		ug/L		113	0.000
>	Lu	175		ug/L		551999	551999.410
	Tl	205	-0.016	ug/L	15.085	1002	-0.001
	Pb	208	0.918	ug/L	2.387	36169	0.063
	U	238	0.682	ug/L	1.634	31790	0.056

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		86.2			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		72.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		83.3			
	Tl	205					

| Pb 208
| U 238

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, March 19, 2010 16:41:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 8.066

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**61.041**	**ug/L**	1.629	22166	0.031
>	Sc	45		**ug/L**		717249	717249.031
	Cr	52	**49.483**	**ug/L**	0.671	248685	0.348
	Cr	53		**ug/L**		88440	0.020
	Ni	60	**48.426**	**ug/L**	1.654	73169	0.102
>	Ge	74		**ug/L**		396457	396456.883
	As	75	**51.821**	**ug/L**	1.344	54056	0.136
	Se	77		**ug/L**		7973	0.011
	Se	82	**54.819**	**ug/L**	2.623	6011	0.015
	Kr	83		**ug/L**		96	-0.000
>	Lu	175		**ug/L**		572345	572344.888
	Tl	205	**51.897**	**ug/L**	0.064	1142107	1.993
	Pb	208	**52.532**	**ug/L**	1.245	2075410	3.624
	U	238	**54.315**	**ug/L**	0.679	2561948	4.475

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	122.082				
>	Sc	45		84.0			
	Cr	52	98.966				
	Cr	53					
	Ni	60	96.852				
>	Ge	74		73.2			
	As	75	103.643				
	Se	77					
	Se	82	109.639				
	Kr	83					
>	Lu	175		86.4			
	Tl	205	103.794				

	Pb	208	105.063
	U	238	108.631

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Be	9	CCV is out of limits (+/- 10%)
Ge 74 Int Std for QC	Ge	74	

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, March 19, 2010 16:44:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid rerun 2.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 9.067

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.004**	**ug/L**	161.417	20	0.000
>	Sc	45		**ug/L**		715401	715401.447
	Cr	52	**0.311**	**ug/L**	11.544	647	0.002
	Cr	53		**ug/L**		60174	-0.019
	Ni	60	**-0.067**	**ug/L**	3.803	50	-0.000
>	Ge	74		**ug/L**		408440	408439.895
	As	75	**0.114**	**ug/L**	202.309	243	0.000
	Se	77		**ug/L**		3593	-0.001
	Se	82	**0.090**	**ug/L**	61.600	8	0.000
	Kr	83		**ug/L**		107	0.000
>	Lu	175		**ug/L**		565255	565255.493
	Tl	205	**0.138**	**ug/L**	7.098	4362	0.005
	Pb	208	**-0.019**	**ug/L**	2.581	494	-0.001
	U	238	**-0.013**	**ug/L**	3.718	198	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		83.8			
	Cr	52					
	Cr	53					
	Ni	60					
>	Ge	74		75.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		85.3			
	Tl	205					

| Pb 208
| U 238

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
Ge 74 Int Std for QC	Ge	74

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, March 19, 2010 17:06:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil rerun.mth
Dataset File: C:\elandata\Dataset\100319\Blank.070

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		15	
>	Sc	45		ug/L		712936	
	Ni	60		ug/L		54	
>	Ge	74		ug/L		401298	
	As	75		ug/L		160	
	Se	77		ug/L		3519	
	Se	82		ug/L		0	
	Kr	83		ug/L		100	
>	Lu	175		ug/L		572532	
	Tl	205		ug/L		1120	
	Pb	208		ug/L		420	
	U	238		ug/L		104	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	
Pb	208	Linear Thru Zero	
U	238	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, March 19, 2010 17:09:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil rerun.mth
Dataset File: C:\elandata\Dataset\100319\Standard 1.071

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	2.034	4578	0.006
>	Sc	45		ug/L		730974	730974.155
	Ni	60	10.000	ug/L	3.395	14635	0.020
>	Ge	74		ug/L		405973	405972.686
	As	75	10.000	ug/L	3.819	10813	0.026
	Se	77		ug/L		4680	0.003
	Se	82	10.000	ug/L	3.766	1225	0.003
	Kr	83		ug/L		93	-0.000
>	Lu	175		ug/L		578129	578128.836
	Tl	205	10.000	ug/L	1.564	250163	0.431
	Pb	208	10.000	ug/L	0.564	441403	0.763
	U	238	10.000	ug/L	1.516	538048	0.930

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, March 19, 2010 17:12:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil rerun.mth
Dataset File: C:\elandata\Dataset\100319\Standard 2.072

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**99.981**	**ug/L**	0.639	45240	0.061
>	Sc	45		**ug/L**		738592	738591.735
	Ni	60	**99.990**	**ug/L**	1.247	145947	0.198
>	Ge	74		**ug/L**		415031	415031.285
	As	75	**100.021**	**ug/L**	1.516	111433	0.268
	Se	77		**ug/L**		13189	0.023
	Se	82	**99.949**	**ug/L**	2.007	11909	0.029
	Kr	83		**ug/L**		114	0.000
>	Lu	175		**ug/L**		566993	566992.718
	Tl	205	**99.939**	**ug/L**	2.346	2301369	4.057
	Pb	208	**99.964**	**ug/L**	1.656	4171609	7.358
	U	238	**99.939**	**ug/L**	2.158	4966515	8.761

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, March 19, 2010 17:16:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil rerun.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 1.073

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.143**	**ug/L**	1.203	22587	0.030
>	Sc	45		**ug/L**		750048	750048.377
	Ni	60	**50.995**	**ug/L**	1.614	75609	0.101
>	Ge	74		**ug/L**		417676	417675.698
	As	75	**51.020**	**ug/L**	1.953	57279	0.137
	Se	77		**ug/L**		8951	0.013
	Se	82	**50.210**	**ug/L**	2.013	6020	0.014
	Kr	83		**ug/L**		126	0.000
>	Lu	175		**ug/L**		583437	583437.116
	Tl	205	**49.349**	**ug/L**	3.230	1169941	2.003
	Pb	208	**49.582**	**ug/L**	1.488	2129557	3.649
	U	238	**50.519**	**ug/L**	1.469	2583788	4.429

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	98.286				
>	Sc	45		105.2			
	Ni	60	101.990				
>	Ge	74		104.1			
	As	75	102.040				
	Se	77					
	Se	82	100.420				
	Kr	83					
>	Lu	175		101.9			
	Tl	205					
	Pb	208					
	U	238	101.038				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, March 19, 2010 17:19:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil rerun.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 2.074

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.012**	**ug/L**	88.965	22	0.000
>	Sc	45		**ug/L**		757170	757170.156
	Ni	60	**0.004**	**ug/L**	157.276	63	0.000
>	Ge	74		**ug/L**		419485	419484.566
	As	75	**-0.200**	**ug/L**	48.808	-57	-0.001
	Se	77		**ug/L**		4157	0.001
	Se	82	**0.252**	**ug/L**	52.770	31	0.000
	Kr	83		**ug/L**		96	-0.000
>	Lu	175		**ug/L**		576749	576749.402
	Tl	205	**0.194**	**ug/L**	7.282	5681	0.008
	Pb	208	**0.002**	**ug/L**	16.342	514	0.000
	U	238	**0.004**	**ug/L**	9.432	285	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		106.2			
	Ni	60					
>	Ge	74		104.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		100.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, March 19, 2010 17:22:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil rerun.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 3.075

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.555**	**ug/L**	2.718	269	0.000
>	Sc	45		**ug/L**		744074	744074.146
	Ni	60	**2.270**	**ug/L**	0.901	3393	0.004
>	Ge	74		**ug/L**		423926	423925.904
	As	75	**5.537**	**ug/L**	3.633	6460	0.015
	Se	77		**ug/L**		4695	0.002
	Se	82	**5.575**	**ug/L**	9.312	679	0.002
	Kr	83		**ug/L**		108	0.000
>	Lu	175		**ug/L**		584022	584022.168
	Tl	205	**1.209**	**ug/L**	2.147	29813	0.049
	Pb	208	**2.315**	**ug/L**	1.167	99935	0.170
	U	238	**0.271**	**ug/L**	1.275	13968	0.024

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	111.038				
>	Sc	45		104.4			
	Ni	60	113.520				
>	Ge	74		105.6			
	As	75	110.739				
	Se	77					
	Se	82	111.501				
	Kr	83					
>	Lu	175		102.0			
	Tl	205					
	Pb	208					
	U	238	135.372				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Std 3	U	238CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, March 19, 2010 17:26:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil rerun.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 4.076

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.097**	ug/L	22.395	58	0.000
>	Sc	45		ug/L		724407	724407.468
	Ni	60	**3.078**	ug/L	2.817	4458	0.006
>	Ge	74		ug/L		397149	397149.239
	As	75	**-0.259**	ug/L	68.529	-117	-0.001
	Se	77		ug/L		6804	0.008
	Se	82	**-0.803**	ug/L	50.218	-91	-0.000
	Kr	83		ug/L		287	0.000
>	Lu	175		ug/L		543181	543180.987
	Tl	205	**0.036**	ug/L	5.268	1857	0.001
	Pb	208	**0.213**	ug/L	0.756	8927	0.016
	U	238	**0.001**	ug/L	21.291	170	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.6			
	Ni	60	92.983				
>	Ge	74		99.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		94.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, March 19, 2010 17:29:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil rerun.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 5.077

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**19.298**	**ug/L**	0.823	8143	0.012
>	Sc	45		**ug/L**		687812	687812.054
	Ni	60	**22.823**	**ug/L**	1.476	31063	0.045
>	Ge	74		**ug/L**		383781	383780.557
	As	75	**21.579**	**ug/L**	2.269	22351	0.058
	Se	77		**ug/L**		8056	0.012
	Se	82	**20.779**	**ug/L**	3.847	2289	0.006
	Kr	83		**ug/L**		289	0.001
>	Lu	175		**ug/L**		534139	534139.443
	Tl	205	**19.980**	**ug/L**	1.297	434300	0.811
	Pb	208	**20.161**	**ug/L**	0.386	793019	1.484
	U	238	**22.310**	**ug/L**	0.650	1044728	1.956

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	96.488				
>	Sc	45		96.5			
	Ni	60	97.910				
>	Ge	74		95.6			
	As	75	107.896				
	Se	77					
	Se	82	103.895				
	Kr	83					
>	Lu	175		93.3			
	Tl	205					
	Pb	208					
	U	238	111.552				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, March 19, 2010 17:32:47
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil rerun.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 6.078

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.184**	**ug/L**	0.962	21595	0.030
>	Sc	45		**ug/L**		731350	731350.016
	Ni	60	**49.618**	**ug/L**	1.216	71735	0.098
>	Ge	74		**ug/L**		406196	406195.948
	As	75	**49.942**	**ug/L**	0.397	54537	0.134
	Se	77		**ug/L**		9836	0.015
	Se	82	**50.443**	**ug/L**	0.615	5882	0.014
	Kr	83		**ug/L**		117	0.000
>	Lu	175		**ug/L**		567087	567087.145
	Tl	205	**49.068**	**ug/L**	0.996	1130764	1.992
	Pb	208	**49.382**	**ug/L**	0.719	2061536	3.635
	U	238	**50.522**	**ug/L**	0.978	2511478	4.429

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	96.369				
>	Sc	45		102.6			
	Ni	60	99.236				
>	Ge	74		101.2			
	As	75	99.885				
	Se	77					
	Se	82	100.886				
	Kr	83					
>	Lu	175		99.0			
	Tl	205					
	Pb	208					
	U	238	101.045				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, March 19, 2010 17:36:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil rerun.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 7.079

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.010**	**ug/L**	69.633	20	0.000
>	Sc	45		**ug/L**		747740	747739.549
	Ni	60	**0.006**	**ug/L**	76.465	65	0.000
>	Ge	74		**ug/L**		416454	416453.540
	As	75	**-0.294**	**ug/L**	25.896	-162	-0.001
	Se	77		**ug/L**		5582	0.005
	Se	82	**0.116**	**ug/L**	45.773	14	0.000
	Kr	83		**ug/L**		110	0.000
>	Lu	175		**ug/L**		565901	565900.943
	Tl	205	**0.180**	**ug/L**	4.878	5233	0.007
	Pb	208	**0.002**	**ug/L**	23.295	511	0.000
	U	238	**0.003**	**ug/L**	9.958	244	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		104.9			
	Ni	60					
>	Ge	74		103.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		98.8			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, March 19, 2010 17:39:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil rerun.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 8.080

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**47.986**	**ug/L**	1.585	21966	0.029
>	Sc	45		**ug/L**		746918	746917.656
	Ni	60	**50.757**	**ug/L**	0.571	74948	0.100
>	Ge	74		**ug/L**		420633	420633.154
	As	75	**49.655**	**ug/L**	4.082	56129	0.133
	Se	77		**ug/L**		9938	0.015
	Se	82	**50.329**	**ug/L**	4.731	6074	0.014
	Kr	83		**ug/L**		113	0.000
>	Lu	175		**ug/L**		579122	579122.023
	Tl	205	**48.394**	**ug/L**	2.089	1138928	1.965
	Pb	208	**48.823**	**ug/L**	0.794	2081487	3.594
	U	238	**50.462**	**ug/L**	0.998	2561899	4.424

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Be	9	95.973				
>	Sc	45		104.8			
	Ni	60	101.513				
>	Ge	74		104.8			
	As	75	99.310				
	Se	77					
	Se	82	100.657				
	Kr	83					
>	Lu	175		101.2			
	Tl	205					
	Pb	208					
	U	238	100.923				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, March 19, 2010 17:42:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil rerun.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 9.081

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.007**	**ug/L**	69.351	19	0.000
>	Sc	45		**ug/L**		761164	761164.092
	Ni	60	**0.001**	**ug/L**	1399.331	58	0.000
>	Ge	74		**ug/L**		421430	421429.721
	As	75	**-0.209**	**ug/L**	115.299	-69	-0.001
	Se	77		**ug/L**		5616	0.005
	Se	82	**0.143**	**ug/L**	92.402	18	0.000
	Kr	83		**ug/L**		104	-0.000
>	Lu	175		**ug/L**		578104	578103.730
	Tl	205	**0.187**	**ug/L**	9.425	5512	0.008
	Pb	208	**0.003**	**ug/L**	22.386	550	0.000
	U	238	**0.003**	**ug/L**	22.582	269	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		106.8			
	Ni	60					
>	Ge	74		105.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		101.0			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 247261004
Sample Date/Time: Friday, March 19, 2010 17:46:12
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 955155|1|skj
Method File: c:\elandata\Method\lanl soil rerun.mth
Dataset File: C:\elandata\Dataset\100319\247261004.082

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.041**	**ug/L**	53.491	34	0.000
>	Sc	45		**ug/L**		741529	741528.925
	Ni	60	**9.921**	**ug/L**	0.758	14589	0.020
>	Ge	74		**ug/L**		392767	392766.547
	As	75	**0.768**	**ug/L**	128.191	967	0.002
	Se	77		**ug/L**		17840	0.037
	Se	82	**0.830**	**ug/L**	27.188	94	0.000
	Kr	83		**ug/L**		114	0.000
>	Lu	175		**ug/L**		537751	537751.083
	Tl	205	**0.058**	**ug/L**	4.898	2314	0.002
	Pb	208	**0.883**	**ug/L**	1.019	35353	0.065
	U	238	**0.673**	**ug/L**	0.555	31804	0.059

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		104.0			
	Ni	60					
>	Ge	74		97.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		93.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, March 19, 2010 17:59:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil rerun.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 8.086

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.822**	**ug/L**	0.501	21142	0.031
>	Sc	45		**ug/L**		692436	692436.400
	Ni	60	**51.068**	**ug/L**	0.263	69907	0.101
>	Ge	74		**ug/L**		393206	393206.143
	As	75	**48.555**	**ug/L**	2.027	51338	0.130
	Se	77		**ug/L**		8894	0.014
	Se	82	**50.536**	**ug/L**	0.463	5704	0.015
	Kr	83		**ug/L**		107	0.000
>	Lu	175		**ug/L**		546667	546666.883
	Tl	205	**49.848**	**ug/L**	1.148	1107275	2.024
	Pb	208	**50.567**	**ug/L**	0.094	2035030	3.722
	U	238	**50.867**	**ug/L**	0.536	2437770	4.459

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	99.645				
>	Sc	45		97.1			
	Ni	60	102.135				
>	Ge	74		98.0			
	As	75	97.109				
	Se	77					
	Se	82	101.072				
	Kr	83					
>	Lu	175		95.5			
	Tl	205					
	Pb	208					
	U	238	101.734				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, March 19, 2010 18:02:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl soil rerun.mth
Dataset File: C:\elandata\Dataset\100319\QC Std 9.087

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.012**	**ug/L**	96.261	19	0.000
>	Sc	45		**ug/L**		688545	688545.333
	Ni	60	**0.001**	**ug/L**	1168.903	53	0.000
>	Ge	74		**ug/L**		396002	396001.656
	As	75	**0.098**	**ug/L**	480.531	264	0.000
	Se	77		**ug/L**		4802	0.003
	Se	82	**0.108**	**ug/L**	55.103	13	0.000
	Kr	83		**ug/L**		103	0.000
>	Lu	175		**ug/L**		556362	556361.831
	Tl	205	**0.176**	**ug/L**	5.371	5059	0.007
	Pb	208	**0.002**	**ug/L**	36.008	500	0.000
	U	238	**0.003**	**ug/L**	12.486	263	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		96.6			
	Ni	60					
>	Ge	74		98.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
>	Lu	175		97.2			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\030210W1.SIF
Batch ID:
Results Data Set: 030210W3
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 3/2/2010 08:26:33**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0006	0.0027	0.0006	08:27:33	Yes
2		[0.00]	0.0006	0.0025	0.0006	08:28:08	Yes
Mean:		[0.00]	0.0006				
SD:		0.00	0.0000				
%RSD:		0.00	8.04				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 3/2/2010 08:28:26**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0021	0.0131	0.0027	08:29:27	Yes
2		[0.2]	0.0021	0.0122	0.0028	08:30:02	Yes
Mean:		[0.2]	0.0021				
SD:		0.0	0.0000				
%RSD:		0.0	0.35				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01068 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/2/2010 08:30:21**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0054	0.0299	0.0060	08:31:22	Yes
2		[0.5]	0.0055	0.0282	0.0061	08:31:57	Yes
Mean:		[0.5]	0.0055				
SD:		0.0	0.0001				
%RSD:		0.0	1.42				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999936 Slope: 0.01097 Intercept: -0.00002

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 3/2/2010 08:32:17**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	[2.0]	0.0209	0.1041	0.0215	08:33:18	Yes
2	[2.0]	0.0206	0.1004	0.0212	08:33:53	Yes
Mean:	[2.0]	0.0207				
SD:	0.0	0.0002				
%RSD:	0.0	0.90				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999896 Slope: 0.01034 Intercept: 0.00011

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 3/2/2010 08:34:13**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0520	0.2558	0.0526	08:35:15	Yes
2		[5.0]	0.0500	0.2379	0.0506	08:35:49	Yes
Mean:		[5.0]	0.0510				
SD:		0.0	0.0014				
%RSD:		0.0	2.77				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999965 Slope: 0.01018 Intercept: 0.00020

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 3/2/2010 08:36:10**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1058	0.5210	0.1064	08:37:10	Yes
2		[10.0]	0.1077	0.5459	0.1083	08:37:45	Yes
Mean:		[10.0]	0.1068				
SD:		0.0	0.0014				
%RSD:		0.0	1.27				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999746 Slope: 0.01062 Intercept: -0.00030

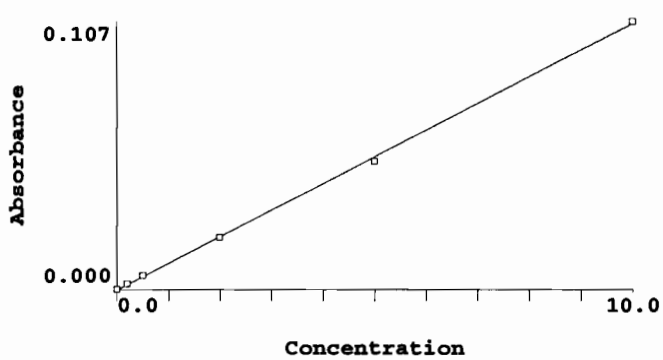

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	0.028	0.00	8.0
S0.2	0.0021	0.2	0.229	0.00	0.4
S0.5	0.0055	0.5	0.544	0.00	1.4
S2.0	0.0207	2.0	1.982	0.00	0.9
S5.0	0.0510	5.0	4.832	0.00	2.8
S10.0	0.1068	10.0	10.085	0.00	1.3

Correlation Coef.: 0.999746 Slope: 0.01062 Intercept: -0.00030

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 3/2/2010 08:38:04**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.221	5.221	0.0551	0.2819	0.0557	08:39:05	Yes
2	5.176	5.176	0.0547	0.2755	0.0553	08:39:40	Yes
Mean:	5.199	5.199	0.0549				
SD:	0.032	0.032	0.0003				
%RSD:	0.612	0.612	0.61				

QC value within limits for Hg 253.7 Recovery = 103.98%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 3/2/2010 08:40:00**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.031	0.031	0.0000	0.0024	0.0006	08:41:01	Yes
2	0.039	0.039	0.0001	0.0036	0.0007	08:41:36	Yes
Mean:	0.035	0.035	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	15.89	15.89	82.13				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 3/2/2010 08:41:56**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.234	0.234	0.0022	0.0142	0.0028	08:42:57	Yes
2	0.245	0.245	0.0023	0.0156	0.0029	08:43:32	Yes
Mean:	0.240	0.240	0.0022				
SD:	0.008	0.008	0.0001				
%RSD:	3.187	3.187	3.61				

QC value within limits for Hg 253.7 Recovery = 119.76%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 08:43:52**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.182	5.182	0.0547	0.2774	0.0553	08:44:52	Yes
2	5.128	5.128	0.0542	0.2734	0.0548	08:45:27	Yes
Mean:	5.155	5.155	0.0544				
SD:	0.038	0.038	0.0004				
%RSD:	0.738	0.738	0.74				

QC value within limits for Hg 253.7 Recovery = 103.11%
All analyte(s) passed QC.

==========

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 08:45:46**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	-0.0002	-0.0000	0.0004	08:46:47	Yes
2	0.012	0.012	-0.0002	-0.0001	0.0004	08:47:22	Yes
Mean:	0.012	0.012	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.848	0.848	0.63				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202055823|958575|1 **Date Collected: 3/2/2010 08:47:41**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055823|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	-0.0002	-0.0000	0.0004	08:48:43	Yes
2	0.016	0.016	-0.0001	0.0004	0.0005	08:49:17	Yes
Mean:	0.014	0.014	-0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	18.17	18.17	19.03				

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1202055824|958575|1 **Date Collected: 3/2/2010 08:49:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055824|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.127	2.127	0.0223	0.1129	0.0229	08:50:40	Yes
2	2.104	2.104	0.0220	0.1110	0.0227	08:51:14	Yes
Mean:	2.116	2.116	0.0222				
SD:	0.016	0.016	0.0002				
%RSD:	0.778	0.778	0.79				

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 247037001|958575|1 **Date Collected: 3/2/2010 08:51:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 247037001|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.028	0.028	-0.0000	0.0025	0.0006	08:52:35	Yes
2	0.045	0.045	0.0002	0.0048	0.0008	08:53:11	Yes
Mean:	0.037	0.037	0.0001				
SD:	0.012	0.012	0.0001				
%RSD:	34.19	34.19	145.41				

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 1202055825|958575|1 **Date Collected: 3/2/2010 08:53:30**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055825|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.019	0.019	-0.0001	0.0021	0.0005	08:54:30	Yes
2	0.028	0.028	-0.0000	0.0030	0.0006	08:55:05	Yes
Mean:	0.024	0.024	-0.0000				
SD:	0.006	0.006	0.0001				

1	0.032	0.032	0.0000	0.0035	0.0007	09:04:04	Yes
2	0.032	0.032	0.0000	0.0030	0.0007	09:04:39	Yes
Mean:	0.032	0.032	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	0.786	0.786	6.22				

==========

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 247042004|958575|1 **Date Collected: 3/2/2010 09:04:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 247042004|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.028	0.028	0.0000	0.0031	0.0006	09:05:59	Yes
2	0.030	0.030	0.0000	0.0036	0.0006	09:06:34	Yes
Mean:	0.029	0.029	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.826	4.826	93.90				

==========

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 09:06:54**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.128	5.128	0.0541	0.2768	0.0548	09:07:54	Yes
2	5.127	5.127	0.0541	0.2755	0.0547	09:08:29	Yes
Mean:	5.128	5.128	0.0541				
SD:	0.001	0.001	0.0000				
%RSD:	0.015	0.015	0.02				

QC value within limits for Hg 253.7 Recovery = 102.55%
All analyte(s) passed QC.

==========

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 09:08:48**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.032	0.032	0.0000	0.0035	0.0007	09:09:49	Yes
2	0.037	0.037	0.0001	0.0040	0.0007	09:10:24	Yes
Mean:	0.035	0.035	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	10.44	10.44	53.94				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 247042005|958575|1 **Date Collected: 3/2/2010 09:10:43**
Analyst: JXL **Data Type: Original**

Replicate Data: 247042005|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.029	0.029	0.0000	0.0033	0.0006	09:11:44	Yes
2	0.033	0.033	0.0001	0.0036	0.0007	09:12:19	Yes
Mean:	0.031	0.031	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	8.235	8.235	83.29				

==========

Sequence No.: 25
Sample ID: 247042006|958575|1
Analyst: JXL
Autosampler Location: 23
Date Collected: 3/2/2010 09:12:39
Data Type: Original

Replicate Data: 247042006|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.027	0.027	-0.0000	0.0033	0.0006	09:13:40	Yes
2	0.027	0.027	-0.0000	0.0030	0.0006	09:14:15	Yes
Mean:	0.027	0.027	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	0.289	0.289	12.71				

Sequence No.: 26
Sample ID: 247042007|958575|1
Analyst: JXL
Autosampler Location: 24
Date Collected: 3/2/2010 09:14:35
Data Type: Original

Replicate Data: 247042007|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.025	0.025	-0.0000	0.0030	0.0006	09:15:37	Yes
2	0.030	0.030	0.0000	0.0034	0.0006	09:16:12	Yes
Mean:	0.028	0.028	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	12.77	12.77	>999.9%				

Sequence No.: 27
Sample ID: 1202055828|958578|1
Analyst: JXL
Autosampler Location: 25
Date Collected: 3/2/2010 09:16:32
Data Type: Original

Replicate Data: 1202055828|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.026	0.026	-0.0000	0.0031	0.0006	09:17:34	Yes
2	0.026	0.026	-0.0000	0.0029	0.0006	09:18:09	Yes
Mean:	0.026	0.026	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	0.572	0.572	9.70				

Sequence No.: 28
Sample ID: 1202055829|958578|1
Analyst: JXL
Autosampler Location: 26
Date Collected: 3/2/2010 09:18:29
Data Type: Original

Replicate Data: 1202055829|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.117	2.117	0.0222	0.1154	0.0228	09:19:30	Yes
2	2.124	2.124	0.0223	0.1145	0.0229	09:20:05	Yes
Mean:	2.121	2.121	0.0222				
SD:	0.005	0.005	0.0001				
%RSD:	0.237	0.237	0.24				

Sequence No.: 29
Sample ID: 247036001|958578|1
Analyst: JXL
Autosampler Location: 27
Date Collected: 3/2/2010 09:20:24
Data Type: Original

Replicate Data: 247036001|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.028	0.028	-0.0000	0.0031	0.0006	09:21:24	Yes
2	0.032	0.032	0.0000	0.0032	0.0006	09:21:59	Yes
Mean:	0.030	0.030	0.0000				

SD:	0.003	0.003	0.0000
%RSD:	9.252	9.252	154.88

==========

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 1202055830|958578|1 **Date Collected: 3/2/2010 09:22:19**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055830|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.029	0.029	0.0000	0.0034	0.0006	09:23:19	Yes
2	0.026	0.026	-0.0000	0.0025	0.0006	09:23:54	Yes
Mean:	0.027	0.027	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	7.825	7.825	359.08				

==========

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 1202055831|958578|1 **Date Collected: 3/2/2010 09:24:13**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055831|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.105	2.105	0.0221	0.1147	0.0227	09:25:14	Yes
2	2.105	2.105	0.0221	0.1146	0.0227	09:25:49	Yes
Mean:	2.105	2.105	0.0221				
SD:	0.000	0.000	0.0000				
%RSD:	0.010	0.010	0.01				

==========

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 1202055832|958278|5 **Date Collected: 3/2/2010 09:26:08**
Analyst: JXL **Data Type: Original**

958578 Dupe Be 958578

Replicate Data: 1202055832|958278|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.026	0.026	-0.0000	0.0028	0.0006	09:27:08	Yes
2	0.025	0.025	-0.0000	0.0026	0.0006	09:27:43	Yes
Mean:	0.025	0.025	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	3.125	3.125	27.93				

==========

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 247036002|958578|1 **Date Collected: 3/2/2010 09:28:02**
Analyst: JXL **Data Type: Original**

Replicate Data: 247036002|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.023	0.023	-0.0001	0.0026	0.0006	09:29:03	Yes
2	0.029	0.029	0.0000	0.0031	0.0006	09:29:38	Yes
Mean:	0.026	0.026	-0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	16.58	16.58	246.20				

==========

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 09:29:57**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.092	5.092	0.0538	0.2718	0.0544	09:30:58	Yes
2	5.019	5.019	0.0530	0.2655	0.0536	09:31:32	Yes
Mean:	5.056	5.056	0.0534				
SD:	0.051	0.051	0.0005				
%RSD:	1.013	1.013	1.02				

QC value within limits for Hg 253.7 Recovery = 101.11%
All analyte(s) passed QC.

==========

Sequence No.: 35 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 09:31:51**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.048	0.048	0.0002	0.0039	0.0008	09:32:52	Yes
2	0.033	0.033	0.0001	0.0029	0.0007	09:33:27	Yes
Mean:	0.040	0.040	0.0001				
SD:	0.010	0.010	0.0001				
%RSD:	25.10	25.10	81.63				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 36 **Autosampler Location: 32**
Sample ID: 247036003|958578|1 **Date Collected: 3/2/2010 09:33:47**
Analyst: JXL **Data Type: Original**

Replicate Data: 247036003|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.026	0.026	-0.0000	0.0027	0.0006	09:34:48	Yes
2	0.029	0.029	0.0000	0.0030	0.0006	09:35:23	Yes
Mean:	0.028	0.028	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	8.511	8.511	602.34				

==========

Sequence No.: 37 **Autosampler Location: 33**
Sample ID: 247036004|958578|1 **Date Collected: 3/2/2010 09:35:42**
Analyst: JXL **Data Type: Original**

Replicate Data: 247036004|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.023	0.023	-0.0000	0.0024	0.0006	09:36:43	Yes
2	0.037	0.037	0.0001	0.0036	0.0007	09:37:18	Yes
Mean:	0.030	0.030	0.0000				
SD:	0.009	0.009	0.0001				
%RSD:	31.23	31.23	437.06				

==========

Sequence No.: 38 **Autosampler Location: 34**
Sample ID: 247036005|958578|1 **Date Collected: 3/2/2010 09:37:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 247036005|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.027	0.027	-0.0000	0.0029	0.0006	09:38:39	Yes
2	0.025	0.025	-0.0000	0.0028	0.0006	09:39:14	Yes
Mean:	0.026	0.026	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.570	4.570	52.14				

Sequence No.: 39
Sample ID: 247036006|958578|1
Analyst: JXL
Autosampler Location: 35
Date Collected: 3/2/2010 09:39:34
Data Type: Original

Replicate Data: 247036006|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.027	0.027	-0.0000	0.0028	0.0006	09:40:35	Yes
2	0.030	0.030	0.0000	0.0028	0.0006	09:41:10	Yes
Mean:	0.028	0.028	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	5.781	5.781	304.43				

Sequence No.: 40
Sample ID: 247261003|958578|1
Analyst: JXL
Autosampler Location: 36
Date Collected: 3/2/2010 09:41:30
Data Type: Original

Replicate Data: 247261003|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.025	0.025	-0.0000	0.0029	0.0006	09:42:32	Yes
2	0.029	0.029	0.0000	0.0028	0.0006	09:43:07	Yes
Mean:	0.027	0.027	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	8.790	8.790	252.18				

Sequence No.: 41
Sample ID: 247261004|958578|1
Analyst: JXL
Autosampler Location: 37
Date Collected: 3/2/2010 09:43:27
Data Type: Original

Replicate Data: 247261004|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.029	0.029	0.0000	0.0029	0.0006	09:44:29	Yes
2	0.035	0.035	0.0001	0.0033	0.0007	09:45:03	Yes
Mean:	0.032	0.032	0.0000				
SD:	0.005	0.005	0.0000				
%RSD:	14.44	14.44	117.11				

Sequence No.: 42
Sample ID: 247431001|958578|1
Analyst: JXL
Autosampler Location: 38
Date Collected: 3/2/2010 09:45:24
Data Type: Original

Replicate Data: 247431001|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.032	0.032	0.0000	0.0031	0.0006	09:46:25	Yes
2	0.034	0.034	0.0001	0.0032	0.0007	09:47:00	Yes
Mean:	0.033	0.033	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	5.803	5.803	38.35				

Sequence No.: 43
Sample ID: 247431002|958578|1
Analyst: JXL
Autosampler Location: 39
Date Collected: 3/2/2010 09:47:20
Data Type: Original

Replicate Data: 247431002|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.025	0.025	-0.0000	0.0023	0.0006	09:48:21	Yes
2	0.032	0.032	0.0000	0.0032	0.0007	09:48:56	Yes

Mean:	0.029	0.029	0.0000
SD:	0.004	0.004	0.0000
%RSD:	15.71	15.71	746.11

==========

Sequence No.: 44 **Autosampler Location: 40**
Sample ID: 1202055833|958581|1 **Date Collected: 3/2/2010 09:49:16**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055833|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.021	0.021	-0.0001	0.0024	0.0005	09:50:17	Yes
2	0.029	0.029	0.0000	0.0030	0.0006	09:50:51	Yes
Mean:	0.025	0.025	-0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	21.51	21.51	171.71				

==========

Sequence No.: 45 **Autosampler Location: 41**
Sample ID: 1202055834|958581|1 **Date Collected: 3/2/2010 09:51:11**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055834|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.186	2.186	0.0229	0.1196	0.0235	09:52:12	Yes
2	2.183	2.183	0.0229	0.1194	0.0235	09:52:47	Yes
Mean:	2.184	2.184	0.0229				
SD:	0.003	0.003	0.0000				
%RSD:	0.123	0.123	0.12				

==========

Sequence No.: 46 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 09:53:06**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.016	5.016	0.0530	0.2735	0.0536	09:54:06	Yes
2	5.018	5.018	0.0530	0.2717	0.0536	09:54:41	Yes
Mean:	5.017	5.017	0.0530				
SD:	0.001	0.001	0.0000				
%RSD:	0.023	0.023	0.02				

QC value within limits for Hg 253.7 Recovery = 100.34%
All analyte(s) passed QC.

==========

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 09:55:00**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.035	0.035	0.0001	0.0033	0.0007	09:56:01	Yes
2	0.032	0.032	0.0000	0.0031	0.0007	09:56:36	Yes
Mean:	0.034	0.034	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	5.467	5.467	32.35				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 48 **Autosampler Location: 42**
Sample ID: 247817001|958581|1 **Date Collected: 3/2/2010 09:56:55**

Miscellaneous

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **955154.0** Verified by: _____

Analyst: Francena Armstrong

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202047762	ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).	UI100205-A	.5	mL
LCS	1202047762	MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).	UI100205-B	.5	mL
MS	1202047764	ICP-MS DOE liquid Spike Solution A	UI090930-A	.5	mL
MS	1202047764	ICP-MS DOE Liquid Spike Solution B	UI090930-B	.5	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202047761 MB	03-MAR-2010 14:00:00	Ground Water	50	50	1	<2
1202047762 LCS	03-MAR-2010 14:00:00	Ground Water	50	50	1	<2
247261003	03-MAR-2010 14:00:00	Ground Water	50	50	1	<2
1202047763 DUP (247261003)	03-MAR-2010 14:00:00	Ground Water	50	50	1	<2
1202047764 MS (247261003)	03-MAR-2010 14:00:00	Ground Water	50	50	1	<2
1202047765 SDILT (247261003)	03-MAR-2010 14:00:00	Ground Water	50	50	1	<2
247261004	03-MAR-2010 14:00:00	Ground Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1277916	HYDROCHLORIC ACID	2.5 mL
1277919	Nitric Acid CONC.	1 mL

Comments:

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **958577.0** Verified by: _____

Analyst: Tara Griffin

Method: EPA 245.1/245.2 Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: No analytical instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202055829	Mercury working intermediate standard for LCS/MS	WHG100301-13	.2	mL
MS	1202055831	Mercury working intermediate standard for LCS/MS	WHG100301-13	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202055828 MB	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
1202055829 LCS	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
247036001	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
1202055830 DUP (247036001)	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
1202055831 MS (247036001)	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
1202055832 SDILT (247036001)	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
247036002	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
247036003	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
247036004	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
247036005	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
247036006	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
247261003	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
247261004	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
247431001	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
247431002	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2

Reagent/Solvent Lot ID	Description	Amount
1176183	Sulfuric Acid, Concentrated	1 mL
1255532-C	Hg reducing agent	1 mL
1274391-1	NITRIC ACID	.5 mL
1274397-C	5% KMnO4 solution	3 mL
1276435-C	5% Potassium Persulfate	1.5 mL
WHG100301-01a	Mercury Working 1st Source CAL 0.2/CRA	20 uL
WHG100301-02	Mercury Working 1st Source CAL 0.5	50 mL
WHG100301-03	Mercury Working 1st Source CAL 2.0	200 uL
WHG100301-04	Mercury Working 1st Source CAL 5.0/CCV	500 uL
WHG100301-05	Mercury Working 1st Source CAL 10.0	1 mL

Comments:

Digestion Start Date: 01-MAR-10 12:20

Digestion End Date: 01-MAR-10 14:20

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **955152.0** Verified by: _____

Analyst: Anthony Green

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Metals Manual Instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202047755	Metals Spike Mix I	UI100205-01	.25	mL
LCS	1202047755	Metals Spike Mix II	UI100205-06	.25	mL
MS	1202047757	Metals Spike Mix I	UI100205-01	.25	mL
MS	1202047757	Metals Spike Mix II	UI100205-06	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202047754 MB	01-MAR-2010 11:00:00	Ground Water	50	50	1	<2
1202047755 LCS	01-MAR-2010 11:00:00	Ground Water	50	50	1	<2
247261003	01-MAR-2010 11:00:00	Ground Water	50	50	1	<2
1202047756 DUP (247261003)	01-MAR-2010 11:00:00	Ground Water	50	50	1	<2
1202047757 MS (247261003)	01-MAR-2010 11:00:00	Ground Water	50	50	1	<2
1202047758 SDILT (247261003)	01-MAR-2010 11:00:00	Ground Water	50	50	1	<2
247261004	01-MAR-2010 11:00:00	Ground Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1274969	Nitric Acid CONC.	1 mL
1274973	HYDROCHLORIC ACID	2.5 mL

Comments:

DER Report No.: 805903
Revision No.:

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
18-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3005/6010B	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
955153	See Below		

Potentially affected work order(s)(SDG): 247261(10-1886)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202047757MS 2. Failed RPD for DUP: QC 1202047756DUP	1. The matrix spike recovery failed outside of the control limits for aluminum and iron due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. 2. The sample and sample duplicate % RPD failed outside the control limits for aluminum,barium and iron due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported. Sample #247261003 had white particles that are floating inside the container.

Originator's Name:

Helen Camello 18-MAR-10

Data Validator/Group Leader:

Eric Lawson 18-MAR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
19-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP/MS	SW846 3005/6020 DOE-AL	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
955155	See Below		

Potentially affected work order(s)(SDG): 247261(10-1886)

Application Issues:

Failed Recovery for MS/PS

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/PS: QC 1202047764MS	The matrix spike recovery failed outside of the control limits for Sb, Ni, Cr, and Tl due to possible matrix interferences and/or non-homogeneity. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Samantha Jacobs 22-MAR-10

Data Validator/Group Leader:

Jamie Johnson 22-MAR-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Standard Logbook

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Standard Logbook

Serial ID:	UI090925-41	**Opened:**	23-OCT-09	**Amount :**	500 mL
Name:	SECOND SOURCE STD -1	**Received:**	25-SEP-09	**Catalog Number :**	SGELMX39-500B
Type:	Source Material	**Expires:**	30-SEP-10	**Lot Number :**	4909130
Employee:	Helen Camello			**Solvent :**	5%HNO3,TR.HF
Supplier:	SPECTRO PURE				
Description:	SECOND SOURCE STD #1B				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID:	UI090930-A	**Opened:**	30-SEP-09	**Catalog Number :**	160067-02
Name:	ICP-MS DOE Liquid SPIKE	**Received:**	28-SEP-09	**Lot Number :**	1017141
Type:	Source Material	**Expires:**	30-SEP-10		
Employee:	Francena Armstrong	**Verified:**	21-NOV-08		
Supplier:	O2Si				
Description:	ICP-MS DOE liquid Spike Solution A				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090930-B **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Analyte	Concentration	Analyte	Concentration
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI100205-A **Opened:** 05-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 05-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI100205-B **Opened:** 05-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 05-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Standard Logbook

Serial ID: UI100217-48 **Opened:** 04-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 17-FEB-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 19-MAR-10 **Lot Number :** 1018878
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100219-11 **Opened:** 19-FEB-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 19-FEB-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI100219-60 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI100219-61 **Opened:** 19-FEB-10 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 19-FEB-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 19-FEB-11 **Lot Number :** 1018890
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI100312-40 **Opened:** 14-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 12-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 14-MAR-11 **Lot Number :** 1018981
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Standard Logbook

Serial ID: UI100312-41 **Opened:** 14-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 12-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 14-MAR-11 **Lot Number :** 1018981
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100317-06 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-MAR-10 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019161
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI100317-07 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-MAR-10 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019162
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Standard Logbook

Serial ID: UI100317-08 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-MAR-10 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019163
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI100318-11 **Opened:** 18-MAR-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 18-MAR-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 18-MAR-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UMS100226-01 **Opened:** 26-FEB-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 26-FEB-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-104JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L

Analyte	Concentration	Analyte	Concentration
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100226-02 **Opened:** 26-FEB-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 26-FEB-10 **Lot Number :** 21-103JB
Type: Source Material **Expires:** 26-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100226-03 **Opened:** 26-FEB-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 26-FEB-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-102JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100301-01 **Opened:** 01-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 01-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 02-MAR-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Standard Logbook

Serial ID: IHG100301-02 **Opened:** 01-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 02-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100301-01a **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG100301-02 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100301-03 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Standard Logbook

Serial ID: WHG100301-04 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100301-05 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG100301-06 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100301-13 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Standard Logbook

Serial ID: WI100316-42 **Opened:** 16-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 17-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1285629
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100316-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100316-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100316-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100316-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100316-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100316-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100316-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100316-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100316-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100316-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100316-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100316-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Serial ID: WI100316-43 **Opened:** 16-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 17-MAR-10 **Solvent :** 3%HCL and 1%HNO3 --1285629
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100316-44 **Opened:** 16-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 17-MAR-10 **Solvent :** 3%HCL and 1 %HNO3-1285629
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100316-45 **Opened:** 16-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 17-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1285629
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100316-46 **Opened:** 16-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 17-MAR-10 **Solvent :** 3%HCL AND 1%HNO3-1285629
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100316-47 **Opened:** 16-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 17-MAR-10 **Solvent :** 3%HCL &1%HNO3-1285629
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100317-42 **Opened:** 17-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 18-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1285629
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100317-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100317-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100317-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100317-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100317-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100317-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100317-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100317-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100317-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100317-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100317-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100317-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100317-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100317-43 **Opened:** 17-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 18-MAR-10 **Solvent :** 3%HCL and 1%HNO3 --1285629
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100317-44 **Opened:** 17-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 18-MAR-10 **Solvent :** 3%HCL and 1 %HNO3-1285629
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100317-45 **Opened:** 17-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 18-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1285629
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100317-46 **Opened:** 17-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 18-MAR-10 **Solvent :** 3%HCL AND 1%HNO3-1285629
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100317-47 **Opened:** 17-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 18-MAR-10 **Solvent :** 3%HCL &1%HNO3-1285629
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100318-04 **Opened:** 18-MAR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 18-MAR-10 **Balance Id :** 4025216
Type: Working **Expires:** 19-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1285348
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100226-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100318-04A **Opened:** 18-MAR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 18-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 19-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100318-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100318-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100318-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100318-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100318-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100318-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100318-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100318-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100318-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100318-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100318-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100318-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100318-05 **Opened:** 18-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 18-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 19-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100318-06 **Opened:** 18-MAR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 18-MAR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 19-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100318-07 **Opened:** 18-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 18-MAR-10 **Lot Number :** 1010773
Type: Working **Expires:** 19-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1285348
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100318-08 **Opened:** 18-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 18-MAR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 19-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100219-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100219-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100219-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100219-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100319-04 **Opened:** 19-MAR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 19-MAR-10 **Balance Id :** 4025216
Type: Working **Expires:** 20-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1285348
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100226-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100319-04A **Opened:** 19-MAR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 19-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 20-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100319-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100319-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100319-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100319-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100319-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100319-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100319-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100319-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100319-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100319-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100319-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100319-05 **Opened:** 19-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 19-MAR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 20-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100319-06 **Opened:** 19-MAR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 19-MAR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 20-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100319-07 **Opened:** 19-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 19-MAR-10 **Lot Number :** 1010773
Type: Working **Expires:** 20-MAR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1285348
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100319-08 **Opened:** 19-MAR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 19-MAR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 20-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100319-70 **Opened:** 19-MAR-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 19-MAR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 20-MAR-10 **Solvent :** 2%HNO3/1%HCl - 1285348
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100219-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100219-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100219-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100219-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100219-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100219-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100219-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100219-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: 100202 **Opened:** 02-FEB-10 **Lot Number :** 200930201
Name: I-HCL **Received:** 02-FEB-10
Type: Reagent/Solvent **Expires:** 02-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1100721TCLP **Opened:** 16-APR-09 **Lot Number :** H02026 L
Name: I-HNO3 **Received:** 02-APR-09
Type: Reagent/Solvent **Expires:** 02-APR-10
Employee: Clifford Postell
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Standard Logbook

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Standard Logbook

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1274397-C **Opened:** 24-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 24-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1274969 **Opened:** 24-FEB-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 24-FEB-10
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1274973 **Opened:** 24-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 24-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1276435-C **Opened:** 28-FEB-10 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 28-FEB-10
Type: Reagent/Solvent **Expires:** 28-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1277916 **Opened:** 02-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 02-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 02-MAR-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1277919 **Opened:** 02-MAR-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 02-MAR-10
Type: Reagent/Solvent **Expires:** 02-MAR-11
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1285348 **Opened:** 15-MAR-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 15-MAR-10
Type: Reagent/Solvent **Expires:** 22-MAR-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
100202	I-HCL	36.5-38.0	90 mL	9 l	N/A
1100721TCLP	I-HNO3	69.0-70.0	180 mL	9 l	N/A

Serial ID: 1285629 **Opened:** 15-MAR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 05-MAR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 21-MAR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1886

Method/Analysis Information

Product: **Carbon, Total Organic**

Analytical Batch: 954838 **Method:** SW 9060 Total Organic Carbon

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9060:

Sample ID	Client ID
247261003	CAPA-10-12691
1202047003	Method Blank (MB)
1202047004	247259001(WST51-10-10137) Sample Duplicate (DUP)
1202047005	247261003(CAPA-10-12691) Sample Duplicate (DUP)
1202047006	247259001(WST51-10-10137) Post Spike (PS)
1202047007	247261003(CAPA-10-12691) Post Spike (PS)
1202047008	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-093 REV# 9.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Carbon analysis was performed on a O-I Analytical Model 1010 Total Organic Carbon Analyzer.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

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

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 247259001 (WST51-10-10137) and 247261003 (CAPA-10-12691).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

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

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
A 15 mg/L Total Inorganic Carbon check standard is analyzed with each analytical run to prove that the instrument is effectively sparging away the inorganic carbon.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are

present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Specific Conductivity**

Analytical Batch: 954872 **Method:** EPA120.1 Specific Conductivity

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 120.1:

Sample ID	Client ID
247261004	CAPA-10-12692
1202047105	Laboratory Control Sample (LCS)
1202047106	247261004(CAPA-10-12692) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-009 REV# 9.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Conductivity analysis was performed on a Orion 160 Conductivity Meter.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following sample was selected for QC analysis: 247261004 (CAPA-10-12692).

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

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

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

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

Method/Analysis Information

Product: **pH**

Analytical Batch: 954880 **Method:** EPA 150.1 pH

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 150.1:

Sample ID	Client ID
247261004	CAPA-10-12692
1202047126	Laboratory Control Sample (LCS)
1202047127	247261004(CAPA-10-12692) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-008 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Electrode analysis was performed on a PerpHect pH Meter Orion 370.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following sample was selected for QC analysis: 247261004 (CAPA-10-12692).

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
The following sample from this sample group was received by the lab outside of the method specified holding time: 247261004 (CAPA-10-12692).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

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

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	955983	**Method:**	EPA 335.4 Cyanide and Total
Prep Batch :	955982	**Method:**	EEPA 335.4

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 335.4:

Sample ID	Client ID
247261003	CAPA-10-12691
1202049712	Method Blank (MB)
1202049714	247261003(CAPA-10-12691) Sample Duplicate (DUP)
1202049715	247438001(GW51-10-10149) Sample Duplicate (DUP)
1202049718	247261003(CAPA-10-12691) Matrix Spike (MS)
1202049719	247438001(GW51-10-10149) Matrix Spike (MS)
1202049722	247261003(CAPA-10-12691) Matrix Spike Duplicate (MSD)
1202049723	247438001(GW51-10-10149) Matrix Spike Duplicate (MSD)
1202049725	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

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

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 247261003 (CAPA-10-12691) and 247438001 (GW51-10-10149).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202049714 (CAPA-10-12691) and 247261003 (CAPA-10-12691).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

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

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments

Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Ion Chromatography**

Analytical Batch: 963224 **Method:** EPA 300.0 Anions Liquid 28 day

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
247261004	CAPA-10-12692
1202066399	Method Blank (MB)
1202066400	247261004(CAPA-10-12692) Sample Duplicate (DUP)
1202066401	247261004(CAPA-10-12692) Post Spike (PS)
1202066402	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-086 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Ion Chromatography analysis was performed on a Dionex ICS-3000 Ion Chromatograph.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 247261004 (CAPA-10-12692).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
The following sample was initially analyzed within holding; however, the holding time had expired prior to reprep/reanalysis due to QC failures: 247261004 (CAPA-10-12692).

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

Sample Re-analysis
The following samples were re-extracted and reanalyzed due to CCV, CCB, and LCS failures for Sulfate: 1202066399 (MB), 1202066400 (CAPA-10-12692), 1202066401 (CAPA-10-12692), 1202066402 (LCS) and 247261004 (CAPA-10-12692).

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 803753 247261004 (CAPA-10-12692).

Manual Integrations
The following samples from this sample group had to be manually integrated due to errors in the instrument software peak integration: 1202066400 (CAPA-10-12692), 1202066401 (CAPA-10-12692) and 247261004 (CAPA-10-12692).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be

scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Ammonia Nitrogen**		
Analytical Batch:	955952	**Method:**	EPA 350.1 Nitrogen and Ammonia L
Prep Batch :	955951	**Method:**	EEPA 350.2 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 350.1:

Sample ID	Client ID
247261004	CAPA-10-12692
1202049618	Method Blank (MB)
1202049619	247261004(CAPA-10-12692) Sample Duplicate (DUP)
1202049620	247434001(WSTPU-13233) Sample Duplicate (DUP)
1202049621	247261004(CAPA-10-12692) Matrix Spike (MS)
1202049622	247434001(WSTPU-13233) Matrix Spike (MS)
1202049623	247261004(CAPA-10-12692) Matrix Spike Duplicate (MSD)
1202049624	247434001(WSTPU-13233) Matrix Spike Duplicate (MSD)
1202049625	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-106 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

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

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 247261004 (CAPA-10-12692) and 247434001 (WSTPU-13233).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the established acceptance limits due to matrix interference: 1202049621 (CAPA-10-12692) and 1202049622 (WSTPU-13233).

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the established acceptance limits due to matrix interference: 1202049623 (CAPA-10-12692) and 1202049624 (WSTPU-13233).

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202049619 (CAPA-10-12692).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

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

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 794830 1202049621 (CAPA-10-12692), 1202049622 (WSTPU-13233), 1202049623 (CAPA-10-12692) and 1202049624 (WSTPU-13233).

Additional Comments

Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Total Kjeldahl Nitrogen**		
Analytical Batch:	955963	**Method:**	Nitrogen and Total Kjeldahl (TKN)
Prep Batch :	955962	**Method:**	EEPA 351.2 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 351.2:

Sample ID	Client ID
247261003	CAPA-10-12691
1202049668	Method Blank (MB)
1202049669	247261003(CAPA-10-12691) Sample Duplicate (DUP)
1202049670	247261003(CAPA-10-12691) Matrix Spike (MS)
1202049671	247261003(CAPA-10-12691) Matrix Spike Duplicate (MSD)
1202049672	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-104 REV# 8.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 247261003 (CAPA-10-12691).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the established acceptance limits due to matrix interference: 1202049670 (CAPA-10-12691).

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the established acceptance limits due to matrix interference: 1202049671 (CAPA-10-12691).

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202049669 (CAPA-10-12691).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

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

Sample Re-analysis
The following sample was re-analyzed due to instrument failure: 1202049670 (CAPA-10-12691). The following sample was re-analyzed due to CCV failure: 1202049670 (CAPA-10-12691).

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 795309 1202049670 (CAPA-10-12691) and 1202049671 (CAPA-10-12691).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Nitrate Nitrite by Cadmium Reduction**		
Analytical Batch:	955958	**Method:**	EPA 353.2 Nitrogen and Nitrate/Nitrite

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 353.2:

Sample ID	Client ID
247261004	CAPA-10-12692
1202049645	Method Blank (MB)
1202049646	247559001(RE16-10-13146) Sample Duplicate (DUP)
1202049648	247261004(CAPA-10-12692) Sample Duplicate (DUP)
1202049651	247559001(RE16-10-13146) Post Spike (PS)
1202049653	247261004(CAPA-10-12692) Post Spike (PS)
1202049656	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-128 REV# 5.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8500 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 247261004 (CAPA-10-12692) and 247559001 (RE16-10-13146).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following samples in this sample group were diluted due to matrix interference: 1202049646 (RE16-10-13146), 1202049648 (CAPA-10-12692), 1202049651 (RE16-10-13146), 1202049653 (CAPA-10-12692) and 247261004 (CAPA-10-12692).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

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

Method/Analysis Information

Product:	**Total Phosphorus**		
Analytical Batch:	955966	**Method:**	EPA 365.4 Phosphorus and Total in
Prep Batch :	955964	**Method:**	EEPA 365.4 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 365.4:

Sample ID	Client ID
247261004	CAPA-10-12692
1202049673	Method Blank (MB)
1202049674	247261004(CAPA-10-12692) Sample Duplicate (DUP)
1202049675	247434001(WSTPU-13233) Sample Duplicate (DUP)
1202049676	247261004(CAPA-10-12692) Matrix Spike (MS)
1202049677	247434001(WSTPU-13233) Matrix Spike (MS)
1202049678	247261004(CAPA-10-12692) Matrix Spike Duplicate (MSD)
1202049679	247434001(WSTPU-13233) Matrix Spike Duplicate (MSD)
1202049680	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-103 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

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

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 247261004 (CAPA-10-12692) and 247434001 (WSTPU-13233).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

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

Sample Re-analysis
The following samples were re-analyzed due to CCV failure: 1202049673 (MB), 1202049674 (CAPA-10-12692), 1202049675 (WSTPU-13233), 1202049676 (CAPA-10-12692), 1202049677 (WSTPU-13233), 1202049678 (CAPA-10-12692), 1202049679 (WSTPU-13233), 1202049680 (LCS) and 247261004 (CAPA-10-12692). The following samples were re-analyzed due to MB failure: 1202049673 (MB), 1202049674 (CAPA-10-12692), 1202049675 (WSTPU-13233), 1202049676 (CAPA-10-12692), 1202049677 (WSTPU-13233), 1202049678 (CAPA-10-12692), 1202049679 (WSTPU-13233), 1202049680 (LCS) and 247261004 (CAPA-10-12692).

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

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

Method/Analysis Information

Product: **Solids, Total Dissolved**

Analytical Batch: 955943 **Method:** EPA 160.1 Solids and Dissolved-F

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 160.1:

Sample ID	Client ID
247261004	CAPA-10-12692
1202049603	Method Blank (MB)
1202049604	247261004(CAPA-10-12692) Sample Duplicate (DUP)
1202049605	247438001(GW51-10-10149) Sample Duplicate (DUP)
1202049606	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-001 REV# 10.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Solids analysis was performed on a Sartorius Balance BAL216. Solids lab

Initial Calibration

All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 247261004 (CAPA-10-12692) and 247438001 (GW51-10-10149).

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Sample Aliquot
A sufficient amount of sample was provided by the client for analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

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

Method/Analysis Information

Product: **Alkalinity**

Analytical Batch: 954890 **Method:** EPA 310.1 Total Alkalinity

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 310.1:

Sample ID	Client ID
247261004	CAPA-10-12692
1202047153	Laboratory Control Sample (LCS)
1202047154	247261004(CAPA-10-12692) Sample Duplicate (DUP)
1202047155	247261004(CAPA-10-12692) Matrix Spike (MS)
1202047164	Method Blank (MB)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-033 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Titration analysis was performed on a manually operated buret.

Initial Standardization

The titrant was properly standardized

Quality Control (QC) Information

Method Blank (MB) Statement

GEL currently has not established reporting criteria for Alkalinity method blank analysis. A study is being performed to determine reasonable reporting criteria. 1202047164 (MB).

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following sample was selected for QC analysis: 247261004 (CAPA-10-12692).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The MS/PS recovery for this sample set was within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

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

Certification Statement

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

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: _____ **Date:** 18Mar10

Sample Data Summary

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

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

Client SDG: 10-1886 GEL Work Order: 247261

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 18, 2010

Client SDG: 10-1886

Client Sample ID:	CAPA-10-12691	Project:	ESHL01000
Sample ID:	247261003	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	15-FEB-10 12:00		
Receive Date:	17-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis											
SW 9060 Total Organic Carbon "As Received"											
Total Organic Carbon Average		1.71	0.330	1.00	mg/L	1	TSM	02/19/10	1755	954838	1
Flow Injection Analysis											
EPA 335.4 Cyanide, Total "As Received"											
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2	02/25/10	1311	955983	2
Nutrient Analysis											
Nitrogen, Total Kjeldahl (TKN) "As Received"											
Nitrogen, Total Kjeldahl	U	ND	0.033	0.100	mg/L	1	AXH3	02/24/10	1254	955963	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	02/25/10	1138	955982
EPA 351.2 Prep	EPA 351.2 Total Kjeldahl Nitrogen Prep	SXJ1	02/22/10	1100	955962

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9060	
2	EPA 335.4	
3	EPA 351.2	

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 18, 2010

Client SDG: 10-1886

Client Sample ID: CAPA-10-12692
Sample ID: 247261004
Matrix: Ground Water
Collect Date: 15-FEB-10 12:00
Receive Date: 17-FEB-10
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Conductivity Analysis										
EPA120.1 Specific Conductivity "As Received"										
Conductivity		137	1.00	1.00	umhos/cm	1	LXA1 02/18/10	1217	954872	1
Electrode Analysis										
EPA 150.1 pH "As Received"										
pH at Temp 13.3C	H	7.61	0.010	0.100	SU	1	LXA1 02/18/10	1250	954880	2
Ion Chromatography										
EPA 300.0 Anions Liquid 28 day "As Received"										
Bromide	U	ND	0.066	0.200	mg/L	1	GXM 3 03/10/10	1911	963224	3
Chloride		2.01	0.066	0.200	mg/L	1				
Fluoride		0.241	0.033	0.100	mg/L	1				
Sulfate	H	2.36	0.100	0.400	mg/L	1	GXM 3 03/17/10	1541	963224	4
Nutrient Analysis										
EPA 350.1 Nitrogen, Ammonia L "As Received"										
Nitrogen, Ammonia	J	0.046	0.016	0.050	mg/L	1	AXH3 02/23/10	1443	955952	5
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"										
Nitrogen, Nitrate/Nitrite	J	0.167	0.050	0.250	mg/L	5	AXH3 02/22/10	1517	955958	6
EPA 365.4 Phosphorus, Total in "As Received"										
Phosphorus, Total as P		0.058	0.015	0.050	mg/L	1	AXH3 02/23/10	1054	955966	7
Solids Analysis										
EPA 160.1 Solids, Dissolved-F "As Received"										
Total Dissolved Solids		134	2.38	10.0	mg/L		SDS 02/22/10	1231	955943	8
Titration Analysis										
EPA 310.1 Total Alkalinity "As Received"										
Alkalinity, Total as CaCO3		63.3	0.725	1.00	mg/L		LXA1 02/18/10	1310	954890	9
Carbonate alkalinity (CaCO3)	U	ND	0.725	1.00	mg/L					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	SXJ1	02/22/10	1500	955951
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	SXJ1	02/22/10	1100	955964

The following Analytical Methods were performed

Method	Description	Analyst Comments

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 18, 2010

Client SDG: 10-1886

Client Sample ID: CAPA-10-12692
Sample ID: 247261004

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 120.1	
2	EPA 150.1	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 350.1	
6	EPA 353.2	
7	EPA 365.4	
8	EPA 160.1	
9	EPA 310.1	

Quality Control Summary

GEL LABORATORIES LLC

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

QC Summary

Report Date: March 18, 2010

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

Contact: Ms. Joylene Valdez

Workorder: 247261

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Carbon Analysis										
Batch 954838										
QC1202047004 247259001 DUP										
Total Organic Carbon Average		1.78		1.85	mg/L	3.74 ^		(+/-1.00)	TSM	02/19/10 14:37
QC1202047005 247261003 DUP										
Total Organic Carbon Average		1.71		1.77	mg/L	3.22 ^		(+/-1.00)		02/19/10 18:29
QC1202047008 LCS										
Total Organic Carbon Average	10.0			9.77	mg/L		97.7	(85%-115%)		02/19/10 13:55
QC1202047003 MB										
Total Organic Carbon Average			U	ND	mg/L					02/19/10 13:46
QC1202047006 247259001 PS										
Total Organic Carbon Average	10.0	1.78		11.4	mg/L		96.3	(65%-121%)		02/19/10 14:57
QC1202047007 247261003 PS										
Total Organic Carbon Average	10.0	1.71		11.5	mg/L		97.8	(65%-121%)		02/19/10 18:49
Conductivity Analysis										
Batch 954872										
QC1202047106 247261004 DUP										
Conductivity		137		138	umhos/cm	0.945		(0%-10%)	LXA1	02/18/10 12:17
QC1202047105 LCS										
Conductivity	1410			1400	umhos/cm		98.8	(95%-105%)		02/18/10 12:17
Electrode Analysis										
Batch 954880										
QC1202047127 247261004 DUP										
pH	H	7.61	H	7.64	SU	0.393		(0%-10%)	LXA1	02/18/10 12:50
QC1202047126 LCS										
pH	7.00			6.99	SU		99.9	(95%-105%)		02/18/10 12:50
Flow Injection Analysis										
Batch 955983										
QC1202049714 247261003 DUP										
Cyanide, Total	U	ND	U	ND	ug/L	N/A			AXC2	02/25/10 13:12
QC1202049715 247438001 DUP										
Cyanide, Total	U	ND	U	ND	ug/L	N/A				02/25/10 13:24
QC1202049725 LCS										
Cyanide, Total	50.0			53.2	ug/L		106	(90%-110%)		02/25/10 13:07
QC1202049712 MB										
Cyanide, Total			U	ND	ug/L					02/25/10 13:02
QC1202049718 247261003 MS										
Cyanide, Total	100 U	ND		111	ug/L		111	(60%-144%)		02/25/10 13:13
QC1202049719 247438001 MS										
Cyanide, Total	100 U	ND		99.6	ug/L		99.6	(60%-144%)		02/25/10 13:25
QC1202049722 247261003 MSD										
Cyanide, Total	100 U	ND		105	ug/L	5.56	105	(0%-20%)		02/25/10 13:14
QC1202049723 247438001 MSD										
Cyanide, Total	100 U	ND		111	ug/L	10.8	111	(0%-20%)		02/25/10 13:25

QC Summary

Workorder: 247261

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Ion Chromatography											
Batch 963224											
QC1202066400 247261004 DUP											
Bromide		U	ND	U	ND	mg/L	N/A			GXM3	03/10/10 19:41
Chloride			2.01		2.01	mg/L	0.239		(0%-20%)		
Fluoride			0.241		0.239	mg/L	0.709 ^		(+/-0.100)		
Sulfate		H	2.36	H	2.35	mg/L	0.352		(0%-20%)		03/17/10 16:11
QC1202066402 LCS											
Bromide	2.50				2.50	mg/L		100	(90%-110%)		03/10/10 18:41
Chloride	10.0				9.38	mg/L		93.8	(90%-110%)		
Fluoride	5.00				4.88	mg/L		97.6	(90%-110%)		
Sulfate	20.0				19.0	mg/L		95	(90%-110%)		03/17/10 15:11
QC1202066399 MB											
Bromide				U	ND	mg/L					03/10/10 18:11
Chloride				U	ND	mg/L					
Fluoride				U	ND	mg/L					
Sulfate				U	ND	mg/L					03/17/10 14:42
QC1202066401 247261004 PS											
Bromide	2.50	U	ND		2.53	mg/L		101	(90%-110%)		03/10/10 20:11
Chloride	10.0		2.01		11.6	mg/L		96.2	(90%-110%)		
Fluoride	5.00		0.241		5.08	mg/L		96.7	(90%-110%)		
Sulfate	20.0	H	2.36	H	21.4	mg/L		95.3	(90%-110%)		03/17/10 16:41
Nutrient Analysis											
Batch 955952											
QC1202049619 247261004 DUP											
Nitrogen, Ammonia		J	0.046	J	0.026	mg/L	55.6 ^		(+/-0.050)	AXH3	02/23/10 14:44
QC1202049620 247434001 DUP											
Nitrogen, Ammonia		J	0.017	U	ND	mg/L	200 ^				02/23/10 14:47
QC1202049625 LCS											
Nitrogen, Ammonia	1.00				1.04	mg/L		104	(90%-110%)		02/23/10 14:42
QC1202049618 MB											
Nitrogen, Ammonia				J	0.026	mg/L					02/23/10 14:41
QC1202049621 247261004 MS											
Nitrogen, Ammonia	1.00	J	0.046		0.647	mg/L		60.1 *	(90%-110%)		02/23/10 14:45
QC1202049622 247434001 MS											
Nitrogen, Ammonia	1.00	J	0.017		0.576	mg/L		55.9 *	(90%-110%)		02/23/10 14:48
QC1202049623 247261004 MSD											
Nitrogen, Ammonia	1.00	J	0.046		0.657	mg/L	1.53	61.1 *	(0%-15%)		02/23/10 14:45
QC1202049624 247434001 MSD											
Nitrogen, Ammonia	1.00	J	0.017		0.617	mg/L	6.87	60 *	(0%-15%)		02/23/10 14:49
Batch 955958											
QC1202049646 247559001 DUP											
Nitrogen, Nitrate/Nitrite		U	ND	U	ND	mg/L	N/A			AXH3	02/22/10 15:30
QC1202049648 247261004 DUP											
Nitrogen, Nitrate/Nitrite		J	0.167	J	0.185	mg/L	9.96 ^		(+/-0.250)		02/22/10 15:18
QC1202049656 LCS											
Nitrogen, Nitrate/Nitrite	1.00				0.967	mg/L		96.7	(90%-110%)		02/22/10 15:08
QC1202049645 MB											

QC Summary

Workorder: 247261

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Nutrient Analysis											
Batch 955958											
Nitrogen, Nitrate/Nitrite				U	ND	mg/L					02/22/10 15:06
QC1202049651 247559001 PS											
Nitrogen, Nitrate/Nitrite	1.00	U	ND		1.00	mg/L		99.5	(90%-110%)	AXH3	02/22/10 15:32
QC1202049653 247261004 PS											
Nitrogen, Nitrate/Nitrite	1.00	J	0.0334		1.05	mg/L		102	(90%-110%)		02/22/10 15:20
Batch 955963											
QC1202049669 247261003 DUP											
Nitrogen, Total Kjeldahl		U	ND	U	ND	mg/L	N/A			AXH3	02/24/10 12:55
QC1202049672 LCS											
Nitrogen, Total Kjeldahl	1.00				1.05	mg/L		105	(90%-110%)		02/24/10 12:53
QC1202049668 MB											
Nitrogen, Total Kjeldahl				U	ND	mg/L					02/24/10 12:52
QC1202049670 247261003 MS											
Nitrogen, Total Kjeldahl	1.00	U	ND		0.721	mg/L		72.1 *	(90%-110%)		02/24/10 13:19
QC1202049671 247261003 MSD											
Nitrogen, Total Kjeldahl	1.00	U	ND		0.670	mg/L	7.33	67 *	(0%-20%)		02/24/10 12:57
Batch 955966											
QC1202049674 247261004 DUP											
Phosphorus, Total as P			0.058	J	0.049	mg/L	16.8 ^		(+/-0.050)	AXH3	02/23/10 10:55
QC1202049675 247434001 DUP											
Phosphorus, Total as P			0.060		0.073	mg/L	19.5 ^		(+/-0.050)		02/23/10 10:58
QC1202049680 LCS											
Phosphorus, Total as P	1.00				0.990	mg/L		99	(86%-120%)		02/23/10 10:53
QC1202049673 MB											
Phosphorus, Total as P				J	0.024	mg/L					02/23/10 10:52
QC1202049676 247261004 MS											
Phosphorus, Total as P	1.00		0.058		0.966	mg/L		90.8	(42%-150%)		02/23/10 10:56
QC1202049677 247434001 MS											
Phosphorus, Total as P	1.00		0.060		1.04	mg/L		97.9	(42%-150%)		02/23/10 10:59
QC1202049678 247261004 MSD											
Phosphorus, Total as P	1.00		0.058		0.992	mg/L	2.66	93.4	(0%-26%)		02/23/10 10:57
QC1202049679 247434001 MSD											
Phosphorus, Total as P	1.00		0.060		1.09	mg/L	4.61	103	(0%-26%)		02/23/10 11:00
Solids Analysis											
Batch 955943											
QC1202049604 247261004 DUP											
Total Dissolved Solids			134		140	mg/L	0.717		(0%-10%)	SDS	02/22/10 12:31
QC1202049605 247438001 DUP											
Total Dissolved Solids			254		239	mg/L	6.09		(0%-10%)		02/22/10 12:31
QC1202049606 LCS											
Total Dissolved Solids	300				296	mg/L		98.7	(95%-105%)		02/22/10 12:31
QC1202049603 MB											
Total Dissolved Solids				U	ND	mg/L					02/22/10 12:31
Titration Analysis											
Batch 954890											
QC1202047154 247261004 DUP											
Alkalinity, Total as CaCO3			63.3		63.8	mg/L	0.749		(0%-20%)	LXA1	02/18/10 13:15

QC Summary

Workorder: 247261

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Titration Analysis										
Batch 954890										
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A				
QC1202047153 LCS										
Alkalinity, Total as CaCO3	50.0			50.0	mg/L		100	(90%-110%)	LXA1	02/18/10 13:08
QC1202047164 MB										
Alkalinity, Total as CaCO3				1.43	mg/L					02/18/10 13:08
Carbonate alkalinity (CaCO3)			U	ND	mg/L					
QC1202047155 247261004 MS										
Alkalinity, Total as CaCO3	50.0	63.3		111	mg/L		96.2	(80%-120%)		02/18/10 13:22

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- JNX Non Calibrated Compound
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- UJ Compound cannot be extracted

QC Summary

Workorder: 247261

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 18-MAR-2010 13:28

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-1886

Carbon Analysis

Method: SW846 9060 Concentration Units:mg/L

Instrument: O-I Analytical Model 1010 Total Organic Carbon Analyzer

Parmname: Total Organic Carbon
Average

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**19-FEB-2010 11:36:00**	**XP218.rlt**	**9.656**	**10**	**96.6**	**(90%-110%)**	**Yes**
CCV	19-FEB-2010 13:28:00	XP221.rlt	9.249	10	92.5	(90%-110%)	Yes
CCV	19-FEB-2010 17:38:00	XP233.rlt	10.283	10	103	(90%-110%)	Yes
CCV	19-FEB-2010 20:28:00	XP243.rlt	10.245	10	102	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**19-FEB-2010 11:45:00**	**XP219.rlt**	**-0.108**	**1**	**Yes**
CCB	19-FEB-2010 13:37:00	XP222.rlt	-0.015	1	Yes
CCB	19-FEB-2010 17:47:00	XP234.rlt	-0.063	1	Yes
CCB	19-FEB-2010 20:37:00	XP244.rlt	-0.074	1	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 18-MAR-2010 13:28

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-1886

Flow Injection Analysis

Method: EPA 335.4 Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**25-FEB-2010 12:24:32**	**OM_2-25-2010_12-14-00**	**148**	**150**	**98.7**	**(90%-110%)**	**Yes**
CCV	25-FEB-2010 12:51:15	OM_2-25-2010_12-14-00	104	100	104	(90%-110%)	Yes
CCV	25-FEB-2010 13:03:40	OM_2-25-2010_12-14-00	104	100	104	(90%-110%)	Yes
CCV	25-FEB-2010 13:16:10	OM_2-25-2010_12-14-00	105	100	105	(90%-110%)	Yes
CCV	25-FEB-2010 13:28:39	OM_2-25-2010_12-14-00	103	100	103	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**25-FEB-2010 12:26:22**	**OM_2-25-2010_12-14-00**	**0.328**	**10**	**Yes**
CCB	25-FEB-2010 12:53:06	OM_2-25-2010_12-14-00	-0.919	10	Yes
CCB	25-FEB-2010 13:05:30	OM_2-25-2010_12-14-00	-1.35	10	Yes
CCB	25-FEB-2010 13:18:01	OM_2-25-2010_12-14-00	-1.41	10	Yes
CCB	25-FEB-2010 13:30:29	OM_2-25-2010_12-14-00	-1.29	10	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 18-MAR-2010 13:28

GEL Laboratories LLC
Contract: ESHL01000
SDG #: 10-1886

Ion Chromatography
Method: EPA 300.0 Concentration Units:mg/L
Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Bromide

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**10-MAR-2010 11:42:00**	**100310**	**2.5086**	**2.5**	**100**	**(90%-110%)**	**Yes**
CCV	10-MAR-2010 17:11:00	100310	3.8241	3.75	102	(90%-110%)	Yes
CCV	10-MAR-2010 23:10:00	100310	2.498	2.5	99.9	(90%-110%)	Yes
ICV	**11-MAR-2010 22:21:00**	**100311**	**2.4934**	**2.5**	**99.7**	**(90%-110%)**	**Yes**
CCV	12-MAR-2010 20:16:00	100311	0	3.75	0	(90%-110%)	No
CCV	13-MAR-2010 02:15:00	100311	0	2.5	0	(90%-110%)	No
ICV	**17-MAR-2010 13:43:00**	**100317**	**2.4926**	**2.5**	**99.7**	**(90%-110%)**	**Yes**
CCV	17-MAR-2010 19:40:00	100317	3.7794	3.75	101	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**10-MAR-2010 12:12:00**	**100310**	**0**	**0.2**	**Yes**
CCB	10-MAR-2010 17:41:00	100310	0	0.2	Yes
CCB	10-MAR-2010 23:40:00	100310	0	0.2	Yes
ICB	**11-MAR-2010 22:51:00**	**100311**	**0**	**0.2**	**Yes**
CCB	12-MAR-2010 20:46:00	100311	0	0.2	Yes
CCB	13-MAR-2010 02:45:00	100311	0	0.2	Yes
ICB	**17-MAR-2010 14:12:00**	**100317**	**0**	**0.2**	**Yes**
CCB	17-MAR-2010 20:10:00	100317	0	0.2	Yes

Parmname: Chloride

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**10-MAR-2010 11:42:00**	**100310**	**9.3258**	**10**	**93.3**	**(90%-110%)**	**Yes**
CCV	10-MAR-2010 17:11:00	100310	14.7559	15	98.4	(90%-110%)	Yes
CCV	10-MAR-2010 23:10:00	100310	9.3353	10	93.4	(90%-110%)	Yes
ICV	**11-MAR-2010 22:21:00**	**100311**	**9.4835**	**10**	**94.8**	**(90%-110%)**	**Yes**
CCV	12-MAR-2010 20:16:00	100311	14.6759	15	97.8	(90%-110%)	Yes
CCV	13-MAR-2010 02:15:00	100311	9.2695	10	92.7	(90%-110%)	Yes
ICV	**17-MAR-2010 13:43:00**	**100317**	**9.3464**	**10**	**93.5**	**(90%-110%)**	**Yes**
CCV	17-MAR-2010 19:40:00	100317	14.8256	15	98.8	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**10-MAR-2010 12:12:00**	**100310**	**0**	**0.2**	**Yes**
CCB	10-MAR-2010 17:41:00	100310	0	0.2	Yes
CCB	10-MAR-2010 23:40:00	100310	0	0.2	Yes
ICB	**11-MAR-2010 22:51:00**	**100311**	**0**	**0.2**	**Yes**
CCB	12-MAR-2010 20:46:00	100311	0	0.2	Yes
CCB	13-MAR-2010 02:45:00	100311	0	0.2	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 18-MAR-2010 13:28

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-1886

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Chloride

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**17-MAR-2010 14:12:00**	**100317**	**0.1862**	**0.2**	**Yes**
CCB	17-MAR-2010 20:10:00	100317	0	0.2	Yes

Parmname: Fluoride

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**10-MAR-2010 11:42:00**	**100310**	**4.8773**	**5**	**97.5**	**(90%-110%)**	**Yes**
CCV	10-MAR-2010 17:11:00	100310	7.4981	7.5	100	(90%-110%)	Yes
CCV	10-MAR-2010 23:10:00	100310	4.8879	5	97.8	(90%-110%)	Yes
ICV	**11-MAR-2010 22:21:00**	**100311**	**4.9917**	**5**	**99.8**	**(90%-110%)**	**Yes**
CCV	12-MAR-2010 20:16:00	100311	7.503	7.5	100	(90%-110%)	Yes
CCV	13-MAR-2010 02:15:00	100311	4.8754	5	97.5	(90%-110%)	Yes
ICV	**17-MAR-2010 13:43:00**	**100317**	**4.9617**	**5**	**99.2**	**(90%-110%)**	**Yes**
CCV	17-MAR-2010 19:40:00	100317	7.5953	7.5	101	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**10-MAR-2010 12:12:00**	**100310**	**0**	**0.1**	**Yes**
CCB	10-MAR-2010 17:41:00	100310	0	0.1	Yes
CCB	10-MAR-2010 23:40:00	100310	0	0.1	Yes
ICB	**11-MAR-2010 22:51:00**	**100311**	**0**	**0.1**	**Yes**
CCB	12-MAR-2010 20:46:00	100311	0	0.1	Yes
CCB	13-MAR-2010 02:45:00	100311	0	0.1	Yes
ICB	**17-MAR-2010 14:12:00**	**100317**	**0**	**0.1**	**Yes**
CCB	17-MAR-2010 20:10:00	100317	0	0.1	Yes

Parmname: Sulfate

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**10-MAR-2010 11:42:00**	**100310**	**19.169**	**20**	**95.8**	**(90%-110%)**	**Yes**
CCV	10-MAR-2010 17:11:00	100310	35.262	30	118	(90%-110%)	No
CCV	10-MAR-2010 23:10:00	100310	23.2474	20	116	(90%-110%)	No
ICV	**11-MAR-2010 22:21:00**	**100311**	**19.7293**	**20**	**98.6**	**(90%-110%)**	**Yes**
CCV	12-MAR-2010 20:16:00	100311	30.1294	30	100	(90%-110%)	Yes
CCV	13-MAR-2010 02:15:00	100311	19.291	20	96.5	(90%-110%)	Yes
ICV	**17-MAR-2010 13:43:00**	**100317**	**18.9605**	**20**	**94.8**	**(90%-110%)**	**Yes**
CCV	17-MAR-2010 19:40:00	100317	29.6703	30	98.9	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**10-MAR-2010 12:12:00**	**100310**	**0**	**0.4**	**Yes**

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 18-MAR-2010 13:28

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-1886

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Sulfate

Sample Type	Run Date	Data File	Result	Limits	Within Limits
CCB	10-MAR-2010 17:41:00	100310	0	0.4	Yes
CCB	10-MAR-2010 23:40:00	100310	1.924	0.4	No
ICB	**11-MAR-2010 22:51:00**	**100311**	**0**	**0.4**	**Yes**
CCB	12-MAR-2010 20:46:00	100311	0	0.4	Yes
CCB	13-MAR-2010 02:45:00	100311	0.3616	0.4	Yes
ICB	**17-MAR-2010 14:12:00**	**100317**	**0**	**0.4**	**Yes**
CCB	17-MAR-2010 20:10:00	100317	0	0.4	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 18-MAR-2010 13:28

GEL Laboratories LLC

Contract: **ESHL01000**

SDG #: **10-1886**

Nutrient Analysis

Method: EPA 350.1 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Nitrogen, Ammonia

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**23-FEB-2010 14:37:59**	**OM_2-23-2010_14-31-06**	**0.996**	**1**	**99.6**	**(90%-110%)**	**Yes**
CCV	23-FEB-2010 14:50:04	OM_2-23-2010_14-31-06	0.988	1	98.8	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**23-FEB-2010 14:39:49**	**OM_2-23-2010_14-31-06**	**-0.004**	**0.05**	**Yes**
CCB	23-FEB-2010 14:51:55	OM_2-23-2010_14-31-06	-0.003	0.05	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 18-MAR-2010 13:28

GEL Laboratories LLC

Contract: **ESHL01000**

SDG #: **10-1886**

Nutrient Analysis

Method: EPA 351.2 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Nitrogen, Total Kjeldahl

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**24-FEB-2010 12:49:07**	**OM_2-24-2010_12-42-18**	**1.027**	**1**	**103**	**(90%-110%)**	**Yes**
CCV	24-FEB-2010 13:01:16	OM_2-24-2010_12-42-18	1.013	1	101	(90%-110%)	Yes
CCV	24-FEB-2010 13:16:00	OM_2-24-2010_13-15-13	1.034	1	103	(90%-110%)	Yes
CCV	24-FEB-2010 13:28:02	OM_2-24-2010_13-15-13	1.034	1	103	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**24-FEB-2010 12:51:03**	**OM_2-24-2010_12-42-18**	**-0.026**	**0.1**	**Yes**
CCB	24-FEB-2010 13:03:12	OM_2-24-2010_12-42-18	-0.017	0.1	Yes
CCB	24-FEB-2010 13:17:56	OM_2-24-2010_13-15-13	-0.024	0.1	Yes
CCB	24-FEB-2010 13:29:58	OM_2-24-2010_13-15-13	-0.018	0.1	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 18-MAR-2010 13:28

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-1886

Nutrient Analysis

Method: EPA 353.2 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8500 Series

Parmname: Nitrogen, Nitrate/Nitrite

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**22-FEB-2010 13:40:45**	**OM_2-22-2010_13-31-16**	**1**	**1**	**100**	**(90%-110%)**	**Yes**
CCV	22-FEB-2010 14:52:31	OM_2-22-2010_13-31-16	0.96	1	96	(90%-110%)	Yes
CCV	22-FEB-2010 15:09:18	OM_2-22-2010_13-31-16	0.958	1	95.8	(90%-110%)	Yes
CCV	22-FEB-2010 15:26:07	OM_2-22-2010_13-31-16	0.95	1	95	(90%-110%)	Yes
CCV	22-FEB-2010 15:42:53	OM_2-22-2010_13-31-16	0.948	1	94.8	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**22-FEB-2010 13:43:07**	**OM_2-22-2010_13-31-16**	**-0.00242**	**0.05**	**Yes**
CCB	22-FEB-2010 14:54:53	OM_2-22-2010_13-31-16	-0.00468	0.05	Yes
CCB	22-FEB-2010 15:11:40	OM_2-22-2010_13-31-16	-0.00466	0.05	Yes
CCB	22-FEB-2010 15:28:29	OM_2-22-2010_13-31-16	-0.00465	0.05	Yes
CCB	22-FEB-2010 15:45:15	OM_2-22-2010_13-31-16	-0.00614	0.05	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 18-MAR-2010 13:28

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-1886

Nutrient Analysis

Method: EPA 365.4 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Phosphorus, Total as P

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**23-FEB-2010 10:04:46**	**OM_2-23-2010_09-55-09**	**1.005**	**1**	**101**	**(90%-110%)**	**Yes**
CCV	23-FEB-2010 10:48:49	OM_2-23-2010_10-48-06	1.018	1	102	(90%-110%)	Yes
CCV	23-FEB-2010 11:01:14	OM_2-23-2010_10-48-06	1.009	1	101	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**23-FEB-2010 10:06:51**	**OM_2-23-2010_09-55-09**	**0.042**	**0.05**	**Yes**
CCB	23-FEB-2010 10:50:54	OM_2-23-2010_10-48-06	0.023	0.05	Yes
CCB	23-FEB-2010 11:03:19	OM_2-23-2010_10-48-06	0.027	0.05	Yes

Alkalinity

Alkalinity LogBook

Analyst: LXA1
Batch: 954890
Lab SOP: GL-GC-E-033 REV# 6
SOP Description: Alkalinity: Total, Bicarbonate, Carbonate, Hydroxide, and Phenolphthalein
Run Date: 18-FEB-2010

Type	Sample Id	Lot Id	Nc(mg/L)	Recovery(%)
LCS	1202047153	IMM100107-ALK	50	100.013
MS	1202047155	IMM100107-ALK	50	96.203

Type	Sample Id	Rpd(%)	Parmname
DUP	1202047154	.749	Alkalinity, Total as CaCO3
DUP	1202047154	0	Carbonate alkalinity (CaCO3)

Type	Sample id	Parent Sample Id	Time	Ph	Aliquot	Units	Normality H2SO4	H2SO4 Ph 8.3 (mL)	H2SO4 Ph 4.5(mL)	Alkalinity	Bicarbonate	CO2 Dissolved	CO2 Free	CO2 Total	Carbonate	Hydroxide	Phenol phthalein	Units
MB	1202047164		13:08	6.15	100	mL	0.01905	0	0.15	1.4288					0.0000			mg/L
LCS	1202047153		13:08	9.13	100	mL	0.01905	0	5.25	50.006								mg/L
SAMPLE	247261004		13:10	7.65	100	mL	0.01905	0	6.65	63.341					0.0000			mg/L
DUP	1202047154	247261004	13:15	7.71	100	mL	0.01905	0	6.7	63.818					0.0000			mg/L
MS	1202047155	247261004	13:22	9.02	100	mL	0.01905	0	11.7	111.44								mg/L

Run Date: 18-FEB-10 11:37
Instrument: PHX370
Analyst: LXA1

Standard	Observed	Theoretical		%Recovery
UPH100218-a	10.03	10	SU	100.3
100218-a	12	12	SU	100
UPH100218-02c-	2.08	2	SU	104
IMM100218-PH1	4.01	4	SU	100.25
IMM100218-PH-	7	7	SU	100
IMM100218-01a	7.01	7	SU	100.14

Comments:

Run Date: 11-FEB-2010 18:08
Instrument: TIT001
Analyst: LXA1

Na2CO3 Std. ID	Na2CO3, 0.05 N g Na2C03/L	H2SO4 N (approx.)	NA2CO3 titrated	H2SO4 to pH 3.7	Actual Normality	Normality Average
1071836	2.5214	.02	15	37.4	.01903	.01905
	2.5214	.02	15	37.45	.01905	
	2.5214	.02	15	37.5	.01908	

Normality of H2SO4 solution
A x B / 53.00 x C
where:
A = grams of Na2CO3
B = volume (mL) of the Na2CO3 solution
C = Total volume of the 0.02 N H2SO4 acid titrant used to reach a pH of 3.7

Total Alkalinity (mg/L)
Vt x N x 50000 / Vs
Where:
Vt = volume (mL) of H2SO4 used to reach the pH 4.5 endpoint
N = normality of the H2SO4 titrant
Vs = volume (mL) of sample used

Phenolphthalein alkalinity (mg/L)
Vt x N x 50000 / Vs
Where:

Alkalinity LogBook

Vt = volume (mL) of H_2SO_4 used to reach the pH 8.3 endpoint
N = normality of the H_2SO_4 titrant
Vs = volume (mL) of sample used

Bicarbonate Alkalinity
Relationship Table SM2320B

Carbonate Alkalinity
Relationship Table SM2320B

Hydroxide Alkalinity
Relationship Table SM2320B

Free Carbon Dioxide
mg CO_2/L = 2.0 x B x 10 (6-pH)
Where B = Bicarbonate Alkalinity

Total Carbon Dioxide
mg total CO_2/L = A + 0.44(2B + C)
Where:
A = mg Free CO_2/L
B = Bicarbonate Alkalinity
C = Carbonate Alkalinity

Relationship Table SM2320B

P = 0	then H = 0,	C = 0,	B = T
P < 1/2 T	then H = 0,	C = 2P,	B = T - 2P
P = 1/2 T	then H = 0,	C = 2P,	B = 0
P > 1/2 T	then H = 2P - T,	C = 2(T - P),	B = 0
P = T	then H = T,	C = 0,	B = 0

Ammonia Nitrogen

Prep Logbook

Ammonia-Nitrogen Sample Preparation

Batch ID: **955951.0** Verified by: _____

Analyst: Stephanie Jackson

Method: EPA 350.2 Prep

Lab SOP: GL-GC-E-072 REV# 11

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202049625	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202049621	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202049622	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202049623	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202049624	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL

Sample ID	Run Date	Matrix	Initial Volnme (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202049618 MB	22-FEB-2010 15:00:00	Ground Water	25	25	1	9.5
1202049625 LCS	22-FEB-2010 15:00:00	Ground Water	25	25	1	9.5
247261004	22-FEB-2010 15:00:00	Ground Water	25	25	1	9.5
1202049619 DUP (247261004)	22-FEB-2010 15:00:00	Ground Water	25	25	1	9.5
1202049621 MS (247261004)	22-FEB-2010 15:00:00	Ground Water	25	25	1	9.5
1202049623 MSD (247261004)	22-FEB-2010 15:00:00	Ground Water	25	25	1	9.5
247383001	22-FEB-2010 15:00:00	Waste Water	10	25	2.5	9.5
247383002	22-FEB-2010 15:00:00	Waste Water	10	25	2.5	9.5
247383003	22-FEB-2010 15:00:00	Waste Water	10	25	2.5	9.5
247383004	22-FEB-2010 15:00:00	Waste Water	25	25	1	9.5
247383005	22-FEB-2010 15:00:00	Waste Water	1	25	25	9.5
247383006	22-FEB-2010 15:00:00	Waste Water	10	25	2.5	9.5
247383007	22-FEB-2010 15:00:00	Waste Water	10	25	2.5	9.5
247383008	22-FEB-2010 15:00:00	Waste Water	10	25	2.5	9.5
247416001	22-FEB-2010 15:00:00	Waste Water	25	25	1	9.5
247420001	22-FEB-2010 15:00:00	Waste Water	10	25	2.5	9.5
247431002	22-FEB-2010 15:00:00	Ground Water	25	25	1	9.5
247434001	22-FEB-2010 15:00:00	Water	25	25	1	9.5
1202049620 DUP (247434001)	22-FEB-2010 15:00:00	Water	25	25	1	9.5
1202049622 MS (247434001)	22-FEB-2010 15:00:00	Water	25	25	1	9.5
1202049624 MSD (247434001)	22-FEB-2010 15:00:00	Water	25	25	1	9.5

Reagent/Solvent Lot ID	Description	Amount

Comments:

Prep Logbook

Batch ID: **955951.0** Verified by: _____

Analyst: Stephanie Jackson

Method: EPA 350.2 Prep

Lab SOP: GL-GC-E-072 REV# 11

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202049625	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202049621	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202049622	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202049623	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202049624	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1271208-C	Borate Buffer	1.25 mL				
1271210-C	50% NaOH Solution	1 mL				

samples 247383001, 002, 003,006,007 and 008 prepped @10mL due to bright yellow color on NH3 test strip...
sample 247383005 prepped @1mL due to dark orange color on NH3 test strip

sample 247420001 prepped @10mL due to bright yellow color on NH3 test strip

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
2.0 ppm Std.		1	axh3	2/23/2010 14:31:53	OM_2-23-2010_14-31-06
1.0 ppm Std.		1	axh3	2/23/2010 14:32:42	OM_2-23-2010_14-31-06
0.5 ppm Std		1	axh3	2/23/2010 14:33:32	OM_2-23-2010_14-31-06
0.1 ppm Std		1	axh3	2/23/2010 14:34:23	OM_2-23-2010_14-31-06
0.05 ppm Std		1	axh3	2/23/2010 14:35:16	OM_2-23-2010_14-31-06
ICAL-00		1	axh3	2/23/2010 14:36:08	OM_2-23-2010_14-31-06
ICV		1	axh3	2/23/2010 14:37:59	OM_2-23-2010_14-31-06
ICB		1	axh3	2/23/2010 14:39:49	OM_2-23-2010_14-31-06
1202049618	955952	1	axh3	2/23/2010 14:41:39	OM_2-23-2010_14-31-06
1202049625	955952	1	axh3	2/23/2010 14:42:29	OM_2-23-2010_14-31-06
247261004	955952	1	axh3	2/23/2010 14:43:20	OM_2-23-2010_14-31-06
1202049619	955952	1	axh3	2/23/2010 14:44:11	OM_2-23-2010_14-31-06
1202049621	955952	1	axh3	2/23/2010 14:45:02	OM_2-23-2010_14-31-06
1202049623	955952	1	axh3	2/23/2010 14:45:51	OM_2-23-2010_14-31-06
247434001	955952	1	axh3	2/23/2010 14:46:42	OM_2-23-2010_14-31-06
1202049620	955952	1	axh3	2/23/2010 14:47:33	OM_2-23-2010_14-31-06
1202049622	955952	1	axh3	2/23/2010 14:48:23	OM_2-23-2010_14-31-06
1202049624	955952	1	axh3	2/23/2010 14:49:14	OM_2-23-2010_14-31-06
CCV		1	axh3	2/23/2010 14:50:04	OM_2-23-2010_14-31-06
CCB		1	axh3	2/23/2010 14:51:55	OM_2-23-2010_14-31-06
247383001	955952	1	axh3	2/23/2010 14:53:43	OM_2-23-2010_14-31-06
247383002	955952	1	axh3	2/23/2010 14:54:32	OM_2-23-2010_14-31-06
247383003	955952	1	axh3	2/23/2010 14:55:21	OM_2-23-2010_14-31-06
247383004	955952	1	axh3	2/23/2010 14:56:10	OM_2-23-2010_14-31-06
247383005	955952	1	axh3	2/23/2010 14:56:59	OM_2-23-2010_14-31-06
247383006	955952	1	axh3	2/23/2010 14:57:47	OM_2-23-2010_14-31-06
247383007	955952	1	axh3	2/23/2010 14:58:34	OM_2-23-2010_14-31-06
247383008	955952	1	axh3	2/23/2010 14:59:22	OM_2-23-2010_14-31-06
247416001	955952	1	axh3	2/23/2010 15:00:10	OM_2-23-2010_14-31-06
247420001	955952	1	axh3	2/23/2010 15:01:00	OM_2-23-2010_14-31-06
CCV		1	axh3	2/23/2010 15:01:50	OM_2-23-2010_14-31-06
CCB		1	axh3	2/23/2010 15:03:40	OM_2-23-2010_14-31-06
247431002	955952	1	axh3	2/23/2010 15:05:29	OM_2-23-2010_14-31-06
247383001	955952	5	axh3	2/23/2010 15:06:20	OM_2-23-2010_14-31-06
247383003	955952	5	axh3	2/23/2010 15:07:08	OM_2-23-2010_14-31-06
247383005	955952	5	axh3	2/23/2010 15:07:58	OM_2-23-2010_14-31-06
247383007	955952	5	axh3	2/23/2010 15:08:46	OM_2-23-2010_14-31-06
247383008*	955952	5	axh3	2/23/2010 15:09:34	OM_2-23-2010_14-31-06
247383008	955952	5	axh3	2/23/2010 15:11:21	OM_2-23-2010_14-31-06
CCV		1	axh3	2/23/2010 15:13:09	OM_2-23-2010_14-31-06
CCB		1	axh3	2/23/2010 15:15:00	OM_2-23-2010_14-31-06

Author: axh3 Date : 2/23/2010

Original Run Filename: OM_2-23-2010_14-31-06.OMN created 2/23/2010 14:31:06
Original Run Author's Signature: [axh3]
Current Run Filename: OM_2-23-2010_14-31-06.OMN last modified 2/23/2010 15:16:04
Current Run Author's Signature: [axh3]
Description: Ammonia EPA Method 350.1 GEL SOP: GL-GC-E-106
Detection Wavelength: 630nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 NH3 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100223-03	1	S10	2.000	14.629	2/23/2010@14:31:53			2.0 ppm Std.
WTR100223-04	1	S11	1.000	7.373	2/23/2010@14:32:42			1.0 ppm Std.
WTR100223-05	1	S12	0.500	3.799	2/23/2010@14:33:32			0.5 ppm Std
WTR100223-06	1	S13	0.100	0.813	2/23/2010@14:34:23			0.1 ppm Std
WTR100223-07	1	S14	0.050	0.399	2/23/2010@14:35:16			0.05 ppm Std
WTR100223-10 0.0 ppm	1	S15	0.000	0.025	2/23/2010@14:36:08			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99997 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR100223-08 ICV	1	S16	0.996	7.331	2/23/2010@14:37:59			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	0.996 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.996 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR100223-10 ICB	1	S15	-0.004	0.040	2/23/2010@14:39:49			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.004 < 0.050					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.004 > -0.050					
		Message	ICB Passed					
		Action	Continue					
1202049618|955952|MB	1	1	0.026	0.258	2/23/2010@14:41:39			
1202049625||LCS	1	2	1.037	7.634	2/23/2010@14:42:29			
247261004	1	3	0.046	0.405	2/23/2010@14:43:20			
1202049619||DUP	1	4	0.026	0.260	2/23/2010@14:44:11			
1202049621||MS	1	5	0.647	4.788	2/23/2010@14:45:02			
1202049623||MSD	1	6	0.657	4.861	2/23/2010@14:45:51			
247434001	1	18	0.017	0.197	2/23/2010@14:46:42			
1202049620||DUP	1	19	0.015	0.181	2/23/2010@14:47:33			
1202049622||MS	1	20	0.576	4.274	2/23/2010@14:48:23			
1202049624||MSD	1	21	0.617	4.567	2/23/2010@14:49:14			
WTR100223-04 CCV	1	S11	0.988	7.272	2/23/2010@14:50:04			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	0.988 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.988 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100223-10 CCB	1	S15	-0.003	0.045	2/23/2010@14:51:55			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.003 < 0.049					

		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.003 > -0.050					
		Message	CCB Passed					
		Action	Continue					
247383001	1	7	2.108	15.439	2/23/2010@14:53:43			
247383002	1	8	1.868	13.691	2/23/2010@14:54:32			
247383003	1	9	4.253	31.087	2/23/2010@14:55:21			
247383004	1	10	0.546	4.052	2/23/2010@14:56:10			
247383005	1	11	5.037	36.802	2/23/2010@14:56:59			
247383006	1	12	1.025	7.543	2/23/2010@14:57:47			
247383007	1	13	2.741	20.057	2/23/2010@14:58:34			
247383008	1	14	3.016	22.064	2/23/2010@14:59:22			
247416001	1	15	0.034	0.319	2/23/2010@15:00:10			
247420001	1	16	0.292	2.197	2/23/2010@15:01:00			
WTR100223-04 CCV	1	S11	0.995	7.324	2/23/2010@15:01:50			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.995 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.995 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100223-10 CCB	1	S15	-0.005	0.034	2/23/2010@15:03:40			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.005 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.005 > -0.050					
		Message	CCB Passed					
		Action	Continue					
247431002	1	17	0.025	0.250	2/23/2010@15:05:29			
247383001	1	7	0.385	2.878	2/23/2010@15:06:20		5.00	
247383003	1	9	0.794	5.857	2/23/2010@15:07:08		5.00	
247383005	1	11	1.035	7.618	2/23/2010@15:07:58		5.00	
247383007	1	13	0.554	4.113	2/23/2010@15:08:46		5.00	
247383008	1	14	1.973	14.459	2/23/2010@15:09:34		5.00	
247383008	1	14	0.518	3.847	2/23/2010@15:11:21		5.00	
WTR100223-04 CCV	1	S11	0.993	7.308	2/23/2010@15:13:09			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.993 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.993 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100223-10 CCB	1	S15	-0.003	0.045	2/23/2010@15:15:00			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.003 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.003 > -0.050					
		Message	CCB Passed					
		Action	Continue					

Author: axh3 Date : 2/23/2010

Channel 1 (NH3) : Current View

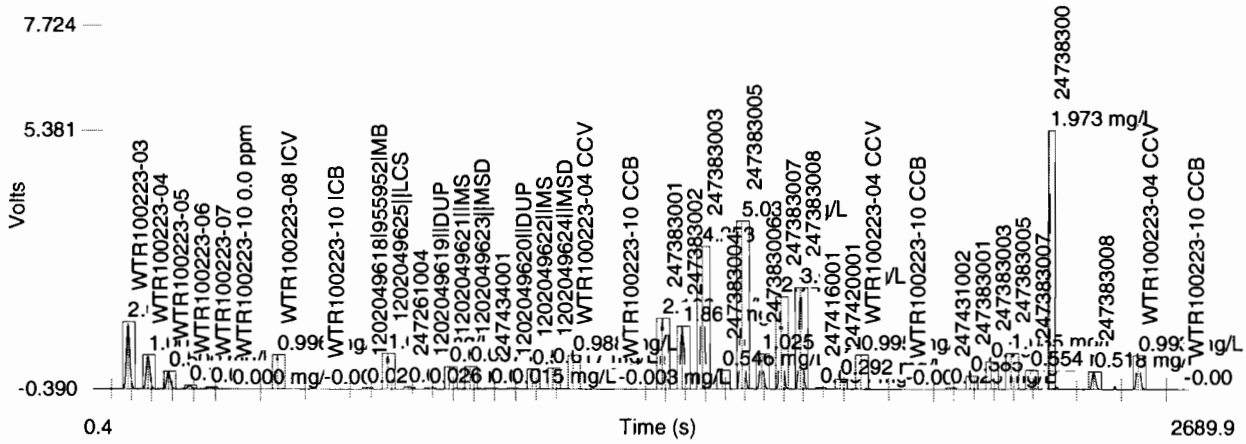

Table 1: NH3

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	2.000	1	14.629	1.496	0.2	2/23/2010	14:32:55
2	1.000	1	7.373	0.755	-0.1	2/23/2010	14:33:45
3	0.500	1	3.799	0.391	-2.2	2/23/2010	14:34:35
4	0.100	1	0.813	0.082	-1.7	2/23/2010	14:35:26
5	0.050	1	0.399	0.040	8.3	2/23/2010	14:36:18
6	0.000	1	0.025	0.001		2/23/2010	14:37:11

Figure 1: NH3

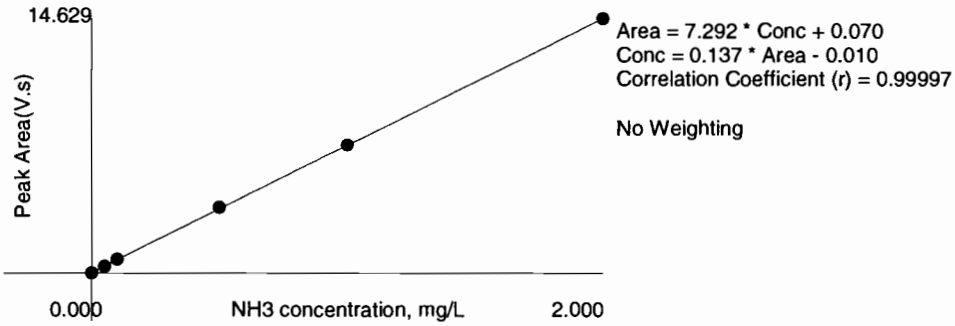

Carbon, Total Organic

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
ICAL-01		1	TSM	19-Feb-10 10:51	XP213.rlt
ICAL-02		1	TSM	19-Feb-10 11:00	XP214.rlt
ICAL-03		1	TSM	19-Feb-10 11:09	XP215.rlt
ICAL-04		1	TSM	19-Feb-10 11:18	XP216.rlt
ICAL-05		1	TSM	19-Feb-10 11:27	XP217.rlt
ICV		1	TSM	19-Feb-10 11:36	XP218.rlt
ICB		1	TSM	19-Feb-10 11:45	XP219.rlt
TIC	954838	1	TSM	19-Feb-10 11:54	XP220.rlt
CCV		1	TSM	19-Feb-10 13:28	XP221.rlt
CCB		1	TSM	19-Feb-10 13:37	XP222.rlt
1202047003	954838	1	TSM	19-Feb-10 13:46	XP223.rlt
1202047008	954838	1	TSM	19-Feb-10 13:55	XP224.rlt
247259001	954838	1	TSM	19-Feb-10 14:03	XP225.rlt
1202047004	954838	1	TSM	19-Feb-10 14:37	XP226.rlt
1202047006	954838	1	TSM	19-Feb-10 14:57	XP227.rlt
247259002	954838	1	TSM	19-Feb-10 15:05	XP228.rlt
247259003	954838	2	TSM	19-Feb-10 15:39	XP229.rlt
247259004	954838	1	TSM	19-Feb-10 16:12	XP230.rlt
247259005	954838	1	TSM	19-Feb-10 16:46	XP231.rlt
247284001	954838	1	TSM	19-Feb-10 17:19	XP232.rlt
CCV		1	TSM	19-Feb-10 17:38	XP233.rlt
CCB		1	TSM	19-Feb-10 17:47	XP234.rlt
247261003	954838	1	TSM	19-Feb-10 17:55	XP235.rlt
1202047005	954838	1	TSM	19-Feb-10 18:29	XP236.rlt
1202047007	954838	1	TSM	19-Feb-10 18:49	XP237.rlt
247273001	954838	1000	TSM	19-Feb-10 18:57	XP238.rlt
247284002	954838	1	TSM	19-Feb-10 19:15	XP239.rlt
247402001	954838	1	TSM	19-Feb-10 19:33	XP240.rlt
247402002	954838	1	TSM	19-Feb-10 19:51	XP241.rlt
247402004	954838	2	TSM	19-Feb-10 20:09	XP242.rlt
CCV		1	TSM	19-Feb-10 20:28	XP243.rlt
CCB		1	TSM	19-Feb-10 20:37	XP244.rlt
1202047009	954839	1	TSM	19-Feb-10 20:46	XP245.rlt
1202047012	954839	1	TSM	19-Feb-10 20:55	XP246.rlt
247273001	954839	1000	TSM	19-Feb-10 21:03	XP247.rlt
1202047010	954839	1000	TSM	19-Feb-10 21:21	XP248.rlt
1202047011	954839	1000	TSM	19-Feb-10 21:41	XP249.rlt
CCV		1	TSM	19-Feb-10 21:50	XP250.rlt
CCB		1	TSM	19-Feb-10 21:59	XP251.rlt

```
*******************************************************************
**                          CONFIGURATION                        **
*******************************************************************

Analysis Mode:  TOC          Spl Intro:  Autosampler 53
Remote Start :  OFF

Loop Size:  5 mL        Actual Volume  1mL   5mL   10mL   25mL
                        -------------  ----  ----  -----  -----
                         Loop A (uL):  1000  4900  10000  25000
                         Loop B (uL):  1000  4900  10000  25000

Tray Type:              53 Vial  Vial Option:                 Neither
Needle Depth:           97 %     Preacid Volume (uL):             200
Wash Needle Depth:      94 %     Preacid Purge Time (min:sec):   0:30

            TIC    TOC    TC
Blank      ----   ----   ----            Linearization Coeff:  53000
 Average:   141    744   2269

                         Sample Transfer Times (sec)
          Initial Fill        |        Loop Fill        | Sample Inject
     Non-AS    AS  AS w/Sep | Non-AS    AS  AS w/Sep |    (all)
     ------  ----- -------- | ------  ----- -------- | -------------
1mL:    6.0    4.5      3.5 |    1.2    1.2      1.0 |      4.5
5mL:    8.1    7.0      8.0 |    5.1    3.0      5.5 |     10.3
10mL:  14.2   12.2     11.0 |   10.5   10.5     11.0 |     16.5
25mL:  35.0   35.0     32.0 |    n/a    n/a      n/a |     38.0

Analog Concentration Signal indicates TOC
Analog Conc. Signal Timer is OFF, Timer duration (h:m:s): 00:00:00
Min Signal Range:   0.000 ppmC,  Max Signal Range:   0.000 ppmC

Alarms DISABLED
Alarm Relay Timer is OFF, Timer duration (h:m:s): 00:00:00
       Conc. Alarm Setpoints (ppm C)
          Low       |    High
      ----------    | ----------
TIC:     0.000          0.000
TOC:     0.000          0.000
TC:      0.000          0.000
```

```
*******************************************************************
**                          CALIBRATION                          **
*******************************************************************
```

02/19/10 Fri Feb 19 11:27:29 2010

Std. #	Used	Conc. (ppm)	Volume (mL)
1	Yes	20.000	5.000
2	Yes	10.000	5.000
3	Yes	1.000	5.000
4	Yes	0.200	5.000
5	Yes	0.000	5.000

RF (ugC/k-cts):	1.148
R-Squared:	0.9998
Offset (cts):	1866
Offset (ugC):	-2.143
Calibration Mode:	TOC
Allow Editing:	No

Rep	Std. 1	Std. 2	Std. 3	Std. 4	Std. 5
1	86783	45333	6270	2501	1563
2	-	-	-	-	-
3	-	-	-	-	-
4	-	-	-	-	-
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	-
9	-	-	-	-	-
10	-	-	-	-	-

(* = unused)

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
1	Blk	1	19Feb2010	10:20	-	-	-	575	-	-	-	-	-
1	Blk	2	19Feb2010	10:27	-	-	-	813	-	-	-	-	-
1	Blk	3	19Feb2010	10:34	-	-	-	3166	-	-	-	-	-
1	Blk	4	19Feb2010	10:42	-	-	-	1403	-	-	-	-	-

** Std1 Name: ICAL-01 Data File: XP213
Remarks: 954838|1|1| WTC100219-01 ID:TOC267

1	Std1	1	19Feb2010	10:51	-	-	-	86783	98.000	20.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.153
R-Squared: 1.0000
Offset (cts): 0
Offset (ugC): 0.000

** Std2 Name: ICAL-02 Data File: XP214
Remarks: 954838|1|1| WTC100219-02 ID:TOC267

2	Std2	1	19Feb2010	11:00	-	-	-	45333	49.000	10.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.182
R-Squared: 1.0000
Offset (cts): 3883
Offset (ugC): -4.590

** Std3 Name: ICAL-03 Data File: XP215
Remarks: 954838|1|1| WTC100219-03 ID:TOC267

3	Std3	1	19Feb2010	11:09	-	-	-	6270	4.900	1.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.157
R-Squared: 0.9998
Offset (cts): 2350
Offset (ugC): -2.719

** Std4 Name: ICAL-04 Data File: XP216
Remarks: 954838|1|1| WTC100219-04 ID:TOC267

4	Std4	1	19Feb2010	11:18	-	-	-	2501	0.980	0.200	-	-	-

** Calibration:
RF (ugC/k-cts): 1.151
R-Squared: 0.9998
Offset (cts): 2014
Offset (ugC): -2.318

** Std5 Name: ICAL-05 Data File: XP217
Remarks: 954838|1|1| ID:TOC267

5	Std5	1	19Feb2010	11:27	-	-	-	1563	0.000	0.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.148
R-Squared: 0.9998
Offset (cts): 1866
Offset (ugC): -2.143

```
** Chk2      Name:    ICV                          Data File: XP218
             Remarks: 954838|1|1| WTC100219-05 ID:TOC267

6    Chk2    1 19Feb2010 11:36      -       -          -    43063  47.312      9.656      -       -          -


** Chk5      Name:    ICB                          Data File: XP219
             Remarks: 954838|1|1| ID:TOC267

7    Chk5    1 19Feb2010 11:45      -       -          -     1407  -0.527     -0.108      -       -          -


** Spl       Name:    TIC                          Data File: XP220
             Remarks: 954838|1|1| WIC100219-01 ID:TOC267

8    Spl     1 19Feb2010 11:54      -       -          -     1696   0.000      0.000      -       -          -
```

```
                                  |- - - - - T I C  - - - -| |- - - - - T O C  - - - -| |- - - - - - T C  - - - -|
Pos/ Run  Rep   Run      Run     Area    Mass     Conc      Area    Mass     Conc      Area    Mass    Conc
Vial Type  #    Date     Time    (cts)   (ugC)    (ppm)     (cts)   (ugC)    (ppm)     (cts)   (ugC)   (ppm)
---- ---- --- --------- ----- ------- ------- ---------- ------- ------- ---------- ------- ------- ----------

** Chk2      Name:    CCV                          Data File: XP221
            Remarks: 954838|1|1| WTC100219-02 ID:TOC267

9    Chk2   1 19Feb2010 13:28      -       -          -    41330  45.322      9.249      -       -          -


** Chk5      Name:    CCB                          Data File: XP222
            Remarks: 954838|1|1|  ID:TOC267

10   Chk5   1 19Feb2010 13:37      -       -          -     1803  -0.072     -0.015      -       -          -


** Chk5      Name:    1202047003                   Data File: XP223
            Remarks: 954838|1|1| MB ID:TOC267

11   Chk5   1 19Feb2010 13:46      -       -          -     2107   0.277      0.056      -       -          -


** Chk2      Name:    1202047008                   Data File: XP224
            Remarks: 954838|1|1| WTC100219-05:LCS ID:TOC267

12   Chk2   1 19Feb2010 13:55      -       -          -    43533  47.852      9.766      -       -          -


** Sp1       Name:    247259001                    Data File: XP225
            Remarks: 954838|1|1|  ID:TOC267

13   Sp1    1 19Feb2010 14:03      -       -          -     8915   8.178      1.669      -       -          -
13   Sp1    2 19Feb2010 14:11      -       -          -     9743   9.129      1.863      -       -          -
13   Sp1    3 19Feb2010 14:19      -       -          -     9452   8.795      1.795      -       -          -
13   Sp1    4 19Feb2010 14:29      -       -          -     9482   8.829      1.802      -       -          -
13   Sp1  Avg                                           9398   8.733      1.782
13   Sp1  SDev                                       347.508
13   Sp1  %RSD                                          3.70


** Sp1       Name:    1202047004                   Data File: XP226
            Remarks: 954838|1|1| 247259001:DUP ID:TOC267

14   Sp1    1 19Feb2010 14:37      -       -          -     9228   8.537      1.742      -       -          -
14   Sp1    2 19Feb2010 14:46      -       -          -    10147   9.593      1.958      -       -          -
14   Sp1  Avg                                           9687   9.065      1.850
14   Sp1  SDev                                       649.831
14   Sp1  %RSD                                          6.71


** Sp1       Name:    1202047006                   Data File: XP227
            Remarks: 954838|1|1| 247259001:PS ID:TOC267

15   Sp1    1 19Feb2010 14:57      -       -          -    50499  55.935     11.415      -       -          -


** Sp1       Name:    247259002                    Data File: XP228
            Remarks: 954838|1|1| ID:TOC267

16   Sp1    1 19Feb2010 15:05      -       -          -     7876   6.985      1.426      -       -          -
16   Sp1    2 19Feb2010 15:13      -       -          -     8027   7.158      1.461      -       -          -
16   Sp1    3 19Feb2010 15:21      -       -          -     8000   7.127      1.454      -       -          -
16   Sp1    4 19Feb2010 15:30      -       -          -     8344   7.522      1.535      -       -          -
16   Sp1  Avg                                           8061   7.198      1.469
```

```
16   Sp1  SDev                                          199.323
16   Sp1  %RSD                                             2.47

** Sp1      Name:    247259003                    Data File: XP229
            Remarks: 954838|2|1| ID:TOC267

17   Sp1    1 19Feb2010 15:39      -       -          -     9840   9.240      1.886      -       -          -
17   Sp1    2 19Feb2010 15:46      -       -          -     9772   9.162      1.870      -       -          -
17   Sp1    3 19Feb2010 15:54      -       -          -     9679   9.055      1.848      -       -          -
17   Sp1    4 19Feb2010 16:04      -       -          -     9853   9.255      1.889      -       -          -
17   Sp1  Avg                                             9786   9.178      1.873
17   Sp1  SDev                                          79.687
17   Sp1  %RSD                                             0.81

** Sp1      Name:    247259004                    Data File: XP230
            Remarks: 954838|1|1| ID:TOC267

18   Sp1    1 19Feb2010 16:12      -       -          -    19103  19.878      4.057      -       -          -
18   Sp1    2 19Feb2010 16:20      -       -          -    20652  21.657      4.420      -       -          -
18   Sp1    3 19Feb2010 16:28      -       -          -    20689  21.700      4.429      -       -          -
18   Sp1    4 19Feb2010 16:37      -       -          -    20808  21.836      4.456      -       -          -
18   Sp1  Avg                                            20313  21.268      4.340
18   Sp1  SDev                                         809.408
18   Sp1  %RSD                                             3.98

** Sp1      Name:    247259005                    Data File: XP231
            Remarks: 954838|1|1| ID:TOC267

19   Sp1    1 19Feb2010 16:46      -       -          -     5459   4.209      0.859      -       -          -
19   Sp1    2 19Feb2010 16:54      -       -          -     5546   4.309      0.879      -       -          -
19   Sp1    3 19Feb2010 17:01      -       -          -     5133   3.835      0.783      -       -          -
19   Sp1    4 19Feb2010 17:11      -       -          -     5246   3.964      0.809      -       -          -
19   Sp1  Avg                                             5346   4.079      0.832
19   Sp1  SDev                                         189.858
19   Sp1  %RSD                                             3.55

** Sp1      Name:    247284001                    Data File: XP232
            Remarks: 954838|1|1| ID:TOC267

20   Sp1    1 19Feb2010 17:19      -       -          -     4406   3.000      0.612      -       -          -
20   Sp1    2 19Feb2010 17:29      -       -          -     4125   2.677      0.546      -       -          -
20   Sp1  Avg                                             4265   2.838      0.579
20   Sp1  SDev                                         198.697
20   Sp1  %RSD                                             4.66

** Chk2     Name:    CCV                          Data File: XP233
            Remarks: 954838|1|1|WTC100219-02 ID:TOC267

21   Chk2   1 19Feb2010 17:38      -       -          -    45738  50.384     10.283      -       -          -

** Chk5     Name:    CCB                          Data File: XP234
            Remarks: 954838|1|1| ID:TOC267

22   Chk5   1 19Feb2010 17:47      -       -          -     1598  -0.308     -0.063      -       -          -

** Sp1      Name:    247261003                    Data File: XP235
            Remarks: 954838|1|1| ID:TOC267
```

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23   Spl    1 19Feb2010 17:55      -       -          -     8924   8.188      1.671      -       -          -
23   Spl    2 19Feb2010 18:03      -       -          -     9257   8.571      1.749      -       -          -
23   Spl    3 19Feb2010 18:11      -       -          -     9131   8.426      1.720      -       -          -
23   Spl    4 19Feb2010 18:20      -       -          -     9104   8.395      1.713      -       -          -
23   Spl  Avg                                             9104   8.395      1.713
23   Spl  SDev                                          137.281
23   Spl  %RSD                                             1.51

** Spl      Name:    1202047005                   Data File: XP236
            Remarks: 954838|1|1| 247261003:DUP ID:TOC267

24   Spl    1 19Feb2010 18:29      -       -          -     9188   8.492      1.733      -       -          -
24   Spl    2 19Feb2010 18:38      -       -          -     9493   8.842      1.804      -       -          -
24   Spl  Avg                                             9340   8.667      1.769
24   Spl  SDev                                          215.668
24   Spl  %RSD                                             2.31

** Spl      Name:    1202047007                   Data File: XP237
            Remarks: 954838|1|1| 247261003:PS ID:TOC267

25   Spl    1 19Feb2010 18:49      -       -          -    50824  56.308     11.491      -       -          -

** Sp1      Name:    247273001                    Data File: XP238
            Remarks: 954838|1000|1| ID:TOC267

26   Spl    1 19Feb2010 18:57      -       -          -    17710  18.279      3.730      -       -          -
26   Spl    2 19Feb2010 19:07      -       -          -    18720  19.438      3.967      -       -          -
26   Spl  Avg                                            18215  18.859      3.849
26   Spl  SDev                                          714.178
26   Spl  %RSD                                             3.92

** Sp1      Name:    247284002                    Data File: XP239
            Remarks: 954838|1|1| ID:TOC267

27   Spl    1 19Feb2010 19:15      -       -          -     3934   2.458      0.502      -       -          -
27   Spl    2 19Feb2010 19:25      -       -          -     3710   2.200      0.449      -       -          -
27   Spl  Avg                                             3822   2.329      0.475
27   Spl  SDev                                          158.392
27   Spl  %RSD                                             4.14

** Spl      Name:    247402001                    Data File: XP240
            Remarks: 954838|1|1| ID:TOC267

28   Spl    1 19Feb2010 19:33      -       -          -    52225  57.917     11.820      -       -          -
28   Spl    2 19Feb2010 19:43      -       -          -    60233  67.114     13.697      -       -          -
28   Spl  Avg                                            56229  62.515     12.758
28   Spl  SDev                                         5662.511
28   Spl  %RSD                                            10.07

** Spl      Name:    247402002                    Data File: XP241
            Remarks: 954838|1|1| ID:TOC267

29   Spl    1 19Feb2010 19:51      -       -          -    25601  27.341      5.580      -       -          -
29   Spl    2 19Feb2010 20:01      -       -          -    28396  30.551      6.235      -       -          -
29   Spl  Avg                                            26998  28.946      5.907
29   Spl  SDev                                         1976.363
29   Spl  %RSD                                             7.32
```

```
** Spl      Name:    247402004                    Data File: XP242
            Remarks: 954838|2|1| ID:TOC267

30   Spl    1 19Feb2010 20:09      -       -          -   107817 121.761     24.849      -       -          -
30   Spl    2 19Feb2010 20:19      -       -          -   126029 142.676     29.118      -       -          -
30   Spl  Avg                                           116923 132.219     26.983
30   Spl  SDev                                        12877.829
30   Spl  %RSD                                            11.01


** Chk2     Name:    CCV                          Data File: XP243
            Remarks: 954838|1|1|WTC100219-02 ID:TOC267

31   Chk2   1 19Feb2010 20:28      -       -          -    45577  50.199     10.245      -       -          -


** Chk5     Name:    CCB                          Data File: XP244
            Remarks: 954838|1|1| ID:TOC267

32   Chk5   1 19Feb2010 20:37      -       -          -     1550  -0.363     -0.074      -       -          -


** Chk5     Name:    1202047009                   Data File: XP245
            Remarks: 954839|1|1| MB ID:TOC267

33   Chk5   1 19Feb2010 20:46      -       -          -     1287  -0.665     -0.136      -       -          -


** Chk2     Name:    1202047012                   Data File: XP246
            Remarks: 954839|1|1| WTC100219-05:LCS ID:TOC267

34   Chk2   1 19Feb2010 20:55      -       -          -    45389  49.983     10.201      -       -          -


** Spl      Name:    247273001                    Data File: XP247
            Remarks: 954839|1000|1| ID:TOC267

35   Spl    1 19Feb2010 21:03      -       -          -    17385  17.905      3.654      -       -          -
35   Spl    2 19Feb2010 21:12      -       -          -    18339  19.001      3.878      -       -          -
35   Spl  Avg                                            17862  18.453      3.766
35   Spl  SDev                                          674.580
35   Spl  %RSD                                             3.78


** Spl      Name:    1202047010                   Data File: XP248
            Remarks: 954839|1000|1| 247273001:DUP ID:TOC267

36   Spl    1 19Feb2010 21:21      -       -          -    18086  18.710      3.818      -       -          -
36   Spl    2 19Feb2010 21:30      -       -          -    18773  19.499      3.980      -       -          -
36   Spl  Avg                                            18429  19.105      3.899
36   Spl  SDev                                          485.782
36   Spl  %RSD                                             2.64


** Spl      Name:    1202047011                   Data File: XP249
            Remarks: 954839|1000|1| 247273001:PS ID:TOC267

37   Spl    1 19Feb2010 21:41      -       -          -    54599  60.643     12.376      -       -          -


** Chk2     Name:    CCV                          Data File: XP250
            Remarks: 954839|1|1| WTC100219-02 ID:TOC267

38   Chk2   1 19Feb2010 21:50      -       -          -    44776  49.279     10.057      -       -          -
```

```
** Chk5      Name:    CCB                          Data File: XP251
            Remarks: 954839|1|1| ID:TOC267

39   Chk5   1 19Feb2010 21:59      -       -          -     1459  -0.467     -0.095      -       -          -
```

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **955982.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202049725	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202049717	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202049718	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202049719	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202049720	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202049721	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202049722	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202049723	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202049724	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202049712 MB	25-FEB-2010 11:38:00	Water	25	25	1	>12
1202049725 LCS	25-FEB-2010 11:38:00	Water	25	25	1	>12
247046002	25-FEB-2010 11:38:00	Water	25	25	1	>12
1202049713 DUP (247046002)	25-FEB-2010 11:38:00	Water	25	25	1	>12
1202049717 MS (247046002)	25-FEB-2010 11:38:00	Water	25	25	1	>12
1202049721 MSD (247046002)	25-FEB-2010 11:38:00	Water	25	25	1	>12
247261003	25-FEB-2010 11:38:00	Ground Water	25	25	1	>12
1202049714 DUP (247261003)	25-FEB-2010 11:38:00	Ground Water	25	25	1	>12
1202049718 MS (247261003)	25-FEB-2010 11:38:00	Ground Water	25	25	1	>12
1202049722 MSD (247261003)	25-FEB-2010 11:38:00	Ground Water	25	25	1	>12
247394001	25-FEB-2010 11:38:00	Waste Water	25	25	1	>12
247402001	25-FEB-2010 11:38:00	Surface Water	25	25	1	>12

Prep Logbook

Batch ID: **955982.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202049725	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202049717	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202049718	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202049719	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202049720	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202049721	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202049722	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202049723	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202049724	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
247402002	25-FEB-2010 11:38:00	Surface Water	25	25	1	>12
247402004	25-FEB-2010 11:38:00	Surface Water	25	25	1	>12
247431001	25-FEB-2010 11:38:00	Ground Water	25	25	1	>12
247438001	25-FEB-2010 11:38:00	Water	25	25	1	>12
1202049715 DUP (247438001)	25-FEB-2010 11:38:00	Water	25	25	1	>12
1202049719 MS (247438001)	25-FEB-2010 11:38:00	Water	25	25	1	>12
1202049723 MSD (247438001)	25-FEB-2010 11:38:00	Water	25	25	1	>12
247441001	25-FEB-2010 11:38:00	Water	25	25	1	>12
247449001	25-FEB-2010 11:38:00	Water	25	25	1	>12
247505001	25-FEB-2010 11:38:00	Ground Water	25	25	1	>12
1202049716 DUP (247505001)	25-FEB-2010 11:38:00	Ground Water	25	25	1	>12
1202049720 MS (247505001)	25-FEB-2010 11:38:00	Ground Water	25	25	1	>12
1202049724 MSD (247505001)	25-FEB-2010 11:38:00	Ground Water	25	25	1	>12
247505002	25-FEB-2010 11:38:00	Ground Water	25	25	1	>12

Prep Logbook

Batch ID: **955982.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202049725	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202049717	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202049718	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202049719	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202049720	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202049721	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202049722	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202049723	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202049724	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
247505003	25-FEB-2010 11:38:00	Ground Water	25	25	1	>12
247505004	25-FEB-2010 11:38:00	Ground Water	25	25	1	>12
247505005	25-FEB-2010 11:38:00	Ground Water	25	25	1	>12
247533001	25-FEB-2010 11:38:00	Misc Liquid	25	25	1	>12
247533002	25-FEB-2010 11:38:00	Misc Liquid	25	25	1	>12
247548001	25-FEB-2010 11:38:00	Water	25	25	1	>12
247548002	25-FEB-2010 11:38:00	Water	25	25	1	>12

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL
WCN100225-07	150 ppb CN Distilled ICV Standard	.0375 mL

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	2/25/2010 12:17:22	OM_2-25-2010_12-14-00
150 ppb		1	axc2	2/25/2010 12:18:14	OM_2-25-2010_12-14-00
100 ppb		1	axc2	2/25/2010 12:19:07	OM_2-25-2010_12-14-00
50 ppb		1	axc2	2/25/2010 12:20:00	OM_2-25-2010_12-14-00
10 ppb		1	axc2	2/25/2010 12:20:53	OM_2-25-2010_12-14-00
CRDL 5.0 ppb		1	axc2	2/25/2010 12:21:47	OM_2-25-2010_12-14-00
ICAL-00		1	axc2	2/25/2010 12:22:41	OM_2-25-2010_12-14-00
ICV		1	axc2	2/25/2010 12:24:32	OM_2-25-2010_12-14-00
ICB		1	axc2	2/25/2010 12:26:22	OM_2-25-2010_12-14-00
CRDL		1	axc2	2/25/2010 12:28:12	OM_2-25-2010_12-14-00
1202046116	954509	1	axc2	2/25/2010 12:30:02	OM_2-25-2010_12-14-00
1202046123*	954509	25	axc2	2/25/2010 12:30:55	OM_2-25-2010_12-14-00
247103001	954509	1	axc2	2/25/2010 12:31:48	OM_2-25-2010_12-14-00
247103002	954509	1	axc2	2/25/2010 12:32:41	OM_2-25-2010_12-14-00
247103003	954509	1	axc2	2/25/2010 12:33:34	OM_2-25-2010_12-14-00
247103004	954509	1	axc2	2/25/2010 12:34:27	OM_2-25-2010_12-14-00
247103005	954509	1	axc2	2/25/2010 12:35:20	OM_2-25-2010_12-14-00
247103006	954509	1	axc2	2/25/2010 12:36:12	OM_2-25-2010_12-14-00
247103007	954509	1	axc2	2/25/2010 12:37:04	OM_2-25-2010_12-14-00
247103008	954509	1	axc2	2/25/2010 12:37:57	OM_2-25-2010_12-14-00
CCV		1	axc2	2/25/2010 12:38:49	OM_2-25-2010_12-14-00
CCB		1	axc2	2/25/2010 12:40:39	OM_2-25-2010_12-14-00
1202046123	954509	25	axc2	2/25/2010 12:42:29	OM_2-25-2010_12-14-00
247103009	954509	1	axc2	2/25/2010 12:43:21	OM_2-25-2010_12-14-00
247103010	954509	1	axc2	2/25/2010 12:44:13	OM_2-25-2010_12-14-00
247103011	954509	1	axc2	2/25/2010 12:45:05	OM_2-25-2010_12-14-00
247103012	954509	1	axc2	2/25/2010 12:45:56	OM_2-25-2010_12-14-00
247103013	954509	1	axc2	2/25/2010 12:46:48	OM_2-25-2010_12-14-00
247103014	954509	1	axc2	2/25/2010 12:47:42	OM_2-25-2010_12-14-00
247103015	954509	1	axc2	2/25/2010 12:48:35	OM_2-25-2010_12-14-00
247123001	954509	1	axc2	2/25/2010 12:49:29	OM_2-25-2010_12-14-00
1202046117	954509	1	axc2	2/25/2010 12:50:22	OM_2-25-2010_12-14-00
CCV		1	axc2	2/25/2010 12:51:15	OM_2-25-2010_12-14-00
CCB		1	axc2	2/25/2010 12:53:06	OM_2-25-2010_12-14-00
1202046119	954509	1	axc2	2/25/2010 12:54:54	OM_2-25-2010_12-14-00
1202046121	954509	1	axc2	2/25/2010 12:55:47	OM_2-25-2010_12-14-00
247123002	954509	1	axc2	2/25/2010 12:56:40	OM_2-25-2010_12-14-00
1202046118	954509	1	axc2	2/25/2010 12:57:33	OM_2-25-2010_12-14-00
1202046120	954509	1	axc2	2/25/2010 12:58:26	OM_2-25-2010_12-14-00
1202046122	954509	1	axc2	2/25/2010 12:59:18	OM_2-25-2010_12-14-00
247123003	954509	1	axc2	2/25/2010 13:00:11	OM_2-25-2010_12-14-00
247123004	954509	1	axc2	2/25/2010 13:01:03	OM_2-25-2010_12-14-00
247273002	954509	1	axc2	2/25/2010 13:01:56	OM_2-25-2010_12-14-00
1202049712	955983	1	axc2	2/25/2010 13:02:48	OM_2-25-2010_12-14-00
CCV		1	axc2	2/25/2010 13:03:40	OM_2-25-2010_12-14-00
CCB		1	axc2	2/25/2010 13:05:30	OM_2-25-2010_12-14-00
1202049725	955983	1	axc2	2/25/2010 13:07:17	OM_2-25-2010_12-14-00
247046002	955983	1	axc2	2/25/2010 13:08:11	OM_2-25-2010_12-14-00
1202049713	955983	1	axc2	2/25/2010 13:09:06	OM_2-25-2010_12-14-00
1202049717	955983	1	axc2	2/25/2010 13:09:59	OM_2-25-2010_12-14-00
1202049721	955983	1	axc2	2/25/2010 13:10:52	OM_2-25-2010_12-14-00
247261003	955983	1	axc2	2/25/2010 13:11:45	OM_2-25-2010_12-14-00
1202049714	955983	1	axc2	2/25/2010 13:12:39	OM_2-25-2010_12-14-00
1202049718	955983	1	axc2	2/25/2010 13:13:32	OM_2-25-2010_12-14-00
1202049722	955983	1	axc2	2/25/2010 13:14:25	OM_2-25-2010_12-14-00
247394001	955983	1	axc2	2/25/2010 13:15:18	OM_2-25-2010_12-14-00
CCV		1	axc2	2/25/2010 13:16:10	OM_2-25-2010_12-14-00
CCB		1	axc2	2/25/2010 13:18:01	OM_2-25-2010_12-14-00

247402001	955983	1	axc2	2/25/2010	13:19:49	OM_2-25-2010_12-14-00
247402002	955983	1	axc2	2/25/2010	13:20:42	OM_2-25-2010_12-14-00
247402004	955983	1	axc2	2/25/2010	13:21:34	OM_2-25-2010_12-14-00
247431001	955983	1	axc2	2/25/2010	13:22:27	OM_2-25-2010_12-14-00
247438001	955983	1	axc2	2/25/2010	13:23:19	OM_2-25-2010_12-14-00
1202049715	955983	1	axc2	2/25/2010	13:24:10	OM_2-25-2010_12-14-00
1202049719	955983	1	axc2	2/25/2010	13:25:05	OM_2-25-2010_12-14-00
1202049723	955983	1	axc2	2/25/2010	13:25:59	OM_2-25-2010_12-14-00
247441001	955983	1	axc2	2/25/2010	13:26:53	OM_2-25-2010_12-14-00
247449001	955983	1	axc2	2/25/2010	13:27:47	OM_2-25-2010_12-14-00
CCV		1	axc2	2/25/2010	13:28:39	OM_2-25-2010_12-14-00
CCB		1	axc2	2/25/2010	13:30:29	OM_2-25-2010_12-14-00
247505001	955983	1	axc2	2/25/2010	13:32:20	OM_2-25-2010_12-14-00
1202049716	955983	1	axc2	2/25/2010	13:33:12	OM_2-25-2010_12-14-00
1202049720	955983	1	axc2	2/25/2010	13:34:06	OM_2-25-2010_12-14-00
1202049724	955983	1	axc2	2/25/2010	13:34:59	OM_2-25-2010_12-14-00
247505002	955983	1	axc2	2/25/2010	13:35:52	OM_2-25-2010_12-14-00
247505003	955983	1	axc2	2/25/2010	13:36:45	OM_2-25-2010_12-14-00
247505004	955983	1	axc2	2/25/2010	13:37:38	OM_2-25-2010_12-14-00
247505005	955983	1	axc2	2/25/2010	13:38:30	OM_2-25-2010_12-14-00
247533001	955983	1	axc2	2/25/2010	13:39:22	OM_2-25-2010_12-14-00
247533002	955983	1	axc2	2/25/2010	13:40:14	OM_2-25-2010_12-14-00
CCV		1	axc2	2/25/2010	13:41:07	OM_2-25-2010_12-14-00
CCB		1	axc2	2/25/2010	13:42:58	OM_2-25-2010_12-14-00
247548001	955983	1	axc2	2/25/2010	13:44:45	OM_2-25-2010_12-14-00
247548002	955983	1	axc2	2/25/2010	13:45:40	OM_2-25-2010_12-14-00
247273002	954509	2	axc2	2/25/2010	13:46:32	OM_2-25-2010_12-14-00
247533001	955983	10	axc2	2/25/2010	13:47:24	OM_2-25-2010_12-14-00
247533002	955983	25	axc2	2/25/2010	13:48:16	OM_2-25-2010_12-14-00
CCV		1	axc2	2/25/2010	13:49:09	OM_2-25-2010_12-14-00
CCB		1	axc2	2/25/2010	13:50:59	OM_2-25-2010_12-14-00

Author: axc2 Date : 2/25/2010

Original Run Filename: OM_2-25-2010_12-14-00.OMN created 2/25/2010 12:14:00
Original Run Author's Signature: [axc2]
Current Run Filename: OM_2-25-2010_12-14-00.OMN last modified 2/25/2010 13:52:05
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100225-01	1	S1	200	9.64	2/25/2010@12:17:22			200 ppb
WCN100225-02	1	S2	150	7.20	2/25/2010@12:18:14			150 ppb
WCN100225-03	1	S3	100	4.68	2/25/2010@12:19:07			100 ppb
WCN100225-04	1	S4	50.0	2.51	2/25/2010@12:20:00			50 ppb
WCN100225-05	1	S5	10.0	0.629	2/25/2010@12:20:53			10 ppb
WCN100225-06	1	S6	5.00	0.384	2/25/2010@12:21:47			CRDL 5.0 ppb
WCN100225-08	1	S7	0.00	0.0380	2/25/2010@12:22:41			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99976 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100225-07	1	S8	148	7.12	2/25/2010@12:24:32			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-1.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-1.2 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100225-08	1	S7	0.328	0.111	2/25/2010@12:26:22			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.328 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.328 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100225-06	1	S6	6.32	0.395	2/25/2010@12:28:12			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	6.32 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	6.32 > 2.50					
		Message	Pass					
		Action	None					
1202046116|954509|MB	1	1	-1.07	0.0449	2/25/2010@12:30:02			
1202046123||LCS	1	2	492	23.4	2/25/2010@12:30:55		25.00	
247103001	1	3	2.33	0.206	2/25/2010@12:31:48			
247103002	1	4	-2.02	-4.98e-4	2/25/2010@12:32:41			
247103003	1	5	1.28	0.156	2/25/2010@12:33:34			
247103004	1	6	-0.839	0.0556	2/25/2010@12:34:27			
247103005	1	7	-0.982	0.0489	2/25/2010@12:35:20			
247103006	1	8	-0.483	0.0725	2/25/2010@12:36:12			
247103007	1	9	0.0851	0.0994	2/25/2010@12:37:04			
247103008	1	10	-2.02	-2.21e-4	2/25/2010@12:37:57			
WCN100225-03	1	S3	103	4.99	2/25/2010@12:38:49			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.2 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100225-08	1	S7	-2.01	2.30e-4	2/25/2010@12:40:39			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.01 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.01 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202046123||LCS	1	2	27.6	1.41	2/25/2010@12:42:29		25.00	
247103009	1	11	0.343	0.112	2/25/2010@12:43:21			
247103010	1	12	-0.641	0.0650	2/25/2010@12:44:13			
247103011	1	13	1.10	0.148	2/25/2010@12:45:05			
247103012	1	14	0.143	0.102	2/25/2010@12:45:56			
247103013	1	15	-2.03	-7.26e-4	2/25/2010@12:46:48			
247103014	1	16	0.252	0.107	2/25/2010@12:47:42			
247103015	1	17	-0.684	0.0630	2/25/2010@12:48:35			
247123001	1	18	-1.43	0.0275	2/25/2010@12:49:29			
1202046117||DUP	1	19	-2.01	2.15e-4	2/25/2010@12:50:22			
WCN100225-03	1	S3	104	5.03	2/25/2010@12:51:15			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100225-08	1	S7	-0.919	0.0518	2/25/2010@12:53:06			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.919 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.919 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202046119||MS	1	20	105	5.07	2/25/2010@12:54:54			
1202046121||MSD	1	21	102	4.93	2/25/2010@12:55:47			
247123002	1	22	-1.18	0.0395	2/25/2010@12:56:40			
1202046118||DUP	1	23	-1.98	0.00160	2/25/2010@12:57:33			
1202046120||MS	1	24	97.4	4.71	2/25/2010@12:58:26			
1202046122||MSD	1	25	75.3	3.66	2/25/2010@12:59:18			
247123003	1	26	-1.24	0.0366	2/25/2010@13:00:11			
247123004	1	27	-1.41	0.0287	2/25/2010@13:01:03			
247273002	1	28	218	10.4	2/25/2010@13:01:56			
1202049712|955983|MB	1	29	0.307	0.110	2/25/2010@13:02:48			
WCN100225-03	1	S3	104	5.04	2/25/2010@13:03:40			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100225-08	1	S7	-1.35	0.0312	2/25/2010@13:05:30			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.35 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.35 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202049725|LCS	1	30	53.2	2.62	2/25/2010@13:07:17			
247046002	1	31	-1.20	0.0386	2/25/2010@13:08:11			
1202049713|DUP	1	32	-1.16	0.0403	2/25/2010@13:09:06			
1202049717|MS	1	33	110	5.30	2/25/2010@13:09:59			
1202049721|MSD	1	34	112	5.43	2/25/2010@13:10:52			
247261003	1	35	-1.14	0.0416	2/25/2010@13:11:45			
1202049714|DUP	1	36	-1.44	0.0273	2/25/2010@13:12:39			
1202049718|MS	1	37	111	5.38	2/25/2010@13:13:32			
1202049722|MSD	1	38	105	5.05	2/25/2010@13:14:25			
247394001	1	39	-1.18	0.0397	2/25/2010@13:15:18			
WCN100225-03	1	S3	105	5.07	2/25/2010@13:16:10			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100225-08	1	S7	-1.41	0.0283	2/25/2010@13:18:01			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.41 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.41 > -5.00					
		Message	CCB Passed					
		Action	Continue					
247402001	1	40	-1.02	0.0469	2/25/2010@13:19:49			
247402002	1	41	-0.885	0.0535	2/25/2010@13:20:42			
247402004	1	42	-0.633	0.0654	2/25/2010@13:21:34			
247431001	1	43	-1.65	0.0173	2/25/2010@13:22:27			
247438001	1	44	-1.24	0.0365	2/25/2010@13:23:19			
1202049715|DUP	1	45	-1.40	0.0289	2/25/2010@13:24:10			
1202049719|MS	1	46	99.6	4.82	2/25/2010@13:25:05			
1202049723|MSD	1	47	111	5.37	2/25/2010@13:25:59			
247441001	1	48	-1.19	0.0390	2/25/2010@13:26:53			
247449001	1	49	0.0261	0.0966	2/25/2010@13:27:47			
WCN100225-03	1	S3	103	5.00	2/25/2010@13:28:39			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100225-08	1	S7	-1.29	0.0343	2/25/2010@13:30:29			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.29 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.29 > -5.00					
		Message	CCB Passed					
		Action	Continue					

247505001	1	50	-0.496	0.0719	2/25/2010@13:32:20			
1202049716||DUP	1	51	-1.17	0.0398	2/25/2010@13:33:12			
1202049720||MS	1	52	96.2	4.65	2/25/2010@13:34:06			
1202049724||MSD	1	53	100	4.83	2/25/2010@13:34:59			
247505002	1	54	-1.29	0.0342	2/25/2010@13:35:52			
247505003	1	55	-1.28	0.0346	2/25/2010@13:36:45			
247505004	1	56	-1.98	0.00137	2/25/2010@13:37:38			
247505005	1	57	-1.07	0.0448	2/25/2010@13:38:30			
247533001	1	58	476	22.7	2/25/2010@13:39:22			
247533002	1	59	1.91e+3	90.9	2/25/2010@13:40:14			
WCN100225-03	1	S3	110	5.30	2/25/2010@13:41:07			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			9.9 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			9.9 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100225-08	1	S7	-0.877	0.0538	2/25/2010@13:42:58			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-0.877 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.877 > -5.00					
Message			CCB Passed					
Action			Continue					
247548001	1	60	-1.11	0.0426	2/25/2010@13:44:45			
247548002	1	61	1.17	0.151	2/25/2010@13:45:40			
247273002|954509|	1	28	106	5.10	2/25/2010@13:46:32		2.00	
247533001|955983|	1	58	43.8	2.17	2/25/2010@13:47:24		10.00	
247533002	1	59	183	8.78	2/25/2010@13:48:16		25.00	
WCN100225-03	1	S3	104	5.01	2/25/2010@13:49:09			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			3.7 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			3.7 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100225-08	1	S7	-0.996	0.0482	2/25/2010@13:50:59			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-0.996 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.996 > -5.00					
Message			CCB Passed					
Action			Continue					

Analyte Properties Table for OM_2-25-2010_12-14-00.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A

Author: axc2 Date : 2/25/2010

Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

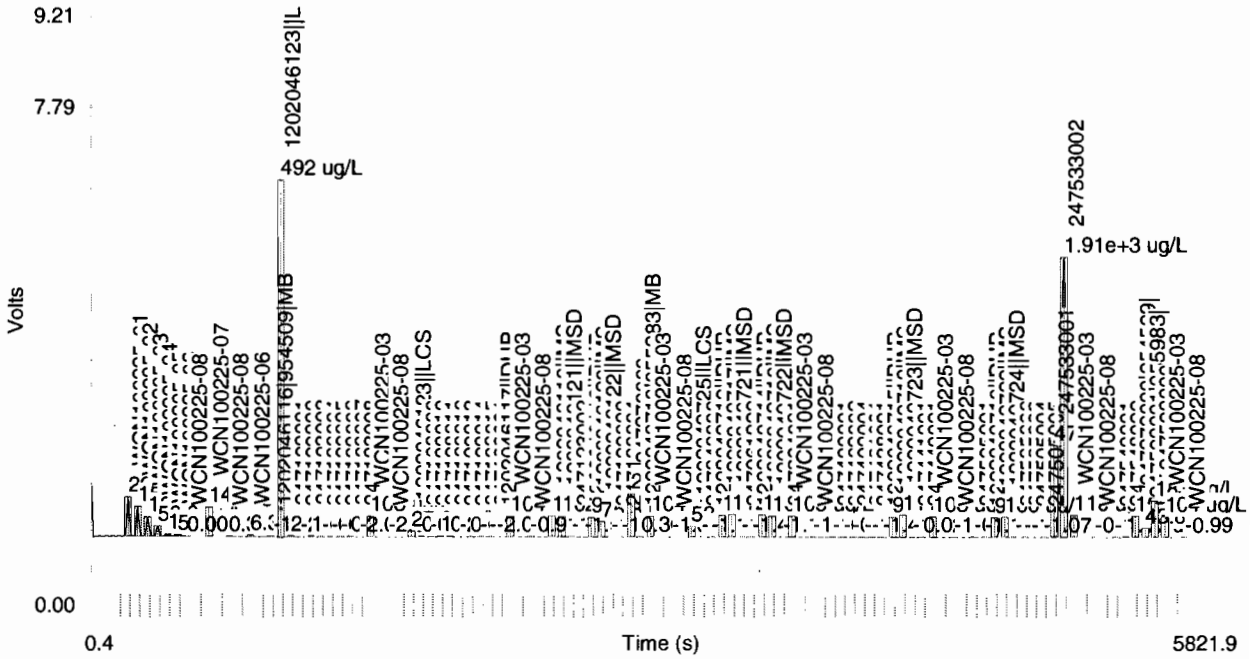

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	9.64	0.609	-0.7	2/25/2010	12:18:25
2	150	1	7.20	0.459	0.0	2/25/2010	12:19:17
3	100	1	4.68	0.300	3.2	2/25/2010	12:20:10
4	50.0	1	2.51	0.160	-1.8	2/25/2010	12:21:03
5	10.0	1	0.629	0.0395	-10.1	2/25/2010	12:21:56
6	5.00	1	0.384	0.0226	-14.9	2/25/2010	12:22:50
7	0.00	1	0.0380	0.00110		2/25/2010	12:23:44

Author: axc2 Date : 2/25/2010

Figure 1: TCYANIDE

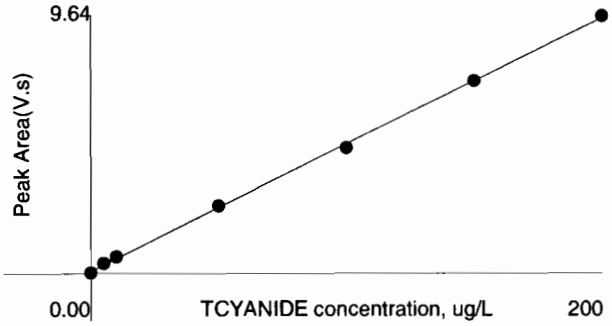

Area = 0.0474 * Conc + 0.0971
Conc = 21.1 * Area - 2.01
Correlation Coefficient (r) = 0.99976

No Weighting

Ion Chromatography

This is runlog for Sequence 100311.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	02/26/10 14:29		1	100311	GXM3
ICAL-06	02/26/10 14:59		1	100311	GXM3
ICAL-05	02/26/10 15:28		1	100311	GXM3
ICAL-04	02/26/10 15:58		1	100311	GXM3
ICAL-03	02/26/10 16:28		1	100311	GXM3
ICAL-02	02/26/10 16:58		1	100311	GXM3
ICAL-01	02/26/10 17:28		1	100311	GXM3

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 14:29	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

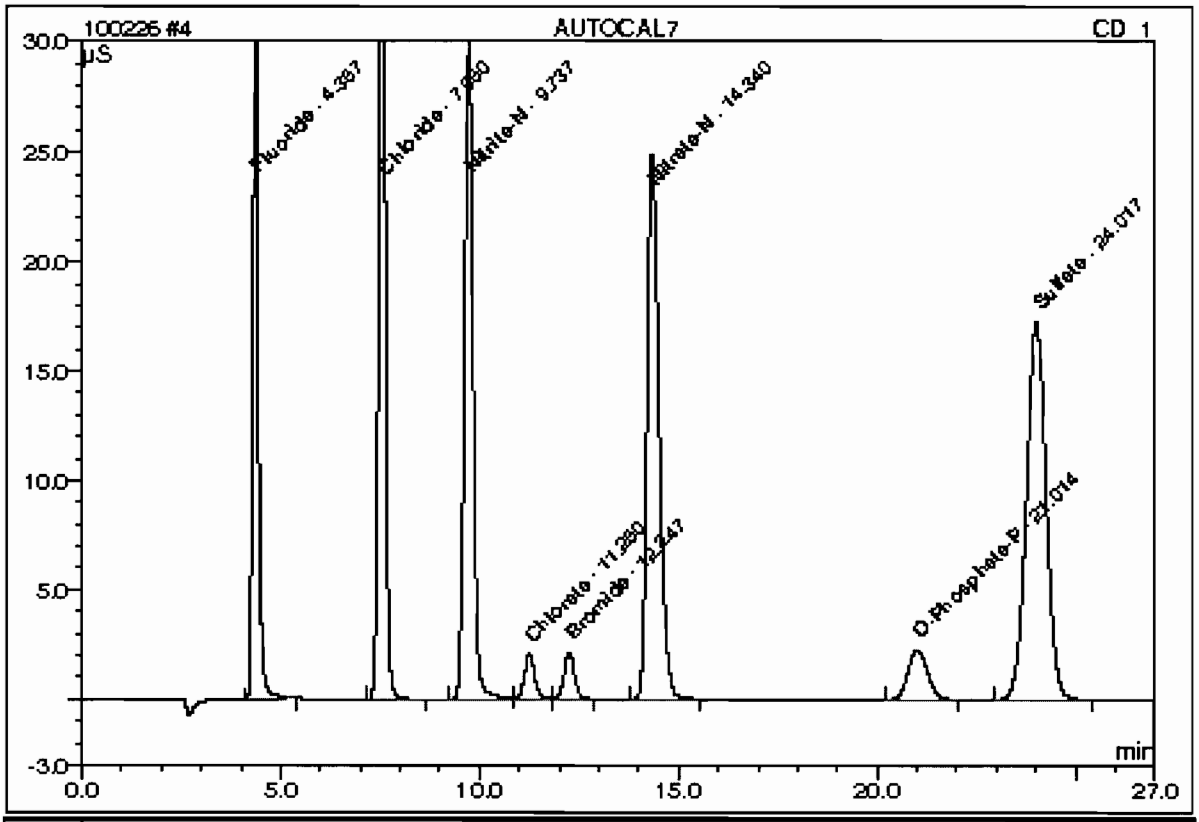

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.37	Fluoride	10.0000	10.0089		5.17293	12.53
2	7.56	Chloride	20.0000	20.0282		7.48637	18.14
3	9.74	Nitrite-N	10.0000	10.0103		7.50155	18.17
4	11.25	Chlorate	5.0000	5.0704		0.60764	1.47
5	12.25	Bromide	5.0000	5.0446		0.64007	1.55
6	14.34	Nitrate-N	10.0000	10.0132		8.61510	20.87
7	21.01	O-Phosphate-P	5.0000	5.3556		1.28170	3.11
8	24.02	Sulfate	40.0000	40.0413		9.96929	24.15
Total:				105.5724	0.000	41.275	100.00

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 14:59	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

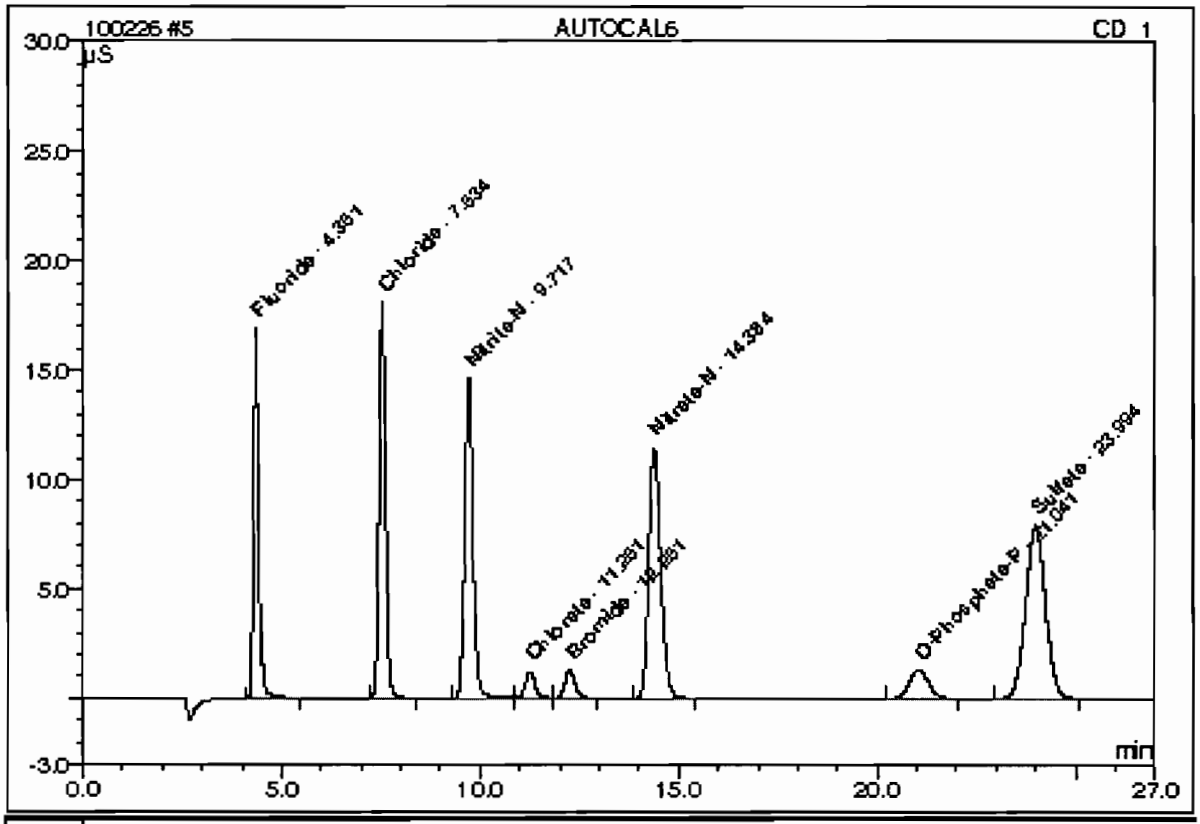

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	5.0000	4.8821		2.49823	12.80
2	7.53	Chloride	10.0000	9.2680		3.37962	17.32
3	9.72	Nitrite-N	5.0000	4.8519		3.59051	18.40
4	11.25	Chlorate	3.0000	2.9576		0.35494	1.82
5	12.25	Bromide	3.0000	2.9844		0.37955	1.94
6	14.38	Nitrate-N	5.0000	4.6879		3.93722	20.17
7	21.04	O-Phosphate-P	3.0000	3.0697		0.73810	3.78
8	23.99	Sulfate	20.0000	18.9886		4.63933	23.77
Total:				51.6902	0.000	19.517	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 15:28	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

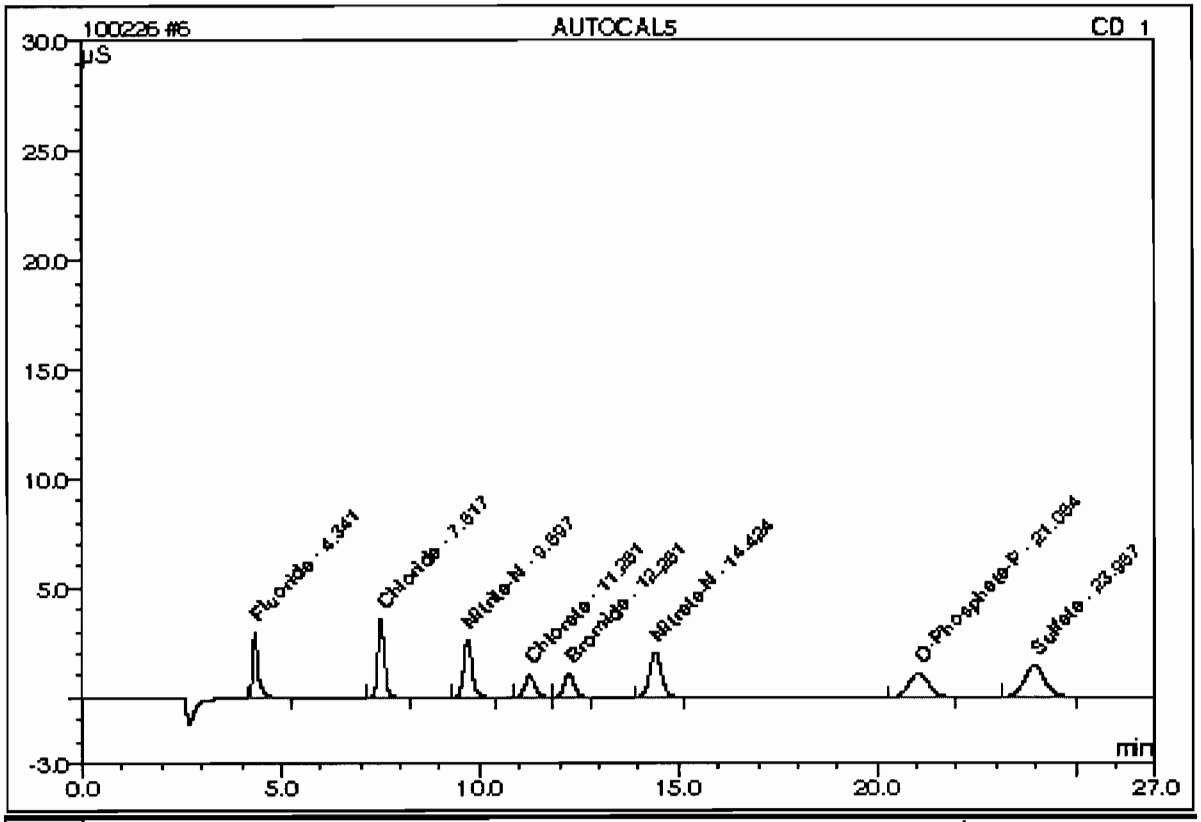

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	1.0000	0.9835		0.48520	10.55
2	7.52	Chloride	2.0000	2.0144		0.69068	15.02
3	9.70	Nitrite-N	1.0000	0.9293		0.64565	14.04
4	11.25	Chlorate	2.5000	2.4181		0.28784	6.26
5	12.25	Bromide	2.5000	2.4815		0.31507	6.85
6	14.42	Nitrate-N	1.0000	0.9207		0.70125	15.25
7	21.05	O-Phosphate-P	2.5000	2.5218		0.61342	13.34
8	23.97	Sulfate	4.0000	3.7785		0.85932	18.69
Total:				16.0479	0.000	4.598	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 15:58	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

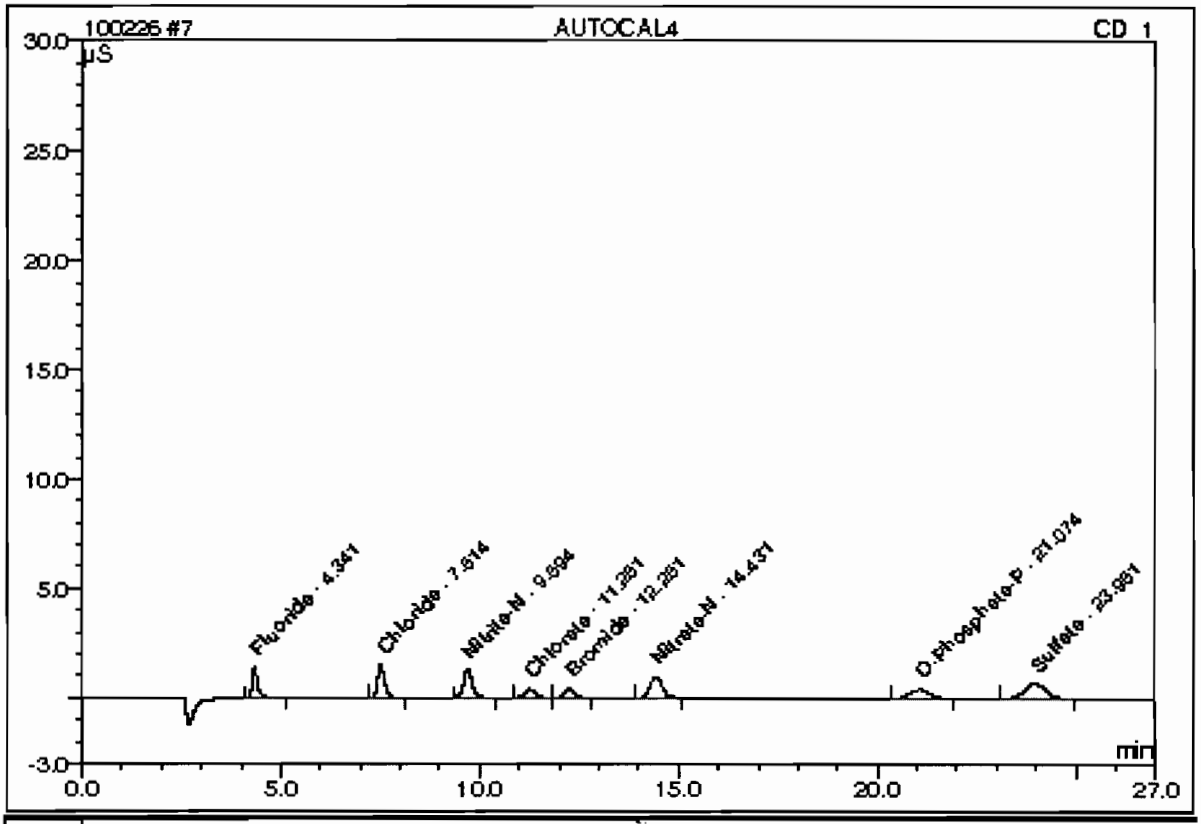

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	0.5000	0.4876		0.22674	10.95
2	7.51	Chloride	1.0000	0.9962		0.30574	14.76
3	9.69	Nitrite-N	0.5000	0.4958		0.31546	15.23
4	11.25	Chlorate	1.0000	0.9869		0.11408	5.51
5	12.25	Bromide	1.0000	0.9898		0.12420	6.00
6	14.43	Nitrate-N	0.5000	0.5100		0.34068	16.45
7	21.07	O-Phosphate-P	1.0000	0.9472		0.22299	10.76
8	23.96	Sulfate	2.0000	2.0454		0.42174	20.36
Total:				7.4589	0.000	2.072	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 16:28	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

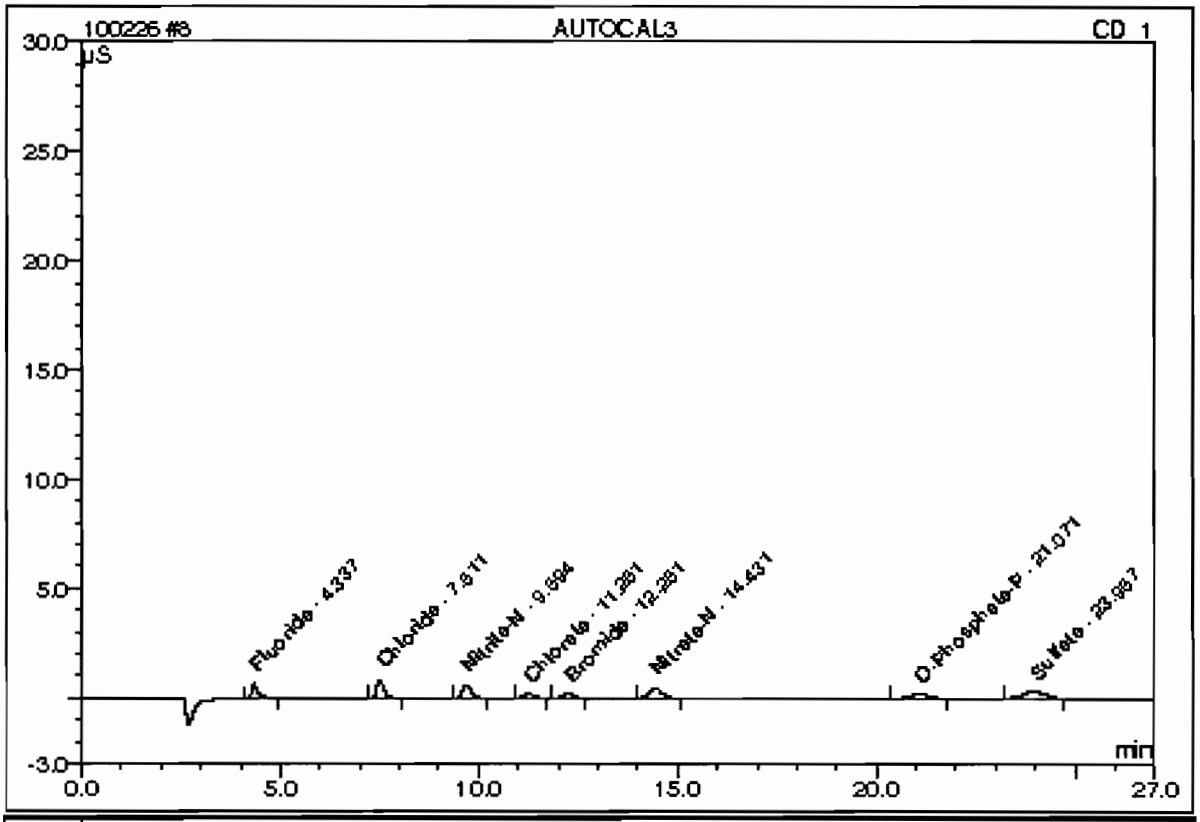

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	0.2500	0.2732		0.11429	11.11
2	7.51	Chloride	0.5000	0.6328		0.16712	16.25
3	9.69	Nitrite-N	0.2500	0.2882		0.15506	15.08
4	11.25	Chlorate	0.5000	0.5030		0.05470	5.32
5	12.25	Bromide	0.5000	0.4969		0.06070	5.90
6	14.43	Nitrate-N	0.2500	0.3206		0.17223	16.75
7	21.07	O-Phosphate-P	0.5000	0.4740		0.09833	9.56
8	23.96	Sulfate	1.0000	1.2003		0.20584	20.02
Total:				4.1891	0.000	1.028	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 16:58	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

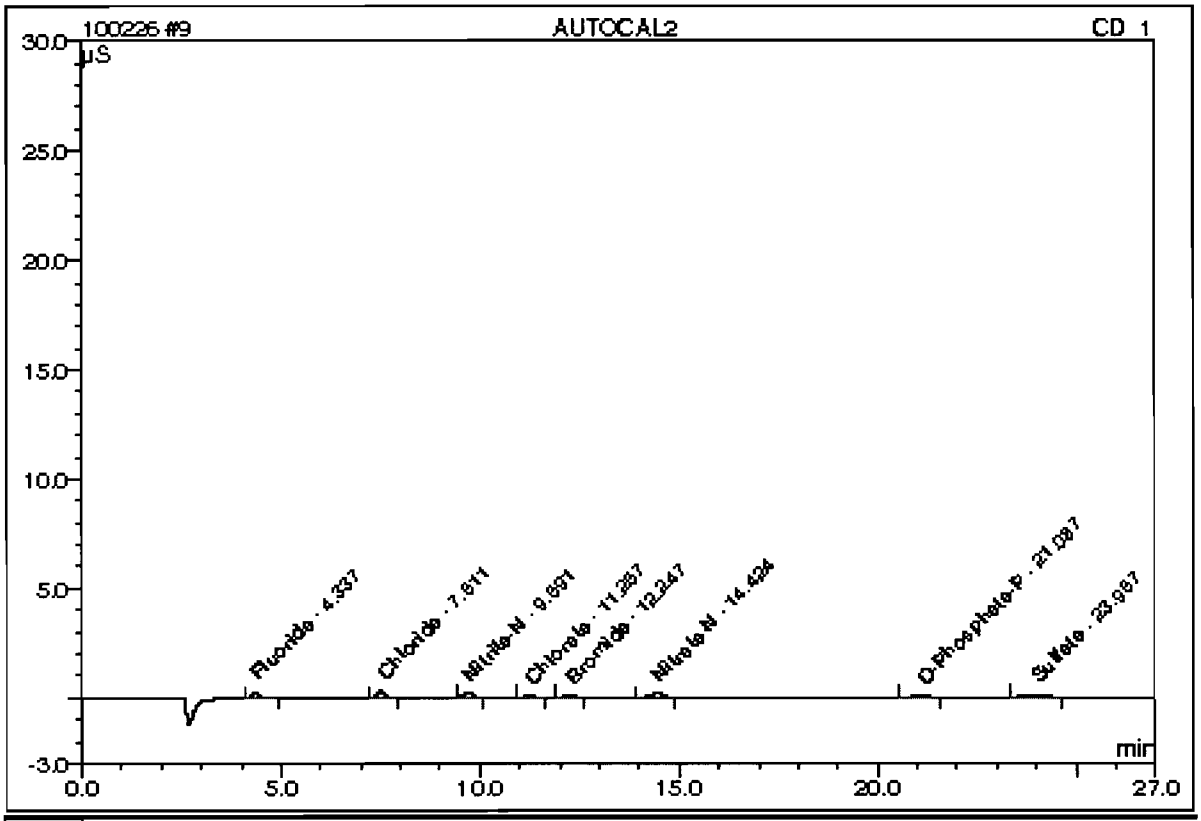

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	0.1000	0.1332		0.04630	12.02
2	7.51	Chloride	0.2000	0.3232		0.06387	16.58
3	9.69	Nitrite-N	0.1000	0.1495		0.06041	15.68
4	11.26	Chlorate	0.2000	0.2188		0.02097	5.44
5	12.25	Bromide	0.2000	0.2015		0.02291	5.95
6	14.42	Nitrate-N	0.1000	0.1778		0.06658	17.28
7	21.09	O-Phosphate-P	0.2000	0.1992		0.02730	7.09
8	23.96	Sulfate	0.4000	0.6242		0.07690	19.96
Total:				2.0274	0.000	0.385	100.00

10 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 17:28	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

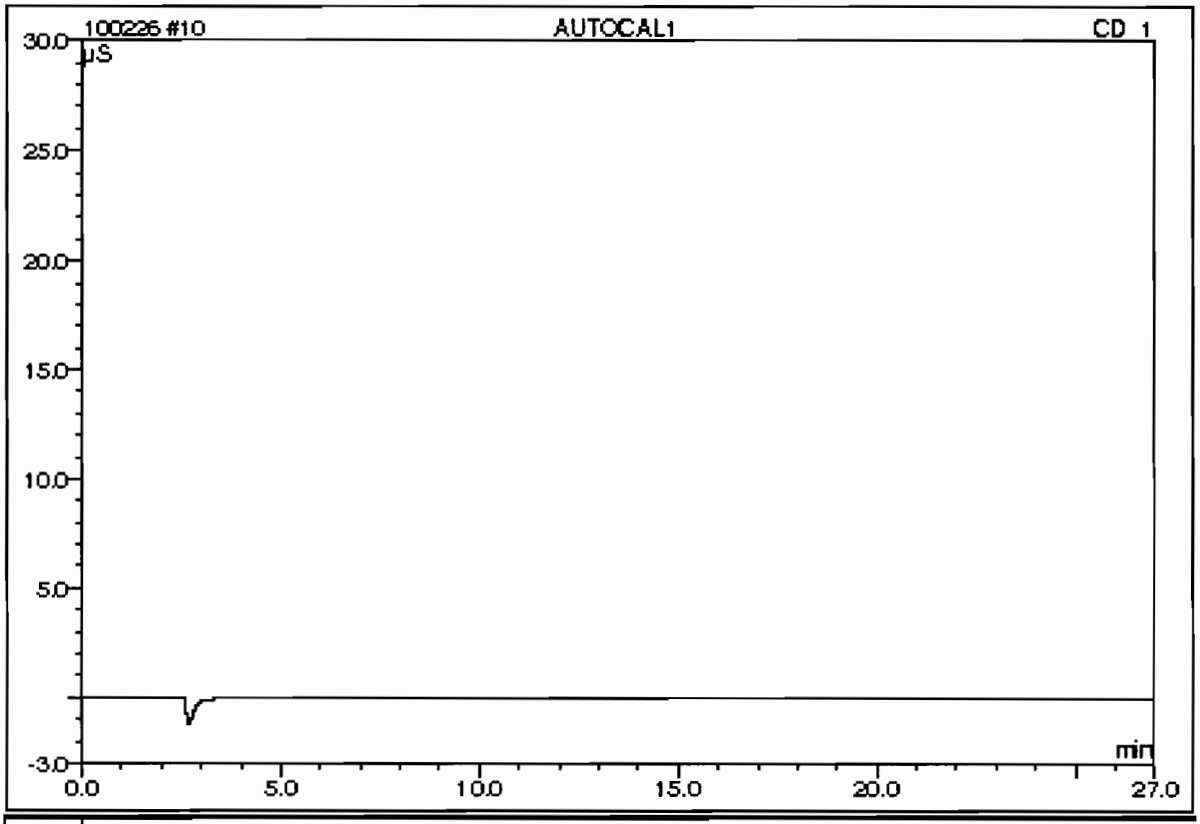

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

10 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 17:28	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002713;GLGCE086;300;9056

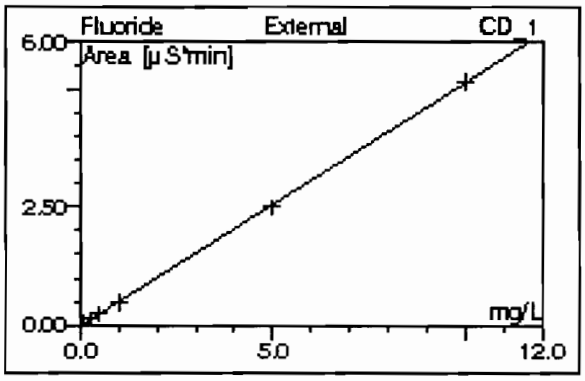

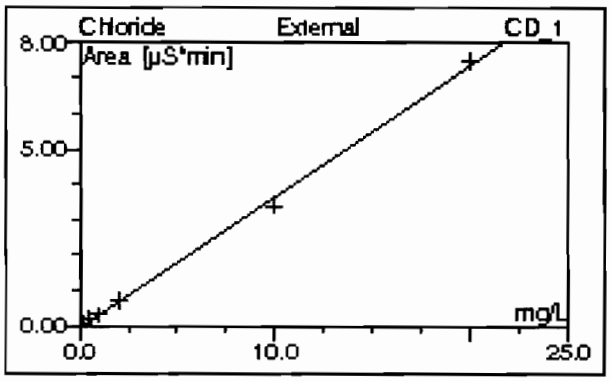

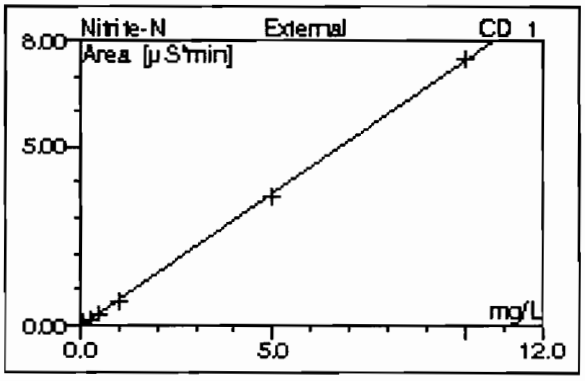

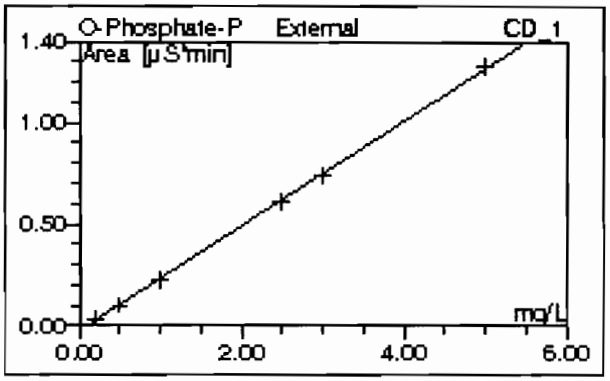

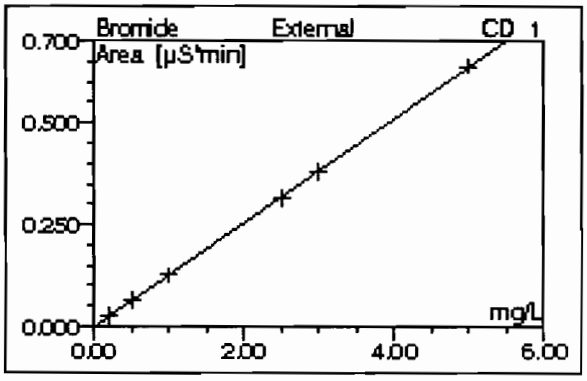

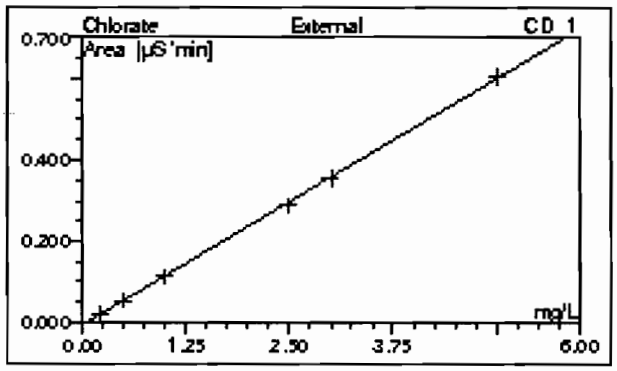

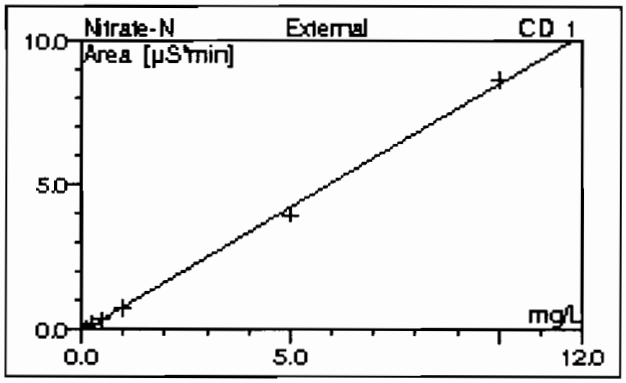

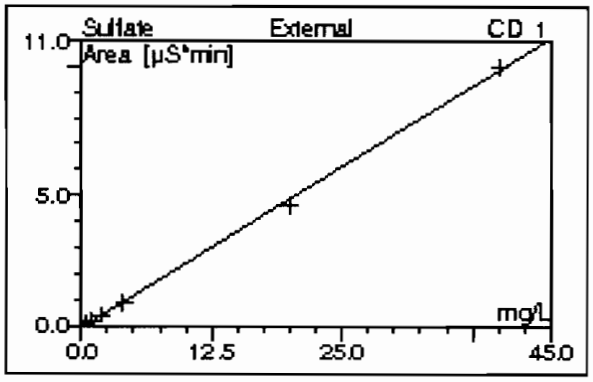

No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	0LO11	99.9752	-0.0225	0.5164	0.0000
n.a.	n.a.	Chloride	0LO11	99.7855	-0.0559	0.3705	0.0000
n.a.	n.a.	Nitrite-N	0LO11	99.9574	-0.0516	0.7496	0.0000
n.a.	n.a.	Chlorate	0LO11	99.9351	-0.0056	0.1212	0.0000
n.a.	n.a.	Bromide	0LO11	99.9942	-0.0029	0.1281	0.0000
n.a.	n.a.	Nitrate-N	0LO11	99.8341	-0.0857	0.8566	0.0000
n.a.	n.a.	O-Phosphate-P	0LO11	99.9473	-0.0242	0.2583	0.0000
n.a.	n.a.	Sulfate	0LO11	99.8946	-0.0779	0.2480	0.0000
Average:				99.9154	-0.0408	0.4061	0.0000

11 WIC100226-02ICV

Sample Name:	WIC100226-02ICV	*Injection Volume:*	50.0
Vial Number:	11	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 17:58	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

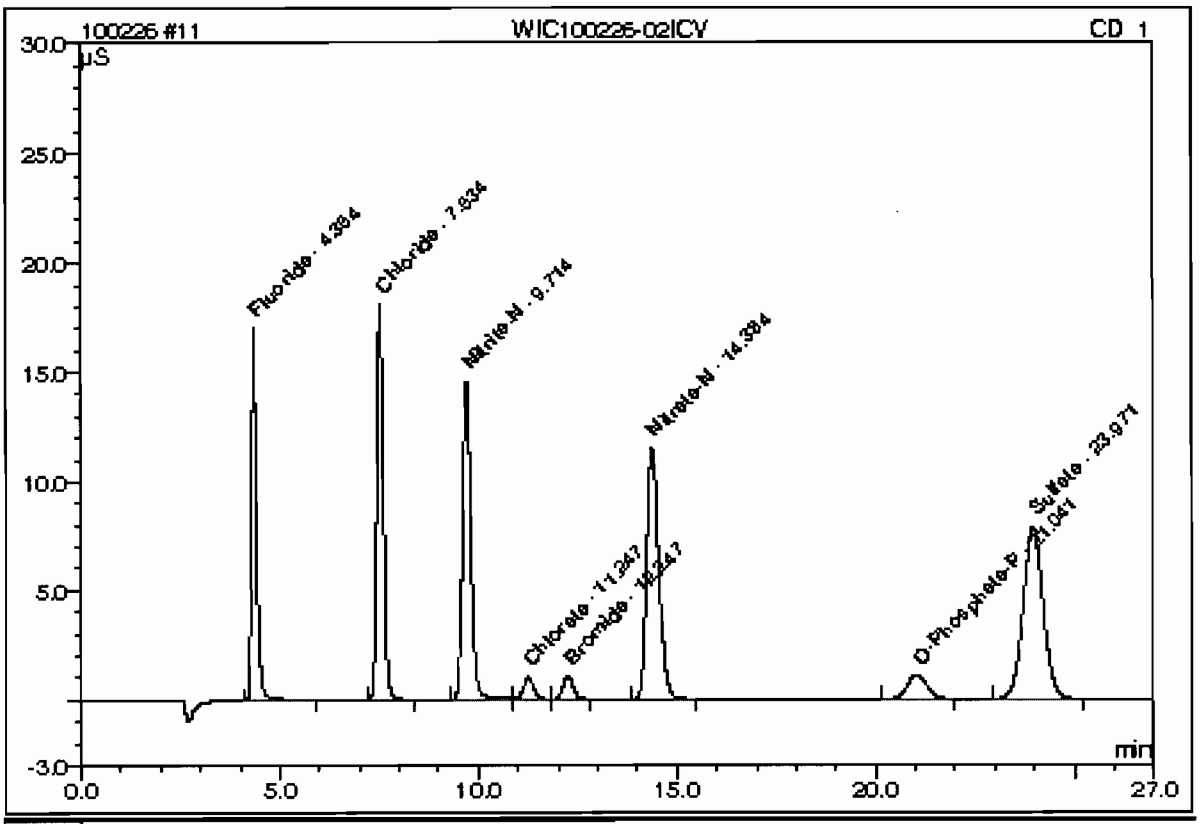

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	n.a.	4.9045		2.51013	13.00
2	7.53	Chloride	n.a.	9.2798		3.38193	17.52
3	9.71	Nitrite-N	n.a.	4.8611		3.59205	18.61
4	11.25	Chlorate	n.a.	2.4929		0.29666	1.54
5	12.25	Bromide	n.a.	2.5024		0.31765	1.65
6	14.38	Nitrate-N	n.a.	4.7351		3.97015	20.56
7	21.04	O-Phosphate-P	n.a.	2.4448		0.60728	3.15
8	23.97	Sulfate	n.a.	18.9837		4.63080	23.99
Total:				50.2043	0.000	19.307	100.00

12 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	12	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 18:27	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

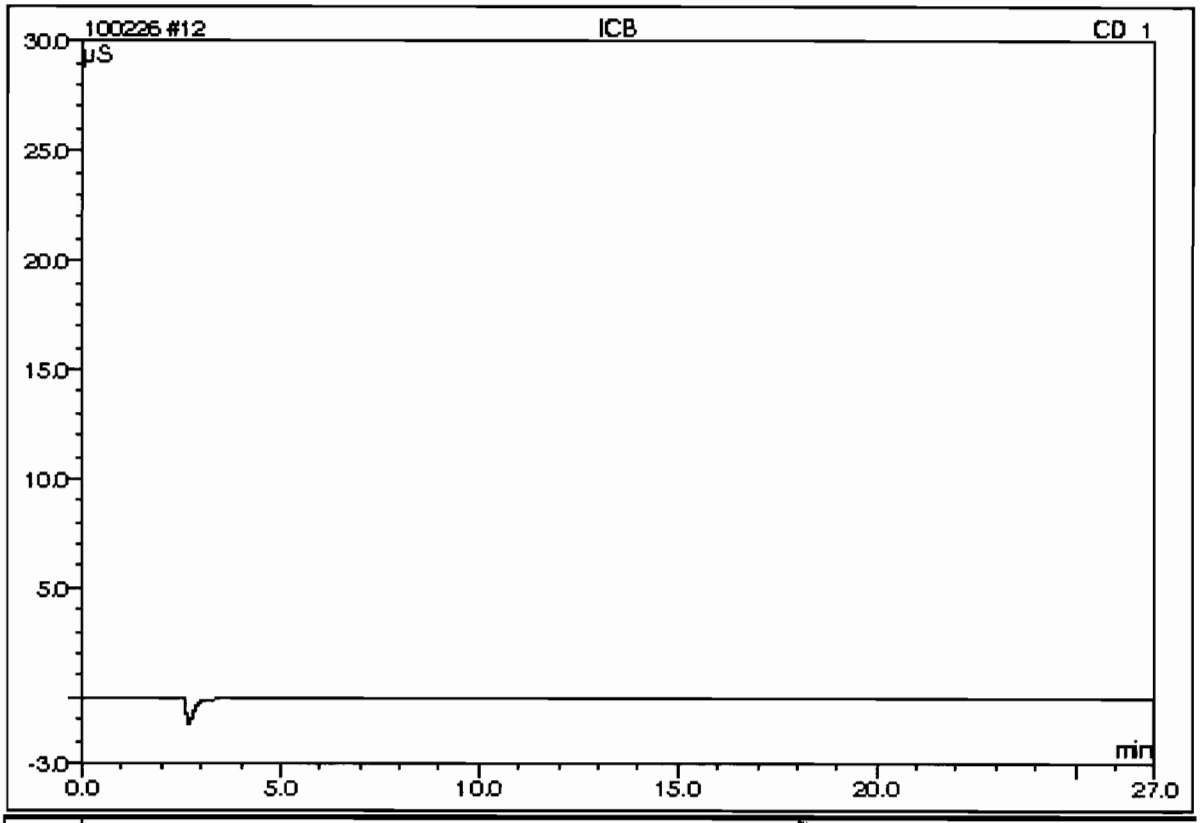

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100310.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/10/10 10:13		1	100310	GXM3
BLK	03/10/10 10:42		1	100310	GXM3
BLK	03/10/10 11:12		1	100310	GXM3
ICV	03/10/10 11:42		1	100310	GXM3
ICB	03/10/10 12:12		1	100310	GXM3
248169004	03/10/10 12:42	963046	2	100310	GXM3
1202066020	03/10/10 13:12	963046	2	100310	GXM3
1202066021	03/10/10 13:42	963046	2	100310	GXM3
CCV	03/10/10 14:12		1	100310	GXM3
CCB	03/10/10 14:42		1	100310	GXM3
248452002	03/10/10 15:12	963207	10	100310	GXM3
1202066363	03/10/10 15:41	963207	10	100310	GXM3
1202066365	03/10/10 16:11	963207	10	100310	GXM3
248452003	03/10/10 16:41	963207	10	100310	GXM3
CVH	03/10/10 17:11		1	100310	GXM3
CCB	03/10/10 17:41		1	100310	GXM3
1202066399	03/10/10 18:11	963224	1	100310	GXM3
1202066402	03/10/10 18:41	963224	1	100310	GXM3
247261004	03/10/10 19:11	963224	1	100310	GXM3
1202066400	03/10/10 19:41	963224	1	100310	GXM3
1202066401	03/10/10 20:11	963224	1	100310	GXM3
247431002	03/10/10 20:41	963224	1	100310	GXM3
247817001	03/10/10 21:10	963224	1	100310	GXM3
247829001	03/10/10 21:40	963224	1	100310	GXM3
248024002	03/10/10 22:10	963224	1	100310	GXM3
248024004	03/10/10 22:40	963224	1	100310	GXM3
CCV	03/10/10 23:10		1	100310	GXM3
CCB	03/10/10 23:40		1	100310	GXM3

11 WIC100309-02ICV

Sample Name:	WIC100309-02ICV	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 11:42	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC B086;300;9056

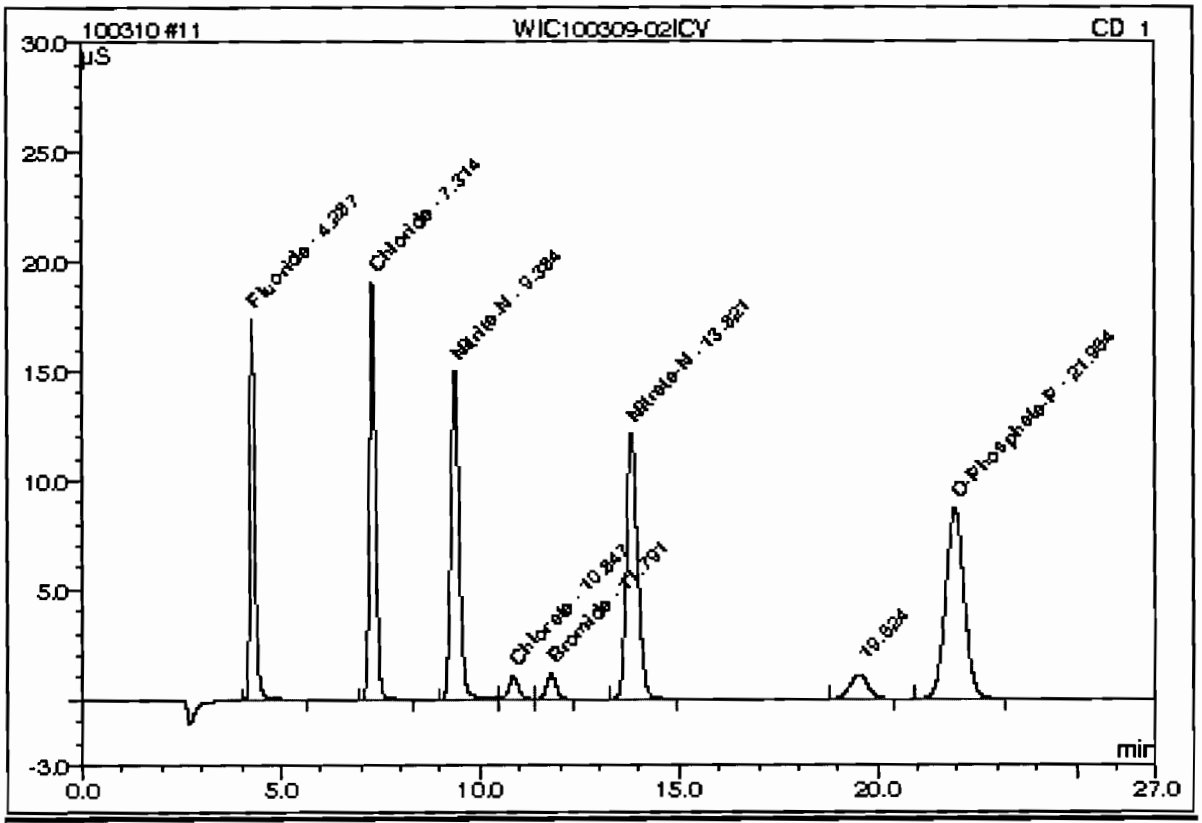

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	n.a.	4.8773		2.49606	12.91
2	7.31	Chloride	n.a.	9.3258		3.39897	17.58
3	9.38	Nitrite-N	n.a.	4.8148		3.55737	18.40
4	10.85	Chlorate	n.a.	2.5311		0.30129	1.56
5	11.79	Bromide	n.a.	2.5086		0.31844	1.65
6	13.82	Nitrate-N	n.a.	4.7730		4.00263	20.71
8	21.95	O-Phosphate-P	n.a.	18.2013		4.67675	24.19
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				47.0319	0.000	18.752	97.00

11 WIC100309-02ICV

Sample Name:	WIC100309-02ICV	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 11:42	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

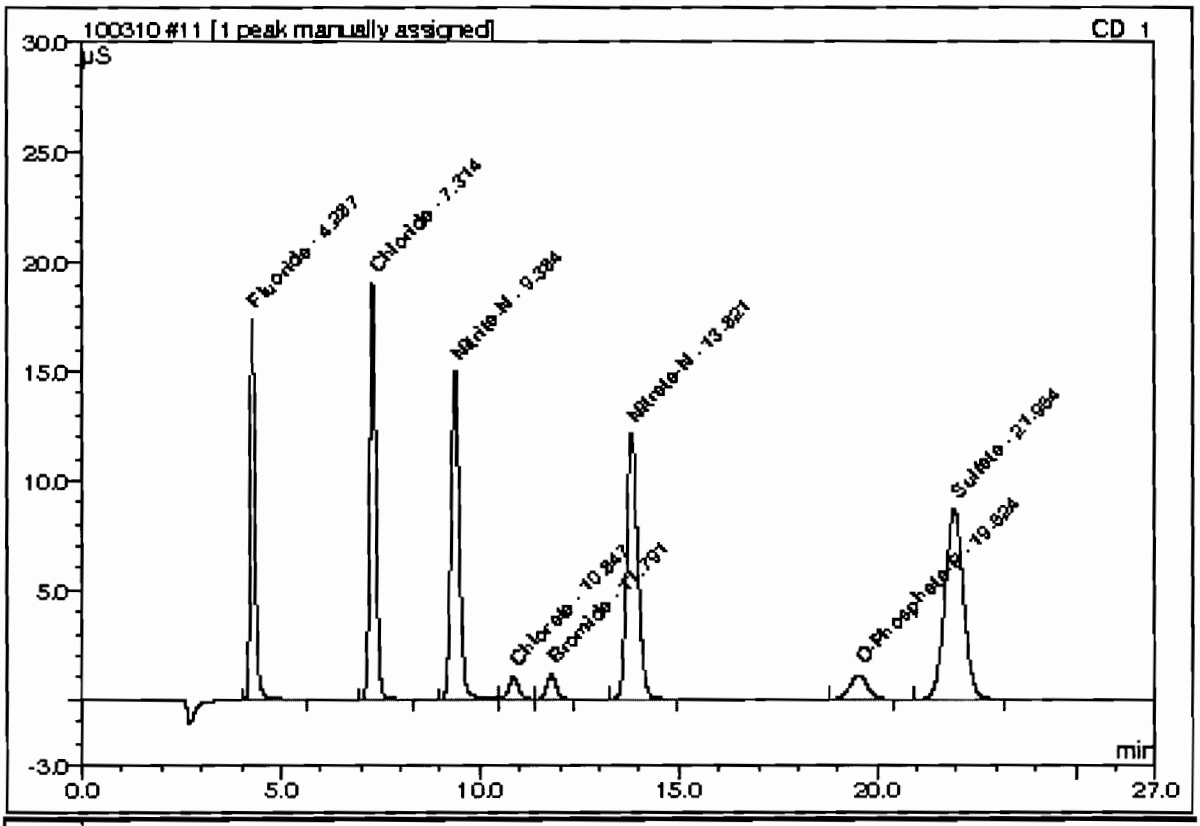

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	n.a.	4.8773		2.49606	12.91
2	7.31	Chloride	n.a.	9.3258		3.39897	17.58
3	9.38	Nitrite-N	n.a.	4.8148		3.55737	18.40
4	10.85	Chlorate	n.a.	2.5311		0.30129	1.56
5	11.79	Bromide	n.a.	2.5086		0.31844	1.65
6	13.82	Nitrate-N	n.a.	4.7730		4.00263	20.71
7	19.52	O-Phosphate-P	n.a.	2.3391		0.57998	3.00
8	21.95	Sulfate	n.a.	19.1690		4.67675	24.19
Total:				50.3387	0.000	19.332	100.00

12 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 12:12	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

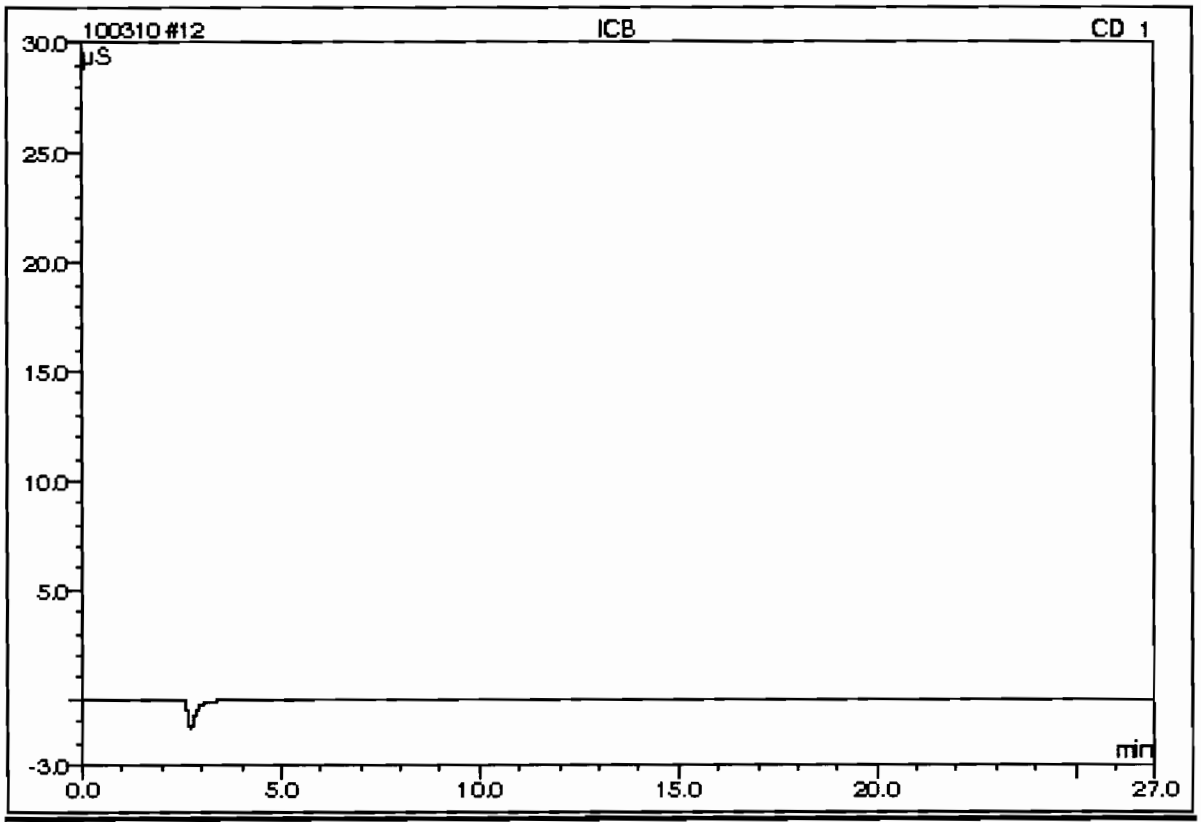

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

22 WIC100309-02CVH

Sample Name:	WIC100309-02CVH	*Injection Volume:*	50.0
Vial Number:	15	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 17:11	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

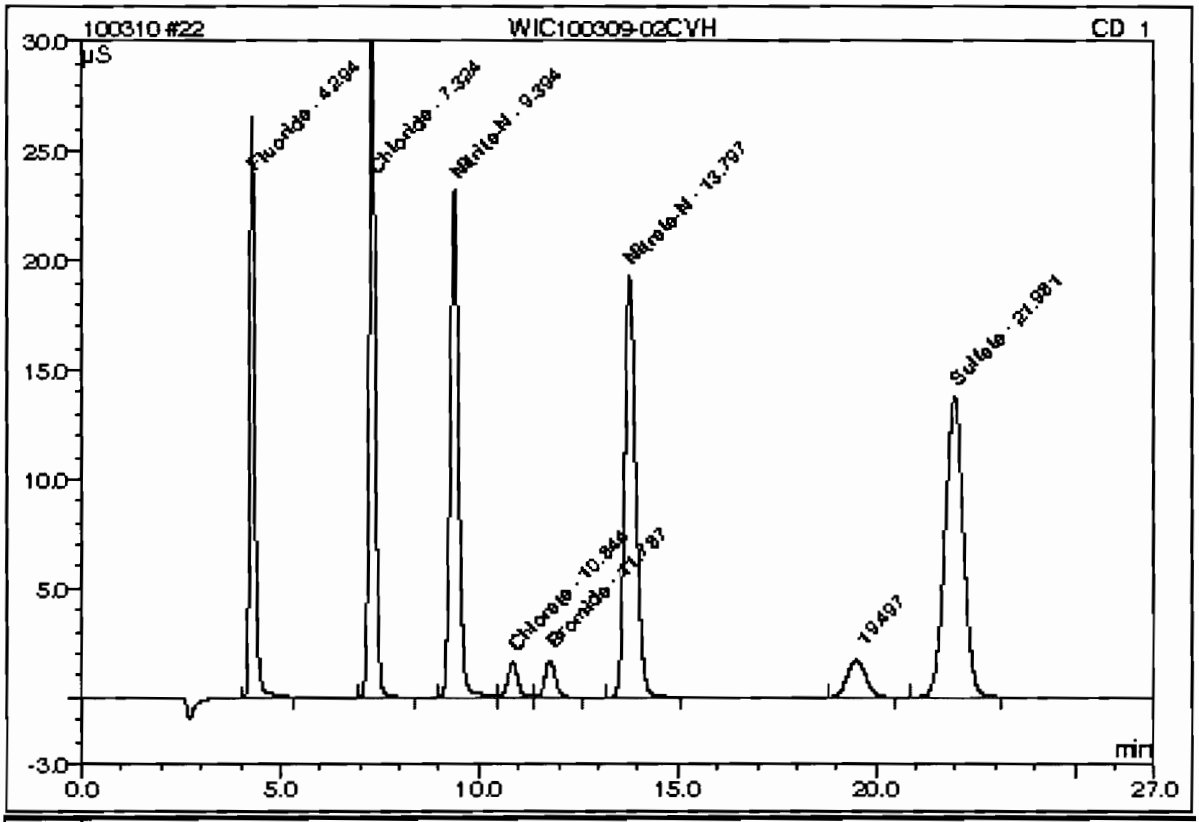

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	n.a.	7.4981		3.84942	12.70
2	7.32	Chloride	n.a.	14.7559		5.41061	17.85
3	9.39	Nitrite-N	n.a.	7.4565		5.53748	18.27
4	10.84	Chlorate	n.a.	3.7660		0.45100	1.49
5	11.79	Bromide	n.a.	3.8241		0.48696	1.61
6	13.80	Nitrate-N	n.a.	7.4675		6.31066	20.82
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
8	21.98	Sulfate	n.a.	35.2620		7.35667	24.27
Total:				80.0301	0.000	29.403	97.01

23 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	16	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 17:41	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

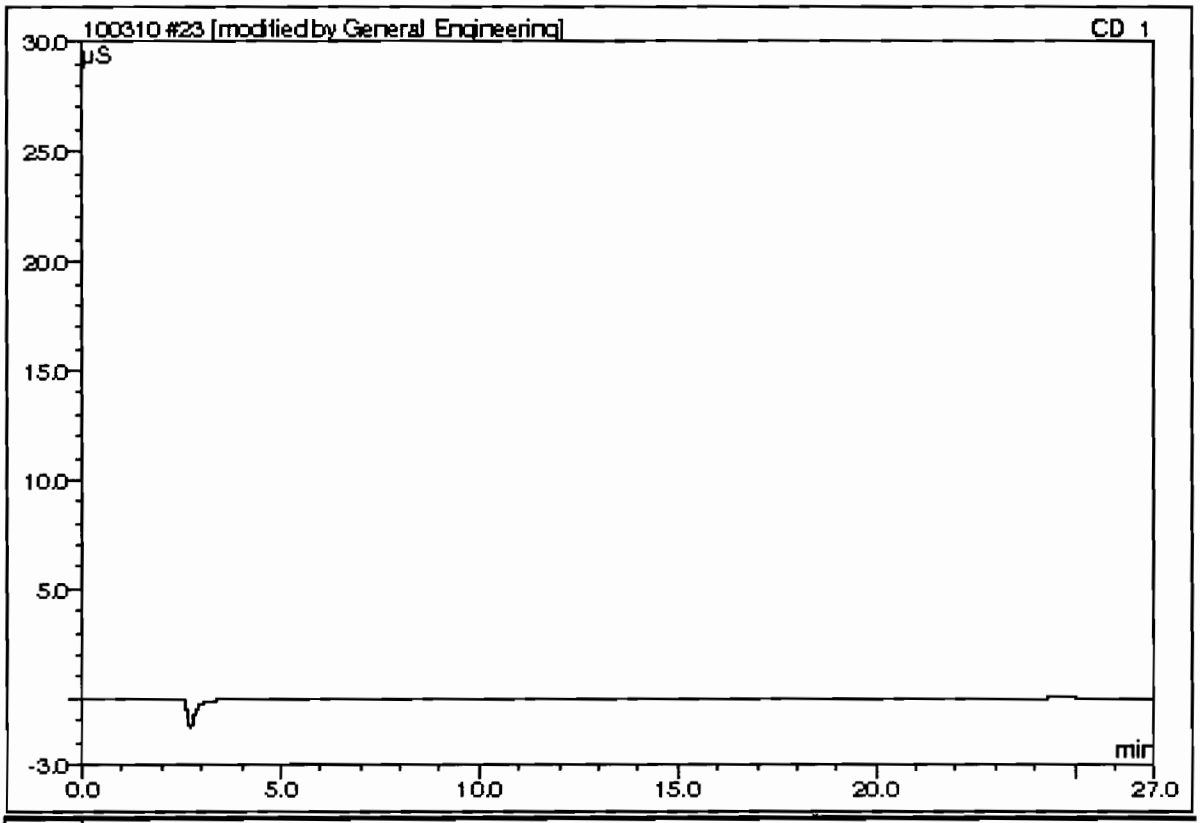

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

24 1202066399/963224/1/1/MB

Sample Name:	1202066399/963224/1/1/MB	*Injection Volume:*	50.0
Vial Number:	17	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 18:11	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

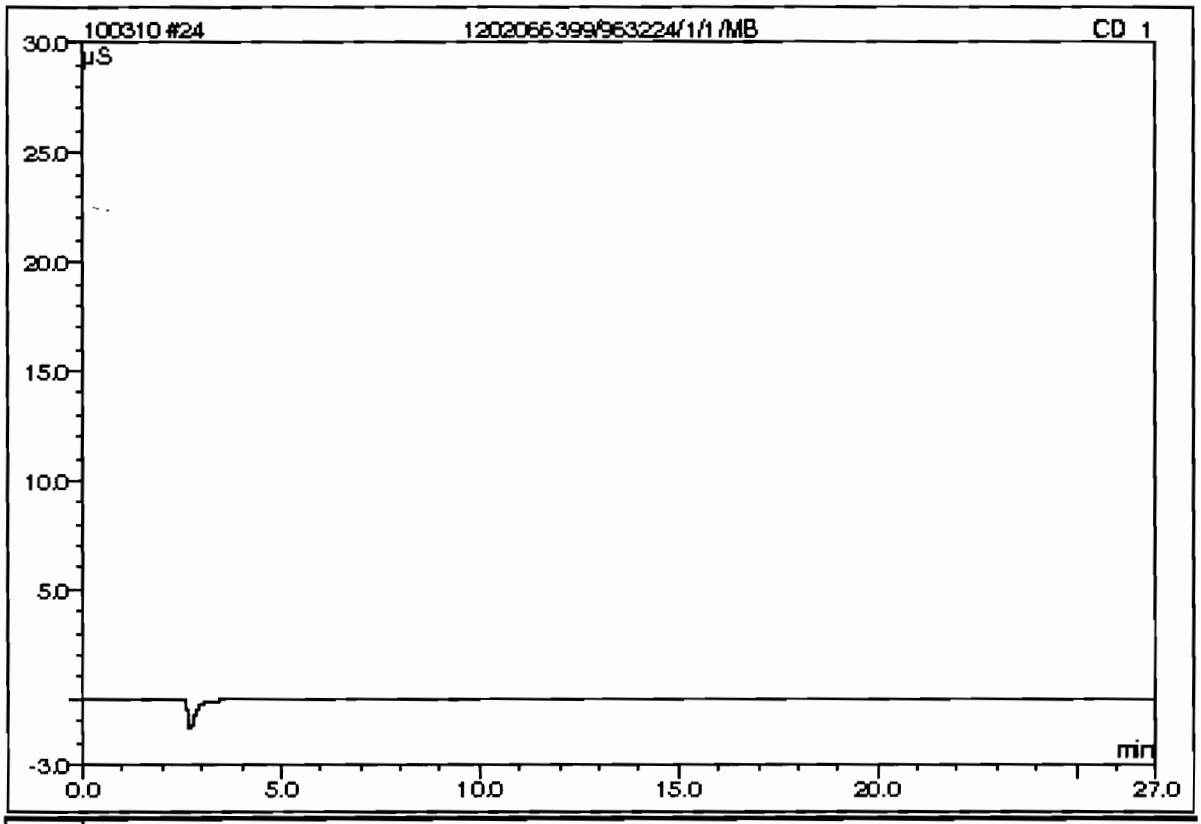

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

25 1202066402/963224/1/1/LCS

Sample Name:	1202066402/963224/1/1/LCS	*Injection Volume:*	50.0
Vial Number:	18	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 18:41	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

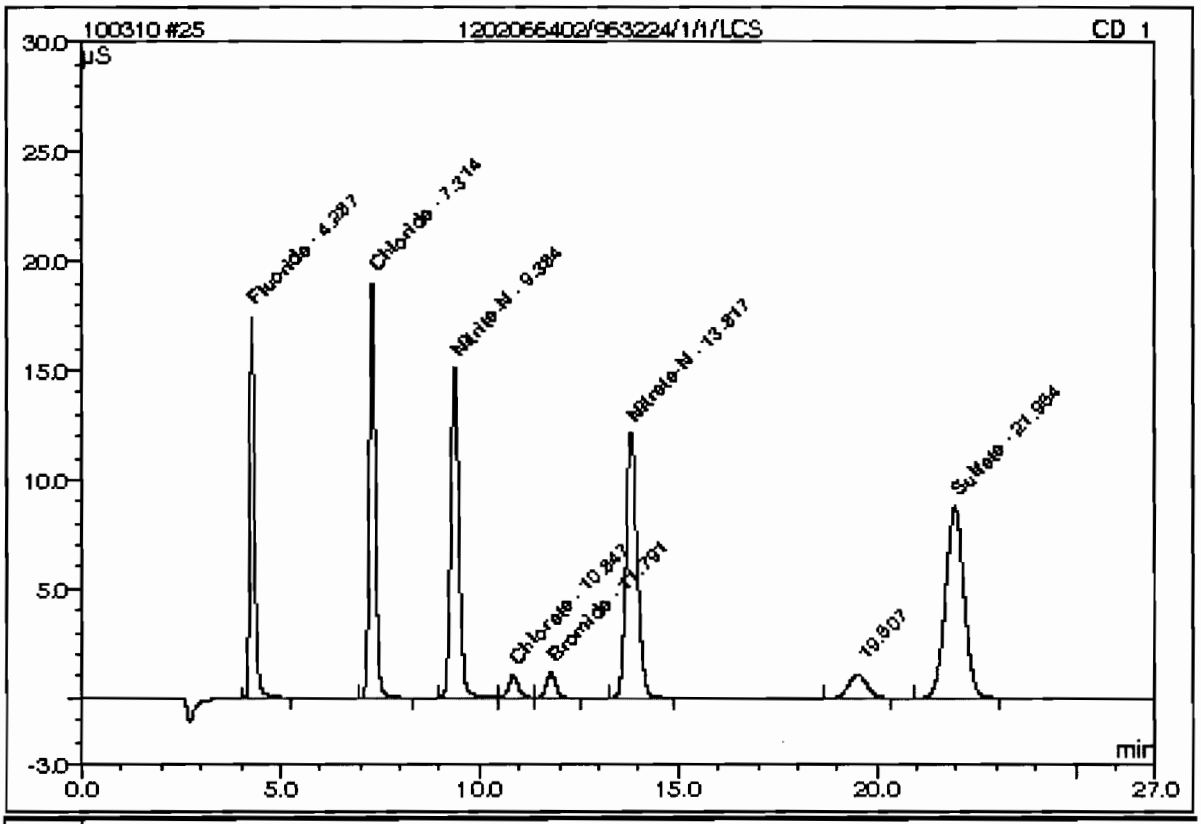

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	n.a.	4.8821		2.49854	12.88
2	7.31	Chloride	n.a.	9.3796		3.41891	17.62
3	9.38	Nitrite-N	n.a.	4.8510		3.58446	18.47
4	10.85	Chlorate	n.a.	2.5055		0.29820	1.54
5	11.79	Bromide	n.a.	2.5000		0.31734	1.64
6	13.82	Nitrate-N	n.a.	4.7576		3.98949	20.56
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
8	21.96	Sulfate	n.a.	23.2876		4.72241	24.34
Total:				52.1634	0.000	18.829	97.04

26 247261004/963224/1/1/

Sample Name:	247261004/963224/1/1/	*Injection Volume:*	50.0
Vial Number:	19	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 19:11	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

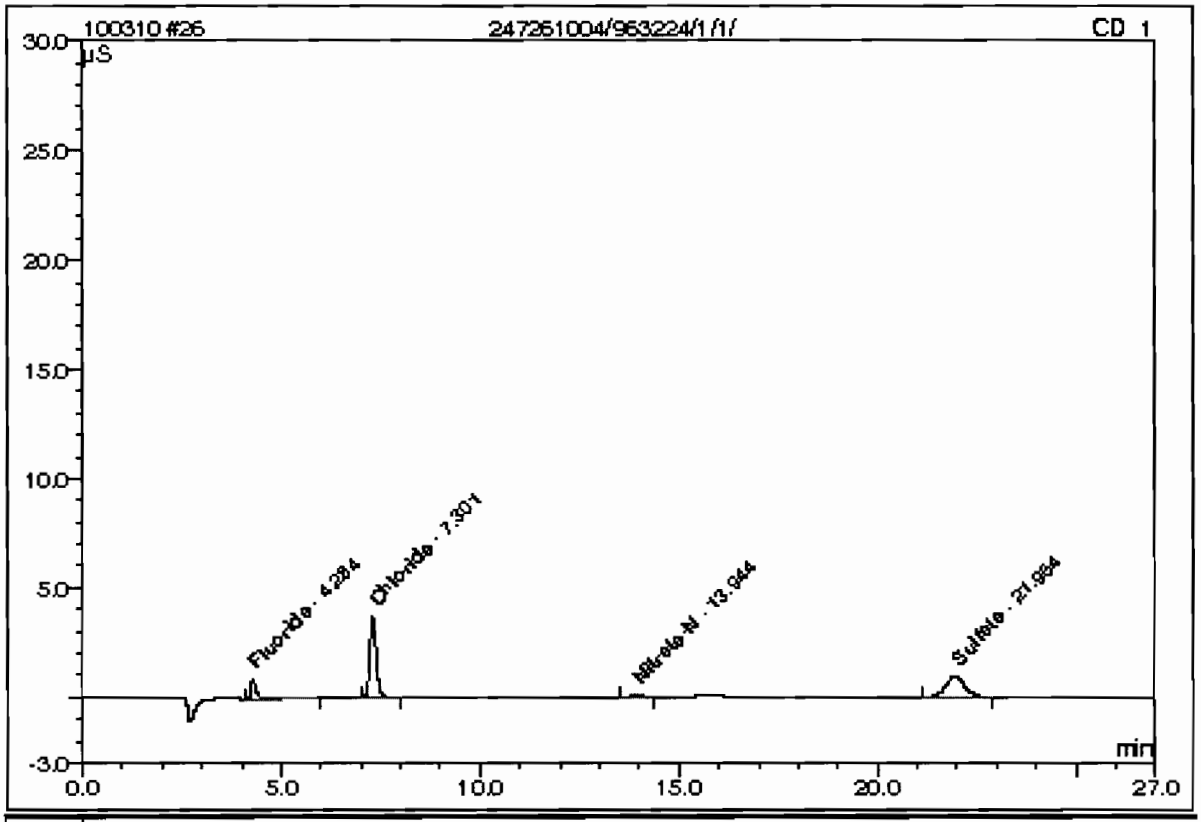

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.28	Fluoride	n.a.	0.4900		0.23055	15.70
2	7.30	Chloride	n.a.	2.0113		0.68925	46.94
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.94	Nitrate-N	n.a.	0.1316		0.02703	1.84
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	21.95	Sulfate	n.a.	4.1921		0.52158	35.52
Total:				6.8251	0.000	1.468	100.00

26 247261004/963224/1/1/

Sample Name:	247261004/963224/1/1/	*Injection Volume:*	50.0
Vial Number:	19	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 19:11	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

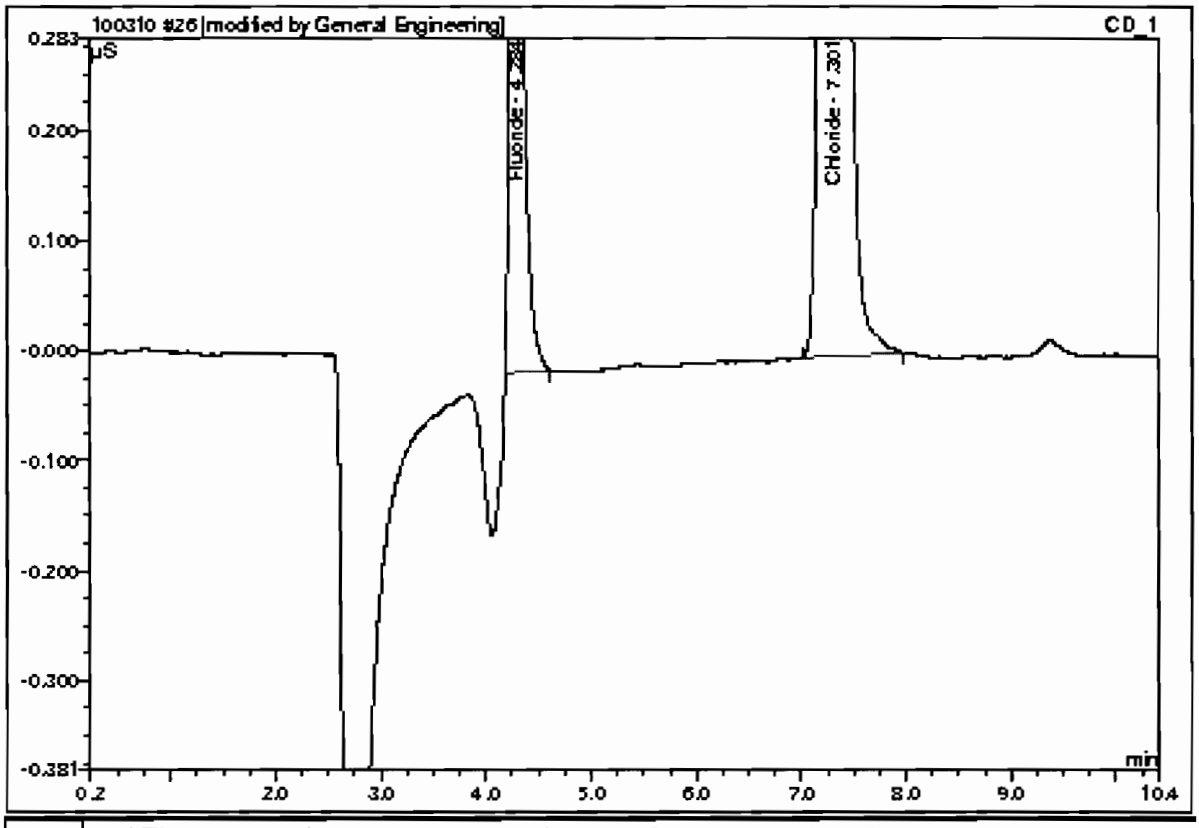

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.28	Fluoride	n.a.	0.2406		0.10176	7.60
2	7.30	Chloride	n.a.	2.0113		0.68925	51.45
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.94	Nitrate-N	n.a.	0.1316		0.02703	2.02
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	21.95	Sulfate	n.a.	4.1921		0.52158	38.93
Total:				6.5757	0.000	1.340	100.00

27 1202066400/963224/1/1/DUP

Sample Name:	1202066400/963224/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	20	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 19:41	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

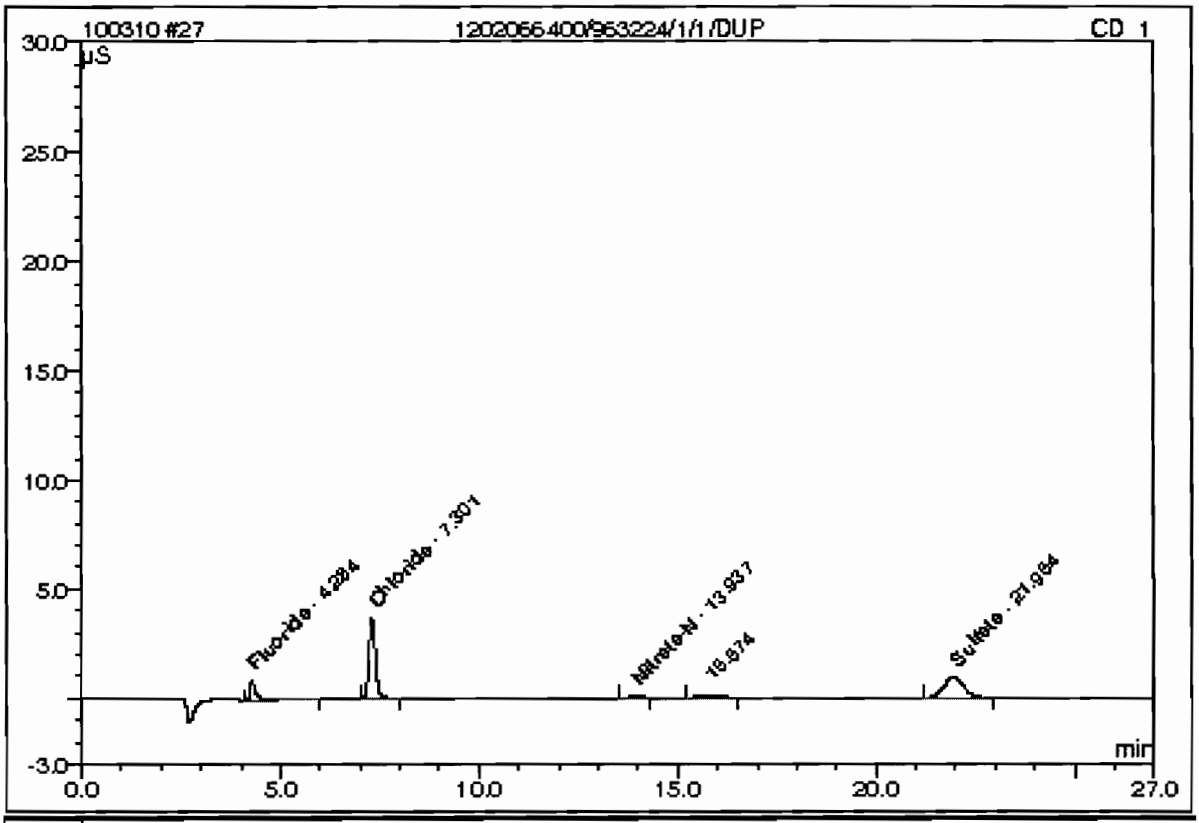

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.28	Fluoride	n.a.	0.4922		0.23166	15.21
2	7.30	Chloride	n.a.	2.0065		0.68746	45.14
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.94	Nitrate-N	n.a.	0.1309		0.02643	1.74
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	21.95	Sulfate	n.a.	4.2345		0.53089	34.86
Total:				6.8641	0.000	1.476	96.94

27 1202066400/963224/1/1/DUP

Sample Name:	1202066400/963224/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	20	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 19:41	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

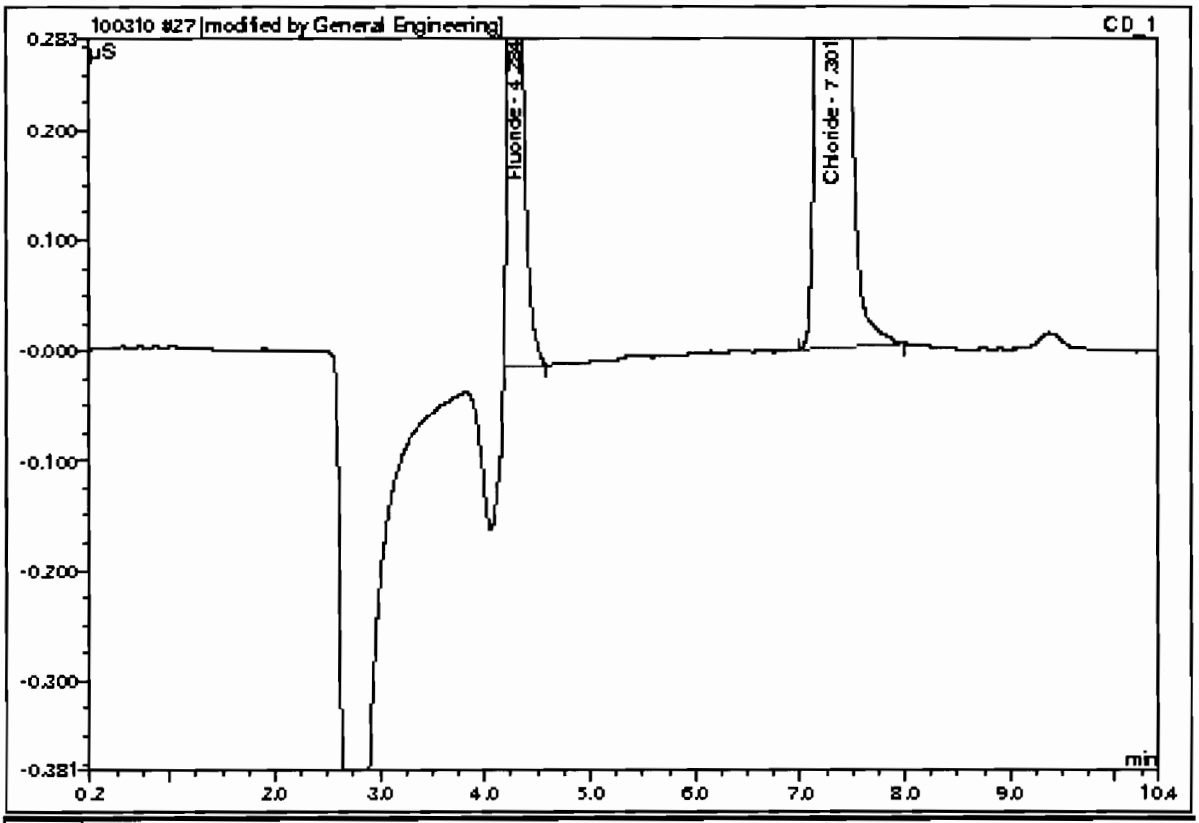

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.28	Fluoride	n.a.	0.2389		0.10088	7.25
2	7.30	Chloride	n.a.	2.0065		0.68746	49.37
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.94	Nitrate-N	n.a.	0.1309		0.02643	1.90
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	21.95	Sulfate	n.a.	4.2345		0.53089	38.13
Total:				6.6108	0.000	1.346	96.65

28 1202066401/963224/1/1/PS

Sample Name:	1202066401/963224/1/1/PS	*Injection Volume:*	50.0
Vial Number:	21	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 20:11	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

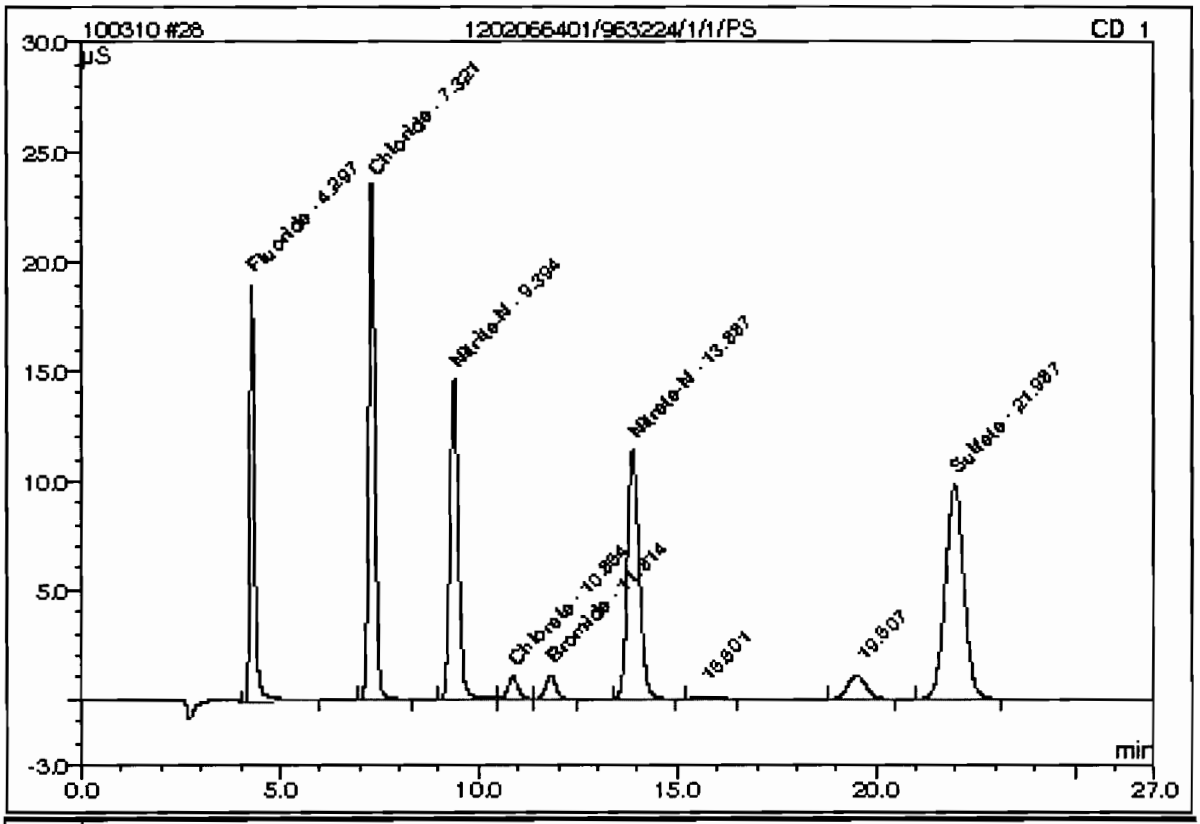

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	5.3425		2.73632	13.02
2	7.32	Chloride	n.a.	11.6349		4.25441	20.24
3	9.39	Nitrite-N	n.a.	4.7939		3.54165	16.85
4	10.86	Chlorate	n.a.	2.4933		0.29671	1.41
5	11.81	Bromide	n.a.	2.5314		0.32137	1.53
6	13.89	Nitrate-N	n.a.	4.7259		3.96227	18.85
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
9	21.99	Sulfate	n.a.	25.8170		5.27887	25.12
Total:				57.3389	0.000	20.392	97.03

28 1202066401/963224/1/1/PS

Sample Name:	1202066401/963224/1/1/PS	*Injection Volume:*	50.0
Vial Number:	21	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 20:11	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

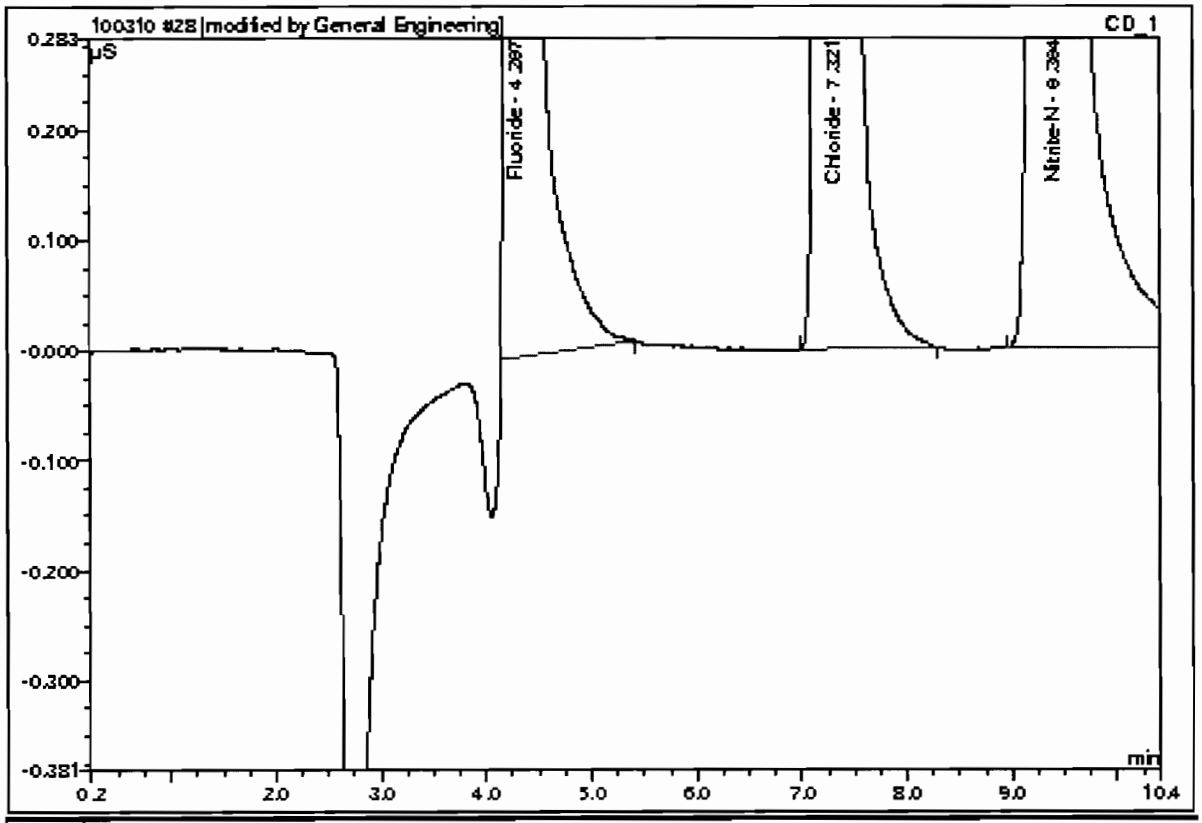

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	5.0756		2.59847	12.45
2	7.32	Chloride	n.a.	11.6349		4.25441	20.38
3	9.39	Nitrite-N	n.a.	4.7939		3.54165	16.96
4	10.86	Chlorate	n.a.	2.4933		0.29671	1.42
5	11.81	Bromide	n.a.	2.5314		0.32137	1.54
6	13.89	Nitrate-N	n.a.	4.7259		3.96227	18.98
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
9	21.99	Sulfate	n.a.	25.8170		5.27887	25.28
Total:				57.0720	0.000	20.254	97.01

34 WIC100309-02CCV

Sample Name:	WIC100309-02CCV	*Injection Volume:*	50.0
Vial Number:	27	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 23:10	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

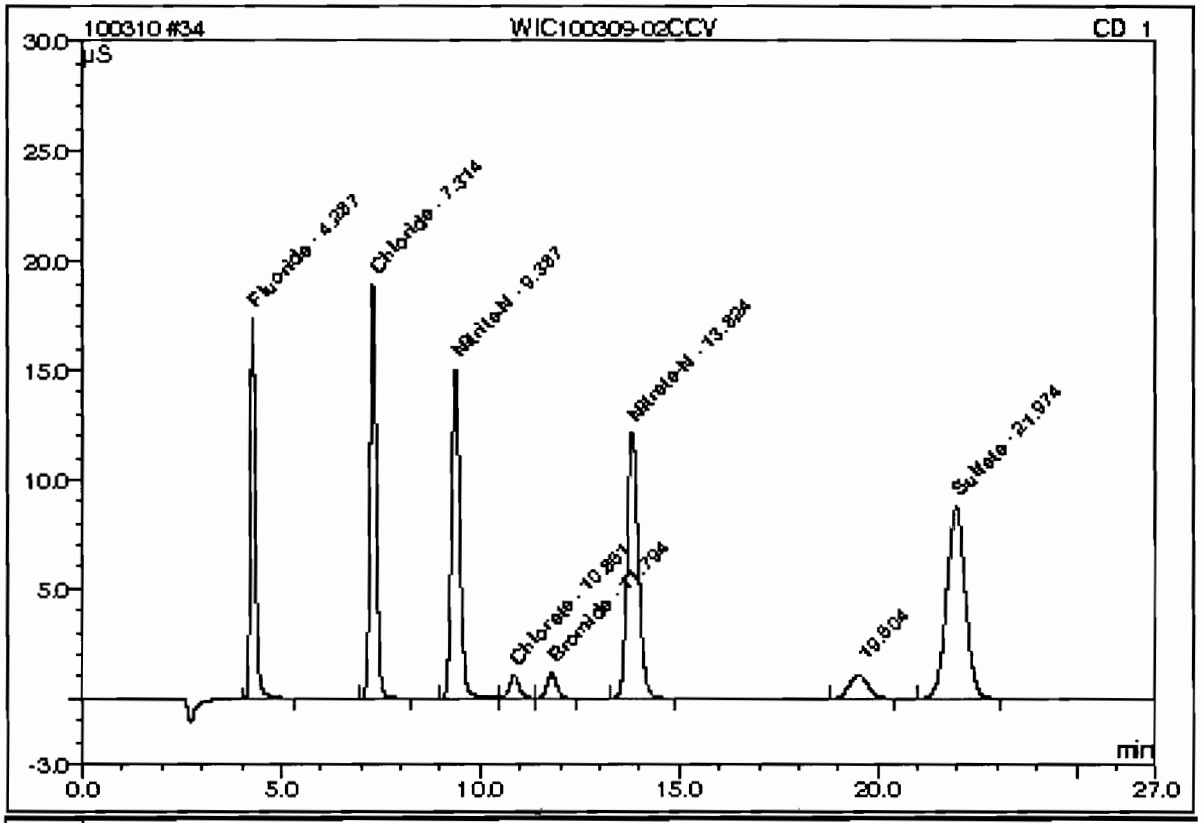

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	n.a.	4.8879		2.50157	12.90
2	7.31	Chloride	n.a.	9.3353		3.40248	17.54
3	9.39	Nitrite-N	n.a.	4.8543		3.58698	18.50
4	10.85	Chlorate	n.a.	2.5194		0.29987	1.55
5	11.79	Bromide	n.a.	2.4980		0.31709	1.64
6	13.82	Nitrate-N	n.a.	4.7598		3.99133	20.58
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
8	21.97	Sulfate	n.a.	23.2474		4.71357	24.31
Total:				52.1021	0.000	18.813	97.01

35 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	28	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 23:40	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

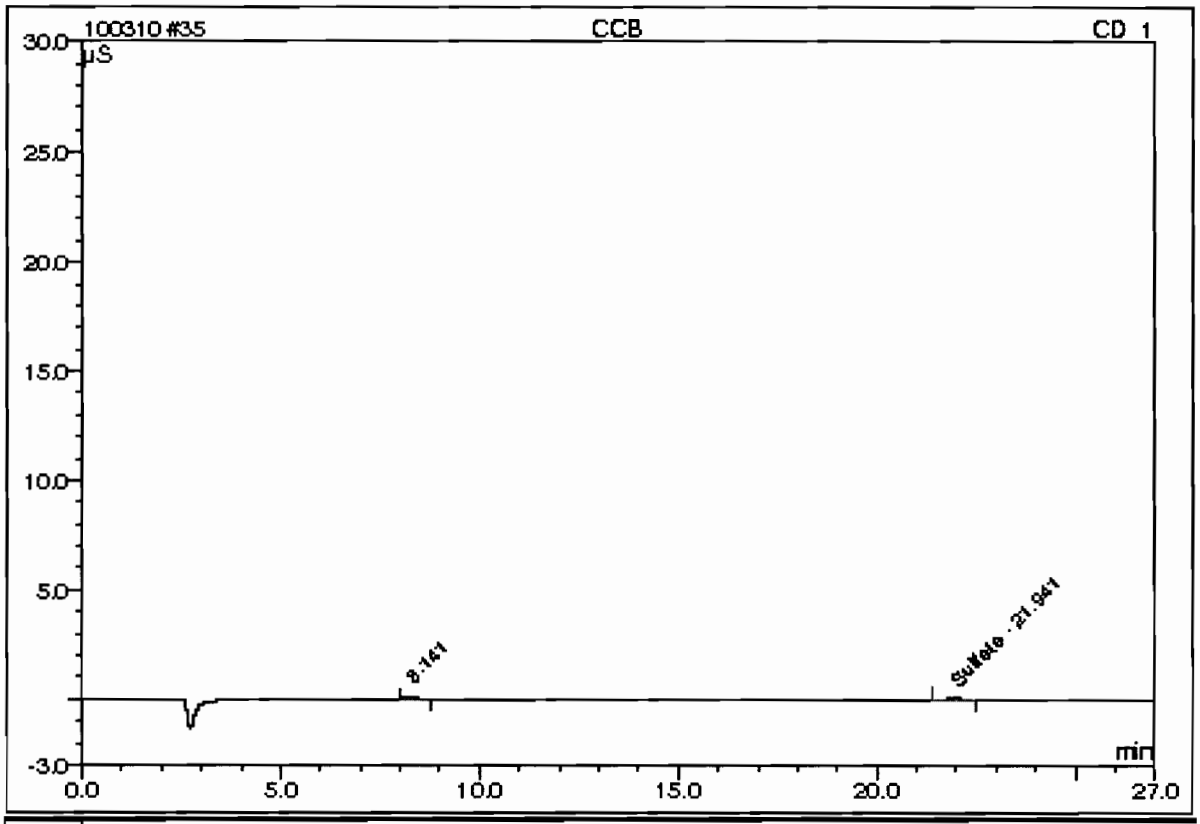

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
2	21.94	Sulfate	n.a.	1.9240		0.02260	51.99
Total:				1.9240	0.000	0.023	51.99

This is runlog for Sequence 100311.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/11/10 22:02		1	100311	GXM3
ICV	03/11/10 22:21		1	100311	GXM3
ICB	03/11/10 22:51		1	100311	GXM3
248507001	03/11/10 23:21	961208	1000	100311	GXM3
1202061770	03/11/10 23:51	961208	1000	100311	GXM3

9 WIC100310-02ICV

Sample Name:	WIC100310-02ICV	*Injection Volume:*	50.0
Vial Number:	2	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/11/2010 22:21	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

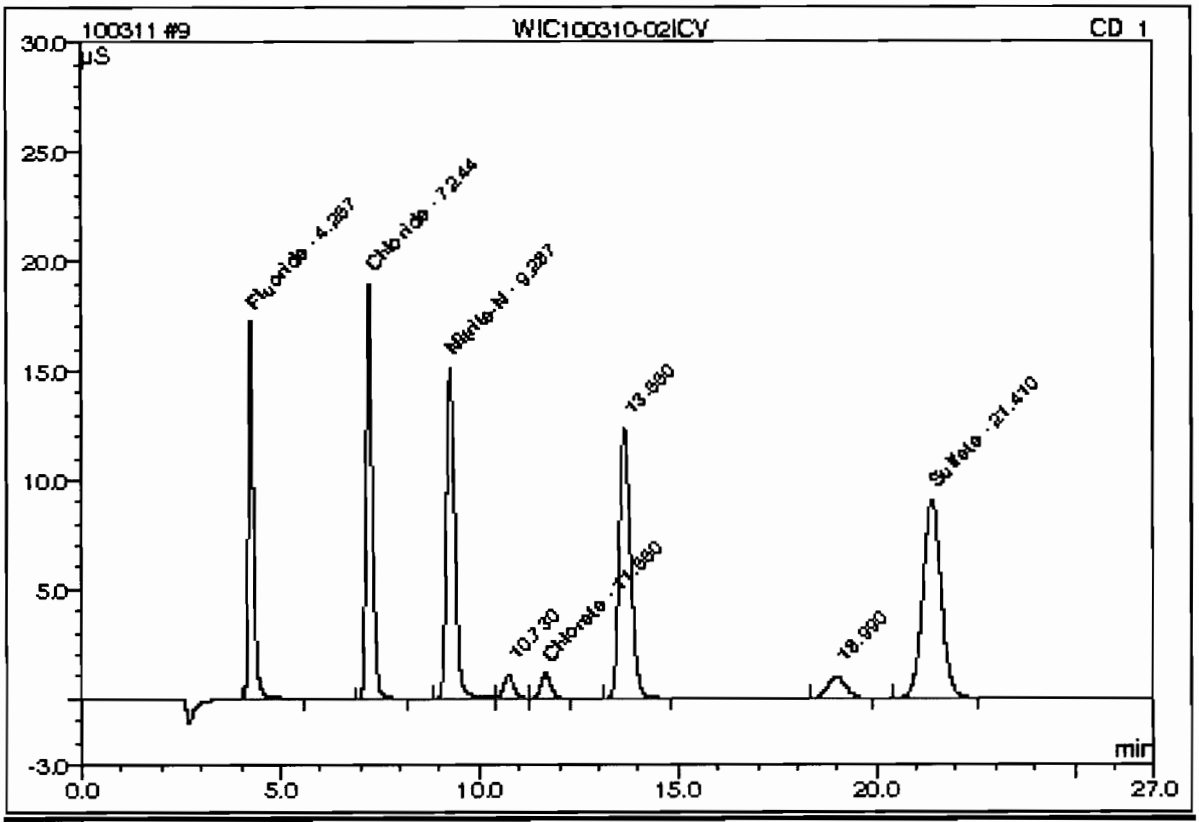

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	4.9917		2.55513	13.01
2	7.24	Chloride	n.a.	9.4835		3.45739	17.60
3	9.29	Nitrite-N	n.a.	4.9309		3.64434	18.55
5	11.66	Chlorate	n.a.	2.6564		0.31649	1.61
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
8	21.41	Sulfate	n.a.	23.7117		4.81572	24.51
Total:				45.7742	0.000	14.789	75.28

9 WIC100310-02ICV

Sample Name:	WIC100310-02ICV	*Injection Volume:*	50.0
Vial Number:	2	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/11/2010 22:21	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

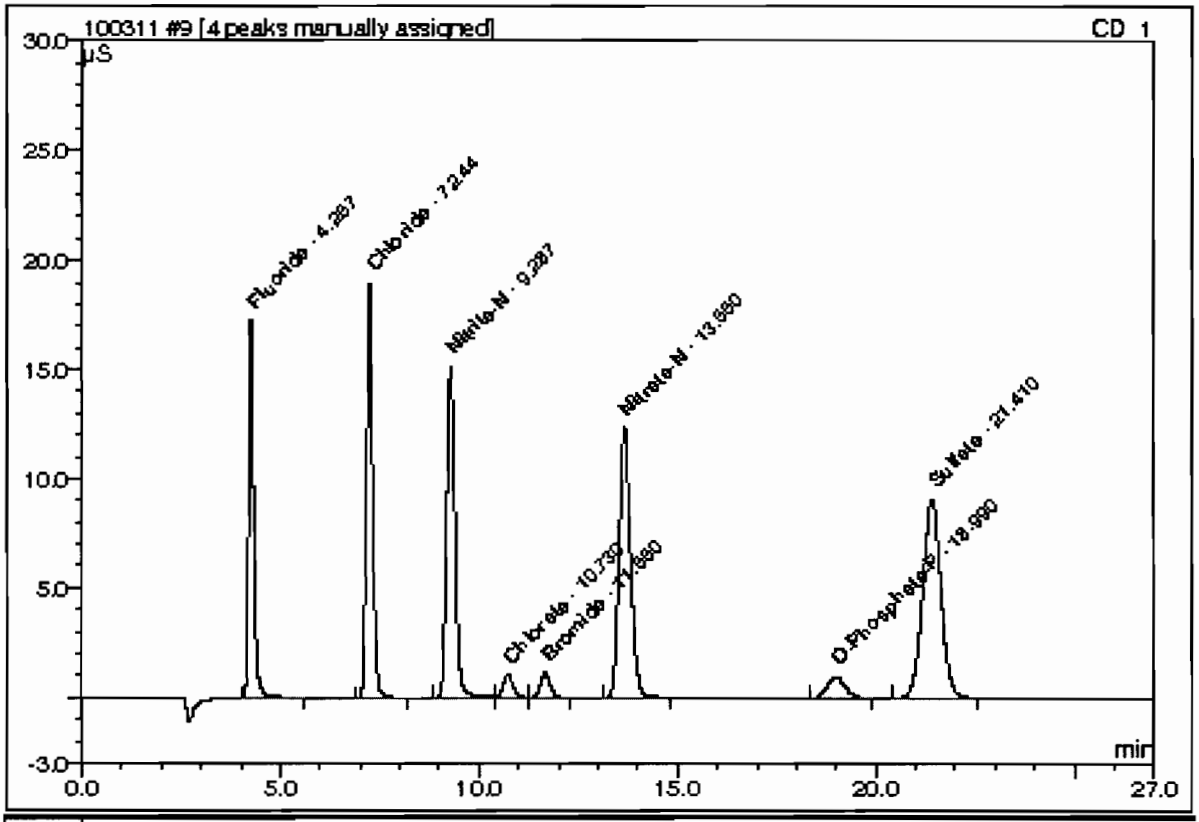

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	4.9917		2.55513	13.01
2	7.24	Chloride	n.a.	9.4835		3.45739	17.60
3	9.29	Nitrite-N	n.a.	4.9309		3.64434	18.55
4	10.73	Chlorate	n.a.	2.4591		0.29257	1.49
5	11.66	Bromide	n.a.	2.4934		0.31649	1.61
6	13.66	Nitrate-N	n.a.	4.8539		4.07196	20.73
7	18.99	O-Phosphate-P	n.a.	2.0014		0.49274	2.51
8	21.41	Sulfate	n.a.	19.7293		4.81572	24.51
Total:				50.9431	0.000	19.646	100.00

9 WIC100310-02ICV

Sample Name:	WIC100310-02ICV	*Injection Volume:*	50.0
Vial Number:	2	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/11/2010 22:21	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

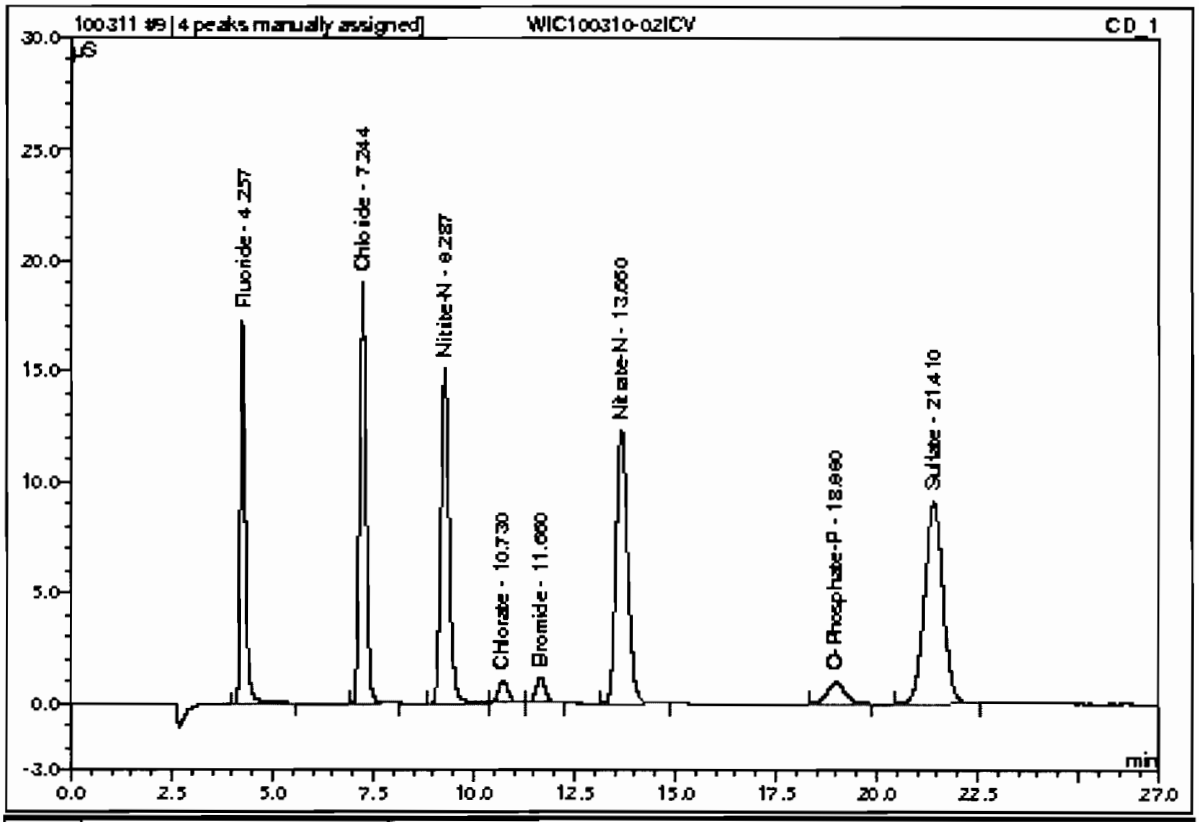

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	4.9917		2.55513	13.01
2	7.24	Chloride	n.a.	9.4835		3.45739	17.60
3	9.29	Nitrite-N	n.a.	4.9309		3.64434	18.55
4	10.73	Chlorate	n.a.	2.4591		0.29257	1.49
5	11.66	Bromide	n.a.	2.4934		0.31649	1.61
6	13.66	Nitrate-N	n.a.	4.8539		4.07196	20.73
7	18.99	O-Phosphate-P	n.a.	0.6673		0.49274	2.51
8	21.41	Sulfate	n.a.	23.7117		4.81572	24.51
Total:				53.5915	0.000	19.646	100.00

10 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/11/2010 22:51	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

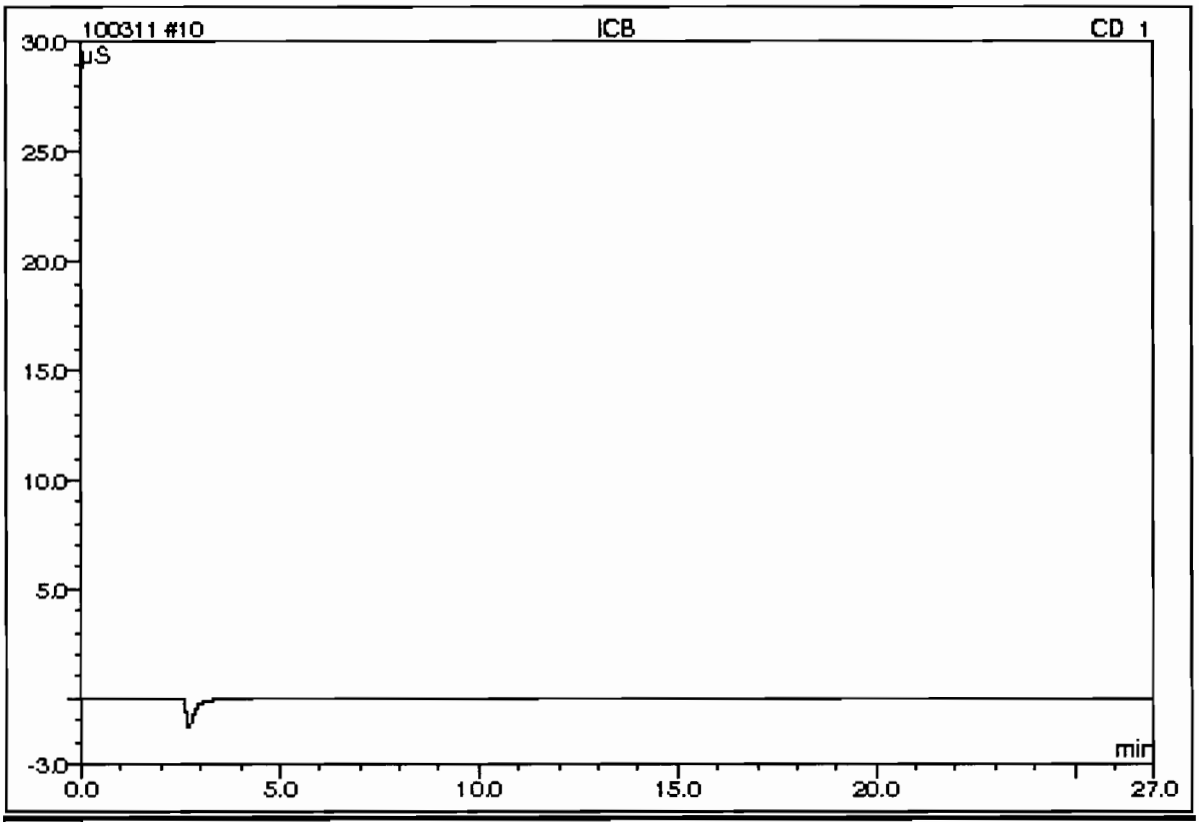

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100311.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
1202061772	03/12/10 00:21	961208	1000	100311	GXM3
248507002	03/12/10 00:51	961208	1000	100311	GXM3
248507003	03/12/10 01:20	961208	1000	100311	GXM3
248507004	03/12/10 01:50	961208	1000	100311	GXM3
248507005	03/12/10 02:20	961208	1000	100311	GXM3
248507006	03/12/10 02:50	961208	1000	100311	GXM3
248507007	03/12/10 03:20	961208	1000	100311	GXM3
248507008	03/12/10 03:50	961208	1000	100311	GXM3
CVH	03/12/10 04:20		1	100311	GXM3
CCB	03/12/10 04:50		1	100311	GXM3
248507009	03/12/10 05:20	961208	1000	100311	GXM3
248507010	03/12/10 05:50	961208	1000	100311	GXM3
248507011	03/12/10 06:20	961208	1000	100311	GXM3
248507012	03/12/10 06:49	961208	100	100311	GXM3
248507013	03/12/10 07:19	961208	100	100311	GXM3
248507014	03/12/10 07:49	961208	100	100311	GXM3
248507015	03/12/10 08:19	961208	1000	100311	GXM3
248507016	03/12/10 08:49	961208	1000	100311	GXM3
248507017	03/12/10 09:19	961208	1000	100311	GXM3
248507018	03/12/10 09:49	961208	1000	100311	GXM3
CCV	03/12/10 10:19		1	100311	GXM3
CCB	03/12/10 10:49		1	100311	GXM3
1202061769	03/12/10 11:19	961208	1	100311	GXM3
1202061774	03/12/10 11:48	961208	1	100311	GXM3
248507007	03/12/10 12:18	961208	10	100311	GXM3
248507008	03/12/10 12:48	961208	10	100311	GXM3
248507013	03/12/10 13:18	961208	5	100311	GXM3
248507019	03/12/10 13:48	961208	5	100311	GXM3

CVH	03/12/10	14:18		1	100311	GXM3
CCB	03/12/10	14:48		1	100311	GXM3
247531001	03/12/10	15:18	963216	200	100311	GXM3
1202066382	03/12/10	15:47	963216	200	100311	GXM3
1202066383	03/12/10	16:17	963216	200	100311	GXM3
CCV	03/12/10	16:47		1	100311	GXM3
CCB	03/12/10	17:17		1	100311	GXM3
1202068820	03/12/10	17:47	964332	1	100311	GXM3
1202068821	03/12/10	18:17	964332	1	100311	GXM3
248953001	03/12/10	18:47	964332	1	100311	GXM3
1202068822	03/12/10	19:17	964332	1	100311	GXM3
1202068823	03/12/10	19:47	964332	1	100311	GXM3
CVH	03/12/10	20:16		1	100311	GXM3
CCB	03/12/10	20:46		1	100311	GXM3
247261004	03/12/10	21:16	963224	1	100311	GXM3
1202066400	03/12/10	21:46	963224	1	100311	GXM3
1202066401	03/12/10	22:16	963224	1	100311	GXM3
247431002	03/12/10	22:46	963224	1	100311	GXM3
247817001	03/12/10	23:16	963224	1	100311	GXM3
247829001	03/12/10	23:46	963224	1	100311	GXM3

53 WIC100311-02CVH

Sample Name:	WIC100311-02CVH	*Injection Volume:*	50.0
Vial Number:	46	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/12/2010 20:16	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

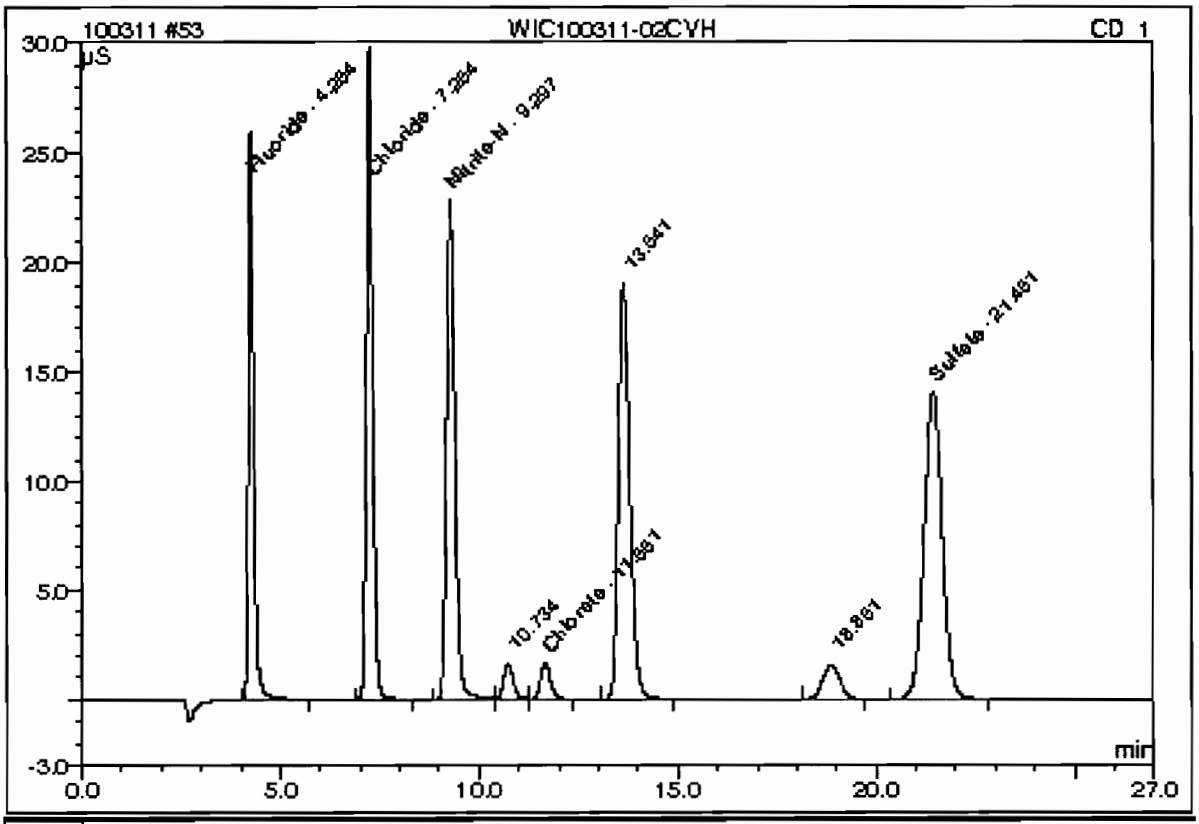

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	7.5030		3.85198	12.77
2	7.25	Chloride	n.a.	14.6759		5.38097	17.84
3	9.30	Nitrite-N	n.a.	7.4310		5.51831	18.29
5	11.66	Chlorate	n.a.	4.0220		0.48204	1.60
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
8	21.45	Sulfate	n.a.	30.1294		7.39535	24.52
Total:				63.7613	0.000	22.629	75.02

54 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	47	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/12/2010 20:46	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

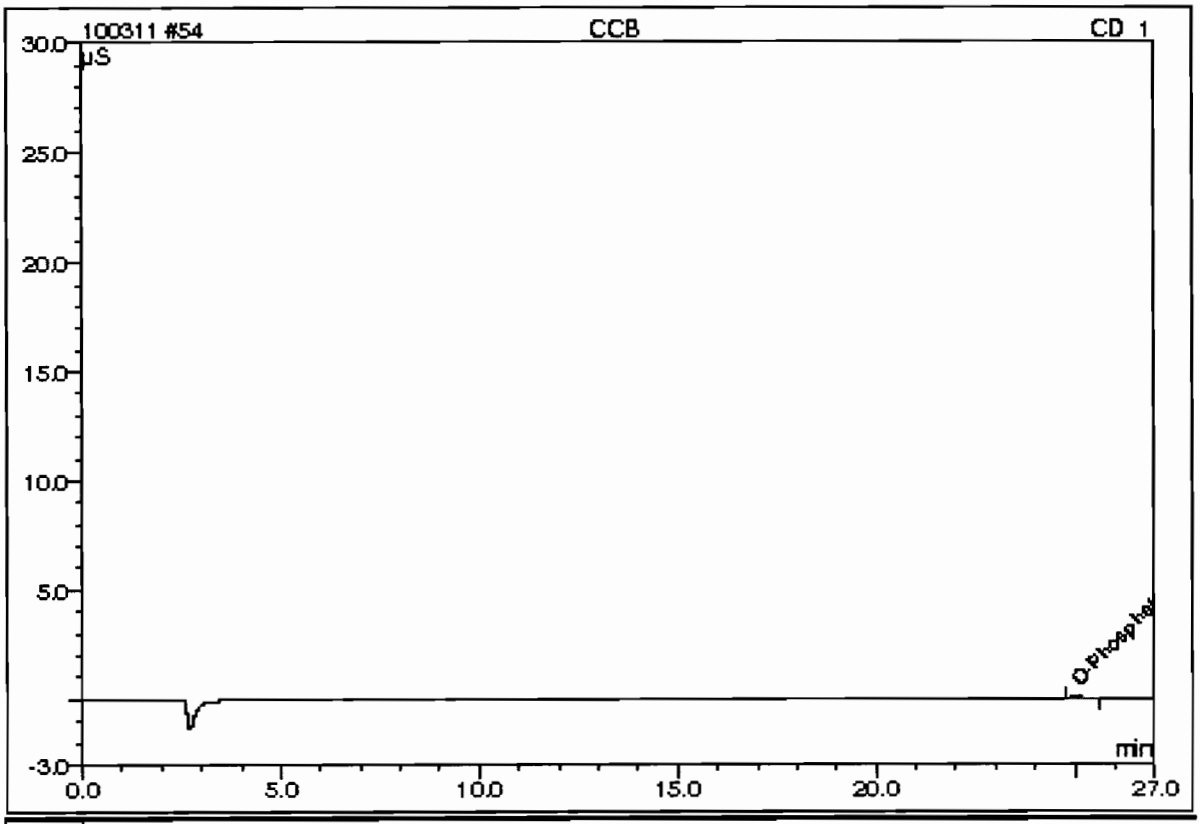

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area. µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
1	24.99	O-Phosphate-P	n.a.	0.1670		0.01898	100.00
Total:				0.1670	0.000	0.019	100.00

55 247261004/963224/1/2/

Sample Name:	247261004/963224/1/2/	*Injection Volume:*	50.0
Vial Number:	48	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/12/2010 21:16	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

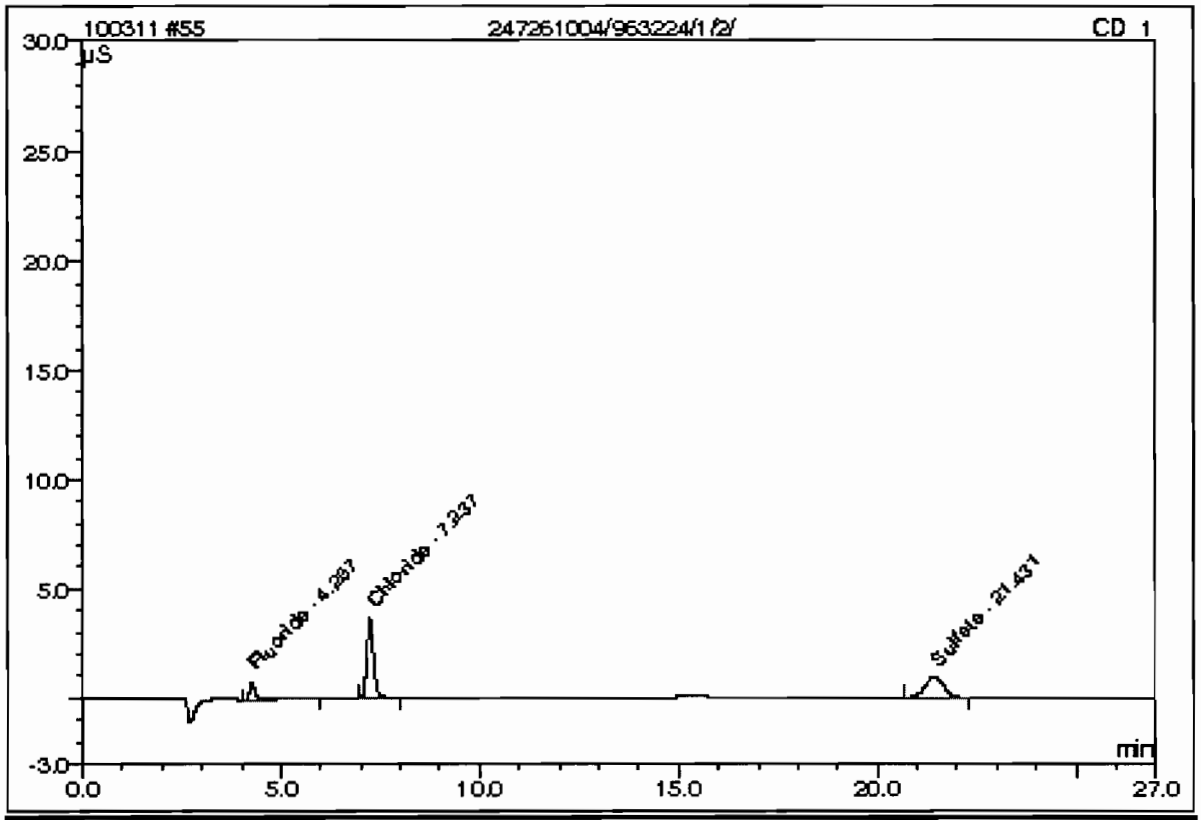

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.4935		0.23236	16.05
2	7.24	Chloride	n.a.	2.0357		0.69828	48.22
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	21.43	Sulfate	n.a.	2.4005		0.51749	35.74
Total:				4.9297	0.000	1.448	100.00

56 1202066400/963224/1/2/DUP

Sample Name:	1202066400/963224/1/2/DUP	*Injection Volume:*	50.0
Vial Number:	49	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/12/2010 21:46	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;8056

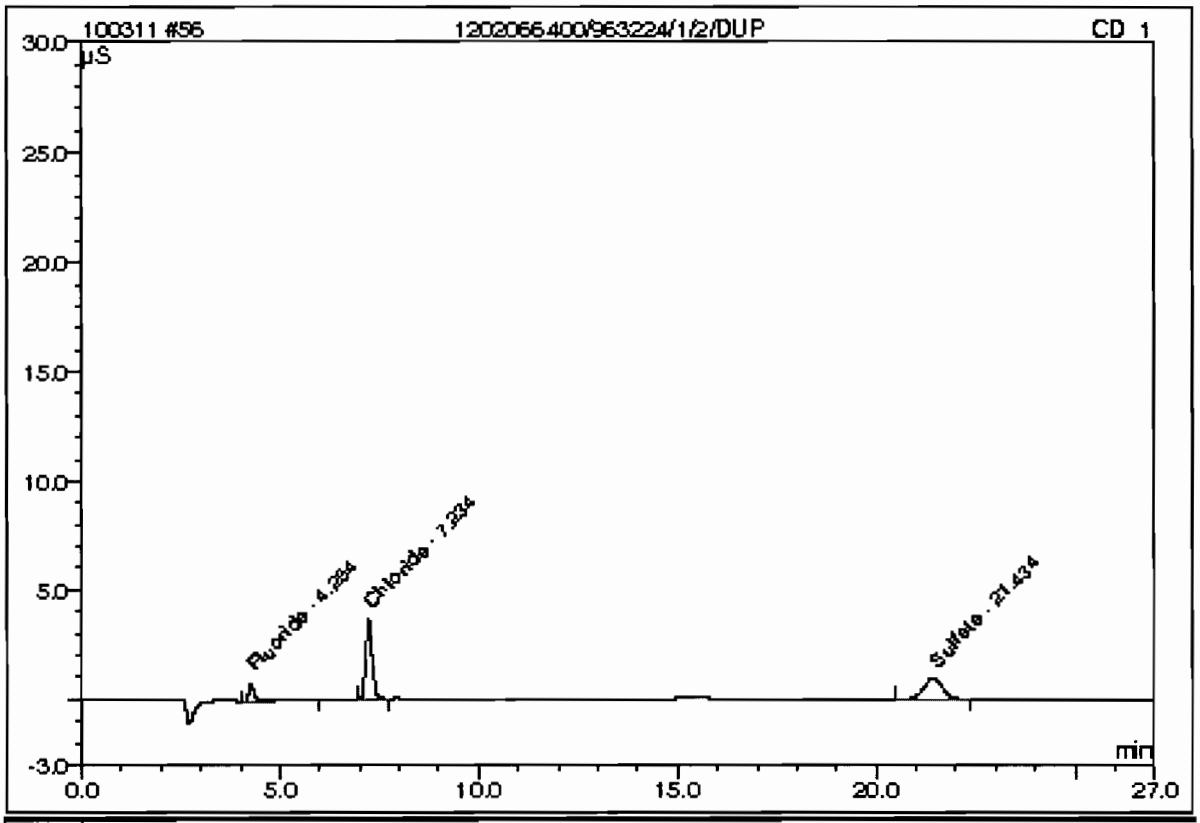

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	0.4924		0.23176	16.10
2	7.23	Chloride	n.a.	2.0092		0.68845	47.83
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	21.43	Sulfate	n.a.	2.4072		0.51917	36.07
Total:				4.9088	0.000	1.439	100.00

57 1202066401/963224/1/2/PS

Sample Name:	1202066401/963224/1/2/PS	*Injection Volume:*	50.0
Vial Number:	50	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/12/2010 22:16	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

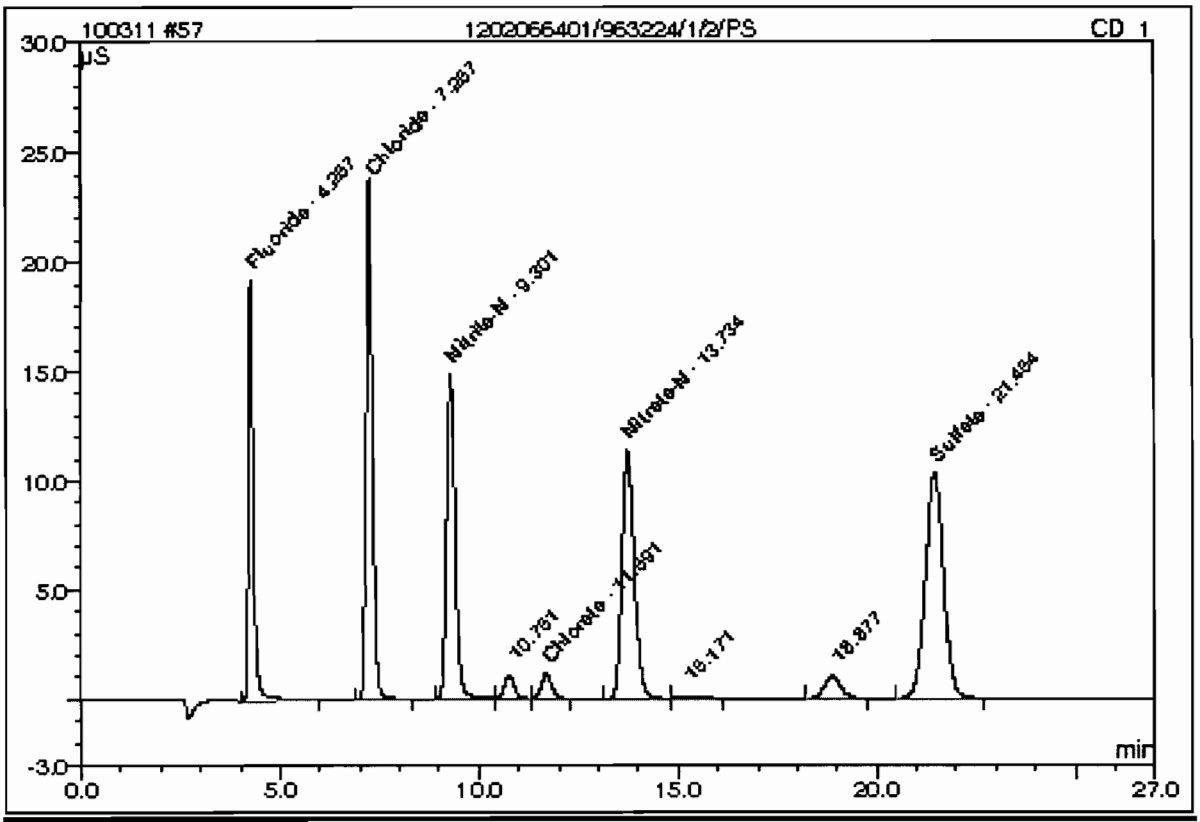

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.27	Fluoride	n.a.	5.4994		2.81731	13.08
2	7.26	Chloride	n.a.	11.9611		4.37523	20.31
3	9.30	Nitrite-N	n.a.	4.9488		3.65779	16.98
5	11.69	Chlorate	n.a.	2.7767		0.33107	1.54
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
6	13.73	Nitrate-N	n.a.	4.8457		4.06496	18.87
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
9	21.46	Sulfate	n.a.	22.2918		5.45132	25.30
Total:				52.3235	0.000	20.698	96.06

This is runlog for Sequence 100311.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
248024002	03/13/10 00:16	963224	1	100311	GXM3
248024004	03/13/10 00:46	963224	1	100311	GXM3
248024002	03/13/10 01:15	963224	20	100311	GXM3
248024004	03/13/10 01:45	963224	20	100311	GXM3
CCV	03/13/10 02:15		1	100311	GXM3
CCB	03/13/10 02:45		1	100311	GXM3
BLK	03/13/10 03:45		1	100311	GXM3
BLK	03/13/10 04:15		1	100311	GXM3
BLK	03/13/10 04:45		1	100311	GXM3

65 WIC100311-02CCV

Sample Name:	WIC100311-02CCV	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/13/2010 2:15	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

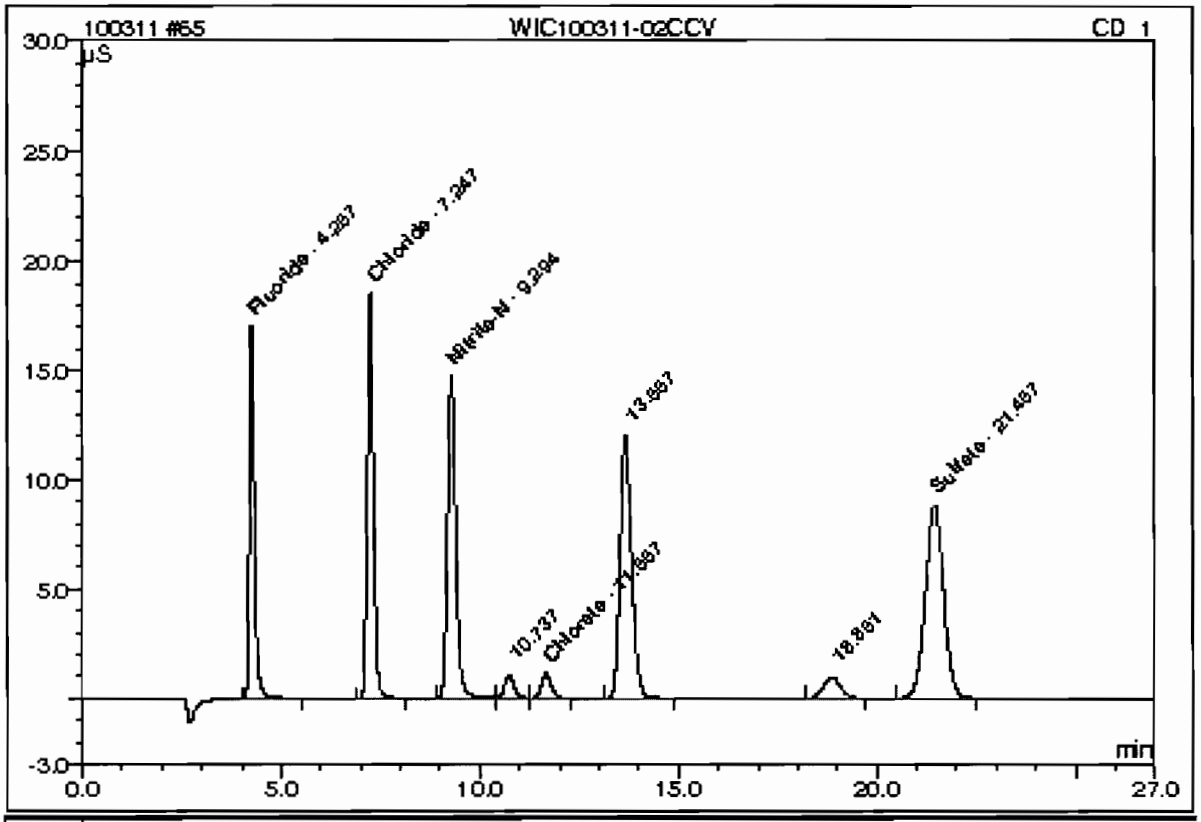

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	4.8754		2.49510	12.97
2	7.25	Chloride	n.a.	9.2695		3.37810	17.57
3	9.29	Nitrite-N	n.a.	4.8263		3.56598	18.54
5	11.67	Chlorate	n.a.	2.6726		0.31845	1.66
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
8	21.46	Sulfate	n.a.	19.2910		4.70700	24.48
Total:				40.9347	0.000	14.465	75.22

66 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/13/2010 2:45	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

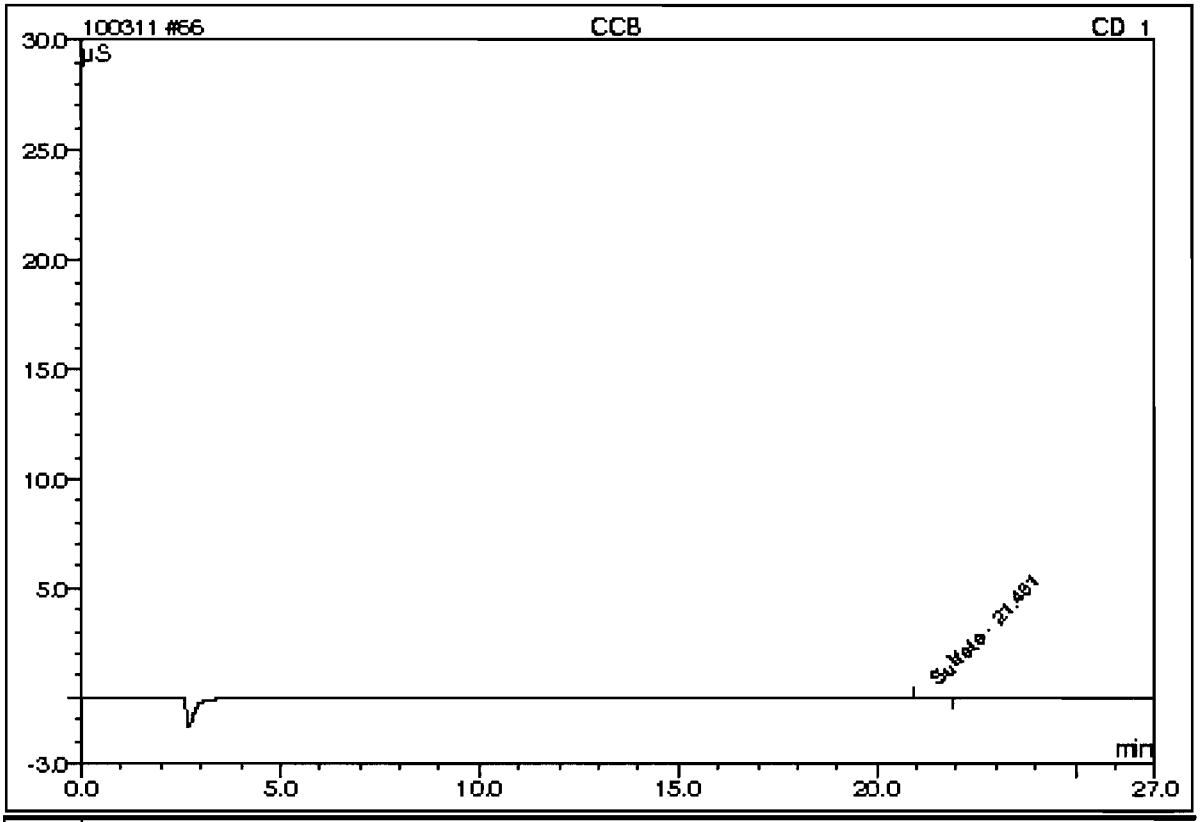

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
1	21.46	Sulfate	n.a.	0.3616		0.01177	100.00
Total:				0.3616	0.000	0.012	100.00

This is runlog for Sequence 100317.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/17/10 08:45		1	100317	GXM3
ICAL-07	03/17/10 09:15		1	100317	GXM3
ICAL-06	03/17/10 09:45		1	100317	GXM3
ICAL-05	03/17/10 10:15		1	100317	GXM3
ICAL-04	03/17/10 10:45		1	100317	GXM3
ICAL-03	03/17/10 11:15		1	100317	GXM3
ICAL-02	03/17/10 11:45		1	100317	GXM3
ICAL-01	03/17/10 13:14		1	100317	GXM3
ICV	03/17/10 13:43		1	100317	GXM3
ICB	03/17/10 14:12		1	100317	GXM3
1202066399	03/17/10 14:42	963224	1	100317	GXM3
1202066402	03/17/10 15:11	963224	1	100317	GXM3
247261004	03/17/10 15:41	963224	1	100317	GXM3
1202066400	03/17/10 16:11	963224	1	100317	GXM3
1202066401	03/17/10 16:41	963224	1	100317	GXM3
247431002	03/17/10 17:10	963224	1	100317	GXM3
247817001	03/17/10 17:40	963224	1	100317	GXM3
247829001	03/17/10 18:10	963224	1	100317	GXM3
248024002	03/17/10 18:40	963224	1	100317	GXM3
248024004	03/17/10 19:10	963224	1	100317	GXM3
CVH	03/17/10 19:40		1	100317	GXM3
CCB	03/17/10 20:10		1	100317	GXM3
1202063619	03/17/10 20:39	962082	1	100317	GXM3
1202063626	03/17/10 21:09	962082	1	100317	GXM3
248666001	03/17/10 21:39	962082	1	100317	GXM3
1202063620	03/17/10 22:09	962082	1	100317	GXM3
1202063622	03/17/10 22:39	962082	1	100317	GXM3
1202063624	03/17/10 23:09	962082	1	100317	GXM3

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 9:15	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

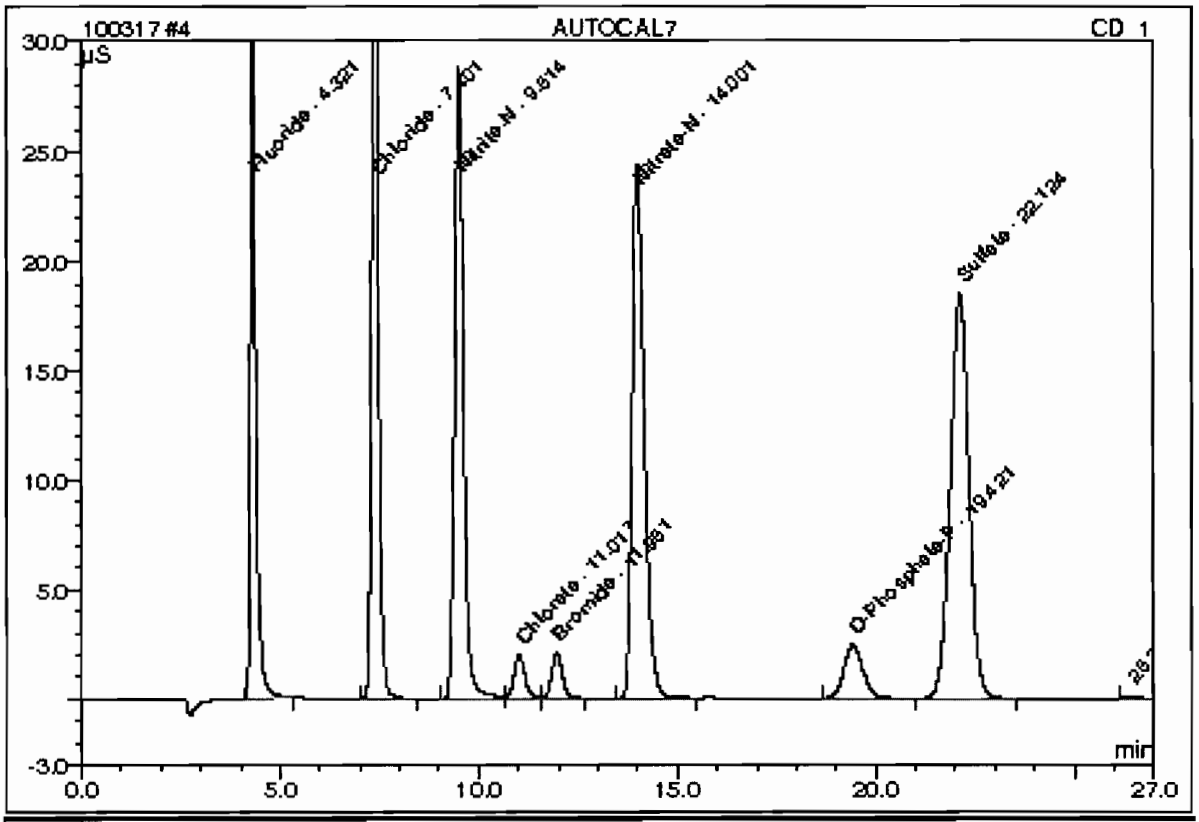

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.32	Fluoride	10.0000	10.0024		5.01638	12.24
2	7.40	Chloride	20.0000	20.0097		7.37427	18.00
3	9.51	Nitrite-N	10.0000	10.0083		7.36725	17.98
4	11.02	Chlorate	5.0000	5.0490		0.60961	1.49
5	11.96	Bromide	5.0000	5.0206		0.64557	1.58
6	14.00	Nitrate-N	10.0000	10.0123		8.56118	20.89
7	19.42	O-Phosphate-P	5.0000	5.0000		1.32928	3.24
8	22.12	Sulfate	40.0000	40.0384		10.04798	24.52
Total:				105.1408	0.000	40.952	99.94

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 9:45	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

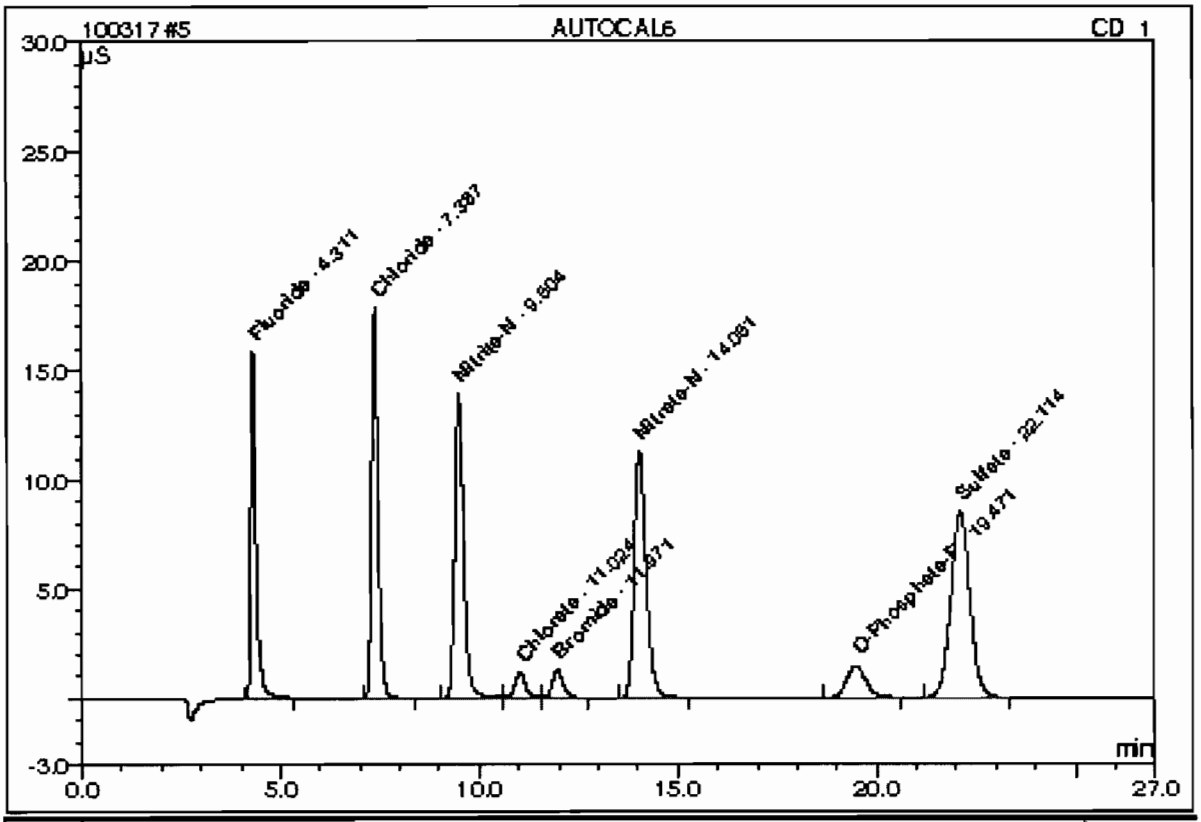

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.31	Fluoride	5.0000	4.8820		2.42594	12.44
2	7.39	Chloride	10.0000	9.3500		3.36519	17.26
3	9.50	Nitrite-N	5.0000	4.8693		3.54551	18.19
4	11.02	Chlorate	3.0000	2.9878		0.36137	1.85
5	11.97	Bromide	3.0000	2.9986		0.38556	1.98
6	14.05	Nitrate-N	5.0000	4.7145		3.94401	20.23
7	19.47	O-Phosphate-P	3.0000	2.9536		0.77886	4.00
8	22.11	Sulfate	20.0000	19.0326		4.68879	24.05
Total:				51.7885	0.000	19.495	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 10:15	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

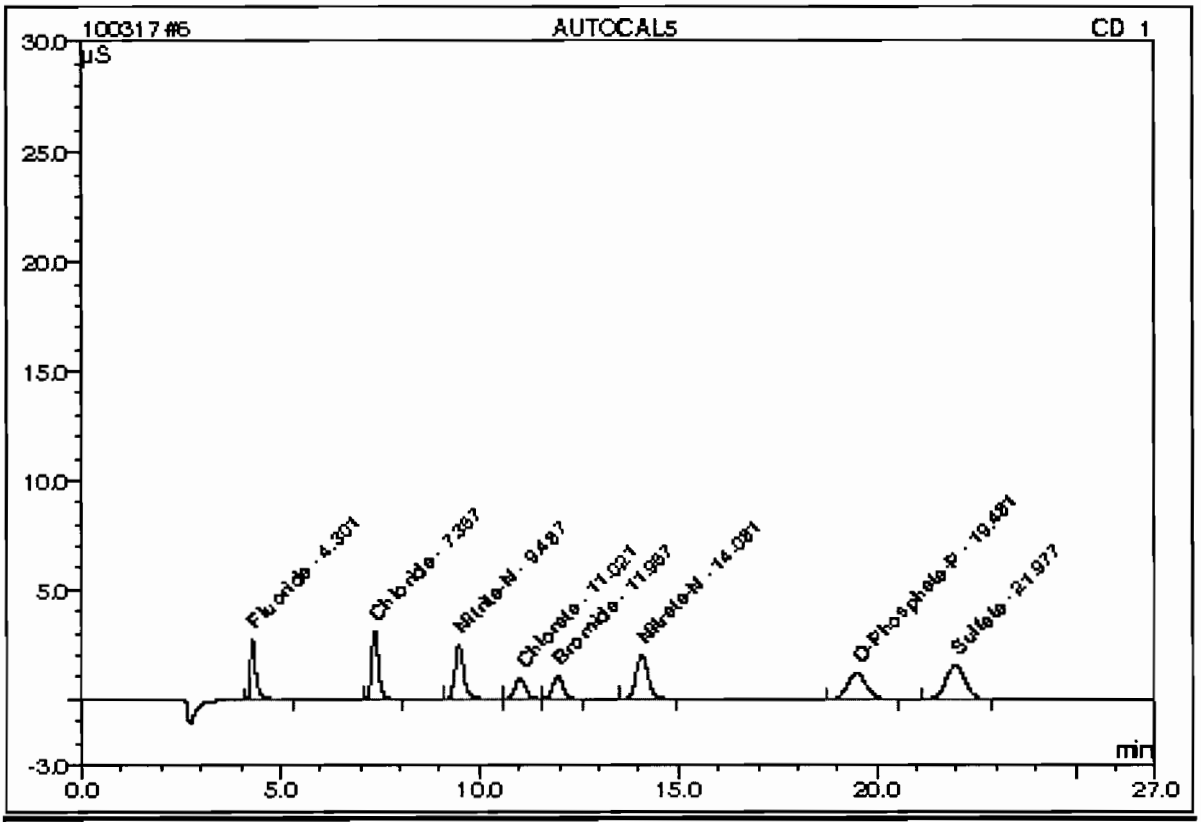

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	1.0000	0.9378		0.44618	9.89
2	7.37	Chloride	2.0000	1.8432		0.61004	13.52
3	9.49	Nitrite-N	1.0000	0.9327		0.64234	14.24
4	11.02	Chlorate	2.5000	2.3781		0.28403	6.30
5	11.97	Bromide	2.5000	2.4513		0.31361	6.95
6	14.08	Nitrate-N	1.0000	0.9208		0.70455	15.62
7	19.48	O-Phosphate-P	2.5000	2.4823		0.65221	14.46
8	21.98	Sulfate	4.0000	3.7504		0.85753	19.01
Total:				15.6967	0.000	4.511	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 10:45	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

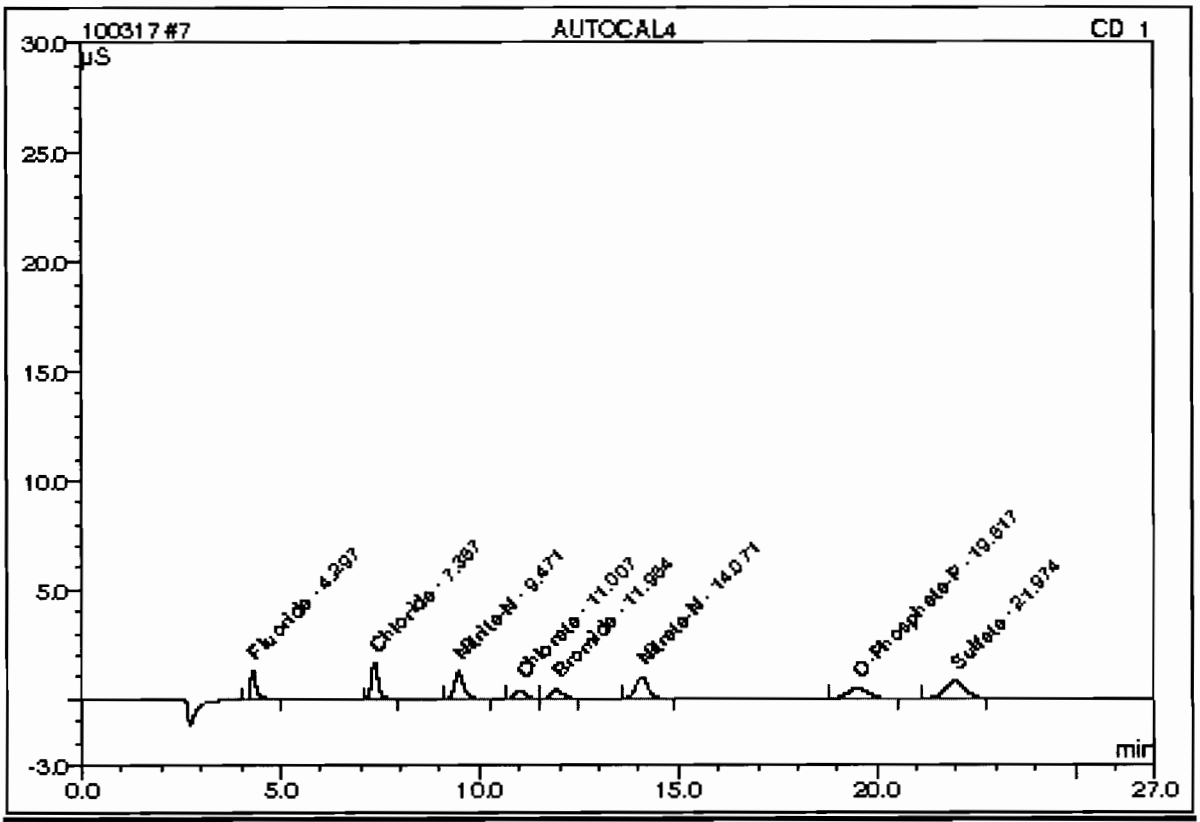

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	0.5000	0.4925		0.21806	10.30
2	7.36	Chloride	1.0000	1.0806		0.32478	15.34
3	9.47	Nitrite-N	0.5000	0.4940		0.31326	14.80
4	11.01	Chlorate	1.0000	0.9498		0.10869	5.13
5	11.95	Bromide	1.0000	0.9722		0.12171	5.75
6	14.07	Nitrate-N	0.5000	0.5111		0.34644	16.36
7	19.52	O-Phosphate-P	1.0000	0.9993		0.25849	12.21
8	21.97	Sulfate	2.0000	2.0534		0.42575	20.11
Total:				7.5529	0.000	2.117	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 11:15	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

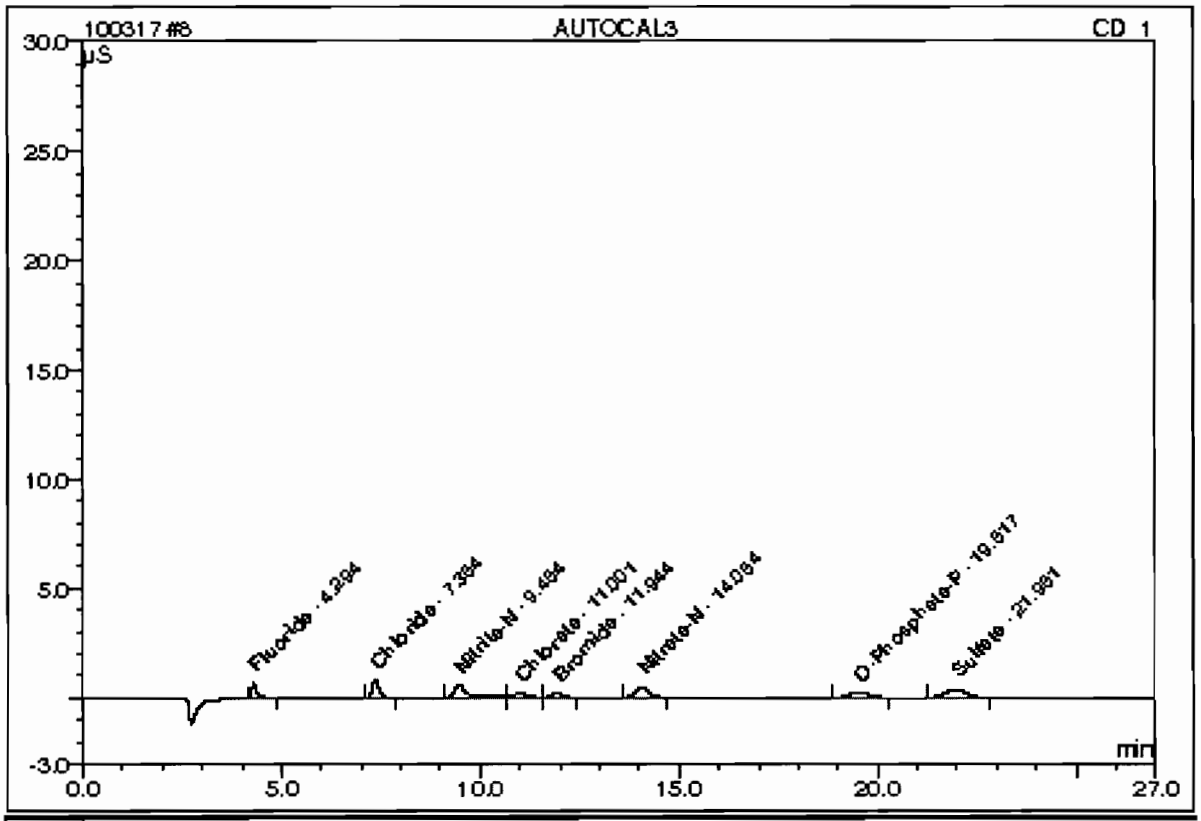

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	0.2500	0.2772		0.10608	9.31
2	7.35	Chloride	0.5000	0.6486		0.16371	14.36
3	9.46	Nitrite-N	0.2500	0.3510		0.21960	19.26
4	11.00	Chlorate	0.5000	0.6270		0.07382	6.48
5	11.94	Bromide	0.5000	0.5232		0.06434	5.64
6	14.06	Nitrate-N	0.2500	0.3124		0.17066	14.97
7	19.52	O-Phosphate-P	0.5000	0.5128		0.13076	11.47
8	21.96	Sulfate	1.0000	1.2128		0.21096	18.51
Total:				4.4648	0.000	1.140	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 11:45	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

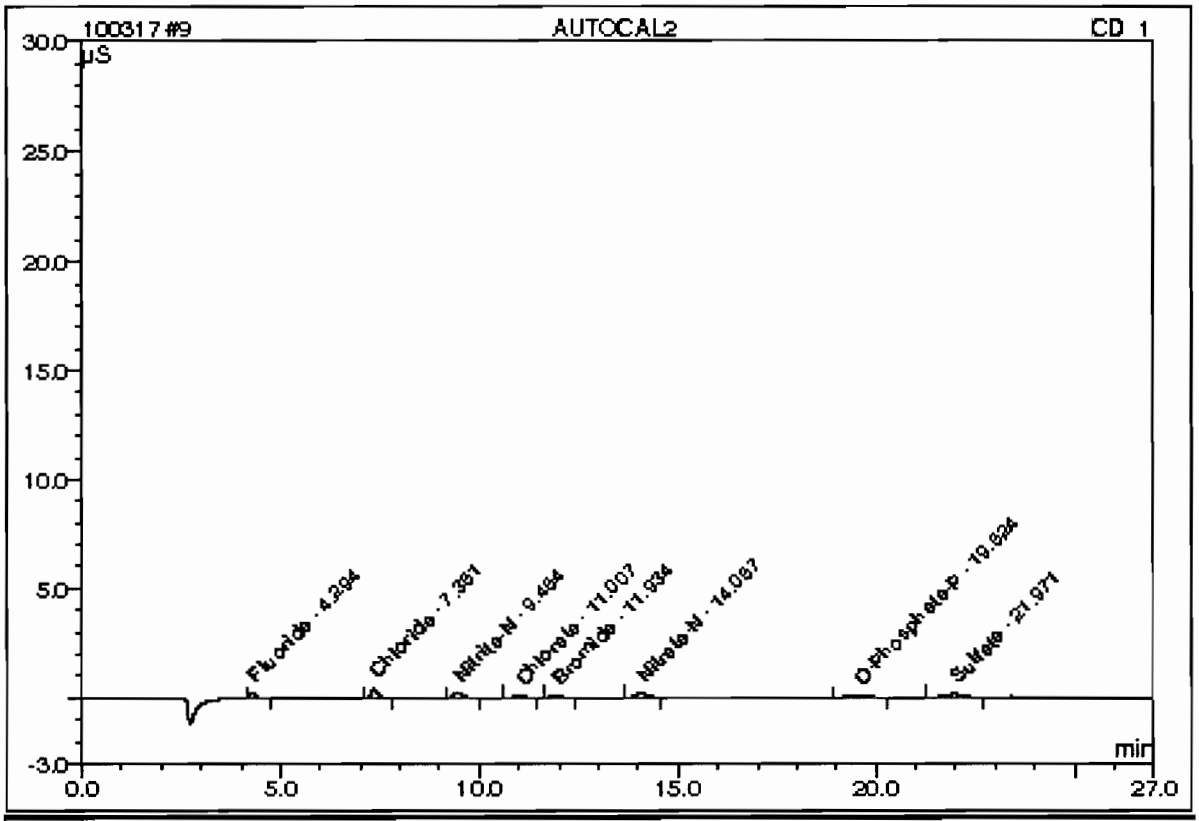

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	0.1000	0.1392		0.04186	9.37
2	7.35	Chloride	0.2000	0.3749		0.07965	17.83
3	9.46	Nitrite-N	0.1000	0.1279		0.06080	13.61
4	11.01	Chlorate	0.2000	0.1981		0.02196	4.92
5	11.93	Bromide	0.2000	0.2157		0.02531	5.67
6	14.07	Nitrate-N	0.1000	0.1723		0.06679	14.95
7	19.52	O-Phosphate-P	0.2000	0.2351		0.06039	13.52
8	21.97	Sulfate	0.4000	0.6629		0.08998	20.14
Total:				2.1261	0.000	0.447	100.00

10 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 13:14	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

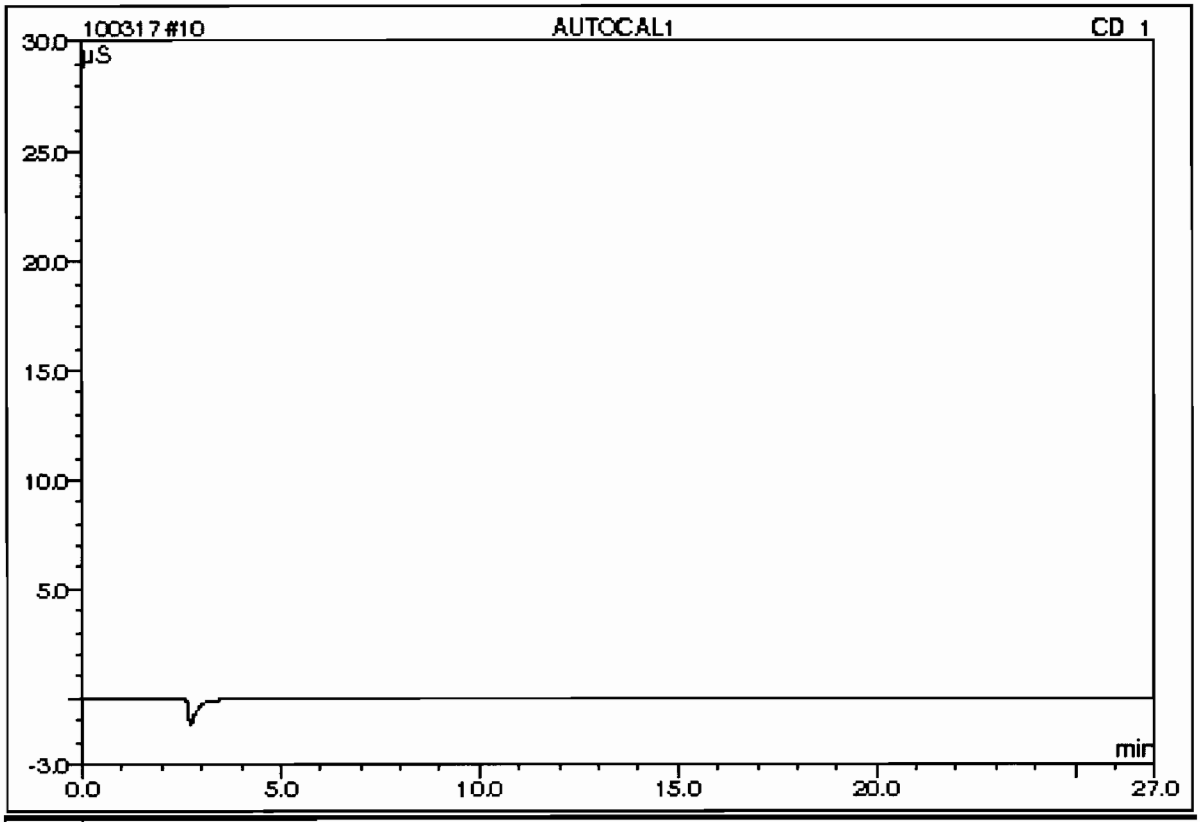

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

10 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 13:14	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002714;GLGCE086;300;9056

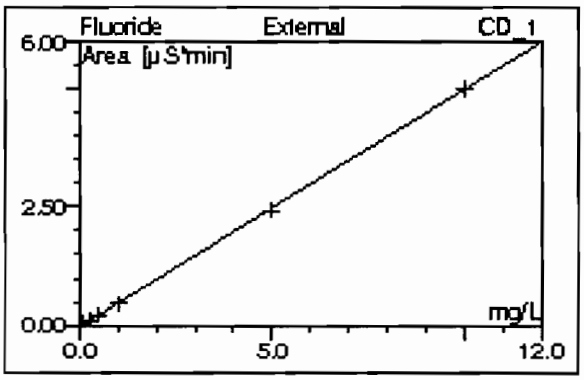

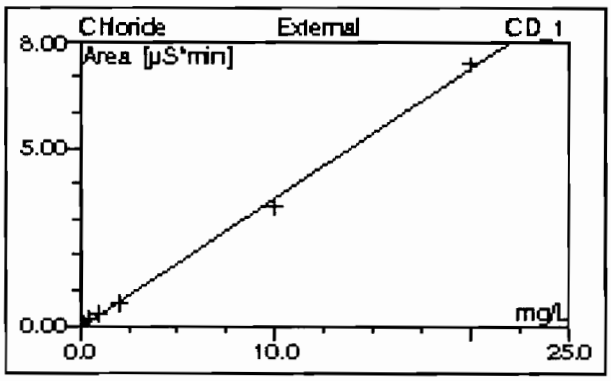

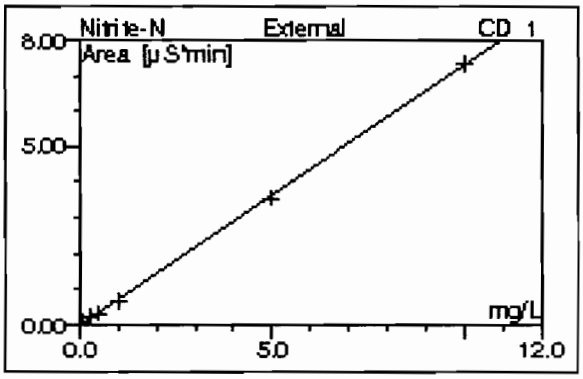

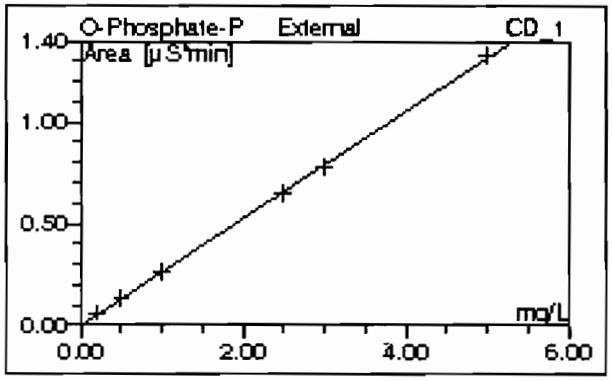

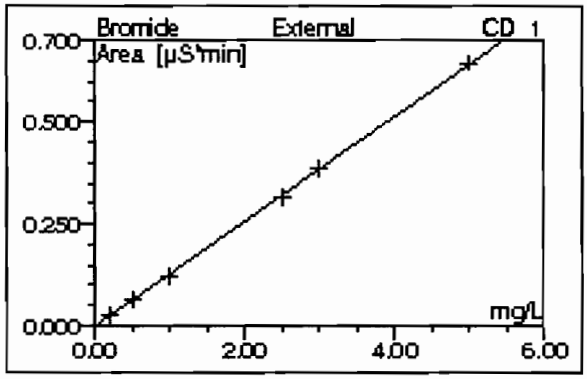

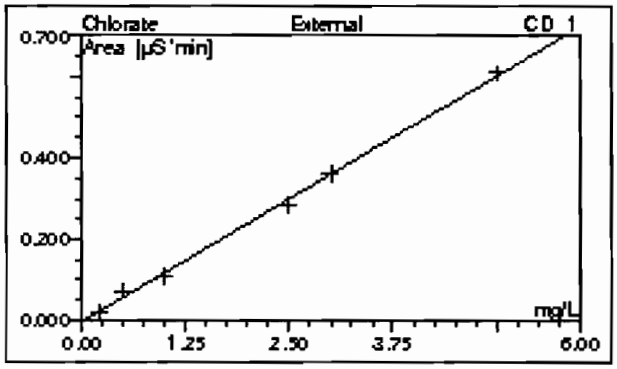

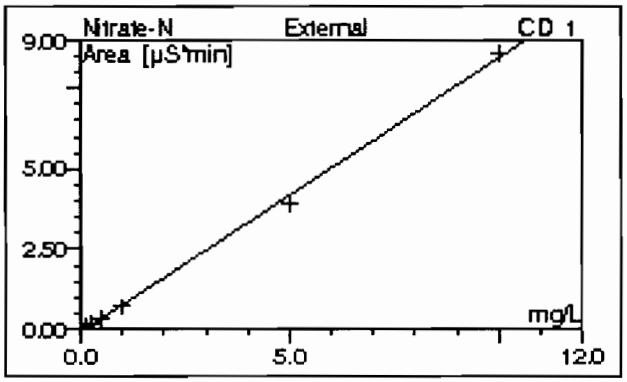

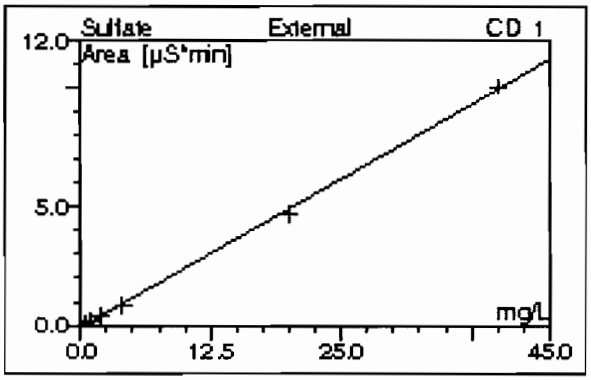

No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	OLO11	99.9751	-0.0280	0.5015	0.0000
n.a.	n.a.	Chloride	OLO11	99.8150	-0.0574	0.3656	0.0000
n.a.	n.a.	Nitrite-N	OLO11	99.9510	-0.0332	0.7348	0.0000
n.a.	n.a.	Chlorate	OLO11	99.7338	-0.0020	0.1208	0.0000
n.a.	n.a.	Bromide	OLO11	99.9700	-0.0025	0.1290	0.0000
n.a.	n.a.	Nitrate-N	OLO11	99.8613	-0.0800	0.8518	0.0000
n.a.	n.a.	O-Phosphate-P	OLO11	99.9667	-0.0017	0.2641	0.0000
n.a.	n.a.	Sulfate	OLO11	99.8983	-0.0758	0.2500	0.0000
Average:				99.8964	-0.0351	0.4022	0.0000

17 WIC100317-02ICV

Sample Name:	WIC100317-02ICV	*Injection Volume:*	50.0
Vial Number:	11	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 13:43	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

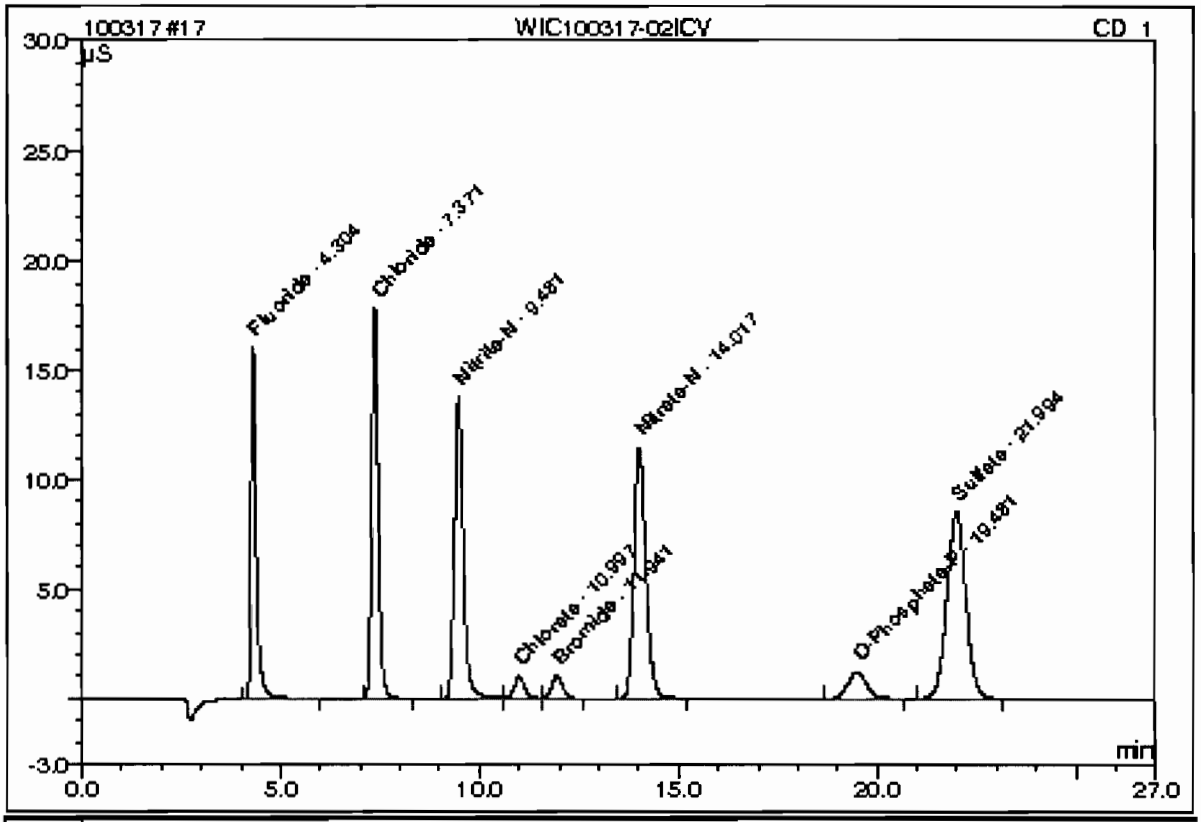

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	4.9617		2.46032	12.79
2	7.37	Chloride	n.a.	9.3464		3.35930	17.46
3	9.48	Nitrite-N	n.a.	4.8136		3.50372	18.21
4	11.00	Chlorate	n.a.	2.4909		0.29883	1.55
5	11.94	Bromide	n.a.	2.4926		0.31900	1.66
6	14.02	Nitrate-N	n.a.	4.7581		3.97314	20.65
7	19.48	O-Phosphate-P	n.a.	2.5072		0.66041	3.43
8	21.99	Sulfate	n.a.	18.9605		4.66474	24.25
Total:				50.3309	0.000	19.239	100.00

18 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	12	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 14:12	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

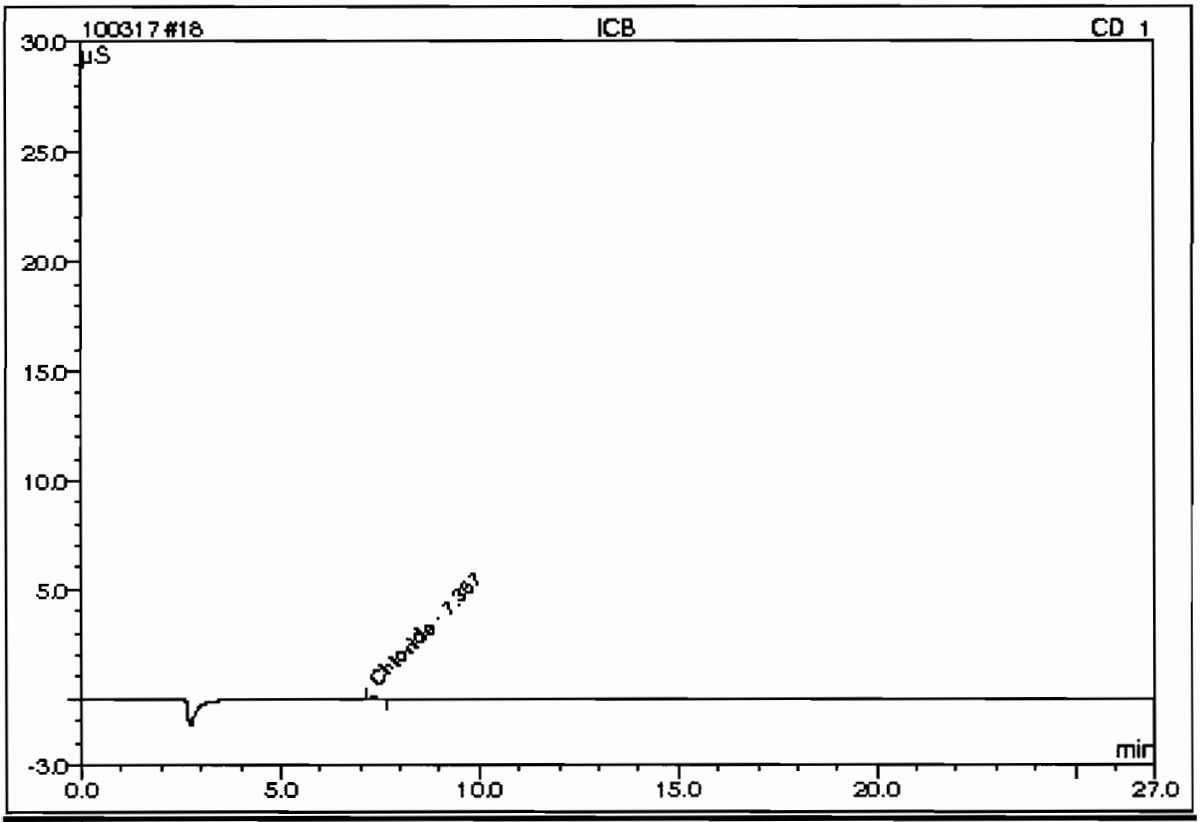

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.36	Chloride	n.a.	0.1862		0.01068	100.00
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.1862	0.000	0.011	100.00

19 1202066399/963224/1/2/MB

Sample Name:	1202066399/963224/1/2/MB	*Injection Volume:*	50.0
Vial Number:	13	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 14:42	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

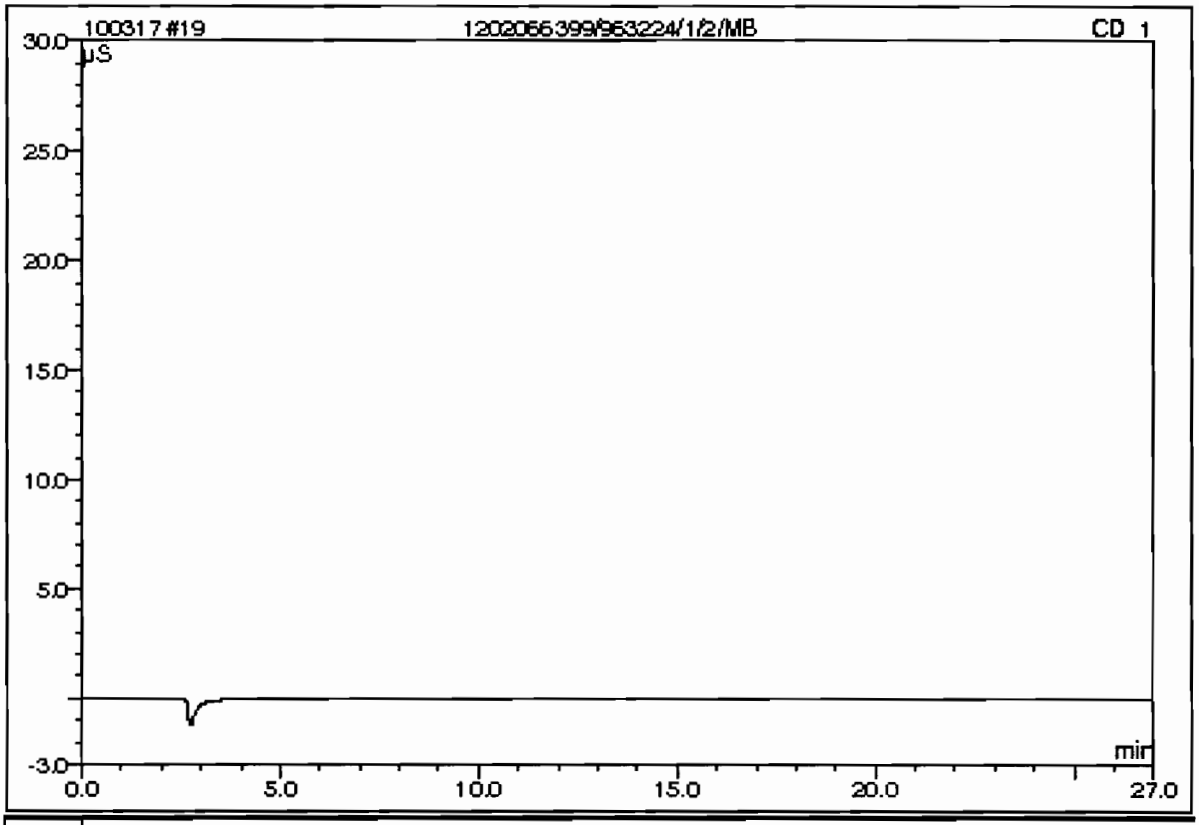

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

20 1202066402/963224/1/2/LCS

Sample Name:	1202066402/963224/1/2/LCS	*Injection Volume:*	50.0
Vial Number:	14	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 15:11	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

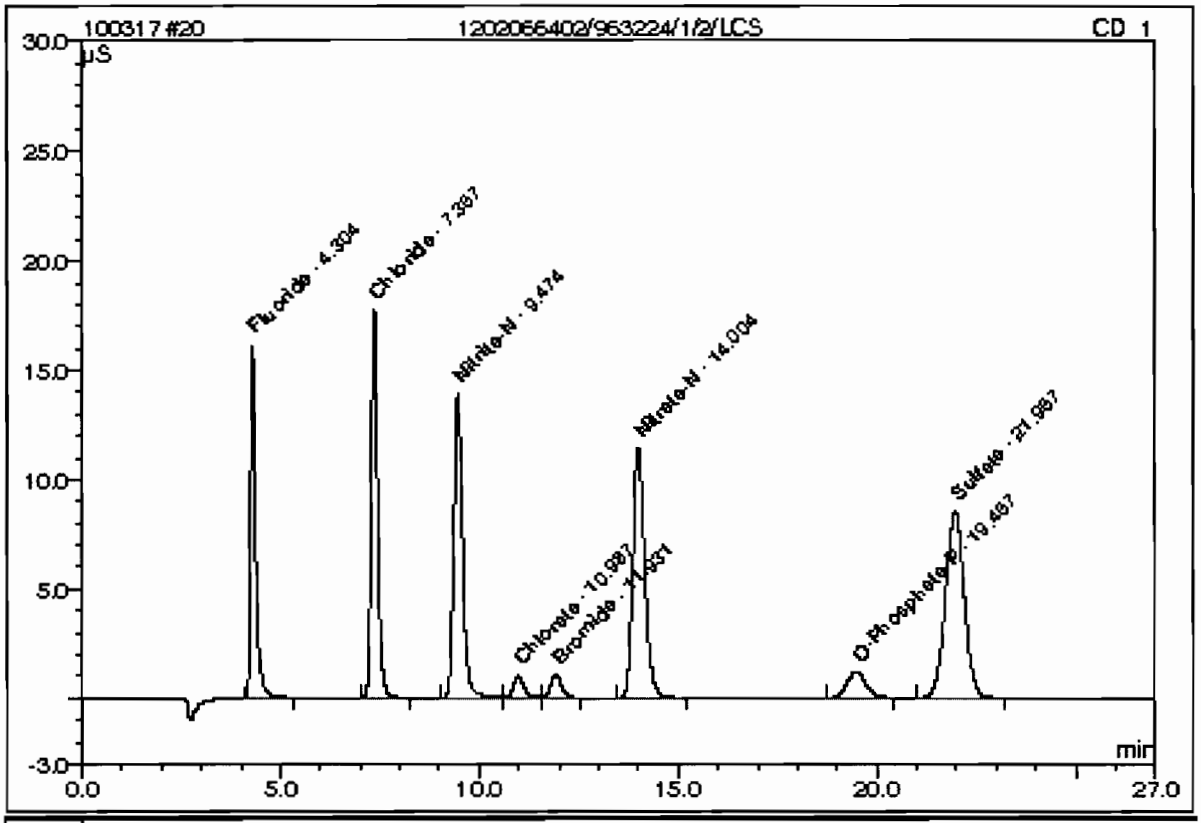

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	4.9085		2.43365	12.70
2	7.37	Chloride	n.a.	9.2905		3.33885	17.42
3	9.47	Nitrite-N	n.a.	4.8410		3.52386	18.39
4	10.99	Chlorate	n.a.	2.5161		0.30187	1.58
5	11.93	Bromide	n.a.	2.4912		0.31883	1.66
6	14.00	Nitrate-N	n.a.	4.7101		3.93230	20.52
7	19.47	O-Phosphate-P	n.a.	2.4298		0.63999	3.34
8	21.97	Sulfate	n.a.	19.0003		4.67469	24.39
Total:				50.1875	0.000	19.164	100.00

21 247261004/963224/1/3/

Sample Name:	247261004/963224/1/3/	*Injection Volume:*	50.0
Vial Number:	15	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 15:41	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

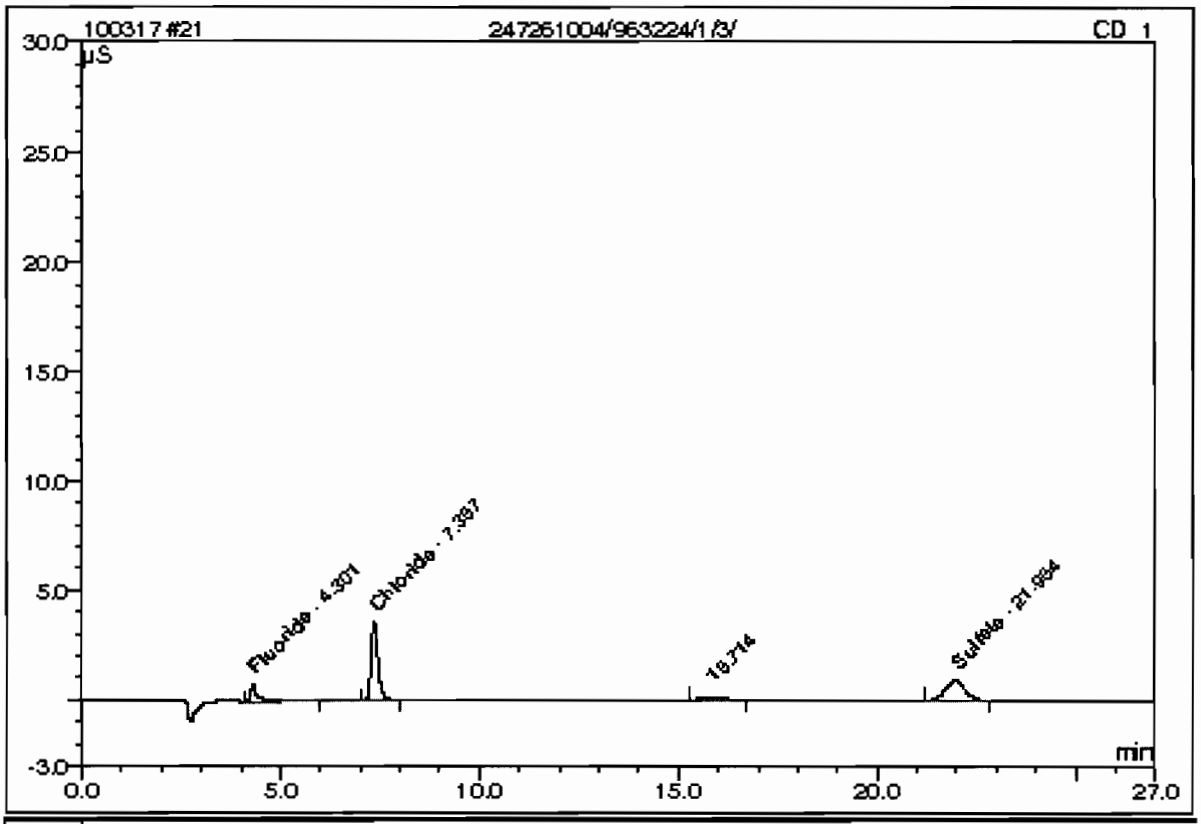

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	0.4997		0.22263	15.05
2	7.36	Chloride	n.a.	2.0600		0.69565	47.04
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	21.95	Sulfate	n.a.	2.3598		0.51423	34.77
Total:				4.9194	0.000	1.432	96.86

22 1202066400/963224/1/3/DUP

Sample Name:	1202066400/963224/1/3/DUP	*Injection Volume:*	50.0
Vial Number:	16	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 16:11	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

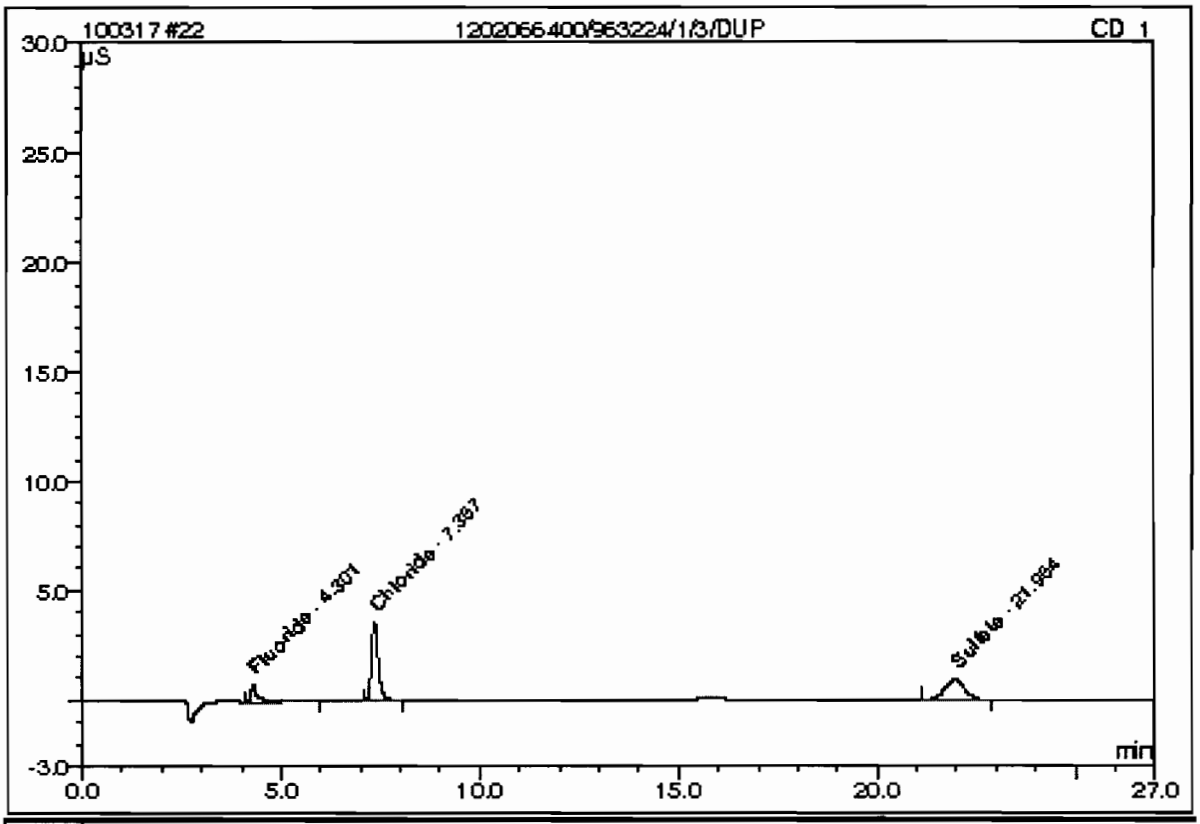

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	0.4918		0.21869	15.31
2	7.36	Chloride	n.a.	2.0647		0.69737	48.83
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	21.95	Sulfate	n.a.	2.3515		0.51216	35.86
Total:				4.9080	0.000	1.428	100.00

23 1202066401/963224/1/3/PS

Sample Name:	1202066401/963224/1/3/PS	*Injection Volume:*	50.0
Vial Number:	17	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 16:41	*Analyst:*	GXM3
Run Time (min):	27.00	*Column:*	AS23-002407; GLGCB086;300;9056

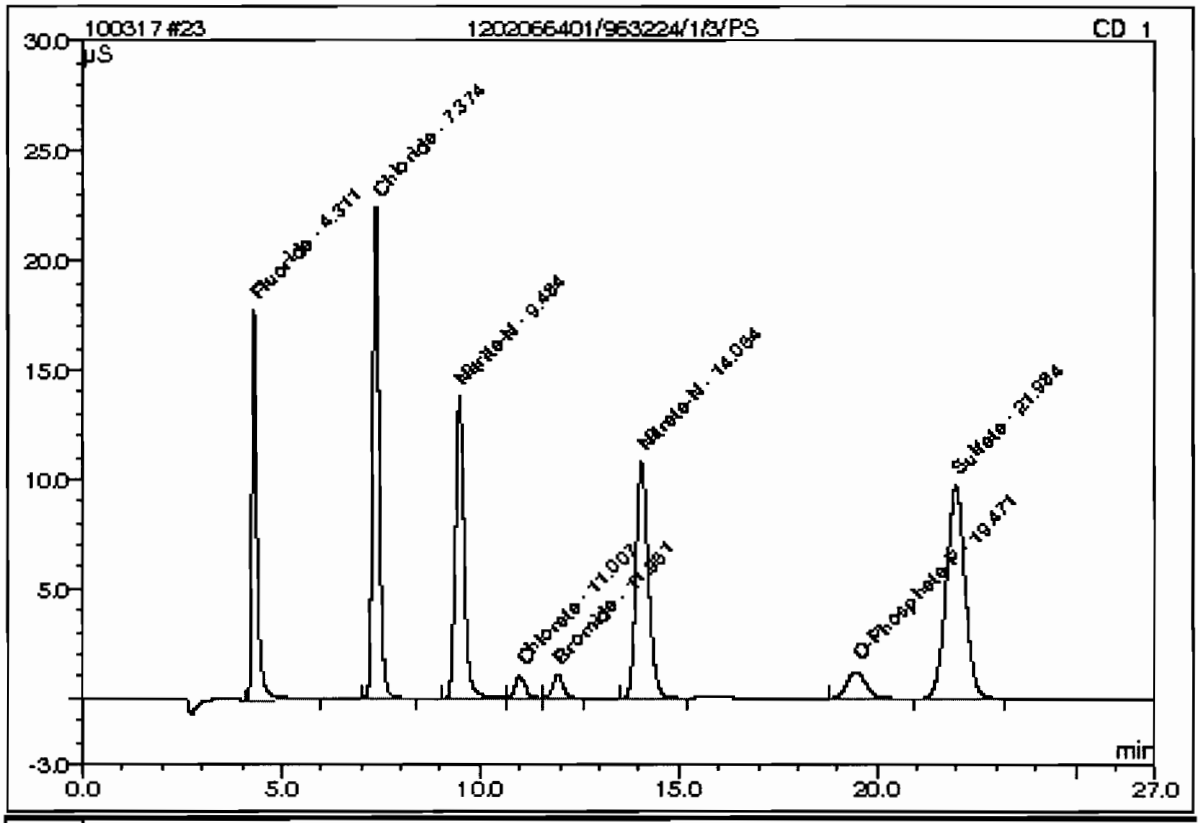

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.31	Fluoride	n.a.	5.4370		2.69867	12.89
2	7.37	Chloride	n.a.	11.7372		4.23326	20.21
3	9.48	Nitrite-N	n.a.	4.8312		3.51669	16.79
4	11.01	Chlorate	n.a.	2.4959		0.29944	1.43
5	11.96	Bromide	n.a.	2.5221		0.32281	1.54
6	14.06	Nitrate-N	n.a.	4.6962		3.92045	18.72
7	19.47	O-Phosphate-P	n.a.	2.5485		0.67132	3.21
8	21.98	Sulfate	n.a.	21.4243		5.28074	25.21
Total:				55.6924	0.000	20.943	100.00

29 WIC100317-02CVH

Sample Name:	WIC100317-02CVH	*Injection Volume:*	50.0
Vial Number:	23	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 19:40	*Analyst:*	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

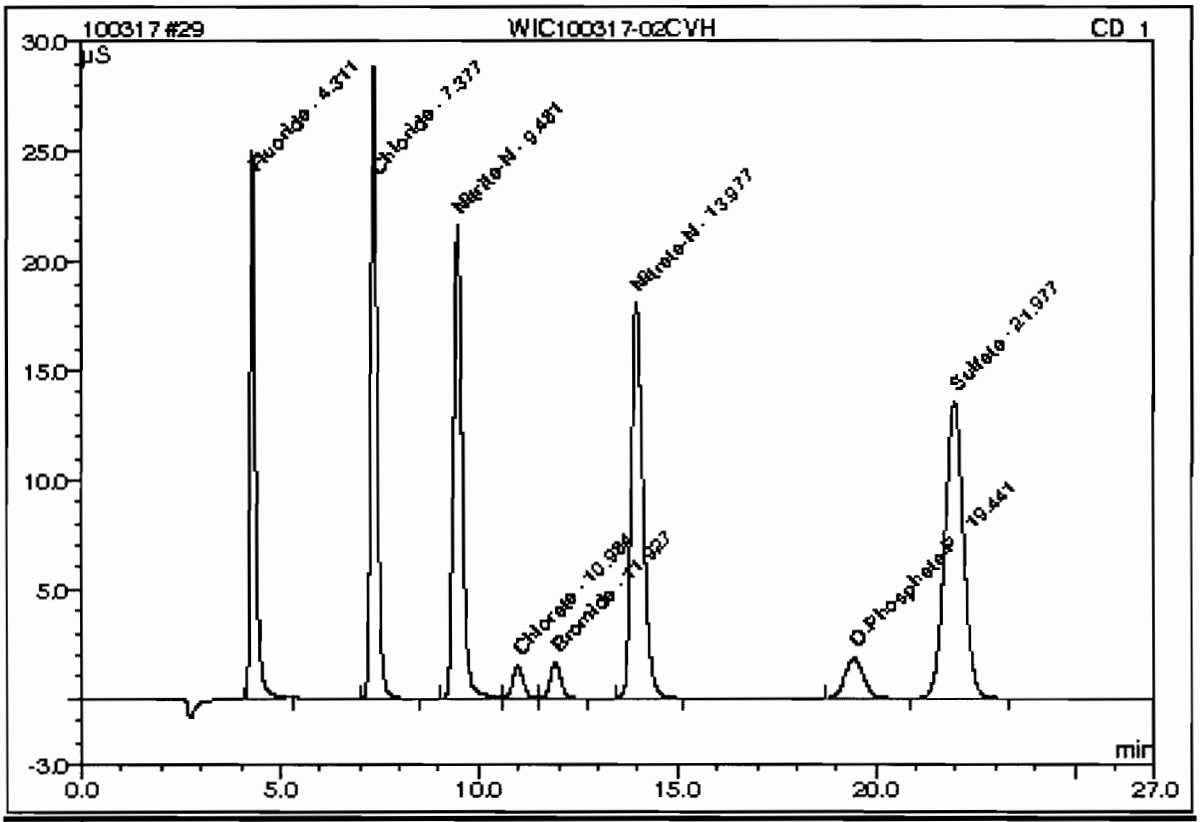

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.31	Fluoride	n.a.	7.5953		3.78108	12.57
2	7.38	Chloride	n.a.	14.8256		5.36228	17.82
3	9.48	Nitrite-N	n.a.	7.4770		5.46076	18.15
4	10.98	Chlorate	n.a.	3.7101		0.44605	1.48
5	11.93	Bromide	n.a.	3.7794		0.48498	1.61
6	13.98	Nitrate-N	n.a.	7.3974		6.22141	20.68
7	19.44	O-Phosphate-P	n.a.	3.7480		0.98809	3.28
8	21.98	Sulfate	n.a.	29.6703		7.34240	24.40
Total:				78.2031	0.000	30.087	100.00

30 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	24	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 20:10	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

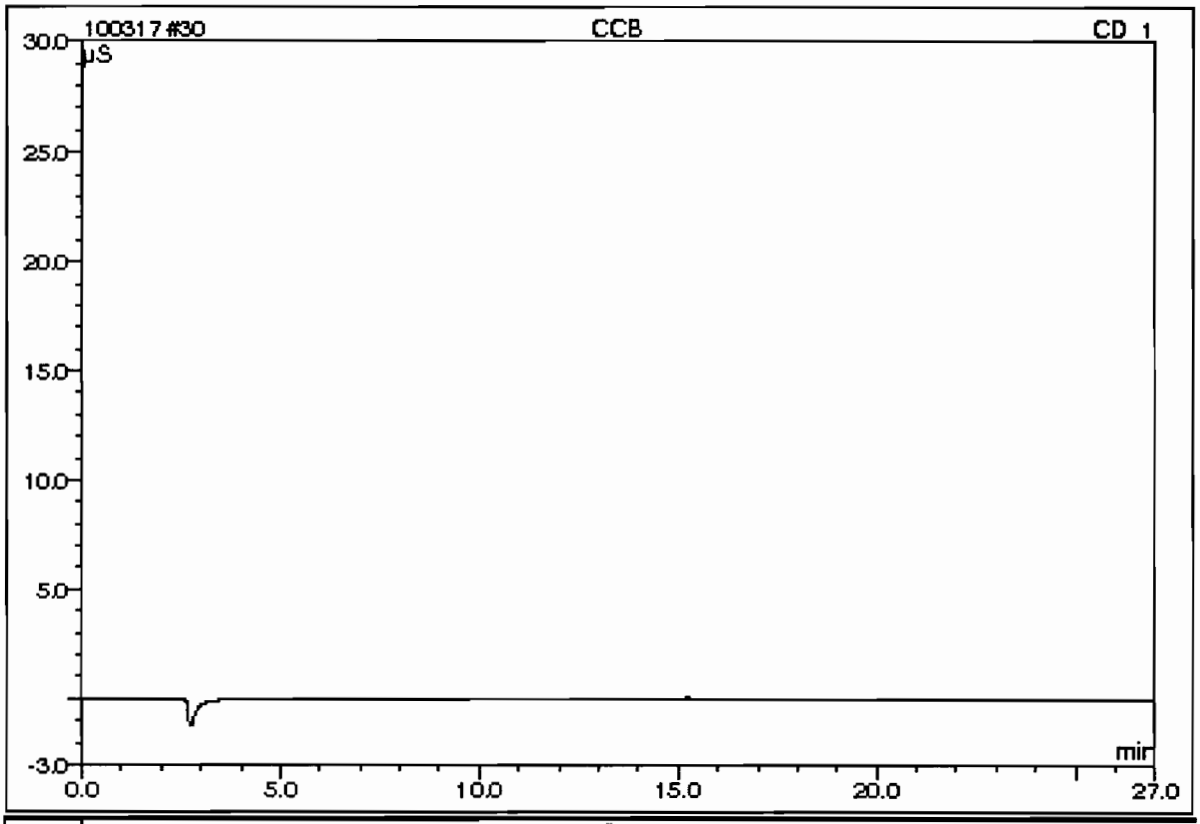

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

Nitrate Nitrite by Cadmium Reduction

This is runlog lachat3

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
1.5 PPM		1	axh3	2/22/2010 13:32:17	OM_2-22-2010_13-31-16
1.0 PPM		1	axh3	2/22/2010 13:33:29	OM_2-22-2010_13-31-16
0.5 ppm		1	axh3	2/22/2010 13:34:43	OM_2-22-2010_13-31-16
0.1 ppm		1	axh3	2/22/2010 13:35:56	OM_2-22-2010_13-31-16
0.05 ppm		1	axh3	2/22/2010 13:37:09	OM_2-22-2010_13-31-16
ICAL-00		1	axh3	2/22/2010 13:38:23	OM_2-22-2010_13-31-16
1.0 ppm ICV		1	axh3	2/22/2010 13:40:45	OM_2-22-2010_13-31-16
ICB		1	axh3	2/22/2010 13:43:07	OM_2-22-2010_13-31-16
Nitrate 1.0 ppm		1	axh3	2/22/2010 13:45:27	OM_2-22-2010_13-31-16
Nitrite 1.0 ppm		1	axh3	2/22/2010 13:47:46	OM_2-22-2010_13-31-16
1202049626	955954	1	axh3	2/22/2010 13:50:07	OM_2-22-2010_13-31-16
1202049633	955954	1	axh3	2/22/2010 13:51:20	OM_2-22-2010_13-31-16
247474001	955954	1	axh3	2/22/2010 13:52:33	OM_2-22-2010_13-31-16
247474002	955954	1	axh3	2/22/2010 13:53:46	OM_2-22-2010_13-31-16
247474003	955954	1	axh3	2/22/2010 13:54:59	OM_2-22-2010_13-31-16
247474004	955954	1	axh3	2/22/2010 13:56:11	OM_2-22-2010_13-31-16
247477001	955954	1	axh3	2/22/2010 13:57:24	OM_2-22-2010_13-31-16
247477002	955954	1	axh3	2/22/2010 13:58:37	OM_2-22-2010_13-31-16
247477003	955954	1	axh3	2/22/2010 13:59:49	OM_2-22-2010_13-31-16
247479001	955954	1	axh3	2/22/2010 14:01:01	OM_2-22-2010_13-31-16
1.0 ppm CCV		1	axh3	2/22/2010 14:02:13	OM_2-22-2010_13-31-16
CCB		1	axh3	2/22/2010 14:04:35	OM_2-22-2010_13-31-16
247479002	955954	1	axh3	2/22/2010 14:06:54	OM_2-22-2010_13-31-16
247479003	955954	1	axh3	2/22/2010 14:08:07	OM_2-22-2010_13-31-16
247479004	955954	1	axh3	2/22/2010 14:09:19	OM_2-22-2010_13-31-16
247479005	955954	1	axh3	2/22/2010 14:10:30	OM_2-22-2010_13-31-16
247479006	955954	1	axh3	2/22/2010 14:11:41	OM_2-22-2010_13-31-16
247521001	955954	1	axh3	2/22/2010 14:12:55	OM_2-22-2010_13-31-16
1202049627	955954	1	axh3	2/22/2010 14:14:08	OM_2-22-2010_13-31-16
1202049629	955954	1	axh3	2/22/2010 14:15:21	OM_2-22-2010_13-31-16
1202049631	955954	1	axh3	2/22/2010 14:16:34	OM_2-22-2010_13-31-16
247572001	955954	1	axh3	2/22/2010 14:17:47	OM_2-22-2010_13-31-16
1.0 ppm CCV		1	axh3	2/22/2010 14:18:59	OM_2-22-2010_13-31-16
CCB		1	axh3	2/22/2010 14:21:21	OM_2-22-2010_13-31-16
1202049628	955954	1	axh3	2/22/2010 14:23:41	OM_2-22-2010_13-31-16
1202049630	955954	1	axh3	2/22/2010 14:24:54	OM_2-22-2010_13-31-16
1202049632	955954	1	axh3	2/22/2010 14:26:06	OM_2-22-2010_13-31-16
247474004	955954	5	axh3	2/22/2010 14:27:19	OM_2-22-2010_13-31-16
1202046112	954507	1	axh3	2/22/2010 14:28:32	OM_2-22-2010_13-31-16
1202046115	954507	1	axh3	2/22/2010 14:29:43	OM_2-22-2010_13-31-16
247092001	954507	5	axh3	2/22/2010 14:30:56	OM_2-22-2010_13-31-16
247109001	954507	5	axh3	2/22/2010 14:32:08	OM_2-22-2010_13-31-16
1202046113	954507	5	axh3	2/22/2010 14:33:20	OM_2-22-2010_13-31-16
1202046114	954507	5	axh3	2/22/2010 14:34:31	OM_2-22-2010_13-31-16
1.0 ppm CCV		1	axh3	2/22/2010 14:35:43	OM_2-22-2010_13-31-16
CCB		1	axh3	2/22/2010 14:38:05	OM_2-22-2010_13-31-16
247109002	954507	5	axh3	2/22/2010 14:40:25	OM_2-22-2010_13-31-16
247127001	954507	5	axh3	2/22/2010 14:41:38	OM_2-22-2010_13-31-16
247130001	954507	5	axh3	2/22/2010 14:42:51	OM_2-22-2010_13-31-16
247139001	954507	5	axh3	2/22/2010 14:44:04	OM_2-22-2010_13-31-16
247179001	954507	5	axh3	2/22/2010 14:45:17	OM_2-22-2010_13-31-16
247183001	954507	5	axh3	2/22/2010 14:46:30	OM_2-22-2010_13-31-16
247203001	954507	5	axh3	2/22/2010 14:47:42	OM_2-22-2010_13-31-16
247434001	954507	5	axh3	2/22/2010 14:48:55	OM_2-22-2010_13-31-16
247501001	954507	5	axh3	2/22/2010 14:50:07	OM_2-22-2010_13-31-16
1202049642	954507	5	axh3	2/22/2010 14:51:20	OM_2-22-2010_13-31-16
1.0 ppm CCV		1	axh3	2/22/2010 14:52:31	OM_2-22-2010_13-31-16
CCB		1	axh3	2/22/2010 14:54:53	OM_2-22-2010_13-31-16

1202050376	954507	5	axh3	2/22/2010	14:57:13	OM_2-22-2010_13-31-16
247501002	954507	5	axh3	2/22/2010	14:58:25	OM_2-22-2010_13-31-16
247501003	954507	5	axh3	2/22/2010	14:59:36	OM_2-22-2010_13-31-16
247501004	954507	5	axh3	2/22/2010	15:00:48	OM_2-22-2010_13-31-16
247501005	954507	5	axh3	2/22/2010	15:02:01	OM_2-22-2010_13-31-16
247501006	954507	5	axh3	2/22/2010	15:03:15	OM_2-22-2010_13-31-16
247501007	954507	5	axh3	2/22/2010	15:04:28	OM_2-22-2010_13-31-16
247441001	954507	5	axh3	2/22/2010	15:05:41	OM_2-22-2010_13-31-16
1202049645	955958	1	axh3	2/22/2010	15:06:53	OM_2-22-2010_13-31-16
1202049656	955958	1	axh3	2/22/2010	15:08:06	OM_2-22-2010_13-31-16
1.0 ppm CCV		1	axh3	2/22/2010	15:09:18	OM_2-22-2010_13-31-16
CCB		1	axh3	2/22/2010	15:11:40	OM_2-22-2010_13-31-16
247072002	955958	25	axh3	2/22/2010	15:14:00	OM_2-22-2010_13-31-16
1202049647	955958	25	axh3	2/22/2010	15:15:13	OM_2-22-2010_13-31-16
1202049652	955958	25	axh3	2/22/2010	15:16:26	OM_2-22-2010_13-31-16
247261004	955958	5	axh3	2/22/2010	15:17:38	OM_2-22-2010_13-31-16
1202049648	955958	5	axh3	2/22/2010	15:18:50	OM_2-22-2010_13-31-16
1202049653	955958	5	axh3	2/22/2010	15:20:02	OM_2-22-2010_13-31-16
247310006	955958	100	axh3	2/22/2010	15:21:15	OM_2-22-2010_13-31-16
1202049649	955958	100	axh3	2/22/2010	15:22:29	OM_2-22-2010_13-31-16
1202049654	955958	100	axh3	2/22/2010	15:23:42	OM_2-22-2010_13-31-16
247559001	955958	5	axh3	2/22/2010	15:24:55	OM_2-22-2010_13-31-16
1.0 ppm CCV		1	axh3	2/22/2010	15:26:07	OM_2-22-2010_13-31-16
CCB		1	axh3	2/22/2010	15:28:29	OM_2-22-2010_13-31-16
1202049646	955958	5	axh3	2/22/2010	15:30:51	OM_2-22-2010_13-31-16
1202049651	955958	5	axh3	2/22/2010	15:32:04	OM_2-22-2010_13-31-16
247505001	955958	5	axh3	2/22/2010	15:33:16	OM_2-22-2010_13-31-16
1202049650	955958	5	axh3	2/22/2010	15:34:28	OM_2-22-2010_13-31-16
1202049655	955958	5	axh3	2/22/2010	15:35:40	OM_2-22-2010_13-31-16
247072006	955958	5	axh3	2/22/2010	15:36:53	OM_2-22-2010_13-31-16
247072008	955958	25	axh3	2/22/2010	15:38:04	OM_2-22-2010_13-31-16
247072010	955958	25	axh3	2/22/2010	15:39:17	OM_2-22-2010_13-31-16
247072013	955958	25	axh3	2/22/2010	15:40:29	OM_2-22-2010_13-31-16
247310007	955958	100	axh3	2/22/2010	15:41:41	OM_2-22-2010_13-31-16
1.0 ppm CCV		1	axh3	2/22/2010	15:42:53	OM_2-22-2010_13-31-16
CCB		1	axh3	2/22/2010	15:45:15	OM_2-22-2010_13-31-16
247310008	955958	100	axh3	2/22/2010	15:47:36	OM_2-22-2010_13-31-16
247310009	955958	50	axh3	2/22/2010	15:48:49	OM_2-22-2010_13-31-16
247310010	955958	5	axh3	2/22/2010	15:50:01	OM_2-22-2010_13-31-16
247431002	955958	5	axh3	2/22/2010	15:51:14	OM_2-22-2010_13-31-16
247505002	955958	5	axh3	2/22/2010	15:52:26	OM_2-22-2010_13-31-16
247505003	955958	5	axh3	2/22/2010	15:53:38	OM_2-22-2010_13-31-16
247505004	955958	5	axh3	2/22/2010	15:54:50	OM_2-22-2010_13-31-16
247505005	955958	5	axh3	2/22/2010	15:56:02	OM_2-22-2010_13-31-16
1.0 ppm CCV		1	axh3	2/22/2010	15:58:22	OM_2-22-2010_13-31-16
CCB		1	axh3	2/22/2010	16:00:45	OM_2-22-2010_13-31-16

Author: lachat

Date : 2/22/2010

Original Run Filename: OM_2-22-2010_13-31-16.OMN created 2/22/2010 13:31:16
Original Run Author's Signature: [lachat]
Current Run Filename: OM_2-22-2010_13-31-16.OMN last modified 2/22/2010 16:02:05
Current Run Author's Signature: [lachat]
Description: EPA 353.2
Cadmium Colum 9056CAJ
LCS nominal 1.0 mg/L

Sample	Rep.	Cup No.	Channel 1 NO3 + NO2 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100222-26	1	S9	1.50	15.3	2/22/2010@13:32:17			1.5 PPM
WTR100222-25	1	S10	1.00	10.2	2/22/2010@13:33:29			1.0 PPM
WTR100222-24	1	S11	0.500	5.10	2/22/2010@13:34:43			0.5 ppm
WTR100222-23	1	S12	0.100	1.08	2/22/2010@13:35:56			0.1 ppm
WTR100222-21	1	S13	0.0500	0.531	2/22/2010@13:37:09			0.05 ppm
0.0ppm	1	S15	0.00	-0.00960	2/22/2010@13:38:23			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99999 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR100222-27 ICV	1	S16	1.00	10.2	2/22/2010@13:40:45			1.0 ppm ICV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.00 < 1.10					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.00 > 0.894					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
ICB	1	S15	-0.00242	-0.00162	2/22/2010@13:43:07			ICB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00242 < 0.0500					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00242 > -0.0500					
		Message	ICB Passed					
		Action	Continue					
WTR100222-22	1	S1	0.992	10.1	2/22/2010@13:45:27			Nitrate 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.992 < 1.10					
		Message	Nitrate Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.992 > 0.894					
		Message	Nitrate Standard Passed					
		Action	Continue					
WTR100222-28	1	S2	0.994	10.1	2/22/2010@13:47:46			Nitrite 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.994 < 1.10					
		Message	Nitrite Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.994 > 0.894					
		Message	Nitrite Standard Passed					
		Action	Continue					
1202049626|955954|MB	1	1	0.00237	0.0470	2/22/2010@13:50:07			
1202049633||LCS	1	2	1.01	10.3	2/22/2010@13:51:20			
247474001	1	3	0.00796	0.104	2/22/2010@13:52:33			
247474002	1	4	0.00803	0.105	2/22/2010@13:53:46			
247474003	1	5	0.00912	0.116	2/22/2010@13:54:59			

247474004	1	6	-0.0934	-0.926	2/22/2010@13:56:11			
247477001	1	7	0.0188	0.214	2/22/2010@13:57:24			
247477002	1	8	0.0124	0.149	2/22/2010@13:58:37			
247477003	1	9	0.00949	0.119	2/22/2010@13:59:49			
247479001	1	10	-0.00144	0.00830	2/22/2010@14:01:01			
WTR100222-25 CCV	1	S10	0.993	10.1	2/22/2010@14:02:13			1.0 ppm CCV
	Known Conc:		1.00					
DQM Test: > + Concentration Limit								
	Result:		0.993 < 1.10					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		0.993 > 0.894					
	Message		CCV Passed					
	Action		Continue					
CCB	1	S15	-0.00380	-0.0157	2/22/2010@14:04:35			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-0.00380 < 0.0500					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-0.00380 > -0.0500					
	Message		CCB Passed					
	Action		Continue					
247479002	1	11	4.30e-4	0.0273	2/22/2010@14:06:54			
247479003	1	12	0.00111	0.0343	2/22/2010@14:08:07			
247479004	1	13	-7.38e-4	0.0155	2/22/2010@14:09:19			
247479005	1	14	0.00291	0.0526	2/22/2010@14:10:30			
247479006	1	15	0.00152	0.0384	2/22/2010@14:11:41			
247521001	1	16	0.00349	0.0585	2/22/2010@14:12:55			
1202049627||DUP	1	17	0.00132	0.0364	2/22/2010@14:14:08			
1202049629||MS	1	18	0.860	8.76	2/22/2010@14:15:21			
1202049631||MSD	1	19	0.874	8.91	2/22/2010@14:16:34			
247572001	1	20	0.00610	0.0850	2/22/2010@14:17:47			
WTR100222-25 CCV	1	S10	0.971	9.89	2/22/2010@14:18:59			1.0 ppm CCV
	Known Conc:		1.00					
DQM Test: > + Concentration Limit								
	Result:		0.971 < 1.10					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		0.971 > 0.894					
	Message		CCV Passed					
	Action		Continue					
CCB	1	S15	-0.00325	-0.0100	2/22/2010@14:21:21			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-0.00325 < 0.0500					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-0.00325 > -0.0500					
	Message		CCB Passed					
	Action		Continue					
1202049628||DUP	1	21	0.00515	0.0754	2/22/2010@14:23:41			
1202049630||MS	1	22	0.829	8.45	2/22/2010@14:24:54			
1202049632||MSD	1	23	0.812	8.28	2/22/2010@14:26:06			
247474004	1	6	0.0161	0.186	2/22/2010@14:27:19		5.00	
1202046112|954507|MB	1	24	-0.00171	0.00560	2/22/2010@14:28:32			
1202046115||LCS	1	25	0.966	9.84	2/22/2010@14:29:43			
247092001	1	26	0.00239	0.0472	2/22/2010@14:30:56		5.00	
247109001	1	27	0.00640	0.0881	2/22/2010@14:32:08		5.00	
1202046113||DUP	1	28	0.00201	0.0434	2/22/2010@14:33:20		5.00	
1202046114||PS	1	29	0.972	9.90	2/22/2010@14:34:31		5.00	
WTR100222-25 CCV	1	S10	0.964	9.82	2/22/2010@14:35:43			1.0 ppm CCV
	Known Conc:		1.00					
DQM Test: > + Concentration Limit								

		Result:	0.964 < 1.10					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.964 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00641	-0.0422	2/22/2010@14:38:05			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.00641 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.00641 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
247109002	1	30	0.00286	0.0520	2/22/2010@14:40:25		5.00	
247127001	1	31	0.00792	0.103	2/22/2010@14:41:38		5.00	
247130001	1	32	0.00285	0.0520	2/22/2010@14:42:51		5.00	
247139001	1	33	0.00354	0.0590	2/22/2010@14:44:04		5.00	
247179001	1	34	0.00494	0.0731	2/22/2010@14:45:17		5.00	
247183001	1	35	0.00312	0.0546	2/22/2010@14:46:30		5.00	
247203001	1	36	0.00563	0.0802	2/22/2010@14:47:42		5.00	
247434001	1	37	0.183	1.88	2/22/2010@14:48:55		5.00	
247501001	1	39	0.0468	0.499	2/22/2010@14:50:07		5.00	
1202049642||DUP	1	40	0.0466	0.497	2/22/2010@14:51:20		5.00	
WTR100222-25 CCV	1	S10	0.960	9.78	2/22/2010@14:52:31			1.0 ppm CCV
		Known Conc:	1.00					
			DQM Test: > + Concentration Limit					
		Result:	0.960 < 1.10					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.960 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00468	-0.0246	2/22/2010@14:54:53			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.00468 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.00468 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202050376||PS	1	41	1.01	10.3	2/22/2010@14:57:13		5.00	
247501002	1	43	0.171	1.76	2/22/2010@14:58:25		5.00	
247501003	1	44	0.119	1.24	2/22/2010@14:59:36		5.00	
247501004	1	45	0.117	1.21	2/22/2010@15:00:48		5.00	
247501005	1	46	0.0326	0.354	2/22/2010@15:02:01		5.00	
247501006	1	47	0.0164	0.190	2/22/2010@15:03:15		5.00	
247501007	1	48	0.0579	0.612	2/22/2010@15:04:28		5.00	
247441001	1	38	8.92e-4	0.0320	2/22/2010@15:05:41		5.00	
1202049645|955958|MB	1	49	-0.00218	8.45e-4	2/22/2010@15:06:53			
1202049656||LCS	1	50	0.967	9.85	2/22/2010@15:08:06			
WTR100222-25 CCV	1	S10	0.958	9.76	2/22/2010@15:09:18			1.0 ppm CCV
		Known Conc:	1.00					
			DQM Test: > + Concentration Limit					
		Result:	0.958 < 1.10					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.958 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00466	-0.0244	2/22/2010@15:11:40			CCB

		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00466 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00466 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
247072002	1	51	0.348	3.56	2/22/2010@15:14:00		25.00	
1202049647||DUP	1	52	0.331	3.39	2/22/2010@15:15:13		25.00	
1202049652||PS	1	53	1.24	12.7	2/22/2010@15:16:26		25.00	
247261004	1	58	0.0334	0.363	2/22/2010@15:17:38		5.00	
1202049648||DUP	1	59	0.0369	0.398	2/22/2010@15:18:50		5.00	
1202049653||PS	1	60	1.05	10.7	2/22/2010@15:20:02		5.00	
247310006	1	61	0.356	3.65	2/22/2010@15:21:15		100.00	
1202049649||DUP	1	62	0.354	3.62	2/22/2010@15:22:29		100.00	
1202049654||PS	1	63	1.32	13.4	2/22/2010@15:23:42		100.00	
247559001	1	76	0.00466	0.0703	2/22/2010@15:24:55		5.00	
WTR100222-25 CCV	1	S10	0.950	9.67	2/22/2010@15:26:07			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.950 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.950 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00465	-0.0243	2/22/2010@15:28:29			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00465 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00465 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202049646||DUP	1	77	0.00558	0.0797	2/22/2010@15:30:51		5.00	
1202049651||PS	1	78	1.00	10.2	2/22/2010@15:32:04		5.00	
247505001	1	69	0.0146	0.171	2/22/2010@15:33:16		5.00	
1202049650||DUP	1	70	0.0165	0.191	2/22/2010@15:34:28		5.00	
1202049655||PS	1	71	1.01	10.3	2/22/2010@15:35:40		5.00	
247072006	1	54	0.00469	0.0707	2/22/2010@15:36:53		5.00	
247072008	1	55	0.403	4.12	2/22/2010@15:38:04		25.00	
247072010	1	56	0.398	4.06	2/22/2010@15:39:17		25.00	
247072013	1	57	0.437	4.47	2/22/2010@15:40:29		25.00	
247310007	1	64	0.338	3.45	2/22/2010@15:41:41		100.00	
WTR100222-25 CCV	1	S10	0.948	9.66	2/22/2010@15:42:53			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.948 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.948 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00614	-0.0394	2/22/2010@15:45:15			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00614 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00614 > -0.0500					
		Message	CCB Passed					

		Action	Continue					
247310008	1	65	0.252	2.58	2/22/2010@15:47:36		100.00	
247310009	1	66	0.297	3.04	2/22/2010@15:48:49		50.00	
247310010	1	67	0.0653	0.686	2/22/2010@15:50:01		5.00	
247431002	1	68	0.0576	0.608	2/22/2010@15:51:14		5.00	
247505002	1	72	0.00262	0.0496	2/22/2010@15:52:26		5.00	
247505003	1	73	-0.00328	-0.0103	2/22/2010@15:53:38		5.00	
247505004	1	74	0.00857	0.110	2/22/2010@15:54:50		5.00	
247505005	1	75	0.00493	0.0730	2/22/2010@15:56:02		5.00	
WTR100222-25 CCV	1	S10	0.941	9.58	2/22/2010@15:58:22			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.941 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.941 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00744	-0.0526	2/22/2010@16:00:45			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00744 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00744 > -0.0500					
		Message	CCB Passed					
		Action	Continue					

Channel 1 (NO3 + NO2) : Current View

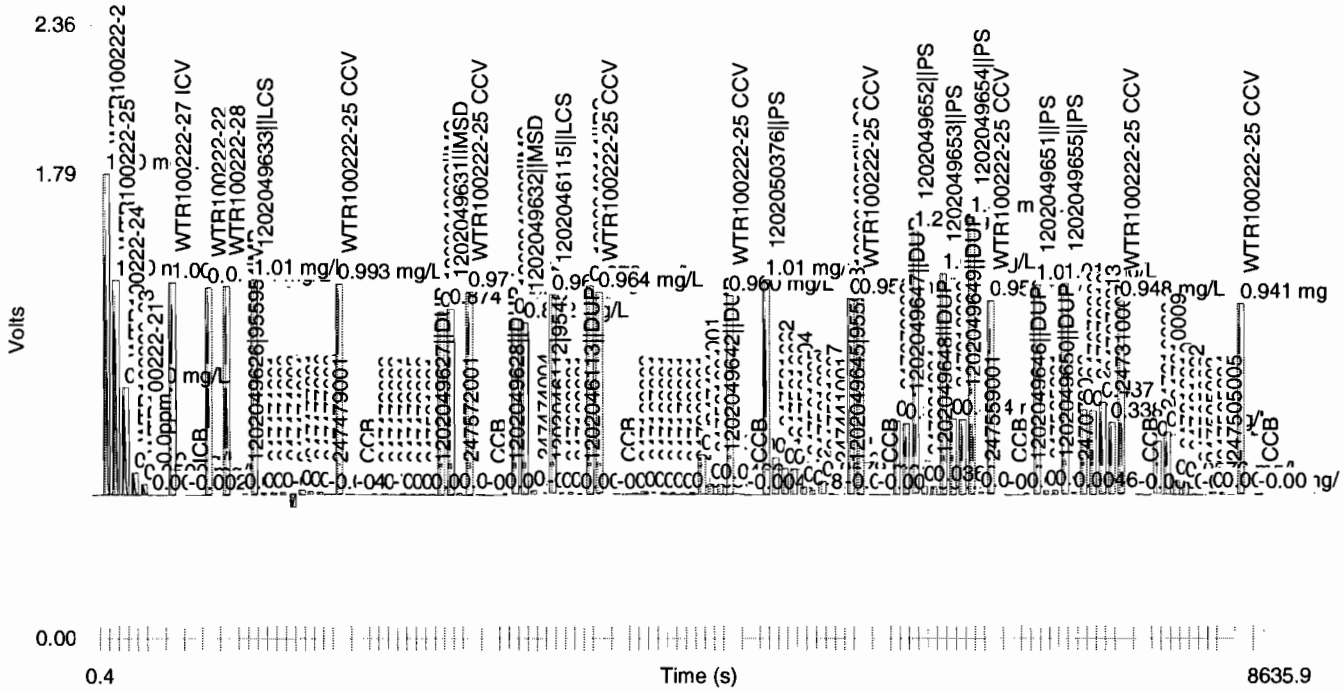

Table 1: NO3 + NO2

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	1.50	1	15.3	1.23	-0.0	2/22/2010	13:33:37
2	1.00	1	10.2	0.822	0.1	2/22/2010	13:34:50
3	0.500	1	5.10	0.410	0.0	2/22/2010	13:36:02
4	0.100	1	1.08	0.0857	-4.0	2/22/2010	13:37:16
5	0.0500	1	0.531	0.0415	0.1	2/22/2010	13:38:29
6	0.00	1	-0.00960	-1.18e-4		2/22/2010	13:39:43

Figure 1: NO3 + NO2

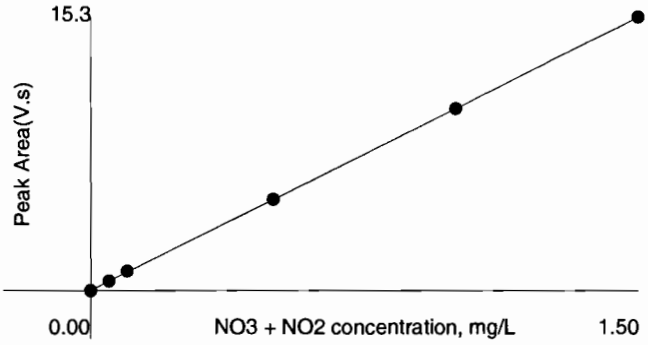

Area = 10.2 * Conc + 0.0231
Conc = 0.0984 * Area - 0.00226
Correlation Coefficient (r) = 0.99999

No Weighting

Solids, Total Dissolved

Batch: 955943.0
Analyst:SDS

TDS/TS/VS LogBook

Procedure Code BALDSEP_L
Procedure Description EPA 160.1 Solids, Dissolved
Lab Sop GL-GC-E-001

Sample Type	Sample Id	Lot Id	Nc(mg/L)	Recovery(%)
LCS	1202049606	WTD1254191-01	300	98.667

Sample Type	Sample Id	Rpd(%)
DUP	1202049604	.71684587813620
DUP	1202049605	6.0851926977688
DUP	1202050371	2.5782688766114

Sample Id	Sample Type	Original Hsn	Instrument	Run Date	Crucible ID	Aliquot (L)	Crucible Wt(g)	Final Wt Event 1	Final Wt Event 2	Final Wt Event 3	Final Wt Event 4	Result	Units
1202049603	MB		BAL216	22-FEB-2010 12:31	NO	0.1	60.8142	60.8145	60.8142			0	mg/L
1202049606	LCS		BAL216	22-FEB-2010 12:31	B4	0.1	53.0735	53.1031	53.1031			296	mg/L
247261004	SAMPLE		BAL216	22-FEB-2010 12:31	ONA	0.1	49.0156	49.0295	49.029			134	mg/L
1202049604	DUP	247261004	BAL216	22-FEB-2010 12:31	CUT	0.1	50.902	50.9163	50.916			140	mg/L
247404001	SAMPLE		BAL216	22-FEB-2010 12:31	P7	0.1	57.3002	57.6467	57.6462			3460	mg/L
247431002	SAMPLE		BAL216	22-FEB-2010 12:31	DUK	0.1	55.7301	55.7428	55.7423			122	mg/L
247434001	SAMPLE		BAL216	22-FEB-2010 12:31	GEM	0.1	49.9305	49.9503	49.95			195	mg/L
247438001	SAMPLE		BAL216	22-FEB-2010 12:31	XOU	0.1	53.3408	53.3665	53.3662			254	mg/L
1202049605	DUP	247438001	BAL216	22-FEB-2010 12:31	UFO	0.1	50.1322	50.1566	50.1561			239	mg/L
247441001	SAMPLE		BAL216	22-FEB-2010 12:31	CRY	0.1	54.3324	54.3564	54.356			236	mg/L
247449001	SAMPLE		BAL216	22-FEB-2010 12:31	HUN	0.045	51.9572	51.9765	51.976			417.77778	mg/L
247505001	SAMPLE		BAL216	22-FEB-2010 12:31	TIC	0.1	54.7032	54.7725	54.772			688	mg/L
247505002	SAMPLE		BAL216	22-FEB-2010 12:31	3F	0.1	46.9663	46.9938	46.9934			271	mg/L
1202050371	DUP	247505002	BAL216	22-FEB-2010 12:31	TRY	0.1	50.6338	50.6611	50.6606			268	mg/L
247505003	SAMPLE		BAL216	22-FEB-2010 12:31	HI	0.1	50.4566	50.4942	50.4937			371	mg/L
247505004	SAMPLE		BAL216	22-FEB-2010 12:31	OD	0.1	55.6174	55.6834	55.6831			657	mg/L
247505005	SAMPLE		BAL216	22-FEB-2010 12:31	SOX	0.1	67.6951	67.6995	67.699			39	mg/L

Comments: **All Weights are in Grams**

A) Result = (Final - Crucible)/Aliquot * 1000

B) Prep Factor = 0.5 / Aliquot

Date: 22-FEB-10 13:19:17
Date: 23-FEB-10 08:19:17
Temperature: 104 C
Temperature: 180 C

Note: Aliquot is used for the determination of the effective MDL and PQL in LIMS

Specific Conductivity

Analytical Logbook

Conductivity and Salinity

Batch ID: **954872.0**
Analyst: **Lindsey Allen**
Method: **EPA 120.1**
Lab SOP: **GL-GC-E-009 REV# 9**
Instrument: Orion 160 Conductivity Meter

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
CCV	240	Conductivity LCS	WCO091117-06	25	mL
LCS	1202047105	Conductivity LCS	WCO091117-06	25	mL

Sample ID	Run Date	Dilution	Temperature (C)	Conductivity Result (umhos/cm)
1202047105 LCS	18-FEB-2010 12:17:07	1	25.1	1396
247261004	18-FEB-2010 12:17:09	1	25	136.9
1202047106 DUP (247261004)	18-FEB-2010 12:17:11	1	25.5	138.2
247284001	18-FEB-2010 12:17:12	1	24.7	1.46
247284002	18-FEB-2010 12:17:13	1	24.6	4.36
CCV	18-FEB-2010 12:17:14	1	24.8	1396

Calibration Information:

Run Date: 18-FEB-10 12:01
Instrument: CON160
Analyst: LXA1

Standard	Observed	Theoretical		%Recovery
WCO100218-07	15.33	14.5	umhos/cm	105.72
WD100218-03	1407	1413	umhos/cm	99.575
WCO100218-04	1808	1900	umhos/cm	95.158
WCO100218-08	23700	24800	umhos/cm	95.565
WCO100218-01	253	250	umhos/cm	101.2
WCO100218-02	731	750	umhos/cm	97.467

Comments:

Total Kjeldahl Nitrogen

Prep Logbook

Total Phosphorous and Total Kjeldahl Nitrogen Sample Preparation

Batch ID: **955962.0** Verified by: _____

Analyst: Stephanie Jackson

Method: EPA 351.2 Prep

Lab SOP: GL-GC-E-071 REV# 10

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202049672	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202049670	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202049671	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202049668 MB	22-FEB-2010 11:00:00	Ground Water	20	20	1	<2
1202049672 LCS	22-FEB-2010 11:00:00	Ground Water	20	20	1	<2
247261003	22-FEB-2010 11:00:00	Ground Water	20	20	1	<2
1202049669 DUP (247261003)	22-FEB-2010 11:00:00	Ground Water	20	20	1	<2
1202049670 MS (247261003)	22-FEB-2010 11:00:00	Ground Water	20	20	1	<2
1202049671 MSD (247261003)	22-FEB-2010 11:00:00	Ground Water	20	20	1	<2
247383003	22-FEB-2010 11:00:00	Waste Water	8	20	2.5	<2
247383006	22-FEB-2010 11:00:00	Waste Water	20	20	1	<2
247403001	22-FEB-2010 11:00:00	Waste Water	20	20	1	<2
247429004	22-FEB-2010 11:00:00	Ground Water	20	20	1	<2

Reagent/Solvent Lot ID	Description	Amount
1269276-C	TKN/PO4 Digestion Solution	4 mL

Comments:

sample 247383003 prepped @ 8mL due to bright yellow color on NH3 strip

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
5.0 ppm Std.		1	axh3	2/24/2010 12:43:04	OM_2-24-2010_12-42-18
3.0 ppm Std.		1	axh3	2/24/2010 12:43:51	OM_2-24-2010_12-42-18
1.0 ppm Std.		1	axh3	2/24/2010 12:44:40	OM_2-24-2010_12-42-18
0.5 ppm Std		1	axh3	2/24/2010 12:45:29	OM_2-24-2010_12-42-18
0.1 ppm Std		1	axh3	2/24/2010 12:46:19	OM_2-24-2010_12-42-18
ICAL-00		1	axh3	2/24/2010 12:47:11	OM_2-24-2010_12-42-18
ICV		1	axh3	2/24/2010 12:49:07	OM_2-24-2010_12-42-18
ICB		1	axh3	2/24/2010 12:51:03	OM_2-24-2010_12-42-18
1202049668	955963	1	axh3	2/24/2010 12:52:58	OM_2-24-2010_12-42-18
1202049672	955963	1	axh3	2/24/2010 12:53:49	OM_2-24-2010_12-42-18
247261003	955963	1	axh3	2/24/2010 12:54:40	OM_2-24-2010_12-42-18
1202049669	955963	1	axh3	2/24/2010 12:55:31	OM_2-24-2010_12-42-18
1202049670*	955963	1	axh3	2/24/2010 12:56:21	OM_2-24-2010_12-42-18
1202049671	955963	1	axh3	2/24/2010 12:57:11	OM_2-24-2010_12-42-18
247383003	955963	1	axh3	2/24/2010 12:58:00	OM_2-24-2010_12-42-18
247383006	955963	1	axh3	2/24/2010 12:58:50	OM_2-24-2010_12-42-18
247403001	955963	1	axh3	2/24/2010 12:59:39	OM_2-24-2010_12-42-18
247429004	955963	1	axh3	2/24/2010 13:00:28	OM_2-24-2010_12-42-18
CCV		1	axh3	2/24/2010 13:01:16	OM_2-24-2010_12-42-18
CCB		1	axh3	2/24/2010 13:03:12	OM_2-24-2010_12-42-18
1202049670*	955963	1	axh3	2/24/2010 13:05:07	OM_2-24-2010_12-42-18
247383003*	955963	10	axh3	2/24/2010 13:05:56	OM_2-24-2010_12-42-18
1202049685*	955969	1	axh3	2/24/2010 13:06:45	OM_2-24-2010_12-42-18
1202049689*	955969	1	axh3	2/24/2010 13:07:33	OM_2-24-2010_12-42-18
247572001*	955969	1	axh3	2/24/2010 13:08:22	OM_2-24-2010_12-42-18
1202049686*	955969	1	axh3	2/24/2010 13:09:10	OM_2-24-2010_12-42-18
1202049687*	955969	1	axh3	2/24/2010 13:09:57	OM_2-24-2010_12-42-18
1202049688*	955969	1	axh3	2/24/2010 13:10:47	OM_2-24-2010_12-42-18
1202042793*	953065	1	axh3	2/24/2010 13:11:38	OM_2-24-2010_12-42-18
1202042797*	953065	1	axh3	2/24/2010 13:12:29	OM_2-24-2010_12-42-18
CCV		1	axh3	2/24/2010 13:13:19	OM_2-24-2010_12-42-18

Author: axh3 Date : 2/24/2010

Original Run Filename: OM_2-24-2010_12-42-18.OMN created 2/24/2010 12:42:18
Original Run Author's Signature: [axh3]
Current Run Filename: OM_2-24-2010_12-42-18.OMN last modified 2/24/2010 13:14:28
Current Run Author's Signature: [axh3]
Description: TKN EPA Method 351.2 GEL SOP: GL-GC-E-104
Detection 660 nM
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TKN Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100224-12	1	S1	5.000	8.232	2/24/2010@12:43:04			5.0 ppm Std.
WTR100224-13	1	S2	3.000	4.955	2/24/2010@12:43:51			3.0 ppm Std.
WTR100224-14	1	S3	1.000	1.607	2/24/2010@12:44:40			1.0 ppm Std.
WTR100224-15	1	S4	0.500	0.825	2/24/2010@12:45:29			0.5 ppm Std
WTR100224-16	1	S5	0.100	0.168	2/24/2010@12:46:19			0.1 ppm Std
WTR100224-19 0.0 ppm	1	S7	0.000	-0.056	2/24/2010@12:47:11			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99997 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR100224-18 ICV	1	S8	1.027	1.675	2/24/2010@12:49:07			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.027 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.027 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR100224-19 ICB	1	S7	-0.026	-0.066	2/24/2010@12:51:03			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.026 < 0.100					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.026 > -0.100					
		Message	ICB Passed					
		Action	Continue					
1202049668|955963|MB	1	1	0.006	-0.013	2/24/2010@12:52:58			
1202049672||LCS	1	2	1.047	1.709	2/24/2010@12:53:49			
247261003	1	3	-0.097	-0.183	2/24/2010@12:54:40			
1202049669||DUP	1	4	-0.077	-0.149	2/24/2010@12:55:31			
1202049670||MS	1	5	0.317	0.501	2/24/2010@12:56:21			
1202049671||MSD	1	6	0.670	1.086	2/24/2010@12:57:11			
247383003	1	7	11.041	18.228	2/24/2010@12:58:00			
247383006	1	8	4.689	7.728	2/24/2010@12:58:50			
247403001	1	9	1.817	2.981	2/24/2010@12:59:39			
247429004	1	10	0.032	0.030	2/24/2010@13:00:28			
WTR100224-14 CCV	1	S3	1.013	1.651	2/24/2010@13:01:16			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.013 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.013 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100224-19 CCB	1	S7	-0.017	-0.050	2/24/2010@13:03:12			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.017 < 0.099					

		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-0.017 > -0.100					
		Message	CCB Passed					
		Action	Continue					
1202049670||MS	1	5	0.662	1.071	2/24/2010@13:05:07			
247383003	1	7	1.166	1.904	2/24/2010@13:05:56		10.00	
1202049685|955969|MB	1	11	0.018	0.008	2/24/2010@13:06:45			
1202049689||LCS	1	12	1.078	1.759	2/24/2010@13:07:33			
247572001	1	13	133.464	220.589	2/24/2010@13:08:22			
1202049686||DUP	1	14	133.987	221.453	2/24/2010@13:09:10			
1202049687||MS	1	15	136.312	225.296	2/24/2010@13:09:57			
1202049688||MSD	1	16	140.637	232.445	2/24/2010@13:10:47			
1202042793|953065|MB	1	17	2.436	4.003	2/24/2010@13:11:38			
1202042797||LCS	1	18	0.795	1.292	2/24/2010@13:12:29			
WTR100224-14 CCV	1	S3	1.114	1.819	2/24/2010@13:13:19			CCV
		Known Conc:	1.000					
		DQM Test: > + Concentration Limit						
		Result:	1.114 > 1.104					
		Message	CCV Failed					
		Action	Stop Run					
		DQM Test: < - Concentration Limit						
		Result:	1.114 > 0.895					
		Message	CCV Passed					
		Action	Continue					

Channel 1 (TKN) : Current View

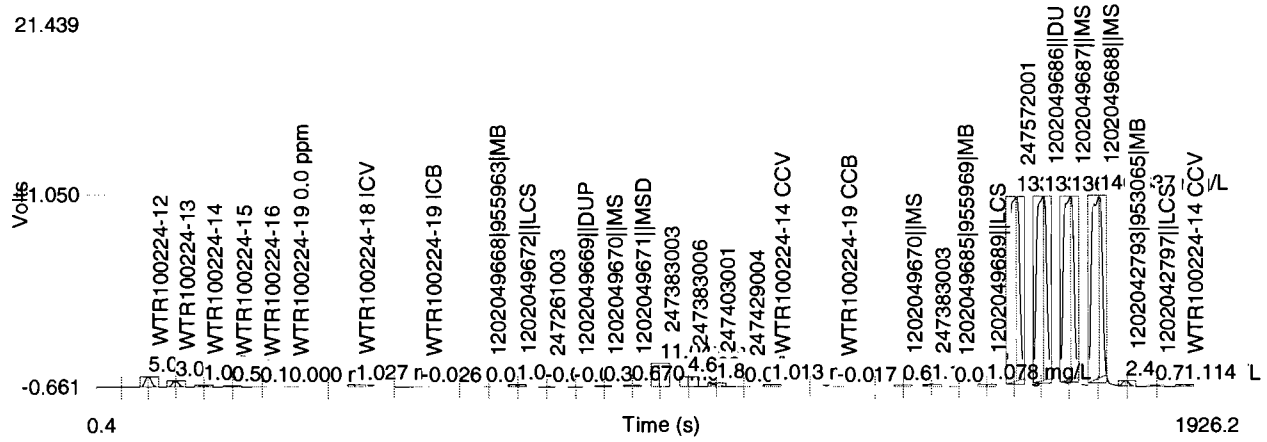

Table 1: TKN

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	5.000	1	8.232	0.647	0.1	2/24/2010	12:44:12
2	3.000	1	4.955	0.390	-0.4	2/24/2010	12:44:59
3	1.000	1	1.607	0.128	1.4	2/24/2010	12:45:48
4	0.500	1	0.825	0.062	-2.6	2/24/2010	12:46:37
5	0.100	1	0.168	0.013	-17.8	2/24/2010	12:47:27
6	0.000	1	-0.056	-0.004		2/24/2010	12:48:19

Author: axh3

Date : 2/24/2010

Figure 1: TKN

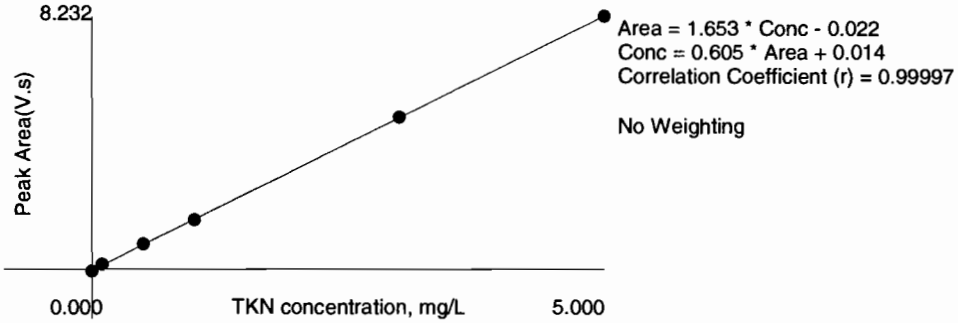

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axh3	2/24/2010 13:16:00	OM_2-24-2010_13-15-13
CCB		1	axh3	2/24/2010 13:17:56	OM_2-24-2010_13-15-13
1202049670	955963	1	axh3	2/24/2010 13:19:50	OM_2-24-2010_13-15-13
247383003	955963	10	axh3	2/24/2010 13:20:40	OM_2-24-2010_13-15-13
1202049685	955969	1	axh3	2/24/2010 13:21:29	OM_2-24-2010_13-15-13
1202049689	955969	1	axh3	2/24/2010 13:22:18	OM_2-24-2010_13-15-13
247572001	955969	250	axh3	2/24/2010 13:23:06	OM_2-24-2010_13-15-13
1202049686	955969	250	axh3	2/24/2010 13:23:53	OM_2-24-2010_13-15-13
1202049687	955969	250	axh3	2/24/2010 13:24:40	OM_2-24-2010_13-15-13
1202049688	955969	250	axh3	2/24/2010 13:25:30	OM_2-24-2010_13-15-13
1202042793	953065	1	axh3	2/24/2010 13:26:22	OM_2-24-2010_13-15-13
1202042797	953065	1	axh3	2/24/2010 13:27:12	OM_2-24-2010_13-15-13
CCV		1	axh3	2/24/2010 13:28:02	OM_2-24-2010_13-15-13
CCB		1	axh3	2/24/2010 13:29:58	OM_2-24-2010_13-15-13
246859003	953065	1	axh3	2/24/2010 13:31:53	OM_2-24-2010_13-15-13
1202042794	953065	1	axh3	2/24/2010 13:32:44	OM_2-24-2010_13-15-13
1202042795	953065	1	axh3	2/24/2010 13:33:34	OM_2-24-2010_13-15-13
1202042796	953065	1	axh3	2/24/2010 13:34:24	OM_2-24-2010_13-15-13
246965002	953065	1	axh3	2/24/2010 13:35:13	OM_2-24-2010_13-15-13
1202043618	953065	1	axh3	2/24/2010 13:36:02	OM_2-24-2010_13-15-13
1202043619	953065	1	axh3	2/24/2010 13:36:50	OM_2-24-2010_13-15-13
1202043620	953065	1	axh3	2/24/2010 13:37:37	OM_2-24-2010_13-15-13
246879003	953065	1	axh3	2/24/2010 13:38:26	OM_2-24-2010_13-15-13
246879010	953065	1	axh3	2/24/2010 13:39:16	OM_2-24-2010_13-15-13
CCV		1	axh3	2/24/2010 13:40:05	OM_2-24-2010_13-15-13
CCB		1	axh3	2/24/2010 13:42:00	OM_2-24-2010_13-15-13
246888004	953065	1	axh3	2/24/2010 13:43:54	OM_2-24-2010_13-15-13
246888008	953065	1	axh3	2/24/2010 13:44:43	OM_2-24-2010_13-15-13
246965011	953065	1	axh3	2/24/2010 13:45:34	OM_2-24-2010_13-15-13
247035003	953065	1	axh3	2/24/2010 13:46:25	OM_2-24-2010_13-15-13
247035009	953065	1	axh3	2/24/2010 13:47:17	OM_2-24-2010_13-15-13
247035012	953065	1	axh3	2/24/2010 13:48:08	OM_2-24-2010_13-15-13
247037002	953065	1	axh3	2/24/2010 13:48:59	OM_2-24-2010_13-15-13
247041001	953065	1	axh3	2/24/2010 13:49:50	OM_2-24-2010_13-15-13
247041008	953065	1	axh3	2/24/2010 13:50:40	OM_2-24-2010_13-15-13
247041013	953065	1	axh3	2/24/2010 13:51:30	OM_2-24-2010_13-15-13
CCV		1	axh3	2/24/2010 13:52:19	OM_2-24-2010_13-15-13
CCB		1	axh3	2/24/2010 13:54:15	OM_2-24-2010_13-15-13
246859003*	953065	1	axh3	2/24/2010 13:56:10	OM_2-24-2010_13-15-13

Author: axh3 Date : 2/24/2010

Original Run Filename: OM_2-24-2010_13-15-13.OMN created 2/24/2010 13:15:13
Original Run Author's Signature: [axh3]
Current Run Filename: OM_2-24-2010_13-15-13.OMN last modified 2/24/2010 13:57:31
Current Run Author's Signature: [axh3]
Description: TKN EPA Method 351.2 GEL SOP: GL-GC-E-104
Detection 660 nM
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TKN Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100224-14 CCV	1	S3	1.034	1.686	2/24/2010@13:16:00			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.034 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.034 > 0.895					
		Message	CCV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR100224-19 CCB	1	S7	-0.024	-0.062	2/24/2010@13:17:56			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.024 < 0.099					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.024 > -0.100					
		Message	CCB Passed					
		Action	Continue					
1202049670|955963|MS	1	5	0.721	1.170	2/24/2010@13:19:50			
247383003	1	7	1.199	1.959	2/24/2010@13:20:40		10.00	
1202049685|955969|MB	1	11	0.023	0.016	2/24/2010@13:21:29			
1202049689||LCS	1	12	1.037	1.692	2/24/2010@13:22:18			
247572001	1	13	1.286	2.104	2/24/2010@13:23:06		250.00	
1202049686||DUP	1	14	1.164	1.902	2/24/2010@13:23:53		250.00	
1202049687||MS	1	15	1.614	2.646	2/24/2010@13:24:40		250.00	
1202049688||MSD	1	16	2.205	3.623	2/24/2010@13:25:30		250.00	
1202042793|953065|MB	1	17	0.028	0.024	2/24/2010@13:26:22			
1202042797||LCS	1	18	1.024	1.670	2/24/2010@13:27:12			
WTR100224-14 CCV	1	S3	1.034	1.687	2/24/2010@13:28:02			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.034 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.034 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100224-19 CCB	1	S7	-0.018	-0.053	2/24/2010@13:29:58			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.018 < 0.099					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.018 > -0.100					
		Message	CCB Passed					
		Action	Continue					
246859003	1	19	0.468	0.751	2/24/2010@13:31:53			
1202042794||DUP	1	20	-0.044	-0.095	2/24/2010@13:32:44			
1202042795||MS	1	21	0.542	0.874	2/24/2010@13:33:34			
1202042796||MSD	1	22	0.541	0.872	2/24/2010@13:34:24			

246965002	1	27	-0.085	-0.163	2/24/2010@13:35:13			
1202043618||DUP	1	28	-0.006	-0.032	2/24/2010@13:36:02			
1202043619||MS	1	29	0.400	0.639	2/24/2010@13:36:50			
1202043620||MSD	1	30	0.615	0.994	2/24/2010@13:37:37			
246879003	1	23	-0.075	-0.146	2/24/2010@13:38:26			
246879010	1	24	-0.096	-0.181	2/24/2010@13:39:16			
WTR100224-14 CCV	1	S3	1.023	1.668	2/24/2010@13:40:05			CCV
	Known Conc:		1.000					
DQM Test: > + Concentration Limit								
	Result:		1.023 < 1.104					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		1.023 > 0.895					
	Message		CCV Passed					
	Action		Continue					
WTR100224-19 CCB	1	S7	0.035	0.036	2/24/2010@13:42:00			CCB
	Known Conc:		0.000					
DQM Test: > + Concentration Limit								
	Result:		0.035 < 0.099					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		0.035 > -0.100					
	Message		CCB Passed					
	Action		Continue					
246888004	1	25	0.036	0.036	2/24/2010@13:43:54			
246888008	1	26	-0.089	-0.170	2/24/2010@13:44:43			
246965011	1	31	0.331	0.525	2/24/2010@13:45:34			
247035003	1	32	-0.056	-0.116	2/24/2010@13:46:25			
247035009	1	33	-0.072	-0.142	2/24/2010@13:47:17			
247035012	1	34	-0.084	-0.162	2/24/2010@13:48:08			
247037002	1	35	-0.111	-0.206	2/24/2010@13:48:59			
247041001	1	36	-0.096	-0.181	2/24/2010@13:49:50			
247041008	1	37	-0.107	-0.199	2/24/2010@13:50:40			
247041013	1	38	-0.062	-0.125	2/24/2010@13:51:30			
WTR100224-14 CCV	1	S3	1.022	1.666	2/24/2010@13:52:19			CCV
	Known Conc:		1.000					
DQM Test: > + Concentration Limit								
	Result:		1.022 < 1.104					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		1.022 > 0.895					
	Message		CCV Passed					
	Action		Continue					
WTR100224-19 CCB	1	S7	-0.052	-0.109	2/24/2010@13:54:15			CCB
	Known Conc:		0.000					
DQM Test: > + Concentration Limit								
	Result:		-0.052 < 0.099					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-0.052 > -0.100					
	Message		CCB Passed					
	Action		Continue					
246859003	1	19	-0.150	-0.270	2/24/2010@13:56:10			

Author: axh3 Date : 2/24/2010

Channel 1 (TKN) : Current View

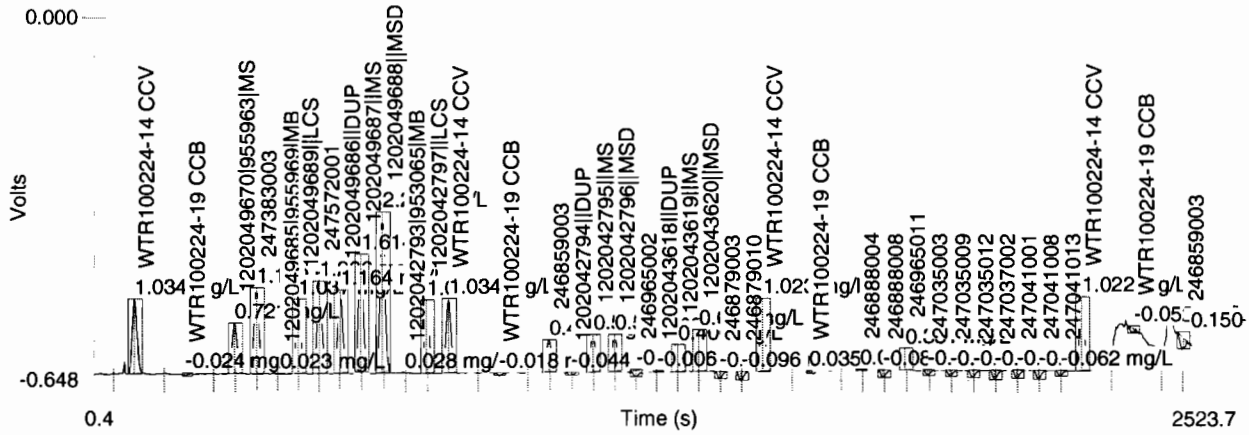

Table 1: TKN

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	5.000	1	8.232	0.647	0.1	2/24/2010	12:44:12
2	3.000	1	4.955	0.390	-0.4	2/24/2010	12:44:59
3	1.000	1	1.607	0.128	1.4	2/24/2010	12:45:48
4	0.500	1	0.825	0.062	-2.6	2/24/2010	12:46:37
5	0.100	1	0.168	0.013	-17.8	2/24/2010	12:47:27
6	0.000	1	-0.056	-0.004		2/24/2010	12:48:19

Figure 1: TKN

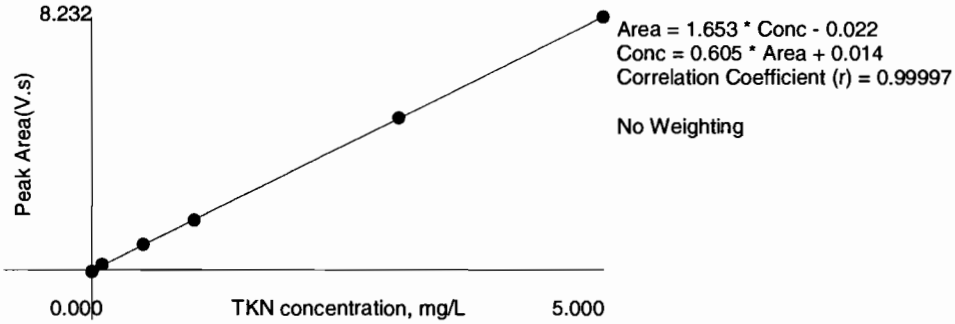

Total Phosphorus

Prep Logbook

Total Phosphorous and Total Kjeldahl Nitrogen Sample Preparation

Batch ID: **955964.0** Verified by: _____

Analyst: Stephanie Jackson

Method: EPA 365.4 Prep

Lab SOP: GL-GC-E-071 REV# 10

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202049680	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202049676	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202049677	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202049678	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202049679	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202049673 MB	22-FEB-2010 11:00:00	Ground Water	20	20	1	<2
1202049680 LCS	22-FEB-2010 11:00:00	Ground Water	20	20	1	<2
247261004	22-FEB-2010 11:00:00	Ground Water	20	20	1	<2
1202049674 DUP (247261004)	22-FEB-2010 11:00:00	Ground Water	20	20	1	<2
1202049676 MS (247261004)	22-FEB-2010 11:00:00	Ground Water	20	20	1	<2
1202049678 MSD (247261004)	22-FEB-2010 11:00:00	Ground Water	20	20	1	<2
247383006	22-FEB-2010 11:00:00	Waste Water	20	20	1	<2
247431002	22-FEB-2010 11:00:00	Ground Water	20	20	1	<2
247434001	22-FEB-2010 11:00:00	Water	20	20	1	<2
1202049675 DUP (247434001)	22-FEB-2010 11:00:00	Water	20	20	1	<2
1202049677 MS (247434001)	22-FEB-2010 11:00:00	Water	20	20	1	<2
1202049679 MSD (247434001)	22-FEB-2010 11:00:00	Water	20	20	1	<2

Reagent/Solvent Lot ID	Description	Amount
1269276-C	TKN/PO4 Digestion Solution	4 mL

Comments:

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
3.0 ppm Std.		1	axh3	2/23/2010 9:58:30	OM_2-23-2010_09-55-09
1.0 ppm Std.		1	axh3	2/23/2010 9:59:19	OM_2-23-2010_09-55-09
0.5 ppm Std		1	axh3	2/23/2010 10:00:08	OM_2-23-2010_09-55-09
0.1 ppm Std		1	axh3	2/23/2010 10:00:59	OM_2-23-2010_09-55-09
0.05 ppm Std		1	axh3	2/23/2010 10:01:49	OM_2-23-2010_09-55-09
ICAL-00		1	axh3	2/23/2010 10:02:41	OM_2-23-2010_09-55-09
ICV		1	axh3	2/23/2010 10:04:46	OM_2-23-2010_09-55-09
ICB		1	axh3	2/23/2010 10:06:51	OM_2-23-2010_09-55-09
1202049673*	955966	1	axh3	2/23/2010 10:08:55	OM_2-23-2010_09-55-09
1202049680*	955966	1	axh3	2/23/2010 10:09:46	OM_2-23-2010_09-55-09
247261004*	955966	1	axh3	2/23/2010 10:10:36	OM_2-23-2010_09-55-09
1202049674*	955966	1	axh3	2/23/2010 10:11:27	OM_2-23-2010_09-55-09
1202049676*	955966	1	axh3	2/23/2010 10:12:17	OM_2-23-2010_09-55-09
1202049678*	955966	1	axh3	2/23/2010 10:13:07	OM_2-23-2010_09-55-09
247434001*	955966	1	axh3	2/23/2010 10:13:56	OM_2-23-2010_09-55-09
1202049675*	955966	1	axh3	2/23/2010 10:14:45	OM_2-23-2010_09-55-09
1202049677*	955966	1	axh3	2/23/2010 10:15:34	OM_2-23-2010_09-55-09
1202049679*	955966	1	axh3	2/23/2010 10:16:22	OM_2-23-2010_09-55-09
CCV		1	axh3	2/23/2010 10:17:11	OM_2-23-2010_09-55-09
CCB		1	axh3	2/23/2010 10:19:15	OM_2-23-2010_09-55-09
1202049673*	955966	1	axh3	2/23/2010 10:21:19	OM_2-23-2010_09-55-09
1202049680*	955966	1	axh3	2/23/2010 10:22:10	OM_2-23-2010_09-55-09
247261004*	955966	1	axh3	2/23/2010 10:23:01	OM_2-23-2010_09-55-09
1202049674*	955966	1	axh3	2/23/2010 10:23:52	OM_2-23-2010_09-55-09
1202049676*	955966	1	axh3	2/23/2010 10:24:42	OM_2-23-2010_09-55-09
1202049678*	955966	1	axh3	2/23/2010 10:25:32	OM_2-23-2010_09-55-09
247434001*	955966	1	axh3	2/23/2010 10:26:22	OM_2-23-2010_09-55-09
1202049675*	955966	1	axh3	2/23/2010 10:27:10	OM_2-23-2010_09-55-09
1202049677*	955966	1	axh3	2/23/2010 10:27:59	OM_2-23-2010_09-55-09
1202049679*	955966	1	axh3	2/23/2010 10:28:47	OM_2-23-2010_09-55-09
CCV		1	axh3	2/23/2010 10:29:35	OM_2-23-2010_09-55-09

Author: axh3 Date : 2/23/2010

Original Run Filename: OM_2-23-2010_09-55-09.OMN created 2/23/2010 9:55:09
Original Run Author's Signature: [axh3]
Current Run Filename: OM_2-23-2010_09-55-09.OMN last modified 2/23/2010 10:30:58
Current Run Author's Signature: [axh3]
Description: Total Phosphorous EPA Method 365.4 GEL SOP: GL-GC-E-103
Detection Wavelength: 880nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TLPOS Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100223-13	1	S2	3.000	13.758	2/23/2010@9:58:30			3.0 ppm Std.
WTR100223-14	1	S3	1.000	4.449	2/23/2010@9:59:19			1.0 ppm Std.
WTR100223-15	1	S4	0.500	2.211	2/23/2010@10:00:08			0.5 ppm Std
WTR100223-16	1	S5	0.100	0.377	2/23/2010@10:00:59			0.1 ppm Std
WTR100223-17	1	S6	0.050	0.190	2/23/2010@10:01:49			0.05 ppm Std
WTR100223-19 0.0	1	S7	0.000	0.042	2/23/2010@10:02:41			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99993 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR100223-18 ICV	1	S8	1.005	4.562	2/23/2010@10:04:46			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.005 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.005 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR100223-19 ICB	1	S7	0.042	0.140	2/23/2010@10:06:51			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	0.042 < 0.050					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.042 > -0.050					
		Message	ICB Passed					
		Action	Continue					
1202049673|955966|MB	1	1	0.053	0.189	2/23/2010@10:08:55			
1202049680||LCS	1	2	0.994	4.509	2/23/2010@10:09:46			
247261004	1	3	0.060	0.222	2/23/2010@10:10:36			
1202049674||DUP	1	4	0.054	0.195	2/23/2010@10:11:27			
1202049676||MS	1	5	0.837	3.792	2/23/2010@10:12:17			
1202049678||MSD	1	6	0.983	4.460	2/23/2010@10:13:07			
247434001	1	9	0.062	0.229	2/23/2010@10:13:56			
1202049675||DUP	1	10	0.072	0.276	2/23/2010@10:14:45			
1202049677||MS	1	11	0.671	3.026	2/23/2010@10:15:34			
1202049679||MSD	1	12	1.067	4.844	2/23/2010@10:16:22			
WTR100223-14 CCV	1	S3	1.008	4.575	2/23/2010@10:17:11			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.008 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.008 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100223-19 CCB	1	S7	0.025	0.059	2/23/2010@10:19:15			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								

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		Result:	0.025 < 0.050					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	0.025 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1202049673|955966|MB	1	1	0.029	0.079	2/23/2010@10:21:19			
1202049680||LCS	1	2	1.023	4.644	2/23/2010@10:22:10			
247261004	1	3	0.063	0.233	2/23/2010@10:23:01			
1202049674||DUP	1	4	0.057	0.206	2/23/2010@10:23:52			
1202049676||MS	1	5	0.981	4.450	2/23/2010@10:24:42			
1202049678||MSD	1	6	0.990	4.492	2/23/2010@10:25:32			
247434001	1	9	0.061	0.226	2/23/2010@10:26:22			
1202049675||DUP	1	10	0.073	0.278	2/23/2010@10:27:10			
1202049677||MS	1	11	1.091	4.954	2/23/2010@10:27:59			
1202049679||MSD	1	12	1.084	4.924	2/23/2010@10:28:47			
WTR100223-14 CCV	1	S3	2.230	10.188	2/23/2010@10:29:35			CCV
		Known Conc:	1.000					
		DQM Test: > + Concentration Limit						
		Result:	2.230 > 1.104					
		Message	CCV Failed					
		Action	Stop Run					
		DQM Test: < - Concentration Limit						
		Result:	2.230 > 0.895					
		Message	CCV Passed					
		Action	Continue					

Channel 1 (TLPOS) : Current View

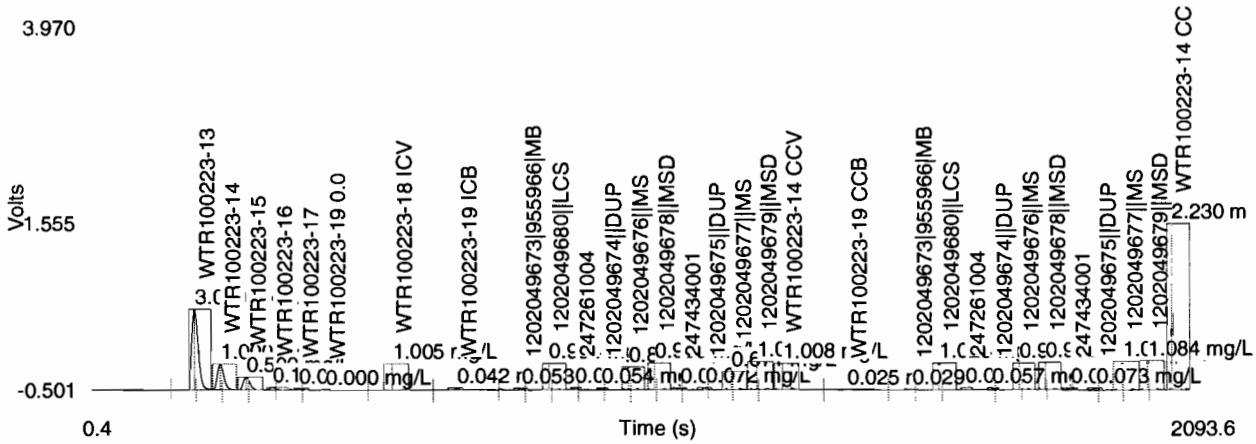

Table 1: TLPOS

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	3.000	1	13.758	0.992	-0.3	2/23/2010	9:59:50
2	1.000	1	4.449	0.317	2.0	2/23/2010	10:00:39
3	0.500	1	2.211	0.160	1.4	2/23/2010	10:01:28
4	0.100	1	0.377	0.031	6.8	2/23/2010	10:02:18
5	0.050	1	0.190	0.016	-8.3	2/23/2010	10:03:10
6	0.000	1	0.042	0.005		2/23/2010	10:04:01

Author: axh3

Date : 2/23/2010

Figure 1: TLPOS

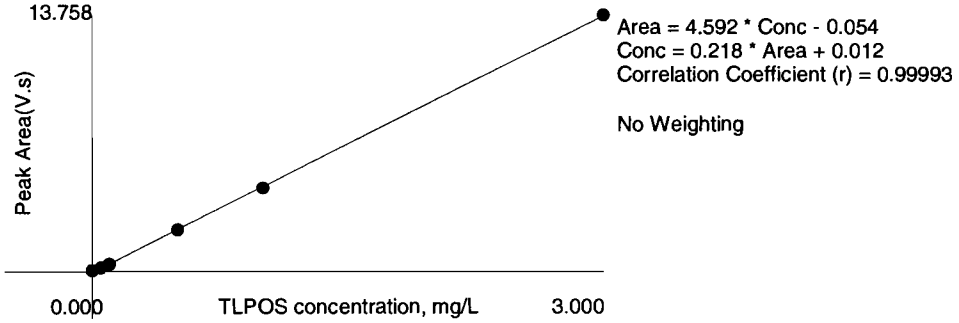

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axh3	2/23/2010 10:48:49	OM_2-23-2010_10-48-06
CCB		1	axh3	2/23/2010 10:50:54	OM_2-23-2010_10-48-06
1202049673	955966	1	axh3	2/23/2010 10:52:57	OM_2-23-2010_10-48-06
1202049680	955966	1	axh3	2/23/2010 10:53:49	OM_2-23-2010_10-48-06
247261004	955966	1	axh3	2/23/2010 10:54:39	OM_2-23-2010_10-48-06
1202049674	955966	1	axh3	2/23/2010 10:55:30	OM_2-23-2010_10-48-06
1202049676	955966	1	axh3	2/23/2010 10:56:21	OM_2-23-2010_10-48-06
1202049678	955966	1	axh3	2/23/2010 10:57:11	OM_2-23-2010_10-48-06
247434001	955966	1	axh3	2/23/2010 10:58:00	OM_2-23-2010_10-48-06
1202049675	955966	1	axh3	2/23/2010 10:58:49	OM_2-23-2010_10-48-06
1202049677	955966	1	axh3	2/23/2010 10:59:38	OM_2-23-2010_10-48-06
1202049679	955966	1	axh3	2/23/2010 11:00:26	OM_2-23-2010_10-48-06
CCV		1	axh3	2/23/2010 11:01:14	OM_2-23-2010_10-48-06
CCB		1	axh3	2/23/2010 11:03:19	OM_2-23-2010_10-48-06
247383006	955966	1	axh3	2/23/2010 11:05:22	OM_2-23-2010_10-48-06
247431002	955966	1	axh3	2/23/2010 11:06:11	OM_2-23-2010_10-48-06
1202042816	953076	1	axh3	2/23/2010 11:07:00	OM_2-23-2010_10-48-06
1202042820	953076	1	axh3	2/23/2010 11:07:47	OM_2-23-2010_10-48-06
246862001	953076	1	axh3	2/23/2010 11:08:34	OM_2-23-2010_10-48-06
1202042817	953076	1	axh3	2/23/2010 11:09:24	OM_2-23-2010_10-48-06
1202042818	953076	1	axh3	2/23/2010 11:10:15	OM_2-23-2010_10-48-06
1202042819	953076	1	axh3	2/23/2010 11:11:06	OM_2-23-2010_10-48-06
247046001	953076	1	axh3	2/23/2010 11:11:57	OM_2-23-2010_10-48-06
1202043625*	953076	1	axh3	2/23/2010 11:12:48	OM_2-23-2010_10-48-06
CCV		1	axh3	2/23/2010 11:13:38	OM_2-23-2010_10-48-06
CCB		1	axh3	2/23/2010 11:15:43	OM_2-23-2010_10-48-06
1202043626	953076	1	axh3	2/23/2010 11:17:46	OM_2-23-2010_10-48-06
1202043627*	953076	1	axh3	2/23/2010 11:18:37	OM_2-23-2010_10-48-06
1202043625	953076	1	axh3	2/23/2010 11:19:27	OM_2-23-2010_10-48-06
1202043627	953076	1	axh3	2/23/2010 11:20:18	OM_2-23-2010_10-48-06
247267002	953076	1	axh3	2/23/2010 11:21:08	OM_2-23-2010_10-48-06
246877001	953076	1	axh3	2/23/2010 11:21:58	OM_2-23-2010_10-48-06
246877004*	953076	1	axh3	2/23/2010 11:22:49	OM_2-23-2010_10-48-06
246886002	953076	1	axh3	2/23/2010 11:23:40	OM_2-23-2010_10-48-06
246886004	953076	1	axh3	2/23/2010 11:24:30	OM_2-23-2010_10-48-06
246877004	953076	1	axh3	2/23/2010 11:25:20	OM_2-23-2010_10-48-06
CCV		1	axh3	2/23/2010 11:26:10	OM_2-23-2010_10-48-06
CCB		1	axh3	2/23/2010 11:28:14	OM_2-23-2010_10-48-06
246964002	953076	1	axh3	2/23/2010 11:30:18	OM_2-23-2010_10-48-06
246964004*	953076	1	axh3	2/23/2010 11:31:07	OM_2-23-2010_10-48-06
246967001	953076	1	axh3	2/23/2010 11:31:56	OM_2-23-2010_10-48-06
246967004	953076	1	axh3	2/23/2010 11:32:46	OM_2-23-2010_10-48-06
246964004	953076	1	axh3	2/23/2010 11:33:34	OM_2-23-2010_10-48-06
247036002	953076	1	axh3	2/23/2010 11:34:23	OM_2-23-2010_10-48-06
247036003	953076	1	axh3	2/23/2010 11:35:12	OM_2-23-2010_10-48-06
247036006*	953076	1	axh3	2/23/2010 11:36:00	OM_2-23-2010_10-48-06
247037001	953076	1	axh3	2/23/2010 11:36:48	OM_2-23-2010_10-48-06
247042002	953076	1	axh3	2/23/2010 11:37:38	OM_2-23-2010_10-48-06
CCV		1	axh3	2/23/2010 11:38:28	OM_2-23-2010_10-48-06
CCB		1	axh3	2/23/2010 11:40:33	OM_2-23-2010_10-48-06
247042004*	953076	1	axh3	2/23/2010 11:42:37	OM_2-23-2010_10-48-06
247042006	953076	1	axh3	2/23/2010 11:43:29	OM_2-23-2010_10-48-06
247383006*	955966	5	axh3	2/23/2010 11:44:19	OM_2-23-2010_10-48-06
CCV		1	axh3	2/23/2010 11:46:22	OM_2-23-2010_10-48-06
CCB		1	axh3	2/23/2010 11:48:27	OM_2-23-2010_10-48-06

Author: axh3 Date : 2/23/2010

Original Run Filename: OM_2-23-2010_10-48-06.OMN created 2/23/2010 10:48:06
Original Run Author's Signature: [axh3]
Current Run Filename: OM_2-23-2010_10-48-06.OMN last modified 2/23/2010 11:49:48
Current Run Author's Signature: [axh3]
Description: Total Phosphorous EPA Method 365.4 GEL SOP: GL-GC-E-103
Detection Wavelength: 880nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TLPOS Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100223-14 CCV	1	S3	1.018	4.621	2/23/2010@10:48:49			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.018 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.018 > 0.895					
		Message	CCV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR100223-19 CCB	1	S7	0.023	0.051	2/23/2010@10:50:54			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	0.023 < 0.050					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.023 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1202049673|955966|MB	1	1	0.024	0.053	2/23/2010@10:52:57			
1202049680||LCS	1	2	0.990	4.494	2/23/2010@10:53:49			
247261004	1	3	0.058	0.212	2/23/2010@10:54:39			
1202049674||DUP	1	4	0.049	0.171	2/23/2010@10:55:30			
1202049676||MS	1	5	0.966	4.383	2/23/2010@10:56:21			
1202049678||MSD	1	6	0.992	4.501	2/23/2010@10:57:11			
247434001	1	9	0.060	0.221	2/23/2010@10:58:00			
1202049675||DUP	1	10	0.073	0.281	2/23/2010@10:58:49			
1202049677||MS	1	11	1.039	4.719	2/23/2010@10:59:38			
1202049679||MSD	1	12	1.088	4.941	2/23/2010@11:00:26			
WTR100223-14 CCV	1	S3	1.009	4.579	2/23/2010@11:01:14			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.009 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.009 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100223-19 CCB	1	S7	0.027	0.071	2/23/2010@11:03:19			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	0.027 < 0.050					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.027 > -0.050					
		Message	CCB Passed					
		Action	Continue					
247383006	1	7	4.211	19.284	2/23/2010@11:05:22			
247431002	1	8	0.065	0.242	2/23/2010@11:06:11			
1202042816|953076|MB	1	13	0.032	0.094	2/23/2010@11:07:00			

1202042820||LCS	1	14	0.911	4.132	2/23/2010@11:07:47			
246862001	1	15	0.104	0.424	2/23/2010@11:08:34			
1202042817||DUP	1	16	0.108	0.440	2/23/2010@11:09:24			
1202042818||MS	1	17	0.455	2.034	2/23/2010@11:10:15			
1202042819||MSD	1	18	0.413	1.842	2/23/2010@11:11:06			
247046001	1	34	0.447	1.997	2/23/2010@11:11:57			
1202043625||DUP	1	35	0.992	4.502	2/23/2010@11:12:48			
WTR100223-14 CCV	1	S3	0.970	4.399	2/23/2010@11:13:38			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.970 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.970 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100223-19 CCB	1	S7	0.024	0.055	2/23/2010@11:15:43			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.024 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.024 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1202043626||MS	1	36	1.307	5.946	2/23/2010@11:17:46			
1202043627||MSD	1	37	0.843	3.817	2/23/2010@11:18:37			
1202043625||DUP	1	35	0.455	2.033	2/23/2010@11:19:27			
1202043627||MSD	1	37	1.323	6.020	2/23/2010@11:20:18			
247267002	1	38	0.086	0.340	2/23/2010@11:21:08			
246877001	1	19	0.085	0.334	2/23/2010@11:21:58			
246877004	1	20	-6.130	-28.212	2/23/2010@11:22:49			
246886002	1	21	0.050	0.177	2/23/2010@11:23:40			
246886004	1	22	0.069	0.261	2/23/2010@11:24:30			
246877004	1	20	0.077	0.301	2/23/2010@11:25:20			
WTR100223-14 CCV	1	S3	1.000	4.538	2/23/2010@11:26:10			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.000 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.000 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100223-19 CCB	1	S7	0.025	0.059	2/23/2010@11:28:14			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.025 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.025 > -0.050					
		Message	CCB Passed					
		Action	Continue					
246964002	1	23	0.070	0.265	2/23/2010@11:30:18			
246964004	1	24	0.155	0.656	2/23/2010@11:31:07			
246967001	1	25	0.096	0.387	2/23/2010@11:31:56			
246967004	1	26	0.086	0.338	2/23/2010@11:32:46			
246964004	1	24	0.073	0.283	2/23/2010@11:33:34			
247036002	1	27	0.095	0.382	2/23/2010@11:34:23			
247036003	1	28	0.092	0.367	2/23/2010@11:35:12			
247036006	1	29	0.363	1.612	2/23/2010@11:36:00			
247037001	1	30	0.066	0.246	2/23/2010@11:36:48			
247042002	1	31	0.063	0.234	2/23/2010@11:37:38			
WTR100223-14 CCV	1	S3	0.987	4.478	2/23/2010@11:38:28			CCV

		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.987 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.987 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100223-19 CCB	1	S7	0.027	0.069	2/23/2010@11:40:33			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.027 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.027 > -0.050					
		Message	CCB Passed					
		Action	Continue					
247042004	1	32	0.074	0.283	2/23/2010@11:42:37			
247042006	1	33	0.079	0.306	2/23/2010@11:43:29			
247383006|955966|	1	7	1.011	4.587	2/23/2010@11:44:19		5.00	
WTR100223-14 CCV	1	S3	0.986	4.473	2/23/2010@11:46:22			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.986 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.986 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100223-19 CCB	1	S7	0.026	0.066	2/23/2010@11:48:27			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.026 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.026 > -0.050					
		Message	CCB Passed					
		Action	Continue					

Channel 1 (TLPOS) : Current View

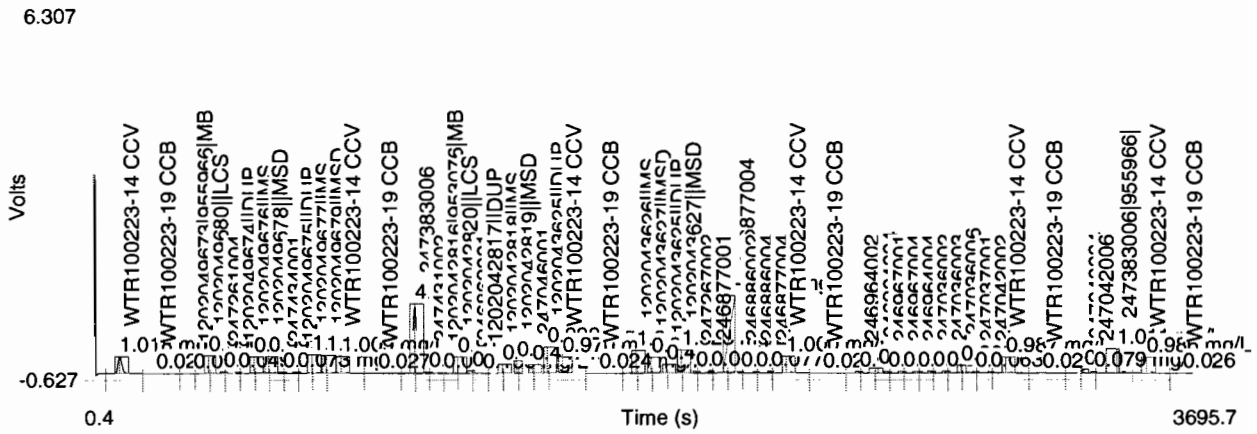

Author: axh3 Date : 2/23/2010

Table 1: TLPOS

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	3.000	1	13.758	0.992	-0.3	2/23/2010	9:59:50
2	1.000	1	4.449	0.317	2.0	2/23/2010	10:00:39
3	0.500	1	2.211	0.160	1.4	2/23/2010	10:01:28
4	0.100	1	0.377	0.031	6.8	2/23/2010	10:02:18
5	0.050	1	0.190	0.016	-8.3	2/23/2010	10:03:10
6	0.000	1	0.042	0.005		2/23/2010	10:04:01

Figure 1: TLPOS

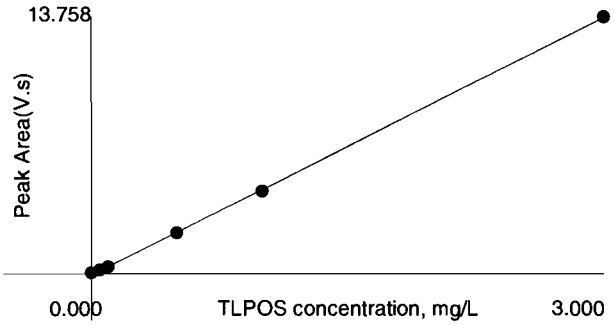

Area = 4.592 * Conc - 0.054
Conc = 0.218 * Area + 0.012
Correlation Coefficient (r) = 0.99993

No Weighting

pH

pH / Corrosivity LogBook

Analyst: LXA1
Batch: 954880
Lab SOP: GL-GC-E-008 REV# 17
Description: pH
Method: EPA 150.1

Type	Sample Id	Serial Number	Description
CCV	240	IMM091029-PH	PH 7 BUFFER FOR PH
LCS	1202047126	IMM100209-01	LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parmname	Initial Wt()	Final Vol()	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
1202047126 LCS		Ground Water			18-FEB-10 12:50	pH			6.99	20.0'C	7	99.857	
1202047126 LCS		Ground Water			18-FEB-10 12:50	pH 2			6.99	19.9'C	7	99.857	
247261004		Ground Water			18-FEB-10 12:50	pH			7.61	13.3'C			
247261004		Ground Water			18-FEB-10 12:50	pH 2			7.61	13.3'C			
1202047127 DUP	247261004	Ground Water			18-FEB-10 12:50	pH			7.64	13.5'C			.393
1202047127 DUP	247261004	Ground Water			18-FEB-10 12:50	pH 2			7.64	13.5'C			.393
247284001		Water			18-FEB-10 12:50	pH			6.58	18.4'C			
247284001		Water			18-FEB-10 12:50	pH 2			6.56	18.4'C			
247284002		Water			18-FEB-10 12:50	pH			6.69	18.4'C			
247284002		Water			18-FEB-10 12:50	pH 2			6.68	18.4'C			
CCV					18-FEB-10 12:50	pH			7.02	19.5'C	7	100.286	
CCV					18-FEB-10 12:50	pH 2			7.02	19.5'C	7	100.286	

Calibration Information:
Run Date: 18-FEB-10 11:37
Instrument: PHX370
Analyst: LXA1

	Standard	Observed	Theoretical		C	%Recovery
12:37	IMM100218-PH1	4.01	4	SU	20	100.25
12:37	IMM100218-PH-	7	7	SU	20	100
12:37	UPH100218-a	10.03	10	SU	20	100.3
12:37	UPH100218-02c-	2.08	2	SU	20	104
12:37	100218-a	12	12	SU	20	100
12:37	IMM100218-01a	7.01	7	SU	20	100.14

Comments:

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
23-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 350.1	Liquid	ESHL, GSTL, INPA, LANL,
Batch ID:	**Sample Numbers:**		
955952	See Below		

Potentially affected work order(s)(SDG): 247261(10-1886),247383,247416,247420,247431(10-1927),247434(10-1929)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/MSD: QC 1202049621MS,1202049622MS, 1202049623MSD, 1202049624MSD	1. The matrix spike was outside of the required acceptance limits due to matrix interference. The matrix spike duplicate verified the result with a passing RPD.

Originator's Name:

Aubrey Kingsbury 23-FEB-10

Data Validator/Group Leader:

Elzbieta Szulc 24-FEB-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
24-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 351.2	Liquid	COCY, ESHL, THRM
Batch ID:	**Sample Numbers:**		
955963	See Below		

Potentially affected work order(s)(SDG): 247261(10-1886),247383,247403,247429(10-1926)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/MSD: QC 1202049670MS,1202049671MSD	1. The matrix spike was outside of the required acceptance limits due to matrix interference. The matrix spike duplicate verified the result with a passing RPD.

Originator's Name:

Aubrey Kingsbury 24-FEB-10

Data Validator/Group Leader:

Elzbieta Szulc 25-FEB-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
13-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
IC	EPA 300.0	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
963224	See Below		

Potentially affected work order(s)(SDG): 247261(10-1886),247431(10-1927),247817(10-2001),247829(10-2006),248024(10-2046)

Application Issues:

Sample Analyzed out of Holding

Specification and Requirements Exception Description:	DER Disposition:
1. Sample Analyzed out of Holding: 247261004 QC 1202066400DUP, QC 1202066401PS	1. Sample and QC were initially analyzed within holding; however, the holding time had expired prior to reprep/reanalysis due to QC failures:

Originator's Name:

Greg Milton 18-MAR-10

Data Validator/Group Leader:

Julia Hamilton 18-MAR-10

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1886

Method/Analysis Information

Product:	**Alphaspec Am241 Liquid**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Analytical Batch Number:	963528

Sample ID	Client ID
247261003	CAPA-10-12691
1202067094	Method Blank (MB)
1202067095	247261003(CAPA-10-12691) Sample Duplicate (DUP)
1202067096	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202067094 (MB) and 1202067096 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 247261003 (CAPA-10-12691). The QC was from LANL work order 247261.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 247261003 (CAPA-10-12691) was reprepped due to low carrier/tracer yield.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec Pu, Liquid**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	957023

Sample ID	Client ID
247261003	CAPA-10-12691
1202052015	Method Blank (MB)
1202052016	247829002(CAPA-10-13498) Sample Duplicate (DUP)
1202052017	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202052015 (MB) and 1202052017 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 247829002 (CAPA-10-13498). The QC was from LANL work order 247829.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples 1202052016 (CAPA-10-13498) and 247261003 (CAPA-10-12691) were recounted due to high MDAs.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec U, Liquid**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Analytical Batch Number:	957025

Sample ID	Client ID
247261003	CAPA-10-12691
1202052018	Method Blank (MB)
1202052019	247829002(CAPA-10-13498) Sample Duplicate (DUP)
1202052020	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202052018 (MB) and 1202052020 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 247829002 (CAPA-10-13498). The QC was from LANL work order 247829.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U-233/234 and U-235/236 blank results are greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The U-233/234, U-235/236, and U-238 blank results are greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Gammaspec, Gamma, Liquid**
Analytical Method:	EPA 901.1
Analytical Batch Number:	956162

Sample ID	Client ID
247261003	CAPA-10-12691
1202050273	Method Blank (MB)
1202050274	247261003(CAPA-10-12691) Sample Duplicate (DUP)
1202050276	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 19.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in May 2009, July 2009, August 2009, November 2009 and January 2010.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 247261003 (CAPA-10-12691). The QC was from LANL work order 247261.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank, 1202050273 (MB), results for Cd-109 and Gross Gamma are greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 1202050276 (LCS) was recounted due to low recovery.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank, 1202050273 (MB), result for Cd-109 is greater than the decision level but less than the MDC.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to interference.	Bismuth-211	1202050274	CAPA-10-12691(247261003DUP)
UI	Data rejected due to low abundance.	Lead-212	1202050274	CAPA-10-12691(247261003DUP)
		Lead-214	1202050274	CAPA-10-12691(247261003DUP)

Method/Analysis Information

Product:	**GFPC, Gross A/B, liquid**
Analytical Method:	EPA 900.0
Analytical Batch Number:	961597

Sample ID	Client ID
247261003	CAPA-10-12691
1202062530	Method Blank (MB)
1202062531	246964003(CAMO-10-9373) Sample Duplicate (DUP)
1202062532	246964003(CAMO-10-9373) Matrix Spike (MS)
1202062533	246964003(CAMO-10-9373) Matrix Spike Duplicate (MSD)
1202062534	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-001 REV# 12.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in July 2009. The discrimination settings are calibrated in beta discriminating mode to reduce beta to alpha crosstalk.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202062530 (MB) and 1202062534 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 246964003 (CAMO-10-9373). The QC was from LANL work order 246964.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were reprepped due to high recovery. Sample 1202062534 (LCS) was recounted due to high alpha recovery.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Gross Alpha/Beta Preparation Information
High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating, especially to a dull red heat. For this sample set, the prepared planchet was counted for beta activity before being flamed. After flaming, the planchet was counted for alpha activity.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Sr90, liquid**
Analytical Method:	EPA 905.0 Modified
Analytical Batch Number:	956123

Sample ID	Client ID
247261003	CAPA-10-12691
1202050157	Method Blank (MB)
1202050158	247431001(CAWA-10-13090) Sample Duplicate (DUP)
1202050159	247431001(CAWA-10-13090) Matrix Spike (MS)
1202050160	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in February 2010.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202050157 (MB) and 1202050160 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 247431001 (CAWA-10-13090). The QC was from LANL work order 247431.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank 1202050157 (MB) result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank 1202050157 (MB) result is greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Certification Statement

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

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer/Date: Pamela Wells 3/17/10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

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

Client SDG: 10-1886 GEL Work Order: 247261

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: March 17, 2010

Client Sample ID: CAPA-10-12691
Sample ID: 247261003
Matrix: Ground Water
Collect Date: 15-FEB-10
Receive Date: 17-FEB-10
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
Alphaspec Am241 Liquid "As Received"												
Americium-241	U	0.0132	0.033	+/-0.00573	0.050	pCi/L		HAKB	03/16/10	1719	963528	1
Alphaspec Pu, Liquid "As Received"												
Plutonium-238	U	0.00282	0.049	+/-0.00488	0.050	pCi/L		HAKB	03/10/10	1636	957023	3
Plutonium-239/240	U	0.00844	0.0341	+/-0.0049	0.050	pCi/L						
Alphaspec U, Liquid "As Received"												
Uranium-234		1.15	0.107	+/-0.129	1.00	pCi/L		HAKB	03/08/10	0704	957025	5
Uranium-235/236	U	0.0419	0.0851	+/-0.019	1.00	pCi/L						
Uranium-238		1.20	0.0764	+/-0.133	0.500	pCi/L						
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Liquid "As Received"												
Cesium-137	U	-2.22	3.94	+/-1.36	8.00	pCi/L		KXG3	02/23/10	1922	956162	6
Cobalt-60	U	2.03	4.78	+/-1.30	8.00	pCi/L						
Gross Gamma	U	48.3	74.4	+/-15.2	120	pCi/L						
Neptunium-237	U	9.06	40.7	+/-11.9	10.0	pCi/L						
Potassium-40	U	14.1	55.6	+/-16.0	10.0	pCi/L						
Sodium-22	U	-2.13	3.44	+/-1.29	10.0	pCi/L						
Rad Gas Flow Proportional Counting												
GFPC, Gross A/B, liquid "As Received"												
Beta	U	2.48	2.73	+/-1.09	3.00	pCi/L		DXB5	03/08/10	1616	961597	7
Alpha		11.0	2.28	+/-2.14	3.00	pCi/L		DXB5	03/09/10	1123	961597	8
GFPC, Sr90, liquid "As Received"												
Strontium-90	U	0.155	0.479	+/-0.141	0.500	pCi/L		MXB1	02/26/10	2002	956123	12

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, Pu-11-RC Modified
5	DOE EML HASL-300, U-02-RC Modified

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: March 17, 2010

Client Sample ID: CAPA-10-12691
Sample ID: 247261003

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
6	EPA 901.1											
7	EPA 900.0											
8	EPA 900.0											
9	EPA 900.0											
10	EPA 900.0											
11	EPA 900.0											
12	EPA 905.0 Modified											

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	Alphaspec Am241 Liquid "As Rec	91.6	(50%-105%)
Plutonium-242 Tracer	Alphaspec Pu, Liquid "As Receive	61.3	(50%-105%)
Uranium-232 Tracer	Alphaspec U, Liquid "As Received	65.5	(50%-105%)
Strontium Carrier	GFPC, Sr90, liquid "As Received"	85.2	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: March 17, 2010

Client Sample ID: CAPA-10-12691
Sample ID: 247261003

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

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

QC Summary

Report Date: March 17, 2010

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 247261

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 957023										
QC1202052016 247829002 DUP										
Plutonium-238	U	0.00	U	0.00753	pCi/L	0.531		(0-1)	HAKB	03/10/1016:36
	TPU:	+/-0.00272		+/-0.00437						
	Yield:	85.5		69.5						
Plutonium-239/240	U	0.00348	U	0.00	pCi/L	0.255		(0-1)		
	TPU:	+/-0.00431		+/-0.00251						
	Yield:	85.5		69.5						
QC1202052017 LCS										
Plutonium-238			U	0.00827	pCi/L			(80%-120%)		03/09/1008:01
	TPU:			+/-0.00416						
	Yield:			95.4						
Plutonium-239/240	2.27			2.29	pCi/L		101	(80%-120%)		
	TPU:			+/-0.142						
	Yield:			95.4						
QC1202052015 MB										
Plutonium-238			U	-0.0018	pCi/L					
	TPU:			+/-0.00309						
	Yield:			76.4						
Plutonium-239/240			U	0.0032	pCi/L					
	TPU:			+/-0.00398						
	Yield:			76.4						
Batch 957025										
QC1202052019 247829002 DUP										
Uranium-234		0.392		0.387	pCi/L	0.0293		(0-1)	HAKB	03/08/1007:05
	TPU:	+/-0.0394		+/-0.0538						
	Yield:	81.9		87.7						
Uranium-235/236	U	0.0171	U	0.0125	pCi/L	0.124		(0-1)		
	TPU:	+/-0.00657		+/-0.0118						
	Yield:	81.9		87.7						
Uranium-238		0.274		0.155	pCi/L	0.971		(0-1)		
	TPU:	+/-0.0304		+/-0.0309						
	Yield:	81.9		87.7						
QC1202052020 LCS										
Uranium-234				2.13	pCi/L					03/08/1007:05

QC Summary

Workorder: 247261

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 957025										
	TPU:			+/-0.185						
	Yield:			95.9						
Uranium-235/236				0.126	pCi/L					
	TPU:			+/-0.0257						
	Yield:			95.9						
Uranium-238	2.59			2.28	pCi/L		87.7	(80%-120%)		
	TPU:			+/-0.196						
	Yield:			95.9						
QC1202052018 MB										
Uranium-234			U	0.0265	pCi/L					03/05/1012:23
	TPU:			+/-0.00778						
	Yield:			91.0						
Uranium-235/236			U	0.0117	pCi/L					
	TPU:			+/-0.0056						
	Yield:			91.0						
Uranium-238			U	0.00792	pCi/L					
	TPU:			+/-0.00528						
	Yield:			91.0						
Batch 963528										
QC1202067095 247261003 DUP										
Americium-241	U	0.0132	U	-0.00104	pCi/L	0.840		(0-1)	HAKB	03/16/1017:19
	TPU:	+/-0.00573		+/-0.00277						
	Yield:	91.6		86.2						
QC1202067096 LCS										
Americium-241	2.84			3.18	pCi/L		112	(80%-120%)		
	TPU:			+/-0.212						
	Yield:			82.1						
QC1202067094 MB										
Americium-241			U	-0.00228	pCi/L					
	TPU:			+/-0.00197						
	Yield:			94.6						
Rad Gamma Spec										
Batch 956162										
QC1202050274 247261003 DUP										
Cesium-137	U	-2.22	U	0.296	pCi/L	0.568		(0-1)	KXG3	02/23/1022:32
	TPU:	+/-1.36		+/-0.848						
Cobalt-60	U	2.03	U	-0.938	pCi/L	0.696		(0-1)		

QC Summary

Workorder: 247261

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 956162										
	TPU:	+/-1.30		+/-0.826						
Gross Gamma	U	48.3	U	35.6	pCi/L	0.238		(0-1)		
	TPU:	+/-15.2		+/-11.5						
Neptunium-237	U	9.06	U	5.73	pCi/L	0.0955		(0-1)		
	TPU:	+/-11.9		+/-5.50						
Potassium-40	U	14.1	U	0.666	pCi/L	0.237		(0-1)		
	TPU:	+/-16.0		+/-12.4						
Sodium-22	U	-2.13	U	0.534	pCi/L	0.654		(0-1)		
	TPU:	+/-1.29		+/-0.751						
QC1202050276 LCS										
Americium-241	1240			1400	pCi/L		114	(75%-125%)		02/25/1020:33
	TPU:			+/-94.4						
Cesium-137	432			481	pCi/L		111	(75%-125%)		
	TPU:			+/-25.8						
Cobalt-60	495			517	pCi/L		105	(75%-125%)		
	TPU:			+/-28.6						
Gross Gamma	2180			2060	pCi/L		94.7	(75%-125%)		
	TPU:			+/-127						
Neptunium-237				924	pCi/L					
	TPU:			+/-122						
Potassium-40			U	-24.4	pCi/L					
	TPU:			+/-31.5						
Sodium-22			U	-2.77	pCi/L					
	TPU:			+/-3.03						
QC1202050273 MB										
Cesium-137			U	0.401	pCi/L					02/23/1022:31
	TPU:			+/-0.805						
Cobalt-60			U	0.741	pCi/L					
	TPU:			+/-0.779						
Gross Gamma			U	26.1	pCi/L					
	TPU:			+/-11.4						
Neptunium-237			U	-10.2	pCi/L					
	TPU:			+/-4.93						
Potassium-40			U	-13.4	pCi/L					

QC Summary

Workorder: 247261

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 956162										
	TPU:			+/-12.5						
Sodium-22			U	-0.624	pCi/L					
	TPU:			+/-0.774						
Rad Gas Flow										
Batch 956123										
QC1202050158 247431001 DUP										
Strontium-90	U	0.0883	U	0.0331	pCi/L	0.104		(0-1)	MXB1	02/26/1020:02
	TPU:	+/-0.135		+/-0.131						
	Yield:	87.4		88.5						
QC1202050160 LCS										
Strontium-90	22.2			21.8	pCi/L		98	(80%-120%)		02/26/1020:03
	TPU:			+/-1.85						
	Yield:			90.8						
QC1202050157 MB										
Strontium-90			U	0.150	pCi/L					02/26/1020:02
	TPU:			+/-0.0722						
	Yield:			88.5						
QC1202050159 247431001 MS										
Strontium-90	148 U	0.0883		153	pCi/L		103	(75%-125%)		02/26/1020:03
	TPU:	+/-0.135		+/-12.9						
	Yield:	87.4		91.9						
Batch 961597										
QC1202062531 246964003 DUP										
Alpha	U	-0.209	U	0.620	pCi/L	0.386		(0-1)	DXB5	03/09/1011:24
	TPU:	+/-0.441		+/-0.634						
Beta	U	0.499		2.83	pCi/L	0.782		(0-1)		03/08/1015:57
	TPU:	+/-0.618		+/-0.875						
QC1202062534 LCS										
Alpha	12.6			12.4	pCi/L		98.8	(80%-120%)		03/09/1016:14
	TPU:			+/-1.47						
Beta	38.4			39.7	pCi/L		103	(80%-120%)		03/08/1015:57
	TPU:			+/-3.43						
QC1202062530 MB										
Alpha			U	0.0541	pCi/L					03/09/1011:23
	TPU:			+/-0.090						
Beta			U	0.116	pCi/L					03/08/1015:57

QC Summary

Workorder: 247261

Parmname	NOM		Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gas Flow											
Batch 961597											
		TPU:			+/-0.0985						
QC1202062532 246964003 MS											
Alpha	252	U	-0.209		278	pCi/L		110	(75%-125%)		03/09/1011:24
		TPU:	+/-0.441		+/-28.1						
Beta	769	U	0.499		784	pCi/L		102	(75%-125%)		03/08/1015:57
		TPU:	+/-0.618		+/-67.9						
QC1202062533 246964003 MSD											
Alpha	252	U	-0.209		297	pCi/L	0.151	118	(0-1)		03/09/1011:24
		TPU:	+/-0.441		+/-35.4						
Beta	769	U	0.499		831	pCi/L	0.170	108	(0-1)		03/08/1015:57
		TPU:	+/-0.618		+/-71.0						

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
JNX	Non Calibrated Compound
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

QC Summary

Workorder: 247261

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time

UI	Gamma Spectroscopy--Uncertain identification
UJ	Compound cannot be extracted
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 957023 Product: Pu Date: 3/4/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.		✓	case narrative
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: 3/11/10

Secondary Review Performed By: 3/11/10

3/2 - 3/13

CAM

Plutonium Que Sheet

24-FEB-10

Batch #: 957023 Analyst: HAKB First Client Due Date:13-MAR-10 Internal Due Date:02-MAR-10

Tracer Isotope(s): Pu-242/Pu-238 Tracer Code: 1375-A Expiration Date: 1/8/11 Vol: 0.1

LCS Isotope(s): Pu-239/Pu-238 LCS Code: 0338-BB Expiration Date: 4/23/10 Vol: 0.1

Spike Isotope(s): Pu-239/Pu-238 Spike Code: NA Expiration Date: NA Vol: NA

Prep Date: 2/25/10 Initials: HAKB Pipet ID: 2971058 Balance ID: MDA 2/27/10 16750207 Witness: MDA 2/25/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Pu Det #
246862002-1	CASA-10-9475	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	09-FEB-10	1	1	0.800	99 ~~45~~
246877002-1	CASA-10-9446	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	09-FEB-10	2	2	0.800	46
246877003-1	CASA-10-9447	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	09-FEB-10	3	3	0.800	48
246886001-1	CASA-10-9456	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	09-FEB-10	4	4	0.800	71
246886003-1	CASA-10-9479	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	09-FEB-10	5	5	0.800	72
246964001-1	CAMO-10-9370	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	10-FEB-10	6	6	0.800	100 ~~73~~
246964003-1	CAMO-10-9373	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	10-FEB-10	7	7	0.800	74
246967002-1	CAMO-10-9350	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	10-FEB-10	8	8	0.800	75
246967003-1	CAMO-10-9357	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	10-FEB-10	9	9	0.800	101 ~~76~~
247036001-1	CASA-10-9464	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	11-FEB-10	10	10	0.800	83
247036004-1	CASA-10-9469	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	11-FEB-10	11	11	0.800	84
247042003-1	CAMO-10-9329	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	11-FEB-10	12	12	0.800	85
247042005-1	CAMO-10-9343	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	11-FEB-10	13	13	0.800	102 ~~86~~
247261003-1	CAPA-10-12691	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	15-FEB-10	14	14	0.800	103 ~~87~~
247431001-1	CAWA-10-13090	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	17-FEB-10	15	15	0.800	105 ~~88~~
247817002-1	CAPA-10-13095	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	21-FEB-10	16	16	0.800	106
247829002-1	CAPA-10-13498	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	22-FEB-10	17	17	0.800	101
1202052015-1	MB for batch 957023	MB		.05 pCi/L	GROUND WATE	QC ACCOUNT		18	18	~~0.800~~	102
1202052016-1	CAPA-10-13498(247829002DUP)	DUP		.05 pCi/L	GROUND WATE	QC ACCOUNT	22-FEB-10	19	19	0.800	~~105~~ 106
1202052017-1	LCS for batch 957023	LCS		.05 pCi/L	GROUND WATE	QC ACCOUNT		20	20	~~0.800~~	105

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) NA ESB 3/9/10

Data Reviewed By: 03/11/10

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 957023

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202052016	DUP	Plutonium-238	0.800 L	0.00753	0.00437	0.0437	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00	0.00251	0.0304	.004	pCi/L	YES
1202052017	LCS	Plutonium-238	1.00 L	0.00827	0.00416	0.0337	-.0018	pCi/L	NO
		Plutonium-239/240	1.00 L	2.29	0.142	0.0236	.0032	pCi/L	NO
1202052015	MB	Plutonium-238	1.00 L	-0.0018	0.00309	0.0409	-.0018	pCi/L	NO
		Plutonium-239/240	1.00 L	0.0032	0.00398	0.0286	.0032	pCi/L	YES
246862002	CASA-10-9475	Plutonium-238	0.800 L	-0.000885	0.00455	0.052	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00502	0.00608	0.036	.004	pCi/L	YES
246877002	CASA-10-9446	Plutonium-238	0.800 L	0.00841	0.00488	0.0458	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00919	0.00598	0.032	.004	pCi/L	YES
246877003	CASA-10-9447	Plutonium-238	0.800 L	-0.0234	0.0109	0.0507	-.00225	pCi/L	YES
		Plutonium-239/240	0.800 L	-0.0237	0.00835	0.0354	.004	pCi/L	YES
246886001	CASA-10-9456	Plutonium-238	0.800 L	-0.00798	0.00774	0.0472	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00162	0.00504	0.033	.004	pCi/L	YES
246886003	CASA-10-9479	Plutonium-238	0.800 L	0.00582	0.0122	0.0528	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	-0.00142	0.00461	0.0369	.004	pCi/L	YES
246964001	CAMO-10-9370	Plutonium-238	0.800 L	0.00825	0.00479	0.0478	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.0055	0.0039	0.0333	.004	pCi/L	YES
246964003	CAMO-10-9373	Plutonium-238	0.800 L	0.00171	0.00532	0.0498	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.0039	0.00484	0.0348	.004	pCi/L	YES
246967002	CAMO-10-9350	Plutonium-238	0.800 L	0.00312	0.00312	0.0509	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.0227	0.00919	0.0356	.004	pCi/L	NO
246967003	CAMO-10-9357	Plutonium-238	0.800 L	0.00234	0.00235	0.0407	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00468	0.00469	0.0283	.004	pCi/L	YES
247036001	CASA-10-9464	Plutonium-238	0.800 L	0.00329	0.0122	0.0448	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	-0.00121	0.00392	0.0313	.004	pCi/L	YES
247036004	CASA-10-9469	Plutonium-238	0.800 L	-0.00213	0.00364	0.0482	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.000826	0.00364	0.0337	.004	pCi/L	YES
247042003	CAMO-10-9329	Plutonium-238	0.800 L	0.00	0.00298	0.0485	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.000832	0.00367	0.0339	.004	pCi/L	YES
247042005	CAMO-10-9343	Plutonium-238	0.800 L	0.0022	0.00381	0.0382	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	1.31E-10	0.00311	0.0266	.004	pCi/L	YES
247261003	CAPA-10-12691	Plutonium-238	0.800 L	0.00282	0.00488	0.049	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00844	0.0049	0.0341	.004	pCi/L	YES
247431001	CAWA-10-13090	Plutonium-238	0.800 L	0.00238	0.00239	0.0414	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	-0.00238	0.00533	0.0288	.004	pCi/L	YES
247817002	CAPA-10-13095	Plutonium-238	0.800 L	0.00	0.00302	0.0492	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00603	0.00428	0.0344	.004	pCi/L	YES
247829002	CAPA-10-13498	Plutonium-238	0.800 L	0.00	0.00272	0.0444	-.00225	pCi/L	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
247829002	CAPA-10-13498	Plutonium-239/240	0.800 L	0.00348	0.00431	0.031	.004	pCi/L	YES

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957023	CHAMBER : 103	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0247261003_PU	DETECTOR S/N : 79461	BKG FILE : B103.CNF;692
SAMPLE QTY : 0.800 L	AVERAGE %EFFICIENCY : 32.6574	BKG DATE : 7-MAR-2010
SAMPLE DATE : 15-FEB-2010 00:00:00	COUNT DATE : 10-MAR-2010 16:36:42	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W103.CNF;198
% YIELD : 61.319		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0338-BB	ID : 0338-BB
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 2.8357E+00 pCi/L	NOMINAL : 2.8357E+00 pCi/L
RESULTS : 2.0730E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-236	5749.000	5747.755	90.985	12.000	11.000	1.000	1.6619	100.0000	3.14E-02	1.04E-02	1.09E-02	2.94E-02	1.03E-02
PU-238	5499.000	5439.703	24.632	2.000	1.000	1.000	3.1571	99.90000	2.82E-03	4.88E-03	2.07E-02	4.90E-02	4.88E-03
PU-9/0	5155.000	5132.504	157.646	3.000	3.000	0.000	2.0178	99.90000	8.44E-03	4.90E-03	1.32E-02	3.41E-02	4.88E-03
PU242	4890.000	4867.302	50.078	678.000	677.000	1.000	1.0000	100.0000	1.90E+00	1.28E-01	6.54E-03	2.07E-02	7.33E-02
PU-244	4589.000	4509.079	64.044	2.000	1.000	1.000	4.0676	99.90000	2.81E-03	4.88E-03	2.66E-02	6.09E-02	4.88E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU242 calculated as sqrt(BKG AREA).

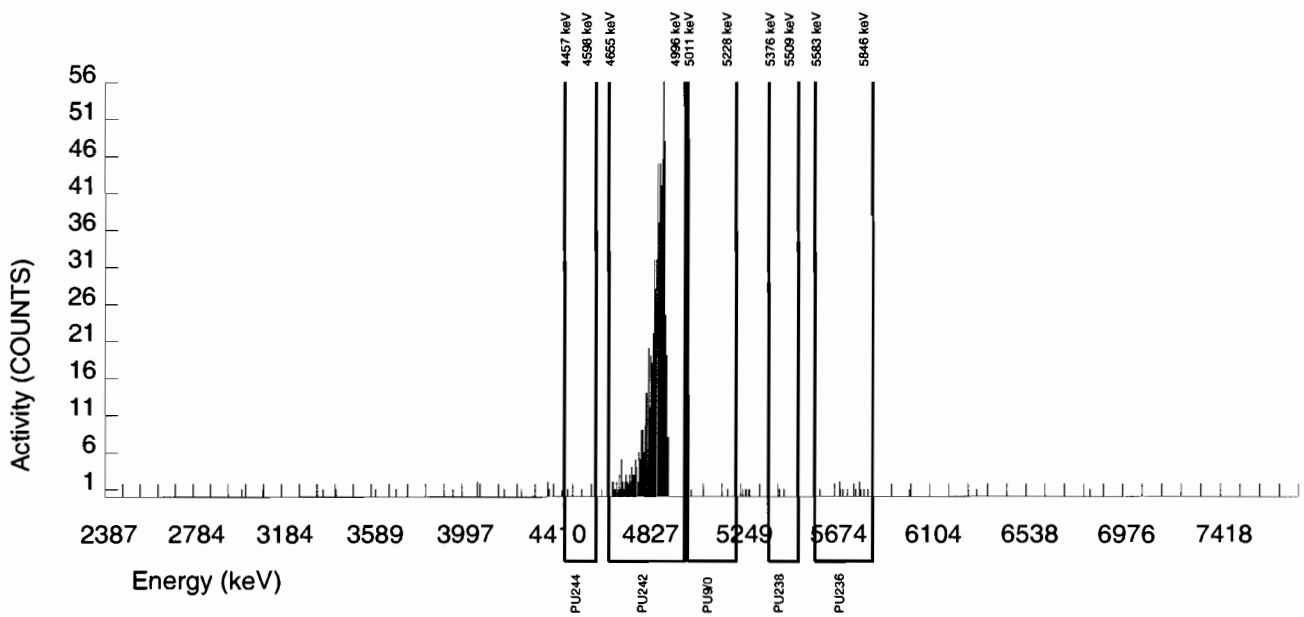

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957023	CHAMBER : 101	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0247829002_PU	DETECTOR S/N : 64253	BKG FILE : B101.CNF;690
SAMPLE QTY : 0.800 L	AVERAGE %EFFICIENCY : 33.7124	BKG DATE : 7-MAR-2010
SAMPLE DATE : 22-FEB-2010 00:00:00	COUNT DATE : 9-MAR-2010 08:01:30	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W101.CNF;180
% YIELD : 85.493		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0338-BB	ID : 0338-BB
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 2.8357E+00 pCi/L	NOMINAL : 2.8357E+00 pCi/L
RESULTS : 2.8903E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-236	5749.000	5674.479	74.065	2.000	1.280	0.720	1.6619	100.0000	3.51E-03	4.35E-03	9.73E-03	2.68E-02	4.35E-03
PU-238	5499.000	5441.996	0.000	0.000	0.000	0.000	3.1571	99.90000	0.00E+00	2.72E-03	1.85E-02	4.44E-02	2.72E-03
PU-9/0	5155.000	5091.665	108.629	2.000	1.280	0.720	2.0178	99.90000	3.48E-03	4.31E-03	1.18E-02	3.10E-02	4.31E-03
PU242	4890.000	4859.827	43.485	703.000	701.560	1.440	1.2000	100.0000	1.90E+00	1.27E-01	7.02E-03	2.14E-02	7.20E-02
PU-244	4589.000	4522.030	0.000	10.000	10.000	0.000	4.0676	99.90000	2.72E-02	8.72E-03	2.38E-02	5.50E-02	8.59E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU242 calculated as sqrt(BKG AREA).

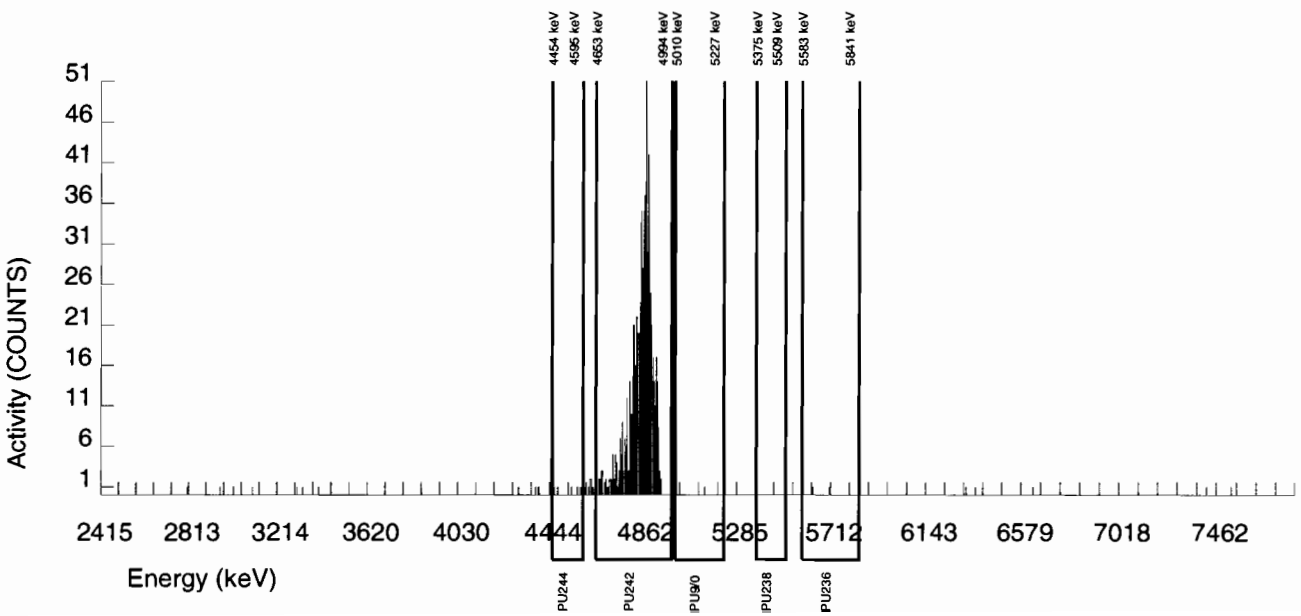

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effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957023	CHAMBER : 102	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202052015_PU	DETECTOR S/N : 72525	BKG FILE : B102.CNF;688
SAMPLE QTY : 1.000 L	AVERAGE %EFFICIENCY : 32.7311	BKG DATE : 7-MAR-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 9-MAR-2010 08:01:30	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W102.CNF;194
% YIELD : 76.418		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0338-BB	ID : 0338-BB
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 2.2686E+00 pCi/L	NOMINAL : 2.2686E+00 pCi/L
RESULTS : 2.5835E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-236	5749.000	5712.323	0.000	0.000	0.000	0.000	1.6619	100.0000	0.00E+00	2.53E-03	8.97E-03	2.47E-02	2.52E-03
PU-238	5499.000	5441.918	0.000	0.000	-0.720	0.720	3.1571	99.90000	-1.80E-03	3.09E-03	1.71E-02	4.09E-02	3.09E-03
PU-9/0	5155.000	5191.655	53.621	2.000	1.280	0.720	2.0178	99.90000	3.20E-03	3.98E-03	1.09E-02	2.86E-02	3.97E-03
PU242	4890.000	4875.004	60.830	611.000	608.840	2.160	1.4697	100.0000	1.52E+00	1.06E-01	7.93E-03	2.26E-02	6.19E-02
PU-244	4589.000	4547.753	126.740	7.000	6.280	0.720	4.0676	99.90000	1.57E-02	6.92E-03	2.20E-02	5.07E-02	6.87E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU242 calculated as sqrt(BKG AREA).

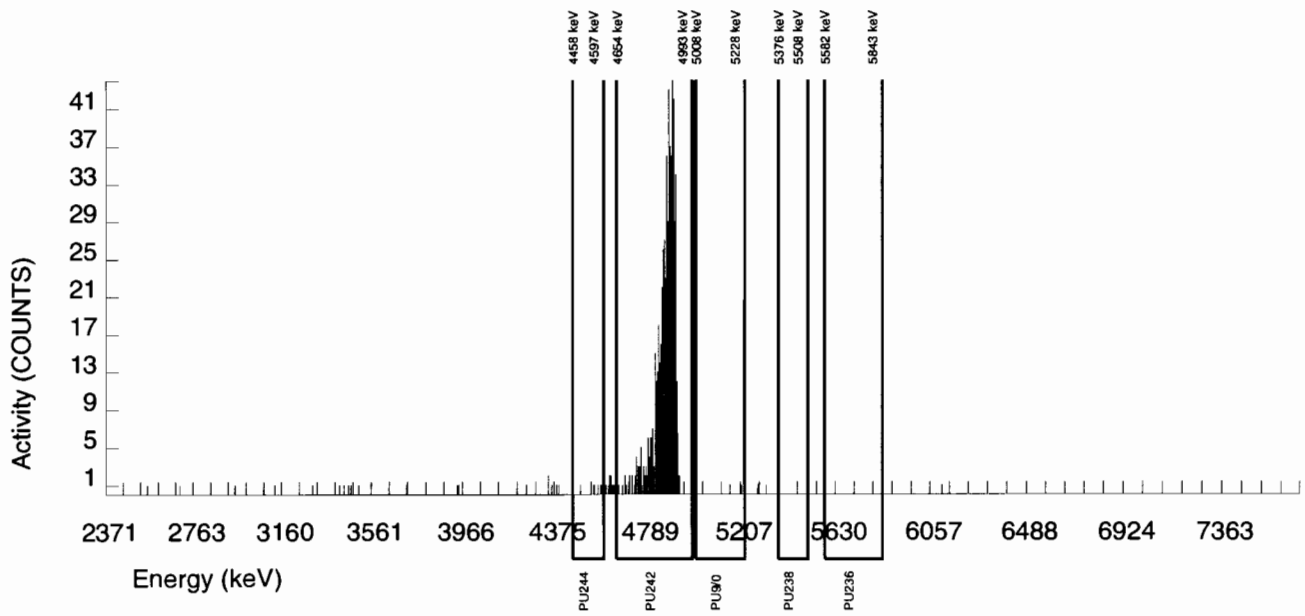

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957023	CHAMBER : 106	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202052016_PU	DETECTOR S/N : 64274	BKG FILE : B106.CNF;690
SAMPLE QTY : 0.800 L	AVERAGE %EFFICIENCY : 32.3164	BKG DATE : 7-MAR-2010
SAMPLE DATE : 22-FEB-2010 00:00:00	COUNT DATE : 10-MAR-2010 16:36:42	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W106.CNF;186
% YIELD : 69.471		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0338-BB	ID : 0338-BB
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 2.8357E+00 pCi/L	NOMINAL : 2.8357E+00 pCi/L
RESULTS : 2.3487E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-236	5749.000	5675.328	133.732	3.000	2.000	1.000	1.6619	100.0000	5.07E-03	5.08E-03	9.70E-03	2.62E-02	5.07E-03
PU-238	5499.000	5440.916	39.624	3.000	3.000	0.000	3.1571	99.90000	7.53E-03	4.37E-03	1.84E-02	4.37E-02	4.35E-03
PU-9/0	5155.000	5120.042	0.000	0.000	0.000	0.000	2.0178	99.90000	0.00E+00	2.51E-03	1.18E-02	3.04E-02	2.51E-03
PU242	4890.000	4855.089	56.429	763.000	759.000	4.000	2.0000	100.0000	1.90E+00	1.24E-01	1.17E-02	3.01E-02	6.95E-02
PU-244	4589.000	4566.228	7.275	9.000	9.000	0.000	4.0676	99.90000	2.26E-02	7.63E-03	2.38E-02	5.43E-02	7.53E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU242 calculated as sqrt(BKG AREA).

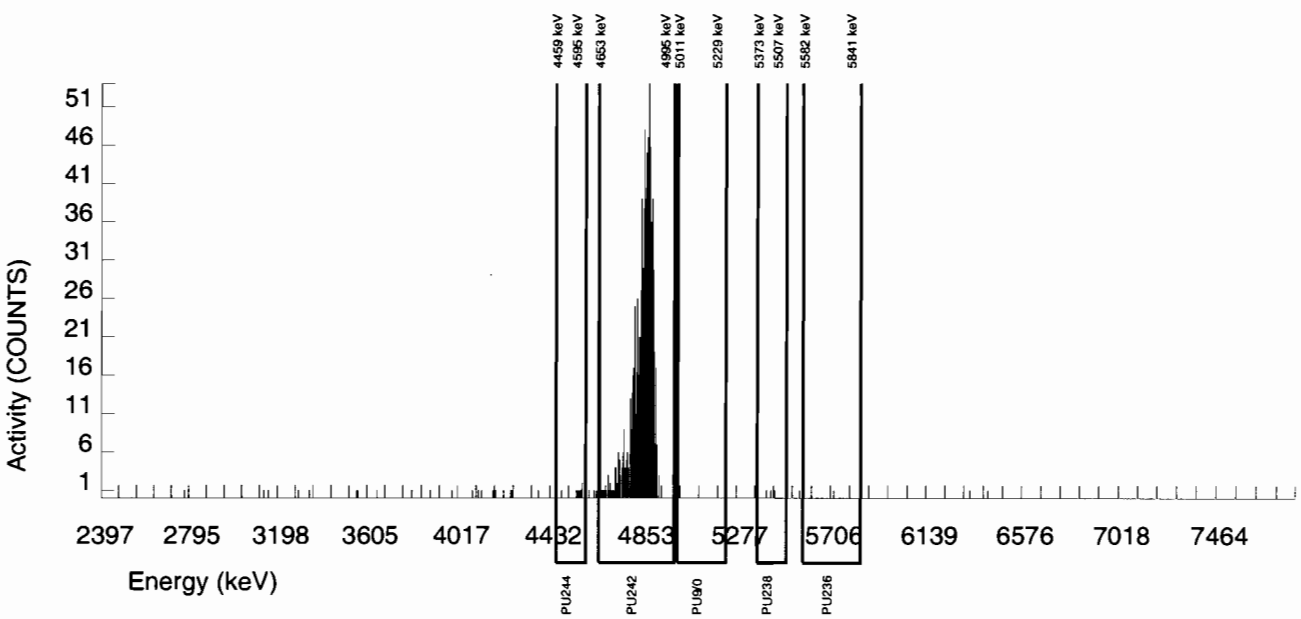

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957023	CHAMBER : 105	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202052017_PU	DETECTOR S/N : 78777	BKG FILE : B105.CNF;690
SAMPLE QTY : 1.000 L	AVERAGE %EFFICIENCY : 31.7688	BKG DATE : 7-MAR-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 9-MAR-2010 08:01:30	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W105.CNF;175
% YIELD : 95.415		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0338-BB	ID : 0338-BB
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 2.2686E+00 pCi/L	NOMINAL : 2.2686E+00 pCi/L
RESULTS : 3.2257E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-236	5749.000	5712.688	0.000	0.000	0.000	0.000	1.6619	100.0000	0.00E+00	2.08E-03	7.40E-03	2.04E-02	2.08E-03
PU-238	5499.000	5483.600	4.882	4.000	4.000	0.000	3.1571	99.90000	8.27E-03	4.16E-03	1.41E-02	3.37E-02	4.13E-03
PU-9/0	5155.000	5132.687	65.257	1111.000	1108.840	2.160	2.0178	99.90000	2.29E+00	1.42E-01	8.99E-03	2.36E-02	6.89E-02
PU242	4890.000	4869.600	57.140	740.000	737.840	2.160	1.4697	100.0000	1.52E+00	9.99E-02	6.54E-03	1.87E-02	5.62E-02
PU-244	4589.000	4533.603	78.107	2.000	1.280	0.720	4.0676	99.90000	2.64E-03	3.28E-03	1.81E-02	4.19E-02	3.28E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU242 calculated as sqrt(BKG AREA).

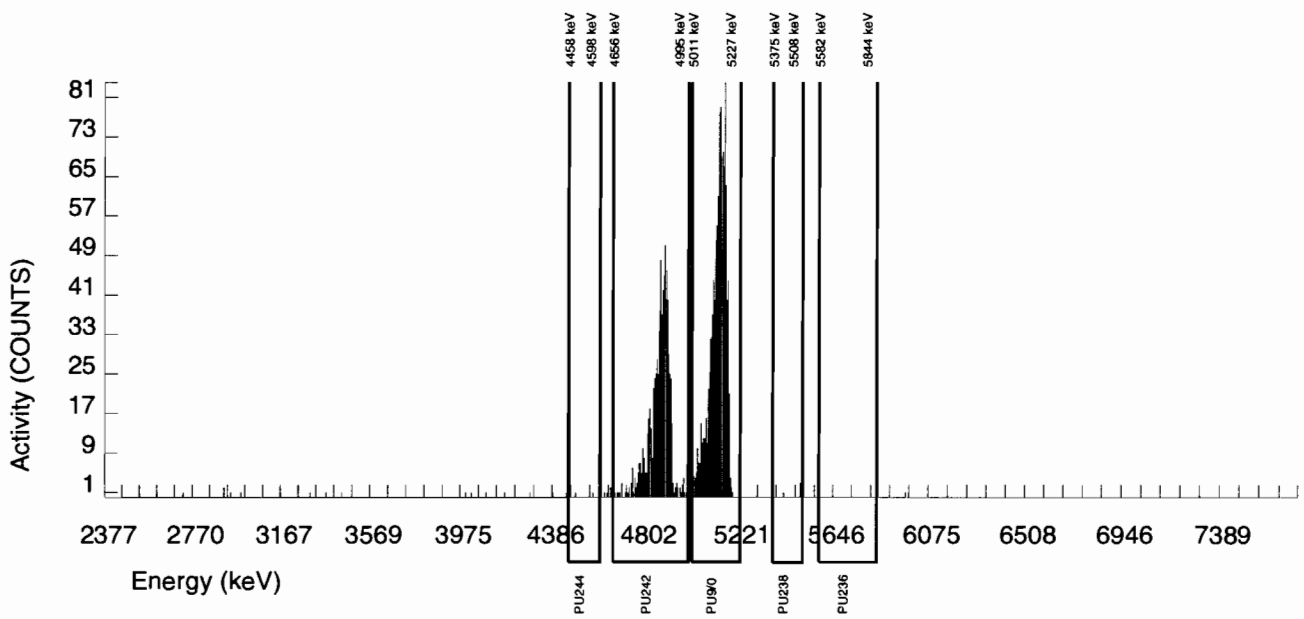

Radiochemistry Batch Checklist, Rev10

Batch# 957025 Product: U Date: 3/9/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		Case narrative
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 3/9/10

Secondary Review Performed By: [signature] 3/11/10

LANL

3/2 - 3/13

Uranium Que Sheet

24-FEB-10

Batch #: 957025 Analyst: HAKB First Client Due Date:13-MAR-10 Internal Due Date:02-MAR-10

Tracer Isotope: U-232/U-236 Tracer Code: 1283-H Expiration Date: 12/9/10 Vol: Ø.1

LCS Isotope: U-238 LCS Code: 1163-H Expiration Date: 10/21/10 Vol: Ø.1

Spike Isotope: U-238 Spike Code: NA Expiration Date: NA Vol: NA

Prep Date: 2/25/10 Initials: HAKB Pipet ID: 2971058 Balance ID: MDA 2/25/10 16750207 Witness: MDA 2/25/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g (l/n))	U Det #
246862002-1	CASA-10-9475	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	09-FEB-10	1	1	0.800	7
246877002-1	CASA-10-9446	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	09-FEB-10	2	2	0.800	8
246877003-1	CASA-10-9447	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	09-FEB-10	3	3	0.800	9
246886001-1	CASA-10-9456	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	09-FEB-10	4	4	0.800	10
246886003-1	CASA-10-9479	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	09-FEB-10	5	5	0.800	141
246964001-1	CAMO-10-9370	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	10-FEB-10	6	6	0.800	142
246964003-1	CAMO-10-9373	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	10-FEB-10	7	7	0.800	143
246967002-1	CAMO-10-9350	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	10-FEB-10	8	8	0.800	144
246967003-1	CAMO-10-9357	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	10-FEB-10	9	9	0.800	145
247036001-1	CASA-10-9464	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	11-FEB-10	10	10	0.800	146
247036004-1	CASA-10-9469	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	11-FEB-10	11	11	0.800	147
247042003-1	CAMO-10-9329	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	11-FEB-10	12	12	0.800	148
247042005-1	CAMO-10-9343	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	11-FEB-10	13	13	0.800	149
247261003-1	CAPA-10-12691	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	15-FEB-10	14	14	0.800	150
247431001-1	CAWA-10-13090	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	17-FEB-10	15	15	0.800	151
247817002-1	CAPA-10-13095	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	21-FEB-10	16	16	0.800	152
247829002-1	CAPA-10-13498	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	22-FEB-10	17	17	0.800	1
1202052018-1	MB for batch 957025	MB		.5 pCi/L	GROUND WATER	QC ACCOUNT		18	18 *	~~0.800~~	11
1202052019-1	CAPA-10-13498(247829002DUP)	DUP		.5 pCi/L	GROUND WATER	QC ACCOUNT	22-FEB-10	19	19	0.800	153
1202052020-1	LCS for batch 957025	LCS		.5 pCi/L	GROUND WATER	QC ACCOUNT		20	20 *	~~0.800~~	154

* 1.0 3/8/10

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) NA ESS 3/9/10

Data Reviewed By: 3/9/10

Blank Correction Report

Batch ID 957025

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202052019	DUP	Uranium-233/234	0.800 L	0.387	0.0538	0.0804	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0125	0.0118	0.0639	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.155	0.0309	0.0574	.0099	pCi/L	NO
1202052020	LCS	Uranium-233/234	1.00 L	2.13	0.185	0.0574	.0265	pCi/L	NO
		Uranium-235/236	1.00 L	0.126	0.0257	0.0457	.0117	pCi/L	NO
		Uranium-238	1.00 L	2.28	0.196	0.041	.00792	pCi/L	NO
1202052018	MB	Uranium-233/234	1.00 L	0.0265	0.00778	0.0282	.0265	pCi/L	YES
		Uranium-235/236	1.00 L	0.0117	0.0056	0.0221	.0117	pCi/L	YES
		Uranium-238	1.00 L	0.00792	0.00528	0.0199	.00792	pCi/L	YES
246862002	CASA-10-9475	Uranium-233/234	0.800 L	0.646	0.0711	0.0628	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0245	0.0127	0.050	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.382	0.0489	0.0448	.0099	pCi/L	NO
246877002	CASA-10-9446	Uranium-233/234	0.800 L	0.416	0.0521	0.0648	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.033	0.0139	0.0515	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.224	0.035	0.0463	.0099	pCi/L	NO
246877003	CASA-10-9447	Uranium-233/234	0.800 L	0.311	0.0424	0.0619	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0363	0.0142	0.0492	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.127	0.025	0.0442	.0099	pCi/L	NO
246886001	CASA-10-9456	Uranium-233/234	0.800 L	1.15	0.110	0.0616	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0217	0.0112	0.049	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.710	0.0757	0.044	.0099	pCi/L	NO
246886003	CASA-10-9479	Uranium-233/234	0.800 L	0.930	0.101	0.0798	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.050	0.0181	0.0635	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.447	0.0594	0.057	.0099	pCi/L	NO
246964001	CAMO-10-9370	Uranium-233/234	0.800 L	0.386	0.0521	0.0748	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.00586	0.00587	0.0595	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.197	0.0343	0.0534	.0099	pCi/L	NO
246964003	CAMO-10-9373	Uranium-233/234	0.800 L	0.481	0.0658	0.0915	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0215	0.0125	0.0727	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.252	0.0436	0.0653	.0099	pCi/L	NO
246967002	CAMO-10-9350	Uranium-233/234	0.800 L	0.325	0.0485	0.081	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0253	0.0128	0.0644	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.182	0.034	0.0578	.0099	pCi/L	NO
246967003	CAMO-10-9357	Uranium-233/234	0.800 L	0.560	0.0675	0.0746	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0234	0.0118	0.0593	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.217	0.0363	0.0532	.0099	pCi/L	NO
247036001	CASA-10-9464	Uranium-233/234	0.800 L	0.504	0.0628	0.0758	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0297	0.0135	0.0603	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.168	0.0312	0.0541	.0099	pCi/L	NO
247036004	CASA-10-9469	Uranium-233/234	0.800 L	0.329	0.0489	0.0819	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0352	0.0163	0.0651	.014625	pCi/L	YES

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
247036004	CASA-10-9469	Uranium-238	0.800 L	0.119	0.0273	0.0584	.0099	pCi/L	NO
247042003	CAMO-10-9329	Uranium-233/234	0.800 L	0.759	0.0857	0.0802	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0345	0.0159	0.0638	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.267	0.0425	0.0572	.0099	pCi/L	NO
247042005	CAMO-10-9343	Uranium-233/234	0.800 L	0.176	0.0331	0.0796	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0125	0.00886	0.0633	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.136	0.0289	0.0568	.0099	pCi/L	NO
247261003	CAPA-10-12691	Uranium-233/234	0.800 L	1.15	0.129	0.107	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0419	0.019	0.0851	.014625	pCi/L	YES
		Uranium-238	0.800 L	1.20	0.133	0.0764	.0099	pCi/L	NO
247431001	CAWA-10-13090	Uranium-233/234	0.800 L	0.400	0.0553	0.0819	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.00	0.00643	0.0652	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.270	0.0429	0.0585	.0099	pCi/L	NO
247817002	CAPA-10-13095	Uranium-233/234	0.800 L	0.224	0.0396	0.0896	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	-0.00354	0.00787	0.0712	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.111	0.027	0.0639	.0099	pCi/L	NO
247829002	CAPA-10-13498	Uranium-233/234	0.800 L	0.392	0.0394	0.0351	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0171	0.00657	0.0276	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.274	0.0304	0.0248	.0099	pCi/L	NO

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957025	CHAMBER : 150	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0247261003_UU	DETECTOR S/N : 75552	BKG FILE : B150.CNF;408
SAMPLE QTY : 0.800 L	AVERAGE %EFFICIENCY : 25.1049	BKG DATE : 7-MAR-2010
SAMPLE DATE : 15-FEB-2010 00:00:00	COUNT DATE : 8-MAR-2010 07:04:53	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 30300.00	EFF FILE : W150.CNF;122
% YIELD : 65.533		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 1163-H	ID : 1163-H
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5039E+00 dpm	NOMINAL : 3.2427E+00 pCi/L	NOMINAL : 3.2427E+00 pCi/L
RESULTS : 2.9516E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U232	5302.100	5300.654	55.020	376.000	373.980	2.020	1.4213	100.0000	2.54E+00	2.46E-01	1.94E-02	5.72E-02	1.32E-01
U-3/4	4763.020	4751.731	57.998	170.000	169.621	0.000	3.2416	100.0000	1.15E+00	1.29E-01	4.43E-02	1.07E-01	8.83E-02
U-235	4391.000	4408.783	0.000	5.000	5.000	0.000	1.8455	80.90000	4.19E-02	1.90E-02	3.12E-02	8.51E-02	1.87E-02
U-238	4184.730	4184.399	61.511	177.000	177.000	0.000	2.1208	100.0000	1.20E+00	1.33E-01	2.90E-02	7.64E-02	9.02E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

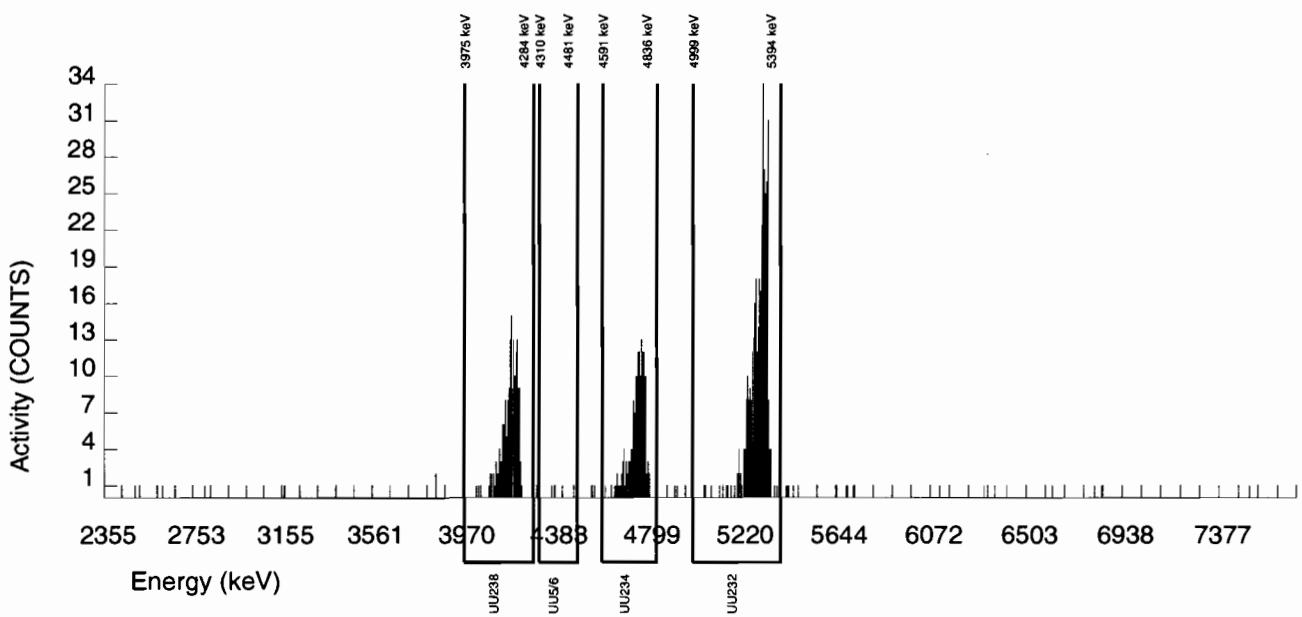

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957025	CHAMBER : 001	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0247829002_UU	DETECTOR S/N : 79451	BKG FILE : B001.CNF;1129
SAMPLE QTY : 0.800 L	AVERAGE %EFFICIENCY : 34.8147	BKG DATE : 28-FEB-2010
SAMPLE DATE : 22-FEB-2010 00:00:00	COUNT DATE : 5-MAR-2010 12:23:25	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W001.CNF;384
% YIELD : 81.929		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 1163-H	ID : 1163-H
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5031E+00 dpm	NOMINAL : 3.2427E+00 pCi/L	NOMINAL : 3.2427E+00 pCi/L
RESULTS : 3.6893E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U232	5302.100	5300.351	64.186	1291.000	1284.000	7.000	2.6458	100.0000	2.54E+00	1.93E-01	1.22E-02	2.97E-02	7.11E-02
U-3/4	4763.020	4750.946	54.733	201.000	198.700	1.000	3.2416	100.0000	3.92E-01	3.94E-02	1.49E-02	3.51E-02	2.80E-02
U-235	4391.000	4399.780	127.546	7.000	7.000	0.000	1.8455	80.90000	1.71E-02	6.57E-03	1.05E-02	2.76E-02	6.46E-03
U-238	4184.730	4175.824	49.388	140.000	139.000	1.000	2.1208	100.0000	2.74E-01	3.04E-02	9.74E-03	2.48E-02	2.34E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

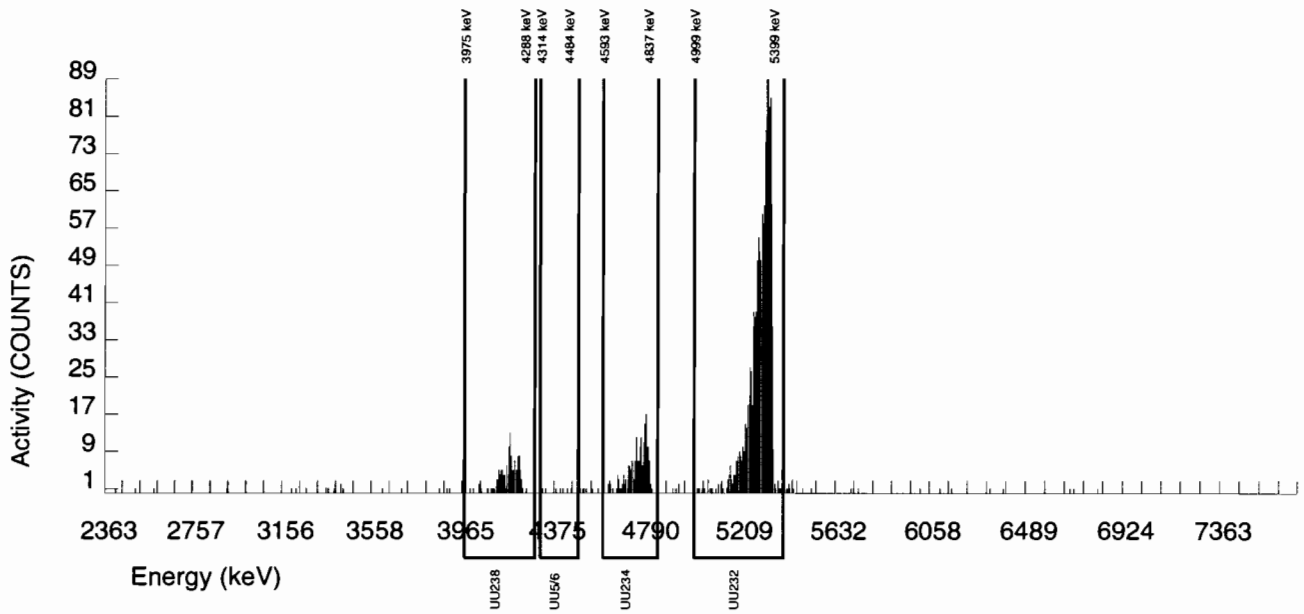

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957025	CHAMBER : 011	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202052018_UU	DETECTOR S/N : 72531	BKG FILE : B011.CNF;1120
SAMPLE QTY : 1.000 L	AVERAGE %EFFICIENCY : 31.2445	BKG DATE : 28-FEB-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 5-MAR-2010 12:23:26	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W011.CNF;315
% YIELD : 91.006		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 1163-H	ID : 1163-H
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5027E+00 dpm	NOMINAL : 2.5941E+00 pCi/L	NOMINAL : 2.5941E+00 pCi/L
RESULTS : 4.0977E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U232	5302.100	5300.796	62.035	1286.000	1280.000	6.000	2.4495	100.0000	2.03E+00	1.54E-01	9.03E-03	2.23E-02	5.70E-02
U-3/4	4763.020	4728.037	0.000	21.000	16.704	3.000	3.2416	100.0000	2.65E-02	7.78E-03	1.19E-02	2.82E-02	7.55E-03
U-235	4391.000	4398.053	99.555	7.000	6.000	1.000	1.8455	80.90000	1.17E-02	5.60E-03	8.41E-03	2.21E-02	5.54E-03
U-238	4184.730	4214.212	184.177	8.000	5.000	3.000	2.1208	100.0000	7.92E-03	5.28E-03	7.82E-03	1.99E-02	5.25E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

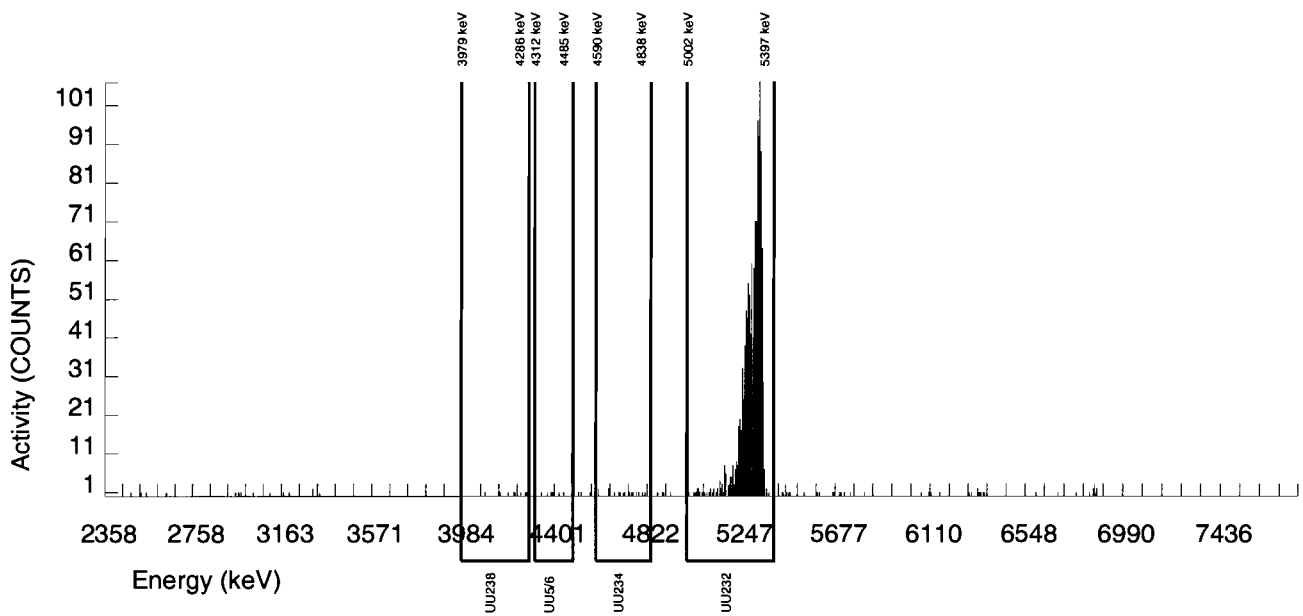

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957025
SAMPLE ID : S1202052019_UU
SAMPLE QTY : 0.800 L
SAMPLE DATE : 22-FEB-2010 00:00:00
ANALYST : HAKB
% YIELD : 87.650

CHAMBER : 153
DETECTOR S/N : 76223
AVERAGE %EFFICIENCY : 24.9933
COUNT DATE : 8-MAR-2010 07:05:03
ELAPSED LIVE TIME(SEC) : 30300.00

LIB FILE : ENV_ALPHA_UU
BKG FILE : B153.CNF;395
BKG DATE : 7-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W153.CNF;110
CAL DATE : 19-FEB-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5031E+00 dpm
RESULTS : 3.9470E+00 dpm

MS/MSD
ID : 1163-H
NUCLIDE : U-238
NOMINAL : 3.2427E+00 pCi/L

LCS/LCSD
ID : 1163-H
NUCLIDE : U-238
NOMINAL : 3.2427E+00 pCi/L

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U232	5302.100	5298.599	73.687	501.000	497.970	3.030	1.7407	100.0000	2.54E+00	2.28E-01	1.79E-02	4.96E-02	1.14E-01
U-3/4	4763.020	4755.443	37.747	77.000	75.991	0.505	3.2416	100.0000	3.87E-01	5.38E-02	3.33E-02	8.04E-02	4.46E-02
U-235	4391.000	4396.438	103.394	3.000	1.990	1.010	1.8455	80.90000	1.25E-02	1.18E-02	2.34E-02	6.39E-02	1.18E-02
U-238	4184.730	4175.416	95.701	31.000	30.495	0.505	2.1208	100.0000	1.55E-01	3.09E-02	2.18E-02	5.74E-02	2.85E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

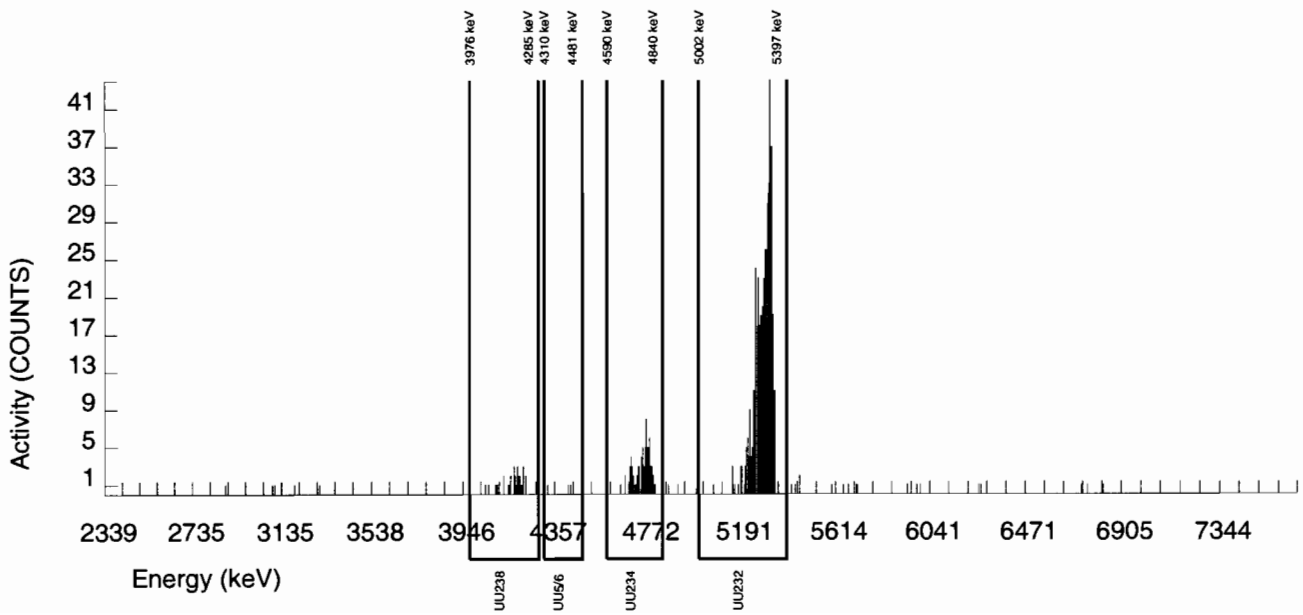

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957025	CHAMBER : 154	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202052020_UU	DETECTOR S/N : 76224	BKG FILE : B154.CNF;397
SAMPLE QTY : 1.000 L	AVERAGE %EFFICIENCY : 25.5722	BKG DATE : 7-MAR-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 8-MAR-2010 07:05:06	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 30300.00	EFF FILE : W154.CNF;108
% YIELD : 95.902		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 1163-H	ID : 1163-H
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5027E+00 dpm	NOMINAL : 2.5941E+00 pCi/L	NOMINAL : 2.5941E+00 pCi/L
RESULTS : 4.3182E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U232	5302.100	5299.680	69.400	560.000	557.475	2.525	1.5890	100.0000	2.03E+00	1.77E-01	1.17E-02	3.32E-02	8.62E-02
U-3/4	4763.020	4751.652	77.688	585.000	584.435	0.000	3.2416	100.0000	2.13E+00	1.85E-01	2.38E-02	5.74E-02	8.79E-02
U-235	4391.000	4399.715	86.490	28.000	28.000	0.000	1.8455	80.90000	1.26E-01	2.57E-02	1.67E-02	4.57E-02	2.38E-02
U-238	4184.730	4179.346	68.439	626.000	625.495	0.505	2.1208	100.0000	2.28E+00	1.96E-01	1.56E-02	4.10E-02	9.10E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

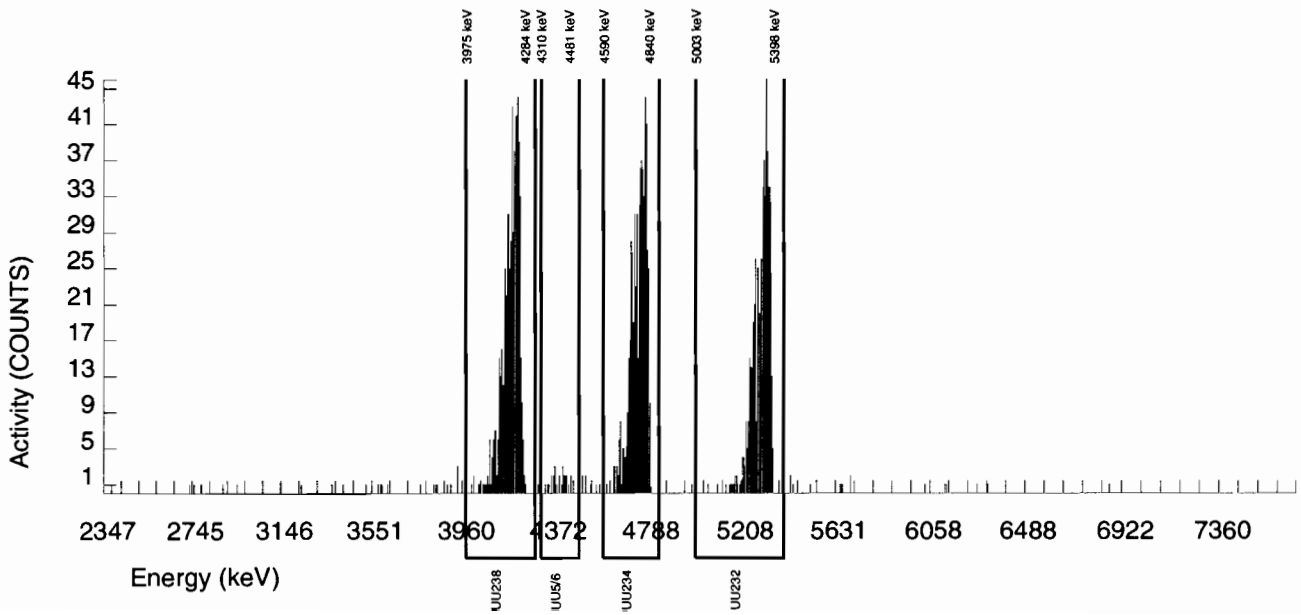

Radiochemistry Batch Checklist, Rev10

Batch# 963528 Product: Am Date: 3/17/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 3/17/10

Secondary Review Performed By: [signature] 3/17/10

3/19
LANL

P

Am/Cm Que Sheet

10-MAR-10

Batch #: 963528 Analyst: HAKB First Client Due Date: 19-MAR-10 Internal Due Date13-MAR-10 Comments:

Tracer(s): Am243/Cm244 Tracer Code: 445-96-2-SS Expiration Date: 5/11/10 Vol: 0.1

LCS Isotope(s): Am241/Cm244 LCS Code(s): 0533-0 / NA Expiration Date: 9/10/10 / NA Vol(s): 0.1 / NA

Spike Isotope(s): Am241/Cm244 Spike Code(s): 0533-0 / NA Expiration Date: 9/10/10 / NA Vol(s): 0.1 / NA

Prep Date: 3/17/10 Initials: HAKB (AKO 3/16/10) Pipet ID: 297/058 Balance ID: 16750207 Witness: [illegible] 03/12/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l)	Am/Cm Det #
247261003-2	CAPA-10-12691	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	15-FEB-10	1	1	~~0.800~~ 0.600	26
1202067094-1	MB for batch 963528	MB		UCF pCi/L to pCi	GROUND WATER	QC ACCOUNT		2	2	1	27
1202067095-2	CAPA-10-12691(247261003DUP)	DUP		.05 pCi/L	GROUND WATER	QC ACCOUNT	15-FEB-10	3	3	0.600	28
1202067096-1	LCS for batch 963528	LCS		UCF pCi/L to pCi	GROUND WATER	QC ACCOUNT		4	4	~~0.600~~ 1	29

Choose SOP Used: GL-RAD-A-011 / ~~GL-RAD-A-036~~

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One)

Data Reviewed By: [illegible] 8/17/10

GEL Laboratories LLC, Radiochemistry Division

Blank Correction Report

Batch ID 963528

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202067095	DUP	Americium-241	0.600 L	-0.00104	0.00277	0.0375	-.0038	pCi/L	NO
1202067096	LCS	Americium-241	1.00 L	3.18	0.212	0.0229	-.00228	pCi/L	NO
1202067094	MB	Americium-241	1.00 L	-0.00228	0.00197	0.0189	-.00228	pCi/L	NO
247261003	CAPA-10-12691	Americium-241	0.600 L	0.0132	0.00573	0.033	-.0038	pCi/L	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 963528	CHAMBER : 026	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0247261003_AM	DETECTOR S/N : 78204	BKG FILE : B026.CNF;1122
SAMPLE QTY : 0.600 L	AVERAGE %EFFICIENCY : 33.6708	BKG DATE : 14-MAR-2010
SAMPLE DATE : 15-FEB-2010 00:00:00	COUNT DATE : 16-MAR-2010 17:19:06	BKG LIVE TIME(SEC) : 59999.99
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W026.CNF;304
% YIELD : 91.646		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0533-O	ID : 0533-O
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 4.7356E+00 pCi/L	NOMINAL : 4.7356E+00 pCi/L
RESULTS : 2.6729E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
AM-241	5479.150	5525.934	162.376	7.000	5.438	0.000	2.3343	99.94000	1.32E-02	5.73E-03	1.32E-02	3.30E-02	5.68E-03
AM243	5270.000	5261.398	41.633	899.000	898.000	1.000	1.0000	99.78000	2.19E+00	1.53E-01	5.67E-03	1.80E-02	7.31E-02
CM-242	6102.000	6055.417	103.330	3.000	2.000	1.000	3.1757	100.0000	5.53E-03	5.54E-03	1.80E-02	4.25E-02	5.53E-03
CM-3/4	5795.020	5748.655	127.932	8.000	7.000	1.000	3.3743	100.0000	1.71E-02	7.40E-03	1.91E-02	4.48E-02	7.32E-03
CM-5/6	5386.000	5384.136	4.920	1.000	1.000	0.000	6.9212	86.09000	2.83E-03	2.83E-03	4.55E-02	9.87E-02	2.83E-03
CM-247	4946.000	4880.381	177.137	7.000	6.000	1.000	5.6900	79.30000	1.84E-02	8.75E-03	4.06E-02	8.95E-02	8.68E-03
CM-248	5078.600	5065.068	46.591	8.000	8.000	0.000	7.8985	91.00000	2.14E-02	7.67E-03	4.91E-02	1.05E-01	7.56E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

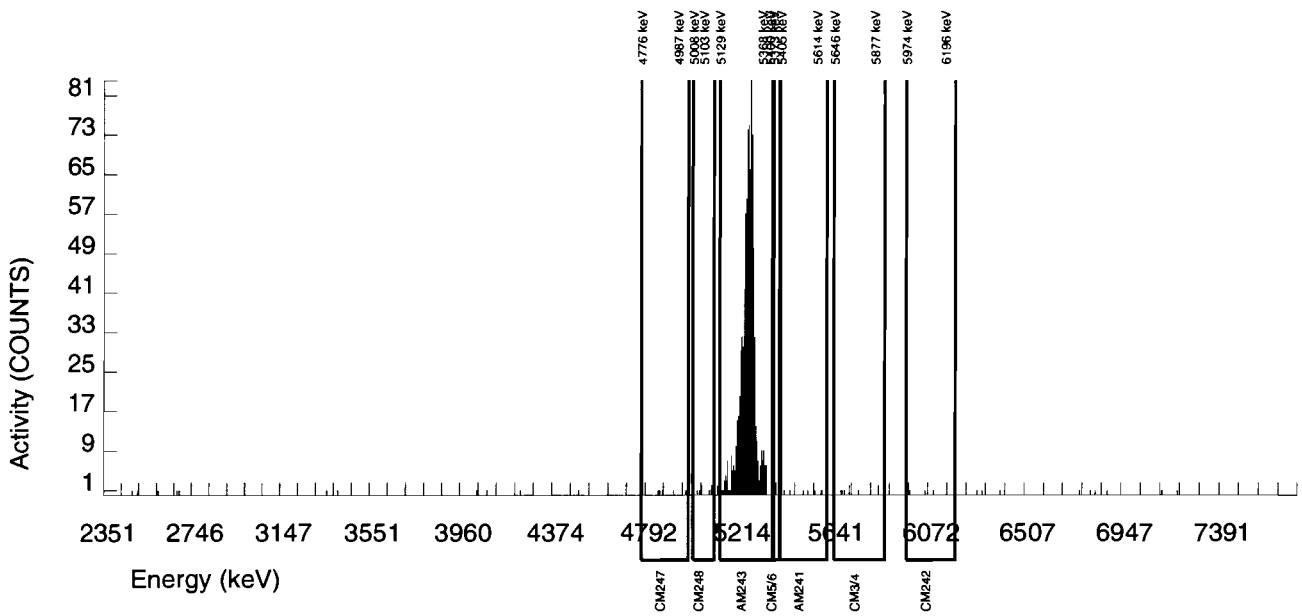

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 963528	CHAMBER : 027	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202067094_AM	DETECTOR S/N : 42484	BKG FILE : B027.CNF;1128
SAMPLE QTY : 1.000 L	AVERAGE %EFFICIENCY : 34.2191	BKG DATE : 14-MAR-2010
SAMPLE DATE : 12-MAR-2010 00:00:00	COUNT DATE : 16-MAR-2010 17:19:06	BKG LIVE TIME(SEC) : 59999.99
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W027.CNF;331
% YIELD : 94.596		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0533-O	ID : 0533-O
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9165E+00 dpm	NOMINAL : 2.8410E+00 pCi/L	NOMINAL : 2.8410E+00 pCi/L
RESULTS : 2.7589E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
AM-241	5479.150	5517.065	4.967	1.000	-1.639	1.000	2.3343	99.94000	-2.28E-03	1.97E-03	7.56E-03	1.89E-02	1.97E-03
AM243	5270.000	5284.444	29.591	942.000	942.000	0.000	0.0000	99.78000	1.31E+00	9.05E-02	0.00E+00	3.78E-03	4.28E-02
CM-242	6102.000	6074.621	89.408	2.000	0.000	2.000	3.1757	100.0000	0.00E+00	2.85E-03	1.03E-02	2.43E-02	2.84E-03
CM-3/4	5795.020	5735.328	198.685	3.000	2.000	1.000	3.3743	100.0000	2.78E-03	2.79E-03	1.09E-02	2.56E-02	2.78E-03
CM-5/6	5386.000	5376.290	0.000	6.000	6.000	0.000	6.9212	86.09000	9.70E-03	4.00E-03	2.60E-02	5.64E-02	3.96E-03
CM-247	4946.000	4886.377	39.634	8.000	6.000	2.000	5.6900	79.30000	1.05E-02	5.59E-03	2.32E-02	5.12E-02	5.55E-03
CM-248	5078.600	5047.021	4.967	4.000	4.000	0.000	7.8985	91.00000	6.12E-03	3.08E-03	2.81E-02	6.03E-02	3.06E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

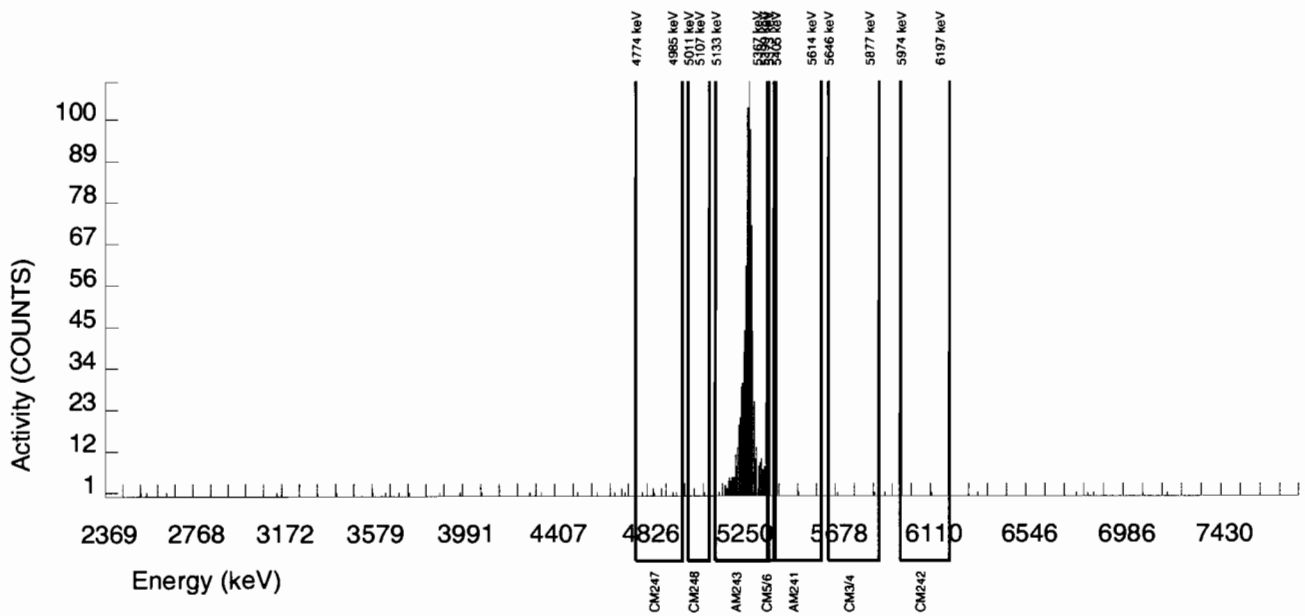

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 963528	CHAMBER : 028	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202067095_AM	DETECTOR S/N : 78792	BKG FILE : B028.CNF;1132
SAMPLE QTY : 0.600 L	AVERAGE %EFFICIENCY : 31.5679	BKG DATE : 14-MAR-2010
SAMPLE DATE : 15-FEB-2010 00:00:00	COUNT DATE : 16-MAR-2010 17:19:06	BKG LIVE TIME(SEC) : 59999.99
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W028.CNF;323
% YIELD : 86.212		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0533-O	ID : 0533-O
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 4.7356E+00 pCi/L	NOMINAL : 4.7356E+00 pCi/L
RESULTS : 2.5144E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
AM-241	5479.150	5444.547	4.944	1.000	-0.378	0.000	2.3343	99.94000	-1.04E-03	2.77E-03	1.50E-02	3.75E-02	2.76E-03
AM243	5270.000	5265.722	28.369	794.000	792.000	2.000	1.4142	99.78000	2.19E+00	1.57E-01	9.10E-03	2.57E-02	7.80E-02
CM-242	6102.000	6039.958	123.594	3.000	1.000	2.000	3.1757	100.0000	3.13E-03	7.01E-03	2.04E-02	4.82E-02	7.01E-03
CM-3/4	5795.020	5739.454	168.088	5.000	0.000	5.000	3.3743	100.0000	0.00E+00	8.75E-03	2.17E-02	5.08E-02	8.75E-03
CM-5/6	5386.000	5383.136	0.000	2.000	2.000	0.000	6.9212	86.09000	6.41E-03	4.55E-03	5.16E-02	1.12E-01	4.53E-03
CM-247	4946.000	4871.241	4.944	8.000	7.000	1.000	5.6900	79.30000	2.44E-02	1.05E-02	4.60E-02	1.02E-01	1.04E-02
CM-248	5078.600	5061.492	49.438	9.000	9.000	0.000	7.8985	91.00000	2.73E-02	9.25E-03	5.57E-02	1.20E-01	9.09E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

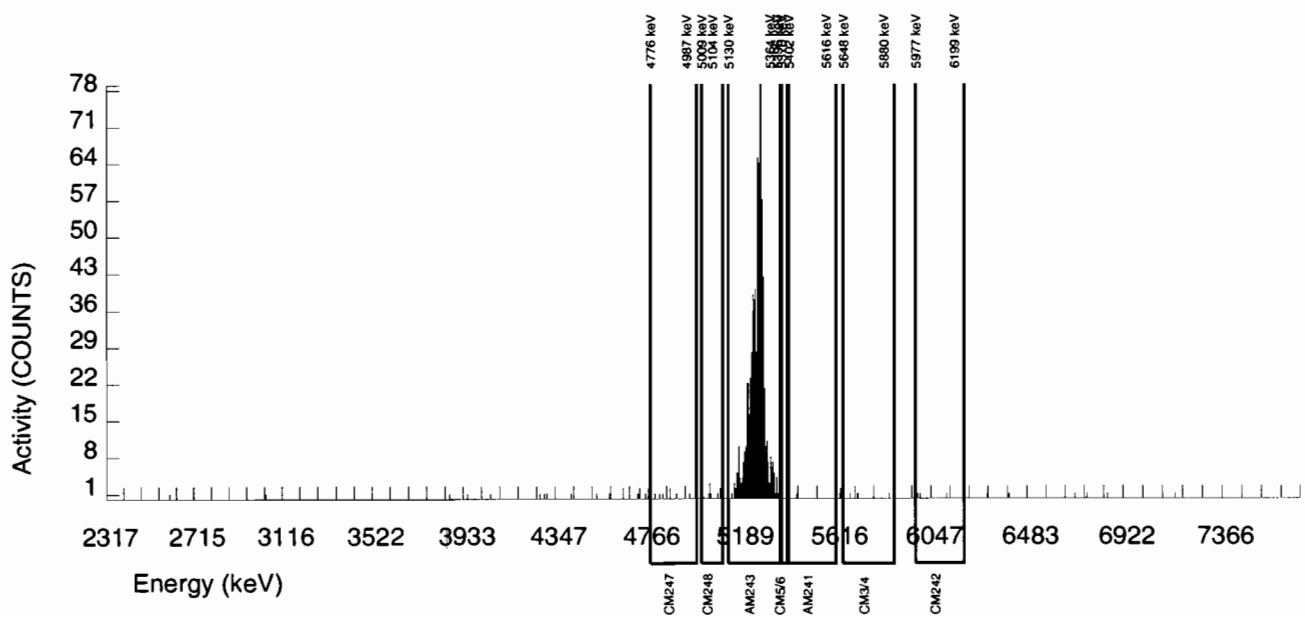

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 963528
SAMPLE ID : S1202067096_AM
SAMPLE QTY : 1.000 L
SAMPLE DATE : 12-MAR-2010 00:00:00
ANALYST : HAKB
% YIELD : 82.064

CHAMBER : 029
DETECTOR S/N : 33454
AVERAGE %EFFICIENCY : 32.5354
COUNT DATE : 16-MAR-2010 17:19:06
ELAPSED LIVE TIME(SEC) : 59999.99

LIB FILE : ENV_ALPHA_AM
BKG FILE : B029.CNF;1123
BKG DATE : 14-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W029.CNF;322
CAL DATE : 4-MAR-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9165E+00 dpm
RESULTS : 2.3934E+00 dpm

MS/MSD
ID : 0533-O
NUCLIDE : AM-241
NOMINAL : 2.8410E+00 pCi/L

LCS/LCSD
ID : 0533-O
NUCLIDE : AM-241
NOMINAL : 2.8410E+00 pCi/L

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
AM-241	5479.150	5528.112	39.978	1895.000	1884.648	9.000	2.3343	99.94000	3.18E+00	2.12E-01	9.17E-03	2.29E-02	7.36E-02
AM243	5270.000	5306.300	37.635	779.000	777.000	2.000	1.4142	99.78000	1.31E+00	9.49E-02	5.56E-03	1.57E-02	4.73E-02
CM-242	6102.000	6112.297	87.597	3.000	-3.000	6.000	3.1757	100.0000	-5.17E-03	5.17E-03	1.25E-02	2.95E-02	5.17E-03
CM-3/4	5795.020	5761.540	4.867	9.000	-4.000	13.000	3.3743	100.0000	-6.75E-03	7.92E-03	1.32E-02	3.11E-02	7.92E-03
CM-5/6	5386.000	5383.584	0.000	41.000	40.000	1.000	6.9212	86.09000	7.84E-02	1.36E-02	3.16E-02	6.84E-02	1.27E-02
CM-247	4946.000	4880.255	0.000	12.000	10.000	2.000	5.6900	79.30000	2.13E-02	8.07E-03	2.82E-02	6.21E-02	7.96E-03
CM-248	5078.600	5068.055	0.000	4.000	3.000	1.000	7.8985	91.00000	5.56E-03	4.16E-03	3.41E-02	7.32E-02	4.15E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

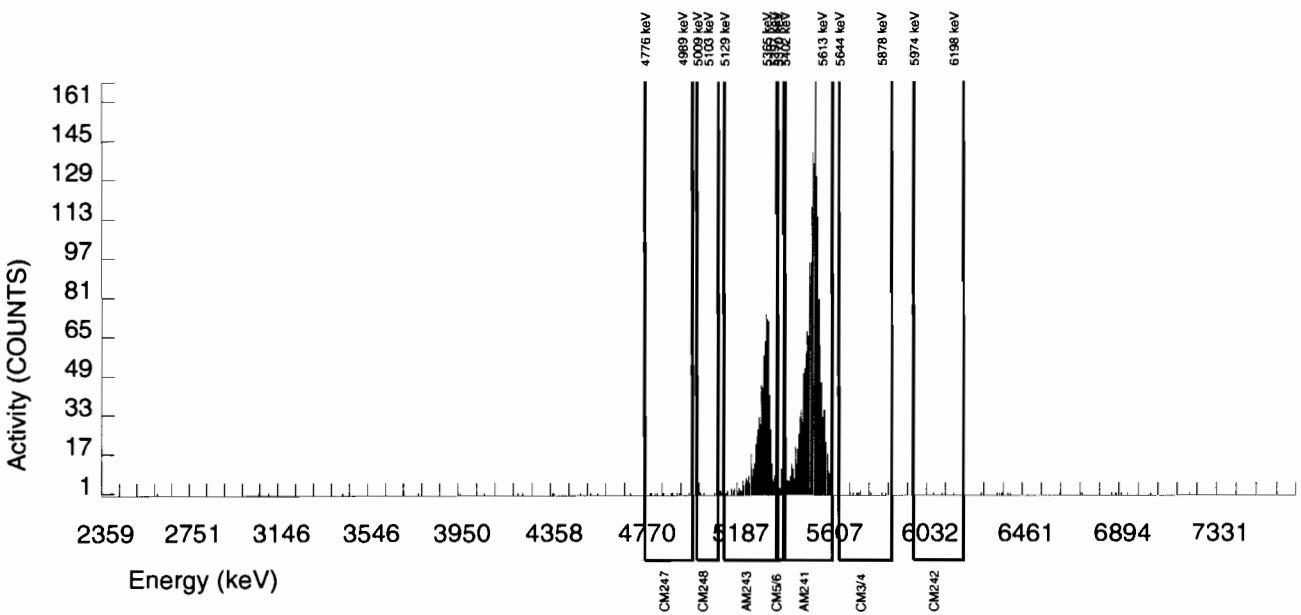

Radiochemistry Batch Checklist, Rev10

Batch# 956162 Product: Gamma Liquid LANL Date: 03/01/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.	✓		
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 3/1/10

Secondary Review Performed By: KDate 3/1/10

3/5

Gamma Spec Que Sheet

02/22/2010

Batch #:956162 Analyst: KXG3 First Client DueDate03/05/2010 Internal Due Date: 02/23/2010

Gamma Spike Isotope: Mixed Gamma Spike Code: na Expiration Date: na Vol: na Nominal Concentration: na

Gamma LCS Isotope: Mixed Gamma LCS Code: 1032-A Expiration Date: 12/2/10 Vol: 1.0 ml Nominal Concentration: Cs137-431.7

Initials: DRS Prep Date: 2-22-10 Library: Liquid Witness: na Co60-494.7

Am241-1236

Gross Gamma-2177

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date		Geometry	Wet/Dry Aliquot (W/D/F)	Detector	Sealing Date/Time (if Applicable)	
247261003-1	CAPA-10-12691	SAMPLE		LANL010	GROUND WATER	15-FEB-10 12:00:00	U	2LMB	2.0	3		
247431001-1	CAWA-10-13090	SAMPLE		LANL010	GROUND WATER	17-FEB-10 12:00:00	U		2.0	10		
247436001-1	WSTPU-10-13232	SAMPLE		LANL010	WATER	17-FEB-10 12:00:00	U		2.0	11		
247438001-1	GW51-10-10149	SAMPLE		LANL010	WATER	17-FEB-10 12:00:00	U		2.0	17		
247441001-1	WST54-10-12091	SAMPLE		LANL010	WATER	17-FEB-10 12:00:00	U		2.0	25		
247449001-1	WST51-10-13283	SAMPLE		LANL010	WATER	17-FEB-10 12:00:00	U		2.0	3		
247540001-1	CAPU-10-12552	SAMPLE		LANL010	WATER	2/24/10 17-FEB-10 12:00:00 2/22/10	U	500MLMB	0.5	4		
1202050273-1	MB	MB		QC ACCOUNT	GROUND WATER	2/24/10 ~~15-FEB-10 12:00:00~~	U	2LMB	2.0	7		
1202050274-1	DUP CAPA-10-12691(247261003)	DUP		QC ACCOUNT	GROUND WATER	15-FEB-10 12:00:00	U		2.0	16		
1202050275-1	DUP WSTPU-10-13232(247436001)	DUP		QC ACCOUNT	WATER	17-FEB-10 12:00:00	U		2.0	19		
1202050276-1	LCS	LCS		QC ACCOUNT	GROUND WATER	2/24/10 ~~15-FEB-10 12:00:00~~ 2/22/10	U		2.0	1	4 3/1/10	LC 2/24/10

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: 3/1/10

✓ no history
✓ dates

3/1/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
956162	247261003	SAMPLE	23-FEB-10		Neptunium-237	9.058	40.66	10.0
					Potassium-40	14.12	55.57	10.0
956162	247431001	SAMPLE	23-FEB-10		Neptunium-237	1.601	36.49	10.0
					Potassium-40	12.12	64.39	10.0
956162	247436001	SAMPLE	23-FEB-10		Neptunium-237	6.276	29.48	10.0
					Potassium-40	-17.27	54.45	10.0
956162	247438001	SAMPLE	23-FEB-10		Neptunium-237	-0.2957	22.11	10.0
					Potassium-40	24.58	70.12	10.0
956162	247441001	SAMPLE	23-FEB-10		Neptunium-237	-8.164	17.22	10.0
					Potassium-40	4.281	55.88	10.0
956162	247449001	SAMPLE	23-FEB-10		Neptunium-237	-3.671	28.11	10.0
					Potassium-40	-13.75	38.87	10.0
956162	247540001	SAMPLE	23-FEB-10		Radium-226	29.33	70.24	0.500
					Radium-228	0.61	12.56	0.500
					Thorium-231	25.64	41.85	25.0
956162	1202050273	MB	23-FEB-10		Neptunium-237	-10.21	14.88	10.0
					Potassium-40	-13.37	33.88	10.0
					Radium-226	23.61	66.34	0.500
					Radium-228	-3.125	11.36	0.500
					Thorium-231	-14.3	31.64	25.0
956162	1202050274	DUP	23-FEB-10		Neptunium-237	5.734	18.93	10.0
					Potassium-40	0.6662	39.62	10.0
956162	1202050275	DUP	23-FEB-10		Neptunium-237	10.09	19.89	10.0
					Potassium-40	0.2366	33.92	10.0
956162	1202050276	LCS	25-FEB-10		Bismuth-211	-9.352	90.63	25.0
					Bismuth-214	-12.13	28.99	10.0
					Cerium-139	2.902	12.56	5.00
					Cesium-134	-8.848	18.97	5.00
					Europium-152	3.597	39.92	20.0
					Lead-212	0.7255	25.86	15.0
					Lead-214	0.6653	30.92	10.0
					Mercury-203	1.385	14.59	5.00
					Potassium-40	-24.38	103	10.0
					Radium-223	113.5	316.4	100
					Radium-224	5.834	286.2	100
					Radium-226	-77.78	340.8	0.500
					Radium-228	-37.17	66.82	0.500
					Ruthenium-106	-79.76	118.8	50.0
					Strontium-85	-17.21	14.24	10.0
					Thallium-208	-4.509	15.38	10.0
					Thorium-227	-53.49	170.5	50.0
					Thorium-231	35.17	223.4	25.0
					Thorium-234	-521.6	721.7	250
					Tin-113	5.373	17.72	10.0
					Uranium-235	-16.44	89.6	50.0

GEL QUALS

Batch ID: 956162

Report run on: March 1, 2010 9:36 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
247540001-1 23-FEB-2010 22:31	Mercury-203	UI	UI	UI	Data rejected due to low abundance.		3.215		5	5
1202050274-1 DUP 23-FEB-2010 22:32	Bismuth-211	UI	UI	UI	Data rejected due to interference.		46.22		25	25
	Lead-212	UI	UI	UI	Data rejected due to low abundance.		5.833		15	15
	Lead-214	UI	UI	UI	Data rejected due to low abundance.		16.08		10	10

Gamma Review Report based on Result > MDA for Batch:956162

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
247261003	15-FEB-10 12:00	23-FEB-10 19:22	8.31	SAMPLE	LOAD	1	LANL	ESHL01000!GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Arsenic-74	HE	13.44	3.411	pCi/L	9.676	N	596.3	1	1.116	IDENTIFIED	25	☐	
Bismuth-211	HE	50.07	13.59	pCi/L	25.74	N	352.3	1	1.313	IDENTIFIED	26.75	☐	
Bismuth-214	nr	20.24	5.137	pCi/L	8.757	N	609.7	1	1.413	IDENTIFIED	24.86	☐	
Iodine-123	HE	24310	52700	pCi/L	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-214	HE	17.42	4.749	pCi/L	13.36	N	0	8	0	FAIL_ABUND	0	☐	
Niobium-97	HE	2544	4556	pCi/L	0	N	0	8	0	SHORT_HLIF	0	☐	
Polonium-214	HE	17.42	4.749	pCi/L	13.36	N	0	8	0	FAIL_ABUND	0	☐	
Polonium-218	HE	17.42	4.749	pCi/L	13.36	N	0	8	0	FAIL_ABUND	0	☐	
Protactinium-227		1.00E+41	0	pCi/L	0	N	0	8	0	SHORT_HLIF	0	☐	
Rhodium-101	HE	6.171	2.148	pCi/L	5.932	N	0	8	0	FAIL_ABUND	0	☐	
Sodium-24	HE	9001	14880	pCi/L	0	N	0	8	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
247431001	17-FEB-10 12:00	23-FEB-10 19:23	6.31	SAMPLE	LOAD	1	LANL	ESHL01000!GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Bismuth-211	int nr	70.49	15.09	pCi/L	21.49	N	351.7	1	0.782	IDENTIFIED	21.16	☐	
Bismuth-214	nr	23.91	4.308	pCi/L	13.26	N	0	8	0	FAIL_ABUND	0	☐	
Iodine-123	HE	579.1	3399	pCi/L	0	N	0	8	0	SHORT_HLIF	0	☐	
Iodine-135	HE	9.24E+06	3.77E+07	pCi/L	0	N	0	8	0	SHORT_HLIF	0	☐	
Lead-214	la nr	24.52	5.29	pCi/L	13.91	N	0	8	0	FAIL_ABUND	0	☐	
Polonium-214	la nr	24.52	5.29	pCi/L	13.91	N	0	8	0	FAIL_ABUND	0	☐	
Polonium-218	la nr	24.52	5.29	pCi/L	13.91	N	0	8	0	FAIL_ABUND	0	☐	
Sodium-24	HE	1098	1292	pCi/L	0	N	0	8	0	SHORT_HLIF	0	☐	
Technetium-99m	HE	8.46E+07	5.04E+07	pCi/L	0	N	0	8	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
247436001	17-FEB-10 12:00	23-FEB-10 19:23	6.31	SAMPLE	LOAD	1	LANL	LANL01006!GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Iodine-123	HE	3610	3021	pCi/L	0	N	0	4	0	SHORT_HLIF	0	☐	
Niobium-97	HE	583.1	574.7	pCi/L	0	N	0	4	0	SHORT_HLIF	0	☐	
Sodium-24	HE	284.8	1432	pCi/L	0	N	0	4	0	SHORT_HLIF	0	☐	
Technetium-99m	–	1.32E+08	4.73E+07	pCi/L	0	N	0	4	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
247438001	17-FEB-10 12:00	23-FEB-10 19:24	6.31	SAMPLE	LOAD	1	LANL	LANL01006!GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Sodium-24	HE	557.4	1756	pCi/L	0	N	0	2	0	SHORT_HLIF	0	☐	
Technetium-99m	HE	1.84E+07	4.05E+07	pCi/L	0	N	0	2	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
247441001	17-FEB-10 12:00	23-FEB-10 19:24	6.31	SAMPLE	LOAD	1	LANL	LANL01006|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Technetium-99m	HE	6.55E+07	3.60E+07	pCi/L	0	N	0	1	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
247449001	17-FEB-10 12:00	23-FEB-10 22:30	6.44	SAMPLE	LOAD	1	LANL	LANL01006|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Arsenic-74	nvp nr	14.21	3.176	pCi/L	5.255	N	596.8	1	1.39	IDENTIFIED	21.92	☐	
Iodine-135	HE	4.90E+06	5.15E+07	pCi/L	0	N	0	2	0	SHORT_HLIF	0	☐	
Protactinium-227		1.00E+41	0	pCi/L	0	N	0	2	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
247540001	17-FEB-10 12:00	23-FEB-10 22:31	6.44	SAMPLE	LOAD	1	LANL	LANL01004|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Iodine-123	HE	2530	3530	pCi/L	0	N	0	3	0	SHORT_HLIF	0	☐	
Mercury-203	la	3.215	0.9037	pCi/L	3.203	5.00	0	3	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Technetium-99m	HE	2.25E+08	1.19E+08	pCi/L	0	N	0	3	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202050273	15-FEB-10 12:00	23-FEB-10 22:31	8.44	MB	LOAD	1		GEL	N	RGSP

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202050274	15-FEB-10 12:00	23-FEB-10 22:32	8.44	DUP	LOAD	1		ESHL01000|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Arsenic-74	HE	6.559	2.371	pCi/L	4.75	N	596.3	1	1.517	IDENTIFIED	35.91	☐	
Bismuth-211	int nr	46.22	8.811	pCi/L	14.93	Y	352	1	1.014	IDENTIFIED	18.41	☐ ui	
Bismuth-214 ✓		18.61	3.094	pCi/L	4.25	Y	609.4	1	0.9382	IDENTIFIED	15.89	☐	
Iodine-135	HE	2.62E+09	5.72E+09	pCi/L	0	N	0	11	0	SHORT_HLIF	0	☐	
Lead-212	la	5.833	2.097	pCi/L	5.746	Y	0	11	0	NOT_IDENTI	0	☑ UI	Data rejected due to low abundance.
Lead-214	la	16.08	3.094	pCi/L	8.252	Y	0	11	0	FAIL_ABUND	0	☑ UI	Data rejected due to low abundance.
Polonium-212	HE	5.833	2.097	pCi/L	5.746	N	0	11	0	NOT_IDENTI	0	☐	
Polonium-214	la nr	16.08	3.094	pCi/L	8.252	N	0	11	0	FAIL_ABUND	0	☐	
Polonium-216	HE	5.833	2.097	pCi/L	5.746	N	0	11	0	NOT_IDENTI	0	☐	
Polonium-218	la nr	16.08	3.094	pCi/L	8.252	N	0	11	0	FAIL_ABUND	0	☐	
Rhodium-101	HE	3.297	1.425	pCi/L	3.086	N	0	11	0	FAIL_ABUND	0	☐	
Sodium-24	HE	7858	10100	pCi/L	0	N	0	11	0	SHORT_HLIF	0	☐	
Technetium-99m	HE	2.18E+10	1.25E+10	pCi/L	0	N	0	11	0	SHORT_HLIF	0	☐	
Thorium-228	HE	5.833	2.097	pCi/L	5.746	N	0	11	0	NOT_IDENTI	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202050275	17-FEB-10 12:00	23-FEB-10 22:32	6.44	DUP	LOAD	1		LANL01006|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Arsenic-74	HE	8.795	2.821	pCi/L	4.912	N	596.9	1	1.873	IDENTIFIED	31.96	☐	
Californium-251	HE	17.46	3.654	pCi/L	12.76	N	0	6	0	NOT_IDENTI	0	☐	
Gross Gamma		8.09	3.305	pCi/L	7.781	120		0				☐	
Iodine-123	HE	5046	2822	pCi/L	0	N	0	6	0	SHORT_HLIF	0	☐	
Niobium-97	HE	145.4	444.7	pCi/L	0	N	0	6	0	SHORT_HLIF	0	☐	
Protactinium-227		1.00E+41	0	pCi/L	0	N	0	6	0	SHORT_HLIF	0	☐	
Rhodium-101	HE	3.616	1.431	pCi/L	3.139	N	0	6	0	FAIL_ABUND	0	☐	
Technetium-99m	HE	1.15E+08	6.04E+07	pCi/L	0	N	0	6	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202050276	15-FEB-10 12:00	25-FEB-10 20:33	10.4	LCS	LOAD	2		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Americium-241		1404	94.37	pCi/L	112.2	25.0	59.44	3	1.071	IDENTIFIED	5.353	☐	
Barium-137m		454.8	24.37	pCi/L	13.99	N	662.1	2	1.364	IDENTIFIED	3.523	☐	
Cadmium-109		3147	260.2	pCi/L	361.7	100	88	3	1.179	IDENTIFIED	6.773	☐	
Cesium-137		480.7	25.8	pCi/L	14.79	8.00	662.1	2	1.364	IDENTIFIED	3.523	☐	
Cobalt-57	HE	22.21	5.54	pCi/L	12.51	N	122.7	1	1.016	IDENTIFIED	24.51	☐	
Cobalt-60		517.3	28.62	pCi/L	8.751	8.00	1333	1	1.734	IDENTIFIED	3.774	☐	
Gross Gamma		2061	127.4	pCi/L	204.5	120		0				☐	
Iodine-135	HE	42870	1.94E+05	pCi/L	0	N	0	1	0	SHORT_HLIF	0	☐	
Neptunium-237		923.8	122.1	pCi/L	109.3	10.0	88	3	1.179	IDENTIFIED	6.773	☐	
Plutonium-237		16310	1062	pCi/L	1303	N	59.44	3	1.071	IDENTIFIED	5.353	☐	
Thorium-232	HE	2.65E+05	1.40E+06	pCi/L	21920	N	59.44	3	1.071	IDENTIFIED	5.353	☐	
Tin-126		314.6	26.01	pCi/L	36.4	N	88	3	1.179	IDENTIFIED	6.773	☐	

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
956162	247540001	SAMPLE	23-FEB-10	Bismuth-210	720	341.3	pCi/L	369.3	N
				Gross Gamma	38.04	17.85	pCi/L	20.75	N
				Iodine-123	2530	3530	pCi/L	0	N
				Lead-210	720	341.3	pCi/L	369.3	N
				Lead-212	2.954	2.536	pCi/L	2.948	15.0
				Mercury-203	3.215	0.9037	pCi/L	1.602	5.00
				Polonium-210	720	341	pCi/L	369.3	N
				Praseodymium-144	141.4	61.32	pCi/L	108.2	N
				Technetium-99m	2.25E+08	1.19E+08	pCi/L	0	N
				Thorium-231	25.64	12.38	pCi/L	20.94	25.0
				Uranium-234	6299	31980	pCi/L	5587	N
				Uranium-235	9.605	5.93	pCi/L	8.849	50.0
956162	1202050273	MB	23-FEB-10	Antimony-125	10.08	3.243	pCi/L	3.956	N
				Cadmium-109	40.61	15.07	pCi/L	25.94	D 10
				Praseodymium-144	117.7	53.66	pCi/L	95.62	N
				Tellurium-125m	336	197.7	pCi/L	300.1	N
				Thorium-229	22.19	11.31	pCi/L	17.98	N
956162	1202050274	DUP	23-FEB-10	Bismuth-210	196.8	133.9	pCi/L	191.1	N
				Bismuth-211	46.22	6.811	pCi/L	7.47	Y
				Bismuth-214	18.61	3.094	pCi/L	2.126	Y
				Cerium-143	336.9	123.8	pCi/L	185.7	N
				Gross Gamma	35.62	11.54	pCi/L	22.07	120
				Iodine-135	2.62E+09	5.72E+09	pCi/L	0	N
				Lead-210	196.8	133.9	pCi/L	191.1	N
				Lead-212	5.833	2.097	pCi/L	2.875	Y
				Lead-214	16.08	3.094	pCi/L	4.128	Y
				Polonium-210	196.8	133.9	pCi/L	191.1	N
				Polonium-214	16.08	3.094	pCi/L	4.128	N
				Polonium-218	16.08	3.094	pCi/L	4.128	N
				Radium-224	57.41	19.15	pCi/L	36.05	Y
				Sodium-24	7858	10100	pCi/L	0	N
				Technetium-99m	2.18E+10	1.25E+10	pCi/L	0	N
				Thullum-171	1756	950.6	pCi/L	1380	N
				Yttrium-88	1.899	0.9324	pCi/L	1.73	Y
956162	1202050275	DUP	23-FEB-10	Bismuth-214	4.55	2.178	pCi/L	3.171	Y
				Bromine-77	32.76	18.61	pCi/L	32.61	N
				Californium-251	17.46	3.654	pCi/L	6.383	N

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 22:23:55.96

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G247261003.CNF;1
Sample date       : 15-FEB-2010 12:00:00 Acquisition date : 23-FEB-2010 19:22:58
Sample ID         : G247261003           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM03                Detector geometry: 2LMB
Elapsed live time: 0 03:00:00.00         Elapsed real time: 0 03:00:00.74  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 956162                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	66.63*	48	131	0.78	133.81	132	6	4.43E-03	44.2	
2	0	198.23*	71	140	1.32	396.73	393	9	6.59E-03	34.5	
3	0	352.32*	75	66	1.31	704.60	699	11	6.95E-03	26.7	
4	0	596.33	48	24	1.12	1192.21	1186	12	4.44E-03	25.0	
5	0	609.74*	76	46	1.41	1219.02	1213	14	7.06E-03	24.9	
6	3	1117.39	21	5	1.90	2233.73	2231	22	1.93E-03	21.3	2.40E+00
7	3	1121.56	26	12	2.74	2242.07	2231	22	2.45E-03	38.6	
8	0	1765.13*	19	0	1.37	3529.00	3522	13	1.79E-03	33.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 23-FEB-2010 22:23:58

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G247261003.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 15-FEB-2010 12:00:00 Acquisition date : 23-FEB-2010 19:22:58
Sample ID : G247261003 Sample quantity : 2.0000 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA3 Detector geometry: 2LMB
Elapsed live time: 0 03:00:00.00 Elapsed real time: 0 03:00:00.74 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AS-74	+	595.88	*	1.344E+01	6.823E+00	9.676E+00	8.450E-01	1.389
		634.78		-5.548E+00	2.176E+01	3.423E+01	3.017E+00	-0.162
BI-211		72.87		4.458E+01	3.376E+02	5.752E+02	7.366E+01	0.078
	+	351.07	*	5.007E+01	2.718E+01	2.574E+01	2.370E+00	1.945
BI-214	+	609.31	*	2.024E+01	1.027E+01	8.757E+00	8.916E-01	2.312
	+	1120.29		3.525E+01	2.746E+01	2.877E+01	3.179E+00	1.225
	+	1764.49		3.363E+01	2.298E+01	2.701E+01	2.422E+00	1.245
TH-230	+	67.67	*	1.993E+03	1.305E+04	2.706E+03	1.756E+04	0.737

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	2.015E+01	2.177E+01	3.899E+01	3.519E+00	0.517
NA-22		1274.54	*	-2.133E+00	2.575E+00	3.443E+00	3.402E-01	-0.620
NA-24		1368.53	*	9.001E-03	2.575E+00	Half-Life too short		
AL-26		1129.67		-1.000E+02	1.317E+02	1.502E+02	1.319E+01	-0.666
		1808.65	*	1.528E+00	2.955E+00	5.290E+00	4.580E-01	0.289
K-40		1460.81	*	1.412E+01	3.203E+01	5.557E+01	5.923E+00	0.254
TI-44	+	67.85		8.025E+00	7.172E+00	1.068E+01	1.400E+00	0.752
		78.38	*	9.936E-01	4.076E+00	6.534E+00	8.318E-01	0.152
SC-46		889.25	*	4.531E-01	2.729E+00	4.619E+00	4.533E-01	0.098
	+	1120.51		5.704E+00	4.428E+00	6.554E+00	5.798E-01	0.870
V-48		944.10		-3.623E+01	4.427E+01	6.378E+01	6.201E+00	-0.568
		983.50	*	2.466E+00	3.977E+00	7.046E+00	6.755E-01	0.350
		1312.09		-8.160E-01	4.029E+00	6.257E+00	6.519E-01	-0.130
CR-51		320.08	*	1.578E+01	2.567E+01	4.503E+01	4.386E+00	0.350
MN-52		744.21		-4.950E-01	7.375E+00	1.228E+01	1.137E+00	-0.040
		848.13		-3.074E+01	2.262E+02	3.706E+02	3.585E+01	-0.083
		935.52		-3.454E+00	7.100E+00	1.088E+01	1.061E+00	-0.317
		1246.25		9.393E+01	1.994E+02	3.456E+02	3.273E+01	0.272
		1333.61		2.119E+01	1.585E+02	2.613E+02	2.800E+01	0.081
		1434.06	*	5.985E+00	7.693E+00	1.438E+01	1.514E+00	0.416
MN-54		834.83	*	-5.439E-01	2.262E+00	3.645E+00	3.509E-01	-0.149

Sample ID : G247261003 Acquisition date : 23-FEB-2010 19:22:58

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-56		846.75	*	2.915E-02	2.834E+00	4.723E+00	4.567E-01	0.006
		977.42		-7.397E+01	1.988E+02	3.105E+02	2.984E+01	-0.238
		1037.82		-5.974E+00	1.968E+01	3.081E+01	3.010E+00	-0.194
		1175.09		-2.397E+01	1.438E+02	2.282E+02	1.934E+01	-0.105
		1238.25		1.241E+00	4.821E+00	8.115E+00	7.778E-01	0.153
		1360.21		-4.638E+01	6.291E+01	9.024E+01	9.639E+00	-0.514
		1771.40		9.559E+00	2.401E+01	3.711E+01	3.309E+00	0.258
CO-57		122.06	*	-5.630E-01	2.564E+00	4.217E+00	4.318E-01	-0.134
		136.48		-1.029E+01	2.285E+01	3.703E+01	3.741E+00	-0.278
CO-58		810.76	*	2.325E+00	2.588E+00	4.753E+00	4.541E-01	0.489
FE-59		142.65		-4.869E+02	2.759E+02	4.035E+02	3.748E+01	-1.207
		192.34		7.233E+00	8.103E+01	1.286E+02	1.747E+01	0.056
		1099.22	*	1.480E+00	4.974E+00	8.516E+00	8.228E-01	0.174
		1291.56		1.618E+00	7.372E+00	1.235E+01	1.374E+00	0.131
CO-60		1173.22		-1.617E+00	3.084E+00	4.625E+00	3.907E-01	-0.350
		1332.49	*	2.026E+00	2.606E+00	4.776E+00	5.119E-01	0.424
ZN-65		1115.52	*	3.713E+00	6.650E+00	1.035E+01	9.199E-01	0.359
GE-68		1077.35	*	-5.755E+01	8.183E+01	1.187E+02	1.083E+01	-0.485
AS-73		53.44	*	2.553E+02	1.822E+02	3.051E+02	4.782E+01	0.837
SE-75	+	66.05		7.588E+02	6.797E+02	1.180E+03	1.714E+02	0.643
		96.73		-1.781E+02	9.344E+01	1.361E+02	2.140E+01	-1.308
		121.11		-5.995E+00	1.339E+01	2.174E+01	2.720E+00	-0.276
		136.00		-1.424E+00	4.167E+00	6.790E+00	6.511E-01	-0.210
	+	198.60		3.245E+02	2.263E+02	3.068E+02	3.026E+01	1.058
		264.65	*	7.523E-01	3.845E+00	6.271E+00	6.101E-01	0.120
		279.53		-4.421E+00	9.071E+00	1.398E+01	1.414E+00	-0.316
		303.91		-1.116E+02	1.879E+02	2.856E+02	3.481E+01	-0.391
		400.65		9.771E+00	1.988E+01	3.436E+01	3.642E+00	0.284
BR-77		87.88		-1.018E+03	2.477E+03	4.084E+03	5.351E+02	-0.249
		200.40		1.707E+03	2.554E+03	3.824E+03	3.431E+02	0.446
		239.00		-1.507E+02	1.391E+02	2.062E+02	1.942E+01	-0.731
		249.79		-1.643E+02	8.301E+02	1.320E+03	1.259E+02	-0.124
		281.68		-8.129E+02	1.129E+03	1.706E+03	1.673E+02	-0.477
		297.23		8.795E+02	6.815E+02	1.177E+03	1.133E+02	0.747
		303.76		-1.250E+03	2.305E+03	3.523E+03	3.363E+02	-0.355
		439.47		1.773E+03	1.599E+03	2.886E+03	2.355E+02	0.614
		484.57		1.244E+03	2.455E+03	4.236E+03	3.545E+02	0.294
		520.65	*	-1.055E+01	1.173E+02	1.906E+02	1.622E+01	-0.055
		574.64		1.406E+02	2.178E+03	3.576E+03	3.104E+02	0.039
		578.91		-1.008E+03	9.156E+02	1.302E+03	1.132E+02	-0.774
		585.48		7.248E+02	1.780E+03	3.014E+03	2.625E+02	0.240
		755.35		8.985E+02	1.882E+03	3.039E+03	2.827E+02	0.296
		817.79		2.573E+02	1.189E+03	2.040E+03	1.951E+02	0.126
SR-82		698.33		-9.112E+02	2.022E+03	3.067E+03	2.772E+02	-0.297
		776.49	*	-4.920E+00	1.850E+01	2.979E+01	2.799E+00	-0.165
		1395.20		-3.527E+02	7.477E+02	1.155E+03	1.227E+02	-0.305
RB-83		520.41	*	-2.856E-01	5.433E+00	8.866E+00	7.544E-01	-0.032
		529.64		-3.908E+00	7.807E+00	1.211E+01	1.034E+00	-0.323
		552.65		3.398E+00	1.400E+01	2.347E+01	2.022E+00	0.145

---- Non-Identified Nuclides ----

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RB-84		881.50	*	3.434E+00	4.161E+00	7.610E+00	7.449E-01	0.451
KR-85		513.99	*	-8.875E+02	8.497E+02	1.299E+03	1.102E+02	-0.683
SR-85		513.99	*	-4.237E+00	4.057E+00	6.202E+00	5.262E-01	-0.683
RB-86		1076.63	*	-4.329E+01	4.344E+01	5.993E+01	5.471E+00	-0.722
Y-88		898.02		8.935E-02	2.660E+00	4.431E+00	4.377E-01	0.020
		1836.01	*	1.411E+00	3.114E+00	5.519E+00	4.673E-01	0.256
ZR-88		392.90	*	9.632E-01	2.467E+00	4.233E+00	3.343E-01	0.228
Y-91		1204.90	*	2.521E+02	1.119E+03	1.876E+03	1.667E+02	0.134
NB-94		702.63	*	7.282E-01	2.482E+00	4.131E+00	3.743E-01	0.176
		871.10		7.338E-01	2.649E+00	4.540E+00	4.428E-01	0.162
NB-95		765.79	*	1.532E-01	3.079E+00	5.185E+00	4.848E-01	0.030
NB-95M		235.69	*	-1.392E+01	1.061E+01	1.557E+01	1.641E+00	-0.893
ZR-95		724.18		6.386E+00	6.484E+00	1.152E+01	1.137E+00	0.554
		756.15	*	2.858E+00	5.290E+00	8.569E+00	8.673E-01	0.334
NB-97		657.90	*	2.544E-03	5.290E+00	Half-Life too short		
		1024.50		-1.315E-01	5.290E+00	Half-Life too short		
ZR-97		254.15		-2.137E-01	5.290E+00	Half-Life too short		
		355.39		1.819E-01	5.290E+00	Half-Life too short		
		507.63	*	-7.380E-01	5.290E+00	Half-Life too short		
		602.52		8.941E-01	5.290E+00	Half-Life too short		
		1021.30		-4.562E-01	5.290E+00	Half-Life too short		
		1147.95		-1.833E-01	5.290E+00	Half-Life too short		
		1362.66		1.087E-02	5.290E+00	Half-Life too short		
		1750.46		2.673E-02	5.290E+00	Half-Life too short		
MO-99		140.51		-2.082E+02	5.751E+02	8.641E+02	2.414E+02	-0.241
		181.06		-2.971E+02	3.013E+02	4.576E+02	8.400E+01	-0.649
		366.43		-9.210E+02	1.207E+03	1.884E+03	1.595E+02	-0.489
		739.58	*	-3.272E+01	1.517E+02	2.484E+02	3.860E+01	-0.132
		778.00		-1.447E+02	3.708E+02	5.863E+02	5.512E+01	-0.247
TC-99M		140.51	*	-1.190E+04	3.708E+02	Half-Life too short		
RH-101		127.23		-2.371E+00	3.219E+00	5.131E+00	5.098E-01	-0.462
	+	198.01	*	6.171E+00	4.296E+00	5.932E+00	5.307E-01	1.040
		325.23		-2.894E+00	1.776E+01	2.954E+01	2.728E+00	-0.098
RH-102		418.52		-1.424E+01	2.313E+01	3.630E+01	2.921E+00	-0.392
		475.06	*	-7.658E-01	2.187E+00	3.477E+00	2.896E-01	-0.220
		631.29		4.430E+00	4.347E+00	7.771E+00	6.843E-01	0.570
		697.49		-1.428E+00	5.445E+00	8.475E+00	7.656E-01	-0.168
		766.84		8.972E+00	7.506E+00	1.402E+01	1.311E+00	0.640
		1046.59		-5.183E-01	8.228E+00	1.338E+01	1.244E+00	-0.039
		1112.84		4.465E+00	1.673E+01	2.476E+01	2.203E+00	0.180
RU-103		497.08	*	-1.310E+00	3.032E+00	4.776E+00	6.706E-01	-0.274
	+	610.33		1.940E+02	1.018E+02	1.299E+02	2.177E+01	1.493
RH-106		511.85		-4.867E+01	2.212E+01	3.666E+01	3.108E+00	-1.328
		621.84	*	2.916E+01	2.360E+01	4.294E+01	5.782E+00	0.679
		1050.47		7.084E+01	1.465E+02	2.573E+02	2.387E+01	0.275
RU-106		511.85		-4.867E+01	2.212E+01	3.666E+01	3.108E+00	-1.328
		621.84	*	2.916E+01	2.341E+01	4.294E+01	3.774E+00	0.679
		1050.47		7.084E+01	1.465E+02	2.573E+02	2.387E+01	0.275
AG-108M		433.93	*	-9.720E-01	2.648E+00	4.244E+00	3.604E-01	-0.229

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---- Non-Identified Nuclides ----

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		614.37		1.732E+00	2.843E+00	4.407E+00	4.014E-01	0.393
		722.95		1.986E+00	3.229E+00	5.534E+00	5.243E-01	0.359
CD-109		88.03	*	-2.491E+01	8.238E+01	1.366E+02	1.790E+01	-0.182
AG-110M		657.75	*	2.902E-01	2.581E+00	4.227E+00	3.846E-01	0.069
		677.61		-3.139E+00	2.118E+01	3.350E+01	3.072E+00	-0.094
		706.67		-2.405E+00	1.621E+01	2.564E+01	2.385E+00	-0.094
		763.93		-4.698E+00	1.119E+01	1.784E+01	1.707E+00	-0.263
		884.67		-5.620E-01	3.590E+00	5.841E+00	5.866E-01	-0.096
		937.48		-6.972E+00	7.470E+00	1.042E+01	1.044E+00	-0.669
		1384.27		-1.220E+01	1.316E+01	1.871E+01	2.028E+00	-0.652
IN-111		171.28		1.456E-02	1.840E+01	3.022E+01	2.621E+00	0.000
		245.39	*	-1.575E+01	1.930E+01	2.938E+01	2.788E+00	-0.536
IN-113M		391.69	*	-1.026E+00	3.600E+00	5.863E+00	4.796E-01	-0.175
SN-113		391.69	*	-1.026E+00	3.600E+00	5.863E+00	4.796E-01	-0.175
IN-114M		190.27	*	-1.205E+01	1.561E+01	2.429E+01	2.152E+00	-0.496
CD-115		260.90		-1.508E+03	1.456E+03	2.151E+03	2.077E+02	-0.701
		492.35		-1.635E+01	3.486E+02	5.711E+02	4.797E+01	-0.029
		527.90	*	-7.841E+01	1.020E+02	1.530E+02	1.306E+01	-0.512
SN-117M		156.02		-5.605E+01	1.520E+02	2.452E+02	2.179E+01	-0.229
		158.56	*	-5.904E-01	3.873E+00	6.327E+00	5.580E-01	-0.093
SB-122		563.90	*	1.151E+01	2.707E+01	4.614E+01	3.991E+00	0.250
		692.80		1.431E+02	5.649E+02	9.371E+02	8.443E+01	0.153
I-123		159.00	*	2.431E-02	5.649E+02	Half-Life too short		
		528.96		-5.459E+00	5.649E+02	Half-Life too short		
TE-123M		159.00	*	6.281E-01	2.723E+00	4.539E+00	4.021E-01	0.138
I-124		602.71	*	1.453E+01	2.094E+01	2.901E+01	2.538E+00	0.501
		722.78		5.895E+01	1.099E+02	1.869E+02	1.711E+01	0.315
		1325.50		-4.757E+02	7.367E+02	1.025E+03	1.089E+02	-0.464
		1376.25		5.644E+02	7.656E+02	1.405E+03	1.497E+02	0.402
		1509.49		1.620E+02	4.233E+02	7.434E+02	7.656E+01	0.218
		1691.02		2.565E+01	1.255E+02	2.135E+02	2.014E+01	0.120
SB-124		602.71		2.408E+00	3.470E+00	4.807E+00	4.206E-01	0.501
		645.85		-3.041E+01	3.317E+01	4.692E+01	4.381E+00	-0.648
		709.31		1.138E+01	2.024E+02	3.276E+02	2.978E+01	0.035
		713.82		1.189E+02	1.234E+02	2.176E+02	2.698E+01	0.546
		722.78		1.416E+01	2.639E+01	4.488E+01	4.188E+00	0.315
		968.20		1.123E+02	1.582E+02	2.829E+02	2.728E+01	0.397
		1045.16		-1.453E+00	1.687E+02	2.765E+02	2.573E+01	-0.005
		1325.50		-1.220E+02	1.890E+02	2.630E+02	2.792E+01	-0.464
		1368.21		5.002E+01	1.239E+02	2.195E+02	3.263E+01	0.228
		1436.60		-3.994E+01	2.810E+02	4.573E+02	4.813E+01	-0.087
		1691.02	*	1.453E+00	7.109E+00	1.210E+01	1.179E+00	0.120
SB-125		427.89	*	7.263E-01	7.109E+00	1.190E+01	9.849E-01	0.061
		463.38		-6.812E+00	2.154E+01	3.453E+01	3.099E+00	-0.197
		600.56		1.518E+00	1.602E+01	2.281E+01	2.138E+00	0.067
		635.90		-1.062E+01	2.099E+01	3.195E+01	3.034E+00	-0.332
TE-125M		109.28	*	-3.547E+01	9.032E+02	1.506E+03	1.812E+02	-0.024
I-126		388.63		2.066E+00	1.166E+01	1.971E+01	1.570E+00	0.105
		666.33	*	4.834E+00	9.062E+00	1.554E+01	1.379E+00	0.311

Sample ID : G247261003 Acquisition date : 23-FEB-2010 19:22:58

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		753.82		-2.128E+00	8.432E+01	1.291E+02	1.200E+01	-0.016
SB-126		223.80		1.051E+02	2.591E+02	4.306E+02	3.981E+01	0.244
		278.60		-6.729E+01	1.525E+02	2.365E+02	2.324E+01	-0.284
		296.50		5.592E+01	8.988E+01	1.495E+02	1.441E+01	0.374
		414.70		2.122E+00	4.131E+00	7.152E+00	5.740E-01	0.297
		415.30		1.356E+02	3.458E+02	5.930E+02	4.761E+01	0.229
		555.20		1.263E+02	2.024E+02	3.522E+02	3.037E+01	0.358
		573.80		-1.573E+01	5.599E+01	8.857E+01	7.685E+00	-0.178
		593.00		4.173E+01	5.309E+01	8.373E+01	7.307E+00	0.498
		656.30		1.029E+02	1.779E+02	3.056E+02	2.703E+01	0.337
		666.33		1.989E+00	3.729E+00	6.392E+00	5.675E-01	0.311
		675.00		5.190E+01	9.839E+01	1.688E+02	1.506E+01	0.308
		695.00		7.552E-01	3.782E+00	6.239E+00	5.629E-01	0.121
		697.00		-5.515E+00	1.326E+01	2.022E+01	1.826E+00	-0.273
		720.50	*	-7.735E+00	7.930E+00	1.118E+01	1.022E+00	-0.692
		856.80		-5.380E+00	2.175E+01	3.500E+01	3.397E+00	-0.154
		989.30		-4.057E+00	5.913E+01	9.643E+01	9.222E+00	-0.042
		1034.80		-1.137E+02	3.628E+02	5.635E+02	5.273E+01	-0.202
		1213.00		1.255E+02	1.796E+02	3.234E+02	2.910E+01	0.388
SN-126		64.28		8.434E+01	9.322E+01	1.384E+02	2.544E+01	0.609
		86.94		-2.516E+00	3.388E+01	5.682E+01	2.415E+01	-0.044
		87.57	*	1.350E-01	7.999E+00	1.348E+01	1.763E+00	0.010
SB-127		61.10		-4.705E+03	2.975E+03	4.155E+03	5.996E+02	-1.132
		252.40		6.843E+00	1.158E+02	1.875E+02	7.842E+01	0.036
		290.80		2.663E+01	5.540E+02	8.900E+02	9.316E+01	0.030
		411.60		-9.875E+00	2.886E+02	4.784E+02	6.802E+01	-0.021
		444.90		-3.200E+01	2.445E+02	4.002E+02	4.289E+01	-0.080
		473.00		-3.155E+01	3.693E+01	5.516E+01	6.179E+00	-0.572
		543.00		7.417E+01	3.726E+02	6.222E+02	8.152E+01	0.119
		603.60		1.861E+02	3.184E+02	4.602E+02	5.120E+01	0.404
		685.20	*	-2.531E+00	2.704E+01	4.303E+01	4.321E+00	-0.059
		698.50		-2.018E+02	3.241E+02	4.783E+02	7.137E+01	-0.422
		722.20		1.251E+02	6.677E+02	1.096E+03	1.091E+02	0.114
		783.80		4.093E+01	6.953E+01	1.242E+02	1.436E+01	0.330
XE-127		57.60		-6.368E+02	9.808E+02	1.487E+03	2.171E+02	-0.428
		145.22		-2.458E+01	6.437E+01	1.023E+02	9.412E+00	-0.240
		172.10		-4.816E+00	1.003E+01	1.600E+01	1.389E+00	-0.301
		202.84	*	4.137E+00	4.174E+00	6.425E+00	5.783E-01	0.644
		374.96		-6.832E+00	1.349E+01	2.154E+01	1.784E+00	-0.317
I-131		80.18		-2.567E+02	2.729E+02	4.363E+02	5.570E+01	-0.588
		284.30		7.372E+01	7.372E+01	1.264E+02	1.283E+01	0.583
		364.48	*	-9.700E-01	5.062E+00	8.334E+00	7.454E-01	-0.116
		636.97		-2.614E+01	6.532E+01	1.007E+02	9.313E+00	-0.260
		722.89		1.863E+02	3.029E+02	5.192E+02	4.761E+01	0.359
TE-132		49.72		-2.831E+02	1.139E+03	1.786E+03	2.914E+02	-0.158
		111.76		1.238E+02	7.564E+02	1.273E+03	1.415E+02	0.097
		116.30		-1.231E+02	6.932E+02	1.145E+03	1.257E+02	-0.108
		228.16	*	1.203E+00	1.461E+01	2.380E+01	3.600E+00	0.051
BA-133		53.15		1.339E+03	8.370E+02	1.407E+03	2.215E+02	0.951

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		79.62		-1.039E+02	1.378E+02	2.220E+02	3.971E+01	-0.468
		81.00		-1.189E+01	1.042E+01	1.621E+01	2.993E+00	-0.734
		276.40		3.553E+01	3.250E+01	5.553E+01	8.432E+00	0.640
		302.84		-3.592E+00	1.303E+01	2.035E+01	2.832E+00	-0.176
		356.01	*	-1.120E+00	4.105E+00	5.799E+00	7.679E-01	-0.193
		383.85		2.263E+00	2.484E+01	4.174E+01	5.109E+00	0.054
I-133		510.53		-4.132E-01	2.484E+01	Half-Life too short		
		529.87	*	-8.924E-04	2.484E+01	Half-Life too short		
		706.58		-1.990E-02	2.484E+01	Half-Life too short		
		856.28		4.682E-02	2.484E+01	Half-Life too short		
		875.33		-8.751E-03	2.484E+01	Half-Life too short		
		1236.41		5.031E-02	2.484E+01	Half-Life too short		
		1298.22		3.897E-02	2.484E+01	Half-Life too short		
CS-134		475.35		-2.776E+01	1.421E+02	2.296E+02	1.912E+01	-0.121
		563.23		3.342E+01	2.586E+01	4.765E+01	4.160E+00	0.701
		569.32		2.379E+00	1.510E+01	2.503E+01	2.198E+00	0.095
		604.70		-6.867E-01	3.118E+00	4.237E+00	3.718E-01	-0.162
		795.84	*	3.714E-02	3.327E+00	5.566E+00	5.306E-01	0.007
		801.93		-1.326E+01	3.406E+01	5.117E+01	4.884E+00	-0.259
		1038.57		-1.096E+02	2.654E+02	4.086E+02	3.816E+01	-0.268
		1167.94		3.794E+01	1.463E+02	2.481E+02	2.107E+01	0.153
		1365.15		1.110E+01	8.615E+01	1.471E+02	1.617E+01	0.075
CS-135		268.24	*	9.615E-01	1.356E+01	2.191E+01	2.397E+00	0.044
I-135		288.45		-7.124E+04	1.356E+01	Half-Life too short		
		417.63		-2.278E+04	1.356E+01	Half-Life too short		
		546.56		8.970E+03	1.356E+01	Half-Life too short		
		836.80		-2.800E+04	1.356E+01	Half-Life too short		
		1038.76		-1.706E+04	1.356E+01	Half-Life too short		
		1124.00		1.652E+05	1.356E+01	Half-Life too short		
		1131.51		-8.760E+03	1.356E+01	Half-Life too short		
		1260.41	*	-3.724E+03	1.356E+01	Half-Life too short		
		1457.56		-4.268E+04	1.356E+01	Half-Life too short		
		1678.03		1.262E+03	1.356E+01	Half-Life too short		
		1706.46		-1.555E+04	1.356E+01	Half-Life too short		
		1791.20		2.702E+03	1.356E+01	Half-Life too short		
CS-136	+	66.91		9.168E+01	8.277E+01	1.293E+02	2.378E+01	0.709
		86.29		2.906E+01	7.399E+01	1.267E+02	2.042E+01	0.229
		153.22		-3.998E+01	4.295E+01	6.678E+01	6.637E+00	-0.599
		163.89		-1.997E+01	7.945E+01	1.213E+02	1.178E+01	-0.165
		176.55		1.322E+01	2.529E+01	4.260E+01	3.923E+00	0.310
		273.65		-1.072E+01	2.718E+01	4.232E+01	4.350E+00	-0.253
		340.57		7.823E+00	6.758E+00	1.222E+01	1.125E+00	0.640
		818.51		5.977E-01	3.341E+00	5.706E+00	5.459E-01	0.105
		1048.07	*	9.977E-01	5.315E+00	8.944E+00	8.610E-01	0.112
		1235.34		6.338E+00	2.137E+01	3.632E+01	4.489E+00	0.175
BA-137M		661.65	*	-2.097E+00	2.581E+00	3.729E+00	3.301E-01	-0.562
CS-137		661.65	*	-2.217E+00	2.729E+00	3.942E+00	3.496E-01	-0.562
CE-139		165.85	*	-1.243E+00	2.828E+00	4.535E+00	3.917E-01	-0.274
BA-140		162.64		-1.113E+01	5.682E+01	8.740E+01	8.051E+00	-0.127

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		304.84		3.152E+01	7.873E+01	1.288E+02	3.648E+01	0.245
		423.70		-1.408E+01	1.007E+02	1.648E+02	5.319E+01	-0.085
		537.32	*	-7.844E+00	1.439E+01	2.182E+01	7.229E+00	-0.359
LA-140		328.77		-2.218E+00	1.669E+01	2.781E+01	2.679E+00	-0.080
		432.53		1.718E+01	1.170E+02	1.964E+02	1.683E+01	0.087
		487.03		2.285E+00	7.766E+00	1.313E+01	1.172E+00	0.174
		751.79		-3.914E+01	8.652E+01	1.376E+02	1.396E+01	-0.285
		815.85		-1.360E+01	1.578E+01	2.324E+01	2.431E+00	-0.585
		867.82		2.637E+00	7.044E+01	1.176E+02	1.193E+01	0.022
		919.63		-1.101E+02	1.181E+02	1.639E+02	1.904E+01	-0.672
		925.24		7.584E+00	5.265E+01	8.884E+01	9.113E+00	0.085
		1596.49	*	2.864E+00	5.031E+00	9.064E+00	9.006E-01	0.316
CE-141		145.44	*	3.429E+00	5.361E+00	9.135E+00	8.535E-01	0.375
CE-143		57.37		-3.947E+03	6.450E+03	9.805E+03	1.522E+03	-0.403
		231.56		-2.381E+03	7.632E+03	1.205E+04	3.835E+03	-0.198
		293.26	*	-2.057E+02	4.002E+02	6.127E+02	1.346E+02	-0.336
		350.59		8.924E+03	6.654E+03	9.578E+03	2.981E+03	0.932
		490.36		-2.455E+03	7.670E+03	1.218E+04	3.844E+03	-0.202
		664.57		6.761E+02	2.974E+03	4.924E+03	1.597E+03	0.137
		721.93		2.451E+02	3.407E+03	5.519E+03	1.622E+03	0.044
CE-144		80.11		-2.089E+02	2.220E+02	3.550E+02	4.527E+01	-0.588
		133.54	*	-1.994E+01	2.159E+01	3.375E+01	5.452E+00	-0.591
PM-144		476.78		4.581E+00	4.869E+00	8.738E+00	8.008E-01	0.524
		618.01		-2.281E+00	2.618E+00	3.509E+00	3.163E-01	-0.650
		696.49	*	-1.484E+00	2.514E+00	3.745E+00	3.381E-01	-0.396
		778.57		-5.182E+01	1.442E+02	2.297E+02	2.160E+01	-0.226
PR-144		696.49	*	-1.002E+02	1.697E+02	2.529E+02	2.283E+01	-0.396
		1489.15		1.095E+02	9.483E+02	1.485E+03	1.539E+02	0.074
PM-146		453.90	*	7.021E-01	3.565E+00	5.995E+00	6.243E-01	0.117
		633.02		7.017E+00	1.110E+02	1.810E+02	6.773E+01	0.039
		735.90		3.174E+00	1.056E+01	1.826E+01	5.257E+00	0.174
		747.13		6.520E-01	6.434E+00	1.092E+01	1.577E+00	0.060
ND-147		91.11		5.061E+01	2.159E+01	3.778E+01	4.906E+00	1.340
		319.41		6.996E+00	1.771E+02	2.992E+02	2.790E+01	0.023
		439.89		3.262E+02	3.058E+02	5.506E+02	4.493E+01	0.593
		531.02	*	2.550E+01	2.848E+01	5.039E+01	7.512E+00	0.506
PM-149		285.90	*	-2.060E+02	1.002E+03	1.580E+03	2.557E+02	-0.130
EU-152		121.78		-3.980E+00	7.536E+00	1.217E+01	1.383E+00	-0.327
		244.69		-1.296E+01	3.083E+01	4.837E+01	4.587E+00	-0.268
		344.27	*	-1.819E+00	7.960E+00	1.313E+01	1.234E+00	-0.139
		443.98		-5.162E+01	8.063E+01	1.258E+02	1.029E+01	-0.410
		778.89		-1.486E+01	2.056E+01	2.786E+01	2.621E+00	-0.533
		867.32		-1.130E+01	6.074E+01	9.859E+01	9.604E+00	-0.115
		964.01		1.541E+01	1.807E+01	3.296E+01	3.183E+00	0.468
		1085.78		5.765E-01	2.259E+01	3.713E+01	3.369E+00	0.016
		1112.02		2.493E+00	2.509E+01	3.585E+01	3.192E+00	0.070
		1407.95		-8.244E+00	1.273E+01	1.865E+01	1.975E+00	-0.442
GD-153		69.67		8.024E-01	2.271E+02	3.227E+02	4.186E+01	0.002
		83.37		-8.265E+02	1.642E+03	2.484E+03	3.193E+02	-0.333

Sample ID : G247261003 Acquisition date : 23-FEB-2010 19:22:58

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		97.43	*	6.286E+00	9.128E+00	1.475E+01	1.705E+00	0.426
		103.18		9.971E+00	1.100E+01	1.913E+01	2.106E+00	0.521
EU-154		123.07		3.272E+00	5.208E+00	8.920E+00	1.122E+00	0.367
		247.94		-4.030E+00	3.284E+01	5.253E+01	6.390E+00	-0.077
		591.81		4.845E+01	4.909E+01	7.973E+01	9.366E+00	0.608
		723.30		8.290E+00	1.348E+01	2.311E+01	2.315E+00	0.359
		756.87		4.727E+01	5.386E+01	9.849E+01	1.229E+01	0.480
		873.19		1.963E+01	2.325E+01	4.205E+01	5.497E+00	0.467
		996.32		-3.810E+01	2.910E+01	3.791E+01	6.910E+00	-1.005
		1004.76		-7.530E+00	1.722E+01	2.678E+01	3.295E+00	-0.281
		1274.45	*	-7.327E+00	7.495E+00	9.651E+00	1.186E+00	-0.759
EU-155		48.70		-2.622E+02	6.348E+02	9.842E+02	1.531E+02	-0.266
		60.01		-1.557E+03	8.901E+02	1.219E+03	1.711E+02	-1.278
		86.54		3.724E+00	9.705E+00	1.662E+01	2.174E+00	0.224
		105.31	*	-1.034E+01	1.250E+01	1.871E+01	2.046E+00	-0.553
TB-160		86.79		3.798E+00	2.440E+01	4.138E+01	5.393E+00	0.092
	+	197.04		9.914E+01	6.901E+01	9.438E+01	8.433E+00	1.050
		215.65		-1.408E+01	6.238E+01	9.986E+01	9.138E+00	-0.141
		298.57		-2.955E+00	1.023E+01	1.602E+01	1.540E+00	-0.184
		879.36	*	-8.571E+00	9.654E+00	1.409E+01	1.378E+00	-0.608
		962.29		7.843E+00	3.197E+01	5.441E+01	5.258E+00	0.144
		966.15		1.682E+00	1.258E+01	2.109E+01	2.036E+00	0.080
		1177.93		2.031E+01	2.120E+01	3.919E+01	3.336E+00	0.518
		1271.85		1.428E+00	3.867E+01	6.298E+01	6.194E+00	0.023
HO-166M		80.57		-2.629E+01	2.857E+01	4.571E+01	5.835E+00	-0.575
		184.41		1.766E-01	4.047E+00	6.735E+00	5.926E-01	0.026
		280.46		-7.890E+00	7.623E+00	1.118E+01	1.097E+00	-0.706
		410.95		-3.219E+00	1.920E+01	3.147E+01	2.519E+00	-0.102
		711.68	*	-3.443E+00	5.181E+00	7.697E+00	7.006E-01	-0.447
		752.31		-1.428E+01	1.991E+01	3.055E+01	2.838E+00	-0.467
		810.29		2.841E+00	4.230E+00	7.593E+00	7.239E-01	0.374
TM-171		51.35		-3.937E+03	7.572E+03	1.165E+04	1.863E+03	-0.338
		52.39		4.381E+03	3.720E+03	6.210E+03	9.857E+02	0.705
		59.40		-2.743E+03	4.470E+03	6.791E+03	9.600E+02	-0.404
	+	66.72	*	4.706E+03	4.206E+03	6.727E+03	8.889E+02	0.700
HF-175		89.36		-6.223E+02	1.750E+02	2.165E+02	2.776E+01	-2.874
		343.40	*	-3.996E-01	2.768E+00	4.597E+00	4.101E-01	-0.087
		433.00		-4.743E+01	1.674E+02	2.707E+02	2.200E+01	-0.175
LU-176		88.36		-2.529E+01	2.064E+01	3.238E+01	4.219E+00	-0.781
		201.83		1.224E+00	2.997E+00	4.418E+00	3.971E-01	0.277
		306.84	*	-1.249E+00	2.245E+00	3.416E+00	3.247E-01	-0.366
		401.10		4.140E+02	5.232E+02	9.259E+02	7.359E+01	0.447
LU-177		112.95		4.796E+01	8.709E+01	1.489E+02	1.557E+01	0.322
		208.36	*	2.996E+01	4.690E+01	7.916E+01	7.176E+00	0.379
LU-177M		52.97		5.700E+02	3.689E+02	6.201E+02	9.780E+01	0.919
		54.07		2.100E+02	1.870E+02	3.113E+02	4.834E+01	0.675
		61.30		-1.577E+02	2.388E+02	3.621E+02	5.020E+01	-0.435
		121.62		-3.442E+01	3.791E+01	5.981E+01	6.122E+00	-0.576
		147.16		-3.335E+01	6.301E+01	1.011E+02	9.243E+00	-0.330

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		171.86		-1.415E+01	4.494E+01	7.242E+01	6.286E+00	-0.195
		218.09		1.014E+01	7.598E+01	1.244E+02	1.142E+01	0.081
		268.79		9.165E+00	6.446E+01	1.047E+02	1.019E+01	0.088
		319.02		8.171E-01	2.058E+01	3.477E+01	3.245E+00	0.023
		367.43		-5.361E+01	6.847E+01	1.065E+02	8.995E+00	-0.503
		413.65	*	2.188E+00	1.376E+01	2.317E+01	1.859E+00	0.094
HF-181		56.28		-1.398E+02	1.697E+02	2.540E+02	3.799E+01	-0.550
		57.53		-5.379E+01	8.427E+01	1.279E+02	1.869E+01	-0.421
	+	65.20		1.342E+02	1.200E+02	2.283E+02	3.052E+01	0.588
		133.02		-6.593E+00	6.293E+00	9.841E+00	9.506E-01	-0.670
		136.25		-2.103E+01	4.558E+01	7.382E+01	7.031E+00	-0.285
		345.85		-7.259E+00	1.536E+01	2.235E+01	1.984E+00	-0.325
		482.03	*	-2.111E+00	3.017E+00	4.619E+00	3.861E-01	-0.457
W-181		56.28		-5.894E+01	7.138E+01	1.068E+02	1.598E+01	-0.552
		57.53		-2.264E+01	3.548E+01	5.385E+01	7.871E+00	-0.420
	+	65.20	*	5.606E+01	5.010E+01	9.534E+01	1.275E+01	0.588
TA-182	+	67.75		1.834E+01	1.639E+01	2.470E+01	3.241E+00	0.742
		100.10		-1.567E+01	2.033E+01	3.045E+01	3.433E+00	-0.515
		152.43		-1.066E+01	2.985E+01	4.823E+01	4.334E+00	-0.221
		222.10		5.685E+00	3.123E+01	5.124E+01	4.728E+00	0.111
		1001.68		-7.404E+01	1.732E+02	2.625E+02	2.497E+01	-0.282
	+	1121.28		1.600E+01	1.242E+01	1.806E+01	1.596E+00	0.886
		1189.05		2.038E+01	1.793E+01	3.388E+01	2.937E+00	0.602
		1221.42	*	2.286E+00	1.111E+01	1.861E+01	1.696E+00	0.123
		1230.97		-1.757E+00	2.316E+01	3.703E+01	3.426E+00	-0.047
RE-183		57.98		-7.778E+00	3.270E+01	5.107E+01	7.404E+00	-0.152
		59.32		-1.021E+01	1.737E+01	2.644E+01	3.743E+00	-0.386
	+	67.20		3.167E+01	2.830E+01	4.383E+01	5.772E+00	0.722
		162.32	*	-3.487E+00	1.124E+01	1.718E+01	1.499E+00	-0.203
		208.81		4.735E+01	7.966E+01	1.341E+02	1.217E+01	0.353
		291.72		-4.619E+01	8.102E+01	1.240E+02	1.202E+01	-0.373
RE-184		57.98		-2.981E+01	1.253E+02	1.957E+02	2.838E+01	-0.152
		59.32		-3.909E+01	6.651E+01	1.013E+02	1.433E+01	-0.386
	+	67.20		1.213E+02	1.084E+02	1.679E+02	2.212E+01	0.722
		161.27		-1.438E+00	3.476E+01	5.709E+01	4.996E+00	-0.025
		216.55		-4.212E+00	2.305E+01	3.700E+01	3.390E+00	-0.114
		252.85	*	-8.711E+00	2.063E+01	3.223E+01	3.084E+00	-0.270
		318.01		8.618E+00	3.578E+01	6.130E+01	5.729E+00	0.141
		792.07		-7.789E+00	6.830E+01	1.127E+02	1.066E+01	-0.069
		903.28		-2.181E+01	6.566E+01	1.038E+02	1.020E+01	-0.210
		920.93		-9.938E+00	2.732E+01	4.263E+01	4.172E+00	-0.233
OS-185		59.72		-3.622E+01	4.671E+01	7.002E+01	9.859E+00	-0.517
		61.14		-4.219E+01	2.724E+01	3.828E+01	5.315E+00	-1.102
		69.30		-5.408E+00	3.951E+01	5.553E+01	7.218E+00	-0.097
		592.07		1.951E+02	1.910E+02	3.122E+02	2.724E+01	0.625
		646.12	*	-2.202E+00	2.952E+00	4.307E+00	3.803E-01	-0.511
		717.42		-5.554E+00	6.780E+01	1.079E+02	9.852E+00	-0.051
		874.81		-1.213E+01	4.276E+01	6.856E+01	6.696E+00	-0.177
		880.27		-1.632E+01	5.432E+01	8.670E+01	8.484E+00	-0.188

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RE-188		155.03	*	-1.125E+01	1.503E+01	2.368E+01	2.110E+00	-0.475
		477.96		1.495E+02	2.206E+02	3.864E+02	3.223E+01	0.387
		633.10		9.793E+00	2.097E+02	3.415E+02	3.008E+01	0.029
W-188		63.58		6.215E+03	9.226E+03	1.362E+04	1.848E+03	0.456
		227.08		-8.654E+01	1.110E+03	1.790E+03	1.662E+02	-0.048
		290.67	*	3.478E+01	6.090E+02	9.790E+02	9.506E+01	0.036
IR-192		295.96		7.738E+00	9.431E+00	1.586E+01	1.539E+00	0.488
		308.46		-2.126E+00	8.327E+00	1.301E+01	1.240E+00	-0.163
		316.51	*	-2.322E+00	2.715E+00	4.275E+00	4.013E-01	-0.543
		468.07		1.387E+00	4.707E+00	7.985E+00	7.137E-01	0.174
		604.41		2.811E+00	3.821E+01	5.421E+01	7.105E+00	0.052
		612.46		6.725E+01	5.797E+01	9.396E+01	9.425E+00	0.716
AU-195		65.12		3.152E+01	3.091E+01	4.488E+01	6.005E+00	0.702
	+	66.83		1.532E+01	1.369E+01	2.172E+01	2.868E+00	0.705
		75.70		1.645E+01	1.920E+01	3.355E+01	4.273E+00	0.490
		98.88	*	-6.964E+00	2.621E+01	4.054E+01	4.622E+00	-0.172
		129.76		2.963E+02	2.806E+02	4.876E+02	4.783E+01	0.608
TL-200		367.94	*	-7.044E+01	4.731E+02	7.813E+02	6.589E+01	-0.090
		579.30		-3.210E+03	3.579E+03	5.244E+03	4.558E+02	-0.612
		828.27		2.265E+03	4.383E+03	7.770E+03	7.461E+02	0.291
		1205.75		-6.800E+02	2.212E+03	3.431E+03	3.053E+02	-0.198
TL-201		68.90		-6.722E+01	1.472E+02	2.022E+02	2.635E+01	-0.332
		70.82		-5.703E+01	8.397E+01	1.140E+02	1.470E+01	-0.500
		80.30		-9.912E+01	1.131E+02	1.816E+02	2.317E+01	-0.546
		135.34		-1.750E+02	5.797E+02	9.465E+02	9.050E+01	-0.185
		167.43	*	-5.416E+01	1.442E+02	2.319E+02	2.004E+01	-0.234
TL-202		68.90		-1.930E+01	4.228E+01	5.808E+01	7.566E+00	-0.332
		70.82		-1.633E+01	2.405E+01	3.264E+01	4.211E+00	-0.500
		80.30		-2.840E+01	3.241E+01	5.202E+01	6.638E+00	-0.546
		439.56	*	4.262E+00	3.818E+00	6.895E+00	5.626E-01	0.618
HG-203		70.83		-9.477E+01	1.387E+02	1.877E+02	3.125E+01	-0.505
		72.87		8.015E+00	6.071E+01	1.034E+02	1.680E+01	0.078
		82.60		1.681E+01	1.005E+02	1.708E+02	2.854E+01	0.098
		279.20	*	-2.088E+00	3.277E+00	4.990E+00	5.014E-01	-0.418
BI-207		72.80		2.900E+00	1.975E+01	3.366E+01	4.312E+00	0.086
		74.97		-1.389E+00	1.119E+01	1.882E+01	2.399E+00	-0.074
		84.90		-1.320E+01	2.106E+01	3.163E+01	4.088E+00	-0.417
		569.67		-1.963E-01	2.656E+00	4.000E+00	3.466E-01	-0.049
		1063.62	*	5.400E-01	3.202E+00	5.388E+00	4.960E-01	0.100
		1770.23		-2.814E+01	5.811E+01	7.080E+01	6.320E+00	-0.398
TL-207		81.07		-2.668E+01	2.273E+01	3.570E+01	4.562E+00	-0.747
		83.78		-5.373E+00	1.400E+01	2.128E+01	2.740E+00	-0.252
		94.90		-8.253E+01	3.011E+01	4.192E+01	4.982E+00	-1.969
		122.32		1.093E+01	1.795E+02	2.997E+02	3.223E+01	0.036
		144.24		-4.739E+01	7.354E+01	1.153E+02	1.175E+01	-0.411
		154.21		-3.576E+01	3.707E+01	5.750E+01	5.616E+00	-0.622
		269.46		-8.541E-01	1.688E+01	2.508E+01	2.482E+00	-0.034
		323.87	*	-5.724E+01	5.591E+01	8.549E+01	1.541E+01	-0.670
		338.28		-9.976E+01	9.270E+01	1.260E+02	1.586E+01	-0.792

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		445.03		-2.909E+01	1.931E+02	3.154E+02	3.716E+01	-0.092
TL-208		72.80		3.138E+01	2.137E+02	3.644E+02	4.667E+01	0.086
		74.97		-1.502E+01	1.210E+02	2.035E+02	3.146E+01	-0.074
		277.35		2.088E+01	3.223E+01	5.402E+01	7.130E+00	0.387
		510.84		-4.325E+01	2.086E+01	3.436E+01	4.084E+00	-1.259
		583.14	*	2.209E-01	3.237E+00	5.061E+00	4.714E-01	0.044
		763.13		-1.097E+02	1.466E+02	2.224E+02	3.205E+01	-0.493
		860.37		2.430E+00	1.915E+01	3.235E+01	3.328E+00	0.075
		1093.90		-1.953E+02	6.782E+02	1.054E+03	2.468E+02	-0.185
PO-209		260.50		-6.498E+02	8.841E+02	1.343E+03	1.296E+02	-0.484
		262.80		-4.507E+01	2.424E+03	3.896E+03	3.768E+02	-0.012
		896.60	*	-1.955E+02	5.082E+02	7.972E+02	7.842E+01	-0.245
BI-210		46.50	*	9.906E+02	1.003E+03	1.682E+03	2.346E+02	0.589
PB-210		46.50	*	9.906E+02	1.003E+03	1.682E+03	2.346E+02	0.589
PO-210		46.50	*	9.906E+02	1.002E+03	1.682E+03	2.250E+02	0.589
PB-211		404.84	*	-3.538E+01	7.612E+01	1.161E+02	7.265E+01	-0.305
		427.08		-7.881E+01	1.707E+02	2.595E+02	1.611E+02	-0.304
		831.96		-1.955E+01	7.981E+01	1.271E+02	7.984E+01	-0.154
BI-212		727.18	*	0.000E+00	2.300E+01	3.693E+01	3.874E+00	0.000
		785.46		6.434E+01	1.226E+02	2.169E+02	2.046E+01	0.297
		1620.62		-4.521E+00	8.463E+01	1.380E+02	1.355E+01	-0.033
PB-212		74.81		-7.122E+00	3.889E+01	6.521E+01	1.031E+01	-0.109
		77.11		6.776E+00	2.332E+01	3.750E+01	4.773E+00	0.181
		87.30		-4.183E+00	3.785E+01	6.339E+01	1.043E+01	-0.066
		115.19		-2.343E+02	3.926E+02	6.346E+02	6.587E+01	-0.369
		238.63	*	-8.718E+00	6.428E+00	9.329E+00	9.729E-01	-0.935
		300.09		-9.581E+01	7.860E+01	1.107E+02	1.245E+01	-0.865
PO-212		74.81		-7.122E+00	3.889E+01	6.521E+01	1.031E+01	-0.109
		77.11		6.776E+00	2.332E+01	3.750E+01	4.773E+00	0.181
		87.30		-4.183E+00	3.785E+01	6.339E+01	1.043E+01	-0.066
		115.19		-2.343E+02	3.926E+02	6.346E+02	6.587E+01	-0.369
		238.63	*	-8.718E+00	6.428E+00	9.329E+00	9.729E-01	-0.935
		300.09		-9.581E+01	7.860E+01	1.107E+02	1.245E+01	-0.865
PB-214		74.81		-1.217E+01	6.646E+01	1.114E+02	1.643E+01	-0.109
		77.11		1.152E+01	3.966E+01	6.376E+01	9.457E+00	0.181
		87.30		-7.106E+00	6.431E+01	1.077E+02	1.634E+01	-0.066
		241.98		1.692E+00	3.353E+01	5.435E+01	5.973E+00	0.031
		295.21		9.880E+00	1.311E+01	2.195E+01	2.525E+00	0.450
	+	351.92	*	1.742E+01	9.498E+00	1.336E+01	1.412E+00	1.304
PO-214		74.81		-1.217E+01	6.646E+01	1.114E+02	1.643E+01	-0.109
		77.11		1.152E+01	3.966E+01	6.376E+01	9.457E+00	0.181
		87.30		-7.106E+00	6.431E+01	1.077E+02	1.634E+01	-0.066
		241.98		1.692E+00	3.353E+01	5.435E+01	5.973E+00	0.031
		295.21		9.880E+00	1.311E+01	2.195E+01	2.525E+00	0.450
	+	351.92	*	1.742E+01	9.498E+00	1.336E+01	1.412E+00	1.304
PO-215		81.07		-2.668E+01	2.273E+01	3.570E+01	4.562E+00	-0.747
		83.78		-5.373E+00	1.400E+01	2.128E+01	2.740E+00	-0.252
		94.90		-8.253E+01	3.011E+01	4.192E+01	4.982E+00	-1.969
		122.32		1.093E+01	1.795E+02	2.997E+02	3.223E+01	0.036

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		144.24		-4.739E+01	7.354E+01	1.153E+02	1.175E+01	-0.411
		154.21		-3.576E+01	3.707E+01	5.750E+01	5.616E+00	-0.622
		269.46		-8.541E-01	1.688E+01	2.508E+01	2.482E+00	-0.034
		323.87	*	-5.724E+01	5.591E+01	8.549E+01	1.541E+01	-0.670
		338.28		-9.976E+01	9.270E+01	1.260E+02	1.586E+01	-0.792
		445.03		-2.909E+01	1.931E+02	3.154E+02	3.716E+01	-0.092
PO-216		74.81		-7.122E+00	3.889E+01	6.521E+01	1.031E+01	-0.109
		77.11		6.776E+00	2.332E+01	3.750E+01	4.773E+00	0.181
		87.30		-4.183E+00	3.785E+01	6.339E+01	1.043E+01	-0.066
		115.19		-2.343E+02	3.926E+02	6.346E+02	6.587E+01	-0.369
		238.63	*	-8.718E+00	6.428E+00	9.329E+00	9.729E-01	-0.935
		300.09		-9.581E+01	7.860E+01	1.107E+02	1.245E+01	-0.865
PO-218		74.81		-1.217E+01	6.646E+01	1.114E+02	1.643E+01	-0.109
		77.11		1.152E+01	3.966E+01	6.376E+01	9.457E+00	0.181
		87.30		-7.106E+00	6.431E+01	1.077E+02	1.634E+01	-0.066
		241.98		1.692E+00	3.353E+01	5.435E+01	5.973E+00	0.031
		295.21		9.880E+00	1.311E+01	2.195E+01	2.525E+00	0.450
	+	351.92	*	1.742E+01	9.498E+00	1.336E+01	1.412E+00	1.304
RN-219		271.23		-2.557E+01	2.222E+01	2.971E+01	3.351E+00	-0.861
		401.81	*	-1.011E+00	3.266E+01	5.422E+01	7.945E+00	-0.019
RN-220		549.76	*	-1.836E+03	2.199E+03	2.965E+03	2.552E+02	-0.619
RA-223		81.07		-2.668E+01	2.273E+01	3.570E+01	4.562E+00	-0.747
		83.78		-5.373E+00	1.400E+01	2.128E+01	2.740E+00	-0.252
		94.90		-8.253E+01	3.011E+01	4.192E+01	4.982E+00	-1.969
		122.32		1.093E+01	1.795E+02	2.997E+02	3.223E+01	0.036
		144.24		-4.739E+01	7.354E+01	1.153E+02	1.175E+01	-0.411
		154.21		-3.576E+01	3.707E+01	5.750E+01	5.616E+00	-0.622
		269.46		-8.541E-01	1.688E+01	2.508E+01	2.482E+00	-0.034
		323.87	*	-5.724E+01	5.591E+01	8.549E+01	1.541E+01	-0.670
		338.28		-9.976E+01	9.270E+01	1.260E+02	1.586E+01	-0.792
		445.03		-2.909E+01	1.931E+02	3.154E+02	3.716E+01	-0.092
RA-224		240.98	*	4.468E+01	6.398E+01	1.074E+02	1.014E+01	0.416
RA-226		186.21	*	2.929E+01	9.143E+01	1.496E+02	1.103E+02	0.196
AC-227		79.80		-1.650E+02	1.784E+02	2.805E+02	6.582E+01	-0.588
		236.00		-2.464E+01	2.130E+01	3.157E+01	4.040E+00	-0.781
		256.20	*	-5.389E-02	3.405E+01	5.486E+01	8.735E+00	-0.001
		286.10		-2.329E+01	1.413E+02	2.235E+02	3.124E+01	-0.104
		299.80		-1.698E+02	1.472E+02	2.059E+02	3.704E+01	-0.825
		304.40		4.356E+01	1.650E+02	2.687E+02	5.073E+01	0.162
		329.70		-2.481E+01	7.708E+01	1.266E+02	1.816E+01	-0.196
		334.20		9.284E+01	1.935E+02	3.343E+02	6.559E+01	0.278
PA-227		64.62	*	1.000E+35	1.935E+02	Half-Life too short		
		110.05		-1.000E+35	1.935E+02	Half-Life too short		
TH-227		79.80		-1.650E+02	1.785E+02	2.805E+02	6.653E+01	-0.588
		94.00		-4.063E+02	2.916E+02	4.249E+02	9.914E+01	-0.956
		236.00		-2.464E+01	2.126E+01	3.157E+01	3.689E+00	-0.781
		256.20	*	-5.389E-02	3.405E+01	5.486E+01	1.018E+01	-0.001
		286.10		-2.329E+01	1.432E+02	2.235E+02	2.246E+02	-0.104
		299.80		-1.698E+02	1.472E+02	2.059E+02	3.704E+01	-0.825

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		304.40		4.356E+01	1.650E+02	2.687E+02	5.073E+01	0.162
		329.70		-2.481E+01	7.708E+01	1.266E+02	1.816E+01	-0.196
		334.20		9.284E+01	1.935E+02	3.343E+02	6.559E+01	0.278
AC-228		338.32		-2.366E+01	2.415E+01	3.033E+01	1.254E+01	-0.780
		911.07	*	1.062E+01	1.111E+01	1.972E+01	2.402E+00	0.539
		969.11		-1.084E+00	1.800E+01	2.742E+01	6.507E+00	-0.040
RA-228		338.32		-2.366E+01	2.415E+01	3.033E+01	1.254E+01	-0.780
		911.07	*	1.062E+01	1.111E+01	1.972E+01	2.402E+00	0.539
		969.11		-1.084E+00	1.800E+01	2.742E+01	6.507E+00	-0.040
TH-228		74.81		-7.122E+00	3.889E+01	6.521E+01	8.347E+00	-0.109
		77.11		6.776E+00	2.332E+01	3.750E+01	4.773E+00	0.181
		87.30		-4.183E+00	3.785E+01	6.339E+01	8.282E+00	-0.066
		238.63	*	-8.718E+00	6.428E+00	9.329E+00	9.729E-01	-0.935
		300.09		-9.581E+01	9.646E+01	1.107E+02	6.582E+01	-0.865
TH-229		85.43		-6.646E+00	2.058E+01	3.151E+01	4.082E+00	-0.211
		88.47		-1.528E+01	1.184E+01	1.848E+01	2.404E+00	-0.827
		100.00		-1.608E+01	2.203E+01	3.309E+01	3.735E+00	-0.486
		193.63	*	9.618E+00	5.363E+01	7.782E+01	6.924E+00	0.124
		210.97		-1.010E+01	6.635E+01	1.069E+02	9.721E+00	-0.094
PA-231		283.67	*	1.124E+02	1.357E+02	2.292E+02	3.639E+01	0.490
		301.29		1.274E+01	5.409E+01	8.569E+01	1.109E+01	0.149
		330.00		9.179E+00	1.701E+02	2.870E+02	9.215E+01	0.032
TH-231		84.21	*	-4.124E+01	5.524E+01	8.185E+01	1.658E+01	-0.504
U-231		84.21		-1.501E+02	1.996E+02	2.979E+02	3.840E+01	-0.504
		92.29		1.327E+00	9.242E+01	1.507E+02	1.851E+01	0.009
		95.87	*	-1.713E+02	4.826E+01	6.077E+01	7.143E+00	-2.819
		108.00		2.452E+01	7.024E+01	1.194E+02	1.275E+01	0.205
TH-232		59.00	*	2.222E+03	2.389E+04	7.928E+03	8.346E+04	0.280
PA-233		75.28		1.918E+02	3.188E+02	5.511E+02	9.915E+01	0.348
		86.59		6.105E+01	1.588E+02	2.707E+02	7.727E+01	0.226
		300.12		-4.945E+01	4.060E+01	5.667E+01	8.760E+00	-0.873
		311.98	*	4.203E+00	5.562E+00	9.823E+00	9.489E-01	0.428
		340.50		3.582E+01	4.852E+01	8.442E+01	2.023E+01	0.424
		398.62		-6.916E+01	1.767E+02	2.834E+02	7.485E+01	-0.244
		415.76		7.646E+01	1.320E+02	2.283E+02	4.868E+01	0.335
PA-234		63.00		4.894E+01	2.976E+02	4.269E+02	8.009E+01	0.115
		94.67		-1.560E+01	1.984E+01	3.199E+01	4.762E+00	-0.488
		98.44		1.737E+00	1.096E+01	1.726E+01	9.714E+00	0.101
		99.86		-3.159E+01	5.561E+01	8.437E+01	9.533E+00	-0.374
		111.00		1.099E+01	1.992E+01	3.406E+01	4.605E+00	0.323
		131.20		8.194E+00	1.098E+01	1.884E+01	1.835E+00	0.435
		152.70		-2.166E+01	3.038E+01	4.771E+01	8.221E+00	-0.454
		186.00		7.934E+01	1.474E+02	2.469E+02	7.720E+01	0.321
		226.40		1.109E+01	3.720E+01	6.139E+01	8.373E+00	0.181
		227.20		-5.967E+00	3.995E+01	6.412E+01	5.954E+00	-0.093
		248.90		-2.037E+01	7.420E+01	1.171E+02	2.668E+01	-0.174
		293.70		1.548E+01	6.079E+01	9.890E+01	1.765E+01	0.157
		369.80		4.334E+00	6.552E+01	1.101E+02	2.389E+01	0.039
		568.70		3.315E+00	7.524E+01	1.233E+02	1.068E+01	0.027

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		569.50		-7.221E+00	2.389E+01	3.515E+01	3.046E+00	-0.205
		574.00		-2.962E+01	1.153E+02	1.829E+02	1.587E+01	-0.162
		699.00		-3.336E+01	5.188E+01	7.605E+01	1.466E+01	-0.439
		706.10		-7.350E+00	8.306E+01	1.322E+02	5.907E+01	-0.056
		733.00		-4.736E+00	2.747E+01	4.306E+01	9.658E+00	-0.110
		742.81		1.233E+01	9.662E+01	1.639E+02	1.103E+02	0.075
		796.30		2.159E+01	6.617E+01	1.140E+02	3.117E+01	0.189
		805.60		-3.906E+01	7.849E+01	1.222E+02	3.778E+01	-0.320
		819.60		7.215E+01	8.346E+01	1.469E+02	5.621E+01	0.491
		826.30		-8.758E-01	5.804E+01	9.657E+01	4.340E+01	-0.009
		831.60		-1.276E+01	4.134E+01	6.580E+01	1.984E+01	-0.194
		876.40		-2.398E+00	6.343E+01	1.048E+02	1.078E+02	-0.023
		880.51		-1.058E+00	2.033E+01	3.352E+01	3.281E+00	-0.032
		883.24		-5.744E-01	2.087E+01	3.452E+01	2.326E+01	-0.017
		899.00		-1.548E+01	5.510E+01	8.697E+01	3.824E+01	-0.178
		925.00		3.407E+00	7.944E+01	1.322E+02	1.293E+01	0.026
		926.50		4.244E+00	1.147E+01	1.987E+01	5.106E+00	0.214
		946.00	*	-1.712E+01	2.084E+01	2.983E+01	5.756E+00	-0.574
		949.00		-1.400E+01	3.700E+01	5.118E+01	4.969E+00	-0.274
		980.50		1.749E+01	5.473E+01	9.382E+01	9.005E+00	0.186
		1394.10		-6.451E+01	1.033E+02	1.399E+02	9.150E+01	-0.461
PA-234M		766.42		7.887E+02	8.845E+02	1.455E+03	7.404E+02	0.542
		1001.03	*	-2.176E+02	4.053E+02	6.042E+02	6.495E+01	-0.360
TH-234		63.29	*	1.457E+02	2.500E+02	3.661E+02	7.629E+01	0.398
		92.38		1.033E+01	7.386E+01	1.209E+02	2.428E+01	0.085
U-234		53.20	*	2.241E+04	2.246E+05	2.498E+04	2.499E+05	0.897
U-235		89.95		-4.042E+02	1.810E+02	1.822E+02	5.873E+01	-2.219
		93.35		-3.602E+01	8.857E+01	1.413E+02	4.138E+01	-0.255
		105.00		-1.008E+02	1.256E+02	1.829E+02	5.591E+01	-0.551
		143.76	*	-2.724E+01	2.378E+01	3.566E+01	6.357E+00	-0.764
		163.35		-1.271E+01	5.049E+01	7.711E+01	1.474E+01	-0.165
		185.71		3.922E+00	5.432E+00	9.270E+00	8.168E-01	0.423
		205.31		-6.209E+01	5.220E+01	7.445E+01	1.435E+01	-0.834
NP-236		94.67		-1.156E+01	1.502E+01	2.431E+01	2.897E+00	-0.476
		98.44		1.316E+00	8.254E+00	1.305E+01	1.493E+00	0.101
		111.00		8.313E+00	1.505E+01	2.576E+01	2.714E+00	0.323
		160.31	*	4.839E+00	8.010E+00	1.358E+01	1.192E+00	0.356
NP-237		86.50	*	9.058E+00	2.381E+01	4.066E+01	9.919E+00	0.223
		95.87		-4.635E+02	1.688E+02	1.644E+02	4.258E+01	-2.819
PU-237		59.54	*	-2.130E+02	3.233E+02	4.893E+02	6.901E+01	-0.435
U-238		63.29	*	1.457E+02	2.500E+02	3.661E+02	7.629E+01	0.398
		92.38		1.033E+01	7.384E+01	1.209E+02	1.483E+01	0.085
NP-239		99.55		-9.880E+00	1.866E+01	2.839E+01	3.217E+00	-0.348
		117.00	*	8.955E+00	1.972E+01	3.359E+01	3.470E+00	0.267
		209.75		8.018E+00	6.717E+01	1.101E+02	9.998E+00	0.073
		228.18		1.668E+00	2.025E+01	3.299E+01	3.067E+00	0.051
		277.60		-1.581E-01	1.610E+01	2.581E+01	2.534E+00	-0.006
		334.30		4.273E+01	1.084E+02	1.871E+02	1.699E+01	0.228
AM-241		59.54	*	-1.712E+01	2.598E+01	3.932E+01	5.699E+00	-0.435

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AM-243		74.67	*	-4.099E+00	6.378E+00	1.043E+01	1.330E+00	-0.393
		86.72		1.644E+02	8.937E+02	1.518E+03	1.978E+02	0.108
		117.66		2.174E+02	3.957E+02	6.766E+02	6.978E+01	0.321
		142.18		-1.524E+03	1.867E+03	2.956E+03	2.750E+02	-0.516
CM-243		99.55		-1.016E+01	1.919E+01	2.920E+01	3.309E+00	-0.348
		103.76	*	6.125E+00	1.017E+01	1.750E+01	1.919E+00	0.350
		117.00		9.209E+00	2.028E+01	3.454E+01	3.568E+00	0.267
		209.75		7.900E+00	6.619E+01	1.085E+02	9.851E+00	0.073
		228.18		1.684E+00	2.045E+01	3.332E+01	3.098E+00	0.051
		277.60		-1.593E-01	1.622E+01	2.601E+01	2.553E+00	-0.006
AM-246		798.80		-1.451E+00	1.048E+01	1.723E+01	1.635E+00	-0.084
		1036.00		-6.876E-01	1.822E+01	2.973E+01	2.781E+00	-0.023
		1062.04		3.314E+00	1.340E+01	2.286E+01	2.106E+00	0.145
		1078.86	*	-3.070E+00	8.947E+00	1.382E+01	1.259E+00	-0.222
CM-247		278.00		6.750E-01	6.554E+01	1.052E+02	1.034E+01	0.006
		287.40		7.710E+00	1.115E+02	1.796E+02	1.750E+01	0.043
		402.60	*	-9.196E-01	2.961E+00	4.799E+00	3.819E-01	-0.192
CF-249		252.85		-3.361E+01	7.960E+01	1.243E+02	1.190E+01	-0.270
		333.44		2.318E+01	1.409E+01	2.602E+01	2.367E+00	0.891
		387.95	*	5.866E-01	3.299E+00	5.578E+00	4.452E-01	0.105
CF-251		176.60	*	5.012E+00	1.253E+01	2.098E+01	1.830E+00	0.239
		227.00		7.741E+00	3.515E+01	5.777E+01	5.363E+00	0.134
		285.00		1.138E+02	1.589E+02	2.674E+02	2.614E+01	0.426
ANH-511		511.00	*	-1.009E+01	4.461E+00	7.371E+00	6.246E-01	-1.368

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G247261003       *
* Acquisition date : 23-FEB-2010 19:22:58 Detector SN#    :                 *
* Detector ID      : GAM03                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 03:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 03:00:00.74     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 15-FEB-2010 12:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G247261003           Analyst initials: KXG3            *
* Batch Number     : 956162               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 18-AUG-2009 08:11:21 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
AS-74	1.344E+01	6.686E+00	9.676E+00	0.000E+00
BI-211	5.007E+01	2.664E+01	2.574E+01	0.000E+00
BI-214	2.024E+01	1.007E+01	8.757E+00	0.000E+00
TH-230	1.993E+03	1.279E+04	2.706E+03	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	2.015E+01	2.133E+01	3.899E+01	0.000E+00	NOT IDENT.
NA-22	-2.133E+00	2.523E+00	3.443E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.916E+04	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.528E+00	2.896E+00	5.290E+00	0.000E+00	NOT IDENT.
K-40	1.412E+01	3.139E+01	5.557E+01	0.000E+00	NOT IDENT.
TI-44	9.936E-01	3.995E+00	6.534E+00	0.000E+00	FAIL ABUN
SC-46	4.531E-01	2.674E+00	4.619E+00	0.000E+00	FAIL ABUN
V-48	2.466E+00	3.897E+00	7.046E+00	0.000E+00	NOT IDENT.
CR-51	1.578E+01	2.515E+01	4.503E+01	0.000E+00	NOT IDENT.
MN-52	5.985E+00	7.539E+00	1.438E+01	0.000E+00	NOT IDENT.
MN-54	-5.439E-01	2.217E+00	3.645E+00	0.000E+00	NOT IDENT.
CO-56	2.915E-02	2.778E+00	4.723E+00	0.000E+00	NOT IDENT.
CO-57	-5.630E-01	2.512E+00	4.217E+00	0.000E+00	NOT IDENT.
CO-58	2.325E+00	2.536E+00	4.753E+00	0.000E+00	NOT IDENT.
FE-59	1.480E+00	4.875E+00	8.516E+00	0.000E+00	NOT IDENT.
CO-60	2.026E+00	2.554E+00	4.776E+00	0.000E+00	NOT IDENT.
ZN-65	3.713E+00	6.517E+00	1.035E+01	0.000E+00	NOT IDENT.
GE-68	-5.755E+01	8.019E+01	1.187E+02	0.000E+00	NOT IDENT.
AS-73	2.553E+02	1.785E+02	3.051E+02	0.000E+00	NOT IDENT.
SE-75	7.523E-01	3.768E+00	6.271E+00	0.000E+00	FAIL ABUN
BR-77	-1.055E+01	1.149E+02	1.906E+02	0.000E+00	NOT IDENT.
SR-82	-4.920E+00	1.813E+01	2.979E+01	0.000E+00	NOT IDENT.
RB-83	-2.856E-01	5.324E+00	8.866E+00	0.000E+00	NOT IDENT.

RB-84	3.434E+00	4.078E+00	7.610E+00	0.000E+00	NOT IDENT.
KR-85	-8.875E+02	8.327E+02	1.299E+03	0.000E+00	NOT IDENT.
SR-85	-4.237E+00	3.975E+00	6.202E+00	0.000E+00	NOT IDENT.
RB-86	-4.329E+01	4.257E+01	5.993E+01	0.000E+00	NOT IDENT.
Y-88	1.411E+00	3.052E+00	5.519E+00	0.000E+00	NOT IDENT.
ZR-88	9.632E-01	2.418E+00	4.233E+00	0.000E+00	NOT IDENT.
Y-91	2.521E+02	1.096E+03	1.876E+03	0.000E+00	NOT IDENT.
NB-94	7.282E-01	2.433E+00	4.131E+00	0.000E+00	NOT IDENT.
NB-95	1.532E-01	3.018E+00	5.185E+00	0.000E+00	NOT IDENT.
NB-95M	-1.392E+01	1.040E+01	1.557E+01	0.000E+00	NOT IDENT.
ZR-95	2.858E+00	5.184E+00	8.569E+00	0.000E+00	NOT IDENT.
NB-97	0.000E+00	8.929E+03	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.494E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-3.272E+01	1.487E+02	2.484E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.212E+10	0.000E+00	0.000E+00	SHORT HLIF
RH-101	0.000E+00	4.210E+00	5.932E+00	0.000E+00	FAIL ABUN
RH-102	-7.658E-01	2.143E+00	3.477E+00	0.000E+00	NOT IDENT.
RU-103	-1.310E+00	2.971E+00	4.776E+00	0.000E+00	FAIL ABUN
RH-106	2.916E+01	2.313E+01	4.294E+01	0.000E+00	NOT IDENT.
RU-106	2.916E+01	2.294E+01	4.294E+01	0.000E+00	NOT IDENT.
AG-108M	-9.720E-01	2.595E+00	4.244E+00	0.000E+00	NOT IDENT.
CD-109	-2.491E+01	8.073E+01	1.366E+02	0.000E+00	NOT IDENT.
AG-110M	2.902E-01	2.530E+00	4.227E+00	0.000E+00	NOT IDENT.
IN-111	-1.575E+01	1.891E+01	2.938E+01	0.000E+00	NOT IDENT.
IN-113M	-1.026E+00	3.528E+00	5.863E+00	0.000E+00	NOT IDENT.
SN-113	-1.026E+00	3.528E+00	5.863E+00	0.000E+00	NOT IDENT.
IN-114M	-1.205E+01	1.530E+01	2.429E+01	0.000E+00	NOT IDENT.
CD-115	-7.841E+01	9.997E+01	1.530E+02	0.000E+00	NOT IDENT.
SN-117M	-5.904E-01	3.795E+00	6.327E+00	0.000E+00	NOT IDENT.
SB-122	1.151E+01	2.653E+01	4.614E+01	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.033E+05	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	6.281E-01	2.669E+00	4.539E+00	0.000E+00	NOT IDENT.
I-124	1.453E+01	2.052E+01	2.901E+01	0.000E+00	NOT IDENT.
SB-124	1.453E+00	6.967E+00	1.210E+01	0.000E+00	NOT IDENT.
SB-125	7.263E-01	6.967E+00	1.190E+01	0.000E+00	NOT IDENT.
TE-125M	-3.547E+01	8.851E+02	1.506E+03	0.000E+00	NOT IDENT.
I-126	4.834E+00	8.881E+00	1.554E+01	0.000E+00	NOT IDENT.
SB-126	-7.735E+00	7.772E+00	1.118E+01	0.000E+00	NOT IDENT.
SN-126	1.350E-01	7.839E+00	1.348E+01	0.000E+00	NOT IDENT.
SB-127	-2.531E+00	2.650E+01	4.303E+01	0.000E+00	NOT IDENT.
XE-127	4.137E+00	4.090E+00	6.425E+00	0.000E+00	NOT IDENT.
I-131	-9.700E-01	4.961E+00	8.334E+00	0.000E+00	NOT IDENT.
TE-132	1.203E+00	1.432E+01	2.380E+01	0.000E+00	NOT IDENT.
BA-133	-1.120E+00	4.023E+00	5.799E+00	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.043E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	3.714E-02	3.260E+00	5.566E+00	0.000E+00	NOT IDENT.
CS-135	9.615E-01	1.329E+01	2.191E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.158E+10	0.000E+00	0.000E+00	SHORT HLIF
CS-136	9.977E-01	5.208E+00	8.944E+00	0.000E+00	FAIL ABUN
BA-137M	-2.097E+00	2.530E+00	3.729E+00	0.000E+00	NOT IDENT.
CS-137	-2.217E+00	2.674E+00	3.942E+00	0.000E+00	NOT IDENT.
CE-139	-1.243E+00	2.772E+00	4.535E+00	0.000E+00	NOT IDENT.
BA-140	-7.844E+00	1.410E+01	2.182E+01	0.000E+00	NOT IDENT.
LA-140	2.864E+00	4.930E+00	9.064E+00	0.000E+00	NOT IDENT.
CE-141	3.429E+00	5.254E+00	9.135E+00	0.000E+00	NOT IDENT.
CE-143	-2.057E+02	3.922E+02	6.127E+02	0.000E+00	NOT IDENT.
CE-144	-1.994E+01	2.116E+01	3.375E+01	0.000E+00	NOT IDENT.
PM-144	-1.484E+00	2.463E+00	3.745E+00	0.000E+00	NOT IDENT.
PR-144	-1.002E+02	1.663E+02	2.529E+02	0.000E+00	NOT IDENT.
PM-146	7.021E-01	3.494E+00	5.995E+00	0.000E+00	NOT IDENT.
ND-147	2.550E+01	2.791E+01	5.039E+01	0.000E+00	NOT IDENT.
PM-149	-2.060E+02	9.820E+02	1.580E+03	0.000E+00	NOT IDENT.
EU-152	-1.819E+00	7.801E+00	1.313E+01	0.000E+00	NOT IDENT.
GD-153	6.286E+00	8.945E+00	1.475E+01	0.000E+00	NOT IDENT.
EU-154	-7.327E+00	7.345E+00	9.651E+00	0.000E+00	NOT IDENT.
EU-155	-1.034E+01	1.225E+01	1.871E+01	0.000E+00	NOT IDENT.
TB-160	-8.571E+00	9.461E+00	1.409E+01	0.000E+00	FAIL ABUN
HO-166M	-3.443E+00	5.077E+00	7.697E+00	0.000E+00	NOT IDENT.
TM-171	4.706E+03	4.122E+03	6.727E+03	0.000E+00	FAIL ABUN
HF-175	-3.996E-01	2.713E+00	4.597E+00	0.000E+00	NOT IDENT.
LU-176	-1.249E+00	2.200E+00	3.416E+00	0.000E+00	NOT IDENT.
LU-177	2.996E+01	4.596E+01	7.916E+01	0.000E+00	NOT IDENT.
LU-177M	2.188E+00	1.349E+01	2.317E+01	0.000E+00	NOT IDENT.
HF-181	-2.111E+00	2.957E+00	4.619E+00	0.000E+00	FAIL ABUN
W-181	5.606E+01	4.910E+01	9.534E+01	0.000E+00	FAIL ABUN
TA-182	2.286E+00	1.089E+01	1.861E+01	0.000E+00	FAIL ABUN
RE-183	-3.487E+00	1.101E+01	1.718E+01	0.000E+00	FAIL ABUN
RE-184	-8.711E+00	2.022E+01	3.223E+01	0.000E+00	FAIL ABUN

OS-185	-2.202E+00	2.893E+00	4.307E+00	0.000E+00	NOT IDENT.
RE-188	-1.125E+01	1.473E+01	2.368E+01	0.000E+00	NOT IDENT.
W-188	3.478E+01	5.968E+02	9.790E+02	0.000E+00	NOT IDENT.
IR-192	-2.322E+00	2.660E+00	4.275E+00	0.000E+00	NOT IDENT.
AU-195	-6.964E+00	2.569E+01	4.054E+01	0.000E+00	FAIL ABUN
TL-200	-7.044E+01	4.636E+02	7.813E+02	0.000E+00	NOT IDENT.
TL-201	-5.416E+01	1.413E+02	2.319E+02	0.000E+00	NOT IDENT.
TL-202	4.262E+00	3.742E+00	6.895E+00	0.000E+00	NOT IDENT.
HG-203	-2.088E+00	3.211E+00	4.990E+00	0.000E+00	NOT IDENT.
BI-207	5.400E-01	3.138E+00	5.388E+00	0.000E+00	NOT IDENT.
TL-207	-5.724E+01	5.479E+01	8.549E+01	0.000E+00	NOT IDENT.
TL-208	2.209E-01	3.172E+00	5.061E+00	0.000E+00	NOT IDENT.
PO-209	-1.955E+02	4.981E+02	7.972E+02	0.000E+00	NOT IDENT.
BI-210	9.906E+02	9.831E+02	1.682E+03	0.000E+00	NOT IDENT.
PB-210	9.906E+02	9.831E+02	1.682E+03	0.000E+00	NOT IDENT.
PO-210	9.906E+02	9.824E+02	1.682E+03	0.000E+00	NOT IDENT.
PB-211	-3.538E+01	7.460E+01	1.161E+02	0.000E+00	NOT IDENT.
BI-212	0.000E+00	2.254E+01	3.693E+01	0.000E+00	NOT IDENT.
PB-212	-8.718E+00	6.299E+00	9.329E+00	0.000E+00	NOT IDENT.
PO-212	-8.718E+00	6.299E+00	9.329E+00	0.000E+00	NOT IDENT.
PB-214	0.000E+00	9.308E+00	1.336E+01	0.000E+00	FAIL ABUN
PO-214	0.000E+00	9.308E+00	1.336E+01	0.000E+00	FAIL ABUN
PO-215	-5.724E+01	5.479E+01	8.549E+01	0.000E+00	NOT IDENT.
PO-216	-8.718E+00	6.299E+00	9.329E+00	0.000E+00	NOT IDENT.
PO-218	0.000E+00	9.308E+00	1.336E+01	0.000E+00	FAIL ABUN
RN-219	-1.011E+00	3.201E+01	5.422E+01	0.000E+00	NOT IDENT.
RN-220	-1.836E+03	2.155E+03	2.965E+03	0.000E+00	NOT IDENT.
RA-223	-5.724E+01	5.479E+01	8.549E+01	0.000E+00	NOT IDENT.
RA-224	4.468E+01	6.270E+01	1.074E+02	0.000E+00	NOT IDENT.
RA-226	2.929E+01	8.960E+01	1.496E+02	0.000E+00	NOT IDENT.
AC-227	-5.389E-02	3.337E+01	5.486E+01	0.000E+00	NOT IDENT.
PA-227	0.000E+00	1.060E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-5.389E-02	3.337E+01	5.486E+01	0.000E+00	NOT IDENT.
AC-228	1.062E+01	1.088E+01	1.972E+01	0.000E+00	NOT IDENT.
RA-228	1.062E+01	1.088E+01	1.972E+01	0.000E+00	NOT IDENT.
TH-228	-8.718E+00	6.299E+00	9.329E+00	0.000E+00	NOT IDENT.
TH-229	9.618E+00	5.256E+01	7.782E+01	0.000E+00	NOT IDENT.
PA-231	1.124E+02	1.330E+02	2.292E+02	0.000E+00	NOT IDENT.
TH-231	-4.124E+01	5.413E+01	8.185E+01	0.000E+00	NOT IDENT.
U-231	-1.713E+02	4.729E+01	6.077E+01	0.000E+00	NOT IDENT.
TH-232	2.222E+03	2.341E+04	7.928E+03	0.000E+00	NOT IDENT.
PA-233	4.203E+00	5.451E+00	9.823E+00	0.000E+00	NOT IDENT.
PA-234	-1.712E+01	2.043E+01	2.983E+01	0.000E+00	NOT IDENT.
PA-234M	-2.176E+02	3.972E+02	6.042E+02	0.000E+00	NOT IDENT.
TH-234	1.457E+02	2.450E+02	3.661E+02	0.000E+00	NOT IDENT.
U-234	2.241E+04	2.201E+05	2.498E+04	0.000E+00	NOT IDENT.
U-235	-2.724E+01	2.331E+01	3.566E+01	0.000E+00	NOT IDENT.
NP-236	4.839E+00	7.850E+00	1.358E+01	0.000E+00	NOT IDENT.
NP-237	9.058E+00	2.334E+01	4.066E+01	0.000E+00	NOT IDENT.
PU-237	-2.130E+02	3.168E+02	4.893E+02	0.000E+00	NOT IDENT.
U-238	1.457E+02	2.450E+02	3.661E+02	0.000E+00	NOT IDENT.
NP-239	8.955E+00	1.933E+01	3.359E+01	0.000E+00	NOT IDENT.
AM-241	-1.712E+01	2.546E+01	3.932E+01	0.000E+00	NOT IDENT.
AM-243	-4.099E+00	6.250E+00	1.043E+01	0.000E+00	NOT IDENT.
CM-243	6.125E+00	9.971E+00	1.750E+01	0.000E+00	NOT IDENT.
AM-246	-3.070E+00	8.768E+00	1.382E+01	0.000E+00	NOT IDENT.
CM-247	-9.196E-01	2.902E+00	4.799E+00	0.000E+00	NOT IDENT.
CF-249	5.866E-01	3.233E+00	5.578E+00	0.000E+00	NOT IDENT.
CF-251	5.012E+00	1.228E+01	2.098E+01	0.000E+00	NOT IDENT.
ANH-511	-1.009E+01	4.372E+00	7.371E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 22:23:53.93

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G247261003.CNF;1
Sample date       : 15-FEB-2010 12:00:00 Acquisition date : 23-FEB-2010 19:22:58
Sample ID         : G247261003           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM03                Detector geometry: 2LMB
Elapsed live time: 0 03:00:00.00         Elapsed real time: 0 03:00:00.74  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 956162               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.94	74	237	1.11	126.43	124	9	6.83E-03	39.0	
2	0	66.63	58	131	0.78	133.81	132	6	5.35E-03	34.6	
3	0	92.67	211	236	1.20	185.83	181	10	1.96E-02	15.3	
4	0	139.92	42	195	0.74	280.22	277	8	3.89E-03	60.1	
5	0	185.51	194	168	1.25	371.31	365	12	1.80E-02	15.2	
6	0	198.23	83	140	1.32	396.73	393	9	7.68E-03	28.1	
7	0	352.32	97	66	1.31	704.60	699	11	9.02E-03	19.1	
8	0	511.87	156	103	1.97	1023.43	1017	17	1.44E-02	17.5	
9	0	596.33	48	24	1.12	1192.21	1186	12	4.44E-03	25.0	
10	0	609.74	89	46	1.41	1219.02	1213	14	8.20E-03	19.8	
11	3	1117.39	21	5	1.90	2233.73	2231	22	1.93E-03	21.3	2.40E+00
12	3	1121.56	26	12	2.74	2242.07	2231	22	2.45E-03	38.6	
13	0	1765.13	33	0	1.37	3529.00	3522	13	3.06E-03	17.4	

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 22:23:56.99

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G247261003.CNF;1
Sample date       : 15-FEB-2010 12:00:00 Acquisition date : 23-FEB-2010 19:22:58
Sample ID         : G247261003           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM03                Detector geometry: 2LMB
Elapsed live time: 0 03:00:00.00         Elapsed real time: 0 03:00:00.74  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 956162               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
AS-74	595.88	48	59.90*	1.034E+00	9.698E+00	1.344E+01	50.76
	634.78	------	15.40	9.883E-01	------	Line Not Found	------
BI-211	72.87	------	1.27	1.080E+00	------	Line Not Found	------
	351.07	75	12.94*	1.450E+00	5.007E+01	5.007E+01	54.28
BI-214	609.31	76	46.30*	1.018E+00	2.024E+01	2.024E+01	50.75
	1120.29	26	15.10	6.218E-01	3.525E+01	3.525E+01	77.91
	1764.49	19	15.80	4.543E-01	3.363E+01	3.363E+01	68.33
TH-230	67.67	48	0.37*	8.120E-01	1.993E+03	1.993E+03	654.78

Flag: "*" = Keyline

Sample ID : G247261003 Acquisition date : 23-FEB-2010 19:22:58

Total number of lines in spectrum	8	
Number of unidentified lines	1	
Number of lines tentatively identified by NID	7	87.50%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
AS-74	17.77D	1.39	9.698E+00	1.344E+01	0.682E+01	50.76	
BI-211	7.04E+08Y	1.00	5.007E+01	5.007E+01	2.718E+01	54.28	
BI-214	1600.00Y	1.00	2.024E+01	2.024E+01	1.027E+01	50.75	
TH-230	7.70E+04Y	1.00	1.993E+03	1.993E+03	13.05E+03	654.78	
			---	---			
	Total Activity :		2.073E+03	2.077E+03			
	Grand Total Activity :		2.073E+03	2.077E+03			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G247261003 Acquisition date : 23-FEB-2010 19:22:58

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	198.23	71	140	1.32	396.73	393	9	6.59E-03	69.0	1.99E+00	T
3	1117.39	21	5	1.90	2233.73	2231	22	1.93E-03	42.6	6.24E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 23-FEB-2010 22:24:01.74

```
*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G247261003.CNF;1   *
* Acquisition date  : 23-FEB-2010 19:22:58  Detector SN#     :                *
* Detector ID       : GAM03                 Sensitivity      : 5.00000        *
* Geometry          : 2LMB                  Energy tolerance: 1.50000         *
* Elapsed live time: 0 03:00:00.00          Abundance limit : 75.00000        *
* Elapsed real time: 0 03:00:00.74          Half life ratio : 8.00000         *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date       : 15-FEB-2010 12:00:00  Nuclide Library : LIQUID          *
* Sample ID         : G247261003            Analyst initials: KXG3            *
* Batch Number      : 956162                Sample Quantity : 2.00000E+00 LITER *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 18-AUG-2009 08:11:21.3MS Isotope      :                  *
* MSD ID           :                      MSD Isotope      :                  *
* LCS ID           : 1032-A               LCS Isotope      :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AS-74	1.344E+01	6.823E+00	9.676E+00	8.450E-01	1.389
BI-211	5.007E+01	2.718E+01	2.574E+01	2.370E+00	1.945
BI-214	2.024E+01	1.027E+01	8.757E+00	8.916E-01	2.312
TH-230	1.993E+03	1.305E+04	2.706E+03	1.756E+04	0.737

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	2.015E+01		2.177E+01	3.899E+01	3.519E+00	0.517
NA-22	-2.133E+00		2.575E+00	3.443E+00	3.402E-01	-0.620
NA-24	9.001E-03		1.488E-02	Half-Life too short		
AL-26	1.528E+00		2.955E+00	5.290E+00	4.580E-01	0.289
K-40	1.412E+01		3.203E+01	5.557E+01	5.923E+00	0.254
TI-44	9.936E-01		4.076E+00	6.534E+00	8.318E-01	0.152
SC-46	4.531E-01		2.729E+00	4.619E+00	4.533E-01	0.098
V-48	2.466E+00		3.977E+00	7.046E+00	6.755E-01	0.350

Sample ID : G247261003 Acquisition date : 23-FEB-2010 19:22:58

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CR-51	1.578E+01		2.567E+01	4.503E+01	4.386E+00	0.350
MN-52	5.985E+00		7.693E+00	1.438E+01	1.514E+00	0.416
MN-54	-5.439E-01		2.262E+00	3.645E+00	3.509E-01	-0.149
CO-56	2.915E-02		2.834E+00	4.723E+00	4.567E-01	0.006
CO-57	-5.630E-01		2.564E+00	4.217E+00	4.318E-01	-0.134
CO-58	2.325E+00		2.588E+00	4.753E+00	4.541E-01	0.489
FE-59	1.480E+00		4.974E+00	8.516E+00	8.228E-01	0.174
CO-60	2.026E+00		2.606E+00	4.776E+00	5.119E-01	0.424
ZN-65	3.713E+00		6.650E+00	1.035E+01	9.199E-01	0.359
GE-68	-5.755E+01		8.183E+01	1.187E+02	1.083E+01	-0.485
AS-73	2.553E+02		1.822E+02	3.051E+02	4.782E+01	0.837
SE-75	7.523E-01		3.845E+00	6.271E+00	6.101E-01	0.120
BR-77	-1.055E+01		1.173E+02	1.906E+02	1.622E+01	-0.055
SR-82	-4.920E+00		1.850E+01	2.979E+01	2.799E+00	-0.165
RB-83	-2.856E-01		5.433E+00	8.866E+00	7.544E-01	-0.032
RB-84	3.434E+00		4.161E+00	7.610E+00	7.449E-01	0.451
KR-85	-8.875E+02		8.497E+02	1.299E+03	1.102E+02	-0.683
SR-85	-4.237E+00		4.057E+00	6.202E+00	5.262E-01	-0.683
RB-86	-4.329E+01		4.344E+01	5.993E+01	5.471E+00	-0.722
Y-88	1.411E+00		3.114E+00	5.519E+00	4.673E-01	0.256
ZR-88	9.632E-01		2.467E+00	4.233E+00	3.343E-01	0.228
Y-91	2.521E+02		1.119E+03	1.876E+03	1.667E+02	0.134
NB-94	7.282E-01		2.482E+00	4.131E+00	3.743E-01	0.176
NB-95	1.532E-01		3.079E+00	5.185E+00	4.848E-01	0.030
NB-95M	-1.392E+01		1.061E+01	1.557E+01	1.641E+00	-0.893
ZR-95	2.858E+00		5.290E+00	8.569E+00	8.673E-01	0.334
NB-97	2.544E-03		4.556E-03	Half-Life too short		
ZR-97	-7.380E-01		1.273E-01	Half-Life too short		
MO-99	-3.272E+01		1.517E+02	2.484E+02	3.860E+01	-0.132
TC-99M	-1.190E+04		1.639E+04	Half-Life too short		
RH-101	6.171E+00	+	4.296E+00	5.932E+00	5.307E-01	1.040
RH-102	-7.658E-01		2.187E+00	3.477E+00	2.896E-01	-0.220
RU-103	-1.310E+00		3.032E+00	4.776E+00	6.706E-01	-0.274
RH-106	2.916E+01		2.360E+01	4.294E+01	5.782E+00	0.679
RU-106	2.916E+01		2.341E+01	4.294E+01	3.774E+00	0.679
AG-108M	-9.720E-01		2.648E+00	4.244E+00	3.604E-01	-0.229
CD-109	-2.491E+01		8.238E+01	1.366E+02	1.790E+01	-0.182
AG-110M	2.902E-01		2.581E+00	4.227E+00	3.846E-01	0.069
IN-111	-1.575E+01		1.930E+01	2.938E+01	2.788E+00	-0.536
IN-113M	-1.026E+00		3.600E+00	5.863E+00	4.796E-01	-0.175
SN-113	-1.026E+00		3.600E+00	5.863E+00	4.796E-01	-0.175
IN-114M	-1.205E+01		1.561E+01	2.429E+01	2.152E+00	-0.496
CD-115	-7.841E+01		1.020E+02	1.530E+02	1.306E+01	-0.512
SN-117M	-5.904E-01		3.873E+00	6.327E+00	5.580E-01	-0.093
SB-122	1.151E+01		2.707E+01	4.614E+01	3.991E+00	0.250
I-123	2.431E-02		5.270E-02	Half-Life too short		
TE-123M	6.281E-01		2.723E+00	4.539E+00	4.021E-01	0.138
I-124	1.453E+01		2.094E+01	2.901E+01	2.538E+00	0.501

Sample ID : G247261003 Acquisition date : 23-FEB-2010 19:22:58

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
SB-124	1.453E+00		7.109E+00	1.210E+01	1.179E+00	0.120
SB-125	7.263E-01		7.109E+00	1.190E+01	9.849E-01	0.061
TE-125M	-3.547E+01		9.032E+02	1.506E+03	1.812E+02	-0.024
I-126	4.834E+00		9.062E+00	1.554E+01	1.379E+00	0.311
SB-126	-7.735E+00		7.930E+00	1.118E+01	1.022E+00	-0.692
SN-126	1.350E-01		7.999E+00	1.348E+01	1.763E+00	0.010
SB-127	-2.531E+00		2.704E+01	4.303E+01	4.321E+00	-0.059
XE-127	4.137E+00		4.174E+00	6.425E+00	5.783E-01	0.644
I-131	-9.700E-01		5.062E+00	8.334E+00	7.454E-01	-0.116
TE-132	1.203E+00		1.461E+01	2.380E+01	3.600E+00	0.051
BA-133	-1.120E+00		4.105E+00	5.799E+00	7.679E-01	-0.193
I-133	-8.924E-04		1.042E-03	Half-Life too short		
CS-134	3.714E-02		3.327E+00	5.566E+00	5.306E-01	0.007
CS-135	9.615E-01		1.356E+01	2.191E+01	2.397E+00	0.044
I-135	-3.724E+03		5.908E+03	Half-Life too short		
CS-136	9.977E-01		5.315E+00	8.944E+00	8.610E-01	0.112
BA-137M	-2.097E+00		2.581E+00	3.729E+00	3.301E-01	-0.562
CS-137	-2.217E+00		2.729E+00	3.942E+00	3.496E-01	-0.562
CE-139	-1.243E+00		2.828E+00	4.535E+00	3.917E-01	-0.274
BA-140	-7.844E+00		1.439E+01	2.182E+01	7.229E+00	-0.359
LA-140	2.864E+00		5.031E+00	9.064E+00	9.006E-01	0.316
CE-141	3.429E+00		5.361E+00	9.135E+00	8.535E-01	0.375
CE-143	-2.057E+02		4.002E+02	6.127E+02	1.346E+02	-0.336
CE-144	-1.994E+01		2.159E+01	3.375E+01	5.452E+00	-0.591
PM-144	-1.484E+00		2.514E+00	3.745E+00	3.381E-01	-0.396
PR-144	-1.002E+02		1.697E+02	2.529E+02	2.283E+01	-0.396
PM-146	7.021E-01		3.565E+00	5.995E+00	6.243E-01	0.117
ND-147	2.550E+01		2.848E+01	5.039E+01	7.512E+00	0.506
PM-149	-2.060E+02		1.002E+03	1.580E+03	2.557E+02	-0.130
EU-152	-1.819E+00		7.960E+00	1.313E+01	1.234E+00	-0.139
GD-153	6.286E+00		9.128E+00	1.475E+01	1.705E+00	0.426
EU-154	-7.327E+00		7.495E+00	9.651E+00	1.186E+00	-0.759
EU-155	-1.034E+01		1.250E+01	1.871E+01	2.046E+00	-0.553
TB-160	-8.571E+00		9.654E+00	1.409E+01	1.378E+00	-0.608
HO-166M	-3.443E+00		5.181E+00	7.697E+00	7.006E-01	-0.447
TM-171	4.706E+03	+	4.206E+03	6.727E+03	8.889E+02	0.700
HF-175	-3.996E-01		2.768E+00	4.597E+00	4.101E-01	-0.087
LU-176	-1.249E+00		2.245E+00	3.416E+00	3.247E-01	-0.366
LU-177	2.996E+01		4.690E+01	7.916E+01	7.176E+00	0.379
LU-177M	2.188E+00		1.376E+01	2.317E+01	1.859E+00	0.094
HF-181	-2.111E+00		3.017E+00	4.619E+00	3.861E-01	-0.457
W-181	5.606E+01	+	5.010E+01	9.534E+01	1.275E+01	0.588
TA-182	2.286E+00		1.111E+01	1.861E+01	1.696E+00	0.123
RE-183	-3.487E+00		1.124E+01	1.718E+01	1.499E+00	-0.203
RE-184	-8.711E+00		2.063E+01	3.223E+01	3.084E+00	-0.270
OS-185	-2.202E+00		2.952E+00	4.307E+00	3.803E-01	-0.511
RE-188	-1.125E+01		1.503E+01	2.368E+01	2.110E+00	-0.475
W-188	3.478E+01		6.090E+02	9.790E+02	9.506E+01	0.036

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
IR-192	-2.322E+00		2.715E+00	4.275E+00	4.013E-01	-0.543
AU-195	-6.964E+00		2.621E+01	4.054E+01	4.622E+00	-0.172
TL-200	-7.044E+01		4.731E+02	7.813E+02	6.589E+01	-0.090
TL-201	-5.416E+01		1.442E+02	2.319E+02	2.004E+01	-0.234
TL-202	4.262E+00		3.818E+00	6.895E+00	5.626E-01	0.618
HG-203	-2.088E+00		3.277E+00	4.990E+00	5.014E-01	-0.418
BI-207	5.400E-01		3.202E+00	5.388E+00	4.960E-01	0.100
TL-207	-5.724E+01		5.591E+01	8.549E+01	1.541E+01	-0.670
TL-208	2.209E-01		3.237E+00	5.061E+00	4.714E-01	0.044
PO-209	-1.955E+02		5.082E+02	7.972E+02	7.842E+01	-0.245
BI-210	9.906E+02		1.003E+03	1.682E+03	2.346E+02	0.589
PB-210	9.906E+02		1.003E+03	1.682E+03	2.346E+02	0.589
PO-210	9.906E+02		1.002E+03	1.682E+03	2.250E+02	0.589
PB-211	-3.538E+01		7.612E+01	1.161E+02	7.265E+01	-0.305
BI-212	0.000E+00		2.300E+01	3.693E+01	3.874E+00	0.000
PB-212	-8.718E+00		6.428E+00	9.329E+00	9.729E-01	-0.935
PO-212	-8.718E+00		6.428E+00	9.329E+00	9.729E-01	-0.935
PB-214	1.742E+01	+	9.498E+00	1.336E+01	1.412E+00	1.304
PO-214	1.742E+01	+	9.498E+00	1.336E+01	1.412E+00	1.304
PO-215	-5.724E+01		5.591E+01	8.549E+01	1.541E+01	-0.670
PO-216	-8.718E+00		6.428E+00	9.329E+00	9.729E-01	-0.935
PO-218	1.742E+01	+	9.498E+00	1.336E+01	1.412E+00	1.304
RN-219	-1.011E+00		3.266E+01	5.422E+01	7.945E+00	-0.019
RN-220	-1.836E+03		2.199E+03	2.965E+03	2.552E+02	-0.619
RA-223	-5.724E+01		5.591E+01	8.549E+01	1.541E+01	-0.670
RA-224	4.468E+01		6.398E+01	1.074E+02	1.014E+01	0.416
RA-226	2.929E+01		9.143E+01	1.496E+02	1.103E+02	0.196
AC-227	-5.389E-02		3.405E+01	5.486E+01	8.735E+00	-0.001
PA-227	1.000E+35		5.409E+34	Half-Life too short		
TH-227	-5.389E-02		3.405E+01	5.486E+01	1.018E+01	-0.001
AC-228	1.062E+01		1.111E+01	1.972E+01	2.402E+00	0.539
RA-228	1.062E+01		1.111E+01	1.972E+01	2.402E+00	0.539
TH-228	-8.718E+00		6.428E+00	9.329E+00	9.729E-01	-0.935
TH-229	9.618E+00		5.363E+01	7.782E+01	6.924E+00	0.124
PA-231	1.124E+02		1.357E+02	2.292E+02	3.639E+01	0.490
TH-231	-4.124E+01		5.524E+01	8.185E+01	1.658E+01	-0.504
U-231	-1.713E+02		4.826E+01	6.077E+01	7.143E+00	-2.819
TH-232	2.222E+03		2.389E+04	7.928E+03	8.346E+04	0.280
PA-233	4.203E+00		5.562E+00	9.823E+00	9.489E-01	0.428
PA-234	-1.712E+01		2.084E+01	2.983E+01	5.756E+00	-0.574
PA-234M	-2.176E+02		4.053E+02	6.042E+02	6.495E+01	-0.360
TH-234	1.457E+02		2.500E+02	3.661E+02	7.629E+01	0.398
U-234	2.241E+04		2.246E+05	2.498E+04	2.499E+05	0.897
U-235	-2.724E+01		2.378E+01	3.566E+01	6.357E+00	-0.764
NP-236	4.839E+00		8.010E+00	1.358E+01	1.192E+00	0.356
NP-237	9.058E+00		2.381E+01	4.066E+01	9.919E+00	0.223
PU-237	-2.130E+02		3.233E+02	4.893E+02	6.901E+01	-0.435
U-238	1.457E+02		2.500E+02	3.661E+02	7.629E+01	0.398

Sample ID : G247261003 Acquisition date : 23-FEB-2010 19:22:58

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NP-239	8.955E+00		1.972E+01	3.359E+01	3.470E+00	0.267
AM-241	-1.712E+01		2.598E+01	3.932E+01	5.699E+00	-0.435
AM-243	-4.099E+00		6.378E+00	1.043E+01	1.330E+00	-0.393
CM-243	6.125E+00		1.017E+01	1.750E+01	1.919E+00	0.350
AM-246	-3.070E+00		8.947E+00	1.382E+01	1.259E+00	-0.222
CM-247	-9.196E-01		2.961E+00	4.799E+00	3.819E-01	-0.192
CF-249	5.866E-01		3.299E+00	5.578E+00	4.452E-01	0.105
CF-251	5.012E+00		1.253E+01	2.098E+01	1.830E+00	0.239
ANH-511	-1.009E+01		4.461E+00	7.371E+00	6.246E-01	-1.368

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G247261003            *
* Acquisition date : 23-FEB-2010 19:22:58 Detector SN#    :                 *
* Detector ID      : GAM03                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 03:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 03:00:00.74     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 15-FEB-2010 12:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G247261003           Analyst initials: KXG3            *
* Batch Number     : 956162               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 18-AUG-2009 08:11:21 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
AS-74	1.344E+01	6.686E+00	4.841E+00	3.411E+00
BI-211	5.007E+01	2.664E+01	1.288E+01	1.359E+01
BI-214	2.024E+01	1.007E+01	4.381E+00	5.137E+00
TH-230	1.993E+03	1.279E+04	1.354E+03	6.525E+03

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU	
BE-7	2.015E+01	2.133E+01	1.950E+01	1.088E+01	NOT IDENT.
NA-22	-2.133E+00	2.523E+00	1.722E+00	1.287E+00	NOT IDENT.
NA-24	9.001E+03	2.916E+04	0.000E+00	1.488E+04	SHORT HLIF
AL-26	1.528E+00	2.896E+00	2.647E+00	1.477E+00	NOT IDENT.
K-40	1.412E+01	3.139E+01	2.780E+01	1.601E+01	NOT IDENT.
TI-44	9.936E-01	3.995E+00	3.269E+00	2.038E+00	FAIL ABUN
SC-46	4.531E-01	2.674E+00	2.311E+00	1.364E+00	FAIL ABUN
V-48	2.466E+00	3.897E+00	3.525E+00	1.988E+00	NOT IDENT.
CR-51	1.578E+01	2.515E+01	2.253E+01	1.283E+01	NOT IDENT.
MN-52	5.985E+00	7.539E+00	7.192E+00	3.846E+00	NOT IDENT.
MN-54	-5.439E-01	2.217E+00	1.823E+00	1.131E+00	NOT IDENT.
CO-56	2.915E-02	2.778E+00	2.363E+00	1.417E+00	NOT IDENT.
CO-57	-5.630E-01	2.512E+00	2.110E+00	1.282E+00	NOT IDENT.
CO-58	2.325E+00	2.536E+00	2.378E+00	1.294E+00	NOT IDENT.
FE-59	1.480E+00	4.875E+00	4.261E+00	2.487E+00	NOT IDENT.
CO-60	2.026E+00	2.554E+00	2.389E+00	1.303E+00	NOT IDENT.
ZN-65	3.713E+00	6.517E+00	5.177E+00	3.325E+00	NOT IDENT.
GE-68	-5.755E+01	8.019E+01	5.938E+01	4.091E+01	NOT IDENT.
AS-73	2.553E+02	1.785E+02	1.526E+02	9.108E+01	NOT IDENT.
SE-75	7.523E-01	3.768E+00	3.138E+00	1.923E+00	FAIL ABUN
BR-77	-1.055E+01	1.149E+02	9.537E+01	5.863E+01	NOT IDENT.
SR-82	-4.920E+00	1.813E+01	1.491E+01	9.252E+00	NOT IDENT.
RB-83	-2.856E-01	5.324E+00	4.436E+00	2.716E+00	NOT IDENT.

RB-84	3.434E+00	4.078E+00	3.807E+00	2.080E+00	NOT IDENT.
KR-85	-8.875E+02	8.327E+02	6.499E+02	4.249E+02	NOT IDENT.
SR-85	-4.237E+00	3.975E+00	3.103E+00	2.028E+00	NOT IDENT.
RB-86	-4.329E+01	4.257E+01	2.998E+01	2.172E+01	NOT IDENT.
Y-88	1.411E+00	3.052E+00	2.761E+00	1.557E+00	NOT IDENT.
ZR-88	9.632E-01	2.418E+00	2.118E+00	1.234E+00	NOT IDENT.
Y-91	2.521E+02	1.096E+03	9.385E+02	5.594E+02	NOT IDENT.
NB-94	7.282E-01	2.433E+00	2.067E+00	1.241E+00	NOT IDENT.
NB-95	1.532E-01	3.018E+00	2.594E+00	1.540E+00	NOT IDENT.
NB-95M	-1.392E+01	1.040E+01	7.792E+00	5.307E+00	NOT IDENT.
ZR-95	2.858E+00	5.184E+00	4.287E+00	2.645E+00	NOT IDENT.
NB-97	2.544E+03	8.929E+03	0.000E+00	4.556E+03	SHORT HLIF
ZR-97	-7.380E+05	2.494E+05	0.000E+00	1.273E+05	SHORT HLIF
MO-99	-3.272E+01	1.487E+02	1.243E+02	7.586E+01	NOT IDENT.
TC-99M	-1.190E+10	3.212E+10	0.000E+00	1.639E+10	SHORT HLIF
RH-101	6.171E+00	4.210E+00	2.968E+00	2.148E+00	FAIL ABUN
RH-102	-7.658E-01	2.143E+00	1.740E+00	1.093E+00	NOT IDENT.
RU-103	-1.310E+00	2.971E+00	2.389E+00	1.516E+00	FAIL ABUN
RH-106	2.916E+01	2.313E+01	2.148E+01	1.180E+01	NOT IDENT.
RU-106	2.916E+01	2.294E+01	2.148E+01	1.171E+01	NOT IDENT.
AG-108M	-9.720E-01	2.595E+00	2.123E+00	1.324E+00	NOT IDENT.
CD-109	-2.491E+01	8.073E+01	6.834E+01	4.119E+01	NOT IDENT.
AG-110M	2.902E-01	2.530E+00	2.115E+00	1.291E+00	NOT IDENT.
IN-111	-1.575E+01	1.891E+01	1.470E+01	9.650E+00	NOT IDENT.
IN-113M	-1.026E+00	3.528E+00	2.933E+00	1.800E+00	NOT IDENT.
SN-113	-1.026E+00	3.528E+00	2.933E+00	1.800E+00	NOT IDENT.
IN-114M	-1.205E+01	1.530E+01	1.215E+01	7.805E+00	NOT IDENT.
CD-115	-7.841E+01	9.997E+01	7.656E+01	5.101E+01	NOT IDENT.
SN-117M	-5.904E-01	3.795E+00	3.165E+00	1.936E+00	NOT IDENT.
SB-122	1.151E+01	2.653E+01	2.308E+01	1.354E+01	NOT IDENT.
I-123	2.431E+04	1.033E+05	0.000E+00	5.270E+04	SHORT HLIF
TE-123M	6.281E-01	2.669E+00	2.271E+00	1.362E+00	NOT IDENT.
I-124	1.453E+01	2.052E+01	1.451E+01	1.047E+01	NOT IDENT.
SB-124	1.453E+00	6.967E+00	6.052E+00	3.555E+00	NOT IDENT.
SB-125	7.263E-01	6.967E+00	5.954E+00	3.554E+00	NOT IDENT.
TE-125M	-3.547E+01	8.851E+02	7.536E+02	4.516E+02	NOT IDENT.
I-126	4.834E+00	8.881E+00	7.773E+00	4.531E+00	NOT IDENT.
SB-126	-7.735E+00	7.772E+00	5.592E+00	3.965E+00	NOT IDENT.
SN-126	1.350E-01	7.839E+00	6.742E+00	3.999E+00	NOT IDENT.
SB-127	-2.531E+00	2.650E+01	2.153E+01	1.352E+01	NOT IDENT.
XE-127	4.137E+00	4.090E+00	3.214E+00	2.087E+00	NOT IDENT.
I-131	-9.700E-01	4.961E+00	4.169E+00	2.531E+00	NOT IDENT.
TE-132	1.203E+00	1.432E+01	1.191E+01	7.304E+00	NOT IDENT.
BA-133	-1.120E+00	4.023E+00	2.901E+00	2.052E+00	NOT IDENT.
I-133	-8.924E+02	2.043E+03	0.000E+00	1.042E+03	SHORT HLIF
CS-134	3.714E-02	3.260E+00	2.785E+00	1.663E+00	NOT IDENT.
CS-135	9.615E-01	1.329E+01	1.096E+01	6.781E+00	NOT IDENT.
I-135	-3.724E+09	1.158E+10	0.000E+00	5.908E+09	SHORT HLIF
CS-136	9.977E-01	5.208E+00	4.475E+00	2.657E+00	FAIL ABUN
BA-137M	-2.097E+00	2.530E+00	1.865E+00	1.291E+00	NOT IDENT.
CS-137	-2.217E+00	2.674E+00	1.972E+00	1.364E+00	NOT IDENT.
CE-139	-1.243E+00	2.772E+00	2.269E+00	1.414E+00	NOT IDENT.
BA-140	-7.844E+00	1.410E+01	1.092E+01	7.195E+00	NOT IDENT.
LA-140	2.864E+00	4.930E+00	4.535E+00	2.515E+00	NOT IDENT.
CE-141	3.429E+00	5.254E+00	4.570E+00	2.681E+00	NOT IDENT.
CE-143	-2.057E+02	3.922E+02	3.065E+02	2.001E+02	NOT IDENT.
CE-144	-1.994E+01	2.116E+01	1.689E+01	1.079E+01	NOT IDENT.
PM-144	-1.484E+00	2.463E+00	1.874E+00	1.257E+00	NOT IDENT.
PR-144	-1.002E+02	1.663E+02	1.265E+02	8.486E+01	NOT IDENT.
PM-146	7.021E-01	3.494E+00	2.999E+00	1.783E+00	NOT IDENT.
ND-147	2.550E+01	2.791E+01	2.521E+01	1.424E+01	NOT IDENT.
PM-149	-2.060E+02	9.820E+02	7.903E+02	5.010E+02	NOT IDENT.
EU-152	-1.819E+00	7.801E+00	6.567E+00	3.980E+00	NOT IDENT.
GD-153	6.286E+00	8.945E+00	7.379E+00	4.564E+00	NOT IDENT.
EU-154	-7.327E+00	7.345E+00	4.828E+00	3.747E+00	NOT IDENT.
EU-155	-1.034E+01	1.225E+01	9.360E+00	6.249E+00	NOT IDENT.
TB-160	-8.571E+00	9.461E+00	7.048E+00	4.827E+00	FAIL ABUN
HO-166M	-3.443E+00	5.077E+00	3.851E+00	2.591E+00	NOT IDENT.
TM-171	4.706E+03	4.122E+03	3.365E+03	2.103E+03	FAIL ABUN
HF-175	-3.996E-01	2.713E+00	2.300E+00	1.384E+00	NOT IDENT.
LU-176	-1.249E+00	2.200E+00	1.709E+00	1.123E+00	NOT IDENT.
LU-177	2.996E+01	4.596E+01	3.960E+01	2.345E+01	NOT IDENT.
LU-177M	2.188E+00	1.349E+01	1.159E+01	6.881E+00	NOT IDENT.
HF-181	-2.111E+00	2.957E+00	2.311E+00	1.509E+00	FAIL ABUN
W-181	5.606E+01	4.910E+01	4.770E+01	2.505E+01	FAIL ABUN
TA-182	2.286E+00	1.089E+01	9.309E+00	5.557E+00	FAIL ABUN
RE-183	-3.487E+00	1.101E+01	8.594E+00	5.619E+00	FAIL ABUN
RE-184	-8.711E+00	2.022E+01	1.612E+01	1.032E+01	FAIL ABUN

OS-185	-2.202E+00	2.893E+00	2.155E+00	1.476E+00	NOT IDENT.
RE-188	-1.125E+01	1.473E+01	1.184E+01	7.515E+00	NOT IDENT.
W-188	3.478E+01	5.968E+02	4.898E+02	3.045E+02	NOT IDENT.
IR-192	-2.322E+00	2.660E+00	2.139E+00	1.357E+00	NOT IDENT.
AU-195	-6.964E+00	2.569E+01	2.028E+01	1.311E+01	FAIL ABUN
TL-200	-7.044E+01	4.636E+02	3.909E+02	2.365E+02	NOT IDENT.
TL-201	-5.416E+01	1.413E+02	1.160E+02	7.209E+01	NOT IDENT.
TL-202	4.262E+00	3.742E+00	3.449E+00	1.909E+00	NOT IDENT.
HG-203	-2.088E+00	3.211E+00	2.497E+00	1.638E+00	NOT IDENT.
BI-207	5.400E-01	3.138E+00	2.696E+00	1.601E+00	NOT IDENT.
TL-207	-5.724E+01	5.479E+01	4.277E+01	2.795E+01	NOT IDENT.
TL-208	2.209E-01	3.172E+00	2.532E+00	1.618E+00	NOT IDENT.
PO-209	-1.955E+02	4.981E+02	3.988E+02	2.541E+02	NOT IDENT.
BI-210	9.906E+02	9.831E+02	8.414E+02	5.016E+02	NOT IDENT.
PB-210	9.906E+02	9.831E+02	8.414E+02	5.016E+02	NOT IDENT.
PO-210	9.906E+02	9.824E+02	8.414E+02	5.012E+02	NOT IDENT.
PB-211	-3.538E+01	7.460E+01	5.808E+01	3.806E+01	NOT IDENT.
BI-212	0.000E+00	2.254E+01	1.847E+01	0.000E+00	NOT IDENT.
PB-212	-8.718E+00	6.299E+00	4.667E+00	3.214E+00	NOT IDENT.
PO-212	-8.718E+00	6.299E+00	4.667E+00	3.214E+00	NOT IDENT.
PB-214	1.742E+01	9.308E+00	6.684E+00	4.749E+00	FAIL ABUN
PO-214	1.742E+01	9.308E+00	6.684E+00	4.749E+00	FAIL ABUN
PO-215	-5.724E+01	5.479E+01	4.277E+01	2.795E+01	NOT IDENT.
PO-216	-8.718E+00	6.299E+00	4.667E+00	3.214E+00	NOT IDENT.
PO-218	1.742E+01	9.308E+00	6.684E+00	4.749E+00	FAIL ABUN
RN-219	-1.011E+00	3.201E+01	2.713E+01	1.633E+01	NOT IDENT.
RN-220	-1.836E+03	2.155E+03	1.484E+03	1.100E+03	NOT IDENT.
RA-223	-5.724E+01	5.479E+01	4.277E+01	2.795E+01	NOT IDENT.
RA-224	4.468E+01	6.270E+01	5.372E+01	3.199E+01	NOT IDENT.
RA-226	2.929E+01	8.960E+01	7.484E+01	4.571E+01	NOT IDENT.
AC-227	-5.389E-02	3.337E+01	2.744E+01	1.703E+01	NOT IDENT.
PA-227	1.000E+41	1.060E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-5.389E-02	3.337E+01	2.744E+01	1.703E+01	NOT IDENT.
AC-228	1.062E+01	1.088E+01	9.866E+00	5.553E+00	NOT IDENT.
RA-228	1.062E+01	1.088E+01	9.866E+00	5.553E+00	NOT IDENT.
TH-228	-8.718E+00	6.299E+00	4.667E+00	3.214E+00	NOT IDENT.
TH-229	9.618E+00	5.256E+01	3.893E+01	2.682E+01	NOT IDENT.
PA-231	1.124E+02	1.330E+02	1.147E+02	6.784E+01	NOT IDENT.
TH-231	-4.124E+01	5.413E+01	4.095E+01	2.762E+01	NOT IDENT.
U-231	-1.713E+02	4.729E+01	3.040E+01	2.413E+01	NOT IDENT.
TH-232	2.222E+03	2.341E+04	3.966E+03	1.195E+04	NOT IDENT.
PA-233	4.203E+00	5.451E+00	4.914E+00	2.781E+00	NOT IDENT.
PA-234	-1.712E+01	2.043E+01	1.493E+01	1.042E+01	NOT IDENT.
PA-234M	-2.176E+02	3.972E+02	3.023E+02	2.027E+02	NOT IDENT.
TH-234	1.457E+02	2.450E+02	1.832E+02	1.250E+02	NOT IDENT.
U-234	2.241E+04	2.201E+05	1.250E+04	1.123E+05	NOT IDENT.
U-235	-2.724E+01	2.331E+01	1.784E+01	1.189E+01	NOT IDENT.
NP-236	4.839E+00	7.850E+00	6.795E+00	4.005E+00	NOT IDENT.
NP-237	9.058E+00	2.334E+01	2.034E+01	1.191E+01	NOT IDENT.
PU-237	-2.130E+02	3.168E+02	2.448E+02	1.616E+02	NOT IDENT.
U-238	1.457E+02	2.450E+02	1.832E+02	1.250E+02	NOT IDENT.
NP-239	8.955E+00	1.933E+01	1.681E+01	9.861E+00	NOT IDENT.
AM-241	-1.712E+01	2.546E+01	1.967E+01	1.299E+01	NOT IDENT.
AM-243	-4.099E+00	6.250E+00	5.219E+00	3.189E+00	NOT IDENT.
CM-243	6.125E+00	9.971E+00	8.758E+00	5.087E+00	NOT IDENT.
AM-246	-3.070E+00	8.768E+00	6.912E+00	4.474E+00	NOT IDENT.
CM-247	-9.196E-01	2.902E+00	2.401E+00	1.481E+00	NOT IDENT.
CF-249	5.866E-01	3.233E+00	2.791E+00	1.649E+00	NOT IDENT.
CF-251	5.012E+00	1.228E+01	1.050E+01	6.266E+00	NOT IDENT.
ANH-511	-1.009E+01	4.372E+00	3.688E+00	2.231E+00	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	136.6881
46.50	136.6881
46.50	136.6881
48.70	166.6472
49.72	163.6390
51.35	191.4045
52.39	154.3745
52.97	146.6098
53.15	146.6659
53.20	151.2296
53.44	155.8569
54.07	162.8985
56.28	193.3981
56.28	193.3991
57.37	180.0655
57.53	180.1234
57.53	180.1242
57.60	180.1490
57.98	164.2102
57.98	164.2102
59.00	144.9838
59.32	179.6176
59.32	179.6176
59.40	179.6462
59.54	179.6958
59.54	179.6958
59.72	182.0643
60.01	224.8280
61.10	235.7064
61.14	235.7245
61.30	204.5892
63.00	179.1673
63.29	167.0828
63.29	167.0828
63.58	167.1749
64.28	158.6779
64.62	0.0000
65.12	199.0966
65.20	199.1267
65.20	199.1267
66.05	304.4111
66.72	239.0999
66.83	235.6449
66.91	235.6798
67.20	235.8050
67.20	235.8050
67.67	217.5837
67.75	197.9594
67.85	197.9955
68.90	174.4552
68.90	174.4552
69.30	160.5024
69.67	160.6096
70.82	200.4667
70.82	200.4667
70.83	200.4710
72.80	178.8537
72.80	178.8537
72.87	178.8752
72.87	178.8752
74.67	211.4113
74.81	197.2462
74.81	197.2462
74.81	197.2462
74.81	197.2462
74.81	197.2462
74.81	197.2462

74.81	197.2462
74.97	197.2996
74.97	197.2996
75.28	175.1743
75.70	175.2998
77.11	179.2863
77.11	179.2863
77.11	179.2863
77.11	179.2863
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77.11	179.2863
77.11	179.2863
78.38	176.9858
79.62	199.7416
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79.80	206.0730
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80.18	206.2019
80.30	203.5522
80.30	203.5522
80.57	203.6422
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81.07	208.2977
81.07	208.2977
81.07	208.2977
82.60	172.8120
83.37	180.2338
83.78	173.1387
83.78	173.1387
83.78	173.1387
84.21	191.3050
84.21	191.3050
84.90	185.1908
85.43	179.9209
86.29	178.3539
86.50	179.3182
86.54	179.3295
86.59	179.3431
86.72	186.6270
86.79	186.6474
86.94	194.8479
87.30	196.7705
87.30	196.7705
87.30	196.7705
87.30	196.7705
87.30	196.7705
87.30	196.7705
87.30	196.7705
87.57	190.5032
87.88	208.7463
88.03	208.7946
88.36	253.4057
88.47	253.4493
89.36	370.2333
89.95	348.7155
91.11	222.5500
92.29	181.8286
92.38	174.5422
92.38	174.5422
93.35	194.0142
94.00	211.6067
94.67	276.9178
94.67	276.9201
94.90	345.8082
94.90	345.8082
94.90	345.8082
95.87	356.4057
95.87	356.4057
96.73	282.3575
97.43	161.1158
98.44	176.1029
98.44	176.1029
98.88	186.3629
99.55	190.2355
99.55	190.2355
99.86	189.3957
100.00	194.0544
100.10	194.0832

103.18	162.4390
103.76	164.4284
105.00	187.9756
105.31	190.8487
108.00	175.6669
109.28	186.2672
110.05	0.0000
111.00	182.9442
111.00	182.9442
111.76	194.3981
112.95	186.2391
115.19	212.2567
115.19	212.2567
115.19	212.2567
116.30	192.7231
117.00	168.3125
117.00	168.3125
117.66	167.5087
121.11	179.6511
121.62	192.1313
121.78	182.6565
122.06	178.9135
122.32	172.3078
122.32	172.3078
122.32	172.3078
123.07	156.2706
127.23	196.3419
129.76	165.2419
131.20	178.9997
133.02	222.7890
133.54	217.1345
135.34	208.8907
136.00	221.6341
136.25	227.5074
136.48	227.5684
140.51	215.0076
140.51	0.0000
142.18	226.1395
142.65	225.2828
143.76	207.9899
144.24	183.6769
144.24	183.6769
144.24	183.6769
145.22	168.2286
145.44	168.2706
147.16	193.0967
152.43	162.6661
152.70	171.5892
153.22	175.6329
154.21	176.8067
154.21	176.8067
154.21	176.8067
155.03	173.9966
156.02	170.2219
158.56	179.6122
159.00	0.0000
159.00	171.7527
160.31	168.0123
161.27	181.1183
162.32	178.3267
162.64	175.3964
163.35	167.5469
163.89	164.6463
165.85	178.9768
167.43	171.2531
171.28	160.8606
171.86	163.9713
172.10	165.0172
176.55	157.6591
176.60	161.7102
181.06	185.7603
184.41	142.5677
185.71	127.4500
186.00	127.4853
186.21	133.6306
190.27	169.9805
192.34	144.2200
193.63	144.6264

197.04	143.4300
198.01	148.5066
198.60	167.1589
200.40	158.7492
201.83	139.0840
202.84	120.9802
205.31	166.0901
208.36	128.0252
208.81	129.1172
209.75	136.5180
209.75	136.5180
210.97	138.7493
215.65	133.0258
216.55	132.0802
218.09	133.3029
222.10	136.9150
223.80	131.8359
226.40	128.9511
227.00	127.9569
227.08	136.4267
227.20	136.4395
228.16	123.8456
228.18	123.8474
228.18	123.8474
231.56	135.8672
235.69	170.4028
236.00	170.4456
236.00	170.4456
238.63	157.9952
238.63	157.9952
238.63	157.9952
238.63	157.9952
239.00	147.3631
240.98	144.3871
241.98	156.2757
241.98	156.2757
241.98	156.2757
244.69	137.3018
245.39	145.9630
247.94	115.0671
248.90	115.1528
249.79	114.1559
252.40	108.9900
252.85	117.6637
252.85	117.6637
254.15	0.0000
256.20	107.1422
256.20	107.1422
260.50	121.6062
260.90	125.9865
262.80	107.6770
264.65	104.5576
268.24	102.6519
268.79	96.1385
269.46	93.9995
269.46	93.9995
269.46	93.9995
271.23	113.8214
273.65	110.7323
276.40	87.8845
277.35	90.1429
277.60	108.8508
277.60	108.8508
278.00	104.4817
278.60	116.6298
279.20	113.3776
279.53	105.6973
280.46	117.8868
281.68	114.6815
283.67	83.9240
284.30	81.7527
285.00	90.6347
285.90	106.1763
286.10	106.1924
286.10	106.1924
287.40	99.6460
288.45	0.0000
290.67	98.7643

290.80	98.7724
291.72	118.8256
293.26	126.7349
293.70	112.3166
295.21	111.3205
295.21	111.3205
295.21	111.3205
295.96	111.3770
296.50	114.7623
297.23	96.9829
298.57	130.5449
299.80	138.4707
299.80	138.4707
300.09	137.3822
300.09	137.3822
300.09	137.3822
300.09	137.3822
300.12	137.3840
301.29	99.4881
302.84	105.1877
303.76	113.0902
303.91	113.1026
304.40	89.6155
304.40	89.6155
304.84	88.5218
306.84	100.9822
308.46	99.9688
311.98	82.8640
316.51	97.5665
318.01	79.5770
319.02	82.3443
319.41	82.3643
320.08	74.2504
323.87	102.5732
323.87	102.5732
323.87	102.5732
325.23	86.3094
328.77	91.9689
329.70	99.3121
329.70	99.3121
330.00	92.0417
333.44	64.8438
334.20	84.9760
334.20	84.9760
334.30	84.9817
338.28	98.0189
338.28	98.0189
338.28	98.0189
338.32	98.0215
338.32	98.0215
340.50	74.3041
340.57	65.1342
343.40	84.5475
344.27	82.7534
345.85	84.1496
350.59	69.2294
351.07	69.2496
351.92	74.8281
351.92	74.8281
351.92	74.8281
355.39	0.0000
356.01	81.8054
364.48	68.8791
366.43	75.4817
367.43	73.6613
367.94	67.1546
369.80	62.5590
374.96	70.2402
383.85	71.5422
387.95	70.7657
388.63	69.8492
391.69	78.4802
391.69	78.4802
392.90	70.9634
398.62	78.7841
400.65	62.7185
401.10	55.1297
401.81	66.5624

402.60	71.3480
404.84	70.4834
410.95	67.8521
411.60	68.8324
413.65	65.0806
414.70	59.3723
415.30	61.3070
415.76	56.5318
417.63	0.0000
418.52	71.9687
423.70	58.6969
427.08	66.5136
427.89	56.8984
432.53	61.8711
433.00	68.6556
433.93	65.7862
439.47	48.5120
439.56	48.5144
439.89	48.5223
443.98	72.9373
444.90	68.1073
445.03	68.1116
445.03	68.1116
445.03	68.1116
453.90	59.6232
463.38	62.8539
468.07	49.2194
473.00	57.2332
475.06	53.3402
475.35	51.3716
476.78	37.5672
477.59	38.5711
477.96	44.5128
482.03	61.4505
484.57	46.6403
487.03	53.6506
490.36	59.7070
492.35	53.7871
497.08	63.8914
507.63	0.0000
510.53	0.0000
510.84	62.2952
511.00	70.3380
511.85	71.3709
511.85	71.3709
513.99	157.9774
513.99	157.9774
520.41	56.5154
520.65	54.5023
527.90	55.6956
528.96	0.0000
529.64	53.7117
529.87	0.0000
531.02	38.5344
537.32	54.9149
543.00	43.8388
546.56	0.0000
549.76	52.1505
552.65	40.9541
555.20	36.9000
563.23	29.8291
563.90	41.1553
568.70	45.3643
569.32	46.4073
569.50	48.4733
569.67	44.3511
573.80	51.6626
574.00	49.5996
574.64	44.4456
578.91	59.0234
579.30	57.9975
583.14	38.3812
585.48	46.7260
591.81	27.7630
592.07	27.7656
593.00	32.9848
595.88	55.2722
600.56	48.7607

602.52	0.0000
602.71	39.2175
602.71	39.2175
603.60	43.9400
604.41	50.5824
604.70	57.5660
609.31	50.3344
610.33	50.3555
612.46	38.4991
614.37	28.0208
618.01	52.6160
621.84	28.4568
621.84	28.4568
631.29	34.9118
633.02	44.4630
633.10	44.4650
634.78	46.6136
635.90	46.6340
636.97	43.4724
645.85	42.5596
646.12	42.5645
656.30	37.3909
657.75	39.5492
657.90	0.0000
661.65	44.9613
661.65	44.9613
664.57	34.2945
666.33	33.2448
666.33	33.2448
675.00	31.2026
677.61	34.4641
685.20	31.3223
692.80	36.8256
695.00	34.6875
696.49	44.4684
696.49	44.4684
697.00	41.2220
697.49	39.0595
698.33	41.2424
698.50	43.4160
699.00	43.4238
702.63	36.9592
706.10	45.7129
706.58	0.0000
706.67	45.7232
709.31	42.4977
711.68	55.6219
713.82	34.9266
717.42	42.6229
720.50	52.5164
721.93	39.4075
722.20	39.4110
722.78	38.3248
722.78	38.3248
722.89	37.2307
722.95	37.2315
723.30	37.2365
724.18	31.7704
727.18	43.8682
733.00	36.2662
735.90	32.0862
739.58	37.6359
742.81	33.0835
744.21	35.8579
747.13	33.1333
751.79	40.5625
752.31	42.4137
753.82	33.2109
755.35	27.6904
756.15	24.9280
756.87	25.8581
763.13	40.7218
763.93	39.8068
765.79	40.7585
766.42	29.6491
766.84	27.7997
776.49	25.1021
778.00	26.9757

778.57	29.7715
778.89	27.9138
783.80	25.1642
785.46	28.9086
792.07	36.4490
795.84	36.4951
796.30	34.6288
798.80	39.3408
801.93	31.8805
805.60	43.1849
810.29	26.3269
810.76	23.5097
815.85	36.7363
817.79	23.5639
818.51	23.5692
819.60	17.9192
826.30	30.2454
828.27	23.6440
831.60	30.2969
831.96	29.3533
834.83	27.4849
836.80	0.0000
846.75	35.2009
848.13	37.1195
856.28	0.0000
856.80	30.5404
860.37	26.7530
867.32	32.5564
867.82	30.6458
871.10	31.6357
873.19	26.8601
874.81	35.5110
875.33	0.0000
876.40	32.6484
879.36	37.4837
880.27	32.6871
880.51	29.8048
881.50	20.1968
883.24	29.8301
884.67	31.7687
889.25	28.9209
896.60	28.9856
898.02	25.1320
899.00	26.1063
903.28	29.0442
911.07	25.2309
911.07	25.2309
919.63	26.2683
920.93	23.3589
925.00	24.3612
925.24	23.3887
926.50	20.4728
935.52	27.3694
937.48	26.4073
944.10	29.3982
946.00	31.3757
949.00	26.4963
962.29	26.5979
964.01	20.6975
966.15	30.5724
968.20	24.6694
969.11	26.6501
969.11	26.6501
977.42	29.6814
980.50	26.7363
983.50	24.7772
989.30	24.8174
996.32	42.7699
1001.03	30.8751
1001.68	30.8808
1004.76	38.8834
1021.30	0.0000
1024.50	0.0000
1034.80	20.1050
1036.00	19.1059
1037.82	25.1516
1038.57	27.1692
1038.76	0.0000

1045.16	28.2267
1046.59	27.2285
1048.07	24.2129
1050.47	18.1714
1050.47	18.1714
1062.04	16.2025
1063.62	18.2351
1076.63	32.5299
1077.35	27.4526
1078.86	22.3778
1085.78	16.3040
1093.90	21.4443
1099.22	17.3839
1112.02	24.6230
1112.84	21.1097
1115.52	21.1239
1120.29	21.5905
1120.51	21.5922
1121.28	21.5964
1124.00	0.0000
1129.67	28.2679
1131.51	0.0000
1147.95	0.0000
1167.94	17.6883
1173.22	30.2131
1175.09	27.1003
1177.93	15.6458
1189.05	13.5967
1204.90	23.0984
1205.75	29.4036
1213.00	14.7275
1221.42	20.0275
1230.97	16.9036
1235.34	16.9212
1236.41	0.0000
1238.25	21.1654
1246.25	19.0847
1260.41	0.0000
1271.85	14.9325
1274.45	22.4125
1274.54	20.2780
1291.56	17.1432
1298.22	0.0000
1312.09	18.2998
1325.50	18.3544
1325.50	18.3544
1332.49	10.8138
1333.61	17.3060
1360.21	18.6516
1362.66	0.0000
1365.15	14.9375
1368.21	15.8812
1368.53	0.0000
1376.25	16.8449
1384.27	28.1240
1394.10	23.4863
1395.20	23.4916
1407.95	18.8449
1434.06	11.3693
1436.60	18.9586
1457.56	0.0000
1460.81	8.5747
1489.15	9.5829
1509.49	16.3579
1596.49	13.7041
1620.62	9.8336
1678.03	0.0000
1691.02	15.9425
1691.02	15.9425
1706.46	0.0000
1750.46	0.0000
1764.49	11.1067
1770.23	21.2249
1771.40	12.3837
1791.20	0.0000
1808.65	11.1930
1836.01	11.2463

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G247261003

Total Uranium Activity	4.2082E+02	ug/g
Total Uranium Counting Unc.	7.2899E+02	ug/g
Total Uranium Tpu	3.7193E-04	ug/g
Total Uranium Mda	5.4495E+02	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 956162                    SAMPLE ID  : G247261003       *
*   ANALYST       : KXG3                      DETECTOR   : GAM03            *
*   SAMPLE DATE   : 15-FEB-2010 12:00:00.00   COUNT TIME :    0 03:00:00.00 *
*   ANALYSIS DATE: 23-FEB-2010 19:22:58.78    SAMPLE ALQT:    2.000 LITER   *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 4.834E+01
        GROSS GAMMA ERROR  (pCi/LITER )   : 1.519E+01
        GROSS GAMMA MDA    (pCi/LITER )   : 7.443E+01
        GROSS GAMMA DLC    (pCi/LITER )   : 3.558E+01
```

VAX/VMS Nuclide Identification Report Generated 1-MAR-2010 14:14:03.09

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202050273.CNF;1
Sample date       : 22-FEB-2010 00:00:00 Acquisition date : 23-FEB-2010 22:31:52
Sample ID         : G1202050273          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM07                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:01.83  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 3.00000
Batch ID         : 956162                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	4	61.39	46	117	1.34	122.43	120	10	2.14E-03	35.1	2.61E+00
2	0	112.71	45	204	1.04	225.06	222	7	2.07E-03	55.5	
3	0	138.81	73	284	2.68	277.26	273	10	3.39E-03	44.5	
4	0	198.41	96	325	1.90	396.43	390	14	4.43E-03	41.2	
5	0	427.97	68	100	1.65	855.47	850	12	3.16E-03	31.9	0.00E+00
6	0	753.79	30	50	4.28	1507.02	1500	13	1.40E-03	52.2	
7	0	1227.92	16	19	3.90	2455.18	2449	11	7.41E-04	58.6	
8	0	1256.52	10	11	1.22	2512.37	2508	7	4.40E-04	65.2	
9	0	1530.18	24	8	2.62	3059.64	3052	15	1.09E-03	32.7	
10	0	1724.85	19	4	0.76	3448.96	3442	15	8.81E-04	32.0	
11	0	1791.37	13	7	0.67	3582.00	3573	13	5.79E-04	50.7	
12	0	1885.73	13	8	4.15	3770.71	3763	16	6.11E-04	55.2	
13	0	1903.31	15	0	4.49	3805.87	3800	13	6.94E-04	25.8	
14	0	1956.96	8	3	1.39	3913.16	3909	8	3.62E-04	55.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 1-MAR-2010 14:14:06

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202050273.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 22-FEB-2010 00:00:00 Acquisition date : 23-FEB-2010 22:31:52
Sample ID : G1202050273 Sample quantity : 2.0000 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA7 Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00 Elapsed real time: 0 06:00:01.83 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	-4.267E+00	1.283E+01	2.001E+01	1.797E+00	-0.213
NA-22		1274.54	*	-6.237E-01	1.547E+00	2.422E+00	2.020E-01	-0.258
NA-24		1368.53	*	-1.178E+00	1.327E+01	2.149E+01	1.823E+00	-0.055
AL-26		1129.67		-1.941E+01	6.394E+01	1.031E+02	8.611E+00	-0.188
		1808.65	*	-2.779E-01	1.460E+00	2.358E+00	1.926E-01	-0.118
K-40		1460.81	*	-1.337E+01	2.494E+01	3.388E+01	2.944E+00	-0.395
TI-44		67.85		-1.204E+00	1.946E+00	2.703E+00	2.132E-01	-0.446
		78.38	*	-2.440E+00	1.623E+00	2.241E+00	1.926E-01	-1.089
SC-46		889.25	*	7.280E-02	1.450E+00	2.368E+00	2.038E-01	0.031
		1120.51		1.509E+00	2.078E+00	3.075E+00	2.575E-01	0.491
V-48		944.10		-7.462E+00	1.787E+01	2.719E+01	2.343E+00	-0.274
		983.50	*	5.347E-01	1.510E+00	2.540E+00	2.184E-01	0.211
		1312.09		-8.742E-02	1.834E+00	3.006E+00	2.511E-01	-0.029
CR-51		320.08	*	-2.203E+00	1.304E+01	2.123E+01	1.844E+00	-0.104
MN-52		744.21		1.319E+00	2.062E+00	3.580E+00	3.008E-01	0.368
		848.13		6.159E+00	6.092E+01	1.002E+02	8.598E+00	0.061
		935.52		7.376E-01	2.165E+00	3.623E+00	3.122E-01	0.204
		1246.25		-1.208E+01	4.860E+01	7.798E+01	6.479E+00	-0.155
		1333.61		7.991E+00	4.163E+01	7.017E+01	5.867E+00	0.114
		1434.06	*	8.488E-01	2.096E+00	3.614E+00	3.048E-01	0.235
MN-54		834.83	*	2.346E-01	1.638E+00	2.706E+00	2.318E-01	0.087
CO-56		846.75	*	6.345E-01	1.580E+00	2.671E+00	2.291E-01	0.238
		977.42		-1.558E+01	1.032E+02	1.631E+02	1.404E+01	-0.095
		1037.82		7.697E-01	1.034E+01	1.750E+01	1.576E+00	0.044
		1175.09		-2.096E+01	7.624E+01	1.230E+02	1.012E+01	-0.170
		1238.25		5.788E-01	2.397E+00	4.082E+00	3.494E-01	0.142
		1360.21		-1.189E+01	3.351E+01	5.208E+01	4.367E+00	-0.228
		1771.40		-8.290E+00	1.125E+01	1.675E+01	1.378E+00	-0.495
CO-57		122.06	*	-1.233E+00	1.179E+00	1.787E+00	1.500E-01	-0.690
		136.48		-1.599E+00	1.085E+01	1.529E+01	1.351E+00	-0.105
CO-58		810.76	*	2.894E-01	1.419E+00	2.368E+00	2.026E-01	0.122
FE-59		142.65		-3.570E+01	1.144E+02	1.587E+02	1.285E+01	-0.225
		192.34		3.845E+01	3.437E+01	5.474E+01	7.149E+00	0.702
		1099.22	*	3.278E+00	2.824E+00	5.255E+00	4.804E-01	0.624

Sample ID : G1202050273 Acquisition date : 23-FEB-2010 22:31:52

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1291.56		-1.762E-01	3.728E+00	6.117E+00	5.837E-01	-0.029
CO-60		1173.22		-1.304E+00	1.674E+00	2.535E+00	2.085E-01	-0.515
		1332.49	*	7.414E-01	1.558E+00	2.720E+00	2.274E-01	0.273
ZN-65		1115.52	*	-3.719E+00	3.233E+00	4.681E+00	3.931E-01	-0.794
GE-68		1077.35	*	-6.671E+00	4.626E+01	7.623E+01	6.460E+00	-0.088
AS-73		53.44	*	-1.729E+01	2.906E+01	3.845E+01	3.038E+00	-0.450
AS-74		595.88	*	-8.234E-01	2.742E+00	4.485E+00	3.736E-01	-0.184
		634.78		-1.527E+00	8.986E+00	1.473E+01	1.213E+00	-0.104
SE-75		66.05		-1.874E+02	1.945E+02	2.490E+02	2.432E+01	-0.752
		96.73		-2.176E+01	3.050E+01	4.751E+01	6.563E+00	-0.458
		121.11		-7.182E-01	5.898E+00	9.427E+00	1.041E+00	-0.076
		136.00		4.382E-01	1.904E+00	2.753E+00	2.265E-01	0.159
	+	198.60		1.765E+02	1.465E+02	1.336E+02	1.210E+01	1.322
		264.65	*	-5.694E-01	1.864E+00	3.046E+00	2.506E-01	-0.187
		279.53		2.914E+00	4.812E+00	8.214E+00	6.988E-01	0.355
		303.91		-5.064E+01	8.888E+01	1.414E+02	1.579E+01	-0.358
		400.65		1.755E+00	1.047E+01	1.719E+01	1.829E+00	0.102
BR-77		87.88		1.108E+02	1.486E+02	2.502E+02	2.364E+01	0.443
		200.40		1.414E+02	1.728E+02	2.704E+02	2.182E+01	0.523
		239.00		3.486E+00	1.319E+01	1.992E+01	1.627E+00	0.175
		249.79		1.574E+01	6.663E+01	1.125E+02	9.201E+00	0.140
		281.68		6.503E+01	9.217E+01	1.582E+02	1.293E+01	0.411
		297.23		-6.093E+01	6.849E+01	8.834E+01	7.243E+00	-0.690
		303.76		-9.896E+01	1.793E+02	2.858E+02	2.345E+01	-0.346
		439.47		-5.051E+00	1.496E+02	2.406E+02	1.966E+01	-0.021
		484.57		-8.082E+01	2.349E+02	3.654E+02	3.034E+01	-0.221
		520.65	*	-1.015E+01	9.905E+00	1.530E+01	1.279E+00	-0.663
		574.64		-2.045E+02	2.090E+02	3.227E+02	2.697E+01	-0.634
		578.91		-1.531E+02	9.218E+01	1.343E+02	1.122E+01	-1.140
		585.48		2.622E+02	1.783E+02	3.239E+02	2.703E+01	0.810
		755.35		-6.606E+01	1.811E+02	2.448E+02	2.063E+01	-0.270
		817.79		6.348E+01	1.263E+02	2.163E+02	1.849E+01	0.293
SR-82		698.33		1.709E+02	1.138E+03	1.902E+03	1.574E+02	0.090
		776.49	*	-2.336E+00	1.037E+01	1.661E+01	1.407E+00	-0.141
		1395.20		1.234E+01	3.176E+02	5.238E+02	4.407E+01	0.024
RB-83		520.41	*	-2.753E+00	2.686E+00	4.150E+00	3.469E-01	-0.663
		529.64		2.458E+00	4.298E+00	7.519E+00	6.290E-01	0.327
		552.65		5.225E-01	7.487E+00	1.264E+01	1.058E+00	0.041
RB-84		881.50	*	2.389E+00	2.465E+00	4.357E+00	3.748E-01	0.548
KR-85		513.99	*	-1.734E+03	5.490E+02	7.714E+02	6.443E+01	-2.248
SR-85		513.99	*	-7.748E+00	2.453E+00	3.447E+00	2.879E-01	-2.248
RB-86		1076.63	*	4.311E+00	1.830E+01	3.142E+01	2.663E+00	0.137
Y-88		898.02		1.258E+00	1.651E+00	2.879E+00	2.491E-01	0.437
		1836.01	*	4.987E-02	1.754E+00	2.934E+00	2.384E-01	0.017
ZR-88		392.90	*	-1.485E-02	1.209E+00	1.961E+00	1.561E-01	-0.008
Y-91		1204.90	*	-2.609E+02	5.375E+02	8.392E+02	6.936E+01	-0.311
NB-94		702.63	*	9.735E-02	1.582E+00	2.626E+00	2.176E-01	0.037
		871.10		5.895E-01	1.530E+00	2.582E+00	2.220E-01	0.228
NB-95		765.79	*	1.776E-01	1.492E+00	2.476E+00	2.093E-01	0.072

Sample ID : G1202050273 Acquisition date : 23-FEB-2010 22:31:52

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NB-95M		235.69	*	-1.863E+01	5.473E+00	7.214E+00	6.833E-01	-2.583
ZR-95		724.18		1.310E+00	3.465E+00	5.891E+00	5.372E-01	0.222
		756.15	*	-4.647E-01	2.987E+00	4.158E+00	3.876E-01	-0.112
NB-97		657.90	*	-3.539E-01	1.053E+01	1.743E+01	1.423E+00	-0.020
		1024.50		-1.641E+02	9.836E+02	1.544E+03	1.321E+02	-0.106
ZR-97		254.15		-2.654E+02	6.815E+02	1.112E+03	9.101E+01	-0.239
		355.39		-5.042E+00	5.994E+02	8.275E+02	6.729E+01	-0.006
		507.63	*	-1.686E+03	3.823E+02	4.317E+02	3.603E+01	-3.905
		602.52		-6.494E+01	8.791E+02	1.460E+03	1.215E+02	-0.044
		1021.30		-4.388E+01	8.578E+02	1.368E+03	1.171E+02	-0.032
		1147.95		1.613E+02	4.288E+02	7.454E+02	6.187E+01	0.216
		1362.66		-9.528E+01	7.339E+02	1.181E+03	9.904E+01	-0.081
		1750.46		-4.400E+02	8.145E+02	1.237E+03	1.021E+02	-0.356
MO-99		140.51		6.505E+00	5.207E+01	7.455E+01	2.053E+01	0.087
		181.06		-8.787E+00	2.795E+01	4.664E+01	8.399E+00	-0.188
		366.43		-2.228E+00	1.462E+02	2.382E+02	1.927E+01	-0.009
		739.58	*	-1.427E+01	1.895E+01	2.878E+01	4.333E+00	-0.496
		778.00		1.171E+01	5.231E+01	8.763E+01	7.429E+00	0.134
TC-99M		140.51	*	4.850E+01	3.880E+02	5.558E+02	4.981E+01	0.087
RH-101		127.23		3.774E-03	1.484E+00	2.381E+00	1.974E-01	0.002
	+	198.01	*	3.468E+00	2.875E+00	2.630E+00	2.120E-01	1.319
		325.23		-1.194E+00	1.036E+01	1.691E+01	1.386E+00	-0.071
RH-102		418.52		7.349E+00	1.357E+01	2.276E+01	1.840E+00	0.323
		475.06	*	-3.146E-01	1.415E+00	2.230E+00	1.847E-01	-0.141
		631.29		-9.595E-01	2.272E+00	3.638E+00	3.002E-01	-0.264
		697.49		1.910E+00	3.581E+00	6.153E+00	5.090E-01	0.310
		766.84		1.895E+00	4.161E+00	7.116E+00	6.017E-01	0.266
		1046.59		4.442E-01	4.554E+00	7.715E+00	6.580E-01	0.058
		1112.84		5.166E-01	8.046E+00	1.353E+01	1.136E+00	0.038
RU-103		497.08	*	-8.732E-01	1.544E+00	2.345E+00	3.279E-01	-0.372
		610.33		-1.890E+01	3.617E+01	5.091E+01	8.413E+00	-0.371
RH-106		511.85		-3.707E+01	1.702E+01	2.515E+01	2.100E+00	-1.474
		621.84	*	-2.989E-01	1.472E+01	2.449E+01	3.217E+00	-0.012
		1050.47		6.990E+01	8.819E+01	1.594E+02	1.358E+01	0.439
RU-106		511.85		-3.707E+01	1.702E+01	2.515E+01	2.100E+00	-1.474
		621.84	*	-2.989E-01	1.472E+01	2.449E+01	2.027E+00	-0.012
		1050.47		6.990E+01	8.819E+01	1.594E+02	1.358E+01	0.439
AG-108M		433.93	*	-1.580E-01	1.742E+00	2.432E+00	2.070E-01	-0.065
		614.37		-3.267E+00	1.810E+00	2.552E+00	2.206E-01	-1.280
		722.95		8.343E-01	1.761E+00	3.019E+00	2.625E-01	0.276
CD-109		88.03	*	4.061E+01	3.013E+01	5.185E+01	4.905E+00	0.783
AG-110M		657.75	*	8.615E-03	1.452E+00	2.410E+00	2.033E-01	0.004
		677.61		-2.432E+00	1.239E+01	2.016E+01	1.706E+00	-0.121
		706.67		2.121E+00	9.773E+00	1.640E+01	1.402E+00	0.129
		763.93		-2.935E+00	6.550E+00	1.029E+01	8.949E-01	-0.285
		884.67		2.695E-01	2.141E+00	3.521E+00	3.127E-01	0.077
		937.48		3.144E+00	4.364E+00	7.595E+00	6.781E-01	0.414
		1384.27		-7.849E-01	7.417E+00	1.202E+01	1.040E+00	-0.065
IN-111		171.28		-4.164E-01	1.902E+00	2.970E+00	2.369E-01	-0.140

Sample ID : G1202050273 Acquisition date : 23-FEB-2010 22:31:52

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		245.39	*	-1.910E-01	1.971E+00	3.275E+00	2.678E-01	-0.058
IN-113M		391.69	*	4.922E-01	1.797E+00	2.977E+00	2.453E-01	0.165
SN-113		391.69	*	4.922E-01	1.797E+00	2.977E+00	2.453E-01	0.165
IN-114M		190.27	*	-7.066E+00	6.110E+00	9.683E+00	7.780E-01	-0.730
CD-115		260.90		-3.667E+01	1.019E+02	1.662E+02	1.361E+01	-0.221
		492.35		1.194E+01	2.916E+01	4.817E+01	4.007E+00	0.248
		527.90	*	2.663E+00	8.568E+00	1.473E+01	1.232E+00	0.181
SN-117M		156.02		-2.664E+01	5.395E+01	8.336E+01	6.675E+00	-0.320
		158.56	*	3.008E-01	1.311E+00	2.106E+00	1.684E-01	0.143
SB-122		563.90	*	-5.549E-02	3.184E+00	5.332E+00	4.460E-01	-0.010
		692.80		-3.055E+01	6.928E+01	1.103E+02	9.112E+00	-0.277
I-123		159.00	*	8.586E+00	1.662E+01	2.709E+01	2.165E+00	0.317
		528.96		4.299E+02	1.269E+03	2.187E+03	1.830E+02	0.197
TE-123M		159.00	*	6.332E-01	1.226E+00	1.998E+00	1.608E-01	0.317
I-124		602.71	*	4.547E-01	3.785E+00	6.368E+00	5.297E-01	0.071
		722.78		9.305E+00	2.092E+01	3.578E+01	2.987E+00	0.260
		1325.50		3.360E+01	1.530E+02	2.593E+02	2.167E+01	0.130
		1376.25		-5.237E+01	1.385E+02	2.156E+02	1.811E+01	-0.243
		1509.49		-5.713E+01	7.131E+01	1.000E+02	8.449E+00	-0.571
		1691.02		-1.210E+00	2.140E+01	3.421E+01	2.853E+00	-0.035
SB-124		602.71		1.994E-01	1.659E+00	2.792E+00	2.323E-01	0.071
		645.85		-4.768E+00	1.993E+01	3.247E+01	2.840E+00	-0.147
		709.31		-8.721E+00	1.146E+02	1.881E+02	1.563E+01	-0.046
		713.82		-1.127E+01	6.618E+01	1.076E+02	1.273E+01	-0.105
		722.78		5.914E+00	1.329E+01	2.274E+01	1.942E+00	0.260
		968.20		9.558E+00	1.021E+02	1.450E+02	1.248E+01	0.066
		1045.16		4.828E+01	8.399E+01	1.489E+02	1.270E+01	0.324
		1325.50		2.281E+01	1.038E+02	1.760E+02	1.471E+01	0.130
		1368.21		-7.637E+00	5.462E+01	8.773E+01	1.170E+01	-0.087
		1436.60		7.081E+01	1.476E+02	2.566E+02	2.165E+01	0.276
		1691.02	*	-1.814E-01	3.209E+00	5.129E+00	4.457E-01	-0.035
SB-125	+	427.89	*	1.008E+01	6.486E+00	7.908E+00	6.566E-01	1.275
		463.38		-2.605E+00	1.278E+01	2.020E+01	1.809E+00	-0.129
		600.56		6.392E+00	9.082E+00	1.581E+01	1.420E+00	0.404
		635.90		-5.851E+00	1.166E+01	1.854E+01	1.662E+00	-0.316
TE-125M		109.28	*	3.360E+02	3.954E+02	5.999E+02	6.130E+01	0.560
I-126		388.63		-3.547E-02	4.602E+00	7.475E+00	5.959E-01	-0.005
		666.33	*	-3.654E+00	3.885E+00	5.896E+00	4.815E-01	-0.620
	+	753.82		4.384E+01	4.594E+01	5.583E+01	4.705E+00	0.785
SB-126		223.80		2.498E+01	8.476E+01	1.442E+02	1.174E+01	0.173
		278.60		2.207E+01	5.551E+01	9.388E+01	7.669E+00	0.235
		296.50		-2.791E+01	3.883E+01	5.073E+01	4.159E+00	-0.550
		414.70		-2.120E-01	1.749E+00	2.807E+00	2.265E-01	-0.076
		415.30		1.132E+01	1.471E+02	2.393E+02	1.932E+01	0.047
		555.20		-6.413E+01	7.946E+01	1.241E+02	1.039E+01	-0.517
		573.80		-1.899E+01	2.353E+01	3.699E+01	3.092E+00	-0.513
		593.00		4.628E+00	2.059E+01	3.498E+01	2.915E+00	0.132
		656.30		2.387E+01	6.821E+01	1.165E+02	9.520E+00	0.205
		666.33		-1.482E+00	1.576E+00	2.391E+00	1.953E-01	-0.620

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		675.00		-1.177E+01	4.134E+01	6.675E+01	5.472E+00	-0.176
		695.00		1.217E+00	1.747E+00	3.037E+00	2.510E-01	0.401
		697.00		3.674E+00	6.158E+00	1.062E+01	8.785E-01	0.346
		720.50	*	-9.489E-01	3.049E+00	4.888E+00	4.077E-01	-0.194
		856.80		-5.338E-01	1.049E+01	1.699E+01	1.459E+00	-0.031
		989.30		-6.565E+00	2.189E+01	3.378E+01	2.904E+00	-0.194
		1034.80		-1.570E+01	1.601E+02	2.659E+02	2.273E+01	-0.059
		1213.00		-2.408E+00	7.531E+01	1.245E+02	1.030E+01	-0.019
SN-126		64.28		-6.738E+00	2.701E+01	3.346E+01	4.914E+00	-0.201
		86.94		-1.148E+01	1.418E+01	2.093E+01	8.690E+00	-0.548
		87.57	*	6.055E-01	3.164E+00	5.206E+00	4.903E-01	0.116
SB-127	+	61.10		2.024E+02	1.430E+02	3.059E+02	2.338E+01	0.662
		252.40		-7.815E+00	1.918E+01	3.082E+01	1.275E+01	-0.254
		290.80		-5.235E+01	9.120E+01	1.457E+02	1.201E+01	-0.359
		411.60		-9.042E-01	5.386E+01	8.711E+01	1.196E+01	-0.010
		444.90		-3.452E+01	4.548E+01	6.886E+01	6.905E+00	-0.501
		473.00		7.444E+00	7.779E+00	1.330E+01	1.398E+00	0.560
		543.00		1.273E+01	7.086E+01	1.206E+02	1.495E+01	0.106
		603.60		4.257E+00	5.547E+01	9.305E+01	9.397E+00	0.046
		685.20	*	1.865E+00	5.454E+00	9.294E+00	7.980E-01	0.201
		698.50		7.031E+00	6.913E+01	1.151E+02	1.608E+01	0.061
		722.20		5.494E+01	1.213E+02	2.075E+02	1.744E+01	0.265
		783.80		1.326E+00	1.373E+01	2.272E+01	2.301E+00	0.058
XE-127		57.60		2.612E+01	1.726E+02	2.588E+02	1.970E+01	0.101
		145.22		-7.061E+00	3.133E+01	3.947E+01	3.187E+00	-0.179
		172.10		-1.635E+00	4.300E+00	6.647E+00	5.304E-01	-0.246
		202.84	*	-1.669E+00	1.839E+00	2.564E+00	2.071E-01	-0.651
		374.96		-1.521E+00	6.977E+00	1.119E+01	9.004E-01	-0.136
I-131		80.18		-7.174E+01	7.108E+01	9.219E+01	8.058E+00	-0.778
		284.30		-1.362E+01	2.200E+01	3.507E+01	3.015E+00	-0.389
		364.48	*	3.351E-01	1.713E+00	2.833E+00	2.419E-01	0.118
		636.97		-3.837E+00	2.073E+01	3.391E+01	2.945E+00	-0.113
		722.89		4.443E+01	9.583E+01	1.642E+02	1.371E+01	0.271
TE-132		49.72		-7.177E+01	3.696E+01	5.486E+01	4.589E+00	-1.308
	+	111.76		8.697E+01	9.676E+01	1.428E+02	1.216E+01	0.609
		116.30		2.557E+01	8.469E+01	1.241E+02	1.051E+01	0.206
		228.16	*	3.334E-01	1.908E+00	3.223E+00	4.516E-01	0.103
BA-133		53.15		-9.581E+01	1.398E+02	1.839E+02	1.458E+01	-0.521
		79.62		-1.088E+02	6.478E+01	7.898E+01	1.206E+01	-1.377
		81.00		-1.445E+00	4.615E+00	6.211E+00	9.926E-01	-0.233
		276.40		-1.402E+01	1.885E+01	2.755E+01	3.909E+00	-0.509
		302.84		-1.801E-01	6.492E+00	1.069E+01	1.393E+00	-0.017
		356.01	*	-9.946E-01	3.015E+00	4.091E+00	5.272E-01	-0.243
		383.85		1.093E+01	1.448E+01	2.461E+01	3.000E+00	0.444
I-133		510.53		-1.506E+03	9.893E+02	1.510E+03	1.283E+02	-0.997
		529.87	*	4.290E+00	7.713E+00	1.348E+01	1.154E+00	0.318
		706.58		1.188E+02	5.655E+02	9.484E+02	8.014E+01	0.125
		856.28		1.778E+02	6.849E+02	1.142E+03	9.969E+01	0.156
		875.33		1.323E+01	1.859E+02	3.042E+02	2.929E+01	0.043

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1236.41		-9.645E+01	5.534E+02	8.974E+02	7.582E+01	-0.107
		1298.22		1.284E+02	3.221E+02	5.597E+02	5.327E+01	0.229
CS-134		475.35		-6.528E+01	9.435E+01	1.430E+02	1.184E+01	-0.457
		563.23		6.412E+00	1.572E+01	2.713E+01	2.293E+00	0.236
		569.32		1.121E+00	1.095E+01	1.583E+01	1.342E+00	0.071
		604.70		-1.113E+00	1.697E+00	2.707E+00	2.257E-01	-0.411
		795.84	*	-6.763E-01	1.850E+00	2.916E+00	2.500E-01	-0.232
		801.93		1.649E+01	1.852E+01	3.251E+01	2.786E+00	0.507
		1038.57		-8.177E+01	1.480E+02	2.332E+02	1.992E+01	-0.351
		1167.94		1.254E+01	9.331E+01	1.574E+02	1.297E+01	0.080
		1365.15		9.953E+00	4.327E+01	7.368E+01	6.479E+00	0.135
CS-135		268.24	*	3.184E+00	7.075E+00	1.202E+01	1.153E+00	0.265
I-135		288.45		-1.339E+03	6.118E+03	9.986E+03	1.138E+03	-0.134
		417.63		6.254E+03	6.521E+03	1.118E+04	1.195E+03	0.559
		546.56		-1.517E+03	3.284E+03	5.325E+03	5.783E+02	-0.285
		836.80		3.003E+02	4.488E+03	7.362E+03	8.318E+02	0.041
		1038.76		-2.050E+03	3.295E+03	5.136E+03	5.925E+02	-0.399
		1124.00		-3.754E+03	8.405E+03	1.337E+04	1.445E+03	-0.281
		1131.51		1.033E+02	1.241E+03	2.089E+03	2.314E+02	0.049
		1260.41	*	3.452E+01	1.074E+03	1.537E+03	1.371E+02	0.022
		1457.56		-1.916E+01	3.869E+03	6.321E+03	6.993E+02	-0.003
		1678.03		-1.999E+03	3.112E+03	4.477E+03	5.356E+02	-0.446
		1706.46		5.086E+02	6.661E+03	1.088E+04	1.329E+03	0.047
	+	1791.20		3.648E+03	3.718E+03	6.242E+03	6.599E+02	0.584
CS-136		66.91		-1.399E+01	1.725E+01	2.229E+01	3.346E+00	-0.628
		86.29		-5.552E+00	2.094E+01	3.374E+01	4.490E+00	-0.165
		153.22		-3.783E+00	1.507E+01	2.364E+01	2.150E+00	-0.160
		163.89		5.234E+00	2.523E+01	4.043E+01	3.670E+00	0.129
		176.55		4.621E+00	8.300E+00	1.441E+01	1.227E+00	0.321
		273.65		-6.774E+00	1.018E+01	1.626E+01	1.426E+00	-0.417
		340.57		1.454E+00	2.987E+00	5.025E+00	4.236E-01	0.289
		818.51		1.466E+00	1.565E+00	2.786E+00	2.381E-01	0.526
		1048.07	*	-1.466E+00	2.290E+00	3.588E+00	3.190E-01	-0.408
		1235.34		4.800E+00	9.194E+00	1.553E+01	1.803E+00	0.309
BA-137M		661.65	*	3.790E-01	1.523E+00	2.578E+00	2.101E-01	0.147
CS-137		661.65	*	4.006E-01	1.610E+00	2.725E+00	2.226E-01	0.147
CE-139		165.85	*	2.997E-01	1.307E+00	2.095E+00	1.670E-01	0.143
BA-140		162.64		-2.211E-01	1.731E+01	2.742E+01	2.336E+00	-0.008
		304.84		-1.545E+01	2.862E+01	4.513E+01	1.259E+01	-0.342
		423.70		1.310E+01	4.810E+01	6.960E+01	2.247E+01	0.188
		537.32	*	4.083E+00	5.923E+00	1.018E+01	3.368E+00	0.401
LA-140		328.77		2.711E+00	6.906E+00	1.158E+01	1.008E+00	0.234
		432.53		-1.513E+01	5.278E+01	7.202E+01	6.186E+00	-0.210
		487.03		1.252E+00	3.089E+00	5.108E+00	4.526E-01	0.245
		751.79		9.508E+00	4.443E+01	6.492E+01	6.078E+00	0.146
		815.85		1.786E+00	6.804E+00	1.141E+01	1.088E+00	0.157
		867.82		-7.679E+00	3.052E+01	4.836E+01	4.378E+00	-0.159
		919.63		-4.082E+01	6.103E+01	9.137E+01	9.725E+00	-0.447
		925.24		-4.190E+00	2.425E+01	3.850E+01	3.526E+00	-0.109

Sample ID : G1202050273 Acquisition date : 23-FEB-2010 22:31:52

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1596.49	*	-2.203E-01	1.914E+00	3.049E+00	2.567E-01	-0.072
CE-141		145.44	*	-1.295E+00	2.776E+00	3.451E+00	2.844E-01	-0.375
CE-143		57.37		-4.114E+00	4.999E+01	7.868E+01	6.079E+00	-0.052
		231.56		3.736E+01	1.553E+02	2.623E+02	8.162E+01	0.142
		293.26	*	3.119E+00	8.136E+00	1.368E+01	2.842E+00	0.228
		350.59		-1.318E+02	1.506E+02	1.691E+02	5.165E+01	-0.779
		490.36		-4.858E+00	1.801E+02	2.875E+02	8.959E+01	-0.017
		664.57		2.108E+01	7.260E+01	1.229E+02	3.915E+01	0.172
		721.93		2.193E+01	8.310E+01	1.396E+02	4.010E+01	0.157
CE-144		80.11		-1.004E+02	9.795E+01	1.269E+02	1.108E+01	-0.791
		133.54	*	-6.252E-01	1.001E+01	1.519E+01	2.329E+00	-0.041
PM-144		476.78		-1.695E+00	3.191E+00	4.895E+00	4.465E-01	-0.346
		618.01		2.816E-01	1.471E+00	2.486E+00	2.121E-01	0.113
		696.49	*	1.748E+00	1.595E+00	2.840E+00	2.349E-01	0.616
		778.57		6.074E+01	8.902E+01	1.556E+02	1.320E+01	0.390
PR-144		696.49	*	1.177E+02	1.073E+02	1.911E+02	1.581E+01	0.616
		1489.15		2.492E+01	5.571E+02	9.146E+02	7.726E+01	0.027
PM-146		453.90	*	-9.562E-01	1.961E+00	3.024E+00	3.148E-01	-0.316
		633.02		2.685E+01	5.721E+01	9.762E+01	3.640E+01	0.275
		735.90		2.195E+00	6.834E+00	1.151E+01	3.285E+00	0.191
		747.13		4.607E-01	4.709E+00	6.791E+00	9.446E-01	0.068
ND-147		91.11		6.729E+00	5.422E+00	9.190E+00	9.094E-01	0.732
		319.41		4.337E+01	6.940E+01	1.181E+02	9.691E+00	0.367
		439.89		-9.831E+00	1.224E+02	1.961E+02	1.603E+01	-0.050
		531.02	*	-7.457E+00	1.161E+01	1.857E+01	2.749E+00	-0.402
PM-149		285.90	*	-4.139E+01	6.619E+01	1.049E+02	1.603E+01	-0.395
EU-152		121.78		-3.530E+00	3.500E+00	5.305E+00	5.162E-01	-0.665
		244.69		-1.016E+01	1.530E+01	2.466E+01	2.017E+00	-0.412
		344.27	*	-1.284E+00	4.752E+00	7.651E+00	6.660E-01	-0.168
		443.98		-6.655E+00	4.485E+01	7.142E+01	5.849E+00	-0.093
		778.89		7.861E+00	1.059E+01	1.860E+01	1.577E+00	0.423
		867.32		-7.343E+00	3.711E+01	5.914E+01	5.083E+00	-0.124
		964.01		-6.808E+00	1.177E+01	1.780E+01	1.533E+00	-0.382
		1085.78		-6.514E+00	1.515E+01	2.411E+01	2.039E+00	-0.270
		1112.02		5.928E+00	1.122E+01	1.982E+01	1.664E+00	0.299
		1407.95		1.370E+00	7.461E+00	1.254E+01	1.056E+00	0.109
GD-153		69.67		-7.977E+00	5.819E+01	9.517E+01	7.602E+00	-0.084
		83.37		-7.981E+01	7.089E+02	9.428E+02	8.502E+01	-0.085
		97.43	*	-1.404E+00	3.957E+00	5.232E+00	4.644E-01	-0.268
		103.18		-1.953E+00	4.280E+00	6.758E+00	5.852E-01	-0.289
EU-154		123.07		-9.435E-01	2.453E+00	3.862E+00	4.315E-01	-0.244
		247.94		-3.139E+00	1.674E+01	2.765E+01	3.083E+00	-0.114
		591.81		-6.961E+00	2.787E+01	4.567E+01	5.235E+00	-0.152
		723.30		-5.488E-01	7.602E+00	1.245E+01	1.156E+00	-0.044
		756.87		3.700E+00	3.585E+01	5.175E+01	6.129E+00	0.071
		873.19		3.825E+00	1.375E+01	2.294E+01	2.805E+00	0.167
		996.32		-1.218E+01	1.510E+01	2.164E+01	3.842E+00	-0.563
		1004.76		-1.017E+01	8.876E+00	1.212E+01	1.407E+00	-0.839
		1274.45	*	-1.855E+00	4.341E+00	6.764E+00	7.503E-01	-0.274

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
EU-155		48.70		-2.247E+02	7.845E+01	1.091E+02	9.236E+00	-2.059
	+	60.01		1.787E+02	1.262E+02	2.774E+02	2.093E+01	0.644
		86.54		-4.186E+00	3.930E+00	6.068E+00	5.703E-01	-0.690
		105.31	*	-3.428E-01	4.655E+00	7.507E+00	6.535E-01	-0.046
TB-160		86.79		-1.019E+01	9.276E+00	1.429E+01	1.335E+00	-0.713
	+	197.04		5.264E+01	4.363E+01	3.867E+01	3.116E+00	1.361
		215.65		-9.691E-01	2.874E+01	4.822E+01	3.914E+00	-0.020
		298.57		-8.823E-01	4.578E+00	7.478E+00	6.132E-01	-0.118
		879.36	*	-4.495E-01	5.823E+00	9.391E+00	8.078E-01	-0.048
		962.29		3.901E+00	1.863E+01	3.071E+01	2.645E+00	0.127
		966.15		-2.680E+00	6.927E+00	1.070E+01	9.212E-01	-0.250
		1177.93		-9.257E-01	1.224E+01	2.020E+01	1.662E+00	-0.046
		1271.85		-9.757E+00	2.199E+01	3.418E+01	2.847E+00	-0.285
HO-166M		80.57		-6.282E+00	1.275E+01	1.697E+01	1.489E+00	-0.370
		184.41		5.013E+00	1.655E+00	3.032E+00	2.430E-01	1.653
		280.46		2.432E+00	4.021E+00	6.866E+00	5.610E-01	0.354
		410.95		8.967E-01	1.138E+01	1.853E+01	1.492E+00	0.048
		711.68	*	-1.010E-01	2.902E+00	4.777E+00	3.972E-01	-0.021
	+	752.31		1.654E+01	1.734E+01	2.087E+01	1.757E+00	0.793
		810.29		6.610E-01	2.419E+00	4.065E+00	3.469E-01	0.163
TM-171		51.35		-2.155E+02	8.874E+02	1.458E+03	1.183E+02	-0.148
		52.39		7.036E+00	4.703E+02	7.823E+02	6.260E+01	0.009
		59.40		2.584E+02	9.556E+02	1.442E+03	1.086E+02	0.179
		66.72	*	-6.471E+02	1.205E+03	1.594E+03	1.248E+02	-0.406
HF-175		89.36		-9.908E+01	5.338E+01	7.845E+01	7.338E+00	-1.263
		343.40	*	-2.876E-01	1.549E+00	2.509E+00	2.049E-01	-0.115
		433.00		-1.184E+01	9.853E+01	1.371E+02	1.117E+01	-0.086
LU-176		88.36		9.524E+00	7.140E+00	1.228E+01	1.158E+00	0.776
		201.83		-7.116E-01	1.425E+00	2.048E+00	1.653E-01	-0.347
		306.84	*	-3.659E-02	1.127E+00	1.855E+00	1.522E-01	-0.020
		401.10		1.715E+01	2.928E+02	4.770E+02	3.817E+01	0.036
LU-177	+	112.95		2.006E+01	2.232E+01	3.179E+01	2.688E+00	0.631
		208.36	*	-8.976E+00	1.464E+01	2.021E+01	1.636E+00	-0.444
LU-177M		52.97		-3.672E+01	5.950E+01	7.852E+01	6.237E+00	-0.468
		54.07		-6.507E+00	3.162E+01	4.272E+01	3.352E+00	-0.152
	+	61.30		5.263E+01	3.718E+01	8.077E+01	6.131E+00	0.652
		121.62		-1.638E+01	1.700E+01	2.588E+01	2.171E+00	-0.633
		147.16		-8.711E-01	2.853E+01	4.539E+01	3.659E+00	-0.019
		171.86		-6.036E+00	2.110E+01	3.281E+01	2.618E+00	-0.184
		218.09		-4.846E+00	3.499E+01	5.836E+01	4.742E+00	-0.083
		268.79		2.309E+01	3.439E+01	5.901E+01	4.828E+00	0.391
		319.02		7.839E+00	1.172E+01	1.999E+01	1.640E+00	0.392
		367.43		1.773E+01	3.941E+01	6.617E+01	5.349E+00	0.268
		413.65	*	-6.665E+00	8.062E+00	1.226E+01	9.884E-01	-0.544
HF-181		56.28		-1.026E+01	2.523E+01	4.098E+01	3.150E+00	-0.250
		57.53		1.946E+00	1.502E+01	2.249E+01	1.712E+00	0.087
		65.20		6.444E+00	3.248E+01	4.520E+01	3.505E+00	0.143
		133.02		5.729E-01	2.501E+00	4.050E+00	3.321E-01	0.141
		136.25		-2.467E+00	1.987E+01	2.804E+01	2.288E+00	-0.088

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		345.85		7.545E-02	7.313E+00	1.198E+01	9.775E-01	0.006
		482.03	*	-5.941E-01	1.607E+00	2.495E+00	2.070E-01	-0.238
W-181		56.28		-4.599E+00	1.135E+01	1.844E+01	1.417E+00	-0.249
		57.53		8.718E-01	6.761E+00	1.012E+01	7.707E-01	0.086
		65.20	*	2.878E+00	1.451E+01	2.019E+01	1.565E+00	0.143
TA-182		67.75		-2.691E+00	4.290E+00	5.956E+00	4.694E-01	-0.452
		100.10		2.458E+00	6.927E+00	1.144E+01	1.003E+00	0.215
		152.43		2.707E-01	1.424E+01	2.267E+01	1.819E+00	0.012
		222.10		3.676E+00	1.417E+01	2.407E+01	1.958E+00	0.153
		1001.68		-2.914E+01	1.061E+02	1.286E+02	1.104E+01	-0.227
		1121.28		4.099E+00	5.936E+00	8.765E+00	7.340E-01	0.468
		1189.05		1.938E-01	9.141E+00	1.523E+01	1.255E+00	0.013
		1221.42	*	-8.488E-01	7.497E+00	1.050E+01	8.696E-01	-0.081
		1230.97		-7.447E-01	1.681E+01	2.378E+01	1.972E+00	-0.031
RE-183		57.98		2.307E+00	6.406E+00	9.727E+00	7.384E-01	0.237
		59.32		1.640E+00	3.450E+00	5.273E+00	3.973E-01	0.311
		67.20		-5.029E+00	7.667E+00	1.007E+01	7.908E-01	-0.499
		162.32	*	-3.292E-01	4.506E+00	7.117E+00	5.679E-01	-0.046
		208.81		-2.572E+01	4.463E+01	6.169E+01	4.995E+00	-0.417
		291.72		-7.765E+00	3.758E+01	6.140E+01	5.030E+00	-0.126
RE-184		57.98		9.174E+00	2.547E+01	3.867E+01	2.936E+00	0.237
		59.32		6.514E+00	1.371E+01	2.095E+01	1.578E+00	0.311
		67.20		-1.999E+01	3.047E+01	4.003E+01	3.143E+00	-0.499
		161.27		-9.309E+00	1.576E+01	2.415E+01	1.928E+00	-0.385
		216.55		-2.652E+00	1.092E+01	1.813E+01	1.472E+00	-0.146
		252.85	*	-1.143E+01	1.026E+01	1.601E+01	1.311E+00	-0.714
		318.01		6.337E+00	2.057E+01	3.444E+01	2.825E+00	0.184
		792.07		4.968E+00	3.549E+01	5.897E+01	5.015E+00	0.084
		903.28		-7.271E+00	3.820E+01	6.060E+01	5.218E+00	-0.120
		920.93		1.072E+01	1.814E+01	3.118E+01	2.687E+00	0.344
OS-185		59.72		3.929E+00	9.769E+00	1.485E+01	1.119E+00	0.265
	+	61.14		5.529E+00	3.906E+00	8.383E+00	6.358E-01	0.660
		69.30		-5.883E+00	9.923E+00	1.588E+01	1.265E+00	-0.371
		592.07		-2.877E+01	1.046E+02	1.710E+02	1.426E+01	-0.168
		646.12	*	-3.948E-01	1.804E+00	2.944E+00	2.416E-01	-0.134
		717.42		-6.575E+00	3.635E+01	5.901E+01	4.917E+00	-0.111
		874.81		7.012E+00	2.482E+01	4.143E+01	3.563E+00	0.169
		880.27		5.500E+00	3.264E+01	5.389E+01	4.636E+00	0.102
RE-188		155.03	*	2.595E+00	6.862E+00	1.112E+01	8.911E-01	0.233
		477.96		-5.474E+01	1.301E+02	2.014E+02	1.670E+01	-0.272
		633.10		4.709E+01	1.003E+02	1.737E+02	1.432E+01	0.271
W-188		63.58		-7.322E+02	2.504E+03	3.120E+03	2.397E+02	-0.235
		227.08		-3.577E+02	5.085E+02	8.216E+02	6.694E+01	-0.435
		290.67	*	-1.946E+02	2.914E+02	4.625E+02	3.788E+01	-0.421
IR-192		295.96		-4.127E+00	5.435E+00	7.058E+00	5.832E-01	-0.585
		308.46		1.655E+00	3.902E+00	6.588E+00	5.437E-01	0.251
		316.51	*	-1.406E-01	1.460E+00	2.389E+00	1.965E-01	-0.059
		468.07		7.792E-01	2.933E+00	4.798E+00	4.275E-01	0.162
		604.41		-3.618E+00	2.015E+01	3.323E+01	4.260E+00	-0.109

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		612.46		-6.781E+00	2.826E+01	4.629E+01	4.453E+00	-0.146
AU-195		65.12		6.770E+00	6.204E+00	9.742E+00	7.550E-01	0.695
		66.83		-2.080E+00	3.843E+00	5.081E+00	3.980E-01	-0.409
		75.70		-1.323E-01	7.935E+00	1.130E+01	9.477E-01	-0.012
		98.88	*	-4.750E+00	1.123E+01	1.473E+01	1.298E+00	-0.322
		129.76		-3.729E+01	1.248E+02	1.970E+02	1.624E+01	-0.189
TL-200		367.94	*	2.046E+00	5.102E+00	8.536E+00	6.899E-01	0.240
		579.30		-7.715E+01	4.147E+01	5.938E+01	4.960E+00	-1.299
		828.27		-4.830E+00	5.175E+01	8.369E+01	7.162E+00	-0.058
		1205.75		-2.637E+00	1.930E+01	3.151E+01	2.605E+00	-0.084
TL-201		68.90		-4.327E+00	8.888E+00	1.430E+01	1.136E+00	-0.303
		70.82		3.185E+00	5.054E+00	8.536E+00	6.877E-01	0.373
		80.30		-1.194E+01	1.215E+01	1.580E+01	1.382E+00	-0.756
		135.34		1.446E+01	6.737E+01	9.732E+01	7.952E+00	0.149
		167.43	*	-3.990E+00	1.662E+01	2.595E+01	2.068E+00	-0.154
TL-202		68.90		-3.654E+00	7.505E+00	1.207E+01	9.592E-01	-0.303
		70.82		2.682E+00	4.256E+00	7.188E+00	5.791E-01	0.373
		80.30		-1.006E+01	1.024E+01	1.331E+01	1.165E+00	-0.756
		439.56	*	-1.404E-02	1.574E+00	2.535E+00	2.072E-01	-0.006
HG-203		70.83		2.030E+01	3.197E+01	5.388E+01	7.143E+00	0.377
		72.87		-1.380E+01	1.978E+01	3.019E+01	3.901E+00	-0.457
		82.60		-2.985E+00	3.567E+01	5.810E+01	8.106E+00	-0.051
		279.20	*	1.142E+00	1.585E+00	2.720E+00	2.292E-01	0.420
BI-207		72.80		-4.611E+00	7.043E+00	1.080E+01	8.840E-01	-0.427
		74.97		-6.738E+00	4.711E+00	6.197E+00	5.164E-01	-1.087
		84.90		-5.148E+00	9.417E+00	1.224E+01	1.121E+00	-0.421
		569.67		4.447E-01	1.744E+00	2.559E+00	2.139E-01	0.174
		1063.62	*	-7.141E-01	2.627E+00	3.543E+00	3.012E-01	-0.202
		1770.23		-3.639E+01	2.688E+01	3.596E+01	2.959E+00	-1.012
TL-207		81.07		-3.222E+00	1.020E+01	1.374E+01	1.211E+00	-0.235
		83.78		-2.828E+00	6.339E+00	8.330E+00	7.543E-01	-0.340
		94.90		-4.492E+01	1.221E+01	1.554E+01	1.398E+00	-2.891
		122.32		-4.977E+01	8.240E+01	1.281E+02	1.157E+01	-0.388
		144.24		1.047E+01	4.049E+01	5.115E+01	4.688E+00	0.205
		154.21		7.165E+00	1.790E+01	2.905E+01	2.595E+00	0.247
		269.46		9.043E+00	8.597E+00	1.498E+01	1.254E+00	0.604
		323.87	*	-2.975E+01	3.219E+01	4.929E+01	8.628E+00	-0.604
		338.28		2.051E+01	5.722E+01	7.939E+01	9.533E+00	0.258
		445.03		-9.089E+01	1.117E+02	1.681E+02	1.981E+01	-0.541
TL-208		72.80		-4.961E+01	7.578E+01	1.162E+02	9.511E+00	-0.427
		74.97		-7.243E+01	5.104E+01	6.661E+01	8.047E+00	-1.087
		277.35		-6.946E+00	1.926E+01	2.899E+01	3.486E+00	-0.240
		510.84		-2.439E+01	1.616E+01	2.449E+01	2.888E+00	-0.996
		583.14	*	-7.784E-01	2.494E+00	3.433E+00	3.085E-01	-0.227
		763.13		-1.195E+02	9.246E+01	1.305E+02	1.807E+01	-0.916
		860.37		1.278E+00	1.289E+01	2.118E+01	1.954E+00	0.060
		1093.90		-3.601E+02	4.397E+02	6.563E+02	1.523E+02	-0.549
PO-209		260.50		-8.962E+01	4.439E+02	7.306E+02	5.980E+01	-0.123
		262.80		1.845E+02	1.197E+03	2.008E+03	1.643E+02	0.092

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		896.60	*	2.328E+02	3.388E+02	5.855E+02	5.040E+01	0.398
BI-210		46.50	*	-3.776E+01	1.429E+02	1.991E+02	1.926E+01	-0.190
PB-210		46.50	*	-3.776E+01	1.429E+02	1.991E+02	1.926E+01	-0.190
PO-210		46.50	*	-3.776E+01	1.428E+02	1.991E+02	1.758E+01	-0.190
BI-211		72.87		-8.429E+01	1.205E+02	1.844E+02	1.510E+01	-0.457
		351.07	*	-1.487E+01	1.368E+01	1.573E+01	1.354E+00	-0.945
PB-211		404.84	*	-1.885E+01	4.266E+01	6.414E+01	4.014E+01	-0.294
	+	427.08		2.271E+02	2.021E+02	1.770E+02	1.098E+02	1.283
		831.96		-2.546E+01	5.533E+01	8.236E+01	5.161E+01	-0.309
BI-212		727.18	*	-1.245E+01	1.719E+01	2.095E+01	2.049E+00	-0.594
		785.46		5.102E+01	7.056E+01	1.235E+02	1.049E+01	0.413
		1620.62		5.792E+01	5.470E+01	1.029E+02	8.643E+00	0.563
PB-212		74.81		-3.419E+01	1.707E+01	2.137E+01	2.675E+00	-1.599
		77.11		-5.446E+00	8.925E+00	1.299E+01	1.103E+00	-0.419
		87.30		-6.741E+00	1.502E+01	2.396E+01	3.288E+00	-0.281
		115.19		-1.028E+02	1.789E+02	2.462E+02	2.075E+01	-0.418
		238.63	*	5.782E-01	3.703E+00	5.551E+00	5.173E-01	0.104
		300.09		1.489E+01	3.475E+01	5.868E+01	5.916E+00	0.254
PO-212		74.81		-3.419E+01	1.707E+01	2.137E+01	2.675E+00	-1.599
		77.11		-5.446E+00	8.925E+00	1.299E+01	1.103E+00	-0.419
		87.30		-6.741E+00	1.502E+01	2.396E+01	3.288E+00	-0.281
		115.19		-1.028E+02	1.789E+02	2.462E+02	2.075E+01	-0.418
		238.63	*	5.782E-01	3.703E+00	5.551E+00	5.173E-01	0.104
		300.09		1.489E+01	3.475E+01	5.868E+01	5.916E+00	0.254
BI-214		609.31	*	-1.030E+00	4.175E+00	6.011E+00	5.884E-01	-0.171
		1120.29		8.180E+00	1.357E+01	1.984E+01	2.119E+00	0.412
		1764.49		-4.669E+00	1.501E+01	2.268E+01	1.869E+00	-0.206
PB-214		74.81		-5.878E+01	2.917E+01	3.675E+01	4.095E+00	-1.599
		77.11		-9.317E+00	1.529E+01	2.222E+01	2.535E+00	-0.419
		87.30		-1.152E+01	2.567E+01	4.097E+01	4.978E+00	-0.281
		241.98		-5.548E+01	2.107E+01	2.650E+01	2.627E+00	-2.094
		295.21		1.089E+00	7.972E+00	1.096E+01	1.130E+00	0.099
		351.92	*	-5.738E+00	4.889E+00	5.679E+00	5.716E-01	-1.010
PO-214		74.81		-5.878E+01	2.917E+01	3.675E+01	4.095E+00	-1.599
		77.11		-9.317E+00	1.529E+01	2.222E+01	2.535E+00	-0.419
		87.30		-1.152E+01	2.567E+01	4.097E+01	4.978E+00	-0.281
		241.98		-5.548E+01	2.107E+01	2.650E+01	2.627E+00	-2.094
		295.21		1.089E+00	7.972E+00	1.096E+01	1.130E+00	0.099
		351.92	*	-5.738E+00	4.889E+00	5.679E+00	5.716E-01	-1.010
PO-215		81.07		-3.222E+00	1.020E+01	1.374E+01	1.211E+00	-0.235
		83.78		-2.828E+00	6.339E+00	8.330E+00	7.543E-01	-0.340
		94.90		-4.492E+01	1.221E+01	1.554E+01	1.398E+00	-2.891
		122.32		-4.977E+01	8.240E+01	1.281E+02	1.157E+01	-0.388
		144.24		1.047E+01	4.049E+01	5.115E+01	4.688E+00	0.205
		154.21		7.165E+00	1.790E+01	2.905E+01	2.595E+00	0.247
		269.46		9.043E+00	8.597E+00	1.498E+01	1.254E+00	0.604
		323.87	*	-2.975E+01	3.219E+01	4.929E+01	8.628E+00	-0.604
		338.28		2.051E+01	5.722E+01	7.939E+01	9.533E+00	0.258
		445.03		-9.089E+01	1.117E+02	1.681E+02	1.981E+01	-0.541

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PO-216		74.81		-3.419E+01	1.707E+01	2.137E+01	2.675E+00	-1.599
		77.11		-5.446E+00	8.925E+00	1.299E+01	1.103E+00	-0.419
		87.30		-6.741E+00	1.502E+01	2.396E+01	3.288E+00	-0.281
		115.19		-1.028E+02	1.789E+02	2.462E+02	2.075E+01	-0.418
		238.63	*	5.782E-01	3.703E+00	5.551E+00	5.173E-01	0.104
		300.09		1.489E+01	3.475E+01	5.868E+01	5.916E+00	0.254
PO-218		74.81		-5.878E+01	2.917E+01	3.675E+01	4.095E+00	-1.599
		77.11		-9.317E+00	1.529E+01	2.222E+01	2.535E+00	-0.419
		87.30		-1.152E+01	2.567E+01	4.097E+01	4.978E+00	-0.281
		241.98		-5.548E+01	2.107E+01	2.650E+01	2.627E+00	-2.094
		295.21		1.089E+00	7.972E+00	1.096E+01	1.130E+00	0.099
		351.92	*	-5.738E+00	4.889E+00	5.679E+00	5.716E-01	-1.010
RN-219		271.23		7.073E+00	1.100E+01	1.883E+01	1.873E+00	0.376
		401.81	*	1.160E+00	1.796E+01	2.926E+01	4.297E+00	0.040
RN-220		549.76	*	5.051E+02	1.165E+03	2.017E+03	1.688E+02	0.250
RA-223		81.07		-3.222E+00	1.020E+01	1.374E+01	1.211E+00	-0.235
		83.78		-2.828E+00	6.339E+00	8.330E+00	7.543E-01	-0.340
		94.90		-4.492E+01	1.221E+01	1.554E+01	1.398E+00	-2.891
		122.32		-4.977E+01	8.240E+01	1.281E+02	1.157E+01	-0.388
		144.24		1.047E+01	4.049E+01	5.115E+01	4.688E+00	0.205
		154.21		7.165E+00	1.790E+01	2.905E+01	2.595E+00	0.247
		269.46		9.043E+00	8.597E+00	1.498E+01	1.254E+00	0.604
		323.87	*	-2.975E+01	3.219E+01	4.929E+01	8.628E+00	-0.604
		338.28		2.051E+01	5.722E+01	7.939E+01	9.533E+00	0.258
		445.03		-9.089E+01	1.117E+02	1.681E+02	1.981E+01	-0.541
RA-224		240.98	*	-5.931E+01	3.872E+01	5.341E+01	4.365E+00	-1.110
RA-226		186.21	*	2.361E+01	5.243E+01	6.634E+01	4.883E+01	0.356
AC-227		79.80		-1.368E+02	8.495E+01	1.007E+02	2.168E+01	-1.359
		236.00		-3.910E+01	1.194E+01	1.532E+01	1.828E+00	-2.551
		256.20	*	1.264E+01	1.783E+01	3.060E+01	4.623E+00	0.413
		286.10		-3.250E+01	6.691E+01	1.073E+02	1.386E+01	-0.303
		299.80		-7.787E+00	6.621E+01	1.086E+02	1.877E+01	-0.072
		304.40		-6.317E+01	8.605E+01	1.344E+02	2.453E+01	-0.470
		329.70		2.276E+01	4.374E+01	7.373E+01	1.013E+01	0.309
		334.20		-8.760E+01	1.075E+02	1.653E+02	3.178E+01	-0.530
PA-227		64.62	*	-1.371E+18	1.075E+02	Half-Life too short		
		110.05		8.872E+17	1.075E+02	Half-Life too short		
TH-227		79.80		-1.368E+02	8.508E+01	1.007E+02	2.196E+01	-1.359
		94.00		-2.609E+02	1.382E+02	1.652E+02	3.627E+01	-1.579
		236.00		-3.910E+01	1.176E+01	1.532E+01	1.644E+00	-2.551
		256.20	*	1.264E+01	1.787E+01	3.060E+01	5.465E+00	0.413
		286.10		-3.250E+01	7.431E+01	1.073E+02	1.076E+02	-0.303
		299.80		-7.787E+00	6.621E+01	1.086E+02	1.877E+01	-0.072
		304.40		-6.317E+01	8.605E+01	1.344E+02	2.453E+01	-0.470
		329.70		2.276E+01	4.374E+01	7.373E+01	1.013E+01	0.309
		334.20		-8.760E+01	1.075E+02	1.653E+02	3.178E+01	-0.530
AC-228		338.32		5.044E+00	1.386E+01	1.905E+01	7.843E+00	0.265
		911.07	*	-3.125E+00	8.083E+00	1.136E+01	1.276E+00	-0.275
		969.11		-7.660E-01	1.149E+01	1.597E+01	3.727E+00	-0.048

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RA-228		338.32		5.044E+00	1.386E+01	1.905E+01	7.843E+00	0.265
		911.07	*	-3.125E+00	8.083E+00	1.136E+01	1.276E+00	-0.275
		969.11		-7.660E-01	1.149E+01	1.597E+01	3.727E+00	-0.048
TH-228		74.81		-3.419E+01	1.678E+01	2.137E+01	1.795E+00	-1.599
		77.11		-5.446E+00	8.925E+00	1.299E+01	1.103E+00	-0.419
		87.30		-6.741E+00	1.501E+01	2.396E+01	2.251E+00	-0.281
		238.63	*	5.782E-01	3.703E+00	5.551E+00	5.173E-01	0.104
		300.09		1.489E+01	3.582E+01	5.868E+01	3.475E+01	0.254
TH-229		85.43		-3.019E+00	9.203E+00	1.208E+01	1.113E+00	-0.250
		88.47		3.858E+00	4.154E+00	7.042E+00	6.636E-01	0.548
		100.00		2.868E+00	7.808E+00	1.290E+01	1.131E+00	0.222
		193.63	*	2.219E+01	2.262E+01	3.594E+01	2.891E+00	0.617
		210.97		-1.009E+01	3.928E+01	5.488E+01	4.447E+00	-0.184
TH-230		67.67	*	-3.074E+02	2.052E+03	6.733E+02	4.368E+03	-0.457
PA-231		283.67	*	-4.185E+01	7.087E+01	1.130E+02	1.687E+01	-0.370
		301.29		2.191E+01	2.537E+01	4.367E+01	5.221E+00	0.502
		330.00		5.740E+01	9.694E+01	1.617E+02	5.149E+01	0.355
TH-231		84.21	*	-1.430E+01	2.442E+01	3.164E+01	5.721E+00	-0.452
U-231		84.21		-1.838E+01	3.125E+01	4.067E+01	3.699E+00	-0.452
		92.29		4.033E+00	1.451E+01	2.101E+01	1.923E+00	0.192
		95.87	*	-2.514E+01	6.628E+00	8.273E+00	7.403E-01	-3.039
		108.00		-7.019E+00	1.163E+01	1.727E+01	1.475E+00	-0.406
TH-232		59.00	*	5.399E+02	5.783E+03	1.643E+03	1.729E+04	0.329
PA-233		75.28		-1.643E+02	1.393E+02	1.846E+02	2.805E+01	-0.890
		86.59		-6.877E+01	6.649E+01	9.903E+01	2.679E+01	-0.695
		300.12		7.588E+00	1.793E+01	3.024E+01	4.426E+00	0.251
		311.98	*	-1.154E+00	2.954E+00	4.746E+00	4.017E-01	-0.243
		340.50		1.451E+01	2.908E+01	4.865E+01	1.152E+01	0.298
		398.62		5.330E+01	9.222E+01	1.542E+02	4.076E+01	0.346
		415.76		2.111E+01	8.060E+01	1.326E+02	2.829E+01	0.159
PA-234		63.00		4.889E+00	7.987E+01	1.066E+02	1.598E+01	0.046
		94.67		-2.742E+01	9.104E+00	1.181E+01	1.498E+00	-2.321
		98.44		-1.064E+00	4.847E+00	6.407E+00	3.577E+00	-0.166
		99.86		-1.400E+00	2.450E+01	3.278E+01	2.876E+00	-0.043
		111.00		4.623E+00	9.573E+00	1.419E+01	1.702E+00	0.326
		131.20		1.852E-01	4.918E+00	7.896E+00	6.495E-01	0.023
		152.70		3.763E+00	1.461E+01	2.354E+01	3.944E+00	0.160
		186.00		3.574E+01	8.248E+01	1.099E+02	3.414E+01	0.325
		226.40		-1.366E+01	1.793E+01	2.877E+01	3.710E+00	-0.475
		227.20		-1.318E+01	1.960E+01	3.173E+01	2.585E+00	-0.415
		248.90		1.647E+01	3.737E+01	6.346E+01	1.412E+01	0.260
		293.70		3.273E+01	2.996E+01	5.156E+01	8.812E+00	0.635
		369.80		1.159E+01	3.929E+01	6.520E+01	1.406E+01	0.178
		568.70		-1.662E+00	5.647E+01	8.097E+01	6.771E+00	-0.021
		569.50		2.794E+00	1.541E+01	2.245E+01	1.877E+00	0.124
		574.00		-5.292E+01	6.905E+01	1.088E+02	9.095E+00	-0.486
		699.00		-1.184E+01	3.429E+01	5.504E+01	1.042E+01	-0.215
		706.10		5.052E+00	5.019E+01	8.344E+01	3.716E+01	0.061
		733.00		6.669E+00	1.808E+01	3.056E+01	6.754E+00	0.218

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		742.81		-1.082E+01	5.961E+01	9.569E+01	6.429E+01	-0.113
		796.30		-1.389E+01	3.689E+01	5.780E+01	1.561E+01	-0.240
		805.60		2.558E+01	4.709E+01	7.964E+01	2.439E+01	0.321
		819.60		-1.193E+01	5.403E+01	8.598E+01	3.268E+01	-0.139
		826.30		3.195E+01	3.751E+01	6.176E+01	2.762E+01	0.517
		831.60		-1.678E+01	2.804E+01	4.232E+01	1.262E+01	-0.396
		876.40		-1.418E+01	4.186E+01	6.150E+01	6.322E+01	-0.231
		880.51		8.175E+00	1.246E+01	2.154E+01	1.853E+00	0.380
		883.24		2.689E+00	1.321E+01	2.169E+01	1.458E+01	0.124
		899.00		1.709E+01	3.706E+01	6.173E+01	2.698E+01	0.277
		925.00		-1.892E+01	5.138E+01	7.976E+01	6.873E+00	-0.237
		926.50		-6.402E+00	8.037E+00	1.161E+01	2.935E+00	-0.551
		946.00	*	-3.435E-01	1.017E+01	1.635E+01	3.067E+00	-0.021
		949.00		-2.817E+00	1.607E+01	2.535E+01	2.184E+00	-0.111
		980.50		-2.783E+00	2.863E+01	4.556E+01	3.919E+00	-0.061
		1394.10		-3.937E+00	5.236E+01	8.493E+01	5.526E+01	-0.046
PA-234M		766.42		2.086E+02	4.502E+02	7.507E+02	3.807E+02	0.278
		1001.03	*	-4.574E+01	2.591E+02	3.172E+02	3.152E+01	-0.144
TH-234		63.29	*	-1.399E+00	6.773E+01	8.997E+01	1.579E+01	-0.016
		92.38		1.392E+01	3.297E+01	4.781E+01	8.768E+00	0.291
U-234		53.20	*	-1.698E+03	1.716E+04	3.271E+03	3.271E+04	-0.519
U-235		89.95		-2.788E+02	1.011E+02	6.581E+01	2.044E+01	-4.237
		93.35		3.173E+01	3.996E+01	5.732E+01	1.615E+01	0.554
		105.00		-1.003E+01	4.625E+01	7.388E+01	2.204E+01	-0.136
		143.76	*	-2.119E+00	1.305E+01	1.534E+01	2.646E+00	-0.138
		163.35		4.400E+00	2.217E+01	3.548E+01	6.670E+00	0.124
		185.71		1.669E+00	3.048E+00	4.133E+00	3.314E-01	0.404
		205.31		3.729E+00	2.340E+01	3.844E+01	7.245E+00	0.097
NP-236		94.67		-2.072E+01	6.652E+00	8.971E+00	8.085E-01	-2.310
		98.44		-8.023E-01	3.637E+00	4.844E+00	4.278E-01	-0.166
		111.00		3.497E+00	7.235E+00	1.074E+01	9.106E-01	0.326
		160.31	*	-8.718E-01	3.764E+00	5.896E+00	4.710E-01	-0.148
NP-237		86.50	*	-1.021E+01	9.861E+00	1.488E+01	3.369E+00	-0.686
		95.87		-1.926E+02	6.748E+01	6.338E+01	1.569E+01	-3.039
PU-237		59.54	*	2.053E+01	6.375E+01	9.647E+01	7.264E+00	0.213
U-238		63.29	*	-1.399E+00	6.773E+01	8.997E+01	1.579E+01	-0.016
		92.38		1.392E+01	3.289E+01	4.781E+01	4.372E+00	0.291
NP-239		99.55		-1.512E+00	8.206E+00	1.091E+01	9.584E-01	-0.139
		117.00	*	-1.571E+00	9.847E+00	1.398E+01	1.176E+00	-0.112
		209.75		-1.303E+01	3.987E+01	5.573E+01	4.513E+00	-0.234
		228.18		1.853E+00	1.012E+01	1.710E+01	1.394E+00	0.108
		277.60		-3.430E+00	9.247E+00	1.391E+01	1.136E+00	-0.247
		334.30		-5.428E+01	6.006E+01	9.272E+01	7.590E+00	-0.585
AM-241		59.54	*	1.817E+00	5.644E+00	8.540E+00	7.035E-01	0.213
AM-243		74.67	*	-5.452E+00	2.721E+00	3.479E+00	2.892E-01	-1.567
		86.72		-3.926E+02	3.603E+02	5.555E+02	5.185E+01	-0.707
		117.66		-6.664E+00	1.756E+02	2.822E+02	2.373E+01	-0.024
		142.18		-4.537E+02	9.085E+02	1.243E+03	1.007E+02	-0.365
CM-243		99.55		-1.555E+00	8.437E+00	1.122E+01	9.853E-01	-0.139

Sample ID : G1202050273 Acquisition date : 23-FEB-2010 22:31:52

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		103.76	*	-2.445E+00	4.121E+00	6.453E+00	5.576E-01	-0.379
		117.00		-1.615E+00	1.012E+01	1.437E+01	1.209E+00	-0.112
		209.75		-1.284E+01	3.926E+01	5.489E+01	4.445E+00	-0.234
		228.18		1.871E+00	1.021E+01	1.727E+01	1.407E+00	0.108
		277.60		-3.455E+00	9.314E+00	1.401E+01	1.144E+00	-0.247
AM-246		798.80		-3.618E+00	6.303E+00	9.753E+00	8.305E-01	-0.371
		1036.00		7.756E+00	1.077E+01	1.947E+01	1.664E+00	0.398
		1062.04		-8.263E-01	9.086E+00	1.508E+01	1.283E+00	-0.055
		1078.86	*	-2.075E+00	5.440E+00	8.718E+00	7.386E-01	-0.238
CM-247		278.00		-1.292E+01	3.836E+01	5.780E+01	4.722E+00	-0.224
		287.40		4.670E+00	5.319E+01	8.848E+01	7.242E+00	0.053
		402.60	*	-5.106E-01	1.620E+00	2.564E+00	2.054E-01	-0.199
CF-249		252.85		-4.526E+01	4.063E+01	6.340E+01	5.189E+00	-0.714
		333.44		-4.525E+00	7.762E+00	1.226E+01	1.004E+00	-0.369
		387.95	*	3.574E-01	1.839E+00	3.028E+00	2.416E-01	0.118
CF-251		176.60	*	3.063E+00	5.698E+00	9.884E+00	7.899E-01	0.310
		227.00		-1.290E+01	1.736E+01	2.798E+01	2.280E+00	-0.461
		285.00		-6.625E+01	7.774E+01	1.218E+02	9.965E+00	-0.544
ANH-511		511.00	*	-5.323E+00	3.456E+00	5.273E+00	4.403E-01	-1.009

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202050273      *
* Acquisition date : 23-FEB-2010 22:31:52 Detector SN#    :                 *
* Detector ID       : GAM07               Sensitivity     : 3.000           *
* Geometry          : 2LMB                Energy tolerance: 1.500           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:01.83     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 22-FEB-2010 00:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G1202050273          Analyst initials: KXG3           *
* Batch Number      : 956162               Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 17-JUL-2009 15:54:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)	
BE-7	-4.267E+00	1.257E+01	2.001E+01	0.000E+00 NOT IDENT.
NA-22	-6.237E-01	1.517E+00	2.422E+00	0.000E+00 NOT IDENT.
NA-24	-1.178E+00	1.300E+01	2.149E+01	0.000E+00 NOT IDENT.
AL-26	-2.779E-01	1.431E+00	2.358E+00	0.000E+00 NOT IDENT.
K-40	-1.337E+01	2.444E+01	3.388E+01	0.000E+00 NOT IDENT.
TI-44	-2.440E+00	1.591E+00	2.241E+00	0.000E+00 NOT IDENT.
SC-46	7.280E-02	1.421E+00	2.368E+00	0.000E+00 NOT IDENT.
V-48	5.347E-01	1.480E+00	2.540E+00	0.000E+00 NOT IDENT.
CR-51	-2.203E+00	1.278E+01	2.123E+01	0.000E+00 NOT IDENT.
MN-52	8.488E-01	2.054E+00	3.614E+00	0.000E+00 NOT IDENT.
MN-54	2.346E-01	1.605E+00	2.706E+00	0.000E+00 NOT IDENT.
CO-56	6.345E-01	1.548E+00	2.671E+00	0.000E+00 NOT IDENT.
CO-57	-1.233E+00	1.156E+00	1.787E+00	0.000E+00 NOT IDENT.
CO-58	2.894E-01	1.391E+00	2.368E+00	0.000E+00 NOT IDENT.
FE-59	3.278E+00	2.768E+00	5.255E+00	0.000E+00 NOT IDENT.
CO-60	7.414E-01	1.527E+00	2.720E+00	0.000E+00 NOT IDENT.
ZN-65	-3.719E+00	3.168E+00	4.681E+00	0.000E+00 NOT IDENT.
GE-68	-6.671E+00	4.534E+01	7.623E+01	0.000E+00 NOT IDENT.
AS-73	-1.729E+01	2.848E+01	3.845E+01	0.000E+00 NOT IDENT.
AS-74	-8.234E-01	2.688E+00	4.485E+00	0.000E+00 NOT IDENT.
SE-75	-5.694E-01	1.827E+00	3.046E+00	0.000E+00 FAIL ABUN
BR-77	-1.015E+01	9.707E+00	1.530E+01	0.000E+00 NOT IDENT.
SR-82	-2.336E+00	1.016E+01	1.661E+01	0.000E+00 NOT IDENT.
RB-83	-2.753E+00	2.632E+00	4.150E+00	0.000E+00 NOT IDENT.
RB-84	2.389E+00	2.416E+00	4.357E+00	0.000E+00 NOT IDENT.
KR-85	-1.734E+03	5.380E+02	7.714E+02	0.000E+00 NOT IDENT.

SR-85	-7.748E+00	2.404E+00	3.447E+00	0.000E+00	NOT IDENT.
RB-86	4.311E+00	1.794E+01	3.142E+01	0.000E+00	NOT IDENT.
Y-88	4.987E-02	1.719E+00	2.934E+00	0.000E+00	NOT IDENT.
ZR-88	-1.485E-02	1.185E+00	1.961E+00	0.000E+00	NOT IDENT.
Y-91	-2.609E+02	5.268E+02	8.392E+02	0.000E+00	NOT IDENT.
NB-94	9.735E-02	1.551E+00	2.626E+00	0.000E+00	NOT IDENT.
NB-95	1.776E-01	1.462E+00	2.476E+00	0.000E+00	NOT IDENT.
NB-95M	-1.863E+01	5.364E+00	7.214E+00	0.000E+00	NOT IDENT.
ZR-95	-4.647E-01	2.927E+00	4.158E+00	0.000E+00	NOT IDENT.
NB-97	-3.539E-01	1.032E+01	1.743E+01	0.000E+00	NOT IDENT.
ZR-97	-1.686E+03	3.747E+02	4.317E+02	0.000E+00	NOT IDENT.
MO-99	-1.427E+01	1.857E+01	2.878E+01	0.000E+00	NOT IDENT.
TC-99M	4.850E+01	3.803E+02	5.558E+02	0.000E+00	NOT IDENT.
RH-101	0.000E+00	2.817E+00	2.630E+00	0.000E+00	FAIL ABUN
RH-102	-3.146E-01	1.387E+00	2.230E+00	0.000E+00	NOT IDENT.
RU-103	-8.732E-01	1.513E+00	2.345E+00	0.000E+00	NOT IDENT.
RH-106	-2.989E-01	1.443E+01	2.449E+01	0.000E+00	NOT IDENT.
RU-106	-2.989E-01	1.443E+01	2.449E+01	0.000E+00	NOT IDENT.
AG-108M	-1.580E-01	1.708E+00	2.432E+00	0.000E+00	NOT IDENT.
CD-109	4.061E+01	2.953E+01	5.185E+01	0.000E+00	NOT IDENT.
AG-110M	8.615E-03	1.423E+00	2.410E+00	0.000E+00	NOT IDENT.
IN-111	-1.910E-01	1.932E+00	3.275E+00	0.000E+00	NOT IDENT.
IN-113M	4.922E-01	1.761E+00	2.977E+00	0.000E+00	NOT IDENT.
SN-113	4.922E-01	1.761E+00	2.977E+00	0.000E+00	NOT IDENT.
IN-114M	-7.066E+00	5.987E+00	9.683E+00	0.000E+00	NOT IDENT.
CD-115	2.663E+00	8.396E+00	1.473E+01	0.000E+00	NOT IDENT.
SN-117M	3.008E-01	1.285E+00	2.106E+00	0.000E+00	NOT IDENT.
SB-122	-5.549E-02	3.120E+00	5.332E+00	0.000E+00	NOT IDENT.
I-123	8.586E+00	1.629E+01	2.709E+01	0.000E+00	NOT IDENT.
TE-123M	6.332E-01	1.201E+00	1.998E+00	0.000E+00	NOT IDENT.
I-124	4.547E-01	3.709E+00	6.368E+00	0.000E+00	NOT IDENT.
SB-124	-1.814E-01	3.145E+00	5.129E+00	0.000E+00	NOT IDENT.
SB-125	0.000E+00	6.356E+00	7.908E+00	0.000E+00	FAIL ABUN
TE-125M	3.360E+02	3.875E+02	5.999E+02	0.000E+00	NOT IDENT.
I-126	-3.654E+00	3.808E+00	5.896E+00	0.000E+00	FAIL ABUN
SB-126	-9.489E-01	2.988E+00	4.888E+00	0.000E+00	NOT IDENT.
SN-126	6.055E-01	3.101E+00	5.206E+00	0.000E+00	NOT IDENT.
SB-127	1.865E+00	5.345E+00	9.294E+00	0.000E+00	FAIL ABUN
XE-127	-1.669E+00	1.803E+00	2.564E+00	0.000E+00	NOT IDENT.
I-131	3.351E-01	1.679E+00	2.833E+00	0.000E+00	NOT IDENT.
TE-132	3.334E-01	1.869E+00	3.223E+00	0.000E+00	FAIL ABUN
BA-133	-9.946E-01	2.954E+00	4.091E+00	0.000E+00	NOT IDENT.
I-133	4.290E+00	7.559E+00	1.348E+01	0.000E+00	NOT IDENT.
CS-134	-6.763E-01	1.813E+00	2.916E+00	0.000E+00	NOT IDENT.
CS-135	3.184E+00	6.934E+00	1.202E+01	0.000E+00	NOT IDENT.
I-135	3.452E+01	1.053E+03	1.537E+03	0.000E+00	FAIL ABUN
CS-136	-1.466E+00	2.244E+00	3.588E+00	0.000E+00	NOT IDENT.
BA-137M	3.790E-01	1.492E+00	2.578E+00	0.000E+00	NOT IDENT.
CS-137	4.006E-01	1.578E+00	2.725E+00	0.000E+00	NOT IDENT.
CE-139	2.997E-01	1.281E+00	2.095E+00	0.000E+00	NOT IDENT.
BA-140	4.083E+00	5.804E+00	1.018E+01	0.000E+00	NOT IDENT.
LA-140	-2.203E-01	1.875E+00	3.049E+00	0.000E+00	NOT IDENT.
CE-141	-1.295E+00	2.721E+00	3.451E+00	0.000E+00	NOT IDENT.
CE-143	3.119E+00	7.973E+00	1.368E+01	0.000E+00	NOT IDENT.
CE-144	-6.252E-01	9.806E+00	1.519E+01	0.000E+00	NOT IDENT.
PM-144	1.748E+00	1.563E+00	2.840E+00	0.000E+00	NOT IDENT.
PR-144	1.177E+02	1.052E+02	1.911E+02	0.000E+00	NOT IDENT.
PM-146	-9.562E-01	1.922E+00	3.024E+00	0.000E+00	NOT IDENT.
ND-147	-7.457E+00	1.138E+01	1.857E+01	0.000E+00	NOT IDENT.
PM-149	-4.139E+01	6.487E+01	1.049E+02	0.000E+00	NOT IDENT.
EU-152	-1.284E+00	4.657E+00	7.651E+00	0.000E+00	NOT IDENT.
GD-153	-1.404E+00	3.878E+00	5.232E+00	0.000E+00	NOT IDENT.
EU-154	-1.855E+00	4.254E+00	6.764E+00	0.000E+00	NOT IDENT.
EU-155	-3.428E-01	4.562E+00	7.507E+00	0.000E+00	FAIL ABUN
TB-160	-4.495E-01	5.707E+00	9.391E+00	0.000E+00	FAIL ABUN
HO-166M	-1.010E-01	2.844E+00	4.777E+00	0.000E+00	FAIL ABUN
TM-171	-6.471E+02	1.181E+03	1.594E+03	0.000E+00	NOT IDENT.
HF-175	-2.876E-01	1.518E+00	2.509E+00	0.000E+00	NOT IDENT.
LU-176	-3.659E-02	1.105E+00	1.855E+00	0.000E+00	NOT IDENT.
LU-177	-8.976E+00	1.434E+01	2.021E+01	0.000E+00	FAIL ABUN
LU-177M	-6.665E+00	7.901E+00	1.226E+01	0.000E+00	FAIL ABUN
HF-181	-5.941E-01	1.575E+00	2.495E+00	0.000E+00	NOT IDENT.
W-181	2.878E+00	1.422E+01	2.019E+01	0.000E+00	NOT IDENT.
TA-182	-8.488E-01	7.347E+00	1.050E+01	0.000E+00	NOT IDENT.
RE-183	-3.292E-01	4.416E+00	7.117E+00	0.000E+00	NOT IDENT.
RE-184	-1.143E+01	1.006E+01	1.601E+01	0.000E+00	NOT IDENT.
OS-185	-3.948E-01	1.768E+00	2.944E+00	0.000E+00	FAIL ABUN
RE-188	2.595E+00	6.724E+00	1.112E+01	0.000E+00	NOT IDENT.

W-188	-1.946E+02	2.855E+02	4.625E+02	0.000E+00	NOT IDENT.
IR-192	-1.406E-01	1.431E+00	2.389E+00	0.000E+00	NOT IDENT.
AU-195	-4.750E+00	1.101E+01	1.473E+01	0.000E+00	NOT IDENT.
TL-200	2.046E+00	5.000E+00	8.536E+00	0.000E+00	NOT IDENT.
TL-201	-3.990E+00	1.628E+01	2.595E+01	0.000E+00	NOT IDENT.
TL-202	-1.404E-02	1.542E+00	2.535E+00	0.000E+00	NOT IDENT.
HG-203	1.142E+00	1.553E+00	2.720E+00	0.000E+00	NOT IDENT.
BI-207	-7.141E-01	2.575E+00	3.543E+00	0.000E+00	NOT IDENT.
TL-207	-2.975E+01	3.154E+01	4.929E+01	0.000E+00	NOT IDENT.
TL-208	-7.784E-01	2.444E+00	3.433E+00	0.000E+00	NOT IDENT.
PO-209	2.328E+02	3.320E+02	5.855E+02	0.000E+00	NOT IDENT.
BI-210	-3.776E+01	1.400E+02	1.991E+02	0.000E+00	NOT IDENT.
PB-210	-3.776E+01	1.400E+02	1.991E+02	0.000E+00	NOT IDENT.
PO-210	-3.776E+01	1.400E+02	1.991E+02	0.000E+00	NOT IDENT.
BI-211	-1.487E+01	1.340E+01	1.573E+01	0.000E+00	NOT IDENT.
PB-211	-1.885E+01	4.180E+01	6.414E+01	0.000E+00	FAIL ABUN
BI-212	-1.245E+01	1.684E+01	2.095E+01	0.000E+00	NOT IDENT.
PB-212	5.782E-01	3.629E+00	5.551E+00	0.000E+00	NOT IDENT.
PO-212	5.782E-01	3.629E+00	5.551E+00	0.000E+00	NOT IDENT.
BI-214	-1.030E+00	4.092E+00	6.011E+00	0.000E+00	NOT IDENT.
PB-214	-5.738E+00	4.791E+00	5.679E+00	0.000E+00	NOT IDENT.
PO-214	-5.738E+00	4.791E+00	5.679E+00	0.000E+00	NOT IDENT.
PO-215	-2.975E+01	3.154E+01	4.929E+01	0.000E+00	NOT IDENT.
PO-216	5.782E-01	3.629E+00	5.551E+00	0.000E+00	NOT IDENT.
PO-218	-5.738E+00	4.791E+00	5.679E+00	0.000E+00	NOT IDENT.
RN-219	1.160E+00	1.760E+01	2.926E+01	0.000E+00	NOT IDENT.
RN-220	5.051E+02	1.141E+03	2.017E+03	0.000E+00	NOT IDENT.
RA-223	-2.975E+01	3.154E+01	4.929E+01	0.000E+00	NOT IDENT.
RA-224	-5.931E+01	3.795E+01	5.341E+01	0.000E+00	NOT IDENT.
RA-226	2.361E+01	5.138E+01	6.634E+01	0.000E+00	NOT IDENT.
AC-227	1.264E+01	1.747E+01	3.060E+01	0.000E+00	NOT IDENT.
PA-227	0.000E+00	2.346E+24	0.000E+00	0.000E+00	SHORT HLIF
TH-227	1.264E+01	1.751E+01	3.060E+01	0.000E+00	NOT IDENT.
AC-228	-3.125E+00	7.921E+00	1.136E+01	0.000E+00	NOT IDENT.
RA-228	-3.125E+00	7.921E+00	1.136E+01	0.000E+00	NOT IDENT.
TH-228	5.782E-01	3.629E+00	5.551E+00	0.000E+00	NOT IDENT.
TH-229	2.219E+01	2.217E+01	3.594E+01	0.000E+00	NOT IDENT.
TH-230	-3.074E+02	2.011E+03	6.733E+02	0.000E+00	NOT IDENT.
PA-231	-4.185E+01	6.946E+01	1.130E+02	0.000E+00	NOT IDENT.
TH-231	-1.430E+01	2.393E+01	3.164E+01	0.000E+00	NOT IDENT.
U-231	-2.514E+01	6.496E+00	8.273E+00	0.000E+00	NOT IDENT.
TH-232	5.399E+02	5.668E+03	1.643E+03	0.000E+00	NOT IDENT.
PA-233	-1.154E+00	2.895E+00	4.746E+00	0.000E+00	NOT IDENT.
PA-234	-3.435E-01	9.964E+00	1.635E+01	0.000E+00	NOT IDENT.
PA-234M	-4.574E+01	2.539E+02	3.172E+02	0.000E+00	NOT IDENT.
TH-234	-1.399E+00	6.638E+01	8.997E+01	0.000E+00	NOT IDENT.
U-234	-1.698E+03	1.682E+04	3.271E+03	0.000E+00	NOT IDENT.
U-235	-2.119E+00	1.279E+01	1.534E+01	0.000E+00	NOT IDENT.
NP-236	-8.718E-01	3.688E+00	5.896E+00	0.000E+00	NOT IDENT.
NP-237	-1.021E+01	9.664E+00	1.488E+01	0.000E+00	NOT IDENT.
PU-237	2.053E+01	6.248E+01	9.647E+01	0.000E+00	NOT IDENT.
U-238	-1.399E+00	6.638E+01	8.997E+01	0.000E+00	NOT IDENT.
NP-239	-1.571E+00	9.650E+00	1.398E+01	0.000E+00	NOT IDENT.
AM-241	1.817E+00	5.531E+00	8.540E+00	0.000E+00	NOT IDENT.
AM-243	-5.452E+00	2.667E+00	3.479E+00	0.000E+00	NOT IDENT.
CM-243	-2.445E+00	4.038E+00	6.453E+00	0.000E+00	NOT IDENT.
AM-246	-2.075E+00	5.331E+00	8.718E+00	0.000E+00	NOT IDENT.
CM-247	-5.106E-01	1.588E+00	2.564E+00	0.000E+00	NOT IDENT.
CF-249	3.574E-01	1.802E+00	3.028E+00	0.000E+00	NOT IDENT.
CF-251	3.063E+00	5.584E+00	9.884E+00	0.000E+00	NOT IDENT.
ANH-511	-5.323E+00	3.387E+00	5.273E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 1-MAR-2010 14:14:00.96

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202050273.CNF;1
Sample date       : 22-FEB-2010 00:00:00 Acquisition date : 23-FEB-2010 22:31:52
Sample ID         : G1202050273          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM07                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:01.83  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 3.00000
Batch ID         : 956162                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.26	187	338	0.93	92.18	87	11	8.64E-03	20.5	
2	4	61.39	46	117	1.34	122.43	120	10	2.14E-03	35.1	2.61E+00
3	4	63.39	156	208	1.12	126.44	120	10	7.21E-03	17.4	
4	0	77.13	87	232	1.12	153.92	152	7	4.05E-03	30.8	
5	0	84.35	60	193	1.18	168.35	166	6	2.77E-03	39.1	
6	0	92.66	259	329	1.28	184.96	181	9	1.20E-02	14.1	
7	0	112.71	45	204	1.04	225.06	222	7	2.07E-03	55.5	
8	0	138.81	73	284	2.68	277.26	273	10	3.39E-03	44.5	
9	0	185.65	147	281	0.91	370.92	367	10	6.81E-03	23.0	
10	0	198.41	96	325	1.90	396.43	390	14	4.43E-03	41.2	
11	0	238.44	142	224	0.87	476.47	472	9	6.59E-03	20.7	
12	4	352.49	49	136	2.00	704.54	699	18	2.28E-03	51.0	9.07E-01
13	4	356.04	90	117	2.00	711.63	699	18	4.15E-03	25.1	
14	0	427.97	68	100	1.65	855.47	850	12	3.16E-03	31.9	
15	0	511.01	452	175	2.60	1021.53	1014	16	2.09E-02	8.1	
16	0	583.49	67	54	1.51	1166.46	1162	8	3.11E-03	22.6	
17	0	753.79	30	50	4.28	1507.02	1500	13	1.40E-03	52.2	
18	0	1001.58	23	24	1.05	2002.54	1997	11	1.04E-03	47.6	
19	0	1227.92	16	19	3.90	2455.18	2449	11	7.41E-04	58.6	
20	0	1256.52	10	11	1.22	2512.37	2508	7	4.40E-04	65.2	
21	0	1530.18	24	8	2.62	3059.64	3052	15	1.09E-03	32.7	
22	0	1724.85	19	4	0.76	3448.96	3442	15	8.81E-04	32.0	
23	0	1791.37	13	7	0.67	3582.00	3573	13	5.79E-04	50.7	
24	0	1885.73	13	8	4.15	3770.71	3763	16	6.11E-04	55.2	
25	0	1903.31	15	0	4.49	3805.87	3800	13	6.94E-04	25.8	
26	0	1956.96	8	3	1.39	3913.16	3909	8	3.62E-04	55.8	

VAX/VMS Nuclide Identification Report Generated 1-MAR-2010 14:14:04.09

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202050273.CNF;1
Sample date      : 22-FEB-2010 00:00:00 Acquisition date : 23-FEB-2010 22:31:52
Sample ID        : G1202050273          Sample quantity  : 2.00000E+00 LITER
Detector name    : GAM07                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00        Elapsed real time: 0 06:00:01.83  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : KXG3
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 956162               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Flag: "*" = Keyline

Sample ID : G1202050273 Acquisition date : 23-FEB-2010 22:31:52

Total number of lines in spectrum	14	
Number of unidentified lines	8	
Number of lines tentatively identified by NID	6	42.86%

**** There are no nuclides meeting summary criteria ****

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202050273 Acquisition date : 23-FEB-2010 22:31:52

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
4	61.39	46	117	1.34	122.43	120	10	2.14E-03	70.2	1.46E+00	T
0	112.71	45	204	1.04	225.06	222	7	2.07E-03	****	2.69E+00	T
0	138.81	73	284	2.68	277.26	273	10	3.39E-03	89.0	2.69E+00	
0	198.41	96	325	1.90	396.43	390	14	4.43E-03	82.5	2.37E+00	T
0	427.97	68	100	1.65	855.47	850	12	3.16E-03	63.8	1.45E+00	T
0	753.79	30	50	4.28	1507.02	1500	13	1.40E-03	****	9.44E-01	T
0	1227.92	16	19	3.90	2455.18	2449	11	7.41E-04	****	6.44E-01	
0	1256.52	10	11	1.22	2512.37	2508	7	4.40E-04	****	6.33E-01	
0	1530.18	24	8	2.62	3059.64	3052	15	1.09E-03	65.4	5.48E-01	
0	1724.85	19	4	0.76	3448.96	3442	15	8.81E-04	64.0	5.05E-01	
0	1791.37	13	7	0.67	3582.00	3573	13	5.79E-04	****	4.93E-01	T
0	1885.73	13	8	4.15	3770.71	3763	16	6.11E-04	****	4.79E-01	
0	1903.31	15	0	4.49	3805.87	3800	13	6.94E-04	51.6	4.76E-01	
0	1956.96	8	3	1.39	3913.16	3909	8	3.62E-04	****	4.69E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 1-MAR-2010 14:14:09.19

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*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202050273.CNF;1  *
* Acquisition date  : 23-FEB-2010 22:31:52  Detector SN#     :               *
* Detector ID       : GAM07                 Sensitivity      : 3.00000       *
* Geometry          : 2LMB                  Energy tolerance: 1.50000        *
* Elapsed live time: 0 06:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 06:00:01.83          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date       : 22-FEB-2010 00:00:00  Nuclide Library : LIQUID          *
* Sample ID         : G1202050273           Analyst initials: KXG3            *
* Batch Number      : 956162                Sample Quantity : 2.00000E+00 LITER *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 17-JUL-2009 15:54:54.7MS Isotope      :                  *
* MSD ID           :                      MSD Isotope      :                  *
* LCS ID           : 1032-A               LCS Isotope      :                  *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	-4.267E+00		1.283E+01	2.001E+01	1.797E+00	-0.213
NA-22	-6.237E-01		1.547E+00	2.422E+00	2.020E-01	-0.258
NA-24	-1.178E+00		1.327E+01	2.149E+01	1.823E+00	-0.055
AL-26	-2.779E-01		1.460E+00	2.358E+00	1.926E-01	-0.118
K-40	-1.337E+01		2.494E+01	3.388E+01	2.944E+00	-0.395
TI-44	-2.440E+00		1.623E+00	2.241E+00	1.926E-01	-1.089
SC-46	7.280E-02		1.450E+00	2.368E+00	2.038E-01	0.031
V-48	5.347E-01		1.510E+00	2.540E+00	2.184E-01	0.211
CR-51	-2.203E+00		1.304E+01	2.123E+01	1.844E+00	-0.104
MN-52	8.488E-01		2.096E+00	3.614E+00	3.048E-01	0.235
MN-54	2.346E-01		1.638E+00	2.706E+00	2.318E-01	0.087
CO-56	6.345E-01		1.580E+00	2.671E+00	2.291E-01	0.238
CO-57	-1.233E+00		1.179E+00	1.787E+00	1.500E-01	-0.690
CO-58	2.894E-01		1.419E+00	2.368E+00	2.026E-01	0.122
FE-59	3.278E+00		2.824E+00	5.255E+00	4.804E-01	0.624
CO-60	7.414E-01		1.558E+00	2.720E+00	2.274E-01	0.273
ZN-65	-3.719E+00		3.233E+00	4.681E+00	3.931E-01	-0.794

Sample ID : G1202050273 Acquisition date : 23-FEB-2010 22:31:52

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
GE-68	-6.671E+00		4.626E+01	7.623E+01	6.460E+00	-0.088
AS-73	-1.729E+01		2.906E+01	3.845E+01	3.038E+00	-0.450
AS-74	-8.234E-01		2.742E+00	4.485E+00	3.736E-01	-0.184
SE-75	-5.694E-01		1.864E+00	3.046E+00	2.506E-01	-0.187
BR-77	-1.015E+01		9.905E+00	1.530E+01	1.279E+00	-0.663
SR-82	-2.336E+00		1.037E+01	1.661E+01	1.407E+00	-0.141
RB-83	-2.753E+00		2.686E+00	4.150E+00	3.469E-01	-0.663
RB-84	2.389E+00		2.465E+00	4.357E+00	3.748E-01	0.548
KR-85	-1.734E+03		5.490E+02	7.714E+02	6.443E+01	-2.248
SR-85	-7.748E+00		2.453E+00	3.447E+00	2.879E-01	-2.248
RB-86	4.311E+00		1.830E+01	3.142E+01	2.663E+00	0.137
Y-88	4.987E-02		1.754E+00	2.934E+00	2.384E-01	0.017
ZR-88	-1.485E-02		1.209E+00	1.961E+00	1.561E-01	-0.008
Y-91	-2.609E+02		5.375E+02	8.392E+02	6.936E+01	-0.311
NB-94	9.735E-02		1.582E+00	2.626E+00	2.176E-01	0.037
NB-95	1.776E-01		1.492E+00	2.476E+00	2.093E-01	0.072
NB-95M	-1.863E+01		5.473E+00	7.214E+00	6.833E-01	-2.583
ZR-95	-4.647E-01		2.987E+00	4.158E+00	3.876E-01	-0.112
NB-97	-3.539E-01		1.053E+01	1.743E+01	1.423E+00	-0.020
ZR-97	-1.686E+03		3.823E+02	4.317E+02	3.603E+01	-3.905
MO-99	-1.427E+01		1.895E+01	2.878E+01	4.333E+00	-0.496
TC-99M	4.850E+01		3.880E+02	5.558E+02	4.981E+01	0.087
RH-101	3.468E+00	+	2.875E+00	2.630E+00	2.120E-01	1.319
RH-102	-3.146E-01		1.415E+00	2.230E+00	1.847E-01	-0.141
RU-103	-8.732E-01		1.544E+00	2.345E+00	3.279E-01	-0.372
RH-106	-2.989E-01		1.472E+01	2.449E+01	3.217E+00	-0.012
RU-106	-2.989E-01		1.472E+01	2.449E+01	2.027E+00	-0.012
AG-108M	-1.580E-01		1.742E+00	2.432E+00	2.070E-01	-0.065
CD-109	4.061E+01		3.013E+01	5.185E+01	4.905E+00	0.783
AG-110M	8.615E-03		1.452E+00	2.410E+00	2.033E-01	0.004
IN-111	-1.910E-01		1.971E+00	3.275E+00	2.678E-01	-0.058
IN-113M	4.922E-01		1.797E+00	2.977E+00	2.453E-01	0.165
SN-113	4.922E-01		1.797E+00	2.977E+00	2.453E-01	0.165
IN-114M	-7.066E+00		6.110E+00	9.683E+00	7.780E-01	-0.730
CD-115	2.663E+00		8.568E+00	1.473E+01	1.232E+00	0.181
SN-117M	3.008E-01		1.311E+00	2.106E+00	1.684E-01	0.143
SB-122	-5.549E-02		3.184E+00	5.332E+00	4.460E-01	-0.010
I-123	8.586E+00		1.662E+01	2.709E+01	2.165E+00	0.317
TE-123M	6.332E-01		1.226E+00	1.998E+00	1.608E-01	0.317
I-124	4.547E-01		3.785E+00	6.368E+00	5.297E-01	0.071
SB-124	-1.814E-01		3.209E+00	5.129E+00	4.457E-01	-0.035
SB-125	1.008E+01	+	6.486E+00	7.908E+00	6.566E-01	1.275
TE-125M	3.360E+02		3.954E+02	5.999E+02	6.130E+01	0.560
I-126	-3.654E+00		3.885E+00	5.896E+00	4.815E-01	-0.620
SB-126	-9.489E-01		3.049E+00	4.888E+00	4.077E-01	-0.194
SN-126	6.055E-01		3.164E+00	5.206E+00	4.903E-01	0.116
SB-127	1.865E+00		5.454E+00	9.294E+00	7.980E-01	0.201
XE-127	-1.669E+00		1.839E+00	2.564E+00	2.071E-01	-0.651

Sample ID : G1202050273 Acquisition date : 23-FEB-2010 22:31:52

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
I-131	3.351E-01		1.713E+00	2.833E+00	2.419E-01	0.118
TE-132	3.334E-01		1.908E+00	3.223E+00	4.516E-01	0.103
BA-133	-9.946E-01		3.015E+00	4.091E+00	5.272E-01	-0.243
I-133	4.290E+00		7.713E+00	1.348E+01	1.154E+00	0.318
CS-134	-6.763E-01		1.850E+00	2.916E+00	2.500E-01	-0.232
CS-135	3.184E+00		7.075E+00	1.202E+01	1.153E+00	0.265
I-135	3.452E+01		1.074E+03	1.537E+03	1.371E+02	0.022
CS-136	-1.466E+00		2.290E+00	3.588E+00	3.190E-01	-0.408
BA-137M	3.790E-01		1.523E+00	2.578E+00	2.101E-01	0.147
CS-137	4.006E-01		1.610E+00	2.725E+00	2.226E-01	0.147
CE-139	2.997E-01		1.307E+00	2.095E+00	1.670E-01	0.143
BA-140	4.083E+00		5.923E+00	1.018E+01	3.368E+00	0.401
LA-140	-2.203E-01		1.914E+00	3.049E+00	2.567E-01	-0.072
CE-141	-1.295E+00		2.776E+00	3.451E+00	2.844E-01	-0.375
CE-143	3.119E+00		8.136E+00	1.368E+01	2.842E+00	0.228
CE-144	-6.252E-01		1.001E+01	1.519E+01	2.329E+00	-0.041
PM-144	1.748E+00		1.595E+00	2.840E+00	2.349E-01	0.616
PR-144	1.177E+02		1.073E+02	1.911E+02	1.581E+01	0.616
PM-146	-9.562E-01		1.961E+00	3.024E+00	3.148E-01	-0.316
ND-147	-7.457E+00		1.161E+01	1.857E+01	2.749E+00	-0.402
PM-149	-4.139E+01		6.619E+01	1.049E+02	1.603E+01	-0.395
EU-152	-1.284E+00		4.752E+00	7.651E+00	6.660E-01	-0.168
GD-153	-1.404E+00		3.957E+00	5.232E+00	4.644E-01	-0.268
EU-154	-1.855E+00		4.341E+00	6.764E+00	7.503E-01	-0.274
EU-155	-3.428E-01		4.655E+00	7.507E+00	6.535E-01	-0.046
TB-160	-4.495E-01		5.823E+00	9.391E+00	8.078E-01	-0.048
HO-166M	-1.010E-01		2.902E+00	4.777E+00	3.972E-01	-0.021
TM-171	-6.471E+02		1.205E+03	1.594E+03	1.248E+02	-0.406
HF-175	-2.876E-01		1.549E+00	2.509E+00	2.049E-01	-0.115
LU-176	-3.659E-02		1.127E+00	1.855E+00	1.522E-01	-0.020
LU-177	-8.976E+00		1.464E+01	2.021E+01	1.636E+00	-0.444
LU-177M	-6.665E+00		8.062E+00	1.226E+01	9.884E-01	-0.544
HF-181	-5.941E-01		1.607E+00	2.495E+00	2.070E-01	-0.238
W-181	2.878E+00		1.451E+01	2.019E+01	1.565E+00	0.143
TA-182	-8.488E-01		7.497E+00	1.050E+01	8.696E-01	-0.081
RE-183	-3.292E-01		4.506E+00	7.117E+00	5.679E-01	-0.046
RE-184	-1.143E+01		1.026E+01	1.601E+01	1.311E+00	-0.714
OS-185	-3.948E-01		1.804E+00	2.944E+00	2.416E-01	-0.134
RE-188	2.595E+00		6.862E+00	1.112E+01	8.911E-01	0.233
W-188	-1.946E+02		2.914E+02	4.625E+02	3.788E+01	-0.421
IR-192	-1.406E-01		1.460E+00	2.389E+00	1.965E-01	-0.059
AU-195	-4.750E+00		1.123E+01	1.473E+01	1.298E+00	-0.322
TL-200	2.046E+00		5.102E+00	8.536E+00	6.899E-01	0.240
TL-201	-3.990E+00		1.662E+01	2.595E+01	2.068E+00	-0.154
TL-202	-1.404E-02		1.574E+00	2.535E+00	2.072E-01	-0.006
HG-203	1.142E+00		1.585E+00	2.720E+00	2.292E-01	0.420
BI-207	-7.141E-01		2.627E+00	3.543E+00	3.012E-01	-0.202
TL-207	-2.975E+01		3.219E+01	4.929E+01	8.628E+00	-0.604

Sample ID : G1202050273 Acquisition date : 23-FEB-2010 22:31:52

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TL-208	-7.784E-01		2.494E+00	3.433E+00	3.085E-01	-0.227
PO-209	2.328E+02		3.388E+02	5.855E+02	5.040E+01	0.398
BI-210	-3.776E+01		1.429E+02	1.991E+02	1.926E+01	-0.190
PB-210	-3.776E+01		1.429E+02	1.991E+02	1.926E+01	-0.190
PO-210	-3.776E+01		1.428E+02	1.991E+02	1.758E+01	-0.190
BI-211	-1.487E+01		1.368E+01	1.573E+01	1.354E+00	-0.945
PB-211	-1.885E+01		4.266E+01	6.414E+01	4.014E+01	-0.294
BI-212	-1.245E+01		1.719E+01	2.095E+01	2.049E+00	-0.594
PB-212	5.782E-01		3.703E+00	5.551E+00	5.173E-01	0.104
PO-212	5.782E-01		3.703E+00	5.551E+00	5.173E-01	0.104
BI-214	-1.030E+00		4.175E+00	6.011E+00	5.884E-01	-0.171
PB-214	-5.738E+00		4.889E+00	5.679E+00	5.716E-01	-1.010
PO-214	-5.738E+00		4.889E+00	5.679E+00	5.716E-01	-1.010
PO-215	-2.975E+01		3.219E+01	4.929E+01	8.628E+00	-0.604
PO-216	5.782E-01		3.703E+00	5.551E+00	5.173E-01	0.104
PO-218	-5.738E+00		4.889E+00	5.679E+00	5.716E-01	-1.010
RN-219	1.160E+00		1.796E+01	2.926E+01	4.297E+00	0.040
RN-220	5.051E+02		1.165E+03	2.017E+03	1.688E+02	0.250
RA-223	-2.975E+01		3.219E+01	4.929E+01	8.628E+00	-0.604
RA-224	-5.931E+01		3.872E+01	5.341E+01	4.365E+00	-1.110
RA-226	2.361E+01		5.243E+01	6.634E+01	4.883E+01	0.356
AC-227	1.264E+01		1.783E+01	3.060E+01	4.623E+00	0.413
PA-227	-1.371E+18		1.197E+18	Half-Life too short		
TH-227	1.264E+01		1.787E+01	3.060E+01	5.465E+00	0.413
AC-228	-3.125E+00		8.083E+00	1.136E+01	1.276E+00	-0.275
RA-228	-3.125E+00		8.083E+00	1.136E+01	1.276E+00	-0.275
TH-228	5.782E-01		3.703E+00	5.551E+00	5.173E-01	0.104
TH-229	2.219E+01		2.262E+01	3.594E+01	2.891E+00	0.617
TH-230	-3.074E+02		2.052E+03	6.733E+02	4.368E+03	-0.457
PA-231	-4.185E+01		7.087E+01	1.130E+02	1.687E+01	-0.370
TH-231	-1.430E+01		2.442E+01	3.164E+01	5.721E+00	-0.452
U-231	-2.514E+01		6.628E+00	8.273E+00	7.403E-01	-3.039
TH-232	5.399E+02		5.783E+03	1.643E+03	1.729E+04	0.329
PA-233	-1.154E+00		2.954E+00	4.746E+00	4.017E-01	-0.243
PA-234	-3.435E-01		1.017E+01	1.635E+01	3.067E+00	-0.021
PA-234M	-4.574E+01		2.591E+02	3.172E+02	3.152E+01	-0.144
TH-234	-1.399E+00		6.773E+01	8.997E+01	1.579E+01	-0.016
U-234	-1.698E+03		1.716E+04	3.271E+03	3.271E+04	-0.519
U-235	-2.119E+00		1.305E+01	1.534E+01	2.646E+00	-0.138
NP-236	-8.718E-01		3.764E+00	5.896E+00	4.710E-01	-0.148
NP-237	-1.021E+01		9.861E+00	1.488E+01	3.369E+00	-0.686
PU-237	2.053E+01		6.375E+01	9.647E+01	7.264E+00	0.213
U-238	-1.399E+00		6.773E+01	8.997E+01	1.579E+01	-0.016
NP-239	-1.571E+00		9.847E+00	1.398E+01	1.176E+00	-0.112
AM-241	1.817E+00		5.644E+00	8.540E+00	7.035E-01	0.213
AM-243	-5.452E+00		2.721E+00	3.479E+00	2.892E-01	-1.567
CM-243	-2.445E+00		4.121E+00	6.453E+00	5.576E-01	-0.379
AM-246	-2.075E+00		5.440E+00	8.718E+00	7.386E-01	-0.238

Sample ID : G1202050273 Acquisition date : 23-FEB-2010 22:31:52

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CM-247	-5.106E-01		1.620E+00	2.564E+00	2.054E-01	-0.199
CF-249	3.574E-01		1.839E+00	3.028E+00	2.416E-01	0.118
CF-251	3.063E+00		5.698E+00	9.884E+00	7.899E-01	0.310
ANH-511	-5.323E+00		3.456E+00	5.273E+00	4.403E-01	-1.009

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202050273           *
* Acquisition date : 23-FEB-2010 22:31:52 Detector SN#    :                 *
* Detector ID      : GAM07                Sensitivity     : 3.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:01.83     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 22-FEB-2010 00:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G1202050273          Analyst initials: KXG3            *
* Batch Number     : 956162               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 17-JUL-2009 15:54:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act Error	DLC (pCi/LITER)	TPU

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU
BE-7	-4.267E+00	1.257E+01	1.001E+01	6.415E+00 NOT IDENT.
NA-22	-6.237E-01	1.517E+00	1.211E+00	7.737E-01 NOT IDENT.
NA-24	-1.178E+00	1.300E+01	1.075E+01	6.634E+00 NOT IDENT.
AL-26	-2.779E-01	1.431E+00	1.180E+00	7.302E-01 NOT IDENT.
K-40	-1.337E+01	2.444E+01	1.695E+01	1.247E+01 NOT IDENT.
TI-44	-2.440E+00	1.591E+00	1.121E+00	8.115E-01 NOT IDENT.
SC-46	7.280E-02	1.421E+00	1.185E+00	7.252E-01 NOT IDENT.
V-48	5.347E-01	1.480E+00	1.271E+00	7.552E-01 NOT IDENT.
CR-51	-2.203E+00	1.278E+01	1.062E+01	6.519E+00 NOT IDENT.
MN-52	8.488E-01	2.054E+00	1.808E+00	1.048E+00 NOT IDENT.
MN-54	2.346E-01	1.605E+00	1.354E+00	8.191E-01 NOT IDENT.
CO-56	6.345E-01	1.548E+00	1.336E+00	7.899E-01 NOT IDENT.
CO-57	-1.233E+00	1.156E+00	8.938E-01	5.896E-01 NOT IDENT.
CO-58	2.894E-01	1.391E+00	1.185E+00	7.096E-01 NOT IDENT.
FE-59	3.278E+00	2.768E+00	2.629E+00	1.412E+00 NOT IDENT.
CO-60	7.414E-01	1.527E+00	1.361E+00	7.789E-01 NOT IDENT.
ZN-65	-3.719E+00	3.168E+00	2.342E+00	1.617E+00 NOT IDENT.
GE-68	-6.671E+00	4.534E+01	3.814E+01	2.313E+01 NOT IDENT.
AS-73	-1.729E+01	2.848E+01	1.924E+01	1.453E+01 NOT IDENT.
AS-74	-8.234E-01	2.688E+00	2.244E+00	1.371E+00 NOT IDENT.
SE-75	-5.694E-01	1.827E+00	1.524E+00	9.320E-01 FAIL ABUN
BR-77	-1.015E+01	9.707E+00	7.657E+00	4.953E+00 NOT IDENT.
SR-82	-2.336E+00	1.016E+01	8.308E+00	5.186E+00 NOT IDENT.
RB-83	-2.753E+00	2.632E+00	2.076E+00	1.343E+00 NOT IDENT.
RB-84	2.389E+00	2.416E+00	2.180E+00	1.233E+00 NOT IDENT.
KR-85	-1.734E+03	5.380E+02	3.859E+02	2.745E+02 NOT IDENT.

SR-85	-7.748E+00	2.404E+00	1.724E+00	1.226E+00	NOT IDENT.
RB-86	4.311E+00	1.794E+01	1.572E+01	9.151E+00	NOT IDENT.
Y-88	4.987E-02	1.719E+00	1.468E+00	8.771E-01	NOT IDENT.
ZR-88	-1.485E-02	1.185E+00	9.811E-01	6.043E-01	NOT IDENT.
Y-91	-2.609E+02	5.268E+02	4.199E+02	2.688E+02	NOT IDENT.
NB-94	9.735E-02	1.551E+00	1.314E+00	7.911E-01	NOT IDENT.
NB-95	1.776E-01	1.462E+00	1.239E+00	7.458E-01	NOT IDENT.
NB-95M	-1.863E+01	5.364E+00	3.609E+00	2.737E+00	NOT IDENT.
ZR-95	-4.647E-01	2.927E+00	2.080E+00	1.493E+00	NOT IDENT.
NB-97	-3.539E-01	1.032E+01	8.719E+00	5.266E+00	NOT IDENT.
ZR-97	-1.686E+03	3.747E+02	2.160E+02	1.912E+02	NOT IDENT.
MO-99	-1.427E+01	1.857E+01	1.440E+01	9.475E+00	NOT IDENT.
TC-99M	4.850E+01	3.803E+02	2.781E+02	1.940E+02	NOT IDENT.
RH-101	3.468E+00	2.817E+00	1.316E+00	1.437E+00	FAIL ABUN
RH-102	-3.146E-01	1.387E+00	1.116E+00	7.075E-01	NOT IDENT.
RU-103	-8.732E-01	1.513E+00	1.173E+00	7.722E-01	NOT IDENT.
RH-106	-2.989E-01	1.443E+01	1.225E+01	7.361E+00	NOT IDENT.
RU-106	-2.989E-01	1.443E+01	1.225E+01	7.361E+00	NOT IDENT.
AG-108M	-1.580E-01	1.708E+00	1.217E+00	8.712E-01	NOT IDENT.
CD-109	4.061E+01	2.953E+01	2.594E+01	1.507E+01	NOT IDENT.
AG-110M	8.615E-03	1.423E+00	1.206E+00	7.258E-01	NOT IDENT.
IN-111	-1.910E-01	1.932E+00	1.638E+00	9.857E-01	NOT IDENT.
IN-113M	4.922E-01	1.761E+00	1.489E+00	8.986E-01	NOT IDENT.
SN-113	4.922E-01	1.761E+00	1.489E+00	8.986E-01	NOT IDENT.
IN-114M	-7.066E+00	5.987E+00	4.844E+00	3.055E+00	NOT IDENT.
CD-115	2.663E+00	8.396E+00	7.370E+00	4.284E+00	NOT IDENT.
SN-117M	3.008E-01	1.285E+00	1.054E+00	6.554E-01	NOT IDENT.
SB-122	-5.549E-02	3.120E+00	2.667E+00	1.592E+00	NOT IDENT.
I-123	8.586E+00	1.629E+01	1.355E+01	8.310E+00	NOT IDENT.
TE-123M	6.332E-01	1.201E+00	9.994E-01	6.129E-01	NOT IDENT.
I-124	4.547E-01	3.709E+00	3.186E+00	1.892E+00	NOT IDENT.
SB-124	-1.814E-01	3.145E+00	2.566E+00	1.604E+00	NOT IDENT.
SB-125	1.008E+01	6.356E+00	3.956E+00	3.243E+00	FAIL ABUN
TE-125M	3.360E+02	3.875E+02	3.001E+02	1.977E+02	NOT IDENT.
I-126	-3.654E+00	3.808E+00	2.949E+00	1.943E+00	FAIL ABUN
SB-126	-9.489E-01	2.988E+00	2.446E+00	1.524E+00	NOT IDENT.
SN-126	6.055E-01	3.101E+00	2.604E+00	1.582E+00	NOT IDENT.
SB-127	1.865E+00	5.345E+00	4.650E+00	2.727E+00	FAIL ABUN
XE-127	-1.669E+00	1.803E+00	1.283E+00	9.197E-01	NOT IDENT.
I-131	3.351E-01	1.679E+00	1.417E+00	8.567E-01	NOT IDENT.
TE-132	3.334E-01	1.869E+00	1.612E+00	9.538E-01	FAIL ABUN
BA-133	-9.946E-01	2.954E+00	2.047E+00	1.507E+00	NOT IDENT.
I-133	4.290E+00	7.559E+00	6.744E+00	3.857E+00	NOT IDENT.
CS-134	-6.763E-01	1.813E+00	1.459E+00	9.252E-01	NOT IDENT.
CS-135	3.184E+00	6.934E+00	6.014E+00	3.538E+00	NOT IDENT.
I-135	3.452E+01	1.053E+03	7.690E+02	5.372E+02	FAIL ABUN
CS-136	-1.466E+00	2.244E+00	1.795E+00	1.145E+00	NOT IDENT.
BA-137M	3.790E-01	1.492E+00	1.290E+00	7.614E-01	NOT IDENT.
CS-137	4.006E-01	1.578E+00	1.363E+00	8.049E-01	NOT IDENT.
CE-139	2.997E-01	1.281E+00	1.048E+00	6.535E-01	NOT IDENT.
BA-140	4.083E+00	5.804E+00	5.095E+00	2.961E+00	NOT IDENT.
LA-140	-2.203E-01	1.875E+00	1.525E+00	9.568E-01	NOT IDENT.
CE-141	-1.295E+00	2.721E+00	1.726E+00	1.388E+00	NOT IDENT.
CE-143	3.119E+00	7.973E+00	6.845E+00	4.068E+00	NOT IDENT.
CE-144	-6.252E-01	9.806E+00	7.597E+00	5.003E+00	NOT IDENT.
PM-144	1.748E+00	1.563E+00	1.421E+00	7.974E-01	NOT IDENT.
PR-144	1.177E+02	1.052E+02	9.562E+01	5.366E+01	NOT IDENT.
PM-146	-9.562E-01	1.922E+00	1.513E+00	9.804E-01	NOT IDENT.
ND-147	-7.457E+00	1.138E+01	9.290E+00	5.806E+00	NOT IDENT.
PM-149	-4.139E+01	6.487E+01	5.249E+01	3.310E+01	NOT IDENT.
EU-152	-1.284E+00	4.657E+00	3.828E+00	2.376E+00	NOT IDENT.
GD-153	-1.404E+00	3.878E+00	2.618E+00	1.979E+00	NOT IDENT.
EU-154	-1.855E+00	4.254E+00	3.384E+00	2.170E+00	NOT IDENT.
EU-155	-3.428E-01	4.562E+00	3.756E+00	2.328E+00	FAIL ABUN
TB-160	-4.495E-01	5.707E+00	4.698E+00	2.912E+00	FAIL ABUN
HO-166M	-1.010E-01	2.844E+00	2.390E+00	1.451E+00	FAIL ABUN
TM-171	-6.471E+02	1.181E+03	7.976E+02	6.027E+02	NOT IDENT.
HF-175	-2.876E-01	1.518E+00	1.255E+00	7.747E-01	NOT IDENT.
LU-176	-3.659E-02	1.105E+00	9.281E-01	5.637E-01	NOT IDENT.
LU-177	-8.976E+00	1.434E+01	1.011E+01	7.318E+00	FAIL ABUN
LU-177M	-6.665E+00	7.901E+00	6.132E+00	4.031E+00	FAIL ABUN
HF-181	-5.941E-01	1.575E+00	1.248E+00	8.034E-01	NOT IDENT.
W-181	2.878E+00	1.422E+01	1.010E+01	7.253E+00	NOT IDENT.
TA-182	-8.488E-01	7.347E+00	5.252E+00	3.748E+00	NOT IDENT.
RE-183	-3.292E-01	4.416E+00	3.560E+00	2.253E+00	NOT IDENT.
RE-184	-1.143E+01	1.006E+01	8.012E+00	5.131E+00	NOT IDENT.
OS-185	-3.948E-01	1.768E+00	1.473E+00	9.019E-01	FAIL ABUN
RE-188	2.595E+00	6.724E+00	5.564E+00	3.431E+00	NOT IDENT.

W-188	-1.946E+02	2.855E+02	2.314E+02	1.457E+02	NOT IDENT.
IR-192	-1.406E-01	1.431E+00	1.195E+00	7.299E-01	NOT IDENT.
AU-195	-4.750E+00	1.101E+01	7.370E+00	5.617E+00	NOT IDENT.
TL-200	2.046E+00	5.000E+00	4.271E+00	2.551E+00	NOT IDENT.
TL-201	-3.990E+00	1.628E+01	1.298E+01	8.308E+00	NOT IDENT.
TL-202	-1.404E-02	1.542E+00	1.268E+00	7.869E-01	NOT IDENT.
HG-203	1.142E+00	1.553E+00	1.361E+00	7.926E-01	NOT IDENT.
BI-207	-7.141E-01	2.575E+00	1.773E+00	1.314E+00	NOT IDENT.
TL-207	-2.975E+01	3.154E+01	2.466E+01	1.609E+01	NOT IDENT.
TL-208	-7.784E-01	2.444E+00	1.718E+00	1.247E+00	NOT IDENT.
PO-209	2.328E+02	3.320E+02	2.929E+02	1.694E+02	NOT IDENT.
BI-210	-3.776E+01	1.400E+02	9.961E+01	7.143E+01	NOT IDENT.
PB-210	-3.776E+01	1.400E+02	9.961E+01	7.143E+01	NOT IDENT.
PO-210	-3.776E+01	1.400E+02	9.961E+01	7.142E+01	NOT IDENT.
BI-211	-1.487E+01	1.340E+01	7.872E+00	6.839E+00	NOT IDENT.
PB-211	-1.885E+01	4.180E+01	3.209E+01	2.133E+01	FAIL ABUN
BI-212	-1.245E+01	1.684E+01	1.048E+01	8.593E+00	NOT IDENT.
PB-212	5.782E-01	3.629E+00	2.777E+00	1.851E+00	NOT IDENT.
PO-212	5.782E-01	3.629E+00	2.777E+00	1.851E+00	NOT IDENT.
BI-214	-1.030E+00	4.092E+00	3.007E+00	2.088E+00	NOT IDENT.
PB-214	-5.738E+00	4.791E+00	2.841E+00	2.445E+00	NOT IDENT.
PO-214	-5.738E+00	4.791E+00	2.841E+00	2.445E+00	NOT IDENT.
PO-215	-2.975E+01	3.154E+01	2.466E+01	1.609E+01	NOT IDENT.
PO-216	5.782E-01	3.629E+00	2.777E+00	1.851E+00	NOT IDENT.
PO-218	-5.738E+00	4.791E+00	2.841E+00	2.445E+00	NOT IDENT.
RN-219	1.160E+00	1.760E+01	1.464E+01	8.980E+00	NOT IDENT.
RN-220	5.051E+02	1.141E+03	1.009E+03	5.824E+02	NOT IDENT.
RA-223	-2.975E+01	3.154E+01	2.466E+01	1.609E+01	NOT IDENT.
RA-224	-5.931E+01	3.795E+01	2.672E+01	1.936E+01	NOT IDENT.
RA-226	2.361E+01	5.138E+01	3.319E+01	2.622E+01	NOT IDENT.
AC-227	1.264E+01	1.747E+01	1.531E+01	8.916E+00	NOT IDENT.
PA-227	-1.371E+24	2.346E+24	0.000E+00	0.000E+00	SHORT HLIF
TH-227	1.264E+01	1.751E+01	1.531E+01	8.936E+00	NOT IDENT.
AC-228	-3.125E+00	7.921E+00	5.682E+00	4.041E+00	NOT IDENT.
RA-228	-3.125E+00	7.921E+00	5.682E+00	4.041E+00	NOT IDENT.
TH-228	5.782E-01	3.629E+00	2.777E+00	1.851E+00	NOT IDENT.
TH-229	2.219E+01	2.217E+01	1.798E+01	1.131E+01	NOT IDENT.
TH-230	-3.074E+02	2.011E+03	3.368E+02	1.026E+03	NOT IDENT.
PA-231	-4.185E+01	6.946E+01	5.652E+01	3.544E+01	NOT IDENT.
TH-231	-1.430E+01	2.393E+01	1.583E+01	1.221E+01	NOT IDENT.
U-231	-2.514E+01	6.496E+00	4.139E+00	3.314E+00	NOT IDENT.
TH-232	5.399E+02	5.668E+03	8.218E+02	2.892E+03	NOT IDENT.
PA-233	-1.154E+00	2.895E+00	2.374E+00	1.477E+00	NOT IDENT.
PA-234	-3.435E-01	9.964E+00	8.179E+00	5.084E+00	NOT IDENT.
PA-234M	-4.574E+01	2.539E+02	1.587E+02	1.295E+02	NOT IDENT.
TH-234	-1.399E+00	6.638E+01	4.501E+01	3.387E+01	NOT IDENT.
U-234	-1.698E+03	1.682E+04	1.636E+03	8.581E+03	NOT IDENT.
U-235	-2.119E+00	1.279E+01	7.673E+00	6.524E+00	NOT IDENT.
NP-236	-8.718E-01	3.688E+00	2.950E+00	1.882E+00	NOT IDENT.
NP-237	-1.021E+01	9.664E+00	7.446E+00	4.931E+00	NOT IDENT.
PU-237	2.053E+01	6.248E+01	4.826E+01	3.188E+01	NOT IDENT.
U-238	-1.399E+00	6.638E+01	4.501E+01	3.387E+01	NOT IDENT.
NP-239	-1.571E+00	9.650E+00	6.993E+00	4.924E+00	NOT IDENT.
AM-241	1.817E+00	5.531E+00	4.272E+00	2.822E+00	NOT IDENT.
AM-243	-5.452E+00	2.667E+00	1.741E+00	1.361E+00	NOT IDENT.
CM-243	-2.445E+00	4.038E+00	3.228E+00	2.060E+00	NOT IDENT.
AM-246	-2.075E+00	5.331E+00	4.362E+00	2.720E+00	NOT IDENT.
CM-247	-5.106E-01	1.588E+00	1.283E+00	8.101E-01	NOT IDENT.
CF-249	3.574E-01	1.802E+00	1.515E+00	9.194E-01	NOT IDENT.
CF-251	3.063E+00	5.584E+00	4.945E+00	2.849E+00	NOT IDENT.
ANH-511	-5.323E+00	3.387E+00	2.638E+00	1.728E+00	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	195.8257
46.50	195.8257
46.50	195.8257
48.70	304.0151
49.72	253.5562
51.35	185.9695
52.39	184.5529
52.97	187.6978
53.15	191.6153
53.20	191.6392
53.44	188.8788
54.07	174.7726
56.28	210.4845
56.28	210.4856
57.37	202.1348
57.53	193.2058
57.53	193.2068
57.60	193.2382
57.98	190.5053
57.98	190.5053
59.00	183.6782
59.32	183.8171
59.32	183.8171
59.40	192.6061
59.54	192.6695
59.54	192.6695
59.72	192.7511
60.01	198.7264
61.10	210.9496
61.14	210.9688
61.30	211.0468
63.00	217.7524
63.29	217.8953
63.29	217.8953
63.58	231.2969
64.28	212.4778
64.62	0.0000
65.12	199.5705
65.20	199.6058
65.20	199.6058
66.05	229.6063
66.72	215.1072
66.83	215.1603
66.91	230.0391
67.20	224.2432
67.20	224.2432
67.67	225.9590
67.75	225.9973
67.85	226.0460
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68.90	254.3789
69.30	258.5744
69.67	243.8498
70.82	232.4679
70.82	232.4679
70.83	232.4726
72.80	259.4742
72.80	259.4742
72.87	259.5125
72.87	259.5125
74.67	316.7864
74.81	316.8762
74.81	316.8762
74.81	316.8762
74.81	316.8762
74.81	316.8762
74.81	316.8762

74.81	316.8762
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77.11	241.5345
77.11	241.5345
77.11	241.5345
77.11	241.5345
77.11	241.5345
77.11	241.5345
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79.80	302.7548
79.80	302.7548
80.11	266.3403
80.18	266.3763
80.30	266.4376
80.30	266.4376
80.57	242.1570
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81.07	239.3353
81.07	239.3353
81.07	239.3353
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83.37	230.1544
83.78	250.8082
83.78	250.8082
83.78	250.8082
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84.21	253.0604
84.90	246.2048
85.43	236.1791
86.29	254.0404
86.50	283.9764
86.54	283.9975
86.59	284.0242
86.72	284.0916
86.79	284.1266
86.94	272.8796
87.30	268.9372
87.30	268.9372
87.30	268.9372
87.30	268.9372
87.30	268.9372
87.30	268.9372
87.30	268.9372
87.57	244.3279
87.88	219.7104
88.03	196.0390
88.36	196.1569
88.47	211.6857
89.36	329.9325
89.95	518.7203
91.11	302.9562
92.29	228.7314
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92.38	219.4096
93.35	195.8257
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94.67	434.3151
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94.90	433.4442
94.90	433.4442
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95.87	412.2002
96.73	228.4072
97.43	205.6012
98.44	200.7002
98.44	200.7002
98.88	202.9520
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99.55	194.7587
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100.00	189.6378
100.10	188.6170

103.18	200.1703
103.76	204.6011
105.00	208.2002
105.31	202.9909
108.00	245.9215
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111.00	215.5561
111.76	230.3054
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115.19	215.3325
115.19	215.3325
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117.00	215.9231
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121.62	240.8397
121.78	240.8959
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122.32	227.9953
122.32	227.9953
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133.54	232.7573
135.34	213.3320
136.00	211.8553
136.25	230.2829
136.48	230.3545
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140.51	234.9597
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142.65	227.2110
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144.24	194.2910
144.24	194.2910
145.22	207.1479
145.44	217.3410
147.16	220.0812
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152.70	198.9044
153.22	214.9571
154.21	197.0026
154.21	197.0026
154.21	197.0026
155.03	200.6229
156.02	223.6961
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159.00	198.1693
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161.27	222.8383
162.32	212.7696
162.64	212.8505
163.35	209.5766
163.89	209.7136
165.85	205.5825
167.43	212.9091
171.28	206.8935
171.86	203.5436
172.10	203.6006
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176.60	204.3585
181.06	226.5397
184.41	197.3010
185.71	194.0377
186.00	190.5543
186.21	180.8470
190.27	196.7809
192.34	141.3542
193.63	145.8381

197.04	182.9560
198.01	183.1412
198.60	183.2532
200.40	175.6773
201.83	211.9908
202.84	223.7604
205.31	202.6172
208.36	221.3931
208.81	218.7703
209.75	208.0729
209.75	208.0729
210.97	200.1404
215.65	188.2764
216.55	189.3578
218.09	185.9790
222.10	182.1053
223.80	175.0330
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227.08	207.0024
227.20	207.0247
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228.18	184.0908
228.18	184.0908
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236.00	325.2198
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238.63	183.0861
238.63	183.0861
238.63	183.0861
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241.98	326.0655
241.98	326.0655
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249.79	164.1777
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252.85	192.0580
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256.20	158.4622
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264.65	165.3526
268.24	157.2259
268.79	160.1759
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269.46	154.5095
269.46	154.5095
271.23	160.5046
273.65	180.0891
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277.60	166.1841
277.60	166.1841
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278.60	165.3536
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279.53	163.5434
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281.68	148.3191
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284.30	158.3490
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285.90	145.9076
286.10	143.0119
286.10	143.0119
287.40	131.4754
288.45	136.4581
290.67	161.1102

290.80	161.1278
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293.26	158.5072
293.70	138.0073
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295.21	148.9501
295.21	148.9501
295.96	173.5511
296.50	175.5858
297.23	179.6129
298.57	168.0098
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299.80	166.2047
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300.09	146.5673
300.09	146.5673
300.09	146.5673
300.12	146.5718
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303.76	154.8751
303.91	154.8918
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304.40	155.9387
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306.84	136.4544
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319.02	132.7199
319.41	132.7585
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323.87	166.2432
323.87	166.2432
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329.70	144.8240
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334.20	154.3751
334.30	154.3867
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338.28	138.6347
338.28	138.6347
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338.32	138.6389
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340.57	145.9534
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344.27	147.3519
345.85	132.2534
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351.92	160.3970
351.92	160.3970
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387.95	107.7778
388.63	107.8250
391.69	94.4000
391.69	94.4000
392.90	98.6716
398.62	88.4938
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401.81	96.0599

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404.84	105.7602
410.95	110.4064
411.60	111.5128
413.65	128.6659
414.70	115.9805
415.30	114.9576
415.76	110.7317
417.63	96.9999
418.52	100.2522
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427.89	99.7448
432.53	96.3635
433.00	94.6682
433.93	98.1650
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439.56	101.5130
439.89	103.6934
443.98	98.5259
444.90	115.9112
445.03	115.9210
445.03	115.9210
445.03	115.9210
453.90	94.7341
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468.07	103.1754
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475.35	112.4092
476.78	103.6731
477.59	95.9952
477.96	100.4296
482.03	92.9106
484.57	91.9312
487.03	77.6360
490.36	84.4412
492.35	82.3072
497.08	95.8957
507.63	413.7512
510.53	111.1748
510.84	115.6864
511.00	115.6958
511.85	138.2220
511.85	138.2220
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513.99	363.6000
520.41	90.2979
520.65	90.3101
527.90	84.2994
528.96	81.6240
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529.87	76.2173
531.02	98.9595
537.32	73.7721
543.00	79.4597
546.56	90.5816
549.76	73.3125
552.65	68.8275
555.20	77.1832
563.23	74.7174
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568.70	82.3120
569.32	78.6375
569.50	78.6437
569.67	78.6499
573.80	99.2023
574.00	95.5013
574.64	95.5315
578.91	120.8181
579.30	129.2062
583.14	81.0166
585.48	79.2413
591.81	80.4108
592.07	82.2895
593.00	77.6484
595.88	101.1709
600.56	97.6346

602.52	108.0596
602.71	102.4297
602.71	102.4297
603.60	108.1129
604.41	110.9736
604.70	122.2749
609.31	83.8873
610.33	90.5273
612.46	91.5580
614.37	110.5330
618.01	80.4325
621.84	81.5194
621.84	81.5194
631.29	66.6316
633.02	53.3463
633.10	53.3477
634.78	63.8741
635.90	71.5356
636.97	62.0277
645.85	76.6387
646.12	77.6046
656.30	59.6629
657.75	66.4395
657.90	66.4445
661.65	63.6571
661.65	63.6571
664.57	58.9076
666.33	79.2473
666.33	79.2473
675.00	66.9280
677.61	61.1743
685.20	56.4976
692.80	80.1262
695.00	69.4417
696.49	66.5474
696.49	66.5474
697.00	74.3913
697.49	73.4271
698.33	82.2671
698.50	83.2527
699.00	88.1675
702.63	79.4694
706.10	80.5626
706.58	80.5786
706.67	80.5806
709.31	80.6667
711.68	77.7907
713.82	75.8871
717.42	68.1004
720.50	69.1729
721.93	65.2572
722.20	60.3194
722.78	58.3547
722.78	58.3547
722.89	58.3576
722.95	58.3590
723.30	69.2498
724.18	62.3463
727.18	77.2821
733.00	70.5077
735.90	62.6355
739.58	68.6985
742.81	60.8109
744.21	52.8641
747.13	61.5778
751.79	63.3565
752.31	61.7013
753.82	59.0677
755.35	61.7736
756.15	56.7829
756.87	50.1160
763.13	76.3581
763.93	63.3168
765.79	55.3156
766.42	49.2931
766.84	50.3064
776.49	49.4809
778.00	50.5188

778.57	41.4344
778.89	41.4394
783.80	50.6287
785.46	43.5679
792.07	44.6907
795.84	55.9413
796.30	56.9680
798.80	69.2385
801.93	56.0662
805.60	57.1621
810.29	44.9894
810.76	46.0195
815.85	48.1543
817.79	46.1371
818.51	38.9704
819.60	54.3755
826.30	40.1083
828.27	55.5728
831.60	63.8815
831.96	61.8296
834.83	61.8926
836.80	67.0963
846.75	51.7944
848.13	55.9644
856.28	57.1632
856.80	62.3716
860.37	57.2451
867.32	55.2955
867.82	55.3045
871.10	48.0546
873.19	52.2705
874.81	53.3458
875.33	55.4469
876.40	60.7003
879.36	58.6660
880.27	53.4454
880.51	44.0169
881.50	45.0807
883.24	51.4010
884.67	50.3766
889.25	43.0960
896.60	46.3644
898.02	41.1147
899.00	44.2928
903.28	45.4114
911.07	53.9995
911.07	53.9995
919.63	56.2763
920.93	39.3035
925.00	51.0563
925.24	48.9334
926.50	58.5315
935.52	45.8954
937.48	36.3118
944.10	34.2492
946.00	28.9156
949.00	34.3031
962.29	48.4431
964.01	59.2405
966.15	53.8916
968.20	37.7480
969.11	38.8380
969.11	38.8380
977.42	38.9391
980.50	37.8942
983.50	31.4271
989.30	33.6550
996.32	48.9606
1001.03	30.5081
1001.68	32.6938
1004.76	53.4502
1021.30	31.7931
1024.50	34.0186
1034.80	37.6100
1036.00	27.5293
1037.82	35.8071
1038.57	44.0801
1038.76	44.0820

1045.16	35.8849
1046.59	41.4240
1048.07	53.4145
1050.47	33.1772
1050.47	33.1772
1062.04	42.5373
1063.62	41.6309
1076.63	35.2879
1077.35	39.9398
1078.86	41.8158
1085.78	41.9000
1093.90	49.4632
1099.22	28.0408
1112.02	30.9563
1112.84	36.5927
1115.52	52.5843
1120.29	34.7899
1120.51	32.9108
1121.28	33.8584
1124.00	49.8859
1129.67	42.4219
1131.51	37.7279
1147.95	29.3715
1167.94	40.0125
1173.22	47.7010
1175.09	44.8619
1177.93	43.9411
1189.05	30.6589
1204.90	38.4847
1205.75	34.6436
1213.00	35.6736
1221.42	41.4132
1230.97	36.5342
1235.34	27.9305
1236.41	34.9219
1238.25	31.0560
1246.25	35.0112
1260.41	28.4444
1271.85	32.3031
1274.45	33.3041
1274.54	33.3041
1291.56	30.4954
1298.22	22.6631
1312.09	32.6281
1325.50	25.7916
1325.50	25.7916
1332.49	24.8423
1333.61	29.8181
1360.21	25.0081
1362.66	20.0187
1365.15	18.0271
1368.21	21.0470
1368.53	21.0487
1376.25	31.1287
1384.27	36.2183
1394.10	29.2431
1395.20	25.2157
1407.95	24.2793
1434.06	24.4258
1436.60	24.4395
1457.56	35.8118
1460.81	29.6938
1489.15	26.7913
1509.49	25.8769
1596.49	24.2531
1620.62	12.7178
1678.03	26.8066
1691.02	19.3506
1691.02	19.3506
1706.46	18.3316
1750.46	20.5099
1764.49	22.4355
1770.23	37.4330
1771.40	29.0182
1791.20	23.0200
1808.65	17.9112
1836.01	22.7411

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202050273

Total Uranium Activity	-5.1441E+00	ug/g
Total Uranium Counting Unc.	1.9756E+02	ug/g
Total Uranium Tpu	1.0080E-04	ug/g
Total Uranium Mda	1.3395E+02	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 956162                    SAMPLE ID  : G1202050273      *
*   ANALYST       : KXG3                      DETECTOR   : GAM07            *
*   SAMPLE DATE   : 22-FEB-2010 00:00:00.00   COUNT TIME :    0 06:00:00.00 *
*   ANALYSIS DATE: 23-FEB-2010 22:31:52.85    SAMPLE ALQT:    2.000 LITER   *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 2.606E+01
        GROSS GAMMA ERROR  (pCi/LITER )   : 1.135E+01
        GROSS GAMMA MDA    (pCi/LITER )   : 8.032E+01
        GROSS GAMMA DLC    (pCi/LITER )   : 3.858E+01
```

VAX/VMS Nuclide Identification Report Generated 24-FEB-2010 04:33:14.89

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202050274.CNF;1
Sample date       : 15-FEB-2010 12:00:00 Acquisition date : 23-FEB-2010 22:32:17
Sample ID         : G1202050274          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM16                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:02.81  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 956162                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	198.28*	92	349	1.13	396.75	392	10	4.25E-03	43.0	0.00E+00
2	0	241.71	78	210	0.91	483.61	481	7	3.60E-03	33.0	
3	0	295.47*	122	247	1.72	591.13	586	12	5.65E-03	30.3	
4	0	351.96*	164	147	1.01	704.10	700	8	7.62E-03	18.4	
5	0	596.31	54	85	1.52	1192.75	1186	11	2.49E-03	35.9	
6	0	609.38*	162	86	0.94	1218.88	1213	12	7.51E-03	15.9	
7	0	1120.48*	20	17	1.64	2240.83	2234	11	9.46E-04	63.0	
8	0	1238.03	26	20	1.29	2475.85	2471	9	1.20E-03	37.0	
9	0	1765.05*	21	13	2.69	3529.38	3523	13	9.49E-04	64.6	
10	0	1922.35	25	20	3.38	3843.78	3833	22	1.15E-03	52.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-FEB-2010 04:33:17

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202050274.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : KXG3
Sample date       : 15-FEB-2010 12:00:00 Acquisition date : 23-FEB-2010 22:32:17
Sample ID         : G1202050274          Sample quantity  : 2.0000 LITER
Sample type       : LIQUID               Sample geometry  :
Detector name     : GAMMA16              Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:02.81   0.0%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     1.50 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AS-74	+	595.88	*	6.559E+00	4.743E+00	4.750E+00	3.964E-01	1.381
		634.78		5.829E+00	1.173E+01	1.985E+01	1.636E+00	0.294
BI-211		72.87		-1.498E+02	1.396E+02	2.284E+02	1.994E+01	-0.656
	+	351.07	*	4.622E+01	1.762E+01	1.493E+01	1.477E+00	3.096
BI-214	+	609.31	*	1.861E+01	6.188E+00	4.250E+00	4.164E-01	4.378
	+	1120.29		1.158E+01	1.464E+01	9.048E+00	1.018E+00	1.280
	+	1764.49		1.528E+01	1.980E+01	1.494E+01	1.278E+00	1.023
RA-224	+	240.98	*	5.741E+01	3.829E+01	7.205E+01	7.297E+00	0.797

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	3.891E+00	1.324E+01	2.238E+01	2.029E+00	0.174
NA-22		1274.54	*	5.339E-01	1.503E+00	2.549E+00	2.272E-01	0.209
NA-24		1368.53	*	7.858E-03	1.503E+00	Half-Life too short		
AL-26		1129.67		1.389E+01	5.906E+01	9.940E+01	8.954E+00	0.140
		1808.65	*	-8.394E-01	1.766E+00	2.712E+00	2.283E-01	-0.309
K-40		1460.81	*	6.662E-01	2.481E+01	3.962E+01	3.686E+00	0.017
TI-44		67.85		-3.733E+00	3.071E+00	3.967E+00	3.419E-01	-0.941
		78.38	*	1.663E+00	1.622E+00	2.861E+00	2.563E-01	0.581
SC-46		889.25	*	1.207E+00	1.380E+00	2.497E+00	2.601E-01	0.483
	+	1120.51		1.877E+00	2.370E+00	3.547E+00	3.225E-01	0.529
V-48		944.10		-1.447E+01	2.814E+01	4.439E+01	4.577E+00	-0.326
		983.50	*	-1.428E+00	2.011E+00	3.059E+00	3.091E-01	-0.467
		1312.09		-1.213E+00	2.312E+00	3.464E+00	3.122E-01	-0.350
CR-51		320.08	*	-1.996E+00	1.591E+01	2.498E+01	2.680E+00	-0.080
MN-52		744.21		-4.980E+00	4.801E+00	6.886E+00	6.169E-01	-0.723
		848.13		-7.610E+01	1.571E+02	2.110E+02	2.110E+01	-0.361
		935.52		3.243E+00	4.622E+00	8.160E+00	8.446E-01	0.397
		1246.25		2.043E+01	1.017E+02	1.695E+02	1.495E+01	0.121
		1333.61		-2.265E+00	9.251E+01	1.489E+02	1.350E+01	-0.015
		1434.06	*	-2.420E+00	4.767E+00	7.084E+00	6.434E-01	-0.342
MN-54		834.83	*	-3.293E-01	1.360E+00	2.231E+00	2.201E-01	-0.148

Sample ID : G1202050274 Acquisition date : 23-FEB-2010 22:32:17

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-56		846.75	*	-1.171E+00	1.966E+00	2.622E+00	2.619E-01	-0.447
		977.42		4.579E+01	1.018E+02	1.768E+02	1.793E+01	0.259
		1037.82		-8.441E+00	1.189E+01	1.809E+01	1.839E+00	-0.467
		1175.09		-5.161E+00	7.900E+01	1.281E+02	1.100E+01	-0.040
	+	1238.25		3.858E+00	2.873E+00	4.889E+00	4.420E-01	0.789
		1360.21		5.495E+00	3.819E+01	6.280E+01	5.702E+00	0.087
		1771.40		1.241E+01	1.283E+01	2.159E+01	1.842E+00	0.575
CO-57		122.06	*	-7.559E-02	1.347E+00	2.252E+00	2.103E-01	-0.034
		136.48		-6.075E+00	1.081E+01	1.758E+01	1.667E+00	-0.346
CO-58		810.76	*	2.238E-01	1.423E+00	2.428E+00	2.341E-01	0.092
FE-59		142.65		-1.794E+02	1.559E+02	2.115E+02	1.841E+01	-0.848
		192.34		3.362E+01	4.359E+01	7.329E+01	9.954E+00	0.459
		1099.22	*	-8.804E-01	2.755E+00	4.338E+00	4.309E-01	-0.203
		1291.56		-6.134E-01	4.481E+00	7.136E+00	7.194E-01	-0.086
CO-60		1173.22		-3.544E-01	1.706E+00	2.723E+00	2.336E-01	-0.130
		1332.49	*	-9.378E-01	1.651E+00	2.462E+00	2.232E-01	-0.381
ZN-65		1115.52	*	-1.869E+00	3.631E+00	4.706E+00	4.304E-01	-0.397
GE-68		1077.35	*	-9.680E+00	4.486E+01	7.193E+01	6.805E+00	-0.135
AS-73		53.44	*	5.628E+00	4.645E+01	7.328E+01	6.705E+00	0.077
SE-75		66.05		4.607E+02	3.201E+02	4.723E+02	4.922E+01	0.975
		96.73		-3.723E+01	3.765E+01	6.067E+01	8.481E+00	-0.614
		121.11		2.558E+00	7.168E+00	1.216E+01	1.429E+00	0.210
		136.00		-3.119E-01	1.965E+00	3.253E+00	2.902E-01	-0.096
	+	198.60		1.735E+02	1.502E+02	1.617E+02	1.604E+01	1.073
		264.65	*	1.390E-02	2.029E+00	3.255E+00	3.521E-01	0.004
		279.53		2.823E+00	5.103E+00	8.390E+00	9.600E-01	0.336
		303.91		1.530E+01	9.670E+01	1.551E+02	2.036E+01	0.099
		400.65		-8.725E-01	1.132E+01	1.890E+01	2.033E+00	-0.046
BR-77		87.88		6.289E+02	1.181E+03	2.045E+03	1.959E+02	0.308
		200.40		7.164E+02	1.272E+03	1.916E+03	1.736E+02	0.374
		239.00		1.106E+02	9.815E+01	1.334E+02	1.344E+01	0.829
		249.79		4.604E+00	4.894E+02	7.879E+02	8.171E+01	0.006
		281.68		-5.420E+02	6.676E+02	1.011E+03	1.128E+02	-0.536
		297.23		1.583E+02	4.445E+02	6.442E+02	6.995E+01	0.246
		303.76		-2.550E+02	1.267E+03	1.986E+03	2.130E+02	-0.128
		439.47		-3.672E+01	8.749E+02	1.454E+03	1.206E+02	-0.025
		484.57		-4.438E+02	1.562E+03	2.533E+03	2.125E+02	-0.175
		520.65	*	-3.642E-01	6.552E+01	1.078E+02	9.078E+00	-0.003
		574.64		5.671E+02	1.227E+03	2.083E+03	1.746E+02	0.272
		578.91		-7.896E+02	5.743E+02	8.291E+02	6.946E+01	-0.952
		585.48		1.170E+01	1.131E+03	1.847E+03	1.546E+02	0.006
		755.35		-8.187E+02	9.815E+02	1.424E+03	1.292E+02	-0.575
		817.79		2.040E+02	7.331E+02	1.265E+03	1.226E+02	0.161
SR-82		698.33		-1.139E+02	1.215E+03	1.940E+03	1.650E+02	-0.059
		776.49	*	5.458E+00	1.524E+01	2.508E+01	2.327E+00	0.218
		1395.20		-8.583E+00	3.712E+02	5.951E+02	5.407E+01	-0.014
RB-83		520.41	*	-4.919E-01	2.774E+00	4.503E+00	3.791E-01	-0.109
		529.64		-9.300E-01	4.452E+00	7.204E+00	6.065E-01	-0.129
		552.65		1.674E+00	7.575E+00	1.265E+01	1.064E+00	0.132

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RB-84		881.50	*	9.051E-01	2.376E+00	4.115E+00	4.254E-01	0.220
KR-85		513.99	*	-1.613E+03	4.993E+02	6.627E+02	5.577E+01	-2.434
SR-85		513.99	*	-7.718E+00	2.389E+00	3.170E+00	2.668E-01	-2.434
RB-86		1076.63	*	-5.173E+00	2.229E+01	3.565E+01	3.375E+00	-0.145
Y-88		898.02		-3.214E-01	1.561E+00	2.553E+00	2.691E-01	-0.126
		1836.01	*	1.899E+00	1.865E+00	3.457E+00	2.882E-01	0.549
ZR-88		392.90	*	1.519E+00	1.350E+00	2.402E+00	1.951E-01	0.632
Y-91		1204.90	*	-1.024E+02	6.031E+02	9.633E+02	8.370E+01	-0.106
NB-94		702.63	*	3.393E-01	1.474E+00	2.419E+00	2.067E-01	0.140
		871.10		4.675E-01	1.268E+00	2.200E+00	2.251E-01	0.213
NB-95		765.79	*	-4.543E-01	1.836E+00	2.866E+00	2.630E-01	-0.158
NB-95M		235.69	*	-2.040E+01	6.510E+00	8.288E+00	9.181E-01	-2.462
ZR-95		724.18		-5.703E-01	3.610E+00	5.710E+00	5.420E-01	-0.100
		756.15	*	2.275E+00	2.440E+00	4.280E+00	4.242E-01	0.532
NB-97		657.90	*	-3.480E-03	2.440E+00	Half-Life too short		
		1024.50		-5.576E-02	2.440E+00	Half-Life too short		
ZR-97		254.15		4.478E-01	2.440E+00	Half-Life too short		
		355.39		3.823E-02	2.440E+00	Half-Life too short		
		507.63	*	-7.956E-01	2.440E+00	Half-Life too short		
		602.52		4.871E-03	2.440E+00	Half-Life too short		
		1021.30		1.688E-01	2.440E+00	Half-Life too short		
		1147.95		-1.186E-01	2.440E+00	Half-Life too short		
		1362.66		-3.435E-01	2.440E+00	Half-Life too short		
		1750.46		-2.621E-01	2.440E+00	Half-Life too short		
MO-99		140.51		2.376E+02	2.777E+02	4.633E+02	1.285E+02	0.513
		181.06		-7.876E+01	1.649E+02	2.640E+02	4.826E+01	-0.298
		366.43		-4.175E+02	7.297E+02	1.187E+03	1.070E+02	-0.352
		739.58	*	5.223E+01	9.633E+01	1.617E+02	2.482E+01	0.323
		778.00		2.515E+02	3.105E+02	5.288E+02	4.915E+01	0.476
TC-99M		140.51	*	2.179E+04	3.105E+02	Half-Life too short		
RH-101		127.23		1.129E+00	1.630E+00	2.794E+00	2.551E-01	0.404
	+	198.01	*	3.297E+00	2.851E+00	3.086E+00	2.778E-01	1.068
		325.23		9.205E+00	1.074E+01	1.783E+01	1.821E+00	0.516
RH-102		418.52		1.288E+00	1.282E+01	2.157E+01	1.775E+00	0.060
		475.06	*	-1.259E+00	1.550E+00	2.059E+00	1.724E-01	-0.611
		631.29		-6.499E-01	2.265E+00	3.577E+00	2.952E-01	-0.182
		697.49		4.891E-01	3.145E+00	5.137E+00	4.363E-01	0.095
		766.84		3.340E+00	4.559E+00	7.744E+00	7.112E-01	0.431
		1046.59		-1.206E+00	4.377E+00	6.997E+00	6.784E-01	-0.172
		1112.84		6.861E+00	8.357E+00	1.390E+01	1.273E+00	0.494
RU-103		497.08	*	-1.133E+00	1.729E+00	2.715E+00	3.809E-01	-0.417
	+	610.33		1.789E+02	6.408E+01	7.848E+01	1.297E+01	2.280
RH-106		511.85		-4.631E+01	1.628E+01	2.213E+01	1.862E+00	-2.093
		621.84	*	1.054E+01	1.413E+01	2.424E+01	3.185E+00	0.435
		1050.47		-1.760E+01	7.593E+01	1.215E+02	1.174E+01	-0.145
RU-106		511.85		-4.631E+01	1.628E+01	2.213E+01	1.862E+00	-2.093
		621.84	*	1.054E+01	1.409E+01	2.424E+01	2.007E+00	0.435
		1050.47		-1.760E+01	7.593E+01	1.215E+02	1.174E+01	-0.145
AG-108M		433.93	*	-9.080E-01	1.419E+00	2.258E+00	1.949E-01	-0.402

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		614.37		1.524E-01	1.708E+00	2.458E+00	2.127E-01	0.062
		722.95		-8.226E-01	1.747E+00	2.678E+00	2.431E-01	-0.307
CD-109		88.03	*	1.657E+01	3.705E+01	6.397E+01	6.132E+00	0.259
AG-110M		657.75	*	-8.754E-01	1.454E+00	2.220E+00	1.871E-01	-0.394
		677.61		-5.702E-01	1.353E+01	2.176E+01	1.860E+00	-0.026
		706.67		-5.655E-01	8.952E+00	1.432E+01	1.264E+00	-0.039
		763.93		5.488E+00	6.624E+00	1.138E+01	1.068E+00	0.482
		884.67		-8.490E-01	1.850E+00	2.941E+00	3.118E-01	-0.289
		937.48		-3.302E+00	4.547E+00	7.011E+00	7.434E-01	-0.471
		1384.27		-5.945E+00	6.656E+00	9.248E+00	8.615E-01	-0.643
IN-111		171.28		-2.086E+00	1.048E+01	1.709E+01	1.435E+00	-0.122
		245.39	*	-6.413E+00	1.144E+01	1.571E+01	1.610E+00	-0.408
IN-113M		391.69	*	7.085E-01	1.960E+00	3.360E+00	2.822E-01	0.211
SN-113		391.69	*	7.085E-01	1.960E+00	3.360E+00	2.822E-01	0.211
IN-114M		190.27	*	2.774E-01	8.419E+00	1.379E+01	1.216E+00	0.020
CD-115		260.90		-2.996E+02	8.089E+02	1.269E+03	1.356E+02	-0.236
		492.35		-1.196E+02	2.520E+02	3.202E+02	2.689E+01	-0.374
		527.90	*	9.478E+00	6.187E+01	1.030E+02	8.668E+00	0.092
SN-117M		156.02		4.578E+01	8.583E+01	1.448E+02	1.223E+01	0.316
		158.56	*	-4.168E-01	2.031E+00	3.327E+00	2.796E-01	-0.125
SB-122		563.90	*	4.583E-01	1.572E+01	2.579E+01	2.166E+00	0.018
		692.80		1.009E+02	3.398E+02	5.619E+02	4.747E+01	0.180
I-123		159.00	*	-4.616E-03	3.398E+02	Half-Life too short		
		528.96		-2.126E+00	3.398E+02	Half-Life too short		
TE-123M		159.00	*	-9.367E-02	1.419E+00	2.339E+00	1.977E-01	-0.040
I-124		602.71	*	3.381E-01	9.974E+00	1.507E+01	1.256E+00	0.022
		722.78		-1.475E+01	6.028E+01	9.452E+01	8.266E+00	-0.156
		1325.50		-1.924E+02	4.703E+02	7.175E+02	6.491E+01	-0.268
		1376.25		2.429E+02	4.308E+02	7.417E+02	6.737E+01	0.328
		1509.49		1.619E+02	2.386E+02	4.293E+02	3.880E+01	0.377
		1691.02		3.306E+01	6.612E+01	1.167E+02	1.021E+01	0.283
SB-124		602.71		5.437E-02	1.604E+00	2.424E+00	2.020E-01	0.022
		645.85		-6.931E+00	2.043E+01	3.208E+01	2.805E+00	-0.216
		709.31		1.022E+02	1.092E+02	1.896E+02	1.633E+01	0.539
		713.82		-1.322E+00	6.431E+01	1.032E+02	1.245E+01	-0.013
		722.78		-3.439E+00	1.405E+01	2.203E+01	1.967E+00	-0.156
		968.20		8.084E+01	9.790E+01	1.731E+02	1.764E+01	0.467
		1045.16		-8.237E+00	8.734E+01	1.425E+02	1.383E+01	-0.058
		1325.50		-4.791E+01	1.171E+02	1.786E+02	1.616E+01	-0.268
		1368.21		2.881E+01	6.723E+01	1.145E+02	1.578E+01	0.252
		1436.60		2.445E+02	1.540E+02	3.013E+02	2.736E+01	0.812
		1691.02	*	1.818E+00	3.636E+00	6.418E+00	5.828E-01	0.283
SB-125		427.89	*	-1.797E+00	4.095E+00	6.633E+00	5.594E-01	-0.271
		463.38		3.241E+00	1.234E+01	2.084E+01	1.886E+00	0.155
		600.56		6.089E+00	8.161E+00	1.262E+01	1.135E+00	0.483
		635.90		1.224E-01	1.175E+01	1.907E+01	1.709E+00	0.006
TE-125M		109.28	*	9.195E+01	4.402E+02	7.472E+02	7.986E+01	0.123
I-126		388.63		-1.559E+00	6.438E+00	1.066E+01	8.773E-01	-0.146
		666.33	*	3.453E+00	5.727E+00	9.700E+00	7.940E-01	0.356

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		753.82		-1.457E+01	4.102E+01	6.311E+01	5.714E+00	-0.231
SB-126		223.80		-4.482E+01	1.369E+02	2.180E+02	2.107E+01	-0.206
		278.60		6.662E+01	8.076E+01	1.346E+02	1.505E+01	0.495
	+	296.50		1.424E+02	8.780E+01	8.793E+01	9.562E+00	1.619
		414.70		-7.791E-01	2.264E+00	3.701E+00	3.039E-01	-0.211
		415.30		1.789E+01	1.904E+02	3.204E+02	2.632E+01	0.056
		555.20		-2.044E+01	1.082E+02	1.743E+02	1.465E+01	-0.117
		573.80		9.778E+00	2.923E+01	4.912E+01	4.119E+00	0.199
		593.00		1.332E+00	2.863E+01	4.112E+01	3.435E+00	0.032
		656.30		-1.151E+01	9.399E+01	1.503E+02	1.227E+01	-0.077
		666.33		1.421E+00	2.357E+00	3.992E+00	3.268E-01	0.356
		675.00		-5.692E+01	5.978E+01	8.755E+01	7.242E+00	-0.650
		695.00		-2.531E-01	2.315E+00	3.693E+00	3.128E-01	-0.069
		697.00		4.111E+00	7.657E+00	1.292E+01	1.097E+00	0.318
		720.50	*	4.236E-01	4.100E+00	6.650E+00	5.800E-01	0.064
		856.80		-1.518E+01	1.324E+01	1.963E+01	1.980E+00	-0.773
		989.30		2.522E+01	3.387E+01	6.019E+01	6.062E+00	0.419
		1034.80		1.846E+02	2.471E+02	4.372E+02	4.275E+01	0.422
		1213.00		-1.075E+02	1.188E+02	1.729E+02	1.507E+01	-0.621
SN-126		64.28		-5.035E+01	3.879E+01	5.043E+01	7.651E+00	-0.998
		86.94		5.209E+00	1.574E+01	2.683E+01	1.115E+01	0.194
		87.57	*	2.300E+00	3.670E+00	6.372E+00	6.089E-01	0.361
SB-127		61.10		-2.586E+03	1.078E+03	1.434E+03	1.362E+02	-1.804
		252.40		2.513E+01	6.829E+01	1.106E+02	4.651E+01	0.227
		290.80		6.057E+01	3.155E+02	4.544E+02	5.313E+01	0.133
		411.60		2.967E+01	1.543E+02	2.615E+02	3.754E+01	0.113
		444.90		-4.014E+01	1.300E+02	2.117E+02	2.295E+01	-0.190
		473.00		8.286E+00	2.255E+01	3.832E+01	4.319E+00	0.216
		543.00		-2.553E+02	2.058E+02	2.953E+02	3.845E+01	-0.864
		603.60		3.810E+00	1.656E+02	2.367E+02	2.563E+01	0.016
		685.20	*	-3.017E+00	1.793E+01	2.847E+01	2.718E+00	-0.106
		698.50		-1.133E+01	1.942E+02	3.111E+02	4.551E+01	-0.036
		722.20		2.936E+01	3.650E+02	5.907E+02	5.678E+01	0.050
		783.80		-3.315E+01	4.755E+01	7.028E+01	8.110E+00	-0.472
XE-127		57.60		-1.112E+02	3.044E+02	4.659E+02	4.087E+01	-0.239
		145.22		3.390E+00	3.145E+01	5.244E+01	4.535E+00	0.065
		172.10		-4.156E+00	5.561E+00	8.841E+00	7.438E-01	-0.470
		202.84	*	-1.420E+00	2.289E+00	3.196E+00	2.915E-01	-0.444
		374.96		-1.935E+00	8.104E+00	1.346E+01	1.174E+00	-0.144
I-131		80.18		-1.148E+02	1.165E+02	1.903E+02	1.726E+01	-0.603
		284.30		2.305E+01	4.093E+01	6.736E+01	7.700E+00	0.342
		364.48	*	1.718E+00	2.963E+00	5.157E+00	4.893E-01	0.333
		636.97		-2.014E+01	3.877E+01	5.993E+01	5.214E+00	-0.336
		722.89		-4.794E+01	1.637E+02	2.554E+02	2.238E+01	-0.188
TE-132		49.72		-1.941E+02	2.813E+02	4.238E+02	4.309E+01	-0.458
		111.76		-3.525E+02	3.871E+02	6.257E+02	6.148E+01	-0.563
		116.30		5.856E+01	3.698E+02	6.245E+02	6.185E+01	0.094
		228.16	*	-1.253E+01	8.319E+00	1.200E+01	1.854E+00	-1.044
BA-133		53.15		2.653E+01	2.116E+02	3.340E+02	3.065E+01	0.079

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		79.62		-1.219E+02	6.334E+01	9.530E+01	1.473E+01	-1.280
		81.00		-3.092E+00	4.211E+00	6.919E+00	1.117E+00	-0.447
		276.40		-2.236E+01	1.862E+01	2.716E+01	4.363E+00	-0.823
		302.84		-6.346E+00	7.206E+00	1.074E+01	1.584E+00	-0.591
		356.01	*	-3.147E-01	2.204E+00	3.250E+00	4.448E-01	-0.097
		383.85		-2.491E+00	1.413E+01	2.351E+01	2.929E+00	-0.106
I-133		510.53		-4.351E-01	1.413E+01	Half-Life too short		
		529.87	*	-1.758E-04	1.413E+01	Half-Life too short		
		706.58		-6.499E-03	1.413E+01	Half-Life too short		
		856.28		-7.389E-02	1.413E+01	Half-Life too short		
		875.33		-5.903E-03	1.413E+01	Half-Life too short		
		1236.41		1.598E-01	1.413E+01	Half-Life too short		
		1298.22		3.657E-03	1.413E+01	Half-Life too short		
CS-134		475.35		-9.620E+01	1.032E+02	1.367E+02	1.145E+01	-0.704
		563.23		6.581E+00	1.480E+01	2.509E+01	2.129E+00	0.262
		569.32		-3.470E-01	1.158E+01	1.339E+01	1.140E+00	-0.026
		604.70		-8.940E-01	1.596E+00	2.122E+00	1.772E-01	-0.421
		795.84	*	5.801E-01	1.888E+00	3.258E+00	3.105E-01	0.178
		801.93		-1.235E+01	2.100E+01	2.844E+01	2.724E+00	-0.434
		1038.57		-5.798E+01	1.547E+02	2.450E+02	2.389E+01	-0.237
		1167.94		6.599E+01	9.420E+01	1.649E+02	1.424E+01	0.400
		1365.15		-5.806E+00	5.079E+01	8.053E+01	7.613E+00	-0.072
CS-135		268.24	*	4.023E+00	7.447E+00	1.227E+01	1.469E+00	0.328
I-135		288.45		-3.912E+04	7.447E+00	Half-Life too short		
		417.63		4.855E+04	7.447E+00	Half-Life too short		
		546.56		1.441E+04	7.447E+00	Half-Life too short		
		836.80		-1.202E+04	7.447E+00	Half-Life too short		
		1038.76		-2.476E+04	7.447E+00	Half-Life too short		
		1124.00		-2.598E+04	7.447E+00	Half-Life too short		
		1131.51		-4.274E+01	7.447E+00	Half-Life too short		
		1260.41	*	2.620E+03	7.447E+00	Half-Life too short		
		1457.56		-4.797E+04	7.447E+00	Half-Life too short		
		1678.03		2.100E+04	7.447E+00	Half-Life too short		
		1706.46		6.422E+04	7.447E+00	Half-Life too short		
		1791.20		-2.332E+04	7.447E+00	Half-Life too short		
CS-136		66.91		1.909E+01	3.740E+01	5.331E+01	8.224E+00	0.358
		86.29		-8.191E+01	5.793E+01	5.903E+01	7.924E+00	-1.388
		153.22		5.992E+00	2.387E+01	3.992E+01	3.800E+00	0.150
		163.89		4.367E+01	3.954E+01	6.779E+01	6.364E+00	0.644
		176.55		-4.923E+00	1.371E+01	2.217E+01	1.996E+00	-0.222
		273.65		1.831E+01	1.559E+01	2.629E+01	3.019E+00	0.697
		340.57		-1.597E+00	4.084E+00	6.779E+00	6.793E-01	-0.236
		818.51		3.306E-01	1.993E+00	3.403E+00	3.302E-01	0.097
		1048.07	*	6.684E-01	2.697E+00	4.573E+00	4.576E-01	0.146
		1235.34		4.673E+00	1.452E+01	2.151E+01	2.574E+00	0.217
BA-137M		661.65	*	2.803E-01	1.605E+00	2.633E+00	2.143E-01	0.106
CS-137		661.65	*	2.963E-01	1.697E+00	2.783E+00	2.270E-01	0.106
CE-139		165.85	*	-4.489E-01	1.509E+00	2.456E+00	2.037E-01	-0.183
BA-140		162.64		9.849E+00	2.760E+01	4.619E+01	4.092E+00	0.213

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		304.84		1.639E+01	4.256E+01	6.880E+01	1.977E+01	0.238
		423.70		2.662E+01	6.146E+01	1.044E+02	3.375E+01	0.255
		537.32	*	1.037E+00	8.193E+00	1.358E+01	4.492E+00	0.076
LA-140		328.77		-1.308E+01	1.039E+01	1.494E+01	1.575E+00	-0.875
		432.53		2.181E+01	6.145E+01	1.050E+02	9.140E+00	0.208
		487.03		-8.125E-01	4.417E+00	7.213E+00	6.447E-01	-0.113
		751.79		-1.761E+01	4.907E+01	7.556E+01	7.493E+00	-0.233
		815.85		2.854E-01	8.823E+00	1.488E+01	1.573E+00	0.019
		867.82		3.610E+01	3.720E+01	6.766E+01	7.163E+00	0.534
		919.63		2.063E+01	7.332E+01	1.256E+02	1.527E+01	0.164
		925.24		-2.857E+01	2.973E+01	4.392E+01	4.765E+00	-0.651
		1596.49	*	8.615E-02	2.865E+00	4.785E+00	4.274E-01	0.018
CE-141		145.44	*	2.103E-02	2.799E+00	4.649E+00	4.090E-01	0.005
CE-143		57.37		-2.023E+01	2.128E+03	3.324E+03	3.400E+02	-0.006
		231.56		5.106E+03	4.582E+03	7.343E+03	2.351E+03	0.695
		293.26	*	3.369E+02	2.476E+02	3.711E+02	8.380E+01	0.908
	+	350.59		1.318E+04	6.374E+03	6.463E+03	2.026E+03	2.040
		490.36		-3.809E+03	5.818E+03	7.203E+03	2.276E+03	-0.529
		664.57		9.939E+01	2.138E+03	3.469E+03	1.119E+03	0.029
		721.93		-1.014E+01	1.992E+03	3.198E+03	9.363E+02	-0.003
CE-144		80.11		-9.100E+01	9.323E+01	1.524E+02	1.379E+01	-0.597
		133.54	*	6.125E+00	1.053E+01	1.789E+01	2.816E+00	0.342
PM-144		476.78		3.292E-01	2.898E+00	4.841E+00	4.455E-01	0.068
		618.01		-2.112E-01	1.384E+00	2.222E+00	1.897E-01	-0.095
		696.49	*	6.435E-02	1.425E+00	2.305E+00	1.956E-01	0.028
		778.57		7.691E+01	1.070E+02	1.812E+02	1.685E+01	0.425
PR-144		696.49	*	4.345E+00	9.624E+01	1.556E+02	1.320E+01	0.028
		1489.15		1.259E+02	5.112E+02	8.828E+02	7.994E+01	0.143
PM-146		453.90	*	2.492E-01	1.874E+00	3.144E+00	3.299E-01	0.079
		633.02		1.051E+01	5.823E+01	9.581E+01	3.573E+01	0.110
		735.90		2.686E+00	6.070E+00	1.009E+01	2.892E+00	0.266
		747.13		1.632E+00	3.840E+00	6.392E+00	9.120E-01	0.255
ND-147		91.11		-5.859E+01	1.216E+01	1.585E+01	1.593E+00	-3.696
		319.41		6.814E+00	1.082E+02	1.720E+02	1.783E+01	0.040
		439.89		-1.972E+01	1.616E+02	2.669E+02	2.214E+01	-0.074
		531.02	*	-3.592E+00	1.625E+01	2.625E+01	3.894E+00	-0.137
PM-149		285.90	*	1.058E+02	5.452E+02	8.795E+02	1.496E+02	0.120
EU-152		121.78		2.556E-01	3.944E+00	6.624E+00	6.983E-01	0.039
		244.69		-5.303E+00	1.705E+01	2.389E+01	2.444E+00	-0.222
		344.27	*	4.303E-01	4.521E+00	7.693E+00	7.814E-01	0.056
		443.98		-1.540E+01	4.125E+01	6.686E+01	5.554E+00	-0.230
		778.89		8.982E+00	1.250E+01	2.116E+01	1.969E+00	0.425
		867.32		1.388E+01	3.198E+01	5.570E+01	5.678E+00	0.249
		964.01		2.490E+00	1.099E+01	1.861E+01	1.900E+00	0.134
		1085.78		-4.211E+00	1.523E+01	2.425E+01	2.278E+00	-0.174
		1112.02		6.942E+00	1.145E+01	1.960E+01	1.797E+00	0.354
		1407.95		2.649E+00	8.748E+00	1.457E+01	1.324E+00	0.182
GD-153		69.67		-1.007E+01	7.935E+01	1.356E+02	1.172E+01	-0.074
		83.37		4.811E+02	6.474E+02	1.131E+03	1.047E+02	0.425

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		97.43	*	-4.639E+00	4.425E+00	6.434E+00	5.884E-01	-0.721
		103.18		-4.127E-01	5.211E+00	8.770E+00	7.942E-01	-0.047
EU-154		123.07		1.598E+00	2.772E+00	4.734E+00	5.624E-01	0.337
		247.94		1.127E+01	1.777E+01	2.949E+01	3.776E+00	0.382
		591.81		-5.947E+00	2.809E+01	3.901E+01	4.476E+00	-0.152
		723.30		-4.055E+00	7.424E+00	1.130E+01	1.090E+00	-0.359
		756.87		2.382E+01	2.926E+01	5.062E+01	6.233E+00	0.471
		873.19		-2.825E+01	1.199E+01	1.350E+01	1.815E+00	-2.093
		996.32		-1.138E+01	1.456E+01	2.184E+01	4.038E+00	-0.521
		1004.76		-1.172E+01	8.916E+00	1.252E+01	1.587E+00	-0.936
		1274.45	*	2.453E+00	4.118E+00	7.188E+00	8.288E-01	0.341
EU-155		48.70		-2.960E+02	1.579E+02	2.193E+02	2.083E+01	-1.350
		60.01		-8.473E+01	2.683E+02	4.112E+02	3.546E+01	-0.206
		86.54		2.428E+00	4.473E+00	7.752E+00	7.407E-01	0.313
		105.31	*	-3.123E+00	5.412E+00	8.902E+00	8.144E-01	-0.351
TB-160		86.79		7.389E+00	1.127E+01	1.960E+01	1.860E+00	0.377
	+	197.04		5.305E+01	4.588E+01	4.743E+01	4.258E+00	1.119
		215.65		8.542E+00	3.330E+01	5.475E+01	5.174E+00	0.156
		298.57		5.407E+00	5.553E+00	8.401E+00	9.100E-01	0.644
		879.36	*	2.455E+00	5.404E+00	9.400E+00	9.697E-01	0.261
		962.29		-4.415E+00	1.746E+01	2.823E+01	2.885E+00	-0.156
		966.15		2.566E+00	7.438E+00	1.271E+01	1.296E+00	0.202
		1177.93		1.038E+01	1.189E+01	2.124E+01	1.826E+00	0.489
		1271.85		-3.033E+00	2.327E+01	3.708E+01	3.299E+00	-0.082
HO-166M		80.57		-7.362E+00	1.173E+01	1.948E+01	1.768E+00	-0.378
		184.41		-3.009E+00	2.448E+00	3.263E+00	2.832E-01	-0.922
		280.46		2.502E+00	4.124E+00	6.800E+00	7.600E-01	0.368
		410.95		1.256E+00	1.014E+01	1.711E+01	1.403E+00	0.073
		711.68	*	-1.304E+00	2.707E+00	4.157E+00	3.589E-01	-0.314
		752.31		-2.293E+00	1.105E+01	1.729E+01	1.563E+00	-0.133
		810.29		4.223E-01	2.207E+00	3.781E+00	3.637E-01	0.112
TM-171		51.35		2.421E+02	1.769E+03	2.799E+03	2.615E+02	0.087
		52.39		1.374E+02	9.226E+02	1.459E+03	1.349E+02	0.094
		59.40		1.186E+02	1.397E+03	2.190E+03	1.891E+02	0.054
		66.72	*	1.756E+03	1.901E+03	2.759E+03	2.374E+02	0.637
HF-175		89.36		-2.197E+02	6.961E+01	9.947E+01	9.445E+00	-2.209
		343.40	*	5.791E-01	1.569E+00	2.707E+00	2.632E-01	0.214
		433.00		1.097E+01	8.531E+01	1.436E+02	1.188E+01	0.076
LU-176		88.36		3.130E+00	8.656E+00	1.490E+01	1.425E+00	0.210
		201.83		-5.664E-01	1.534E+00	2.179E+00	1.982E-01	-0.260
		306.84	*	-3.057E-01	1.206E+00	1.883E+00	2.006E-01	-0.162
		401.10		1.175E+01	3.028E+02	5.090E+02	4.152E+01	0.023
LU-177		112.95		9.841E+00	4.413E+01	7.479E+01	6.814E+00	0.132
		208.36	*	-6.662E+00	2.619E+01	4.211E+01	3.900E+00	-0.158
LU-177M		52.97		7.883E+00	9.313E+01	1.467E+02	1.349E+01	0.054
		54.07		7.998E+00	4.935E+01	7.797E+01	7.087E+00	0.103
		61.30		-2.098E+02	8.822E+01	1.182E+02	1.018E+01	-1.776
		121.62		-5.390E+00	2.008E+01	3.329E+01	3.101E+00	-0.162
		147.16		-4.607E+00	3.207E+01	5.290E+01	4.554E+00	-0.087

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		171.86		-1.721E+01	2.474E+01	3.944E+01	3.316E+00	-0.436
		218.09		1.316E+01	3.992E+01	6.581E+01	6.261E+00	0.200
		268.79		2.000E+01	3.666E+01	6.040E+01	6.584E+00	0.331
		319.02		-1.346E+00	1.251E+01	1.966E+01	2.040E+00	-0.068
		367.43		-9.842E+00	4.127E+01	6.864E+01	6.162E+00	-0.143
		413.65	*	-4.401E+00	7.413E+00	1.191E+01	9.774E-01	-0.370
HF-181		56.28		9.346E+00	4.889E+01	7.723E+01	6.861E+00	0.121
		57.53		-9.762E+00	2.608E+01	3.990E+01	3.502E+00	-0.245
		65.20		-5.116E+01	5.533E+01	8.233E+01	7.079E+00	-0.621
		133.02		2.380E+00	3.085E+00	5.288E+00	4.731E-01	0.450
		136.25		-1.174E+01	2.164E+01	3.523E+01	3.121E+00	-0.333
		345.85		-4.866E-01	7.934E+00	1.339E+01	1.292E+00	-0.036
		482.03	*	-8.513E-01	1.779E+00	2.845E+00	2.386E-01	-0.299
W-181		56.28		3.885E+00	2.052E+01	3.242E+01	2.880E+00	0.120
		57.53		-4.105E+00	1.096E+01	1.676E+01	1.471E+00	-0.245
		65.20	*	-2.132E+01	2.306E+01	3.432E+01	2.951E+00	-0.621
TA-182		67.75		-7.746E+00	7.070E+00	9.219E+00	7.944E-01	-0.840
		100.10		3.335E+00	8.771E+00	1.504E+01	1.367E+00	0.222
		152.43		-5.511E+00	1.670E+01	2.727E+01	2.321E+00	-0.202
		222.10		-4.843E+00	1.626E+01	2.596E+01	2.497E+00	-0.187
		1001.68		-1.926E+01	1.004E+02	1.348E+02	1.348E+01	-0.143
	+	1121.28		5.261E+00	6.641E+00	1.004E+01	9.121E-01	0.524
		1189.05		3.183E+00	8.496E+00	1.457E+01	1.258E+00	0.219
		1221.42	*	1.846E+00	6.519E+00	1.094E+01	9.567E-01	0.169
		1230.97		4.827E+00	1.431E+01	2.302E+01	2.020E+00	0.210
RE-183		57.98		-1.848E+00	1.037E+01	1.604E+01	1.402E+00	-0.115
		59.32		-1.448E+00	5.533E+00	8.508E+00	7.351E-01	-0.170
		67.20		-4.496E+00	1.269E+01	1.740E+01	1.498E+00	-0.258
		162.32	*	1.368E+00	5.405E+00	9.013E+00	7.521E-01	0.152
		208.81		1.239E+01	4.322E+01	7.125E+01	6.607E+00	0.174
		291.72		1.779E+01	4.205E+01	6.169E+01	6.767E+00	0.288
RE-184		57.98		-7.076E+00	3.972E+01	6.142E+01	5.369E+00	-0.115
		59.32		-5.540E+00	2.117E+01	3.255E+01	2.812E+00	-0.170
		67.20		-1.721E+01	4.855E+01	6.659E+01	5.734E+00	-0.258
		161.27		-8.596E-01	1.795E+01	2.958E+01	2.474E+00	-0.029
		216.55		-4.384E+00	1.259E+01	2.007E+01	1.901E+00	-0.218
		252.85	*	4.103E+00	1.153E+01	1.887E+01	1.973E+00	0.217
		318.01		-1.520E+01	2.215E+01	3.344E+01	3.476E+00	-0.454
		792.07		-2.220E+01	3.850E+01	6.158E+01	5.811E+00	-0.361
		903.28		2.625E+01	3.755E+01	6.664E+01	6.987E+00	0.394
		920.93		1.016E+01	1.703E+01	2.999E+01	3.123E+00	0.339
OS-185		59.72		2.969E+00	1.475E+01	2.326E+01	2.007E+00	0.128
		61.14		-2.290E+01	9.526E+00	1.273E+01	1.097E+00	-1.798
		69.30		-2.037E+01	1.428E+01	2.307E+01	1.993E+00	-0.883
		592.07		-2.751E+01	1.090E+02	1.505E+02	1.258E+01	-0.183
		646.12	*	-8.360E-01	1.781E+00	2.762E+00	2.265E-01	-0.303
		717.42		7.185E+00	3.553E+01	5.818E+01	5.057E+00	0.123
		874.81		-1.738E+01	2.100E+01	3.191E+01	3.277E+00	-0.545
		880.27		8.335E+00	3.027E+01	5.188E+01	5.356E+00	0.161

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RE-188		155.03	*	1.942E+00	8.516E+00	1.422E+01	1.203E+00	0.137
		477.96		3.273E+01	1.297E+02	2.186E+02	1.831E+01	0.150
		633.10		1.734E+01	1.100E+02	1.810E+02	1.492E+01	0.096
W-188		63.58		-1.714E+03	3.625E+03	4.963E+03	4.268E+02	-0.345
		227.08		-4.525E+01	5.646E+02	9.102E+02	8.876E+01	-0.050
		290.67	*	7.589E+01	3.360E+02	4.852E+02	5.332E+01	0.156
IR-192	+	295.96		1.482E+01	9.141E+00	9.489E+00	1.038E+00	1.562
		308.46		-1.796E+00	4.337E+00	6.689E+00	7.127E-01	-0.268
		316.51	*	4.074E-01	1.603E+00	2.579E+00	2.694E-01	0.158
		468.07		-1.010E+00	2.777E+00	4.489E+00	4.040E-01	-0.225
		604.41		-1.126E+01	2.045E+01	2.719E+01	3.487E+00	-0.414
		612.46		2.791E+00	2.978E+01	4.287E+01	4.127E+00	0.065
AU-195		65.12		-1.105E+01	1.080E+01	1.599E+01	1.375E+00	-0.691
		66.83		5.231E+00	6.147E+00	8.890E+00	7.652E-01	0.588
		75.70		9.817E+00	8.366E+00	1.481E+01	1.308E+00	0.663
		98.88	*	2.277E+00	1.269E+01	1.958E+01	1.784E+00	0.116
		129.76		-1.306E+02	1.436E+02	2.303E+02	2.084E+01	-0.567
TL-200		367.94	*	-4.157E+01	3.187E+02	5.334E+02	4.779E+01	-0.078
		579.30		-4.180E+03	2.455E+03	3.432E+03	2.875E+02	-1.218
		828.27		9.329E+02	3.155E+03	5.430E+03	5.321E+02	0.172
		1205.75		-2.858E+01	1.318E+03	2.143E+03	1.862E+02	-0.013
TL-201		68.90		-1.319E+02	5.583E+01	8.571E+01	7.399E+00	-1.538
		70.82		2.278E+01	2.804E+01	4.942E+01	4.285E+00	0.461
		80.30		-4.999E+01	4.986E+01	8.140E+01	7.375E+00	-0.614
		135.34		-1.578E+02	2.981E+02	4.858E+02	4.314E+01	-0.325
		167.43	*	-1.885E+01	8.120E+01	1.325E+02	1.102E+01	-0.142
TL-202		68.90		-3.663E+01	1.551E+01	2.381E+01	2.056E+00	-1.538
		70.82		6.313E+00	7.770E+00	1.369E+01	1.187E+00	0.461
		80.30		-1.386E+01	1.382E+01	2.256E+01	2.044E+00	-0.614
		439.56	*	-2.839E-01	2.011E+00	3.317E+00	2.752E-01	-0.086
HG-203		70.83		3.608E+01	4.452E+01	7.817E+01	1.066E+01	0.462
		72.87		-2.701E+01	2.532E+01	4.119E+01	5.467E+00	-0.656
		82.60		-4.868E+00	4.418E+01	7.497E+01	1.058E+01	-0.065
		279.20	*	6.212E-01	1.814E+00	2.952E+00	3.362E-01	0.210
BI-207		72.80		-8.646E+00	8.155E+00	1.335E+01	1.165E+00	-0.647
		74.97		-3.309E+00	4.828E+00	8.047E+00	7.083E-01	-0.411
		84.90		-2.469E+01	1.440E+01	1.435E+01	1.343E+00	-1.720
		569.67		-1.334E-01	1.793E+00	2.035E+00	1.708E-01	-0.066
		1063.62	*	1.648E+00	2.020E+00	3.598E+00	3.442E-01	0.458
		1770.23		5.040E+00	3.005E+01	4.394E+01	3.750E+00	0.115
TL-207		81.07		-6.286E+00	9.279E+00	1.536E+01	1.399E+00	-0.409
		83.78		-1.007E+01	9.465E+00	9.696E+00	8.996E-01	-1.038
		94.90		-5.480E+01	1.659E+01	1.957E+01	1.805E+00	-2.800
		122.32		1.505E+01	9.498E+01	1.600E+02	1.586E+01	0.094
		144.24		-6.971E+00	4.199E+01	5.920E+01	5.733E+00	-0.118
		154.21		6.929E+00	2.076E+01	3.481E+01	3.254E+00	0.199
		269.46		4.058E+00	8.858E+00	1.453E+01	1.607E+00	0.279
		323.87	*	-3.963E+01	3.528E+01	5.068E+01	9.404E+00	-0.782
		338.28		6.084E+01	4.584E+01	8.157E+01	1.078E+01	0.746

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		445.03		-3.914E+01	9.871E+01	1.596E+02	1.894E+01	-0.245
TL-208		72.80		-9.359E+01	8.828E+01	1.446E+02	1.261E+01	-0.647
		74.97		-3.579E+01	5.231E+01	8.703E+01	1.080E+01	-0.411
		277.35		-7.888E+00	1.847E+01	2.874E+01	4.085E+00	-0.274
		510.84		-3.528E+01	1.550E+01	2.135E+01	2.529E+00	-1.652
		583.14	*	9.343E-01	2.215E+00	3.215E+00	2.896E-01	0.291
		763.13		9.004E+01	8.583E+01	1.496E+02	2.137E+01	0.602
		860.37		5.961E+00	1.122E+01	1.967E+01	2.099E+00	0.303
		1093.90		7.879E+01	3.826E+02	6.431E+02	1.514E+02	0.123
PO-209		260.50		-3.587E+02	4.752E+02	7.272E+02	7.759E+01	-0.493
		262.80		8.282E+00	1.264E+03	2.028E+03	2.177E+02	0.004
		896.60	*	9.097E+01	2.767E+02	4.771E+02	5.005E+01	0.191
BI-210		46.50	*	1.968E+02	2.679E+02	3.819E+02	3.904E+01	0.515
PB-210		46.50	*	1.968E+02	2.679E+02	3.819E+02	3.904E+01	0.515
PO-210		46.50	*	1.968E+02	2.678E+02	3.819E+02	3.600E+01	0.515
PB-211		404.84	*	6.335E+00	4.196E+01	7.065E+01	4.423E+01	0.090
		427.08		-4.487E+01	9.546E+01	1.475E+02	9.157E+01	-0.304
		831.96		-1.905E+01	5.049E+01	7.954E+01	4.999E+01	-0.240
BI-212		727.18	*	3.005E+00	1.516E+01	2.049E+01	2.080E+00	0.147
		785.46		-3.157E+00	7.242E+01	1.217E+02	1.140E+01	-0.026
		1620.62		-2.724E+00	5.810E+01	9.594E+01	8.529E+00	-0.028
PB-212		74.81		-1.918E+01	1.717E+01	2.792E+01	3.584E+00	-0.687
		77.11		1.422E+01	9.758E+00	1.735E+01	1.543E+00	0.820
		87.30		2.259E+00	1.736E+01	2.966E+01	4.099E+00	0.076
		115.19		8.262E+01	1.981E+02	3.375E+02	3.089E+01	0.245
		238.63	*	5.833E+00	4.194E+00	5.746E+00	6.331E-01	1.015
		300.09		3.105E+01	4.025E+01	6.014E+01	7.391E+00	0.516
PO-212		74.81		-1.918E+01	1.717E+01	2.792E+01	3.584E+00	-0.687
		77.11		1.422E+01	9.758E+00	1.735E+01	1.543E+00	0.820
		87.30		2.259E+00	1.736E+01	2.966E+01	4.099E+00	0.076
		115.19		8.262E+01	1.981E+02	3.375E+02	3.089E+01	0.245
		238.63	*	5.833E+00	4.194E+00	5.746E+00	6.331E-01	1.015
		300.09		3.105E+01	4.025E+01	6.014E+01	7.391E+00	0.516
PB-214		74.81		-3.277E+01	2.927E+01	4.771E+01	5.486E+00	-0.687
		77.11		2.417E+01	1.669E+01	2.949E+01	3.454E+00	0.820
		87.30		3.837E+00	2.949E+01	5.039E+01	6.178E+00	0.076
	+	241.98		3.002E+01	2.009E+01	2.959E+01	3.432E+00	1.015
	+	295.21		2.068E+01	1.282E+01	1.314E+01	1.651E+00	1.574
	+	351.92	*	1.608E+01	6.187E+00	8.252E+00	9.214E-01	1.948
PO-214		74.81		-3.277E+01	2.927E+01	4.771E+01	5.486E+00	-0.687
		77.11		2.417E+01	1.669E+01	2.949E+01	3.454E+00	0.820
		87.30		3.837E+00	2.949E+01	5.039E+01	6.178E+00	0.076
	+	241.98		3.002E+01	2.009E+01	2.959E+01	3.432E+00	1.015
	+	295.21		2.068E+01	1.282E+01	1.314E+01	1.651E+00	1.574
	+	351.92	*	1.608E+01	6.187E+00	8.252E+00	9.214E-01	1.948
PO-215		81.07		-6.286E+00	9.279E+00	1.536E+01	1.399E+00	-0.409
		83.78		-1.007E+01	9.465E+00	9.696E+00	8.996E-01	-1.038
		94.90		-5.480E+01	1.659E+01	1.957E+01	1.805E+00	-2.800
		122.32		1.505E+01	9.498E+01	1.600E+02	1.586E+01	0.094

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		144.24		-6.971E+00	4.199E+01	5.920E+01	5.733E+00	-0.118
		154.21		6.929E+00	2.076E+01	3.481E+01	3.254E+00	0.199
		269.46		4.058E+00	8.858E+00	1.453E+01	1.607E+00	0.279
		323.87	*	-3.963E+01	3.528E+01	5.068E+01	9.404E+00	-0.782
		338.28		6.084E+01	4.584E+01	8.157E+01	1.078E+01	0.746
		445.03		-3.914E+01	9.871E+01	1.596E+02	1.894E+01	-0.245
PO-216		74.81		-1.918E+01	1.717E+01	2.792E+01	3.584E+00	-0.687
		77.11		1.422E+01	9.758E+00	1.735E+01	1.543E+00	0.820
		87.30		2.259E+00	1.736E+01	2.966E+01	4.099E+00	0.076
		115.19		8.262E+01	1.981E+02	3.375E+02	3.089E+01	0.245
		238.63	*	5.833E+00	4.194E+00	5.746E+00	6.331E-01	1.015
		300.09		3.105E+01	4.025E+01	6.014E+01	7.391E+00	0.516
PO-218		74.81		-3.277E+01	2.927E+01	4.771E+01	5.486E+00	-0.687
		77.11		2.417E+01	1.669E+01	2.949E+01	3.454E+00	0.820
		87.30		3.837E+00	2.949E+01	5.039E+01	6.178E+00	0.076
	+	241.98		3.002E+01	2.009E+01	2.959E+01	3.432E+00	1.015
	+	295.21		2.068E+01	1.282E+01	1.314E+01	1.651E+00	1.574
	+	351.92	*	1.608E+01	6.187E+00	8.252E+00	9.214E-01	1.948
RN-219		271.23		-8.273E+00	1.190E+01	1.825E+01	2.253E+00	-0.453
		401.81	*	5.608E+00	1.865E+01	3.180E+01	4.696E+00	0.176
RN-220		549.76	*	-2.036E+02	1.129E+03	1.824E+03	1.534E+02	-0.112
RA-223		81.07		-6.286E+00	9.279E+00	1.536E+01	1.399E+00	-0.409
		83.78		-1.007E+01	9.465E+00	9.696E+00	8.996E-01	-1.038
		94.90		-5.480E+01	1.659E+01	1.957E+01	1.805E+00	-2.800
		122.32		1.505E+01	9.498E+01	1.600E+02	1.586E+01	0.094
		144.24		-6.971E+00	4.199E+01	5.920E+01	5.733E+00	-0.118
		154.21		6.929E+00	2.076E+01	3.481E+01	3.254E+00	0.199
		269.46		4.058E+00	8.858E+00	1.453E+01	1.607E+00	0.279
		323.87	*	-3.963E+01	3.528E+01	5.068E+01	9.404E+00	-0.782
		338.28		6.084E+01	4.584E+01	8.157E+01	1.078E+01	0.746
		445.03		-3.914E+01	9.871E+01	1.596E+02	1.894E+01	-0.245
RA-226		186.21	*	-1.548E+01	5.569E+01	7.646E+01	5.635E+01	-0.202
AC-227		79.80		-1.571E+02	8.385E+01	1.206E+02	2.613E+01	-1.303
		236.00		-4.132E+01	1.328E+01	1.634E+01	2.164E+00	-2.529
		256.20	*	-1.788E+01	1.982E+01	2.993E+01	4.941E+00	-0.597
		286.10		7.111E+00	7.177E+01	1.152E+02	1.719E+01	0.062
		299.80		4.572E+01	7.511E+01	1.106E+02	2.064E+01	0.413
		304.40		1.145E+00	9.002E+01	1.431E+02	2.790E+01	0.008
		329.70		-3.575E+01	4.245E+01	6.839E+01	1.023E+01	-0.523
		334.20		-7.335E+01	1.030E+02	1.663E+02	3.334E+01	-0.441
PA-227		64.62	*	-1.000E+35	1.030E+02	Half-Life too short		
		110.05		-1.000E+35	1.030E+02	Half-Life too short		
TH-227		79.80		-1.571E+02	8.402E+01	1.206E+02	2.646E+01	-1.303
		94.00		4.347E+01	1.306E+02	1.909E+02	4.207E+01	0.228
		236.00		-4.132E+01	1.310E+01	1.634E+01	1.989E+00	-2.529
		256.20	*	-1.788E+01	1.989E+01	2.993E+01	5.705E+00	-0.597
		286.10		7.111E+00	7.212E+01	1.152E+02	1.159E+02	0.062
		299.80		4.572E+01	7.511E+01	1.106E+02	2.064E+01	0.413
		304.40		1.145E+00	9.002E+01	1.431E+02	2.790E+01	0.008

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		329.70		-3.575E+01	4.245E+01	6.839E+01	1.023E+01	-0.523
		334.20		-7.335E+01	1.030E+02	1.663E+02	3.334E+01	-0.441
AC-228		338.32		1.464E+01	1.243E+01	1.959E+01	8.140E+00	0.747
		911.07	*	2.920E+00	6.897E+00	1.027E+01	1.305E+00	0.284
		969.11		1.953E+00	1.200E+01	1.759E+01	4.215E+00	0.111
RA-228		338.32		1.464E+01	1.243E+01	1.959E+01	8.140E+00	0.747
		911.07	*	2.920E+00	6.897E+00	1.027E+01	1.305E+00	0.284
		969.11		1.953E+00	1.200E+01	1.759E+01	4.215E+00	0.111
TH-228		74.81		-1.918E+01	1.708E+01	2.792E+01	2.476E+00	-0.687
		77.11		1.422E+01	9.758E+00	1.735E+01	1.543E+00	0.820
		87.30		2.259E+00	1.736E+01	2.966E+01	2.828E+00	0.076
		238.63	*	5.833E+00	4.194E+00	5.746E+00	6.331E-01	1.015
		300.09		3.105E+01	4.415E+01	6.014E+01	3.587E+01	0.516
TH-229		85.43		-2.209E+01	1.408E+01	1.420E+01	1.334E+00	-1.555
		88.47		6.414E-01	4.990E+00	8.521E+00	8.142E-01	0.075
		100.00		3.429E+00	9.468E+00	1.622E+01	1.475E+00	0.211
		193.63	*	-7.986E+00	2.927E+01	4.203E+01	3.739E+00	-0.190
		210.97		3.332E+00	3.613E+01	5.901E+01	5.504E+00	0.056
TH-230		67.67	*	-7.731E+02	5.074E+03	1.013E+03	6.571E+03	-0.763
PA-231		283.67	*	2.837E+01	7.439E+01	1.212E+02	2.027E+01	0.234
		301.29		2.321E+01	2.990E+01	4.460E+01	6.176E+00	0.520
		330.00		-2.489E+00	9.160E+01	1.553E+02	5.029E+01	-0.016
TH-231		84.21	*	-4.728E+01	3.742E+01	3.750E+01	6.820E+00	-1.261
U-231		84.21		-1.776E+02	1.378E+02	1.409E+02	1.311E+01	-1.261
		92.29		-1.125E+01	4.264E+01	7.440E+01	6.942E+00	-0.151
		95.87	*	-6.796E+01	2.104E+01	2.984E+01	2.742E+00	-2.277
		108.00		2.604E+01	3.468E+01	6.002E+01	5.435E+00	0.434
TH-232		59.00	*	-3.547E+02	4.071E+03	2.503E+03	2.635E+04	-0.142
PA-233		75.28		-8.703E+01	1.407E+02	2.344E+02	3.623E+01	-0.371
		86.59		4.126E+01	7.368E+01	1.265E+02	3.428E+01	0.326
		300.12		1.591E+01	2.069E+01	3.081E+01	5.002E+00	0.516
		311.98	*	-2.408E+00	3.124E+00	4.684E+00	5.032E-01	-0.514
		340.50		-1.018E+01	2.816E+01	4.667E+01	1.134E+01	-0.218
		398.62		5.472E+01	9.499E+01	1.630E+02	4.316E+01	0.336
		415.76		2.436E+01	7.335E+01	1.250E+02	2.673E+01	0.195
PA-234		63.00		-2.062E+01	1.129E+02	1.559E+02	2.415E+01	-0.132
		94.67		-3.447E+01	1.219E+01	1.442E+01	1.851E+00	-2.390
		98.44		-2.391E+00	5.481E+00	7.998E+00	4.468E+00	-0.299
		99.86		1.383E+01	2.365E+01	4.084E+01	3.713E+00	0.339
		111.00		-6.959E+00	9.662E+00	1.573E+01	1.954E+00	-0.442
		131.20		6.653E-01	5.477E+00	9.184E+00	8.267E-01	0.072
		152.70		-1.969E+00	1.682E+01	2.772E+01	4.709E+00	-0.071
		186.00		-2.823E+01	9.007E+01	1.257E+02	3.928E+01	-0.225
		226.40		1.954E+01	1.890E+01	3.190E+01	4.452E+00	0.613
		227.20		-2.339E+00	2.034E+01	3.272E+01	3.192E+00	-0.071
		248.90		2.305E+01	4.035E+01	6.639E+01	1.536E+01	0.347
		293.70		6.366E+01	3.685E+01	5.606E+01	1.040E+01	1.136
		369.80		5.181E+00	3.998E+01	6.786E+01	1.485E+01	0.076
		568.70		1.336E+01	5.952E+01	7.130E+01	5.984E+00	0.187

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		569.50		-1.641E+00	1.606E+01	1.833E+01	1.538E+00	-0.090
		574.00		1.725E+01	6.043E+01	1.012E+02	8.482E+00	0.170
		699.00		-2.008E+01	3.083E+01	4.630E+01	8.811E+00	-0.434
		706.10		-7.372E+00	4.631E+01	7.327E+01	3.266E+01	-0.101
		733.00		8.770E-02	1.508E+01	2.421E+01	5.395E+00	0.004
		742.81		1.969E+01	5.930E+01	9.566E+01	6.434E+01	0.206
		796.30		1.741E+01	3.699E+01	6.417E+01	1.754E+01	0.271
		805.60		-7.508E+00	3.939E+01	6.505E+01	2.012E+01	-0.115
		819.60		-2.872E+01	4.972E+01	7.691E+01	2.945E+01	-0.373
		826.30		3.190E+01	3.727E+01	6.228E+01	2.801E+01	0.512
		831.60		-4.998E+00	2.550E+01	4.201E+01	1.269E+01	-0.119
		876.40		4.705E+00	3.208E+01	5.383E+01	5.542E+01	0.087
		880.51		2.562E+00	1.132E+01	1.933E+01	1.997E+00	0.133
		883.24		-3.574E+00	1.153E+01	1.825E+01	1.232E+01	-0.196
		899.00		-5.135E+00	3.312E+01	5.431E+01	2.397E+01	-0.095
		925.00		-3.489E+01	4.339E+01	6.549E+01	6.809E+00	-0.533
		926.50		-3.439E+00	6.761E+00	1.055E+01	2.737E+00	-0.326
		946.00	*	-1.922E+00	1.232E+01	2.016E+01	3.950E+00	-0.095
		949.00		-4.676E+00	1.799E+01	2.912E+01	2.996E+00	-0.161
		980.50		4.924E+00	2.638E+01	4.464E+01	4.518E+00	0.110
		1394.10		-1.161E+01	4.831E+01	7.391E+01	4.815E+01	-0.157
PA-234M		766.42		1.327E+02	4.900E+02	7.946E+02	4.039E+02	0.167
		1001.03	*	2.368E+01	2.382E+02	3.313E+02	3.704E+01	0.071
TH-234		63.29	*	-9.065E+00	9.578E+01	1.330E+02	2.390E+01	-0.068
		92.38		-6.582E+00	3.318E+01	5.796E+01	1.068E+01	-0.114
U-234		53.20	*	5.132E+02	6.359E+03	5.930E+03	5.930E+04	0.087
U-235		89.95		-2.723E+02	1.031E+02	8.434E+01	2.623E+01	-3.229
		93.35		-1.598E+01	3.933E+01	6.795E+01	1.919E+01	-0.235
		105.00		-2.179E+01	5.297E+01	8.718E+01	2.613E+01	-0.250
		143.76	*	-2.807E+00	1.312E+01	1.853E+01	3.250E+00	-0.151
		163.35		2.143E+01	2.512E+01	4.233E+01	8.022E+00	0.506
		185.71		-9.360E-01	3.321E+00	4.665E+00	4.063E-01	-0.201
		205.31		9.414E+00	2.454E+01	4.059E+01	7.850E+00	0.232
NP-236		94.67		-2.609E+01	8.948E+00	1.094E+01	1.010E+00	-2.384
		98.44		-1.810E+00	4.022E+00	6.046E+00	5.514E-01	-0.299
		111.00		-5.264E+00	7.295E+00	1.190E+01	1.081E+00	-0.442
		160.31	*	-4.732E+00	4.224E+00	6.622E+00	5.547E-01	-0.715
NP-237		86.50	*	5.734E+00	1.099E+01	1.893E+01	4.298E+00	0.303
		95.87		-1.781E+02	6.876E+01	7.821E+01	1.943E+01	-2.277
PU-237		59.54	*	1.469E+01	1.018E+02	1.601E+02	1.381E+01	0.092
U-238		63.29	*	-9.065E+00	9.578E+01	1.330E+02	2.390E+01	-0.068
		92.38		-6.582E+00	3.316E+01	5.796E+01	5.406E+00	-0.114
NP-239		99.55		-8.474E-01	9.055E+00	1.380E+01	1.256E+00	-0.061
		117.00	*	-7.941E+00	1.037E+01	1.685E+01	1.549E+00	-0.471
		209.75		3.350E+01	3.591E+01	6.077E+01	5.650E+00	0.551
		228.18		-1.672E+01	1.088E+01	1.596E+01	1.561E+00	-1.048
		277.60		2.864E-01	8.733E+00	1.398E+01	1.559E+00	0.020
		334.30		-4.434E+01	5.778E+01	9.367E+01	9.347E+00	-0.473
AM-241		59.54	*	1.177E+00	8.157E+00	1.283E+01	1.187E+00	0.092

---- Non-Identified Nuclides ----

Nuclide	Line Ided Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AM-243	74.67	*	-3.155E+00	2.752E+00	4.496E+00	3.952E-01	-0.702
	86.72		2.566E+02	4.108E+02	7.134E+02	6.770E+01	0.360
	117.66		-2.422E+02	2.105E+02	3.356E+02	3.090E+01	-0.722
	142.18		-1.105E+03	9.605E+02	1.518E+03	1.323E+02	-0.728
CM-243	99.55		-8.716E-01	9.313E+00	1.420E+01	1.292E+00	-0.061
	103.76	*	-1.212E+00	4.888E+00	8.165E+00	7.391E-01	-0.148
	117.00		-8.166E+00	1.067E+01	1.733E+01	1.593E+00	-0.471
	209.75		3.301E+01	3.539E+01	5.988E+01	5.567E+00	0.551
	228.18		-1.688E+01	1.099E+01	1.612E+01	1.576E+00	-1.048
	277.60		2.886E-01	8.801E+00	1.409E+01	1.571E+00	0.020
AM-246	798.80		-4.081E+00	5.960E+00	9.452E+00	8.983E-01	-0.432
	1036.00		-2.364E+00	1.252E+01	2.027E+01	1.981E+00	-0.117
	1062.04		4.594E+00	8.631E+00	1.501E+01	1.438E+00	0.306
	1078.86	*	2.414E+00	5.139E+00	8.894E+00	8.403E-01	0.271
CM-247	278.00		2.347E+01	3.593E+01	5.939E+01	6.629E+00	0.395
	287.40		-2.431E+01	5.643E+01	8.736E+01	9.654E+00	-0.278
	402.60	*	9.095E-02	1.695E+00	2.850E+00	2.327E-01	0.032
CF-249	252.85		1.582E+01	4.443E+01	7.274E+01	7.605E+00	0.217
	333.44		2.339E+00	7.505E+00	1.294E+01	1.294E+00	0.181
	387.95	*	1.727E-01	1.776E+00	3.003E+00	2.479E-01	0.058
CF-251	176.60	*	-2.388E+00	6.690E+00	1.082E+01	9.206E-01	-0.221
	227.00		2.803E+00	1.792E+01	2.925E+01	2.852E+00	0.096
	285.00		4.473E+01	8.304E+01	1.366E+02	1.515E+01	0.328
ANH-511	511.00	*	-7.528E+00	3.261E+00	4.578E+00	3.852E-01	-1.644

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202050274    *
* Acquisition date : 23-FEB-2010 22:32:17 Detector SN#    :                *
* Detector ID        : GAM16               Sensitivity     : 5.000         *
* Geometry           : 2LMB                Energy tolerance: 1.500         *
* Elapsed live time:    0 06:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 06:00:02.81      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 15-FEB-2010 12:00:00 Nuclide Library : LIQUI         *
* Sample ID          : G1202050274         Analyst initials: KXG3          *
* Batch Number       : 956162              Sample Quantity : 2.0000E+00 LITER *
* Recovery           :    1.00000          Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 16-NOV-2009 16:34:37 MS Isotope      :                 *
* MSD DPM            :    0.000            MSD Isotope     :                *
* LCS DPM            :    0.000            LCS Isotope     :                *
* LCSD DPM           :    0.000            LCSD Isotope    :                *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
AS-74	6.559E+00	4.648E+00	4.750E+00	0.000E+00
BI-211	4.622E+01	1.727E+01	1.493E+01	0.000E+00
BI-214	1.861E+01	6.064E+00	4.250E+00	0.000E+00
RA-224	5.741E+01	3.753E+01	7.205E+01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	3.891E+00	1.298E+01	2.238E+01	0.000E+00	NOT IDENT.
NA-22	5.339E-01	1.473E+00	2.549E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.979E+04	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-8.394E-01	1.731E+00	2.712E+00	0.000E+00	NOT IDENT.
K-40	6.662E-01	2.431E+01	3.962E+01	0.000E+00	NOT IDENT.
TI-44	1.663E+00	1.590E+00	2.861E+00	0.000E+00	NOT IDENT.
SC-46	1.207E+00	1.353E+00	2.497E+00	0.000E+00	FAIL ABUN
V-48	-1.428E+00	1.971E+00	3.059E+00	0.000E+00	NOT IDENT.
CR-51	-1.996E+00	1.559E+01	2.498E+01	0.000E+00	NOT IDENT.
MN-52	-2.420E+00	4.672E+00	7.084E+00	0.000E+00	NOT IDENT.
MN-54	-3.293E-01	1.333E+00	2.231E+00	0.000E+00	NOT IDENT.
CO-56	-1.171E+00	1.927E+00	2.622E+00	0.000E+00	FAIL ABUN
CO-57	-7.559E-02	1.320E+00	2.252E+00	0.000E+00	NOT IDENT.
CO-58	2.238E-01	1.394E+00	2.428E+00	0.000E+00	NOT IDENT.
FE-59	-8.804E-01	2.700E+00	4.338E+00	0.000E+00	NOT IDENT.
CO-60	-9.378E-01	1.618E+00	2.462E+00	0.000E+00	NOT IDENT.
ZN-65	-1.869E+00	3.558E+00	4.706E+00	0.000E+00	NOT IDENT.
GE-68	-9.680E+00	4.396E+01	7.193E+01	0.000E+00	NOT IDENT.
AS-73	5.628E+00	4.552E+01	7.328E+01	0.000E+00	NOT IDENT.
SE-75	1.390E-02	1.989E+00	3.255E+00	0.000E+00	FAIL ABUN
BR-77	-3.642E-01	6.421E+01	1.078E+02	0.000E+00	NOT IDENT.
SR-82	5.458E+00	1.494E+01	2.508E+01	0.000E+00	NOT IDENT.
RB-83	-4.919E-01	2.719E+00	4.503E+00	0.000E+00	NOT IDENT.

RB-84	9.051E-01	2.328E+00	4.115E+00	0.000E+00	NOT IDENT.
KR-85	-1.613E+03	4.893E+02	6.627E+02	0.000E+00	NOT IDENT.
SR-85	-7.718E+00	2.341E+00	3.170E+00	0.000E+00	NOT IDENT.
RB-86	-5.173E+00	2.184E+01	3.565E+01	0.000E+00	NOT IDENT.
Y-88	1.899E+00	1.828E+00	3.457E+00	0.000E+00	NOT IDENT.
ZR-88	1.519E+00	1.323E+00	2.402E+00	0.000E+00	NOT IDENT.
Y-91	-1.024E+02	5.910E+02	9.633E+02	0.000E+00	NOT IDENT.
NB-94	3.393E-01	1.445E+00	2.419E+00	0.000E+00	NOT IDENT.
NB-95	-4.543E-01	1.799E+00	2.866E+00	0.000E+00	NOT IDENT.
NB-95M	-2.040E+01	6.379E+00	8.288E+00	0.000E+00	NOT IDENT.
ZR-95	2.275E+00	2.391E+00	4.280E+00	0.000E+00	NOT IDENT.
NB-97	0.000E+00	6.099E+03	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.764E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	5.223E+01	9.441E+01	1.617E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.454E+10	0.000E+00	0.000E+00	SHORT HLIF
RH-101	0.000E+00	2.794E+00	3.086E+00	0.000E+00	FAIL ABUN
RH-102	-1.259E+00	1.519E+00	2.059E+00	0.000E+00	NOT IDENT.
RU-103	-1.133E+00	1.695E+00	2.715E+00	0.000E+00	FAIL ABUN
RH-106	1.054E+01	1.385E+01	2.424E+01	0.000E+00	NOT IDENT.
RU-106	1.054E+01	1.381E+01	2.424E+01	0.000E+00	NOT IDENT.
AG-108M	-9.080E-01	1.391E+00	2.258E+00	0.000E+00	NOT IDENT.
CD-109	1.657E+01	3.631E+01	6.397E+01	0.000E+00	NOT IDENT.
AG-110M	-8.754E-01	1.425E+00	2.220E+00	0.000E+00	NOT IDENT.
IN-111	-6.413E+00	1.121E+01	1.571E+01	0.000E+00	NOT IDENT.
IN-113M	7.085E-01	1.921E+00	3.360E+00	0.000E+00	NOT IDENT.
SN-113	7.085E-01	1.921E+00	3.360E+00	0.000E+00	NOT IDENT.
IN-114M	2.774E-01	8.251E+00	1.379E+01	0.000E+00	NOT IDENT.
CD-115	9.478E+00	6.064E+01	1.030E+02	0.000E+00	NOT IDENT.
SN-117M	-4.168E-01	1.990E+00	3.327E+00	0.000E+00	NOT IDENT.
SB-122	4.583E-01	1.540E+01	2.579E+01	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.854E+04	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-9.367E-02	1.391E+00	2.339E+00	0.000E+00	NOT IDENT.
I-124	3.381E-01	9.775E+00	1.507E+01	0.000E+00	NOT IDENT.
SB-124	1.818E+00	3.563E+00	6.418E+00	0.000E+00	NOT IDENT.
SB-125	-1.797E+00	4.013E+00	6.633E+00	0.000E+00	NOT IDENT.
TE-125M	9.195E+01	4.314E+02	7.472E+02	0.000E+00	NOT IDENT.
I-126	3.453E+00	5.612E+00	9.700E+00	0.000E+00	NOT IDENT.
SB-126	4.236E-01	4.018E+00	6.650E+00	0.000E+00	FAIL ABUN
SN-126	2.300E+00	3.596E+00	6.372E+00	0.000E+00	NOT IDENT.
SB-127	-3.017E+00	1.757E+01	2.847E+01	0.000E+00	NOT IDENT.
XE-127	-1.420E+00	2.244E+00	3.196E+00	0.000E+00	NOT IDENT.
I-131	1.718E+00	2.904E+00	5.157E+00	0.000E+00	NOT IDENT.
TE-132	-1.253E+01	8.152E+00	1.200E+01	0.000E+00	NOT IDENT.
BA-133	-3.147E-01	2.160E+00	3.250E+00	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.324E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	5.801E-01	1.850E+00	3.258E+00	0.000E+00	NOT IDENT.
CS-135	4.023E+00	7.298E+00	1.227E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.122E+10	0.000E+00	0.000E+00	SHORT HLIF
CS-136	6.684E-01	2.643E+00	4.573E+00	0.000E+00	NOT IDENT.
BA-137M	2.803E-01	1.573E+00	2.633E+00	0.000E+00	NOT IDENT.
CS-137	2.963E-01	1.663E+00	2.783E+00	0.000E+00	NOT IDENT.
CE-139	-4.489E-01	1.478E+00	2.456E+00	0.000E+00	NOT IDENT.
BA-140	1.037E+00	8.029E+00	1.358E+01	0.000E+00	NOT IDENT.
LA-140	8.615E-02	2.807E+00	4.785E+00	0.000E+00	NOT IDENT.
CE-141	2.103E-02	2.743E+00	4.649E+00	0.000E+00	NOT IDENT.
CE-143	3.369E+02	2.427E+02	3.711E+02	0.000E+00	FAIL ABUN
CE-144	6.125E+00	1.032E+01	1.789E+01	0.000E+00	NOT IDENT.
PM-144	6.435E-02	1.397E+00	2.305E+00	0.000E+00	NOT IDENT.
PR-144	4.345E+00	9.432E+01	1.556E+02	0.000E+00	NOT IDENT.
PM-146	2.492E-01	1.836E+00	3.144E+00	0.000E+00	NOT IDENT.
ND-147	-3.592E+00	1.593E+01	2.625E+01	0.000E+00	NOT IDENT.
PM-149	1.058E+02	5.343E+02	8.795E+02	0.000E+00	NOT IDENT.
EU-152	4.303E-01	4.430E+00	7.693E+00	0.000E+00	NOT IDENT.
GD-153	-4.639E+00	4.336E+00	6.434E+00	0.000E+00	NOT IDENT.
EU-154	2.453E+00	4.036E+00	7.188E+00	0.000E+00	NOT IDENT.
EU-155	-3.123E+00	5.303E+00	8.902E+00	0.000E+00	NOT IDENT.
TB-160	2.455E+00	5.296E+00	9.400E+00	0.000E+00	FAIL ABUN
HO-166M	-1.304E+00	2.652E+00	4.157E+00	0.000E+00	NOT IDENT.
TM-171	1.756E+03	1.863E+03	2.759E+03	0.000E+00	NOT IDENT.
HF-175	5.791E-01	1.538E+00	2.707E+00	0.000E+00	NOT IDENT.
LU-176	-3.057E-01	1.182E+00	1.883E+00	0.000E+00	NOT IDENT.
LU-177	-6.662E+00	2.567E+01	4.211E+01	0.000E+00	NOT IDENT.
LU-177M	-4.401E+00	7.265E+00	1.191E+01	0.000E+00	NOT IDENT.
HF-181	-8.513E-01	1.743E+00	2.845E+00	0.000E+00	NOT IDENT.
W-181	-2.132E+01	2.260E+01	3.432E+01	0.000E+00	NOT IDENT.
TA-182	1.846E+00	6.388E+00	1.094E+01	0.000E+00	FAIL ABUN
RE-183	1.368E+00	5.297E+00	9.013E+00	0.000E+00	NOT IDENT.
RE-184	4.103E+00	1.129E+01	1.887E+01	0.000E+00	NOT IDENT.

OS-185	-8.360E-01	1.745E+00	2.762E+00	0.000E+00	NOT IDENT.
RE-188	1.942E+00	8.345E+00	1.422E+01	0.000E+00	NOT IDENT.
W-188	7.589E+01	3.293E+02	4.852E+02	0.000E+00	NOT IDENT.
IR-192	4.074E-01	1.571E+00	2.579E+00	0.000E+00	FAIL ABUN
AU-195	2.277E+00	1.244E+01	1.958E+01	0.000E+00	NOT IDENT.
TL-200	-4.157E+01	3.123E+02	5.334E+02	0.000E+00	NOT IDENT.
TL-201	-1.885E+01	7.958E+01	1.325E+02	0.000E+00	NOT IDENT.
TL-202	-2.839E-01	1.971E+00	3.317E+00	0.000E+00	NOT IDENT.
HG-203	6.212E-01	1.778E+00	2.952E+00	0.000E+00	NOT IDENT.
BI-207	1.648E+00	1.980E+00	3.598E+00	0.000E+00	NOT IDENT.
TL-207	-3.963E+01	3.458E+01	5.068E+01	0.000E+00	NOT IDENT.
TL-208	9.343E-01	2.170E+00	3.215E+00	0.000E+00	NOT IDENT.
PO-209	9.097E+01	2.712E+02	4.771E+02	0.000E+00	NOT IDENT.
BI-210	1.968E+02	2.625E+02	3.819E+02	0.000E+00	NOT IDENT.
PB-210	1.968E+02	2.625E+02	3.819E+02	0.000E+00	NOT IDENT.
PO-210	1.968E+02	2.624E+02	3.819E+02	0.000E+00	NOT IDENT.
PB-211	6.335E+00	4.112E+01	7.065E+01	0.000E+00	NOT IDENT.
BI-212	3.005E+00	1.485E+01	2.049E+01	0.000E+00	NOT IDENT.
PB-212	0.000E+00	4.110E+00	5.746E+00	0.000E+00	NOT IDENT.
PO-212	0.000E+00	4.110E+00	5.746E+00	0.000E+00	NOT IDENT.
PB-214	0.000E+00	6.063E+00	8.252E+00	0.000E+00	FAIL ABUN
PO-214	0.000E+00	6.063E+00	8.252E+00	0.000E+00	FAIL ABUN
PO-215	-3.963E+01	3.458E+01	5.068E+01	0.000E+00	NOT IDENT.
PO-216	0.000E+00	4.110E+00	5.746E+00	0.000E+00	NOT IDENT.
PO-218	0.000E+00	6.063E+00	8.252E+00	0.000E+00	FAIL ABUN
RN-219	5.608E+00	1.827E+01	3.180E+01	0.000E+00	NOT IDENT.
RN-220	-2.036E+02	1.106E+03	1.824E+03	0.000E+00	NOT IDENT.
RA-223	-3.963E+01	3.458E+01	5.068E+01	0.000E+00	NOT IDENT.
RA-226	-1.548E+01	5.458E+01	7.646E+01	0.000E+00	NOT IDENT.
AC-227	-1.788E+01	1.943E+01	2.993E+01	0.000E+00	NOT IDENT.
PA-227	0.000E+00	4.467E+40	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-1.788E+01	1.950E+01	2.993E+01	0.000E+00	NOT IDENT.
AC-228	2.920E+00	6.759E+00	1.027E+01	0.000E+00	NOT IDENT.
RA-228	2.920E+00	6.759E+00	1.027E+01	0.000E+00	NOT IDENT.
TH-228	0.000E+00	4.110E+00	5.746E+00	0.000E+00	NOT IDENT.
TH-229	-7.986E+00	2.868E+01	4.203E+01	0.000E+00	NOT IDENT.
TH-230	-7.731E+02	4.973E+03	1.013E+03	0.000E+00	NOT IDENT.
PA-231	2.837E+01	7.290E+01	1.212E+02	0.000E+00	NOT IDENT.
TH-231	-4.728E+01	3.667E+01	3.750E+01	0.000E+00	NOT IDENT.
U-231	-6.796E+01	2.062E+01	2.984E+01	0.000E+00	NOT IDENT.
TH-232	-3.547E+02	3.990E+03	2.503E+03	0.000E+00	NOT IDENT.
PA-233	-2.408E+00	3.062E+00	4.684E+00	0.000E+00	NOT IDENT.
PA-234	-1.922E+00	1.207E+01	2.016E+01	0.000E+00	NOT IDENT.
PA-234M	2.368E+01	2.334E+02	3.313E+02	0.000E+00	NOT IDENT.
TH-234	-9.065E+00	9.386E+01	1.330E+02	0.000E+00	NOT IDENT.
U-234	5.132E+02	6.232E+03	5.930E+03	0.000E+00	NOT IDENT.
U-235	-2.807E+00	1.286E+01	1.853E+01	0.000E+00	NOT IDENT.
NP-236	-4.732E+00	4.140E+00	6.622E+00	0.000E+00	NOT IDENT.
NP-237	5.734E+00	1.077E+01	1.893E+01	0.000E+00	NOT IDENT.
PU-237	1.469E+01	9.977E+01	1.601E+02	0.000E+00	NOT IDENT.
U-238	-9.065E+00	9.386E+01	1.330E+02	0.000E+00	NOT IDENT.
NP-239	-7.941E+00	1.016E+01	1.685E+01	0.000E+00	NOT IDENT.
AM-241	1.177E+00	7.994E+00	1.283E+01	0.000E+00	NOT IDENT.
AM-243	-3.155E+00	2.697E+00	4.496E+00	0.000E+00	NOT IDENT.
CM-243	-1.212E+00	4.790E+00	8.165E+00	0.000E+00	NOT IDENT.
AM-246	2.414E+00	5.037E+00	8.894E+00	0.000E+00	NOT IDENT.
CM-247	9.095E-02	1.661E+00	2.850E+00	0.000E+00	NOT IDENT.
CF-249	1.727E-01	1.741E+00	3.003E+00	0.000E+00	NOT IDENT.
CF-251	-2.388E+00	6.556E+00	1.082E+01	0.000E+00	NOT IDENT.
ANH-511	-7.528E+00	3.196E+00	4.578E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-FEB-2010 04:33:12.90

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202050274.CNF;1
Sample date      : 15-FEB-2010 12:00:00 Acquisition date : 23-FEB-2010 22:32:17
Sample ID        : G1202050274          Sample quantity  : 2.00000E+00 LITER
Detector name    : GAM16                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00        Elapsed real time: 0 06:00:02.81  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : KXG3
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 956162               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.69	110	304	0.88	93.57	90	8	5.09E-03	29.1	
2	2	63.42	159	280	0.99	127.03	123	13	7.37E-03	18.5	3.19E+00
3	2	66.23	132	286	1.00	132.65	123	13	6.10E-03	22.5	
4	0	92.58	329	565	1.20	185.34	181	10	1.52E-02	14.6	
5	0	185.65	184	393	1.14	371.50	368	9	8.50E-03	20.8	
6	0	198.28	130	349	1.13	396.75	392	10	6.02E-03	28.3	
7	0	238.32	142	305	1.05	476.83	473	9	6.56E-03	23.7	
8	0	241.71	78	210	0.91	483.61	481	7	3.60E-03	33.0	
9	0	295.47	165	247	1.72	591.13	586	12	7.63E-03	20.6	
10	0	351.96	200	147	1.01	704.10	700	8	9.27E-03	12.7	
11	0	511.53	484	151	2.69	1023.22	1015	22	2.24E-02	8.0	
12	0	583.28	59	88	1.52	1166.69	1160	11	2.73E-03	33.4	
13	0	596.31	54	85	1.52	1192.75	1186	11	2.49E-03	35.9	
14	0	609.38	191	86	0.94	1218.88	1213	12	8.82E-03	12.2	
15	0	1120.48	55	17	1.64	2240.83	2234	11	2.53E-03	19.8	
16	0	1238.03	26	20	1.29	2475.85	2471	9	1.20E-03	37.0	
17	0	1460.96	56	22	1.72	2921.52	2914	13	2.57E-03	22.2	
18	0	1765.05	60	13	2.69	3529.38	3523	13	2.77E-03	18.0	
19	0	1922.35	25	20	3.38	3843.78	3833	22	1.15E-03	52.0	

VAX/VMS Nuclide Identification Report Generated 24-FEB-2010 04:33:15.82

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202050274.CNF;1
Sample date       : 15-FEB-2010 12:00:00 Acquisition date : 23-FEB-2010 22:32:17
Sample ID         : G1202050274          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM16                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:02.81  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 956162               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
AS-74	595.88	54	59.90*	1.197E+00	4.696E+00	6.559E+00	72.31
	634.78	------	15.40	1.143E+00	------	Line Not Found	------
BI-211	72.87	------	1.27	1.614E+00	------	Line Not Found	------
	351.07	164	12.94*	1.721E+00	4.622E+01	4.622E+01	38.12
BI-214	609.31	162	46.30*	1.178E+00	1.861E+01	1.861E+01	33.25
	1120.29	20	15.10	7.311E-01	1.158E+01	1.158E+01	126.41
	1764.49	21	15.80	5.314E-01	1.528E+01	1.528E+01	129.56
RA-224	240.98	78	3.95*	2.166E+00	5.693E+01	5.741E+01	66.70

Flag: "*" = Keyline

Sample ID : G1202050274 Acquisition date : 23-FEB-2010 22:32:17

Total number of lines in spectrum	10	
Number of unidentified lines	1	
Number of lines tentatively identified by NID	9	90.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
AS-74	17.77D	1.40	4.696E+00	6.559E+00	4.743E+00	72.31	
BI-211	7.04E+08Y	1.00	4.622E+01	4.622E+01	1.762E+01	38.12	
BI-214	1600.00Y	1.00	1.861E+01	1.861E+01	0.619E+01	33.25	
RA-224	1.91Y	1.01	5.693E+01	5.741E+01	3.829E+01	66.70	
			---	---			
	Total Activity :		1.265E+02	1.288E+02			
	Grand Total Activity :		1.265E+02	1.288E+02			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202050274 Acquisition date : 23-FEB-2010 22:32:17

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	198.28	92	349	1.13	396.75	392	10	4.25E-03	86.0	2.40E+00	T
0	295.47	122	247	1.72	591.13	586	12	5.65E-03	60.7	1.92E+00	T
0	1238.03	26	20	1.29	2475.85	2471	9	1.20E-03	73.9	6.76E-01	T
0	1922.35	25	20	3.38	3843.78	3833	22	1.15E-03	****	5.11E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-FEB-2010 04:33:20.45

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202050274.CNF;1 *
* Acquisition date : 23-FEB-2010 22:32:17  Detector SN#    :                *
* Detector ID      : GAM16                 Sensitivity     : 5.00000        *
* Geometry         : 2LMB                  Energy tolerance: 1.50000        *
* Elapsed live time: 0 06:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 06:00:02.81         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 15-FEB-2010 12:00:00  Nuclide Library : LIQUID         *
* Sample ID        : G1202050274           Analyst initials: KXG3           *
* Batch Number     : 956162                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 16-NOV-2009 16:34:37.2MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AS-74	6.559E+00	4.743E+00	4.750E+00	3.964E-01	1.381
BI-211	4.622E+01	1.762E+01	1.493E+01	1.477E+00	3.096
BI-214	1.861E+01	6.188E+00	4.250E+00	4.164E-01	4.378
RA-224	5.741E+01	3.829E+01	7.205E+01	7.297E+00	0.797

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	3.891E+00		1.324E+01	2.238E+01	2.029E+00	0.174
NA-22	5.339E-01		1.503E+00	2.549E+00	2.272E-01	0.209
NA-24	7.858E-03		1.010E-02	Half-Life too short		
AL-26	-8.394E-01		1.766E+00	2.712E+00	2.283E-01	-0.309
K-40	6.662E-01		2.481E+01	3.962E+01	3.686E+00	0.017
TI-44	1.663E+00		1.622E+00	2.861E+00	2.563E-01	0.581
SC-46	1.207E+00		1.380E+00	2.497E+00	2.601E-01	0.483
V-48	-1.428E+00		2.011E+00	3.059E+00	3.091E-01	-0.467

Sample ID : G1202050274 Acquisition date : 23-FEB-2010 22:32:17

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CR-51	-1.996E+00		1.591E+01	2.498E+01	2.680E+00	-0.080
MN-52	-2.420E+00		4.767E+00	7.084E+00	6.434E-01	-0.342
MN-54	-3.293E-01		1.360E+00	2.231E+00	2.201E-01	-0.148
CO-56	-1.171E+00		1.966E+00	2.622E+00	2.619E-01	-0.447
CO-57	-7.559E-02		1.347E+00	2.252E+00	2.103E-01	-0.034
CO-58	2.238E-01		1.423E+00	2.428E+00	2.341E-01	0.092
FE-59	-8.804E-01		2.755E+00	4.338E+00	4.309E-01	-0.203
CO-60	-9.378E-01		1.651E+00	2.462E+00	2.232E-01	-0.381
ZN-65	-1.869E+00		3.631E+00	4.706E+00	4.304E-01	-0.397
GE-68	-9.680E+00		4.486E+01	7.193E+01	6.805E+00	-0.135
AS-73	5.628E+00		4.645E+01	7.328E+01	6.705E+00	0.077
SE-75	1.390E-02		2.029E+00	3.255E+00	3.521E-01	0.004
BR-77	-3.642E-01		6.552E+01	1.078E+02	9.078E+00	-0.003
SR-82	5.458E+00		1.524E+01	2.508E+01	2.327E+00	0.218
RB-83	-4.919E-01		2.774E+00	4.503E+00	3.791E-01	-0.109
RB-84	9.051E-01		2.376E+00	4.115E+00	4.254E-01	0.220
KR-85	-1.613E+03		4.993E+02	6.627E+02	5.577E+01	-2.434
SR-85	-7.718E+00		2.389E+00	3.170E+00	2.668E-01	-2.434
RB-86	-5.173E+00		2.229E+01	3.565E+01	3.375E+00	-0.145
Y-88	1.899E+00		1.865E+00	3.457E+00	2.882E-01	0.549
ZR-88	1.519E+00		1.350E+00	2.402E+00	1.951E-01	0.632
Y-91	-1.024E+02		6.031E+02	9.633E+02	8.370E+01	-0.106
NB-94	3.393E-01		1.474E+00	2.419E+00	2.067E-01	0.140
NB-95	-4.543E-01		1.836E+00	2.866E+00	2.630E-01	-0.158
NB-95M	-2.040E+01		6.510E+00	8.288E+00	9.181E-01	-2.462
ZR-95	2.275E+00		2.440E+00	4.280E+00	4.242E-01	0.532
NB-97	-3.480E-03		3.112E-03	Half-Life too short		
ZR-97	-7.956E-01		8.999E-02	Half-Life too short		
MO-99	5.223E+01		9.633E+01	1.617E+02	2.482E+01	0.323
TC-99M	2.179E+04		1.252E+04	Half-Life too short		
RH-101	3.297E+00	+	2.851E+00	3.086E+00	2.778E-01	1.068
RH-102	-1.259E+00		1.550E+00	2.059E+00	1.724E-01	-0.611
RU-103	-1.133E+00		1.729E+00	2.715E+00	3.809E-01	-0.417
RH-106	1.054E+01		1.413E+01	2.424E+01	3.185E+00	0.435
RU-106	1.054E+01		1.409E+01	2.424E+01	2.007E+00	0.435
AG-108M	-9.080E-01		1.419E+00	2.258E+00	1.949E-01	-0.402
CD-109	1.657E+01		3.705E+01	6.397E+01	6.132E+00	0.259
AG-110M	-8.754E-01		1.454E+00	2.220E+00	1.871E-01	-0.394
IN-111	-6.413E+00		1.144E+01	1.571E+01	1.610E+00	-0.408
IN-113M	7.085E-01		1.960E+00	3.360E+00	2.822E-01	0.211
SN-113	7.085E-01		1.960E+00	3.360E+00	2.822E-01	0.211
IN-114M	2.774E-01		8.419E+00	1.379E+01	1.216E+00	0.020
CD-115	9.478E+00		6.187E+01	1.030E+02	8.668E+00	0.092
SN-117M	-4.168E-01		2.031E+00	3.327E+00	2.796E-01	-0.125
SB-122	4.583E-01		1.572E+01	2.579E+01	2.166E+00	0.018
I-123	-4.616E-03		3.497E-02	Half-Life too short		
TE-123M	-9.367E-02		1.419E+00	2.339E+00	1.977E-01	-0.040
I-124	3.381E-01		9.974E+00	1.507E+01	1.256E+00	0.022

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
SB-124	1.818E+00		3.636E+00	6.418E+00	5.828E-01	0.283
SB-125	-1.797E+00		4.095E+00	6.633E+00	5.594E-01	-0.271
TE-125M	9.195E+01		4.402E+02	7.472E+02	7.986E+01	0.123
I-126	3.453E+00		5.727E+00	9.700E+00	7.940E-01	0.356
SB-126	4.236E-01		4.100E+00	6.650E+00	5.800E-01	0.064
SN-126	2.300E+00		3.670E+00	6.372E+00	6.089E-01	0.361
SB-127	-3.017E+00		1.793E+01	2.847E+01	2.718E+00	-0.106
XE-127	-1.420E+00		2.289E+00	3.196E+00	2.915E-01	-0.444
I-131	1.718E+00		2.963E+00	5.157E+00	4.893E-01	0.333
TE-132	-1.253E+01		8.319E+00	1.200E+01	1.854E+00	-1.044
BA-133	-3.147E-01		2.204E+00	3.250E+00	4.448E-01	-0.097
I-133	-1.758E-04		6.755E-04	Half-Life too short		
CS-134	5.801E-01		1.888E+00	3.258E+00	3.105E-01	0.178
CS-135	4.023E+00		7.447E+00	1.227E+01	1.469E+00	0.328
I-135	2.620E+03		5.723E+03	Half-Life too short		
CS-136	6.684E-01		2.697E+00	4.573E+00	4.576E-01	0.146
BA-137M	2.803E-01		1.605E+00	2.633E+00	2.143E-01	0.106
CS-137	2.963E-01		1.697E+00	2.783E+00	2.270E-01	0.106
CE-139	-4.489E-01		1.509E+00	2.456E+00	2.037E-01	-0.183
BA-140	1.037E+00		8.193E+00	1.358E+01	4.492E+00	0.076
LA-140	8.615E-02		2.865E+00	4.785E+00	4.274E-01	0.018
CE-141	2.103E-02		2.799E+00	4.649E+00	4.090E-01	0.005
CE-143	3.369E+02		2.476E+02	3.711E+02	8.380E+01	0.908
CE-144	6.125E+00		1.053E+01	1.789E+01	2.816E+00	0.342
PM-144	6.435E-02		1.425E+00	2.305E+00	1.956E-01	0.028
PR-144	4.345E+00		9.624E+01	1.556E+02	1.320E+01	0.028
PM-146	2.492E-01		1.874E+00	3.144E+00	3.299E-01	0.079
ND-147	-3.592E+00		1.625E+01	2.625E+01	3.894E+00	-0.137
PM-149	1.058E+02		5.452E+02	8.795E+02	1.496E+02	0.120
EU-152	4.303E-01		4.521E+00	7.693E+00	7.814E-01	0.056
GD-153	-4.639E+00		4.425E+00	6.434E+00	5.884E-01	-0.721
EU-154	2.453E+00		4.118E+00	7.188E+00	8.288E-01	0.341
EU-155	-3.123E+00		5.412E+00	8.902E+00	8.144E-01	-0.351
TB-160	2.455E+00		5.404E+00	9.400E+00	9.697E-01	0.261
HO-166M	-1.304E+00		2.707E+00	4.157E+00	3.589E-01	-0.314
TM-171	1.756E+03		1.901E+03	2.759E+03	2.374E+02	0.637
HF-175	5.791E-01		1.569E+00	2.707E+00	2.632E-01	0.214
LU-176	-3.057E-01		1.206E+00	1.883E+00	2.006E-01	-0.162
LU-177	-6.662E+00		2.619E+01	4.211E+01	3.900E+00	-0.158
LU-177M	-4.401E+00		7.413E+00	1.191E+01	9.774E-01	-0.370
HF-181	-8.513E-01		1.779E+00	2.845E+00	2.386E-01	-0.299
W-181	-2.132E+01		2.306E+01	3.432E+01	2.951E+00	-0.621
TA-182	1.846E+00		6.519E+00	1.094E+01	9.567E-01	0.169
RE-183	1.368E+00		5.405E+00	9.013E+00	7.521E-01	0.152
RE-184	4.103E+00		1.153E+01	1.887E+01	1.973E+00	0.217
OS-185	-8.360E-01		1.781E+00	2.762E+00	2.265E-01	-0.303
RE-188	1.942E+00		8.516E+00	1.422E+01	1.203E+00	0.137
W-188	7.589E+01		3.360E+02	4.852E+02	5.332E+01	0.156

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
IR-192	4.074E-01		1.603E+00	2.579E+00	2.694E-01	0.158
AU-195	2.277E+00		1.269E+01	1.958E+01	1.784E+00	0.116
TL-200	-4.157E+01		3.187E+02	5.334E+02	4.779E+01	-0.078
TL-201	-1.885E+01		8.120E+01	1.325E+02	1.102E+01	-0.142
TL-202	-2.839E-01		2.011E+00	3.317E+00	2.752E-01	-0.086
HG-203	6.212E-01		1.814E+00	2.952E+00	3.362E-01	0.210
BI-207	1.648E+00		2.020E+00	3.598E+00	3.442E-01	0.458
TL-207	-3.963E+01		3.528E+01	5.068E+01	9.404E+00	-0.782
TL-208	9.343E-01		2.215E+00	3.215E+00	2.896E-01	0.291
PO-209	9.097E+01		2.767E+02	4.771E+02	5.005E+01	0.191
BI-210	1.968E+02		2.679E+02	3.819E+02	3.904E+01	0.515
PB-210	1.968E+02		2.679E+02	3.819E+02	3.904E+01	0.515
PO-210	1.968E+02		2.678E+02	3.819E+02	3.600E+01	0.515
PB-211	6.335E+00		4.196E+01	7.065E+01	4.423E+01	0.090
BI-212	3.005E+00		1.516E+01	2.049E+01	2.080E+00	0.147
PB-212	5.833E+00		4.194E+00	5.746E+00	6.331E-01	1.015
PO-212	5.833E+00		4.194E+00	5.746E+00	6.331E-01	1.015
PB-214	1.608E+01	+	6.187E+00	8.252E+00	9.214E-01	1.948
PO-214	1.608E+01	+	6.187E+00	8.252E+00	9.214E-01	1.948
PO-215	-3.963E+01		3.528E+01	5.068E+01	9.404E+00	-0.782
PO-216	5.833E+00		4.194E+00	5.746E+00	6.331E-01	1.015
PO-218	1.608E+01	+	6.187E+00	8.252E+00	9.214E-01	1.948
RN-219	5.608E+00		1.865E+01	3.180E+01	4.696E+00	0.176
RN-220	-2.036E+02		1.129E+03	1.824E+03	1.534E+02	-0.112
RA-223	-3.963E+01		3.528E+01	5.068E+01	9.404E+00	-0.782
RA-226	-1.548E+01		5.569E+01	7.646E+01	5.635E+01	-0.202
AC-227	-1.788E+01		1.982E+01	2.993E+01	4.941E+00	-0.597
PA-227	-1.000E+35		2.279E+34	Half-Life too short		
TH-227	-1.788E+01		1.989E+01	2.993E+01	5.705E+00	-0.597
AC-228	2.920E+00		6.897E+00	1.027E+01	1.305E+00	0.284
RA-228	2.920E+00		6.897E+00	1.027E+01	1.305E+00	0.284
TH-228	5.833E+00		4.194E+00	5.746E+00	6.331E-01	1.015
TH-229	-7.986E+00		2.927E+01	4.203E+01	3.739E+00	-0.190
TH-230	-7.731E+02		5.074E+03	1.013E+03	6.571E+03	-0.763
PA-231	2.837E+01		7.439E+01	1.212E+02	2.027E+01	0.234
TH-231	-4.728E+01		3.742E+01	3.750E+01	6.820E+00	-1.261
U-231	-6.796E+01		2.104E+01	2.984E+01	2.742E+00	-2.277
TH-232	-3.547E+02		4.071E+03	2.503E+03	2.635E+04	-0.142
PA-233	-2.408E+00		3.124E+00	4.684E+00	5.032E-01	-0.514
PA-234	-1.922E+00		1.232E+01	2.016E+01	3.950E+00	-0.095
PA-234M	2.368E+01		2.382E+02	3.313E+02	3.704E+01	0.071
TH-234	-9.065E+00		9.578E+01	1.330E+02	2.390E+01	-0.068
U-234	5.132E+02		6.359E+03	5.930E+03	5.930E+04	0.087
U-235	-2.807E+00		1.312E+01	1.853E+01	3.250E+00	-0.151
NP-236	-4.732E+00		4.224E+00	6.622E+00	5.547E-01	-0.715
NP-237	5.734E+00		1.099E+01	1.893E+01	4.298E+00	0.303
PU-237	1.469E+01		1.018E+02	1.601E+02	1.381E+01	0.092
U-238	-9.065E+00		9.578E+01	1.330E+02	2.390E+01	-0.068

Sample ID : G1202050274 Acquisition date : 23-FEB-2010 22:32:17

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NP-239	-7.941E+00		1.037E+01	1.685E+01	1.549E+00	-0.471
AM-241	1.177E+00		8.157E+00	1.283E+01	1.187E+00	0.092
AM-243	-3.155E+00		2.752E+00	4.496E+00	3.952E-01	-0.702
CM-243	-1.212E+00		4.888E+00	8.165E+00	7.391E-01	-0.148
AM-246	2.414E+00		5.139E+00	8.894E+00	8.403E-01	0.271
CM-247	9.095E-02		1.695E+00	2.850E+00	2.327E-01	0.032
CF-249	1.727E-01		1.776E+00	3.003E+00	2.479E-01	0.058
CF-251	-2.388E+00		6.690E+00	1.082E+01	9.206E-01	-0.221
ANH-511	-7.528E+00		3.261E+00	4.578E+00	3.852E-01	-1.644

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202050274           *
* Acquisition date : 23-FEB-2010 22:32:17 Detector SN#    :                 *
* Detector ID      : GAM16                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:02.81     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 15-FEB-2010 12:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G1202050274          Analyst initials: KXG3            *
* Batch Number     : 956162               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 16-NOV-2009 16:34:37 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
AS-74	6.559E+00	4.648E+00	2.376E+00	2.371E+00
BI-211	4.622E+01	1.727E+01	7.470E+00	8.811E+00
BI-214	1.861E+01	6.064E+00	2.126E+00	3.094E+00
RA-224	5.741E+01	3.753E+01	3.605E+01	1.915E+01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU	
BE-7	3.891E+00	1.298E+01	1.120E+01	6.621E+00	NOT IDENT.
NA-22	5.339E-01	1.473E+00	1.275E+00	7.513E-01	NOT IDENT.
NA-24	7.858E+03	1.979E+04	0.000E+00	1.010E+04	SHORT HLIF
AL-26	-8.394E-01	1.731E+00	1.357E+00	8.831E-01	NOT IDENT.
K-40	6.662E-01	2.431E+01	1.982E+01	1.240E+01	NOT IDENT.
TI-44	1.663E+00	1.590E+00	1.432E+00	8.110E-01	NOT IDENT.
SC-46	1.207E+00	1.353E+00	1.249E+00	6.902E-01	FAIL ABUN
V-48	-1.428E+00	1.971E+00	1.531E+00	1.006E+00	NOT IDENT.
CR-51	-1.996E+00	1.559E+01	1.250E+01	7.954E+00	NOT IDENT.
MN-52	-2.420E+00	4.672E+00	3.544E+00	2.384E+00	NOT IDENT.
MN-54	-3.293E-01	1.333E+00	1.116E+00	6.800E-01	NOT IDENT.
CO-56	-1.171E+00	1.927E+00	1.312E+00	9.832E-01	FAIL ABUN
CO-57	-7.559E-02	1.320E+00	1.127E+00	6.736E-01	NOT IDENT.
CO-58	2.238E-01	1.394E+00	1.215E+00	7.113E-01	NOT IDENT.
FE-59	-8.804E-01	2.700E+00	2.170E+00	1.377E+00	NOT IDENT.
CO-60	-9.378E-01	1.618E+00	1.232E+00	8.256E-01	NOT IDENT.
ZN-65	-1.869E+00	3.558E+00	2.355E+00	1.815E+00	NOT IDENT.
GE-68	-9.680E+00	4.396E+01	3.599E+01	2.243E+01	NOT IDENT.
AS-73	5.628E+00	4.552E+01	3.666E+01	2.323E+01	NOT IDENT.
SE-75	1.390E-02	1.989E+00	1.628E+00	1.015E+00	FAIL ABUN
BR-77	-3.642E-01	6.421E+01	5.395E+01	3.276E+01	NOT IDENT.
SR-82	5.458E+00	1.494E+01	1.255E+01	7.622E+00	NOT IDENT.
RB-83	-4.919E-01	2.719E+00	2.253E+00	1.387E+00	NOT IDENT.

RB-84	9.051E-01	2.328E+00	2.059E+00	1.188E+00	NOT IDENT.
KR-85	-1.613E+03	4.893E+02	3.316E+02	2.497E+02	NOT IDENT.
SR-85	-7.718E+00	2.341E+00	1.586E+00	1.194E+00	NOT IDENT.
RB-86	-5.173E+00	2.184E+01	1.784E+01	1.114E+01	NOT IDENT.
Y-88	1.899E+00	1.828E+00	1.730E+00	9.324E-01	NOT IDENT.
ZR-88	1.519E+00	1.323E+00	1.202E+00	6.748E-01	NOT IDENT.
Y-91	-1.024E+02	5.910E+02	4.819E+02	3.015E+02	NOT IDENT.
NB-94	3.393E-01	1.445E+00	1.210E+00	7.371E-01	NOT IDENT.
NB-95	-4.543E-01	1.799E+00	1.434E+00	9.180E-01	NOT IDENT.
NB-95M	-2.040E+01	6.379E+00	4.147E+00	3.255E+00	NOT IDENT.
ZR-95	2.275E+00	2.391E+00	2.142E+00	1.220E+00	NOT IDENT.
NB-97	-3.480E+03	6.099E+03	0.000E+00	3.112E+03	SHORT HLIF
ZR-97	-7.956E+05	1.764E+05	0.000E+00	8.999E+04	SHORT HLIF
MO-99	5.223E+01	9.441E+01	8.088E+01	4.817E+01	NOT IDENT.
TC-99M	2.179E+10	2.454E+10	0.000E+00	1.252E+10	SHORT HLIF
RH-101	3.297E+00	2.794E+00	1.544E+00	1.425E+00	FAIL ABUN
RH-102	-1.259E+00	1.519E+00	1.030E+00	7.749E-01	NOT IDENT.
RU-103	-1.133E+00	1.695E+00	1.358E+00	8.647E-01	FAIL ABUN
RH-106	1.054E+01	1.385E+01	1.213E+01	7.066E+00	NOT IDENT.
RU-106	1.054E+01	1.381E+01	1.213E+01	7.045E+00	NOT IDENT.
AG-108M	-9.080E-01	1.391E+00	1.130E+00	7.097E-01	NOT IDENT.
CD-109	1.657E+01	3.631E+01	3.200E+01	1.853E+01	NOT IDENT.
AG-110M	-8.754E-01	1.425E+00	1.111E+00	7.272E-01	NOT IDENT.
IN-111	-6.413E+00	1.121E+01	7.861E+00	5.718E+00	NOT IDENT.
IN-113M	7.085E-01	1.921E+00	1.681E+00	9.800E-01	NOT IDENT.
SN-113	7.085E-01	1.921E+00	1.681E+00	9.800E-01	NOT IDENT.
IN-114M	2.774E-01	8.251E+00	6.901E+00	4.209E+00	NOT IDENT.
CD-115	9.478E+00	6.064E+01	5.151E+01	3.094E+01	NOT IDENT.
SN-117M	-4.168E-01	1.990E+00	1.665E+00	1.015E+00	NOT IDENT.
SB-122	4.583E-01	1.540E+01	1.290E+01	7.858E+00	NOT IDENT.
I-123	-4.616E+03	6.854E+04	0.000E+00	3.497E+04	SHORT HLIF
TE-123M	-9.367E-02	1.391E+00	1.170E+00	7.096E-01	NOT IDENT.
I-124	3.381E-01	9.775E+00	7.542E+00	4.987E+00	NOT IDENT.
SB-124	1.818E+00	3.563E+00	3.211E+00	1.818E+00	NOT IDENT.
SB-125	-1.797E+00	4.013E+00	3.319E+00	2.047E+00	NOT IDENT.
TE-125M	9.195E+01	4.314E+02	3.738E+02	2.201E+02	NOT IDENT.
I-126	3.453E+00	5.612E+00	4.853E+00	2.863E+00	NOT IDENT.
SB-126	4.236E-01	4.018E+00	3.327E+00	2.050E+00	FAIL ABUN
SN-126	2.300E+00	3.596E+00	3.188E+00	1.835E+00	NOT IDENT.
SB-127	-3.017E+00	1.757E+01	1.424E+01	8.966E+00	NOT IDENT.
XE-127	-1.420E+00	2.244E+00	1.599E+00	1.145E+00	NOT IDENT.
I-131	1.718E+00	2.904E+00	2.580E+00	1.481E+00	NOT IDENT.
TE-132	-1.253E+01	8.152E+00	6.004E+00	4.159E+00	NOT IDENT.
BA-133	-3.147E-01	2.160E+00	1.626E+00	1.102E+00	NOT IDENT.
I-133	-1.758E+02	1.324E+03	0.000E+00	6.755E+02	SHORT HLIF
CS-134	5.801E-01	1.850E+00	1.630E+00	9.438E-01	NOT IDENT.
CS-135	4.023E+00	7.298E+00	6.137E+00	3.723E+00	NOT IDENT.
I-135	2.620E+09	1.122E+10	0.000E+00	5.723E+09	SHORT HLIF
CS-136	6.684E-01	2.643E+00	2.288E+00	1.349E+00	NOT IDENT.
BA-137M	2.803E-01	1.573E+00	1.317E+00	8.025E-01	NOT IDENT.
CS-137	2.963E-01	1.663E+00	1.392E+00	8.483E-01	NOT IDENT.
CE-139	-4.489E-01	1.478E+00	1.229E+00	7.543E-01	NOT IDENT.
BA-140	1.037E+00	8.029E+00	6.792E+00	4.096E+00	NOT IDENT.
LA-140	8.615E-02	2.807E+00	2.394E+00	1.432E+00	NOT IDENT.
CE-141	2.103E-02	2.743E+00	2.326E+00	1.399E+00	NOT IDENT.
CE-143	3.369E+02	2.427E+02	1.857E+02	1.238E+02	FAIL ABUN
CE-144	6.125E+00	1.032E+01	8.951E+00	5.266E+00	NOT IDENT.
PM-144	6.435E-02	1.397E+00	1.153E+00	7.126E-01	NOT IDENT.
PR-144	4.345E+00	9.432E+01	7.787E+01	4.812E+01	NOT IDENT.
PM-146	2.492E-01	1.836E+00	1.573E+00	9.368E-01	NOT IDENT.
ND-147	-3.592E+00	1.593E+01	1.313E+01	8.126E+00	NOT IDENT.
PM-149	1.058E+02	5.343E+02	4.400E+02	2.726E+02	NOT IDENT.
EU-152	4.303E-01	4.430E+00	3.849E+00	2.260E+00	NOT IDENT.
GD-153	-4.639E+00	4.336E+00	3.219E+00	2.212E+00	NOT IDENT.
EU-154	2.453E+00	4.036E+00	3.596E+00	2.059E+00	NOT IDENT.
EU-155	-3.123E+00	5.303E+00	4.454E+00	2.706E+00	NOT IDENT.
TB-160	2.455E+00	5.296E+00	4.703E+00	2.702E+00	FAIL ABUN
HO-166M	-1.304E+00	2.652E+00	2.080E+00	1.353E+00	NOT IDENT.
TM-171	1.756E+03	1.863E+03	1.380E+03	9.506E+02	NOT IDENT.
HF-175	5.791E-01	1.538E+00	1.354E+00	7.847E-01	NOT IDENT.
LU-176	-3.057E-01	1.182E+00	9.420E-01	6.031E-01	NOT IDENT.
LU-177	-6.662E+00	2.567E+01	2.107E+01	1.310E+01	NOT IDENT.
LU-177M	-4.401E+00	7.265E+00	5.957E+00	3.707E+00	NOT IDENT.
HF-181	-8.513E-01	1.743E+00	1.423E+00	8.893E-01	NOT IDENT.
W-181	-2.132E+01	2.260E+01	1.717E+01	1.153E+01	NOT IDENT.
TA-182	1.846E+00	6.388E+00	5.474E+00	3.259E+00	FAIL ABUN
RE-183	1.368E+00	5.297E+00	4.509E+00	2.703E+00	NOT IDENT.
RE-184	4.103E+00	1.129E+01	9.440E+00	5.763E+00	NOT IDENT.

OS-185	-8.360E-01	1.745E+00	1.382E+00	8.904E-01	NOT IDENT.
RE-188	1.942E+00	8.345E+00	7.112E+00	4.258E+00	NOT IDENT.
W-188	7.589E+01	3.293E+02	2.428E+02	1.680E+02	NOT IDENT.
IR-192	4.074E-01	1.571E+00	1.290E+00	8.013E-01	FAIL ABUN
AU-195	2.277E+00	1.244E+01	9.795E+00	6.345E+00	NOT IDENT.
TL-200	-4.157E+01	3.123E+02	2.668E+02	1.594E+02	NOT IDENT.
TL-201	-1.885E+01	7.958E+01	6.628E+01	4.060E+01	NOT IDENT.
TL-202	-2.839E-01	1.971E+00	1.660E+00	1.005E+00	NOT IDENT.
HG-203	6.212E-01	1.778E+00	1.477E+00	9.071E-01	NOT IDENT.
BI-207	1.648E+00	1.980E+00	1.800E+00	1.010E+00	NOT IDENT.
TL-207	-3.963E+01	3.458E+01	2.536E+01	1.764E+01	NOT IDENT.
TL-208	9.343E-01	2.170E+00	1.608E+00	1.107E+00	NOT IDENT.
PO-209	9.097E+01	2.712E+02	2.387E+02	1.383E+02	NOT IDENT.
BI-210	1.968E+02	2.625E+02	1.911E+02	1.339E+02	NOT IDENT.
PB-210	1.968E+02	2.625E+02	1.911E+02	1.339E+02	NOT IDENT.
PO-210	1.968E+02	2.624E+02	1.911E+02	1.339E+02	NOT IDENT.
PB-211	6.335E+00	4.112E+01	3.534E+01	2.098E+01	NOT IDENT.
BI-212	3.005E+00	1.485E+01	1.025E+01	7.578E+00	NOT IDENT.
PB-212	5.833E+00	4.110E+00	2.875E+00	2.097E+00	NOT IDENT.
PO-212	5.833E+00	4.110E+00	2.875E+00	2.097E+00	NOT IDENT.
PB-214	1.608E+01	6.063E+00	4.128E+00	3.094E+00	FAIL ABUN
PO-214	1.608E+01	6.063E+00	4.128E+00	3.094E+00	FAIL ABUN
PO-215	-3.963E+01	3.458E+01	2.536E+01	1.764E+01	NOT IDENT.
PO-216	5.833E+00	4.110E+00	2.875E+00	2.097E+00	NOT IDENT.
PO-218	1.608E+01	6.063E+00	4.128E+00	3.094E+00	FAIL ABUN
RN-219	5.608E+00	1.827E+01	1.591E+01	9.324E+00	NOT IDENT.
RN-220	-2.036E+02	1.106E+03	9.126E+02	5.643E+02	NOT IDENT.
RA-223	-3.963E+01	3.458E+01	2.536E+01	1.764E+01	NOT IDENT.
RA-226	-1.548E+01	5.458E+01	3.825E+01	2.785E+01	NOT IDENT.
AC-227	-1.788E+01	1.943E+01	1.497E+01	9.911E+00	NOT IDENT.
PA-227	-1.000E+41	4.467E+40	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-1.788E+01	1.950E+01	1.497E+01	9.947E+00	NOT IDENT.
AC-228	2.920E+00	6.759E+00	5.140E+00	3.448E+00	NOT IDENT.
RA-228	2.920E+00	6.759E+00	5.140E+00	3.448E+00	NOT IDENT.
TH-228	5.833E+00	4.110E+00	2.875E+00	2.097E+00	NOT IDENT.
TH-229	-7.986E+00	2.868E+01	2.103E+01	1.463E+01	NOT IDENT.
TH-230	-7.731E+02	4.973E+03	5.068E+02	2.537E+03	NOT IDENT.
PA-231	2.837E+01	7.290E+01	6.062E+01	3.720E+01	NOT IDENT.
TH-231	-4.728E+01	3.667E+01	1.876E+01	1.871E+01	NOT IDENT.
U-231	-6.796E+01	2.062E+01	1.493E+01	1.052E+01	NOT IDENT.
TH-232	-3.547E+02	3.990E+03	1.252E+03	2.036E+03	NOT IDENT.
PA-233	-2.408E+00	3.062E+00	2.344E+00	1.562E+00	NOT IDENT.
PA-234	-1.922E+00	1.207E+01	1.009E+01	6.160E+00	NOT IDENT.
PA-234M	2.368E+01	2.334E+02	1.658E+02	1.191E+02	NOT IDENT.
TH-234	-9.065E+00	9.386E+01	6.652E+01	4.789E+01	NOT IDENT.
U-234	5.132E+02	6.232E+03	2.967E+03	3.180E+03	NOT IDENT.
U-235	-2.807E+00	1.286E+01	9.272E+00	6.559E+00	NOT IDENT.
NP-236	-4.732E+00	4.140E+00	3.313E+00	2.112E+00	NOT IDENT.
NP-237	5.734E+00	1.077E+01	9.471E+00	5.497E+00	NOT IDENT.
PU-237	1.469E+01	9.977E+01	8.009E+01	5.090E+01	NOT IDENT.
U-238	-9.065E+00	9.386E+01	6.652E+01	4.789E+01	NOT IDENT.
NP-239	-7.941E+00	1.016E+01	8.431E+00	5.186E+00	NOT IDENT.
AM-241	1.177E+00	7.994E+00	6.417E+00	4.079E+00	NOT IDENT.
AM-243	-3.155E+00	2.697E+00	2.249E+00	1.376E+00	NOT IDENT.
CM-243	-1.212E+00	4.790E+00	4.085E+00	2.444E+00	NOT IDENT.
AM-246	2.414E+00	5.037E+00	4.450E+00	2.570E+00	NOT IDENT.
CM-247	9.095E-02	1.661E+00	1.426E+00	8.473E-01	NOT IDENT.
CF-249	1.727E-01	1.741E+00	1.502E+00	8.882E-01	NOT IDENT.
CF-251	-2.388E+00	6.556E+00	5.414E+00	3.345E+00	NOT IDENT.
ANH-511	-7.528E+00	3.196E+00	2.290E+00	1.630E+00	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.50	178.6724
46.50	178.6724
46.50	178.6724
48.70	284.0543
49.72	222.0154
51.35	204.0136
52.39	213.0162
52.97	218.1721
53.15	218.2863
53.20	218.3175
53.44	220.8703
54.07	224.8788
56.28	223.8675
56.28	223.8689
57.37	220.9058
57.53	239.2179
57.53	239.2190
57.60	239.2641
57.98	228.5714
57.98	228.5714
59.00	231.6451
59.32	231.8459
59.32	231.8459
59.40	216.0293
59.54	214.8901
59.54	214.8901
59.72	214.9938
60.01	242.0565
61.10	362.9135
61.14	362.9513
61.30	363.1043
63.00	279.7030
63.29	279.9135
63.29	279.9135
63.58	309.7396
64.28	367.1628
64.62	0.0000
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65.20	423.7844
65.20	423.7844
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66.72	284.8488
66.83	284.9274
66.91	302.4077
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67.20	330.0228
67.67	331.6537
67.75	331.7187
67.85	331.8019
68.90	385.1833
68.90	385.1833
69.30	346.3357
69.67	298.2009
70.82	254.6337
70.82	254.6337
70.83	254.6399
72.80	308.0120
72.80	308.0120
72.87	308.0623
72.87	308.0623
74.67	355.0031
74.81	355.1163
74.81	355.1163
74.81	355.1163
74.81	355.1163
74.81	355.1163
74.81	355.1163

74.81	355.1163
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74.97	334.9488
75.28	335.1885
75.70	285.5230
77.11	293.2416
77.11	293.2416
77.11	293.2416
77.11	293.2416
77.11	293.2416
77.11	293.2416
77.11	293.2416
78.38	266.8049
79.62	344.4731
79.80	344.6104
79.80	344.6104
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80.18	290.9822
80.30	291.0583
80.30	291.0583
80.57	267.2474
81.00	264.9276
81.07	264.9685
81.07	264.9685
81.07	264.9685
82.60	265.8518
83.37	254.2268
83.78	248.4141
83.78	248.4141
83.78	248.4141
84.21	271.9528
84.21	271.9528
84.90	297.4254
85.43	291.7006
86.29	294.8317
86.50	281.0808
86.54	281.1039
86.59	281.1335
86.72	281.2094
86.79	281.2489
86.94	294.3645
87.30	298.0612
87.30	298.0612
87.30	298.0612
87.30	298.0612
87.30	298.0612
87.30	298.0612
87.30	298.0612
87.57	278.2308
87.88	284.5001
88.03	288.0694
88.36	288.2664
88.47	296.1719
89.36	450.3058
89.95	567.0563
91.11	426.5139
92.29	302.8700
92.38	301.1683
92.38	301.1683
93.35	296.4725
94.00	410.4899
94.67	510.6979
94.67	510.7038
94.90	518.8754
94.90	518.8754
94.90	518.8754
95.87	450.0169
95.87	450.0169
96.73	307.3066
97.43	297.0797
98.44	288.7704
98.44	288.7721
98.88	267.6724
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99.55	274.2475
99.86	256.5908
100.00	270.0258
100.10	270.0798

103.18	269.8479
103.76	272.8312
105.00	270.7558
105.31	280.8108
108.00	249.6238
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110.05	0.0000
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111.00	307.3371
111.76	323.2264
112.95	302.9149
115.19	309.5875
115.19	309.5875
115.19	309.5875
116.30	306.5064
117.00	324.3302
117.00	324.3302
117.66	341.2495
121.11	294.1963
121.62	312.0380
121.78	291.7445
122.06	299.2935
122.32	295.7136
122.32	295.7136
122.32	295.7136
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129.76	319.9268
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133.02	274.4169
133.54	275.5798
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136.48	308.1159
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144.24	280.0621
144.24	280.0621
145.22	292.9525
145.44	293.0456
147.16	287.0354
152.43	298.9108
152.70	297.0818
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154.21	291.8732
154.21	291.8732
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163.89	260.2751
165.85	294.5654
167.43	288.2470
171.28	284.7228
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172.10	298.9777
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176.60	292.6891
181.06	286.2708
184.41	283.4123
185.71	274.7382
186.00	274.8374
186.21	269.8342
190.27	266.0685
192.34	243.2247
193.63	273.2795

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198.60	248.1120
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201.83	238.7099
202.84	259.1614
205.31	223.0616
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208.81	232.2781
209.75	209.5836
209.75	209.5836
210.97	233.8848
215.65	208.8585
216.55	231.1271
218.09	210.4696
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223.80	226.5913
226.40	176.2534
227.00	195.4888
227.08	204.0059
227.20	204.0313
228.16	236.1505
228.18	236.1550
228.18	236.1550
231.56	175.0741
235.69	366.6557
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236.00	367.8464
238.63	191.9460
238.63	191.9460
238.63	191.9460
238.63	191.9460
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240.98	443.0132
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241.98	275.1398
241.98	275.1398
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245.39	204.6250
247.94	178.0070
248.90	176.0026
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252.85	193.0464
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256.20	222.1231
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264.65	170.9724
268.24	168.2292
268.79	170.5304
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269.46	172.8530
269.46	172.8530
271.23	209.7603
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277.60	181.9656
278.00	166.3973
278.60	156.4319
279.20	175.5198
279.53	167.7460
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281.68	200.5629
283.67	158.2693
284.30	152.7427
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285.90	150.7118
286.10	150.7364
286.10	150.7364
287.40	153.1632
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291.72	127.1805
293.26	132.4462
293.70	142.6882
295.21	168.9558
295.21	168.9558
295.21	168.9558
295.96	169.0680
296.50	169.1468
297.23	194.2432
298.57	148.4082
299.80	151.9801
299.80	151.9801
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300.09	145.1859
300.09	145.1859
300.09	145.1859
300.12	145.1910
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303.91	154.2288
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304.40	156.5778
304.84	145.2030
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308.46	153.6753
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319.02	155.0247
319.41	150.4447
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323.87	195.1284
323.87	195.1284
325.23	138.3685
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329.70	179.4157
330.00	155.8233
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334.20	160.7337
334.30	160.7477
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338.28	135.6970
338.28	135.6970
338.32	135.7017
338.32	135.7017
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340.57	173.8960
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344.27	146.0669
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351.07	130.9899
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351.92	134.4590
351.92	134.4590
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366.43	135.0243
367.43	137.8251
367.94	134.2719
369.80	131.7489
374.96	134.9608
383.85	135.8224
387.95	117.9337
388.63	125.3060
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391.69	119.1594
392.90	108.2519
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400.65	126.3575
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413.65	117.2406
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415.76	105.2926
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418.52	110.1533
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427.89	113.6535
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433.00	92.3550
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439.47	91.7945
439.56	94.6381
439.89	93.7113
443.98	100.5994
444.90	101.6072
445.03	101.6170
445.03	101.6170
445.03	101.6170
453.90	92.6337
463.38	103.7450
468.07	105.0050
473.00	88.8934
475.06	100.6135
475.35	108.3718
476.78	90.0639
477.59	93.0146
477.96	94.0043
482.03	109.7757
484.57	107.0224
487.03	101.3324
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492.35	85.0340
497.08	113.6919
507.63	0.0000
510.53	0.0000
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511.00	111.6396
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511.85	132.4491
513.99	321.6278
513.99	321.6278
520.41	81.4420
520.65	81.4545
527.90	83.7770
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529.64	88.8506
529.87	0.0000
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546.56	0.0000
549.76	80.7446
552.65	65.7062
555.20	66.8077
563.23	69.1248
563.90	74.2320
568.70	64.2247
569.32	66.2854
569.50	66.2914
569.67	63.2374
573.80	66.4401
574.00	66.4461
574.64	63.4001
578.91	109.6580
579.30	119.9314
583.14	78.0573
585.48	98.7158
591.81	66.0234
592.07	66.0313
593.00	61.1078
595.88	70.2931
600.56	62.9987

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602.71	76.0659
603.60	76.3762
604.41	86.3738
604.70	86.3865
609.31	63.4796
610.33	61.6372
612.46	70.0403
614.37	63.4292
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621.84	68.0588
621.84	68.0588
631.29	68.3702
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633.10	64.2187
634.78	62.1635
635.90	70.6293
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661.65	76.8230
664.57	82.2684
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666.33	71.6414
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677.61	73.0863
685.20	69.0234
692.80	64.9292
695.00	72.5758
696.49	67.2032
696.49	67.2032
697.00	59.6292
697.49	63.9803
698.33	72.6822
698.50	69.4336
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702.63	71.7343
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706.67	72.9500
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717.42	59.0707
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721.93	60.2821
722.20	60.2888
722.78	67.9790
722.78	67.9790
722.89	67.9828
722.95	72.3708
723.30	75.6709
724.18	69.1177
727.18	60.4181
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735.90	50.7196
739.58	57.4241
742.81	56.3976
744.21	80.7727
747.13	54.2831
751.79	59.9392
752.31	56.6217
753.82	56.6575
755.35	63.3631
756.15	36.6960
756.87	40.0441
763.13	45.7234
763.93	52.4318
765.79	73.6840
766.42	68.1205
766.84	61.4302
776.49	71.7637
778.00	65.0765

778.57	63.9684
778.89	63.9771
783.80	70.8519
785.46	63.9225
792.07	67.7014
795.84	60.5715
796.30	57.8703
798.80	75.1235
801.93	57.9984
805.60	56.2677
810.29	45.4614
810.76	49.1076
815.85	50.1163
817.79	43.7707
818.51	45.6067
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826.30	47.5744
828.27	57.6828
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834.83	53.2379
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856.80	68.4916
860.37	46.3403
867.32	42.7432
867.82	36.2454
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880.27	48.5494
880.51	47.6195
881.50	42.9666
883.24	50.4708
884.67	48.6269
889.25	33.7210
896.60	39.4458
898.02	49.8027
899.00	49.8208
903.28	40.4826
911.07	44.3712
911.07	44.3712
919.63	39.7718
920.93	38.8429
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925.24	50.2866
926.50	48.4114
935.52	45.7066
937.48	60.9844
944.10	57.3047
946.00	51.6072
949.00	51.6612
962.29	49.0128
964.01	52.8878
966.15	56.7760
968.20	53.9260
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969.11	49.1273
977.42	34.7748
980.50	35.7778
983.50	47.4293
989.30	35.8835
996.32	53.4639
1001.03	36.9962
1001.68	39.9260
1004.76	64.3355
1021.30	0.0000
1024.50	0.0000
1034.80	38.3887
1036.00	51.2053
1037.82	53.2037
1038.57	49.2749
1038.76	0.0000

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1046.59	44.4617
1048.07	33.6082
1050.47	33.6348
1050.47	33.6348
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1063.62	34.7676
1076.63	38.8972
1077.35	39.9043
1078.86	32.9355
1085.78	44.0086
1093.90	33.0886
1099.22	35.1504
1112.02	32.4865
1112.84	28.8142
1115.52	45.4175
1120.29	11.7920
1120.51	11.7926
1121.28	18.5356
1124.00	0.0000
1129.67	34.4615
1131.51	0.0000
1147.95	0.0000
1167.94	37.9250
1173.22	47.2219
1175.09	44.1674
1177.93	30.8394
1189.05	23.7188
1204.90	41.4355
1205.75	42.4814
1213.00	53.9906
1221.42	38.5067
1230.97	28.6951
1235.34	33.0830
1236.41	0.0000
1238.25	33.4578
1246.25	29.3412
1260.41	0.0000
1271.85	31.6553
1274.45	24.2870
1274.54	27.4549
1291.56	39.2493
1298.22	0.0000
1312.09	35.1962
1325.50	35.3203
1325.50	35.3203
1332.49	38.5998
1333.61	33.2493
1360.21	26.9971
1362.66	0.0000
1365.15	29.1938
1368.21	24.8878
1368.53	0.0000
1376.25	29.2755
1384.27	35.8537
1394.10	27.2290
1395.20	26.1469
1407.95	34.9734
1434.06	34.0985
1436.60	17.4267
1457.56	0.0000
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1489.15	24.1486
1509.49	26.1304
1596.49	30.4609
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1691.02	21.3752
1691.02	21.3752
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1750.46	0.0000
1764.49	18.6032
1770.23	27.0904
1771.40	16.9357
1791.20	0.0000
1808.65	30.8562
1836.01	19.0147

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202050274

Total Uranium Activity	-2.8267E+01	ug/g
Total Uranium Counting Unc.	2.7931E+02	ug/g
Total Uranium Tpu	1.4250E-04	ug/g
Total Uranium Mda	1.9794E+02	ug/g

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*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 956162                    SAMPLE ID  : G1202050274      *
*   ANALYST       : KXG3                      DETECTOR   : GAM16            *
*   SAMPLE DATE   : 15-FEB-2010 12:00:00.00   COUNT TIME :    0 06:00:00.00 *
*   ANALYSIS DATE: 23-FEB-2010 22:32:17.74    SAMPLE ALQT:    2.000 LITER   *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/LITER ) : 3.562E+01
         GROSS GAMMA ERROR  (pCi/LITER )   : 1.154E+01
         GROSS GAMMA MDA    (pCi/LITER )   : 4.586E+01
         GROSS GAMMA DLC    (pCi/LITER )   : 2.207E+01
```

VAX/VMS Nuclide Identification Report Generated 24-FEB-2010 04:34:06.61

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202050275.CNF;1
Sample date       : 17-FEB-2010 12:00:00 Acquisition date : 23-FEB-2010 22:32:43
Sample ID         : G1202050275          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM19                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:02.18  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 956162               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	140.32	61	317	1.03	280.39	276	8	2.84E-03	52.1	
2	0	198.14*	105	305	1.13	395.94	391	12	4.87E-03	39.5	
3	0	596.94	81	123	1.87	1193.13	1185	15	3.74E-03	32.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 24-FEB-2010 04:34:09

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202050275.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : KXG3
Sample date       : 17-FEB-2010 12:00:00 Acquisition date : 23-FEB-2010 22:32:43
Sample ID         : G1202050275          Sample quantity  : 2.0000 LITER
Sample type       : LIQUID               Sample geometry  :
Detector name     : GAMMA19              Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:02.18   0.0%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     1.50 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AS-74	+	595.88	*	8.795E+00	5.641E+00	4.912E+00	2.608E-01	1.791
		634.78		-8.538E-01	1.147E+01	1.868E+01	9.520E-01	-0.046

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	-1.242E+00	1.374E+01	2.262E+01	1.506E+00	-0.055
NA-22		1274.54	*	2.133E-02	1.617E+00	2.688E+00	1.664E-01	0.008
NA-24		1368.53	*	-1.925E-03	1.617E+00	Half-Life too short		
AL-26		1129.67		3.632E+01	6.084E+01	1.075E+02	6.315E+00	0.338
		1808.65	*	1.667E-01	1.796E+00	2.963E+00	1.695E-01	0.056
K-40		1460.81	*	2.366E-01	2.336E+01	3.392E+01	2.293E+00	0.007
TI-44		67.85		-7.236E-02	2.890E+00	4.438E+00	3.999E-01	-0.016
		78.38	*	-7.302E-01	2.046E+00	2.837E+00	2.611E-01	-0.257
SC-46		889.25	*	4.823E-01	1.520E+00	2.530E+00	1.731E-01	0.191
		1120.51		5.800E-01	1.733E+00	2.984E+00	1.770E-01	0.194
V-48		944.10		-2.139E-01	2.578E+01	4.144E+01	2.809E+00	-0.005
		983.50	*	7.404E-01	2.169E+00	3.597E+00	2.386E-01	0.206
		1312.09		-1.826E+00	2.416E+00	3.683E+00	2.357E-01	-0.496
CR-51		320.08	*	-3.031E-01	1.462E+01	2.449E+01	1.621E+00	-0.012
MN-52		744.21		-5.071E-01	3.874E+00	6.234E+00	3.485E-01	-0.081
		848.13		-2.701E+00	1.058E+02	1.706E+02	1.105E+01	-0.016
		935.52		3.211E+00	3.830E+00	6.633E+00	4.515E-01	0.484
		1246.25		-3.621E+00	8.185E+01	1.354E+02	8.134E+00	-0.027
		1333.61		8.422E+00	7.629E+01	1.279E+02	8.336E+00	0.066
		1434.06	*	8.687E-01	3.351E+00	5.714E+00	3.693E-01	0.152
MN-54		834.83	*	-5.375E-01	1.527E+00	2.390E+00	1.520E-01	-0.225
CO-56		846.75	*	1.214E-02	1.599E+00	2.588E+00	1.673E-01	0.005
		977.42		1.572E+00	1.138E+02	1.830E+02	1.218E+01	0.009
		1037.82		-2.560E+00	1.152E+01	1.891E+01	1.323E+00	-0.135
		1175.09		4.825E+01	8.114E+01	1.424E+02	7.965E+00	0.339
		1238.25		1.312E+00	2.504E+00	4.387E+00	2.772E-01	0.299
		1360.21		-1.558E-01	4.354E+01	7.203E+01	4.690E+00	-0.002

Sample ID : G1202050275 Acquisition date : 23-FEB-2010 22:32:43

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1771.40		-2.429E+01	1.358E+01	1.668E+01	9.730E-01	-1.456
CO-57		122.06	*	-4.185E-01	1.422E+00	2.288E+00	1.465E-01	-0.183
		136.48		-1.595E+00	1.274E+01	1.796E+01	1.250E+00	-0.089
CO-58		810.76	*	7.149E-01	1.605E+00	2.701E+00	1.670E-01	0.265
FE-59		142.65		4.650E+01	1.617E+02	2.137E+02	1.278E+01	0.218
		192.34		2.913E+01	4.566E+01	6.666E+01	7.870E+00	0.437
		1099.22	*	-1.125E+00	2.935E+00	4.714E+00	3.308E-01	-0.239
		1291.56		4.251E+00	4.110E+00	7.533E+00	5.876E-01	0.564
CO-60		1173.22		1.592E-01	1.782E+00	2.995E+00	1.672E-01	0.053
		1332.49	*	3.234E-01	1.770E+00	2.986E+00	1.947E-01	0.108
ZN-65		1115.52	*	-8.804E-01	3.201E+00	5.207E+00	3.111E-01	-0.169
GE-68		1077.35	*	1.287E+01	4.673E+01	8.027E+01	4.963E+00	0.160
AS-73		53.44	*	-1.538E+01	4.325E+01	7.035E+01	6.366E+00	-0.219
SE-75		66.05		-2.142E+02	3.259E+02	4.611E+02	4.971E+01	-0.464
		96.73		-1.434E+02	4.769E+01	6.228E+01	8.422E+00	-2.302
		121.11		-4.132E+00	7.335E+00	1.165E+01	1.124E+00	-0.355
		136.00		1.145E-01	2.307E+00	3.285E+00	2.026E-01	0.035
	+	198.60		1.884E+02	1.493E+02	1.637E+02	1.167E+01	1.151
		264.65	*	8.100E-01	1.996E+00	3.428E+00	2.070E-01	0.236
		279.53		-1.156E+00	4.801E+00	7.992E+00	5.155E-01	-0.145
		303.91		-3.646E+01	9.804E+01	1.617E+02	1.562E+01	-0.225
		400.65		1.528E+00	1.076E+01	1.808E+01	1.636E+00	0.085
BR-77		87.88		-5.367E+02	7.459E+02	1.187E+03	1.156E+02	-0.452
		200.40		5.801E+02	8.093E+02	1.183E+03	6.877E+01	0.490
		239.00		-2.625E+01	4.610E+01	6.603E+01	3.916E+00	-0.398
		249.79		-4.645E+02	2.846E+02	4.130E+02	2.460E+01	-1.125
		281.68		-1.708E+01	3.430E+02	5.760E+02	3.454E+01	-0.030
		297.23		1.249E+02	2.023E+02	3.494E+02	2.095E+01	0.357
		303.76		-1.850E+02	7.114E+02	1.180E+03	7.073E+01	-0.157
		439.47		1.479E+02	5.711E+02	9.626E+02	5.509E+01	0.154
		484.57		4.454E+01	8.577E+02	1.424E+03	8.087E+01	0.031
		520.65	*	3.276E+01	3.722E+01	6.518E+01	3.650E+00	0.503
		574.64		-1.656E+02	7.253E+02	1.171E+03	6.334E+01	-0.141
		578.91		-6.535E+01	3.055E+02	4.940E+02	2.663E+01	-0.132
		585.48		3.844E+02	5.999E+02	1.029E+03	5.517E+01	0.374
		755.35		-1.199E+02	5.914E+02	9.443E+02	5.366E+01	-0.127
		817.79		-1.120E+02	5.055E+02	8.027E+02	4.986E+01	-0.139
SR-82		698.33		9.865E+02	1.275E+03	2.192E+03	1.144E+02	0.450
		776.49	*	-7.629E+00	1.256E+01	1.921E+01	1.126E+00	-0.397
		1395.20		1.064E+02	3.659E+02	6.256E+02	4.062E+01	0.170
RB-83		520.41	*	1.536E+00	2.850E+00	4.882E+00	2.734E-01	0.315
		529.64		-1.857E+00	4.263E+00	6.795E+00	3.788E-01	-0.273
		552.65		-2.399E+00	9.145E+00	1.479E+01	8.129E-01	-0.162
RB-84		881.50	*	5.680E-01	2.329E+00	3.855E+00	2.610E-01	0.147
KR-85		513.99	*	-1.005E+03	5.162E+02	7.778E+02	4.369E+01	-1.292
SR-85		513.99	*	-4.709E+00	2.418E+00	3.643E+00	2.047E-01	-1.292
RB-86		1076.63	*	-1.612E+00	2.204E+01	3.662E+01	2.266E+00	-0.044
Y-88		898.02		-1.906E+00	2.141E+00	2.693E+00	1.877E-01	-0.708
		1836.01	*	-1.778E+00	2.137E+00	3.113E+00	1.760E-01	-0.571

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
ZR-88		392.90	*	8.960E-01	1.266E+00	2.198E+00	1.253E-01	0.408
Y-91		1204.90	*	-1.542E+02	5.643E+02	9.121E+02	5.260E+01	-0.169
NB-94		702.63	*	-1.088E+00	1.632E+00	2.528E+00	1.328E-01	-0.430
		871.10		-6.167E-01	1.584E+00	2.466E+00	1.647E-01	-0.250
NB-95		765.79	*	-2.330E+00	2.269E+00	2.672E+00	1.542E-01	-0.872
NB-95M		235.69	*	-8.410E+00	5.451E+00	7.989E+00	6.089E-01	-1.053
ZR-95		724.18		-2.203E+00	3.400E+00	5.208E+00	3.409E-01	-0.423
		756.15	*	-4.667E-01	2.818E+00	4.514E+00	3.134E-01	-0.103
NB-97		657.90	*	1.454E-04	2.818E+00	Half-Life too short		
		1024.50		-1.091E-02	2.818E+00	Half-Life too short		
ZR-97		254.15		7.777E-02	2.818E+00	Half-Life too short		
		355.39		-2.642E-02	2.818E+00	Half-Life too short		
		507.63	*	-1.009E-01	2.818E+00	Half-Life too short		
		602.52		8.920E-03	2.818E+00	Half-Life too short		
		1021.30		-2.278E-02	2.818E+00	Half-Life too short		
		1147.95		1.786E-02	2.818E+00	Half-Life too short		
		1362.66		3.776E-02	2.818E+00	Half-Life too short		
		1750.46		-2.600E-02	2.818E+00	Half-Life too short		
MO-99	+	140.51		1.902E+02	2.047E+02	2.826E+02	7.628E+01	0.673
		181.06		-1.994E+02	1.134E+02	1.608E+02	2.753E+01	-1.240
		366.43		2.098E+02	4.539E+02	7.775E+02	4.534E+01	0.270
		739.58	*	-3.239E+01	6.062E+01	9.386E+01	1.284E+01	-0.345
		778.00		3.420E+01	1.571E+02	2.603E+02	1.529E+01	0.131
TC-99M	+	140.51	*	1.149E+02	1.571E+02	Half-Life too short		
RH-101		127.23		1.682E+00	1.715E+00	2.893E+00	1.810E-01	0.581
	+	198.01	*	3.616E+00	2.862E+00	3.139E+00	1.822E-01	1.152
		325.23		4.223E+00	1.068E+01	1.825E+01	1.088E+00	0.231
RH-102		418.52		-1.683E-01	1.338E+01	2.223E+01	1.272E+00	-0.008
		475.06	*	2.983E-01	1.384E+00	2.322E+00	1.322E-01	0.128
		631.29		8.103E-01	2.444E+00	4.105E+00	2.101E-01	0.197
		697.49		-7.222E-01	3.764E+00	6.054E+00	3.154E-01	-0.119
		766.84		-6.446E+00	5.930E+00	6.971E+00	4.029E-01	-0.925
		1046.59		-3.296E+00	4.603E+00	7.181E+00	4.556E-01	-0.459
		1112.84		1.426E+00	7.904E+00	1.345E+01	8.039E-01	0.106
RU-103		497.08	*	2.456E-01	1.647E+00	2.748E+00	3.457E-01	0.089
		610.33		3.623E+01	4.096E+01	5.873E+01	8.936E+00	0.617
RH-106		511.85		-2.867E+01	1.645E+01	2.368E+01	1.331E+00	-1.211
		621.84	*	3.245E+00	1.438E+01	2.396E+01	2.741E+00	0.135
		1050.47		-2.892E+01	8.942E+01	1.452E+02	9.184E+00	-0.199
RU-106		511.85		-2.867E+01	1.645E+01	2.368E+01	1.331E+00	-1.211
		621.84	*	3.245E+00	1.438E+01	2.396E+01	1.239E+00	0.135
		1050.47		-2.892E+01	8.942E+01	1.452E+02	9.184E+00	-0.199
AG-108M		433.93	*	-6.504E-01	1.576E+00	2.550E+00	1.588E-01	-0.255
		614.37		-2.714E+00	1.874E+00	2.743E+00	1.579E-01	-0.989
		722.95		-3.612E-01	1.681E+00	2.685E+00	1.594E-01	-0.135
CD-109		88.03	*	-3.316E+01	4.164E+01	6.601E+01	6.433E+00	-0.502
AG-110M		657.75	*	1.708E-01	1.468E+00	2.423E+00	1.305E-01	0.071
		677.61		1.656E+00	1.251E+01	2.067E+01	1.127E+00	0.080
		706.67		3.354E+00	1.164E+01	1.657E+01	9.384E-01	0.202

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		763.93		4.686E-01	6.579E+00	1.076E+01	6.576E-01	0.044
		884.67		-8.827E-01	2.007E+00	3.089E+00	2.208E-01	-0.286
		937.48		1.638E+00	4.652E+00	7.741E+00	5.567E-01	0.212
		1384.27		-3.510E+00	7.227E+00	1.129E+01	7.699E-01	-0.311
IN-111		171.28		-9.377E+00	6.716E+00	1.016E+01	5.824E-01	-0.923
		245.39	*	-7.273E-01	6.802E+00	1.082E+01	6.431E-01	-0.067
IN-113M		391.69	*	7.399E-01	1.899E+00	3.237E+00	1.973E-01	0.229
SN-113		391.69	*	7.399E-01	1.899E+00	3.237E+00	1.973E-01	0.229
IN-114M		190.27	*	-1.300E+01	8.454E+00	1.261E+01	7.291E-01	-1.031
CD-115		260.90		2.923E+02	4.605E+02	7.586E+02	4.533E+01	0.385
		492.35		-7.896E+01	1.147E+02	1.803E+02	1.022E+01	-0.438
		527.90	*	1.314E+01	3.189E+01	5.419E+01	3.023E+00	0.243
SN-117M		156.02		-2.163E+01	7.488E+01	1.196E+02	6.964E+00	-0.181
		158.56	*	1.483E+00	1.855E+00	3.099E+00	1.796E-01	0.479
SB-122		563.90	*	-2.043E+01	1.121E+01	1.598E+01	8.714E-01	-1.279
		692.80		-1.932E+01	2.186E+02	3.542E+02	1.832E+01	-0.055
I-123		159.00	*	5.046E-03	2.186E+02	Half-Life too short		
		528.96		-3.098E-02	2.186E+02	Half-Life too short		
TE-123M		159.00	*	1.275E+00	1.427E+00	2.391E+00	1.403E-01	0.533
I-124		602.71	*	-1.560E+00	7.628E+00	1.234E+01	6.511E-01	-0.126
		722.78		-7.866E+00	4.232E+01	6.779E+01	3.670E+00	-0.116
		1325.50		1.086E+02	3.568E+02	6.102E+02	3.953E+01	0.178
		1376.25		-2.442E+02	3.038E+02	4.539E+02	2.952E+01	-0.538
		1509.49		1.171E+02	1.605E+02	2.878E+02	1.836E+01	0.407
		1691.02		3.393E+00	4.804E+01	7.936E+01	4.795E+00	0.043
SB-124		602.71		-3.416E-01	1.670E+00	2.702E+00	1.426E-01	-0.126
		645.85		-5.733E+00	2.080E+01	3.330E+01	1.955E+00	-0.172
		709.31		5.976E+01	1.430E+02	2.047E+02	1.086E+01	0.292
		713.82		1.096E+01	6.382E+01	1.055E+02	1.050E+01	0.104
		722.78		-2.496E+00	1.343E+01	2.151E+01	1.228E+00	-0.116
		968.20		5.014E+01	8.955E+01	1.516E+02	1.015E+01	0.331
		1045.16		-6.137E+00	9.120E+01	1.519E+02	9.651E+00	-0.040
		1325.50		3.681E+01	1.209E+02	2.068E+02	1.340E+01	0.178
		1368.21		-5.981E+01	7.077E+01	1.046E+02	1.280E+01	-0.572
		1436.60		-1.839E+00	1.452E+02	2.393E+02	1.546E+01	-0.008
		1691.02	*	2.540E-01	3.596E+00	5.941E+00	3.873E-01	0.043
SB-125		427.89	*	5.656E-01	4.223E+00	7.075E+00	4.226E-01	0.080
		463.38		-5.137E+00	1.325E+01	2.144E+01	1.433E+00	-0.240
		600.56		3.647E+00	9.613E+00	1.416E+01	8.879E-01	0.258
		635.90		5.888E+00	1.156E+01	1.969E+01	1.220E+00	0.299
TE-125M		109.28	*	1.358E+02	4.678E+02	7.717E+02	7.087E+01	0.176
I-126		388.63		-4.603E+00	5.855E+00	9.287E+00	5.310E-01	-0.496
		666.33	*	-6.749E+00	7.285E+00	7.435E+00	3.689E-01	-0.908
		753.82		9.238E+00	4.079E+01	6.757E+01	3.831E+00	0.137
SB-126		223.80		-1.656E+01	1.238E+02	1.972E+02	1.161E+01	-0.084
		278.60		-1.763E+01	6.984E+01	1.162E+02	6.966E+00	-0.152
		296.50		1.631E+01	3.983E+01	6.819E+01	4.090E+00	0.239
		414.70		1.639E-01	2.085E+00	3.486E+00	1.994E-01	0.047
		415.30		-5.326E-01	1.750E+02	2.911E+02	1.665E+01	-0.002

Sample ID : G1202050275 Acquisition date : 23-FEB-2010 22:32:43

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		555.20		-2.078E+02	1.269E+02	1.848E+02	1.014E+01	-1.125
		573.80		-2.375E+01	2.848E+01	4.378E+01	2.370E+00	-0.543
		593.00		1.278E+01	3.033E+01	4.499E+01	2.396E+00	0.284
		656.30		-6.729E+01	8.925E+01	1.365E+02	6.774E+00	-0.493
		666.33		-2.765E+00	2.985E+00	3.046E+00	1.511E-01	-0.908
		675.00		-2.649E+01	5.050E+01	7.856E+01	3.952E+00	-0.337
		695.00		6.787E-01	2.257E+00	3.763E+00	1.953E-01	0.180
		697.00		3.121E-01	8.086E+00	1.323E+01	6.885E-01	0.024
		720.50	*	-1.965E-01	3.684E+00	5.972E+00	3.222E-01	-0.033
		856.80		2.293E+00	1.207E+01	1.985E+01	1.301E+00	0.115
		989.30		-2.107E+01	3.346E+01	5.005E+01	3.307E+00	-0.421
		1034.80		-6.305E+01	2.038E+02	3.309E+02	2.119E+01	-0.191
		1213.00		2.736E+01	9.462E+01	1.622E+02	9.430E+00	0.169
SN-126		64.28		-9.723E-01	3.588E+01	5.290E+01	8.171E+00	-0.018
		86.94		9.438E+00	1.702E+01	2.772E+01	1.153E+01	0.340
		87.57	*	1.564E+00	3.986E+00	6.623E+00	6.438E-01	0.236
SB-127		61.10		-1.953E+01	7.279E+02	1.199E+03	1.163E+02	-0.016
		252.40		3.625E+01	4.957E+01	7.849E+01	3.224E+01	0.462
		290.80		-2.608E+01	2.134E+02	3.568E+02	2.404E+01	-0.073
		411.60		4.486E+01	1.090E+02	1.858E+02	2.386E+01	0.241
		444.90		3.718E+01	9.576E+01	1.627E+02	1.406E+01	0.228
		473.00		3.369E+00	1.692E+01	2.837E+01	2.582E+00	0.119
		543.00		-3.997E+01	1.640E+02	2.655E+02	2.940E+01	-0.151
		603.60		-4.215E+01	1.163E+02	1.859E+02	1.546E+01	-0.227
		685.20	*	-9.970E-01	1.206E+01	1.954E+01	1.245E+00	-0.051
		698.50		1.113E+02	1.534E+02	2.620E+02	3.338E+01	0.425
		722.20		1.115E+02	2.495E+02	4.222E+02	2.626E+01	0.264
		783.80		-1.684E+01	3.131E+01	4.816E+01	4.146E+00	-0.350
XE-127		57.60		-7.875E+01	2.960E+02	4.833E+02	4.468E+01	-0.163
		145.22		-2.416E+00	3.378E+01	5.041E+01	2.998E+00	-0.048
		172.10		-8.273E+00	5.638E+00	8.498E+00	4.874E-01	-0.974
		202.84	*	8.593E-01	2.224E+00	3.197E+00	1.861E-01	0.269
		374.96		6.392E+00	8.080E+00	1.405E+01	8.136E-01	0.455
I-131		80.18		1.873E+01	1.077E+02	1.779E+02	1.653E+01	0.105
		284.30		-2.171E+00	3.398E+01	5.703E+01	3.746E+00	-0.038
		364.48	*	1.413E+00	2.550E+00	4.390E+00	2.832E-01	0.322
		636.97		-9.890E+00	3.270E+01	5.223E+01	3.028E+00	-0.189
		722.89		-2.764E+01	1.350E+02	2.159E+02	1.173E+01	-0.128
TE-132		49.72		-2.090E+02	2.057E+02	2.858E+02	2.563E+01	-0.731
		111.76		4.078E+01	2.671E+02	4.381E+02	3.332E+01	0.093
		116.30		-8.418E+01	2.352E+02	3.773E+02	2.761E+01	-0.223
		228.16	*	-1.381E+00	5.542E+00	8.764E+00	1.150E+00	-0.158
BA-133		53.15		1.517E+01	1.969E+02	3.265E+02	2.946E+01	0.046
		79.62		5.684E+01	6.341E+01	1.067E+02	1.664E+01	0.533
		81.00		-1.979E+00	4.836E+00	7.791E+00	1.268E+00	-0.254
		276.40		7.082E+00	1.698E+01	2.911E+01	3.799E+00	0.243
		302.84		4.923E-01	6.821E+00	1.150E+01	1.352E+00	0.043
		356.01	*	-1.707E+00	2.145E+00	3.420E+00	3.966E-01	-0.499
		383.85		1.811E+01	1.313E+01	2.346E+01	2.543E+00	0.772

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
I-133		510.53		-5.509E+04	3.554E+04	5.149E+04	3.891E+03	-1.070
		529.87	*	-9.423E+01	2.720E+02	4.367E+02	3.308E+01	-0.216
		706.58		1.709E+04	2.001E+04	3.459E+04	2.527E+03	0.494
		856.28		5.224E+03	2.283E+04	3.770E+04	3.116E+03	0.139
		875.33		-9.375E+02	6.011E+03	9.549E+03	8.895E+02	-0.098
		1236.41		9.057E+03	1.979E+04	3.448E+04	2.690E+03	0.263
		1298.22		-6.124E+03	1.361E+04	2.145E+04	1.964E+03	-0.285
CS-134		475.35		8.908E+00	9.030E+01	1.504E+02	8.565E+00	0.059
		563.23		-3.696E+01	1.785E+01	2.488E+01	1.390E+00	-1.485
		569.32		-1.097E+00	1.169E+01	1.670E+01	9.377E-01	-0.066
		604.70		-2.062E+00	1.671E+00	2.511E+00	1.331E-01	-0.821
		795.84	*	-5.672E-01	1.895E+00	2.987E+00	1.826E-01	-0.190
		801.93		-2.965E+00	1.737E+01	2.773E+01	1.704E+00	-0.107
		1038.57		-1.854E+01	1.552E+02	2.573E+02	1.643E+01	-0.072
		1167.94		1.993E+01	9.238E+01	1.572E+02	8.834E+00	0.127
		1365.15		3.059E+01	5.460E+01	9.579E+01	6.725E+00	0.319
CS-135		268.24	*	-4.315E-01	7.041E+00	1.184E+01	9.230E-01	-0.036
I-135		288.45		1.834E+02	7.041E+00	Half-Life too short		
		417.63		2.069E+02	7.041E+00	Half-Life too short		
		546.56		-6.288E+01	7.041E+00	Half-Life too short		
		836.80		1.578E+02	7.041E+00	Half-Life too short		
		1038.76		-1.799E+01	7.041E+00	Half-Life too short		
		1124.00		-3.231E+02	7.041E+00	Half-Life too short		
		1131.51		-7.831E+01	7.041E+00	Half-Life too short		
		1260.41	*	-3.426E+01	7.041E+00	Half-Life too short		
		1457.56		-4.038E+02	7.041E+00	Half-Life too short		
		1678.03		1.583E+02	7.041E+00	Half-Life too short		
		1706.46		-4.373E+02	7.041E+00	Half-Life too short		
		1791.20		-6.768E+01	7.041E+00	Half-Life too short		
CS-136		66.91		-2.172E+01	3.472E+01	4.888E+01	7.654E+00	-0.444
		86.29		4.173E+01	3.346E+01	5.664E+01	7.672E+00	0.737
		153.22		-2.122E+01	2.136E+01	3.297E+01	2.393E+00	-0.644
		163.89		-8.458E+00	3.675E+01	5.883E+01	4.236E+00	-0.144
		176.55		3.286E+01	1.350E+01	2.354E+01	1.521E+00	1.396
		273.65		-3.399E-01	1.298E+01	2.184E+01	1.480E+00	-0.016
		340.57		-1.143E+00	3.347E+00	5.494E+00	3.448E-01	-0.208
		818.51		1.287E+00	2.066E+00	3.531E+00	2.197E-01	0.364
		1048.07	*	-2.541E+00	2.692E+00	4.079E+00	2.781E-01	-0.623
		1235.34		-8.605E-01	1.082E+01	1.783E+01	1.795E+00	-0.048
BA-137M		661.65	*	1.260E+00	1.498E+00	2.612E+00	1.286E-01	0.482
CS-137		661.65	*	1.332E+00	1.584E+00	2.761E+00	1.368E-01	0.482
CE-139		165.85	*	1.306E+00	1.517E+00	2.536E+00	1.454E-01	0.515
BA-140		162.64		-1.259E+01	2.530E+01	4.002E+01	2.595E+00	-0.315
		304.84		-2.142E+01	3.976E+01	6.434E+01	1.758E+01	-0.333
		423.70		2.177E+01	5.614E+01	9.478E+01	3.011E+01	0.230
		537.32	*	2.856E-01	7.479E+00	1.236E+01	4.014E+00	0.023
LA-140		328.77		-4.071E+00	8.564E+00	1.400E+01	9.289E-01	-0.291
		432.53		-5.519E+01	6.111E+01	9.556E+01	6.057E+00	-0.578
		487.03		6.002E-01	3.974E+00	6.639E+00	4.286E-01	0.090

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		751.79		-1.898E+01	4.898E+01	7.699E+01	5.373E+00	-0.246
		815.85		1.439E+00	9.267E+00	1.522E+01	1.144E+00	0.095
		867.82		6.162E+01	3.979E+01	7.243E+01	5.238E+00	0.851
		919.63		-7.420E+01	7.426E+01	1.063E+02	9.861E+00	-0.698
		925.24		2.968E+01	3.196E+01	5.576E+01	4.188E+00	0.532
		1596.49	*	9.814E-01	3.037E+00	5.150E+00	3.216E-01	0.191
CE-141		145.44	*	-3.526E-01	2.993E+00	4.457E+00	2.749E-01	-0.079
CE-143		57.37		-2.874E+02	8.012E+02	1.303E+03	1.312E+02	-0.221
		231.56		3.402E+02	1.601E+03	2.585E+03	7.972E+02	0.132
		293.26	*	-1.513E+02	1.260E+02	1.282E+02	2.611E+01	-1.180
		350.59		4.394E+02	1.098E+03	1.857E+03	5.621E+02	0.237
		490.36		1.037E+02	1.698E+03	2.820E+03	8.684E+02	0.037
		664.57		-5.286E+02	7.531E+02	1.129E+03	3.548E+02	-0.468
		721.93		4.341E+02	7.208E+02	1.219E+03	3.447E+02	0.356
CE-144		80.11		1.883E+01	1.019E+02	1.684E+02	1.563E+01	0.112
		133.54	*	2.377E+00	1.062E+01	1.741E+01	2.496E+00	0.137
PM-144		476.78		2.216E+00	3.086E+00	5.336E+00	3.655E-01	0.415
		618.01		5.380E-01	1.438E+00	2.422E+00	1.351E-01	0.222
		696.49	*	1.918E-01	1.636E+00	2.692E+00	1.400E-01	0.071
		778.57		5.157E+01	9.047E+01	1.546E+02	9.087E+00	0.334
PR-144		696.49	*	1.294E+01	1.104E+02	1.816E+02	9.444E+00	0.071
		1489.15		-1.901E+02	5.219E+02	8.175E+02	5.238E+01	-0.232
PM-146		453.90	*	1.009E+00	2.024E+00	3.458E+00	2.962E-01	0.292
		633.02		4.708E+01	6.287E+01	1.050E+02	3.856E+01	0.448
		735.90		-5.277E-01	6.502E+00	1.050E+01	2.923E+00	-0.050
		747.13		1.189E+00	4.306E+00	7.152E+00	8.884E-01	0.166
ND-147		91.11		-7.744E+00	1.124E+01	1.512E+01	1.496E+00	-0.512
		319.41		3.572E+01	9.436E+01	1.612E+02	9.630E+00	0.222
		439.89		3.561E+01	1.642E+02	2.760E+02	1.580E+01	0.129
		531.02	*	-1.164E+01	1.721E+01	2.287E+01	3.071E+00	-0.509
PM-149		285.90	*	-7.913E+01	3.012E+02	5.003E+02	7.122E+01	-0.158
EU-152		121.78		9.246E-01	4.131E+00	6.782E+00	5.482E-01	0.136
		244.69		-7.415E+00	1.720E+01	2.690E+01	1.599E+00	-0.276
		344.27	*	1.676E-01	4.498E+00	7.543E+00	5.008E-01	0.022
		443.98		1.208E+00	4.508E+01	7.494E+01	4.288E+00	0.016
		778.89		6.977E+00	1.050E+01	1.809E+01	1.064E+00	0.386
		867.32		4.720E+01	3.790E+01	6.760E+01	4.492E+00	0.698
		964.01		-7.127E+00	1.180E+01	1.784E+01	1.197E+00	-0.399
		1085.78		7.804E+00	1.519E+01	2.665E+01	1.635E+00	0.293
		1112.02		3.606E+00	1.106E+01	1.909E+01	1.142E+00	0.189
		1407.95		-2.050E+00	7.621E+00	1.217E+01	7.892E-01	-0.168
GD-153		69.67		-1.883E+02	9.982E+01	1.399E+02	1.260E+01	-1.346
		83.37		-6.516E+02	7.177E+02	1.131E+03	1.069E+02	-0.576
		97.43	*	-2.873E+00	4.119E+00	6.531E+00	5.464E-01	-0.440
		103.18		-1.197E+00	5.533E+00	8.957E+00	6.948E-01	-0.134
EU-154		123.07		1.041E+00	2.925E+00	4.824E+00	4.710E-01	0.216
		247.94		-1.788E+00	1.840E+01	2.926E+01	2.819E+00	-0.061
		591.81		4.247E+00	3.108E+01	4.485E+01	4.262E+00	0.095
		723.30		-3.831E+00	7.138E+00	1.107E+01	7.494E-01	-0.346

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		756.87		-5.880E+00	3.407E+01	5.454E+01	5.496E+00	-0.108
		873.19		-1.535E+01	1.352E+01	1.920E+01	2.107E+00	-0.800
		996.32		-8.257E+00	1.546E+01	2.330E+01	3.930E+00	-0.354
		1004.76		-5.888E+00	8.561E+00	1.342E+01	1.368E+00	-0.439
		1274.45	*	6.267E-01	4.492E+00	7.570E+00	7.252E-01	0.083
EU-155		48.70		-5.926E+01	1.580E+02	2.268E+02	1.863E+01	-0.261
		60.01		-3.750E+02	3.010E+02	4.706E+02	4.355E+01	-0.797
		86.54		4.056E+00	4.816E+00	8.117E+00	7.896E-01	0.500
		105.31	*	-2.042E+00	5.788E+00	9.309E+00	7.151E-01	-0.219
TB-160		86.79		8.980E+00	1.180E+01	1.985E+01	1.919E+00	0.452
	+	197.04		5.715E+01	4.523E+01	4.797E+01	2.783E+00	1.191
		215.65		2.614E+01	3.379E+01	5.617E+01	3.293E+00	0.465
		298.57		5.997E-01	4.984E+00	8.423E+00	5.051E-01	0.071
		879.36	*	-3.417E-02	5.321E+00	8.583E+00	5.796E-01	-0.004
		962.29		7.906E-01	1.980E+01	3.194E+01	2.144E+00	0.025
		966.15		-1.768E+00	7.338E+00	1.152E+01	7.716E-01	-0.153
		1177.93		4.379E+00	1.295E+01	2.224E+01	1.248E+00	0.197
		1271.85		-7.769E+00	2.350E+01	3.753E+01	2.312E+00	-0.207
HO-166M		80.57		1.548E+00	1.326E+01	2.186E+01	2.033E+00	0.071
		184.41		-1.358E+00	2.200E+00	3.168E+00	1.826E-01	-0.429
		280.46		-8.199E-01	3.956E+00	6.595E+00	3.954E-01	-0.124
		410.95		1.680E+00	1.034E+01	1.739E+01	9.943E-01	0.097
		711.68	*	-3.714E+00	2.920E+00	4.267E+00	2.272E-01	-0.870
		752.31		4.772E-01	1.240E+01	2.022E+01	1.144E+00	0.024
		810.29		5.972E-01	2.619E+00	4.330E+00	2.662E-01	0.138
TM-171		51.35		-9.890E+02	1.707E+03	2.750E+03	2.424E+02	-0.360
		52.39		9.733E+01	8.695E+02	1.444E+03	1.292E+02	0.067
		59.40		-1.790E+03	1.586E+03	2.493E+03	2.314E+02	-0.718
		66.72	*	-1.841E+03	1.987E+03	2.778E+03	2.507E+02	-0.663
HF-175		89.36		-2.638E+02	7.710E+01	1.040E+02	9.889E+00	-2.538
		343.40	*	-1.340E+00	1.499E+00	2.381E+00	1.409E-01	-0.563
		433.00		-1.036E+02	9.433E+01	1.455E+02	8.331E+00	-0.712
LU-176		88.36		-2.368E+01	1.048E+01	1.534E+01	1.486E+00	-1.543
		201.83		-1.913E-01	1.635E+00	2.276E+00	1.324E-01	-0.084
		306.84	*	6.801E-01	1.209E+00	2.083E+00	1.248E-01	0.326
		401.10		1.424E+02	2.965E+02	5.078E+02	2.900E+01	0.280
LU-177		112.95		2.295E+01	3.645E+01	6.085E+01	4.237E+00	0.377
		208.36	*	8.240E+00	2.119E+01	3.464E+01	2.023E+00	0.238
LU-177M		52.97		1.201E+01	8.631E+01	1.435E+02	1.292E+01	0.084
		54.07		-8.382E+00	4.614E+01	7.564E+01	6.879E+00	-0.111
		61.30		1.397E+01	8.582E+01	1.423E+02	1.307E+01	0.098
		121.62		3.183E+00	2.038E+01	3.339E+01	2.141E+00	0.095
		147.16		-2.705E+01	3.348E+01	5.237E+01	3.101E+00	-0.517
		171.86		-3.691E+01	2.569E+01	3.878E+01	2.224E+00	-0.952
		218.09		-7.606E+00	4.163E+01	6.618E+01	3.885E+00	-0.115
		268.79		8.508E+00	3.405E+01	5.808E+01	3.476E+00	0.146
		319.02		8.191E+00	1.199E+01	2.077E+01	1.241E+00	0.394
		367.43		4.830E+00	4.042E+01	6.797E+01	3.960E+00	0.071
		413.65	*	-1.694E+00	7.506E+00	1.231E+01	7.041E-01	-0.138

---- Non-Identified Nuclides ----

Nuclide	Line Ided Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
HF-181	56.28		-2.094E+01	4.686E+01	7.590E+01	6.986E+00	-0.276
	57.53		-7.474E+00	2.548E+01	4.155E+01	3.840E+00	-0.180
	65.20		5.246E+01	5.829E+01	8.713E+01	7.887E+00	0.602
	133.02		4.232E-02	3.038E+00	4.938E+00	3.031E-01	0.009
	136.25		2.064E+00	2.459E+01	3.509E+01	2.133E+00	0.059
	345.85		5.827E+00	7.852E+00	1.364E+01	8.057E-01	0.427
	482.03	*	-4.801E-01	1.723E+00	2.799E+00	1.591E-01	-0.172
W-181	56.28		-8.991E+00	2.009E+01	3.255E+01	2.996E+00	-0.276
	57.53		-3.217E+00	1.093E+01	1.783E+01	1.648E+00	-0.180
	65.20	*	2.234E+01	2.482E+01	3.710E+01	3.358E+00	0.602
TA-182	67.75		-1.375E+00	6.617E+00	1.011E+01	9.109E-01	-0.136
	100.10		7.757E+00	8.994E+00	1.518E+01	1.224E+00	0.511
	152.43		-2.656E+00	1.614E+01	2.595E+01	1.520E+00	-0.102
	222.10		9.651E+00	1.607E+01	2.651E+01	1.560E+00	0.364
	1001.68		5.033E+00	1.073E+02	1.363E+02	8.934E+00	0.037
	1121.28		2.714E+00	4.772E+00	8.389E+00	4.971E-01	0.324
	1189.05		1.140E+00	9.627E+00	1.624E+01	9.217E-01	0.070
	1221.42	*	-6.521E-01	6.399E+00	1.054E+01	6.179E-01	-0.062
	1230.97		-1.352E+01	1.373E+01	2.016E+01	1.193E+00	-0.671
RE-183	57.98		-1.415E+00	1.053E+01	1.729E+01	1.600E+00	-0.082
	59.32		-4.313E+00	5.926E+00	9.487E+00	8.804E-01	-0.455
	67.20		-8.770E+00	1.276E+01	1.797E+01	1.620E+00	-0.488
	162.32	*	-2.828E+00	5.398E+00	8.530E+00	4.913E-01	-0.332
	208.81		2.451E+01	4.264E+01	7.028E+01	4.105E+00	0.349
	291.72		-2.640E+01	4.080E+01	6.647E+01	3.987E+00	-0.397
RE-184	57.98		-5.482E+00	4.079E+01	6.696E+01	6.196E+00	-0.082
	59.32		-1.669E+01	2.293E+01	3.671E+01	3.407E+00	-0.455
	67.20		-3.396E+01	4.942E+01	6.957E+01	6.274E+00	-0.488
	161.27		-7.430E+00	1.862E+01	2.960E+01	1.707E+00	-0.251
	216.55		3.504E+00	1.280E+01	2.080E+01	1.220E+00	0.168
	252.85	*	1.420E+01	1.141E+01	1.933E+01	1.152E+00	0.735
	318.01		4.601E+00	2.091E+01	3.546E+01	2.119E+00	0.130
	792.07		-5.196E+00	4.106E+01	6.586E+01	3.946E+00	-0.079
	903.28		-1.458E+01	4.138E+01	6.439E+01	4.446E+00	-0.226
	920.93		-1.561E+01	1.843E+01	2.695E+01	1.847E+00	-0.579
OS-185	59.72		-1.726E+01	1.654E+01	2.610E+01	2.420E+00	-0.661
	61.14		1.708E-01	9.142E+00	1.508E+01	1.387E+00	0.011
	69.30		-3.947E+01	1.746E+01	2.392E+01	2.155E+00	-1.650
	592.07		1.423E+01	1.191E+02	1.716E+02	9.144E+00	0.083
	646.12	*	-6.495E-01	1.899E+00	3.025E+00	1.521E-01	-0.215
	717.42		6.832E+00	3.541E+01	5.863E+01	3.149E+00	0.117
	874.81		-1.545E+01	2.314E+01	3.473E+01	2.331E+00	-0.445
	880.27		1.896E+01	2.995E+01	5.135E+01	3.472E+00	0.369
RE-188	155.03	*	-3.265E+00	7.863E+00	1.249E+01	7.282E-01	-0.261
	477.96		-4.582E+01	1.346E+02	2.179E+02	1.240E+01	-0.210
	633.10		8.474E+01	1.123E+02	1.947E+02	9.942E+00	0.435
W-188	63.58		-2.178E+03	3.449E+03	4.969E+03	4.520E+02	-0.438
	227.08		-1.368E+02	5.802E+02	9.185E+02	5.417E+01	-0.149
	290.67	*	-3.131E+01	3.183E+02	5.329E+02	3.197E+01	-0.059

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
IR-192		295.96		2.963E+00	4.532E+00	7.840E+00	4.771E-01	0.378
		308.46		1.841E+00	4.292E+00	7.355E+00	4.452E-01	0.250
		316.51	*	-2.302E-01	1.581E+00	2.634E+00	1.582E-01	-0.087
		468.07		-2.424E-01	2.862E+00	4.716E+00	3.113E-01	-0.051
		604.41		-2.756E+01	2.133E+01	3.166E+01	3.511E+00	-0.870
		612.46		-4.557E+01	3.213E+01	4.733E+01	3.380E+00	-0.963
AU-195		65.12		1.111E+01	1.172E+01	1.755E+01	1.588E+00	0.633
		66.83		-4.506E+00	6.358E+00	8.956E+00	8.080E-01	-0.503
		75.70		-6.838E+00	9.544E+00	1.424E+01	1.297E+00	-0.480
		98.88	*	1.114E+00	1.163E+01	1.909E+01	1.566E+00	0.058
		129.76		-1.786E+02	1.712E+02	2.341E+02	1.452E+01	-0.763
TL-200		367.94	*	-4.053E+01	8.913E+01	1.449E+02	8.437E+00	-0.280
		579.30		-1.559E+02	6.328E+02	1.021E+03	5.499E+01	-0.153
		828.27		2.311E+02	8.409E+02	1.398E+03	8.809E+01	0.165
		1205.75		-1.311E+02	3.430E+02	5.475E+02	3.160E+01	-0.240
TL-201		68.90		-9.119E+01	4.254E+01	5.880E+01	5.295E+00	-1.551
		70.82		-1.220E+00	2.053E+01	3.370E+01	3.037E+00	-0.036
		80.30		5.398E+00	3.472E+01	5.733E+01	5.324E+00	0.094
		135.34		-1.663E+02	2.251E+02	3.057E+02	1.863E+01	-0.544
		167.43	*	1.432E+01	5.248E+01	8.575E+01	4.912E+00	0.167
TL-202		68.90		-3.567E+01	1.664E+01	2.300E+01	2.071E+00	-1.551
		70.82		-4.758E-01	8.008E+00	1.314E+01	1.185E+00	-0.036
		80.30		2.106E+00	1.355E+01	2.237E+01	2.077E+00	0.094
		439.56	*	4.933E-01	2.080E+00	3.502E+00	2.004E-01	0.141
HG-203		70.83		1.794E+01	4.902E+01	8.161E+01	1.131E+01	0.220
		72.87		1.385E+01	2.697E+01	4.509E+01	6.077E+00	0.307
		82.60		-4.185E+01	4.819E+01	7.573E+01	1.079E+01	-0.553
		279.20	*	-3.067E-01	1.676E+00	2.799E+00	1.775E-01	-0.110
BI-207		72.80		-1.174E+00	9.173E+00	1.501E+01	1.357E+00	-0.078
		74.97		-5.460E+00	5.584E+00	8.233E+00	7.480E-01	-0.663
		84.90		3.766E+00	9.121E+00	1.518E+01	1.449E+00	0.248
		569.67		-4.887E-01	1.824E+00	2.568E+00	1.394E-01	-0.190
		1063.62	*	2.910E-01	1.970E+00	3.346E+00	2.094E-01	0.087
		1770.23		-4.268E+01	2.927E+01	3.855E+01	2.250E+00	-1.107
TL-207		81.07		-4.803E+00	1.065E+01	1.716E+01	1.600E+00	-0.280
		83.78		-5.073E+00	6.252E+00	9.899E+00	9.378E-01	-0.513
		94.90		-1.262E+01	1.333E+01	2.100E+01	1.823E+00	-0.601
		122.32		-5.450E+01	1.016E+02	1.617E+02	1.166E+01	-0.337
		144.24		-9.576E-01	4.616E+01	5.981E+01	4.403E+00	-0.016
		154.21		-1.451E+01	2.004E+01	3.137E+01	2.210E+00	-0.463
		269.46		-1.971E+00	8.350E+00	1.392E+01	8.687E-01	-0.142
		323.87	*	-7.219E+00	3.186E+01	5.278E+01	8.747E+00	-0.137
		338.28		7.971E-01	4.339E+01	7.273E+01	7.714E+00	0.011
		445.03		3.707E+01	1.050E+02	1.781E+02	1.821E+01	0.208
TL-208		72.80		-1.269E+01	9.912E+01	1.622E+02	1.466E+01	-0.078
		74.97		-5.894E+01	6.050E+01	8.888E+01	1.121E+01	-0.663
		277.35		3.185E+00	1.717E+01	2.917E+01	3.111E+00	0.109
		510.84		-2.002E+01	1.573E+01	2.297E+01	2.309E+00	-0.872
		583.14	*	-1.014E+00	2.268E+00	2.826E+00	1.785E-01	-0.359

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		763.13		-1.990E+01	8.810E+01	1.402E+02	1.737E+01	-0.142
		860.37		-1.006E+00	1.185E+01	1.899E+01	1.405E+00	-0.053
		1093.90		2.872E+02	3.860E+02	6.858E+02	1.541E+02	0.419
PO-209		260.50		4.659E+02	4.877E+02	8.157E+02	4.873E+01	0.571
		262.80		-1.571E+02	1.379E+03	2.187E+03	1.307E+02	-0.072
		896.60	*	-2.242E+02	3.930E+02	5.063E+02	3.496E+01	-0.443
BI-210		46.50	*	2.647E+01	2.427E+02	3.460E+02	2.845E+01	0.077
PB-210		46.50	*	2.647E+01	2.427E+02	3.460E+02	2.845E+01	0.077
PO-210		46.50	*	2.647E+01	2.427E+02	3.460E+02	2.495E+01	0.077
BI-211		72.87		7.916E+01	1.539E+02	2.576E+02	2.328E+01	0.307
		351.07	*	6.075E+00	1.043E+01	1.792E+01	1.168E+00	0.339
PB-211		404.84	*	-5.883E+00	4.014E+01	6.593E+01	4.109E+01	-0.089
		427.08		-1.343E+01	9.670E+01	1.587E+02	9.811E+01	-0.085
		831.96		3.090E+01	5.152E+01	8.214E+01	5.125E+01	0.376
BI-212		727.18	*	6.515E-01	1.165E+01	1.906E+01	1.421E+00	0.034
		785.46		-1.016E+01	7.466E+01	1.197E+02	7.103E+00	-0.085
		1620.62		1.157E+01	6.291E+01	1.055E+02	6.539E+00	0.110
PB-212		74.81		-5.762E+00	1.898E+01	2.877E+01	3.749E+00	-0.200
		77.11		-3.860E+00	1.154E+01	1.606E+01	1.470E+00	-0.240
		87.30		9.263E+00	1.845E+01	3.075E+01	4.284E+00	0.301
		115.19		-2.501E+01	1.932E+02	3.131E+02	2.132E+01	-0.080
		238.63	*	-3.205E+00	3.545E+00	4.986E+00	3.707E-01	-0.643
		300.09		6.633E+00	3.678E+01	6.233E+01	5.227E+00	0.106
PO-212		74.81		-5.762E+00	1.898E+01	2.877E+01	3.749E+00	-0.200
		77.11		-3.860E+00	1.154E+01	1.606E+01	1.470E+00	-0.240
		87.30		9.263E+00	1.845E+01	3.075E+01	4.284E+00	0.301
		115.19		-2.501E+01	1.932E+02	3.131E+02	2.132E+01	-0.080
		238.63	*	-3.205E+00	3.545E+00	4.986E+00	3.707E-01	-0.643
		300.09		6.633E+00	3.678E+01	6.233E+01	5.227E+00	0.106
BI-214		609.31	*	4.550E+00	4.356E+00	6.337E+00	4.672E-01	0.718
		1120.29		8.190E+00	1.066E+01	1.903E+01	1.692E+00	0.430
		1764.49		-5.192E+00	1.796E+01	2.412E+01	1.411E+00	-0.215
PB-214		74.81		-9.864E+00	3.248E+01	4.925E+01	5.772E+00	-0.200
		77.11		-6.574E+00	1.966E+01	2.735E+01	3.258E+00	-0.240
		87.30		1.577E+01	3.139E+01	5.233E+01	6.484E+00	0.301
		241.98		-2.057E+01	1.844E+01	2.784E+01	2.274E+00	-0.739
		295.21		1.506E+00	6.462E+00	1.098E+01	9.510E-01	0.137
		351.92	*	3.094E+00	4.534E+00	6.328E+00	5.281E-01	0.489
PO-214		74.81		-9.864E+00	3.248E+01	4.925E+01	5.772E+00	-0.200
		77.11		-6.574E+00	1.966E+01	2.735E+01	3.258E+00	-0.240
		87.30		1.577E+01	3.139E+01	5.233E+01	6.484E+00	0.301
		241.98		-2.057E+01	1.844E+01	2.784E+01	2.274E+00	-0.739
		295.21		1.506E+00	6.462E+00	1.098E+01	9.510E-01	0.137
		351.92	*	3.094E+00	4.534E+00	6.328E+00	5.281E-01	0.489
PO-215		81.07		-4.803E+00	1.065E+01	1.716E+01	1.600E+00	-0.280
		83.78		-5.073E+00	6.252E+00	9.899E+00	9.378E-01	-0.513
		94.90		-1.262E+01	1.333E+01	2.100E+01	1.823E+00	-0.601
		122.32		-5.450E+01	1.016E+02	1.617E+02	1.166E+01	-0.337
		144.24		-9.576E-01	4.616E+01	5.981E+01	4.403E+00	-0.016

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		154.21		-1.451E+01	2.004E+01	3.137E+01	2.210E+00	-0.463
		269.46		-1.971E+00	8.350E+00	1.392E+01	8.687E-01	-0.142
		323.87	*	-7.219E+00	3.186E+01	5.278E+01	8.747E+00	-0.137
		338.28		7.971E-01	4.339E+01	7.273E+01	7.714E+00	0.011
		445.03		3.707E+01	1.050E+02	1.781E+02	1.821E+01	0.208
PO-216		74.81		-5.762E+00	1.898E+01	2.877E+01	3.749E+00	-0.200
		77.11		-3.860E+00	1.154E+01	1.606E+01	1.470E+00	-0.240
		87.30		9.263E+00	1.845E+01	3.075E+01	4.284E+00	0.301
		115.19		-2.501E+01	1.932E+02	3.131E+02	2.132E+01	-0.080
		238.63	*	-3.205E+00	3.545E+00	4.986E+00	3.707E-01	-0.643
		300.09		6.633E+00	3.678E+01	6.233E+01	5.227E+00	0.106
PO-218		74.81		-9.864E+00	3.248E+01	4.925E+01	5.772E+00	-0.200
		77.11		-6.574E+00	1.966E+01	2.735E+01	3.258E+00	-0.240
		87.30		1.577E+01	3.139E+01	5.233E+01	6.484E+00	0.301
		241.98		-2.057E+01	1.844E+01	2.784E+01	2.274E+00	-0.739
		295.21		1.506E+00	6.462E+00	1.098E+01	9.510E-01	0.137
		351.92	*	3.094E+00	4.534E+00	6.328E+00	5.281E-01	0.489
RN-219		271.23		2.112E+00	1.090E+01	1.854E+01	1.528E+00	0.114
		401.81	*	1.044E+01	1.807E+01	3.106E+01	4.214E+00	0.336
RN-220		549.76	*	8.982E+02	1.259E+03	2.170E+03	1.195E+02	0.414
RA-223		81.07		-4.803E+00	1.065E+01	1.716E+01	1.600E+00	-0.280
		83.78		-5.073E+00	6.252E+00	9.899E+00	9.378E-01	-0.513
		94.90		-1.262E+01	1.333E+01	2.100E+01	1.823E+00	-0.601
		122.32		-5.450E+01	1.016E+02	1.617E+02	1.166E+01	-0.337
		144.24		-9.576E-01	4.616E+01	5.981E+01	4.403E+00	-0.016
		154.21		-1.451E+01	2.004E+01	3.137E+01	2.210E+00	-0.463
		269.46		-1.971E+00	8.350E+00	1.392E+01	8.687E-01	-0.142
		323.87	*	-7.219E+00	3.186E+01	5.278E+01	8.747E+00	-0.137
		338.28		7.971E-01	4.339E+01	7.273E+01	7.714E+00	0.011
		445.03		3.707E+01	1.050E+02	1.781E+02	1.821E+01	0.208
RA-224		240.98	*	1.185E+01	3.432E+01	5.575E+01	3.308E+00	0.213
RA-226		186.21	*	-1.597E+01	4.990E+01	7.070E+01	5.189E+01	-0.226
AC-227		79.80		6.204E+01	8.044E+01	1.341E+02	2.920E+01	0.462
		236.00		-7.275E+00	1.091E+01	1.685E+01	1.772E+00	-0.432
		256.20	*	-1.050E+01	1.984E+01	3.071E+01	4.308E+00	-0.342
		286.10		-2.498E+01	7.437E+01	1.231E+02	1.435E+01	-0.203
		299.80		1.220E+01	6.770E+01	1.147E+02	1.876E+01	0.106
		304.40		-2.592E+01	9.182E+01	1.520E+02	2.639E+01	-0.171
		329.70		-3.215E+01	4.369E+01	7.021E+01	8.803E+00	-0.458
		334.20		4.361E+01	1.085E+02	1.850E+02	3.400E+01	0.236
PA-227		64.62	*	1.000E+35	1.085E+02	Half-Life too short		
		110.05		1.000E+35	1.085E+02	Half-Life too short		
TH-227		79.80		6.204E+01	8.047E+01	1.341E+02	2.957E+01	0.462
		94.00		3.826E+02	1.357E+02	1.955E+02	4.273E+01	1.957
		236.00		-7.275E+00	1.091E+01	1.685E+01	1.539E+00	-0.432
		256.20	*	-1.050E+01	1.987E+01	3.071E+01	5.207E+00	-0.342
		286.10		-2.498E+01	7.842E+01	1.231E+02	1.233E+02	-0.203
		299.80		1.220E+01	6.770E+01	1.147E+02	1.876E+01	0.106
		304.40		-2.592E+01	9.182E+01	1.520E+02	2.639E+01	-0.171

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		329.70		-3.215E+01	4.369E+01	7.021E+01	8.803E+00	-0.458
		334.20		4.361E+01	1.085E+02	1.850E+02	3.400E+01	0.236
AC-228		338.32		4.738E-02	1.041E+01	1.743E+01	7.109E+00	0.003
		911.07	*	2.747E+00	7.647E+00	1.102E+01	1.099E+00	0.249
		969.11		5.245E+00	9.777E+00	1.641E+01	3.723E+00	0.320
RA-228		338.32		4.738E-02	1.041E+01	1.743E+01	7.109E+00	0.003
		911.07	*	2.747E+00	7.647E+00	1.102E+01	1.099E+00	0.249
		969.11		5.245E+00	9.777E+00	1.641E+01	3.723E+00	0.320
TH-228		74.81		-5.762E+00	1.897E+01	2.877E+01	2.633E+00	-0.200
		77.11		-3.860E+00	1.154E+01	1.606E+01	1.470E+00	-0.240
		87.30		9.263E+00	1.843E+01	3.075E+01	2.983E+00	0.301
		238.63	*	-3.205E+00	3.545E+00	4.986E+00	3.707E-01	-0.643
		300.09		6.633E+00	3.699E+01	6.233E+01	3.675E+01	0.106
TH-229		85.43		8.238E+00	9.062E+00	1.531E+01	1.466E+00	0.538
		88.47		-1.358E+01	6.024E+00	8.825E+00	8.531E-01	-1.538
		100.00		8.111E+00	9.819E+00	1.655E+01	1.337E+00	0.490
		193.63	*	-8.414E+00	2.891E+01	3.984E+01	2.307E+00	-0.211
		210.97		-1.012E+01	3.655E+01	5.790E+01	3.385E+00	-0.175
TH-230		67.67	*	-5.450E+02	3.624E+03	1.117E+03	7.245E+03	-0.488
PA-231		283.67	*	2.597E+01	7.230E+01	1.236E+02	1.714E+01	0.210
		301.29		1.072E+01	2.748E+01	4.696E+01	4.960E+00	0.228
		330.00		-8.325E+01	1.007E+02	1.559E+02	4.887E+01	-0.534
TH-231		84.21	*	-9.310E+00	2.393E+01	3.855E+01	7.050E+00	-0.241
U-231		84.21		-2.515E+01	6.452E+01	1.041E+02	9.893E+00	-0.241
		92.29		6.096E+00	3.505E+01	4.878E+01	4.413E+00	0.125
		95.87	*	-6.285E+01	1.638E+01	2.138E+01	1.830E+00	-2.939
		108.00		-1.501E+01	2.732E+01	4.356E+01	3.195E+00	-0.345
TH-232		59.00	*	-1.410E+03	1.494E+04	2.804E+03	2.952E+04	-0.503
PA-233		75.28		-1.769E+02	1.629E+02	2.363E+02	3.691E+01	-0.749
		86.59		6.477E+01	8.012E+01	1.321E+02	3.590E+01	0.490
		300.12		3.405E+00	1.889E+01	3.199E+01	4.327E+00	0.106
		311.98	*	-2.266E+00	3.104E+00	5.012E+00	3.175E-01	-0.452
		340.50		-8.500E+00	2.560E+01	4.194E+01	9.646E+00	-0.203
		398.62		-9.558E+01	9.873E+01	1.495E+02	3.861E+01	-0.639
		415.76		-7.307E+00	7.506E+01	1.241E+02	2.552E+01	-0.059
PA-234		63.00		-1.056E+02	1.130E+02	1.594E+02	2.516E+01	-0.662
		94.67		9.246E+00	9.360E+00	1.573E+01	1.961E+00	0.588
		98.44		-1.047E+00	4.931E+00	7.935E+00	4.422E+00	-0.132
		99.86		1.314E+01	2.500E+01	4.169E+01	3.374E+00	0.315
		111.00		3.357E+00	1.029E+01	1.698E+01	1.878E+00	0.198
		131.20		2.631E+00	5.490E+00	9.095E+00	5.614E-01	0.289
		152.70		-6.957E-01	1.620E+01	2.619E+01	4.145E+00	-0.027
		186.00		-2.383E+01	7.991E+01	1.162E+02	3.548E+01	-0.205
		226.40		-7.466E+00	1.987E+01	3.121E+01	3.623E+00	-0.239
		227.20		-4.173E+00	2.134E+01	3.386E+01	1.997E+00	-0.123
		248.90		-3.852E+01	4.306E+01	6.427E+01	1.384E+01	-0.599
		293.70		-6.613E+01	4.855E+01	4.973E+01	8.033E+00	-1.330
		369.80		-3.955E+01	4.109E+01	6.340E+01	1.321E+01	-0.624
		568.70		-2.150E+01	6.134E+01	8.467E+01	4.601E+00	-0.254

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		569.50		-2.806E+00	1.623E+01	2.302E+01	1.250E+00	-0.122
		574.00		-6.200E+01	6.563E+01	9.984E+01	5.403E+00	-0.621
		699.00		1.876E+01	3.445E+01	5.809E+01	1.034E+01	0.323
		706.10		2.017E+01	5.078E+01	8.388E+01	3.697E+01	0.240
		733.00		3.198E+00	1.608E+01	2.659E+01	5.631E+00	0.120
		742.81		-7.123E+00	6.373E+01	1.024E+02	6.853E+01	-0.070
		796.30		4.934E-01	3.723E+01	6.044E+01	1.592E+01	0.008
		805.60		2.654E+01	4.402E+01	7.397E+01	2.222E+01	0.359
		819.60		-5.952E-02	5.422E+01	8.780E+01	3.297E+01	-0.001
		826.30		-1.984E+00	3.551E+01	5.716E+01	2.535E+01	-0.035
		831.60		4.867E+00	2.492E+01	4.103E+01	1.201E+01	0.119
		876.40		2.004E+01	3.892E+01	5.669E+01	5.820E+01	0.353
		880.51		6.440E+00	1.145E+01	1.952E+01	1.320E+00	0.330
		883.24		-1.129E+00	1.219E+01	1.946E+01	1.304E+01	-0.058
		899.00		-1.500E+01	4.418E+01	5.773E+01	2.506E+01	-0.260
		925.00		5.252E+01	5.321E+01	9.323E+01	6.377E+00	0.563
		926.50		9.565E+00	7.988E+00	1.373E+01	3.394E+00	0.697
		946.00	*	1.711E+00	1.286E+01	2.096E+01	3.770E+00	0.082
		949.00		5.021E+00	1.920E+01	3.166E+01	2.141E+00	0.159
		980.50		5.636E+00	3.294E+01	5.378E+01	3.573E+00	0.105
		1394.10		-3.157E+00	5.096E+01	8.354E+01	5.417E+01	-0.038
PA-234M		766.42		-6.669E+02	7.110E+02	7.413E+02	3.731E+02	-0.900
		1001.03	*	-2.489E+01	2.560E+02	3.196E+02	2.635E+01	-0.078
TH-234		63.29	*	-8.478E+01	9.605E+01	1.356E+02	2.471E+01	-0.625
		92.38		7.898E+00	3.788E+01	5.273E+01	9.641E+00	0.150
U-234		53.20	*	2.085E+02	4.067E+03	5.786E+03	5.786E+04	0.036
U-235		89.95		-1.728E+02	8.000E+01	8.691E+01	2.702E+01	-1.988
		93.35		1.311E+01	4.503E+01	6.259E+01	1.759E+01	0.209
		105.00		-3.444E+01	5.878E+01	9.224E+01	2.727E+01	-0.373
		143.76	*	-2.383E+00	1.427E+01	1.832E+01	2.998E+00	-0.130
		163.35		-1.003E+01	2.542E+01	4.031E+01	7.242E+00	-0.249
		185.71		-6.748E-01	2.936E+00	4.295E+00	2.477E-01	-0.157
		205.31		-2.865E+00	2.627E+01	4.047E+01	7.282E+00	-0.071
NP-236		94.67		7.121E+00	7.076E+00	1.194E+01	1.041E+00	0.596
		98.44		-7.929E-01	3.702E+00	5.998E+00	4.949E-01	-0.132
		111.00		2.539E+00	7.779E+00	1.285E+01	9.123E-01	0.198
		160.31	*	1.961E-01	4.269E+00	6.918E+00	3.997E-01	0.028
NP-237		86.50	*	1.009E+01	1.197E+01	1.989E+01	4.530E+00	0.507
		95.87		-2.291E+02	7.975E+01	7.795E+01	1.919E+01	-2.939
PU-237		59.54	*	-1.227E+02	1.125E+02	1.770E+02	1.643E+01	-0.693
U-238		63.29	*	-8.478E+01	9.605E+01	1.356E+02	2.471E+01	-0.625
		92.38		7.898E+00	3.786E+01	5.273E+01	4.764E+00	0.150
NP-239		99.55		9.533E-01	8.398E+00	1.379E+01	1.121E+00	0.069
		117.00	*	-8.042E+00	1.038E+01	1.634E+01	1.093E+00	-0.492
		209.75		1.507E+01	3.621E+01	5.928E+01	3.464E+00	0.254
		228.18		-2.710E+00	1.128E+01	1.786E+01	1.054E+00	-0.152
		277.60		6.732E-01	8.186E+00	1.384E+01	8.296E-01	0.049
		334.30		2.471E+01	6.136E+01	1.048E+02	6.228E+00	0.236
AM-241		59.54	*	-1.014E+01	9.297E+00	1.463E+01	1.443E+00	-0.693

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AM-243		74.67	*	-5.316E-01	3.079E+00	4.699E+00	4.265E-01	-0.113
		86.72		3.442E+02	4.395E+02	7.396E+02	7.146E+01	0.465
		117.66		-2.094E+02	2.070E+02	3.221E+02	2.142E+01	-0.650
		142.18		1.601E+03	1.074E+03	1.641E+03	9.827E+01	0.976
CM-243		99.55		9.804E-01	8.637E+00	1.418E+01	1.153E+00	0.069
		103.76	*	-8.428E-01	5.308E+00	8.613E+00	6.634E-01	-0.098
		117.00		-8.269E+00	1.067E+01	1.680E+01	1.124E+00	-0.492
		209.75		1.485E+01	3.568E+01	5.841E+01	3.413E+00	0.254
		228.18		-2.737E+00	1.139E+01	1.803E+01	1.064E+00	-0.152
		277.60		6.783E-01	8.248E+00	1.395E+01	8.359E-01	0.049
AM-246		798.80		1.785E+00	5.829E+00	9.711E+00	5.875E-01	0.184
		1036.00		-9.658E+00	1.151E+01	1.763E+01	1.128E+00	-0.548
		1062.04		1.723E+00	8.574E+00	1.464E+01	9.174E-01	0.118
		1078.86	*	1.490E+00	5.503E+00	9.445E+00	5.832E-01	0.158
CM-247		278.00		-5.040E+00	3.421E+01	5.722E+01	3.430E+00	-0.088
		287.40		-1.143E+01	5.871E+01	9.786E+01	5.870E+00	-0.117
		402.60	*	2.783E-01	1.617E+00	2.721E+00	1.554E-01	0.102
CF-249		252.85		5.518E+01	4.434E+01	7.513E+01	4.478E+00	0.735
		333.44		7.422E+00	7.983E+00	1.397E+01	8.304E-01	0.531
		387.95	*	-1.735E+00	1.795E+00	2.810E+00	1.608E-01	-0.617
CF-251		176.60	*	1.746E+01	7.308E+00	1.276E+01	7.329E-01	1.369
		227.00		-5.030E+00	1.895E+01	2.995E+01	1.766E+00	-0.168
		285.00		1.390E+01	8.296E+01	1.407E+02	8.441E+00	0.099
ANH-511		511.00	*	-4.195E+00	3.360E+00	4.939E+00	2.778E-01	-0.849

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202050275      *
* Acquisition date : 23-FEB-2010 22:32:43 Detector SN#    :                 *
* Detector ID      : GAM19                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:02.18     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 17-FEB-2010 12:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G1202050275          Analyst initials: KXG3            *
* Batch Number     : 956162               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 11-MAR-2009 08:32:49 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
AS-74	8.795E+00	5.528E+00	4.912E+00	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	-1.242E+00	1.347E+01	2.262E+01	0.000E+00	NOT IDENT.
NA-22	2.133E-02	1.584E+00	2.688E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.337E+03	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.667E-01	1.760E+00	2.963E+00	0.000E+00	NOT IDENT.
K-40	2.366E-01	2.289E+01	3.392E+01	0.000E+00	NOT IDENT.
TI-44	-7.302E-01	2.005E+00	2.837E+00	0.000E+00	NOT IDENT.
SC-46	4.823E-01	1.490E+00	2.530E+00	0.000E+00	NOT IDENT.
V-48	7.404E-01	2.125E+00	3.597E+00	0.000E+00	NOT IDENT.
CR-51	-3.031E-01	1.433E+01	2.449E+01	0.000E+00	NOT IDENT.
MN-52	8.687E-01	3.284E+00	5.714E+00	0.000E+00	NOT IDENT.
MN-54	-5.375E-01	1.497E+00	2.390E+00	0.000E+00	NOT IDENT.
CO-56	1.214E-02	1.567E+00	2.588E+00	0.000E+00	NOT IDENT.
CO-57	-4.185E-01	1.394E+00	2.288E+00	0.000E+00	NOT IDENT.
CO-58	7.149E-01	1.573E+00	2.701E+00	0.000E+00	NOT IDENT.
FE-59	-1.125E+00	2.877E+00	4.714E+00	0.000E+00	NOT IDENT.
CO-60	3.234E-01	1.734E+00	2.986E+00	0.000E+00	NOT IDENT.
ZN-65	-8.804E-01	3.137E+00	5.207E+00	0.000E+00	NOT IDENT.
GE-68	1.287E+01	4.579E+01	8.027E+01	0.000E+00	NOT IDENT.
AS-73	-1.538E+01	4.238E+01	7.035E+01	0.000E+00	NOT IDENT.
SE-75	8.100E-01	1.956E+00	3.428E+00	0.000E+00	FAIL ABUN
BR-77	3.276E+01	3.647E+01	6.518E+01	0.000E+00	NOT IDENT.
SR-82	-7.629E+00	1.231E+01	1.921E+01	0.000E+00	NOT IDENT.
RB-83	1.536E+00	2.793E+00	4.882E+00	0.000E+00	NOT IDENT.
RB-84	5.680E-01	2.282E+00	3.855E+00	0.000E+00	NOT IDENT.
KR-85	-1.005E+03	5.059E+02	7.778E+02	0.000E+00	NOT IDENT.
SR-85	-4.709E+00	2.370E+00	3.643E+00	0.000E+00	NOT IDENT.

RB-86	-1.612E+00	2.160E+01	3.662E+01	0.000E+00	NOT IDENT.
Y-88	-1.778E+00	2.094E+00	3.113E+00	0.000E+00	NOT IDENT.
ZR-88	8.960E-01	1.241E+00	2.198E+00	0.000E+00	NOT IDENT.
Y-91	-1.542E+02	5.530E+02	9.121E+02	0.000E+00	NOT IDENT.
NB-94	-1.088E+00	1.599E+00	2.528E+00	0.000E+00	NOT IDENT.
NB-95	-2.330E+00	2.224E+00	2.672E+00	0.000E+00	NOT IDENT.
NB-95M	-8.410E+00	5.342E+00	7.989E+00	0.000E+00	NOT IDENT.
ZR-95	-4.667E-01	2.762E+00	4.514E+00	0.000E+00	NOT IDENT.
NB-97	0.000E+00	8.716E+02	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.718E+04	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-3.239E+01	5.940E+01	9.386E+01	0.000E+00	FAIL ABUN
TC-99M	0.000E+00	1.183E+08	0.000E+00	0.000E+00	SHORT HLIF
RH-101	0.000E+00	2.805E+00	3.139E+00	0.000E+00	FAIL ABUN
RH-102	2.983E-01	1.356E+00	2.322E+00	0.000E+00	NOT IDENT.
RU-103	2.456E-01	1.614E+00	2.748E+00	0.000E+00	NOT IDENT.
RH-106	3.245E+00	1.409E+01	2.396E+01	0.000E+00	NOT IDENT.
RU-106	3.245E+00	1.409E+01	2.396E+01	0.000E+00	NOT IDENT.
AG-108M	-6.504E-01	1.544E+00	2.550E+00	0.000E+00	NOT IDENT.
CD-109	-3.316E+01	4.080E+01	6.601E+01	0.000E+00	NOT IDENT.
AG-110M	1.708E-01	1.439E+00	2.423E+00	0.000E+00	NOT IDENT.
IN-111	-7.273E-01	6.666E+00	1.082E+01	0.000E+00	NOT IDENT.
IN-113M	7.399E-01	1.861E+00	3.237E+00	0.000E+00	NOT IDENT.
SN-113	7.399E-01	1.861E+00	3.237E+00	0.000E+00	NOT IDENT.
IN-114M	-1.300E+01	8.285E+00	1.261E+01	0.000E+00	NOT IDENT.
CD-115	1.314E+01	3.125E+01	5.419E+01	0.000E+00	NOT IDENT.
SN-117M	1.483E+00	1.818E+00	3.099E+00	0.000E+00	NOT IDENT.
SB-122	-2.043E+01	1.099E+01	1.598E+01	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.532E+03	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.275E+00	1.398E+00	2.391E+00	0.000E+00	NOT IDENT.
I-124	-1.560E+00	7.475E+00	1.234E+01	0.000E+00	NOT IDENT.
SB-124	2.540E-01	3.524E+00	5.941E+00	0.000E+00	NOT IDENT.
SB-125	5.656E-01	4.138E+00	7.075E+00	0.000E+00	NOT IDENT.
TE-125M	1.358E+02	4.585E+02	7.717E+02	0.000E+00	NOT IDENT.
I-126	-6.749E+00	7.139E+00	7.435E+00	0.000E+00	NOT IDENT.
SB-126	-1.965E-01	3.610E+00	5.972E+00	0.000E+00	NOT IDENT.
SN-126	1.564E+00	3.906E+00	6.623E+00	0.000E+00	NOT IDENT.
SB-127	-9.970E-01	1.182E+01	1.954E+01	0.000E+00	NOT IDENT.
XE-127	8.593E-01	2.180E+00	3.197E+00	0.000E+00	NOT IDENT.
I-131	1.413E+00	2.499E+00	4.390E+00	0.000E+00	NOT IDENT.
TE-132	-1.381E+00	5.431E+00	8.764E+00	0.000E+00	NOT IDENT.
BA-133	-1.707E+00	2.102E+00	3.420E+00	0.000E+00	NOT IDENT.
I-133	-9.423E+01	2.666E+02	4.367E+02	0.000E+00	NOT IDENT.
CS-134	-5.672E-01	1.857E+00	2.987E+00	0.000E+00	NOT IDENT.
CS-135	-4.315E-01	6.900E+00	1.184E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	7.828E+07	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.541E+00	2.638E+00	4.079E+00	0.000E+00	NOT IDENT.
BA-137M	1.260E+00	1.468E+00	2.612E+00	0.000E+00	NOT IDENT.
CS-137	1.332E+00	1.552E+00	2.761E+00	0.000E+00	NOT IDENT.
CE-139	1.306E+00	1.487E+00	2.536E+00	0.000E+00	NOT IDENT.
BA-140	2.856E-01	7.329E+00	1.236E+01	0.000E+00	NOT IDENT.
LA-140	9.814E-01	2.976E+00	5.150E+00	0.000E+00	NOT IDENT.
CE-141	-3.526E-01	2.934E+00	4.457E+00	0.000E+00	NOT IDENT.
CE-143	-1.513E+02	1.235E+02	1.282E+02	0.000E+00	NOT IDENT.
CE-144	2.377E+00	1.041E+01	1.741E+01	0.000E+00	NOT IDENT.
PM-144	1.918E-01	1.604E+00	2.692E+00	0.000E+00	NOT IDENT.
PR-144	1.294E+01	1.082E+02	1.816E+02	0.000E+00	NOT IDENT.
PM-146	1.009E+00	1.984E+00	3.458E+00	0.000E+00	NOT IDENT.
ND-147	-1.164E+01	1.687E+01	2.287E+01	0.000E+00	NOT IDENT.
PM-149	-7.913E+01	2.952E+02	5.003E+02	0.000E+00	NOT IDENT.
EU-152	1.676E-01	4.408E+00	7.543E+00	0.000E+00	NOT IDENT.
GD-153	-2.873E+00	4.036E+00	6.531E+00	0.000E+00	NOT IDENT.
EU-154	6.267E-01	4.402E+00	7.570E+00	0.000E+00	NOT IDENT.
EU-155	-2.042E+00	5.672E+00	9.309E+00	0.000E+00	NOT IDENT.
TB-160	-3.417E-02	5.214E+00	8.583E+00	0.000E+00	FAIL ABUN
HO-166M	-3.714E+00	2.862E+00	4.267E+00	0.000E+00	NOT IDENT.
TM-171	-1.841E+03	1.948E+03	2.778E+03	0.000E+00	NOT IDENT.
HF-175	-1.340E+00	1.469E+00	2.381E+00	0.000E+00	NOT IDENT.
LU-176	6.801E-01	1.184E+00	2.083E+00	0.000E+00	NOT IDENT.
LU-177	8.240E+00	2.076E+01	3.464E+01	0.000E+00	NOT IDENT.
LU-177M	-1.694E+00	7.356E+00	1.231E+01	0.000E+00	NOT IDENT.
HF-181	-4.801E-01	1.689E+00	2.799E+00	0.000E+00	NOT IDENT.
W-181	2.234E+01	2.432E+01	3.710E+01	0.000E+00	NOT IDENT.
TA-182	-6.521E-01	6.271E+00	1.054E+01	0.000E+00	NOT IDENT.
RE-183	-2.828E+00	5.290E+00	8.530E+00	0.000E+00	NOT IDENT.
RE-184	1.420E+01	1.118E+01	1.933E+01	0.000E+00	NOT IDENT.
OS-185	-6.495E-01	1.861E+00	3.025E+00	0.000E+00	NOT IDENT.
RE-188	-3.265E+00	7.706E+00	1.249E+01	0.000E+00	NOT IDENT.
W-188	-3.131E+01	3.120E+02	5.329E+02	0.000E+00	NOT IDENT.

IR-192	-2.302E-01	1.550E+00	2.634E+00	0.000E+00	NOT IDENT.
AU-195	1.114E+00	1.140E+01	1.909E+01	0.000E+00	NOT IDENT.
TL-200	-4.053E+01	8.735E+01	1.449E+02	0.000E+00	NOT IDENT.
TL-201	1.432E+01	5.143E+01	8.575E+01	0.000E+00	NOT IDENT.
TL-202	4.933E-01	2.039E+00	3.502E+00	0.000E+00	NOT IDENT.
HG-203	-3.067E-01	1.643E+00	2.799E+00	0.000E+00	NOT IDENT.
BI-207	2.910E-01	1.930E+00	3.346E+00	0.000E+00	NOT IDENT.
TL-207	-7.219E+00	3.122E+01	5.278E+01	0.000E+00	NOT IDENT.
TL-208	-1.014E+00	2.222E+00	2.826E+00	0.000E+00	NOT IDENT.
PO-209	-2.242E+02	3.851E+02	5.063E+02	0.000E+00	NOT IDENT.
BI-210	2.647E+01	2.378E+02	3.460E+02	0.000E+00	NOT IDENT.
PB-210	2.647E+01	2.378E+02	3.460E+02	0.000E+00	NOT IDENT.
PO-210	2.647E+01	2.378E+02	3.460E+02	0.000E+00	NOT IDENT.
BI-211	6.075E+00	1.022E+01	1.792E+01	0.000E+00	NOT IDENT.
PB-211	-5.883E+00	3.934E+01	6.593E+01	0.000E+00	NOT IDENT.
BI-212	6.515E-01	1.142E+01	1.906E+01	0.000E+00	NOT IDENT.
PB-212	-3.205E+00	3.474E+00	4.986E+00	0.000E+00	NOT IDENT.
PO-212	-3.205E+00	3.474E+00	4.986E+00	0.000E+00	NOT IDENT.
BI-214	4.550E+00	4.269E+00	6.337E+00	0.000E+00	NOT IDENT.
PB-214	3.094E+00	4.443E+00	6.328E+00	0.000E+00	NOT IDENT.
PO-214	3.094E+00	4.443E+00	6.328E+00	0.000E+00	NOT IDENT.
PO-215	-7.219E+00	3.122E+01	5.278E+01	0.000E+00	NOT IDENT.
PO-216	-3.205E+00	3.474E+00	4.986E+00	0.000E+00	NOT IDENT.
PO-218	3.094E+00	4.443E+00	6.328E+00	0.000E+00	NOT IDENT.
RN-219	1.044E+01	1.771E+01	3.106E+01	0.000E+00	NOT IDENT.
RN-220	8.982E+02	1.234E+03	2.170E+03	0.000E+00	NOT IDENT.
RA-223	-7.219E+00	3.122E+01	5.278E+01	0.000E+00	NOT IDENT.
RA-224	1.185E+01	3.364E+01	5.575E+01	0.000E+00	NOT IDENT.
RA-226	-1.597E+01	4.890E+01	7.070E+01	0.000E+00	NOT IDENT.
AC-227	-1.050E+01	1.944E+01	3.071E+01	0.000E+00	NOT IDENT.
PA-227	0.000E+00	1.400E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-1.050E+01	1.947E+01	3.071E+01	0.000E+00	NOT IDENT.
AC-228	2.747E+00	7.494E+00	1.102E+01	0.000E+00	NOT IDENT.
RA-228	2.747E+00	7.494E+00	1.102E+01	0.000E+00	NOT IDENT.
TH-228	-3.205E+00	3.474E+00	4.986E+00	0.000E+00	NOT IDENT.
TH-229	-8.414E+00	2.834E+01	3.984E+01	0.000E+00	NOT IDENT.
TH-230	-5.450E+02	3.551E+03	1.117E+03	0.000E+00	NOT IDENT.
PA-231	2.597E+01	7.085E+01	1.236E+02	0.000E+00	NOT IDENT.
TH-231	-9.310E+00	2.345E+01	3.855E+01	0.000E+00	NOT IDENT.
U-231	-6.285E+01	1.605E+01	2.138E+01	0.000E+00	NOT IDENT.
TH-232	-1.410E+03	1.464E+04	2.804E+03	0.000E+00	NOT IDENT.
PA-233	-2.266E+00	3.042E+00	5.012E+00	0.000E+00	NOT IDENT.
PA-234	1.711E+00	1.260E+01	2.096E+01	0.000E+00	NOT IDENT.
PA-234M	-2.489E+01	2.509E+02	3.196E+02	0.000E+00	NOT IDENT.
TH-234	-8.478E+01	9.413E+01	1.356E+02	0.000E+00	NOT IDENT.
U-234	2.085E+02	3.986E+03	5.786E+03	0.000E+00	NOT IDENT.
U-235	-2.383E+00	1.398E+01	1.832E+01	0.000E+00	NOT IDENT.
NP-236	1.961E-01	4.184E+00	6.918E+00	0.000E+00	NOT IDENT.
NP-237	1.009E+01	1.174E+01	1.989E+01	0.000E+00	NOT IDENT.
PU-237	-1.227E+02	1.102E+02	1.770E+02	0.000E+00	NOT IDENT.
U-238	-8.478E+01	9.413E+01	1.356E+02	0.000E+00	NOT IDENT.
NP-239	-8.042E+00	1.017E+01	1.634E+01	0.000E+00	NOT IDENT.
AM-241	-1.014E+01	9.111E+00	1.463E+01	0.000E+00	NOT IDENT.
AM-243	-5.316E-01	3.017E+00	4.699E+00	0.000E+00	NOT IDENT.
CM-243	-8.428E-01	5.202E+00	8.613E+00	0.000E+00	NOT IDENT.
AM-246	1.490E+00	5.393E+00	9.445E+00	0.000E+00	NOT IDENT.
CM-247	2.783E-01	1.585E+00	2.721E+00	0.000E+00	NOT IDENT.
CF-249	-1.735E+00	1.759E+00	2.810E+00	0.000E+00	NOT IDENT.
CF-251	0.000E+00	7.162E+00	1.276E+01	0.000E+00	NOT IDENT.
ANH-511	-4.195E+00	3.293E+00	4.939E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 24-FEB-2010 04:34:04.52

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202050275.CNF;1
Sample date       : 17-FEB-2010 12:00:00 Acquisition date : 23-FEB-2010 22:32:43
Sample ID         : G1202050275          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM19                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:02.18  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 956162               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	65.69	58	390	0.76	131.24	130	8	2.71E-03	60.0	
2	0	92.57	239	338	1.38	184.96	181	9	1.10E-02	15.3	
3	0	140.32	61	317	1.03	280.39	276	8	2.84E-03	52.1	
4	0	185.95	178	381	1.66	371.57	365	13	8.23E-03	24.0	
5	0	198.14	168	305	1.13	395.94	391	12	7.80E-03	22.1	
6	0	238.16	89	210	2.37	475.91	473	9	4.14E-03	30.8	
7	0	511.17	490	186	2.82	1021.64	1013	19	2.27E-02	8.1	
8	0	559.14	55	123	1.34	1117.55	1110	14	2.57E-03	44.9	
9	0	596.94	81	123	1.87	1193.13	1185	15	3.74E-03	32.0	
10	0	610.01	53	119	0.94	1219.25	1215	12	2.45E-03	44.2	
11	0	1765.42	26	25	1.93	3530.57	3526	12	1.21E-03	42.6	

VAX/VMS Nuclide Identification Report Generated 24-FEB-2010 04:34:07.48

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202050275.CNF;1
Sample date      : 17-FEB-2010 12:00:00 Acquisition date : 23-FEB-2010 22:32:43
Sample ID        : G1202050275          Sample quantity  : 2.00000E+00 LITER
Detector name    : GAM19                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00        Elapsed real time: 0 06:00:02.18  0.0%
Energy tolerance : 1.50000 keV          Analyst Initials : KXG3
Abundance limit  : 75.00000             Sensitivity      : 5.00000
Batch ID         : 956162               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
AS-74	595.88	81	59.90*	1.241E+00	6.808E+00	8.795E+00	64.14
	634.78	------	15.40	1.186E+00	------	Line Not Found	------

Flag: "*" = Keyline

Sample ID : G1202050275 Acquisition date : 23-FEB-2010 22:32:43

Total number of lines in spectrum	3	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	3	100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
AS-74	17.77D	1.29	6.808E+00	8.795E+00	5.641E+00	64.14	
			---	---			
	Total Activity :		6.808E+00	8.795E+00			
	Grand Total Activity :		6.808E+00	8.795E+00			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202050275 Acquisition date : 23-FEB-2010 22:32:43

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	140.32	61	317	1.03	280.39	276	8	2.84E-03	****	2.78E+00	T
0	198.14	105	305	1.13	395.94	391	12	4.87E-03	78.9	2.50E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 24-FEB-2010 04:34:11.88

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202050275.CNF;1 *
* Acquisition date : 23-FEB-2010 22:32:43  Detector SN#    :                *
* Detector ID      : GAM19                 Sensitivity     : 5.00000        *
* Geometry         : 2LMB                  Energy tolerance: 1.50000        *
* Elapsed live time: 0 06:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 06:00:02.18         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 17-FEB-2010 12:00:00  Nuclide Library : LIQUID         *
* Sample ID        : G1202050275           Analyst initials: KXG3           *
* Batch Number     : 956162                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 11-MAR-2009 08:32:49.9MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AS-74	8.795E+00	5.641E+00	4.912E+00	2.608E-01	1.791

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	-1.242E+00		1.374E+01	2.262E+01	1.506E+00	-0.055
NA-22	2.133E-02		1.617E+00	2.688E+00	1.664E-01	0.008
NA-24	-1.925E-03		1.192E-03	Half-Life too short		
AL-26	1.667E-01		1.796E+00	2.963E+00	1.695E-01	0.056
K-40	2.366E-01		2.336E+01	3.392E+01	2.293E+00	0.007
TI-44	-7.302E-01		2.046E+00	2.837E+00	2.611E-01	-0.257
SC-46	4.823E-01		1.520E+00	2.530E+00	1.731E-01	0.191
V-48	7.404E-01		2.169E+00	3.597E+00	2.386E-01	0.206
CR-51	-3.031E-01		1.462E+01	2.449E+01	1.621E+00	-0.012
MN-52	8.687E-01		3.351E+00	5.714E+00	3.693E-01	0.152
MN-54	-5.375E-01		1.527E+00	2.390E+00	1.520E-01	-0.225

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-56	1.214E-02		1.599E+00	2.588E+00	1.673E-01	0.005
CO-57	-4.185E-01		1.422E+00	2.288E+00	1.465E-01	-0.183
CO-58	7.149E-01		1.605E+00	2.701E+00	1.670E-01	0.265
FE-59	-1.125E+00		2.935E+00	4.714E+00	3.308E-01	-0.239
CO-60	3.234E-01		1.770E+00	2.986E+00	1.947E-01	0.108
ZN-65	-8.804E-01		3.201E+00	5.207E+00	3.111E-01	-0.169
GE-68	1.287E+01		4.673E+01	8.027E+01	4.963E+00	0.160
AS-73	-1.538E+01		4.325E+01	7.035E+01	6.366E+00	-0.219
SE-75	8.100E-01		1.996E+00	3.428E+00	2.070E-01	0.236
BR-77	3.276E+01		3.722E+01	6.518E+01	3.650E+00	0.503
SR-82	-7.629E+00		1.256E+01	1.921E+01	1.126E+00	-0.397
RB-83	1.536E+00		2.850E+00	4.882E+00	2.734E-01	0.315
RB-84	5.680E-01		2.329E+00	3.855E+00	2.610E-01	0.147
KR-85	-1.005E+03		5.162E+02	7.778E+02	4.369E+01	-1.292
SR-85	-4.709E+00		2.418E+00	3.643E+00	2.047E-01	-1.292
RB-86	-1.612E+00		2.204E+01	3.662E+01	2.266E+00	-0.044
Y-88	-1.778E+00		2.137E+00	3.113E+00	1.760E-01	-0.571
ZR-88	8.960E-01		1.266E+00	2.198E+00	1.253E-01	0.408
Y-91	-1.542E+02		5.643E+02	9.121E+02	5.260E+01	-0.169
NB-94	-1.088E+00		1.632E+00	2.528E+00	1.328E-01	-0.430
NB-95	-2.330E+00		2.269E+00	2.672E+00	1.542E-01	-0.872
NB-95M	-8.410E+00		5.451E+00	7.989E+00	6.089E-01	-1.053
ZR-95	-4.667E-01		2.818E+00	4.514E+00	3.134E-01	-0.103
NB-97	1.454E-04		4.447E-04	Half-Life too short		
ZR-97	-1.009E-01		1.387E-02	Half-Life too short		
MO-99	-3.239E+01		6.062E+01	9.386E+01	1.284E+01	-0.345
TC-99M	1.149E+02	+	6.038E+01	Half-Life too short		
RH-101	3.616E+00	+	2.862E+00	3.139E+00	1.822E-01	1.152
RH-102	2.983E-01		1.384E+00	2.322E+00	1.322E-01	0.128
RU-103	2.456E-01		1.647E+00	2.748E+00	3.457E-01	0.089
RH-106	3.245E+00		1.438E+01	2.396E+01	2.741E+00	0.135
RU-106	3.245E+00		1.438E+01	2.396E+01	1.239E+00	0.135
AG-108M	-6.504E-01		1.576E+00	2.550E+00	1.588E-01	-0.255
CD-109	-3.316E+01		4.164E+01	6.601E+01	6.433E+00	-0.502
AG-110M	1.708E-01		1.468E+00	2.423E+00	1.305E-01	0.071
IN-111	-7.273E-01		6.802E+00	1.082E+01	6.431E-01	-0.067
IN-113M	7.399E-01		1.899E+00	3.237E+00	1.973E-01	0.229
SN-113	7.399E-01		1.899E+00	3.237E+00	1.973E-01	0.229
IN-114M	-1.300E+01		8.454E+00	1.261E+01	7.291E-01	-1.031
CD-115	1.314E+01		3.189E+01	5.419E+01	3.023E+00	0.243
SN-117M	1.483E+00		1.855E+00	3.099E+00	1.796E-01	0.479
SB-122	-2.043E+01		1.121E+01	1.598E+01	8.714E-01	-1.279
I-123	5.046E-03		2.822E-03	Half-Life too short		
TE-123M	1.275E+00		1.427E+00	2.391E+00	1.403E-01	0.533
I-124	-1.560E+00		7.628E+00	1.234E+01	6.511E-01	-0.126
SB-124	2.540E-01		3.596E+00	5.941E+00	3.873E-01	0.043
SB-125	5.656E-01		4.223E+00	7.075E+00	4.226E-01	0.080
TE-125M	1.358E+02		4.678E+02	7.717E+02	7.087E+01	0.176

Sample ID : G1202050275 Acquisition date : 23-FEB-2010 22:32:43

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
I-126	-6.749E+00		7.285E+00	7.435E+00	3.689E-01	-0.908
SB-126	-1.965E-01		3.684E+00	5.972E+00	3.222E-01	-0.033
SN-126	1.564E+00		3.986E+00	6.623E+00	6.438E-01	0.236
SB-127	-9.970E-01		1.206E+01	1.954E+01	1.245E+00	-0.051
XE-127	8.593E-01		2.224E+00	3.197E+00	1.861E-01	0.269
I-131	1.413E+00		2.550E+00	4.390E+00	2.832E-01	0.322
TE-132	-1.381E+00		5.542E+00	8.764E+00	1.150E+00	-0.158
BA-133	-1.707E+00		2.145E+00	3.420E+00	3.966E-01	-0.499
I-133	-9.423E+01		2.720E+02	4.367E+02	3.308E+01	-0.216
CS-134	-5.672E-01		1.895E+00	2.987E+00	1.826E-01	-0.190
CS-135	-4.315E-01		7.041E+00	1.184E+01	9.230E-01	-0.036
I-135	-3.426E+01		3.994E+01	Half-Life too short		
CS-136	-2.541E+00		2.692E+00	4.079E+00	2.781E-01	-0.623
BA-137M	1.260E+00		1.498E+00	2.612E+00	1.286E-01	0.482
CS-137	1.332E+00		1.584E+00	2.761E+00	1.368E-01	0.482
CE-139	1.306E+00		1.517E+00	2.536E+00	1.454E-01	0.515
BA-140	2.856E-01		7.479E+00	1.236E+01	4.014E+00	0.023
LA-140	9.814E-01		3.037E+00	5.150E+00	3.216E-01	0.191
CE-141	-3.526E-01		2.993E+00	4.457E+00	2.749E-01	-0.079
CE-143	-1.513E+02		1.260E+02	1.282E+02	2.611E+01	-1.180
CE-144	2.377E+00		1.062E+01	1.741E+01	2.496E+00	0.137
PM-144	1.918E-01		1.636E+00	2.692E+00	1.400E-01	0.071
PR-144	1.294E+01		1.104E+02	1.816E+02	9.444E+00	0.071
PM-146	1.009E+00		2.024E+00	3.458E+00	2.962E-01	0.292
ND-147	-1.164E+01		1.721E+01	2.287E+01	3.071E+00	-0.509
PM-149	-7.913E+01		3.012E+02	5.003E+02	7.122E+01	-0.158
EU-152	1.676E-01		4.498E+00	7.543E+00	5.008E-01	0.022
GD-153	-2.873E+00		4.119E+00	6.531E+00	5.464E-01	-0.440
EU-154	6.267E-01		4.492E+00	7.570E+00	7.252E-01	0.083
EU-155	-2.042E+00		5.788E+00	9.309E+00	7.151E-01	-0.219
TB-160	-3.417E-02		5.321E+00	8.583E+00	5.796E-01	-0.004
HO-166M	-3.714E+00		2.920E+00	4.267E+00	2.272E-01	-0.870
TM-171	-1.841E+03		1.987E+03	2.778E+03	2.507E+02	-0.663
HF-175	-1.340E+00		1.499E+00	2.381E+00	1.409E-01	-0.563
LU-176	6.801E-01		1.209E+00	2.083E+00	1.248E-01	0.326
LU-177	8.240E+00		2.119E+01	3.464E+01	2.023E+00	0.238
LU-177M	-1.694E+00		7.506E+00	1.231E+01	7.041E-01	-0.138
HF-181	-4.801E-01		1.723E+00	2.799E+00	1.591E-01	-0.172
W-181	2.234E+01		2.482E+01	3.710E+01	3.358E+00	0.602
TA-182	-6.521E-01		6.399E+00	1.054E+01	6.179E-01	-0.062
RE-183	-2.828E+00		5.398E+00	8.530E+00	4.913E-01	-0.332
RE-184	1.420E+01		1.141E+01	1.933E+01	1.152E+00	0.735
OS-185	-6.495E-01		1.899E+00	3.025E+00	1.521E-01	-0.215
RE-188	-3.265E+00		7.863E+00	1.249E+01	7.282E-01	-0.261
W-188	-3.131E+01		3.183E+02	5.329E+02	3.197E+01	-0.059
IR-192	-2.302E-01		1.581E+00	2.634E+00	1.582E-01	-0.087
AU-195	1.114E+00		1.163E+01	1.909E+01	1.566E+00	0.058
TL-200	-4.053E+01		8.913E+01	1.449E+02	8.437E+00	-0.280

Sample ID : G1202050275 Acquisition date : 23-FEB-2010 22:32:43

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TL-201	1.432E+01		5.248E+01	8.575E+01	4.912E+00	0.167
TL-202	4.933E-01		2.080E+00	3.502E+00	2.004E-01	0.141
HG-203	-3.067E-01		1.676E+00	2.799E+00	1.775E-01	-0.110
BI-207	2.910E-01		1.970E+00	3.346E+00	2.094E-01	0.087
TL-207	-7.219E+00		3.186E+01	5.278E+01	8.747E+00	-0.137
TL-208	-1.014E+00		2.268E+00	2.826E+00	1.785E-01	-0.359
PO-209	-2.242E+02		3.930E+02	5.063E+02	3.496E+01	-0.443
BI-210	2.647E+01		2.427E+02	3.460E+02	2.845E+01	0.077
PB-210	2.647E+01		2.427E+02	3.460E+02	2.845E+01	0.077
PO-210	2.647E+01		2.427E+02	3.460E+02	2.495E+01	0.077
BI-211	6.075E+00		1.043E+01	1.792E+01	1.168E+00	0.339
PB-211	-5.883E+00		4.014E+01	6.593E+01	4.109E+01	-0.089
BI-212	6.515E-01		1.165E+01	1.906E+01	1.421E+00	0.034
PB-212	-3.205E+00		3.545E+00	4.986E+00	3.707E-01	-0.643
PO-212	-3.205E+00		3.545E+00	4.986E+00	3.707E-01	-0.643
BI-214	4.550E+00		4.356E+00	6.337E+00	4.672E-01	0.718
PB-214	3.094E+00		4.534E+00	6.328E+00	5.281E-01	0.489
PO-214	3.094E+00		4.534E+00	6.328E+00	5.281E-01	0.489
PO-215	-7.219E+00		3.186E+01	5.278E+01	8.747E+00	-0.137
PO-216	-3.205E+00		3.545E+00	4.986E+00	3.707E-01	-0.643
PO-218	3.094E+00		4.534E+00	6.328E+00	5.281E-01	0.489
RN-219	1.044E+01		1.807E+01	3.106E+01	4.214E+00	0.336
RN-220	8.982E+02		1.259E+03	2.170E+03	1.195E+02	0.414
RA-223	-7.219E+00		3.186E+01	5.278E+01	8.747E+00	-0.137
RA-224	1.185E+01		3.432E+01	5.575E+01	3.308E+00	0.213
RA-226	-1.597E+01		4.990E+01	7.070E+01	5.189E+01	-0.226
AC-227	-1.050E+01		1.984E+01	3.071E+01	4.308E+00	-0.342
PA-227	1.000E+35		7.142E+34	Half-Life too short		
TH-227	-1.050E+01		1.987E+01	3.071E+01	5.207E+00	-0.342
AC-228	2.747E+00		7.647E+00	1.102E+01	1.099E+00	0.249
RA-228	2.747E+00		7.647E+00	1.102E+01	1.099E+00	0.249
TH-228	-3.205E+00		3.545E+00	4.986E+00	3.707E-01	-0.643
TH-229	-8.414E+00		2.891E+01	3.984E+01	2.307E+00	-0.211
TH-230	-5.450E+02		3.624E+03	1.117E+03	7.245E+03	-0.488
PA-231	2.597E+01		7.230E+01	1.236E+02	1.714E+01	0.210
TH-231	-9.310E+00		2.393E+01	3.855E+01	7.050E+00	-0.241
U-231	-6.285E+01		1.638E+01	2.138E+01	1.830E+00	-2.939
TH-232	-1.410E+03		1.494E+04	2.804E+03	2.952E+04	-0.503
PA-233	-2.266E+00		3.104E+00	5.012E+00	3.175E-01	-0.452
PA-234	1.711E+00		1.286E+01	2.096E+01	3.770E+00	0.082
PA-234M	-2.489E+01		2.560E+02	3.196E+02	2.635E+01	-0.078
TH-234	-8.478E+01		9.605E+01	1.356E+02	2.471E+01	-0.625
U-234	2.085E+02		4.067E+03	5.786E+03	5.786E+04	0.036
U-235	-2.383E+00		1.427E+01	1.832E+01	2.998E+00	-0.130
NP-236	1.961E-01		4.269E+00	6.918E+00	3.997E-01	0.028
NP-237	1.009E+01		1.197E+01	1.989E+01	4.530E+00	0.507
PU-237	-1.227E+02		1.125E+02	1.770E+02	1.643E+01	-0.693
U-238	-8.478E+01		9.605E+01	1.356E+02	2.471E+01	-0.625

Sample ID : G1202050275 Acquisition date : 23-FEB-2010 22:32:43

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NP-239	-8.042E+00		1.038E+01	1.634E+01	1.093E+00	-0.492
AM-241	-1.014E+01		9.297E+00	1.463E+01	1.443E+00	-0.693
AM-243	-5.316E-01		3.079E+00	4.699E+00	4.265E-01	-0.113
CM-243	-8.428E-01		5.308E+00	8.613E+00	6.634E-01	-0.098
AM-246	1.490E+00		5.503E+00	9.445E+00	5.832E-01	0.158
CM-247	2.783E-01		1.617E+00	2.721E+00	1.554E-01	0.102
CF-249	-1.735E+00		1.795E+00	2.810E+00	1.608E-01	-0.617
CF-251	1.746E+01		7.308E+00	1.276E+01	7.329E-01	1.369
ANH-511	-4.195E+00		3.360E+00	4.939E+00	2.778E-01	-0.849

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202050275           *
* Acquisition date : 23-FEB-2010 22:32:43 Detector SN#    :                 *
* Detector ID      : GAM19                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:02.18     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 17-FEB-2010 12:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G1202050275          Analyst initials: KXG3            *
* Batch Number     : 956162               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 11-MAR-2009 08:32:49 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
AS-74	8.795E+00	5.528E+00	2.457E+00	2.821E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU	
BE-7	-1.242E+00	1.347E+01	1.132E+01	6.872E+00	NOT IDENT.
NA-22	2.133E-02	1.584E+00	1.345E+00	8.084E-01	NOT IDENT.
NA-24	-1.925E+03	2.337E+03	0.000E+00	1.192E+03	SHORT HLIF
AL-26	1.667E-01	1.760E+00	1.482E+00	8.979E-01	NOT IDENT.
K-40	2.366E-01	2.289E+01	1.697E+01	1.168E+01	NOT IDENT.
TI-44	-7.302E-01	2.005E+00	1.420E+00	1.023E+00	NOT IDENT.
SC-46	4.823E-01	1.490E+00	1.266E+00	7.602E-01	NOT IDENT.
V-48	7.404E-01	2.125E+00	1.800E+00	1.084E+00	NOT IDENT.
CR-51	-3.031E-01	1.433E+01	1.225E+01	7.309E+00	NOT IDENT.
MN-52	8.687E-01	3.284E+00	2.859E+00	1.675E+00	NOT IDENT.
MN-54	-5.375E-01	1.497E+00	1.196E+00	7.637E-01	NOT IDENT.
CO-56	1.214E-02	1.567E+00	1.295E+00	7.996E-01	NOT IDENT.
CO-57	-4.185E-01	1.394E+00	1.145E+00	7.112E-01	NOT IDENT.
CO-58	7.149E-01	1.573E+00	1.351E+00	8.024E-01	NOT IDENT.
FE-59	-1.125E+00	2.877E+00	2.359E+00	1.468E+00	NOT IDENT.
CO-60	3.234E-01	1.734E+00	1.494E+00	8.849E-01	NOT IDENT.
ZN-65	-8.804E-01	3.137E+00	2.605E+00	1.601E+00	NOT IDENT.
GE-68	1.287E+01	4.579E+01	4.016E+01	2.336E+01	NOT IDENT.
AS-73	-1.538E+01	4.238E+01	3.520E+01	2.162E+01	NOT IDENT.
SE-75	8.100E-01	1.956E+00	1.715E+00	9.981E-01	FAIL ABUN
BR-77	3.276E+01	3.647E+01	3.261E+01	1.861E+01	NOT IDENT.
SR-82	-7.629E+00	1.231E+01	9.609E+00	6.278E+00	NOT IDENT.
RB-83	1.536E+00	2.793E+00	2.442E+00	1.425E+00	NOT IDENT.
RB-84	5.680E-01	2.282E+00	1.928E+00	1.164E+00	NOT IDENT.
KR-85	-1.005E+03	5.059E+02	3.891E+02	2.581E+02	NOT IDENT.
SR-85	-4.709E+00	2.370E+00	1.823E+00	1.209E+00	NOT IDENT.

RB-86	-1.612E+00	2.160E+01	1.832E+01	1.102E+01	NOT IDENT.
Y-88	-1.778E+00	2.094E+00	1.558E+00	1.068E+00	NOT IDENT.
ZR-88	8.960E-01	1.241E+00	1.100E+00	6.331E-01	NOT IDENT.
Y-91	-1.542E+02	5.530E+02	4.563E+02	2.822E+02	NOT IDENT.
NB-94	-1.088E+00	1.599E+00	1.265E+00	8.160E-01	NOT IDENT.
NB-95	-2.330E+00	2.224E+00	1.337E+00	1.135E+00	NOT IDENT.
NB-95M	-8.410E+00	5.342E+00	3.997E+00	2.726E+00	NOT IDENT.
ZR-95	-4.667E-01	2.762E+00	2.258E+00	1.409E+00	NOT IDENT.
NB-97	1.454E+02	8.716E+02	0.000E+00	4.447E+02	SHORT HLIF
ZR-97	-1.009E+05	2.718E+04	0.000E+00	1.387E+04	SHORT HLIF
MO-99	-3.239E+01	5.940E+01	4.696E+01	3.031E+01	FAIL ABUN
TC-99M	1.149E+08	1.183E+08	0.000E+00	6.038E+07	SHORT HLIF
RH-101	3.616E+00	2.805E+00	1.571E+00	1.431E+00	FAIL ABUN
RH-102	2.983E-01	1.356E+00	1.162E+00	6.920E-01	NOT IDENT.
RU-103	2.456E-01	1.614E+00	1.375E+00	8.235E-01	NOT IDENT.
RH-106	3.245E+00	1.409E+01	1.199E+01	7.190E+00	NOT IDENT.
RU-106	3.245E+00	1.409E+01	1.199E+01	7.188E+00	NOT IDENT.
AG-108M	-6.504E-01	1.544E+00	1.276E+00	7.879E-01	NOT IDENT.
CD-109	-3.316E+01	4.080E+01	3.302E+01	2.082E+01	NOT IDENT.
AG-110M	1.708E-01	1.439E+00	1.212E+00	7.340E-01	NOT IDENT.
IN-111	-7.273E-01	6.666E+00	5.411E+00	3.401E+00	NOT IDENT.
IN-113M	7.399E-01	1.861E+00	1.619E+00	9.494E-01	NOT IDENT.
SN-113	7.399E-01	1.861E+00	1.619E+00	9.494E-01	NOT IDENT.
IN-114M	-1.300E+01	8.285E+00	6.309E+00	4.227E+00	NOT IDENT.
CD-115	1.314E+01	3.125E+01	2.711E+01	1.594E+01	NOT IDENT.
SN-117M	1.483E+00	1.818E+00	1.550E+00	9.275E-01	NOT IDENT.
SB-122	-2.043E+01	1.099E+01	7.994E+00	5.606E+00	NOT IDENT.
I-123	5.046E+03	5.532E+03	0.000E+00	2.822E+03	SHORT HLIF
TE-123M	1.275E+00	1.398E+00	1.196E+00	7.133E-01	NOT IDENT.
I-124	-1.560E+00	7.475E+00	6.174E+00	3.814E+00	NOT IDENT.
SB-124	2.540E-01	3.524E+00	2.972E+00	1.798E+00	NOT IDENT.
SB-125	5.656E-01	4.138E+00	3.540E+00	2.111E+00	NOT IDENT.
TE-125M	1.358E+02	4.585E+02	3.861E+02	2.339E+02	NOT IDENT.
I-126	-6.749E+00	7.139E+00	3.720E+00	3.642E+00	NOT IDENT.
SB-126	-1.965E-01	3.610E+00	2.988E+00	1.842E+00	NOT IDENT.
SN-126	1.564E+00	3.906E+00	3.314E+00	1.993E+00	NOT IDENT.
SB-127	-9.970E-01	1.182E+01	9.777E+00	6.030E+00	NOT IDENT.
XE-127	8.593E-01	2.180E+00	1.600E+00	1.112E+00	NOT IDENT.
I-131	1.413E+00	2.499E+00	2.196E+00	1.275E+00	NOT IDENT.
TE-132	-1.381E+00	5.431E+00	4.385E+00	2.771E+00	NOT IDENT.
BA-133	-1.707E+00	2.102E+00	1.711E+00	1.072E+00	NOT IDENT.
I-133	-9.423E+01	2.666E+02	2.185E+02	1.360E+02	NOT IDENT.
CS-134	-5.672E-01	1.857E+00	1.494E+00	9.473E-01	NOT IDENT.
CS-135	-4.315E-01	6.900E+00	5.921E+00	3.520E+00	NOT IDENT.
I-135	-3.426E+07	7.828E+07	0.000E+00	3.994E+07	SHORT HLIF
CS-136	-2.541E+00	2.638E+00	2.040E+00	1.346E+00	NOT IDENT.
BA-137M	1.260E+00	1.468E+00	1.307E+00	7.492E-01	NOT IDENT.
CS-137	1.332E+00	1.552E+00	1.381E+00	7.920E-01	NOT IDENT.
CE-139	1.306E+00	1.487E+00	1.269E+00	7.585E-01	NOT IDENT.
BA-140	2.856E-01	7.329E+00	6.183E+00	3.739E+00	NOT IDENT.
LA-140	9.814E-01	2.976E+00	2.577E+00	1.518E+00	NOT IDENT.
CE-141	-3.526E-01	2.934E+00	2.230E+00	1.497E+00	NOT IDENT.
CE-143	-1.513E+02	1.235E+02	6.413E+01	6.299E+01	NOT IDENT.
CE-144	2.377E+00	1.041E+01	8.709E+00	5.312E+00	NOT IDENT.
PM-144	1.918E-01	1.604E+00	1.347E+00	8.182E-01	NOT IDENT.
PR-144	1.294E+01	1.082E+02	9.084E+01	5.519E+01	NOT IDENT.
PM-146	1.009E+00	1.984E+00	1.730E+00	1.012E+00	NOT IDENT.
ND-147	-1.164E+01	1.687E+01	1.144E+01	8.606E+00	NOT IDENT.
PM-149	-7.913E+01	2.952E+02	2.503E+02	1.506E+02	NOT IDENT.
EU-152	1.676E-01	4.408E+00	3.774E+00	2.249E+00	NOT IDENT.
GD-153	-2.873E+00	4.036E+00	3.267E+00	2.059E+00	NOT IDENT.
EU-154	6.267E-01	4.402E+00	3.787E+00	2.246E+00	NOT IDENT.
EU-155	-2.042E+00	5.672E+00	4.657E+00	2.894E+00	NOT IDENT.
TB-160	-3.417E-02	5.214E+00	4.294E+00	2.660E+00	FAIL ABUN
HO-166M	-3.714E+00	2.862E+00	2.135E+00	1.460E+00	NOT IDENT.
TM-171	-1.841E+03	1.948E+03	1.390E+03	9.936E+02	NOT IDENT.
HF-175	-1.340E+00	1.469E+00	1.191E+00	7.497E-01	NOT IDENT.
LU-176	6.801E-01	1.184E+00	1.042E+00	6.043E-01	NOT IDENT.
LU-177	8.240E+00	2.076E+01	1.733E+01	1.059E+01	NOT IDENT.
LU-177M	-1.694E+00	7.356E+00	6.158E+00	3.753E+00	NOT IDENT.
HF-181	-4.801E-01	1.689E+00	1.400E+00	8.617E-01	NOT IDENT.
W-181	2.234E+01	2.432E+01	1.856E+01	1.241E+01	NOT IDENT.
TA-182	-6.521E-01	6.271E+00	5.272E+00	3.199E+00	NOT IDENT.
RE-183	-2.828E+00	5.290E+00	4.268E+00	2.699E+00	NOT IDENT.
RE-184	1.420E+01	1.118E+01	9.670E+00	5.704E+00	NOT IDENT.
OS-185	-6.495E-01	1.861E+00	1.513E+00	9.493E-01	NOT IDENT.
RE-188	-3.265E+00	7.706E+00	6.248E+00	3.932E+00	NOT IDENT.
W-188	-3.131E+01	3.120E+02	2.666E+02	1.592E+02	NOT IDENT.

IR-192	-2.302E-01	1.550E+00	1.318E+00	7.907E-01	NOT IDENT.
AU-195	1.114E+00	1.140E+01	9.552E+00	5.817E+00	NOT IDENT.
TL-200	-4.053E+01	8.735E+01	7.248E+01	4.456E+01	NOT IDENT.
TL-201	1.432E+01	5.143E+01	4.290E+01	2.624E+01	NOT IDENT.
TL-202	4.933E-01	2.039E+00	1.752E+00	1.040E+00	NOT IDENT.
HG-203	-3.067E-01	1.643E+00	1.400E+00	8.382E-01	NOT IDENT.
BI-207	2.910E-01	1.930E+00	1.674E+00	9.849E-01	NOT IDENT.
TL-207	-7.219E+00	3.122E+01	2.640E+01	1.593E+01	NOT IDENT.
TL-208	-1.014E+00	2.222E+00	1.414E+00	1.134E+00	NOT IDENT.
PO-209	-2.242E+02	3.851E+02	2.533E+02	1.965E+02	NOT IDENT.
BI-210	2.647E+01	2.378E+02	1.731E+02	1.213E+02	NOT IDENT.
PB-210	2.647E+01	2.378E+02	1.731E+02	1.213E+02	NOT IDENT.
PO-210	2.647E+01	2.378E+02	1.731E+02	1.213E+02	NOT IDENT.
BI-211	6.075E+00	1.022E+01	8.965E+00	5.216E+00	NOT IDENT.
PB-211	-5.883E+00	3.934E+01	3.298E+01	2.007E+01	NOT IDENT.
BI-212	6.515E-01	1.142E+01	9.535E+00	5.824E+00	NOT IDENT.
PB-212	-3.205E+00	3.474E+00	2.495E+00	1.773E+00	NOT IDENT.
PO-212	-3.205E+00	3.474E+00	2.495E+00	1.773E+00	NOT IDENT.
BI-214	4.550E+00	4.269E+00	3.171E+00	2.178E+00	NOT IDENT.
PB-214	3.094E+00	4.443E+00	3.166E+00	2.267E+00	NOT IDENT.
PO-214	3.094E+00	4.443E+00	3.166E+00	2.267E+00	NOT IDENT.
PO-215	-7.219E+00	3.122E+01	2.640E+01	1.593E+01	NOT IDENT.
PO-216	-3.205E+00	3.474E+00	2.495E+00	1.773E+00	NOT IDENT.
PO-218	3.094E+00	4.443E+00	3.166E+00	2.267E+00	NOT IDENT.
RN-219	1.044E+01	1.771E+01	1.554E+01	9.036E+00	NOT IDENT.
RN-220	8.982E+02	1.234E+03	1.086E+03	6.294E+02	NOT IDENT.
RA-223	-7.219E+00	3.122E+01	2.640E+01	1.593E+01	NOT IDENT.
RA-224	1.185E+01	3.364E+01	2.789E+01	1.716E+01	NOT IDENT.
RA-226	-1.597E+01	4.890E+01	3.537E+01	2.495E+01	NOT IDENT.
AC-227	-1.050E+01	1.944E+01	1.536E+01	9.920E+00	NOT IDENT.
PA-227	1.000E+41	1.400E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-1.050E+01	1.947E+01	1.536E+01	9.933E+00	NOT IDENT.
AC-228	2.747E+00	7.494E+00	5.513E+00	3.824E+00	NOT IDENT.
RA-228	2.747E+00	7.494E+00	5.513E+00	3.824E+00	NOT IDENT.
TH-228	-3.205E+00	3.474E+00	2.495E+00	1.773E+00	NOT IDENT.
TH-229	-8.414E+00	2.834E+01	1.993E+01	1.446E+01	NOT IDENT.
TH-230	-5.450E+02	3.551E+03	5.587E+02	1.812E+03	NOT IDENT.
PA-231	2.597E+01	7.085E+01	6.185E+01	3.615E+01	NOT IDENT.
TH-231	-9.310E+00	2.345E+01	1.929E+01	1.197E+01	NOT IDENT.
U-231	-6.285E+01	1.605E+01	1.070E+01	8.191E+00	NOT IDENT.
TH-232	-1.410E+03	1.464E+04	1.403E+03	7.471E+03	NOT IDENT.
PA-233	-2.266E+00	3.042E+00	2.508E+00	1.552E+00	NOT IDENT.
PA-234	1.711E+00	1.260E+01	1.049E+01	6.430E+00	NOT IDENT.
PA-234M	-2.489E+01	2.509E+02	1.599E+02	1.280E+02	NOT IDENT.
TH-234	-8.478E+01	9.413E+01	6.782E+01	4.802E+01	NOT IDENT.
U-234	2.085E+02	3.986E+03	2.894E+03	2.034E+03	NOT IDENT.
U-235	-2.383E+00	1.398E+01	9.165E+00	7.133E+00	NOT IDENT.
NP-236	1.961E-01	4.184E+00	3.461E+00	2.135E+00	NOT IDENT.
NP-237	1.009E+01	1.174E+01	9.949E+00	5.987E+00	NOT IDENT.
PU-237	-1.227E+02	1.102E+02	8.858E+01	5.623E+01	NOT IDENT.
U-238	-8.478E+01	9.413E+01	6.782E+01	4.802E+01	NOT IDENT.
NP-239	-8.042E+00	1.017E+01	8.174E+00	5.190E+00	NOT IDENT.
AM-241	-1.014E+01	9.111E+00	7.318E+00	4.648E+00	NOT IDENT.
AM-243	-5.316E-01	3.017E+00	2.351E+00	1.539E+00	NOT IDENT.
CM-243	-8.428E-01	5.202E+00	4.309E+00	2.654E+00	NOT IDENT.
AM-246	1.490E+00	5.393E+00	4.725E+00	2.751E+00	NOT IDENT.
CM-247	2.783E-01	1.585E+00	1.361E+00	8.086E-01	NOT IDENT.
CF-249	-1.735E+00	1.759E+00	1.406E+00	8.974E-01	NOT IDENT.
CF-251	1.746E+01	7.162E+00	6.383E+00	3.654E+00	NOT IDENT.
ANH-511	-4.195E+00	3.293E+00	2.471E+00	1.680E+00	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	272.1093
46.50	272.1093
46.50	272.1093
48.70	286.4763
49.72	311.2137
51.35	286.3943
52.39	267.1655
52.97	264.4047
53.15	264.4593
53.20	264.4742
53.44	286.1020
54.07	284.3448
56.28	313.5496
56.28	313.5508
57.37	324.7503
57.53	324.8069
57.53	324.8079
57.60	324.8318
57.98	326.9354
57.98	326.9354
59.00	374.6148
59.32	377.7016
59.32	377.7016
59.40	401.4037
59.54	401.4643
59.54	401.4643
59.72	401.5411
60.01	423.3770
61.10	398.1766
61.14	398.1928
61.30	400.2361
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63.29	431.7655
63.58	419.0168
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64.62	0.0000
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65.20	385.9747
65.20	385.9747
66.05	444.8982
66.72	452.1535
66.83	436.3021
66.91	429.3798
67.20	429.5034
67.20	429.5034
67.67	416.7735
67.75	416.8055
67.85	401.9256
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68.90	470.0626
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70.82	383.1401
70.83	360.1958
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74.81	345.5396
74.81	345.5396
74.81	345.5396
74.81	345.5396
74.81	345.5396
74.81	345.5396

74.81	345.5396
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77.11	343.2681
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77.11	343.2681
77.11	343.2681
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79.80	300.8466
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87.30	332.2129
87.30	332.2129
87.30	332.2129
87.30	332.2129
87.30	332.2129
87.30	332.2129
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88.47	488.6799
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89.95	526.8540
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92.38	322.4525
93.35	312.5312
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94.67	374.0182
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94.90	447.4804
94.90	447.4804
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95.87	531.4838
96.73	493.0637
97.43	332.9803
98.44	315.8721
98.44	315.8732
98.88	306.7806
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99.55	307.9674
99.86	293.7156
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100.10	282.5130

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103.76	323.3609
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105.31	319.6380
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110.05	0.0000
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111.00	327.2134
111.76	338.7605
112.95	307.0143
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115.19	314.7687
115.19	314.7687
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117.00	330.7345
117.00	330.7345
117.66	334.0045
121.11	345.2296
121.62	322.4689
121.78	322.5055
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122.32	363.2173
122.32	363.2173
122.32	363.2173
123.07	325.9239
127.23	299.7174
129.76	332.6679
131.20	291.1076
133.02	312.4348
133.54	302.0559
135.34	346.1011
136.00	317.6778
136.25	317.7309
136.48	327.8676
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140.51	0.0000
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142.65	293.7397
143.76	300.7074
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144.24	295.7312
144.24	295.7312
145.22	325.5088
145.44	324.1441
147.16	343.8967
152.43	291.9525
152.70	283.5062
153.22	317.5871
154.21	306.0901
154.21	306.0901
154.21	306.0901
155.03	291.3571
156.02	301.1107
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161.27	333.0234
162.32	327.8926
162.64	329.0241
163.35	328.0941
163.89	327.1304
165.85	286.8376
167.43	298.8896
171.28	352.1711
171.86	357.6590
172.10	360.9298
176.55	283.2339
176.60	285.3958
181.06	388.6853
184.41	282.3225
185.71	268.4516
186.00	273.9083
186.21	273.9392
190.27	333.1486
192.34	232.9215
193.63	267.8720

197.04	252.6774
198.01	274.6003
198.60	274.6868
200.40	284.5496
201.83	267.2924
202.84	246.4591
205.31	263.7776
208.36	245.4119
208.81	242.1807
209.75	239.0080
209.75	239.0080
210.97	261.0988
215.65	225.4293
216.55	243.1334
218.09	258.7363
222.10	220.6406
223.80	241.8036
226.40	243.2166
227.00	241.0770
227.08	241.0870
227.20	239.9943
228.16	244.5329
228.18	244.5345
228.18	244.5345
231.56	216.1184
235.69	285.3976
236.00	262.1168
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238.63	252.4360
238.63	252.4360
238.63	252.4360
238.63	252.4360
239.00	243.5814
240.98	271.6406
241.98	316.3214
241.98	316.3214
241.98	316.3214
244.69	259.8461
245.39	249.8894
247.94	221.1457
248.90	241.3570
249.79	262.6950
252.40	200.3357
252.85	186.9436
252.85	186.9436
254.15	0.0000
256.20	233.1954
256.20	233.1954
260.50	188.7155
260.90	198.8603
262.80	215.8945
264.65	194.4659
268.24	192.9709
268.79	185.8024
269.46	198.4888
269.46	198.4888
269.46	198.4888
271.23	195.0302
273.65	199.7552
276.40	190.0408
277.35	191.0230
277.60	191.0436
277.60	191.0436
278.00	198.3217
278.60	199.2783
279.20	202.0475
279.53	199.3575
280.46	196.7172
281.68	191.3784
283.67	180.6474
284.30	192.5002
285.00	185.2909
285.90	203.5332
286.10	203.5523
286.10	203.5523
287.40	194.5710
288.45	0.0000
290.67	194.8387

290.80	195.7597
291.72	212.2314
293.26	200.5190
293.70	214.2281
295.21	200.6802
295.21	200.6802
295.21	200.6802
295.96	189.7924
296.50	196.2242
297.23	190.8069
298.57	209.1805
299.80	199.2337
299.80	199.2337
300.09	199.2576
300.09	199.2576
300.09	199.2576
300.09	199.2576
300.12	199.2603
301.29	199.3561
302.84	188.5006
303.76	202.3019
303.91	206.8926
304.40	202.3558
304.40	202.3558
304.84	207.8857
306.84	174.1427
308.46	172.4221
311.98	191.9550
316.51	187.7014
318.01	170.3210
319.02	160.2576
319.41	172.2571
320.08	178.7514
323.87	184.5557
323.87	184.5557
323.87	184.5557
325.23	177.2672
328.77	183.9827
329.70	197.9239
329.70	197.9239
330.00	200.7197
333.44	155.6030
334.20	167.6924
334.20	167.6924
334.30	167.6990
338.28	155.8922
338.28	155.8922
338.28	155.8922
338.32	155.8942
338.32	155.8942
340.50	151.3799
340.57	151.3839
343.40	167.3503
344.27	153.4548
345.85	145.1722
350.59	186.4478
351.07	180.8875
351.92	166.0211
351.92	166.0211
351.92	166.0211
355.39	0.0000
356.01	184.9555
364.48	129.3076
366.43	133.1510
367.43	136.0118
367.94	147.2948
369.80	160.5379
374.96	134.4989
383.85	97.1836
387.95	144.5674
388.63	144.6011
391.69	121.1031
391.69	121.1031
392.90	111.6880
398.62	146.9984
400.65	120.5275
401.10	115.8002
401.81	111.0814

402.60	117.7591
404.84	118.8004
410.95	111.4271
411.60	104.7833
413.65	123.9189
414.70	120.1491
415.30	123.0350
415.76	124.9617
417.63	0.0000
418.52	129.8508
423.70	120.5090
427.08	128.3027
427.89	119.7174
432.53	139.0828
433.00	144.8601
433.93	136.2677
439.47	128.8212
439.56	128.8261
439.89	126.9163
443.98	121.3073
444.90	109.7862
445.03	110.7535
445.03	110.7535
445.03	110.7535
453.90	110.1007
463.38	139.4895
468.07	119.3199
473.00	113.6722
475.06	114.7173
475.35	116.6719
476.78	101.1601
477.59	119.6698
477.96	122.6024
482.03	114.9607
484.57	106.2750
487.03	104.4021
490.36	100.6010
492.35	114.3421
497.08	107.6542
507.63	0.0000
510.53	142.4724
510.84	127.7458
511.00	127.7513
511.85	135.6458
511.85	135.6458
513.99	352.1156
513.99	352.1156
520.41	85.7298
520.65	78.8379
527.90	79.9895
528.96	0.0000
529.64	93.8612
529.87	93.8682
531.02	89.9447
537.32	98.0284
543.00	103.1443
546.56	0.0000
549.76	95.3906
552.65	115.3543
555.20	145.2907
563.23	148.6071
563.90	141.6499
568.70	93.8921
569.32	96.9053
569.50	96.9100
569.67	97.9139
573.80	102.0249
574.00	102.0299
574.64	87.0404
578.91	94.1515
579.30	94.1629
583.14	89.2455
585.48	88.2986
591.81	82.0814
592.07	82.0874
593.00	87.1343
595.88	94.5806
600.56	100.7422

602.52	0.0000
602.71	113.9021
602.71	113.9021
603.60	115.9462
604.41	148.2417
604.70	145.2269
609.31	91.8865
610.33	96.9609
612.46	143.4977
614.37	131.4377
618.01	86.0210
621.84	86.1061
621.84	86.1061
631.29	79.2073
633.02	69.0824
633.10	69.0841
634.78	84.3577
635.90	69.1322
636.97	84.4063
645.85	88.6716
646.12	95.8130
656.30	86.8594
657.75	76.6681
657.90	0.0000
661.65	65.4875
661.65	65.4875
664.57	90.1098
666.33	93.2217
666.33	93.2217
675.00	73.9143
677.61	67.7982
685.20	69.9806
692.80	88.6665
695.00	89.7453
696.49	98.0337
696.49	98.0337
697.00	101.1415
697.49	107.3465
698.33	86.7193
698.50	86.7234
699.00	91.8964
702.63	110.5762
706.10	91.0164
706.58	80.6832
706.67	80.6851
709.31	74.5242
711.68	109.7783
713.82	71.4949
717.42	67.4073
720.50	69.5321
721.93	57.0974
722.20	60.2161
722.78	71.6448
722.78	71.6448
722.89	71.6465
722.95	71.6481
723.30	77.8839
724.18	76.8617
727.18	66.5219
733.00	68.6925
735.90	72.9053
739.58	83.3906
742.81	82.4080
744.21	84.5220
747.13	79.3584
751.79	82.5778
752.31	76.3149
753.82	70.0670
755.35	74.2744
756.15	73.2419
756.87	75.3469
763.13	71.2622
763.93	68.1294
765.79	69.2065
766.42	72.3624
766.84	72.3691
776.49	71.4747
778.00	56.7778

778.57	52.5793
778.89	50.4797
783.80	69.4837
785.46	69.5095
792.07	72.7751
795.84	68.6134
796.30	65.4527
798.80	61.2625
801.93	71.8748
805.60	59.2375
810.29	64.5921
810.76	62.4815
815.85	67.8500
817.79	74.2417
818.51	56.2206
819.60	63.6606
826.30	62.6889
828.27	53.1494
831.60	54.2498
831.96	48.9356
834.83	69.1895
836.80	0.0000
846.75	64.0283
848.13	68.3156
856.28	57.7402
856.80	57.7455
860.37	59.9293
867.32	52.5135
867.82	48.2311
871.10	71.8598
873.19	76.1829
874.81	62.2537
875.33	54.7466
876.40	42.9482
879.36	53.7170
880.27	46.2051
880.51	46.2082
881.50	47.2914
883.24	56.9854
884.67	58.0777
889.25	50.5961
896.60	57.1393
898.02	67.9403
899.00	52.8532
903.28	63.6944
911.07	48.6552
911.07	48.6552
919.63	64.9849
920.93	62.8343
925.00	50.9587
925.24	50.9610
926.50	44.4664
935.52	52.1508
937.48	54.3445
944.10	53.3258
946.00	54.4348
949.00	54.4666
962.29	63.3426
964.01	72.1037
966.15	65.5752
968.20	51.3879
969.11	52.4906
969.11	52.4906
977.42	51.4774
980.50	58.0839
983.50	54.8267
989.30	60.3751
996.32	59.3565
1001.03	48.5898
1001.68	46.7625
1004.76	61.4685
1021.30	0.0000
1024.50	0.0000
1034.80	47.0488
1036.00	55.3638
1037.82	53.5372
1038.57	53.5443
1038.76	0.0000

1045.16	54.5323
1046.59	60.0938
1048.07	59.1849
1050.47	53.6599
1050.47	53.6599
1062.04	43.5729
1063.62	44.5137
1076.63	48.3332
1077.35	44.6211
1078.86	45.5647
1085.78	41.8964
1093.90	32.6316
1099.22	48.5278
1112.02	39.2827
1112.84	42.0941
1115.52	52.4089
1120.29	42.1490
1120.51	48.7077
1121.28	44.0300
1124.00	0.0000
1129.67	38.4642
1131.51	0.0000
1147.95	0.0000
1167.94	47.2127
1173.22	55.7614
1175.09	48.2151
1177.93	51.0754
1189.05	38.8512
1204.90	44.6534
1205.75	45.6113
1213.00	39.0047
1221.42	47.6318
1230.97	46.7530
1235.34	38.1917
1236.41	35.3334
1238.25	36.2992
1246.25	38.2601
1260.41	0.0000
1271.85	40.3372
1274.45	38.4310
1274.54	40.3542
1291.56	29.8647
1298.22	46.2910
1312.09	54.1224
1325.50	38.7386
1325.50	38.7386
1332.49	43.6267
1333.61	41.6947
1360.21	43.8116
1362.66	0.0000
1365.15	33.1270
1368.21	44.8395
1368.53	0.0000
1376.25	44.8938
1384.27	44.9462
1394.10	34.2495
1395.20	30.3390
1407.95	35.2998
1434.06	26.5759
1436.60	30.5245
1457.56	0.0000
1460.81	29.6436
1489.15	31.7474
1509.49	23.8789
1596.49	42.2905
1620.62	30.3052
1678.03	0.0000
1691.02	26.5078
1691.02	26.5078
1706.46	0.0000
1750.46	0.0000
1764.49	36.0197
1770.23	50.4635
1771.40	52.5294
1791.20	0.0000
1808.65	28.9741
1836.01	44.6447

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202050275

Total Uranium Activity	-2.5333E+02	ug/g
Total Uranium Counting Unc.	2.8010E+02	ug/g
Total Uranium Tpu	1.4291E-04	ug/g
Total Uranium Mda	2.0182E+02	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 956162                    SAMPLE ID  : G1202050275      *
*   ANALYST       : KXG3                      DETECTOR   : GAM19            *
*   SAMPLE DATE   : 17-FEB-2010 12:00:00.00   COUNT TIME :    0 06:00:00.00 *
*   ANALYSIS DATE: 23-FEB-2010 22:32:43.30    SAMPLE ALQT:    2.000 LITER   *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 8.090E+00
        GROSS GAMMA ERROR  (pCi/LITER )   : 3.305E+00
        GROSS GAMMA MDA    (pCi/LITER )   : 7.781E+00
        GROSS GAMMA DLC    (pCi/LITER )   : 3.760E+00
```

VAX/VMS Nuclide Identification Report Generated 1-MAR-2010 08:39:28.42

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202050276.CNF;2
Sample date       : 22-FEB-2010 00:00:00 Acquisition date : 25-FEB-2010 20:33:53
Sample ID         : G1202050276          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM01                Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:00.68  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 956162                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.44	920	395	1.07	119.61	114	11	2.56E-01	5.4	
2	0	88.00	546	218	1.18	176.69	172	11	1.52E-01	6.8	
3	0	122.70	112	183	1.02	246.07	242	10	3.12E-02	24.5	
4	0	662.05	966	48	1.36	1324.13	1318	12	2.68E-01	3.5	
5	0	1173.62	744	23	1.64	2346.56	2341	15	2.07E-01	4.0	
6	0	1332.97	702	0	1.73	2665.01	2659	16	1.95E-01	3.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 1-MAR-2010 08:39:32

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202050276.CNF;2
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : KXG3
Sample date       : 22-FEB-2010 00:00:00 Acquisition date : 25-FEB-2010 20:33:53
Sample ID         : G1202050276          Sample quantity  : 2.0000 LITER
Sample type       : LIQUID               Sample geometry  :
Detector name     : GAMMA1               Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:00.68   0.0%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     1.50 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-57	+	122.06	*	2.221E+01	1.108E+01	1.251E+01	1.153E+00	1.776
		136.48		-8.939E+00	5.528E+01	9.307E+01	8.848E+00	-0.096
CO-60	+	1173.22		4.964E+02	5.754E+01	1.741E+01	1.475E+00	28.513
	+	1332.49	*	5.173E+02	5.725E+01	8.751E+00	7.079E-01	59.119
CD-109	+	88.03	*	3.147E+03	5.205E+02	3.617E+02	3.431E+01	8.700
SN-126		64.28		-3.440E+02	2.097E+02	2.683E+02	3.962E+01	-1.282
	+	86.94		1.308E+03	5.715E+02	1.551E+02	6.439E+01	8.435
	+	87.57	*	3.146E+02	5.203E+01	3.640E+01	3.440E+00	8.642
BA-137M	+	661.65	*	4.548E+02	4.875E+01	1.399E+01	1.130E+00	32.512
CS-137	+	661.65	*	4.807E+02	5.159E+01	1.479E+01	1.197E+00	32.512
TH-232	+	59.00	*	2.653E+05	2.793E+06	2.192E+04	2.307E+05	12.105
NP-237	+	86.50	*	9.238E+02	2.443E+02	1.093E+02	2.477E+01	8.452
		95.87		-1.189E+02	2.818E+02	4.345E+02	1.077E+02	-0.274
PU-237	+	59.54	*	1.631E+04	2.123E+03	1.303E+03	9.650E+01	12.517
AM-241	+	59.54	*	1.404E+03	1.887E+02	1.122E+02	9.115E+00	12.517

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	7.546E+01	8.151E+01	1.408E+02	1.283E+01	0.536
NA-22		1274.54	*	-2.773E+00	6.056E+00	9.018E+00	7.460E-01	-0.307
NA-24		1368.53	*	-3.264E+01	3.618E+02	5.849E+02	4.950E+01	-0.056
AL-26		1129.67		1.245E+02	3.756E+02	6.332E+02	5.445E+01	0.197
		1808.65	*	-1.057E+00	4.921E+00	7.317E+00	6.021E-01	-0.144
K-40		1460.81	*	-2.438E+01	6.294E+01	1.030E+02	8.765E+00	-0.237
TI-44		67.85		4.514E+00	1.535E+01	2.522E+01	2.044E+00	0.179
		78.38	*	3.178E+00	1.074E+01	1.756E+01	1.535E+00	0.181
SC-46		889.25	*	-1.008E-01	1.176E+01	1.920E+01	1.693E+00	-0.005
		1120.51		7.116E-01	1.118E+01	1.837E+01	1.584E+00	0.039
V-48		944.10		-1.586E+01	1.707E+02	2.752E+02	2.434E+01	-0.058
		983.50	*	-1.128E+01	1.312E+01	1.912E+01	1.689E+00	-0.590
		1312.09		-2.741E+00	6.029E+00	8.679E+00	7.078E-01	-0.316
CR-51		320.08	*	-2.895E+01	7.758E+01	1.235E+02	1.146E+01	-0.234

Sample ID : G1202050276 Acquisition date : 25-FEB-2010 20:33:53

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
MN-52		744.21		2.849E+00	1.387E+01	2.347E+01	1.975E+00	0.121
		848.13		-3.990E+00	4.220E+02	6.912E+02	6.031E+01	-0.006
		935.52		8.509E+00	2.075E+01	3.508E+01	3.103E+00	0.243
		1246.25		3.118E+01	2.121E+02	3.667E+02	3.056E+01	0.085
	+	1333.61		1.648E+04	1.824E+03	2.883E+03	2.333E+02	5.716
		1434.06	*	-2.337E+00	6.989E+00	1.012E+01	8.332E-01	-0.231
MN-54		834.83	*	1.081E+01	9.309E+00	1.706E+01	1.484E+00	0.634
CO-56		846.75	*	-4.345E-01	9.534E+00	1.555E+01	1.357E+00	-0.028
		977.42		-9.885E+01	7.964E+02	1.276E+03	1.127E+02	-0.077
		1037.82		4.515E+01	8.120E+01	1.395E+02	1.288E+01	0.324
	+	1175.09		2.250E+04	2.608E+03	3.773E+03	3.196E+02	5.962
		1238.25		-8.586E-01	9.363E+00	1.535E+01	1.321E+00	-0.056
		1360.21		5.411E+00	1.320E+02	2.218E+02	1.804E+01	0.024
		1771.40		1.093E+01	4.200E+01	7.350E+01	6.074E+00	0.149
CO-58		810.76	*	-2.282E+00	8.395E+00	1.333E+01	1.153E+00	-0.171
FE-59		142.65		-4.184E+02	5.814E+02	9.516E+02	8.377E+01	-0.440
		192.34		-1.256E+02	2.146E+02	3.471E+02	4.692E+01	-0.362
		1099.22	*	-7.895E+00	2.289E+01	3.541E+01	3.317E+00	-0.223
		1291.56		-1.132E+01	1.478E+01	1.986E+01	1.873E+00	-0.570
ZN-65		1115.52	*	3.976E+00	2.252E+01	3.703E+01	3.201E+00	0.107
GE-68		1077.35	*	5.293E+01	3.343E+02	5.497E+02	4.792E+01	0.096
AS-73		53.44	*	-9.222E+01	4.387E+02	6.735E+02	5.521E+01	-0.137
AS-74		595.88	*	5.301E+00	1.486E+01	2.571E+01	2.146E+00	0.206
		634.78		1.586E+01	5.414E+01	9.314E+01	7.643E+00	0.170
SE-75		66.05		4.975E+02	1.535E+03	2.526E+03	2.507E+02	0.197
		96.73		-4.750E+00	2.027E+02	3.237E+02	4.497E+01	-0.015
		121.11		5.602E+01	4.751E+01	7.202E+01	8.397E+00	0.778
		136.00		4.282E+00	9.851E+00	1.708E+01	1.528E+00	0.251
		198.60		2.370E+02	4.610E+02	7.864E+02	7.642E+01	0.301
		264.65	*	-9.878E-01	1.170E+01	1.924E+01	1.733E+00	-0.051
		279.53		4.857E+00	2.560E+01	4.278E+01	3.967E+00	0.114
		303.91		-3.498E+02	5.247E+02	8.173E+02	9.556E+01	-0.428
		400.65		9.580E+00	6.681E+01	1.095E+02	1.181E+01	0.088
BR-77	+	87.88		2.576E+04	4.260E+03	5.619E+03	5.325E+02	4.585
		200.40		-4.374E-01	1.607E+03	2.689E+03	2.366E+02	0.000
		239.00		1.057E+01	9.180E+01	1.545E+02	1.380E+01	0.068
		249.79		-2.009E+02	6.844E+02	1.113E+03	9.968E+01	-0.180
		281.68		-7.416E+02	8.746E+02	1.349E+03	1.209E+02	-0.550
		297.23		1.209E+02	4.934E+02	8.252E+02	7.366E+01	0.147
		303.76		-1.242E+03	1.772E+03	2.755E+03	2.453E+02	-0.451
		439.47		2.555E+02	1.564E+03	2.554E+03	2.132E+02	0.100
		484.57		1.391E+03	2.470E+03	4.155E+03	3.508E+02	0.335
		520.65	*	1.700E+01	1.144E+02	1.850E+02	1.566E+01	0.092
		574.64		-1.781E+03	1.747E+03	2.589E+03	2.175E+02	-0.688
		578.91		6.898E+02	7.605E+02	1.380E+03	1.158E+02	0.500
		585.48		-1.101E+03	1.532E+03	2.388E+03	2.000E+02	-0.461
		755.35		7.124E+01	1.563E+03	2.594E+03	2.193E+02	0.027
		817.79		-5.225E+02	1.390E+03	2.190E+03	1.894E+02	-0.239
SR-82		698.33		-1.437E+03	6.458E+03	9.858E+03	8.120E+02	-0.146

Sample ID : G1202050276 Acquisition date : 25-FEB-2010 20:33:53

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		776.49	*	-1.034E+01	7.576E+01	1.231E+02	1.050E+01	-0.084
		1395.20		-4.684E+02	1.169E+03	1.711E+03	1.400E+02	-0.274
RB-83		520.41	*	3.894E+00	1.863E+01	3.031E+01	2.565E+00	0.128
		529.64		7.664E+00	2.402E+01	4.165E+01	3.524E+00	0.184
		552.65		-1.359E+01	4.405E+01	7.184E+01	6.063E+00	-0.189
RB-84		881.50	*	6.354E+00	1.738E+01	2.943E+01	2.589E+00	0.216
KR-85		513.99	*	-3.780E+03	2.303E+03	3.128E+03	2.647E+02	-1.208
SR-85		513.99	*	-1.721E+01	1.049E+01	1.424E+01	1.206E+00	-1.208
RB-86		1076.63	*	-1.553E+01	1.451E+02	2.311E+02	2.015E+01	-0.067
Y-88		898.02		6.237E+00	1.182E+01	2.031E+01	1.802E+00	0.307
		1836.01	*	-4.073E+00	6.166E+00	7.597E+00	6.235E-01	-0.536
ZR-88		392.90	*	-3.660E+00	7.389E+00	1.144E+01	9.334E-01	-0.320
Y-91		1204.90	*	-2.618E+03	2.758E+03	3.842E+03	3.234E+02	-0.682
NB-94		702.63	*	3.793E+00	7.679E+00	1.341E+01	1.107E+00	0.283
		871.10		-7.061E+00	1.092E+01	1.667E+01	1.463E+00	-0.424
NB-95		765.79	*	-1.722E+00	8.524E+00	1.372E+01	1.165E+00	-0.125
NB-95M		235.69	*	6.564E+00	2.738E+01	4.614E+01	4.675E+00	0.142
ZR-95		724.18		6.309E+00	1.945E+01	3.331E+01	3.034E+00	0.189
		756.15	*	3.185E+00	1.579E+01	2.665E+01	2.491E+00	0.119
NB-97		657.90	*	-2.945E+01	3.918E+02	5.602E+02	4.536E+01	-0.053
		1024.50		-2.501E+04	4.686E+04	7.101E+04	6.247E+03	-0.352
ZR-97		254.15		2.235E+04	2.479E+04	4.313E+04	3.864E+03	0.518
		355.39		6.897E+03	1.410E+04	2.383E+04	2.042E+03	0.289
		507.63	*	-1.114E+04	8.287E+03	1.163E+04	9.843E+02	-0.958
		602.52		1.323E+04	2.714E+04	4.731E+04	3.940E+03	0.280
		1021.30		-3.272E+03	4.314E+04	6.927E+04	6.097E+03	-0.047
		1147.95		-3.873E+03	1.610E+04	2.487E+04	2.126E+03	-0.156
		1362.66		1.696E+04	1.777E+04	3.632E+04	2.955E+03	0.467
		1750.46		-5.425E+03	1.762E+04	2.545E+04	2.108E+03	-0.213
MO-99		140.51		-8.743E+01	3.901E+02	6.525E+02	1.811E+02	-0.134
		181.06		3.834E+01	2.469E+02	4.183E+02	7.672E+01	0.092
		366.43		-4.329E+02	1.313E+03	2.076E+03	1.756E+02	-0.209
		739.58	*	-1.196E+02	1.619E+02	2.419E+02	3.643E+01	-0.495
		778.00		3.074E+02	5.312E+02	9.267E+02	7.906E+01	0.332
TC-99M		140.51	*	-6.322E-02	5.312E+02	Half-Life too short		
RH-101		127.23		1.169E-01	1.019E+01	1.435E+01	1.300E+00	0.008
		198.01	*	2.828E+00	8.770E+00	1.483E+01	1.304E+00	0.191
		325.23		2.702E+01	5.999E+01	1.013E+02	8.913E+00	0.267
RH-102		418.52		-2.153E+01	7.934E+01	1.251E+02	1.035E+01	-0.172
		475.06	*	-3.873E+00	8.619E+00	1.325E+01	1.117E+00	-0.292
		631.29		-1.342E+01	1.385E+01	2.070E+01	1.702E+00	-0.649
		697.49		-7.776E+00	2.004E+01	3.006E+01	2.475E+00	-0.259
		766.84		-1.060E+00	2.370E+01	3.890E+01	3.304E+00	-0.027
		1046.59		3.828E+01	3.458E+01	6.215E+01	5.450E+00	0.616
		1112.84		-1.935E+01	6.131E+01	9.487E+01	8.198E+00	-0.204
RU-103		497.08	*	-6.980E+00	9.441E+00	1.390E+01	1.954E+00	-0.502
		610.33		-1.227E+02	1.606E+02	2.521E+02	4.166E+01	-0.487
RH-106		511.85		-2.160E+01	4.844E+01	8.500E+01	7.193E+00	-0.254
		621.84	*	-7.976E+01	8.001E+01	1.188E+02	1.559E+01	-0.672

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1050.47		-5.539E+02	7.181E+02	1.059E+03	9.279E+01	-0.523
RU-106		511.85		-2.160E+01	4.844E+01	8.500E+01	7.193E+00	-0.254
		621.84	*	-7.976E+01	7.959E+01	1.188E+02	9.809E+00	-0.672
		1050.47		-5.539E+02	7.181E+02	1.059E+03	9.279E+01	-0.523
AG-108M		433.93	*	-6.579E+00	1.055E+01	1.614E+01	1.401E+00	-0.408
		614.37		-1.396E+00	9.847E+00	1.625E+01	1.403E+00	-0.086
		722.95		7.336E+00	1.004E+01	1.784E+01	1.549E+00	0.411
AG-110M		657.75	*	-1.489E+00	8.970E+00	1.263E+01	1.057E+00	-0.118
		677.61		2.869E+01	6.677E+01	1.164E+02	9.781E+00	0.246
		706.67		-1.054E+00	4.572E+01	7.563E+01	6.443E+00	-0.014
		763.93		-3.292E+01	3.469E+01	4.997E+01	4.363E+00	-0.659
		884.67		-4.650E+00	1.505E+01	2.382E+01	2.162E+00	-0.195
		937.48		2.442E+01	3.426E+01	5.953E+01	5.446E+00	0.410
		1384.27		3.081E+00	2.674E+01	4.554E+01	3.836E+00	0.068
IN-111		171.28		-1.906E+01	1.619E+01	2.525E+01	2.201E+00	-0.755
		245.39	*	-4.852E+00	1.823E+01	2.974E+01	2.660E+00	-0.163
IN-113M		391.69	*	5.373E+00	1.046E+01	1.772E+01	1.494E+00	0.303
SN-113		391.69	*	5.373E+00	1.046E+01	1.772E+01	1.494E+00	0.303
IN-114M		190.27	*	6.310E+00	4.260E+01	7.197E+01	6.306E+00	0.088
CD-115		260.90		-2.053E+01	1.089E+03	1.799E+03	1.614E+02	-0.011
		492.35		1.022E+02	2.773E+02	4.609E+02	3.895E+01	0.222
		527.90	*	-2.746E+01	8.250E+01	1.348E+02	1.141E+01	-0.204
SN-117M		156.02		2.273E+02	3.218E+02	5.631E+02	4.912E+01	0.404
		158.56	*	-2.255E+00	7.981E+00	1.327E+01	1.157E+00	-0.170
SB-122		563.90	*	2.583E+01	2.912E+01	5.256E+01	4.427E+00	0.491
		692.80		-7.204E+01	6.026E+02	9.881E+02	8.116E+01	-0.073
I-123		159.00	*	-1.163E+02	9.268E+02	1.554E+03	1.355E+02	-0.075
		528.96		6.521E+03	6.797E+04	1.156E+05	9.782E+03	0.056
TE-123M		159.00	*	-8.671E-01	6.910E+00	1.159E+01	1.016E+00	-0.075
I-124		602.71	*	1.405E+01	2.643E+01	4.625E+01	3.851E+00	0.304
		722.78		9.855E+01	1.630E+02	2.863E+02	2.387E+01	0.344
		1325.50		-1.364E+03	1.055E+03	8.538E+02	6.927E+01	-1.598
		1376.25		-1.441E+01	6.388E+02	1.054E+03	8.600E+01	-0.014
		1509.49		-1.714E+02	4.001E+02	5.815E+02	4.823E+01	-0.295
		1691.02		1.138E+02	1.191E+02	2.411E+02	2.005E+01	0.472
SB-124		602.71		4.655E+00	8.757E+00	1.533E+01	1.276E+00	0.304
		645.85		1.531E+01	1.069E+02	1.809E+02	1.574E+01	0.085
		709.31		-5.651E+01	5.743E+02	9.418E+02	7.800E+01	-0.060
		713.82		4.262E+01	3.698E+02	6.202E+02	7.325E+01	0.069
		722.78		4.734E+01	7.829E+01	1.376E+02	1.173E+01	0.344
		968.20		2.209E+02	5.928E+02	1.002E+03	8.855E+01	0.221
		1045.16		6.020E+02	6.677E+02	1.178E+03	1.033E+02	0.511
		1325.50		-6.999E+02	5.414E+02	4.381E+02	3.554E+01	-1.598
		1368.21		-7.749E+00	2.076E+02	3.412E+02	4.496E+01	-0.023
		1436.60		-6.347E+01	3.718E+02	5.750E+02	4.733E+01	-0.110
		1691.02	*	1.289E+01	1.350E+01	2.732E+01	2.368E+00	0.472
SB-125		427.89	*	-1.347E+01	2.728E+01	4.216E+01	3.576E+00	-0.319
		463.38		3.513E+01	8.446E+01	1.401E+02	1.275E+01	0.251
		600.56		-1.377E+01	4.536E+01	7.379E+01	6.633E+00	-0.187

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		635.90		-1.773E-01	6.294E+01	1.050E+02	9.376E+00	-0.002
TE-125M		109.28	*	4.238E+01	2.295E+03	3.659E+03	3.866E+02	0.012
I-126		388.63		1.277E+01	2.948E+01	4.954E+01	4.059E+00	0.258
		666.33	*	7.562E+00	2.715E+01	4.087E+01	3.309E+00	0.185
		753.82		1.257E+01	2.081E+02	3.460E+02	2.924E+01	0.036
SB-126		223.80		-9.129E+01	5.791E+02	9.556E+02	8.492E+01	-0.096
		278.60		4.643E+01	3.294E+02	5.486E+02	4.918E+01	0.085
		296.50		-3.568E+01	1.902E+02	3.068E+02	2.740E+01	-0.116
		414.70		4.947E+00	1.109E+01	1.859E+01	1.535E+00	0.266
		415.30		-2.316E+02	9.481E+02	1.486E+03	1.227E+02	-0.156
		555.20		3.974E+02	5.063E+02	9.128E+02	7.701E+01	0.435
		573.80		-9.302E+01	1.221E+02	1.873E+02	1.574E+01	-0.497
		593.00		-6.275E+00	1.223E+02	2.039E+02	1.704E+01	-0.031
		656.30		-4.834E+02	5.026E+02	6.109E+02	4.951E+01	-0.791
		666.33		3.079E+00	1.105E+01	1.664E+01	1.348E+00	0.185
		675.00		-2.257E+02	2.489E+02	3.687E+02	3.000E+01	-0.612
		695.00		1.950E+00	9.865E+00	1.672E+01	1.375E+00	0.117
		697.00		-2.024E+01	3.852E+01	5.705E+01	4.696E+00	-0.355
		720.50	*	-2.268E+00	1.955E+01	3.199E+01	2.664E+00	-0.071
		856.80		1.101E+01	7.425E+01	1.234E+02	1.080E+01	0.089
		989.30		1.851E+02	2.193E+02	3.844E+02	3.394E+01	0.482
		1034.80		3.620E+02	1.408E+03	2.343E+03	2.059E+02	0.154
		1213.00		-2.711E+01	3.983E+02	6.596E+02	5.543E+01	-0.041
SB-127		61.10		3.178E+04	4.940E+03	8.234E+03	6.425E+02	3.860
		252.40		4.143E+01	1.617E+02	2.706E+02	1.124E+02	0.153
		290.80		1.523E+02	7.595E+02	1.267E+03	1.156E+02	0.120
		411.60		3.599E+02	4.428E+02	7.590E+02	1.057E+02	0.474
		444.90		-4.925E+00	4.060E+02	6.531E+02	6.715E+01	-0.008
		473.00		-1.611E+00	6.157E+01	9.856E+01	1.058E+01	-0.016
		543.00		-1.157E+02	5.344E+02	8.809E+02	1.105E+02	-0.131
		603.60		3.312E+02	3.852E+02	6.905E+02	7.057E+01	0.480
		685.20	*	2.512E+01	4.273E+01	7.536E+01	6.537E+00	0.333
		698.50		-4.189E+01	5.081E+02	7.866E+02	1.103E+02	-0.053
		722.20		6.209E+02	9.588E+02	1.691E+03	1.442E+02	0.367
		783.80		-3.284E+01	1.279E+02	2.050E+02	2.111E+01	-0.160
XE-127		57.60		1.131E+04	3.346E+03	5.439E+03	4.143E+02	2.080
		145.22		-6.170E+01	1.460E+02	2.430E+02	2.134E+01	-0.254
		172.10		-2.322E+01	2.474E+01	3.927E+01	3.424E+00	-0.591
		202.84	*	8.650E-01	9.763E+00	1.641E+01	1.445E+00	0.053
		374.96		-2.794E+01	4.601E+01	7.103E+01	5.940E+00	-0.393
I-131		80.18		-4.114E+02	5.275E+02	8.102E+02	7.189E+01	-0.508
		284.30		-5.555E+01	1.514E+02	2.429E+02	2.270E+01	-0.229
		364.48	*	2.324E+00	1.185E+01	1.959E+01	1.744E+00	0.119
		636.97		3.165E+01	1.390E+02	2.375E+02	2.054E+01	0.133
		722.89		4.588E+02	6.381E+02	1.134E+03	9.453E+01	0.405
TE-132		49.72		7.943E+02	9.465E+02	1.599E+03	1.429E+02	0.497
		111.76		4.027E+02	7.631E+02	1.253E+03	1.142E+02	0.321
		116.30		-4.665E+02	7.556E+02	1.153E+03	1.061E+02	-0.405
		228.16	*	-1.168E+01	1.716E+01	2.727E+01	3.963E+00	-0.428

Sample ID : G1202050276 Acquisition date : 25-FEB-2010 20:33:53

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BA-133		53.15		-3.006E+02	1.986E+03	3.213E+03	2.649E+02	-0.094
		79.62		-3.657E+02	3.974E+02	6.007E+02	9.217E+01	-0.609
		81.00		-1.936E+01	2.894E+01	4.453E+01	7.145E+00	-0.435
		276.40		2.350E+01	9.397E+01	1.574E+02	2.307E+01	0.149
		302.84		-4.983E+00	3.599E+01	5.850E+01	7.884E+00	-0.085
		356.01	*	4.061E+00	1.185E+01	1.980E+01	2.606E+00	0.205
		383.85		5.201E+01	8.424E+01	1.430E+02	1.768E+01	0.364
I-133		510.53		-5.043E+03	1.202E+04	2.117E+04	1.900E+03	-0.238
		529.87	*	5.799E+01	1.818E+02	3.151E+02	2.842E+01	0.184
		706.58		-1.403E+02	1.127E+04	1.866E+04	1.641E+03	-0.008
		856.28		2.549E+03	1.878E+04	3.120E+04	2.883E+03	0.082
		875.33		-1.151E+03	5.722E+03	9.184E+03	9.289E+02	-0.125
		1236.41		-3.859E+03	9.606E+03	1.470E+04	1.304E+03	-0.262
		1298.22		1.005E+02	5.920E+03	9.907E+03	9.631E+02	0.010
CS-134		475.35		-3.917E+02	5.680E+02	8.524E+02	7.186E+01	-0.459
		563.23		2.547E+01	9.217E+01	1.586E+02	1.349E+01	0.161
		569.32		-1.088E+01	4.763E+01	7.822E+01	6.674E+00	-0.139
		604.70		5.628E+00	8.567E+00	1.513E+01	1.262E+00	0.372
		795.84	*	-8.848E+00	1.248E+01	1.897E+01	1.641E+00	-0.466
		801.93		4.008E+01	1.112E+02	1.895E+02	1.639E+01	0.212
		1038.57		-2.541E+01	1.093E+03	1.763E+03	1.548E+02	-0.014
		1167.94		8.455E+01	6.240E+02	9.272E+02	7.871E+01	0.091
		1365.15		-9.072E+01	1.924E+02	2.797E+02	2.393E+01	-0.324
CS-135		268.24	*	-1.349E+00	4.284E+01	7.065E+01	7.254E+00	-0.019
I-135		288.45		1.462E+00	4.284E+01	Half-Life too short		
		417.63		-2.897E+00	4.284E+01	Half-Life too short		
		546.56		-5.176E-01	4.284E+01	Half-Life too short		
		836.80		-1.993E+00	4.284E+01	Half-Life too short		
		1038.76		-7.942E-01	4.284E+01	Half-Life too short		
		1124.00		-2.532E+00	4.284E+01	Half-Life too short		
		1131.51		-6.145E-01	4.284E+01	Half-Life too short		
		1260.41	*	4.287E-02	4.284E+01	Half-Life too short		
		1457.56		-2.865E-01	4.284E+01	Half-Life too short		
		1678.03		-6.588E-01	4.284E+01	Half-Life too short		
		1706.46		-1.450E+00	4.284E+01	Half-Life too short		
		1791.20		-5.564E-01	4.284E+01	Half-Life too short		
CS-136		66.91		1.288E+02	1.442E+02	2.422E+02	3.663E+01	0.532
		86.29		8.657E+02	2.520E+02	3.901E+02	5.204E+01	2.219
		153.22		-4.921E+01	8.746E+01	1.429E+02	1.390E+01	-0.344
		163.89		-1.485E+02	1.559E+02	2.484E+02	2.418E+01	-0.598
		176.55		-2.544E+01	5.180E+01	8.459E+01	7.791E+00	-0.301
		273.65		-3.702E+01	6.508E+01	1.031E+02	9.801E+00	-0.359
		340.57		-5.604E+00	1.692E+01	2.689E+01	2.403E+00	-0.208
		818.51		-1.659E+00	1.151E+01	1.862E+01	1.611E+00	-0.089
		1048.07	*	1.203E+01	1.850E+01	3.190E+01	2.909E+00	0.377
		1235.34		-2.415E+01	4.482E+01	6.717E+01	7.829E+00	-0.359
CE-139		165.85	*	2.902E+00	7.301E+00	1.256E+01	1.095E+00	0.231
BA-140		162.64		-4.198E+01	1.040E+02	1.717E+02	1.581E+01	-0.245
		304.84		-7.127E+01	1.848E+02	2.932E+02	8.242E+01	-0.243

Sample ID : G1202050276 Acquisition date : 25-FEB-2010 20:33:53

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		423.70		-7.649E+01	2.891E+02	4.541E+02	1.468E+02	-0.168
		537.32	*	2.198E+01	3.461E+01	6.042E+01	2.000E+01	0.364
LA-140		328.77		-1.139E+01	4.040E+01	6.463E+01	5.981E+00	-0.176
		432.53		1.888E+02	3.562E+02	5.972E+02	5.230E+01	0.316
		487.03		2.134E+01	2.129E+01	3.707E+01	3.332E+00	0.576
		751.79		1.348E+00	2.341E+02	3.870E+02	3.631E+01	0.003
		815.85		8.139E+00	4.228E+01	7.112E+01	6.852E+00	0.114
		867.82		1.323E+02	2.149E+02	3.741E+02	3.449E+01	0.354
		919.63		-3.333E+02	5.294E+02	8.101E+02	8.770E+01	-0.411
		925.24		5.379E+01	1.961E+02	3.283E+02	3.077E+01	0.164
		1596.49	*	-2.006E-02	8.118E+00	1.333E+01	1.110E+00	-0.002
CE-141		145.44	*	-6.440E+00	1.285E+01	2.130E+01	1.903E+00	-0.302
CE-143		57.37		4.590E+03	2.294E+03	3.615E+03	2.894E+02	1.270
		231.56		3.695E+02	2.320E+03	3.890E+03	1.221E+03	0.095
		293.26	*	-6.342E+00	1.155E+02	1.893E+02	4.008E+01	-0.034
		350.59		-3.272E+02	1.508E+03	2.413E+03	7.419E+02	-0.136
		490.36		-3.346E+03	2.922E+03	3.814E+03	1.192E+03	-0.877
		664.57		2.216E+04	7.503E+03	5.491E+03	1.752E+03	4.035
		721.93		7.145E+02	1.168E+03	2.026E+03	5.833E+02	0.353
CE-144		80.11		-5.092E+02	6.241E+02	9.564E+02	8.478E+01	-0.532
		133.54	*	-1.335E+01	5.813E+01	9.050E+01	1.424E+01	-0.148
PM-144		476.78		-4.612E+00	1.954E+01	3.067E+01	2.837E+00	-0.150
		618.01		-2.414E+00	7.791E+00	1.261E+01	1.075E+00	-0.191
		696.49	*	-7.434E+00	9.264E+00	1.330E+01	1.094E+00	-0.559
		778.57		3.989E+02	6.064E+02	1.065E+03	9.086E+01	0.375
PR-144		696.49	*	-5.008E+02	6.240E+02	8.957E+02	7.371E+01	-0.559
		1489.15		1.353E+03	1.610E+03	3.307E+03	2.738E+02	0.409
PM-146		453.90	*	-7.581E+00	1.247E+01	1.889E+01	1.990E+00	-0.401
		633.02		-3.580E+01	3.261E+02	5.374E+02	2.004E+02	-0.067
		735.90		-6.127E+00	3.834E+01	6.227E+01	1.777E+01	-0.098
		747.13		-2.354E-01	2.182E+01	3.602E+01	5.014E+00	-0.007
ND-147		91.11		1.037E+01	3.915E+01	5.698E+01	5.663E+00	0.182
		319.41		-3.165E+01	4.455E+02	7.262E+02	6.416E+01	-0.044
		439.89		-2.926E+02	8.523E+02	1.332E+03	1.112E+02	-0.220
		531.02	*	6.492E+00	6.609E+01	1.124E+02	1.670E+01	0.058
PM-149		285.90	*	3.509E+02	7.298E+02	1.238E+03	1.944E+02	0.284
EU-152	+	121.78		6.626E+01	3.321E+01	4.170E+01	4.354E+00	1.589
		244.69		-8.538E+00	8.761E+01	1.445E+02	1.292E+01	-0.059
		344.27	*	3.597E+00	2.416E+01	3.992E+01	3.663E+00	0.090
		443.98		-1.024E+02	2.969E+02	4.642E+02	3.880E+01	-0.221
		778.89		3.339E+01	7.304E+01	1.258E+02	1.074E+01	0.265
		867.32		-2.842E+01	2.361E+02	3.815E+02	3.346E+01	-0.074
		964.01		-5.846E+01	7.699E+01	1.142E+02	1.010E+01	-0.512
		1085.78		5.651E+00	1.163E+02	1.887E+02	1.642E+01	0.030
		1112.02		-2.347E+01	9.129E+01	1.425E+02	1.232E+01	-0.165
		1407.95		-2.048E+01	2.708E+01	3.854E+01	3.160E+00	-0.531
GD-153		69.67		-1.824E+02	5.294E+02	8.396E+02	6.895E+01	-0.217
		83.37		1.696E+03	4.565E+03	6.752E+03	6.148E+02	0.251
		97.43	*	2.730E+00	2.187E+01	3.494E+01	3.148E+00	0.078

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		103.18		9.900E+00	2.806E+01	4.580E+01	4.082E+00	0.216
EU-154	+	123.07		4.647E+01	2.344E+01	3.026E+01	3.570E+00	1.536
		247.94		-2.692E+00	9.975E+01	1.651E+02	1.936E+01	-0.016
		591.81		1.906E+01	1.541E+02	2.612E+02	2.999E+01	0.073
		723.30		4.235E+01	4.131E+01	7.535E+01	6.988E+00	0.562
		756.87		5.415E+01	1.908E+02	3.247E+02	3.852E+01	0.167
		873.19		4.004E+00	9.232E+01	1.517E+02	1.875E+01	0.026
		996.32		5.981E+01	1.125E+02	1.918E+02	3.427E+01	0.312
		1004.76		3.521E-01	6.934E+01	1.125E+02	1.326E+01	0.003
		1274.45	*	-1.192E+01	1.778E+01	2.503E+01	2.763E+00	-0.476
EU-155		48.70		-3.979E+02	1.311E+03	2.110E+03	1.881E+02	-0.189
	+	60.01		4.548E+04	5.921E+03	7.244E+03	5.409E+02	6.278
	+	86.54		3.773E+02	6.256E+01	7.181E+01	6.780E+00	5.254
		105.31	*	-3.184E+00	3.054E+01	4.851E+01	4.371E+00	-0.066
TB-160	+	86.79		9.083E+02	1.502E+02	1.874E+02	1.758E+01	4.847
		197.04		7.992E+01	1.355E+02	2.322E+02	2.040E+01	0.344
		215.65		9.187E+01	1.823E+02	3.122E+02	2.765E+01	0.294
		298.57		2.721E+00	2.495E+01	4.133E+01	3.688E+00	0.066
		879.36	*	2.203E+00	4.161E+01	6.841E+01	6.016E+00	0.032
		962.29		2.797E+01	1.257E+02	2.093E+02	1.850E+01	0.134
		966.15		2.336E+00	4.608E+01	7.533E+01	6.659E+00	0.031
		1177.93		8.767E+01	7.425E+01	1.305E+02	1.105E+01	0.672
		1271.85		-6.534E+01	8.813E+01	1.199E+02	9.914E+00	-0.545
HO-166M		80.57		-3.143E+01	8.021E+01	1.262E+02	1.122E+01	-0.249
		184.41		1.273E+00	8.601E+00	1.455E+01	1.272E+00	0.087
		280.46		-9.638E+00	2.166E+01	3.455E+01	3.097E+00	-0.279
		410.95		1.077E+01	6.987E+01	1.144E+02	9.428E+00	0.094
		711.68	*	-1.532E+00	1.498E+01	2.456E+01	2.037E+00	-0.062
		752.31		2.491E+01	7.012E+01	1.202E+02	1.015E+01	0.207
		810.29		-3.650E+00	1.476E+01	2.355E+01	2.032E+00	-0.155
TM-171		51.35		4.740E+03	1.674E+04	2.762E+04	2.355E+03	0.172
		52.39		2.106E+02	8.718E+03	1.422E+04	1.189E+03	0.015
	+	59.40		2.376E+05	3.093E+04	4.023E+04	2.982E+03	5.905
		66.72	*	6.734E+03	9.333E+03	1.566E+04	1.258E+03	0.430
HF-175	+	89.36		5.040E+03	8.335E+02	9.432E+02	8.854E+01	5.343
		343.40	*	-7.630E+00	8.296E+00	1.246E+01	1.081E+00	-0.612
		433.00		2.264E+01	6.229E+02	1.007E+03	8.387E+01	0.022
LU-176	+	88.36		7.462E+02	1.234E+02	1.599E+02	1.513E+01	4.666
		201.83		-4.126E+00	7.618E+00	1.234E+01	1.087E+00	-0.334
		306.84	*	3.554E+00	6.802E+00	1.157E+01	1.029E+00	0.307
		401.10		7.035E+02	1.848E+03	3.086E+03	2.530E+02	0.228
LU-177		112.95		4.974E+01	1.444E+02	2.345E+02	2.105E+01	0.212
		208.36	*	3.182E+01	8.623E+01	1.464E+02	1.293E+01	0.217
LU-177M		52.97		-1.304E+02	8.601E+02	1.392E+03	1.151E+02	-0.094
		54.07		1.325E+02	4.993E+02	7.365E+02	5.967E+01	0.180
		61.30		3.910E+03	7.873E+02	1.339E+03	1.019E+02	2.920
	+	121.62		3.242E+02	1.617E+02	2.038E+02	1.875E+01	1.590
		147.16		6.993E+01	1.588E+02	2.748E+02	2.408E+01	0.255
		171.86		-1.139E+02	1.175E+02	1.862E+02	1.623E+01	-0.612

---- Non-Identified Nuclides ----

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		218.09		-3.575E+01	2.257E+02	3.731E+02	3.308E+01	-0.096
		268.79		-1.731E+00	2.048E+02	3.382E+02	3.034E+01	-0.005
		319.02		-4.675E+00	6.671E+01	1.087E+02	9.608E+00	-0.043
		367.43		-1.966E+02	2.398E+02	3.624E+02	3.061E+01	-0.543
		413.65	*	3.416E+01	4.716E+01	8.061E+01	6.653E+00	0.424
HF-181		56.28		2.658E+02	4.736E+02	7.079E+02	5.513E+01	0.375
		57.53		8.483E+02	2.840E+02	4.585E+02	3.496E+01	1.850
		65.20		-3.657E+01	2.699E+02	4.339E+02	3.443E+01	-0.084
		133.02		-7.500E+00	1.608E+01	2.466E+01	2.204E+00	-0.304
		136.25		-1.812E+01	1.036E+02	1.744E+02	1.549E+01	-0.104
		345.85		2.626E+01	4.121E+01	7.055E+01	6.104E+00	0.372
		482.03	*	-1.578E+01	1.104E+01	1.522E+01	1.284E+00	-1.037
W-181		56.28		1.174E+02	2.090E+02	3.124E+02	2.432E+01	0.376
		57.53		3.729E+02	1.253E+02	2.023E+02	1.543E+01	1.843
		65.20	*	-1.602E+01	1.182E+02	1.901E+02	1.508E+01	-0.084
TA-182		67.75		2.033E+01	3.415E+01	5.694E+01	4.611E+00	0.357
		100.10		4.997E+00	4.573E+01	7.357E+01	6.585E+00	0.068
		152.43		-7.827E+01	7.605E+01	1.204E+02	1.052E+01	-0.650
		222.10		3.807E+00	8.905E+01	1.487E+02	1.321E+01	0.026
		1001.68		7.628E+01	5.935E+02	9.925E+02	8.754E+01	0.077
		1121.28		-8.682E+00	3.091E+01	4.856E+01	4.187E+00	-0.179
		1189.05		5.100E+01	4.901E+01	9.456E+01	7.988E+00	0.539
		1221.42	*	-1.934E+01	2.772E+01	4.030E+01	3.380E+00	-0.480
		1230.97		-7.583E+00	6.872E+01	1.128E+02	9.442E+00	-0.067
RE-183	+	57.98		1.532E+03	1.994E+02	2.332E+02	1.766E+01	6.567
	+	59.32		8.804E+02	1.146E+02	1.502E+02	1.115E+01	5.860
		67.20		5.995E+01	5.995E+01	1.018E+02	8.208E+00	0.589
		162.32	*	-1.446E+00	2.477E+01	4.165E+01	3.629E+00	-0.035
		208.81		6.063E+01	2.249E+02	3.799E+02	3.355E+01	0.160
		291.72		3.427E+01	2.293E+02	3.811E+02	3.408E+01	0.090
RE-184	+	57.98		6.026E+03	7.845E+02	9.176E+02	6.947E+01	6.567
	+	59.32		3.461E+03	4.505E+02	5.906E+02	4.382E+01	5.860
		67.20		2.358E+02	2.358E+02	4.003E+02	3.228E+01	0.589
		161.27		2.822E+01	8.605E+01	1.477E+02	1.287E+01	0.191
		216.55		-3.746E+00	7.056E+01	1.173E+02	1.040E+01	-0.032
		252.85	*	3.107E+01	6.198E+01	1.057E+02	9.471E+00	0.294
		318.01		1.581E+01	1.146E+02	1.898E+02	1.678E+01	0.083
		792.07		-3.725E+01	2.548E+02	4.132E+02	3.543E+01	-0.090
		903.28		-2.795E+02	2.846E+02	4.127E+02	3.645E+01	-0.677
		920.93		-4.067E+01	1.420E+02	2.249E+02	1.988E+01	-0.181
OS-185	+	59.72		2.470E+03	3.216E+02	4.058E+02	3.015E+01	6.088
		61.14		5.900E+02	9.494E+01	1.600E+02	1.215E+01	3.687
		69.30		-8.512E+01	9.275E+01	1.422E+02	1.165E+01	-0.599
		592.07		5.835E+01	5.729E+02	9.694E+02	8.102E+01	0.060
		646.12	*	4.689E+00	9.243E+00	1.623E+01	1.323E+00	0.289
		717.42		-4.610E+01	2.151E+02	3.484E+02	2.897E+01	-0.132
		874.81		-7.286E+01	1.808E+02	2.844E+02	2.498E+01	-0.256
		880.27		-1.492E+01	2.415E+02	3.928E+02	3.455E+01	-0.038
RE-188		155.03	*	3.360E+01	3.727E+01	6.589E+01	5.750E+00	0.510

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		477.96		8.849E+02	7.944E+02	1.393E+03	1.175E+02	0.635
		633.10		1.120E+02	5.756E+02	9.810E+02	8.057E+01	0.114
W-188		63.58		-1.686E+04	1.834E+04	2.560E+04	2.000E+03	-0.659
		227.08		-4.542E+02	3.138E+03	5.180E+03	4.609E+02	-0.088
		290.67	*	3.272E+02	1.789E+03	2.980E+03	2.665E+02	0.110
IR-192		295.96		-2.708E+00	2.448E+01	3.972E+01	3.571E+00	-0.068
		308.46		7.223E+00	2.444E+01	4.093E+01	3.654E+00	0.177
		316.51	*	-3.092E+00	8.406E+00	1.339E+01	1.187E+00	-0.231
		468.07		-1.703E+00	1.810E+01	2.883E+01	2.609E+00	-0.059
		604.41		9.874E+01	1.045E+02	1.878E+02	2.408E+01	0.526
		612.46		2.220E+01	1.509E+02	2.559E+02	2.461E+01	0.087
AU-195		65.12		-9.844E+00	5.594E+01	8.973E+01	7.114E+00	-0.110
		66.83		2.506E+01	2.980E+01	5.028E+01	4.043E+00	0.498
		75.70		1.194E+01	5.311E+01	8.652E+01	7.416E+00	0.138
		98.88	*	-2.875E+01	6.189E+01	9.501E+01	8.527E+00	-0.303
		129.76		1.096E+01	7.765E+02	1.230E+03	1.107E+02	0.009
TL-200		367.94	*	-6.646E+01	9.695E+01	1.486E+02	1.254E+01	-0.447
		579.30		4.196E+02	6.323E+02	1.125E+03	9.435E+01	0.373
		828.27		-6.731E+02	1.007E+03	1.523E+03	1.321E+02	-0.442
		1205.75		-2.693E+02	3.090E+02	4.374E+02	3.682E+01	-0.616
TL-201		68.90		-8.888E+01	1.226E+02	1.902E+02	1.553E+01	-0.467
		70.82		1.444E+01	6.614E+01	1.081E+02	8.949E+00	0.134
		80.30		-1.142E+02	1.183E+02	1.796E+02	1.595E+01	-0.636
		135.34		5.138E+02	5.529E+02	9.209E+02	8.194E+01	0.558
		167.43	*	5.789E+01	1.435E+02	2.450E+02	2.135E+01	0.236
TL-202		68.90		-5.503E+01	7.593E+01	1.178E+02	9.617E+00	-0.467
		70.82		8.916E+00	4.084E+01	6.675E+01	5.526E+00	0.134
		80.30		-7.055E+01	7.308E+01	1.109E+02	9.850E+00	-0.636
		439.56	*	1.294E+00	1.068E+01	1.739E+01	1.452E+00	0.074
HG-203		70.83		6.319E+01	2.837E+02	4.637E+02	6.210E+01	0.136
		72.87		1.074E+01	1.587E+02	2.571E+02	3.358E+01	0.042
		82.60		1.300E+02	2.818E+02	4.430E+02	6.209E+01	0.293
		279.20	*	1.385E+00	8.749E+00	1.459E+01	1.342E+00	0.095
BI-207		72.80		4.115E+00	5.513E+01	8.935E+01	7.501E+00	0.046
		74.97		-3.033E+01	3.202E+01	4.883E+01	4.163E+00	-0.621
		84.90		3.003E+01	5.948E+01	8.870E+01	8.184E+00	0.339
		569.67		-2.669E+00	7.544E+00	1.223E+01	1.029E+00	-0.218
		1063.62	*	-6.578E-01	1.565E+01	2.515E+01	2.198E+00	-0.026
		1770.23		-4.868E+01	9.486E+01	1.299E+02	1.074E+01	-0.375
TL-207		81.07		-3.618E+01	6.325E+01	9.833E+01	8.784E+00	-0.368
		83.78		-4.141E+00	4.086E+01	5.838E+01	5.335E+00	-0.071
		94.90		-5.227E+01	6.647E+01	1.005E+02	9.140E+00	-0.520
	+	122.32		1.580E+03	7.901E+02	1.005E+03	9.846E+01	1.573
		144.24		-1.140E+02	1.741E+02	2.859E+02	2.799E+01	-0.399
		154.21		2.855E+01	9.419E+01	1.619E+02	1.550E+01	0.176
		269.46		1.909E+01	4.991E+01	8.439E+01	7.714E+00	0.226
		323.87	*	1.135E+02	1.864E+02	3.164E+02	5.631E+01	0.359
		338.28		2.580E+02	2.476E+02	4.332E+02	5.361E+01	0.596
		445.03		-1.241E+02	7.302E+02	1.160E+03	1.381E+02	-0.107

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TL-208		72.80		4.435E+01	5.942E+02	9.630E+02	8.085E+01	0.046
		74.97		-3.266E+02	3.460E+02	5.258E+02	6.422E+01	-0.621
		277.35		4.824E+01	9.445E+01	1.609E+02	2.024E+01	0.300
		510.84		-1.508E+01	4.581E+01	8.104E+01	9.625E+00	-0.186
		583.14	*	-4.509E+00	9.353E+00	1.538E+01	1.387E+00	-0.293
		763.13		-2.860E+02	4.731E+02	7.188E+02	9.970E+01	-0.398
		860.37		7.171E+01	8.097E+01	1.440E+02	1.351E+01	0.498
		1093.90		4.049E+02	3.367E+03	5.496E+03	1.280E+03	0.074
PO-209		260.50		6.333E+02	2.651E+03	4.451E+03	3.991E+02	0.142
		262.80		1.637E+03	7.467E+03	1.252E+04	1.122E+03	0.131
		896.60	*	2.910E+02	2.382E+03	3.938E+03	3.476E+02	0.074
BI-210		46.50	*	-8.830E+02	1.806E+03	2.876E+03	2.850E+02	-0.307
PB-210		46.50	*	-8.830E+02	1.806E+03	2.876E+03	2.850E+02	-0.307
PO-210		46.50	*	-8.830E+02	1.806E+03	2.876E+03	2.614E+02	-0.307
BI-211		72.87		6.386E+01	9.438E+02	1.529E+03	1.284E+02	0.042
		351.07	*	-9.352E+00	5.597E+01	9.063E+01	8.198E+00	-0.103
PB-211		404.84	*	5.924E+01	2.583E+02	4.218E+02	2.641E+02	0.140
		427.08		-3.016E+02	6.249E+02	9.200E+02	5.713E+02	-0.328
		831.96		3.253E+01	3.256E+02	5.392E+02	3.380E+02	0.060
BI-212		727.18	*	-5.939E+01	7.143E+01	1.070E+02	1.046E+01	-0.555
		785.46		3.703E+02	4.740E+02	8.400E+02	7.186E+01	0.441
		1620.62		1.850E+02	1.964E+02	4.066E+02	3.387E+01	0.455
PB-212		74.81		-1.103E+02	1.113E+02	1.684E+02	2.130E+01	-0.655
		77.11		7.083E+01	5.969E+01	1.016E+02	8.802E+00	0.697
	+	87.30		1.461E+03	2.823E+02	3.188E+02	4.382E+01	4.581
		115.19		-5.815E+02	1.059E+03	1.624E+03	1.465E+02	-0.358
		238.63	*	7.255E-01	1.543E+01	2.586E+01	2.584E+00	0.028
		300.09		-1.177E+01	1.878E+02	3.037E+02	3.242E+01	-0.039
PO-212		74.81		-1.103E+02	1.113E+02	1.684E+02	2.130E+01	-0.655
		77.11		7.083E+01	5.969E+01	1.016E+02	8.802E+00	0.697
	+	87.30		1.461E+03	2.823E+02	3.188E+02	4.382E+01	4.581
		115.19		-5.815E+02	1.059E+03	1.624E+03	1.465E+02	-0.358
		238.63	*	7.255E-01	1.543E+01	2.586E+01	2.584E+00	0.028
		300.09		-1.177E+01	1.878E+02	3.037E+02	3.242E+01	-0.039
BI-214		609.31	*	-1.213E+01	1.817E+01	2.899E+01	2.838E+00	-0.418
		1120.29		1.873E+01	7.107E+01	1.197E+02	1.301E+01	0.156
		1764.49		-1.867E+01	3.653E+01	5.880E+01	4.863E+00	-0.318
PB-214		74.81		-1.892E+02	1.907E+02	2.891E+02	3.263E+01	-0.655
		77.11		1.210E+02	1.023E+02	1.735E+02	2.002E+01	0.697
	+	87.30		2.493E+03	4.548E+02	5.441E+02	6.626E+01	4.581
		241.98		-3.790E+01	8.961E+01	1.441E+02	1.520E+01	-0.263
		295.21		-2.093E+00	3.557E+01	5.793E+01	6.315E+00	-0.036
		351.92	*	6.653E-01	1.879E+01	3.092E+01	3.227E+00	0.022
PO-214		74.81		-1.892E+02	1.907E+02	2.891E+02	3.263E+01	-0.655
		77.11		1.210E+02	1.023E+02	1.735E+02	2.002E+01	0.697
	+	87.30		2.493E+03	4.548E+02	5.441E+02	6.626E+01	4.581
		241.98		-3.790E+01	8.961E+01	1.441E+02	1.520E+01	-0.263
		295.21		-2.093E+00	3.557E+01	5.793E+01	6.315E+00	-0.036
		351.92	*	6.653E-01	1.879E+01	3.092E+01	3.227E+00	0.022

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PO-215		81.07		-3.618E+01	6.325E+01	9.833E+01	8.784E+00	-0.368
		83.78		-4.141E+00	4.086E+01	5.838E+01	5.335E+00	-0.071
		94.90		-5.227E+01	6.647E+01	1.005E+02	9.140E+00	-0.520
	+	122.32		1.580E+03	7.901E+02	1.005E+03	9.846E+01	1.573
		144.24		-1.140E+02	1.741E+02	2.859E+02	2.799E+01	-0.399
		154.21		2.855E+01	9.419E+01	1.619E+02	1.550E+01	0.176
		269.46		1.909E+01	4.991E+01	8.439E+01	7.714E+00	0.226
		323.87	*	1.135E+02	1.864E+02	3.164E+02	5.631E+01	0.359
		338.28		2.580E+02	2.476E+02	4.332E+02	5.361E+01	0.596
		445.03		-1.241E+02	7.302E+02	1.160E+03	1.381E+02	-0.107
PO-216		74.81		-1.103E+02	1.113E+02	1.684E+02	2.130E+01	-0.655
		77.11		7.083E+01	5.969E+01	1.016E+02	8.802E+00	0.697
	+	87.30		1.461E+03	2.823E+02	3.188E+02	4.382E+01	4.581
		115.19		-5.815E+02	1.059E+03	1.624E+03	1.465E+02	-0.358
		238.63	*	7.255E-01	1.543E+01	2.586E+01	2.584E+00	0.028
		300.09		-1.177E+01	1.878E+02	3.037E+02	3.242E+01	-0.039
PO-218		74.81		-1.892E+02	1.907E+02	2.891E+02	3.263E+01	-0.655
		77.11		1.210E+02	1.023E+02	1.735E+02	2.002E+01	0.697
	+	87.30		2.493E+03	4.548E+02	5.441E+02	6.626E+01	4.581
		241.98		-3.790E+01	8.961E+01	1.441E+02	1.520E+01	-0.263
		295.21		-2.093E+00	3.557E+01	5.793E+01	6.315E+00	-0.036
		351.92	*	6.653E-01	1.879E+01	3.092E+01	3.227E+00	0.022
RN-219		271.23		7.542E+00	6.348E+01	1.056E+02	1.120E+01	0.071
		401.81	*	5.248E+01	1.141E+02	1.913E+02	2.829E+01	0.274
RN-220		549.76	*	-1.609E+03	6.066E+03	9.928E+03	8.383E+02	-0.162
RA-223		81.07		-3.618E+01	6.325E+01	9.833E+01	8.784E+00	-0.368
		83.78		-4.141E+00	4.086E+01	5.838E+01	5.335E+00	-0.071
		94.90		-5.227E+01	6.647E+01	1.005E+02	9.140E+00	-0.520
	+	122.32		1.580E+03	7.901E+02	1.005E+03	9.846E+01	1.573
		144.24		-1.140E+02	1.741E+02	2.859E+02	2.799E+01	-0.399
		154.21		2.855E+01	9.419E+01	1.619E+02	1.550E+01	0.176
		269.46		1.909E+01	4.991E+01	8.439E+01	7.714E+00	0.226
		323.87	*	1.135E+02	1.864E+02	3.164E+02	5.631E+01	0.359
		338.28		2.580E+02	2.476E+02	4.332E+02	5.361E+01	0.596
		445.03		-1.241E+02	7.302E+02	1.160E+03	1.381E+02	-0.107
RA-224		240.98	*	5.834E+00	1.728E+02	2.862E+02	2.557E+01	0.020
RA-226		186.21	*	-7.778E+01	2.088E+02	3.408E+02	2.511E+02	-0.228
AC-227		79.80		-4.757E+02	5.092E+02	7.602E+02	1.642E+02	-0.626
		236.00		2.855E+00	5.829E+01	9.713E+01	1.210E+01	0.029
		256.20	*	-5.349E+01	1.067E+02	1.705E+02	2.650E+01	-0.314
		286.10		1.907E+02	4.204E+02	7.124E+02	9.562E+01	0.268
		299.80		-1.550E+02	3.604E+02	5.657E+02	9.977E+01	-0.274
		304.40		-2.753E+02	4.975E+02	7.795E+02	1.448E+02	-0.353
		329.70		-1.011E+02	2.283E+02	3.596E+02	5.069E+01	-0.281
		334.20		5.478E+01	5.877E+02	9.675E+02	1.883E+02	0.057
PA-227		64.62	*	-1.000E+35	5.877E+02	Half-Life too short		
		110.05		-1.000E+35	5.877E+02	Half-Life too short		
TH-227		79.80		-4.757E+02	5.095E+02	7.602E+02	1.662E+02	-0.626
		94.00		2.737E+02	5.604E+02	8.731E+02	1.920E+02	0.314

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		236.00		2.855E+00	5.829E+01	9.713E+01	1.099E+01	0.029
		256.20	*	-5.349E+01	1.068E+02	1.705E+02	3.108E+01	-0.314
		286.10		1.907E+02	4.613E+02	7.124E+02	7.152E+02	0.268
		299.80		-1.550E+02	3.604E+02	5.657E+02	9.977E+01	-0.274
		304.40		-2.753E+02	4.975E+02	7.795E+02	1.448E+02	-0.353
		329.70		-1.011E+02	2.283E+02	3.596E+02	5.069E+01	-0.281
		334.20		5.478E+01	5.877E+02	9.675E+02	1.883E+02	0.057
AC-228		338.32		6.205E+01	6.422E+01	1.039E+02	4.290E+01	0.597
		911.07	*	-3.717E+01	4.400E+01	6.682E+01	7.625E+00	-0.556
		969.11		-1.916E+01	6.890E+01	1.093E+02	2.559E+01	-0.175
RA-228		338.32		6.205E+01	6.422E+01	1.039E+02	4.290E+01	0.597
		911.07	*	-3.717E+01	4.400E+01	6.682E+01	7.625E+00	-0.556
		969.11		-1.916E+01	6.890E+01	1.093E+02	2.559E+01	-0.175
TH-228		74.81		-1.103E+02	1.108E+02	1.684E+02	1.447E+01	-0.655
		77.11		7.083E+01	5.969E+01	1.016E+02	8.802E+00	0.697
	+	87.30		1.461E+03	2.416E+02	3.188E+02	3.006E+01	4.581
		238.63	*	7.255E-01	1.543E+01	2.586E+01	2.584E+00	0.028
		300.09		-1.177E+01	1.879E+02	3.037E+02	1.802E+02	-0.039
TH-229		85.43		4.896E+01	5.925E+01	9.005E+01	8.348E+00	0.544
	+	88.47		4.295E+02	7.103E+01	9.181E+01	8.677E+00	4.679
		100.00		-1.032E+01	5.213E+01	8.144E+01	7.291E+00	-0.127
		193.63	*	-5.417E+01	1.324E+02	2.166E+02	1.900E+01	-0.250
		210.97		-2.178E+02	1.976E+02	3.073E+02	2.717E+01	-0.709
TH-230		67.67	*	2.615E+03	1.739E+04	6.435E+03	4.174E+04	0.406
PA-231		283.67	*	-7.460E+01	4.025E+02	6.542E+02	1.006E+02	-0.114
		301.29		-5.206E+01	1.430E+02	2.258E+02	2.812E+01	-0.231
		330.00		-2.577E+02	5.159E+02	7.995E+02	2.558E+02	-0.322
TH-231		84.21	*	3.517E+01	1.527E+02	2.234E+02	4.047E+01	0.157
U-231		84.21		6.097E+01	2.645E+02	3.873E+02	3.552E+01	0.157
		92.29		-6.899E+01	9.297E+01	1.390E+02	1.280E+01	-0.496
		95.87	*	-2.094E+01	4.938E+01	7.651E+01	6.930E+00	-0.274
		108.00		-7.515E-01	9.009E+01	1.435E+02	1.279E+01	-0.005
PA-233		75.28		-3.057E+02	9.051E+02	1.430E+03	2.188E+02	-0.214
	+	86.59		6.159E+03	1.866E+03	1.195E+03	3.234E+02	5.155
		300.12		-6.059E+00	9.667E+01	1.563E+02	2.352E+01	-0.039
		311.98	*	5.817E+00	1.760E+01	2.955E+01	2.692E+00	0.197
		340.50		-4.600E+01	1.493E+02	2.371E+02	5.658E+01	-0.194
		398.62		-6.335E+01	5.602E+02	8.982E+02	2.380E+02	-0.071
		415.76		-3.875E+02	4.892E+02	7.186E+02	1.539E+02	-0.539
PA-234		63.00		-6.565E+02	6.198E+02	8.468E+02	1.274E+02	-0.775
		94.67		-3.968E+01	4.861E+01	7.324E+01	9.333E+00	-0.542
		98.44		-3.962E-02	2.594E+01	4.109E+01	2.295E+01	-0.001
		99.86		-3.251E+01	1.317E+02	2.050E+02	1.836E+01	-0.159
		111.00		-2.689E+01	5.373E+01	8.265E+01	1.018E+01	-0.325
		131.20		3.906E+00	3.014E+01	4.806E+01	4.312E+00	0.081
		152.70		-1.071E+02	8.086E+01	1.226E+02	2.098E+01	-0.873
		186.00		-1.418E+02	3.295E+02	5.532E+02	1.729E+02	-0.256
		226.40		6.403E+01	1.063E+02	1.826E+02	2.444E+01	0.351
		227.20		-2.053E+01	1.185E+02	1.952E+02	1.737E+01	-0.105

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		248.90		-1.032E+01	2.272E+02	3.756E+02	8.468E+01	-0.027
		293.70		5.597E+01	1.726E+02	2.898E+02	5.059E+01	0.193
		369.80		2.356E+02	2.391E+02	4.100E+02	8.897E+01	0.575
		568.70		-7.047E+01	2.514E+02	4.110E+02	3.458E+01	-0.171
		569.50		-2.253E+01	6.710E+01	1.090E+02	9.170E+00	-0.207
		574.00		-4.238E+02	3.415E+02	4.916E+02	4.131E+01	-0.862
		699.00		-1.466E+01	1.879E+02	2.922E+02	5.525E+01	-0.050
		706.10		-3.594E+01	2.448E+02	3.986E+02	1.775E+02	-0.090
		733.00		4.844E+01	9.732E+01	1.683E+02	3.719E+01	0.288
		742.81		8.149E+01	3.093E+02	5.197E+02	3.492E+02	0.157
		796.30		-2.353E+02	2.567E+02	3.685E+02	9.964E+01	-0.639
		805.60		8.743E+01	2.763E+02	4.673E+02	1.432E+02	0.187
		819.60		3.909E+01	3.487E+02	5.794E+02	2.204E+02	0.067
		826.30		-8.541E+01	2.331E+02	3.623E+02	1.621E+02	-0.236
		831.60		3.618E+01	1.667E+02	2.795E+02	8.348E+01	0.129
		876.40		6.734E+01	2.814E+02	4.568E+02	4.696E+02	0.147
		880.51		-8.487E-01	9.376E+01	1.532E+02	1.348E+01	-0.006
		883.24		-2.909E+01	9.532E+01	1.479E+02	9.944E+01	-0.197
		899.00		1.486E+02	2.580E+02	4.326E+02	1.893E+02	0.343
		925.00		1.119E+02	3.763E+02	6.315E+02	5.584E+01	0.177
		926.50		-1.291E+01	5.598E+01	8.895E+01	2.255E+01	-0.145
		946.00	*	5.893E+01	9.494E+01	1.631E+02	3.077E+01	0.361
		949.00		1.867E-02	1.406E+02	2.289E+02	2.024E+01	0.000
		980.50		8.600E+01	2.102E+02	3.569E+02	3.153E+01	0.241
		1394.10		3.216E+01	1.760E+02	3.041E+02	1.978E+02	0.106
PA-234M		766.42		-2.789E+02	2.529E+03	4.112E+03	2.086E+03	-0.068
		1001.03	*	-1.820E+02	1.421E+03	2.317E+03	2.349E+02	-0.079
TH-234		63.29	*	-5.216E+02	5.269E+02	7.217E+02	1.271E+02	-0.723
		92.38		-1.129E+02	1.578E+02	2.348E+02	4.312E+01	-0.481
U-234		53.20	*	-5.333E+03	6.392E+04	5.702E+04	5.702E+05	-0.094
U-235		89.95		5.327E+02	4.256E+02	6.068E+02	1.885E+02	0.878
		93.35		-8.155E+01	1.899E+02	2.880E+02	8.120E+01	-0.283
		105.00		-1.326E+02	3.082E+02	4.755E+02	1.423E+02	-0.279
		143.76	*	-1.644E+01	5.352E+01	8.960E+01	1.576E+01	-0.183
		163.35		-1.376E+02	1.270E+02	1.972E+02	3.771E+01	-0.698
		185.71		-8.335E+00	1.207E+01	2.014E+01	1.762E+00	-0.414
		205.31		-5.117E+01	1.376E+02	2.247E+02	4.307E+01	-0.228
NP-236		94.67		-2.996E+01	3.678E+01	5.558E+01	5.059E+00	-0.539
		98.44		-2.214E-02	1.961E+01	3.106E+01	2.791E+00	-0.001
		111.00		-2.034E+01	4.060E+01	6.252E+01	5.592E+00	-0.325
		160.31	*	1.114E+00	2.050E+01	3.470E+01	3.024E+00	0.032
U-238		63.29	*	-5.216E+02	5.269E+02	7.217E+02	1.271E+02	-0.723
		92.38		-1.129E+02	1.567E+02	2.348E+02	2.161E+01	-0.481
NP-239		99.55		-2.686E+01	4.485E+01	6.815E+01	6.106E+00	-0.394
		117.00	*	-2.597E+01	5.707E+01	8.802E+01	7.977E+00	-0.295
		209.75		2.628E+01	1.973E+02	3.308E+02	2.923E+01	0.079
		228.18		-4.189E+01	6.167E+01	9.834E+01	8.753E+00	-0.426
		277.60		1.302E+01	4.572E+01	7.686E+01	6.890E+00	0.169
		334.30		4.364E+01	3.339E+02	5.514E+02	4.820E+01	0.079

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AM-243		74.67	*	-1.981E+01	1.807E+01	2.729E+01	2.322E+00	-0.726
	+	86.72		3.464E+04	5.729E+03	7.037E+03	6.599E+02	4.923
		117.66		-7.080E+00	1.208E+03	1.823E+03	1.655E+02	-0.004
		142.18		-1.300E+03	4.383E+03	7.308E+03	6.437E+02	-0.178
CM-243		99.55		-2.762E+01	4.612E+01	7.007E+01	6.279E+00	-0.394
		103.76	*	-2.948E+00	2.717E+01	4.304E+01	3.836E+00	-0.068
		117.00		-2.670E+01	5.867E+01	9.049E+01	8.200E+00	-0.295
		209.75		2.589E+01	1.943E+02	3.259E+02	2.879E+01	0.079
		228.18		-4.229E+01	6.227E+01	9.929E+01	8.837E+00	-0.426
		277.60		1.311E+01	4.605E+01	7.743E+01	6.941E+00	0.169
AM-246		798.80		1.579E+01	3.783E+01	6.488E+01	5.576E+00	0.243
		1036.00		4.732E+01	8.982E+01	1.536E+02	1.349E+01	0.308
		1062.04		1.395E+00	6.631E+01	1.074E+02	9.388E+00	0.013
		1078.86	*	-9.690E+00	4.028E+01	6.308E+01	5.497E+00	-0.154
CM-247		278.00		-4.341E+00	1.893E+02	3.118E+02	2.795E+01	-0.014
		287.40		-3.625E+01	3.396E+02	5.553E+02	4.971E+01	-0.065
		402.60	*	4.416E-01	1.056E+01	1.716E+01	1.408E+00	0.026
CF-249		252.85		1.221E+02	2.436E+02	4.155E+02	3.722E+01	0.294
		333.44		6.531E+00	4.292E+01	7.101E+01	6.211E+00	0.092
		387.95	*	3.821E-01	1.080E+01	1.757E+01	1.441E+00	0.022
CF-251		176.60	*	-1.649E+01	3.232E+01	5.272E+01	4.600E+00	-0.313
		227.00		-2.590E+00	1.047E+02	1.741E+02	1.549E+01	-0.015
		285.00		4.291E+01	4.660E+02	7.727E+02	6.920E+01	0.056
ANH-511		511.00	*	-2.602E+00	9.841E+00	1.750E+01	1.481E+00	-0.149

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202050276      *
* Acquisition date : 25-FEB-2010 20:33:53 Detector SN#    :                 *
* Detector ID      : GAM01                Sensitivity     : 5.000          *
* Geometry         : 2LMB                 Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:00.68     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 22-FEB-2010 00:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G1202050276          Analyst initials: KXG3            *
* Batch Number     : 956162               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 13-JAN-2010 08:32:29 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
CO-57	2.221E+01	1.086E+01	1.251E+01	0.000E+00
CO-60	5.173E+02	5.610E+01	8.751E+00	0.000E+00
CD-109	3.147E+03	5.101E+02	3.617E+02	0.000E+00
SN-126	3.146E+02	5.099E+01	3.640E+01	0.000E+00
BA-137M	4.548E+02	4.777E+01	1.399E+01	0.000E+00
CS-137	4.807E+02	5.056E+01	1.479E+01	0.000E+00
TH-232	2.653E+05	2.737E+06	2.192E+04	0.000E+00
NP-237	9.238E+02	2.394E+02	1.093E+02	0.000E+00
PU-237	1.631E+04	2.081E+03	1.303E+03	0.000E+00
AM-241	1.404E+03	1.850E+02	1.122E+02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	7.546E+01	7.988E+01	1.408E+02	0.000E+00	NOT IDENT.
NA-22	-2.773E+00	5.935E+00	9.018E+00	0.000E+00	NOT IDENT.
NA-24	-3.264E+01	3.545E+02	5.849E+02	0.000E+00	NOT IDENT.
AL-26	-1.057E+00	4.823E+00	7.317E+00	0.000E+00	NOT IDENT.
K-40	-2.438E+01	6.169E+01	1.030E+02	0.000E+00	NOT IDENT.
TI-44	3.178E+00	1.052E+01	1.756E+01	0.000E+00	NOT IDENT.
SC-46	-1.008E-01	1.152E+01	1.920E+01	0.000E+00	NOT IDENT.
V-48	-1.128E+01	1.286E+01	1.912E+01	0.000E+00	NOT IDENT.
CR-51	-2.895E+01	7.603E+01	1.235E+02	0.000E+00	NOT IDENT.
MN-52	-2.337E+00	6.849E+00	1.012E+01	0.000E+00	FAIL ABUN
MN-54	1.081E+01	9.123E+00	1.706E+01	0.000E+00	NOT IDENT.
CO-56	-4.345E-01	9.343E+00	1.555E+01	0.000E+00	FAIL ABUN
CO-58	-2.282E+00	8.227E+00	1.333E+01	0.000E+00	NOT IDENT.
FE-59	-7.895E+00	2.244E+01	3.541E+01	0.000E+00	NOT IDENT.
ZN-65	3.976E+00	2.207E+01	3.703E+01	0.000E+00	NOT IDENT.
GE-68	5.293E+01	3.276E+02	5.497E+02	0.000E+00	NOT IDENT.
AS-73	-9.222E+01	4.299E+02	6.735E+02	0.000E+00	NOT IDENT.

AS-74	5.301E+00	1.456E+01	2.571E+01	0.000E+00	NOT IDENT.
SE-75	-9.878E-01	1.146E+01	1.924E+01	0.000E+00	NOT IDENT.
BR-77	1.700E+01	1.121E+02	1.850E+02	0.000E+00	FAIL ABUN
SR-82	-1.034E+01	7.424E+01	1.231E+02	0.000E+00	NOT IDENT.
RB-83	3.894E+00	1.826E+01	3.031E+01	0.000E+00	NOT IDENT.
RB-84	6.354E+00	1.703E+01	2.943E+01	0.000E+00	NOT IDENT.
KR-85	-3.780E+03	2.257E+03	3.128E+03	0.000E+00	NOT IDENT.
SR-85	-1.721E+01	1.028E+01	1.424E+01	0.000E+00	NOT IDENT.
RB-86	-1.553E+01	1.422E+02	2.311E+02	0.000E+00	NOT IDENT.
Y-88	-4.073E+00	6.042E+00	7.597E+00	0.000E+00	NOT IDENT.
ZR-88	-3.660E+00	7.242E+00	1.144E+01	0.000E+00	NOT IDENT.
Y-91	-2.618E+03	2.702E+03	3.842E+03	0.000E+00	NOT IDENT.
NB-94	3.793E+00	7.526E+00	1.341E+01	0.000E+00	NOT IDENT.
NB-95	-1.722E+00	8.353E+00	1.372E+01	0.000E+00	NOT IDENT.
NB-95M	6.564E+00	2.684E+01	4.614E+01	0.000E+00	NOT IDENT.
ZR-95	3.185E+00	1.548E+01	2.665E+01	0.000E+00	NOT IDENT.
NB-97	-2.945E+01	3.840E+02	5.602E+02	0.000E+00	NOT IDENT.
ZR-97	-1.114E+04	8.122E+03	1.163E+04	0.000E+00	NOT IDENT.
MO-99	-1.196E+02	1.586E+02	2.419E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.760E+05	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.828E+00	8.595E+00	1.483E+01	0.000E+00	NOT IDENT.
RH-102	-3.873E+00	8.447E+00	1.325E+01	0.000E+00	NOT IDENT.
RU-103	-6.980E+00	9.252E+00	1.390E+01	0.000E+00	NOT IDENT.
RH-106	-7.976E+01	7.841E+01	1.188E+02	0.000E+00	NOT IDENT.
RU-106	-7.976E+01	7.800E+01	1.188E+02	0.000E+00	NOT IDENT.
AG-108M	-6.579E+00	1.034E+01	1.614E+01	0.000E+00	NOT IDENT.
AG-110M	-1.489E+00	8.790E+00	1.263E+01	0.000E+00	NOT IDENT.
IN-111	-4.852E+00	1.786E+01	2.974E+01	0.000E+00	NOT IDENT.
IN-113M	5.373E+00	1.025E+01	1.772E+01	0.000E+00	NOT IDENT.
SN-113	5.373E+00	1.025E+01	1.772E+01	0.000E+00	NOT IDENT.
IN-114M	6.310E+00	4.175E+01	7.197E+01	0.000E+00	NOT IDENT.
CD-115	-2.746E+01	8.085E+01	1.348E+02	0.000E+00	NOT IDENT.
SN-117M	-2.255E+00	7.822E+00	1.327E+01	0.000E+00	NOT IDENT.
SB-122	2.583E+01	2.853E+01	5.256E+01	0.000E+00	NOT IDENT.
I-123	-1.163E+02	9.083E+02	1.554E+03	0.000E+00	NOT IDENT.
TE-123M	-8.671E-01	6.772E+00	1.159E+01	0.000E+00	NOT IDENT.
I-124	1.405E+01	2.590E+01	4.625E+01	0.000E+00	NOT IDENT.
SB-124	1.289E+01	1.323E+01	2.732E+01	0.000E+00	NOT IDENT.
SB-125	-1.347E+01	2.674E+01	4.216E+01	0.000E+00	NOT IDENT.
TE-125M	4.238E+01	2.249E+03	3.659E+03	0.000E+00	NOT IDENT.
I-126	7.562E+00	2.660E+01	4.087E+01	0.000E+00	NOT IDENT.
SB-126	-2.268E+00	1.916E+01	3.199E+01	0.000E+00	NOT IDENT.
SB-127	2.512E+01	4.188E+01	7.536E+01	0.000E+00	NOT IDENT.
XE-127	8.650E-01	9.568E+00	1.641E+01	0.000E+00	NOT IDENT.
I-131	2.324E+00	1.161E+01	1.959E+01	0.000E+00	NOT IDENT.
TE-132	-1.168E+01	1.681E+01	2.727E+01	0.000E+00	NOT IDENT.
BA-133	4.061E+00	1.161E+01	1.980E+01	0.000E+00	NOT IDENT.
I-133	5.799E+01	1.782E+02	3.151E+02	0.000E+00	NOT IDENT.
CS-134	-8.848E+00	1.223E+01	1.897E+01	0.000E+00	NOT IDENT.
CS-135	-1.349E+00	4.199E+01	7.065E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.804E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.203E+01	1.813E+01	3.190E+01	0.000E+00	NOT IDENT.
CE-139	2.902E+00	7.155E+00	1.256E+01	0.000E+00	NOT IDENT.
BA-140	2.198E+01	3.391E+01	6.042E+01	0.000E+00	NOT IDENT.
LA-140	-2.006E-02	7.955E+00	1.333E+01	0.000E+00	NOT IDENT.
CE-141	-6.440E+00	1.260E+01	2.130E+01	0.000E+00	NOT IDENT.
CE-143	-6.342E+00	1.132E+02	1.893E+02	0.000E+00	NOT IDENT.
CE-144	-1.335E+01	5.697E+01	9.050E+01	0.000E+00	NOT IDENT.
PM-144	-7.434E+00	9.078E+00	1.330E+01	0.000E+00	NOT IDENT.
PR-144	-5.008E+02	6.115E+02	8.957E+02	0.000E+00	NOT IDENT.
PM-146	-7.581E+00	1.222E+01	1.889E+01	0.000E+00	NOT IDENT.
ND-147	6.492E+00	6.477E+01	1.124E+02	0.000E+00	NOT IDENT.
PM-149	3.509E+02	7.152E+02	1.238E+03	0.000E+00	NOT IDENT.
EU-152	3.597E+00	2.367E+01	3.992E+01	0.000E+00	FAIL ABUN
GD-153	2.730E+00	2.143E+01	3.494E+01	0.000E+00	NOT IDENT.
EU-154	-1.192E+01	1.743E+01	2.503E+01	0.000E+00	FAIL ABUN
EU-155	-3.184E+00	2.993E+01	4.851E+01	0.000E+00	FAIL ABUN
TB-160	2.203E+00	4.078E+01	6.841E+01	0.000E+00	FAIL ABUN
HO-166M	-1.532E+00	1.468E+01	2.456E+01	0.000E+00	NOT IDENT.
TM-171	6.734E+03	9.146E+03	1.566E+04	0.000E+00	FAIL ABUN
HF-175	-7.630E+00	8.130E+00	1.246E+01	0.000E+00	FAIL ABUN
LU-176	3.554E+00	6.666E+00	1.157E+01	0.000E+00	FAIL ABUN
LU-177	3.182E+01	8.450E+01	1.464E+02	0.000E+00	NOT IDENT.
LU-177M	3.416E+01	4.621E+01	8.061E+01	0.000E+00	FAIL ABUN
HF-181	-1.578E+01	1.082E+01	1.522E+01	0.000E+00	NOT IDENT.
W-181	-1.602E+01	1.159E+02	1.901E+02	0.000E+00	NOT IDENT.
TA-182	-1.934E+01	2.717E+01	4.030E+01	0.000E+00	NOT IDENT.
RE-183	-1.446E+00	2.427E+01	4.165E+01	0.000E+00	FAIL ABUN

RE-184	3.107E+01	6.074E+01	1.057E+02	0.000E+00	FAIL ABUN
OS-185	4.689E+00	9.058E+00	1.623E+01	0.000E+00	FAIL ABUN
RE-188	3.360E+01	3.652E+01	6.589E+01	0.000E+00	NOT IDENT.
W-188	3.272E+02	1.753E+03	2.980E+03	0.000E+00	NOT IDENT.
IR-192	-3.092E+00	8.238E+00	1.339E+01	0.000E+00	NOT IDENT.
AU-195	-2.875E+01	6.065E+01	9.501E+01	0.000E+00	NOT IDENT.
TL-200	-6.646E+01	9.501E+01	1.486E+02	0.000E+00	NOT IDENT.
TL-201	5.789E+01	1.406E+02	2.450E+02	0.000E+00	NOT IDENT.
TL-202	1.294E+00	1.047E+01	1.739E+01	0.000E+00	NOT IDENT.
HG-203	1.385E+00	8.574E+00	1.459E+01	0.000E+00	NOT IDENT.
BI-207	-6.578E-01	1.533E+01	2.515E+01	0.000E+00	NOT IDENT.
TL-207	1.135E+02	1.827E+02	3.164E+02	0.000E+00	FAIL ABUN
TL-208	-4.509E+00	9.166E+00	1.538E+01	0.000E+00	NOT IDENT.
PO-209	2.910E+02	2.334E+03	3.938E+03	0.000E+00	NOT IDENT.
BI-210	-8.830E+02	1.770E+03	2.876E+03	0.000E+00	NOT IDENT.
PB-210	-8.830E+02	1.770E+03	2.876E+03	0.000E+00	NOT IDENT.
PO-210	-8.830E+02	1.770E+03	2.876E+03	0.000E+00	NOT IDENT.
BI-211	-9.352E+00	5.485E+01	9.063E+01	0.000E+00	NOT IDENT.
PB-211	5.924E+01	2.531E+02	4.218E+02	0.000E+00	NOT IDENT.
BI-212	-5.939E+01	7.000E+01	1.070E+02	0.000E+00	NOT IDENT.
PB-212	7.255E-01	1.512E+01	2.586E+01	0.000E+00	FAIL ABUN
PO-212	7.255E-01	1.512E+01	2.586E+01	0.000E+00	FAIL ABUN
BI-214	-1.213E+01	1.780E+01	2.899E+01	0.000E+00	NOT IDENT.
PB-214	6.653E-01	1.842E+01	3.092E+01	0.000E+00	FAIL ABUN
PO-214	6.653E-01	1.842E+01	3.092E+01	0.000E+00	FAIL ABUN
PO-215	1.135E+02	1.827E+02	3.164E+02	0.000E+00	FAIL ABUN
PO-216	7.255E-01	1.512E+01	2.586E+01	0.000E+00	FAIL ABUN
PO-218	6.653E-01	1.842E+01	3.092E+01	0.000E+00	FAIL ABUN
RN-219	5.248E+01	1.118E+02	1.913E+02	0.000E+00	NOT IDENT.
RN-220	-1.609E+03	5.945E+03	9.928E+03	0.000E+00	NOT IDENT.
RA-223	1.135E+02	1.827E+02	3.164E+02	0.000E+00	FAIL ABUN
RA-224	5.834E+00	1.694E+02	2.862E+02	0.000E+00	NOT IDENT.
RA-226	-7.778E+01	2.046E+02	3.408E+02	0.000E+00	NOT IDENT.
AC-227	-5.349E+01	1.045E+02	1.705E+02	0.000E+00	NOT IDENT.
PA-227	0.000E+00	8.938E+40	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-5.349E+01	1.046E+02	1.705E+02	0.000E+00	NOT IDENT.
AC-228	-3.717E+01	4.312E+01	6.682E+01	0.000E+00	NOT IDENT.
RA-228	-3.717E+01	4.312E+01	6.682E+01	0.000E+00	NOT IDENT.
TH-228	7.255E-01	1.512E+01	2.586E+01	0.000E+00	FAIL ABUN
TH-229	-5.417E+01	1.297E+02	2.166E+02	0.000E+00	FAIL ABUN
TH-230	2.615E+03	1.705E+04	6.435E+03	0.000E+00	NOT IDENT.
PA-231	-7.460E+01	3.944E+02	6.542E+02	0.000E+00	NOT IDENT.
TH-231	3.517E+01	1.496E+02	2.234E+02	0.000E+00	NOT IDENT.
U-231	-2.094E+01	4.839E+01	7.651E+01	0.000E+00	NOT IDENT.
PA-233	5.817E+00	1.725E+01	2.955E+01	0.000E+00	FAIL ABUN
PA-234	5.893E+01	9.304E+01	1.631E+02	0.000E+00	NOT IDENT.
PA-234M	-1.820E+02	1.392E+03	2.317E+03	0.000E+00	NOT IDENT.
TH-234	-5.216E+02	5.164E+02	7.217E+02	0.000E+00	NOT IDENT.
U-234	-5.333E+03	6.264E+04	5.702E+04	0.000E+00	NOT IDENT.
U-235	-1.644E+01	5.245E+01	8.960E+01	0.000E+00	NOT IDENT.
NP-236	1.114E+00	2.009E+01	3.470E+01	0.000E+00	NOT IDENT.
U-238	-5.216E+02	5.164E+02	7.217E+02	0.000E+00	NOT IDENT.
NP-239	-2.597E+01	5.593E+01	8.802E+01	0.000E+00	NOT IDENT.
AM-243	-1.981E+01	1.771E+01	2.729E+01	0.000E+00	FAIL ABUN
CM-243	-2.948E+00	2.663E+01	4.304E+01	0.000E+00	NOT IDENT.
AM-246	-9.690E+00	3.948E+01	6.308E+01	0.000E+00	NOT IDENT.
CM-247	4.416E-01	1.035E+01	1.716E+01	0.000E+00	NOT IDENT.
CF-249	3.821E-01	1.058E+01	1.757E+01	0.000E+00	NOT IDENT.
CF-251	-1.649E+01	3.167E+01	5.272E+01	0.000E+00	NOT IDENT.
ANH-511	-2.602E+00	9.644E+00	1.750E+01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 1-MAR-2010 08:39:24.51

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202050276.CNF;2
Sample date       : 22-FEB-2010 00:00:00 Acquisition date : 25-FEB-2010 20:33:53
Sample ID         : G1202050276          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM01                Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:00.68  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 956162               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.44	920	395	1.07	119.61	114	11	2.56E-01	5.4	
2	0	88.00	546	218	1.18	176.69	172	11	1.52E-01	6.8	
3	0	92.50	57	116	1.47	185.70	183	6	1.58E-02	32.7	
4	0	122.70	112	183	1.02	246.07	242	10	3.12E-02	24.5	
5	0	511.17	78	88	1.49	1022.56	1015	16	2.17E-02	29.2	
6	0	662.05	966	48	1.36	1324.13	1318	12	2.68E-01	3.5	
7	0	1173.62	744	23	1.64	2346.56	2341	15	2.07E-01	4.0	
8	0	1332.97	702	0	1.73	2665.01	2659	16	1.95E-01	3.8	

VAX/VMS Nuclide Identification Report Generated 1-MAR-2010 08:39:29.95

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202050276.CNF;2
Sample date       : 22-FEB-2010 00:00:00 Acquisition date : 25-FEB-2010 20:33:53
Sample ID         : G1202050276          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM01                Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:00.68  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 956162                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
CO-57	122.06	112	85.51*	2.241E+00	2.199E+01	2.221E+01	49.88
	136.48	------	10.60	2.265E+00	------ Line Not Found		------
CO-60	1173.22	744	100.00	5.632E-01	4.957E+02	4.964E+02	11.59
	1332.49	702	100.00*	5.101E-01	5.166E+02	5.173E+02	11.07
CD-109	88.03	546	3.72*	1.762E+00	3.129E+03	3.147E+03	16.54
SN-126	64.28	------	9.60	8.947E-01	------ Line Not Found		------
	86.94	546	8.90	1.762E+00	1.308E+03	1.308E+03	43.70
	87.57	546	37.00*	1.762E+00	3.146E+02	3.146E+02	16.54
BA-137M	661.65	966	89.98*	8.863E-01	4.547E+02	4.548E+02	10.72
CS-137	661.65	966	85.12*	8.863E-01	4.806E+02	4.807E+02	10.73
TH-232	59.00	920	0.19*	6.852E-01	2.653E+05	2.653E+05	1052.71
NP-237	86.50	546	12.60*	1.762E+00	9.238E+02	9.238E+02	26.44
	95.87	------	2.60	1.945E+00	------ Line Not Found		------
PU-237	59.54	920	3.28*	6.852E-01	1.537E+04	1.631E+04	13.02
AM-241	59.54	920	35.90*	6.852E-01	1.404E+03	1.404E+03	13.44

Flag: "*" = Keyline

Sample ID : G1202050276 Acquisition date : 25-FEB-2010 20:33:53

Total number of lines in spectrum 6
Number of unidentified lines 0
Number of lines tentatively identified by NID 6 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	270.90D	1.01	2.199E+01	2.221E+01	1.108E+01	49.88	
CO-60	5.27Y	1.00	5.166E+02	5.173E+02	0.572E+02	11.07	
CD-109	464.00D	1.01	3.129E+03	3.147E+03	0.520E+03	16.54	
SN-126	1.00E+05Y	1.00	3.146E+02	3.146E+02	0.520E+02	16.54	
BA-137M	30.17Y	1.00	4.547E+02	4.548E+02	0.487E+02	10.72	
CS-137	30.17Y	1.00	4.806E+02	4.807E+02	0.516E+02	10.73	
TH-232	1.41E+10Y	1.00	2.653E+05	2.653E+05	27.93E+05	1052.71	
NP-237	2.14E+06Y	1.00	9.238E+02	9.238E+02	2.443E+02	26.44	
PU-237	45.20D	1.06	1.537E+04	1.631E+04	0.212E+04	13.02	
AM-241	432.20Y	1.00	1.404E+03	1.404E+03	0.189E+03	13.44	
	Total Activity :		2.879E+05	2.889E+05			
	Grand Total Activity :		2.879E+05	2.889E+05			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

None

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 1-MAR-2010 08:39:35.33

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202050276.CNF;2 *
* Acquisition date : 25-FEB-2010 20:33:53  Detector SN#    :                *
* Detector ID      : GAM01                 Sensitivity     : 5.00000        *
* Geometry         : 2LMB                  Energy tolerance: 1.50000        *
* Elapsed live time: 0 01:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 01:00:00.68         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 22-FEB-2010 00:00:00  Nuclide Library : LIQUID         *
* Sample ID        : G1202050276           Analyst initials: KXG3           *
* Batch Number     : 956162                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 13-JAN-2010 08:32:29.5MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-57	2.221E+01	1.108E+01	1.251E+01	1.153E+00	1.776
CO-60	5.173E+02	5.725E+01	8.751E+00	7.079E-01	59.119
CD-109	3.147E+03	5.205E+02	3.617E+02	3.431E+01	8.700
SN-126	3.146E+02	5.203E+01	3.640E+01	3.440E+00	8.642
BA-137M	4.548E+02	4.875E+01	1.399E+01	1.130E+00	32.512
CS-137	4.807E+02	5.159E+01	1.479E+01	1.197E+00	32.512
TH-232	2.653E+05	2.793E+06	2.192E+04	2.307E+05	12.105
NP-237	9.238E+02	2.443E+02	1.093E+02	2.477E+01	8.452
PU-237	1.631E+04	2.123E+03	1.303E+03	9.650E+01	12.517
AM-241	1.404E+03	1.887E+02	1.122E+02	9.115E+00	12.517

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	7.546E+01		8.151E+01	1.408E+02	1.283E+01	0.536
NA-22	-2.773E+00		6.056E+00	9.018E+00	7.460E-01	-0.307

Sample ID : G1202050276 Acquisition date : 25-FEB-2010 20:33:53

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NA-24	-3.264E+01		3.618E+02	5.849E+02	4.950E+01	-0.056
AL-26	-1.057E+00		4.921E+00	7.317E+00	6.021E-01	-0.144
K-40	-2.438E+01		6.294E+01	1.030E+02	8.765E+00	-0.237
TI-44	3.178E+00		1.074E+01	1.756E+01	1.535E+00	0.181
SC-46	-1.008E-01		1.176E+01	1.920E+01	1.693E+00	-0.005
V-48	-1.128E+01		1.312E+01	1.912E+01	1.689E+00	-0.590
CR-51	-2.895E+01		7.758E+01	1.235E+02	1.146E+01	-0.234
MN-52	-2.337E+00		6.989E+00	1.012E+01	8.332E-01	-0.231
MN-54	1.081E+01		9.309E+00	1.706E+01	1.484E+00	0.634
CO-56	-4.345E-01		9.534E+00	1.555E+01	1.357E+00	-0.028
CO-58	-2.282E+00		8.395E+00	1.333E+01	1.153E+00	-0.171
FE-59	-7.895E+00		2.289E+01	3.541E+01	3.317E+00	-0.223
ZN-65	3.976E+00		2.252E+01	3.703E+01	3.201E+00	0.107
GE-68	5.293E+01		3.343E+02	5.497E+02	4.792E+01	0.096
AS-73	-9.222E+01		4.387E+02	6.735E+02	5.521E+01	-0.137
AS-74	5.301E+00		1.486E+01	2.571E+01	2.146E+00	0.206
SE-75	-9.878E-01		1.170E+01	1.924E+01	1.733E+00	-0.051
BR-77	1.700E+01		1.144E+02	1.850E+02	1.566E+01	0.092
SR-82	-1.034E+01		7.576E+01	1.231E+02	1.050E+01	-0.084
RB-83	3.894E+00		1.863E+01	3.031E+01	2.565E+00	0.128
RB-84	6.354E+00		1.738E+01	2.943E+01	2.589E+00	0.216
KR-85	-3.780E+03		2.303E+03	3.128E+03	2.647E+02	-1.208
SR-85	-1.721E+01		1.049E+01	1.424E+01	1.206E+00	-1.208
RB-86	-1.553E+01		1.451E+02	2.311E+02	2.015E+01	-0.067
Y-88	-4.073E+00		6.166E+00	7.597E+00	6.235E-01	-0.536
ZR-88	-3.660E+00		7.389E+00	1.144E+01	9.334E-01	-0.320
Y-91	-2.618E+03		2.758E+03	3.842E+03	3.234E+02	-0.682
NB-94	3.793E+00		7.679E+00	1.341E+01	1.107E+00	0.283
NB-95	-1.722E+00		8.524E+00	1.372E+01	1.165E+00	-0.125
NB-95M	6.564E+00		2.738E+01	4.614E+01	4.675E+00	0.142
ZR-95	3.185E+00		1.579E+01	2.665E+01	2.491E+00	0.119
NB-97	-2.945E+01		3.918E+02	5.602E+02	4.536E+01	-0.053
ZR-97	-1.114E+04		8.287E+03	1.163E+04	9.843E+02	-0.958
MO-99	-1.196E+02		1.619E+02	2.419E+02	3.643E+01	-0.495
TC-99M	-6.322E-02		1.408E-01	Half-Life too short		
RH-101	2.828E+00		8.770E+00	1.483E+01	1.304E+00	0.191
RH-102	-3.873E+00		8.619E+00	1.325E+01	1.117E+00	-0.292
RU-103	-6.980E+00		9.441E+00	1.390E+01	1.954E+00	-0.502
RH-106	-7.976E+01		8.001E+01	1.188E+02	1.559E+01	-0.672
RU-106	-7.976E+01		7.959E+01	1.188E+02	9.809E+00	-0.672
AG-108M	-6.579E+00		1.055E+01	1.614E+01	1.401E+00	-0.408
AG-110M	-1.489E+00		8.970E+00	1.263E+01	1.057E+00	-0.118
IN-111	-4.852E+00		1.823E+01	2.974E+01	2.660E+00	-0.163
IN-113M	5.373E+00		1.046E+01	1.772E+01	1.494E+00	0.303
SN-113	5.373E+00		1.046E+01	1.772E+01	1.494E+00	0.303
IN-114M	6.310E+00		4.260E+01	7.197E+01	6.306E+00	0.088
CD-115	-2.746E+01		8.250E+01	1.348E+02	1.141E+01	-0.204
SN-117M	-2.255E+00		7.981E+00	1.327E+01	1.157E+00	-0.170

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
SB-122	2.583E+01		2.912E+01	5.256E+01	4.427E+00	0.491
I-123	-1.163E+02		9.268E+02	1.554E+03	1.355E+02	-0.075
TE-123M	-8.671E-01		6.910E+00	1.159E+01	1.016E+00	-0.075
I-124	1.405E+01		2.643E+01	4.625E+01	3.851E+00	0.304
SB-124	1.289E+01		1.350E+01	2.732E+01	2.368E+00	0.472
SB-125	-1.347E+01		2.728E+01	4.216E+01	3.576E+00	-0.319
TE-125M	4.238E+01		2.295E+03	3.659E+03	3.866E+02	0.012
I-126	7.562E+00		2.715E+01	4.087E+01	3.309E+00	0.185
SB-126	-2.268E+00		1.955E+01	3.199E+01	2.664E+00	-0.071
SB-127	2.512E+01		4.273E+01	7.536E+01	6.537E+00	0.333
XE-127	8.650E-01		9.763E+00	1.641E+01	1.445E+00	0.053
I-131	2.324E+00		1.185E+01	1.959E+01	1.744E+00	0.119
TE-132	-1.168E+01		1.716E+01	2.727E+01	3.963E+00	-0.428
BA-133	4.061E+00		1.185E+01	1.980E+01	2.606E+00	0.205
I-133	5.799E+01		1.818E+02	3.151E+02	2.842E+01	0.184
CS-134	-8.848E+00		1.248E+01	1.897E+01	1.641E+00	-0.466
CS-135	-1.349E+00		4.284E+01	7.065E+01	7.254E+00	-0.019
I-135	4.287E-02		1.941E-01	Half-Life too short		
CS-136	1.203E+01		1.850E+01	3.190E+01	2.909E+00	0.377
CE-139	2.902E+00		7.301E+00	1.256E+01	1.095E+00	0.231
BA-140	2.198E+01		3.461E+01	6.042E+01	2.000E+01	0.364
LA-140	-2.006E-02		8.118E+00	1.333E+01	1.110E+00	-0.002
CE-141	-6.440E+00		1.285E+01	2.130E+01	1.903E+00	-0.302
CE-143	-6.342E+00		1.155E+02	1.893E+02	4.008E+01	-0.034
CE-144	-1.335E+01		5.813E+01	9.050E+01	1.424E+01	-0.148
PM-144	-7.434E+00		9.264E+00	1.330E+01	1.094E+00	-0.559
PR-144	-5.008E+02		6.240E+02	8.957E+02	7.371E+01	-0.559
PM-146	-7.581E+00		1.247E+01	1.889E+01	1.990E+00	-0.401
ND-147	6.492E+00		6.609E+01	1.124E+02	1.670E+01	0.058
PM-149	3.509E+02		7.298E+02	1.238E+03	1.944E+02	0.284
EU-152	3.597E+00		2.416E+01	3.992E+01	3.663E+00	0.090
GD-153	2.730E+00		2.187E+01	3.494E+01	3.148E+00	0.078
EU-154	-1.192E+01		1.778E+01	2.503E+01	2.763E+00	-0.476
EU-155	-3.184E+00		3.054E+01	4.851E+01	4.371E+00	-0.066
TB-160	2.203E+00		4.161E+01	6.841E+01	6.016E+00	0.032
HO-166M	-1.532E+00		1.498E+01	2.456E+01	2.037E+00	-0.062
TM-171	6.734E+03		9.333E+03	1.566E+04	1.258E+03	0.430
HF-175	-7.630E+00		8.296E+00	1.246E+01	1.081E+00	-0.612
LU-176	3.554E+00		6.802E+00	1.157E+01	1.029E+00	0.307
LU-177	3.182E+01		8.623E+01	1.464E+02	1.293E+01	0.217
LU-177M	3.416E+01		4.716E+01	8.061E+01	6.653E+00	0.424
HF-181	-1.578E+01		1.104E+01	1.522E+01	1.284E+00	-1.037
W-181	-1.602E+01		1.182E+02	1.901E+02	1.508E+01	-0.084
TA-182	-1.934E+01		2.772E+01	4.030E+01	3.380E+00	-0.480
RE-183	-1.446E+00		2.477E+01	4.165E+01	3.629E+00	-0.035
RE-184	3.107E+01		6.198E+01	1.057E+02	9.471E+00	0.294
OS-185	4.689E+00		9.243E+00	1.623E+01	1.323E+00	0.289
RE-188	3.360E+01		3.727E+01	6.589E+01	5.750E+00	0.510

Sample ID : G1202050276 Acquisition date : 25-FEB-2010 20:33:53

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
W-188	3.272E+02		1.789E+03	2.980E+03	2.665E+02	0.110
IR-192	-3.092E+00		8.406E+00	1.339E+01	1.187E+00	-0.231
AU-195	-2.875E+01		6.189E+01	9.501E+01	8.527E+00	-0.303
TL-200	-6.646E+01		9.695E+01	1.486E+02	1.254E+01	-0.447
TL-201	5.789E+01		1.435E+02	2.450E+02	2.135E+01	0.236
TL-202	1.294E+00		1.068E+01	1.739E+01	1.452E+00	0.074
HG-203	1.385E+00		8.749E+00	1.459E+01	1.342E+00	0.095
BI-207	-6.578E-01		1.565E+01	2.515E+01	2.198E+00	-0.026
TL-207	1.135E+02		1.864E+02	3.164E+02	5.631E+01	0.359
TL-208	-4.509E+00		9.353E+00	1.538E+01	1.387E+00	-0.293
PO-209	2.910E+02		2.382E+03	3.938E+03	3.476E+02	0.074
BI-210	-8.830E+02		1.806E+03	2.876E+03	2.850E+02	-0.307
PB-210	-8.830E+02		1.806E+03	2.876E+03	2.850E+02	-0.307
PO-210	-8.830E+02		1.806E+03	2.876E+03	2.614E+02	-0.307
BI-211	-9.352E+00		5.597E+01	9.063E+01	8.198E+00	-0.103
PB-211	5.924E+01		2.583E+02	4.218E+02	2.641E+02	0.140
BI-212	-5.939E+01		7.143E+01	1.070E+02	1.046E+01	-0.555
PB-212	7.255E-01		1.543E+01	2.586E+01	2.584E+00	0.028
PO-212	7.255E-01		1.543E+01	2.586E+01	2.584E+00	0.028
BI-214	-1.213E+01		1.817E+01	2.899E+01	2.838E+00	-0.418
PB-214	6.653E-01		1.879E+01	3.092E+01	3.227E+00	0.022
PO-214	6.653E-01		1.879E+01	3.092E+01	3.227E+00	0.022
PO-215	1.135E+02		1.864E+02	3.164E+02	5.631E+01	0.359
PO-216	7.255E-01		1.543E+01	2.586E+01	2.584E+00	0.028
PO-218	6.653E-01		1.879E+01	3.092E+01	3.227E+00	0.022
RN-219	5.248E+01		1.141E+02	1.913E+02	2.829E+01	0.274
RN-220	-1.609E+03		6.066E+03	9.928E+03	8.383E+02	-0.162
RA-223	1.135E+02		1.864E+02	3.164E+02	5.631E+01	0.359
RA-224	5.834E+00		1.728E+02	2.862E+02	2.557E+01	0.020
RA-226	-7.778E+01		2.088E+02	3.408E+02	2.511E+02	-0.228
AC-227	-5.349E+01		1.067E+02	1.705E+02	2.650E+01	-0.314
PA-227	-1.000E+35		4.560E+34	Half-Life too short		
TH-227	-5.349E+01		1.068E+02	1.705E+02	3.108E+01	-0.314
AC-228	-3.717E+01		4.400E+01	6.682E+01	7.625E+00	-0.556
RA-228	-3.717E+01		4.400E+01	6.682E+01	7.625E+00	-0.556
TH-228	7.255E-01		1.543E+01	2.586E+01	2.584E+00	0.028
TH-229	-5.417E+01		1.324E+02	2.166E+02	1.900E+01	-0.250
TH-230	2.615E+03		1.739E+04	6.435E+03	4.174E+04	0.406
PA-231	-7.460E+01		4.025E+02	6.542E+02	1.006E+02	-0.114
TH-231	3.517E+01		1.527E+02	2.234E+02	4.047E+01	0.157
U-231	-2.094E+01		4.938E+01	7.651E+01	6.930E+00	-0.274
PA-233	5.817E+00		1.760E+01	2.955E+01	2.692E+00	0.197
PA-234	5.893E+01		9.494E+01	1.631E+02	3.077E+01	0.361
PA-234M	-1.820E+02		1.421E+03	2.317E+03	2.349E+02	-0.079
TH-234	-5.216E+02		5.269E+02	7.217E+02	1.271E+02	-0.723
U-234	-5.333E+03		6.392E+04	5.702E+04	5.702E+05	-0.094
U-235	-1.644E+01		5.352E+01	8.960E+01	1.576E+01	-0.183
NP-236	1.114E+00		2.050E+01	3.470E+01	3.024E+00	0.032

Sample ID : G1202050276 Acquisition date : 25-FEB-2010 20:33:53

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
U-238	-5.216E+02		5.269E+02	7.217E+02	1.271E+02	-0.723
NP-239	-2.597E+01		5.707E+01	8.802E+01	7.977E+00	-0.295
AM-243	-1.981E+01		1.807E+01	2.729E+01	2.322E+00	-0.726
CM-243	-2.948E+00		2.717E+01	4.304E+01	3.836E+00	-0.068
AM-246	-9.690E+00		4.028E+01	6.308E+01	5.497E+00	-0.154
CM-247	4.416E-01		1.056E+01	1.716E+01	1.408E+00	0.026
CF-249	3.821E-01		1.080E+01	1.757E+01	1.441E+00	0.022
CF-251	-1.649E+01		3.232E+01	5.272E+01	4.600E+00	-0.313
ANH-511	-2.602E+00		9.841E+00	1.750E+01	1.481E+00	-0.149

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202050276           *
* Acquisition date : 25-FEB-2010 20:33:53 Detector SN#    :                 *
* Detector ID      : GAM01                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:00.68     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 22-FEB-2010 00:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G1202050276          Analyst initials: KXG3            *
* Batch Number     : 956162               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 13-JAN-2010 08:32:29 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
CO-57	2.221E+01	1.086E+01	6.257E+00	5.540E+00
CO-60	5.173E+02	5.610E+01	4.378E+00	2.862E+01
CD-109	3.147E+03	5.101E+02	1.810E+02	2.602E+02
SN-126	3.146E+02	5.099E+01	1.821E+01	2.601E+01
BA-137M	4.548E+02	4.777E+01	6.998E+00	2.437E+01
CS-137	4.807E+02	5.056E+01	7.398E+00	2.580E+01
TH-232	2.653E+05	2.737E+06	1.097E+04	1.397E+06
NP-237	9.238E+02	2.394E+02	5.468E+01	1.221E+02
PU-237	1.631E+04	2.081E+03	6.519E+02	1.062E+03
AM-241	1.404E+03	1.850E+02	5.612E+01	9.437E+01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU
BE-7	7.546E+01	7.988E+01	7.045E+01	4.076E+01 NOT IDENT.
NA-22	-2.773E+00	5.935E+00	4.512E+00	3.028E+00 NOT IDENT.
NA-24	-3.264E+01	3.545E+02	2.926E+02	1.809E+02 NOT IDENT.
AL-26	-1.057E+00	4.823E+00	3.661E+00	2.461E+00 NOT IDENT.
K-40	-2.438E+01	6.169E+01	5.153E+01	3.147E+01 NOT IDENT.
TI-44	3.178E+00	1.052E+01	8.783E+00	5.368E+00 NOT IDENT.
SC-46	-1.008E-01	1.152E+01	9.608E+00	5.879E+00 NOT IDENT.
V-48	-1.128E+01	1.286E+01	9.567E+00	6.560E+00 NOT IDENT.
CR-51	-2.895E+01	7.603E+01	6.180E+01	3.879E+01 NOT IDENT.
MN-52	-2.337E+00	6.849E+00	5.065E+00	3.495E+00 FAIL ABUN
MN-54	1.081E+01	9.123E+00	8.537E+00	4.655E+00 NOT IDENT.
CO-56	-4.345E-01	9.343E+00	7.781E+00	4.767E+00 FAIL ABUN
CO-58	-2.282E+00	8.227E+00	6.669E+00	4.197E+00 NOT IDENT.
FE-59	-7.895E+00	2.244E+01	1.771E+01	1.145E+01 NOT IDENT.
ZN-65	3.976E+00	2.207E+01	1.852E+01	1.126E+01 NOT IDENT.
GE-68	5.293E+01	3.276E+02	2.750E+02	1.671E+02 NOT IDENT.
AS-73	-9.222E+01	4.299E+02	3.369E+02	2.193E+02 NOT IDENT.

AS-74	5.301E+00	1.456E+01	1.286E+01	7.428E+00	NOT IDENT.
SE-75	-9.878E-01	1.146E+01	9.625E+00	5.849E+00	NOT IDENT.
BR-77	1.700E+01	1.121E+02	9.257E+01	5.718E+01	FAIL ABUN
SR-82	-1.034E+01	7.424E+01	6.160E+01	3.788E+01	NOT IDENT.
RB-83	3.894E+00	1.826E+01	1.517E+01	9.316E+00	NOT IDENT.
RB-84	6.354E+00	1.703E+01	1.472E+01	8.689E+00	NOT IDENT.
KR-85	-3.780E+03	2.257E+03	1.565E+03	1.152E+03	NOT IDENT.
SR-85	-1.721E+01	1.028E+01	7.127E+00	5.244E+00	NOT IDENT.
RB-86	-1.553E+01	1.422E+02	1.156E+02	7.255E+01	NOT IDENT.
Y-88	-4.073E+00	6.042E+00	3.801E+00	3.083E+00	NOT IDENT.
ZR-88	-3.660E+00	7.242E+00	5.724E+00	3.695E+00	NOT IDENT.
Y-91	-2.618E+03	2.702E+03	1.922E+03	1.379E+03	NOT IDENT.
NB-94	3.793E+00	7.526E+00	6.710E+00	3.840E+00	NOT IDENT.
NB-95	-1.722E+00	8.353E+00	6.866E+00	4.262E+00	NOT IDENT.
NB-95M	6.564E+00	2.684E+01	2.308E+01	1.369E+01	NOT IDENT.
ZR-95	3.185E+00	1.548E+01	1.333E+01	7.897E+00	NOT IDENT.
NB-97	-2.945E+01	3.840E+02	2.803E+02	1.959E+02	NOT IDENT.
ZR-97	-1.114E+04	8.122E+03	5.820E+03	4.144E+03	NOT IDENT.
MO-99	-1.196E+02	1.586E+02	1.210E+02	8.093E+01	NOT IDENT.
TC-99M	-6.322E+04	2.760E+05	0.000E+00	1.408E+05	SHORT HLIF
RH-101	2.828E+00	8.595E+00	7.420E+00	4.385E+00	NOT IDENT.
RH-102	-3.873E+00	8.447E+00	6.630E+00	4.310E+00	NOT IDENT.
RU-103	-6.980E+00	9.252E+00	6.952E+00	4.721E+00	NOT IDENT.
RH-106	-7.976E+01	7.841E+01	5.942E+01	4.000E+01	NOT IDENT.
RU-106	-7.976E+01	7.800E+01	5.942E+01	3.980E+01	NOT IDENT.
AG-108M	-6.579E+00	1.034E+01	8.076E+00	5.275E+00	NOT IDENT.
AG-110M	-1.489E+00	8.790E+00	6.319E+00	4.485E+00	NOT IDENT.
IN-111	-4.852E+00	1.786E+01	1.488E+01	9.113E+00	NOT IDENT.
IN-113M	5.373E+00	1.025E+01	8.864E+00	5.228E+00	NOT IDENT.
SN-113	5.373E+00	1.025E+01	8.864E+00	5.228E+00	NOT IDENT.
IN-114M	6.310E+00	4.175E+01	3.601E+01	2.130E+01	NOT IDENT.
CD-115	-2.746E+01	8.085E+01	6.746E+01	4.125E+01	NOT IDENT.
SN-117M	-2.255E+00	7.822E+00	6.637E+00	3.991E+00	NOT IDENT.
SB-122	2.583E+01	2.853E+01	2.630E+01	1.456E+01	NOT IDENT.
I-123	-1.163E+02	9.083E+02	7.776E+02	4.634E+02	NOT IDENT.
TE-123M	-8.671E-01	6.772E+00	5.797E+00	3.455E+00	NOT IDENT.
I-124	1.405E+01	2.590E+01	2.314E+01	1.321E+01	NOT IDENT.
SB-124	1.289E+01	1.323E+01	1.367E+01	6.752E+00	NOT IDENT.
SB-125	-1.347E+01	2.674E+01	2.109E+01	1.364E+01	NOT IDENT.
TE-125M	4.238E+01	2.249E+03	1.830E+03	1.147E+03	NOT IDENT.
I-126	7.562E+00	2.660E+01	2.045E+01	1.357E+01	NOT IDENT.
SB-126	-2.268E+00	1.916E+01	1.601E+01	9.775E+00	NOT IDENT.
SB-127	2.512E+01	4.188E+01	3.770E+01	2.137E+01	NOT IDENT.
XE-127	8.650E-01	9.568E+00	8.210E+00	4.882E+00	NOT IDENT.
I-131	2.324E+00	1.161E+01	9.801E+00	5.924E+00	NOT IDENT.
TE-132	-1.168E+01	1.681E+01	1.364E+01	8.578E+00	NOT IDENT.
BA-133	4.061E+00	1.161E+01	9.904E+00	5.923E+00	NOT IDENT.
I-133	5.799E+01	1.782E+02	1.577E+02	9.090E+01	NOT IDENT.
CS-134	-8.848E+00	1.223E+01	9.490E+00	6.241E+00	NOT IDENT.
CS-135	-1.349E+00	4.199E+01	3.534E+01	2.142E+01	NOT IDENT.
I-135	4.287E+04	3.804E+05	0.000E+00	1.941E+05	SHORT HLIF
CS-136	1.203E+01	1.813E+01	1.596E+01	9.250E+00	NOT IDENT.
CE-139	2.902E+00	7.155E+00	6.284E+00	3.651E+00	NOT IDENT.
BA-140	2.198E+01	3.391E+01	3.023E+01	1.730E+01	NOT IDENT.
LA-140	-2.006E-02	7.955E+00	6.668E+00	4.059E+00	NOT IDENT.
CE-141	-6.440E+00	1.260E+01	1.066E+01	6.427E+00	NOT IDENT.
CE-143	-6.342E+00	1.132E+02	9.469E+01	5.774E+01	NOT IDENT.
CE-144	-1.335E+01	5.697E+01	4.528E+01	2.907E+01	NOT IDENT.
PM-144	-7.434E+00	9.078E+00	6.652E+00	4.632E+00	NOT IDENT.
PR-144	-5.008E+02	6.115E+02	4.481E+02	3.120E+02	NOT IDENT.
PM-146	-7.581E+00	1.222E+01	9.451E+00	6.233E+00	NOT IDENT.
ND-147	6.492E+00	6.477E+01	5.625E+01	3.305E+01	NOT IDENT.
PM-149	3.509E+02	7.152E+02	6.192E+02	3.649E+02	NOT IDENT.
EU-152	3.597E+00	2.367E+01	1.997E+01	1.208E+01	FAIL ABUN
GD-153	2.730E+00	2.143E+01	1.748E+01	1.093E+01	NOT IDENT.
EU-154	-1.192E+01	1.743E+01	1.252E+01	8.892E+00	FAIL ABUN
EU-155	-3.184E+00	2.993E+01	2.427E+01	1.527E+01	FAIL ABUN
TB-160	2.203E+00	4.078E+01	3.422E+01	2.081E+01	FAIL ABUN
HO-166M	-1.532E+00	1.468E+01	1.229E+01	7.491E+00	NOT IDENT.
TM-171	6.734E+03	9.146E+03	7.836E+03	4.666E+03	FAIL ABUN
HF-175	-7.630E+00	8.130E+00	6.234E+00	4.148E+00	FAIL ABUN
LU-176	3.554E+00	6.666E+00	5.786E+00	3.401E+00	FAIL ABUN
LU-177	3.182E+01	8.450E+01	7.326E+01	4.311E+01	NOT IDENT.
LU-177M	3.416E+01	4.621E+01	4.033E+01	2.358E+01	FAIL ABUN
HF-181	-1.578E+01	1.082E+01	7.613E+00	5.519E+00	NOT IDENT.
W-181	-1.602E+01	1.159E+02	9.511E+01	5.912E+01	NOT IDENT.
TA-182	-1.934E+01	2.717E+01	2.016E+01	1.386E+01	NOT IDENT.
RE-183	-1.446E+00	2.427E+01	2.084E+01	1.238E+01	FAIL ABUN

RE-184	3.107E+01	6.074E+01	5.289E+01	3.099E+01	FAIL ABUN
OS-185	4.689E+00	9.058E+00	8.119E+00	4.622E+00	FAIL ABUN
RE-188	3.360E+01	3.652E+01	3.296E+01	1.863E+01	NOT IDENT.
W-188	3.272E+02	1.753E+03	1.491E+03	8.944E+02	NOT IDENT.
IR-192	-3.092E+00	8.238E+00	6.699E+00	4.203E+00	NOT IDENT.
AU-195	-2.875E+01	6.065E+01	4.753E+01	3.095E+01	NOT IDENT.
TL-200	-6.646E+01	9.501E+01	7.432E+01	4.848E+01	NOT IDENT.
TL-201	5.789E+01	1.406E+02	1.226E+02	7.173E+01	NOT IDENT.
TL-202	1.294E+00	1.047E+01	8.702E+00	5.342E+00	NOT IDENT.
HG-203	1.385E+00	8.574E+00	7.298E+00	4.375E+00	NOT IDENT.
BI-207	-6.578E-01	1.533E+01	1.258E+01	7.823E+00	NOT IDENT.
TL-207	1.135E+02	1.827E+02	1.583E+02	9.322E+01	FAIL ABUN
TL-208	-4.509E+00	9.166E+00	7.696E+00	4.677E+00	NOT IDENT.
PO-209	2.910E+02	2.334E+03	1.970E+03	1.191E+03	NOT IDENT.
BI-210	-8.830E+02	1.770E+03	1.439E+03	9.030E+02	NOT IDENT.
PB-210	-8.830E+02	1.770E+03	1.439E+03	9.030E+02	NOT IDENT.
PO-210	-8.830E+02	1.770E+03	1.439E+03	9.029E+02	NOT IDENT.
BI-211	-9.352E+00	5.485E+01	4.534E+01	2.798E+01	NOT IDENT.
PB-211	5.924E+01	2.531E+02	2.110E+02	1.291E+02	NOT IDENT.
BI-212	-5.939E+01	7.000E+01	5.351E+01	3.572E+01	NOT IDENT.
PB-212	7.255E-01	1.512E+01	1.294E+01	7.714E+00	FAIL ABUN
PO-212	7.255E-01	1.512E+01	1.294E+01	7.714E+00	FAIL ABUN
BI-214	-1.213E+01	1.780E+01	1.451E+01	9.083E+00	NOT IDENT.
PB-214	6.653E-01	1.842E+01	1.547E+01	9.397E+00	FAIL ABUN
PO-214	6.653E-01	1.842E+01	1.547E+01	9.397E+00	FAIL ABUN
PO-215	1.135E+02	1.827E+02	1.583E+02	9.322E+01	FAIL ABUN
PO-216	7.255E-01	1.512E+01	1.294E+01	7.714E+00	FAIL ABUN
PO-218	6.653E-01	1.842E+01	1.547E+01	9.397E+00	FAIL ABUN
RN-219	5.248E+01	1.118E+02	9.570E+01	5.704E+01	NOT IDENT.
RN-220	-1.609E+03	5.945E+03	4.967E+03	3.033E+03	NOT IDENT.
RA-223	1.135E+02	1.827E+02	1.583E+02	9.322E+01	FAIL ABUN
RA-224	5.834E+00	1.694E+02	1.432E+02	8.641E+01	NOT IDENT.
RA-226	-7.778E+01	2.046E+02	1.705E+02	1.044E+02	NOT IDENT.
AC-227	-5.349E+01	1.045E+02	8.529E+01	5.333E+01	NOT IDENT.
PA-227	-1.000E+41	8.938E+40	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-5.349E+01	1.046E+02	8.529E+01	5.339E+01	NOT IDENT.
AC-228	-3.717E+01	4.312E+01	3.343E+01	2.200E+01	NOT IDENT.
RA-228	-3.717E+01	4.312E+01	3.343E+01	2.200E+01	NOT IDENT.
TH-228	7.255E-01	1.512E+01	1.294E+01	7.714E+00	FAIL ABUN
TH-229	-5.417E+01	1.297E+02	1.084E+02	6.620E+01	FAIL ABUN
TH-230	2.615E+03	1.705E+04	3.219E+03	8.697E+03	NOT IDENT.
PA-231	-7.460E+01	3.944E+02	3.273E+02	2.012E+02	NOT IDENT.
TH-231	3.517E+01	1.496E+02	1.118E+02	7.633E+01	NOT IDENT.
U-231	-2.094E+01	4.839E+01	3.828E+01	2.469E+01	NOT IDENT.
PA-233	5.817E+00	1.725E+01	1.478E+01	8.802E+00	FAIL ABUN
PA-234	5.893E+01	9.304E+01	8.159E+01	4.747E+01	NOT IDENT.
PA-234M	-1.820E+02	1.392E+03	1.159E+03	7.103E+02	NOT IDENT.
TH-234	-5.216E+02	5.164E+02	3.611E+02	2.635E+02	NOT IDENT.
U-234	-5.333E+03	6.264E+04	2.852E+04	3.196E+04	NOT IDENT.
U-235	-1.644E+01	5.245E+01	4.483E+01	2.676E+01	NOT IDENT.
NP-236	1.114E+00	2.009E+01	1.736E+01	1.025E+01	NOT IDENT.
U-238	-5.216E+02	5.164E+02	3.611E+02	2.635E+02	NOT IDENT.
NP-239	-2.597E+01	5.593E+01	4.403E+01	2.853E+01	NOT IDENT.
AM-243	-1.981E+01	1.771E+01	1.365E+01	9.034E+00	FAIL ABUN
CM-243	-2.948E+00	2.663E+01	2.154E+01	1.359E+01	NOT IDENT.
AM-246	-9.690E+00	3.948E+01	3.156E+01	2.014E+01	NOT IDENT.
CM-247	4.416E-01	1.035E+01	8.584E+00	5.280E+00	NOT IDENT.
CF-249	3.821E-01	1.058E+01	8.792E+00	5.400E+00	NOT IDENT.
CF-251	-1.649E+01	3.167E+01	2.638E+01	1.616E+01	NOT IDENT.
ANH-511	-2.602E+00	9.644E+00	8.754E+00	4.920E+00	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	219.0565
46.50	219.0565
46.50	219.0565
48.70	247.8332
49.72	225.6806
51.35	263.6451
52.39	285.9474
52.97	293.5351
53.15	293.6380
53.20	293.6668
53.44	297.7500
54.07	286.8886
56.28	295.9326
56.28	295.9340
57.37	305.9558
57.53	307.6164
57.53	307.6175
57.60	307.6564
57.98	252.3729
57.98	252.3729
59.00	252.8491
59.32	252.9980
59.32	252.9980
59.40	253.0348
59.54	253.0998
59.54	253.0998
59.72	253.1831
60.01	253.3167
61.10	183.2537
61.14	183.2667
61.30	183.3196
63.00	194.9711
63.29	195.0708
63.29	195.0708
63.58	191.9970
64.28	224.0063
64.62	0.0000
65.12	194.1040
65.20	194.1310
65.20	194.1310
66.05	183.7914
66.72	171.2386
66.83	168.0799
66.91	168.1024
67.20	170.3141
67.20	170.3141
67.67	174.7113
67.75	174.7346
67.85	182.2241
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68.90	211.3690
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69.67	203.0898
70.82	186.3406
70.82	186.3406
70.83	186.3432
72.80	192.3143
72.80	192.3143
72.87	192.3362
72.87	192.3362
74.67	228.4525
74.81	224.1929
74.81	224.1929
74.81	224.1929
74.81	224.1929
74.81	224.1929
74.81	224.1929

74.81	224.1929
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74.97	224.2489
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77.11	170.9175
77.11	170.9175
77.11	170.9175
77.11	170.9175
77.11	170.9175
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80.30	217.4164
80.30	217.4164
80.57	192.4927
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81.07	192.6386
81.07	192.6386
81.07	192.6386
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83.78	180.3076
83.78	180.3076
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84.21	165.6608
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85.43	162.6719
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86.50	184.3199
86.54	184.3302
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86.79	187.6897
86.94	187.7305
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87.30	182.3367
87.30	182.3367
87.30	182.3367
87.30	182.3367
87.30	182.3367
87.30	182.3367
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87.88	182.4887
88.03	182.5284
88.36	182.6145
88.47	182.6432
89.36	193.3412
89.95	219.9657
91.11	162.3454
92.29	149.3385
92.38	149.3578
92.38	149.3578
93.35	149.5589
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94.67	187.5660
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94.90	179.8539
94.90	179.8539
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95.87	170.0869
96.73	148.0265
97.43	143.7097
98.44	140.5580
98.44	140.5586
98.88	151.8033
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99.55	153.0561
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100.00	141.9687
100.10	134.1620

103.18	130.2139
103.76	142.6696
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105.31	141.8288
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110.05	0.0000
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111.00	164.3913
111.76	140.7147
112.95	145.4668
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115.19	170.9351
115.19	170.9351
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117.00	170.1661
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121.78	184.3401
122.06	184.4001
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122.32	175.8370
122.32	175.8370
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136.48	166.3979
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144.24	148.3535
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145.44	150.3077
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152.70	157.6663
153.22	141.7064
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154.21	124.0058
154.21	124.0058
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158.56	152.3180
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159.00	150.5914
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162.64	142.1315
163.35	164.7338
163.89	161.2164
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167.43	138.2675
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171.86	155.1801
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176.60	147.6591
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184.41	154.2136
185.71	157.1488
186.00	153.5123
186.21	155.3791
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192.34	164.5351
193.63	150.8377

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198.60	141.2580
200.40	147.9889
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202.84	139.8983
205.31	152.3362
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209.75	137.8854
210.97	165.2524
215.65	137.6035
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218.09	153.9268
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227.20	145.5211
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228.18	151.3419
228.18	151.3419
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235.69	129.2373
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236.00	137.8861
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238.63	133.3614
238.63	133.3614
238.63	133.3614
239.00	131.4791
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241.98	136.5810
241.98	136.5810
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252.85	116.3416
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256.20	132.1713
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269.46	112.8083
269.46	112.8083
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277.60	98.6404
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278.60	97.7205
279.20	97.7598
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286.10	100.1955
287.40	110.2090
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293.70	103.6874
295.21	99.7971
295.21	99.7971
295.21	99.7971
295.96	100.8428
296.50	102.8758
297.23	94.9304
298.57	93.0128
299.80	99.0906
299.80	99.0906
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300.09	87.0969
300.09	87.0969
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319.41	95.2507
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323.87	93.4782
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329.70	89.7295
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338.28	69.6913
338.32	69.6923
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351.92	75.4105
351.92	75.4105
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367.43	91.7061
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369.80	66.7832
374.96	95.2267
383.85	73.6070
387.95	75.8760
388.63	67.4707
391.69	59.1326
391.69	59.1326
392.90	77.1337
398.62	74.1870
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445.03	92.2191
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484.57	60.7924
487.03	53.1145
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492.35	47.6966
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511.85	60.4200
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513.99	116.4731
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520.65	62.8992
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552.65	50.0962
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568.70	55.0107
569.32	51.3570
569.50	53.1955
569.67	53.1983
573.80	45.9375
574.00	53.2917
574.64	49.6296
578.91	37.7468
579.30	41.4349
583.14	51.6428
585.48	59.9996
591.81	46.2695
592.07	45.3489
593.00	47.2161
595.88	44.4891
600.56	57.5710

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602.71	50.1847
602.71	50.1847
603.60	45.5535
604.41	45.5678
604.70	50.2242
609.31	57.7678
610.33	57.7905
612.46	47.5759
614.37	54.1456
618.01	49.5478
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621.84	57.1093
631.29	55.4349
633.02	40.4280
633.10	35.7280
634.78	36.6910
635.90	38.5896
636.97	37.6631
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646.12	34.0128
656.30	50.5781
657.75	39.5345
657.90	39.5365
661.65	40.8584
661.65	40.8584
664.57	34.8772
666.33	39.6586
666.33	39.6586
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677.61	30.5813
685.20	33.5388
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695.00	39.4245
696.49	50.0271
696.49	50.0271
697.00	45.2249
697.49	41.3833
698.33	38.5078
698.50	35.6215
699.00	38.5166
702.63	33.7448
706.10	40.5419
706.58	36.6873
706.67	36.6882
709.31	39.6207
711.68	42.5552
713.82	43.5542
717.42	47.4843
720.50	45.5944
721.93	36.8812
722.20	36.8849
722.78	36.8923
722.78	36.8923
722.89	34.9515
722.95	34.9523
723.30	31.0727
724.18	37.8812
727.18	50.5591
733.00	38.9688
735.90	43.8827
739.58	41.9838
742.81	29.3225
744.21	33.2480
747.13	36.2168
751.79	40.1942
752.31	38.2402
753.82	42.1833
755.35	40.2413
756.15	38.2878
756.87	36.3334
763.13	38.3763
763.93	40.3544
765.79	36.4399
766.42	37.4322
766.84	36.4517
776.49	47.4375
778.00	38.5620

778.57	38.5687
778.89	42.5286
783.80	49.5300
785.46	38.6544
792.07	48.6674
795.84	54.6925
796.30	58.6788
798.80	41.8041
801.93	44.8352
805.60	41.8944
810.29	37.9601
810.76	34.9684
815.85	31.0212
817.79	47.0597
818.51	45.0681
819.60	43.0787
826.30	47.1836
828.27	47.2123
831.60	40.2222
831.96	42.2379
834.83	30.1963
836.80	0.0000
846.75	40.4082
848.13	35.3717
856.28	48.6293
856.80	49.6496
860.37	37.5312
867.32	44.7240
867.82	37.6143
871.10	60.0371
873.19	49.8924
874.81	63.1595
875.33	61.1309
876.40	52.9978
879.36	57.1238
880.27	60.1999
880.51	58.1634
881.50	47.9730
883.24	58.2107
884.67	54.1477
889.25	56.2662
896.60	52.2862
898.02	44.1023
899.00	41.0371
903.28	57.5230
911.07	64.8580
911.07	64.8580
919.63	69.1445
920.93	57.8129
925.00	48.5778
925.24	48.5812
926.50	53.7685
935.52	53.9056
937.48	45.6371
944.10	49.8785
946.00	43.6663
949.00	50.9870
962.29	42.8188
964.01	53.2873
966.15	42.8638
968.20	40.7958
969.11	49.1767
969.11	49.1767
977.42	45.0933
980.50	36.7346
983.50	52.5208
989.30	43.1341
996.32	42.1611
1001.03	46.4353
1001.68	45.3883
1004.76	53.8762
1021.30	45.6235
1024.50	46.7242
1034.80	40.4604
1036.00	38.3432
1037.82	35.1640
1038.57	39.4354
1038.76	0.0000

1045.16	37.3669
1046.59	34.1766
1048.07	40.5995
1050.47	56.6619
1050.47	56.6619
1062.04	40.7442
1063.62	43.9789
1076.63	38.7439
1077.35	35.5217
1078.86	40.9187
1085.78	40.9892
1093.90	45.3961
1099.22	47.6201
1112.02	45.5991
1112.84	42.3516
1115.52	35.8585
1120.29	29.3730
1120.51	31.5517
1121.28	32.6455
1124.00	0.0000
1129.67	22.8980
1131.51	0.0000
1147.95	25.1899
1167.94	26.7250
1173.22	31.4802
1175.09	35.8246
1177.93	15.7575
1189.05	11.0591
1204.90	23.1242
1205.75	22.2041
1213.00	16.6809
1221.42	18.5693
1230.97	16.7490
1235.34	16.7659
1236.41	13.0430
1238.25	10.2525
1246.25	7.4697
1260.41	0.0000
1271.85	12.2076
1274.45	13.1546
1274.54	11.2754
1291.56	12.2610
1298.22	9.4450
1312.09	7.5788
1325.50	17.1013
1325.50	17.1013
1332.49	6.5246
1333.61	5.7104
1360.21	6.6998
1362.66	2.8728
1365.15	9.5809
1368.21	5.7522
1368.53	5.7527
1376.25	6.7223
1384.27	8.6572
1394.10	5.7832
1395.20	7.7126
1407.95	7.7327
1434.06	4.8588
1436.60	3.8890
1457.56	0.0000
1460.81	7.8154
1489.15	1.9648
1509.49	8.8766
1596.49	7.0185
1620.62	2.0142
1678.03	0.0000
1691.02	3.0598
1691.02	3.0598
1706.46	0.0000
1750.46	5.1528
1764.49	4.1320
1770.23	8.2721
1771.40	5.1711
1791.20	0.0000
1808.65	4.1631
1836.01	7.3184

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202050276

Total Uranium Activity	-1.5594E+03	ug/g
Total Uranium Counting Unc.	1.5365E+03	ug/g
Total Uranium Tpu	7.8393E-04	ug/g
Total Uranium Mda	1.0744E+03	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 956162                    SAMPLE ID  : G1202050276      *
*   ANALYST       : KXG3                      DETECTOR   : GAM01            *
*   SAMPLE DATE   : 22-FEB-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE: 25-FEB-2010 20:33:53.49    SAMPLE ALQT:    2.000 LITER   *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/LITER ) : 2.061E+03
         GROSS GAMMA ERROR  (pCi/LITER )   : 1.274E+02
         GROSS GAMMA MDA    (pCi/LITER )   : 2.045E+02
         GROSS GAMMA DLC    (pCi/LITER )   : 9.857E+01
```

Radiochemistry Batch Checklist, Rev10

Batch# 956123 **Product:** SR-90 **Date:** 03/01/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.			N/A
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: V. Colpaert

Secondary Review Performed By: [illegible]

LANL
03/19

Strontium 90 Que Sheet

02/22/10

Batch #: 956123 Analyst: MXB1 First Client Due Date: 03/19/2010 Internal Due Date:03/08/2010 Comments

Sr-90 Spike Code: 1243-B Expiration Date: 1-21-11 Vol: 0.1 Sr Sep. Date/time: 2-26-10/1540

Sr-90 LCS Code: 1243-B Expiration Date: 1-21-11 Vol: 0.1

Sr Carrier Code: 1194590 Exp Date: 3-11-10 Vol: 0.5 Sdt Wt: 8.93

Prep Date: 2-25-10 Initials: MEB Pipet ID: 1945419 Balance #: 5120486 3 Analytical Scale #: 38110047 Witness: [illegible]

Sample ID	Client Description	Type	RDL	Collection Date	Matrix	Client	Rad	Pos. #	Wet/Dry Aliquot (mL) or (g)	Det # 1 & 2	Initial Sr wt (g)	Final Sr wt (g)	Net Sr wt (mg)
247261003-1	CAPA-10-12691	SAMPLE	.5 pCi/L	FEB-15-10 12:00 PM	GROUND WATE	LANL010		1	500	14A	0.0239	0.0315	7.6
247431001-1	CAWA-10-13090	SAMPLE	.5 pCi/L	FEB-17-10 12:00 PM	GROUND WATE	LANL010		2	400	14B	0.0249	0.0327	7.8
1202050157-1	MB for batch 956123	MB	.5 pCi/L		GROUND WATE	QC ACCOUNT		3	1000 ~~500~~ *	14D *	0.0255	0.0334	7.9
1202050158-1	CAWA-10-13090(247431001DUP)	DUP	.5 pCi/L	FEB-17-10 12:00 PM	GROUND WATE	QC ACCOUNT		4	400	13C	0.0246	0.0325	7.9
1202050159-1	CAWA-10-13090(247431001MS)	MS	.5 pCi/L	FEB-17-10 12:00 PM	GROUND WATE	QC ACCOUNT		5	150	13A	0.0242	0.0324	8.2
1202050160-1	LCS for batch 956123	LCS	.5 pCi/L		GROUND WATE	QC ACCOUNT		6	1000 ~~500~~ *	13B	0.0246	0.0327	8.1

* VC 03/01/10 Daily ✓ wt ✓

Solid Sample Dissolution by: LEACH or DIGESTION Data Reviewed By: V. Calpepper 03/08/10

Circle One

Blank Correction Report

Batch ID 956123

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202050158	DUP	Strontium-90	0.400 L	0.0331	0.131	0.469	.375	pCi/L	YES
1202050160	LCS	Strontium-90	1.00 L	21.8	1.85	0.290	.15	pCi/L	NO
1202050157	MB	Strontium-90	1.00 L	0.150	0.0722	0.229	.15	pCi/L	YES
1202050159	MS	Strontium-90	0.150 L	153	12.9	3.26	1	pCi/L	NO
247261003	CAPA-10-12691	Strontium-90	0.500 L	0.155	0.141	0.479	.3	pCi/L	YES
247431001	CAWA-10-13090	Strontium-90	0.400 L	0.0883	0.135	0.478	.375	pCi/L	YES

Strontium-90 Liquid

Filename :	SR90.XLS	Spike S/N :	1243-B			
File type :	Excel	Spike Exp Date :	1/21/2011			
Version # :	1.3.1	Spike Activity (dpm/ml):	493.46			
		Spike Volume Added:	0.10			
Batch :	956123	LCS S/N :	1243-B	Pipet, 0.1 ml Stdev : +/-	0.000701	ml
Analyst :	MXB1	LCS Exp Date :	1/21/2011	Pipet, 0.5 ml Stdev : +/-	0.002564	ml
Prep Date :	2/25/2010	LCS Activity (dpm/ml):	493.46	Pipet, 1 ml Stdev : +/-	0.005480	ml
		LCS Volume Added:	0.10			
Sr-90 Abundance :	1			Procedure Code :	GFC90SRL	
Method Uncertainty :	0.0784	Carrier S/N :	1194590	Parmname :	Strontium-90	
		Carrier Exp Date :	3/19/2010	Required MDC :	0.5	pCi/L
Geometry:	Tuffryn Filter	Carrier Volume Added:	0.50	Halflife of Sr-90 :	28.90	years
		Carrier Weight (mg/ml):	17.85	Halflife of Y-90 :	64.053	hours
		Carrier Weight StDev.:	0.06			

Sample Characteristics					Carrier Calculations				
Pos.	Sample ID	Sample Aliquot L	Sample Aliquot StDev. L	Sample Date/Time	Carrier Weight (mg) (Standard)	Net Weight (mg) (Sample)	Net Weight StDev. (mg)	Carrier Aliquot (mL)	Carrier Aliquot StDev. (mL)
1	247261003.1	0.5000	2.0256E-05	2/15/2010 12:00	17.85	7.60	0.039995	0.5	0.002564
2	247431001.1	0.4000	1.9669E-05	2/17/2010 12:00	17.85	7.80	0.040854	0.5	0.002564
3	1202050157.1	1.0000	2.0399E-05	2/25/2010 0:00	17.85	7.90	0.041284	0.5	0.002564
4	1202050158.1	0.4000	1.9669E-05	2/17/2010 12:00	17.85	7.90	0.041284	0.5	0.002564
5	1202050159.1	0.1500	1.4035E-05	2/17/2010 12:00	17.85	8.20	0.042574	0.5	0.002564
6	1202050160.1	1.0000	2.0399E-05	2/25/2010 0:00	17.85	8.10	0.042144	0.5	0.002564

Count Raw Data

Pos.	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Gross Beta CPM	Count Start Date/Time	Strontium Separation Date/Time	Yttrium Ingrowth	Sr-90 Decay	Calculated Sample Recovery %	Sample Recovery Error %
1	14A	160	6	74	0.456	2/26/2010 20:02	2/26/2010 15:40	0.060	0.999	85.15%	0.96%
2	14B	160	3	45	0.279	2/26/2010 20:02	2/26/2010 15:40	0.060	0.999	87.39%	0.96%
3	14D	160	5	84	0.515	2/26/2010 20:02	2/26/2010 15:40	0.060	1.000	88.52%	0.96%
4	13C	180	0	54	0.300	2/26/2010 20:02	2/26/2010 15:40	0.062	0.999	88.52%	0.96%
5	13A	60	11	1298	21.621	2/26/2010 20:03	2/26/2010 15:40	0.051	0.999	91.88%	0.96%
6	13B	60	1	1219	20.316	2/26/2010 20:03	2/26/2010 15:40	0.051	1.000	90.76%	0.96%

Calibration Data

Pos.	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm) Sr-90	Detector Efficiency (cpm/dpm) Y-90	Detector Efficiency Error (cpm/dpm)	Alpha X-Talk	Weekly Bkg CPM	Weekly Bkg Count Time (min.)
1	PIC	2/1/2010	2/28/2011	0.4231	0.5100	0.00816	0.16636	0.390	500
2	PIC	2/1/2010	2/28/2011	0.4219	0.5092	0.00816	0.12145	0.248	500
3	PIC	2/1/2010	2/28/2011	0.4207	0.5096	0.00816	0.30640	0.382	500
4	PIC	2/1/2010	2/28/2011	0.4296	0.5190	0.00816	0.07691	0.288	500
5	PIC	2/1/2010	2/28/2011	0.4208	0.5109	0.00816	0.06809	0.774	500
6	PIC	2/1/2010	2/28/2011	0.4308	0.5200	0.00816	0.06577	0.234	500

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

* - RPD changed to 0% due to activity below MDC for 1202050158.1

Results Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	0.3085	0.2178	0.5	0.4794	**0.1547**	0.9096	0.0663	0.0603	0.1407	0.1412		SAMPLE				
2	0.3004	0.2121	0.5	0.4776	**0.0883**	1.5280	0.0310	0.0473	0.1349	0.1351		SAMPLE				
3	0.1475	0.1042	0.5	0.2295	**0.1505**	0.4733	0.1334	0.0631	0.0712	0.0722		MB				
4	0.2997	0.2116	0.5	0.4692	**0.0331**	3.9464	0.0120	0.0474	0.1306	0.1306	247431001.1	DUP	0.0%	0.1038		
5	2.0488	1.4465	0.5	3.2588	**152.5066**	0.0315	20.8469	0.6016	4.4009	12.9441	247431001.1	MS			148.2583	102.9%
6	0.1671	0.1180	0.5	0.2902	**21.7875**	0.0316	20.0816	0.5823	0.6318	1.8503		LCS			22.2278	98.0%

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
247261003	14A	160	6	74	2/26/2010 20:02	2/26/2010 22:42	PIC
247431001	14B	160	3	45	2/26/2010 20:02	2/26/2010 22:42	PIC
1202050157	14D	160	5	84	2/26/2010 20:02	2/26/2010 22:42	PIC
1202050158	13C	180	0	54	2/26/2010 20:02	2/26/2010 23:02	PIC
1202050159	13A	60	11	1298	2/26/2010 20:03	2/26/2010 21:03	PIC
1202050160	13B	60	1	1219	2/26/2010 20:03	2/26/2010 21:03	PIC

Radiochemistry Batch Checklist, Rev10

Batch# 961597 **Product:** GAB **Date:** 03/10/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.	✓		
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.			N/A
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered Into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: V. Calpepper

Secondary Review Performed By: [signature]

LANL
03/13

Gross Alpha Beta Que Sheet

03/05/2010 08:36:38

Batch #:961597 Analyst:DXB5 First Client DueDate 03/13/2010 Internal Due Date 03/02/2010

Alpha Spike Isotope: Th-230 Spike Code: 1242-B Vol: 0.1 Balance #: 17955160
Beta Spike Isotope: Sr-90 Spike Code: 1067-C Vol: 0.1 Pipette #: 4497063
Alpha LCS Isotope: Th-230 LCS Code: 1242-B Vol: 0.1 Prep Date: 3/8/10
Beta LCS Isotope: Sr-90 LCS Code: 1067-C Vol: 0.1 Initials: DB

Analytical Scale # C31514
Witness: SLC 3-8-10
40C 1/8

10% HNO3: 1269401
Conc HNO3: 1277811.5
Conc HCl: N/A
Conc HF: N/A
Conc Boric: N/A

Sample ID	Client Description	Type	Hazard Code	RDL Alpha/Beta	Client	Matrix	Bkr#	Wet/Dry Aliquot (mL or g)	Carrier or Det#	Initial Wt (g)	Final Wt (g)	Net Wt (mg)
246862002-3	CASA-10-9475	SAMPLE		3 pCi/L	LANL010	GROUND WATER	1	150	5D	7.5760	7.5933	17.3
246886003-3	CASA-10-9479	SAMPLE		3 pCi/L	LANL010	GROUND WATER	2	150	5C	7.5941	7.6141	20.0
246964001-3	CAMO-10-9370	SAMPLE		3 pCi/L	LANL010	GROUND WATER	3	150	4D	7.5514	7.5650	13.6
246964003-3	CAMO-10-9373	SAMPLE		3 pCi/L	LANL010	GROUND WATER	4	150	6B	7.5855	7.6013	15.8
246967003-3	CAMO-10-9357	SAMPLE		3 pCi/L	LANL010	GROUND WATER	5	150	5B	7.5638	7.5990	35.2
247261003-3	CAPA-10-12691	SAMPLE		3 pCi/L	LANL010	GROUND WATER	6	150	4C	7.5671	7.6046	37.5
247431001-3	CAWA-10-13090	SAMPLE		3 pCi/L	LANL010	GROUND WATER	7	150	6C	7.5683	7.5839	15.6
1202062530-1	MB	MB		UCF pCi/L to pCi/L	QC ACCOUNT	GROUND WATER	8	1000 ~~150~~ *	4A	7.5739	7.5746	0.7
1202062531-3	DUP CAMO-10-9373(246964003)	DUP		3 pCi/L	QC ACCOUNT	GROUND WATER	9	150	6A	7.5474	7.5643	16.9
1202062532-3	MS CAMO-10-9373(246964003)	MS		3 pCi/L	QC ACCOUNT	GROUND WATER	10	50	4B	7.5914	7.5981	6.7
1202062533-3	MSD CAMO-10-9373(246964003)	MSD		3 pCi/L	QC ACCOUNT	GROUND WATER	11	50	6D	7.5732	7.5787	5.0
1202062534-1	LCS	LCS		UCF pCi/L to pCi/L	QC ACCOUNT	GROUND WATER	12	1000 ~~150~~ *	~~38~~ 8D	7.5925	7.5940	1.5

* VC 03/10/10

Have the planchets been flamed? Yes / No

Data Reviewed By: V. Colgrove 03/10/10

Blank Correction Report

Batch ID 961597

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202062531	DUP	ALPHA	0.150 L	0.620	0.634	2.36	.360666667	pCi/L	YES
		BETA	0.150 L	2.83	0.875	2.35	.773333333	pCi/L	YES
1202062534	LCS	ALPHA	1.00 L	12.4	1.47	0.364	.0541	pCi/L	NO
		BETA	1.00 L	39.7	3.43	0.488	.116	pCi/L	NO
1202062530	MB	ALPHA	1.00 L	0.0541	0.090	0.358	.0541	pCi/L	YES
		BETA	1.00 L	0.116	0.0985	0.336	.116	pCi/L	YES
1202062532	MS	ALPHA	0.050 L	278	28.1	10.3	1.082	pCi/L	NO
		BETA	0.050 L	784	67.9	9.25	2.32	pCi/L	NO
1202062533	MSD	ALPHA	0.050 L	297	35.4	5.56	1.082	pCi/L	NO
		BETA	0.050 L	831	71.0	8.66	2.32	pCi/L	NO
246862002	CASA-10-9475	ALPHA	0.150 L	0.847	0.679	2.32	.360666667	pCi/L	YES
		BETA	0.150 L	1.46	0.750	2.35	.773333333	pCi/L	YES
246886003	CASA-10-9479	ALPHA	0.150 L	1.07	0.664	2.02	.360666667	pCi/L	YES
		BETA	0.150 L	3.70	0.951	2.38	.773333333	pCi/L	YES
246964001	CAMO-10-9370	ALPHA	0.150 L	-0.0278	0.631	2.65	.360666667	pCi/L	YES
		BETA	0.150 L	-0.578	0.564	2.36	.773333333	pCi/L	YES
246964003	CAMO-10-9373	ALPHA	0.150 L	-0.209	0.441	2.33	.360666667	pCi/L	YES
		BETA	0.150 L	0.499	0.618	2.19	.773333333	pCi/L	YES
246967003	CAMO-10-9357	ALPHA	0.150 L	0.736	0.654	2.32	.360666667	pCi/L	YES
		BETA	0.150 L	2.55	0.928	2.70	.773333333	pCi/L	YES
247261003	CAPA-10-12691	ALPHA	0.150 L	11.0	2.14	2.28	.360666667	pCi/L	NO
		BETA	0.150 L	2.48	1.09	2.73	.773333333	pCi/L	YES
247431001	CAWA-10-13090	ALPHA	0.150 L	1.52	0.813	2.35	.360666667	pCi/L	YES
		BETA	0.150 L	1.23	0.699	2.24	.773333333	pCi/L	YES

Gross Alpha Liquid

Filename : ALPHA.XLS
File type : Excel
Version # : 1.3

Batch : 961597
Analyst : DXB5
Prep Date : 3/8/2010

Method Uncertainty : 0.0829
Geometry: 2 inch Planchett

Spike S/N : 1242-B
Spike Exp Date : 12/2/2010
Spike Activity (dpm/ml): 279.79
Spike Volume Added: 0.10

LCS S/N : 1242-B
LCS Exp Date : 12/2/2010
LCS Activity (dpm/ml): 279.79
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Procedure Code : GFCGANBL
Parmname : Alpha
Required MDC : 3 pCi/L

Sample Characteristics						Count Raw Data				
Pos.	Sample ID	Sample Aliquot L	Sample Residue Wt. (mg)	Sample Aliquot StDev. L	Sample Date/Time	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Count Start Date/Time
1	246862002.5	0.1500	17.3	1.4035E-05	2/9/2010 12:00	5D	60	7	45	3/9/2010 11:22
2	246886003.5	0.1500	20.0	1.4035E-05	2/9/2010 12:00	5C	60	7	47	3/9/2010 11:22
3	246964001.5	0.1500	13.6	1.4035E-05	2/10/2010 12:00	4D	60	6	68	3/9/2010 11:22
4	246964003.5	0.1500	15.8	1.4035E-05	2/10/2010 12:00	6B	60	3	27	3/9/2010 11:22
5	246967003.5	0.1500	35.2	1.4035E-05	2/10/2010 12:00	5B	60	5	37	3/9/2010 11:23
6	247261003.5	0.1500	37.5	1.4035E-05	2/15/2010 12:00	4C	60	39	81	3/9/2010 11:23
7	247431001.5	0.1500	15.6	1.4035E-05	2/17/2010 12:00	6C	60	10	46	3/9/2010 11:23
8	1202062530.2	1.0000	0.7	2.0399E-05	3/8/2010 0:00	4A	60	7	22	3/9/2010 11:23
9	1202062531.4	0.1500	16.9	1.4035E-05	2/10/2010 12:00	6A	60	6	30	3/9/2010 11:24
10	1202062532.4	0.0500	6.7	7.8337E-06	2/10/2010 12:00	4B	60	356	2461	3/9/2010 11:24
11	1202062533.4	0.0500	5.0	7.8337E-06	2/10/2010 12:00	6D	60	465	2719	3/9/2010 11:24
12	1202062534.2	1.0000	1.5	2.0399E-05	3/8/2010 0:00	8D	60	412	2671	3/9/2010 16:14

Calibration Data

Pos.	Counted on	Calibration Date	Calibration Due Date	Calibration Source Used	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Beta X-Talk	Weekly Bkg CPM	Weekly Bkg Count Time (min.)
1	PIC	7/31/2009	7/31/2010	Th230	0.1997	0.06392	0.00445	0.057	1000
2	PIC	7/31/2009	7/31/2010	Th230	0.2046	0.06392	0.00457	0.040	1000
3	PIC	7/31/2009	7/31/2010	Th230	0.1993	0.06392	0.01663	0.083	1000
4	PIC	7/31/2009	7/31/2010	Th230	0.2038	0.06392	0.00711	0.061	1000
5	PIC	7/31/2009	7/31/2010	Th230	0.1748	0.06392	0.00406	0.038	1000
6	PIC	7/31/2009	7/31/2010	Th230	0.1670	0.04190	0.00623	0.031	1000
7	PIC	7/31/2009	7/31/2010	Th230	0.2011	0.06392	0.00644	0.060	1000
8	PIC	7/31/2009	7/31/2010	Th230	0.2261	0.04683	0.00409	0.088	1000
9	PIC	7/31/2009	7/31/2010	Th230	0.1977	0.06392	0.00233	0.058	1000
10	PIC	7/31/2009	7/31/2010	Th230	0.1876	0.01889	0.00007	0.142	1000
11	PIC	7/31/2009	7/31/2010	Th230	0.2246	0.06392	0.00663	0.041	1000
12	PIC	7/31/2009	7/31/2010	Th230	0.2403	0.06392	0.00264	0.109	1000

Notes:
* - Reference date for Spike Activity (dpm/ml) is the batch Prep Date

* - RPD changed to 0% due to activity below MDC for 1202062531.4

Alpha Results Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	1.1119	0.7850	3	2.3220	**0.8471**	0.7525	0.0597	0.0447	0.6728	0.6793		SAMPLE				
2	0.9090	0.6417	3	2.0173	**1.0726**	0.5846	0.0767	0.0445	0.6537	0.6643		SAMPLE				
3	1.3446	0.9493	3	2.6522	**-0.0278**	2.4614	0.0170	0.0418	0.6304	0.6310		SAMPLE				
4	1.1270	0.7957	3	2.3280	**-0.2092**	2.7194	-0.0110	0.0299	0.4406	0.4414		SAMPLE				
5	1.0370	0.7321	3	2.3231	**0.7357**	0.8357	0.0453	0.0378	0.6488	0.6539		SAMPLE				
6	0.9803	0.6921	3	2.2831	**10.9771**	0.1735	0.6190	0.1042	1.8739	2.1401		SAMPLE				
7	1.1330	0.7999	3	2.3465	**1.5194**	0.5035	0.1067	0.0533	0.7956	0.8129		SAMPLE				
8	0.1830	0.1292	3	0.3580	**0.0541**	1.5733	0.0287	0.0451	0.0898	0.0900		MB				
9	1.1331	0.8000	3	2.3596	**0.6204**	0.9909	0.0420	0.0415	0.6309	0.6345	246964003.5	DUP	0.0%	0.3855		
10	5.6038	3.9563	3	10.3136	**277.9543**	0.0575	5.7913	0.3147	15.1110	28.0611	246964003.5	MS			252.0644	110.3%
11	2.5153	1.7758	3	5.5572	**297.1670**	0.0791	7.7090	0.3595	14.4182	35.4359	246964003.5	MSD	6.7%	0.1513	252.0644	117.9%
12	0.1917	0.1353	3	0.3644	**12.4473**	0.0812	6.7577	0.3385	0.6345	1.4701		LCS			12.6032	98.8%

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
246862002	5D	60	7	45	3/9/2010 11:22	3/9/2010 12:22	PIC
246886003	5C	60	7	47	3/9/2010 11:22	3/9/2010 12:22	PIC
246964001	4D	60	6	68	3/9/2010 11:22	3/9/2010 12:22	PIC
246964003	6B	60	3	27	3/9/2010 11:22	3/9/2010 12:22	PIC
246967003	5B	60	5	37	3/9/2010 11:23	3/9/2010 12:23	PIC
247261003	4C	60	39	81	3/9/2010 11:23	3/9/2010 12:23	PIC
247431001	6C	60	10	46	3/9/2010 11:23	3/9/2010 12:23	PIC
1202062530	4A	60	7	22	3/9/2010 11:23	3/9/2010 12:23	PIC
1202062531	6A	60	6	30	3/9/2010 11:24	3/9/2010 12:24	PIC
1202062532	4B	60	356	2461	3/9/2010 11:24	3/9/2010 12:24	PIC
1202062533	6D	60	465	2719	3/9/2010 11:24	3/9/2010 12:24	PIC
1202062534	8D	60	412	2671	3/9/2010 16:14	3/9/2010 17:14	PIC

Gross Alpha Beta Que Sheet

03/08/2010 11:42:34

Batch #:961597 Analyst:DXB5 First Client DueDate 03/13/2010 Internal Due Date 03/02/2010

Alpha Spike Isotope: Th-230 Spike Code: 1242-B Vol: 0.1 Balance #: 17955160
Beta Spike Isotope: Sr-90 Spike Code: 1067-C Vol: 0.1 Pipette #: 4497063
Alpha LCS Isotope: Th-230 LCS Code: 1242-B Vol: 0.1 Prep Date: 3/8/10
Beta LCS Isotope: Sr-90 LCS Code: 1067-C Vol: 0.1 Initials: DB

Analytical Scale #: C31514
Witness: ~~SLC 3-8-10~~ KOCarry

10% HNO3: 1269401
Conc HNO3: 1277811.5
Conc HCl: NA
Conc HF: NA
Conc Boric: NA

Sample ID	Client Description	Type	Hazard Code	RDL Alpha/Beta	Client	Matrix	Bkr#	Wet/Dry Aliquot (mL or g)	Carrier or Det#	Initial Wt (g)	Final Wt (g)	Net Wt (mg)
246862002-3	CASA-10-9475	SAMPLE		3 pCi/L	LANL010	GROUND WATER	1	150	12B	7.5760	7.6100	34.0
246886003-3	CASA-10-9479	SAMPLE		3 pCi/L	LANL010	GROUND WATER	2	150	12C	7.5941	7.6250	34.9
246964001-3	CAMO-10-9370	SAMPLE		3 pCi/L	LANL010	GROUND WATER	3	150	5C	7.5514	7.5748	23.4
246964003-3	CAMO-10-9373	SAMPLE		3 pCi/L	LANL010	GROUND WATER	4	150	2C	7.5855	7.6133	27.8
246967003-3	CAMO-10-9357	SAMPLE		3 pCi/L	LANL010	GROUND WATER	5	150	3C	7.5638	7.6239	60.1
247261003-3	CAPA-10-12691	SAMPLE		3 pCi/L	LANL010	GROUND WATER	6	150	~~4D~~ 12A	7.5671	7.6232	56.1
247431001-3	CAWA-10-13090	SAMPLE		3 pCi/L	LANL010	GROUND WATER	7	150	4C	7.5683	7.5936	25.3
1202062530-1	MB	MB		UCF pCi/L to pCi/L	QC ACCOUNT	GROUND WATER	8	~~150~~ 1000	9D	7.5739	7.5740	0.1
1202062531-3	DUP CAMO-10-9373(246964003)	DUP		3 pCi/L	QC ACCOUNT	GROUND WATER	9	150	4A	7.5474	7.5766	29.2
1202062532-3	MS CAMO-10-9373(246964003)	MS		3 pCi/L	QC ACCOUNT	GROUND WATER	10	50	4B	7.5914	7.6013	9.9
1202062533-3	MSD CAMO-10-9373(246964003)	MSD		3 pCi/L	QC ACCOUNT	GROUND WATER	11	50	4D	7.5737	7.5821	8.4
1202062534-1	LCS	LCS		UCF pCi/L to pCi/L	QC ACCOUNT	GROUND WATER	12	~~150~~ 1000	9A	7.5925	7.5930	0.5

* SLC 3.8.10

Weights ✓

Have the planchets been flamed? Yes / No

Data Reviewed By: V. Calzappa 03/10/10

1717
~~1700~~

Gross Beta Liquid

Filename : BETA.XLS
File type : Excel
Version # : 1.3

Batch : 961597
Analyst : DXB5
Prep Date : 3/8/2010

Method Uncertainty : 0.0821
Geometry: 2 inch Planchett

Spike S/N : 1067-C
Spike Exp Date : 6/17/2010
Spike Activity (dpm/ml): 426.68
Spike Volume Added: 0.10

LCS S/N : 1067-C
LCS Exp Date : 6/17/2010
LCS Activity (dpm/ml): 426.68
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Procedure Code : GFCGANBL
Parmname : Beta
Required MDC : 3 pCi/L

Sample Characteristics						Count Raw Data				
Pos.	Sample ID	Sample Aliquot L	Sample Residue Wt. (mg)	Sample Aliquot StDev. L	Sample Date/Time	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Count Start Date/Time
1	246862002.3	0.1500	34	1.4035E-05	2/9/2010 12:00	12B	60	5	40	3/8/2010 16:16
2	246886003.3	0.1500	34.9	1.4035E-05	2/9/2010 12:00	12C	60	1	60	3/8/2010 16:16
3	246964001.3	0.1500	23.4	1.4035E-05	2/10/2010 12:00	5C	60	6	24	3/8/2010 16:01
4	246964003.3	0.1500	27.8	1.4035E-05	2/10/2010 12:00	2C	60	12	27	3/8/2010 16:05
5	246967003.3	0.1500	60.1	1.4035E-05	2/10/2010 12:00	3C	60	5	55	3/8/2010 16:01
6	247261003.3	0.1500	56.1	1.4035E-05	2/15/2010 12:00	12A	60	39	65	3/8/2010 16:16
7	247431001.3	0.1500	25.3	1.4035E-05	2/17/2010 12:00	4C	60	5	34	3/8/2010 16:02
8	1202062530.1	1.0000	0.1	2.0399E-05	3/8/2010 0:00	9D	60	3	37	3/8/2010 15:57
9	1202062531.3	0.1500	29.2	1.4035E-05	2/10/2010 12:00	4A	60	11	50	3/8/2010 15:57
10	1202062532.3	0.0500	9.9	7.8337E-06	2/10/2010 12:00	4B	60	308	2477	3/8/2010 15:57
11	1202062533.3	0.0500	8.4	7.8337E-06	2/10/2010 12:00	4D	60	452	2540	3/8/2010 15:57
12	1202062534.1	1.0000	0.5	2.0399E-05	3/8/2010 0:00	9A	60	380	2699	3/8/2010 15:57

Calibration Data								Weekly Bkg	
Pos.	Counted on	Calibration Date	Calibration Due Date	Calibration Source Used	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Alpha X-Talk	CPM	Count Time (min.)
1	PIC	7/31/2009	7/31/2010	Sr90	0.4368	0.00816	0.12452	0.444	1000
2	PIC	7/31/2009	7/31/2010	Sr90	0.4365	0.00816	0.12338	0.460	1000
3	PIC	7/31/2009	7/31/2010	Sr90	0.4504	0.00816	0.04739	0.482	1000
4	PIC	7/31/2009	7/31/2010	Sr90	0.4325	0.00575	0.04538	0.369	1000
5	PIC	7/31/2009	7/31/2010	Sr90	0.4185	0.00535	0.07027	0.556	1000
6	PIC	7/31/2009	7/31/2010	Sr90	0.3967	0.00816	0.38698	0.504	1000
7	PIC	7/31/2009	7/31/2010	Sr90	0.4305	0.00426	0.05389	0.386	1000
8	PIC	7/31/2009	7/31/2010	Sr90	0.4771	0.00816	0.08803	0.489	1000
9	PIC	7/31/2009	7/31/2010	Sr90	0.4267	0.00744	0.05722	0.420	1000
10	PIC	7/31/2009	7/31/2010	Sr90	0.4538	0.00196	0.17812	0.905	1000
11	PIC	7/31/2009	7/31/2010	Sr90	0.4481	0.00816	0.03461	0.757	1000
12	PIC	7/31/2009	7/31/2010	Sr90	0.4885	0.00816	0.11854	1.203	1000

Notes:
* - Reference date for Spike Activity (dpm/ml) is the batch Prep Date

Beta Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	1.4188	1.0017	3	2.3472	**1.4596**	0.4828	0.2227	0.1075	0.7391	0.7498		SAMPLE				
2	1.4451	1.0202	3	2.3845	**3.7010**	0.2425	0.5400	0.1309	0.9004	0.9511		SAMPLE				
3	1.4335	1.0121	3	2.3575	**-0.5783**	1.0311	-0.0820	0.0845	0.5637	0.5638		SAMPLE				
4	1.3063	0.9222	3	2.1917	**0.4994**	1.0952	0.0810	0.0887	0.6160	0.6177		SAMPLE				
5	1.6572	1.1700	3	2.6988	**2.5462**	0.3489	0.3607	0.1258	0.9030	0.9278		SAMPLE				
6	1.6642	1.1750	3	2.7284	**2.4812**	0.2353	0.5793	0.1362	1.0312	1.0928		SAMPLE				
7	1.3422	0.9476	3	2.2439	**1.2289**	0.5488	0.1807	0.0991	0.6916	0.6993		SAMPLE				
8	0.2045	0.1444	3	0.3359	**0.1164**	0.8128	0.1277	0.1038	0.0980	0.0985		MB				
9	1.4124	0.9972	3	2.3463	**2.8350**	0.2895	0.4133	0.1196	0.8418	0.8753	246964003.3	DUP	140.1%	0.7822		
10	5.8495	4.1298	3	9.2523	**783.5384**	0.0207	40.3783	0.8300	16.4800	67.8691	246964003.3	MS			768.7996	101.9%
11	5.4179	3.8251	3	8.6555	**830.7377**	0.0218	41.5763	0.8404	16.8985	71.0121	246964003.3	MSD	5.8%	0.1699	768.7996	108.1%
12	0.3132	0.2212	3	0.4884	**39.6812**	0.0214	43.7803	0.8666	0.7991	3.4255		LCS			38.4400	103.2%

961597

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
246862002	12B	60	5	40	3/8/2010 16:16	3/8/2010 17:16	PIC
246886003	12C	60	1	60	3/8/2010 16:16	3/8/2010 17:16	PIC
246964001	5C	60	6	24	3/8/2010 16:01	3/8/2010 17:01	PIC
246964003	2C	60	12	27	3/8/2010 16:05	3/8/2010 17:05	PIC
246967003	3C	60	5	55	3/8/2010 16:01	3/8/2010 17:01	PIC
247261003	12A	60	39	65	3/8/2010 16:16	3/8/2010 17:16	PIC
247431001	4C	60	5	34	3/8/2010 16:02	3/8/2010 17:02	PIC
1202062530	9D	60	3	37	3/8/2010 15:57	3/8/2010 16:57	PIC
1202062531	4A	60	11	50	3/8/2010 15:57	3/8/2010 16:57	PIC
1202062532	4B	60	308	2477	3/8/2010 15:57	3/8/2010 16:57	PIC
1202062533	4D	60	452	2540	3/8/2010 15:57	3/8/2010 16:57	PIC
1202062534	9A	60	380	2699	3/8/2010 15:57	3/8/2010 16:57	PIC

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W001.QAF;7
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.294900 through 0.361886

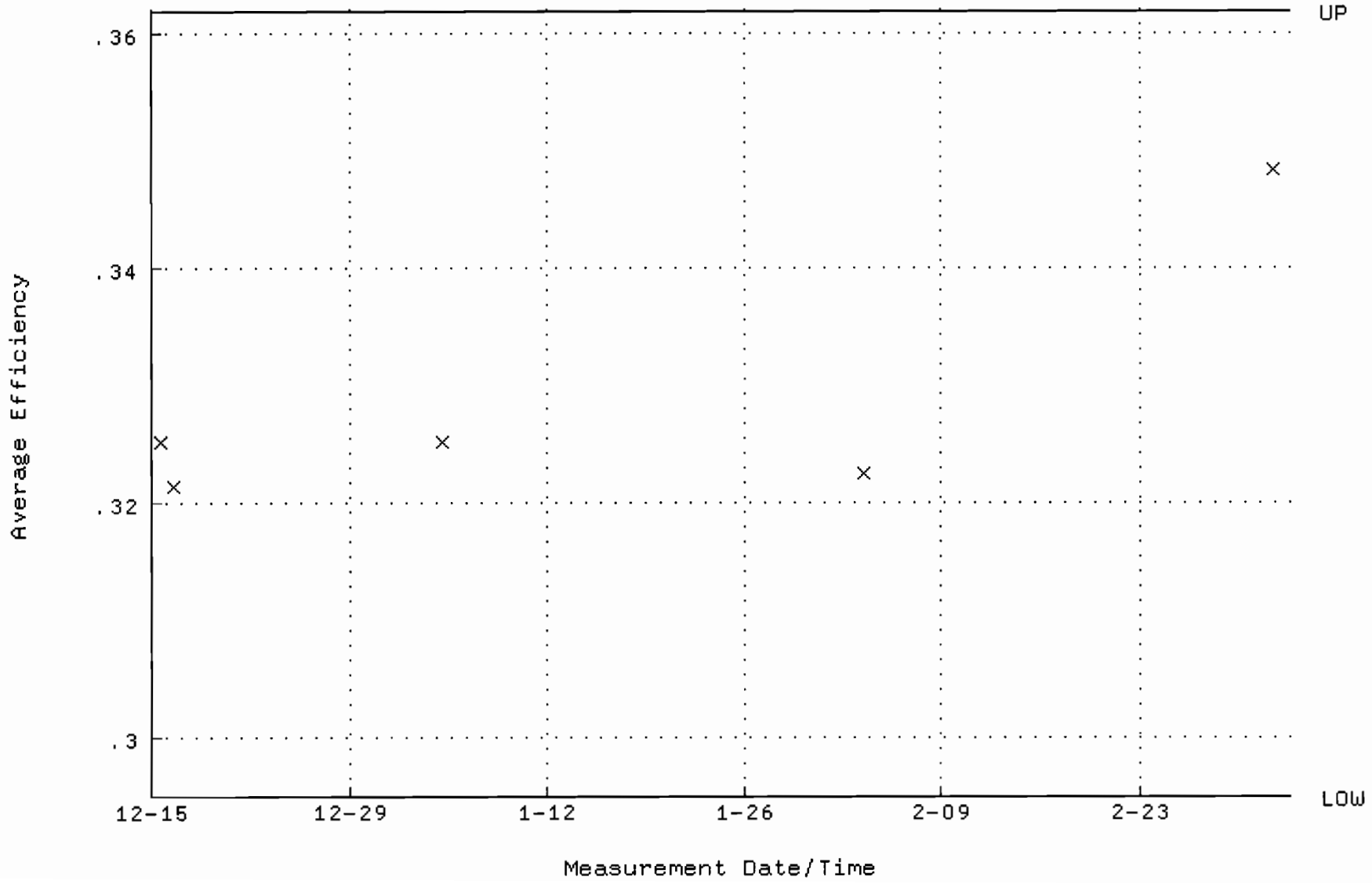

QA filename : DKA100:[ENV_ALPHA.QA.W]W001.QAF;7
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 82.3264 through 98.7414

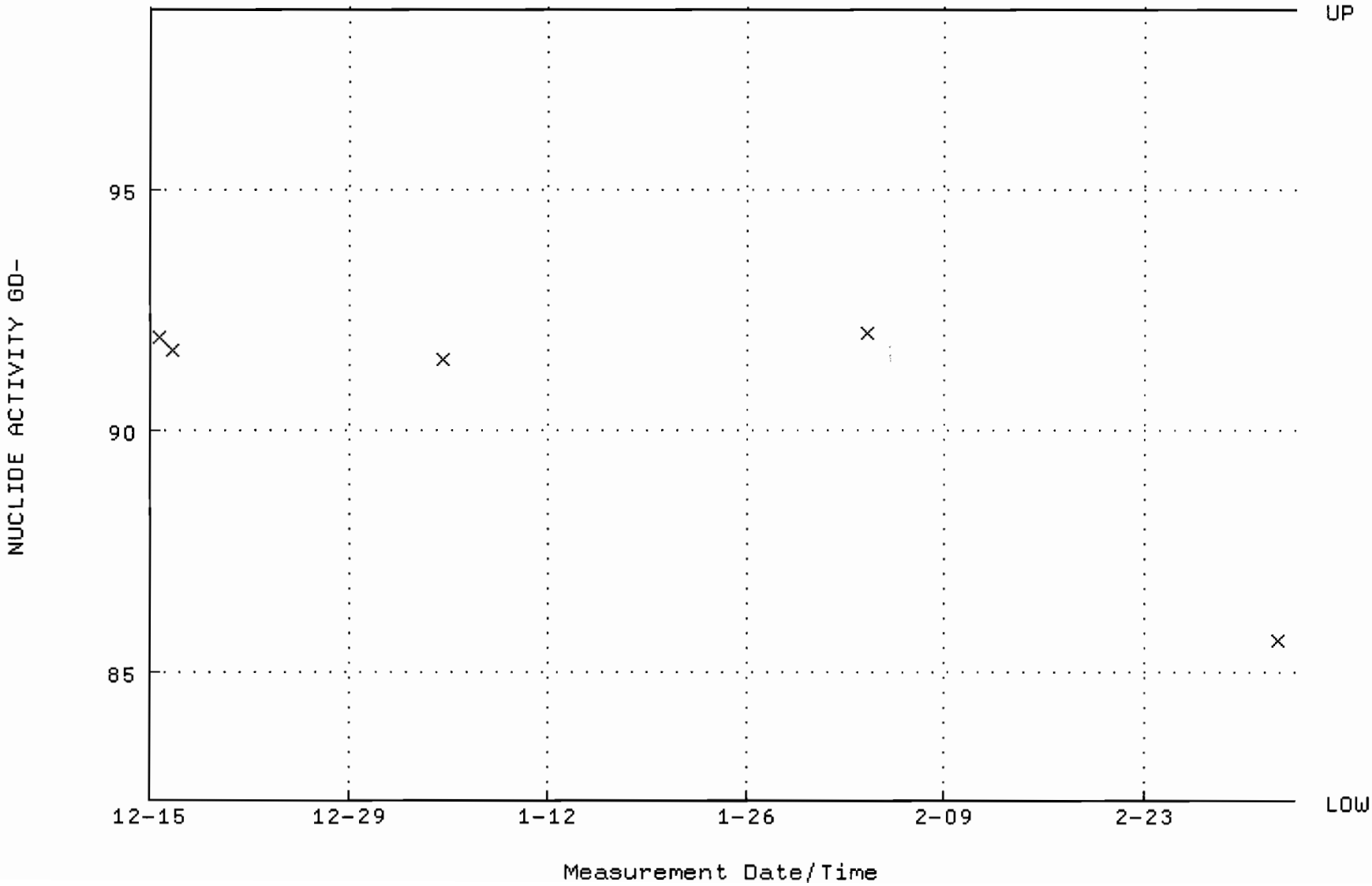

QA filename : DKA100:[ENV_ALPHA.QA.B]B001.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:00 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

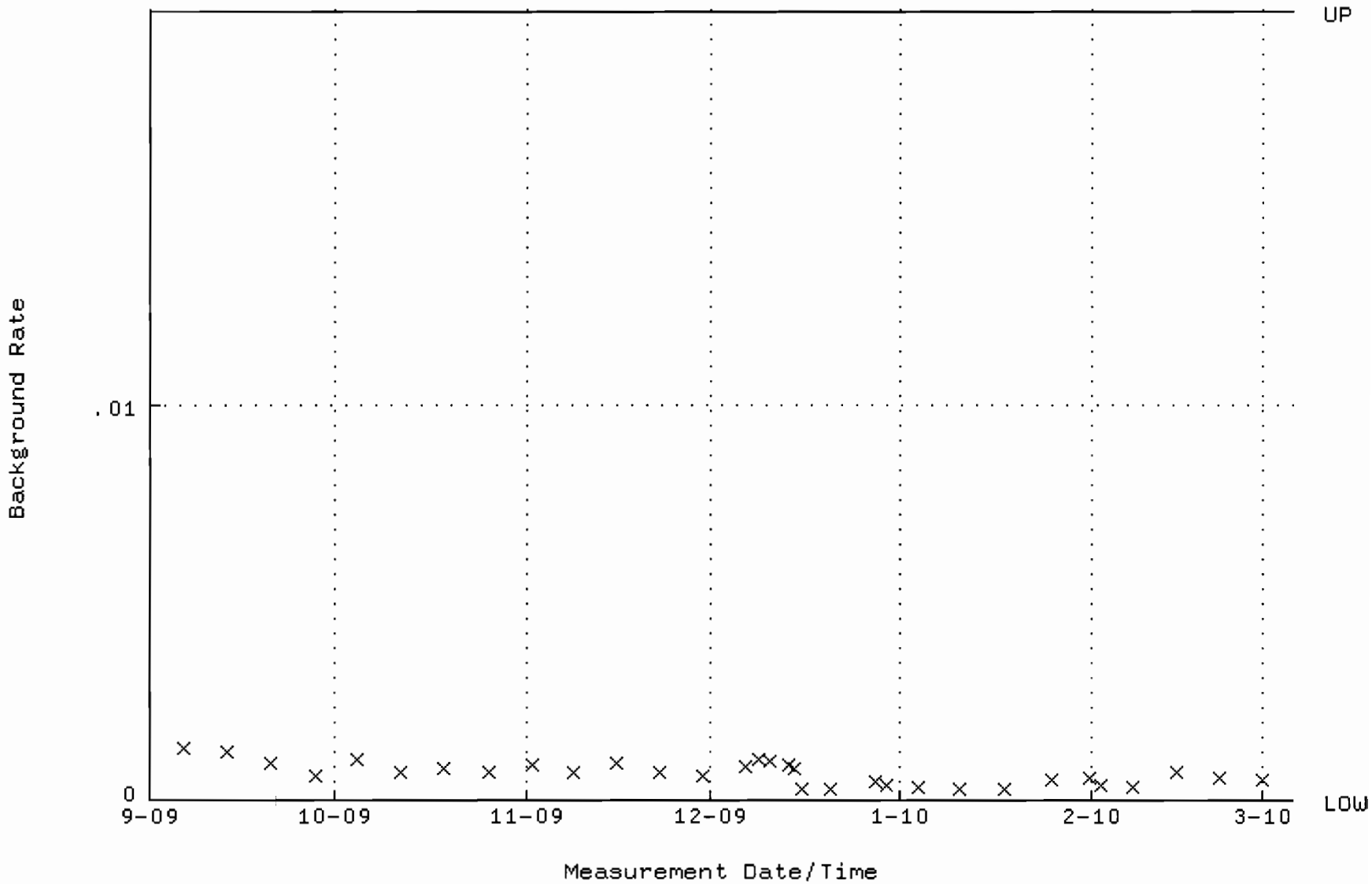

QA filename : DKA100:[ENV_ALPHA.QA.W]W011.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:40 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.279805 through 0.315875

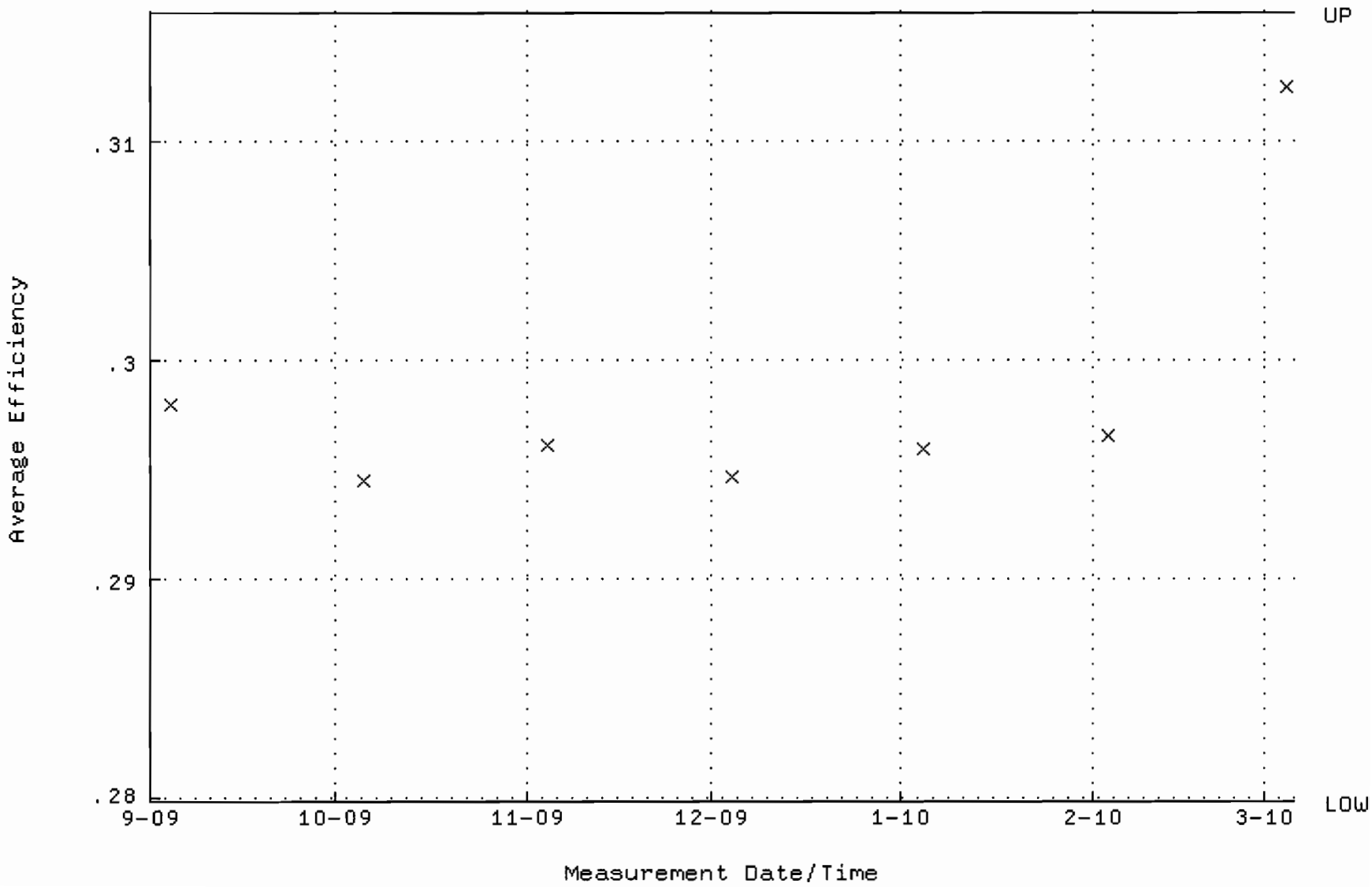

QA filename : DKA100:[ENV_ALPHA.QA.W]W011.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:40 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 88.5390 through 101.289

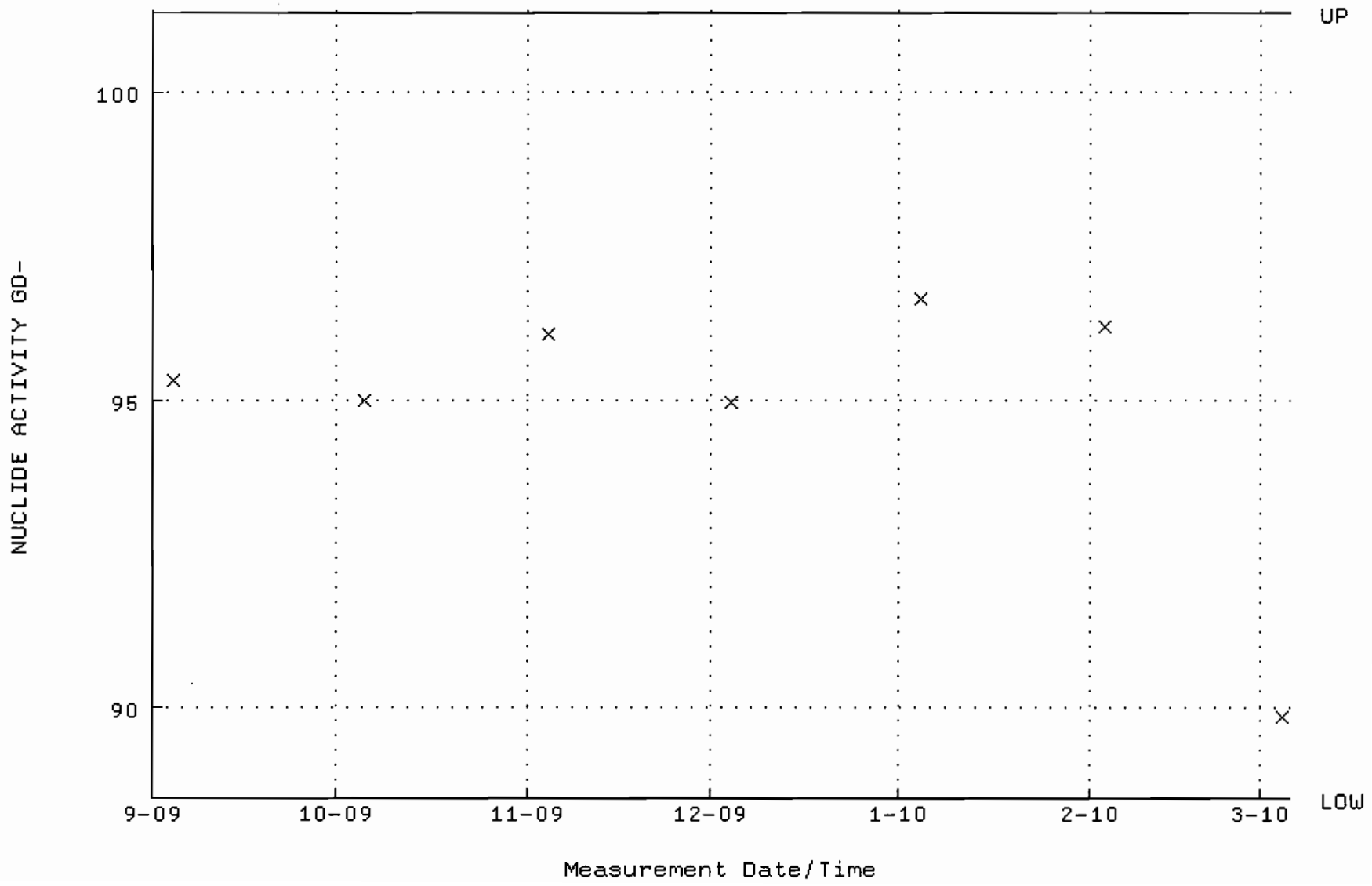

QA filename : DKA100:[ENV_ALPHA.QA.B]B011.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:01 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

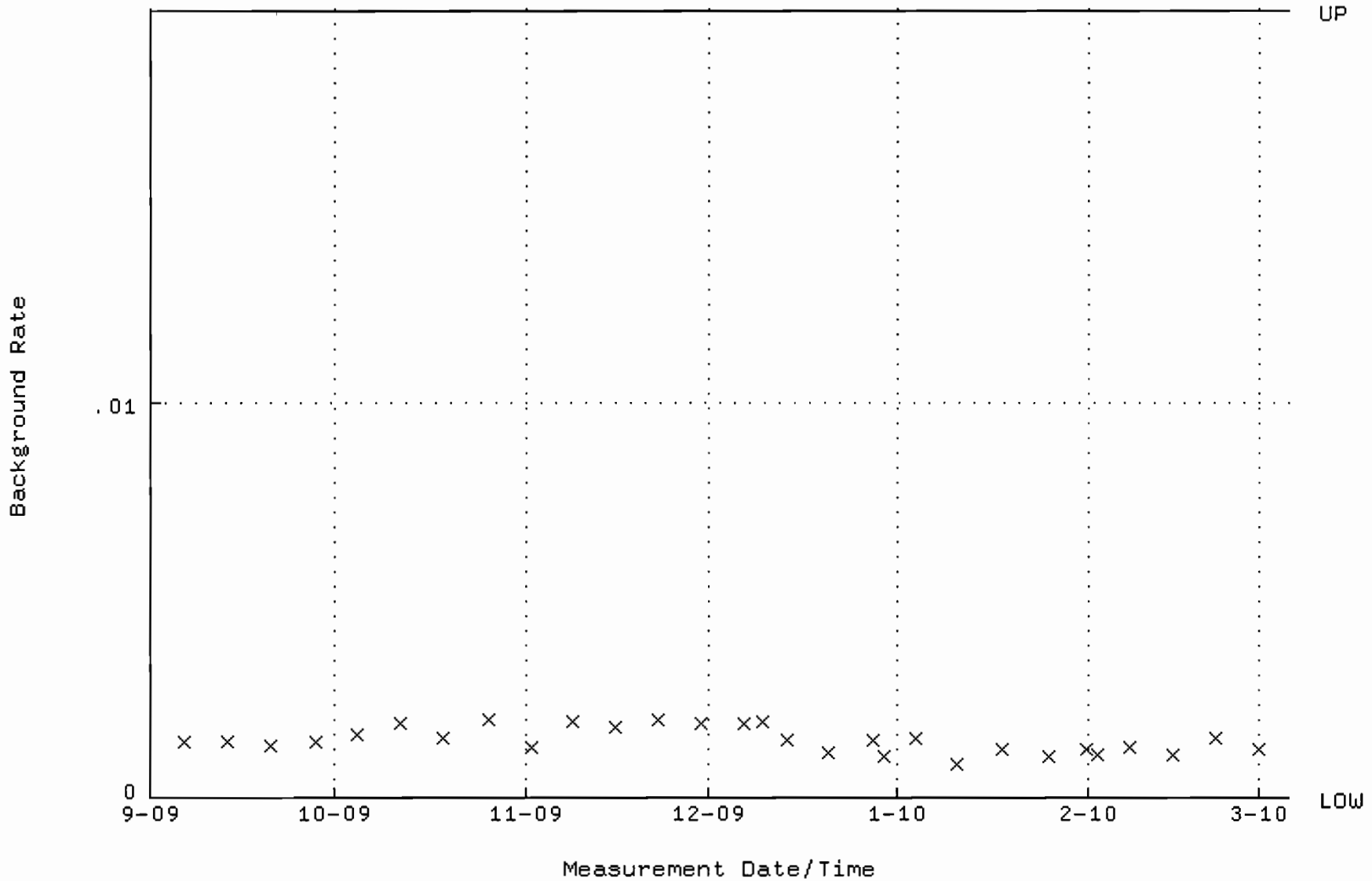

QA filename : DKA100:[ENV_ALPHA.QA.W]W026.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:08 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.295501 through 0.342091

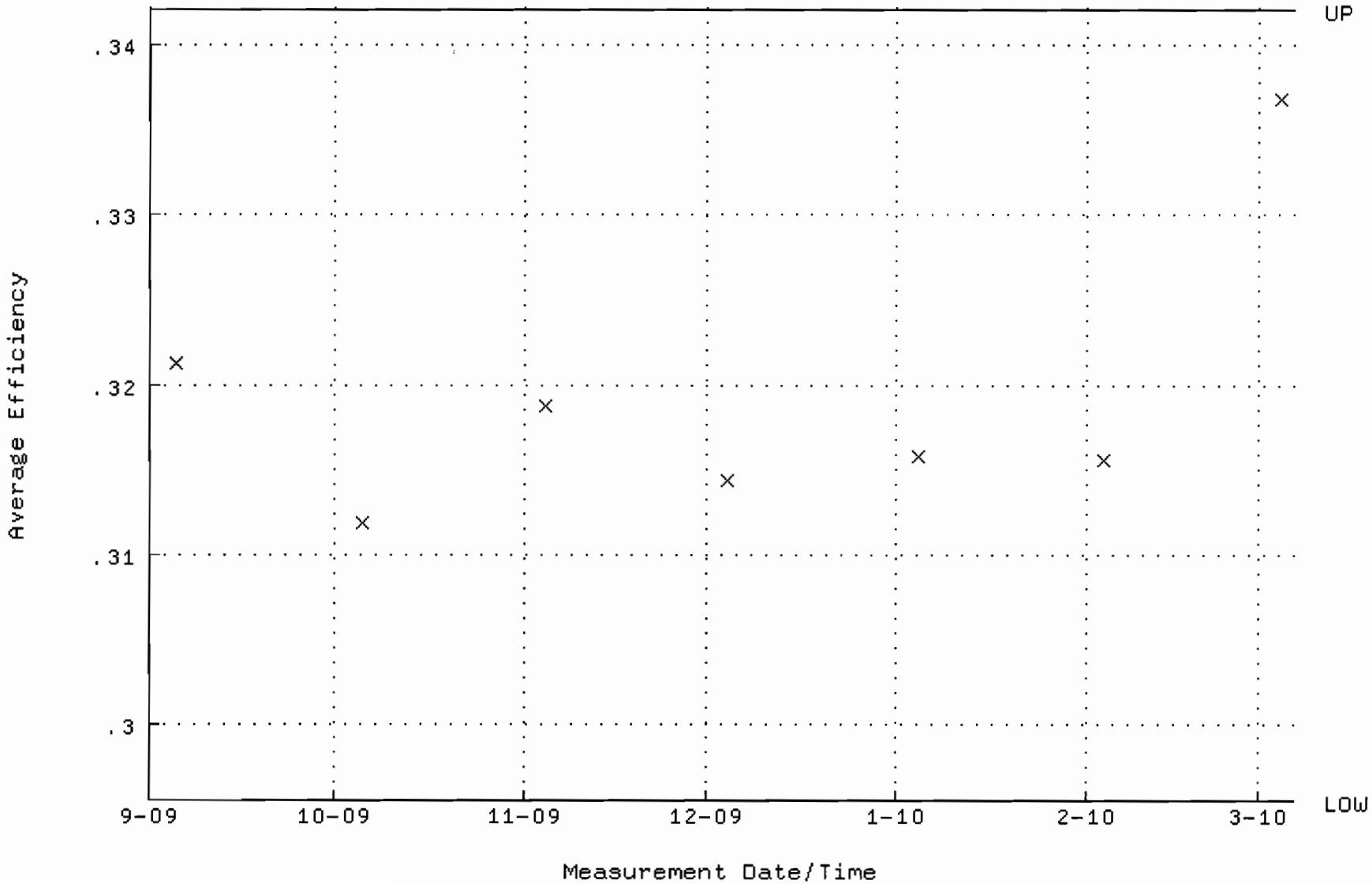

QA filename : DKA100:[ENV_ALPHA.QA.W]W026.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:08 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 87.7241 through 91.4271

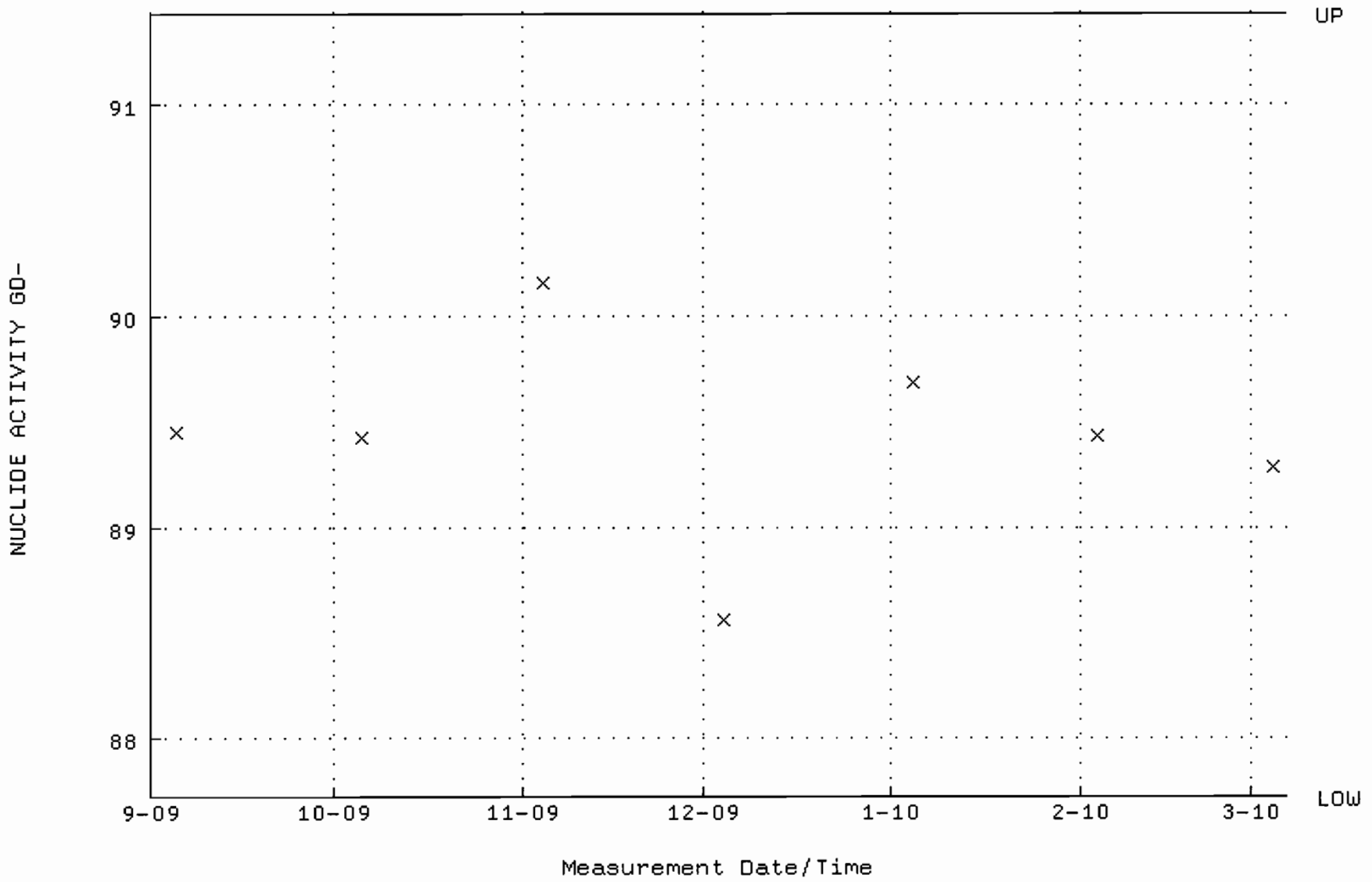

QA filename : DKA100:[ENV_ALPHA.QA.B]B026.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

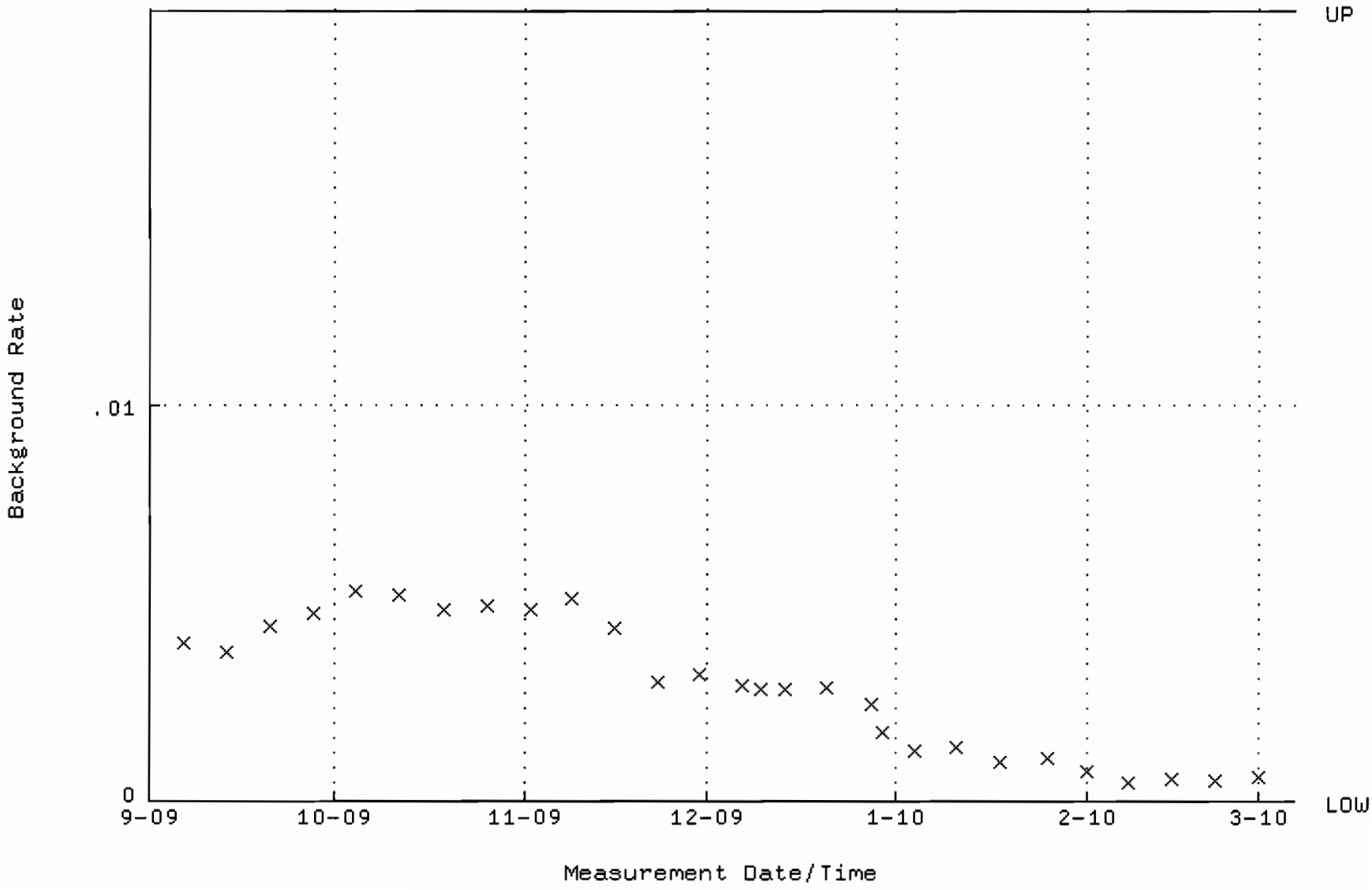

QA filename : DKA100:[ENV_ALPHA.QA.W]W027.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.324980 through 0.344980

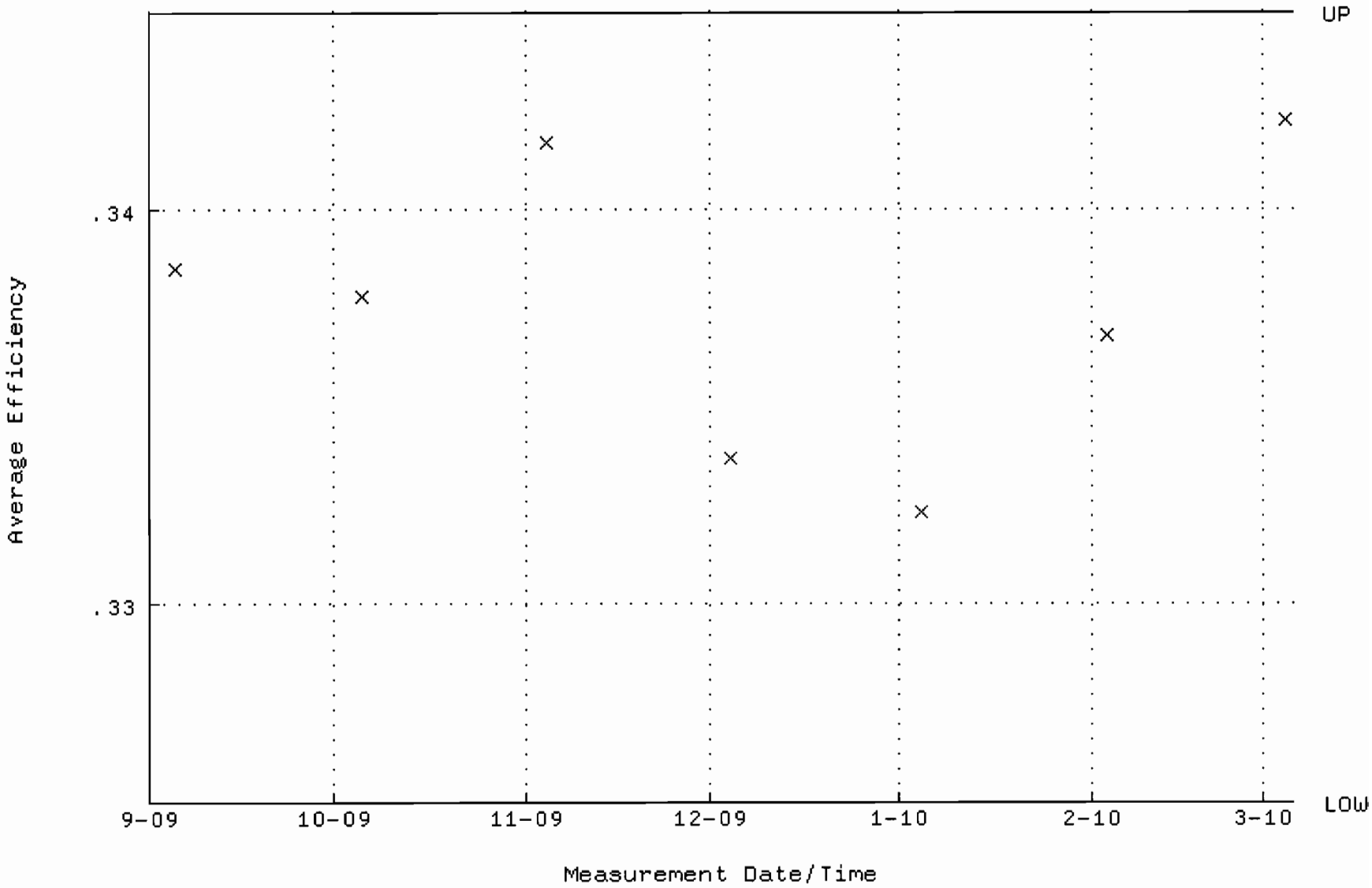

QA filename : DKA100:[ENV_ALPHA.QA.W]W027.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 81.2030 through 89.7506

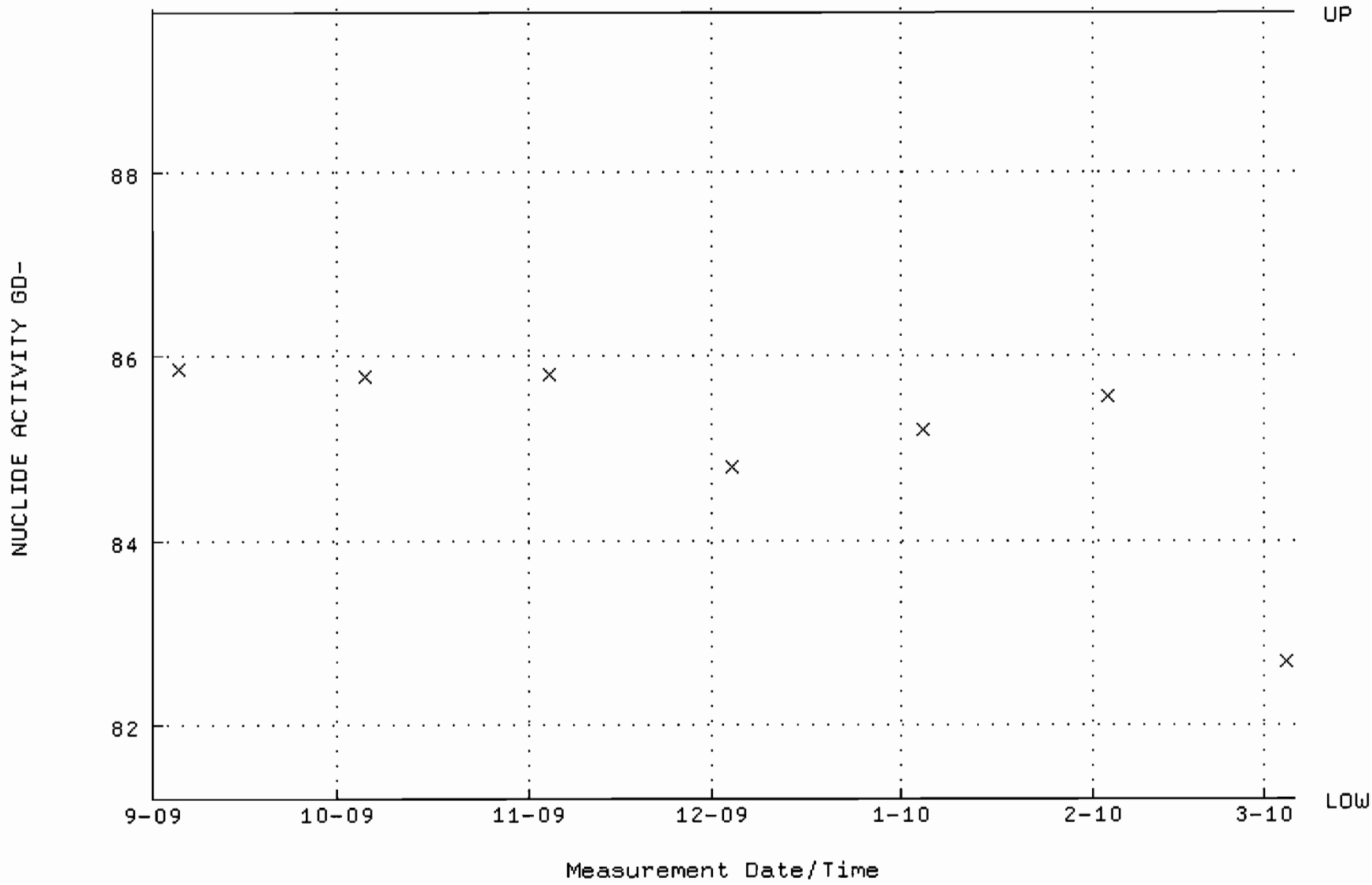

QA filename : DKA100:[ENV_ALPHA.QA.B]B027.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

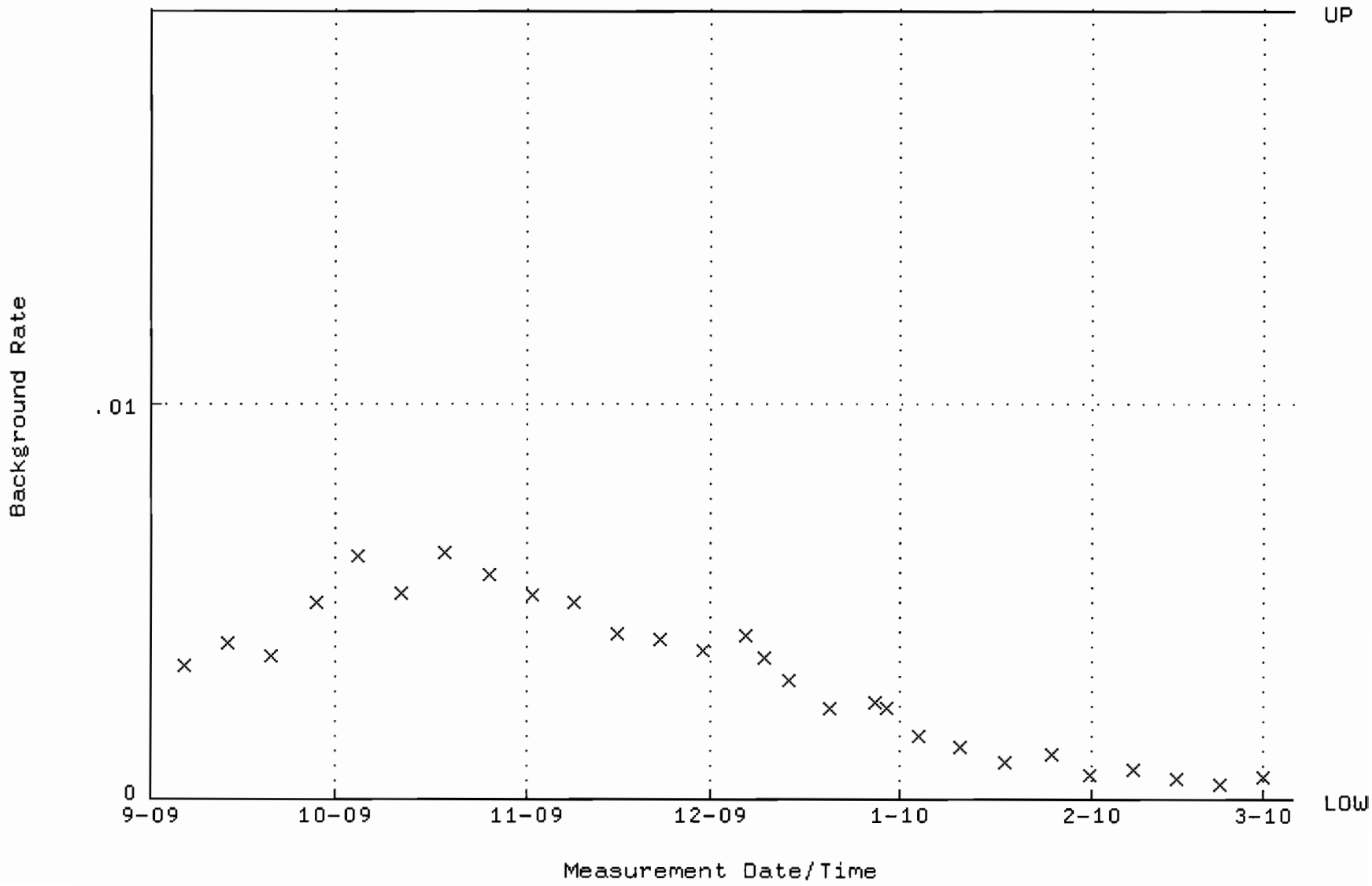

QA filename : DKA100:[ENV_ALPHA.QA.W]W028.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.294270 through 0.317026

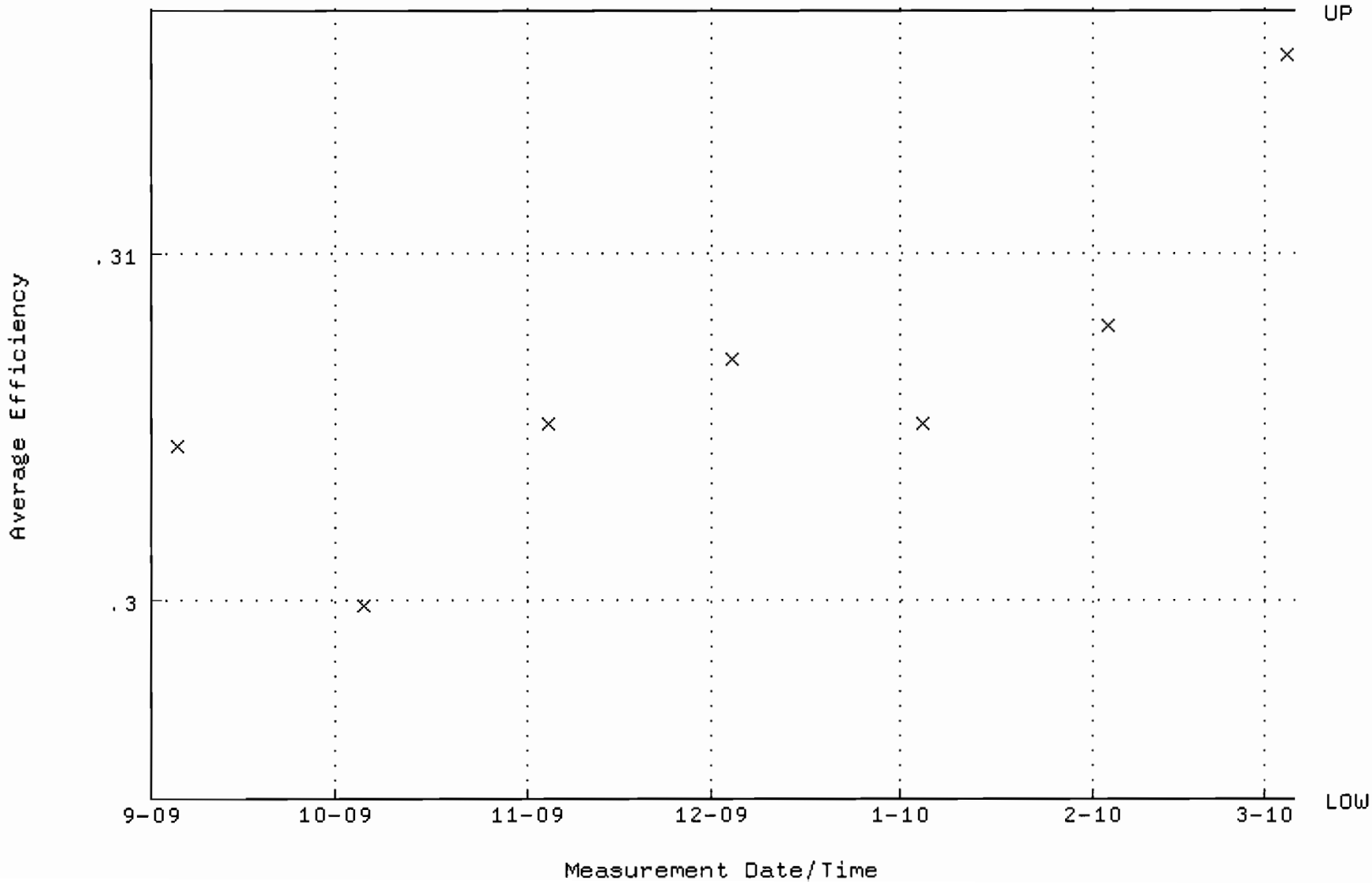

QA filename : DKA100:[ENV_ALPHA.QA.W]W028.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 86.3036 through 92.4168

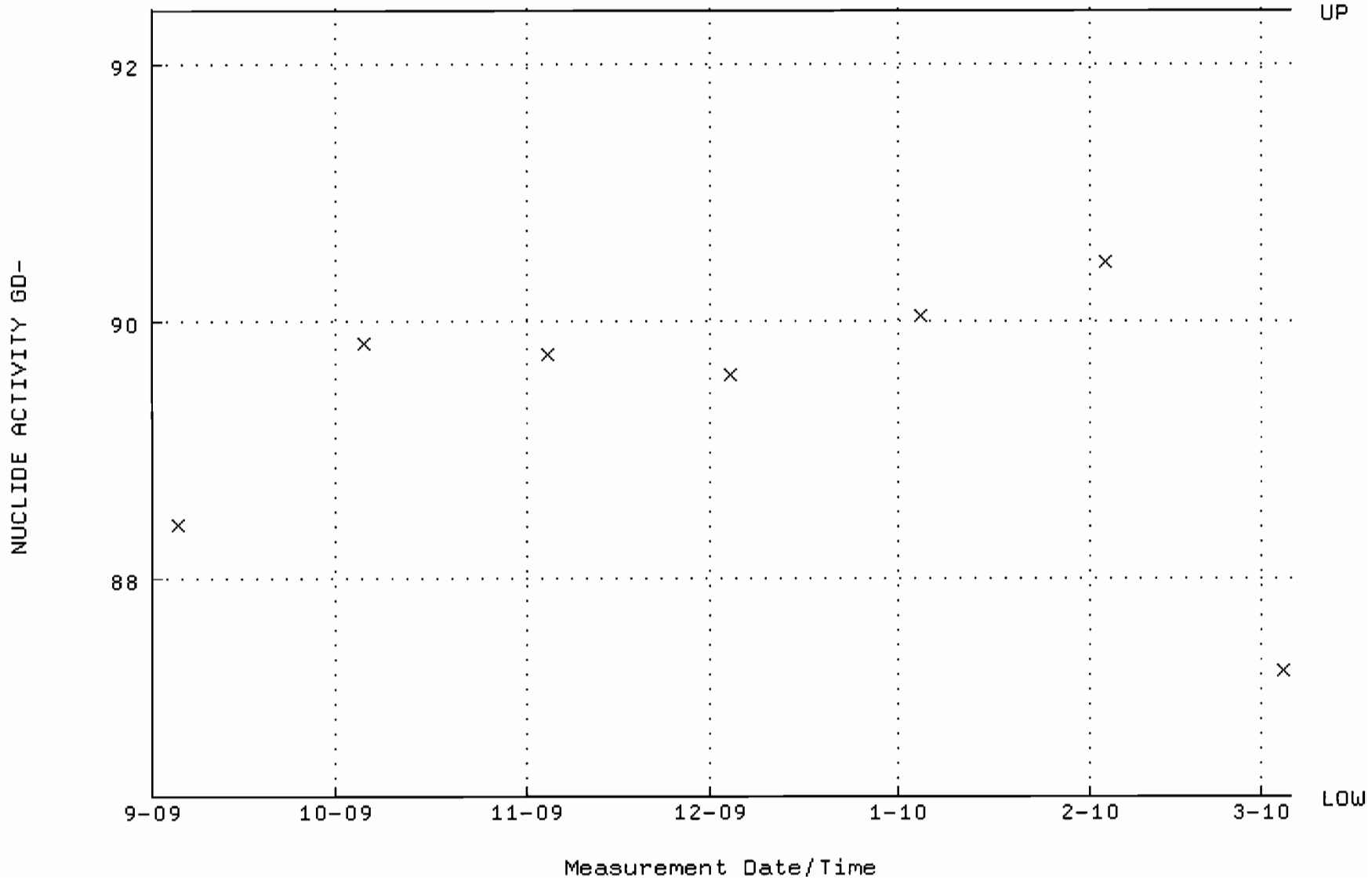

QA filename : DKA100:[ENV_ALPHA.QA.B]B028.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

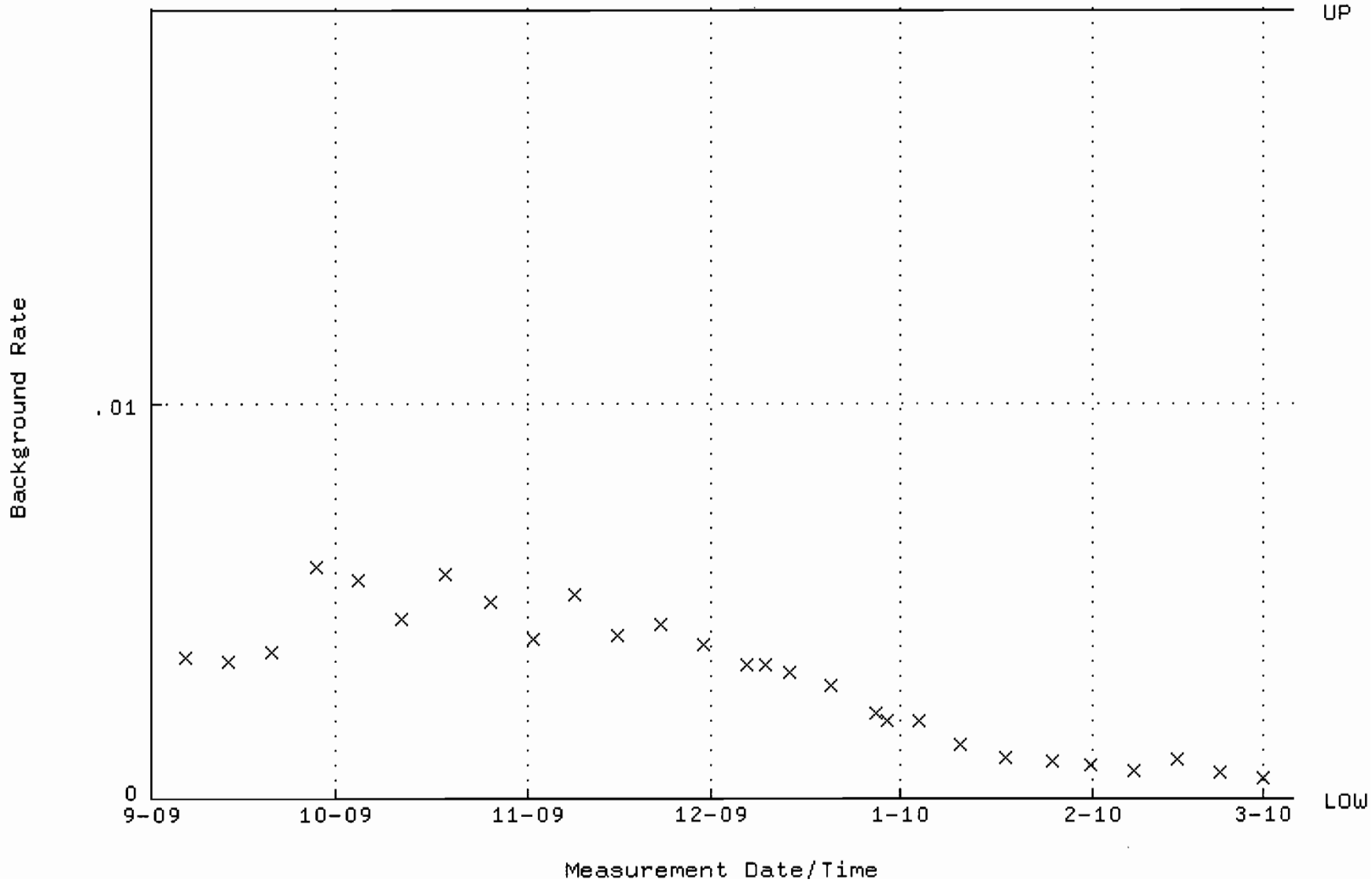

QA filename : DKA100:[ENV_ALPHA.QA.W]W029.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

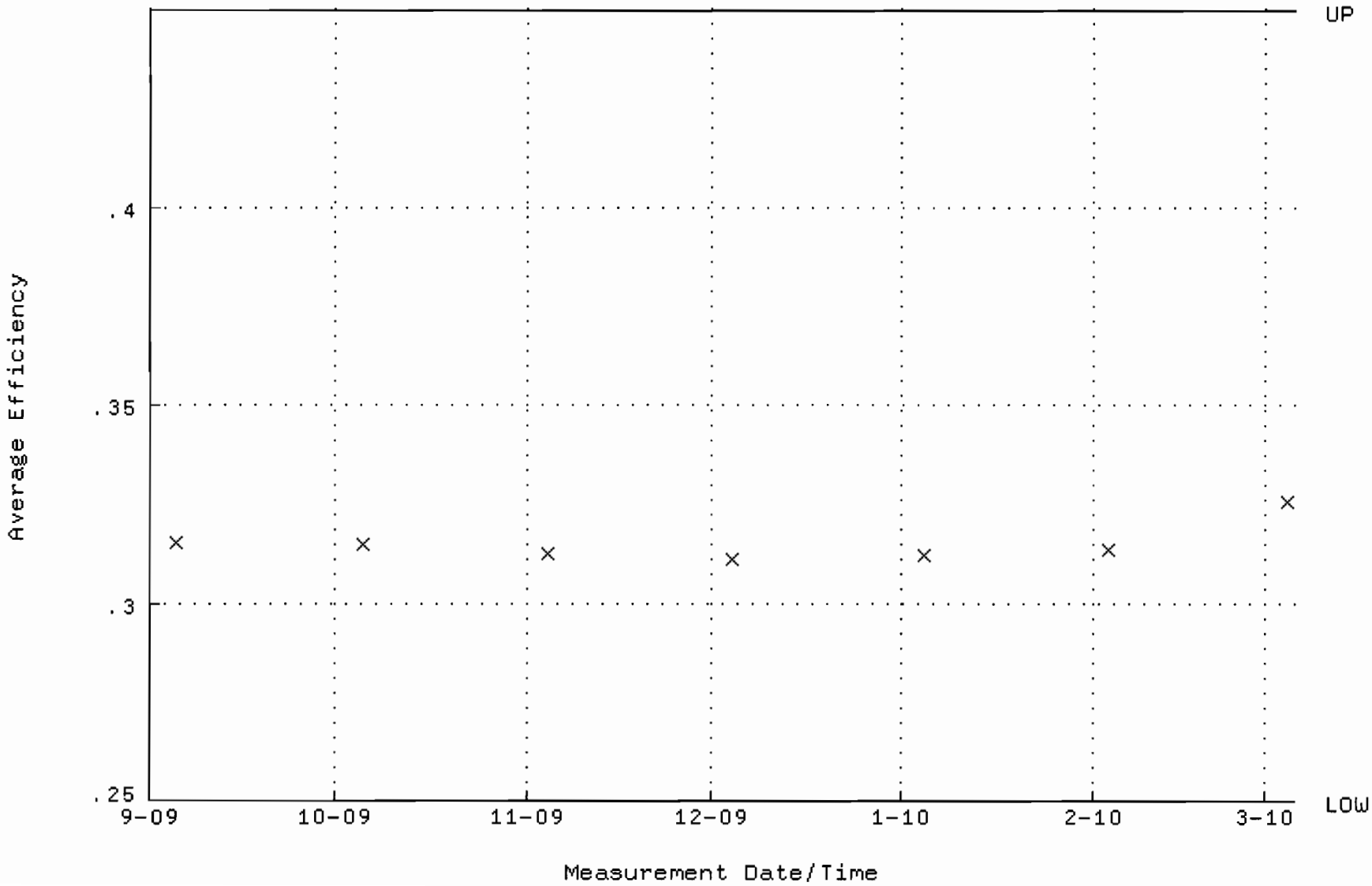

QA filename : DKA100:[ENV_ALPHA.QA.W]W029.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

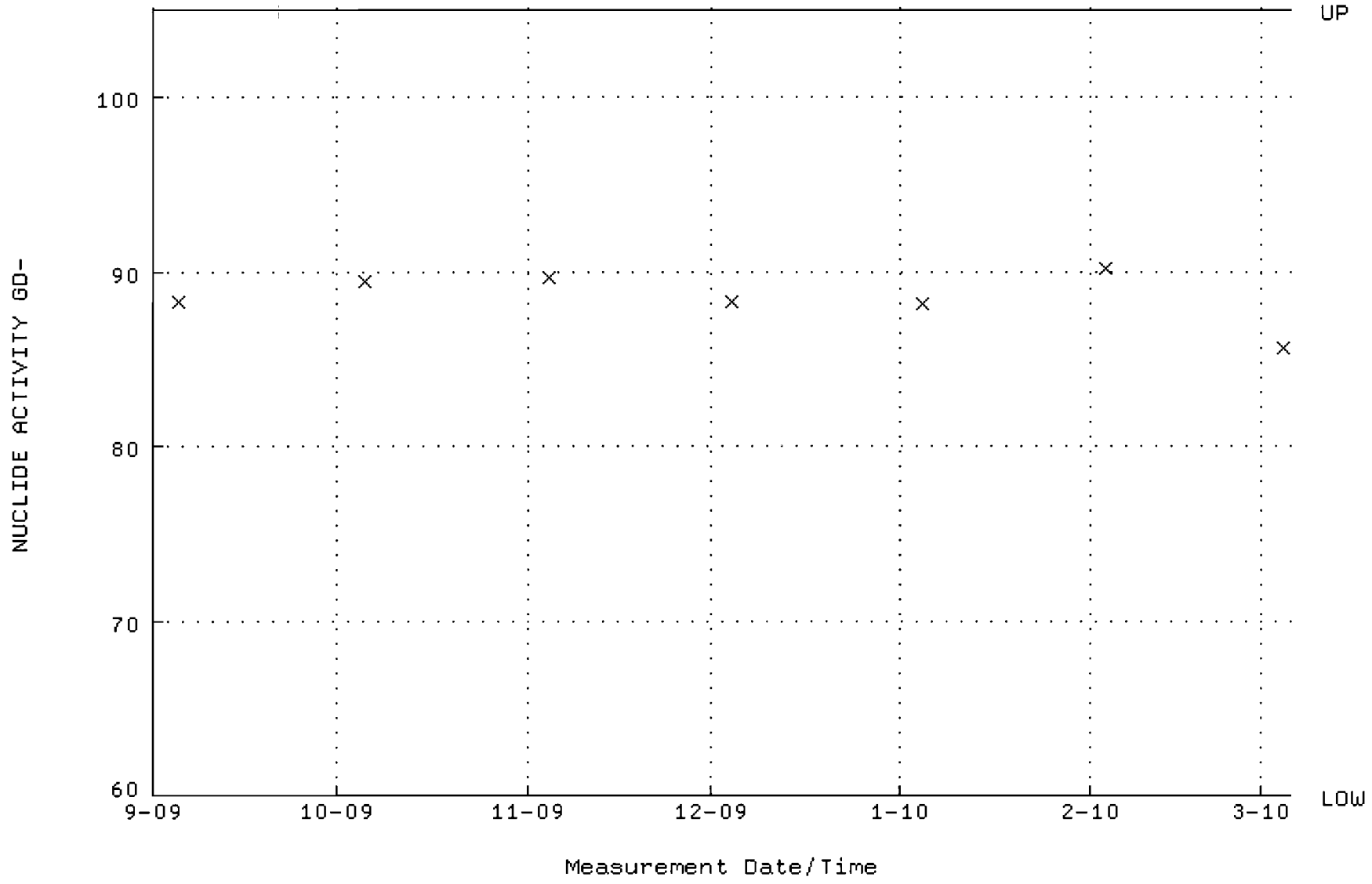

QA filename : DKA100:[ENV_ALPHA.QA.B]B029.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

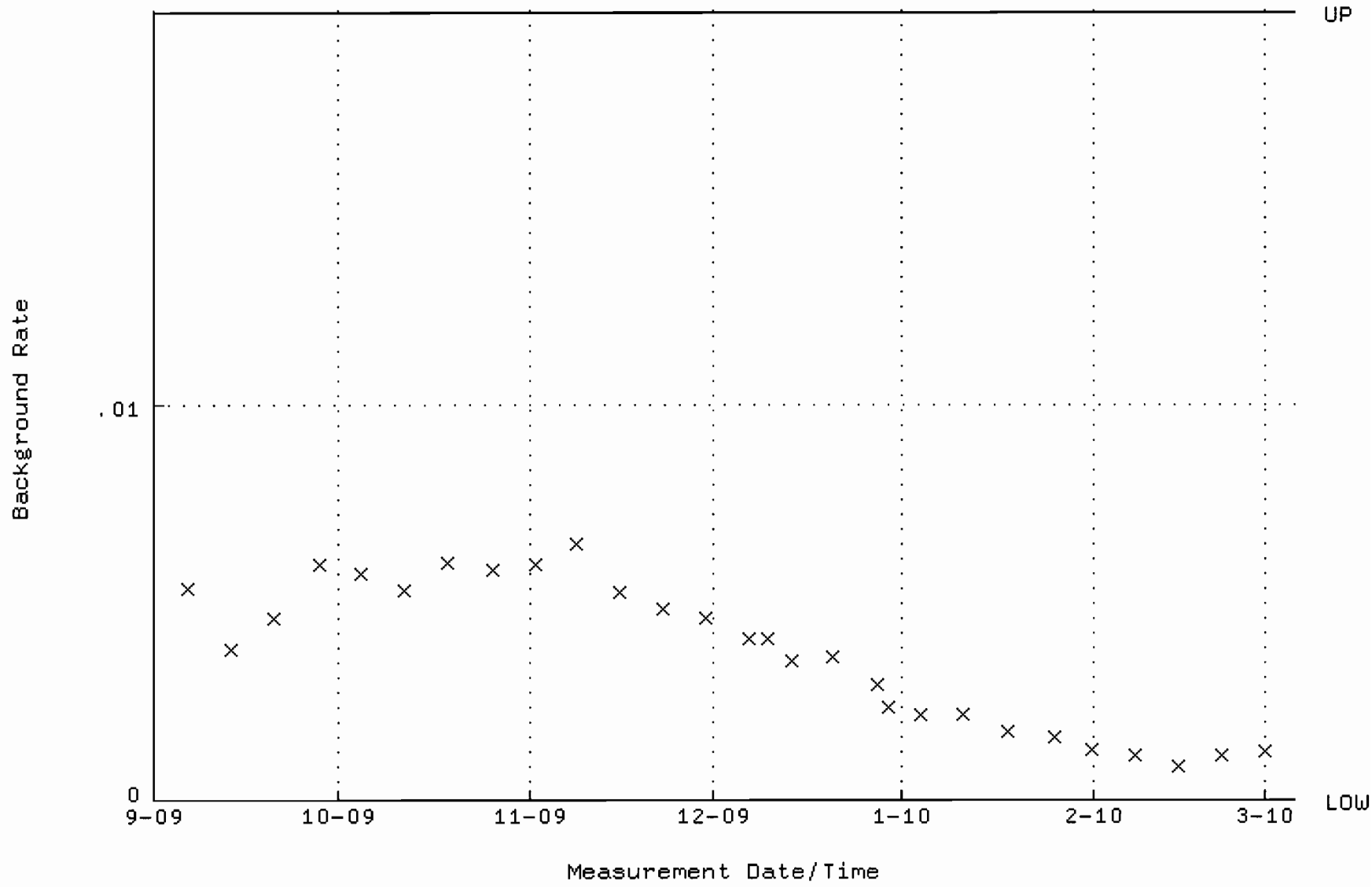

QA filename : DKA100:[ENV_ALPHA.QA.W]W101.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:51 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.317122 through 0.350794

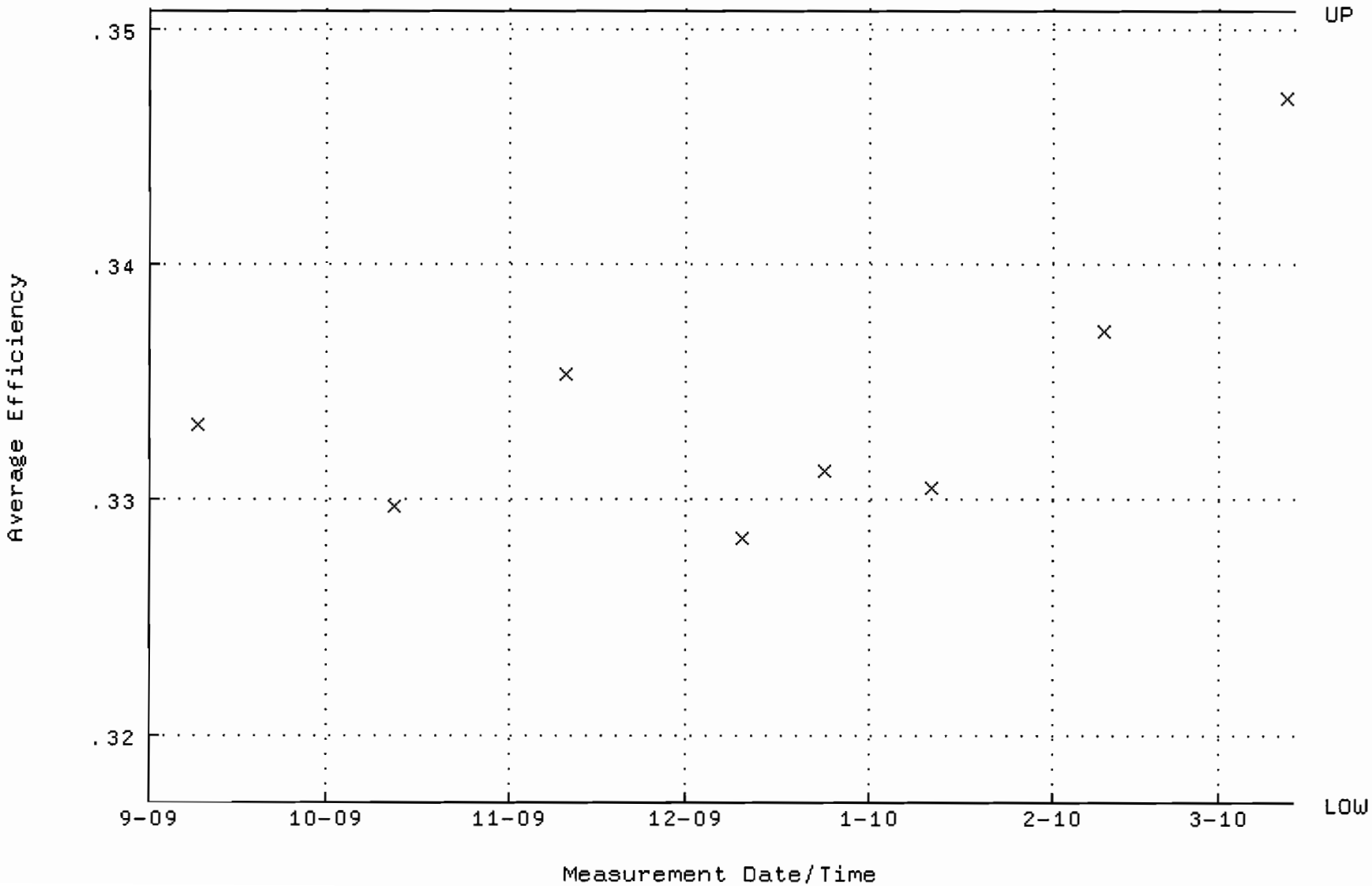

QA filename : DKA100:[ENV_ALPHA.QA.W]W101.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:51 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 66.8994 through 74.4026

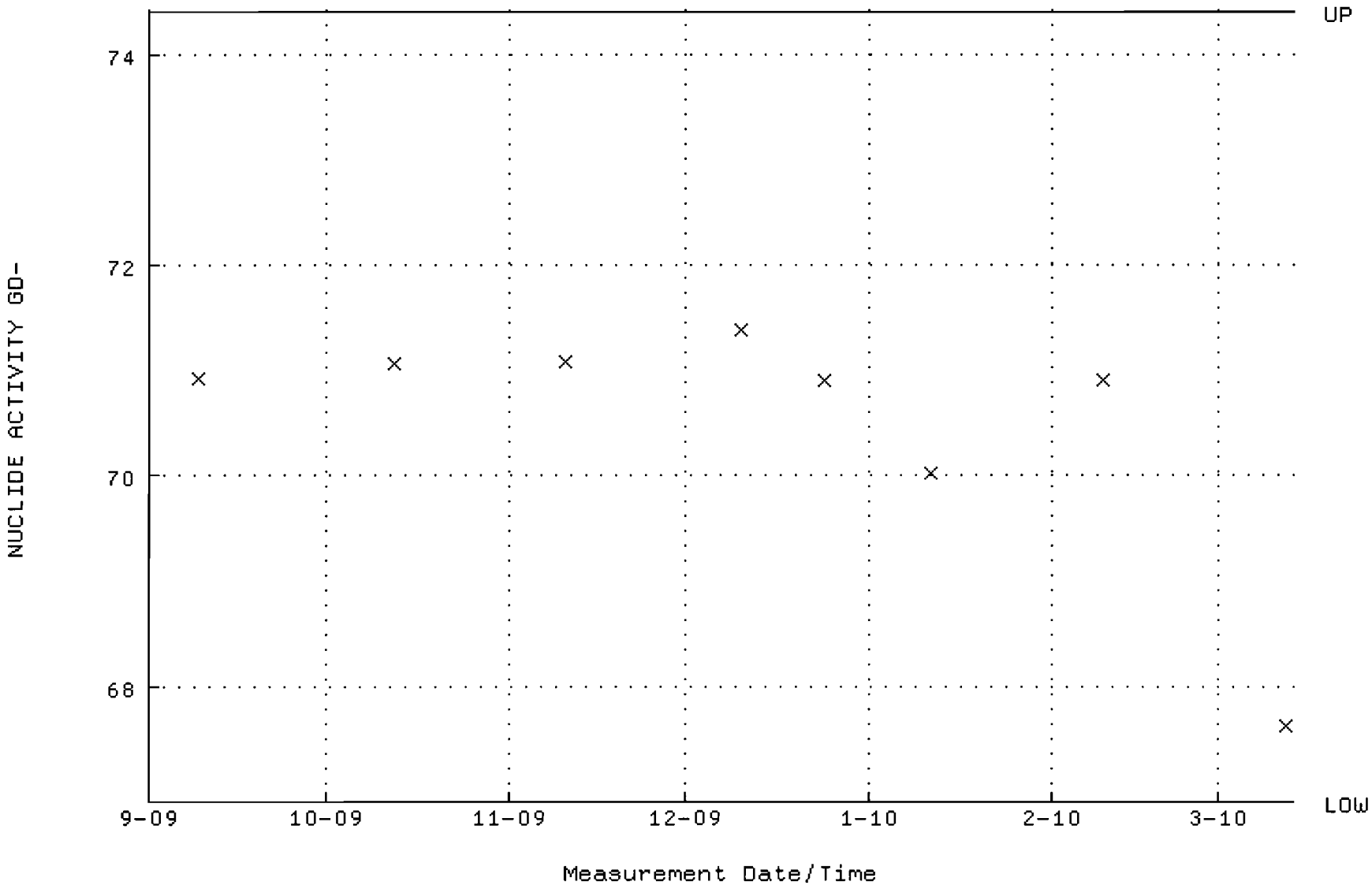

QA filename : DKA100:[ENV_ALPHA.QA.B]B101.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

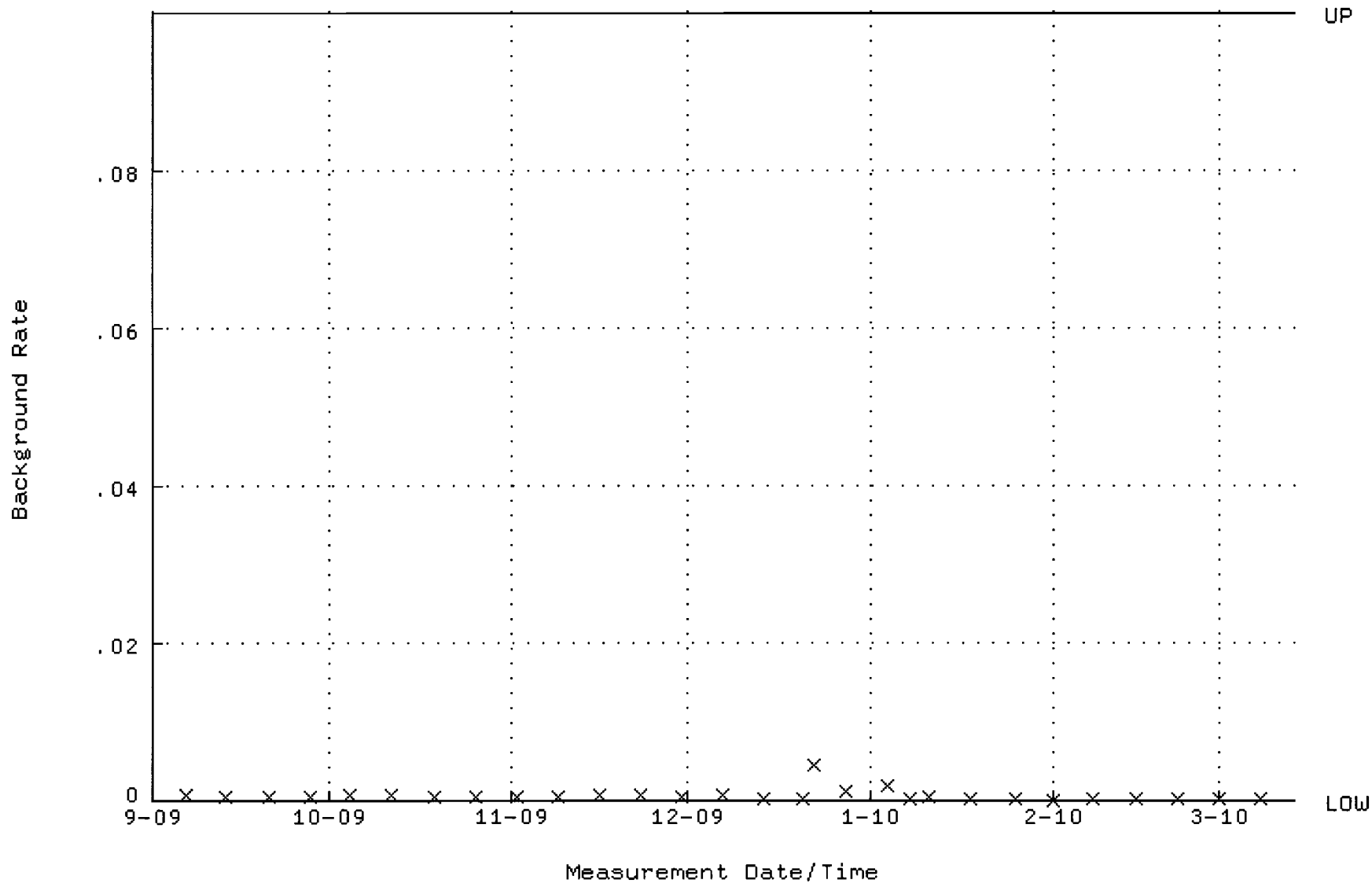

QA filename : DKA100:[ENV_ALPHA.QA.W]W102.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:51 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.315554 through 0.352816

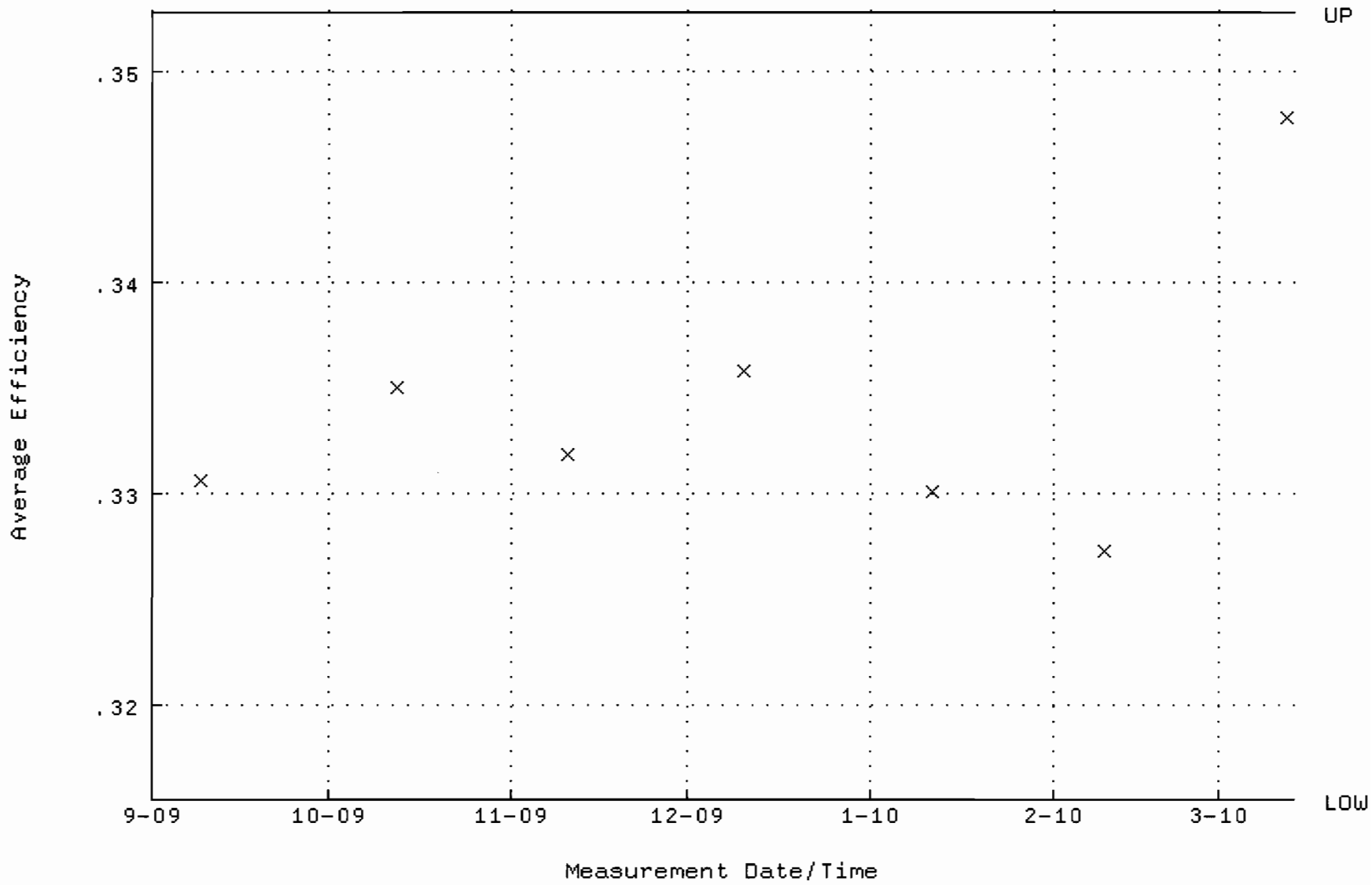

QA filename : DKA100:[ENV_ALPHA.QA.W]W102.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:51 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 66.6183 through 74.7119

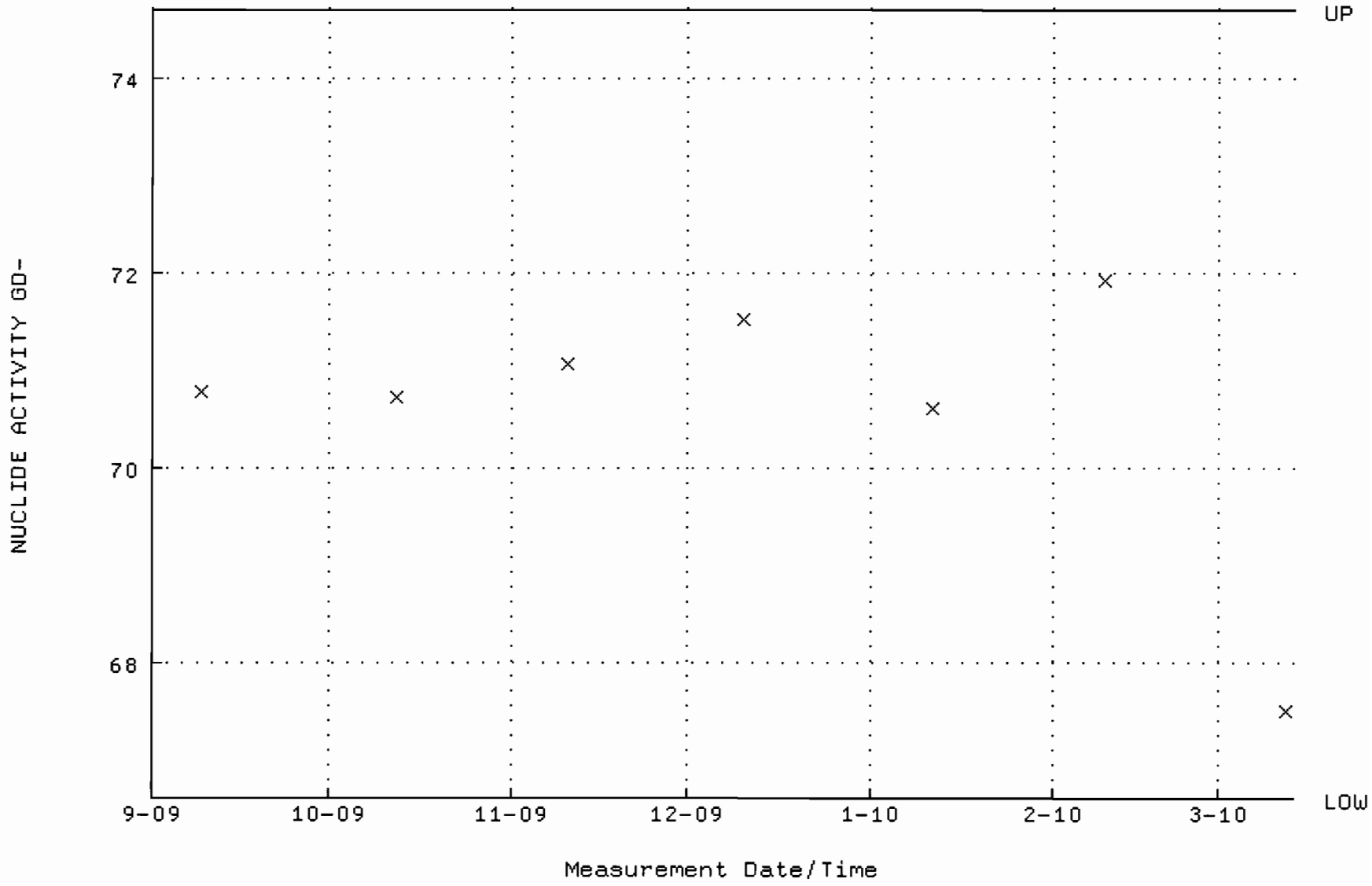

QA filename : DKA100:[ENV_ALPHA.QA.B]B102.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

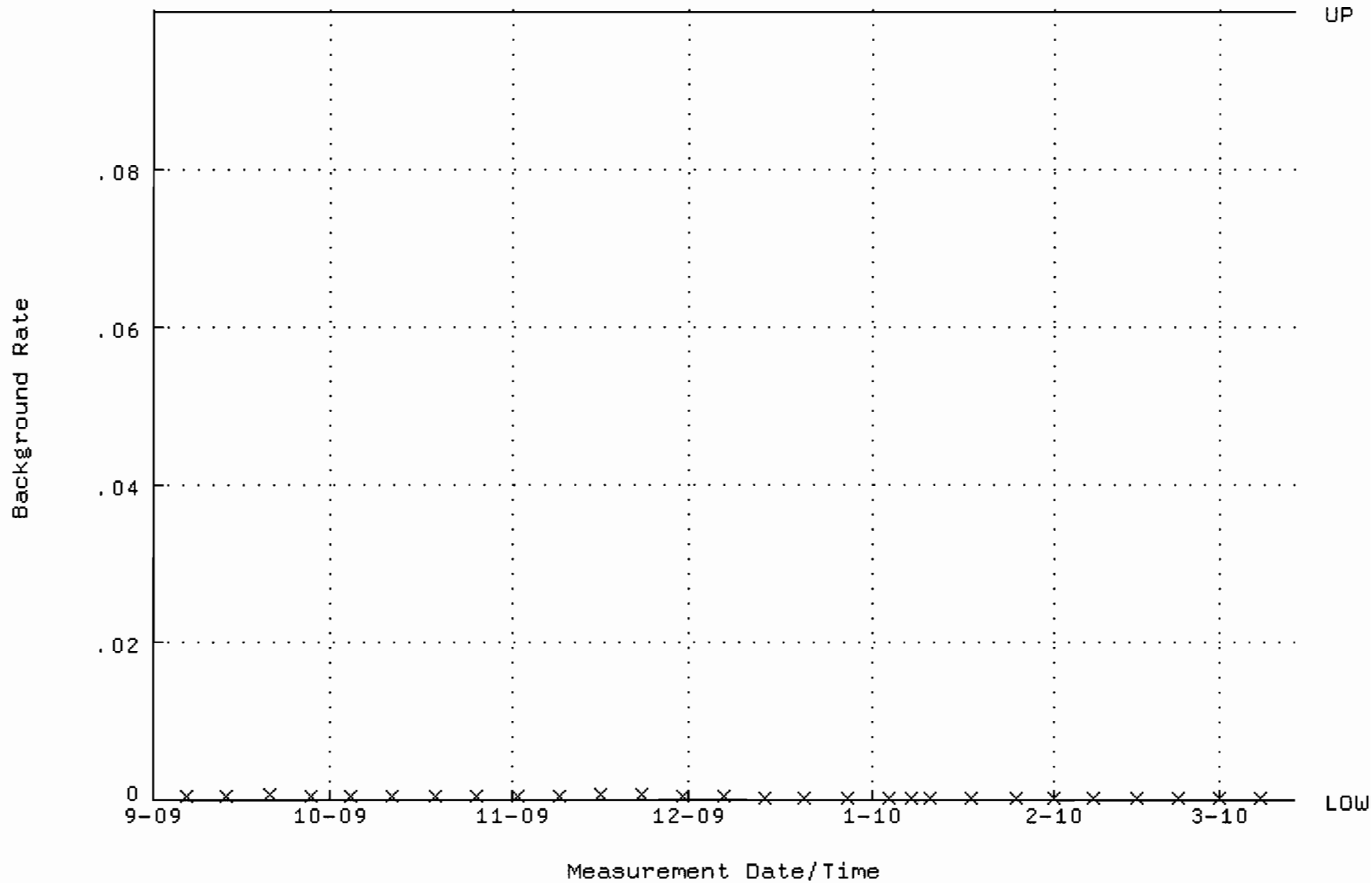

QA filename : DKA100:[ENV_ALPHA.QA.W]W103.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:51 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.322227 through 0.345175

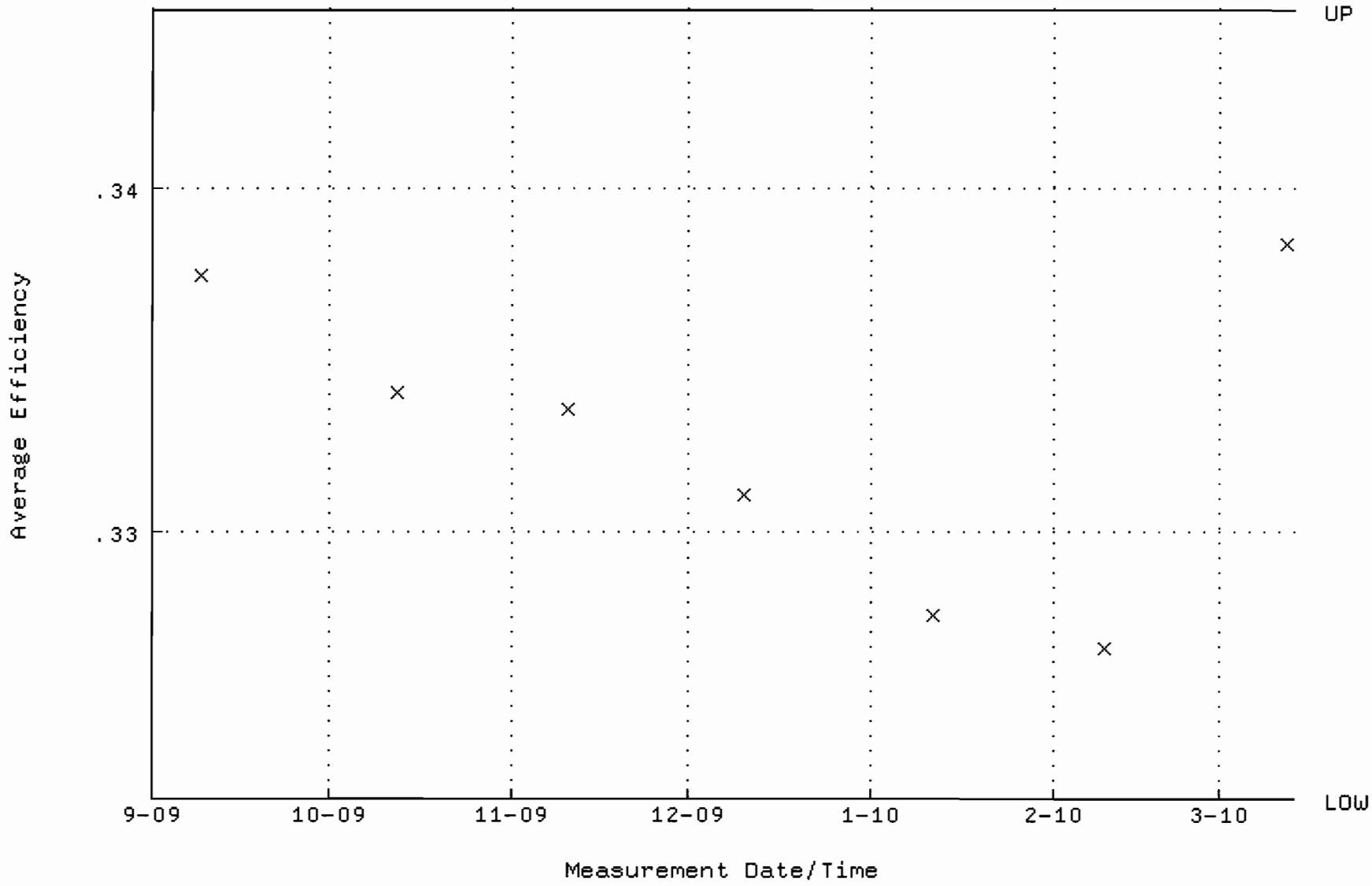

QA filename : DKA100:[ENV_ALPHA.QA.W]W103.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:51 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 64.9318 through 70.5959

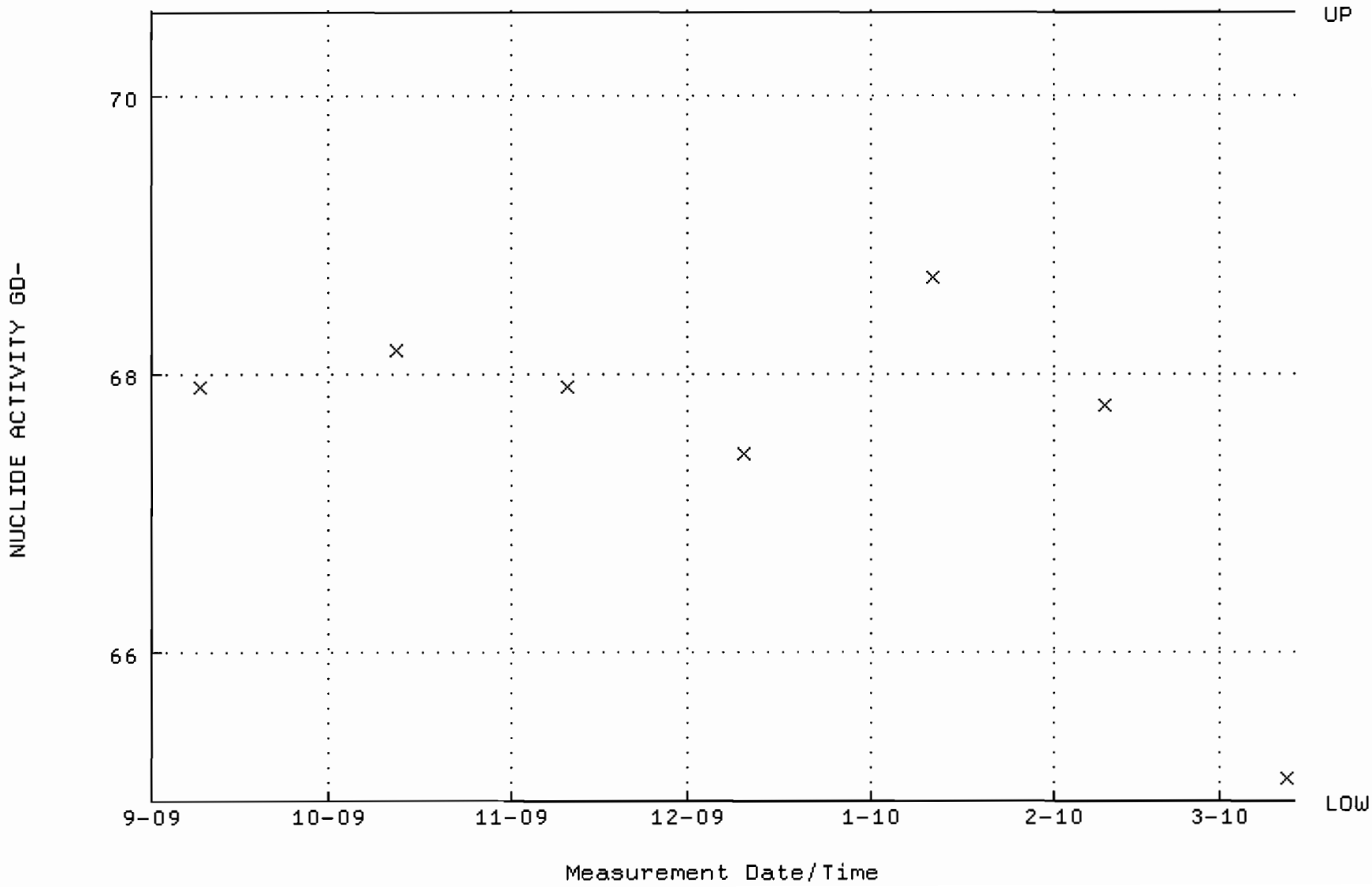

QA filename : DKA100:[ENV_ALPHA.QA.B]B103.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

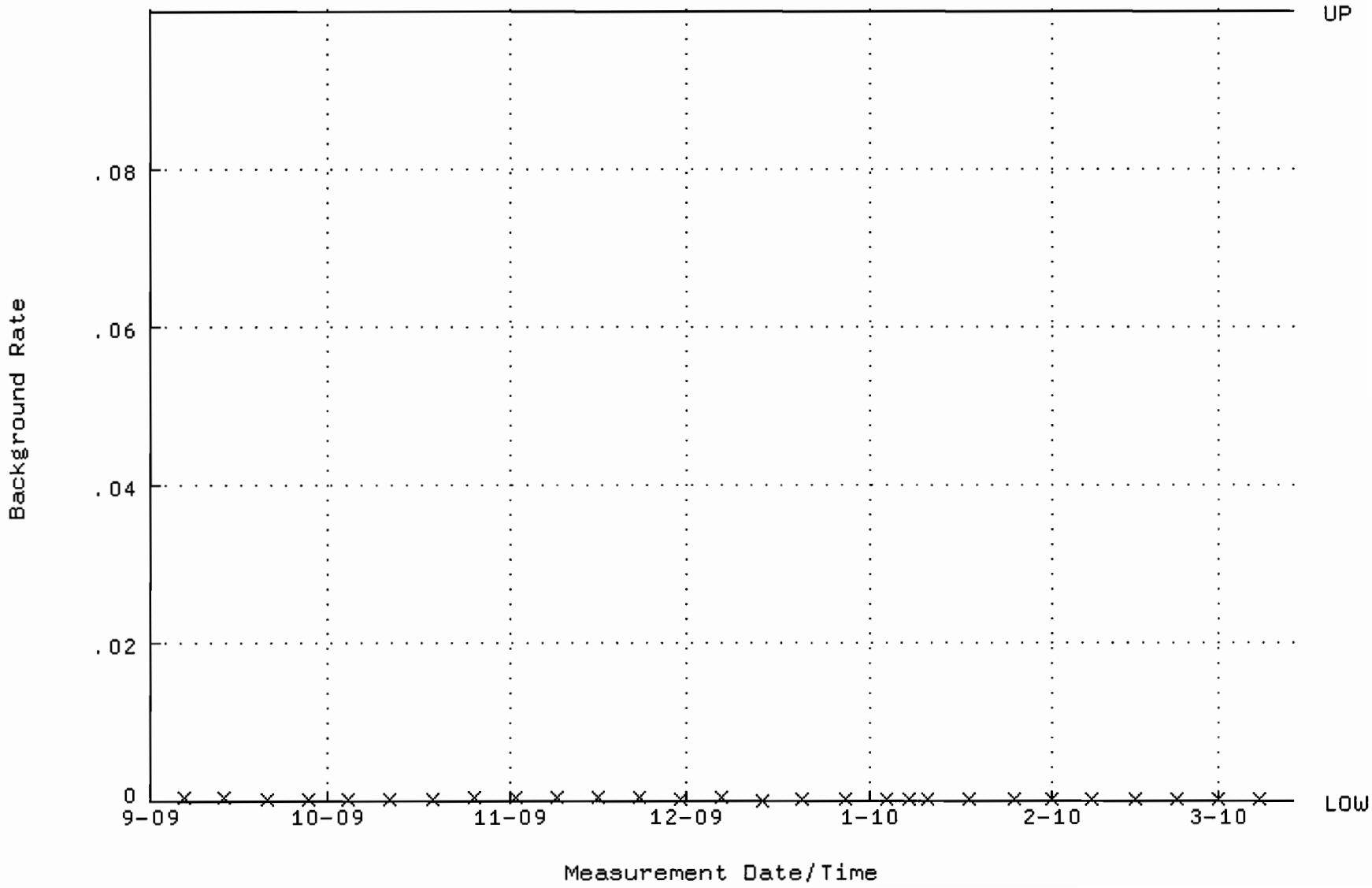

QA filename : DKA100:[ENV_ALPHA.QA.W]W105.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-SEP-2009 08:05:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.309544 through 0.338666

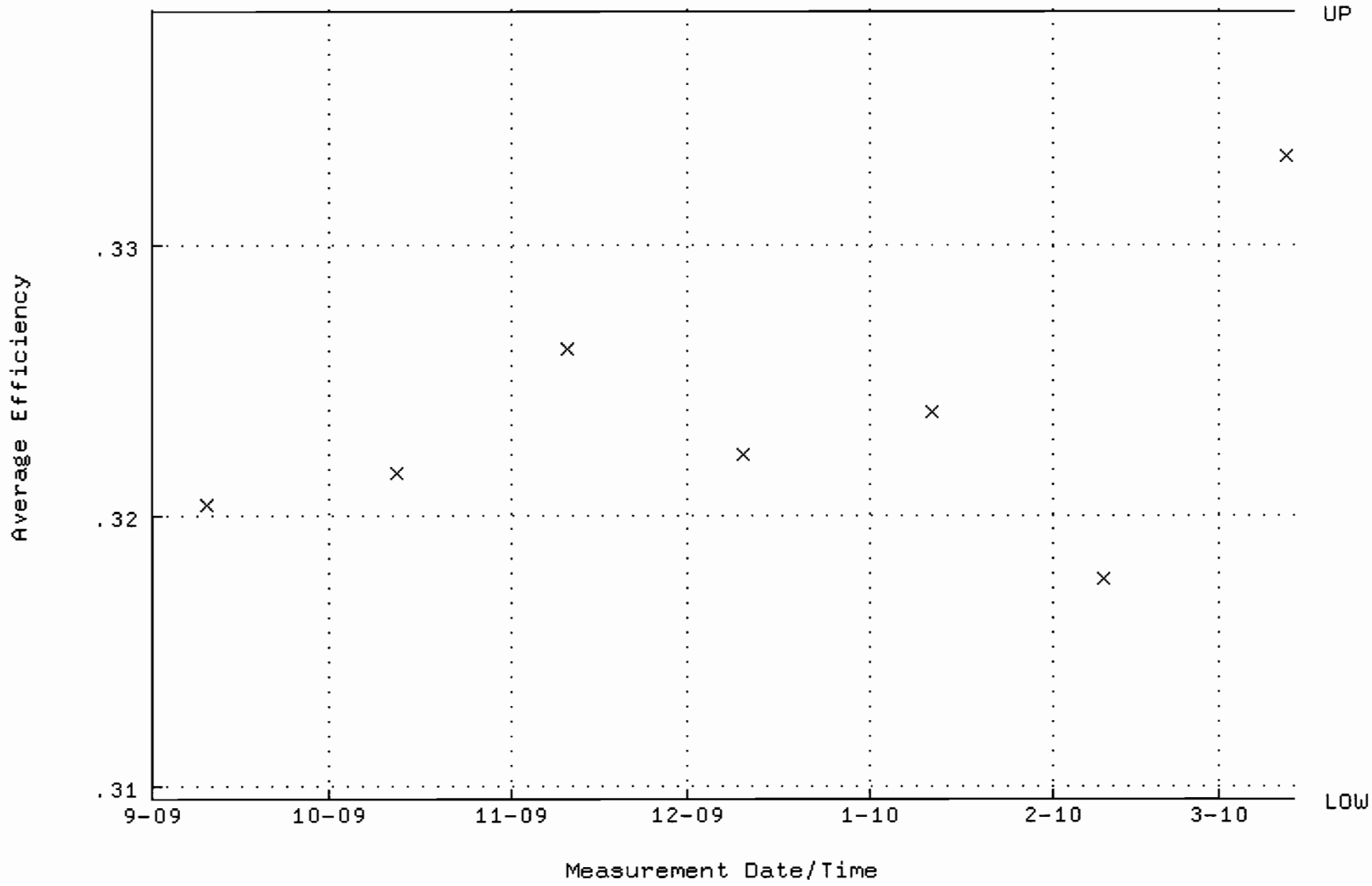

QA filename : DKA100:[ENV_ALPHA.QA.W]W105.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-SEP-2009 08:05:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 67.6585 through 76.2091

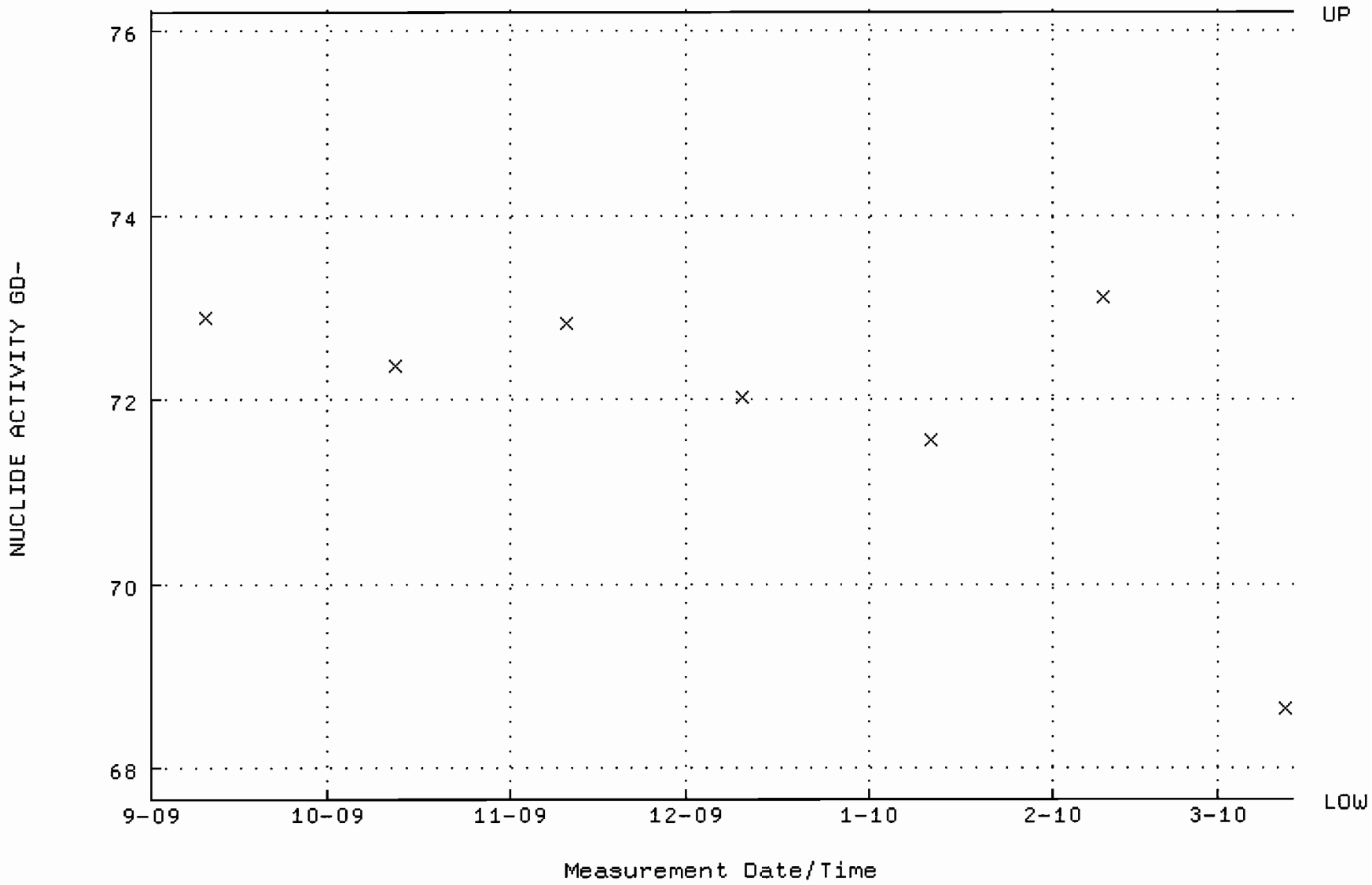

QA filename : DKA100:[ENV_ALPHA.QA.B]B105.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

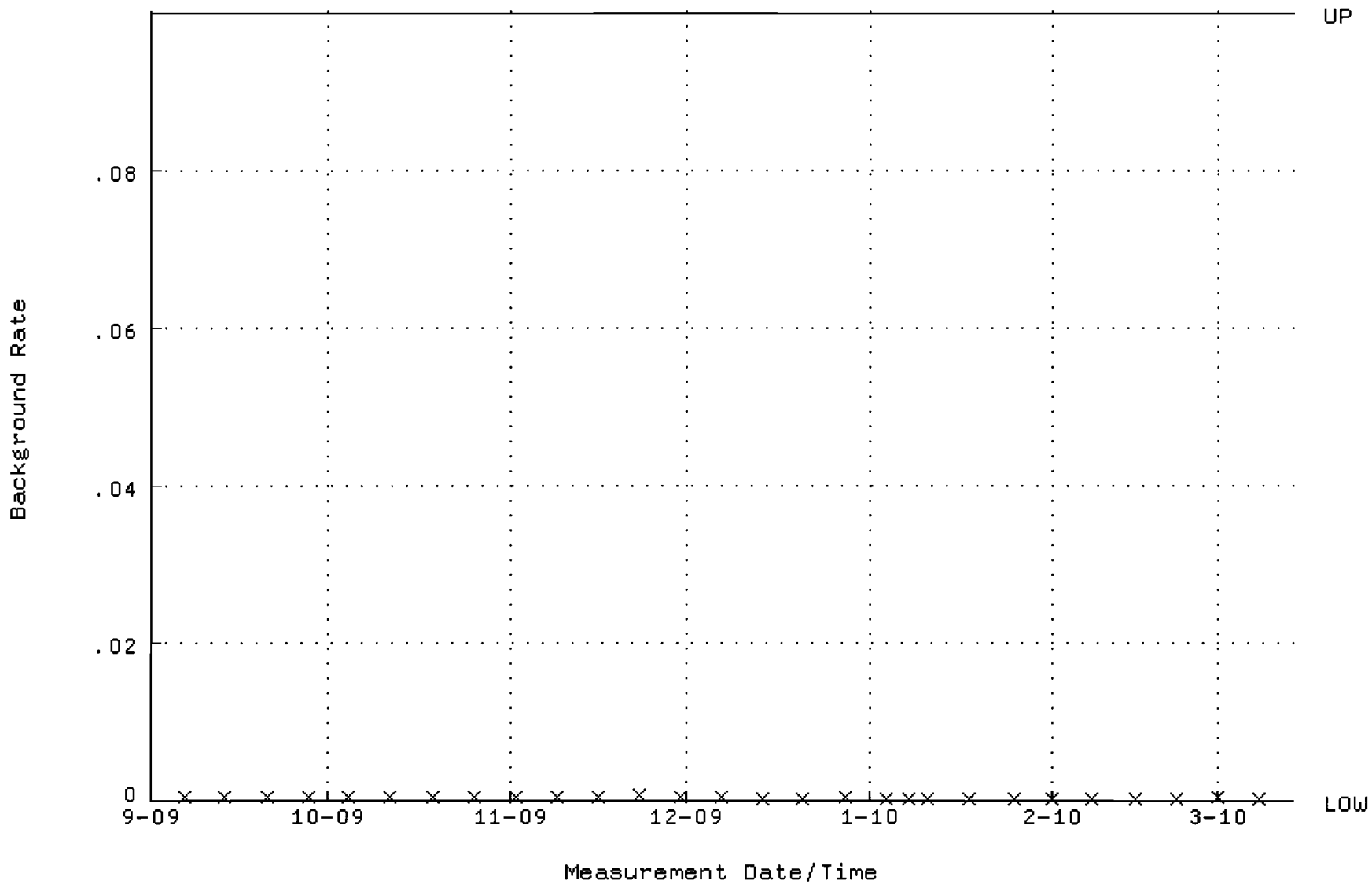

QA filename : DKA100:[ENV_ALPHA.QA.W]W106.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:51 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.307743 through 0.341905

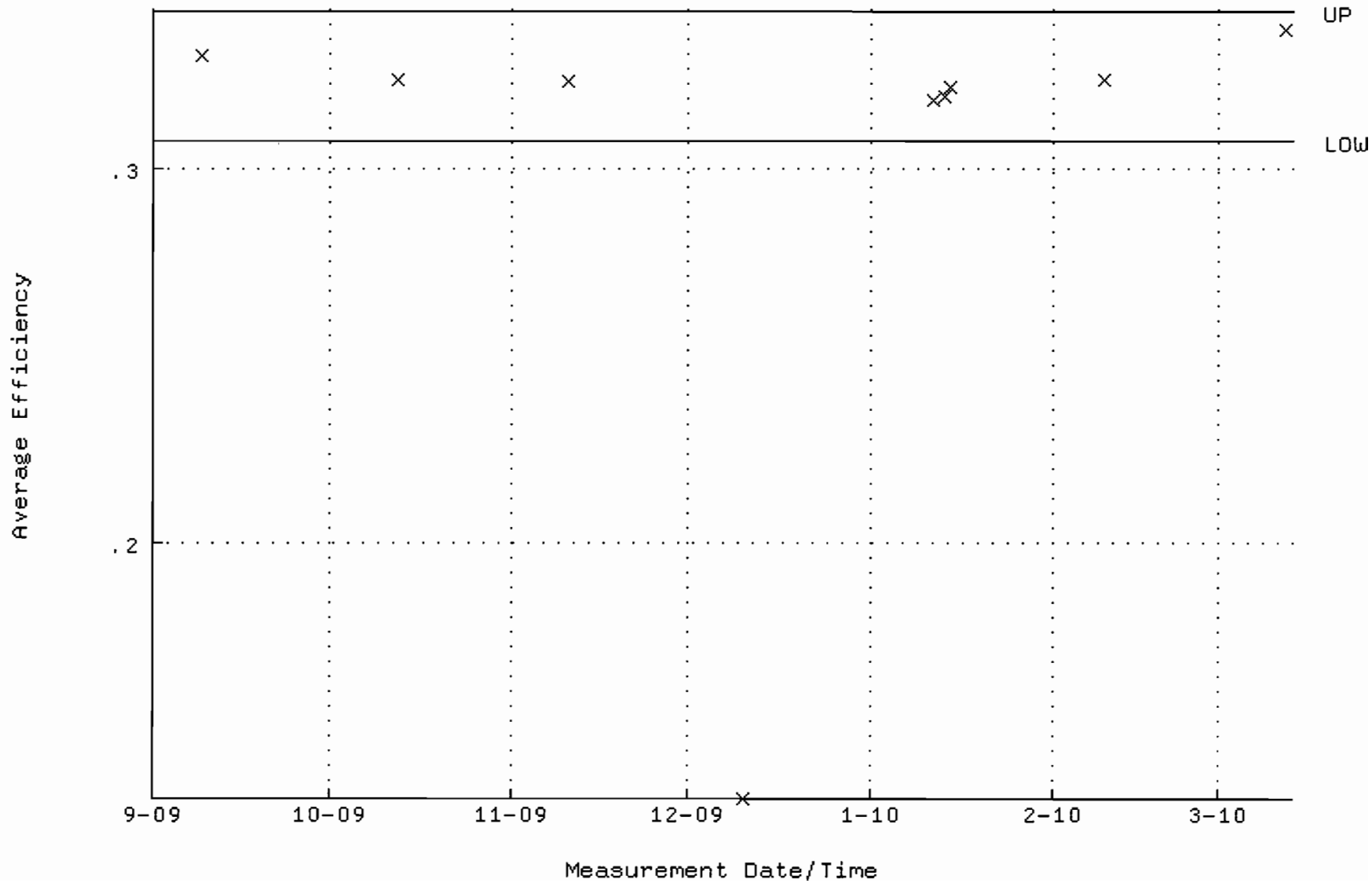

QA filename : DKA100:[ENV_ALPHA.QA.W]W106.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:51 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 63.2632 through 75.3973

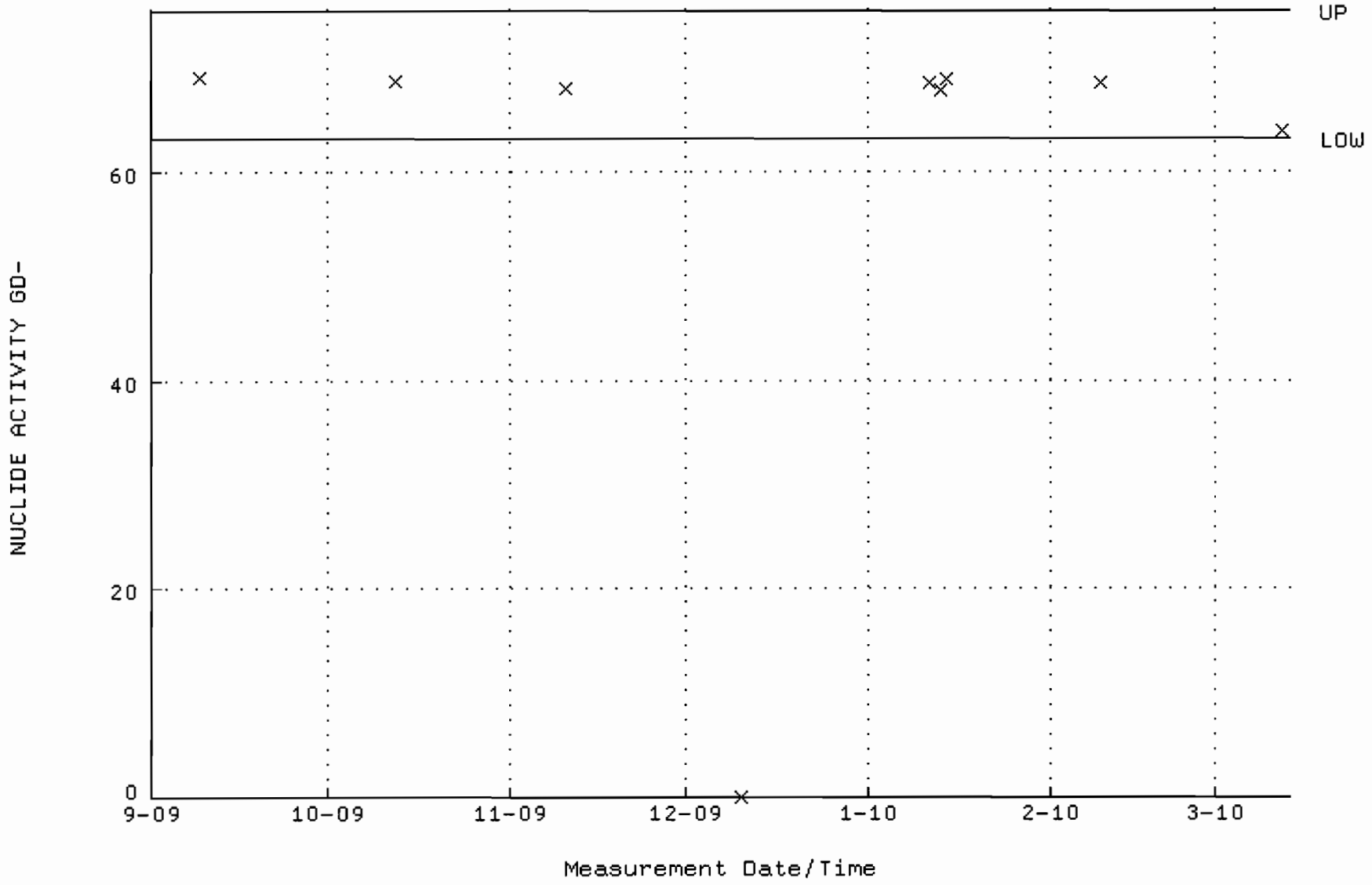

QA filename : DKA100:[ENV_ALPHA.QA.B]B106.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

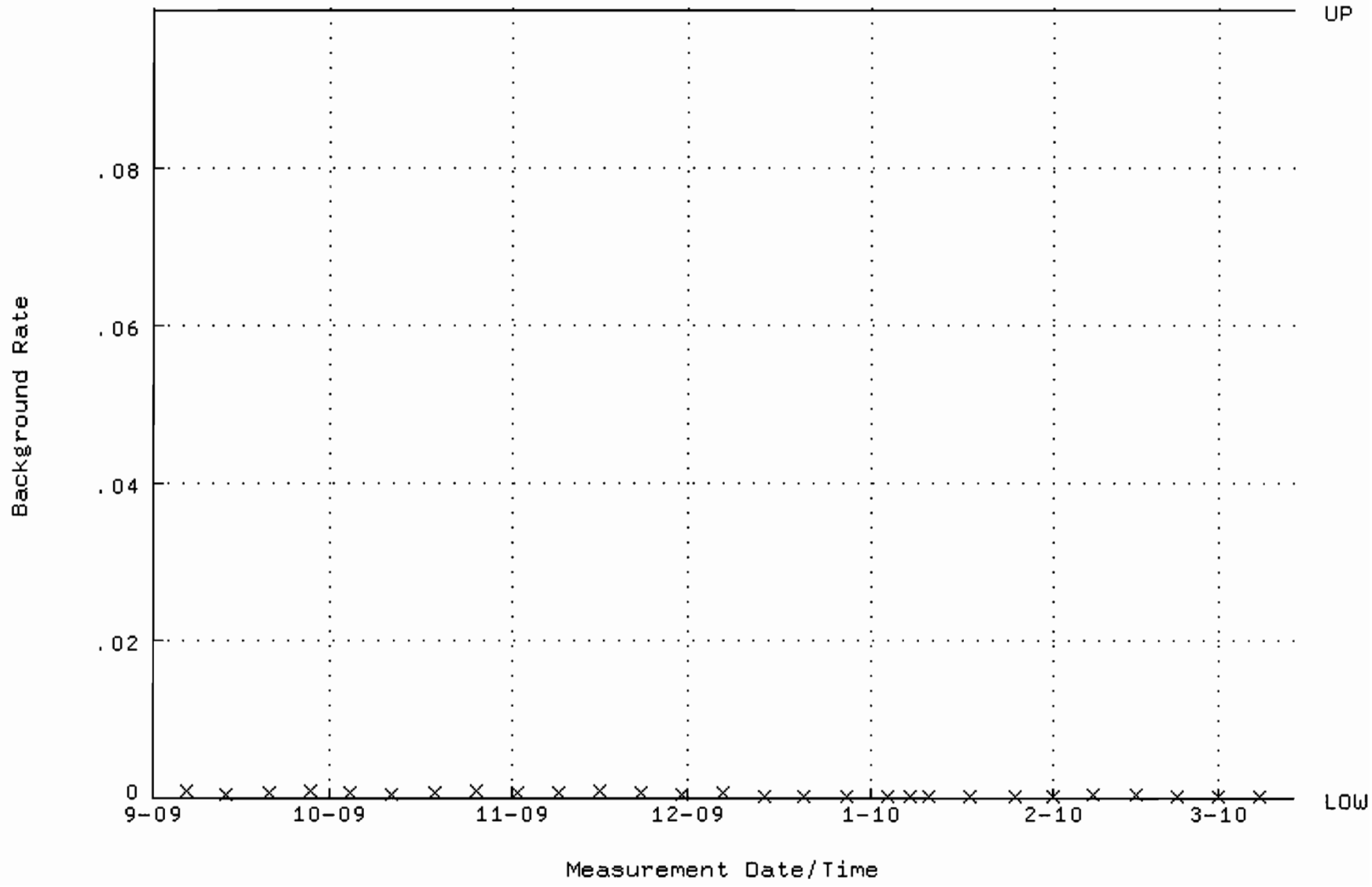

QA filename : DKA100:[ENV_ALPHA.QA.W]W150.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:17:25 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.230847 through 0.270601

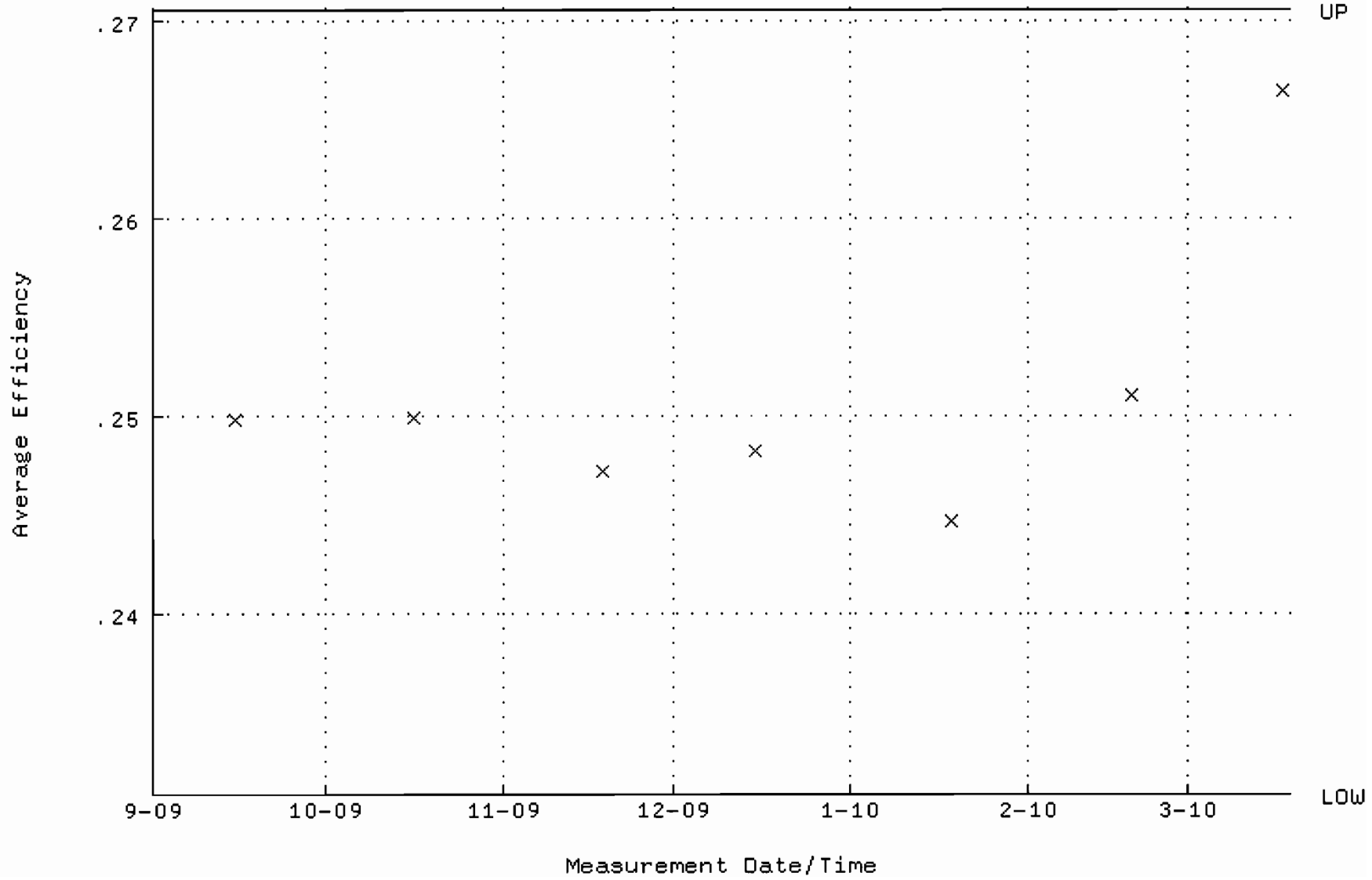

QA filename : DKA100:[ENV_ALPHA.QA.W]W150.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:17:25 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 82.2504 through 95.1354

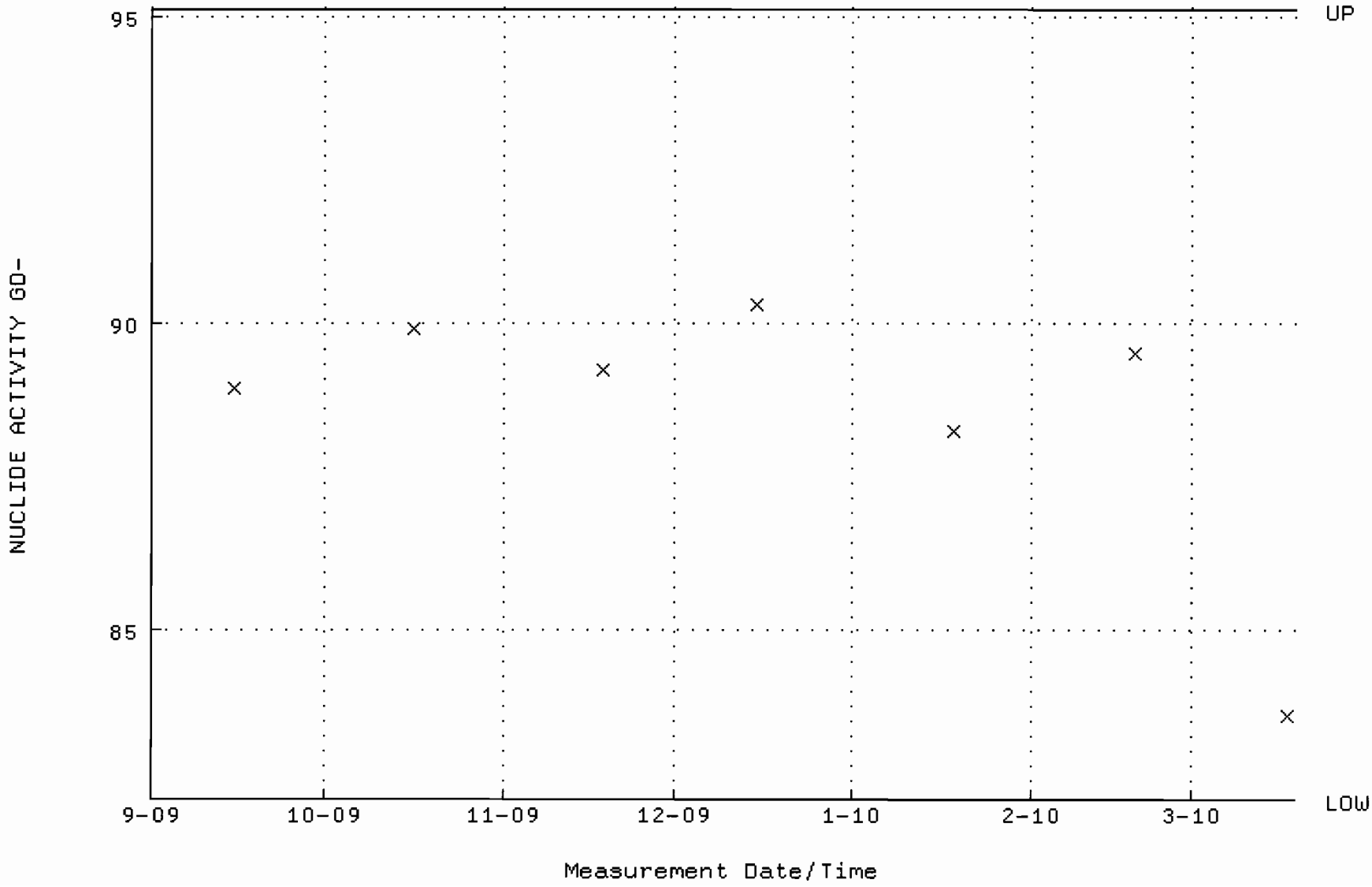

QA filename : DKA100:[ENV_ALPHA.QA.B]B150.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:46 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

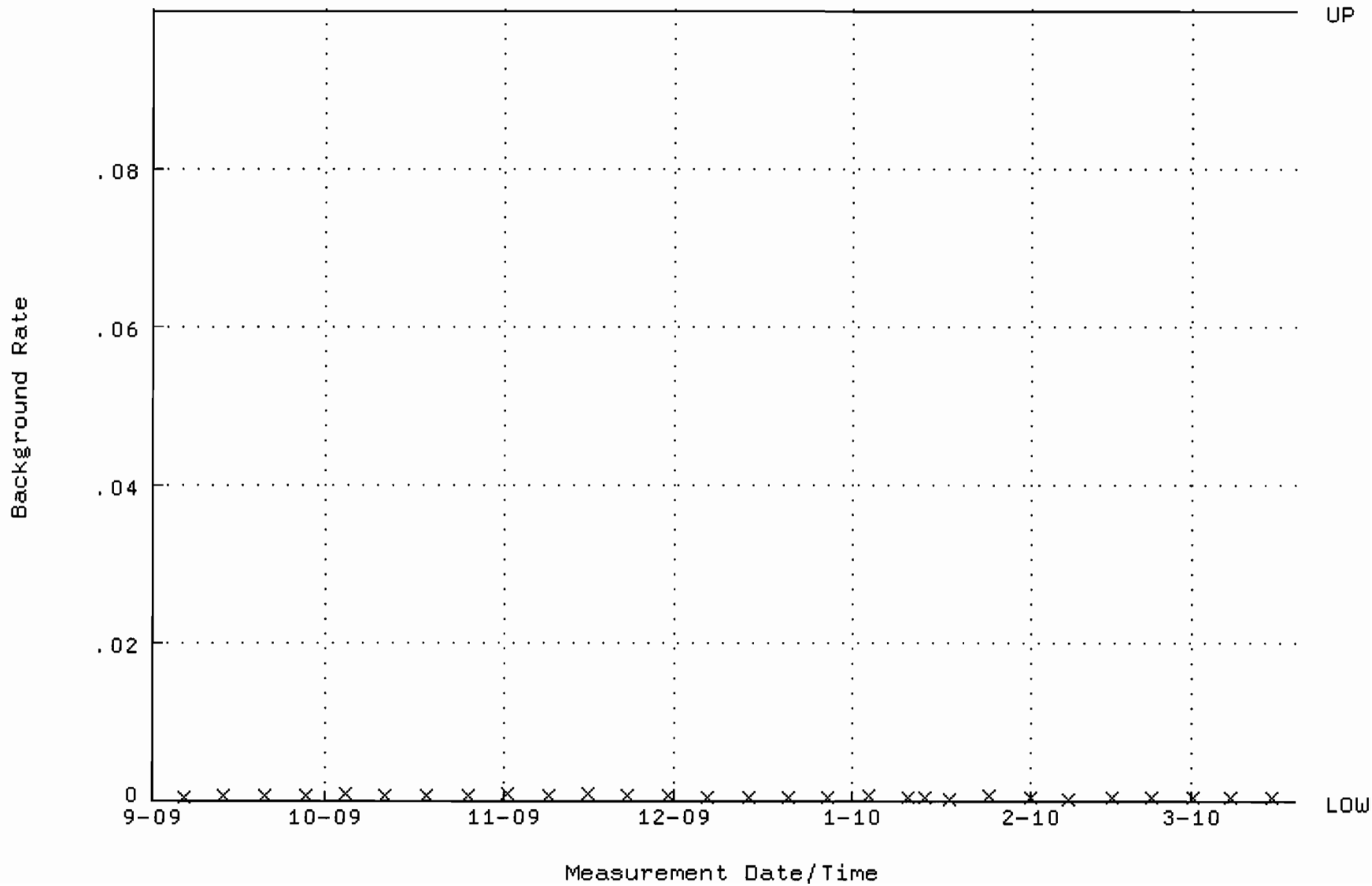

QA filename : DKA100:[ENV_ALPHA.QA.W]W153.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:17:41 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.243195 through 0.264993

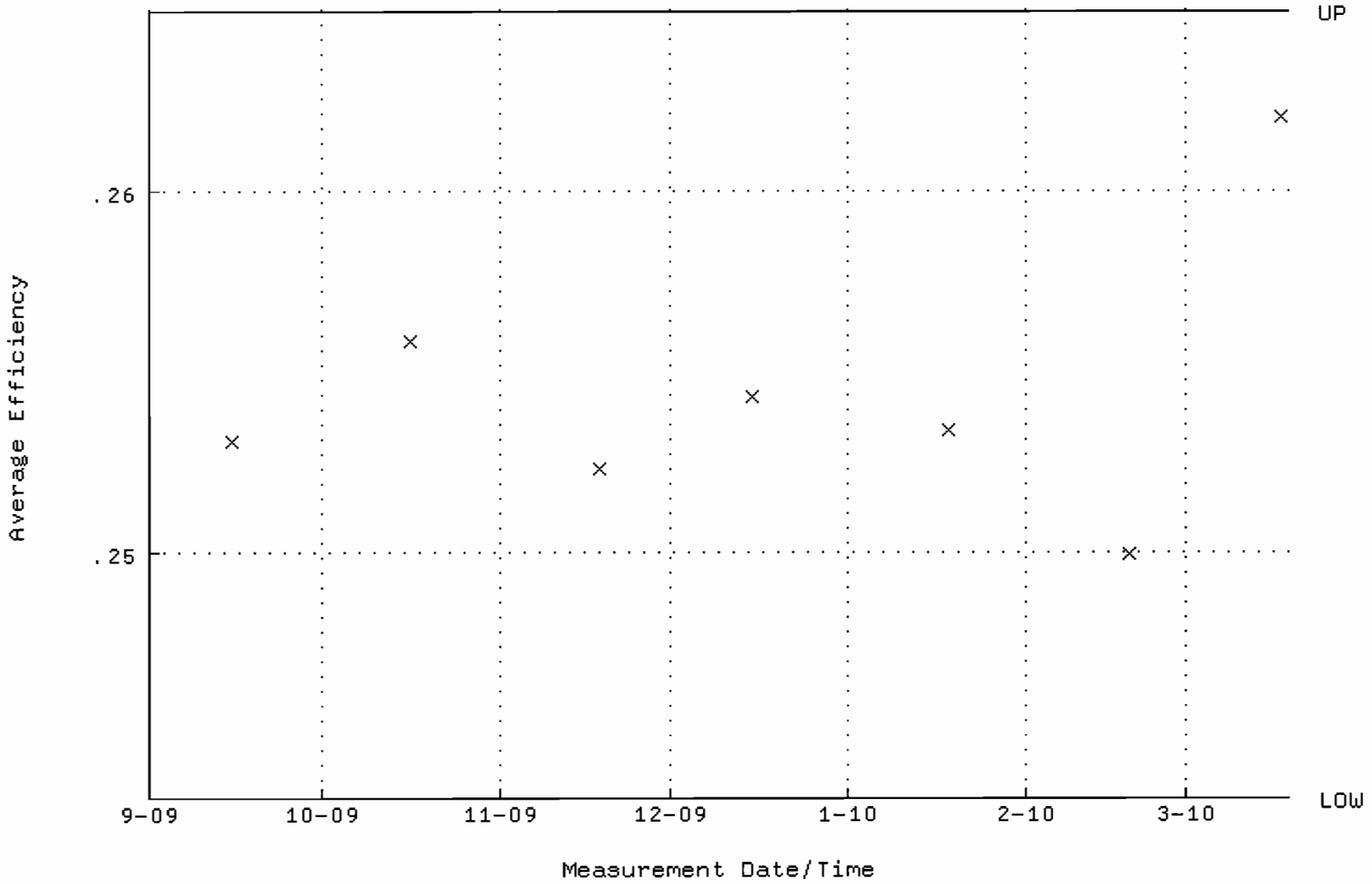

QA filename : DKA100:[ENV_ALPHA.QA.W]W153.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:17:41 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 82.6961 through 88.8445

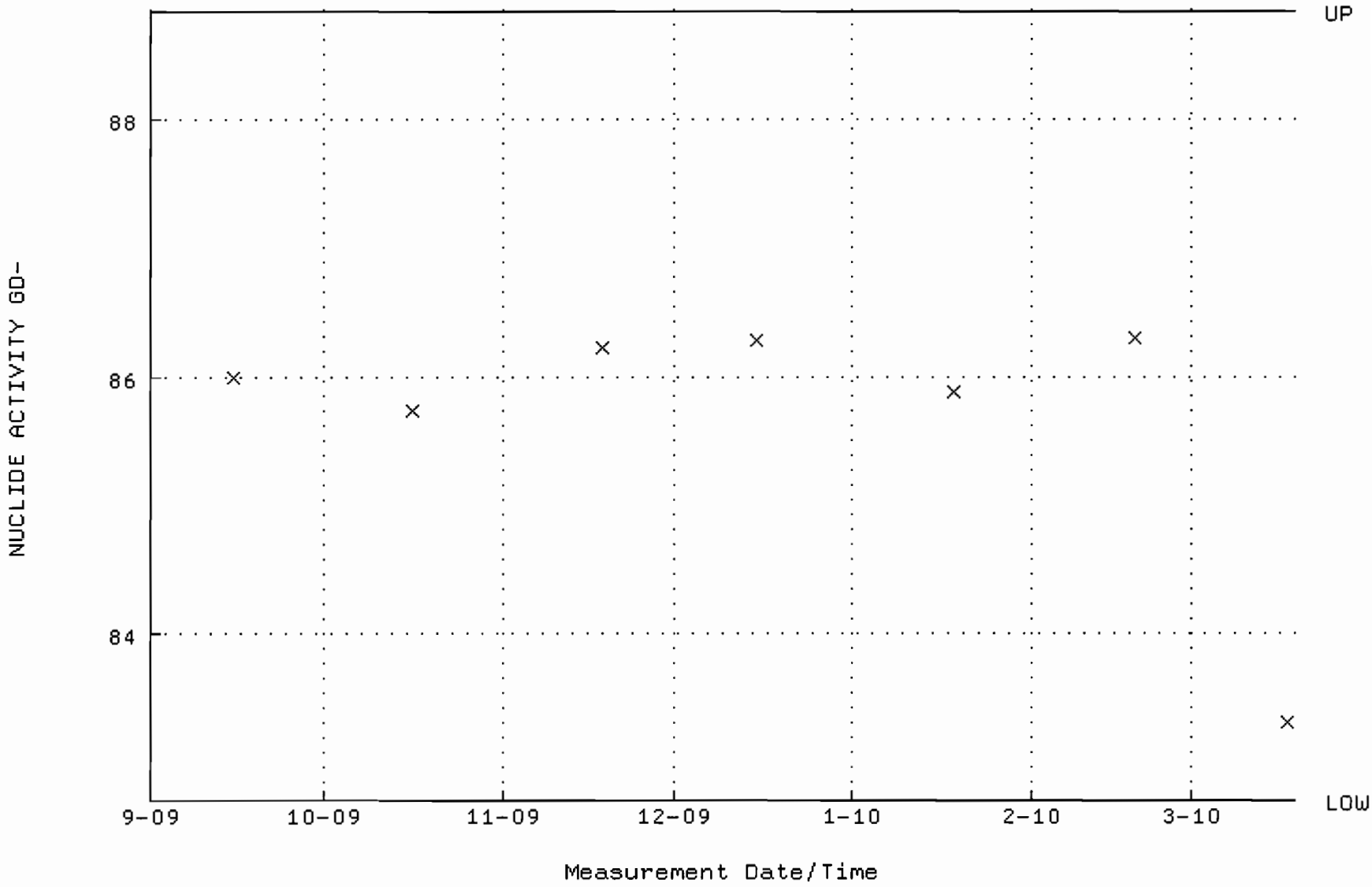

QA filename : DKA100:[ENV_ALPHA.QA.B]B153.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:42:58 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

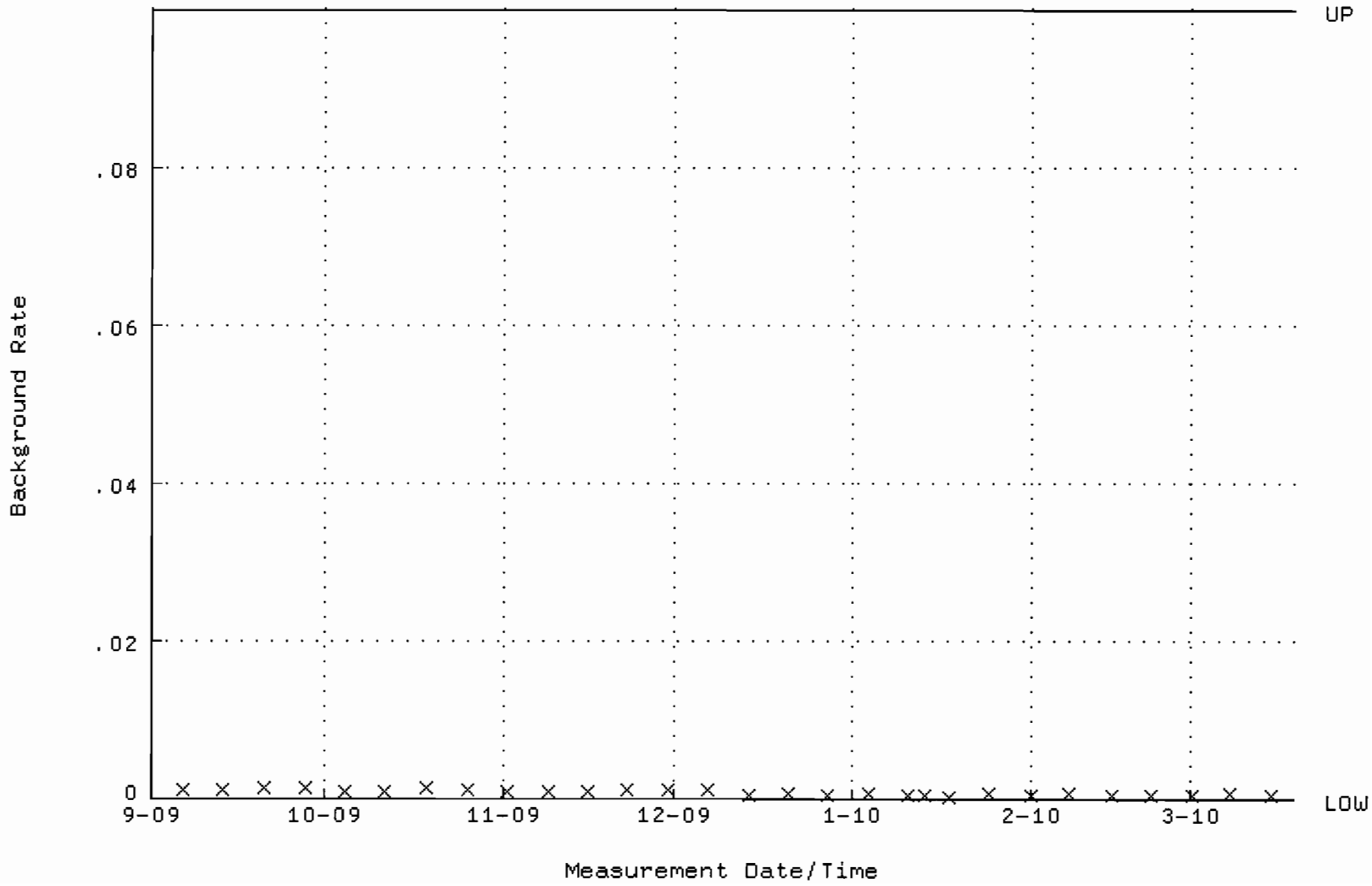

QA filename : DKA100:[ENV_ALPHA.QA.W]W154.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-SEP-2009 07:17:46 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.250737 through 0.265205

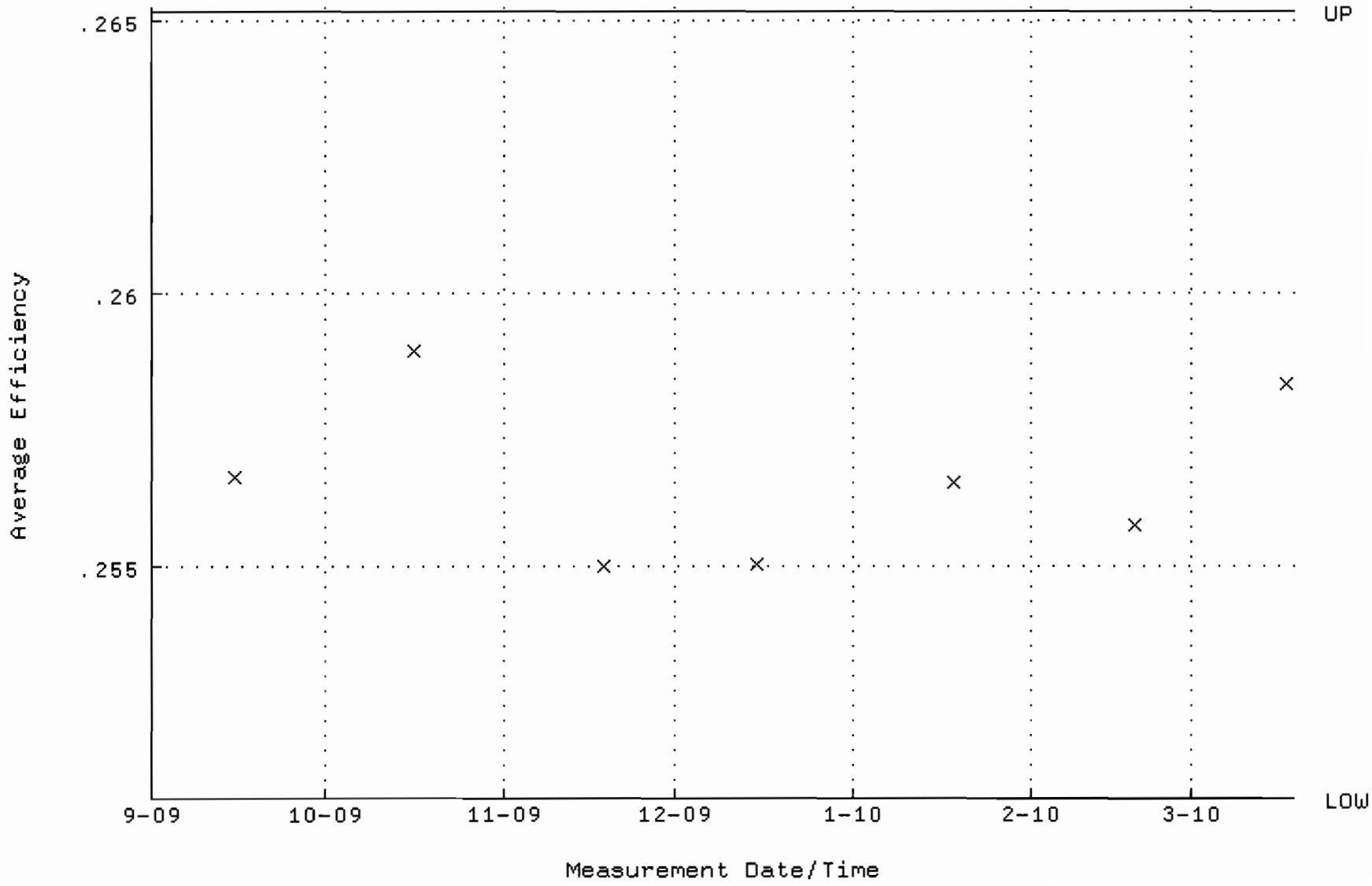

QA filename : DKA100:[ENV_ALPHA.QA.W]W154.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-SEP-2009 07:17:46 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 82.1374 through 85.8670

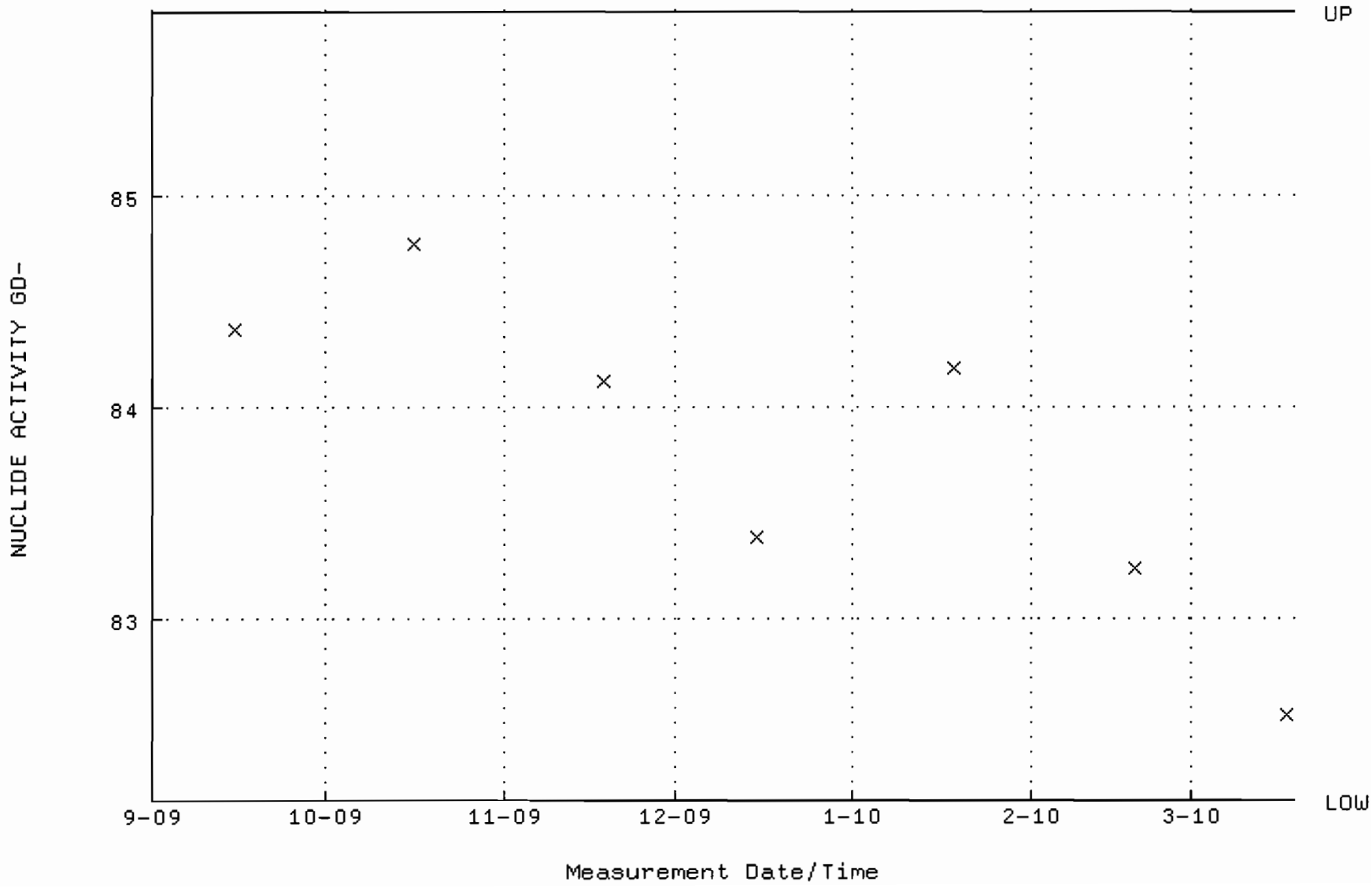

QA filename : DKA100:[ENV_ALPHA.QA.B]B154.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:43:02 through 18-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

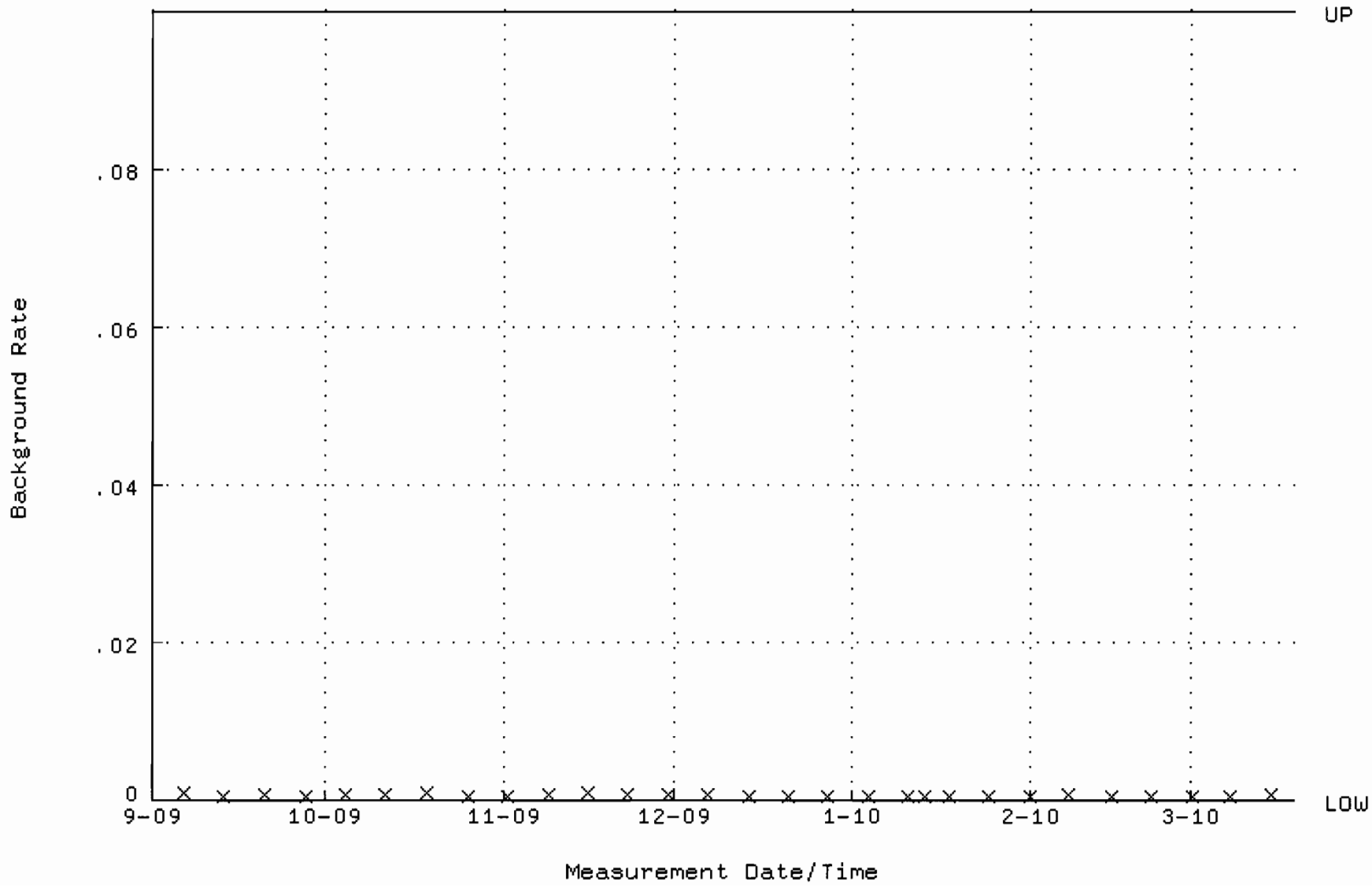

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM01_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:39:53 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

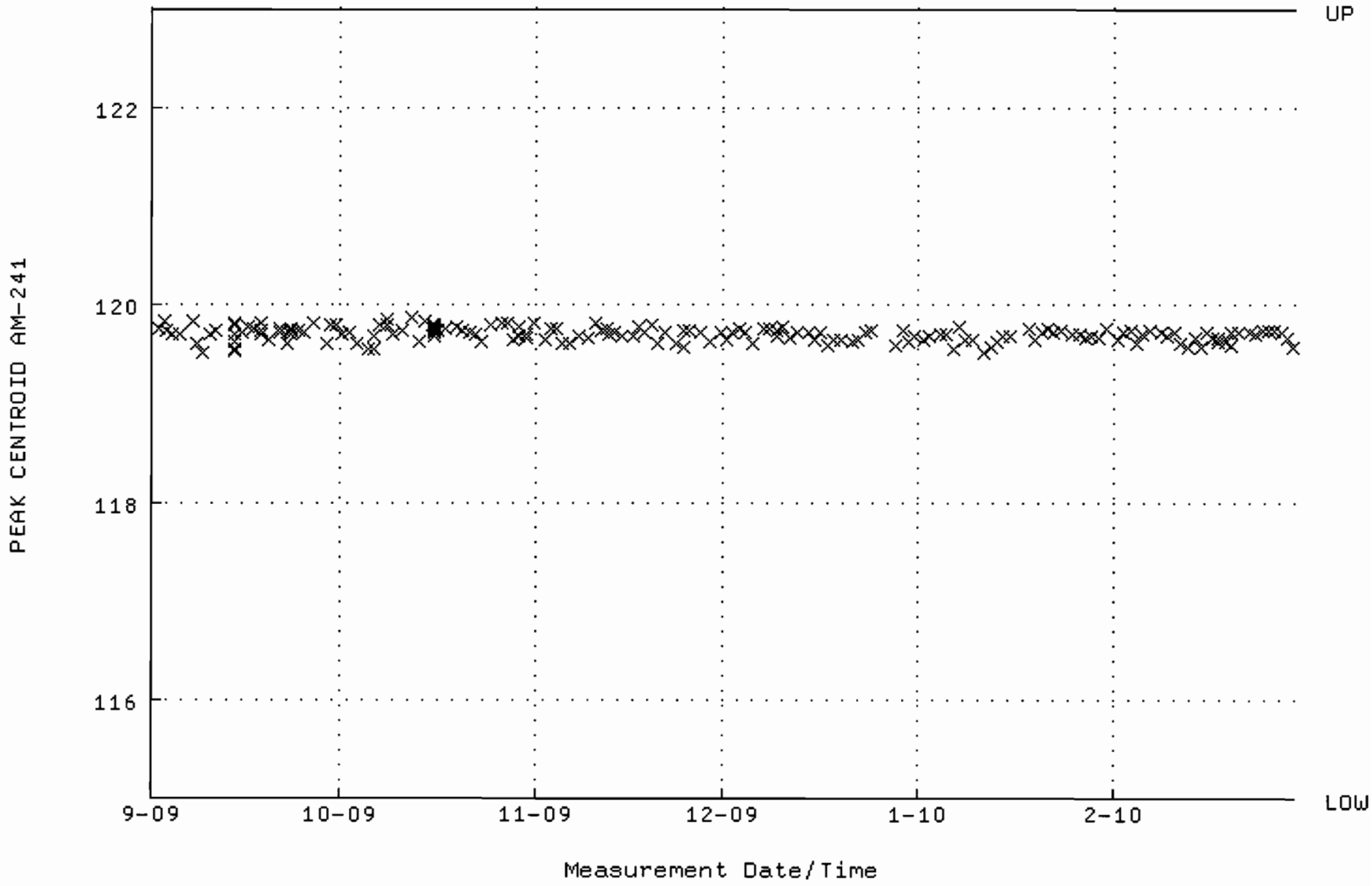

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM01.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:36:28 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.73723 +- 3.552524E-02 (2.04 %)

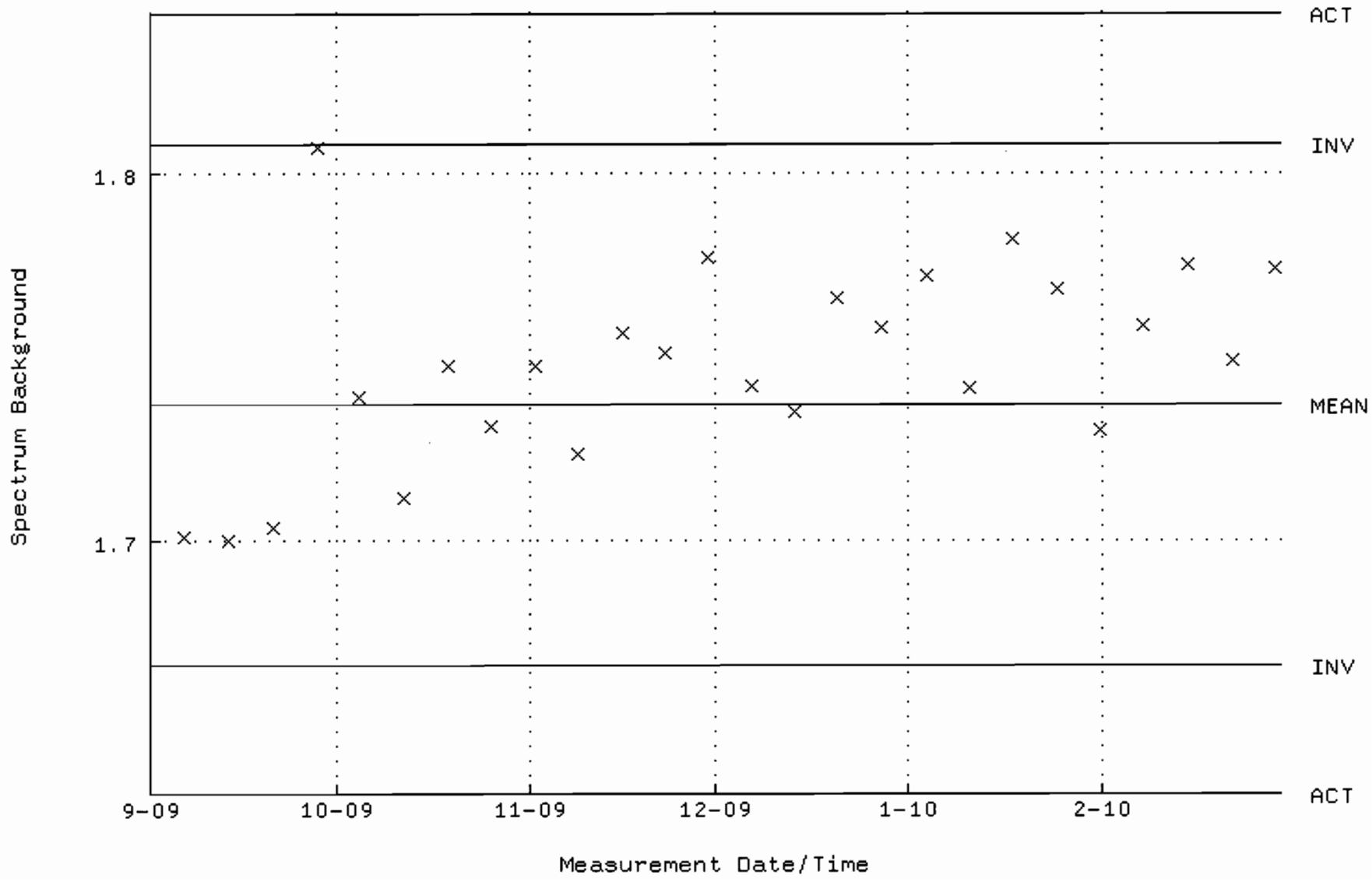

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM03_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:22:59 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

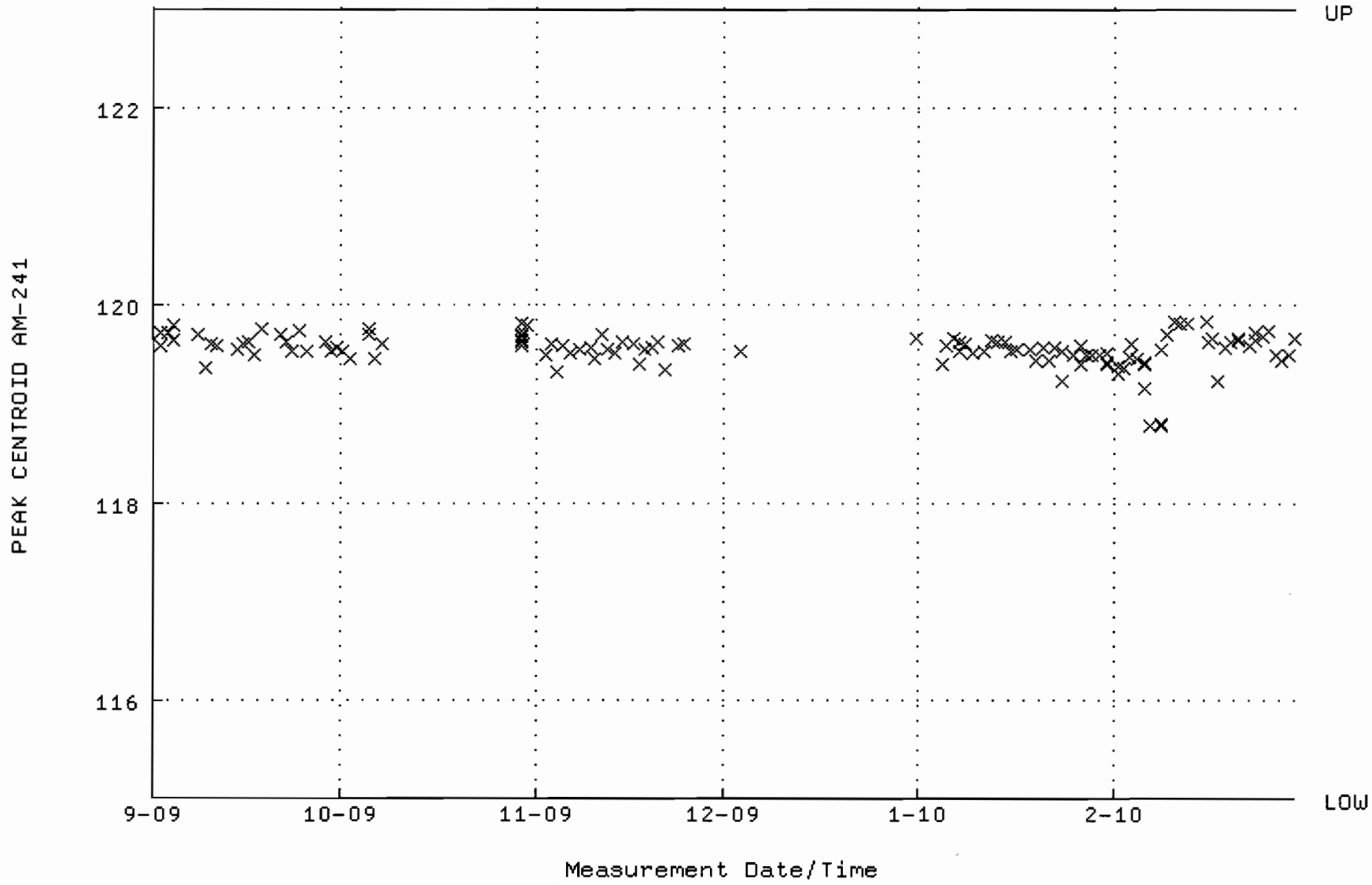

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM03.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:38:04 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.54812 +- 1.978897E-02 (1.28 %)

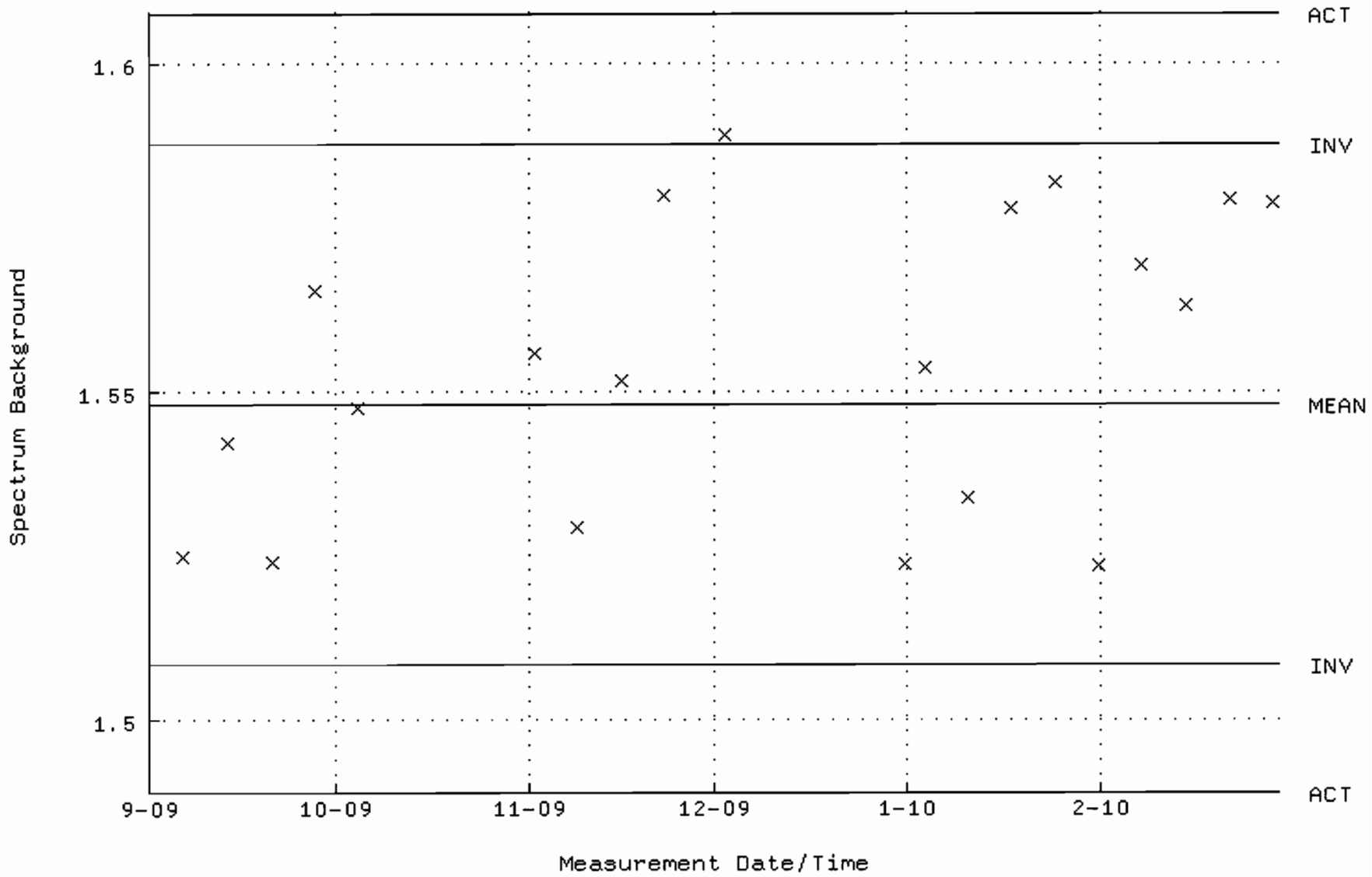

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM07_JAR.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:09:02 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

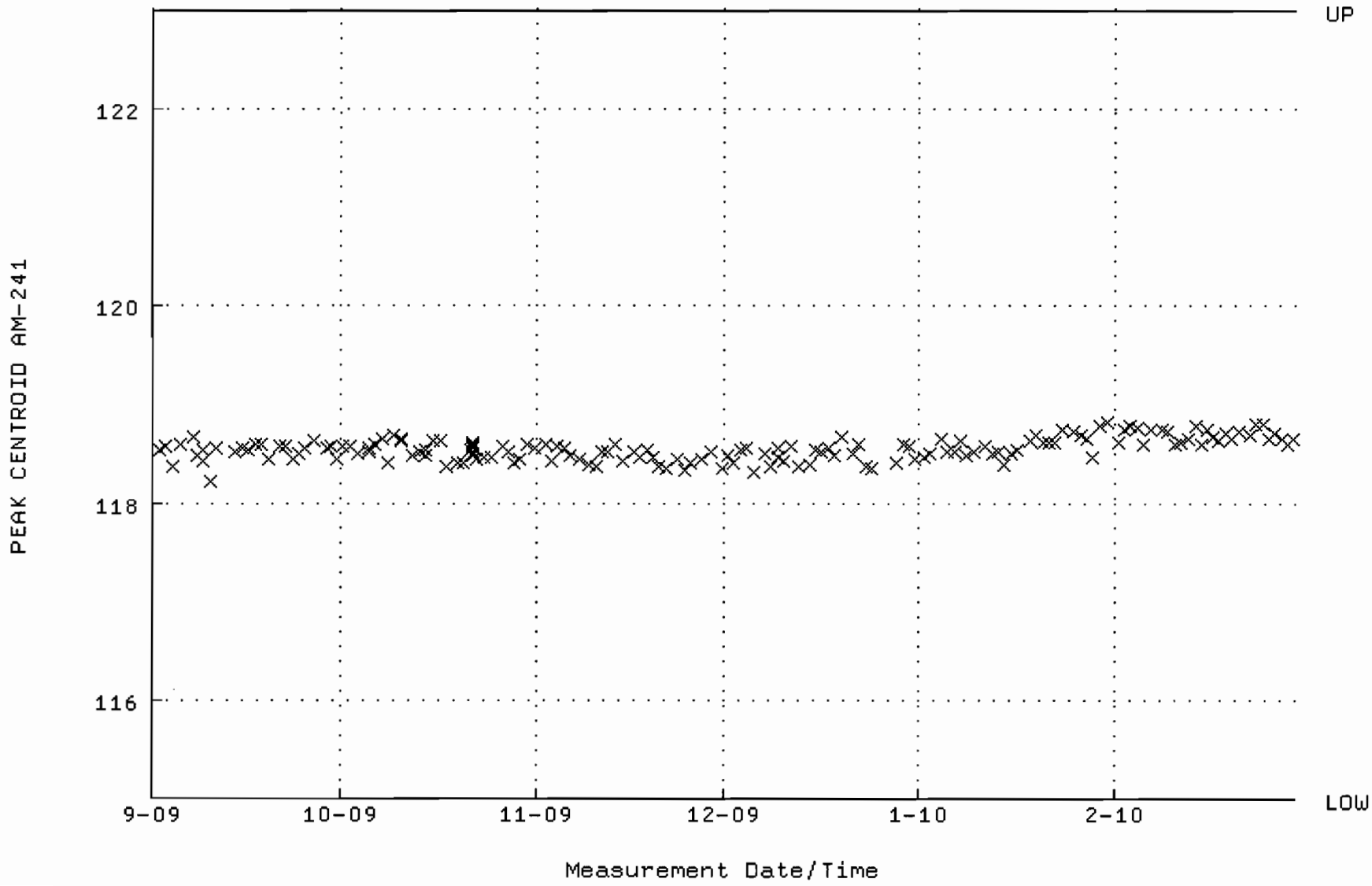

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM07.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:39:54 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.51715 +- 2.726376E-02 (1.80 %)

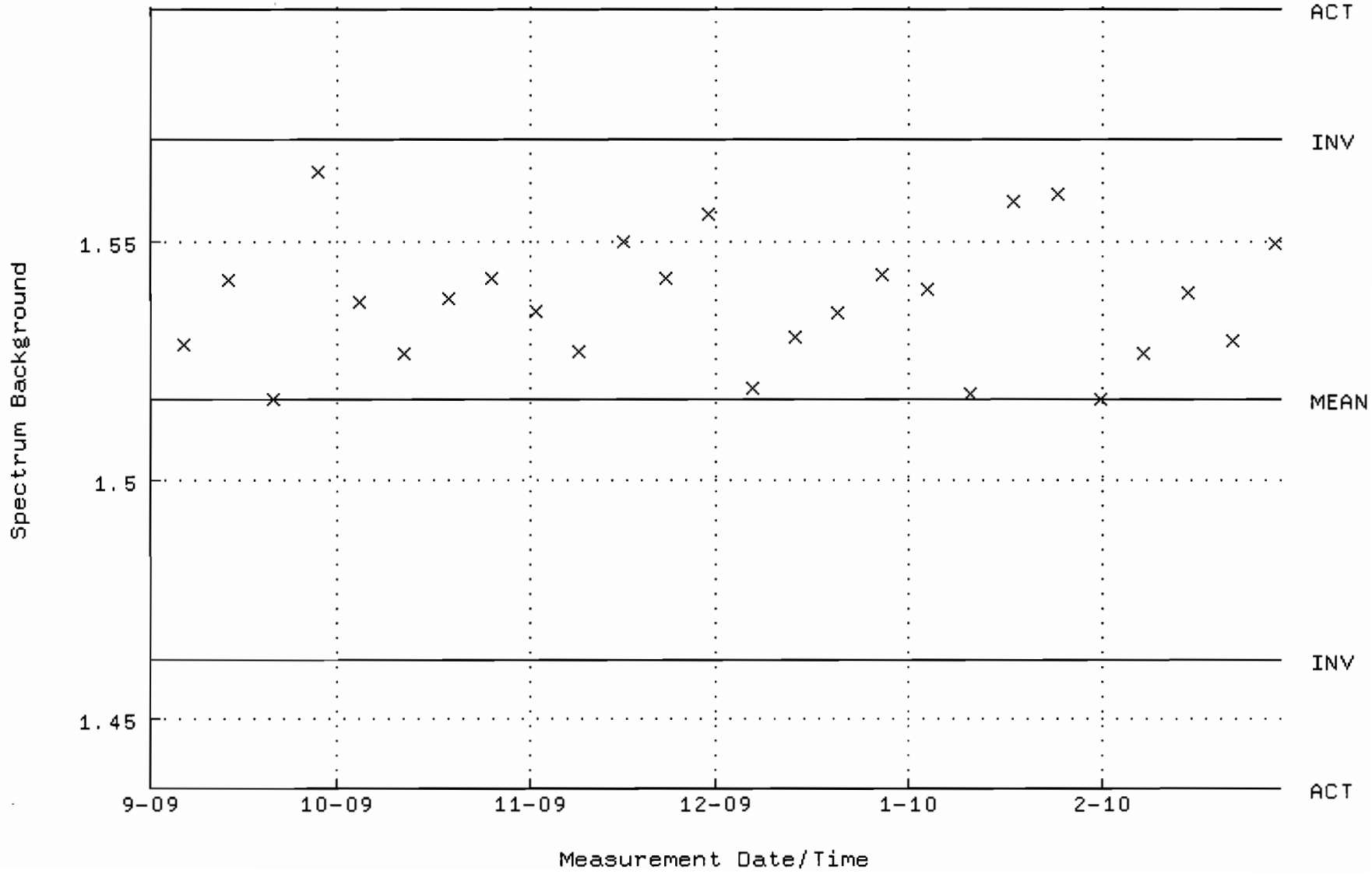

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM16_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:53:02 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

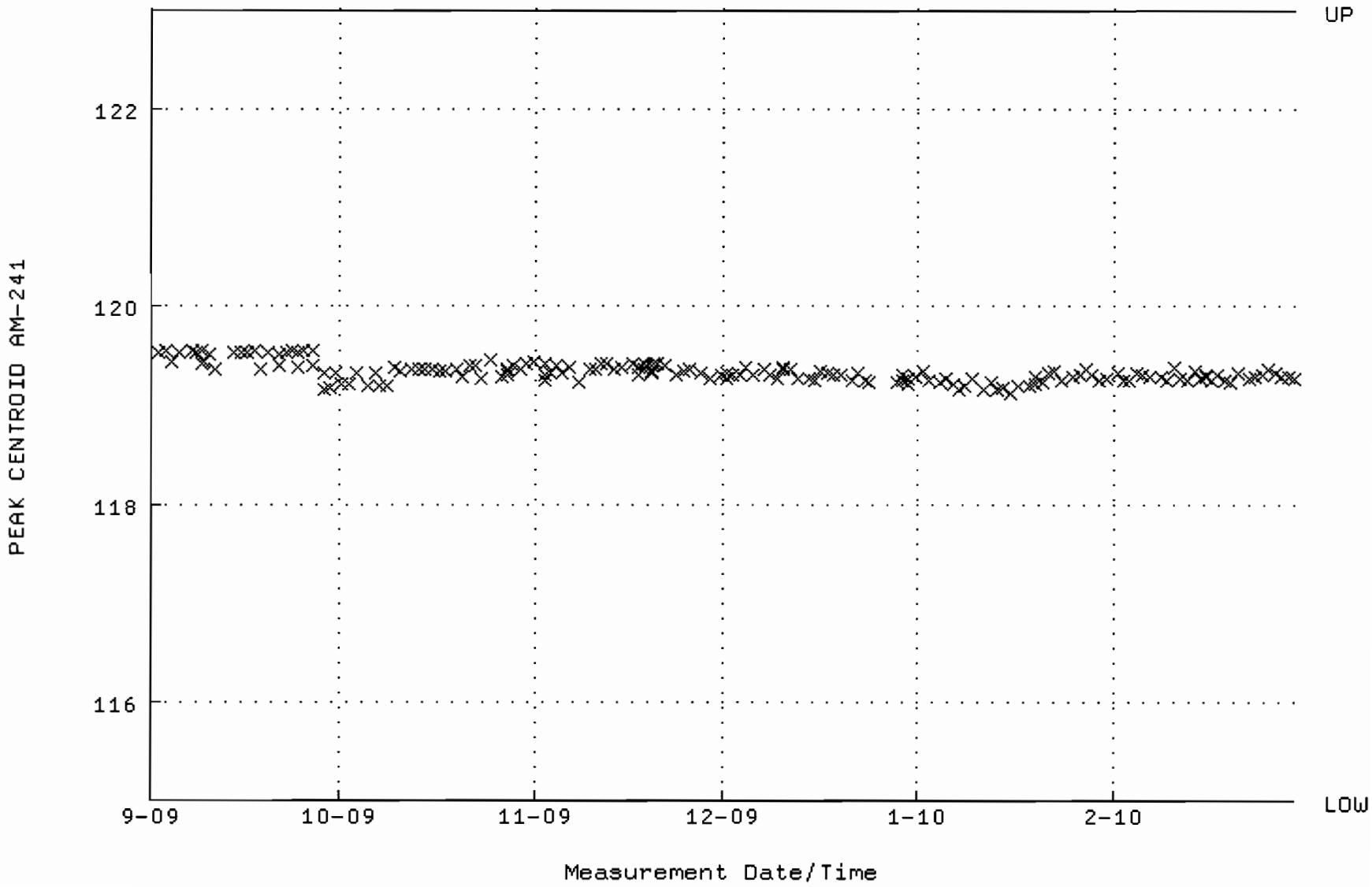

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM16.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:44:09 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.73980 +- 1.729897E-02 (0.99 %)

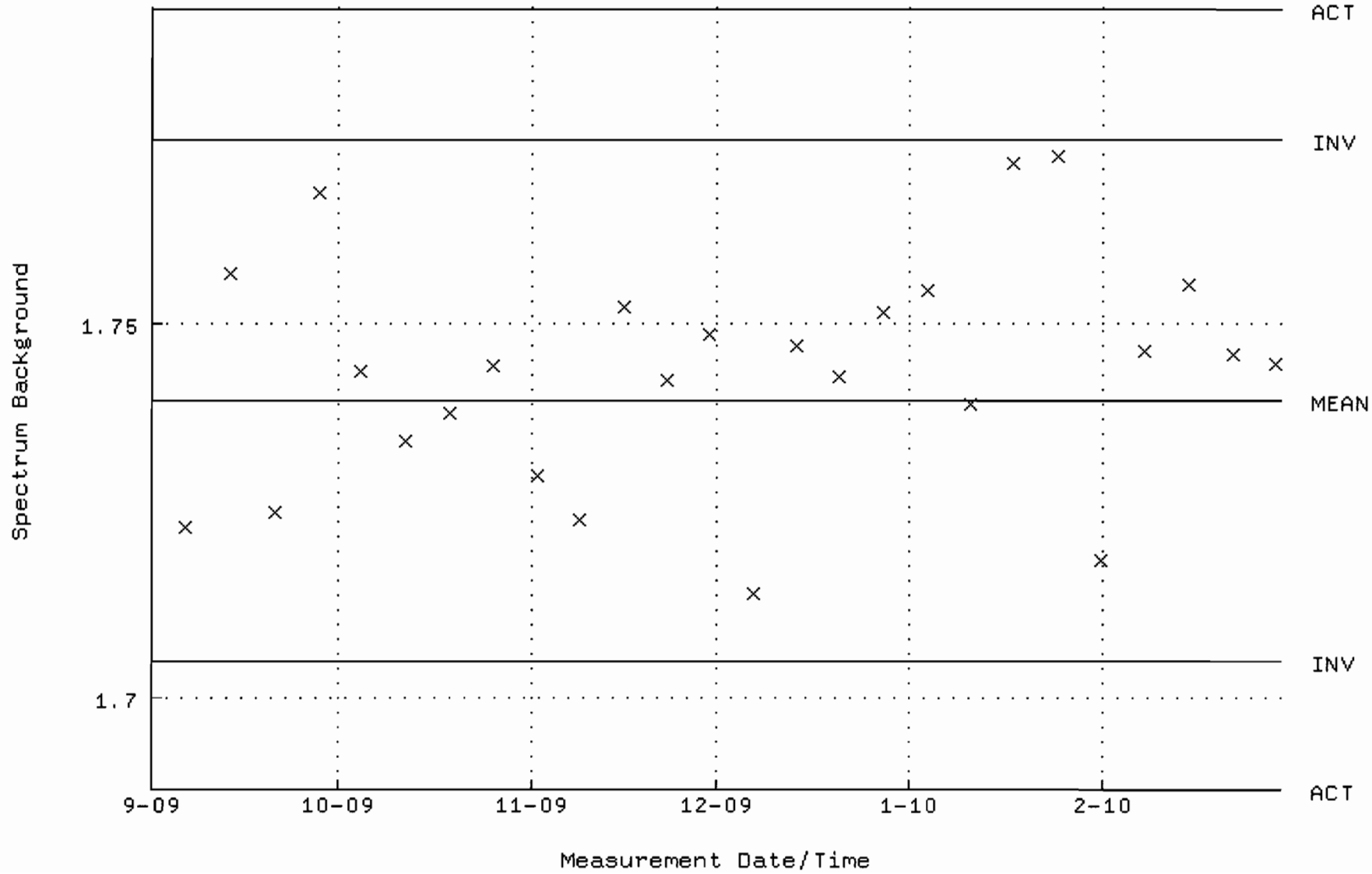

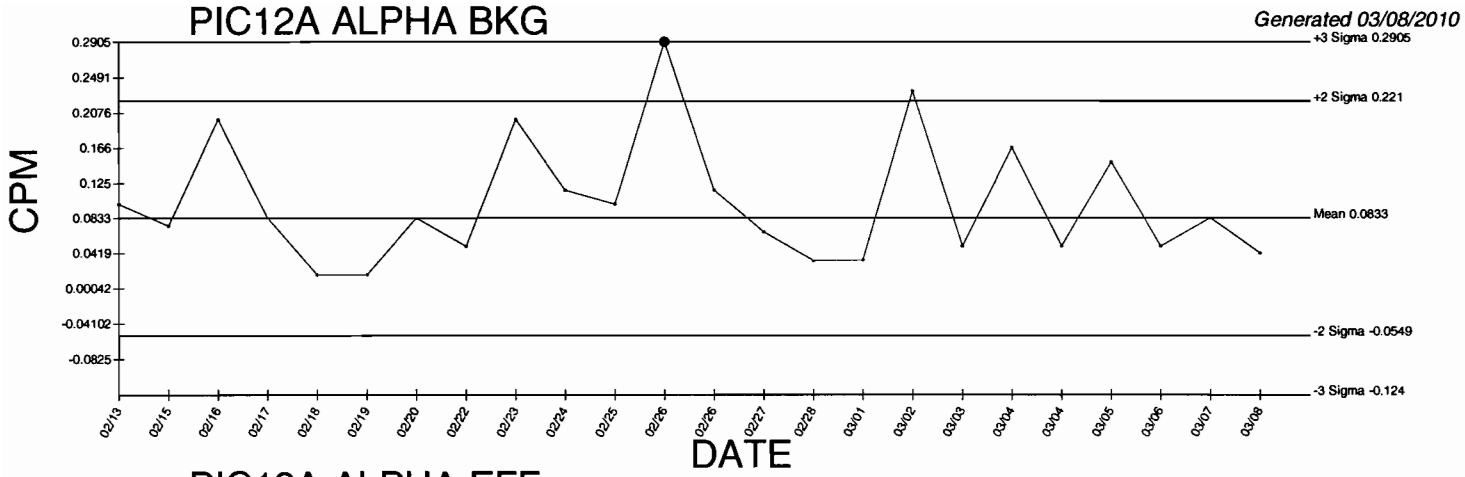

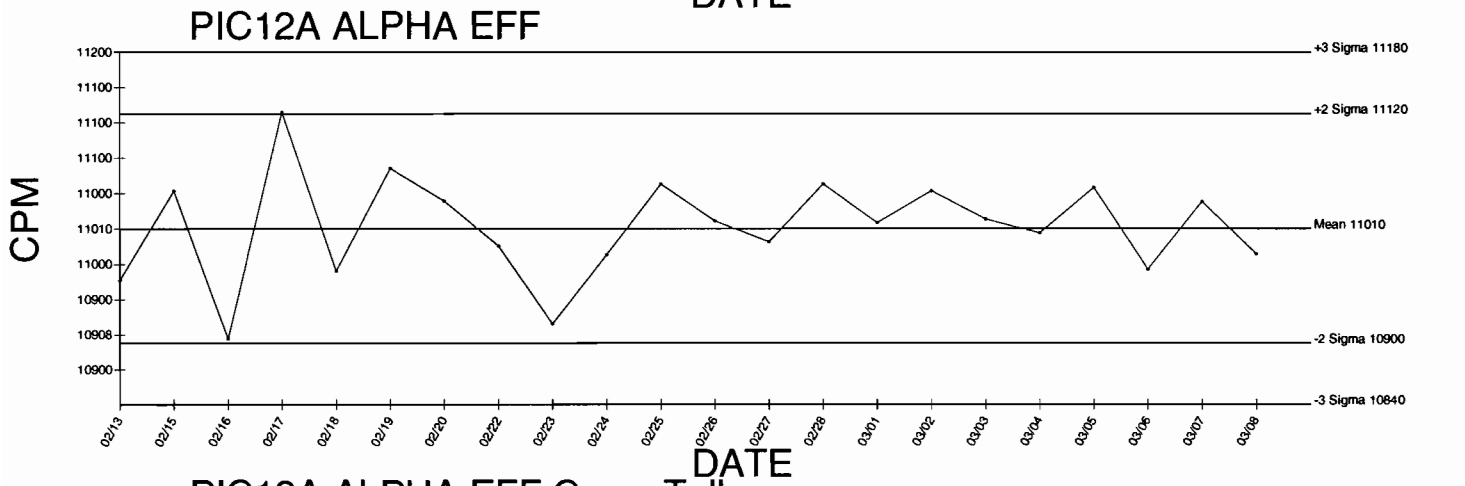

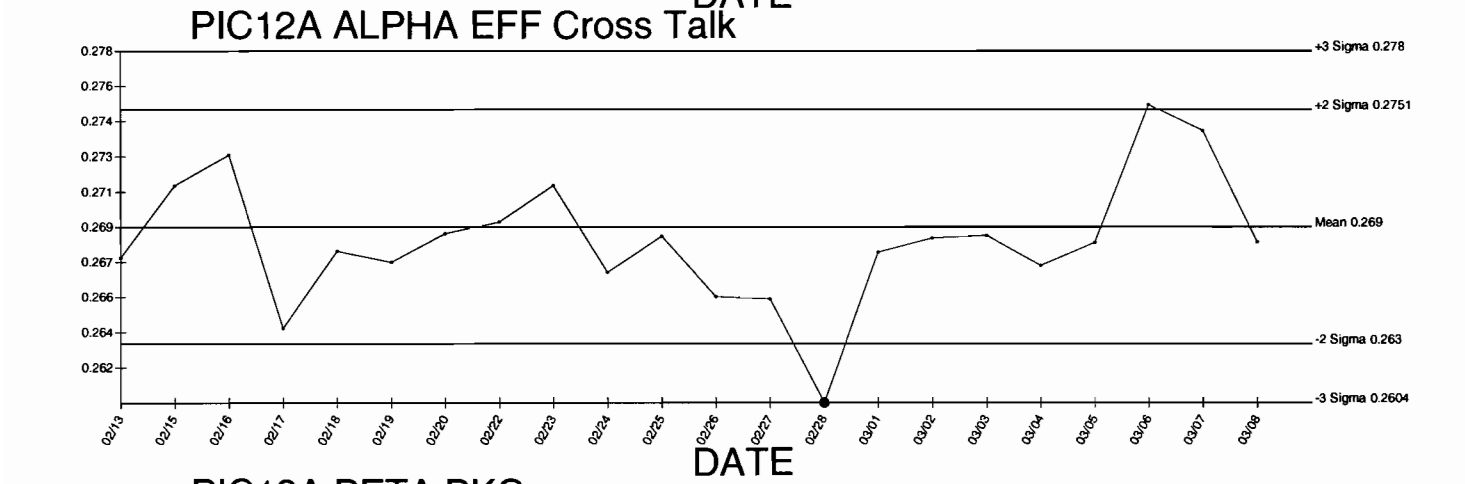

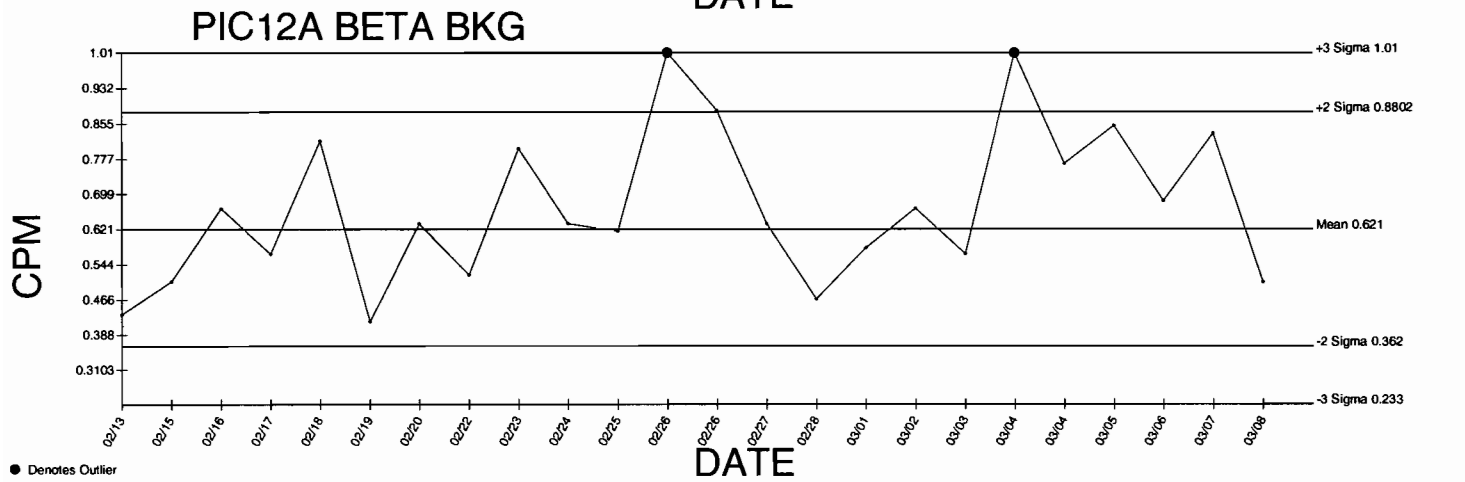

● Denotes Outlier

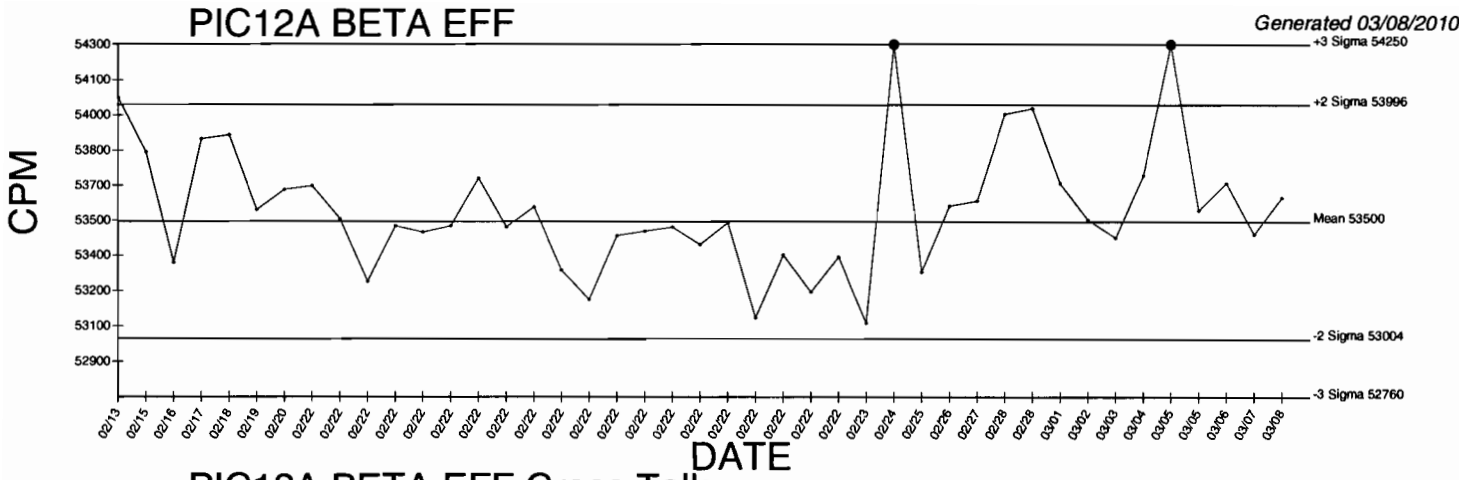

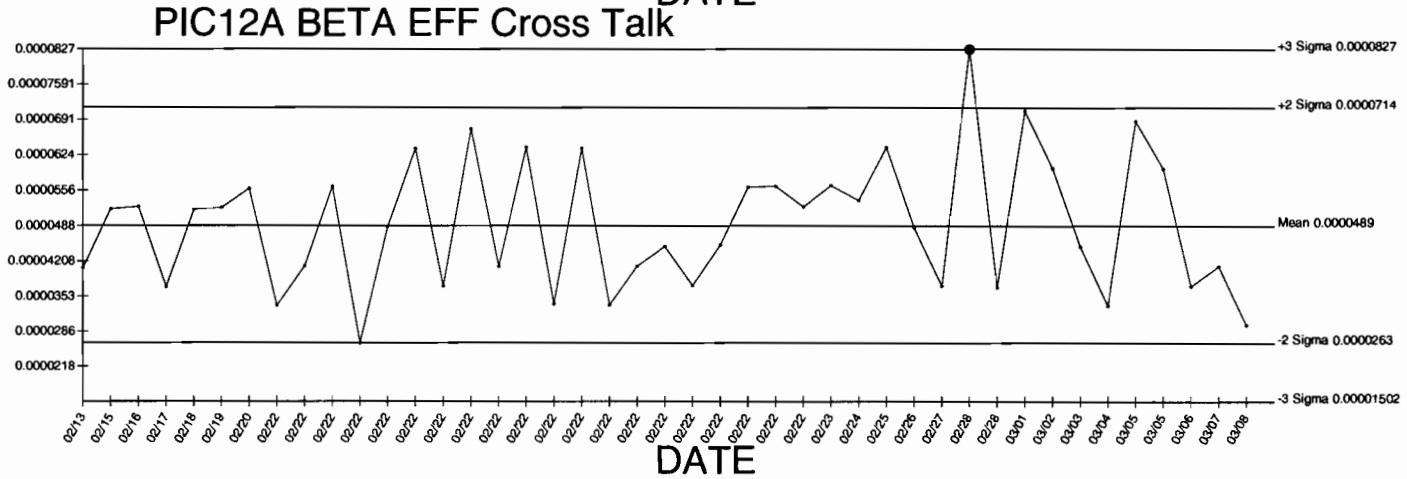

● Denotes Outlier

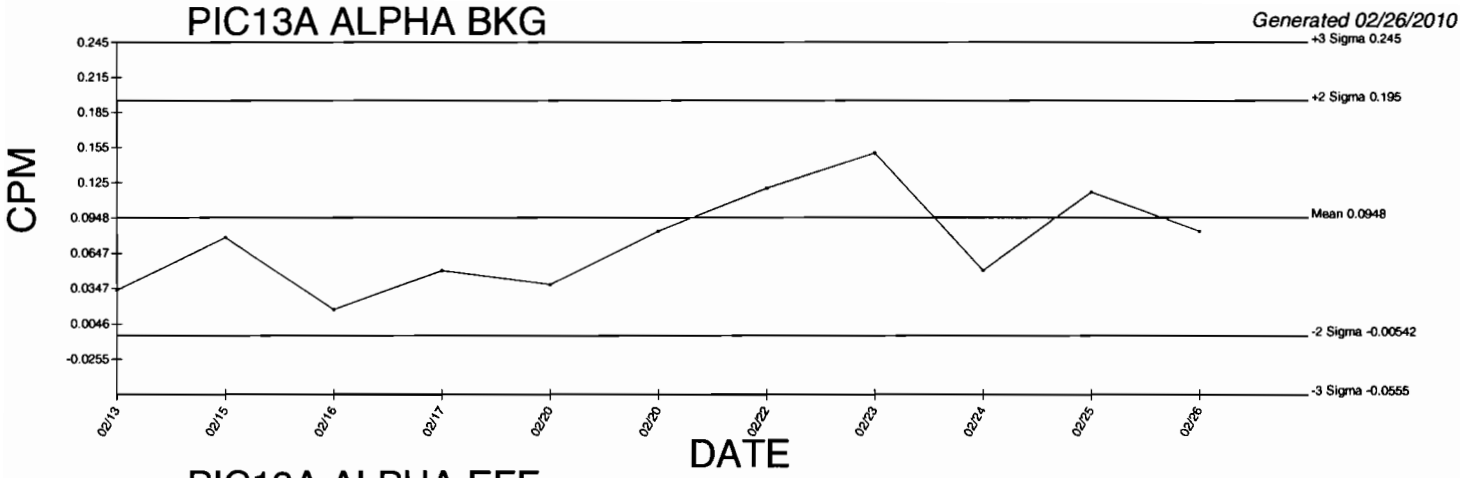
PIC13A ALPHA BKG
Generated 02/26/2010
CPM
0.245
0.215
0.185
0.155
0.125
0.0948
0.0647
0.0347
0.0046
-0.0255
+3 Sigma 0.245
+2 Sigma 0.195
Mean 0.0948
-2 Sigma -0.00542
-3 Sigma -0.0555
02/13
02/15
02/16
02/17
02/20
02/20
02/22
02/23
02/24
02/25
02/26
DATE

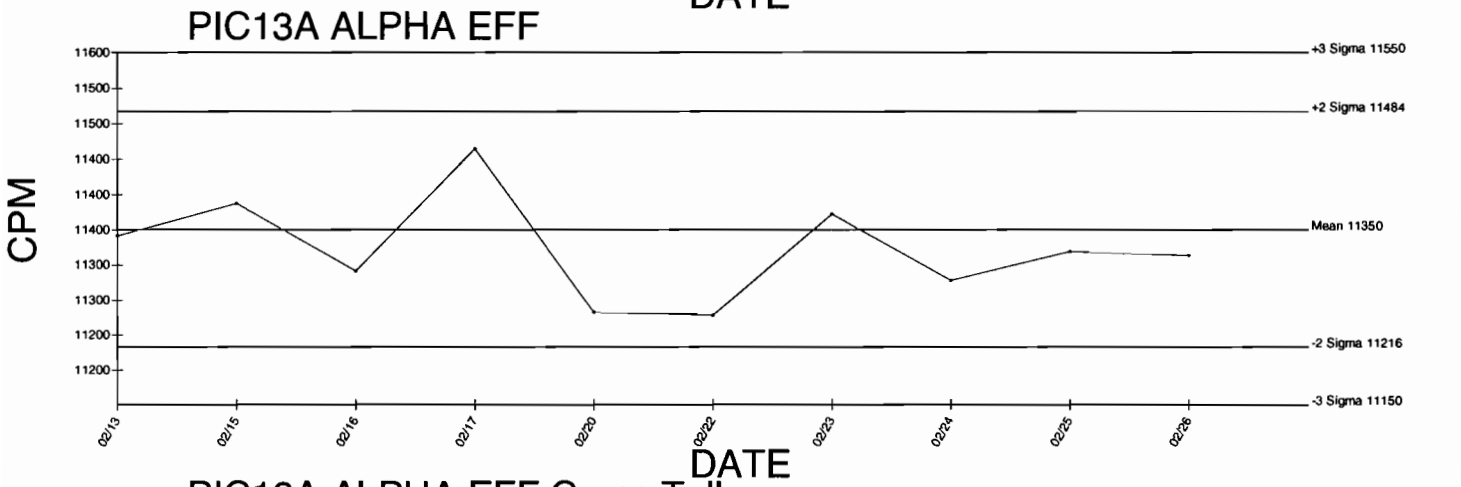
PIC13A ALPHA EFF
CPM
11600
11500
11500
11400
11400
11400
11300
11300
11200
11200
+3 Sigma 11550
+2 Sigma 11484
Mean 11350
-2 Sigma 11216
-3 Sigma 11150
02/13
02/15
02/16
02/17
02/20
02/22
02/23
02/24
02/25
02/26
DATE

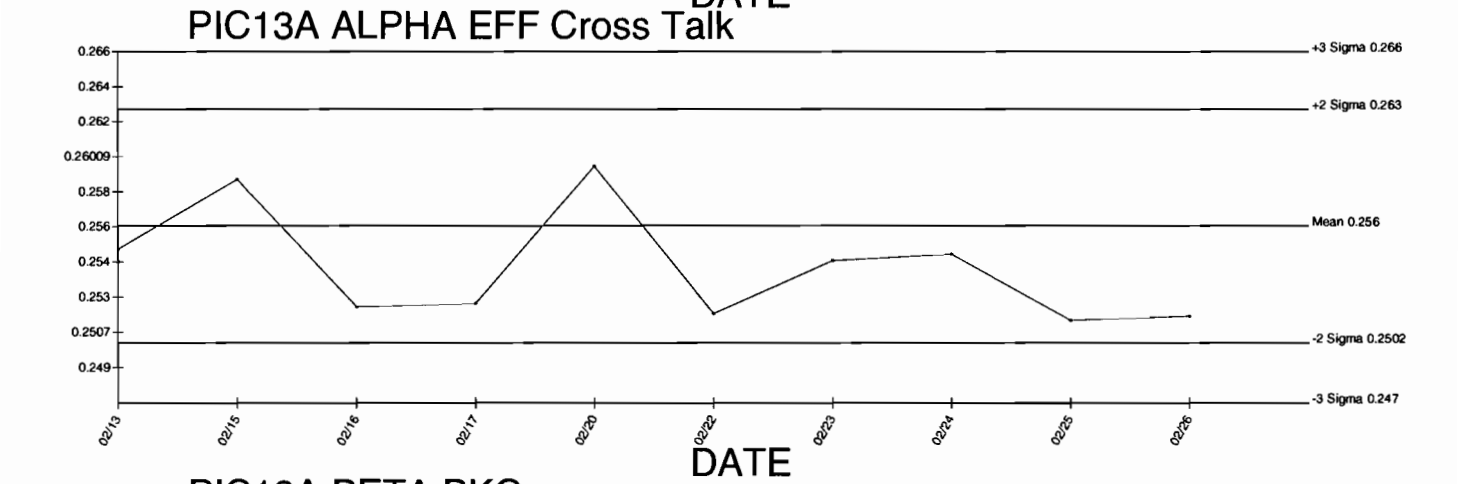
PIC13A ALPHA EFF Cross Talk
0.266
0.264
0.262
0.26009
0.258
0.256
0.254
0.253
0.2507
0.249
+3 Sigma 0.266
+2 Sigma 0.263
Mean 0.256
-2 Sigma 0.2502
-3 Sigma 0.247
02/13
02/15
02/16
02/17
02/20
02/22
02/23
02/24
02/25
02/26
DATE

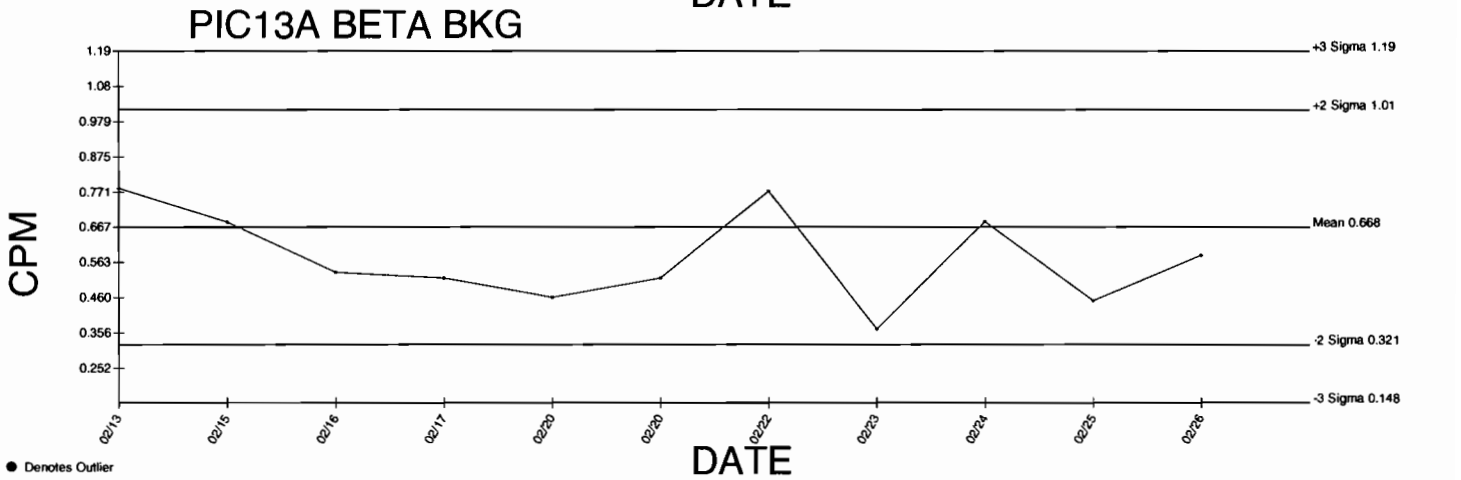
PIC13A BETA BKG
CPM
1.19
1.08
0.979
0.875
0.771
0.667
0.563
0.460
0.356
0.252
+3 Sigma 1.19
+2 Sigma 1.01
Mean 0.668
-2 Sigma 0.321
-3 Sigma 0.148
02/13
02/15
02/16
02/17
02/20
02/20
02/22
02/23
02/24
02/25
02/26
DATE
Denotes Outlier

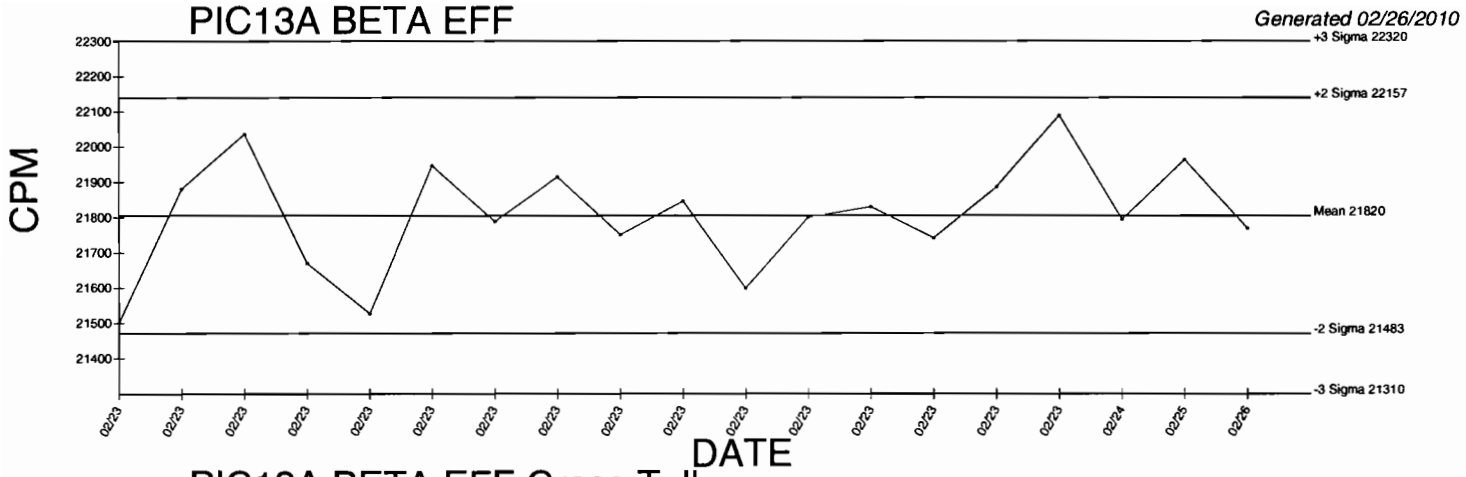

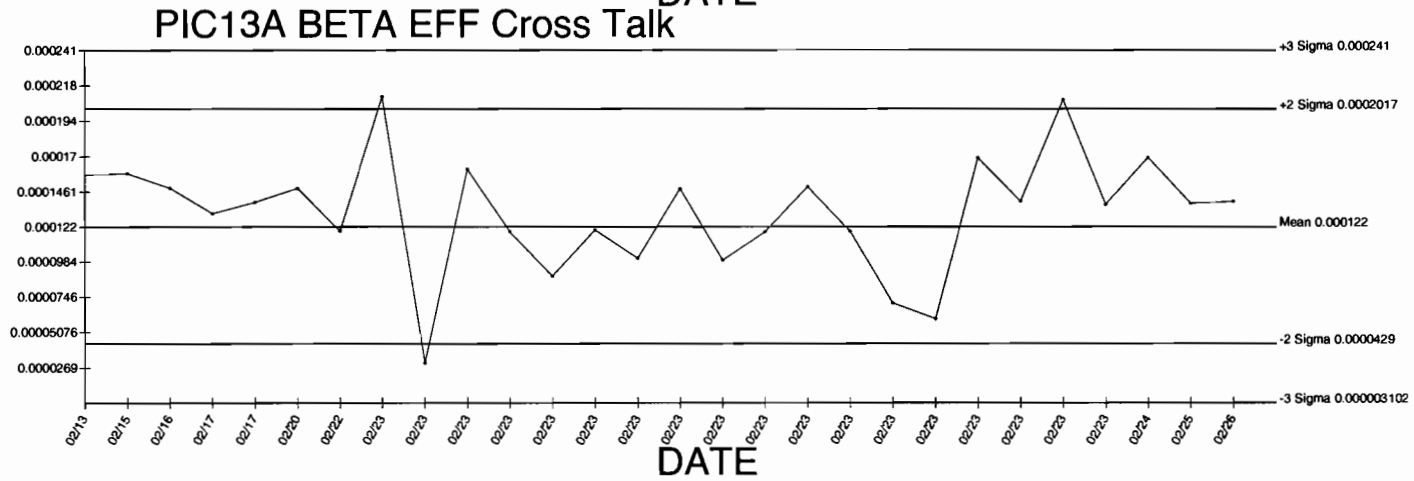

● Denotes Outlier

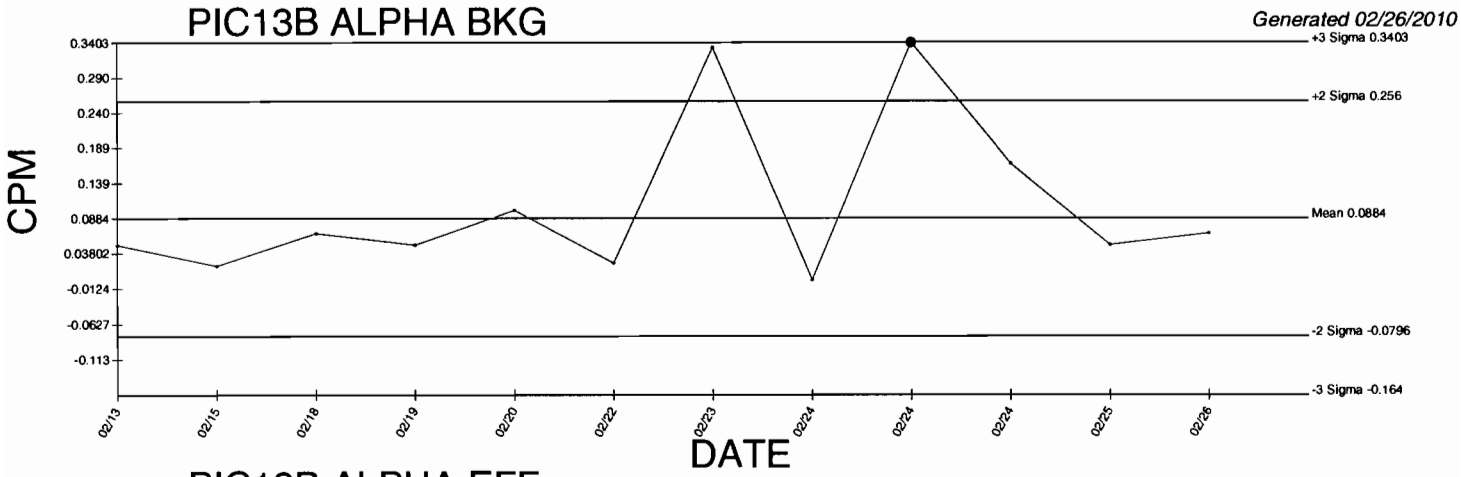
PIC13B ALPHA BKG
Generated 02/26/2010
CPM
0.3403
0.290
0.240
0.189
0.139
0.0884
0.03802
-0.0124
-0.0627
-0.113
+3 Sigma 0.3403
+2 Sigma 0.256
Mean 0.0884
-2 Sigma -0.0796
-3 Sigma -0.164
02/13
02/15
02/18
02/19
02/20
02/22
02/23
02/24
02/24
02/24
02/25
02/26
DATE

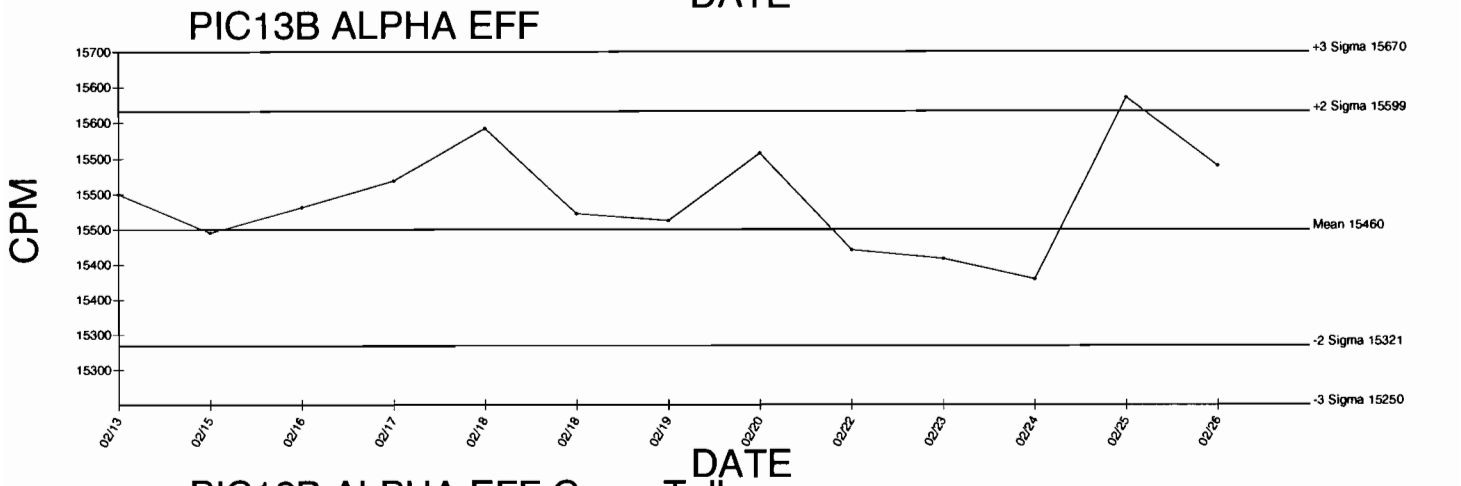
PIC13B ALPHA EFF
CPM
15700
15600
15600
15500
15500
15500
15400
15400
15300
15300
+3 Sigma 15670
+2 Sigma 15599
Mean 15460
-2 Sigma 15321
-3 Sigma 15250
02/13
02/15
02/16
02/17
02/18
02/18
02/19
02/20
02/22
02/23
02/24
02/25
02/26
DATE

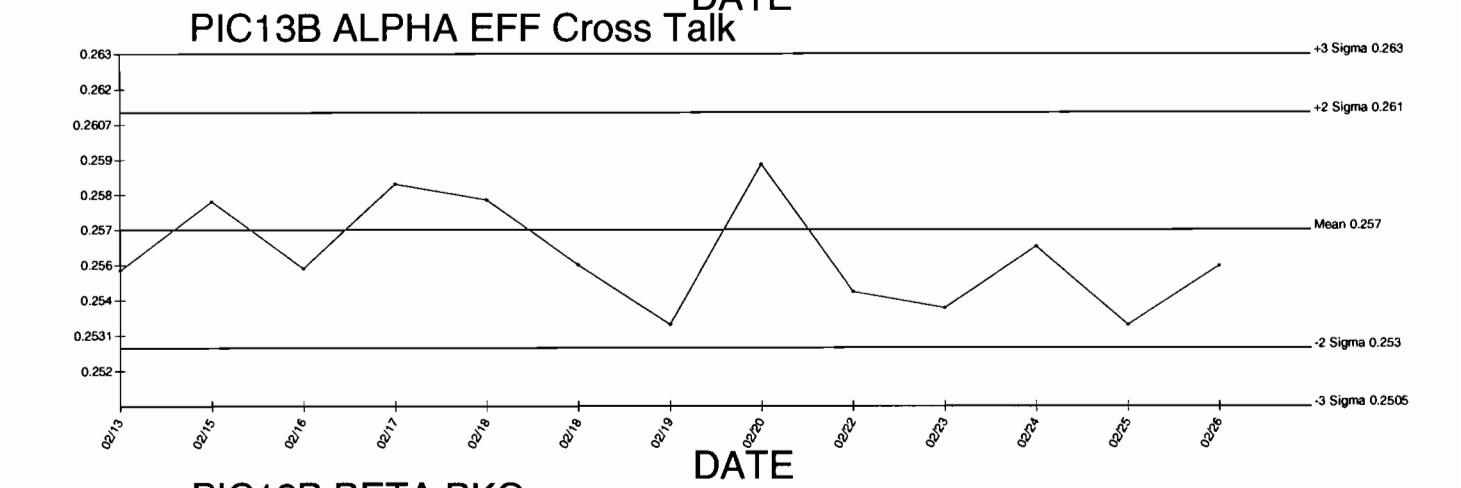
PIC13B ALPHA EFF Cross Talk
0.263
0.262
0.2607
0.259
0.258
0.257
0.256
0.254
0.2531
0.252
+3 Sigma 0.263
+2 Sigma 0.261
Mean 0.257
-2 Sigma 0.253
-3 Sigma 0.2505
02/13
02/15
02/16
02/17
02/18
02/18
02/19
02/20
02/22
02/23
02/24
02/25
02/26
DATE

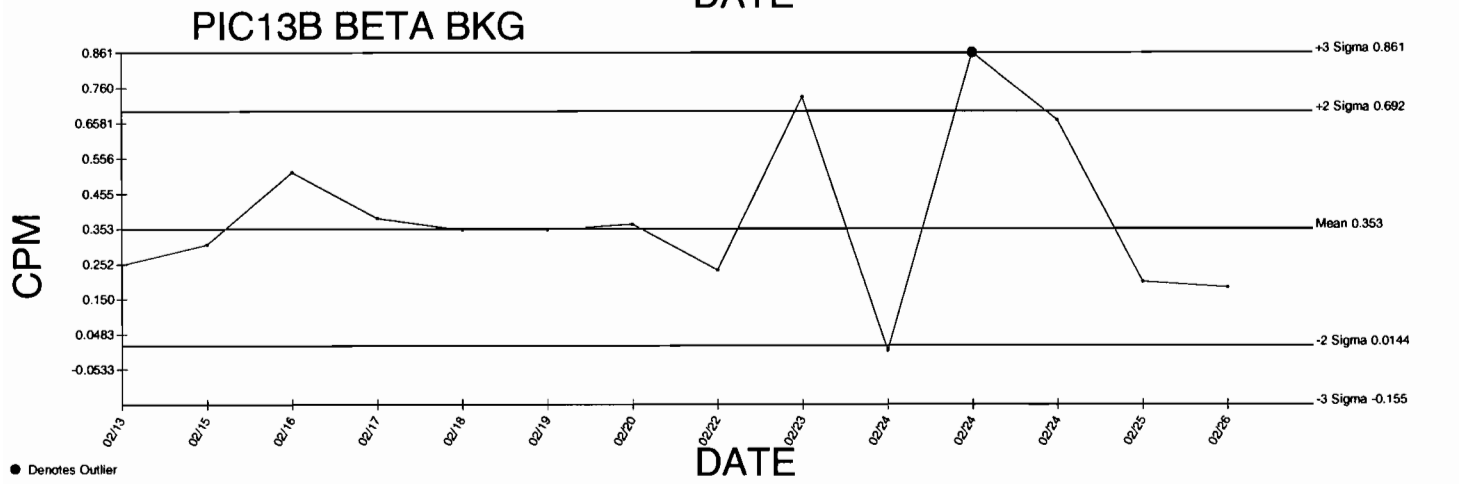
PIC13B BETA BKG
CPM
0.861
0.760
0.6581
0.556
0.455
0.353
0.252
0.150
0.0483
-0.0533
+3 Sigma 0.861
+2 Sigma 0.692
Mean 0.353
-2 Sigma 0.0144
-3 Sigma -0.155
02/13
02/15
02/16
02/17
02/18
02/19
02/20
02/22
02/23
02/24
02/24
02/24
02/25
02/26
DATE
● Denotes Outlier

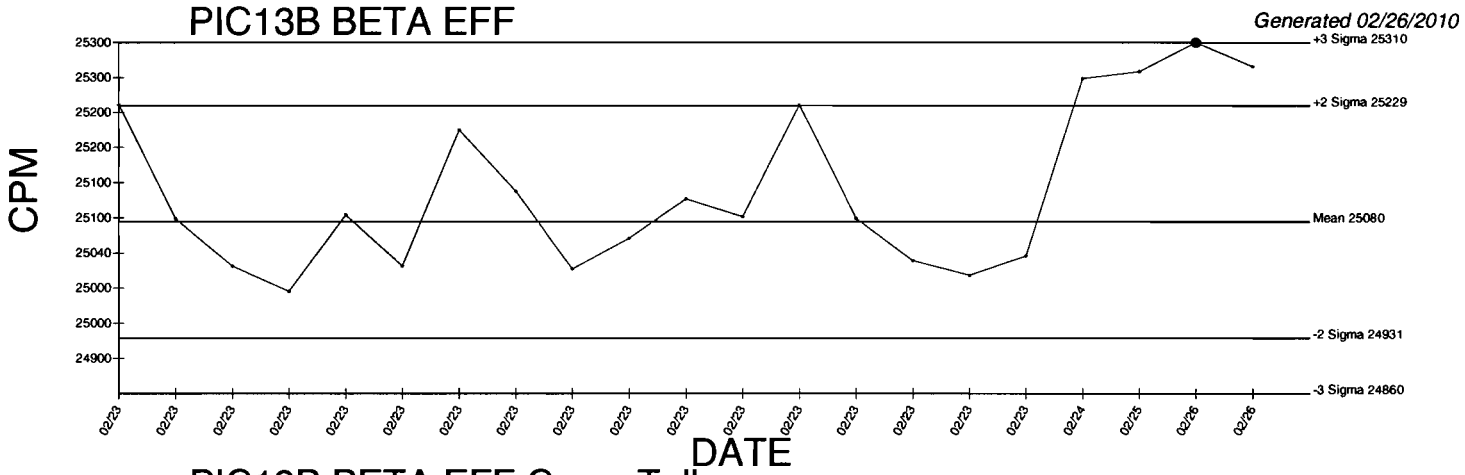

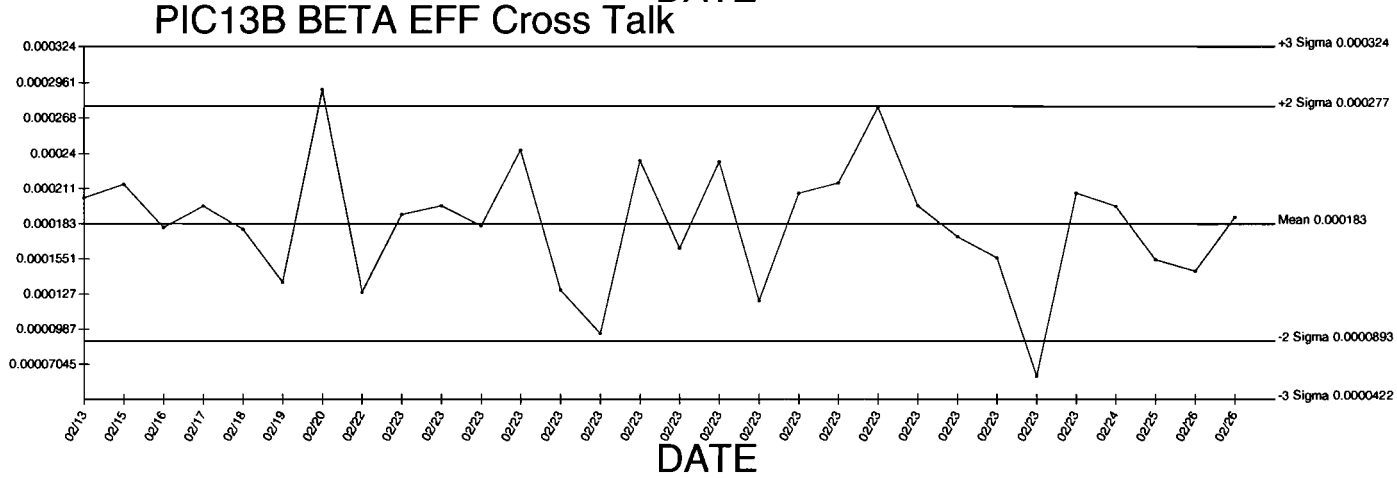

● Denotes Outlier

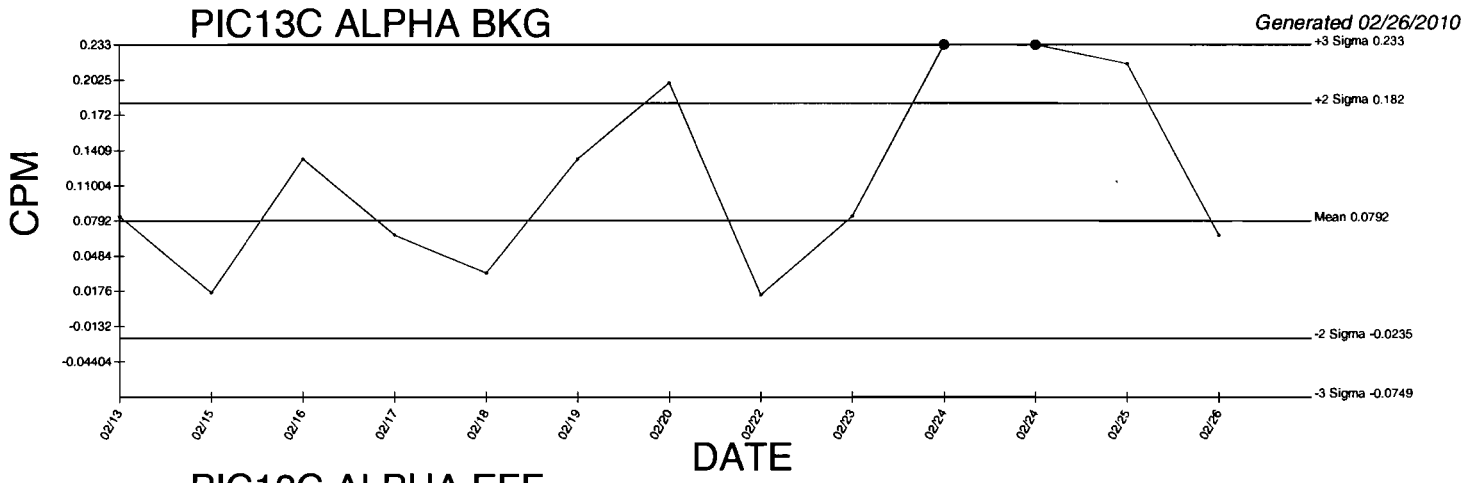

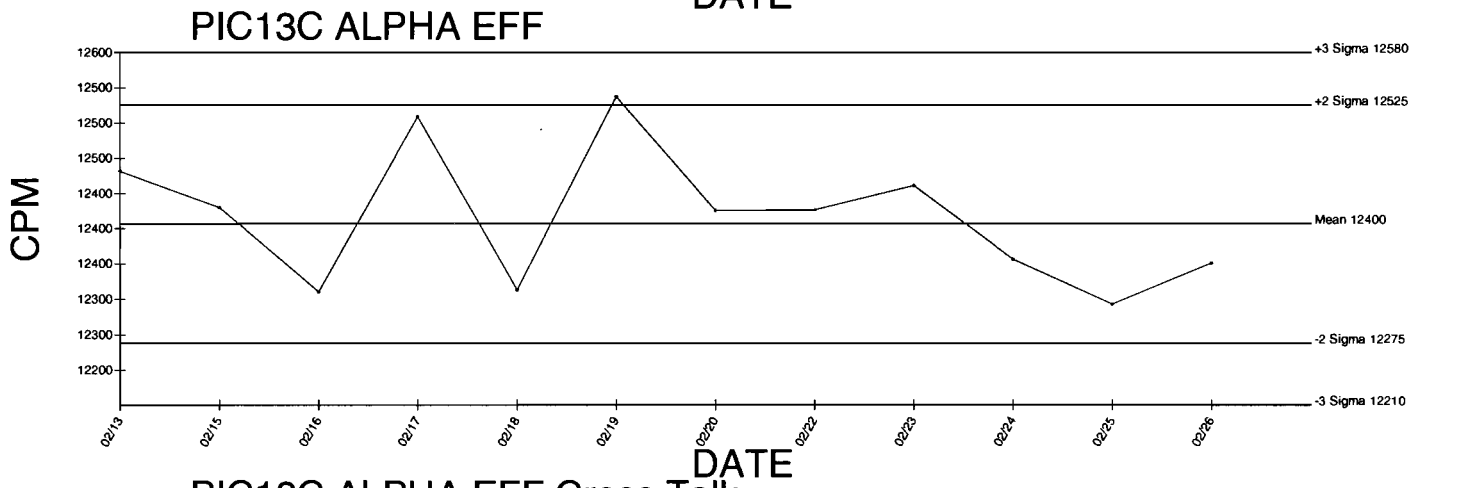

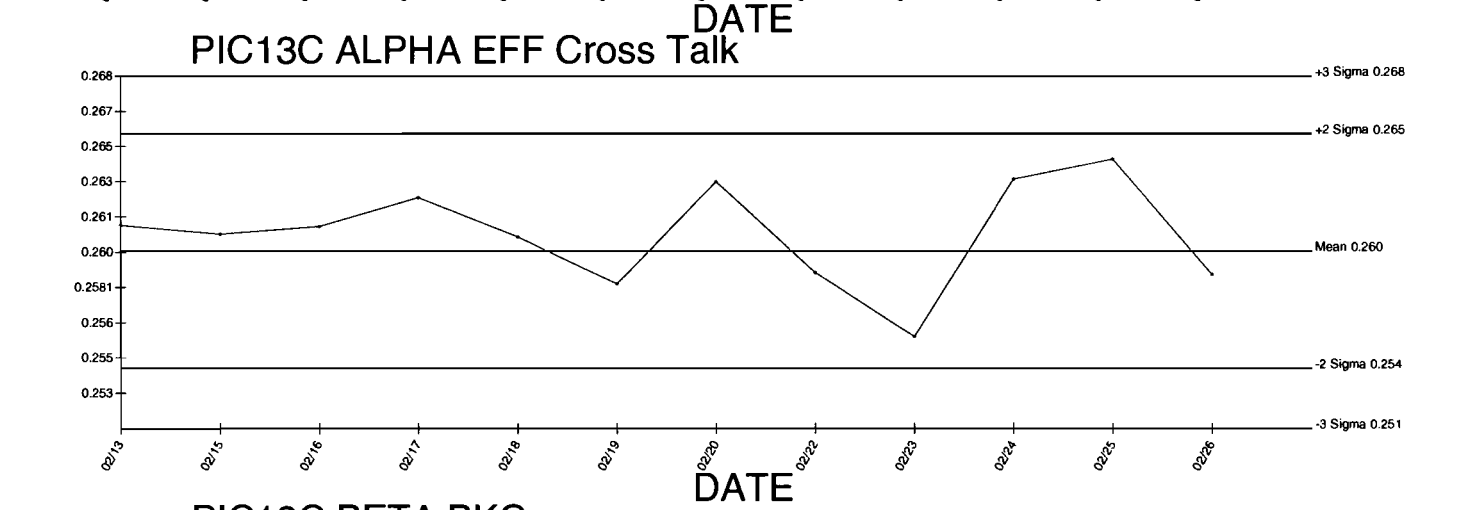

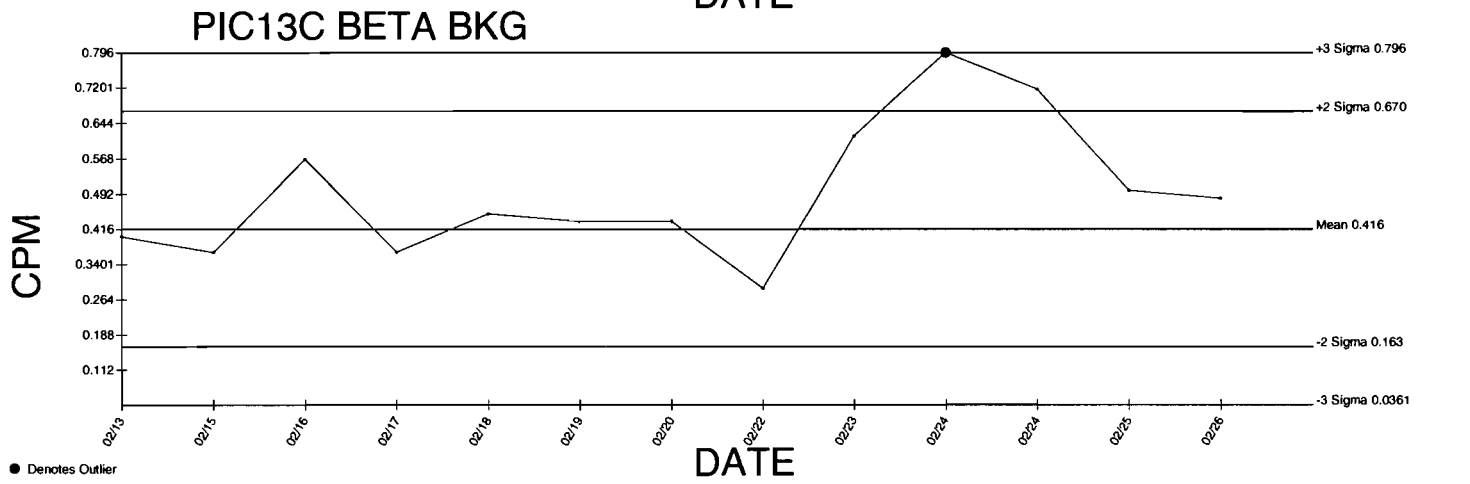

● Denotes Outlier

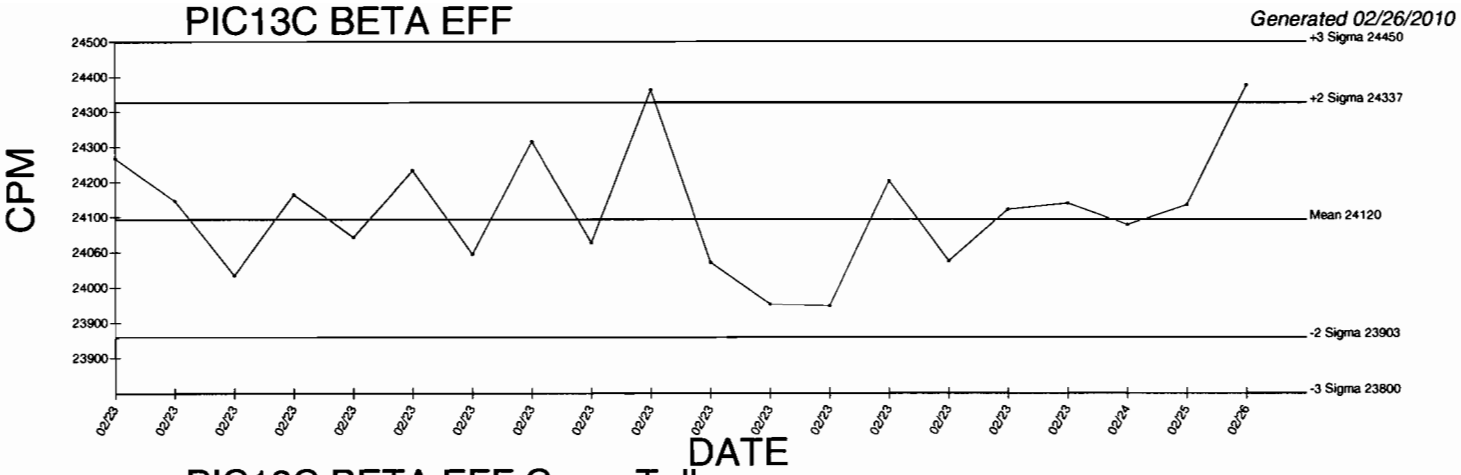

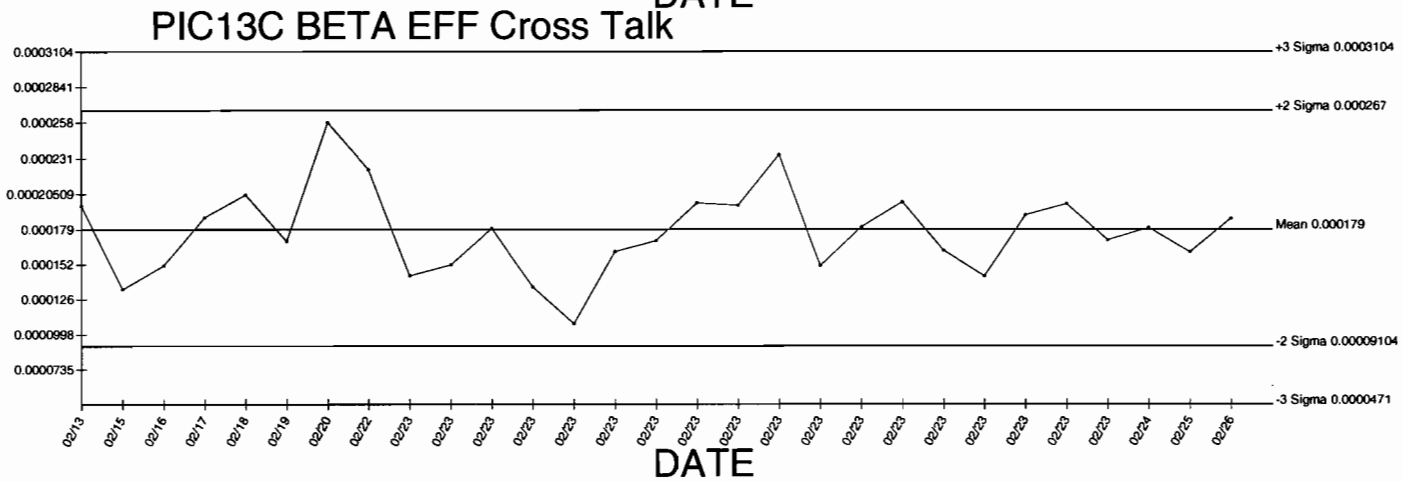

● Denotes Outlier

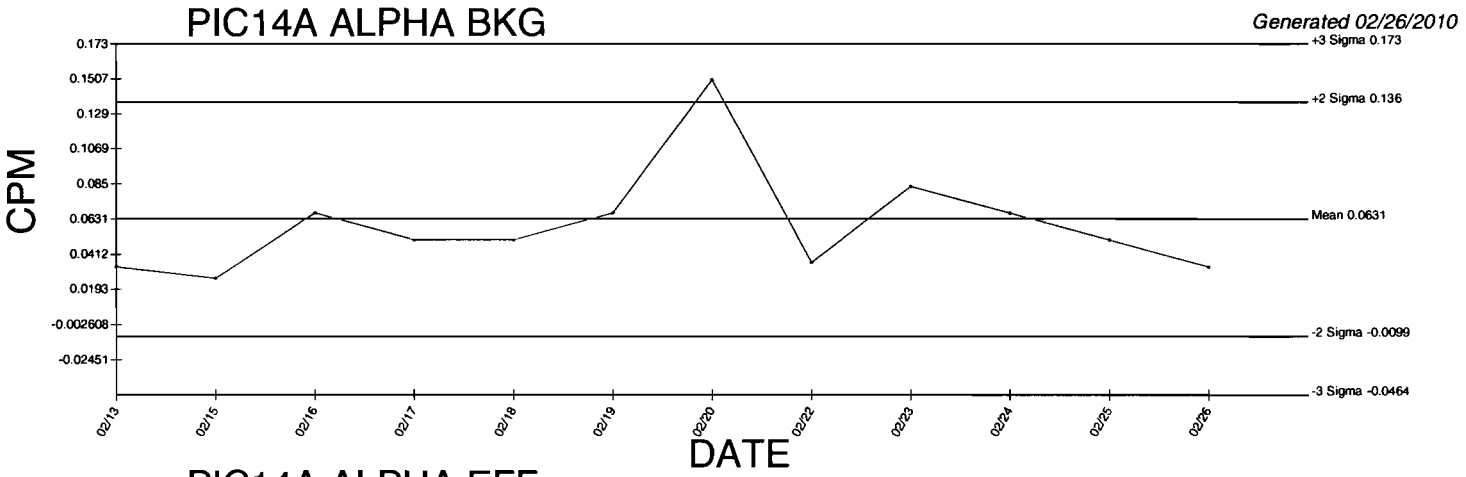
PIC14A ALPHA BKG
Generated 02/26/2010
CPM
0.173
0.1507
0.129
0.1069
0.085
0.0631
0.0412
0.0193
-0.002608
-0.02451
+3 Sigma 0.173
+2 Sigma 0.136
Mean 0.0631
-2 Sigma -0.0099
-3 Sigma -0.0464
02/13
02/15
02/16
02/17
02/18
02/19
02/20
02/22
02/23
02/24
02/25
02/26
DATE

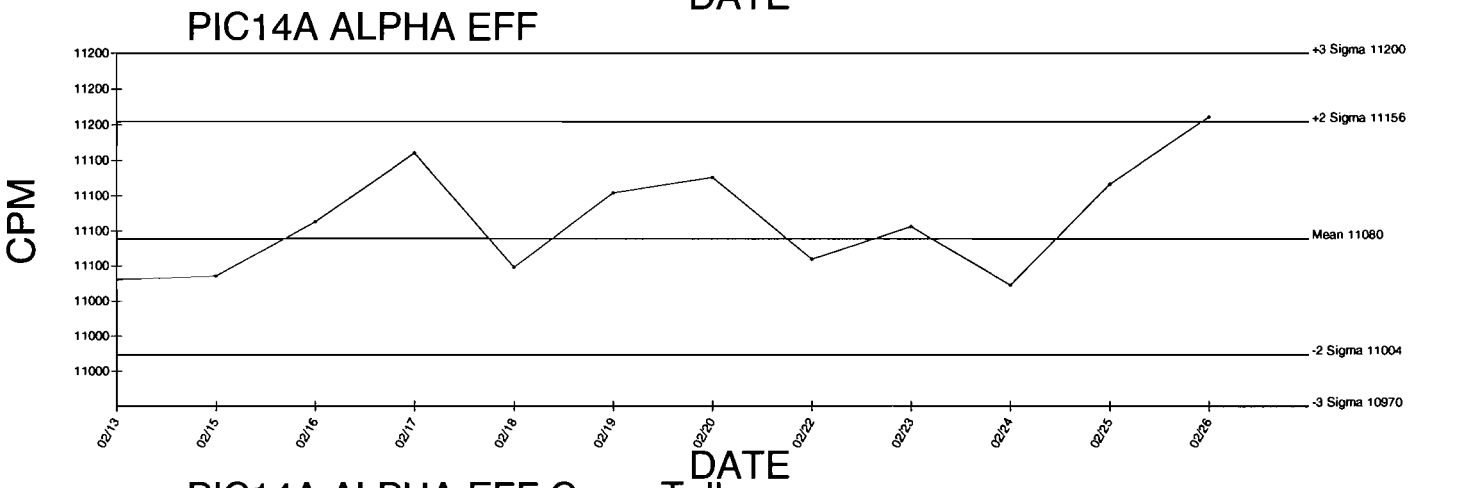
PIC14A ALPHA EFF
CPM
11200
11200
11200
11100
11100
11100
11100
11000
11000
11000
+3 Sigma 11200
+2 Sigma 11156
Mean 11080
-2 Sigma 11004
-3 Sigma 10970
02/13
02/15
02/16
02/17
02/18
02/19
02/20
02/22
02/23
02/24
02/25
02/26
DATE

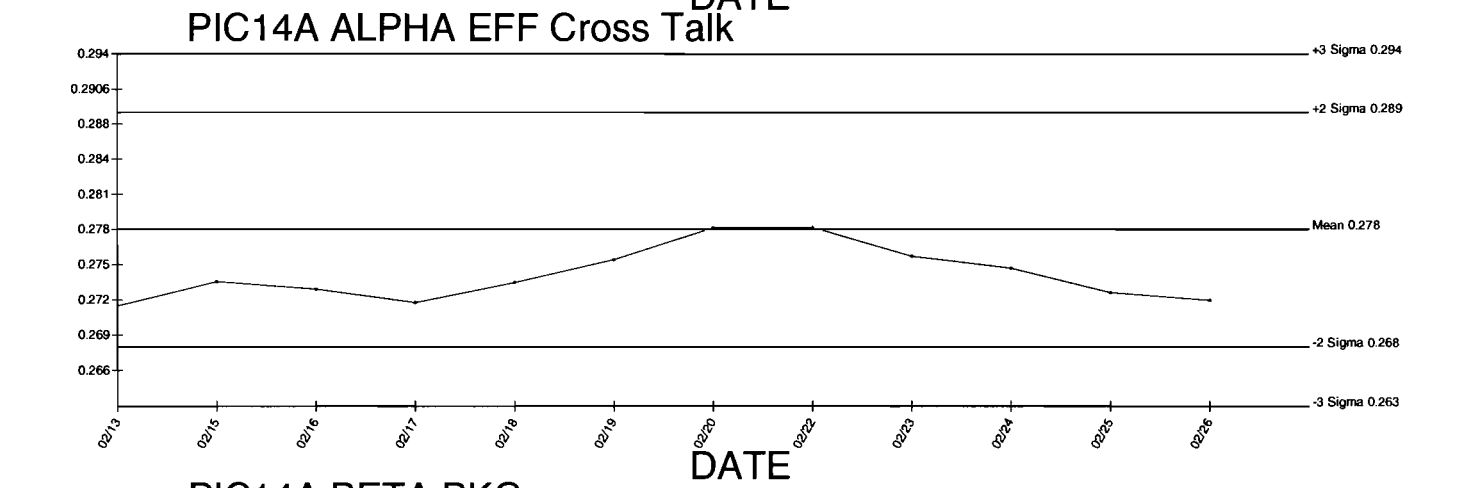
PIC14A ALPHA EFF Cross Talk
0.294
0.2906
0.288
0.284
0.281
0.278
0.275
0.272
0.269
0.266
+3 Sigma 0.294
+2 Sigma 0.289
Mean 0.278
-2 Sigma 0.268
-3 Sigma 0.263
02/13
02/15
02/16
02/17
02/18
02/19
02/20
02/22
02/23
02/24
02/25
02/26
DATE

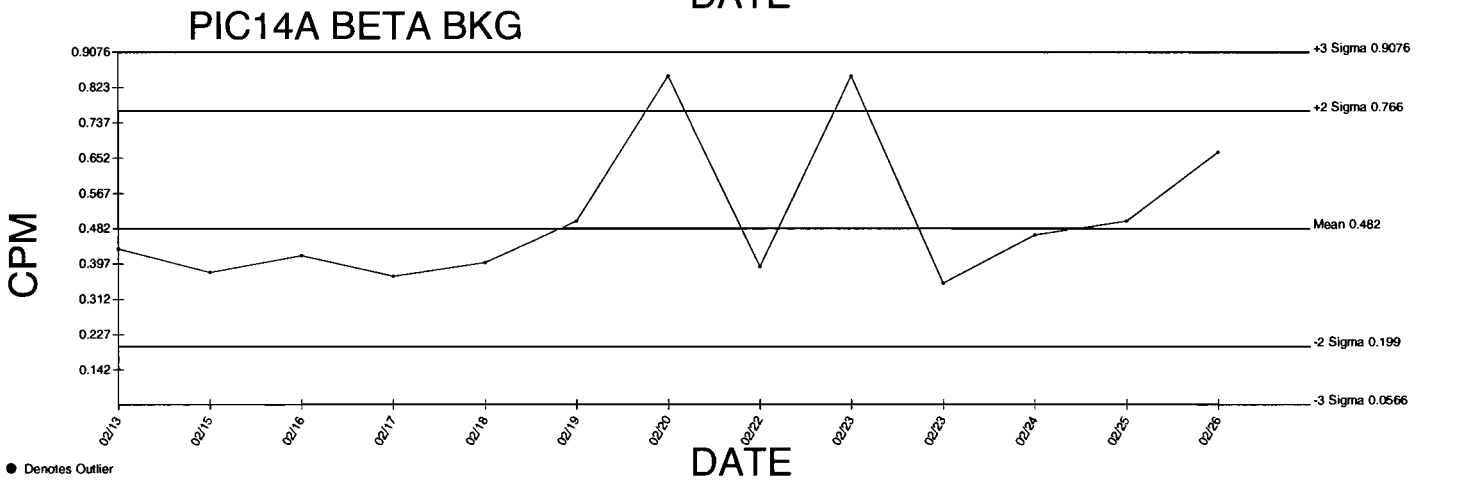
PIC14A BETA BKG
CPM
0.9076
0.823
0.737
0.652
0.567
0.482
0.397
0.312
0.227
0.142
+3 Sigma 0.9076
+2 Sigma 0.766
Mean 0.482
-2 Sigma 0.199
-3 Sigma 0.0566
02/13
02/15
02/16
02/17
02/18
02/19
02/20
02/22
02/23
02/23
02/24
02/25
02/26
DATE
● Denotes Outlier

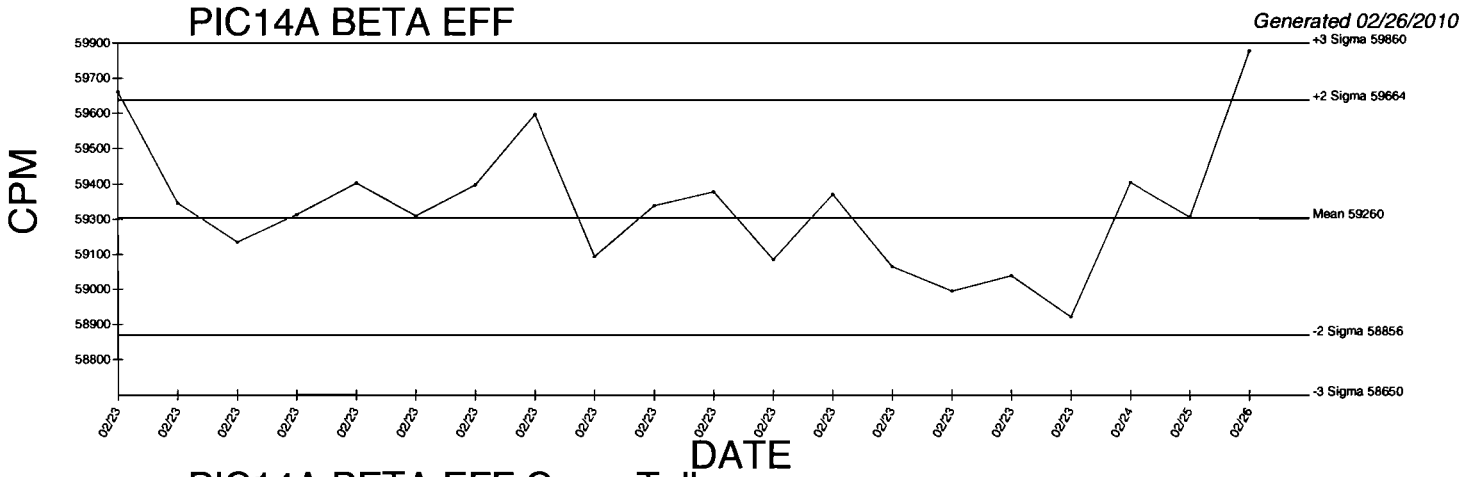

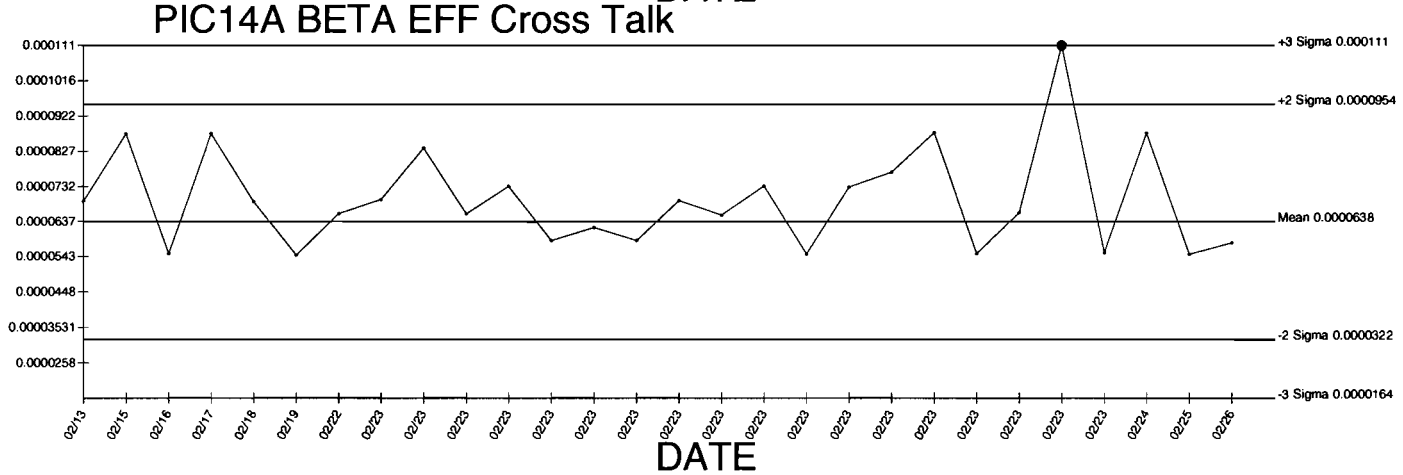

● Denotes Outlier

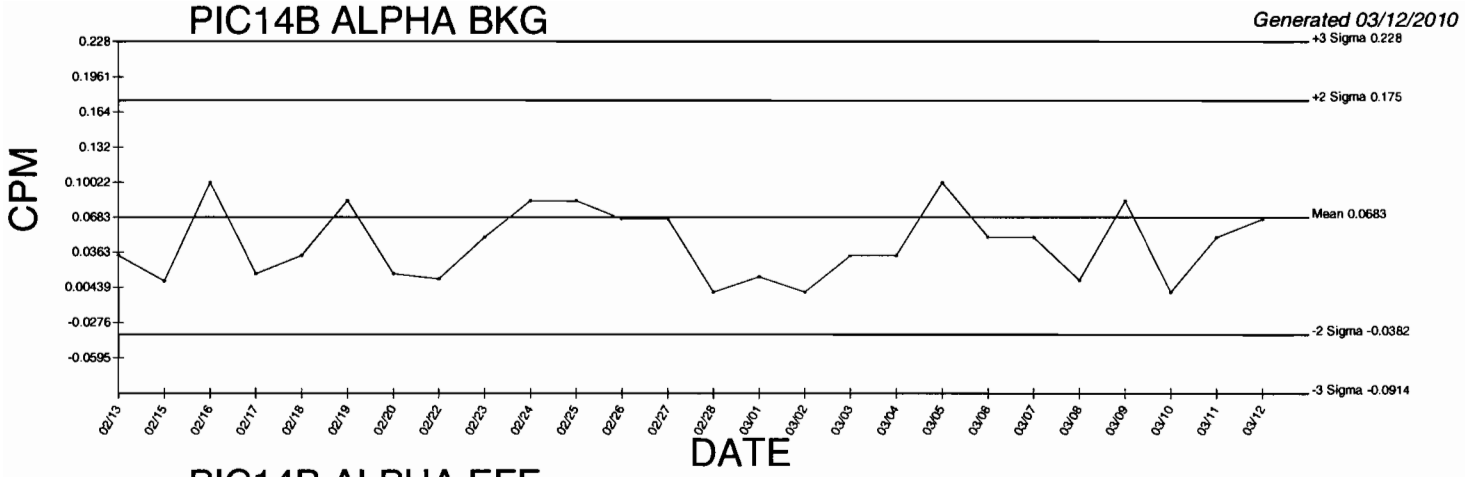
PIC14B ALPHA BKG
Generated 03/12/2010
CPM
DATE
+3 Sigma 0.228
+2 Sigma 0.175
Mean 0.0683
-2 Sigma -0.0382
-3 Sigma -0.0914

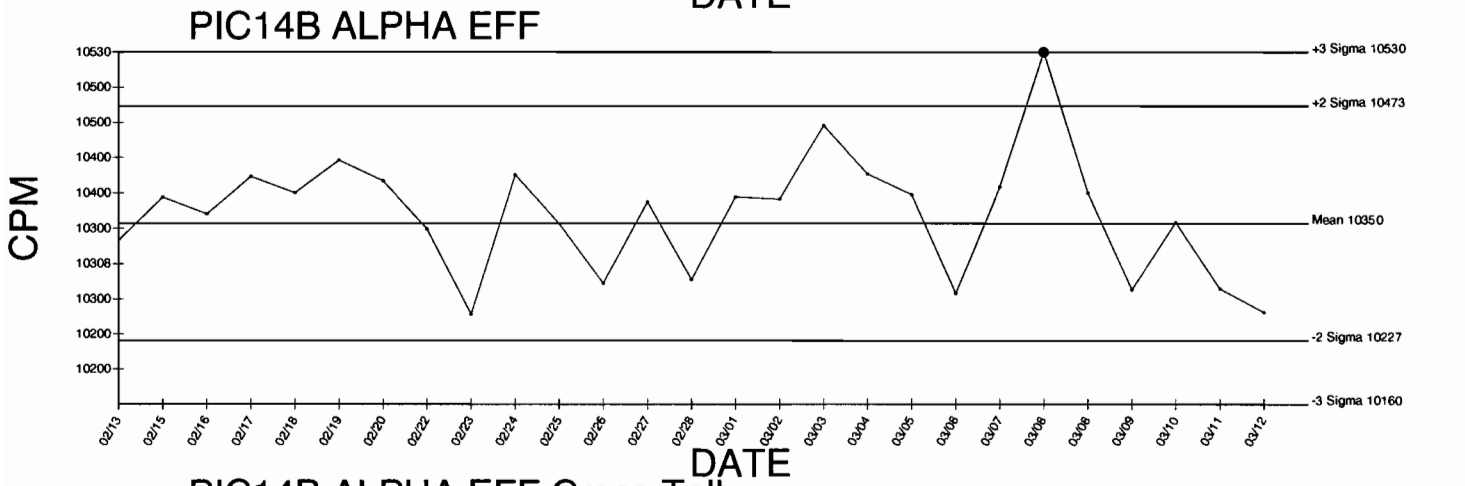
PIC14B ALPHA EFF
CPM
DATE
+3 Sigma 10530
+2 Sigma 10473
Mean 10350
-2 Sigma 10227
-3 Sigma 10160

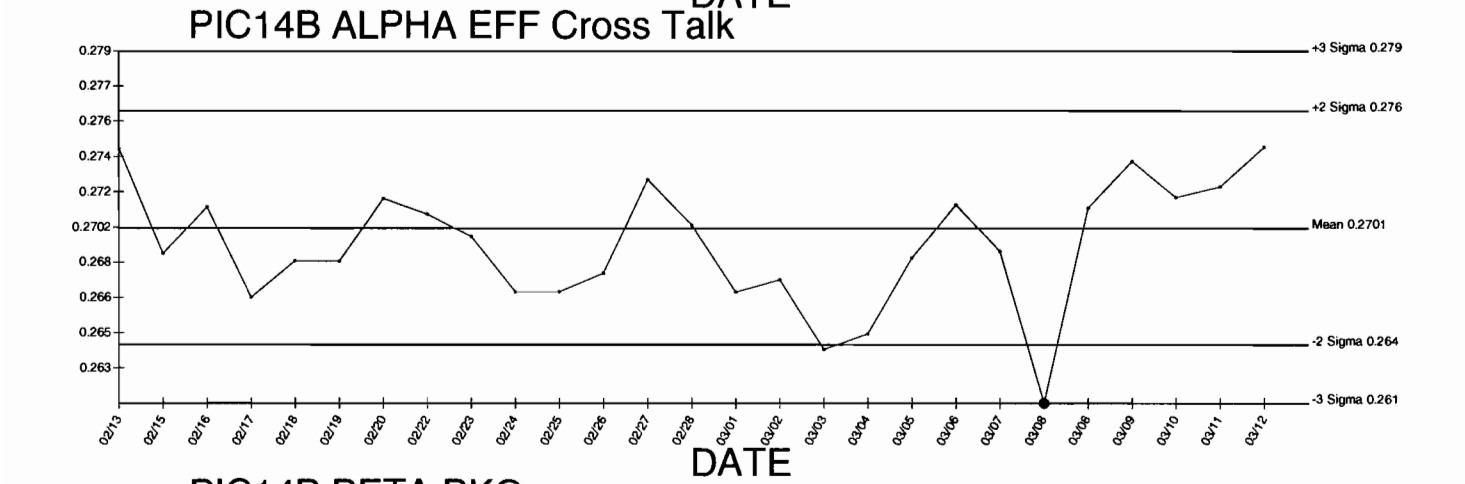
PIC14B ALPHA EFF Cross Talk
DATE
+3 Sigma 0.279
+2 Sigma 0.276
Mean 0.2701
-2 Sigma 0.264
-3 Sigma 0.261

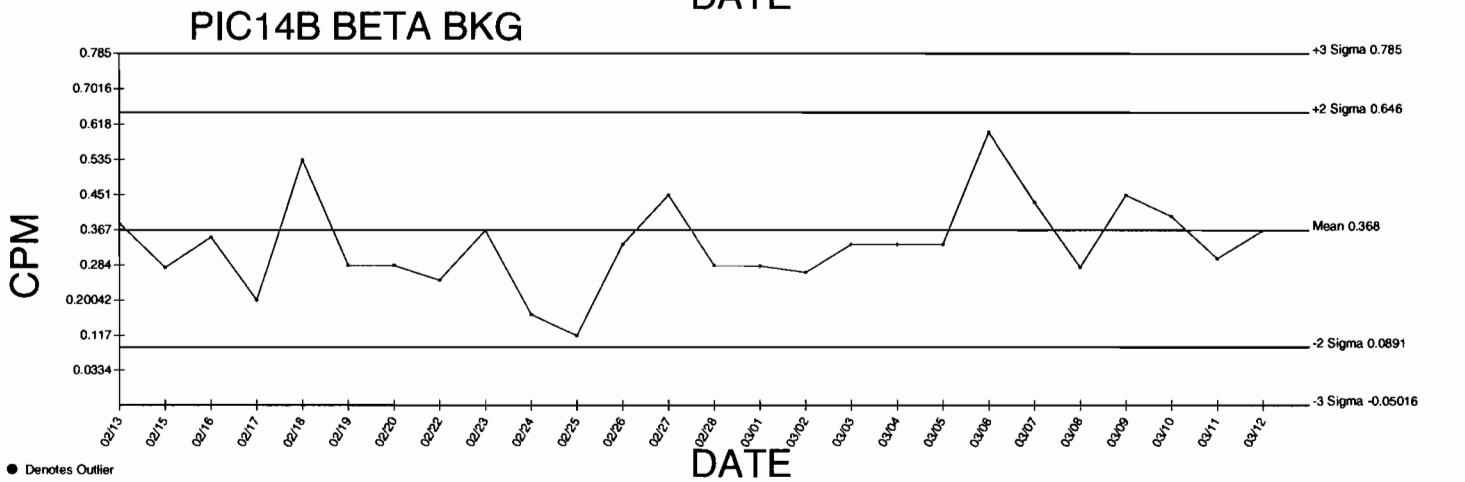
PIC14B BETA BKG
CPM
DATE
+3 Sigma 0.785
+2 Sigma 0.646
Mean 0.368
-2 Sigma 0.0891
-3 Sigma -0.05016
● Denotes Outlier

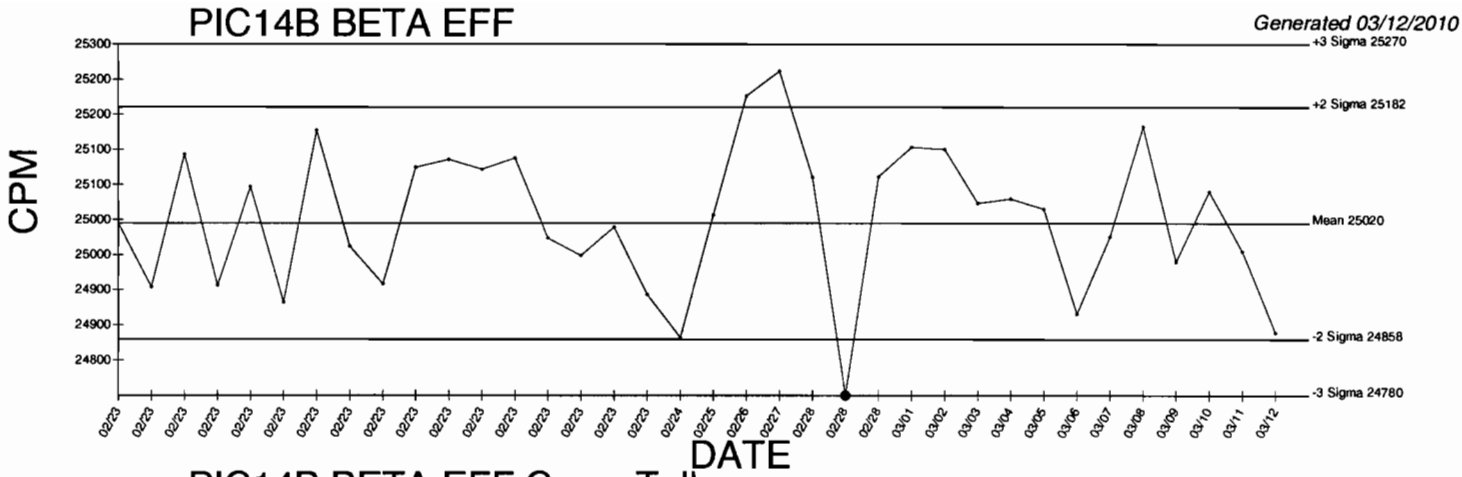

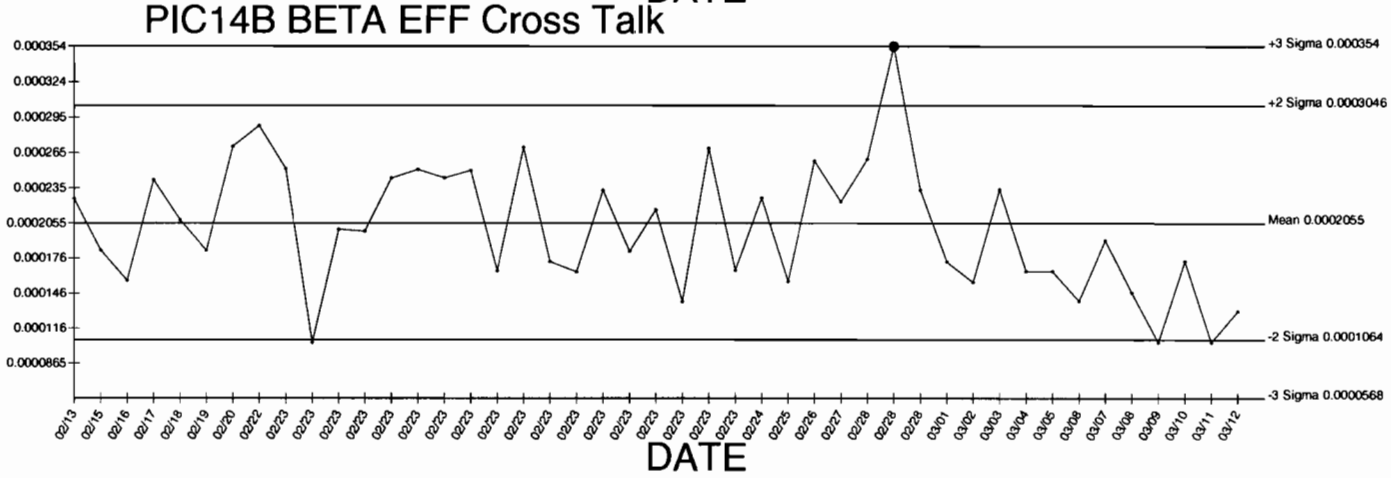

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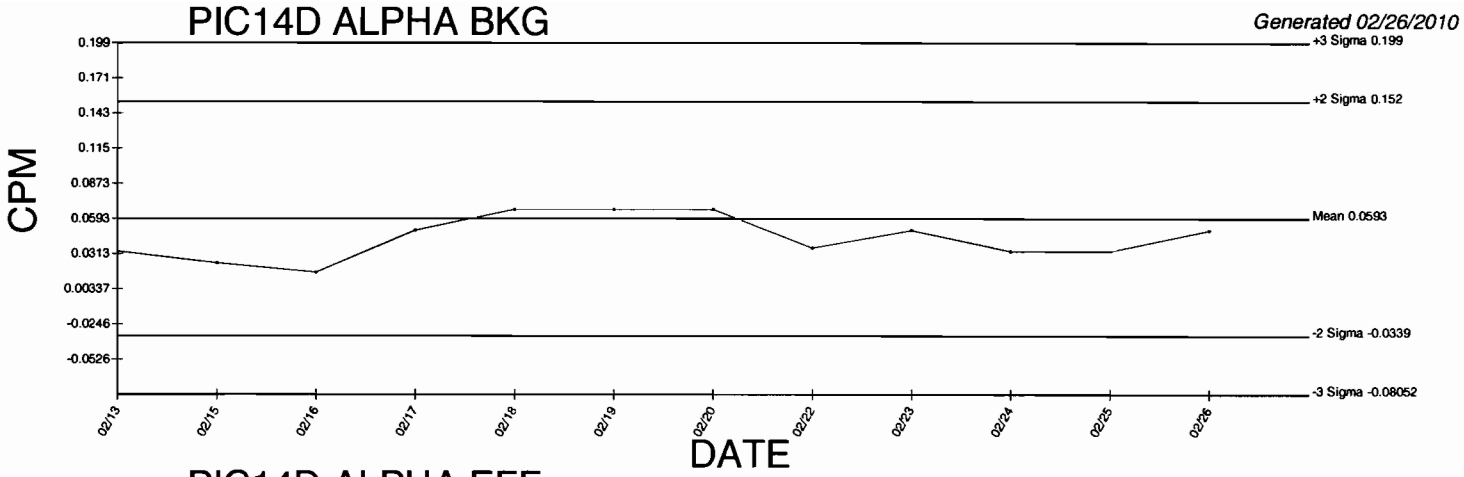
PIC14D ALPHA BKG
Generated 02/26/2010
CPM
0.199
0.171
0.143
0.115
0.0873
0.0593
0.0313
0.00337
-0.0246
-0.0526
+3 Sigma 0.199
+2 Sigma 0.152
Mean 0.0593
-2 Sigma -0.0339
-3 Sigma -0.08052
02/13
02/15
02/16
02/17
02/18
02/19
02/20
02/22
02/23
02/24
02/25
02/26
DATE

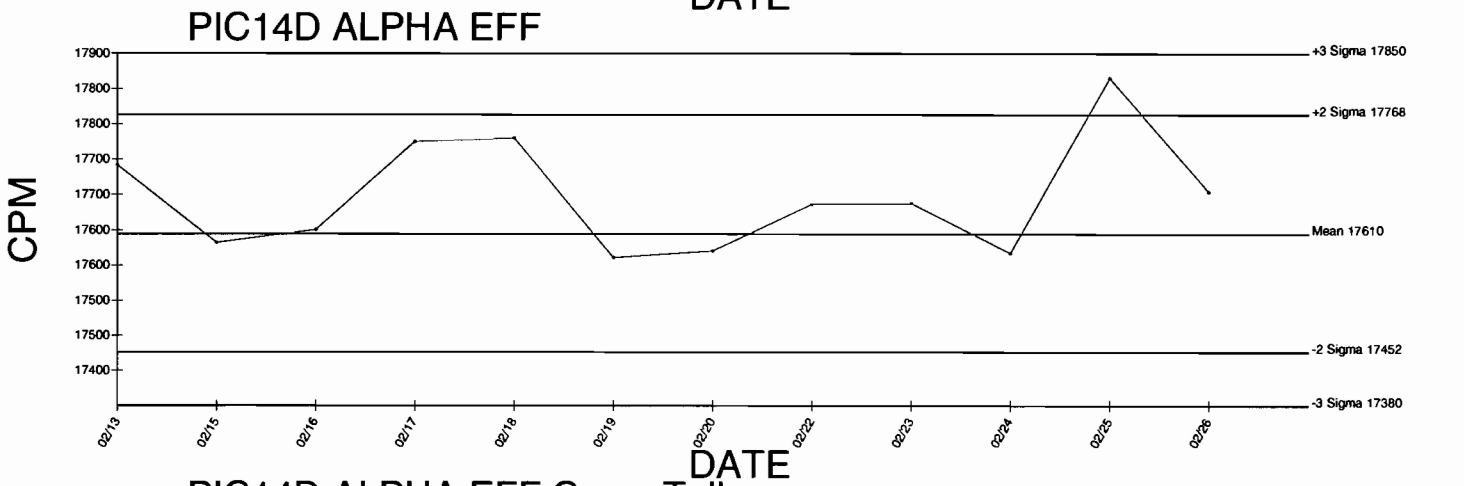
PIC14D ALPHA EFF
CPM
17900
17800
17800
17700
17700
17600
17600
17500
17500
17400
+3 Sigma 17850
+2 Sigma 17768
Mean 17610
-2 Sigma 17452
-3 Sigma 17380
02/13
02/15
02/16
02/17
02/18
02/19
02/20
02/22
02/23
02/24
02/25
02/26
DATE

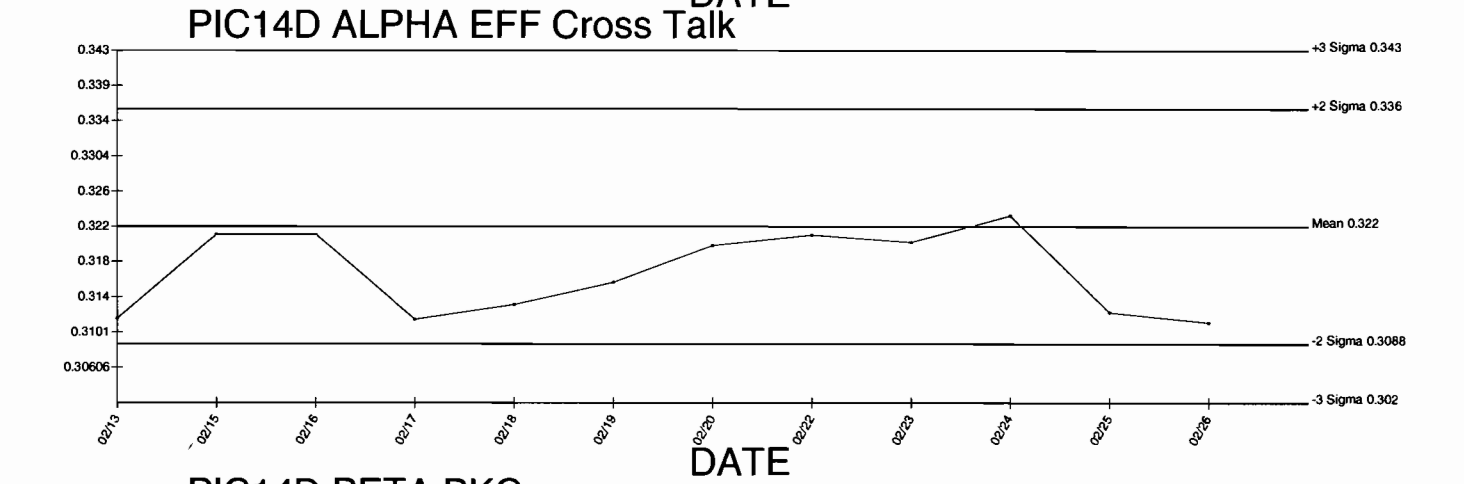
PIC14D ALPHA EFF Cross Talk
0.343
0.339
0.334
0.3304
0.326
0.322
0.318
0.314
0.3101
0.30606
+3 Sigma 0.343
+2 Sigma 0.336
Mean 0.322
-2 Sigma 0.3088
-3 Sigma 0.302
02/13
02/15
02/16
02/17
02/18
02/19
02/20
02/22
02/23
02/24
02/25
02/26
DATE

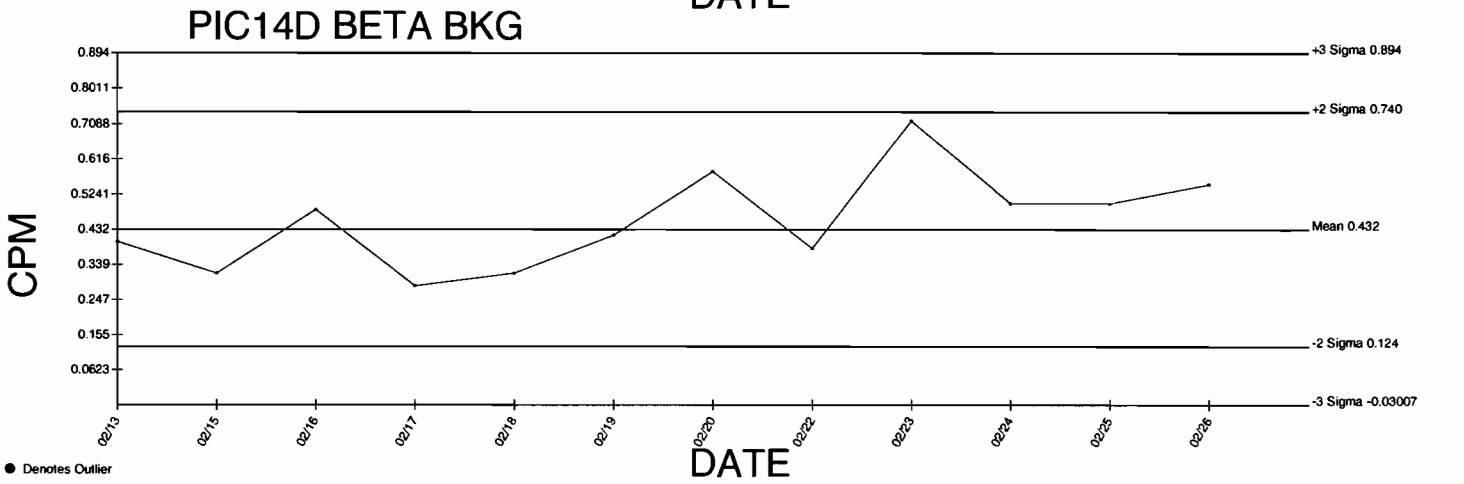
PIC14D BETA BKG
CPM
0.894
0.8011
0.7088
0.616
0.5241
0.432
0.339
0.247
0.155
0.0623
+3 Sigma 0.894
+2 Sigma 0.740
Mean 0.432
-2 Sigma 0.124
-3 Sigma -0.03007
02/13
02/15
02/16
02/17
02/18
02/19
02/20
02/22
02/23
02/24
02/25
02/26
DATE
● Denotes Outlier

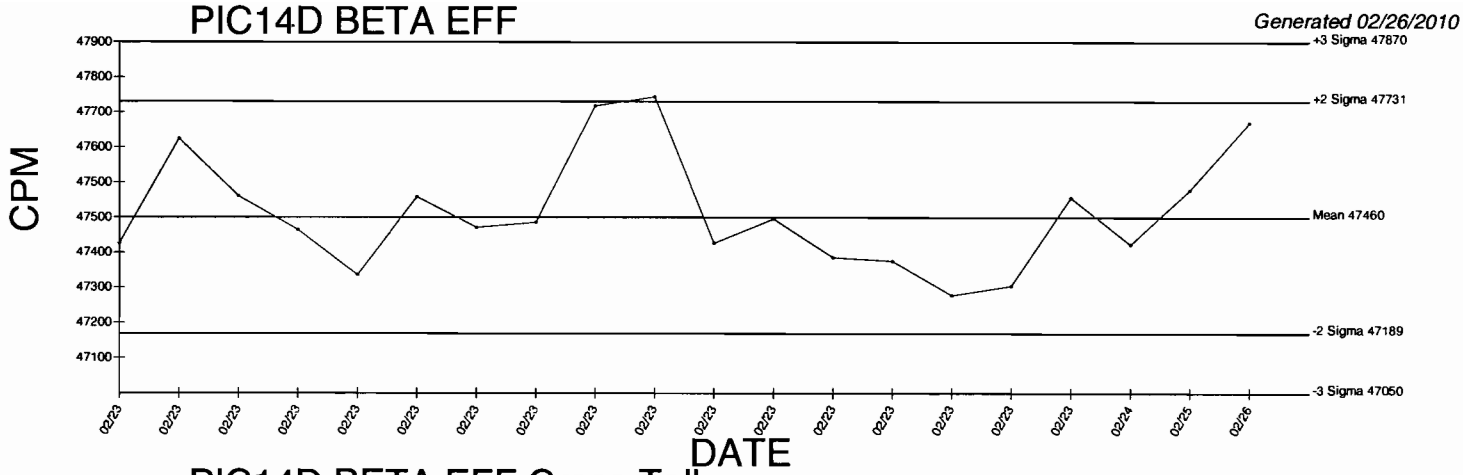

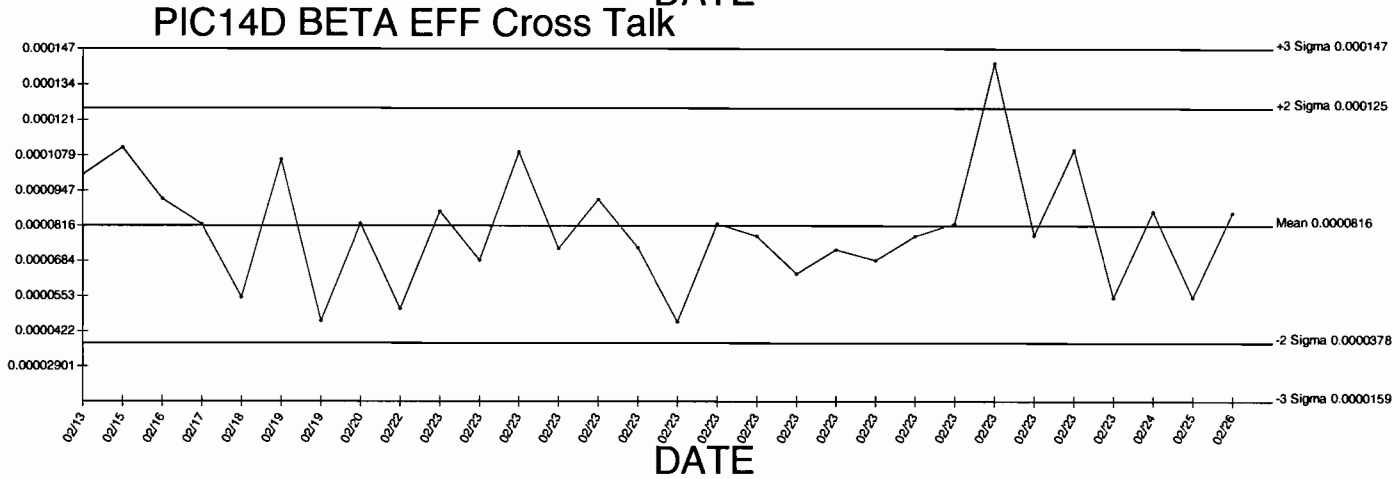

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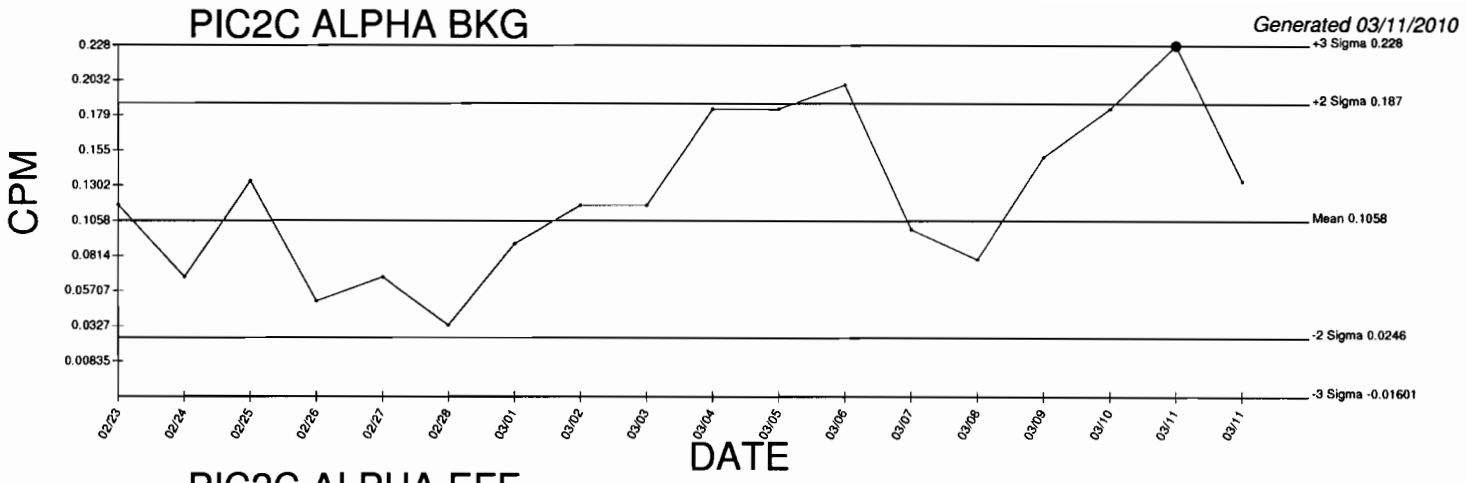
PIC2C ALPHA BKG
Generated 03/11/2010
CPM
0.228
0.2032
0.179
0.155
0.1302
0.1058
0.0814
0.05707
0.0327
0.00835
+3 Sigma 0.228
+2 Sigma 0.187
Mean 0.1058
-2 Sigma 0.0246
-3 Sigma -0.01601
02/23 02/24 02/25 02/26 02/27 02/28 03/01 03/02 03/03 03/04 03/05 03/06 03/07 03/08 03/09 03/10 03/11 03/11
DATE

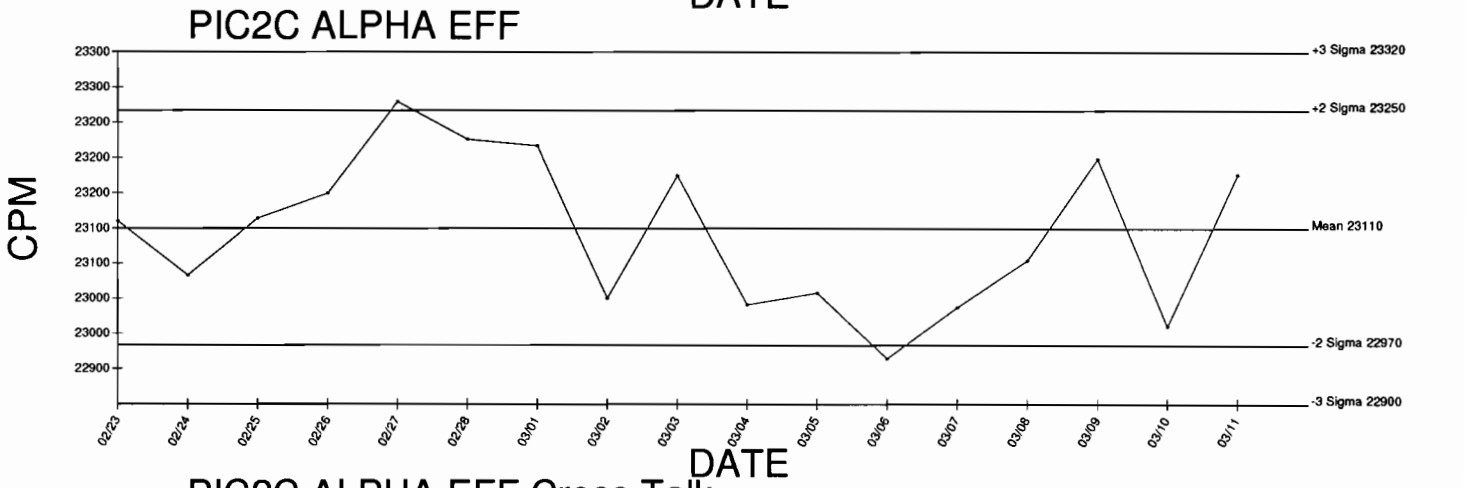
PIC2C ALPHA EFF
CPM
23300
23300
23200
23200
23200
23100
23100
23000
23000
22900
+3 Sigma 23320
+2 Sigma 23250
Mean 23110
-2 Sigma 22970
-3 Sigma 22900
02/23 02/24 02/25 02/26 02/27 02/28 03/01 03/02 03/03 03/04 03/05 03/06 03/07 03/08 03/09 03/10 03/11
DATE

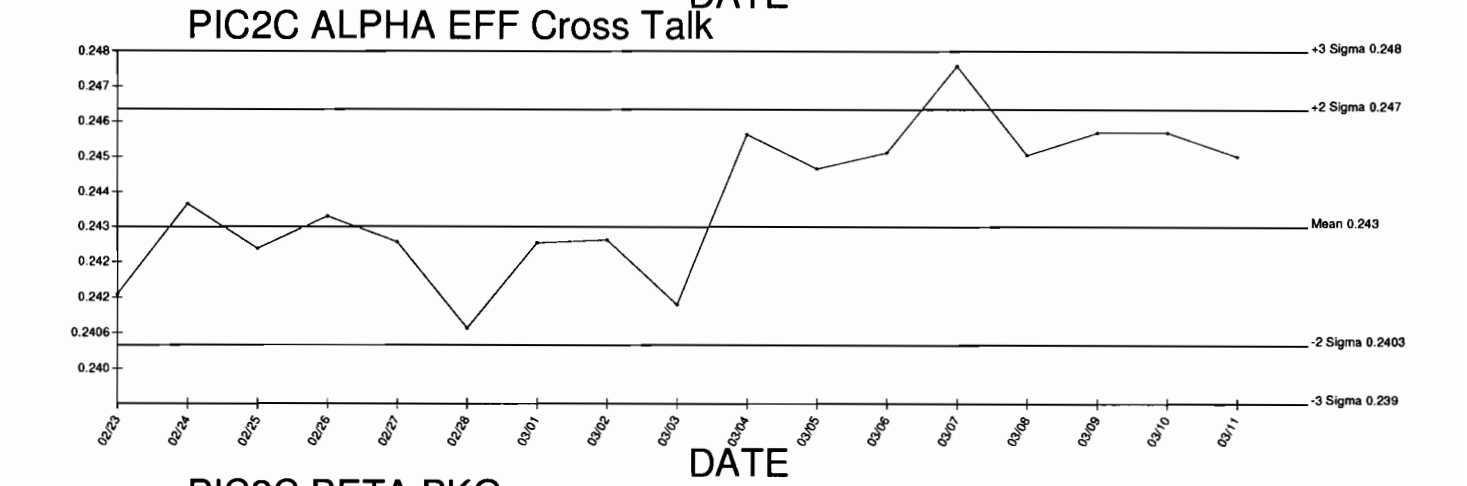
PIC2C ALPHA EFF Cross Talk
0.248
0.247
0.246
0.245
0.244
0.243
0.242
0.2406
0.240
+3 Sigma 0.248
+2 Sigma 0.247
Mean 0.243
-2 Sigma 0.2403
-3 Sigma 0.239
02/23 02/24 02/25 02/26 02/27 02/28 03/01 03/02 03/03 03/04 03/05 03/06 03/07 03/08 03/09 03/10 03/11
DATE

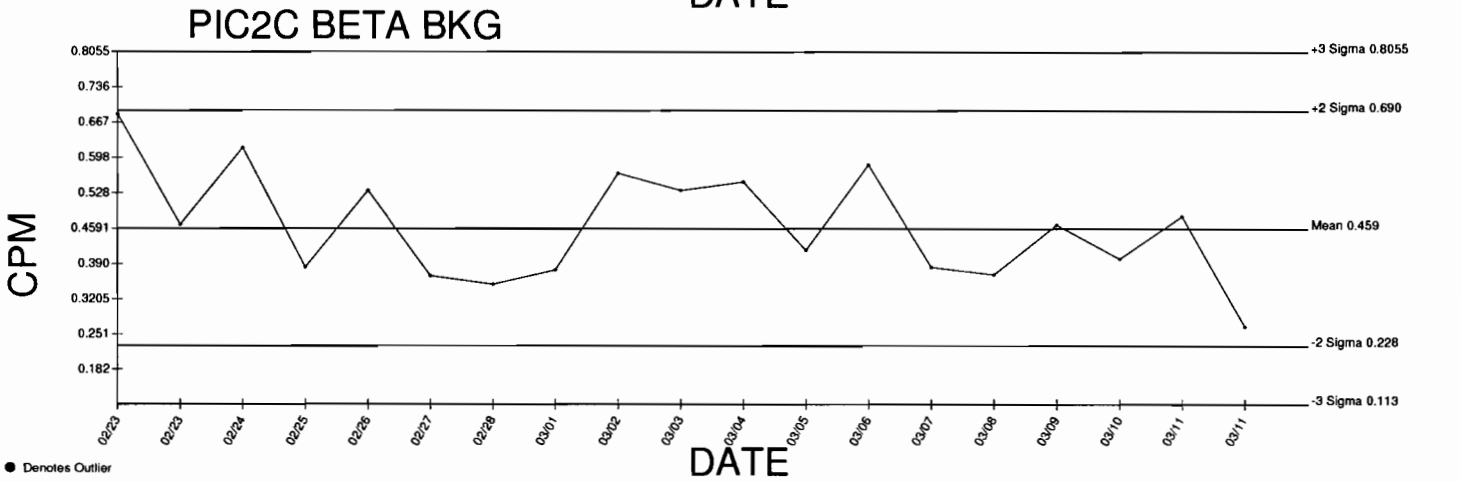
PIC2C BETA BKG
CPM
0.8055
0.736
0.667
0.598
0.528
0.4591
0.390
0.3205
0.251
0.182
+3 Sigma 0.8055
+2 Sigma 0.690
Mean 0.459
-2 Sigma 0.228
-3 Sigma 0.113
02/23 02/23 02/24 02/25 02/26 02/27 02/28 03/01 03/02 03/03 03/04 03/05 03/06 03/07 03/08 03/09 03/10 03/11 03/11
DATE
● Denotes Outlier

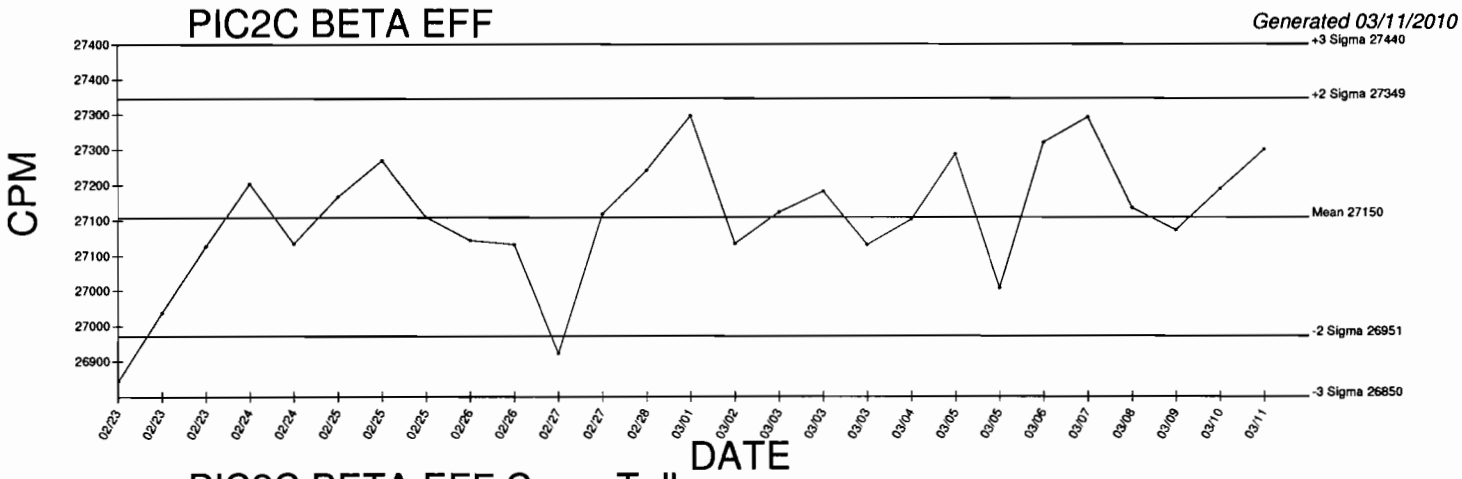

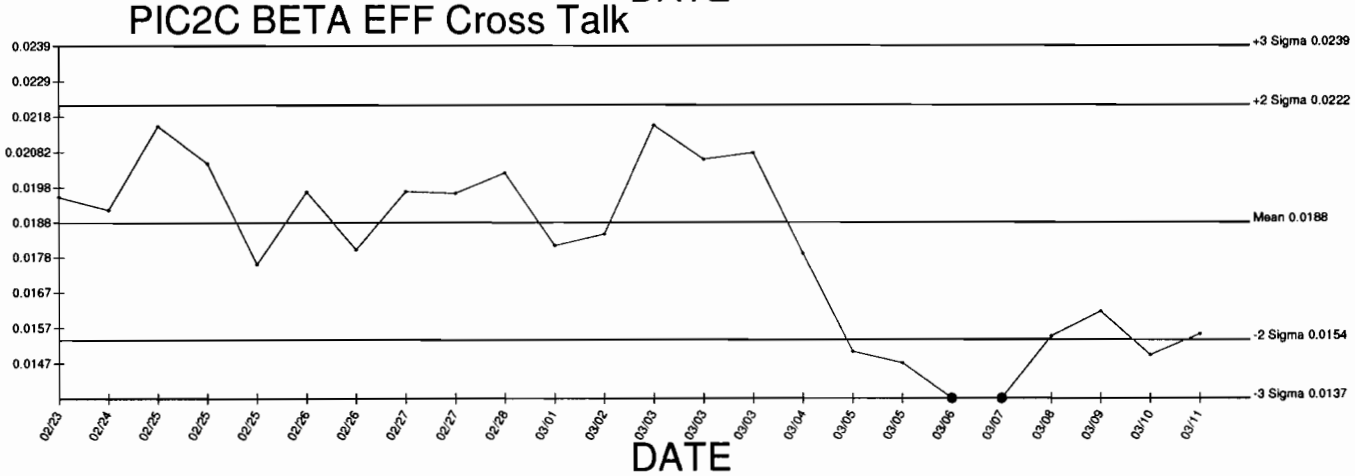

● Denotes Outlier

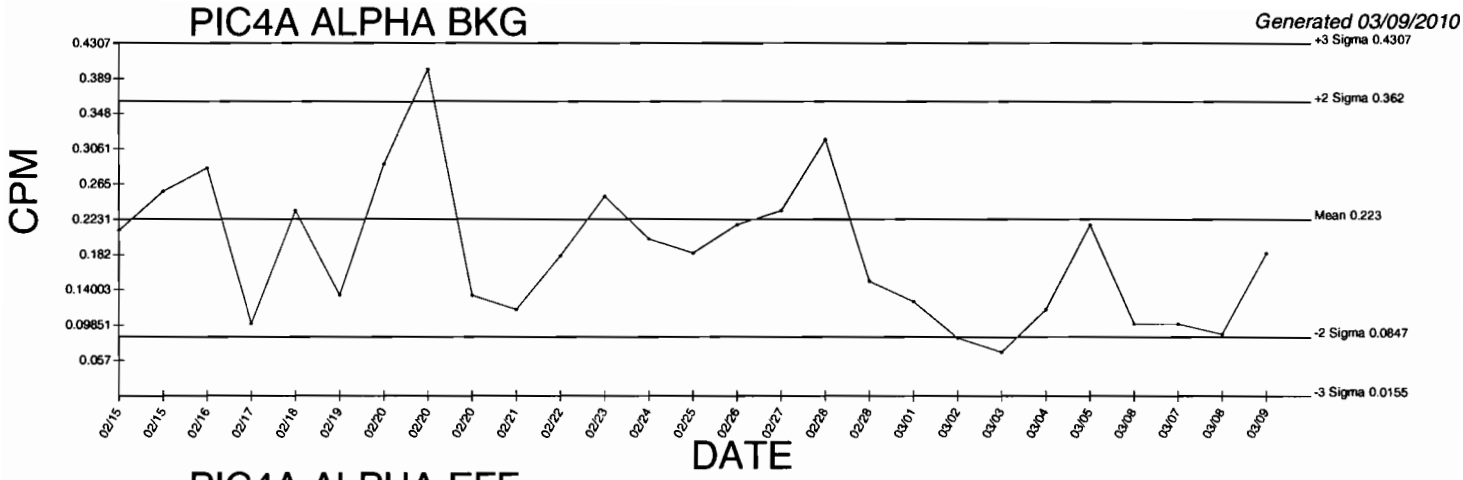
PIC4A ALPHA BKG
Generated 03/09/2010
CPM
0.4307
0.389
0.348
0.3061
0.265
0.2231
0.182
0.14003
0.09851
0.057
+3 Sigma 0.4307
+2 Sigma 0.362
Mean 0.223
-2 Sigma 0.0847
-3 Sigma 0.0155
02/15 02/15 02/16 02/17 02/18 02/19 02/20 02/20 02/20 02/21 02/22 02/23 02/24 02/25 02/26 02/27 02/28 02/28 03/01 03/02 03/03 03/04 03/05 03/06 03/07 03/08 03/09
DATE

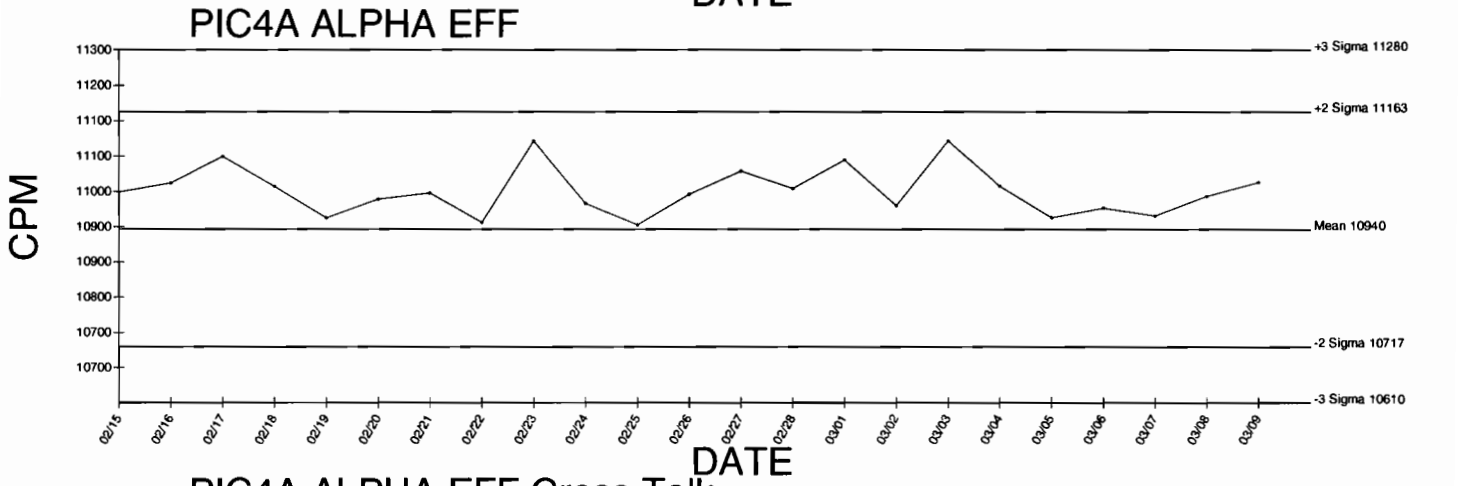
PIC4A ALPHA EFF
CPM
11300
11200
11100
11100
11000
10900
10900
10800
10700
10700
+3 Sigma 11280
+2 Sigma 11163
Mean 10940
-2 Sigma 10717
-3 Sigma 10610
02/15 02/16 02/17 02/18 02/19 02/20 02/21 02/22 02/23 02/24 02/25 02/26 02/27 02/28 03/01 03/02 03/03 03/04 03/05 03/06 03/07 03/08 03/09
DATE

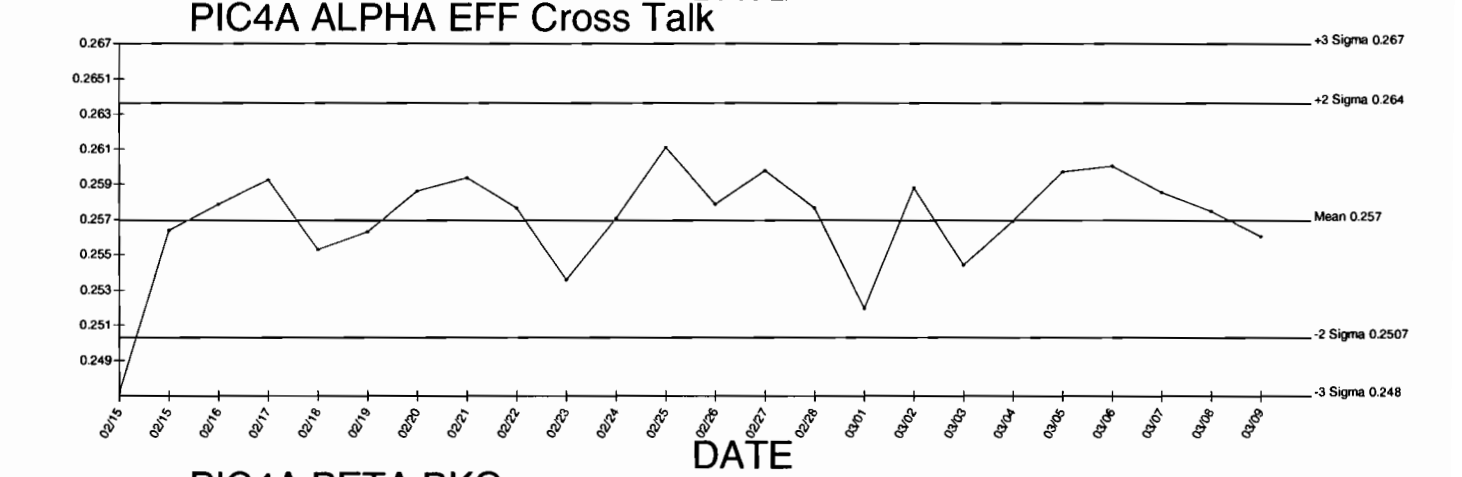
PIC4A ALPHA EFF Cross Talk
0.267
0.2651
0.263
0.261
0.259
0.257
0.255
0.253
0.251
0.249
+3 Sigma 0.267
+2 Sigma 0.264
Mean 0.257
-2 Sigma 0.2507
-3 Sigma 0.248
02/15 02/15 02/16 02/17 02/18 02/19 02/20 02/21 02/22 02/23 02/24 02/25 02/26 02/27 02/28 03/01 03/02 03/03 03/04 03/05 03/06 03/07 03/08 03/09
DATE

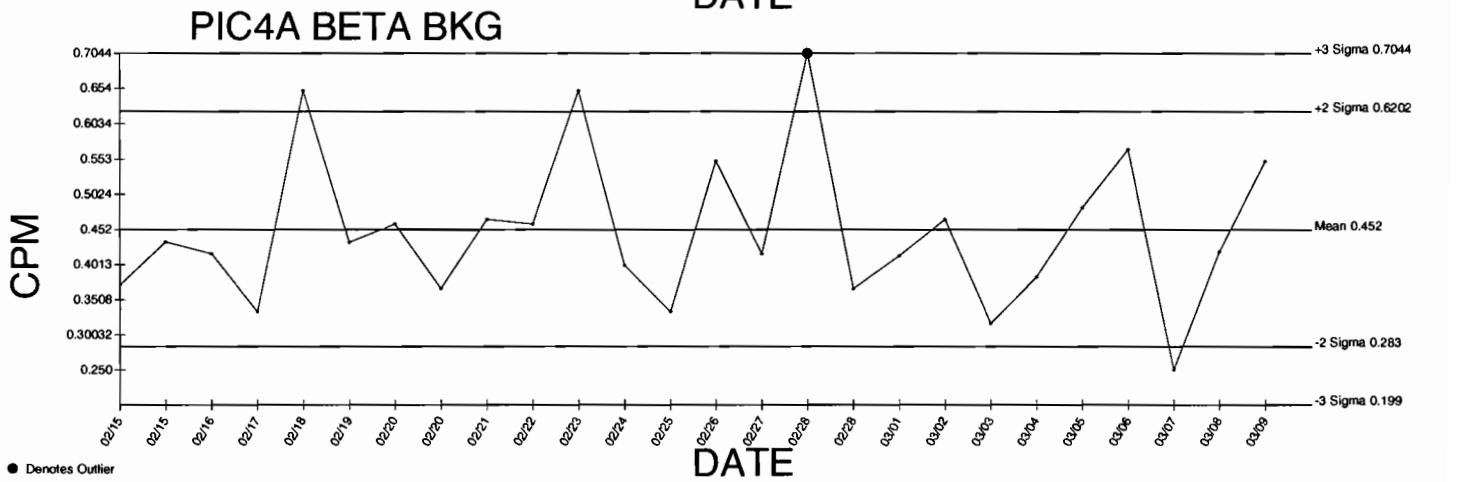
PIC4A BETA BKG
CPM
0.7044
0.654
0.6034
0.553
0.5024
0.452
0.4013
0.3508
0.30032
0.250
+3 Sigma 0.7044
+2 Sigma 0.6202
Mean 0.452
-2 Sigma 0.283
-3 Sigma 0.199
02/15 02/15 02/16 02/17 02/18 02/19 02/20 02/20 02/21 02/22 02/23 02/24 02/25 02/26 02/27 02/28 02/28 03/01 03/02 03/03 03/04 03/05 03/06 03/07 03/08 03/09
DATE
● Denotes Outlier

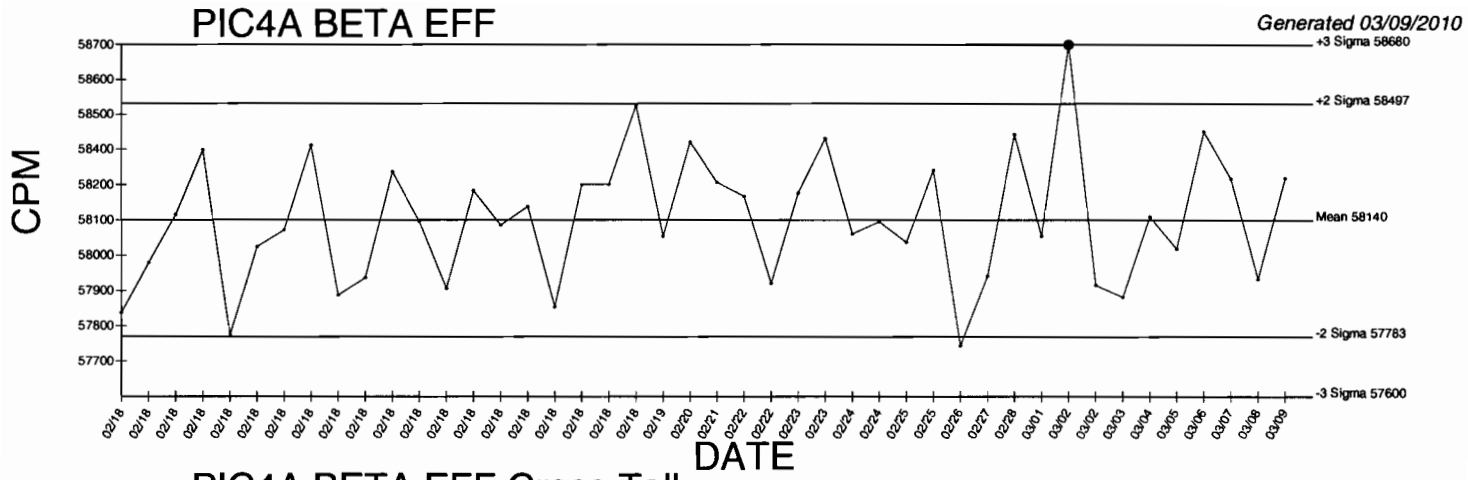

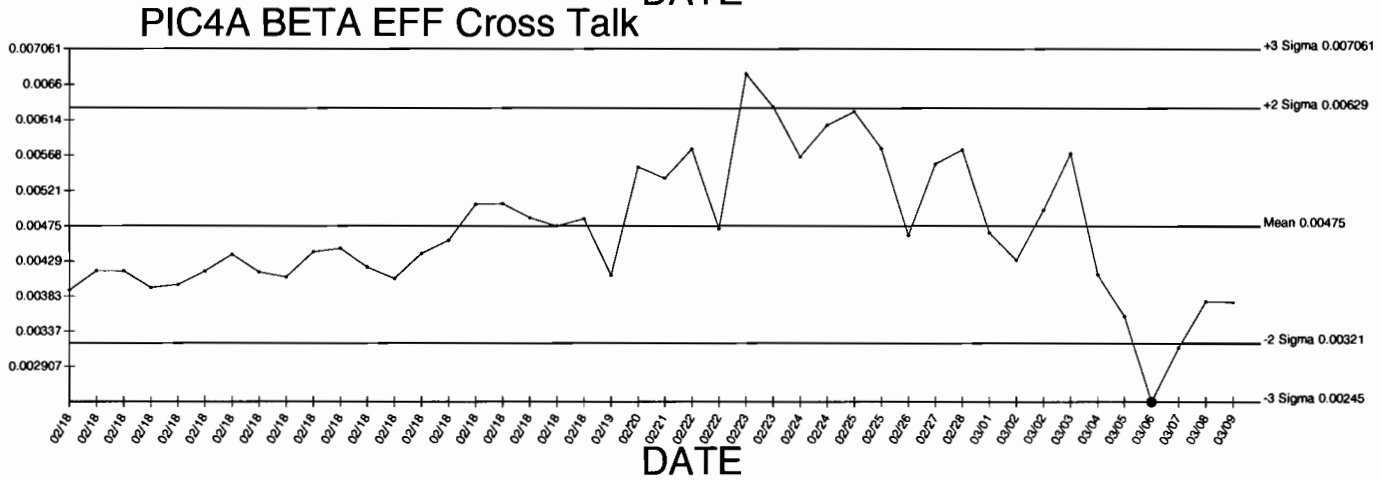

● Denotes Outlier

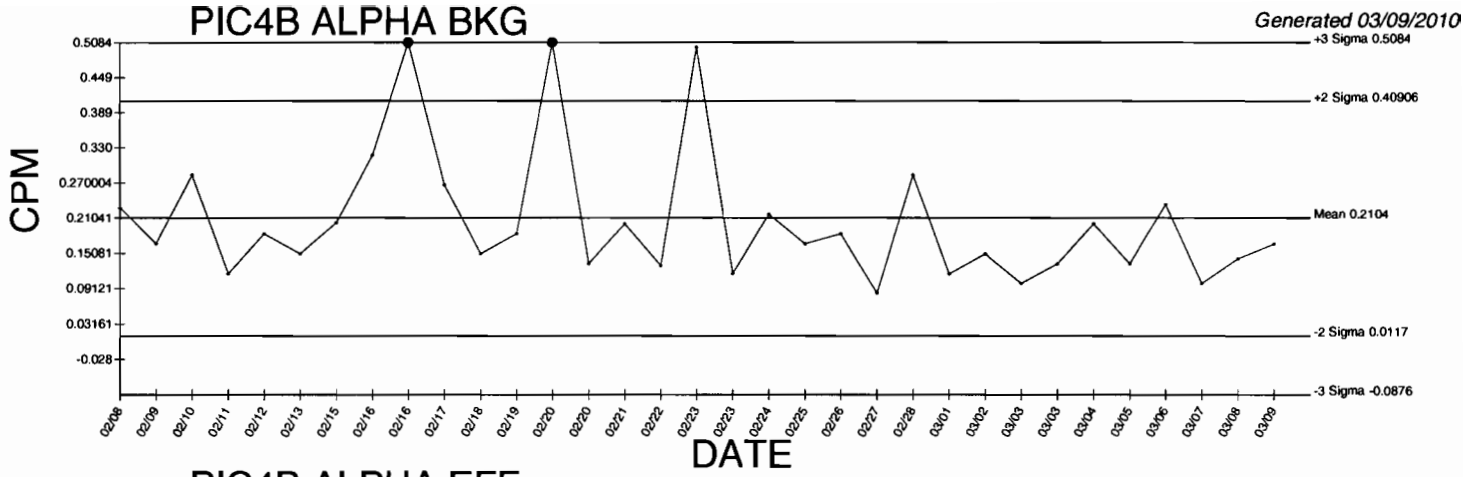

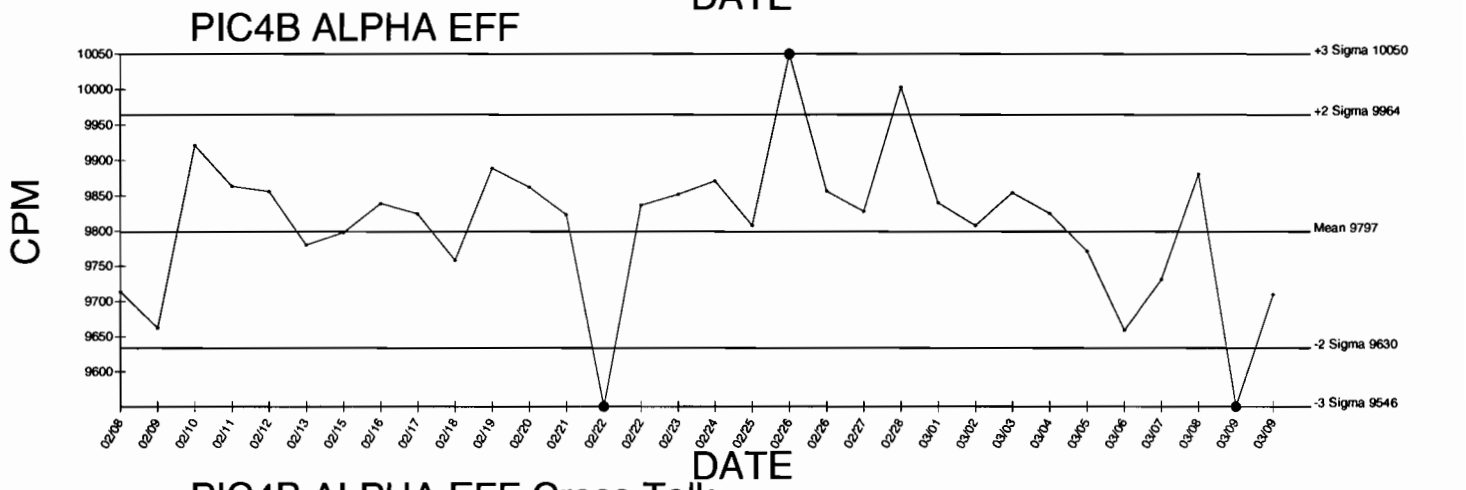

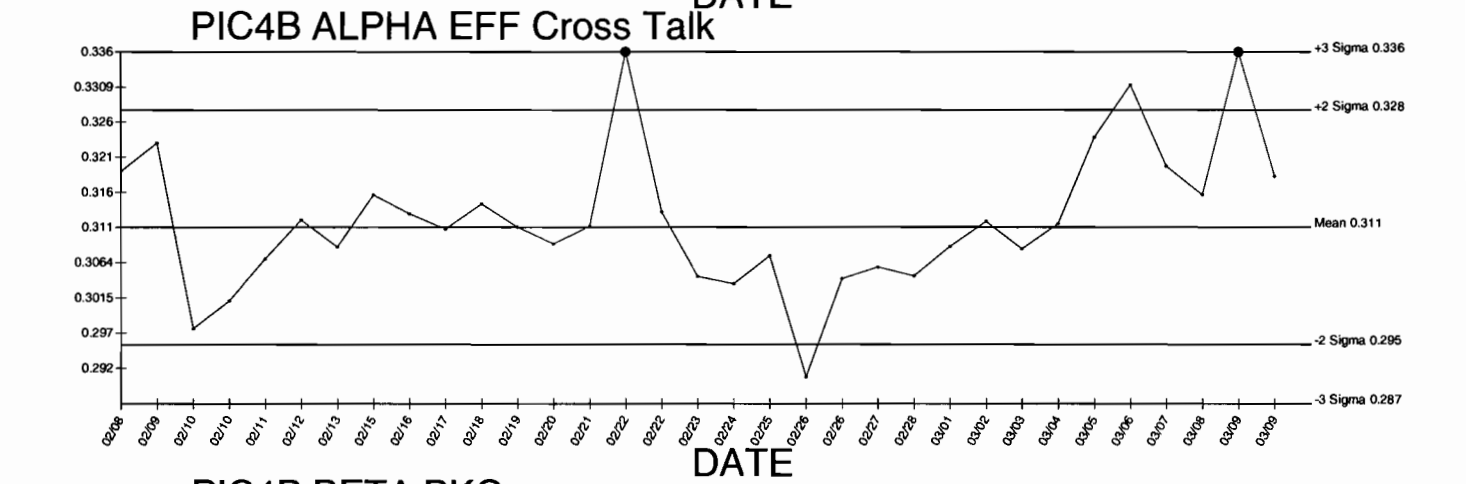

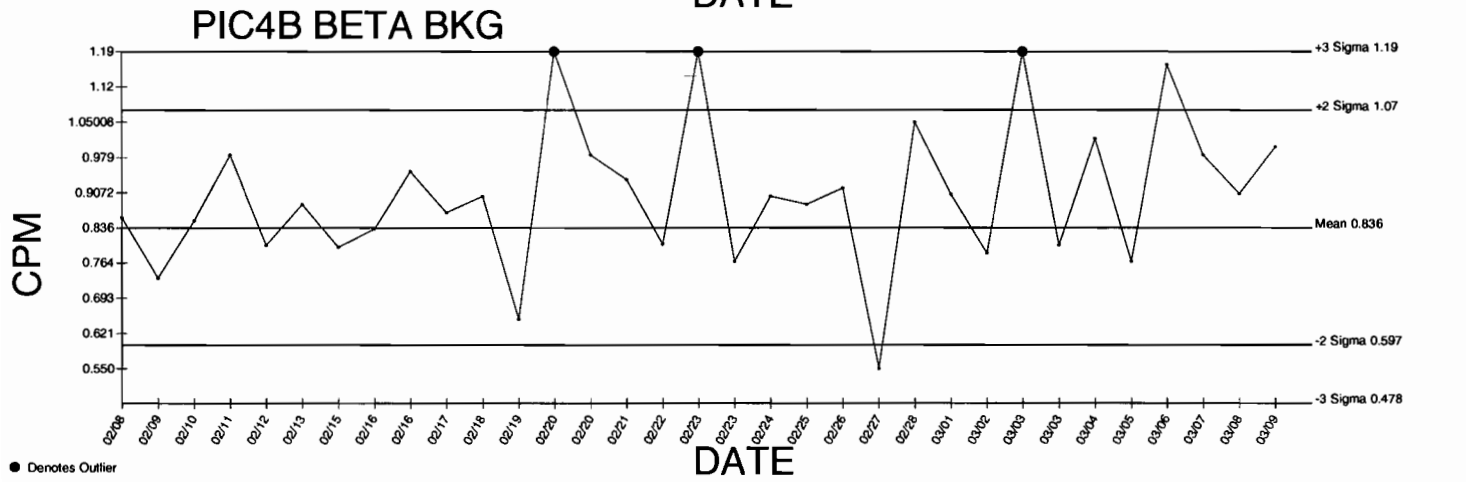

● Denotes Outlier

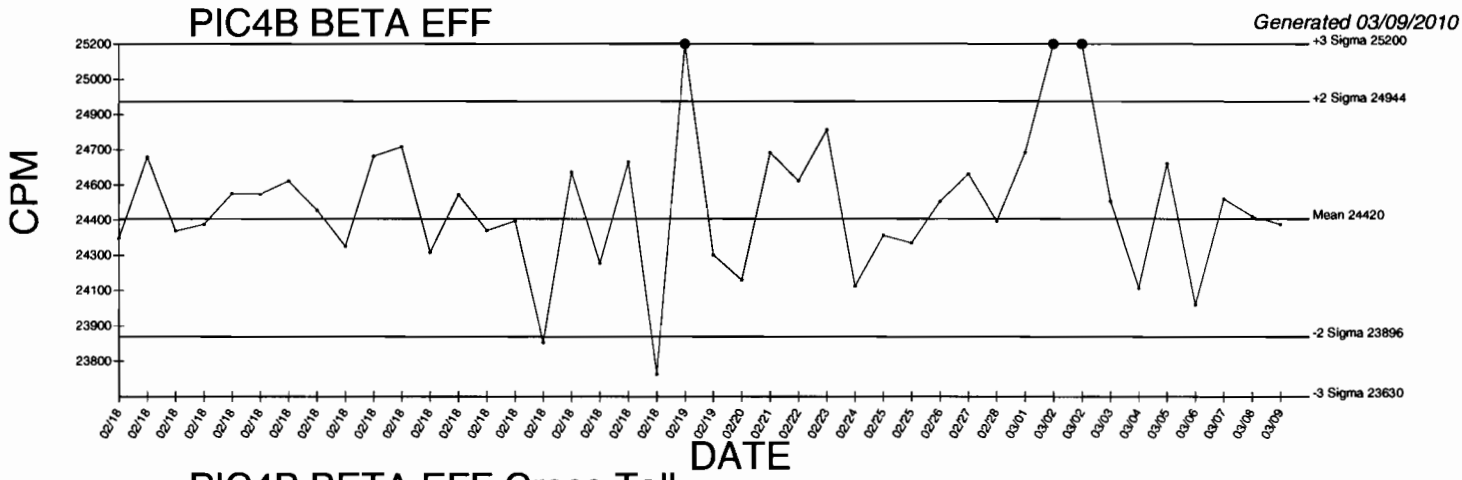

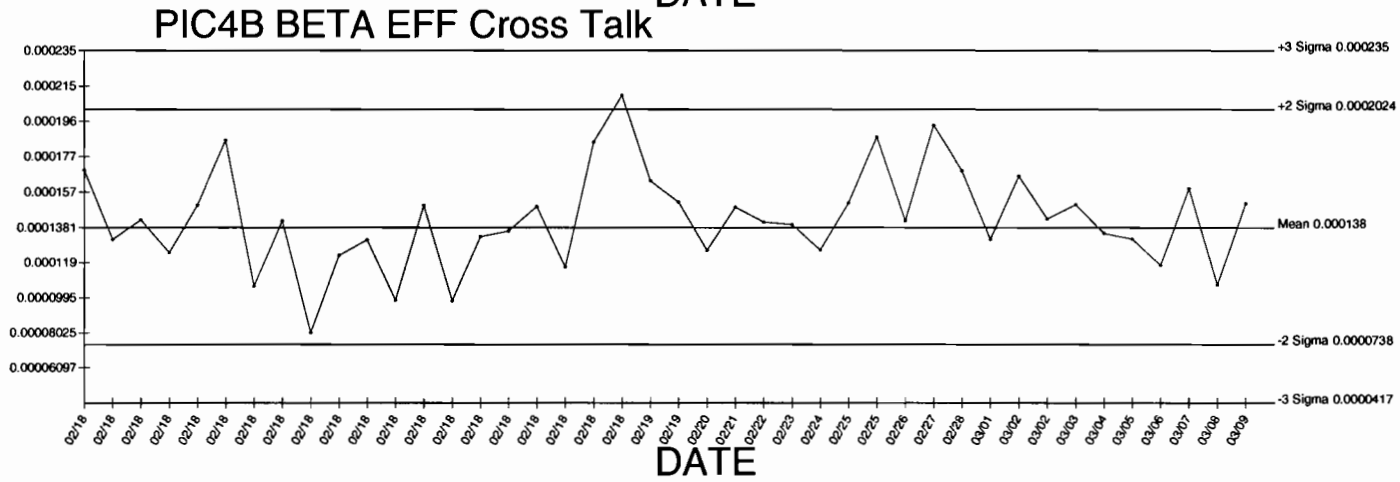

● Denotes Outlier

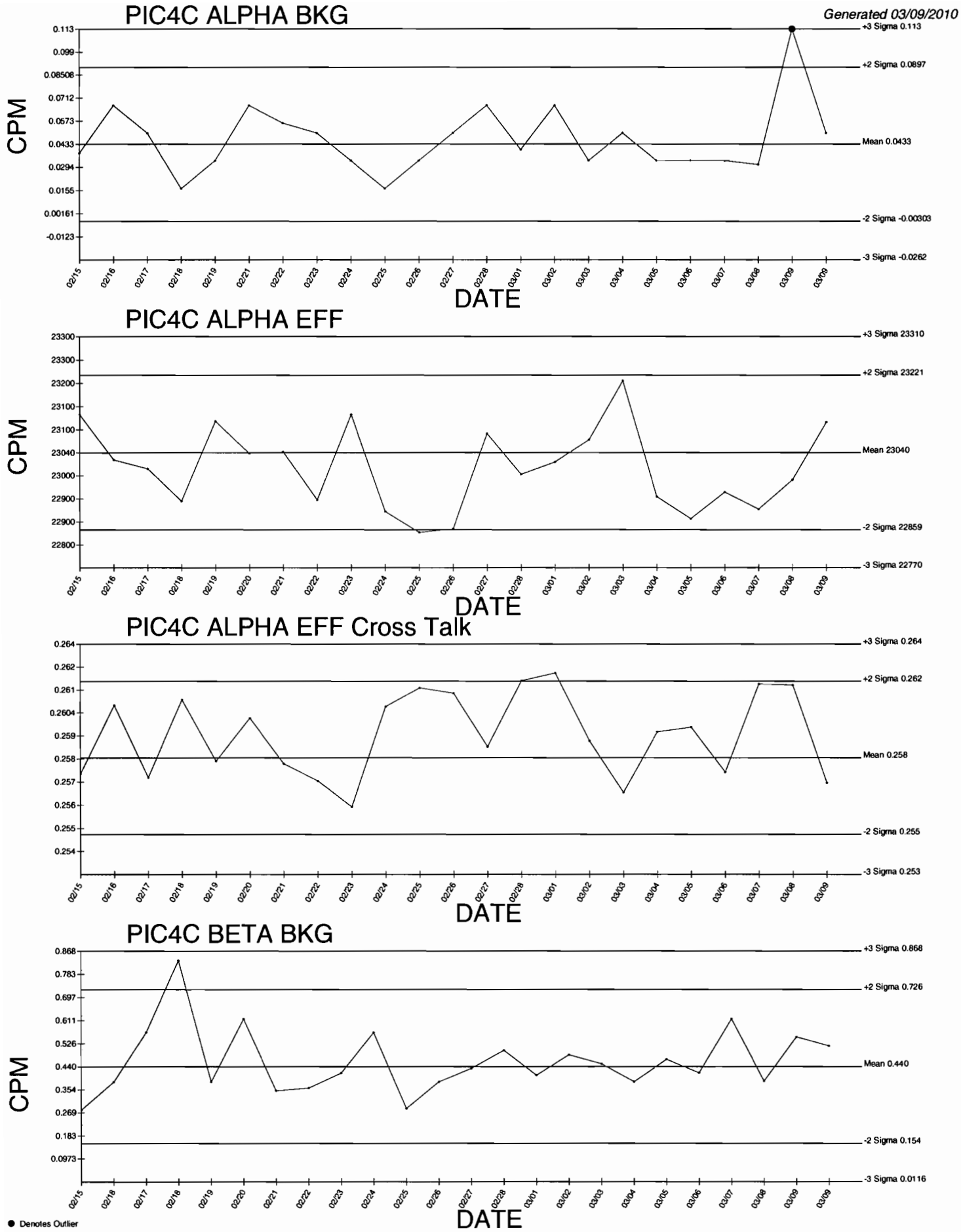
PIC4C ALPHA BKG
Generated 03/09/2010
CPM
DATE
+3 Sigma 0.113
+2 Sigma 0.0897
Mean 0.0433
-2 Sigma -0.00303
-3 Sigma -0.0262
PIC4C ALPHA EFF
+3 Sigma 23310
+2 Sigma 23221
Mean 23040
-2 Sigma 22859
-3 Sigma 22770
PIC4C ALPHA EFF Cross Talk
+3 Sigma 0.264
+2 Sigma 0.262
Mean 0.258
-2 Sigma 0.255
-3 Sigma 0.253
PIC4C BETA BKG
+3 Sigma 0.868
+2 Sigma 0.726
Mean 0.440
-2 Sigma 0.154
-3 Sigma 0.0116
● Denotes Outlier

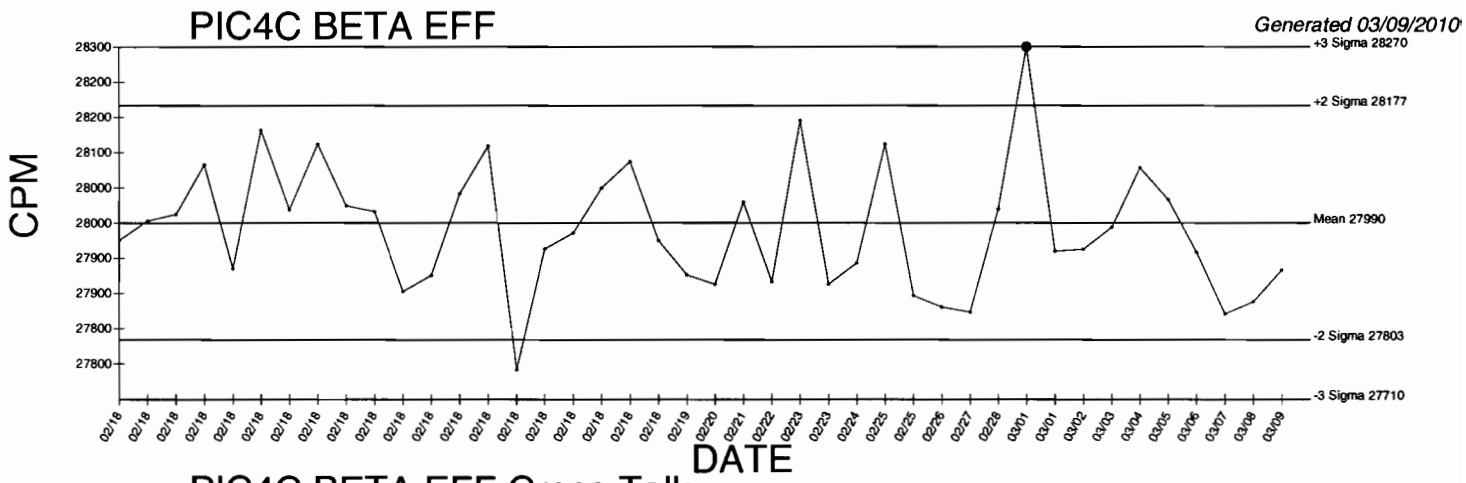

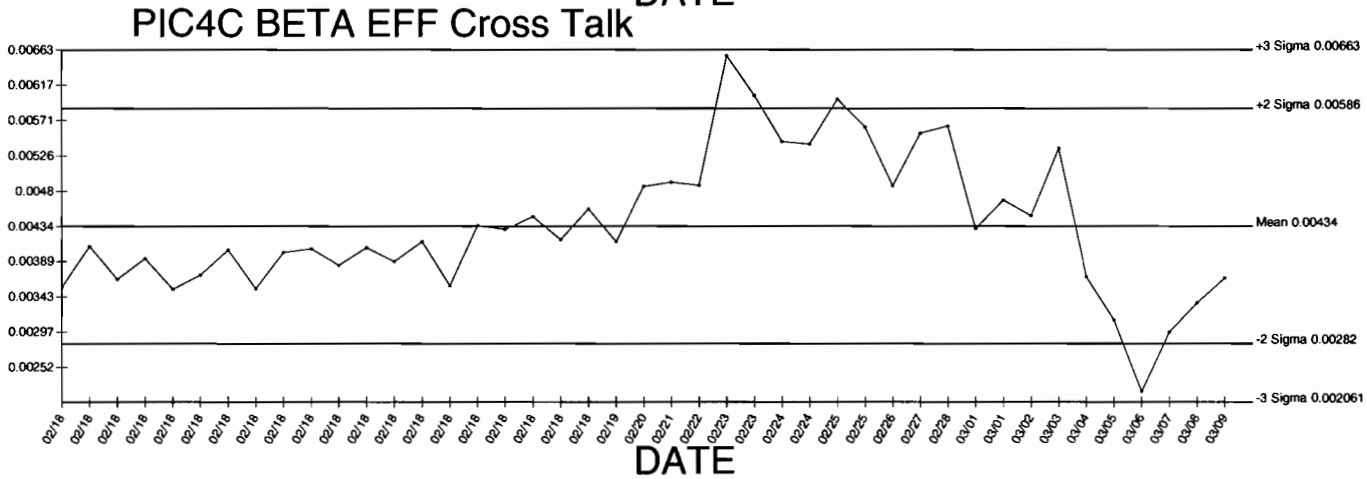

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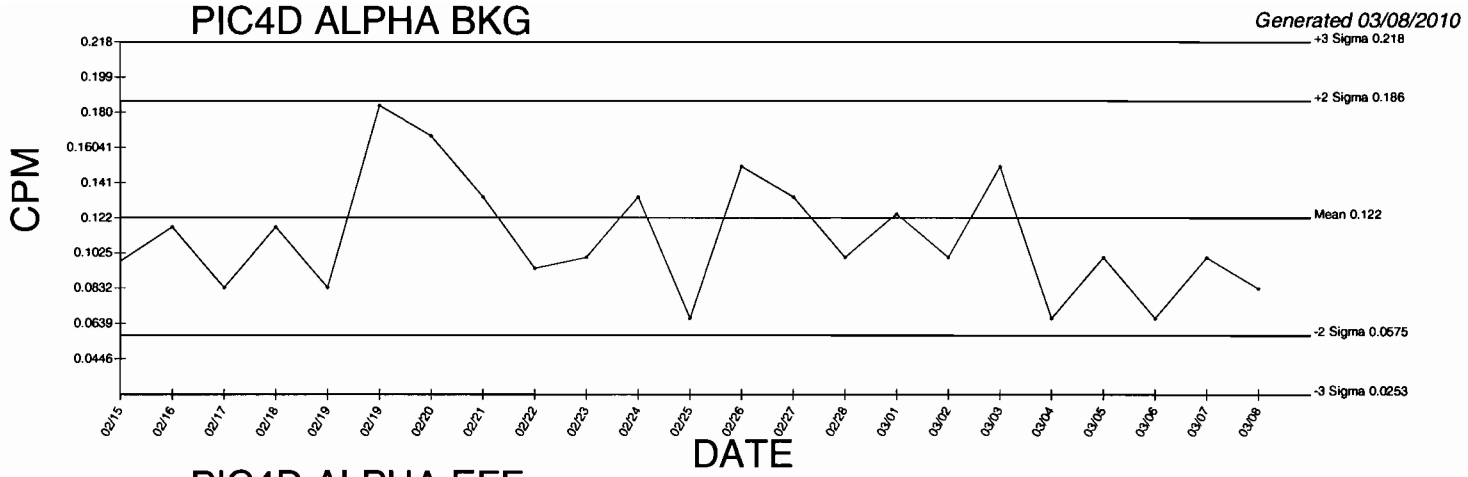
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Generated 03/08/2010
CPM
DATE
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+2 Sigma 0.186
Mean 0.122
-2 Sigma 0.0575
-3 Sigma 0.0253

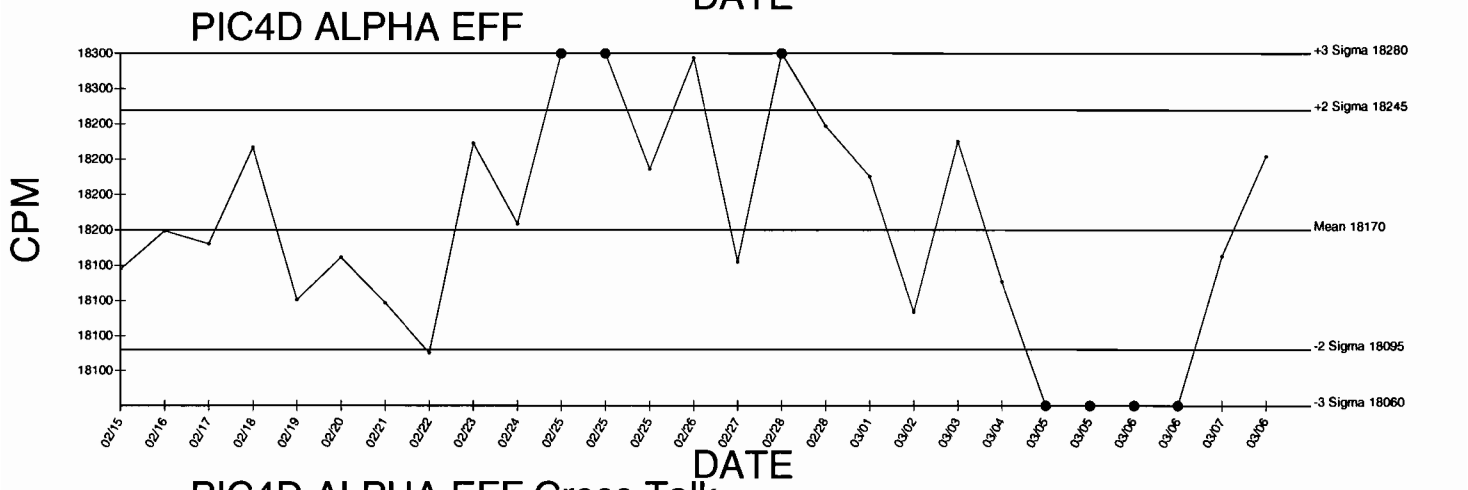
PIC4D ALPHA EFF
CPM
DATE
+3 Sigma 18280
+2 Sigma 18245
Mean 18170
-2 Sigma 18095
-3 Sigma 18060

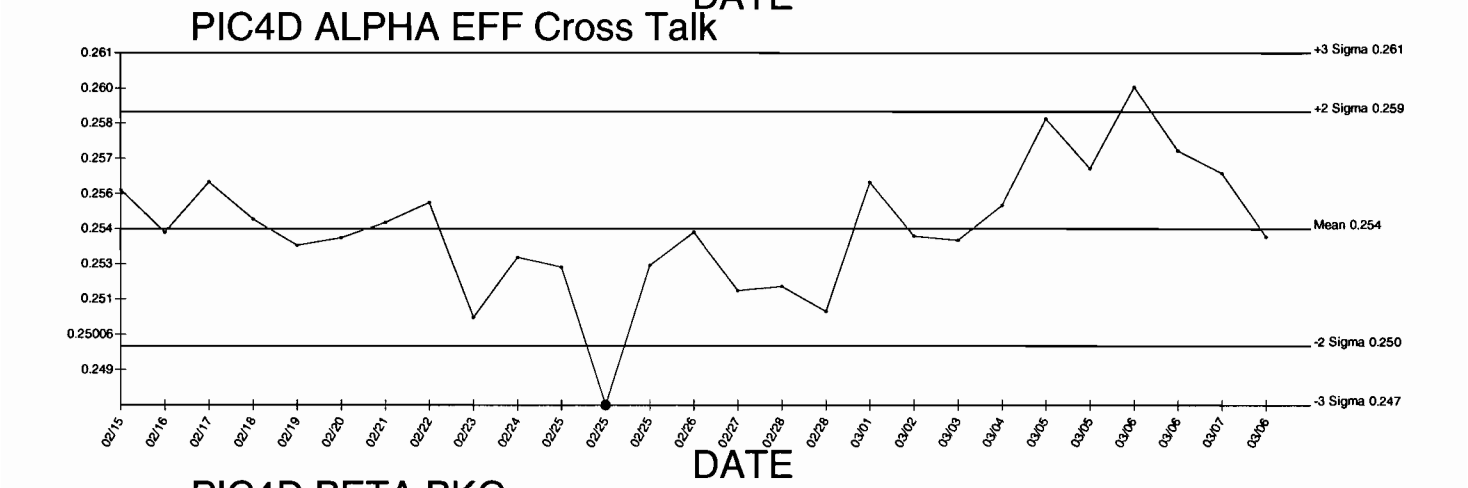
PIC4D ALPHA EFF Cross Talk
DATE
+3 Sigma 0.261
+2 Sigma 0.259
Mean 0.254
-2 Sigma 0.250
-3 Sigma 0.247

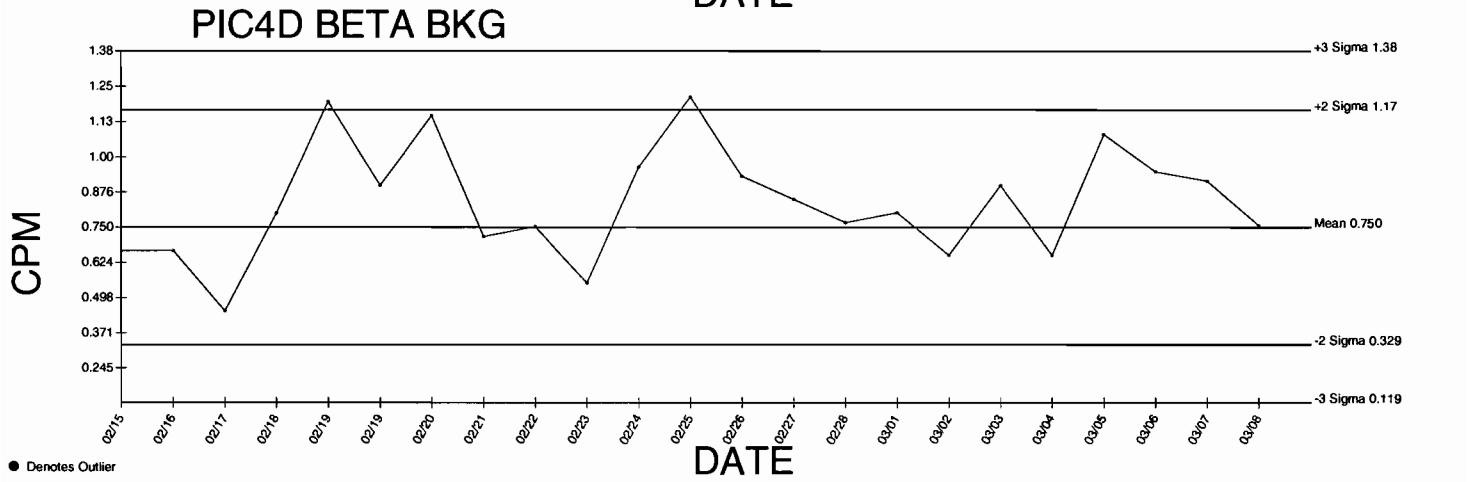
PIC4D BETA BKG
CPM
DATE
+3 Sigma 1.38
+2 Sigma 1.17
Mean 0.750
-2 Sigma 0.329
-3 Sigma 0.119
● Denotes Outlier

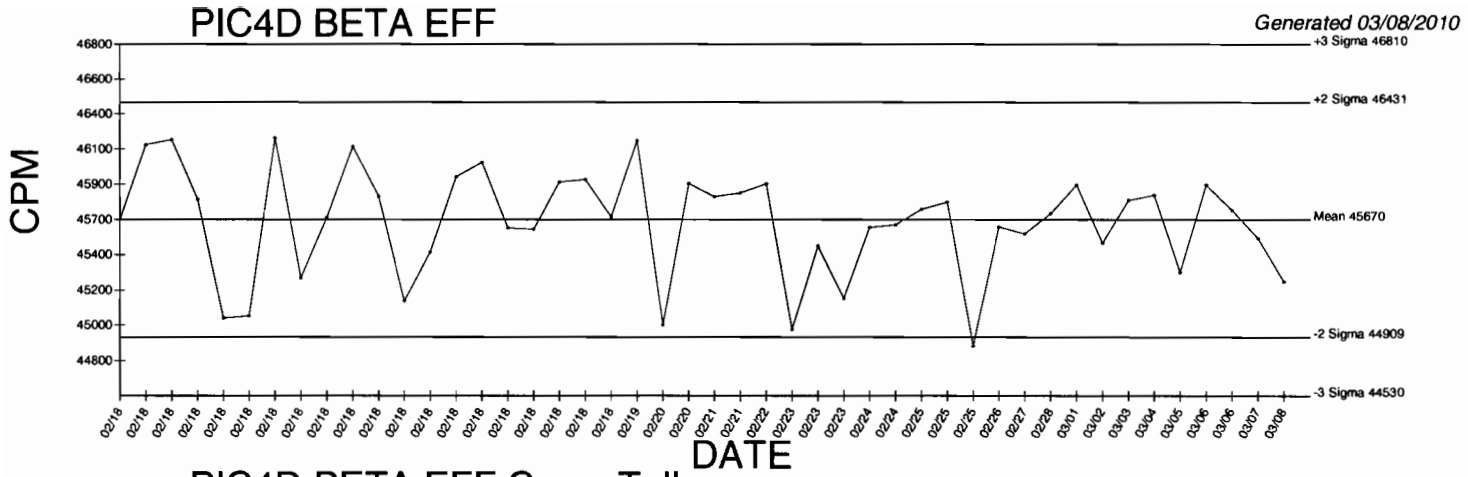

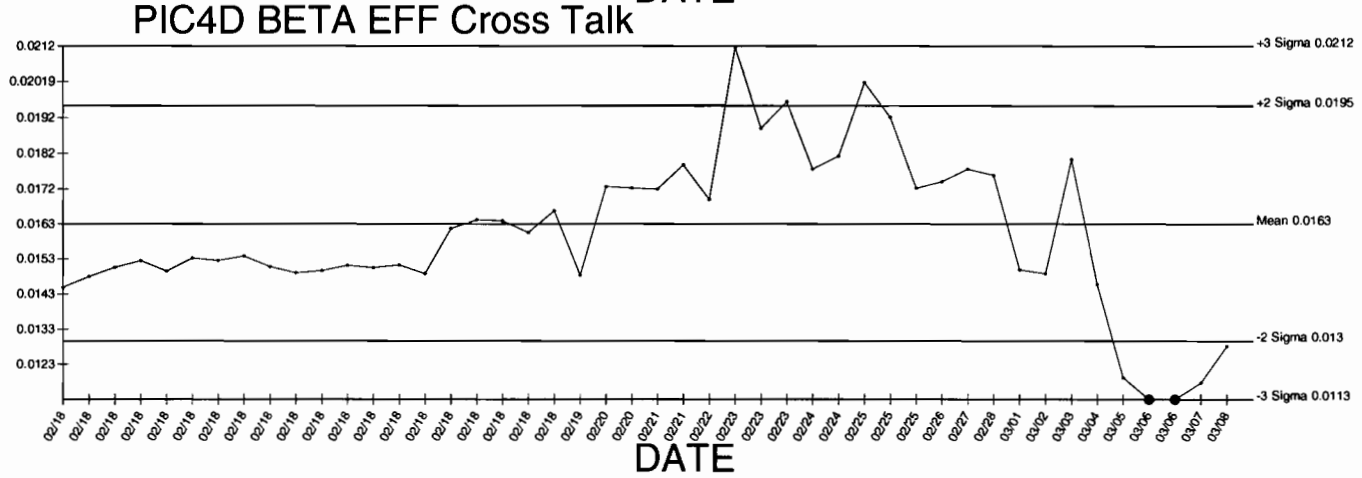

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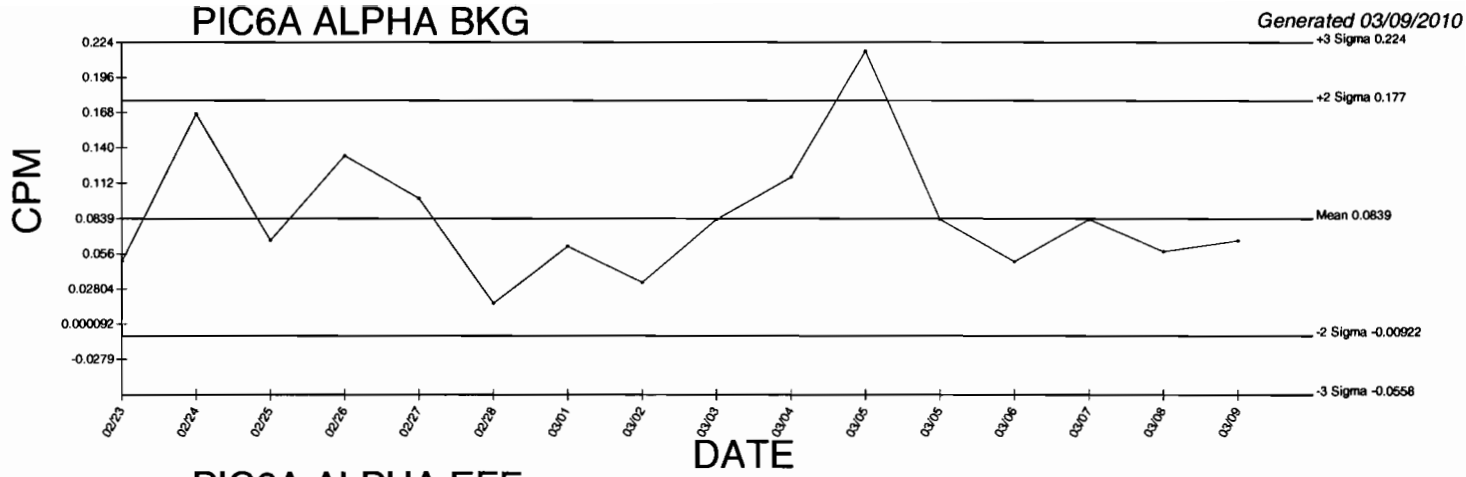

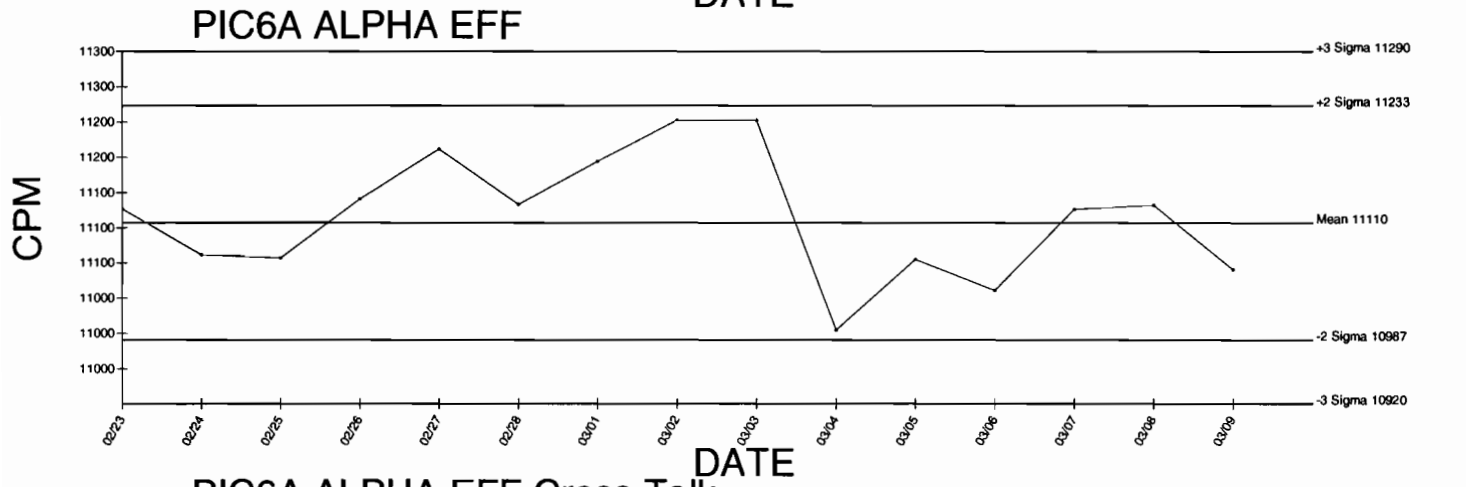

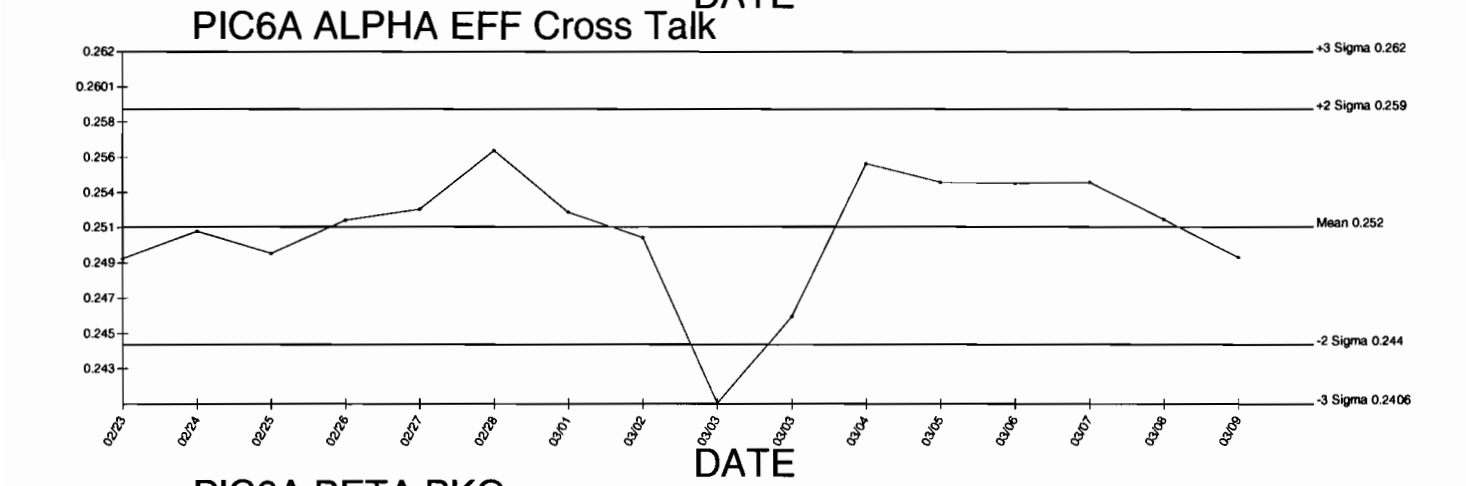

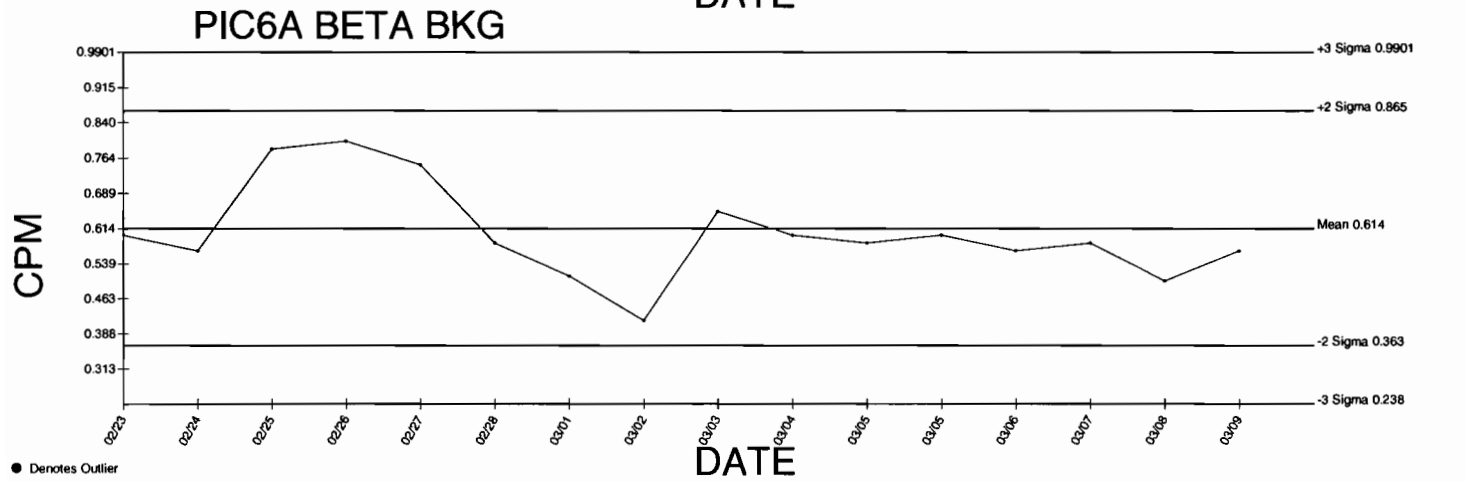

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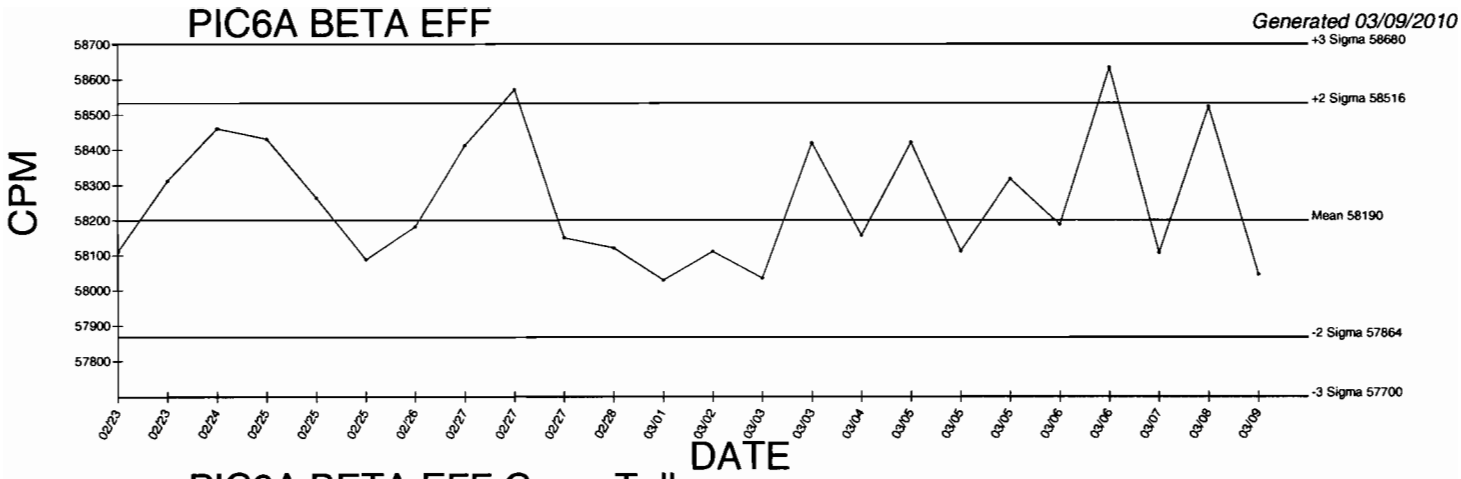

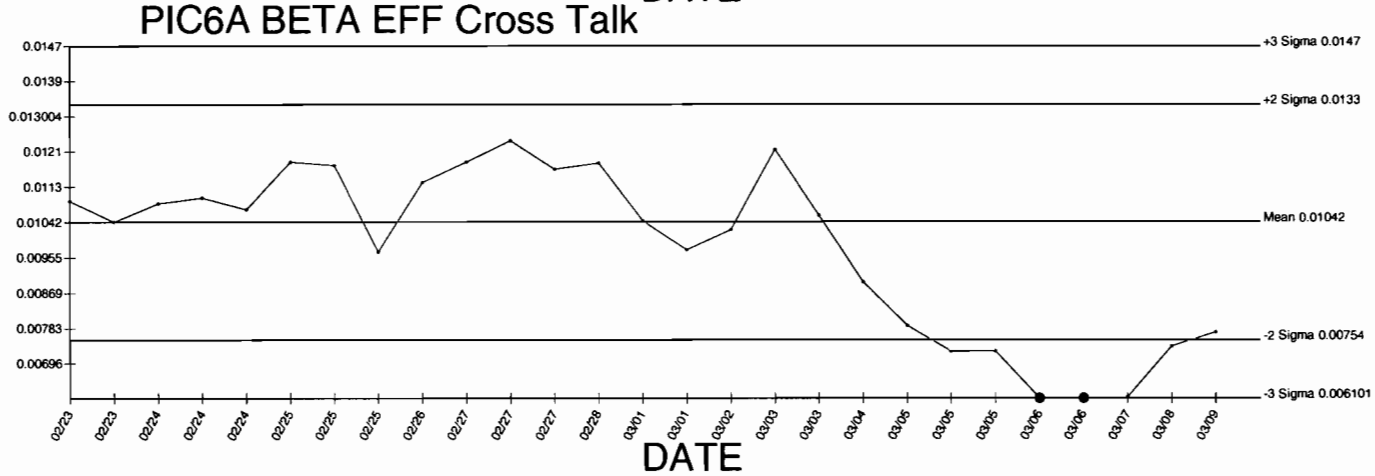

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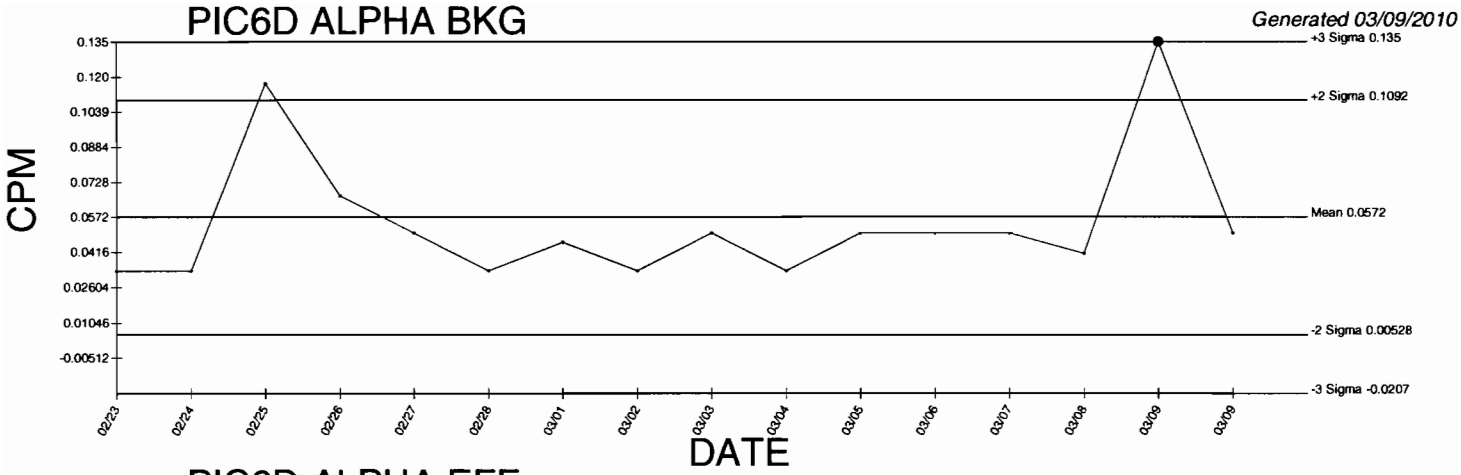
PIC6D ALPHA BKG
Generated 03/09/2010
CPM
0.135
0.120
0.1039
0.0884
0.0728
0.0572
0.0416
0.02604
0.01046
-0.00512
+3 Sigma 0.135
+2 Sigma 0.1092
Mean 0.0572
-2 Sigma 0.00528
-3 Sigma -0.0207
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
03/06
03/07
03/08
03/09
03/09
DATE

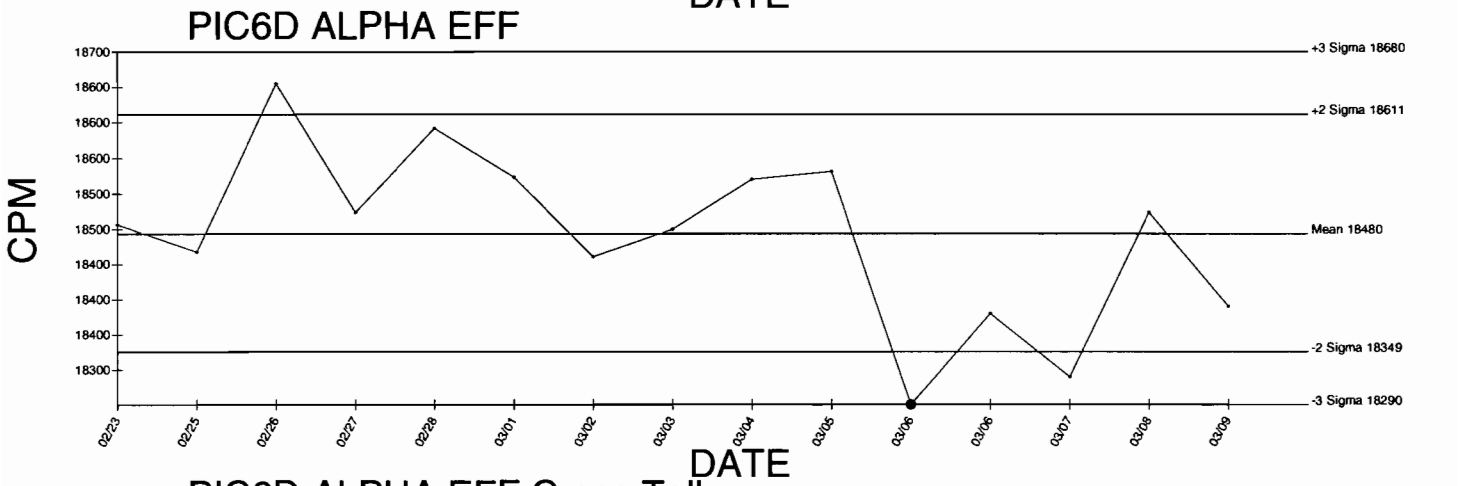
PIC6D ALPHA EFF
CPM
18700
18600
18600
18600
18500
18500
18400
18400
18400
18300
+3 Sigma 18680
+2 Sigma 18611
Mean 18480
-2 Sigma 18349
-3 Sigma 18290
02/23
02/25
02/26
02/27
02/28
03/01
03/02
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03/05
03/06
03/06
03/07
03/08
03/09
DATE

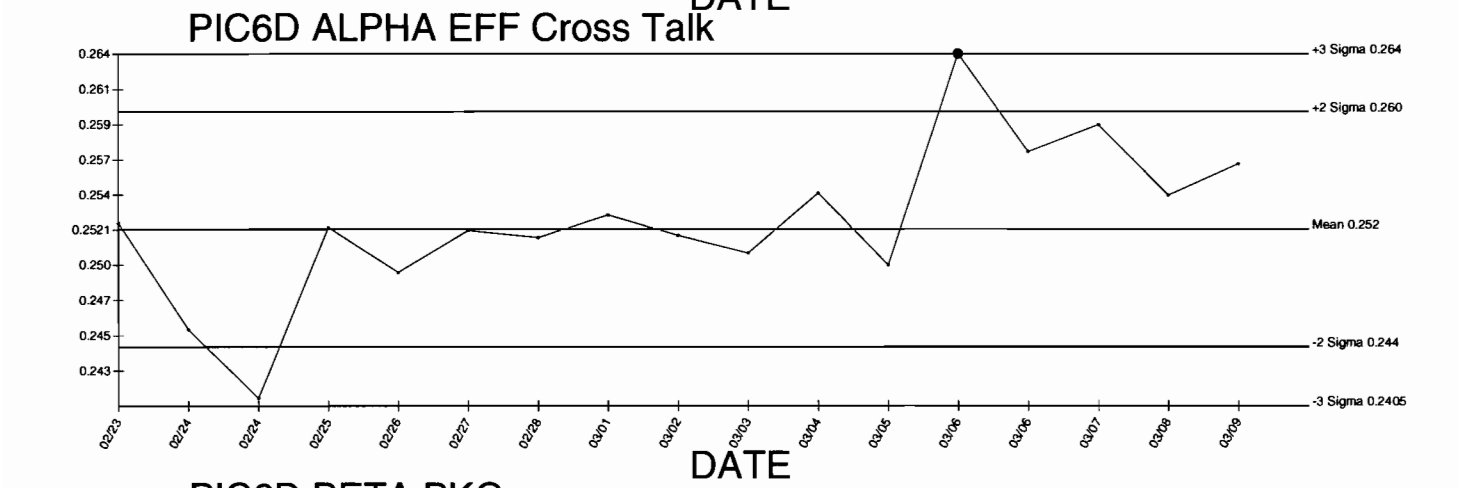
PIC6D ALPHA EFF Cross Talk
0.264
0.261
0.259
0.257
0.254
0.2521
0.250
0.247
0.245
0.243
+3 Sigma 0.264
+2 Sigma 0.260
Mean 0.252
-2 Sigma 0.244
-3 Sigma 0.2405
02/23
02/24
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
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03/06
03/07
03/08
03/09
DATE

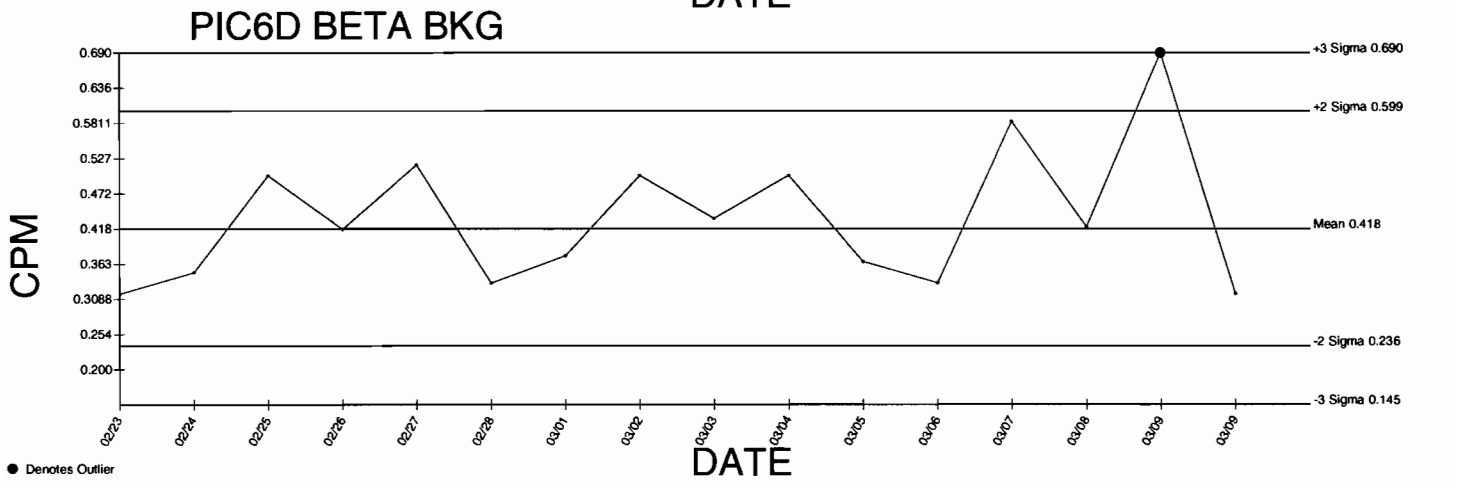
PIC6D BETA BKG
CPM
0.690
0.636
0.5811
0.527
0.472
0.418
0.363
0.3088
0.254
0.200
+3 Sigma 0.690
+2 Sigma 0.599
Mean 0.418
-2 Sigma 0.236
-3 Sigma 0.145
02/23
02/24
02/25
02/26
02/27
02/28
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03/09
03/09
DATE
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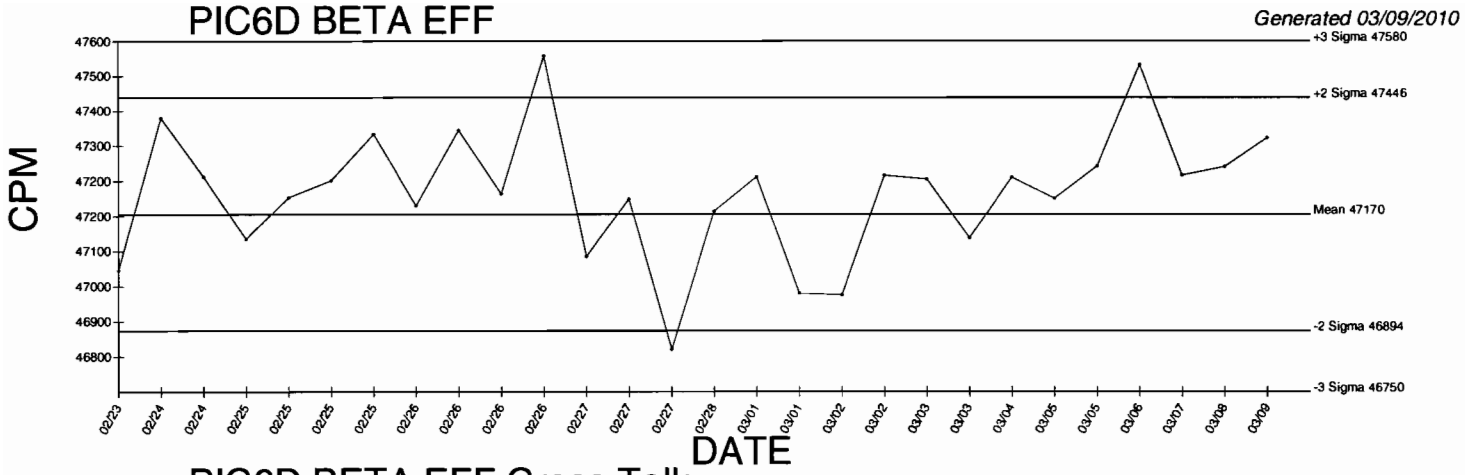

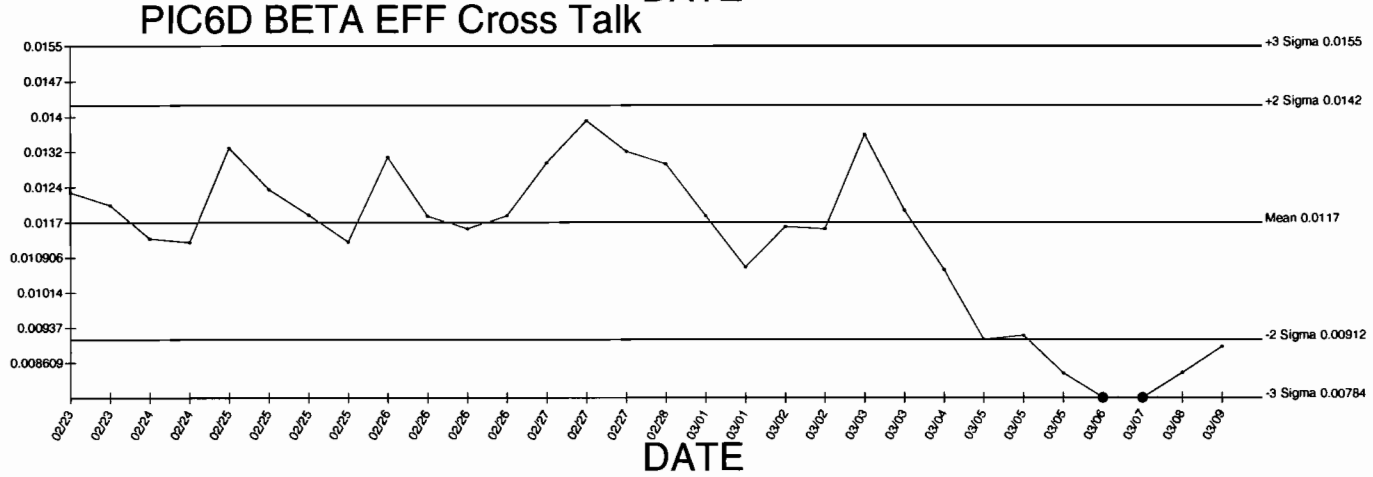

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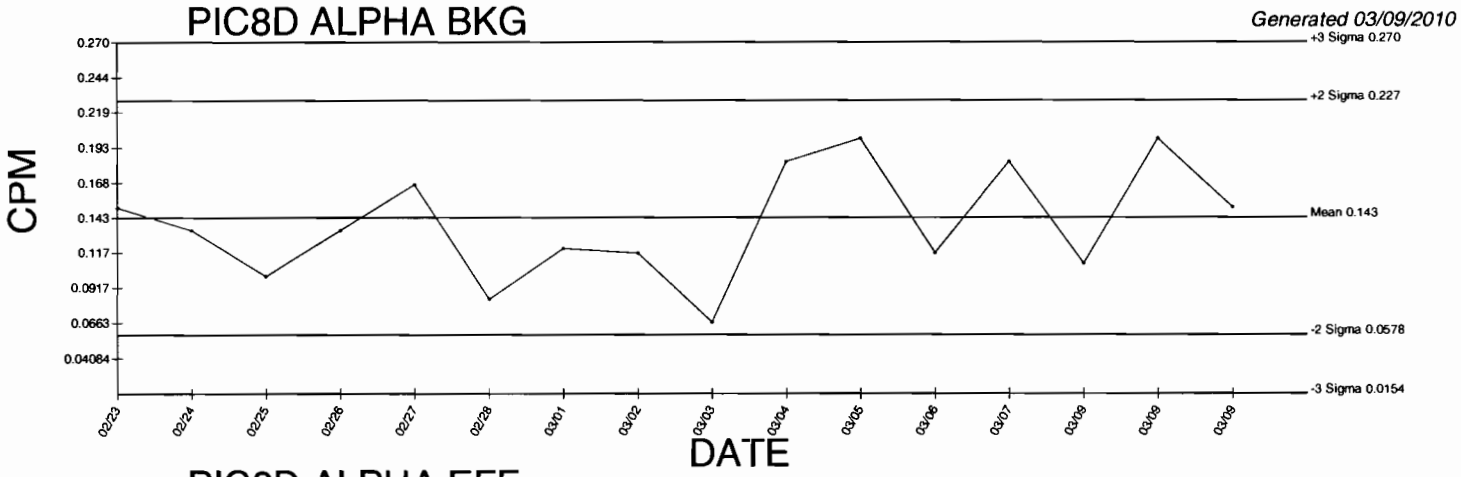
PIC8D ALPHA BKG
Generated 03/09/2010
CPM
0.270
0.244
0.219
0.193
0.168
0.143
0.117
0.0917
0.0663
0.04084
+3 Sigma 0.270
+2 Sigma 0.227
Mean 0.143
-2 Sigma 0.0578
-3 Sigma 0.0154
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
03/06
03/07
03/08
03/09
DATE

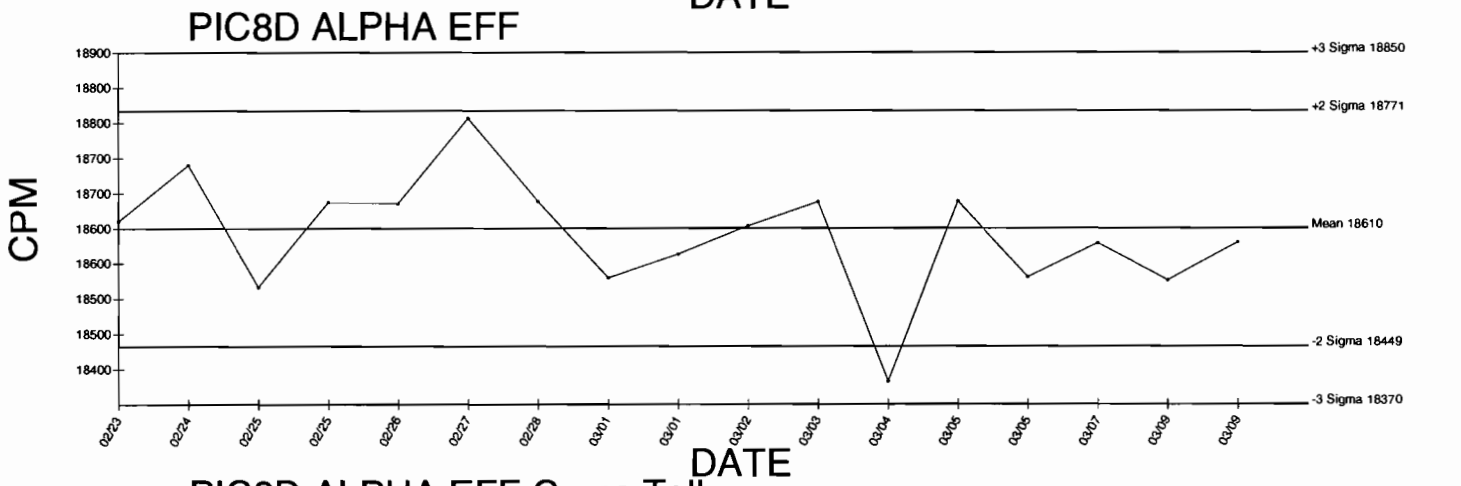
PIC8D ALPHA EFF
CPM
18900
18800
18800
18700
18700
18600
18600
18500
18500
18400
+3 Sigma 18850
+2 Sigma 18771
Mean 18610
-2 Sigma 18449
-3 Sigma 18370
02/23
02/24
02/25
02/25
02/26
02/27
02/28
03/01
03/01
03/02
03/03
03/04
03/05
03/05
03/07
03/08
03/09
DATE

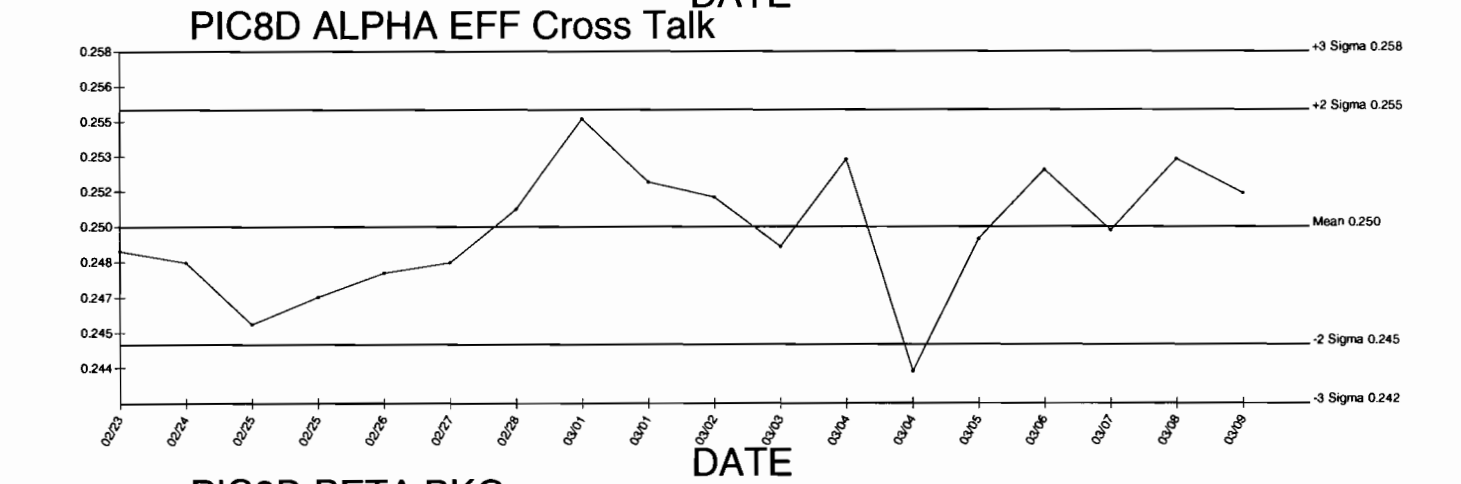
PIC8D ALPHA EFF Cross Talk
0.258
0.256
0.255
0.253
0.252
0.250
0.248
0.247
0.245
0.244
+3 Sigma 0.258
+2 Sigma 0.255
Mean 0.250
-2 Sigma 0.245
-3 Sigma 0.242
02/23
02/24
02/25
02/25
02/26
02/27
02/28
03/01
03/01
03/02
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03/08
03/09
DATE

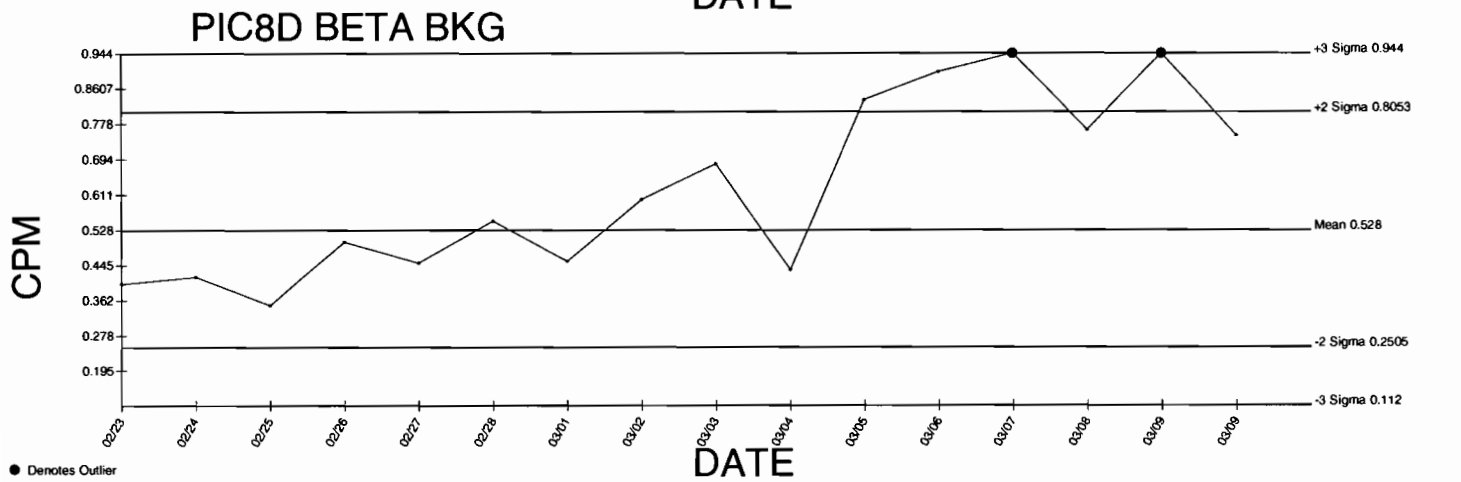
PIC8D BETA BKG
CPM
0.944
0.8607
0.778
0.694
0.611
0.528
0.445
0.362
0.278
0.195
+3 Sigma 0.944
+2 Sigma 0.8053
Mean 0.528
-2 Sigma 0.2505
-3 Sigma 0.112
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
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03/04
03/05
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DATE
Denotes Outlier

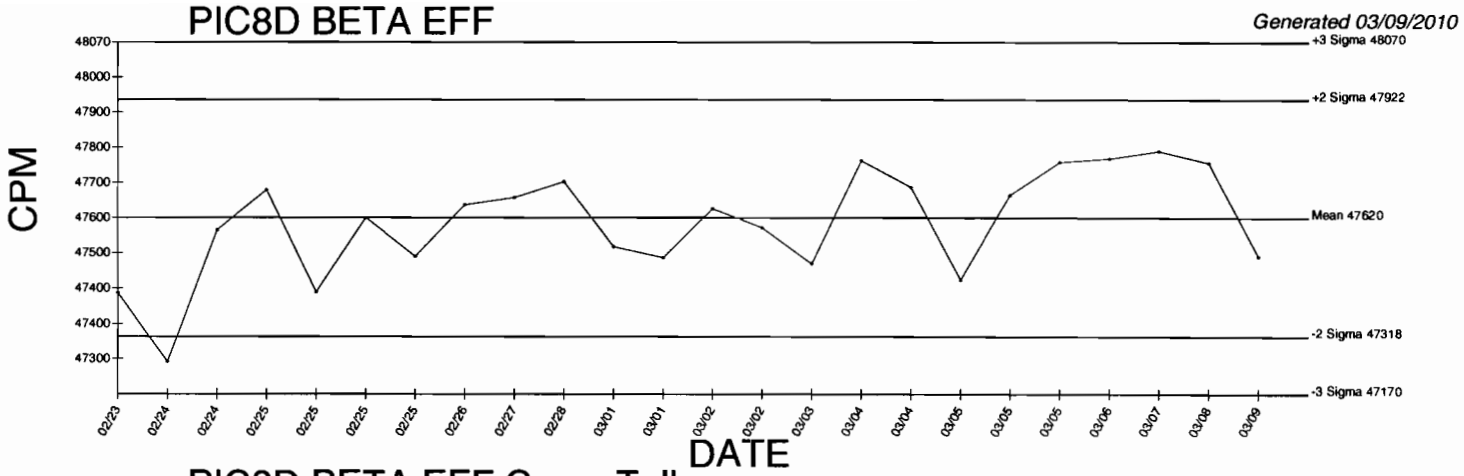

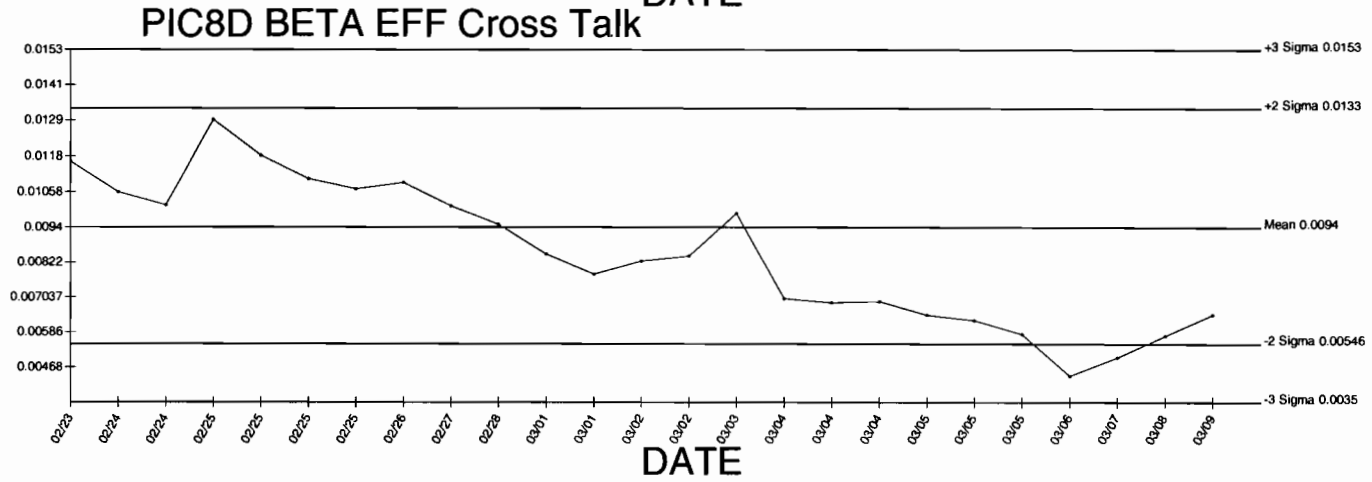

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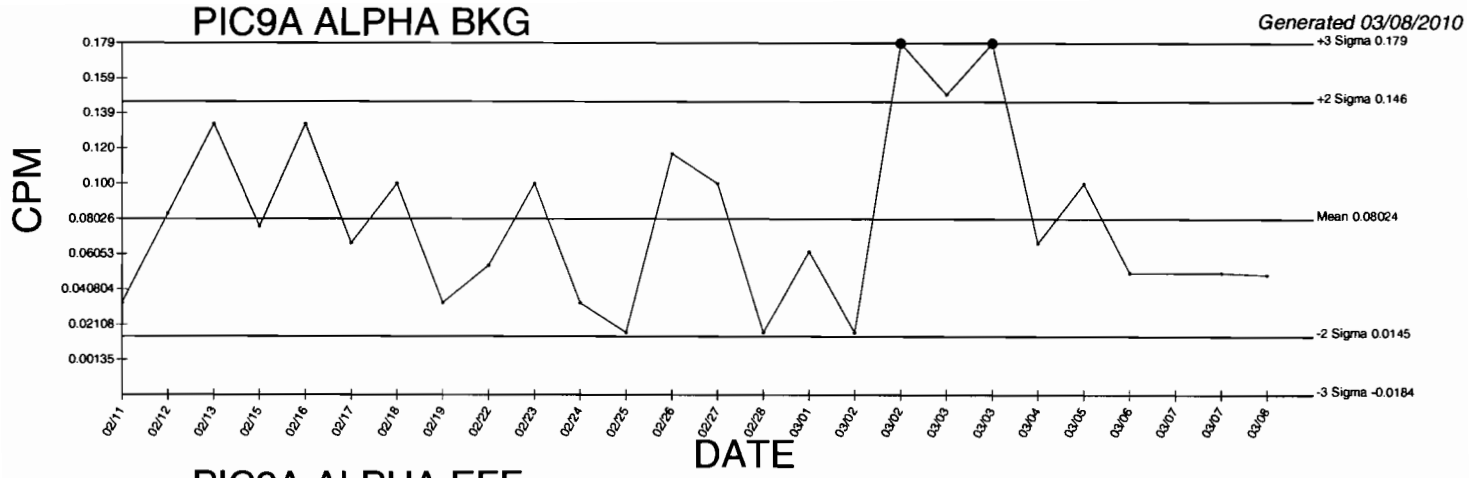
PIC9A ALPHA BKG
Generated 03/08/2010
CPM
DATE
+3 Sigma 0.179
+2 Sigma 0.146
Mean 0.08024
-2 Sigma 0.0145
-3 Sigma -0.0184

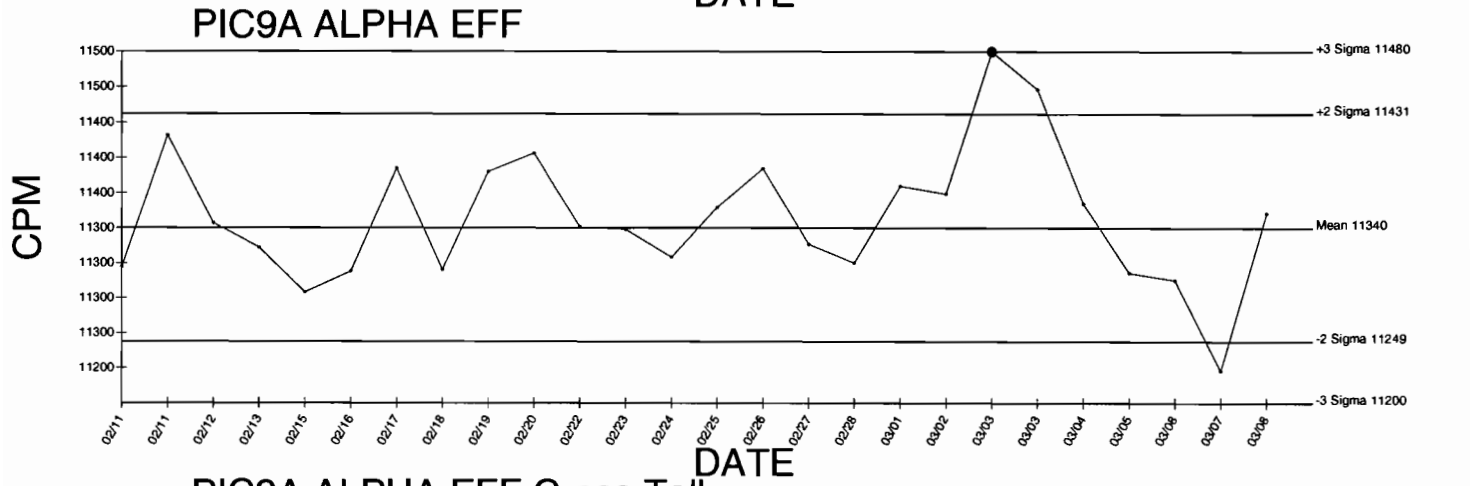
PIC9A ALPHA EFF
CPM
DATE
+3 Sigma 11480
+2 Sigma 11431
Mean 11340
-2 Sigma 11249
-3 Sigma 11200

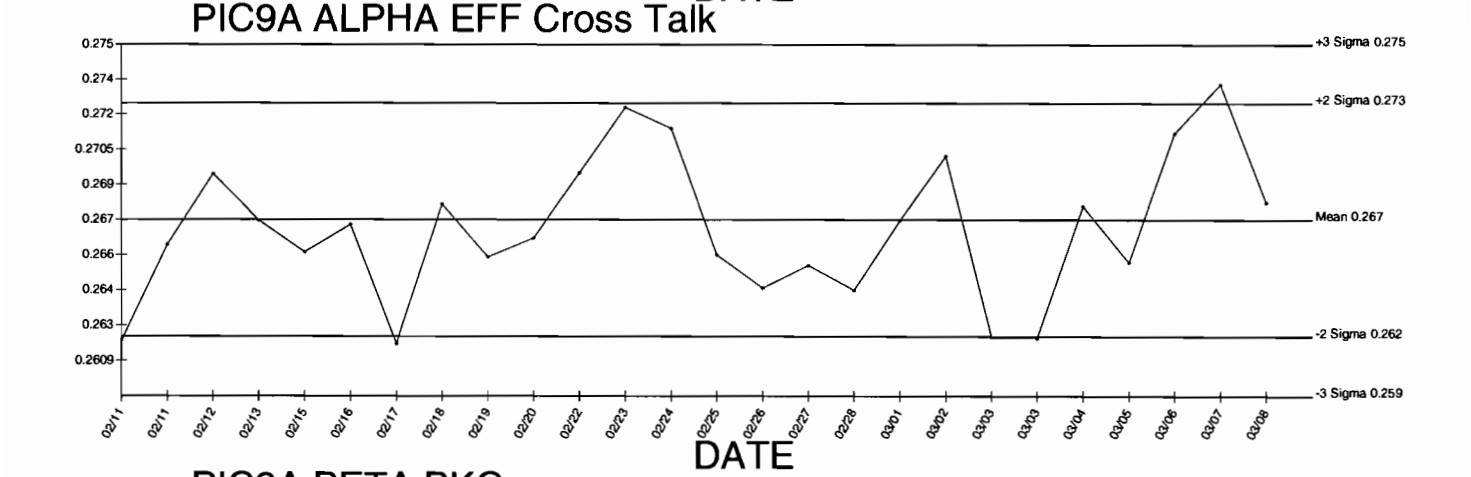
PIC9A ALPHA EFF Cross Talk
DATE
+3 Sigma 0.275
+2 Sigma 0.273
Mean 0.267
-2 Sigma 0.262
-3 Sigma 0.259

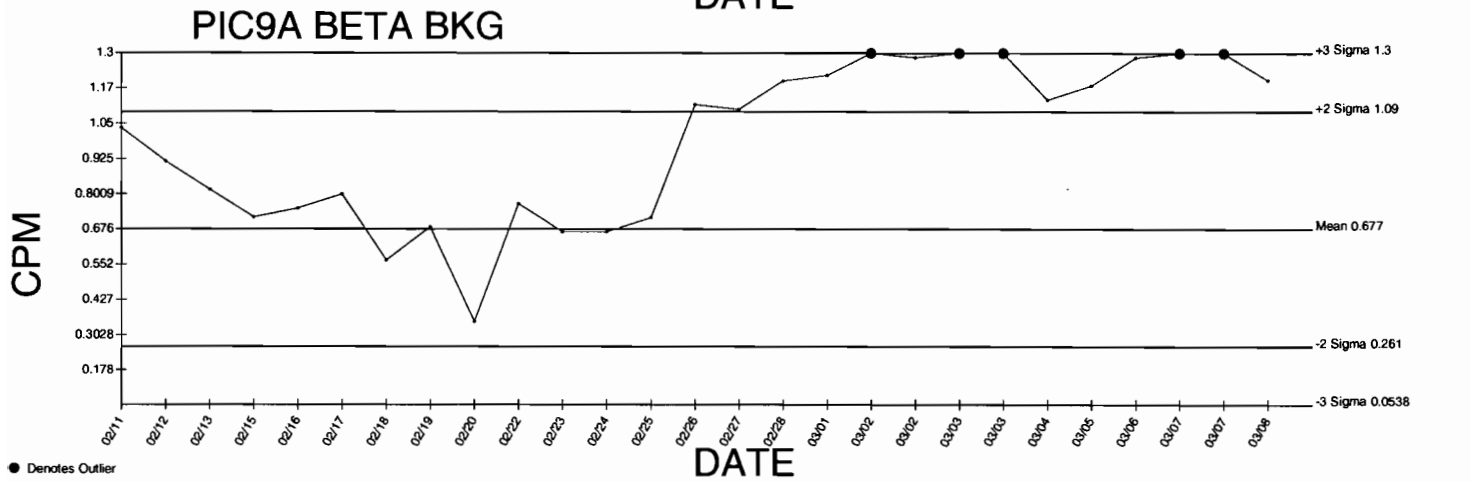
PIC9A BETA BKG
CPM
DATE
+3 Sigma 1.3
+2 Sigma 1.09
Mean 0.677
-2 Sigma 0.261
-3 Sigma 0.0538
● Denotes Outlier

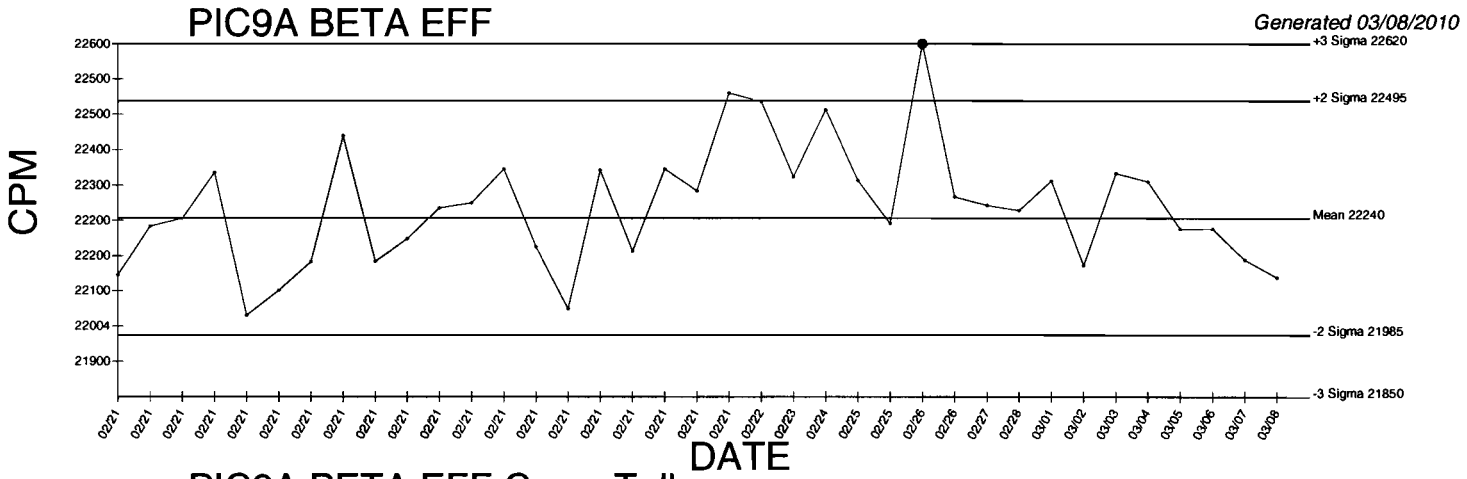

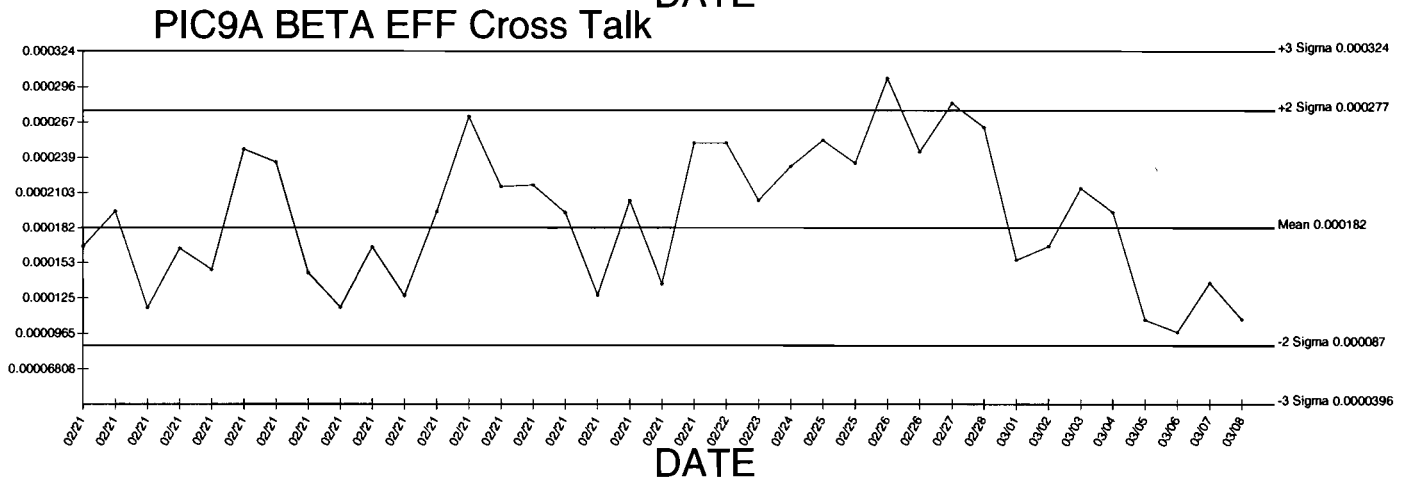

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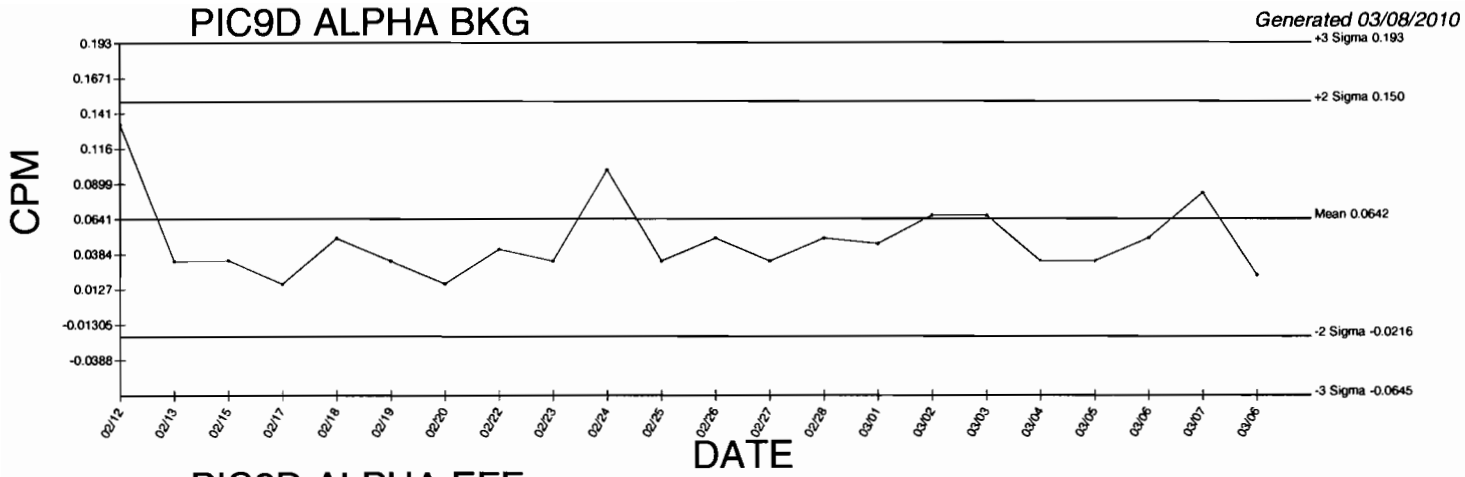
PIC9D ALPHA BKG
Generated 03/08/2010
CPM
DATE
+3 Sigma 0.193
+2 Sigma 0.150
Mean 0.0642
-2 Sigma -0.0216
-3 Sigma -0.0645

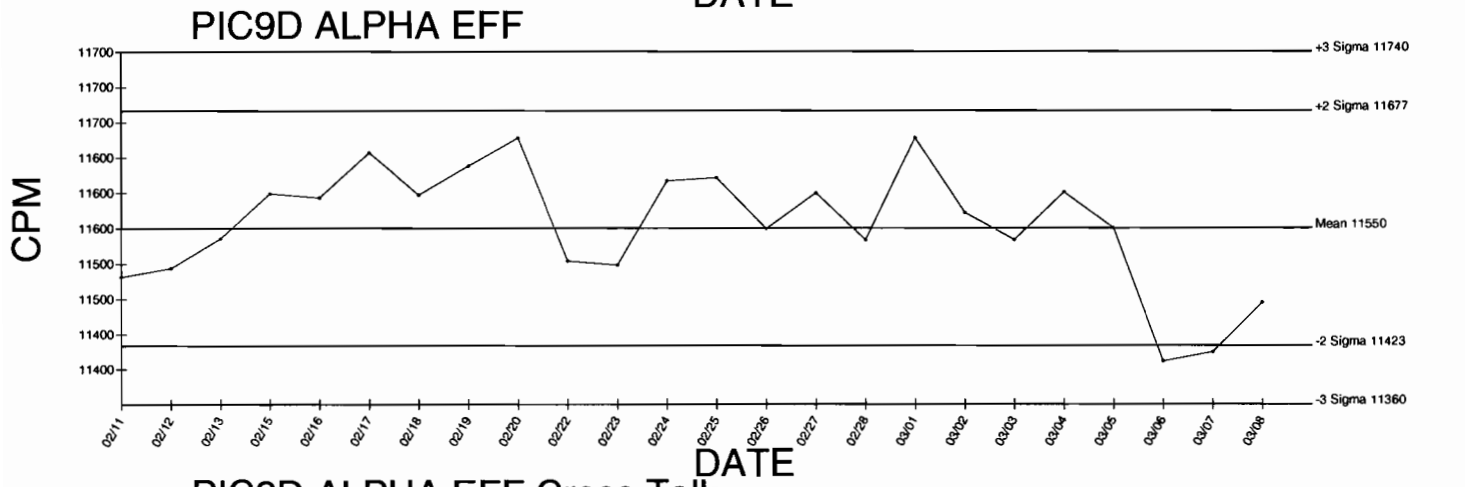
PIC9D ALPHA EFF
CPM
DATE
+3 Sigma 11740
+2 Sigma 11677
Mean 11550
-2 Sigma 11423
-3 Sigma 11360

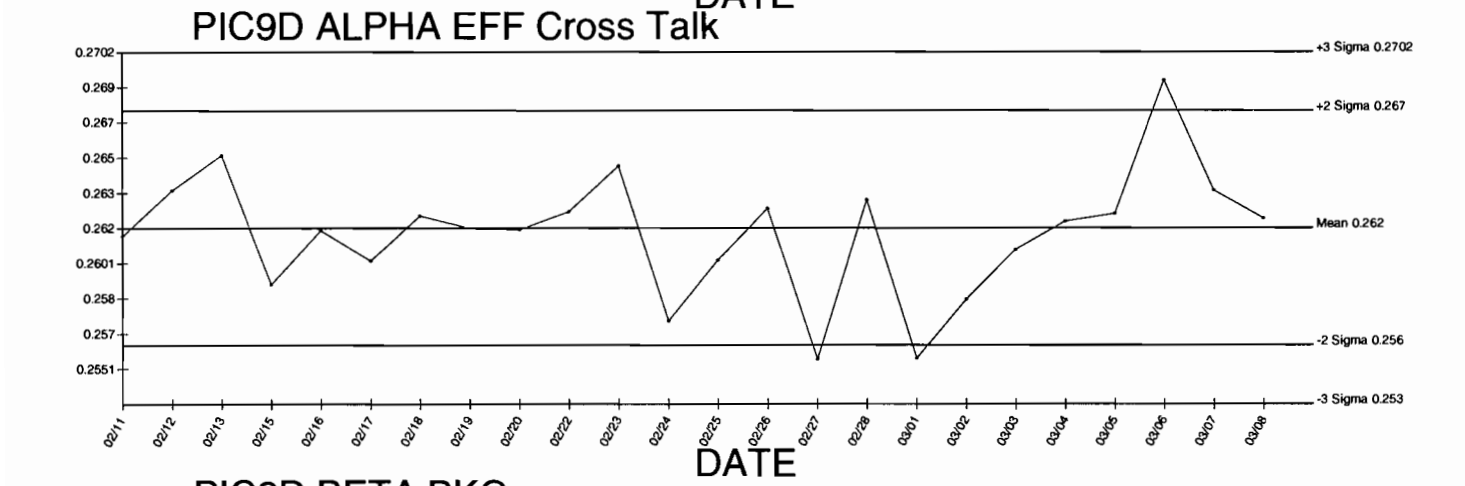
PIC9D ALPHA EFF Cross Talk
DATE
+3 Sigma 0.2702
+2 Sigma 0.267
Mean 0.262
-2 Sigma 0.256
-3 Sigma 0.253

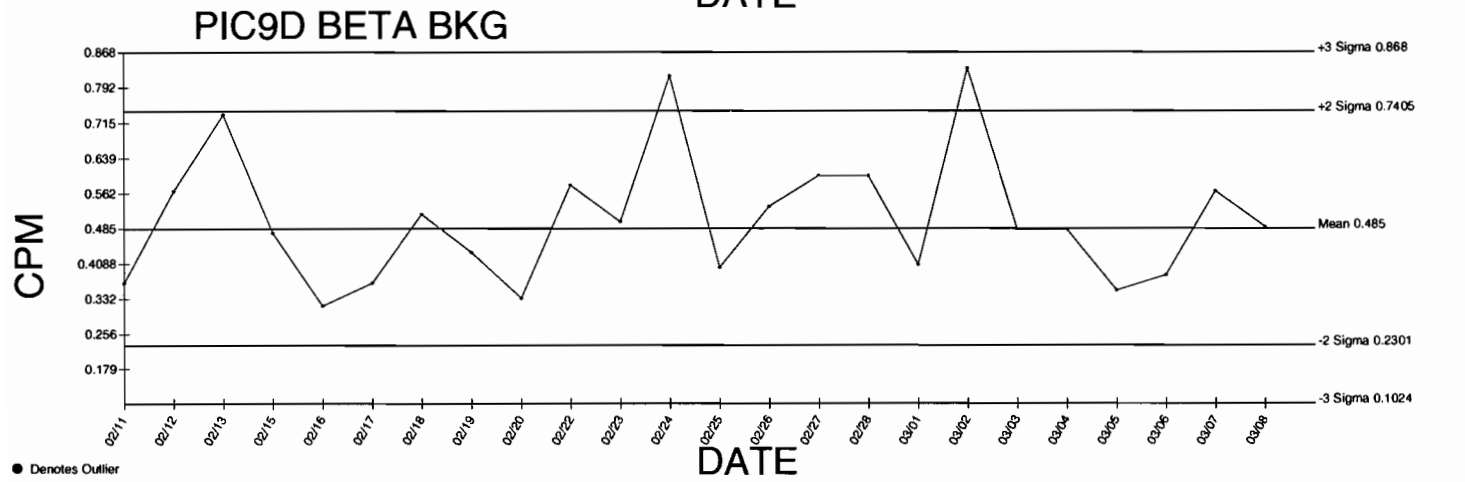
PIC9D BETA BKG
CPM
DATE
+3 Sigma 0.868
+2 Sigma 0.7405
Mean 0.485
-2 Sigma 0.2301
-3 Sigma 0.1024
● Denotes Outlier

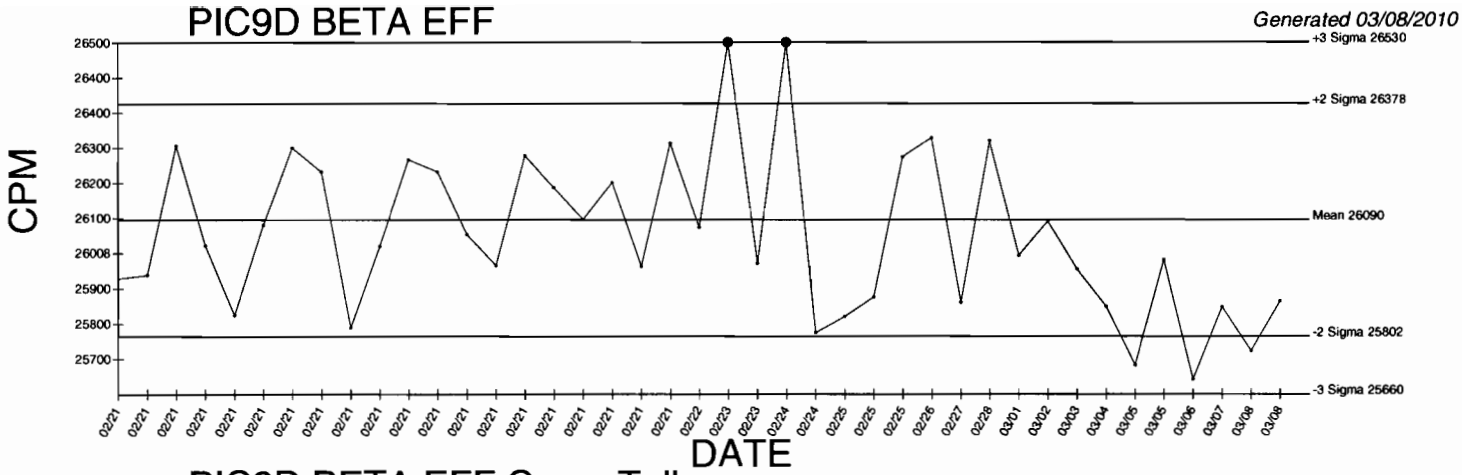

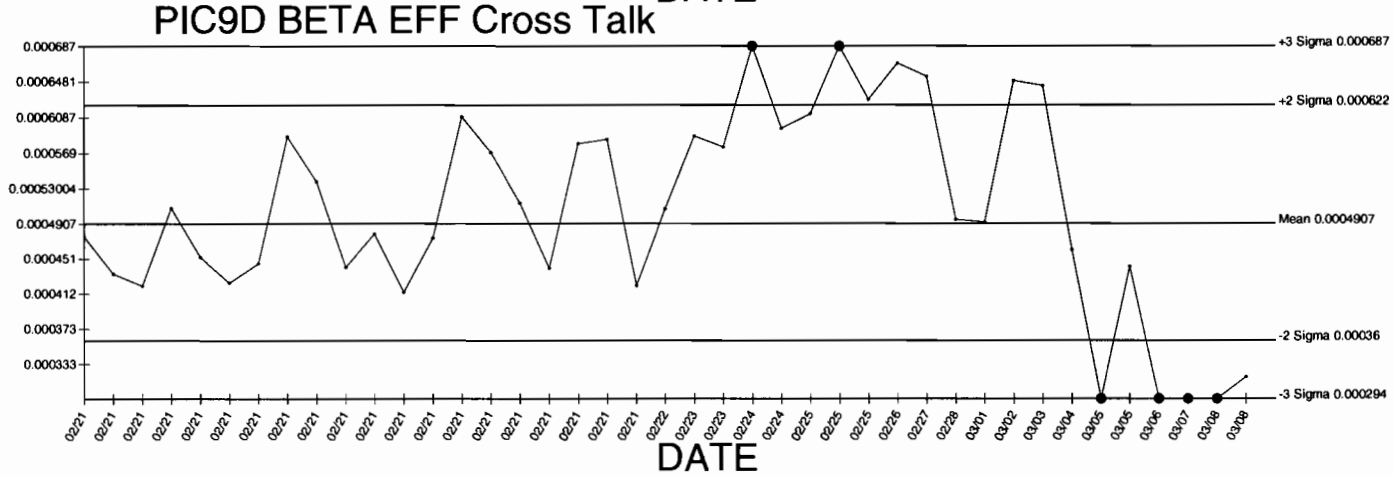

● Denotes Outlier

STANDARDS DATA

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/30/06
RC-S-045-073-0

Laboratory
24937 Avenue Tibbitts, Valencia, California 91355
1380 Seaboard Industrial Blvd., Atlanta, Georgia 30318

ANALYTICS
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ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- VER-JAR-1
	Mixed Gamma N2	2510	pCi/L	- VER-JAR-3
	Mixed Gamma N3	2413	pCi/L	- VER-JAR-5

Mean Value (Counting) =	2485.67	**100.00**	**Pass**
Stdev =	64.065		**Rule 3 (Pass/Fail)**

Certificate Value =	2485.68018	pCi/L
Lower Limit =	2357.536524	pCi/L
Upper Limit =	2613.796809	pCi/L
Rule 1 (Pass/Fail)	**Pass**	
Two sigma =	128.1301422	
10 % of Mean =	248.56666667	
Rule 2 (Pass/Fail)	**Pass**	

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2
Mean Value (Counting) =	886.90	**95.01**	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result		
	Mixed Gamma N1	1572	pCi/L	- VER - JAR - 5
	Mixed Gamma N2	1495	pCi/L	- VER - JAR - 2
	Mixed Gamma N3	1501	pCi/L	- VER - JAR - 3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**	
Stdev =	42.829	**Rule 3 (Pass/Fail)**		
Certificate Value =	1545.8378	pCi/L		
Lower Limit =	1437.008431	pCi/L		
Upper Limit =	1608.324902	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	85.65823564			
10 % of Mean =	152.26666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0533

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 · U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

65338-278

Am-241 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Am-241
ACTIVITY (dps):	3.920 E4
HALF-LIFE:	4.322 E2 years
CALIBRATION DATE:	January 15, 2003 12:00 EST
TOTAL UNCERTAINTY*:	3.2%
SYSTEMATIC:	2.2%
RANDOM:	1.0%

*99% confidence level.

5.10649 grams 1M HCl solution.

Impurities: γ-impurities <0.1%
α-impurities <0.1%

P O NUMBER 3213 RD, Item 1

SOURCE PREPARED BY: M Taskaeva
M. Taskaeva, Radiochemist

Q A APPROVED: UM Mt 1-16-03

RC-S-035-048a

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0533
Prepared By:	Angela Johnson
Carrier Conc:	1 M HCL
Reference Date:	01/15/2003
Ampoule Mass (g):	5.10649 g
Uncertainty:	+/- 3.2 %
LogBook No:	RC S 035 048

A Solution Material Info	
Isotope:	Americium-241
Prepared By:	Angela Johnson
Prep Date:	02/05/2003
Verification Date:	09/29/2008
Expiration Date:	09/29/2009
Primary Code:	0533-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8225 g
Density(g/mL):	1.0139
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8225 g) * (39200 dps) * (60 dpm/dps) / (5.10649 g * 100 mL) = 22211.9695 dpm/mL
(4.8225 g) * (39200 dps) * (60 dpm/dps) / (1.0139 g/mL)/ (5.10649 g * 100 mL) = 21907.2185 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
02/20/2003	Angela Johnson	1.0151	100	0533-B	222.38 dpm/mL	03/01/2006	03/01/2007
02/20/2003	Angela Johnson	.6819	250	0533-C	59.754 dpm/mL	02/20/2004	02/20/2005
05/07/2003	Tim Chandler	.1245	100	0533-D	27.2745 dpm/mL	05/03/2004	05/03/2005
09/10/2004	Amanda Fehr	.6933	250	0533-E	60.753 dpm/mL	09/10/2005	09/10/2006
12/17/2004	Brenda Burke	.0093	100	0533-F	2.0374 dpm/mL	12/20/2004	12/20/2005
12/21/2004	Brenda Burke	.009273	100	0533-G	2.0315 dpm/mL	12/07/2005	12/07/2006
04/28/2005	Brenda Burke	.1347	100	0533-H	29.4598 dpm/mL	04/27/2006	04/27/2007
10/19/2005	Mary Aders	.6948	250	0533-I	60.7831 dpm/mL	10/18/2006	10/18/2007

05/08/2006	Julie Strock	.0711	100	0533-J	15.576 dpm/mL	05/10/2008	05/10/2009
05/11/2006	Brenda Burke	.00092601	100	0533-K	.20286 dpm/mL	08/02/2007	07/28/2007
11/15/2006	Tara Sides	.132	1000	0533-L	2.88586 dpm/mL	10/06/2009	10/06/2010
06/12/2007	Julie Strock	.000979	100	0533-M	.21448 dpm/mL	05/20/2009	05/20/2010
08/03/2007	Daniel Roy	.7042	250	0533-N	61.7083 dpm/ml	08/02/2008	08/02/2009
09/25/2008	Daniel Roy	1.4561	500	0533-O	63.7982 dpm/ml	09/10/2009	09/10/2010
09/29/2008	Tara Sides	.1004	100	0533-P	21.9948 dpm/mL	09/09/2009	09/09/2010
06/03/2009	Julie Strock	.0009751	100	0533-Q	.2136 dpm/mL	06/05/2009	06/03/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-241 Standard *0533-O*

M. Aders			
9/10/2009	**Isotope**	**Value**	**Uncertainty**
	0533-O #1	2.880	0.3960
	0533-O #2	2.820	0.3910
	0533-O #3	2.790	0.3840
Mean Value (Counting) =	2.830	0.9953264	
Stdev =	0.045825757		
Target =	2.84		
Lower Limit =	2.738348486		
Upper Limit =	2.921651514		
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**
Two sigma =	0.091651514		
10 % of Mean =	0.283		
Rule 2 (Pass/Fail)	**Pass**		

Rule 1 = The target value must lie within the average counting value concentration plus or minus two times the standard deviation of the three counting sources.
Rule 2 =The calculated value of two times the standard deviation of the concentration of the three counted sources must be less than 10% of the average concentration value.
Rule 3 = The determined mean value must be +/- 5% of the of the certificate value or within the uncertainty of the standards being verified.

The analyst prepared three standard verification sources for standard ***0533-O*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Am_243*** standard ***445-96-2-SS*** in a disposable centrifuge tube. 4 mL of 2M HCL was added and was diluted with 6 mL of DI water. 25 micrograms of neodymium carrier and two mL of 49% HF was added to precipitate neodymium (and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-241 were calculated by comparison to Am-243 certified values.

9/22/09
9/25/09

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Kuan

QUALITY CONTROL

Jan 3, 1994

Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ **1. STANDARD WIPE TEST**

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **2. SOAK TEST**

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **3. SOAK TEST -- BERYLLIUM WINDOW**

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **4. GAS SOURCE TEST (Radioactive Gas)**

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ **5. OTHER LEAK TEST**

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **6. LEAK TEST NOT APPLICABLE**

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	05/11/2009
Expiration Date:	05/11/2010
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Julie Strock	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/30/2008	09/29/2009
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

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Verification for Am-243 Standard *445-96-2-SS*

M. Aders	Isotope	Value	Uncertainty
5/15/2009	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590

Mean Value (Counting) =	1.340	101.99	**Pass**
Stdev =	0.043588989		**Rule 3 (Pass/Fail)**

Target =	1.314
Lower Limit =	1.252822021
Upper Limit =	1.427177979
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.087177979
10 % of Mean =	0.134
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-SS*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Mary Fridean 5/15/09
Rob Robin 007509

0338

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 · U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

60513-278

Pu-239 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using an aliquot measured gravimetrically from a master radionuclide solution standard. The master radionuclide solution standard was calibrated by the Department Des Applications Et De La Metrologie Des Rayonnements Ionisants (DAMRI), Paris, France, as Number 24148.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Pu-239
ACTIVITY (dps):	3.674 E4
HALF-LIFE:	24131 years
CALIBRATION DATE:	October 30, 2000 12:00 EST
TOTAL UNCERTAINTY*:	5.0%

*99% confidence level.

5.45541 grams 3M HNO_3 solution.

Impurities detected (activity in dps/vial on Oct. 30, 2000):

Am-241 297.28
Pu-240 1208.8
Pu-241 2010.7
Pu-242 0.17

See reverse side for additional information.

P O NUMBER 2528RD, Item 1

PREPARED BY: M. Taskaeva
M. Taskaeva, Radiochemist

Q A APPROVED: RCWW 11/13/00

RC-S-028-167

Standard Traceability Log Rad

Source Material Info

Parent Code:	0338
Prepared By:	Penet Melton
Carrier Conc:	3 M HNO3
Reference Date:	10/30/2000
Ampoule Mass (g):	5.45541 g
Uncertainty:	+/- 5 %
LogBook No:	RC S 027 167

A Solution Material Info

Isotope:	Plutonium-239
Prepared By:	Penet Melton
Prep Date:	12/01/2000
Verification Date:	09/29/2008
Expiration Date:	09/29/2009
Primary Code:	0338-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.1674 g
Density(g/mL):	1.0121
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL | dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)

(5.1674 g) * (36740 dps) * (60 dpm/dps) / (5.45541 g * 100 mL) = 20880.2208 dpm/mL

(5.1674 g) * (36740 dps) * (60 dpm/dps) / (1.0121 g/mL)/ (5.45541 g * 100 mL) = 20630.6111 dpm/g

(5.1674 g) * (37948.8 dps) * (60 dpm/dps) / (5.45541 g * 100 mL) = 21567.2108 dpm/mL

(5.1674 g) * (37948.8 dps) * (60 dpm/dps) / (1.0121 g/mL)/ (5.45541 g * 100 mL) = 21309.3885 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
06/23/2009	Mary Aders	.591	250	0338-BB	50.3753 dpm/mL	06/23/2009	06/23/2010
10/29/2001	Tim Chandler	.3032	250	0338-E		10/16/2003	10/16/2004
12/30/2002	Tim Chandler	10.0252	100	0338-I		10/24/2003	10/24/2004
08/12/2003	Amanda Fehr	.2282	100	0338-K		08/12/2003	08/12/2004
12/09/2003	Amanda Fehr	.2409	100	0338-L		12/09/2003	12/09/2004

03/18/2004	Tim Chandler	10.0192	500	0338-M		03/18/2004	03/18/2005
04/26/2004	Amanda Fehr	.643	250	0338-N		04/26/2005	04/26/2006
05/26/2004	Eric Williamson	.355	250	0338-O	30.2619 dpm/mL	05/17/2007	05/17/2008
12/20/2004	Brenda Burke	.01957	100	0338-P	4.16992 dpm/mL	12/19/2006	12/19/2007
03/16/2005	Julie Strock	10.0395	100	0338-Q	2139.558 dpm/mL	06/12/2008	06/12/2009
07/19/2005	Amanda Fehr	.677	250	0338-R		07/10/2006	07/10/2007
05/11/2006	Brenda Burke	.0009935	100	0338-S	.21172 dpm/mL	07/30/2007	07/28/2007
01/04/2007	Julie Strock	.050286	250	0338-T	4.2887 dpm/mL	12/31/2007	12/31/2008
01/05/2007	Daniel Roy	.7285	250	0338-U		01/05/2008	01/05/2009
03/16/2005	Julie Strock	.010175	1000	0338-V	.216847 dpm/mL	04/23/2009	04/23/2010
05/15/2007	Eric Williamson	.253	250	0338-W	21.567 dpm/mL	05/21/2009	05/21/2010
07/31/2007	Julie Strock	.0010045	100	0338-X	.21379 dpm/mL	12/31/2007	12/31/2008
12/10/2008	Daniel Roy	.7715	250	0338-Y		12/10/2008	12/10/2009
09/29/2008	Julie Strock	.0504	250	0338-Z	4.29599 dpm/mL	09/30/2008	09/29/2009

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Plutonium-239 Standard *0338-BB*

Analyst: M. Aders	**Serial #**	**Value**	**Uncertainty**
Date: 6/25/09	0338-BB #1	2.350	0.2960
	0338-BB #2	2.190	0.2210
	0338-BB #3	2.300	0.2920
Mean Value (Counting) =	2.280	103.80917	**Pass**
Stdev =	0.081853528		
Target =	2.196		
Lower Limit =	2.116292945		
Upper Limit =	2.443707055		
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**
Two sigma =	0.163707055		
10 % of Mean =	0.228		
Rule 2 (Pass/Fail)	**Pass**		

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements.
Rule 2 = The two sigma value used for the 95% cinfidence interval shall not exceed 10% of the mean value of the three measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three Pu-239 standard verification sources for standard ***0338-BB*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Pu-242*** standard ***1262-A*** and was diluted in a disposable centrifuge tube with 4 mL of 2 M HCl, and 6 mL of DI water, 50 micrograms of Nd carrier and 5 drops of hydrazine dihydrochloride were added to the centrifuge tube and swirled. After waiting ten minutes, two mL of 49% HF was added to precipitate Nd(and ***plutonium***) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for ***Pu-239*** were calculated by comparison to ***Pu-242*** certified values.

Mary L. Aders 06/26/09

T. Robertson 06 26 09

1375

National Institute of Standards & Technology
Certificate

Standard Reference Material 4334H
Plutonium-242 Radioactivity Standard

This Standard Reference Material (SRM) consists of radioactive plutonium-242 nitrate and nitric acid dissolved in 5 mL of distilled water. The solution is contained in a flame-sealed NIST borosilicate-glass ampoule. The SRM is intended for the calibration of alpha-particle counting instruments and for the monitoring of radiochemical procedures.

Radiological Hazard: The SRM ampoule contains plutonium-242 with a total activity of approximately 150 Bq. Plutonium-242 decays by alpha-particle emission. None of the alpha particles escape from the SRM ampoule. During the decay process, X-rays and gamma rays with energies from 10 keV to 160 keV are also emitted. Most of these photons escape from the SRM ampoule but their intensities are so small that they do not represent a radiation hazard. Approximate unshielded dose rates at several distances (as of the reference time) are given in note [a]*. The SRM should be used only by persons qualified to handle radioactive material.

Chemical Hazard: The SRM ampoule contains nitric acid (HNO_3) with a concentration of 3 moles per liter of water. The solution is corrosive and represents a health hazard if it comes in contact with eyes or skin. If the ampoule is to be opened to transfer the solution, the recommended procedure is given on page 2. The ampoule should be opened only by persons qualified to handle both radioactive material and strong acid solution.

Storage and Handling: The SRM should be stored and used at a temperature between 5 °C and 65 °C. The solution in an unopened ampoule should remain stable and homogeneous until at least January 2015. The ampoule (or any subsequent container) should always be clearly marked as containing radioactive material. If the ampoule is transported it should be packed, marked, labeled, and shipped in accordance with the applicable national, international, and carrier regulations. The solution in the ampoule is a dangerous good (hazardous material) both because of the radioactivity and because of the strong acid.

Preparation: This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

RECEIVED

Lisa R. Karam, Acting Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
January 2005

Robert L. Watters, Jr., Chief
Measurement Services Division

*Notes and references are on pages 5 to 7.

RC-5-089-094

Recommended Procedure for Opening the SRM Ampoule

1) If the SRM solution is to be diluted, it is recommended that the diluting solution have a composition comparable to that of the SRM solution.

2) Wear eye protection, gloves, and protective clothing and work over a tray with absorbent paper in it. Work in a fume hood. In addition to the radioactive material, the solution contains strong acid and is corrosive.

3) Shake the ampoule to wet all of the inside surface of the ampoule. Return the ampoule to the upright position.

4) Check that all of the liquid has drained out of the neck of the ampoule. If necessary, gently tap the neck to speed the process.

5) Holding the ampoule upright, score the narrowest part of the neck with a scribe or diamond pencil.

6) Lightly wet the scored line. This reduces the crack propagation velocity and makes for a cleaner break.

7) Hold the ampoule upright with a paper towel, a wiper, or a support jig. Position the scored line away from you. Using a paper towel or wiper to avoid contamination, snap off the top of the ampoule by pressing the narrowest part of the neck away from you while pulling the tip of the ampoule towards you.

8) Transfer the solution from the ampoule using a pycnometer or a pipet with dispenser handle. NEVER PIPETTE BY MOUTH.

9) Seal any unused SRM solution in a flame-sealed glass ampoule, if possible, to minimize the evaporation loss.

See also reference [4]*.

*Notes and references are on pages 5 to 7.

PROPERTIES OF SRM 4334H

Certified values

Radionuclide	**Plutonium-242**
Reference time	**1200 EST, 07 June 1994 [b]***
Massic activity of the solution [c]	**26.31 $Bq \cdot g^{-1}$**
Relative expanded uncertainty (k=2)	**0.72% [d] [e]**
Solution density	**(1.105 ± 0.002) $g \cdot mL^{-1}$ at 20 °C [f]**

Uncertified values

Physical Properties:			
Source description	Liquid in flame-sealed NIST borosilicate-glass ampoule		
Ampoule specifications	Body outside diameter Wall thickness Barium content Lead-oxide content Other heavy elements	(16.5 ± 0.5) mm (0.60 ± 0.04) mm Less than 2.5% Less than 0.02% Trace quantities	
Solution mass	Approximately 5.5 g		
Chemical Properties:			
Solution composition	Chemical Formula	Concentration ($mol \cdot L^{-1}$)	Mass Fraction ($g \cdot g^{-1}$)
	H_2O HNO_3 $^{242}Pu^{+6}$	50 3.2 8×10^{-7}	0.81 0.19 2×10^{-7}
Radiological Properties:			
Alpha-particle-emitting impurities	None detected [g] [h]. See table on page 5.		
Beta-particle-emitting impurities	Plutonium-241: (0.092 ± 0.018) $Bq \cdot g^{-1}$ [f] [h]		
Photon-emitting impurities	None detected [i]		
Half lives used	Plutonium-242: (373 500 ± 1100) a [j] [5] Plutonium-241: (14.35 ± 0.10) a [j] [5] Americium-241: (432.2 ± 0.7) a [j] [5]		
Calibration method and measuring instrument(s)	Three $4\pi\alpha$ liquid-scintillation counters, a calibrated germanium detector system, and a silicon surface-barrier detector		

*Notes and references are on pages 5 to 7.

EVALUATION OF THE UNCERTAINTY OF THE MASSIC ACTIVITY [d] [e]*

Input Quantity x_i, the source of uncertainty (and individual uncertainty components where appropriate)	Method Used To Evaluate $u(x_i)$, the standard uncertainty of x_i (A) denotes evaluation by statistical methods (B) denotes evaluation by other methods	Relative Uncertainty Of Input Quantity, $u(x_i)/x_i$, (%) [k]	Relative Sensitivity Factor, $\lvert\partial y/\partial x_i\rvert \cdot (x_i/y)$ [m]	Relative Uncertainty Of Output Quantity, $u_i(y)/y$, (%) [n]
Massic alpha-particle emission rate, corrected for background and decay	Standard deviation of the mean for 80 sets of $4\pi\alpha$ liquid-scintillation measurements (A)	0.05	1.0	0.05
Half life of Pu-242	Standard uncertainty of the half life (A)	0.32 [p]	0.00001 [q]	0.000003
Decay-scheme data	Standard uncertainty of the probability of decay by alpha-particle emission (A)	0.001	1.0	0.001
Extrapolation of alpha-particle-count-rate-versus-energy to zero energy	Estimated (B)	0.25	1.0	0.25
Gravimetric measurements	Estimated (B)	0.10	1.0	0.10
Live time [r]	Estimated (B)	0.10	1.0	0.10
Alpha-particle detection efficiency of scintillators	Estimated (B)	0.15	1.0	0.15
Alpha-particle-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Photon-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Relative Combined Standard Uncertainty of the Output Quantity, $u_c(y)/y$, (%)				0.36
Coverage Factor, k				x 2
Relative Expanded Uncertainty of the Output Quantity, U/y, (%)				0.72

*Notes and references are on pages 5 to 7.

RELATIVE ACTIVITIES OF RADIONUCLIDIC IMPURITIES AT THE REFERENCE TIME [b]

Radionuclide	Half Life (years) [j] [5]	Relative Activity As Determined By	
		LLNL	NIST
Plutonium-242	373 500 ± 1100	1.000 000	1.000 000
Plutonium-241	14.35 ± 0.10	- -	0.0035 ± 0.0004 [t]
Plutonium-240	6 564 ± 11	^{239}Pu + ^{240}Pu <0.000 001 [u]	^{239}Pu + ^{240}Pu 0.000 020 ± 0.000 021 [v]
Plutonium-239	24 110 ± 30		
Plutonium-238	87.7 ± 0.1	^{238}Pu + ^{241}Am <0.000 016 [u]	0.000 009 ± 0.000 016 [v]
Americium-241	432.2 ± 0.7		0.000 000 assumed [t]

NOTES

[a] The Sievert is the SI unit for dose equivalent. See reference [1]. One μSv is equal to 0.1 mrem.

Distance from Ampoule (cm):	1	30	100
Approximate Dose Rate (μSv/h):	<0.1	-	-

[b] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994.

[c] **Massic activity** is the preferred name for the quantity activity divided by the total mass of the sample. See reference [1].

[d] The reported value, y, of massic activity (activity per unit mass) at the reference time was not measured directly but was derived from measurements and calculations of other quantities. This can be expressed as $y = f(x_1, x_2, x_3, \ldots x_n)$, where f is a mathematical function derived from the assumed model of the measurement process. The value, x_i, used for each input quantity i has a **standard uncertainty**, $u(x_i)$, that generates a corresponding uncertainty in y, $u_i(y) \equiv |\partial y/\partial x_i| \cdot u(x_i)$, called a **component of combined standard uncertainty** of y. The **combined standard uncertainty** of y, $u_c(y)$, is the positive square root of the sum of the squares of the components of combined standard uncertainty. The combined standard uncertainty is multiplied by a **coverage factor** of $k = 2$ to obtain U, the **expanded uncertainty** of y.

Since it can be assumed that the possible estimated values of the massic activity are approximately normally distributed with approximate standard deviation $u_c(y)$, the unknown value of the massic activity is believed to lie in the interval $y \pm U$ with a level of confidence of approximately 95 percent.

For further information on the expression of uncertainties, see references [2] and [3].

[e] The value of each component of combined standard uncertainty, and hence the value of the expanded uncertainty itself, is a best estimate based upon all available information, but is only approximately known. That is to say, the "uncertainty of the uncertainty" is large and not well known. This is true for uncertainties evaluated by statistical methods (e.g., the relative standard deviation of the standard deviation of the mean for the massic response is approximately 50%) and for uncertainties evaluated by other methods (which could easily be over estimated or under estimated by substantial amounts). The unknown value of the expanded uncertainty is believed to lie in the interval $U/2$ to $2U$ (i.e., within a factor of 2 of the estimated value).

[f] The stated uncertainty is two times the standard uncertainty.

[g] Estimated limits of detection for alpha-particle-emitting impurities, expressed as massic alpha-particle emission rates (numbers of alpha particles per second per gram), are:
0.003 $s^{-1} \cdot g^{-1}$ for energies less than 3.1 MeV,
0.03 $s^{-1} \cdot g^{-1}$ for energies between 3.1 and 4.4 MeV, and
0.003 $s^{-1} \cdot g^{-1}$ for energies greater than 5.0 MeV.

[h] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994. Americium-241, the daughter of plutonium-241, was removed but has been growing in since that time.

[i] Estimated limits of detection for photon-emitting impurities, expressed as massic photon emission rates (numbers of photons per second per gram), are:
$5 \times 10\text{-}5\ s^{-1} \cdot g^{-1}$ for energies between 19 and 39 keV,
$7 \times 10\text{-}5\ s^{-1} \cdot g^{-1}$ for energies between 49 and 92 keV,
$2 \times 10\text{-}5\ s^{-1} \cdot g^{-1}$ for energies between 106 and 507 keV,
$1 \times 10\text{-}5\ s^{-1} \cdot g^{-1}$ for energies between 515 and 1456 keV, and
$5 \times 10\text{-}6\ s^{-1} \cdot g^{-1}$ for energies between 1465 and 2750 keV,
provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of plutonium-242, plutonium-241, or americium-241.

[j] The stated uncertainty is the standard uncertainty.

[k] Relative standard uncertainty of the input quantity x_i.

[m] The relative change in the output quantity y divided by the relative change in the input quantity x_i. If $|\partial y/\partial x_i| \cdot (x_i/y) = 1.0$, then a 1% change in x_i results in a 1% change in y. If $|\partial y/\partial x_i| \cdot (x_i/y) = 0.05$, then a 1% change in x_i results in a 0.05% change in y.

[n] Relative component of combined standard uncertainty of output quantity y, rounded to two significant figures or less. The relative component of combined standard uncertainty of y is given by $u_r(y)/y \equiv |\partial y/\partial x_i| \cdot u(x_i)/y = |\partial y/\partial x_i| \cdot (x_i/y) \cdot u(x_i)/x_i$. The numerical values of $u(x_i)/x_i$, $|\partial y/\partial x_i| \cdot (x_i/y)$, and $u_r(y)/y$, all dimensionless quantities, are listed in columns 3, 4, and 5, respectively. Thus, the value in column 5 is equal to the value in column 4 multiplied by the value in column 3. The input quantities are independent, or very nearly so. Hence the covariances are zero or negligible.

[p] The relative standard uncertainty of $\lambda \cdot t$ is determined by the relative standard uncertainty of λ (i.e., of the half life). The relative standard uncertainty of t is negligible.

[q] $|\partial y/\partial x_i| \cdot (x_i/y) = |\lambda \cdot t|$

[r] The live time is determined by counting the pulses from a gated crystal-controlled oscillator.

[s] The standard uncertainty for each undetected impurity that might reasonably be expected to be present is estimated to be equal to the estimated limit of detection for that impurity, i.e. $u(x_i)/x_i$ = 100%. $|\partial y/\partial x_i| \cdot (x_i/y)$ = {(response per Bq of impurity)/(response per Bq of Pu-242)}•{(Bq of impurity)/(Bq of Pu-242)}. Thus $u_i(y)/y$ is the relative change in y if the impurity were present with a massic activity equal to the estimated limit of detection.

[t] The stated uncertainty is the standard uncertainty. The plutonium-241 activity was calculated from a gamma-ray measurement of the americium-241 ingrowth as of 25 November 1998, assuming that americium-241 was completely removed at the time of chemical purification.

[u] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The value shown is an estimated upper limit based upon background and counting statistics. Measurements were made at the Lawrence Livermore National Laboratory (LLNL) in July of 1994.

[v] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The stated uncertainty is the standard uncertainty. Measurements were made at the National Institute of Standards and Technology (NIST) in June and July of 1999.

REFERENCES

[1] International Organization for Standardization (ISO), *ISO Standards Handbook - Quantities and Units*, 1993. Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B.N. Taylor and C.E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

[4] National Council on Radiation Protection and Measurements Report No. 58, *A Handbook of Radioactivity Measurements Procedures*, Second Edition, 1985. Available from the National Council on Radiation Protection and Measurements, 7910 Woodmont Avenue, Bethesda, MD 20814 U.S.A.

[5] Evaluated Nuclear Structure Data File (ENSDF), January 2005.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1375
Prepared By:	Mary Aders
Carrier Conc:	0.5M HNO3
Reference Date:	06/07/1994
Ampoule Mass (g):	5.5 g
Uncertainty:	+/- .72 %
LogBook No:	RC-S-051-094

A Solution Material Info	
Isotope:	Plutonium-242
Prepared By:	Ashley Drochter
Prep Date:	01/08/2010
Verification Date:	01/08/2010
Expiration Date:	01/08/2011
Primary Code:	1375-A
Dilution(mL):	250 mL
Mass of Parent(g):	5.3542 g
Density(g/mL):	1.0148
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (250 mL) = 33.8086 dpm/mL
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (1.0148 g/mL) / (250 mL) = 33.3155 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Pu-242 Standard 1375-*A*

A.Drochter	Isotope	Value	Uncertainty
1/9/2010	1375-A	1.530	0.2410
	1375-A	1.630	0.2630
	1375-A	1.580	0.2480

Mean Value (Counting) =	1.580	103.75	**Pass**
Stdev =	0.05		**Rule 3 (Pass/Fail)**

Target =	1.52
Lower Limit =	1.48
Upper Limit =	1.68
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.1
10 % of Mean =	0.158
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for standard 1375-A using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. Two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-242 were calculated by comparison to Pu-239 certified values.

1/12/10

1/12/10

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CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1067

74463-278

Sr-90 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Sr-90
ACTIVITY (Bq):	3.835 E4
HALF-LIFE:	28.79 years
CALIBRATION DATE:	February 7, 2007 12:00 EST
RELATIVE EXPANDED UNCERTAINTY (k=2):	1.7%

Impurities: γ-impurities <0.1%

5.01066 grams 0.1M HCl solution with 30 µg/g Sr carrier.

NOTE: This source also contains Y-90 in secular equilibrium with Sr-90. The Y-90 activity is equal to the Sr-90 activity. Since Sr-90 and Y-90 both decay 100% by beta emission, the total beta emission rate for the source is twice the certified Sr-90 activity. The half-life for Y-90 is 64.08 hours.

P O NUMBER 2739 RD, Item 1

RECEIVED 2/8/07

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 2-7-07

RC-S-045408-A

Corporate Office
24937 Avenue Tibbitts · Valencia, California 91355

Laboratory
1380 Seaboard Industrial Blvd. Atlanta, Georgia, 30318

Standard Traceability Log Rad

Source Material Info

Parent Code:	1067
Prepared By:	Daniel Roy
Carrier Conc:	0.1M HCl
Reference Date:	02/07/2007
Ampoule Mass (g):	5.01066 g
Uncertainty:	+/- 1.7 %
LogBook No:	RC-S-045-108

A Solution Material Info

Isotope:	Strontium-90
Prepared By:	Julie Strock
Prep Date:	10/12/2007
Verification Date:	06/17/2009
Expiration Date:	06/23/2010
Primary Code:	1067-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.9657 g
Density(g/mL):	0.9962
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (bq)) * (conversion dpm to bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)

(Mass of parent(g)) * (Parm Activity (bq)) * (conversion dpm to bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)

(4.9657 g) * (38350 bq) * (60 dpm/bq) / (5.01066 g * 100 mL) = 22803.5343 dpm/mL

(4.9657 g) * (38350 bq) * (60 dpm/bq) / (0.9962 g/mL)/ (5.01066 g * 100 mL) = 22889.8293 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/23/2008	Daniel Roy	20.0611	1000	1067-B	459.1952 dpm/ml	07/23/2008	07/23/2009
06/16/2009	Mary Aders	20.0693	1000	1067-C	459.3829 dpm/mL	06/17/2009	06/17/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Sr-90 Standard 1067-C

6/18/2009	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (mL)	Source DPM/mL
M. Aders	1067-C N1	922.6000	45.1300	877.4700	2.030242	1.0000	432.1997082
	1067-C N2	905.2700	45.1300	860.1400	2.030242	1.0000	423.66378
	1067-C N3	918.2700	45.1300	873.1400	2.030242	1.0000	430.0669575
						Average =	428.6434819
Mean Value (Counting) =	428.6434819		**98.7965109**	**% of known**	**Pass**		
Stdev =	4.442435123		0.01036394				
Certificate Value =	433.865	dpm/mL					
Lower Limit =	419.7586117	dpm/mL					
Upper Limit =	437.5283522	dpm/mL					
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**				
Two sigma =	8.884870247						
10 % of Mean =	42.86434819						
Rule 2 (Pass/Fail)	**Pass**						

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for Sr-90 source 1067-C by transferring 1 mL portions of the standard into glass liquid scintillation vials. Thirteen mL of Ecoscint Ultra liquid scintillation coctail was prepared in a similar fashion using 1 mL of DI water and 13 mL of Ecoscint Ultra liquid scintillation coctail. The standard verification vials and Background source were dark adapted for two hours and counted on LSC Green for Sr-90 source standard verification. The Sr-90 efficiency calibration which was used for verification calculations was performed on 6/17/09 using source 0133-A (Sr-90). Calibration data is recorded in this logbook under Sr-90 0133-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

RAD SOP M-001

6/18/09
6/29/09

STANDARDIZATION OF STRONTIUM CARRIER

DATE: [redacted] EXP. DATE: [redacted]

LOT NUMBER [redacted]

STRONTIUM PRECIPITATES

	1	2	3	4
Weight of carrier added	[redacted]	[redacted]	[redacted]	[redacted]
Aliquot (5.00 mL)				
Crucible + ppt.	[redacted]	[redacted]	[redacted]	[redacted]
Crucible	[redacted]	[redacted]	[redacted]	[redacted]
Wt. of ppt., g	0.0178	0.0179	0.0179	0.0178
mg Sr/mL	17.80	17.90	17.90	17.80
mg Sr/g	17.28	17.72	17.55	17.28

Must weigh carrier added

Jennifer L. Robb
9-24-09

Average	Std. Dev.	
17.85	± 0.06	0.00323446
17.46	± 0.22	0.0124023
mg Sr/ 0.5 mL		**8.93**
mg Sr/g		17.46

0.5% of Mean Value = 0.08925 Pass

A satisfactory standardization is obtained when results give a standard deviation of less than 0.5% of the mean value.

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CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1243

78352-278

Sr-90 10 mL Liquid in Flame Sealed Vial

Customer: General Engineering Labs/Charleston, SC
P.O. No.: 7312 RD, Item 3

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	Sr-90
Activity (Bq):	3.856 E5
Half-Life:	28.79 years
Calibration Date:	October 1, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	1.7%

Comments:
Impurities: γ-impurities <0.1%
10.41484 grams 0.1M HCl solution with 30 μg/g Sr carrier.

NOTE: This source also contains Y-90 in secular equilibrium with Sr-90. The Y-90 activity is equal to the Sr-90 activity. Since Sr-90 and Y-90 both decay 100% by beta emission, the total beta emission rate for the source is twice the certified Sr-90 activity. The half-life for Y-90 is 64.08 hours.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 10/3/08
D. M. Montgomery, QA Manager

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Standard Traceability Log Rad

Source Material Info	
Parent Code:	1243
Prepared By:	Daniel Roy
Carrier Conc:	0.1M HCL
Reference Date:	10/01/2008
Ampoule Mass (g):	10.41484 g
Uncertainty:	+/- 1.7 %
LogBook No:	RC-S-048-124

A Solution Material Info	
Isotope:	Strontium-90
Prepared By:	Daniel Roy
Prep Date:	12/19/2008
Verification Date:	01/21/2010
Expiration Date:	01/21/2011
Primary Code:	1243-A
Dilution(mL):	100 mL
Mass of Parent(g):	10.2164 g
Density(g/mL):	0.9991
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(10.2164 g) * (385600 Bq) * (60 dpm/Bq) / (10.41484 g * 100 mL) = 226951.7634 dpm/mL
(10.2164 g) * (385600 Bq) * (60 dpm/Bq) / (0.9991 g/mL)/ (10.41484 g * 100 mL) = 227146.2010 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/21/2010	Bethany Fiem	2.2467	1000	1243-B	510.329369 dpm/mL	01/21/2010	01/21/2011

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Sr-90 Standard 1243-B

1/21/2010	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (mL)	Source DPM/mL
B. Fiem	1243-B N1	1043.4000	43.6000	999.8000	2.030242	1.0000	492.453609
	1243-B N2	1035.2000	43.6000	991.6000	2.030242	1.0000	488.4146816
	1243-B N3	1020.0000	43.6000	976.4000	2.030242	1.0000	480.9278894
						Average =	487.2653933
Mean Value (Counting) =	487.2653933		**98.5553214**	**Pass**			
Stdev =	5.848179264		0.01200204	**Rule 3 (Pass/Fail)**			
Certificate Value =	494.408	dpm/mL					
Lower Limit =	475.5690348	dpm/mL					
Upper Limit =	498.9617518	dpm/mL					
Rule 1 Pass/Fail	**Pass**						
Two sigma =	11.69635853						
10 % of Mean =	48.72653933						
Rule 2 (Pass/Fail)	**Pass**						

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for Sr-90 source 1243-B by transferring 1 mL portions of the standard into glass liquid scintillation vials with 10 mL of Ecoscint Ultra liquid scintillation coctai. A Background was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation coctail. The standard verification vials and Background source were dark adapted for two hours and counted on LSC Green for Sr-90 source standard verification. The Sr-90 efficiency calibration which was used for verification calculations was performed on 6/17/09 using source 0133-A (Sr-90). Calibration data is recorded in this logbook under Sr-90 0133-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

RAD SOP M-001

1/25/10

BF 1-25-10

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CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1242

78148-278

Th-230 5 mL Liquid in Flame Sealed Vial

Customer: General Engineerings Labs
P.O. No.: 7311RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	Th-230
Activity (Bq):	4.021 E4
Half-Life:	7.538 E4 years
Calibration Date:	August 25, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	2.0%

Comments:
Impurities: γ-impurities <0.1%, α-impurities <0.04%
5.07467 grams 0.5M HNO3 solution.

Source Prepared By: MITaskaeva
M. I. Taskaeva, Radiochemist

QA Approved: DM Montgomery
D. M. Montgomery, QA Manager

Date: 9-4-08

RECEIVED 9/17/08
RC-S-048-123

End of Certificate

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1242
Prepared By:	Daniel Roy
Carrier Conc:	0.5M HNO3
Reference Date:	08/25/2008
Ampoule Mass (g):	5.07467 g
Uncertainty:	+/- 2 %
LogBook No:	RC-S-048-123

A Solution Material Info	
Isotope:	Thorium-230
Prepared By:	Ashley Drochter
Prep Date:	11/10/2009
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1242-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8836 g
Density(g/mL):	1.0597
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8836 g) * (40210 Bq) * (60 dpm/Bq) / (5.07467 g * 100 mL) = 23217.6149 dpm/mL
(4.8836 g) * (40210 Bq) * (60 dpm/Bq) / (1.0597 g/mL)/ (5.07467 g * 100 mL) = 21908.6601 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/01/2009	Bethany Fiem	6.3855	500	1242-B	279.79548 dpm/mL	12/02/2009	12/02/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Th-230 Standard 1242-B

Analyst: B. Fiem	Source ID	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (ml)	Source DPM/ml
Date: 12/1/09	1242-B #1	321.8000	39.8000	282.0000	1.069320	1.0000	263.719
	1242-B #2	325.2000	39.8000	285.4000	1.069320	1.0000	266.899
	1242-B #3	339.2000	39.8000	299.4000	1.069320	1.0000	279.991

Mean Value (Counting) =	270.2028704	96.5727649	**Pass**
Stdev =	8.62458049		**Rule 3 (Pass/Fail)**

Certificate Value =	279.792
Lower Limit =	252.9537094
Upper Limit =	287.4520313
Rule 1 Pass/Fail	**Pass**
Two sigma =	17.24916098
10 % of Mean =	27.02028704
Rule 2 (Pass/Fail)	**Pass**

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for **Th-230** source **1242-B** by transferring 1.0 mL portions of the standard to glass liquid scintillation vials. 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Background vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for one hour and counted on LSC Green for standard verification. The alpha efficiency calibration which was used for verification calculations was performed on 11/16/09 using NIST source 0905-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference: RAD SOP M - 001

12-10-09

12/2/09

National Institute of Standards & Technology

Certificate

1163

Standard Reference Material 4321C
Natural Uranium Radioactivity Standard

This Standard Reference Material (SRM) consists of a solution of a standardized and certified quantity of radioactive uranium-238, uranium-235, and uranium-234 in a suitably stable and homogeneous matrix. It is intended primarily for the calibration of instruments that are used to measure radioactivity and for the monitoring of radiochemical procedures. The solution, whose composition is specified in Table 1, is contained in a flame-sealed, 5 mL, NIST, borosilicate-glass ampoule (see Note 1)*.

The certified massic activities for the uranium isotopes at a **Reference Time of 1200 EST, 1 August 1997**, are:

Uranium-238: (242.0 ± 1.5) $Bq \cdot g^{-1}$

Uranium-235: (11.14 ± 0.07) $Bq \cdot g^{-1}$

Uranium-234: (233.1 ± 2.2) $Bq \cdot g^{-1}$

Additional physical, chemical, and radiological properties for the SRM, as well as details on the standardization method, are given in Table 1. Uncertainty intervals for certified quantities are expanded ($k = 2$) uncertainties calculated according to the ISO and NIST Guidelines (see Note 2). Table 2 contains a specification of the components that comprise the uncertainty analyses.

The certification of this SRM, within the measurement uncertainties specified, is valid for at least five (5) years after receipt. The solution matrix, in an unopened ampoule, is believed to be indefinitely homogeneous and stable, within its half-life-dependent, useful lifetime. NIST will monitor this material and will report any substantive changes in certification to the purchaser. Should any of the certified values change, purchasers of this SRM will be notified of the change by NIST.

This SRM may represent a radiological hazard and a chemical hazard. Consult the Material Safety Data Sheet (MSDS), enclosed with the SRM shipment, for details (see Note 1).

This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, Dr. M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by Dr. L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

Lisa R. Karam, Deputy Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
November 1997
Text revised and expiration date extended February 2007

Robert L. Watters, Jr., Chief
Measurement Services Division

RECEIVED 11/3/08

*Notes and references are on page 4

RC-S-048-044

Table 1. Properties of SRM 4321C

Certified values

Radionuclides	**Natural Uranium (Mixture of ^{238}U, ^{235}U, and ^{234}U)**
Reference time	**1200 EST, 1 August 1997**
Massic activities of the solution	**^{238}U : 242.0 Bq•g^{-1}** **^{235}U : 11.14 Bq•g^{-1}** **^{234}U : 233.1 Bq•g^{-1}**
Relative expanded uncertainties ($k = 2$)	**^{238}U : 0.60%** (see Note 2)* **^{235}U : 0.60%** (see Note 2) **^{234}U : 0.96%** (see Note 2)

Uncertified information

Source description	Liquid in flame-sealed, 5 mL NIST borosilicate ampoule (see Note 1)
Solution composition	1.0 mol•L^{-1} HCl with 30 mg $UO_2(NO_3)_2$ per gram of solution
Solution density	(1.053 ± 0.001) g•mL^{-1} at 21.4 °C (see Note 3)
Solution mass	(5.258 ± 0.002) g (see Note 3)
Mass fraction of uranium	(0.01960 ± 0.00010) g•g^{-1} (see Note 3)
Photon-emitting impurities	None detected (see Note 4)
Half-lifes used [1]	^{238}U : (4.468 ± 0.003) x 10^9 a ‡ ^{235}U : (7.038 ± 0.005) x 10^8 a ‡ ^{234}U : (2.455 ± 0.006) x 10^5 a ‡
Calibration method (and instruments)	The certified massic activity for natural uranium was obtained by mass spectrometer, silicon surface-barrier detector, and $4\pi\alpha\beta$ liquid scintillation (LS) counting systems.

‡ See Note 5

*Notes and references are on page 4

Table 2. Uncertainty evaluation for the massic activity for SRM 4321C

	Uncertainty component	Assessment Type †	Relative standard uncertainty contribution on massic activity of Natural Uranium (%)
1	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{238}U	A	0.001
2	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{235}U	A	0.07
3	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{234}U	A	0.3
4	Half life of ^{238}U; standard uncertainty of the half-life	A	0.07
5	Half life of ^{235}U; standard uncertainty of the half-life	A	0.07
6	Half life of ^{234}U; standard uncertainty of the half-life	A	0.24
7	Uranium mass fraction in SRM 960; from SRM960 certificate	B	0.003
8	Quantitative dissolution	B	0.25
9	Gravimetric (mass) measurements	B	0.10
10	Limit for photon-emitting impurities	B	0.10
Relative combined standard uncertainty		^{238}U	**0.30**
		^{235}U	**0.30**
		^{234}U	**0.48**
Relative expanded uncertainty ($k = 2$)		^{238}U	**0.60**
		^{235}U	**0.60**
		^{234}U	**0.96**

† = (A) denotes evaluation by statistical methods; (B) denotes evaluation by other methods.

NOTES

Note 1. Refer to http://physics.nist.gov/Divisions/Div846/srm.html for the standardized ampoule dimensions and for assistance and instructions on how to properly open an ampoule. Information on additional storage and handling requirements is also included in the website.

Note 2. The uncertainties on certified values are expanded uncertainties, $U = ku_c$. The quantity u_c is the combined standard uncertainty calculated according to the ISO and NIST Guides (see references [2] and [3]). The combined standard uncertainty is multiplied by a coverage factor of $k = 2$ and was chosen to obtain an approximate 95 % level of confidence.

Note 3. The stated uncertainty is two times the standard uncertainty. See reference [3].

Note 4. The estimated lower limits of detection for photon-emitting impurities, expressed as massic photon emission rates are;

$1.4\ s^{-1} \cdot g^{-1}$ for 8 keV < E < 59 keV
$1.1\ s^{-1} \cdot g^{-1}$ for 67 keV < E < 88 keV
$0.5\ s^{-1} \cdot g^{-1}$ for 102 keV < E < 197 keV
$0.3\ s^{-1} \cdot g^{-1}$ for 205 keV < E < 762 keV
$0.2\ s^{-1} \cdot g^{-1}$ for 770 keV < E < 996 keV, and
$0.1\ s^{-1} \cdot g^{-1}$ for 1006 keV < E < 1900 keV

provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of ^{238}U, ^{235}U, ^{234}U, or their progeny

Note 5. The stated uncertainty is the standard uncertainty. See reference [3].

REFERENCES

[1] Evaluated Nuclear Structure Data File (ENSDF), online database, National Nuclear Data Center, Brookhaven Laboratory (Upton, NY), August 2007. Refer to http://www.nndc.bnl.gov/ensdf/

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B. N. Taylor and C. E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1163
Prepared By:	Daniel Roy
Carrier Conc:	1M HCL
Reference Date:	08/01/1997
Ampoule Mass (g):	5.258 g
Uncertainty:	+/- .6 %
LogBook No:	RC-S-048-044

A Solution Material Info	
Isotope:	Uranium-238
Prepared By:	Daniel Roy
Prep Date:	02/23/2008
Verification Date:	10/21/2009
Expiration Date:	10/21/2010
Primary Code:	1163-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.118 g
Density(g/mL):	1.0327
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.118 g) * (242 Bq/g) * (60 dpm/Bq) / (100 mL) = 743.1336 dpm/mL
(5.118 g) * (242 Bq/g) * (60 dpm/Bq) / (1.0327 g/mL) / (100 mL) = 719.5817 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/23/2009	Julie Strock	.1	100	1163-090723-1		07/30/2008	07/30/2009
07/23/2009	Julie Strock	1	100	1163-090723-2		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.25	50	1163-090723-3		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.02	20	1163-090723-4		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.2	20	1163-090723-5		07/30/2008	07/30/2009
07/23/2009	Julie Strock	2	20	1163-090723-6		07/30/2008	07/30/2009
07/31/2009	James Schoneman	.1	100	1163-090731-1		08/07/2008	08/07/2009
07/31/2009	James Schoneman	1	100	1163-090731-2		08/07/2008	08/07/2009
07/31/2009	James Schoneman	.02	20	1163-090731-3		08/07/2008	08/07/2009
07/31/2009	James Schoneman	.2	20	1163-090731-4		08/07/2008	08/07/2009
07/31/2009	James Schoneman	2	20	1163-090731-5		08/07/2008	08/07/2009

08/05/2009	James Schoneman	.1	20	1163-090805-1	08/07/2008	08/07/2009
08/06/2009	James Schoneman	.02	20	1163-090806-1	08/07/2008	08/07/2009
08/06/2009	James Schoneman	.2	20	1163-090806-2	08/07/2008	08/07/2009
08/06/2009	James Schoneman	2	20	1163-090806-3	08/07/2008	08/07/2009
08/14/2009	James Schoneman	.1	100	1163-090814-1	08/21/2008	08/21/2009
08/14/2009	James Schoneman	1	100	1163-090814-2	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.02	20	1163-090814-3	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.2	20	1163-090814-4	08/21/2008	08/21/2009
08/14/2009	James Schoneman	2	20	1163-090814-5	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.01	20	1163-090814-6	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.05	25	13451163-090814-1	08/21/2008	08/21/2009
08/18/2009	James Schoneman	.1	20	1163-090818-1	08/21/2008	08/21/2009
08/18/2009	James Schoneman	2.5	25	1163-090818-2	08/21/2008	08/21/2009
08/21/2009	James Schoneman	.1	100	1163-090821-1	08/28/2008	08/28/2009
08/21/2009	James Schoneman	1	100	1163-090821-2	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.02	20	1163-090821-3	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.2	20	1163-090821-4	08/28/2008	08/28/2009
08/21/2009	James Schoneman	2	20	1163-090821-5	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.01	20	1163-090821-6	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.05	25	13451163-090821-1	08/28/2008	08/28/2009
08/28/2009	James Schoneman	.1	100	1163-090828-1	09/04/2008	09/04/2009

08/28/2009	James Schoneman	1	100	1163-090828-2		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.02	20	1163-090828-3		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.2	20	1163-090828-4		09/04/2008	09/04/2009
08/28/2009	James Schoneman	2	20	1163-090828-5		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.01	20	1163-090828-6		09/04/2008	09/04/2009
09/01/2009	James Schoneman	.01	20	1163-090901-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.01	20	1163-090902-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.01	20	1163-090902-2		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.05	25	11631345-090828-1		09/04/2008	09/04/2009
09/01/2009	James Schoneman	.05	25	11631345-090901-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.05	25	11631345-090902		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.05	25	11631345-090902-1		09/04/2008	09/04/2009
09/11/2009	James Schoneman	.1	100	1163-090911-1	999645.956 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	1	100	1163-090911-2	999.646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.02	20	1163-090911-3	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.2	20	1163-090911-4	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	2	20	1163-090911-5	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.01	20	1163-090911-6	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.02	20	1163-090916-1	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.2	20	1163-090916-2	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	2	20	1163-090916-3	9.99646 ug/L	09/18/2008	09/18/2009

09/16/2009	James Schoneman	.01	20	1163-090916-4	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.05	25	11631332-090916-1	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.05	25	11631345-090911-1	9.99646 ug/L	09/18/2008	09/18/2009
09/18/2009	James Schoneman	.1	20	1163-090918-1	999.646 ug/L	09/18/2008	09/18/2009
09/19/2009	James Schoneman	.1	100	1163-090919-1		09/26/2008	09/26/2009
09/19/2009	James Schoneman	1	100	1163-090919-2		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.02	20	1163-090919-3		09/26/2008	09/26/2009
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09/19/2009	James Schoneman	2	20	1163-090919-5		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.01	20	1163-090919-6		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.05	25	11631332-090919-1		09/26/2008	09/26/2009
09/28/2009	James Schoneman	.1	100	1163-090928-1		10/05/2008	10/05/2009
09/28/2009	James Schoneman	1	100	1163-090928-2		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.02	20	1163-090928-3		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.2	20	1163-090928-4		10/05/2008	10/05/2009
09/28/2009	James Schoneman	2	20	1163-090928-5		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.01	20	1163-090928-6		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.05	25	11631332-090928-1		10/05/2008	10/05/2009
10/05/2009	James Schoneman	.1	100	1163-091005-1		10/12/2008	10/12/2009
10/05/2009	James Schoneman	1	100	1163-091005-2		10/12/2008	10/12/2009
10/05/2009	James Schoneman	.02	20	1163-091005-3		10/12/2008	10/12/2009

10/05/2009	James Schoneman	.2	20	1163-091005-4	10/12/2008	10/12/2009
10/05/2009	James Schoneman	2	20	1163-091005-5	10/12/2008	10/12/2009
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10/05/2009	James Schoneman	.05	25	11631332-091005	10/12/2008	10/12/2009
10/08/2009	James Schoneman	.1	20	1163-091008-1	10/12/2008	10/12/2009
10/09/2009	James Schoneman	.1	100	1163-091009-1	10/16/2008	10/16/2009
10/09/2009	James Schoneman	1	100	1163-091009-2	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.02	20	1163-091009-3	10/16/2008	10/16/2009
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10/09/2009	James Schoneman	2	20	1163-091009-5	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.01	20	1163-091009-6	10/16/2008	10/16/2009
10/12/2009	James Schoneman	.01	20	1163-091012-1	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.05	25	11631332-091009-1	10/16/2008	10/16/2009
10/15/2009	James Schoneman	.1	100	1163-091015-1	10/22/2008	10/22/2009
10/15/2009	James Schoneman	1	100	1163-091015-2	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.02	20	1163-091015-3	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.2	20	1163-091015-4	10/22/2008	10/22/2009
10/15/2009	James Schoneman	2	20	1163-091015-5	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.01	20	1163-091015-6	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.05	25	11631332-091015	10/22/2008	10/22/2009
10/22/2009	James Schoneman	.1	100	1163-091022-1	10/29/2008	10/29/2009

10/22/2009	James Schoneman	1	100	1163-091022-2	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.2	20	1163-091022-4	10/29/2008	10/29/2009
10/22/2009	James Schoneman	2	20	1163-091022-5	10/29/2008	10/29/2009
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10/22/2009	James Schoneman	.05	25	11631332-091022-1	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.02	20	1163-091022-3	10/29/2008	10/29/2009
10/29/2009	James Schoneman	.1	100	1163-091029-1	11/05/2008	11/05/2009
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11/05/2009	James Schoneman	.1	100	1163-091105-1	11/12/2008	11/12/2009
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11/05/2009	James Schoneman	.02	20	1163-091105-3	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.2	20	1163-091105-4	11/12/2008	11/12/2009
11/05/2009	James Schoneman	2	20	1163-091105-5	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.01	20	1163-091105-6	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.05	25	11631332-091105-1	11/12/2008	11/12/2009
11/10/2009	James Schoneman	.1	20	1163-091110-1	11/12/2008	11/12/2009

11/12/2009	James Schoneman	.1	100	1163-091112-1	11/19/2008	11/19/2009
11/12/2009	James Schoneman	1	100	1163-091112-2	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.02	20	1163-091112-3	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.2	20	1163-091112-4	11/19/2008	11/19/2009
11/12/2009	James Schoneman	2	20	1163-091112-5	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.01	20	1163-091112-6	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.05	25	11631332-091112-1	11/19/2008	11/19/2009
11/18/2009	James Schoneman	.1	100	1163-091118-1	11/25/2008	11/25/2009
11/18/2009	James Schoneman	1	100	1163-091118-2	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.02	20	1163-091118-3	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.2	20	1163-091118-4	11/25/2008	11/25/2009
11/18/2009	James Schoneman	2	20	1163-091118-5	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.01	20	1163-091118-6	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.05	25	11631332-091118-1	11/25/2008	11/25/2009
11/30/2009	James Schoneman	.1	100	1163-091130-1	12/06/2008	12/06/2009
11/30/2009	James Schoneman	1	100	1163-091130-2	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.02	20	1163-091130-3	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.2	20	1163-091130-4	12/06/2008	12/06/2009
11/30/2009	James Schoneman	2	20	1163-091130-5	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.01	20	1163-091130-6	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.05	25	11631332-091130-1	12/06/2008	12/06/2009

12/07/2009	James Schoneman	.1	100	1163-091207-1		12/14/2008	12/14/2009
12/07/2009	James Schoneman	1	100	1163-091207-2		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.02	20	1163-091207-3		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.2	20	1163-091207-4		12/14/2008	12/14/2009
12/07/2009	James Schoneman	2	20	1163-091207-5		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.01	20	1163-091207-6		12/14/2008	12/14/2009
12/09/2009	James Schoneman	.01	20	1163-091209-1		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.02	20	1163-091210-2		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.2	20	1163-091210-3		12/14/2008	12/14/2009
12/10/2009	James Schoneman	2	20	1163-091210-4		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.05	25	11631332-091207-1		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.1	20	1163-091210-1		12/14/2008	12/14/2009
12/11/2009	James Schoneman	.1	100	1163-091211-1		12/18/2008	12/18/2009
12/11/2009	James Schoneman	1	100	1163-091211-2		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.02	20	1163-091211-3		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.2	20	1163-091211-4		12/18/2008	12/18/2009
12/11/2009	James Schoneman	2	20	1163-091211-5		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.01	20	1163-091211-6		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.05	25	11631333-091211-1		12/18/2008	12/18/2009
02/27/2008	Daniel Roy	8.0851	100	1163-B	58.1789 dpm/ml	03/01/2008	03/01/2009
02/27/2008	Daniel Roy	8.1015	100	1163-C	58.2969 dpm/ml	03/01/2008	03/01/2009

04/16/2008	Julie Strock	.5619	100	1163-D	4.0433 dpm/mL	04/16/2008	04/16/2009
07/10/2008	Daniel Roy	20.0175	250	1163-E	57.6169 dpm/ml	07/13/2008	07/13/2009
01/05/2009	Tina Schoneman	.519	100	1163-F	3.7346 dpm/mL	01/05/2009	01/05/2010
04/16/2009	Mary Aders	19.4278	250	1163-G	55.9196 dpm/ml	04/16/2009	04/16/2010
10/21/2009	Mary Aders	20.008	250	1163-H	57.5896 dpm/mL	10/21/2009	10/21/2010
08/01/1997	Julie Strock	7.379	250	1163-I	21.2392 dpm/mL	12/07/2009	12/02/2010
08/01/1997	Julie Strock	.106	375	1163-J	.2034 dpm/mL	12/07/2009	12/02/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Uranium-238 Standard *1163-H*

Analyst: M. Aders	Serial #	Value	Uncertainty
Date: 10/21/2009	1163-H N1	2.660	0.510
	1163-H N2	2.460	0.469
	1163-H N3	2.530	0.409

Mean Value (Counting) =	2.550	**98.298998**	**Pass**
Stdev =	0.101488916		**Rule 3 (Pass/Fail)**

Target =	2.594
Lower Limit =	2.347022169
Upper Limit =	2.752977831
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.202977831
10 % of Mean =	0.255
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1163-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-232** standard **1283-E** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

Mary Fritzhumes 10/26/09
Kit Crabel 11/2/09

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
Fax 404-352-2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

End of Certificate

RECEIVED 12/15/08
RC-S-05

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	Serial #	Value		Uncertainty	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Drochter AMS 12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: GFPC **Batch ID: 956123**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
247261003	SAMPLE	MXB1	PIC14A	26-FEB-10 20:02	DONE	Tuffryn Filter	01-FEB-10 00:00
247431001	SAMPLE	MXB1	PIC14B	26-FEB-10 20:02	DONE	Tuffryn Filter	01-FEB-10 00:00
1202050157	MB	MXB1	PIC14D	26-FEB-10 20:02	DONE	Tuffryn Filter	01-FEB-10 00:00
1202050158	DUP	MXB1	PIC13C	26-FEB-10 20:02	DONE	Tuffryn Filter	01-FEB-10 00:00
1202050159	MS	MXB1	PIC13A	26-FEB-10 20:03	DONE	Tuffryn Filter	01-FEB-10 00:00
1202050160	LCS	MXB1	PIC13B	26-FEB-10 20:03	DONE	Tuffryn Filter	01-FEB-10 00:00

Tuesday, February 16, 2010

REQUEST NUMBER: 10-1885

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Martha Maier
Alta Analytical Lab Incorporated
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

These Samples are on:
LANL Request Number:10-1885
Per Agreement Number:176450010
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/16/2010
TURNAROUND/REPORT DUE: 3/18/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8290	1	CAPA-10-12691	WG	2/15/2010	
		2	CAPA-10-12691	WG	2/15/2010	

Final Page of REQUEST NUMBER 10-1885

Tuesday, February 16, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1885

REQUEST NUMBER: 10-1885

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Martha Maier

Alta Analytical Lab Incorporated
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

TURNAROUND/REPORT DUE: 3/18/2010
TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12691	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-12691	2	AMBER GLASS	WSP-8290-D/F	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
Jerry Lee	Signature	2/16/10	1700				
Printed Name				Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2635 **EVENT NAME:** R-54 Characterization Sampling

SAMPLE ID: CAPA-10-12691 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/15/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0606	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-54		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
TOP DEPTH:	830		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	840		SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
3		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)		pH<2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice		
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice		
3		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice		
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide		pH>12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice		
1		WSP-GrossA/B	1 LITER POLY	None		
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice		
1		WSP-LL-H-3	1 LITER POLY	None		
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid		pH<2
1		WSP-RAD	1 GAL POLY	Nitric Acid		pH<2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		pH<2
3		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice		

SAMPLE DESC:

SAMPLE COMMENTS: Collect sample from upper screen. Depths are from the proposed well design and may change once fact sheet is released.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2635 **EVENT NAME:** R-54 Characterization Sampling

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) M. Green, B. Woody

REVIEWED BY (PRINT) B. Woody

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) B. Woody (Signature) B. Woody	0945 02/16/10	(Printed Name) (Signature)	0945 02/16/10
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2635 **EVENT NAME:** R-54 Characterization Sampling

SAMPLE ID: CAPA-10-12692 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/15/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0606	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-54		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
TOP DEPTH:	830		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	840		SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid		pH < 2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice		
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		pH < 2

SAMPLE DESC:

SAMPLE COMMENTS: Collect sample from upper screen. Depths are from the proposed well design and may change once fact sheet is released.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) M Green, D. Woody **REVIEWED BY (PRINT)** D. Woody

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	02/16/10	(Printed Name)	02/16/10
(Signature) D. Woody	0945	(Signature)	0945
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2635 **EVENT NAME:** R-54 Characterization Sampling

SAMPLE ID: CAPA-10-12693 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/15/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0606	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	NA	
LOCATION ID:	R-54		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
TOP DEPTH:	830		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	840		SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	2 DW 02/15/10	WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	1 HCL

SAMPLE DESC: QC Sample of CAPA-10-12691

SAMPLE COMMENTS: Collect sample from upper screen. Depths are from the proposed well design and may change once fact sheet is released.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D. Woody, M Green

REVIEWED BY (PRINT) D. Woody

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	02/16/10 0945	(Printed Name)	02/16/10 0945
(Signature) D. Woody		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5123-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1885 VALIDATION DATE: 04/05/10 LAB CODE: ALTC

CONTRACT LABORATORY NAME: Vista Analytical Laboratory

VALIDATOR: Maryann Jordan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. OCDD was detected in the MB. The result for OCDD in the sample was a detect ≤5X the blank concentration and, thus, was qualified U,DF4.
2. It should be noted that laboratory ion abundance limits were used for evaluation of the PeCDD compounds since the laboratory uses an alternate ion for these masses due to interferences.
3. MS/MSD analyses were not performed with the sample from this RN. No sample results were qualified.
4. Precision analysis was not performed with the sample from this RN. No sample results were qualified.

Reviewed by: Allison Felix Level: 1 Date: 4/5/10

VALIDATOR'S SIGNATURE: Maryann Jordan DATE: 04/05/10

DIOXIN/FURAN ANALYTICAL DATA VALIDATION CHECKLIST

5123-2

Dioxin/Furan Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time and qualitative criteria for target compound identification were not met.	R, DF0	R, DF0
☐	☒	☐	2. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF0b	R, DF0b
☐	☒	☐	3. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF1d	R, DF1d
☒	☐	☐	4. The sample result is ≤5 times the concentration of the related analyte in the method blank.	N/A	U, DF4
☐	☒	☐	5. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, DF4a
☐	☐	☒	6. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	N/A	U, DF4d
☐	☒	☐	7. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF4e	R, DF4e
☐	☒	☐	8. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, DF7	J, DF7
☐	☒	☐	9. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria.	UJ, R, DF7a	J, DF7a
☐	☒	☐	10. The affected analytes were analyzed with an out of range ion abundance in the initial calibration and/or CCV.	R, DF7b	R, DF7b
☐	☒	☐	11. The ICV and/or CCV were recovered outside the method specific limits.	UJ, R, DF7c	J, R, DF7c
☐	☒	☐	12. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, DF7d	J, DF7d

DIOXIN/FURAN ANALYTICAL DATA VALIDATION CHECKLIST	
5123-2 Dioxin/Furan Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, DF7f	R, DF7f
☐	☒	☐	14. The affected analyte is considered rejected because the ion abundances did not meet specifications.	N/A	R, DF8
☐	☒	☐	15. The ion abundance documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF8a	R, DF8a
☐	☒	☐	16. If GC column performance was not evaluated at the required frequency or if method criteria were not met, qualify all associated detects as J and all associated non-detects as UJ.	UJ, DF8b	J, DF8b
☐	☐	☒	17. If 2, 3, 7, 8-TCDF was detected in a sample and the result was not confirmed on a second column with successful analysis of the GC column performance mix, qualify all associated detects as U.	N/A	U, DF8c
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, DF9	J-, DF9
☐	☒	☐	19. The holding time was >2 times the applicable holding time requirement.	R, DF9a	J-, DF9a
☐	☒	☐	20. The LCS percent recovery was <10%.	R, DF12	J-, DF12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, DF12a	J-, DF12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, DF12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF12c	R, DF12c

DIOXIN/FURAN ANALYTICAL DATA VALIDATION CHECKLIST

5123-2

Dioxin/Furan Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	24. The MS/MSD percent recovery was <10%.	R, DF12d	R, DF12d
☐	☐	☒	25. The MS/MSD percent recovery was >10% but <70%.	UJ, DF12e	J, DF12e
☐	☐	☒	26. The MS/MSD percent recovery was >70%	N/A	J+, DF12f
☐	☐	☒	27. The MS/MSD relative percent difference was >30%.	UJ, DF12g	J, DF12g
☐	☒	☐	28. The fortification sample percent recovery was <10%.	R, DF12h	J-, DF12h
☐	☒	☐	29. The fortification sample percent recovery was <40% but >10%	UJ, DF12i	J-, DF12i
☐	☒	☐	30. The fortification sample percent recovery was >135%.	N/A	J+, DF12j
☐	☒	☐	31. The fortification sample documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF12k	R, DF12k
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference.	R, DF15	UJ, DF15
☐	☐	☒	33. Sample clean-up was not performed. If run log notations, spectral data and/or internal standard or labeled compound recoveries indicate interferences and extract cleanup was not performed, qualify all associated detects as J and all non-detects as UJ.	RJ, DF15a	J, DF15a
☐	☐	☒	34. The instrument performance sample did not pass method acceptance criteria.	R, DF16	R, DF16
☐	☐	☒	35. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, DF16c	R, DF16c

DIOXIN/FURAN ANALYTICAL DATA VALIDATION CHECKLIST

5123-2

Dioxin/Furan Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	36. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, DF19	J, R, DR19
☐	☒	☐	37. Duplicate, dilution, or reanalysis.	UJ, DF88	J, DF88

Sample ID: CAPA-10-12691 **EPA Method 8290**

Client Data		Sample Data		Laboratory Data			
Name:	Los Alamos National Laboratory	Matrix:	Aqueous	Lab Sample:	32449-001	Date Received:	17-Feb-10
Project:	10-1885	Sample Size:	0.918 L	QC Batch No.:	2836	Date Extracted:	27-Feb-10
Date Collected:	15-Feb-10			Date Analyzed DB-5:	2-Mar-10	Date Analyzed DB-225:	NA
Time Collected:	1806						

Analyte	Conc. (pg/L)		DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND		0.207		
1,2,3,7,8-PeCDD	ND		0.303		
1,2,3,4,7,8-HxCDD	ND		0.272		
1,2,3,6,7,8-HxCDD	ND		0.293		
1,2,3,7,8,9-HxCDD	ND		0.273		
1,2,3,4,6,7,8-HpCDD	0.996				J
OCDD	5.64	U,DF4			J,B
2,3,7,8-TCDF	ND		0.193		
1,2,3,7,8-PeCDF	ND		0.239		
2,3,4,7,8-PeCDF	ND		0.253		
1,2,3,4,7,8-HxCDF	ND		0.177		
1,2,3,6,7,8-HxCDF	ND		0.201		
2,3,4,6,7,8-HxCDF	ND		0.212		
1,2,3,7,8,9-HxCDF	ND		0.272		
1,2,3,4,6,7,8-HpCDF	ND			0.416	
1,2,3,4,7,8,9-HpCDF	ND		0.781		
OCDF	ND		0.382		

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	81.0	40 - 135	
	13C-1,2,3,7,8-PeCDD	64.3	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	83.3	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	82.2	40 - 135	
	13C-1,2,3,7,8,9-HxCDD	78.5	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	79.7	40 - 135	
	13C-OCDD	70.8	40 - 135	
	13C-2,3,7,8-TCDF	78.2	40 - 135	
	13C-1,2,3,7,8-PeCDF	64.5	40 - 135	
	13C-2,3,4,7,8-PeCDF	58.7	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	69.8	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	75.3	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	78.9	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	75.9	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	78.1	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	79.1	40 - 135	
	13C-OCDF	70.4	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	88.1	40 - 135	

Totals				
Total TCDD	ND		0.207	
Total PeCDD	ND		0.303	
Total HxCDD	ND		0.279	
Total HpCDD	0.996			2.50
Total TCDF	ND		0.193	
Total PeCDF	ND		0.246	
Total HxCDF	ND		0.216	
Total HpCDF	ND			0.416

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): 0.0156

a. Sample specific estimated detection limit.

b. Estimated maximum possible concentration.

c. Method detection limit.

d. Lower control limit - upper control limit.

e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: TEH

Approved By: Martha M. Maier 06-Mar-2010 11:40

MJ
04/05/10

Tuesday, February 16, 2010

REQUEST NUMBER: 10-1885

32449

LOS ALAMOS
NATIONAL LABORATORY

3.8°C

ATTN: Martha Maier
Alta Analytical Lab Incorporated
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

These Samples are on:
LANL Request Number:10-1885
Per Agreement Number:176450010
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/16/2010
TURNAROUND/REPORT DUE: 3/18/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8290	1	CAPA-10-12691	WG	2/15/2010	
		2	CAPA-10-12691	WG	2/15/2010	

Final Page of REQUEST NUMBER 10-1885

Tuesday, February 16, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1885

REQUEST NUMBER: 10-1885

32449

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Martha Maier

Alta Analytical Lab Incorporated

5070 Robert J. Mathews Parkway

El Dorado Hills, CA 95762

TURNAROUND/REPORT DUE: 3/18/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12691	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-12691	2	AMBER GLASS	WSP-8290-D/F	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
Jerry Kelly		2/16/10	1700	B. Benedict	Bethina Benedict	2/16/10	0939
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

Vista
Analytical Laboratory

March 06, 2010

Vista Project I.D.: 32449

Mr. Keith Greene
Los Alamos National Laboratory
ER Sample Management Office
TA-3, Building 271, DP O1-U
Los Alamos, NM 87545

Dear Mr. Greene,

Enclosed are the results for the one aqueous sample received at Vista Analytical Laboratory on February 17, 2010 under your Project Name "10-1885". This sample was extracted and analyzed using EPA Method 8290 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

The following report consists of a Sample Inventory (Section I), Analytical Results (Section II) and the Appendix, which contains the chain-of-custody, a list of data qualifiers and abbreviations, Vista's current certifications, and copies of the raw data (if requested).

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com. Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha M. Maier
Laboratory Director

Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAC for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista Analytical Laboratory.

Vista

Section I: Sample Inventory Report

Date Received: **2/17/2010**

Vista Lab. ID	Client Sample ID
32449-001	CAPA-10-12691

SECTION II

Vista

Method Blank **EPA Method 8290**

Matrix:	Aqueous	QC Batch No.:	2836	Lab Sample:	0-MB001
Sample Size:	1.00 L	Date Extracted:	27-Feb-10	Date Analyzed DB-5:	2-Mar-10
				Date Analyzed DB-225:	NA

Analyte	Conc. (pg/L)	DL [a]	EMPC [b]	Qualifiers
2,3,7,8-TCDD	ND	0.191		
1,2,3,7,8-PeCDD	ND	0.258		
1,2,3,4,7,8-HxCDD	ND	0.312		
1,2,3,6,7,8-HxCDD	ND	0.320		
1,2,3,7,8,9-HxCDD	ND	0.309		
1,2,3,4,6,7,8-HpCDD	ND	0.267		
OCDD	1.73			J
2,3,7,8-TCDF	ND	0.173		
1,2,3,7,8-PeCDF	ND	0.230		
2,3,4,7,8-PeCDF	ND	0.212		
1,2,3,4,7,8-HxCDF	ND	0.185		
1,2,3,6,7,8-HxCDF	ND	0.194		
2,3,4,6,7,8-HxCDF	ND	0.221		
1,2,3,7,8,9-HxCDF	ND	0.273		
1,2,3,4,6,7,8-HpCDF	ND	0.345		
1,2,3,4,7,8,9-HpCDF	ND	0.338		
OCDF	ND		0.639	

	Labeled Standard	%R	LCL-UCL [d]	Qualifiers
IS	13C-2,3,7,8-TCDD	78.5	40 - 135	
	13C-1,2,3,7,8-PeCDD	60.6	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	76.3	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	77.8	40 - 135	
	13C-1,2,3,7,8,9-HxCDD	74.4	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	76.3	40 - 135	
	13C-OCDD	65.4	40 - 135	
	13C-2,3,7,8-TCDF	79.4	40 - 135	
	13C-1,2,3,7,8-PeCDF	58.8	40 - 135	
	13C-2,3,4,7,8-PeCDF	55.2	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	66.2	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	71.0	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	72.6	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	72.8	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	75.9	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	73.1	40 - 135	
	13C-OCDF	65.8	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	84.1	40 - 135	

Totals			
Total TCDD	ND	0.191	
Total PeCDD	ND	0.258	
Total HxCDD	ND	0.314	
Total HpCDD	ND		0.938
Total TCDF	ND	0.173	
Total PeCDF	ND	0.221	
Total HxCDF	ND	0.218	
Total HpCDF	ND	0.342	

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): 0.00173

a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Method detection limit.
d. Lower control limit - upper control limit.
e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: JMH

Approved By: Martha M. Maier 06-Mar-2010 11:40

Vista

OPR Results **EPA Method 8290**

Matrix:	Aqueous	QC Batch No.:	2836	Lab Sample:	0-OPR001		
Sample Size:	1.00 L	Date Extracted:	27-Feb-10	Date Analyzed DB-5:	2-Mar-10	Date Analyzed DB-225:	NA

Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits
2,3,7,8-TCDD	10.0	10.1	7 - 13
1,2,3,7,8-PeCDD	50.0	49.4	35 - 65
1,2,3,4,7,8-HxCDD	50.0	50.2	35 - 65
1,2,3,6,7,8-HxCDD	50.0	49.1	35 - 65
1,2,3,7,8,9-HxCDD	50.0	50.1	35 - 65
1,2,3,4,6,7,8-HpCDD	50.0	49.5	35 - 65
OCDD	100	97.5	70 - 130
2,3,7,8-TCDF	10.0	10.4	7 - 13
1,2,3,7,8-PeCDF	50.0	51.6	35 - 65
2,3,4,7,8-PeCDF	50.0	51.2	35 - 65
1,2,3,4,7,8-HxCDF	50.0	51.8	35 - 65
1,2,3,6,7,8-HxCDF	50.0	50.9	35 - 65
2,3,4,6,7,8-HxCDF	50.0	51.6	35 - 65
1,2,3,7,8,9-HxCDF	50.0	52.0	35 - 65
1,2,3,4,6,7,8-HpCDF	50.0	50.6	35 - 65
1,2,3,4,7,8,9-HpCDF	50.0	51.2	35 - 65
OCDF	100	99.3	70 - 130

	Labeled Standard	%R	LCL-UCL	Qualifier
IS	13C-2,3,7,8-TCDD	72.0	40 - 135	
	13C-1,2,3,7,8-PeCDD	55.6	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	71.4	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	72.3	40 - 135	
	13C-1,2,3,7,8,9-HxCDD	69.8	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	70.0	40 - 135	
	13C-OCDD	62.5	40 - 135	
	13C-2,3,7,8-TCDF	73.3	40 - 135	
	13C-1,2,3,7,8-PeCDF	54.0	40 - 135	
	13C-2,3,4,7,8-PeCDF	51.1	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	63.8	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	68.4	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	68.4	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	70.2	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	67.9	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	70.2	40 - 135	
	13C-OCDF	62.9	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	84.6	40 - 135	

Analyst: JMH

Approved By: Martha M. Maier 06-Mar-2010 11:40

Vista

Sample ID: CAPA-10-12691 **EPA Method 8290**

Client Data		Sample Data		Laboratory Data			
Name:	Los Alamos National Laboratory	Matrix:	Aqueous	Lab Sample:	32449-001	Date Received:	17-Feb-10
Project:	10-1885	Sample Size:	0.918 L	QC Batch No.:	2836	Date Extracted:	27-Feb-10
Date Collected:	15-Feb-10			Date Analyzed DB-5:	2-Mar-10	Date Analyzed DB-225:	NA
Time Collected:	1806						

Analyte	Conc. (pg/L)	DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND	0.207		
1,2,3,7,8-PeCDD	ND	0.303		
1,2,3,4,7,8-HxCDD	ND	0.272		
1,2,3,6,7,8-HxCDD	ND	0.293		
1,2,3,7,8,9-HxCDD	ND	0.273		
1,2,3,4,6,7,8-HpCDD	0.996			J
OCDD	5.64			J,B
2,3,7,8-TCDF	ND	0.193		
1,2,3,7,8-PeCDF	ND	0.239		
2,3,4,7,8-PeCDF	ND	0.253		
1,2,3,4,7,8-HxCDF	ND	0.177		
1,2,3,6,7,8-HxCDF	ND	0.201		
2,3,4,6,7,8-HxCDF	ND	0.212		
1,2,3,7,8,9-HxCDF	ND	0.272		
1,2,3,4,6,7,8-HpCDF	ND		0.416	
1,2,3,4,7,8,9-HpCDF	ND	0.781		
OCDF	ND	0.382		

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	81.0	40 - 135	
	13C-1,2,3,7,8-PeCDD	64.3	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	83.3	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	82.2	40 - 135	
	13C-1,2,3,7,8,9-HxCDD	78.5	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	79.7	40 - 135	
	13C-OCDD	70.8	40 - 135	
	13C-2,3,7,8-TCDF	78.2	40 - 135	
	13C-1,2,3,7,8-PeCDF	64.5	40 - 135	
	13C-2,3,4,7,8-PeCDF	58.7	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	69.8	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	75.3	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	78.9	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	75.9	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	78.1	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	79.1	40 - 135	
	13C-OCDF	70.4	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	88.1	40 - 135	

Totals			
Total TCDD	ND	0.207	
Total PeCDD	ND	0.303	
Total HxCDD	ND	0.279	
Total HpCDD	0.996		2.50
Total TCDF	ND	0.193	
Total PeCDF	ND	0.246	
Total HxCDF	ND	0.216	
Total HpCDF	ND		0.416

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): 0.0156

a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Method detection limit.
d. Lower control limit - upper control limit.
e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: TEH

Approved By: Martha M. Maier 06-Mar-2010 11:40

APPENDIX

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank.
D	Dilution
E	The amount detected is above the High Calibration Limit.
P	The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.
H	Recovery was outside laboratory acceptance limits.
I	Chemical Interference
J	The amount detected is below the Low Calibration Limit.
*	See Cover Letter
Conc.	Concentration
DL	Sample-specific estimated detection limit
MDL	The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in the matrix tested.
EMPC	Estimated Maximum Possible Concentration
NA	Not applicable
RL	Reporting Limit – concentrations that correspond to low calibration point
ND	Not Detected
TEQ	Toxic Equivalency

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
State of Alaska, DEC	CA413-2008
State of Arizona	AZ0639
State of Arkansas, DEQ	08-043-0
State of Arkansas, DOH	Reciprocity through CA
State of California – NELAP Primary AA	02102CA
State of Colorado	N/A
State of Connecticut	PH-0182
State of Florida, DEP	E87777
State of Indiana Department of Health	C-CA-02
Commonwealth of Kentucky	90063
State of Louisiana, Health and Hospitals	LA08000
State of Louisiana, DEQ	01977
State of Maine	2008024
State of Michigan	9932
State of Mississippi	Reciprocity through CA
Naval Facilities Engineering Service Center	NFESC413
State of Nevada	CA004132007A
State of New Jersey	CA003
State of New Mexico	Reciprocity through CA
State of New York, DOH	11411
State of North Carolina	06700
State of North Dakota, DOH	R-078
State of Oklahoma	D9919
State of Oregon	CA200001-006
State of Pennsylvania	68-00490
State of South Carolina	87002001
State of Tennessee	TN02996
State of Texas	T104704189-08-TX
U.S. Army Corps of Engineers	N/A
State of Utah	CA16400
Commonwealth of Virginia	00013
State of Washington	C1285
State of Wisconsin	998036160
State of Wyoming	8TMS-Q

Tuesday, February 16, 2010

REQUEST NUMBER: 10-1885

32449

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Martha Maier
Alta Analytical Lab Incorporated
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

These Samples are on: 3.8°C
LANL Request Number:10-1885
Per Agreement Number:176450010
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/16/2010
TURNAROUND/REPORT DUE: 3/18/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8290	1	CAPA-10-12691	WG	2/15/2010	
		2	CAPA-10-12691	WG	2/15/2010	

Final Page of REQUEST NUMBER 10-1885

Tuesday, February 16, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1885

LOS ALAMOS

NATIONAL LABORATORY

REQUEST NUMBER: 10-1885

32449

ATTN: Martha Maier

TURNAROUND/REPORT DUE: 3/18/2010

TURNAROUND REQ'D: 30

Alta Analytical Lab Incorporated

5070 Robert J. Mathews Parkway

El Dorado Hills, CA 95762

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12691	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-12691	2	AMBER GLASS	WSP-8290-D/F	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
Joe Kelly		2/16/10	1700	B. Benedict	Bettina Benedict	2/18/10	0939
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

SAMPLE LOG-IN CHECKLIST

Vista Analytical Laboratory

Vista Project #: 32449 **TAT** 30

Samples Arrival:	**Date/Time** 2/17/10 0821	**Initials:** BSB	**Location:** WR-2 **Shelf/Rack:** N/A
Logged In:	**Date/Time** 2/17/10 0939	**Initials:** BSB	**Location:** WR-2 **Shelf/Rack:** C3

Delivered By:	FedEx	UPS	Cal	DHL	Hand Delivered	Other
Preservation:	Ice	Blue Ice	Dry Ice	None		
Temp °C 3.8°	**Time:** 0825	**Thermometer ID:** IR-1				

	YES	NO	NA
Adequate Sample Volume Received? A & B bottle	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill Trk # 7209 7850 0901	✓		
Sample Container Intact?	✓		
Sample Custody Seals Intact?	✓		
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?		✓	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

$Na_2S_2O_3$ Preservation Documented?	COC	Sample Container	None		
Shipping Container	Vista	Client	Retain	Return	Dispose

Comments:

	date	time
CAPA -10 -12691	2/15/10	~~0606~~ 606 BSB 2/17/10

Sample Login 3/2007 rmh

EXTRACTION INFORMATION

PROCESS SHEET

Project No.-AR: 32449-2 of 2

RX

Prep Due: 3/6/2010

Hold Due: 3/17/2010

Client: Los Alamos National Laboratory(LOANM01F

Client Manager: Martha M. Maier

Method: EPA Method 8290 | PCDD/F

Project Due: 3/17/2010

TAT: 28

Split Type:

Matrix: Aqueous

2836

LabID	Recon	Client-ID	Description	Date Received	SLoc	Shelf
001	☑	CAPA-10-12691 "B Bottle"		2/17/2010	WR-2	C-3

Instructions:

Report Options

Report Level:

EDD Type:

Report Group: Dioxins NoMDL

Vial Box ID: pleather

TEQ Type: EPA(Default) : Min

Samples Reconciled By: 2/27/10

Date Requested 3/3/2010

Percent Solids

Vista Analytical Laboratory

Project: 32449-2

Sample ID	Chemist/Date FEB 2/27/10		Chemist/Date CJ 2/28/10	Chemist/Date FEB 2/27/10		
	Boat Wt.	Sample + Boat Wt.	Residue + Boat Wt.	pH before	pH* after	Cl
001	1.32	11.64	1.32	6	N/A	0

Procedure:

- Tare the balance.
- Record Boat Weight.
- Add 2 - 10 g of sample.
- Record Wet Wt. + Boat Wt.
- Dry in oven overnight at 107°C.
- Tare the balance.
- Record Residue + Boat Wt.

Notes:

- *Methods 8280, 613, 1613, 8290, 1614 – pH <9*
- *Methods 1668/PCN – pH 2-3*
- *NCASI 551 – pH 1*

%Solids rmh 10/2009

Aqueous Sample Size Determination

Vista Analytical Laboratory

Project: 32449-2

	Chemist/Date	Chemist/Date	
	FEB 2/27/10	CJ 2/28/10	
Sample ID	**Container Weight (g)**		**Sample Wt (g)**
	Full	***Empty***	
001	1306.00	388.20	917.80

Procedure:

- Tare the balance.
- Record weight of bottle/cap and sample.
- If all of the sample is used, drain overnight.
- Tare the balance.
- Record weight of empty bottle/cap.
- Enter Sample Weight in HALs and on the Extraction Sheet*.

* *Record in 'Liters', rounded to 3 decimal places; assumes density of 1 g/mL*

Notes:

AqWt 3/2007 rmh

Project: 32449

Extraction Set: 2836

Chemist: F. Bishop 2/27/10

Method(s): EPA Method 8290 | PCDD/F (Tetra - Octa)

C	ALTA Sample ID	G Eqv	Sample Amt. (L)	IS/NS CHEM/ WIT DATE	CRS CHEM/WIT DATE	AP CHEM/Date	ABSG CHEM/Date	AA CHEM/Date	Florisil CHEM/Date	RS CHEM/WIT DATE
☐	0_2836_MB001	N/A	(1.000)	FEB MC 2/27/10	CJ N/A 2/28/10	N/A	CJ 2/28/10	CJ 2/28/10	CJ 3/2/10	CJ FEB 3/2/10
☐	0_2836_OPR001	↓	↓	↓	↓	↓	↓	↓	↓	↓
☐	32449_2836_001	↓	0.918	↓	↓	↓	↓	↓	↓	↓

IS Name (V18)	NS Name (V4)	CRS Name (✓)	RS Name (✓)
PCDD/F 081104A,10ul	PCDD/F 090922A,10ul	PCDD/F 100127A10	PCDD/F 100127B10
PCB	PCB	PCB	PCB
PAH	PAH	PAH	PAH

Cycle Time 2/27
Start: 1640
2/28
Stop: 0940

APP.: SEFUN SOX (SDS)
SOLV: TOL
Other: SPE
Final Volume(s): 20ul C14

Check Out:
Chemist: FEB 2/27/10

Check-In:
Chemist: Empty

Comments:

SAMPLE DATA

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 10:16:06 Pacific Standard Time
Printed: Wednesday, March 03, 2010 10:16:20 Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

2,3,7,8-TCDD			NO	1.04	1.000					0.191	
1,2,3,7,8-PeCDD			NO	0.935	1.000					0.258	
1,2,3,4,7,8-HxCDD			NO	0.907	1.000					0.312	
1,2,3,6,7,8-HxCDD			NO	0.995	1.000					0.320	
1,2,3,7,8,9-HxCDD			NO	0.930	1.000					0.309	
1,2,3,4,6,7,8-HpCDD			NO	1.00	1.000					0.267	
OCDD	8.01e2	0.81	NO	1.10	1.000	41.15	1.000	1.7299		0.456	~~1.7299~~
2,3,7,8-TCDF			NO	0.956	1.000					0.173	
1,2,3,7,8-PeCDF			NO	0.941	1.000					0.230	
2,3,4,7,8-PeCDF			NO	0.926	1.000					0.212	
1,2,3,4,7,8-HxCDF			NO	1.22	1.000					0.185	
1,2,3,6,7,8-HxCDF			NO	1.08	1.000					0.194	
2,3,4,6,7,8-HxCDF			NO	1.13	1.000					0.221	
1,2,3,7,8,9-HxCDF			NO	1.13	1.000					0.273	
1,2,3,4,6,7,8-HpCDF			NO	1.44	1.000					0.345	
1,2,3,4,7,8,9-HpCDF			NO	1.38	1.000					0.338	
OCDF	4.04e2	1.10	YES	1.01	1.000	41.38	1.000	~~0.70994~~	ND	0.369	0.63926
13C-2,3,7,8-TCDD	2.14e6	0.78	NO	1.10	1.000	26.01	1.022	1570.2	78.5	0.909	
13C-1,2,3,7,8-PeCDD	1.64e6	0.62	NO	1.09	1.000	30.55	1.200	1212.4	60.6	0.943	
13C-1,2,3,4,7,8-HxCDD	1.39e6	1.26	NO	1.01	1.000	33.90	1.014	1525.1	76.3	1.49	
13C-1,2,3,6,7,8-HxCDD	1.25e6	1.23	NO	0.889	1.000	34.01	1.017	1555.9	77.8	1.70	
13C-1,2,3,7,8,9-HxCDD	1.44e6	1.24	NO	1.07	1.000	34.31	1.026	1488.8	74.4	1.41	
13C-1,2,3,4,6,7,8-HpCDD	1.15e6	1.05	NO	0.837	1.000	37.81	1.131	1525.9	76.3	2.44	
13C-OCDD	1.68e6	0.88	NO	0.712	1.000	41.14	1.230	2615.9	65.4	1.09	
13C-2,3,7,8-TCDF	3.15e6	0.78	NO	1.05	1.000	25.25	0.992	1587.2	79.4	1.19	
13C-1,2,3,7,8-PeCDF	2.26e6	1.57	NO	1.02	1.000	29.37	1.153	1176.6	58.8	1.52	
13C-2,3,4,7,8-PeCDF	2.24e6	1.55	NO	1.08	1.000	30.27	1.189	1103.6	55.2	1.44	
13C-1,2,3,4,7,8-HxCDF	1.63e6	0.52	NO	1.37	1.000	33.02	0.988	1323.2	66.2	1.92	
13C-1,2,3,6,7,8-HxCDF	1.75e6	0.51	NO	1.37	1.000	33.14	0.991	1419.1	71.0	1.92	
13C-2,3,4,6,7,8-HxCDF	1.55e6	0.52	NO	1.18	1.000	33.74	1.009	1452.5	72.6	2.22	

3/5/10

3/5/10

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 10:16:06 Pacific Standard Time
Printed: Wednesday, March 03, 2010 10:16:20 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

13C-1,2,3,7,8,9-HxCDF	1.38e6	0.51	NO	1.05	1.000	34.71	1.038	1456.1	72.8	2.49	
13C-1,2,3,4,6,7,8-HpCDF	1.17e6	0.46	NO	0.858	1.000	36.57	1.094	1517.1	75.9	2.77	
13C-1,2,3,4,7,8,9-HpCDF	1.05e6	0.45	NO	0.794	1.000	38.37	1.148	1461.3	73.1	2.99	
13C-OCDF	2.25e6	0.88	NO	0.948	1.000	41.38	1.238	2630.0	65.8	0.951	
37Cl-2,3,7,8-TCDD	5.54e5			0.665	1.000	26.03	1.022	673.15	84.1	0.281	
13C-1,2,3,4-TCDD	2.48e6	0.79	NO	1.00	1.000	25.47	0.000	2000.0	100	1.00	
13C-1,2,3,4-TCDF	3.76e6	0.78	NO	1.00	1.000	24.07	0.000	2000.0	100	1.25	
13C-1,2,3,4,6,9-HxCDF	1.80e6	0.52	NO	1.00	1.000	33.43	0.000	2000.0	100	2.62	
Total Tetra-Dioxins				1.04	1.000					0.0888	
Total Penta-Dioxins				0.935	1.000					0.0920	
Total Hexa-Dioxins				0.995	1.000					0.149	
Total Hepta-Dioxins				1.00	1.000			~~0.00000~~		0.130	0.93772
Total Tetra-Furans				0.956	1.000					0.0830	
1st Func. Penta-Furans				0.941	1.000					0.0760	
Total Penta-Furans				0.941	1.000					0.105	
Total Hexa-Furans				1.13	1.000					0.124	
Total Hepta-Furans				1.44	1.000					0.144	

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 10:16:06 Pacific Standard Time
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Method: C:\MassLynx\Default.pro\Methdb\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

Tetra-Dioxins

Penta-Dioxins

Hexa-Dioxins

Hepta-Dioxins

Total Hepta-Dioxins	36.98	7.075e3	5.518e3	3.198e2	2.651e2	1.21	YES	0.000e0	0.00000	0.93772	0.267

Tetra-Furans

Penta-Furans function 1

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qid

Last Altered: Wednesday, March 03, 2010 10:16:06 Pacific Standard Time
Printed: Wednesday, March 03, 2010 10:16:20 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

Penta-Furans

Hexa-Furans

Hepta-Furans

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

2,3,7,8-TCDD

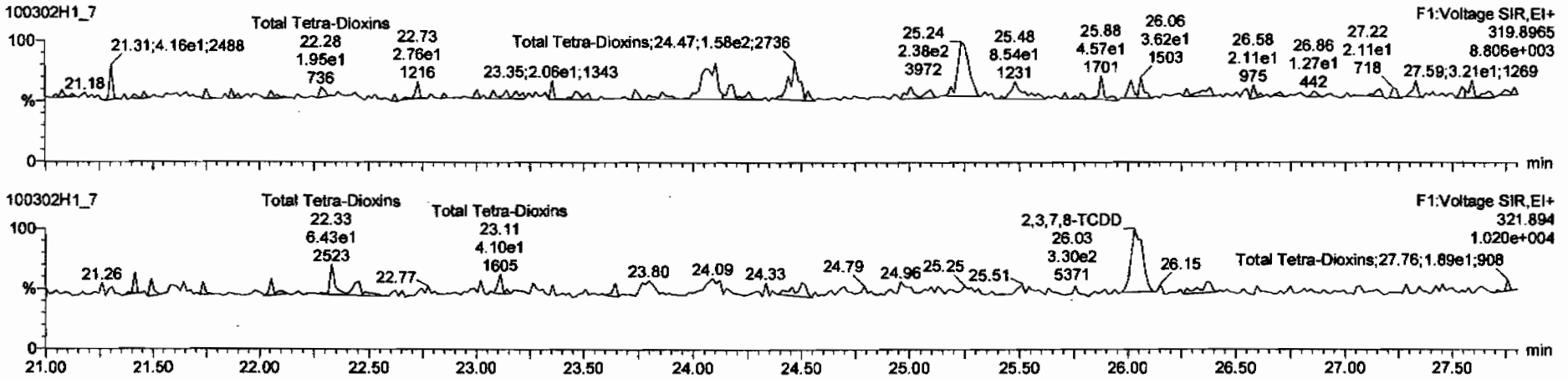

13C-2,3,7,8-TCDD

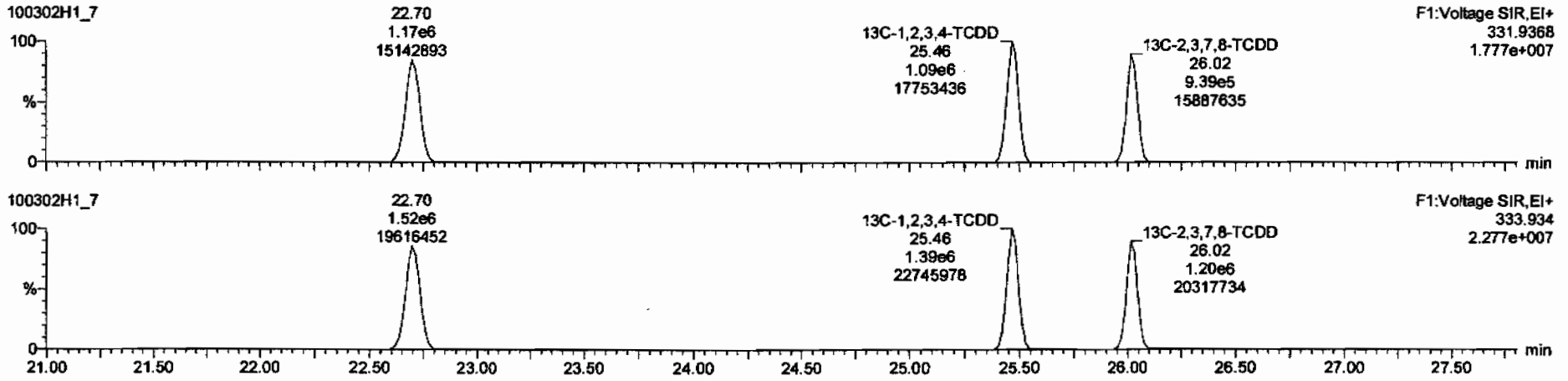

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Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

37Cl-2,3,7,8-TCDD

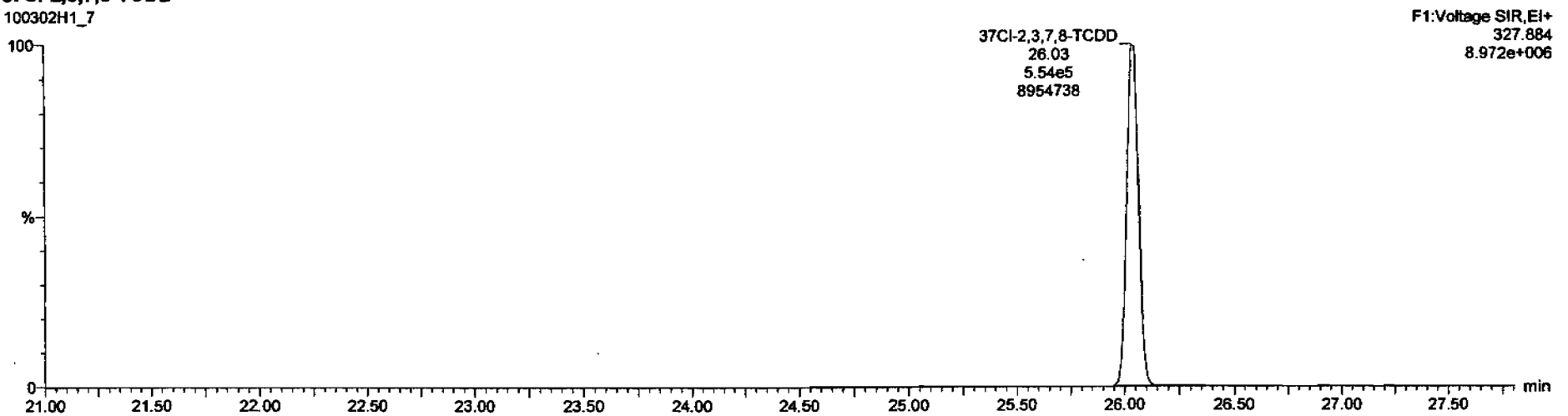

13C-1,2,3,4-TCDD

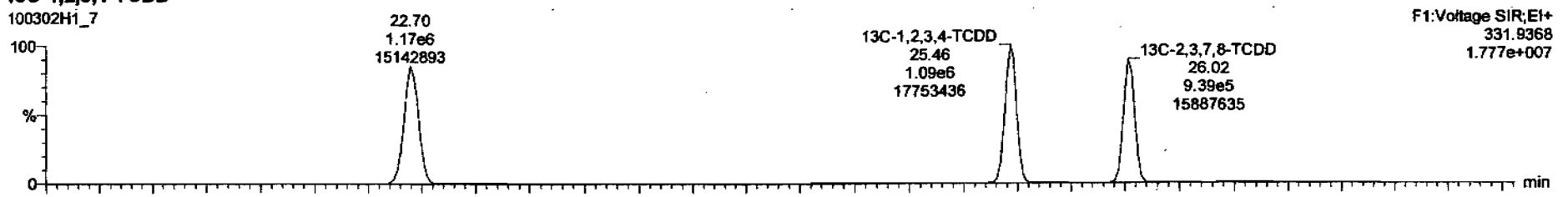

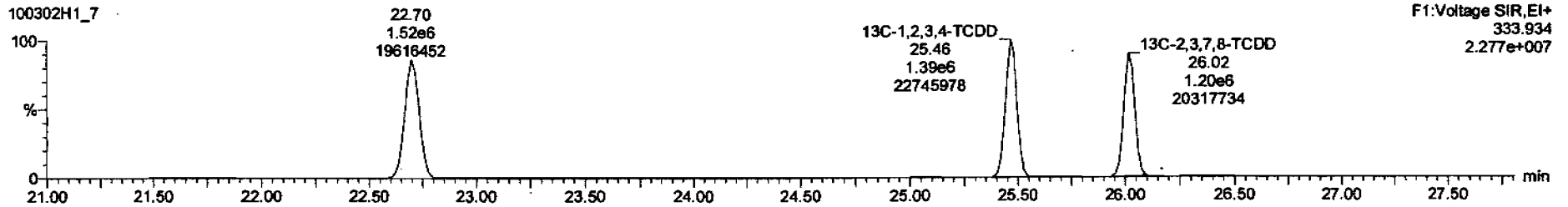

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Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

1,2,3,7,8-PeCDD

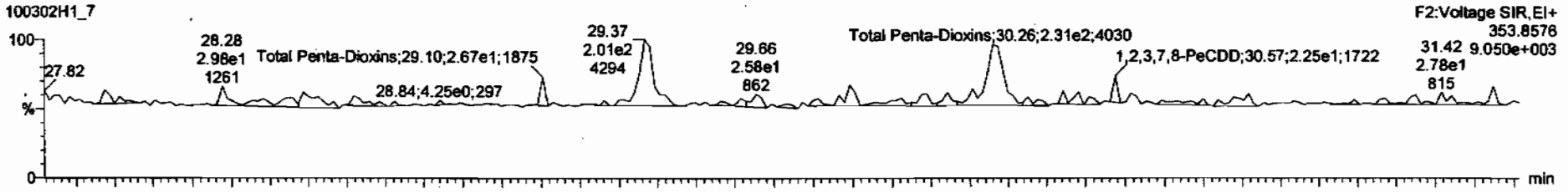

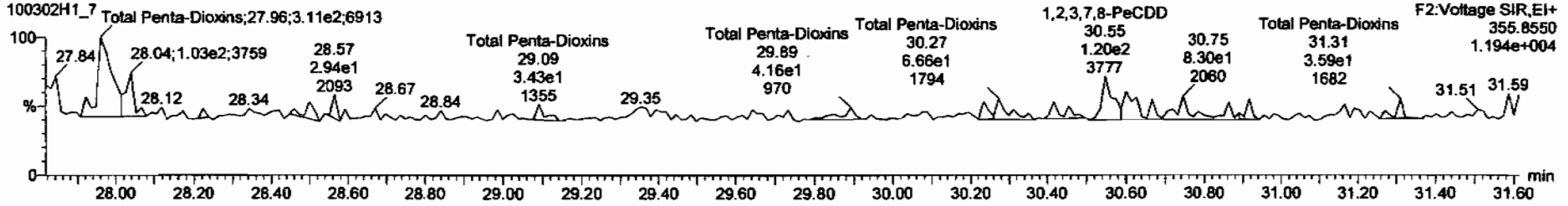

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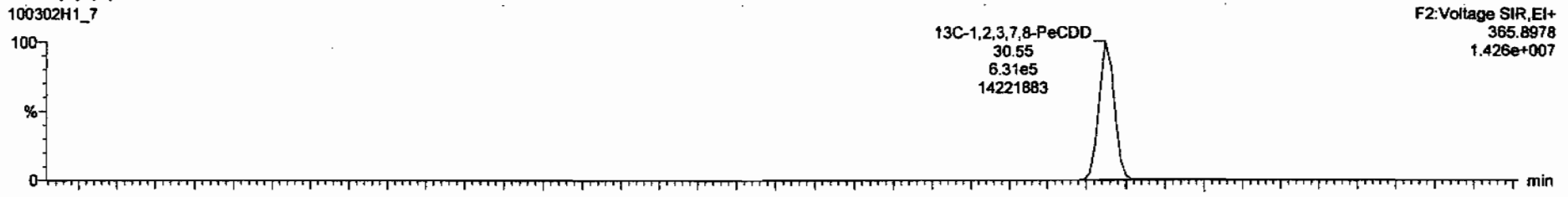

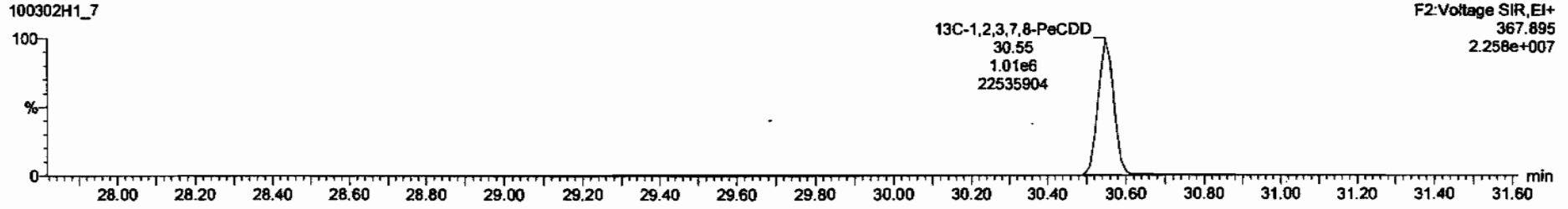

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

1,2,3,4,7,8-HxCDD

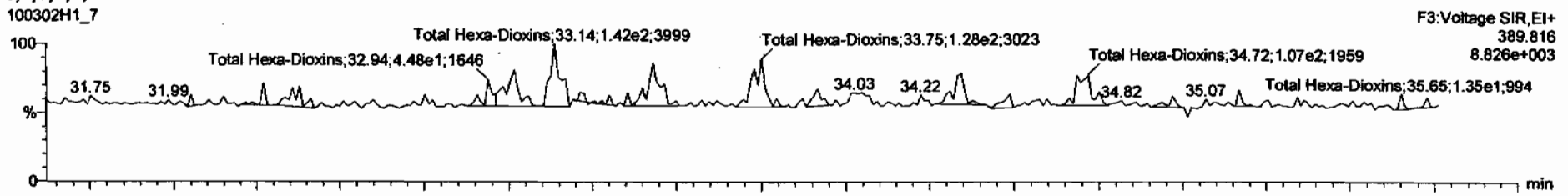

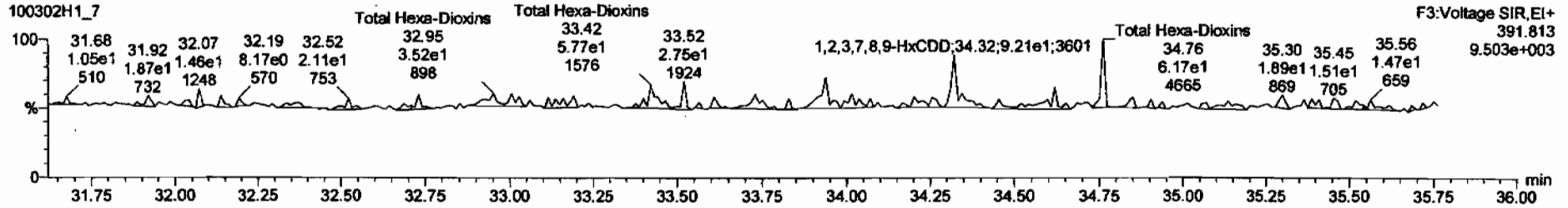

13C-1,2,3,4,7,8-HxCDD

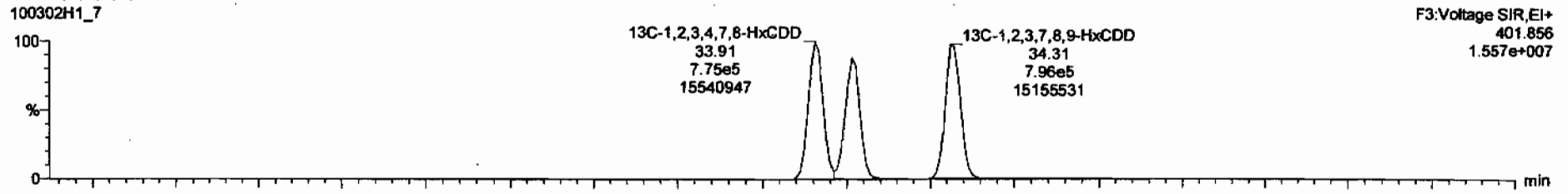

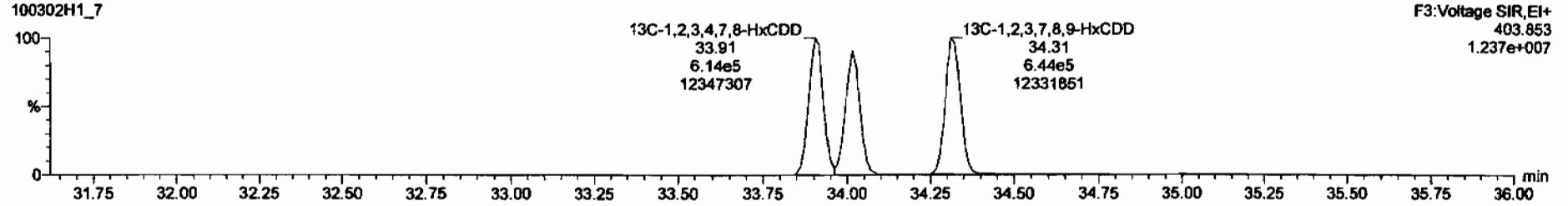

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Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

1,2,3,4,6,7,8-HpCDD

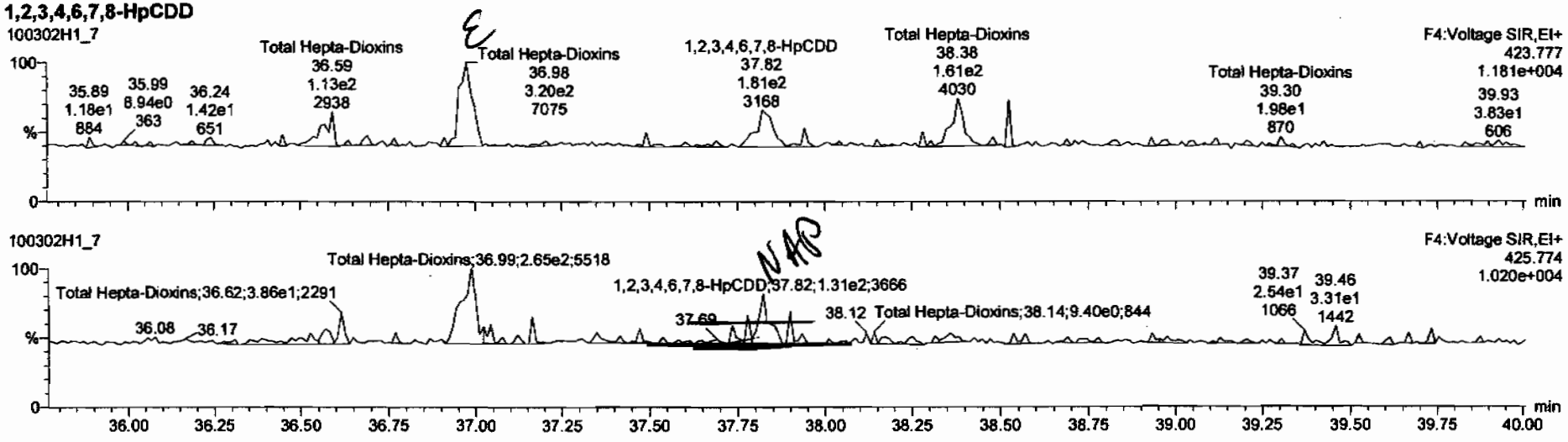

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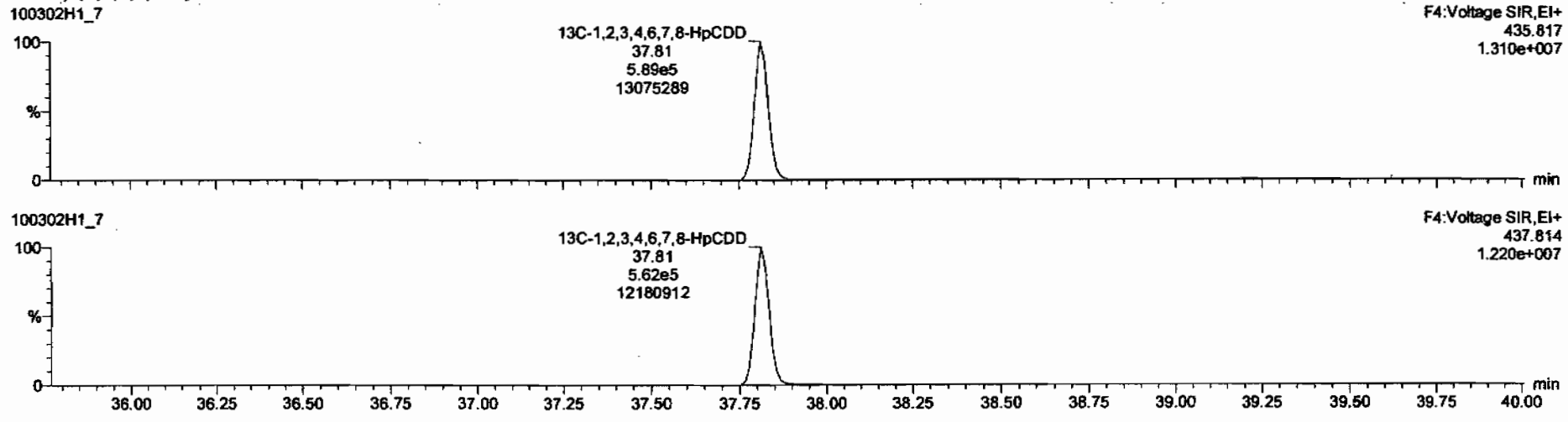

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Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

OCDD

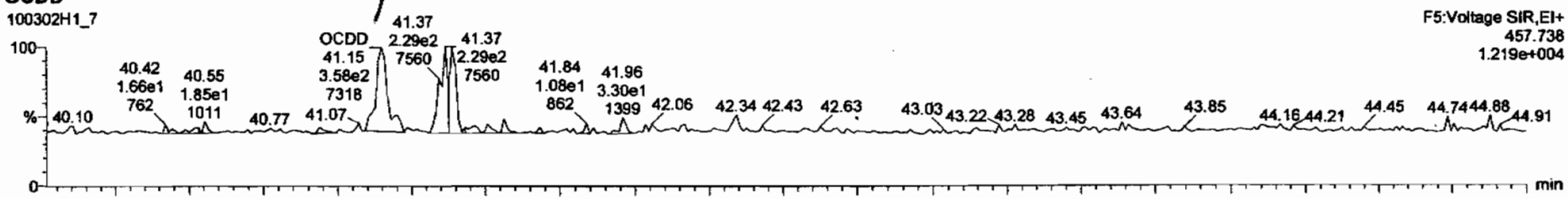

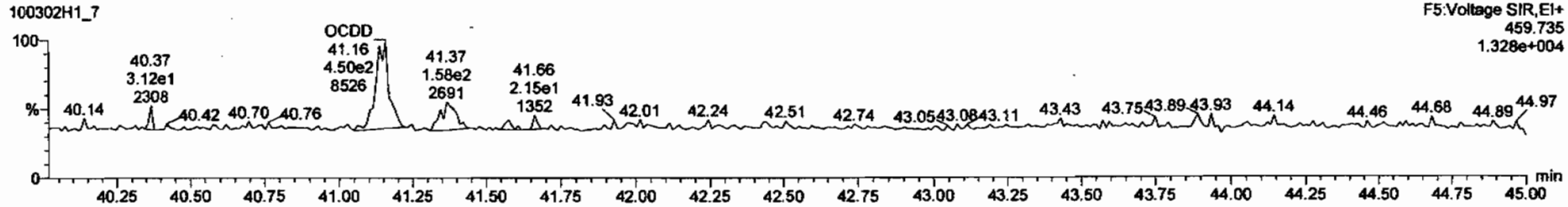

13C-OCDD

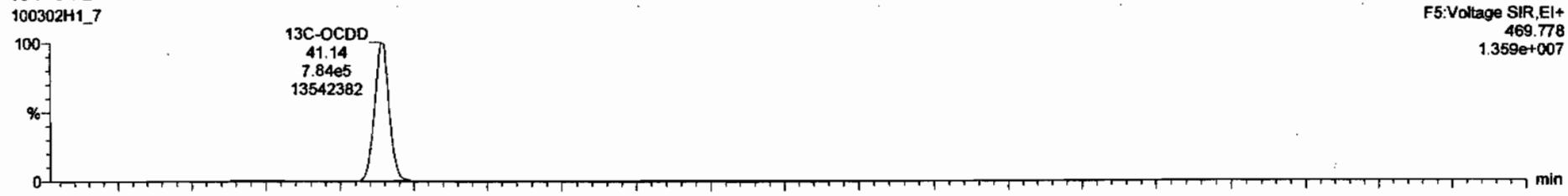

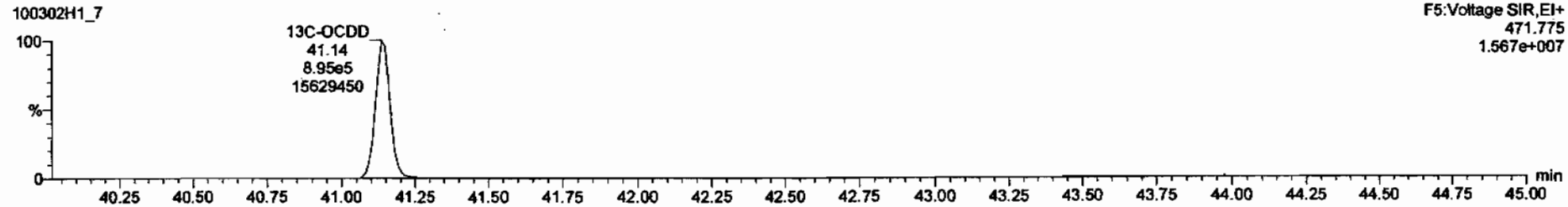

Target1.ynx - 100302h1_7.qld * - [Chromatogram]

File Edit View Display Processing Window Help

100302H1_7 - 0_2836_MB001 - 0_2836_MB001

	2,3,7,8-TCDF	9.10e1	0.47	YES	0.96	1.000	25.31	1.002	0.0605		0.173	0.0447
	1,2,3,7,8-PeCDF	1.78e2	1.85	YES	0.94	1.000	29.42	1.002	0.168		0.230	0.150
	2,3,4,7,8-PeCDF	1.97e2	1.32	NO	0.93	1.000	30.30	1.001	0.190		0.212	0.190
	1,2,3,4,7,8-HxCDF	1.27e2	9.33	YES	1.22	1.000	33.02	1.000	0.128		0.185	0.0277

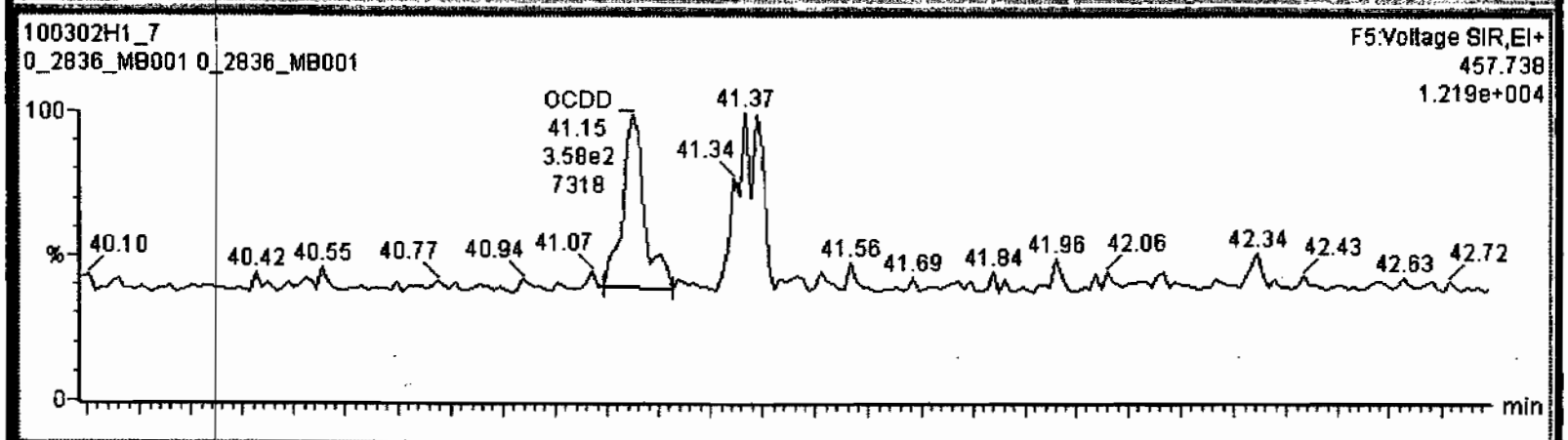

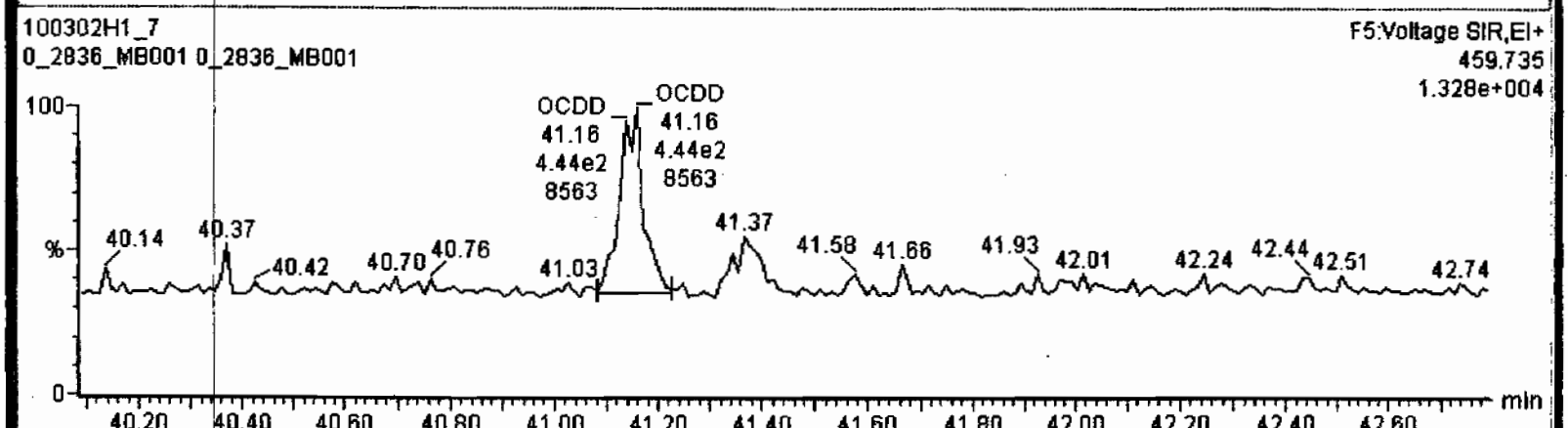

Ready

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

2,3,7,8-TCDF

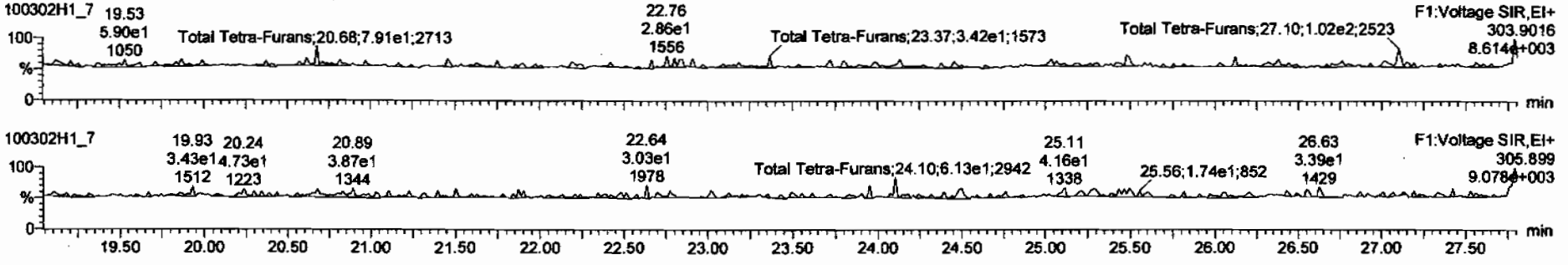

13C-2,3,7,8-TCDF

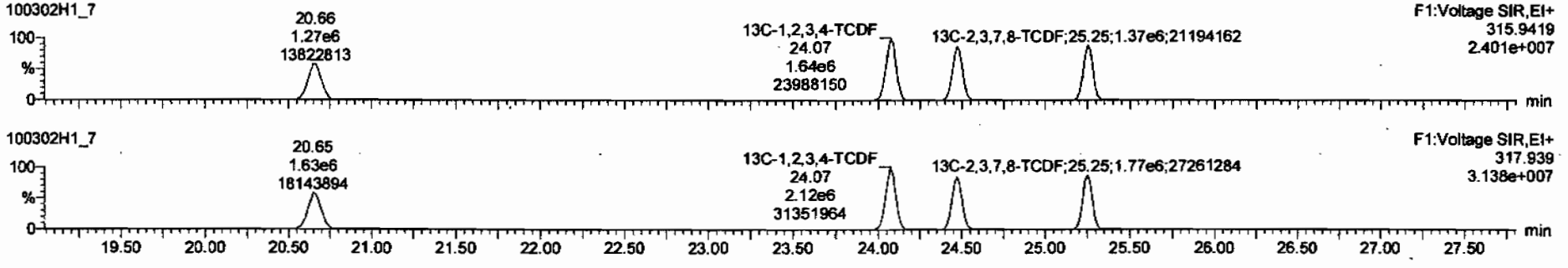

DPE1

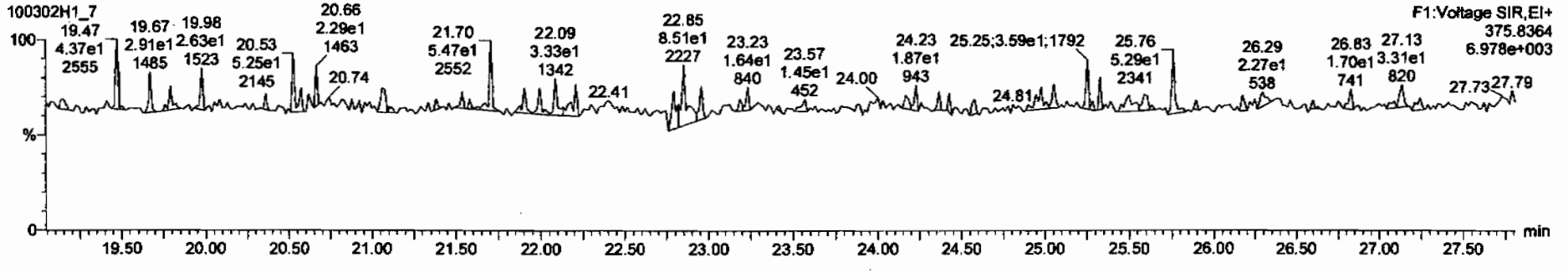

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

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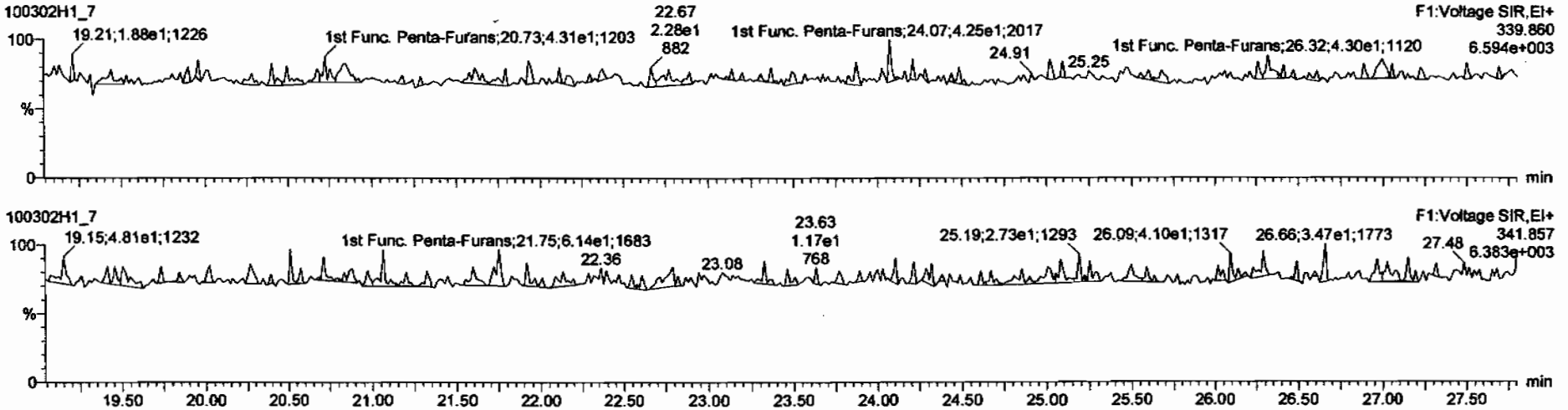

DPE6

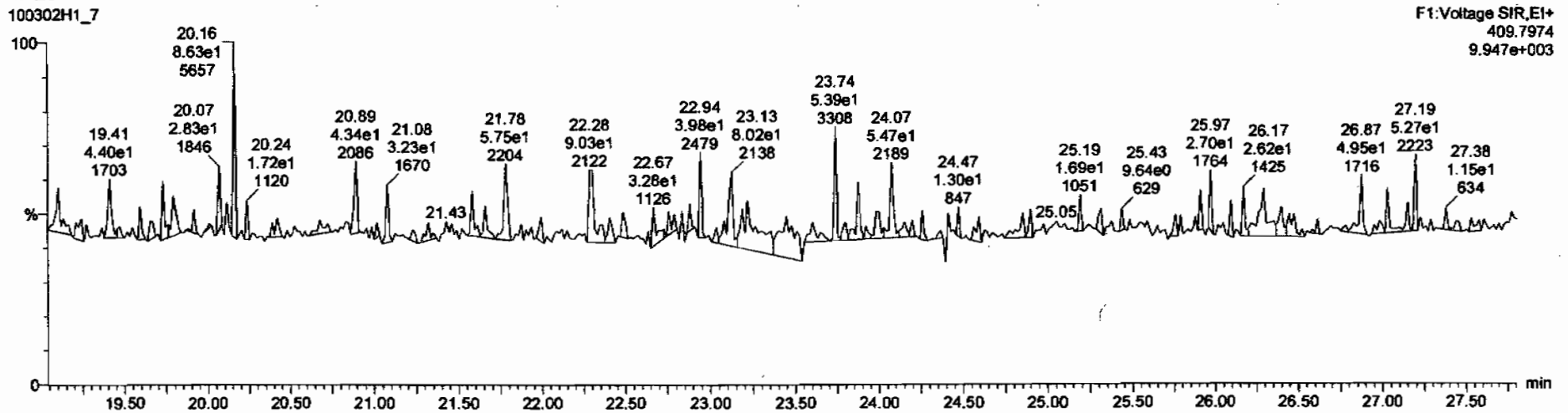

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

1,2,3,7,8-PeCDF

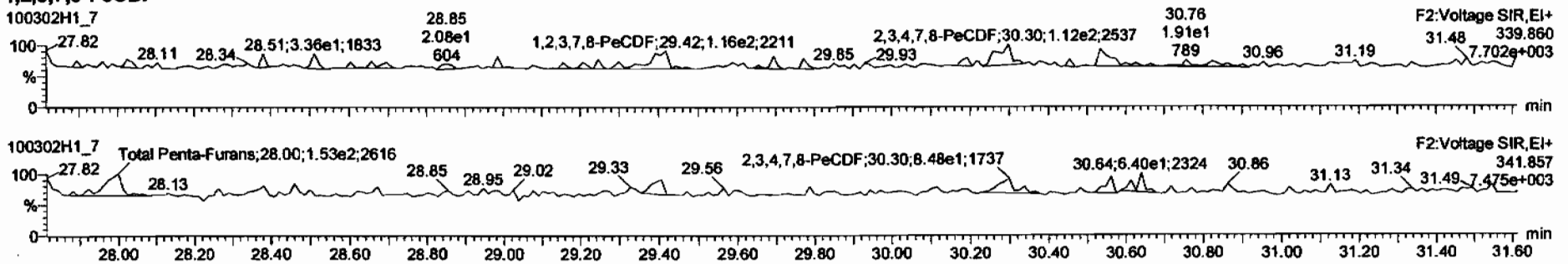

13C-1,2,3,7,8-PeCDF

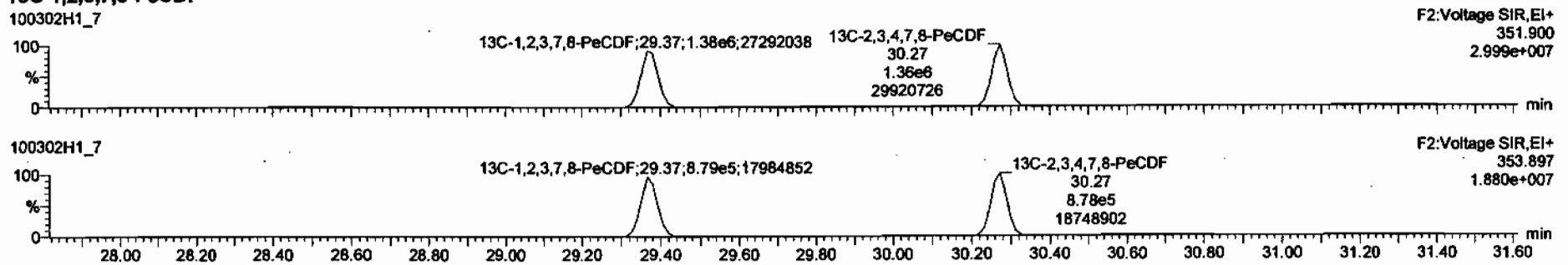

DPE2

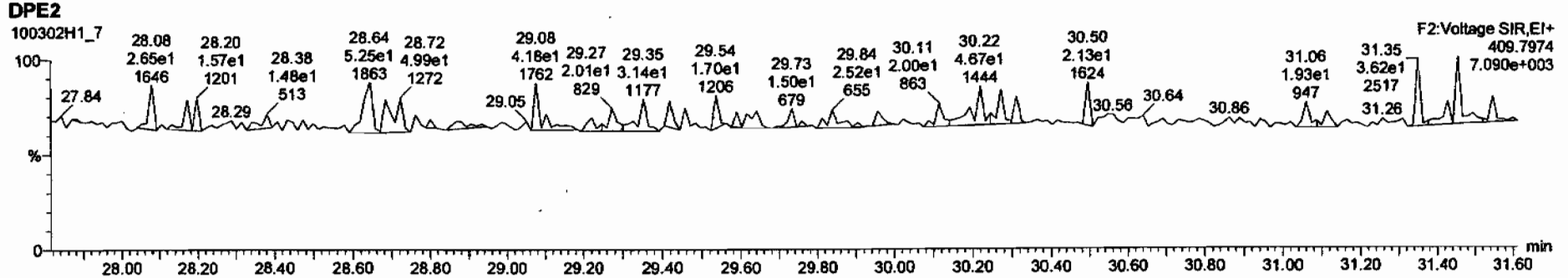

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

1,2,3,4,7,8-HxCDF

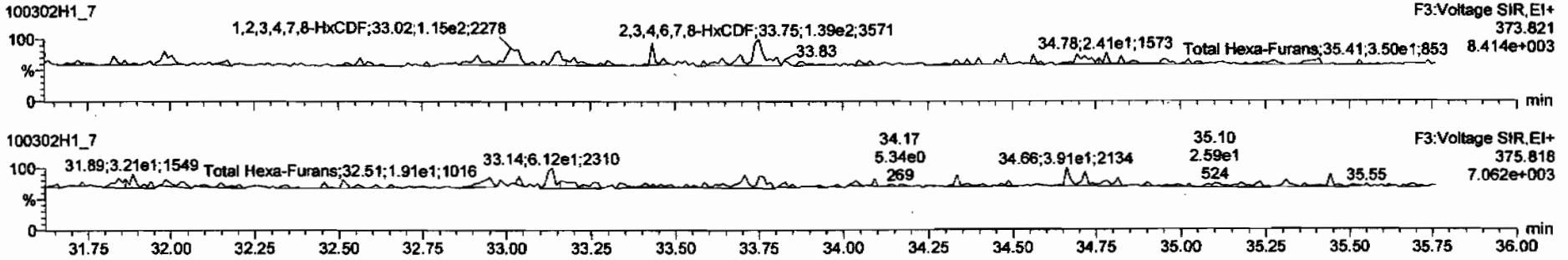

13C-1,2,3,4,7,8-HxCDF

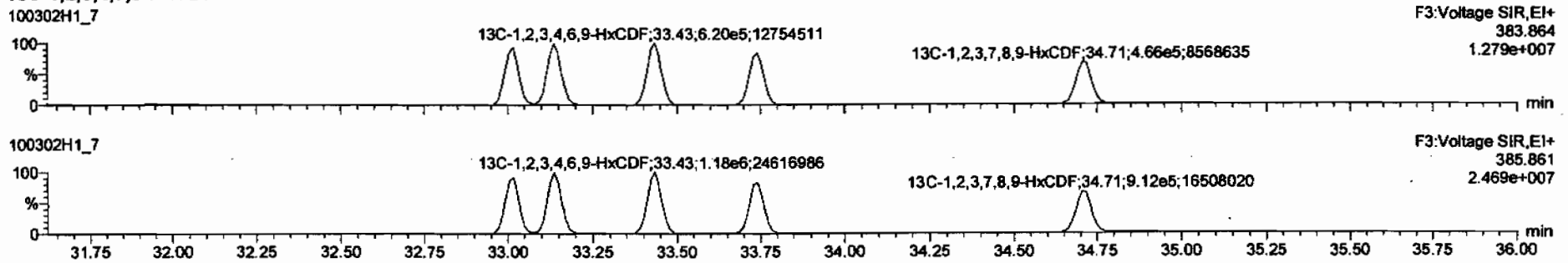

DPE3

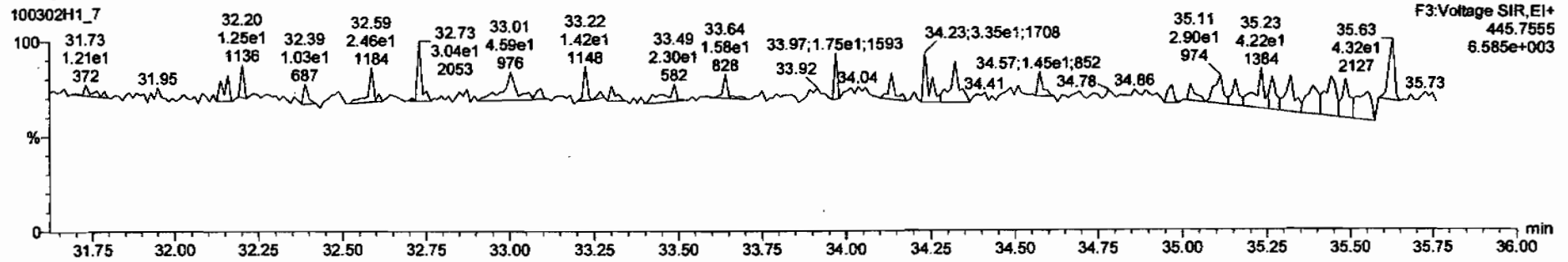

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

1,2,3,4,6,7,8-HpCDF

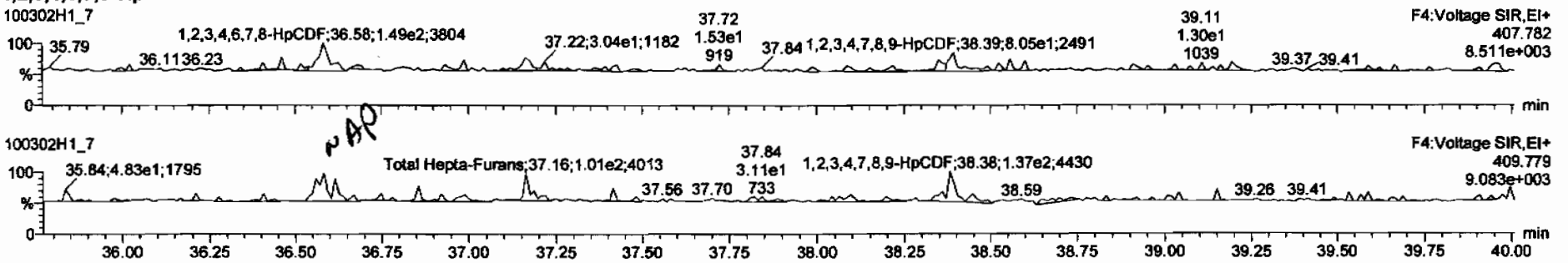

13C-1,2,3,4,6,7,8-HpCDF

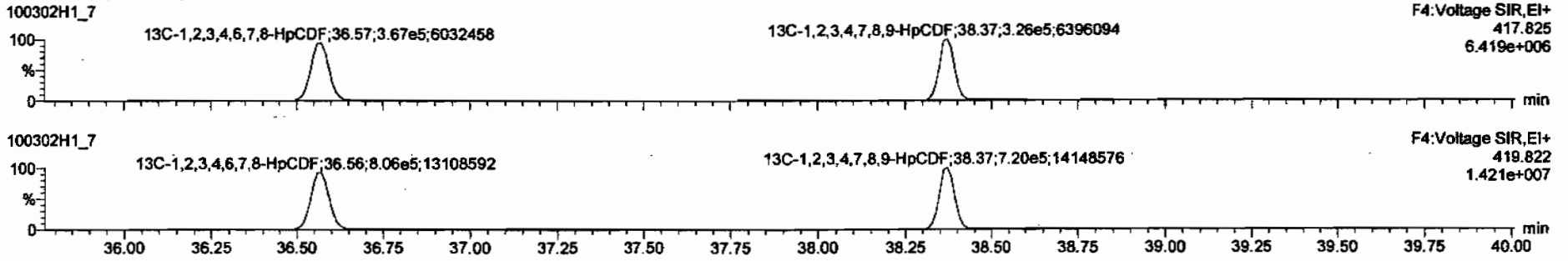

DPE4

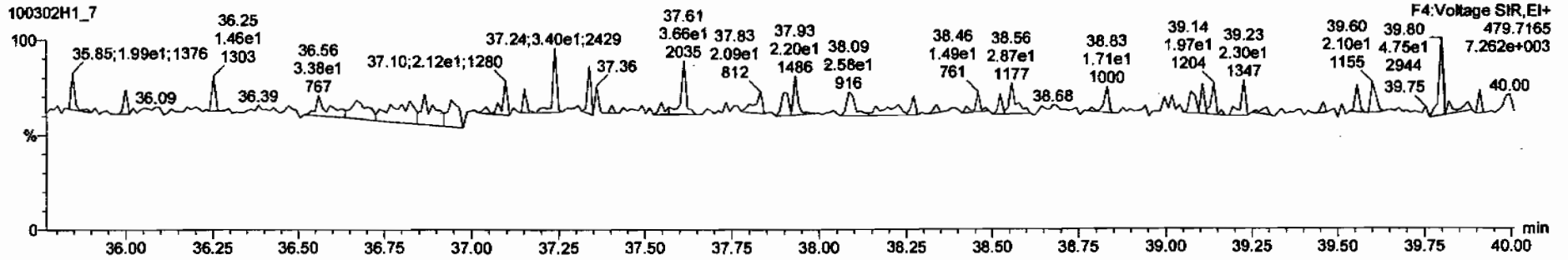

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

OCDF

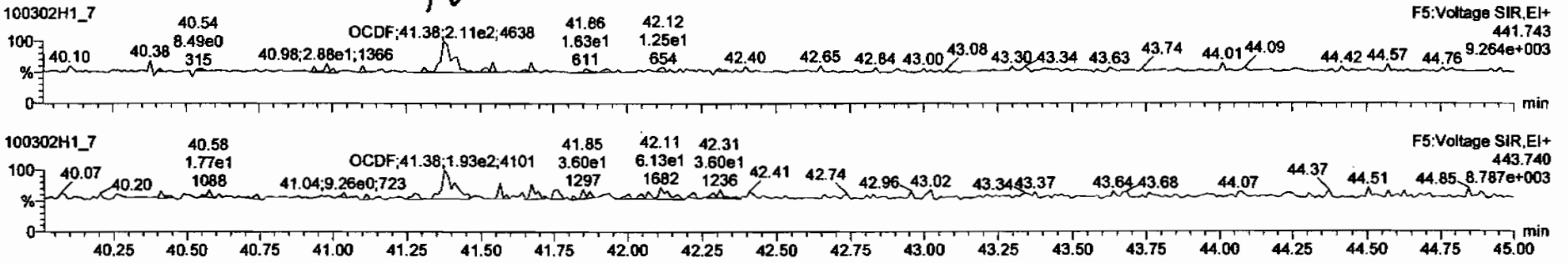

13C-OCDF

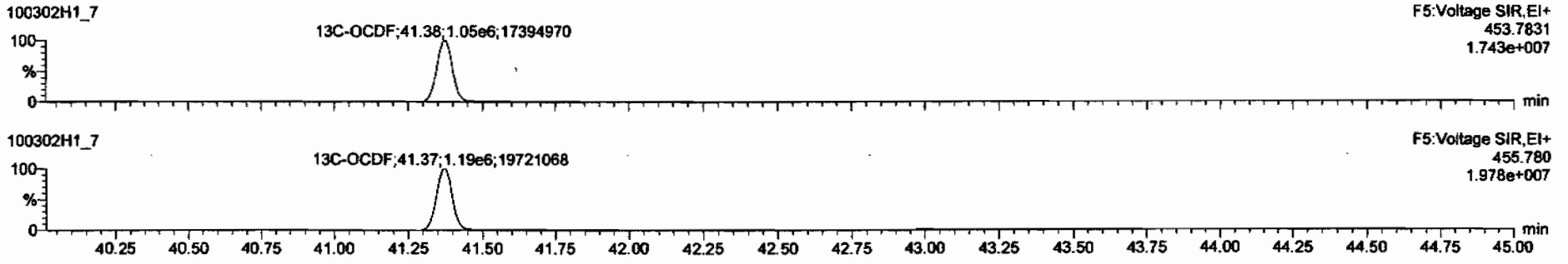

DPE5

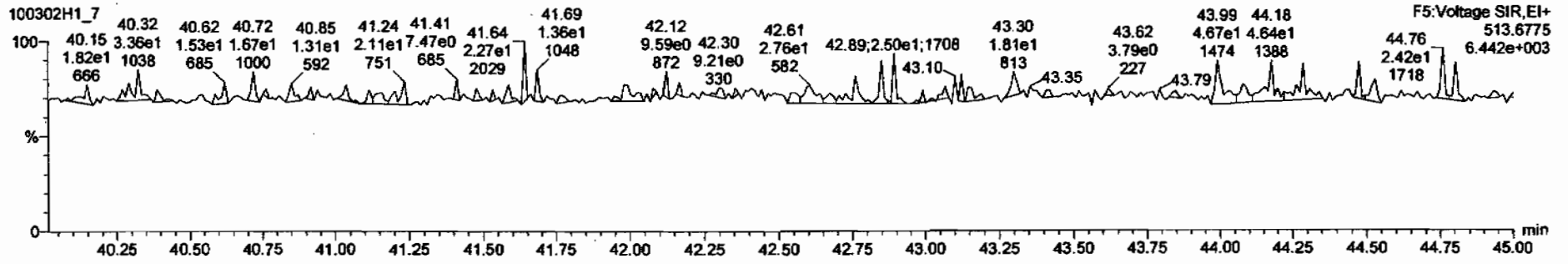

TargetLynx - 100302h1-7.qld * - [Chromatogram]

100302H1_7 - 0_2836_MB001 - 0_2836_MB001

13C-2,3,7,8-TCDD	2.14e6	0.78	NO	1.10	1.000	26.01	1.022	1570	78.5	0.909	
13C-1,2,3,7,8-PeCDD	1.64e6	0.62	NO	1.09	1.000	30.55	1.200	1210	60.6	0.943	
13C-1,2,3,4,7,8-HxCDD	1.39e6	1.26	NO	1.01	1.000	33.90	1.014	1530	76.3	1.49	
13C-1,2,3,6,7,8-HxCDD	1.25e6	1.23	NO	0.89	1.000	34.01	1.017	1560	77.8	1.70	

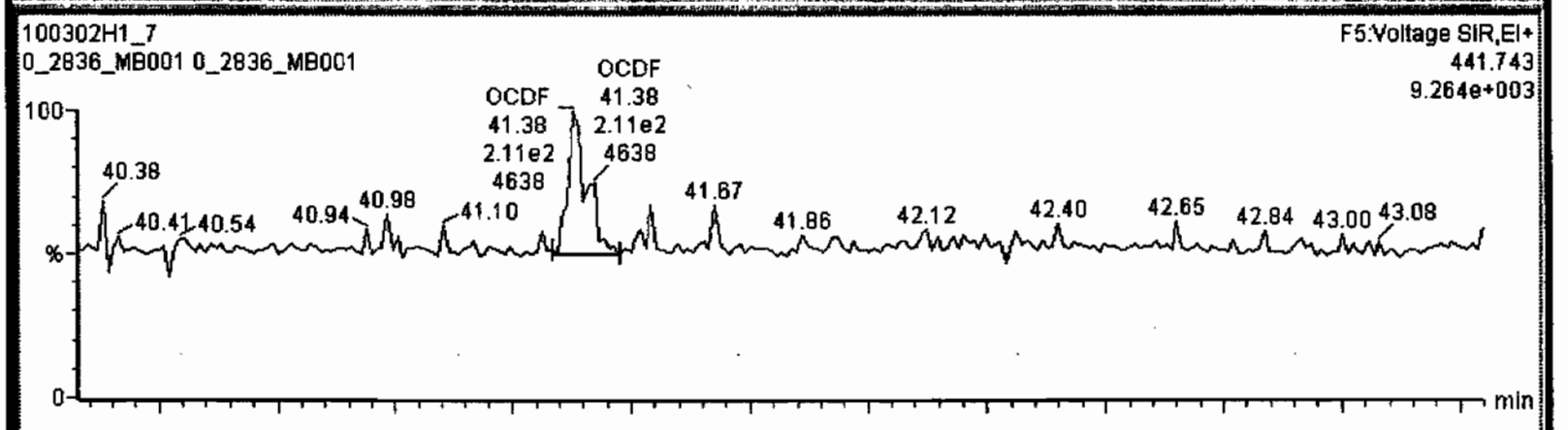

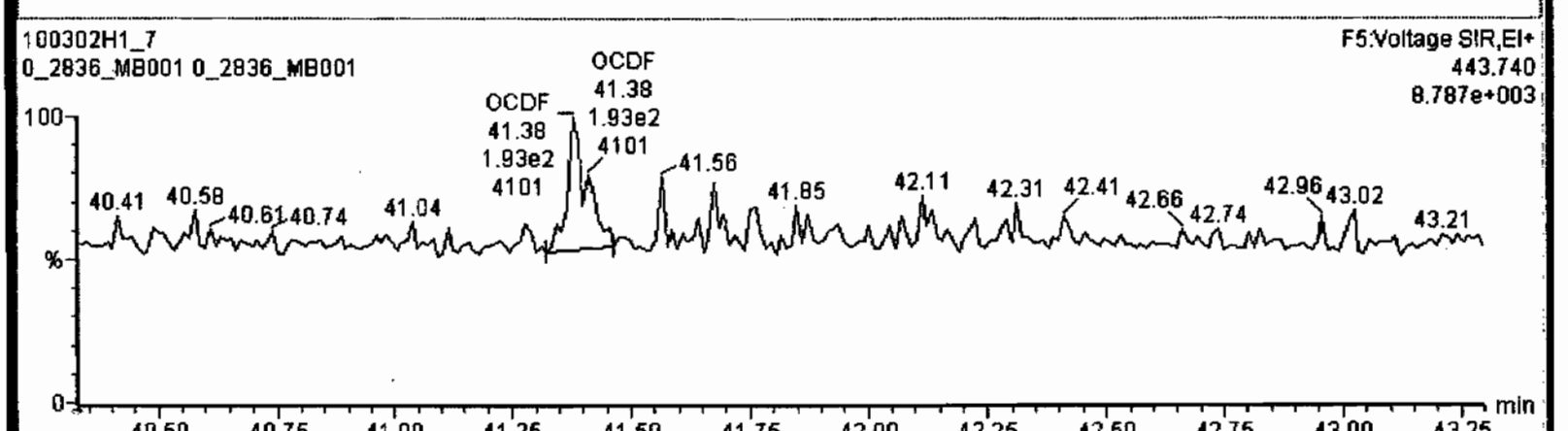

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

PFK1

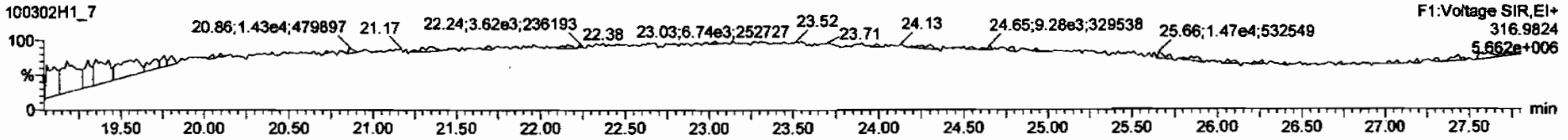

PFK2

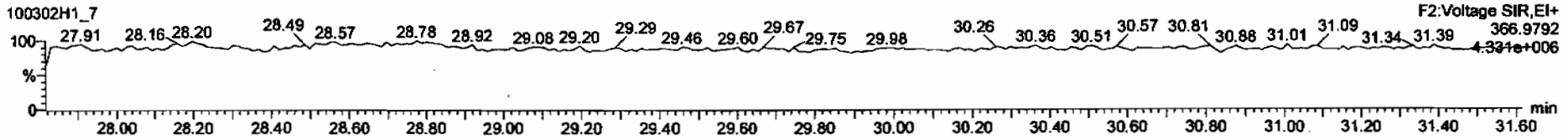

PFK3

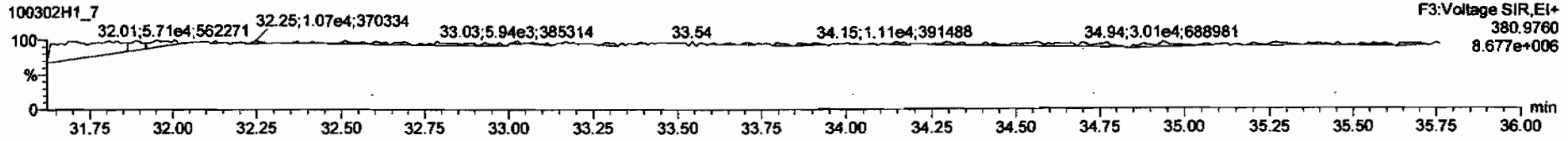

PFK4

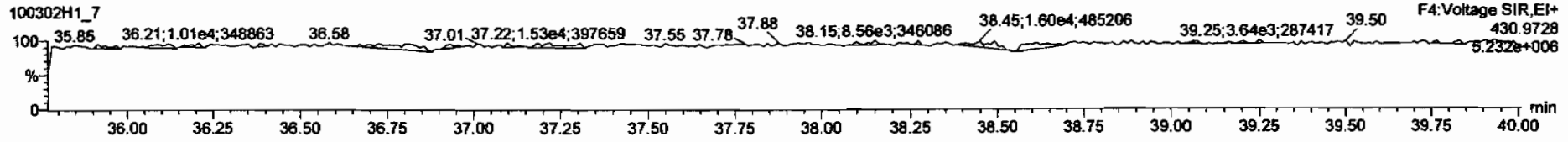

PFK5

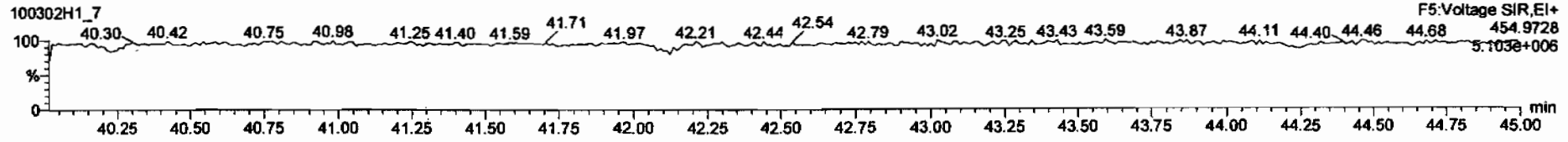

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-5.qld

Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:31:11 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

1	2,3,7,8-TCDD	1.97e5	0.75	NO	1.04	1.000	26.03	1.001	10.108	101	0.0147	10.108
2	1,2,3,7,8-PeCDD	6.67e5	0.61	NO	0.935	1.000	30.56	1.001	49.366	98.7	0.0321	49.366
3	1,2,3,4,7,8-HxCDD	5.60e5	1.26	NO	0.907	1.000	33.92	1.001	50.203	100	0.0512	50.203
4	1,2,3,6,7,8-HxCDD	5.36e5	1.23	NO	0.995	1.000	34.02	1.000	49.126	98.3	0.0522	49.126
5	1,2,3,7,8,9-HxCDD	5.94e5	1.24	NO	0.930	1.000	34.32	1.009	50.082	100	0.0511	50.082
6	1,2,3,4,6,7,8-HpCDD	4.95e5	1.05	NO	1.00	1.000	37.82	1.001	49.504	99.0	0.0777	49.504
7	OCDD	8.15e5	0.88	NO	1.10	1.000	41.15	1.001	97.511	97.5	0.0720	97.511
8	2,3,7,8-TCDF	2.75e5	0.77	NO	0.956	1.000	25.25	1.001	10.379	104	0.0115	10.379
9	1,2,3,7,8-PeCDF	9.59e5	1.59	NO	0.941	1.000	29.38	1.000	51.568	103	0.0358	51.568
10	2,3,4,7,8-PeCDF	9.37e5	1.58	NO	0.926	1.000	30.27	1.000	51.211	102	0.0335	51.211
11	1,2,3,4,7,8-HxCDF	9.40e5	1.26	NO	1.22	1.000	33.02	1.001	51.759	104	0.0597	51.759
12	1,2,3,6,7,8-HxCDF	8.73e5	1.26	NO	1.08	1.000	33.14	1.000	50.921	102	0.0608	50.921
13	2,3,4,6,7,8-HxCDF	8.00e5	1.26	NO	1.13	1.000	33.74	1.000	51.615	103	0.0692	51.615
14	1,2,3,7,8,9-HxCDF	7.36e5	1.28	NO	1.13	1.000	34.72	1.001	51.959	104	0.0859	51.959
15	1,2,3,4,6,7,8-HpCDF	7.22e5	1.07	NO	1.44	1.000	36.57	1.000	50.576	101	0.102	50.576
16	1,2,3,4,7,8,9-HpCDF	6.69e5	1.06	NO	1.38	1.000	38.37	1.000	51.164	102	0.0885	51.164
17	OCDF	1.02e6	0.91	NO	1.01	1.000	41.38	1.000	99.296	99.3	0.0381	99.296
18	13C-2,3,7,8-TCDD	1.88e6	0.78	NO	1.10	1.000	26.02	1.022	72.018	72.0	0.0516	
19	13C-1,2,3,7,8-PeCDD	1.44e6	0.63	NO	1.09	1.000	30.54	1.200	55.613	55.6	0.0346	
20	13C-1,2,3,4,7,8-HxCDD	1.23e6	1.27	NO	1.01	1.000	33.89	1.014	71.441	71.4	0.0803	
21	13C-1,2,3,6,7,8-HxCDD	1.10e6	1.25	NO	0.889	1.000	34.00	1.017	72.328	72.3	0.0912	
22	13C-1,2,3,7,8,9-HxCDD	1.28e6	1.25	NO	1.07	1.000	34.31	1.027	69.806	69.8	0.0756	
23	13C-1,2,3,4,6,7,8-HpCDD	9.98e5	1.05	NO	0.837	1.000	37.80	1.131	70.027	70.0	0.140	
24	13C-OCDD	1.51e6	0.91	NO	0.712	1.000	41.13	1.230	124.96	62.5	0.0644	
25	13C-2,3,7,8-TCDF	2.77e6	0.79	NO	1.05	1.000	25.24	0.992	73.328	73.3	0.0493	
26	13C-1,2,3,7,8-PeCDF	1.98e6	1.56	NO	1.02	1.000	29.37	1.154	54.004	54.0	0.0621	
27	13C-2,3,4,7,8-PeCDF	1.98e6	1.55	NO	1.08	1.000	30.26	1.189	51.127	51.1	0.0588	
28	13C-1,2,3,4,7,8-HxCDF	1.48e6	0.52	NO	1.37	1.000	32.99	0.987	63.828	63.8	0.0820	
29	13C-1,2,3,6,7,8-HxCDF	1.59e6	0.52	NO	1.37	1.000	33.13	0.991	68.359	68.4	0.0820	
30	13C-2,3,4,6,7,8-HxCDF	1.38e6	0.52	NO	1.18	1.000	33.73	1.009	68.435	68.4	0.0948	

3/2/10

3/5/10

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-5.qld

Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:31:11 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

31	13C-1,2,3,7,8,9-HxCDF	1.26e6	0.53	NO	1.05	1.000	34.70	1.038	70.211	70.2	0.107
32	13C-1,2,3,4,6,7,8-HpCDF	9.92e5	0.45	NO	0.858	1.000	36.56	1.094	67.939	67.9	0.127
33	13C-1,2,3,4,7,8,9-HpCDF	9.48e5	0.45	NO	0.794	1.000	38.36	1.148	70.159	70.2	0.137
34	13C-OCDF	2.03e6	0.88	NO	0.948	1.000	41.37	1.238	125.75	62.9	0.0565
35	37Cl-2,3,7,8-TCDD	5.34e5			0.665	1.000	26.03	1.023	33.854	84.6	0.0198
36	13C-1,2,3,4-TCDD	2.37e6	0.81	NO	1.00	1.000	25.45	0.000	100.00	100	0.0567
37	13C-1,2,3,4-TCDF	3.59e6	0.78	NO	1.00	1.000	24.06	0.000	100.00	100	0.0519
38	13C-1,2,3,4,6,9-HxCDF	1.70e6	0.52	NO	1.00	1.000	33.42	0.000	100.00	100	0.112

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-5.qld

Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

2,3,7,8-TCDD

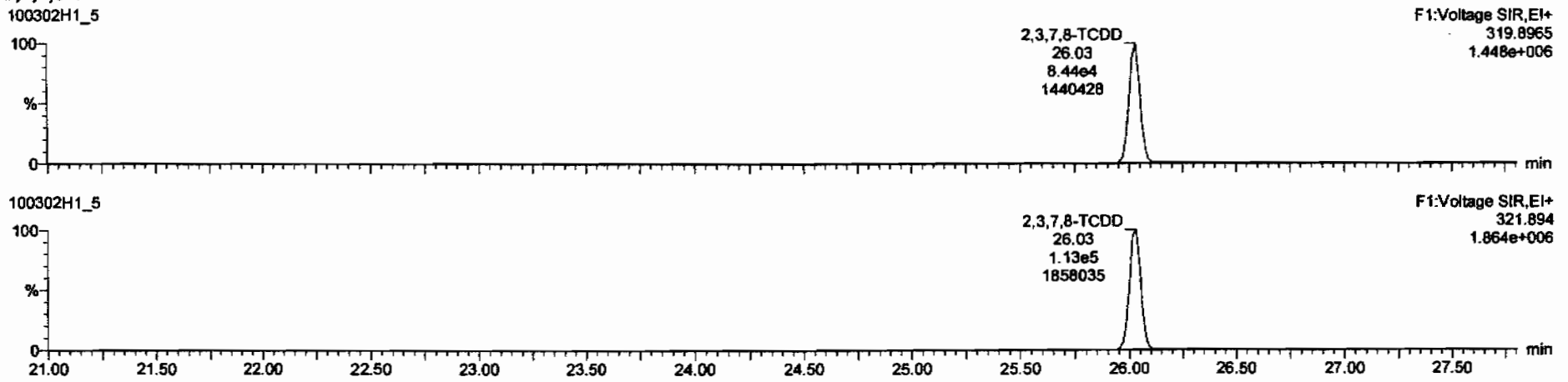

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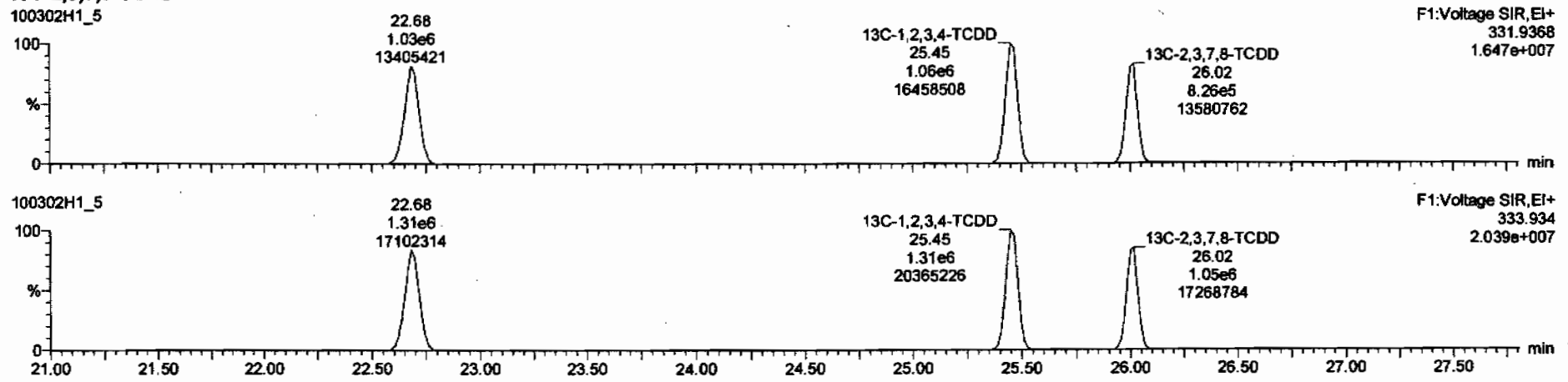

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-5.qld

Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

37Cl-2,3,7,8-TCDD

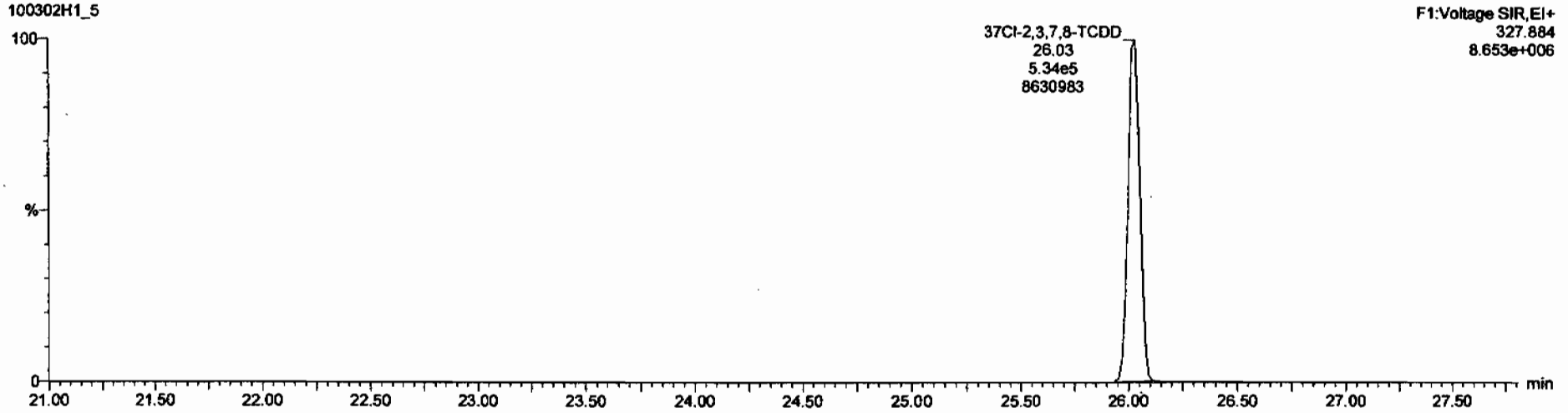

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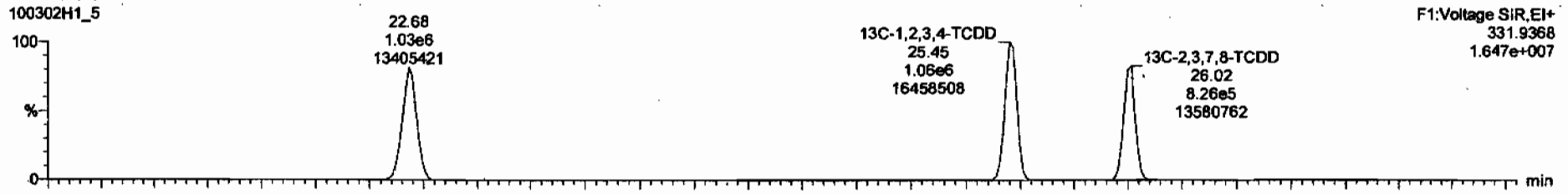

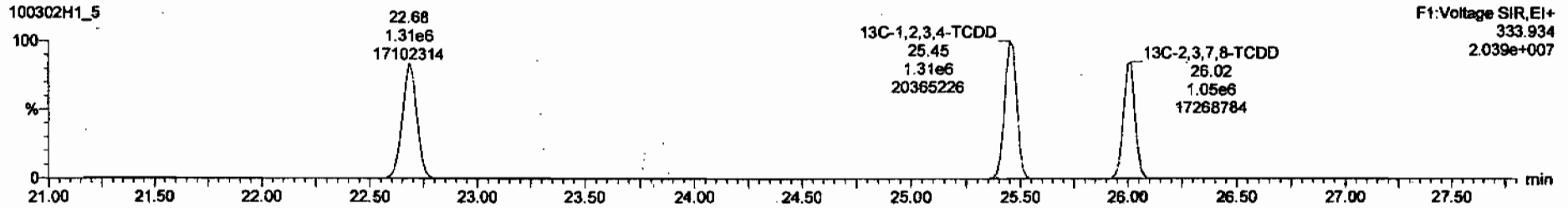

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Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

1,2,3,7,8-PeCDD

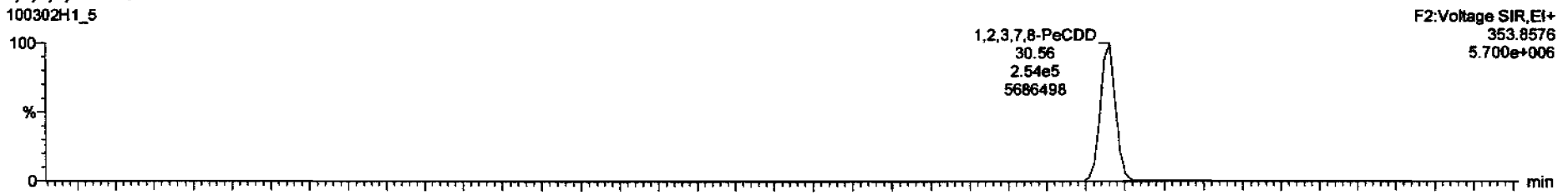

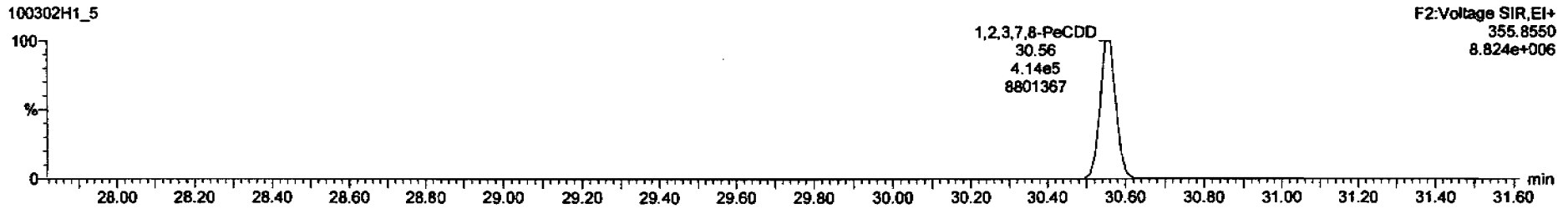

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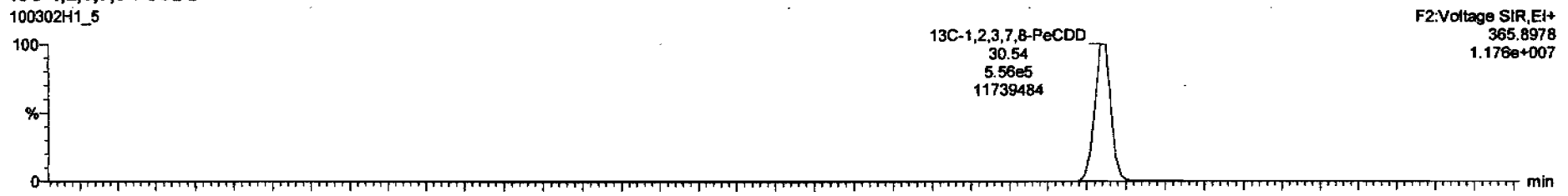

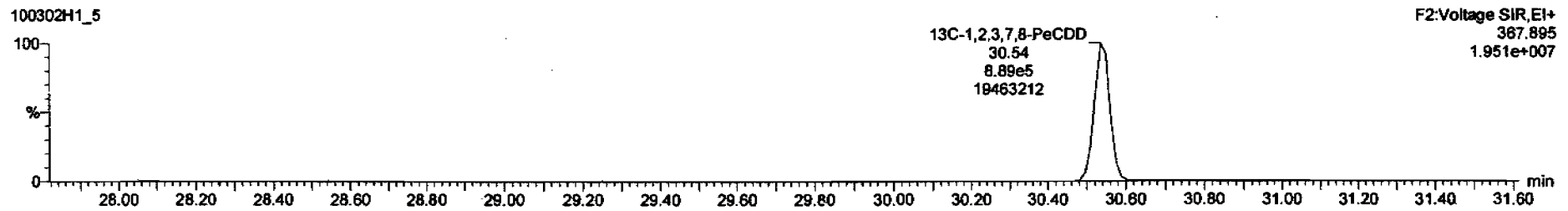

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Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

1,2,3,4,7,8-HxCDD

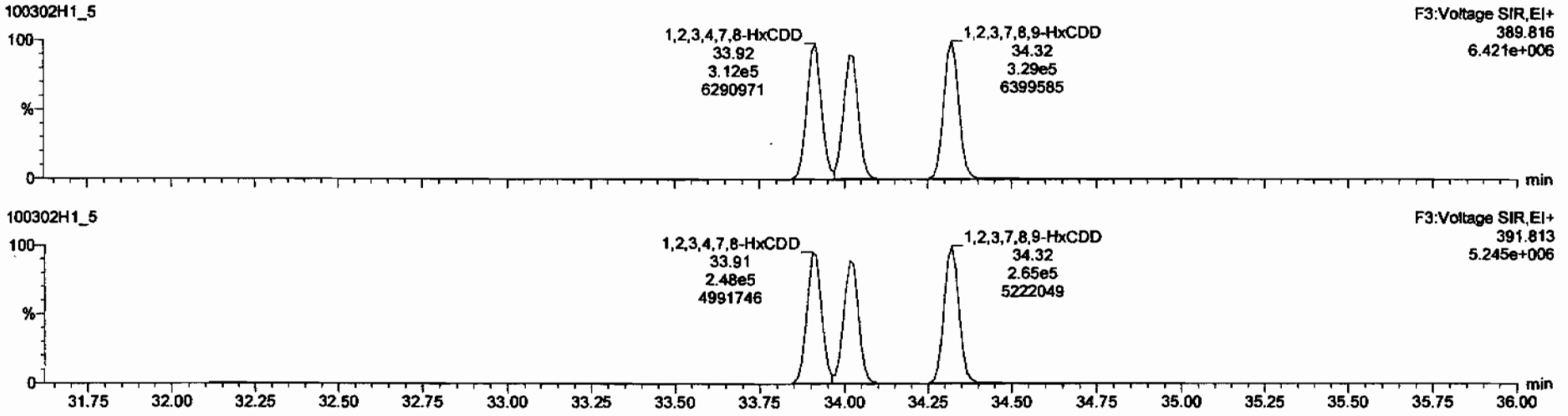

13C-1,2,3,4,7,8-HxCDD

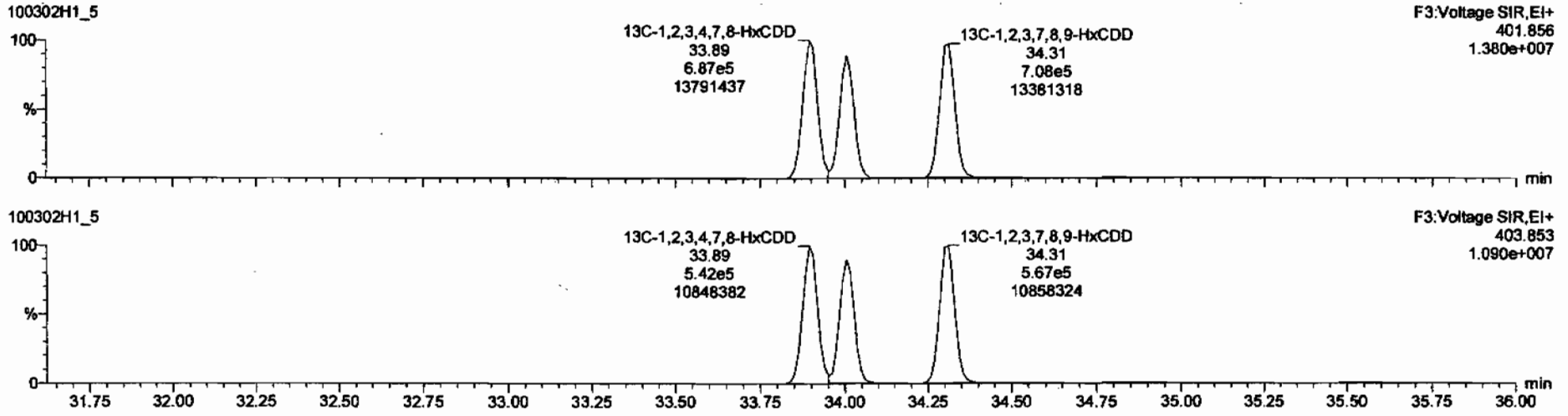

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-5.qld

Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

1,2,3,4,6,7,8-HpCDD

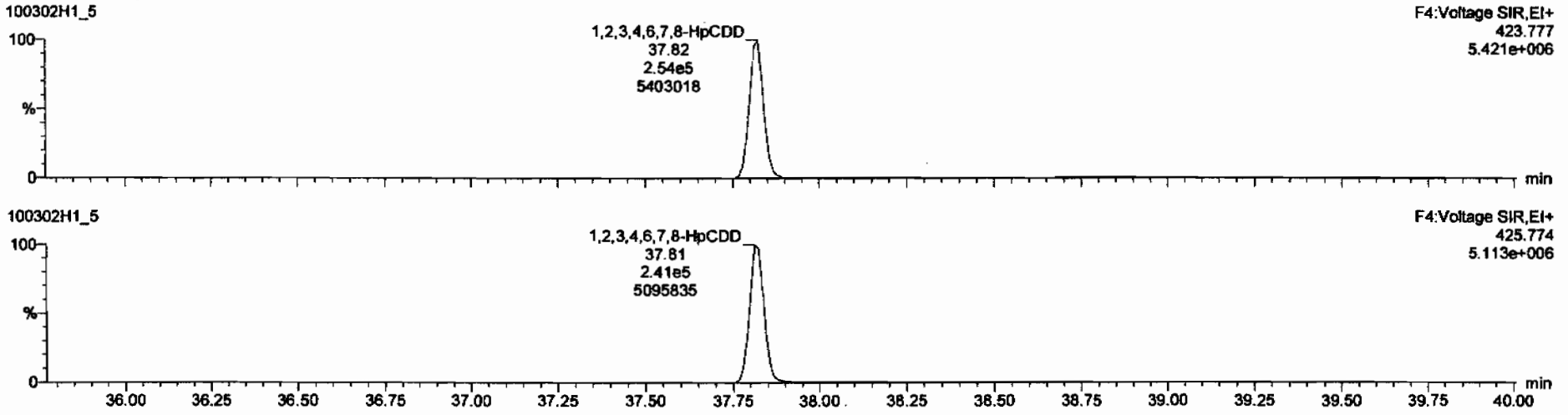

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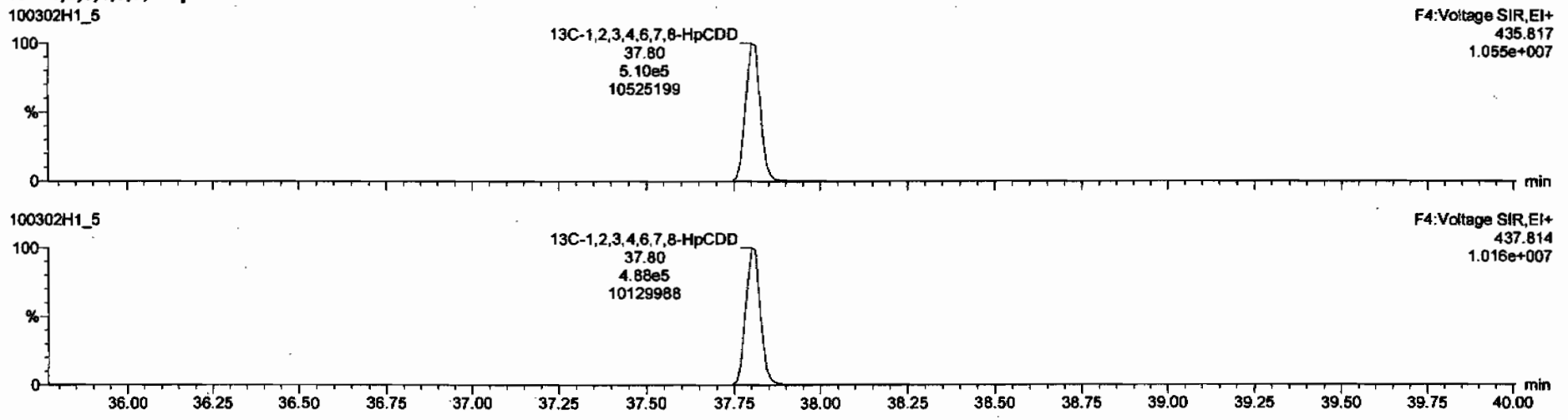

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-5.qld

Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

OCDD

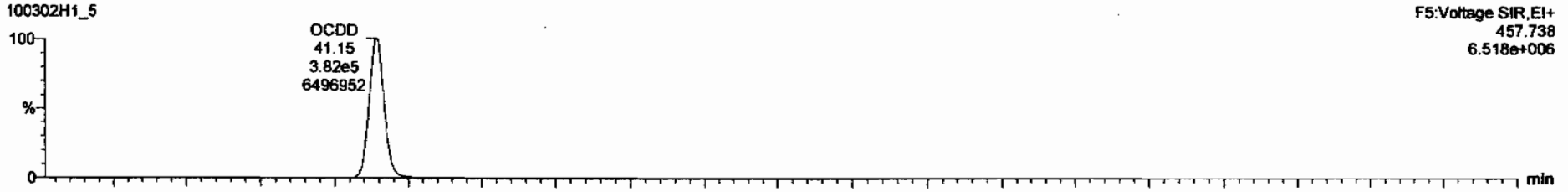

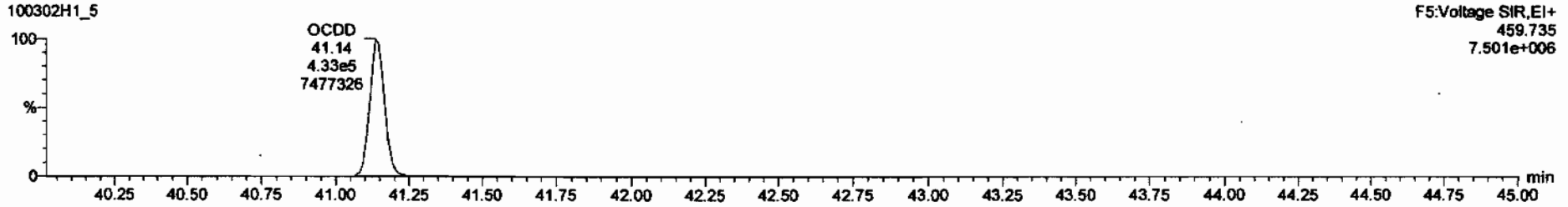

13C-OCDD

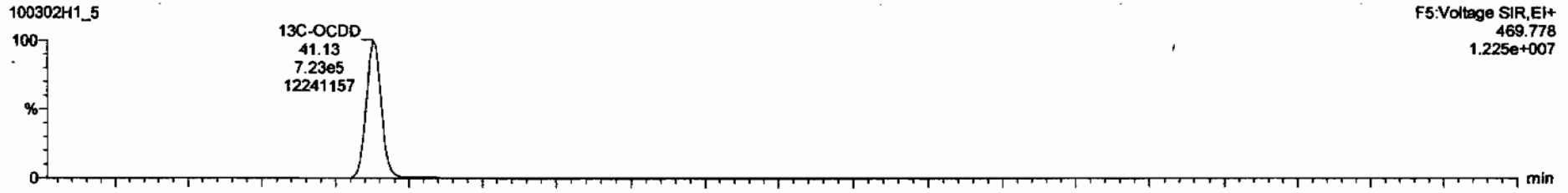

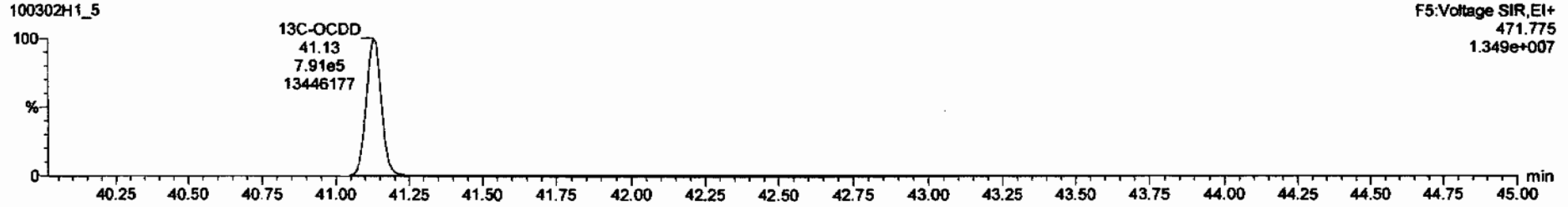

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-5.qld

Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

2,3,7,8-TCDF

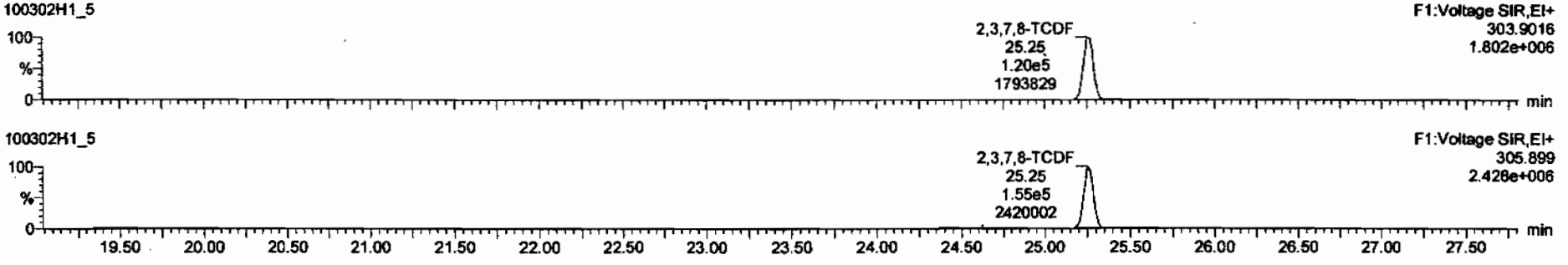

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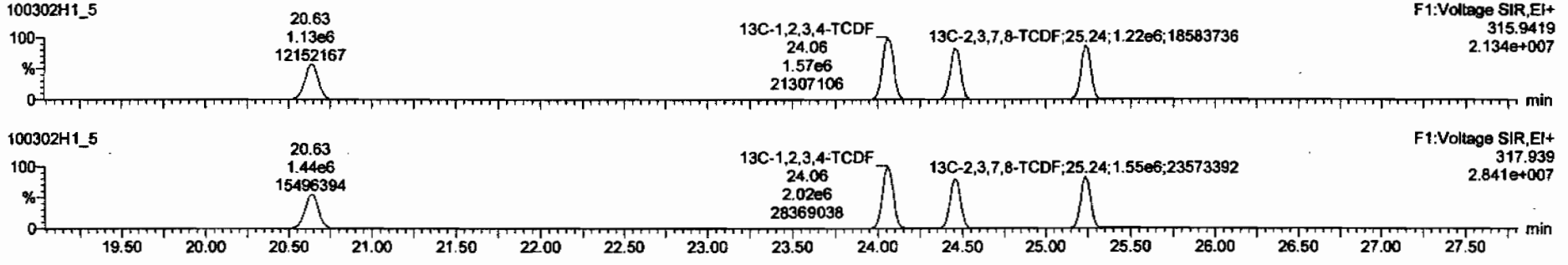

DPE1

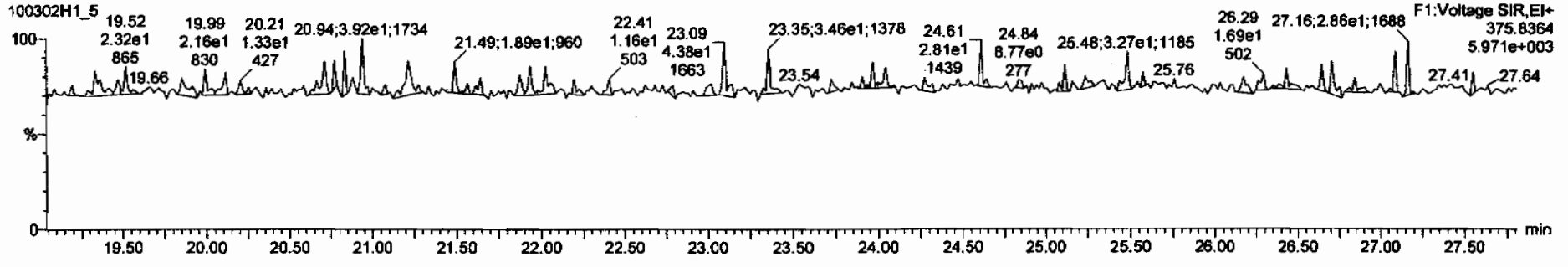

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Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

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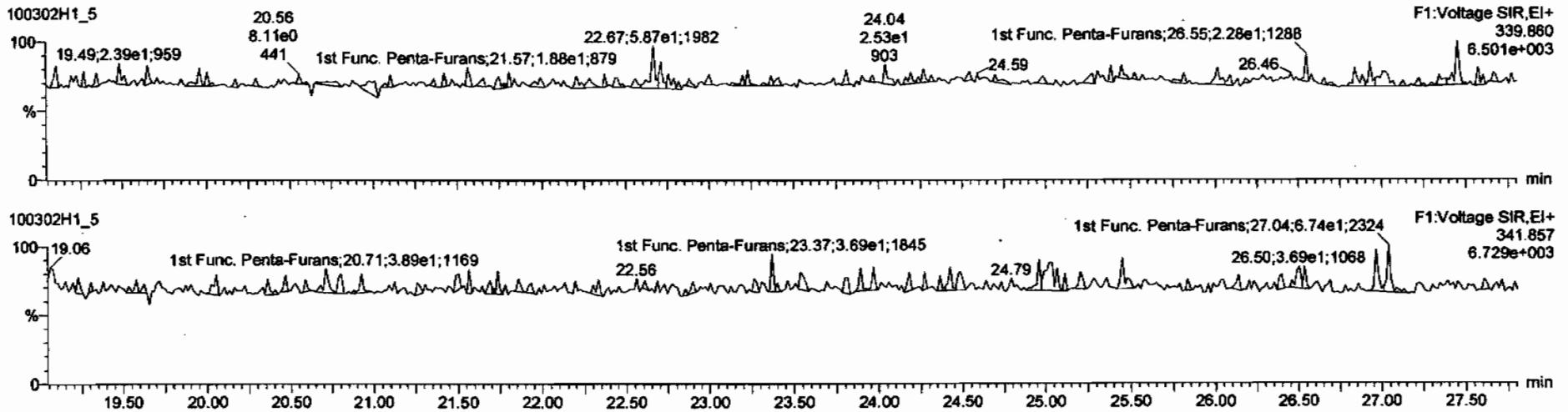

DPE6

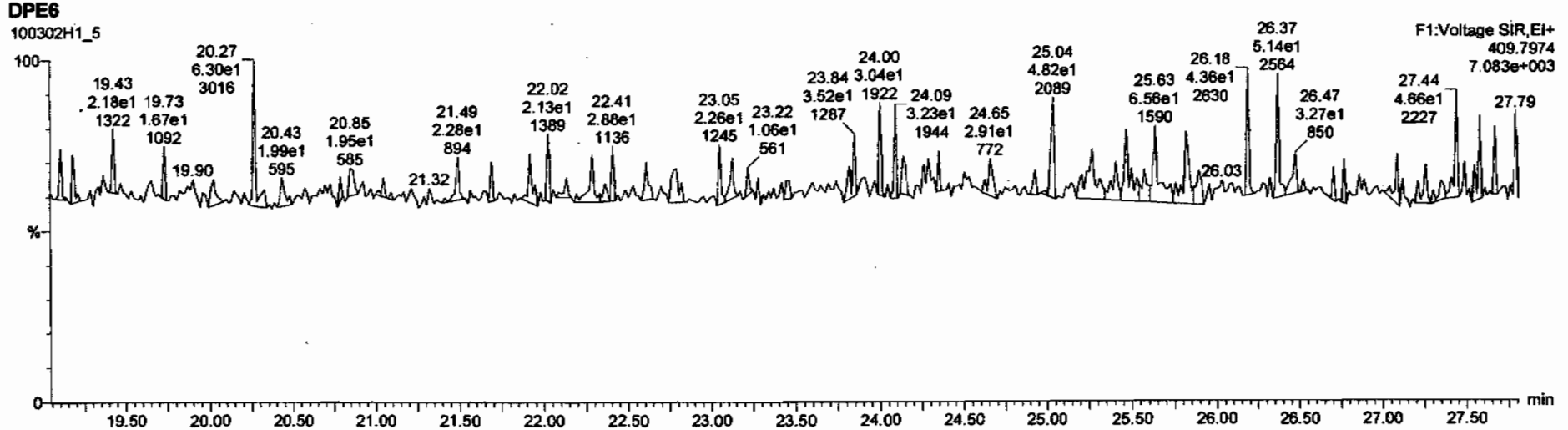

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Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

1,2,3,7,8-PeCDF

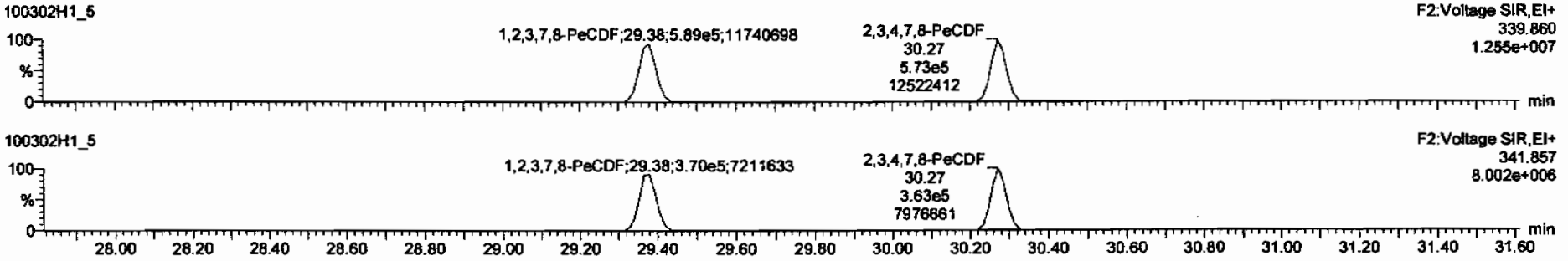

13C-1,2,3,7,8-PeCDF

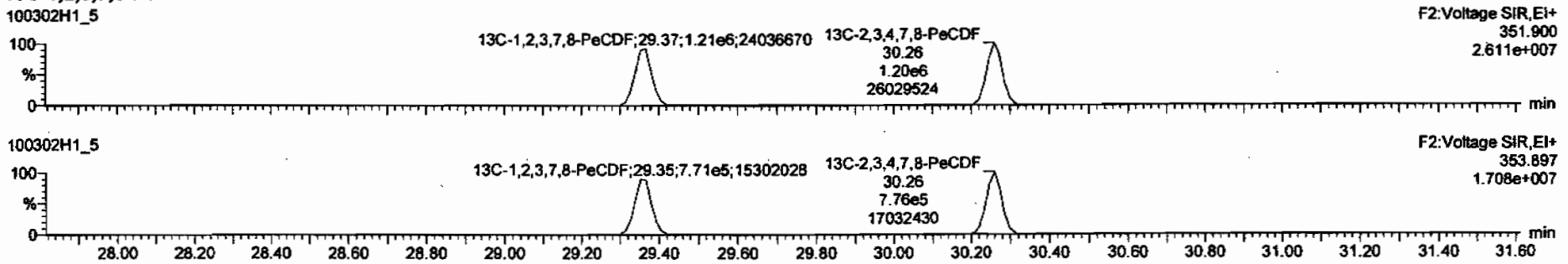

DPE2

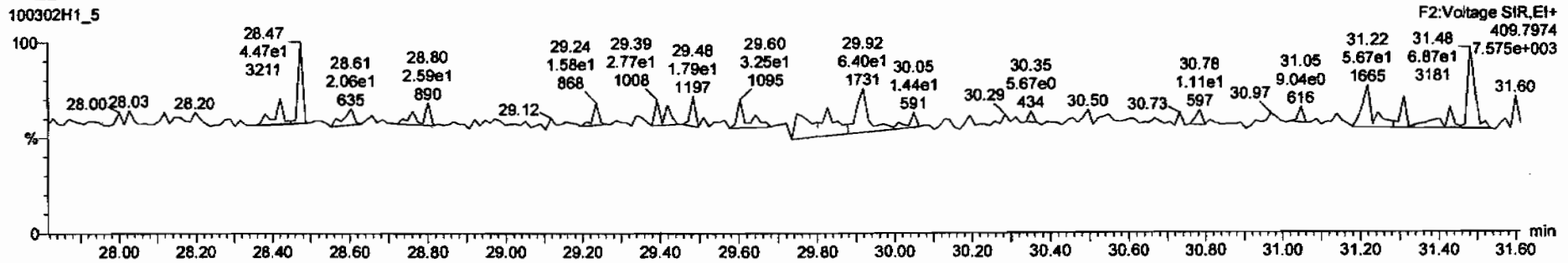

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-5.qld

Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

1,2,3,4,7,8-HxCDF

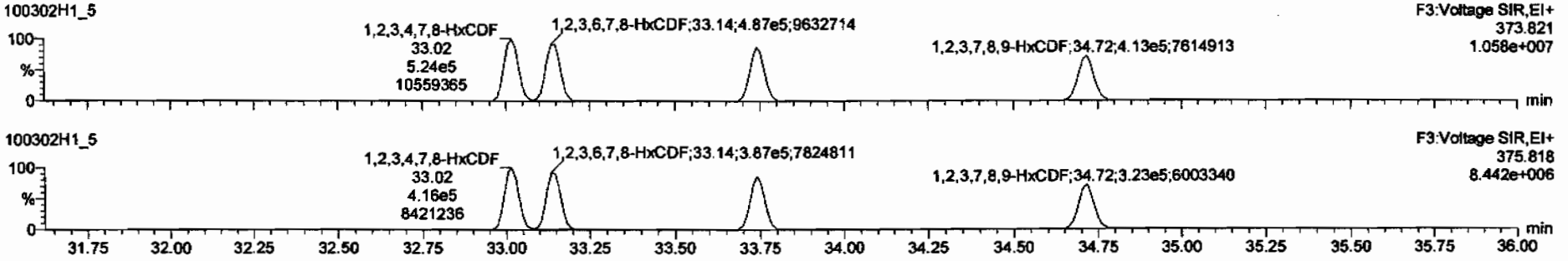

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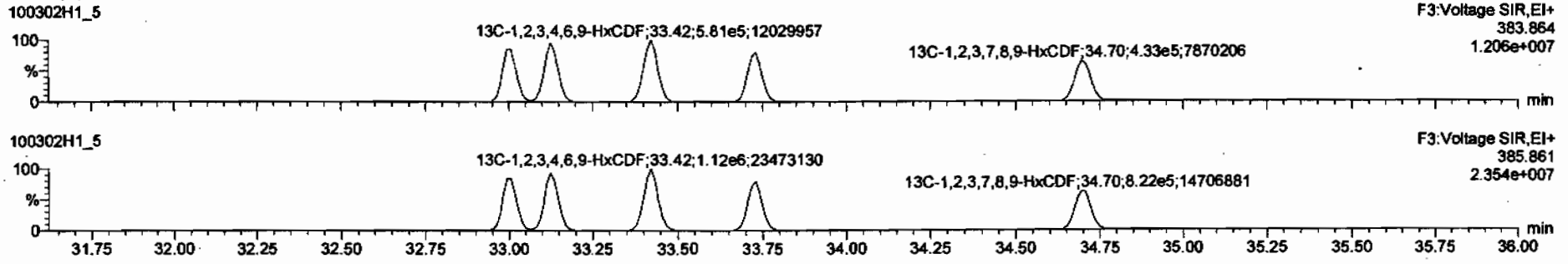

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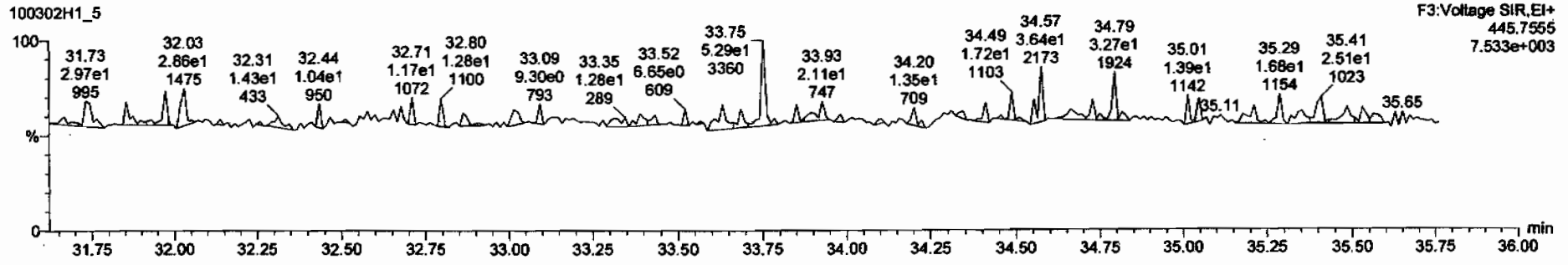

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-5.qld

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Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

1,2,3,4,6,7,8-HpCDF

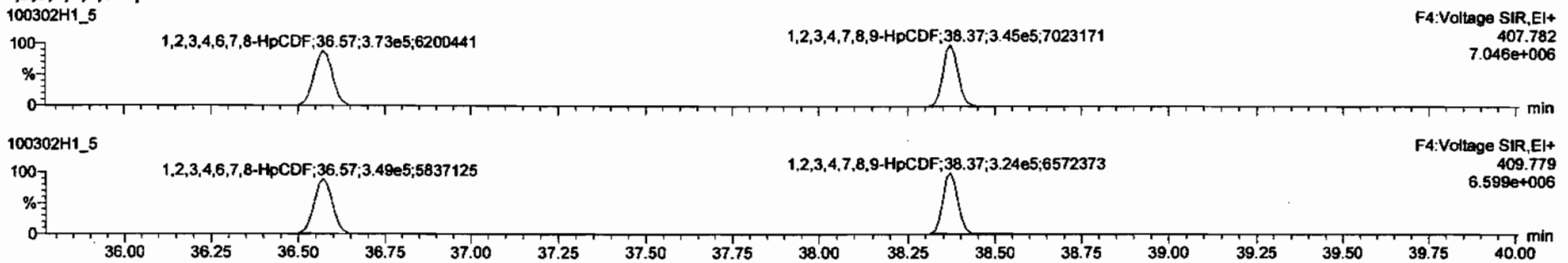

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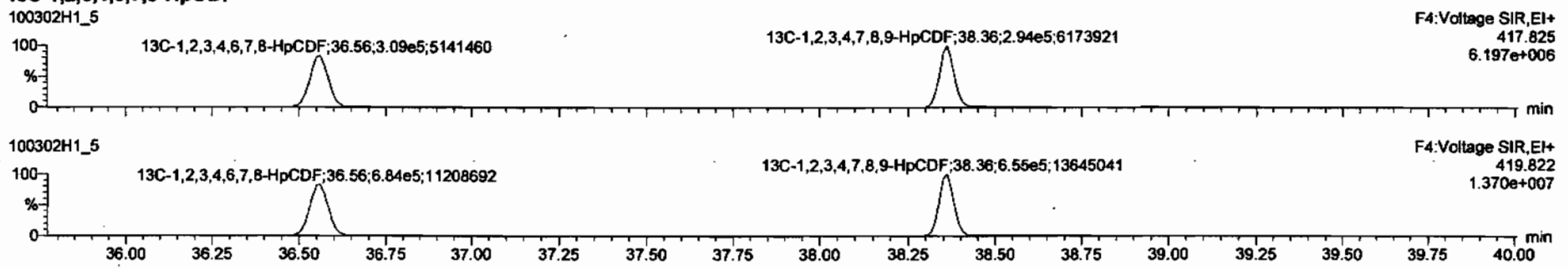

DPE4

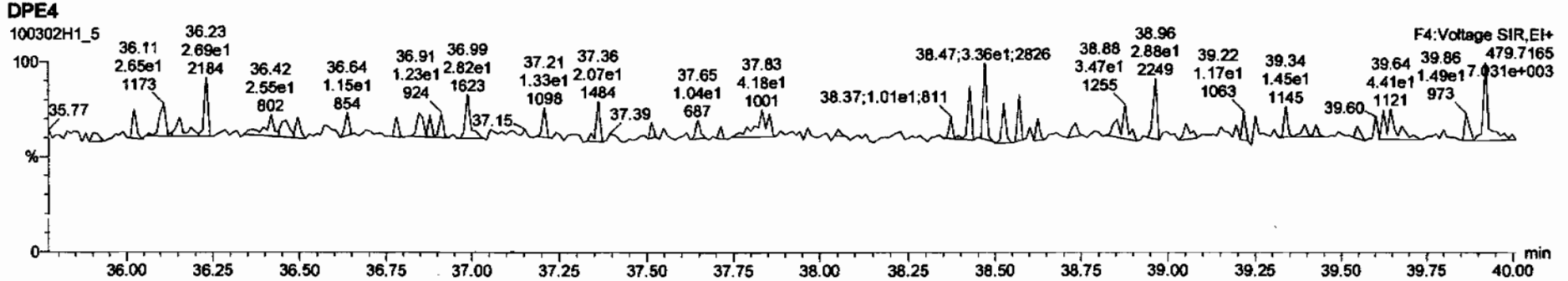

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Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

OCDF

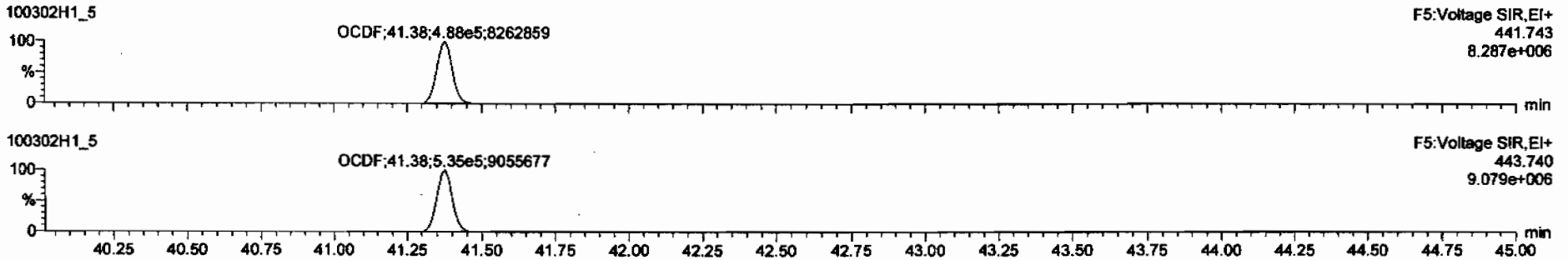

13C-OCDF

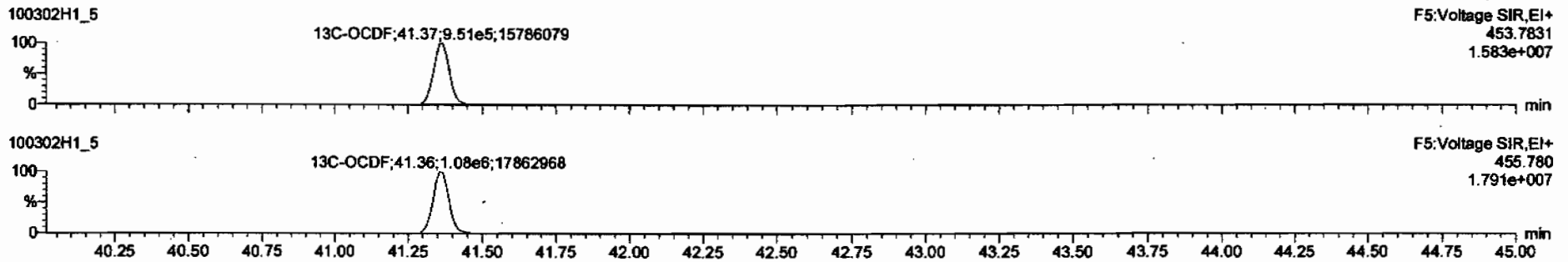

DPE5

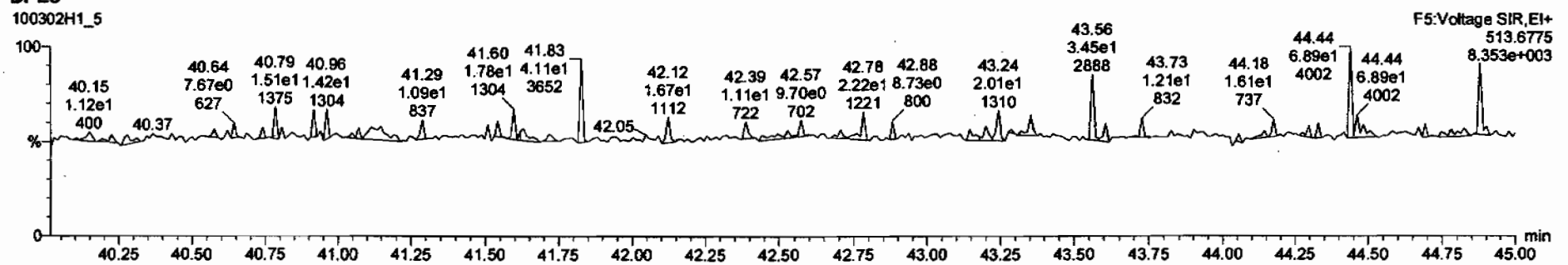

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-5.qld

Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
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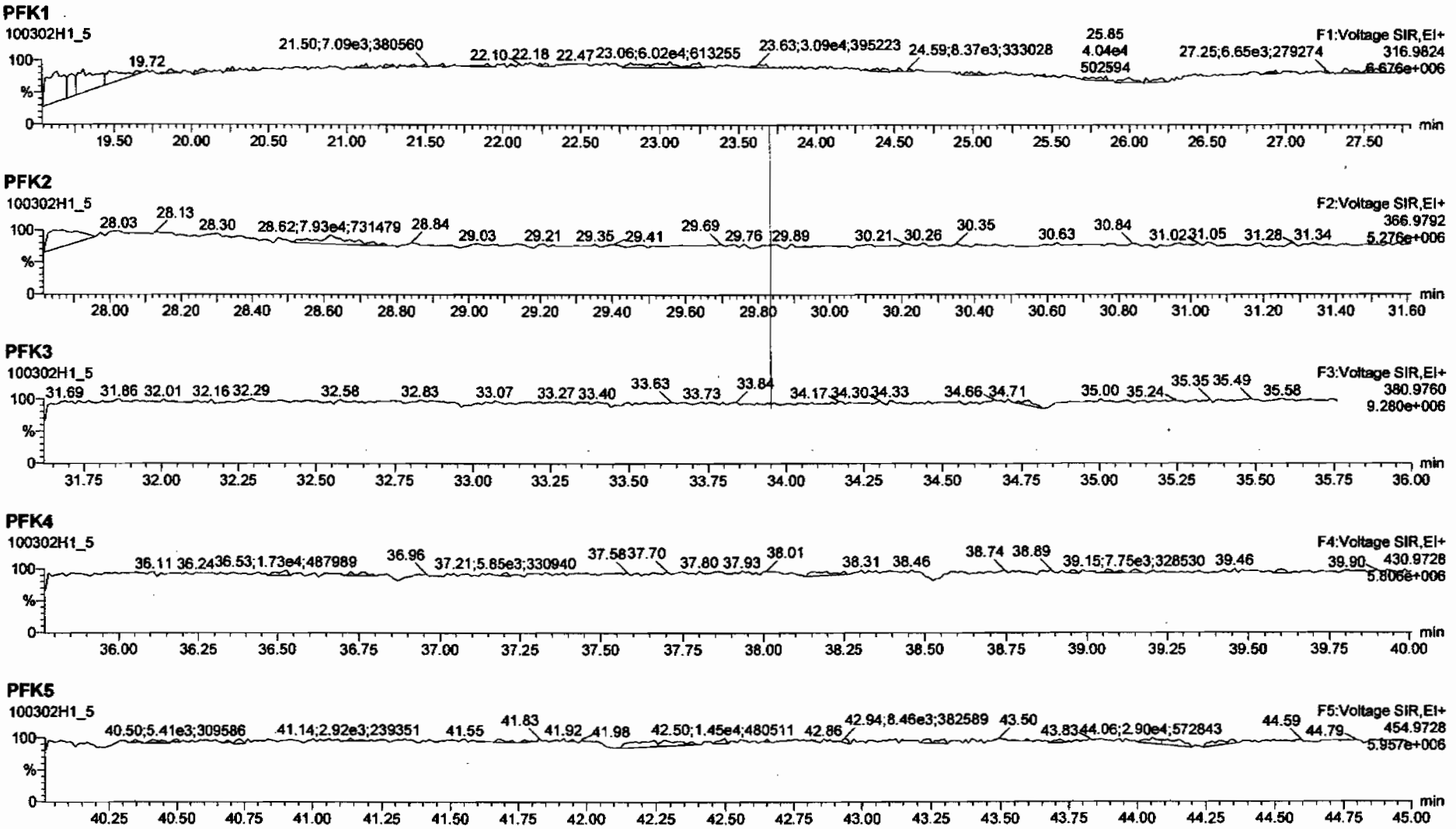

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Last Altered: Friday, March 05, 2010 08:59:14 Pacific Standard Time
Printed: Friday, March 05, 2010 08:59:44 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_12, Date: 02-Mar-2010, Time: 19:58:44, ID: 32449_2836_001 CAPA-10-12691 .918, Description: CAPA-10-12691

	2,3,7,8-TCDD			NO	1.04	0.918					0.207	
	1,2,3,7,8-PeCDD			NO	0.935	0.918					0.303	
	1,2,3,4,7,8-HxCDD			NO	0.907	0.918					0.272	
	1,2,3,6,7,8-HxCDD			NO	0.995	0.918					0.293	
	1,2,3,7,8,9-HxCDD			NO	0.930	0.918					0.273	
	1,2,3,4,6,7,8-HpCDD	5.74e2	0.93	NO	1.00	0.918	37.81	1.000	0.99561		0.285	~~0.99561~~
	OCDD	2.71e3	0.88	NO	1.10	0.918	41.16	1.001	5.6438		0.768	~~5.6438~~
	2,3,7,8-TCDF			NO	0.956	0.918					0.193	
	1,2,3,7,8-PeCDF			NO	0.941	0.918					0.239	
	2,3,4,7,8-PeCDF			NO	0.926	0.918					0.253	
	1,2,3,4,7,8-HxCDF			NO	1.22	0.918					0.177	
	1,2,3,6,7,8-HxCDF			NO	1.08	0.918					0.201	
	2,3,4,6,7,8-HxCDF			NO	1.13	0.918					0.212	
	1,2,3,7,8,9-HxCDF			NO	1.13	0.918					0.272	
	1,2,3,4,6,7,8-HpCDF	3.90e2	1.30	YES	1.44	0.918	36.58	1.001	~~0.46933~~ ND		0.680	0.41634
	1,2,3,4,7,8,9-HpCDF			NO	1.38	0.918					0.781	
	OCDF			NO	1.01	0.918					0.382	
	13C-2,3,7,8-TCDD	2.21e6	0.78	NO	1.10	0.918	26.01	1.022	1765.8	81.0	1.27	
	13C-1,2,3,7,8-PeCDD	1.75e6	0.62	NO	1.09	0.918	30.55	1.200	1400.0	64.3	1.15	
	13C-1,2,3,4,7,8-HxCDD	1.58e6	1.26	NO	1.01	0.918	33.90	1.014	1814.8	83.3	1.39	
	13C-1,2,3,6,7,8-HxCDD	1.37e6	1.23	NO	0.889	0.918	34.00	1.017	1790.7	82.2	1.57	
	13C-1,2,3,7,8,9-HxCDD	1.58e6	1.25	NO	1.07	0.918	34.31	1.027	1710.7	78.5	1.30	
	13C-1,2,3,4,6,7,8-HpCDD	1.25e6	1.05	NO	0.837	0.918	37.81	1.131	1736.1	79.7	2.78	
	13C-OCDD	1.90e6	0.91	NO	0.712	0.918	41.14	1.231	3087.0	70.8	1.22	
	13C-2,3,7,8-TCDF	3.07e6	0.79	NO	1.05	0.918	25.25	0.992	1703.2	78.2	1.21	
	13C-1,2,3,7,8-PeCDF	2.45e6	1.56	NO	1.02	0.918	29.37	1.154	1404.9	64.5	1.93	
	13C-2,3,4,7,8-PeCDF	2.36e6	1.53	NO	1.08	0.918	30.27	1.190	1279.8	58.7	1.83	
	13C-1,2,3,4,7,8-HxCDF	1.79e6	0.52	NO	1.37	0.918	33.01	0.988	1520.4	69.8	2.53	
	13C-1,2,3,6,7,8-HxCDF	1.93e6	0.52	NO	1.37	0.918	33.13	0.991	1641.4	75.3	2.53	
	13C-2,3,4,6,7,8-HxCDF	1.75e6	0.52	NO	1.18	0.918	33.73	1.009	1718.4	78.9	2.92	

JM TEM
3/5/10

MW
3/5/10

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-12.qld

Last Altered: Friday, March 05, 2010 08:59:14 Pacific Standard Time
Printed: Friday, March 05, 2010 08:59:44 Pacific Standard Time

Name: 100302H1_12, Date: 02-Mar-2010, Time: 19:58:44, ID: 32449_2836_001 CAPA-10-12691 .918, Description: CAPA-10-12691

13C-1,2,3,7,8,9-HxCDF	1.50e6	0.52	NO	1.05	0.918	34.71	1.038	1653.2	75.9	3.29	
13C-1,2,3,4,6,7,8-HpCDF	1.26e6	0.45	NO	0.858	0.918	36.56	1.094	1701.1	78.1	3.23	
13C-1,2,3,4,7,8,9-HpCDF	1.18e6	0.45	NO	0.794	0.918	38.36	1.148	1722.5	79.1	3.49	
13C-OCDF	2.51e6	0.89	NO	0.948	0.918	41.37	1.238	3065.9	70.4	1.01	
37Cl-2,3,7,8-TCDD	5.81e5			0.665	0.918	26.03	1.023	767.87	88.1	0.388	
13C-1,2,3,4-TCDD	2.48e6	0.78	NO	1.00	0.918	25.45	0.000	2178.6	100	1.40	
13C-1,2,3,4-TCDF	3.73e6	0.78	NO	1.00	0.918	24.07	0.000	2178.6	100	1.28	
13C-1,2,3,4,6,9-HxCDF	1.88e6	0.52	NO	1.00	0.918	33.42	0.000	2178.6	100	3.45	
Total Tetra-Dioxins				1.04	0.918					0.110	
Total Penta-Dioxins				0.935	0.918					0.142	
Total Hexa-Dioxins				0.995	0.918					0.111	
Total Hepta-Dioxins				1.00	0.918			0.99561		0.285	2.5037
Total Tetra-Furans				0.956	0.918					0.0797	
1st Func. Penta-Furans				0.941	0.918					0.0731	
Total Penta-Furans				0.941	0.918					0.117	
Total Hexa-Furans				1.13	0.918					0.107	
Total Hepta-Furans				1.44	0.918			~~0.00000~~	ND	0.640	0.41634

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-12.qld

Last Altered: Friday, March 05, 2010 08:59:14 Pacific Standard Time
Printed: Friday, March 05, 2010 08:59:44 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_12, Date: 02-Mar-2010, Time: 19:58:44, ID: 32449_2836_001 CAPA-10-12691 .918, Description: CAPA-10-12691

Tetra-Dioxins

Name	RT	m/z Height	m/z Height	m/z Resp	m/z Resp	RA	IW	Resp	Conc	EMPC	DL

Penta-Dioxins

Name	RT	m/z Height	m/z Height	m/z Resp	m/z Resp	RA	IW	Resp	Conc	EMPC	DL

Hexa-Dioxins

Name	RT	m/z Height	m/z Height	m/z Resp	m/z Resp	RA	IW	Resp	Conc	EMPC	DL

Hepta-Dioxins

Name	RT	m/z Height	m/z Height	m/z Resp	m/z Resp	RA	IW	Resp	Conc	EMPC	DL
Total Hepta-Dioxins	36.96	1.443e4	9.370e3	5.996e2	4.261e2	1.41	YES	0.000e0	0.00000	1.5081	0.285
1,2,3,4,6,7,8-HpCDD	37.81	5.569e3	6.091e3	2.767e2	2.971e2	0.93	NO	5.738e2	0.99561	0.99561	0.285

Tetra-Furans

Name	RT	m/z Height	m/z Height	m/z Resp	m/z Resp	RA	IW	Resp	Conc	EMPC	DL

Penta-Furans function 1

Name	RT	m/z Height	m/z Height	m/z Resp	m/z Resp	RA	IW	Resp	Conc	EMPC	DL

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-12.qld

Last Altered: Friday, March 05, 2010 08:59:14 Pacific Standard Time
Printed: Friday, March 05, 2010 08:59:44 Pacific Standard Time

Name: 100302H1_12, Date: 02-Mar-2010, Time: 19:58:44, ID: 32449_2836_001 CAPA-10-12691 .918, Description: CAPA-10-12691

Penta-Furans

Hexa-Furans

Hepta-Furans

1	1,2,3,4,6,7,8-HpCDF	36.58	7.897e3	3.588e3	2.206e2	1.696e2	1.30	YES	3.902e2	0.00000	0.41634	0.680					

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-12.qld

Last Altered: Wednesday, March 03, 2010 08:22:55 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:23:11 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_12, Date: 02-Mar-2010, Time: 19:58:44, ID: 32449_2836_001 CAPA-10-12691 .918, Description: CAPA-10-12691

2,3,7,8-TCDD

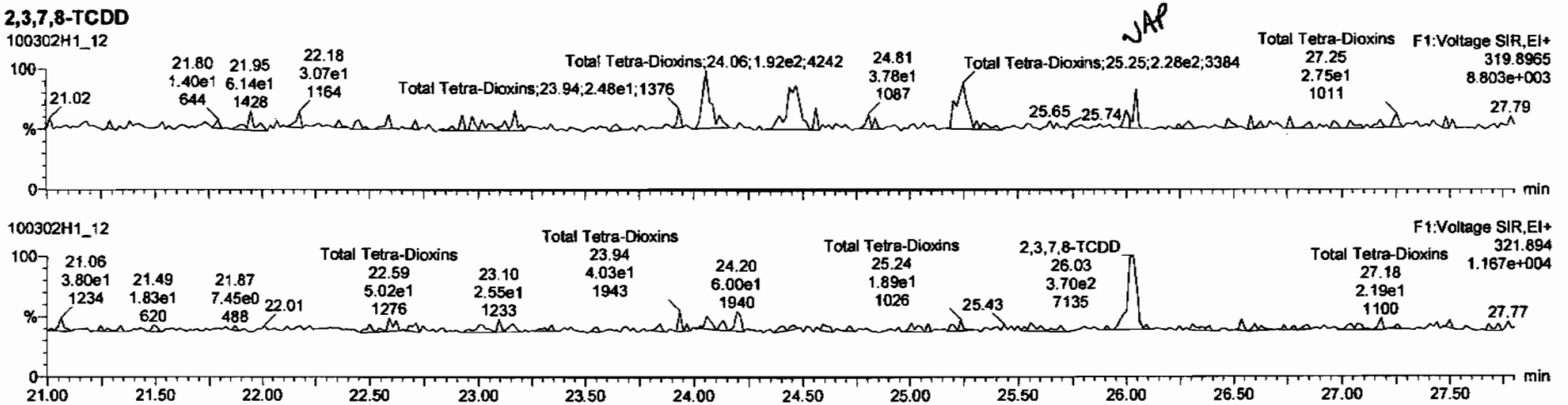

13C-2,3,7,8-TCDD

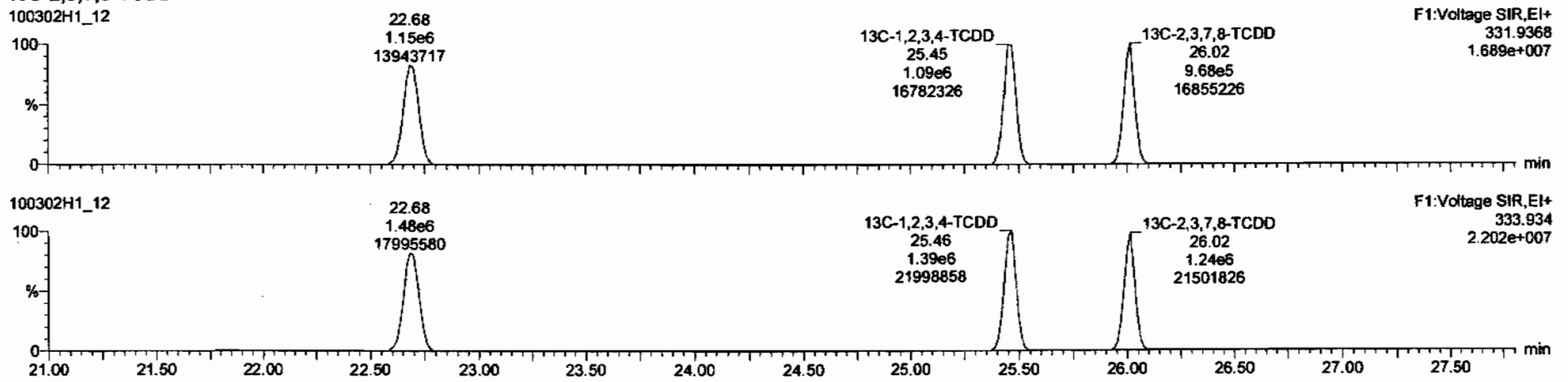

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-12.qld

Last Altered: Wednesday, March 03, 2010 08:22:55 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:23:11 Pacific Standard Time

Name: 100302H1_12, Date: 02-Mar-2010, Time: 19:58:44, ID: 32449_2836_001 CAPA-10-12691 .918, Description: CAPA-10-12691

37Cl-2,3,7,8-TCDD

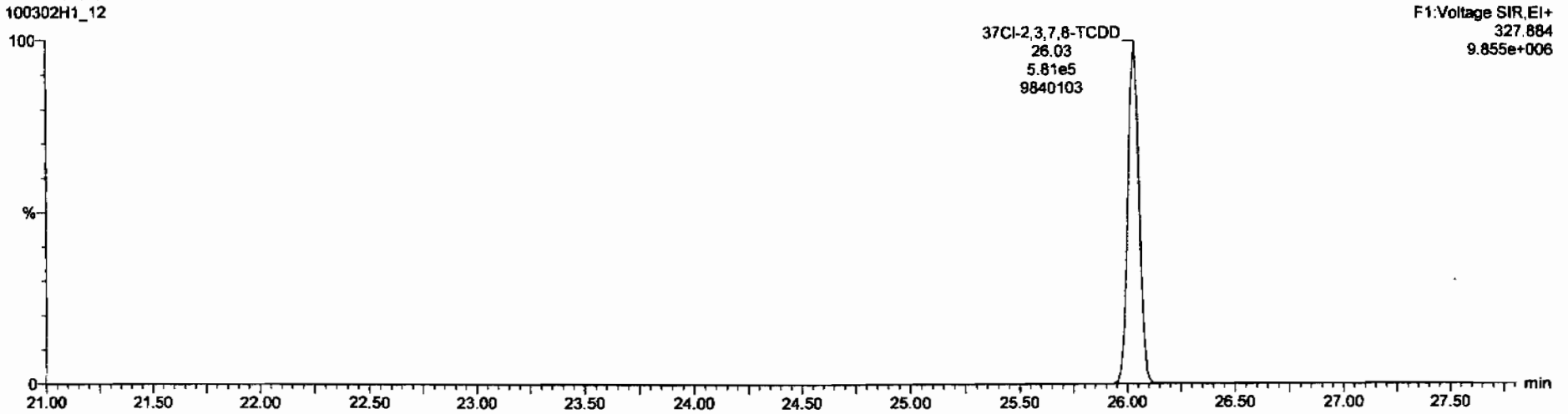

13C-1,2,3,4-TCDD

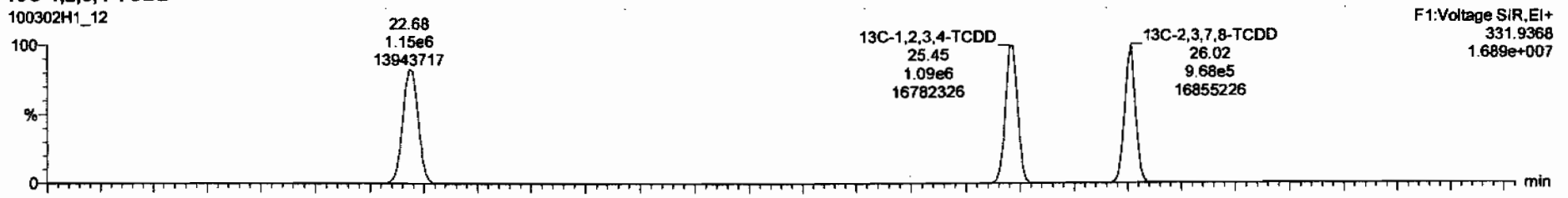

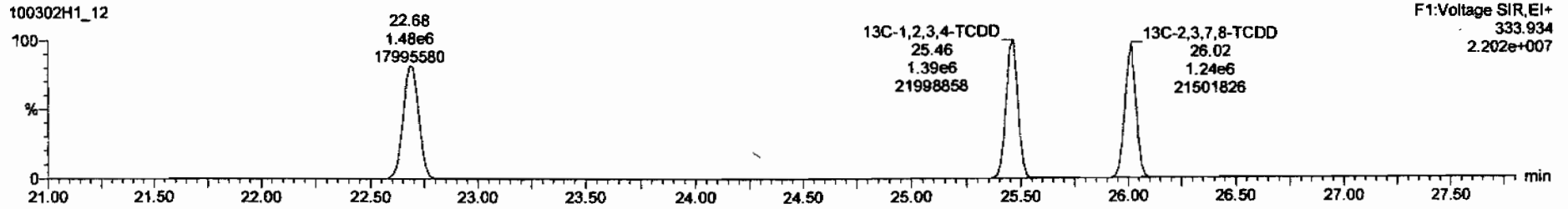

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-12.qld

Last Altered: Wednesday, March 03, 2010 08:22:55 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:23:11 Pacific Standard Time

Name: 100302H1_12, Date: 02-Mar-2010, Time: 19:58:44, ID: 32449_2836_001 CAPA-10-12691 .918, Description: CAPA-10-12691

1,2,3,7,8-PeCDD

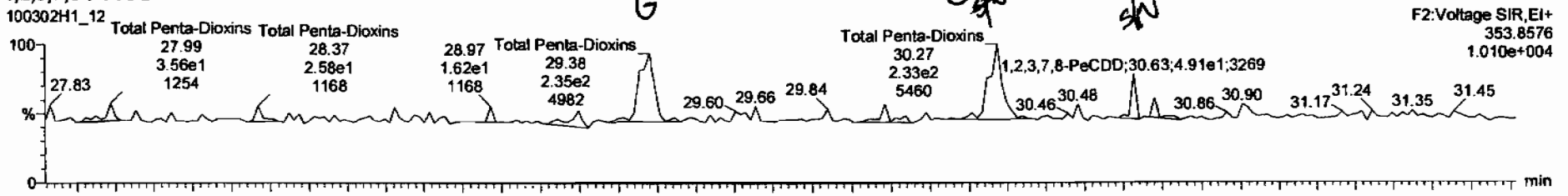

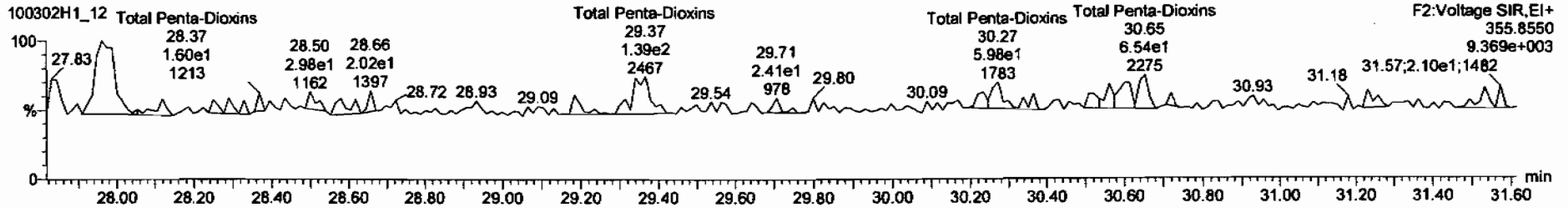

13C-1,2,3,7,8-PeCDD

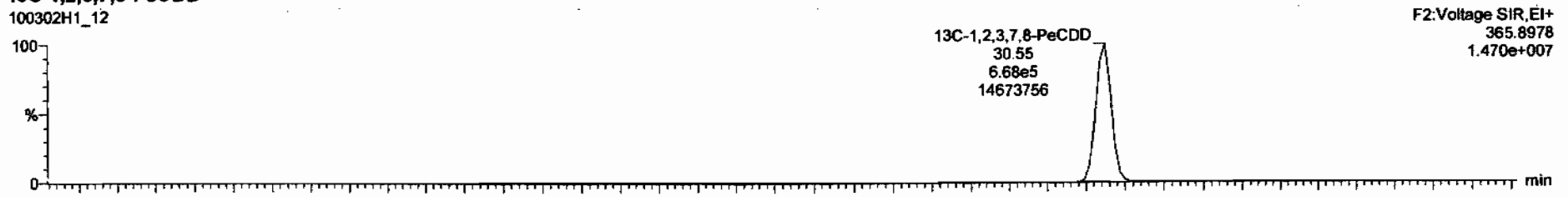

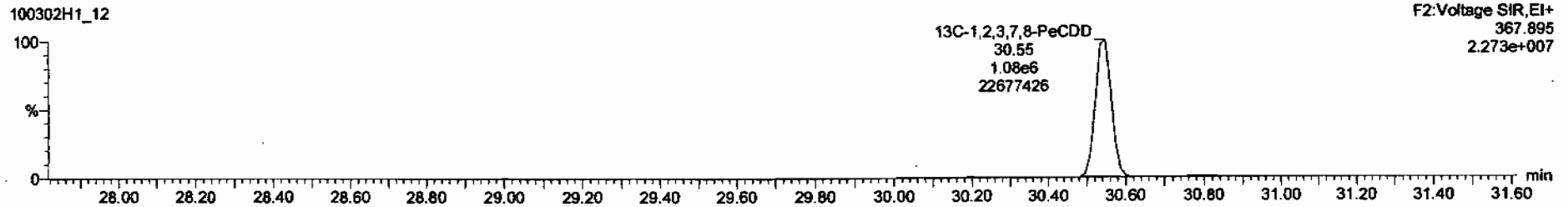

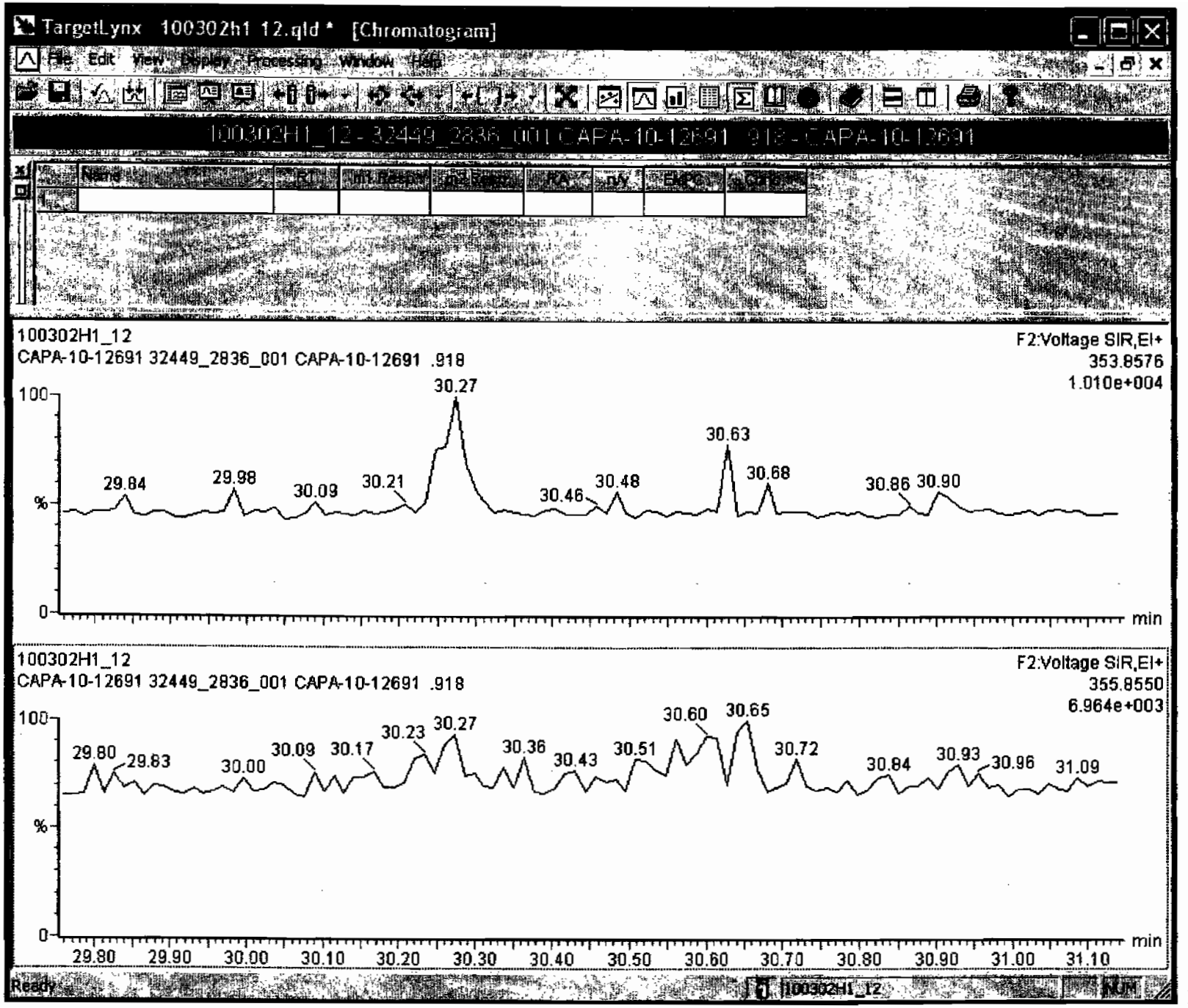
TargetLynx 100302h1 12.qld * [Chromatogram]
File Edit View Display Processing Window Help
100302H1_12
CAPA-10-12691 32449_2836_001 CAPA-10-12691 .918
F2:Voltage SIR,EI+
353.8576
1.010e+004
100
%
0
min
29.84
29.98
30.09
30.21
30.27
30.46
30.48
30.63
30.68
30.86
30.90
100302H1_12
CAPA-10-12691 32449_2836_001 CAPA-10-12691 .918
F2:Voltage SIR,EI+
355.8550
6.964e+003
29.80
29.83
30.00
30.09
30.17
30.23
30.27
30.36
30.43
30.51
30.60
30.65
30.72
30.84
30.93
30.96
31.09
29.80 29.90 30.00 30.10 30.20 30.30 30.40 30.50 30.60 30.70 30.80 30.90 31.00 31.10
Ready
100302H1_12
NUM

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-12.qld

Last Altered: Wednesday, March 03, 2010 08:22:55 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:23:11 Pacific Standard Time

Name: 100302H1_12, Date: 02-Mar-2010, Time: 19:58:44, ID: 32449_2836_001 CAPA-10-12691 .918, Description: CAPA-10-12691

1,2,3,4,7,8-HxCDD

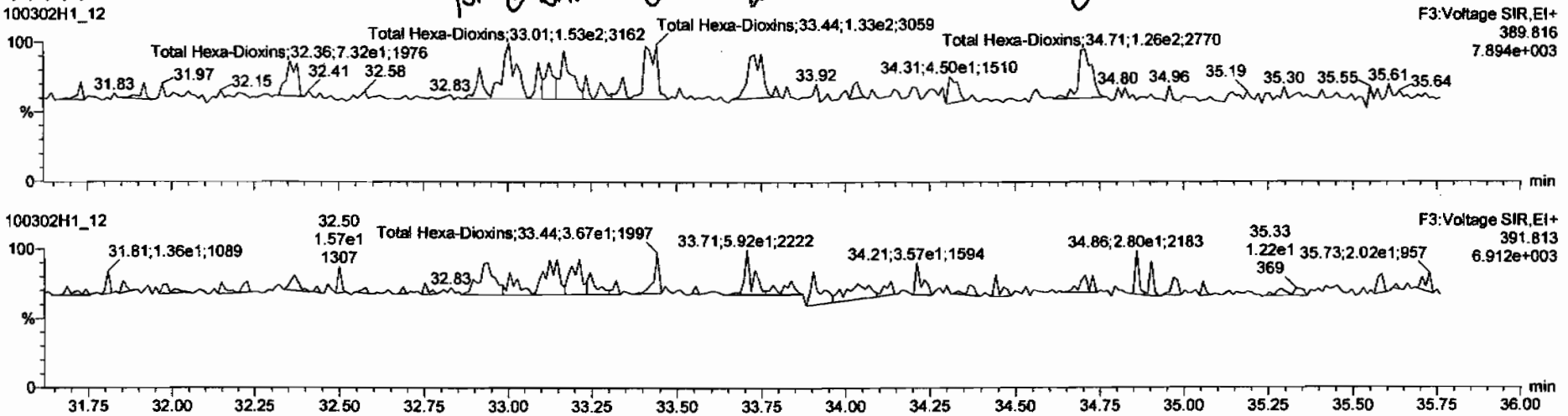

13C-1,2,3,4,7,8-HxCDD

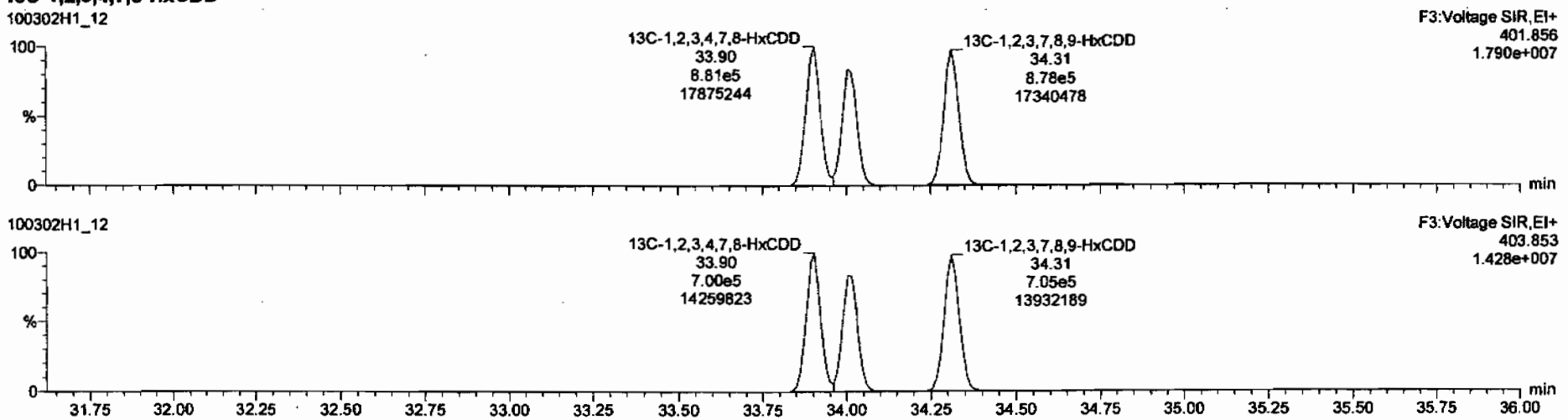

TargetLynx - 100302h1-12.qld * - [Chromatogram]

File Edit View Display Processing Window Help

100302H1_12 - 32449_2836_001 CAPA-10-12691 .918 - CAPA-10-12691

	Name	RT	Int Resp	Tot Resp	% RA	Qn	EMPC	Conc
	Total Hexa-Dioxins	33.75	1.329e2	1.035e1	12.84	YES	0.033557	0.00000
	1,2,3,6,7,8-HxCDD	34.04	2.179e1	6.414e1	0.34	YES	0.062739	0.00000
	Total Hexa-Dioxins	34.71	1.264e2	3.116e1	4.06	YES	0.10102	0.00000

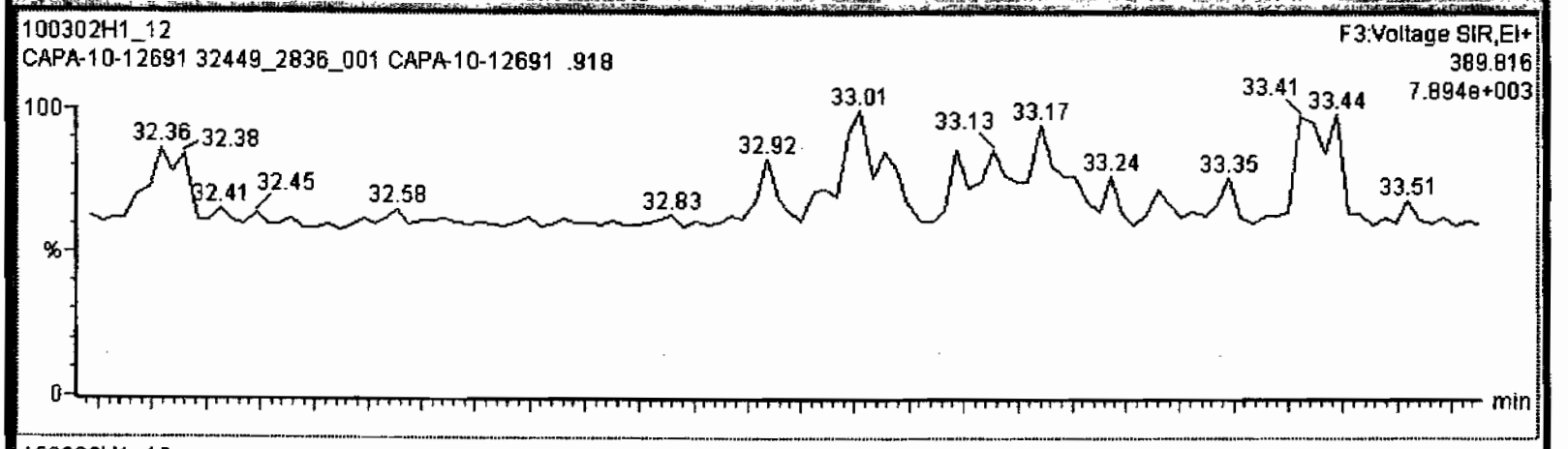

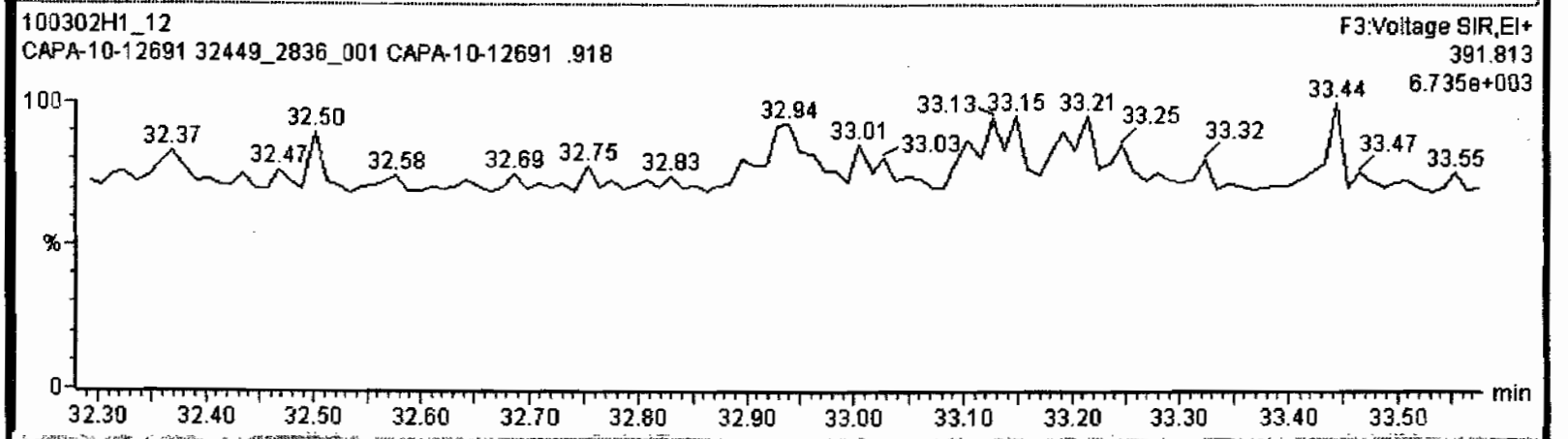

Ready 100302H1_12 NUM

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-12.qld

Last Altered: Wednesday, March 03, 2010 08:22:55 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:23:11 Pacific Standard Time

Name: 100302H1_12, Date: 02-Mar-2010, Time: 19:58:44, ID: 32449_2836_001 CAPA-10-12691 .918, Description: CAPA-10-12691

1,2,3,4,6,7,8-HpCDD

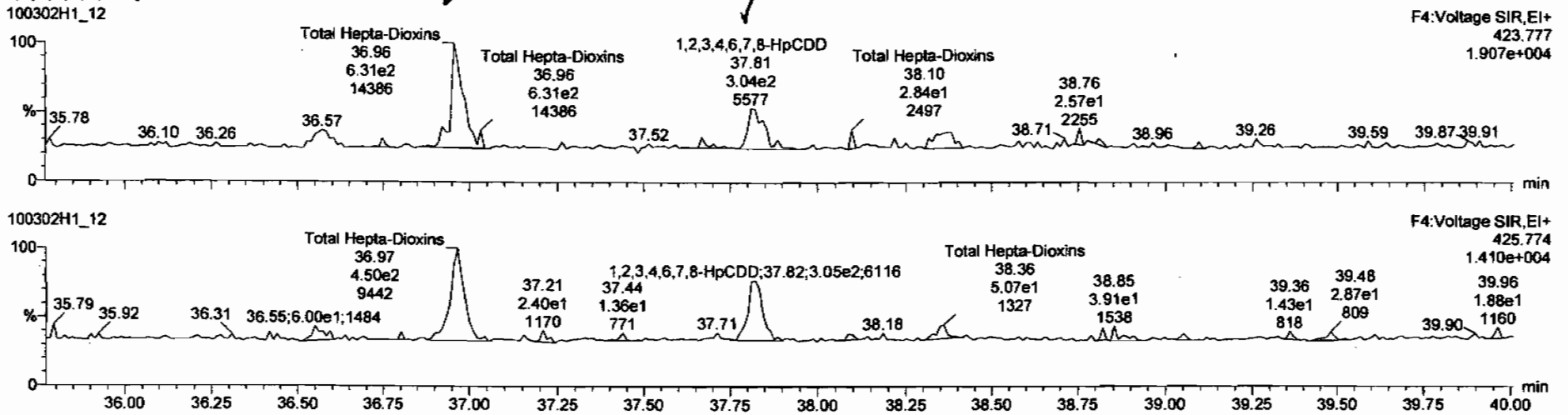

13C-1,2,3,4,6,7,8-HpCDD

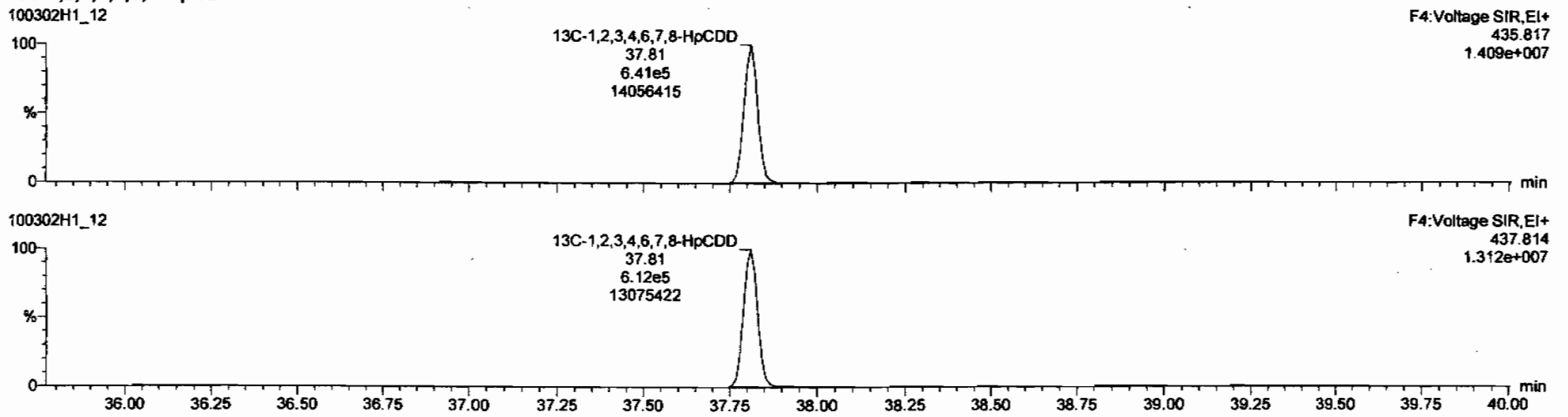

TargetLynx - 100302h1 12.qld * [Chromatogram]

File Edit View Display Processing Window Help

100302H1_12 - 32449_2836_001 CAPA-10-12691 .918 - CAPA-10-12691

	Name	RT	Height	Area	RA	Hit	Area%	Conc
1	Total Hepta-Dioxins	36.96	5.996e2	4.261e2	1.41	YES	1.5081	0.00000
2	1,2,3,4,6,7,8-HpCDD	37.81	2.767e2	2.971e2	0.93	NO	0.99561	0.99561

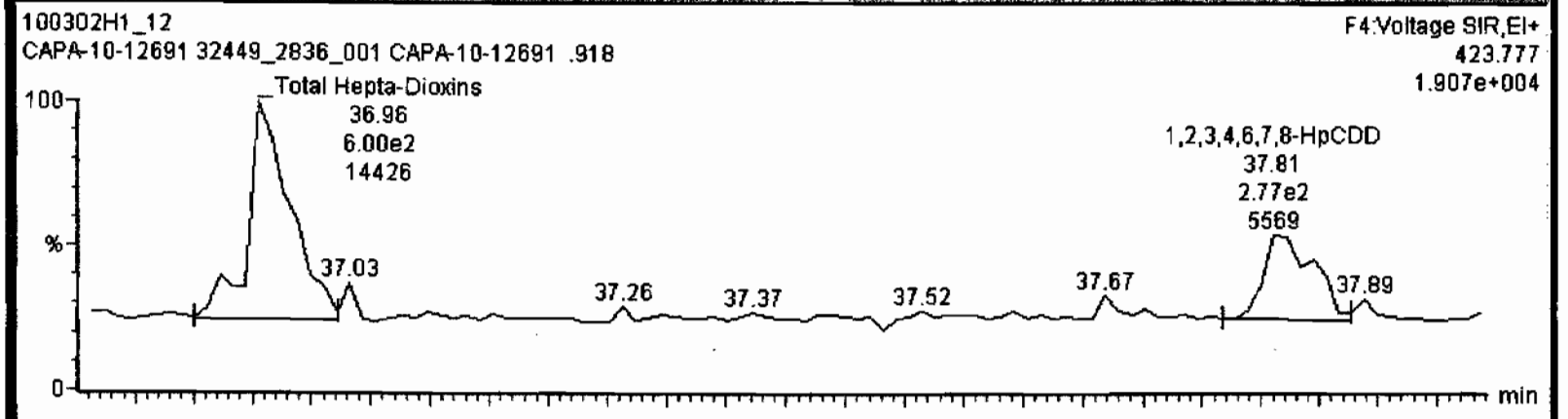

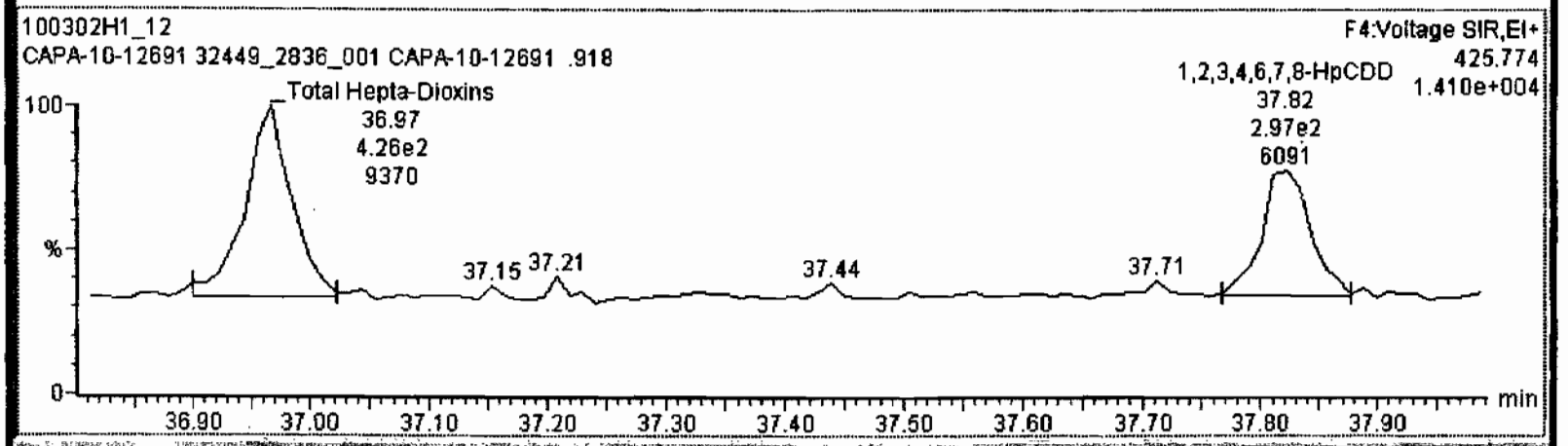

Ready

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-12.qld

Last Altered: Wednesday, March 03, 2010 08:22:55 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:23:11 Pacific Standard Time

Name: 100302H1_12, Date: 02-Mar-2010, Time: 19:58:44, ID: 32449_2836_001 CAPA-10-12691 .918, Description: CAPA-10-12691

OCDD

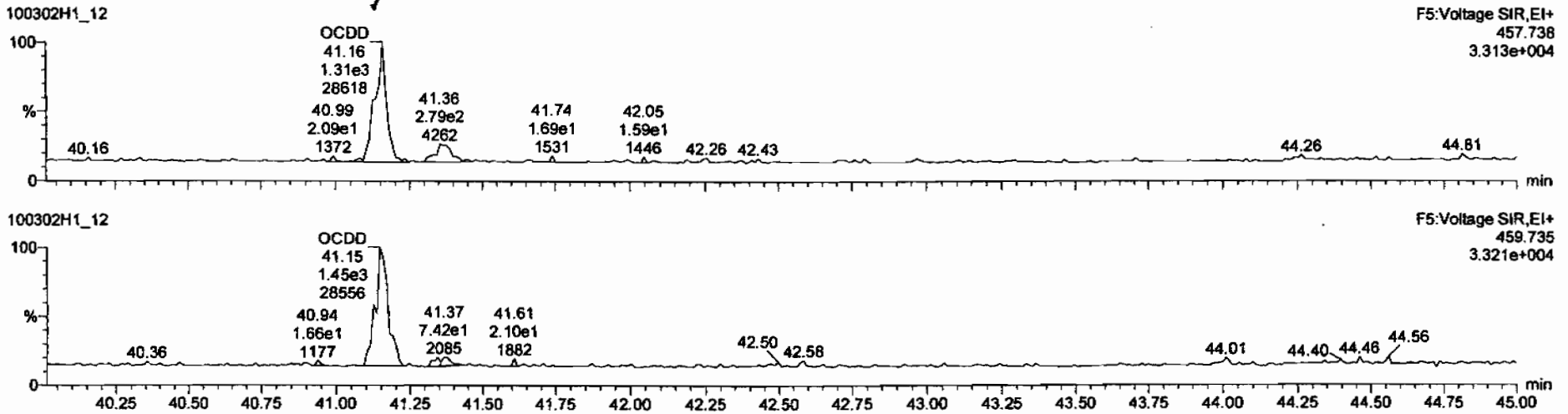

13C-OCDD

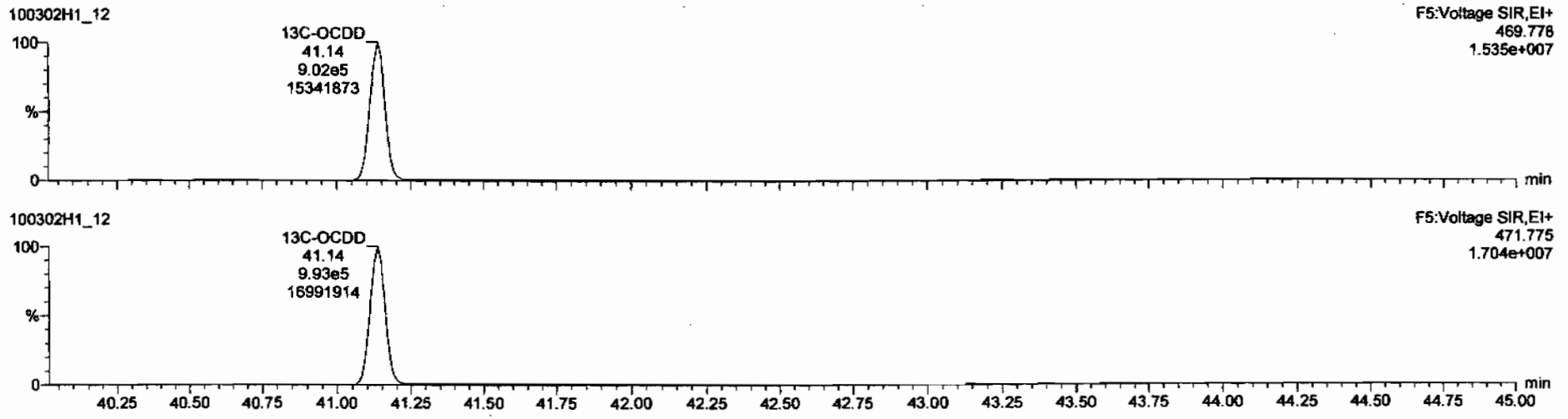

TargetLynx - 100302h1-12.qld * - [Chromatogram]

File Edit View Display Processing Window Help

100302H1_12 - 32449_2836_001 CAPA-10-12691 .918 - CAPA-10-12691

Name											
1,2,3,7,8,9-HxCDD			NO	0.93	0.918					0.273	
1,2,3,4,6,7,8-HpCDD	5.74e2	0.93	NO	1.00	0.918	37.81	1.000	0.996		0.285	0.996
2,3,7,8-TCDF			NO	0.96	0.918					0.193	
1,2,3,7,8-PeCDF			NO	0.94	0.918					0.239	

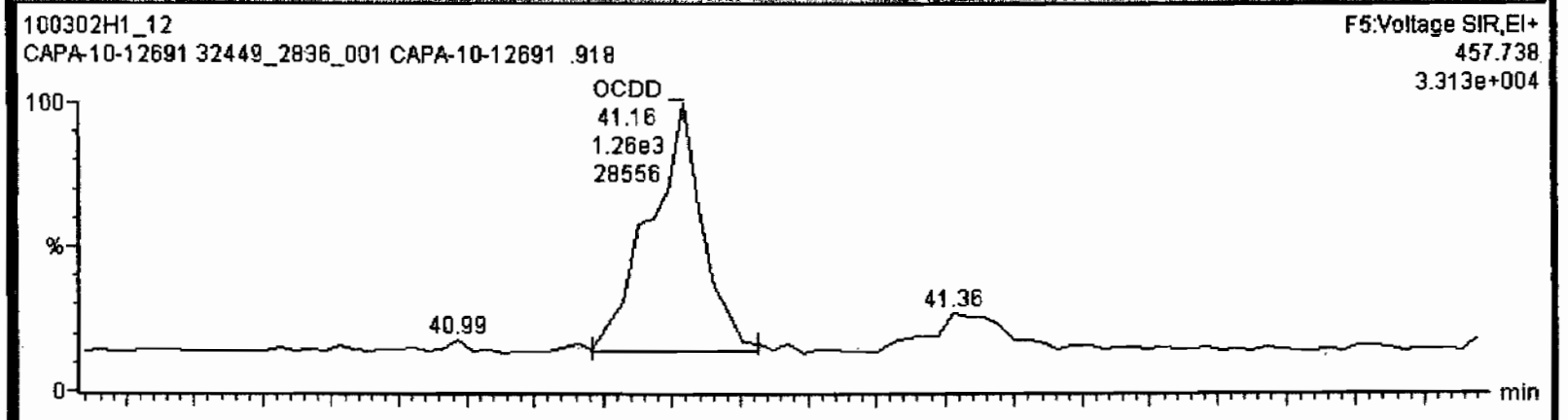

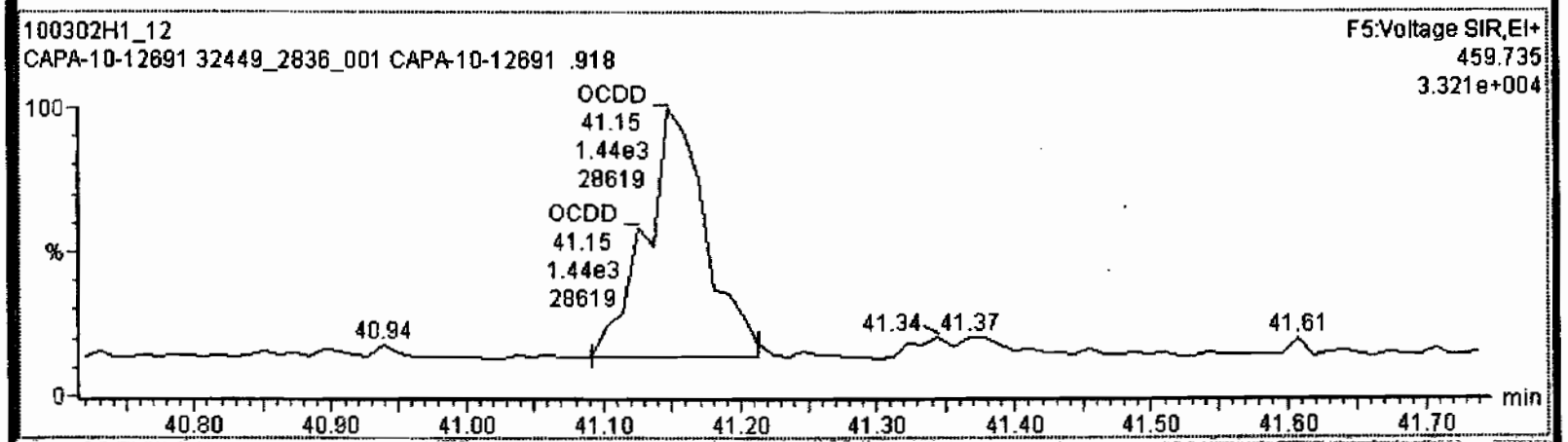

Ready 100302H1_12 NUM

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-12.qld

Last Altered: Wednesday, March 03, 2010 08:22:55 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:23:11 Pacific Standard Time

Name: 100302H1_12, Date: 02-Mar-2010, Time: 19:58:44, ID: 32449_2836_001 CAPA-10-12691 .918, Description: CAPA-10-12691

2,3,7,8-TCDF

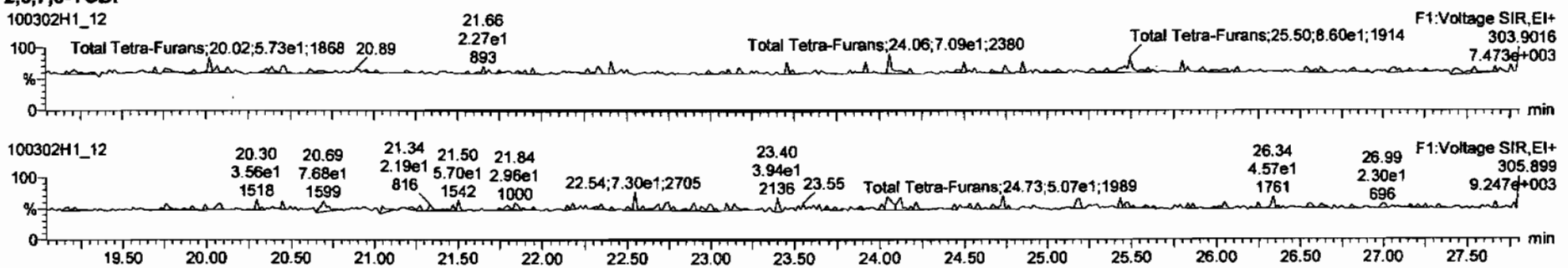

13C-2,3,7,8-TCDF

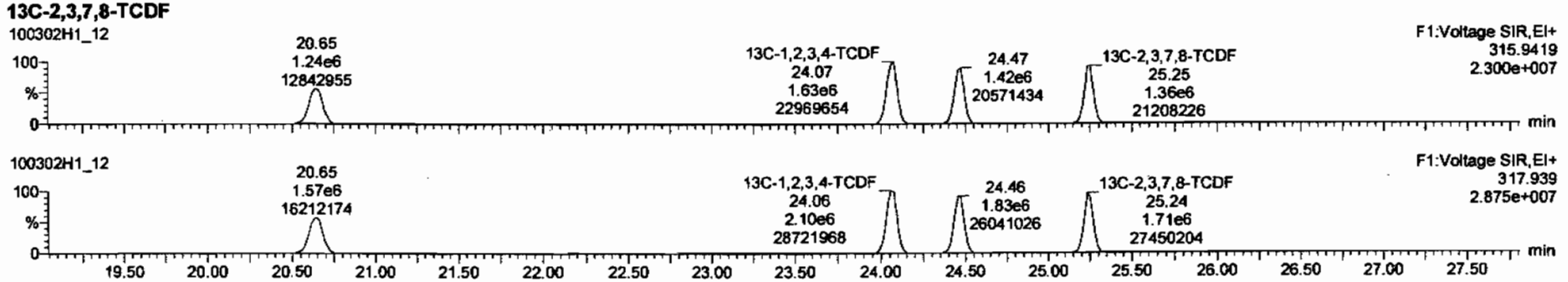

DPE1

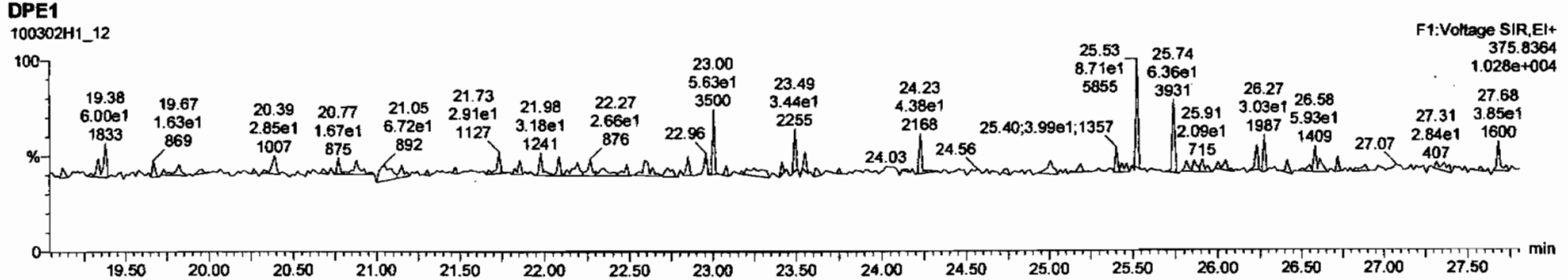

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-12.qld

Last Altered: Wednesday, March 03, 2010 08:22:55 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:23:11 Pacific Standard Time

Name: 100302H1_12, Date: 02-Mar-2010, Time: 19:58:44, ID: 32449_2836_001 CAPA-10-12691 .918, Description: CAPA-10-12691

1st Func. Penta-Furans

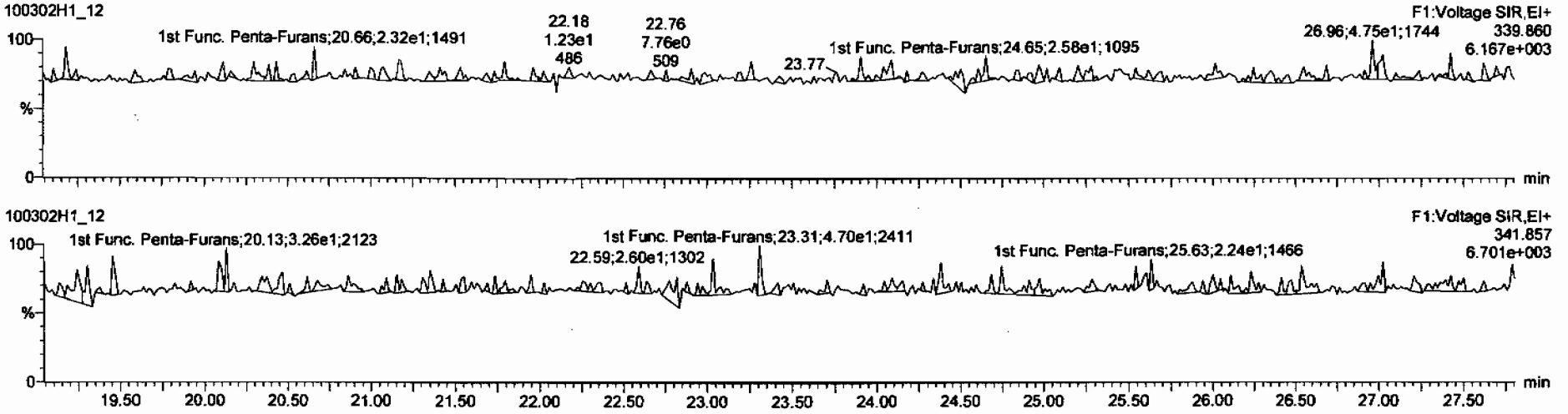

DPE6

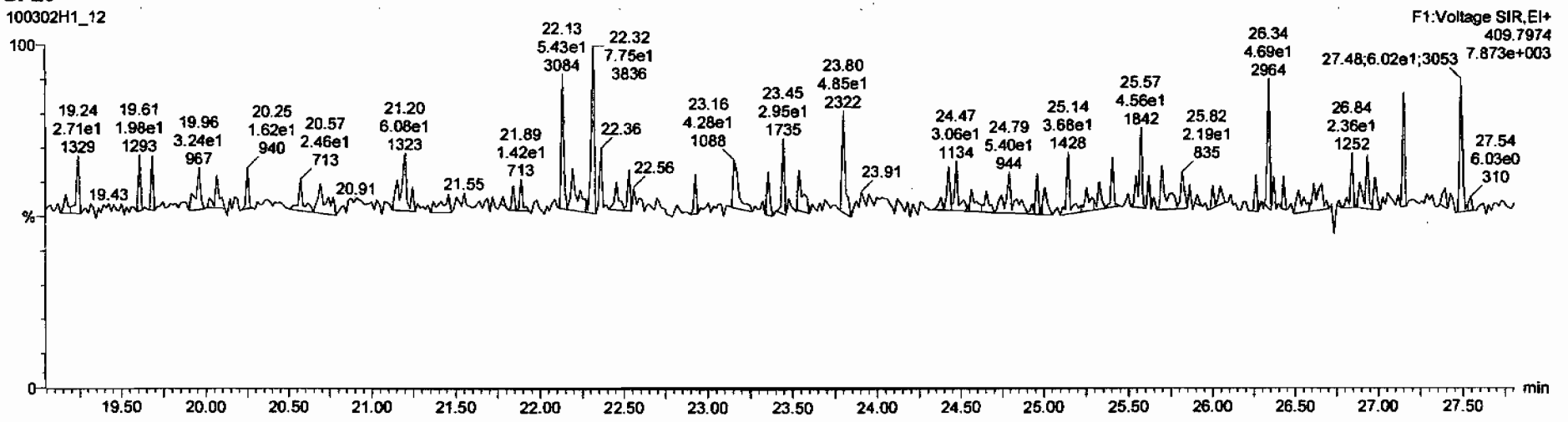

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Last Altered: Wednesday, March 03, 2010 08:22:55 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:23:11 Pacific Standard Time

Name: 100302H1_12, Date: 02-Mar-2010, Time: 19:58:44, ID: 32449_2836_001 CAPA-10-12691 .918, Description: CAPA-10-12691

1,2,3,7,8-PeCDF

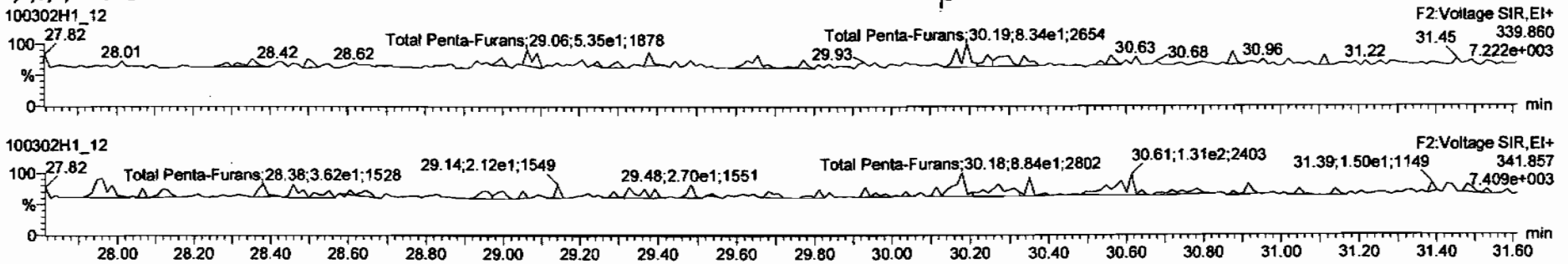

13C-1,2,3,7,8-PeCDF

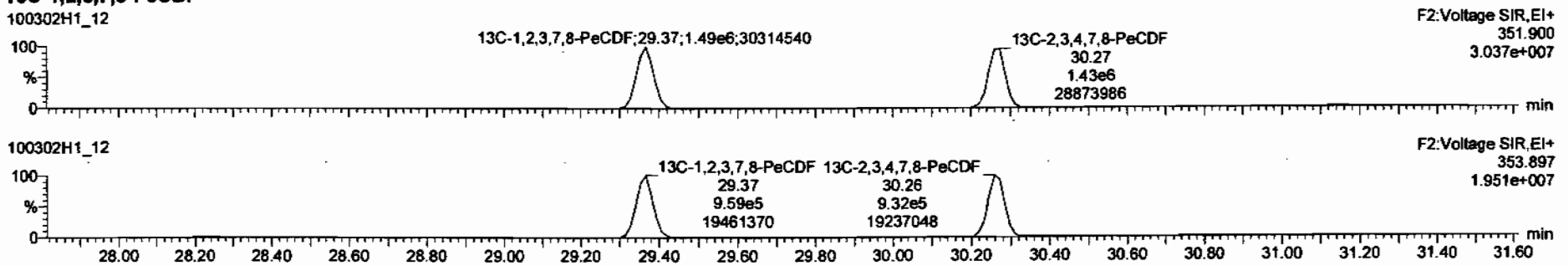

DPE2

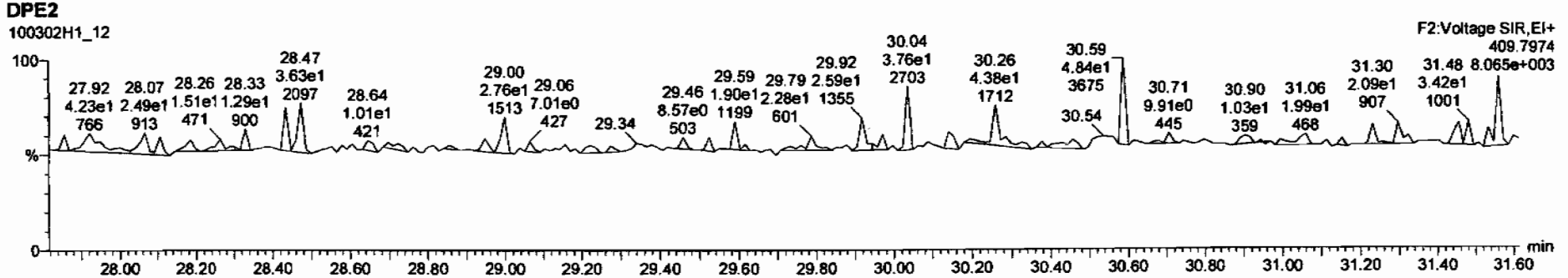

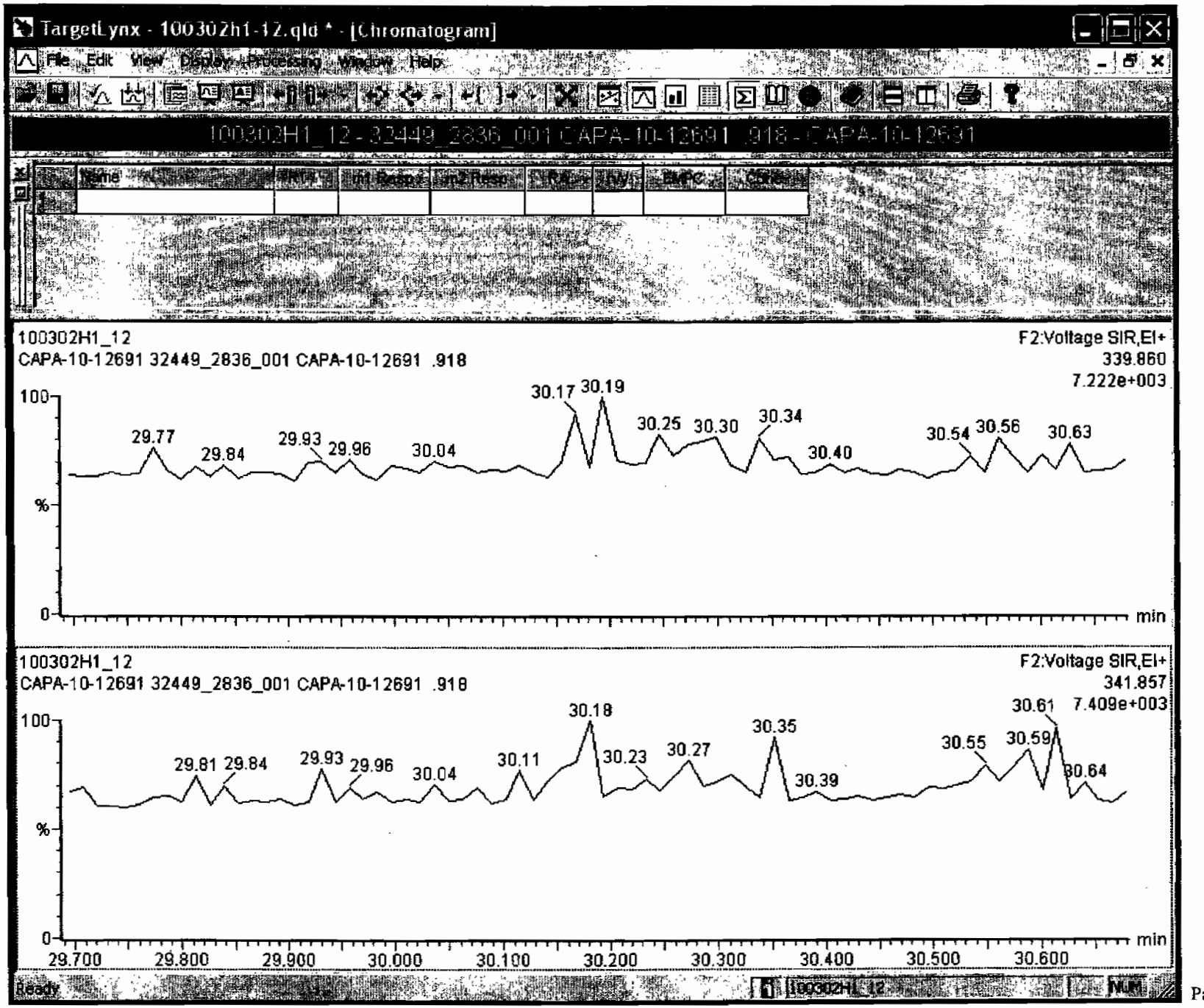
TargetLynx - 100302h1-12.qld * - [Chromatogram]
File Edit View Display Processing Window Help
100302H1_12 - 32449_2836_001 CAPA-10-12691 .918 - CAPA-10-12691
Name
100302H1_12
CAPA-10-12691 32449_2836_001 CAPA-10-12691 .918
F2:Voltage SIR,EI+
339.860
7.222e+003
100
%
0
min
29.77
29.84
29.93
29.96
30.04
30.17
30.19
30.25
30.30
30.34
30.40
30.54
30.56
30.63
100302H1_12
CAPA-10-12691 32449_2836_001 CAPA-10-12691 .918
F2:Voltage SIR,EI+
341.857
7.409e+003
100
%
0
min
29.81
29.84
29.93
29.96
30.04
30.11
30.18
30.23
30.27
30.35
30.39
30.55
30.59
30.61
30.64
29.700
29.800
29.900
30.000
30.100
30.200
30.300
30.400
30.500
30.600
Ready
100302H1_12
NUM

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-12.qld

Last Altered: Wednesday, March 03, 2010 08:22:55 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:23:11 Pacific Standard Time

Name: 100302H1_12, Date: 02-Mar-2010, Time: 19:58:44, ID: 32449_2836_001 CAPA-10-12691 .918, Description: CAPA-10-12691

1,2,3,4,7,8-HxCDF NAP NAP NAP SN

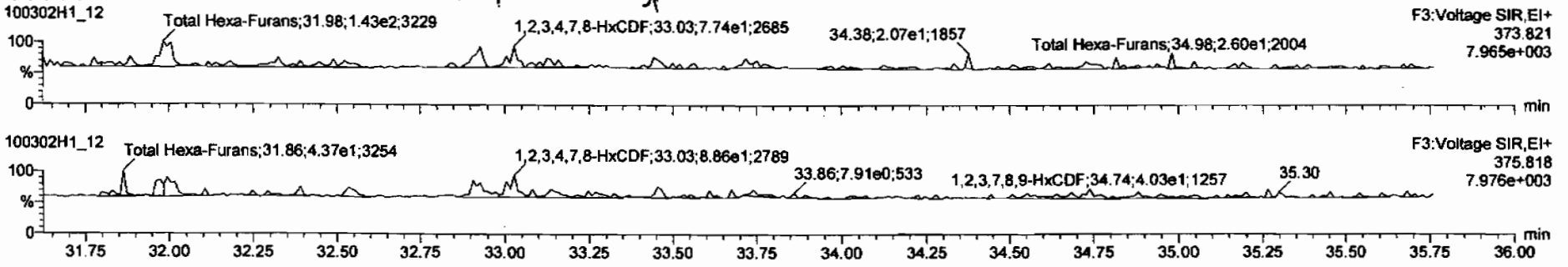

13C-1,2,3,4,7,8-HxCDF

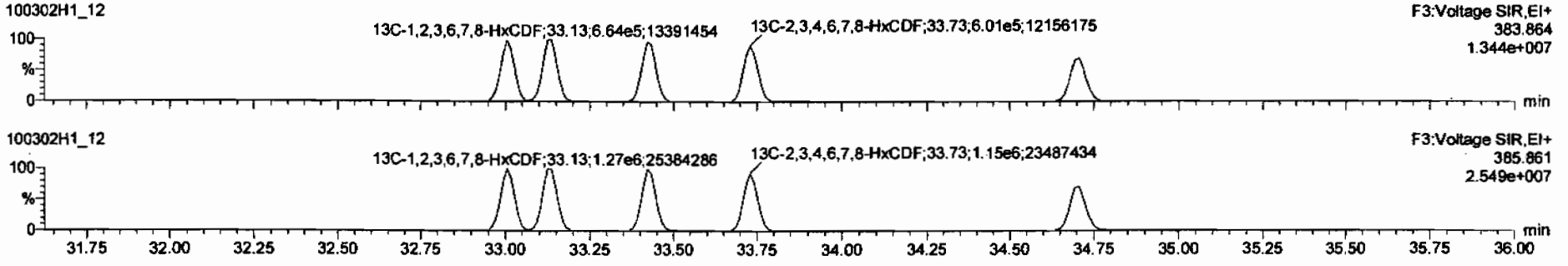

DPE3

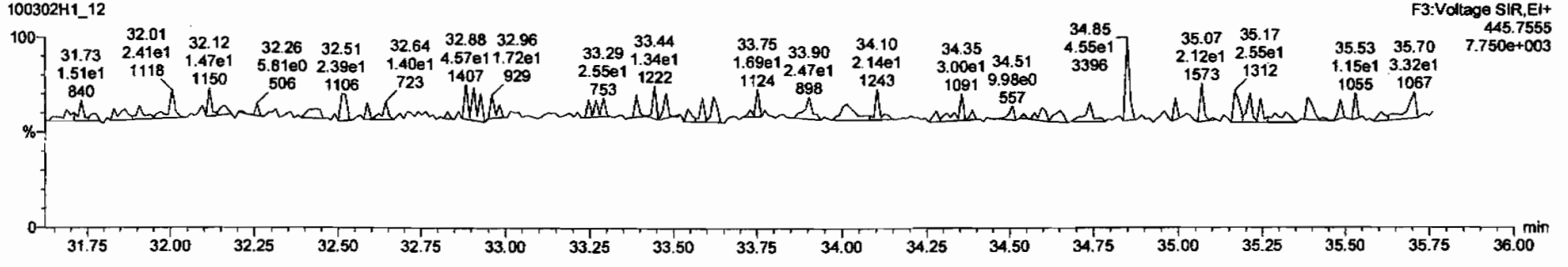

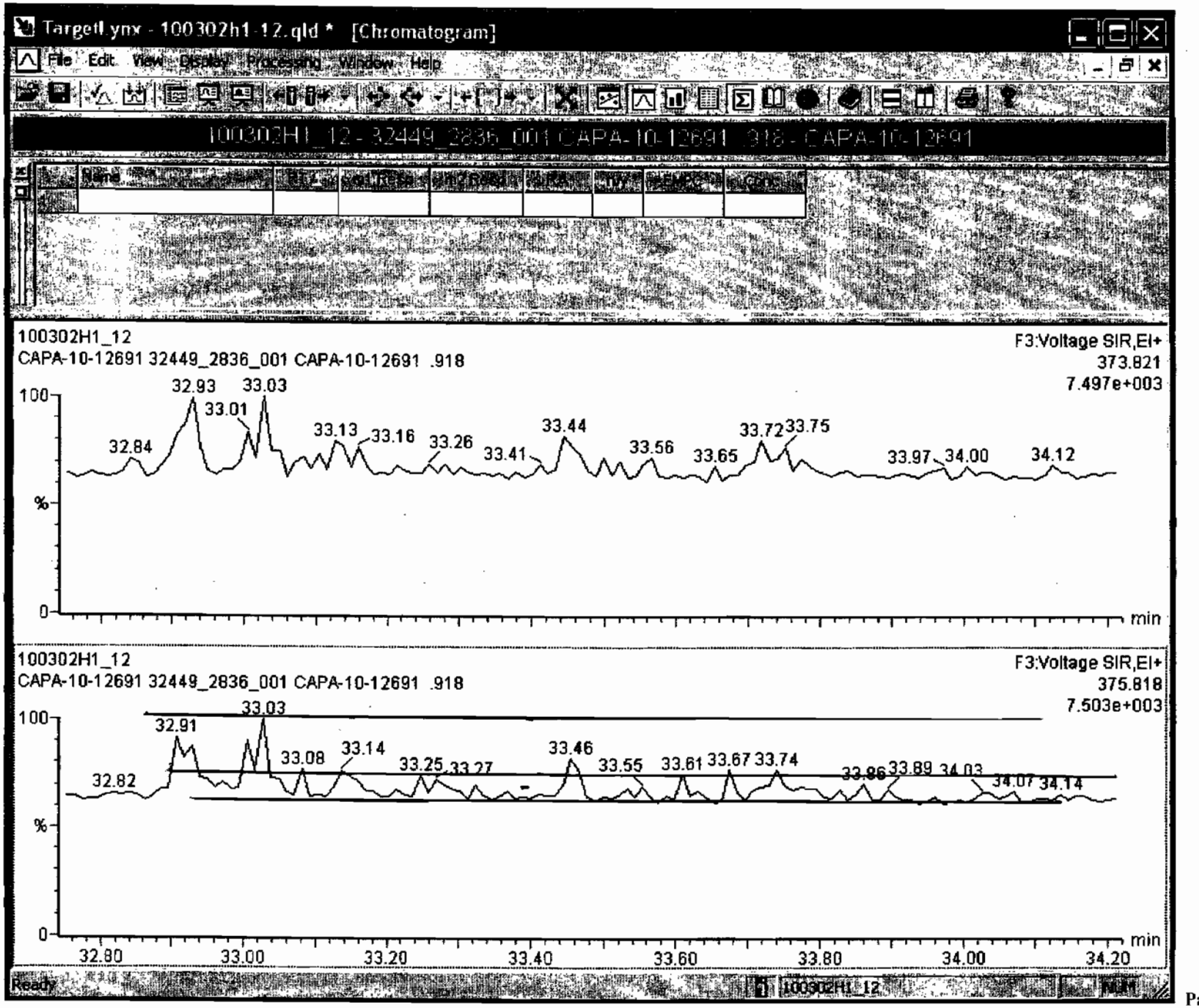
Target1.ynx - 100302h1-12.qld * [Chromatogram]
File Edit View Display Processing Window Help
100302H1_12
CAPA-10-12691 32449_2836_001 CAPA-10-12691 .918
F3:Voltage SIR,EI+
373.821
7.497e+003
32.84 32.93 33.01 33.03 33.13 33.16 33.26 33.41 33.44 33.56 33.65 33.72 33.75 33.97 34.00 34.12
100
%
0
min
100302H1_12
CAPA-10-12691 32449_2836_001 CAPA-10-12691 .918
F3:Voltage SIR,EI+
375.818
7.503e+003
32.82 32.91 33.03 33.08 33.14 33.25 33.27 33.46 33.55 33.61 33.67 33.74 33.86 33.89 34.03 34.07 34.14
100
%
0
min
32.80 33.00 33.20 33.40 33.60 33.80 34.00 34.20
Ready
100302H1_12

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-12.qld

Last Altered: Wednesday, March 03, 2010 08:22:55 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:23:11 Pacific Standard Time

Name: 100302H1_12, Date: 02-Mar-2010, Time: 19:58:44, ID: 32449_2836_001 CAPA-10-12691 .918, Description: CAPA-10-12691

1,2,3,4,6,7,8-HpCDF

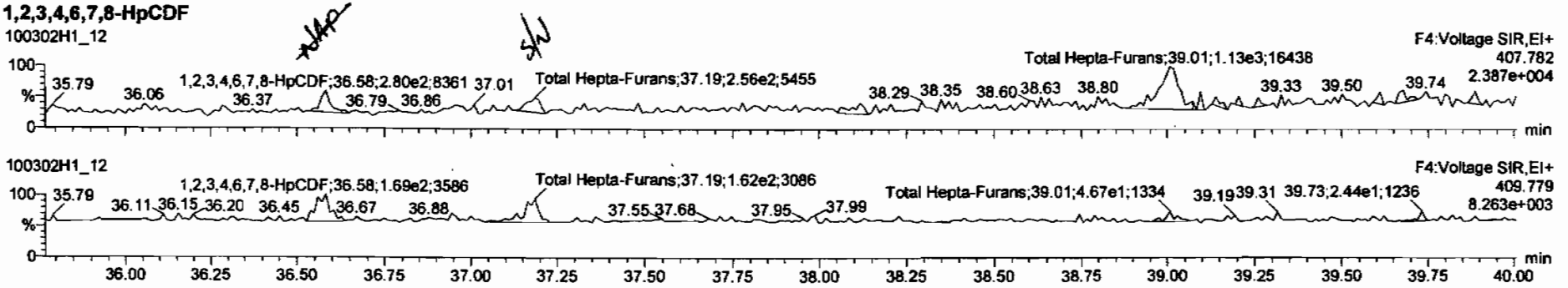

13C-1,2,3,4,6,7,8-HpCDF

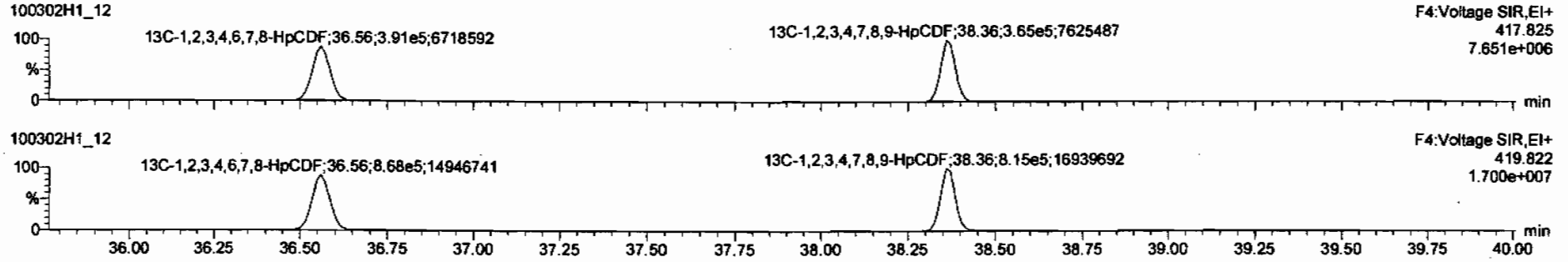

DPE4

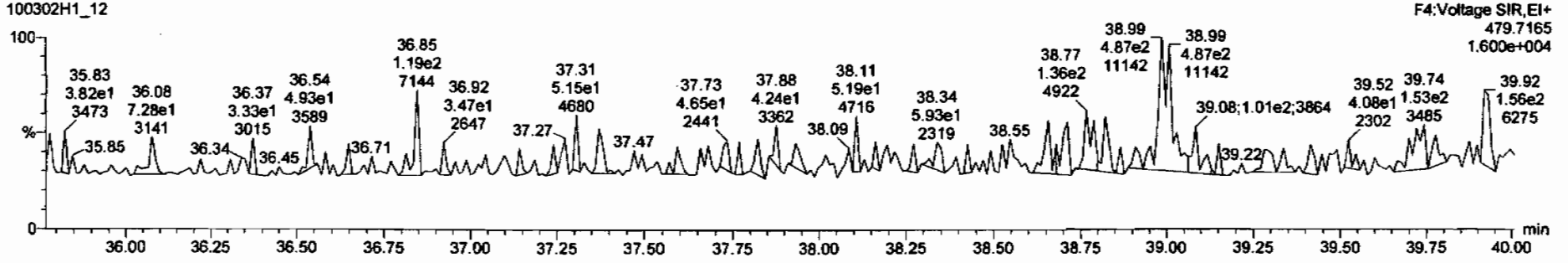

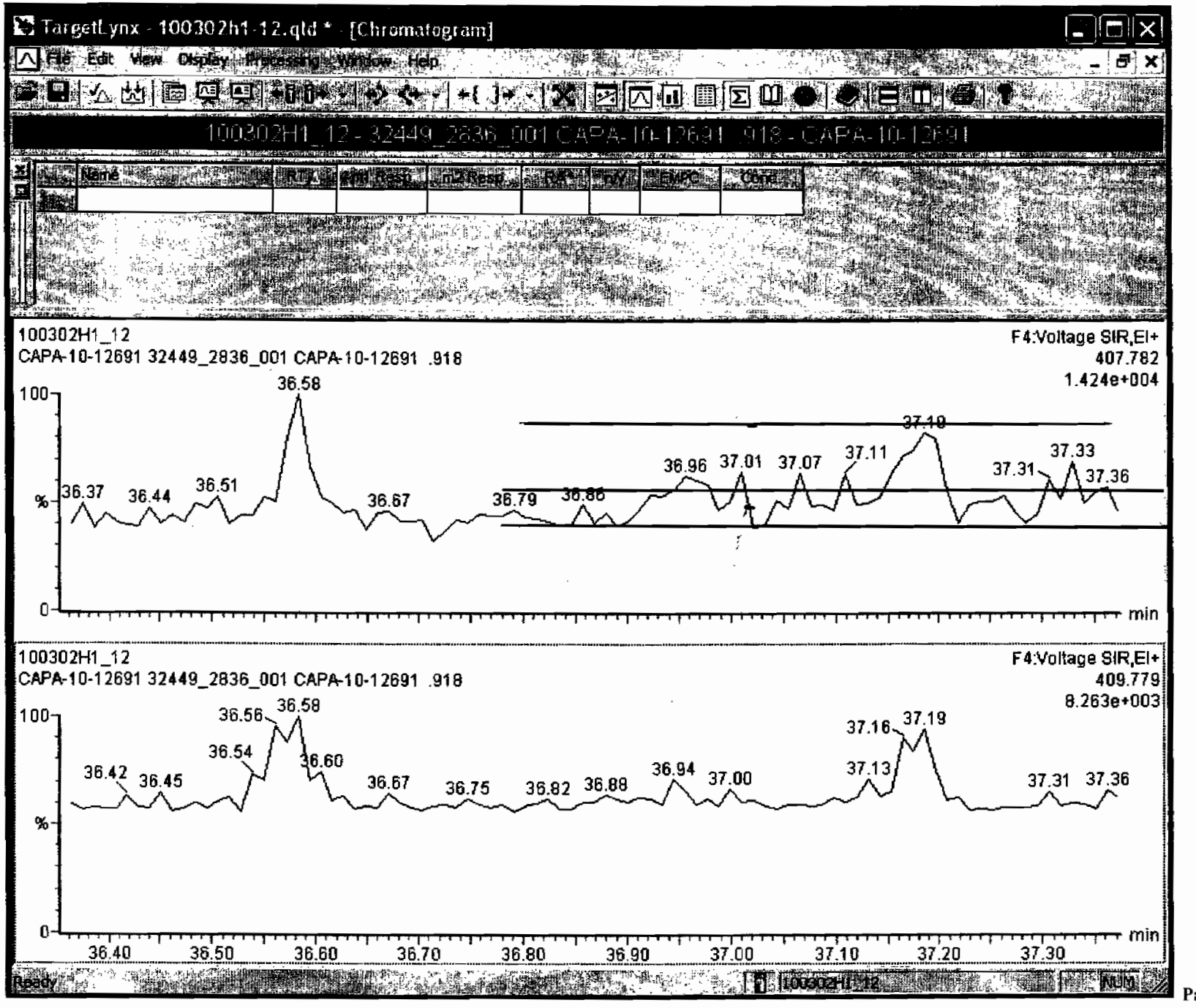
TargetLynx - 100302h1-12.qld * - [Chromatogram]
File Edit View Display Processing Window Help
100302H1_12 - 32449_2836_001 CAPA-10-12691 .918 - CAPA-10-12691
Name
100302H1_12
CAPA-10-12691 32449_2836_001 CAPA-10-12691 .918
F4:Voltage SIR,EI+
407.782
1.424e+004
36.58
37.19
36.37 36.44 36.51 36.67 36.79 36.86 36.96 37.01 37.07 37.11 37.31 37.33 37.36
100
%
0
min
100302H1_12
CAPA-10-12691 32449_2836_001 CAPA-10-12691 .918
F4:Voltage SIR,EI+
409.779
8.263e+003
36.42 36.45 36.54 36.56 36.58 36.60 36.67 36.75 36.82 36.88 36.94 37.00 37.13 37.16 37.19 37.31 37.36
100
%
0
min
36.40 36.50 36.60 36.70 36.80 36.90 37.00 37.10 37.20 37.30
Ready
100302H1_12
NUM

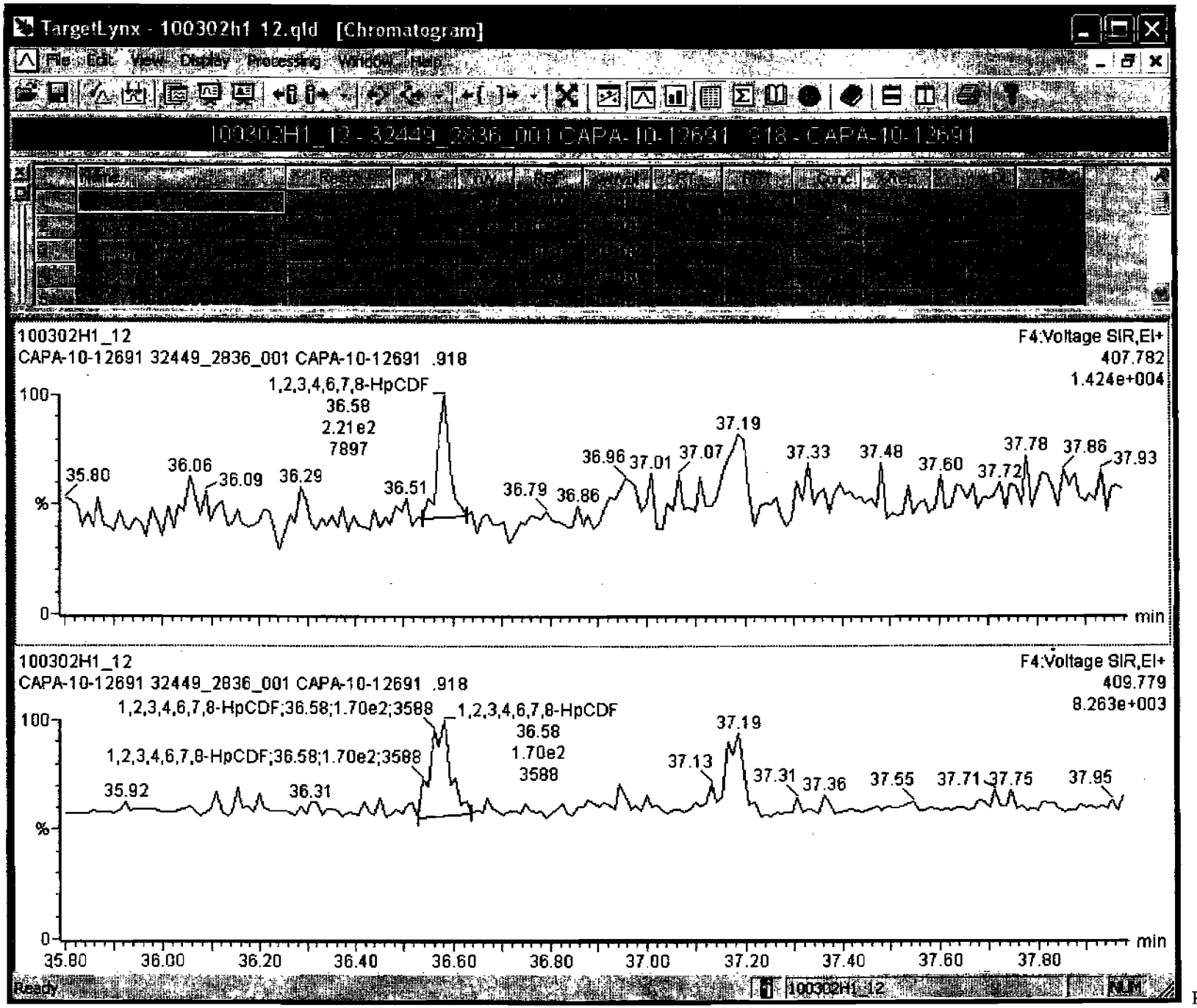
TargetLynx - 100302h1 12.qld [Chromatogram]
File Edit View Display Processing Window Help
100302H1_12 - 32449_2836_001 CAPA-10-12691 918 - CAPA-10-12691
100302H1_12
CAPA-10-12691 32449_2836_001 CAPA-10-12691 .918
F4:Voltage SIR,EI+
407.782
1.424e+004
1,2,3,4,6,7,8-HpCDF
36.58
2.21e2
7897
35.80
36.06
36.09
36.29
36.51
36.79
36.86
36.96
37.01
37.07
37.19
37.33
37.48
37.60
37.72
37.78
37.86
37.93
100
%
0
min
100302H1_12
CAPA-10-12691 32449_2836_001 CAPA-10-12691 .918
F4:Voltage SIR,EI+
409.779
8.263e+003
1,2,3,4,6,7,8-HpCDF;36.58;1.70e2;3588
1,2,3,4,6,7,8-HpCDF
36.58
1.70e2
3588
1,2,3,4,6,7,8-HpCDF;36.58;1.70e2;3588
35.92
36.31
37.13
37.19
37.31
37.36
37.55
37.71
37.75
37.95
100
%
0
min
35.80
36.00
36.20
36.40
36.60
36.80
37.00
37.20
37.40
37.60
37.80
Ready
100302H1_12
NUM

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-12.qld

Last Altered: Wednesday, March 03, 2010 08:22:55 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:23:11 Pacific Standard Time

Name: 100302H1_12, Date: 02-Mar-2010, Time: 19:58:44, ID: 32449_2836_001 CAPA-10-12691 .918, Description: CAPA-10-12691

OCDF

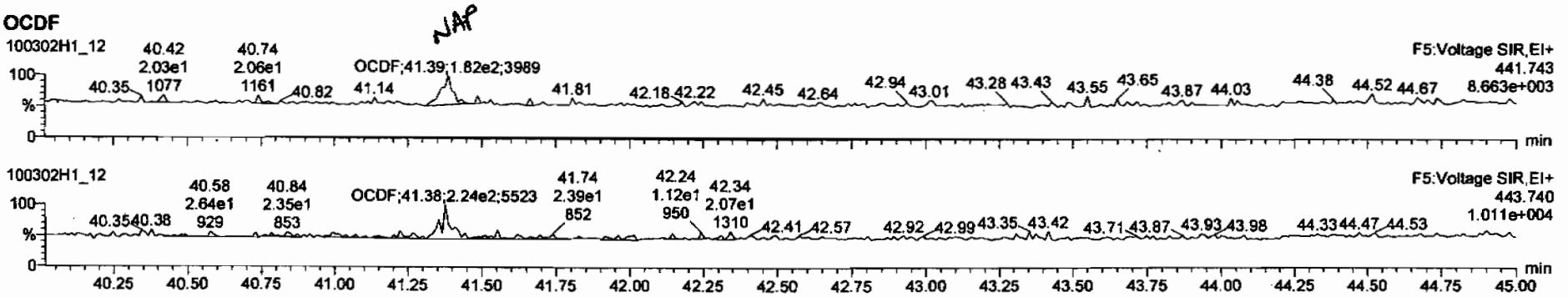

13C-OCDF

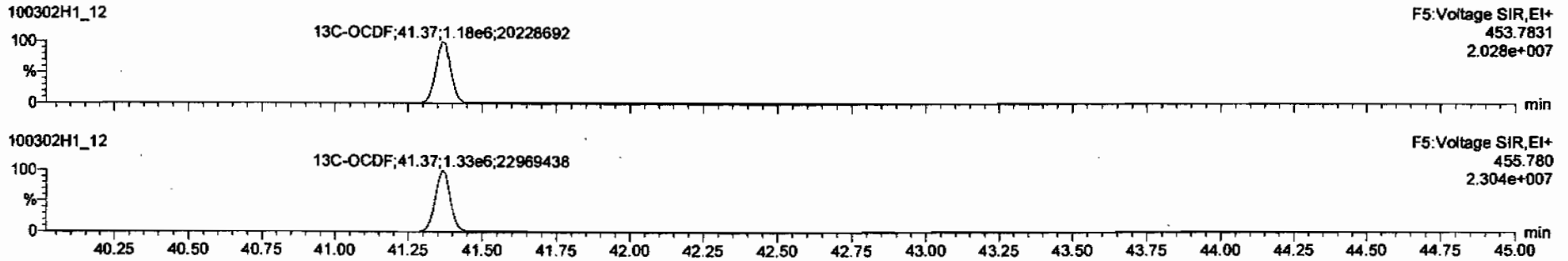

DPE5

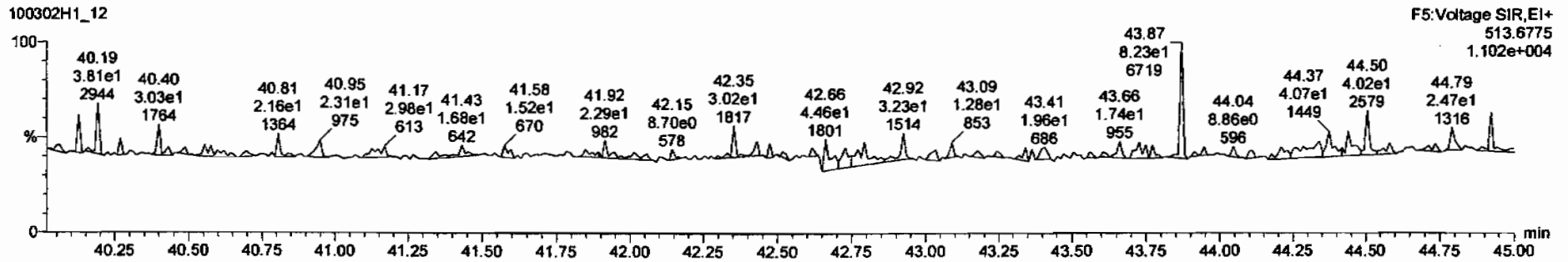

Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-12.qld

Last Altered: Wednesday, March 03, 2010 08:22:55 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:23:11 Pacific Standard Time

Name: 100302H1_12, Date: 02-Mar-2010, Time: 19:58:44, ID: 32449_2836_001 CAPA-10-12691 .918, Description: CAPA-10-12691

PFK1

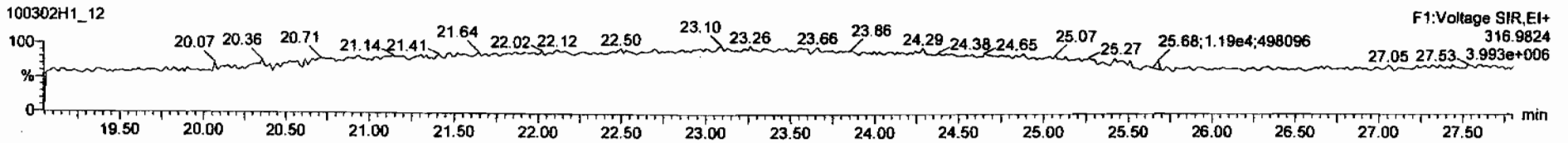

PFK2

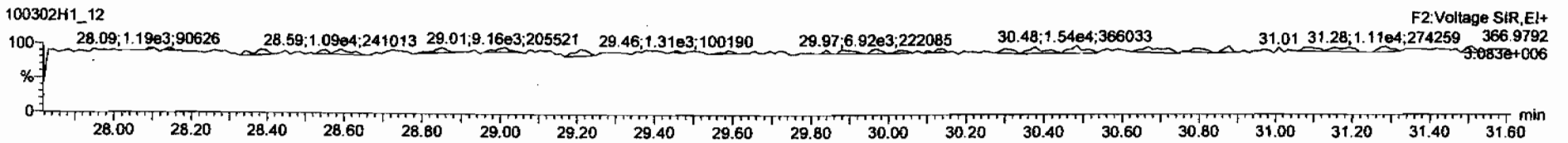

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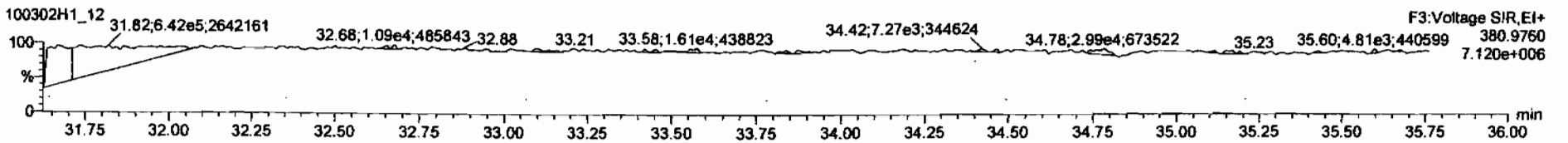

PFK4

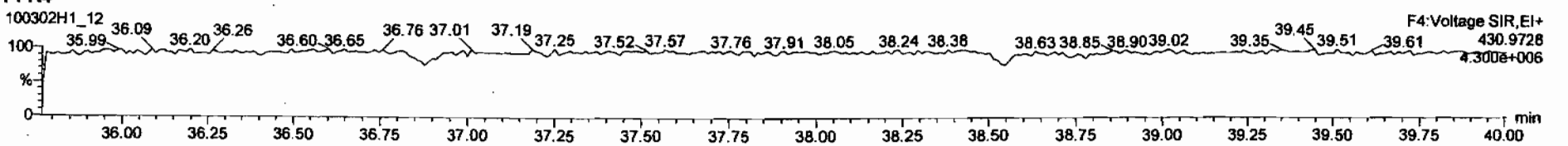

PFK5

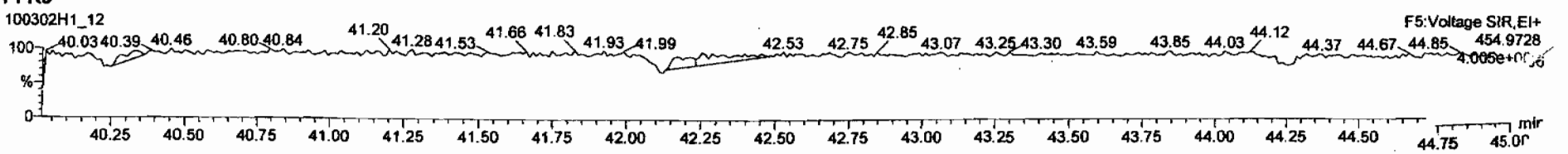

CALIBRATION DATA

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Vista Analytical Laboratory
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
VER Data file name: 100302H1_1

CCAL ID: ST100302H1-1

GC Column ID: DB-5
Analysis Date: 02-Mar-10 Analysis Time: 10:53:04

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	NO	9.98	7.8	12.9	Yes	8.00	12.0	Yes
						8.2	12.3 (4)				
1,2,3,7,8-PeCDD	M/M+2	0.61	0.54-0.72	NO	48.7	39.0	65.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	48.4	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	48.8	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDD	M+2/M+4	1.22	1.05-1.43	NO	48.5	41.0	61.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	NO	47.5	43.0	58.0	Yes	40.0	60.0	Yes
OCDD	M+2/M+4	0.88	0.76-1.02	NO	95.2	79.0	126.0	Yes	80.0	120.0	Yes
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	NO	10.3	8.4	12.0	Yes	8.00	12.0	Yes
						8.6	11.6 (4)				
1,2,3,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	NO	50.2	41.0	60.0	Yes	40.0	60.0	Yes
2,3,4,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	NO	49.4	41.0	60.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDF	M+2/M+4	1.28	1.05-1.43	NO	51.0	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	NO	50.5	44.0	57.0	Yes	40.0	60.0	Yes
2,3,4,6,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	NO	50.9	44.0	57.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDF	M+2/M+4	1.27	1.05-1.43	NO	49.8	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.05	0.88-1.20	NO	49.1	45.0	55.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.06	0.88-1.20	NO	50.3	43.0	58.0	Yes	40.0	60.0	Yes
OCDF	M+2/M+4	0.91	0.76-1.02	NO	96.3	63.0	159.0	Yes	80.0	120.0	Yes

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [signature]
Date: 3/2/10

8290 only

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Vista Analytical Laboratory
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
VER Data file name: 100302H1_1

CCAL ID: ST100302H1-1

GC Column ID: DB-5
Analysis Date: 02-Mar-10 Analysis Time: 10:53:04

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
13C-2,3,7,8-TCDD	M+2/M+4	0.78	0.65-0.89	NO	102	82.0	121.0	Yes	70.0	130.0	Yes
						85.0	117.0 (5)				
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	NO	81.6	62.0	160.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	105	85.0	117.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	106	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	104	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.04	0.88-1.20	NO	106	72.0	138.0	Yes	70.0	130.0	Yes
13C-OCDD	M+2/M+4	0.90	0.76-1.02	NO	193	96.0	415.0	Yes	140.0	260.0	Yes
13C-2,3,7,8-TCDF	M/M+2	0.79	0.65-0.89	NO	98.7	71.0	140.0	Yes	70.0	130.0	Yes
						76.0	131.0 (5)				
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	NO	85.7	76.0	130.0	Yes	70.0	130.0	Yes
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	NO	76.8	77.0	130.0	No	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	89.8	76.0	131.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	97.0	70.0	143.0	Yes	70.0	130.0	Yes
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.53	0.43-0.59	NO	99.4	73.0	137.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.50	0.43-0.59	NO	105	74.0	135.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.45	0.37-0.51	NO	105	78.0	129.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	NO	104	77.0	129.0	Yes	70.0	130.0	Yes
13C-OCDF	M+2/M+4	0.88	0.76-1.02	NO	186	96.0	415.0	Yes	140.0	260.0	Yes
CLEANUP STANDARD (4)											
37Cl-2,3,7,8-TCDD					9.64	7.9	12.7	Yes	7.0	13.0	Yes
						8.3	12.1 (5)				

8290 only

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) No ion abundance ratio; report concentration found
(5) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [signature]
Date: 3/2/10

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Tuesday, March 02, 2010 12:37:07 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:37:52 Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1	1,3,6,8-TCDD (First)	22.73
2	1,2,8,9-TCDD (Last)	26.89
3	1,2,4,7,9-PeCDD (First)	28.49
4	1,2,3,8,9-PeCDD (Last)	30.92
5	12,4,6,7,9-HxCDD (First)	32.36
6	1,2,3,7,8,9-HxCDD (Last)	34.32
7	1,2,3,4,6,7,9-HpCDD (First)	36.96
8	1,2,3,4,6,7,8-HpCDD (Last)	37.82
9	1,3,6,8-TCDF (First)	20.69
10	1,2,8,9-TCDF (Last)	27.04
11	1,3,4,6,8-PeCDF (First)	26.98
12	1,2,3,8,9-PeCDF (Last)	31.17
13	1,2,3,4,6,8-HxCDF (First)	31.81
14	1,2,3,4,8,9-HxCDF (Last)	34.72
15	1,2,3,4,6,7,8-HpCDF (First)	36.57
16	1,2,3,4,7,8,9-HpCDF (Last)	38.37

3/2/10

FORM 6A

PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory

CCAL ID: ST100302H1-1

Initial Calibration Date: 01/29/2010

Instrument ID: VG10

GC Column ID: DB-5

VER Data file name: 100302H1_1

Analysis Date: 02-Mar-10

Analysis Time: 10:53:04

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999	1.002	Yes
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.000	0.999	1.002	Yes
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999	1.003	Yes
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999	1.002	Yes
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999	1.002	Yes
LABELED COMPOUNDS					
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.976	1.043	Yes
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.200	1.000	1.567	Yes
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.992	0.923	1.103	Yes
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.153	1.000	1.425	Yes
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.189	1.011	1.526	Yes
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.023	0.989	1.052	Yes

Analyst: [signature]

Date: 3/2/10

FORM 6B

PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory

CCAL ID: ST100302H1-1

Initial Calibration Date: 01/29/2010

Instrument ID: VG10

GC Column ID: DB-5

VER Data file name: 100302H1_1

Analysis Date: 02-Mar-10

Analysis Time: 10:53:04

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999	1.001	Yes
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998	1.004	Yes
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.009	0.998	1.004	No
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.001	0.999	1.001	Yes
OCDD	13C-OCDD	1.001	0.999	1.001	Yes
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.001	0.999	1.001	Yes
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	0.997	1.005	Yes
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.000	0.999	1.001	Yes
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999	1.001	Yes
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.000	0.999	1.001	Yes
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999	1.001	Yes
OCDF	13C-OCDF	1.000	0.999	1.001	Yes
LABELED COMPOUNDS					
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.014	1.002	1.026	Yes
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.017	1.007	1.029	Yes
13C-1,2,3,7,8,9-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.027	1.014	1.038	Yes
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,9-HxCDF	1.131	1.117	1.141	Yes
13C-OCDD	13C-1,2,3,4,6,9-HxCDF	1.230	1.085	1.365	Yes
13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.987	0.975	1.001	Yes
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.991	0.979	1.005	Yes
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.009	1.001	1.020	Yes
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.038	1.002	1.072	Yes
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.094	1.069	1.111	Yes
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.148	1.098	1.192	Yes
13C-OCDF	13C-1,2,3,4,6,9-HxCDF	1.238	1.091	1.371	Yes

Analyst: _____

Date: 3/2/10

Vista Analytical Laboratory

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:49 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1	2,3,7,8-TCDD	1.98e5	0.78	NO	1.04	1.000	26.03	1.001	9.9778	99.8	0.0229	9.9778
2	1,2,3,7,8-PeCDD	6.94e5	0.61	NO	0.935	1.000	30.55	1.000	48.734	97.5	0.0566	48.734
3	1,2,3,4,7,8-HxCDD	6.47e5	1.24	NO	0.907	1.000	33.91	1.000	48.434	96.9	0.0704	48.434
4	1,2,3,6,7,8-HxCDD	6.40e5	1.24	NO	0.995	1.000	34.01	1.000	48.803	97.6	0.0708	48.803
5	1,2,3,7,8,9-HxCDD	7.05e5	1.22	NO	0.930	1.000	34.32	1.009	48.539	97.1	0.0696	48.539
6	1,2,3,4,6,7,8-HpCDD	5.86e5	1.05	NO	1.00	1.000	37.82	1.001	47.456	94.9	0.0855	47.456
7	OCDD	1.01e6	0.88	NO	1.10	1.000	41.15	1.001	95.223	95.2	0.0506	95.223
8	2,3,7,8-TCDF	2.63e5	0.77	NO	0.956	1.000	25.27	1.001	10.252	103	0.0175	10.252
9	1,2,3,7,8-PeCDF	1.06e6	1.56	NO	0.941	1.000	29.37	1.000	50.224	100	0.0437	50.224
10	2,3,4,7,8-PeCDF	9.74e5	1.55	NO	0.926	1.000	30.27	1.000	49.365	98.7	0.0440	49.365
11	1,2,3,4,7,8-HxCDF	1.07e6	1.28	NO	1.22	1.000	33.02	1.001	51.044	102	0.0678	51.044
12	1,2,3,6,7,8-HxCDF	1.00e6	1.26	NO	1.08	1.000	33.14	1.000	50.465	101	0.0694	50.465
13	2,3,4,6,7,8-HxCDF	9.37e5	1.26	NO	1.13	1.000	33.74	1.000	50.885	102	0.0798	50.885
14	1,2,3,7,8,9-HxCDF	8.63e5	1.27	NO	1.13	1.000	34.72	1.001	49.825	99.6	0.0901	49.825
15	1,2,3,4,6,7,8-HpCDF	8.83e5	1.05	NO	1.44	1.000	36.57	1.000	49.095	98.2	0.0901	49.095
16	1,2,3,4,7,8,9-HpCDF	7.95e5	1.06	NO	1.38	1.000	38.37	1.000	50.281	101	0.0850	50.281
17	OCDF	1.20e6	0.91	NO	1.01	1.000	41.38	1.000	96.275	96.3	0.0444	96.275
18	13C-2,3,7,8-TCDD	1.91e6	0.78	NO	1.10	1.000	26.00	1.022	101.96	102	0.0780	
19	13C-1,2,3,7,8-PeCDD	1.52e6	0.62	NO	1.09	1.000	30.54	1.200	81.621	81.6	0.0678	
20	13C-1,2,3,4,7,8-HxCDD	1.47e6	1.24	NO	1.01	1.000	33.89	1.014	104.59	105	0.104	
21	13C-1,2,3,6,7,8-HxCDD	1.32e6	1.24	NO	0.889	1.000	34.00	1.017	106.34	106	0.118	
22	13C-1,2,3,7,8,9-HxCDD	1.56e6	1.24	NO	1.07	1.000	34.31	1.027	104.44	104	0.0976	
23	13C-1,2,3,4,6,7,8-HpCDD	1.23e6	1.04	NO	0.837	1.000	37.80	1.131	105.66	106	0.173	
24	13C-OCDD	1.91e6	0.90	NO	0.712	1.000	41.13	1.230	193.05	96.5	0.0760	
25	13C-2,3,7,8-TCDF	2.68e6	0.79	NO	1.05	1.000	25.24	0.992	98.679	98.7	0.0598	
26	13C-1,2,3,7,8-PeCDF	2.25e6	1.56	NO	1.02	1.000	29.35	1.153	85.664	85.7	0.104	
27	13C-2,3,4,7,8-PeCDF	2.13e6	1.55	NO	1.08	1.000	30.26	1.189	76.803	76.8	0.0985	
28	13C-1,2,3,4,7,8-HxCDF	1.71e6	0.52	NO	1.37	1.000	32.99	0.987	89.836	89.8	0.104	
29	13C-1,2,3,6,7,8-HxCDF	1.85e6	0.52	NO	1.37	1.000	33.13	0.991	96.990	97.0	0.104	
30	13C-2,3,4,6,7,8-HxCDF	1.64e6	0.53	NO	1.18	1.000	33.73	1.009	99.435	99.4	0.120	

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Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:49 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

31	13C-1,2,3,7,8,9-HxCDF	1.53e6	0.50	NO	1.05	1.000	34.70	1.038	104.92	105	0.135
32	13C-1,2,3,4,6,7,8-HpCDF	1.25e6	0.45	NO	0.858	1.000	36.56	1.094	104.62	105	0.196
33	13C-1,2,3,4,7,8,9-HpCDF	1.15e6	0.44	NO	0.794	1.000	38.36	1.148	103.71	104	0.211
34	13C-OCDF	2.46e6	0.88	NO	0.948	1.000	41.37	1.238	186.23	93.1	0.0538
35	37Cl-2,3,7,8-TCDD	1.09e5			0.665	1.000	26.03	1.023	9.6403	96.4	0.0528
36	13C-1,2,3,4-TCDD	1.70e6	0.79	NO	1.00	1.000	25.45	0.000	100.00	100	0.0857
37	13C-1,2,3,4-TCDF	2.58e6	0.77	NO	1.00	1.000	24.07	0.000	100.00	100	0.0629
38	13C-1,2,3,4,6,9-HxCDF	1.39e6	0.52	NO	1.00	1.000	33.42	0.000	100.00	100	0.142

Quantify Compound Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, March 03, 2010 8:06:52 AM Pacific Standard Time
Printed: Wednesday, March 03, 2010 8:07:08 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Compound name: 1,3,6,8-TCDD (First)

100302H1_1	ST100302H1-1 1613 CS3 100127F	02-Mar-10	10:53:04
100302H1_2	solvent blank	02-Mar-10	11:42:34
100302H1_3	solvent blank	02-Mar-10	12:32:05
100302H1_4	solvent blank	02-Mar-10	13:21:39
100302H1_5	0_2836_OPR001	02-Mar-10	14:11:13
100302H1_6	solvent blank	02-Mar-10	15:01:15
100302H1_7	0_2836_MB001	02-Mar-10	15:50:57
100302H1_8	32447_2836_001 CAMO-10-9357 .896	02-Mar-10	16:40:37
100302H1_9	32448_2836_001 CAMO-10-9370 .903	02-Mar-10	17:30:08
100302H1_10	32448_2836_002 CAMO-10-9373 .87	02-Mar-10	18:19:40
100302H1_11	32448_2836_003 CAMO-10-10133 .825	02-Mar-10	19:09:11
100302H1_12	32449_2836_001 CAPA-10-12691 .918	02-Mar-10	19:58:44
100302H1_13	32453_2836_001 CAWA-10-13090 .91	02-Mar-10	20:48:17
100302H1_14	32455_2836_001 CAPA-10-13498 .93	02-Mar-10	21:37:47
100302H1_15	32458_2836_001 CAPA-10-12917 .905	02-Mar-10	22:26:20
100302H1_16	solvent blank	02-Mar-10	23:15:51
100302H1_17	ST100302H1-2 1613 CS3 100127F	03-Mar-10	00:05:17

CALIBRATION STANDARDS REVIEW CHECKLIST

Vista Analytical Laboratory

Beg. Calibration ID: ST100302H1-1 End Calibration ID: ST100302H1-2

	Beg.	End
Ion abundance within QC limits?	✓	✓
Concentration within range?	✓	✓
First and last eluters present?	✓	✓
Retention Times within criteria?	✓	✓
Verification Std. named correctly? (ST-Year-Month-Day-VG ID)	✓	✓
Forms signed and dated?	✓	✓
Correct ICAL referenced?	✓	✓
Run Log:		
-Data file matches Conc Cal ID?	✓	✓
-Correct instrument listed?	✓	✓
-Samples within 12-hour clock?	(y)	n

	Beg.	End
Mass resolution > 10,000?	✓	✓
▪ Method 1614 > 5,000; CARB 429 > 8,000		
TCDD/TCDF valleys < 25%?	✓	✓
Peaks integrated correctly?	✓	✓
Manual integrations included?	✓	✓
8280 CS1 Ending Standard		
-Ratios within limits		NA
-S/N > 2.5:1		
-CS1 within 12-hour clock		✓

Comments: *8290 only

Reviewed by: JMS 3/2/10
Initials & Date

* *Ending standard criteria applicable to 8290 only.*

Vista Analytical Laboratory
El Dorado Hills, CA 95762

Calib.Stds.Review 12/2009 rmh

Experiment Calibration Report **MassLynx 4.1**

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed: Tuesday, March 02, 2010 10:50:33 Pacific Standard Time

M 292.9824 R 13298

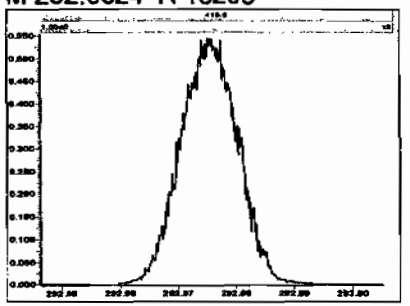

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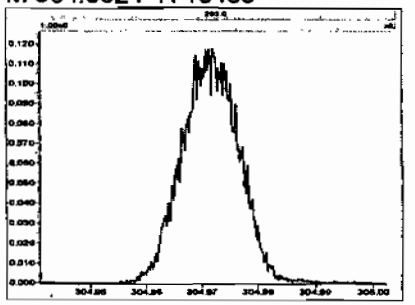

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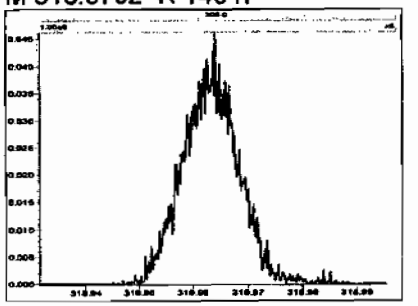

M 330.9792 R 13888

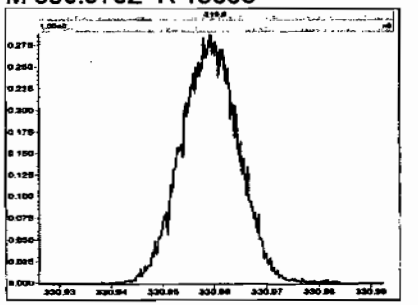

M 342.9792 R 13590

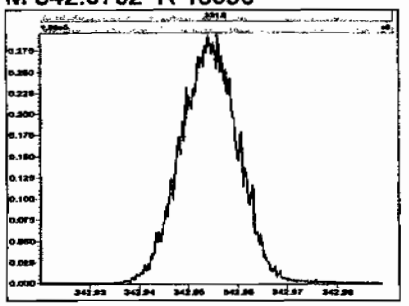

M 354.9792 R 12691

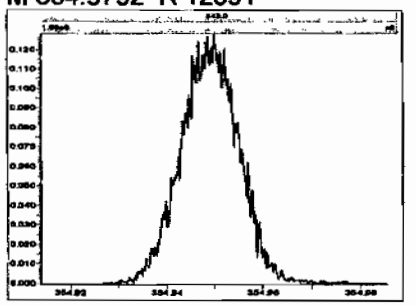

M 366.9792 R 12885

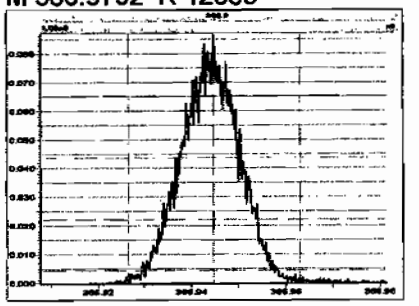

M 380.9760 R 12817

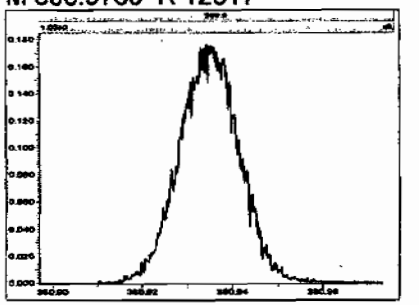

M 392.9760 R 12438

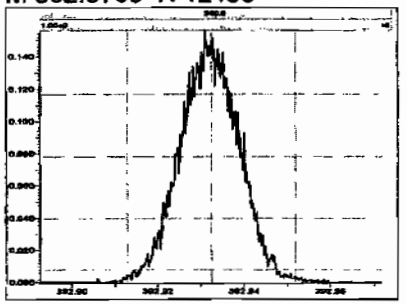

M 404.9760 R 12754

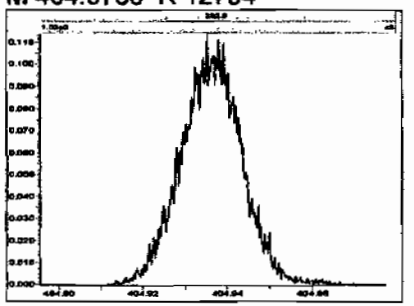

M 416.9760 R 12888

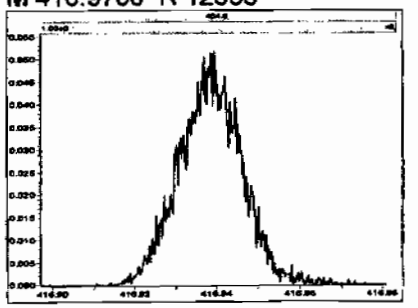

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed: Tuesday, March 02, 2010 10:51:18 Pacific Standard Time

M 330.9792 R 14205

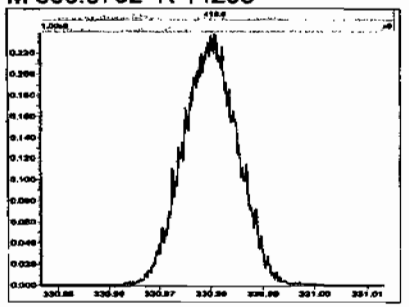

M 342.9792 R 13511

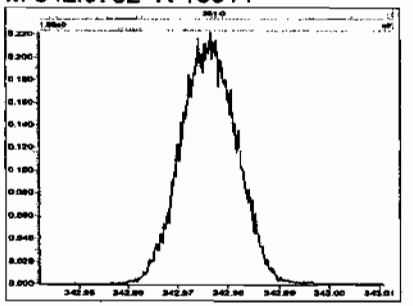

M 354.9792 R 13657

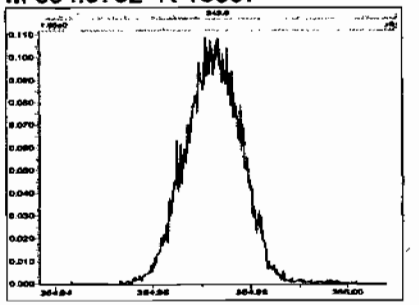

M 366.9792 R 13888

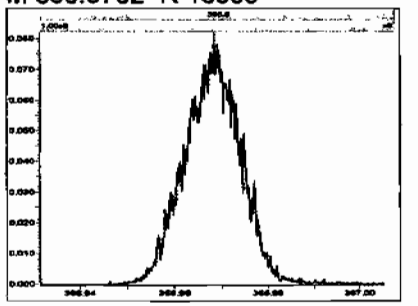

M 380.9760 R 13156

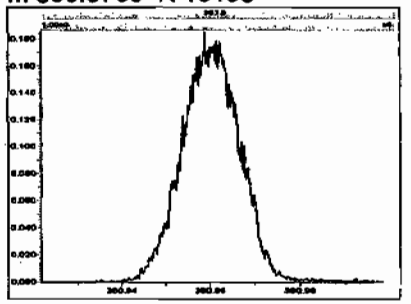

M 392.9760 R 13442

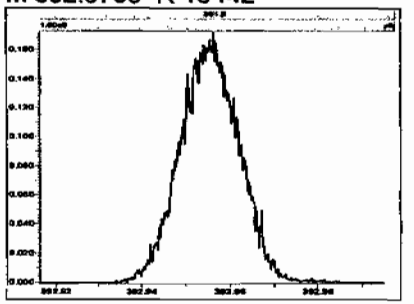

M 404.9760 R 13157

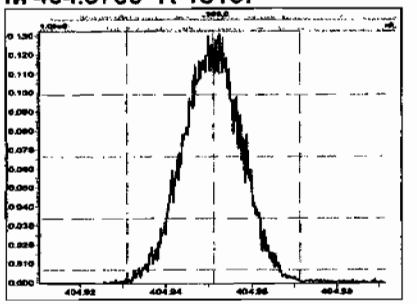

M 416.9760 R 13155

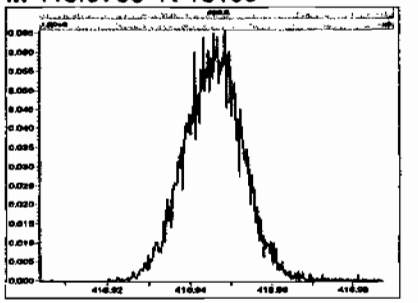

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed: Tuesday, March 02, 2010 10:51:48 Pacific Standard Time

M 366.9792 R 14536

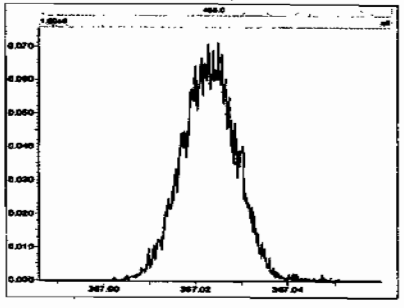

M 380.9760 R 14535

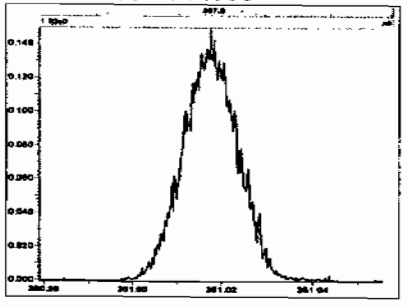

M 392.9760 R 13887

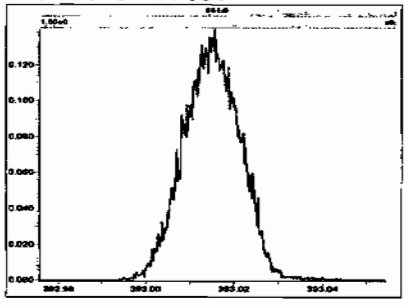

M 404.9760 R 13299

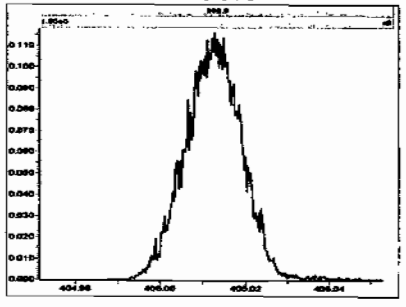

M 416.9760 R 13888

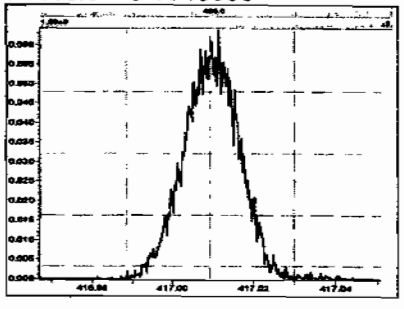

M 430.9728 R 12753

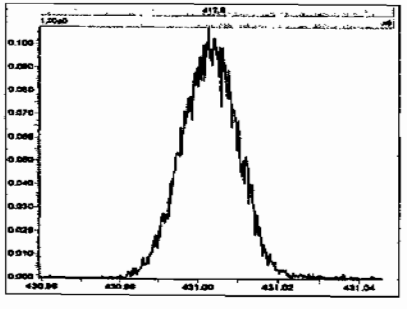

M 442.9728 R 13090

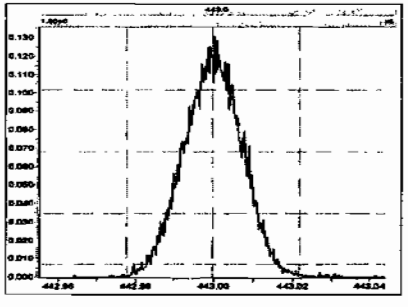

M 454.9728 R 13368

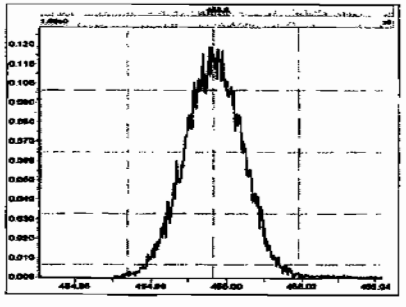

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed: Tuesday, March 02, 2010 10:52:15 Pacific Standard Time

M 404.9760 R 13366

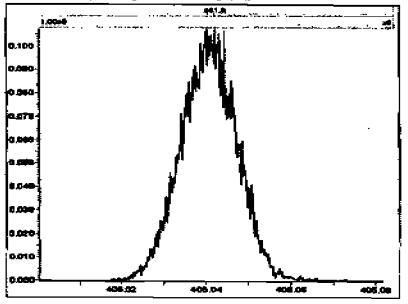

M 416.9760 R 13889

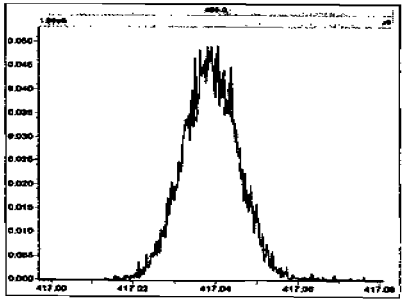

M 430.9728 R 13965

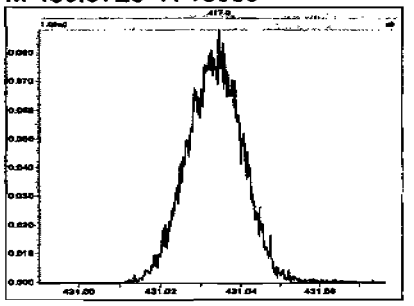

M 442.9728 R 13658

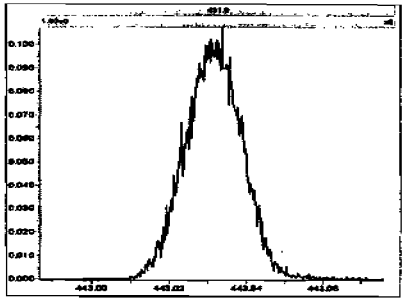

M 454.9728 R 13587

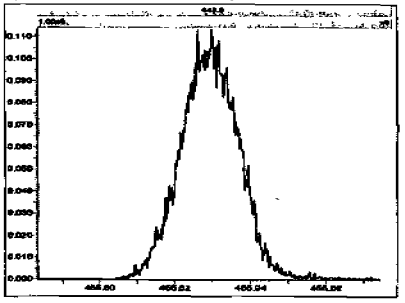

M 466.9728 R 13585

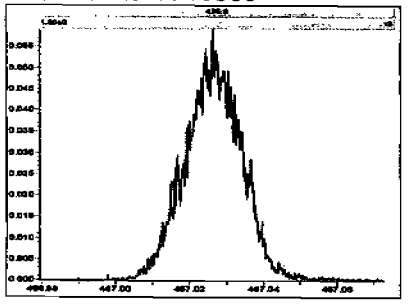

M 480.9696 R 13968

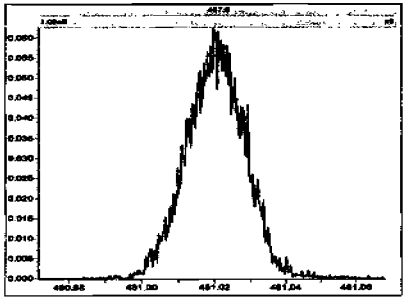

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed: Tuesday, March 02, 2010 10:52:39 Pacific Standard Time

M 430.9728 R 13437

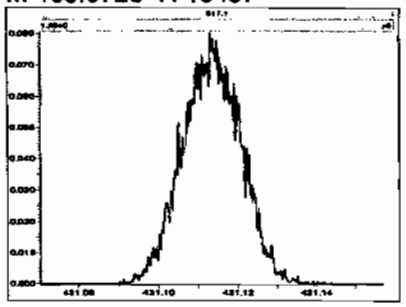

M 442.9728 R 12376

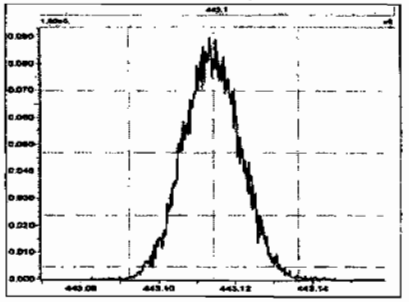

M 454.9728 R 13225

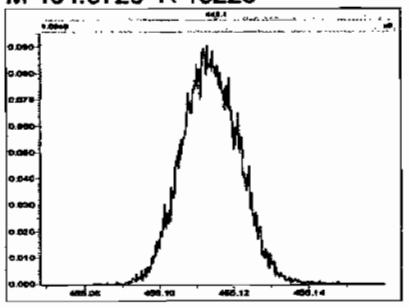

M 466.9728 R 13299

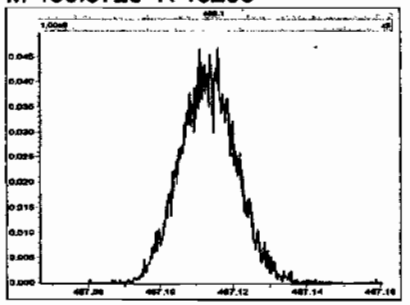

M 480.9696 R 12690

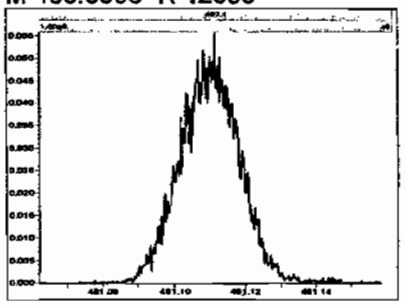

M 492.9696 R 12624

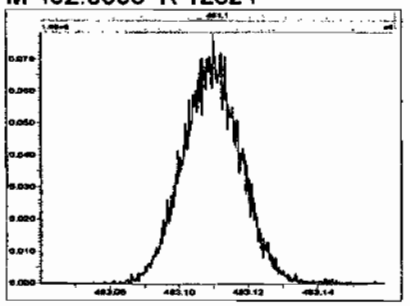

M 504.9696 R 12623

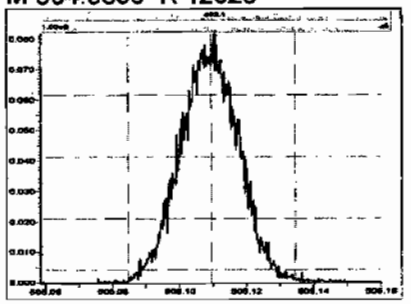

M 516.9697 R 12503

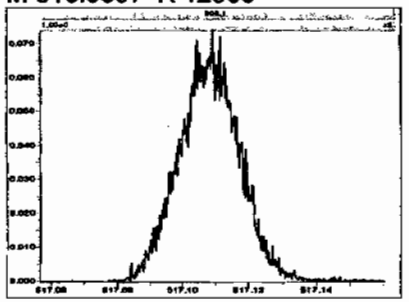

Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Tuesday, March 02, 2010 12:37:07 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:37:52 Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1,3,6,8-TCDD (First)

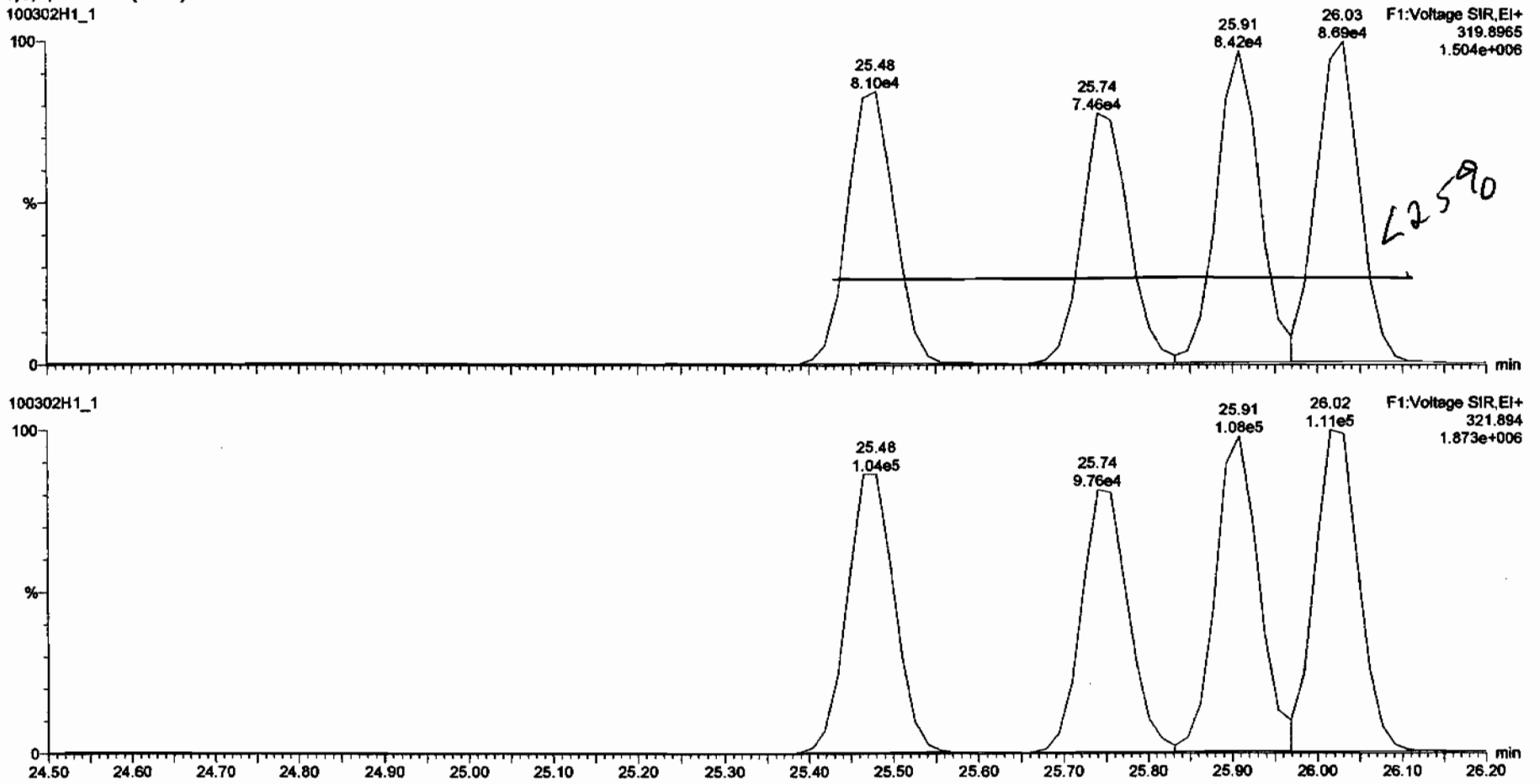

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
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Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

2,3,7,8-TCDD

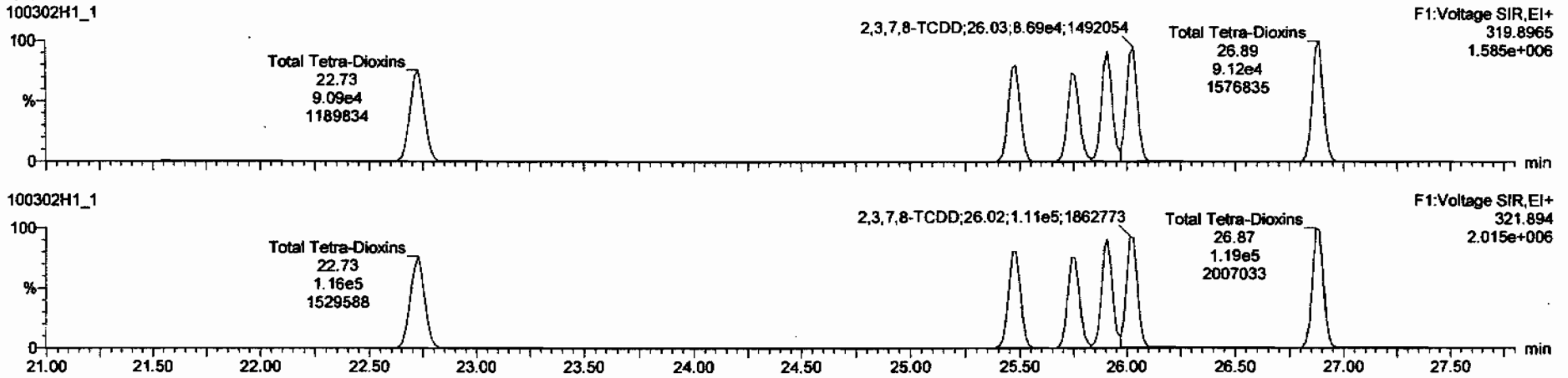

13C-2,3,7,8-TCDD

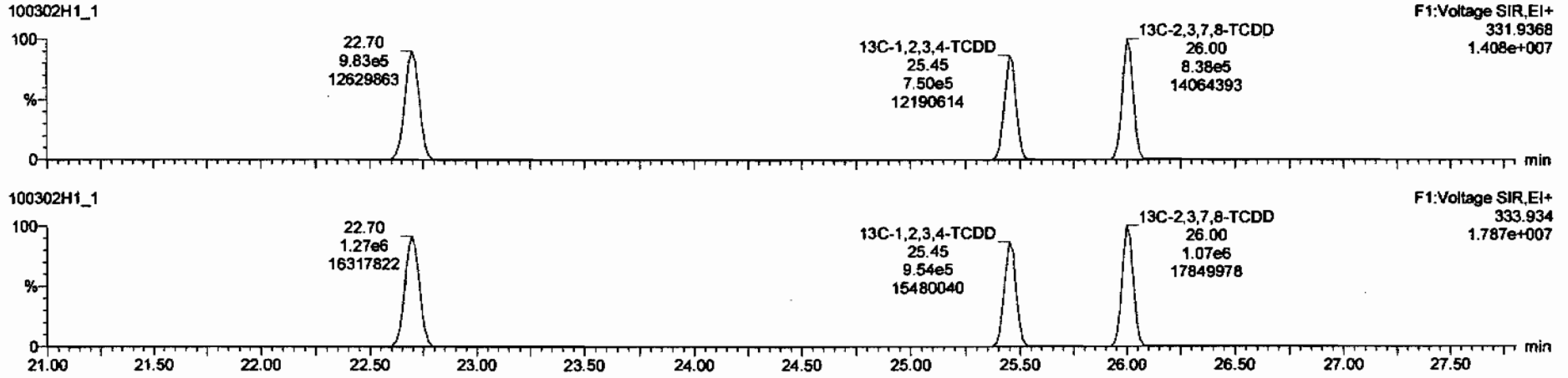

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

37Cl-2,3,7,8-TCDD

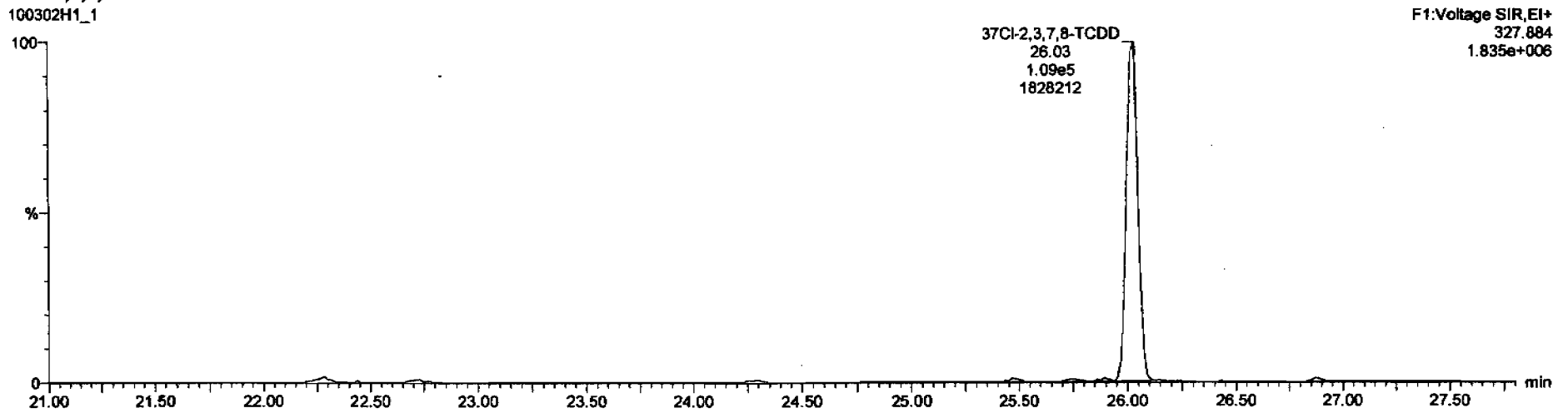

13C-1,2,3,4-TCDD

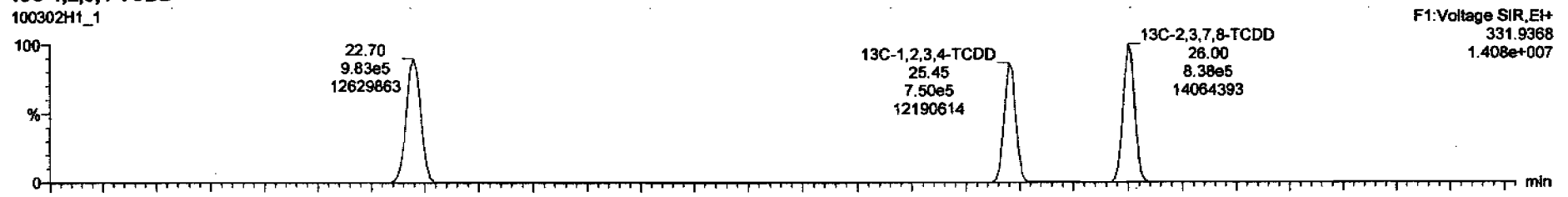

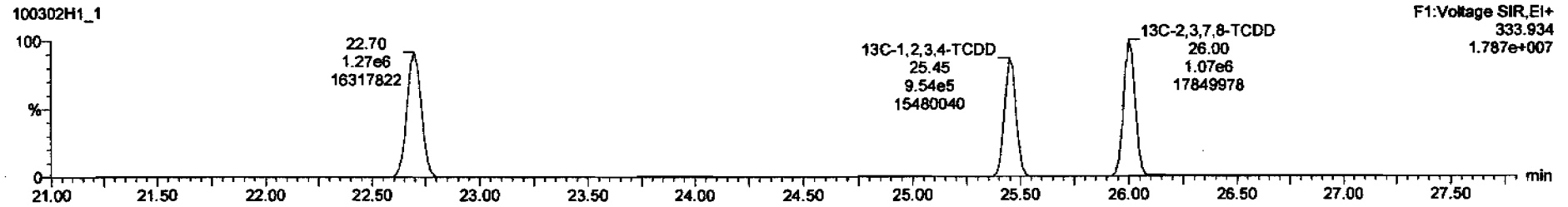

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Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,7,8-PeCDD

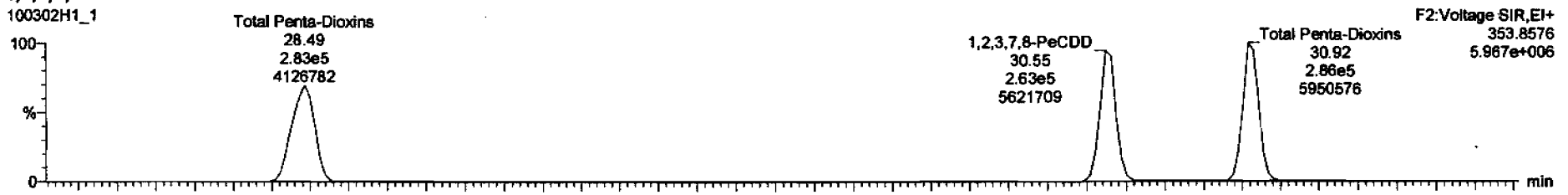

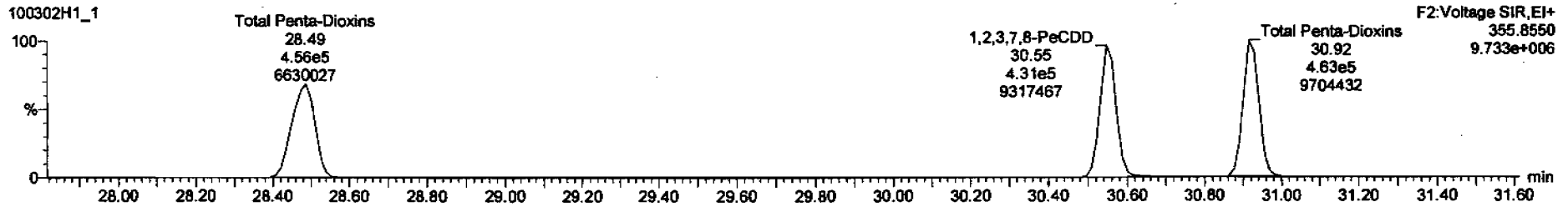

13C-1,2,3,7,8-PeCDD

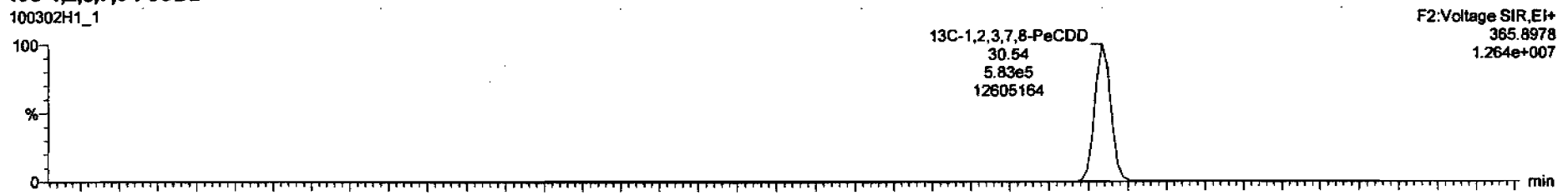

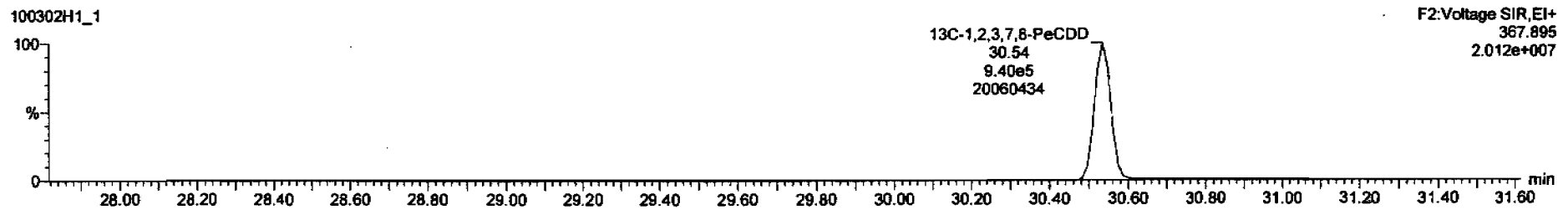

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Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,4,7,8-HxCDD

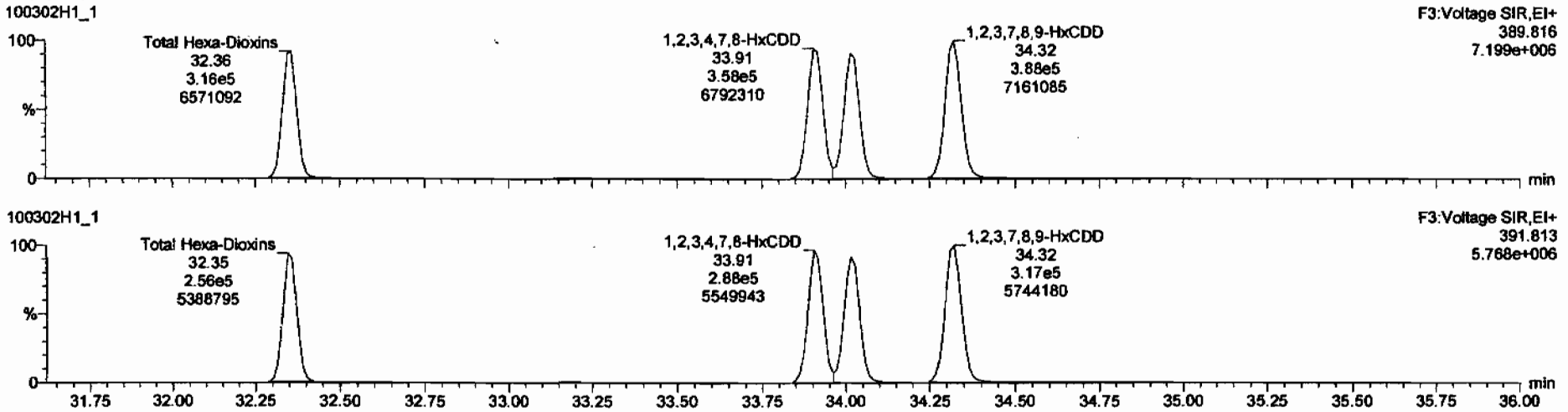

13C-1,2,3,4,7,8-HxCDD

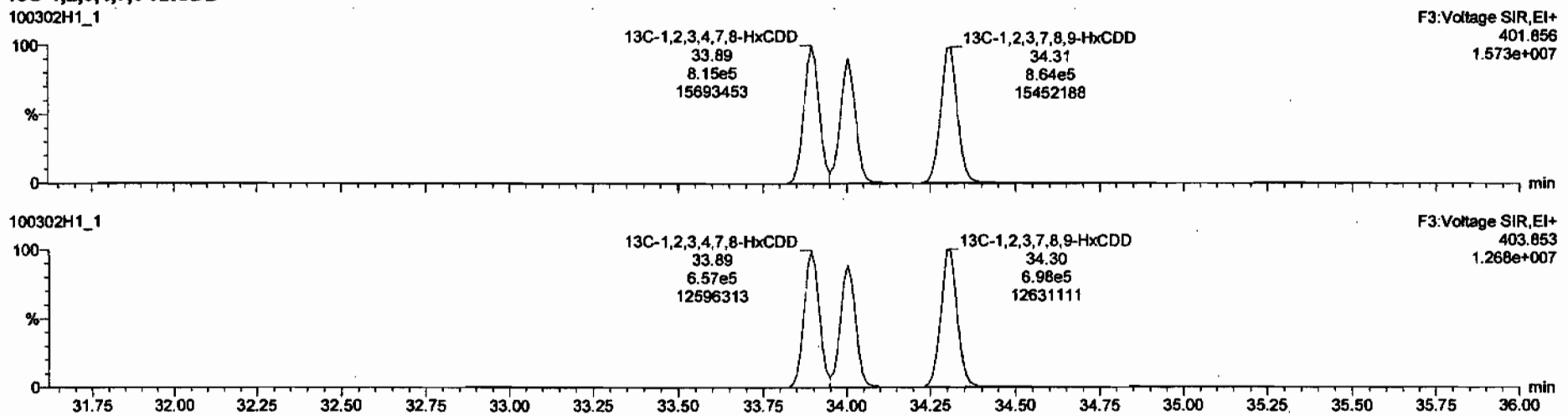

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Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,4,6,7,8-HpCDD

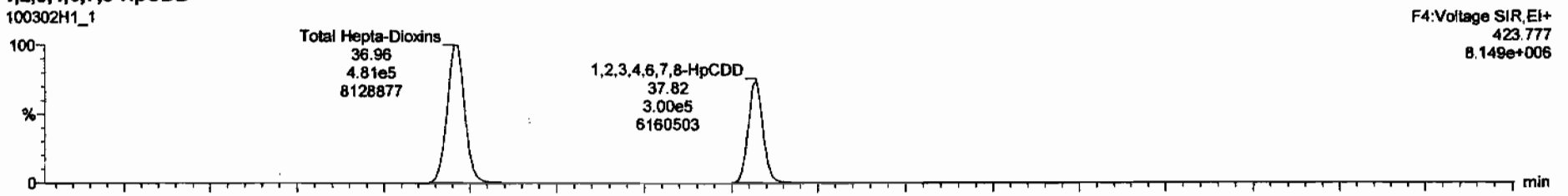

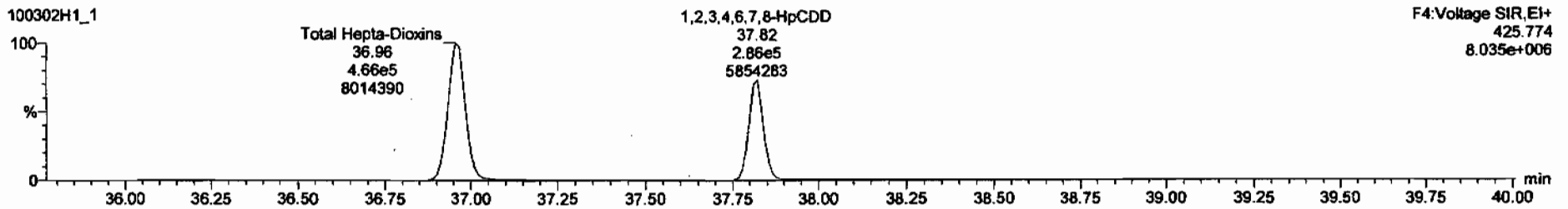

13C-1,2,3,4,6,7,8-HpCDD

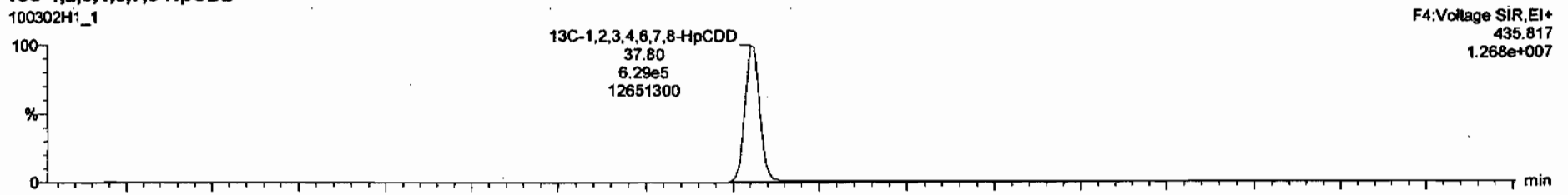

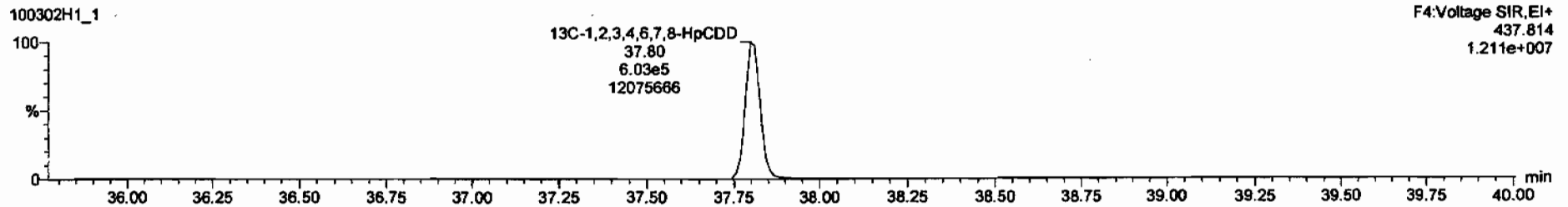

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Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

OCDD

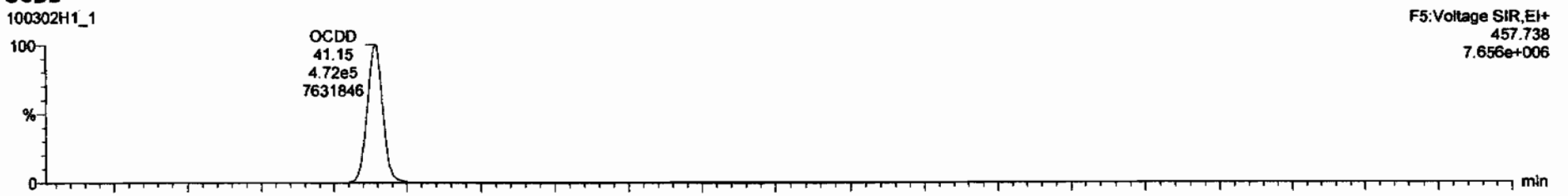

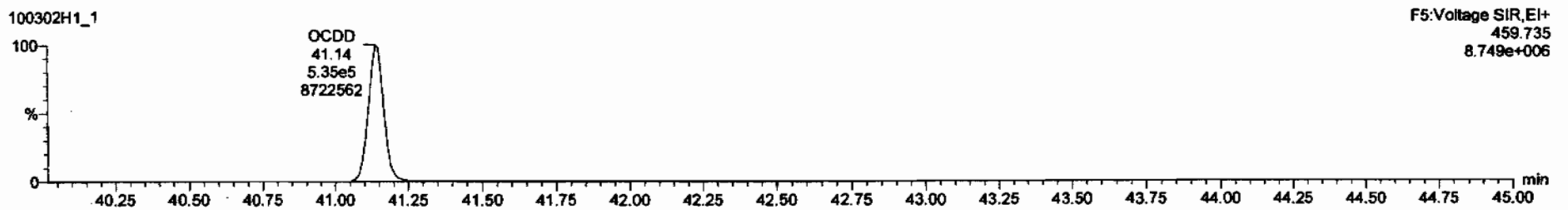

13C-OCDD

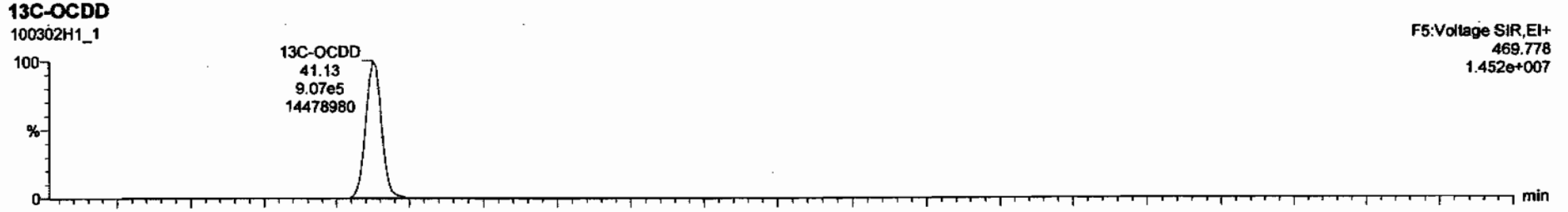

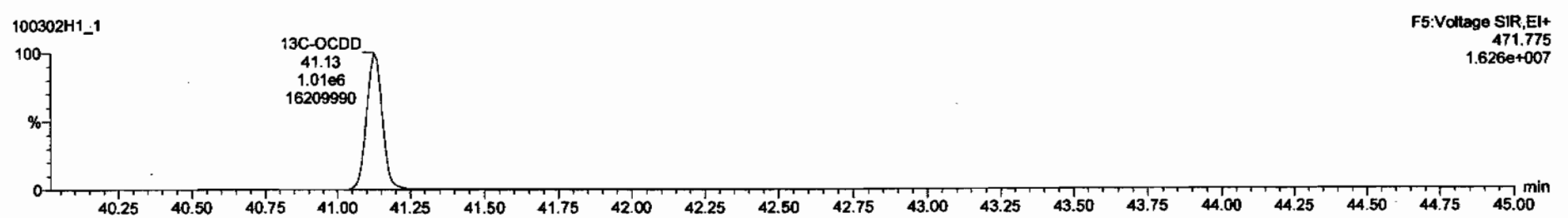

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

2,3,7,8-TCDF

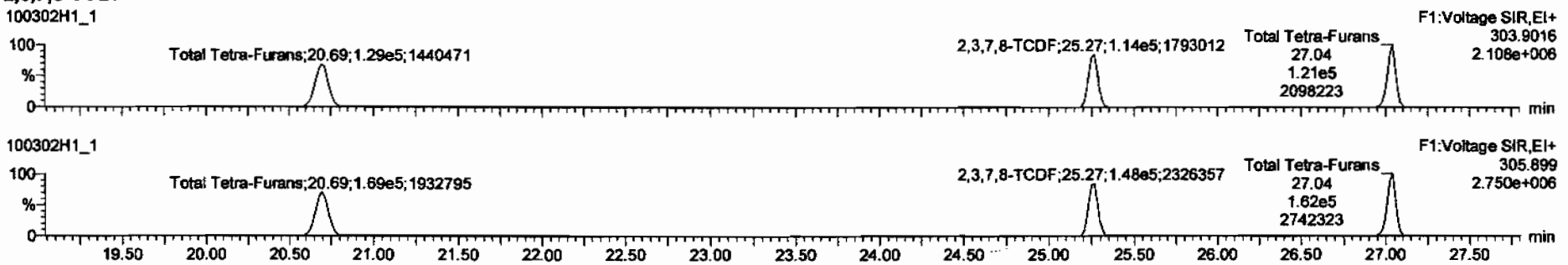

13C-2,3,7,8-TCDF

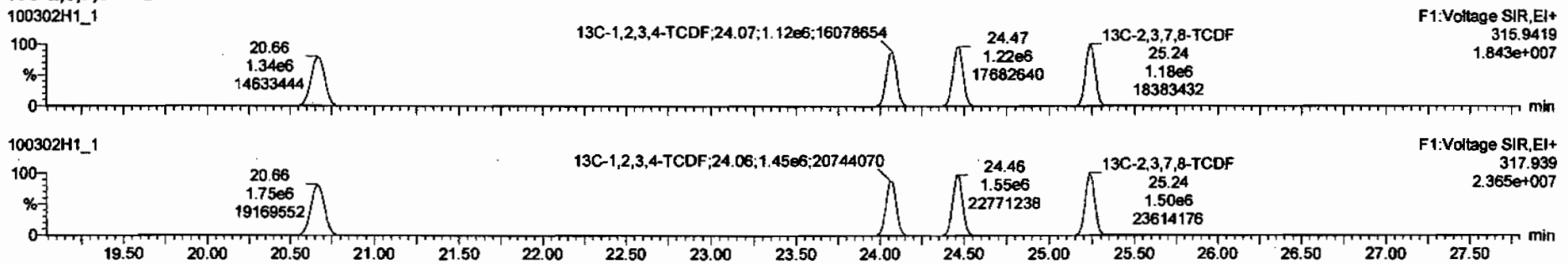

DPE1

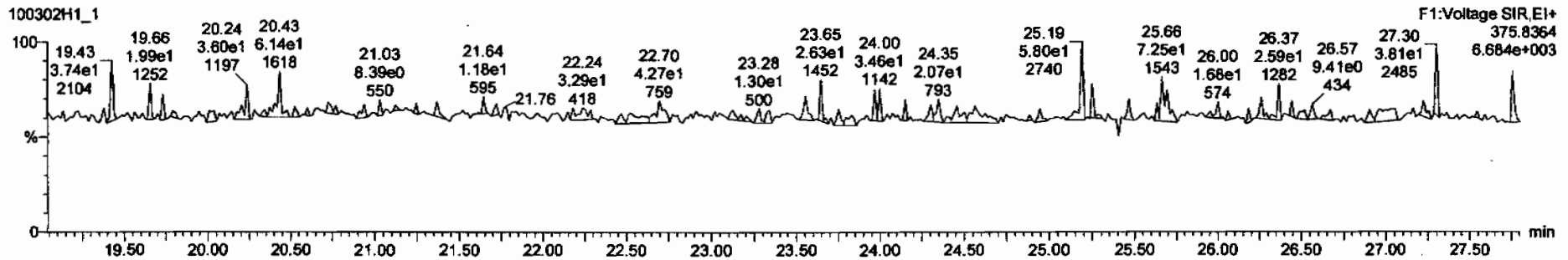

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

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Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

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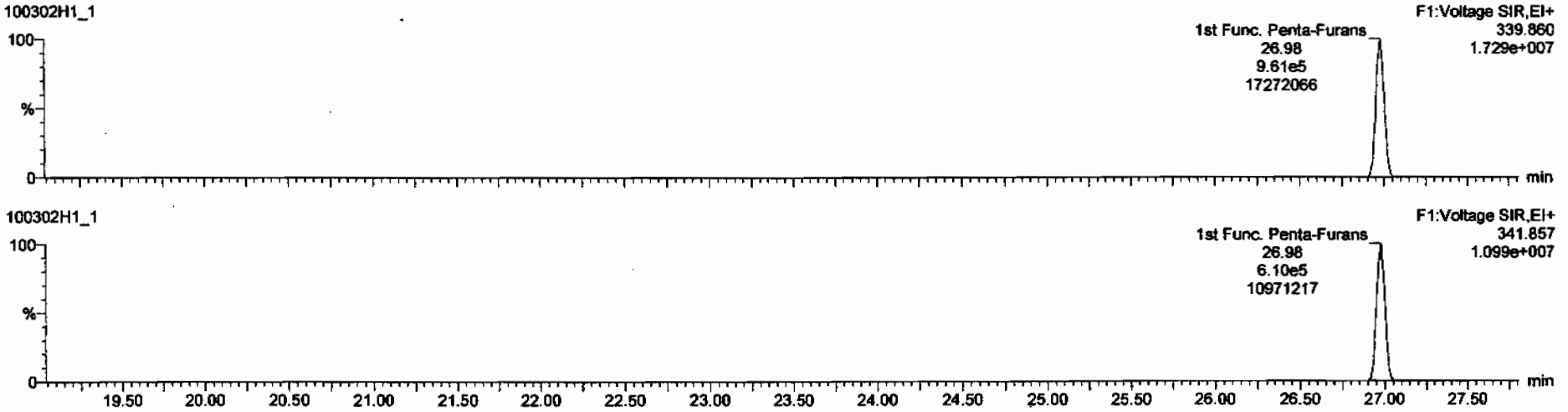

DPE6

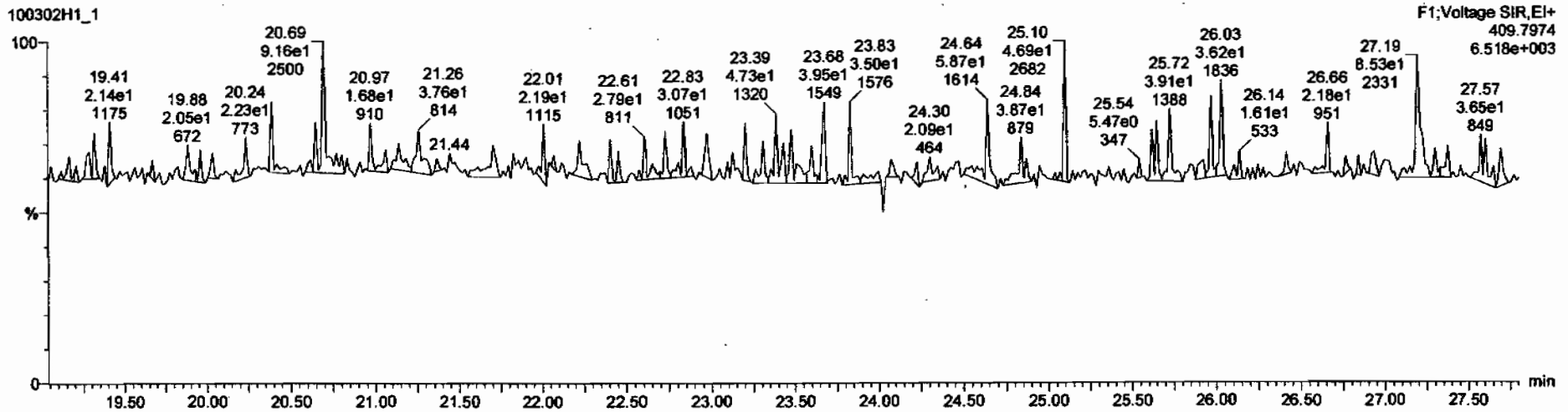

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,7,8-PeCDF

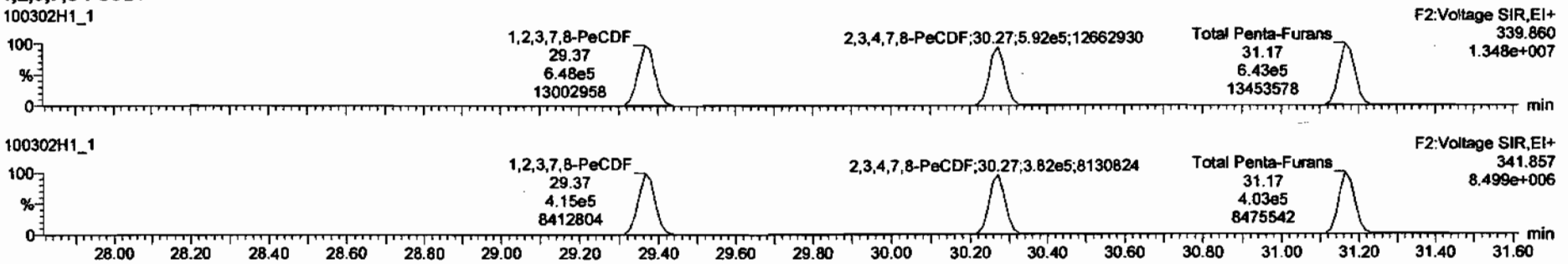

13C-1,2,3,7,8-PeCDF

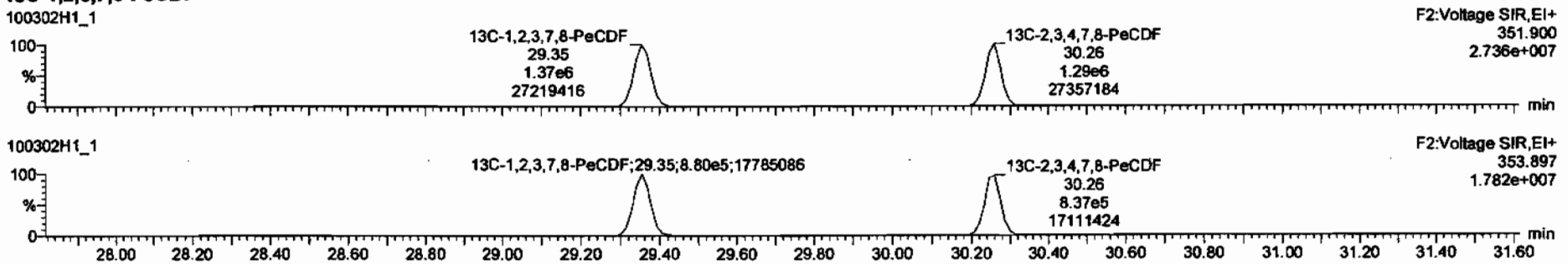

DPE2

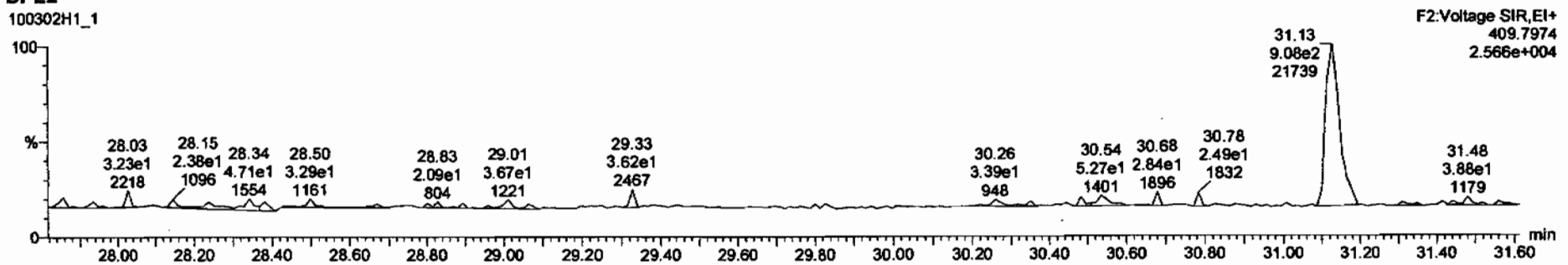

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,4,7,8-HxCDF

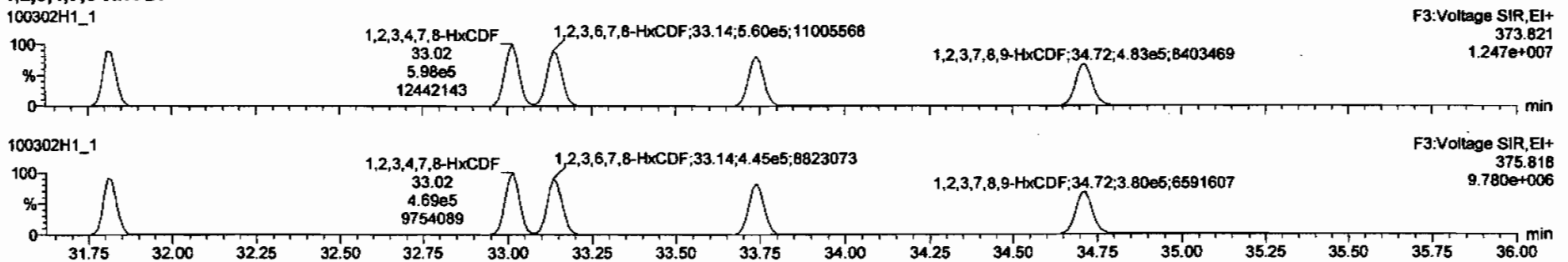

13C-1,2,3,4,7,8-HxCDF

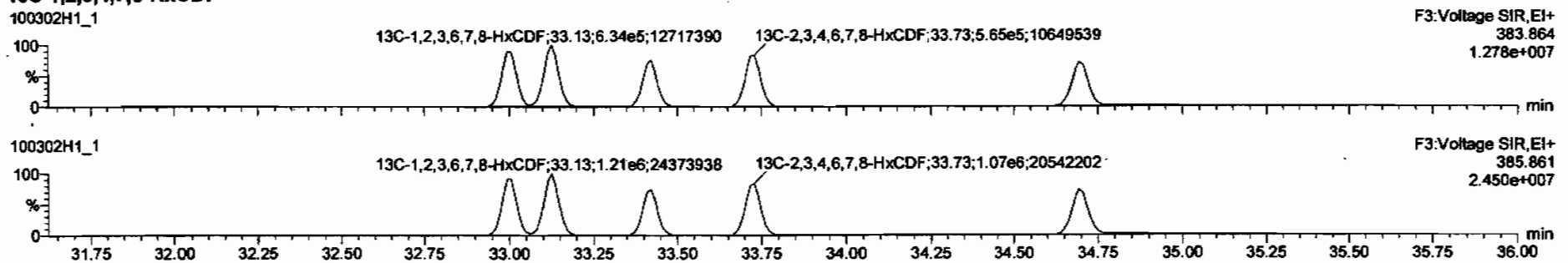

DPE3

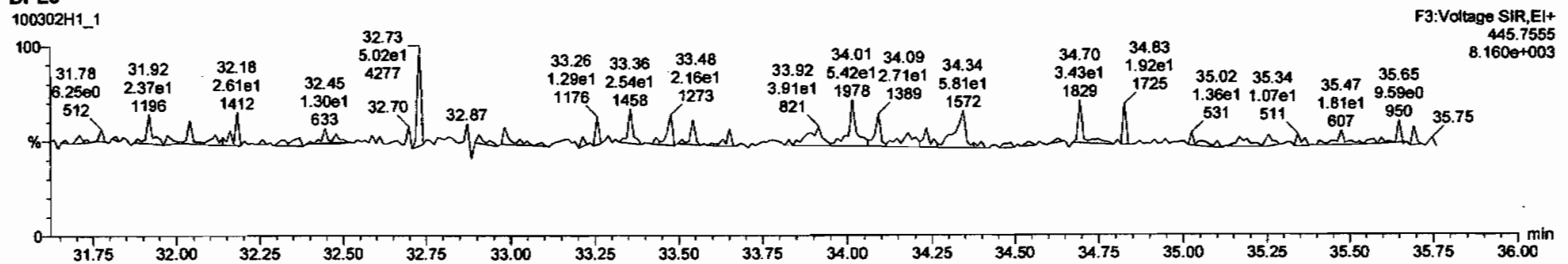

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,4,6,7,8-HpCDF

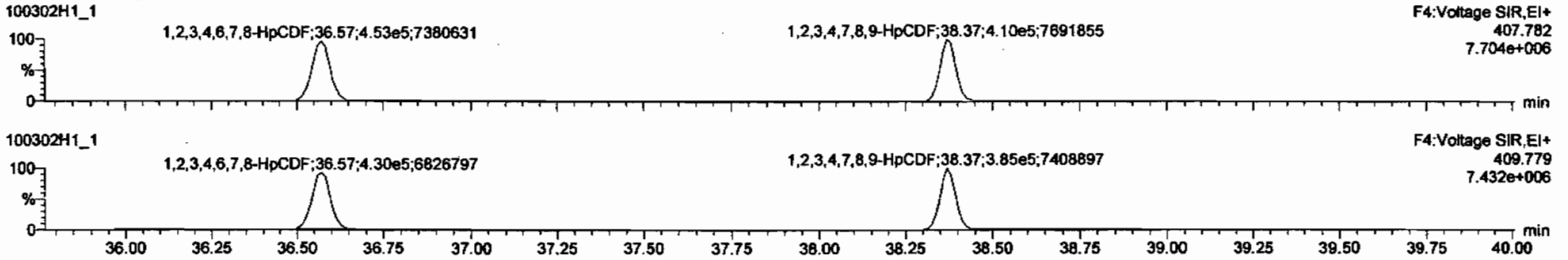

13C-1,2,3,4,6,7,8-HpCDF

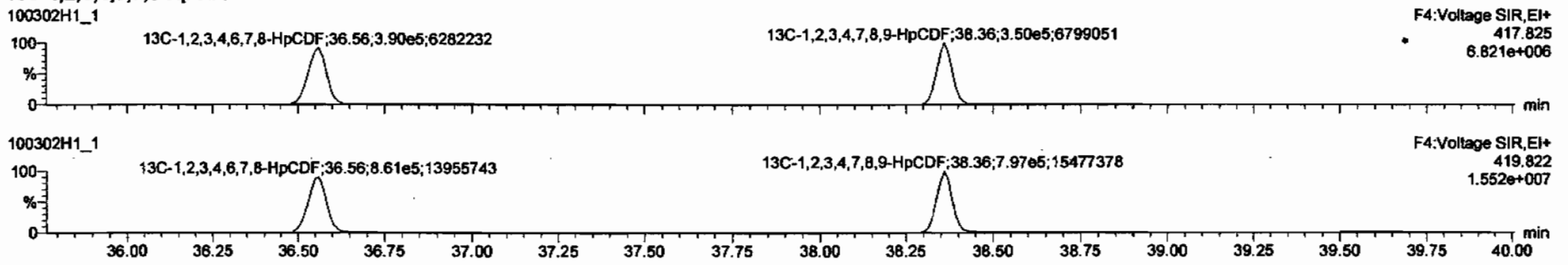

DPE4

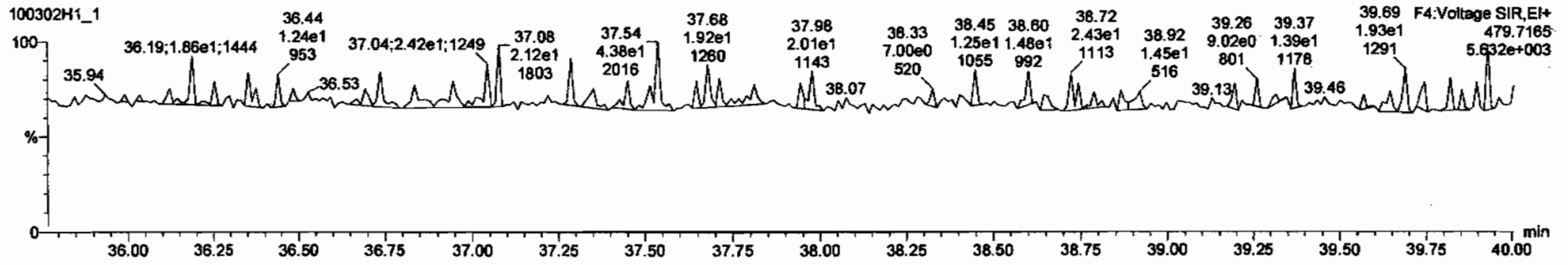

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

OCDF

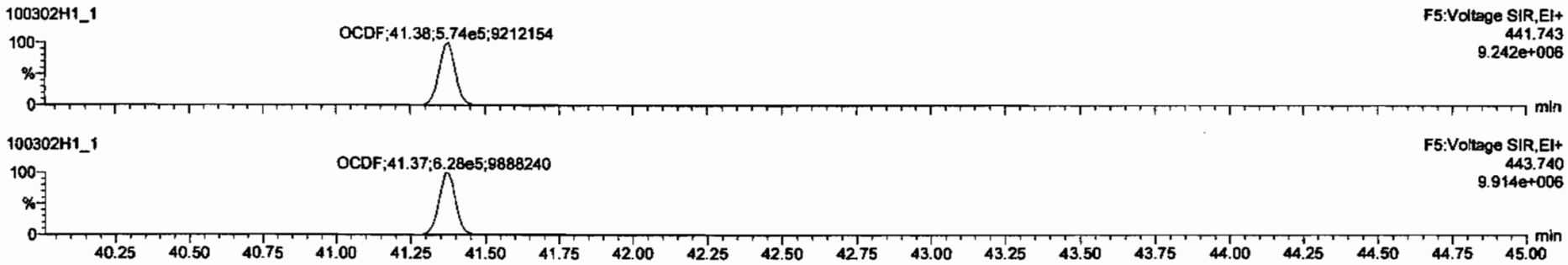

13C-OCDF

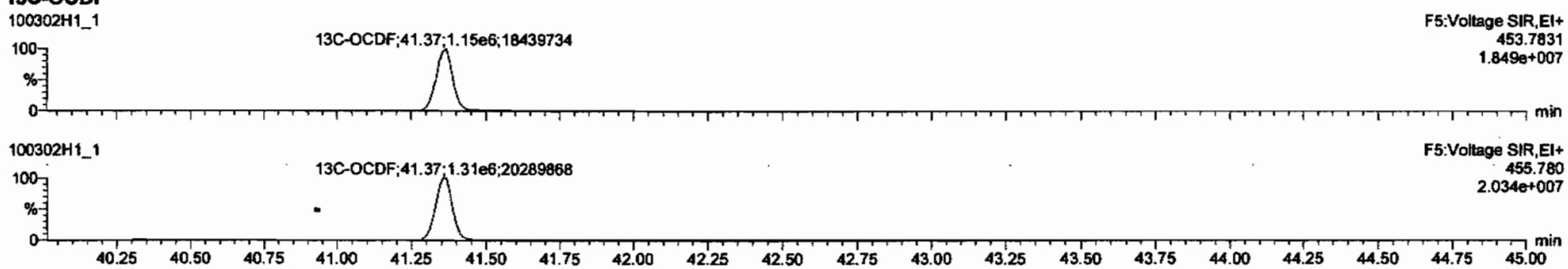

DPE5

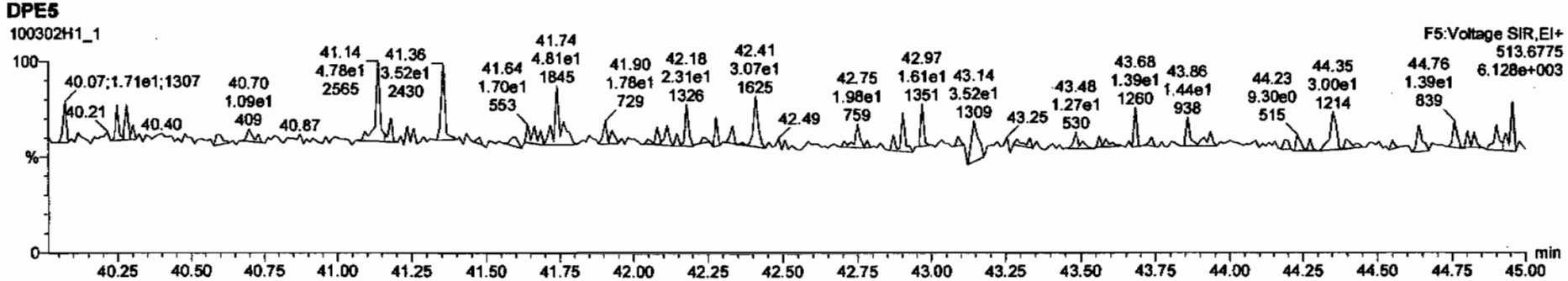

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Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

PFK1

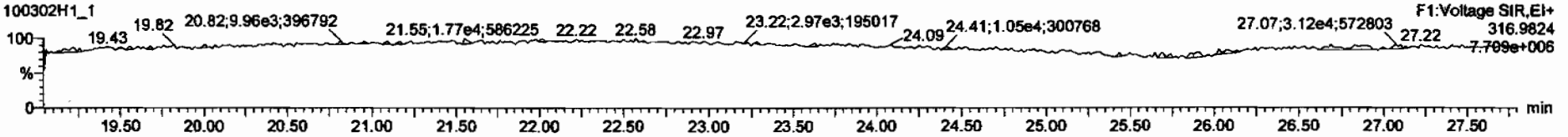

PFK2

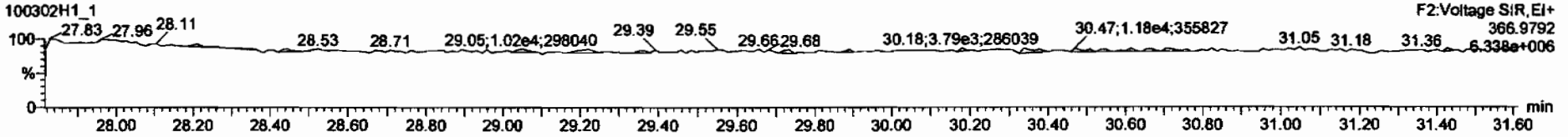

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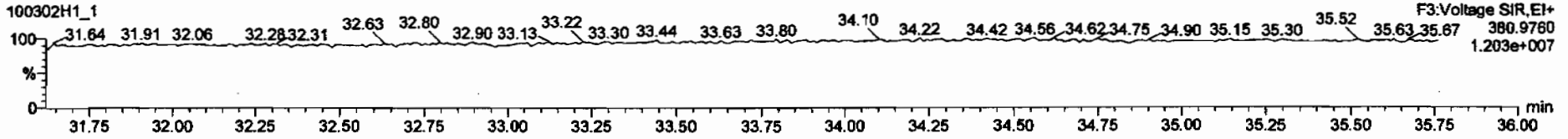

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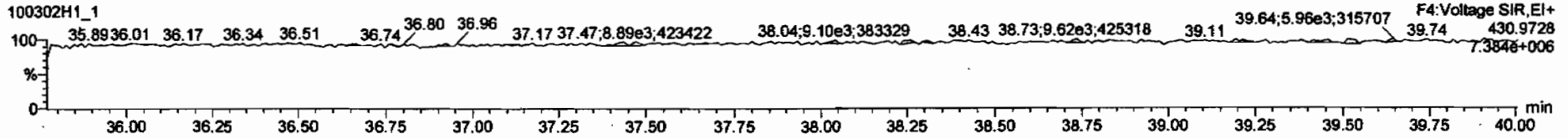

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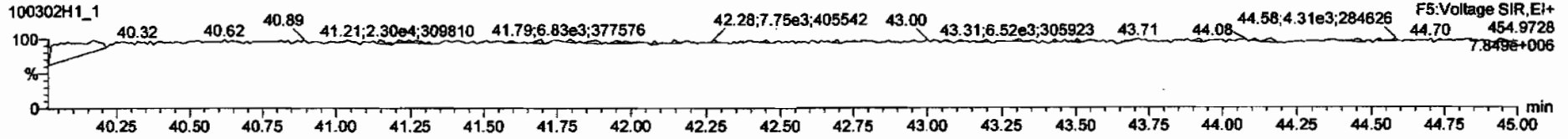

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Vista Analytical Laboratory
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
VER Data file name: 100302H1_17

CCAL ID: ST100302H1-2

GC Column ID: DB-5
Analysis Date: 03-Mar-10 Analysis Time: 00:05:17

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
2,3,7,8-TCDD	M/M+2	0.74	0.65-0.89	NO	9.48	7.8	12.9	Yes	8.00	12.0	Yes
						8.2	12.3 (4)				
1,2,3,7,8-PeCDD	M/M+2	0.61	0.54-0.72	NO	48.5	39.0	65.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	49.4	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	48.6	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	49.0	41.0	61.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.04	0.88-1.20	NO	47.8	43.0	58.0	Yes	40.0	60.0	Yes
OCDD	M+2/M+4	0.88	0.76-1.02	NO	95.5	79.0	126.0	Yes	80.0	120.0	Yes
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	NO	10.9	8.4	12.0	Yes	8.00	12.0	Yes
						8.6	11.6 (4)				
1,2,3,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78	NO	51.5	41.0	60.0	Yes	40.0	60.0	Yes
2,3,4,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	NO	50.3	41.0	60.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDF	M+2/M+4	1.28	1.05-1.43	NO	50.9	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	NO	50.4	44.0	57.0	Yes	40.0	60.0	Yes
2,3,4,6,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	NO	50.4	44.0	57.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDF	M+2/M+4	1.27	1.05-1.43	NO	50.6	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.06	0.88-1.20	NO	49.3	45.0	55.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.05	0.88-1.20	NO	50.2	43.0	58.0	Yes	40.0	60.0	Yes
OCDF	M+2/M+4	0.91	0.76-1.02	NO	96.7	63.0	159.0	Yes	80.0	120.0	Yes

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [signature]
Date: 3/3/10

8250 only

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Vista Analytical Laboratory
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
VER Data file name: 100302H1_17

CCAL ID: ST100302H1-2

GC Column ID: DB-5
Analysis Date: 03-Mar-10 Analysis Time: 00:05:17

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
13C-2,3,7,8-TCDD	M+2/M+4	0.78	0.65-0.89	NO	96.8	82.0	121.0	Yes	70.0	130.0	Yes
						85.0	117.0 (5)				
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	NO	78.2	62.0	160.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	101	85.0	117.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	102	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.23	1.05-1.43	NO	99.0	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	NO	99.8	72.0	138.0	Yes	70.0	130.0	Yes
13C-OCDD	M+2/M+4	0.89	0.76-1.02	NO	181	96.0	415.0	Yes	140.0	260.0	Yes
13C-2,3,7,8-TCDF	M/M+2	0.80	0.65-0.89	NO	89.2	71.0	140.0	Yes	70.0	130.0	Yes
						76.0	131.0 (5)				
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	NO	76.7	76.0	130.0	Yes	70.0	130.0	Yes
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	NO	71.0	77.0	130.0	No	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	85.4	76.0	131.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	93.7	70.0	143.0	Yes	70.0	130.0	Yes
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	95.4	73.0	137.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.52	0.43-0.59	NO	94.2	74.0	135.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.45	0.37-0.51	NO	97.2	78.0	129.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	NO	94.5	77.0	129.0	Yes	70.0	130.0	Yes
13C-OCDF	M+2/M+4	0.89	0.76-1.02	NO	173	96.0	415.0	Yes	140.0	260.0	Yes
CLEANUP STANDARD (4)											
37Cl-2,3,7,8-TCDD					9.23	7.9	12.7	Yes	7.0	13.0	Yes
						8.3	12.1 (5)				

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) No ion abundance ratio; report concentration found
(5) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [signature]
Date: 3/3/10

8290 only

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, March 03, 2010 08:06:13 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:06:37 Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

1	1,3,6,8-TCDD (First)	22.71
2	1,2,8,9-TCDD (Last)	26.89
3	1,2,4,7,9-PeCDD (First)	28.49
4	1,2,3,8,9-PeCDD (Last)	30.92
5	12,4,6,7,9-HxCDD (First)	32.35
6	1,2,3,7,8,9-HxCDD (Last)	34.32
7	1,2,3,4,6,7,9-HpCDD (First)	36.96
8	1,2,3,4,6,7,8-HpCDD (Last)	37.81
9	1,3,6,8-TCDF (First)	20.68
10	1,2,8,9-TCDF (Last)	27.04
11	1,3,4,6,8-PeCDF (First)	26.98
12	1,2,3,8,9-PeCDF (Last)	31.17
13	1,2,3,4,6,8-HxCDF (First)	31.82
14	1,2,3,4,8,9-HxCDF (Last)	34.72
15	1,2,3,4,6,7,8-HpCDF (First)	36.57
16	1,2,3,4,7,8,9-HpCDF (Last)	38.37

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FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
VER Data file name: 100302H1_17

CCAL ID: ST100302H1-2

GC Column ID: DB-5
Analysis Date: 03-Mar-10

Analysis Time: 00:05:17

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999	1.002	Yes
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.000	0.999	1.002	Yes
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999	1.003	Yes
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999	1.002	Yes
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999	1.002	Yes
LABELED COMPOUNDS					
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.976	1.043	Yes
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.200	1.000	1.567	Yes
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.992	0.923	1.103	Yes
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.153	1.000	1.425	Yes
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.189	1.011	1.526	Yes
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.989	1.052	Yes

Analyst: [illegible]

Date: 3/3/10

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
VER Data file name: 100302H1_17

CCAL ID: ST100302H1-2

GC Column ID: DB-5
Analysis Date: 03-Mar-10

Analysis Time: 00:05:17

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999	1.001	Yes
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998	1.004	Yes
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.009	0.998	1.004	No
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999	1.001	Yes
OCDD	13C-OCDD	1.000	0.999	1.001	Yes
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.001	0.999	1.001	Yes
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	0.997	1.005	Yes
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.001	0.999	1.001	Yes
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999	1.001	Yes
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.001	0.999	1.001	Yes
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999	1.001	Yes
OCDF	13C-OCDF	1.000	0.999	1.001	Yes
LABELED COMPOUNDS					
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.014	1.002	1.026	Yes
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.017	1.007	1.029	Yes
13C-1,2,3,7,8,9-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.026	1.014	1.038	Yes
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,9-HxCDF	1.131	1.117	1.141	Yes
13C-OCDD	13C-1,2,3,4,6,9-HxCDF	1.230	1.085	1.365	Yes
13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.987	0.975	1.001	Yes
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.991	0.979	1.005	Yes
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.009	1.001	1.020	Yes
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.038	1.002	1.072	Yes
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.094	1.069	1.111	Yes
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.148	1.098	1.192	Yes
13C-OCDF	13C-1,2,3,4,6,9-HxCDF	1.237	1.091	1.371	Yes

Analyst: [illegible]

Date: 3/3/10

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-17.qld

Last Altered: Wednesday, March 03, 2010 07:59:44 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:04:56 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

1	2,3,7,8-TCDD	2.15e5	0.74	NO	1.04	1.000	26.02	1.001	9.4805	94.8	0.0170	9.4805
2	1,2,3,7,8-PeCDD	7.97e5	0.61	NO	0.935	1.000	30.55	1.000	48.522	97.0	0.0487	48.522
3	1,2,3,4,7,8-HxCDD	7.04e5	1.24	NO	0.907	1.000	33.91	1.000	49.359	98.7	0.0682	49.359
4	1,2,3,6,7,8-HxCDD	6.74e5	1.25	NO	0.995	1.000	34.02	1.000	48.570	97.1	0.0723	48.570
5	1,2,3,7,8,9-HxCDD	7.47e5	1.24	NO	0.930	1.000	34.32	1.009	48.953	97.9	0.0670	48.953
6	1,2,3,4,6,7,8-HpCDD	6.18e5	1.04	NO	1.00	1.000	37.81	1.000	47.815	95.6	0.0823	47.815
7	OCDD	1.05e6	0.88	NO	1.10	1.000	41.14	1.000	95.518	95.5	0.0389	95.518
8	2,3,7,8-TCDF	3.05e5	0.77	NO	0.956	1.000	25.25	1.001	10.902	109	0.0164	10.902
9	1,2,3,7,8-PeCDF	1.18e6	1.59	NO	0.941	1.000	29.37	1.000	51.501	103	0.0390	51.501
10	2,3,4,7,8-PeCDF	1.11e6	1.57	NO	0.926	1.000	30.27	1.000	50.262	101	0.0408	50.262
11	1,2,3,4,7,8-HxCDF	1.12e6	1.28	NO	1.22	1.000	33.02	1.001	50.871	102	0.0434	50.871
12	1,2,3,6,7,8-HxCDF	1.08e6	1.25	NO	1.08	1.000	33.14	1.000	50.444	101	0.0433	50.444
13	2,3,4,6,7,8-HxCDF	9.88e5	1.26	NO	1.13	1.000	33.74	1.001	50.417	101	0.0516	50.417
14	1,2,3,7,8,9-HxCDF	8.72e5	1.27	NO	1.13	1.000	34.72	1.001	50.623	101	0.0607	50.623
15	1,2,3,4,6,7,8-HpCDF	9.13e5	1.06	NO	1.44	1.000	36.57	1.001	49.287	98.6	0.0884	49.287
16	1,2,3,4,7,8,9-HpCDF	8.01e5	1.05	NO	1.38	1.000	38.37	1.000	50.197	100	0.0825	50.197
17	OCDF	1.25e6	0.91	NO	1.01	1.000	41.37	1.000	96.690	96.7	0.0326	96.690
18	13C-2,3,7,8-TCDD	2.18e6	0.78	NO	1.10	1.000	26.00	1.022	96.807	96.8	0.0546	
19	13C-1,2,3,7,8-PeCDD	1.76e6	0.62	NO	1.09	1.000	30.54	1.200	78.159	78.2	0.0383	
20	13C-1,2,3,4,7,8-HxCDD	1.57e6	1.25	NO	1.01	1.000	33.89	1.014	100.87	101	0.0932	
21	13C-1,2,3,6,7,8-HxCDD	1.39e6	1.25	NO	0.889	1.000	34.00	1.017	101.52	102	0.106	
22	13C-1,2,3,7,8,9-HxCDD	1.64e6	1.23	NO	1.07	1.000	34.30	1.026	99.007	99.0	0.0877	
23	13C-1,2,3,4,6,7,8-HpCDD	1.29e6	1.05	NO	0.837	1.000	37.80	1.131	99.805	99.8	0.179	
24	13C-OCDD	1.99e6	0.89	NO	0.712	1.000	41.13	1.230	181.36	90.7	0.0469	
25	13C-2,3,7,8-TCDF	2.92e6	0.80	NO	1.05	1.000	25.24	0.992	89.231	89.2	0.0666	
26	13C-1,2,3,7,8-PeCDF	2.43e6	1.57	NO	1.02	1.000	29.35	1.153	76.696	76.7	0.116	
27	13C-2,3,4,7,8-PeCDF	2.38e6	1.56	NO	1.08	1.000	30.26	1.189	71.002	71.0	0.110	
28	13C-1,2,3,4,7,8-HxCDF	1.80e6	0.52	NO	1.37	1.000	32.99	0.987	85.393	85.4	0.0957	
29	13C-1,2,3,6,7,8-HxCDF	1.98e6	0.52	NO	1.37	1.000	33.13	0.991	93.736	93.7	0.0957	
30	13C-2,3,4,6,7,8-HxCDF	1.74e6	0.52	NO	1.18	1.000	33.72	1.009	95.413	95.4	0.111	

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Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-17.qld

Last Altered: Wednesday, March 03, 2010 07:59:44 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:04:56 Pacific Standard Time

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

31	13C-1,2,3,7,8,9-HxCDF	1.53e6	0.52	NO	1.05	1.000	34.70	1.038	94.150	94.2	0.124
32	13C-1,2,3,4,6,7,8-HpCDF	1.29e6	0.45	NO	0.858	1.000	36.55	1.094	97.227	97.2	0.170
33	13C-1,2,3,4,7,8,9-HpCDF	1.16e6	0.44	NO	0.794	1.000	38.36	1.148	94.473	94.5	0.184
34	13C-OCDF	2.54e6	0.89	NO	0.948	1.000	41.36	1.237	173.43	86.7	0.0469
35	37Cl-2,3,7,8-TCDD	1.26e5			0.665	1.000	26.02	1.022	9.2301	92.3	0.0226
36	13C-1,2,3,4-TCDD	2.05e6	0.79	NO	1.00	1.000	25.45	0.000	100.00	100	0.0601
37	13C-1,2,3,4-TCDF	3.11e6	0.78	NO	1.00	1.000	24.06	0.000	100.00	100	0.0702
38	13C-1,2,3,4,6,9-HxCDF	1.54e6	0.51	NO	1.00	1.000	33.42	0.000	100.00	100	0.131

Quantify Compound Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, March 03, 2010 8:06:52 AM Pacific Standard Time
Printed: Wednesday, March 03, 2010 8:07:08 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Compound name: 1,3,6,8-TCDD (First)

100302H1_1	ST100302H1-1 1613 CS3 100127F	02-Mar-10	10:53:04
100302H1_2	solvent blank	02-Mar-10	11:42:34
100302H1_3	solvent blank	02-Mar-10	12:32:05
100302H1_4	solvent blank	02-Mar-10	13:21:39
100302H1_5	0_2836_OPR001	02-Mar-10	14:11:13
100302H1_6	solvent blank	02-Mar-10	15:01:15
100302H1_7	0_2836_MB001	02-Mar-10	15:50:57
100302H1_8	32447_2836_001 CAMO-10-9357 .896	02-Mar-10	16:40:37
100302H1_9	32448_2836_001 CAMO-10-9370 .903	02-Mar-10	17:30:08
100302H1_10	32448_2836_002 CAMO-10-9373 .87	02-Mar-10	18:19:40
100302H1_11	32448_2836_003 CAMO-10-10133 .825	02-Mar-10	19:09:11
100302H1_12	32449_2836_001 CAPA-10-12691 .918	02-Mar-10	19:58:44
100302H1_13	32453_2836_001 CAWA-10-13090 .91	02-Mar-10	20:48:17
100302H1_14	32455_2836_001 CAPA-10-13498 .93	02-Mar-10	21:37:47
100302H1_15	32458_2836_001 CAPA-10-12917 .905	02-Mar-10	22:26:20
100302H1_16	solvent blank	02-Mar-10	23:15:51
100302H1_17	ST100302H1-2 1613 CS3 100127F	03-Mar-10	00:05:17

Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, March 03, 2010 08:06:13 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:06:37 Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

1,3,6,8-TCDD (First)

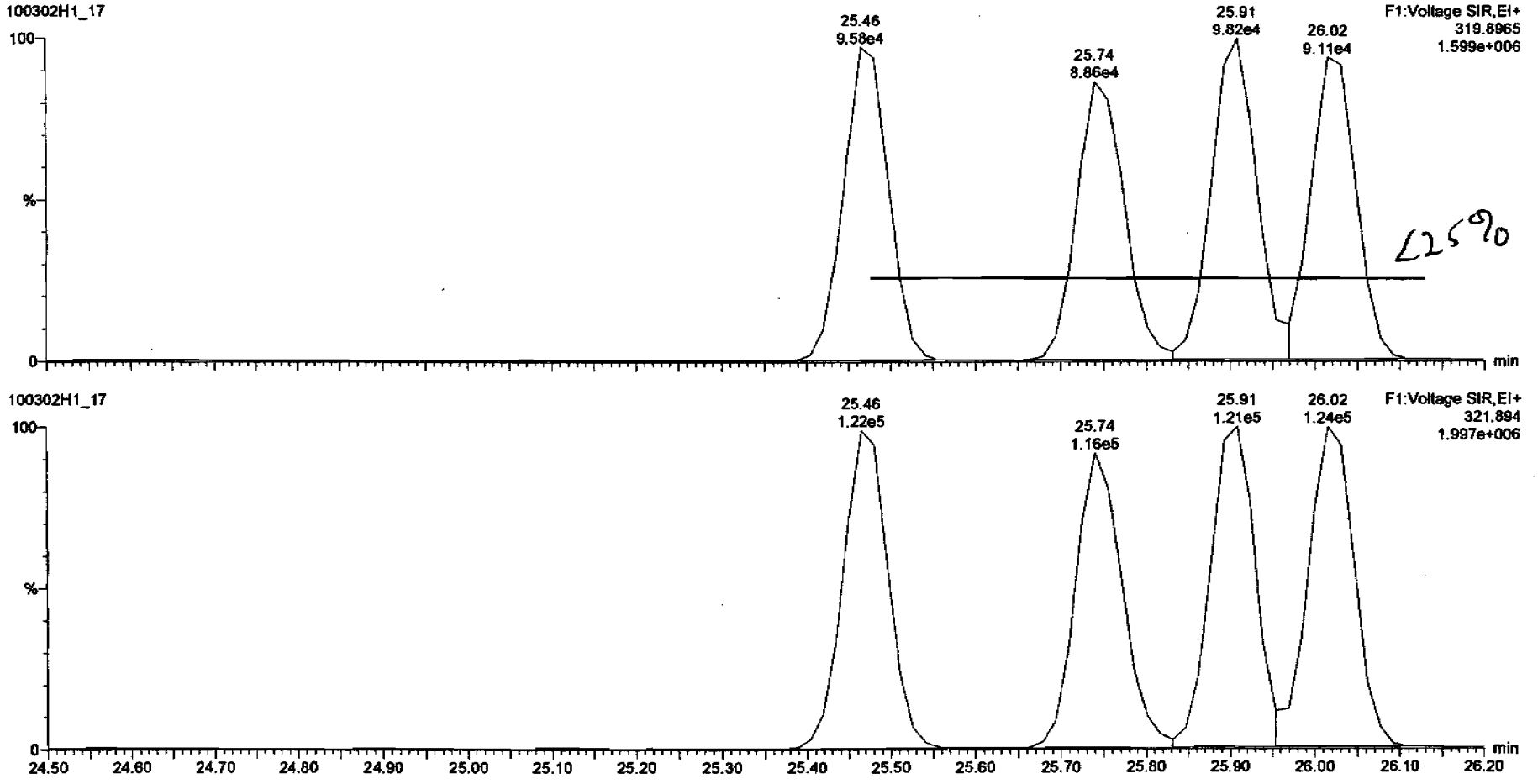

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-17.qld

Last Altered: Wednesday, March 03, 2010 07:59:44 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:05:05 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

2,3,7,8-TCDD

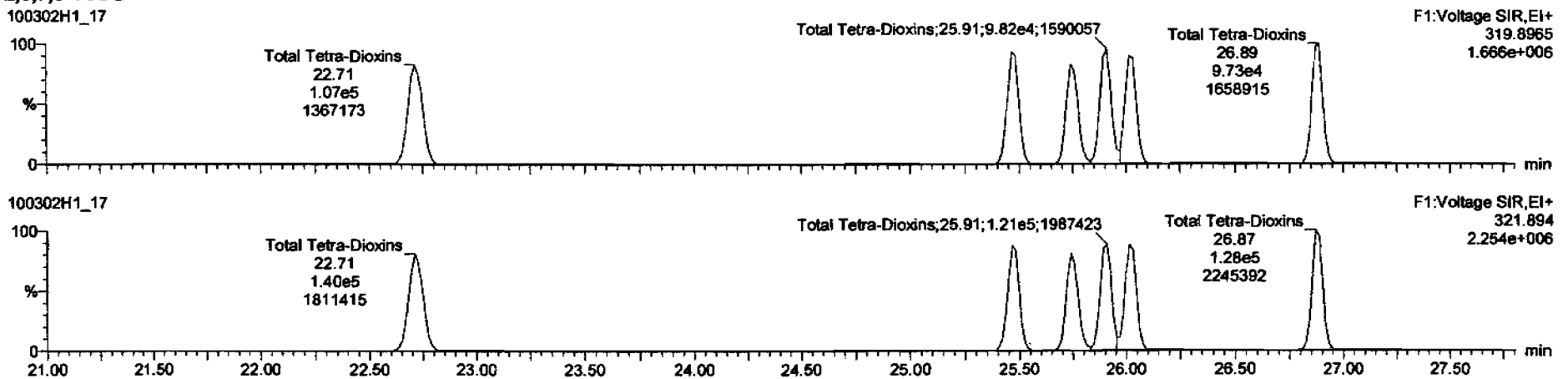

13C-2,3,7,8-TCDD

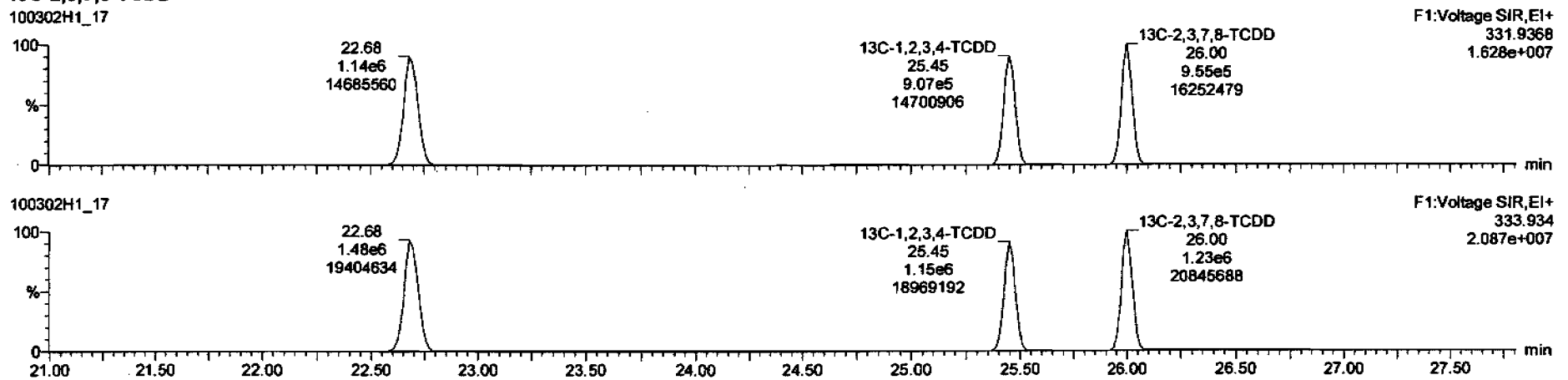

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-17.qld

Last Altered: Wednesday, March 03, 2010 07:59:44 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:05:05 Pacific Standard Time

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

37Cl-2,3,7,8-TCDD

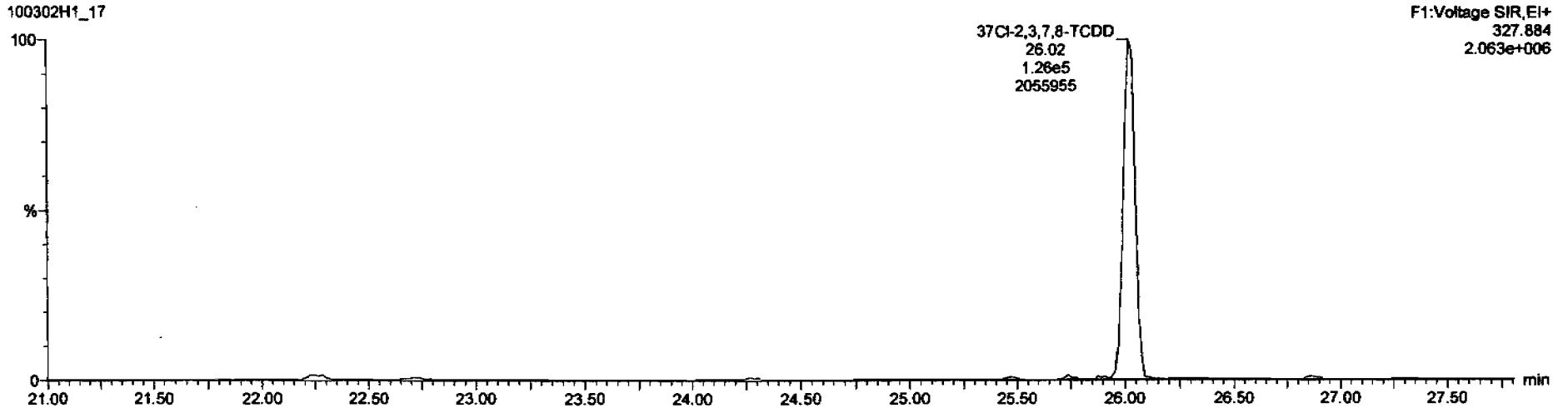

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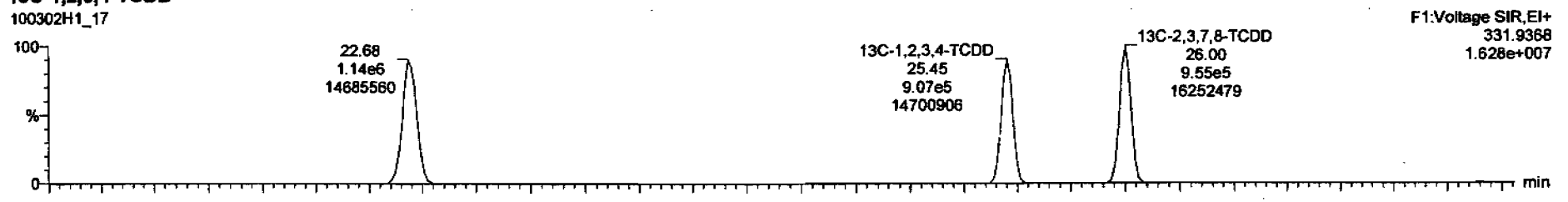

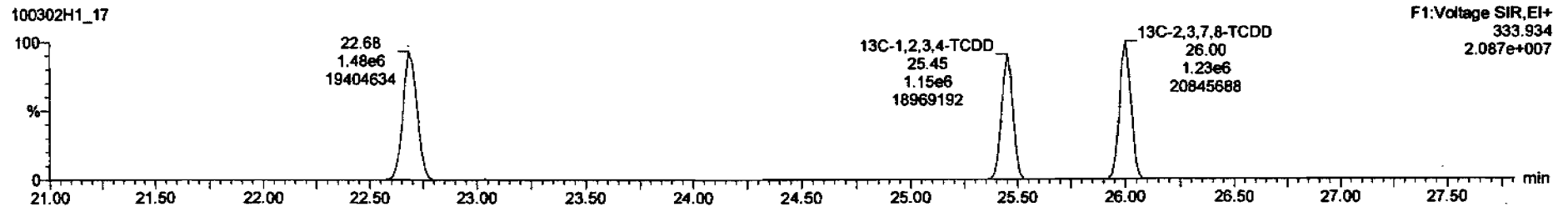

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Printed: Wednesday, March 03, 2010 08:05:05 Pacific Standard Time

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,7,8-PeCDD

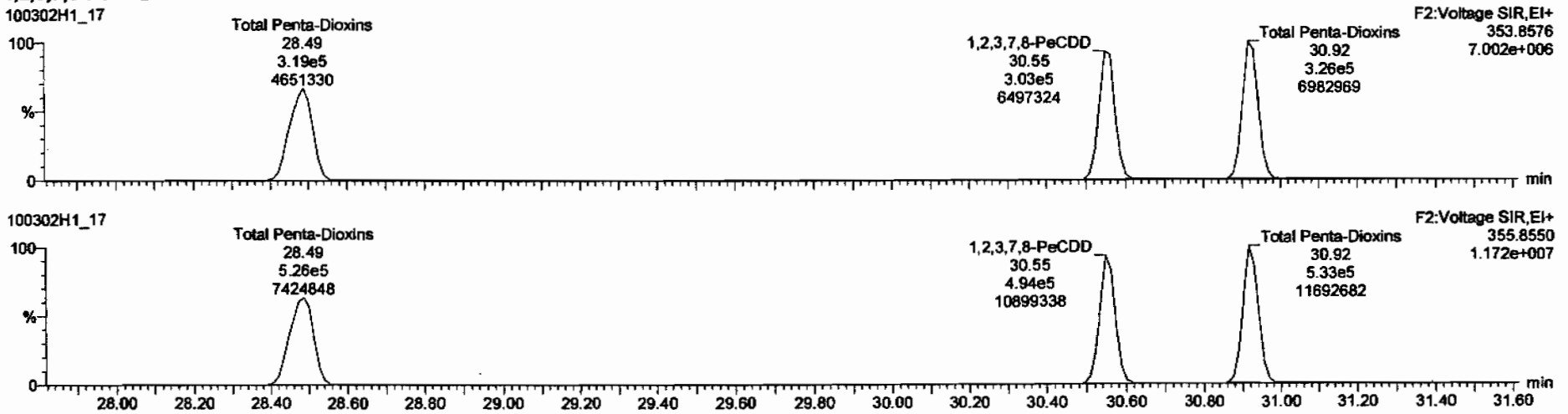

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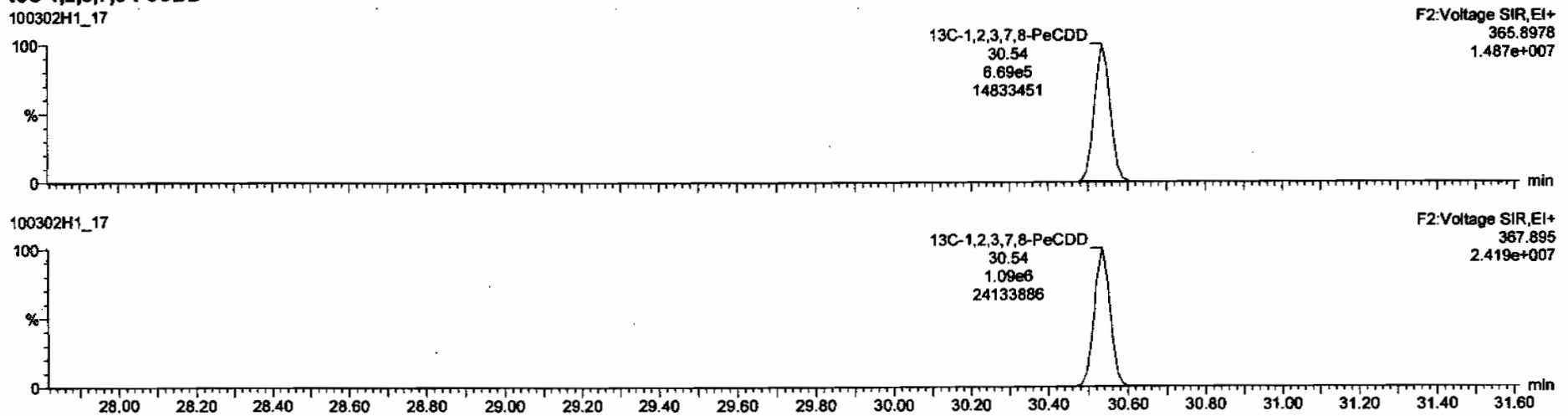

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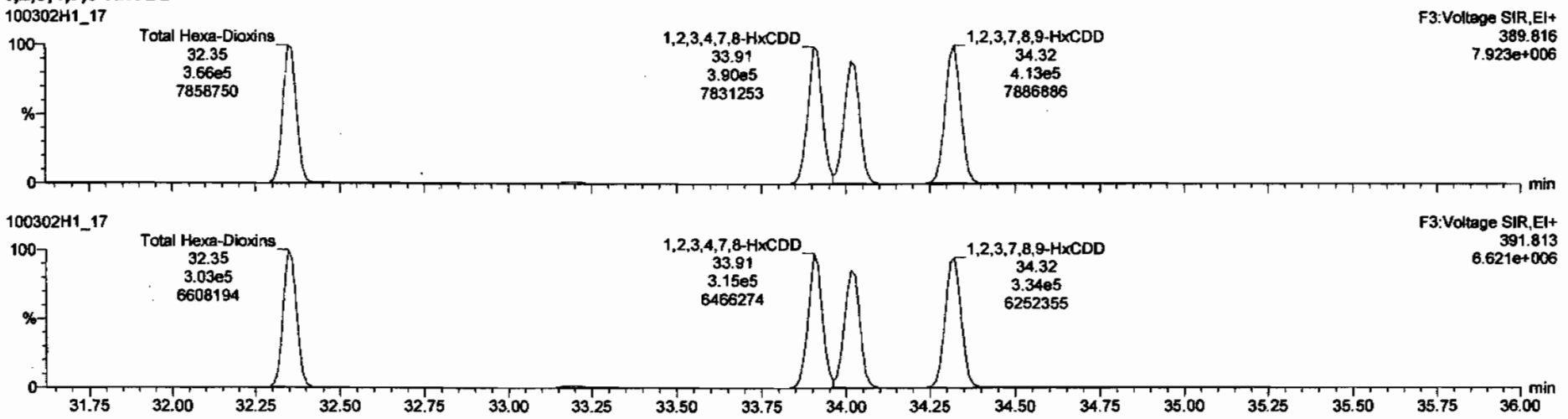

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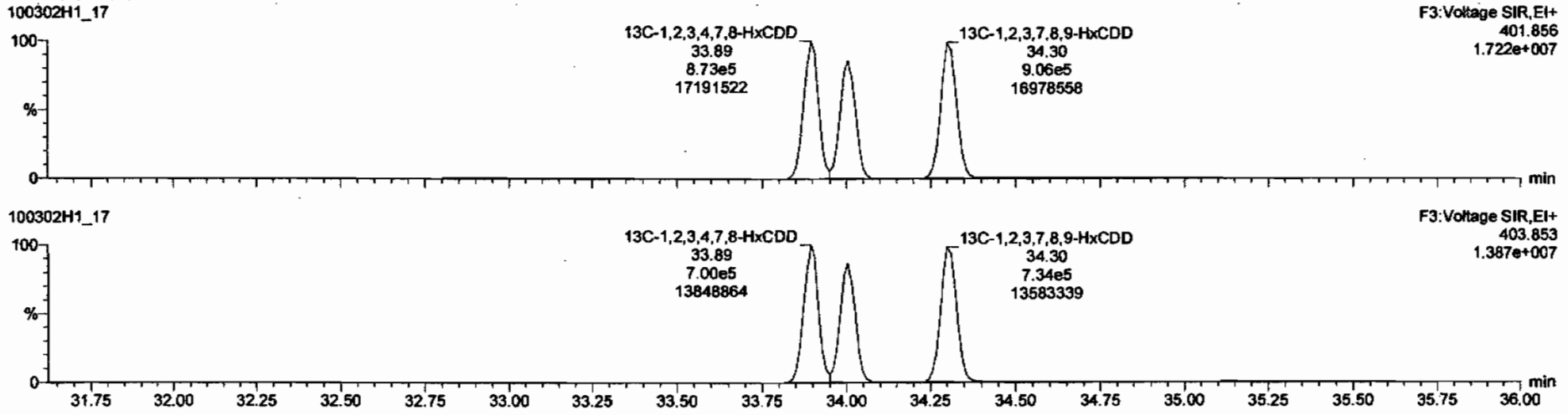

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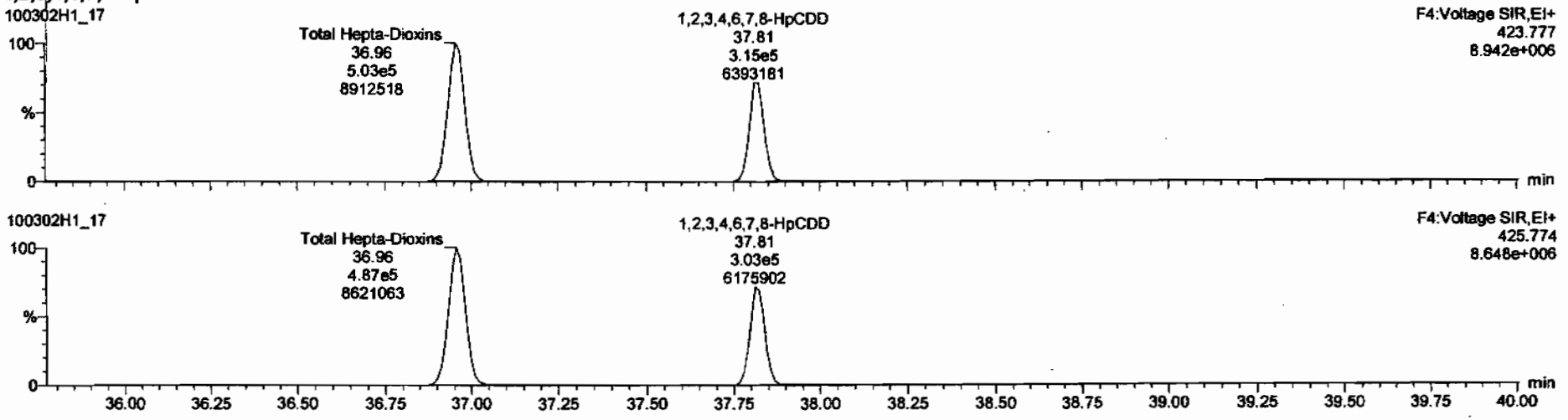

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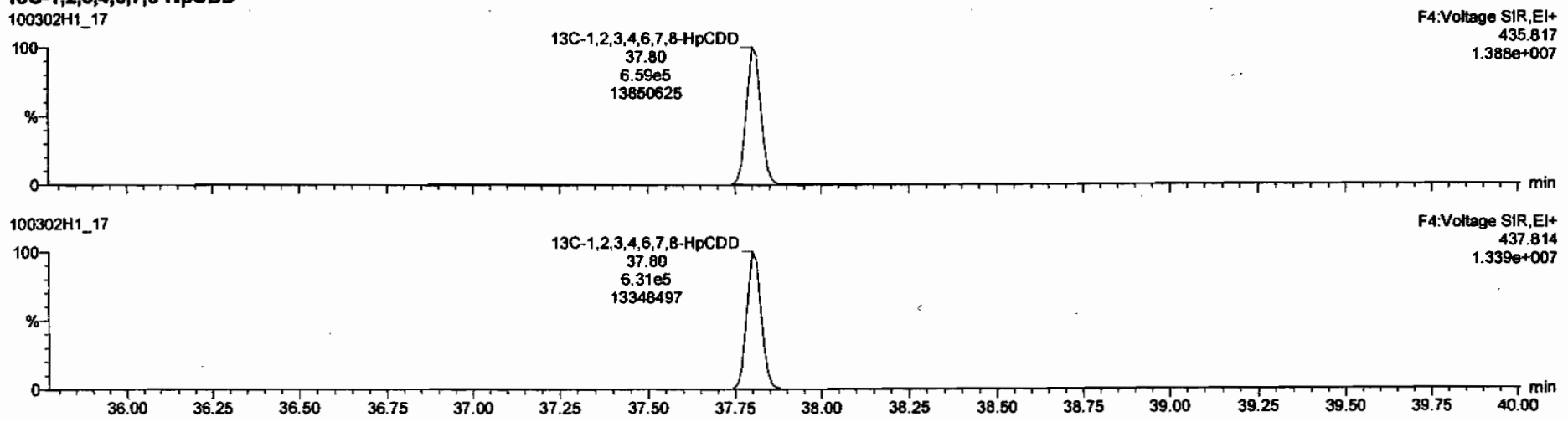

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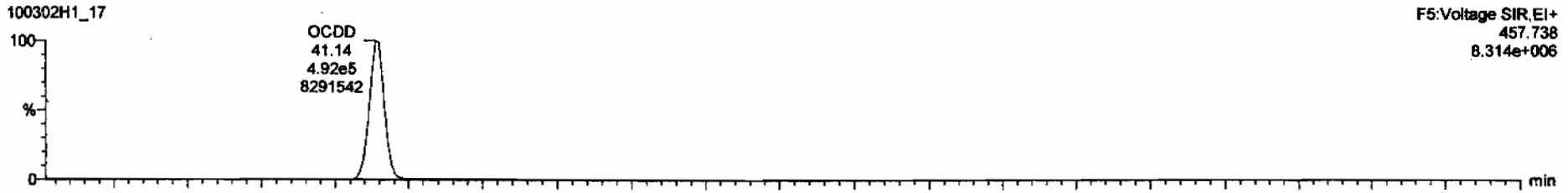

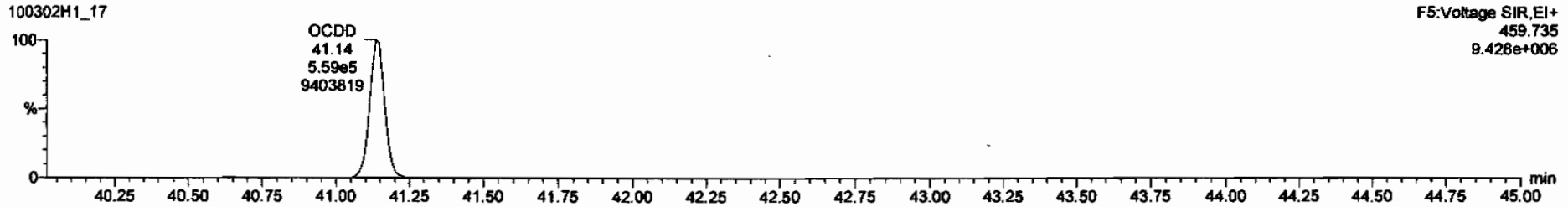

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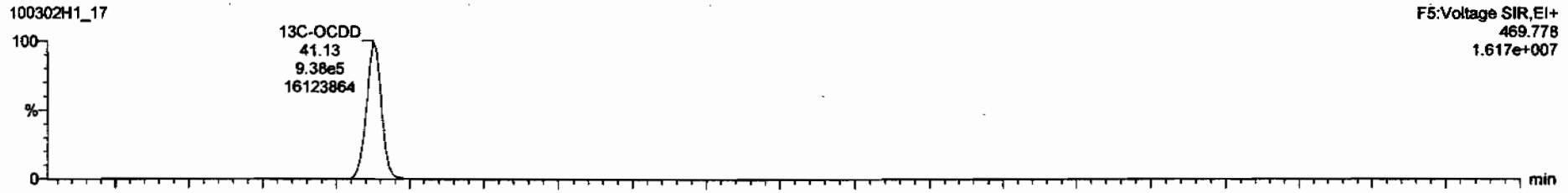

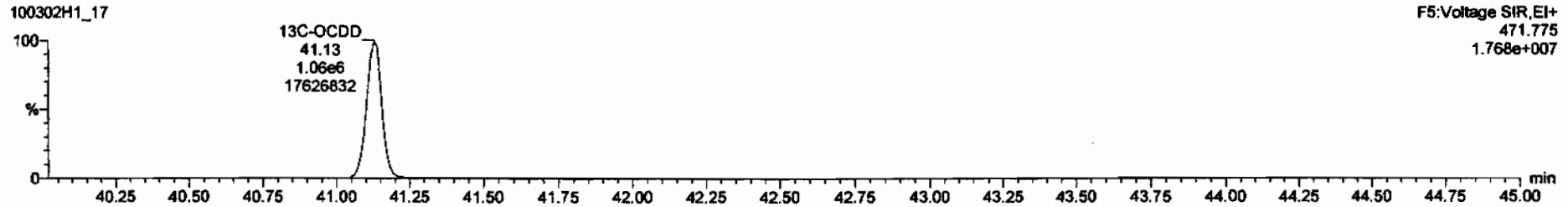

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2,3,7,8-TCDF

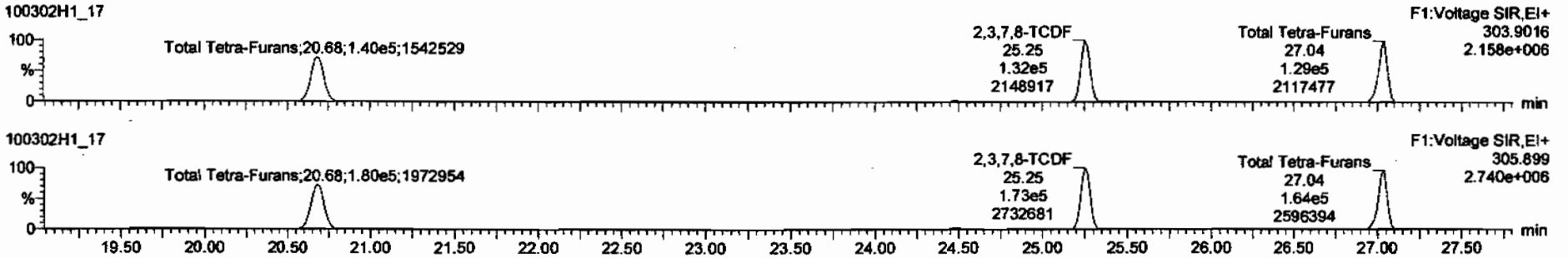

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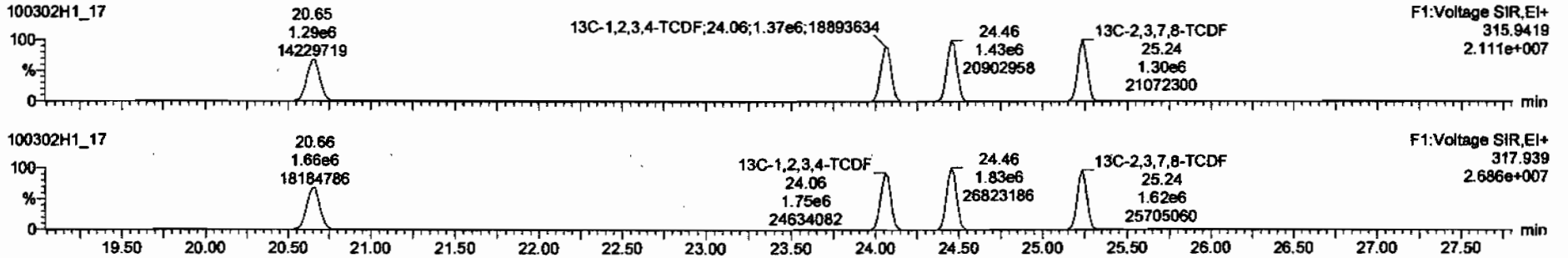

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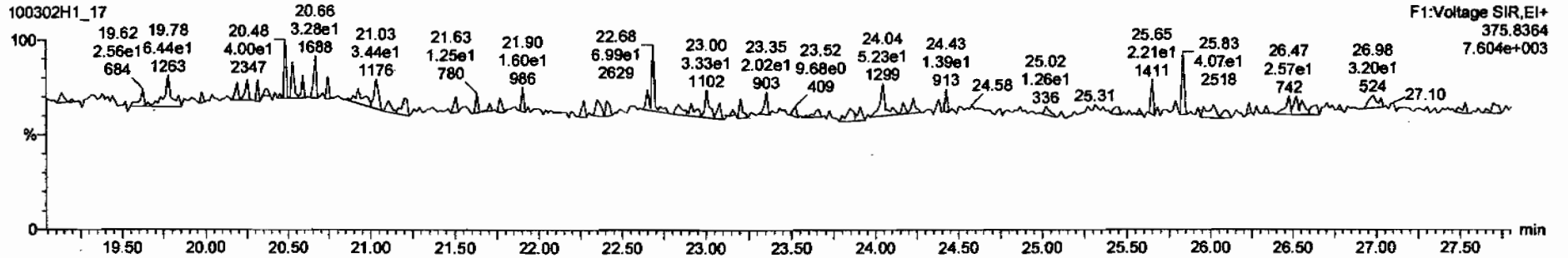

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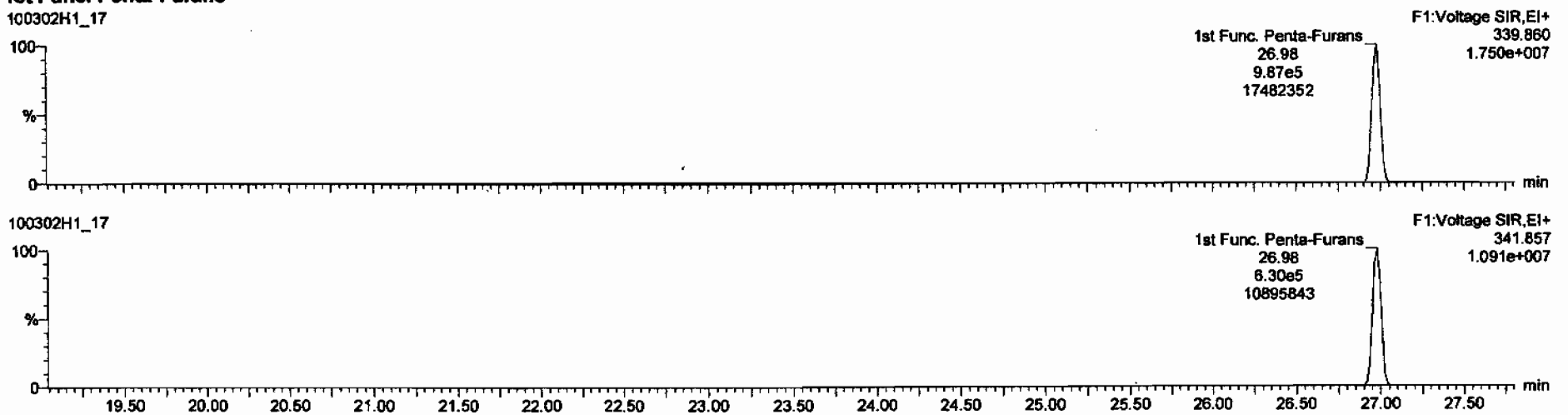

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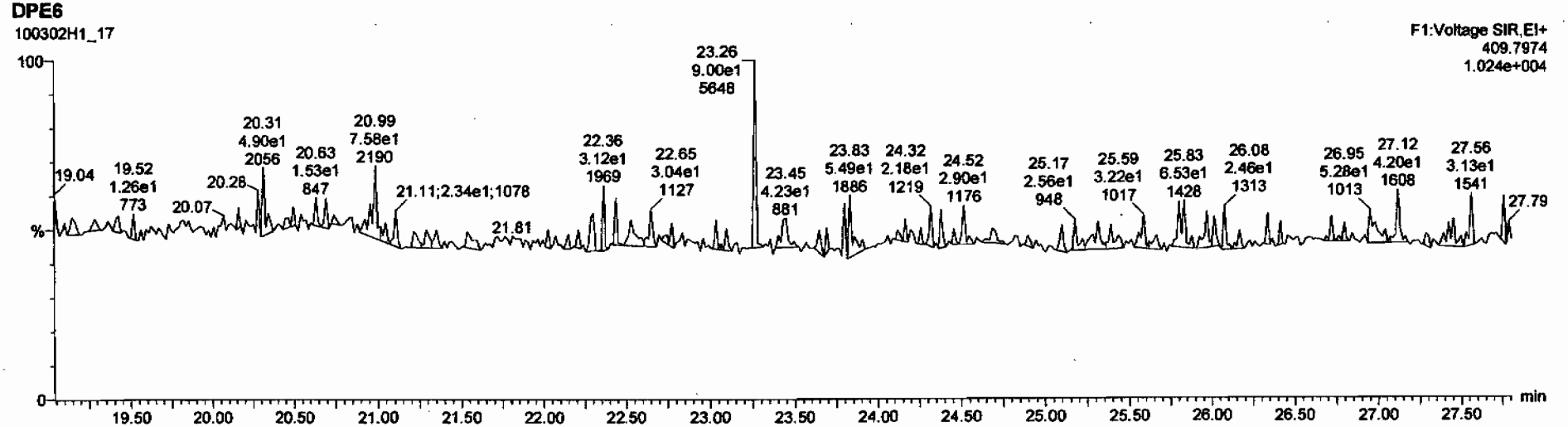

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1,2,3,7,8-PeCDF

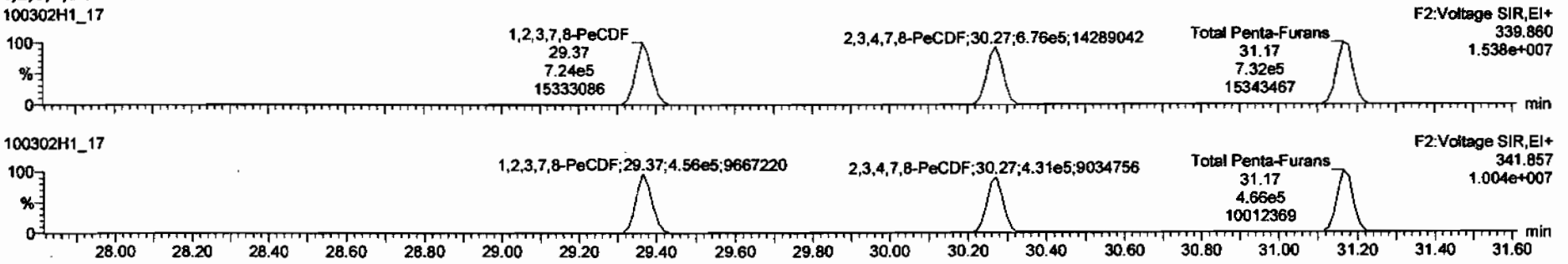

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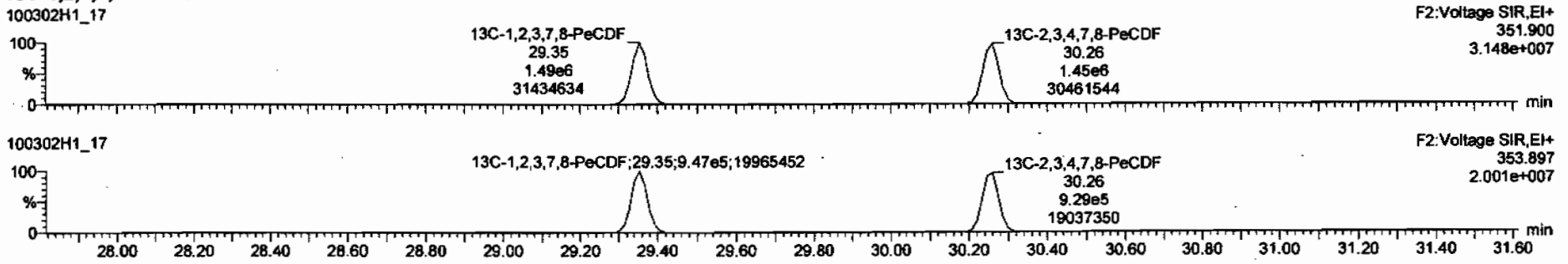

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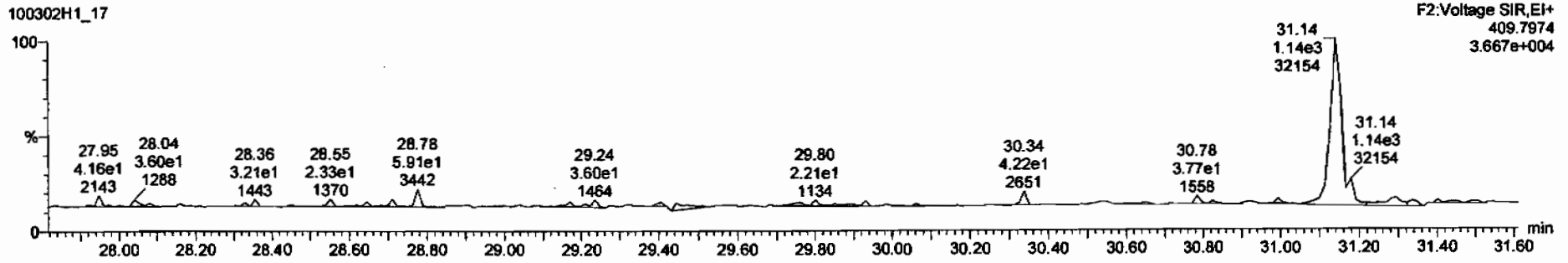

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1,2,3,4,7,8-HxCDF

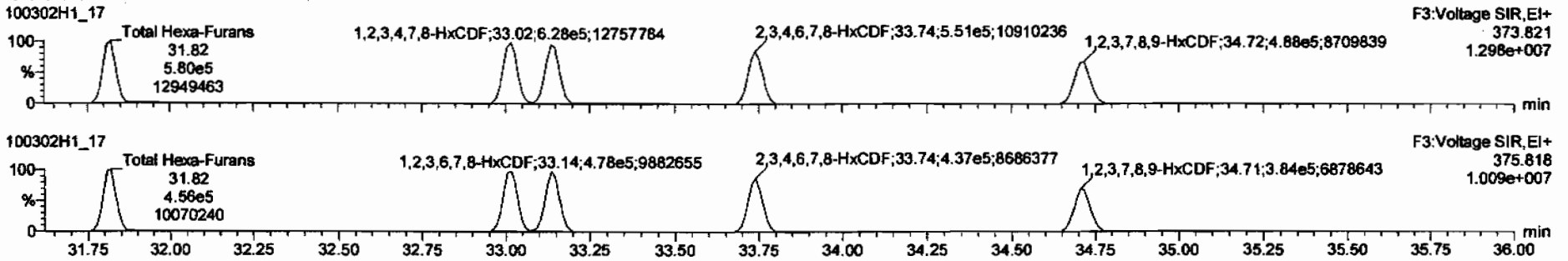

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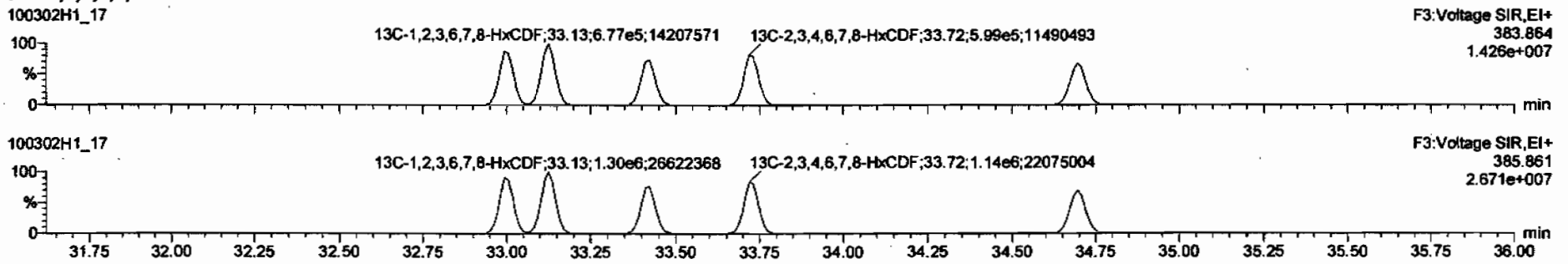

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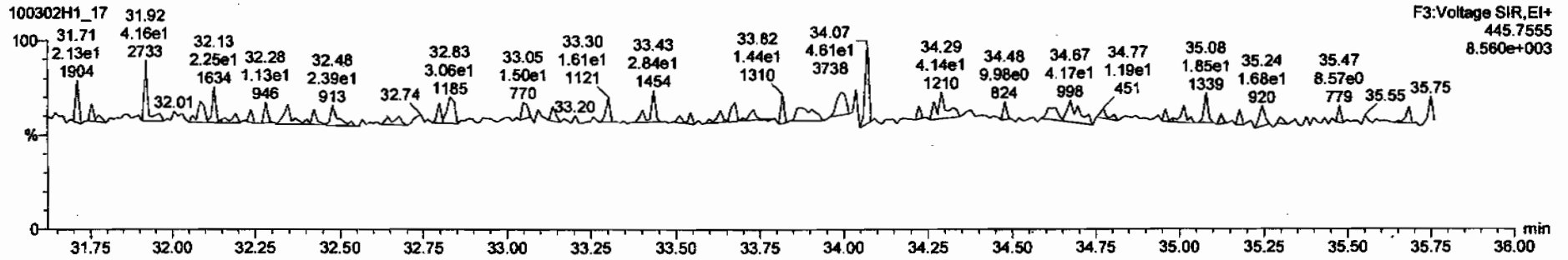

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1,2,3,4,6,7,8-HpCDF

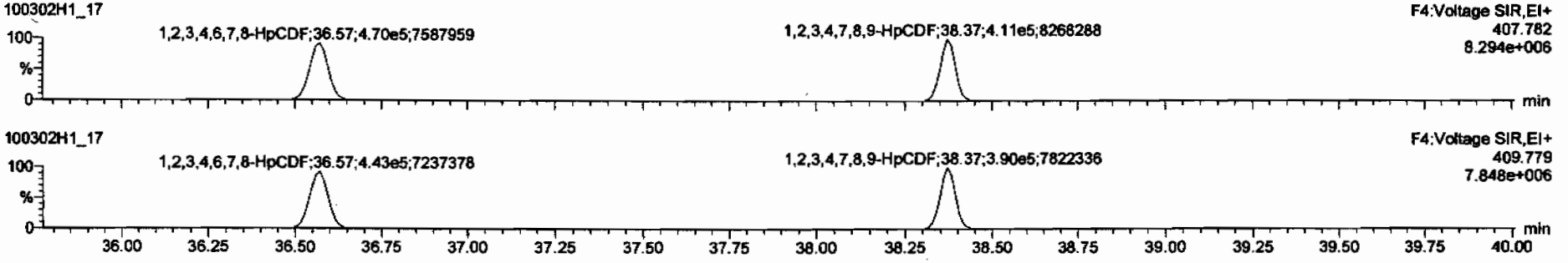

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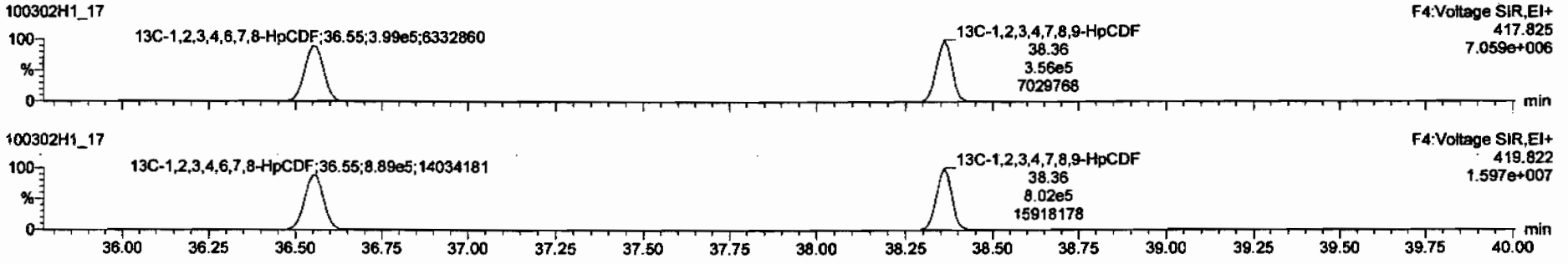

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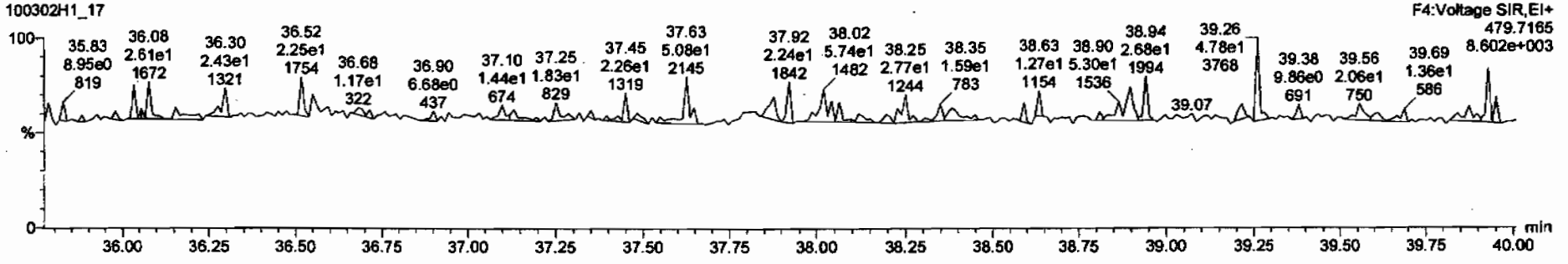

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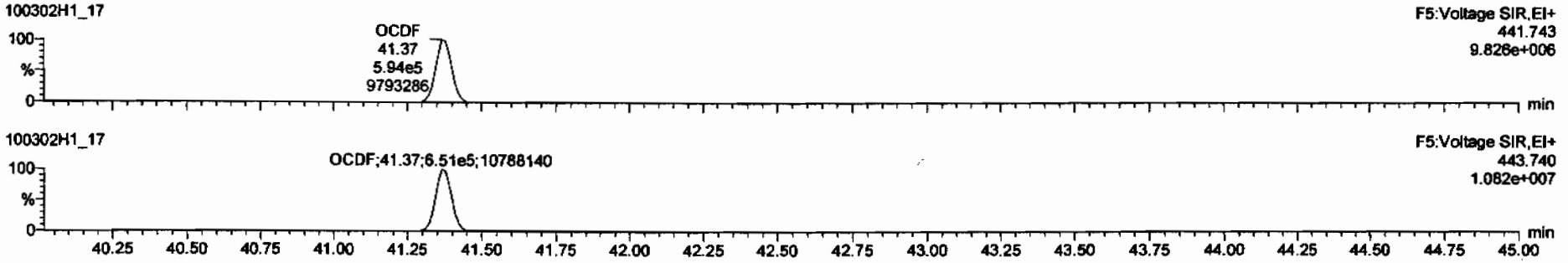

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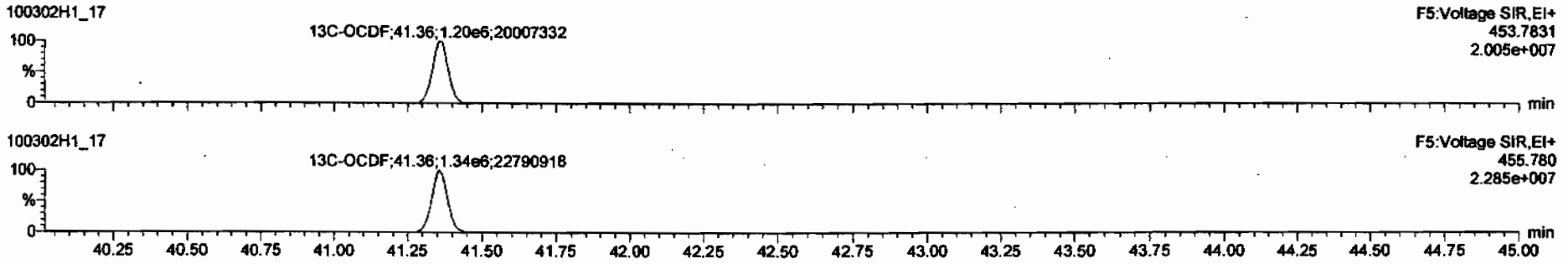

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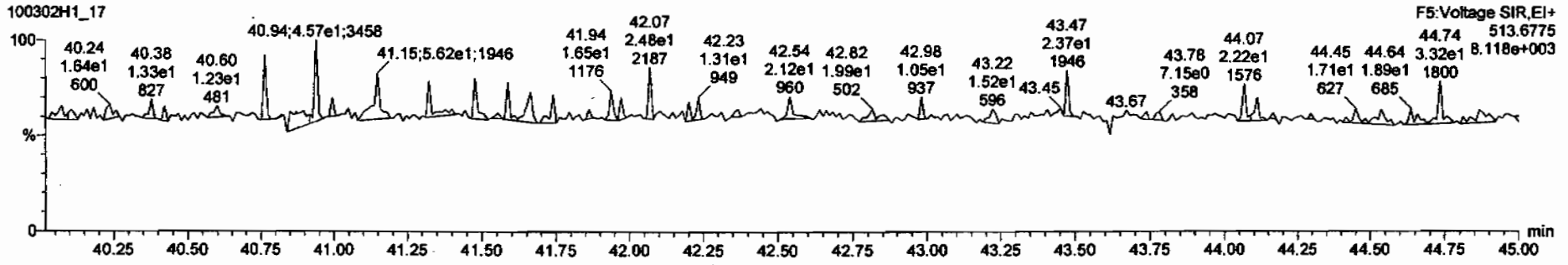

Vista Analytical Laboratory VG-10

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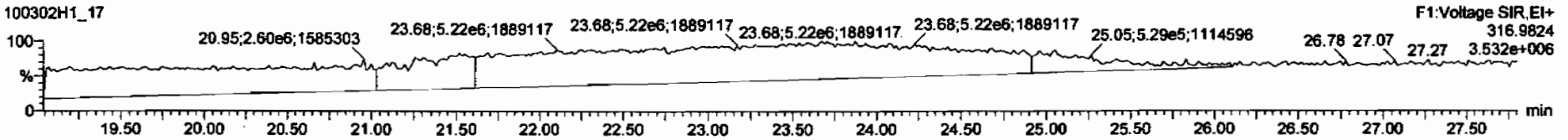

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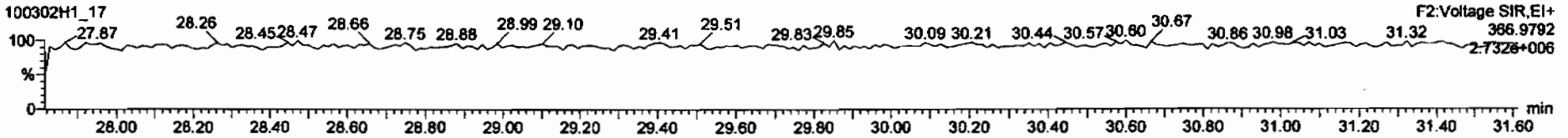

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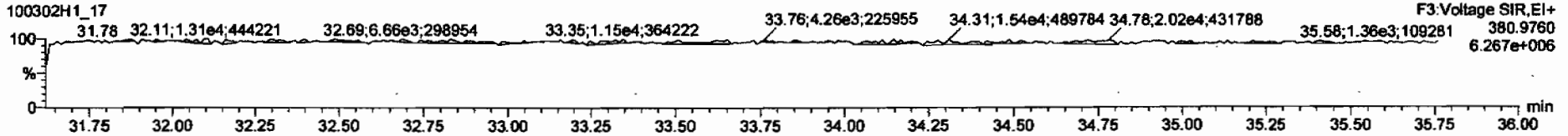

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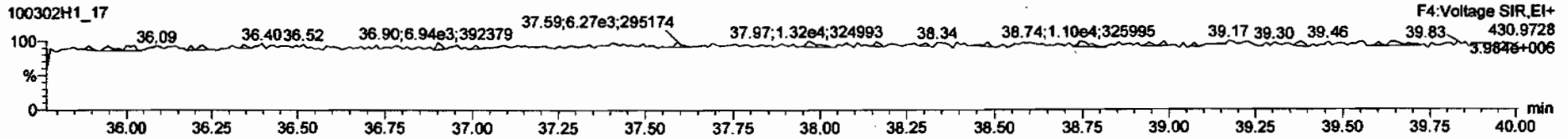

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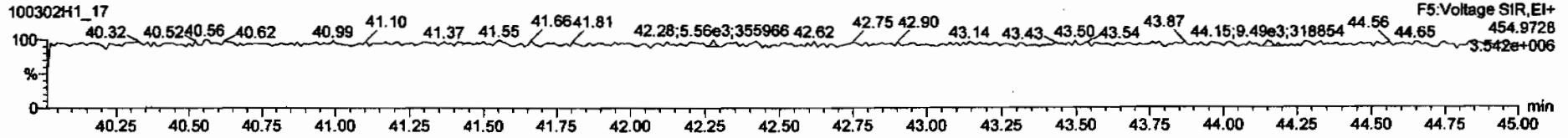

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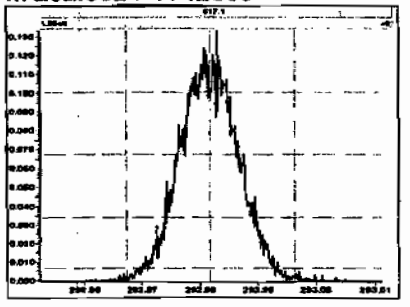

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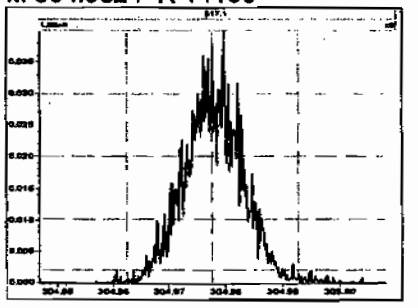

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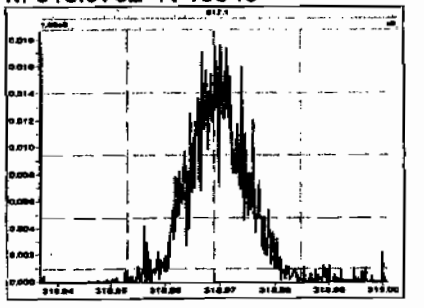

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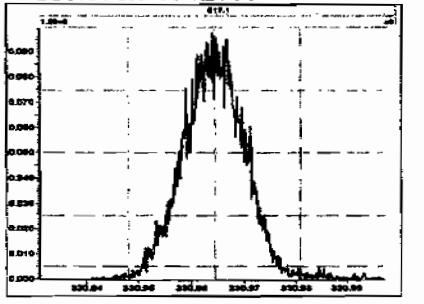

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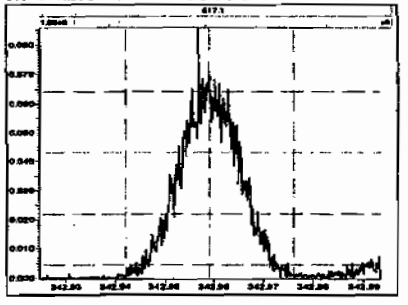

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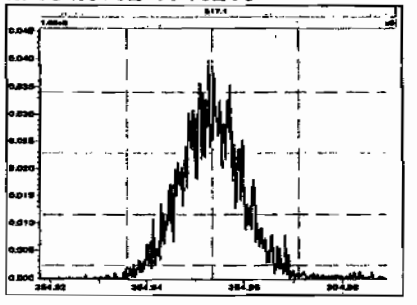

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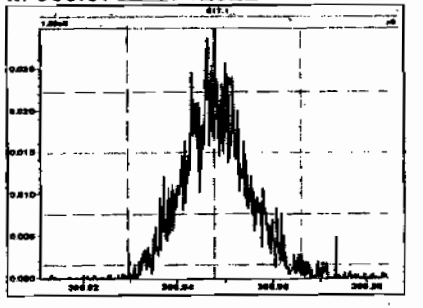

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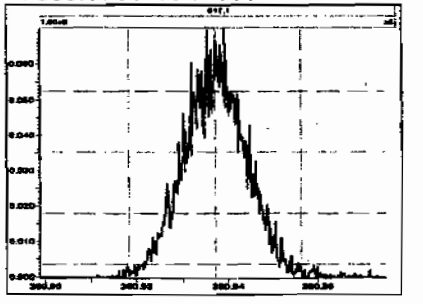

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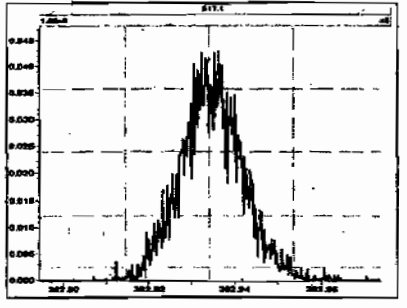

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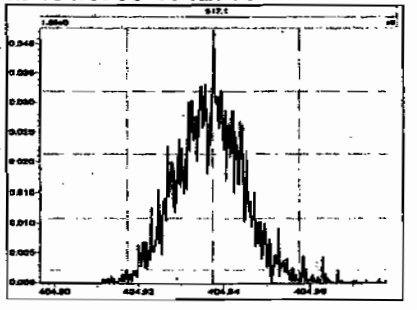

M 416.9760 R 15165

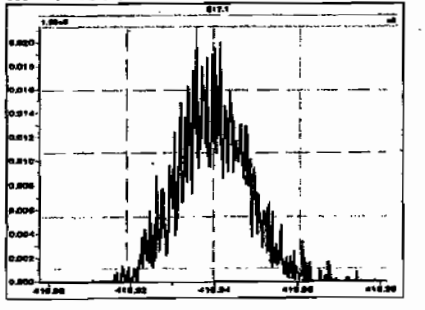

M 330.9792 R 13230

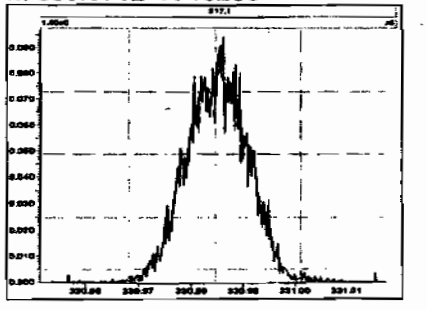

Printed: Wednesday, March 03, 2010 01:03:21 Pacific Standard Time

M 342.9792 R 14109

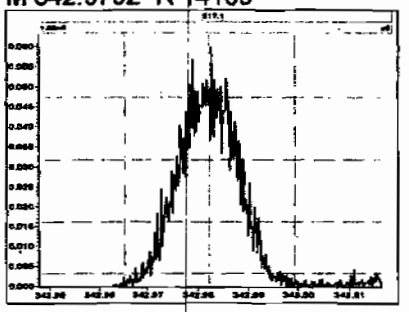

M 354.9792 R 13981

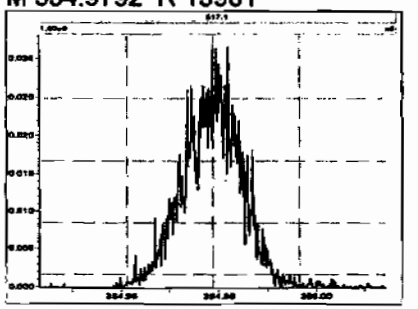

M 366.9792 R 14612

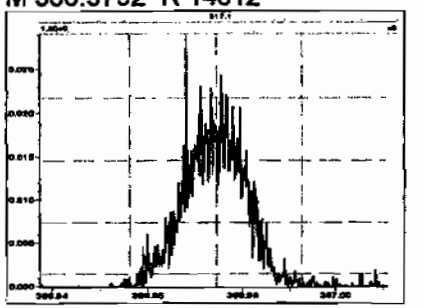

M 380.9760 R 14315

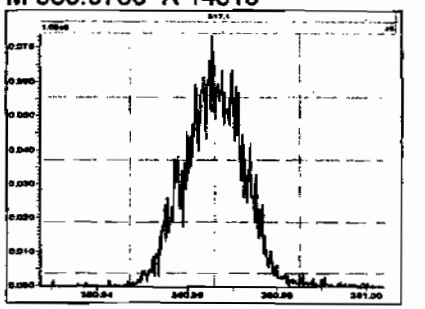

M 392.9760 R 13698

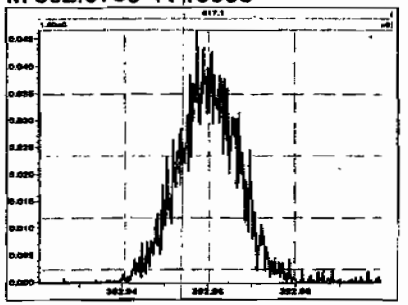

M 404.9760 R 14084

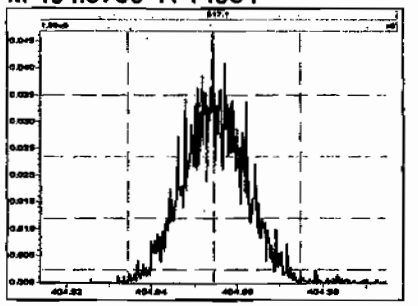

M 416.9760 R 13061

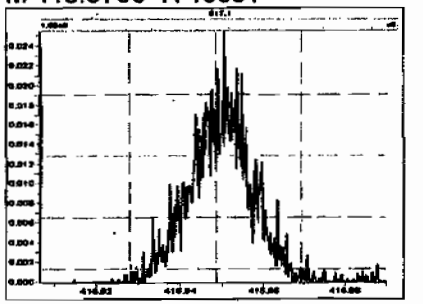

M 366.9792 R 14582

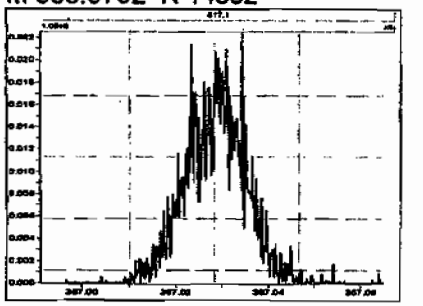

M 380.9760 R 12987

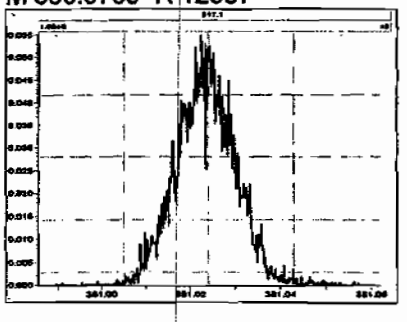

M 392.9760 R 13854

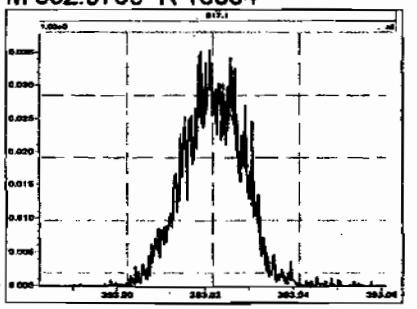

M 404.9760 R 14183

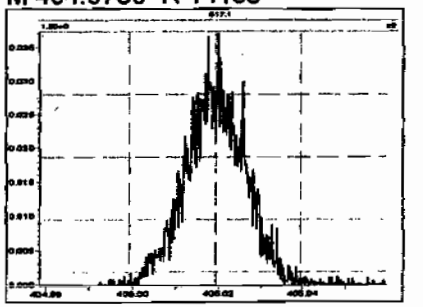

M 416.9760 R 16049

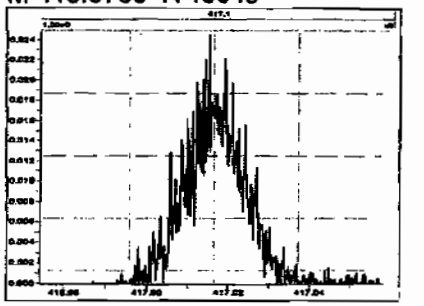

M 430.9728 R 13229

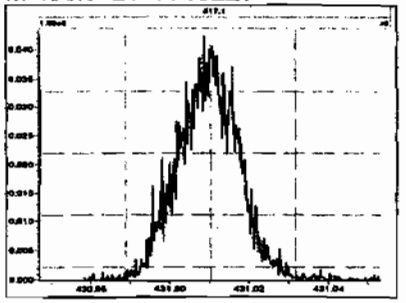

M 442.9728 R 13832

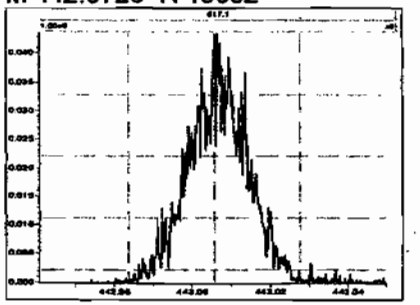

M 454.9728 R 13596

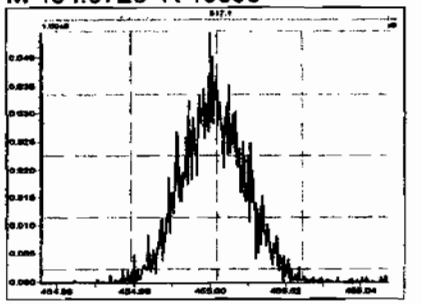

M 404.9760 R 14764

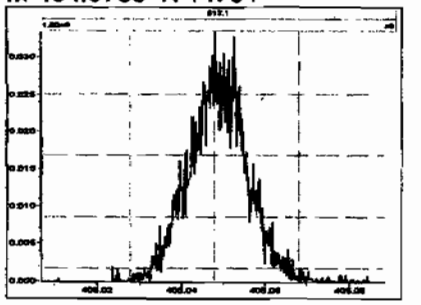

M 416.9760 R 14315

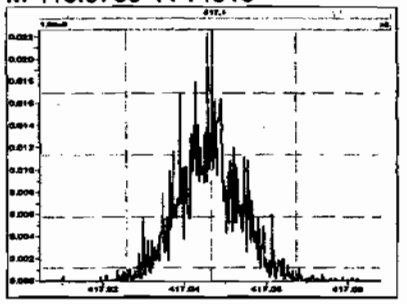

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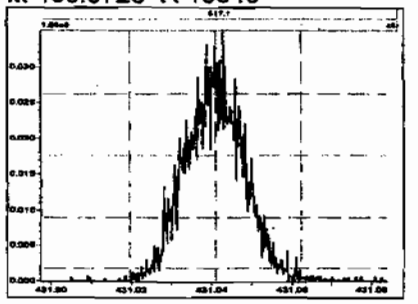

M 442.9728 R 14881

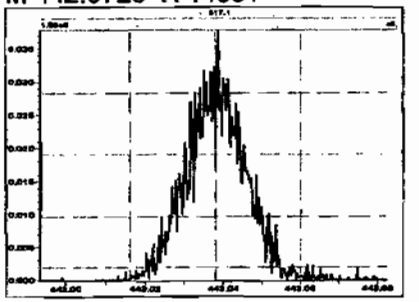

M 454.9728 R 14247

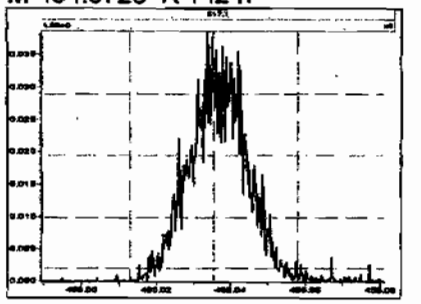

M 466.9728 R 14668

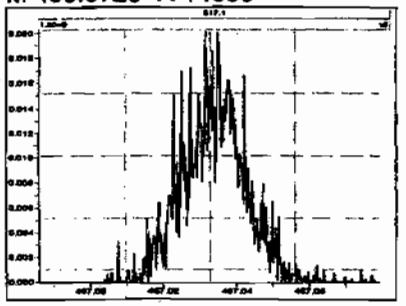

M 480.9696 R 13606

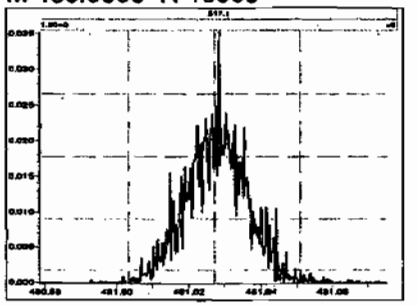

M 430.9728 R 13706

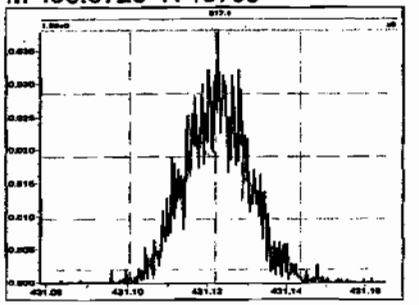

M 442.9728 R 13071

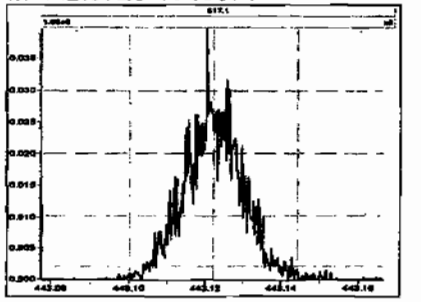

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M 454.9728 R 13446

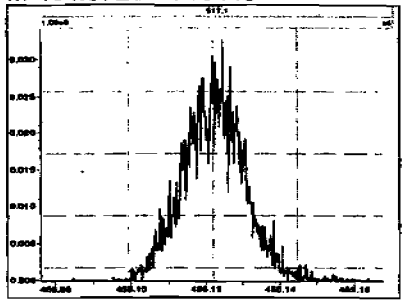

M 466.9728 R 13945

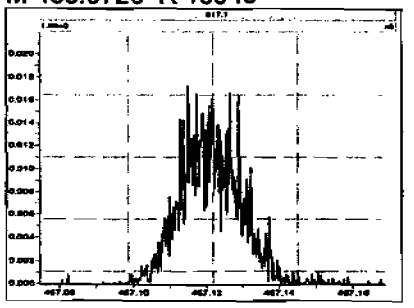

M 480.9696 R 14204

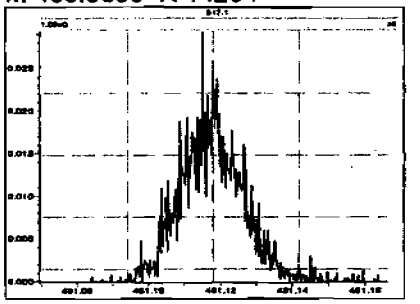

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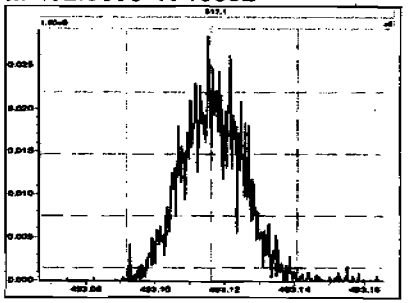

M 504.9696 R 12754

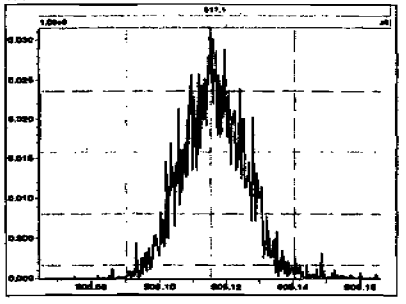

M 516.9697 R 13349

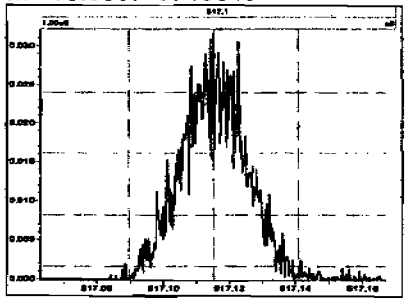

ICAL

Quantify Compound Summary Report **MassLynx 4.1**
Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Compound name: 2,3,7,8-TCDD
Response Factor: 1.03775
RRF SD: 0.0438689, Relative SD: 4.22731
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	10.0	0.77	NO	25.98	1.001	1.10e5	1.11e6	9.62	-3.8	0.998
	100129H2_3	0.250	0.88	NO	25.98	1.001	3.18e3	1.16e6	0.264	5.5	1.10
	100129H2_4	0.500	0.74	NO	25.98	1.001	5.55e3	1.05e6	0.509	1.7	1.06
	100129H2_5	2.00	0.80	NO	25.98	1.001	2.13e4	1.09e6	1.88	-6.1	0.974
	100129H2_6	40.0	0.78	NO	25.97	1.001	4.69e5	1.11e6	40.7	1.6	1.05
	100129H2_7	200	0.77	NO	25.97	1.001	2.48e6	1.18e6	202	1.1	1.05

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2/2/10

Compound name: 1,2,3,7,8-PeCDD
Response Factor: 0.935366
RRF SD: 0.0328605, Relative SD: 3.51311
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	0.61	NO	30.57	1.000	5.12e5	1.11e6	49.3	-1.5	0.922
	100129H2_3	1.25	0.61	NO	30.57	1.000	1.31e4	1.10e6	1.28	2.1	0.955
	100129H2_4	2.50	0.61	NO	30.57	1.000	2.51e4	1.04e6	2.57	3.0	0.963
	100129H2_5	10.0	0.61	NO	30.57	1.000	9.60e4	1.10e6	9.35	-6.5	0.875
	100129H2_6	200	0.62	NO	30.57	1.001	2.11e6	1.11e6	203	1.6	0.950
	100129H2_7	1000	0.62	NO	30.56	1.000	1.15e7	1.21e6	1010	1.3	0.948

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Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

Compound name: 1,2,3,4,7,8-HxCDD
Response Factor: 0.907043
RRF SD: 0.0305119, Relative SD: 3.36389
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.25	NO	33.95	1.000	4.35e5	9.70e5	49.4	-1.1	0.897
	100129H2_3	1.25	1.22	NO	33.95	1.000	1.03e4	8.97e5	1.27	1.4	0.920
	100129H2_4	2.50	1.16	NO	33.95	1.000	1.97e4	8.52e5	2.55	2.0	0.925
	100129H2_5	10.0	1.26	NO	33.95	1.001	7.35e4	8.65e5	9.36	-6.4	0.849
	100129H2_6	200	1.24	NO	33.94	1.000	1.68e6	9.03e5	205	2.5	0.930
	100129H2_7	1000	1.24	NO	33.94	1.000	9.76e6	1.06e6	1020	1.5	0.921

Compound name: 1,2,3,6,7,8-HxCDD
Response Factor: 0.995415
RRF SD: 0.0268992, Relative SD: 2.70231
Response type: Internal Std (Ref 21), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.24	NO	34.06	1.000	4.14e5	8.54e5	48.7	-2.6	0.970
	100129H2_3	1.25	1.32	NO	34.06	1.001	1.02e4	7.97e5	1.28	2.7	1.02
	100129H2_4	2.50	1.18	NO	34.06	1.001	1.88e4	7.53e5	2.51	0.5	1.00
	100129H2_5	10.0	1.22	NO	34.05	1.000	7.43e4	7.78e5	9.60	-4.0	0.956
	100129H2_6	200	1.25	NO	34.05	1.000	1.61e6	7.92e5	205	2.3	1.02
	100129H2_7	1000	1.25	NO	34.05	1.000	9.16e6	9.11e5	1010	1.0	1.01

Compound name: 1,2,3,7,8,9-HxCDD
Response Factor: 0.930343
RRF SD: 0.0275408, Relative SD: 2.96028
Response type: Internal Std (Ref 22), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.25	NO	34.35	1.000	4.72e5	1.03e6	49.3	-1.3	0.918
	100129H2_3	1.25	1.21	NO	34.35	1.000	1.14e4	9.53e5	1.28	2.7	0.956

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

Compound name: 1,2,3,7,8,9-HxCDD

	100129H2_4	2.50	1.22	NO	34.36	1.000	2.15e4	8.99e5	2.56	2.6	0.954
	100129H2_5	10.0	1.27	NO	34.36	1.001	8.11e4	9.18e5	9.49	-5.1	0.883
	100129H2_6	200	1.25	NO	34.36	1.001	1.80e6	9.55e5	203	1.5	0.944
	100129H2_7	1000	1.24	NO	34.34	1.000	1.05e7	1.14e6	996	-0.4	0.926

Compound name: 1,2,3,4,6,7,8-HpCDD
Response Factor: 1.00215
RRF SD: 0.0343299, Relative SD: 3.42564
Response type: Internal Std (Ref 23), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.04	NO	37.89	1.000	3.99e5	8.21e5	48.4	-3.1	0.971
	100129H2_3	1.25	1.02	NO	37.89	1.000	9.76e3	7.53e5	1.29	3.5	1.04
	100129H2_4	2.50	1.11	NO	37.89	1.000	1.87e4	7.18e5	2.60	3.9	1.04
	100129H2_5	10.0	1.03	NO	37.88	1.000	6.72e4	7.03e5	9.54	-4.6	0.956
	100129H2_6	200	1.04	NO	37.88	1.000	1.45e6	7.20e5	200	0.2	1.00
	100129H2_7	1000	1.04	NO	37.88	1.000	8.88e6	8.85e5	1000	0.2	1.00

Compound name: OCDD
Response Factor: 1.10393
RRF SD: 0.0568185, Relative SD: 5.14694
Response type: Internal Std (Ref 24), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.88	NO	41.19	1.000	7.54e5	1.40e6	97.7	-2.3	1.08
	100129H2_3	2.50	0.82	NO	41.20	1.001	2.02e4	1.33e6	2.75	10.0	1.21
	100129H2_4	5.00	0.88	NO	41.19	1.001	3.24e4	1.18e6	4.97	-0.5	1.10
	100129H2_5	20.0	0.89	NO	41.18	1.000	1.18e5	1.12e6	19.0	-5.0	1.05
	100129H2_6	400	0.88	NO	41.18	1.000	2.63e6	1.20e6	396	-0.9	1.09
	100129H2_7	2000	0.88	NO	41.19	1.000	1.74e7	1.59e6	1980	-1.2	1.09

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
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Compound name: 2,3,7,8-TCDF
Response Factor: 0.956401
RRF SD: 0.0341554, Relative SD: 3.57124
Response type: Internal Std (Ref 25), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	10.0	0.77	NO	25.20	1.001	1.31e5	1.43e6	9.56	-4.4	0.914
100129H2_3	0.250	0.72	NO	25.22	1.002	3.66e3	1.52e6	0.252	0.9	0.965
100129H2_4	0.500	0.82	NO	25.20	1.001	6.82e3	1.40e6	0.510	2.0	0.976
100129H2_5	2.00	0.79	NO	25.19	1.001	2.68e4	1.47e6	1.91	-4.6	0.913
100129H2_6	40.0	0.77	NO	25.19	1.001	5.79e5	1.47e6	41.1	2.7	0.982
100129H2_7	200	0.76	NO	25.19	1.001	3.05e6	1.54e6	207	3.4	0.988

Compound name: 1,2,3,7,8-PeCDF
Response Factor: 0.940869
RRF SD: 0.0353031, Relative SD: 3.75219
Response type: Internal Std (Ref 26), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	50.0	1.57	NO	29.37	1.000	6.41e5	1.39e6	49.1	-1.9	0.923
100129H2_3	1.25	1.50	NO	29.37	1.000	1.71e4	1.50e6	1.21	-3.4	0.909
100129H2_4	2.50	1.55	NO	29.38	1.000	3.21e4	1.29e6	2.65	6.0	0.997
100129H2_5	10.0	1.60	NO	29.37	1.000	1.20e5	1.31e6	9.67	-3.3	0.910
100129H2_6	200	1.55	NO	29.37	1.000	2.65e6	1.37e6	206	2.9	0.968
100129H2_7	1000	1.55	NO	29.37	1.001	1.59e7	1.69e6	996	-0.4	0.937

Compound name: 2,3,4,7,8-PeCDF
Response Factor: 0.925817
RRF SD: 0.0235693, Relative SD: 2.54579
Response type: Internal Std (Ref 27), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	50.0	1.57	NO	30.29	1.000	6.79e5	1.47e6	49.8	-0.3	0.923
100129H2_3	1.25	1.62	NO	30.29	1.000	1.67e4	1.48e6	1.22	-2.4	0.904

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Compound name: 2,3,4,7,8-PeCDF

	100129H2_4	2.50	1.63	NO	30.29	1.000	3.38e4	1.42e6	2.57	2.9	0.953
	100129H2_5	10.0	1.54	NO	30.29	1.000	1.32e5	1.47e6	9.65	-3.5	0.894
	100129H2_6	200	1.53	NO	30.29	1.000	2.84e6	1.50e6	204	2.2	0.946
	100129H2_7	1000	1.55	NO	30.27	1.000	1.57e7	1.68e6	1010	1.0	0.935

Compound name: 1,2,3,4,7,8-HxCDF
Response Factor: 1.22412
RRF SD: 0.0293526, Relative SD: 2.39786
Response type: Internal Std (Ref 28), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.25	NO	33.05	1.000	7.77e5	1.29e6	49.4	-1.2	1.21
	100129H2_3	1.25	1.27	NO	33.05	1.001	2.21e4	1.48e6	1.22	-2.4	1.19
	100129H2_4	2.50	1.22	NO	33.05	1.000	3.36e4	1.07e6	2.56	2.3	1.25
	100129H2_5	10.0	1.25	NO	33.05	1.000	1.30e5	1.09e6	9.73	-2.7	1.19
	100129H2_6	200	1.25	NO	33.05	1.001	2.87e6	1.15e6	204	2.1	1.25
	100129H2_7	1000	1.25	NO	33.04	1.000	1.79e7	1.43e6	1020	2.0	1.25

Compound name: 1,2,3,6,7,8-HxCDF
Response Factor: 1.07862
RRF SD: 0.0221276, Relative SD: 2.05147
Response type: Internal Std (Ref 29), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.26	NO	33.18	1.001	6.73e5	1.28e6	48.9	-2.3	1.05
	100129H2_3	1.25	1.21	NO	33.18	1.001	1.71e4	1.27e6	1.25	0.3	1.08
	100129H2_4	2.50	1.24	NO	33.18	1.000	3.13e4	1.14e6	2.54	1.6	1.10
	100129H2_5	10.0	1.24	NO	33.17	1.000	1.24e5	1.18e6	9.74	-2.6	1.05
	100129H2_6	200	1.26	NO	33.17	1.000	2.67e6	1.21e6	205	2.4	1.10
	100129H2_7	1000	1.26	NO	33.17	1.000	1.55e7	1.42e6	1010	0.7	1.09

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Compound name: 2,3,4,6,7,8-HxCDF
Response Factor: 1.12508
RRF SD: 0.0298329, Relative SD: 2.65161
Response type: Internal Std (Ref 30), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	50.0	1.25	NO	33.78	1.001	6.18e5	1.12e6	49.2	-1.7	1.11
100129H2_3	1.25	1.24	NO	33.77	1.000	1.49e4	1.06e6	1.25	-0.1	1.12
100129H2_4	2.50	1.28	NO	33.77	1.000	2.88e4	1.00e6	2.55	2.0	1.15
100129H2_5	10.0	1.24	NO	33.77	1.000	1.11e5	1.03e6	9.56	-4.4	1.08
100129H2_6	200	1.25	NO	33.77	1.000	2.42e6	1.05e6	205	2.4	1.15
100129H2_7	1000	1.25	NO	33.77	1.000	1.40e7	1.23e6	1020	1.8	1.15

Compound name: 1,2,3,7,8,9-HxCDF
Response Factor: 1.12896
RRF SD: 0.0335341, Relative SD: 2.97035
Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	50.0	1.23	NO	34.75	1.000	5.61e5	1.01e6	49.1	-1.8	1.11
100129H2_3	1.25	1.23	NO	34.75	1.000	1.32e4	9.57e5	1.22	-2.4	1.10
100129H2_4	2.50	1.26	NO	34.75	1.000	2.56e4	8.74e5	2.59	3.8	1.17
100129H2_5	10.0	1.29	NO	34.74	1.000	9.63e4	8.84e5	9.64	-3.6	1.09
100129H2_6	200	1.26	NO	34.74	1.000	2.14e6	9.28e5	205	2.4	1.16
100129H2_7	1000	1.25	NO	34.74	1.000	1.28e7	1.11e6	1020	1.6	1.15

Compound name: 1,2,3,4,6,7,8-HpCDF
Response Factor: 1.43855
RRF SD: 0.0764869, Relative SD: 5.31694
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	50.0	1.05	NO	36.59	1.000	5.82e5	8.38e5	48.3	-3.4	1.39
100129H2_3	1.25	1.01	NO	36.60	1.001	1.49e4	7.68e5	1.35	7.7	1.55

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Compound name: 1,2,3,4,6,7,8-HpCDF

	100129H2_4	2.50	1.01	NO	36.60	1.001	2.70e4	7.25e5	2.59	3.6	1.49
	100129H2_5	10.0	1.06	NO	36.59	1.000	1.01e5	7.56e5	9.25	-7.5	1.33
	100129H2_6	200	1.05	NO	36.59	1.001	2.15e6	7.44e5	201	0.5	1.45
	100129H2_7	1000	1.05	NO	36.59	1.001	1.26e7	8.83e5	990	-1.0	1.42

Compound name: 1,2,3,4,7,8,9-HpCDF
Response Factor: 1.37871
RRF SD: 0.0397747, Relative SD: 2.88492
Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.06	NO	38.44	1.000	5.34e5	7.91e5	49.0	-2.0	1.35
	100129H2_3	1.25	1.00	NO	38.45	1.001	1.24e4	7.13e5	1.26	0.7	1.39
	100129H2_4	2.50	1.06	NO	38.44	1.000	2.38e4	6.61e5	2.61	4.4	1.44
	100129H2_5	10.0	1.04	NO	38.43	1.000	8.79e4	6.64e5	9.60	-4.0	1.32
	100129H2_6	200	1.05	NO	38.43	1.000	1.92e6	6.87e5	203	1.3	1.40
	100129H2_7	1000	1.05	NO	38.43	1.000	1.16e7	8.46e5	995	-0.5	1.37

Compound name: OCDF
Response Factor: 1.01488
RRF SD: 0.071672, Relative SD: 7.06212
Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.90	NO	41.42	1.000	8.89e5	1.83e6	95.9	-4.1	0.973
	100129H2_3	2.50	0.87	NO	41.42	1.000	2.66e4	1.85e6	2.84	13.4	1.15
	100129H2_4	5.00	0.89	NO	41.42	1.001	3.91e4	1.52e6	5.08	1.5	1.03
	100129H2_5	20.0	0.89	NO	41.41	1.000	1.40e5	1.47e6	18.8	-6.2	0.952
	100129H2_6	400	0.90	NO	41.41	1.000	3.18e6	1.59e6	393	-1.7	0.997
	100129H2_7	2000	0.91	NO	41.42	1.000	2.13e7	2.16e6	1940	-2.9	0.986

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Compound name: 13C-2,3,7,8-TCDD
Response Factor: 1.09945
RRF SD: 0.0353239, Relative SD: 3.21288
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	0.80	NO	25.97	1.022	1.11e6	9.95e5	101	1.0	1.11
100129H2_3	100	0.79	NO	25.97	1.022	1.16e6	1.07e6	99.3	-0.7	1.09
100129H2_4	100	0.81	NO	25.97	1.022	1.05e6	9.84e5	97.2	-2.8	1.07
100129H2_5	100	0.78	NO	25.95	1.022	1.09e6	1.02e6	97.3	-2.7	1.07
100129H2_6	100	0.78	NO	25.95	1.022	1.11e6	1.02e6	99.4	-0.6	1.09
100129H2_7	100	0.80	NO	25.95	1.022	1.18e6	1.02e6	106	5.9	1.16

Compound name: 13C-1,2,3,7,8-PeCDD
Response Factor: 1.09441
RRF SD: 0.0562219, Relative SD: 5.13717
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	0.62	NO	30.56	1.203	1.11e6	9.95e5	102	2.1	1.12
100129H2_3	100	0.64	NO	30.56	1.203	1.10e6	1.07e6	94.1	-5.9	1.03
100129H2_4	100	0.63	NO	30.56	1.203	1.04e6	9.84e5	96.8	-3.2	1.06
100129H2_5	100	0.64	NO	30.56	1.204	1.10e6	1.02e6	98.3	-1.7	1.08
100129H2_6	100	0.62	NO	30.55	1.203	1.11e6	1.02e6	99.7	-0.3	1.09
100129H2_7	100	0.62	NO	30.55	1.203	1.21e6	1.02e6	109	8.9	1.19

Compound name: 13C-1,2,3,4,7,8-HxCDD
Response Factor: 1.01044
RRF SD: 0.0969506, Relative SD: 9.59486
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	1.26	NO	33.94	1.014	9.70e5	9.64e5	99.6	-0.4	1.01
100129H2_3	100	1.26	NO	33.94	1.014	8.97e5	9.50e5	93.5	-6.5	0.945

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Compound name: 13C-1,2,3,4,7,8-HxCDD

100129H2_4	100	1.25	NO	33.94	1.014	8.52e5	9.14e5	92.2	-7.8	0.932
100129H2_5	100	1.26	NO	33.93	1.014	8.65e5	9.05e5	94.6	-5.4	0.956
100129H2_6	100	1.25	NO	33.93	1.014	9.03e5	8.76e5	102	2.0	1.03
100129H2_7	100	1.27	NO	33.93	1.014	1.06e6	8.89e5	118	18.0	1.19

Compound name: 13C-1,2,3,6,7,8-HxCDD
Response Factor: 0.889467
RRF SD: 0.0721499, Relative SD: 8.11159
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	1.23	NO	34.05	1.018	8.54e5	9.64e5	99.6	-0.4	0.886
100129H2_3	100	1.26	NO	34.04	1.017	7.97e5	9.50e5	94.4	-5.6	0.840
100129H2_4	100	1.27	NO	34.04	1.017	7.53e5	9.14e5	92.6	-7.4	0.824
100129H2_5	100	1.25	NO	34.04	1.017	7.78e5	9.05e5	96.6	-3.4	0.859
100129H2_6	100	1.26	NO	34.04	1.017	7.92e5	8.76e5	102	1.6	0.904
100129H2_7	100	1.28	NO	34.04	1.018	9.11e5	8.89e5	115	15.1	1.02

Compound name: 13C-1,2,3,7,8,9-HxCDD
Response Factor: 1.07336
RRF SD: 0.108723, Relative SD: 10.1293
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	1.25	NO	34.34	1.027	1.03e6	9.64e5	99.5	-0.5	1.07
100129H2_3	100	1.24	NO	34.34	1.027	9.53e5	9.50e5	93.5	-6.5	1.00
100129H2_4	100	1.25	NO	34.34	1.027	8.99e5	9.14e5	91.7	-8.3	0.984
100129H2_5	100	1.24	NO	34.33	1.026	9.18e5	9.05e5	94.5	-5.5	1.01
100129H2_6	100	1.23	NO	34.33	1.026	9.55e5	8.76e5	102	1.6	1.09
100129H2_7	100	1.24	NO	34.33	1.027	1.14e6	8.89e5	119	19.2	1.28

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Compound name: 13C-1,2,3,4,6,7,8-HpCDD
Response Factor: 0.837123
RRF SD: 0.0823436, Relative SD: 9.83651
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	1.05	NO	37.88	1.132	8.21e5	9.64e5	102	1.8	0.852
	100129H2_3	100	1.06	NO	37.88	1.132	7.53e5	9.50e5	94.7	-5.3	0.793
	100129H2_4	100	1.03	NO	37.88	1.132	7.16e5	9.14e5	93.6	-6.4	0.784
	100129H2_5	100	1.06	NO	37.87	1.132	7.03e5	9.05e5	92.8	-7.2	0.777
	100129H2_6	100	1.04	NO	37.87	1.132	7.20e5	8.76e5	98.2	-1.8	0.822
	100129H2_7	100	1.05	NO	37.87	1.132	8.85e5	8.89e5	119	18.9	0.995

Compound name: 13C-OCDD
Response Factor: 0.712032
RRF SD: 0.0975244, Relative SD: 13.6966
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	200	0.91	NO	41.18	1.231	1.40e6	9.64e5	204	1.9	0.725
	100129H2_3	200	0.90	NO	41.18	1.231	1.33e6	9.50e5	197	-1.7	0.700
	100129H2_4	200	0.89	NO	41.17	1.231	1.18e6	9.14e5	181	-9.3	0.646
	100129H2_5	200	0.90	NO	41.17	1.231	1.12e6	9.05e5	174	-12.9	0.620
	100129H2_6	200	0.91	NO	41.17	1.231	1.20e6	8.76e5	193	-3.7	0.686
	100129H2_7	200	0.89	NO	41.18	1.231	1.59e6	8.89e5	252	25.8	0.896

Compound name: 13C-2,3,7,8-TCDF
Response Factor: 1.05298
RRF SD: 0.0213546, Relative SD: 2.02801
Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.79	NO	25.19	0.992	1.43e6	1.35e6	101	1.1	1.06
	100129H2_3	100	0.79	NO	25.17	0.991	1.52e6	1.45e6	98.9	-1.1	1.04

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Compound name: 13C-2,3,7,8-TCDF

100129H2_4	100	0.79	NO	25.19	0.992	1.40e6	1.35e6	98.1	-1.9	1.03
100129H2_5	100	0.80	NO	25.17	0.992	1.47e6	1.41e6	98.7	-1.3	1.04
100129H2_6	100	0.78	NO	25.17	0.992	1.47e6	1.40e6	99.7	-0.3	1.05
100129H2_7	100	0.78	NO	25.17	0.992	1.54e6	1.41e6	104	3.6	1.09

Compound name: 13C-1,2,3,7,8-PeCDF
Response Factor: 1.01963
RRF SD: 0.0964477, Relative SD: 9.45911
Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	1.58	NO	29.35	1.155	1.39e6	1.35e6	101	1.1	1.03
100129H2_3	100	1.56	NO	29.35	1.155	1.50e6	1.45e6	101	1.4	1.03
100129H2_4	100	1.56	NO	29.37	1.156	1.29e6	1.35e6	93.3	-6.7	0.951
100129H2_5	100	1.59	NO	29.35	1.156	1.31e6	1.41e6	91.3	-8.7	0.931
100129H2_6	100	1.57	NO	29.35	1.156	1.37e6	1.40e6	95.5	-4.5	0.974
100129H2_7	100	1.57	NO	29.34	1.156	1.69e6	1.41e6	117	17.4	1.20

Compound name: 13C-2,3,4,7,8-PeCDF
Response Factor: 1.07622
RRF SD: 0.0621874, Relative SD: 5.77833
Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	1.57	NO	30.27	1.192	1.47e6	1.35e6	102	1.6	1.09
100129H2_3	100	1.56	NO	30.27	1.192	1.48e6	1.45e6	94.3	-5.7	1.01
100129H2_4	100	1.57	NO	30.27	1.192	1.42e6	1.35e6	97.3	-2.7	1.05
100129H2_5	100	1.58	NO	30.27	1.192	1.47e6	1.41e6	97.0	-3.0	1.04
100129H2_6	100	1.57	NO	30.27	1.192	1.50e6	1.40e6	99.2	-0.8	1.07
100129H2_7	100	1.57	NO	30.26	1.192	1.68e6	1.41e6	111	10.7	1.19

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Compound name: 13C-1,2,3,4,7,8-HxCDF
Response Factor: 1.36545
RRF SD: 0.181436, Relative SD: 13.2877
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.53	NO	33.04	0.988	1.29e6	9.64e5	97.7	-2.3	1.33
	100129H2_3	100	0.52	NO	33.03	0.987	1.48e6	9.50e5	114	14.1	1.56
	100129H2_4	100	0.52	NO	33.04	0.988	1.07e6	9.14e5	85.9	-14.1	1.17
	100129H2_5	100	0.52	NO	33.04	0.988	1.09e6	9.05e5	88.3	-11.7	1.21
	100129H2_6	100	0.52	NO	33.03	0.987	1.15e6	8.76e5	95.9	-4.1	1.31
	100129H2_7	100	0.52	NO	33.03	0.988	1.43e6	8.89e5	118	18.1	1.61

Compound name: 13C-1,2,3,6,7,8-HxCDF
Response Factor: 1.36637
RRF SD: 0.122392, Relative SD: 8.95746
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.52	NO	33.16	0.991	1.28e6	9.64e5	96.9	-3.1	1.32
	100129H2_3	100	0.52	NO	33.16	0.991	1.27e6	9.50e5	97.7	-2.3	1.33
	100129H2_4	100	0.53	NO	33.17	0.991	1.14e6	9.14e5	91.6	-8.4	1.25
	100129H2_5	100	0.52	NO	33.16	0.991	1.18e6	9.05e5	95.6	-4.4	1.31
	100129H2_6	100	0.52	NO	33.16	0.991	1.21e6	8.76e5	101	1.1	1.38
	100129H2_7	100	0.53	NO	33.16	0.991	1.42e6	8.89e5	117	17.2	1.60

Compound name: 13C-2,3,4,6,7,8-HxCDF
Response Factor: 1.18231
RRF SD: 0.102145, Relative SD: 8.63946
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.52	NO	33.76	1.009	1.12e6	9.64e5	98.0	-2.0	1.16
	100129H2_3	100	0.51	NO	33.76	1.009	1.06e6	9.50e5	94.7	-5.3	1.12

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: 13C-2,3,4,6,7,8-HxCDF

100129H2_4	100	0.53	NO	33.76	1.009	1.00e6	9.14e5	92.9	-7.1	1.10
100129H2_5	100	0.52	NO	33.76	1.009	1.03e6	9.05e5	96.4	-3.6	1.14
100129H2_6	100	0.52	NO	33.76	1.009	1.05e6	8.76e5	101	1.5	1.20
100129H2_7	100	0.52	NO	33.76	1.010	1.23e6	8.89e5	117	16.6	1.38

Compound name: 13C-1,2,3,7,8,9-HxCDF
Response Factor: 1.05009
RRF SD: 0.106244, Relative SD: 10.1176
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	0.51	NO	34.74	1.038	1.01e6	9.64e5	99.9	-0.1	1.05
100129H2_3	100	0.52	NO	34.74	1.038	9.57e5	9.50e5	96.0	-4.0	1.01
100129H2_4	100	0.52	NO	34.74	1.038	8.74e5	9.14e5	91.0	-9.0	0.956
100129H2_5	100	0.52	NO	34.73	1.038	8.84e5	9.05e5	93.0	-7.0	0.977
100129H2_6	100	0.53	NO	34.73	1.038	9.28e5	8.76e5	101	0.9	1.06
100129H2_7	100	0.52	NO	34.73	1.038	1.11e6	8.89e5	119	19.1	1.25

Compound name: 13C-1,2,3,4,6,7,8-HpCDF
Response Factor: 0.858149
RRF SD: 0.0715157, Relative SD: 8.33371
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	0.44	NO	36.58	1.093	8.38e5	9.64e5	101	1.3	0.870
100129H2_3	100	0.45	NO	36.58	1.093	7.68e5	9.50e5	94.2	-5.8	0.809
100129H2_4	100	0.45	NO	36.58	1.093	7.25e5	9.14e5	92.4	-7.6	0.793
100129H2_5	100	0.44	NO	36.58	1.093	7.56e5	9.05e5	97.3	-2.7	0.835
100129H2_6	100	0.45	NO	36.57	1.093	7.44e5	8.76e5	99.0	-1.0	0.849
100129H2_7	100	0.45	NO	36.57	1.094	8.83e5	8.89e5	116	15.7	0.993

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: 13C-1,2,3,4,7,8,9-HpCDF
Response Factor: 0.79411
RRF SD: 0.0852395, Relative SD: 10.734
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	0.44	NO	38.43	1.149	7.91e5	9.64e5	103	3.3	0.821
100129H2_3	100	0.44	NO	38.43	1.149	7.13e5	9.50e5	94.5	-5.5	0.751
100129H2_4	100	0.44	NO	38.43	1.149	6.61e5	9.14e5	91.0	-9.0	0.723
100129H2_5	100	0.44	NO	38.42	1.148	6.64e5	9.05e5	92.4	-7.6	0.734
100129H2_6	100	0.45	NO	38.42	1.148	6.87e5	8.76e5	98.9	-1.1	0.785
100129H2_7	100	0.45	NO	38.42	1.149	8.46e5	8.89e5	120	19.9	0.952

Compound name: 13C-OCDF
Response Factor: 0.948096
RRF SD: 0.14562, Relative SD: 15.3592
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	200	0.90	NO	41.41	1.238	1.83e6	9.64e5	200	0.0	0.948
100129H2_3	200	0.90	NO	41.41	1.238	1.85e6	9.50e5	205	2.5	0.972
100129H2_4	200	0.90	NO	41.40	1.237	1.52e6	9.14e5	175	-12.4	0.831
100129H2_5	200	0.91	NO	41.40	1.237	1.47e6	9.05e5	171	-14.3	0.812
100129H2_6	200	0.90	NO	41.40	1.237	1.59e6	8.76e5	192	-4.0	0.910
100129H2_7	200	0.90	NO	41.41	1.238	2.16e6	8.89e5	256	28.2	1.22

Compound name: 37Cl-2,3,7,8-TCDD
Response Factor: 0.664789
RRF SD: 0.0381685, Relative SD: 5.74144
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	10.0		25.98	1.023	6.27e4	9.95e5	9.49	-5.1	0.631
100129H2_3	0.250		25.98	1.023	1.82e3	1.07e6	0.257	2.6	0.682

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: 37Cl-2,3,7,8-TCDD

100129H2_4	0.500	25.98	1.023	3.04e3	9.84e5	0.465	-7.0	0.618
100129H2_5	2.00	25.98	1.023	1.37e4	1.02e6	2.02	0.8	0.670
100129H2_6	40.0	25.97	1.023	2.70e5	1.02e6	39.9	-0.3	0.663
100129H2_7	200	25.97	1.023	1.47e6	1.02e6	218	9.0	0.725

Compound name: 13C-1,2,3,4-TCDD
Response Factor: 1
RRF SD: 9.93014e-017, Relative SD: 9.93014e-015
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	0.80	NO	25.40	0.000	9.95e5	9.95e5	100	0.0	1.00
100129H2_3	100	0.79	NO	25.40	0.000	1.07e6	1.07e6	100	0.0	1.00
100129H2_4	100	0.79	NO	25.40	0.000	9.84e5	9.84e5	100	0.0	1.00
100129H2_5	100	0.80	NO	25.39	0.000	1.02e6	1.02e6	100	0.0	1.00
100129H2_6	100	0.79	NO	25.39	0.000	1.02e6	1.02e6	100	0.0	1.00
100129H2_7	100	0.79	NO	25.39	0.000	1.02e6	1.02e6	100	0.0	1.00

Compound name: 13C-1,2,3,4-TCDF
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	0.78	NO	23.98	0.000	1.35e6	1.35e6	100	0.0	1.00
100129H2_3	100	0.78	NO	23.98	0.000	1.45e6	1.45e6	100	0.0	1.00
100129H2_4	100	0.78	NO	23.98	0.000	1.35e6	1.35e6	100	0.0	1.00
100129H2_5	100	0.78	NO	23.97	0.000	1.41e6	1.41e6	100	0.0	1.00
100129H2_6	100	0.79	NO	23.97	0.000	1.40e6	1.40e6	100	0.0	1.00
100129H2_7	100	0.78	NO	23.97	0.000	1.41e6	1.41e6	100	0.0	1.00

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: 13C-1,2,3,4,6,9-HxCDF
Response Factor: 1
RRF SD: 1.40433e-016, Relative SD: 1.40433e-014
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	0.52	NO	33.46	0.000	9.64e5	9.64e5	100	0.0	1.00
100129H2_3	100	0.52	NO	33.46	0.000	9.50e5	9.50e5	100	0.0	1.00
100129H2_4	100	0.50	NO	33.46	0.000	9.14e5	9.14e5	100	0.0	1.00
100129H2_5	100	0.51	NO	33.46	0.000	9.05e5	9.05e5	100	0.0	1.00
100129H2_6	100	0.52	NO	33.46	0.000	8.76e5	8.76e5	100	0.0	1.00
100129H2_7	100	0.52	NO	33.44	0.000	8.89e5	8.89e5	100	0.0	1.00

Compound name: Total Tetra-Dioxins
Response Factor: 1.03775
RRF SD: 0.0438689, Relative SD: 4.22731
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	10.0	1.11e6	55.5
100129H2_3	0.250	1.16e6	0.270
100129H2_4	0.500	1.05e6	0.512
100129H2_5	2.00	1.09e6	1.88
100129H2_6	40.0	1.11e6	40.8
100129H2_7	200	1.18e6	203

Compound name: Total Penta-Dioxins
Response Factor: 0.935366
RRF SD: 0.0328605, Relative SD: 3.51311
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	50.0	1.11e6	146
100129H2_3	1.25	1.10e6	1.29

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Compound name: Total Penta-Dioxins

	100129H2_4	2.50	1.04e6	2.57
	100129H2_5	10.0	1.10e6	9.35
	100129H2_6	200	1.11e6	204
	100129H2_7	1000	1.21e6	1010

Compound name: Total Hexa-Dioxins
Response Factor: 0.995415
RRF SD: 0.0268992, Relative SD: 2.70231
Response type: Internal Std (Ref 21), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	0.00e0	191
	100129H2_3	1.25	0.00e0	3.84
	100129H2_4	2.50	0.00e0	7.63
	100129H2_5	10.0	0.00e0	28.5
	100129H2_6	200	0.00e0	613
	100129H2_7	1000	0.00e0	3020

Compound name: Total Hepta-Dioxins
Response Factor: 1.00215
RRF SD: 0.0343299, Relative SD: 3.42564
Response type: Internal Std (Ref 23), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	8.21e5	129
	100129H2_3	1.25	7.53e5	1.32
	100129H2_4	2.50	7.16e5	2.61
	100129H2_5	10.0	7.03e5	9.58
	100129H2_6	200	7.20e5	202
	100129H2_7	1000	8.85e5	1010

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qid

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Compound name: Total Tetra-Furans
Response Factor: 0.956401
RRF SD: 0.0341554, Relative SD: 3.57124
Response type: Internal Std (Ref 25), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	10.0	1.43e6	31.2
	100129H2_3	0.250	1.52e6	0.264
	100129H2_4	0.500	1.40e6	0.510
	100129H2_5	2.00	1.47e6	1.91
	100129H2_6	40.0	1.47e6	41.7
	100129H2_7	200	1.54e6	210

Compound name: 1st Func. Penta-Furans
Response Factor: 0.940869
RRF SD: 0.0353031, Relative SD: 3.75219
Response type: Internal Std (Ref 26), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	0.00e0	60.7
	100129H2_3	1.25	0.00e0	0.00956
	100129H2_4	2.50	0.00e0	0.0104
	100129H2_5	10.0	0.00e0	0.00898
	100129H2_6	200	0.00e0	0.0373
	100129H2_7	1000	0.00e0	0.0131

Compound name: Total Penta-Furans
Response Factor: 0.940869
RRF SD: 0.0353031, Relative SD: 3.75219
Response type: Internal Std (Ref 26), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	0.00e0	162
	100129H2_3	1.25	0.00e0	2.43

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Compound name: Total Penta-Furans

	100129H2_4	2.50	0.00e0	5.22
	100129H2_5	10.0	0.00e0	19.5
	100129H2_6	200	0.00e0	415
	100129H2_7	1000	0.00e0	2030

Compound name: Total Hexa-Furans
Response Factor: 1.12508
RRF SD: 0.0298329, Relative SD: 2.65161
Response type: Internal Std (Ref 30), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	0.00e0	245
	100129H2_3	1.25	0.00e0	4.94
	100129H2_4	2.50	0.00e0	10.2
	100129H2_5	10.0	0.00e0	38.7
	100129H2_6	200	0.00e0	819
	100129H2_7	1000	0.00e0	4070

Compound name: Total Hepta-Furans
Response Factor: 1.43855
RRF SD: 0.0764869, Relative SD: 5.31694
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	0.00e0	97.3
	100129H2_3	1.25	0.00e0	2.61
	100129H2_4	2.50	0.00e0	5.21
	100129H2_5	10.0	0.00e0	18.9
	100129H2_6	200	0.00e0	404
	100129H2_7	1000	0.00e0	1990

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: PFK1
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00
	100129H2_3	1.00
	100129H2_4	1.00
	100129H2_5	1.00
	100129H2_6	1.00
	100129H2_7	1.00

Compound name: PFK2
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00
	100129H2_3	1.00
	100129H2_4	1.00
	100129H2_5	1.00
	100129H2_6	1.00
	100129H2_7	1.00

Compound name: PFK3
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00
	100129H2_3	1.00
	100129H2_4	1.00
	100129H2_5	1.00

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: PFK3

	100129H2_6	1.00
	100129H2_7	1.00

Compound name: PFK4
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00
	100129H2_3	1.00
	100129H2_4	1.00
	100129H2_5	1.00
	100129H2_6	1.00
	100129H2_7	1.00

Compound name: PFK5
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00
	100129H2_3	1.00
	100129H2_4	1.00
	100129H2_5	1.00
	100129H2_6	1.00
	100129H2_7	1.00

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Compound name: DPE1
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00
	100129H2_3	1.00
	100129H2_4	1.00
	100129H2_5	1.00
	100129H2_6	1.00
	100129H2_7	1.00

Compound name: DPE2
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00
	100129H2_3	1.00
	100129H2_4	1.00
	100129H2_5	1.00
	100129H2_6	1.00
	100129H2_7	1.00

Compound name: DPE3
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00
	100129H2_3	1.00
	100129H2_4	1.00
	100129H2_5	1.00

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: DPE3

	100129H2_6	1.00
	100129H2_7	1.00

Compound name: DPE4
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00
	100129H2_3	1.00
	100129H2_4	1.00
	100129H2_5	1.00
	100129H2_6	1.00
	100129H2_7	1.00

Compound name: DPE5
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00
	100129H2_3	1.00
	100129H2_4	1.00
	100129H2_5	1.00
	100129H2_6	1.00
	100129H2_7	1.00

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Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: DPE6
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00
	100129H2_3	1.00
	100129H2_4	1.00
	100129H2_5	1.00
	100129H2_6	1.00
	100129H2_7	1.00

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_3, Date: 30-Jan-2010, Time: 03:53:20, ID: ST100129H2-2 1613 CS0 100127C, Description: 1613 CS0 100127C

1	2,3,7,8-TCDD	3.18e3	0.88	NO	1.04	1.000	25.98	1.001	0.26382	106	0.0185	0.26382
2	1,2,3,7,8-PeCDD	1.31e4	0.61	NO	0.935	1.000	30.57	1.000	1.2763	102	0.0191	1.2763
3	1,2,3,4,7,8-HxCDD	1.03e4	1.22	NO	0.907	1.000	33.95	1.000	1.2676	101	0.0409	1.2676
4	1,2,3,6,7,8-HxCDD	1.02e4	1.32	NO	0.995	1.000	34.06	1.001	1.2843	103	0.0433	1.2843
5	1,2,3,7,8,9-HxCDD	1.14e4	1.21	NO	0.930	1.000	34.35	1.000	1.2842	103	0.0388	1.2842
6	1,2,3,4,6,7,8-HpCDD	9.76e3	1.02	NO	1.00	1.000	37.89	1.000	1.2931	103	0.0367	1.2931
7	OCDD	2.02e4	0.82	NO	1.10	1.000	41.20	1.001	2.7492	110	0.0369	2.7492
8	2,3,7,8-TCDF	3.66e3	0.72	NO	0.956	1.000	25.22	1.002	0.25226	101	0.0196	0.25226
9	1,2,3,7,8-PeCDF	1.71e4	1.50	NO	0.941	1.000	29.37	1.000	1.2076	96.6	0.0275	1.2076
10	2,3,4,7,8-PeCDF	1.67e4	1.62	NO	0.926	1.000	30.29	1.000	1.2202	97.6	0.0283	1.2202
11	1,2,3,4,7,8-HxCDF	2.21e4	1.27	NO	1.22	1.000	33.05	1.001	1.2195	97.6	0.0237	1.2195
12	1,2,3,6,7,8-HxCDF	1.71e4	1.21	NO	1.08	1.000	33.18	1.001	1.2533	100	0.0329	1.2533
13	2,3,4,6,7,8-HxCDF	1.49e4	1.24	NO	1.13	1.000	33.77	1.000	1.2484	99.9	0.0370	1.2484
14	1,2,3,7,8,9-HxCDF	1.32e4	1.23	NO	1.13	1.000	34.75	1.000	1.2201	97.6	0.0513	1.2201
15	1,2,3,4,6,7,8-HpCDF	1.49e4	1.01	NO	1.44	1.000	36.60	1.001	1.3466	108	0.0517	1.3466
16	1,2,3,4,7,8,9-HpCDF	1.24e4	1.00	NO	1.38	1.000	38.45	1.001	1.2592	101	0.0502	1.2592
17	OCDF	2.66e4	0.87	NO	1.01	1.000	41.42	1.000	2.8354	113	0.0391	2.8354
18	13C-2,3,7,8-TCDD	1.16e6	0.79	NO	1.10	1.000	25.97	1.022	99.282	99.3	0.138	
19	13C-1,2,3,7,8-PeCDD	1.10e6	0.64	NO	1.09	1.000	30.56	1.203	94.078	94.1	0.143	
20	13C-1,2,3,4,7,8-HxCDD	8.97e5	1.26	NO	1.01	1.000	33.94	1.014	93.499	93.5	0.130	
21	13C-1,2,3,6,7,8-HxCDD	7.97e5	1.26	NO	0.889	1.000	34.04	1.017	94.391	94.4	0.148	
22	13C-1,2,3,7,8,9-HxCDD	9.53e5	1.24	NO	1.07	1.000	34.34	1.027	93.537	93.5	0.123	
23	13C-1,2,3,4,6,7,8-HpCDD	7.53e5	1.06	NO	0.837	1.000	37.88	1.132	94.701	94.7	0.295	
24	13C-OCDD	1.33e6	0.90	NO	0.712	1.000	41.18	1.231	196.56	98.3	0.119	
25	13C-2,3,7,8-TCDF	1.52e6	0.79	NO	1.05	1.000	25.17	0.991	98.898	98.9	0.165	
26	13C-1,2,3,7,8-PeCDF	1.50e6	1.56	NO	1.02	1.000	29.35	1.155	101.39	101	0.176	
27	13C-2,3,4,7,8-PeCDF	1.48e6	1.56	NO	1.08	1.000	30.27	1.192	94.281	94.3	0.167	
28	13C-1,2,3,4,7,8-HxCDF	1.48e6	0.52	NO	1.37	1.000	33.03	0.987	114.06	114	0.183	
29	13C-1,2,3,6,7,8-HxCDF	1.27e6	0.52	NO	1.37	1.000	33.16	0.991	97.681	97.7	0.183	
30	13C-2,3,4,6,7,8-HxCDF	1.06e6	0.51	NO	1.18	1.000	33.76	1.009	94.685	94.7	0.211	

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:00 Pacific Standard Time

Name: 100129H2_3, Date: 30-Jan-2010, Time: 03:53:20, ID: ST100129H2-2 1613 CS0 100127C, Description: 1613 CS0 100127C

31	13C-1,2,3,7,8,9-HxCDF	9.57e5	0.52	NO	1.05	1.000	34.74	1.038	96.003	96.0	0.238
32	13C-1,2,3,4,6,7,8-HpCDF	7.68e5	0.45	NO	0.858	1.000	36.58	1.093	94.233	94.2	0.300
33	13C-1,2,3,4,7,8,9-HpCDF	7.13e5	0.44	NO	0.794	1.000	38.43	1.149	94.547	94.5	0.324
34	13C-OCDF	1.85e6	0.90	NO	0.948	1.000	41.41	1.238	204.97	102	0.102
35	37Cl-2,3,7,8-TCDD	1.82e3			0.665	1.000	25.98	1.023	0.25660	103	0.0244
36	13C-1,2,3,4-TCDD	1.07e6	0.79	NO	1.00	1.000	25.40	0.000	100.00	100	0.152
37	13C-1,2,3,4-TCDF	1.45e6	0.78	NO	1.00	1.000	23.98	0.000	100.00	100	0.173
38	13C-1,2,3,4,6,9-HxCDF	9.50e5	0.52	NO	1.00	1.000	33.46	0.000	100.00	100	0.250

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:05 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_4, Date: 30-Jan-2010, Time: 04:42:54, ID: ST100129H2-3 1613 CS1 100127D, Description: 1613 CS1 100127D

1	2,3,7,8-TCDD	5.55e3	0.74	NO	1.04	1.000	25.98	1.001	0.50858	102	0.0233	0.50858
2	1,2,3,7,8-PeCDD	2.51e4	0.61	NO	0.935	1.000	30.57	1.000	2.5738	103	0.0188	2.5738
3	1,2,3,4,7,8-HxCDD	1.97e4	1.16	NO	0.907	1.000	33.95	1.000	2.5505	102	0.0376	2.5505
4	1,2,3,6,7,8-HxCDD	1.88e4	1.18	NO	0.995	1.000	34.06	1.001	2.5131	101	0.0422	2.5131
5	1,2,3,7,8,9-HxCDD	2.15e4	1.22	NO	0.930	1.000	34.36	1.000	2.5647	103	0.0372	2.5647
6	1,2,3,4,6,7,8-HpCDD	1.87e4	1.11	NO	1.00	1.000	37.89	1.000	2.5983	104	0.0422	2.5983
7	OCDD	3.24e4	0.88	NO	1.10	1.000	41.19	1.001	4.9748	99.5	0.0391	4.9748
8	2,3,7,8-TCDF	6.82e3	0.82	NO	0.956	1.000	25.20	1.001	0.51002	102	0.0193	0.51002
9	1,2,3,7,8-PeCDF	3.21e4	1.55	NO	0.941	1.000	29.38	1.000	2.6502	106	0.0293	2.6502
10	2,3,4,7,8-PeCDF	3.38e4	1.63	NO	0.926	1.000	30.29	1.000	2.5731	103	0.0255	2.5731
11	1,2,3,4,7,8-HxCDF	3.36e4	1.22	NO	1.22	1.000	33.05	1.000	2.5586	102	0.0268	2.5586
12	1,2,3,6,7,8-HxCDF	3.13e4	1.24	NO	1.08	1.000	33.18	1.000	2.5402	102	0.0314	2.5402
13	2,3,4,6,7,8-HxCDF	2.88e4	1.28	NO	1.13	1.000	33.77	1.000	2.5492	102	0.0352	2.5492
14	1,2,3,7,8,9-HxCDF	2.56e4	1.26	NO	1.13	1.000	34.75	1.000	2.5950	104	0.0483	2.5950
15	1,2,3,4,6,7,8-HpCDF	2.70e4	1.01	NO	1.44	1.000	36.60	1.001	2.5902	104	0.0582	2.5902
16	1,2,3,4,7,8,9-HpCDF	2.38e4	1.06	NO	1.38	1.000	38.44	1.000	2.6106	104	0.0572	2.6106
17	OCDF	3.91e4	0.89	NO	1.01	1.000	41.42	1.001	5.0770	102	0.0413	5.0770
18	13C-2,3,7,8-TCDD	1.05e6	0.81	NO	1.10	1.000	25.97	1.022	97.187	97.2	0.151	
19	13C-1,2,3,7,8-PeCDD	1.04e6	0.63	NO	1.09	1.000	30.56	1.203	96.836	96.8	0.123	
20	13C-1,2,3,4,7,8-HxCDD	8.52e5	1.25	NO	1.01	1.000	33.94	1.014	92.221	92.2	0.131	
21	13C-1,2,3,6,7,8-HxCDD	7.53e5	1.27	NO	0.889	1.000	34.04	1.017	92.647	92.6	0.149	
22	13C-1,2,3,7,8,9-HxCDD	8.99e5	1.25	NO	1.07	1.000	34.34	1.027	91.653	91.7	0.123	
23	13C-1,2,3,4,6,7,8-HpCDD	7.16e5	1.03	NO	0.837	1.000	37.88	1.132	93.600	93.6	0.231	
24	13C-OCDD	1.18e6	0.89	NO	0.712	1.000	41.17	1.231	181.33	90.7	0.114	
25	13C-2,3,7,8-TCDF	1.40e6	0.79	NO	1.05	1.000	25.19	0.992	98.093	98.1	0.198	
26	13C-1,2,3,7,8-PeCDF	1.29e6	1.56	NO	1.02	1.000	29.37	1.156	93.273	93.3	0.245	
27	13C-2,3,4,7,8-PeCDF	1.42e6	1.57	NO	1.08	1.000	30.27	1.192	97.313	97.3	0.232	
28	13C-1,2,3,4,7,8-HxCDF	1.07e6	0.52	NO	1.37	1.000	33.04	0.988	85.920	85.9	0.173	
29	13C-1,2,3,6,7,8-HxCDF	1.14e6	0.53	NO	1.37	1.000	33.17	0.991	91.555	91.6	0.173	
30	13C-2,3,4,6,7,8-HxCDF	1.00e6	0.53	NO	1.18	1.000	33.76	1.009	92.886	92.9	0.199	

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:05 Pacific Standard Time

Name: 100129H2_4, Date: 30-Jan-2010, Time: 04:42:54, ID: ST100129H2-3 1613 CS1 100127D, Description: 1613 CS1 100127D

	31 13C-1,2,3,7,8,9-HxCDF	8.74e5	0.52	NO	1.05	1.000	34.74	1.038	91.031	91.0	0.225
	32 13C-1,2,3,4,6,7,8-HpCDF	7.25e5	0.45	NO	0.858	1.000	36.58	1.093	92.409	92.4	0.262
	33 13C-1,2,3,4,7,8,9-HpCDF	6.61e5	0.44	NO	0.794	1.000	38.43	1.149	91.003	91.0	0.284
	34 13C-OCDF	1.52e6	0.90	NO	0.948	1.000	41.40	1.237	175.19	87.6	0.106
	35 37Cl-2,3,7,8-TCDD	3.04e3			0.665	1.000	25.98	1.023	0.46480	93.0	0.0344
	36 13C-1,2,3,4-TCDD	9.84e5	0.79	NO	1.00	1.000	25.40	0.000	100.00	100	0.166
	37 13C-1,2,3,4-TCDF	1.35e6	0.78	NO	1.00	1.000	23.98	0.000	100.00	100	0.208
	38 13C-1,2,3,4,6,9-HxCDF	9.14e5	0.50	NO	1.00	1.000	33.46	0.000	100.00	100	0.236

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:12 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_5, Date: 30-Jan-2010, Time: 05:32:29, ID: ST100129H2-4 1613 CS2 100127E, Description: 1613 CS2 100127E

1	2,3,7,8-TCDD	2.13e4	0.80	NO	1.04	1.000	25.98	1.001	1.8779	93.9	0.0224	1.8779
2	1,2,3,7,8-PeCDD	9.60e4	0.61	NO	0.935	1.000	30.57	1.000	9.3506	93.5	0.0239	9.3506
3	1,2,3,4,7,8-HxCDD	7.35e4	1.26	NO	0.907	1.000	33.95	1.001	9.3640	93.6	0.0464	9.3640
4	1,2,3,6,7,8-HxCDD	7.43e4	1.22	NO	0.995	1.000	34.05	1.000	9.6008	96.0	0.0459	9.6008
5	1,2,3,7,8,9-HxCDD	8.11e4	1.27	NO	0.930	1.000	34.36	1.001	9.4950	94.9	0.0438	9.4950
6	1,2,3,4,6,7,8-HpCDD	6.72e4	1.03	NO	1.00	1.000	37.88	1.000	9.5384	95.4	0.0547	9.5384
7	OCDD	1.18e5	0.89	NO	1.10	1.000	41.18	1.000	18.995	95.0	0.0418	18.995
8	2,3,7,8-TCDF	2.68e4	0.79	NO	0.956	1.000	25.19	1.001	1.9084	95.4	0.0196	1.9084
9	1,2,3,7,8-PeCDF	1.20e5	1.60	NO	0.941	1.000	29.37	1.000	9.6733	96.7	0.0551	9.6733
10	2,3,4,7,8-PeCDF	1.32e5	1.54	NO	0.926	1.000	30.29	1.000	9.6528	96.5	0.0473	9.6528
11	1,2,3,4,7,8-HxCDF	1.30e5	1.25	NO	1.22	1.000	33.05	1.000	9.7261	97.3	0.0425	9.7261
12	1,2,3,6,7,8-HxCDF	1.24e5	1.24	NO	1.08	1.000	33.17	1.000	9.7351	97.4	0.0465	9.7351
13	2,3,4,6,7,8-HxCDF	1.11e5	1.24	NO	1.13	1.000	33.77	1.000	9.5609	95.6	0.0503	9.5609
14	1,2,3,7,8,9-HxCDF	9.63e4	1.29	NO	1.13	1.000	34.74	1.000	9.6440	96.4	0.0695	9.6440
15	1,2,3,4,6,7,8-HpCDF	1.01e5	1.06	NO	1.44	1.000	36.59	1.000	9.2519	92.5	0.0626	9.2519
16	1,2,3,4,7,8,9-HpCDF	8.79e4	1.04	NO	1.38	1.000	38.43	1.000	9.6036	96.0	0.0638	9.6036
17	OCDF	1.40e5	0.89	NO	1.01	1.000	41.41	1.000	18.755	93.8	0.0439	18.755
18	13C-2,3,7,8-TCDD	1.09e6	0.78	NO	1.10	1.000	25.95	1.022	97.270	97.3	0.139	
19	13C-1,2,3,7,8-PeCDD	1.10e6	0.64	NO	1.09	1.000	30.56	1.204	98.325	98.3	0.103	
20	13C-1,2,3,4,7,8-HxCDD	8.65e5	1.26	NO	1.01	1.000	33.93	1.014	94.630	94.6	0.152	
21	13C-1,2,3,6,7,8-HxCDD	7.78e5	1.25	NO	0.889	1.000	34.04	1.017	96.606	96.6	0.173	
22	13C-1,2,3,7,8,9-HxCDD	9.18e5	1.24	NO	1.07	1.000	34.33	1.026	94.511	94.5	0.143	
23	13C-1,2,3,4,6,7,8-HpCDD	7.03e5	1.06	NO	0.837	1.000	37.87	1.132	92.826	92.8	0.233	
24	13C-OCDD	1.12e6	0.90	NO	0.712	1.000	41.17	1.231	174.23	87.1	0.106	
25	13C-2,3,7,8-TCDF	1.47e6	0.80	NO	1.05	1.000	25.17	0.992	98.662	98.7	0.169	
26	13C-1,2,3,7,8-PeCDF	1.31e6	1.59	NO	1.02	1.000	29.35	1.156	91.349	91.3	0.289	
27	13C-2,3,4,7,8-PeCDF	1.47e6	1.58	NO	1.08	1.000	30.27	1.192	96.957	97.0	0.274	
28	13C-1,2,3,4,7,8-HxCDF	1.09e6	0.52	NO	1.37	1.000	33.04	0.988	88.292	88.3	0.177	
29	13C-1,2,3,6,7,8-HxCDF	1.18e6	0.52	NO	1.37	1.000	33.16	0.991	95.614	95.6	0.177	
30	13C-2,3,4,6,7,8-HxCDF	1.03e6	0.52	NO	1.18	1.000	33.76	1.009	96.370	96.4	0.204	

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:12 Pacific Standard Time

Name: 100129H2_5, Date: 30-Jan-2010, Time: 05:32:29, ID: ST100129H2-4 1613 CS2 100127E, Description: 1613 CS2 100127E

31	13C-1,2,3,7,8,9-HxCDF	8.84e5	0.52	NO	1.05	1.000	34.73	1.038	93.027	93.0	0.230
32	13C-1,2,3,4,6,7,8-HpCDF	7.56e5	0.44	NO	0.858	1.000	36.58	1.093	97.336	97.3	0.278
33	13C-1,2,3,4,7,8,9-HpCDF	6.64e5	0.44	NO	0.794	1.000	38.42	1.148	92.376	92.4	0.301
34	13C-OCDF	1.47e6	0.91	NO	0.948	1.000	41.40	1.237	171.30	85.7	0.104
35	37Cl-2,3,7,8-TCDD	1.37e4			0.665	1.000	25.98	1.023	2.0166	101	0.0287
36	13C-1,2,3,4-TCDD	1.02e6	0.80	NO	1.00	1.000	25.39	0.000	100.00	100	0.152
37	13C-1,2,3,4-TCDF	1.41e6	0.78	NO	1.00	1.000	23.97	0.000	100.00	100	0.178
38	13C-1,2,3,4,6,9-HxCDF	9.05e5	0.51	NO	1.00	1.000	33.46	0.000	100.00	100	0.242

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:42:53 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_1, Date: 30-Jan-2010, Time: 02:14:11, ID: ST100129H2-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1	2,3,7,8-TCDD	1.10e5	0.77	NO	1.04	1.000	25.98	1.001	9.6157	96.2	0.0492	9.6157
2	1,2,3,7,8-PeCDD	5.12e5	0.61	NO	0.935	1.000	30.57	1.000	49.266	98.5	0.0848	49.266
3	1,2,3,4,7,8-HxCDD	4.35e5	1.25	NO	0.907	1.000	33.95	1.000	49.433	98.9	0.103	49.433
4	1,2,3,6,7,8-HxCDD	4.14e5	1.24	NO	0.995	1.000	34.06	1.000	48.716	97.4	0.108	48.716
5	1,2,3,7,8,9-HxCDD	4.72e5	1.25	NO	0.930	1.000	34.35	1.000	49.335	98.7	0.0952	49.335
6	1,2,3,4,6,7,8-HpCDD	3.99e5	1.04	NO	1.00	1.000	37.89	1.000	48.425	96.9	0.107	48.425
7	OCDD	7.54e5	0.88	NO	1.10	1.000	41.19	1.000	97.695	97.7	0.0523	97.695
8	2,3,7,8-TCDF	1.31e5	0.77	NO	0.956	1.000	25.20	1.001	9.5601	95.6	0.0398	9.5601
9	1,2,3,7,8-PeCDF	6.41e5	1.57	NO	0.941	1.000	29.37	1.000	49.054	98.1	0.0785	49.054
10	2,3,4,7,8-PeCDF	6.79e5	1.57	NO	0.926	1.000	30.29	1.000	49.832	99.7	0.0718	49.832
11	1,2,3,4,7,8-HxCDF	7.77e5	1.25	NO	1.22	1.000	33.05	1.000	49.381	98.8	0.0829	49.381
12	1,2,3,6,7,8-HxCDF	6.73e5	1.26	NO	1.08	1.000	33.18	1.001	48.860	97.7	0.105	48.860
13	2,3,4,6,7,8-HxCDF	6.18e5	1.25	NO	1.13	1.000	33.78	1.001	49.159	98.3	0.121	49.159
14	1,2,3,7,8,9-HxCDF	5.61e5	1.23	NO	1.13	1.000	34.75	1.000	49.107	98.2	0.154	49.107
15	1,2,3,4,6,7,8-HpCDF	5.82e5	1.05	NO	1.44	1.000	36.59	1.000	48.304	96.6	0.113	48.304
16	1,2,3,4,7,8,9-HpCDF	5.34e5	1.06	NO	1.38	1.000	38.44	1.000	49.003	98.0	0.106	49.003
17	OCDF	8.89e5	0.90	NO	1.01	1.000	41.42	1.000	95.868	95.9	0.0655	95.868
18	13C-2,3,7,8-TCDD	1.11e6	0.80	NO	1.10	1.000	25.97	1.022	101.02	101	0.138	
19	13C-1,2,3,7,8-PeCDD	1.11e6	0.62	NO	1.09	1.000	30.56	1.203	102.09	102	0.118	
20	13C-1,2,3,4,7,8-HxCDD	9.70e5	1.26	NO	1.01	1.000	33.94	1.014	99.633	99.6	0.173	
21	13C-1,2,3,6,7,8-HxCDD	8.54e5	1.23	NO	0.889	1.000	34.05	1.018	99.593	99.6	0.196	
22	13C-1,2,3,7,8,9-HxCDD	1.03e6	1.25	NO	1.07	1.000	34.34	1.027	99.501	99.5	0.163	
23	13C-1,2,3,4,6,7,8-HpCDD	8.21e5	1.05	NO	0.837	1.000	37.88	1.132	101.80	102	0.224	
24	13C-OCDD	1.40e6	0.91	NO	0.712	1.000	41.18	1.231	203.76	102	0.176	
25	13C-2,3,7,8-TCDF	1.43e6	0.79	NO	1.05	1.000	25.19	0.992	101.08	101	0.175	
26	13C-1,2,3,7,8-PeCDF	1.39e6	1.58	NO	1.02	1.000	29.35	1.155	101.05	101	0.254	
27	13C-2,3,4,7,8-PeCDF	1.47e6	1.57	NO	1.08	1.000	30.27	1.192	101.56	102	0.241	
28	13C-1,2,3,4,7,8-HxCDF	1.29e6	0.53	NO	1.37	1.000	33.04	0.988	97.715	97.7	0.189	
29	13C-1,2,3,6,7,8-HxCDF	1.28e6	0.52	NO	1.37	1.000	33.16	0.991	96.918	96.9	0.189	
30	13C-2,3,4,6,7,8-HxCDF	1.12e6	0.52	NO	1.18	1.000	33.76	1.009	98.002	98.0	0.218	

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:42:53 Pacific Standard Time

Name: 100129H2_1, Date: 30-Jan-2010, Time: 02:14:11, ID: ST100129H2-1 1613 CS3 100127F, Description: 1613 CS3 100127F

31	13C-1,2,3,7,8,9-HxCDF	1.01e6	0.51	NO	1.05	1.000	34.74	1.038	99.912	99.9	0.246
32	13C-1,2,3,4,6,7,8-HpCDF	8.38e5	0.44	NO	0.858	1.000	36.58	1.093	101.34	101	0.305
33	13C-1,2,3,4,7,8,9-HpCDF	7.91e5	0.44	NO	0.794	1.000	38.43	1.149	103.34	103	0.330
34	13C-OCDF	1.83e6	0.90	NO	0.948	1.000	41.41	1.238	200.04	100	0.0816
35	37Cl-2,3,7,8-TCDD	6.27e4			0.665	1.000	25.98	1.023	9.4867	94.9	0.0609
36	13C-1,2,3,4-TCDD	9.95e5	0.80	NO	1.00	1.000	25.40	0.000	100.00	100	0.151
37	13C-1,2,3,4-TCDF	1.35e6	0.78	NO	1.00	1.000	23.98	0.000	100.00	100	0.184
38	13C-1,2,3,4,6,9-HxCDF	9.64e5	0.52	NO	1.00	1.000	33.46	0.000	100.00	100	0.258

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Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:18 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

1	2,3,7,8-TCDD	4.69e5	0.78	NO	1.04	1.000	25.97	1.001	40.650	102	0.0338	40.650
2	1,2,3,7,8-PeCDD	2.11e6	0.62	NO	0.935	1.000	30.57	1.001	203.16	102	0.0768	203.16
3	1,2,3,4,7,8-HxCDD	1.68e6	1.24	NO	0.907	1.000	33.94	1.000	205.07	103	0.0917	205.07
4	1,2,3,6,7,8-HxCDD	1.61e6	1.25	NO	0.995	1.000	34.05	1.000	204.52	102	0.0978	204.52
5	1,2,3,7,8,9-HxCDD	1.80e6	1.25	NO	0.930	1.000	34.36	1.001	202.96	101	0.0896	202.96
6	1,2,3,4,6,7,8-HpCDD	1.45e6	1.04	NO	1.00	1.000	37.88	1.000	200.41	100	0.178	200.41
7	OCDD	2.63e6	0.88	NO	1.10	1.000	41.18	1.000	396.32	99.1	0.0605	396.32
8	2,3,7,8-TCDF	5.79e5	0.77	NO	0.956	1.000	25.19	1.001	41.085	103	0.0451	41.085
9	1,2,3,7,8-PeCDF	2.65e6	1.55	NO	0.941	1.000	29.37	1.000	205.80	103	0.0936	205.80
10	2,3,4,7,8-PeCDF	2.84e6	1.53	NO	0.926	1.000	30.29	1.000	204.45	102	0.0897	204.45
11	1,2,3,4,7,8-HxCDF	2.87e6	1.25	NO	1.22	1.000	33.05	1.001	204.14	102	0.120	204.14
12	1,2,3,6,7,8-HxCDF	2.67e6	1.26	NO	1.08	1.000	33.17	1.000	204.79	102	0.132	204.79
13	2,3,4,6,7,8-HxCDF	2.42e6	1.25	NO	1.13	1.000	33.77	1.000	204.84	102	0.152	204.84
14	1,2,3,7,8,9-HxCDF	2.14e6	1.26	NO	1.13	1.000	34.74	1.000	204.76	102	0.187	204.76
15	1,2,3,4,6,7,8-HpCDF	2.15e6	1.05	NO	1.44	1.000	36.59	1.001	201.03	101	0.174	201.03
16	1,2,3,4,7,8,9-HpCDF	1.92e6	1.05	NO	1.38	1.000	38.43	1.000	202.53	101	0.162	202.53
17	OCDF	3.18e6	0.90	NO	1.01	1.000	41.41	1.000	393.02	98.3	0.0847	393.02
18	13C-2,3,7,8-TCDD	1.11e6	0.78	NO	1.10	1.000	25.95	1.022	99.383	99.4	0.155	
19	13C-1,2,3,7,8-PeCDD	1.11e6	0.62	NO	1.09	1.000	30.55	1.203	99.746	99.7	0.128	
20	13C-1,2,3,4,7,8-HxCDD	9.03e5	1.25	NO	1.01	1.000	33.93	1.014	102.00	102	0.148	
21	13C-1,2,3,6,7,8-HxCDD	7.92e5	1.26	NO	0.889	1.000	34.04	1.017	101.63	102	0.168	
22	13C-1,2,3,7,8,9-HxCDD	9.55e5	1.23	NO	1.07	1.000	34.33	1.026	101.60	102	0.139	
23	13C-1,2,3,4,6,7,8-HpCDD	7.20e5	1.04	NO	0.837	1.000	37.87	1.132	98.182	98.2	0.195	
24	13C-OCDD	1.20e6	0.91	NO	0.712	1.000	41.17	1.231	192.57	96.3	0.130	
25	13C-2,3,7,8-TCDF	1.47e6	0.78	NO	1.05	1.000	25.17	0.992	99.704	99.7	0.170	
26	13C-1,2,3,7,8-PeCDF	1.37e6	1.57	NO	1.02	1.000	29.35	1.156	95.501	95.5	0.183	
27	13C-2,3,4,7,8-PeCDF	1.50e6	1.57	NO	1.08	1.000	30.27	1.192	99.183	99.2	0.173	
28	13C-1,2,3,4,7,8-HxCDF	1.15e6	0.52	NO	1.37	1.000	33.03	0.987	95.907	95.9	0.146	
29	13C-1,2,3,6,7,8-HxCDF	1.21e6	0.52	NO	1.37	1.000	33.16	0.991	101.07	101	0.146	
30	13C-2,3,4,6,7,8-HxCDF	1.05e6	0.52	NO	1.18	1.000	33.76	1.009	101.47	101	0.168	

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:18 Pacific Standard Time

Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

31	13C-1,2,3,7,8,9-HxCDF	9.26e5	0.53	NO	1.05	1.000	34.73	1.038	100.90	101	0.189
32	13C-1,2,3,4,6,7,8-HpCDF	7.44e5	0.45	NO	0.858	1.000	36.57	1.093	98.988	99.0	0.267
33	13C-1,2,3,4,7,8,9-HpCDF	6.87e5	0.45	NO	0.794	1.000	38.42	1.148	98.865	98.9	0.289
34	13C-OCDF	1.59e6	0.90	NO	0.948	1.000	41.40	1.237	192.01	96.0	0.101
35	37Cl-2,3,7,8-TCDD	2.70e5			0.665	1.000	25.97	1.023	39.878	99.7	0.0564
36	13C-1,2,3,4-TCDD	1.02e6	0.79	NO	1.00	1.000	25.39	0.000	100.00	100	0.171
37	13C-1,2,3,4-TCDF	1.40e6	0.79	NO	1.00	1.000	23.97	0.000	100.00	100	0.179
38	13C-1,2,3,4,6,9-HxCDF	8.76e5	0.52	NO	1.00	1.000	33.46	0.000	100.00	100	0.199

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:24 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_7, Date: 30-Jan-2010, Time: 07:11:38, ID: ST100129H2-6 1613 CS5 100127H, Description: 1613 CS5 100127H

1	2,3,7,8-TCDD	2.48e6	0.77	NO	1.04	1.000	25.97	1.001	202.16	101	0.0420	202.16
2	1,2,3,7,8-PeCDD	1.15e7	0.62	NO	0.935	1.000	30.56	1.000	1013.3	101	0.0698	1013.3
3	1,2,3,4,7,8-HxCDD	9.76e6	1.24	NO	0.907	1.000	33.94	1.000	1015.3	102	0.144	1015.3
4	1,2,3,6,7,8-HxCDD	9.16e6	1.25	NO	0.995	1.000	34.05	1.000	1010.3	101	0.157	1010.3
5	1,2,3,7,8,9-HxCDD	1.05e7	1.24	NO	0.930	1.000	34.34	1.000	995.79	99.6	0.135	995.79
6	1,2,3,4,6,7,8-HpCDD	8.88e6	1.04	NO	1.00	1.000	37.88	1.000	1001.8	100	0.269	1001.8
7	OCDD	1.74e7	0.88	NO	1.10	1.000	41.19	1.000	1975.7	98.8	0.111	1975.7
8	2,3,7,8-TCDF	3.05e6	0.76	NO	0.956	1.000	25.19	1.001	206.71	103	0.0552	206.71
9	1,2,3,7,8-PeCDF	1.59e7	1.55	NO	0.941	1.000	29.37	1.001	996.40	99.6	0.133	996.40
10	2,3,4,7,8-PeCDF	1.57e7	1.55	NO	0.926	1.000	30.27	1.000	1010.4	101	0.126	1010.4
11	1,2,3,4,7,8-HxCDF	1.79e7	1.25	NO	1.22	1.000	33.04	1.000	1020.0	102	0.120	1020.0
12	1,2,3,6,7,8-HxCDF	1.55e7	1.26	NO	1.08	1.000	33.17	1.000	1006.6	101	0.146	1006.6
13	2,3,4,6,7,8-HxCDF	1.40e7	1.25	NO	1.13	1.000	33.77	1.000	1018.1	102	0.167	1018.1
14	1,2,3,7,8,9-HxCDF	1.28e7	1.25	NO	1.13	1.000	34.74	1.000	1015.6	102	0.198	1015.6
15	1,2,3,4,6,7,8-HpCDF	1.26e7	1.05	NO	1.44	1.000	36.59	1.001	990.26	99.0	0.385	990.26
16	1,2,3,4,7,8,9-HpCDF	1.16e7	1.05	NO	1.38	1.000	38.43	1.000	995.32	99.5	0.327	995.32
17	OCDF	2.13e7	0.91	NO	1.01	1.000	41.42	1.000	1943.0	97.1	0.0953	1943.0
18	13C-2,3,7,8-TCDD	1.18e6	0.80	NO	1.10	1.000	25.95	1.022	105.86	106	0.106	
19	13C-1,2,3,7,8-PeCDD	1.21e6	0.62	NO	1.09	1.000	30.55	1.203	108.92	109	0.0721	
20	13C-1,2,3,4,7,8-HxCDD	1.06e6	1.27	NO	1.01	1.000	33.93	1.014	118.01	118	0.0946	
21	13C-1,2,3,6,7,8-HxCDD	9.11e5	1.28	NO	0.889	1.000	34.04	1.018	115.14	115	0.107	
22	13C-1,2,3,7,8,9-HxCDD	1.14e6	1.24	NO	1.07	1.000	34.33	1.027	119.20	119	0.0891	
23	13C-1,2,3,4,6,7,8-HpCDD	8.85e5	1.05	NO	0.837	1.000	37.87	1.132	118.89	119	0.211	
24	13C-OCDD	1.59e6	0.89	NO	0.712	1.000	41.18	1.231	251.56	126	0.0850	
25	13C-2,3,7,8-TCDF	1.54e6	0.78	NO	1.05	1.000	25.17	0.992	103.56	104	0.147	
26	13C-1,2,3,7,8-PeCDF	1.69e6	1.57	NO	1.02	1.000	29.34	1.156	117.44	117	0.193	
27	13C-2,3,4,7,8-PeCDF	1.68e6	1.57	NO	1.08	1.000	30.26	1.192	110.71	111	0.183	
28	13C-1,2,3,4,7,8-HxCDF	1.43e6	0.52	NO	1.37	1.000	33.03	0.988	118.11	118	0.156	
29	13C-1,2,3,6,7,8-HxCDF	1.42e6	0.53	NO	1.37	1.000	33.16	0.991	117.16	117	0.156	
30	13C-2,3,4,6,7,8-HxCDF	1.23e6	0.52	NO	1.18	1.000	33.76	1.010	116.58	117	0.180	

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:24 Pacific Standard Time

Name: 100129H2_7, Date: 30-Jan-2010, Time: 07:11:38, ID: ST100129H2-6 1613 CS5 100127H, Description: 1613 CS5 100127H

31	13C-1,2,3,7,8,9-HxCDF	1.11e6	0.52	NO	1.05	1.000	34.73	1.038	119.13	119	0.202
32	13C-1,2,3,4,6,7,8-HpCDF	8.83e5	0.45	NO	0.858	1.000	36.57	1.094	115.70	116	0.254
33	13C-1,2,3,4,7,8,9-HpCDF	8.46e5	0.45	NO	0.794	1.000	38.42	1.149	119.87	120	0.274
34	13C-OCDF	2.16e6	0.90	NO	0.948	1.000	41.41	1.238	256.49	128	0.0641
35	37Cl-2,3,7,8-TCDD	1.47e6			0.665	1.000	25.97	1.023	218.02	109	0.0648
36	13C-1,2,3,4-TCDD	1.02e6	0.79	NO	1.00	1.000	25.39	0.000	100.00	100	0.117
37	13C-1,2,3,4-TCDF	1.41e6	0.78	NO	1.00	1.000	23.97	0.000	100.00	100	0.155
38	13C-1,2,3,4,6,9-HxCDF	8.89e5	0.52	NO	1.00	1.000	33.44	0.000	100.00	100	0.213

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Vista Analytical Laboratory
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
VER Data file name: 100129H2_1

CCAL ID: ST100129H2-1

GC Column ID: DB-5
Analysis Date: 30-Jan-10 Analysis Time: 02:14:11

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
2,3,7,8-TCDD	M/M+2	0.77	0.65-0.89	NO	9.62	7.8	12.9	Yes	8.00	12.0	Yes
						8.2	12.3 (4)				
1,2,3,7,8-PeCDD	M/M+2	0.61	0.54-0.72	NO	49.3	39.0	65.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	49.4	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	48.7	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	49.3	41.0	61.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.04	0.88-1.20	NO	48.4	43.0	58.0	Yes	40.0	60.0	Yes
OCDD	M+2/M+4	0.88	0.76-1.02	NO	97.7	79.0	126.0	Yes	80.0	120.0	Yes
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	NO	9.56	8.4	12.0	Yes	8.00	12.0	Yes
						8.6	11.6 (4)				
1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	NO	49.1	41.0	60.0	Yes	40.0	60.0	Yes
2,3,4,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	NO	49.8	41.0	60.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	NO	49.4	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	NO	48.9	44.0	57.0	Yes	40.0	60.0	Yes
2,3,4,6,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	NO	49.2	44.0	57.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDF	M+2/M+4	1.23	1.05-1.43	NO	49.1	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.05	0.88-1.20	NO	48.3	45.0	55.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.06	0.88-1.20	NO	49.0	43.0	58.0	Yes	40.0	60.0	Yes
OCDF	M+2/M+4	0.90	0.76-1.02	NO	95.9	63.0	159.0	Yes	80.0	120.0	Yes

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [signature]
Date: 2/1/10

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Vista Analytical Laboratory
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
VER Data file name: 100129H2_1

CCAL ID: ST100129H2-1

GC Column ID: DB-5
Analysis Date: 30-Jan-10
Analysis Time: 02:14:11

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
13C-2,3,7,8-TCDD	M+2/M+4	0.80	0.65-0.89	NO	101	82.0	121.0	Yes	70.0	130.0	Yes
						85.0	117.0 (5)				
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	NO	102	62.0	160.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	NO	99.6	85.0	117.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	NO	99.6	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	99.5	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	NO	102	72.0	138.0	Yes	70.0	130.0	Yes
13C-OCDD	M+2/M+4	0.91	0.76-1.02	NO	204	96.0	415.0	Yes	140.0	260.0	Yes
13C-2,3,7,8-TCDF	M/M+2	0.79	0.65-0.89	NO	101	71.0	140.0	Yes	70.0	130.0	Yes
						76.0	131.0 (5)				
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	NO	101	76.0	130.0	Yes	70.0	130.0	Yes
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	NO	102	77.0	130.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.53	0.43-0.59	NO	97.7	76.0	131.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	96.9	70.0	143.0	Yes	70.0	130.0	Yes
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	98.0	73.0	137.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.51	0.43-0.59	NO	99.9	74.0	135.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.44	0.37-0.51	NO	101	78.0	129.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	NO	103	77.0	129.0	Yes	70.0	130.0	Yes
13C-OCDF	M+2/M+4	0.90	0.76-1.02	NO	200	96.0	415.0	Yes	140.0	260.0	Yes
CLEANUP STANDARD (4)											
37Cl-2,3,7,8-TCDD					9.49	7.9	12.7	Yes	7.0	13.0	Yes
						8.3	12.1 (5)				

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) No ion abundance ratio; report concentration found
(5) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [signature]
Date: 2/1/10

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Monday, February 01, 2010 13:46:58 Pacific Standard Time
Printed: Monday, February 01, 2010 13:47:20 Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_1, Date: 30-Jan-2010, Time: 02:14:11, ID: ST100129H2-1 1613 CS3 100127F, Description: 1613 CS3 100127F

		RT
1	1,3,6,8-TCDD (First)	22.61
2	1,2,8,9-TCDD (Last)	26.86
3	1,2,4,7,9-PeCDD (First)	28.49
4	1,2,3,8,9-PeCDD (Last)	30.96
5	12,4,6,7,9-HxCDD (First)	32.39
6	1,2,3,7,8,9-HxCDD (Last)	34.35
7	1,2,3,4,6,7,9-HpCDD (First)	37.00
8	1,2,3,4,6,7,8-HpCDD (Last)	37.89
9	1,3,6,8-TCDF (First)	20.53
10	1,2,8,9-TCDF (Last)	27.01
11	1,3,4,6,8-PeCDF (First)	26.95
12	1,2,3,8,9-PeCDF (Last)	31.20
13	1,2,3,4,6,8-HxCDF (First)	31.85
14	1,2,3,4,8,9-HxCDF (Last)	34.75
15	1,2,3,4,6,7,8-HpCDF (First)	36.59
16	1,2,3,4,7,8,9-HpCDF (Last)	38.44

J 2/1/10

FORM 6A

PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory

CCAL ID: ST100129H2-1

Initial Calibration Date: 01/29/2010

Instrument ID: VG10

GC Column ID: DB-5

VER Data file name: 100129H2_1

Analysis Date: 30-Jan-10

Analysis Time: 02:14:11

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999	1.002	Yes
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.000	0.999	1.002	Yes
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999	1.003	Yes
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999	1.002	Yes
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999	1.002	Yes
LABELED COMPOUNDS					
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.976	1.043	Yes
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.203	1.000	1.567	Yes
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.992	0.923	1.103	Yes
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.155	1.000	1.425	Yes
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.192	1.011	1.526	Yes
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.023	0.989	1.052	Yes

Analyst: _____

Date: 2/1/10

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
VER Data file name: 100129H2_1

CCAL ID: ST100129H2-1

GC Column ID: DB-5
Analysis Date: 30-Jan-10

Analysis Time: 02:14:11

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999	1.001	Yes
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998	1.004	Yes
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.000	0.998	1.004	Yes
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999	1.001	Yes
OCDD	13C-OCDD	1.000	0.999	1.001	Yes
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.000	0.999	1.001	Yes
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.001	0.997	1.005	Yes
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.001	0.999	1.001	Yes
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.000	0.999	1.001	Yes
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.000	0.999	1.001	Yes
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999	1.001	Yes
OCDF	13C-OCDF	1.000	0.999	1.001	Yes
LABELED COMPOUNDS					
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.014	1.002	1.026	Yes
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.018	1.007	1.029	Yes
13C-1,2,3,7,8,9-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.027	1.014	1.038	Yes
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,9-HxCDF	1.132	1.117	1.141	Yes
13C-OCDD	13C-1,2,3,4,6,9-HxCDF	1.231	1.085	1.365	Yes
13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.988	0.975	1.001	Yes
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.991	0.979	1.005	Yes
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.009	1.001	1.020	Yes
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.038	1.002	1.072	Yes
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.093	1.069	1.111	Yes
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.149	1.098	1.192	Yes
13C-OCDF	13C-1,2,3,4,6,9-HxCDF	1.238	1.091	1.371	Yes

Analyst: _____

Date: 2/1/10

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:49 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_1, Date: 30-Jan-2010, Time: 02:14:11, ID: ST100129H2-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1	2,3,7,8-TCDD	1.10e5	0.77	NO	1.04	1.000	25.98	1.001	9.6157	96.2	0.0492	9.6157
2	1,2,3,7,8-PeCDD	5.12e5	0.61	NO	0.935	1.000	30.57	1.000	49.266	98.5	0.0848	49.266
3	1,2,3,4,7,8-HxCDD	4.35e5	1.25	NO	0.907	1.000	33.95	1.000	49.433	98.9	0.103	49.433
4	1,2,3,6,7,8-HxCDD	4.14e5	1.24	NO	0.995	1.000	34.06	1.000	48.716	97.4	0.108	48.716
5	1,2,3,7,8,9-HxCDD	4.72e5	1.25	NO	0.930	1.000	34.35	1.000	49.335	98.7	0.0952	49.335
6	1,2,3,4,6,7,8-HpCDD	3.99e5	1.04	NO	1.00	1.000	37.89	1.000	48.425	96.9	0.107	48.425
7	OCDD	7.54e5	0.88	NO	1.10	1.000	41.19	1.000	97.695	97.7	0.0523	97.695
8	2,3,7,8-TCDF	1.31e5	0.77	NO	0.956	1.000	25.20	1.001	9.5601	95.6	0.0398	9.5601
9	1,2,3,7,8-PeCDF	6.41e5	1.57	NO	0.941	1.000	29.37	1.000	49.054	98.1	0.0785	49.054
10	2,3,4,7,8-PeCDF	6.79e5	1.57	NO	0.926	1.000	30.29	1.000	49.832	99.7	0.0718	49.832
11	1,2,3,4,7,8-HxCDF	7.77e5	1.25	NO	1.22	1.000	33.05	1.000	49.381	98.8	0.0829	49.381
12	1,2,3,6,7,8-HxCDF	6.73e5	1.26	NO	1.08	1.000	33.18	1.001	48.860	97.7	0.105	48.860
13	2,3,4,6,7,8-HxCDF	6.18e5	1.25	NO	1.13	1.000	33.78	1.001	49.159	98.3	0.121	49.159
14	1,2,3,7,8,9-HxCDF	5.61e5	1.23	NO	1.13	1.000	34.75	1.000	49.107	98.2	0.154	49.107
15	1,2,3,4,6,7,8-HpCDF	5.82e5	1.05	NO	1.44	1.000	36.59	1.000	48.304	96.6	0.113	48.304
16	1,2,3,4,7,8,9-HpCDF	5.34e5	1.06	NO	1.38	1.000	38.44	1.000	49.003	98.0	0.106	49.003
17	OCDF	8.89e5	0.90	NO	1.01	1.000	41.42	1.000	95.868	95.9	0.0655	95.868
18	13C-2,3,7,8-TCDD	1.11e6	0.80	NO	1.10	1.000	25.97	1.022	101.02	101	0.138	
19	13C-1,2,3,7,8-PeCDD	1.11e6	0.62	NO	1.09	1.000	30.56	1.203	102.09	102	0.118	
20	13C-1,2,3,4,7,8-HxCDD	9.70e5	1.26	NO	1.01	1.000	33.94	1.014	99.633	99.6	0.173	
21	13C-1,2,3,6,7,8-HxCDD	8.54e5	1.23	NO	0.889	1.000	34.05	1.018	99.593	99.6	0.196	
22	13C-1,2,3,7,8,9-HxCDD	1.03e6	1.25	NO	1.07	1.000	34.34	1.027	99.501	99.5	0.163	
23	13C-1,2,3,4,6,7,8-HpCDD	8.21e5	1.05	NO	0.837	1.000	37.88	1.132	101.80	102	0.224	
24	13C-OCDD	1.40e6	0.91	NO	0.712	1.000	41.18	1.231	203.76	102	0.176	
25	13C-2,3,7,8-TCDF	1.43e6	0.79	NO	1.05	1.000	25.19	0.992	101.08	101	0.175	
26	13C-1,2,3,7,8-PeCDF	1.39e6	1.58	NO	1.02	1.000	29.35	1.155	101.05	101	0.254	
27	13C-2,3,4,7,8-PeCDF	1.47e6	1.57	NO	1.08	1.000	30.27	1.192	101.56	102	0.241	
28	13C-1,2,3,4,7,8-HxCDF	1.29e6	0.53	NO	1.37	1.000	33.04	0.988	97.715	97.7	0.189	
29	13C-1,2,3,6,7,8-HxCDF	1.28e6	0.52	NO	1.37	1.000	33.16	0.991	96.918	96.9	0.189	
30	13C-2,3,4,6,7,8-HxCDF	1.12e6	0.52	NO	1.18	1.000	33.76	1.009	98.002	98.0	0.218	

J 2/1/10

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:49 Pacific Standard Time

Name: 100129H2_1, Date: 30-Jan-2010, Time: 02:14:11, ID: ST100129H2-1 1613 CS3 100127F, Description: 1613 CS3 100127F

31	13C-1,2,3,7,8,9-HxCDF	1.01e6	0.51	NO	1.05	1.000	34.74	1.038	99.912	99.9	0.246
32	13C-1,2,3,4,6,7,8-HpCDF	8.38e5	0.44	NO	0.858	1.000	36.58	1.093	101.34	101	0.305
33	13C-1,2,3,4,7,8,9-HpCDF	7.91e5	0.44	NO	0.794	1.000	38.43	1.149	103.34	103	0.330
34	13C-OCDF	1.83e6	0.90	NO	0.948	1.000	41.41	1.238	200.04	100	0.0816
35	37Cl-2,3,7,8-TCDD	6.27e4			0.665	1.000	25.98	1.023	9.4867	94.9	0.0609
36	13C-1,2,3,4-TCDD	9.95e5	0.80	NO	1.00	1.000	25.40	0.000	100.00	100	0.151
37	13C-1,2,3,4-TCDF	1.35e6	0.78	NO	1.00	1.000	23.98	0.000	100.00	100	0.184
38	13C-1,2,3,4,6,9-HxCDF	9.64e5	0.52	NO	1.00	1.000	33.46	0.000	100.00	100	0.258

Quantify Compound Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Monday, February 01, 2010 1:29:29 PM Pacific Standard Time
Printed: Monday, February 01, 2010 1:29:50 PM Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Compound name: 2,3,7,8-TCDD

	100129H2_1	ST100129H2-1 1613 CS3 100127F	30-Jan-10	02:14:11
	100129H2_2	SOLVENT BLANK	30-Jan-10	03:03:45
	100129H2_3	ST100129H2-2 1613 CS0 100127C	30-Jan-10	03:53:20
	100129H2_4	ST100129H2-3 1613 CS1 100127D	30-Jan-10	04:42:54
	100129H2_5	ST100129H2-4 1613 CS2 100127E	30-Jan-10	05:32:29
	100129H2_6	ST100129H2-5 1613 CS4 100127G	30-Jan-10	06:22:04
	100129H2_7	ST100129H2-6 1613 CS5 100127H	30-Jan-10	07:11:38
	100129H2_8	SOLVENT BLANK	30-Jan-10	08:01:10
	100129H2_9	SOLVENT BLANK	30-Jan-10	08:50:42
	100129H2_10	ST100129H2-7 SSS 090219C	30-Jan-10	09:40:15

Printed: Saturday, January 30, 2010 02:14:09 Pacific Standard Time

M 292.9824 R 12448

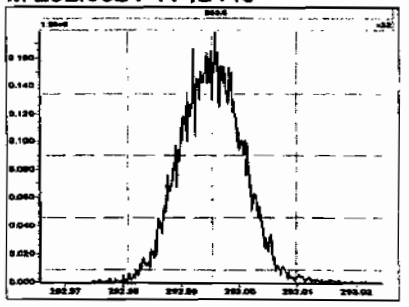

M 304.9824 R 12519

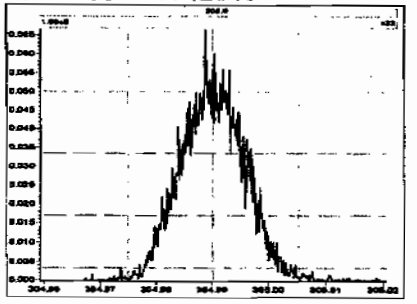

M 318.9792 R 13735

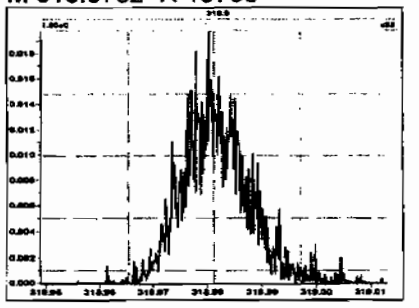

M 330.9792 R 12259

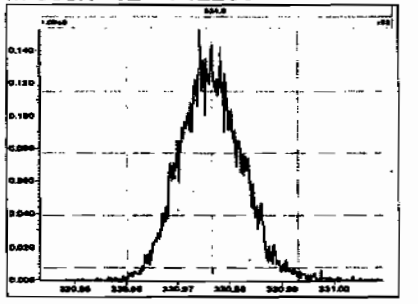

M 342.9792 R 12165

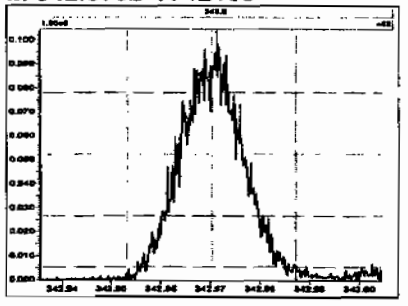

M 354.9792 R 13138

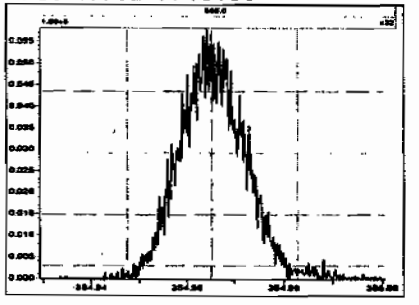

M 366.9792 R 12787

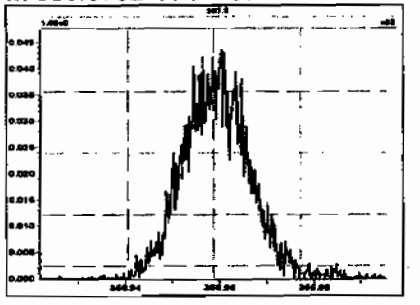

M 380.9760 R 11966

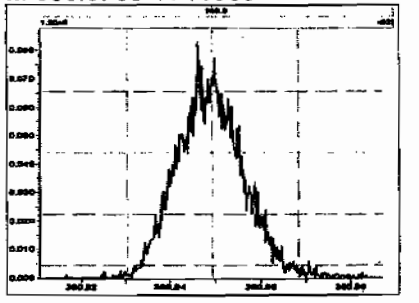

M 392.9760 R 12563

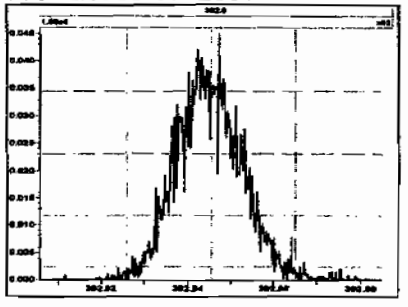

M 404.9760 R 12470

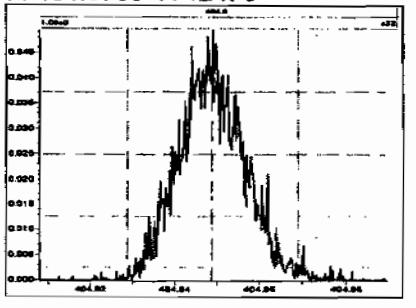

M 416.9760 R 12953

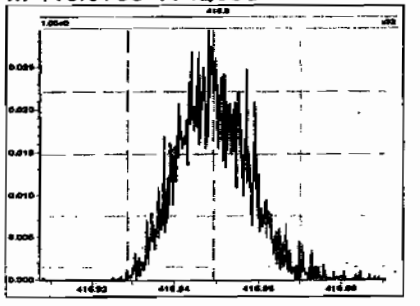

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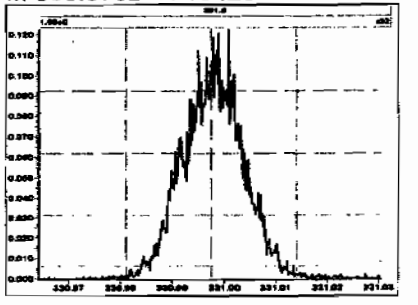

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M 342.9792 R 13006

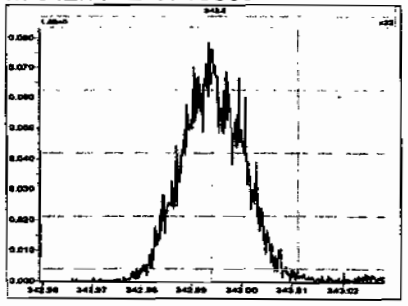

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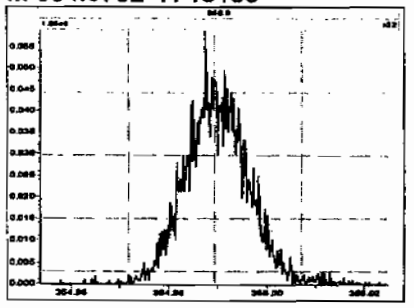

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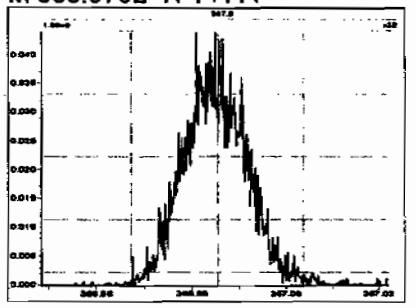

M 380.9760 R 12468

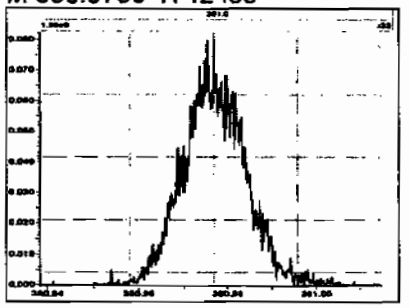

M 392.9760 R 13566

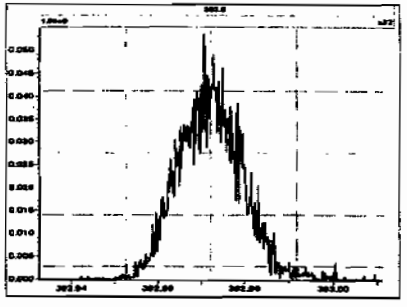

M 404.9760 R 12676

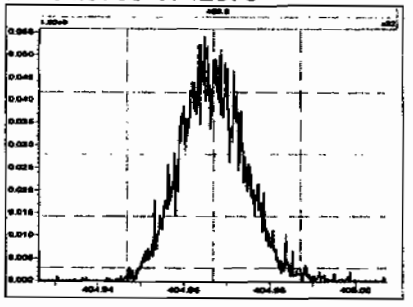

M 416.9760 R 13029

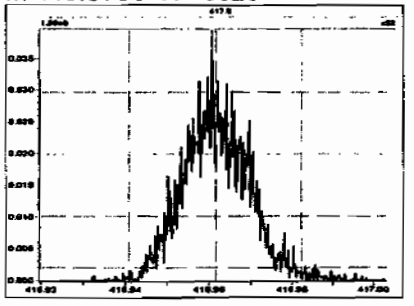

M 366.9792 R 13851

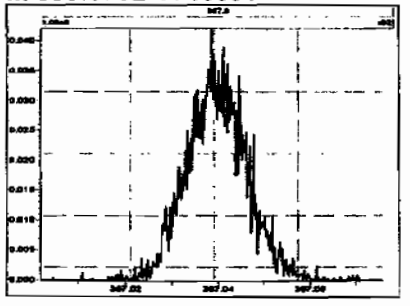

M 380.9760 R 12756

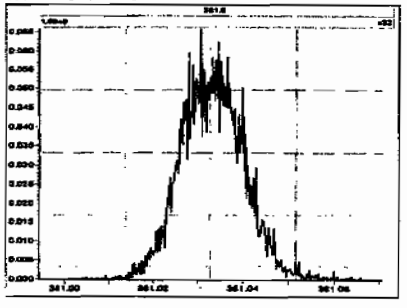

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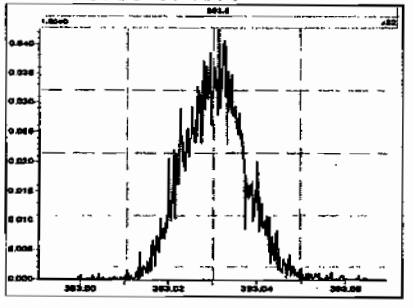

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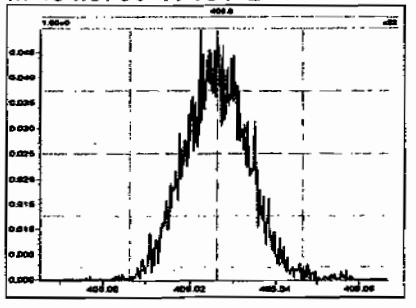

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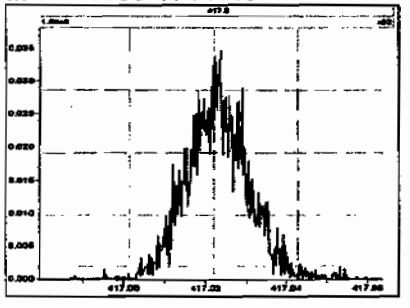

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M 430.9728 R 13163

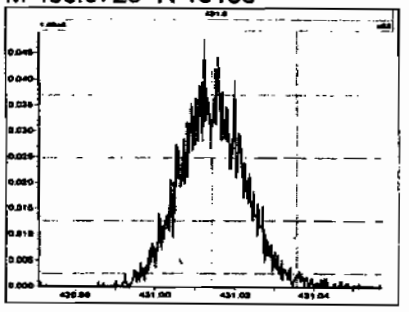

M 442.9728 R 13063

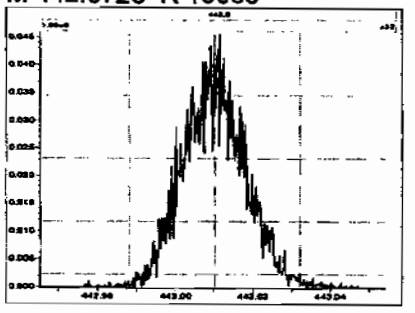

M 454.9728 R 12530

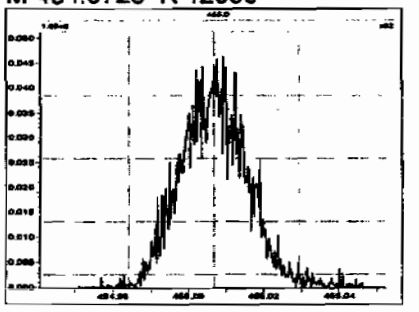

M 404.9760 R 12595

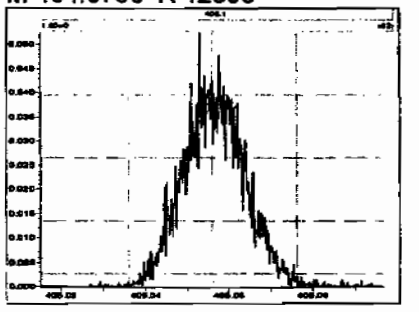

M 416.9760 R 13776

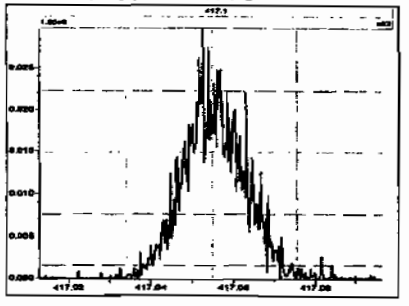

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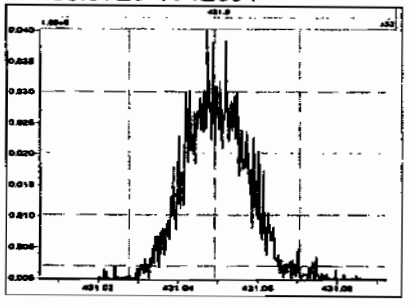

M 442.9728 R 13935

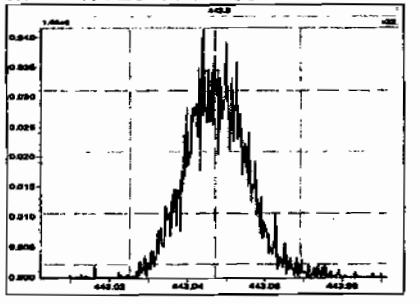

M 454.9728 R 12806

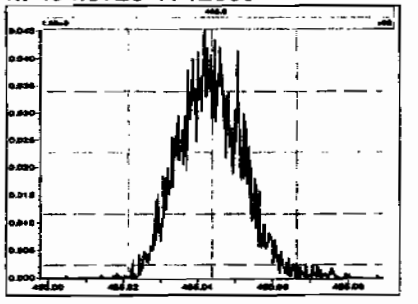

M 466.9728 R 12789

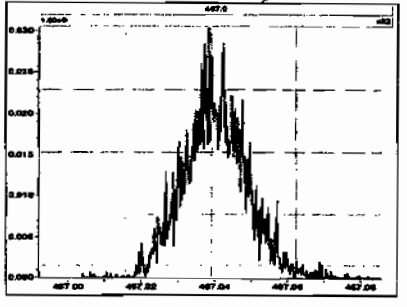

M 480.9696 R 14124

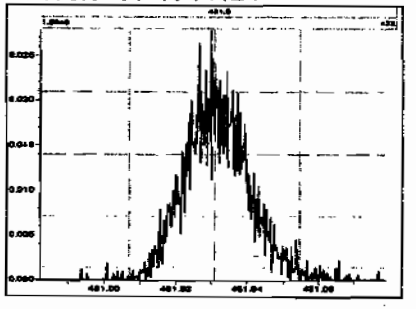

M 430.9728 R 12472

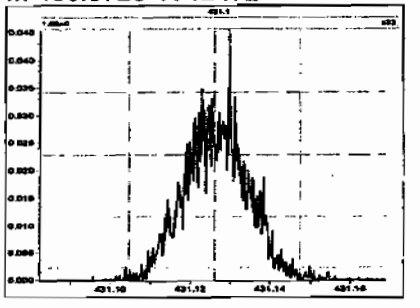

M 442.9728 R 13393

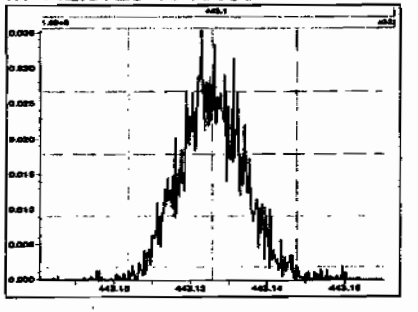

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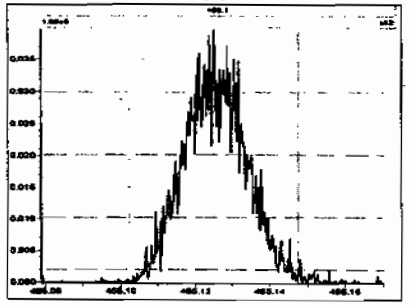

M 466.9728 R 13710

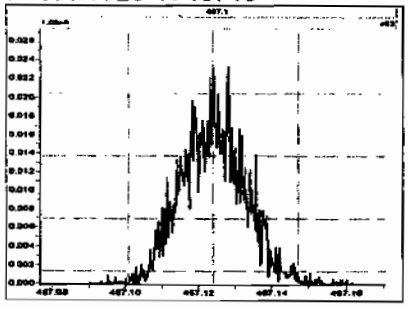

M 480.9696 R 14048

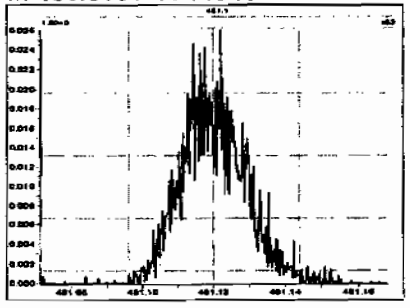

M 492.9696 R 13023

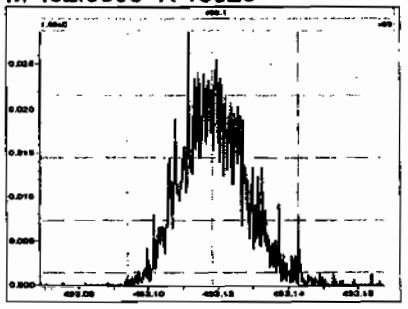

M 504.9696 R 13125

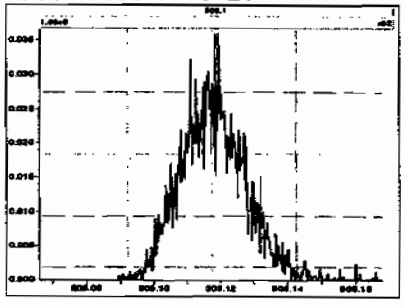

M 516.9697 R 13065

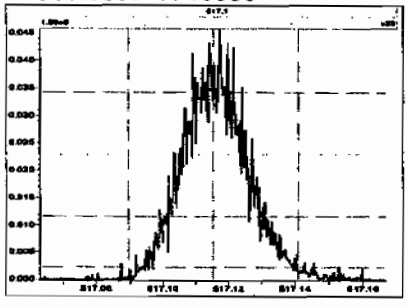

Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

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Printed: Monday, February 01, 2010 13:47:20 Pacific Standard Time

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1,3,6,8-TCDD (First)

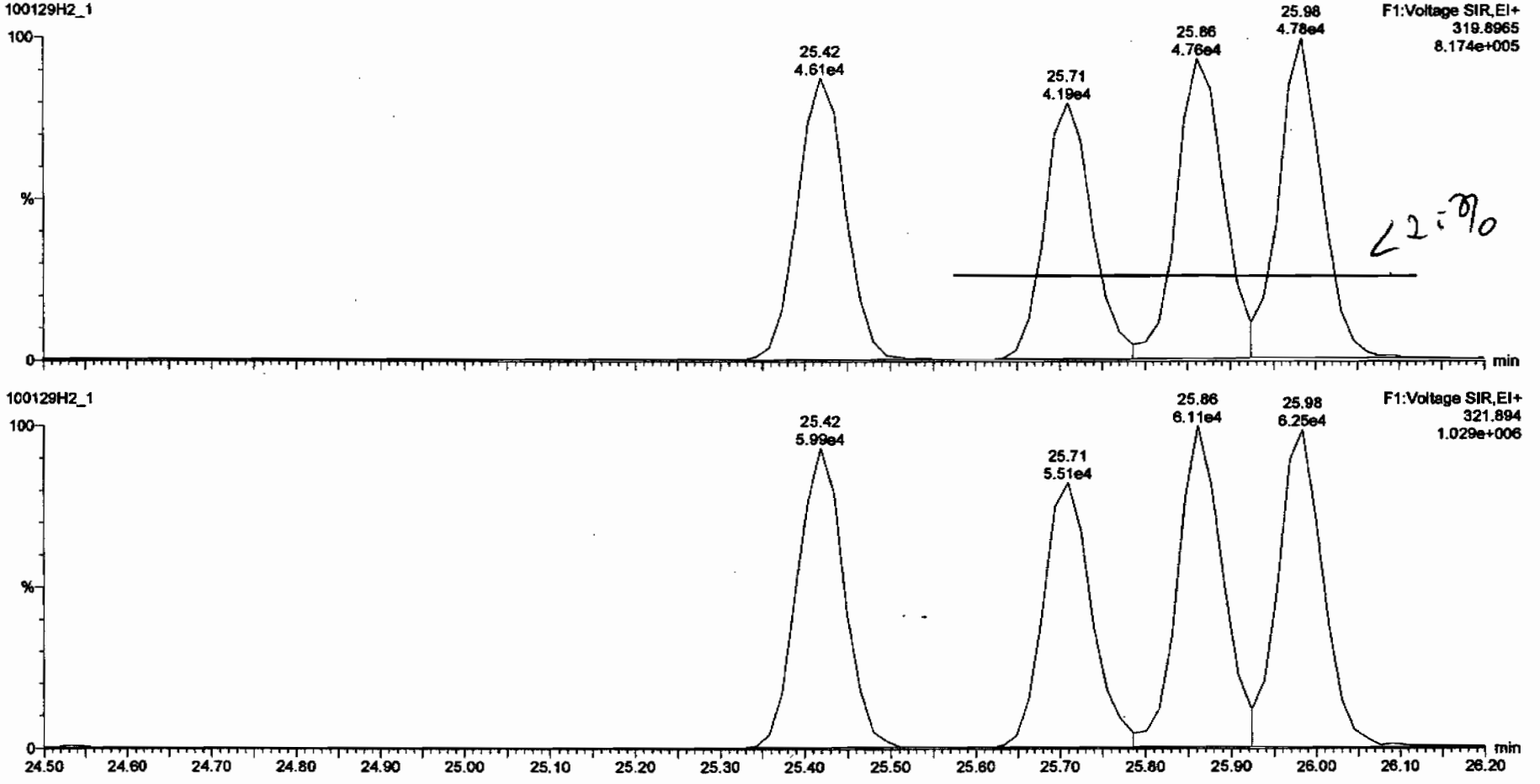

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Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
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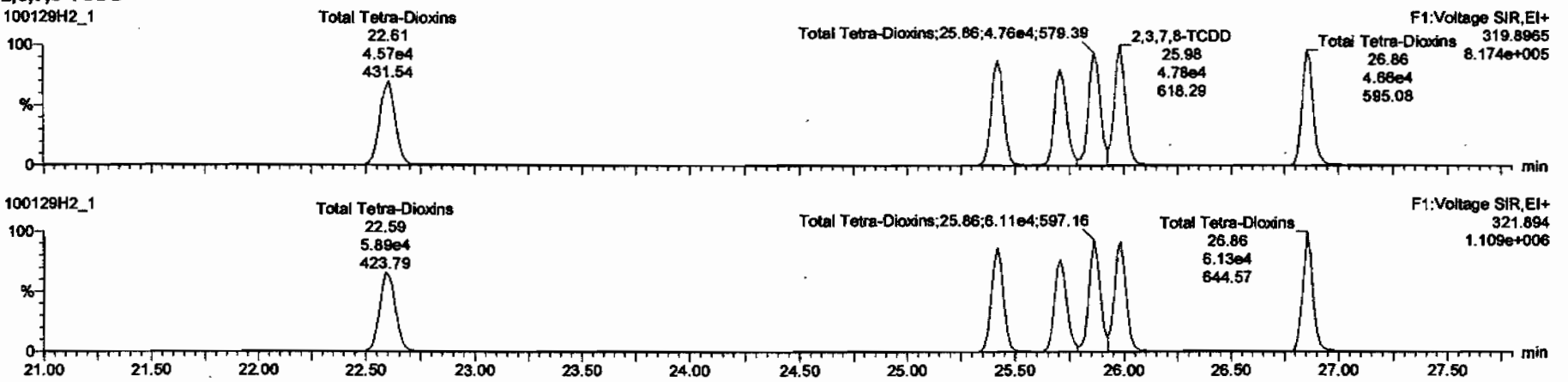

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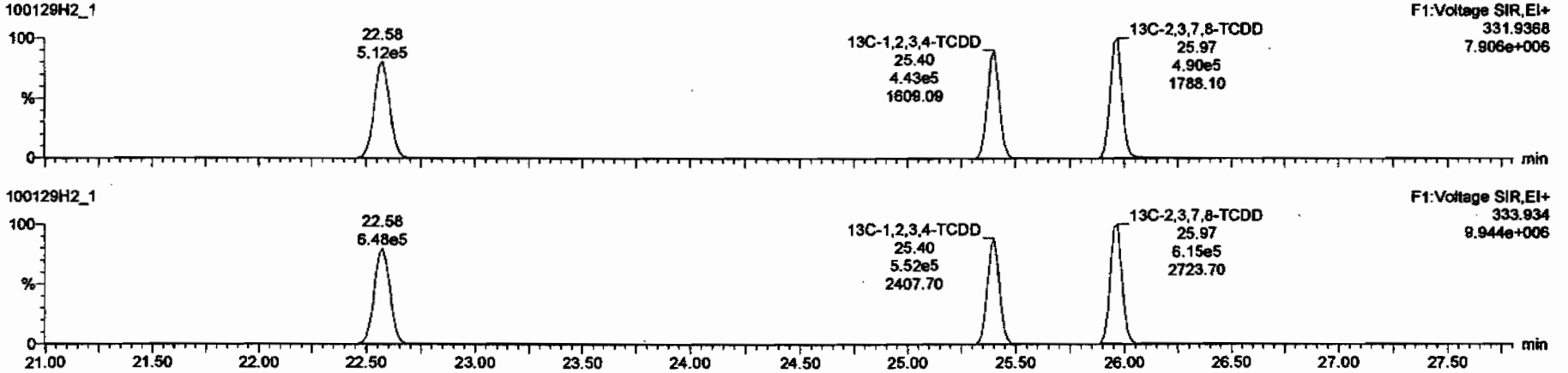

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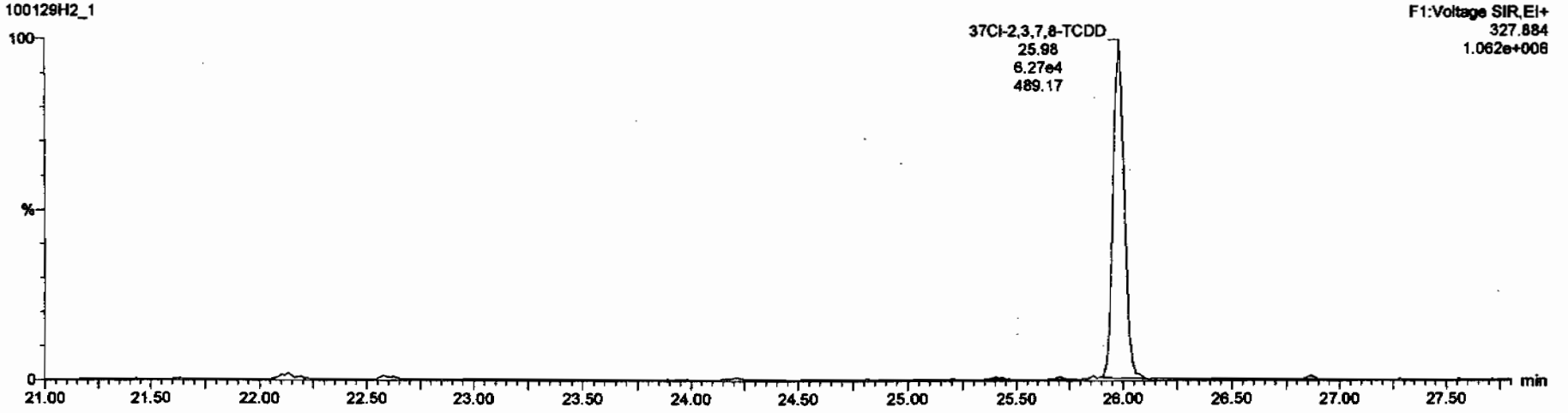

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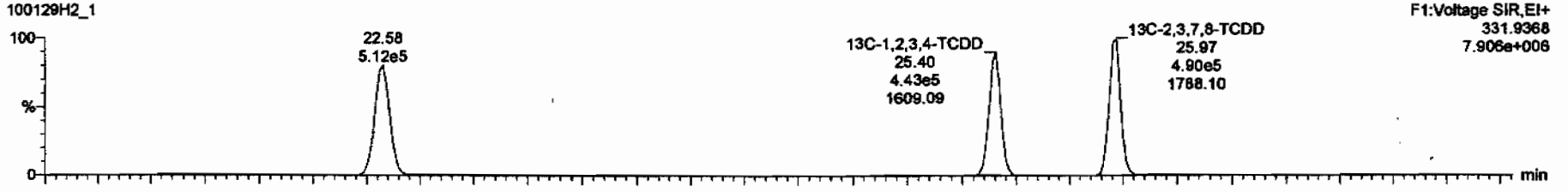

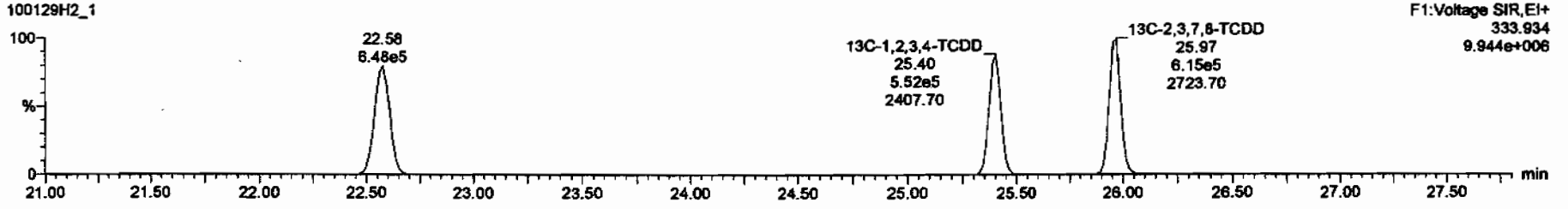

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Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

Name: 100129H2_1, Date: 30-Jan-2010, Time: 02:14:11, ID: ST100129H2-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,7,8-PeCDD

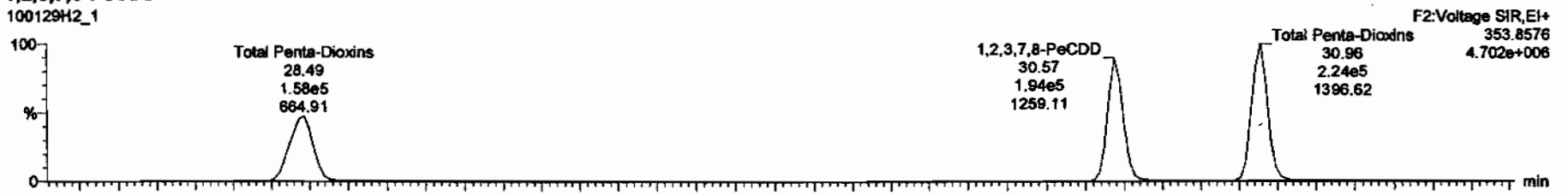

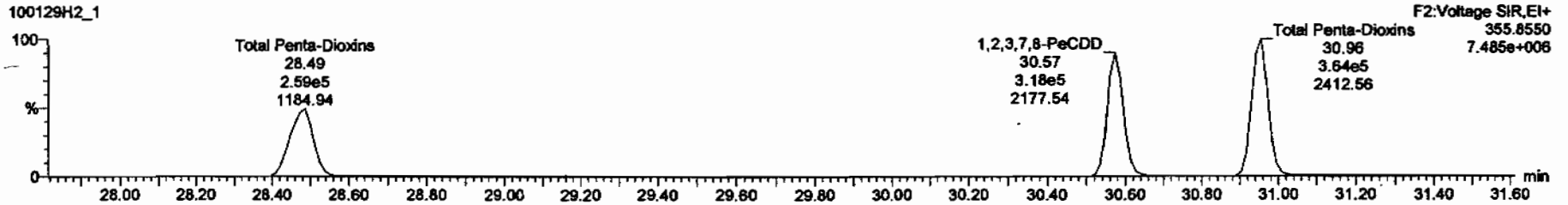

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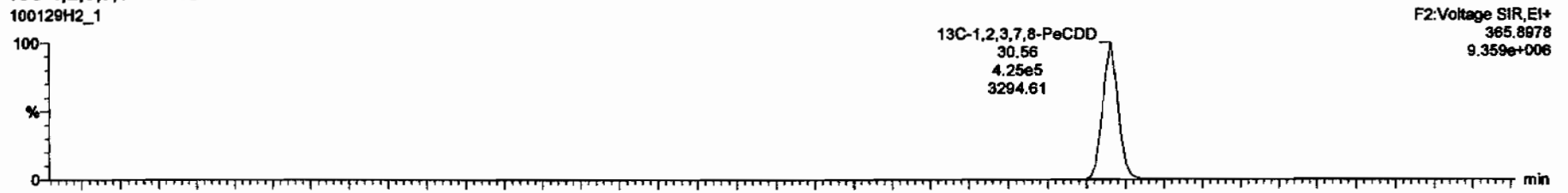

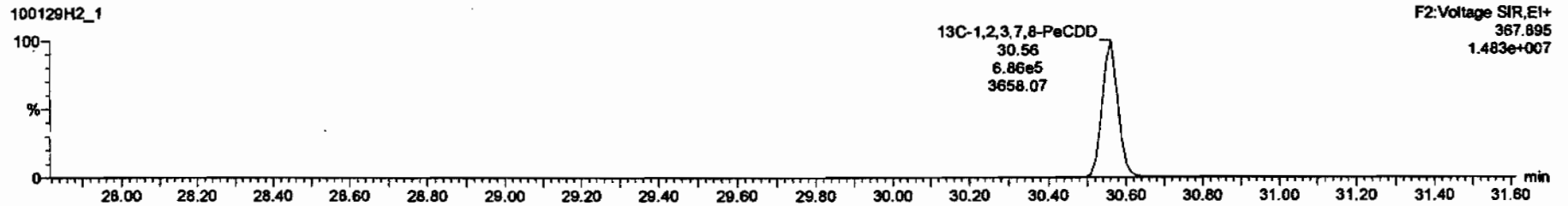

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1,2,3,4,7,8-HxCDD

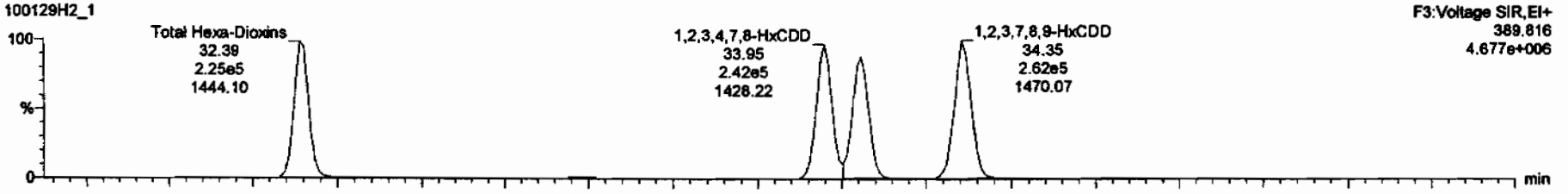

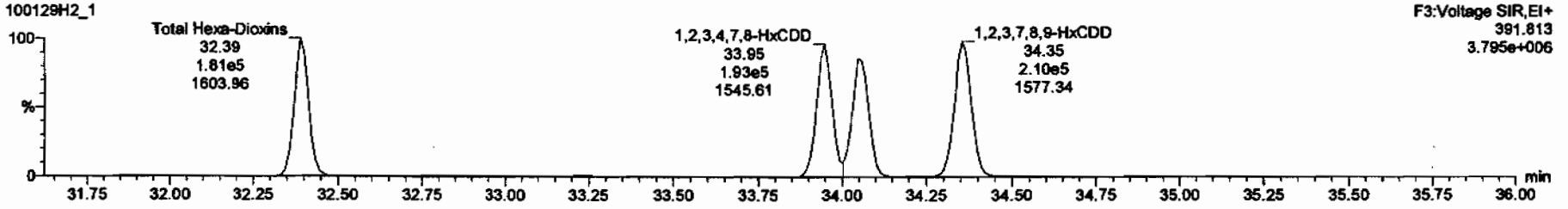

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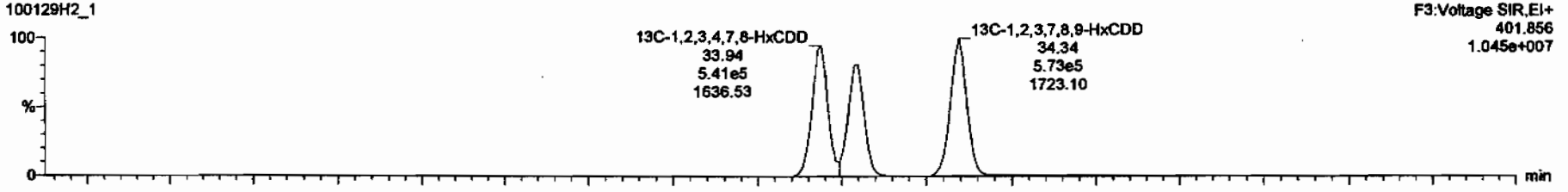

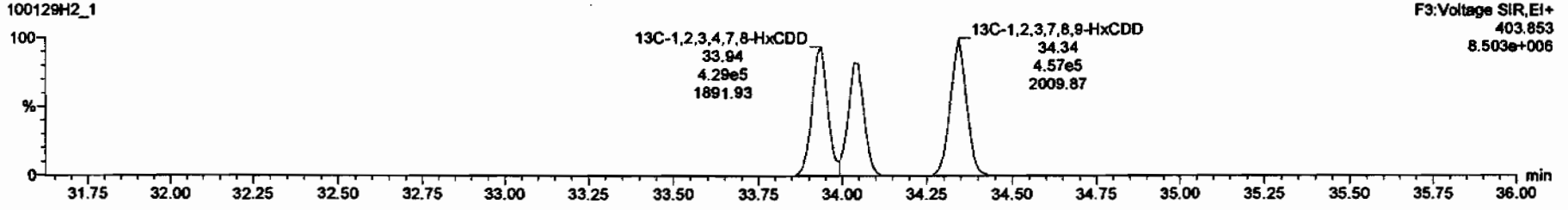

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1,2,3,4,6,7,8-HpCDD

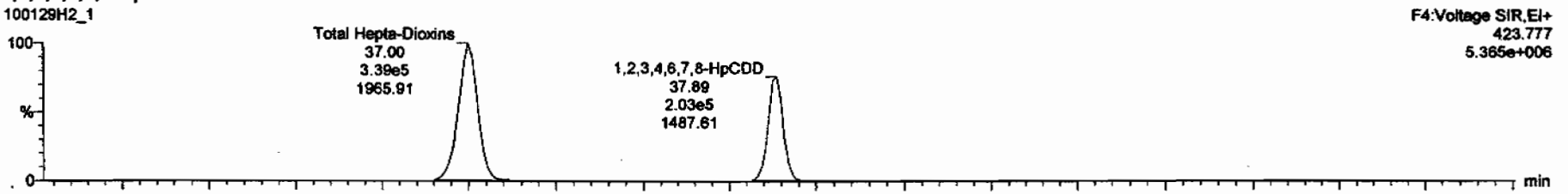

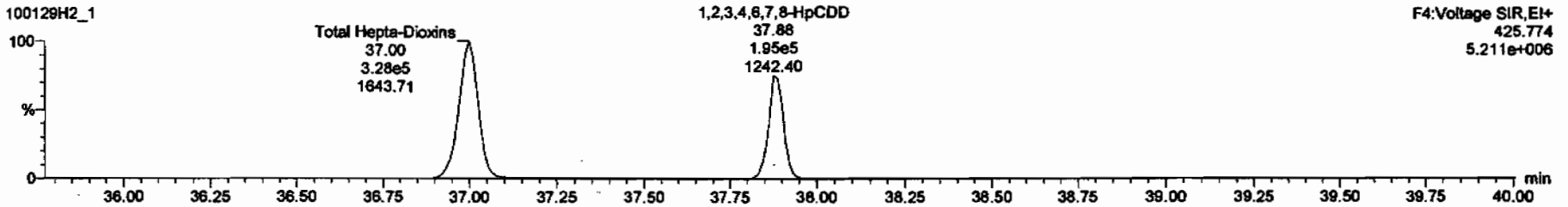

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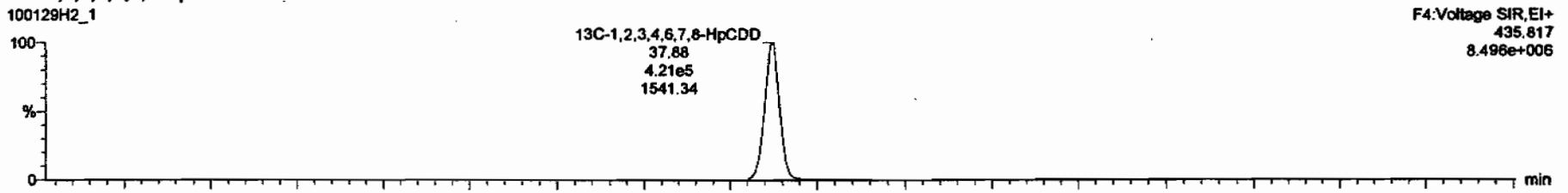

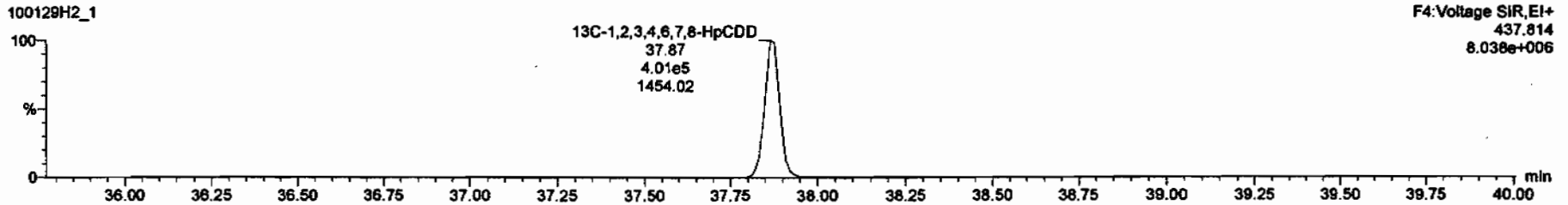

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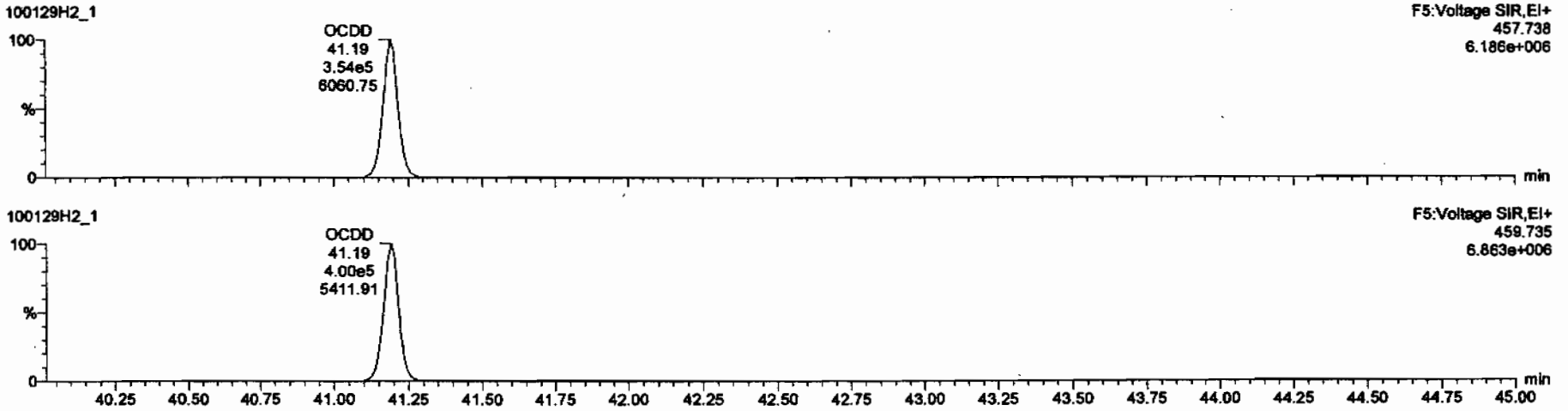

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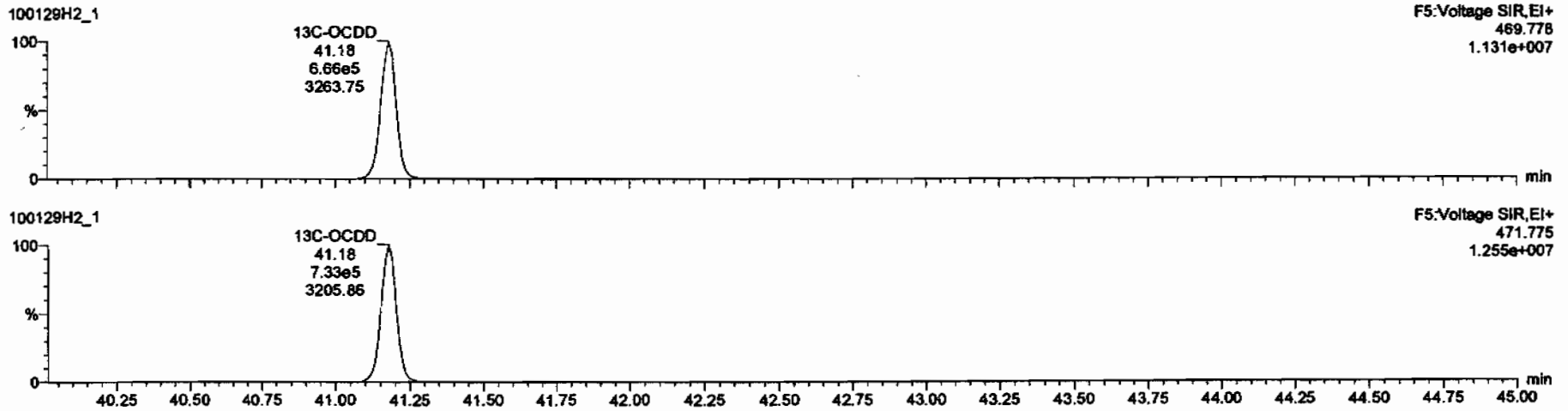

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2,3,7,8-TCDF

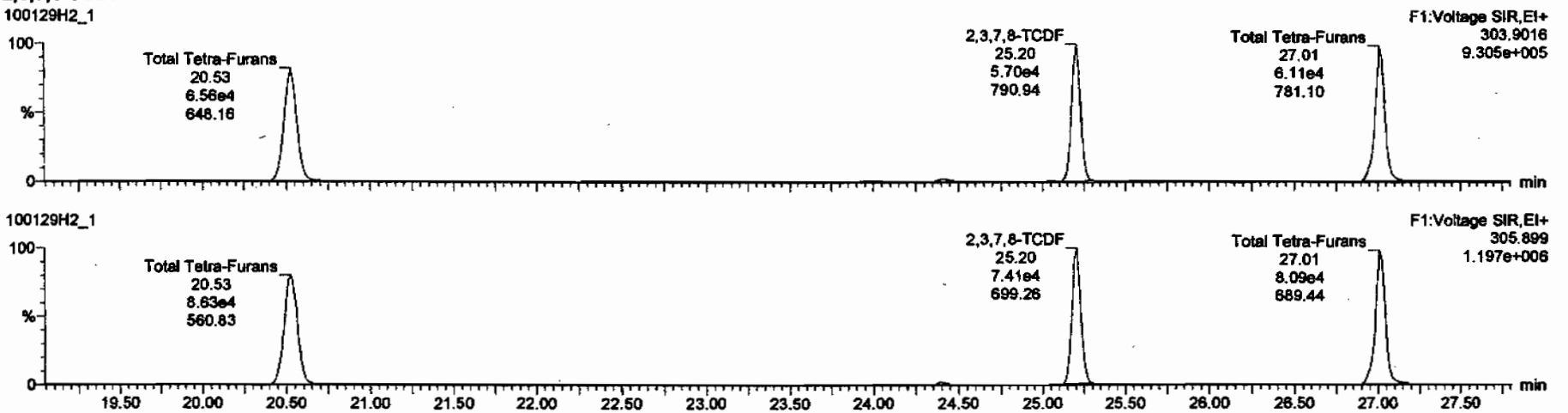

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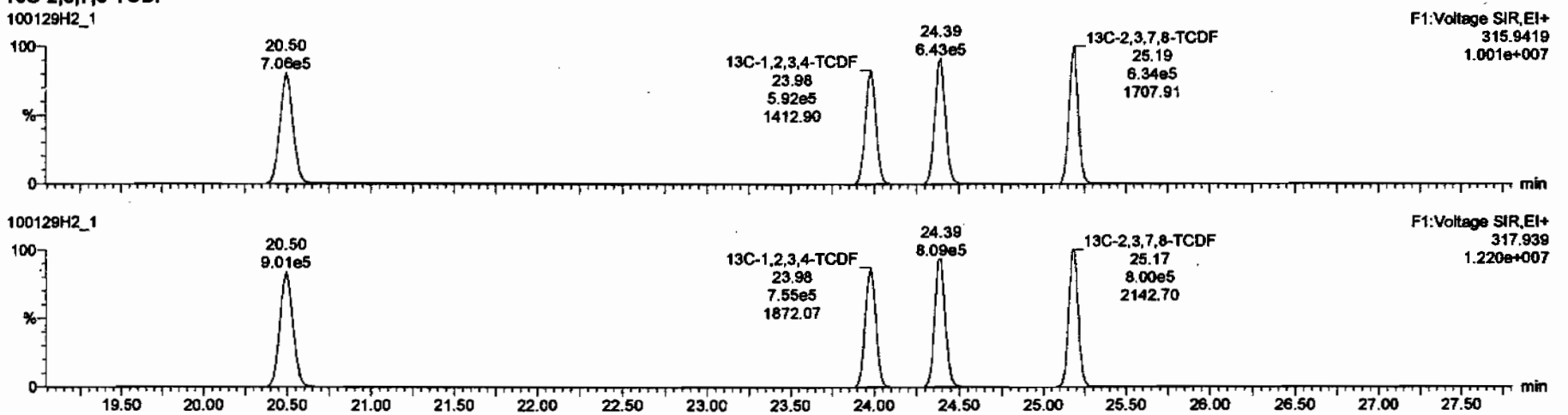

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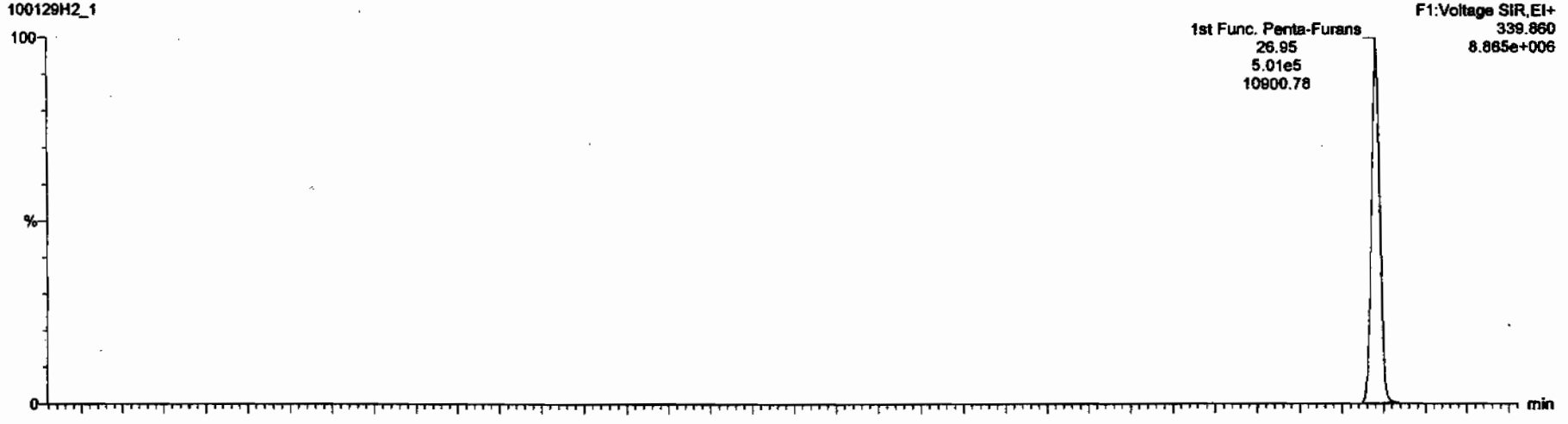

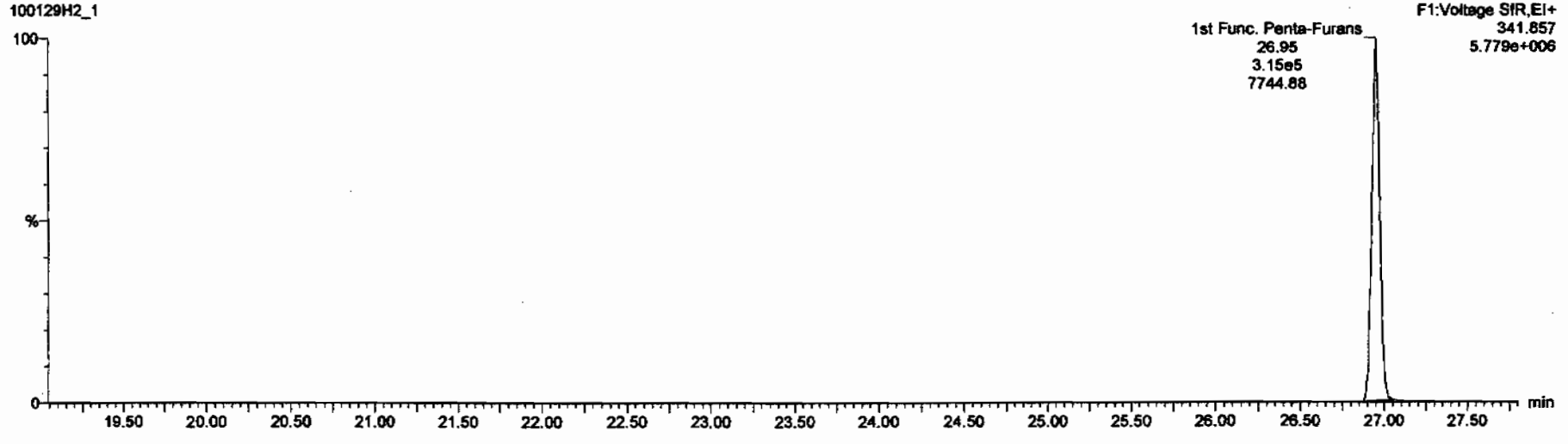

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1,2,3,7,8-PeCDF

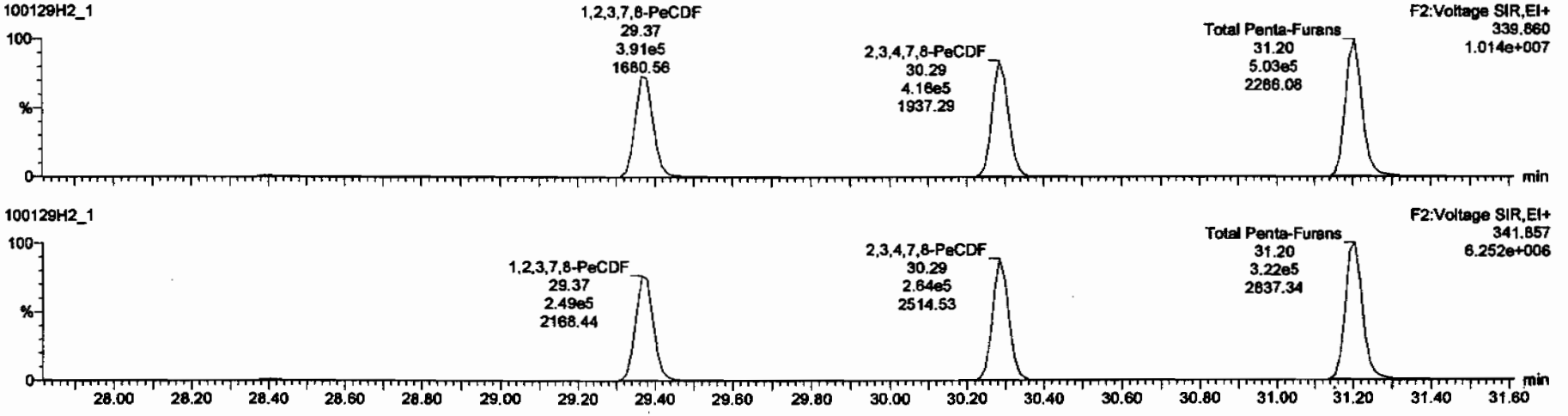

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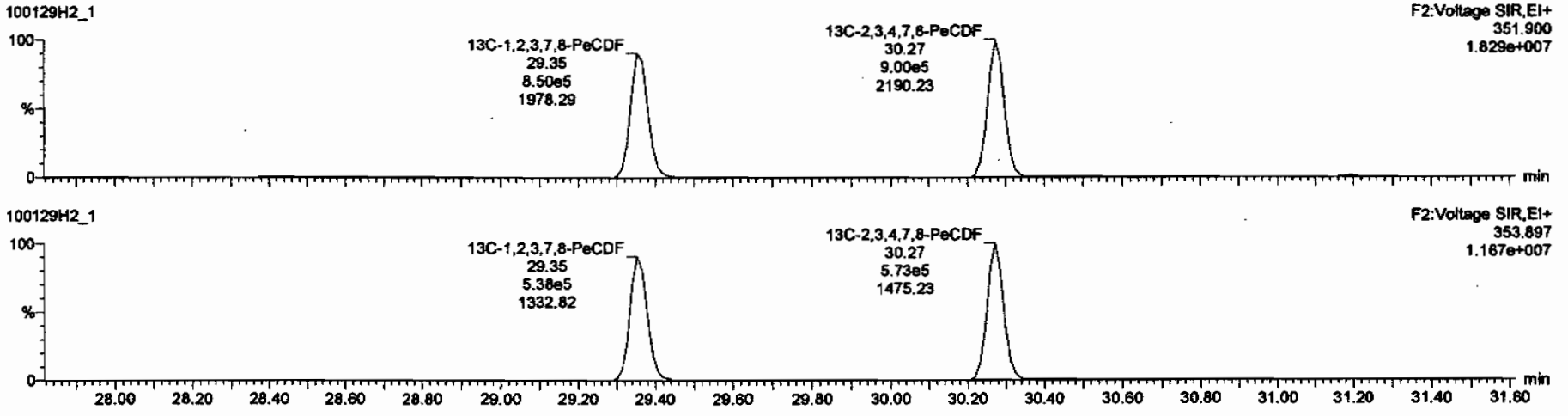

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1,2,3,4,7,8-HxCDF

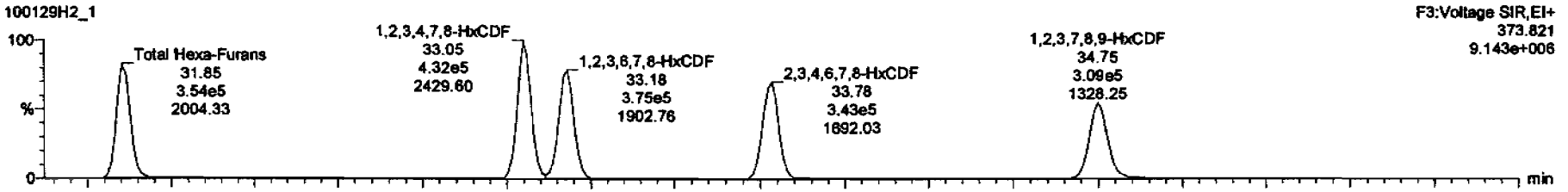

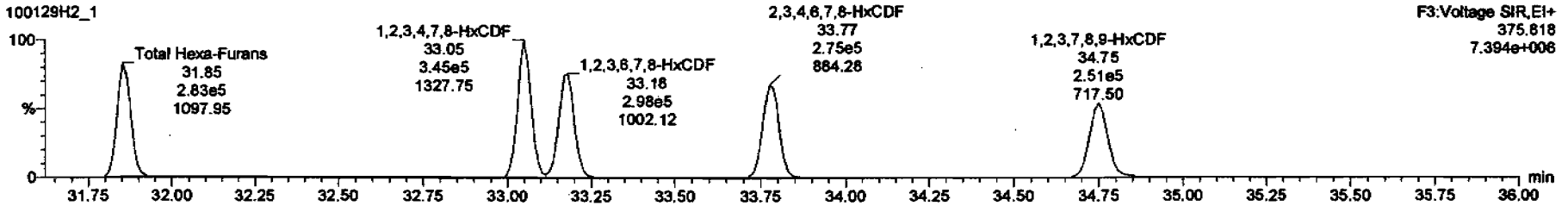

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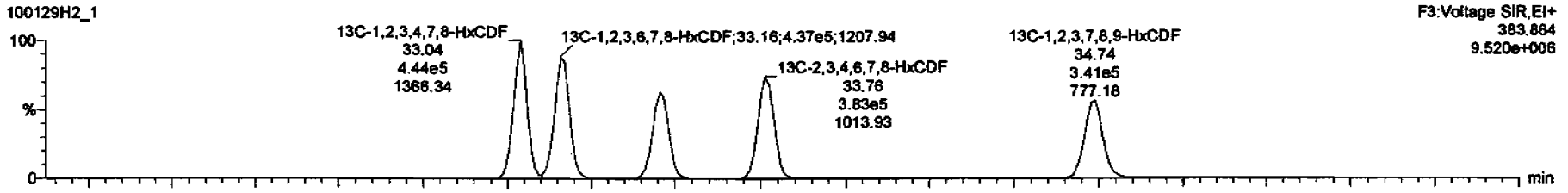

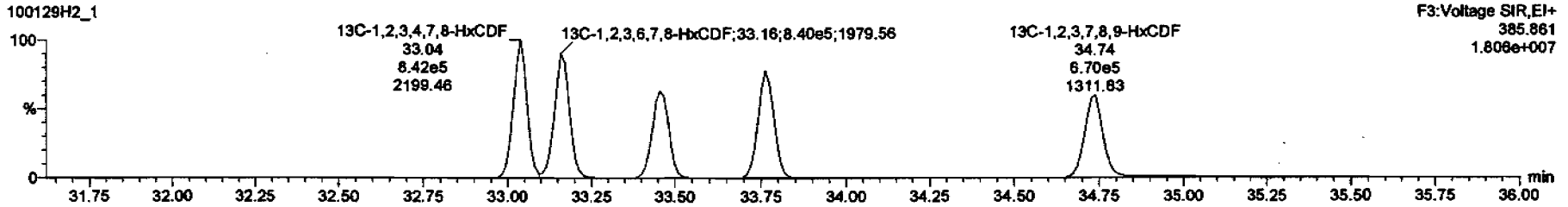

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1,2,3,4,6,7,8-HpCDF

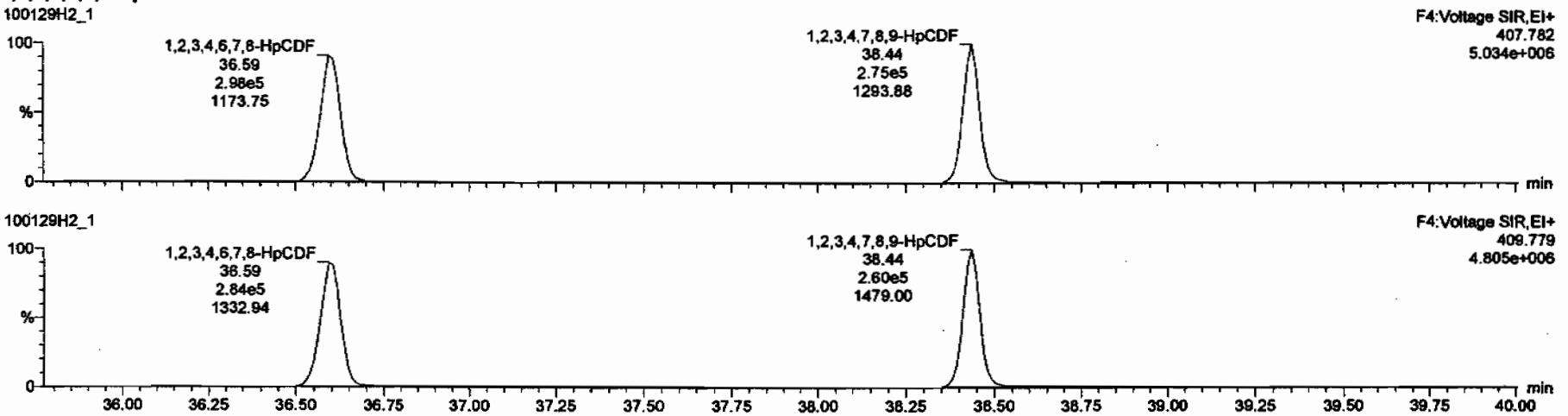

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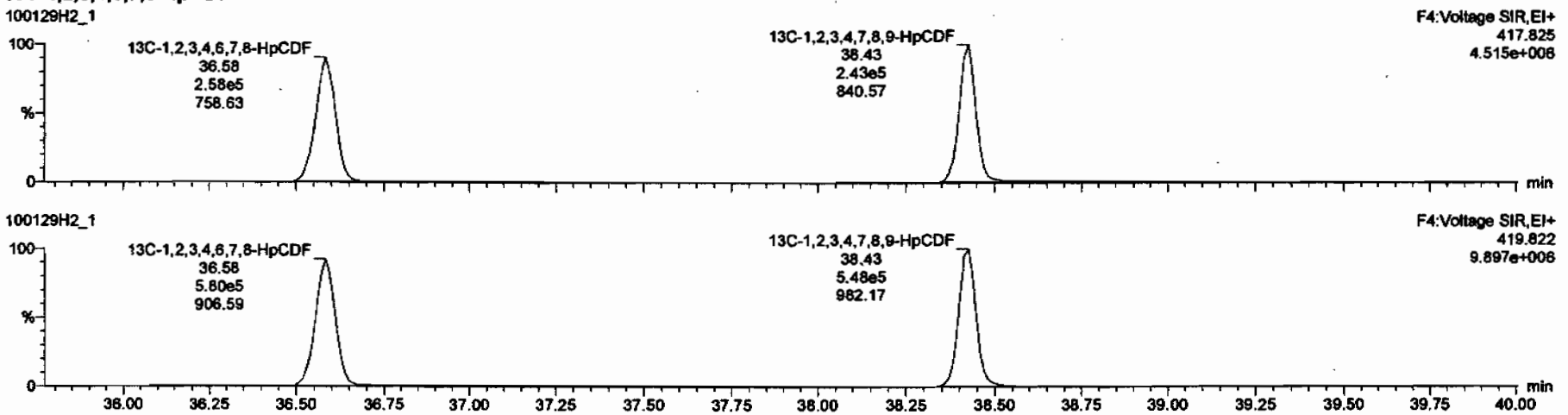

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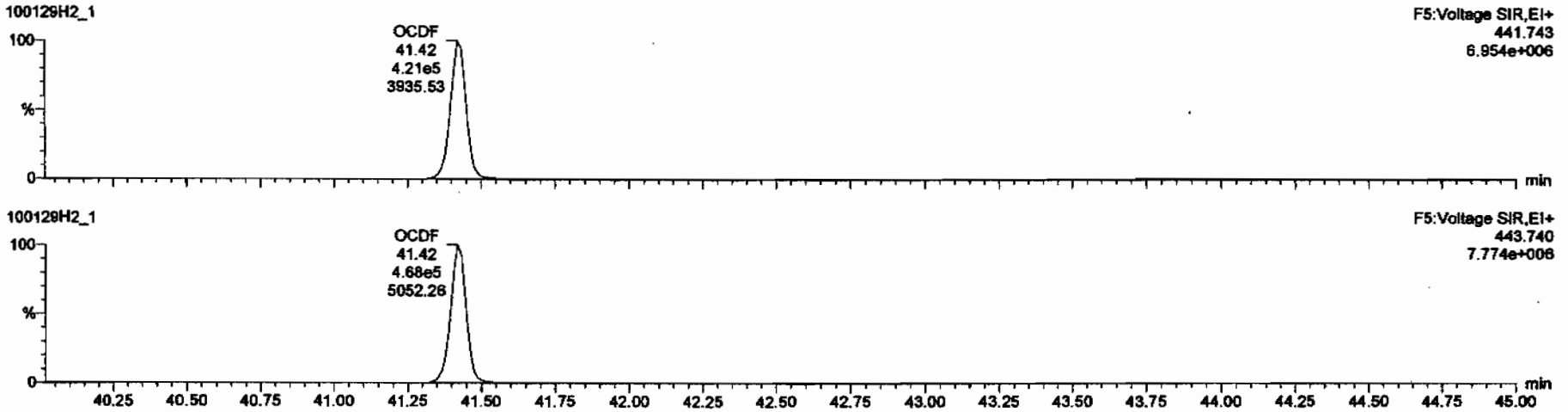

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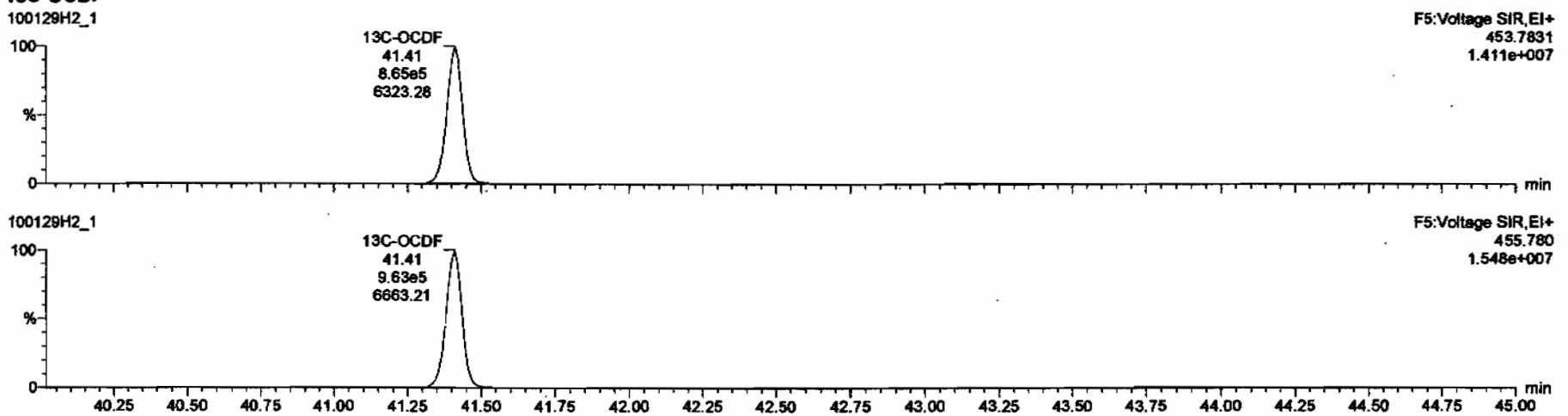

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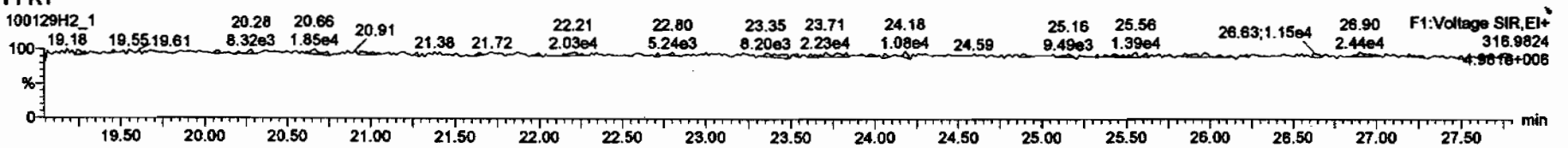

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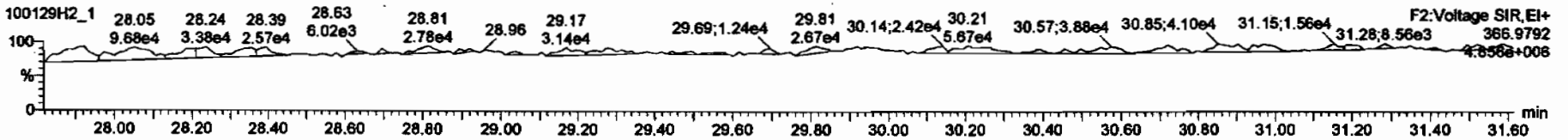

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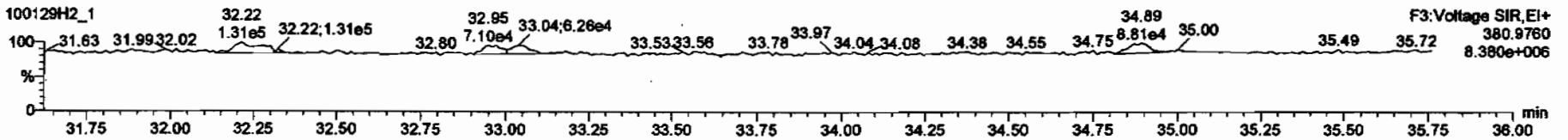

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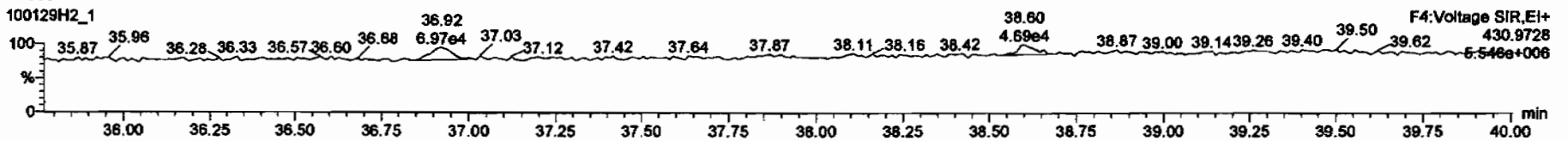

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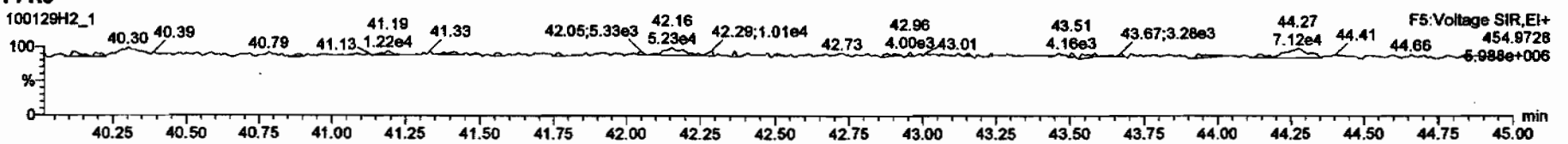

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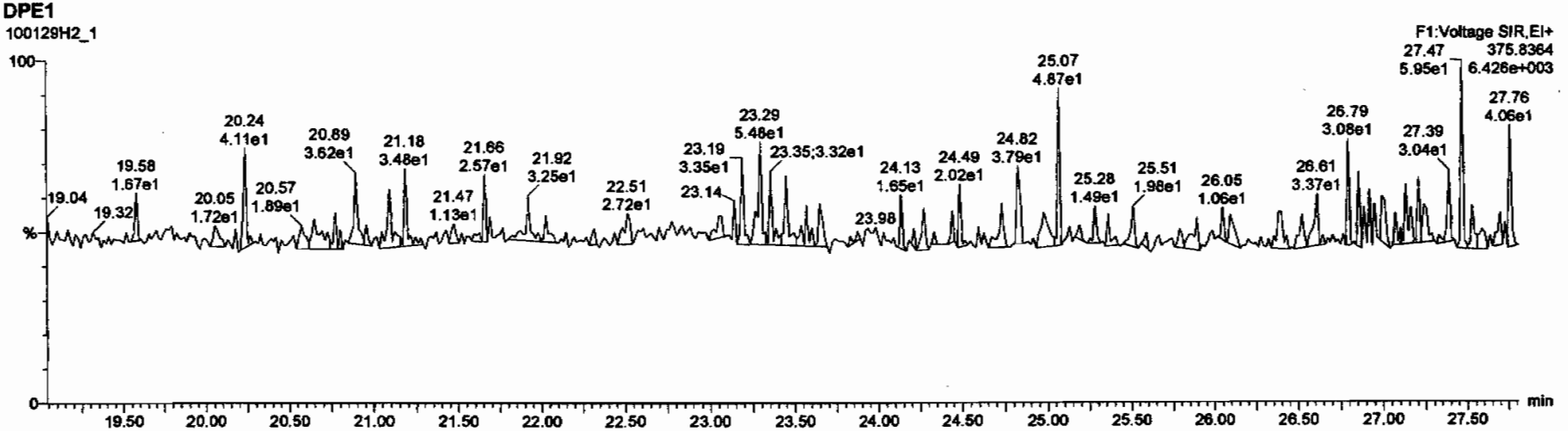

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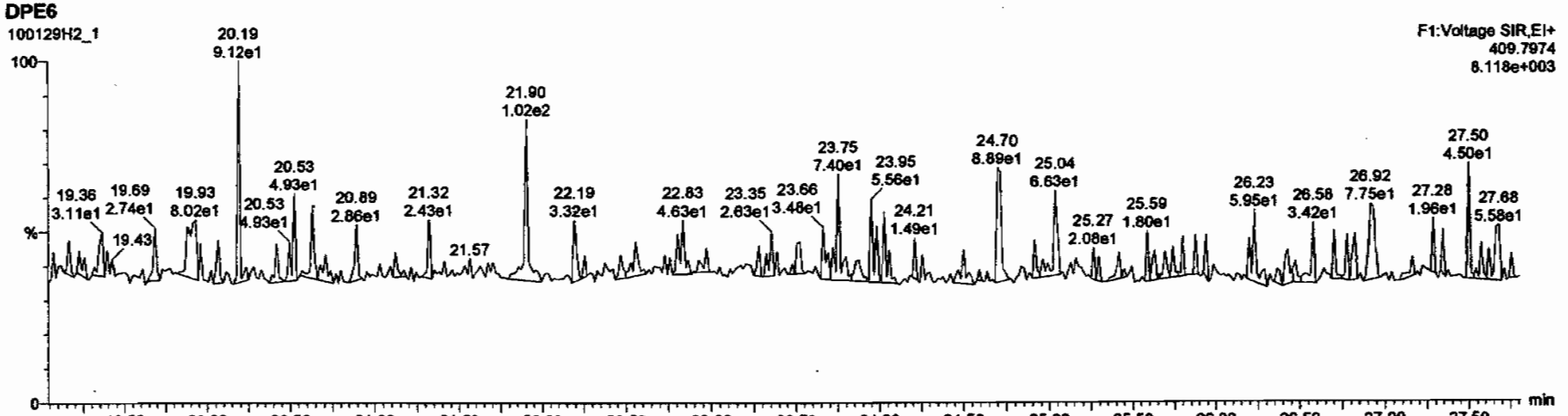

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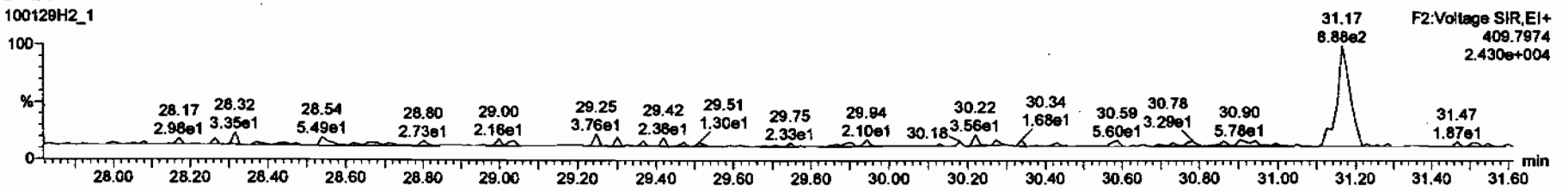

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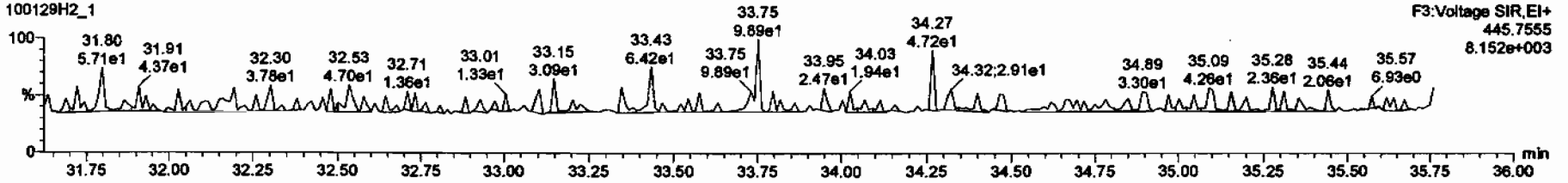

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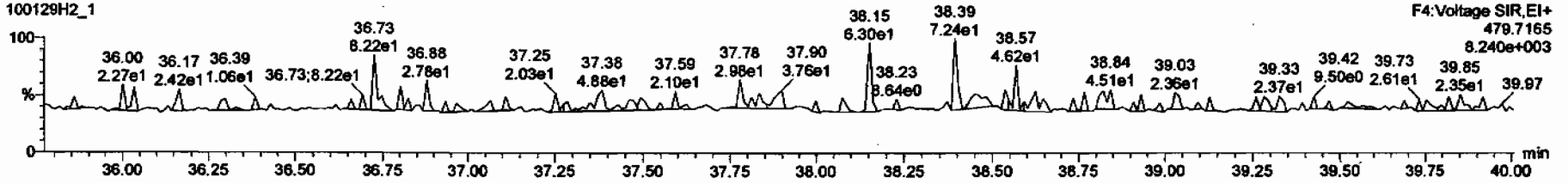

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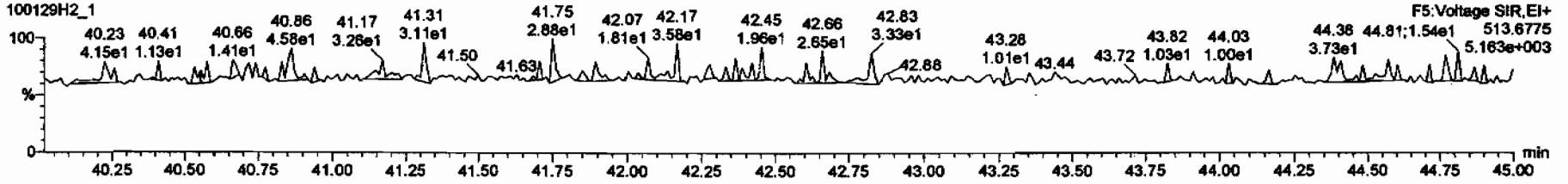

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2,3,7,8-TCDD

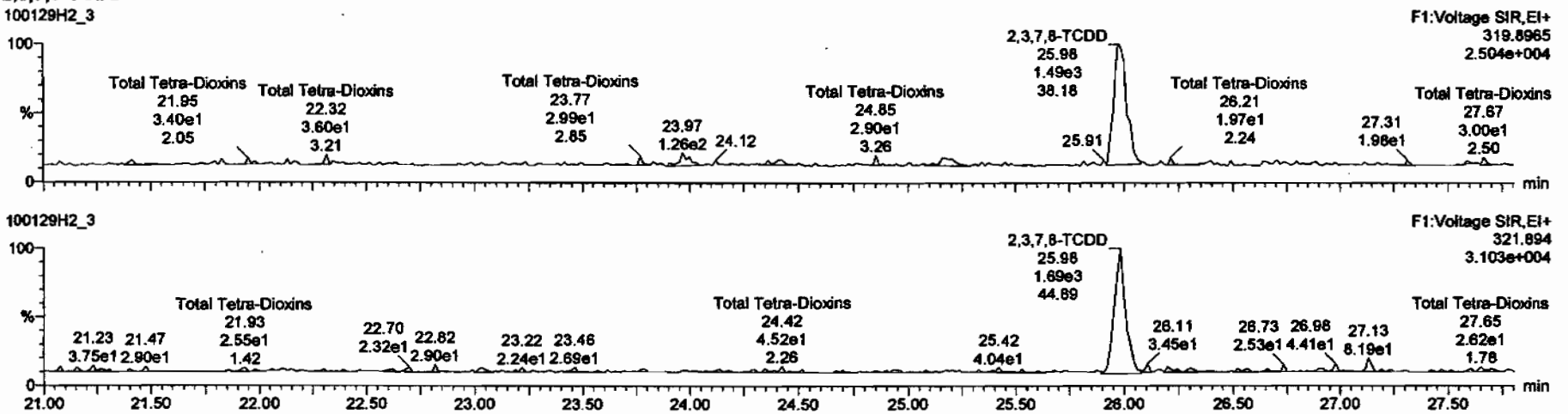

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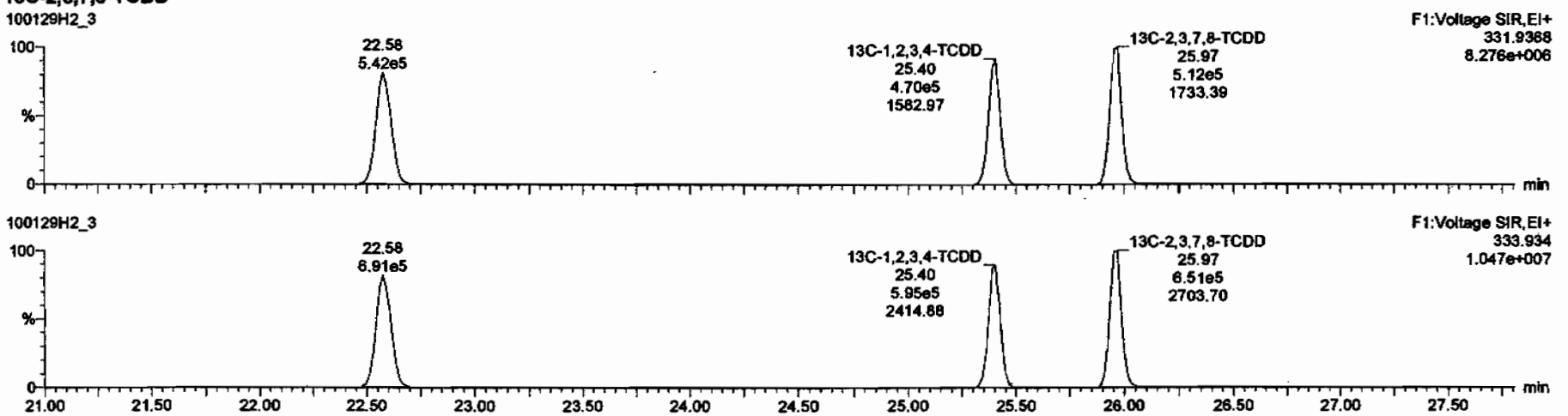

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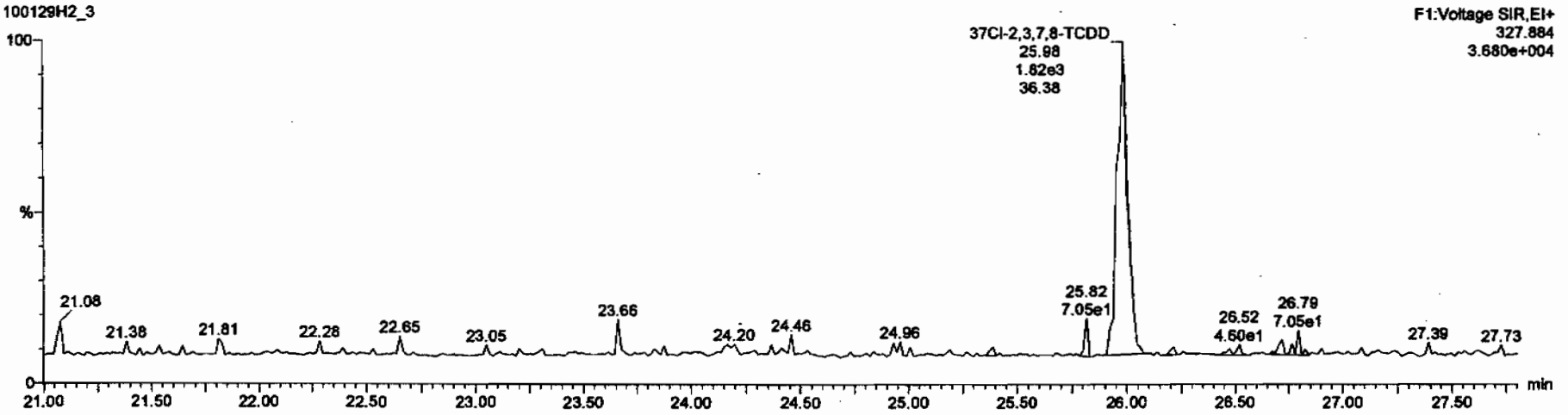

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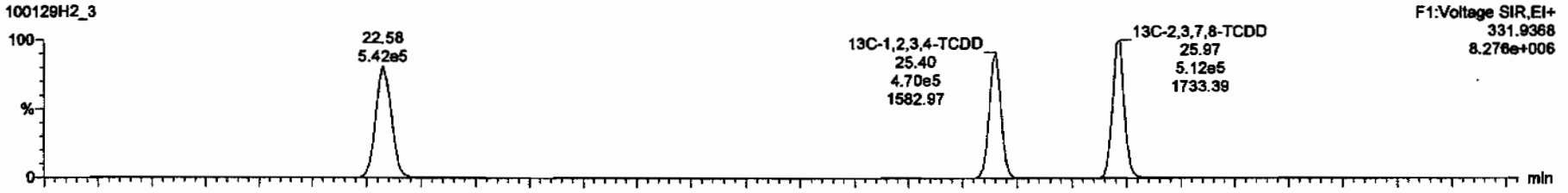

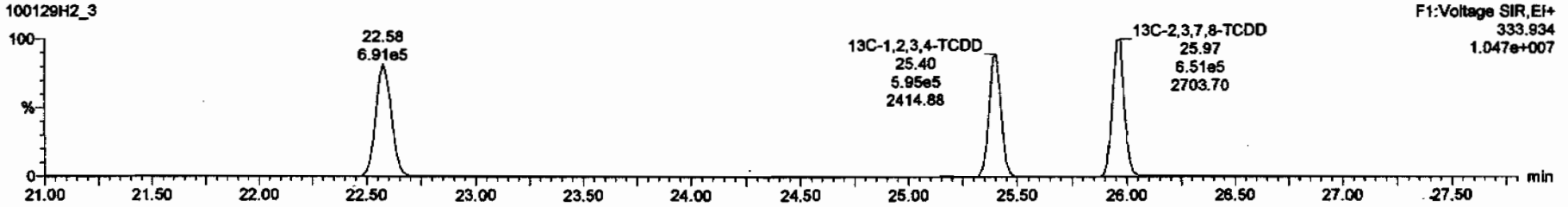

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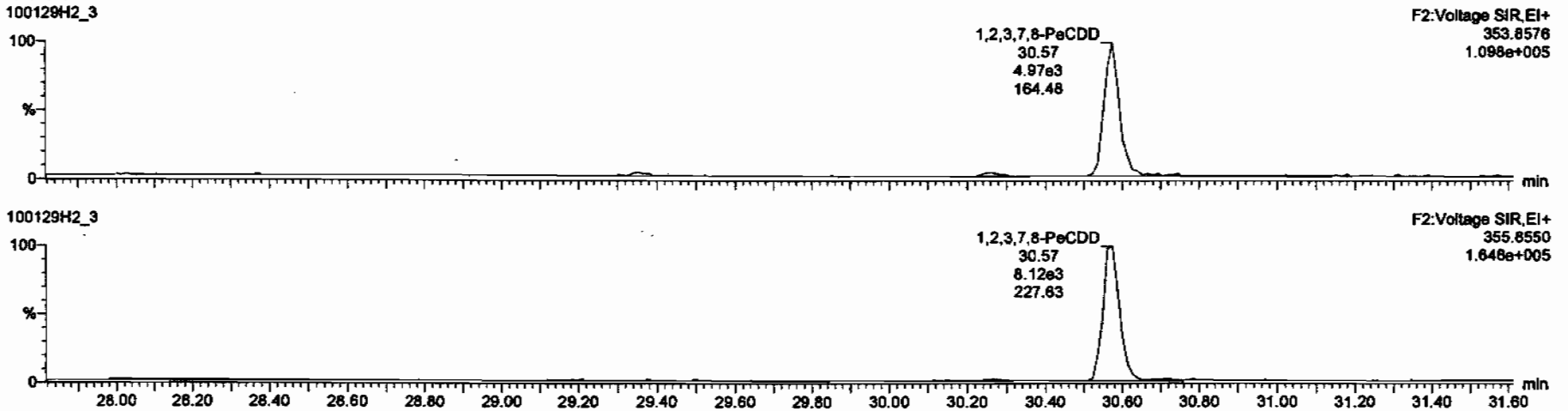

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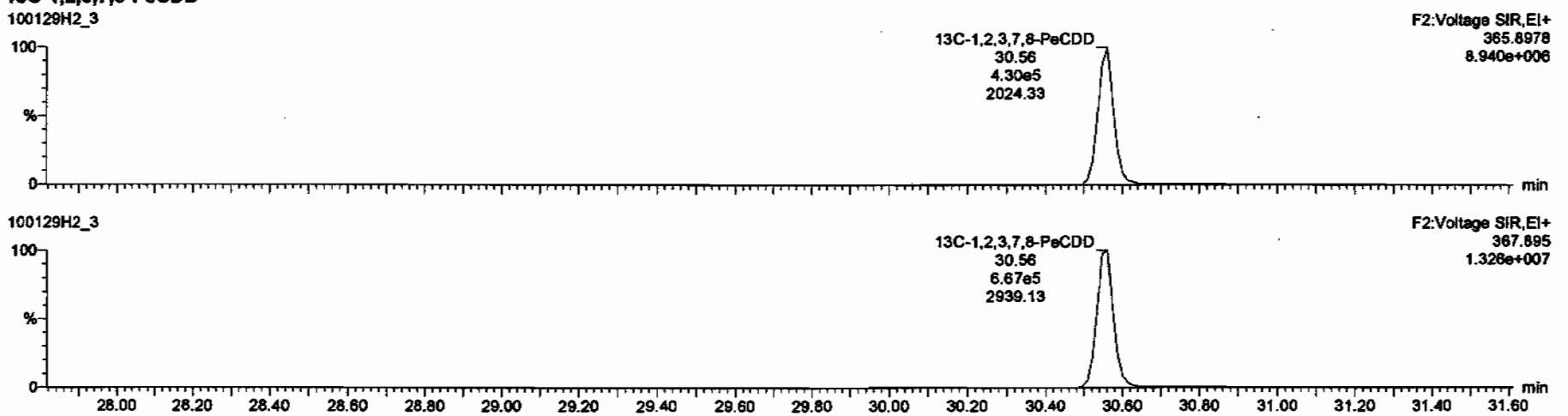

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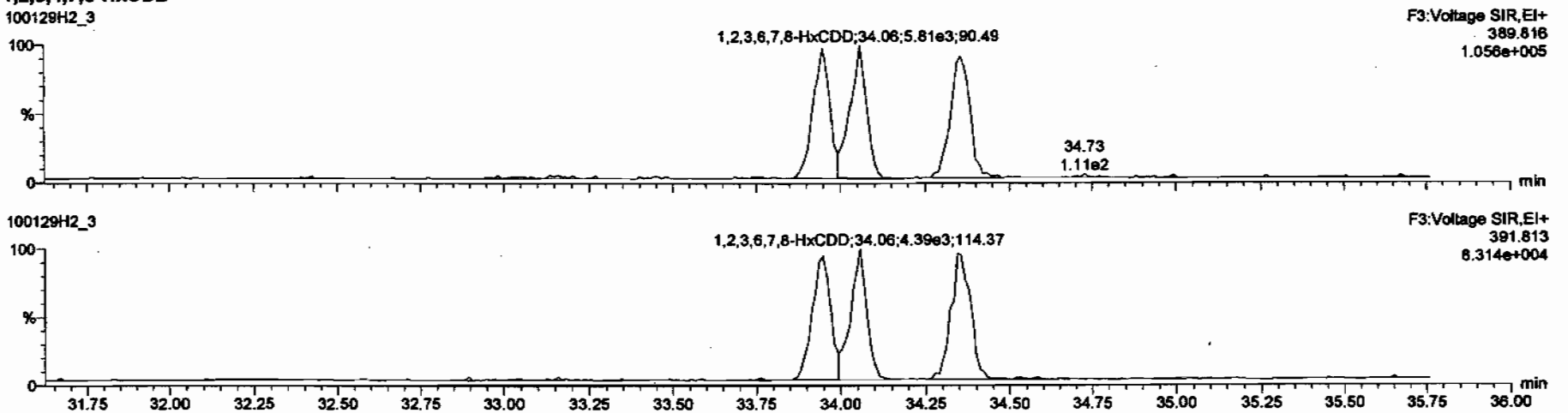

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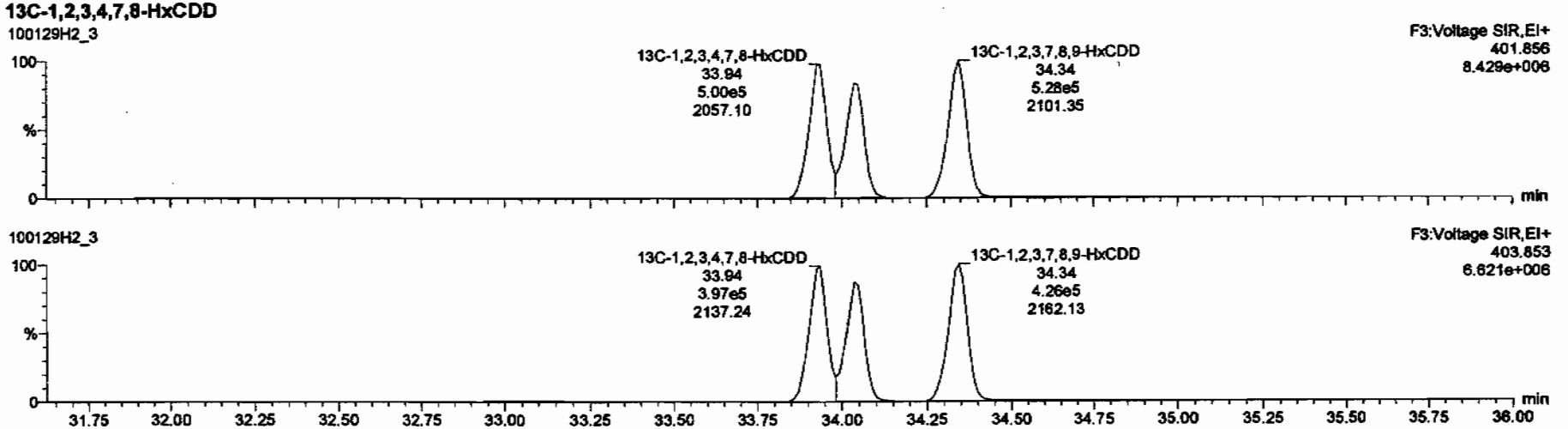

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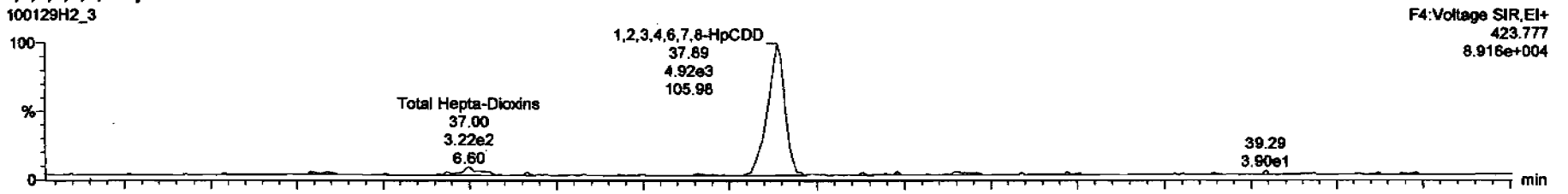

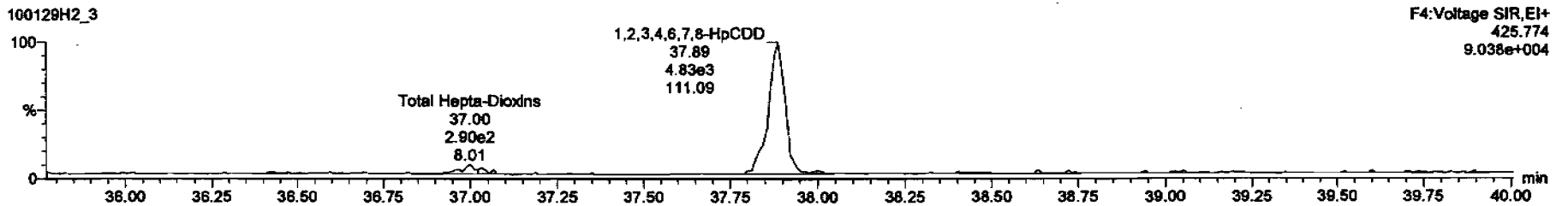

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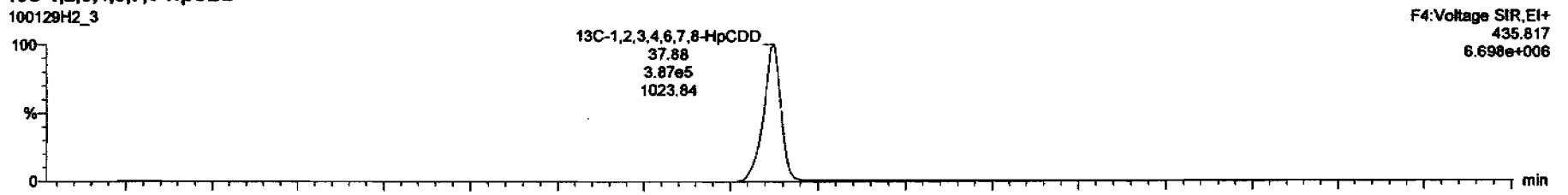

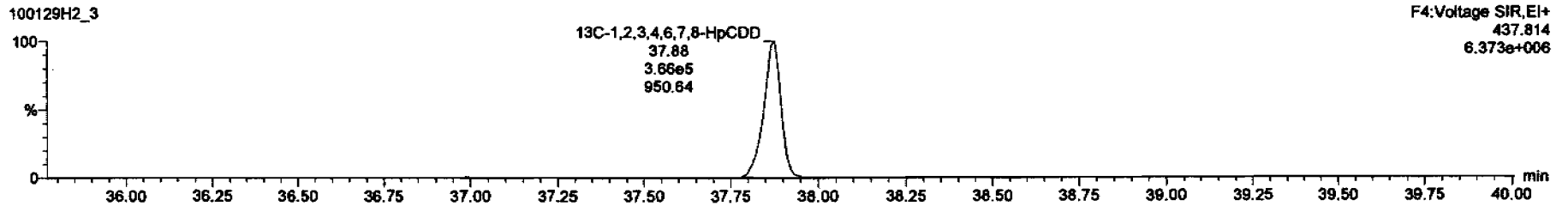

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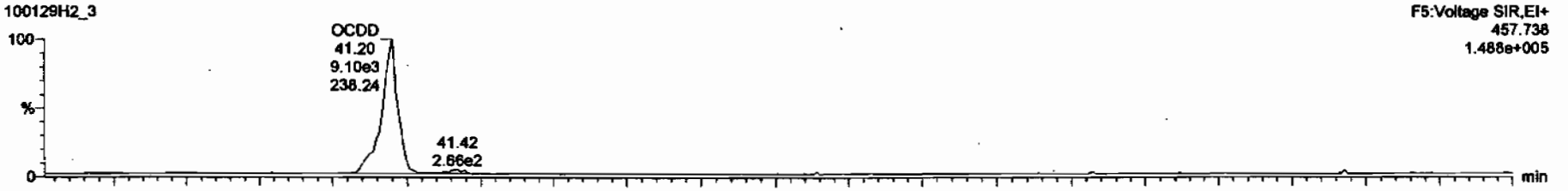

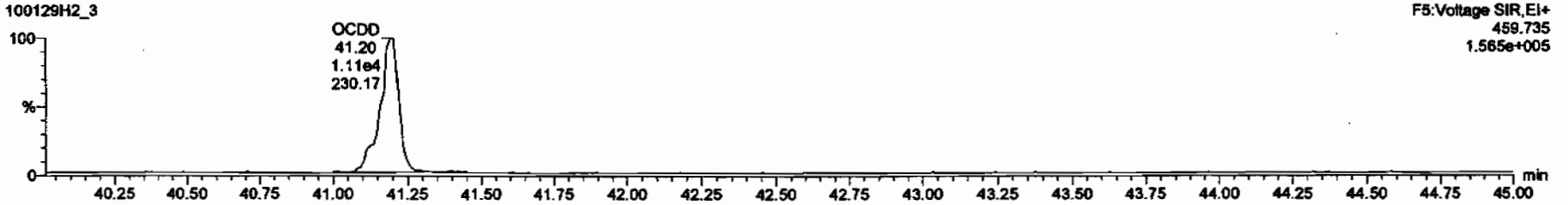

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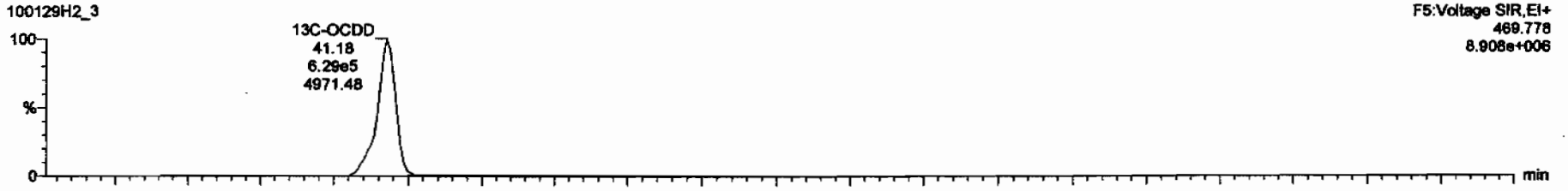

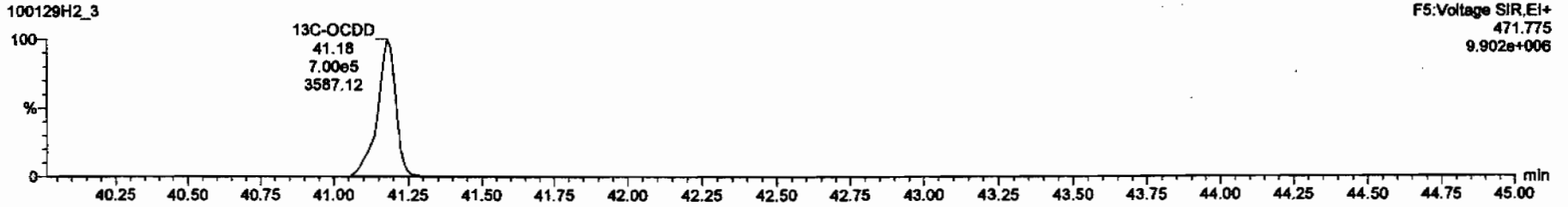

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2,3,7,8-TCDF

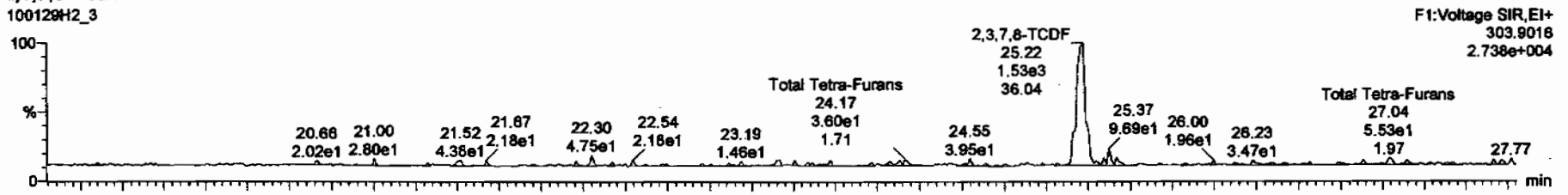

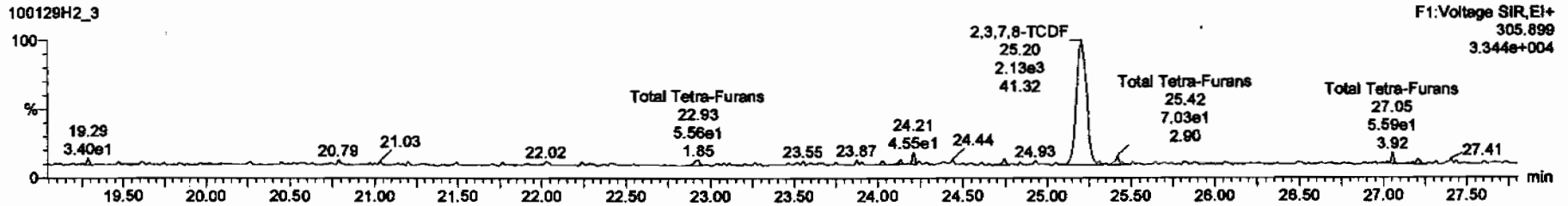

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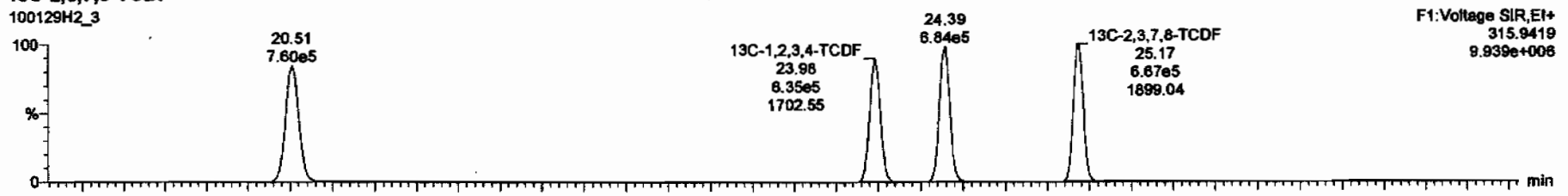

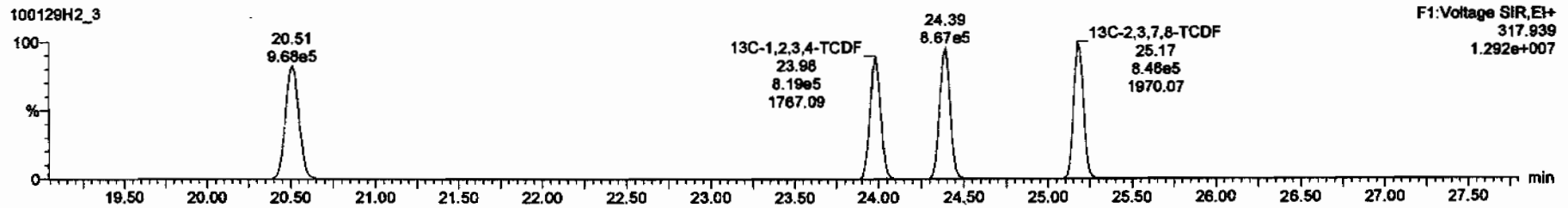

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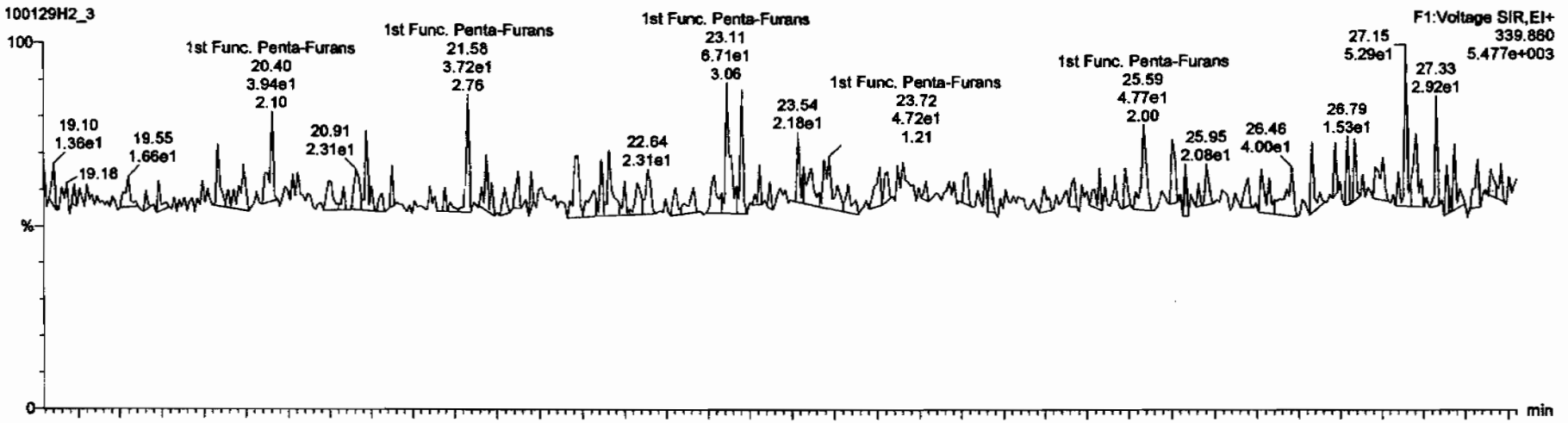

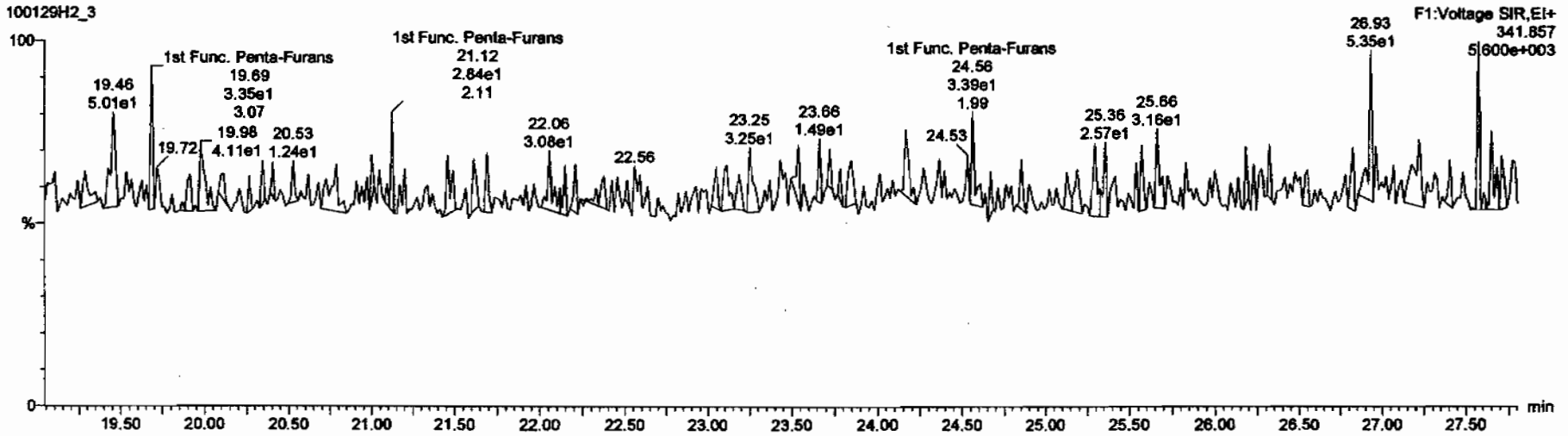

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1,2,3,7,8-PeCDF

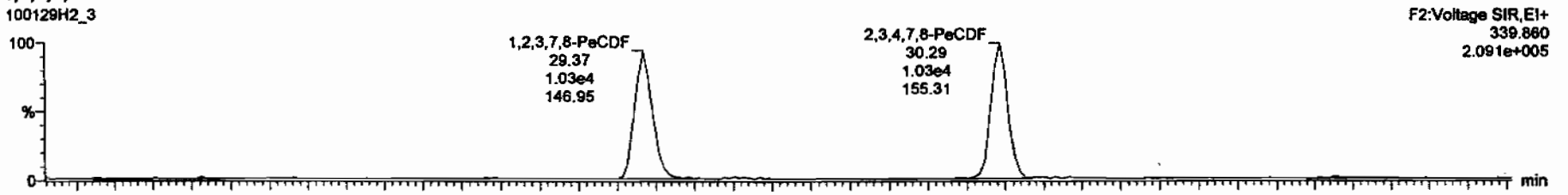

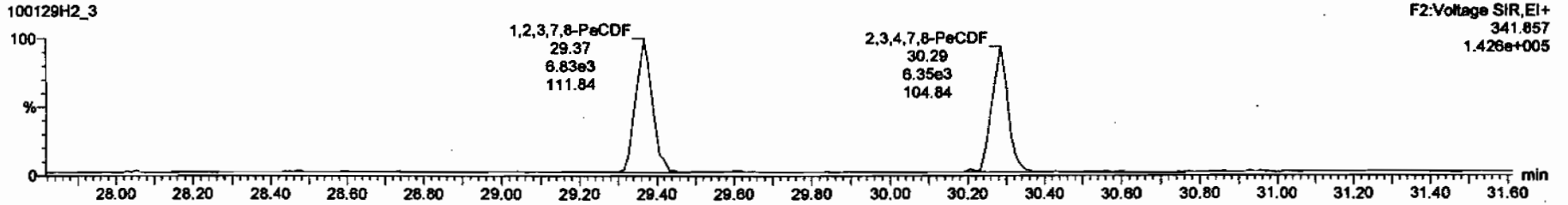

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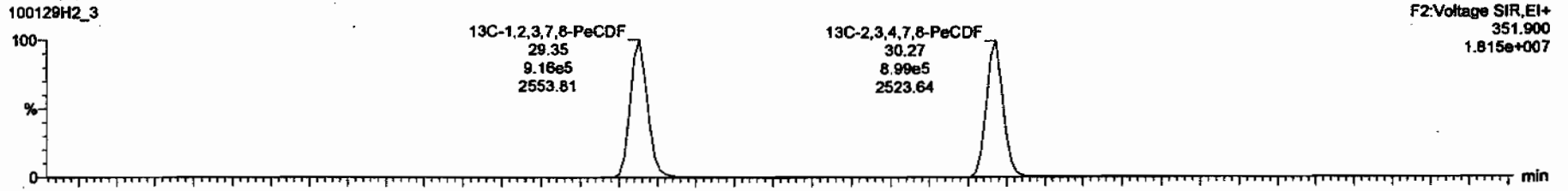

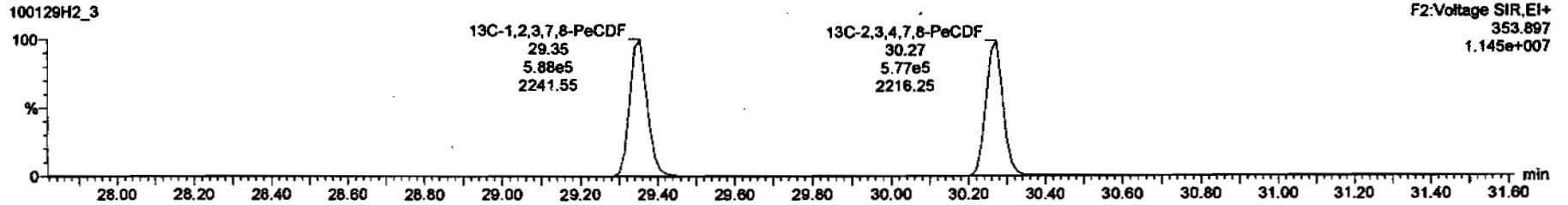

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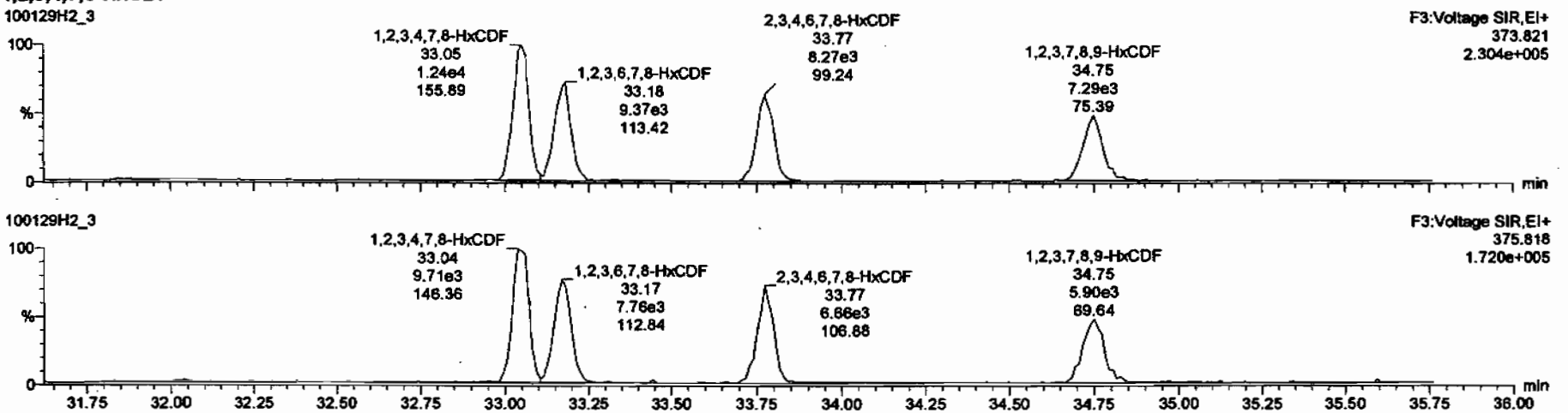

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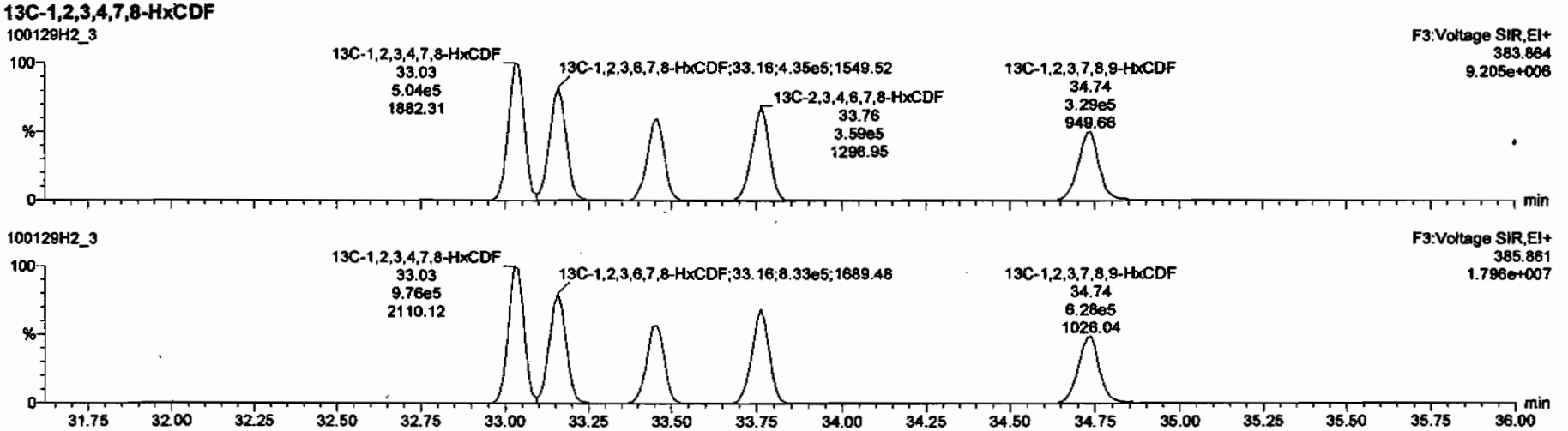

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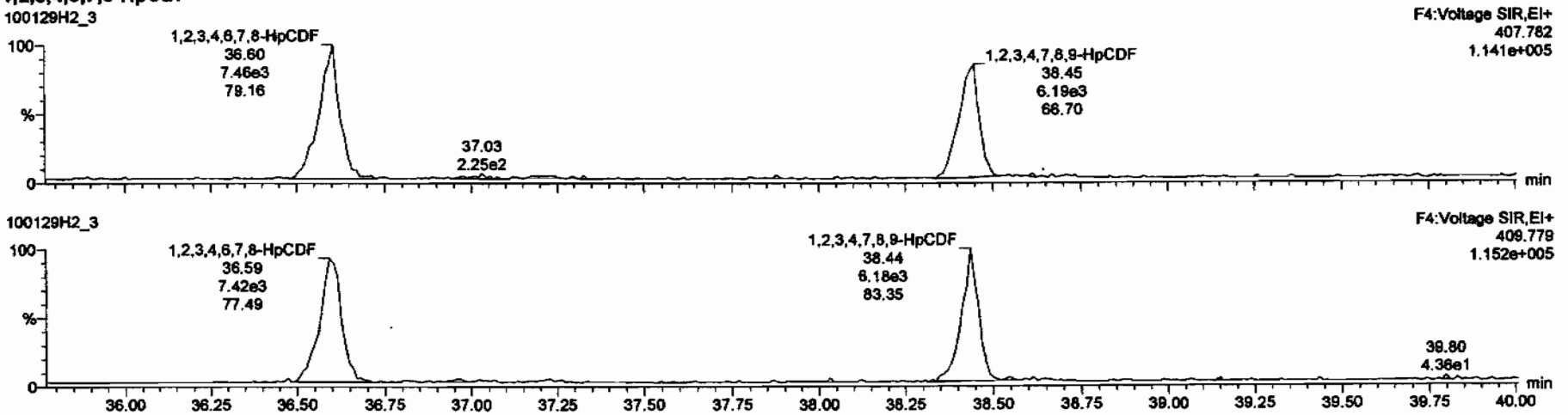

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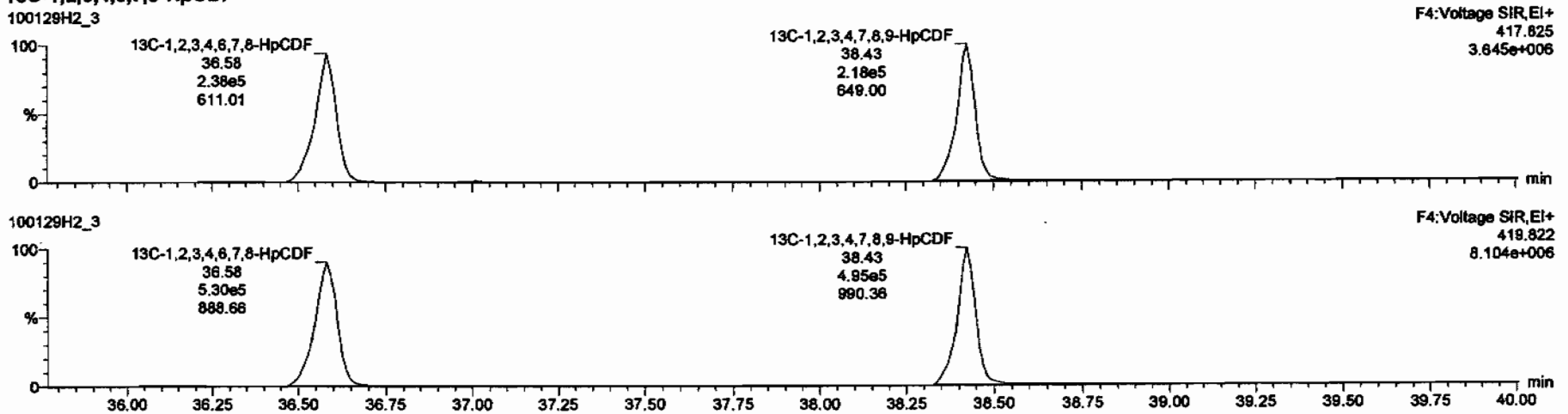

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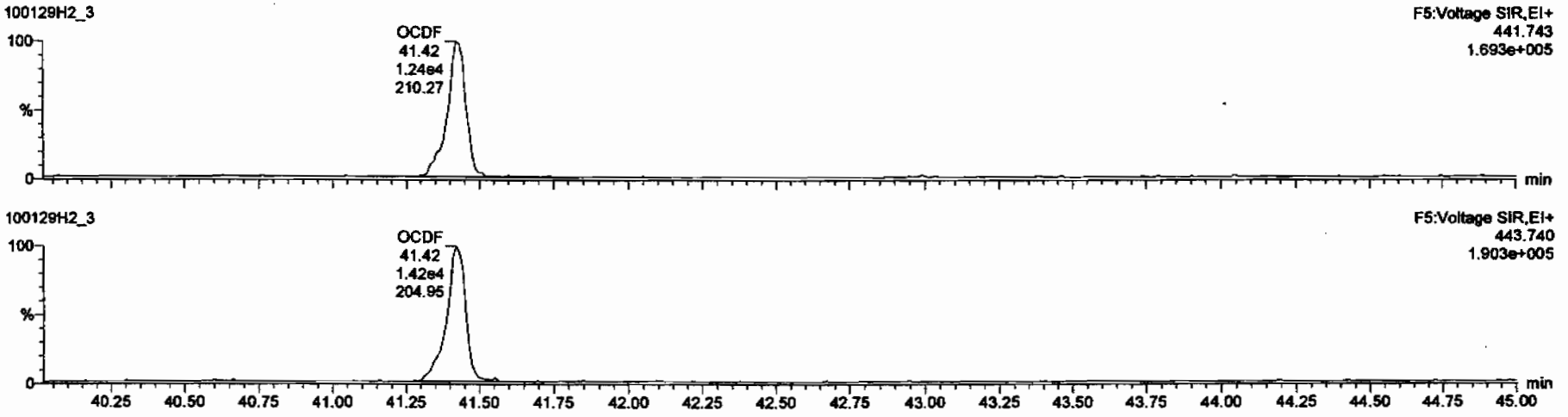

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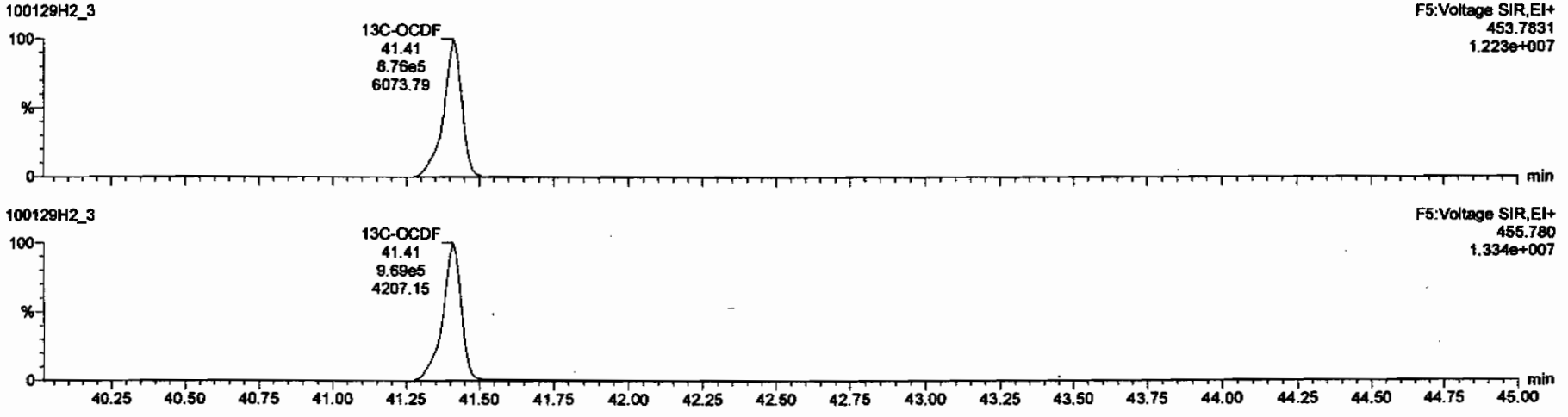

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PFK1

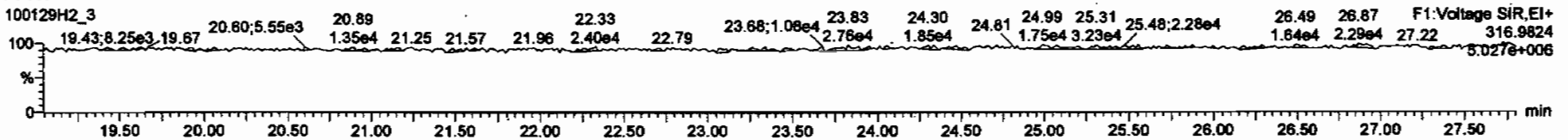

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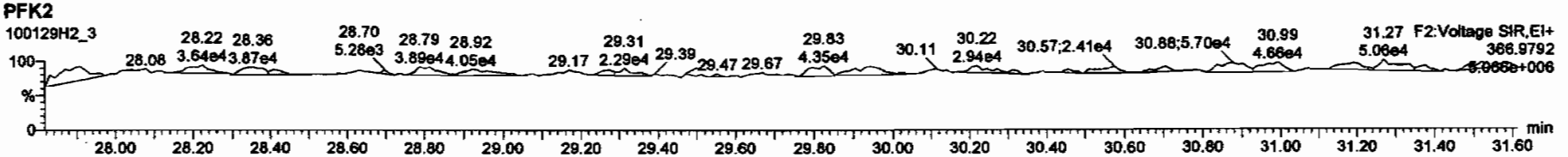

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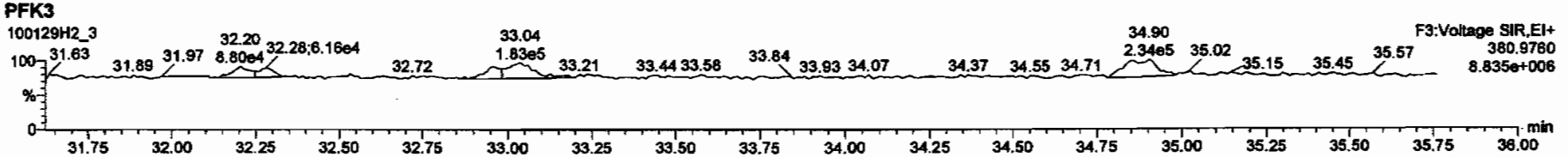

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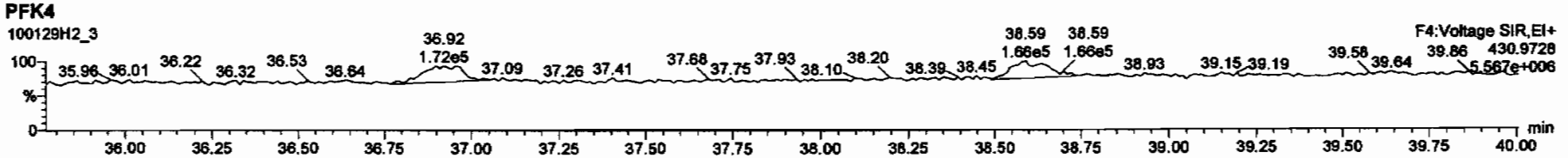

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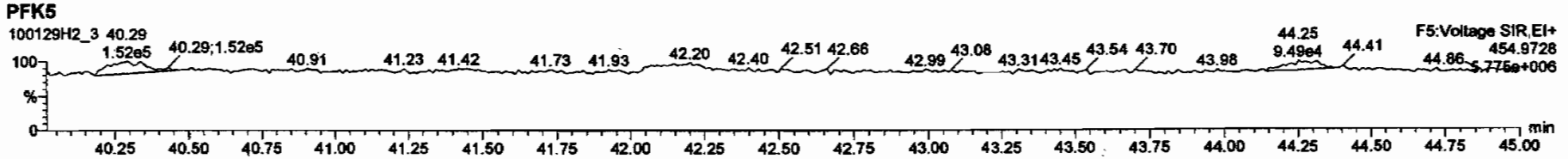

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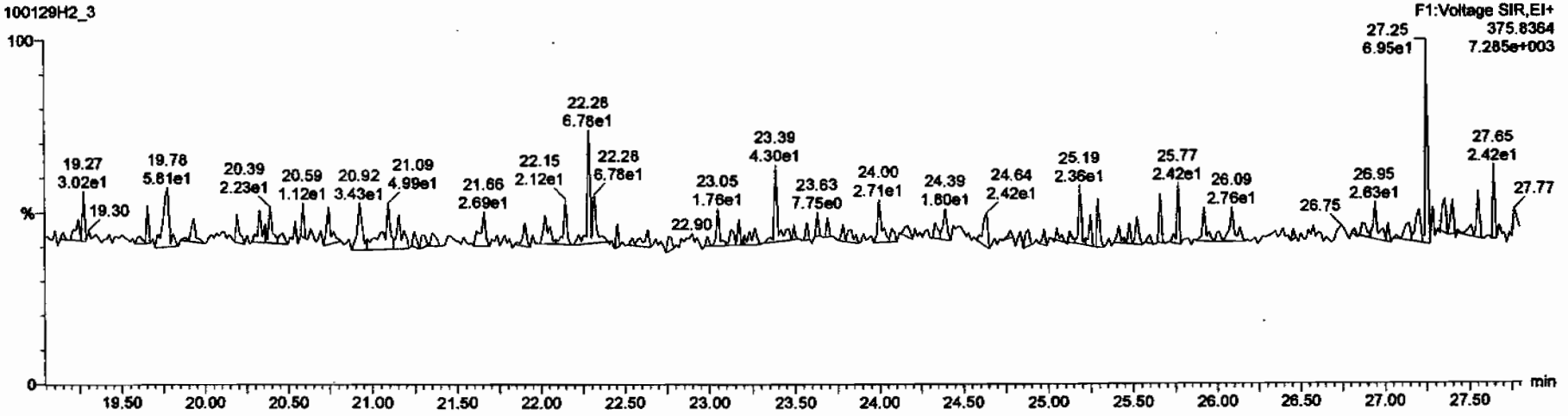

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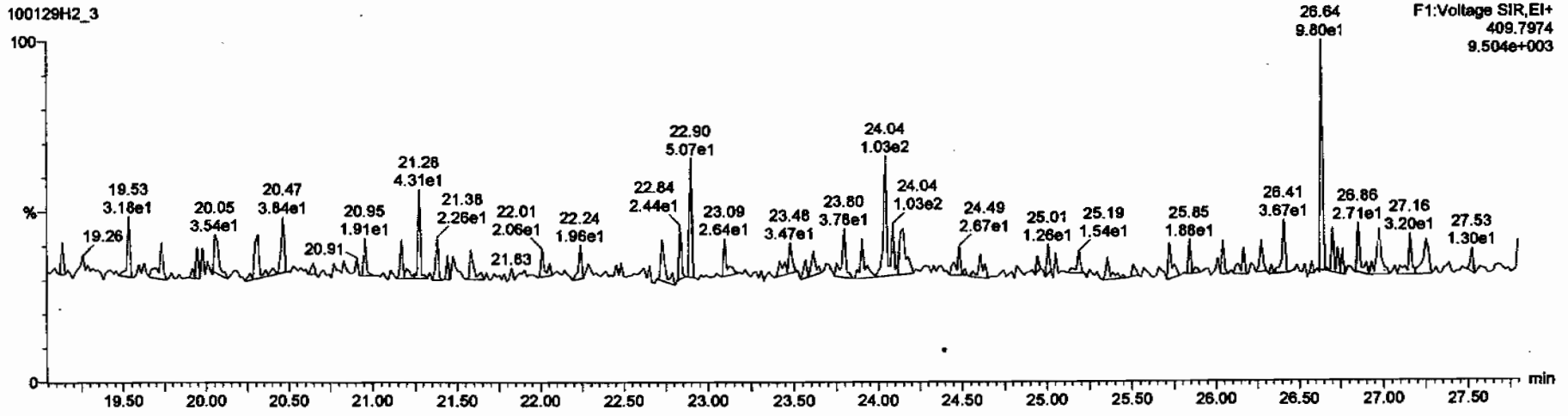

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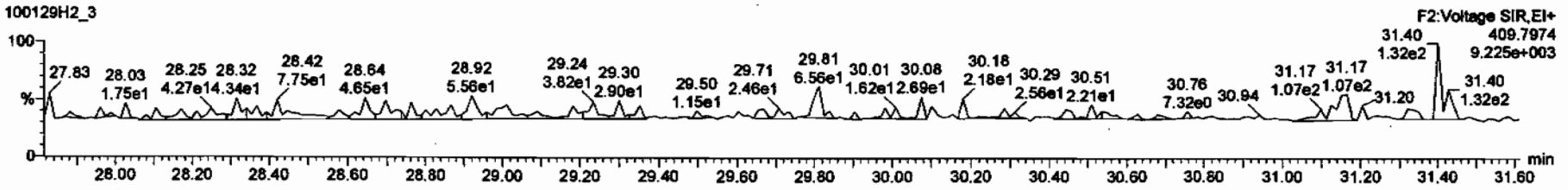

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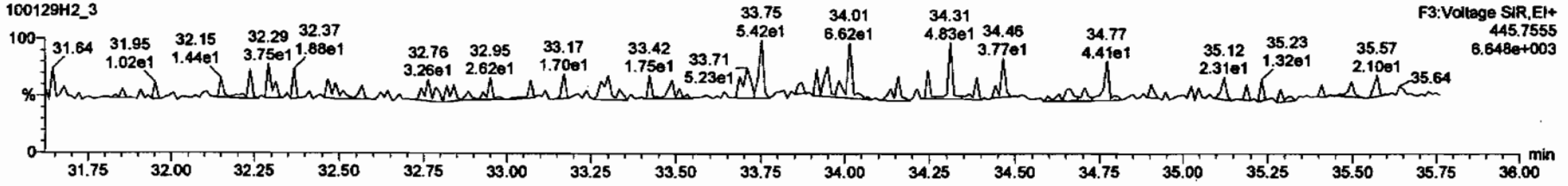

DPE4

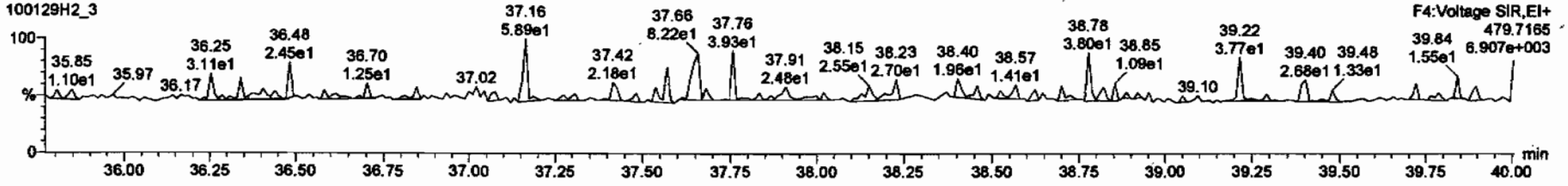

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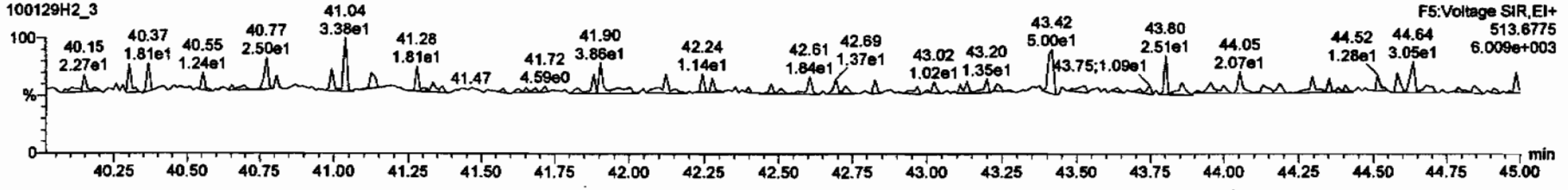

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Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

Name: 100129H2_4, Date: 30-Jan-2010, Time: 04:42:54, ID: ST100129H2-3 1613 CS1 100127D, Description: 1613 CS1 100127D

2,3,7,8-TCDD

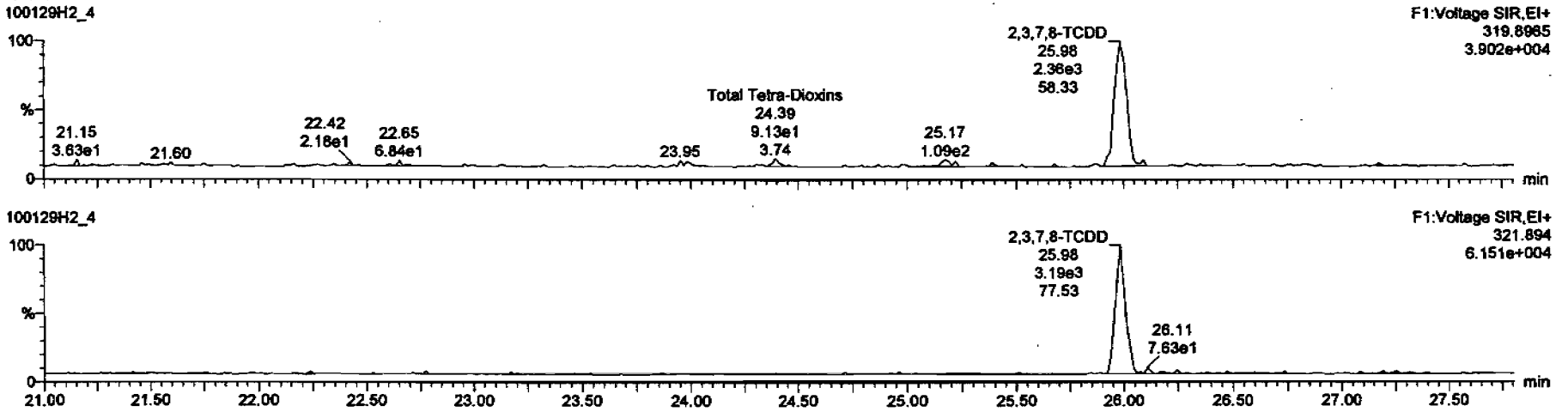

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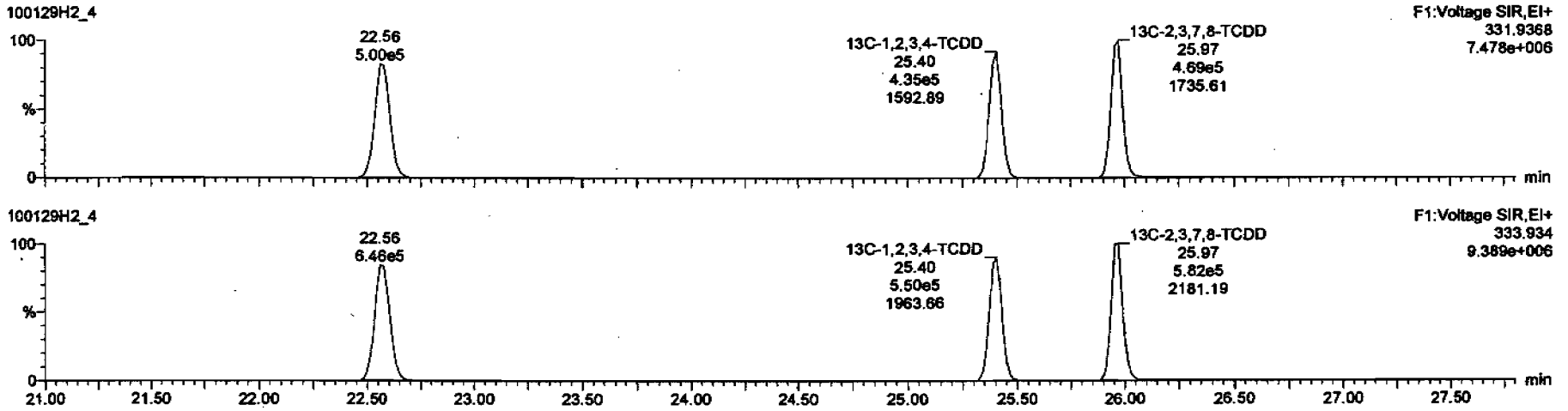

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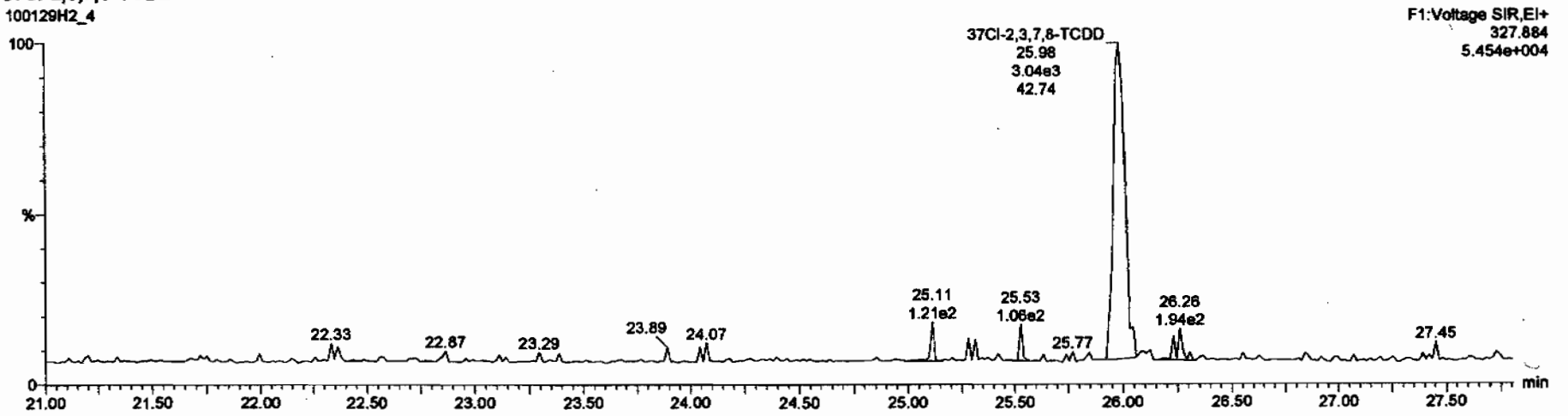

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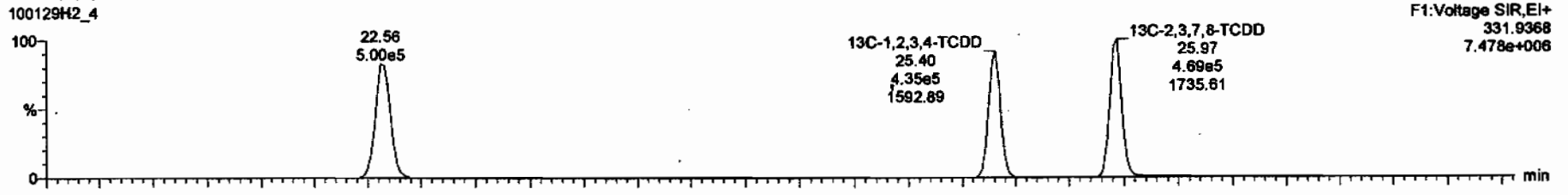

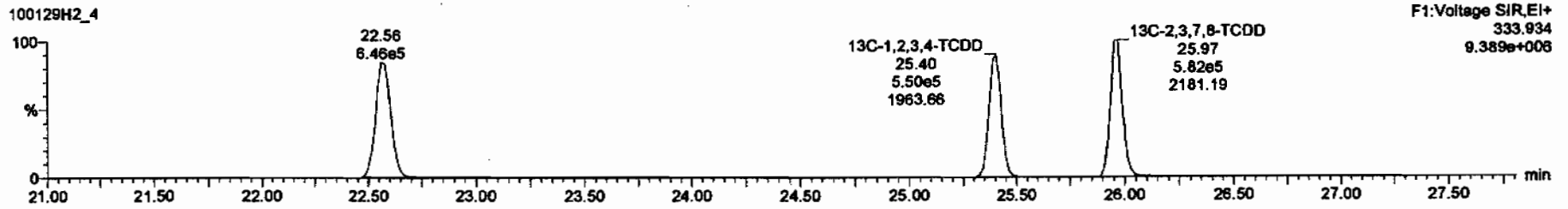

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1,2,3,7,8-PeCDD

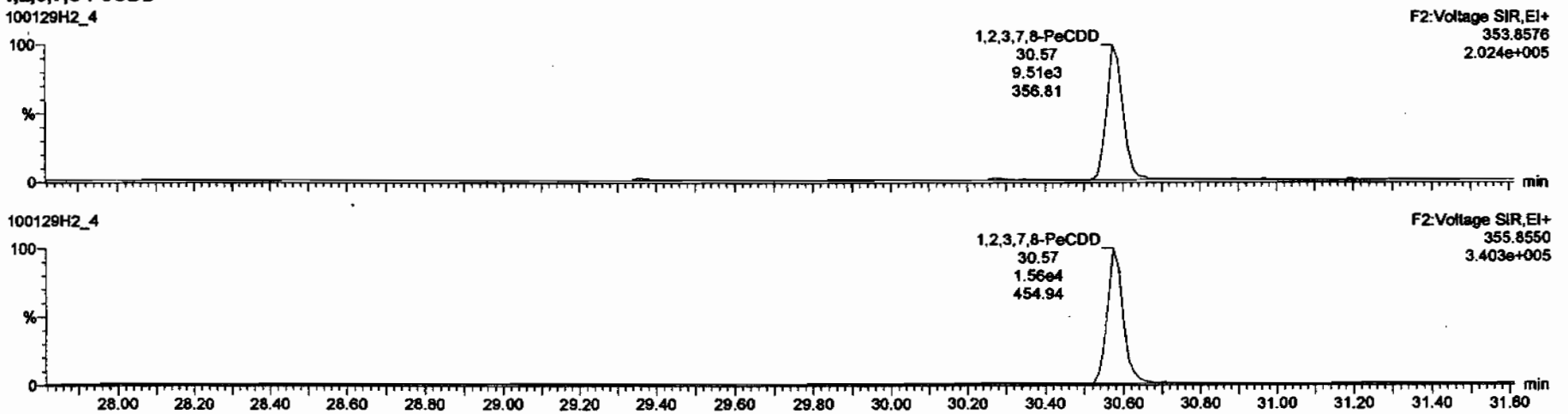

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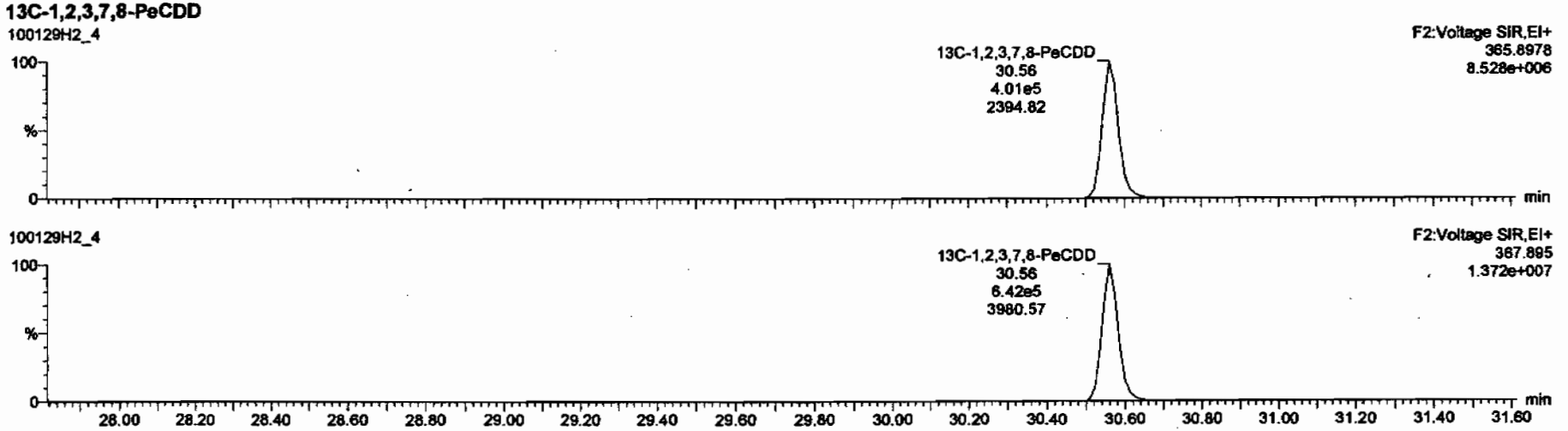

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1,2,3,4,7,8-HxCDD

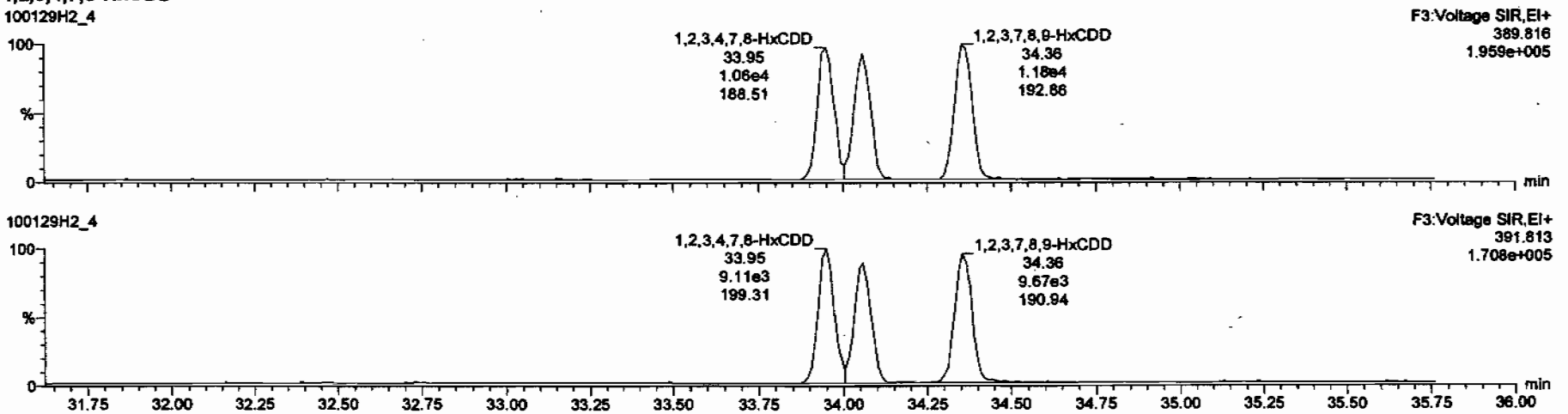

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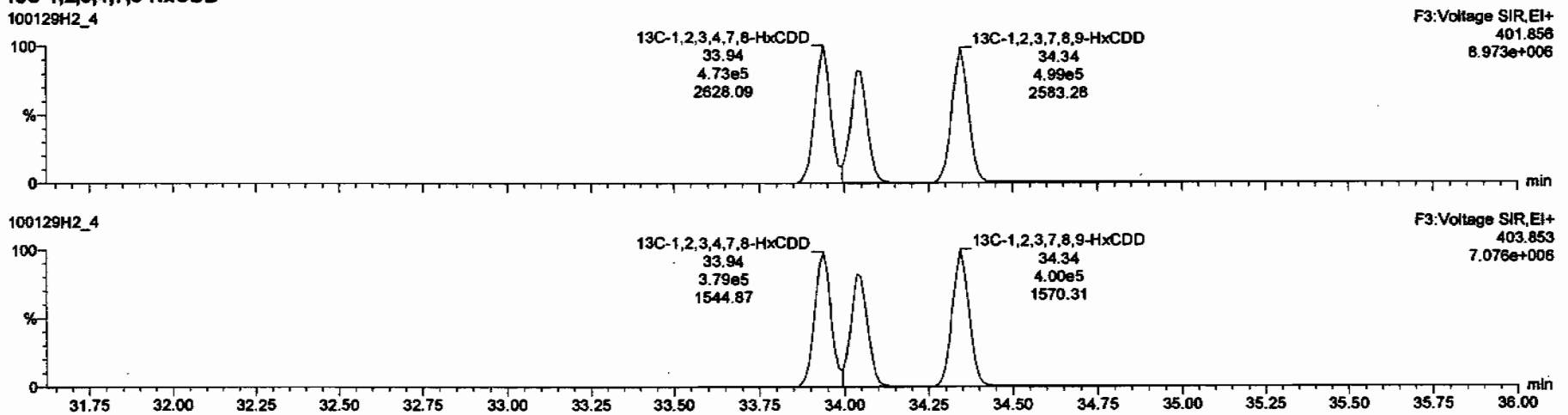

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1,2,3,4,6,7,8-HpCDD

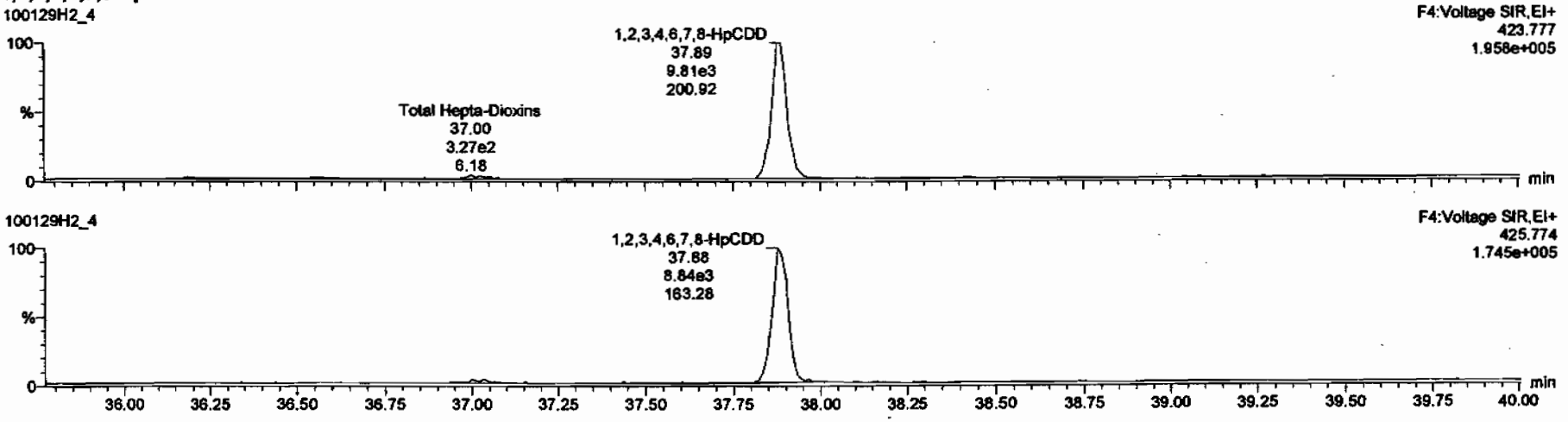

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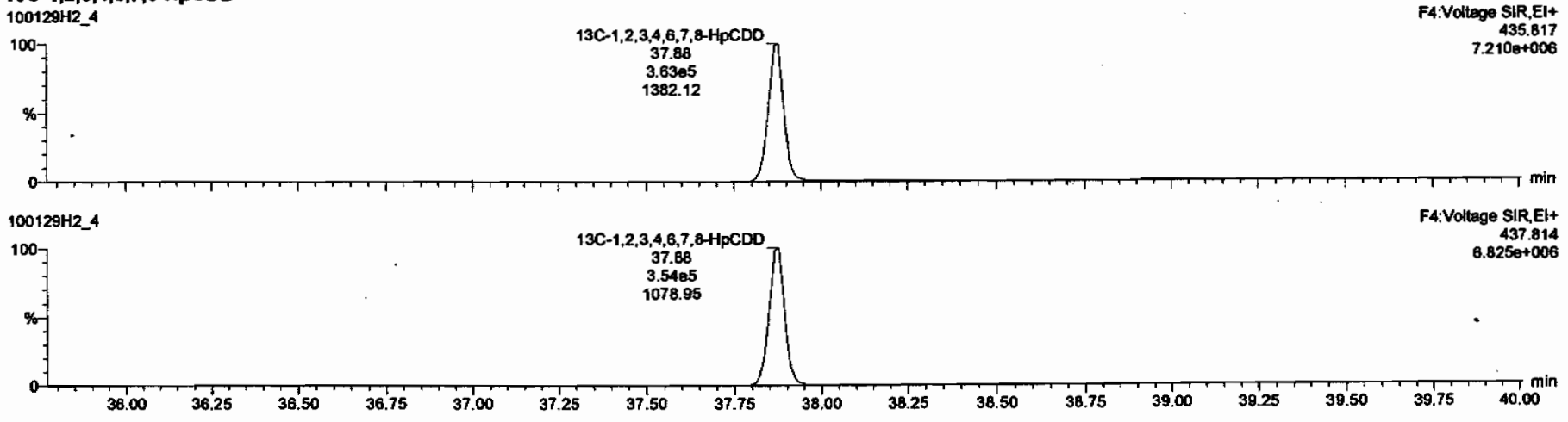

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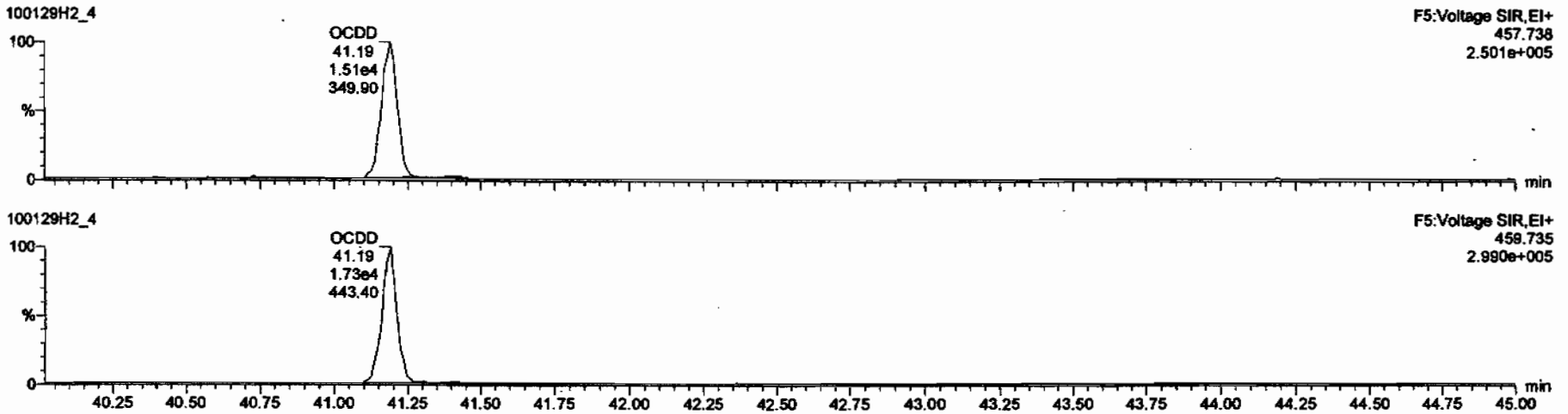

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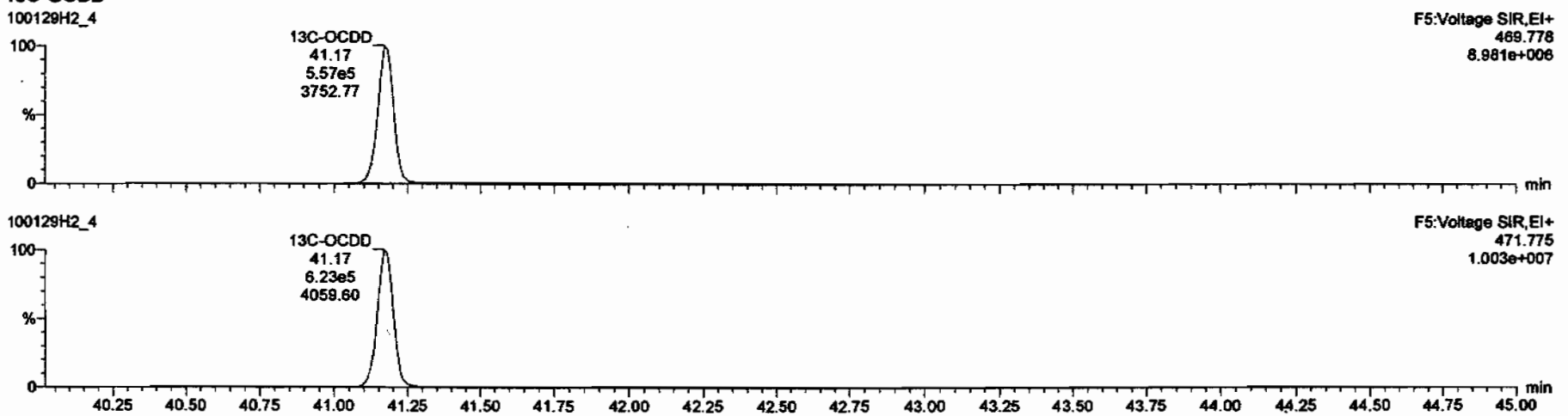

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2,3,7,8-TCDF

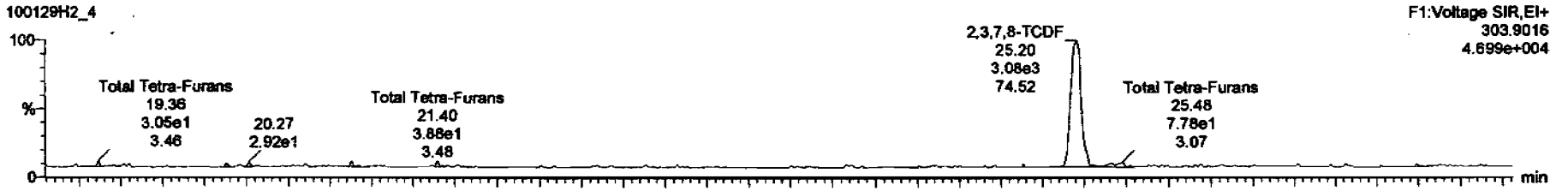

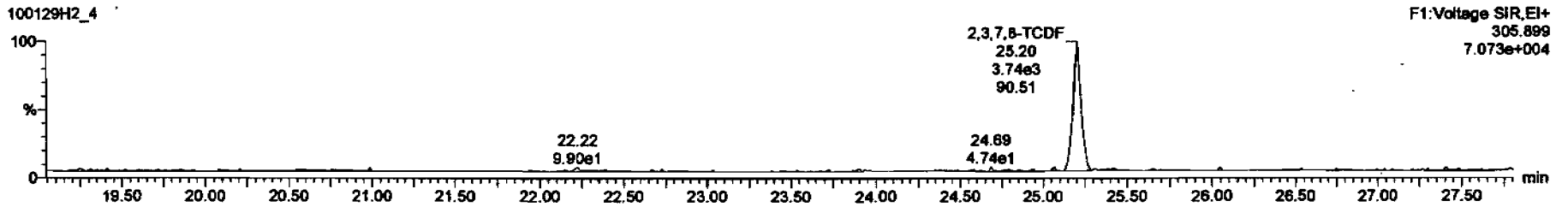

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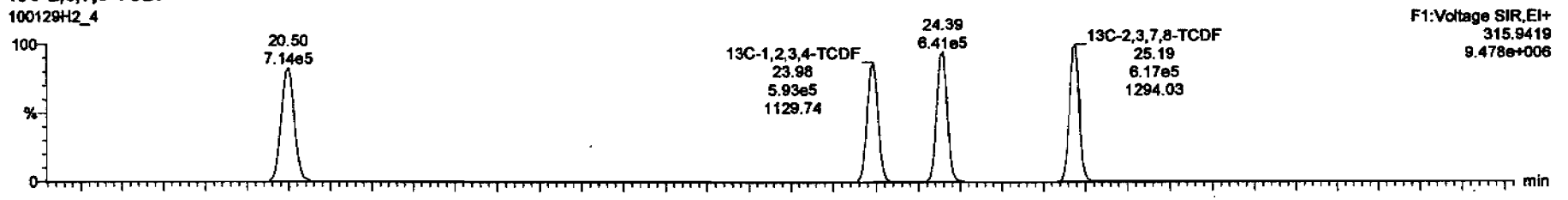

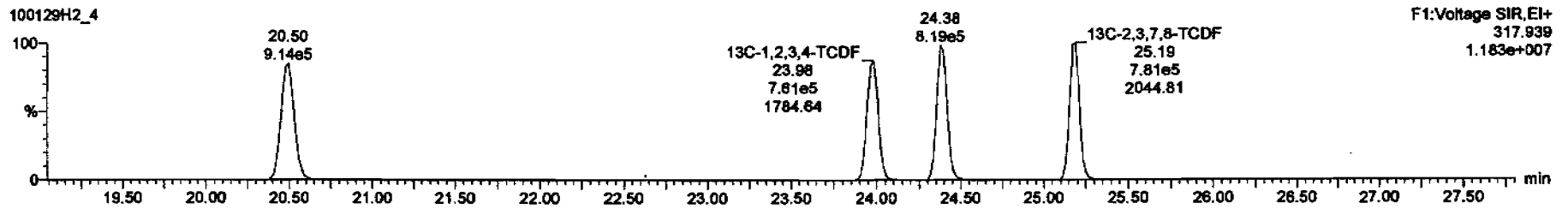

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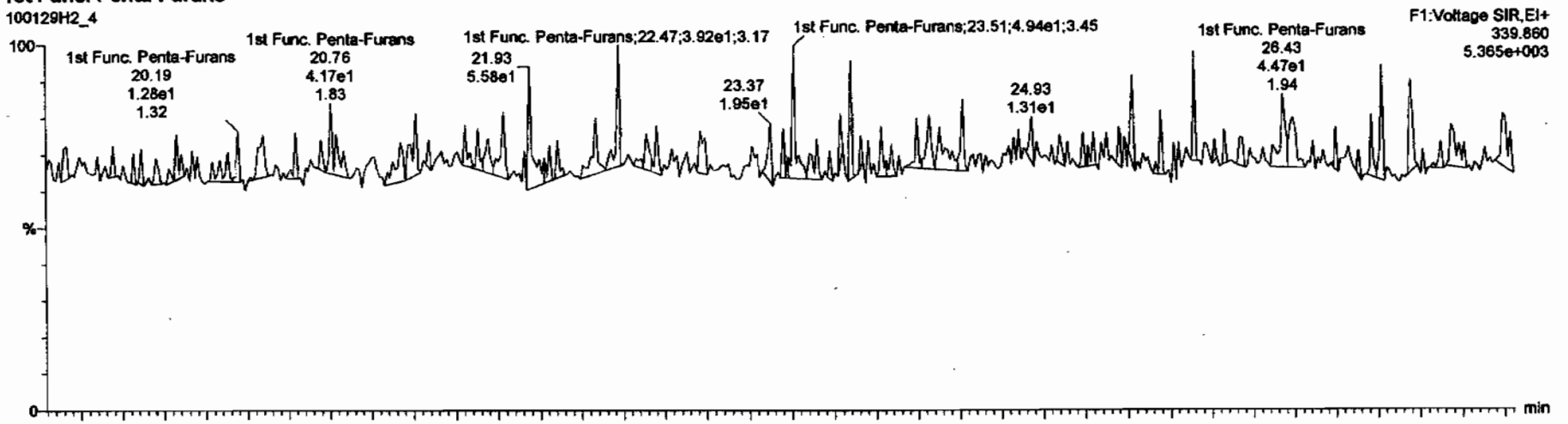

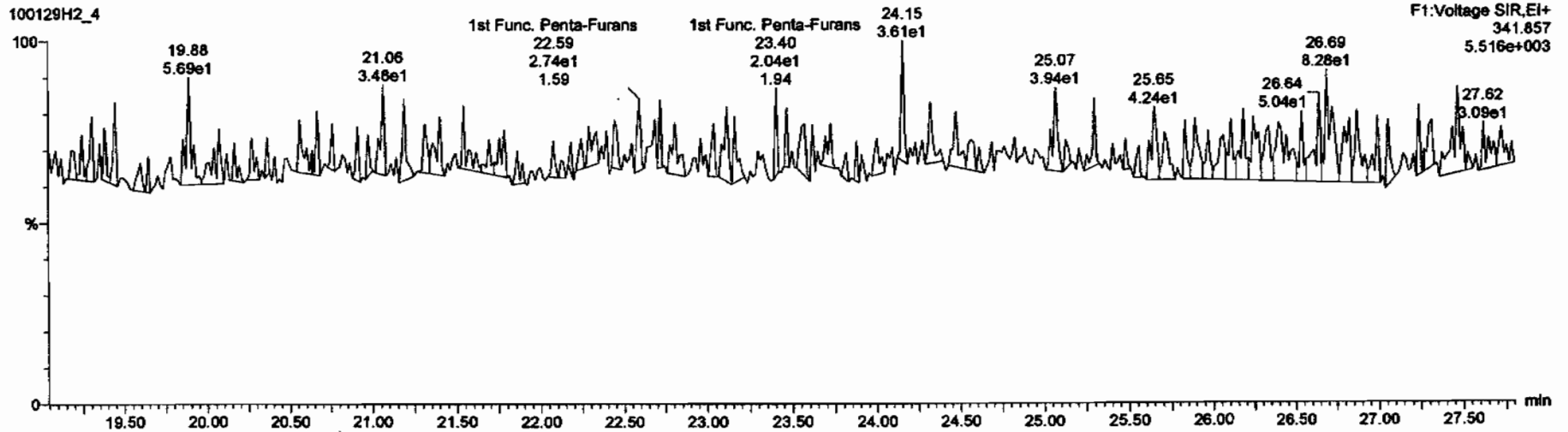

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1,2,3,7,8-PeCDF

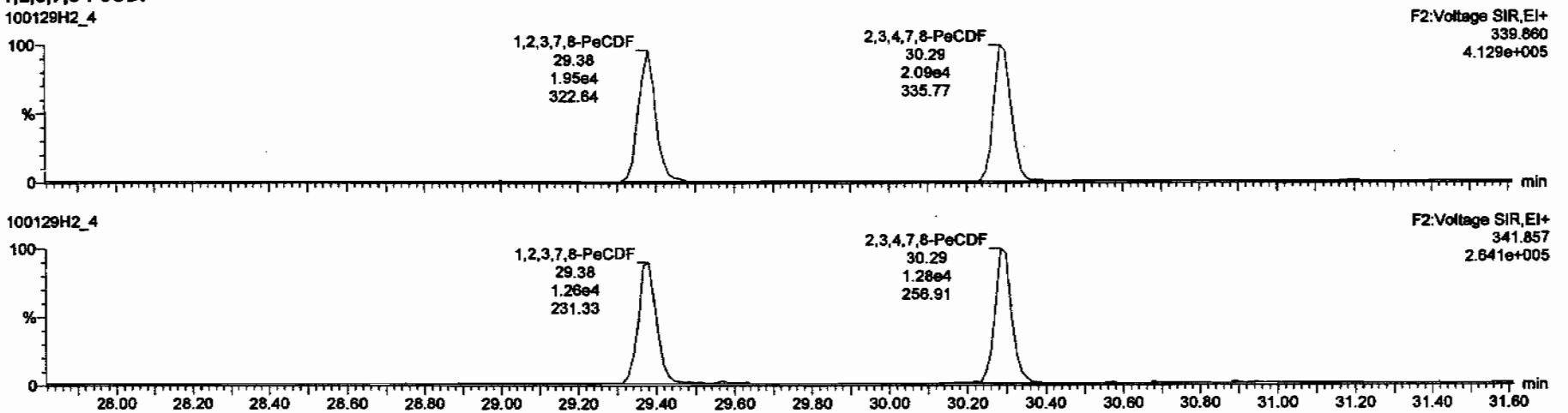

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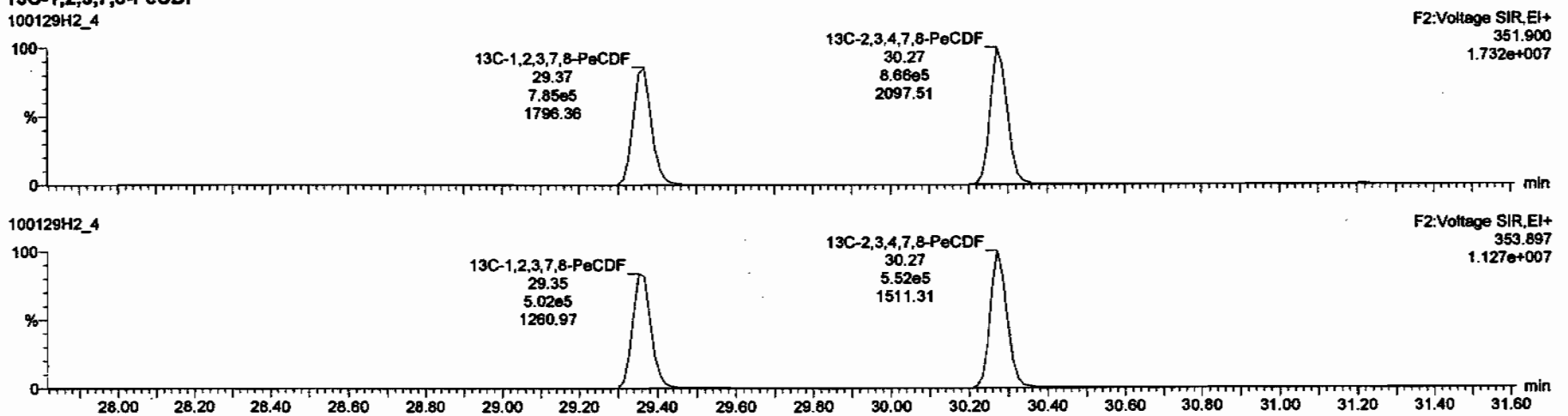

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1,2,3,4,7,8-HxCDF

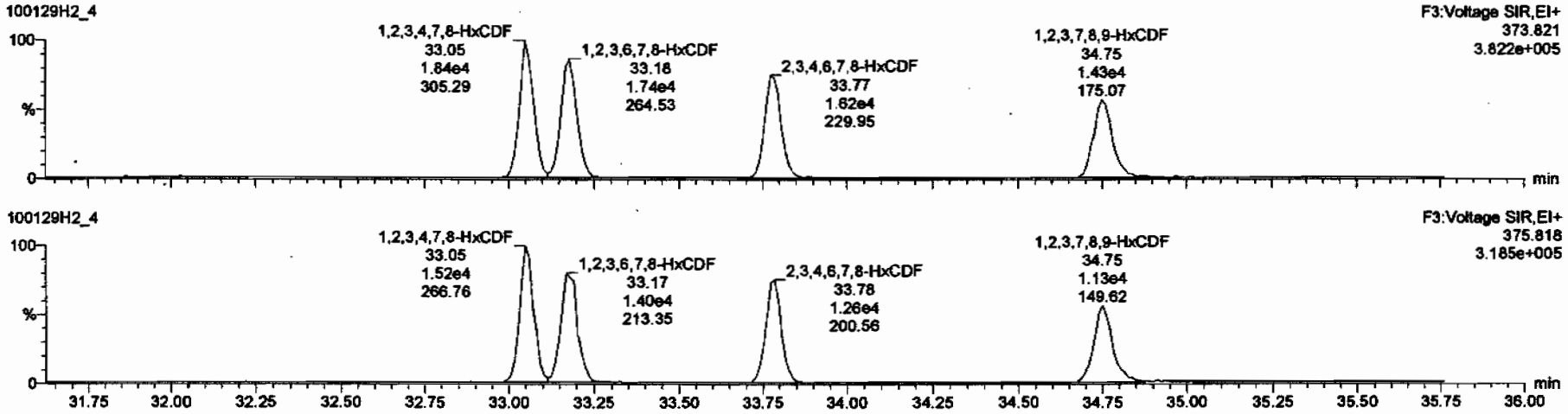

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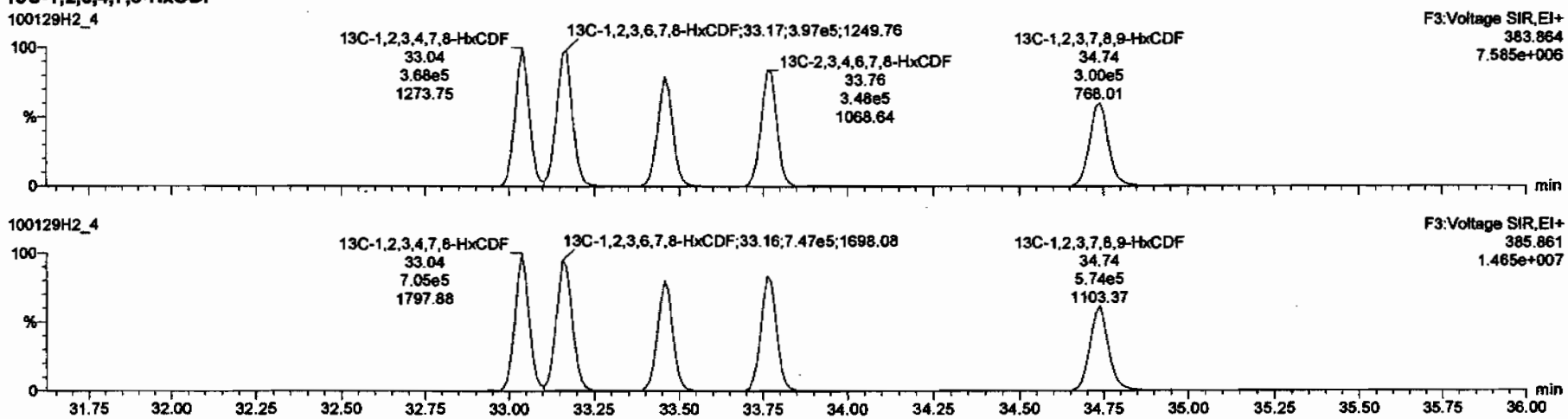

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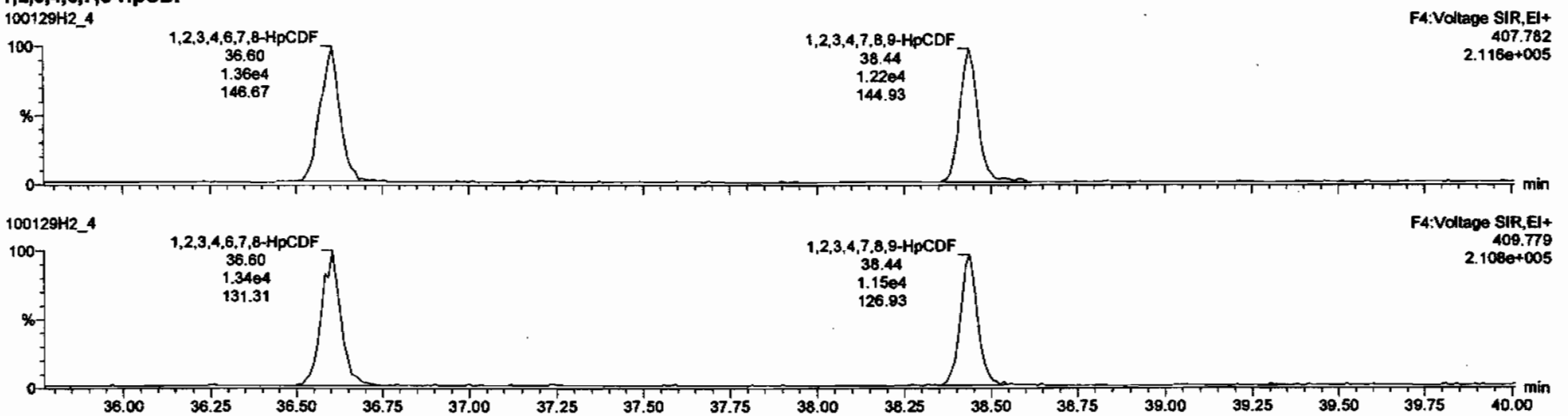

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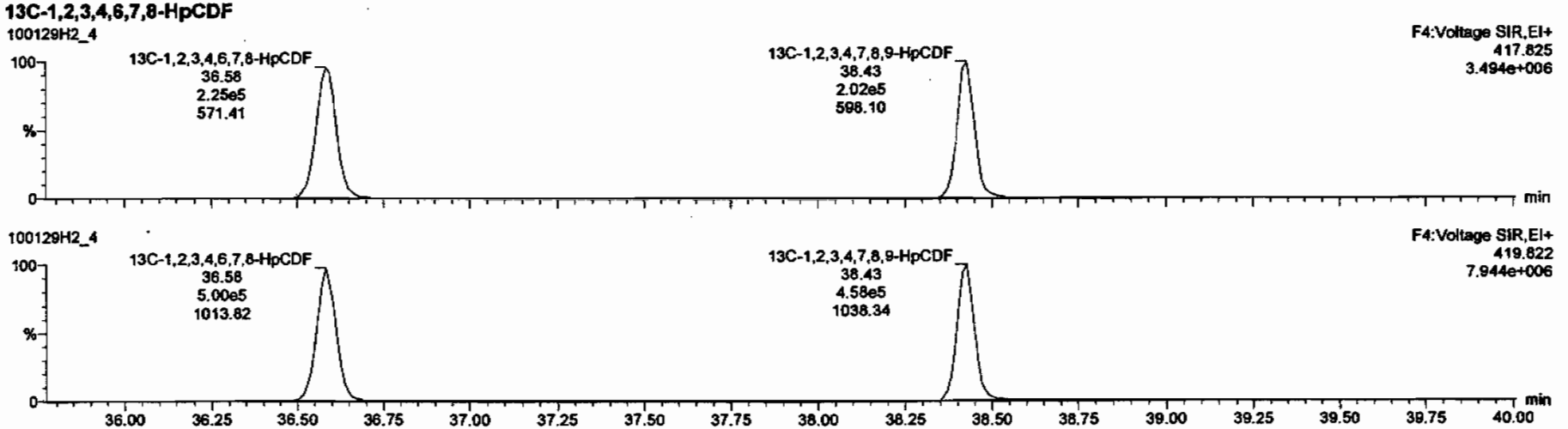

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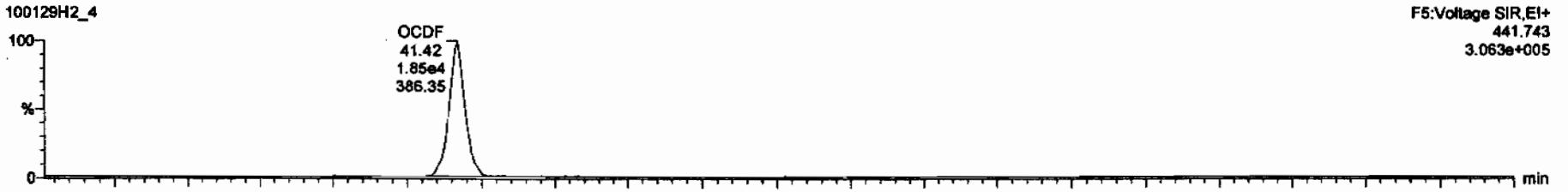

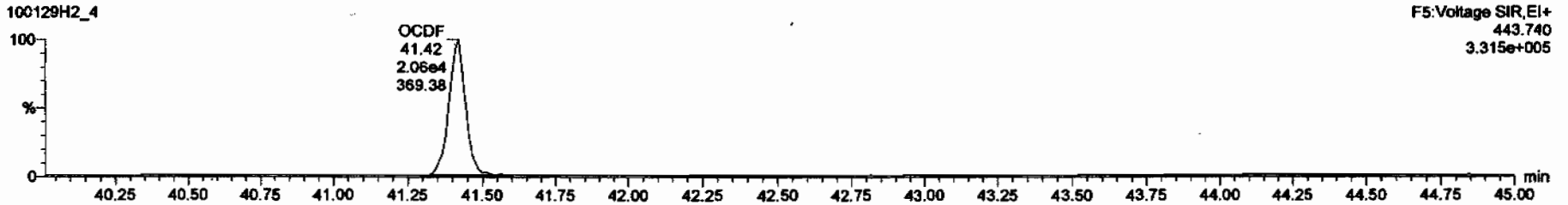

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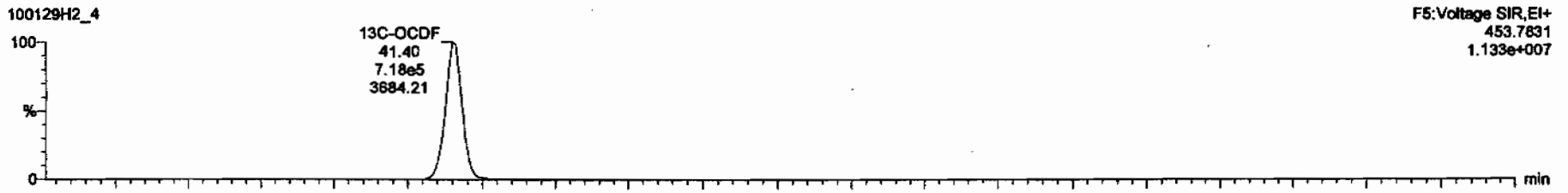

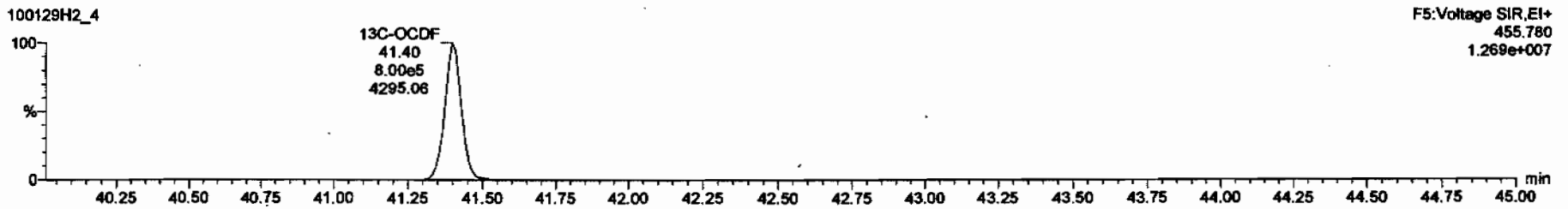

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PFK1

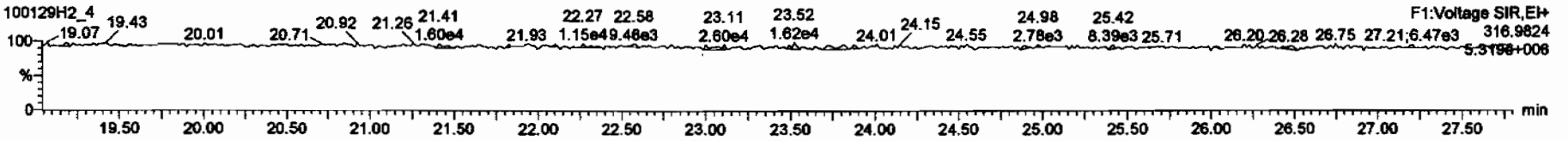

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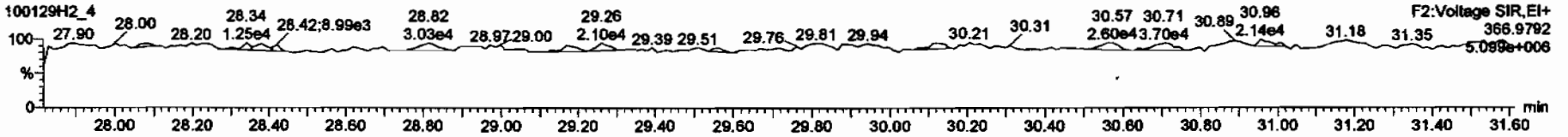

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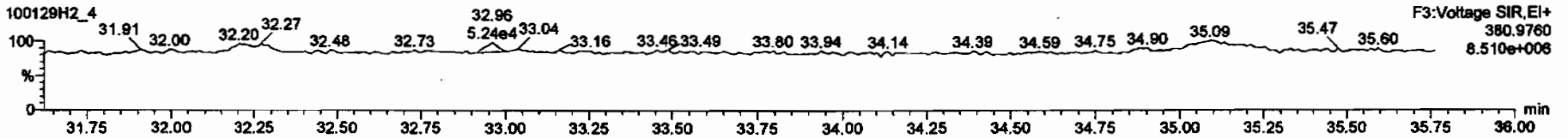

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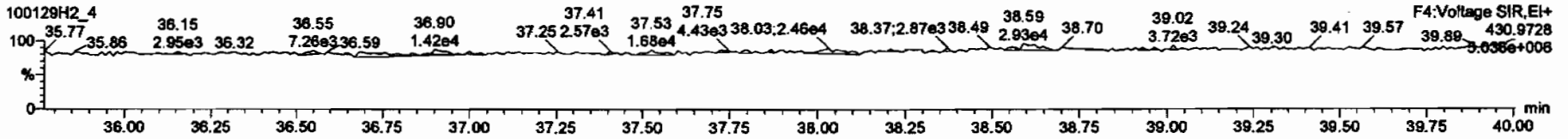

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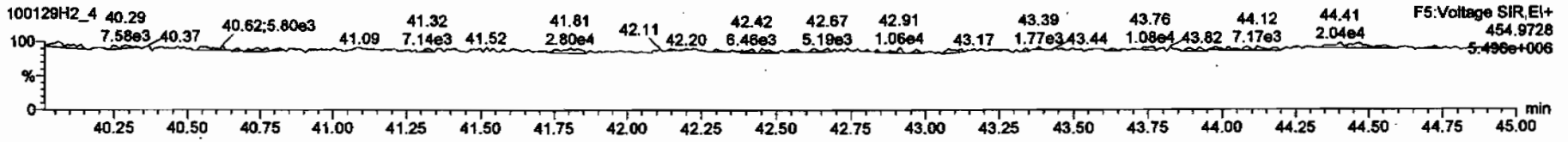

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DPE1

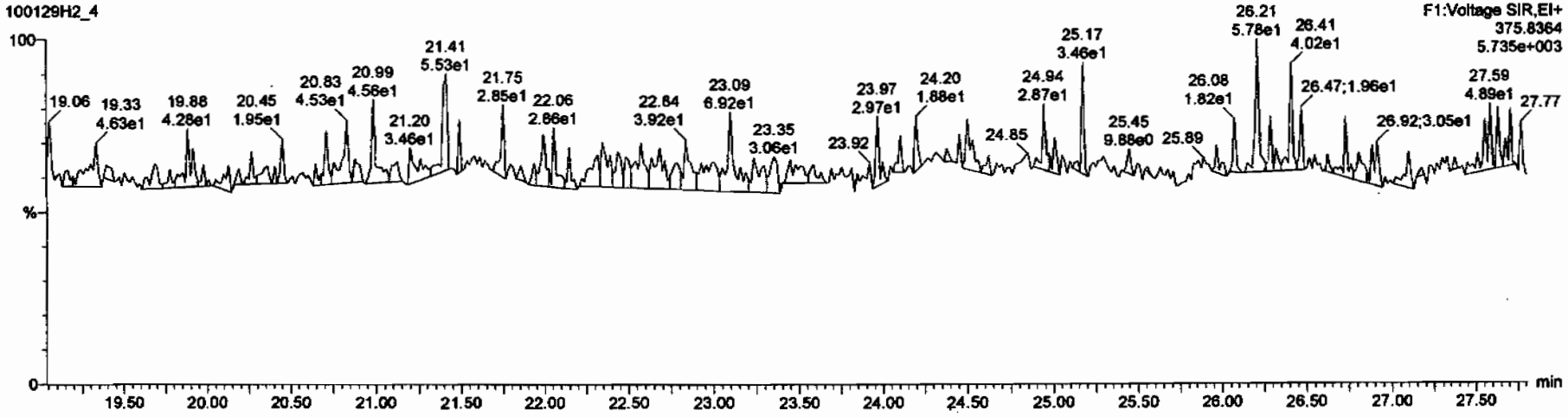

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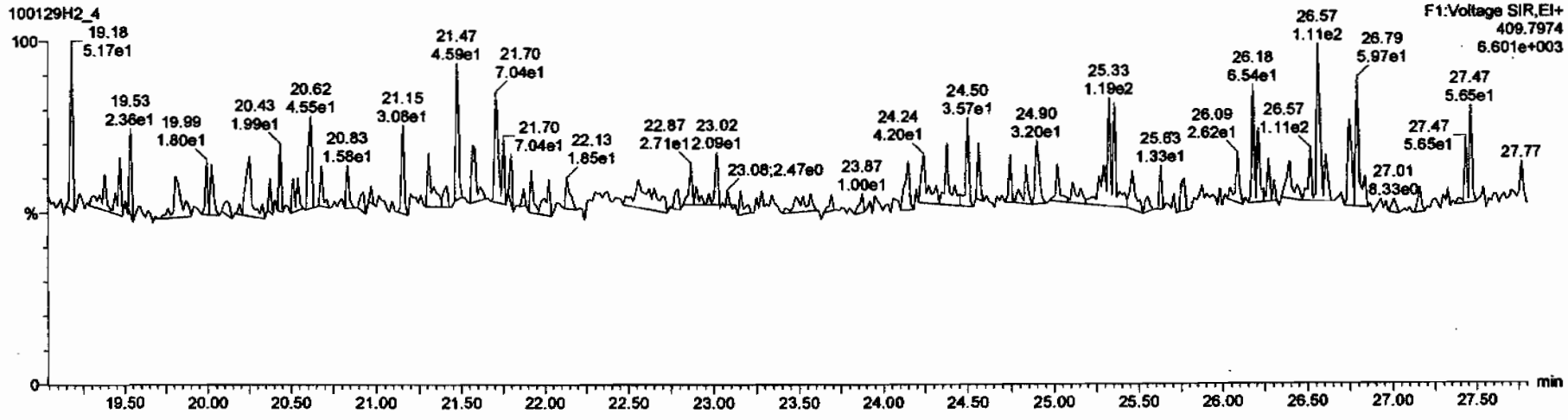

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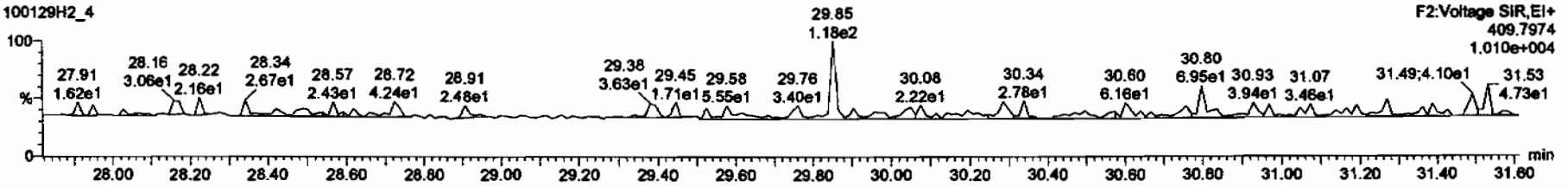

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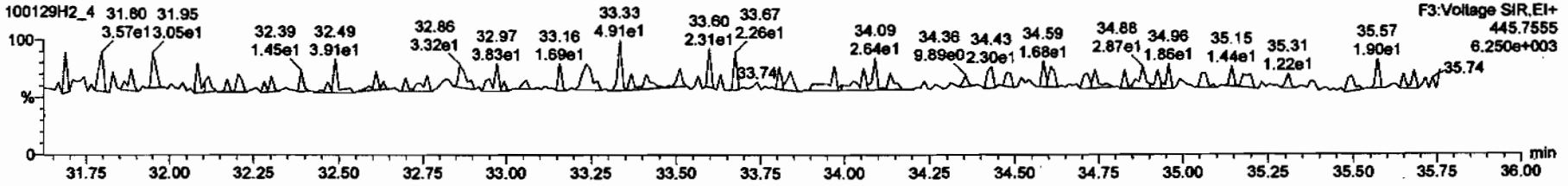

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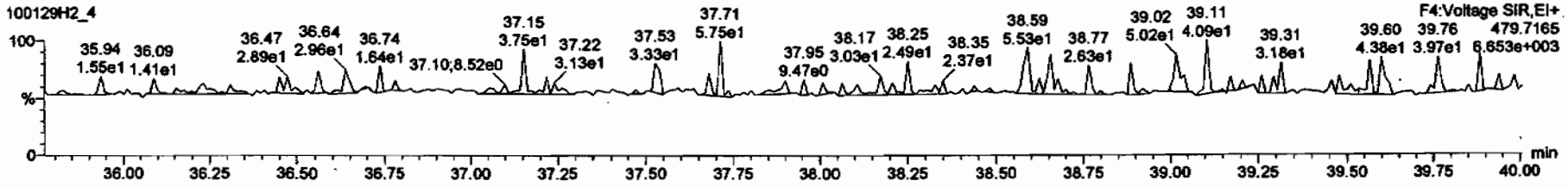

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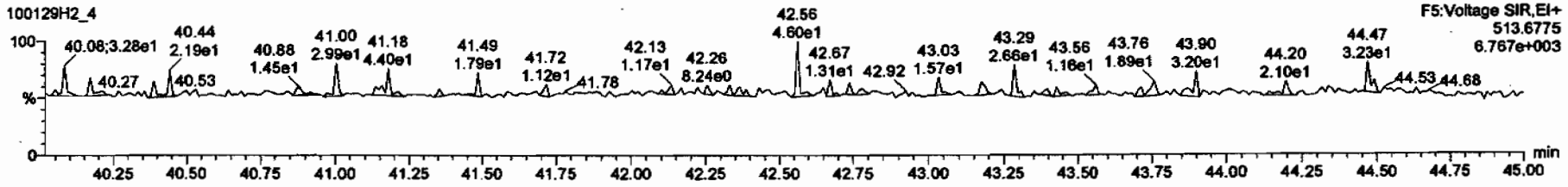

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Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

Name: 100129H2_5, Date: 30-Jan-2010, Time: 05:32:29, ID: ST100129H2-4 1613 CS2 100127E, Description: 1613 CS2 100127E

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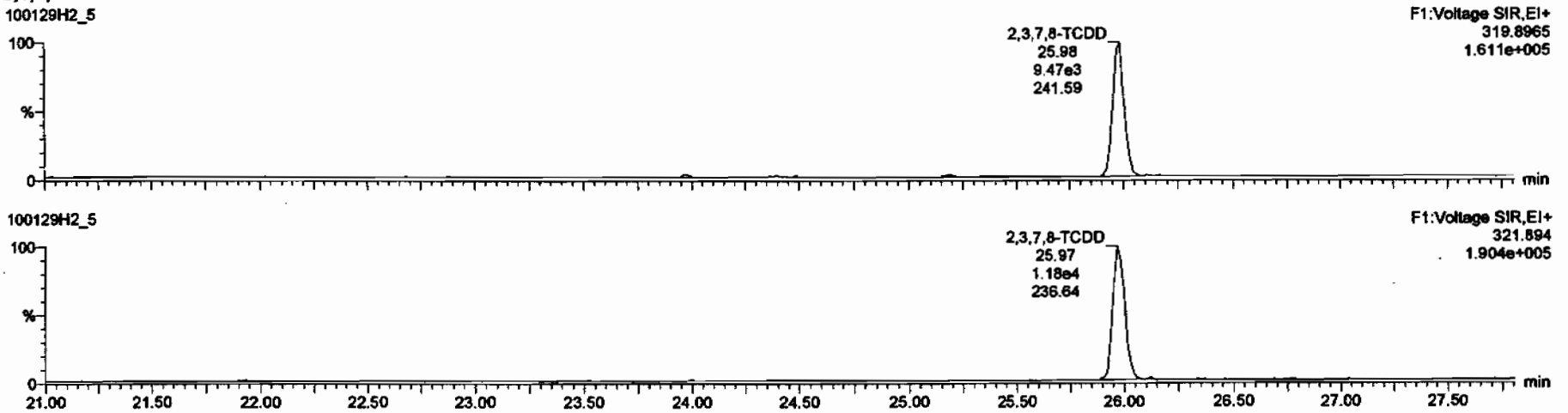

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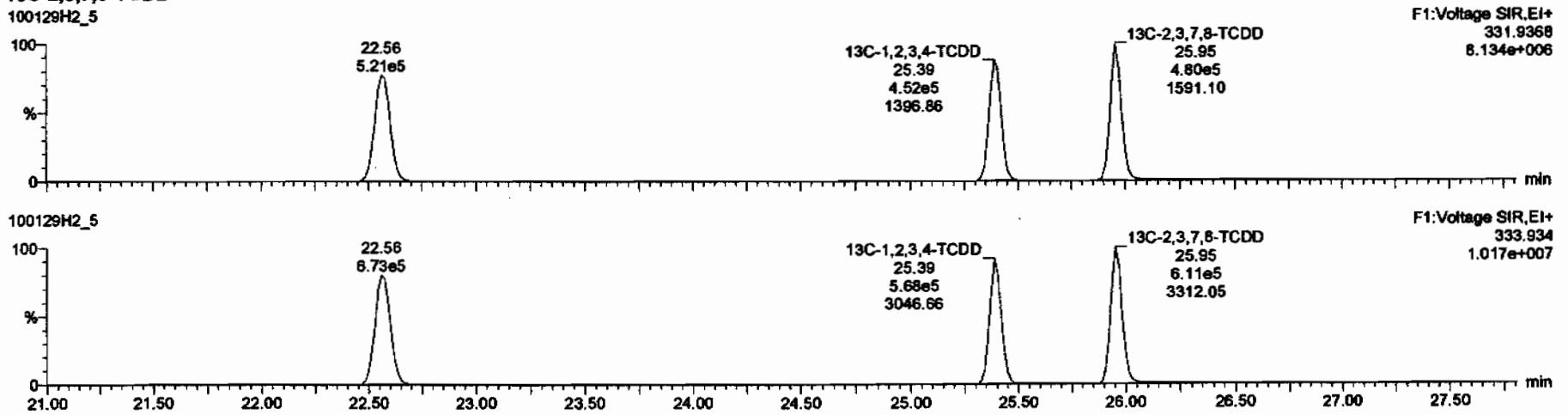

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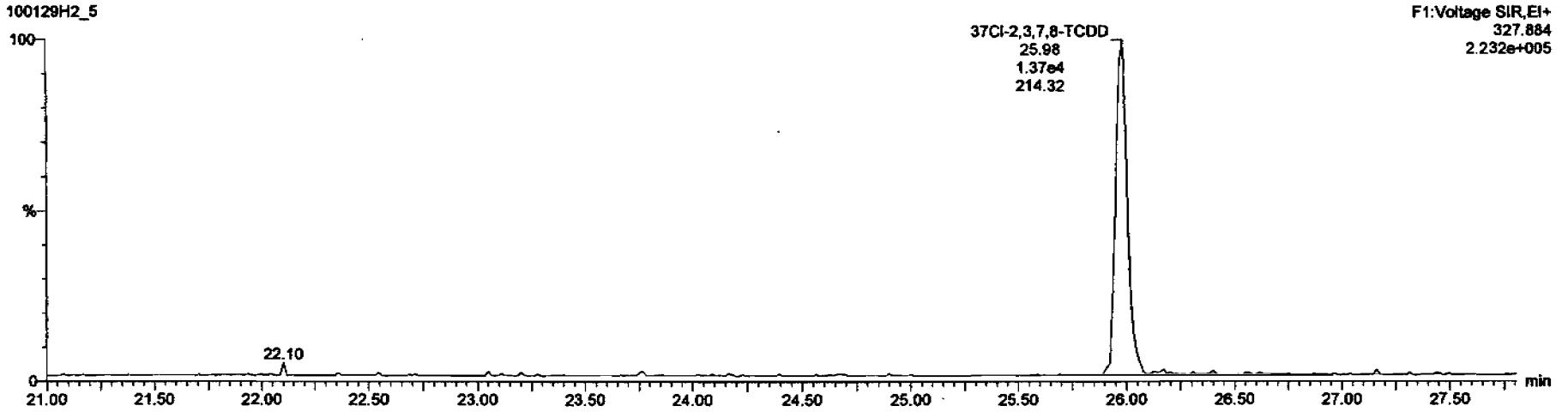

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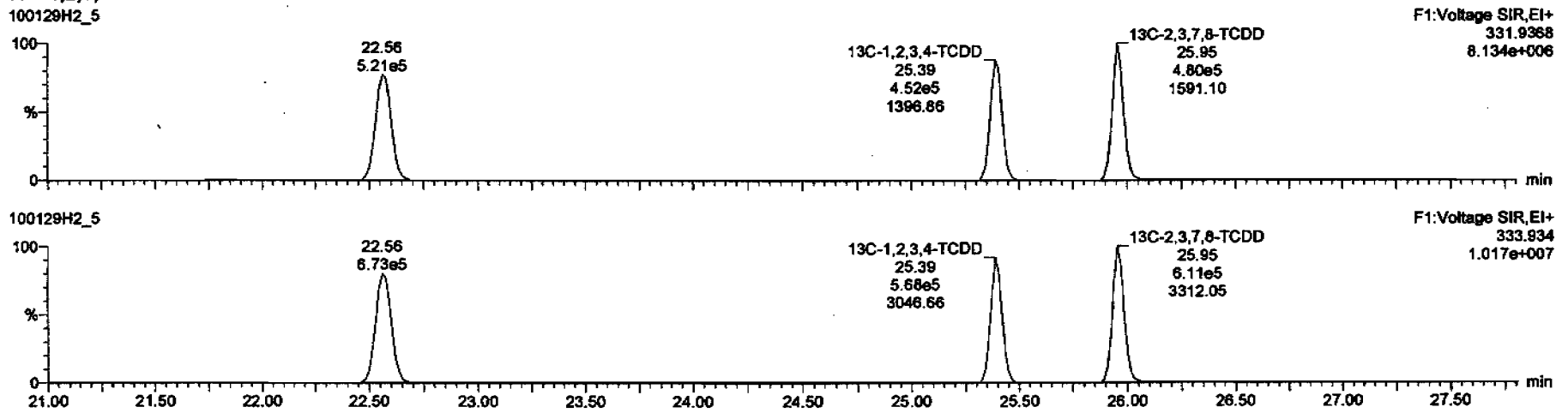

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1,2,3,7,8-PeCDD

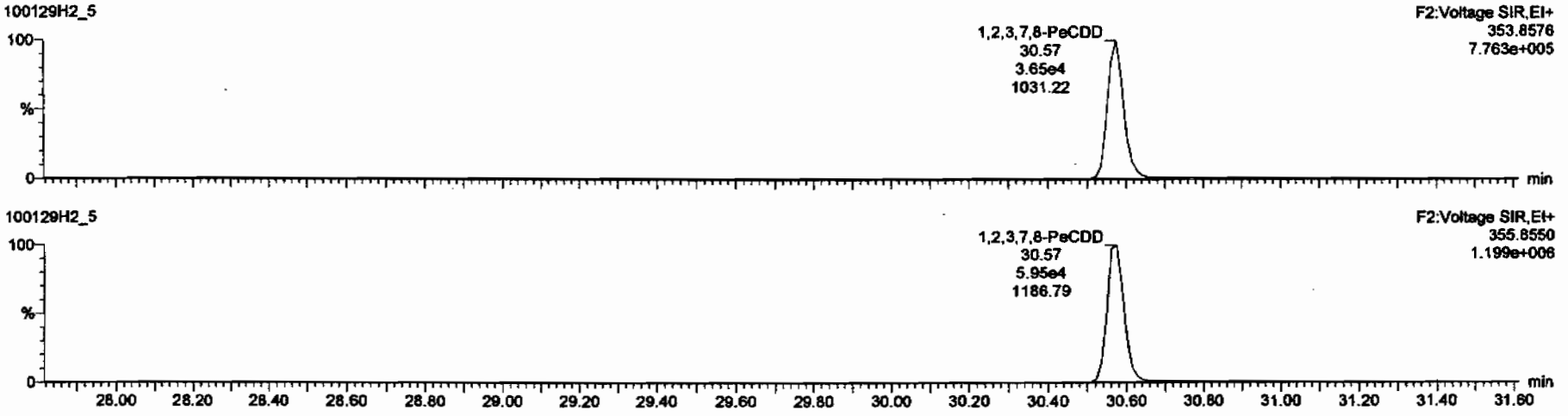

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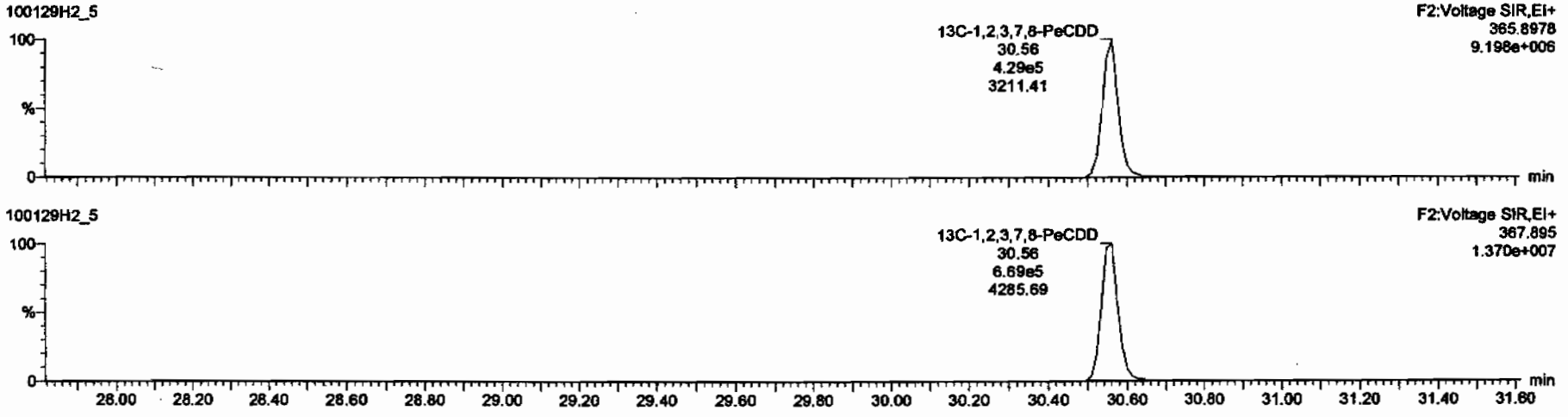

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1,2,3,4,7,8-HxCDD

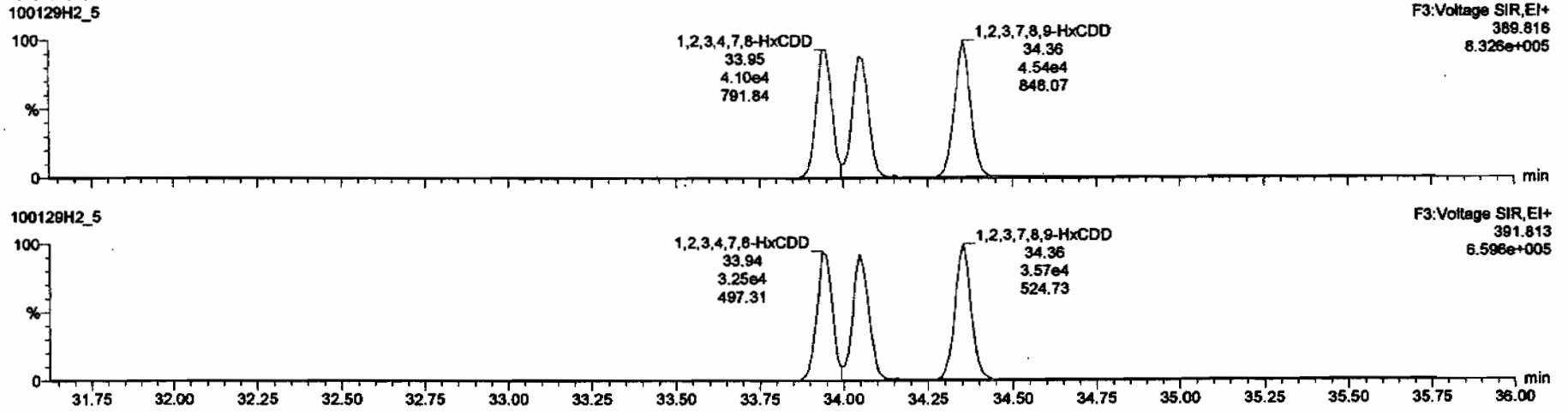

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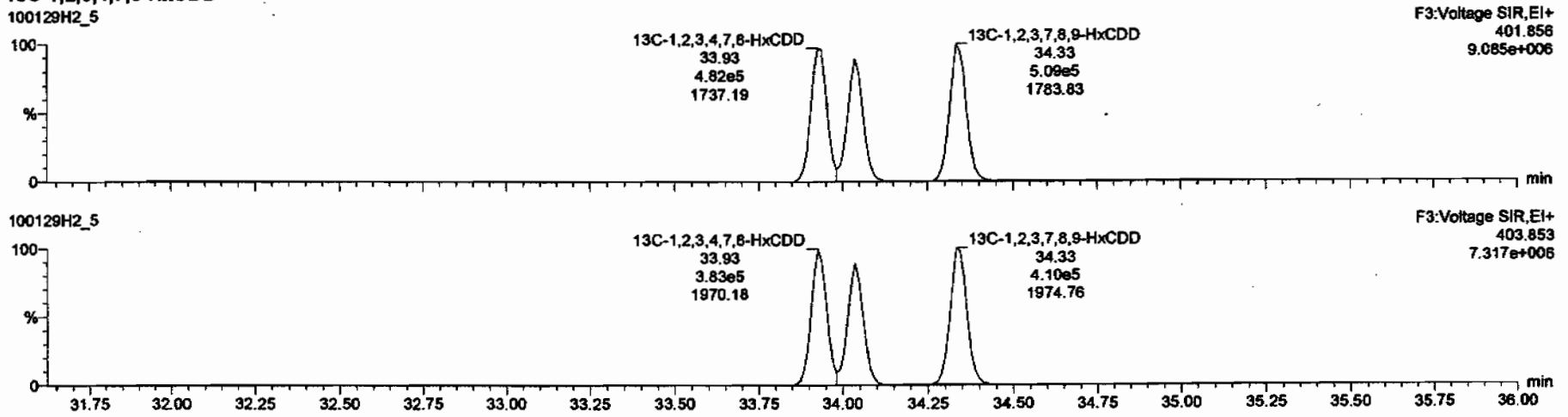

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1,2,3,4,6,7,8-HpCDD

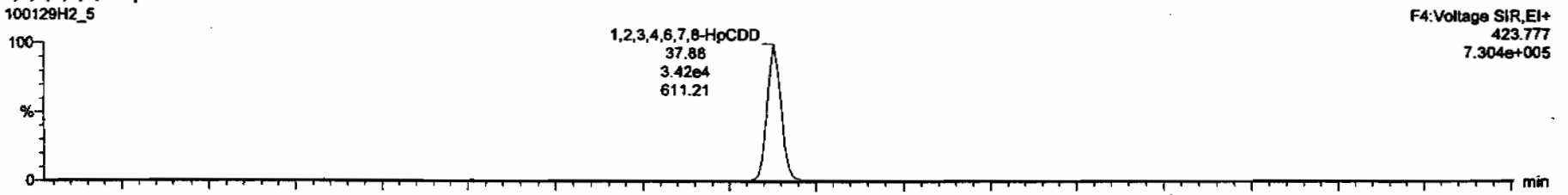

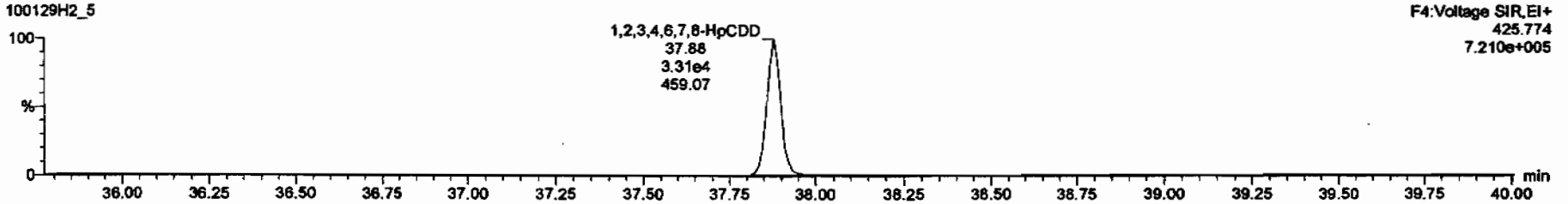

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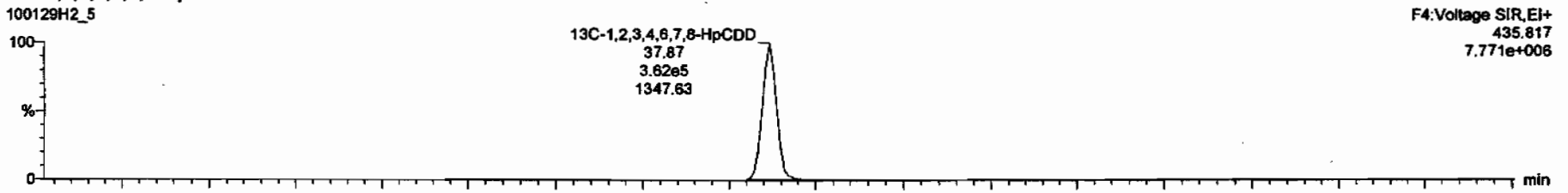

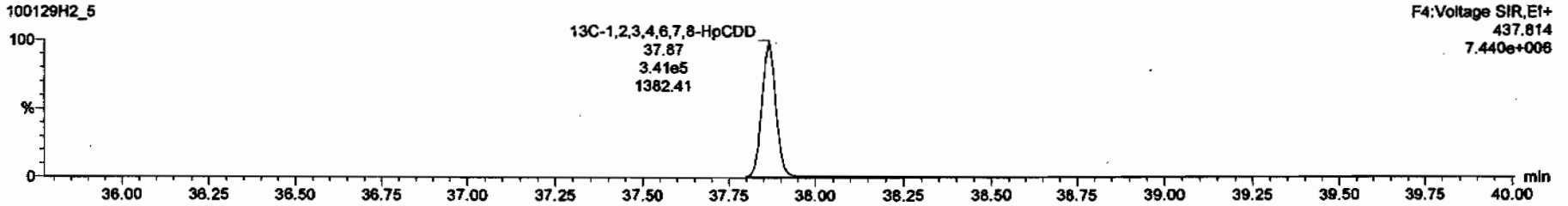

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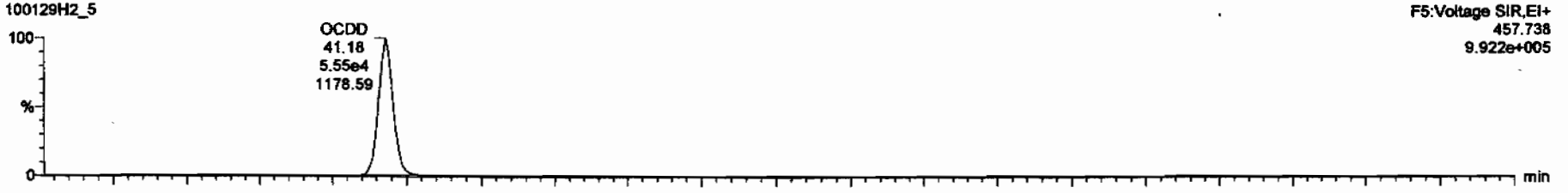

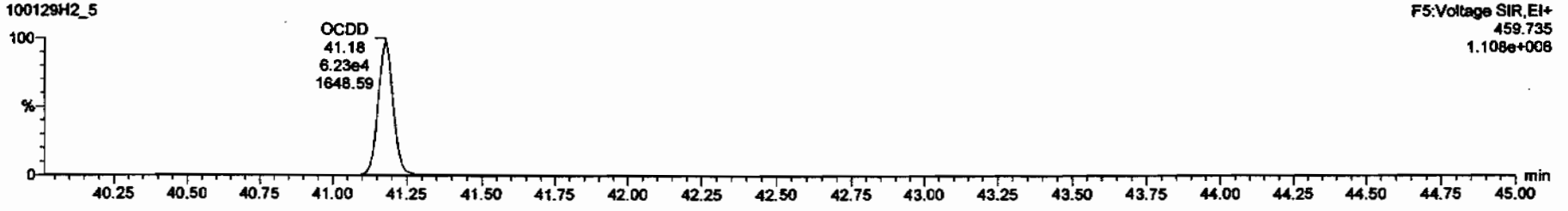

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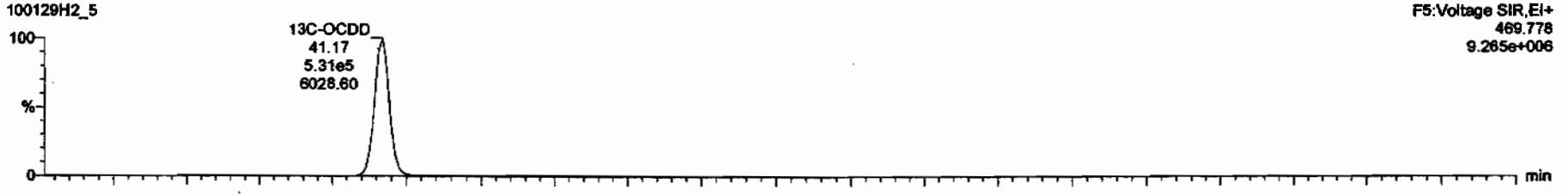

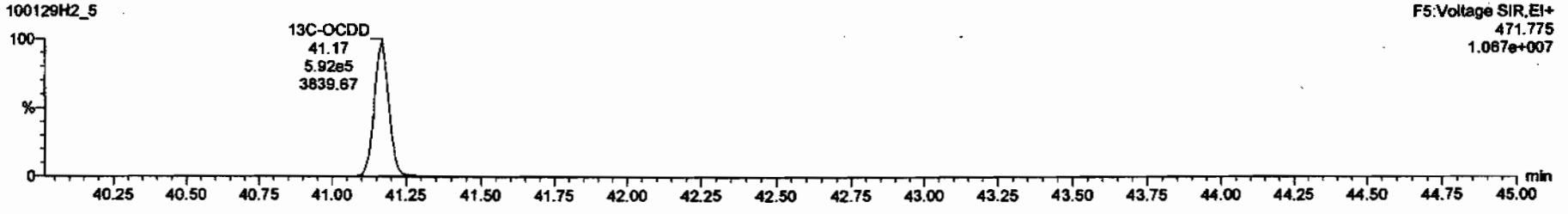

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2,3,7,8-TCDF

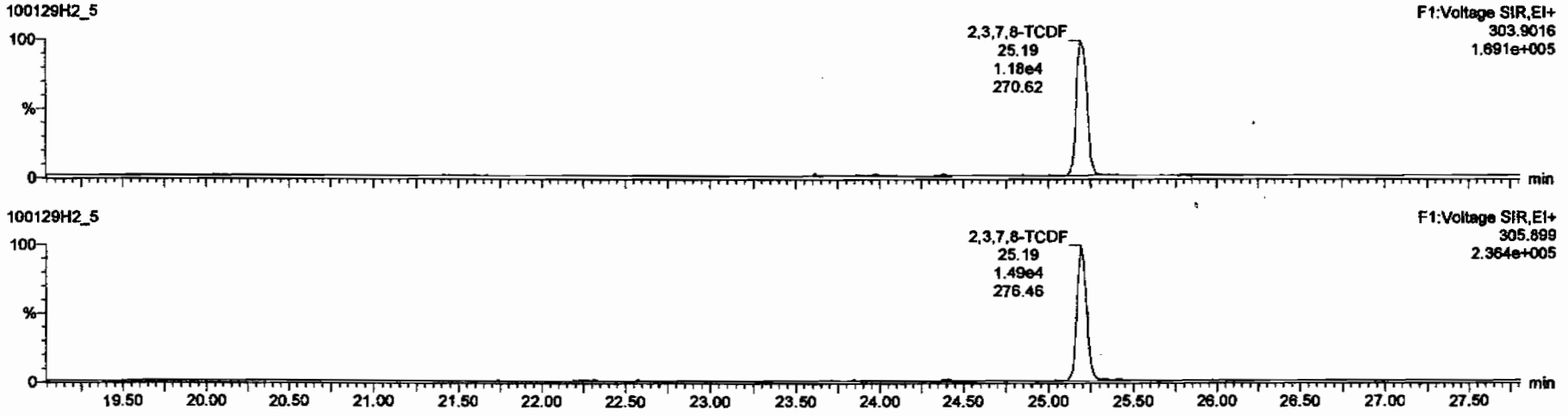

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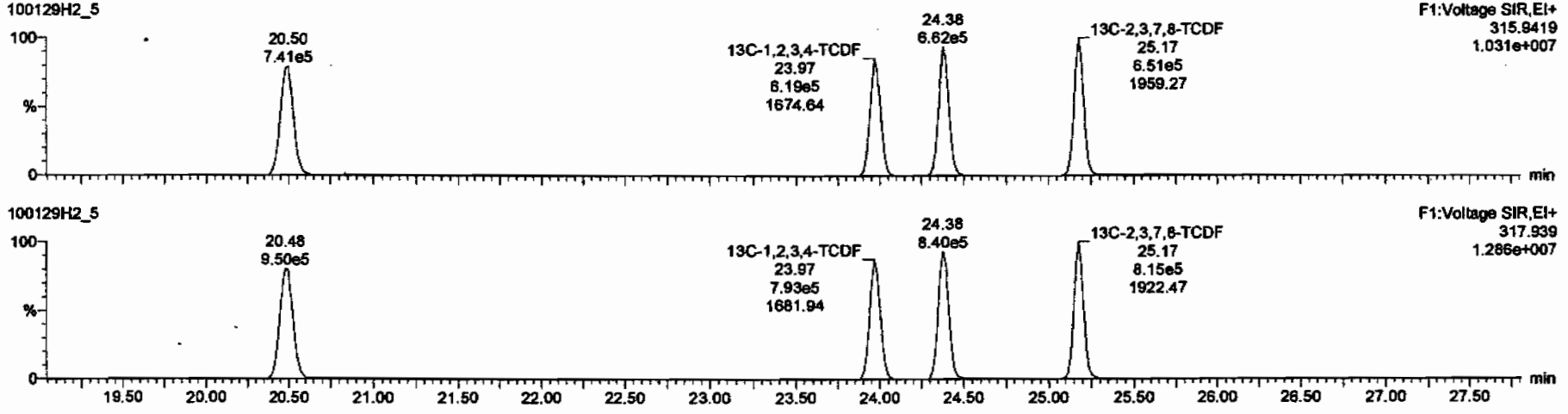

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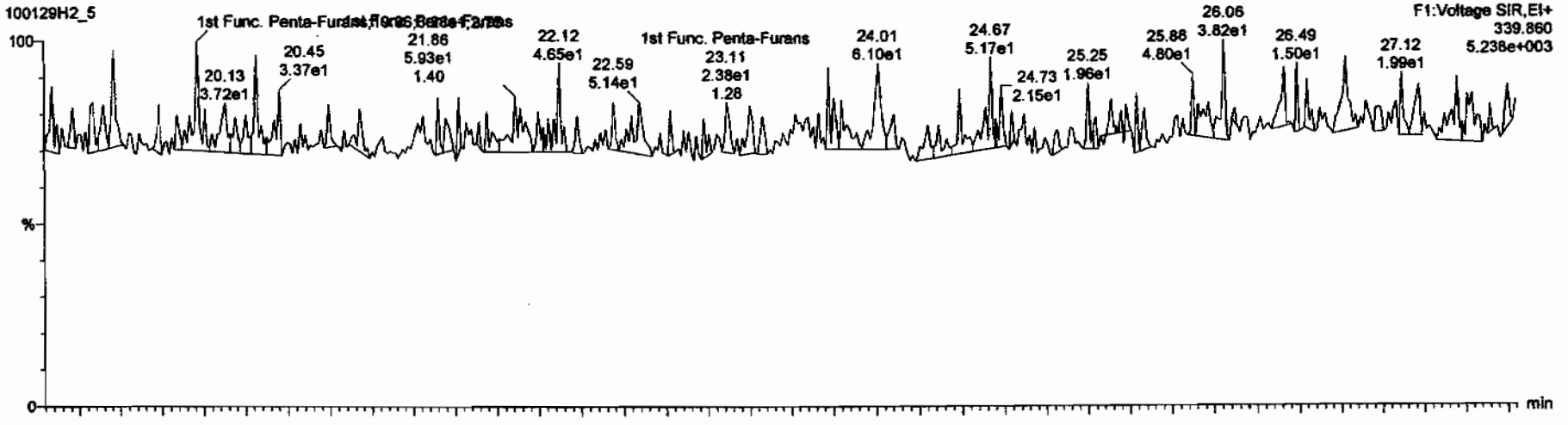

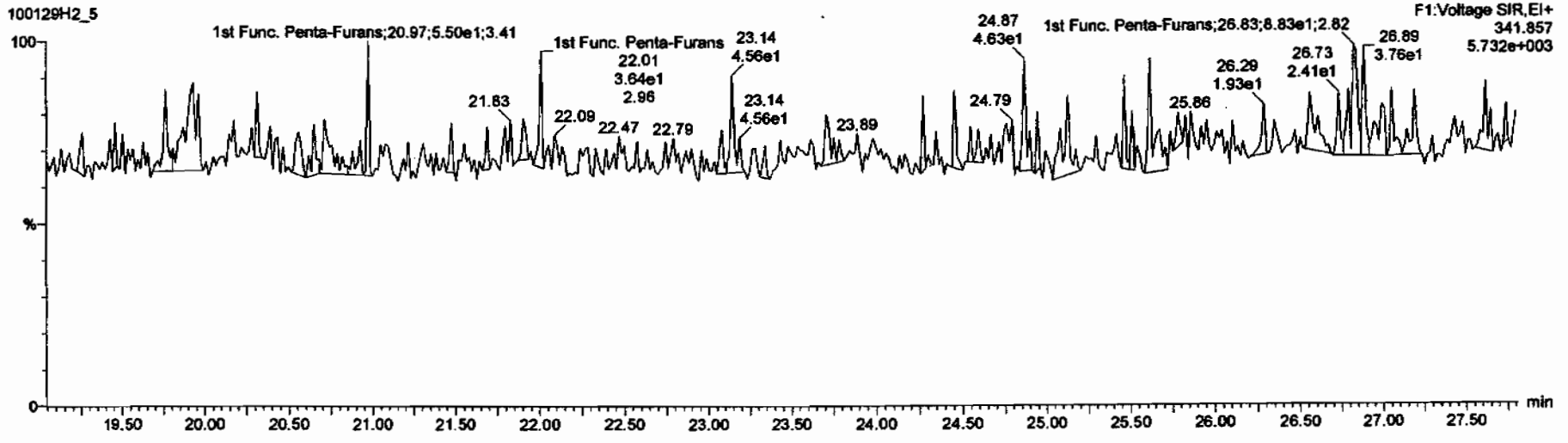

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1,2,3,7,8-PeCDF

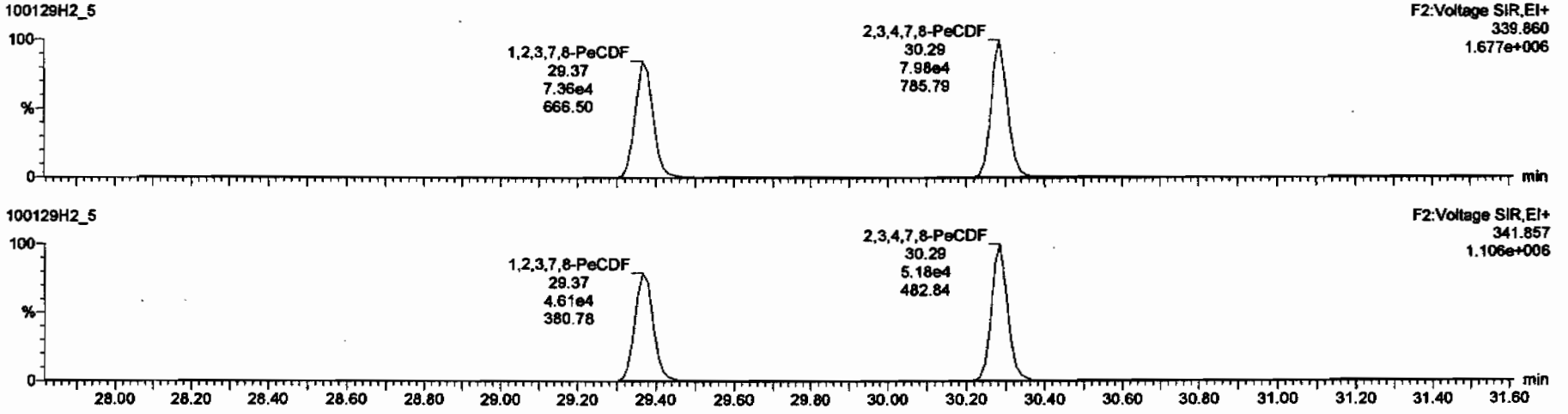

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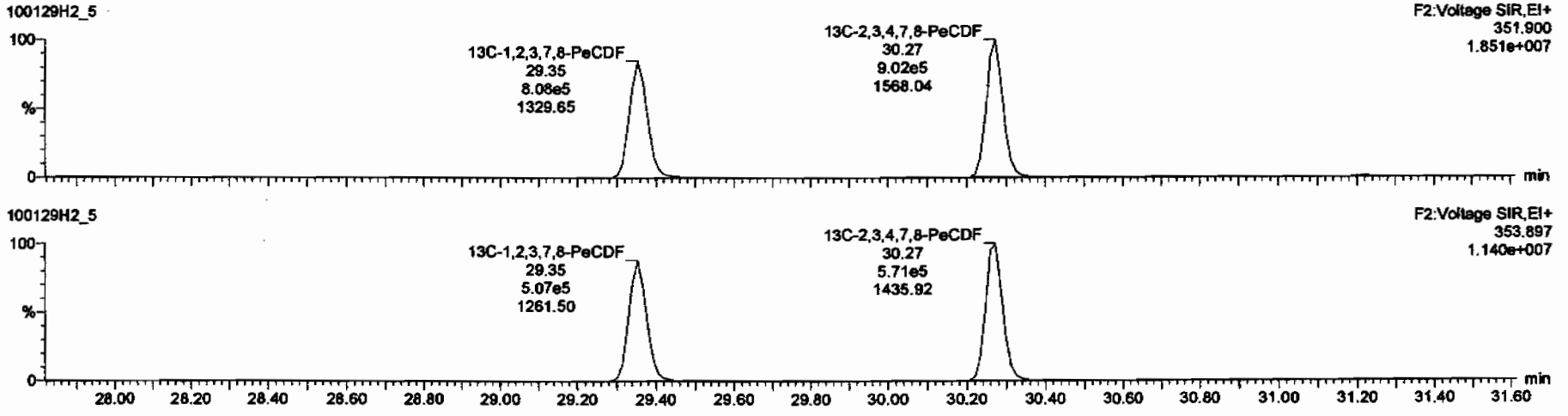

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1,2,3,4,7,8-HxCDF

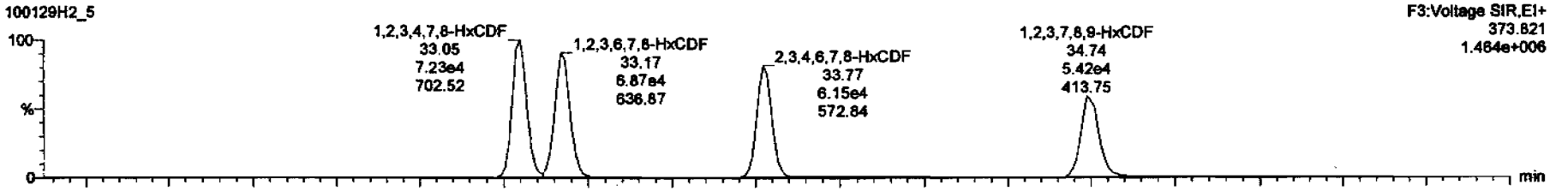

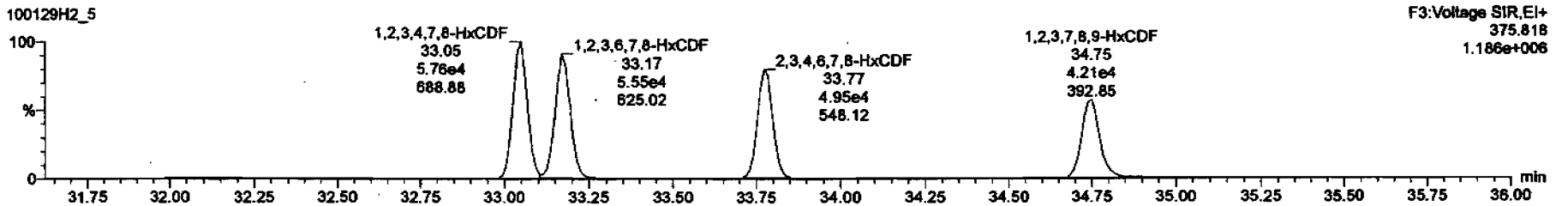

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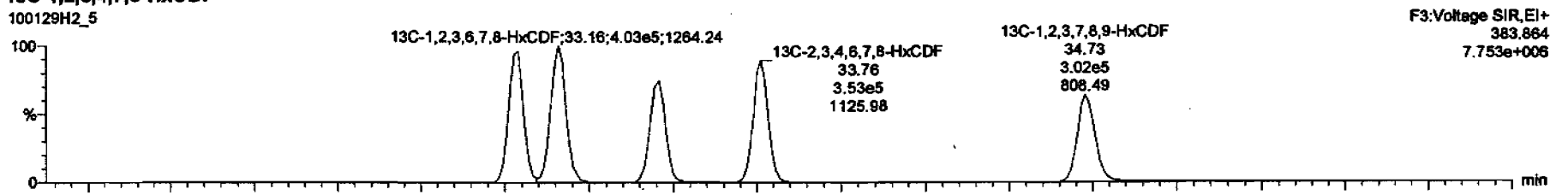

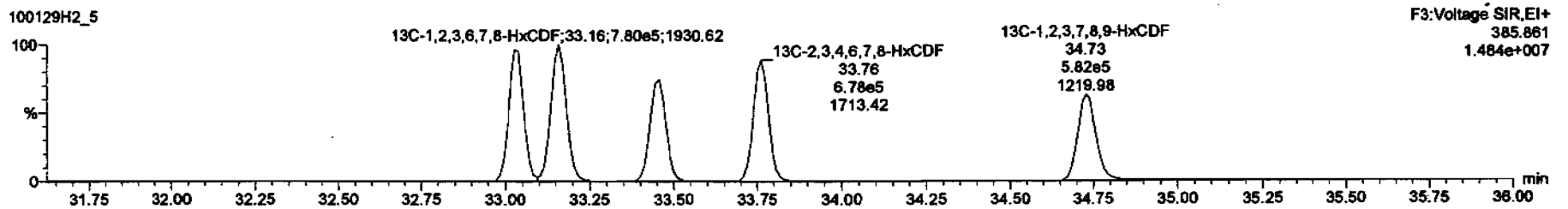

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1,2,3,4,6,7,8-HpCDF

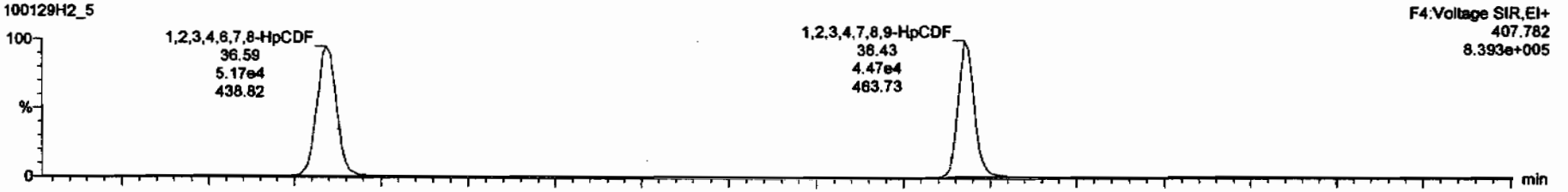

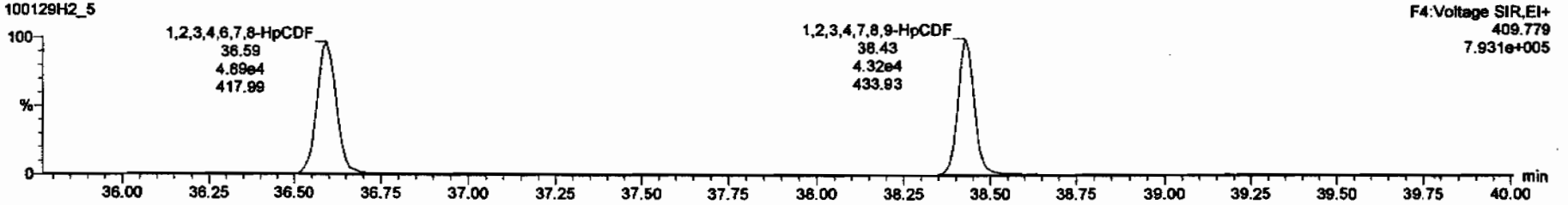

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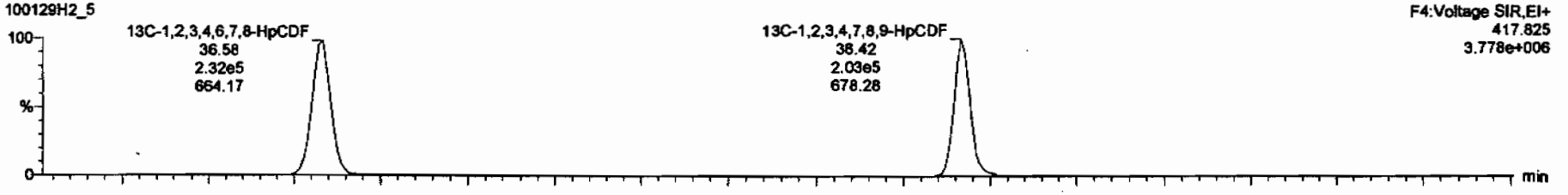

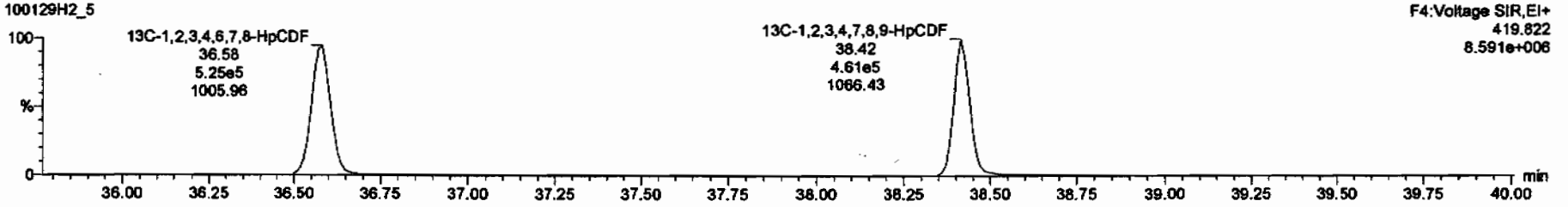

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OCDF

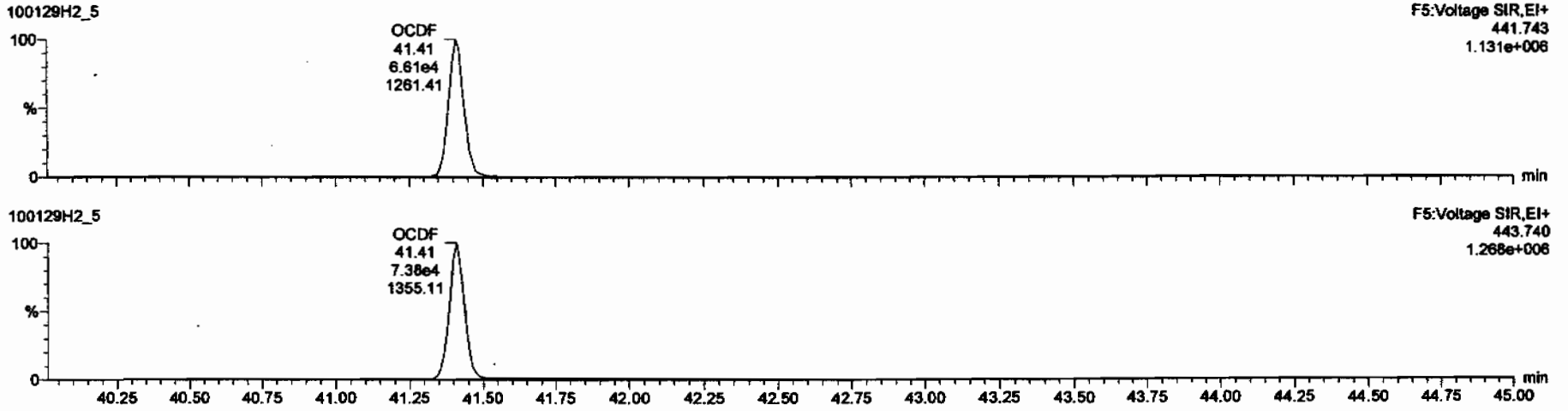

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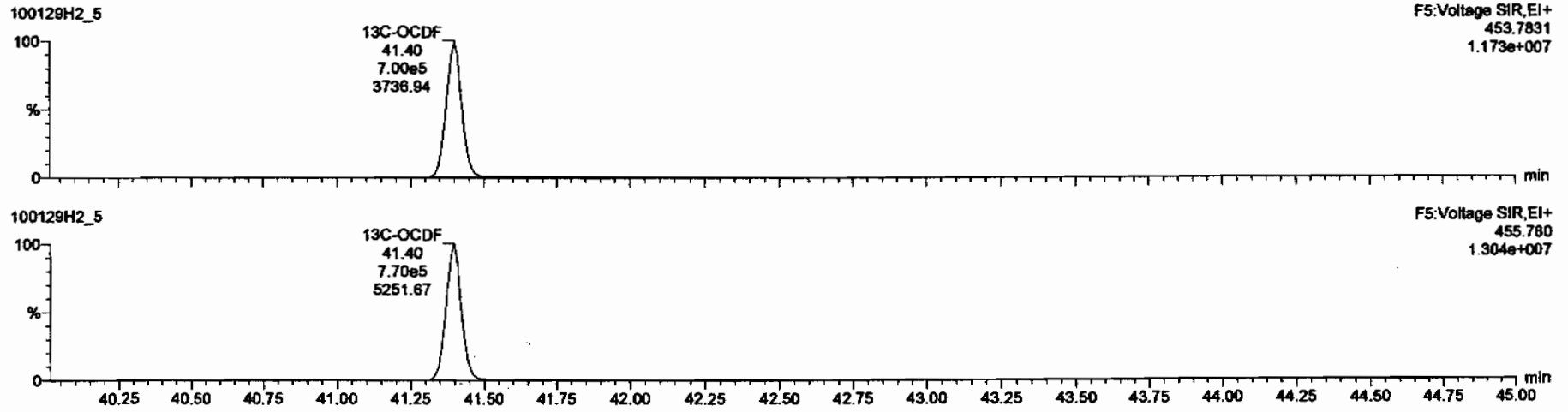

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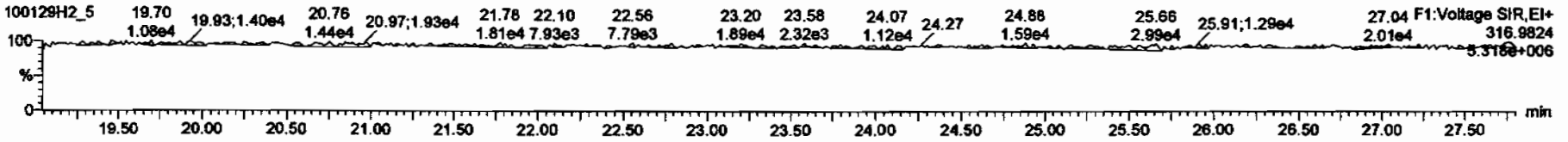

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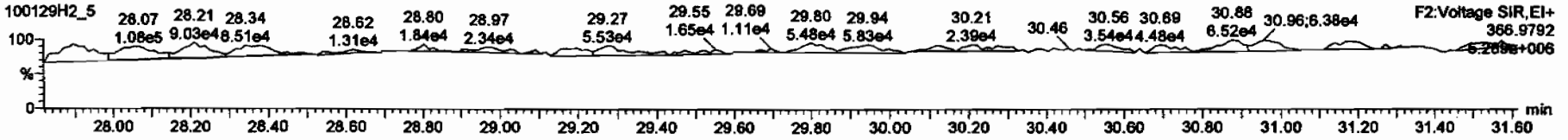

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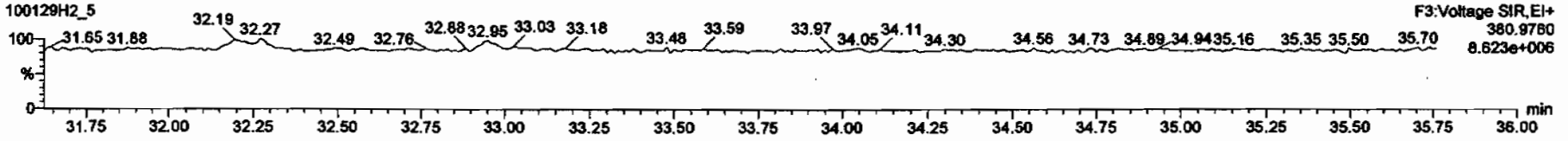

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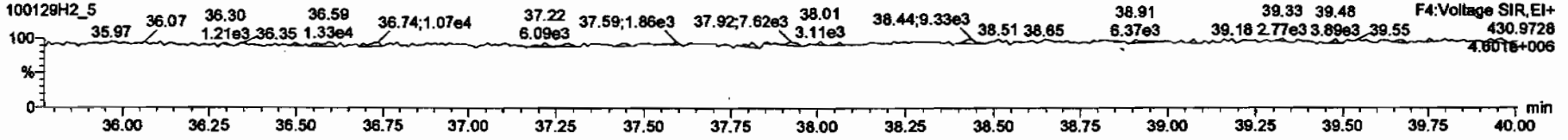

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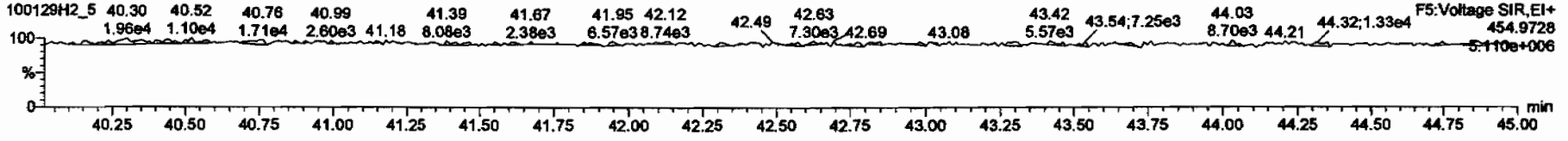

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DPE1

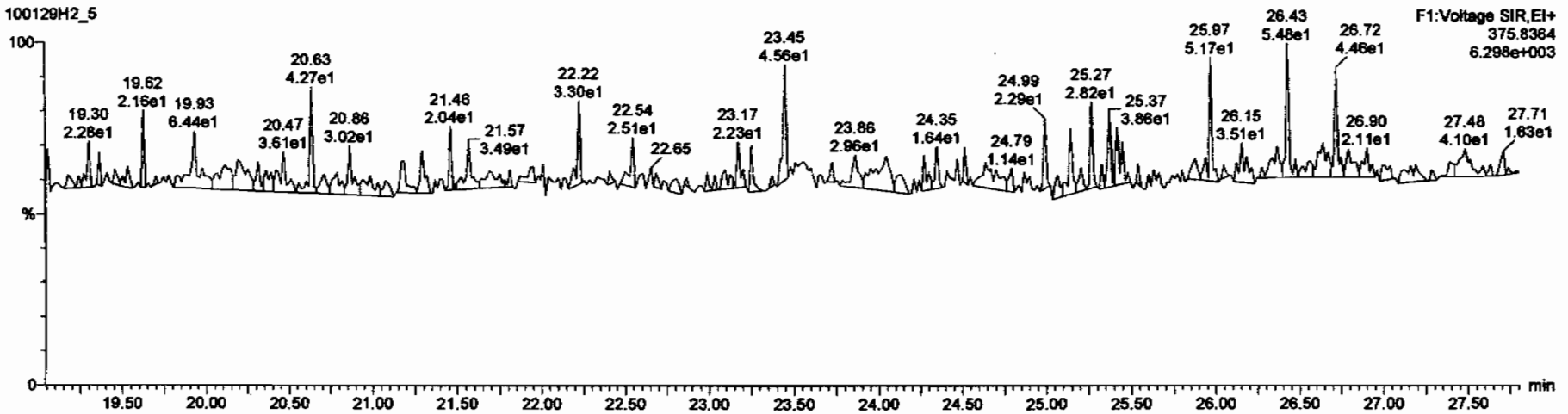

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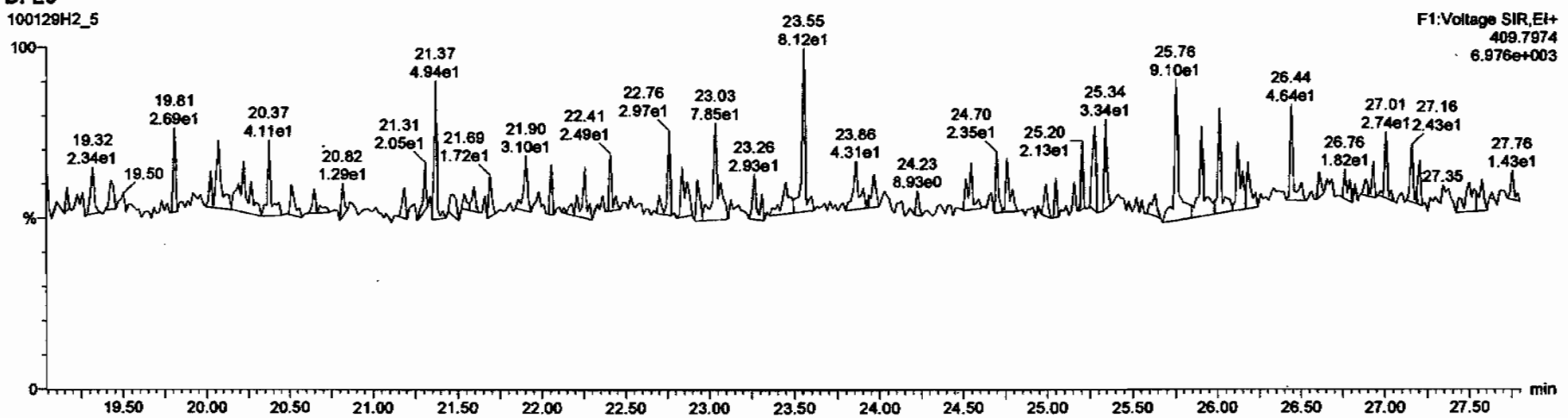

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Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
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Name: 100129H2_5, Date: 30-Jan-2010, Time: 05:32:29, ID: ST100129H2-4 1613 CS2 100127E, Description: 1613 CS2 100127E

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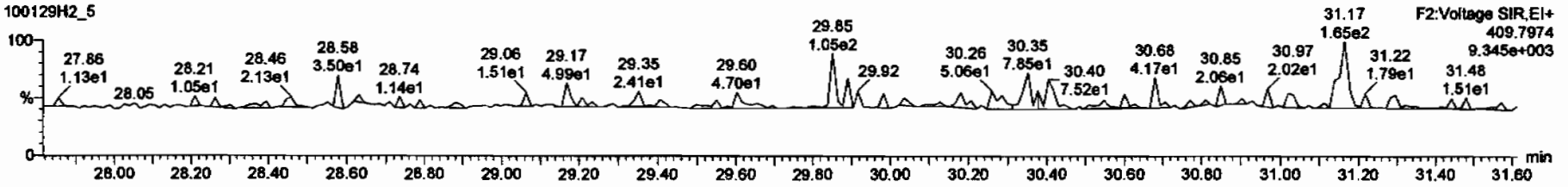

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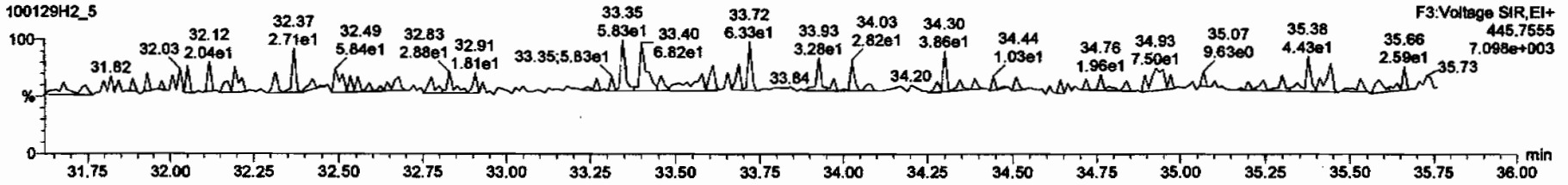

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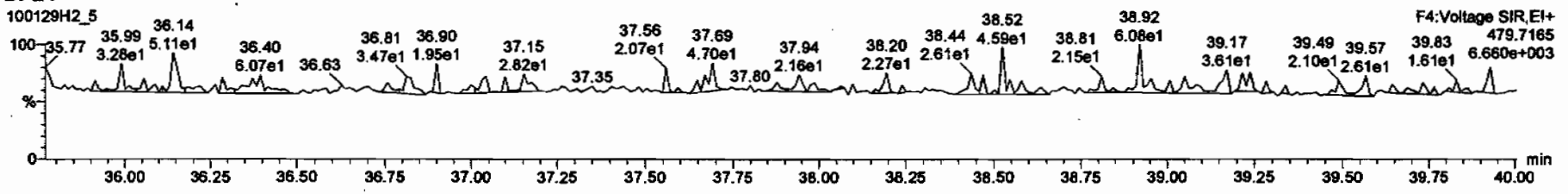

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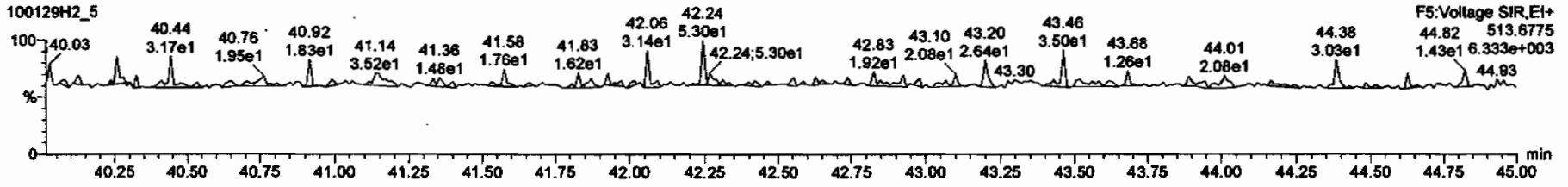

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Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

2,3,7,8-TCDD

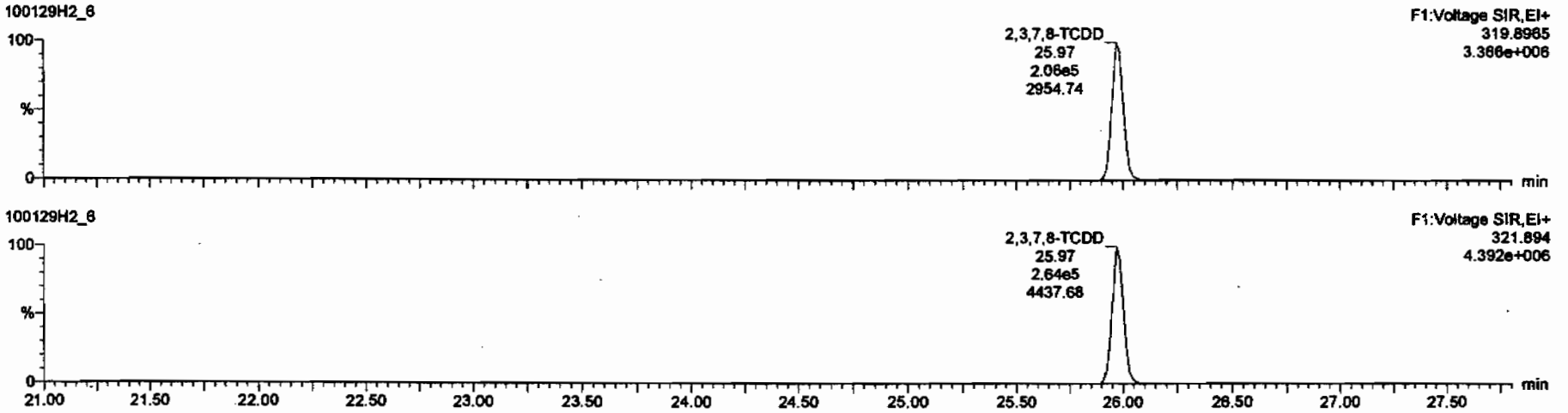

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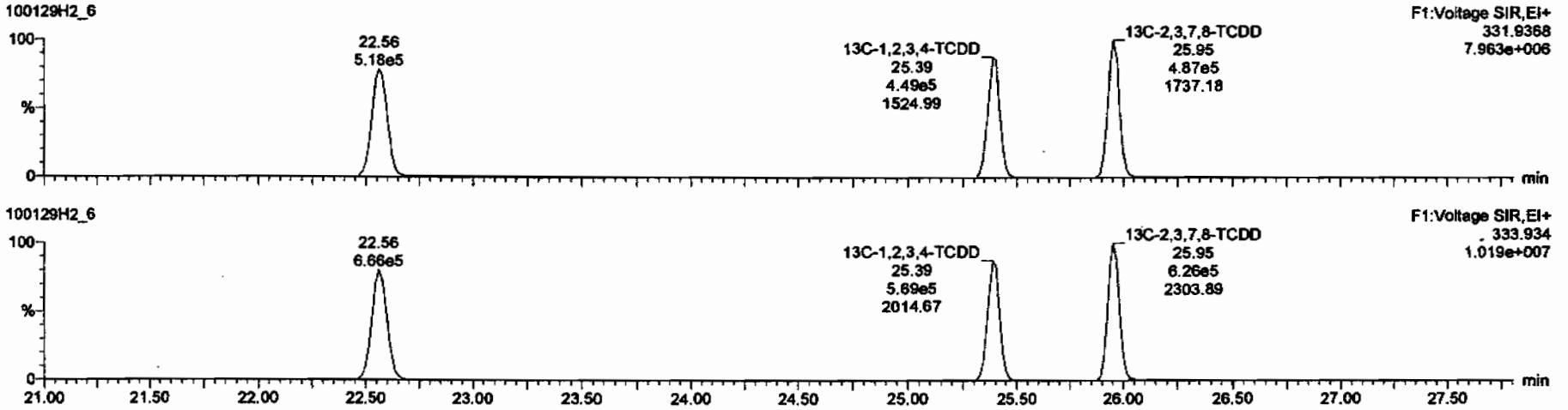

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Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

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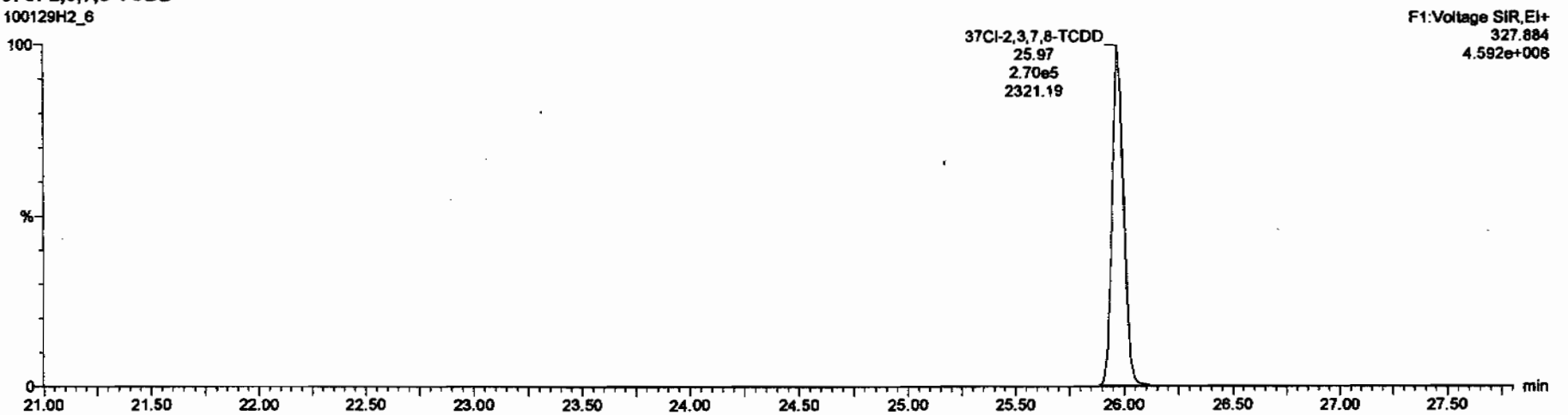

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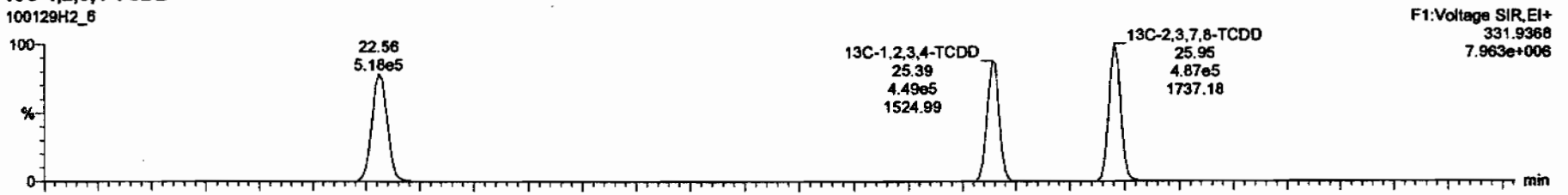

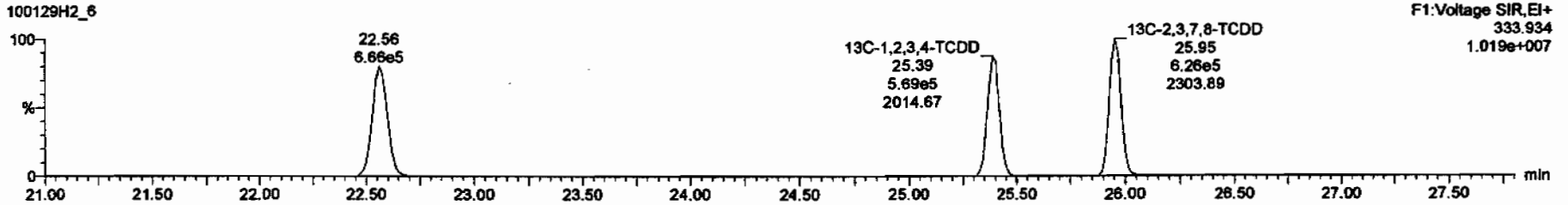

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Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

1,2,3,7,8-PeCDD

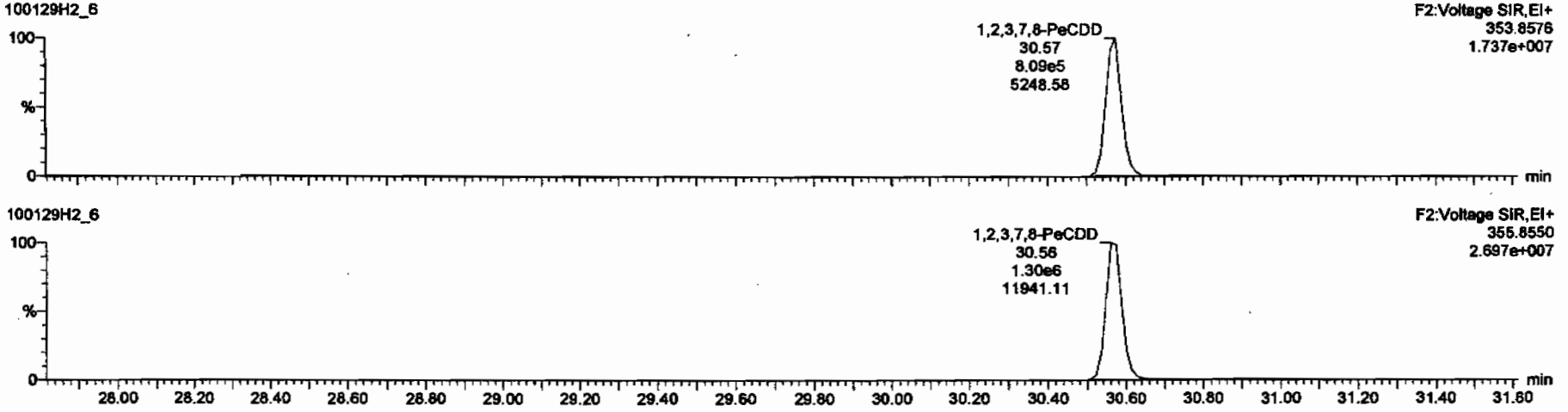

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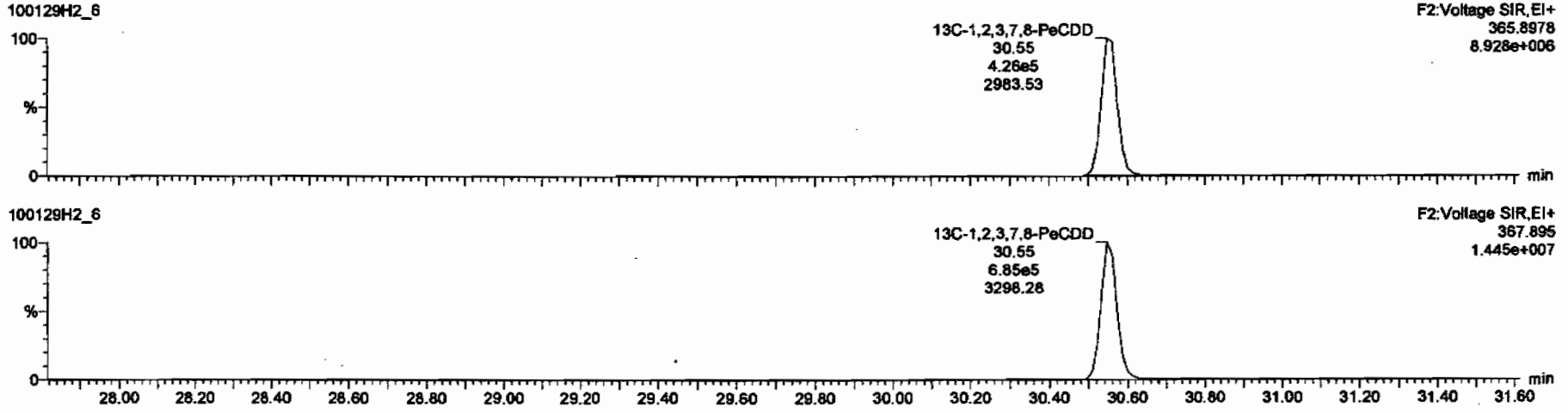

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Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

1,2,3,4,7,8-HxCDD

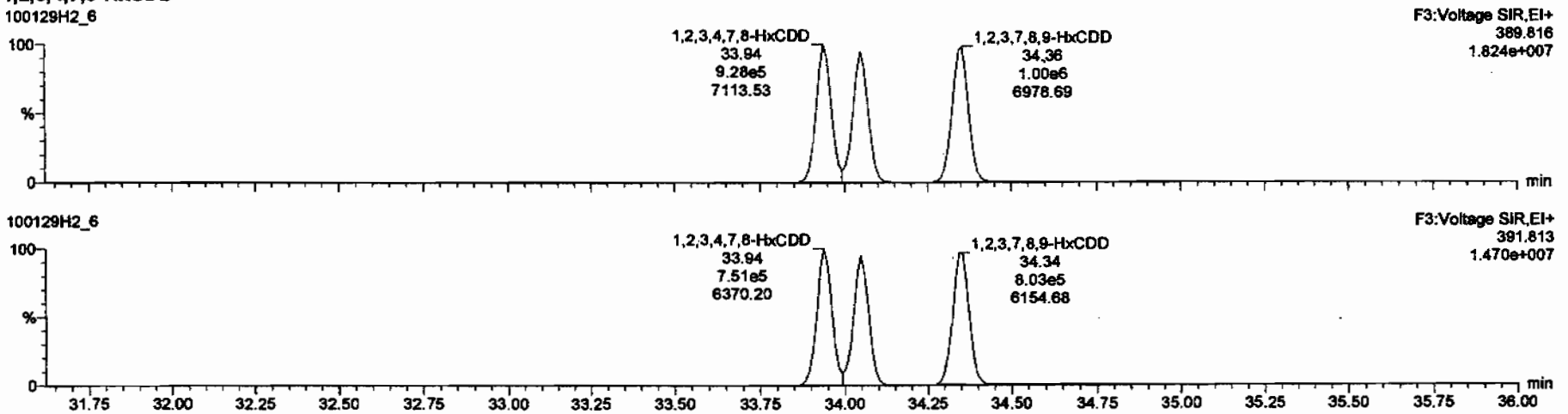

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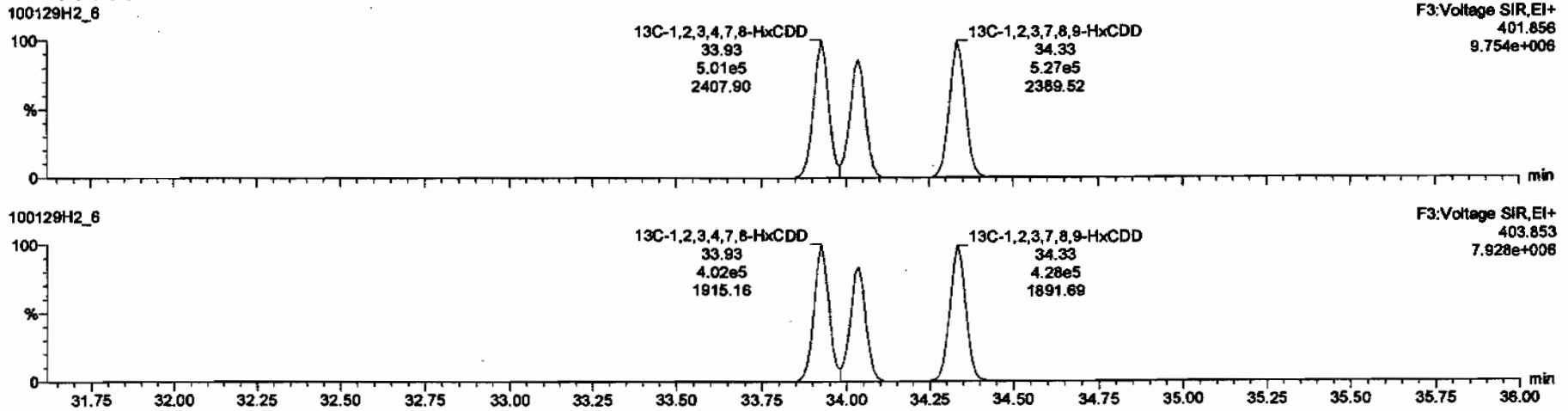

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Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

1,2,3,4,6,7,8-HpCDD

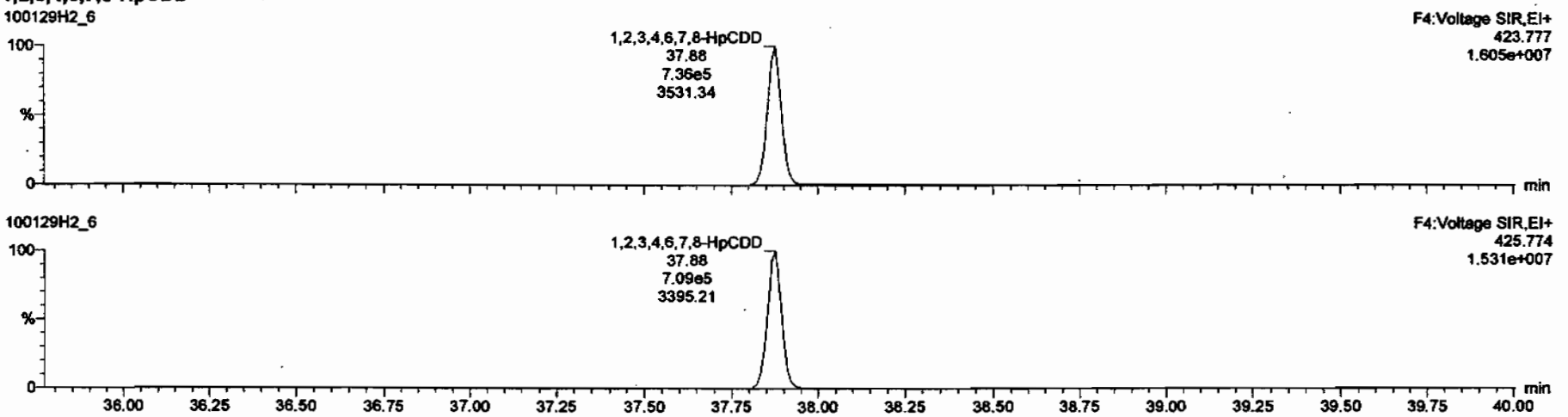

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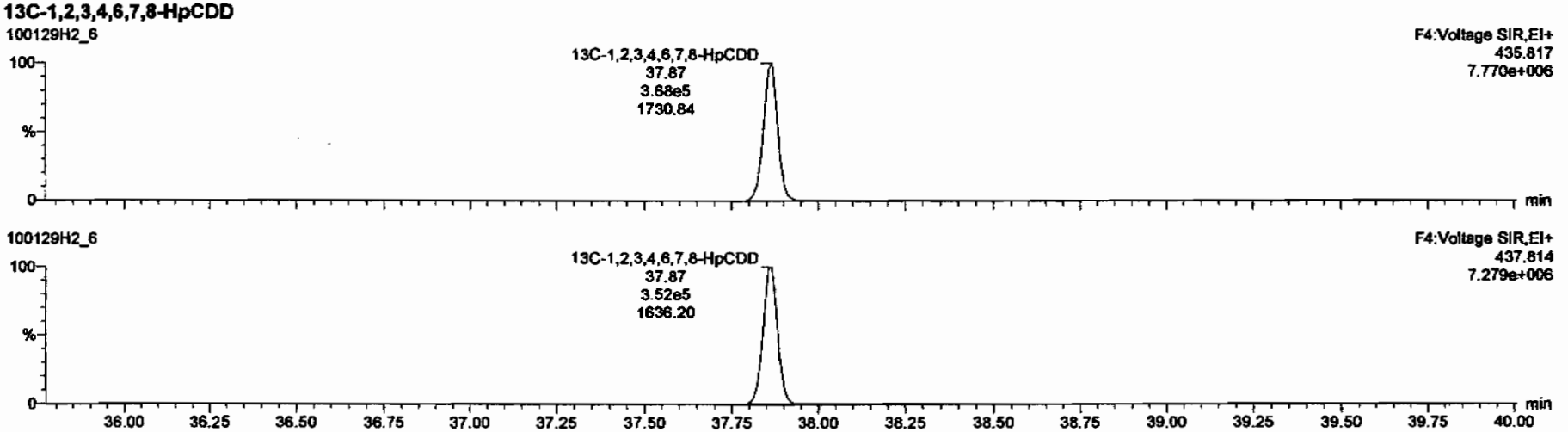

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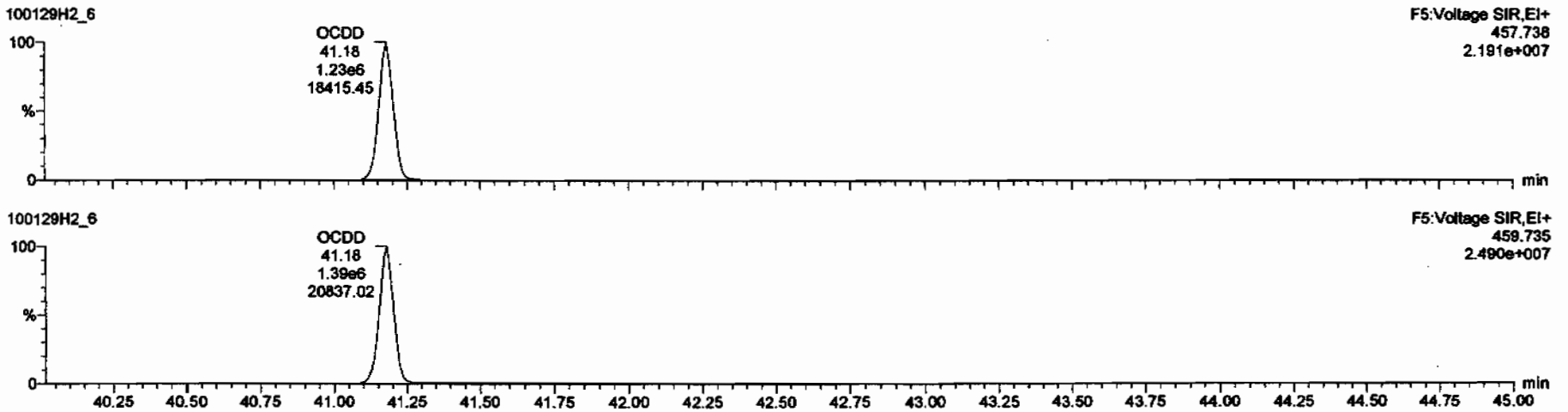

13C-OCDD

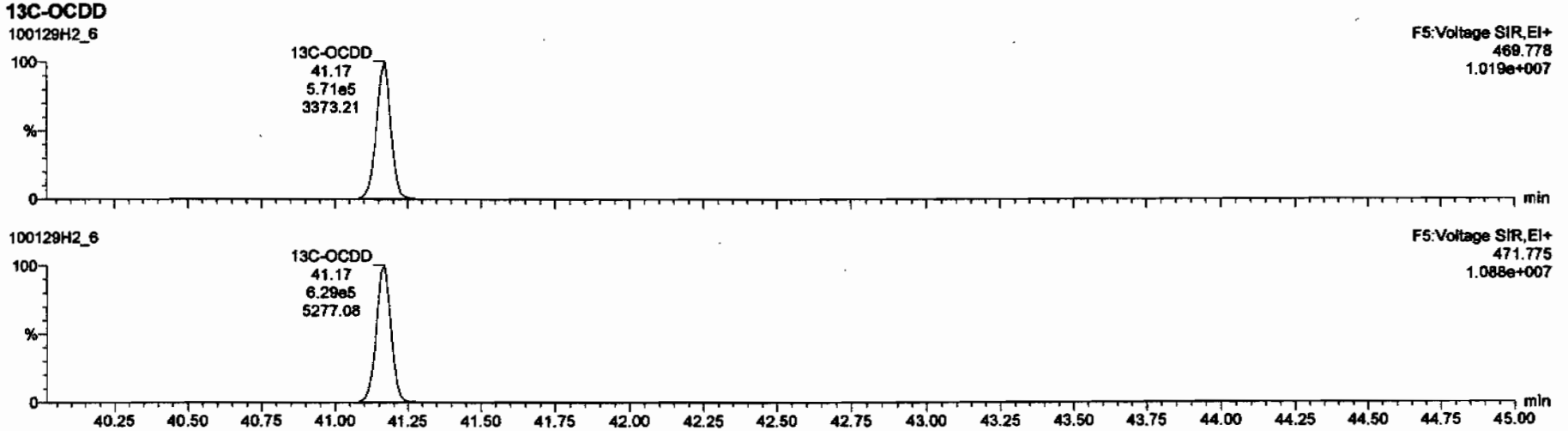

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Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

2,3,7,8-TCDF

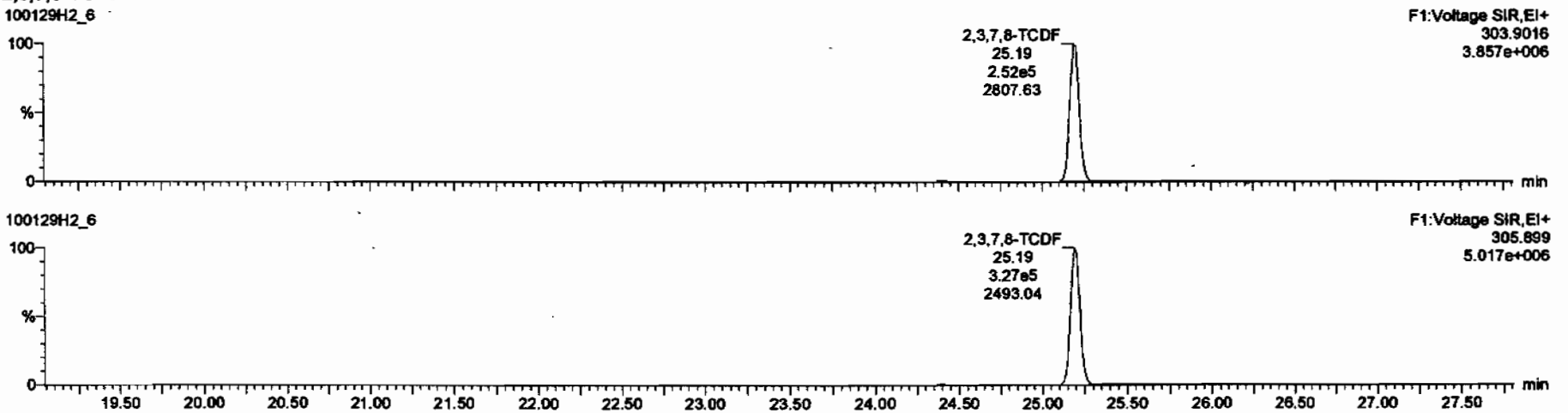

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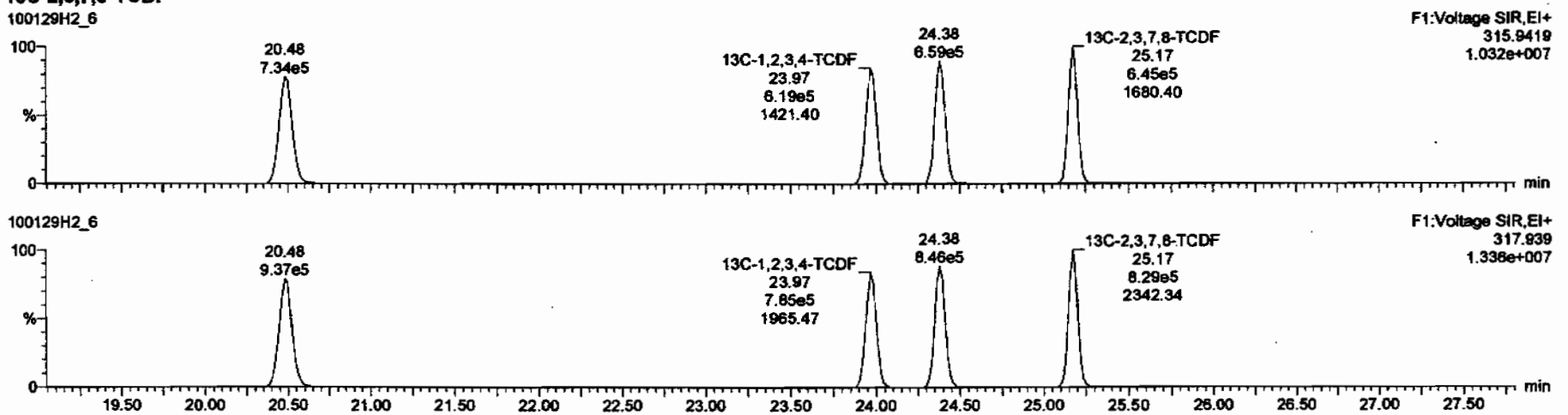

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Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

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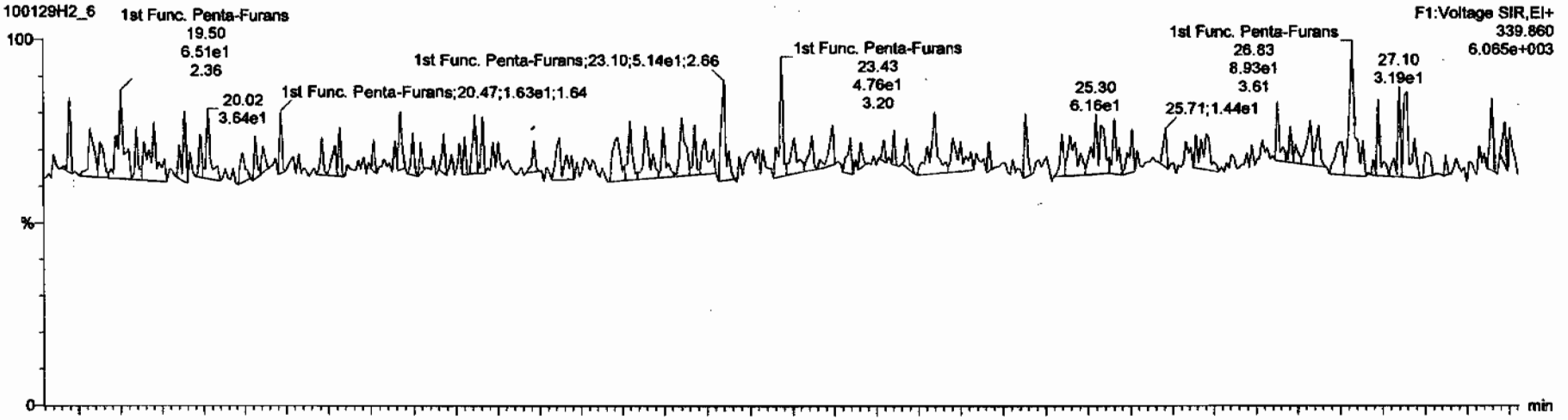

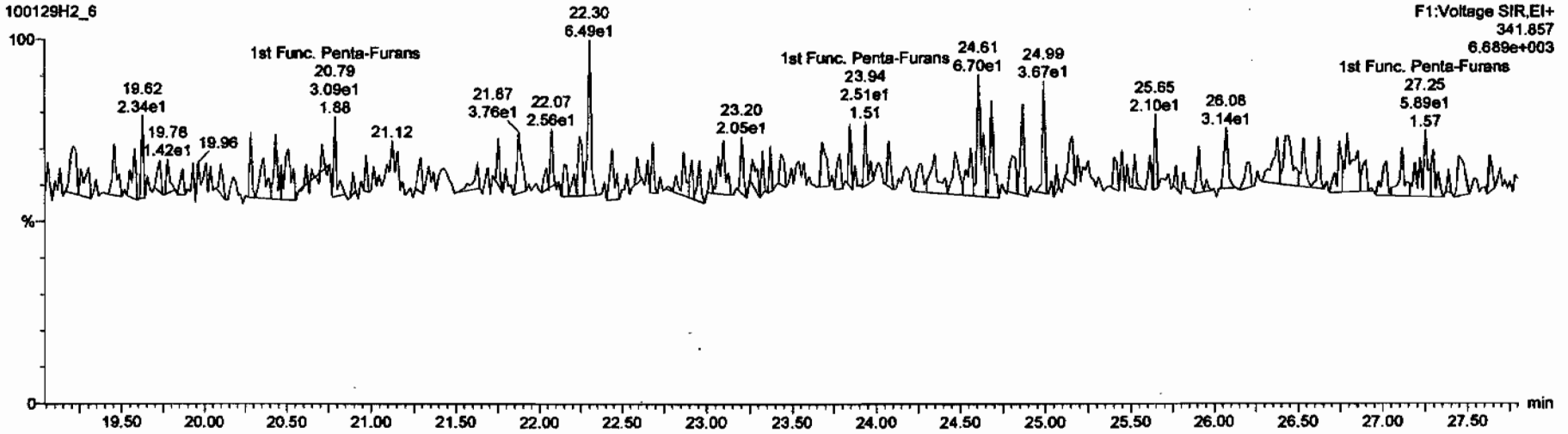

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Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

1,2,3,7,8-PeCDF

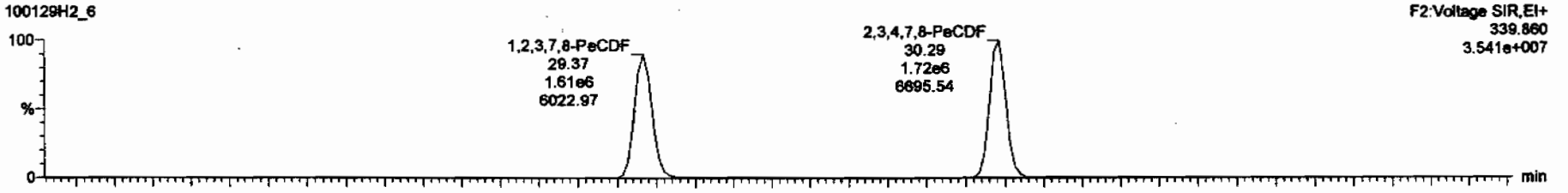

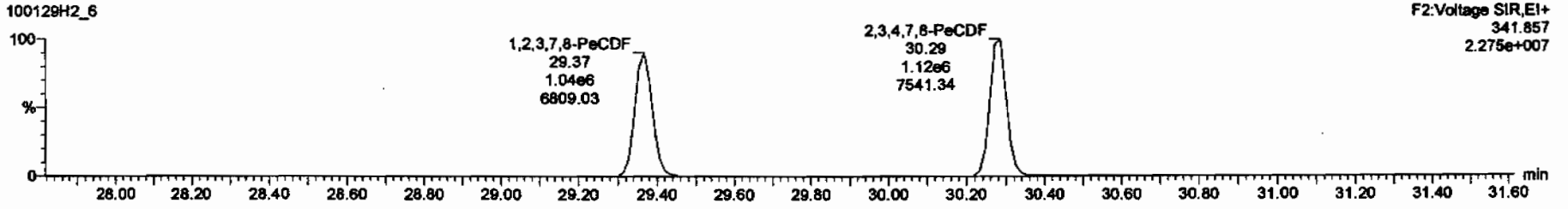

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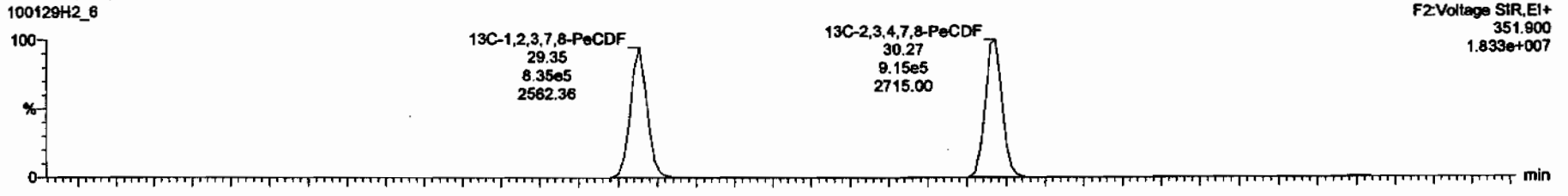

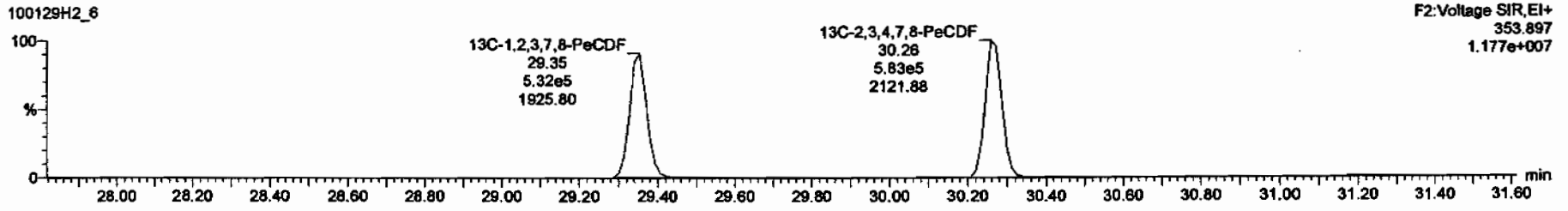

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1,2,3,4,7,8-HxCDF

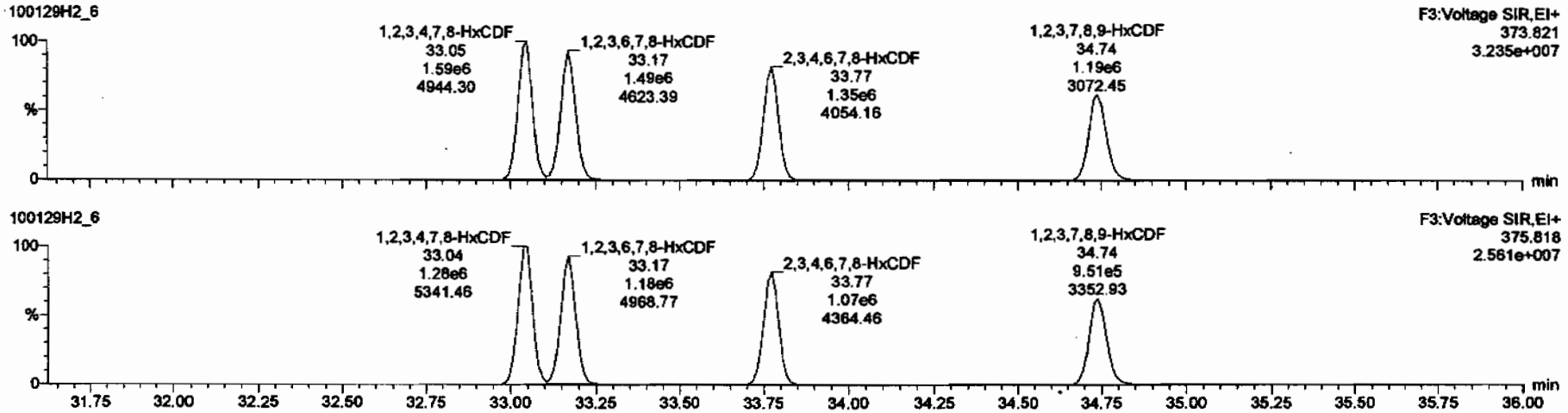

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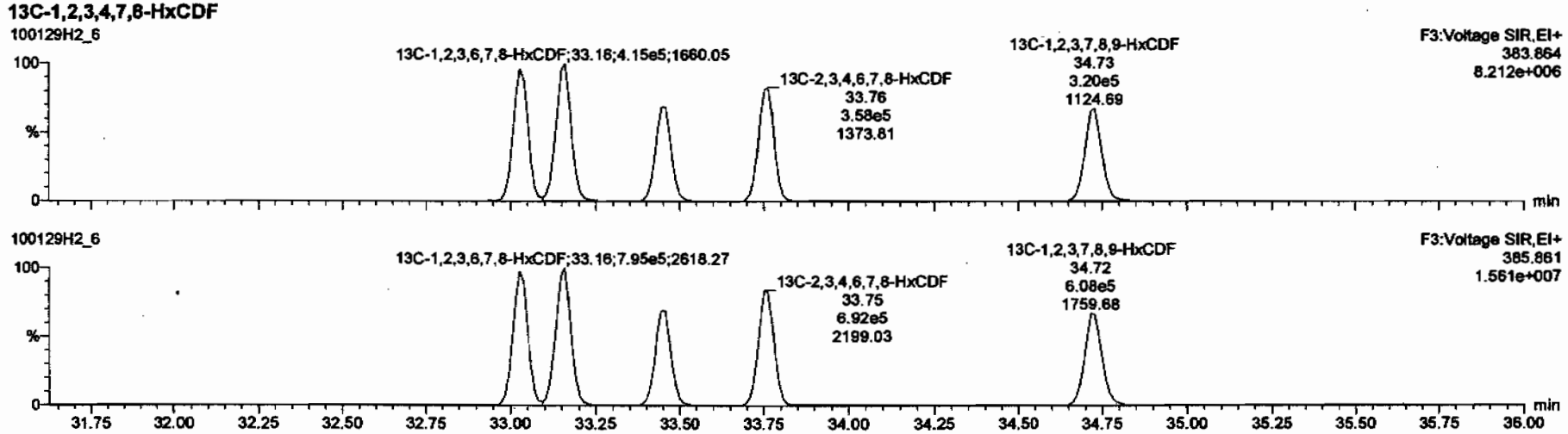

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1,2,3,4,6,7,8-HpCDF

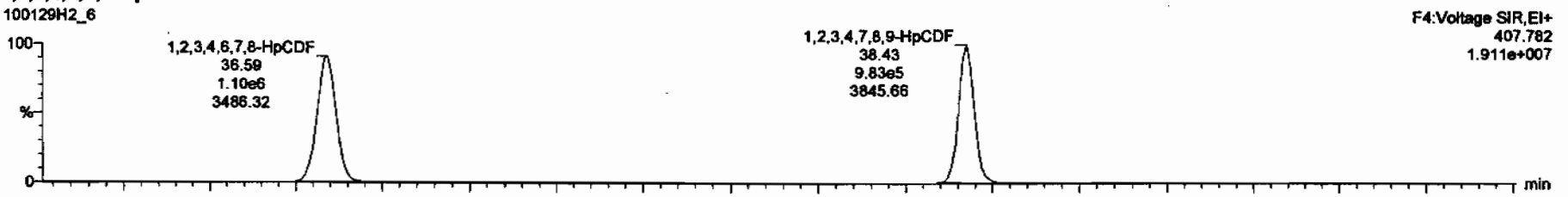

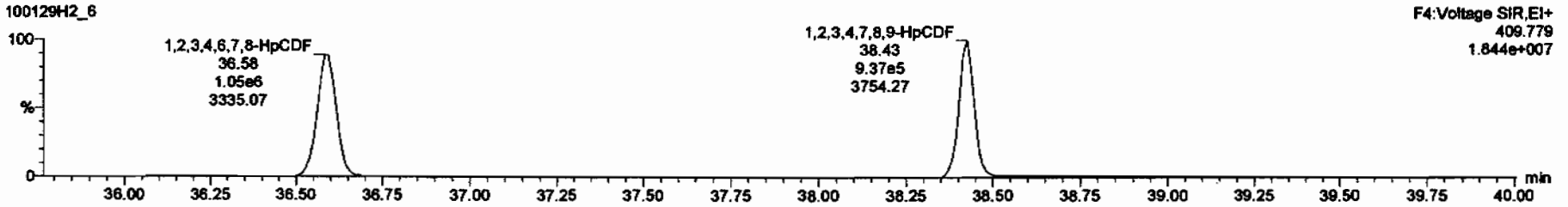

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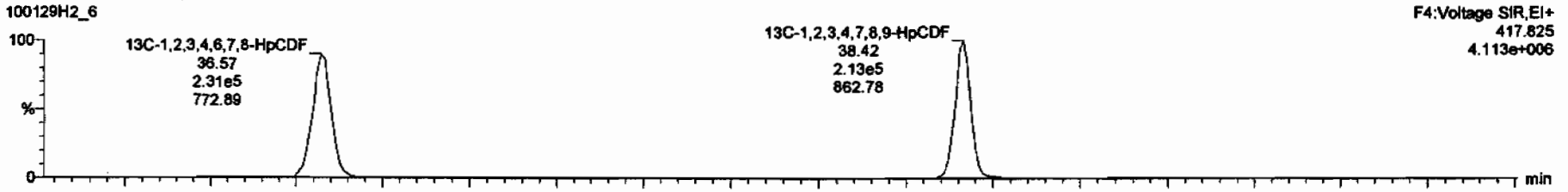

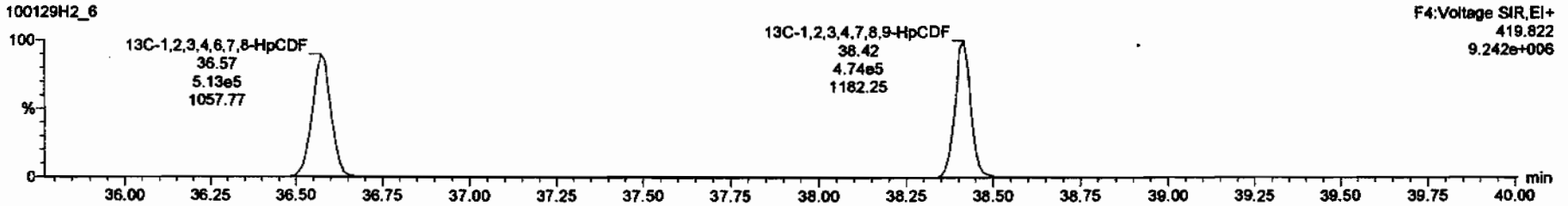

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OCDF

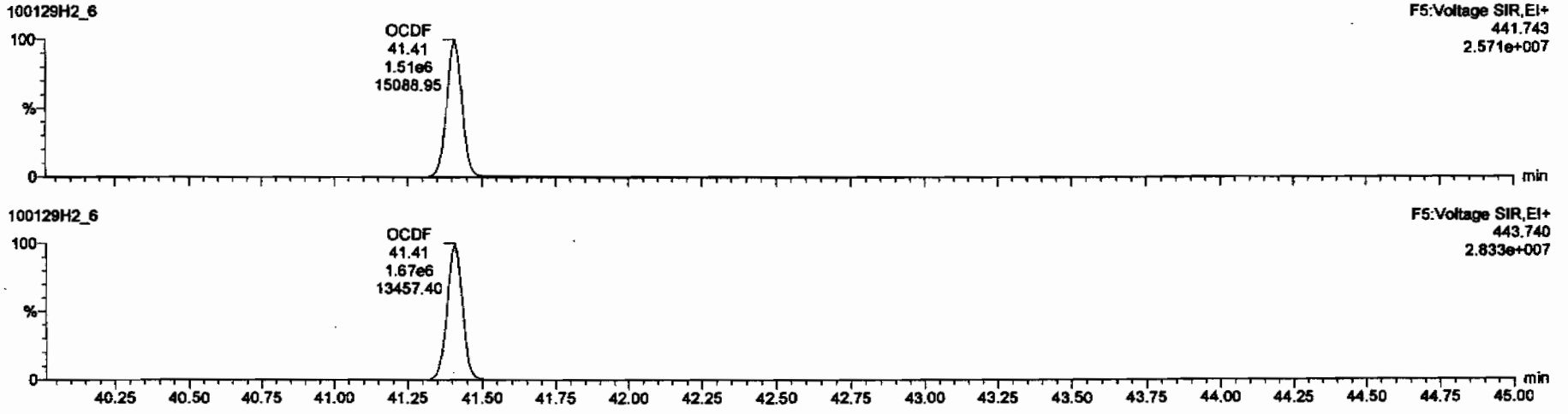

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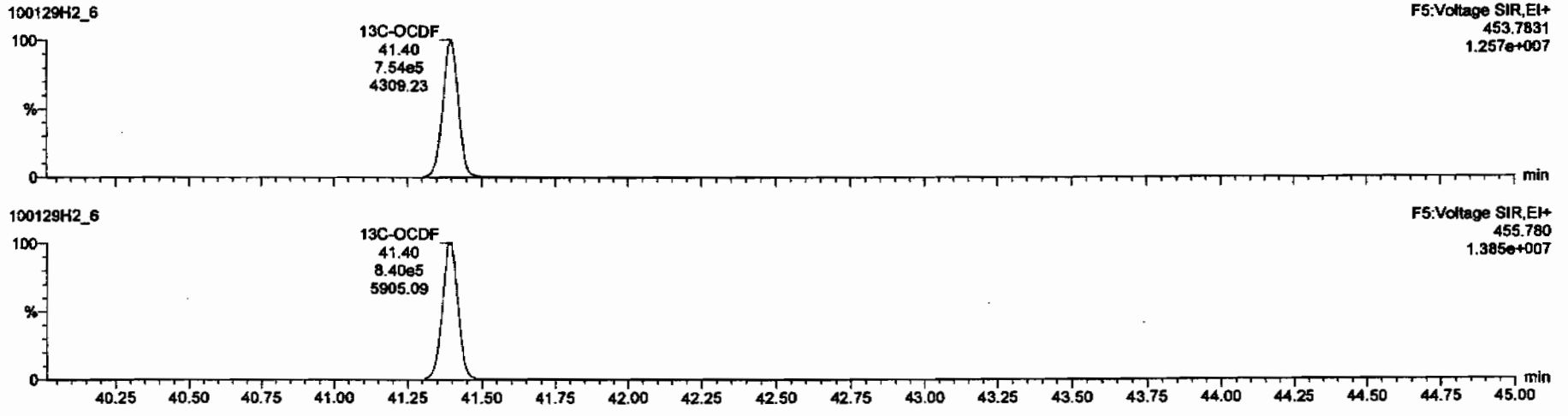

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PFK1

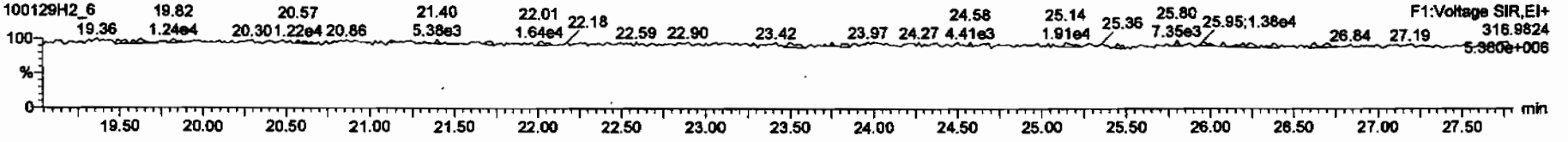

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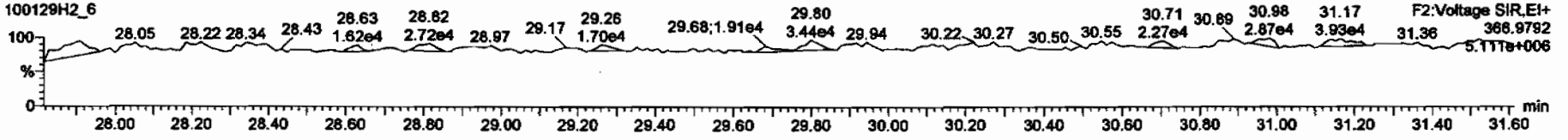

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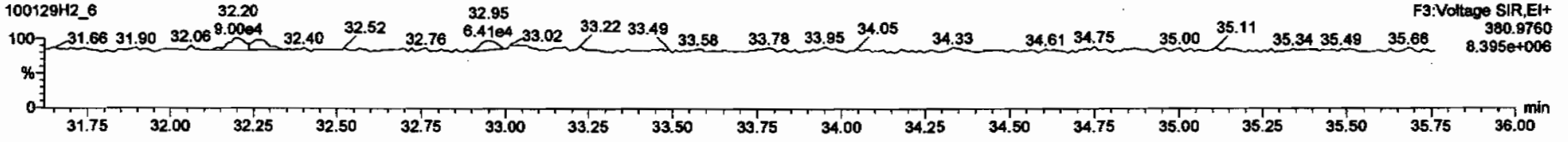

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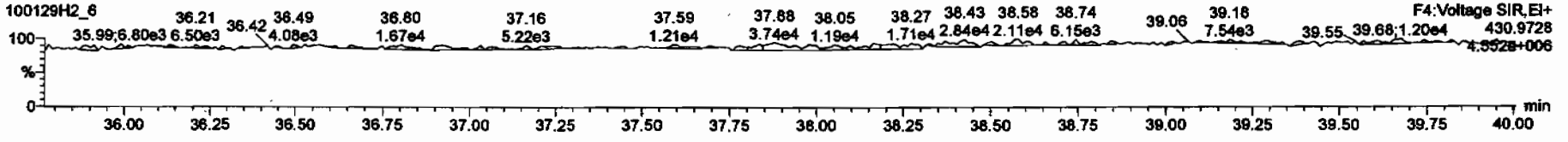

PFK5

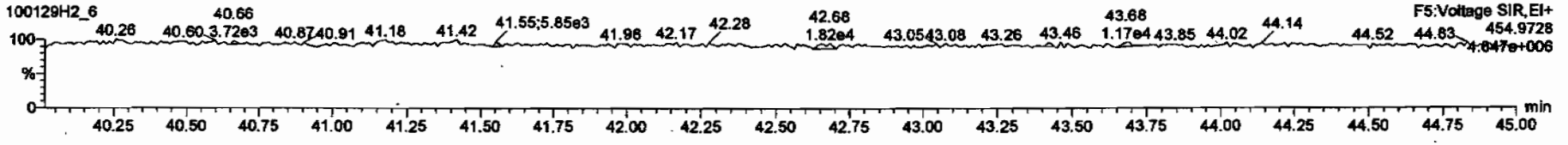

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DPE1

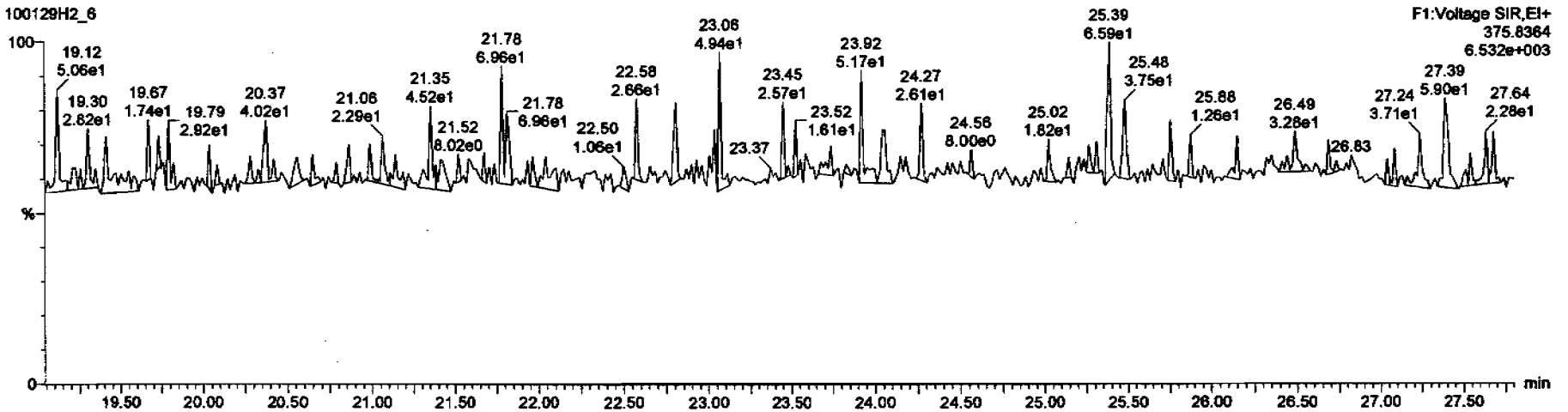

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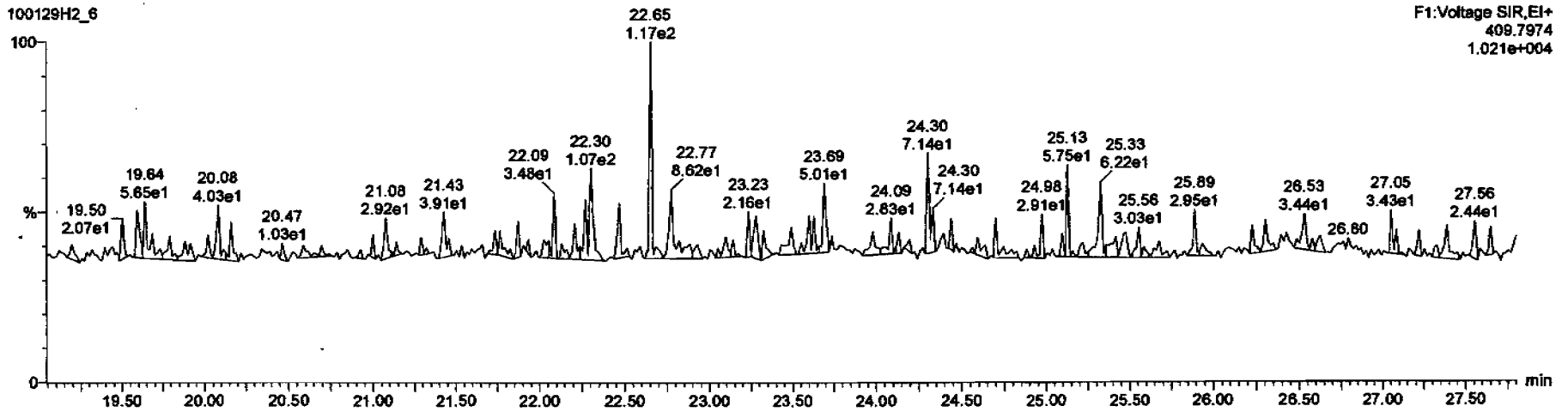

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DPE2

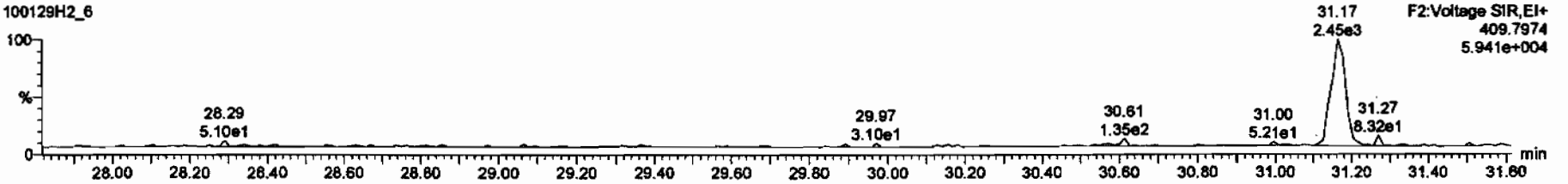

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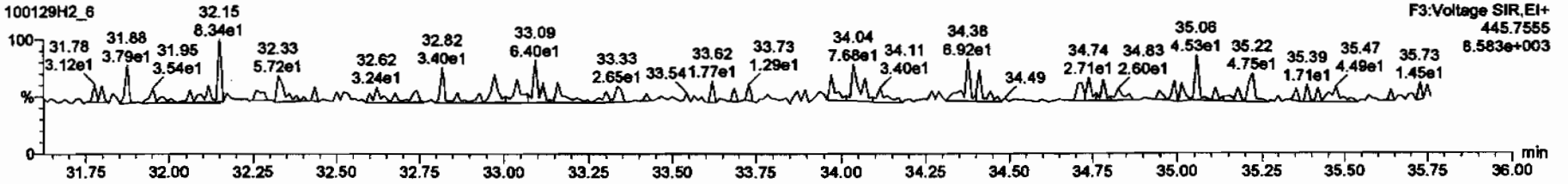

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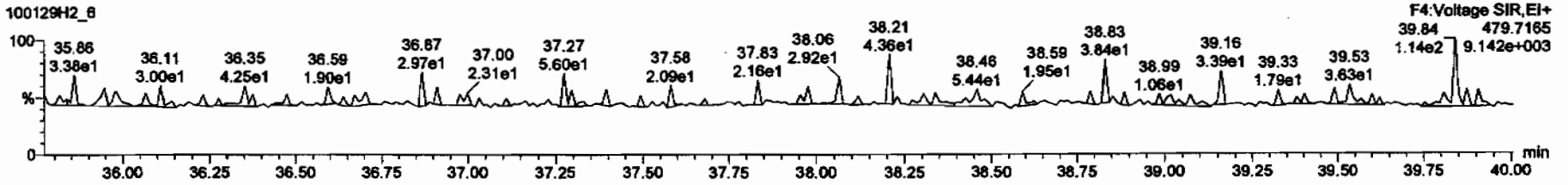

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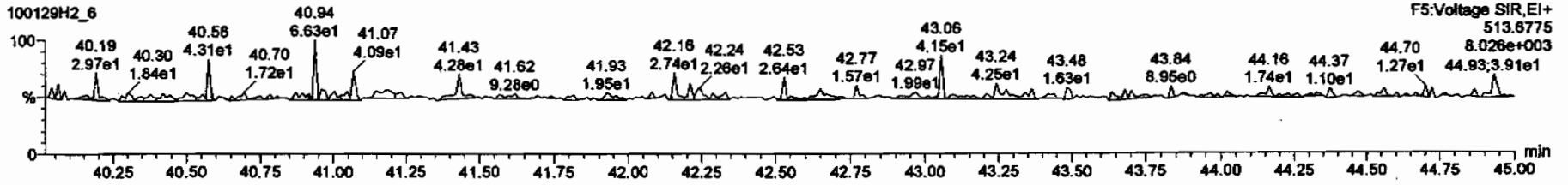

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Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

Name: 100129H2_7, Date: 30-Jan-2010, Time: 07:11:38, ID: ST100129H2-6 1613 CS5 100127H, Description: 1613 CS5 100127H

2,3,7,8-TCDD

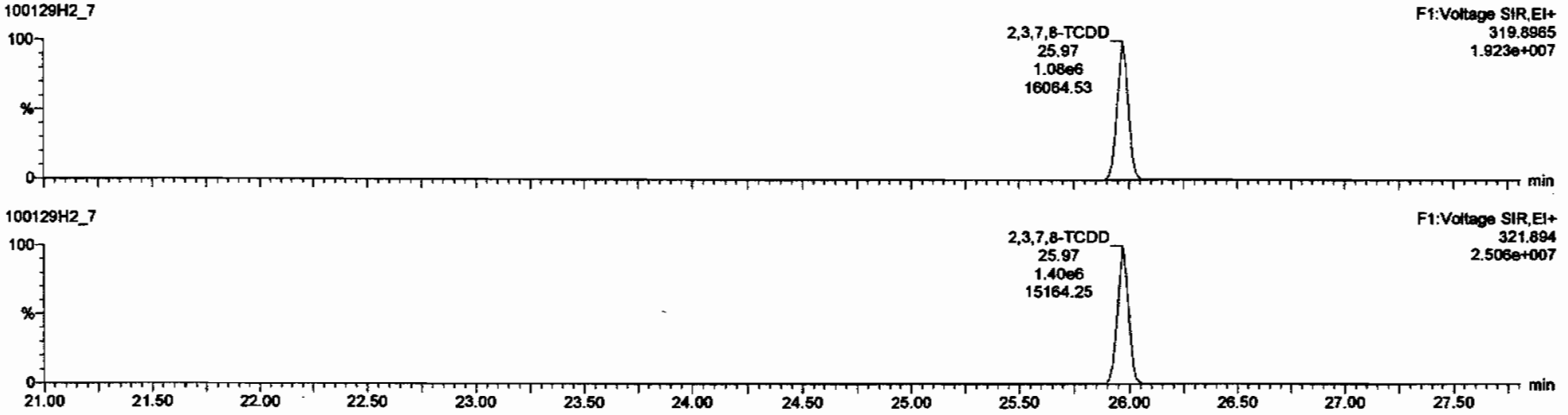

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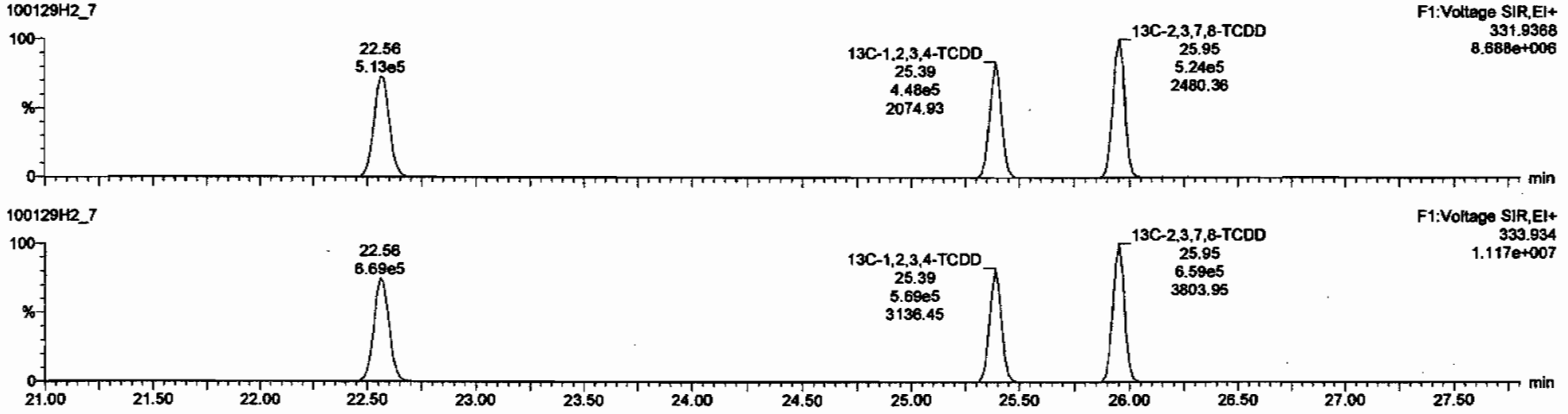

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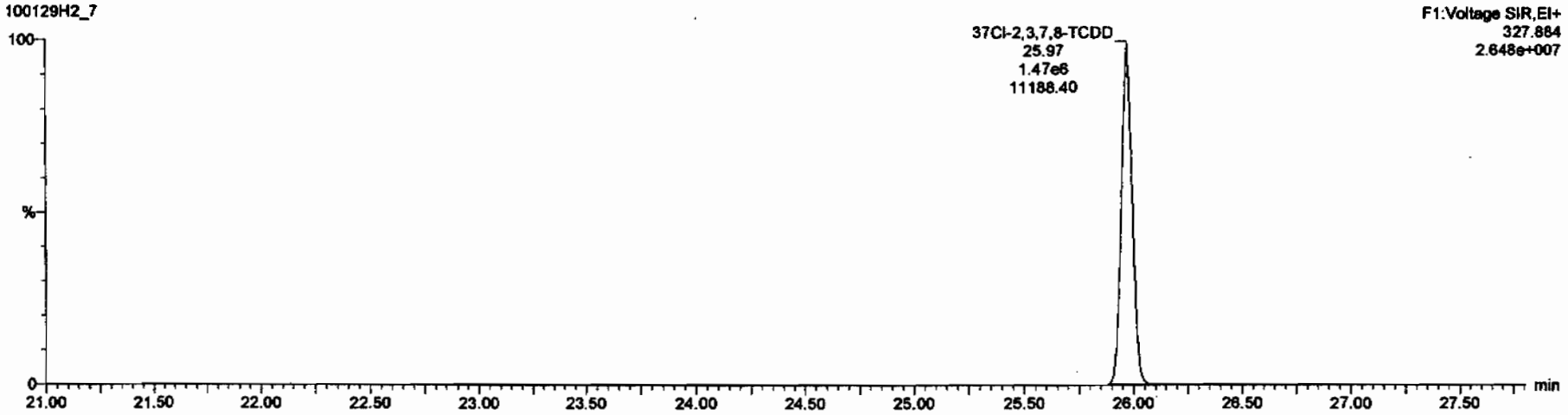

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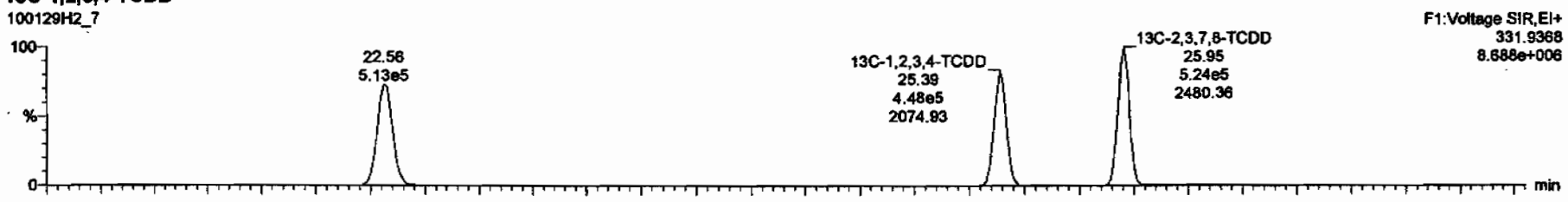

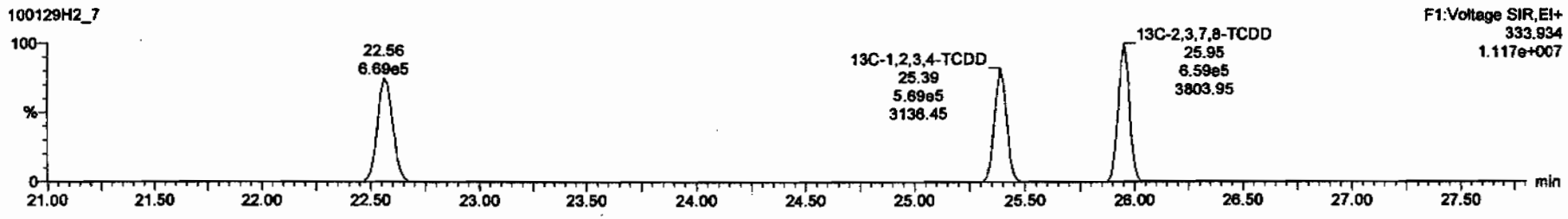

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Name: 100129H2_7, Date: 30-Jan-2010, Time: 07:11:38, ID: ST100129H2-6 1613 CS5 100127H, Description: 1613 CS5 100127H

1,2,3,7,8-PeCDD

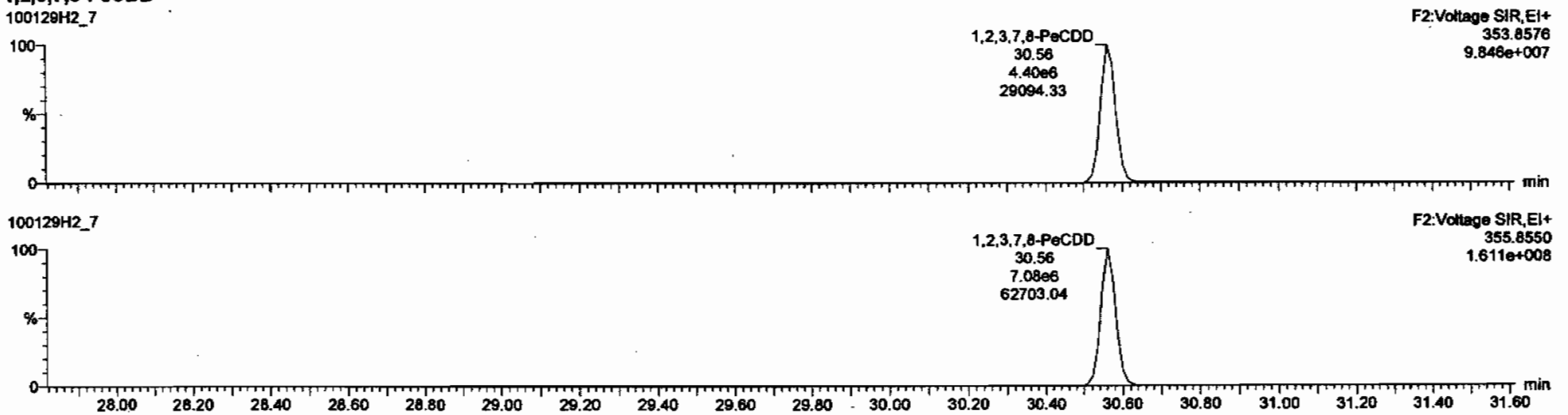

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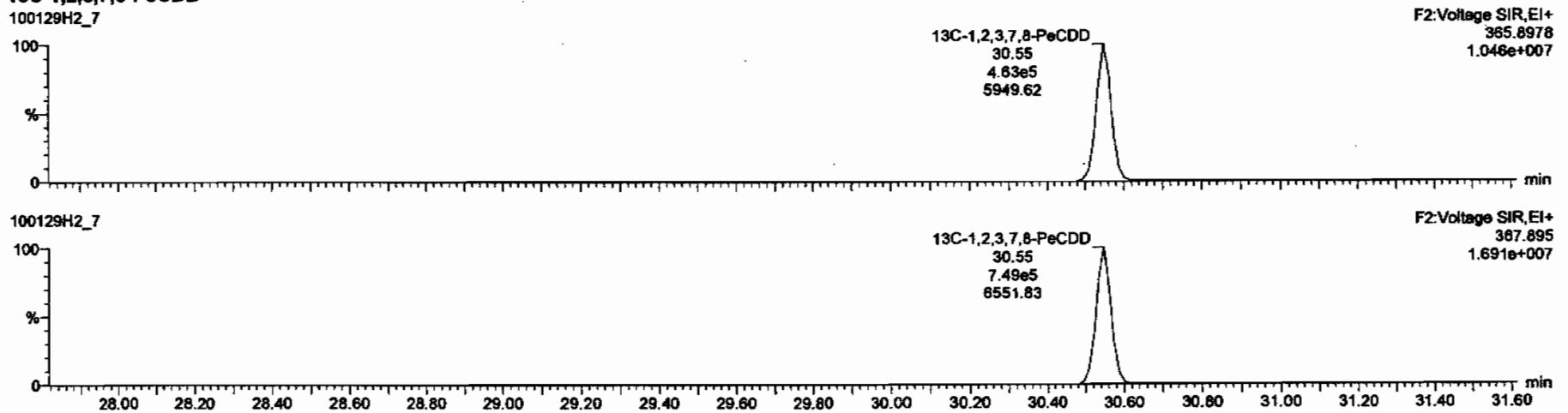

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Name: 100129H2_7, Date: 30-Jan-2010, Time: 07:11:38, ID: ST100129H2-6 1613 CS5 100127H, Description: 1613 CS5 100127H

1,2,3,4,7,8-HxCDD

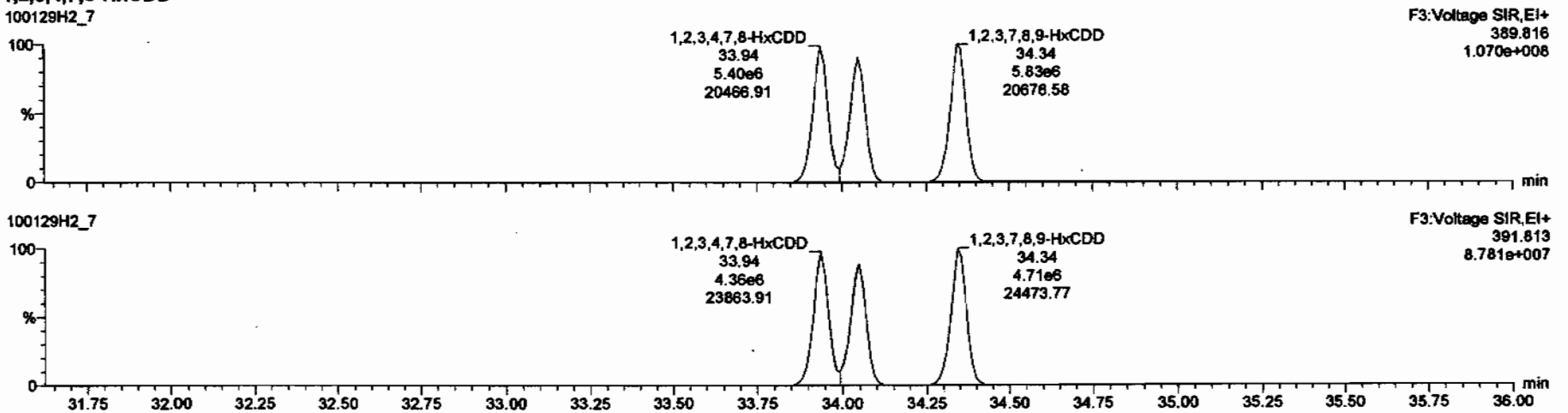

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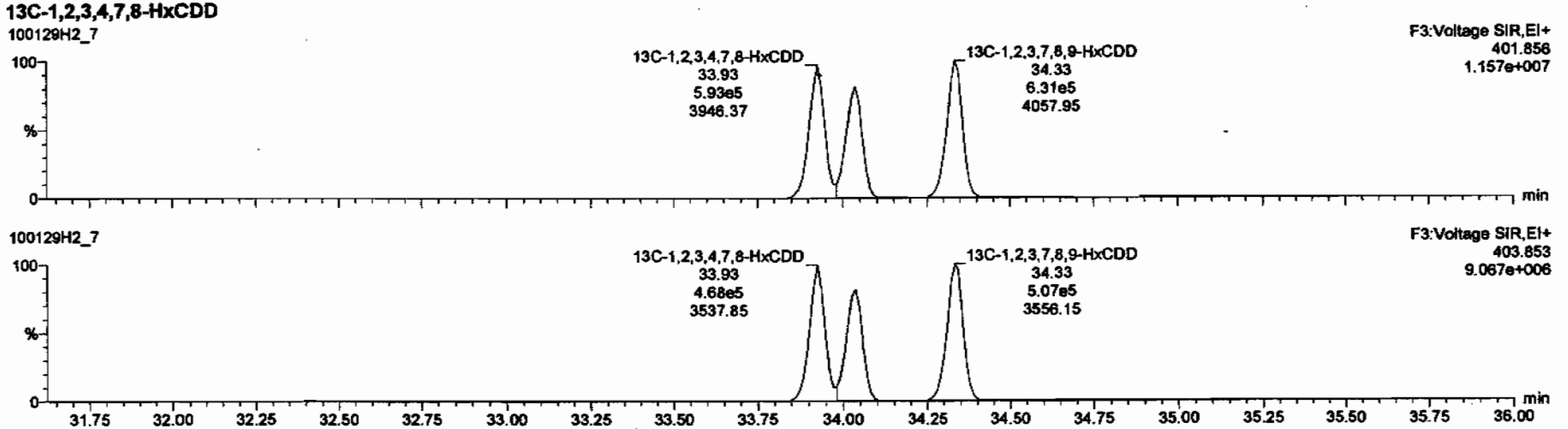

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1,2,3,4,6,7,8-HpCDD

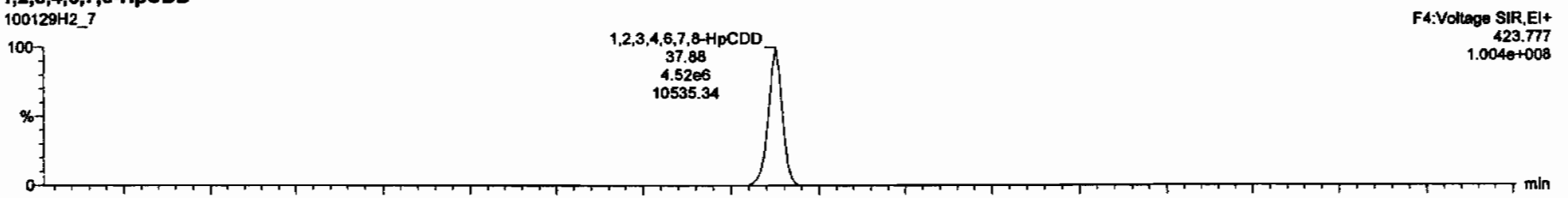

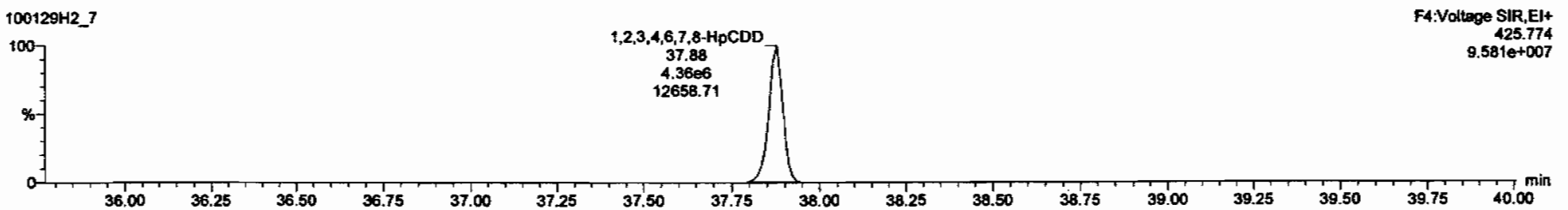

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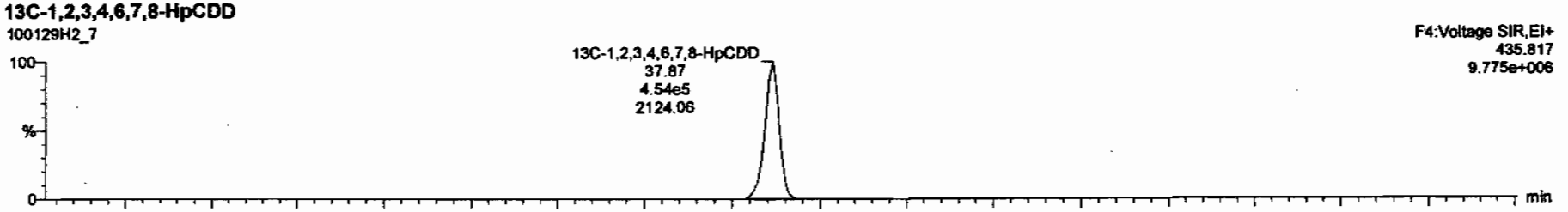

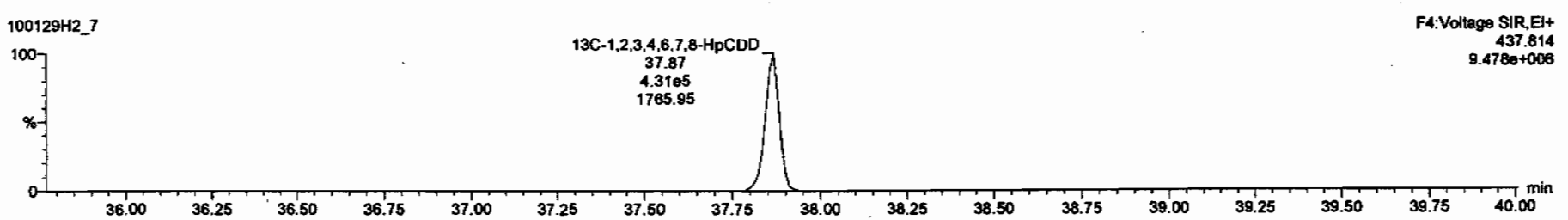

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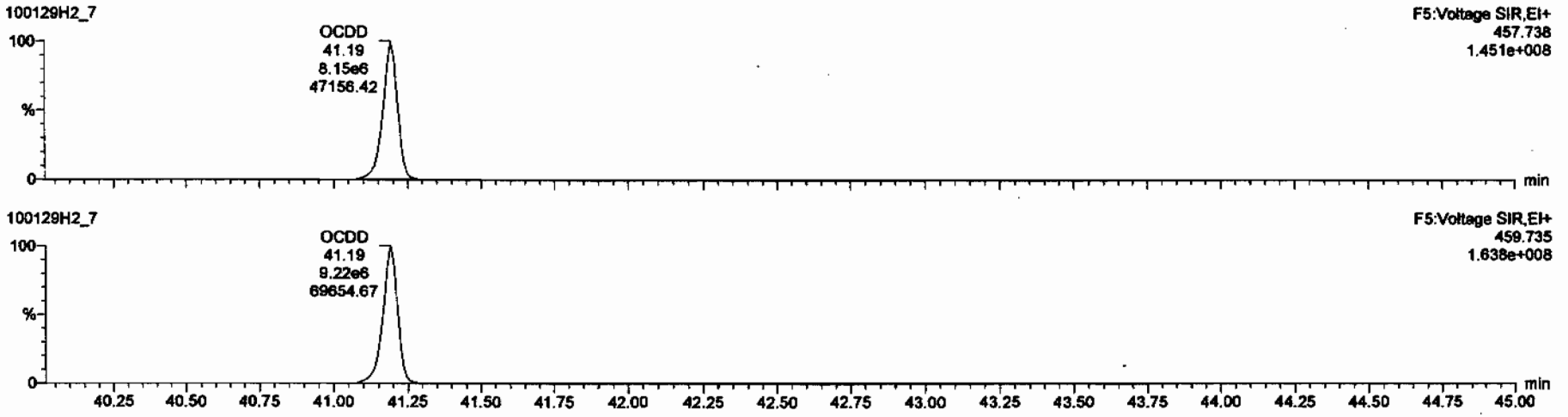

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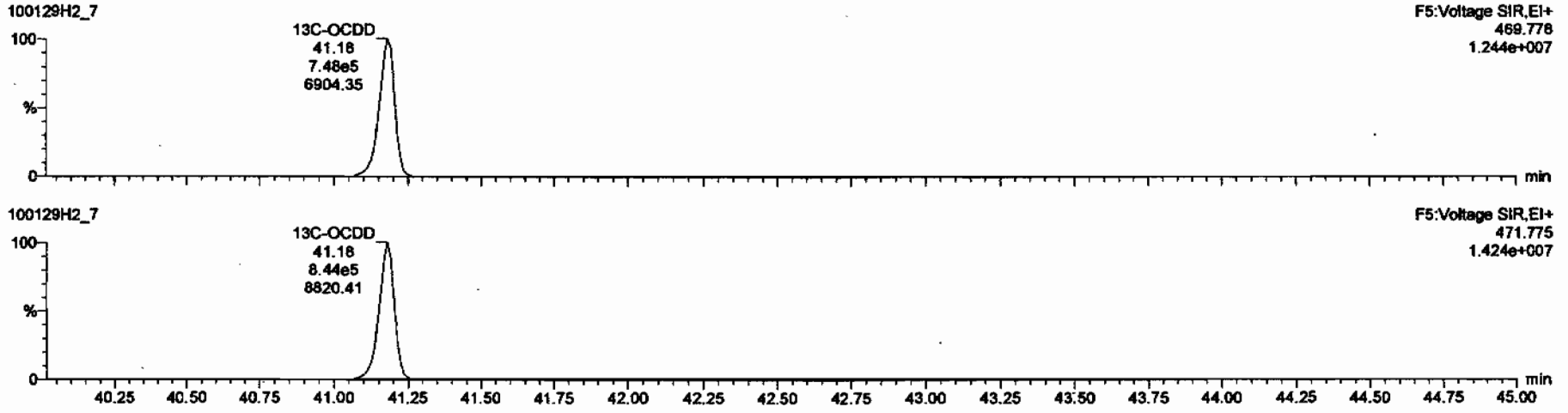

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2,3,7,8-TCDF

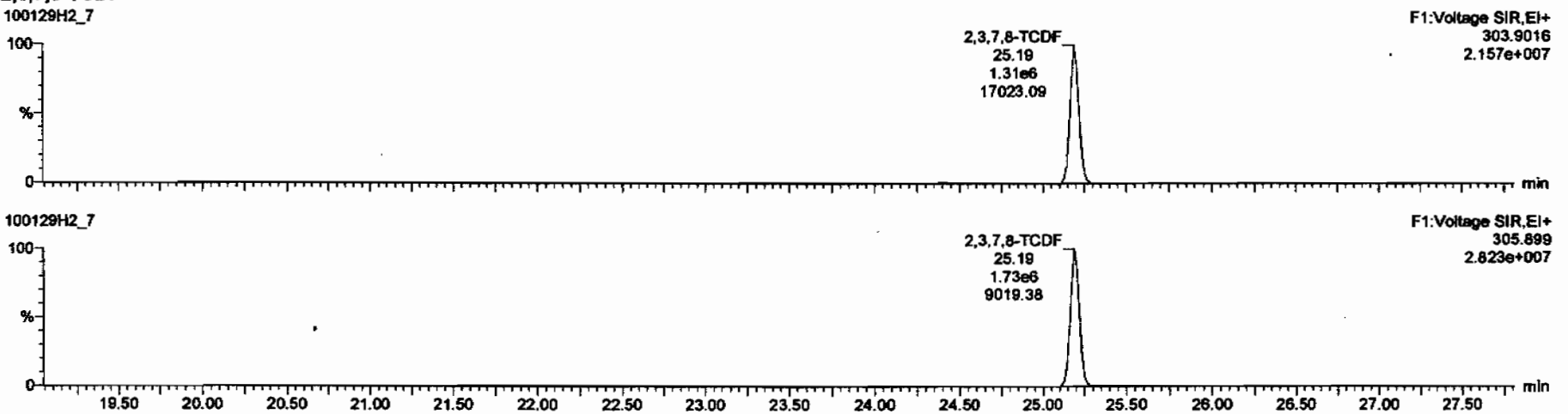

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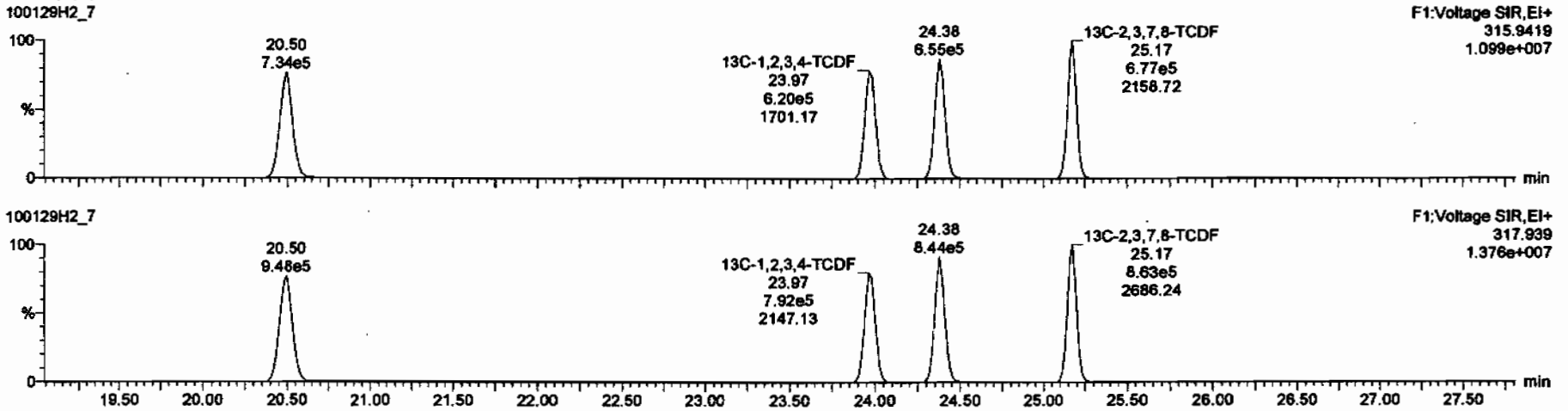

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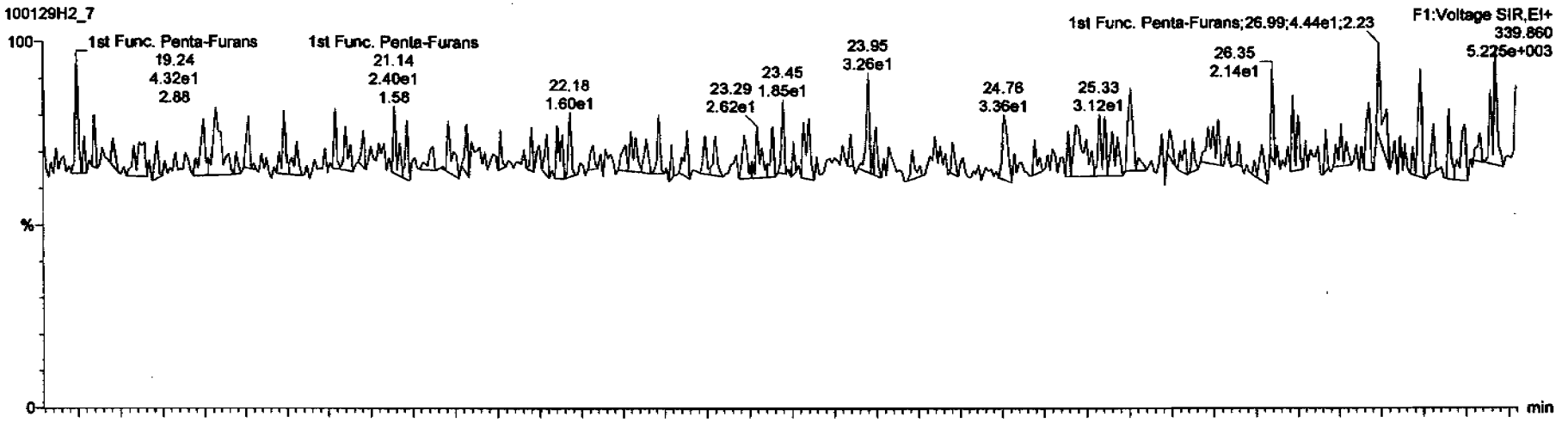

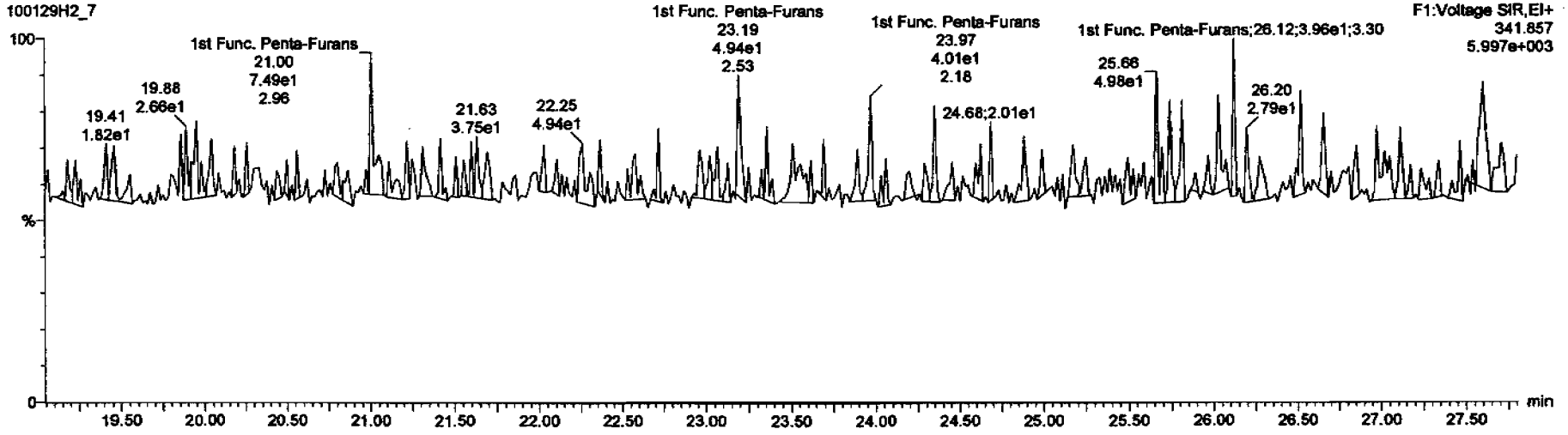

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1,2,3,7,8-PeCDF

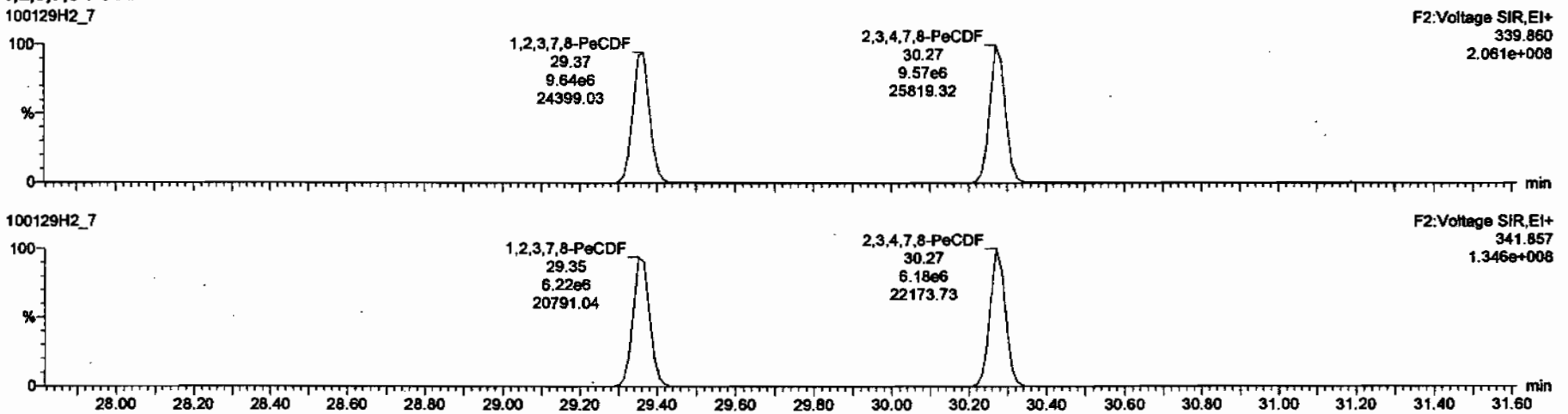

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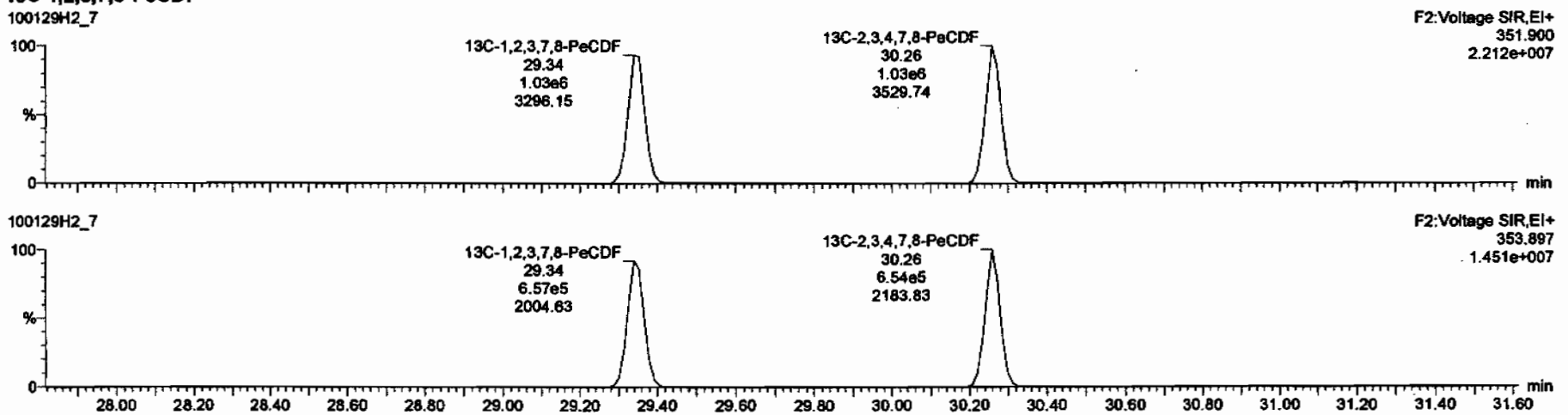

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Name: 100129H2_7, Date: 30-Jan-2010, Time: 07:11:38, ID: ST100129H2-6 1613 CS5 100127H, Description: 1613 CS5 100127H

1,2,3,4,7,8-HxCDF

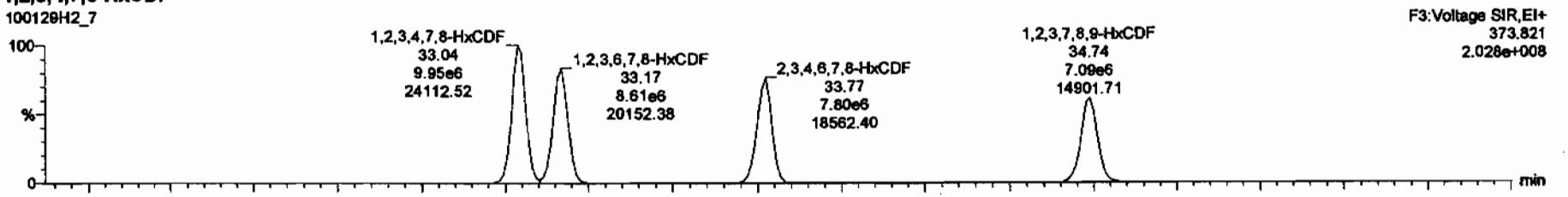

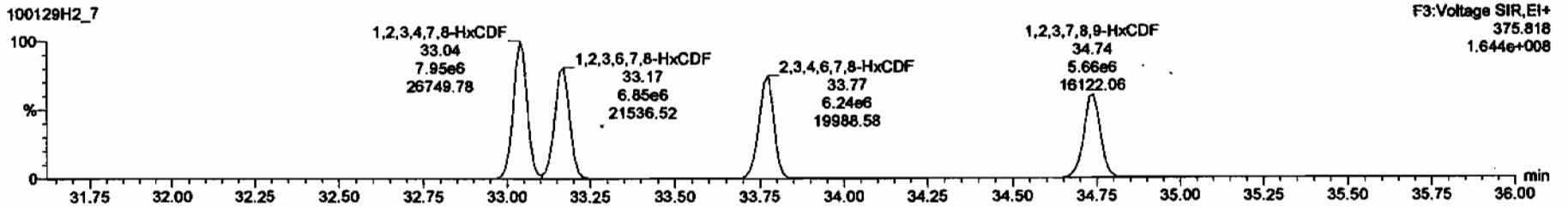

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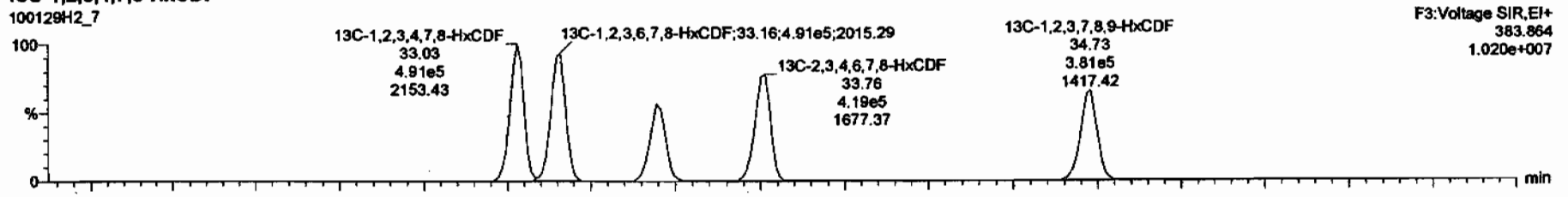

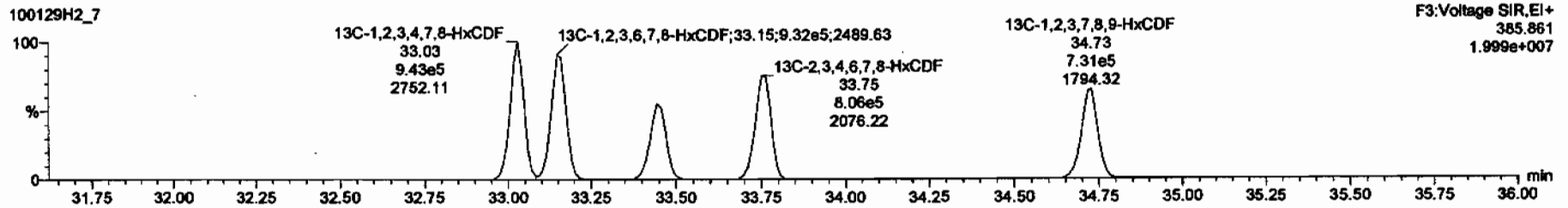

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1,2,3,4,6,7,8-HpCDF

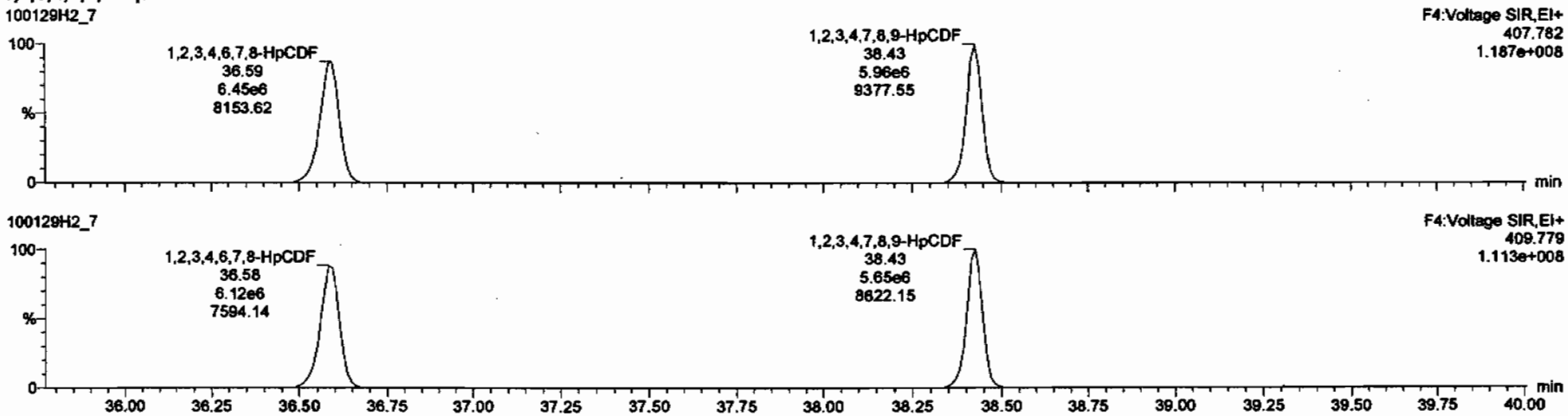

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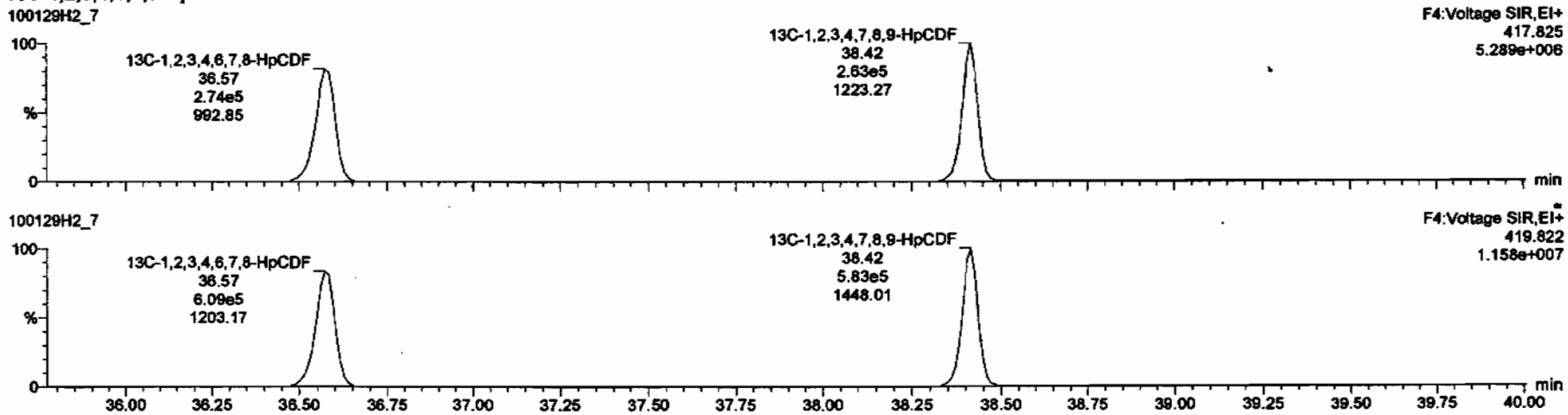

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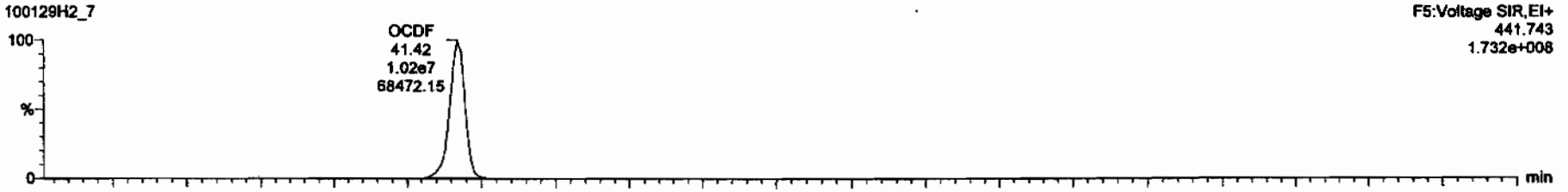

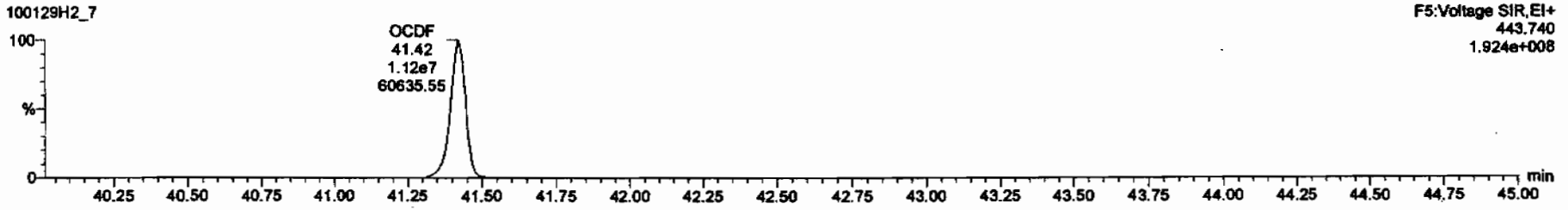

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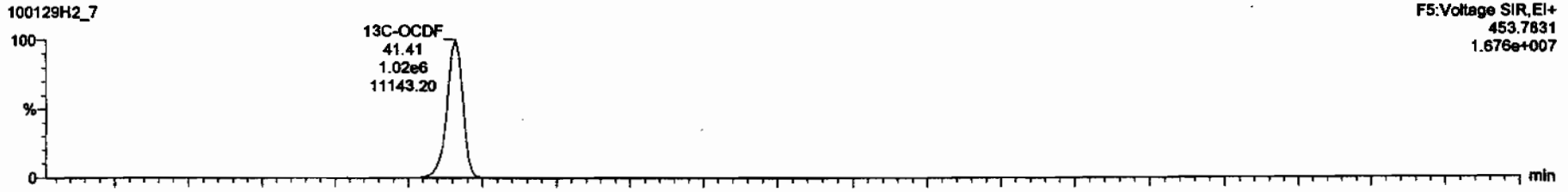

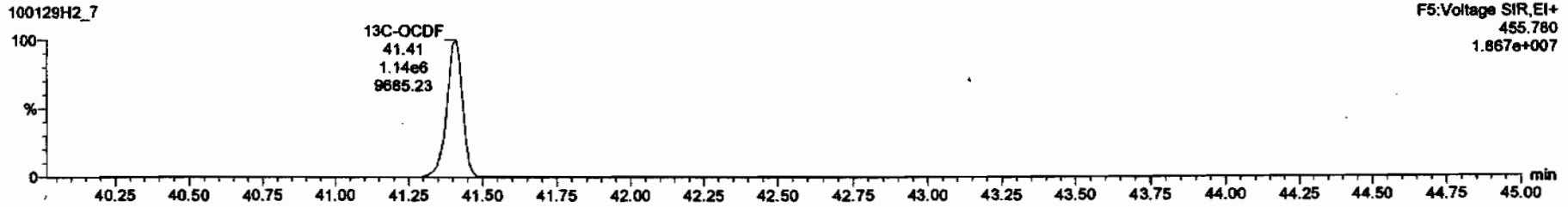

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PFK1

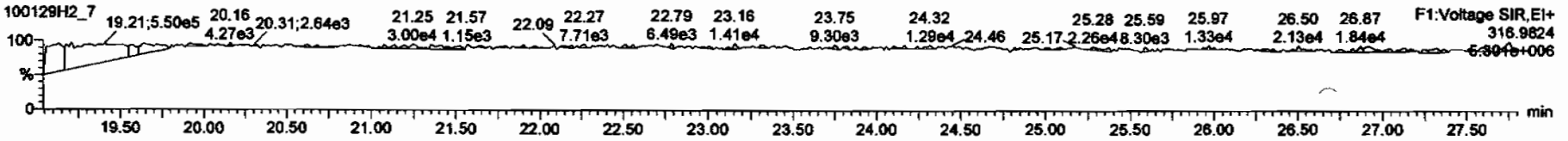

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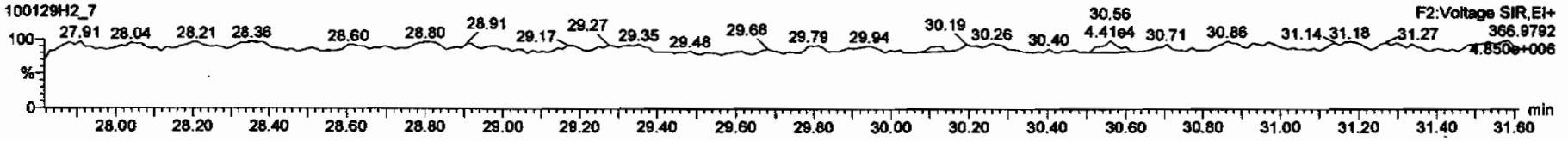

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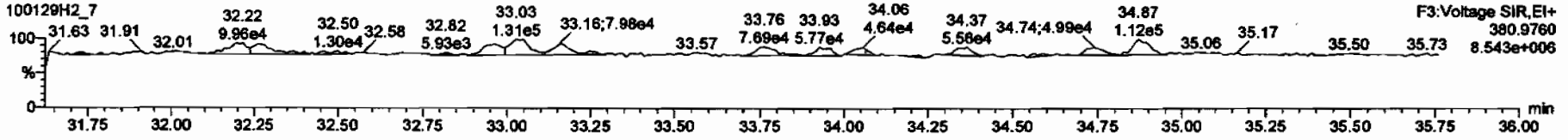

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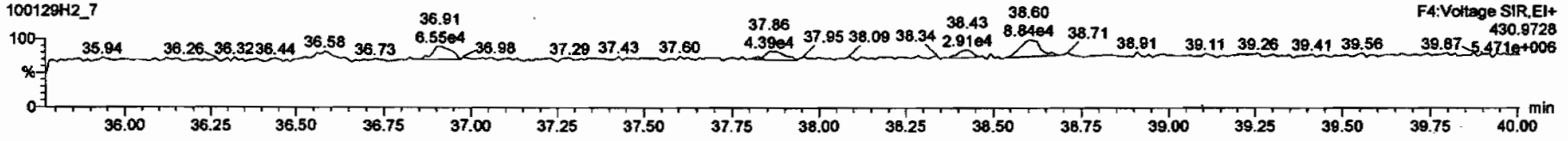

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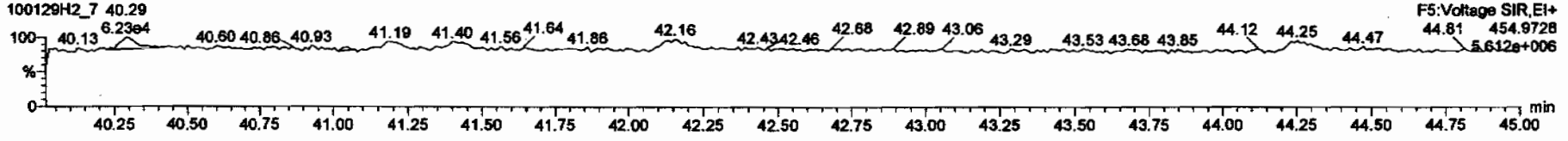

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DPE1

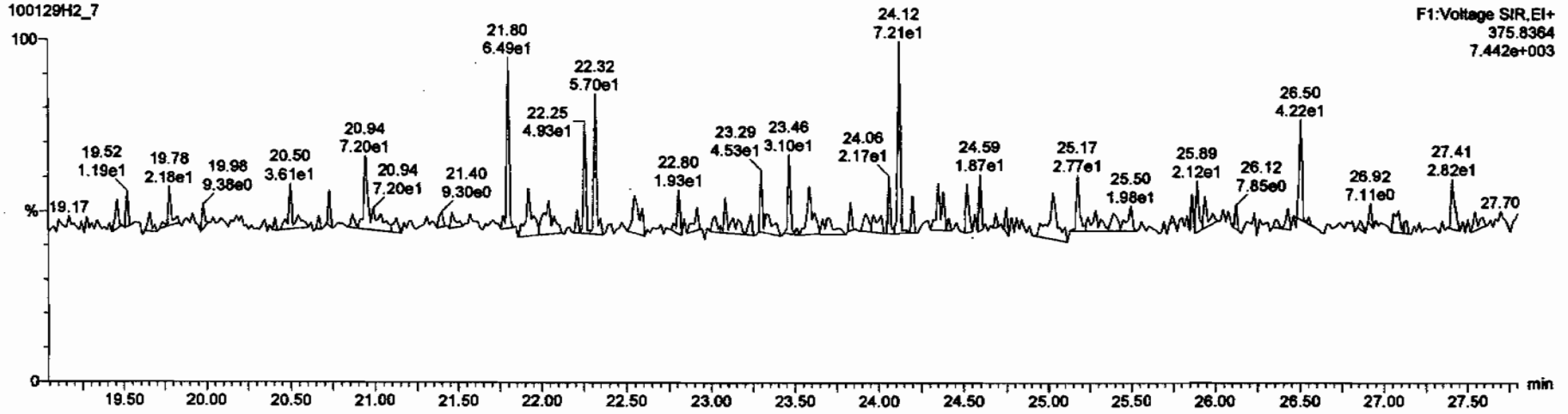

DPE6

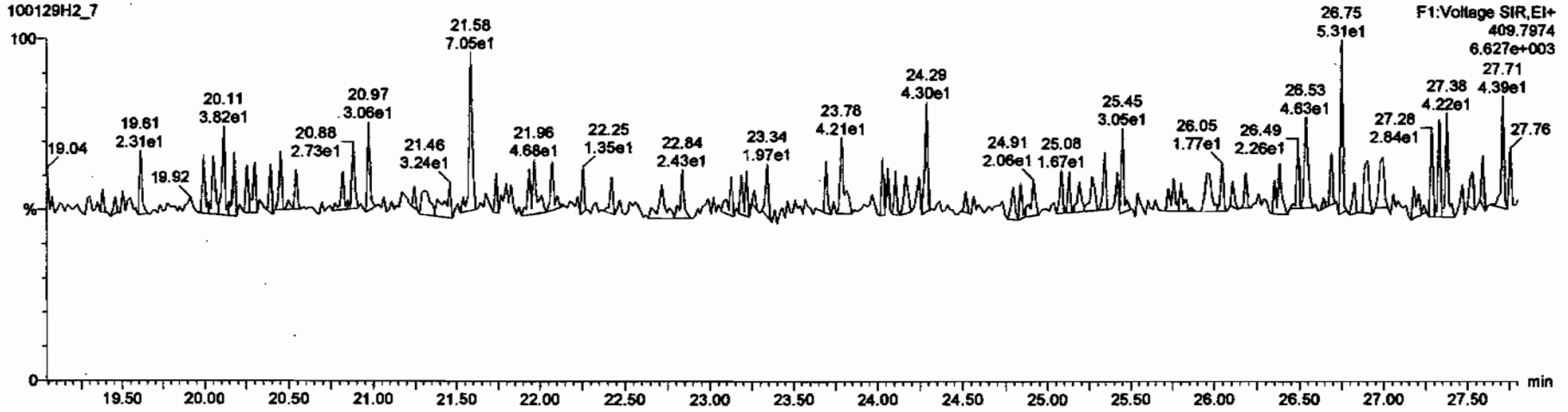

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DPE2

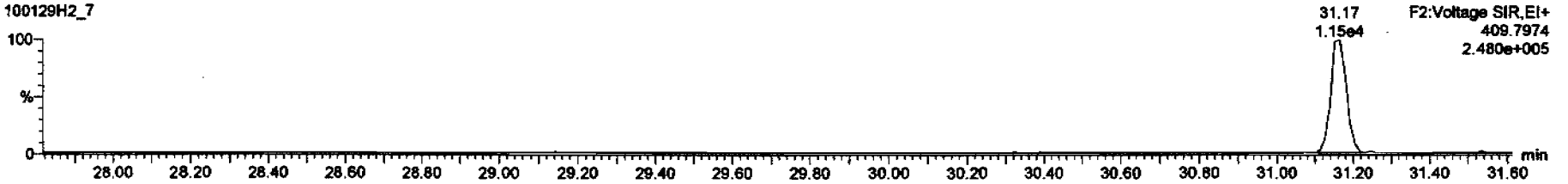

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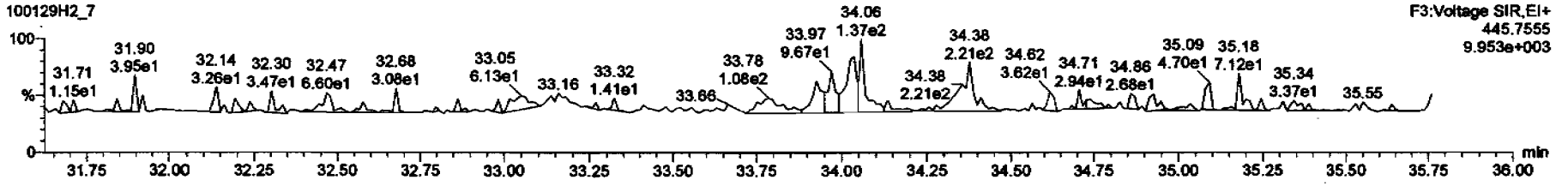

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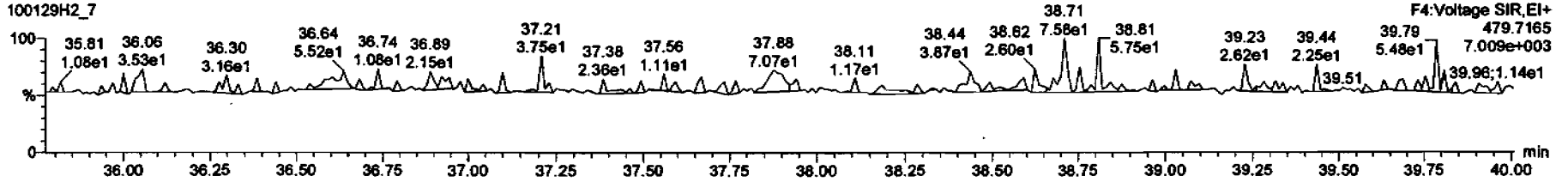

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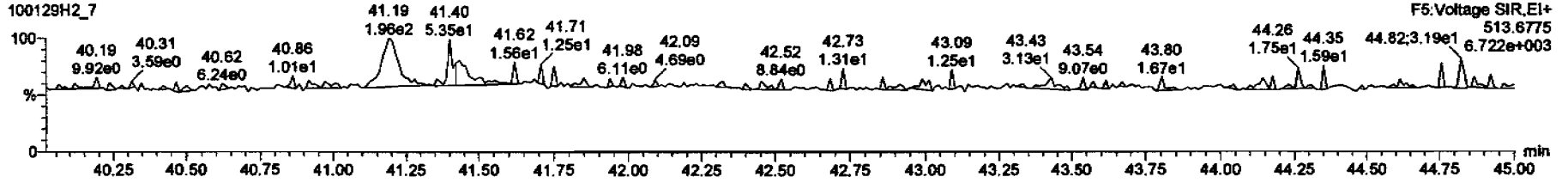

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M 292.9824 R 11529

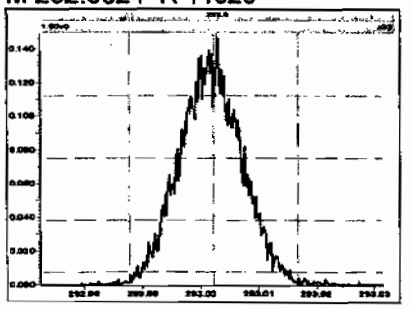

M 304.9824 R 13316

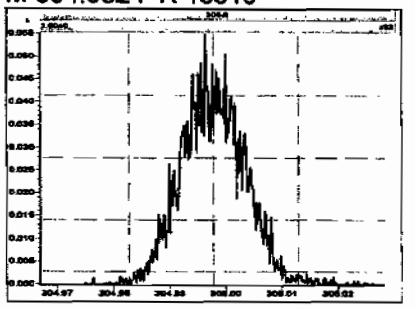

M 318.9792 R 14846

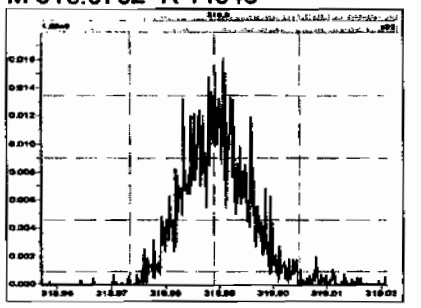

M 330.9792 R 12695

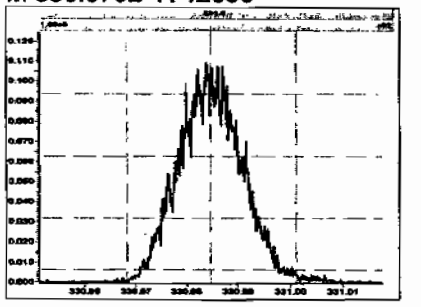

M 342.9792 R 12565

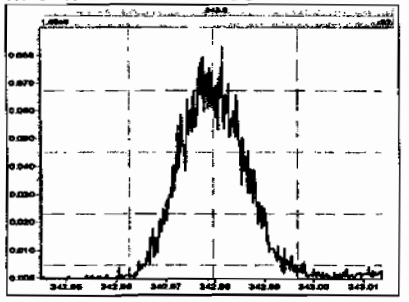

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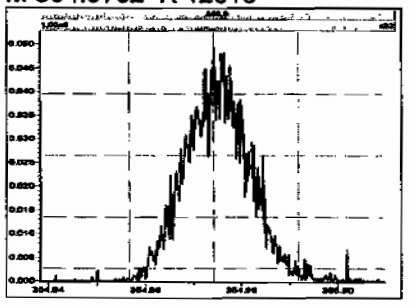

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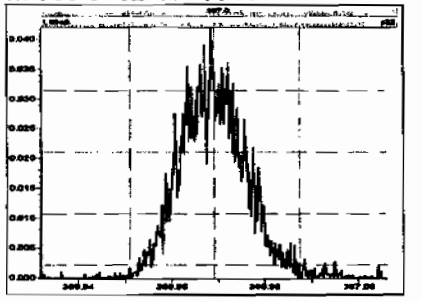

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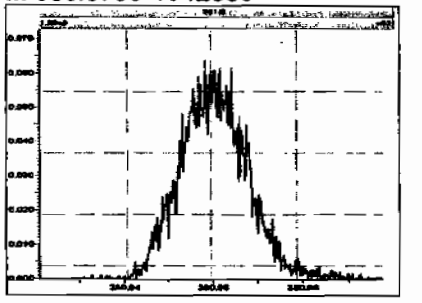

M 392.9760 R 12716

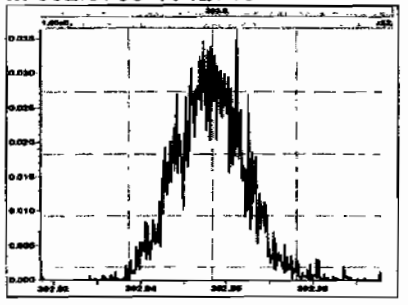

M 404.9760 R 12090

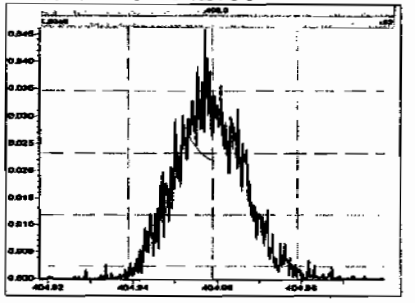

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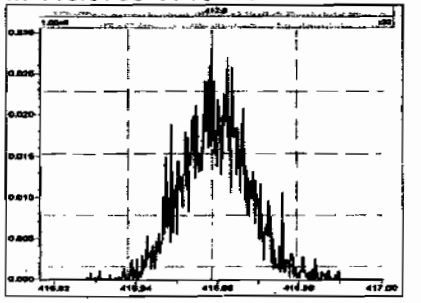

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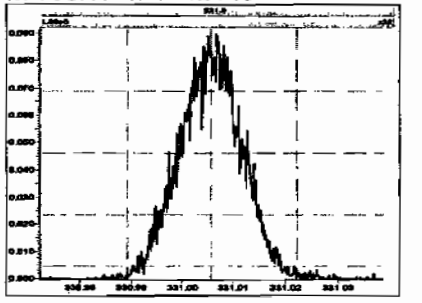

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M 342.9792 R 13065

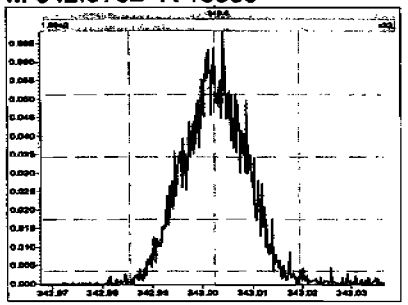

M 354.9792 R 13228

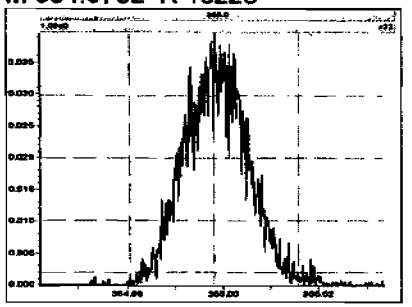

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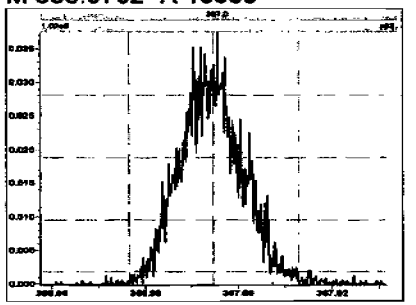

M 380.9760 R 12078

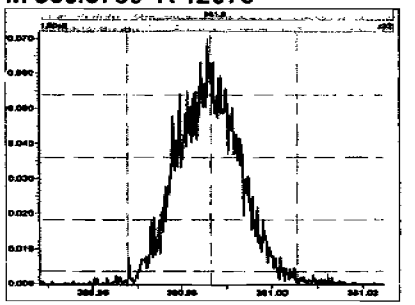

M 392.9760 R 13054

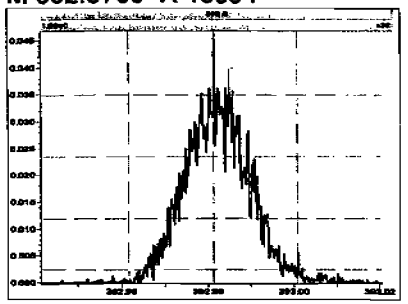

M 404.9760 R 13134

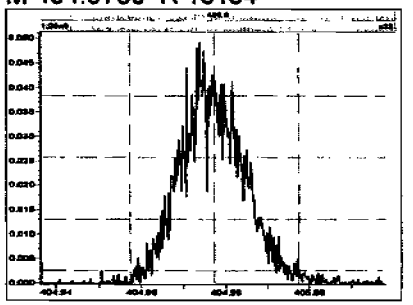

M 416.9760 R 14429

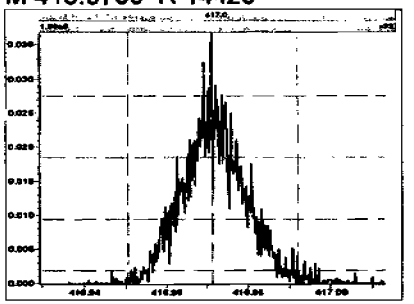

M 366.9792 R 13158

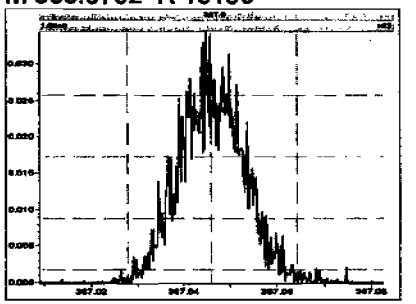

M 380.9760 R 12991

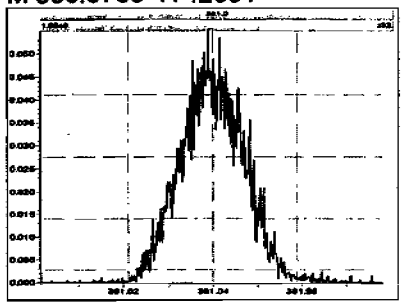

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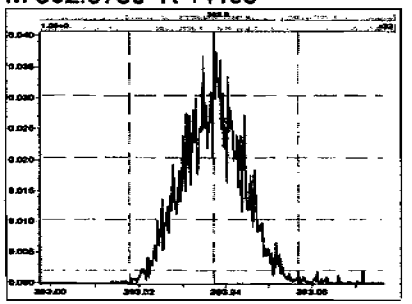

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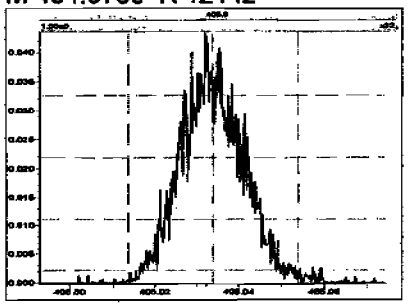

M 416.9760 R 13140

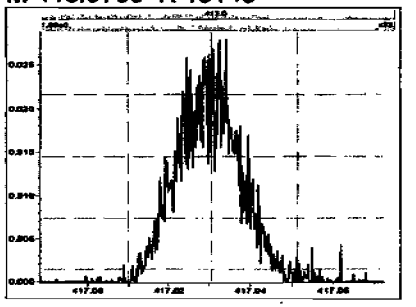

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M 430.9728 R 12452

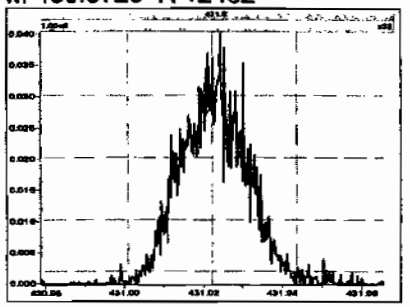

M 442.9728 R 12820

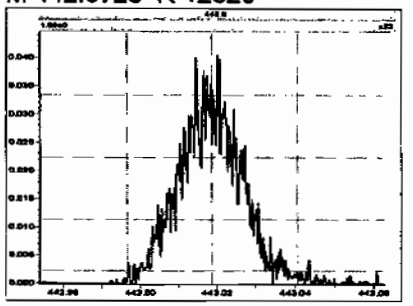

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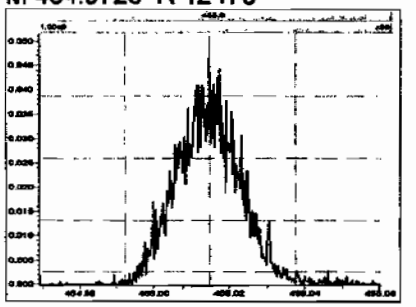

M 404.9760 R 13624

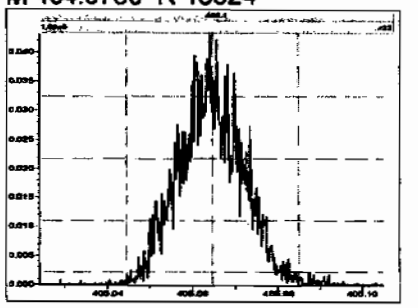

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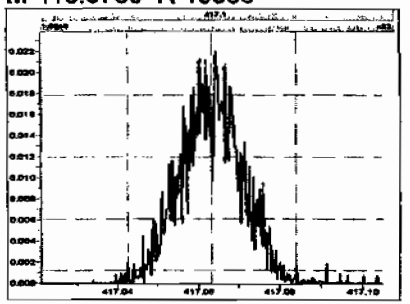

M 430.9728 R 12760

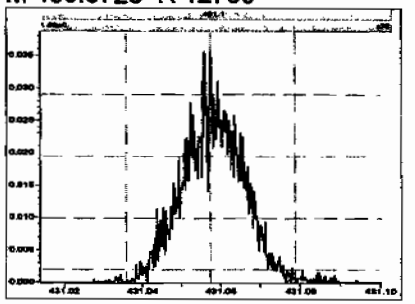

M 442.9728 R 12921

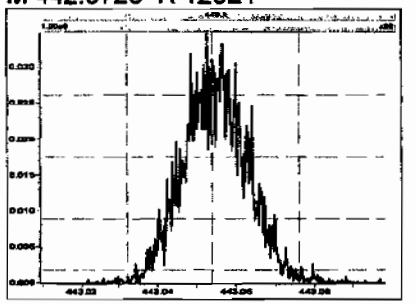

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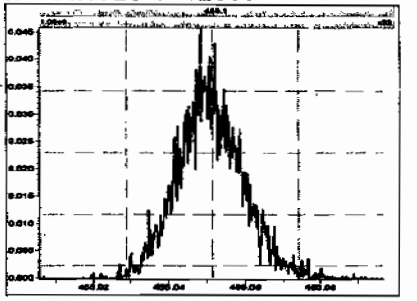

M 466.9728 R 13289

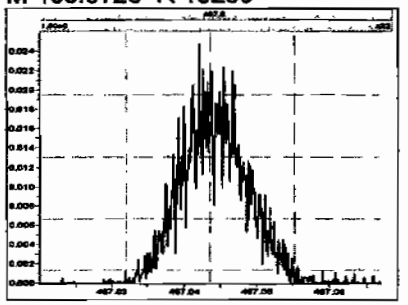

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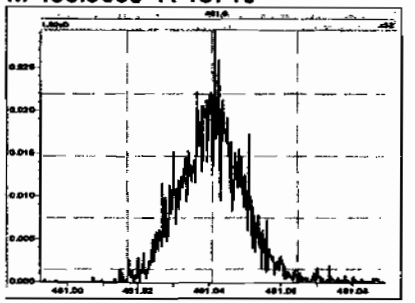

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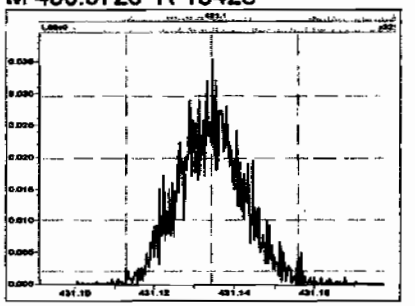

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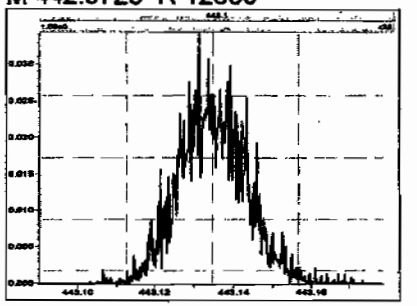

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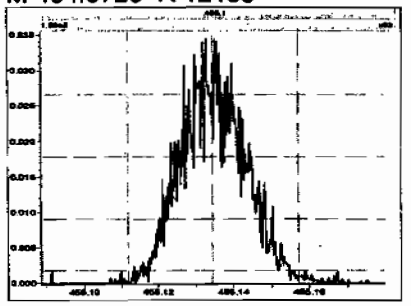

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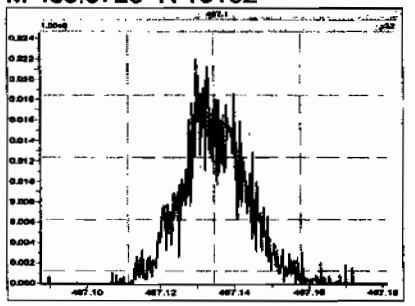

M 480.9696 R 13459

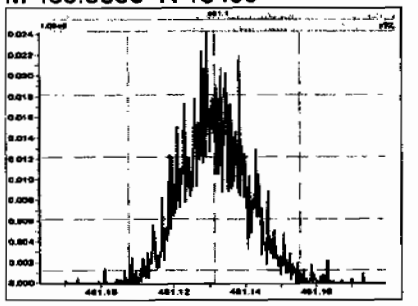

M 492.9696 R 14006

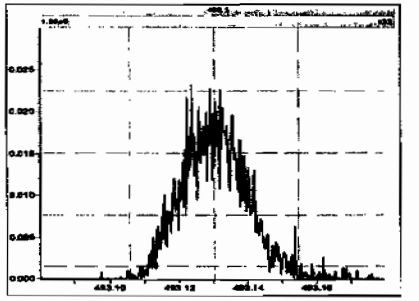

M 504.9696 R 12825

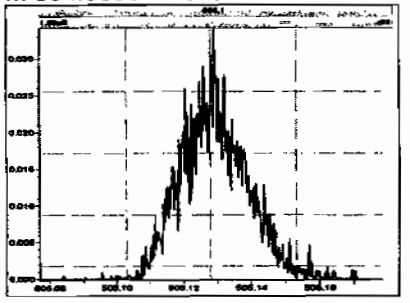

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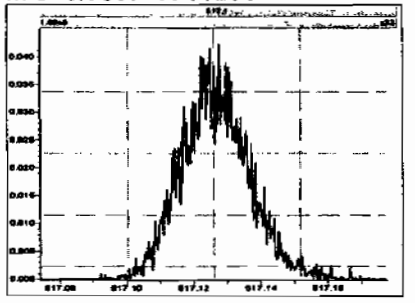

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Printed: Monday, February 01, 2010 14:26:33 Pacific Standard Time

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2	1,2,3,7,8-PeCDD	3.95e5	0.62	NO	0.935	1.000	30.57	1.001	51.810	104	0.0544	51.810
3	1,2,3,4,7,8-HxCDD	3.13e5	1.23	NO	0.907	1.000	33.95	1.001	52.960	106	0.0758	52.960
4	1,2,3,6,7,8-HxCDD	3.06e5	1.23	NO	0.995	1.000	34.05	1.000	44.937	89.9	0.0686	44.937
5	1,2,3,7,8,9-HxCDD	3.11e5	1.22	NO	0.930	1.000	34.36	1.000	49.513	99.0	0.0794	49.513
6	1,2,3,4,6,7,8-HpCDD	2.59e5	1.04	NO	1.00	1.000	37.88	1.000	50.208	100	0.107	50.208
7	OCDD	4.40e5	0.89	NO	1.10	1.000	41.18	1.000	88.747	88.7	0.0698	88.747
8	2,3,7,8-TCDF	1.08e5	0.75	NO	0.956	1.000	25.19	1.001	9.1772	91.8	0.0413	9.1772
9	1,2,3,7,8-PeCDF	4.92e5	1.57	NO	0.941	1.000	29.37	1.000	47.879	95.8	0.0962	47.879
10	2,3,4,7,8-PeCDF	5.37e5	1.56	NO	0.926	1.000	30.29	1.000	50.400	101	0.0897	50.400
11	1,2,3,4,7,8-HxCDF	5.09e5	1.27	NO	1.22	1.000	33.05	1.001	46.659	93.3	0.0837	46.659
12	1,2,3,6,7,8-HxCDF	4.89e5	1.26	NO	1.08	1.000	33.17	1.000	51.154	102	0.0974	51.154
13	2,3,4,6,7,8-HxCDF	4.56e5	1.26	NO	1.13	1.000	33.77	1.000	49.390	98.8	0.104	49.390
14	1,2,3,7,8,9-HxCDF	3.74e5	1.29	NO	1.13	1.000	34.74	1.000	48.195	96.4	0.148	48.195
15	1,2,3,4,6,7,8-HpCDF	4.20e5	1.09	NO	1.44	1.000	36.59	1.001	48.107	96.2	0.127	48.107
16	1,2,3,4,7,8,9-HpCDF	3.33e5	1.06	NO	1.38	1.000	38.43	1.000	49.183	98.4	0.132	49.183
17	OCDF	5.31e5	0.88	NO	1.01	1.000	41.41	1.000	91.700	91.7	0.0803	91.700
18	13C-2,3,7,8-TCDD	8.75e5	0.78	NO	1.10	1.000	25.95	1.022	103.09	103	0.160	
19	13C-1,2,3,7,8-PeCDD	8.16e5	0.62	NO	1.09	1.000	30.55	1.203	96.490	96.5	0.149	
20	13C-1,2,3,4,7,8-HxCDD	6.51e5	1.25	NO	1.01	1.000	33.93	1.014	82.714	82.7	0.143	
21	13C-1,2,3,6,7,8-HxCDD	6.84e5	1.24	NO	0.889	1.000	34.04	1.017	98.732	98.7	0.163	
22	13C-1,2,3,7,8,9-HxCDD	6.75e5	1.24	NO	1.07	1.000	34.34	1.027	80.742	80.7	0.135	
23	13C-1,2,3,4,6,7,8-HpCDD	5.15e5	1.07	NO	0.837	1.000	37.87	1.132	78.954	79.0	0.227	
24	13C-OCDD	8.98e5	0.89	NO	0.712	1.000	41.17	1.231	161.94	81.0	0.141	
25	13C-2,3,7,8-TCDF	1.23e6	0.79	NO	1.05	1.000	25.17	0.992	100.12	100	0.227	
26	13C-1,2,3,7,8-PeCDF	1.09e6	1.56	NO	1.02	1.000	29.35	1.156	91.755	91.8	0.238	
27	13C-2,3,4,7,8-PeCDF	1.15e6	1.56	NO	1.08	1.000	30.27	1.192	91.534	91.5	0.225	
28	13C-1,2,3,4,7,8-HxCDF	8.91e5	0.52	NO	1.37	1.000	33.03	0.987	83.799	83.8	0.205	
29	13C-1,2,3,6,7,8-HxCDF	8.86e5	0.52	NO	1.37	1.000	33.16	0.991	83.270	83.3	0.205	
30	13C-2,3,4,6,7,8-HxCDF	8.20e5	0.52	NO	1.18	1.000	33.76	1.009	89.093	89.1	0.237	

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Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-sss.qld

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Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

31	13C-1,2,3,7,8,9-HxCDF	6.87e5	0.53	NO	1.05	1.000	34.73	1.038	84.040	84.0	0.266
32	13C-1,2,3,4,6,7,8-HpCDF	6.07e5	0.45	NO	0.858	1.000	36.57	1.093	90.751	90.8	0.264
33	13C-1,2,3,4,7,8,9-HpCDF	4.91e5	0.46	NO	0.794	1.000	38.42	1.148	79.433	79.4	0.285
34	13C-OCDF	1.14e6	0.88	NO	0.948	1.000	41.40	1.237	154.51	77.3	0.101
35	37Cl-2,3,7,8-TCDD	8.76e4			0.665	1.000	25.97	1.023	17.069	171	0.0439
36	13C-1,2,3,4-TCDD	7.72e5	0.77	NO	1.00	1.000	25.39	0.000	100.00	100	0.198
37	13C-1,2,3,4-TCDF	1.17e6	0.79	NO	1.00	1.000	23.97	0.000	100.00	100	0.239
38	13C-1,2,3,4,6,9-HxCDF	7.79e5	0.53	NO	1.00	1.000	33.46	0.000	100.00	100	0.280

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-sss.qld

Last Altered: Monday, February 01, 2010 14:25:40 Pacific Standard Time
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Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

2,3,7,8-TCDD

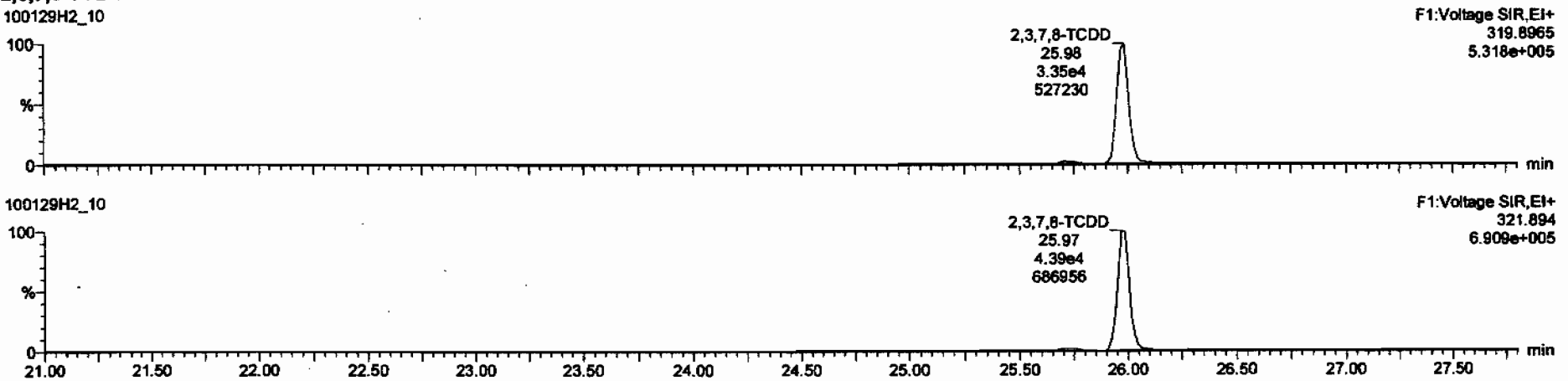

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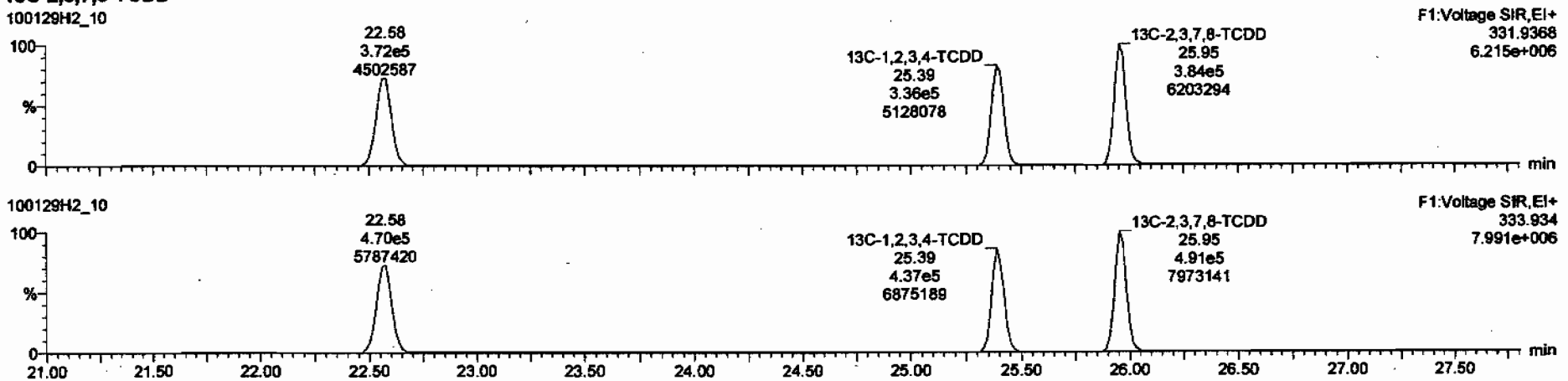

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Last Altered: Monday, February 01, 2010 14:25:40 Pacific Standard Time
Printed: Monday, February 01, 2010 14:26:14 Pacific Standard Time

Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

37Cl-2,3,7,8-TCDD

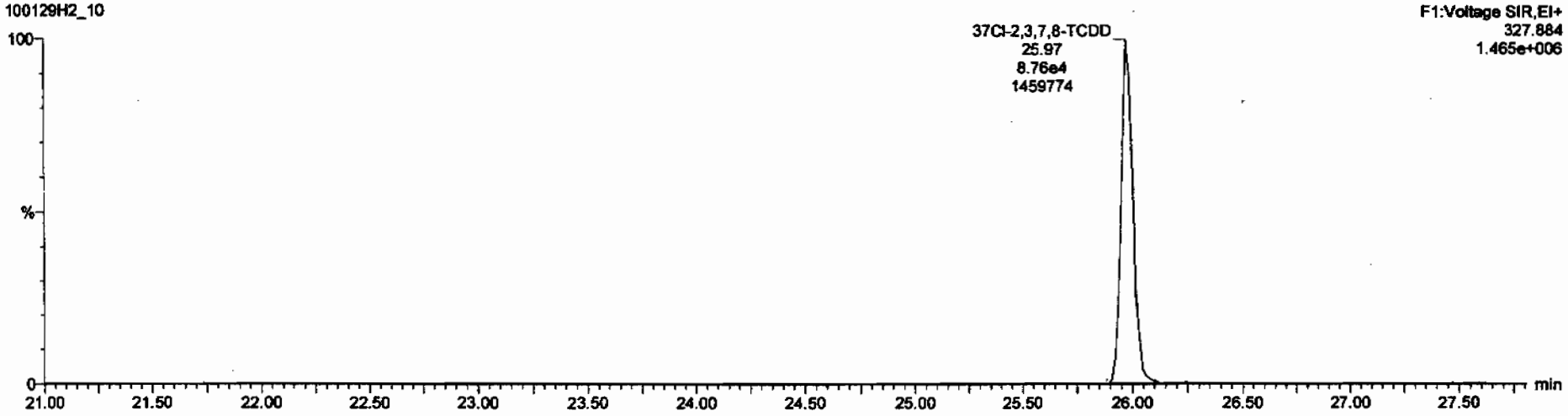

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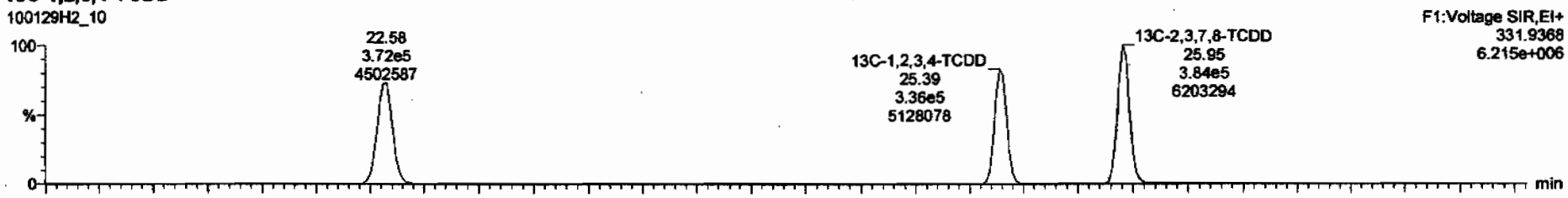

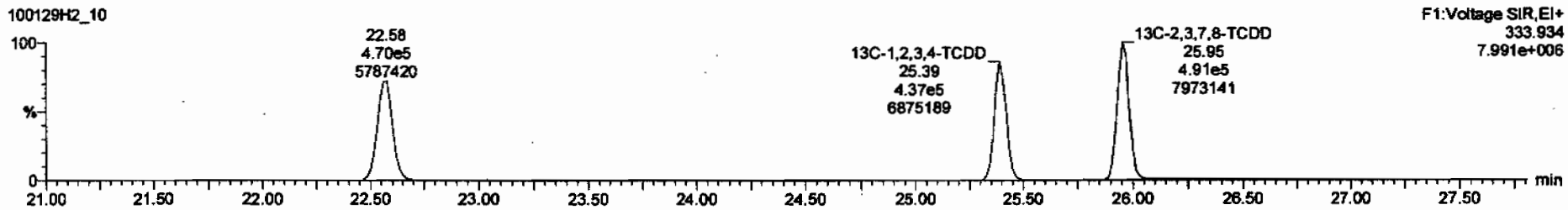

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Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

1,2,3,7,8-PeCDD

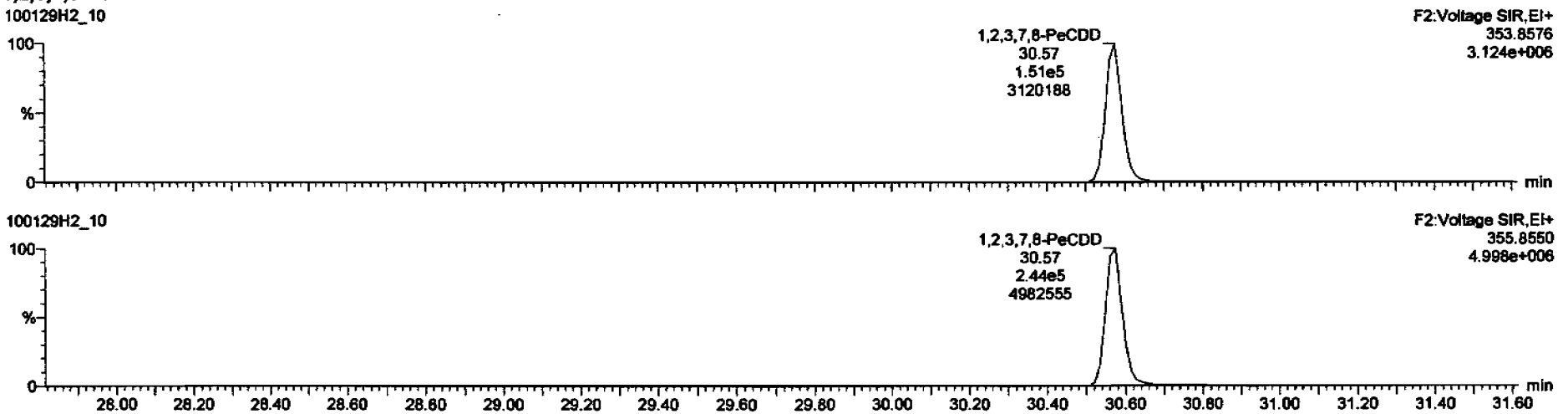

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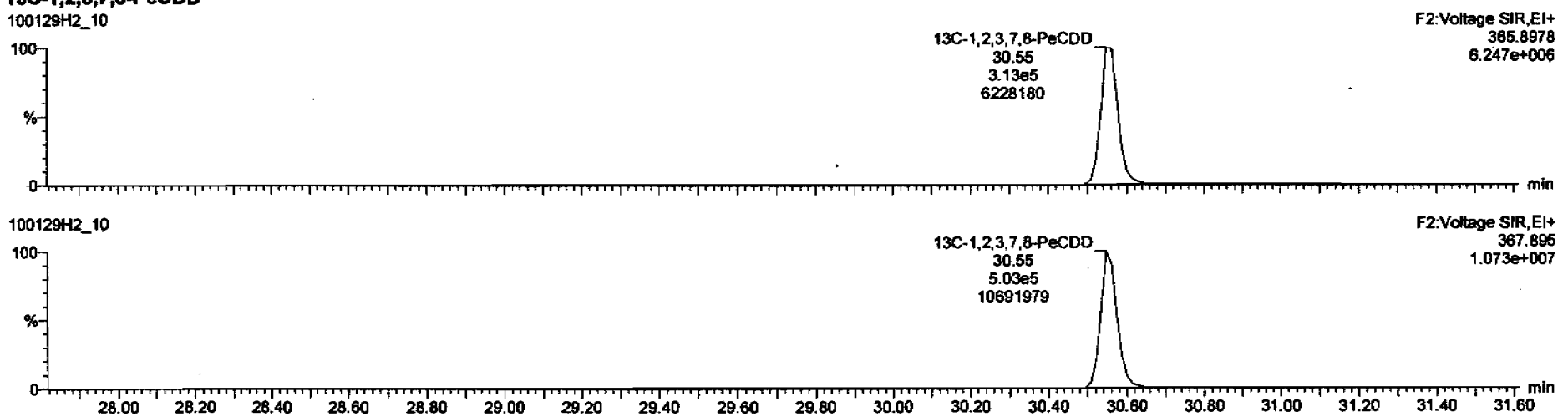

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Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

1,2,3,4,7,8-HxCDD

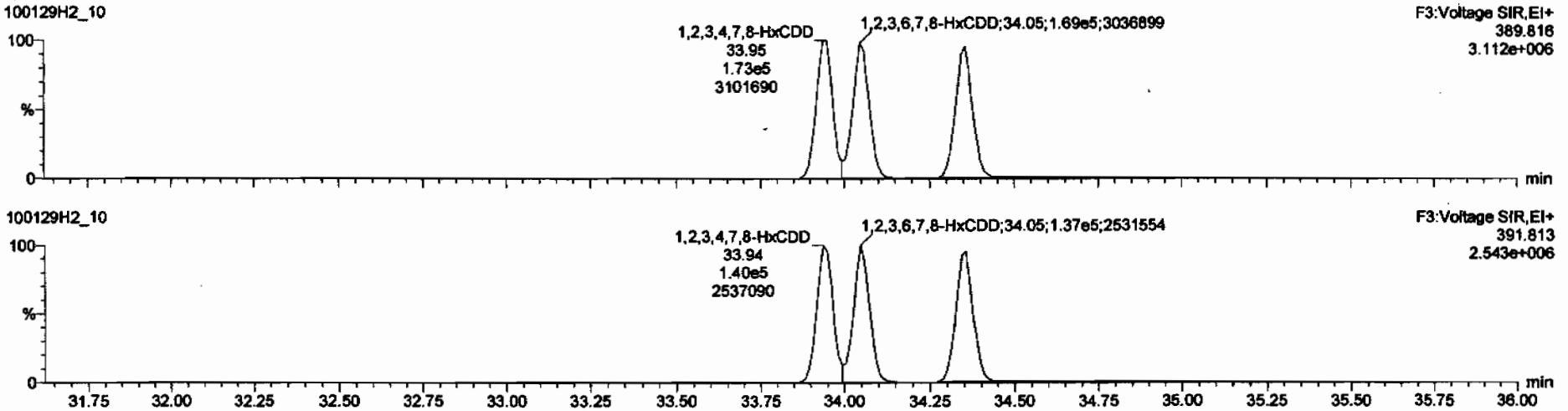

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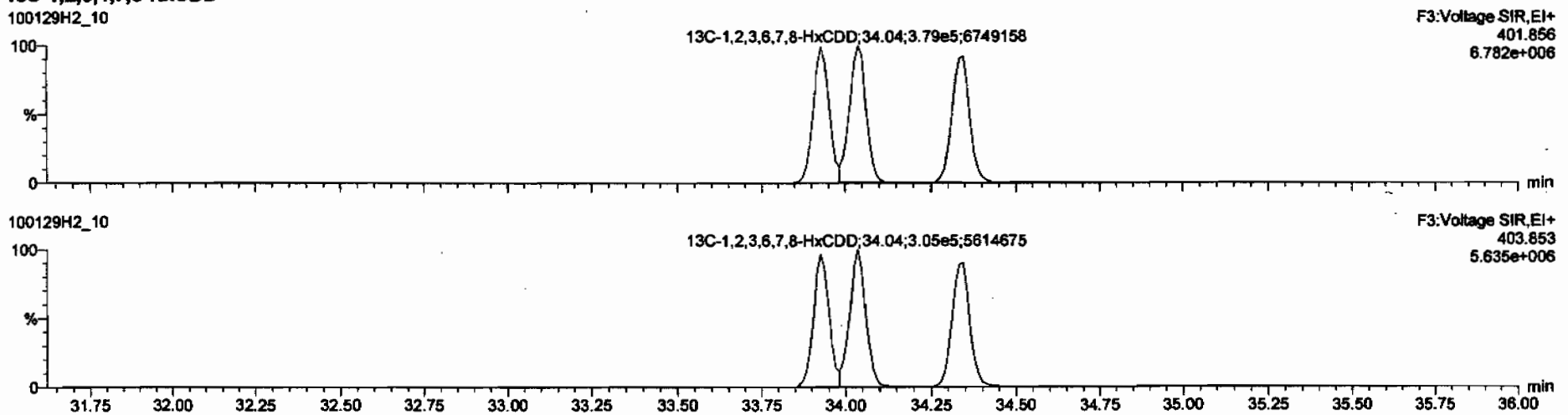

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Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

1,2,3,4,6,7,8-HpCDD

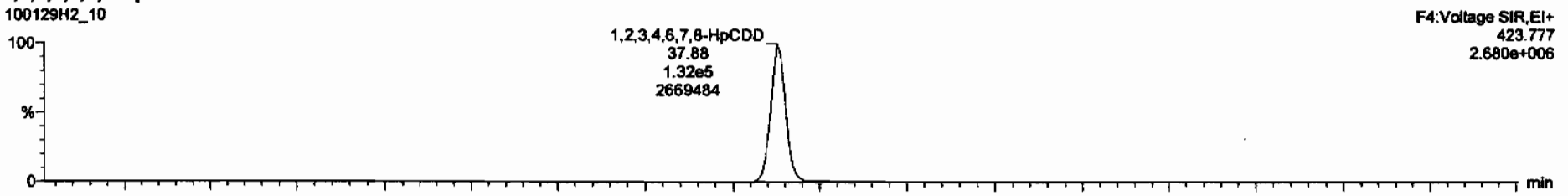

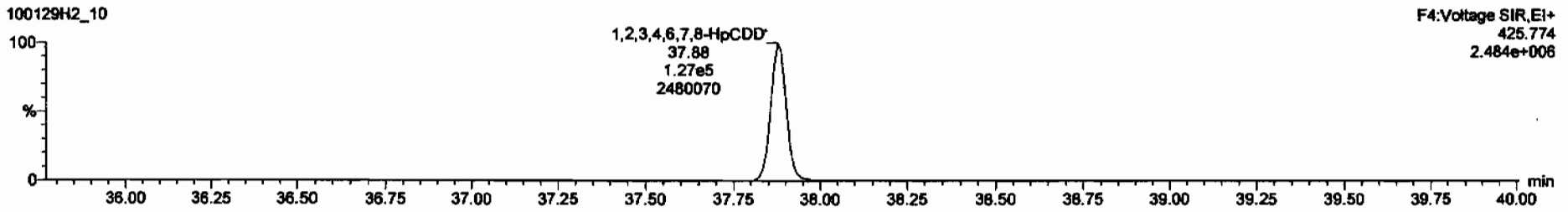

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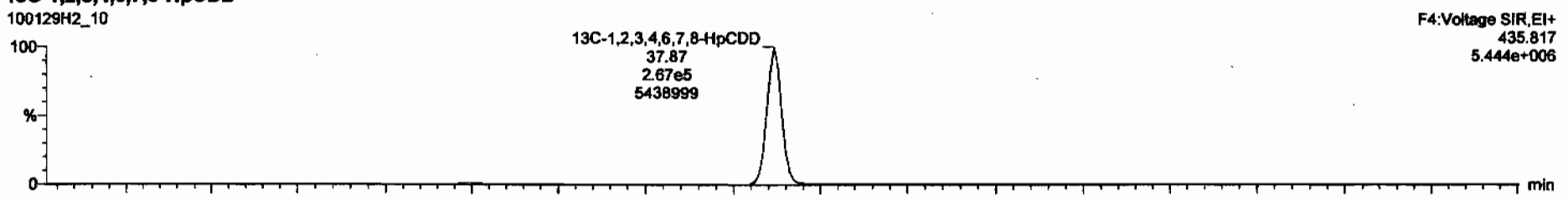

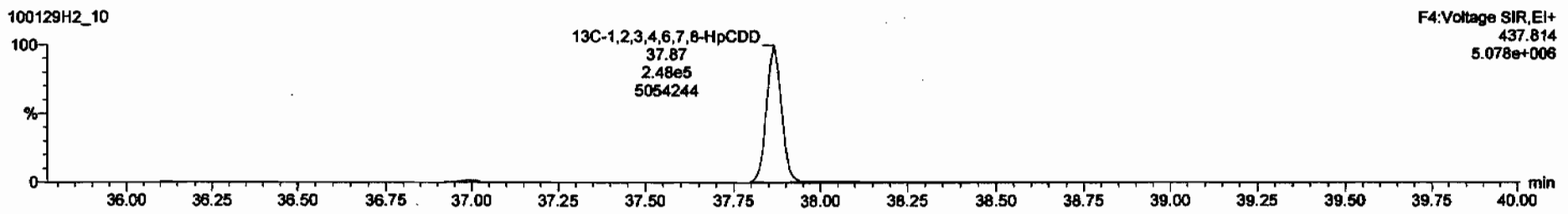

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OCDD

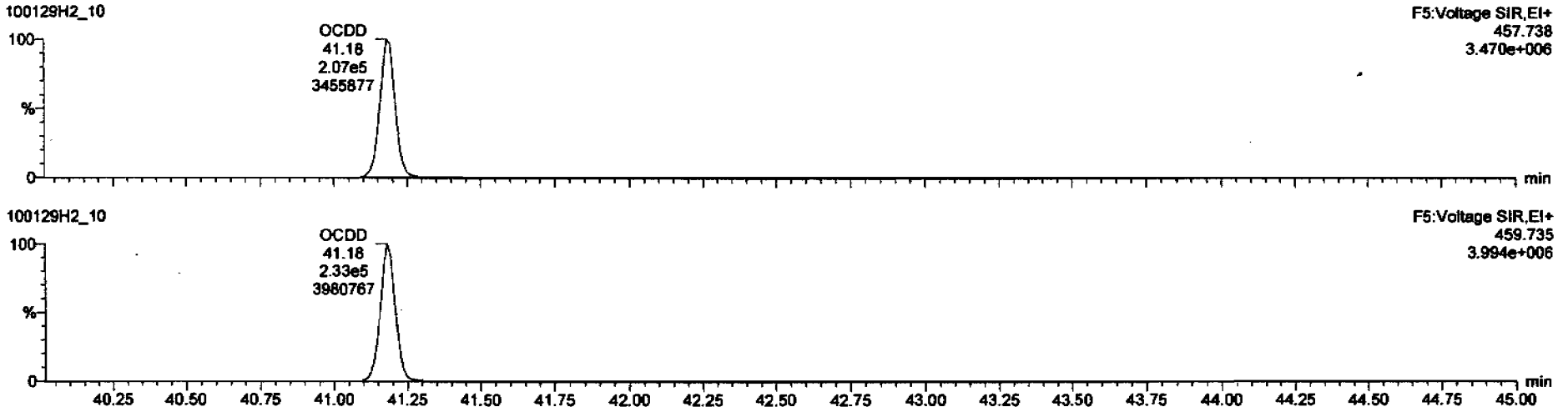

13C-OCDD

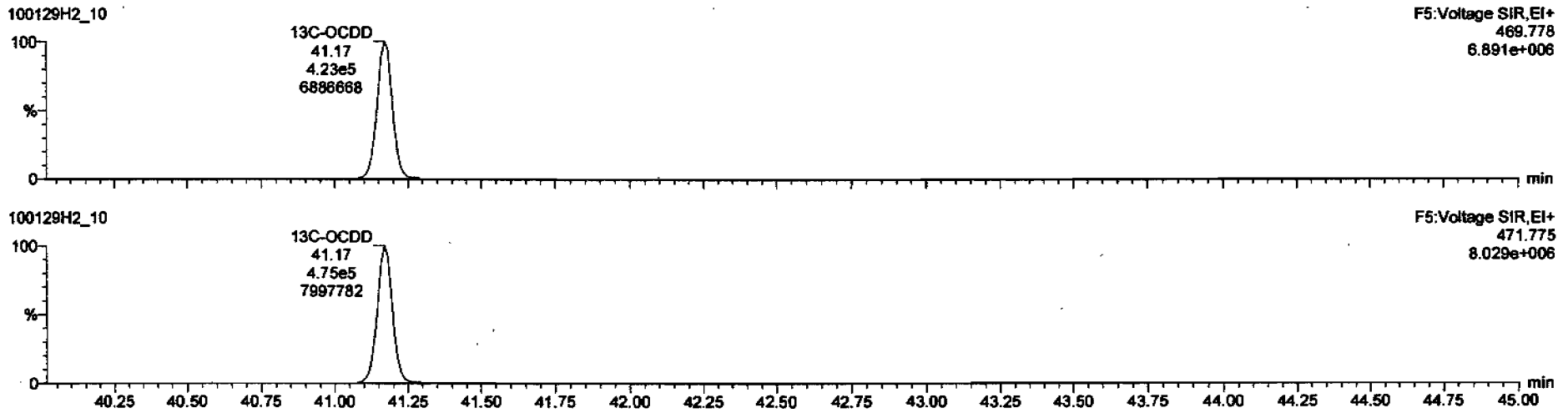

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Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

2,3,7,8-TCDF

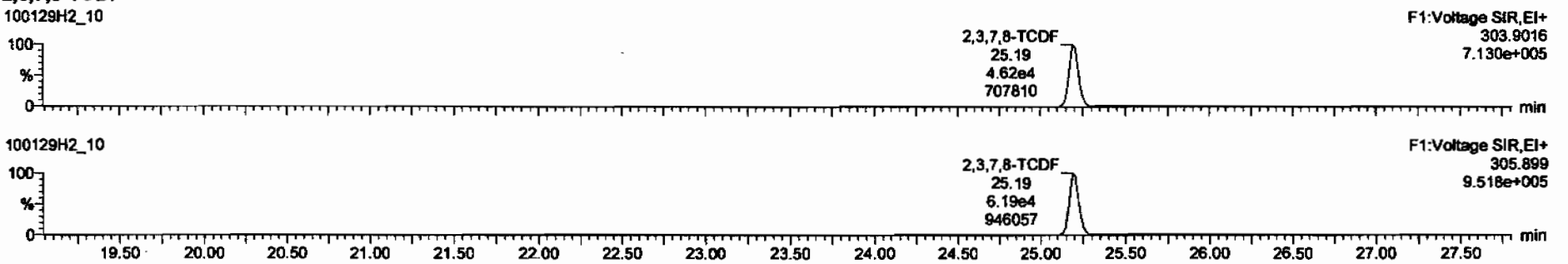

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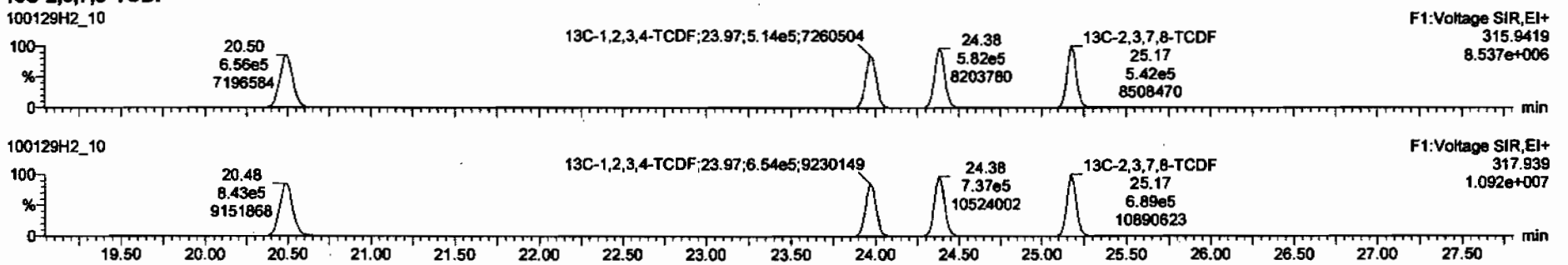

DPE1

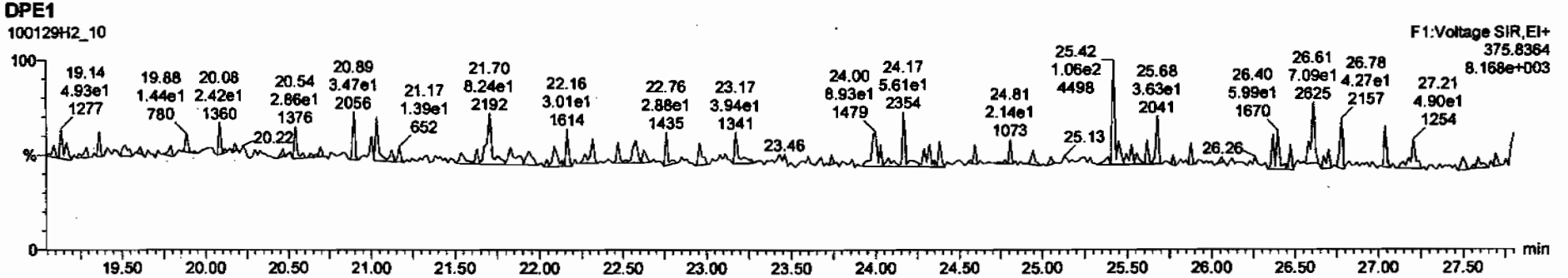

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Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

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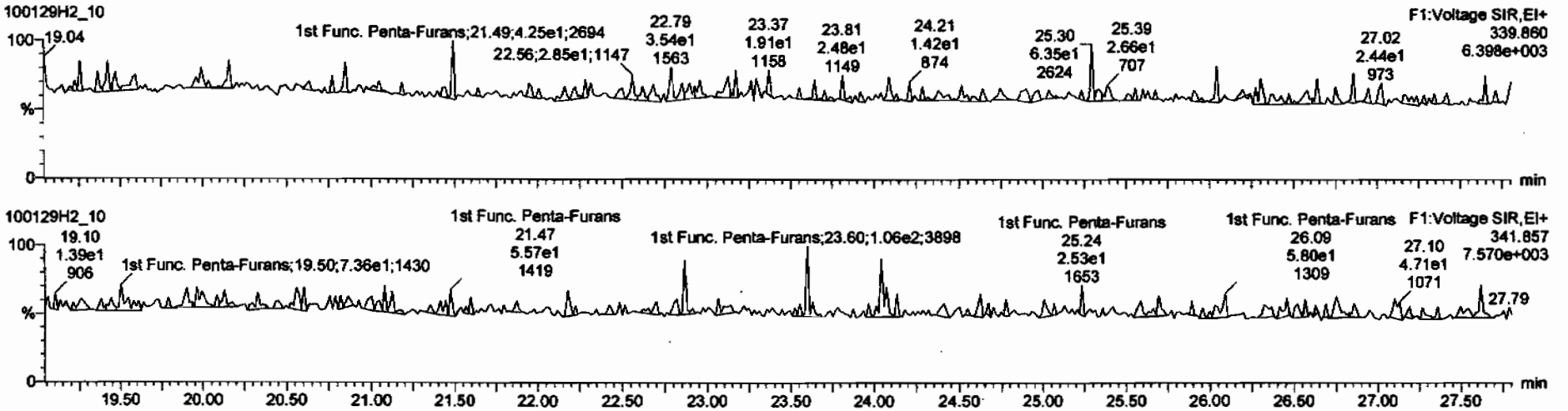

DPE6

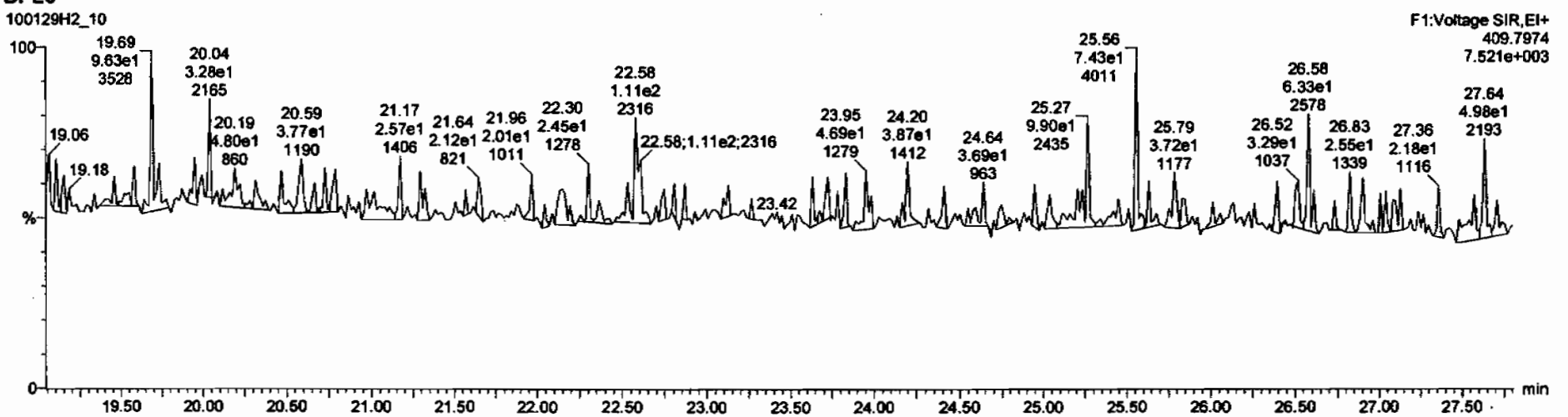

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Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

1,2,3,7,8-PeCDF

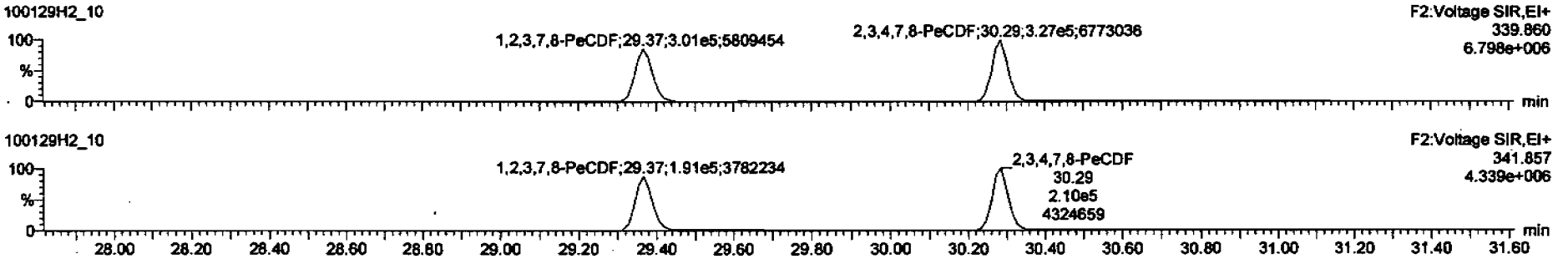

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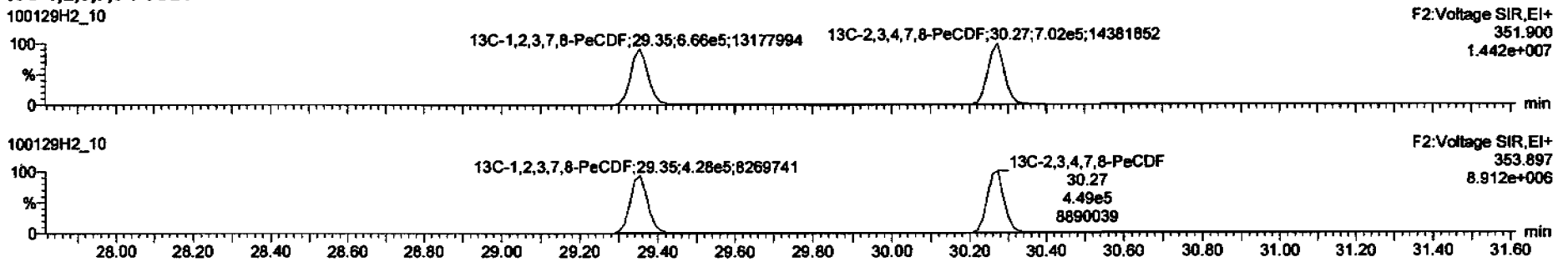

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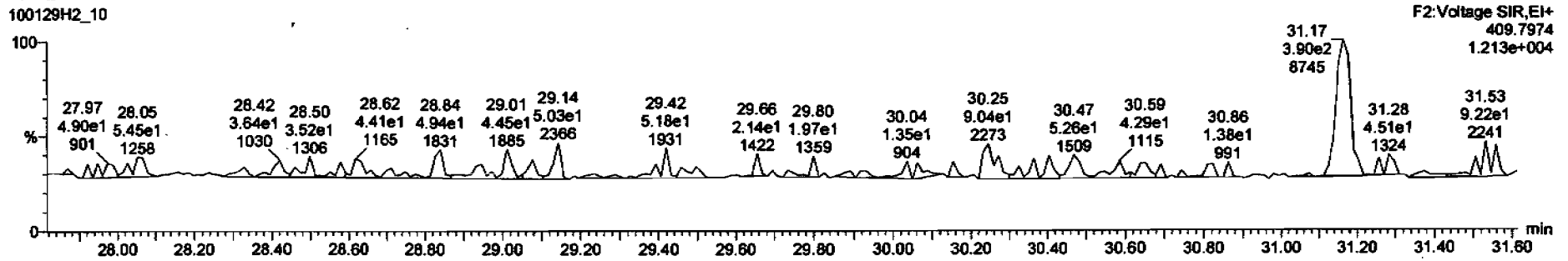

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-sss.qld

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Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

1,2,3,4,7,8-HxCDF

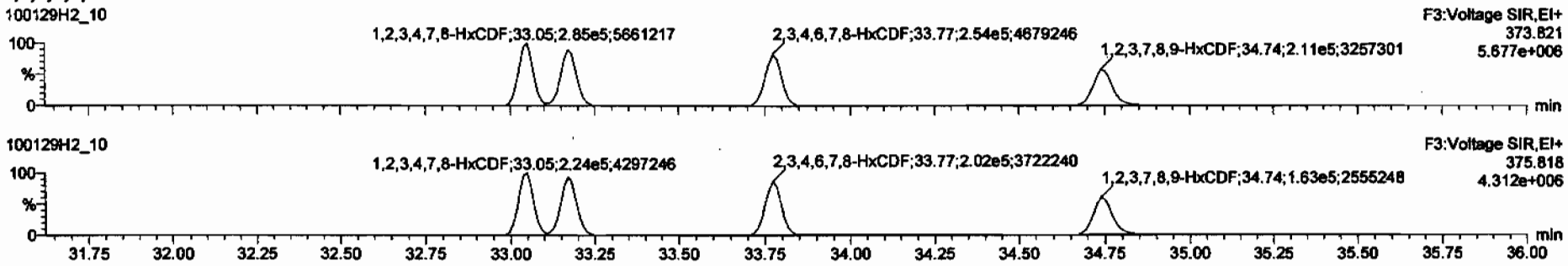

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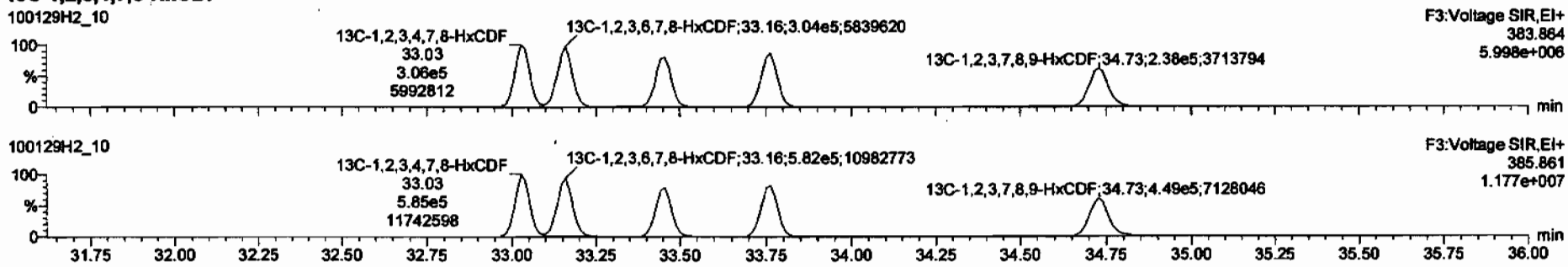

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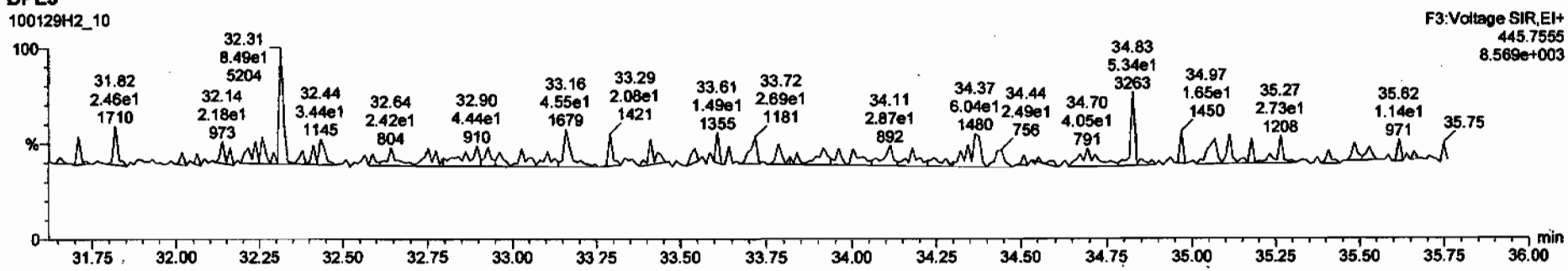

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1,2,3,4,6,7,8-HpCDF

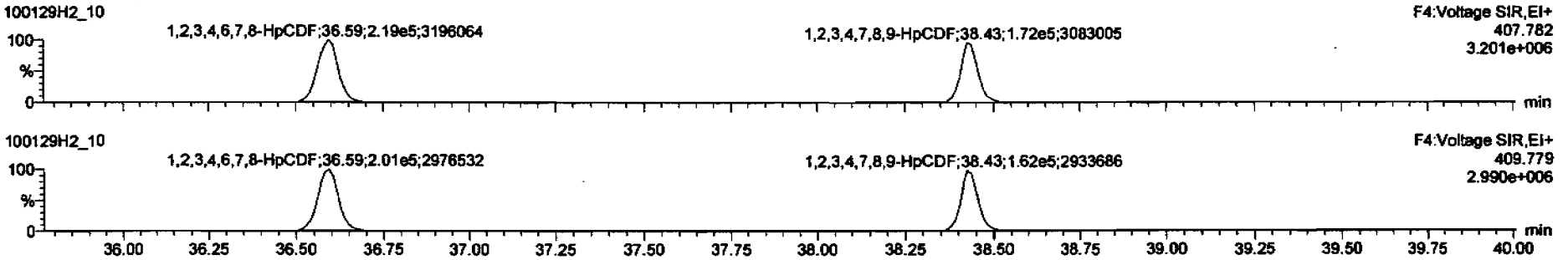

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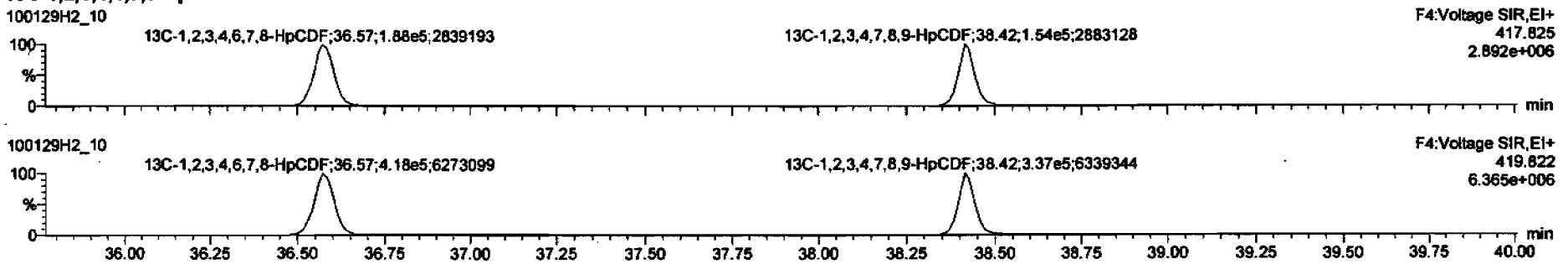

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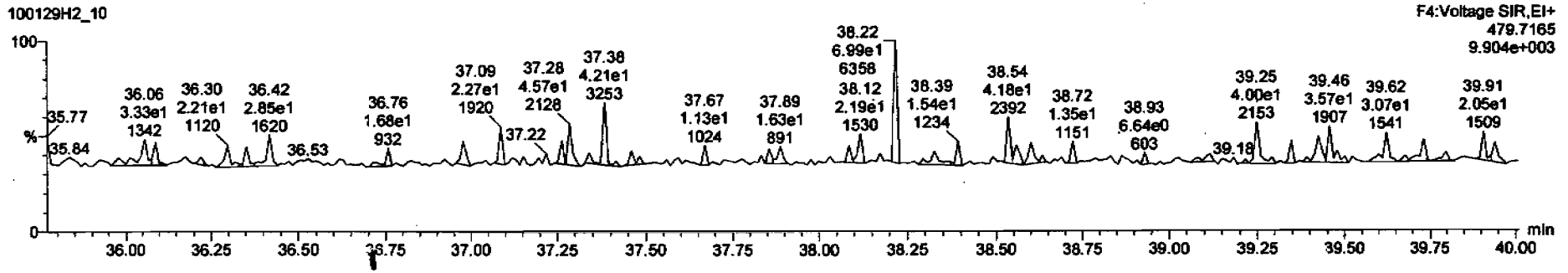

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Printed: Monday, February 01, 2010 14:26:14 Pacific Standard Time

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OCDF

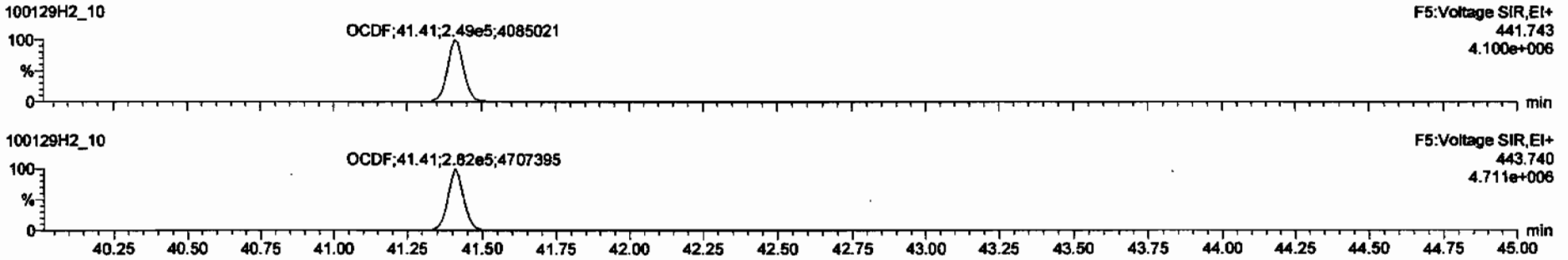

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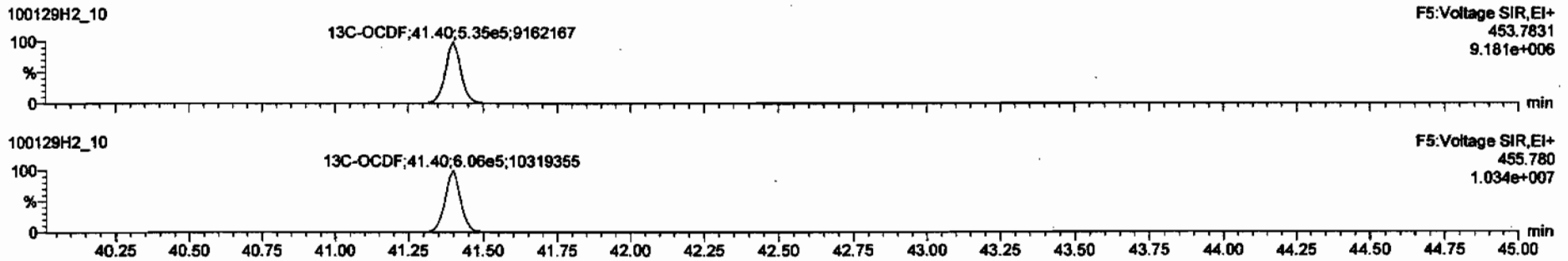

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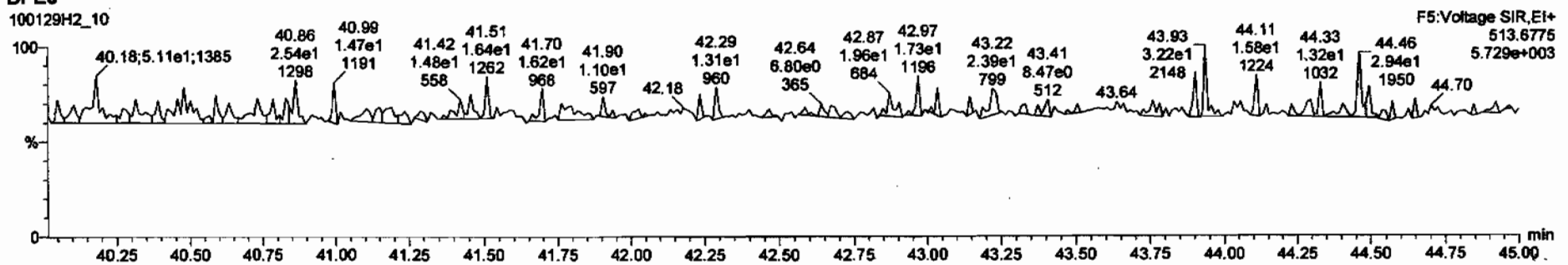

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Last Altered: Monday, February 01, 2010 14:25:40 Pacific Standard Time
Printed: Monday, February 01, 2010 14:26:14 Pacific Standard Time

Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

PFK1

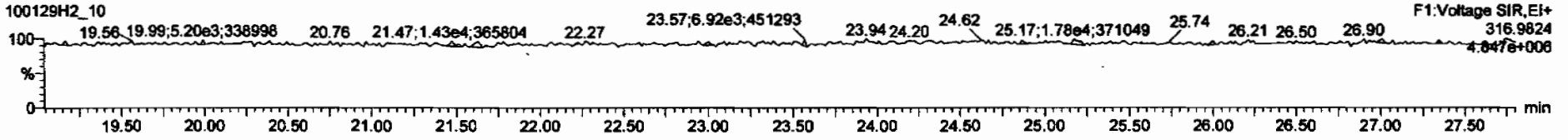

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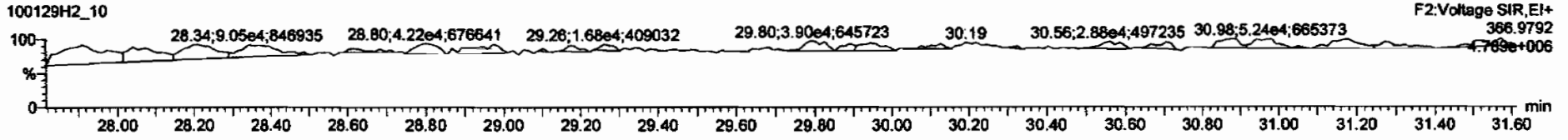

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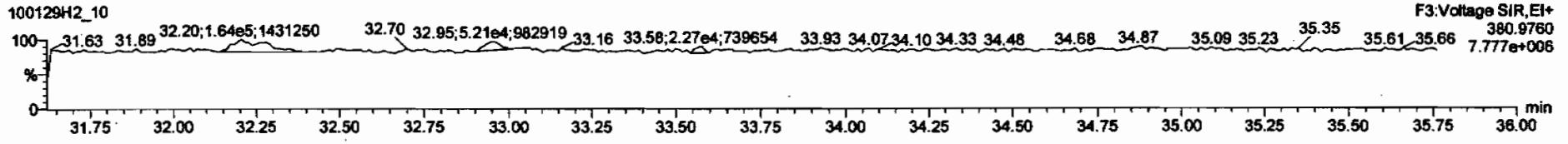

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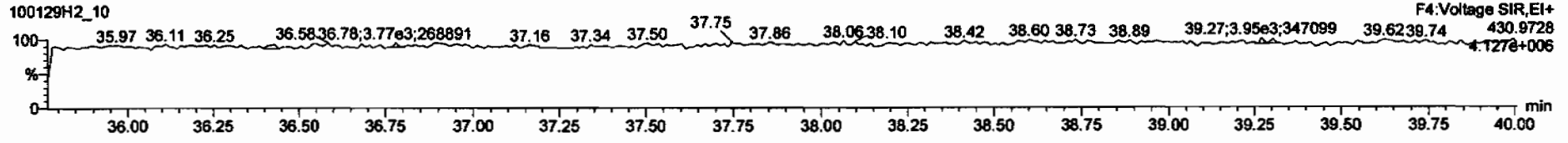

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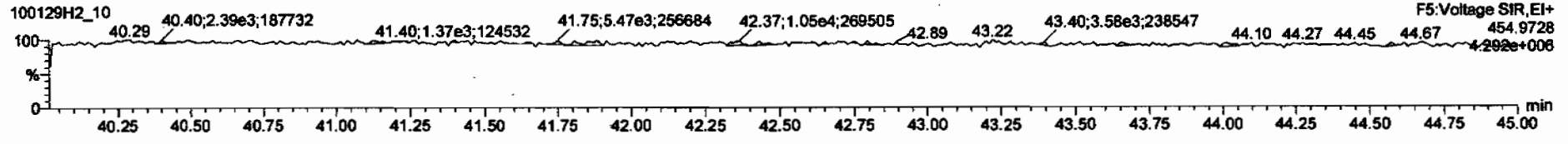

Tuesday, February 16, 2010

REQUEST NUMBER: 10-1884

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Mike Franks

Severn Trent Laboraties, Inc., St. Louis

13715 Rider Trail N.

Earth City, MO 63045

These Samples are on:

LANL Request Number:10-1884

Per Agreement Number:126310021

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/16/2010

TURNAROUND/REPORT DUE: 3/18/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8330	1	CAPA-10-12691	WG	2/15/2010	
		2	CAPA-10-12691	WG	2/15/2010	

Final Page of REQUEST NUMBER 10-1884

Tuesday, February 16, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1884

REQUEST NUMBER: 10-1884

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Mike Franks

Severn Trent Laboraties, Inc., St. Louis
13715 Rider Trail N.
Earth City, MO 63045

TURNAROUND/REPORT DUE: 3/18/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12691	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-12691	2	AMBER GLASS	WSP-HEXMOD	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
Jeeyfelly		2/16/10	1900				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2635 **EVENT NAME:** R-54 Characterization Sampling

SAMPLE ID: CAPA-10-12691 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/15/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0606	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-54		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
TOP DEPTH:	830		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	840		SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
3		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)		pH<2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice		
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice		
3		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice		
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide		pH>12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice		
1		WSP-GrossA/B	1 LITER POLY	None		
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice		
1		WSP-LL-H-3	1 LITER POLY	None		
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid		pH<2
1		WSP-RAD	1 GAL POLY	Nitric Acid		pH<2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		pH<2
3		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice		

SAMPLE DESC:

SAMPLE COMMENTS: Collect sample from upper screen. Depths are from the proposed well design and may change once fact sheet is released.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2635 **EVENT NAME:** R-54 Characterization Sampling

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) M Green, D Woody

REVIEWED BY (PRINT) D. Woody

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody (Signature) D. Woody	0945 02/16/10	(Printed Name) (Signature)	0945 02/16/10
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2635 **EVENT NAME:** R-54 Characterization Sampling

SAMPLE ID: CAPA-10-12692 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/15/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0606	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-54		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
TOP DEPTH:	830		SAMPLE USAGE:	INV	
BOTTOM DEPTH:	840		SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid		pH < 2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice		
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		pH < 2

SAMPLE DESC:

SAMPLE COMMENTS: Collect sample from upper screen. Depths are from the proposed well design and may change once fact sheet is released.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) M Green D. Woody **REVIEWED BY (PRINT)** D. Woody

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	02/16/10	(Printed Name)	02/16/10
(Signature) D. Woody	0945	(Signature)	0945
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2635 **EVENT NAME:** R-54 Characterization Sampling

SAMPLE ID: CAPA-10-12693 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/15/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0606	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	NA	
LOCATION ID:	R-54		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
TOP DEPTH:	830		SAMPLE USAGE:	QC	
BOTTOM DEPTH:	840		SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / (NA)		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	2 DW 02/15/10	WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2

SAMPLE DESC: QC Sample of CAPA-10-12691

SAMPLE COMMENTS: Collect sample from upper screen. Depths are from the proposed well design and may change once fact sheet is released.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D. Woody, M Green

REVIEWED BY (PRINT) D. Woody

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	02/16/10 0945	(Printed Name)	02/16/10 0945
(Signature) D. Woody		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5117-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1884 VALIDATION DATE: 03/23/10 LAB CODE: STSL

CONTRACT LABORATORY NAME: TestAmerica Laboratories, Inc. - St. Louis

VALIDATOR: Kevin A. Lambert ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

None

Reviewed by: Allison Felix Level: 1 Date: 3/23/10

VALIDATOR'S SIGNATURE: Kevin A Lambert DATE: 03/23/10

HIGH EXPLOSIVE (HE) ANALYTICAL DATA VALIDATION CHECKLIST

5117-2

High Explosive (HE) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, H9	J-, H9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, H9a	J-, H9a
☐	☒	☐	3. The affected analytes are regarded as Rejected because the analytical holding time was exceeded.	R, H9b	R, H9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, H7	J, H7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multi-point calibration correlation coefficient is <0.995.	UJ, H7a	J, H7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method limits.	UJ, H7c	J, H7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, H7d	J, H7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, H7f	R, H7f
☐	☒	☐	9. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, H4	N/A
☐	☒	☐	10. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, H4a
☐	☐	☒	11. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, H4d	N/A
☐	☒	☐	12. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H4e	R, H4e

HIGH EXPLOSIVE (HE) ANALYTICAL DATA VALIDATION CHECKLIST

5117-2

High Explosive (HE) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, H0	J, H0
☐	☐	☒	14. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided (hexp – diode array detector).	N/A	J, H0a
☐	☒	☐	15. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H0b	R, H0b
☐	☒	☐	16. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, H3	J-, H3
☐	☒	☐	17. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, H3a	J-, H3a
☐	☒	☐	18. The surrogate %R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	N/A	J+, H3b
☐	☐	☒	19. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, H3c	J, H3c
☐	☒	☐	20. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H3d	R, H3d
☐	☒	☐	21. The LCS percent recover was <10%. Follow the external laboratory limits located within the associated data package.	R, H12	J-, H12
☐	☒	☐	22. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, H12a	J-, H12a

HIGH EXPLOSIVE (HE) ANALYTICAL DATA VALIDATION CHECKLIST

5117-2

High Explosive (HE) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, H12b
☐	☒	☐	24. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H12c	R, H12c
☐	☐	☒	25. The analyte was not confirmed on a second dissimilar column.	N/A	R, H8
☐	☐	☒	26. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H8a	R, H8a
☐	☒	☐	27. Duplicate, dilution, or reanalysis.	UJ, H88	J, H88
☐	☐	☒	28. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for cleanup or matrix interference.	UJ, R, H15	R, H15
☒	☐	☐	29. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, H19	J, R, H19

Los Alamos National Laboratory

Client Sample ID: CAPA-10-12691

HPLC

Lot-Sample #...: F0B170426-001 **Work Order #...:** LVRCK1AC **Matrix.....:** WATER
Date Sampled...: 02/15/10 **Date Received..:** 02/17/10
Prep Date.....: 02/19/10 **Analysis Date..:** 02/22/10
Prep Batch #...: 0050161 **Analysis Time..:** 14:08
Dilution Factor: 1

Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
MNX	ND	0.50	ug/L
DNX	ND	0.50	ug/L
TNX	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	101	(60 - 113)

KAL
03/23/10

Tuesday, February 16, 2010 Cut 229

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1884

REQUEST NUMBER: 10-1884

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Mike Franks

Severn Trent Laboraties, Inc., St. Louis
13715 Rider Trail N.
Earth City, MO 63045

TURNAROUND/REPORT DUE: 3/18/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12691	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-12691	2	AMBER GLASS	WSP-HEXMOD	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
Jeff Kelly		2/16/10	1900	Angela Boan		2-17-10	9:15
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

Tuesday, February 16, 2010

REQUEST NUMBER: 10-1884

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Mike Franks
Severn Trent Laboraties, Inc., St. Louis
13715 Rider Trail N.
Earth City, MO 63045

These Samples are on:
LANL Request Number:10-1884
Per Agreement Number:126310021
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/16/2010
TURNAROUND/REPORT DUE: 3/18/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8330	1	CAPA-10-12691	WG	2/15/2010	
		2	CAPA-10-12691	WG	2/15/2010	

Final Page of REQUEST NUMBER 10-1884

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 10-1884

Los Alamos RAD

Lot #: F0B170426

Joylene Valdez or Keith Greene

Los Alamos National Laboratory
SMO TA-00 Bldg 1237
DP: 03U; MS: 707
Los Alamos, NM 87545

TESTAMERICA LABORATORIES, INC.

Michael C. Franks
Project Manager

March 4, 2010

13715 Rider Trail North Earth City MO 63045 tel 314 298 8566 fax 314 298 8757 www.testamericainc.com

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CLIENT CHAIN OF CUSTODY 3
HPLC 14

TOTAL # OF PAGES IN PACKAGE 102

Case Narrative
LOT NUMBER: **F0B170426**
LANL Request Number: **10-1884**

This report contains the analytical results for the sample received under chain of custody number 10-1884 by TestAmerica St. Louis on February 17, 2010. This sample is associated with your Los Alamos RAD project.

All applicable quality control procedures met method-specified acceptance criteria.

This report shall not be reproduced, except in full, without the written approval of the laboratory.

This report is incomplete without the case narrative. All chemical analysis results are based upon dry weight correction as required per the statement of work. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Sample Receiving

Samples were received at 5 °C. No problems were noted at the time of sample receipt.

Explosives Method 8330

In accordance with method 8330, samples are air dried under normal laboratory conditions for a period of time prior to extraction. Explosive results for soil samples, requesting results reported on a dry weight, will be adjusted for the % moisture result.

QC Batch: 0050161
The Method Blank shows no contamination above the reporting limit. Surrogate recovery is within laboratory stated limits.

The LCS is within stated limits.

The Batch QC Matrix Spike and Matrix Spike Duplicate were performed on F0B170426-001 (this request). The Matrix Spike and Matrix Spike Duplicate recoveries and RPD values are within stated limits. Surrogate is in control for both the MS and MSD.

I certify that this data is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the signature on the front page, has authorized release of the data contained in this hardcopy.

F0B170426 CLIENT ANALYSIS SUMMARY

Storage Loc: 2-8

Project Manager: MCF Quote #: 75496 SDG: F0B170426

Date Received: 2010-02-17

Project: 10-1884 Los Alamos RAD

Analytical Due Date: 2010-03-10

PO#: 37954-001-06 Report to: Joylene Valdez or Keith

Report Due Date: 2010-03-15

Client: 108581 Los Alamos National Laboratory

Report Type: D Expanded Deliverable

#SMPS in LOT: 0 EDD Code: 99

Sample Receiving: LOS ALAMOS CLIENT REQUIREMENTS Enter COC NUMBER in the COC Field; SDG = "Lot Number" Project Name = "Request number"

LOG QC AS DETAILED BELOW FOR EACH DEPT. EXCEPT RAD ********** METALS AND WETCHEMISTRY ********** Can batch multiple Lots together and report Client sp

Batch QC: Matrix Spike and Sample Duplicate Met Prep: GFAA Spike Level and Standard Spike Level Sb spike at 100 ppb

Pb - Spike Solids at 100 ppb, spike Waters at 20 - Perform analytical spike when matrix spike is swamped with indigenous analyte.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER 1	
1	CAPA-10-12691			2010-02-15 / 0	LVRCK	WATER

SAMPLE COMMENTS:

	XX	A0	SW846 8330	WATER, 8330, HEXPMOD (MNX/DNX/TNX)	20	EXTRACTION, SOLID PHASE	9Q	ORG FLAGS FOR INORG; STANDARD	PROT: O	WRK LOC	06
	XX	ZV	RAD SCREEN	WATER, RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
D	XX	A0	SW846 8330	WATER, 8330, HEXPMOD (MNX/DNX/TNX)	20	EXTRACTION, SOLID PHASE	9Q	ORG FLAGS FOR INORG; STANDARD	PROT: O	WRK LOC	06
S	XX	A0	SW846 8330	WATER, 8330, HEXPMOD (MNX/DNX/TNX)	20	EXTRACTION, SOLID PHASE	9Q	ORG FLAGS FOR INORG; STANDARD	PROT: O	WRK LOC	06

Tuesday, February 16, 2010 cul 224

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1884

REQUEST NUMBER: 10-1884

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Mike Franks
Severn Trent Laboraties, Inc., St. Louis
13715 Rider Trail N.
Earth City, MO 63045

TURNAROUND/REPORT DUE: 3/18/2010
TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12691	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-12691	2	AMBER GLASS	WSP-HEXMOD	Ice	WG

Relinquished By:	Date	Time	Received By:	Date	Time
Jeff Kelly	2/16/10	1900	Angela Boan	2-17-10	9:15
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Printed Name / Signature			

Tuesday, February 16, 2010

REQUEST NUMBER: 10-1884

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Mike Franks
Severn Trent Laboraties, Inc., St. Louis
13715 Rider Trail N.
Earth City, MO 63045

These Samples are on:
LANL Request Number:10-1884
Per Agreement Number:126310021
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/16/2010
TURNAROUND/REPORT DUE: 3/18/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8330	1	CAPA-10-12691	WG	2/15/2010	
		2	CAPA-10-12691	WG	2/15/2010	

Final Page of REQUEST NUMBER 10-1884

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): F0B170426

CONDITION UPON RECEIPT FORM

Client: LANL
Quote No: 75496
COC/RFA No: 10-1884

228

Initiated By: NB Date: 2-17-10 Time: 9:15

Shipping Information

Shipper: FedEx UPS DHL Courier Client Other: _____ Multiple Packages: Y N

Shipping # (s):*		Sample Temperature (s):**	
1. 7209 78500897	6.	1. 5	6.
2.	7.	2.	7.
3.	8.	3.	8.
4.	9.	4.	9.
5.	10.	5.	10.

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	Y N	Are there custody seals present on the cooler?	8.	Y N	Are there custody seals present on bottles?
2.	Y N N/A	Do custody seals on cooler appear to be tampered with?	9.	Y N N/A	Do custody seals on bottles appear to be tampered with?
3.	Y N	Were contents of cooler frisked after opening, but before unpacking?	10.	Y N N/A	Was sample received with proper pH[1]? (If not, make note below)
4.	Y N	Sample received with Chain of Custody?	11.	Y N	Sample received in proper containers?
5.	Y N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	Y N N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6.	Y N	Was sample received broken?	13.	Y N N/A	Was Internal COC/Workshare received?
7.	Y N	Is sample volume sufficient for analysis?	14.	Y N N/A	Was pH taken by original TestAmerica lab?

[1] For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:

Corrective Action:
☐ Client Contact Name: _____ Informed by: _____
☐ Sample(s) processed "as is"
☐ Sample(s) on hold until: _____ If released, notify: _____
Project Management Review: Jaynak Pohl Date: 2-19-10

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004, REVISED 10/21/08 \\Slsvr01\QA\FORMS\ST-LOUIS\ADMIN\Admin004 rev11.doc

METHODS SUMMARY

F0B170426

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Nitroaromatics and Nitramines by HPLC	SW846 8330	SW846 3535

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

F0B170426

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LVRCK	001	CAPA-10-12691	02/15/10	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

QC DATA ASSOCIATION SUMMARY

F0B170426

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	SW846 8330		0050161	0050071

Los Alamos National Laboratory

Client Sample ID: CAPA-10-12691

HPLC

Lot-Sample #...: F0B170426-001 **Work Order #...:** LVRCK1AC **Matrix.....:** WATER
Date Sampled...: 02/15/10 **Date Received..:** 02/17/10
Prep Date.....: 02/19/10 **Analysis Date..:** 02/22/10
Prep Batch #...: 0050161 **Analysis Time..:** 14:08
Dilution Factor: 1

Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
MNX	ND	0.50	ug/L
DNX	ND	0.50	ug/L
TNX	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	101	(60 - 113)

METHOD BLANK REPORT

HPLC

Client Lot #...: F0B170426 **Work Order #...:** LVV3J1AA **Matrix.....:** WATER
MB Lot-Sample #: F0B190000-161
Prep Date.....: 02/19/10 **Analysis Time..:** 13:40
Analysis Date..: 02/22/10 **Prep Batch #...:** 0050161
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
MNX	ND	0.50	ug/L	SW846 8330
DNX	ND	0.50	ug/L	SW846 8330
TNX	ND	0.50	ug/L	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	100	(60 - 113)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: F0B170426 **Work Order #...:** LVV3J1AC **Matrix.....:** WATER
LCS Lot-Sample#: F0B190000-161
Prep Date.....: 02/19/10 **Analysis Date..:** 02/22/10
Prep Batch #...: 0050161 **Analysis Time..:** 13:54
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
TNX	**94**	**(38 - 120)**	**SW846 8330**
MNX	**102**	**(39 - 133)**	**SW846 8330**
DNX	**94**	**(39 - 124)**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	98	(70 - 106)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: F0B170426 **Work Order #...:** LVRCK1AD-MS **Matrix.....:** WATER
MS Lot-Sample #: F0B170426-001 LVRCK1AE-MSD
Date Sampled...: 02/15/10 **Date Received..:** 02/17/10
Prep Date.....: 02/19/10 **Analysis Date..:** 02/22/10
Prep Batch #...: 0050161 **Analysis Time..:** 14:22
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
MNX	**127**	**(27 - 150)**			**SW846 8330**
	120	**(27 - 150)**	**6.5**	**(0-20)**	**SW846 8330**
DNX	**101**	**(18 - 150)**			**SW846 8330**
	91	**(18 - 150)**	**11**	**(0-20)**	**SW846 8330**
TNX	**92**	**(25 - 139)**			**SW846 8330**
	90	**(25 - 139)**	**3.3**	**(0-30)**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	98	(60 - 113)
	97	(60 - 113)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

HPLC SAMPLE AND QC DATA

Form I (s)

Explosives

Los Alamos National Laboratory

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F0B170426

Matrix: (soil/water) WATER Lab Sample ID:F0B170426 001
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 509.7 / mL Date Received: 02/17/10
Work Order: LVRCK1AC Date Extracted:02/19/10
Dilution factor: 1 Date Analyzed: 02/22/10
Moisture %:NA
QC Batch: 0050161
Client Sample Id: CAPA-10-12691

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.50	U
80251-29-2	DNX	0.50	U
13980-04-6	TNX	0.50	U

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	101	(60 - 113)

FORM I

Los Alamos National Laboratory
METHOD BLANK COMPOUNDS

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F0B170426

Matrix: (soil/water) WATER Lab Sample ID:F0B190000 161
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 500 / mL Date Received: 02/17/10
Work Order: LVV3J1AA Date Extracted:02/19/10
Dilution factor: 1 Date Analyzed: 02/22/10
Moisture %:NA
QC Batch: 0050161
Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.50	U
80251-29-2	DNX	0.50	U
13980-04-6	TNX	0.50	U

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	100	(60 - 113)

FORM I

Los Alamos National Laboratory
CHECK SAMPLE COMPOUNDS

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F0B170426

Matrix: (soil/water) WATER Lab Sample ID:F0B190000 161
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 500 / mL Date Received: 02/17/10
Work Order: LVV3J1AC Date Extracted:02/19/10
Dilution factor: 1 Date Analyzed: 02/22/10
Moisture %:NA
QC Batch: 0050161
Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.748	
80251-29-2	DNX	0.546	
13980-04-6	TNX	0.782	

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	98	(70 - 106)

FORM I

Los Alamos National Laboratory
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F0B170426

Matrix: (soil/water) WATER Lab Sample ID:F0B170426 001
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 512.7 / mL Date Received: 02/17/10
Work Order: LVRCK1AE Date Extracted:02/19/10
Dilution factor: 1 Date Analyzed: 02/22/10
Moisture %:NA
QC Batch: 0050161
Client Sample Id: CAPA-10-12691

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.852	
80251-29-2	DNX	0.513	
13980-04-6	TNX	0.725	

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	97	(60 - 113)

FORM I

Los Alamos National Laboratory
MATRIX SPIKE COMPOUNDS

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F0B170426

Matrix: (soil/water) WATER Lab Sample ID:F0B170426 001
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 509.3 / mL Date Received: 02/17/10
Work Order: LVRCK1AD Date Extracted:02/19/10
Dilution factor: 1 Date Analyzed: 02/22/10
Moisture %:NA
QC Batch: 0050161

Client Sample Id: CAPA-10-12691

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.909	
80251-29-2	DNX	0.572	
13980-04-6	TNX	0.749	

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	98	(60 - 113)

FORM I

HPLC ADDITIONAL FORMS

SW846 8330 SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Los Alamos National Laboratory

Lab Code: TALSTL SDG No: F0B170426

Lot #: F0B170426

Extraction: XXI20A09Q

	CLIENT ID.	SRG01	TOT OUT
01	CAPA-10-12691	101	00
02	METHOD BLK. LVV3J1AA	100	00
03	LCS LVV3J1AC	98	00
04	CAPA-10-12691 D	97	00
05	CAPA-10-12691 S	98	00

SURROGATES	QC LIMITS
SRG01 = 1,2-Dinitrobenzene	(60-113)

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8330 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Los Alamos National Laboratory

Lab Code: TALSTL SDG No: F0B170426

Matrix Spike ID: CAPA-10-12691

Lot #: F0B170426 WO #: LVRCK1AD
BATCH: 0050161

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	MS CONCENT. (ug/L)	MS % REC	LIMITS REC	QUAL
MNX	0.716	ND	0.909	127	27- 150	
DNX	0.569	ND	0.572	101	18- 150	
TNX	0.814	ND	0.749	92	25- 139	

NOTES(S):

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 3 outside limits

COMMENTS:

FORM III

SW846 8330 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Los Alamos National Laboratory

Lab Code: TALSTL SDG No: F0B170426

Matrix Spike ID: CAPA-10-12691

Lot #: F0B170426 WO #: LVRCK1AE
BATCH: 0050161

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENT. (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
MNX	0.711	0.852	120	6.5	20	27- 150	
DNX	0.565	0.513	91	11	20	18- 150	
TNX	0.809	0.725	90	3.3	30	25- 139	

NOTES(S):

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 3 outside limits
Spike Recovery: 0 out of 3 outside limits

COMMENTS:

FORM III

SW846 8330 CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Los Alamos National Laboratory

Lab Code: TALSTL SDG No: F0B170426

Lot #: F0B190000 WO #: LVV3J1AC
BATCH: 0050161

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
TNX	0.830	0.782	94	38- 120	
MNX	0.730	0.748	102	39- 133	
DNX	0.580	0.546	94	39- 124	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 3 outside limits

COMMENTS:

FORM III

BLANK WORKORDER NO.
LVV3J1AA

SW846 8330 METHOD BLANK SUMMARY

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALSTL — SDG Number: F0B170426

Lab File ID: NBLK3197 — Lot Number: F0B170426

Date Analyzed: 02/22/10 — Time Analyzed: 13:40

Matrix: WATER — Date Extracted: 02/19/10

GC Column: C-18 ID: 4.60 — Extraction Method: 3535

Instrument ID: LCN — Level: (low/med)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CAPA-10-12691	LVRCK1AC	NSMP3199	02/22/10	14:08
02	CAPA-10-12691	LVRCK1AD S	NSMP3200	02/22/10	14:22
03	CAPA-10-12691	LVRCK1AE D	NSMP3201	02/22/10	14:36
04	CHECK SAMPLE	LVV3J1AC C	NLCS3198	02/22/10	13:54
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IV

HPLC STANDARDS DATA

INITIAL CALIBRATION DATA

CALIBRATION VERIFICATION DATA

Report Date : 02-Dec-2009 13:00

TestAmerica St. Louis

INITIAL CALIBRATION DATA

Start Cal Date : 25-NOV-2009 10:16
End Cal Date : 25-NOV-2009 11:26
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Last Edit : 01-Dec-2009 11:37 hanw
Curve Type : Average

Calibration File Names:
Level 3: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1314.D
Level 4: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1315.D
Level 5: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1316.D
Level 6: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1317.D
Level 7: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1318.D
Level 8: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1319.D

Compound	25.000 Level 3	50.000 Level 4	125.000 Level 5	250.000 Level 6	500.000 Level 7	1000.000 Level 8	RRF	% RSD
1 TNX	598	625	647	678	664	670	647	4.705
2 DNX	690	619	613	637	608	613	630	4.970
3 MNX	522	500	474	499	481	484	493	3.537
$ 4 1,2-Dinitrobenzene	535	519	510	520	510	512	518	1.844

Report Date : 02-Dec-2009 15:37

TestAmerica St. Louis

COMPOUND LISTING

Method file : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Quant Method : ESTD Target Version : 4.14
Last Update : 01-Dec-2009 11:37 Number of Cpnds : 4
Data Type : LC DATA

Global Integrator : HP Genie

Chromat Events	Values
Initial:Thresh Units	5.000000
Initial:Peak Width	0.100000
Initial:Area Reject	20.000000
Initial:Solvent Slope	100000.000000
Initial:Split Solvent	2000.000000

	Compound	RT	RT Window	RF
	1 TNX	3.838	3.738-3.938	6.47e+002
	2 DNX	4.324	4.224-4.424	6.30e+002
	3 MNX	5.239	5.139-5.339	4.93e+002
$	4 1,2-Dinitrobenzene	8.707	8.607-8.807	5.18e+002

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1314.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1314.D
Lab Smp Id: 8330 ICAL-3 Client Smp ID: 8330 ICAL-3
Inj Date : 25-NOV-2009 10:16
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-3
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.860	3.837	0.023	12042	20.1213	18.61
2 DNX	4.360	4.324	0.036	9507	13.7700	15.09(M)
3 MNX	4.360	5.239	-0.879	9507	18.1975	19.26(M)
$ 4 1,2-Dinitrobenzene	8.833	8.706	0.127	13376	25.0000	25.84(M)

QC Flag Legend

M - Compound response manually integrated.

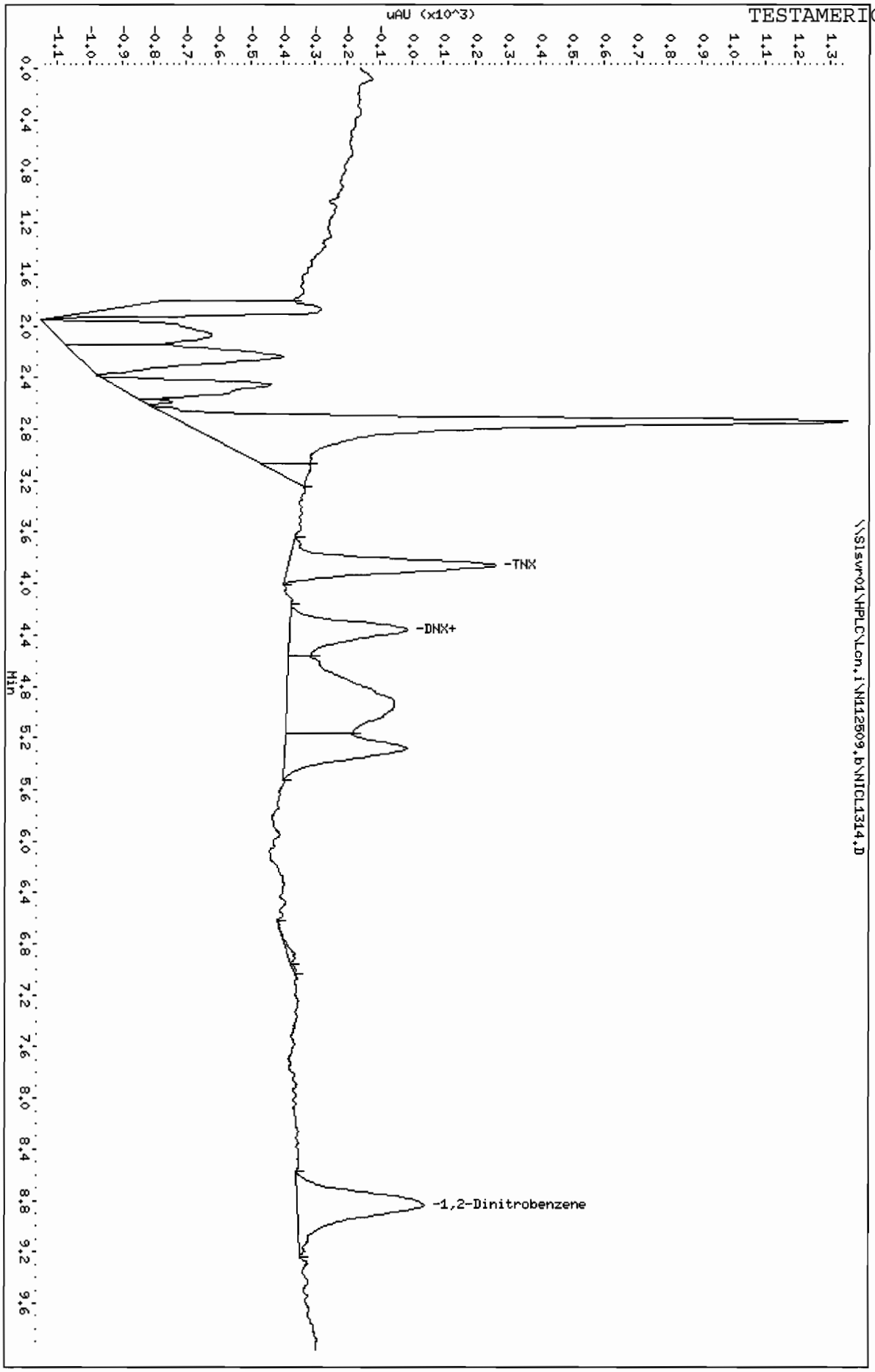
Data File: \\Slsvr01\HPLC\Lcn,i\M112509,b\NICL1314,D
Date : 25-NOV-2009 10:16
Client ID: 8330 ICAL-3
Sample Info: 8330 ICAL-3
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn,i
Operator: WH
Column diameter: 4.60
\\Slsvr01\HPLC\Lcn,i\M112509,b\NICL1314,D
uAU (x10^3)
-TNX
-DNX+
-1,2-Dinitrobenzene
Min

Data File Name: NICL1314.D
Inj. Date and Time: 25-NOV-2009 10:16
Instrument ID: Lcn.i
Client ID: 8330 ICAL-3
Compound Name: DNX
CAS #:

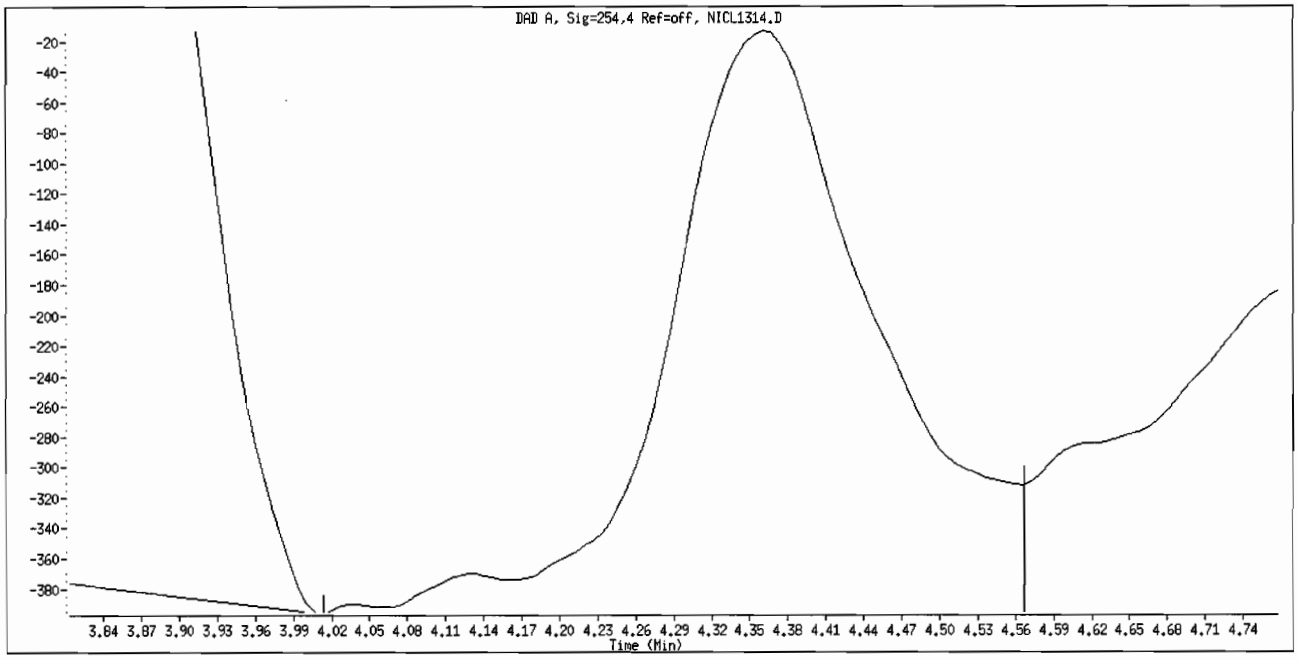

Original Integration

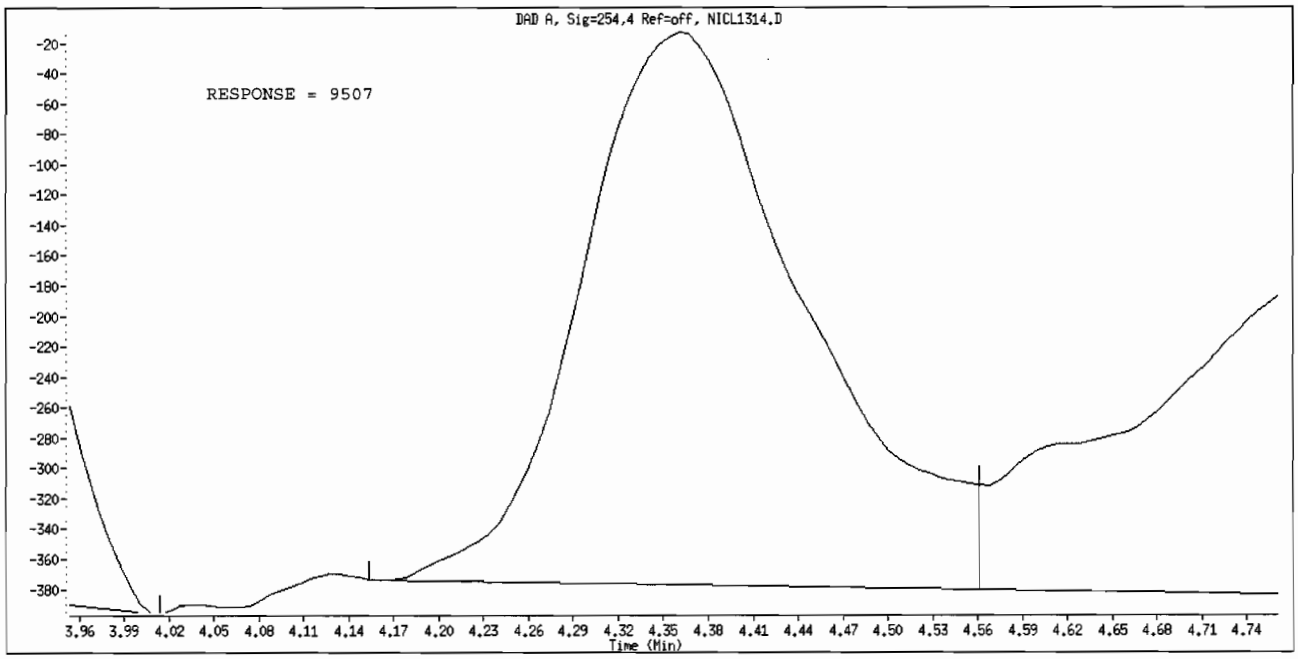

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1314.D
Inj. Date and Time: 25-NOV-2009 10:16
Instrument ID: Lcn.i
Client ID: 8330 ICAL-3
Compound Name: MNX
CAS #:

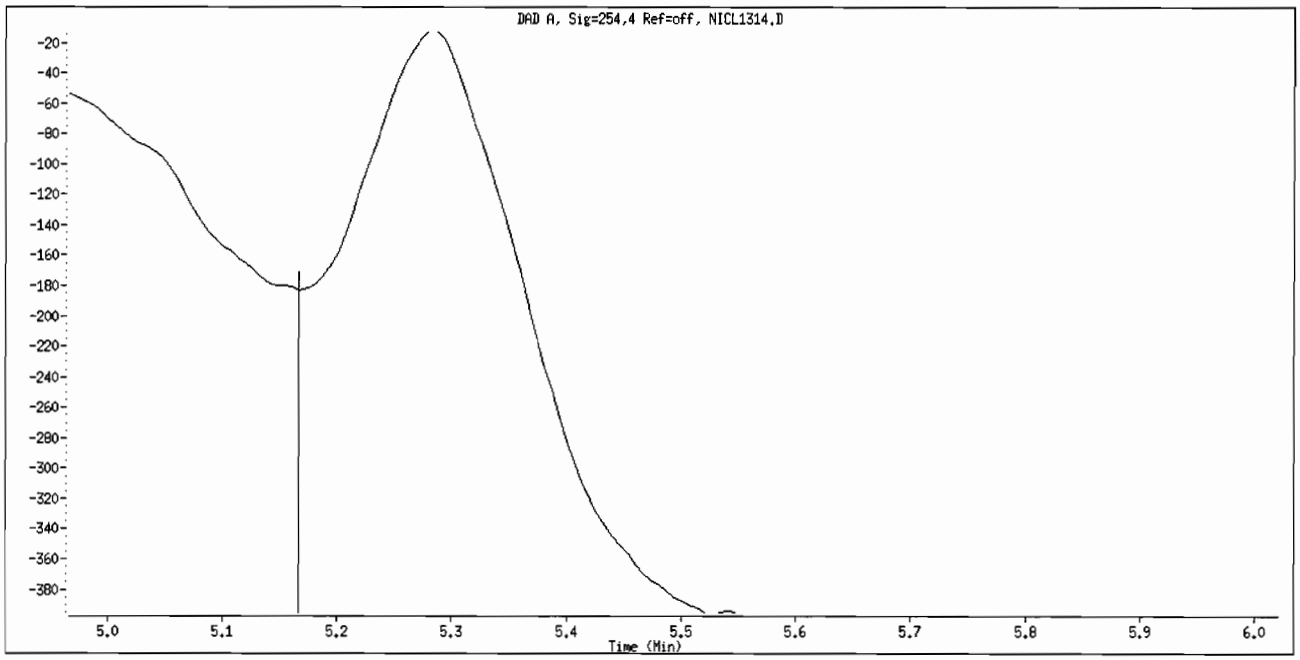

Original Integration

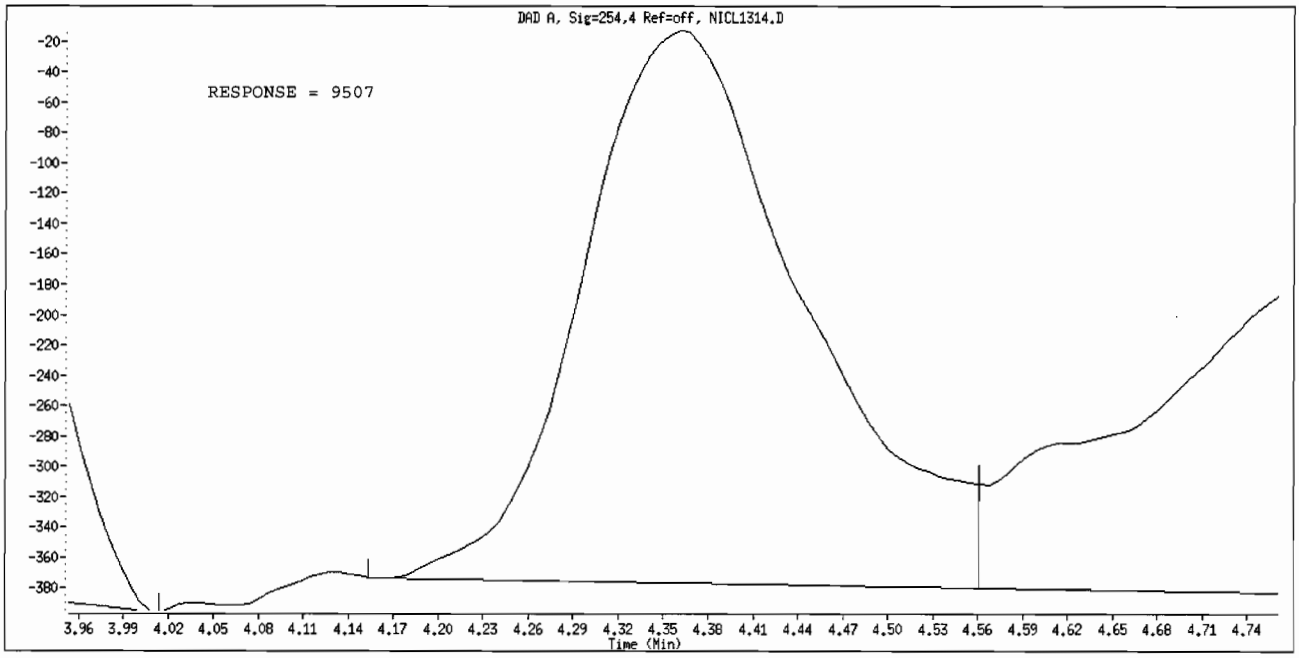

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1314.D
Inj. Date and Time: 25-NOV-2009 10:16
Instrument ID: Lcn.i
Client ID: 8330 ICAL-3
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

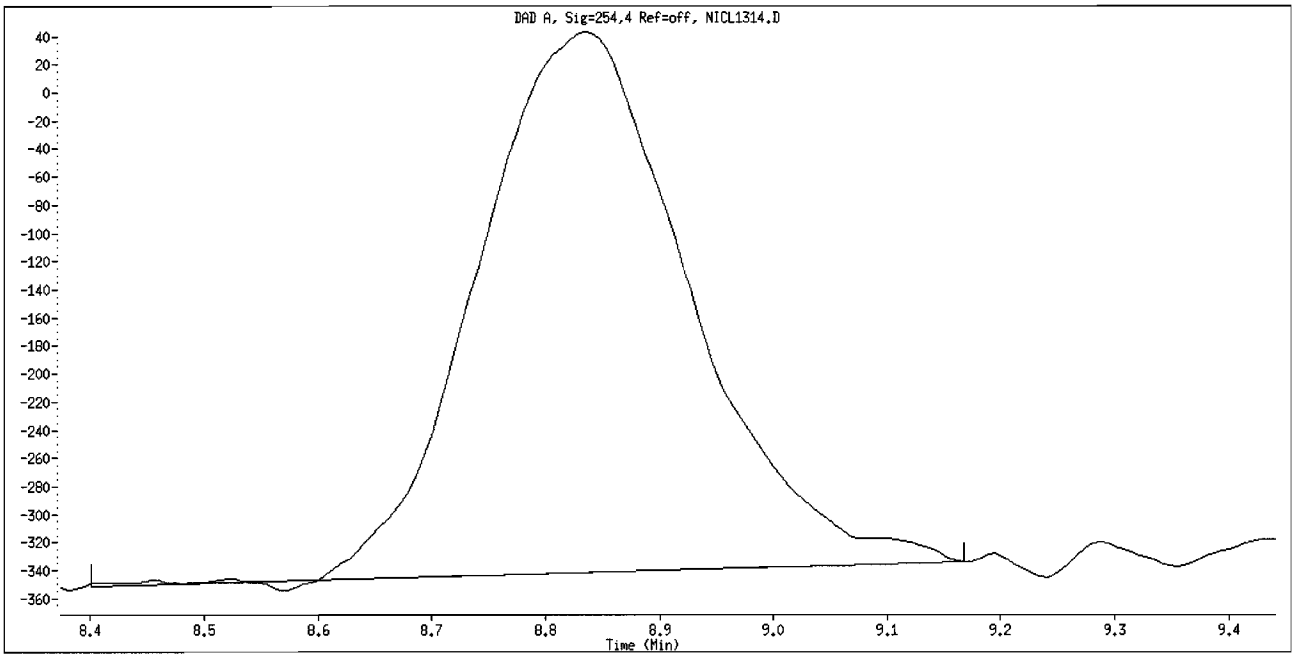

Original Integration

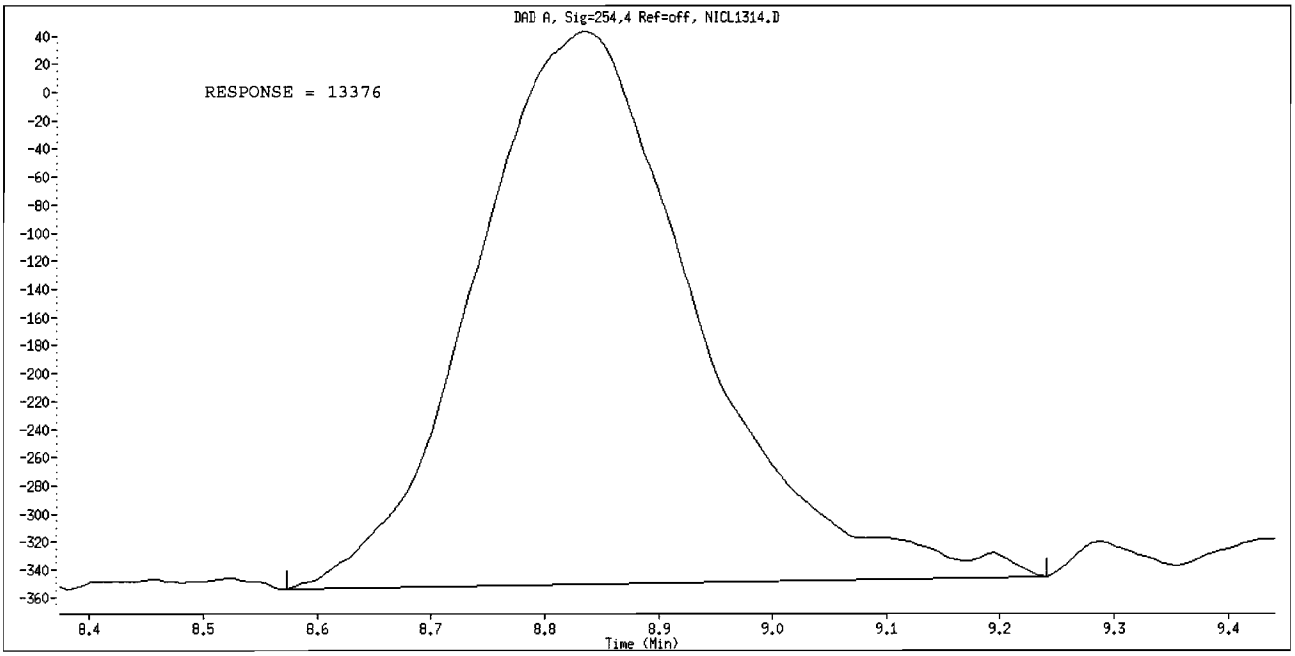

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1315.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1315.D
Lab Smp Id: 8330 ICAL-4 Client Smp ID: 8330 ICAL-4
Inj Date : 25-NOV-2009 10:30
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-4
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.832	3.837	-0.005	25142	40.2425	38.86(M)
2 DNX	4.319	4.324	-0.005	17047	27.5400	27.06(M)
3 MNX	5.232	5.239	-0.007	18212	36.3950	36.90(M)
$ 4 1,2-Dinitrobenzene	8.692	8.706	-0.014	25936	50.0000	50.09(M)

QC Flag Legend

M - Compound response manually integrated.

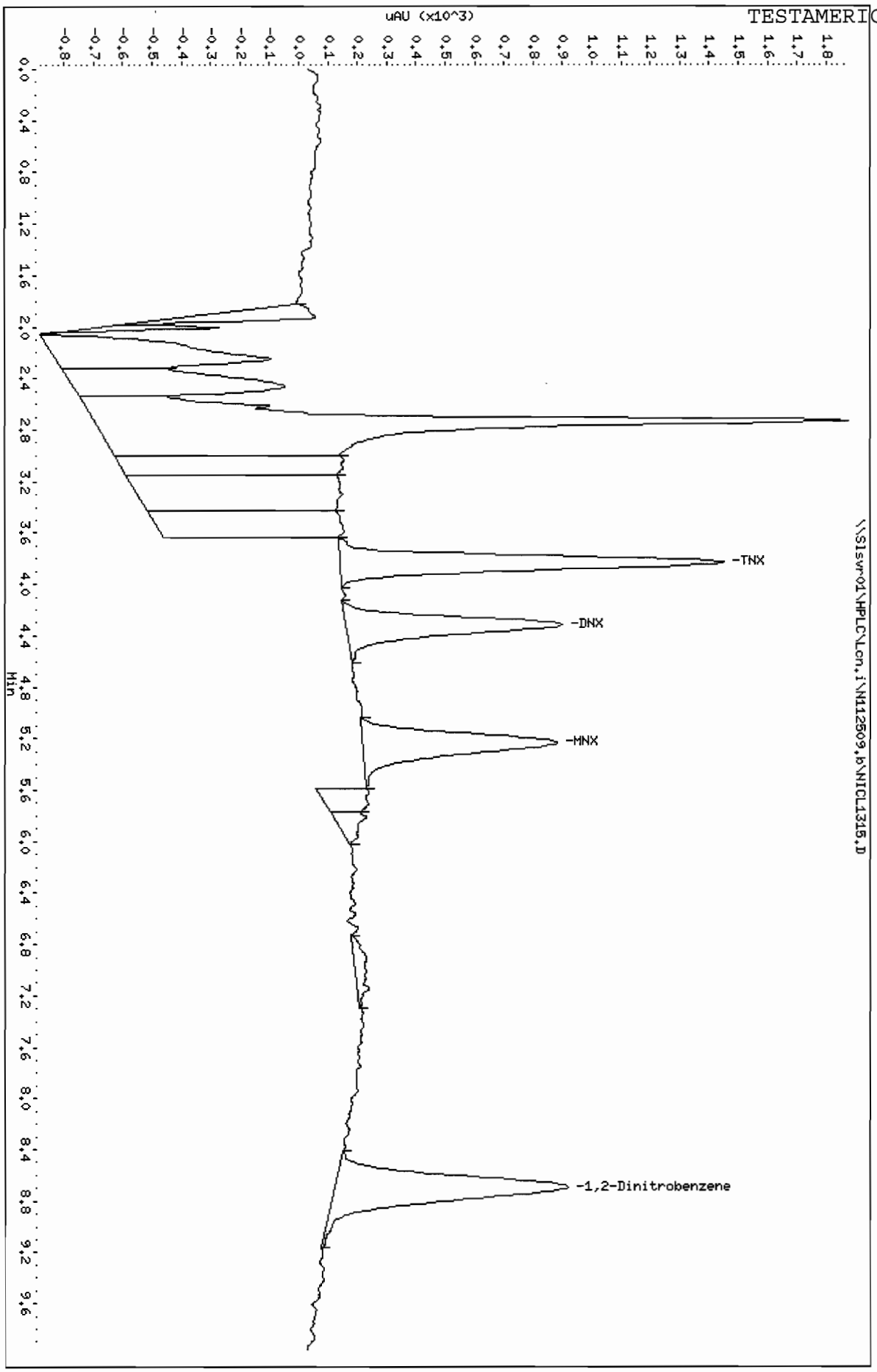
Data File: \\Slsvr01\HPLC\Lcn,i\N112509,b\NICL1315,D
Date : 25-NOV-2009 10:30
Client ID: 8330 ICAL-4
Sample Info: 8330 ICAL-4
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn,i
Operator: WH
Column diameter: 4.60
uAU (x10^3)
\\Slsvr01\HPLC\Lcn,i\N112509,b\NICL1315,D
-TNX
-DNX
-MNX
-1,2-Dinitrobenzene
Min

Data File Name: NICL1315.D
Inj. Date and Time: 25-NOV-2009 10:30
Instrument ID: Lcn.i
Client ID: 8330 ICAL-4
Compound Name: TNX
CAS #:

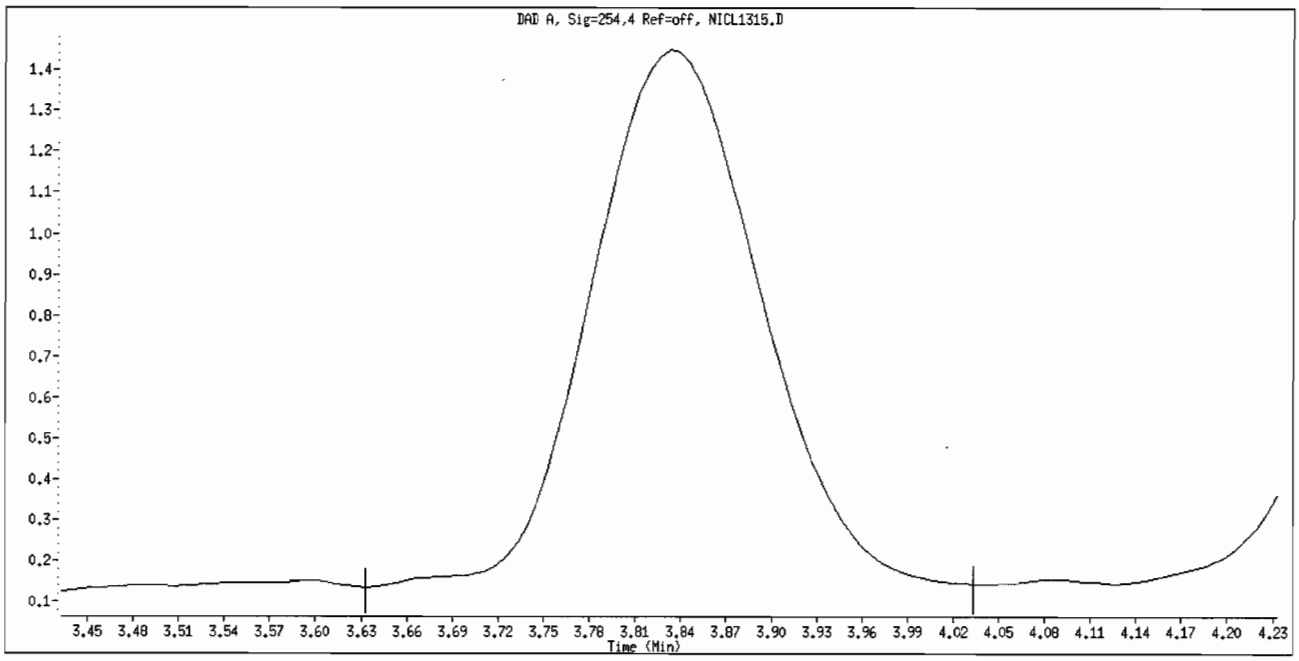

Original Integration

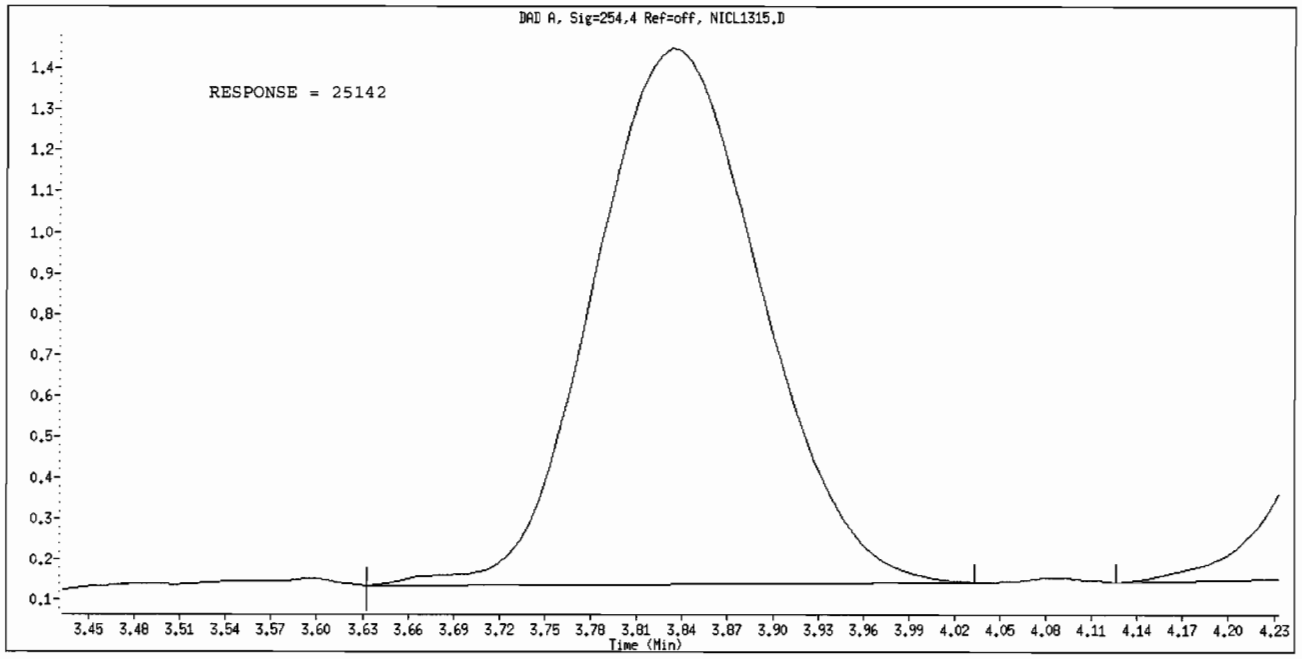

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1315.D
Inj. Date and Time: 25-NOV-2009 10:30
Instrument ID: Lcn.i
Client ID: 8330 ICAL-4
Compound Name: DNX
CAS #:

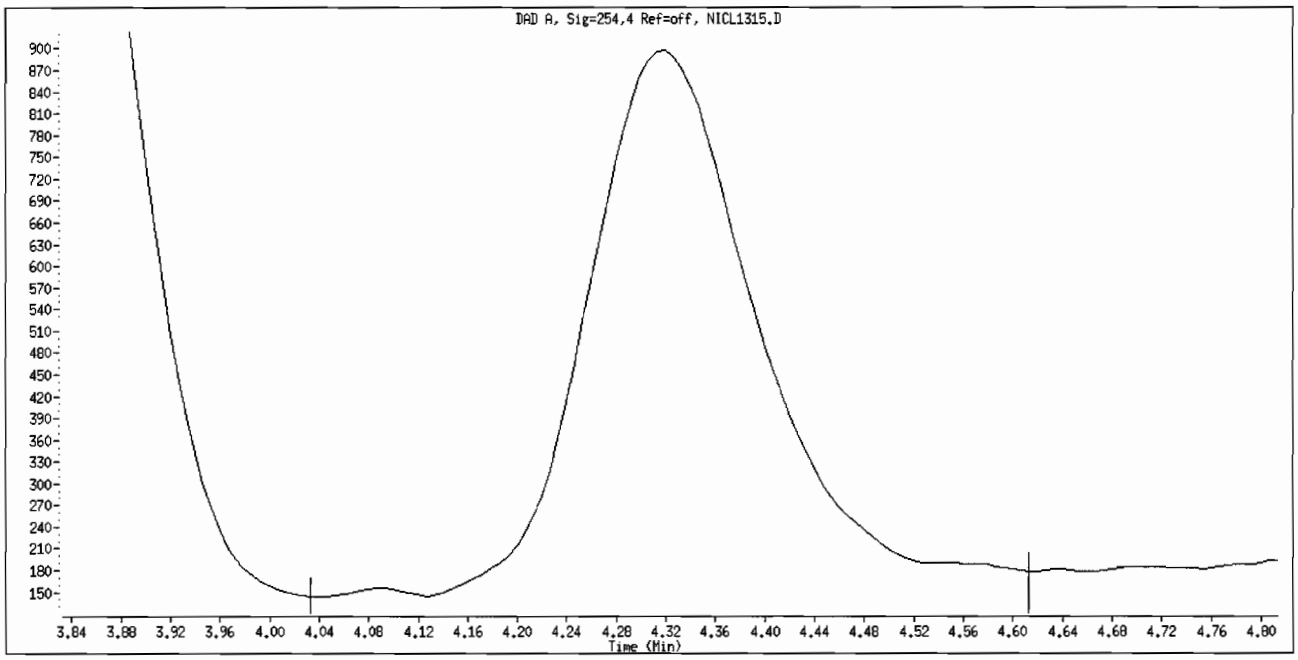

Original Integration

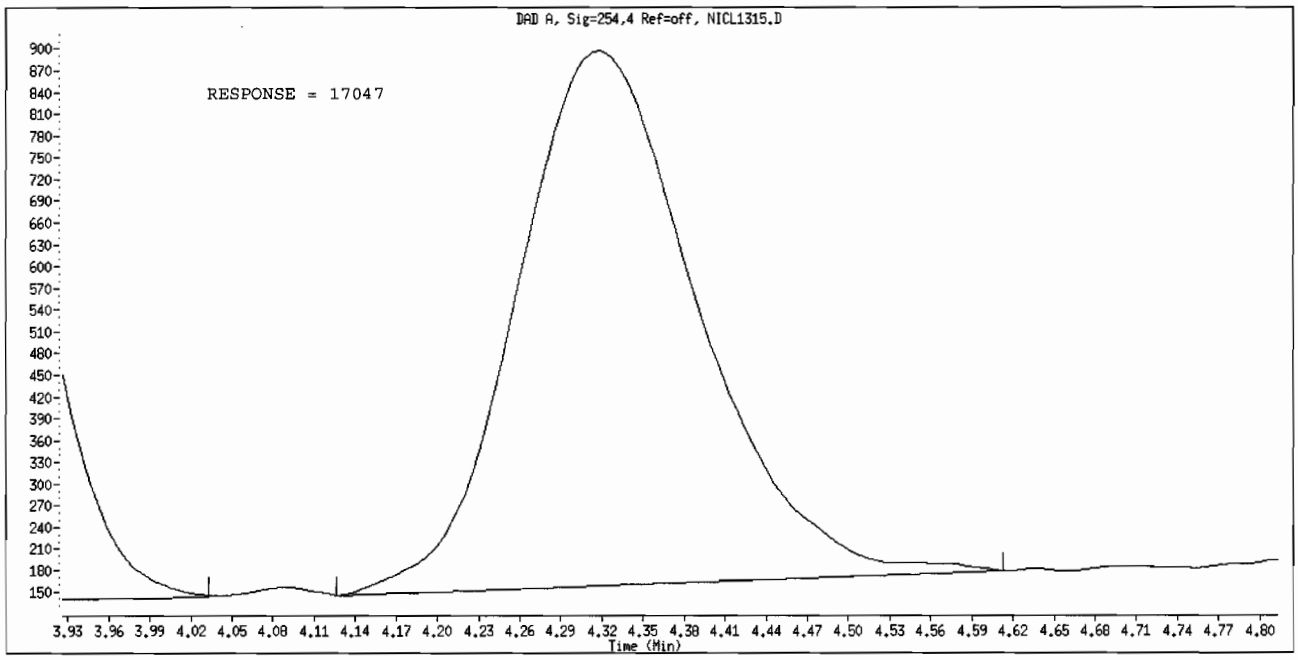

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1315.D
Inj. Date and Time: 25-NOV-2009 10:30
Instrument ID: Lcn.i
Client ID: 8330 ICAL-4
Compound Name: MNX
CAS #:

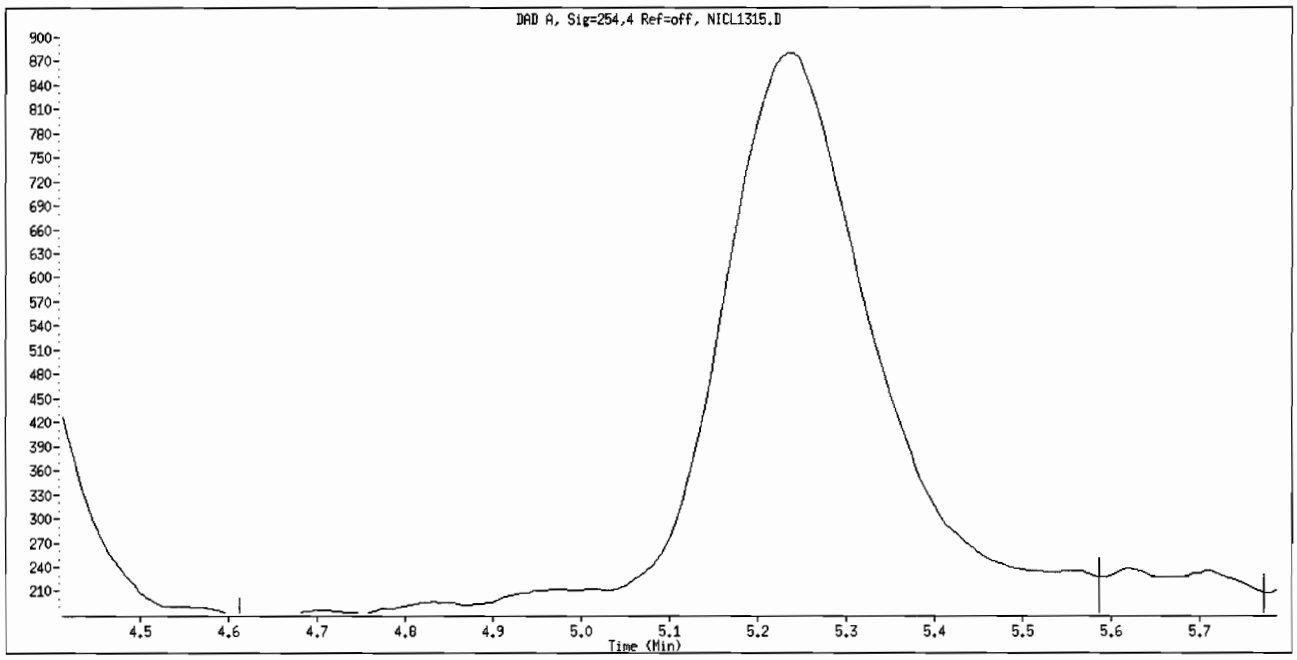

Original Integration

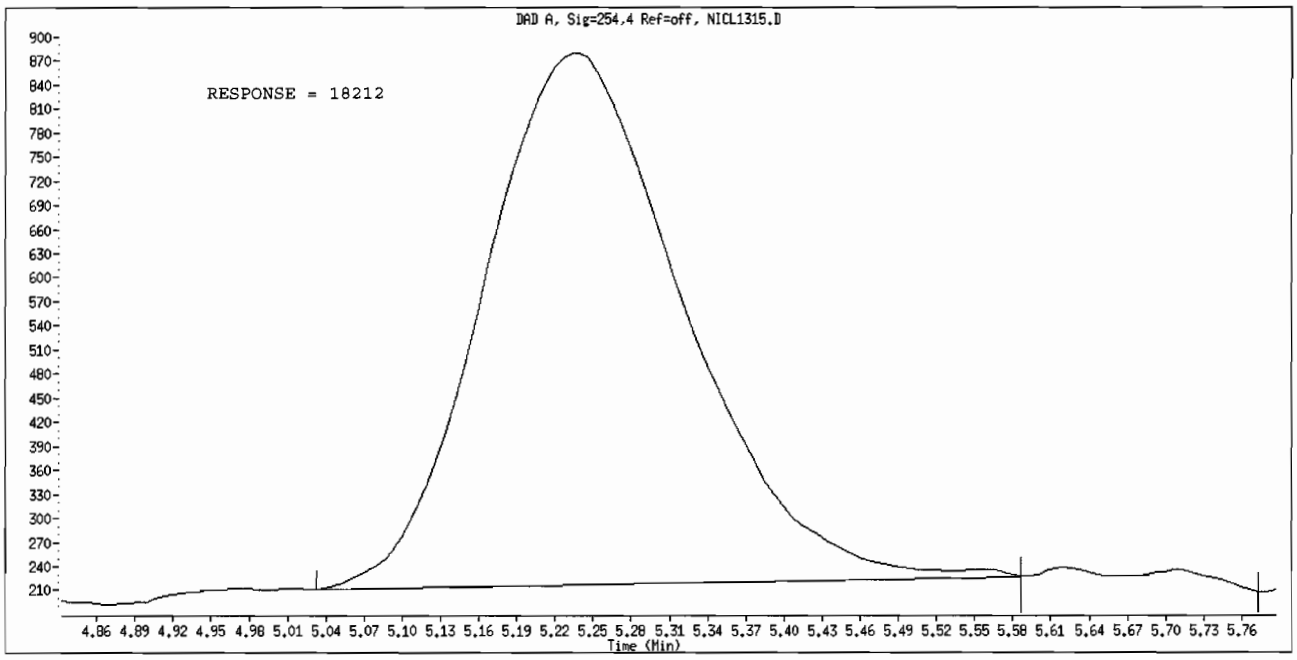

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1315.D
Inj. Date and Time: 25-NOV-2009 10:30
Instrument ID: Lcn.i
Client ID: 8330 ICAL-4
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

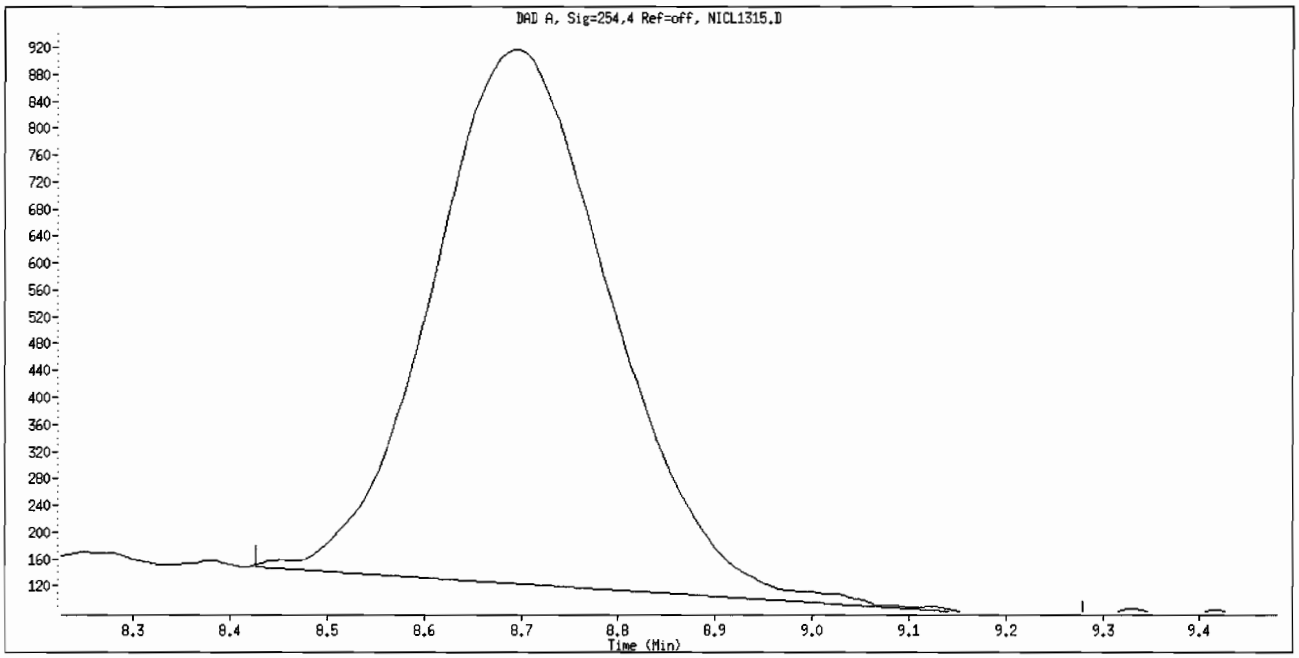

Original Integration

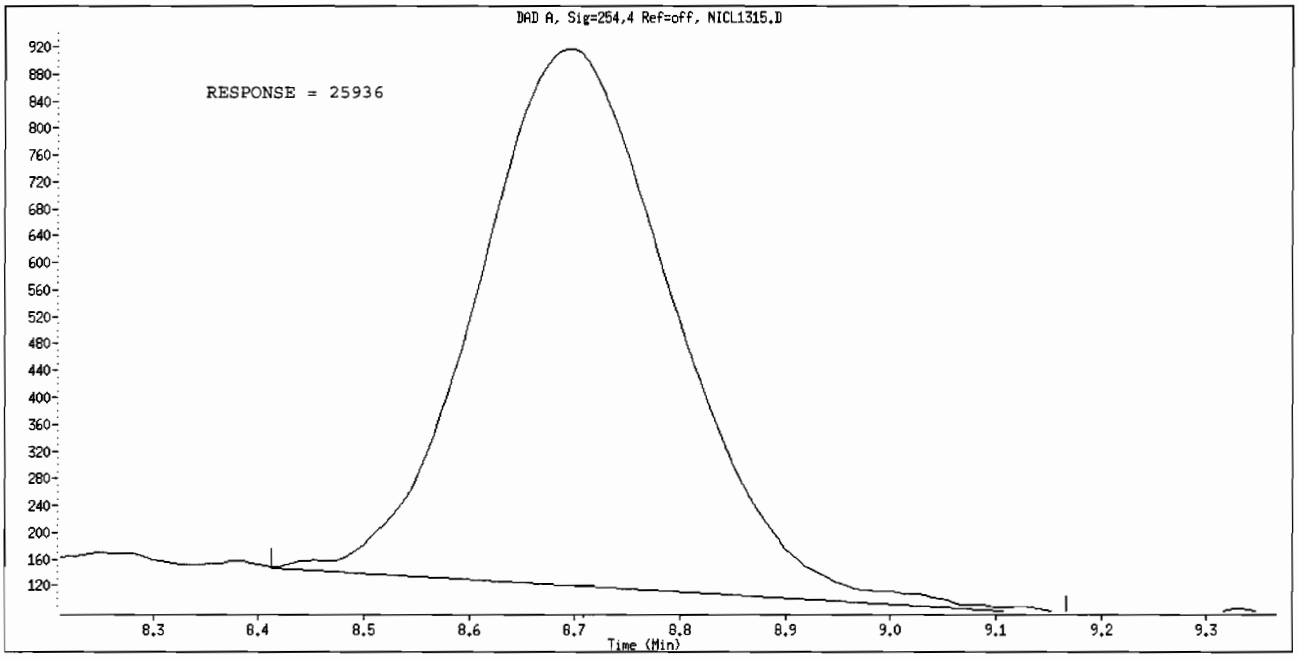

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1316.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1316.D
Lab Smp Id: 8330 ICAL-5 Client Smp ID: 8330 ICAL-5
Inj Date : 25-NOV-2009 10:44
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-5
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.828	3.837	-0.009	65101	100.606	100.6(M)
2 DNX	4.315	4.324	-0.009	42178	68.8500	66.95(M)
3 MNX	5.228	5.239	-0.011	43167	90.9875	87.47(M)
$ 4 1,2-Dinitrobenzene	8.688	8.706	-0.018	63701	125.000	123.0(M)

QC Flag Legend

M - Compound response manually integrated.

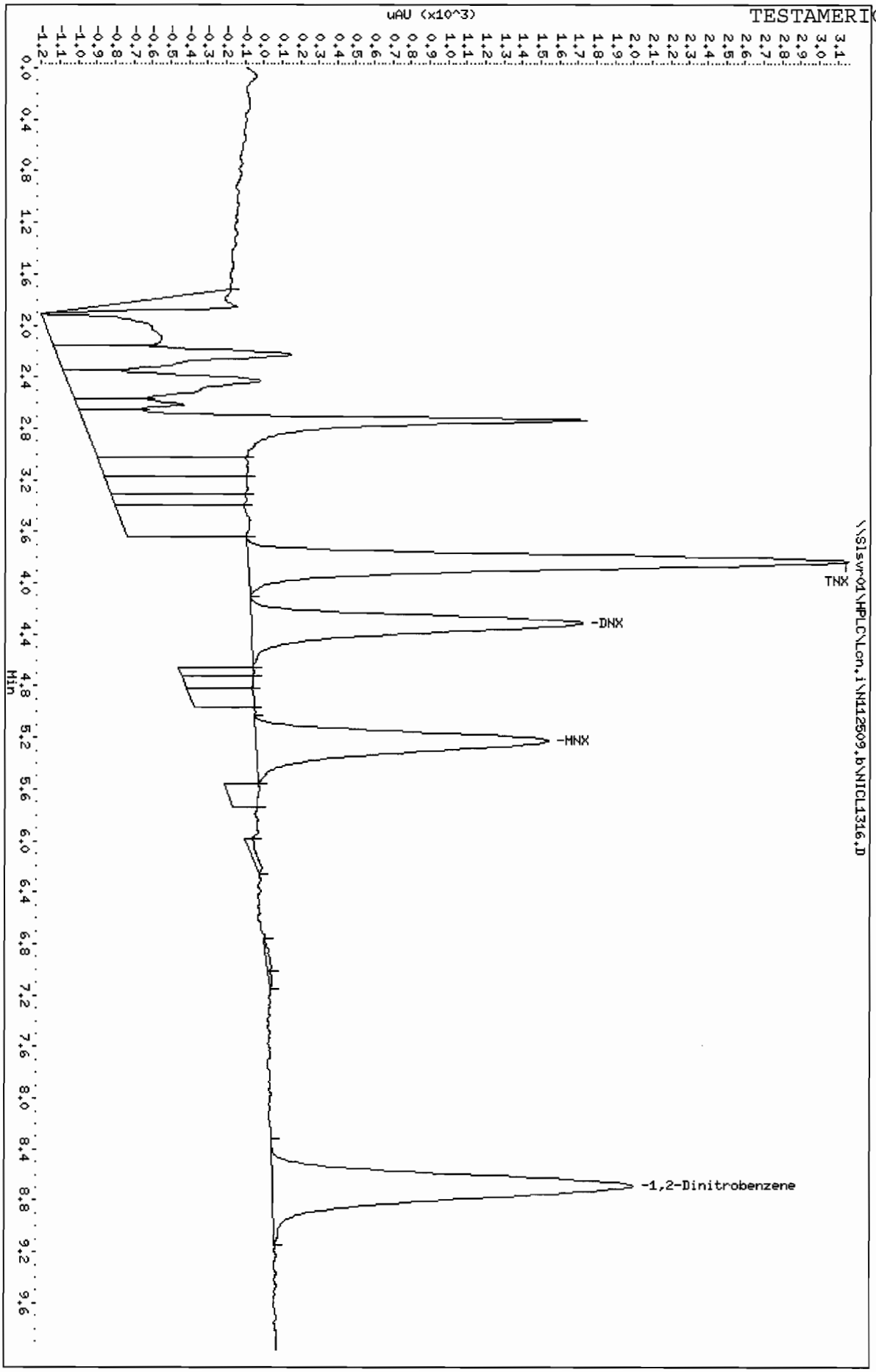
Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1316.D
Date : 25-NOV-2009 10:44
Client ID: 8330 ICAL-5
Sample Info: 8330 ICAL-5
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn.i
Operator: WH
Column diameter: 4.60
uAU (x10^3)
\\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1316.D
TNX
-DNX
-MNX
-1,2-Dinitrobenzene
Min

Data File Name: NICL1316.D
Inj. Date and Time: 25-NOV-2009 10:44
Instrument ID: Lcn.i
Client ID: 8330 ICAL-5
Compound Name: TNX
CAS #:

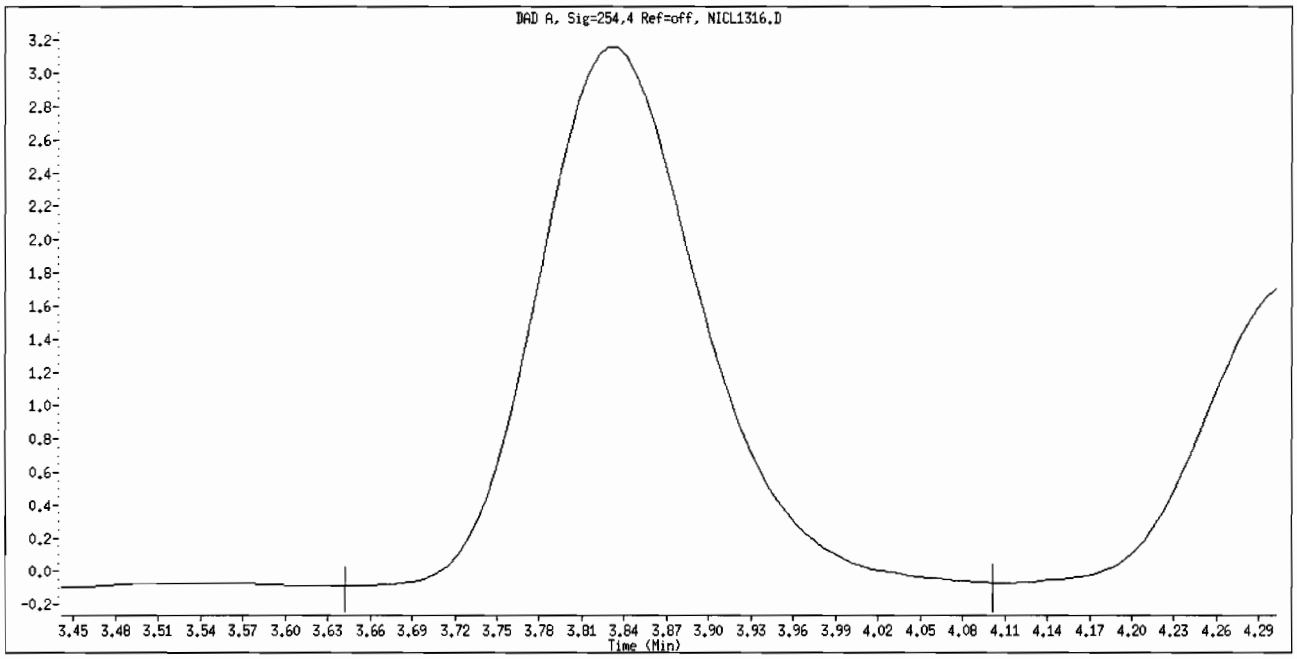

Original Integration

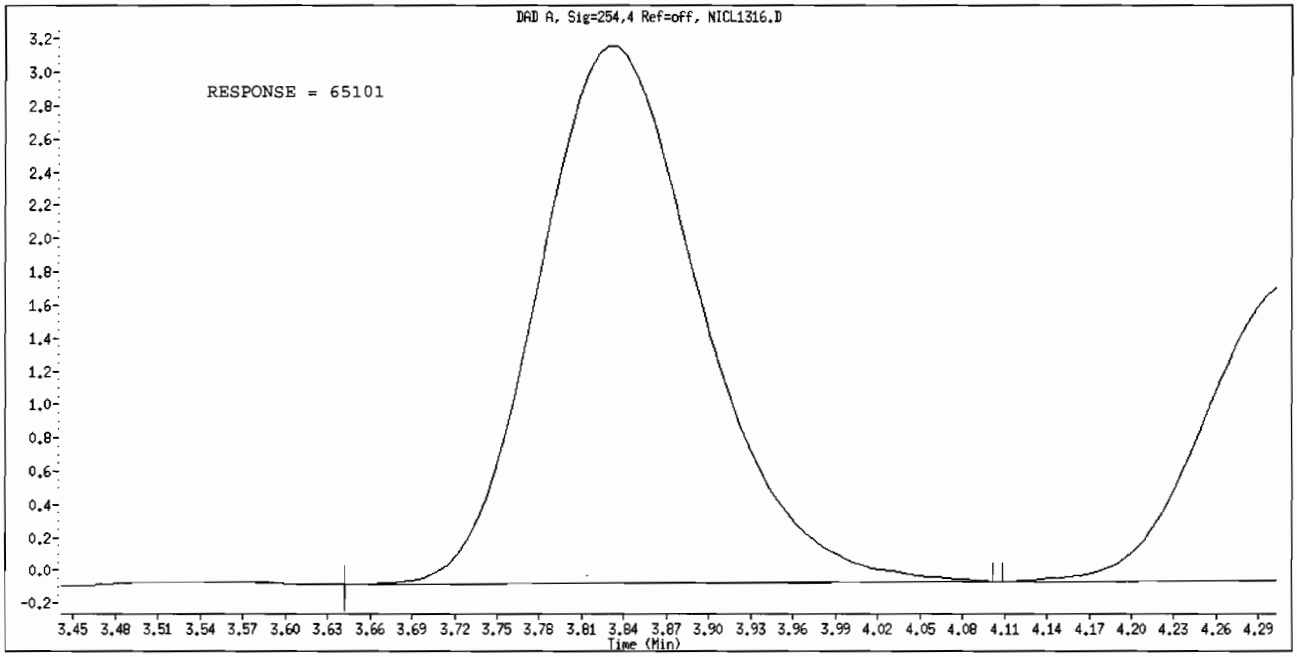

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1316.D
Inj. Date and Time: 25-NOV-2009 10:44
Instrument ID: Lcn.i
Client ID: 8330 ICAL-5
Compound Name: DNX
CAS #:

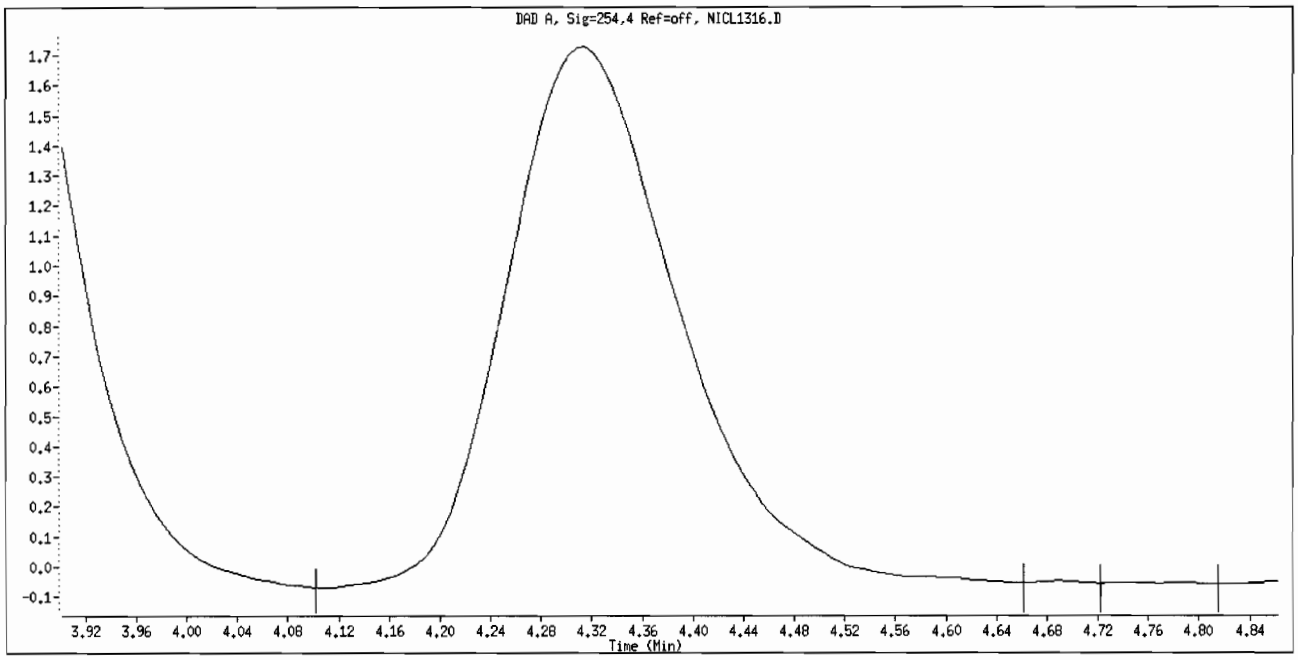

Original Integration

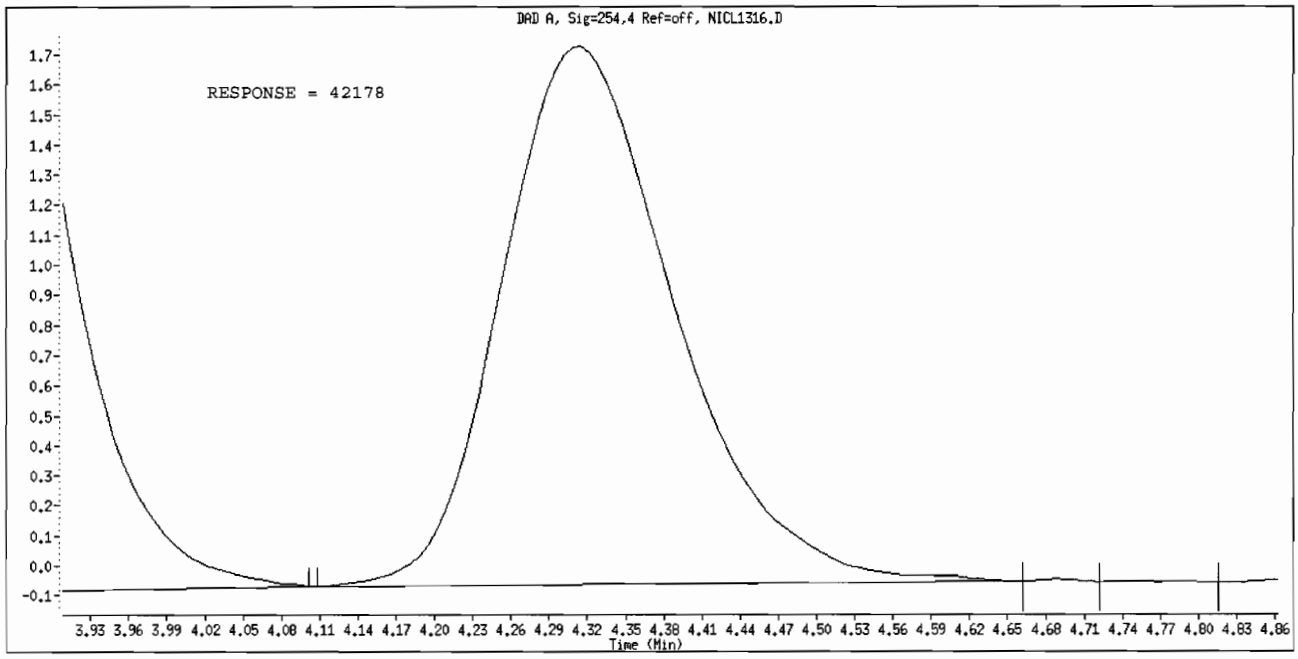

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1316.D
Inj. Date and Time: 25-NOV-2009 10:44
Instrument ID: Lcn.i
Client ID: 8330 ICAL-5
Compound Name: MNX
CAS #:

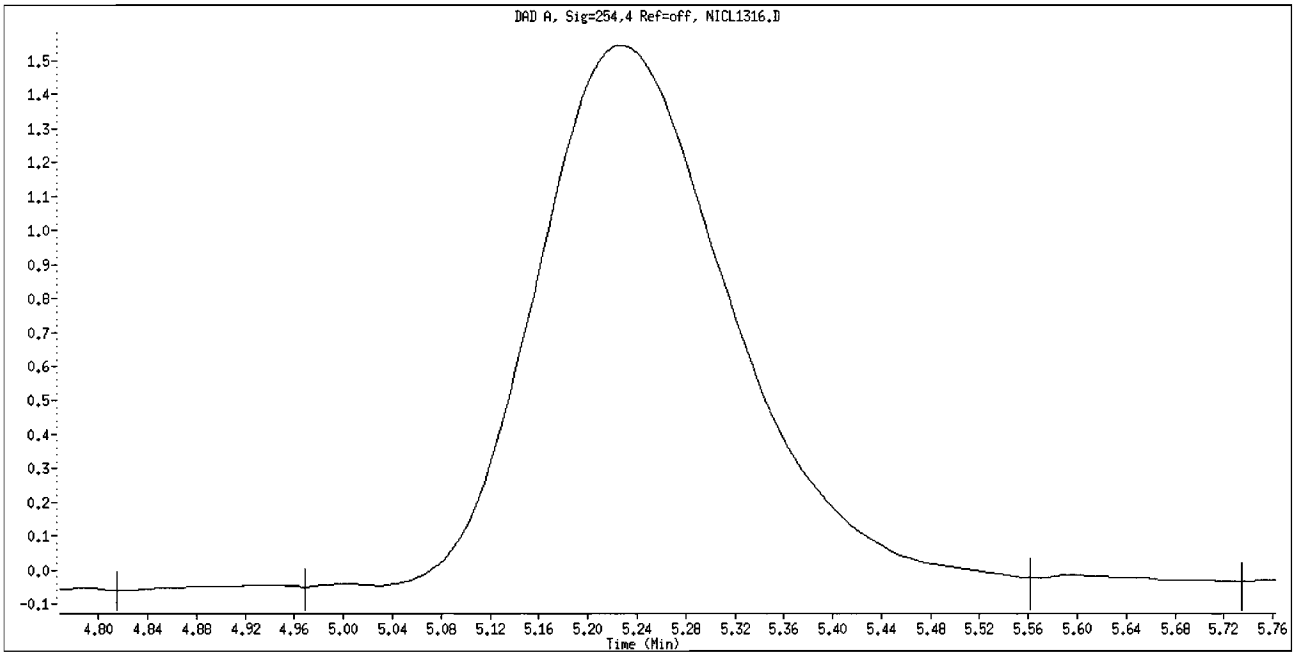

Original Integration

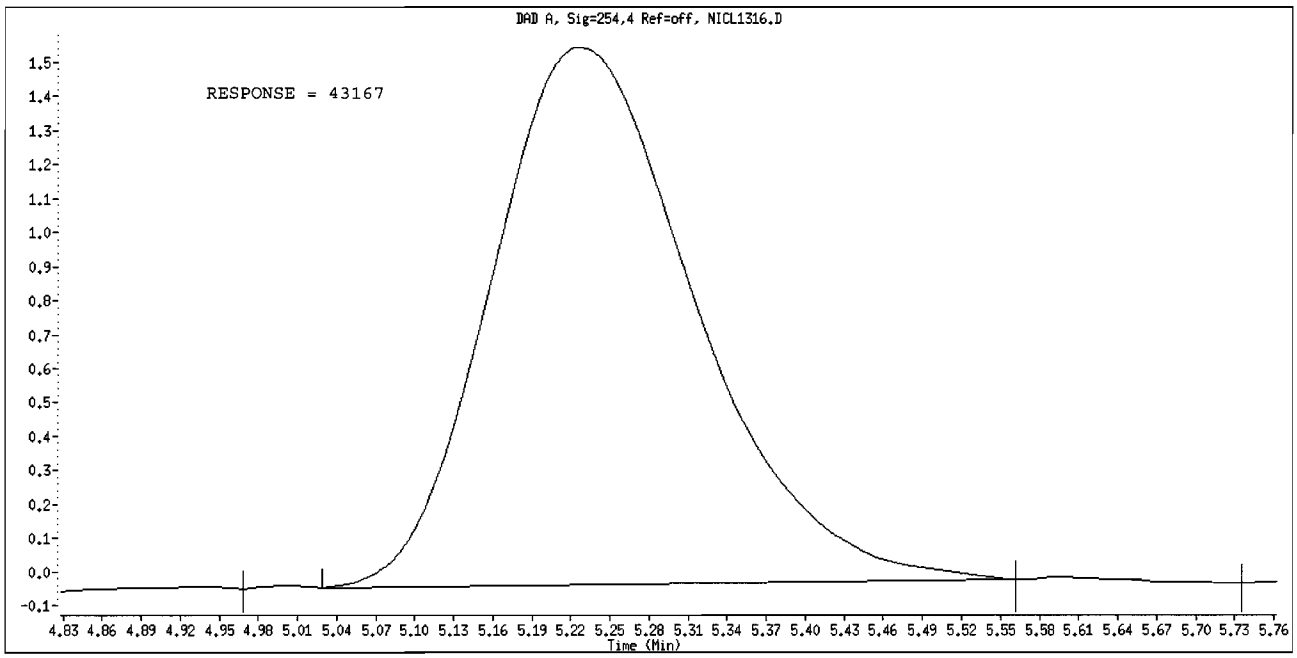

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1316.D
Inj. Date and Time: 25-NOV-2009 10:44
Instrument ID: Lcn.i
Client ID: 8330 ICAL-5
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

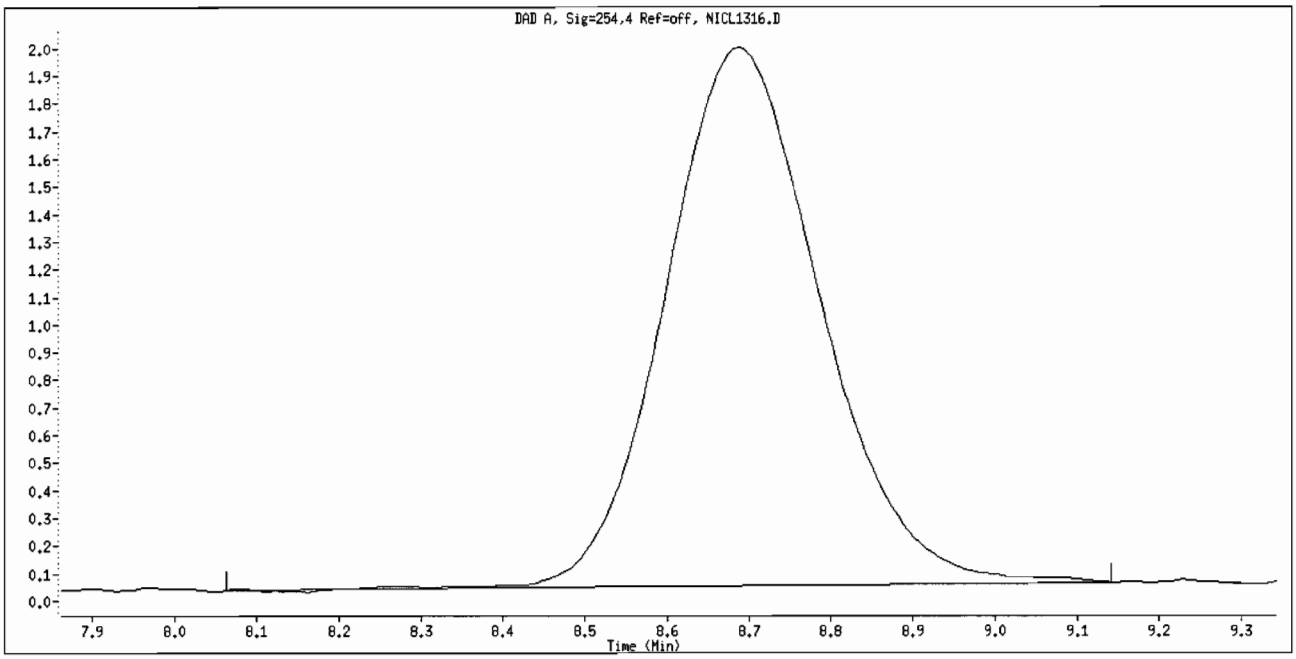

Original Integration

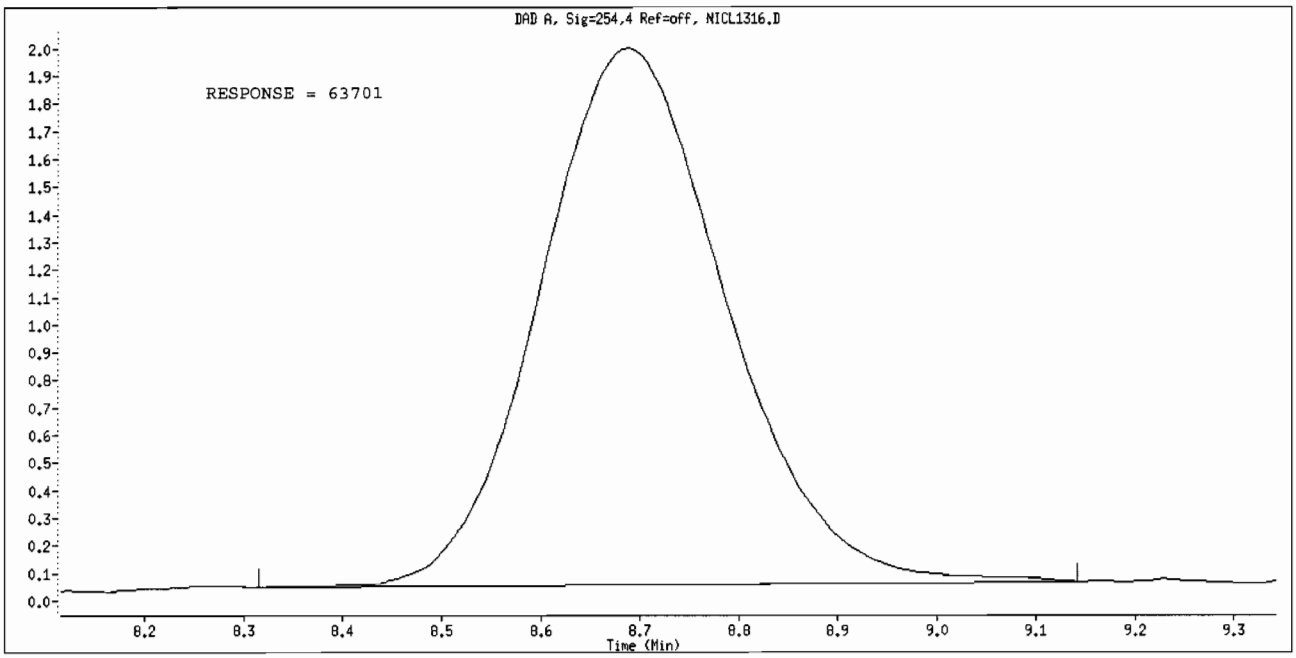

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1317.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1317.D
Lab Smp Id: 8330 ICAL-6 Client Smp ID: 8330 ICAL-6
Inj Date : 25-NOV-2009 10:58
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-6
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.833	3.837	-0.004	136444	201.213	210.9
2 DNX	4.315	4.324	-0.009	87699	137.700	139.2
3 MNX	5.232	5.239	-0.007	90745	181.975	183.9
$ 4 1,2-Dinitrobenzene	8.711	8.706	0.005	130071	250.000	251.2(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Slsvr01\HPLC\Lcn,i\M112509,b\NICL1317,D
Date : 25-NOV-2009 10:58
Client ID: 8330 ICAL-6
Sample Info: 8330 ICAL-6
Purge Volume: 500.0
Column phase: C18

Instrument: Lcn,i
Operator: WH
Column diameter: 4.60

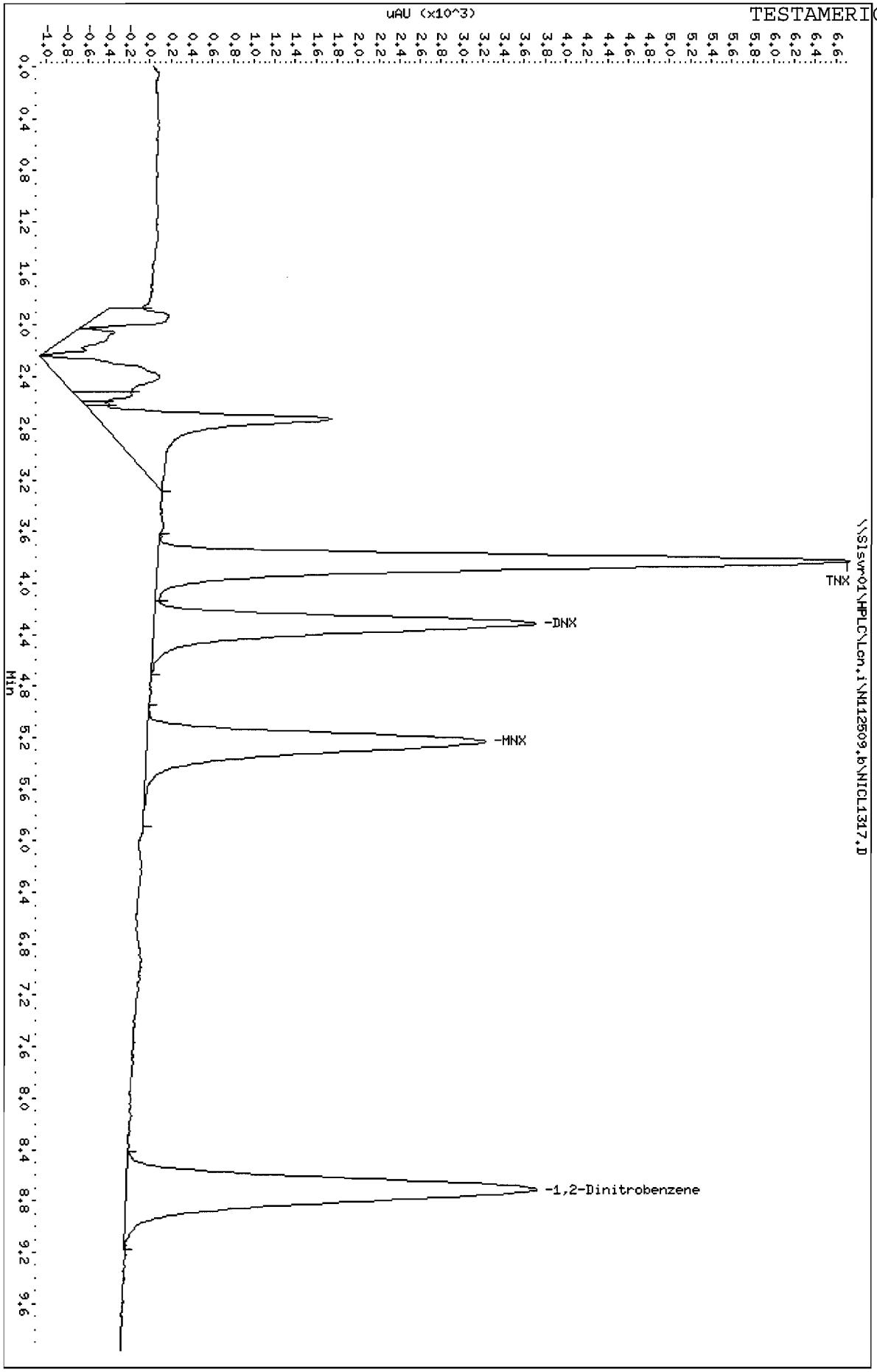

Data File Name: NICL1317.D
Inj. Date and Time: 25-NOV-2009 10:58
Instrument ID: Lcn.i
Client ID: 8330 ICAL-6
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

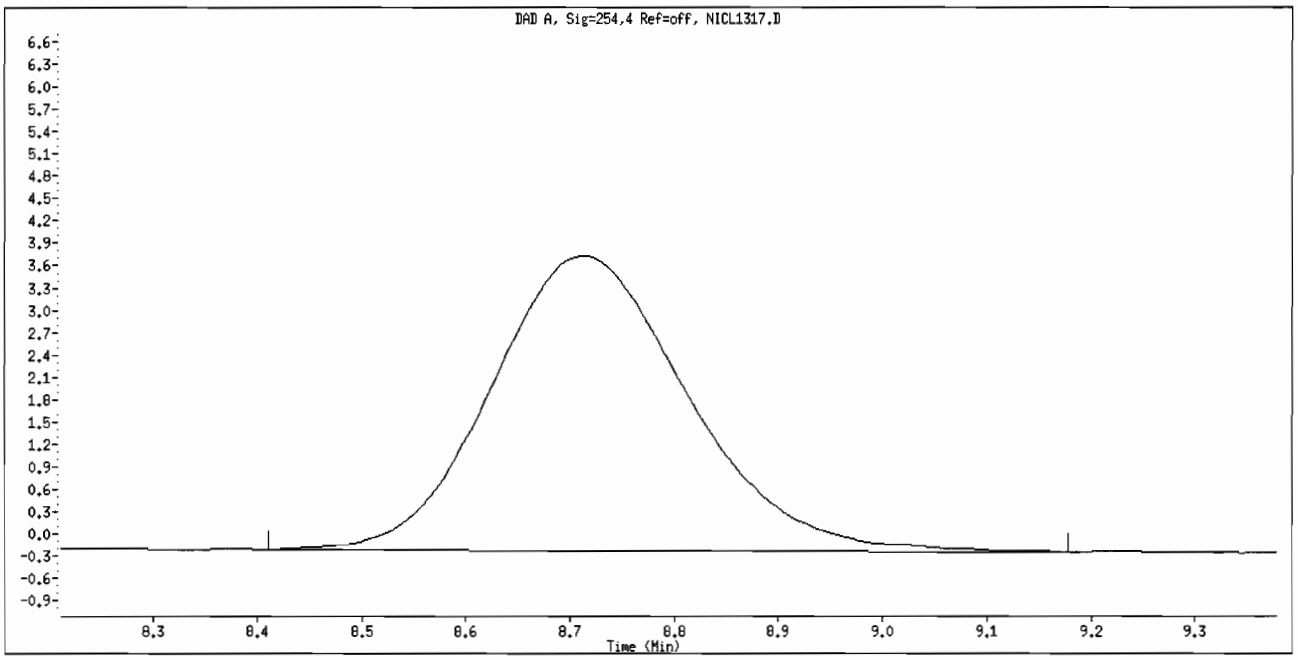

Original Integration

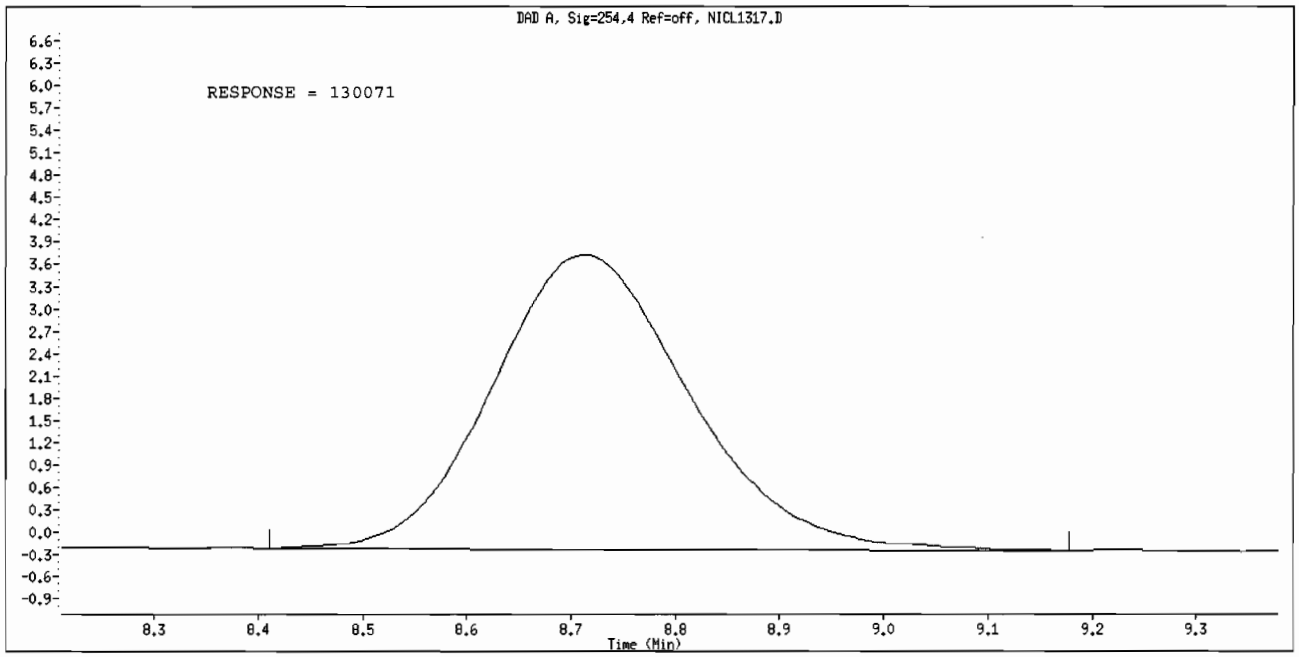

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1318.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1318.D
Lab Smp Id: 8330 ICAL-7 Client Smp ID: 8330 ICAL-7
Inj Date : 25-NOV-2009 11:12
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-7
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.831	3.837	-0.006	267028	402.425	412.7(M)
2 DNX	4.318	4.324	-0.006	167438	275.400	265.8(M)
3 MNX	5.231	5.239	-0.008	174954	363.950	354.5(M)
$ 4 1,2-Dinitrobenzene	8.704	8.706	-0.002	255155	500.000	492.8(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Slsvr01\HPLC\Lcn,i\N112509,b\NICL1318,D
Date : 25-NOV-2009 11:12
Client ID: 8330 ICAL-7
Sample Info: 8330 ICAL-7
Purge Volume: 500.0
Column phase: C18

Instrument: Lcn,i
Operator: WH
Column diameter: 4.60

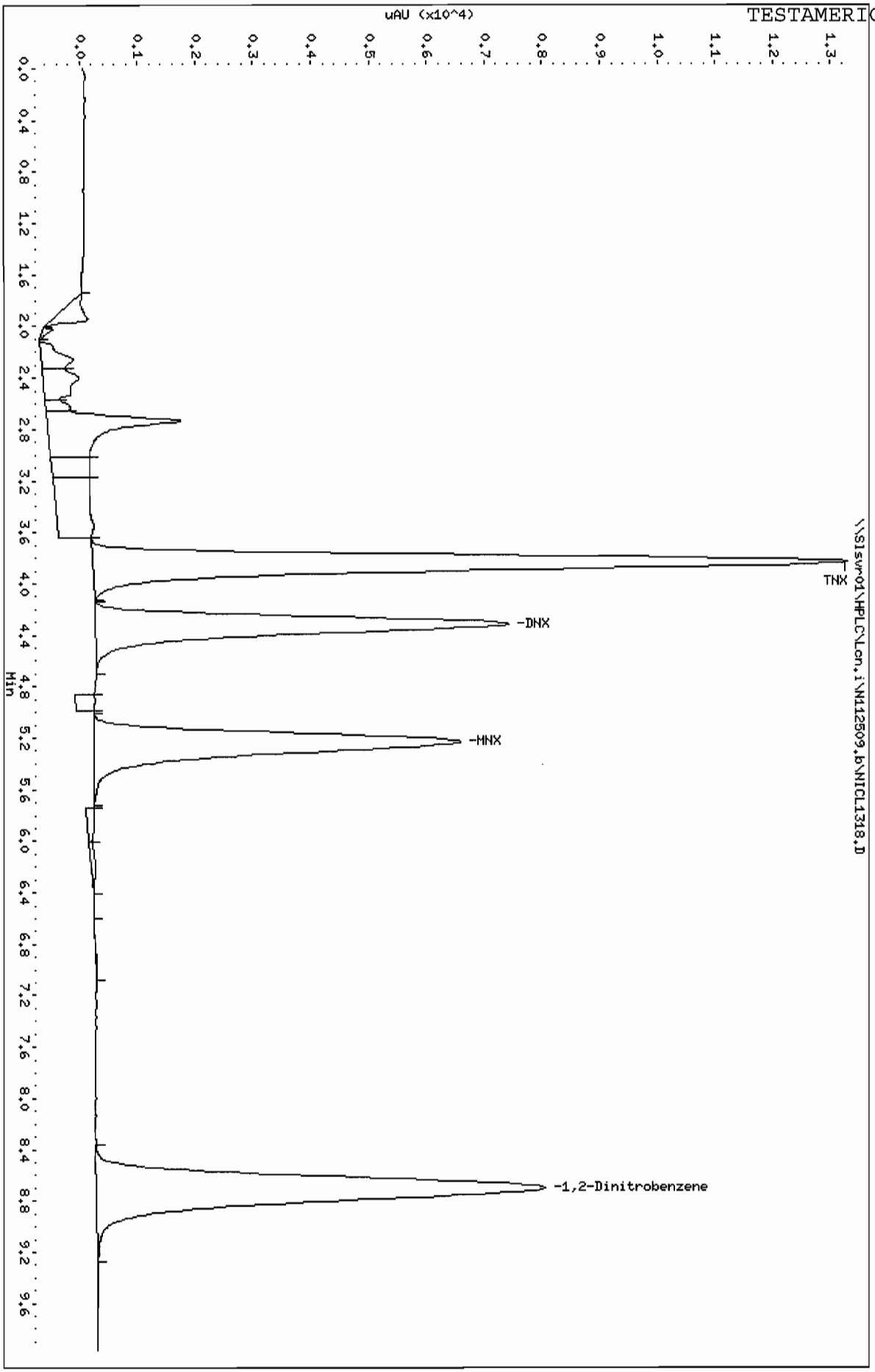

Data File Name: NICL1318.D
Inj. Date and Time: 25-NOV-2009 11:12
Instrument ID: Lcn.i
Client ID: 8330 ICAL-7
Compound Name: TNX
CAS #:

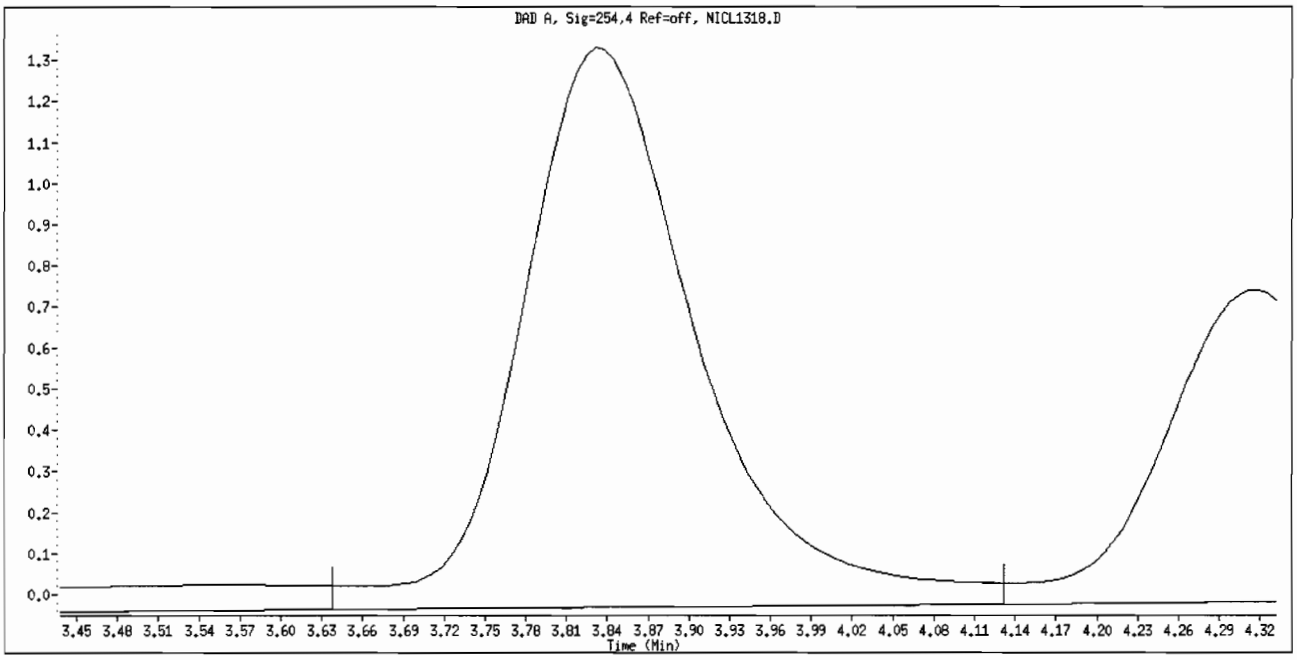

Original Integration

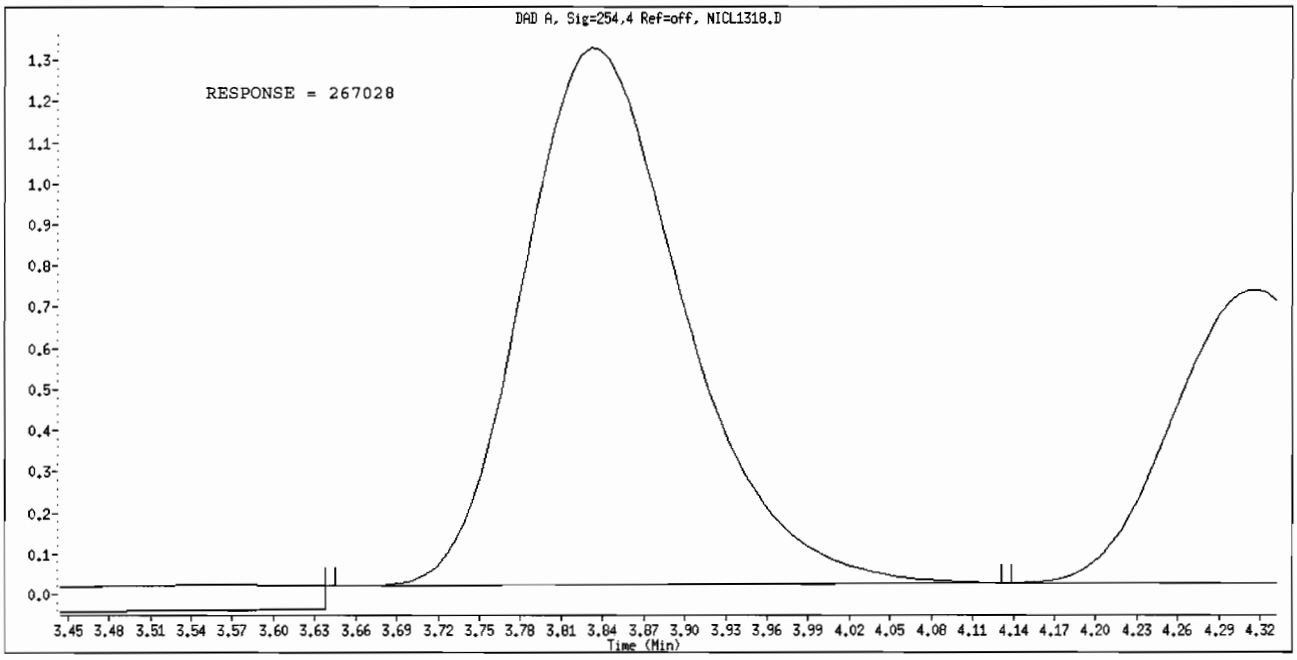

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1318.D
Inj. Date and Time: 25-NOV-2009 11:12
Instrument ID: Lcn.i
Client ID: 8330 ICAL-7
Compound Name: DNX
CAS #:

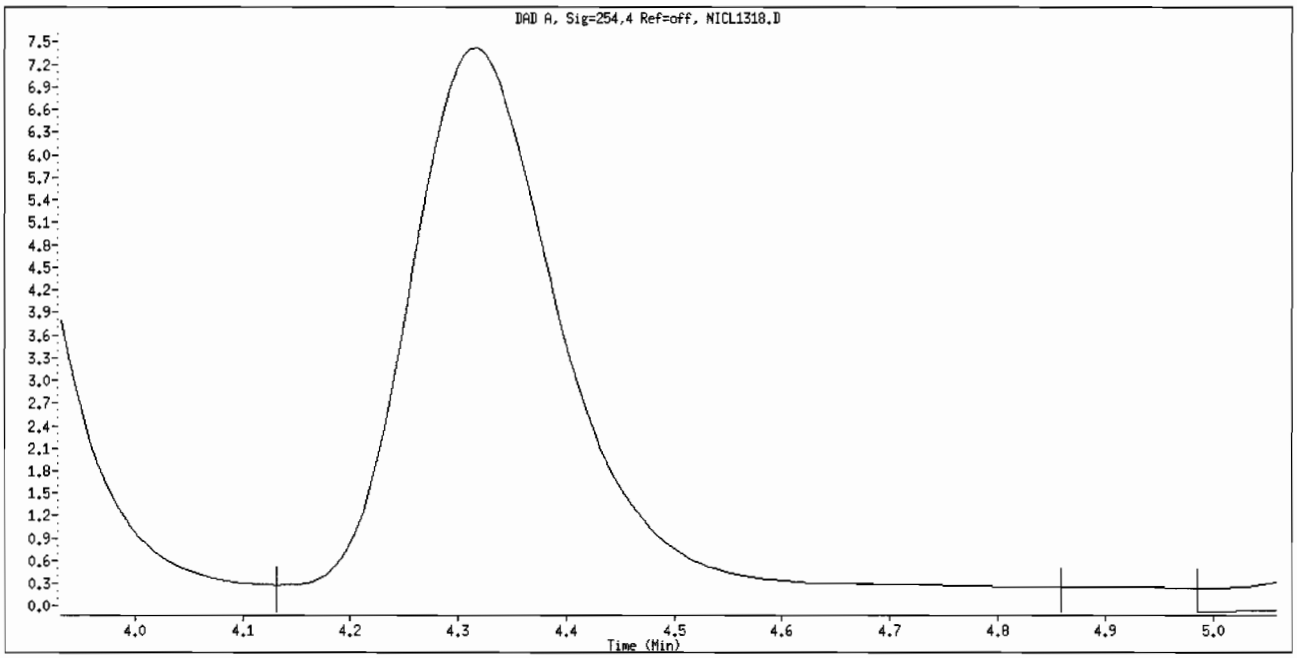

Original Integration

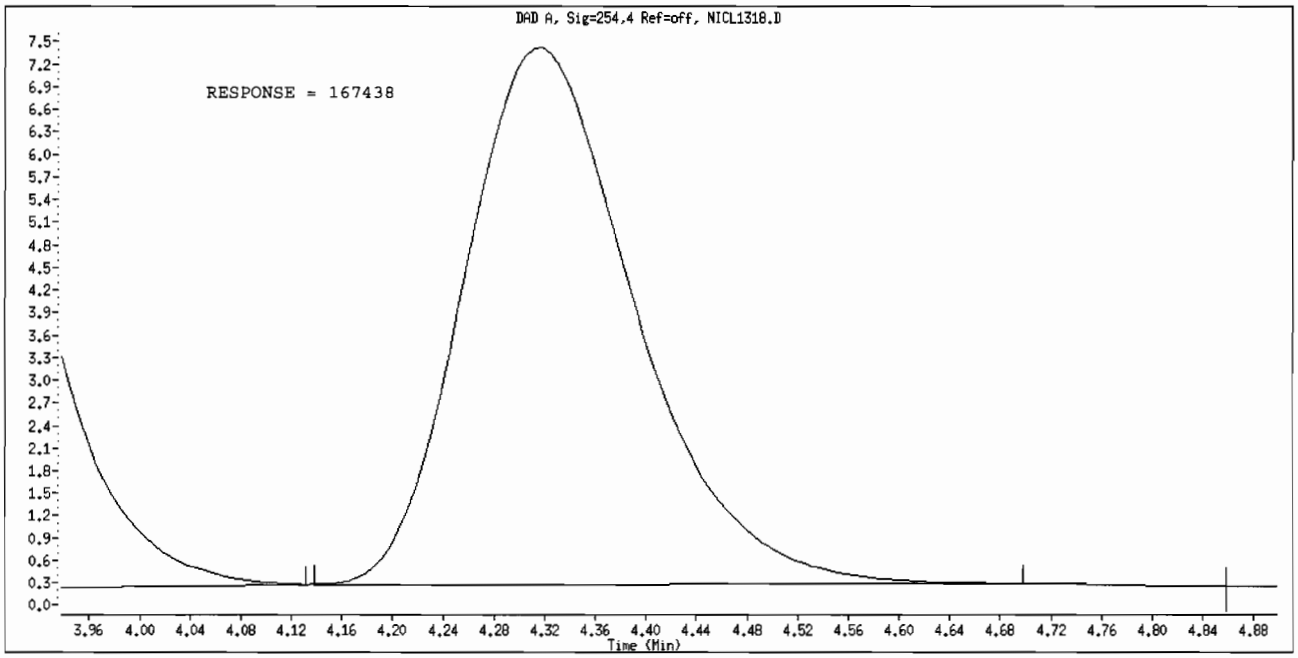

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1318.D
Inj. Date and Time: 25-NOV-2009 11:12
Instrument ID: Lcn.i
Client ID: 8330 ICAL-7
Compound Name: MNX
CAS #:

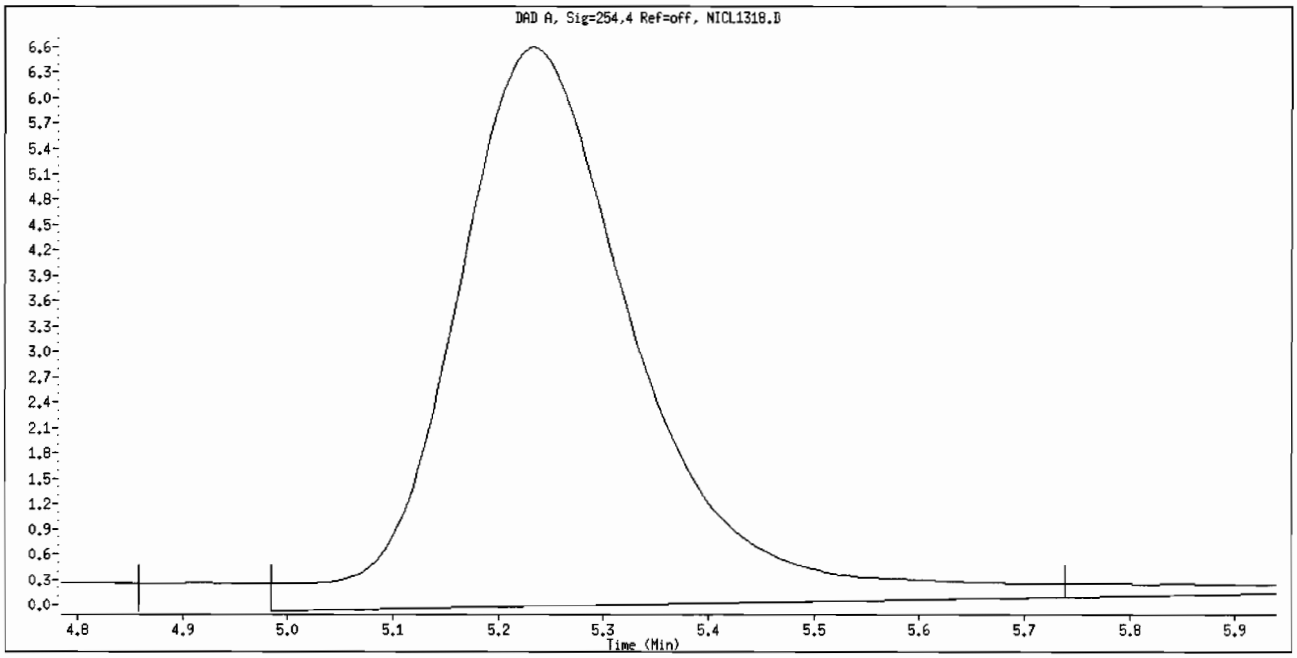

Original Integration

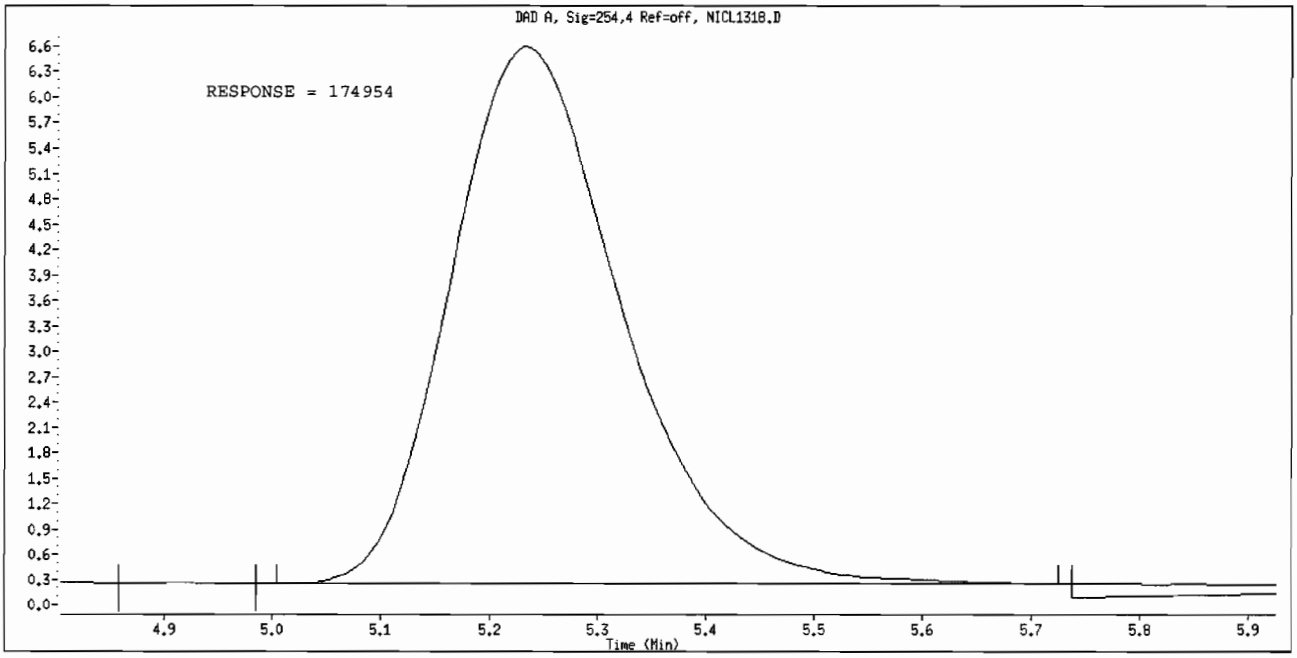

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1318.D
Inj. Date and Time: 25-NOV-2009 11:12
Instrument ID: Lcn.i
Client ID: 8330 ICAL-7
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

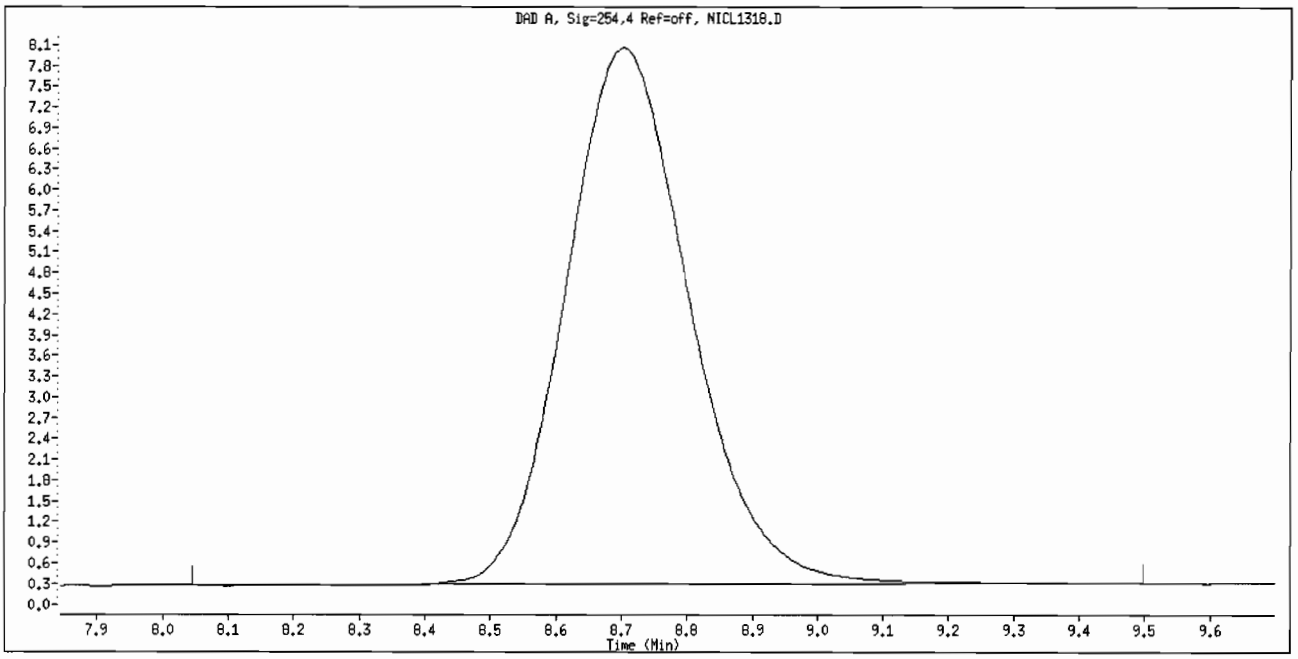

Original Integration

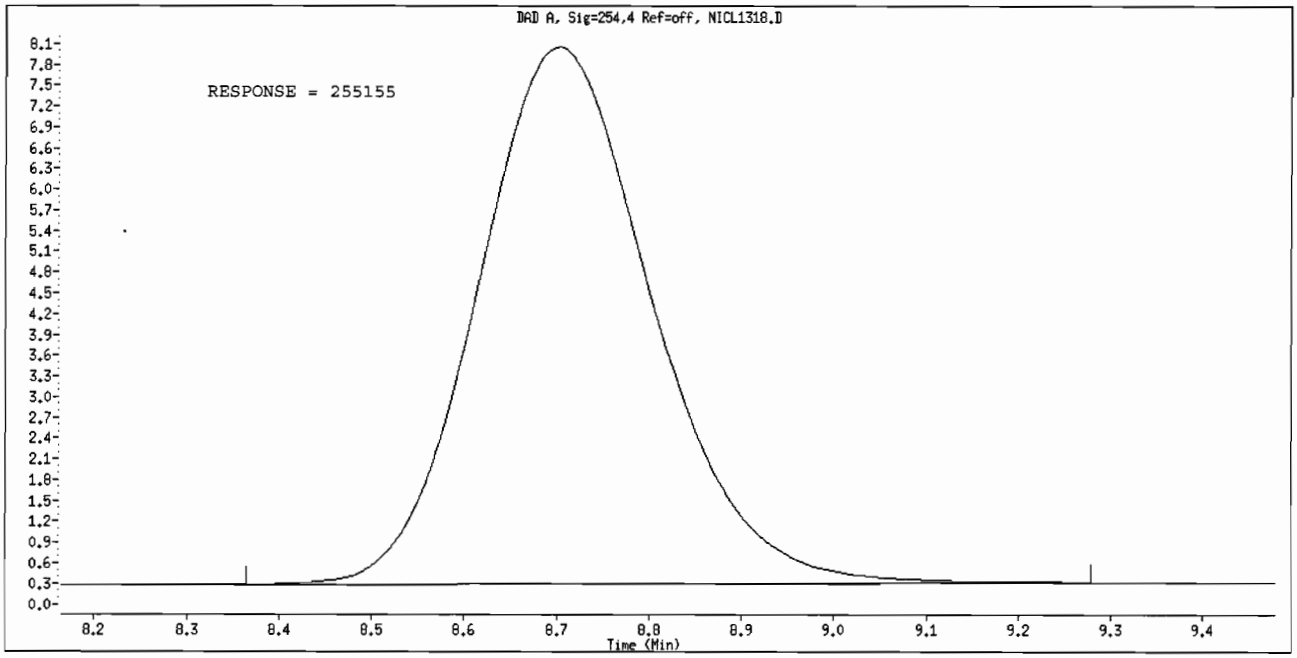

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1319.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1319.D
Lab Smp Id: 8330 ICAL-8 Client Smp ID: 8330 ICAL-8
Inj Date : 25-NOV-2009 11:26
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-8
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.838	3.837	0.001	539495	804.850	833.8(M)
2 DNX	4.318	4.324	-0.006	337552	550.800	535.8(M)
3 MNX	5.238	5.239	-0.001	352540	727.900	714.4(M)
$ 4 1,2-Dinitrobenzene	8.715	8.706	0.009	512457	1000.00	989.8(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Slsvr01\HPLC\Lon,i\N112509,b\NICL1319,D
Date : 25-NOV-2009 11:26
Client ID: 8330 ICAL-8
Sample Info: 8330 ICAL-8
Purge Volume: 500.0
Column phase: C18

Instrument: Lon,i
Operator: WH
Column diameter: 4.60

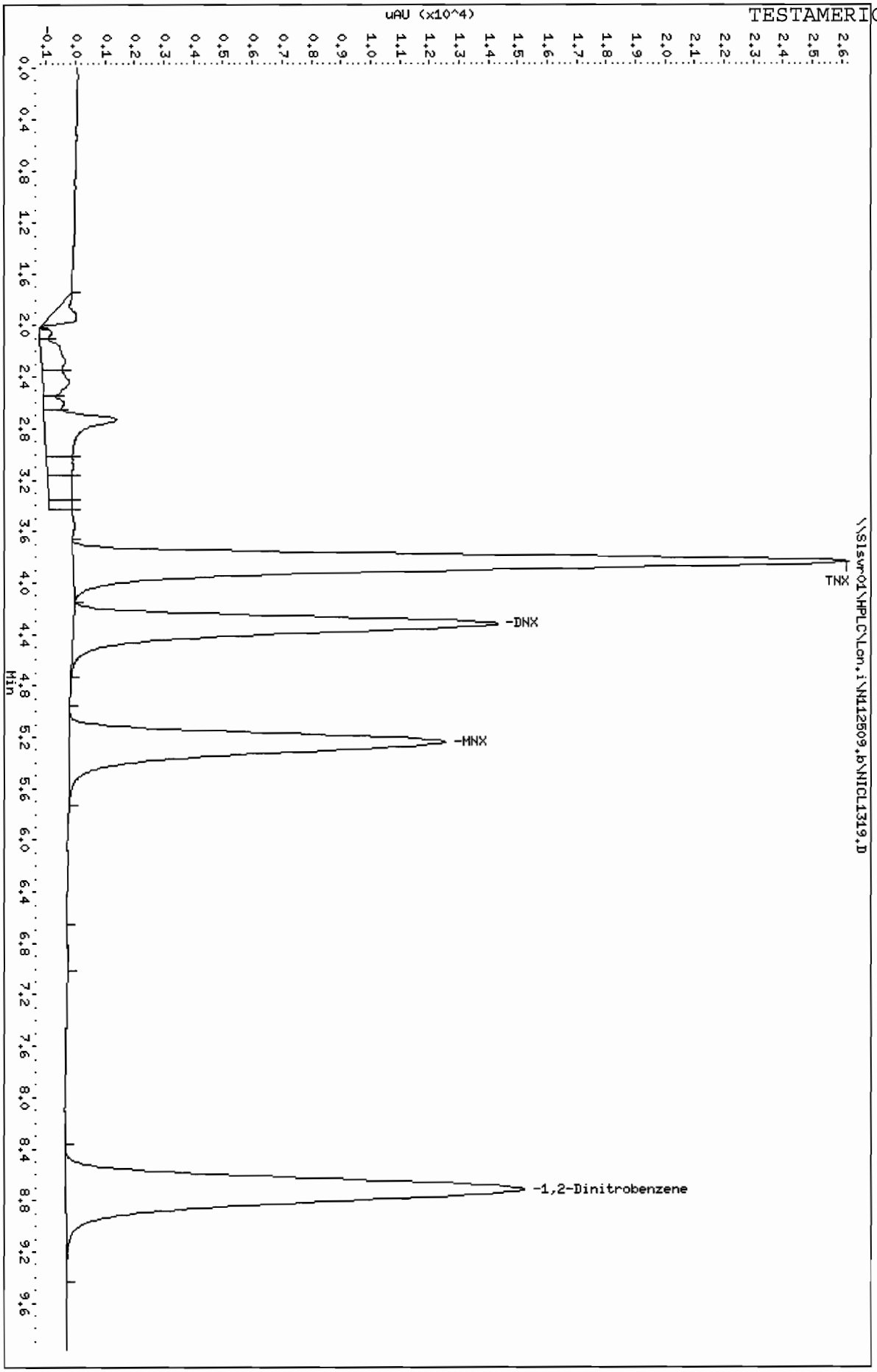

Data File Name: NICL1319.D
Inj. Date and Time: 25-NOV-2009 11:26
Instrument ID: Lcn.i
Client ID: 8330 ICAL-8
Compound Name: TNX
CAS #:

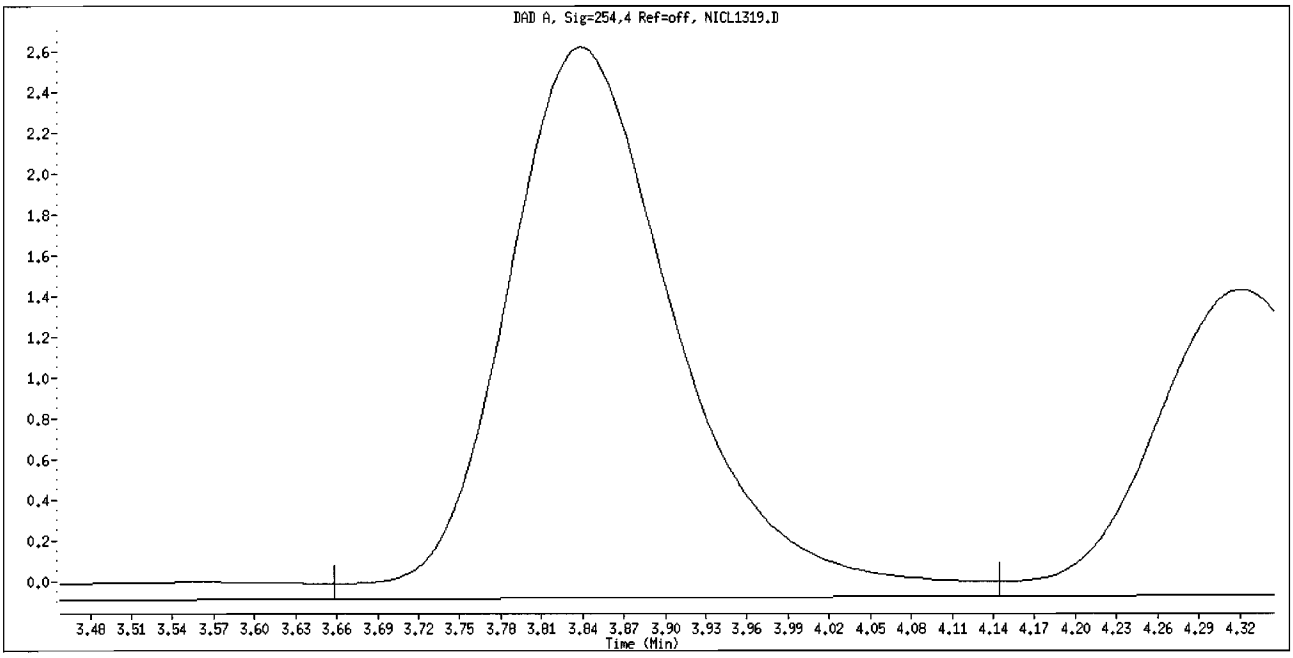

Original Integration

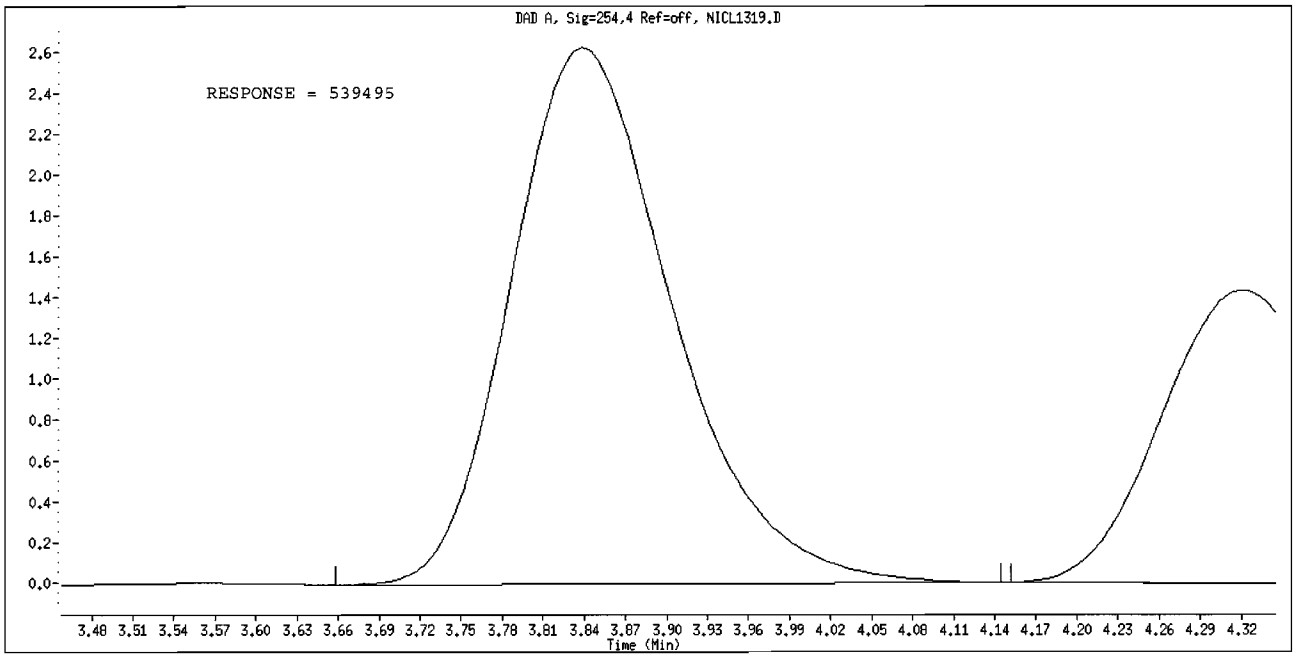

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1319.D
Inj. Date and Time: 25-NOV-2009 11:26
Instrument ID: Lcn.i
Client ID: 8330 ICAL-8
Compound Name: DNX
CAS #:

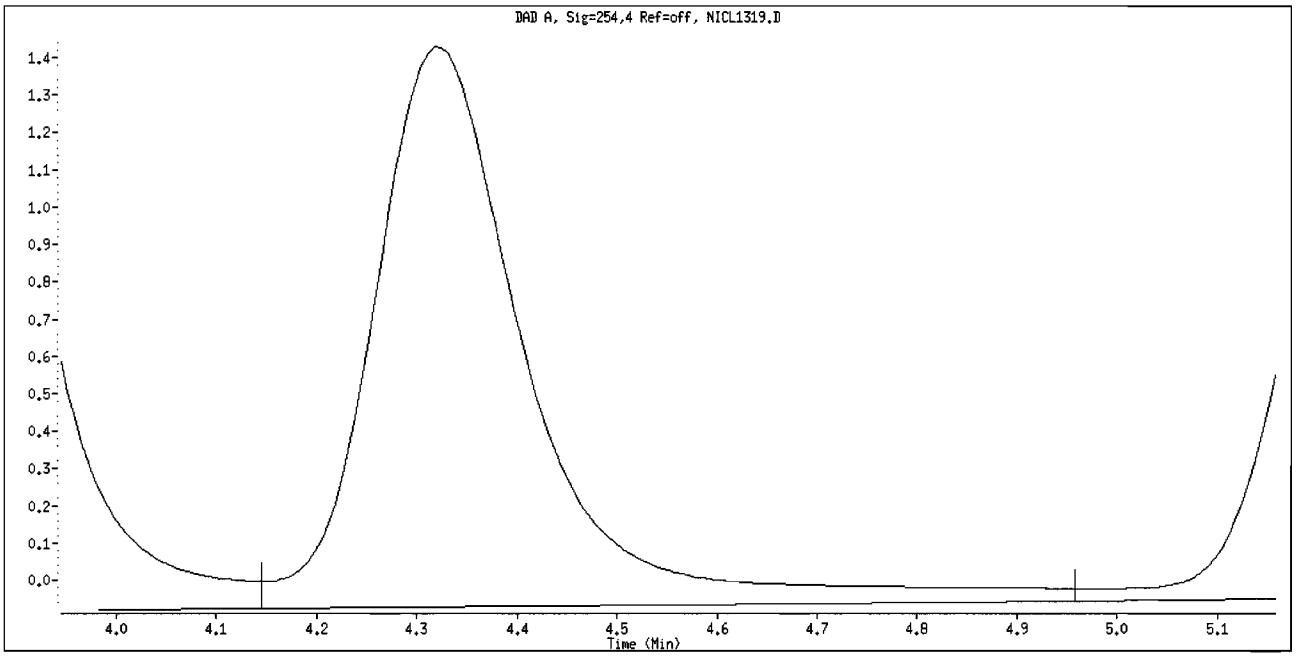

Original Integration

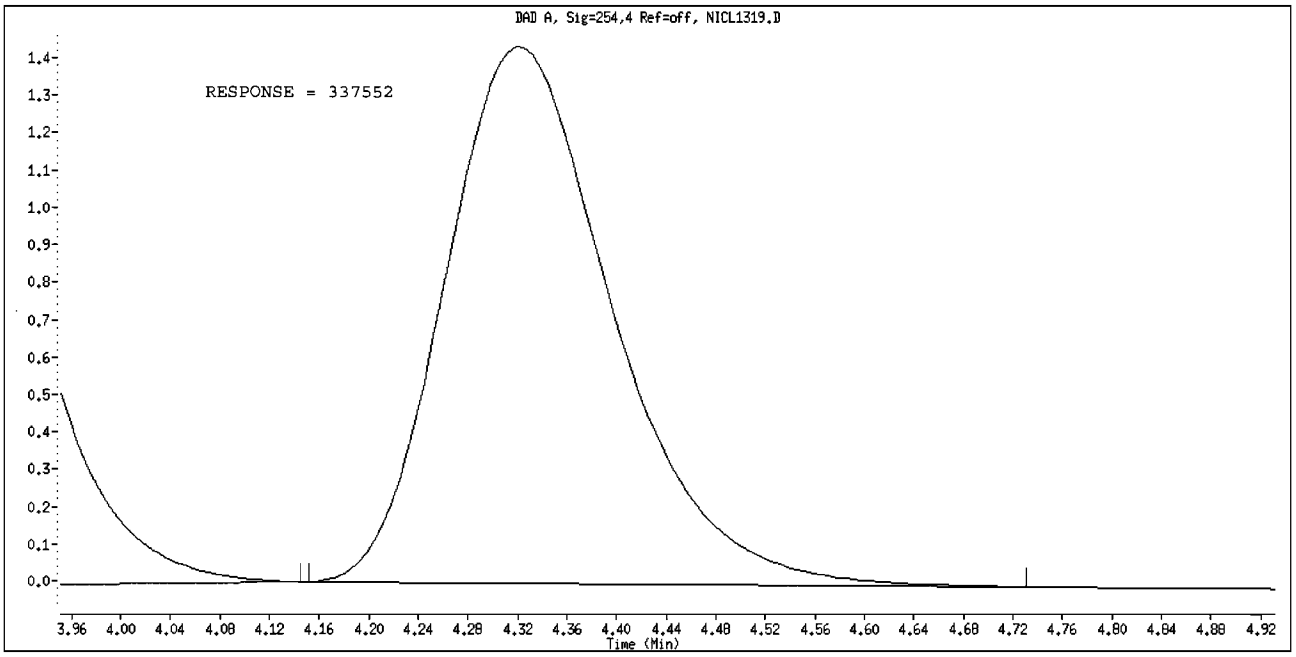

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1319.D
Inj. Date and Time: 25-NOV-2009 11:26
Instrument ID: Lcn.i
Client ID: 8330 ICAL-8
Compound Name: MNX
CAS #:

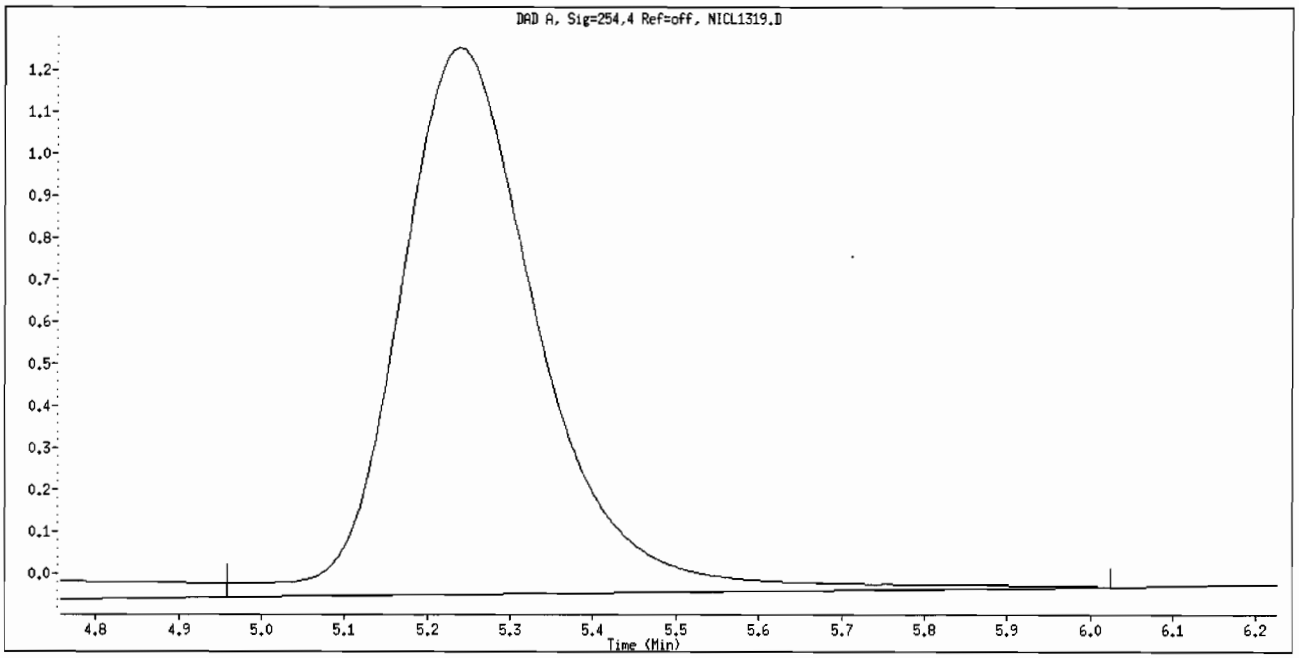

Original Integration

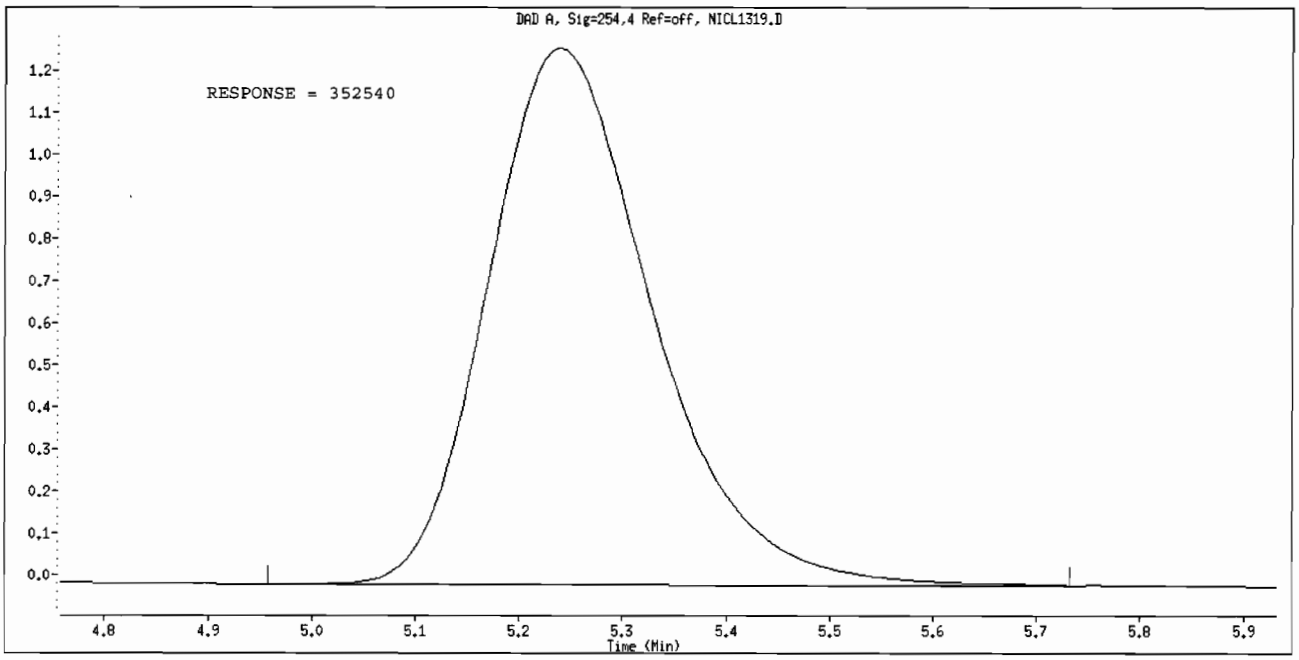

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1319.D
Inj. Date and Time: 25-NOV-2009 11:26
Instrument ID: Lcn.i
Client ID: 8330 ICAL-8
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

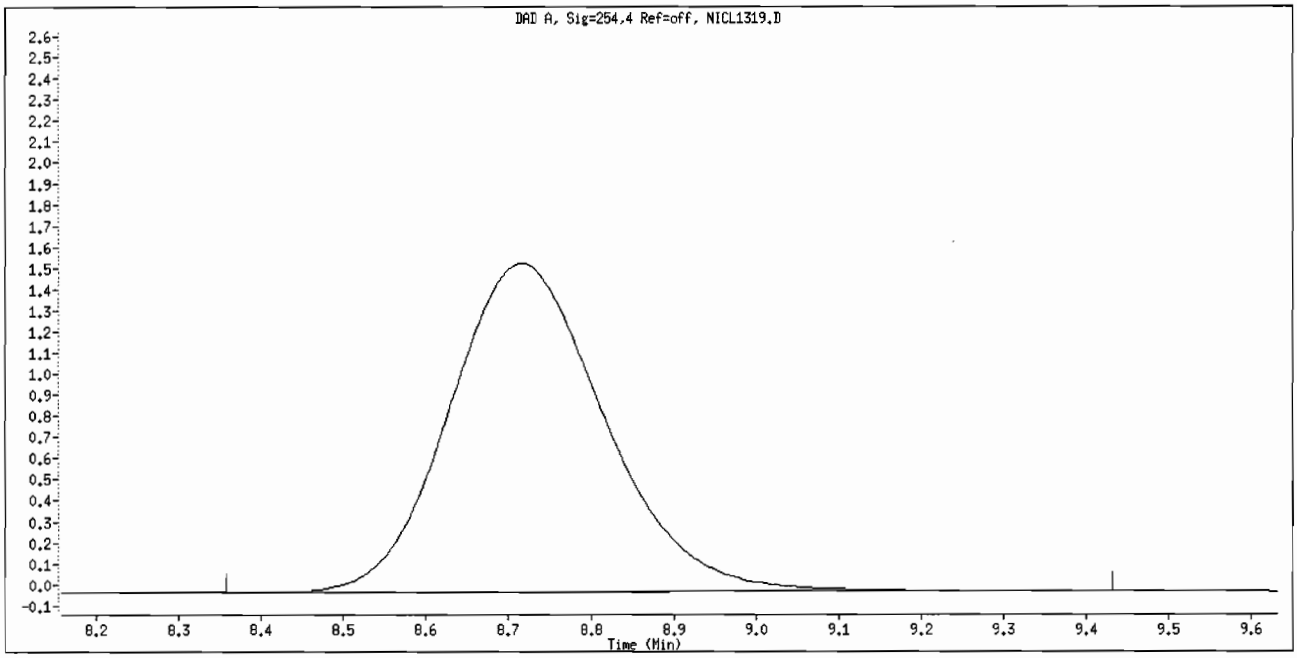

Original Integration

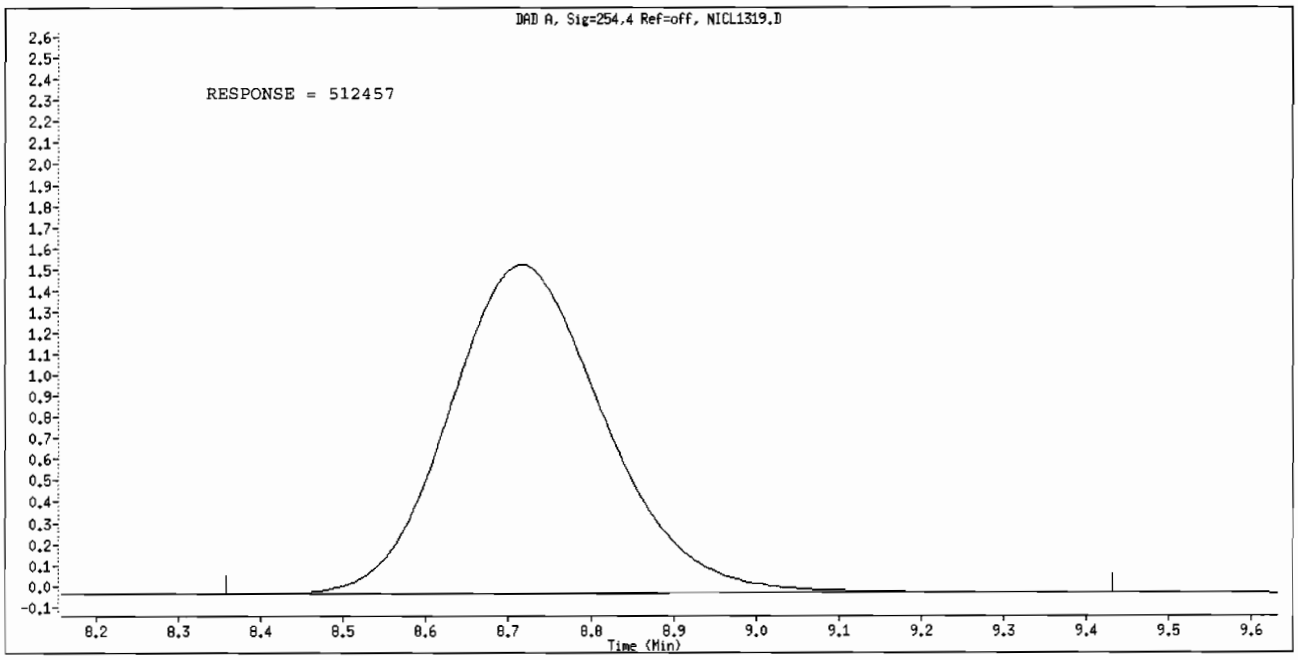

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICV1320.D
Report Date: 02-Dec-2009 16:06

TestAmerica St. Louis

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Lcn.i Injection Date: 25-NOV-2009 11:40
Lab File ID: NICV1320.D Init. Cal. Date(s): 25-NOV-2009 25-NOV-2009
Analysis Type: WATER Init. Cal. Times: 10:16 11:26
Lab Sample ID: XNX ICV Quant Type: ESTD
Method: \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m

COMPOUND	RRF / AMOUNT	RF125	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 TNX	647	687	0.010	-6.21077	20.00000	Averaged
2 DNX	630	652	0.010	-3.51780	20.00000	Averaged
3 MNX	493	518	0.010	-5.04045	20.00000	Averaged

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICV1320.D
Report Date: 02-Dec-2009 16:06

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICV1320.D
Lab Smp Id: XNX ICV Client Smp ID: XNX ICV
Inj Date : 25-NOV-2009 11:40
Operator : WH Inst ID: Lcn.i
Smp Info : XNX ICV
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:06 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.834	3.837	-0.003	69140	100.606	106.8
2 DNX	4.318	4.324	-0.006	44898	68.8500	71.27
3 MNX	5.239	5.239	0.000	47165	90.9875	95.57(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICV1320.D
Date : 25-NOV-2009 11:40
Client ID: XNX ICV
Sample Info: XNX ICV
Purge Volume: 500.0
Column phase: C18

Instrument: Lcn.i
Operator: WH
Column diameter: 4.60

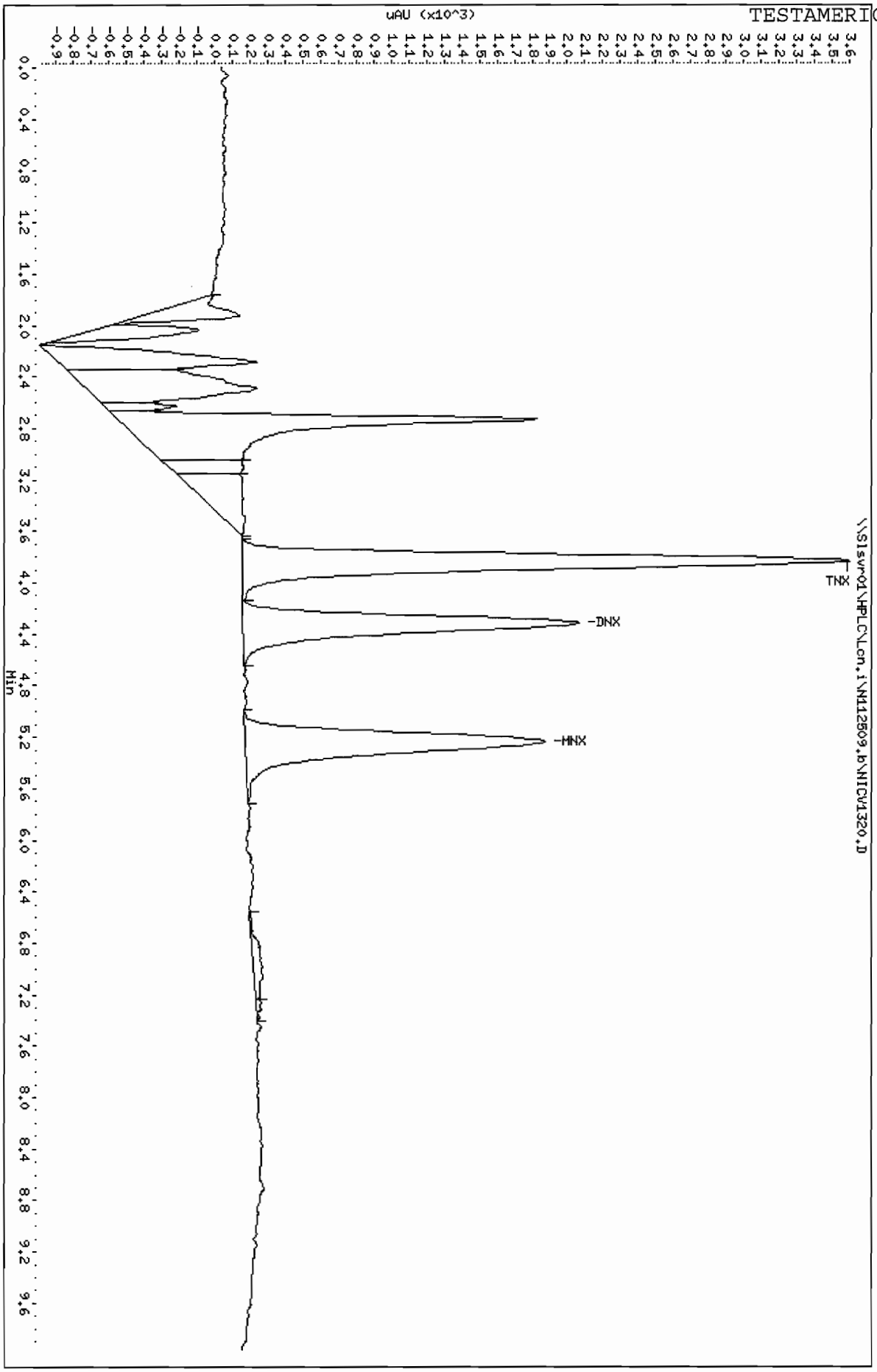

Data File Name: NICV1320.D
Inj. Date and Time: 25-NOV-2009 11:40
Instrument ID: Lcn.i
Client ID: XNX ICV
Compound Name: MNX
CAS #:

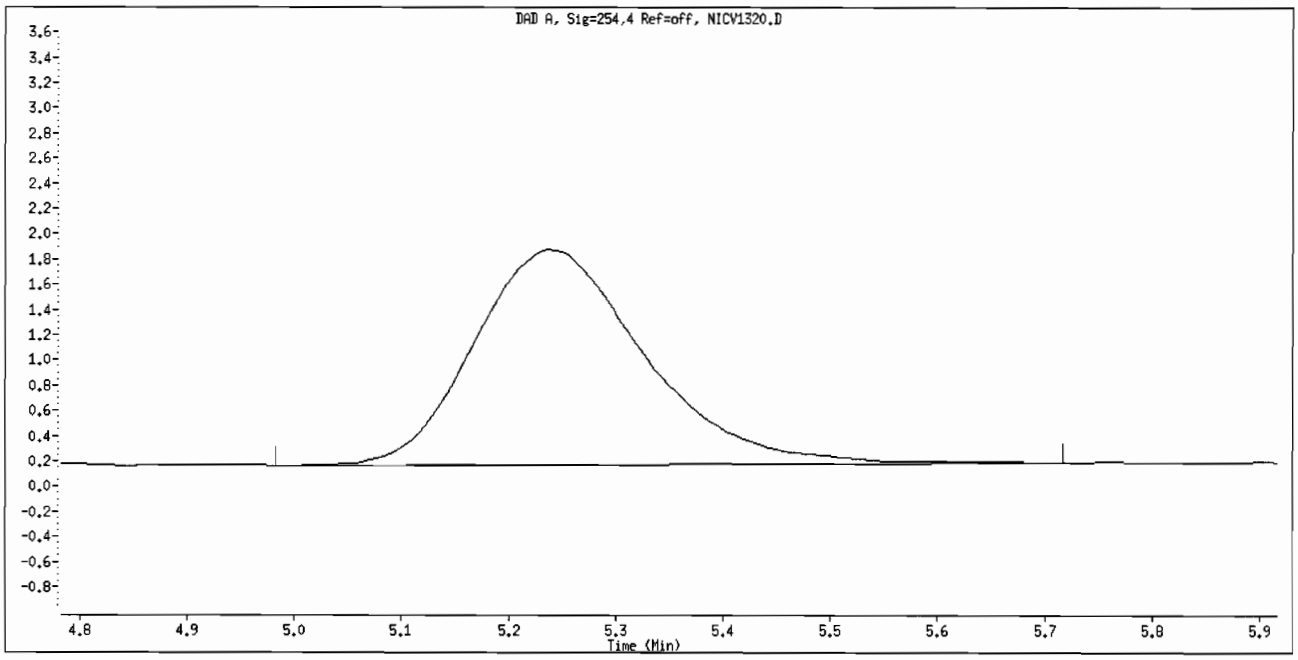

Original Integration

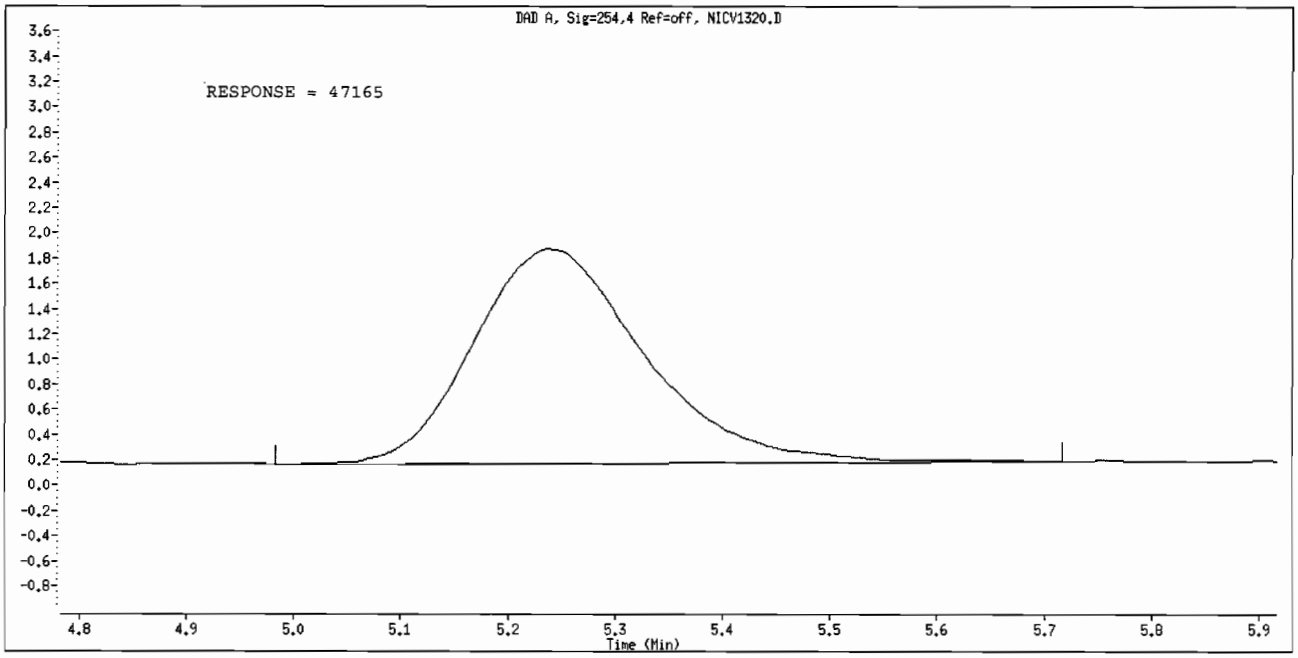

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N022210.b\NCAL3196.D
Report Date: 01-Mar-2010 11:02

TestAmerica St. Louis

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Lcn.i Injection Date: 22-FEB-2010 13:26
Lab File ID: NCAL3196.D Init. Cal. Date(s): 25-NOV-2009 25-NOV-2009
Analysis Type: WATER Init. Cal. Times: 10:16 11:26
Lab Sample ID: XNX CCAL Quant Type: ESTD
Method: \\slsvr01\HPLC\Lcn.i\N022210.b\C18XNX.m

COMPOUND	RRF / AMOUNT	RF125	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 TNX	647	676	0.010	-4.42420	20.00000	Averaged
2 DNX	630	620	0.010	1.50845	20.00000	Averaged
3 MNX	493	507	0.010	-2.64856	20.00000	Averaged
$ 4 1,2-Dinitrobenzene	518	508	0.010	1.95939	20.00000	Averaged

Data File: \\slsvr01\HPLC\Lcn.i\N022210.b\NCAL3196.D
Report Date: 01-Mar-2010 11:02

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N022210.b\NCAL3196.D
Lab Smp Id: XNX CCAL Client Smp ID: XNX CCAL
Inj Date : 22-FEB-2010 13:26
Operator : AF Inst ID: Lcn.i
Smp Info : XNX CCAL
Misc Info :
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N022210.b\C18XNX.m
Meth Date : 01-Mar-2010 11:02 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.829	3.837	-0.008	67977	100.606	105.0(M)
2 DNX	4.309	4.324	-0.015	42718	68.8500	67.81(M)
3 MNX	5.222	5.239	-0.017	46091	90.9875	93.40(M)
$ 4 1,2-Dinitrobenzene	8.687	8.706	-0.019	63449	125.000	122.6

QC Flag Legend

M - Compound response manually integrated.

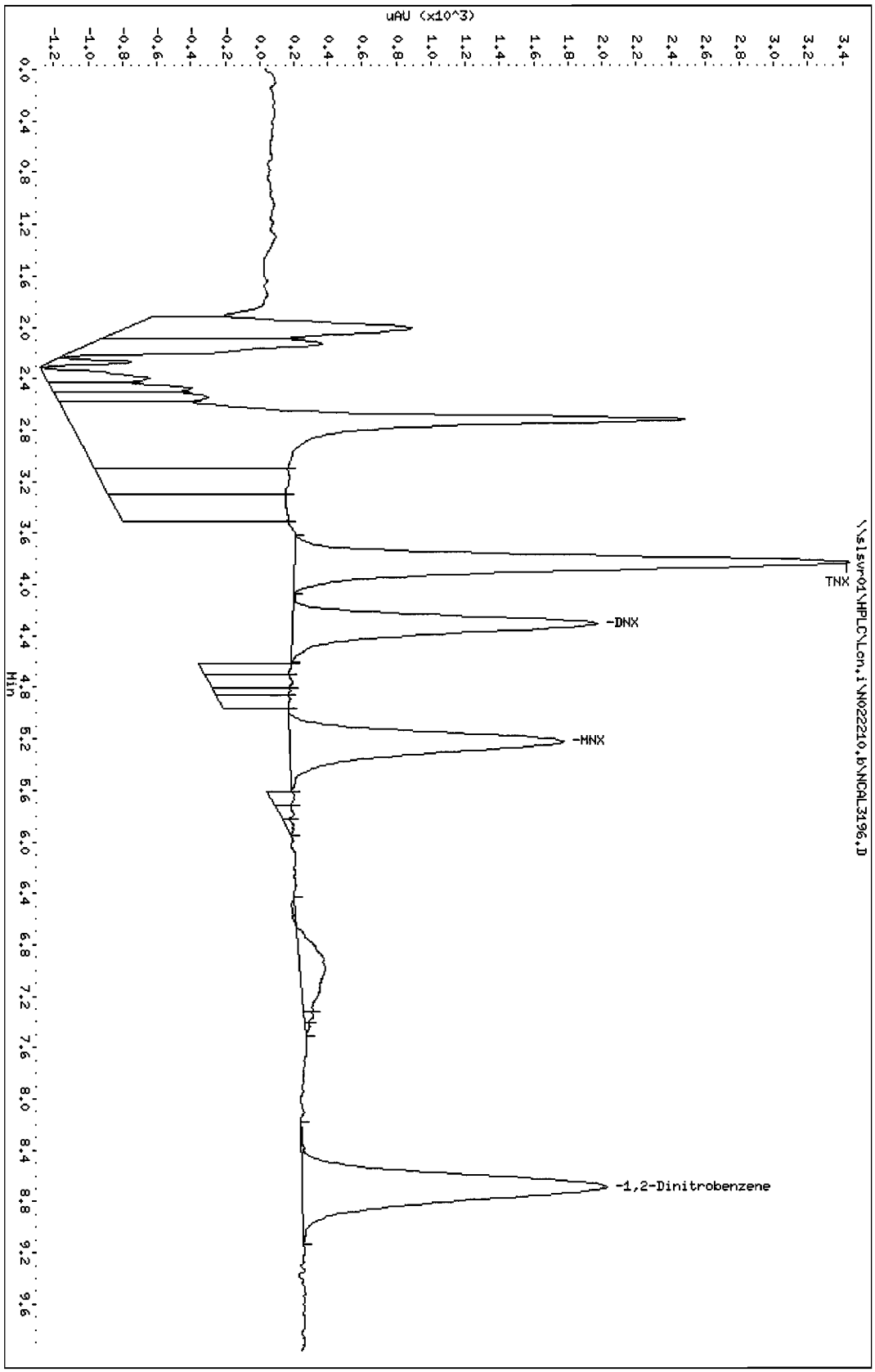
Data File: \\slsvr01\HPLC\Lon,i\N022210,b\NCAL3196.D
Date : 22-FEB-2010 13:26
Client ID: XNX CCAL
Sample Info: XNX CCAL
Purge Volume: 500.0
Column phase: C18
Instrument: Lon,i
Operator: AF
Column diameter: 4.60
uAU (x10^3)
\\slsvr01\HPLC\Lon,i\N022210,b\NCAL3196.D
TNX
-DNX
-MNX
-1,2-Dinitrobenzene
Min

Data File Name: NCAL3196.D
Inj. Date and Time: 22-FEB-2010 13:26
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: TNX
CAS #:

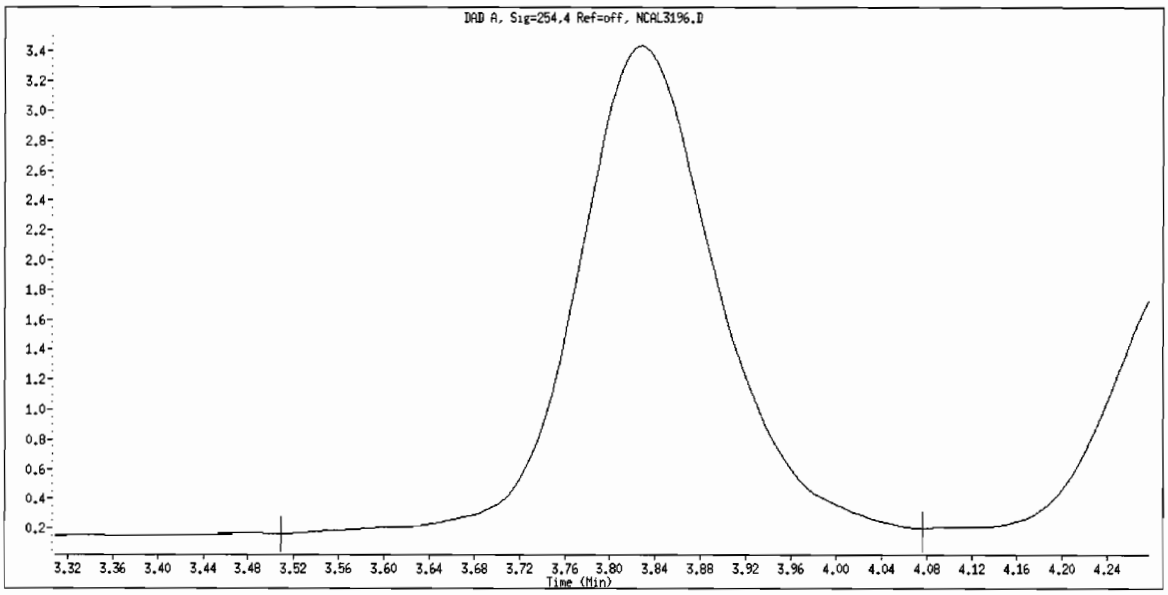

Original Integration

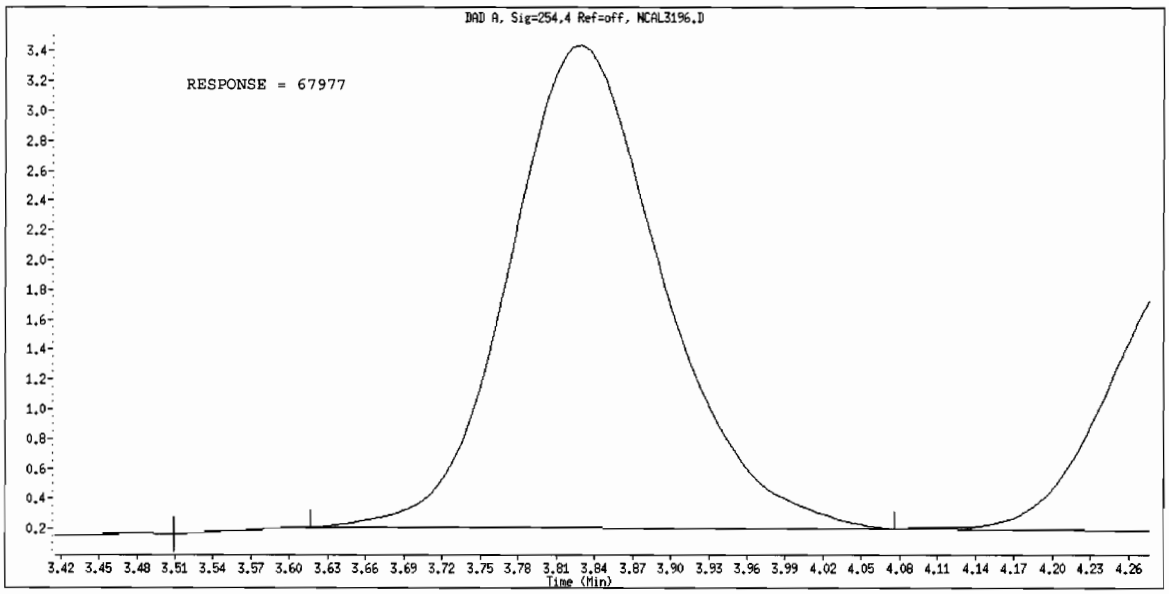

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NCAL3196.D
Inj. Date and Time: 22-FEB-2010 13:26
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: DNX
CAS #:

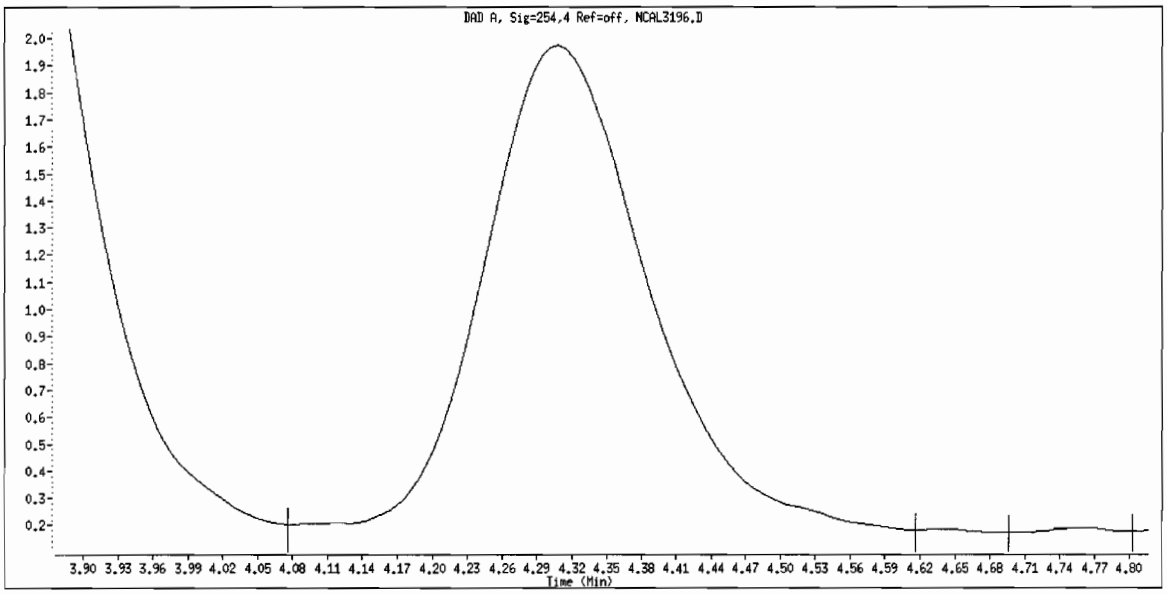

Original Integration

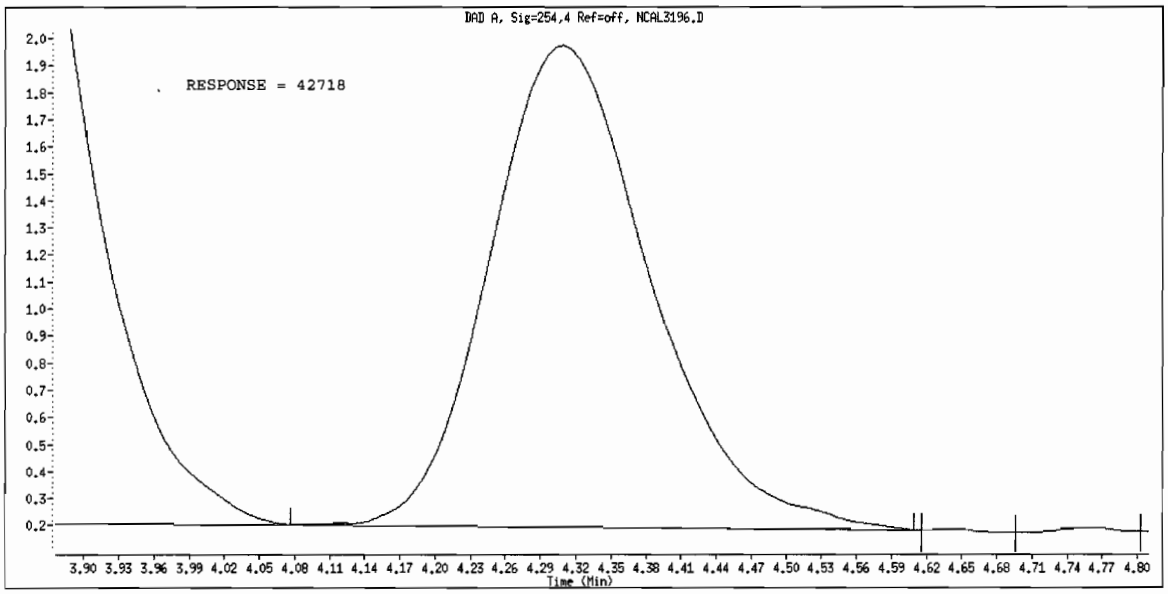

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NCAL3196.D
Inj. Date and Time: 22-FEB-2010 13:26
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: MNX
CAS #:

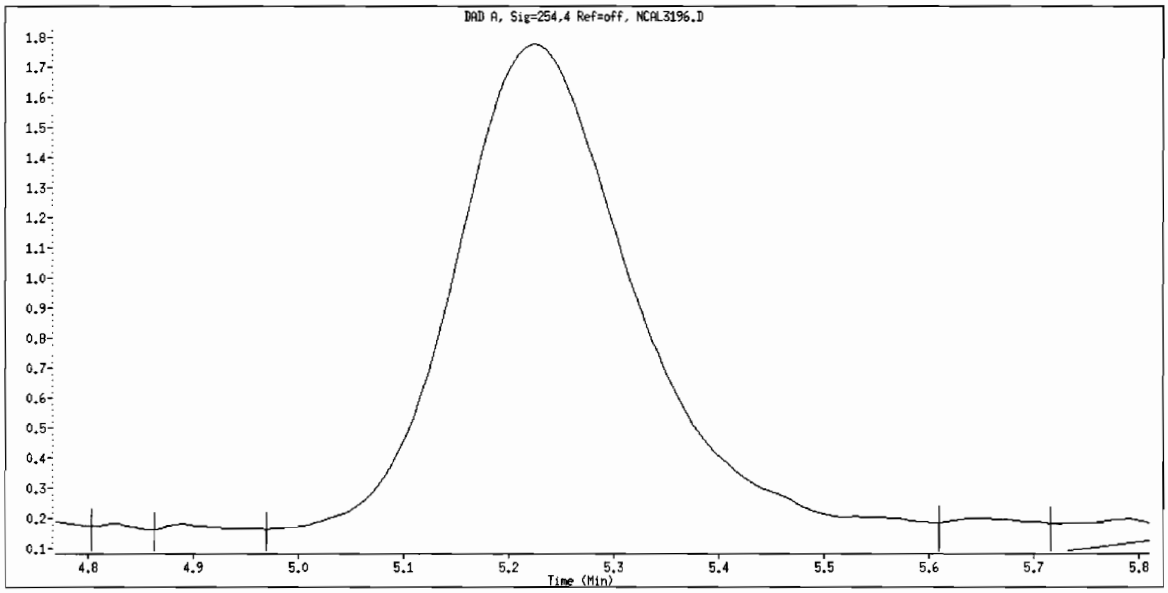

Original Integration

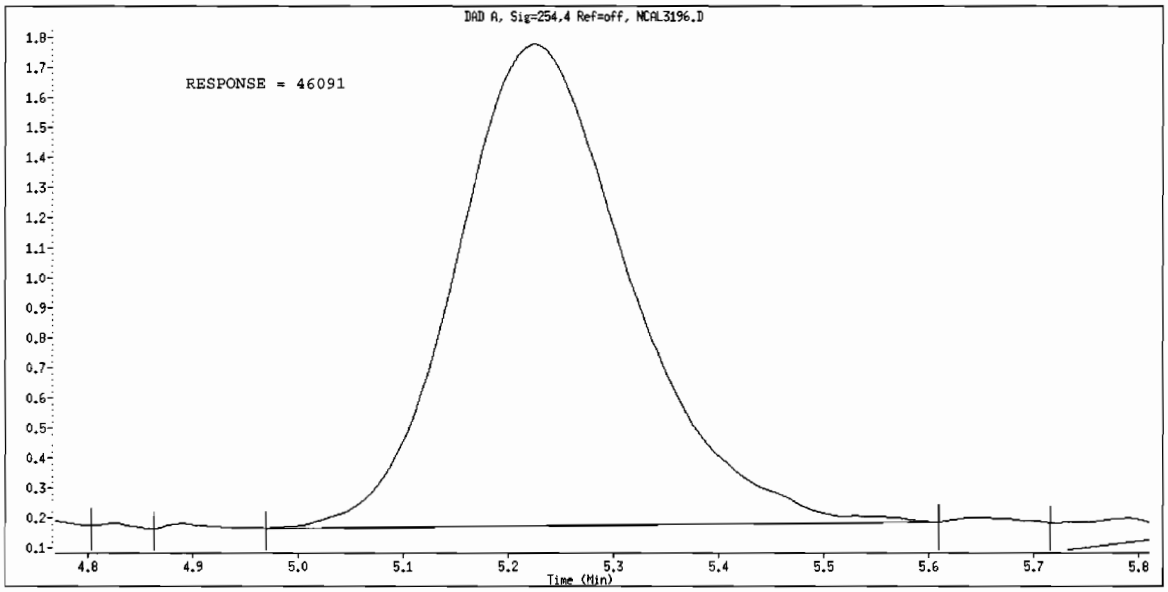

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N022210.b\NCAL3202.D
Report Date: 01-Mar-2010 11:02

TestAmerica St. Louis

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Lcn.i Injection Date: 22-FEB-2010 14:50
Lab File ID: NCAL3202.D Init. Cal. Date(s): 25-NOV-2009 25-NOV-2009
Analysis Type: WATER Init. Cal. Times: 10:16 11:26
Lab Sample ID: XNX CCAL Quant Type: ESTD
Method: \\slsvr01\HPLC\Lcn.i\N022210.b\C18XNX.m

COMPOUND	RRF / AMOUNT	RF125	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 TNX	647	632	0.010	2.37028	20.00000	Averaged
2 DNX	630	616	0.010	2.17478	20.00000	Averaged
3 MNX	493	508	0.010	-2.94254	20.00000	Averaged
$ 4 1,2-Dinitrobenzene	518	529	0.010	-2.08591	20.00000	Averaged

Data File: \\slsvr01\HPLC\Lcn.i\N022210.b\NCAL3202.D
Report Date: 01-Mar-2010 11:02

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N022210.b\NCAL3202.D
Lab Smp Id: XNX CCAL Client Smp ID: XNX CCAL
Inj Date : 22-FEB-2010 14:50
Operator : AF Inst ID: Lcn.i
Smp Info : XNX CCAL
Misc Info :
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N022210.b\C18XNX.m
Meth Date : 01-Mar-2010 11:02 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.836	3.837	-0.001	63554	100.606	98.22(M)
2 DNX	4.323	4.324	-0.001	42429	68.8500	67.35(M)
3 MNX	5.243	5.239	0.004	46223	90.9875	93.66(M)
$ 4 1,2-Dinitrobenzene	8.723	8.706	0.017	66067	125.000	127.6

QC Flag Legend

M - Compound response manually integrated.

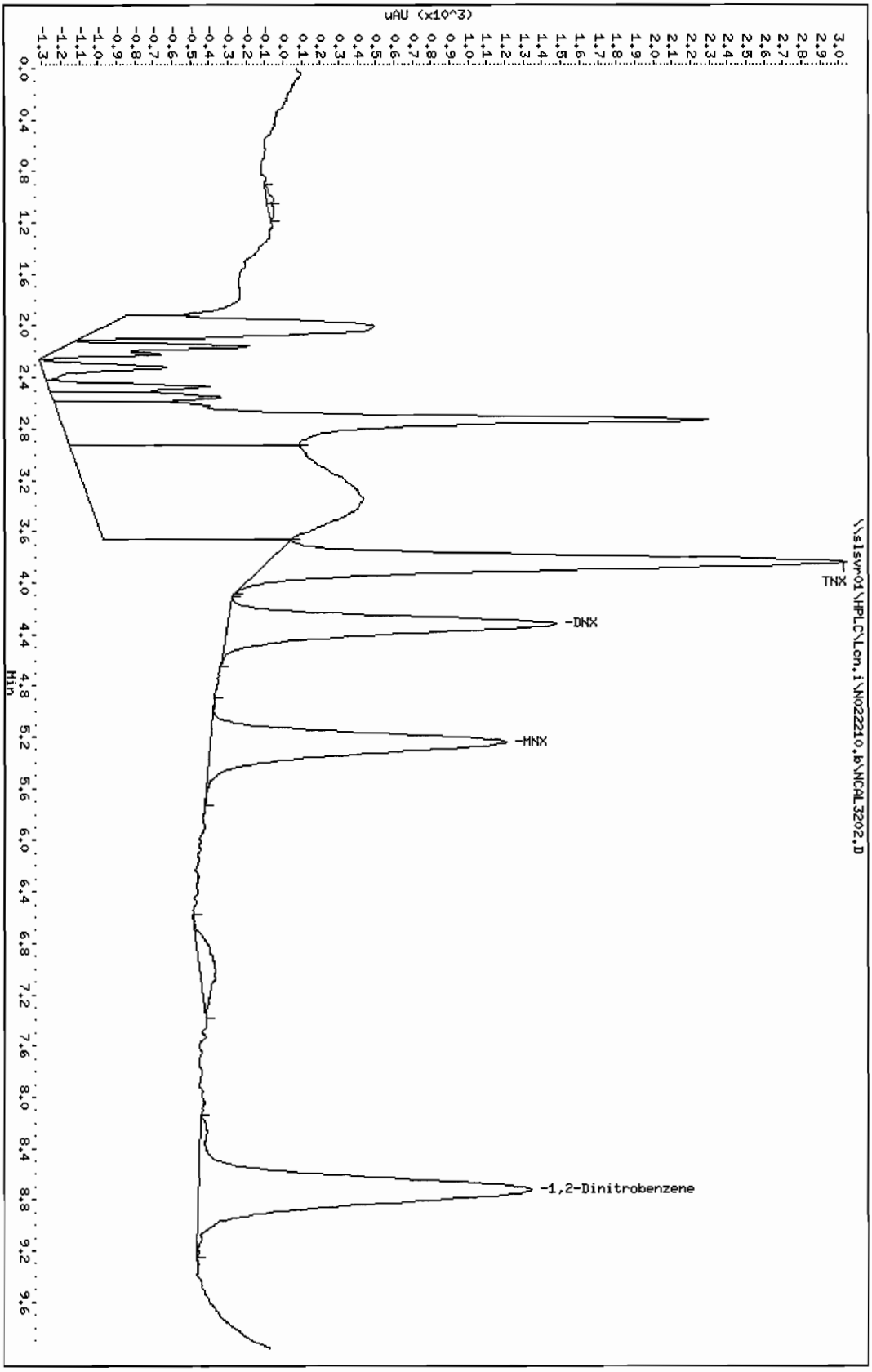
Data File: \\slsvr01\HPLC\Lon.i\N022210.b\NCAL3202.D
Date : 22-FEB-2010 14:50
Client ID: XNX CCAL
Sample Info: XNX CCAL
Purge Volume: 500.0
Column phase: C18
Instrument: Lon.i
Operator: AF
Column diameter: 4.60
\\slsvr01\HPLC\Lon.i\N022210.b\NCAL3202.D
uAU (x10^3)
Min
TNX
-DNX
-MNX
-1,2-Dinitrobenzene

Data File Name: NCAL3202.D
Inj. Date and Time: 22-FEB-2010 14:50
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: TNX
CAS #:

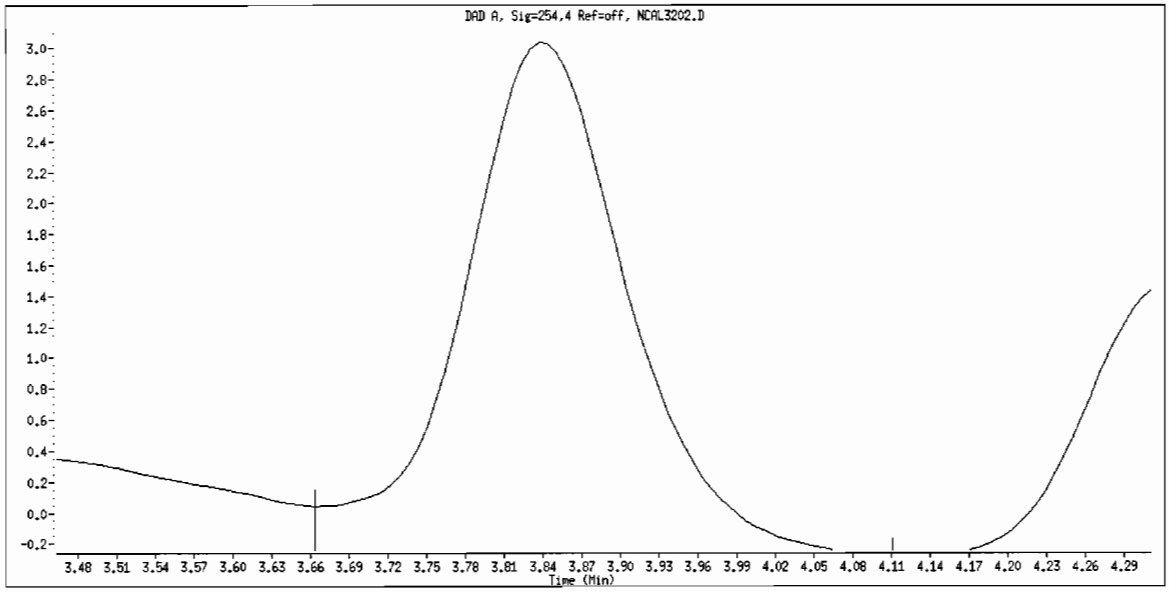

Original Integration

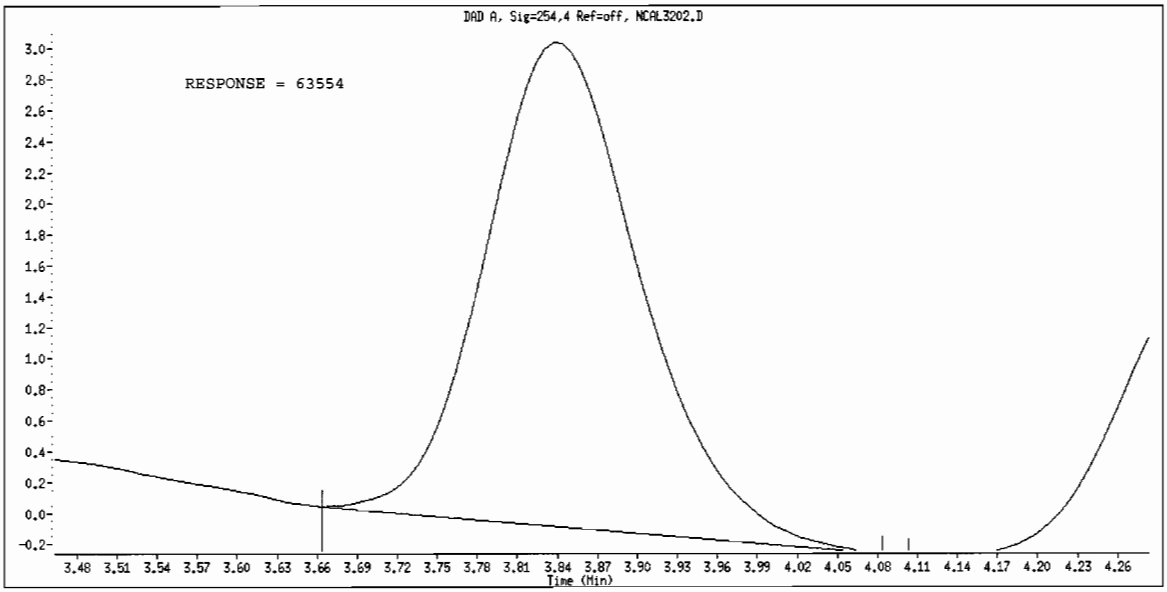

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NCAL3202.D
Inj. Date and Time: 22-FEB-2010 14:50
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: DNX
CAS #:

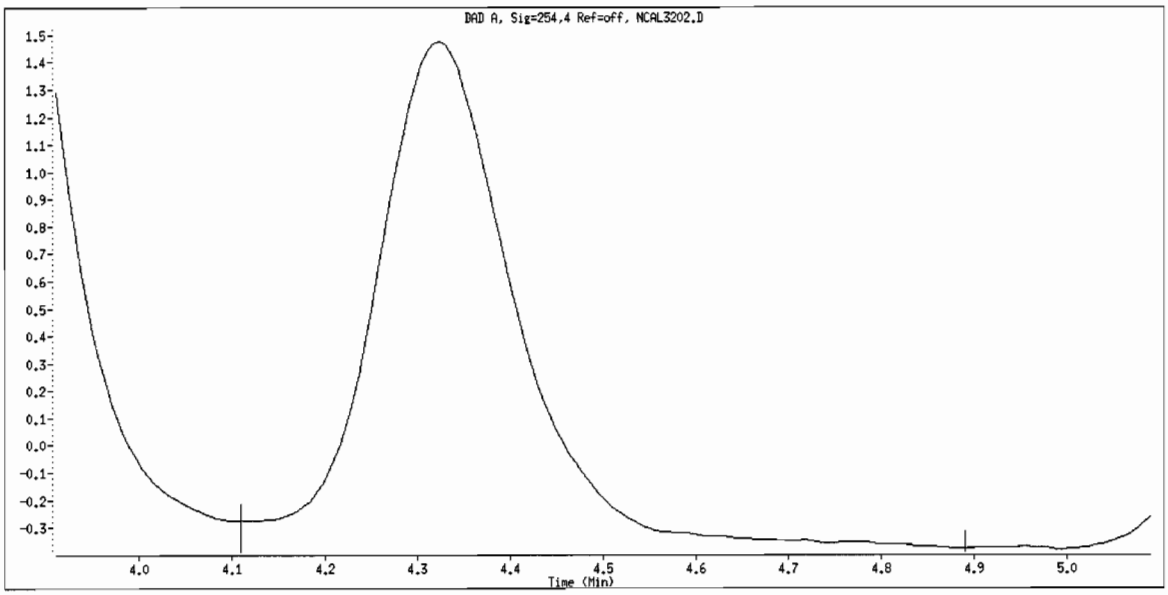

Original Integration

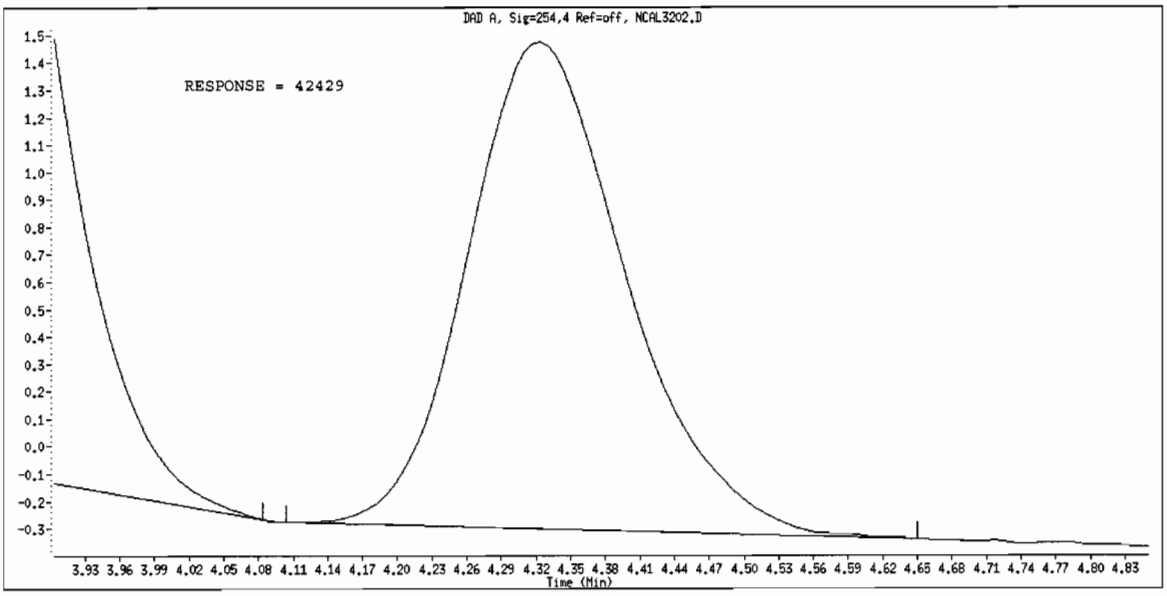

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NCAL3202.D
Inj. Date and Time: 22-FEB-2010 14:50
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: MNX
CAS #:

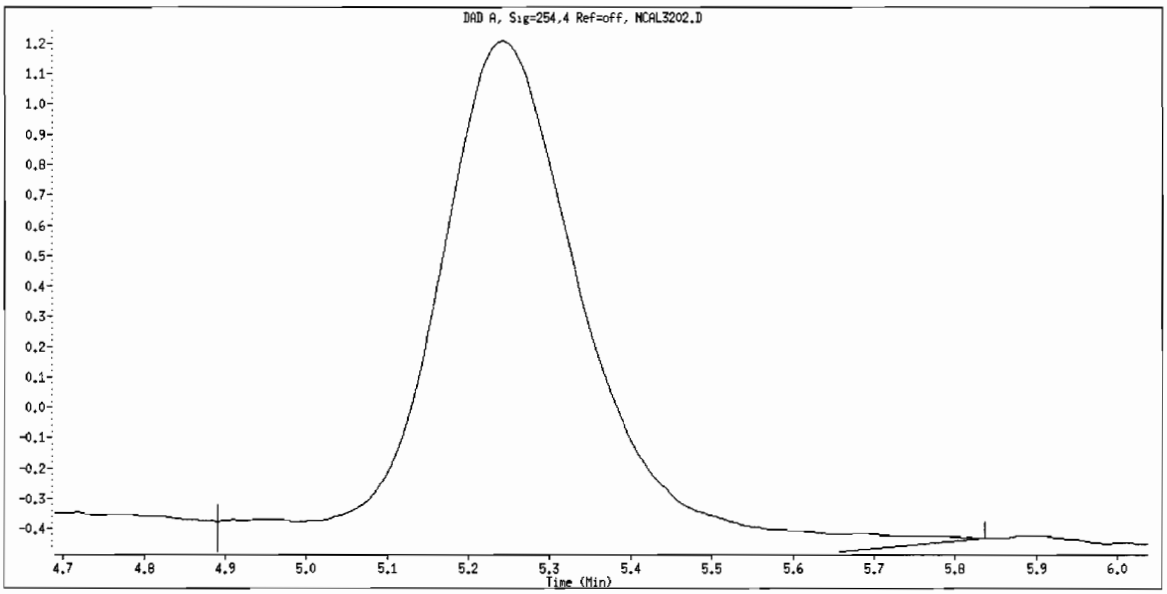

Original Integration

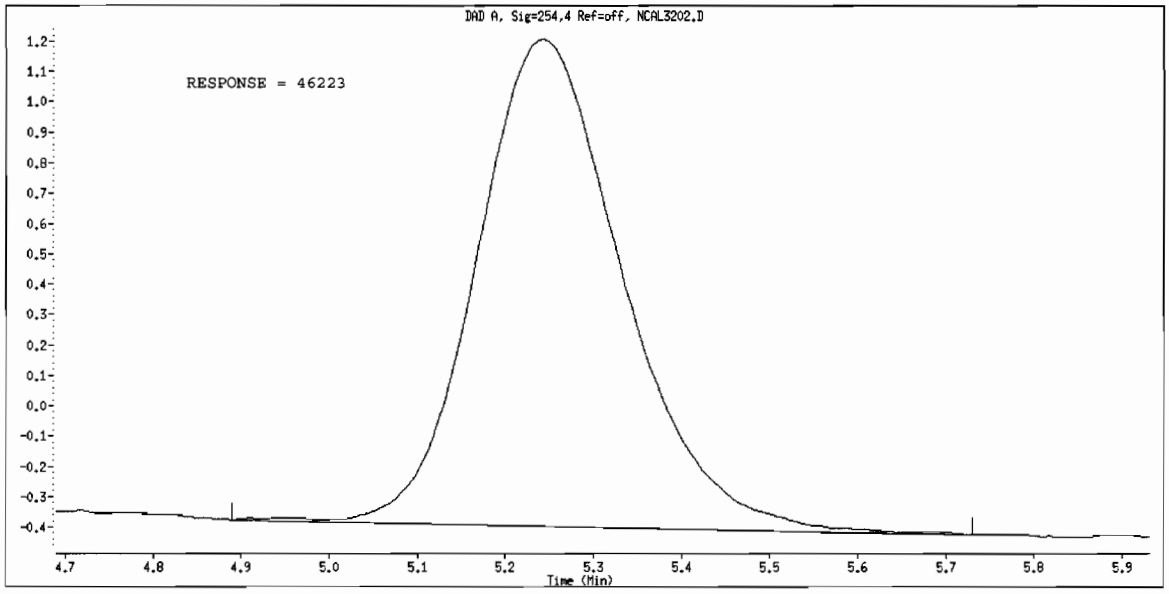

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

HPLC RAW SAMPLE DATA

Data File: \\slsvr01\HPLC\Lcn.i\N022210.b\NSMP3199.D
Report Date: 01-Mar-2010 11:12

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N022210.b\NSMP3199.D
Lab Smp Id: LVRCK1AC Client Smp ID: CAPA-10-12691
Inj Date : 22-FEB-2010 14:08
Operator : AF Inst ID: Lcn.i
Smp Info : LVRCK1AC
Misc Info : F0B170426-001
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N022210.b\C18XNX.m
Meth Date : 01-Mar-2010 11:02 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	509.700	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
$ 4 1,2-Dinitrobenzene	8.719	8.706	0.013	209072	403.819	3.961

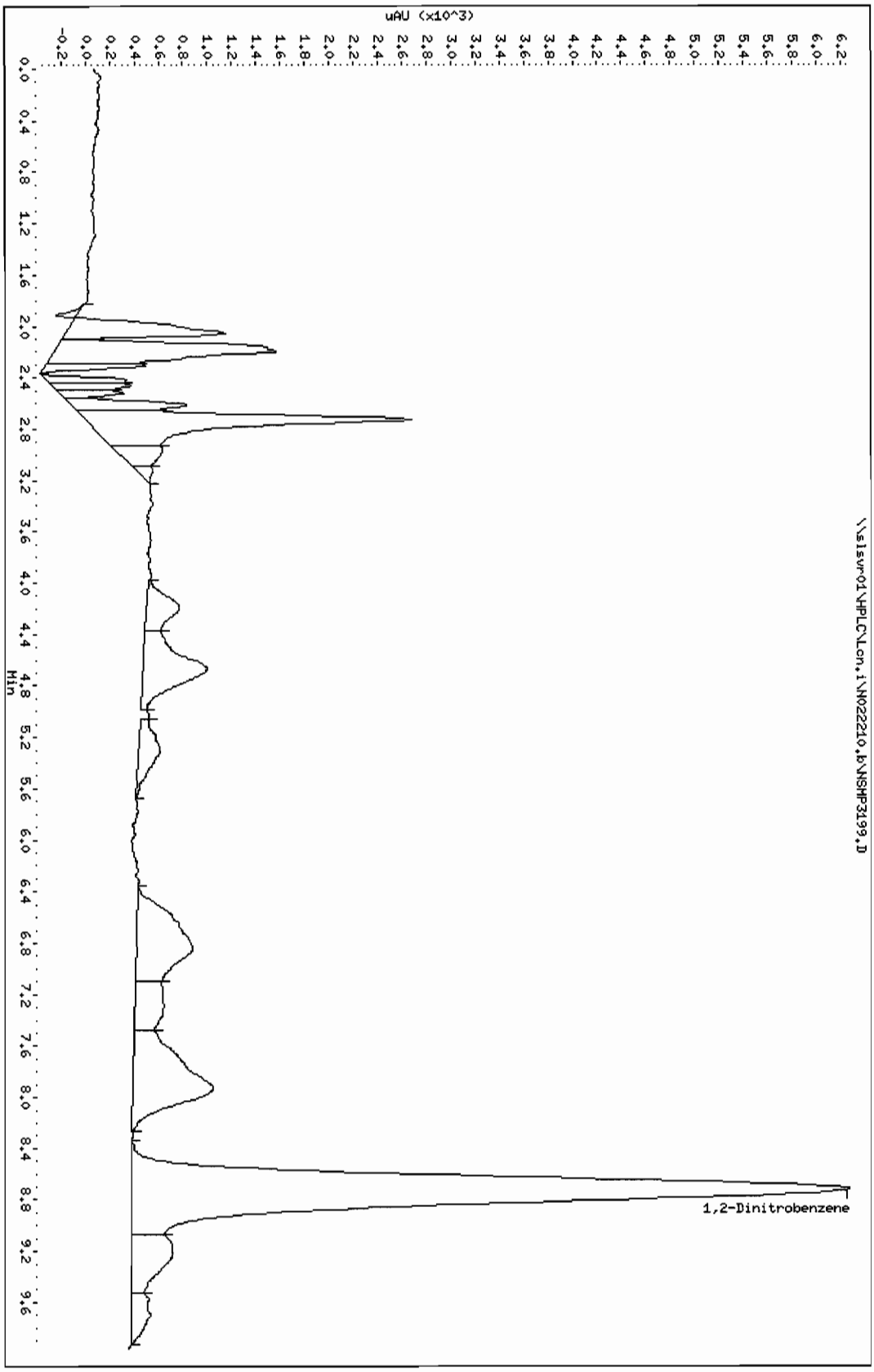
Data File: \\slsvr01\HPLC\Lcn.i\N022210.b\NSMP3199.D
Date : 22-FEB-2010 14:08
Client ID: CAPA-10-12691
Sample Info: LVRCK1AC
Purge Volume: 509.7
Column phase: C18
Instrument: Lcn.i
Operator: AF
Column diameter: 4.60
\\slsvr01\HPLC\Lcn.i\N022210.b\NSMP3199.D
uAU (x10^3)
Min
1,2-Dinitrobenzene

HPLC RAW QC DATA

Data File: \\slsvr01\HPLC\Lcn.i\N022210.b\NBLK3197.D
Report Date: 01-Mar-2010 11:12

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N022210.b\NBLK3197.D
Lab Smp Id: LVV3J1AA Client Smp ID: LAB BLANK
Inj Date : 22-FEB-2010 13:40
Operator : AF Inst ID: Lcn.i
Smp Info : LVV3J1AA
Misc Info : F0B190000-161B
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N022210.b\C18XNX.m
Meth Date : 01-Mar-2010 11:02 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
$ 4 1,2-Dinitrobenzene	8.690	8.706	-0.016	206524	398.898	3.989(M)

QC Flag Legend

M - Compound response manually integrated.

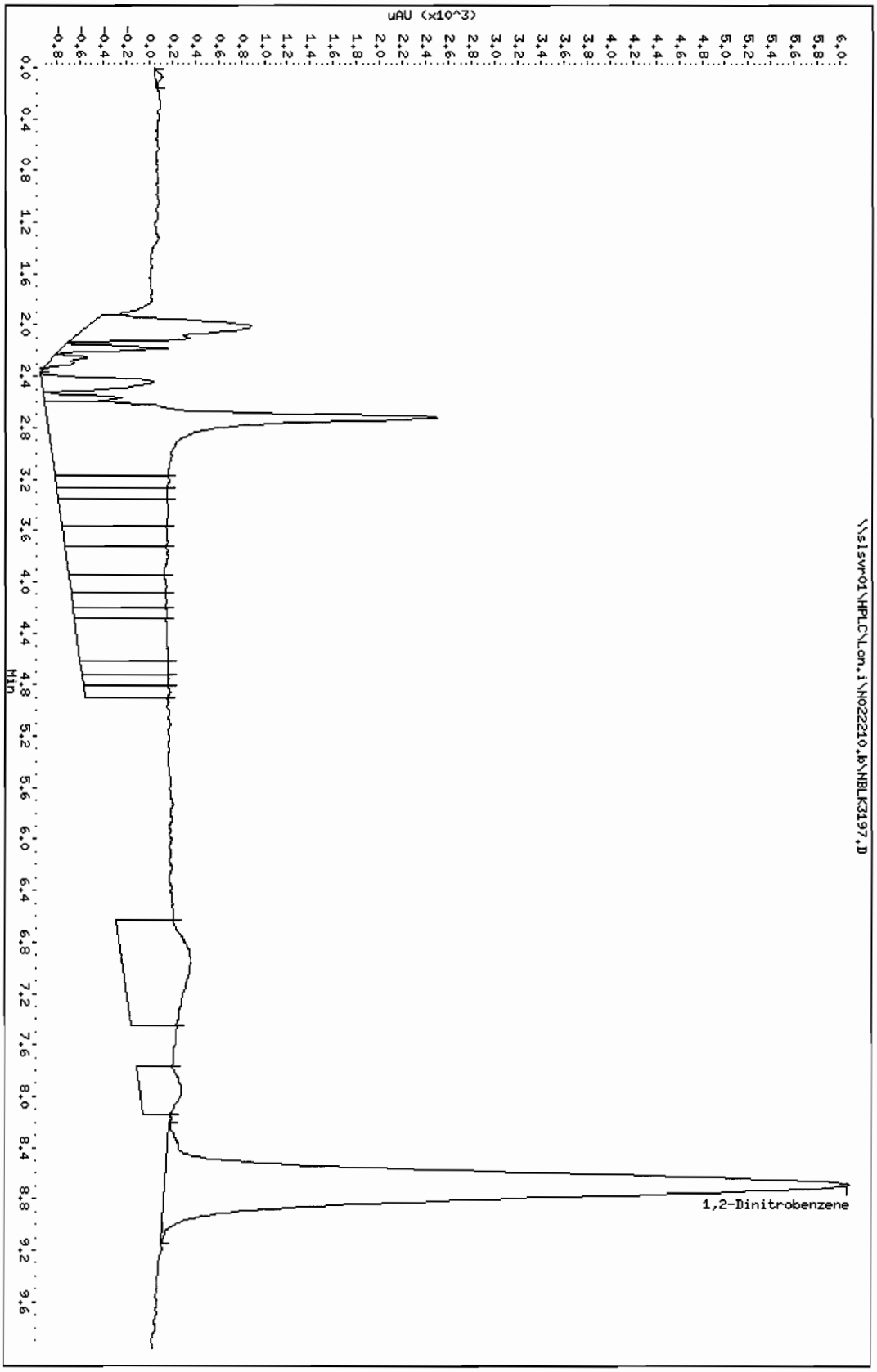
Data File: \\slsvr01\HPLC\Lcn.i\N022210.b\NBLK3197.D
Date : 22-FEB-2010 13:40
Client ID: LAB BLANK
Sample Info: LVV3J1AA
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn.i
Operator: AF
Column diameter: 4.60
\\slsvr01\HPLC\Lcn.i\N022210.b\NBLK3197.D
uAU (x10^3)
Min
1,2-Dinitrobenzene

Data File Name: NBLK3197.D
Inj. Date and Time: 22-FEB-2010 13:40
Instrument ID: Lcn.i
Client ID: LAB BLANK
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

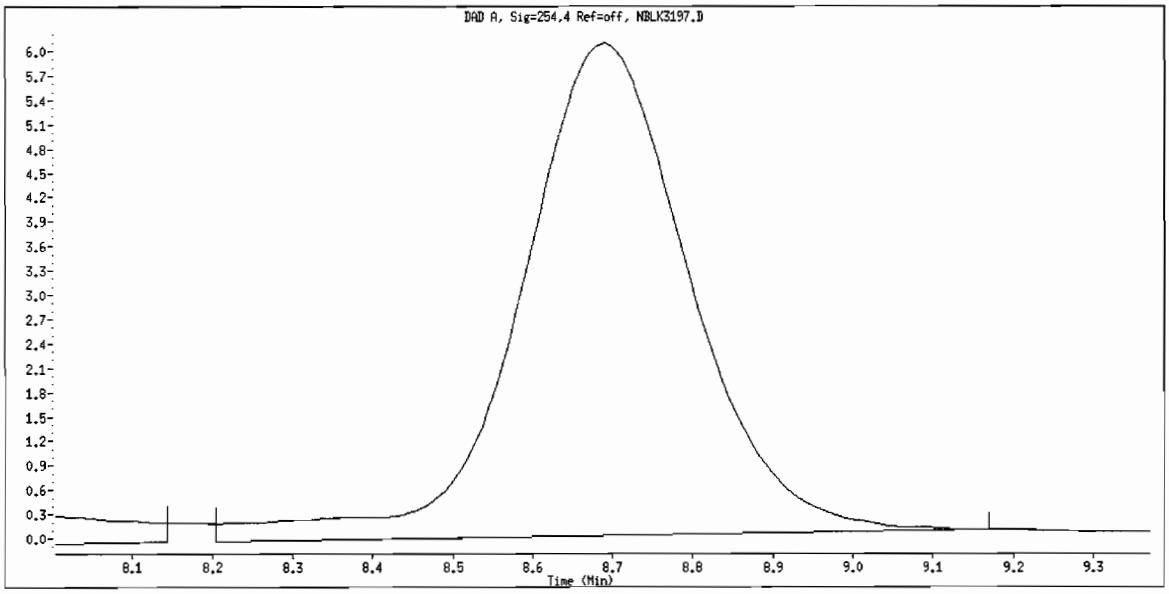

Original Integration

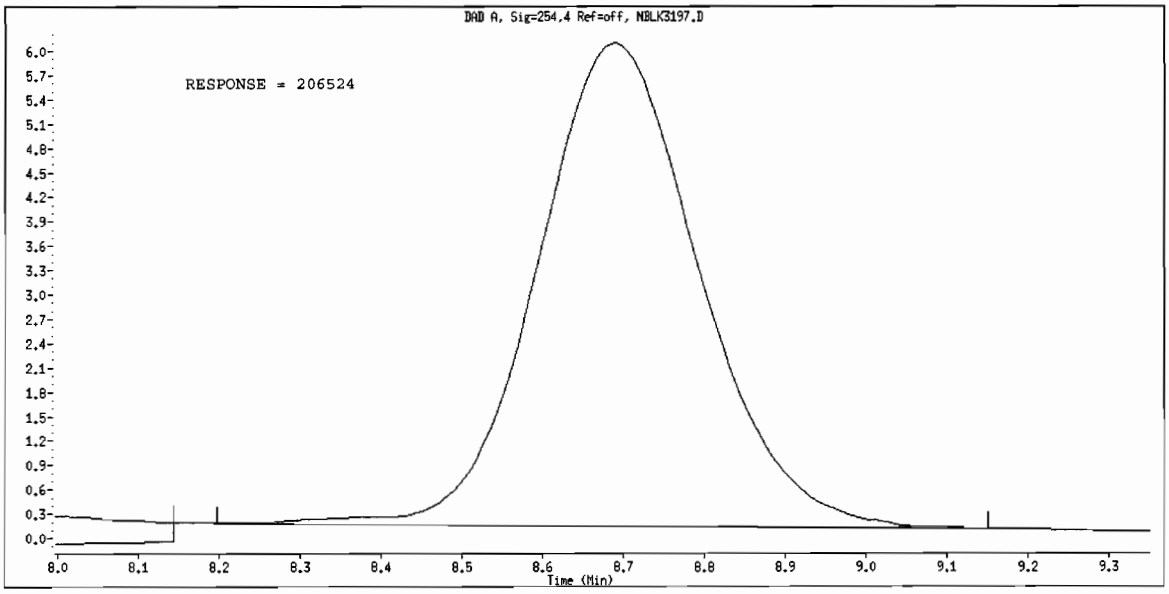

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N022210.b\NLCS3198.D
Report Date: 01-Mar-2010 11:12

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N022210.b\NLCS3198.D
Lab Smp Id: LVV3J1AC Client Smp ID: LAB CHECK
Inj Date : 22-FEB-2010 13:54
Operator : AF Inst ID: Lcn.i
Smp Info : LVV3J1AC
Misc Info : F0B190000-161C
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N022210.b\C18XNX.m
Meth Date : 01-Mar-2010 11:02 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 TNX	3.833	3.837	-0.004	50619	78.2308	0.7823(M)
2 DNX	4.320	4.324	-0.004	34417	54.6343	0.5463(M)
3 MNX	5.233	5.239	-0.006	36922	74.8176	0.7482(M)
$ 4 1,2-Dinitrobenzene	8.708	8.706	0.002	203181	392.441	3.924

QC Flag Legend

M - Compound response manually integrated.

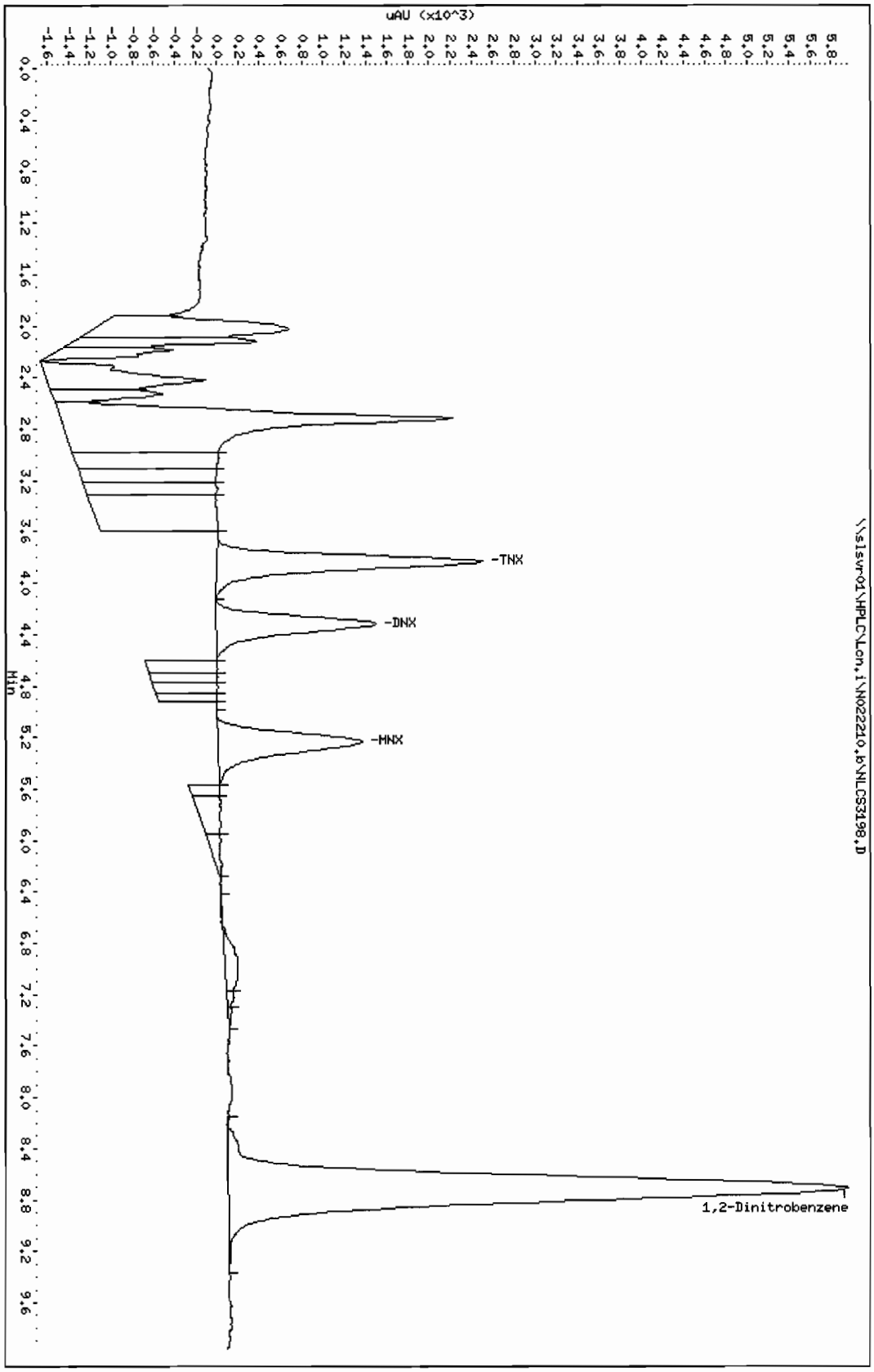
Data File: \\slsvr01\HPLC\Lcn.i\N022210.b\NLCS3198.D
Date : 22-FEB-2010 13:54
Client ID: LAB CHECK
Sample Info: LVV3J1AC
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn.i
Operator: AF
Column diameter: 4.60
\\slsvr01\HPLC\Lcn.i\N022210.b\NLCS3198.D
uAU (x10^3)
Min
-TNX
-DNX
-HNX
1,2-Dinitrobenzene

Data File Name: NLCS3198.D
Inj. Date and Time: 22-FEB-2010 13:54
Instrument ID: Lcn.i
Client ID: LAB CHECK
Compound Name: TNX
CAS #:

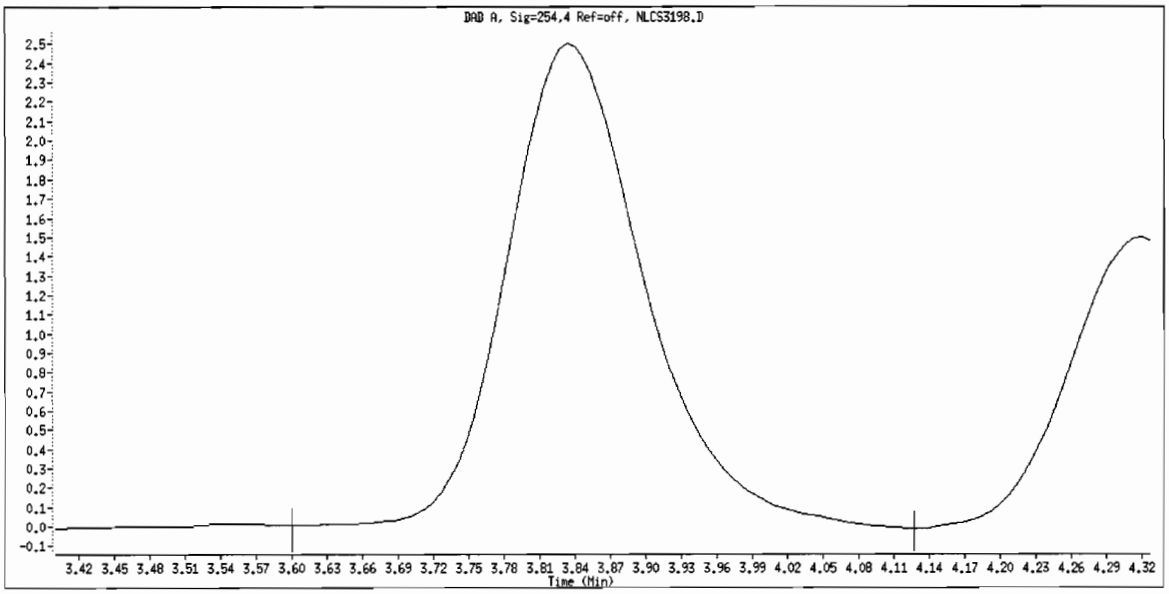

Original Integration

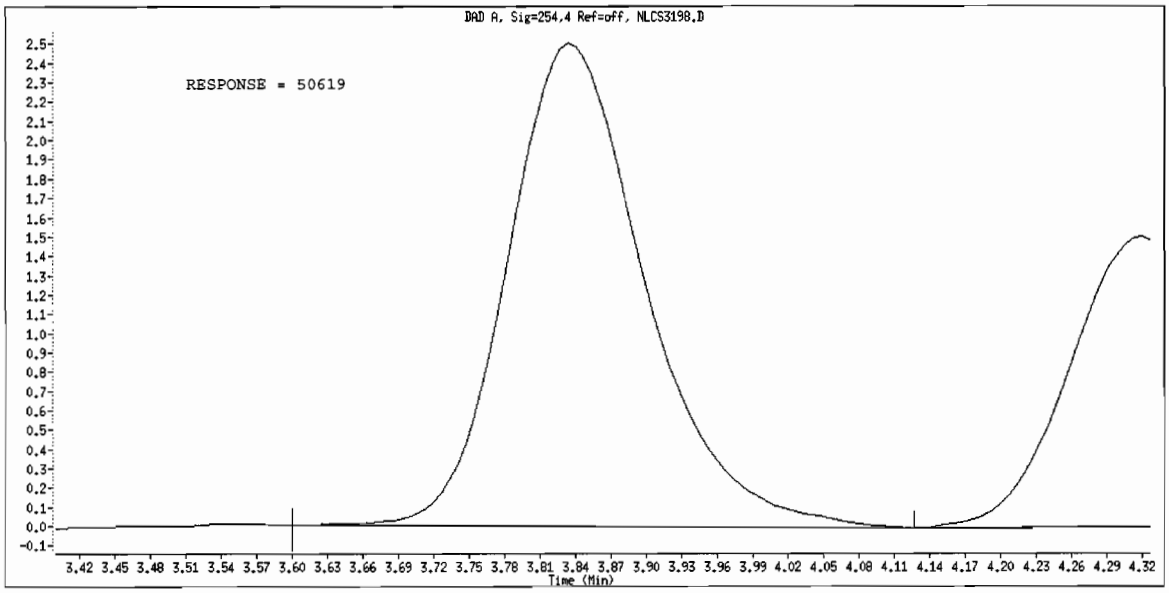

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NLCS3198.D
Inj. Date and Time: 22-FEB-2010 13:54
Instrument ID: Lcn.i
Client ID: LAB CHECK
Compound Name: DNX
CAS #:

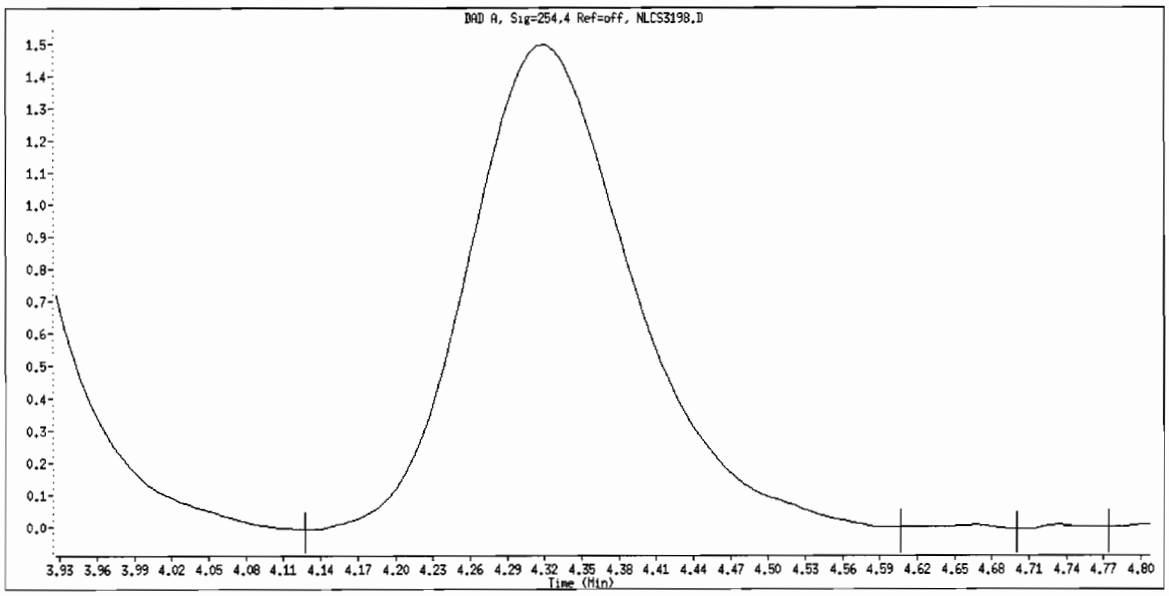

Original Integration

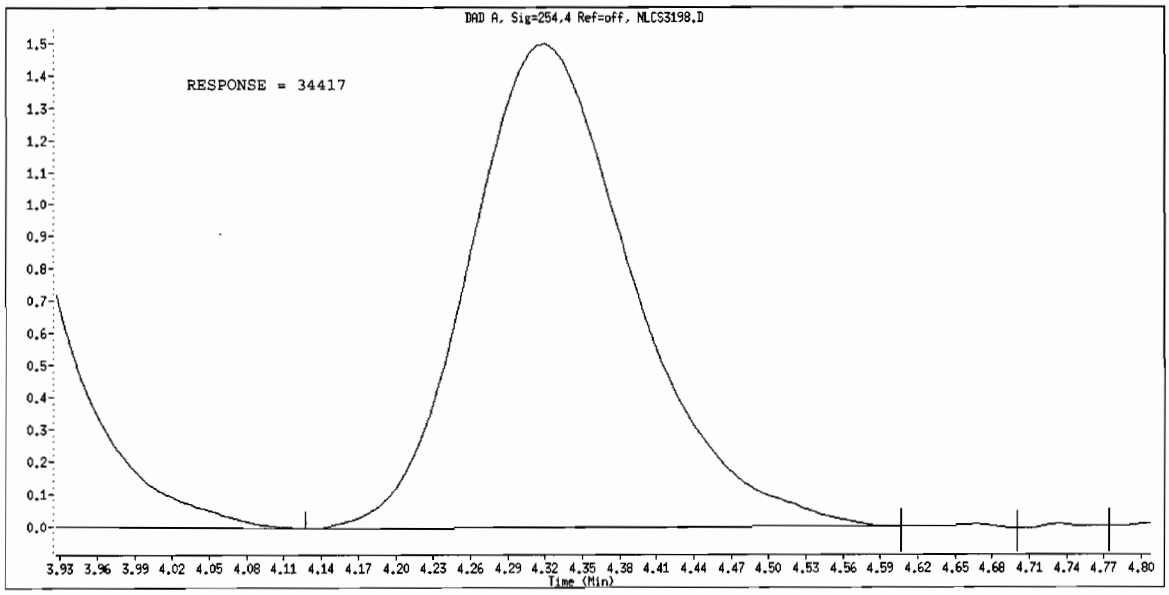

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NLCS3198.D
Inj. Date and Time: 22-FEB-2010 13:54
Instrument ID: Lcn.i
Client ID: LAB CHECK
Compound Name: MNX
CAS #:

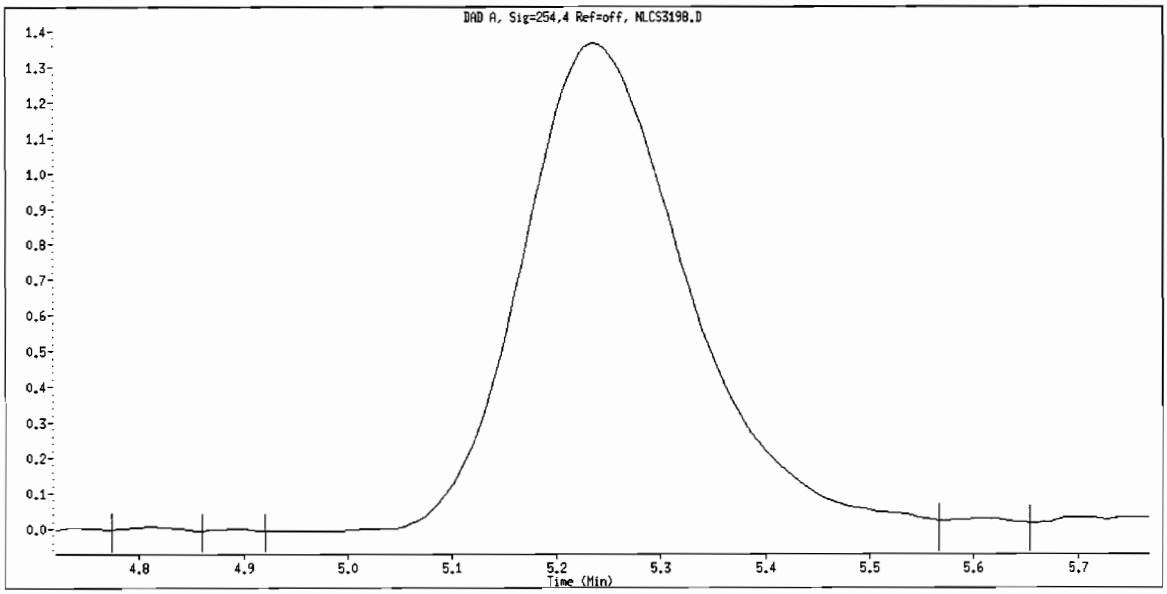

Original Integration

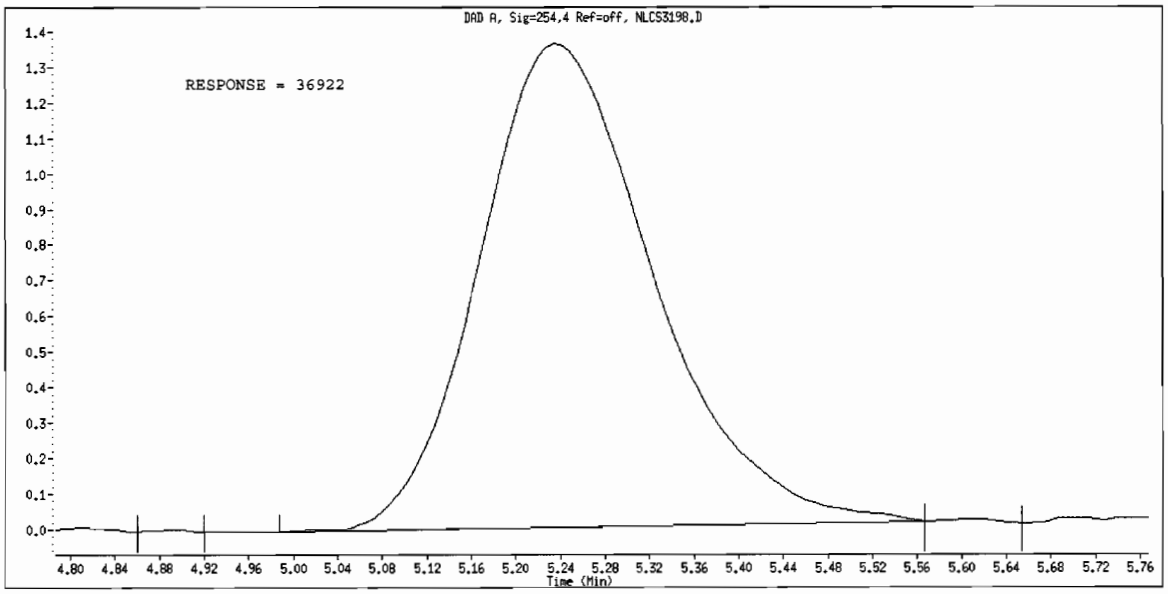

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N022210.b\NSMP3200.D
Report Date: 01-Mar-2010 11:12

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N022210.b\NSMP3200.D
Lab Smp Id: LVRCK1AD Client Smp ID: CAPA-10-12691S
Inj Date : 22-FEB-2010 14:22
Operator : AF Inst ID: Lcn.i
Smp Info : LVRCK1AD
Misc Info : F0B170426-001S
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N022210.b\C18XNX.m
Meth Date : 01-Mar-2010 11:02 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	509.300	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 TNX	3.840	3.837	0.003	49383	76.3206	0.7493(M)
2 DNX	4.320	4.324	-0.004	36720	58.2901	0.5722(M)
3 MNX	5.240	5.239	0.001	45704	92.6132	0.9092(M)
$ 4 1,2-Dinitrobenzene	8.719	8.706	0.013	203860	393.752	3.866

QC Flag Legend

M - Compound response manually integrated.

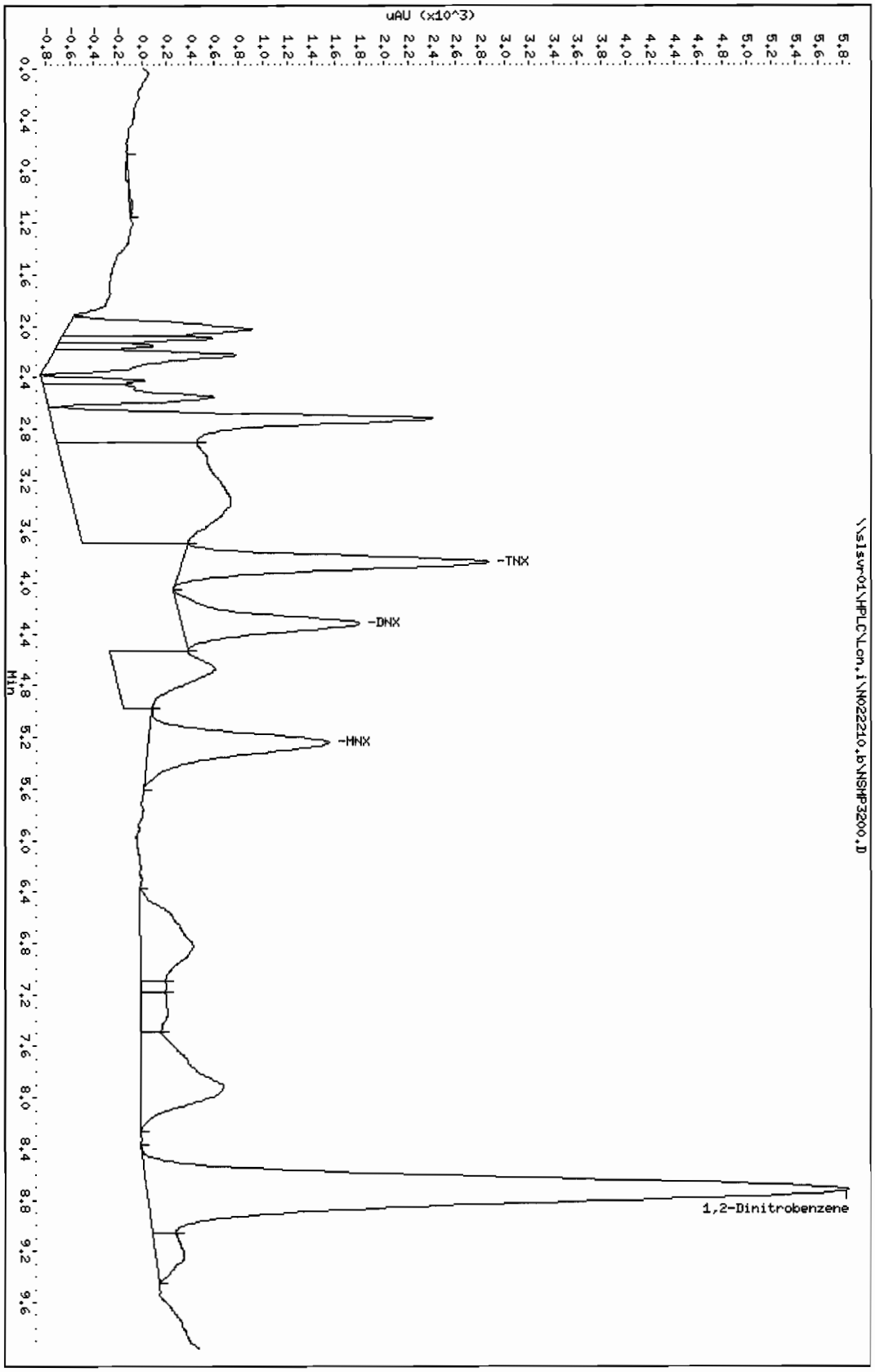
Data File: \\slsvr01\HPLC\Lcn.i\N022210.b\NSMP3200.D
Date : 22-FEB-2010 14:22
Client ID: CAPA-10-12691S
Sample Info: LVRCK1AD
Purge Volume: 509.3
Column phase: C18
Instrument: Lcn.i
Operator: AF
Column diameter: 4.60
\\slsvr01\HPLC\Lcn.i\N022210.b\NSMP3200.D
uAU (x10^3)
-TNX
-DNX
-HNX
1,2-Dinitrobenzene
Min

Data File Name: NSMP3200.D
Inj. Date and Time: 22-FEB-2010 14:22
Instrument ID: Lcn.i
Client ID: CAPA-10-12691S
Compound Name: TNX
CAS #:

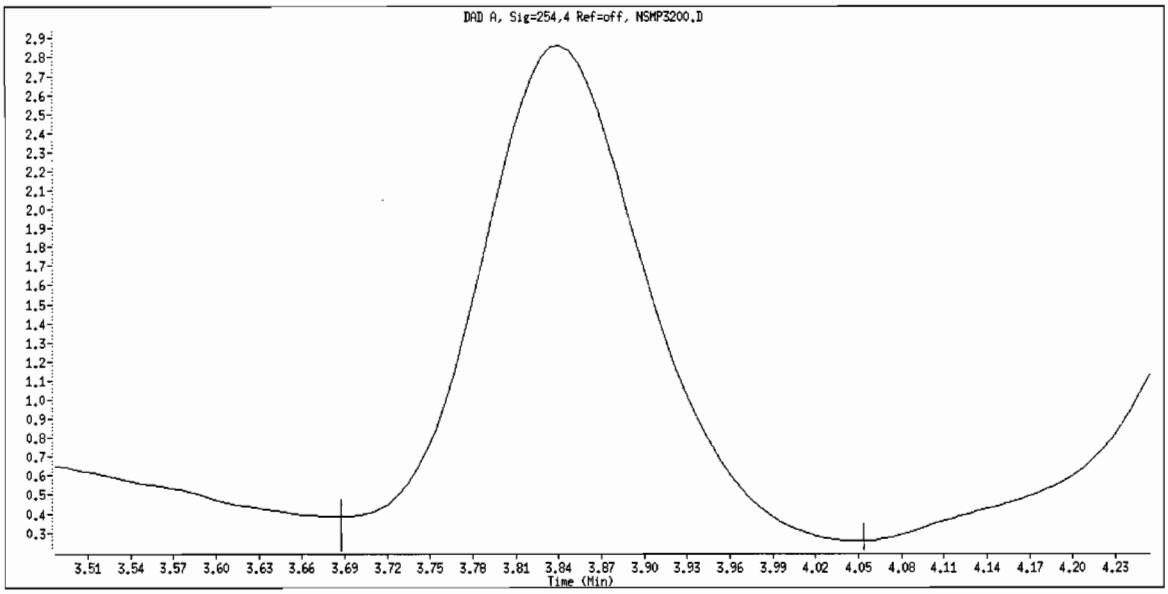

Original Integration

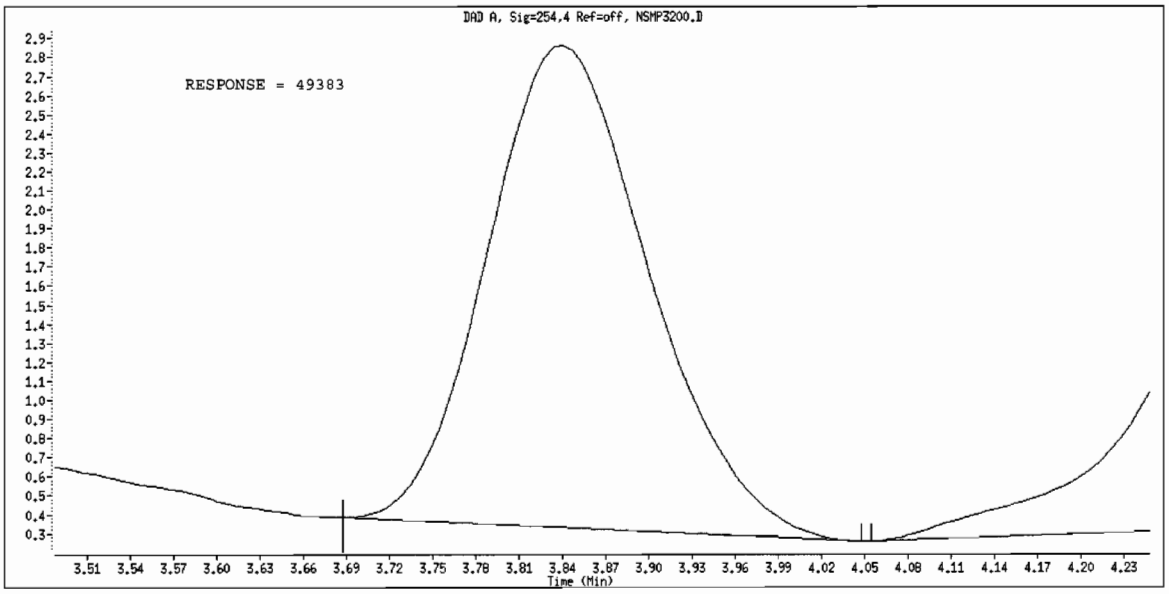

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NSMP3200.D
Inj. Date and Time: 22-FEB-2010 14:22
Instrument ID: Lcn.i
Client ID: CAPA-10-12691S
Compound Name: DNX
CAS #:

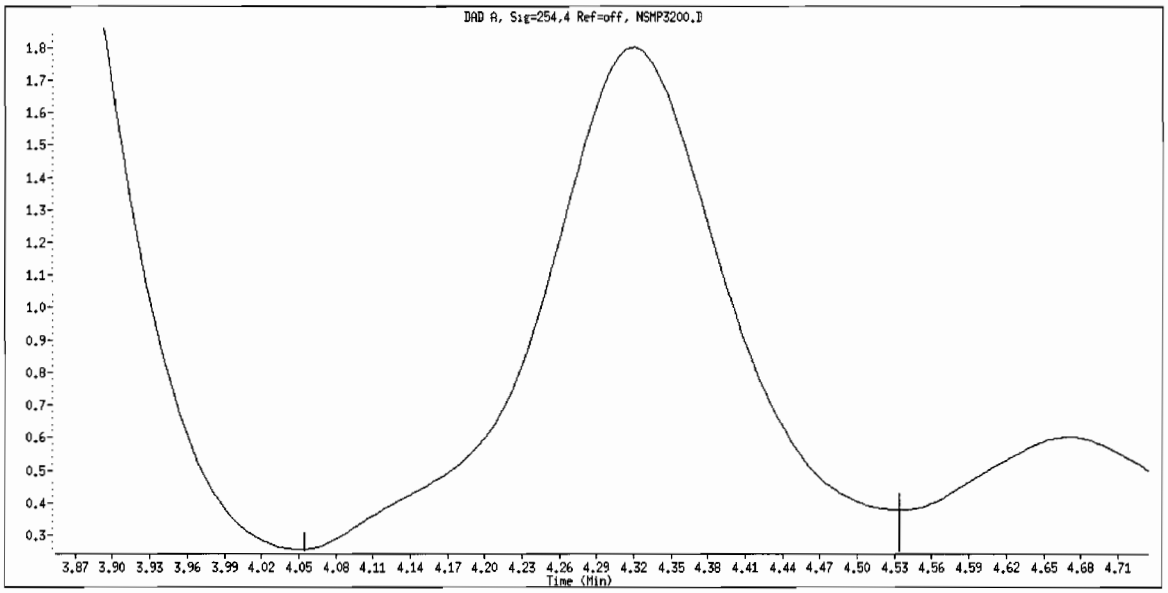

Original Integration

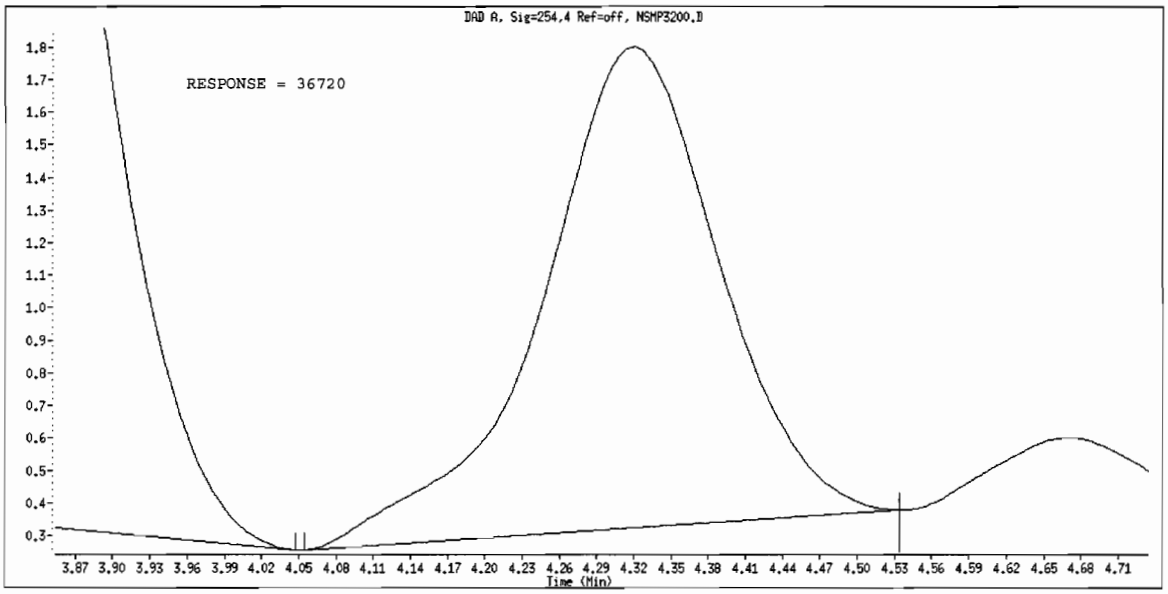

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NSMP3200.D
Inj. Date and Time: 22-FEB-2010 14:22
Instrument ID: Lcn.i
Client ID: CAPA-10-12691S
Compound Name: MNX
CAS #:

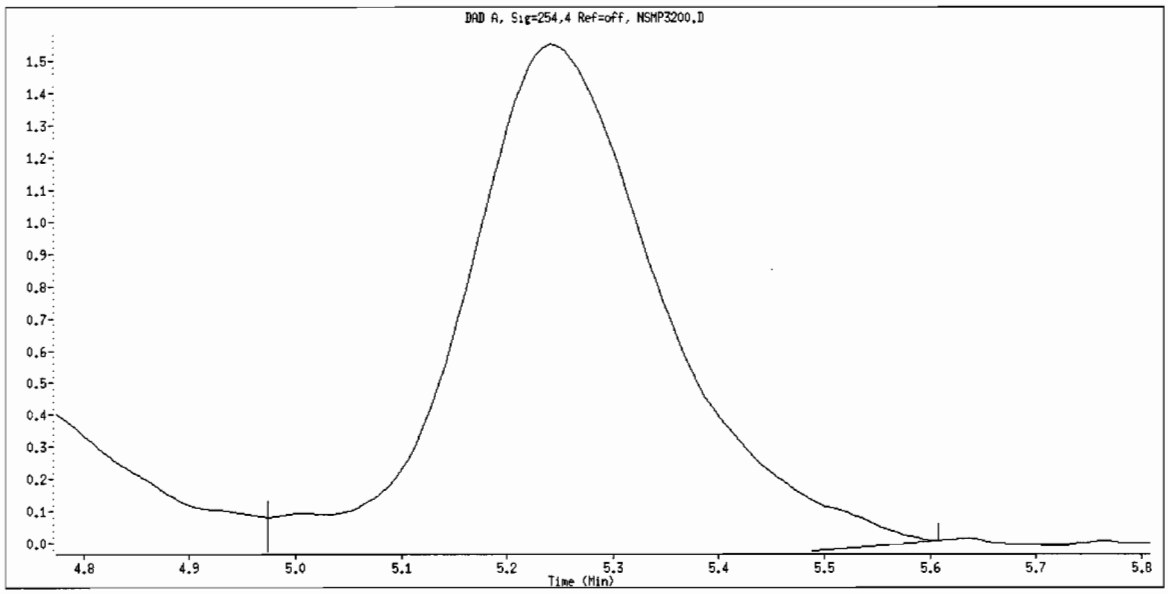

Original Integration

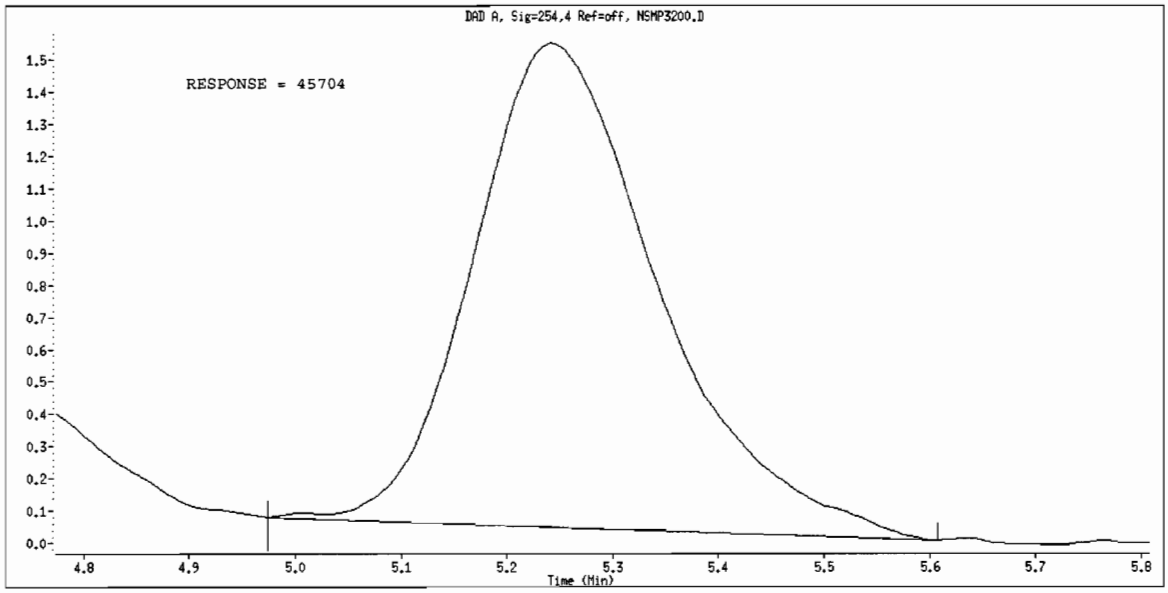

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N022210.b\NSMP3201.D
Report Date: 01-Mar-2010 11:12

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N022210.b\NSMP3201.D
Lab Smp Id: LVRCK1AE Client Smp ID: CAPA-10-12691D
Inj Date : 22-FEB-2010 14:36
Operator : AF Inst ID: Lcn.i
Smp Info : LVRCK1AE
Misc Info : F0B170426-001D
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N022210.b\C18XNX.m
Meth Date : 01-Mar-2010 11:02 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	512.700	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 TNX	3.844	3.837	0.007	48108	74.3501	0.7251(M)
2 DNX	4.324	4.324	0.000	33130	52.5912	0.5129(M)
3 MNX	5.251	5.239	0.012	43122	87.3811	0.8522(M)
$ 4 1,2-Dinitrobenzene	8.734	8.706	0.028	199849	386.005	3.764

QC Flag Legend

M - Compound response manually integrated.

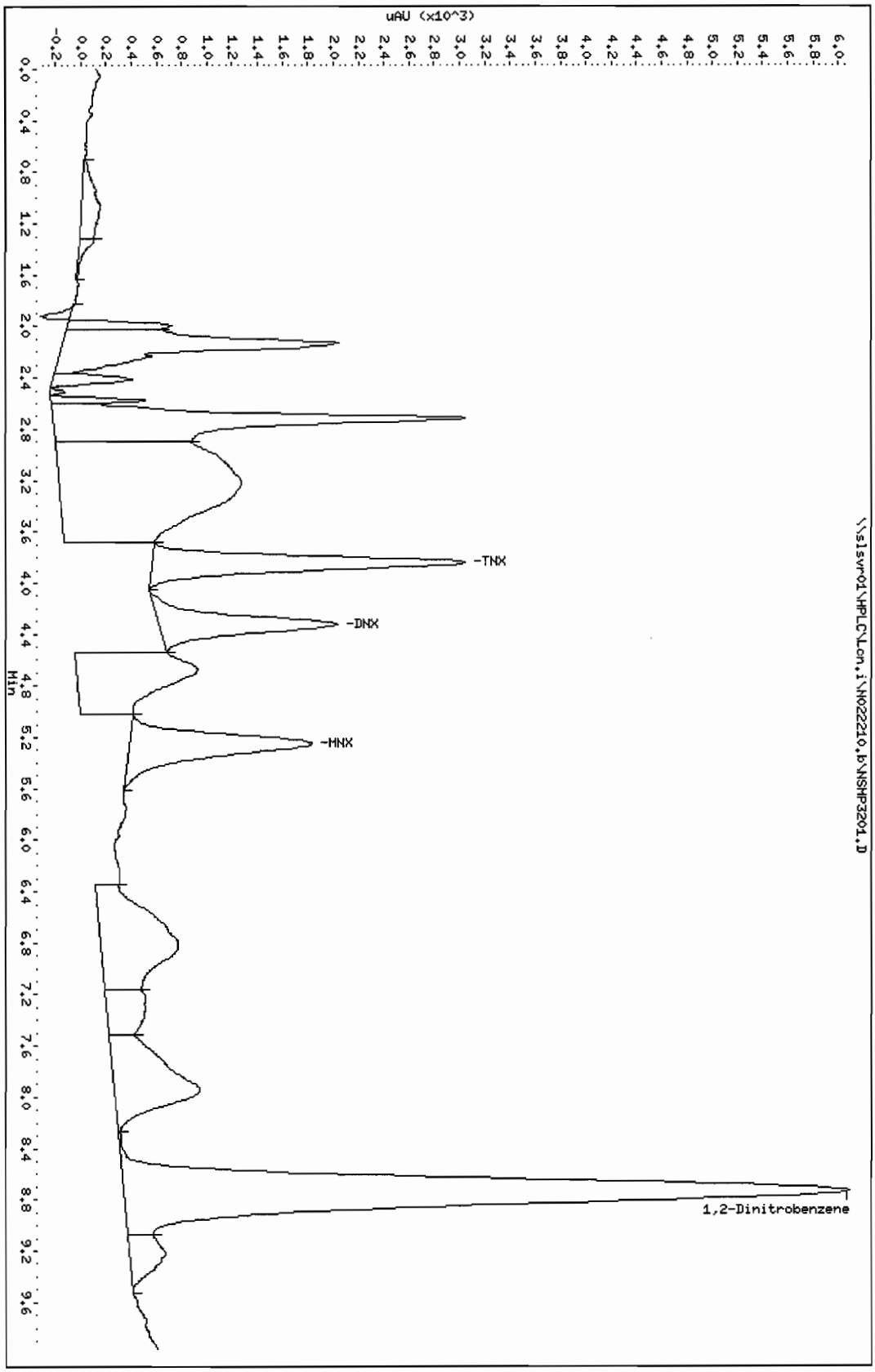
Data File: \\slsvr01\HPLC\Lcn,i\N022210,b\NSMP3201,D
Date : 22-FEB-2010 14:36
Client ID: CAPA-10-12691D
Sample Info: LVRCK1AE
Purge Volume: 512.7
Column phase: C18
Instrument: Lcn,i
Operator: AF
Column diameter: 4.60
\\slsvr01\HPLC\Lcn,i\N022210,b\NSMP3201,D
uAU (x10^3)
Min
-TNX
-DNX
-MNX
1,2-Dinitrobenzene

Data File Name: NSMP3201.D
Inj. Date and Time: 22-FEB-2010 14:36
Instrument ID: Lcn.i
Client ID: CAPA-10-12691D
Compound Name: TNX
CAS #:

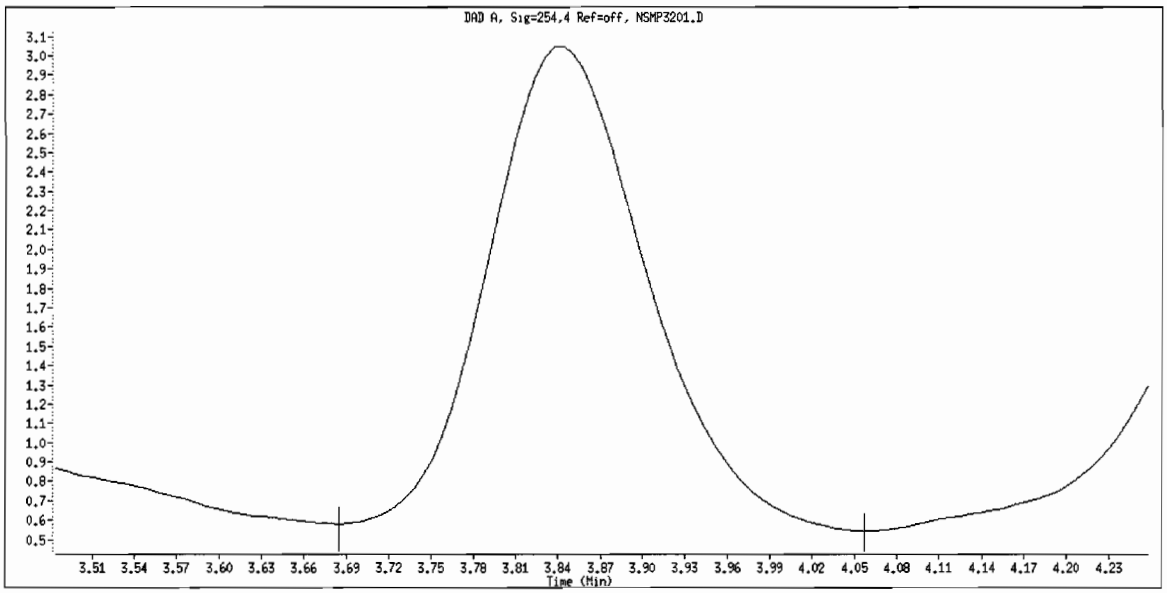

Original Integration

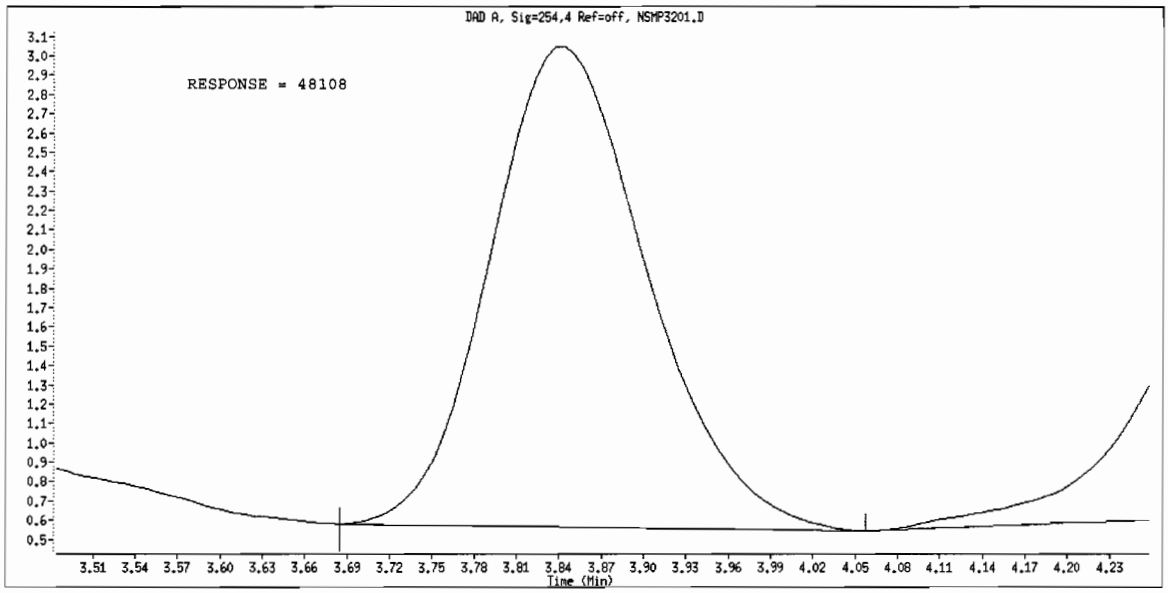

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NSMP3201.D
Inj. Date and Time: 22-FEB-2010 14:36
Instrument ID: Lcn.i
Client ID: CAPA-10-12691D
Compound Name: DNX
CAS #:

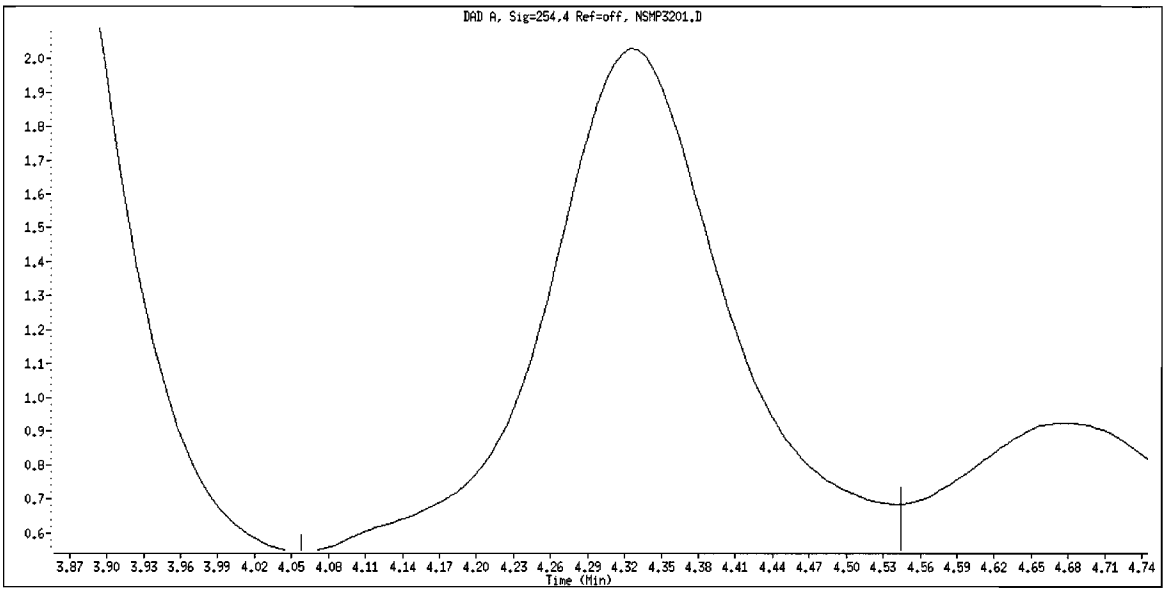

Original Integration

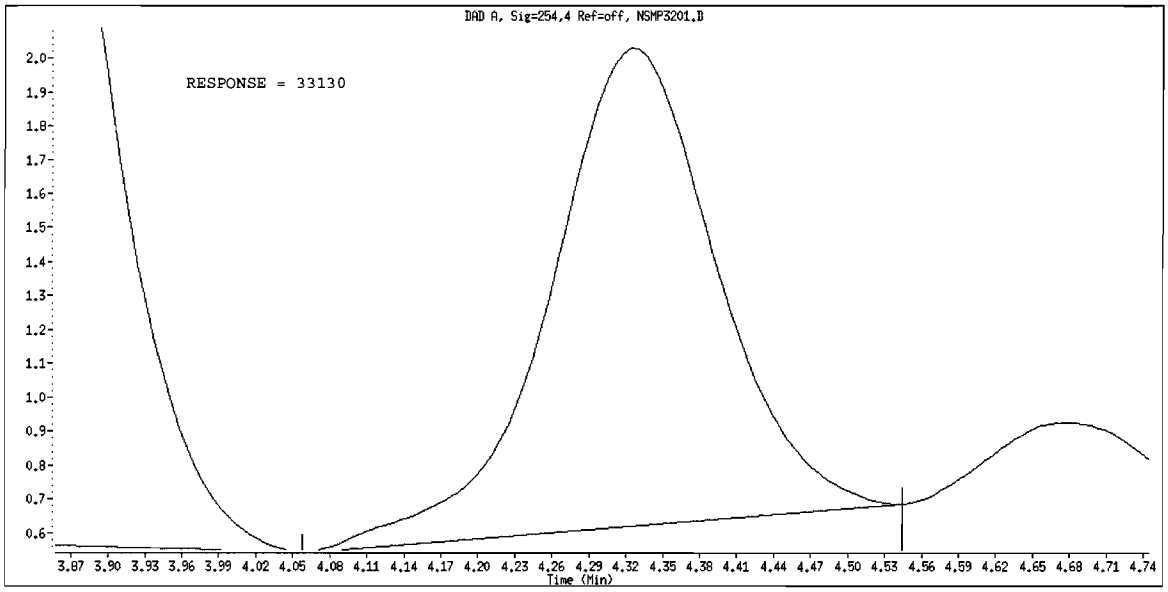

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NSMP3201.D
Inj. Date and Time: 22-FEB-2010 14:36
Instrument ID: Lcn.i
Client ID: CAPA-10-12691D
Compound Name: MNX
CAS #:

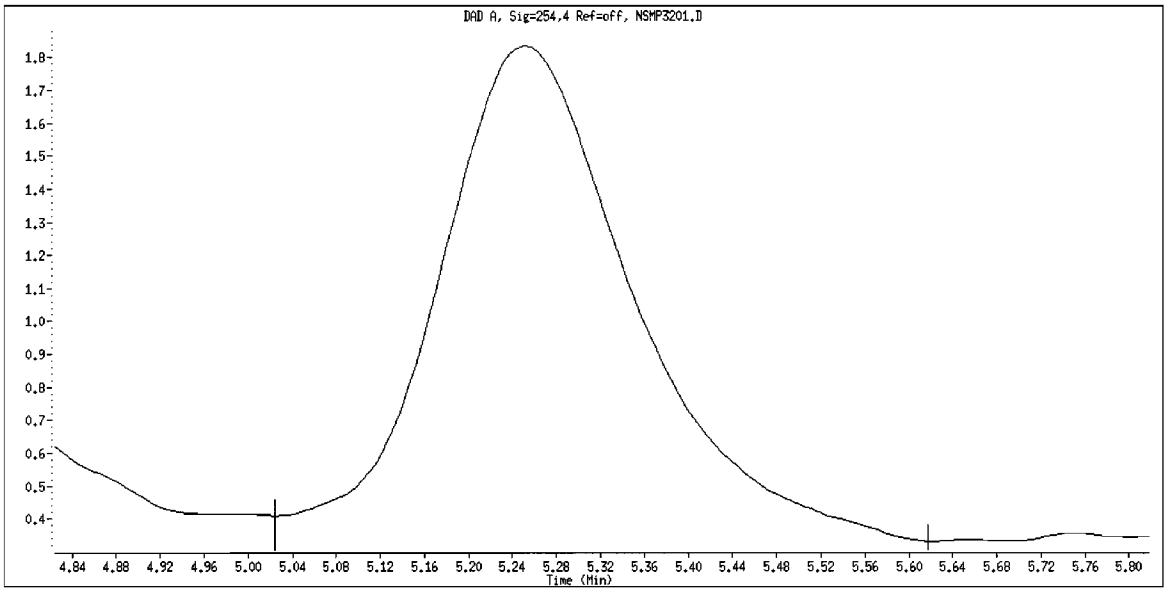

Original Integration

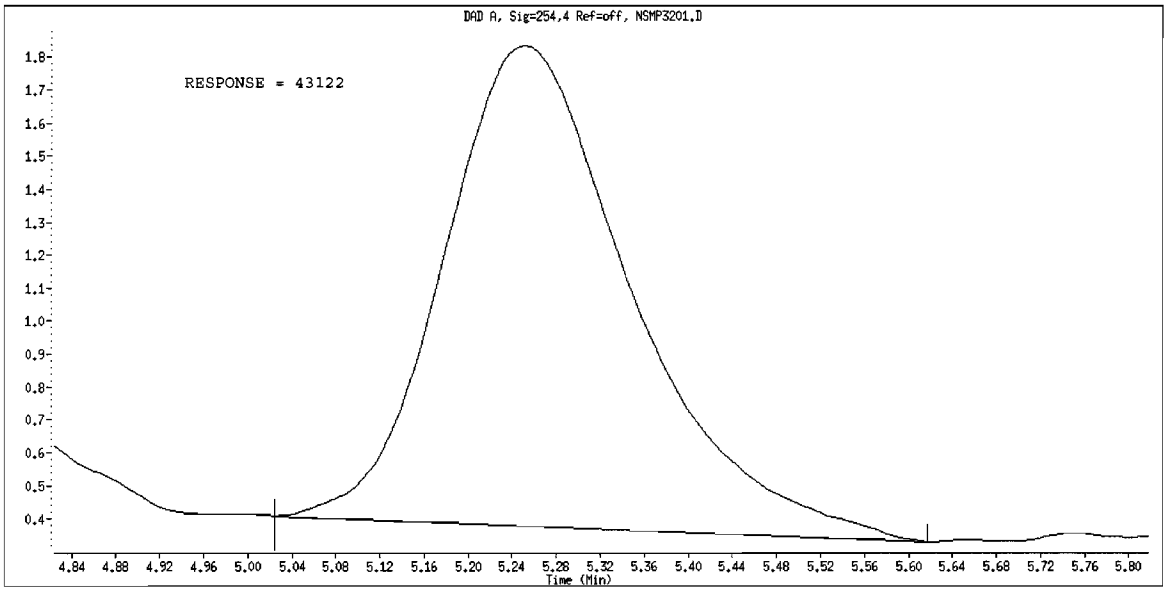

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

HPLC MISCELLANEOUS DATA

LOT # F0B170426

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Organic Prep Report for Batch #0050161

TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045

N022210

Prep Method: SW-846 3535

SOP Number: ST-OP-0008

Matrix: WATER

Prep Description: EXTRACTION, SOLID PHASE

Extraction Date: 2/19/2010

			Initials: MFM				Initials: MFM		Initials:		Initials:	
							Concentration 1		*Cleanup 1*		*Cleanup 2*	
Lot Number	**WorkOrder No**	**AnalDueDate**	**Wt/Vol**	**pH 1**	**pH 2**	**Extr Unit**	**Volume**	**Date**	**Method**	**Date**	**Method**	**Date**
F0B170426 - 001	LVRCK1AC	03/10/2010	509.7 mL				2.5 mL	2/19/2010				
F0B170426 - 001D	LVRCK1AE	03/10/2010	512.7 mL				2.5 mL	2/19/2010				
F0B170426 - 001S	LVRCK1AD	03/10/2010	509.3 mL				2.5 mL	2/19/2010				
F0B190000 - 161B	LVV3J1AA		500 mL				2.5 mL	2/19/2010				
F0B190000 - 161C	LVV3J1AC		500 mL				2.5 mL	2/19/2010				

Spike Information

Name	Standard ID	Exp Date	Vol Added
XNX Prep Spkie	GC0048-10	3/1/2010	250 uL
8330 Surrogate	GC0094-10	3/15/2010	50 uL

Spiking verified by: SB

Miscellaneous Information

Start: **Stop:**

Extr 1:

Extr 2:

Conc Method:

Conc Temp C:

Chemical Lot Information

Chemical	Lot Number
Acetonitrile	G50343
RDX Columns	P2926

Comments:

Custody Information

Relinquished By: MFM **Review/Received By:** AF **Date of Transfer:** 2/19/10

QC Suffix: B=reagent blank, C=lab control sample, L=lab control sample duplicate, X=sample duplicate, S=matrix spike, D=matrix spike duplicate

PrepSheet Generator 1.26, updated 11/14/2008

TESTAMERICA ST. LOUIS

LOT# FOR 0426

Logbook No.: 3311 | Instrument ID No.: LCN

TestAmerica St. Louis
HPLC Runlog

#	Data File	Clock	Lab I.D.	Dil.	STD#	Date	Oper.	Matrix	Method
1	NLCS 1303	N112309	LNQGFIAC		GC0384-09	11/25/09	WH/AF	AQ/SOIL	8330
2	NCAL 1304		8330 CCAL						
3	NSBK 1305		Flush		—				
4	1306								
5	1307								
6	1308								
7	1309								
8	1310								
9	1311								
10	NSBK 1312	N112509							
11	NSBK 1313								
12	NICL 1314		XNX-ICAL-3		GC0387-09		WH/AF	W	XNX
13	1315		-4						
14	1316		-5						
15	1317		-6						
16	1318		-7						
17	1319		-8						
18	NICV 1320		XNX ICV		GC0382-09				
19	NCAL 1321		XNX CCAL		GC0387-09				
20	NBLK 1322		LPJT8IAAB		—	12-2-09			
21	NLCS 1323		IACC						
22	NSMP 1324		LN84NIAC						
23	1325		IAD						
24	1326		IAE						
25	1327		LN84RIAC						
26	1328		LPHL6MIAC						
27	1329		LPHL6PIAC						
28	NBLK 1330		LN8EJIAA						
29	NSBK 1330		SBK		—				
30	NCAL 1331		XNX CCAL		GC0387-09				
31	NBLK 1332		LN8EJIAA		—	11/27/09			
32	NLCS 1333		IAC						
33	NSMP 1334		LN0N6IAC						
34	1335		IAF						
35	1336		IAG						

Review documented on next page. Form: SL-ORG-0008, Rev. 1/4/05 63

QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Contol Sample Duplicate; S = Matrix Spike; D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard.

SOP References: STL-GC-0017 Rev 11

Logbook No.: 3311 | Instrument ID No.: LCN

TestAmerica St. Louis
HPLC Runlog

Batch #	Comments		#
9307388	F9K030000 - 388 C	OK	1
		OK	2
		—	3
			4
			5
			6
			7
			8
			9
		—	10
		OK	11
	XNX ICAL	OK	12
		OK	13
		OK	14
		OK	15
		OK	16
		OK	17
	XNX ICV	OK	18
		OK	19
9320111	F9K160000 - 111B AF ~~File # duplicated~~	OK	20
	- 111C File# duplicated	OK	21
	F9K110519 - 001	OK	22
	-001 S	OK	23
	-001 D	OK	24
	-002	OK	25
	F9K140506 - 001	OK	26
	-002	OK	27
9315181	F9K110000 - 181 B	Not Needed ~~OK~~	28
		—	29
		OK	30
9315181	F9K116000 - 181 B	OK	31
	- 181 C	OK	32
	F9K060412 - 001 MNX C	OK	33
	-001 S	OK	34
	-001 D	OK	35

Reviewed By: Lannis Hampton 12/1/09 12/2/09

Form: SL-ORG-0008, Rev. 1/4/05 64

QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Contol Sample Duplicate; S = Matrix Spike; D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard.

SOP References: STL-GC-0017 Rev 11

TESTAMERICA ST. LOUIS

LOT # FOB1

Logbook No.: 3437 | Instrument ID No.: LCN

TestAmerica St. Louis
HPLC Runlog

#	Data File	Clock	Lab I.D.	Dil.	STD#	Date	Oper.	Matrix	Method
1	NCND 3175	N022010	CONDITIONING		C	2/20/10	AF	W	8330 (XNX)
2	NCAL 3176		XNX CCAL	16x	GC0050-10				
3	NBLK 3177		LVTLTIAA						
4	NLCS 3178		TIAC						
5	NSMP 3179		LVRCEIAC						
6	3180		LVRCFIAC						
7	3181		FIAD						
8	3182		FIAE						
9	NBLK 3183		LVD95IAA						
10	NLCS 3184		5IAC						
11	NSMP 3185		LVAEDIAC						
12	3186		DIAD						
13	NCAL 3187		XNX CCAL	16x	GC0050-10				
14	NSMP 3188		LVAEOIAE						
15	3189		NIAC						
16	3190		WIAC						
17	3191		LVCKJIAC						
18	3192		LVCKLIAC						
19	NCAL 3193		XNX CCAL	16x	GC0050-10				
20	NSBK 3194		Flush						
21	NCND 3195	N022210	CONDITIONING			2/22/10			
22	NCAL 3196		XNX CCAL	16x	GC0050-10		AF	W	8330 (XNX)
23	NBLK 3197		LVV3JIAA						
24	NLCS 3198		JIAC						
25	NSMP 3199		LVRCKIAC						
26	3200		KIAD						
27	3201		KIAE						
28	NCAL 3202		XNX CCAL	16x	GC0050-10				
29									
30									
31									
32			AF 2/23/10						
33									
34									
35									

Review documented on next page.

Form: SL-ORG-0009, Rev. 9/23/09

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QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Contol Sample Duplicate; S = Matrix Spike; D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard.

SOP References: STL-GC-0017, current revisions.

Logbook No.: 3437 | Instrument ID No.: LCN

TestAmerica St. Louis
HPLC Runlog

Batch #	Comments	#
	—	1
	OK	2
60490163	FOB180000-063B OK	3
	-063C OK	4
	FOB170424-001 C OK	5
	-002 OK	6
	-002S OK	7
	-002D OK	8
00039280	FOB080000-280B OK	9
	-280C OK	10
	FOB050502-001 OK	11
	-001S OK	12
	OK	13
00039280	FOB050502-001D OK	14
	FOB050506-001 OK	15
	-002 OK	16
	FOB060432-001 OK	17
	FOB060434-001 OK	18
	OK	19
	—	20
	—	21
	OK	22
00501161	FOB190000-161B OK	23
	-161C OK	24
	FOB170426-001 OK	25
	-001S OK	26
	-001D OK	27
	KF 3/1 OK	28
		29
		30
		31
	AF 2/23/10	32
		33
		34
		35

Reviewed By: [signature] 2/23/10 [signature] 2/24/10 [signature] 3/1/10

Form: SL-ORG-0009, Rev. 09/23/09

24

QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Contol Sample Duplicate; S = Matrix Spike; D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard.

SOP References: STL-GC-0017, current revisions.

TESTAMERICA ST. LOUIS

Monday, February 15, 2010

REQUEST NUMBER: 10-1864

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1864

Per Agreement Number:126310011

Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/15/2010

TURNAROUND/REPORT DUE: 3/17/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE15-10-8186	R	2/10/2010	
		1	RE15-10-8187	R	2/10/2010	
		1	RE15-10-8188	R	2/10/2010	
		1	RE15-10-8189	R	2/10/2010	
		1	RE15-10-8190	R	2/10/2010	
		1	RE15-10-8191	R	2/10/2010	
		1	RE15-10-8192	R	2/10/2010	
		1	RE15-10-8193	R	2/10/2010	
		1	RE15-10-8194	R	2/10/2010	

Monday, February 15, 2010

REQUEST NUMBER: 10-1864

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE15-10-8195	R	2/10/2010	
		1	RE15-10-8196	R	2/10/2010	
		1	RE15-10-8197	R	2/10/2010	
		1	RE15-10-8211	R	2/10/2010	
		1	RE15-10-8226	R	2/10/2010	
	SW-846:8082	1	RE15-10-8186	R	2/10/2010	
		1	RE15-10-8187	R	2/10/2010	
		1	RE15-10-8190	R	2/10/2010	
		1	RE15-10-8211	R	2/10/2010	
		1	RE15-10-8226	R	2/10/2010	
	SW-846:8321A_MOD	1	RE15-10-8186	R	2/10/2010	
		1	RE15-10-8187	R	2/10/2010	
		1	RE15-10-8188	R	2/10/2010	
		1	RE15-10-8189	R	2/10/2010	
		1	RE15-10-8190	R	2/10/2010	
		1	RE15-10-8191	R	2/10/2010	
		1	RE15-10-8192	R	2/10/2010	
		1	RE15-10-8193	R	2/10/2010	
		1	RE15-10-8194	R	2/10/2010	
		1	RE15-10-8195	R	2/10/2010	
		1	RE15-10-8196	R	2/10/2010	
		1	RE15-10-8197	R	2/10/2010	
		1	RE15-10-8211	R	2/10/2010	
		1	RE15-10-8226	R	2/10/2010	

Final Page of REQUEST NUMBER 10-1864

Monday, February 15, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1864C

REQUEST NUMBER: 10-1864

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/17/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8196	1	POLY	H3	Ice	R
RE15-10-8186	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8186	1	POLY	H3	Ice	R
RE15-10-8194	1	POLY	H3	Ice	R
RE15-10-8189	1	POLY	H3	Ice	R
RE15-10-8188	1	POLY	H3	Ice	R
RE15-10-8187	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8187	1	POLY	H3	Ice	R
RE15-10-8197	1	POLY	H3	Ice	R
RE15-10-8190	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8190	1	POLY	H3	Ice	R
RE15-10-8193	1	POLY	H3	Ice	R
RE15-10-8191	1	POLY	H3	Ice	R
RE15-10-8192	1	POLY	H3	Ice	R
RE15-10-8195	1	POLY	H3	Ice	R
RE15-10-8226	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8226	1	POLY	H3	Ice	R
RE15-10-8211	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8211	1	POLY	H3	Ice	R
RE15-10-8193	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8196	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8192	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8188	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8189	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8191	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8197	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8194	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8195	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
		2/15/10	3:00				
Printed Name	Signature			Printed Name	Signature		

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8235 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/10/2010	MEDIA:	NA	OK
TIME COLLECTED (HH:MM)		14:30	SUB-MEDIA:	OTHER	
PRS ID:	15-007(c)	OK	SAMPLE TECH CODE:	DC	
LOCATION ID:	UNK	15-610817	FIELD QC TYPE:	FR	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	UF	
TOP DEPTH:	0	0	SAMPLE USAGE:	QC	
BOTTOM DEPTH:	0	0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	W	OK	EXCAVATED: YES / NO / NA		

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

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: -90° BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	METALS-GEL	1 LITER POLY	Nitric Acid	Y	
1		SW-846:6850	250 ML POLY	Ice	Y	
1		TCN	500 ML POLY	Sodium Hydroxide	Y	

SAMPLE DESC: QC Sample of RE15-10-8194

SAMPLE COMMENTS:

LOCATION DESC: 7c-4

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = ____ dpm

Beta/Gamma = ____ dpm

PID Ambient Reading = ppm

COLLECTED BY (PRINT) R. Saunders

REVIEWED BY (PRINT) J. MARIN

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) JON MARIN (Signature) Jon R. Marin		(Printed Name) (Signature)	
RELINQUISHED BY (Printed Name) Esteban Lujan (Signature)	Date/Time 2/11/10 08:42	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	Date/Time 2/11/10 0842

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8194 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/10/2010	MEDIA:	QBT3	QBT2
TIME COLLECTED (HH:MM)		14:15	SUB-MEDIA:	TUFF 1	OK
PRS ID:	15-007(c)	OK	SAMPLE TECH CODE:	HA	CBS
LOCATION ID:	15-610817		FIELD QC TYPE:	NA	OK
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	124.0 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	126.0 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	OK	EXCAVATED: YES / NO / NA		

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

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: -90° BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER JRM 2/10/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	~~2082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Medium grayish pink, moderately indurated, partially welded devitrified, dry, ash flow tuff.

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c-4

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 38 **dpm**
Beta/Gamma = 2660 **dpm**

PID ~~**Ambient Reading**~~ ~~**ppm**~~ JRM 2/2 2/10/10 JRM 2/10/10

COLLECTED BY (PRINT) R. Saunders

REVIEWED BY (PRINT) J. MARIN

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) JON MARIN (Signature) Jon R. Marin		(Printed Name) (Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) Esteban Lujan (Signature)	2/11/10 08:44	(Printed Name) Sherrie Sherwood (Signature) Sherrie Sherwood	2/11/10 0846

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8189 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/10/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		11:23	SUB-MEDIA:	TUFF 1	OK
PRS ID:	15-007(c)	OK	SAMPLE TECH CODE:	HA	CBS
LOCATION ID:	15-610817		FIELD QC TYPE:	NA	OK
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	49.0 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	50.0 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	OK	EXCAVATED: YES / NO / NA		

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

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: -90° BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER JRM 2/10/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	~~8082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Light gray, non indurated, nowelded, devitrified, dry, ash flow tuff.

SAMPLE COMMENTS:

NA

LOCATION DESC:

7c-4

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 48 dpm
Beta/Gamma = 2980 dpm

JRM 2/10/10
PID ~~Ambient Reading~~ = ppm

COLLECTED BY (PRINT) R. Saunders REVIEWED BY (PRINT) J. MARIN

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) JON MARIN (Signature) Jon R. Marin		(Printed Name) (Signature)	
RELINQUISHED BY (Printed Name) Esteban Lujan (Signature)	Date/Time 2/11/10 08:45	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	Date/Time 2/11/10 0848

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8197 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/10/2010	MEDIA:	QBT3	QBT1
TIME COLLECTED (HH:MM)		16:30	SUB-MEDIA:	TUFF 1	OK
PRS ID:	15-007(c)	OK	SAMPLE TECH CODE:	HA	CBS
LOCATION ID:	15-610817		FIELD QC TYPE:	NA	OK
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	171.5 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	172.5 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	OK	EXCAVATED: YES / NO / NA		

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

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: -90° BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER JRM 2/10/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	~~8082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Light gray, non indurated, non welded, devitrified, dry ash flow tuff

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c-4

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 38 dpm
Beta/Gamma = 322 dpm

JRM 2/10/10
~~PID Ambient Reading~~ = ppm

COLLECTED BY (PRINT) R. Saunders **REVIEWED BY (PRINT)** J. MARIN

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) JON MARIN (Signature) Jon R. Marin		(Printed Name) (Signature)	
RELINQUISHED BY (Printed Name) Estevan Lujan (Signature)	Date/Time 02/10/10 18:46	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	Date/Time 02/11/10 0846

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8188 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/10/~~X~~2010 JRM 2/10/10	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		11:02	SUB-MEDIA:	TUFF 1	OK
PRS ID:	15-007(c)	OK	SAMPLE TECH CODE:	HA	CBS
LOCATION ID:	15-610817		FIELD QC TYPE:	NA	OK
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	34.0 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	35.0 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	OK	EXCAVATED: YES / (NO) / NA		

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

BOREHOLE: (YES) / NO / NA BOREHOLE DECLINATION: -90° BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER JRM 2/10/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	~~8082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Medium gray nonindurated, locally partially indurated, devitrified dry, ash flow tuff

SAMPLE COMMENTS:

NA

LOCATION DESC: 7C-4

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 33 **dpm**
Beta/Gamma = 224 **dpm**

JRM 2/10/10
PID ~~Ambient Reading~~ = ppm

COLLECTED BY (PRINT) R. Saunders **REVIEWED BY (PRINT)** J. MARIN

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) JON MARIN (Signature) Jon R. Marin		(Printed Name) (Signature)	
RELINQUISHED BY (Printed Name) Esteban Lujan (Signature)	Date/Time 2/11/10 08:46	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	Date/Time 2/11/10 846

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8211 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/10/2010	MEDIA:	QBT3	QBT 1
TIME COLLECTED (HH:MM)		16:48	SUB-MEDIA:	TUFF 1	OK
PRS ID:	15-007(c)	OK	SAMPLE TECH CODE:	HA	CBS
LOCATION ID:	UNK	15-610817	FIELD QC TYPE:	NA	
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	
TOP DEPTH:	0	181.5 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	182.5 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	OK	EXCAVATED: YES / NO / NA		

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

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: -90° BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Light gray, non indurated, non welded, devitrified, dry, ash flow tuff

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c-4

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 28 dpm
Beta/Gamma = 223 dpm

~~PID Ambient Reading = ppm~~ JRM 2/10/10

COLLECTED BY (PRINT) R. Saunders

REVIEWED BY (PRINT) JON MARIN

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) JON MARIN (Signature) Jon R. Marin	2/1	(Printed Name) (Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) Esteban Lujan (Signature) E L	2/11/10 08:42	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	2/11/10 842

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8196 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/10/2010	MEDIA:	QBT3	QBT2
TIME COLLECTED (HH:MM)		15:54	SUB-MEDIA:	TUFF 1	OK
PRS ID:	15-007(c)	OK	SAMPLE TECH CODE:	HA	CBS
LOCATION ID:	15-610817		FIELD QC TYPE:	NA	OK
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	156.0 ~~136.0~~ ft JRM 2/10/10	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	157.5 ~~137.5~~ ft JRM 2/10/10	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	OK	EXCAVATED: YES / NO / NA		

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

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: -90° BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER JRM 2/10/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	~~8082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Light pinkish gray, moderately indurated, slightly welded, devitrified, dry, ash flow tuff

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c-4

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 24 **dpm**
Beta/Gamma = 24 10 **dpm**

~~PID Ambient Reading = ppm~~ JRM 2/10/10

COLLECTED BY (PRINT) R. Saunders **REVIEWED BY (PRINT)** J. MARIN

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) JON MARIN (Signature) Jon R. Marin		(Printed Name) (Signature)	
RELINQUISHED BY (Printed Name) Esteban Lujan (Signature)	Date/Time 2/11/10 08:46	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	Date/Time 2/11/10 846

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8226 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/~~02~~10/2010 RS 02/10/10	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		10:42	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-007(c)	OK	SAMPLE TECH CODE:	HA	CBS
LOCATION ID:	UNK	15-610817	FIELD QC TYPE:	FD	↓
LOCATION TYPE:	GENERIC	OK	FIELD PREP:	NA	↓
TOP DEPTH:	0	18.0 ft	SAMPLE USAGE:	QC	↓
BOTTOM DEPTH:	0	20.0 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	OK	EXCAVATED: YES / (NO) / NA		

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

BOREHOLE: (YES) NO / NA BOREHOLE DECLINATION: -90° BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC: QC Sample of RE15-10-8187

Light gray, non indurated to weakly indurated, devitrified, dry, ash flow tuff

SAMPLE COMMENTS:

NA

LOCATION DESC:

7c-4

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = .009 dpm
Beta/Gamma = 2121 dpm

RS PID Ambient Reading = ppm 02/02/10

COLLECTED BY (PRINT) R Saunders REVIEWED BY (PRINT) J. MARIN

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) JON MARIN	2/11/10	(Printed Name) Sherri Sherwood	2/11/10
(Signature) Jon R. Marin	8:46	(Signature) Sherri Sherwood	846

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8195 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/10/2010	MEDIA:	QBT3	QBT2
TIME COLLECTED (HH:MM)		15:05	SUB-MEDIA:	TUFF 1	OK
PRS ID:	15-007(c)	OK	SAMPLE TECH CODE:	HA	CBS
LOCATION ID:	15-610817		FIELD QC TYPE:	NA	OK
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	139.0 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	140.0 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	OK	EXCAVATED: YES / NO / NA		

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

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: -90° BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER JRM 2/10/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	~~8082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Light reddish gray, strongly indurated, slightly welded, devitrified dry, ash flow tuff.

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c-4

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 19 **dpm**
Beta/Gamma = 2350 **dpm**

JRM 2/10/10

PID ~~Ambient Reading~~ = **ppm**

COLLECTED BY (PRINT) R. Saunders

REVIEWED BY (PRINT) J. MARIN

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) JON MARIN		(Printed Name)	
(Signature) Jon R. Marin		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) Esteban Lujan	2/11/10	(Printed Name) Sherri Sherwood	2/11/10
(Signature)	08:46	(Signature) Sherri Sherwood	846

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8187 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		RS 02-10-10 02/~~08~~10/2010	MEDIA:	OBT3	OK
TIME COLLECTED (HH:MM)		10:42	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-007(c)	OK	SAMPLE TECH CODE:	HA	CBS
LOCATION ID:	15-610817	↓	FIELD QC TYPE:	NA	OK
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	18.0 ft	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	20.0 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	OK	EXCAVATED: YES / (NO) NA		

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

BOREHOLE: (YES) / NO / NA BOREHOLE DECLINATION: -90° BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	↓	H3	500 ML POLY	Ice	Y	
1	↓	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	↓	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Light gray non indurated to wkly indurated, devitrified, dry ash flow tuff

SAMPLE COMMENTS:

NA

LOCATION DESC: 7C-4

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = .009 **dpm**
Beta/Gamma = 2121 **dpm**

RS 02-08-10
PID Ambient / Reading = **ppm**

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** J. MARIN

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) JON MARIN (Signature) Jon R. Marin	2/11/10 08:46 AM	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	2/11/10 846
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8193 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/10/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		13:15	SUB-MEDIA:	TUFF 1	OK
PRS ID:	15-007(c)	OK	SAMPLE TECH CODE:	HA	CBS
LOCATION ID:	15-610817		FIELD QC TYPE:	NA	OK
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	109.0 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	110.0 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	OK	EXCAVATED: YES / (NO) / NA		

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

BOREHOLE: (YES) / NO / NA BOREHOLE DECLINATION: -90° BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER JRM 2/10/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	~~2082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Light pinkish gray, nonindurated, non welded, devitrified, dry, ash flow tuff.

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c-4

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 19 dpm

Beta/Gamma = 2280 dpm

~~PID Ambient Reading~~ = ppm JRM 2/10/10

COLLECTED BY (PRINT) R. Saunders **REVIEWED BY (PRINT)** J. Marin

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) JON MARIN (Signature) Jon R. Marin		(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	2/11/10 846
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) Estevan Lujan (Signature)	2/11/10 08:46	(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8186 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		RS 02-10-10 02/~~08~~ 10/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		10:12	SUB-MEDIA:	TUFF 1	↓
PRS ID:	15-007(c)	OK	SAMPLE TECH CODE:	HA	CBS
LOCATION ID:	15-610817	↓	FIELD QC TYPE:	NA	OK
LOCATION TYPE:	GENERIC	↓	FIELD PREP:	NA	↓
TOP DEPTH:	0	4.0 ft	SAMPLE USAGE:	INV	↓
BOTTOM DEPTH:	0	5.0 ft	SCREEN/PORT DESC:	NA	
FIELD MATRIX:	R	OK	EXCAVATED: YES / (NO) / NA		

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

BOREHOLE: (YES) / NO / NA **BOREHOLE DECLINATION:** -90° **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1	normal	H3	500 ML POLY	Ice	Y	
1	normal	Metals+ClO4+CN	500 ML POLY	Ice	Y	
1	normal	RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Light gray nonindurated, nonwelded, devitrified, ash flow tuff

SAMPLE COMMENTS:

NA

LOCATION DESC: 7C-4

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 14 **dpm**

Beta/Gamma = 2040 **dpm**

RS ~~PID Ambient Reading = ppm~~ 02-08-10

COLLECTED BY (PRINT) R Saunders **REVIEWED BY (PRINT)** J. MARIN

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) JON MARIN (Signature) Jon R. Marin	2/11/10 08:46pm	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	2/11/10 846
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8191 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/10/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		12:12	SUB-MEDIA:	TUFF 1	OK
PRS ID:	15-007(c)	OK	SAMPLE TECH CODE:	HA	CBS
LOCATION ID:	15-610817		FIELD QC TYPE:	NA	OK
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	79.0	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	80.0	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	OK	EXCAVATED: YES / (NO) / NA		

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

BOREHOLE: (YES) / NO / NA BOREHOLE DECLINATION: -90° BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER JRM 2/10/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	~~8082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Light gray, non indurated, non welded, devitrified, dry, ash flow tuff.

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c-4

FIELD SCREENING/MEASUREMENT RESULTS:

~~Alpha~~ = 24 dpm
~~Beta/Gamma~~ = 2230 dpm

~~PID Ambient Reading = ppm~~ JRM 2/10/10

COLLECTED BY (PRINT) R. Saunders **REVIEWED BY (PRINT)** J. MARIN

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) JON MARIN (Signature) Jon R Marin		(Printed Name) (Signature)	
RELINQUISHED BY (Printed Name) Estevan Lujan (Signature)	Date/Time 2/11/10 08:47	RECEIVED BY (Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	Date/Time 2/11/10 847

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8192 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/10/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		12:47	SUB-MEDIA:	TUFF 1	OK
PRS ID:	15-007(c)	OK	SAMPLE TECH CODE:	HA	C135
LOCATION ID:	15-610817		FIELD QC TYPE:	NA	OK
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	94.0 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	95.0 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	OK	EXCAVATED: YES / NO / NA		

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

BOREHOLE: (YES) / NO / NA BOREHOLE DECLINATION: -90° BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER JRM 2/10/10	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	~~8082~~+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Light gray, non indurated, non welded, devitrified, dry, ash flow tuff

SAMPLE COMMENTS: NA

LOCATION DESC: 7c-4

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 24 dpm
Beta/Gamma = 2210 dpm

~~PID Ambient Reading~~ = ppm JRM 2/10/10

COLLECTED BY (PRINT) R. Saunders **REVIEWED BY (PRINT)** J. MARIN

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) JON MARIN		(Printed Name)	
(Signature) Jon R. Marin		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) Esteban Lujan	2/11/10 08:49	(Printed Name) Sherri Sherwood	2/11/10 849
(Signature) E. L.		(Signature) Sherri Sherwood	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2503 **EVENT NAME:** 4th Qtr. FY09 - SWMU 15-007(c) - Threemile Canyon

SAMPLE ID: RE15-10-8190 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/10/2010	MEDIA:	QBT3	OK
TIME COLLECTED (HH:MM)		11:47	SUB-MEDIA:	TUFF 1	OK
PRS ID:	15-007(c)	OK	SAMPLE TECH CODE:	HA	CBS
LOCATION ID:	15-610817		FIELD QC TYPE:	NA	OK
LOCATION TYPE:	GENERIC		FIELD PREP:	NA	
TOP DEPTH:	0	64.0 ft	SAMPLE USAGE:	INV	
BOTTOM DEPTH:	0	65.0 ft	SCREEN/PORT DESC:		NA
FIELD MATRIX:	R	OK	EXCAVATED: YES / (NO) / NA		

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

BOREHOLE: (YES) / NO / NA BOREHOLE DECLINATION: -90° BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	Normal	8082+NMED-HEXP	250 ML AMBER GLASS	Ice	Y	
1		H3	500 ML POLY	Ice	Y	
1		Metals+ClO4+CN	500 ML POLY	Ice	Y	
1		RADVANA+B+G	1 EA 8 IN RESEALABLE POLY BAG	None	Y	

SAMPLE DESC:

Light gray NON indurated, NON welded, devitrified ash flow tuff

SAMPLE COMMENTS:

NA

LOCATION DESC: 7c-4

FIELD SCREENING/MEASUREMENT RESULTS:

Alpha = 72 dpm
Beta/Gamma = 427 dpm

JRM 2/10/10
~~PID Ambient Reading = ppm~~

COLLECTED BY (PRINT) R. Saunders **REVIEWED BY (PRINT)** J. MARIN

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) JON MARIN (Signature) Jon R. Marin		(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	2/11/10 847
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) Esteban Lujan (Signature) E. L.	2/11/10 08:47	(Printed Name) (Signature)	

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-10-00228
Analysis Description: Gross Alpha/Beta in (Soil, Sludge, Waste, Sediment [SO])
Analysis Test Method: GPC-A-003
Request or PO Number: N/A
Date Received: 2/12/2010
Report Date: 02/15/10 07:44

ARS Sample ID	Client Sample ID	Isotope	Analysis Results	Analysis Error +/- 2 s	MDC	DLC	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery	Sample Matrix	Collection Date
ARS1-10-00228-001	RE15-10-7996	GROSS ALPHA	7.623	5.064	15.263	4.908	U	pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-001	RE15-10-7996	GROSS BETA	30.951	5.512	7.839	3.388		pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-002	RE15-10-7997	GROSS ALPHA	11.340	5.502	12.709	3.653	U	pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-002	RE15-10-7997	GROSS BETA	47.145	7.387	7.778	3.365		pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-003	RE15-10-7999	GROSS ALPHA	7.792	4.778	13.241	3.806	U	pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-003	RE15-10-7999	GROSS BETA	34.471	5.934	7.804	3.361		pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-004	RE15-10-8000	GROSS ALPHA	4.591	4.196	14.629	4.528	U	pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-004	RE15-10-8000	GROSS BETA	22.584	4.491	7.677	3.321		pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-005	RE15-10-8064	GROSS ALPHA	21.461	7.763	14.970	4.633		pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-005	RE15-10-8064	GROSS BETA	27.597	5.295	8.406	3.656		pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-006	RE15-10-7903	GROSS ALPHA	5.296	4.447	14.634	4.384	U	pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-006	RE15-10-7903	GROSS BETA	47.454	7.506	8.308	3.604		pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-007	RE15-10-7904	GROSS ALPHA	-1.541	2.172	14.555	4.488	U	pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-007	RE15-10-7904	GROSS BETA	36.976	6.163	7.881	3.416		pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-008	RE15-10-7993	GROSS ALPHA	8.529	5.410	16.003	5.087	U	pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-008	RE15-10-7993	GROSS BETA	31.765	5.653	8.089	3.505		pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-009	RE15-10-7994	GROSS ALPHA	3.415	3.663	13.344	3.879	U	pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-009	RE15-10-7994	GROSS BETA	27.014	5.083	8.229	3.586		pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-010	RE15-10-7995	GROSS ALPHA	9.574	5.507	14.920	4.509	U	pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-010	RE15-10-7995	GROSS BETA	36.009	6.221	8.671	3.791		pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-011	RE15-10-8211	GROSS ALPHA	8.633	5.057	13.430	3.737	U	pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-011	RE15-10-8211	GROSS BETA	39.519	6.561	8.094	3.503		pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-012	RE15-10-8197	GROSS ALPHA	4.894	4.393	15.092	4.636	U	pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-012	RE15-10-8197	GROSS BETA	31.269	5.695	9.020	3.971		pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-013	RE15-10-8196	GROSS ALPHA	2.274	3.727	14.872	4.620	U	pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-013	RE15-10-8196	GROSS BETA	34.700	5.960	8.084	3.505		pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-014	RE15-10-8195	GROSS ALPHA	4.392	4.076	13.911	4.273	U	pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-014	RE15-10-8195	GROSS BETA	42.456	6.861	8.113	3.525		pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-015	RE15-10-8194	GROSS ALPHA	2.876	3.481	13.264	3.973	U	pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-015	RE15-10-8194	GROSS BETA	33.730	5.806	7.745	3.339		pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-016	RE15-10-8193	GROSS ALPHA	0.179	3.624	17.117	5.788	U	pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-016	RE15-10-8193	GROSS BETA	29.486	5.340	8.105	3.521		pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-017	RE15-10-8192	GROSS ALPHA	13.355	6.234	14.667	4.470	U	pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-017	RE15-10-8192	GROSS BETA	23.264	4.765	8.471	3.694		pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-018	RE15-10-8191	GROSS ALPHA	2.359	4.003	16.220	5.074	U	pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-018	RE15-10-8191	GROSS BETA	40.055	6.879	10.337	4.609		pCi/g	2/12/2010	JB	N/A	SO	

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-10-00228
Analysis Description: Gross Alpha/Beta in (Soil, Sludge, Waste, Sediment [SO])
Analysis Test Method: GPC-A-003
Request or PO Number: N/A
Date Received: 2/12/2010
Report Date: 02/15/10 07:44

ARS Sample ID	Client Sample ID	Isotope	Analysis Results	Analysis Error +/- 2 s	MDC	DLC	Qual	Analysis Units	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery	Sample Matrix	Collection Date
ARS1-10-00228-019	RE15-10-8190	GROSS ALPHA	10.024	5.676	15.370	4.886	U	pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-019	RE15-10-8190	GROSS BETA	38.359	6.416	7.917	3.414		pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-020	RE15-10-8189	GROSS ALPHA	8.989	5.304	14.526	4.427	U	pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-020	RE15-10-8189	GROSS BETA	34.835	6.054	8.280	3.589		pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-021	RE15-10-8188	GROSS ALPHA	2.474	5.299	21.334	7.787	U	pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-021	RE15-10-8188	GROSS BETA	27.364	5.137	8.104	3.504		pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-022	RE15-10-8186	GROSS ALPHA	4.887	4.467	15.588	5.141	U	pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-022	RE15-10-8186	GROSS BETA	31.889	5.603	7.806	3.373		pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-023	RE15-10-8187	GROSS ALPHA	6.917	5.155	16.662	5.545	U	pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-023	RE15-10-8187	GROSS BETA	34.554	5.954	7.914	3.416		pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-024	RE15-10-8226	GROSS ALPHA	17.289	6.843	14.870	4.782		pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-024	RE15-10-8226	GROSS BETA	26.749	5.129	8.135	3.531		pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-025	RE15-10-7998	GROSS ALPHA	9.482	5.349	14.293	4.515	U	pCi/g	2/12/2010	JB	N/A	SO	
ARS1-10-00228-025	RE15-10-7998	GROSS BETA	29.179	5.309	7.828	3.385		pCi/g	2/12/2010	JB	N/A	SO	

NOTES:

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the client.

LELAP Certificate# 01949 NELAP Certificate # E87558

DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1864 VALIDATION DATE: 04/21/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Lisa Burgesser ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. The RRFs for the ICAL were <0.05 but ≥0.01 for 2-amino-4,6-dinitrotoluene; PETN; m-nitrotoluene; o-nitrotoluene and p-nitrotoluene for samples RE15-10-8186 through -8197. The RRFs for the ICAL were <0.05 but ≥0.01 for PETN; m-nitrotoluene; o-nitrotoluene and p-nitrotoluene for samples -8226 and -8211. The associated sample results were NDs and, thus, were qualified UJ,HE7b.
2. The CCV %D was >20% but ≤40% with negative bias for HMX for samples -8186 through -8197. The sample results were NDs and, thus, were qualified UJ,HE7c. The CCV %D was >20% with positive bias for PETN for samples -8186 through -8197 and the ICV %Ds were >20% with positive bias for m-nitrotoluene and p-nitrotoluene for samples -8226 and -8211. The associated sample results were NDs and, thus, were not qualified.
3. It should be noted that the raw ICAL data from the instrument used for the secondary HE analysis were not reported in the data package. Thus, the surrogate retention time criteria could not be evaluated. No sample data were qualified as a result.
4. The LCS %D was < the laboratory LAL but ≥10% for tetryl. The associated sample results were NDs and, thus, were qualified UJ,HE12a. The LCS %D was > the laboratory UAL for o-nitrotoluene. The associated sample results were NDs and, thus, were not qualified.
5. The MS %D was >the laboratory UAL for TATB. The associated sample results were NDs and, thus, were not qualified. The MS/MSD %RPD was >the laboratory limit for TATB. The associated sample results were NDs and, thus, were qualified UJ,HE12g.

Reviewed by: Mary Donivan Level: I Date: 04/21/10

DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

VALIDATOR'S SIGNATURE: _____ DATE: 04/21/10

Form 5122-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
☒	☐	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
☐	☐	☒	3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
☐	☐	☒	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
☐	☐	☒	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
☐	☒	☐	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
☐	☒	☐	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
☐	☒	☐	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
☐	☒	☐	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	11. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE3d	R, HE3d
☐	☒	☐	12. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, HE4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, HE4a
☐	☐	☒	14. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, HE4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE4e	R, HE4e
☐	☒	☐	16. The absence of sample carry-over must be determined and verified.	N/A	R, N, HE4f
☐	☒	☐	17. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, HE7	J, HE7
☐	☒	☐	18. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less < 0.99.	UJ, R, HE7a	J, HE7a
☒	☐	☐	19. The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV.	UJ, R, HE7b	J, HE7b
☒	☐	☐	20. The ICV and/or CCV were recovered outside the method limits.	UJ, R, HE7c	J, HE7c
☐	☒	☐	21. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, HE7d	J, HE7d
☐	☒	☐	22. Required calibration information is missing or samples were analyzed on an expired	R, HE7f	R, HE7f

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
			calibration. Contact the SMO or external laboratory for information.		
☐	☒	☐	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
☐	☒	☐	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
☐	☒	☐	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
☐	☒	☐	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
☒	☐	☐	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
☒	☐	☐	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
☐	☒	☐	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
☐	☒	☐	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
☐	☒	☐	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
☒	☐	☐	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
☒	☐	☐	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
☐	☐	☒	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix	UJ, R, HE15	R, HE15

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2 LC/MS/MS High Explosive Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
			interference.)		
☐	☐	☒	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a
☐	☐	☒	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
☐	☐	☒	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8196

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193001

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330019.wiff

Date Analyzed: 30-MAR-10 16:32

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX	UJ,HE7c	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ,HE7b	500	U
479-45-8	Tetryl	UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN	UJ,HE7b	1000	U
88-72-2	o-Nitrotoluene	UJ,HE7b	500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene	UJ,HE7b	500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene	UJ,HE7b	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8196

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193001

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100084.wiff

Date Analyzed: 11-MAR-10 13:14

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB UJ,HE12g	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8186

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193002

Sample Amount 2

Moisture: 1.2

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330022.wiff

Date Analyzed: 30-MAR-10 17:51

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX	UJ,HE7c	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ,HE7b	500	U
479-45-8	Tetryl	UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN	UJ,HE7b	1000	U
88-72-2	o-Nitrotoluene	UJ,HE7b	500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene	UJ,HE7b	500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene	UJ,HE7b	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8186

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193002

Sample Amount 2

Moisture: 1.2

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100087.wiff

Date Analyzed: 11-MAR-10 14:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB UJ,HE12g	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8194

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193003

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330026.wiff

Date Analyzed: 30-MAR-10 19:37

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX	UJ,HE7c	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ,HE7b	500	U
479-45-8	Tetryl	UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN	UJ,HE7b	1000	U
88-72-2	o-Nitrotoluene	UJ,HE7b	500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene	UJ,HE7b	500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene	UJ,HE7b	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8194

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193003

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100088.wiff

Date Analyzed: 11-MAR-10 14:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB UJ,HE12g	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8189

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193004

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330027.wiff

Date Analyzed: 30-MAR-10 20:03

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX	UJ,HE7c	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ,HE7b	500	U
479-45-8	Tetryl	UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN	UJ,HE7b	1000	U
88-72-2	o-Nitrotoluene	UJ,HE7b	500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene	UJ,HE7b	500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene	UJ,HE7b	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8189

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193004

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100089.wiff

Date Analyzed: 11-MAR-10 14:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB UJ,HE12g	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8188

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330028.wiff

Date Analyzed: 30-MAR-10 20:29

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX	UJ,HE7c	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ,HE7b	500	U
479-45-8	Tetryl	UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN	UJ,HE7b	1000	U
88-72-2	o-Nitrotoluene	UJ,HE7b	500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene	UJ,HE7b	500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene	UJ,HE7b	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1
High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8188

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100090.wiff

Date Analyzed: 11-MAR-10 14:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB UJ,HE12g	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8187

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193006

Sample Amount 2

Moisture: 2.5

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330029.wiff

Date Analyzed: 30-MAR-10 20:56

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX	UJ,HE7c	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ,HE7b	500	U
479-45-8	Tetryl	UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN	UJ,HE7b	1000	U
88-72-2	o-Nitrotoluene	UJ,HE7b	500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene	UJ,HE7b	500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene	UJ,HE7b	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8187

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193006

Sample Amount 2

Moisture: 2.5

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100091.wiff

Date Analyzed: 11-MAR-10 15:04

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB UJ,HE12g	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8197

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193007

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330030.wiff

Date Analyzed: 30-MAR-10 21:22

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX	UJ,HE7c	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ,HE7b	500	U
479-45-8	Tetryl	UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN	UJ,HE7b	1000	U
88-72-2	o-Nitrotoluene	UJ,HE7b	500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene	UJ,HE7b	500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene	UJ,HE7b	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8197

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193007

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100095.wiff

Date Analyzed: 11-MAR-10 16:07

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB UJ,HE12g	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8190

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193008

Sample Amount 2

Moisture: 9

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330031.wiff

Date Analyzed: 30-MAR-10 21:49

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX	UJ,HE7c	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ,HE7b	500	U
479-45-8	Tetryl	UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN	UJ,HE7b	1000	U
88-72-2	o-Nitrotoluene	UJ,HE7b	500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene	UJ,HE7b	500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene	UJ,HE7b	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8190

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193008

Sample Amount 2

Moisture: .9

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100096.wiff

Date Analyzed: 11-MAR-10 16:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB UJ,HE12g	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8193

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193009

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330032.wiff

Date Analyzed: 30-MAR-10 22:15

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX	UJ,HE7c	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ,HE7b	500	U
479-45-8	Tetryl	UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN	UJ,HE7b	1000	U
88-72-2	o-Nitrotoluene	UJ,HE7b	500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene	UJ,HE7b	500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene	UJ,HE7b	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8193

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193009

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100097.wiff

Date Analyzed: 11-MAR-10 16:39

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB UJ,HE12g	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8191

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193010

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330033.wiff

Date Analyzed: 30-MAR-10 22:41

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX	UJ,HE7c	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ,HE7b	500	U
479-45-8	Tetryl	UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN	UJ,HE7b	1000	U
88-72-2	o-Nitrotoluene	UJ,HE7b	500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene	UJ,HE7b	500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene	UJ,HE7b	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8191

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193010

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100098.wiff

Date Analyzed: 11-MAR-10 16:54

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB UJ,HE12g	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8192

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193011

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330034.wiff

Date Analyzed: 30-MAR-10 23:08

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX	UJ,HE7c	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ,HE7b	500	U
479-45-8	Tetryl	UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN	UJ,HE7b	1000	U
88-72-2	o-Nitrotoluene	UJ,HE7b	500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene	UJ,HE7b	500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene	UJ,HE7b	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8192

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193011

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100099.wiff

Date Analyzed: 11-MAR-10 17:10

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB UJ,HE12g	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8195

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193012

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330035.wiff

Date Analyzed: 30-MAR-10 23:34

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX	UJ,HE7c	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ,HE7b	500	U
479-45-8	Tetryl	UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN	UJ,HE7b	1000	U
88-72-2	o-Nitrotoluene	UJ,HE7b	500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene	UJ,HE7b	500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene	UJ,HE7b	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8195

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193012

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100100.wiff

Date Analyzed: 11-MAR-10 17:26

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB UJ,HE12g	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8226

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193013

Sample Amount 2

Moisture: 2.4

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0401013.wiff

Date Analyzed: 01-APR-10 16:54

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX		500	U
35572-78-2	2-Amino-4,6-dinitrotoluene		500	U
479-45-8	Tetryl	UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN	UJ,HE7b	1000	U
88-72-2	o-Nitrotoluene	UJ,HE7b	500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene	UJ,HE7b	500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene	UJ,HE7b	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8226

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193013

Sample Amount 2

Moisture: 2.4

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100101.wiff

Date Analyzed: 11-MAR-10 17:41

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB UJ,HE12g	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8211

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193014

Sample Amount 2

Moisture: 1.2

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0401014.wiff

Date Analyzed: 01-APR-10 17:21

Units: ug/kg

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		500	U
121-14-2	2,4-Dinitrotoluene		500	U
121-82-4	RDX		500	U
19406-51-0	4-Amino-2,6-dinitrotoluene		500	U
2691-41-0	HMX		500	U
35572-78-2	2-Amino-4,6-dinitrotoluene		500	U
479-45-8	Tetryl	UJ,HE12a	500	U
606-20-2	2,6-Dinitrotoluene		500	U
78-11-5	PETN	UJ,HE7b	1000	U
88-72-2	o-Nitrotoluene	UJ,HE7b	500	U
98-95-3	Nitrobenzene		500	U
99-08-1	m-Nitrotoluene	UJ,HE7b	500	U
99-35-4	1,3,5-Trinitrobenzene		500	U
99-65-0	m-Dinitrobenzene		500	U
99-99-0	p-Nitrotoluene	UJ,HE7b	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8211

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193014

Sample Amount 2

Moisture: 1.2

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100102.wiff

Date Analyzed: 11-MAR-10 17:57

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB UJ,HE12g	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1864 VALIDATION DATE: 04/21/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Lisa Burgesser ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. It should be noted that the MS/MSD was performed on a sample from another LANL RN. Parent sample raw data were not included in the data package. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 04/21/10

VALIDATOR'S SIGNATURE: DATE: 04/21/10

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

5116-2

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

Records Use only

Los Alamos NATIONAL LABORATORY

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

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

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
			(4,4' DDT and Endrin).		
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b

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

5116-2

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

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8

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

5116-2

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

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	**30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.**	**R, P8a**	**R, P8a**
☐	☒	☐	**31. Duplicate, Dilution, or reanalysis.**	**UJ, P88**	**J, P88**
☐	☐	☒	**32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.**	**UJ, R, P15**	**R, P15**
☒	☐	☐	**33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.**	**U, U_LAB**	**J, J_LAB, NQ, NQ**
☐	☒	☐	**34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.**	**UJ, R, P19**	**J, R, P19**

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1864	**Date Collected:**	02/10/2010 12:00	**Matrix:**	R
Lab Sample ID:	247193002	**Date Received:**	02/16/2010 08:50	**%Moisture:**	1.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–8186	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	956221	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/24/2010 13:48	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/23/2010 11:04	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	040f4001.d	**Column:**	1 CLP1	**Level:**	LOW
	040b4001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.37	ug/kg	1.12	3.37	1
11104–28–2	Aroclor–1221	U	3.37	ug/kg	1.12	3.37	1
11141–16–5	Aroclor–1232	U	3.37	ug/kg	1.12	3.37	1
53469–21–9	Aroclor–1242	U	3.37	ug/kg	1.12	3.37	1
12672–29–6	Aroclor–1248	U	3.37	ug/kg	1.12	3.37	1
11097–69–1	Aroclor–1254	U	3.37	ug/kg	1.12	3.37	1
11096–82–5	Aroclor–1260	U	3.37	ug/kg	1.12	3.37	1

LTB
04/21/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1864	**Date Collected:**	02/10/2010 12:00	**Matrix:**	R
Lab Sample ID:	247193006	**Date Received:**	02/16/2010 08:50	**%Moisture:**	2.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-8187	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	956221	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/24/2010 14:00	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/23/2010 11:04	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	041f4101.d	**Column:**	1 CLP1	**Level:**	LOW
	041b4101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.42	ug/kg	1.14	3.42	1
11104-28-2	Aroclor-1221	U	3.42	ug/kg	1.14	3.42	1
11141-16-5	Aroclor-1232	U	3.42	ug/kg	1.14	3.42	1
53469-21-9	Aroclor-1242	U	3.42	ug/kg	1.14	3.42	1
12672-29-6	Aroclor-1248	U	3.42	ug/kg	1.14	3.42	1
11097-69-1	Aroclor-1254	U	3.42	ug/kg	1.14	3.42	1
11096-82-5	Aroclor-1260	U	3.42	ug/kg	1.14	3.42	1

LTB
04/21/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1864**	**Date Collected:**	**02/10/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**247193008**	**Date Received:**	**02/16/2010 08:50**	**%Moisture:**	**.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15–10–8190**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**956221**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 14:13**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/23/2010 11:04**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**042f4201.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	042b4201.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.36	ug/kg	1.12	3.36	1
11104–28–2	Aroclor–1221	U	3.36	ug/kg	1.12	3.36	1
11141–16–5	Aroclor–1232	U	3.36	ug/kg	1.12	3.36	1
53469–21–9	Aroclor–1242	U	3.36	ug/kg	1.12	3.36	1
12672–29–6	Aroclor–1248	U	3.36	ug/kg	1.12	3.36	1
11097–69–1	Aroclor–1254	U	3.36	ug/kg	1.12	3.36	1
11096–82–5	Aroclor–1260	U	3.36	ug/kg	1.12	3.36	1

LTB
04/21/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1864	**Date Collected:**	02/10/2010 12:00	**Matrix:**	R
Lab Sample ID:	247193014	**Date Received:**	02/16/2010 08:50	**%Moisture:**	1.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-8211	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	956221	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/24/2010 14:38	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/23/2010 11:04	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	044f4401.d	**Column:**	1 CLP1	**Level:**	LOW
	044b4401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.37	ug/kg	1.12	3.37	1
11104-28-2	Aroclor-1221	U	3.37	ug/kg	1.12	3.37	1
11141-16-5	Aroclor-1232	U	3.37	ug/kg	1.12	3.37	1
53469-21-9	Aroclor-1242	U	3.37	ug/kg	1.12	3.37	1
12672-29-6	Aroclor-1248	U	3.37	ug/kg	1.12	3.37	1
11097-69-1	Aroclor-1254	U	3.37	ug/kg	1.12	3.37	1
11096-82-5	Aroclor-1260	U	3.37	ug/kg	1.12	3.37	1

LTB
04/21/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1864	**Date Collected:**	02/10/2010 12:00	**Matrix:**	R
Lab Sample ID:	247193013	**Date Received:**	02/16/2010 08:50	**%Moisture:**	2.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-8226	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	956221	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/24/2010 14:25	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/23/2010 11:04	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	043f4301.d	**Column:**	1 CLP1	**Level:**	LOW
	043b4301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.42	ug/kg	1.14	3.42	1
11104-28-2	Aroclor-1221	U	3.42	ug/kg	1.14	3.42	1
11141-16-5	Aroclor-1232	U	3.42	ug/kg	1.14	3.42	1
53469-21-9	Aroclor-1242	U	3.42	ug/kg	1.14	3.42	1
12672-29-6	Aroclor-1248	U	3.42	ug/kg	1.14	3.42	1
11097-69-1	Aroclor-1254	U	3.42	ug/kg	1.14	3.42	1
11096-82-5	Aroclor-1260	U	3.42	ug/kg	1.14	3.42	1

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1864 VALIDATION DATE: 04/21/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Lisa Burgesser ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. The percent moisture values were not noted on the F1s for samples RE15-10-8188, -8189, -8191 through -8197. No sample data were qualified per client instructions.
2. The matrix QC analyses were performed on a LANL sample from another RN for analytical method GL-RAD-A-002. No sample data were qualified as a result.

Reviewed by: Mary Donivan Level: I Date: 04/21/10

VALIDATOR'S SIGNATURE: LisaHB DATE: 04/21/10

Form 5119-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☐	☐	☒	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☐	☒	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
			Gamma Spectroscopy.		
☐	☐	☒	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☐	☒	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☐	☒	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
			SMO or external laboratory for information.		
☐	☒	☐	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☒	☐	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☒	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID:	RE15-10-8196	Project:	LANL01004
Sample ID:	247193001	Client ID:	LANL010
Matrix:	R		
Collect Date:	10-FEB-10		
Receive Date:	16-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid "As Received"												
Tritium	U	1.23	4.14	+/-1.24	6.00	pCi/g		KXK2	03/08/10	1603	961331	1

The following Analytical Methods were performed

Method	Description
1	EPA 906.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

LTB
04/21/10

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID:	RE15-10-8186	Project:	LANL01004
Sample ID:	247193002	Client ID:	LANL010
Matrix:	R		
Collect Date:	10-FEB-10		
Receive Date:	16-FEB-10		
Collector:	Client		
Moisture:	1.16%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid "As Received"												
Tritium	U	1.69	4.11	+/-1.25	6.00	pCi/g		KXK2	03/08/10	1650	961331	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	EPA 906.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).
Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID:	RE15-10-8194	Project:	LANL01004
Sample ID:	247193003	Client ID:	LANL010
Matrix:	R		
Collect Date:	10-FEB-10		
Receive Date:	16-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid "As Received"												
Tritium	U	0.966	4.14	+/-1.23	6.00	pCi/g		KXK2	03/08/10	1738	961331	1

The following Analytical Methods were performed

Method	Description
1	EPA 906.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
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> Result is greater than value reported
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B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID:	RE15-10-8189	Project:	LANL01004
Sample ID:	247193004	Client ID:	LANL010
Matrix:	R		
Collect Date:	10-FEB-10		
Receive Date:	16-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid "As Received"												
Tritium		38.6	4.15	+/-4.93	6.00	pCi/g		KXK2	03/08/10	1825	961331	1

The following Analytical Methods were performed

Method	Description
1	EPA 906.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
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> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID:	RE15-10-8188	Project:	LANL01004
Sample ID:	247193005	Client ID:	LANL010
Matrix:	R		
Collect Date:	10-FEB-10		
Receive Date:	16-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1.82E+05	286	+/-12800	250	pCi/L		KXK2	03/04/10	0714	956741	1

The following Analytical Methods were performed

Method	Description
1	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
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A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID:	RE15-10-8187	Project:	LANL01004
Sample ID:	247193006	Client ID:	LANL010
Matrix:	R		
Collect Date:	10-FEB-10		
Receive Date:	16-FEB-10		
Collector:	Client		
Moisture:	2.49%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		89400	182	+/-6290	250	pCi/L		KXK2	03/04/10	0728	956741	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
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A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).
Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID:	RE15-10-8197	Project:	LANL01004
Sample ID:	247193007	Client ID:	LANL010
Matrix:	R		
Collect Date:	10-FEB-10		
Receive Date:	16-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		22100	157	+/-1570	250	pCi/L		KXK2	03/04/10	0749	956741	1

The following Analytical Methods were performed

Method	Description
1	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID:	RE15-10-8190	Project:	LANL01004
Sample ID:	247193008	Client ID:	LANL010
Matrix:	R		
Collect Date:	10-FEB-10		
Receive Date:	16-FEB-10		
Collector:	Client		
Moisture:	.925%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid "As Received"												
Tritium		127	4.13	+/-15.1	6.00	pCi/g		KXK2	03/08/10	1912	961331	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	EPA 906.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).
Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID:	RE15-10-8193	Project:	LANL01004
Sample ID:	247193009	Client ID:	LANL010
Matrix:	R		
Collect Date:	10-FEB-10		
Receive Date:	16-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid "As Received"												
Tritium	U	0.0665	4.13	+/-1.19	6.00	pCi/g		KXK2	03/08/10	1959	961331	1

The following Analytical Methods were performed

Method	Description
1	EPA 906.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
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BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID:	RE15-10-8191	Project:	LANL01004
Sample ID:	247193010	Client ID:	LANL010
Matrix:	R		
Collect Date:	10-FEB-10		
Receive Date:	16-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid "As Received"												
Tritium		14.7	4.08	+/-2.31	6.00	pCi/g		KXK2	03/08/10	2046	961331	1

The following Analytical Methods were performed

Method	Description
1	EPA 906.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
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BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID: RE15-10-8192
Sample ID: 247193011
Matrix: R
Collect Date: 10-FEB-10
Receive Date: 16-FEB-10
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid "As Received"												
Tritium	U	3.87	4.11	+/-1.37	6.00	pCi/g		KXK2	03/08/10	2159	961331	1

The following Analytical Methods were performed

Method	Description
1	EPA 906.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
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BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID:	RE15-10-8195	Project:	LANL01004
Sample ID:	247193012	Client ID:	LANL010
Matrix:	R		
Collect Date:	10-FEB-10		
Receive Date:	16-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		28000	137	+/-1980	250	pCi/L		KXK2	03/04/10	0852	956741	1

The following Analytical Methods were performed

Method	Description
1	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID:	RE15-10-8226	Project:	LANL01004
Sample ID:	247193013	Client ID:	LANL010
Matrix:	R		
Collect Date:	10-FEB-10		
Receive Date:	16-FEB-10		
Collector:	Client		
Moisture:	2.43%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		86900	178	+/-6110	250	pCi/L		KXK2	03/04/10	0955	956741	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).
Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID:	RE15-10-8211	Project:	LANL01004
Sample ID:	247193014	Client ID:	LANL010
Matrix:	R		
Collect Date:	10-FEB-10		
Receive Date:	16-FEB-10		
Collector:	Client		
Moisture:	1.23%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid "As Received"												
Tritium	U	0.867	4.14	+/-1.22	6.00	pCi/g		KXK2	03/08/10	2246	961331	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	EPA 906.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is

LTB
04/21/10

Monday, February 15, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1864C

REQUEST NUMBER: 10-1864

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/17/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 247193

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8196	1	POLY	H3	Ice	R
RE15-10-8186	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8186	1	POLY	H3	Ice	R
RE15-10-8194	1	POLY	H3	Ice	R
RE15-10-8189	1	POLY	H3	Ice	R
RE15-10-8188	1	POLY	H3	Ice	R
RE15-10-8187	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8187	1	POLY	H3	Ice	R
RE15-10-8197	1	POLY	H3	Ice	R
RE15-10-8190	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8190	1	POLY	H3	Ice	R
RE15-10-8193	1	POLY	H3	Ice	R
RE15-10-8191	1	POLY	H3	Ice	R
RE15-10-8192	1	POLY	H3	Ice	R
RE15-10-8195	1	POLY	H3	Ice	R
RE15-10-8226	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8226	1	POLY	H3	Ice	R
RE15-10-8211	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8211	1	POLY	H3	Ice	R
RE15-10-8193	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8196	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8192	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8188	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8189	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8191	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8197	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8194	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8195	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:	Date	Time	Received By:	Date	Time
[signature]	2/15/10	3:00	Greg Tyler [signature]	2-16-10	0850
Printed Name / Signature			Printed Name / Signature		

Monday, February 15, 2010

REQUEST NUMBER: 10-1864

LOS ALAMOS
NATIONAL LABORATORY

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

These Samples are on:
LANL Request Number:10-1864
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/15/2010
TURNAROUND/REPORT DUE: 3/17/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE15-10-8186	R	2/10/2010	
		1	RE15-10-8187	R	2/10/2010	
		1	RE15-10-8188	R	2/10/2010	
		1	RE15-10-8189	R	2/10/2010	
		1	RE15-10-8190	R	2/10/2010	
		1	RE15-10-8191	R	2/10/2010	
		1	RE15-10-8192	R	2/10/2010	
		1	RE15-10-8193	R	2/10/2010	
		1	RE15-10-8194	R	2/10/2010	

Monday, February 15, 2010

REQUEST NUMBER: 10-1864

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE15-10-8195	R	2/10/2010	
		1	RE15-10-8196	R	2/10/2010	
		1	RE15-10-8197	R	2/10/2010	
		1	RE15-10-8211	R	2/10/2010	
		1	RE15-10-8226	R	2/10/2010	
	SW-846:8082	1	RE15-10-8186	R	2/10/2010	
		1	RE15-10-8187	R	2/10/2010	
		1	RE15-10-8190	R	2/10/2010	
		1	RE15-10-8211	R	2/10/2010	
		1	RE15-10-8226	R	2/10/2010	
	SW-846:8321A_MOD	1	RE15-10-8186	R	2/10/2010	
		1	RE15-10-8187	R	2/10/2010	
		1	RE15-10-8188	R	2/10/2010	
		1	RE15-10-8189	R	2/10/2010	
		1	RE15-10-8190	R	2/10/2010	
		1	RE15-10-8191	R	2/10/2010	
		1	RE15-10-8192	R	2/10/2010	
		1	RE15-10-8193	R	2/10/2010	
		1	RE15-10-8194	R	2/10/2010	
		1	RE15-10-8195	R	2/10/2010	
		1	RE15-10-8196	R	2/10/2010	
		1	RE15-10-8197	R	2/10/2010	
		1	RE15-10-8211	R	2/10/2010	
		1	RE15-10-8226	R	2/10/2010	

Final Page of REQUEST NUMBER 10-1864

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

February 18, 2010

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

Re: LANL ER Project
Work Order: 247193
SDG: 10-1864

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 16, 2010, and analyzed for Explosives by LCMSMS, GC Semivolatile PCB and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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

Sincerely,

Valerie Davis

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1864
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Work Order #: 247193
SDG: 10-1864

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL ER Project
Workorder #: 247193
SDG # : 10-1864

February 18, 2010

Laboratory Identification:

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

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 16, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. The containers for radiochemistry were received at 9-11C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
247193001	RE15-10-8196
247193002	RE15-10-8186
247193003	RE15-10-8194
247193004	RE15-10-8189
247193005	RE15-10-8188
247193006	RE15-10-8187
247193007	RE15-10-8197
247193008	RE15-10-8190
247193009	RE15-10-8193
247193010	RE15-10-8191
247193011	RE15-10-8192
247193012	RE15-10-8195
247193013	RE15-10-8226
247193014	RE15-10-8211

Case Narrative

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

Data Package The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Explosives by LCMSMS, GC Semivolatile PCB and Radiochemistry.

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

Valerie Davis

Valerie Davis

Project Manager

List of current GEL Certifications as of 18 February 2010

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

Chain of Custody and Supporting Documentation

Monday, February 15, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1864C

LOS ALAMOS

NATIONAL LABORATORY

REQUEST NUMBER: 10-1864

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/17/2010

TURNAROUND REQ'D: 30

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS: 247193

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
RE15-10-8196	1	POLY	H3	Ice	R
RE15-10-8186	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8186	1	POLY	H3	Ice	R
RE15-10-8194	1	POLY	H3	Ice	R
RE15-10-8189	1	POLY	H3	Ice	R
RE15-10-8188	1	POLY	H3	Ice	R
RE15-10-8187	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8187	1	POLY	H3	Ice	R
RE15-10-8197	1	POLY	H3	Ice	R
RE15-10-8190	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8190	1	POLY	H3	Ice	R
RE15-10-8193	1	POLY	H3	Ice	R
RE15-10-8191	1	POLY	H3	Ice	R
RE15-10-8192	1	POLY	H3	Ice	R
RE15-10-8195	1	POLY	H3	Ice	R
RE15-10-8226	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8226	1	POLY	H3	Ice	R
RE15-10-8211	1	AMBER GLASS	8082+NMED-HEXP	Ice	R
RE15-10-8211	1	POLY	H3	Ice	R
RE15-10-8193	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8196	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8192	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8188	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8189	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8191	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8197	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8194	1	AMBER GLASS	NMED Explosives list	Ice	R
RE15-10-8195	1	AMBER GLASS	NMED Explosives list	Ice	R

Relinquished By:		Date	Time	Received By:		Date	Time
		2/15/10	3:00	Greg Tyler		2-16-10	0850
Printed Name	Signature			Printed Name	Signature		

Monday, February 15, 2010

REQUEST NUMBER: 10-1864

LOS ALAMOS
NATIONAL LABORATORY

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

These Samples are on:
LANL Request Number:10-1864
Per Agreement Number:126310011
Project Cost Code: MR3A05529E00

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/15/2010
TURNAROUND/REPORT DUE: 3/17/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Yes, Below Background
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE15-10-8186	R	2/10/2010	
		1	RE15-10-8187	R	2/10/2010	
		1	RE15-10-8188	R	2/10/2010	
		1	RE15-10-8189	R	2/10/2010	
		1	RE15-10-8190	R	2/10/2010	
		1	RE15-10-8191	R	2/10/2010	
		1	RE15-10-8192	R	2/10/2010	
		1	RE15-10-8193	R	2/10/2010	
		1	RE15-10-8194	R	2/10/2010	

Monday, February 15, 2010

REQUEST NUMBER: 10-1864

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	RE15-10-8195	R	2/10/2010	
		1	RE15-10-8196	R	2/10/2010	
		1	RE15-10-8197	R	2/10/2010	
		1	RE15-10-8211	R	2/10/2010	
		1	RE15-10-8226	R	2/10/2010	
	SW-846:8082	1	RE15-10-8186	R	2/10/2010	
		1	RE15-10-8187	R	2/10/2010	
		1	RE15-10-8190	R	2/10/2010	
		1	RE15-10-8211	R	2/10/2010	
		1	RE15-10-8226	R	2/10/2010	
	SW-846:8321A_MOD	1	RE15-10-8186	R	2/10/2010	
		1	RE15-10-8187	R	2/10/2010	
		1	RE15-10-8188	R	2/10/2010	
		1	RE15-10-8189	R	2/10/2010	
		1	RE15-10-8190	R	2/10/2010	
		1	RE15-10-8191	R	2/10/2010	
		1	RE15-10-8192	R	2/10/2010	
		1	RE15-10-8193	R	2/10/2010	
		1	RE15-10-8194	R	2/10/2010	
		1	RE15-10-8195	R	2/10/2010	
		1	RE15-10-8196	R	2/10/2010	
		1	RE15-10-8197	R	2/10/2010	
		1	RE15-10-8211	R	2/10/2010	
		1	RE15-10-8226	R	2/10/2010	

Final Page of REQUEST NUMBER 10-1864

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-1864**
Received By: Greg Tyler	**Date Received: 2/16/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **1-6C** **9-11C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?		X		Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X		X	Sample ID's affected: ~~RE15-10-8226~~ ~~the lab did not rec any containers~~
12	COC form is properly signed in relinquished/received sections?	X			

Comments:

Fed Ex Tracking Numbers:

7209 7850 0680 1C	**7209 7850 0750 3C**	**7209 7850 0809 6C**
7209 7850 0831 1C	**7209 7850 0706 4C**	**7209 7850 0647 9C**
7209 7850 0783 1C	**7209 7850 0739 4C**	**7209 7850 0636 9C**
7209 7850 0740 2C	**7209 7850 0717 4C**	**7209 7850 0670 10C**
7209 7850 0820 2C	**7209 7850 0728 4C**	**7209 7850 0658 11C**
7209 7850 0794 2C	**7209 7850 0772 5C**	**7209 7850 0669 11C**
7209 7850 0810 2C	**7209 7850 0691 5C**	
7209 7850 0842 3C	**7209 7850 0761 5C**	

PM (or PMA) review: Initials _____ Date 2/17/10

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-9171
REF: 6B010AMR3A0532VA00

1C

FedEx Express

2 of 2
MPS# 0263 7209 7850 0680
Mstr# 7209 7850 0670 0201

TUE - 16FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-9171
REF: 6B010AMR3A05529E00

1C

FedEx Express

1 of 2
TRK# 0201 7209 7850 0831
MASTER

TUE - 16FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-9171
REF: 6B010AMR3A0532VA00

2C

FedEx Express

2 of 2
MPS# 0263 7209 7850 0740
Mstr# 7209 7850 0739 0201

TUE - 16FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

NRIT V3 09-09

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-9171
REF: 6B010AMR3A05529E00

1C

FedEx Express

1 of 3
TRK# 0201 7209 7850 0783
MASTER

TUE - 16FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

2C

FedEx Express

2 of 2
MPS# 0263 7209 7850 0820
Mstr# 7209 7850 0810 0201

TUE - 16FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

2C

FedEx Express

2 of 3
MPS# 0263 7209 7850 0794
Mstr# 7209 7850 0783 0201

TUE - 16FEB A
PRIORITY OVERNIGH

XX CHSA

2940
SC-
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

3C

FedEx Express

2 of 2
MPS# 0263 7209 7850 0842
Mstr# 7209 7850 0831 0201

TUE - 16FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

2C

FedEx Express

1 of 2
TRK# 0201 7209 7850 0810
MASTER

TUE - 16FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

4C

FedEx Express

2 of 2
MPS# 0263 7209 7850 0706
Mstr# 7209 7850 0691 0201

TUE - 16FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

3c

FedEx Express

1 of 3
TRK# 0201 7209 7850 0750
MASTER

TUE - 16FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

4C

FedEx Express

1 of 2
TRK# 0201 7209 7850 0739
MASTER

TUE - 16FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

4c

FedEx Express

1 of 2
TRK# 0201 7209 7850 0717
MASTER

TUE - 16FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 47.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

5c

FedEx Express

3 of 3
MPS# 0263 7209 7850 0772
Mstr# 7209 7850 0750 0201

TUE - 16FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRAT V3 09-09

ORIGIN ID: SAFA (505) 665-9968
LNE VALDEZ
LAMOS NATL LAB
BLDG 1237 DPU 03

LAMOS, NM 87545
ED STATES US

SHIP DATE: 15FEB10
ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

LERIE DAVIS
NERAL ENGINEERING LAB
40 SAVAGE RD

ARLESTON SC 29407
) 556-8171
F: 6B010AMR3A0532VA00

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FedEx Express

2 of 2
PS# 0263 7209 7850 0728
Mstr# 7209 7850 0717 0201

TUE - 16FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRAT V3 09-09

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

5°

FedEx Express

1 of 2
TRK# 0201 7209 7850 0691
MASTER

TUE - 16FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 39.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

5°

FedEx Express

2 of 3
MPS# 0263 7209 7850 0761
Mstr# 7209 7850 0750 0201

TUE - 16FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 64.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

9c

FedEx Express

3 of 3
MPS# 0263 7209 7850 0647
Mstr# 7209 7850 0625 0201

TUE - 16FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

V3 09-09

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

6

FedEx Express

3 of 3
MPS# 0263 7209 7850 0809
Mstr# 7209 7850 0783 0201

TUE - 16FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 152.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

10c

FedEx Express

1 of 2
TRK# 0201 7209 7850 0670
MASTER

TUE - 16FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

V3 09-09

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 71.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

9c

FedEx Express

2 of 3
MPS# 0263 7209 7850 0636
Mstr# 7209 7850 0625 0201

TUE - 16FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

V3 09-09

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

11c

FedEx Express

1 of 2

TRK# 0201 7209 7850 0658

TUE - 16FEB A1
PRIORITY OVERNIGHT

MASTER

XX CHSA

29407
SC-US
CHS

1 # 156148-434 NRIT V3 09-08

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 15FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2449

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

11c

FedEx Express

2 of 2

MPS# 0263 7209 7850 0669

Matr# 7209 7850 0658 0201

TUE - 16FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

1 # 156148-434 NRIT V3 09-08

Data Review Qualifier Flag Definition Sheet

Data Review Qualifier Definitions

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

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LC/MS/MS EXPLOSIVES ANALYSIS

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LC/MS/MS Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1864

Method/Analysis Information

Procedure:	**Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)**
Analytical Method:	SW846 8321A Modified
Prep Method:	SW846 8330 PREP
Analytical Batch Number:	954328
Prep Batch Number:	954324

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8321A Modified:

Sample ID	Client ID
247193001	RE15-10-8196
247193002	RE15-10-8186
247193003	RE15-10-8194
247193004	RE15-10-8189
247193005	RE15-10-8188
247193006	RE15-10-8187
247193007	RE15-10-8197
247193008	RE15-10-8190
247193009	RE15-10-8193
247193010	RE15-10-8191
247193011	RE15-10-8192
247193012	RE15-10-8195
247193013	RE15-10-8226
247193014	RE15-10-8211
1202045748	Method Blank (MB)
1202045749	Laboratory Control Sample (LCS)
1202045750	247193001(RE15-10-8196) Matrix Spike (MS)
1202045751	247193001(RE15-10-8196) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

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Primary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

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

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS recovered Tetryl at 29% with limits of 51-112% and o-Nitrotoluene at 122% with limits of 72-119%. The MS and MSD met acceptance criteria for Tetryl and 0-Nitrotoluene. The data are reported. Please see data exception report 815646.

QC Sample Designation
Sample 247193001 (RE15-10-8196) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC in this SDG.

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Technical Information

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

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
The SDG was re-analyzed due to a CVS and/or a CRI failing acceptance criteria. Several samples and/or QC did not pass acceptance criteria in the first re-analysis also due to a CVS and/or a CRI failing acceptance criteria. They were further re-analyzed and passed acceptance criteria. The last re-analysis in each case is reported.

Secondary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

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

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

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QC Sample Designation
Sample 247193001 (RE15-10-8196) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recovered TATB at 199%. The limits are 29-155%. The LCS and the MSD had passing recoveries for TATB. TATB was not detected in the parent sample. The data are considered unaffected and are reported. Please see data exception report 815646.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The MS /MSD RPD for TATB was 49.9%. The limit is 30%. TATB was not detected in the parent sample. The data are reported. Please see data exception report 815646.

Internal Standard (ISTD) Acceptance
The internal standards were not added to the secondary analyte extracts.

Technical Information

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

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report 815646 was generated for this SDG.

The LCS recovered Tetryl at 29% with limits of 51-112% and o-Nitrotoluene at 122% with limits of 72-119%. The MS and MSD met acceptance criteria for Tetryl and 0-Nitrotoluene. The data are reported.

The MS recovered TATB at 199%. The limits are 29-155%. The LCS and the MSD had passing recoveries for TATB. TATB was not detected in the parent sample. The data are considered unaffected and are reported.

The MS /MSD RPD for TATB was 49.9%. The limit is 30%. TATB was not detected in the parent sample. The data are reported.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

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Flagging Convention
The samples were not originally analyzed using SW-846 Method 8330.

Additional Comments
Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

Certification Statement

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

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: Herbert N Maue **Date:** 04/12/10

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SAMPLE DATA SUMMARY

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8196

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193001

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330019.wiff

Date Analyzed: 30-MAR-10 16:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8196

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193001

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100084.wiff

Date Analyzed: 11-MAR-10 13:14

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8186

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193002

Sample Amount 2

Moisture: 1.2

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330022.wiff

Date Analyzed: 30-MAR-10 17:51

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8186

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193002

Sample Amount 2

Moisture: 1.2

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100087.wiff

Date Analyzed: 11-MAR-10 14:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8194

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193003

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330026.wiff

Date Analyzed: 30-MAR-10 19:37

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8194

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193003

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100088.wiff

Date Analyzed: 11-MAR-10 14:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8189

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193004

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330027.wiff

Date Analyzed: 30-MAR-10 20:03

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8189

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193004

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100089.wiff

Date Analyzed: 11-MAR-10 14:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8188

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330028.wiff

Date Analyzed: 30-MAR-10 20:29

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8188

Lab Code: GEI

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100090.wiff

Date Analyzed: 11-MAR-10 14:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8187

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193006

Sample Amount 2

Moisture: 2.5

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330029.wiff

Date Analyzed: 30-MAR-10 20:56

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8187

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193006

Sample Amount 2

Moisture: 2.5

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100091.wiff

Date Analyzed: 11-MAR-10 15:04

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8197

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193007

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330030.wiff

Date Analyzed: 30-MAR-10 21:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8197

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193007

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100095.wiff

Date Analyzed: 11-MAR-10 16:07

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8190

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193008

Sample Amount 2

Moisture: .9

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330031.wiff

Date Analyzed: 30-MAR-10 21:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8190

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193008

Sample Amount 2

Moisture: .9

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100096.wiff

Date Analyzed: 11-MAR-10 16:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8193

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193009

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330032.wiff

Date Analyzed: 30-MAR-10 22:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8193

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193009

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100097.wiff

Date Analyzed: 11-MAR-10 16:39

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8191

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193010

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330033.wiff

Date Analyzed: 30-MAR-10 22:41

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8191

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193010

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100098.wiff

Date Analyzed: 11-MAR-10 16:54

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8192

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193011

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330034.wiff

Date Analyzed: 30-MAR-10 23:08

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8192

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193011

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100099.wiff

Date Analyzed: 11-MAR-10 17:10

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8195

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193012

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330035.wiff

Date Analyzed: 30-MAR-10 23:34

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8195

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193012

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100100.wiff

Date Analyzed: 11-MAR-10 17:26

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8226

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193013

Sample Amount 2

Moisture: 2.4

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0401013.wiff

Date Analyzed: 01-APR-10 16:54

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8226

Lab Code: GEI

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193013

Sample Amount 2

Moisture: 2.4

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100101.wiff

Date Analyzed: 11-MAR-10 17:41

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8211

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193014

Sample Amount 2

Moisture: 1.2

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0401014.wiff

Date Analyzed: 01-APR-10 17:21

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8211

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193014

Sample Amount 2

Moisture: 1.2

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100102.wiff

Date Analyzed: 11-MAR-10 17:57

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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QUALITY CONTROL SUMMARY

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2

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1864

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
247193001	RE15–10–8196	99.2	70 – 144	
247193001	RE15–10–8196	108	70 – 144	
247193002	RE15–10–8186	112	70 – 144	
247193002	RE15–10–8186	112	70 – 144	
247193003	RE15–10–8194	106	70 – 144	
247193003	RE15–10–8194	108	70 – 144	
247193004	RE15–10–8189	94.8	70 – 144	
247193004	RE15–10–8189	110	70 – 144	
247193005	RE15–10–8188	120	70 – 144	
247193005	RE15–10–8188	107	70 – 144	
247193006	RE15–10–8187	110	70 – 144	
247193006	RE15–10–8187	112	70 – 144	
247193007	RE15–10–8197	106	70 – 144	
247193007	RE15–10–8197	112	70 – 144	
247193008	RE15–10–8190	99.6	70 – 144	
247193008	RE15–10–8190	109	70 – 144	
247193009	RE15–10–8193	128	70 – 144	
247193009	RE15–10–8193	114	70 – 144	
247193010	RE15–10–8191	110	70 – 144	
247193010	RE15–10–8191	114	70 – 144	
247193011	RE15–10–8192	96.8	70 – 144	
247193011	RE15–10–8192	113	70 – 144	
247193012	RE15–10–8195	103	70 – 144	
247193012	RE15–10–8195	112	70 – 144	
247193013	RE15–10–8226	110	70 – 144	
247193013	RE15–10–8226	110	70 – 144	
247193014	RE15–10–8211	104	70 – 144	
247193014	RE15–10–8211	110	70 – 144	
1202045748	MB for batch 954324	102	70 – 144	
1202045748	MB for batch 954324	110	70 – 144	
1202045749	LCS for batch 954324	99.6	70 – 144	
1202045749	LCS for batch 954324	105	70 – 144	
1202045750	RE15–10–8196(247193001MS)	103	70 – 144	
1202045750	RE15–10–8196(247193001MS)	102	70 – 144	
1202045751	RE15–10–8196(247193001MSD)	109	70 – 144	
1202045751	RE15–10–8196(247193001MSD)	106	70 – 144	

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2

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1864

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg

DNT = 3,4–Dinitrotoluene

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10–1864

Extract Batch Code: 954324

Date Extracted: 22–FEB–10

GEL LCS ID: 1202045749

GEL LCSDUP ID:

Analysis Date/Time: 30–MAR–10 16:05

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec	#	LCSD Conc	LCSD Rec	#	RPD	#	RPD	Recovery Limits
1,3,5–Trinitrobenzene	5000	4020	80.4								69 – 126
2,4,6–Trinitrotoluene	5000	4910	98.2								73 – 149
2,4–Dinitrotoluene	5000	4710	94.2								87 – 137
2,6–Dinitrotoluene	5000	5270	105								89 – 120
2–Amino–4,6–dinitrotoluene	5000	4800	96								90 – 130
4–Amino–2,6–dinitrotoluene	5000	5400	108								84 – 130
HMX	5000	4360	87.2								58 – 138
Nitrobenzene	5000	4990	99.8								71 – 122
PETN	5000	6610	132								64 – 137
RDX	5000	5630	113								81 – 137
Tetryl	5000	1450	29	*							51 – 112
m–Dinitrobenzene	5000	4510	90.2								83 – 122
m–Nitrotoluene	5000	5860	117								73 – 118
o–Nitrotoluene	5000	6080	122	*							72 – 119
p–Nitrotoluene	5000	5440	109								67 – 131

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10–1864

Extract Batch Code: 954324

Date Extracted: 22–FEB–10

GEL LCS ID: 1202045749

GEL LCSDUP ID:

Analysis Date/Time: 11–MAR–10 12:59

DUP Analysis Date/Time:

Reporting Units: ug/kg

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
TATB	5000	4630	92.6					28 – 162
tris(o–cresyl) phosphate	5000	4670	93.4					84 – 119
2,4–Diamino–6–nitrotoluene	5000	4560	91.2					52 – 114
3,5–Dinitroaniline	5000	5110	102					70 – 127
2,6–Diamino–4–nitrotoluene	5000	4850	97					64 – 122

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE15-10-8196

Lab Code: GEL

GEL Job No (SDG) 10-1864

Extract Batch Code: 954324

Date Extracted: 22-FEB-10

GEL Spike ID: 1202045750

GEL SpikeDup ID: 1202045751

Analysis Date/Time: 30-MAR-10 16:58

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
HMX	5000	0	5220	104	4430	88.6	16.4	30	51 – 144
Nitrobenzene	5000	0	5440	109	5280	106	2.99	30	70 – 122
PETN	5000	0	5860	117	6380	128	8.5	30	60 – 140
2,4,6-Trinitrotoluene	5000	0	4560	91.2	5150	103	12.2	30	76 – 144
4-Amino-2,6-dinitrotoluene	5000	0	5030	101	5710	114	12.7	30	72 – 143
2-Amino-4,6-dinitrotoluene	5000	0	4720	94.4	4800	96	1.68	30	85 – 137
2,6-Dinitrotoluene	5000	55.4	4750	93.9	5050	99.9	6.12	30	90 – 118
2,4-Dinitrotoluene	5000	0	5300	106	4860	97.2	8.66	30	86 – 135
1,3,5-Trinitrobenzene	5000	0	4520	90.4	4290	85.8	5.22	30	50 – 140
RDX	5000	0	6520	130	5310	106	20.5	30	59 – 152
Tetryl	5000	0	2440	48.8	2260	45.2	7.66	30	36 – 124
m-Dinitrobenzene	5000	0	5080	102	4780	95.6	6.09	30	85 – 118
m-Nitrotoluene	5000	0	5200	104	5520	110	5.97	30	70 – 120
o-Nitrotoluene	5000	0	5960	119	5960	119	0	30	69 – 123
p-Nitrotoluene	5000	0	5510	110	5680	114	3.04	30	65 – 133

#Column to be used to flag recovery and RPD values with an asterisk

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: RE15-10-8196

Lab Code: GEL

GEL Job No (SDG) 10-1864

Extract Batch Code: 954324

Date Extracted: 22-FEB-10

GEL Spike ID: 1202045750

GEL SpikeDup ID: 1202045751

Analysis Date/Time: 11-MAR-10 13:30

MSD Analysis Date/Time:

Reporting Units: ug/kg

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
2,4-Diamino-6-nitrotoluene	5000	0	4930	98.6	4860	97.2	1.43	26	34 - 135
2,6-Diamino-4-nitrotoluene	5000	0	4850	97	4860	97.2	.206	30	55 - 130
TATB	5000	0	9940	199 *	5970	119	49.9 *	30	29 - 155
3,5-Dinitroaniline	5000	0	5030	101	4990	99.8	.798	30	73 - 129
tris(o-cresyl) phosphate	5000	0	4710	94.2	4720	94.4	.212	30	72 - 127

#Column to be used to flag recovery and RPD values with an asterisk

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1864

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 30-MAR-10 08:37

GEL Data File: EXP0330001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	3.2
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330001.wiff	**Acquisition Date**	3/30/2010 8:37:03 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

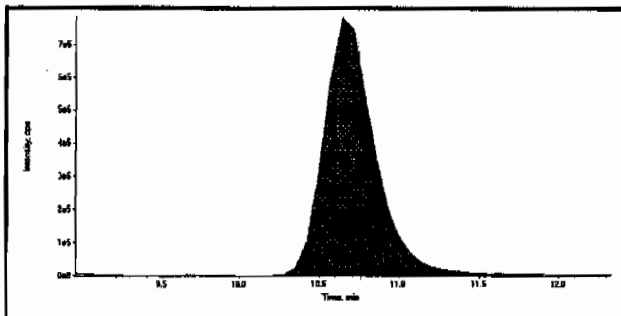

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	17400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

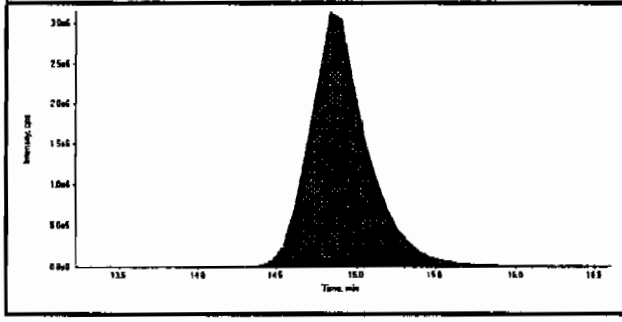

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.80
Area Counts:	78300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

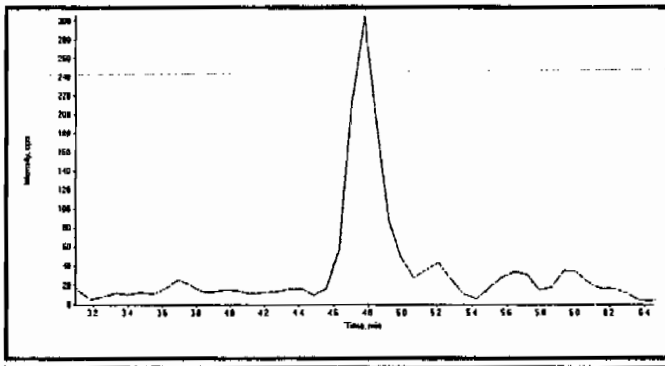

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

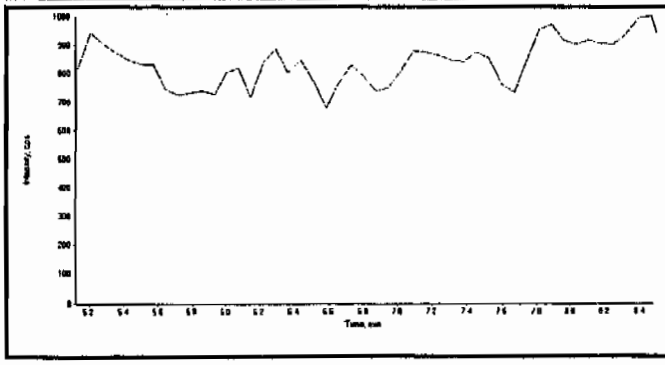

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330001.wiff	**Acquisition Date**	3/30/2010 8:37:03 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

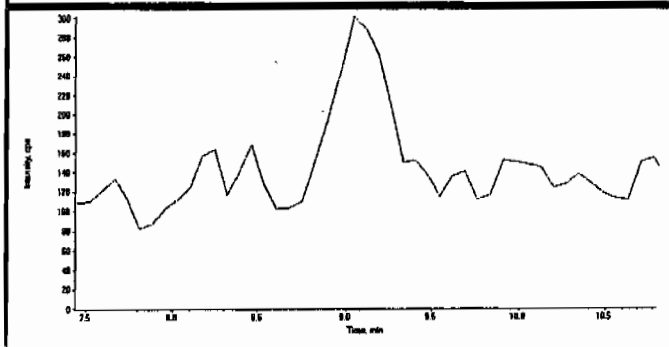

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

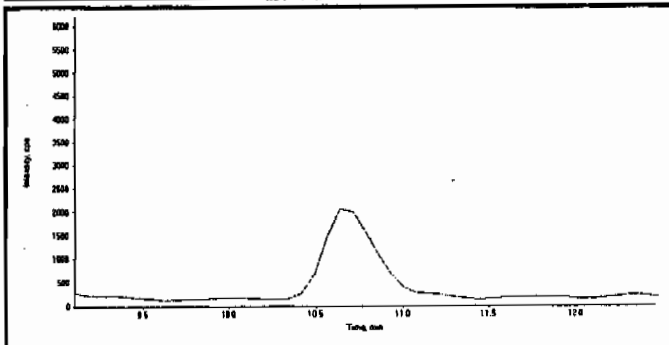

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

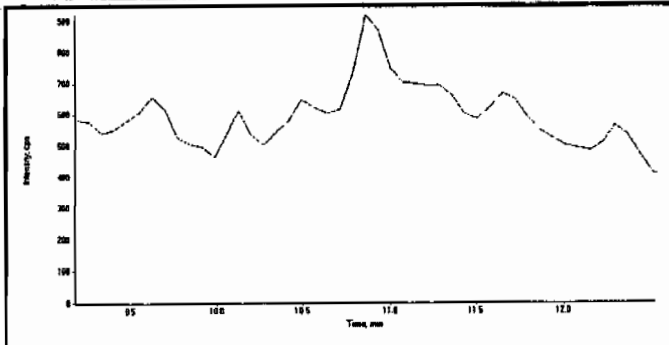

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

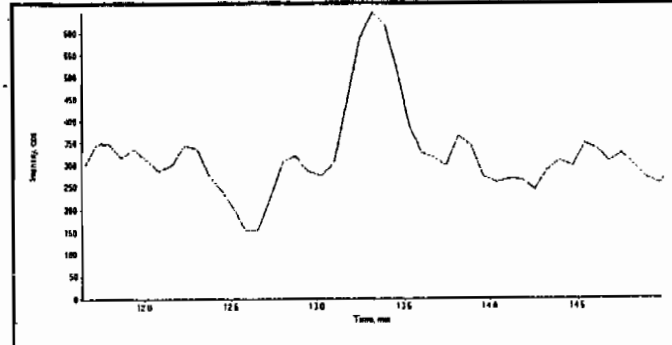

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330001.wiff	**Acquisition Date**	3/30/2010 8:37:03 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

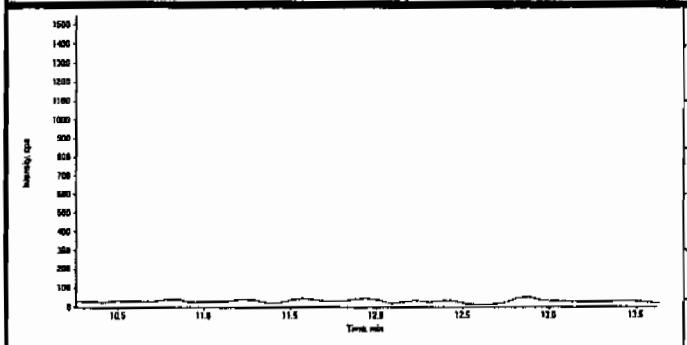

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

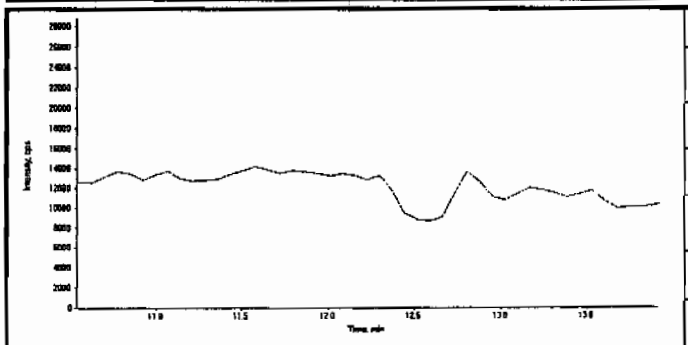

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

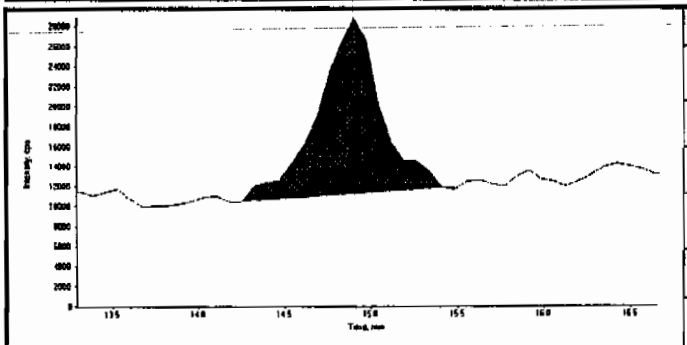

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	14.9
Area Counts:	4.53e+005
Manual Modification	No
Amount:	3.20 (ng/mL)
% Accuracy:	N/A

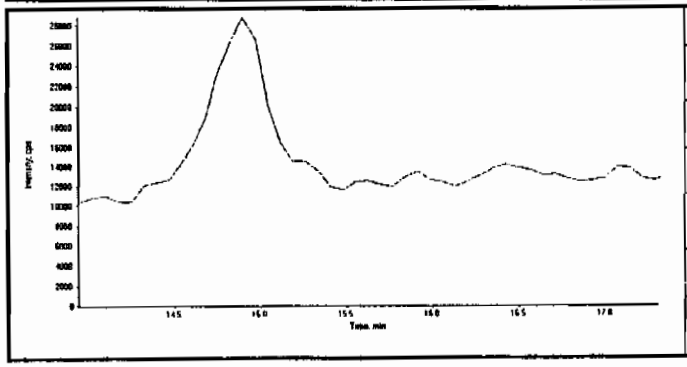

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330001.wiff	**Acquisition Date**	3/30/2010 8:37:03 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

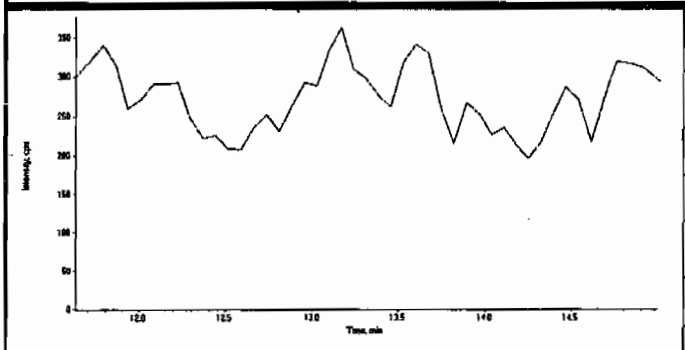

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

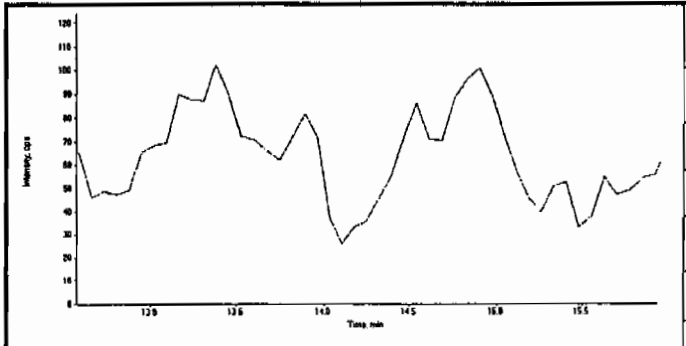

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

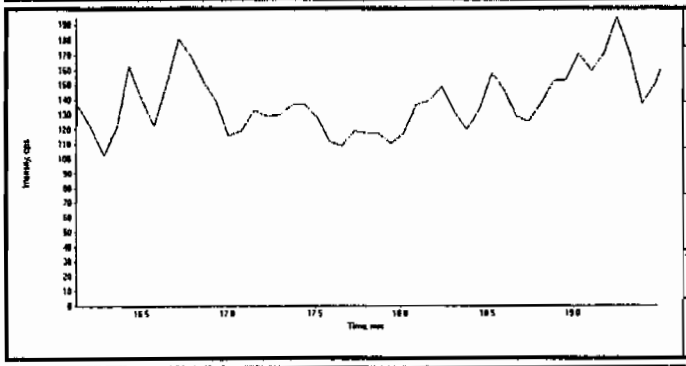

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

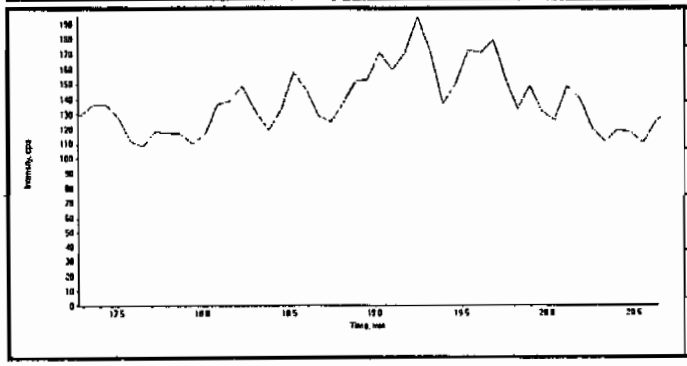

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330001.wiff	**Acquisition Date**	3/30/2010 8:37:03 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

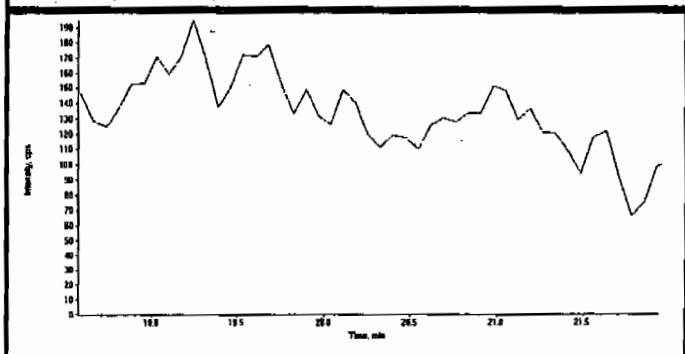

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

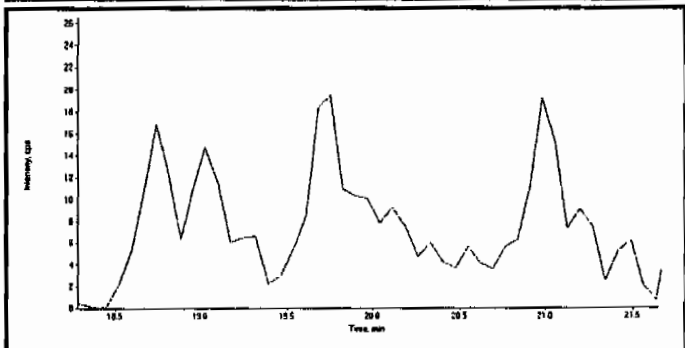

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1864

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 30–MAR–10 09:03

GEL Data File: EXP0330002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	3.08
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330002.wiff	**Acquisition Date**	3/30/2010 9:03:22 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

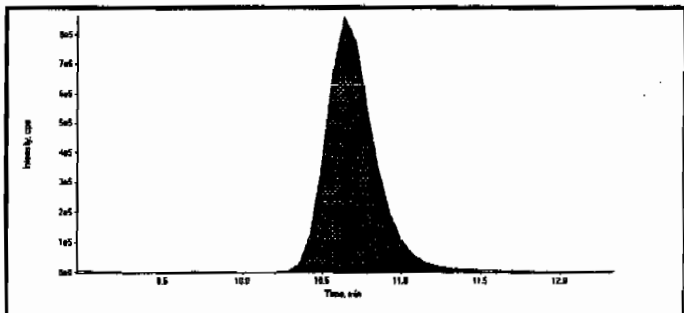

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	18200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

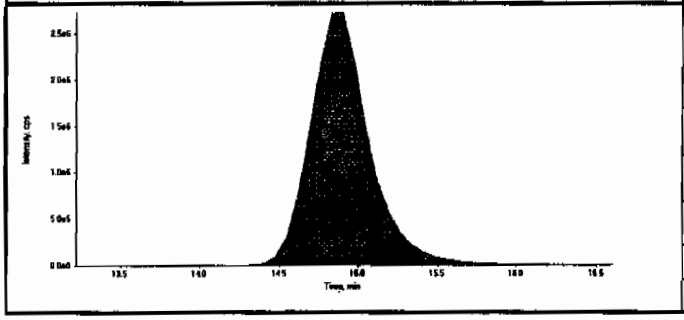

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	71800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

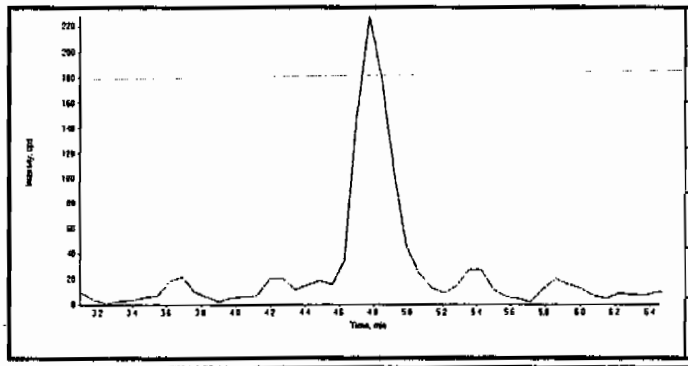

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

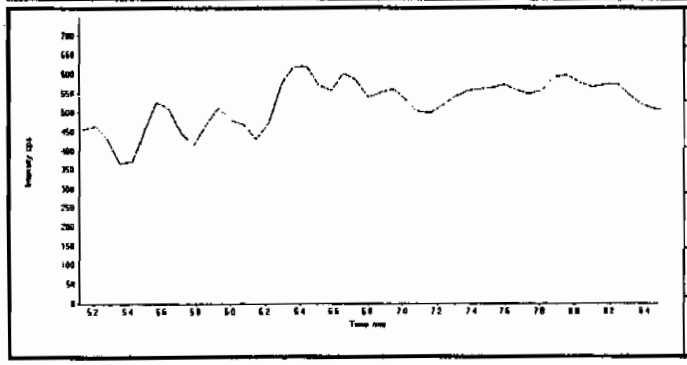

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Dan 4/2/10 HMX 04/02/10

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Data File	EXP0330002.wiff	**Acquisition Date**	3/30/2010 9:03:22 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

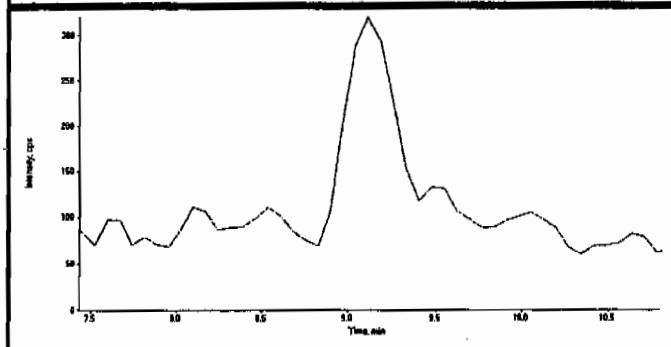

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

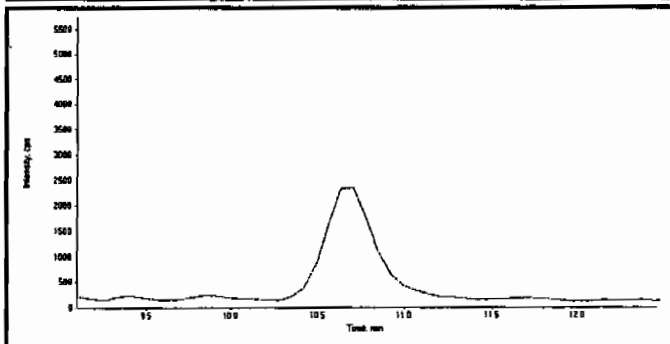

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

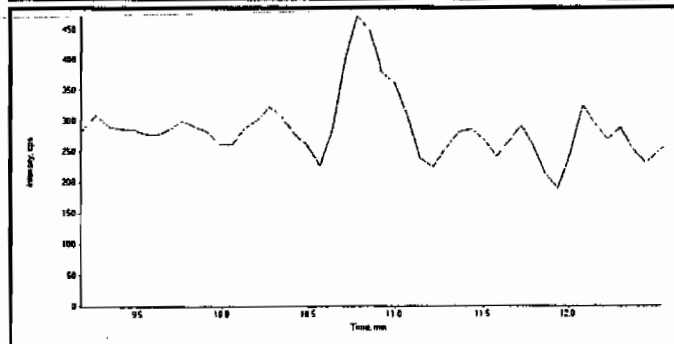

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

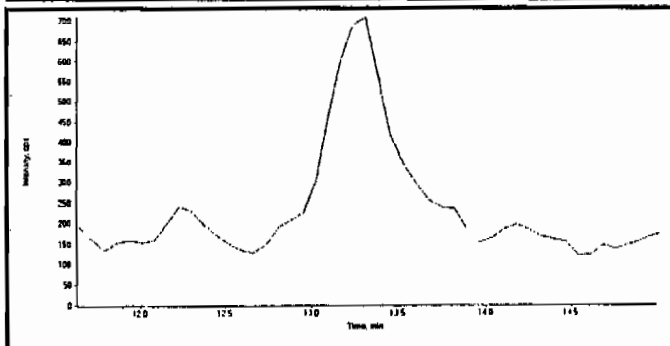

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330002.wiff	**Acquisition Date**	3/30/2010 9:03:22 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	Unknown

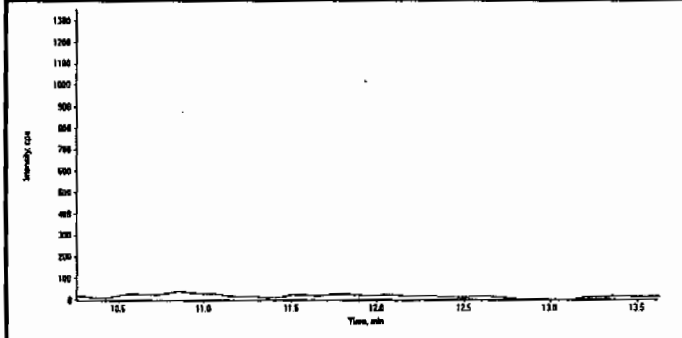

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

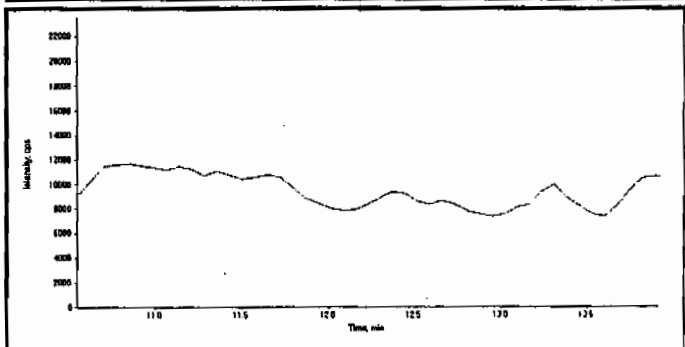

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

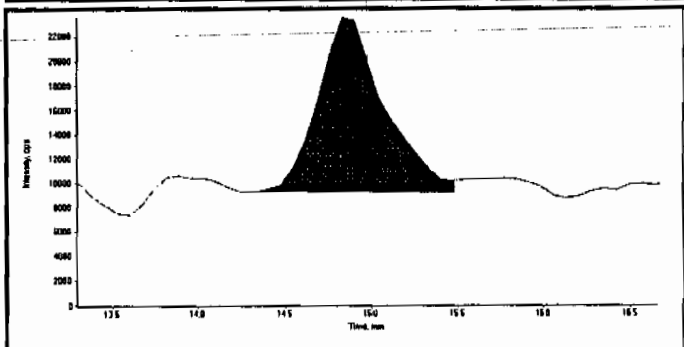

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	14.8
Area Counts:	4.00e+005
Manual Modification	No
Amount:	3.08 (ng/mL)
% Accuracy:	N/A

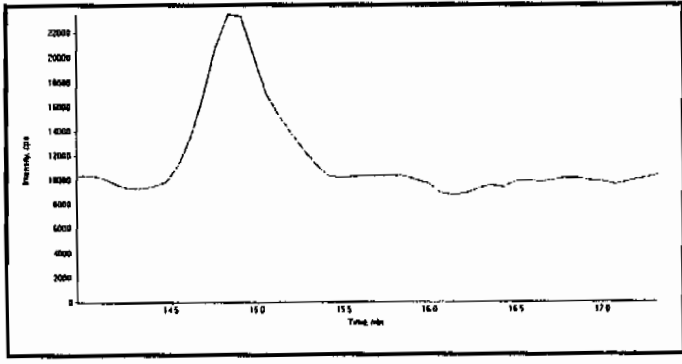

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330002.wiff	**Acquisition Date**	3/30/2010 9:03:22 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

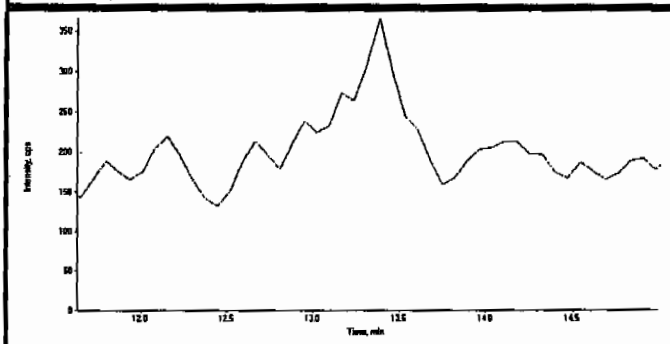

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

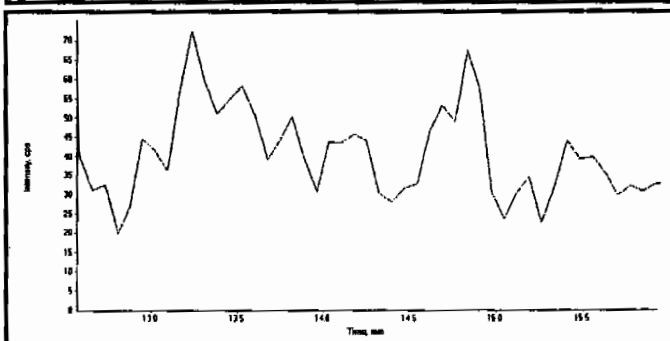

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

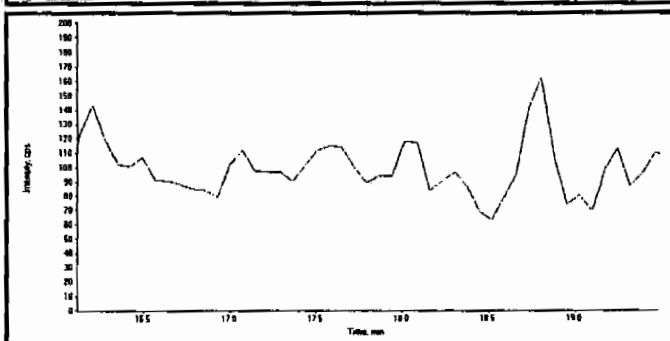

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

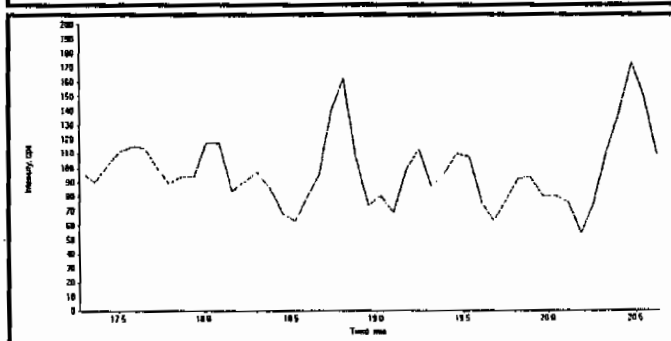

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330002.wiff	**Acquisition Date**	3/30/2010 9:03:22 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

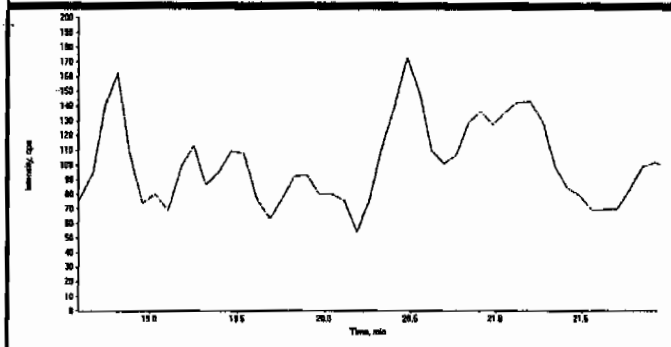

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

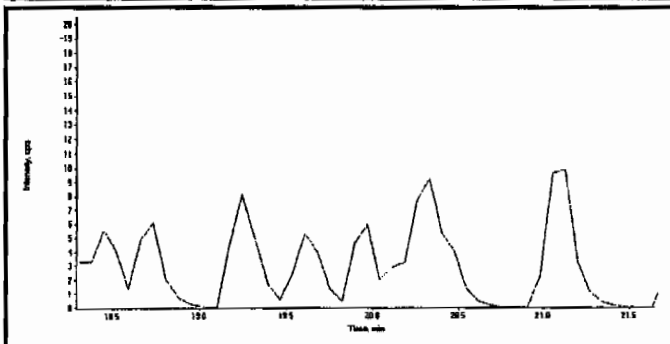

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1864

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 01–APR–10 11:38

GEL Data File: EXP0401001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	4.03
2–Amino–4,6–dinitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401001.wiff	**Acquisition Date**	4/1/2010 11:38:10 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

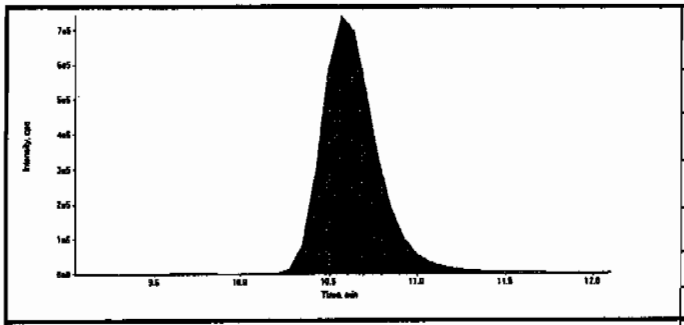

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	16200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

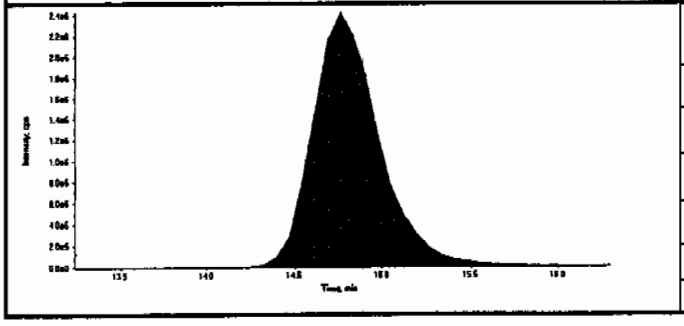

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.80
Actual RT:	14.80
Area Counts:	64400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

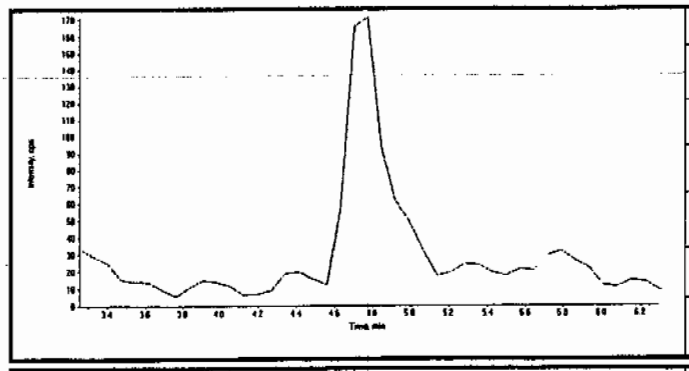

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

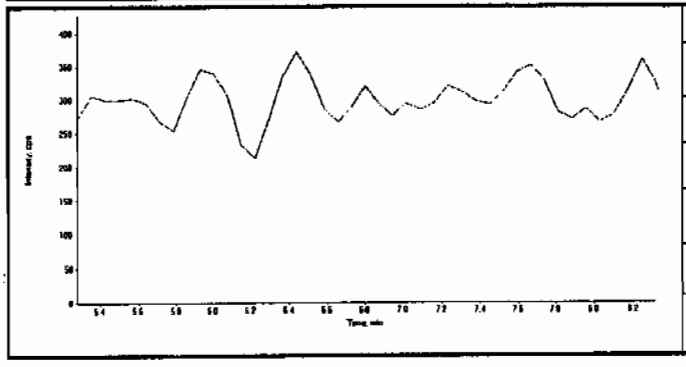

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Lan 4/9/10 Amw 04/09/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401001.wiff	**Acquisition Date**	4/1/2010 11:38:10 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

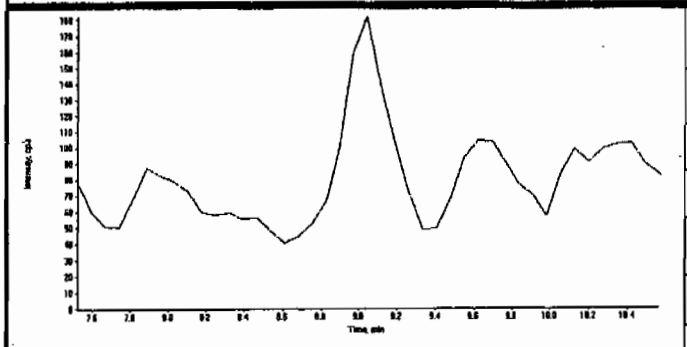

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.04
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

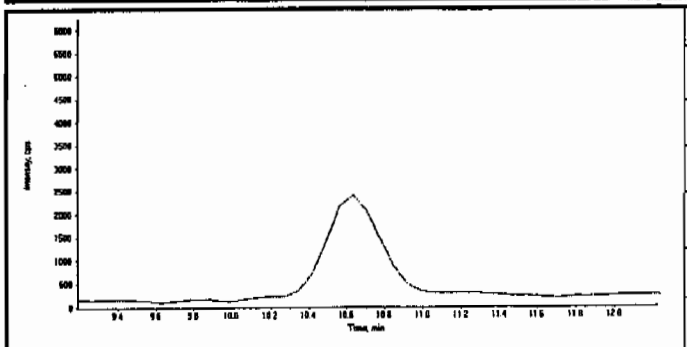

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

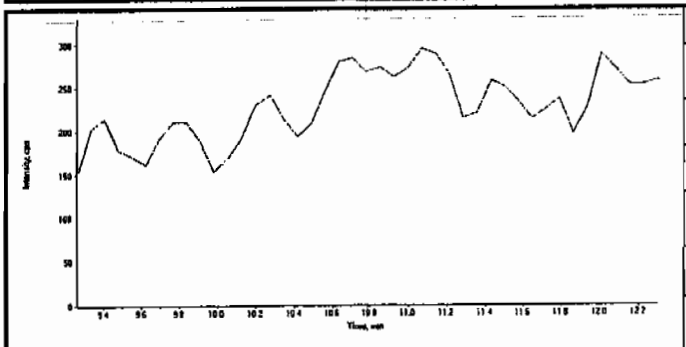

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

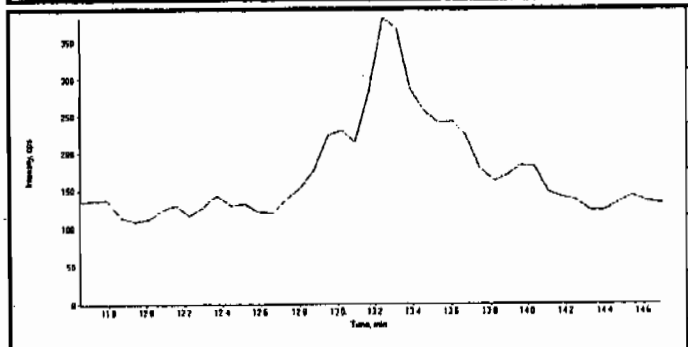

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401001.wiff	**Acquisition Date**	4/1/2010 11:38:10 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

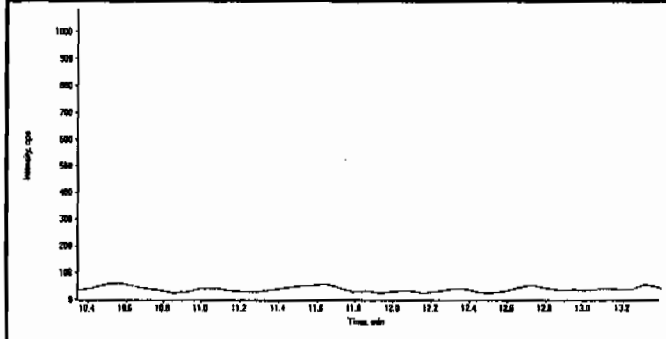

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

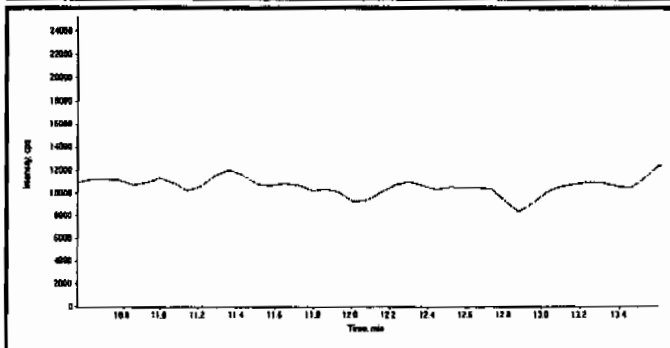

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

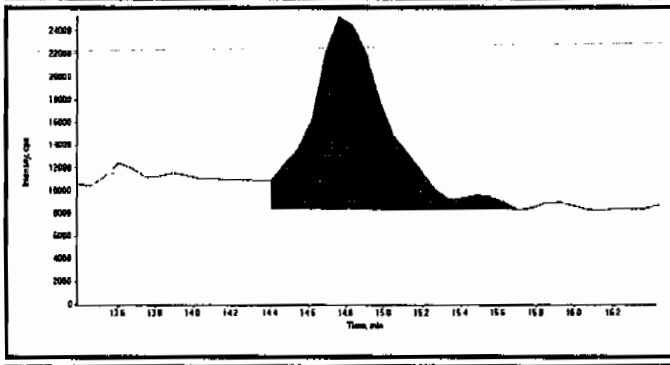

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.9
Actual RT:	14.8
Area Counts:	4.86e+005
Manual Modification	No
Amount:	4.03 (ng/mL)
% Accuracy:	N/A

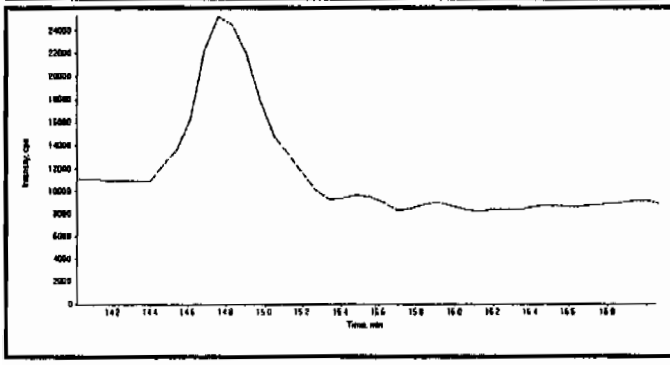

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401001.wiff	**Acquisition Date**	4/1/2010 11:38:10 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

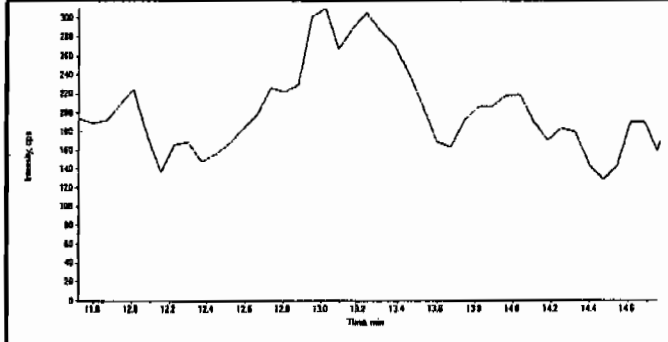

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

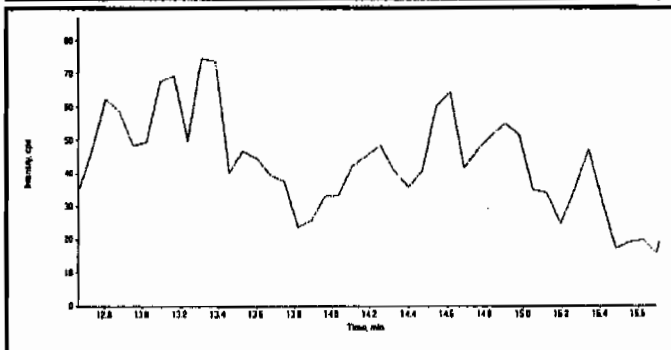

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

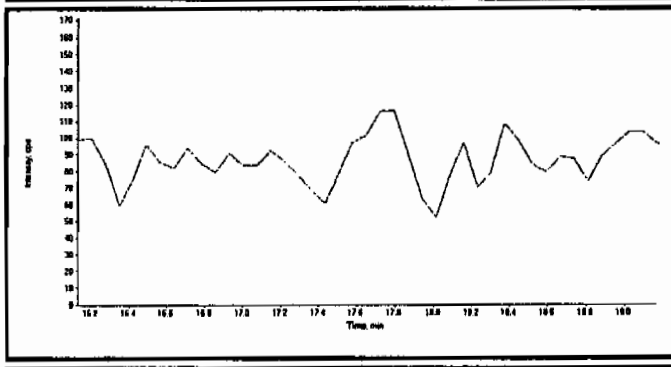

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

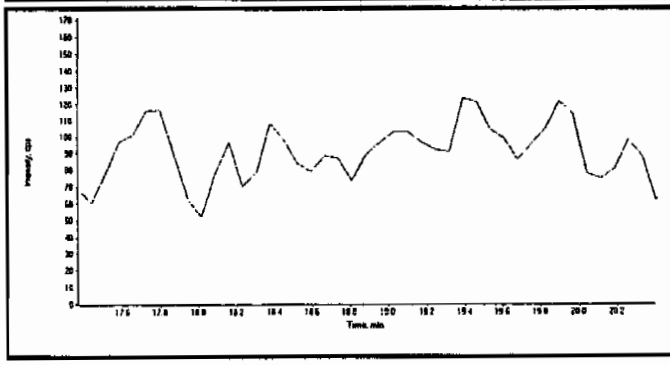

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401001.wiff	**Acquisition Date**	4/1/2010 11:38:10 AM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

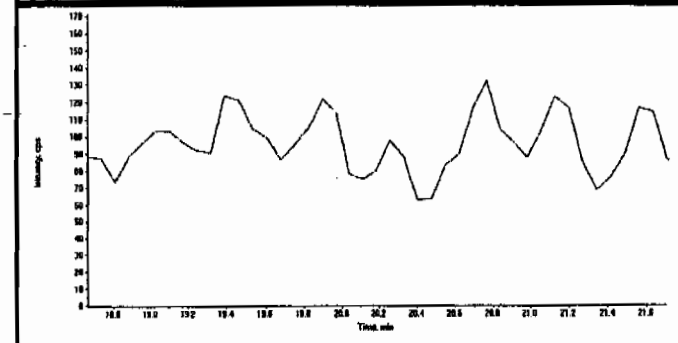

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

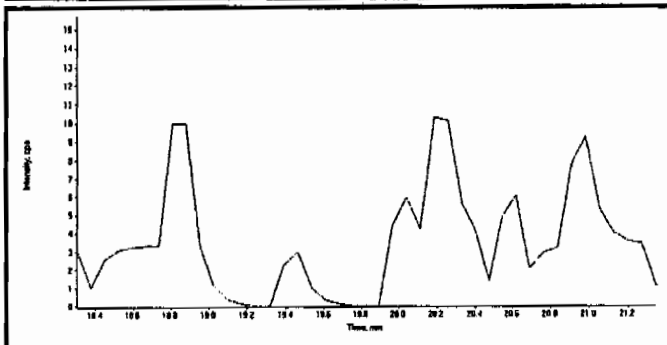

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1864

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 01–APR–10 12:04

GEL Data File: EXP0401002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	3.55
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401002.wiff	**Acquisition Date**	4/1/2010 12:04:33 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

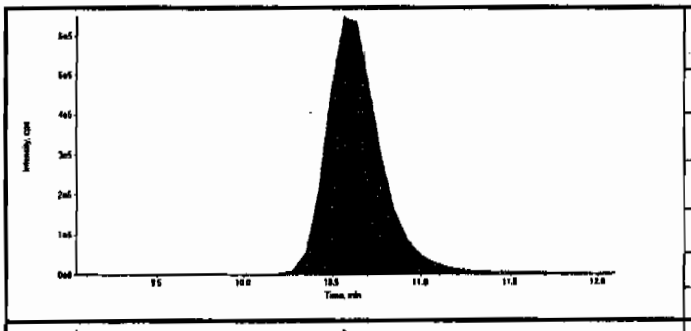

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	13700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

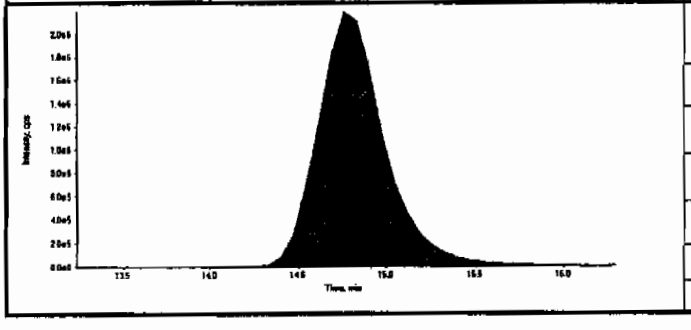

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.80
Actual RT:	14.80
Area Counts:	58100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

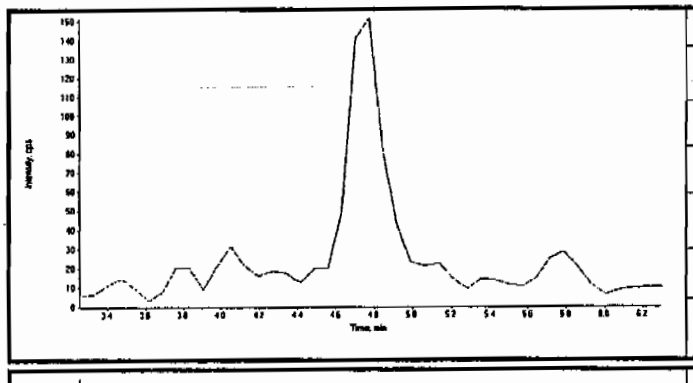

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

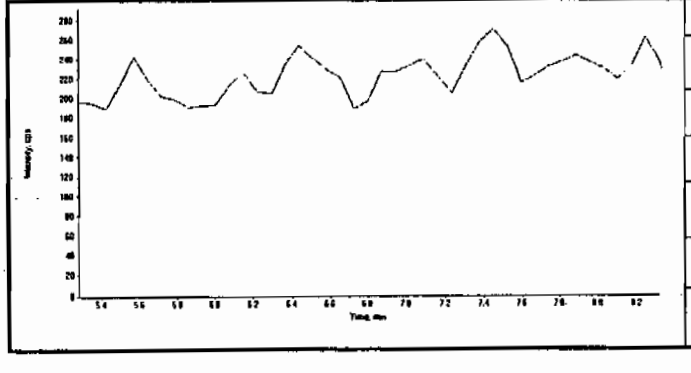

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Lar 4/9/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401002.wiff	**Acquisition Date**	4/1/2010 12:04:33 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	Unknown

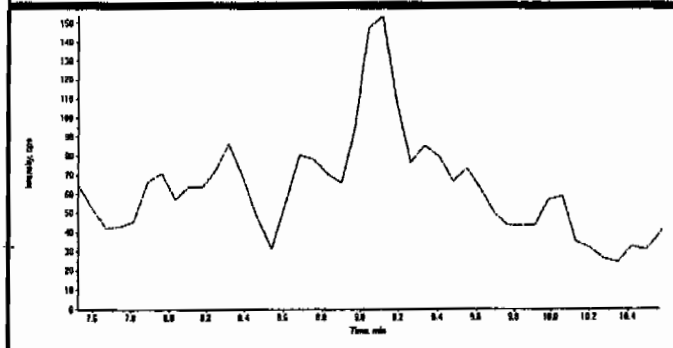

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.04
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

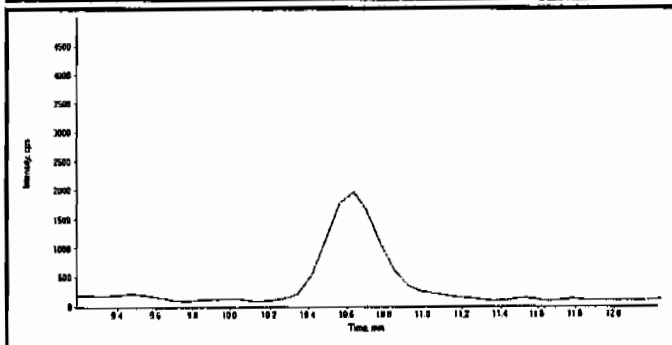

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

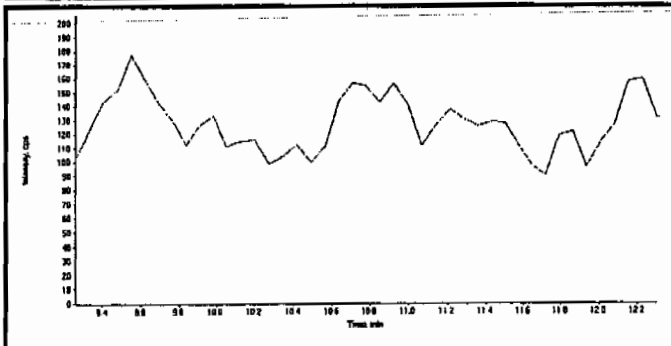

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

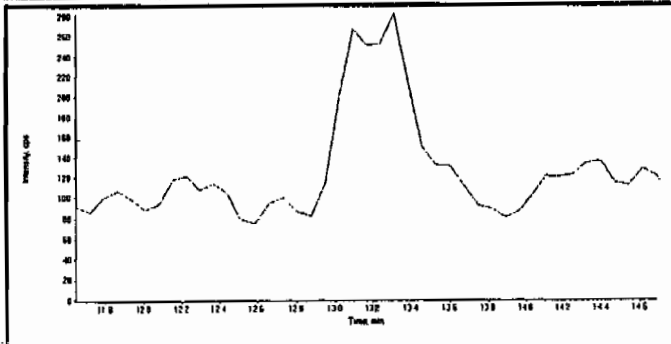

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Hmm 04/09/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401002.wiff	Acquisition Date	4/1/2010 12:04:33 PM
Sample Name	XIBLK01	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	040110.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

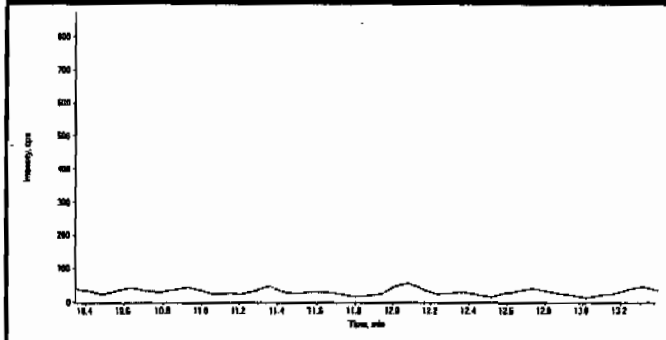

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

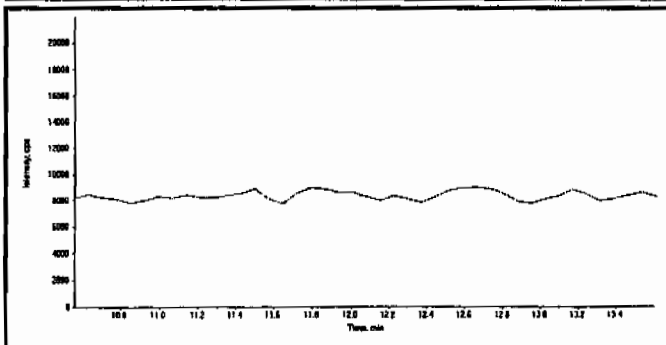

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

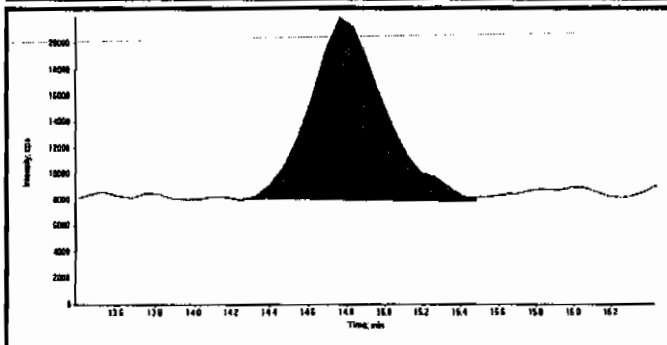

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.9
Actual RT:	14.8
Area Counts:	3.87e+005
Manual Modification	No
Amount:	3.55 (ng/mL)
% Accuracy:	N/A

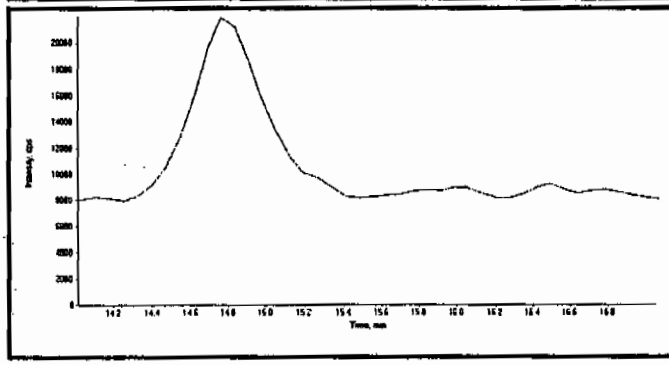

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0401002.wiff	**Acquisition Date**	4/1/2010 12:04:33 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

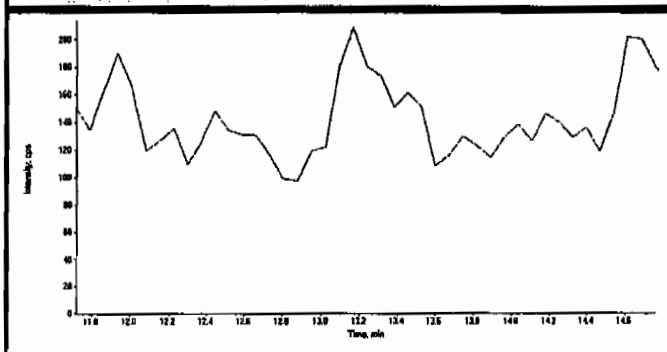

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

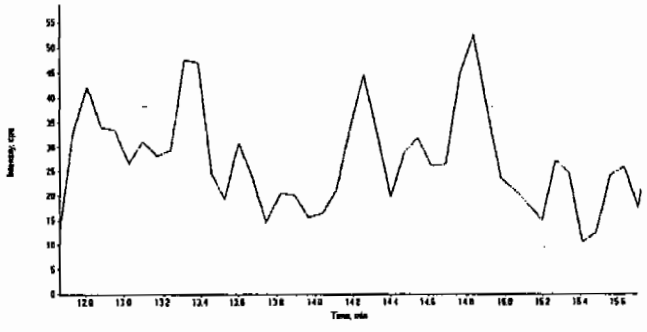

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

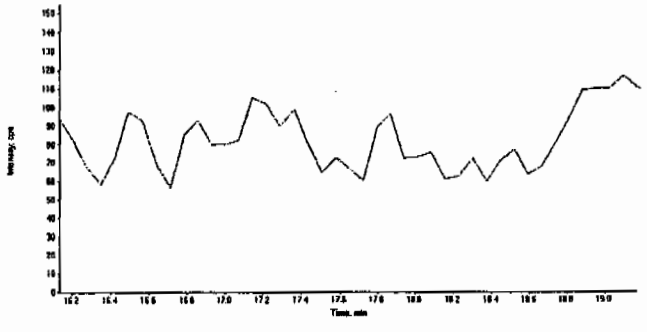

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

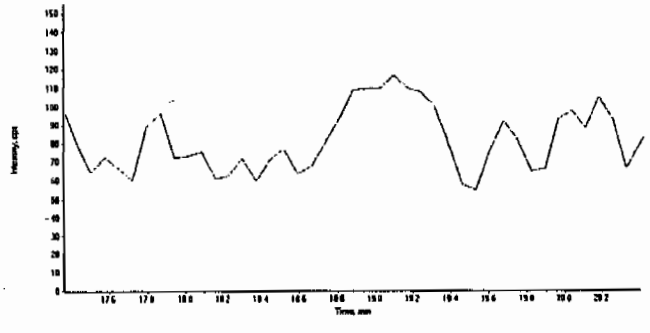

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401002.wiff	**Acquisition Date**	4/1/2010 12:04:33 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

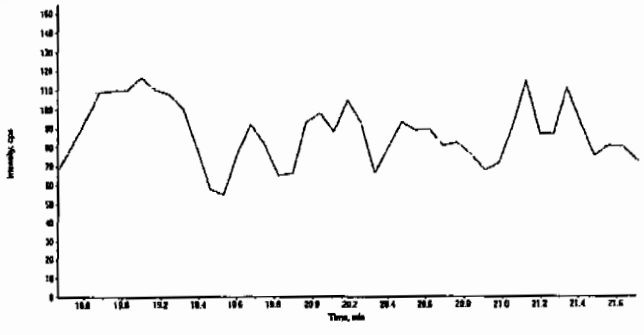

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

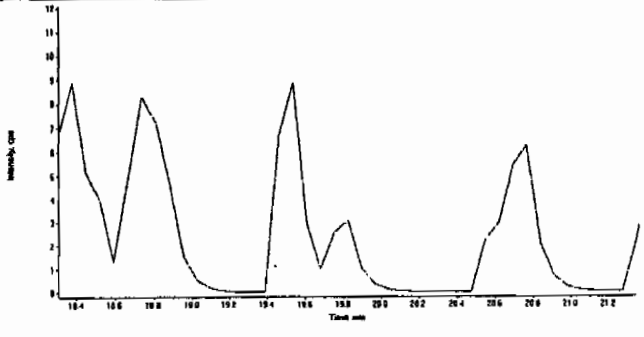

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1864

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 10–MAR–10 15:31

GEL Data File: EXS03100001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4–Diamino–6–nitrotoluene	0	14.6
2,6–Diamino–4–nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	98.2
TATB	0	0
3,5–Dinitroaniline	0	0

Lcu 3/13/10

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03100001.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 3:31:26 PM

Modified: No

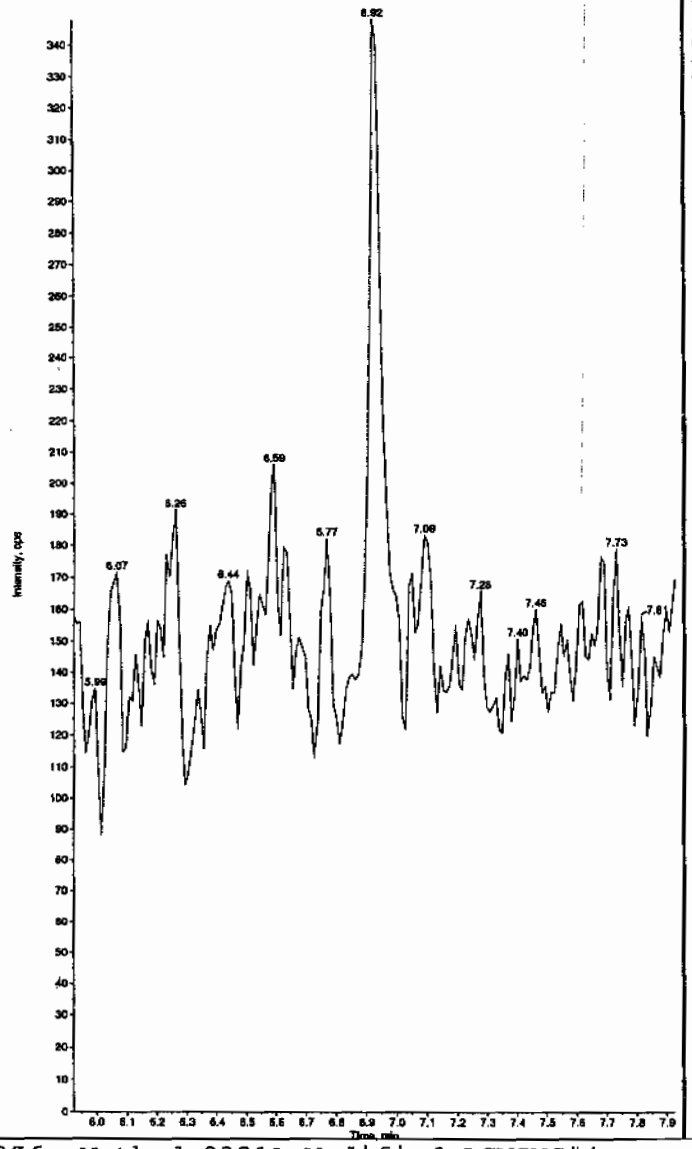

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03100001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 3:31:26 PM

Modified: No

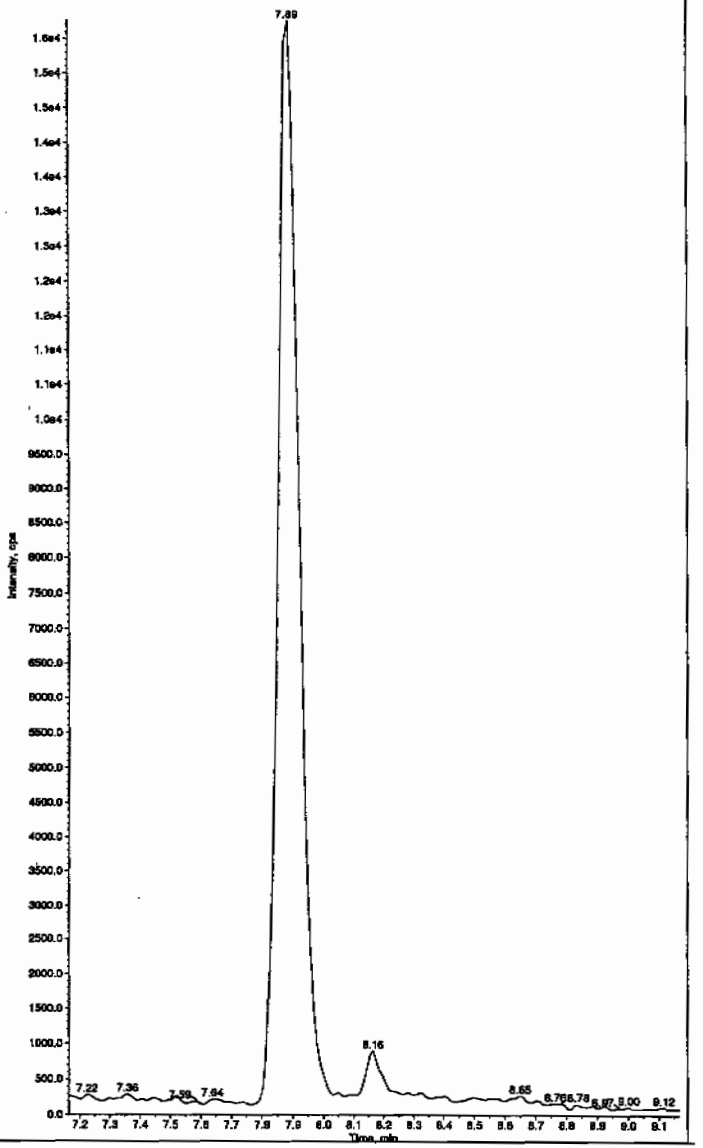

Hum 03/15/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03100001.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 3:31:26 PM

Modified: No

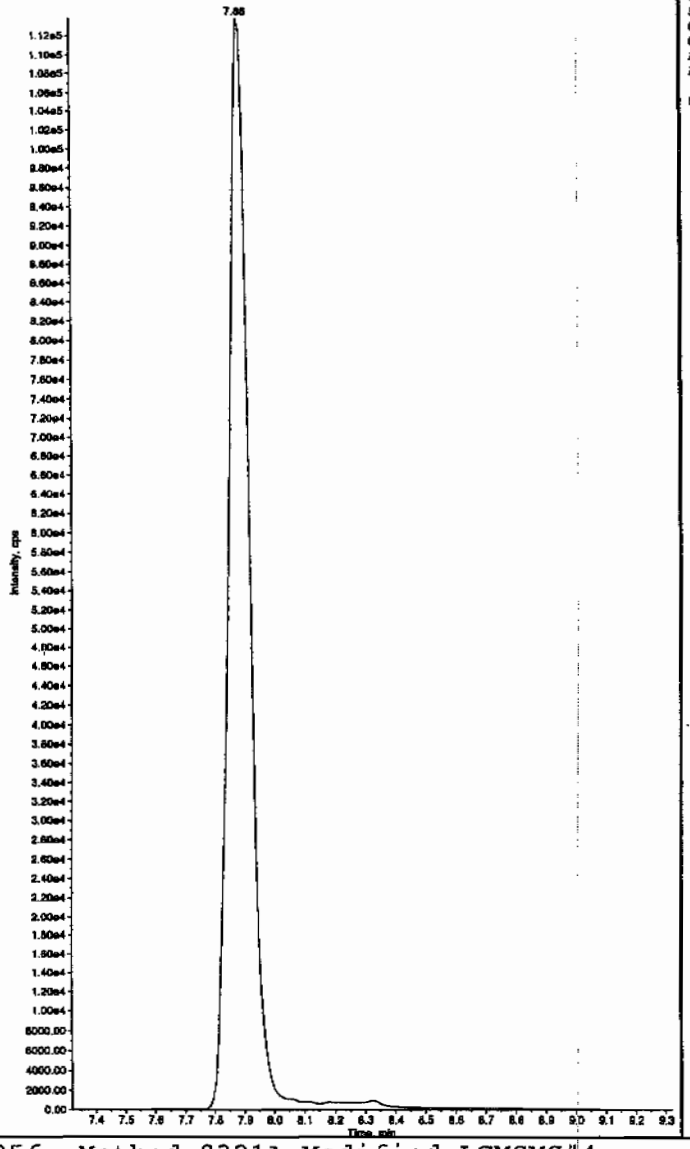

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03100001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 3:31:26 PM

Modified: No

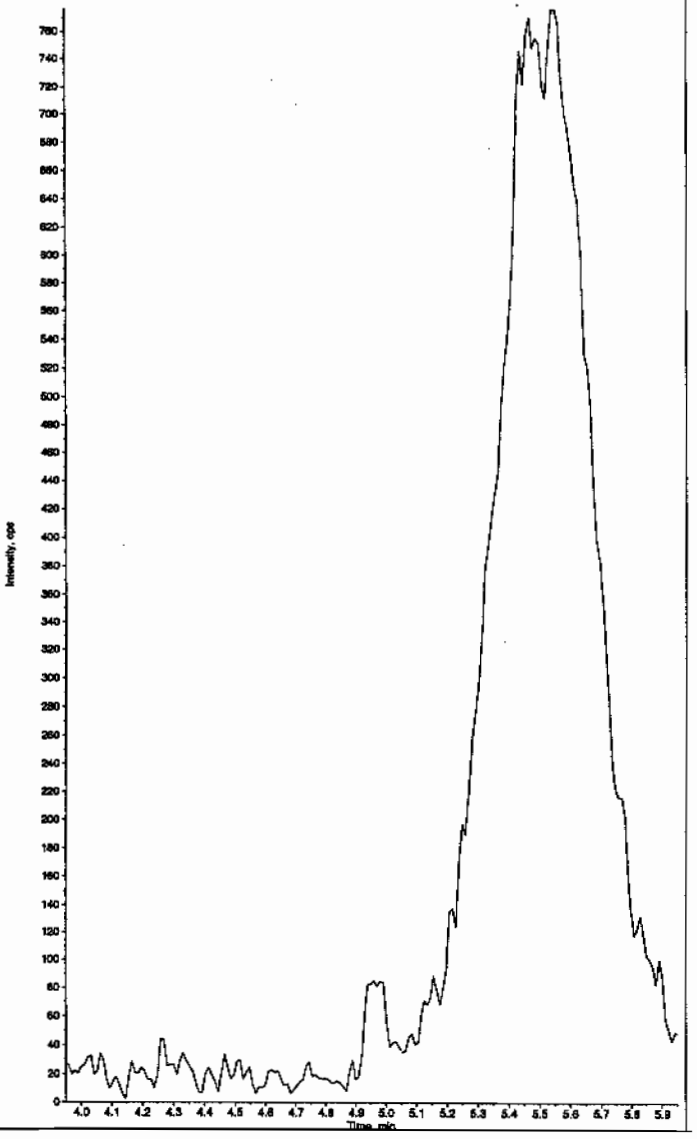

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03100001.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 14.6 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 3:31:26 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.42 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.55 min
Area: 1.54e+004 counts
Height: 721.263 cps
Start Time: 5.18 min
End Time: 5.96 min

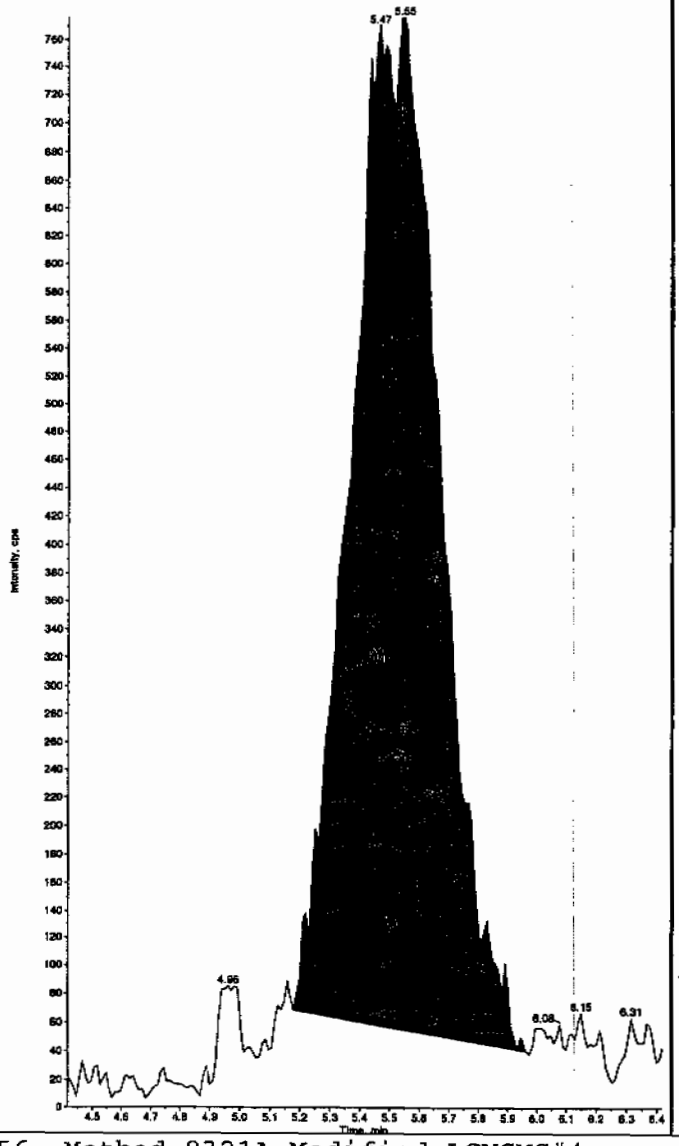

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03100001.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 98.2 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 3:31:26 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.36e+006 counts
Height: 360022.461 cps
Start Time: 10.7 min
End Time: 11.0 min

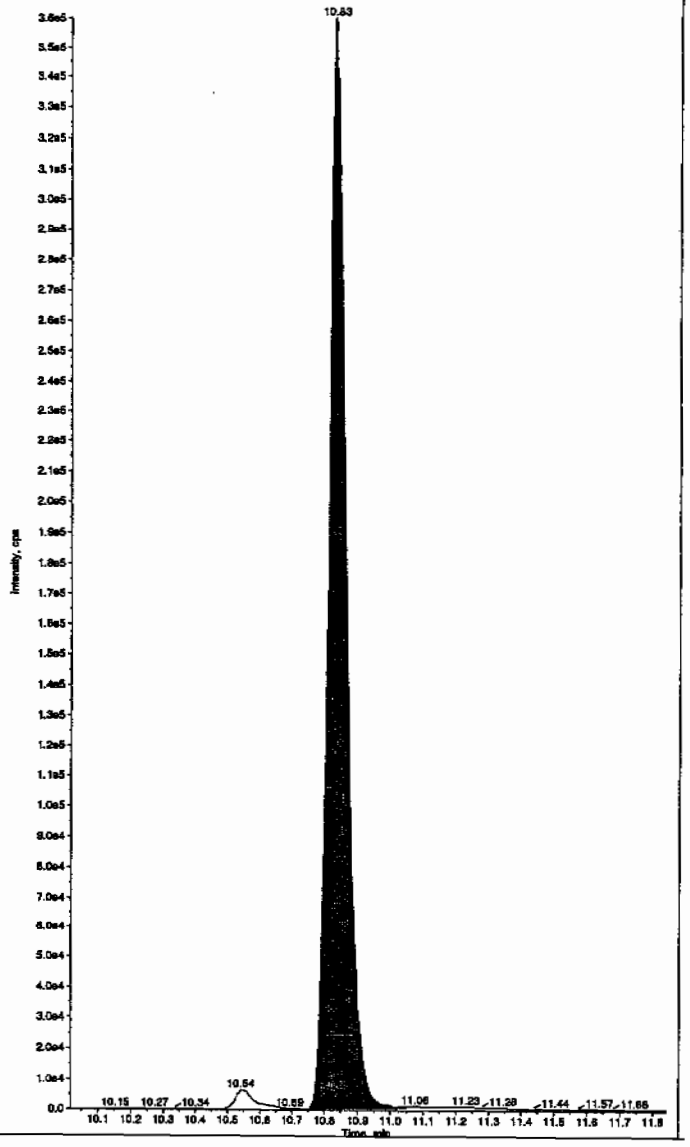

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1864

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 10-MAR-10 15:47

GEL Data File: EXS03100002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

LCer 3/12/10

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03100002.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 3:47:13 PM

Modified: No

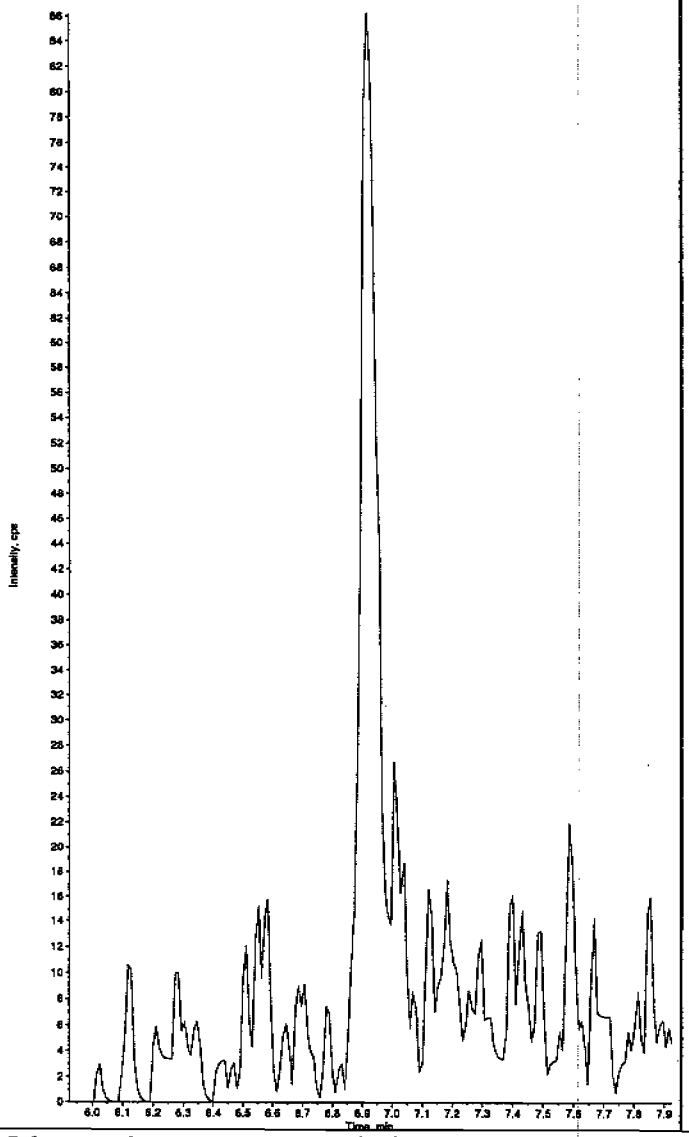

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03100002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 3:47:13 PM

Modified: No

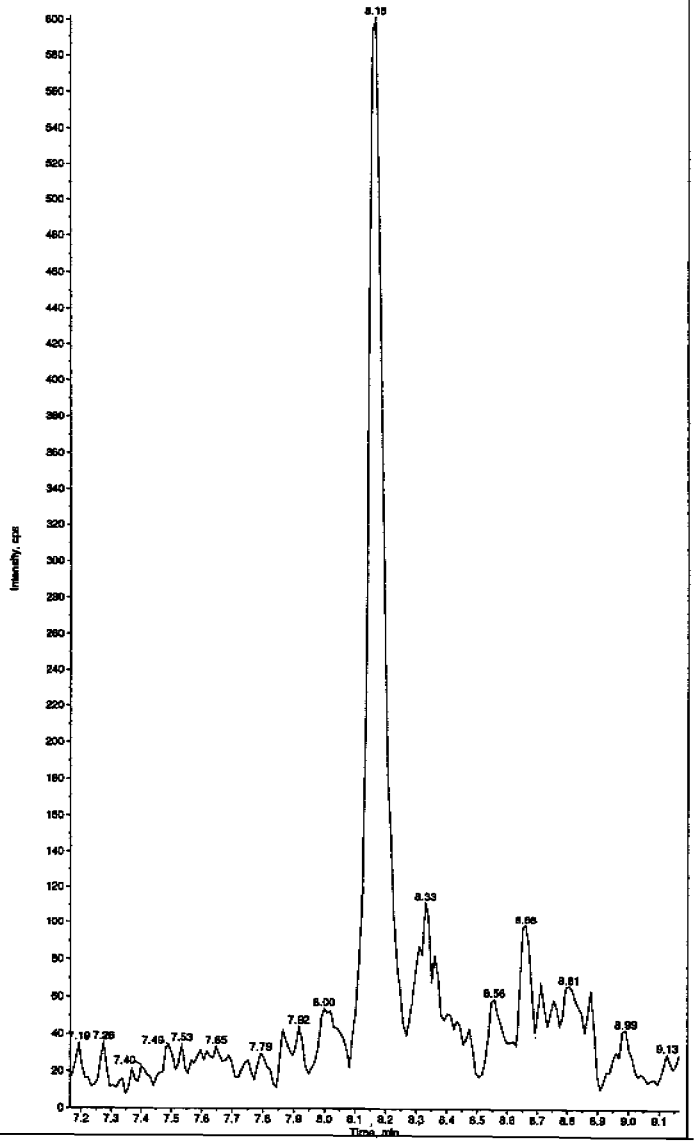

Hmm 03/15/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03100002.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 3:47:13 PM

Modified: No

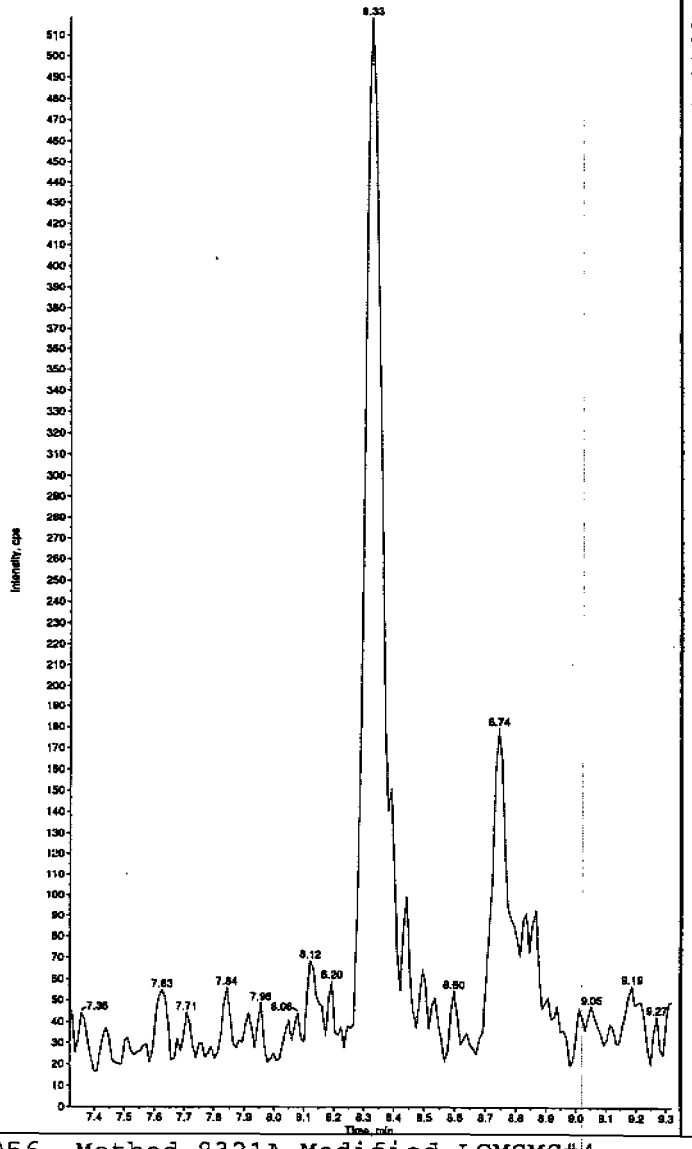

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03100002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 3:47:13 PM

Modified: No

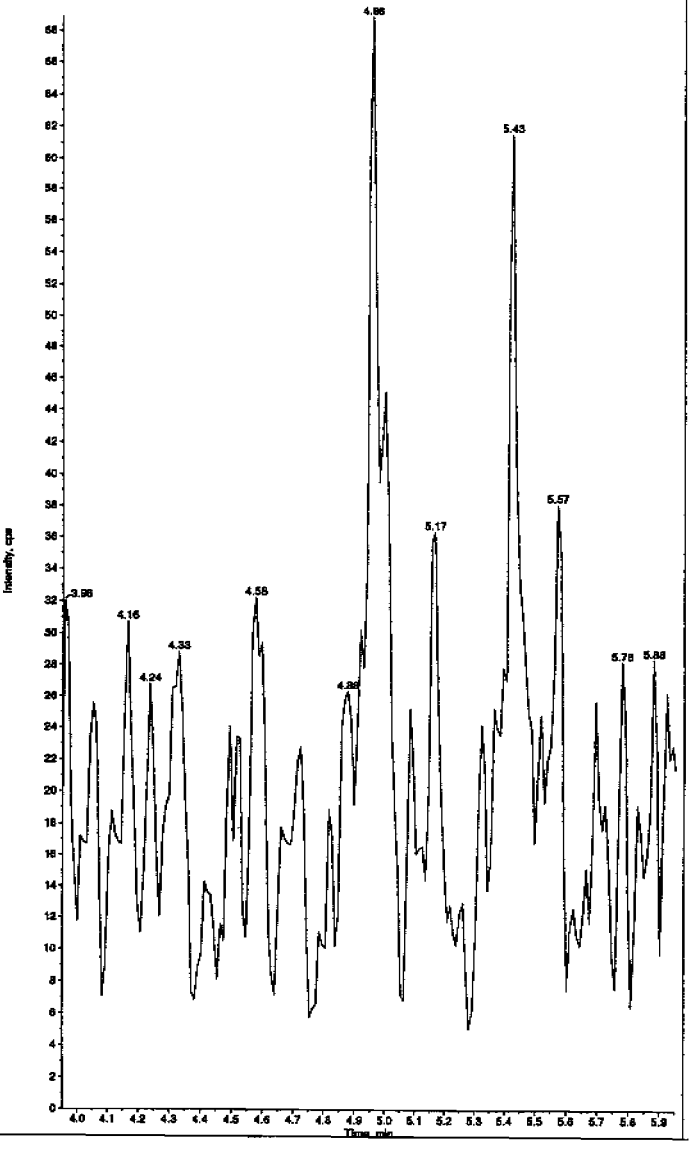

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03100002.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 3:47:13 PM

Modified: No

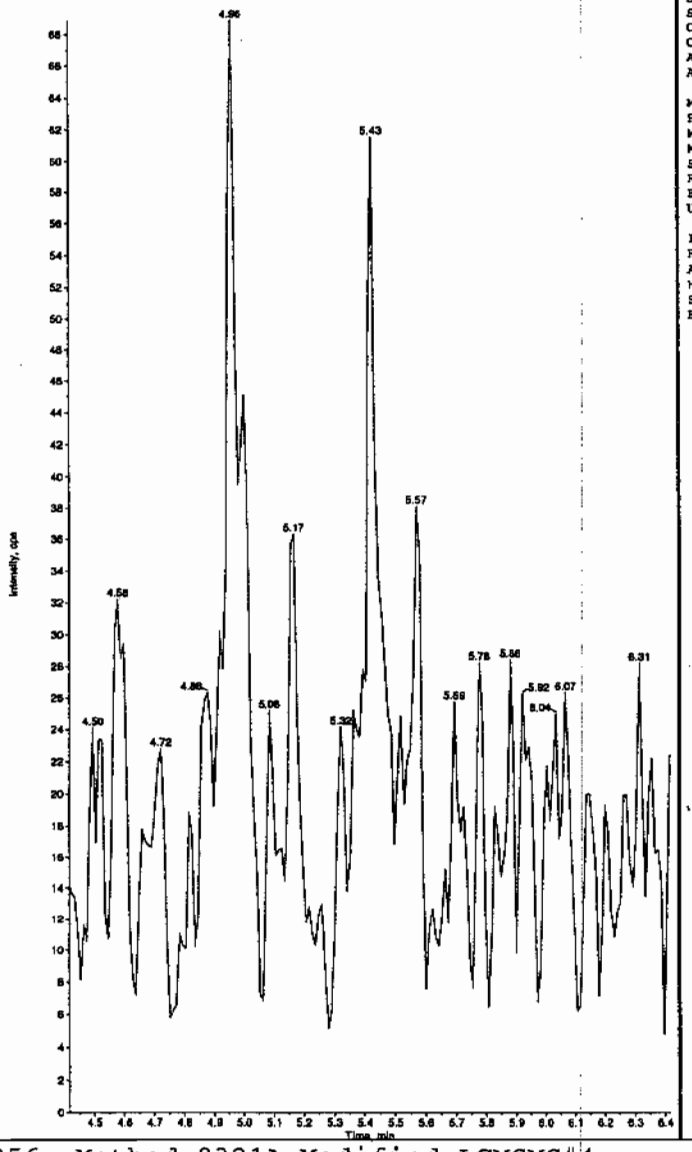

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03100002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/10/2010
Acq. Time: 3:47:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 3.91e+004 counts
Height: 9861.161 cps
Start Time: 10.7 min
End Time: 11.0 min

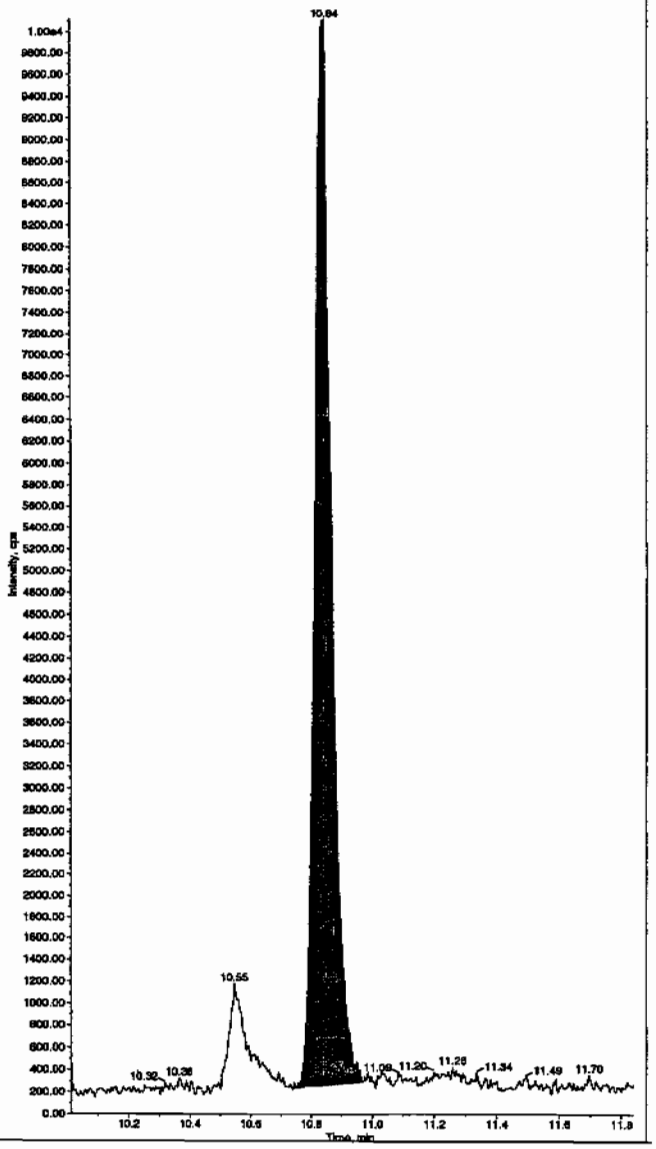

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1864

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 30–MAR–10 12:08

GEL Data File: EXP0330009.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	2.96
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330009.wiff	**Acquisition Date**	3/30/2010 12:08:12 PM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

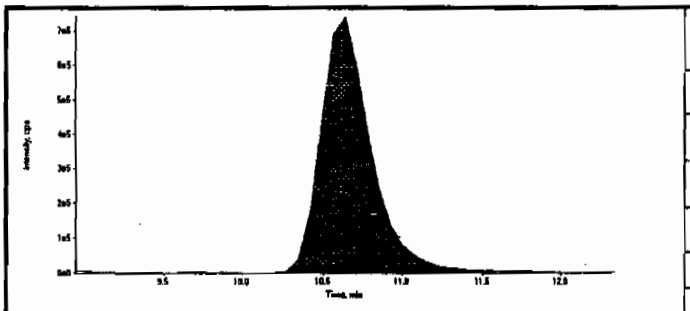

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	16200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

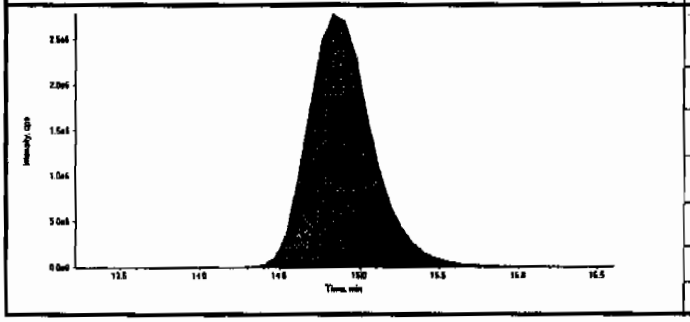

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.80
Area Counts:	79200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

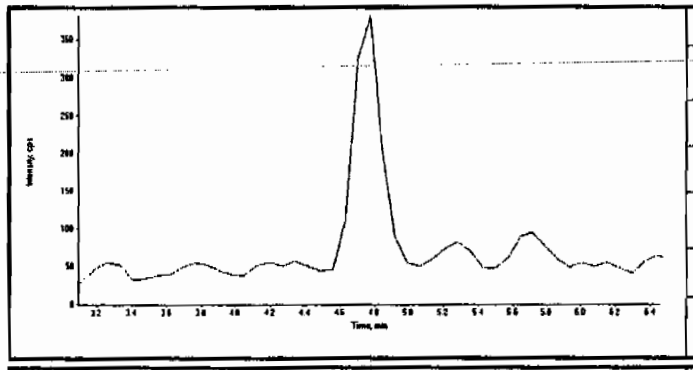

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

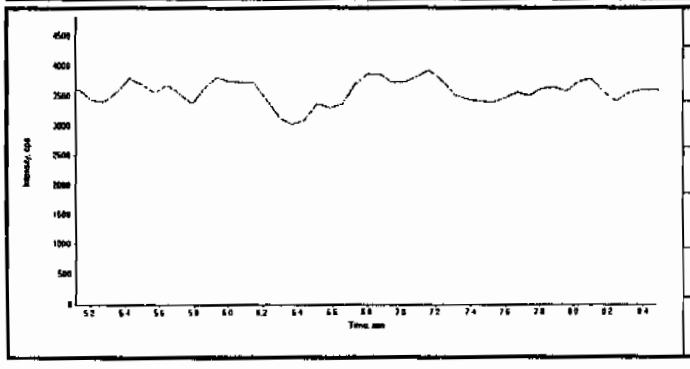

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

LCA 4/2/10 HMW 04/02/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330009.wiff	**Acquisition Date**	3/30/2010 12:08:12 PM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

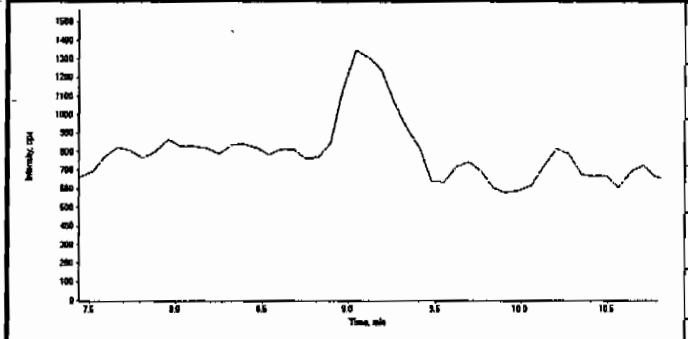

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

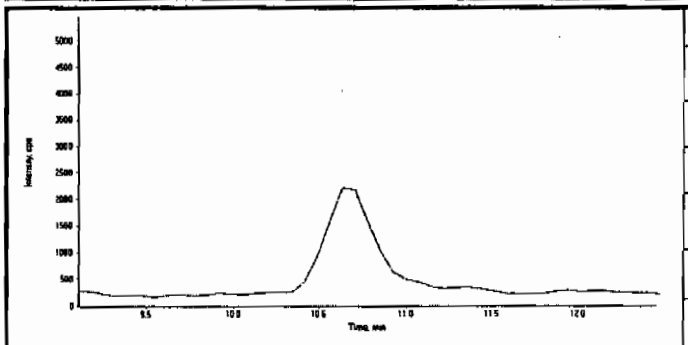

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

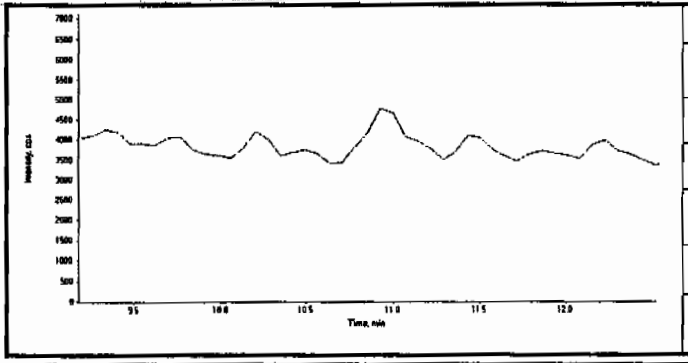

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

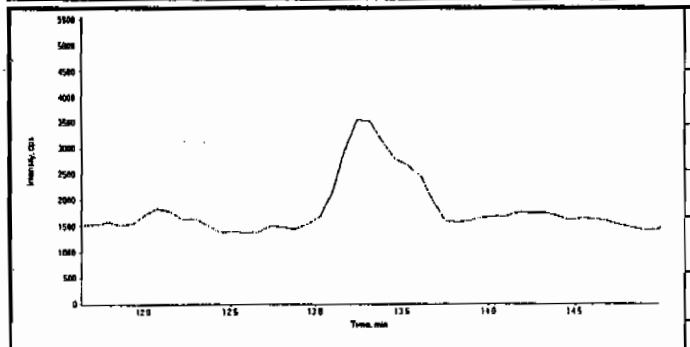

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330009.wiff	**Acquisition Date**	3/30/2010 12:08:12 PM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

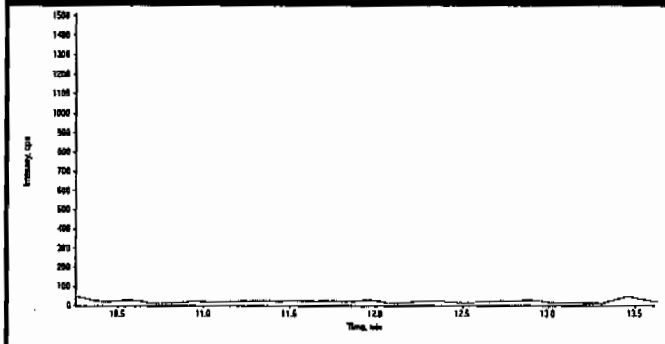

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

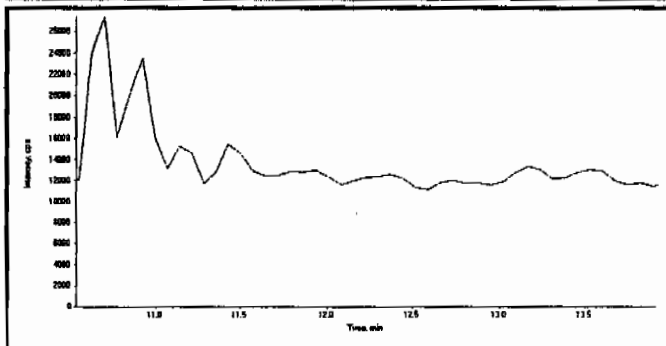

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

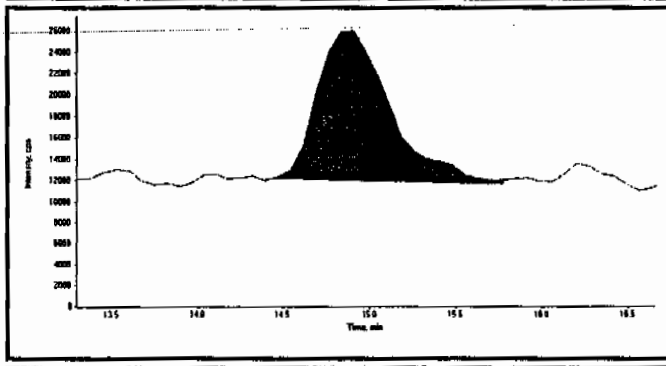

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	14.9
Area Counts:	4.23e+005
Manual Modification	No
Amount:	2.96 (ng/mL)
% Accuracy:	N/A

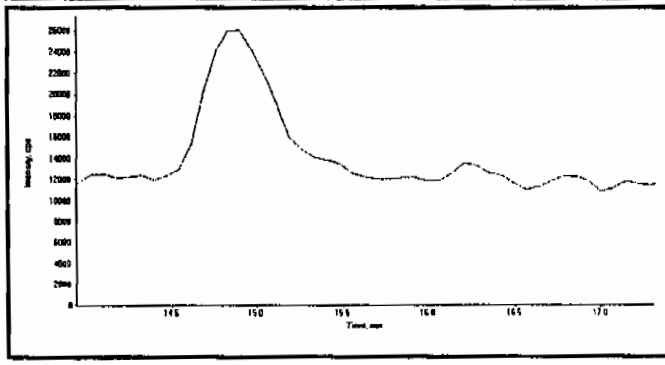

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0330009.wiff	**Acquisition Date**	3/30/2010 12:08:12 PM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	Unknown

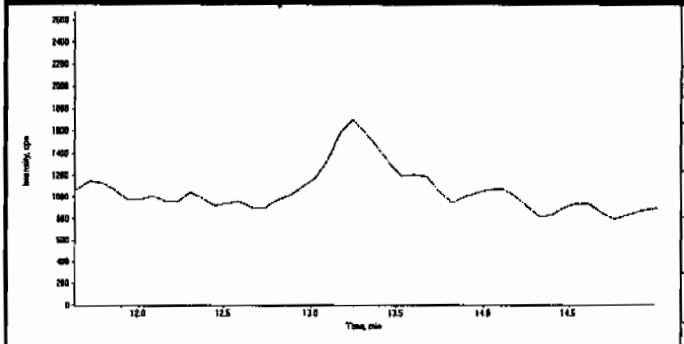

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

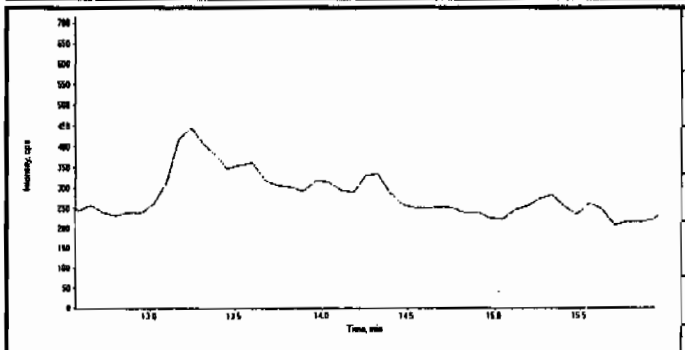

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

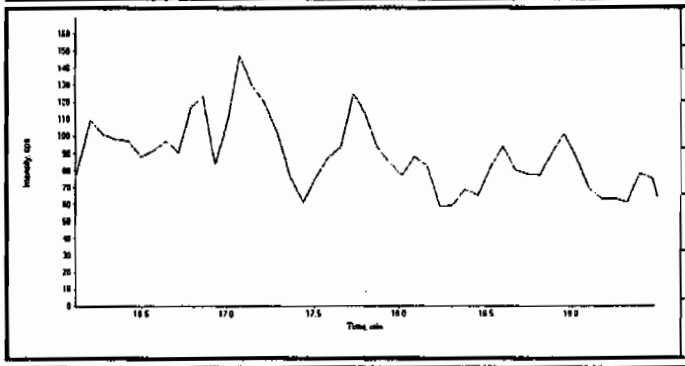

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

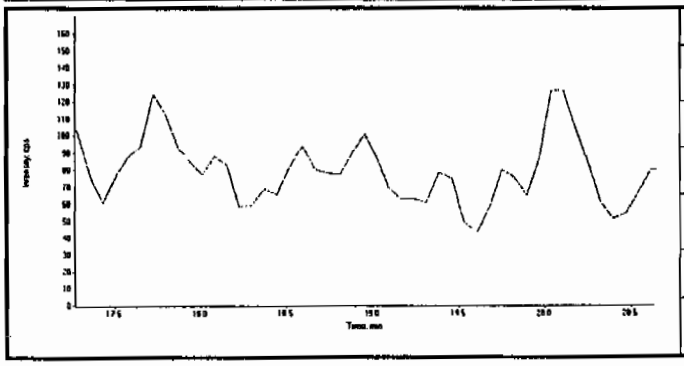

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330009.wiff	**Acquisition Date**	3/30/2010 12:08:12 PM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

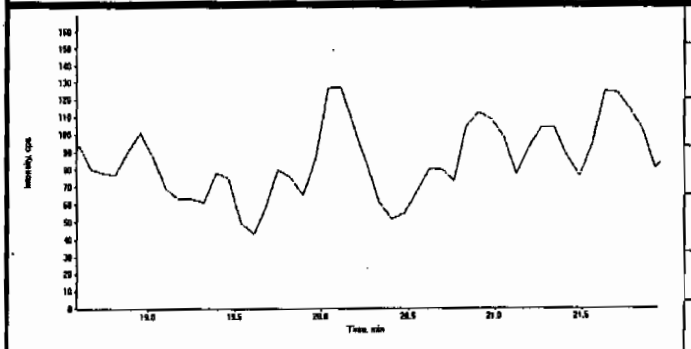

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

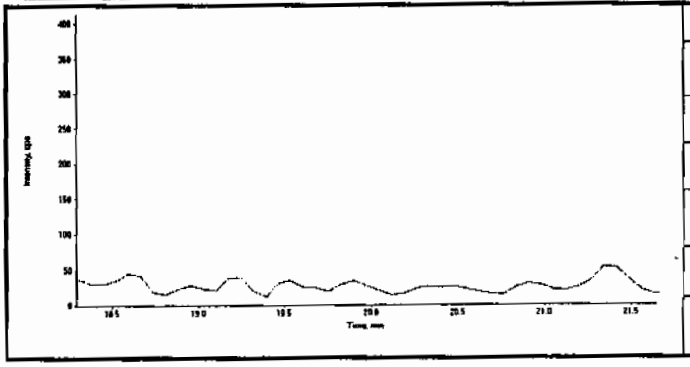

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1864

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 30–MAR–10 13:00

GEL Data File: EXP0330011.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	3.2
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330011.wiff	**Acquisition Date**	3/30/2010 1:00:55 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	Unknown

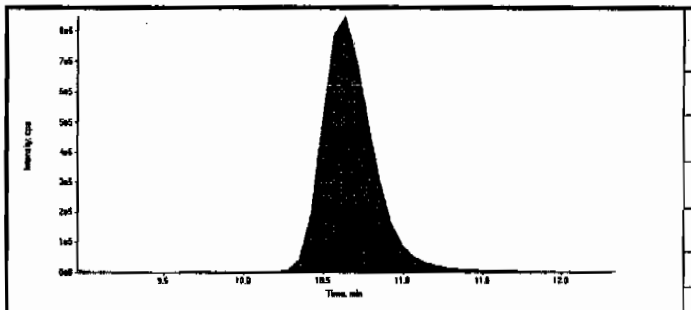

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	18600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

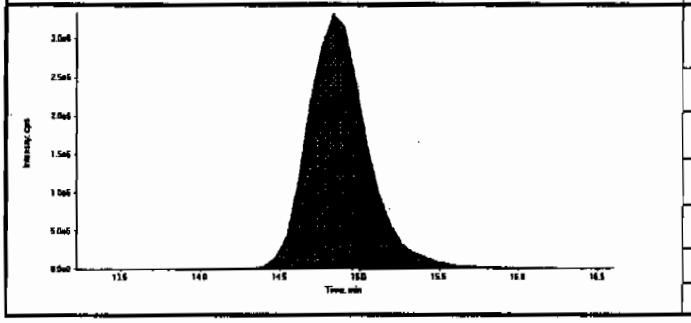

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.80
Area Counts:	87800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

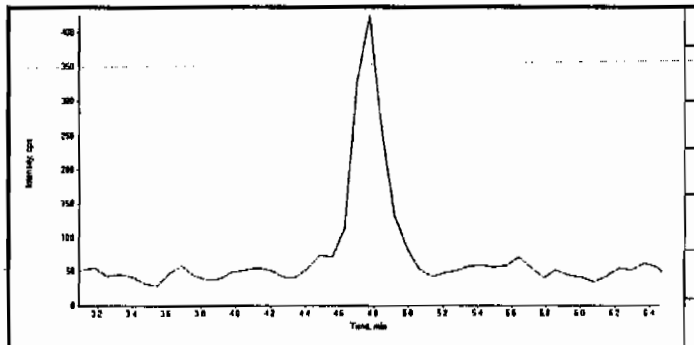

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

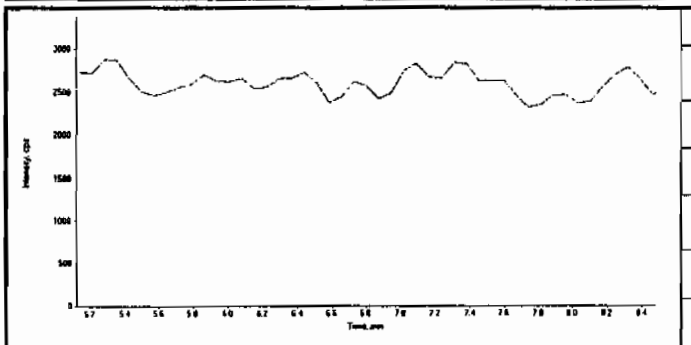

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Lar 4/2/10 Hmm 04/02/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330011.wiff	**Acquisition Date**	3/30/2010 1:00:55 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

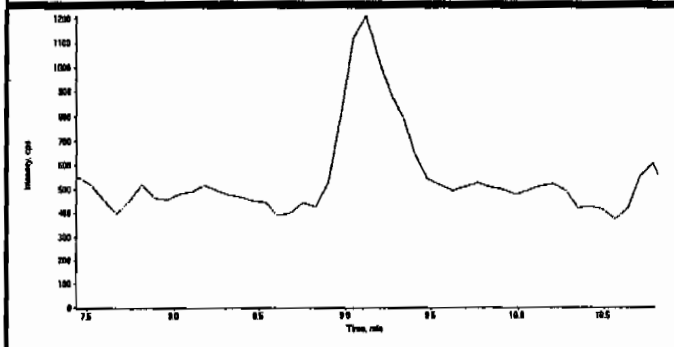

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

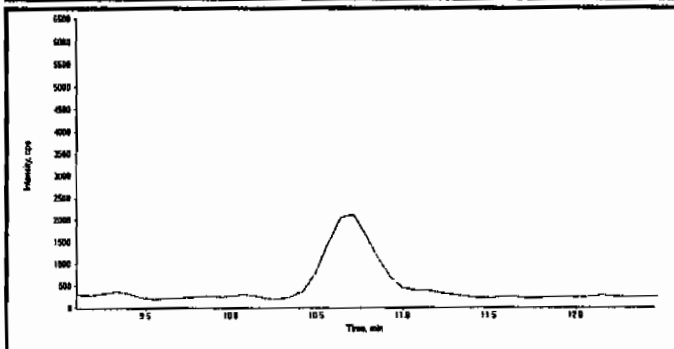

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

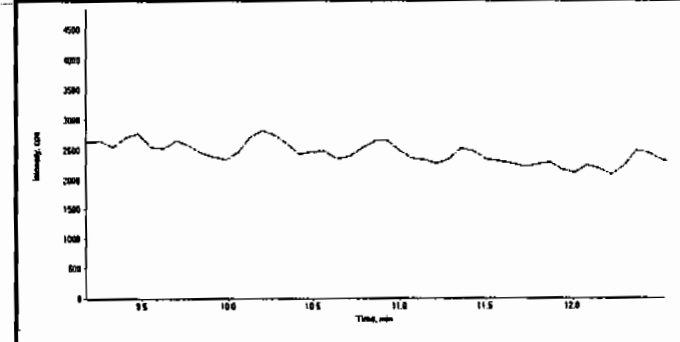

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

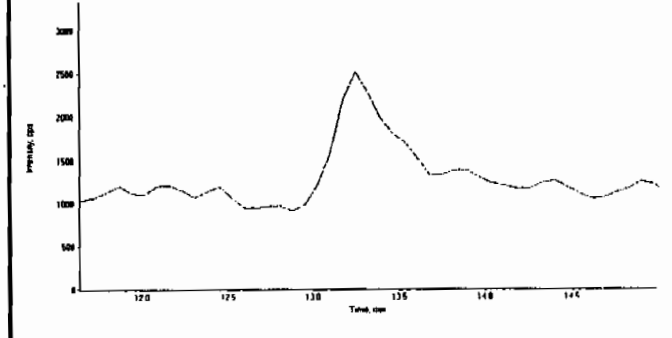

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330011.wiff	**Acquisition Date**	3/30/2010 1:00:55 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

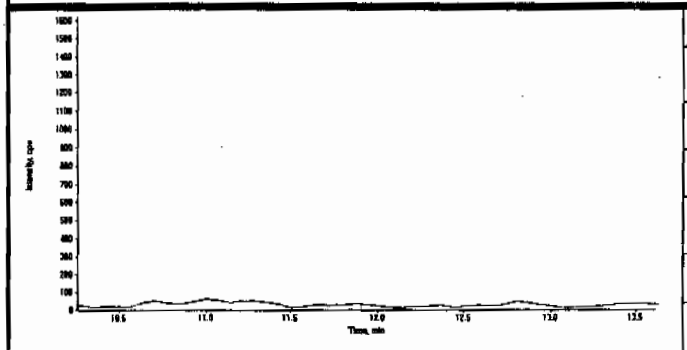

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

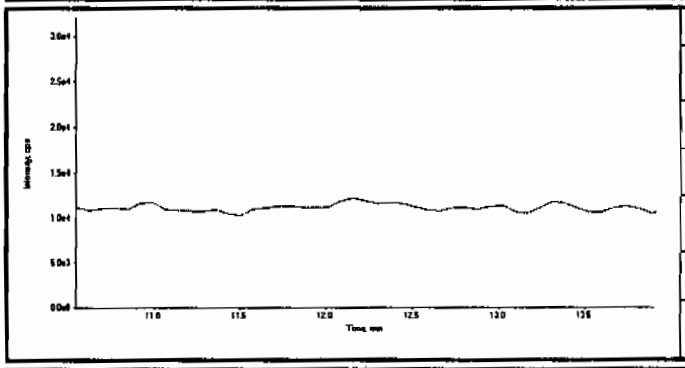

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

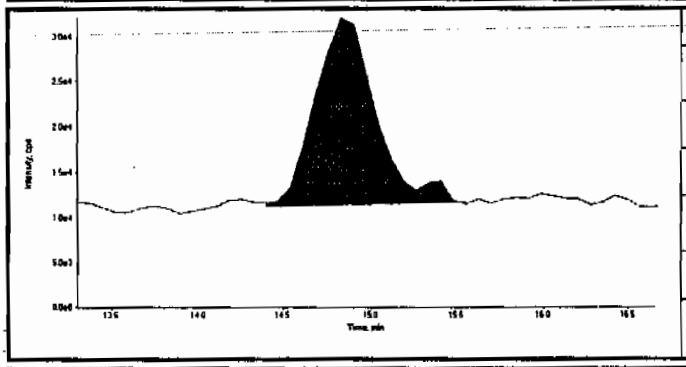

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	14.8
Area Counts:	5.08e+005
Manual Modification	No
Amount:	3.20 (ng/mL)
% Accuracy:	N/A

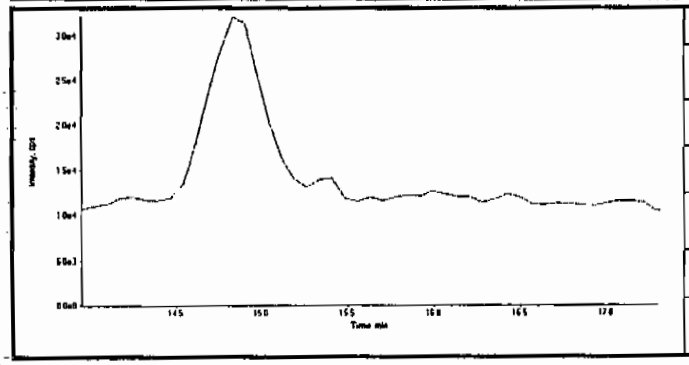

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0330011.wiff	**Acquisition Date**	3/30/2010 1:00:55 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

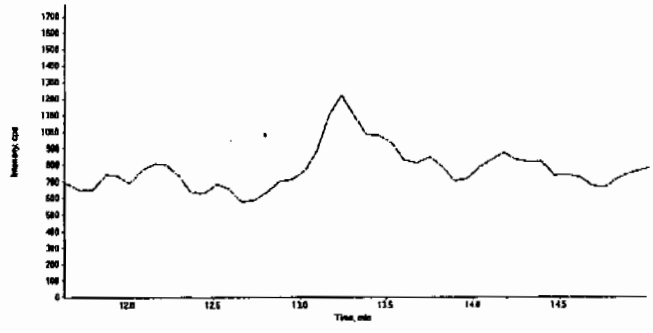

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

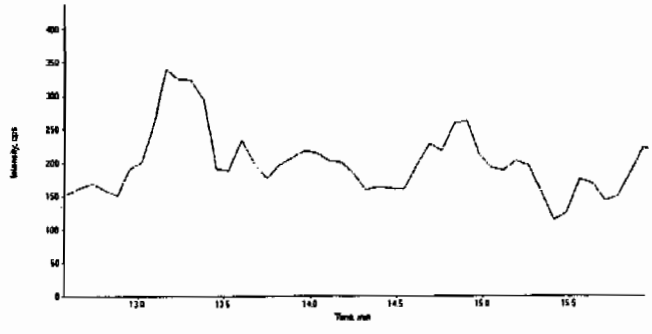

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

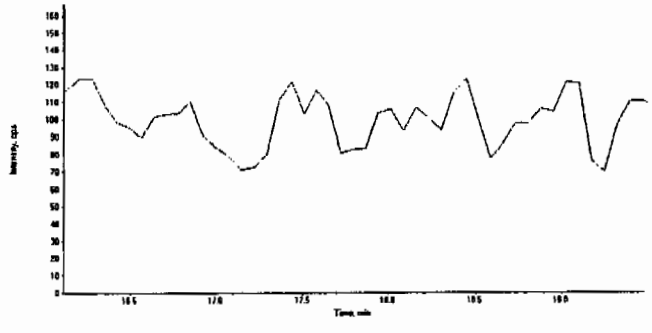

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

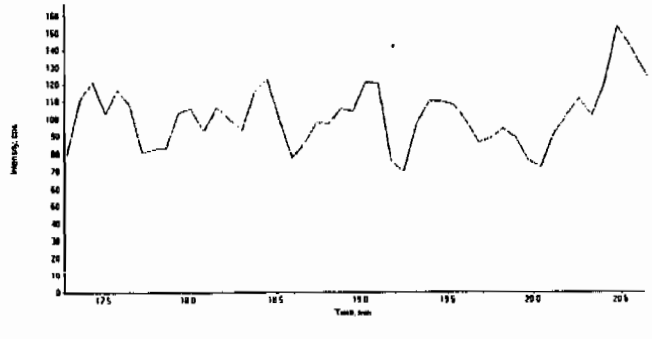

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330011.wiff	**Acquisition Date**	3/30/2010 1:00:55 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

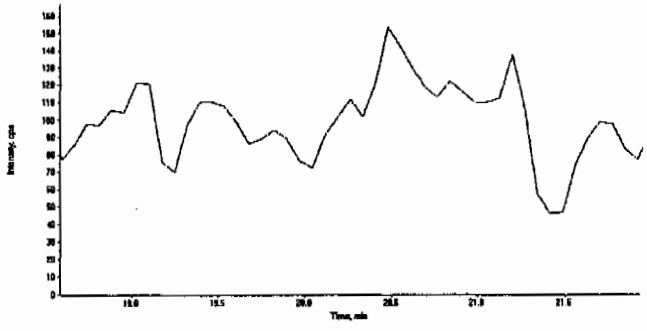

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

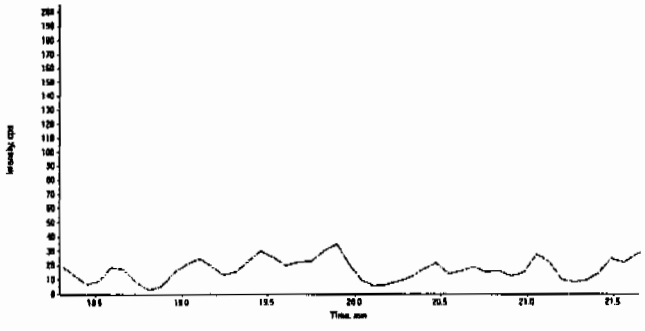

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1864

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 30–MAR–10 15:12

GEL Data File: EXP0330016.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	3.49
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330016.wiff	**Acquisition Date**	3/30/2010 3:12:49 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	Unknown

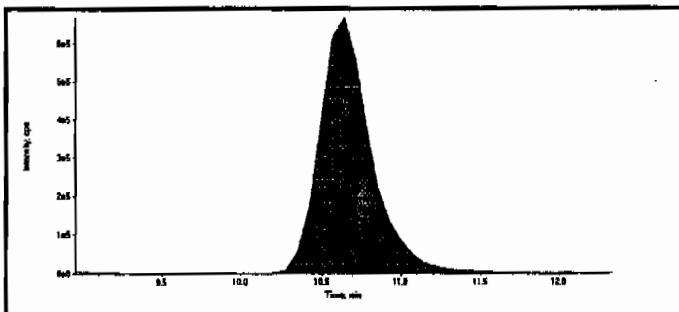

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	15000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

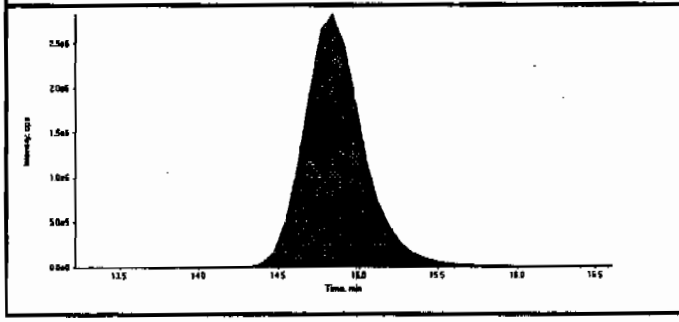

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.80
Area Counts:	73200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

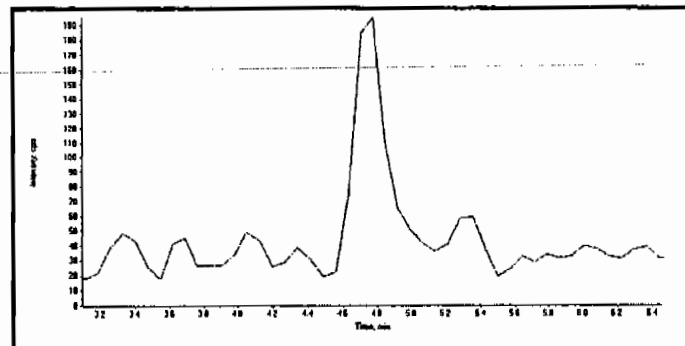

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

4/2/10 04/02/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330016.wiff	**Acquisition Date**	3/30/2010 3:12:49 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

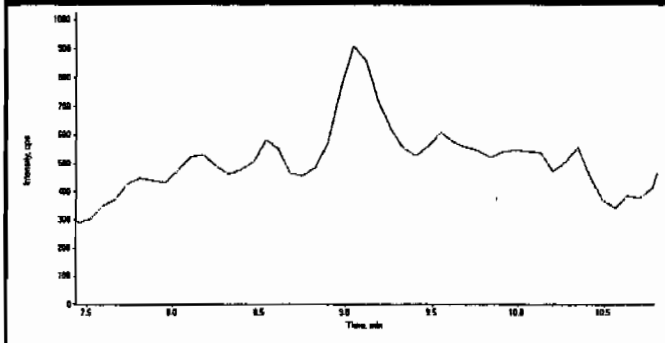

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

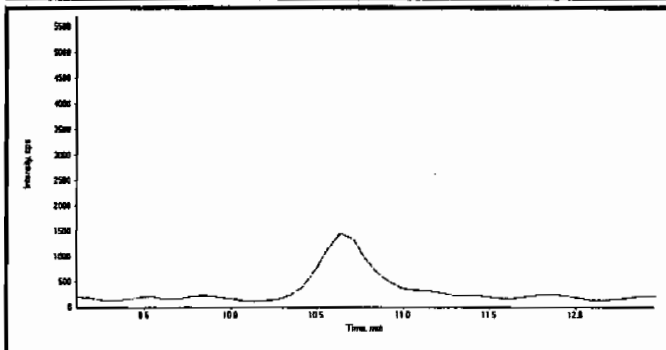

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

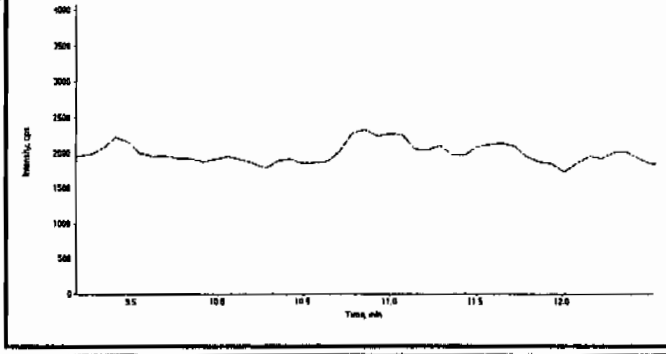

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

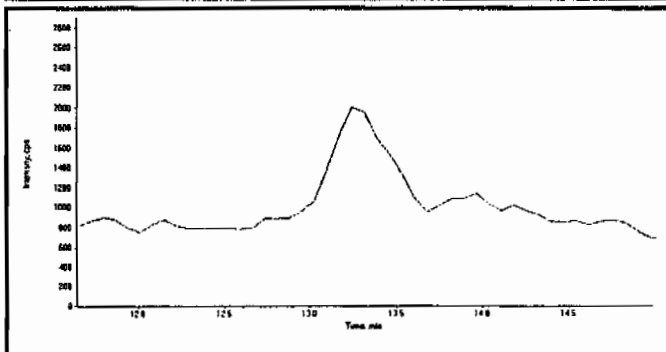

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330016.wiff	**Acquisition Date**	3/30/2010 3:12:49 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

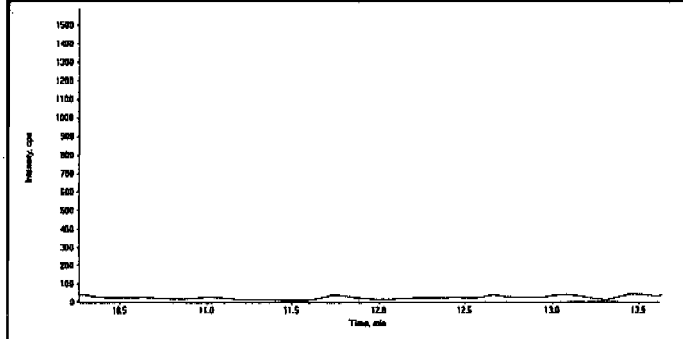

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

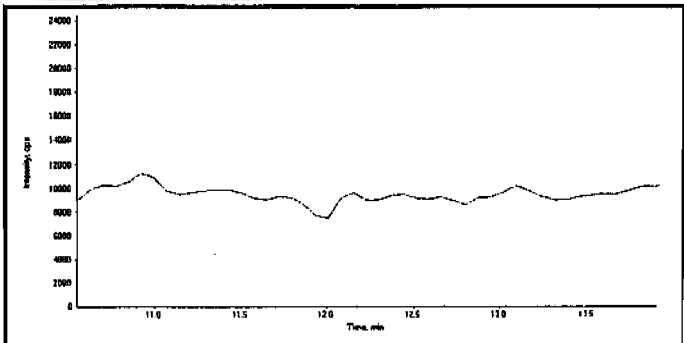

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

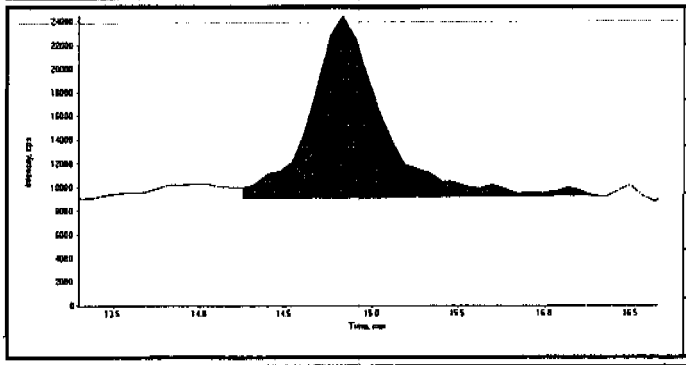

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	14.8
Area Counts:	4.61e+005
Manual Modification	No
Amount:	3.49 (ng/mL)
% Accuracy:	N/A

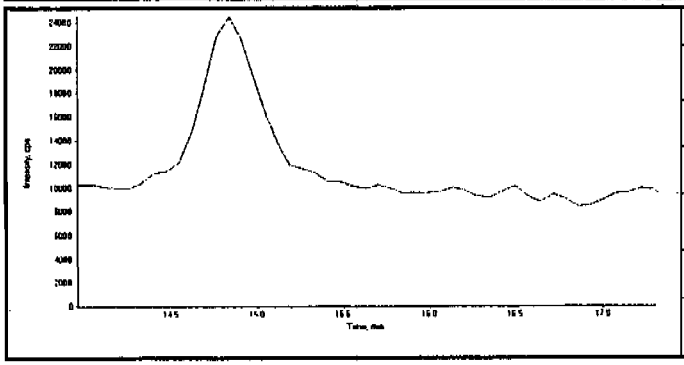

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0330016.wiff	**Acquisition Date**	3/30/2010 3:12:49 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

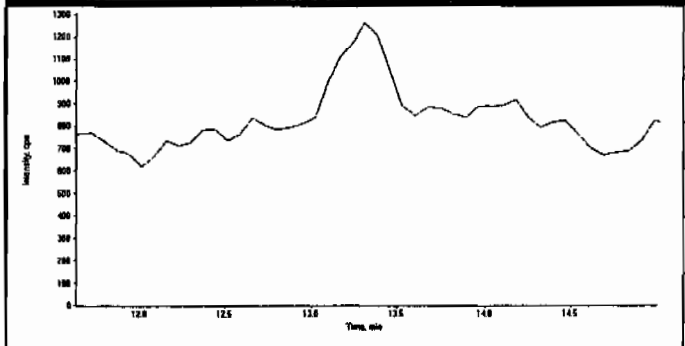

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

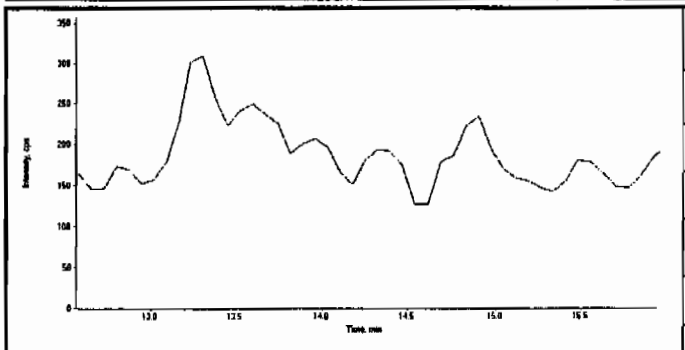

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

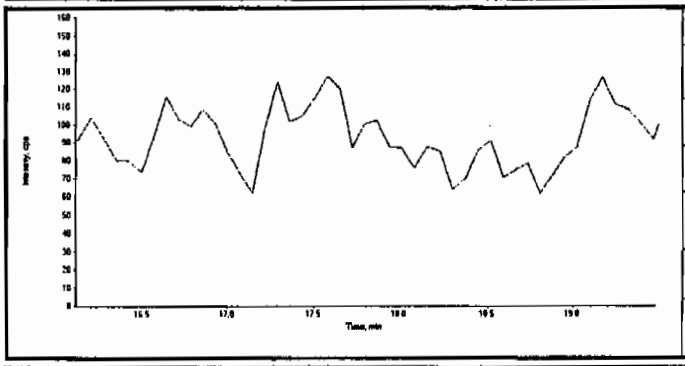

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

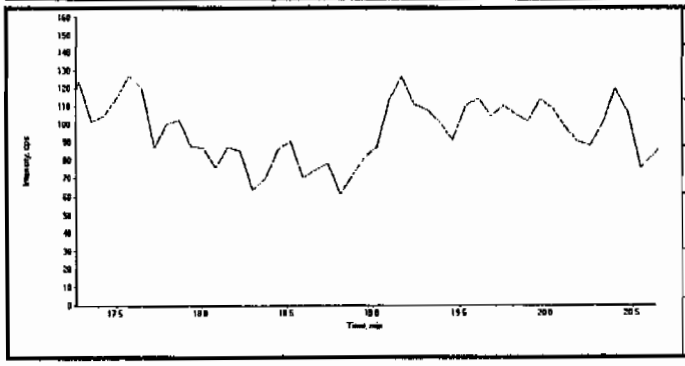

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330016.wiff	**Acquisition Date**	3/30/2010 3:12:49 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

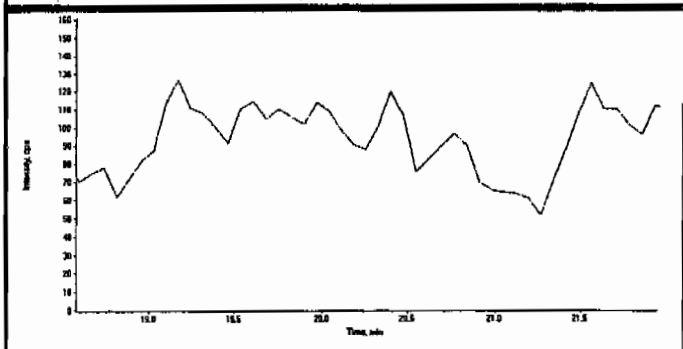

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

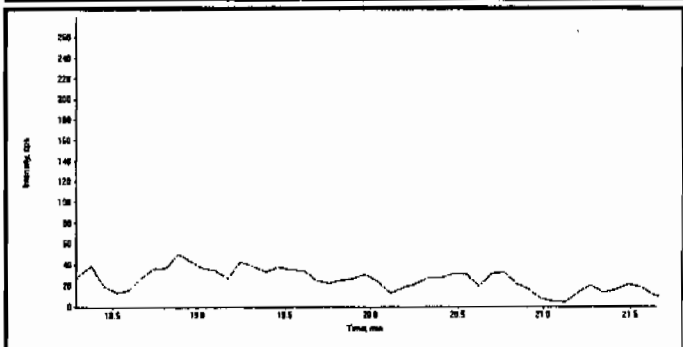

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1864

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 30-MAR-10 18:44

GEL Data File: EXP0330024.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	3.09
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330024.wiff	**Acquisition Date**	3/30/2010 6:44:15 PM
Sample Name	XIBLK05	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

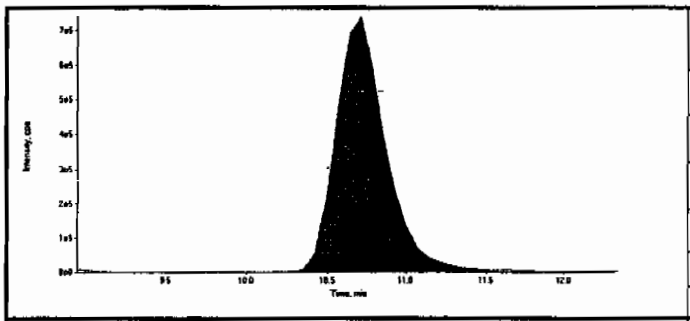

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	16400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

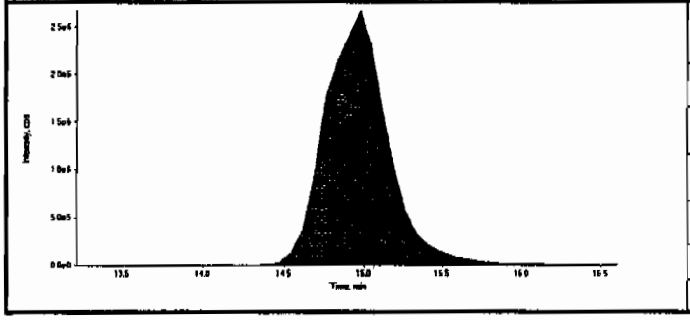

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	15.00
Area Counts:	74400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

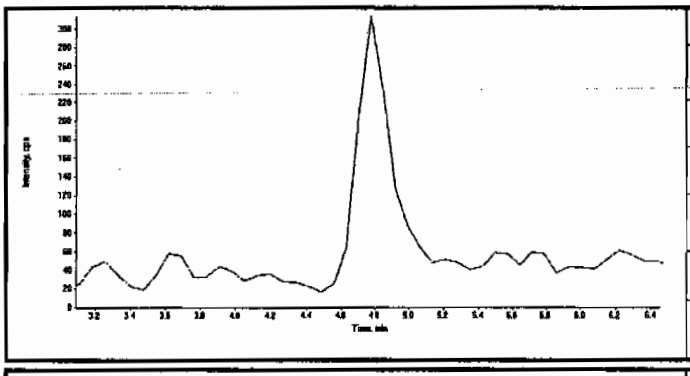

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

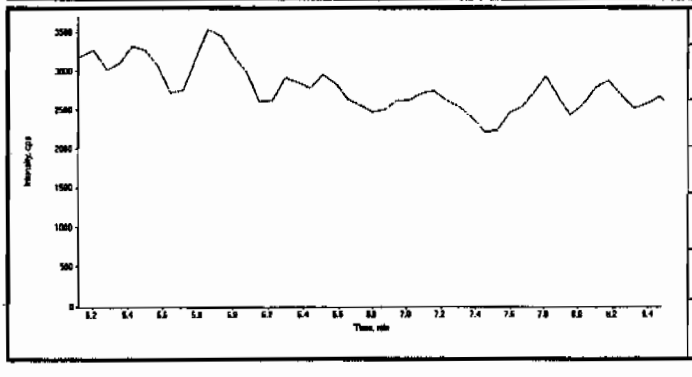

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Lan 4/2/10 Hme 04/02/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330024.wiff	**Acquisition Date**	3/30/2010 6:44:15 PM
Sample Name	XIBLK05	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

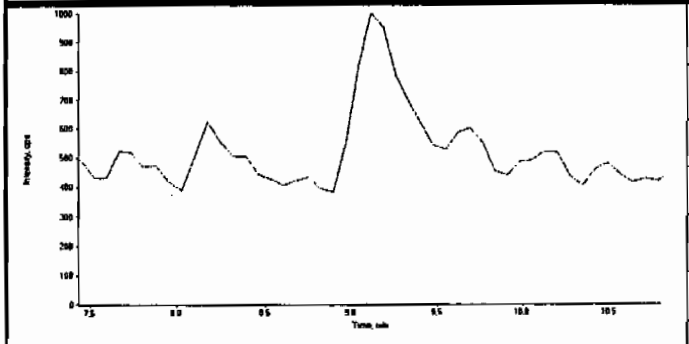

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

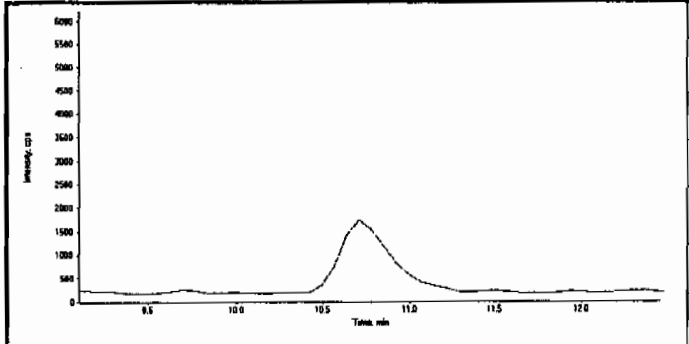

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

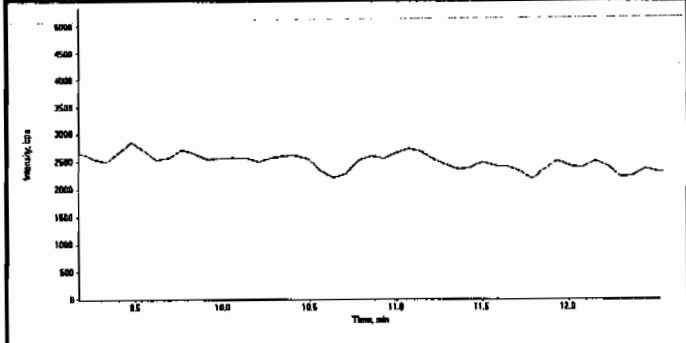

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

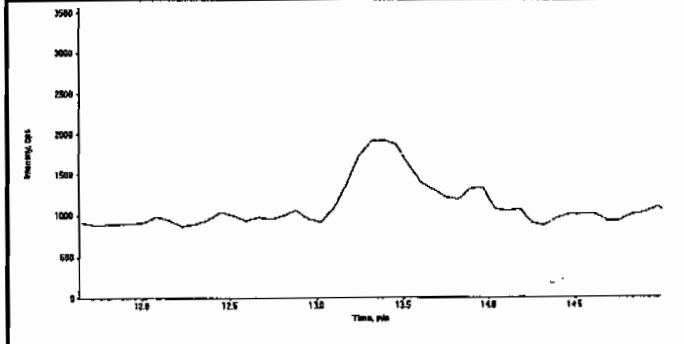

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330024.wiff	**Acquisition Date**	3/30/2010 6:44:15 PM
Sample Name	XIBLK05	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

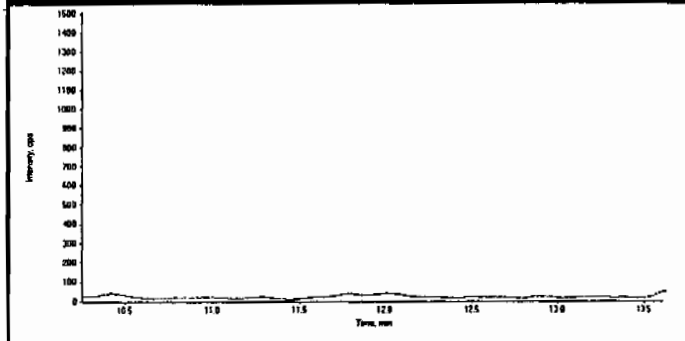

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

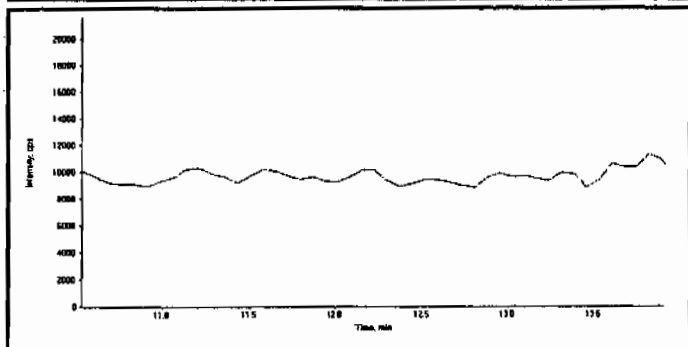

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

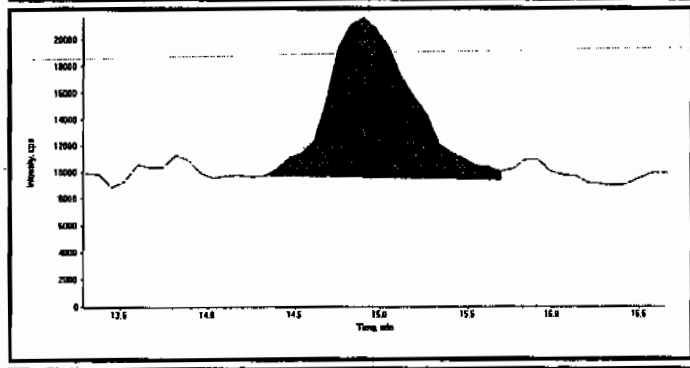

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	14.9
Area Counts:	4.16e+005
Manual Modification	No
Amount:	3.09 (ng/mL)
% Accuracy:	N/A

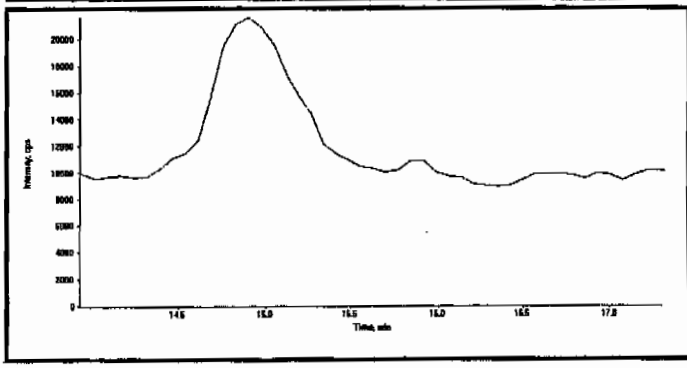

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0330024.wiff	**Acquisition Date**	3/30/2010 6:44:15 PM
Sample Name	XIBLK05	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

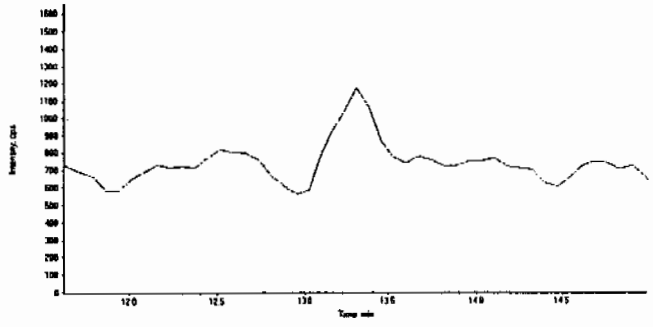

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

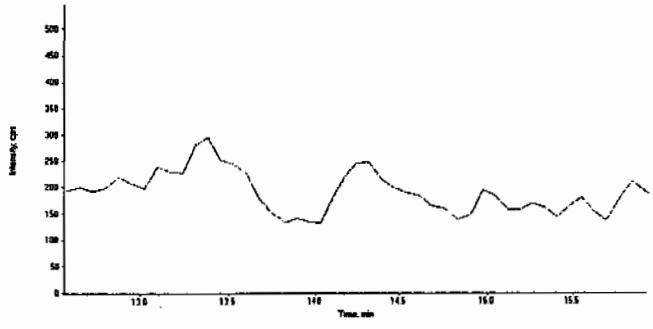

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

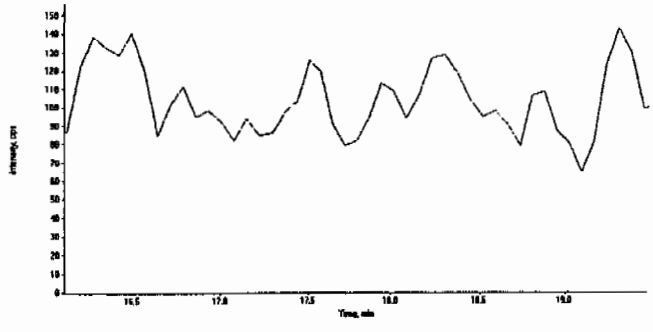

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

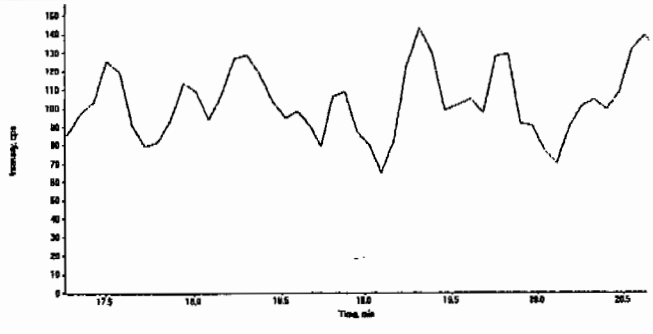

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330024.wiff	**Acquisition Date**	3/30/2010 6:44:15 PM
Sample Name	XIBLK05	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

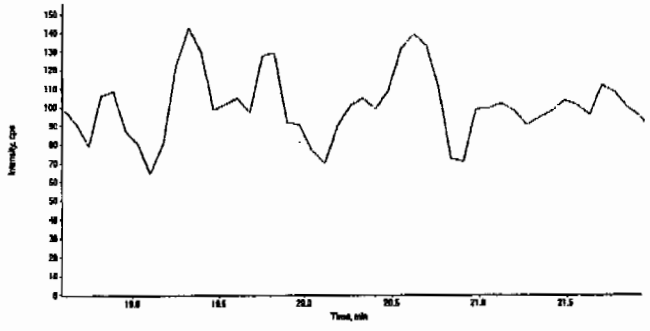

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

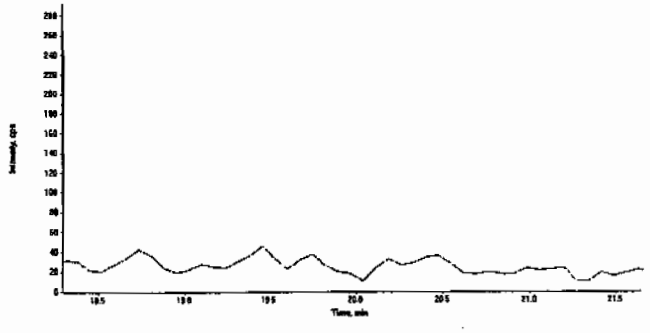

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1864

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 31–MAR–10 00:27

GEL Data File: EXP0330037.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330037.wiff	Acquisition Date	3/31/2010 12:27:38 AM
Sample Name	XIBLK06	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	Result Table	033010.rdb
Procedure Code	LCMSEXP_B	Sample Type	Unknown

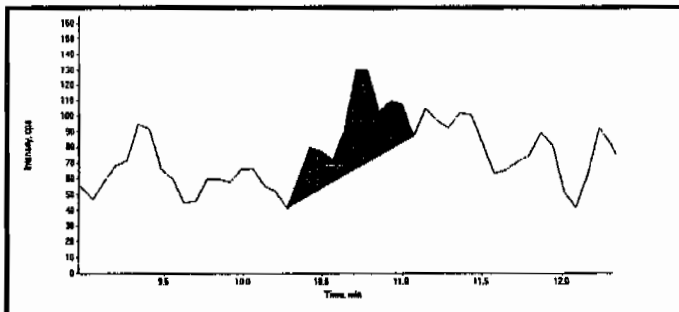

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.80
Area Counts:	1380.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

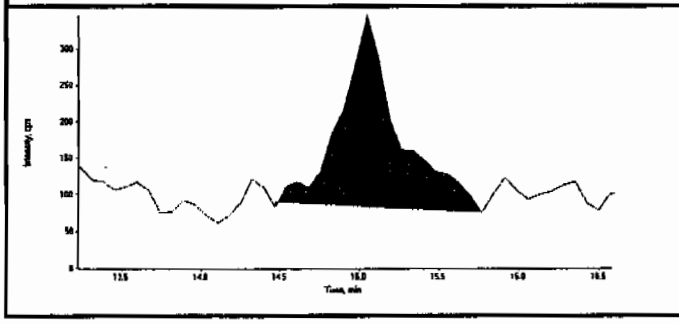

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	15.00
Area Counts:	6570.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

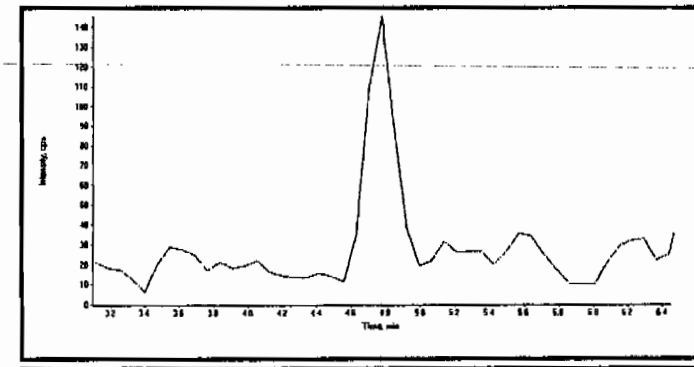

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

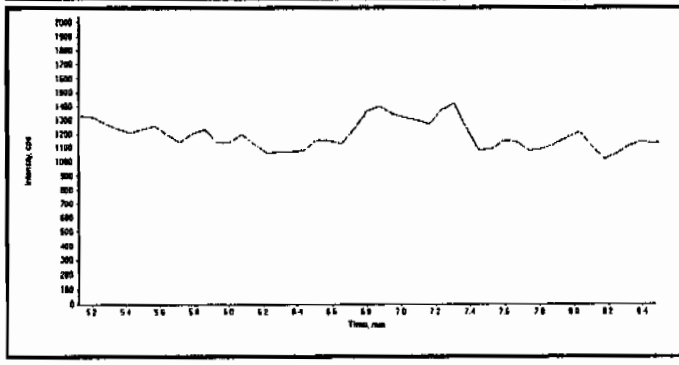

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

mis injection
no Istd recoveries

YCar 4/2/10

Hnm 04/02/10

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Data File	EXP0330037.wiff	**Acquisition Date**	3/31/2010 12:27:38 AM
Sample Name	XIBLK06	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

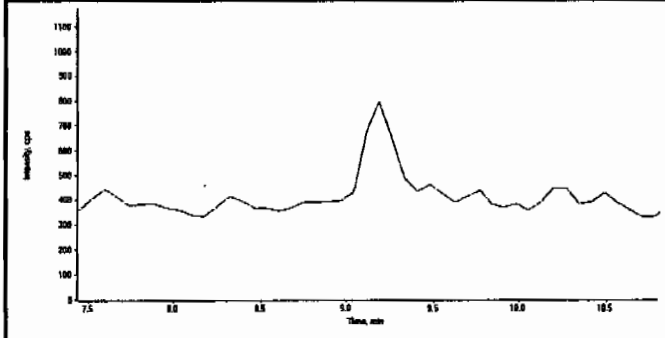

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

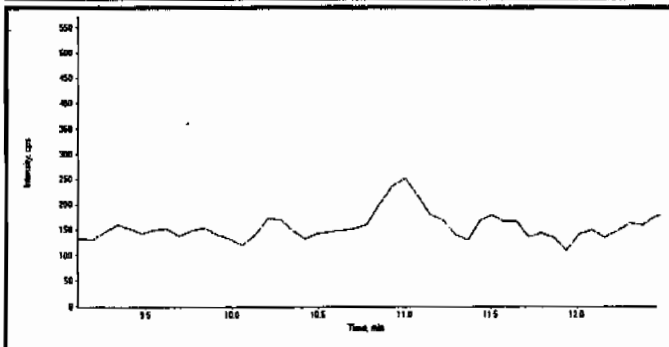

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

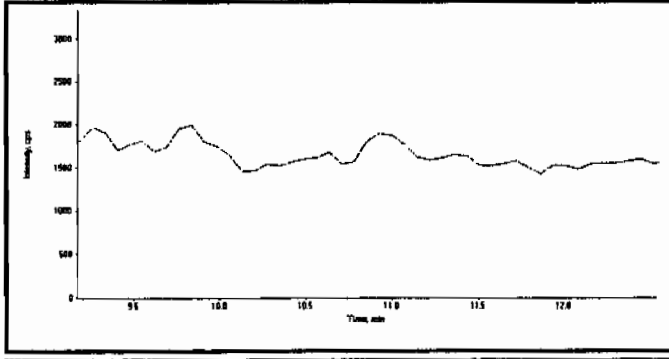

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

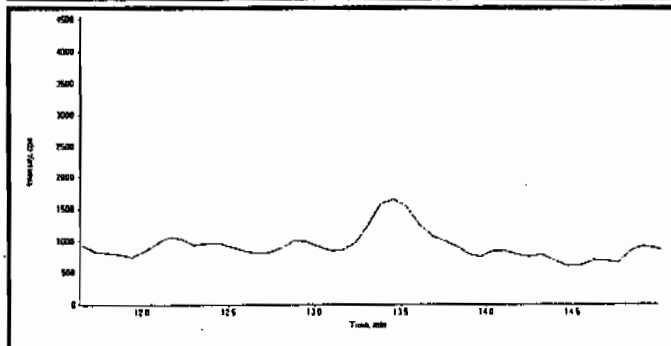

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330037.wiff	**Acquisition Date**	3/31/2010 12:27:38 AM
Sample Name	XIBLK06	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	Unknown

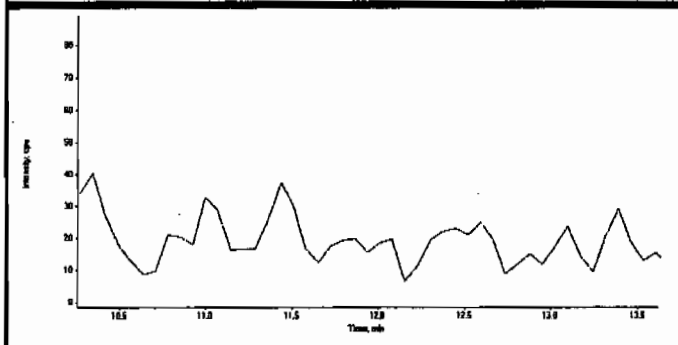

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

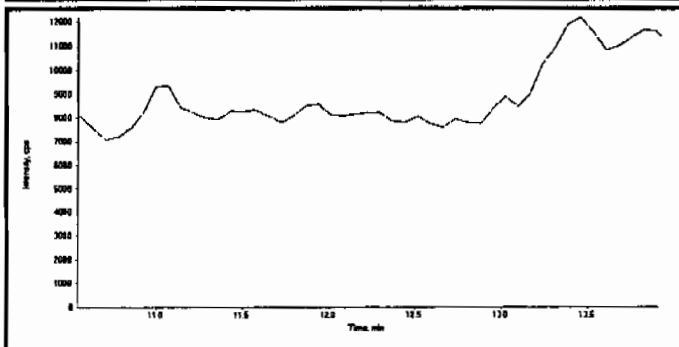

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

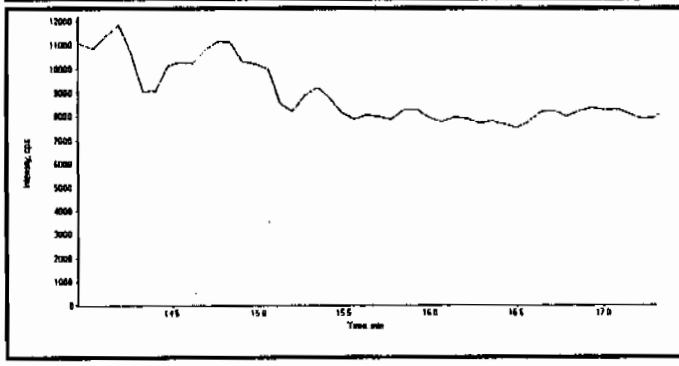

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330037.wiff	**Acquisition Date**	3/31/2010 12:27:38 AM
Sample Name	XIBLK06	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

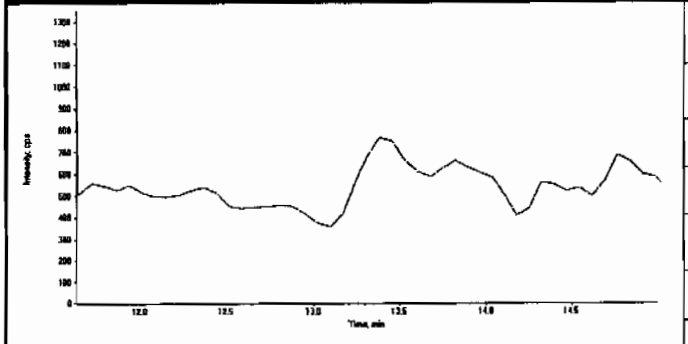

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

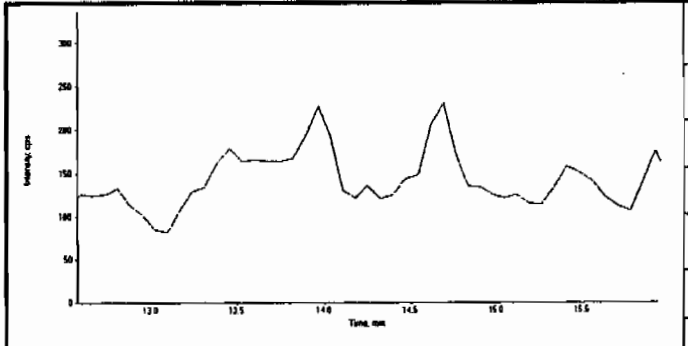

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

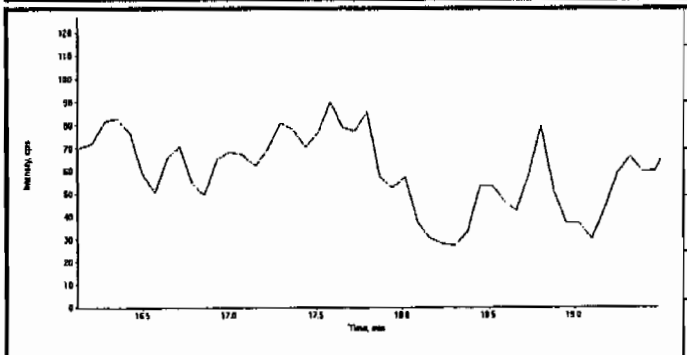

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

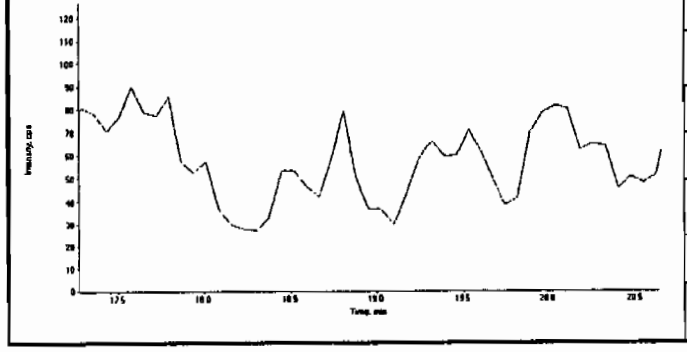

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330037.wiff	**Acquisition Date**	3/31/2010 12:27:38 AM
Sample Name	XIBLK06	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

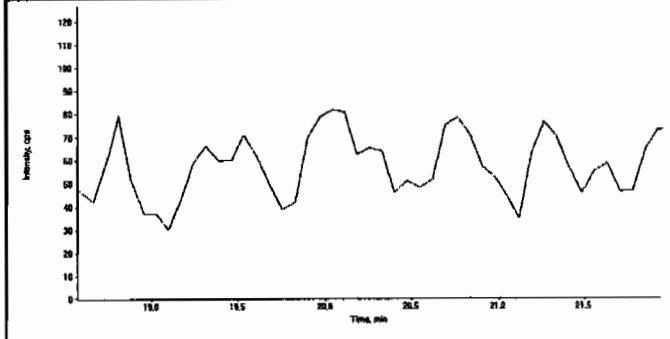

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

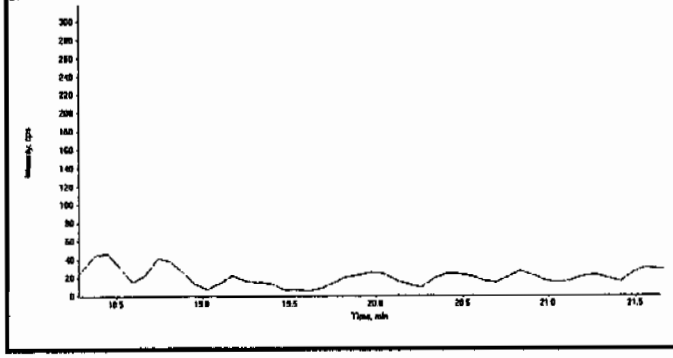

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1864

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 01–APR–10 15:09

GEL Data File: EXP0401009.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	4.54
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401009.wiff	**Acquisition Date**	4/1/2010 3:09:14 PM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

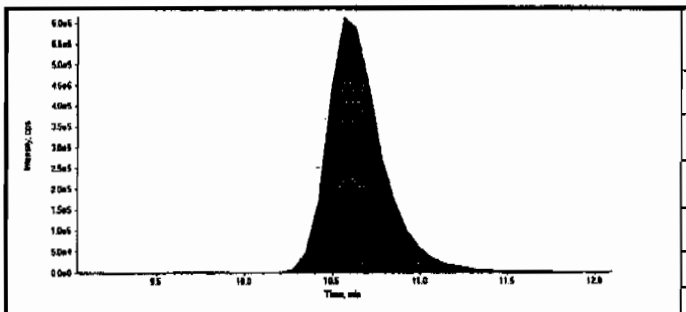

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	13100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

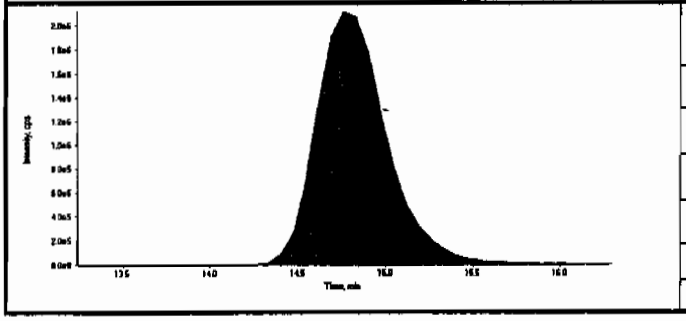

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.80
Actual RT:	14.80
Area Counts:	59900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

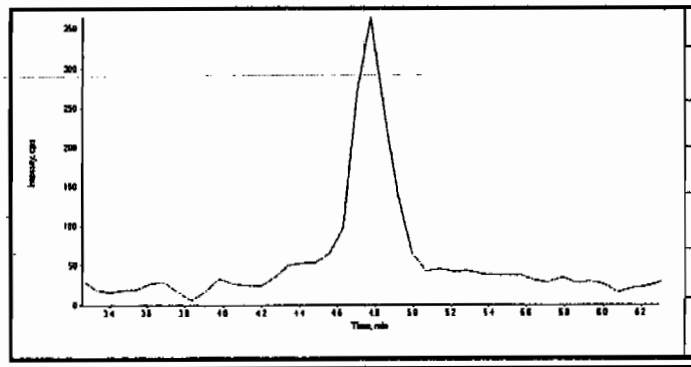

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

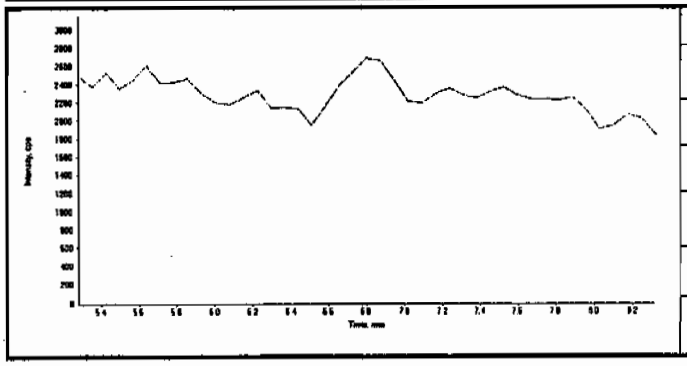

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Lar 4/9/10 Hmm 04/09/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401009.wiff	**Acquisition Date**	4/1/2010 3:09:14 PM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

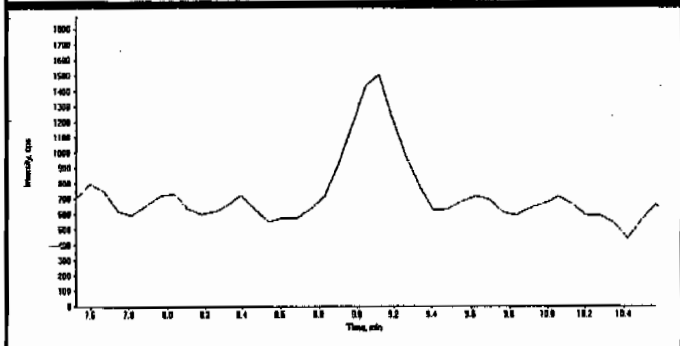

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.04
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

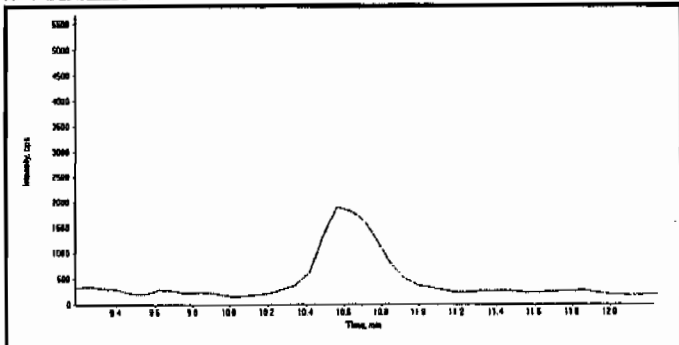

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

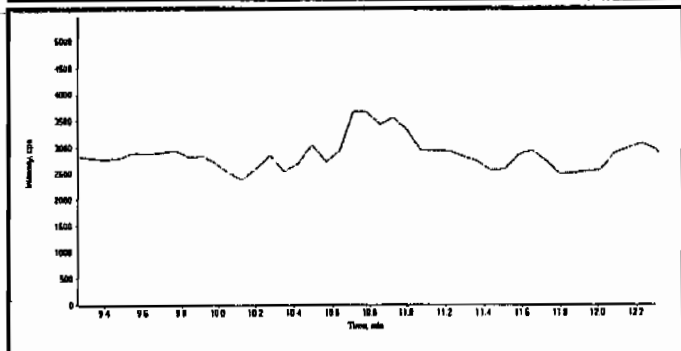

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

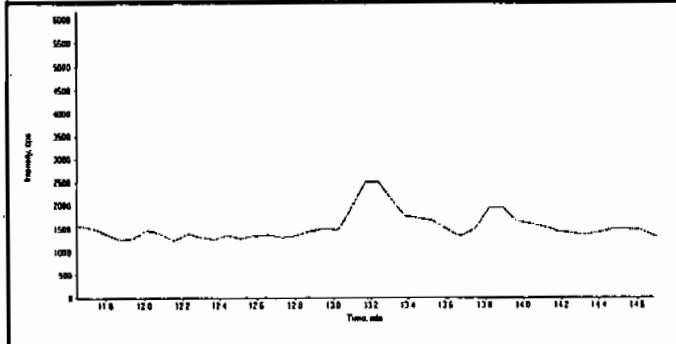

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401009.wiff	**Acquisition Date**	4/1/2010 3:09:14 PM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

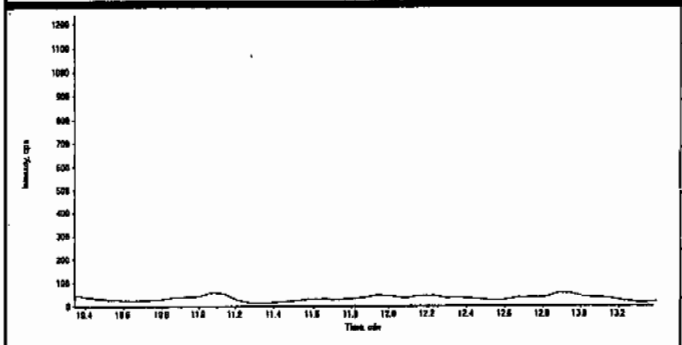

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

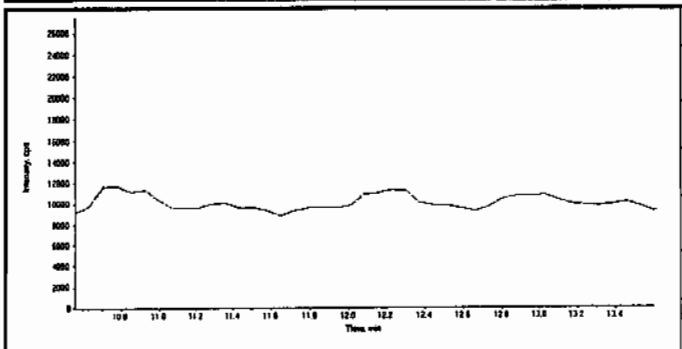

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

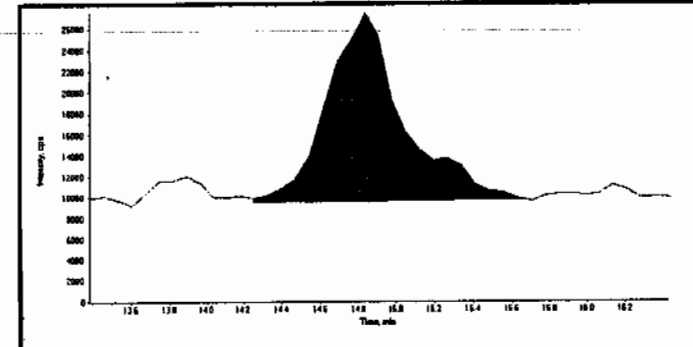

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.9
Actual RT:	14.8
Area Counts:	5.09e+005
Manual Modification	No
Amount:	4.54 (ng/mL)
% Accuracy:	N/A

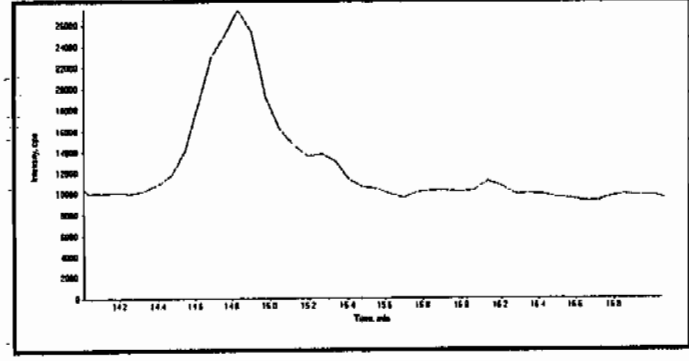

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401009.wiff	**Acquisition Date**	4/1/2010 3:09:14 PM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

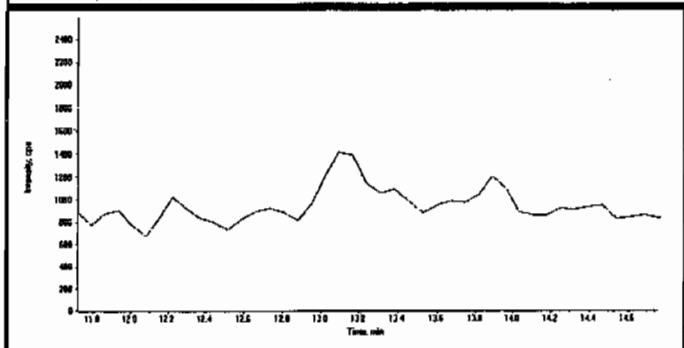

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

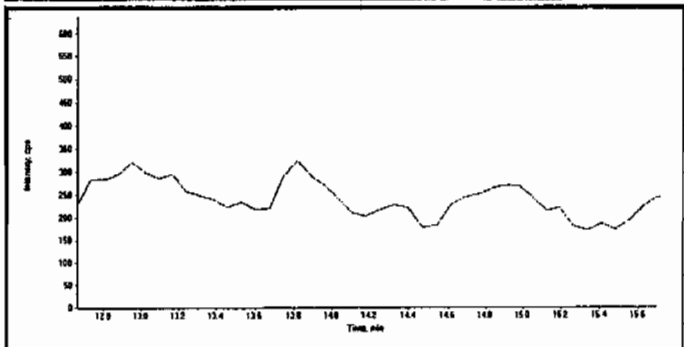

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

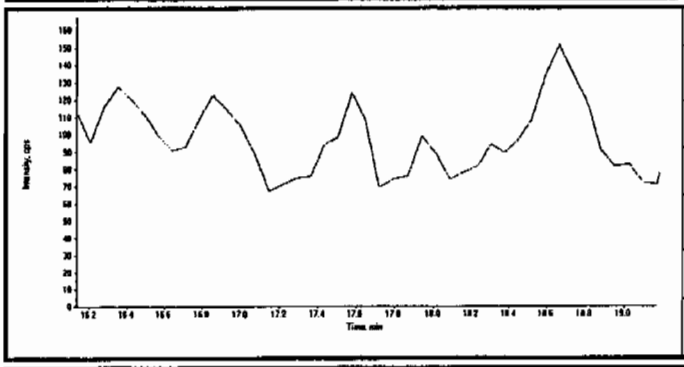

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401009.wiff	**Acquisition Date**	4/1/2010 3:09:14 PM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

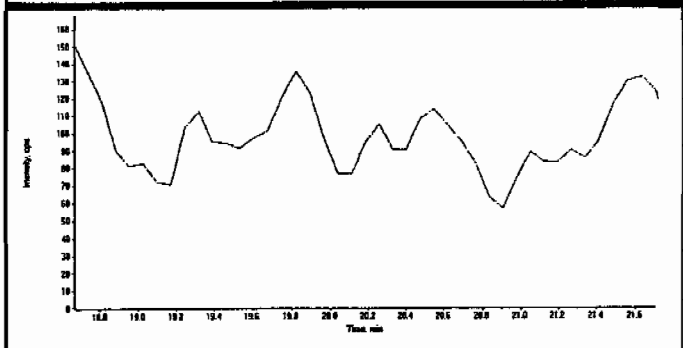

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

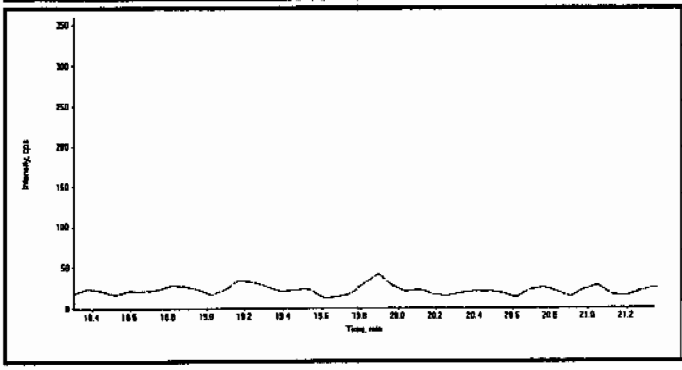

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1864

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 01–APR–10 16:02

GEL Data File: EXP0401011.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	3.79
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401011.wiff	**Acquisition Date**	4/1/2010 4:02:01 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

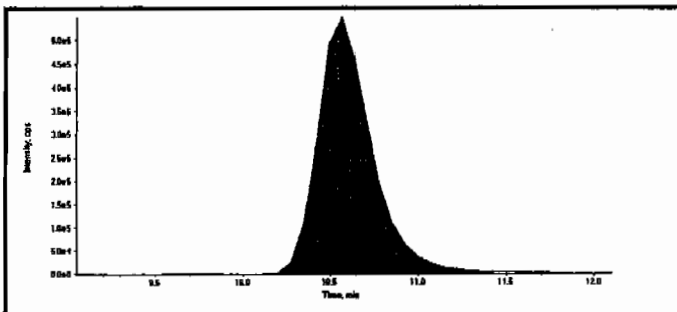

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	11800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

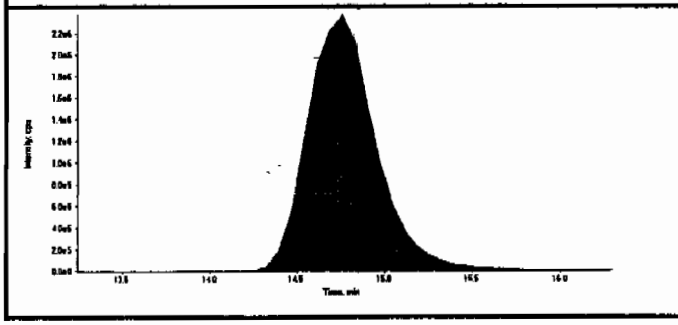

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.80
Actual RT:	14.80
Area Counts:	64700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

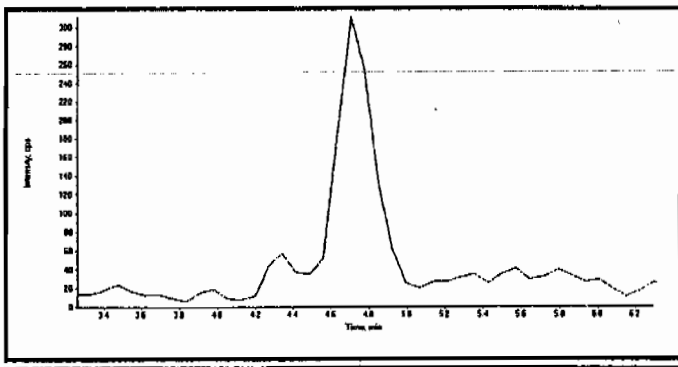

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

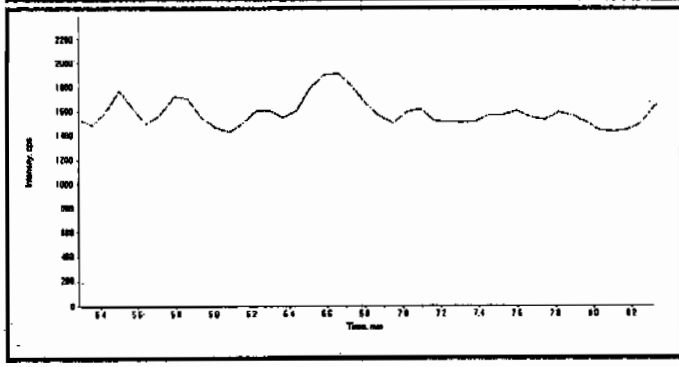

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Ofcu 4/9/10

Hmw 04/09/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401011.wiff	**Acquisition Date**	4/1/2010 4:02:01 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

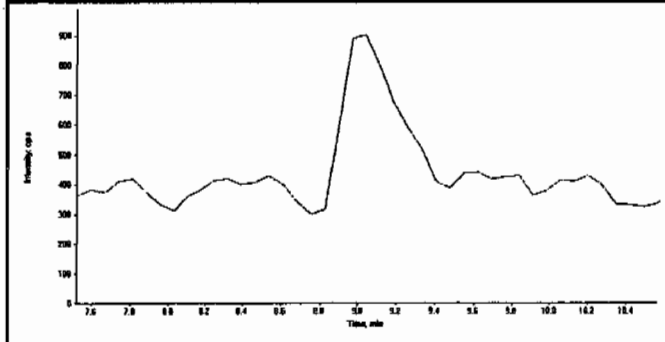

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.04
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

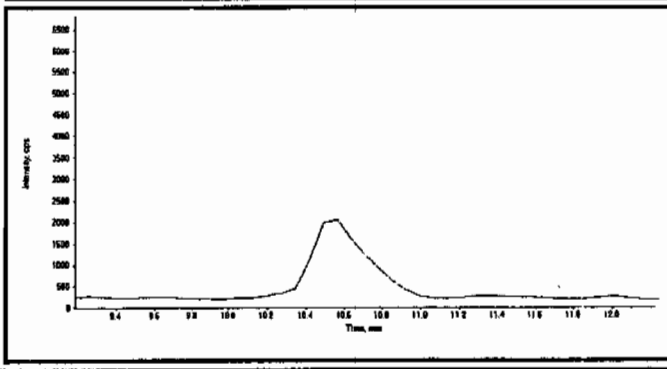

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

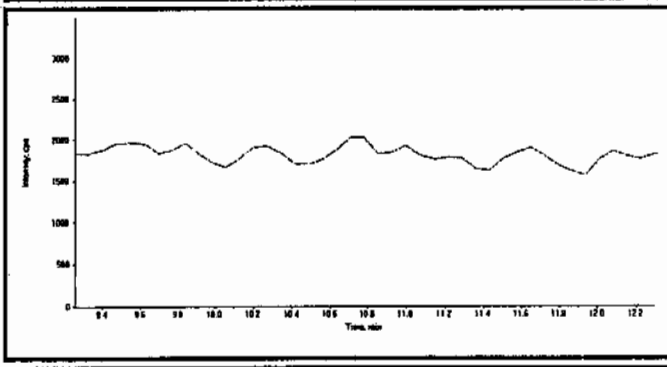

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

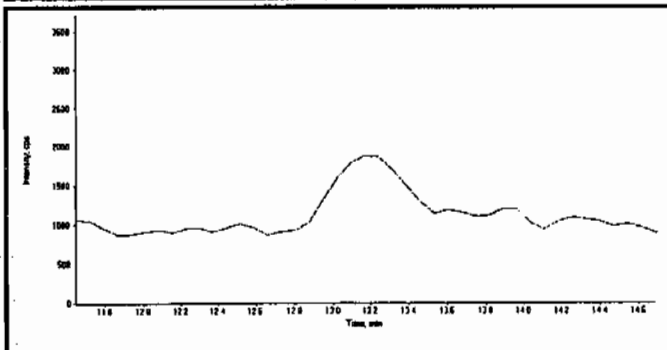

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401011.wiff	**Acquisition Date**	4/1/2010 4:02:01 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

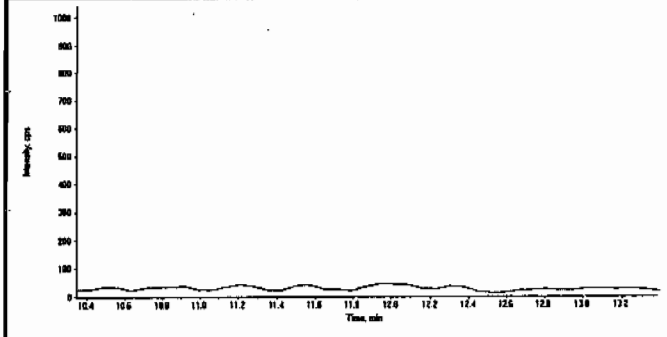

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

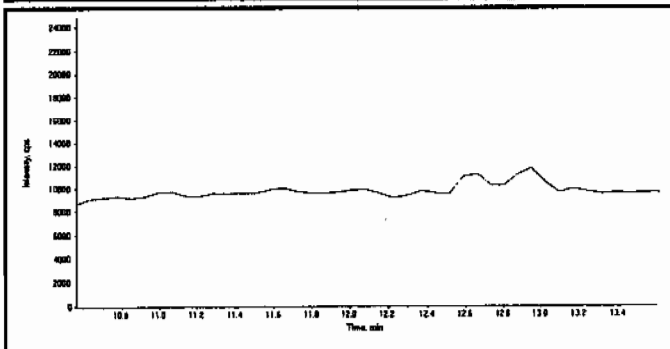

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

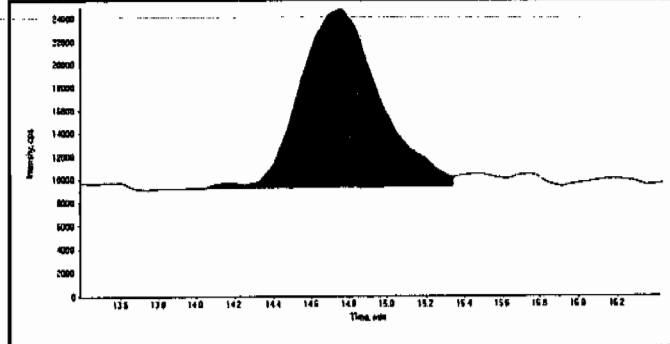

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.9
Actual RT:	14.8
Area Counts:	4.60e+005
Manual Modification	No
Amount:	3.79 (ng/mL)
% Accuracy:	N/A

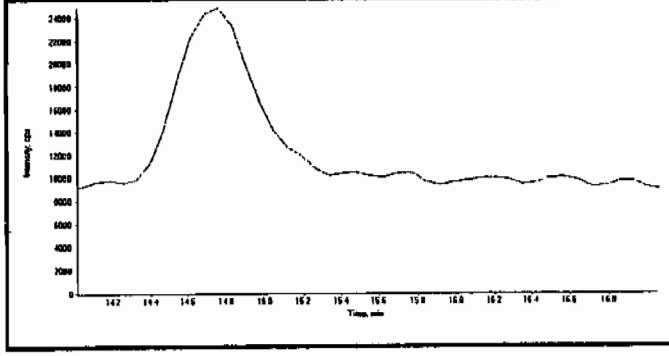

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401011.wiff	**Acquisition Date**	4/1/2010 4:02:01 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

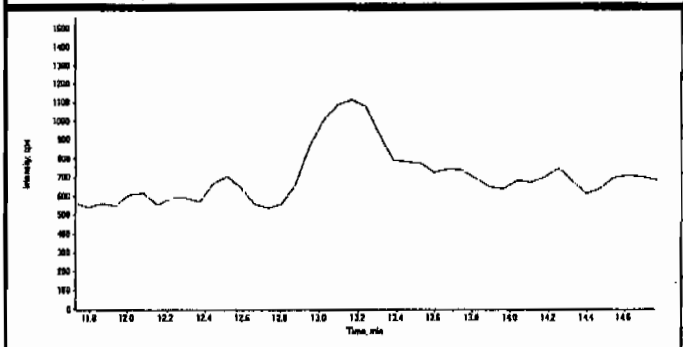

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

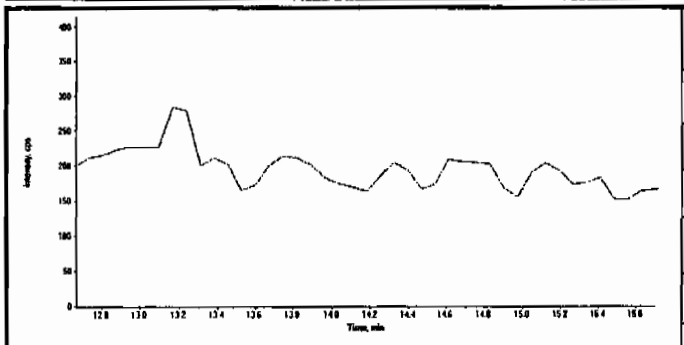

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

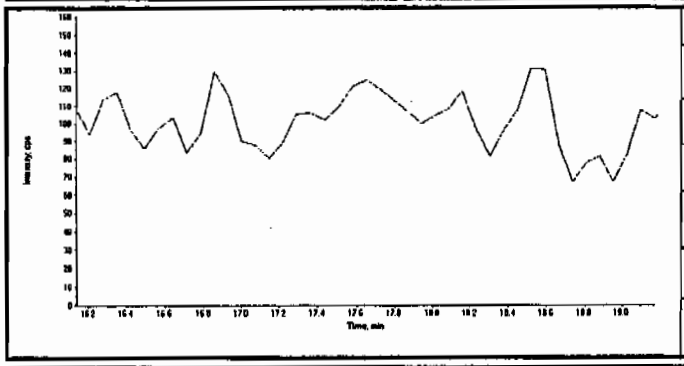

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

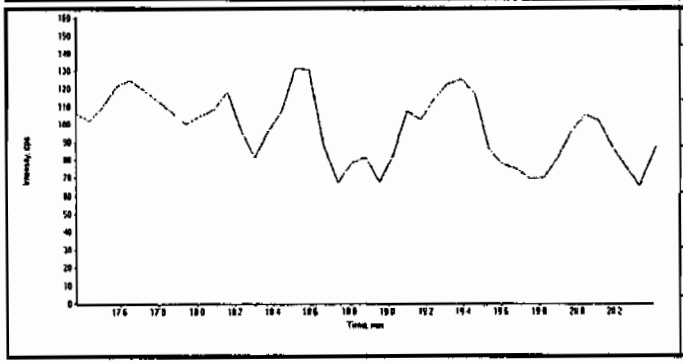

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401011.wiff	**Acquisition Date**	4/1/2010 4:02:01 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

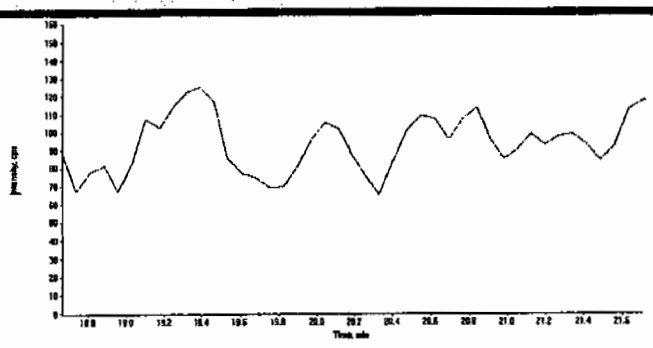

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

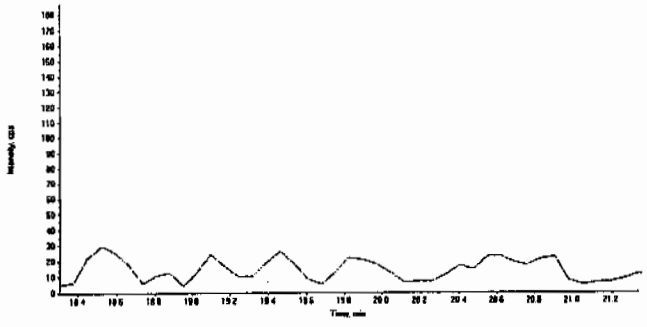

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1864

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 01–APR–10 17:47

GEL Data File: EXP0401015.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	4.35
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401015.wiff	**Acquisition Date**	4/1/2010 5:47:50 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

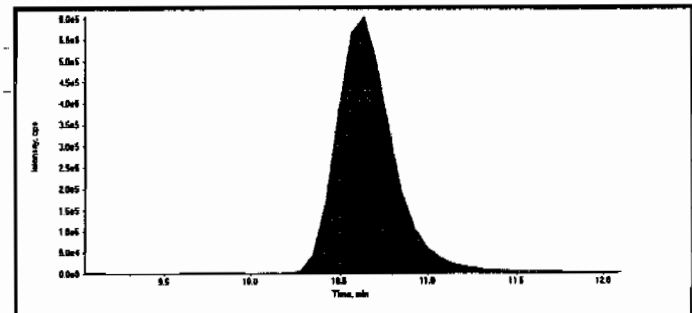

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	13300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

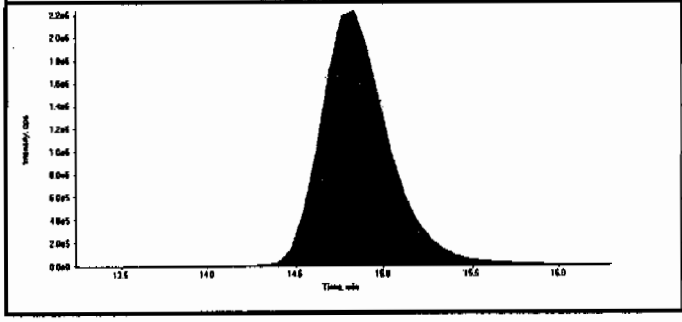

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.80
Actual RT:	14.80
Area Counts:	60200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

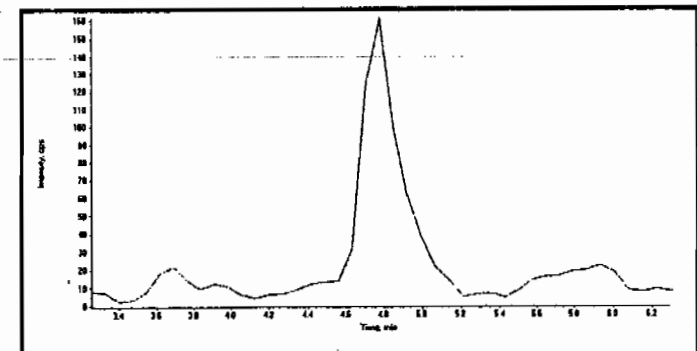

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

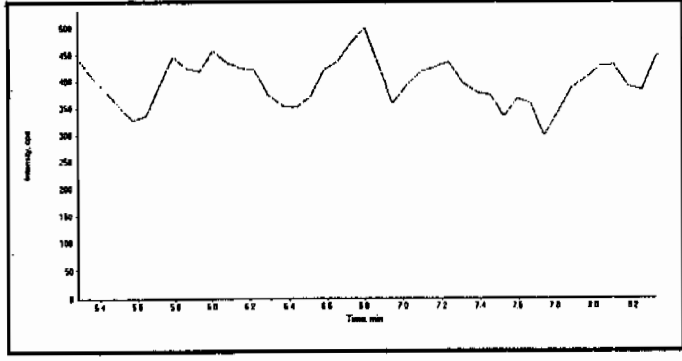

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Ker 4/9/10 Hmm 04/09/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401015.wiff	**Acquisition Date**	4/1/2010 5:47:50 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.04
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

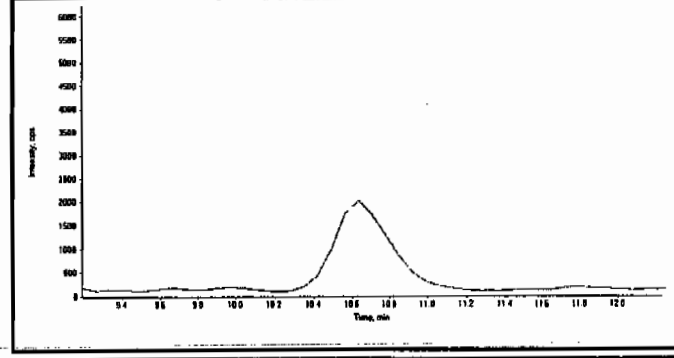

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

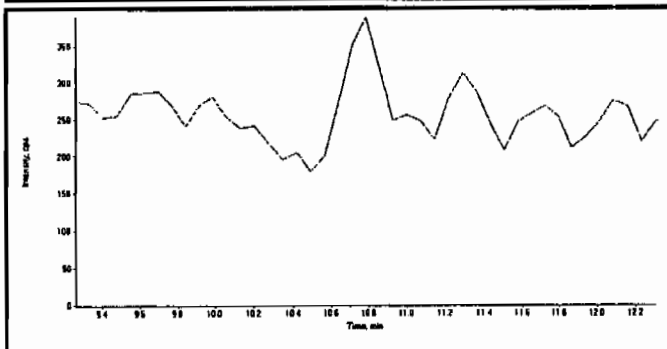

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

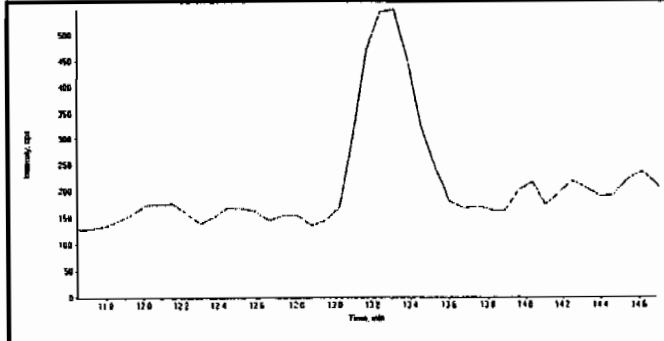

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401015.wiff	**Acquisition Date**	4/1/2010 5:47:50 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

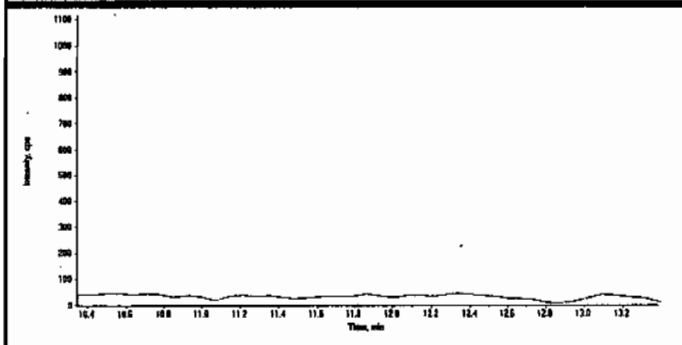

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

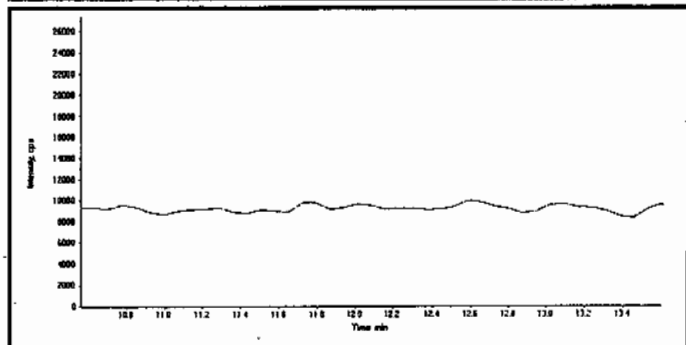

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

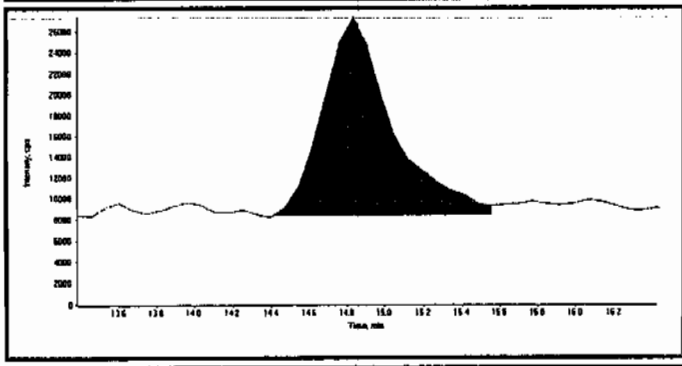

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.9
Actual RT:	14.8
Area Counts:	4.91e+005
Manual Modification	No
Amount:	4.35 (ng/mL)
% Accuracy:	N/A

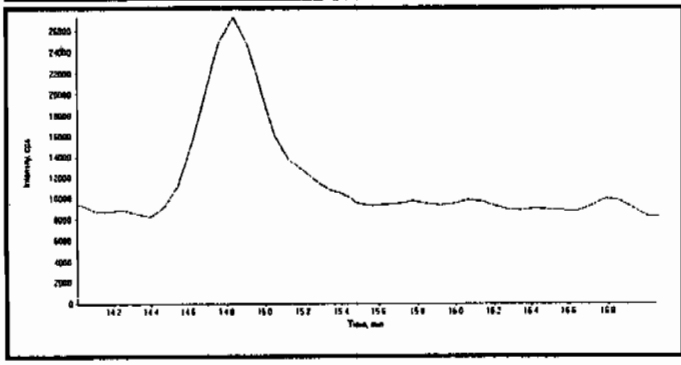

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401015.wiff	**Acquisition Date**	4/1/2010 5:47:50 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

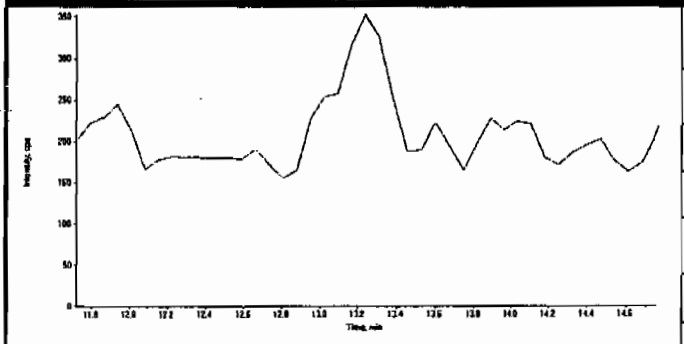

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

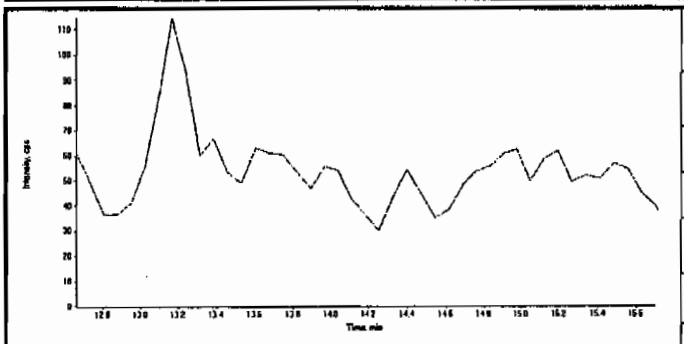

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

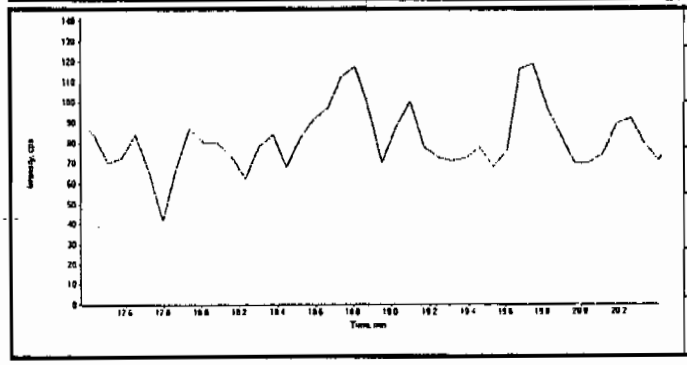

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401015.wiff	**Acquisition Date**	4/1/2010 5:47:50 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

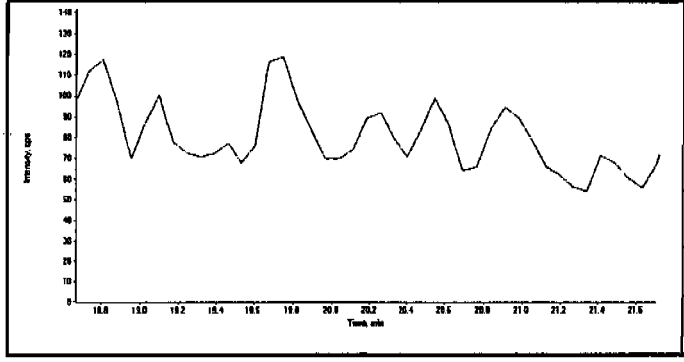

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

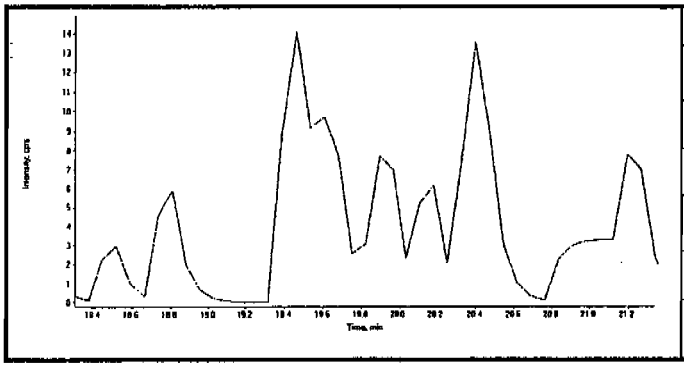

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1864

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 01–APR–10 21:45

GEL Data File: EXP0401024.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	4.51
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401024.wiff	**Acquisition Date**	4/1/2010 9:45:18 PM
Sample Name	XIBLK05	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

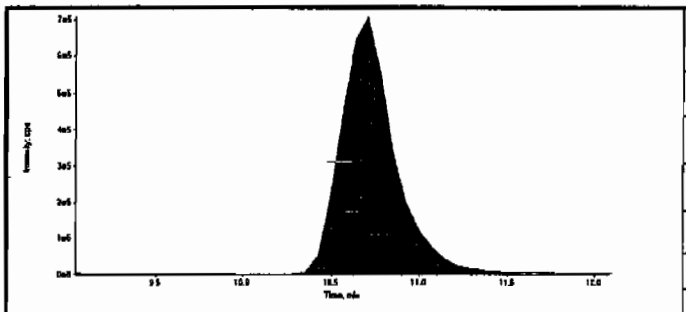

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	15100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

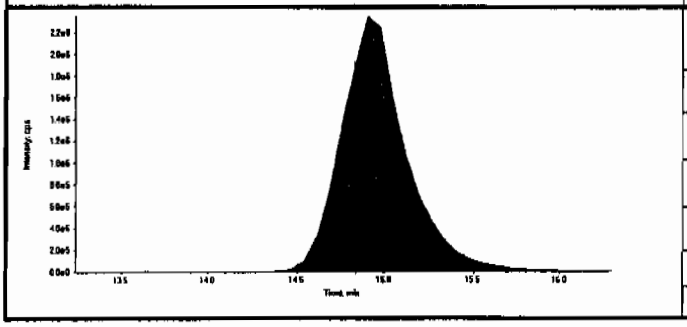

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.80
Actual RT:	14.90
Area Counts:	60700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

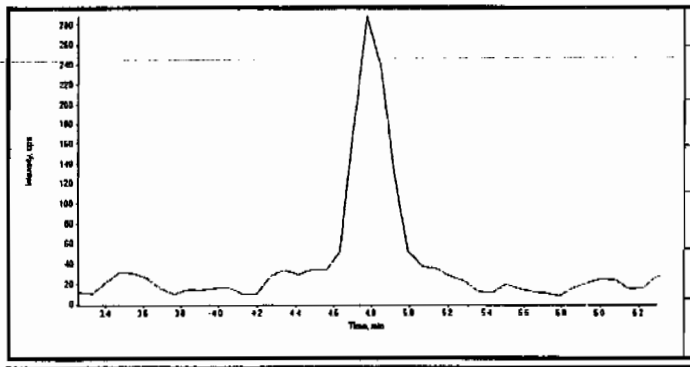

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

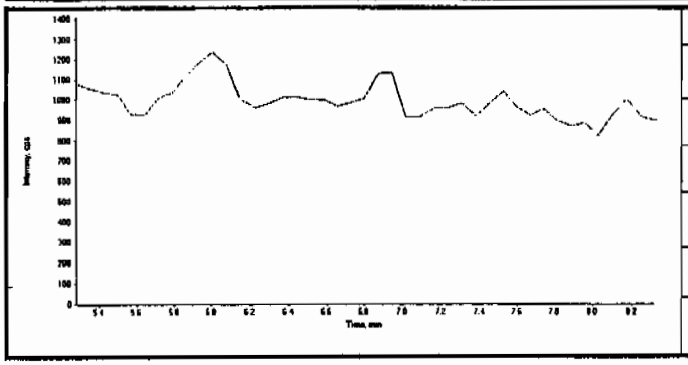

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

dat 4/9/10 hmw 04/09/10

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Data File	EXP0401024.wiff	**Acquisition Date**	4/1/2010 9:45:18 PM
Sample Name	XIBLK05	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

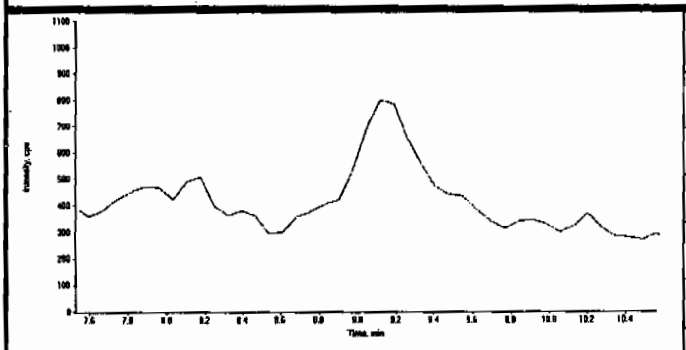

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.04
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

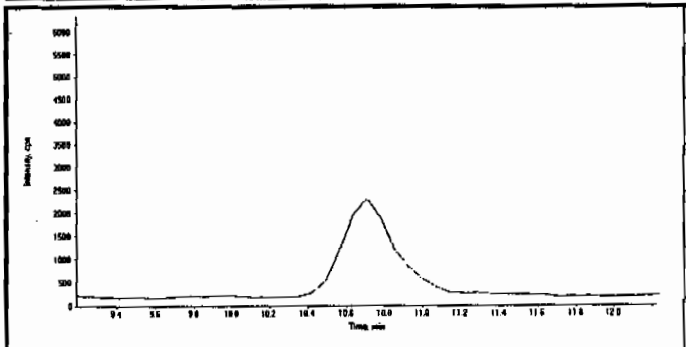

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

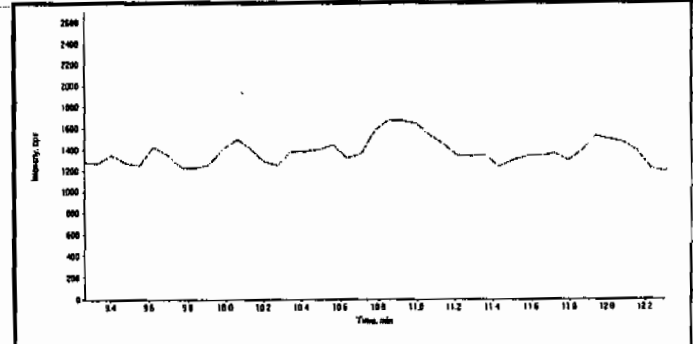

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

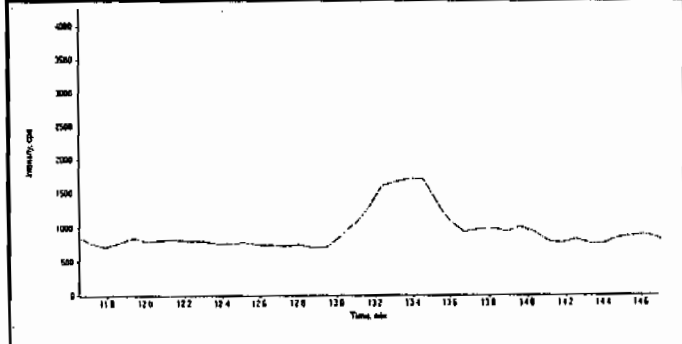

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0401024.wiff	**Acquisition Date**	4/1/2010 9:45:18 PM
Sample Name	XIBLK05	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

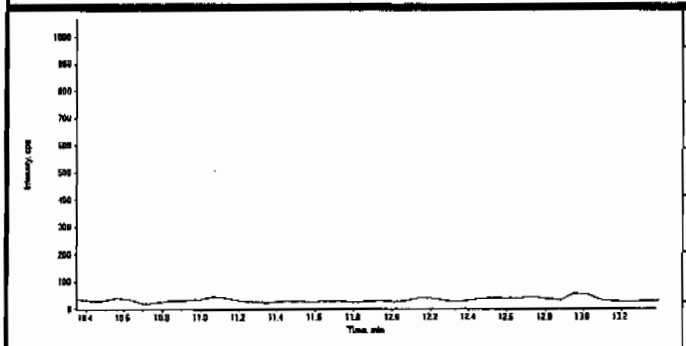

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

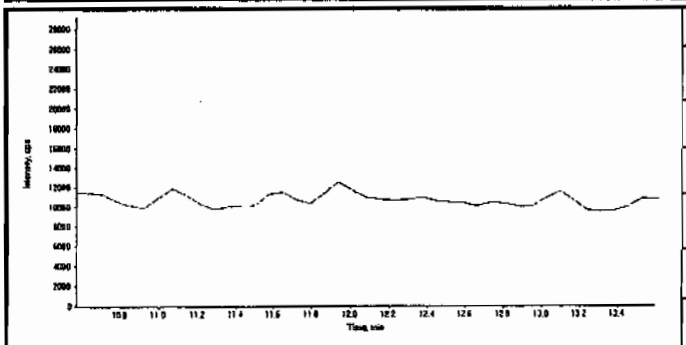

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

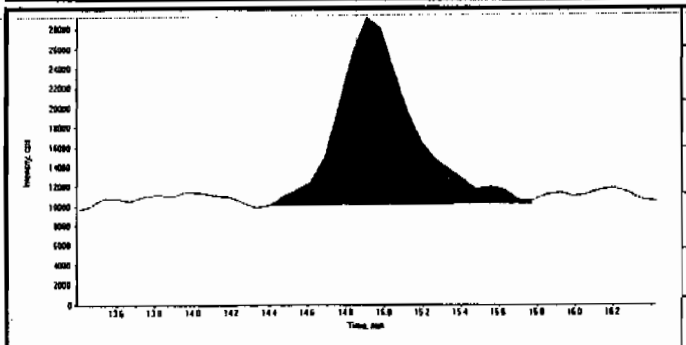

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.9
Actual RT:	14.9
Area Counts:	5.14e+005
Manual Modification	No
Amount:	4.51 (ng/mL)
% Accuracy:	N/A

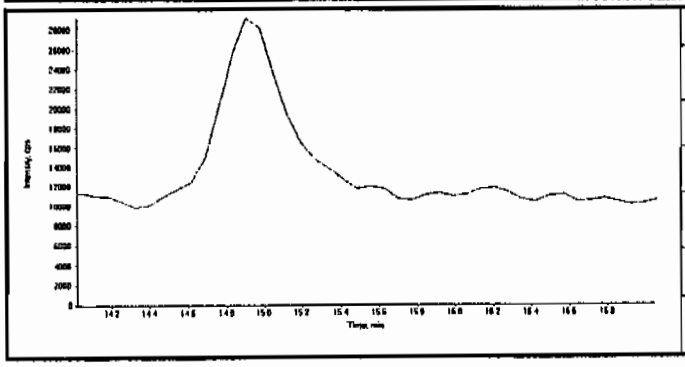

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401024.wiff	**Acquisition Date**	4/1/2010 9:45:18 PM
Sample Name	XIBLK05	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

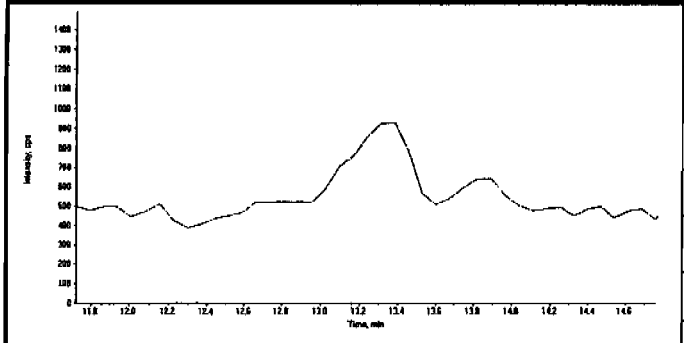

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

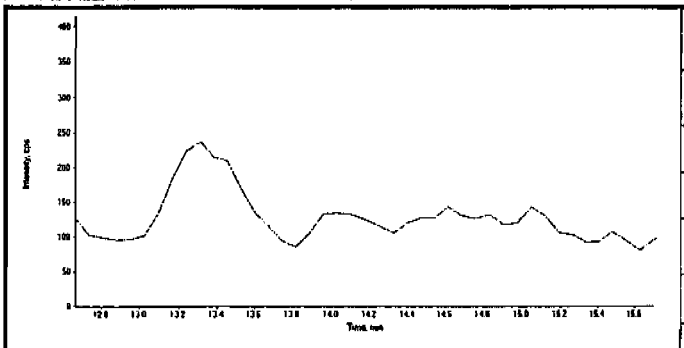

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

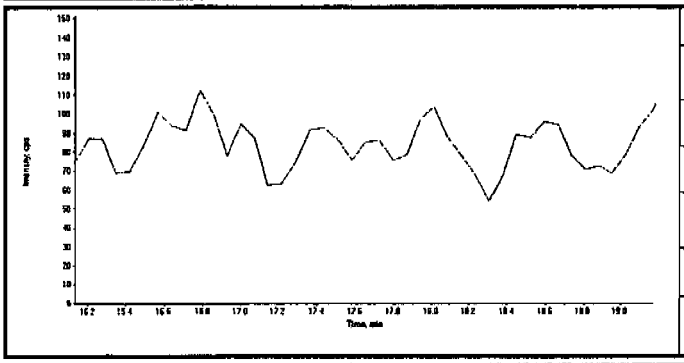

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

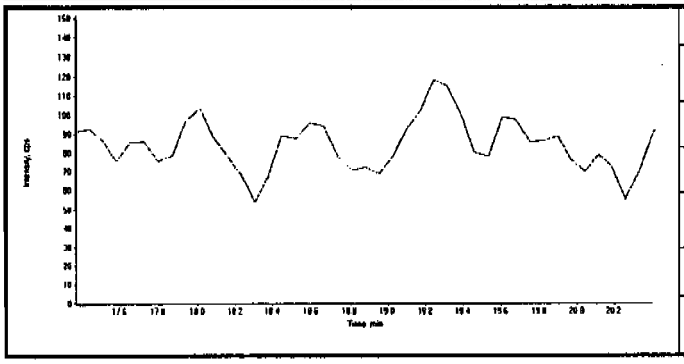

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401024.wiff	**Acquisition Date**	4/1/2010 9:45:18 PM
Sample Name	XIBLK05	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

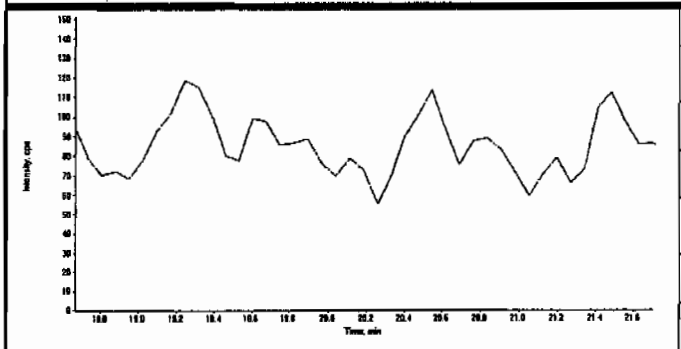

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

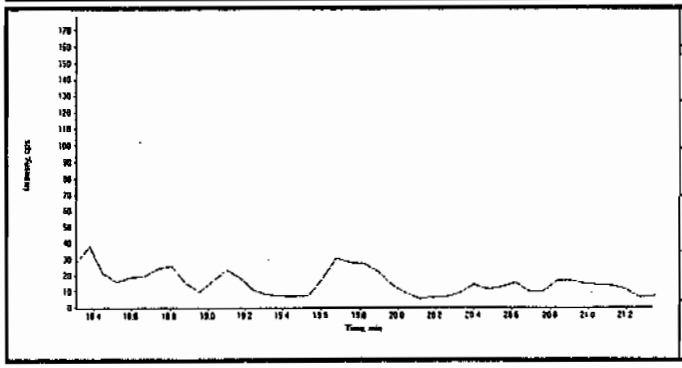

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1864

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 10–MAR–10 17:52

GEL Data File: EXS03100010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	3.61
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lan 3/13/10

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS03100010.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 5:52:48 PM

Modified: No

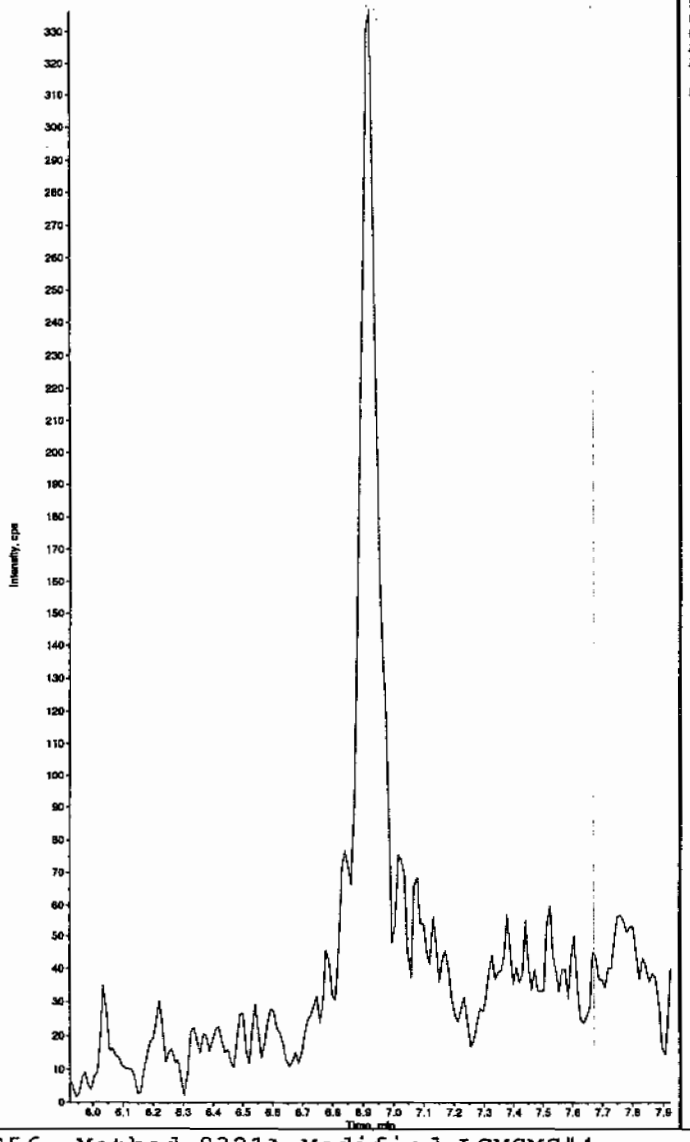

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS03100010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 5:52:48 PM

Modified: No

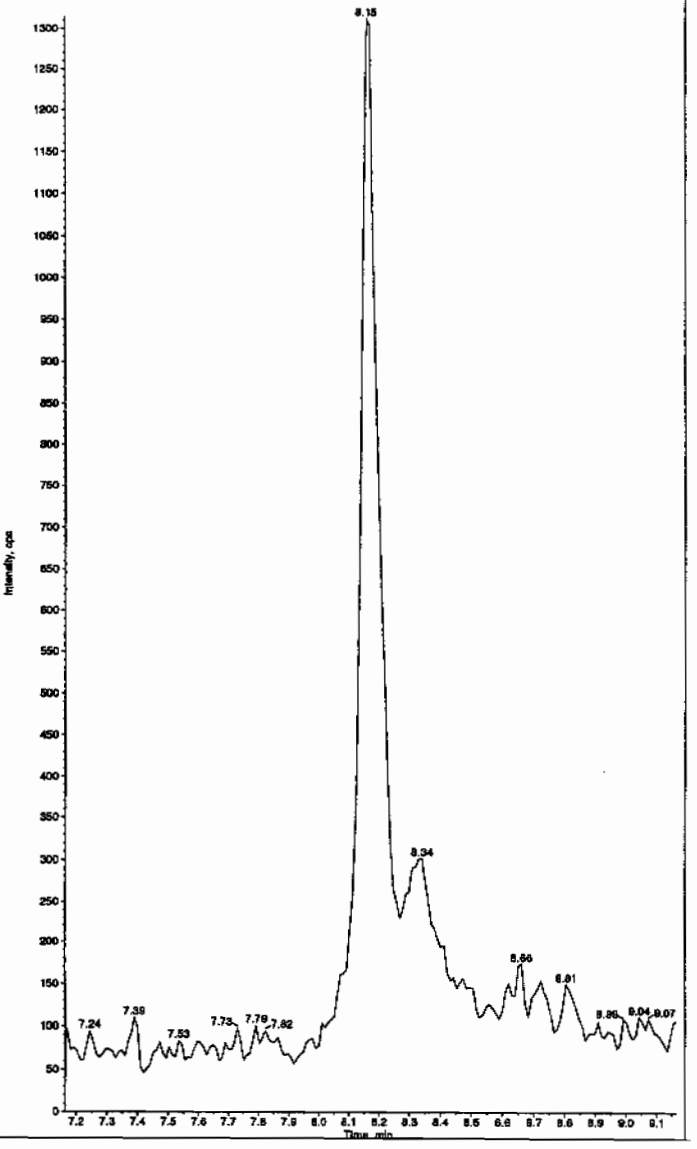

HMW 03/15/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS03100010.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 5:52:48 PM

Modified: No

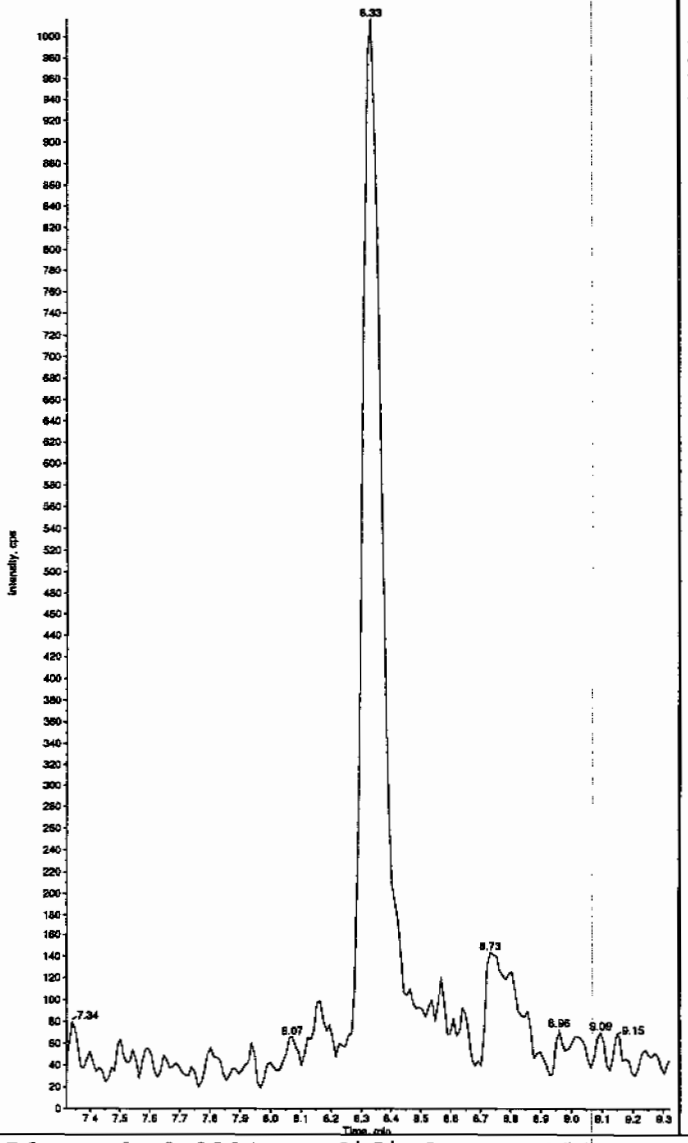

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS03100010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 5:52:48 PM

Modified: No

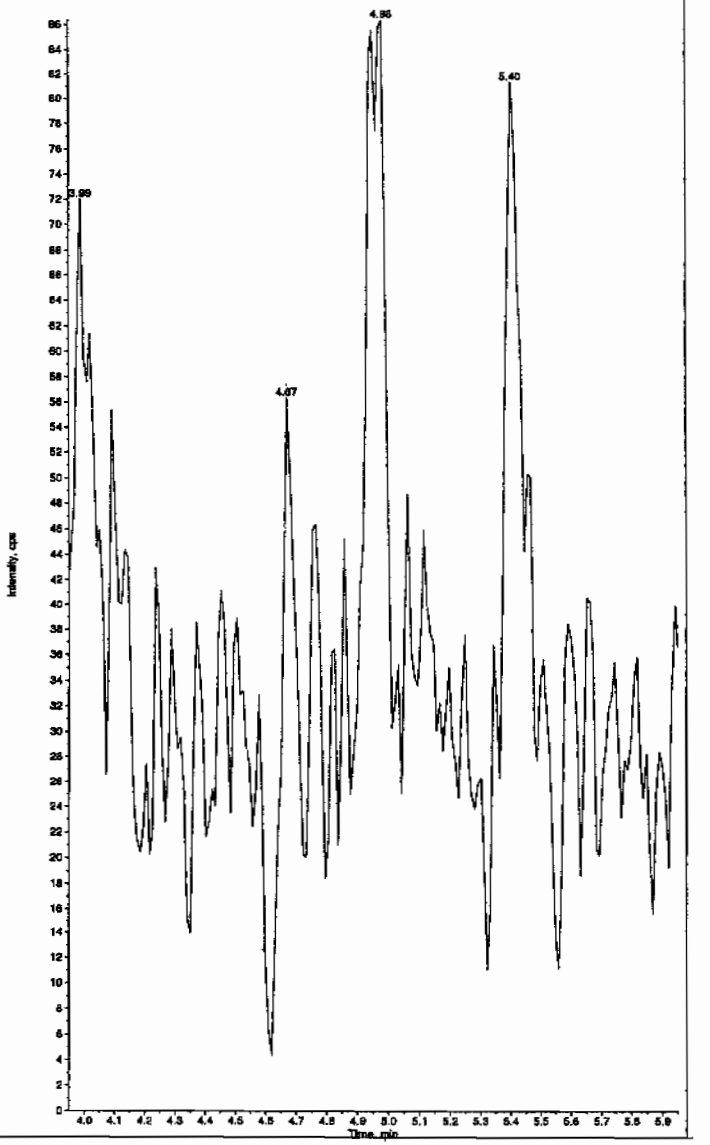

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS03100010.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 5:52:48 PM

Modified: No

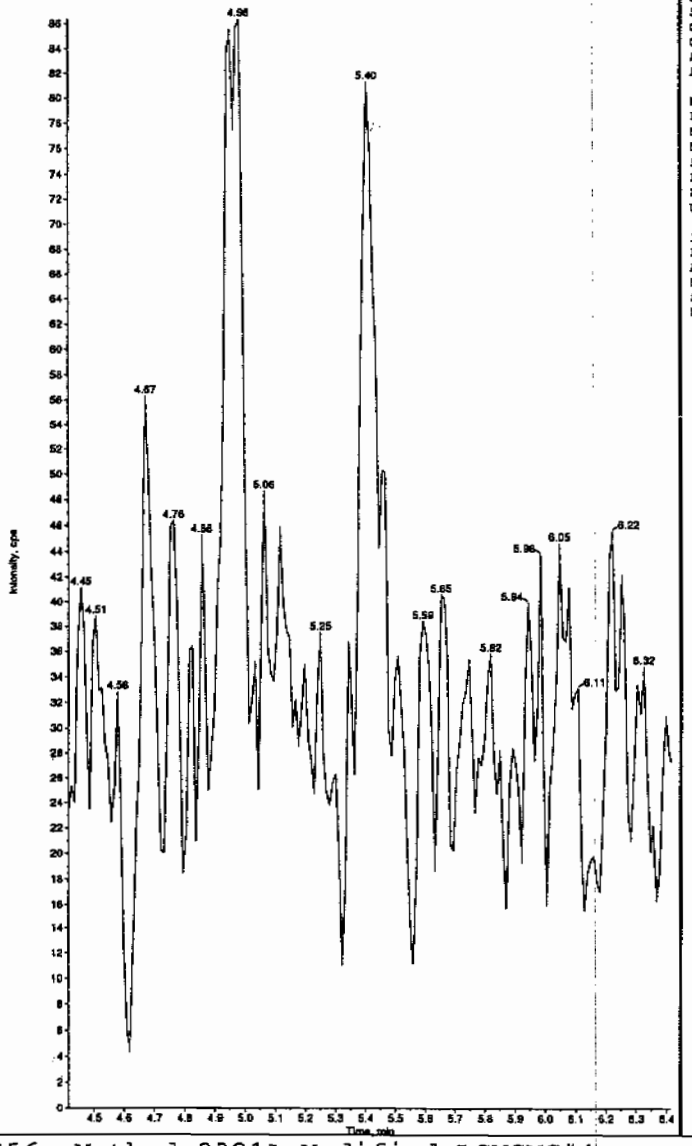

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS03100010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 3.61 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 5:52:48 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.13e+005 counts
Height: 26720.905 cps
Start Time: 10.7 min
End Time: 11.1 min

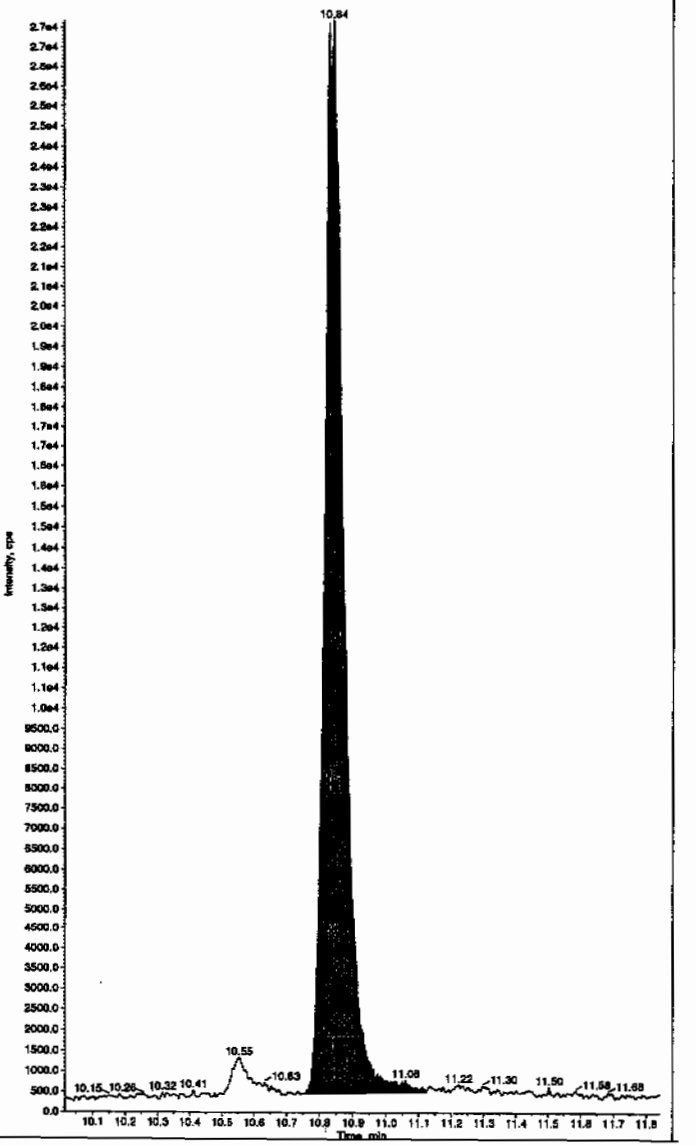

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1864

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 10-MAR-10 18:24

GEL Data File: EXS03100012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4--Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	1.32
TATB	0	0
3,5--Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Lar 3/13/10

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS03100012.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 6:24:12 PM

Modified: No

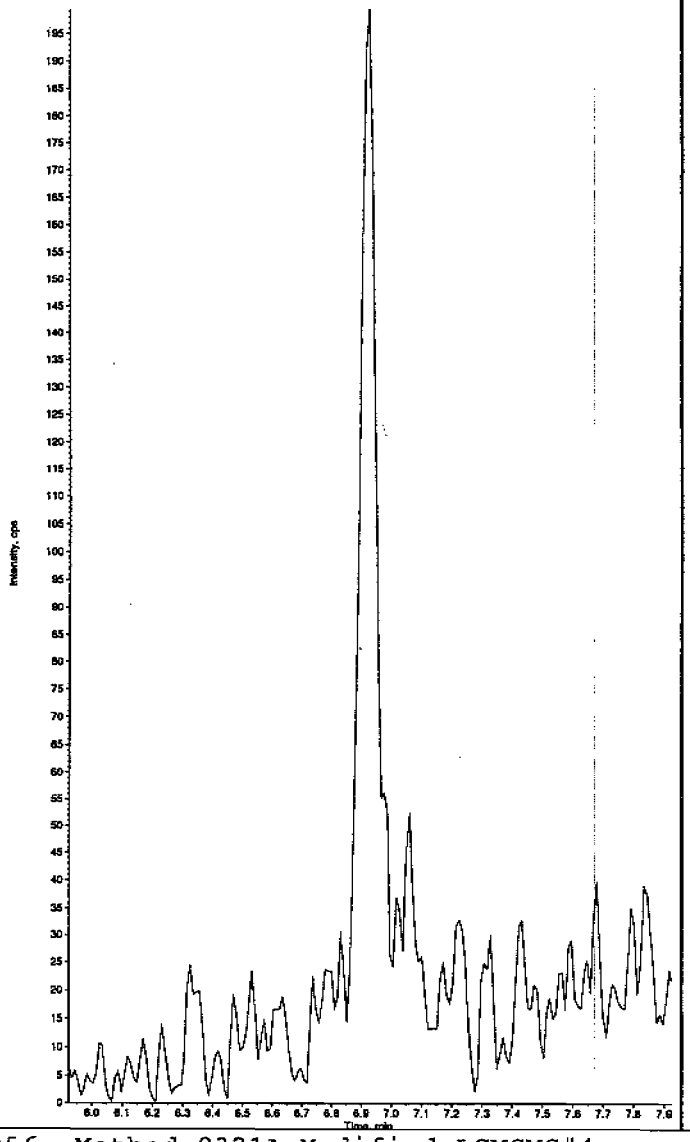

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS03100012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 6:24:12 PM

Modified: No

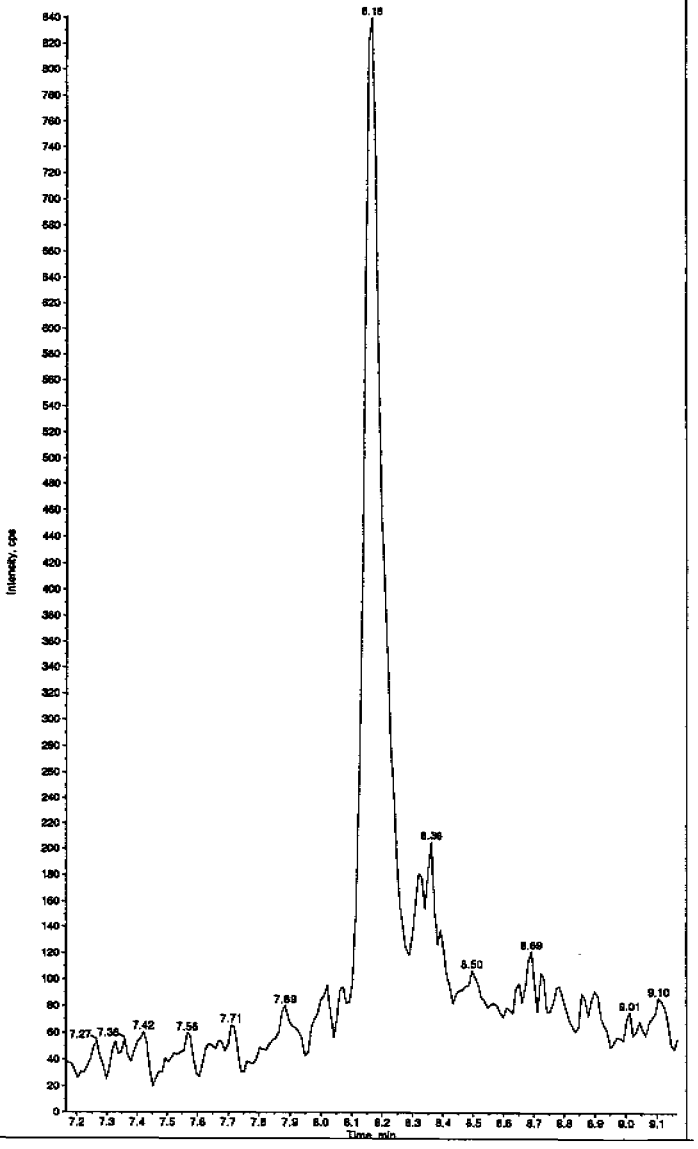

Hmm 03/15/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS03100012.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 6:24:12 PM

Modified: No

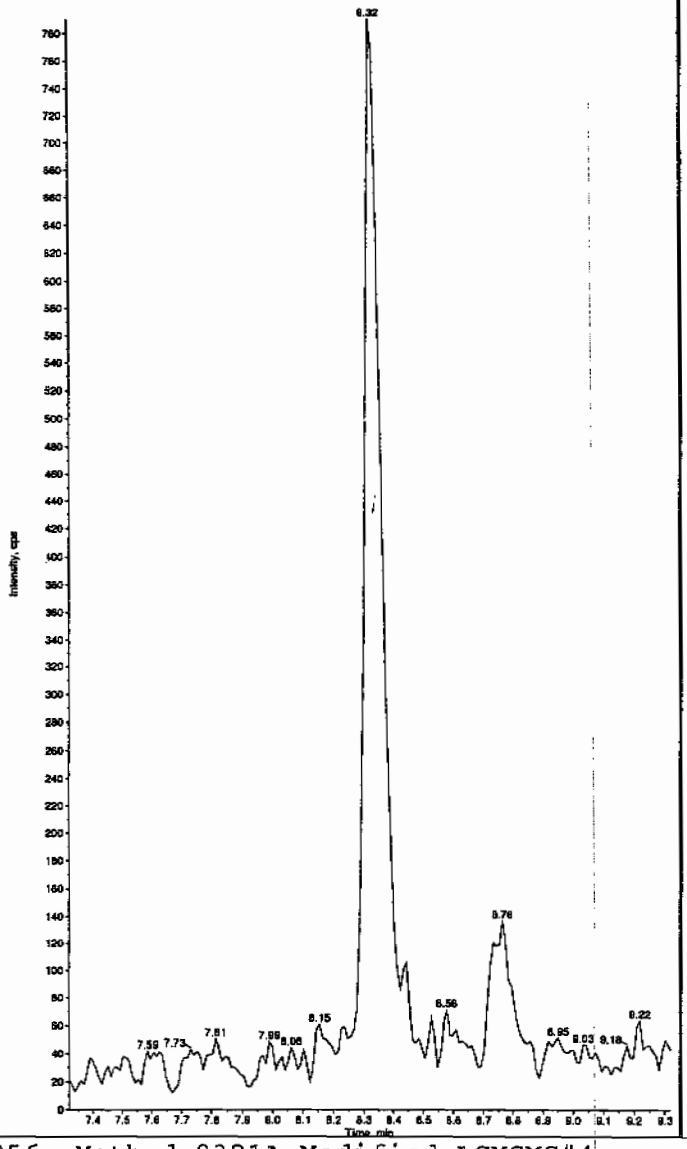

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS03100012.wiff"
Peak Name: "25-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 6:24:12 PM

Modified: No

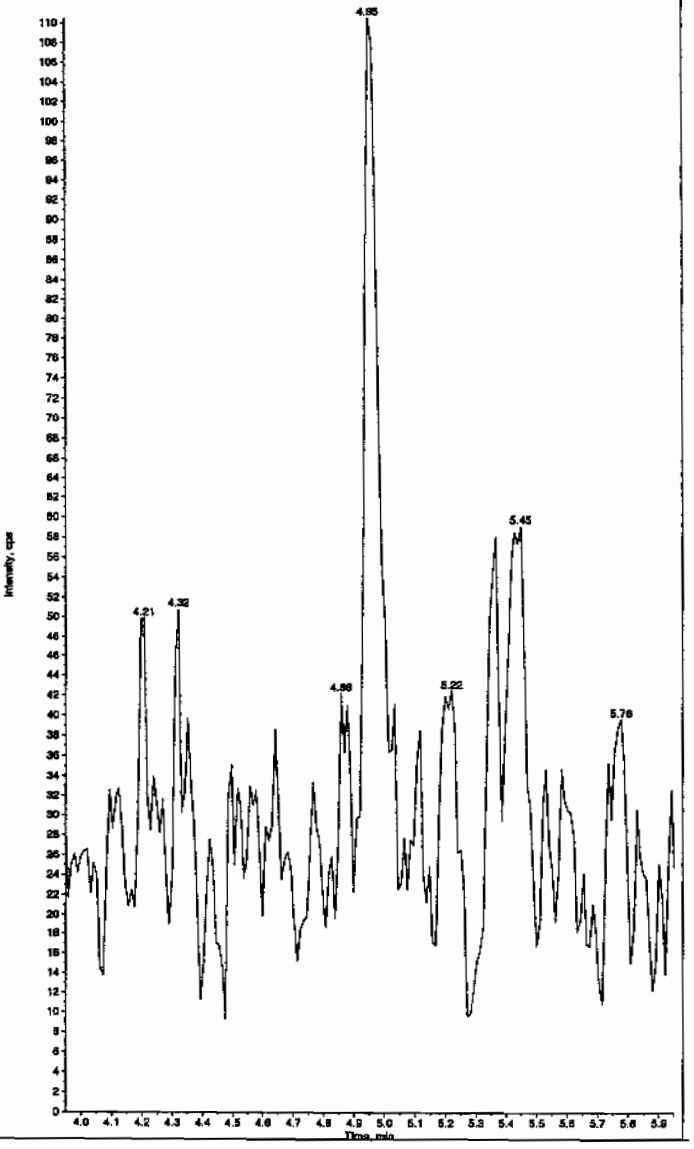

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Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS03100012.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 6:24:12 PM

Modified: No

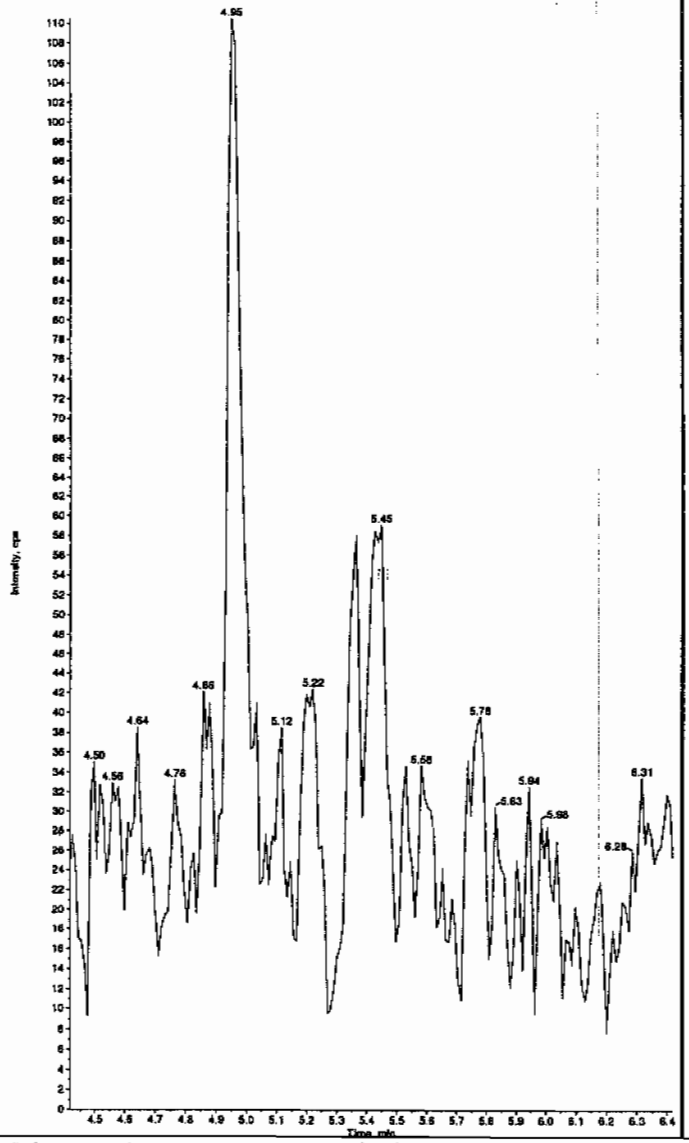

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS03100012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.32 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 6:24:12 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expectsd RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 8.26e+004 counts
Height: 20172.037 cps
Start Time: 10.7 min
End Time: 11.0 min

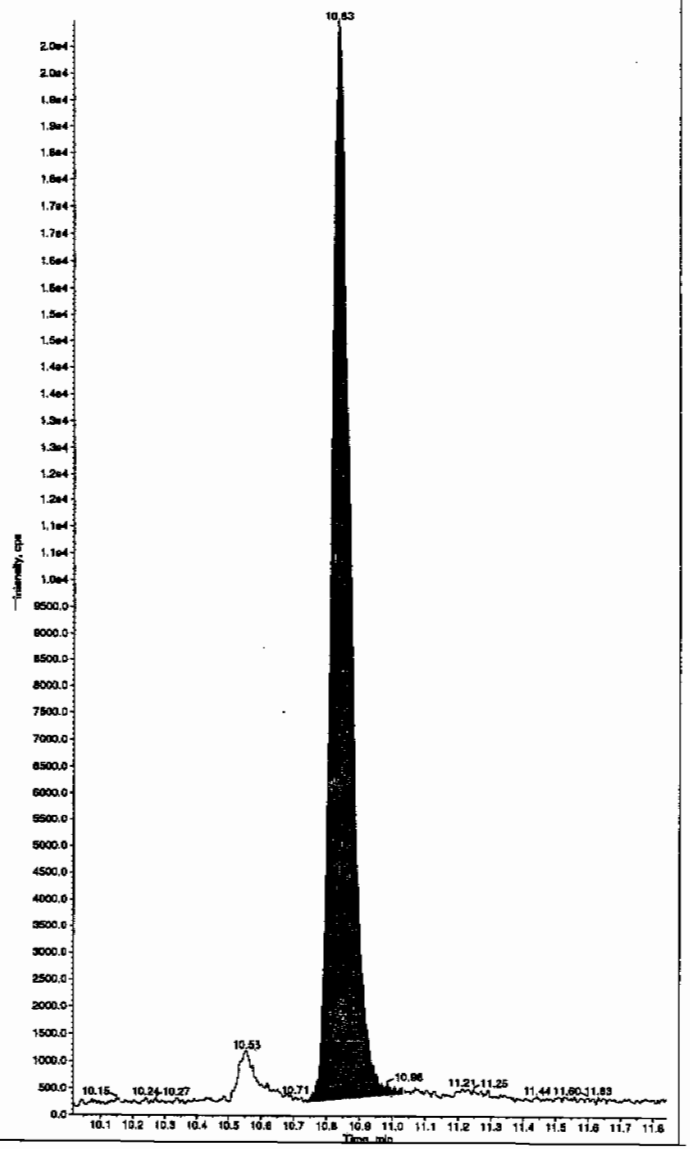

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1864

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 10–MAR–10 21:48

GEL Data File: EXS03100025.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	.283
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Kar 3/13/10

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS03100025.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 9:48:18 PM

Modified: No

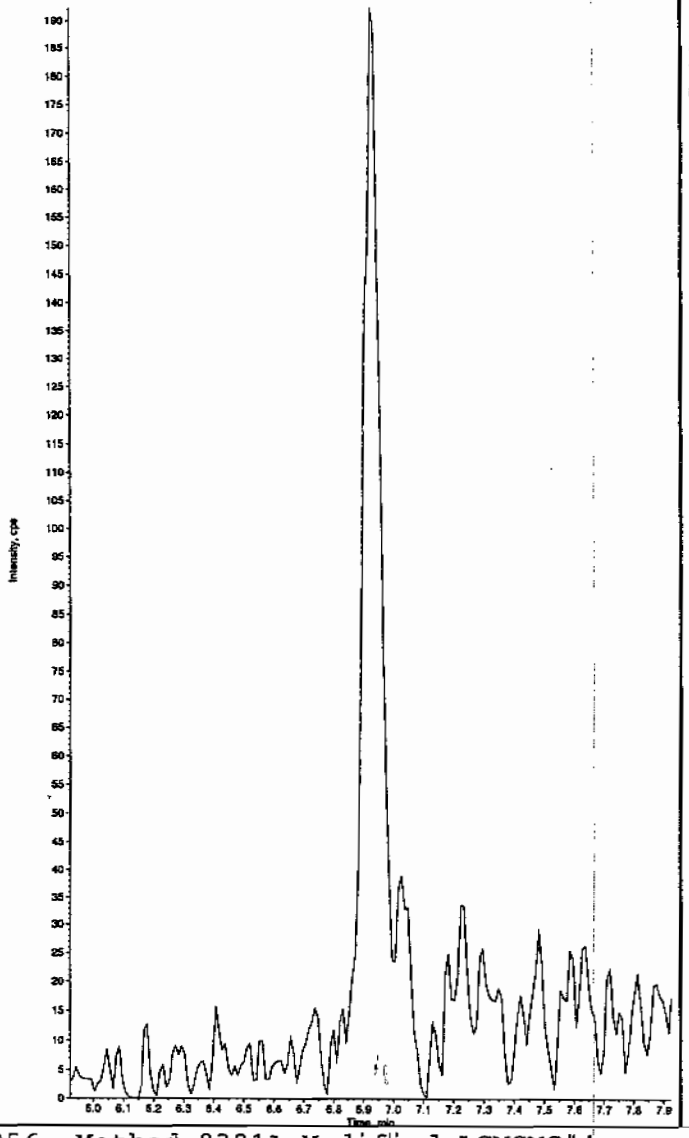

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS03100025.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 9:48:18 PM

Modified: No

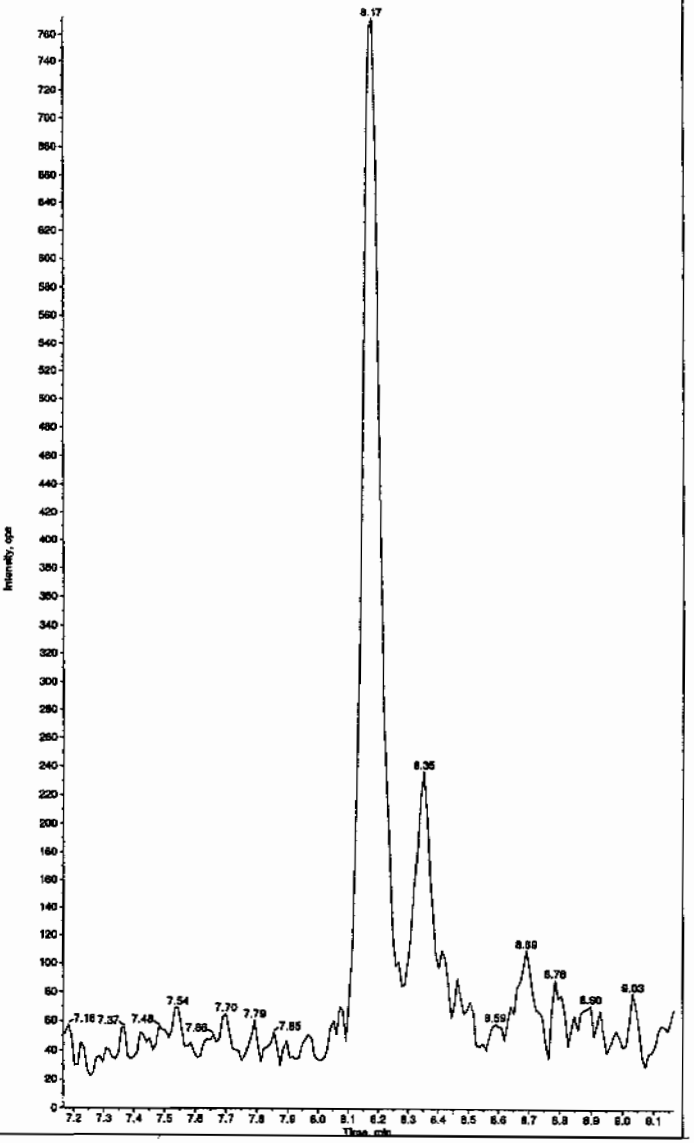

Hm 03/15/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS03100025.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 9:48:18 PM

Modified: No

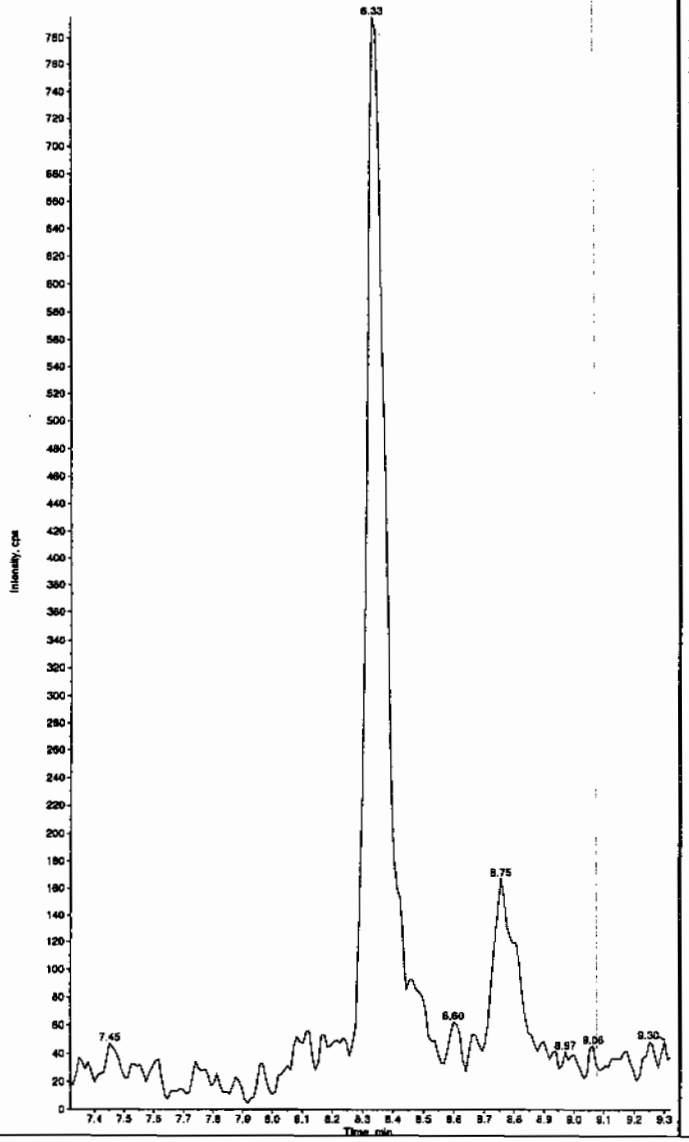

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS03100025.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 9:48:18 PM

Modified: No

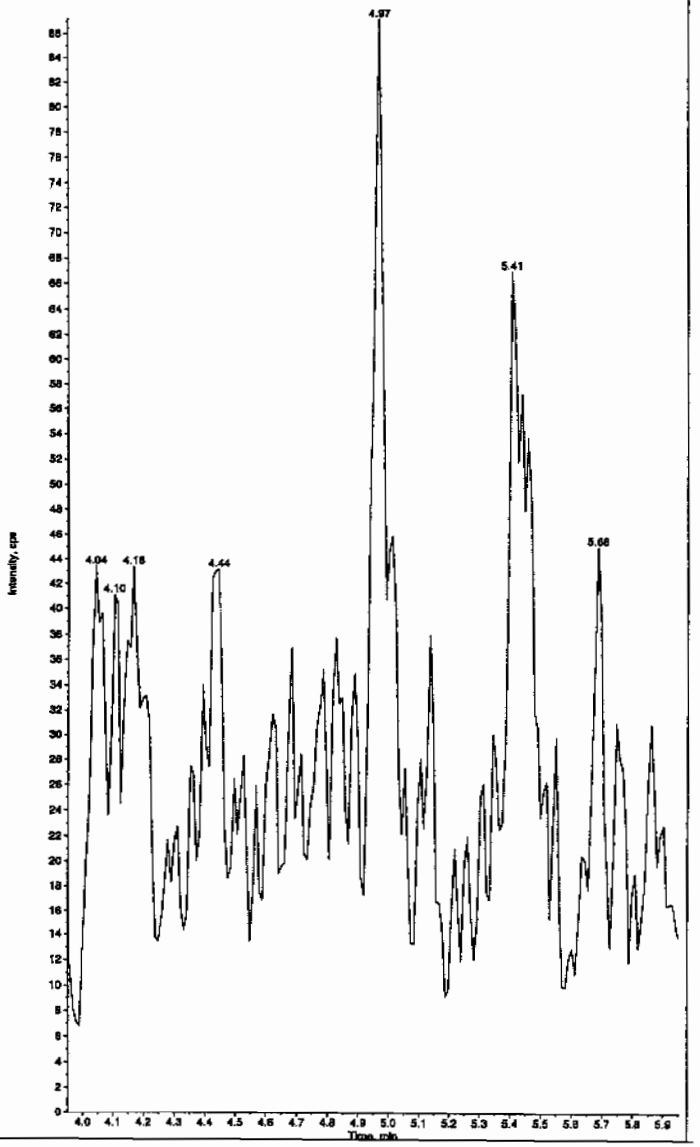

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK04" Sample ID: "1|LER" File: "EXS03100025.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 9:48:18 PM

Modified: No

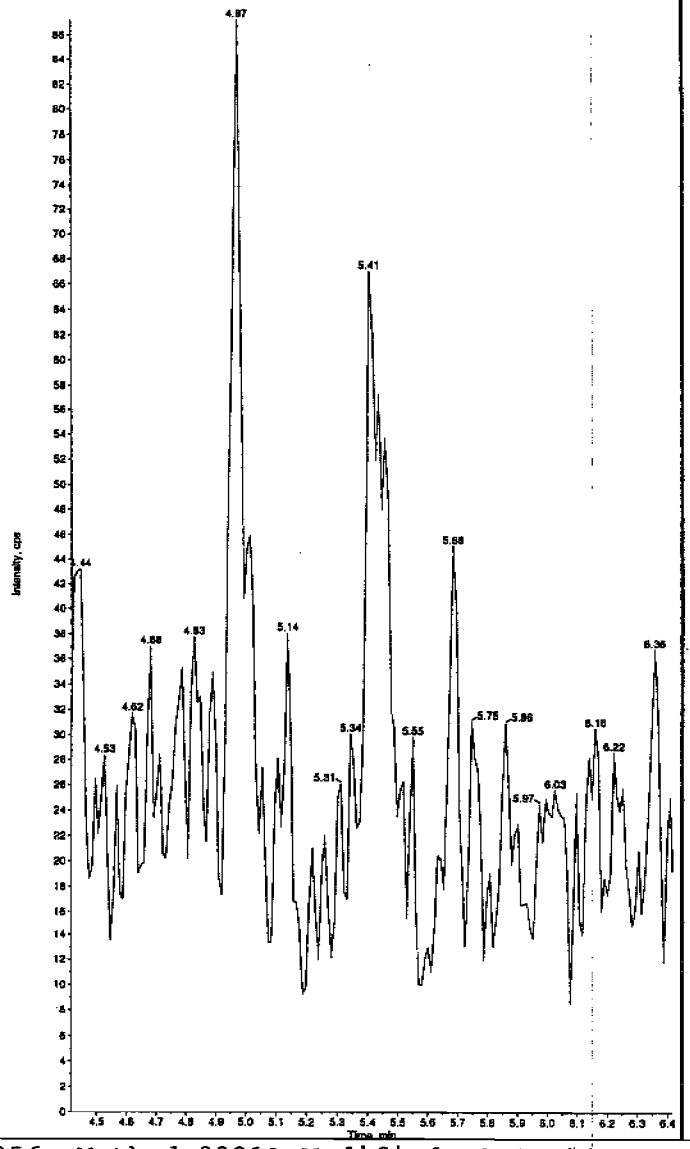

Sample Name: "XIBLK04" Sample ID: "1|LER" File: "EXS03100025.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.283 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 9:48:18 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 6.88e+004 counts
Height: 17471.106 cps
Start Time: 10.7 min
End Time: 11.1 min

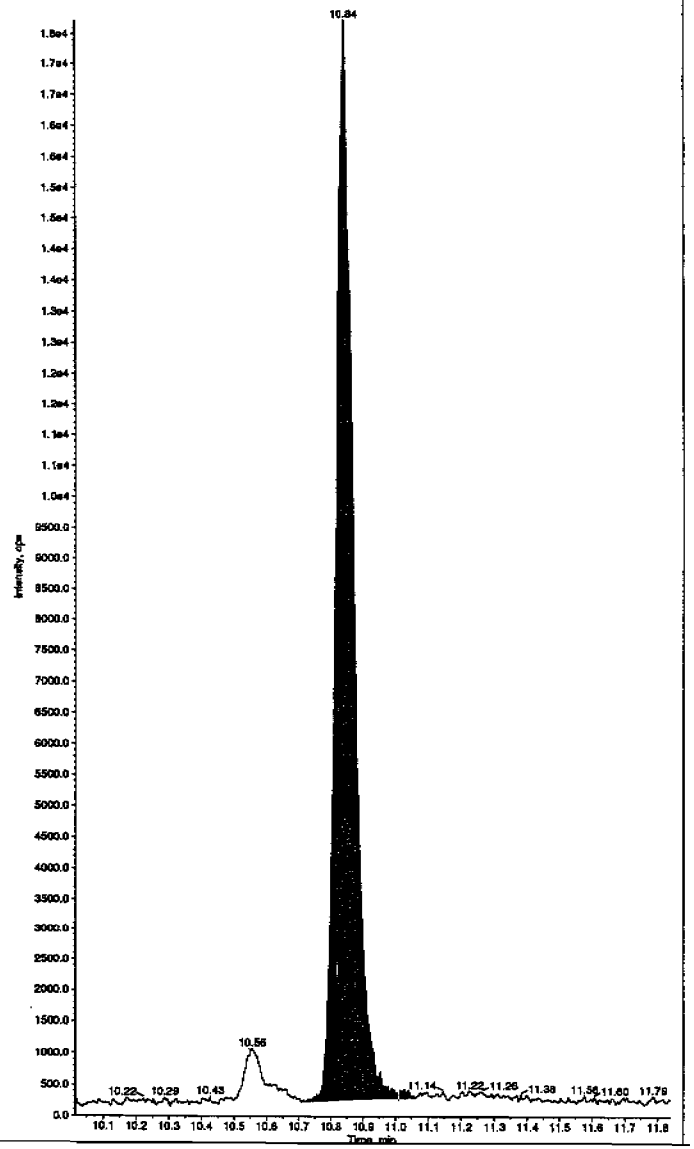

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1864

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 11-MAR-10 01:12

GEL Data File: EXS03100038.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	.104
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Rcv 3/13/10

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS03100038.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 1:12:29 AM

Modified: No

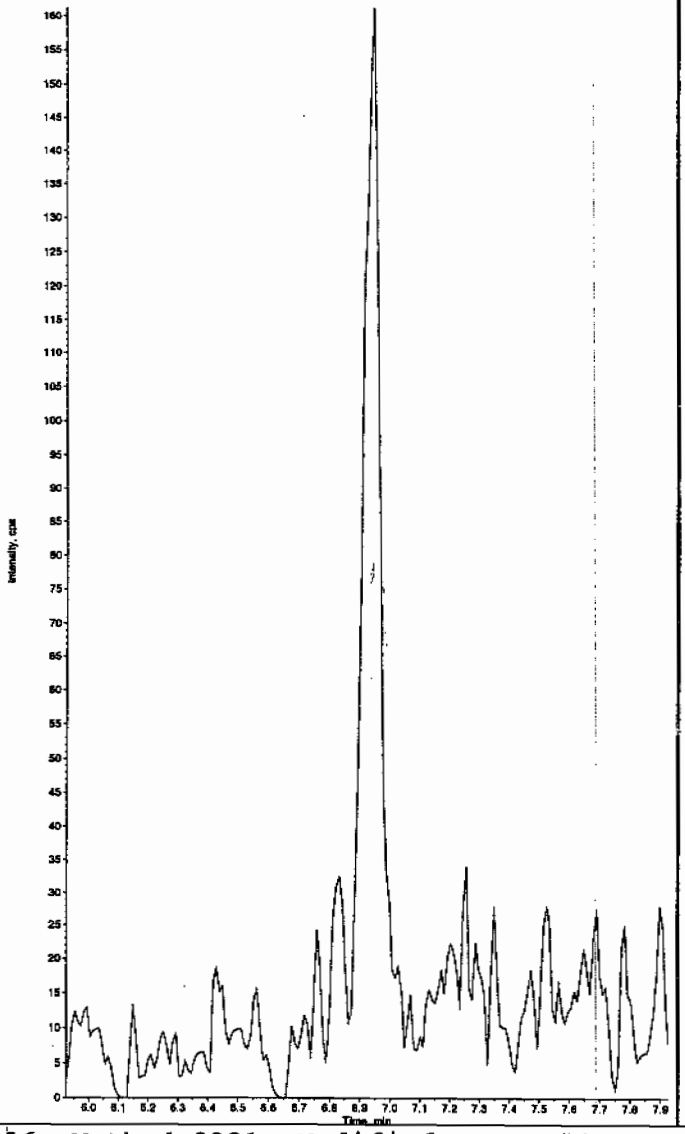

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS03100038.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 1:12:29 AM

Modified: No

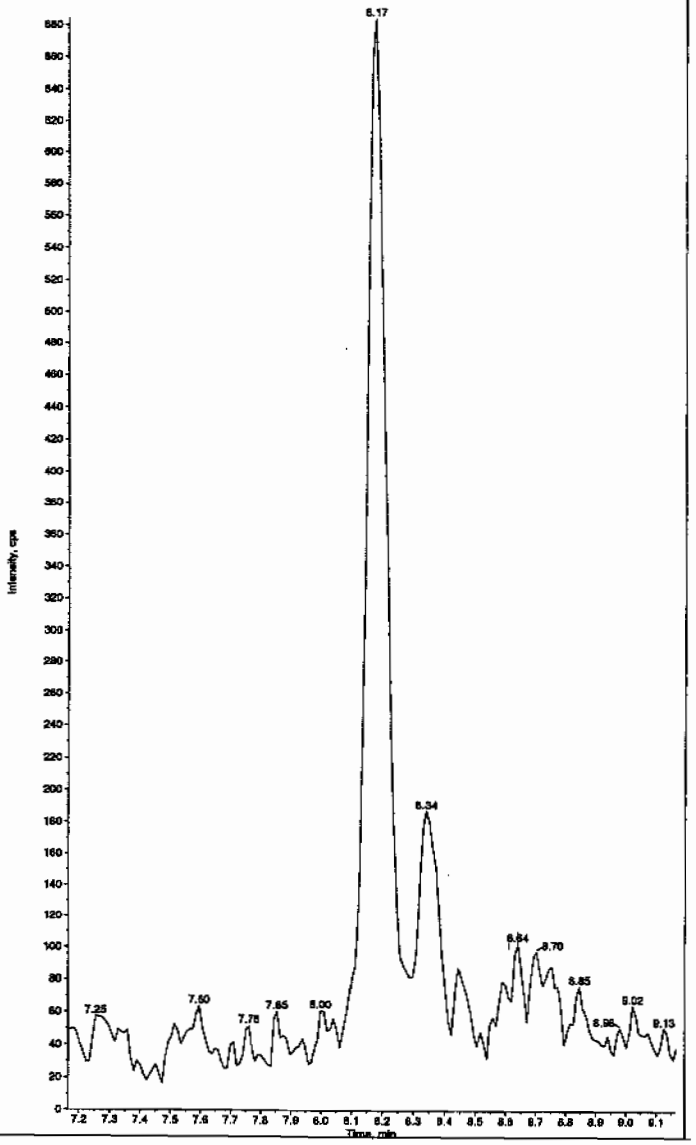

Thm 03/15/10

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Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS03100038.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 1:12:29 AM

Modified: No

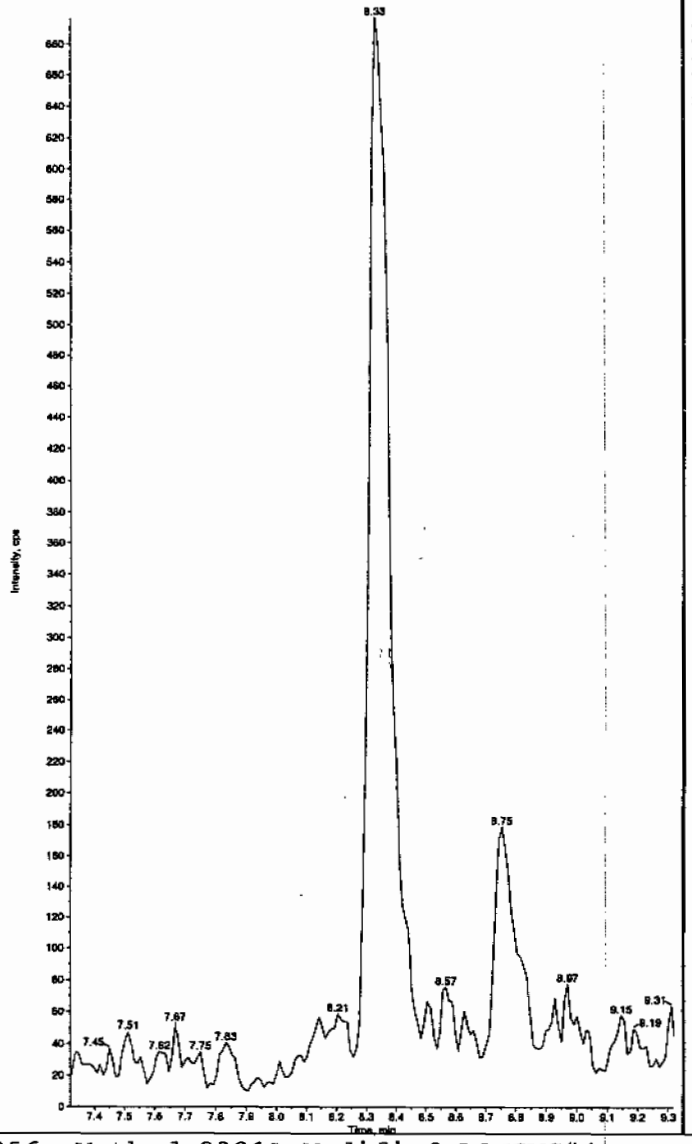

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS03100038.wiff"
Peak Name: "25-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 1:12:29 AM

Modified: No

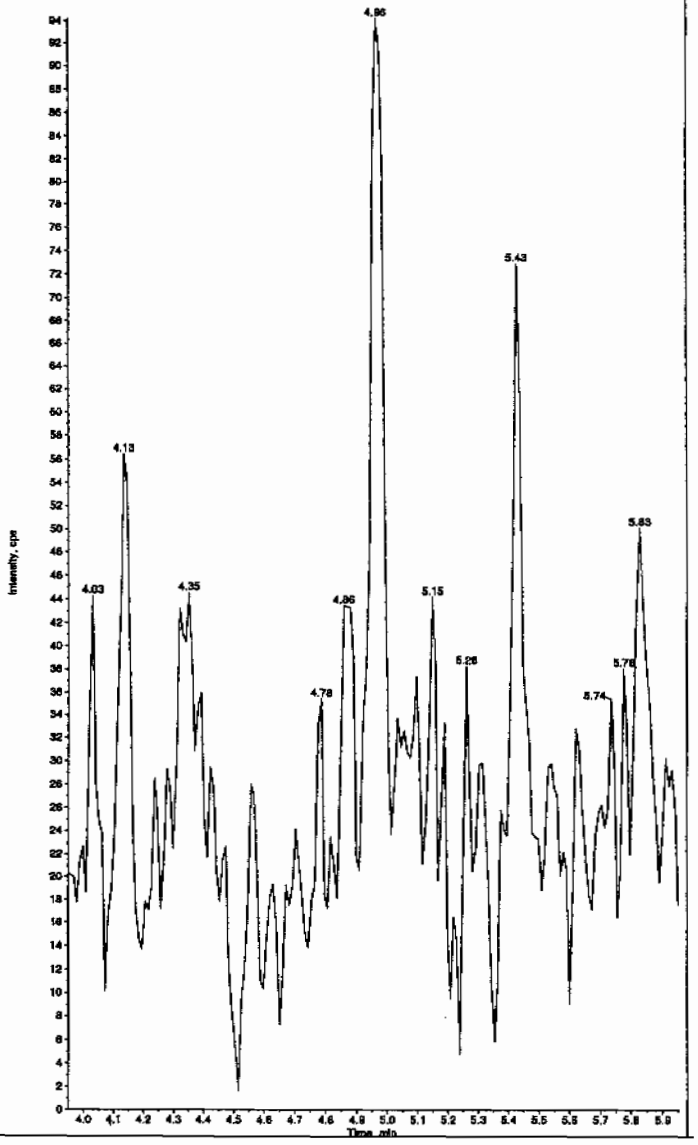

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS03100038.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 1:12:29 AM

Modified: No

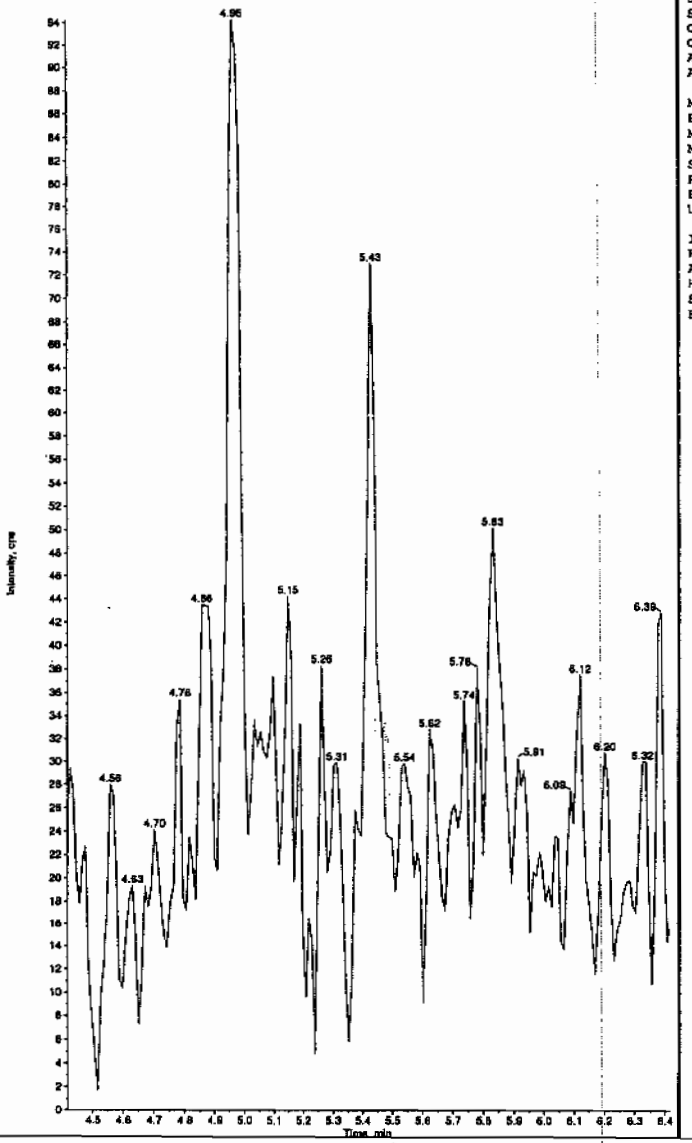

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS03100038.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.104 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 1:12:29 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 6.64e+004 counts
Height: 17070.473 cps
Start Time: 10.7 min
End Time: 11.0 min

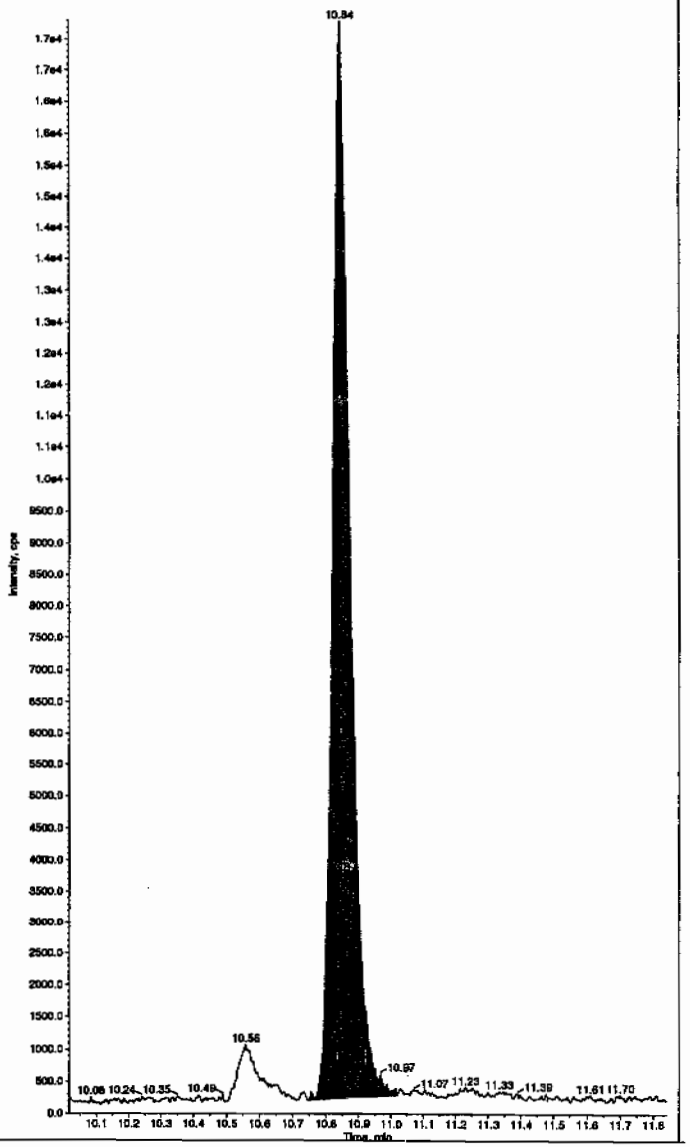

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1864

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 11–MAR–10 03:02

GEL Data File: EXS03100045.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	.271
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

dcu 3/14/10

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS03100045.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 3:02:28 AM

Modified: No

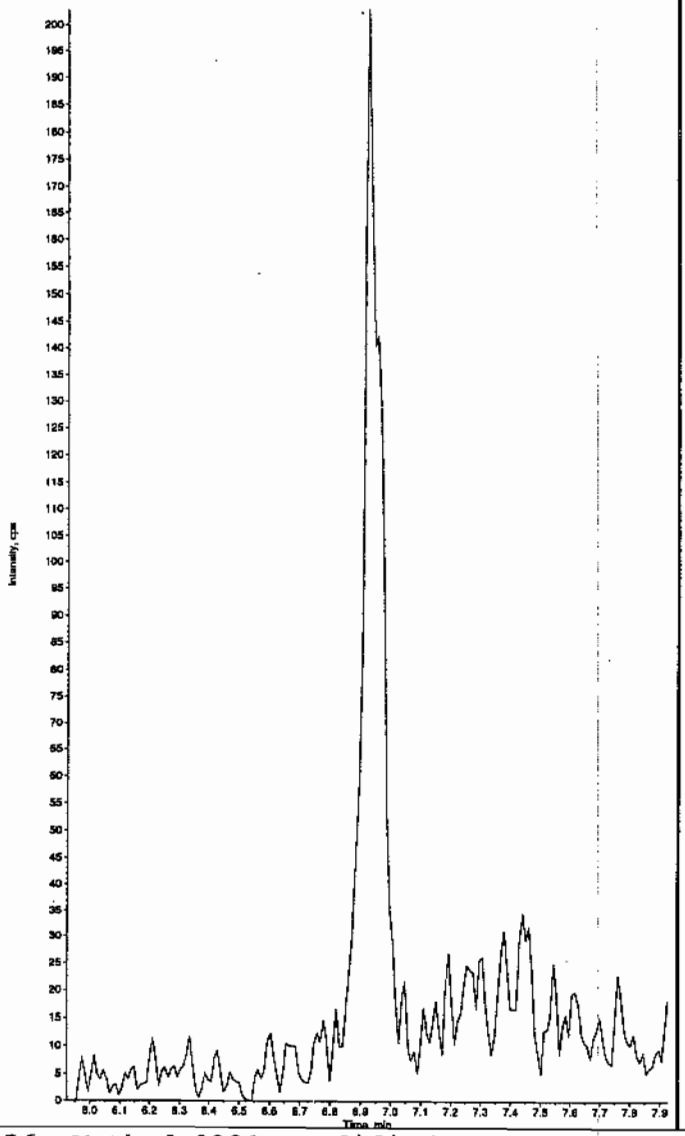

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS03100045.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 3:02:28 AM

Modified: No

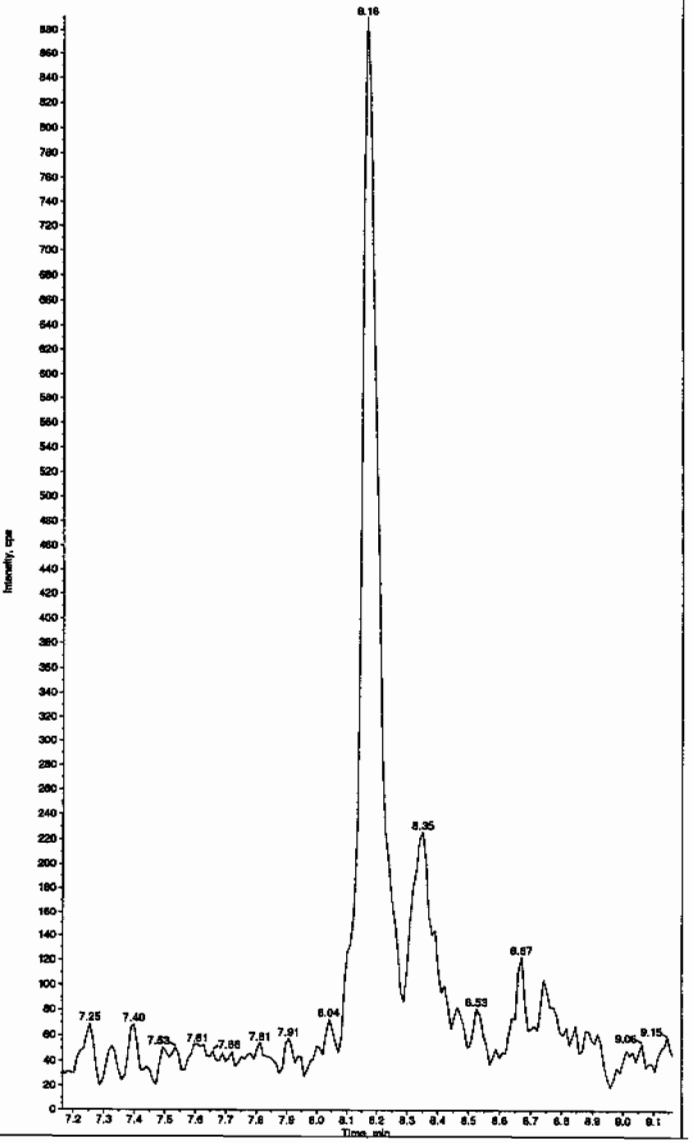

Hmm 03/15/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS03100045.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 3:02:28 AM

Modified: No

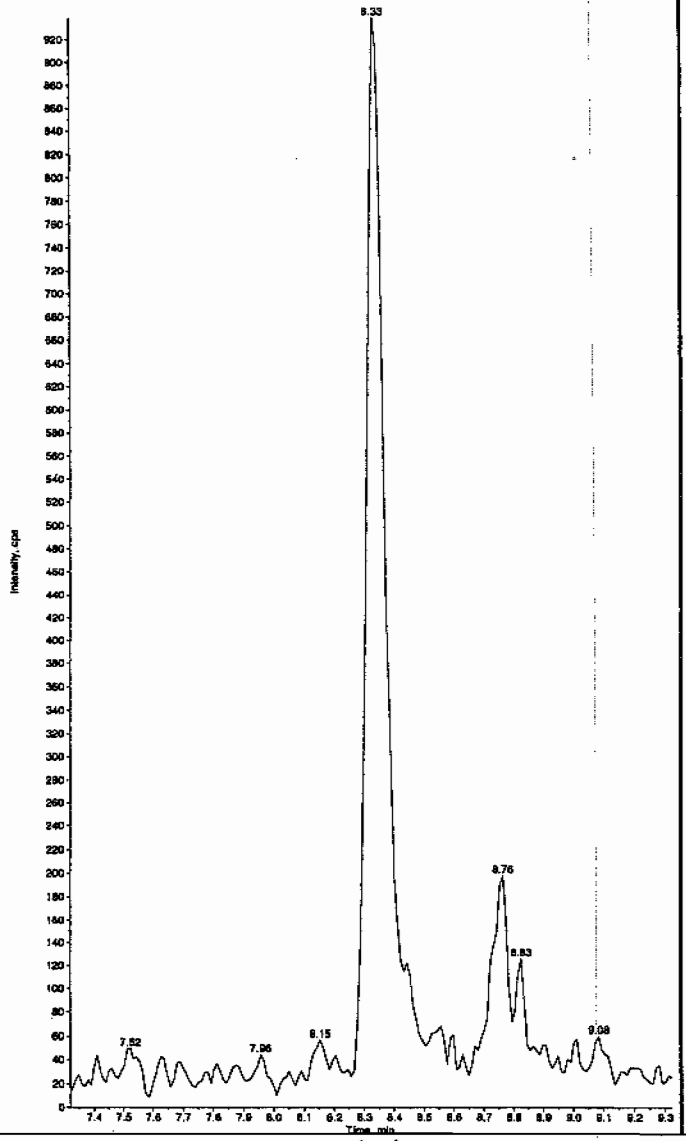

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS03100045.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 3:02:28 AM

Modified: No

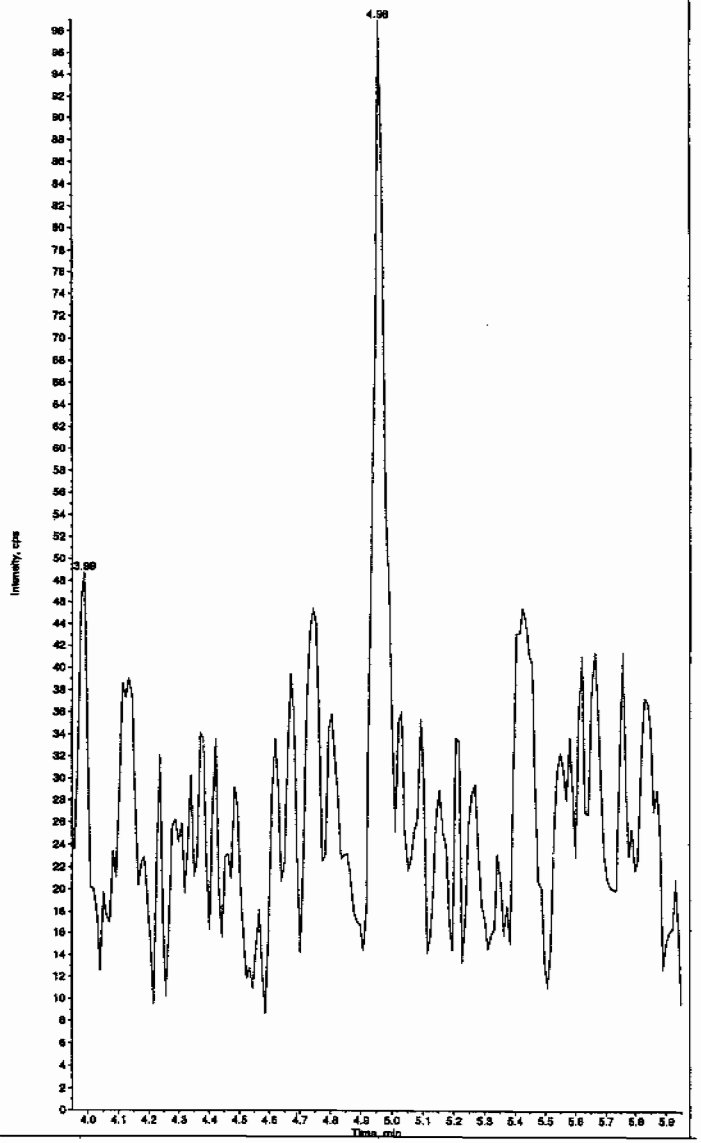

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Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS03100045.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 3:02:28 AM

Modified: No

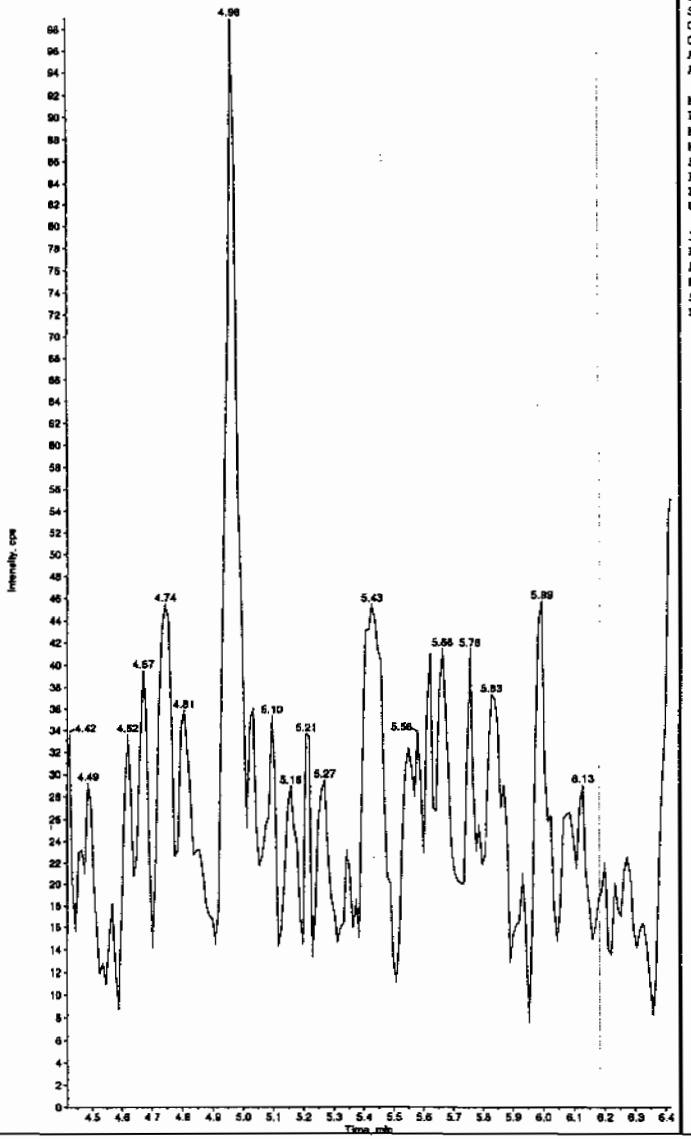

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS03100045.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.271 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 3:02:28 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 6.86e+004 counts
Height: 17511.333 cps
Start Time: 10.8 min
End Time: 11.0 min

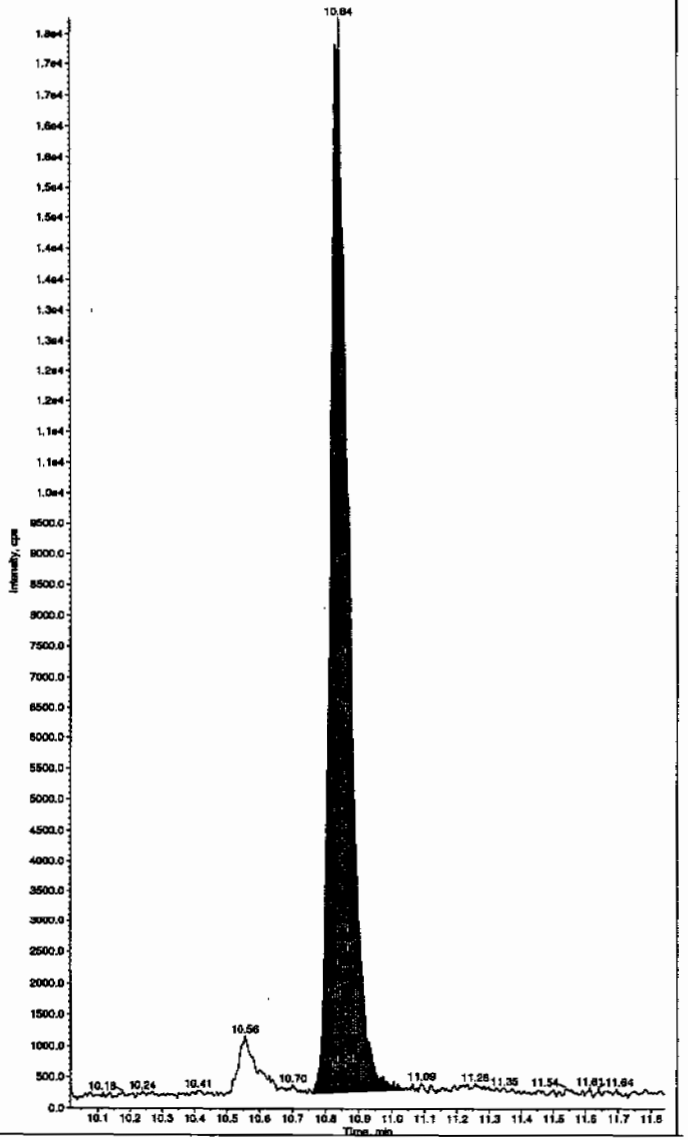

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1864

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 11–MAR–10 05:55

GEL Data File: EXS03100056.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	.586
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lcm 3/14/10

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS03100056.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 5:55:15 AM

Modified: No

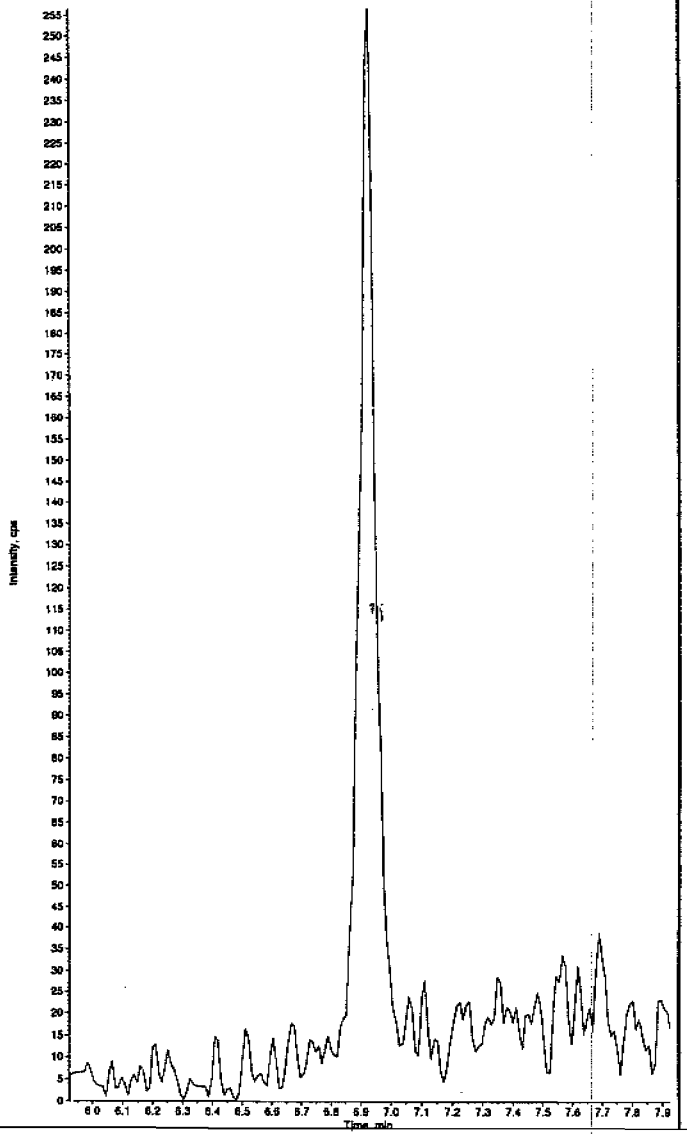

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS03100056.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 5:55:15 AM

Modified: No

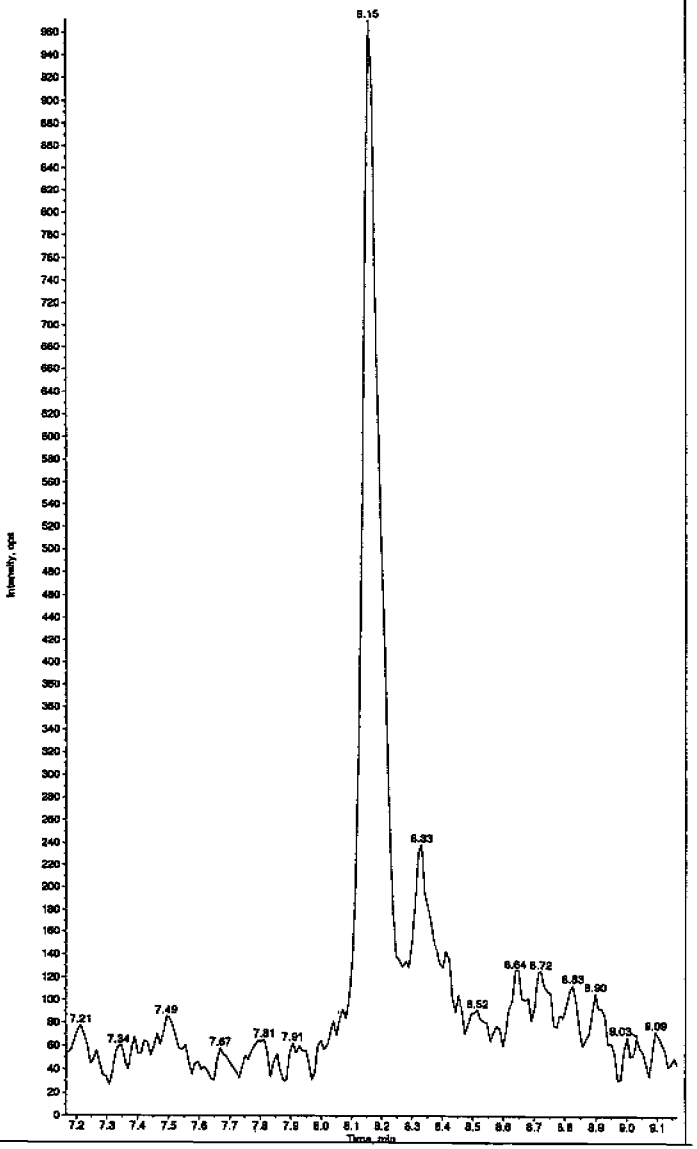

Hmm 03/15/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS03100056.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.3 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 5:55:15 AM

Modified: No

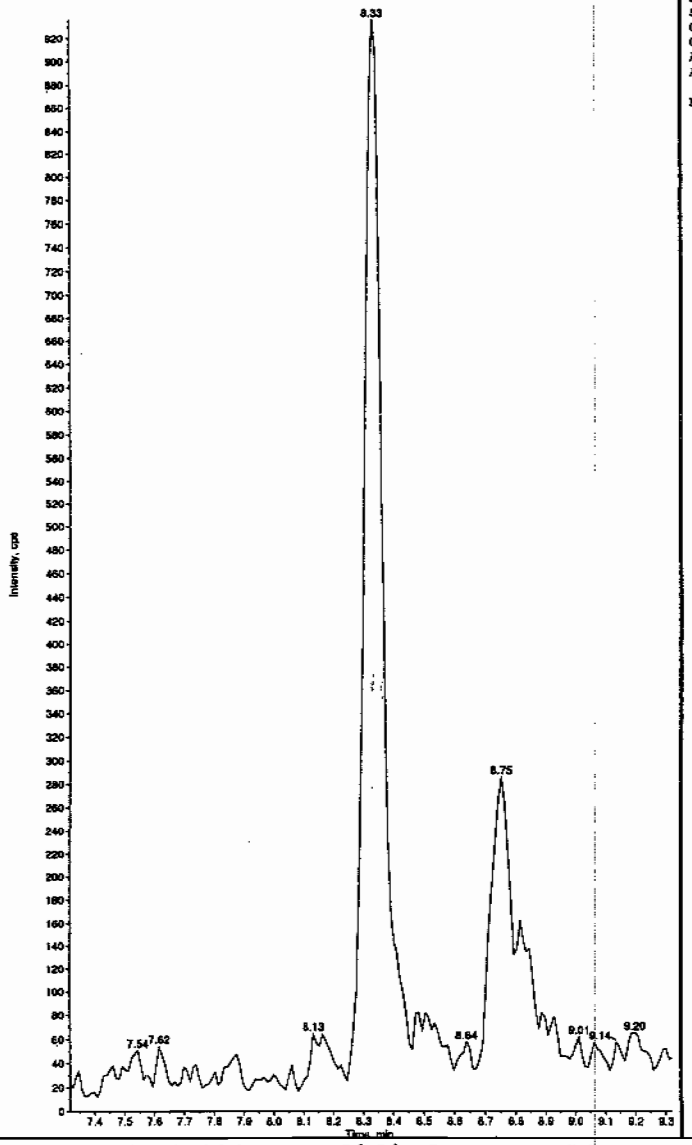

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS03100056.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 5:55:15 AM

Modified: No

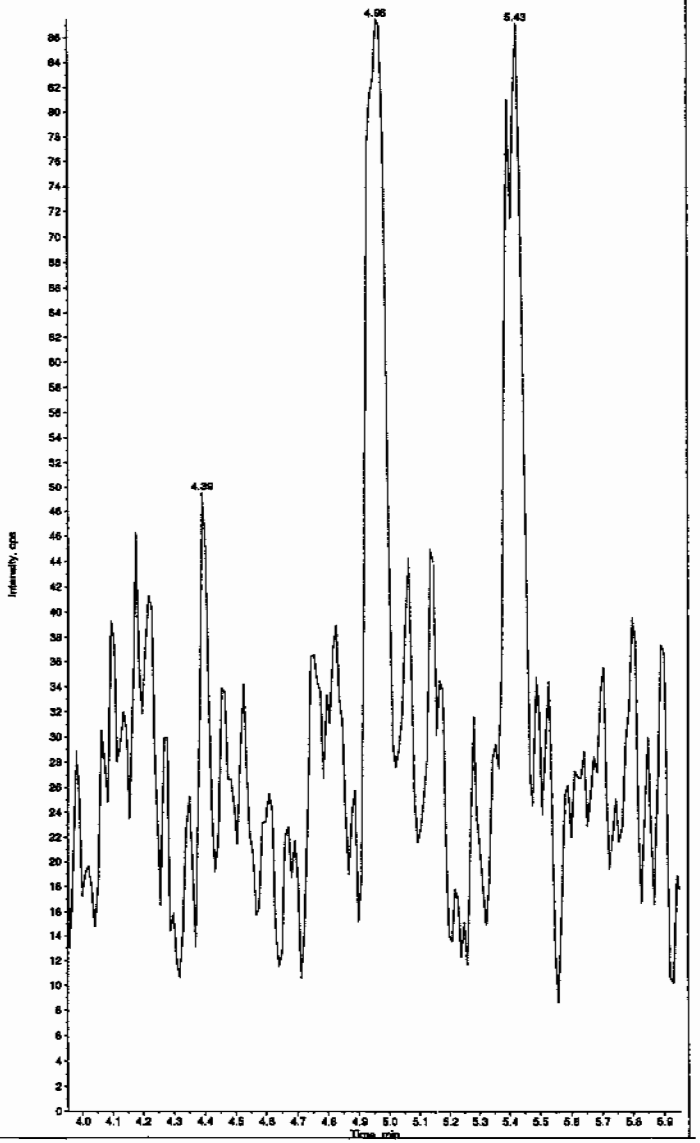

Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS03100056.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 5:55:15 AM

Modified: No

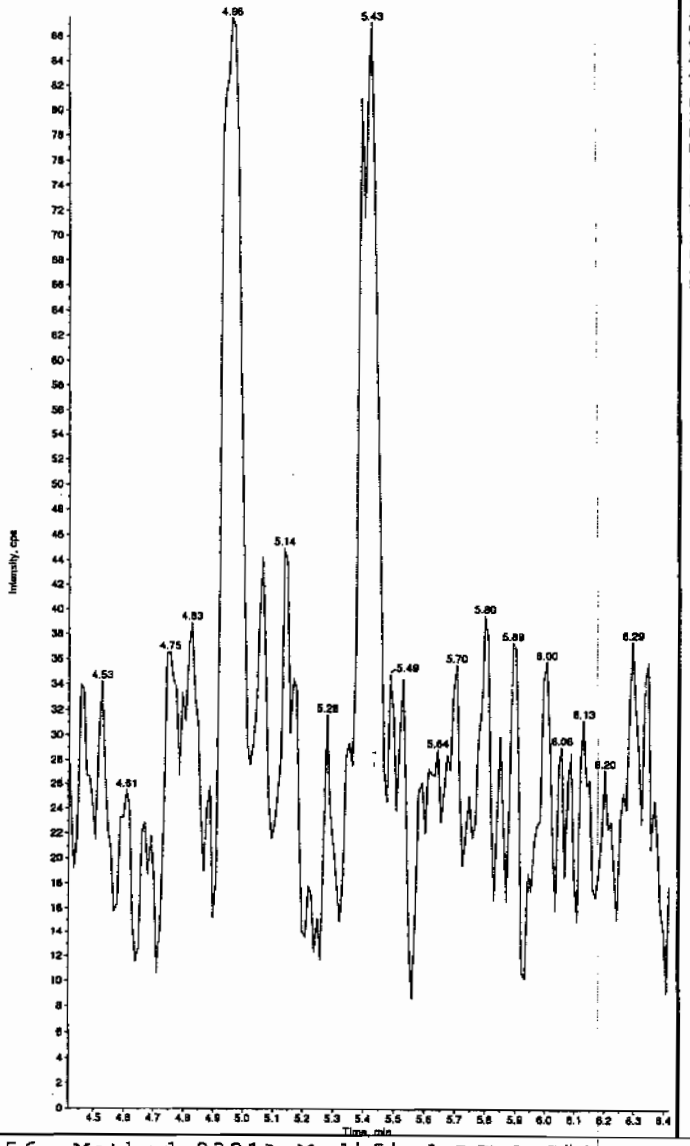

Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS03100056.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.586 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 5:55:15 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 7.28e+004 counts
Height: 17901.289 cps
Start Time: 10.7 min
End Time: 11.0 min

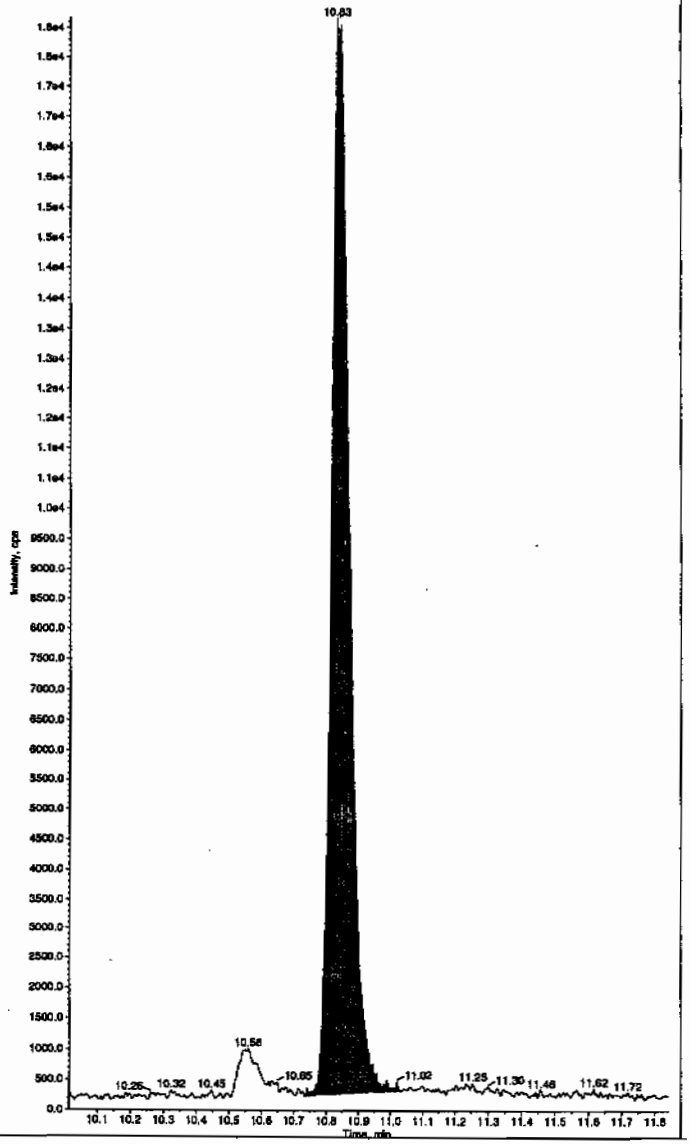

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1864

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 11–MAR–10 08:48

GEL Data File: EXS03100067.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	.418
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

JCL 3/14/10

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS03100067.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 8:48:02 AM

Modified: No

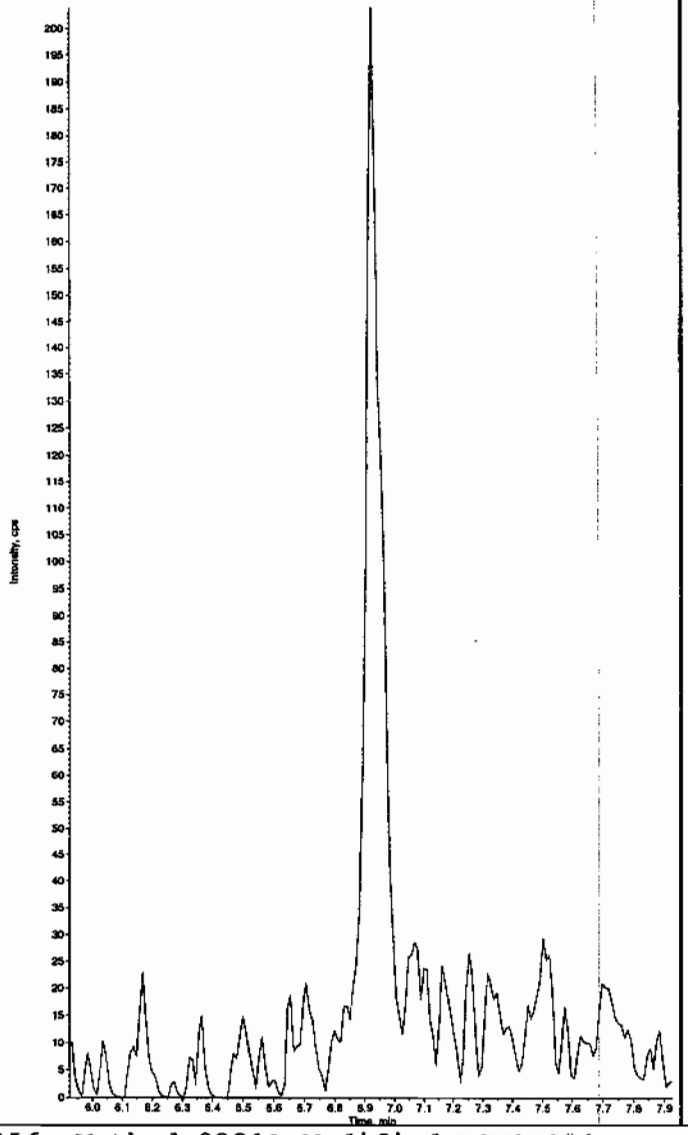

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS03100067.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 8:48:02 AM

Modified: No

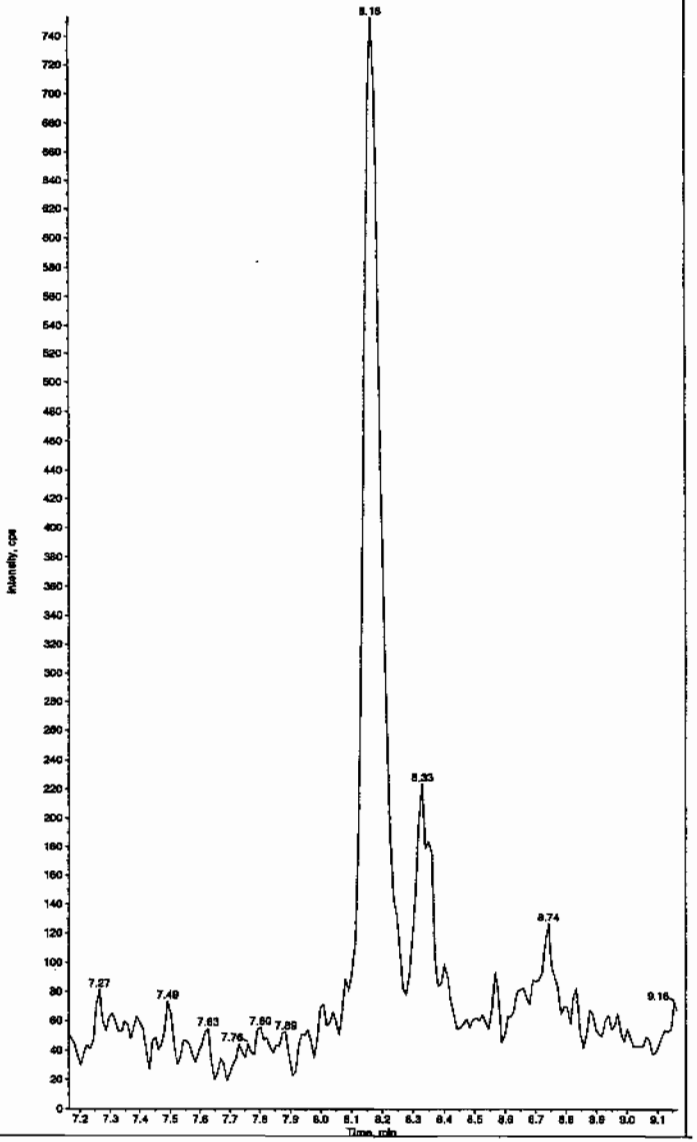

HJM 03/15/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS03100067.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 8:48:02 AM

Modified: No

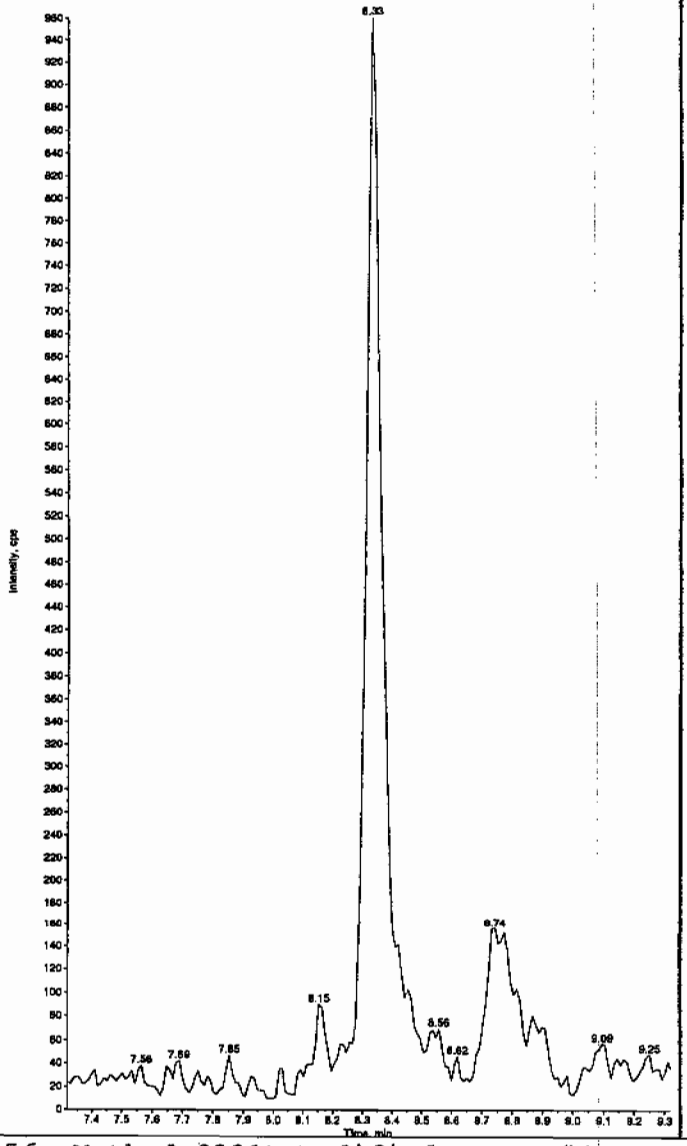

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS03100067.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 8:48:02 AM

Modified: No

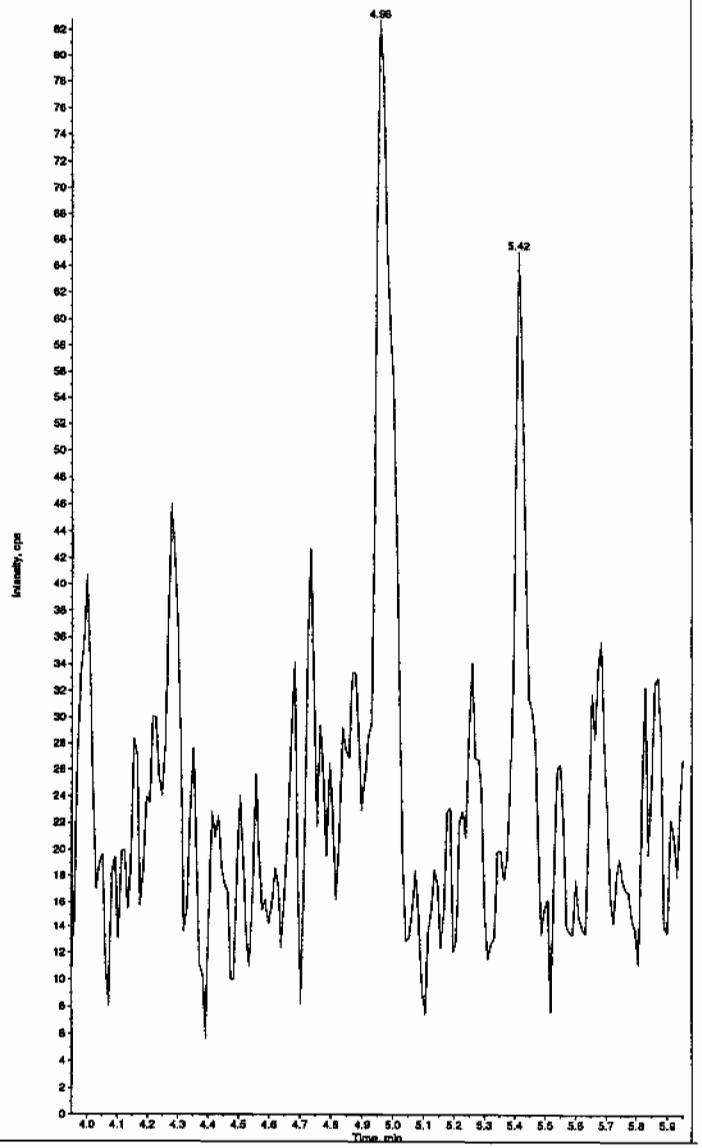

Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS03100067.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 8:48:02 AM

Modified: No

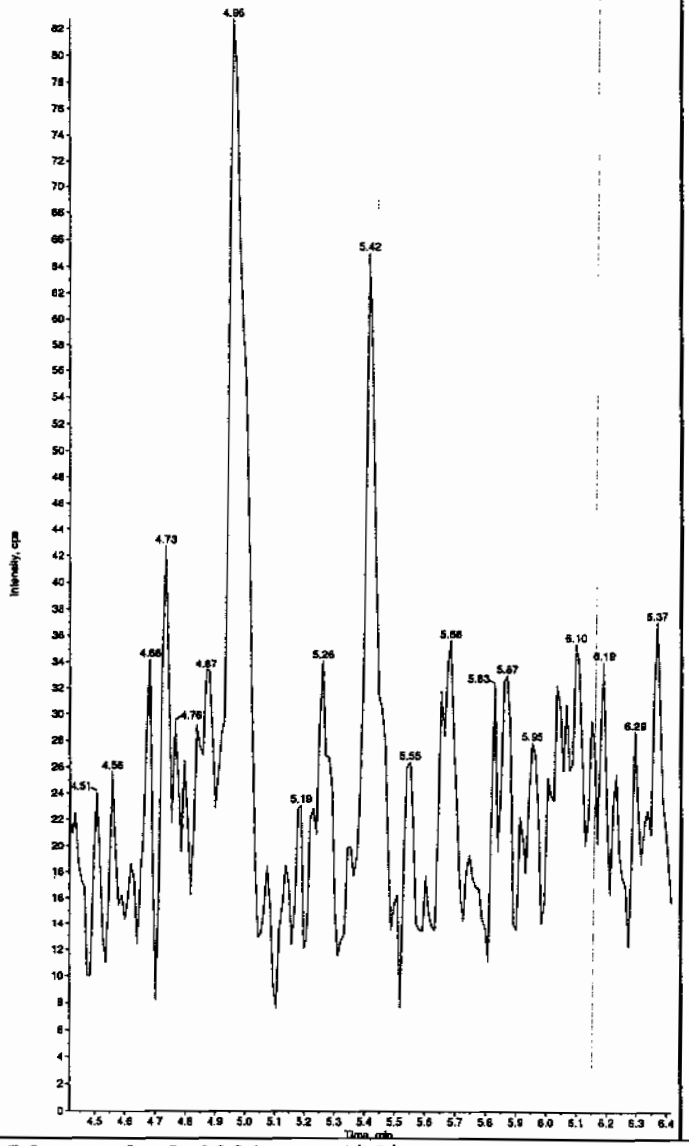

Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS03100067.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.418 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 8:48:02 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 7.06e+004 counts
Height: 17952.213 cps
Start Time: 10.7 min
End Time: 11.1 min

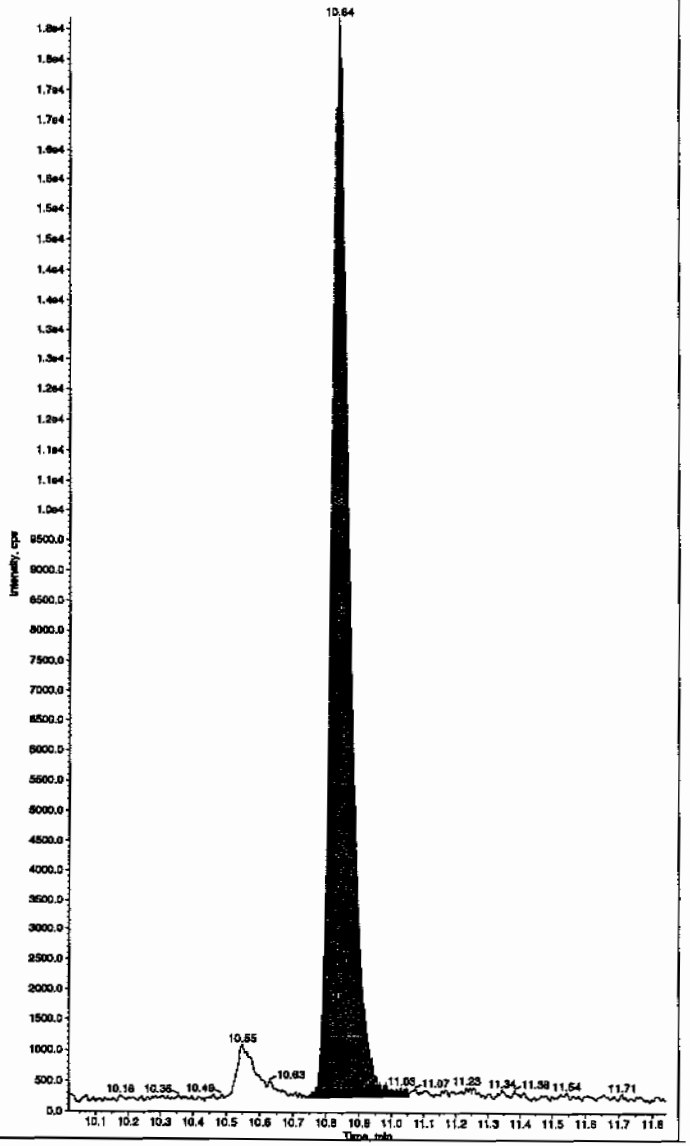

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1864

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 11–MAR–10 12:12

GEL Data File: EXS03100080.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	.467
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Sample Name: "XISLK09" Sample ID: "|1|LER" File: "EXS03100080.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 12:12:09 PM

Modified: No

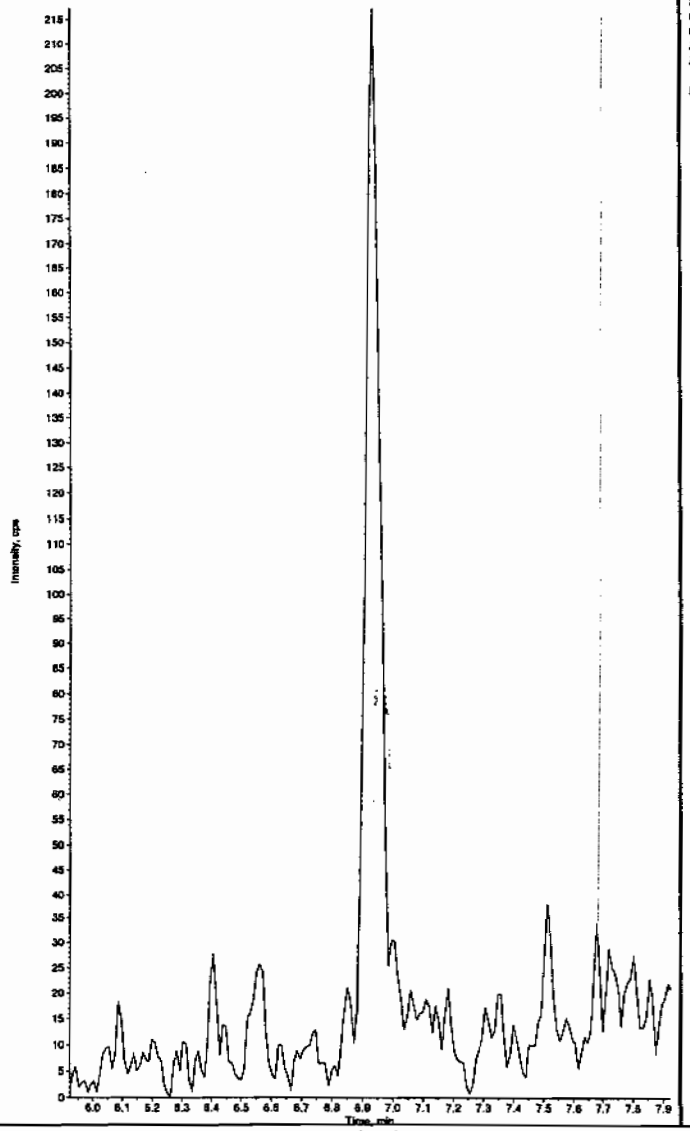

Sample Name: "XISLK09" Sample ID: "|1|LER" File: "EXS03100080.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 12:12:09 PM

Modified: No

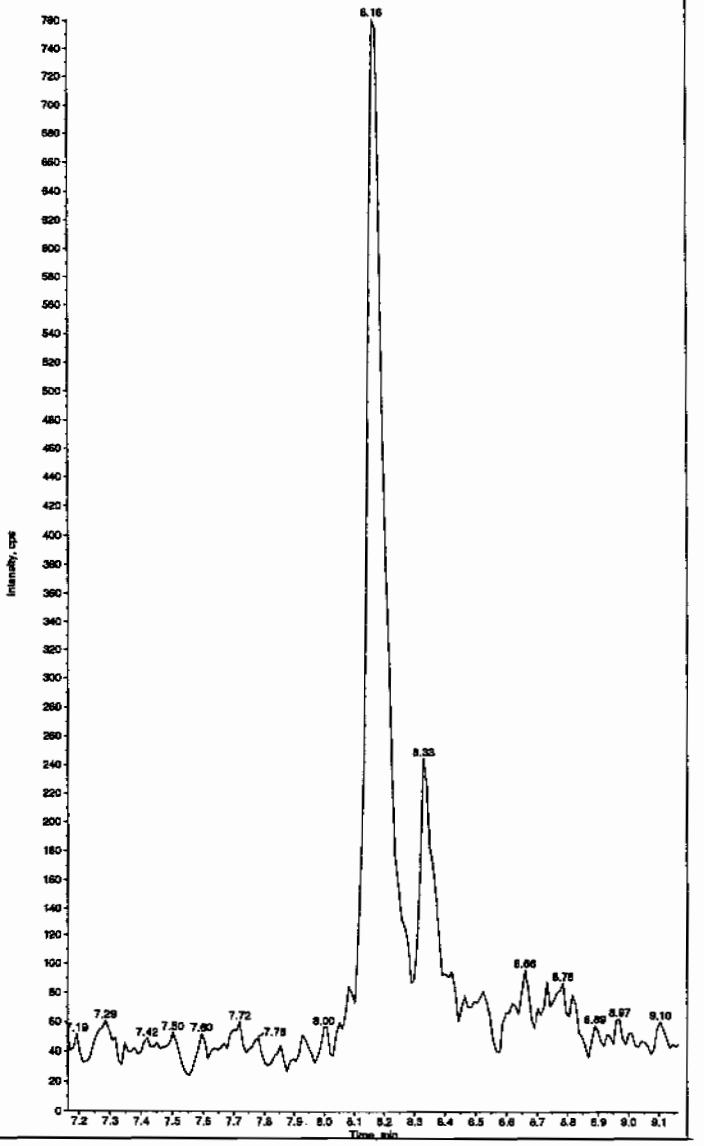

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Sample Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS03100080.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 12:12:09 PM

Modified: No

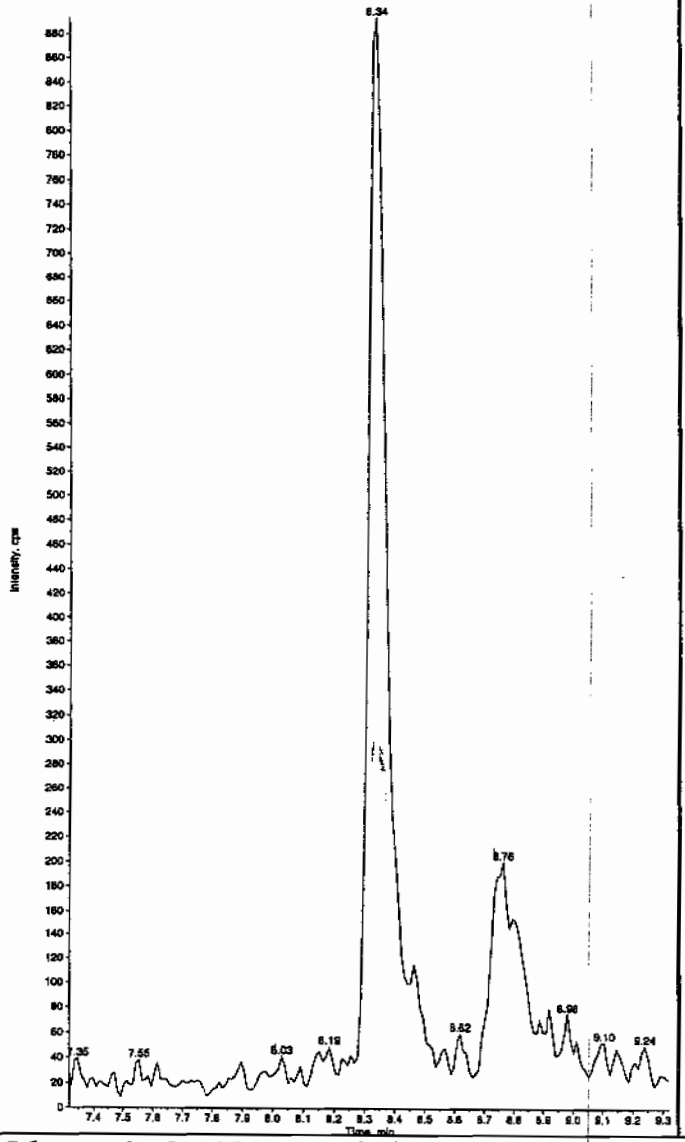

Sample Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS03100060.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_8" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 12:12:09 PM

Modified: No

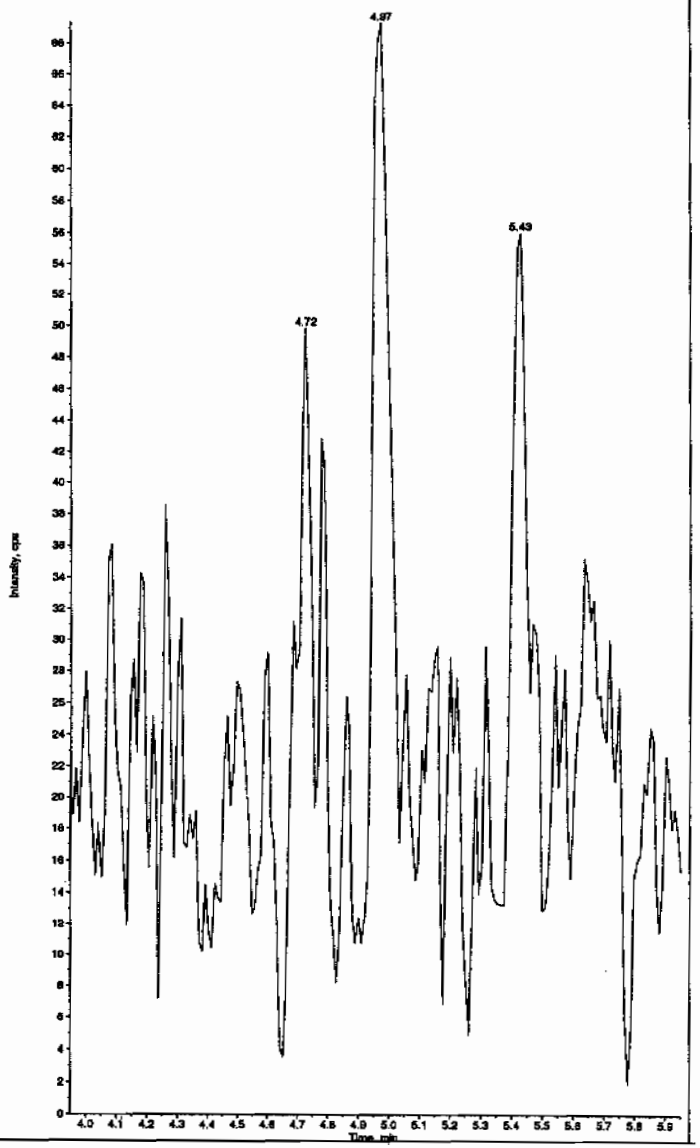

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK09" Sample ID: "[1]LER" File: "EXSC3100080.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 12:12:09 PM

Modified: No

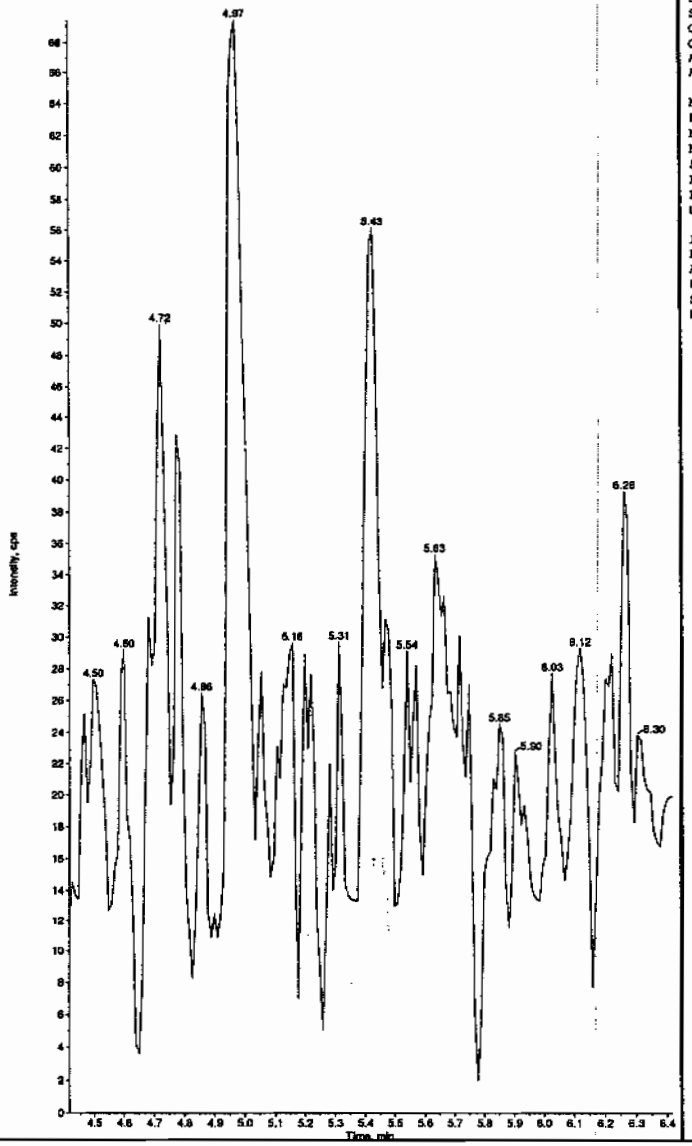

Sample Name: "XIBLK09" Sample ID: "[1]LER" File: "EXSC3100080.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.467 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 12:12:09 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.6 min
Area: 7.12e+004 counts
Height: 19043.472 cps
Start Time: 10.7 min
End Time: 11.0 min

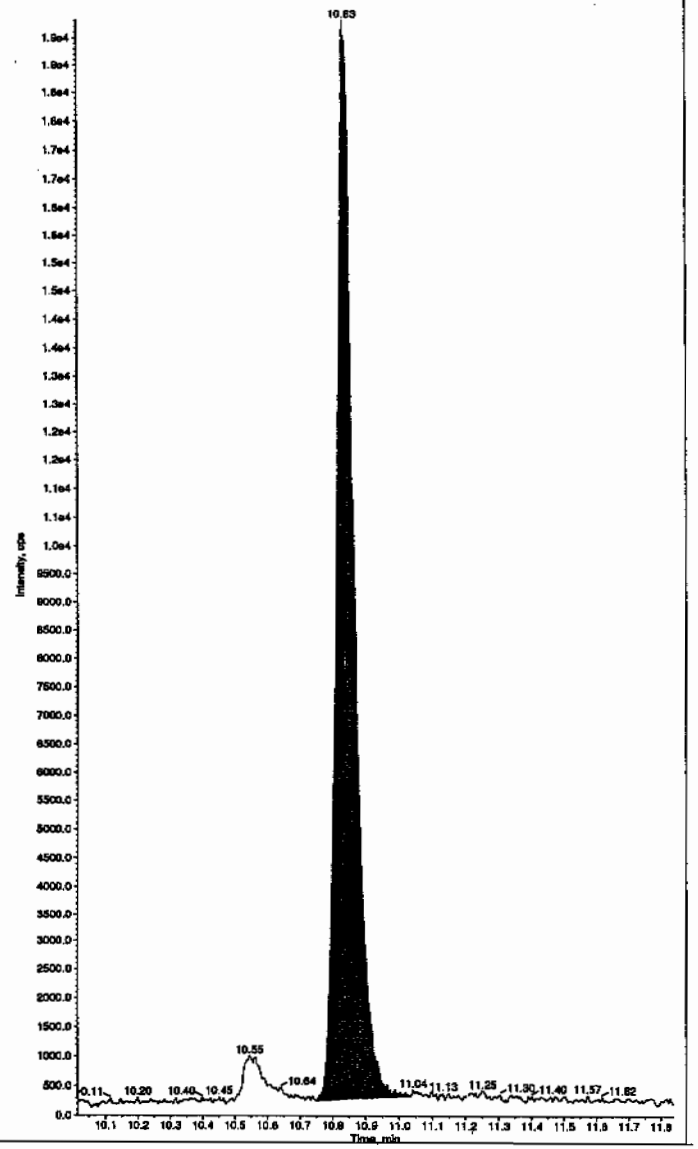

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1864

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 11–MAR–10 15:36

GEL Data File: EXS03100093.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	.369
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lan 3/14/10

Sample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS03100093.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 3:36:17 PM

Modified: No

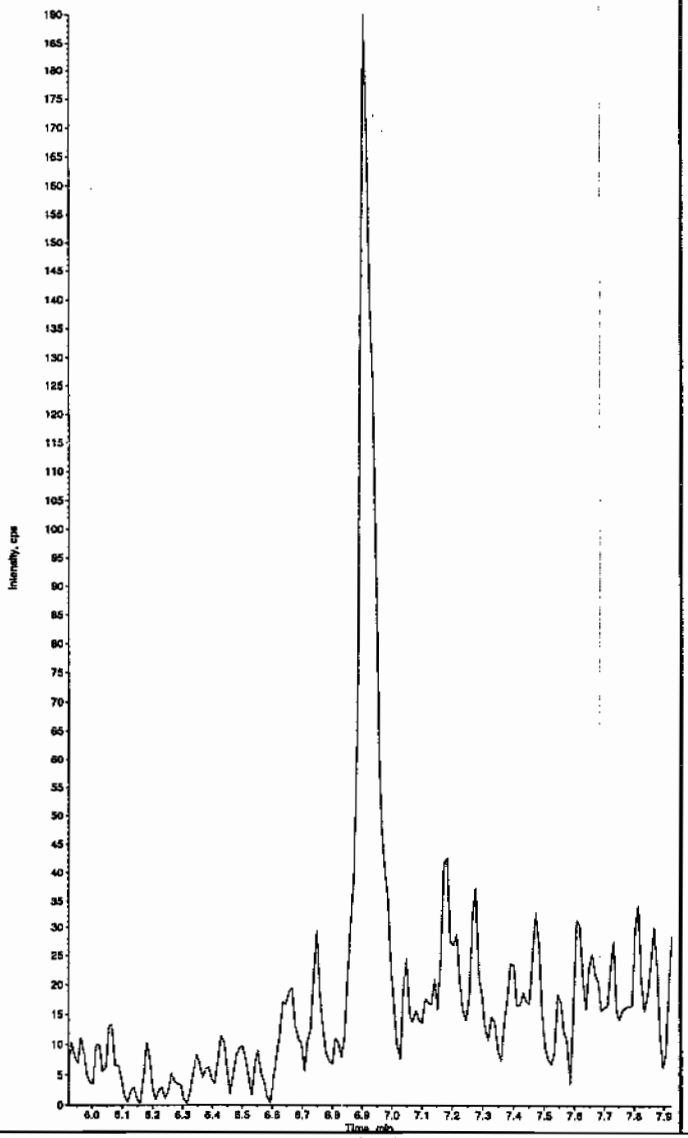

Sample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS03100093.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 3:36:17 PM

Modified: No

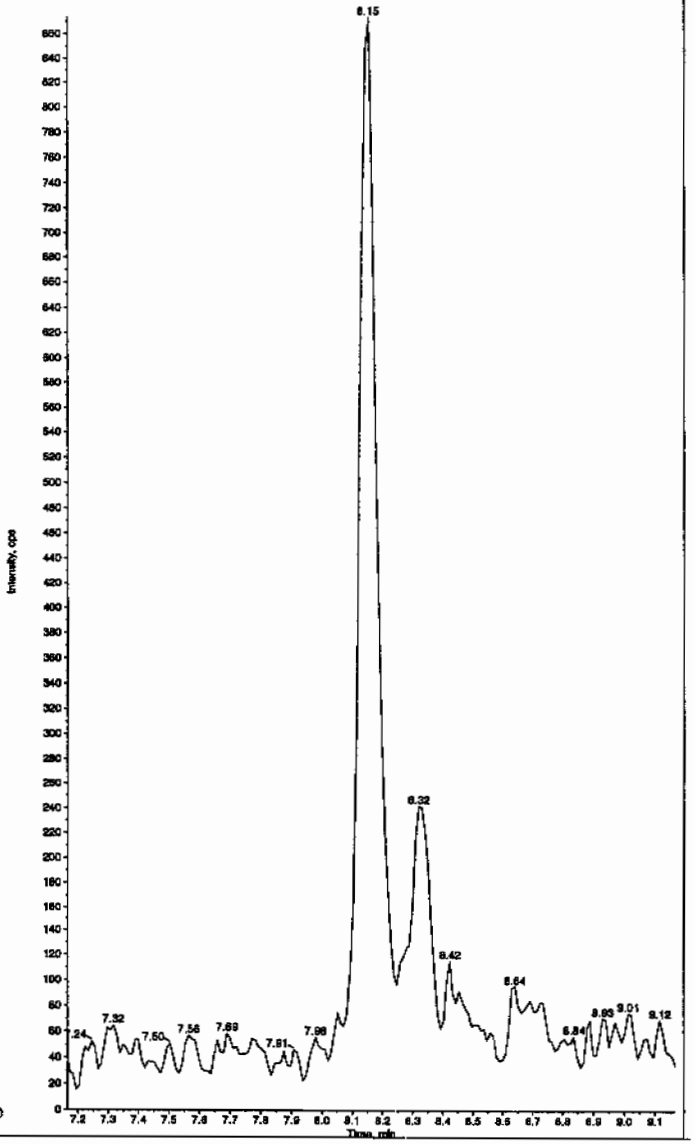

HMM 03/15/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK10" Sample ID: "|1|LER" File: "EXS03100093.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 3:36:17 PM

Modified: No

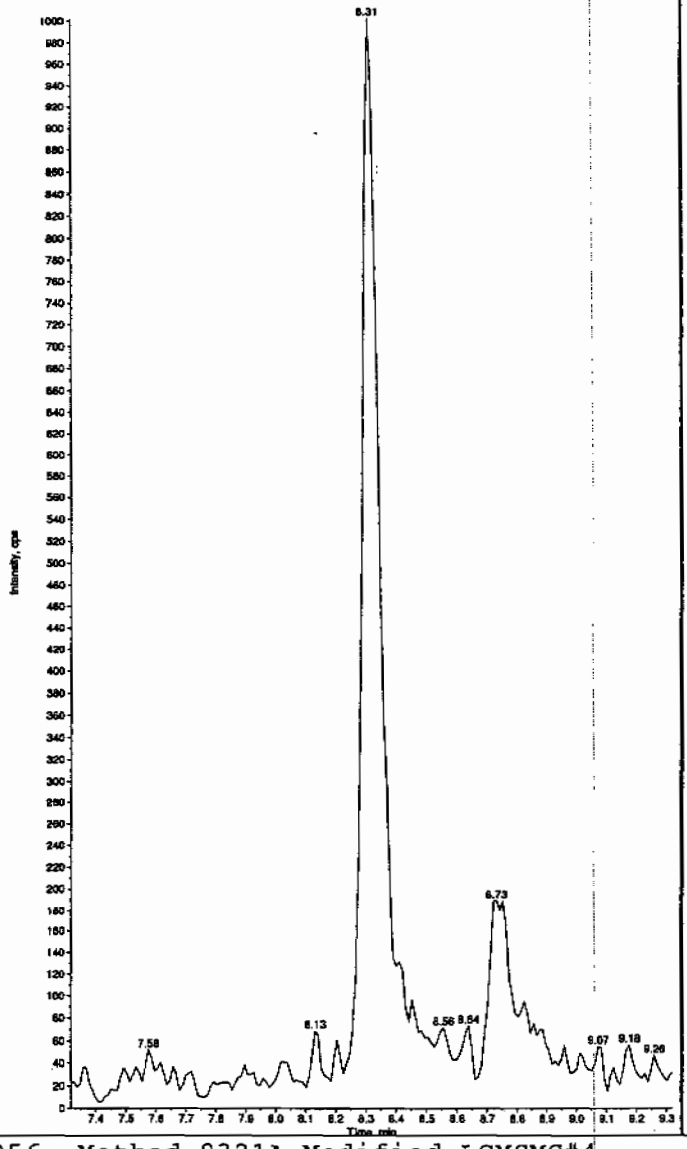

Sample Name: "XIBLK10" Sample ID: "|1|LER" File: "EXS03100093.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 3:36:17 PM

Modified: No

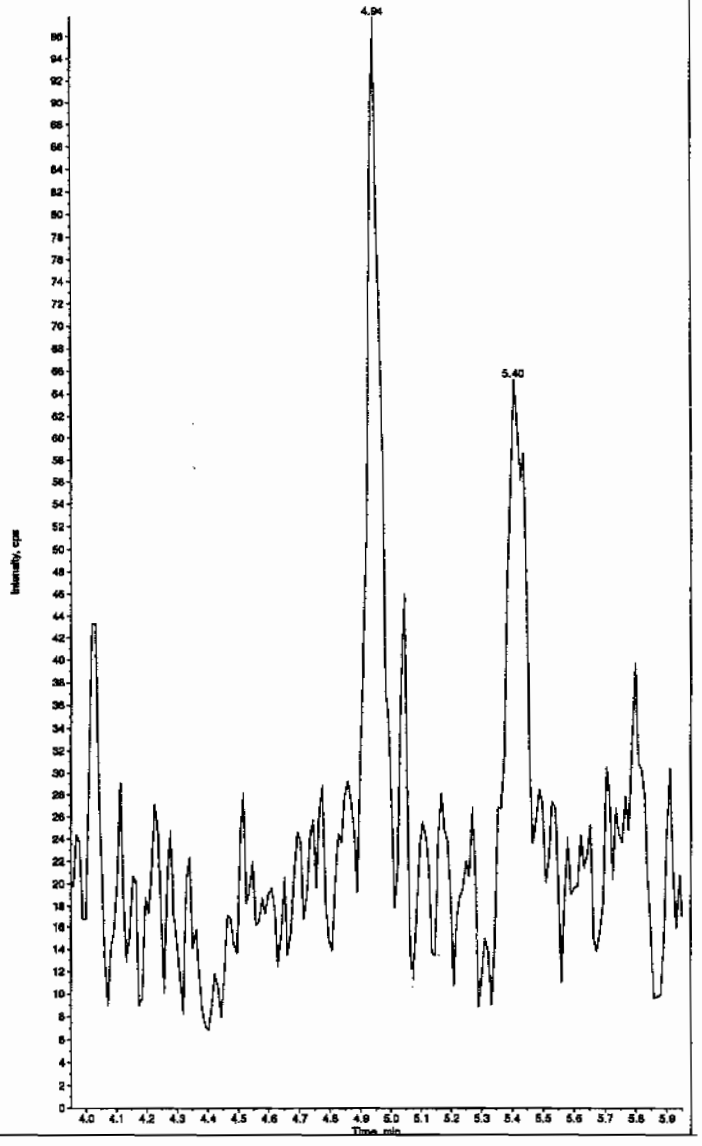

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS03100093.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 3:36:17 PM

Modified: No

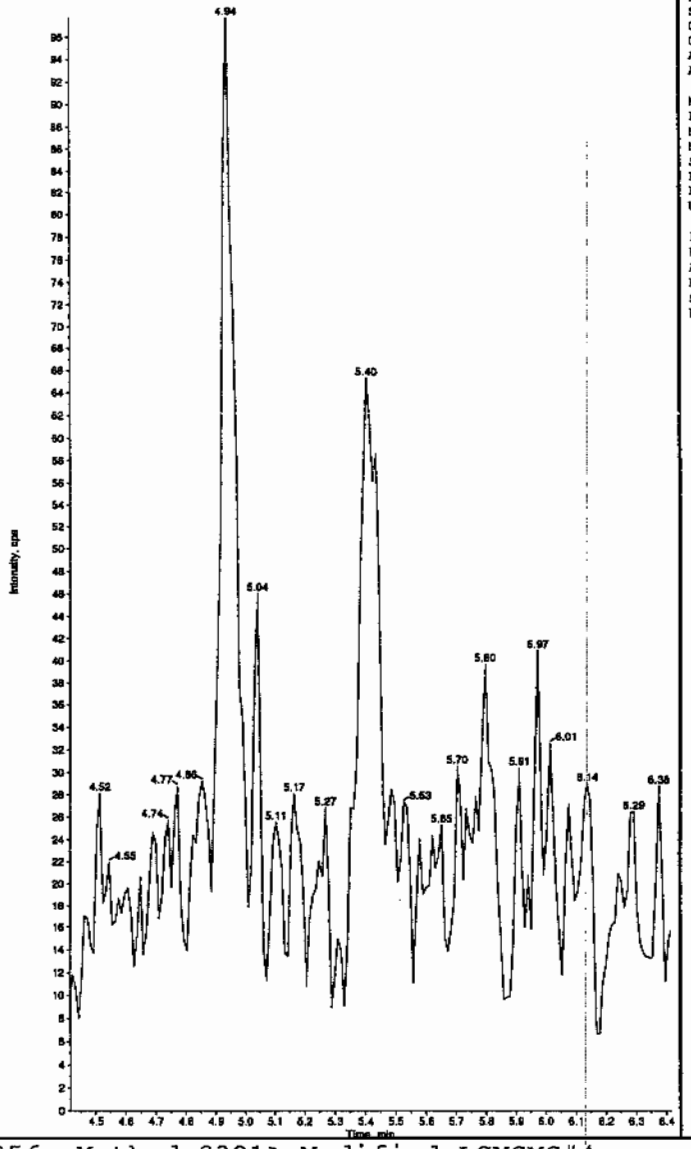

Sample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS03100093.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.369 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 3:36:17 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 6.99e+004 counts
Height: 17246.531 cps
Start Time: 10.8 min
End Time: 11.0 min

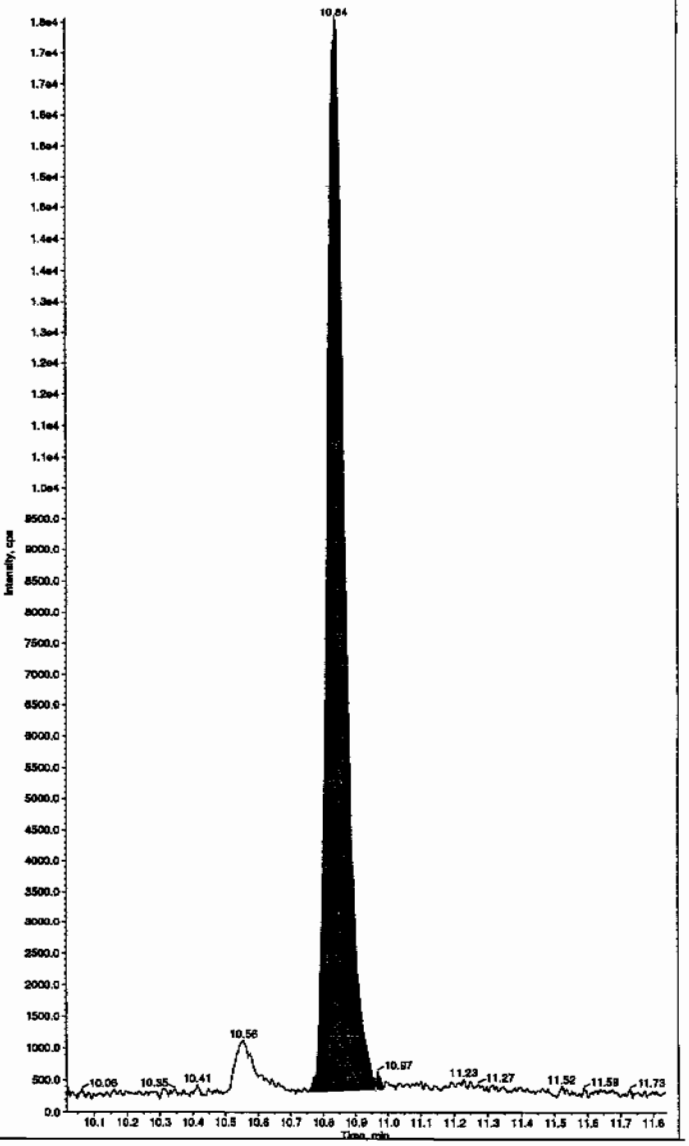

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1864

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 11–MAR–10 18:28

GEL Data File: EXS03100104.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	.433
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lan 3/14/10

Sample Name: "XIBLK11" Sample ID: "1|LER" File: "EXS03100104.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 6:28:58 PM

Modified: No

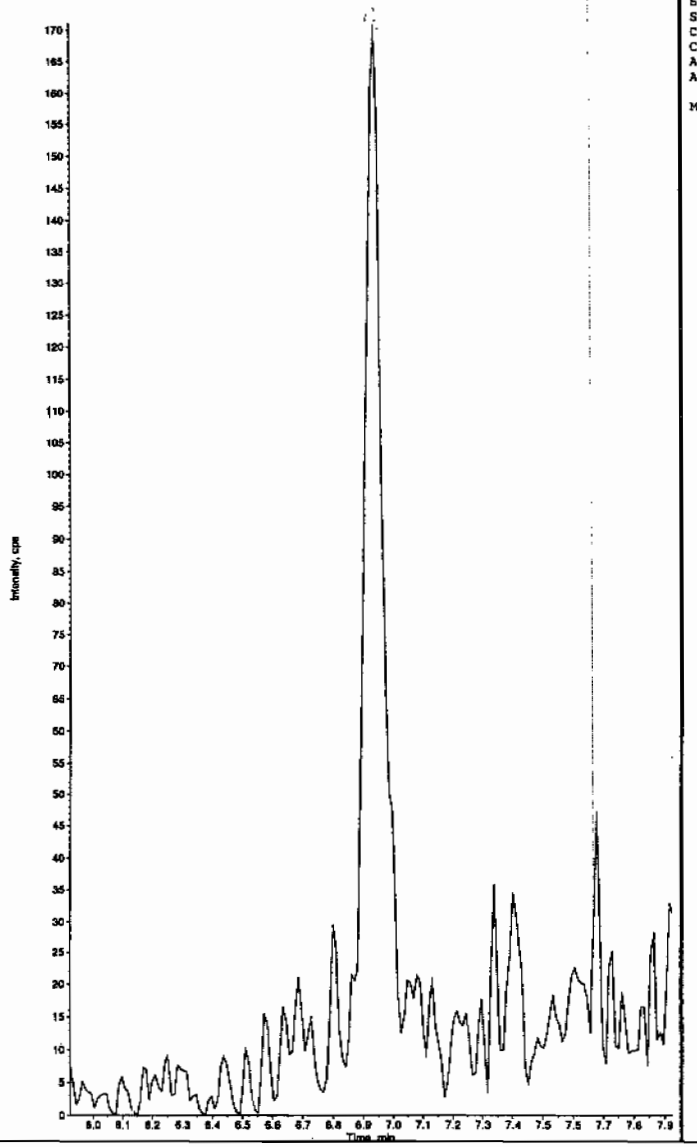

Sample Name: "XIBLK11" Sample ID: "1|LER" File: "EXS03100104.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 6:28:58 PM

Modified: No

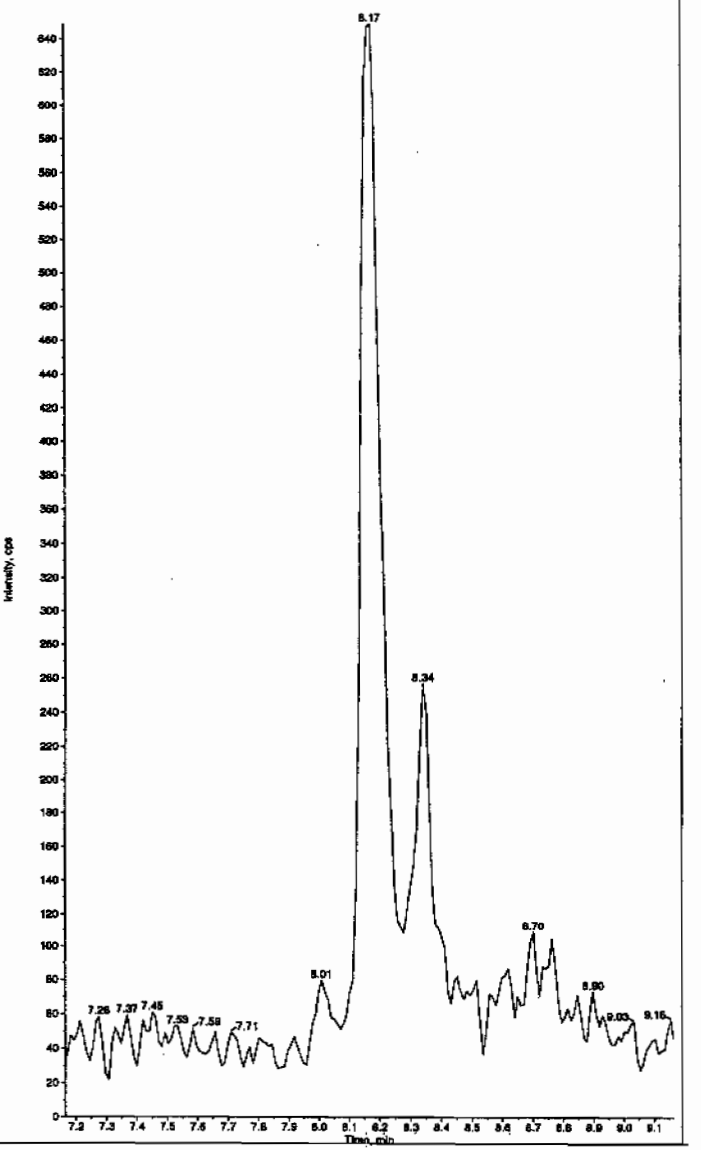

HM 03/15/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK11" Sample ID: "1|LER" File: "EXS03100104.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 6:28:58 PM

Modified: No

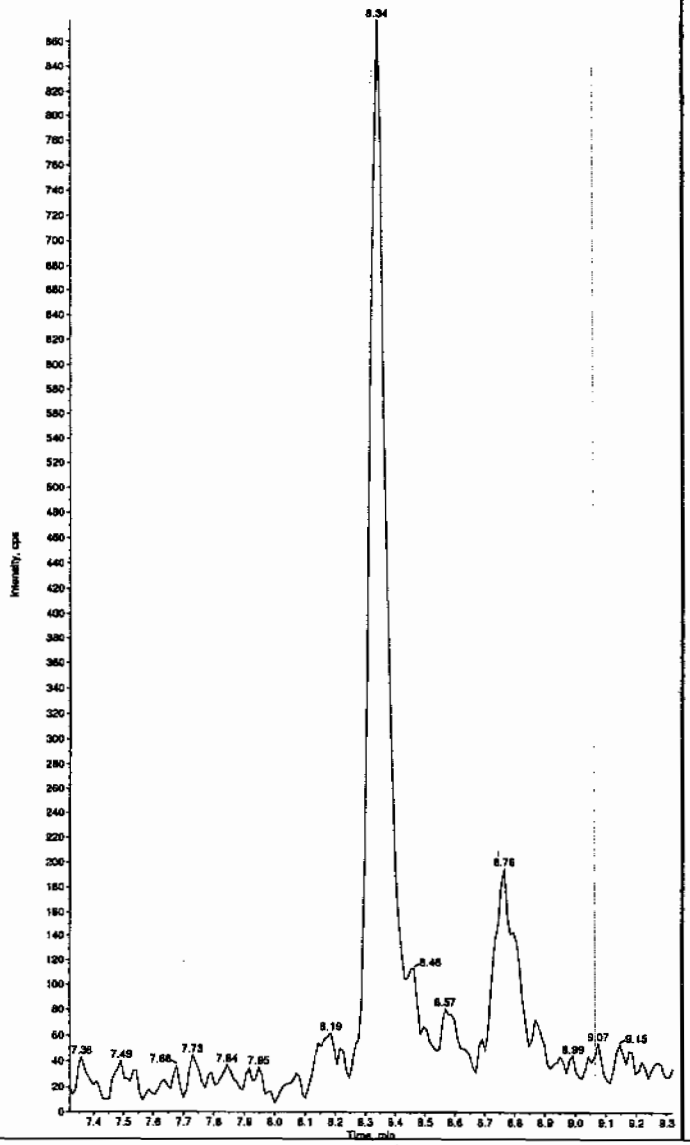

Sample Name: "XIBLK11" Sample ID: "1|LER" File: "EXS03100104.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 6:28:58 PM

Modified: No

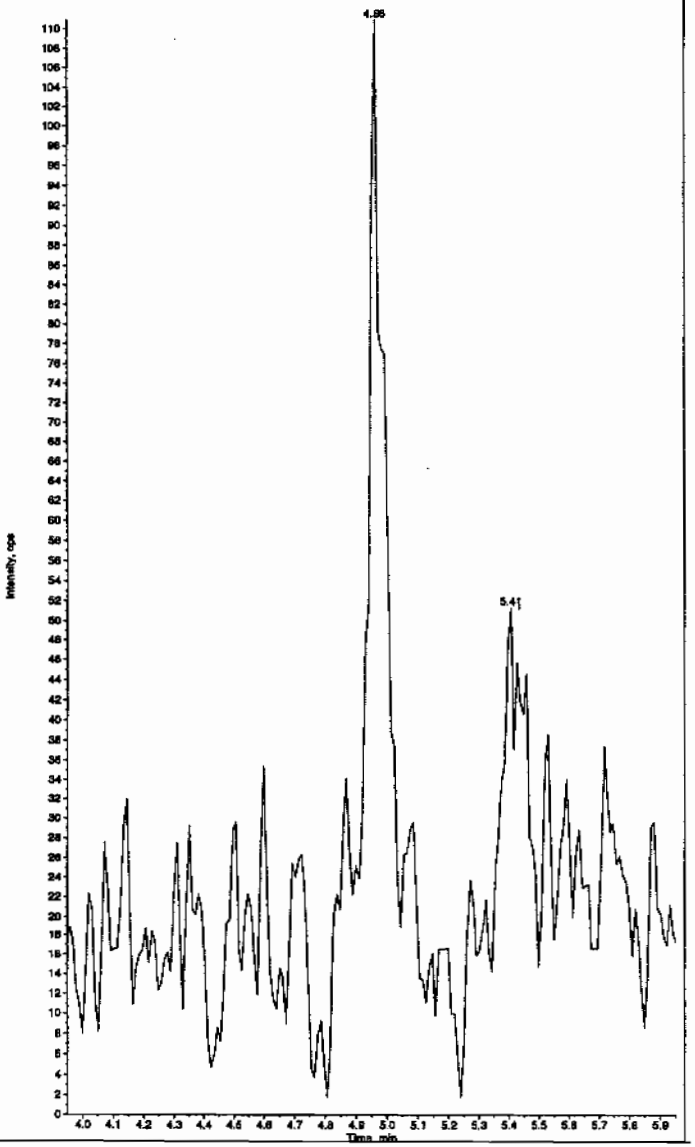

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK11" Sample ID: "[1]LER" File: "EXS03100104.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "165.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 6:28:58 PM

Modified: No

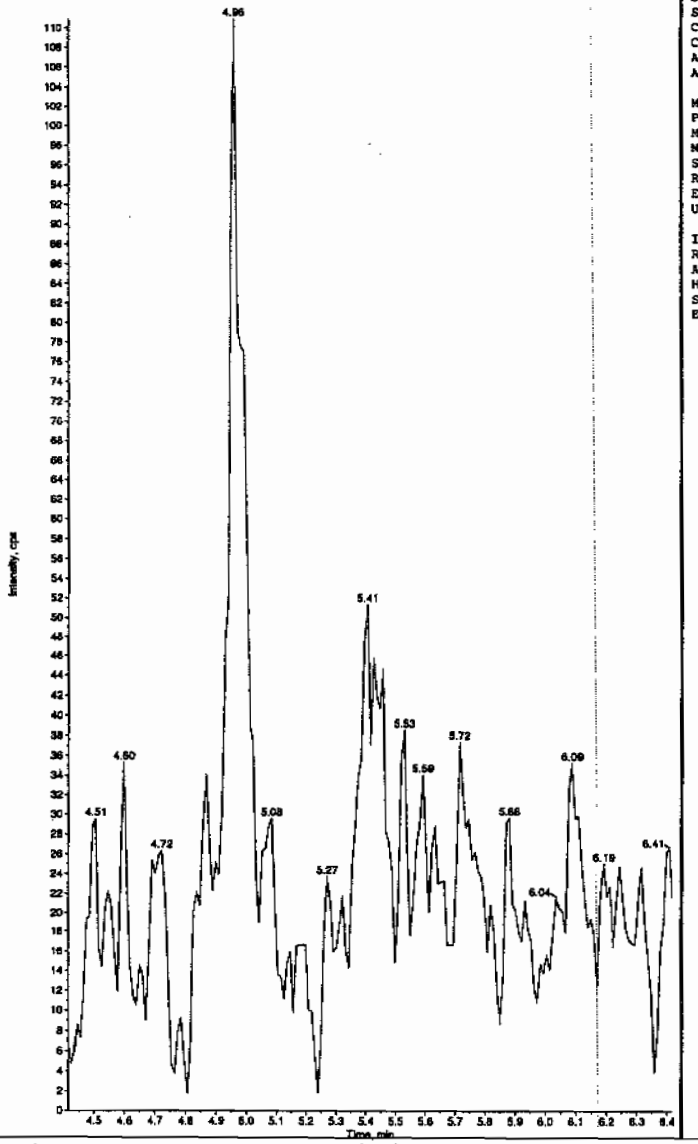

Sample Name: "XIBLK11" Sample ID: "[1]LER" File: "EXS03100104.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.433 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 6:28:58 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 7.08e+004 counts
Height: 18405.758 cps
Start Time: 10.8 min
End Time: 11.0 min

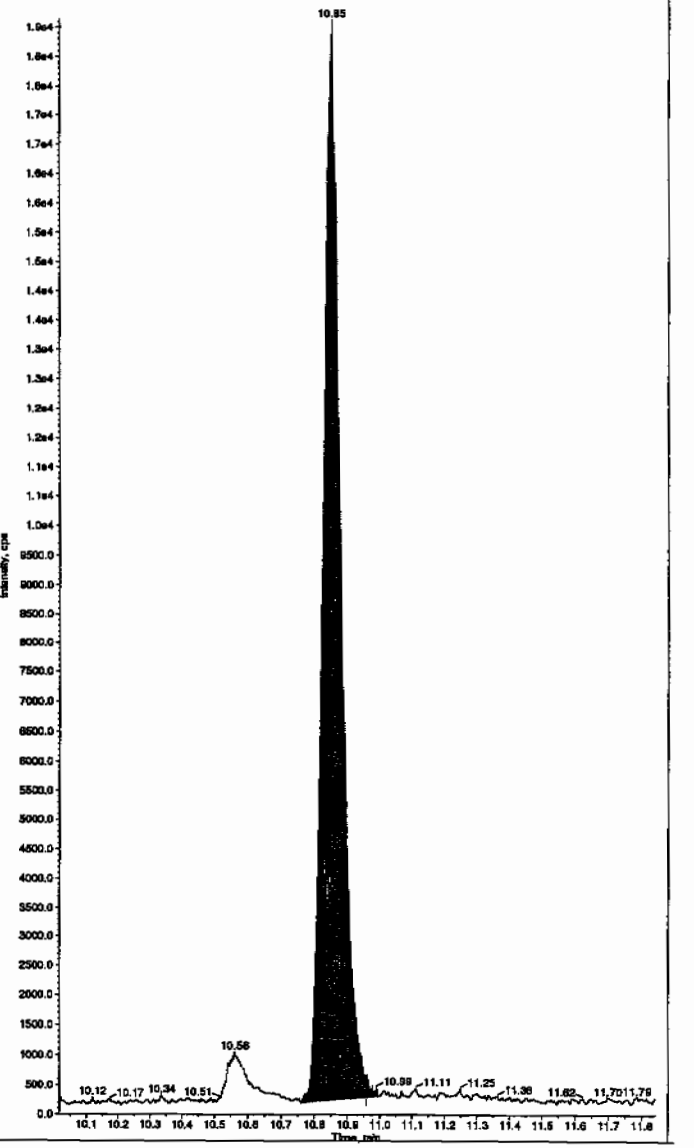

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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Calibration Report - MS1 Static

Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

15 matches of 15 tested references

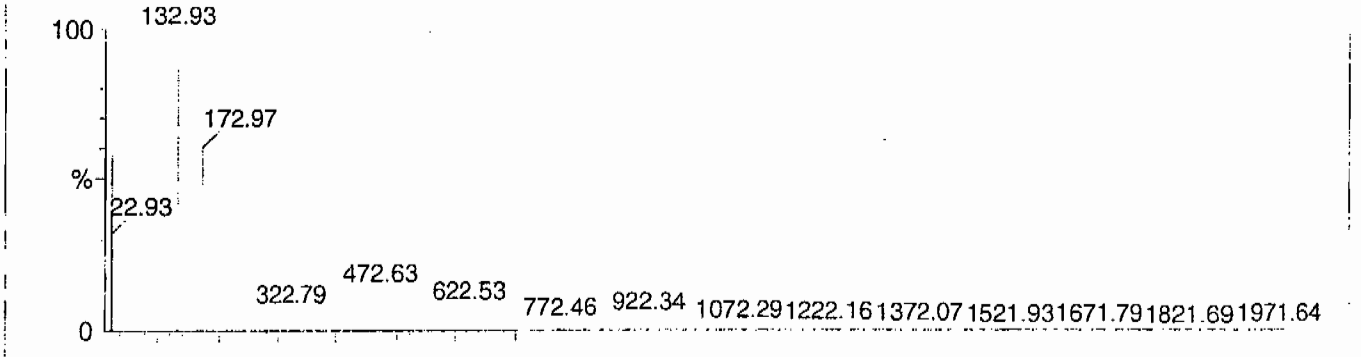

Reference file: Naics2

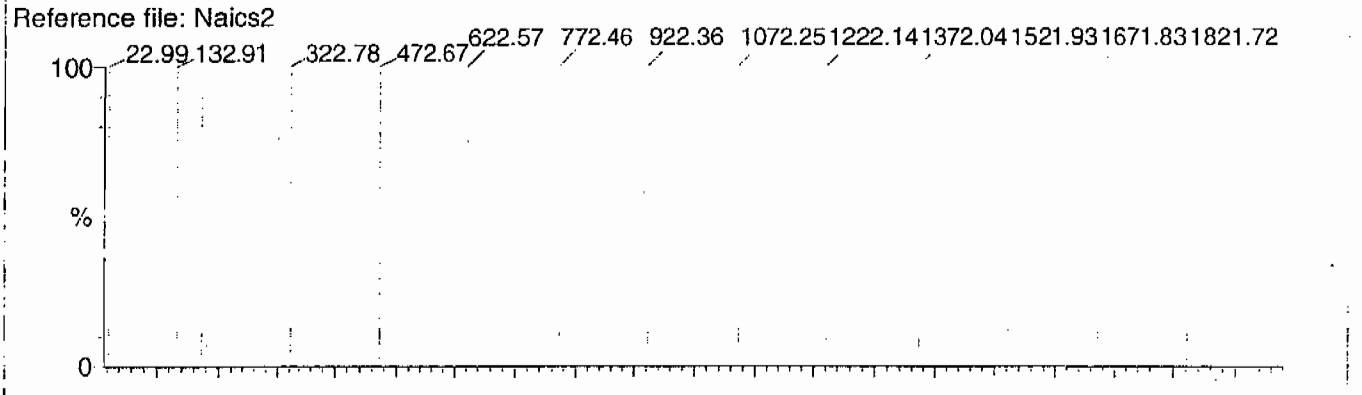

Mass difference (Raw - Ref mass)

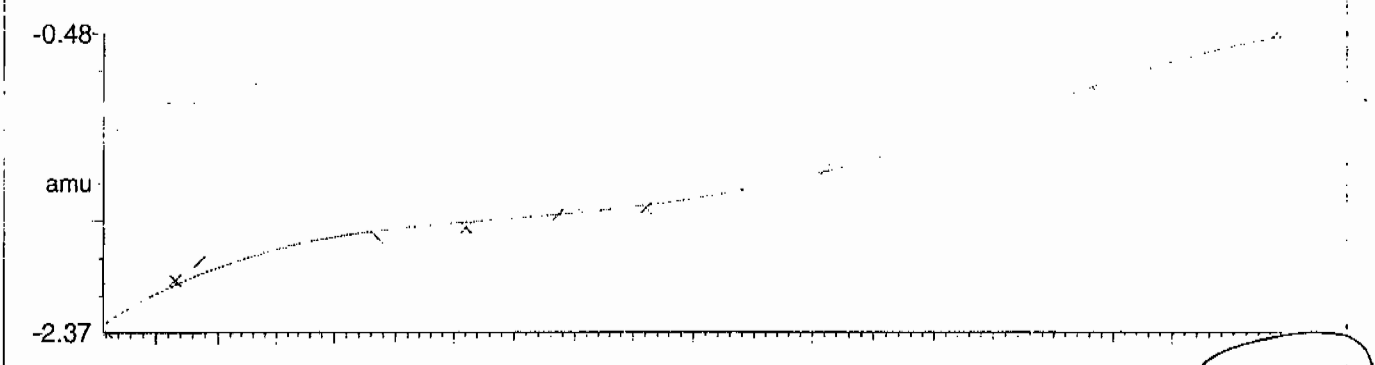

Residuals

Mean residual = -1.673470e-9 ± 0.036953

ok
hm

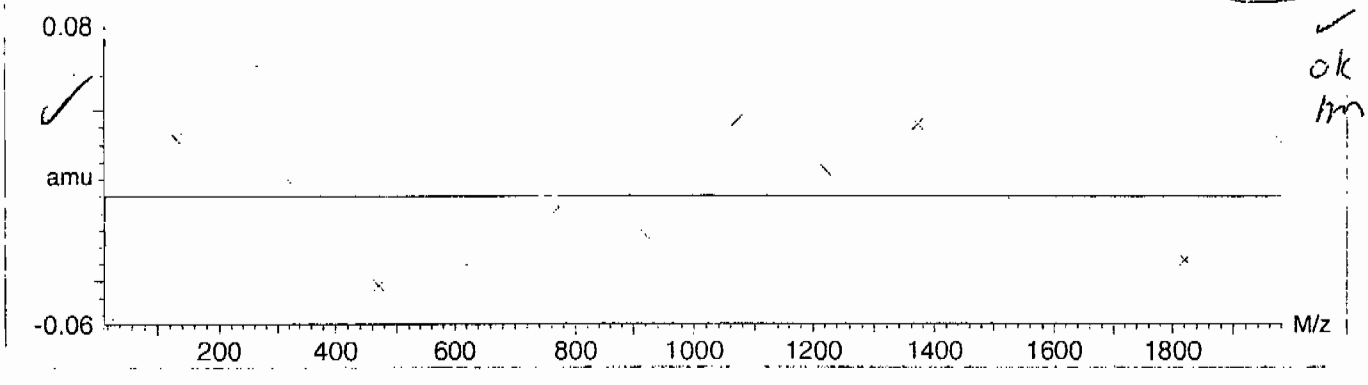

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Calibration Report - MS1 Scanning

Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

15 matches of 15 tested references

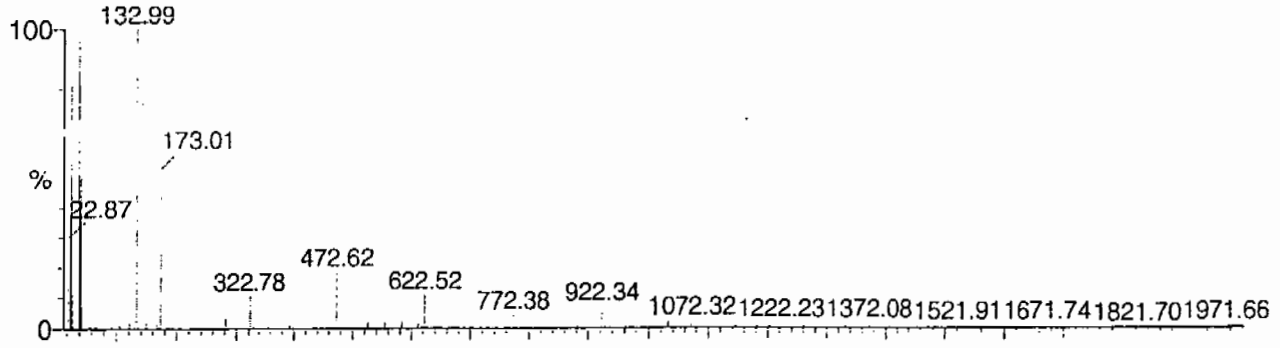

Reference file: Naics2

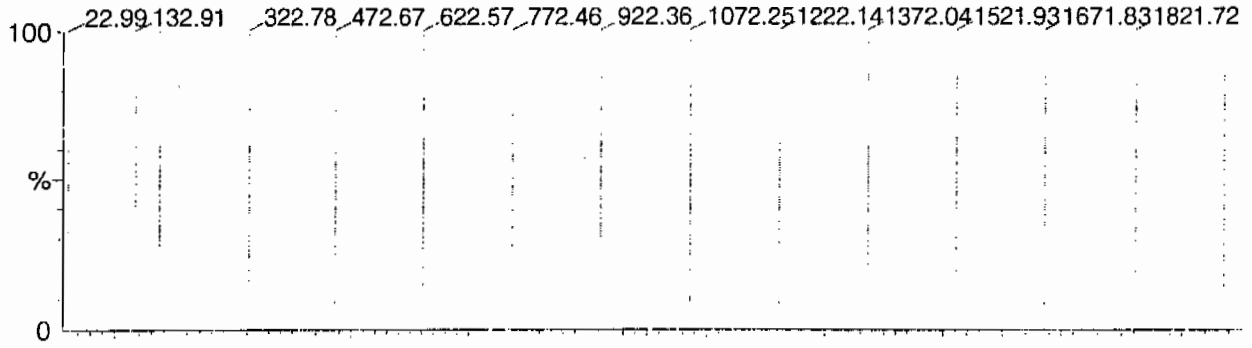

Mass difference (Raw - Ref mass)

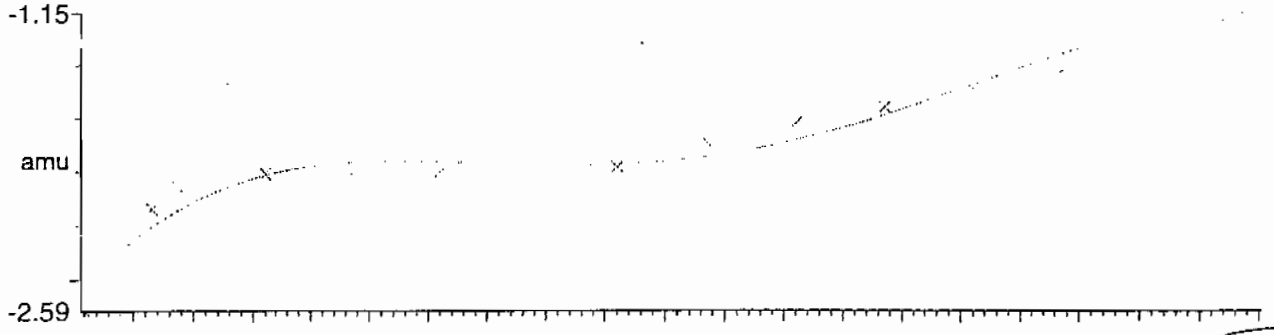

Residuals

Mean residual = -5.432715e-9 ± 0.069858

ok
m

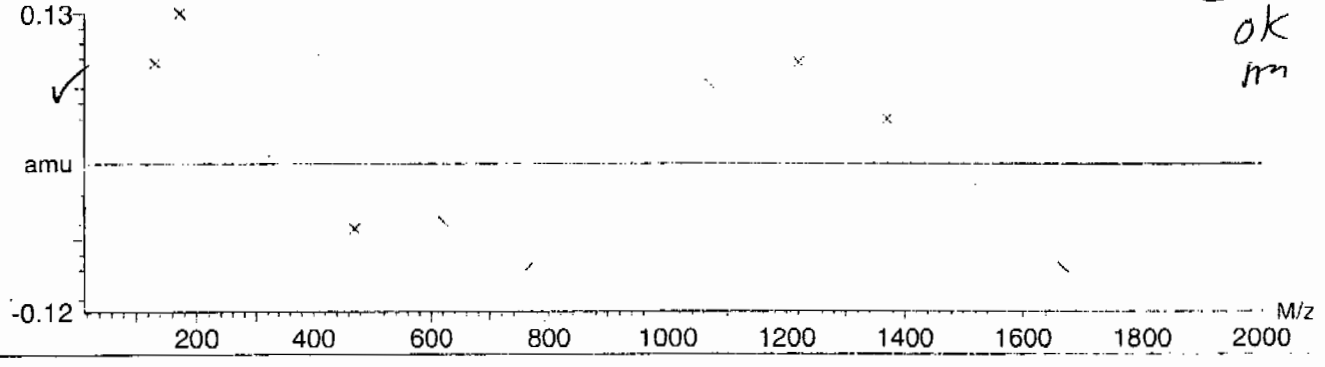

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Calibration Report - MS1 Scan Speed Compensation

Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

15 matches of 15 tested references

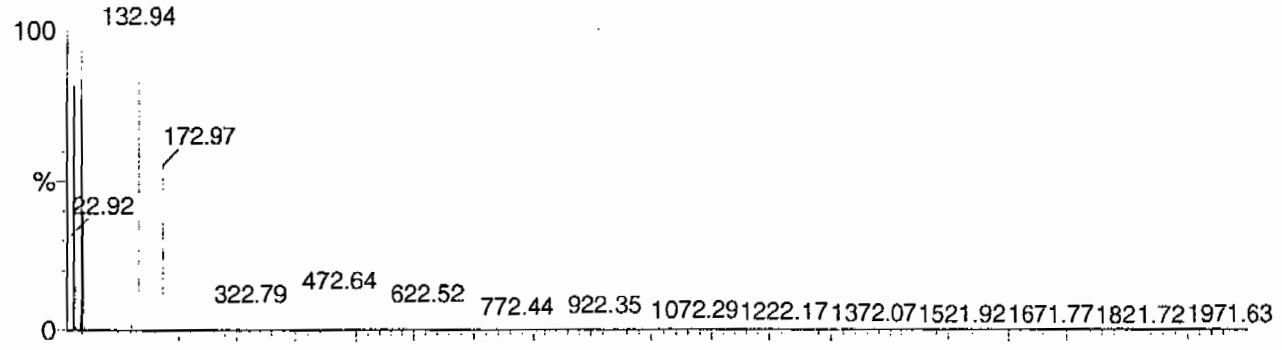

Reference file: Naics2

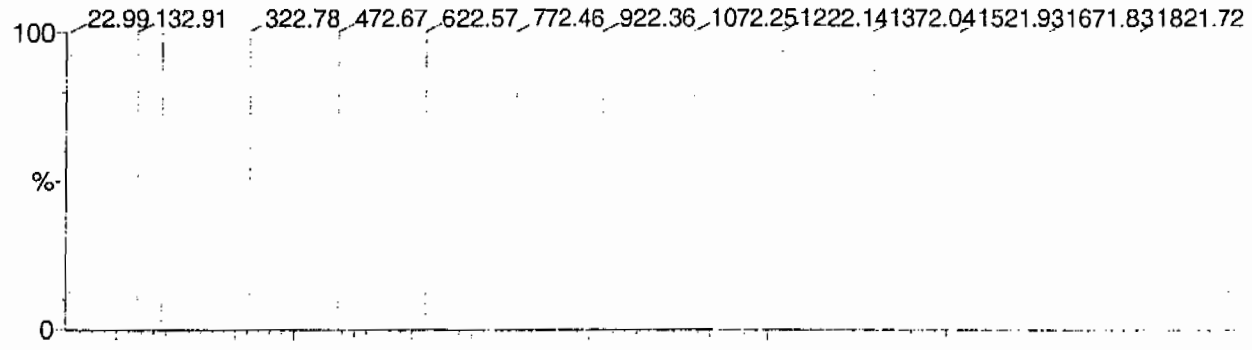

Mass difference (Raw - Ref mass)

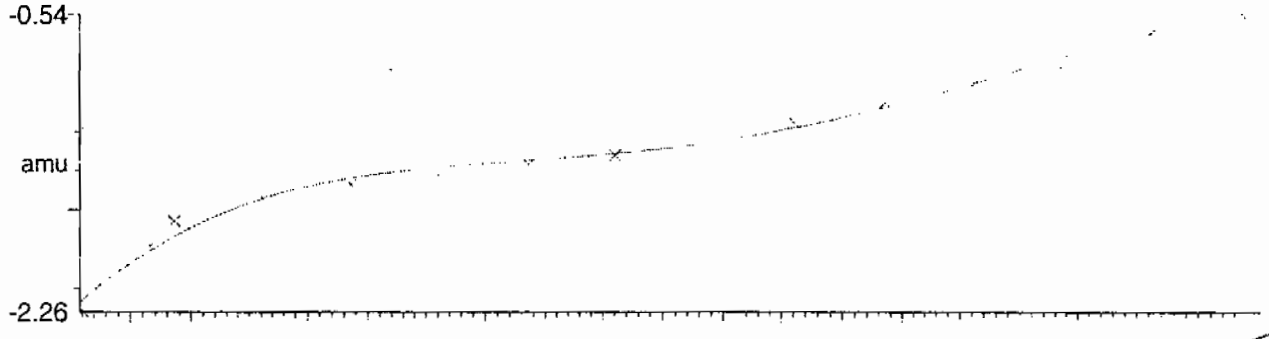

Residuals

Mean residual = 3.486639e-9 ± 0.040487

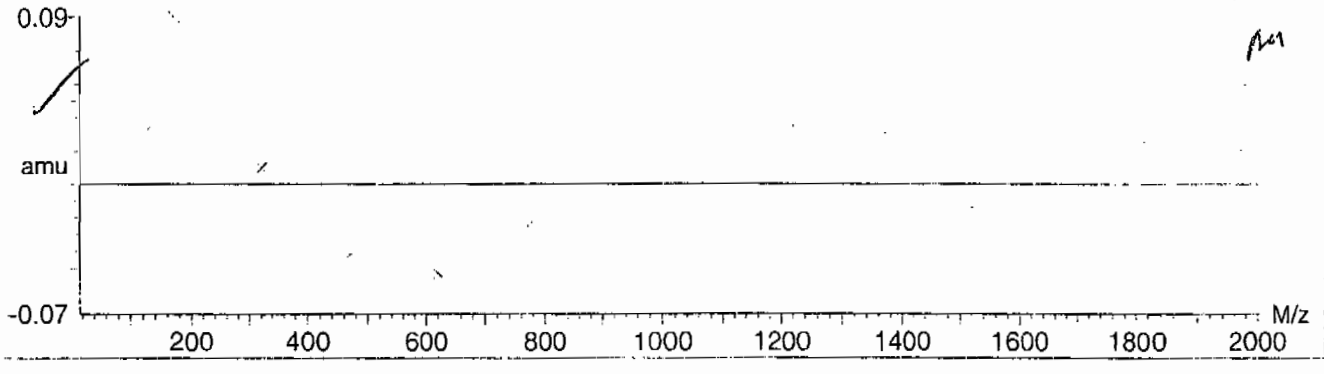

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Calibration Report - MS2 Static

Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

15 matches of 15 tested references

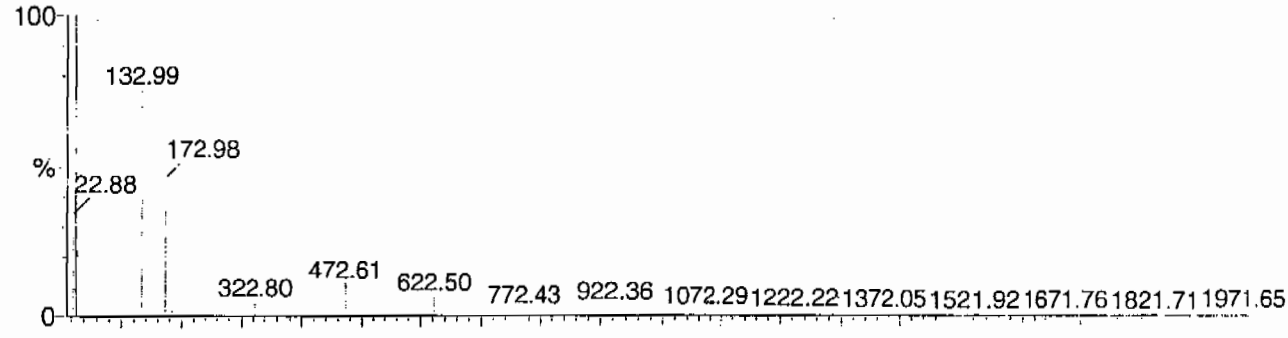

Reference file: Naics2

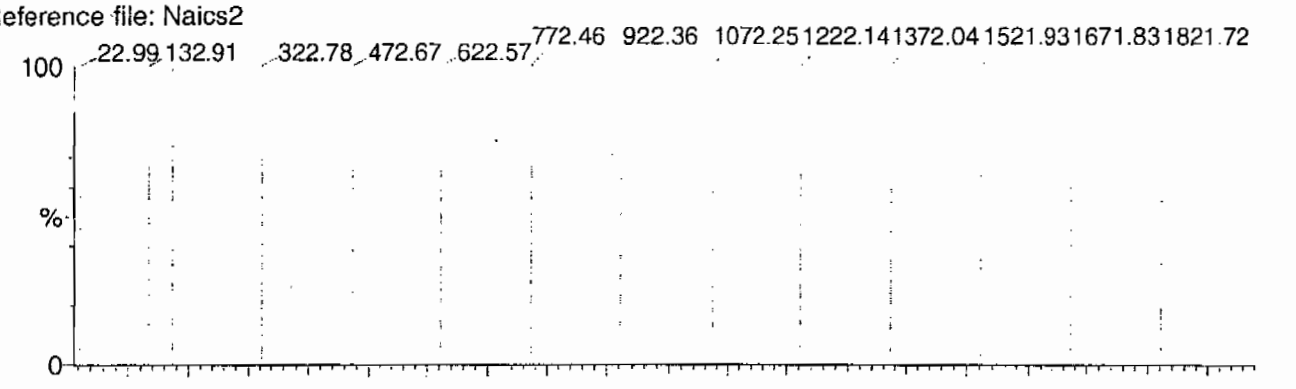

Mass difference (Raw - Ref mass)

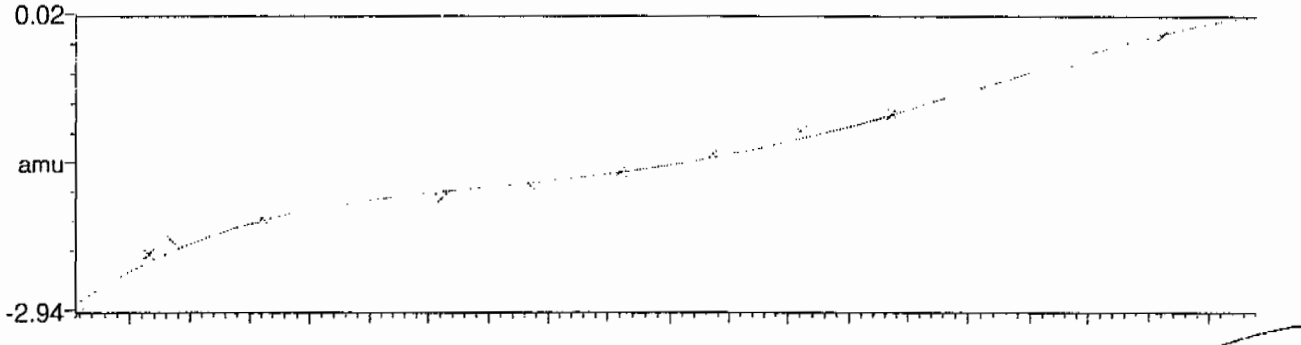

Residuals

Mean residual = 2.048910e-9 ± 0.057803

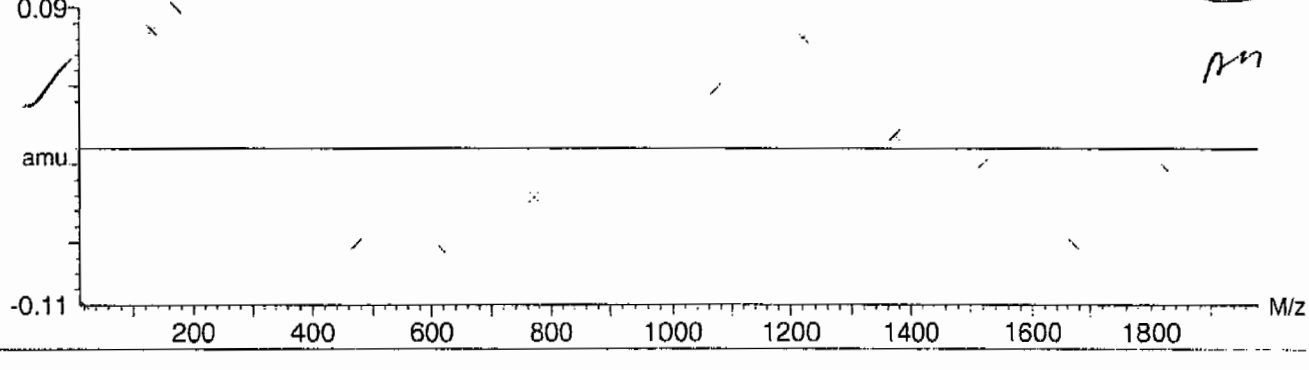

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Calibration Report - MS2 Scanning

Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

14 matches of 15 tested references

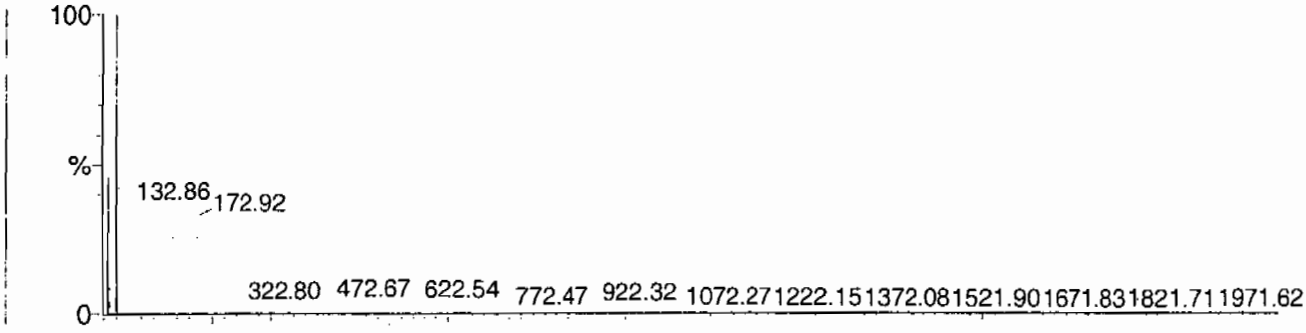

Reference file: Naics2

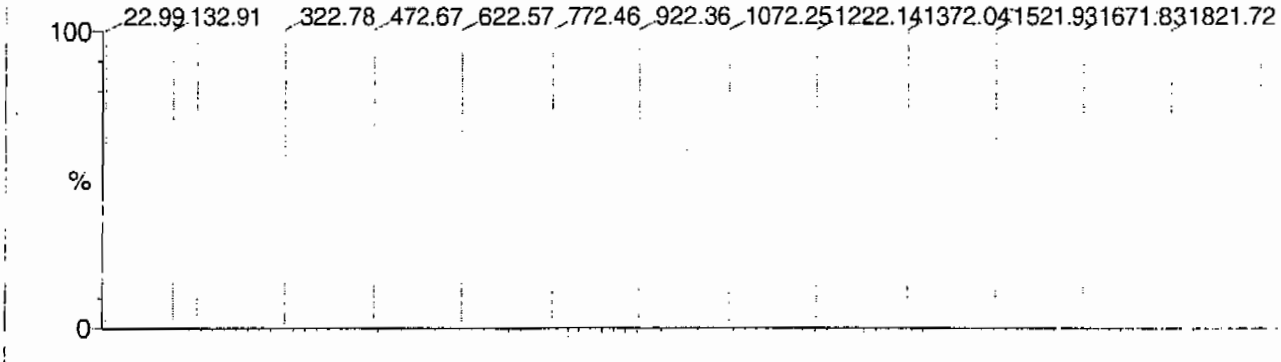

Mass difference (Raw - Ref mass)

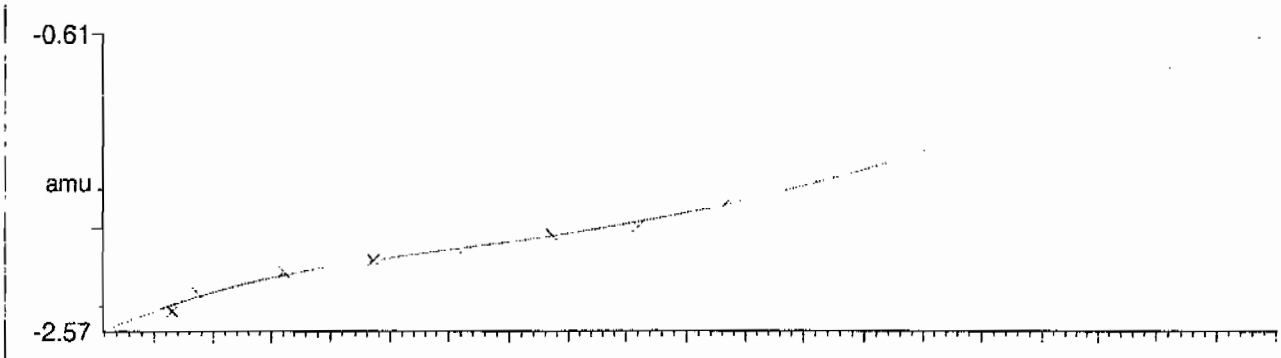

Residuals

Mean residual = -2.623502e-9 ± 0.025622

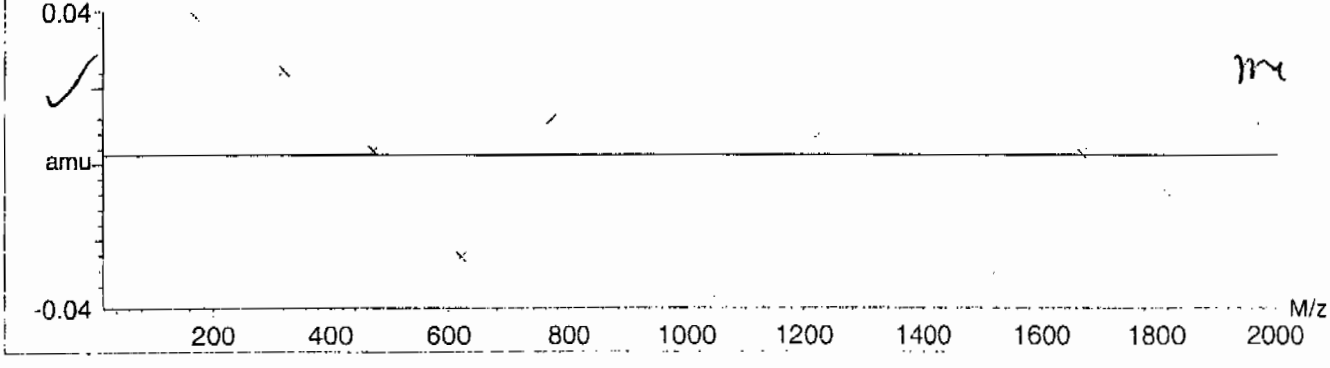

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Calibration Report - MS2 Scan Speed Compensation

Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

14 matches of 15 tested references

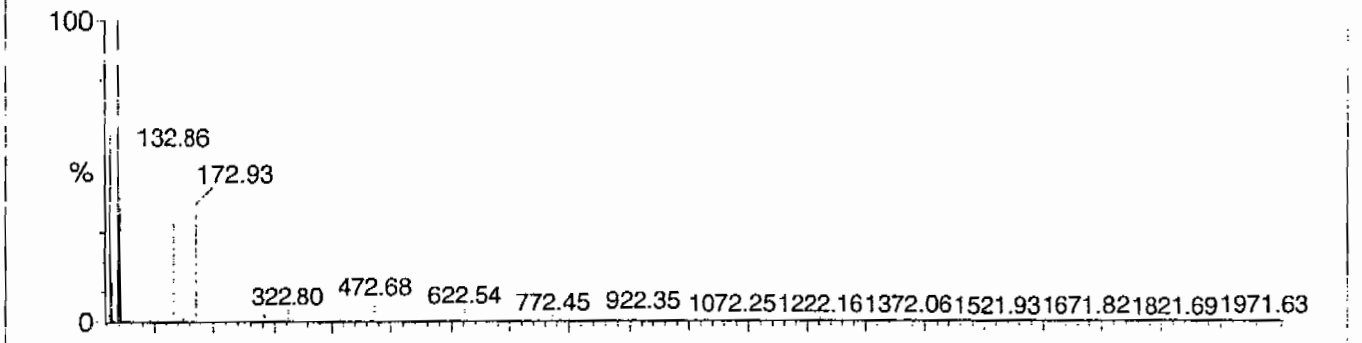

Reference file: Naics2

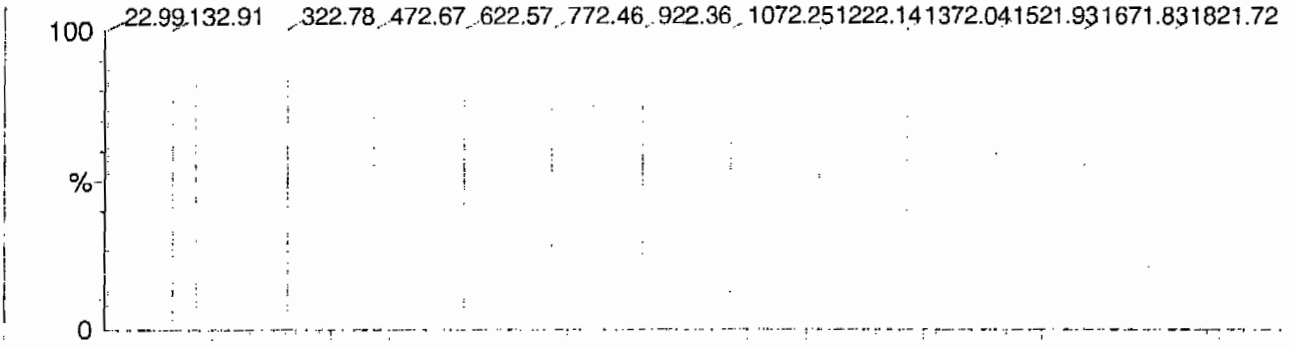

Mass difference (Raw - Ref mass)

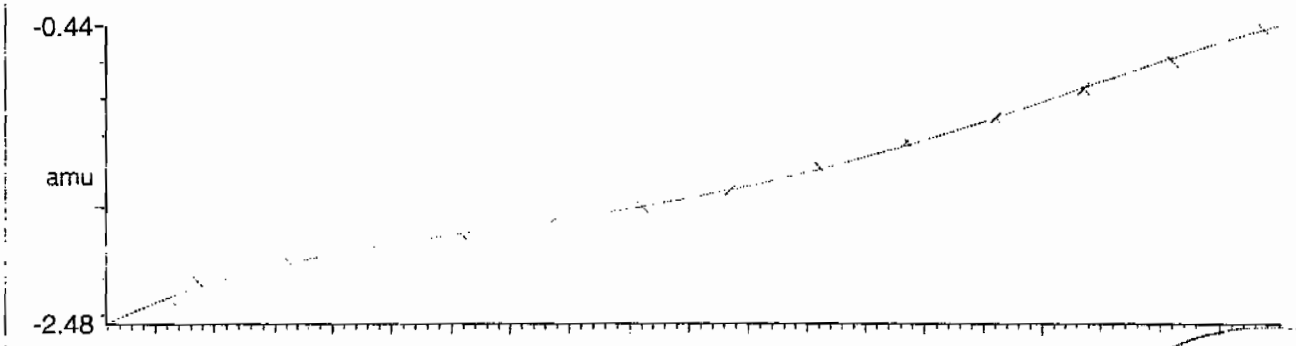

Residuals

Mean residual = -6.785350e-9 ± 0.023134

m

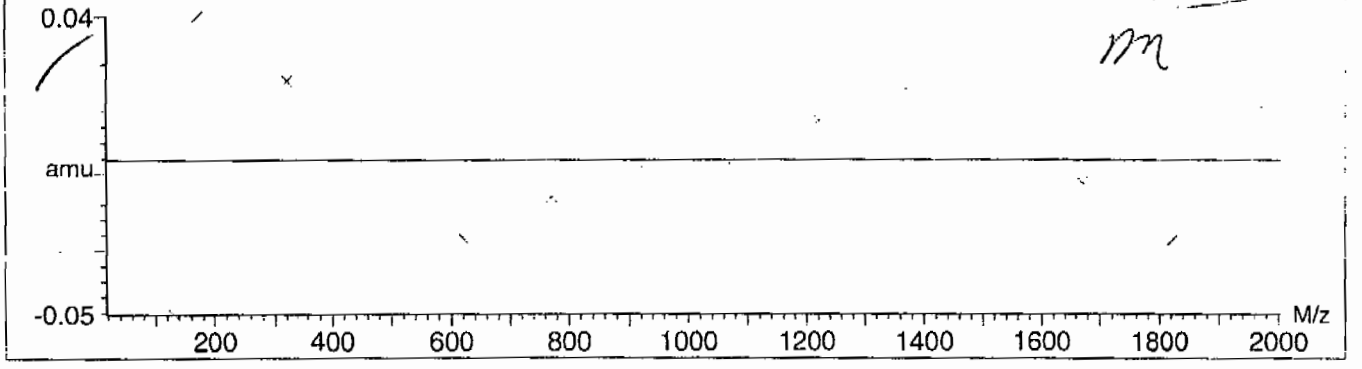

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1864

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			17683333.333	10.6	80233333.333	14.817
Upper Limit			22988333.3329	11.1	104303333.333	15.317
Lower Limit			12378333.3331	10.1	56163333.3331	14.317
MB for batch 954324	30–mar–10 15:39	EXP0330017.w	15600000	10.6	70400000	14.8
LCS for batch 954324	30–mar–10 16:05	EXP0330018.w	17900000	10.6	75800000	14.8
RE15–10–8196	30–mar–10 16:32	EXP0330019.w	17500000	10.6	91200000	14.8
RE15–10–8196(247193001MS)	30–mar–10 16:58	EXP0330020.w	16100000	10.6	80300000	14.8
RE15–10–8196(247193001MSD)	30–mar–10 17:25	EXP0330021.w	17400000	10.6	75200000	14.9
RE15–10–8186	30–mar–10 17:51	EXP0330022.w	17500000	10.7	75900000	14.9
RE15–10–8194	30–mar–10 19:37	EXP0330026.w	18900000	10.6	73100000	14.8
RE15–10–8189	30–mar–10 20:03	EXP0330027.w	17500000	10.6	89600000	14.9
RE15–10–8188	30–mar–10 20:29	EXP0330028.w	15900000	10.7	73100000	14.9
RE15–10–8187	30–mar–10 20:56	EXP0330029.w	18600000	10.7	80800000	14.9
RE15–10–8197	30–mar–10 21:22	EXP0330030.w	18400000	10.7	78400000	15
RE15–10–8190	30–mar–10 21:49	EXP0330031.w	16800000	10.6	72400000	15
RE15–10–8193	30–mar–10 22:15	EXP0330032.w	16300000	10.7	73300000	14.9
RE15–10–8191	30–mar–10 22:41	EXP0330033.w	17800000	10.7	75500000	14.9
RE15–10–8192	30–mar–10 23:08	EXP0330034.w	16500000	10.7	75300000	15
RE15–10–8195	30–mar–10 23:34	EXP0330035.w	15300000	10.6	71300000	14.9

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			12766666.667	10.6	61866666.667	14.767
Upper Limit			16596666.6671	11.1	80426666.6671	15.267
Lower Limit			8936666.6669	10.1	43306666.6669	14.267
RE15–10–8226	01–apr–10 16:54	EXP0401013.w	12300000	10.6	56700000	14.8
RE15–10–8211	01–apr–10 17:21	EXP0401014.w	14700000	10.6	62200000	14.8

IS1 (DNB) = 1,3–Dinitrobenzene–d4
IS2 (DNT) = 2,6–Dinitrotoluene–d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = – 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = –0.5 of average multipoint RT

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1864

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

IS1 (DNB) = 1,3-Dinitrobenzene-d4
IS2 (DNT) = 2,6-Dinitrotoluene-d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = – 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = –0.5 of average multipoint RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits

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SAMPLE
DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8196

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193001

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330019.wiff

Date Analyzed: 30-MAR-10 16:32

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330019.wiff	Acquisition Date	3/30/2010 4:32:05 PM
Sample Name	247193001	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

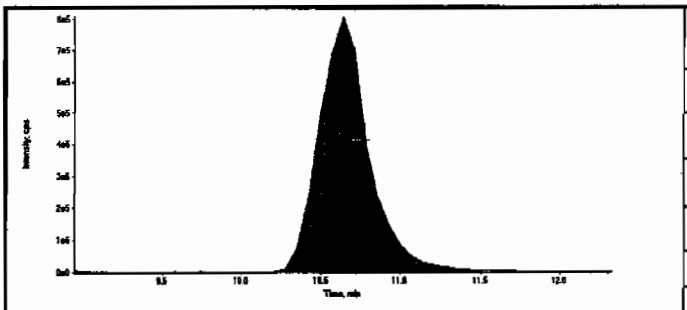

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	17500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

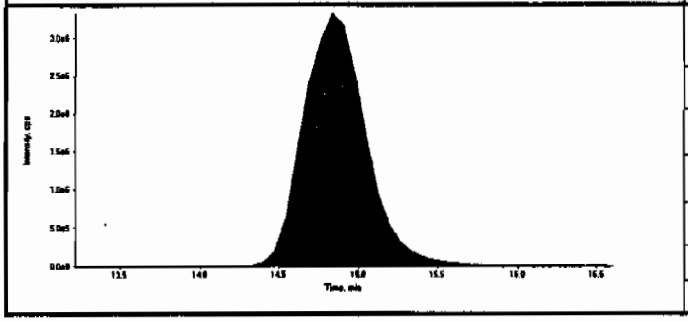

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.80
Area Counts:	91200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

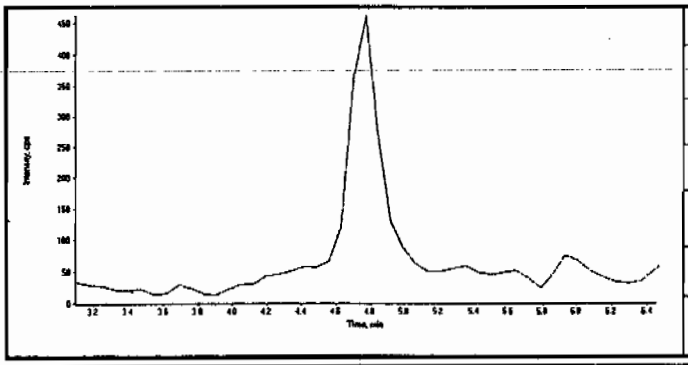

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

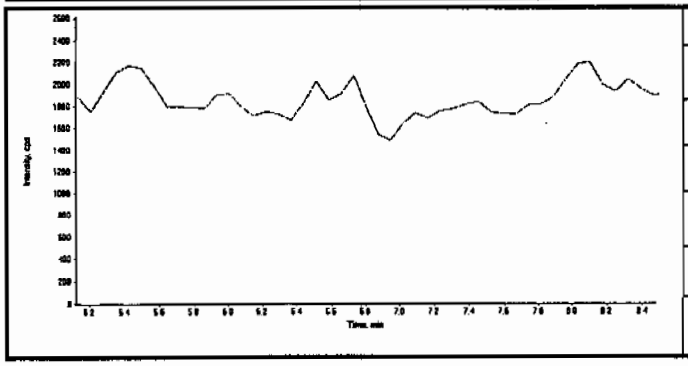

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

HMW 04/02/10
Kar 4/2/10

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330019.wiff	**Acquisition Date**	3/30/2010 4:32:05 PM
Sample Name	247193001	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

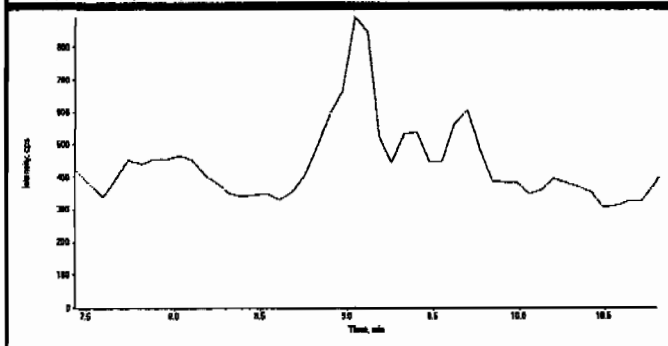

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

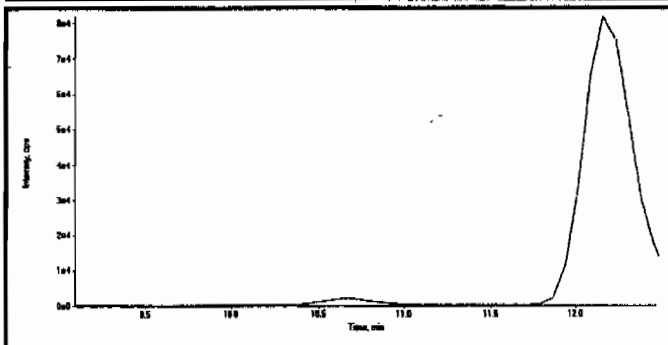

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

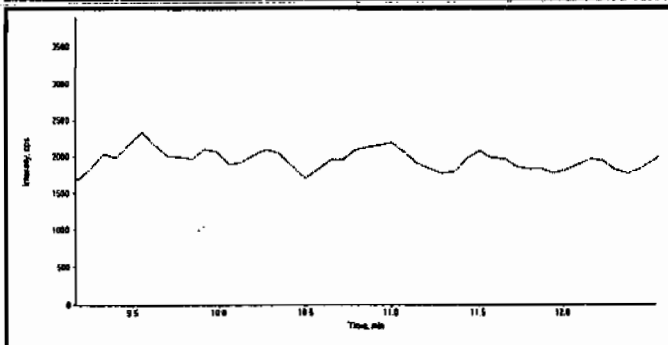

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

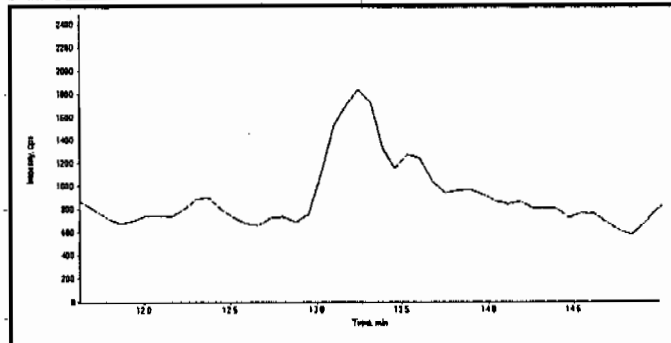

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330019.wiff	**Acquisition Date**	3/30/2010 4:32:05 PM
Sample Name	247193001	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

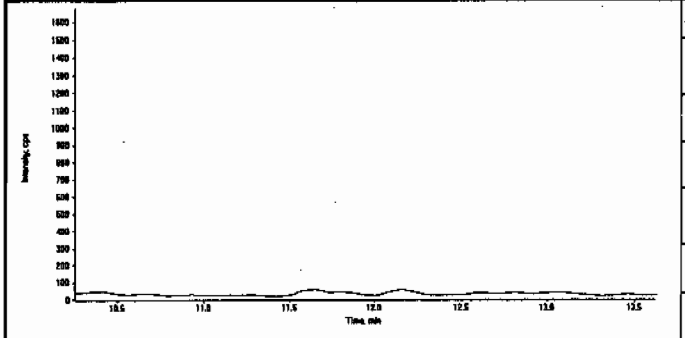

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

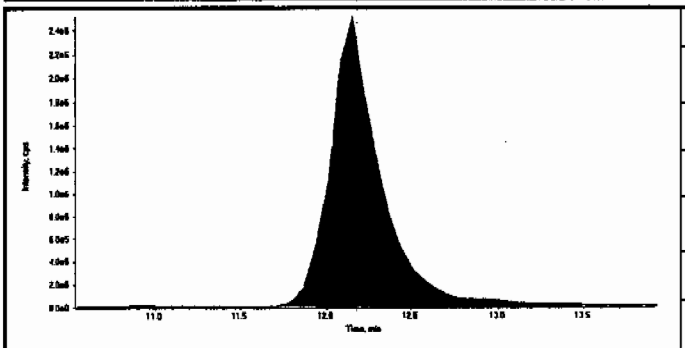

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	12.2
Area Counts:	5.27e+007
Manual Modification	No
Amount:	248. (ng/mL)
% Accuracy:	N/A

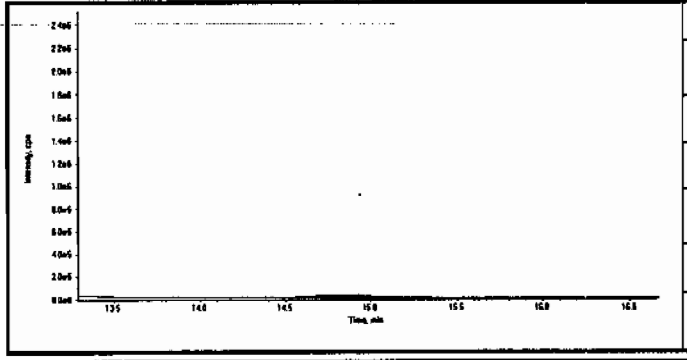

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	14.8
Area Counts:	9.14e+005
Manual Modification	No
Amount:	5.54 (ng/mL)
% Accuracy:	N/A

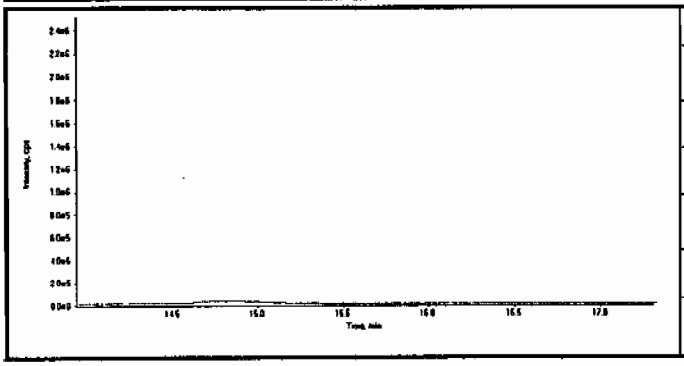

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330019.wiff	Acquisition Date	3/30/2010 4:32:05 PM
Sample Name	247193001	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

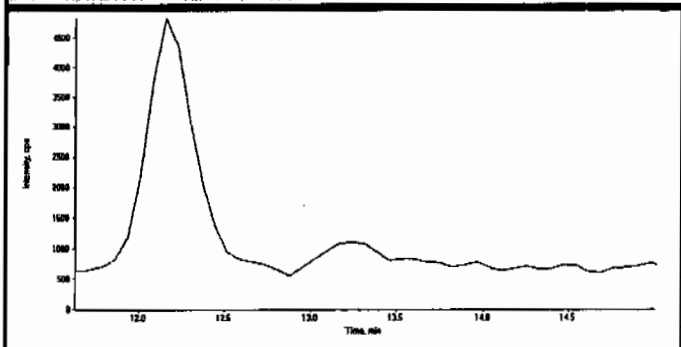

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

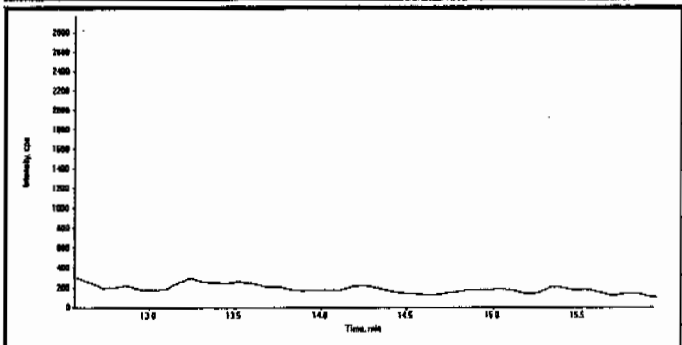

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

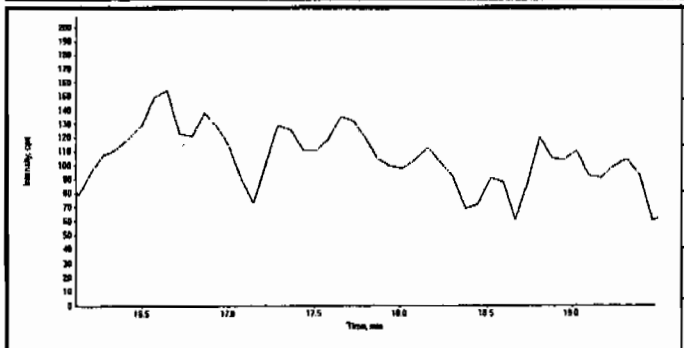

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

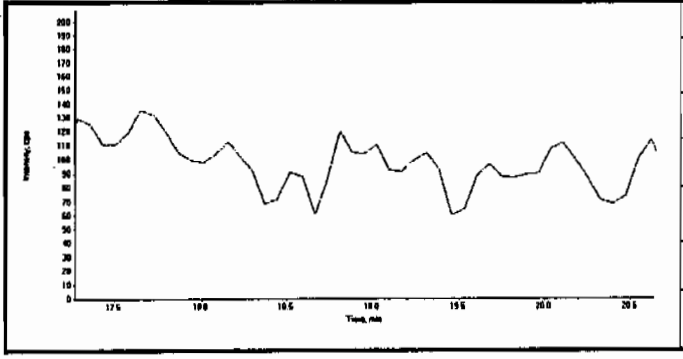

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330019.wiff	**Acquisition Date**	3/30/2010 4:32:05 PM
Sample Name	247193001	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

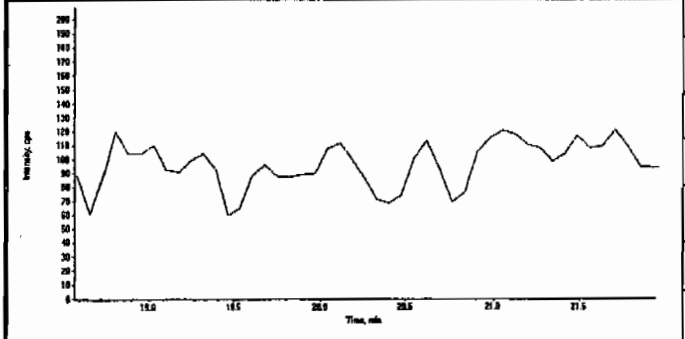

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

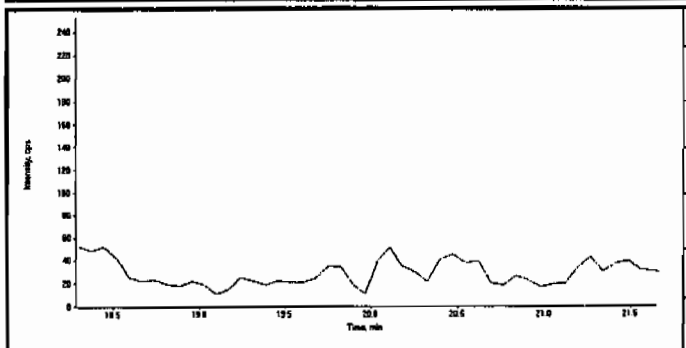

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8196

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193001

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100084.wiff

Date Analyzed: 11-MAR-10 13:14

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

LCM 3/14/10

Sample Name: "247193001" Sample ID: "954328[2]LER" File: "EXS03100084.wiff"
Peak Name: "TATB" Mass(as): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 1:14:59 PM

Modified: No

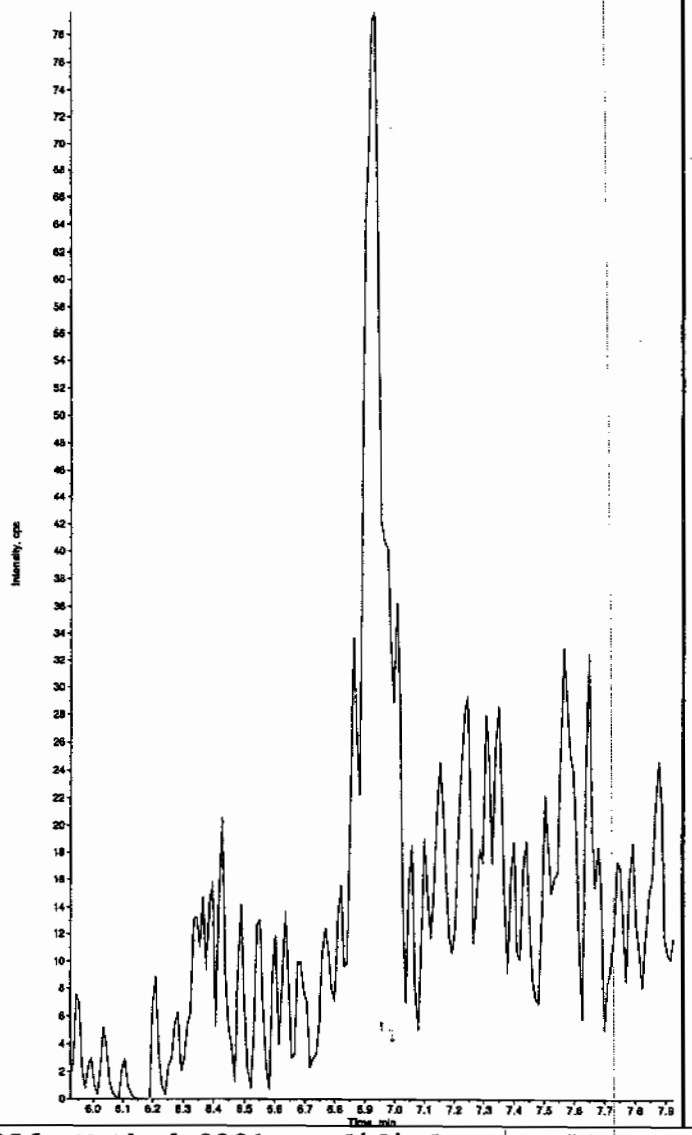

Sample Name: "247193001" Sample ID: "954328[2]LER" File: "EXS03100084.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 1:14:59 PM

Modified: No

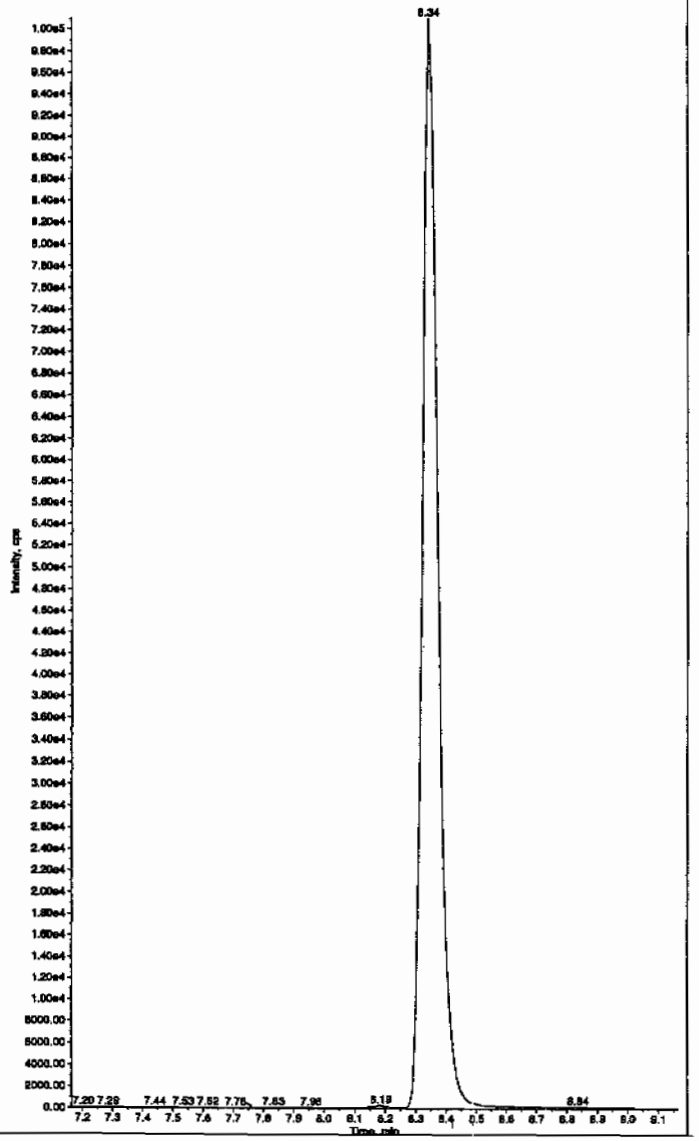

HMM 03/15/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "247193001" Sample ID: "954328|2|LER" File: "EXS03100084.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 271. ng/mL
cq. Date: 3/11/2010
cq. Time: 1:14:59 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 1460.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 15.0 sec
xpected RT: 8.32 min
se Relative RT: No

nt. Type: Valley
etention Time: 8.34 min
rea: 2.72e+006 counts
eight: 752190.735 cps
tart Time: 8.23 min
nd Time: 8.67 min

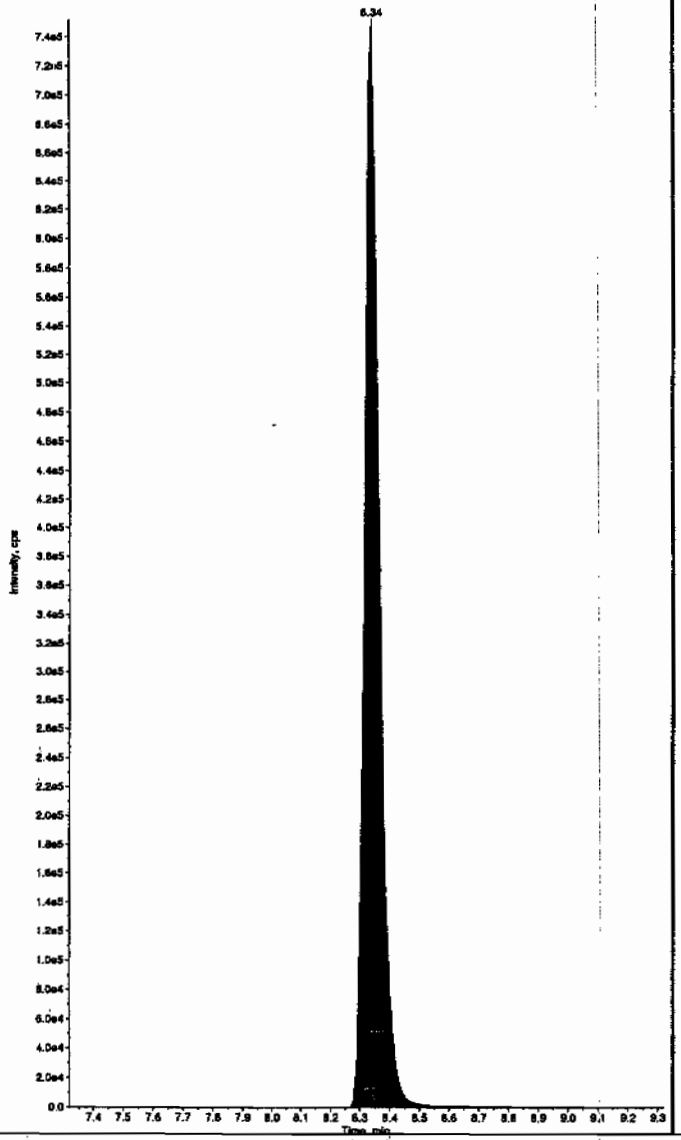

Sample Name: "247193001" Sample ID: "954328|2|LER" File: "EXS03100084.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 1:14:59 PM

Modified: No

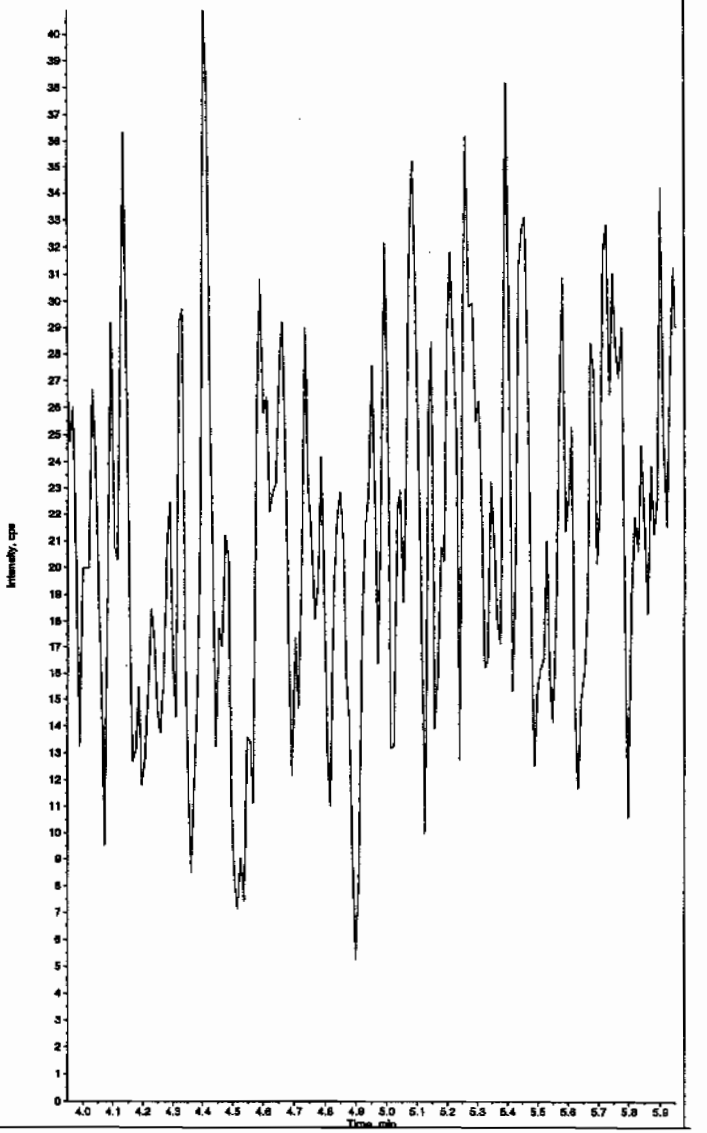

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "247193001" Sample ID: "954328[2]LER" File: "EXS03100084.wiff"
Peak Name: "24,Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 1:14:59 PM

Modified: No

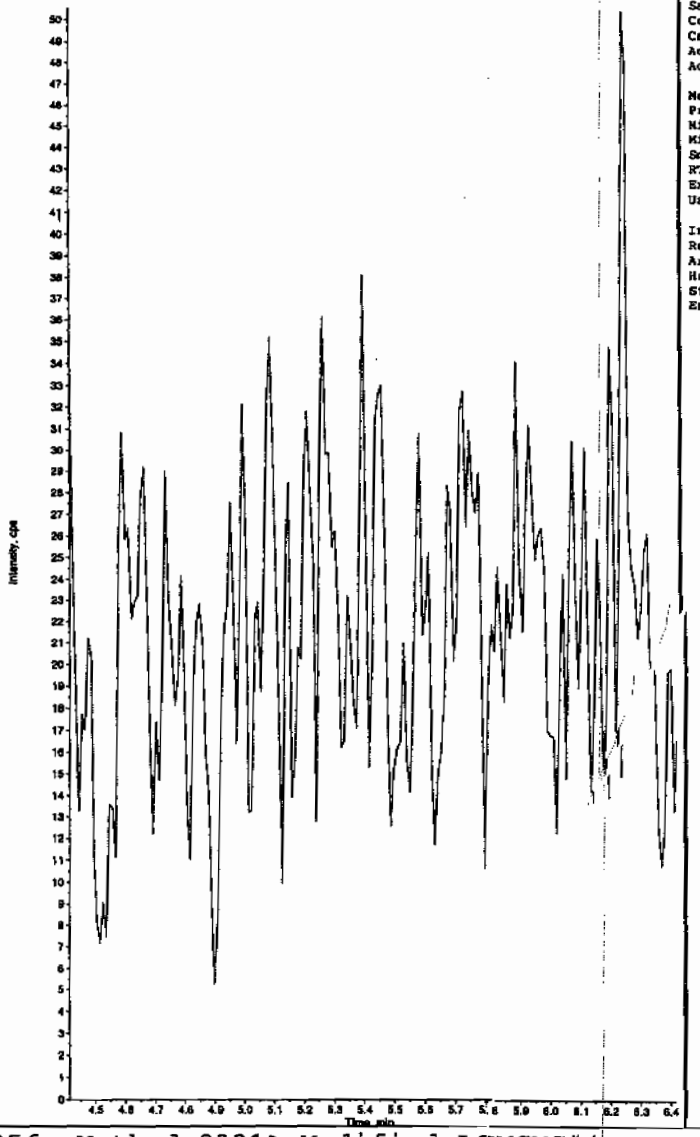

Sample Name: "247193001" Sample ID: "954328[2]LER" File: "EXS03100084.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/11/2010
Acq. Time: 1:14:59 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 3.34e+004 counts
Height: 8052.750 cps
Start Time: 10.7 min
End Time: 11.1 min

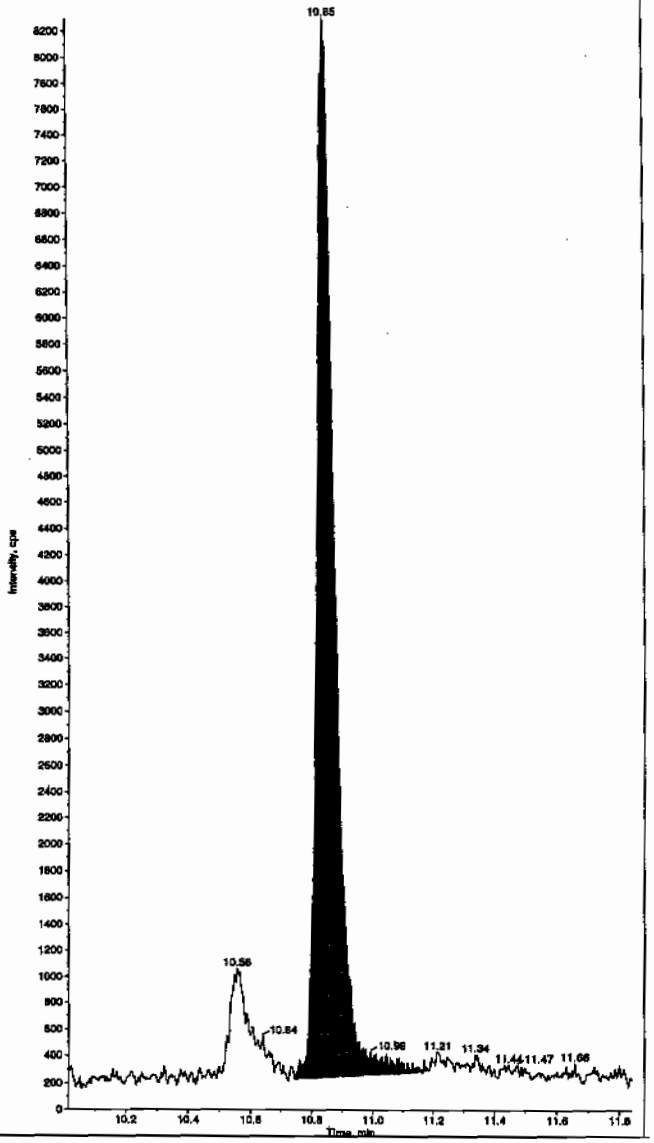

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8186

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193002

Sample Amount 2

Moisture: 1.2

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330022.wiff

Date Analyzed: 30-MAR-10 17:51

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330022.wiff	**Acquisition Date**	3/30/2010 5:51:25 PM
Sample Name	247193002	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

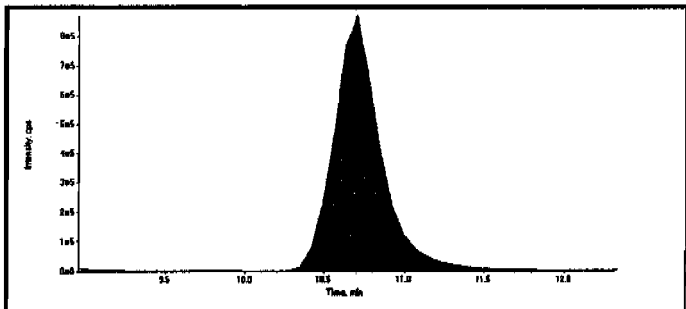

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	17500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

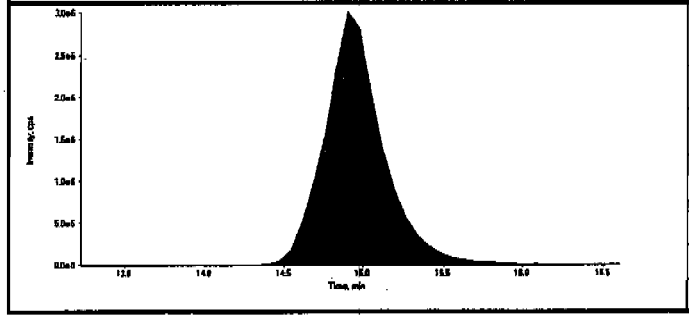

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	75900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

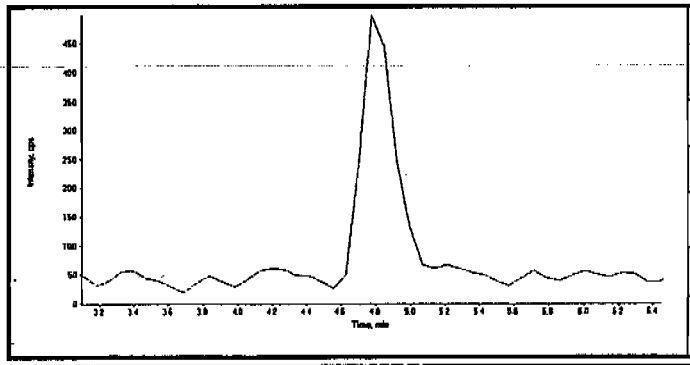

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

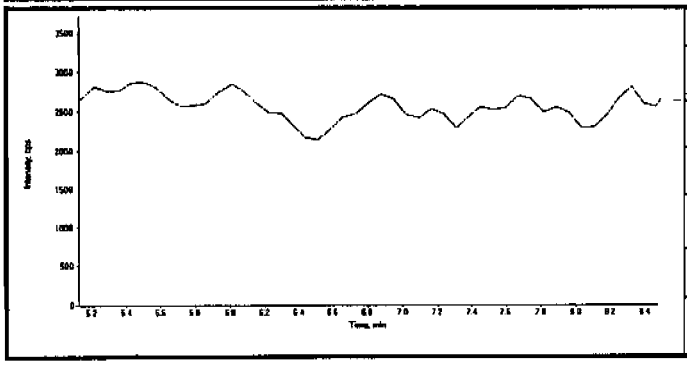

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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[illegible] 4/2/10

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Data File	EXP0330022.wiff	**Acquisition Date**	3/30/2010 5:51:25 PM
Sample Name	247193002	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

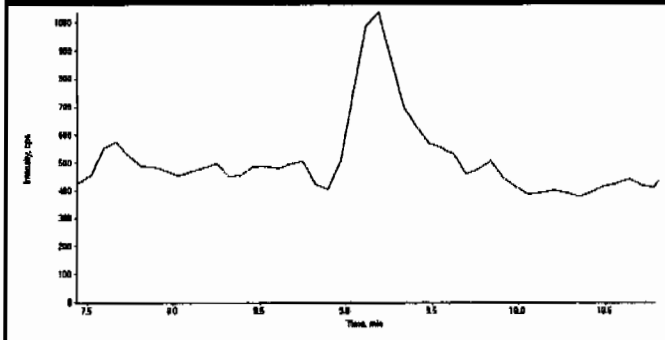

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

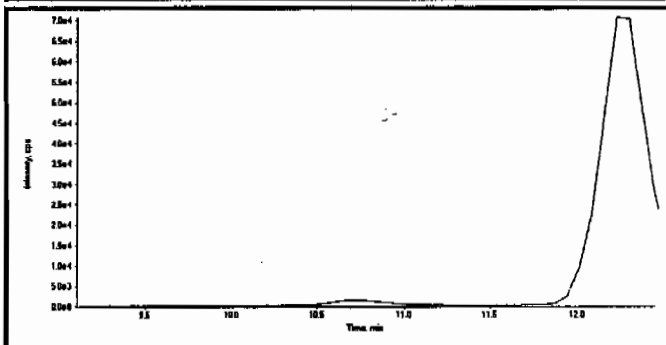

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

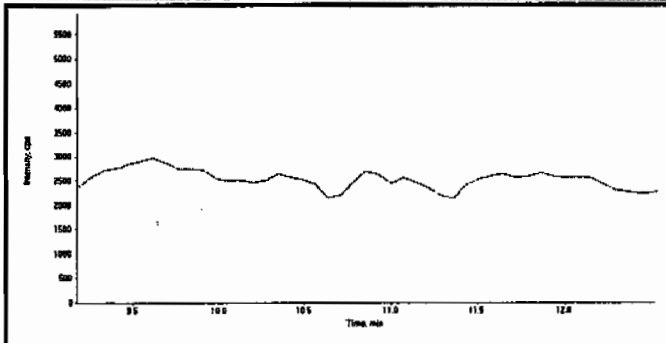

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

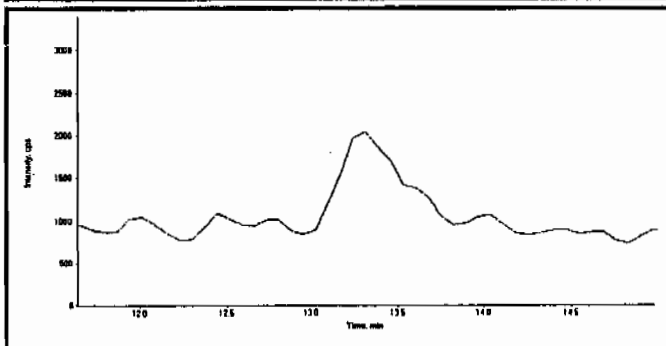

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330022.wiff	**Acquisition Date**	3/30/2010 5:51:25 PM
Sample Name	247193002	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

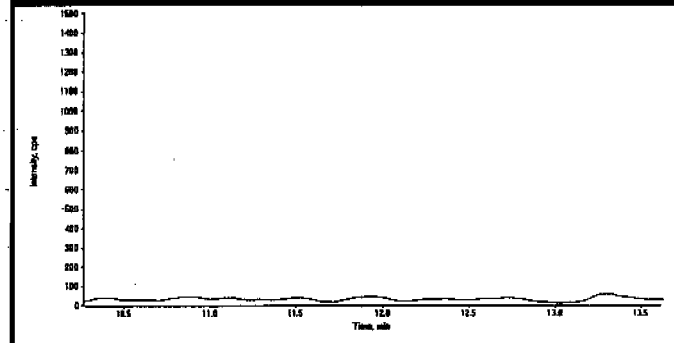

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

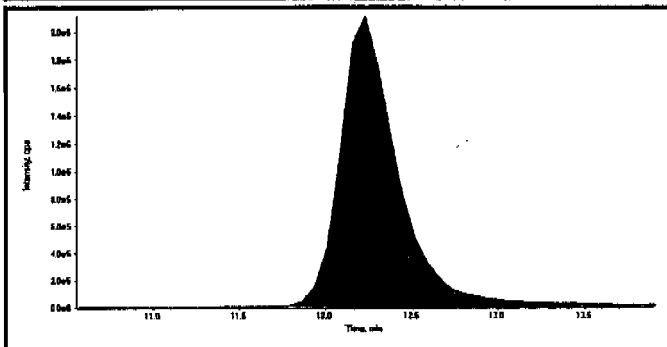

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	12.2
Area Counts:	4.93e+007
Manual Modification	No
Amount:	279. (ng/mL)
% Accuracy:	N/A

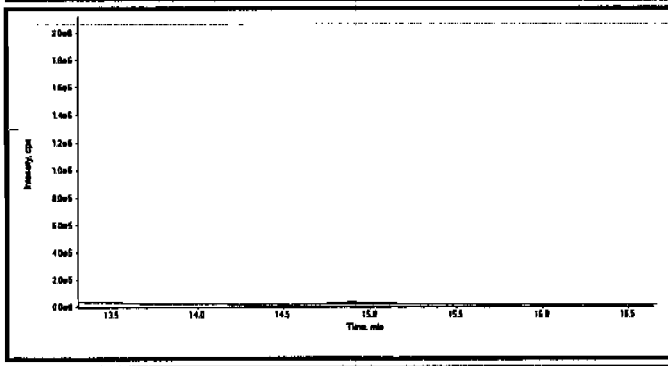

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	14.9
Area Counts:	8.72e+005
Manual Modification	No
Amount:	6.36 (ng/mL)
% Accuracy:	N/A

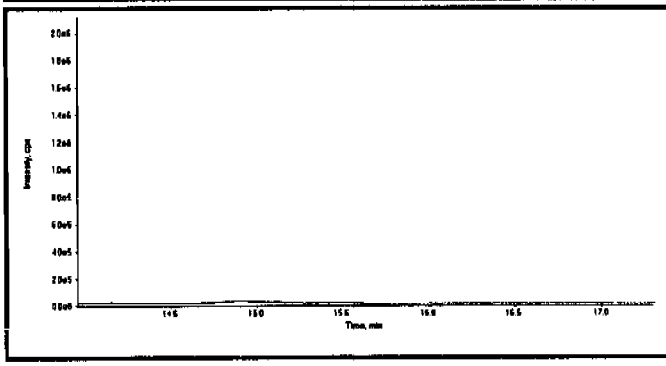

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330022.wiff	**Acquisition Date**	3/30/2010 5:51:25 PM
Sample Name	247193002	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

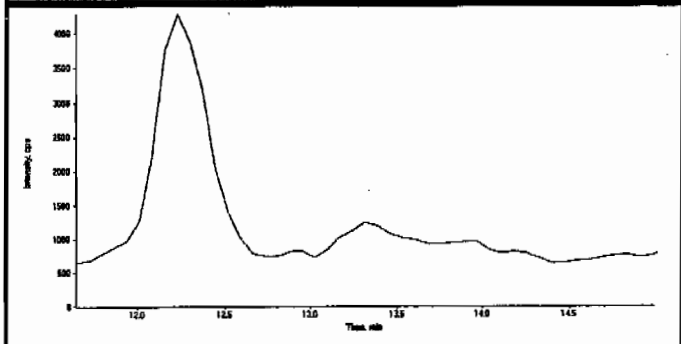

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

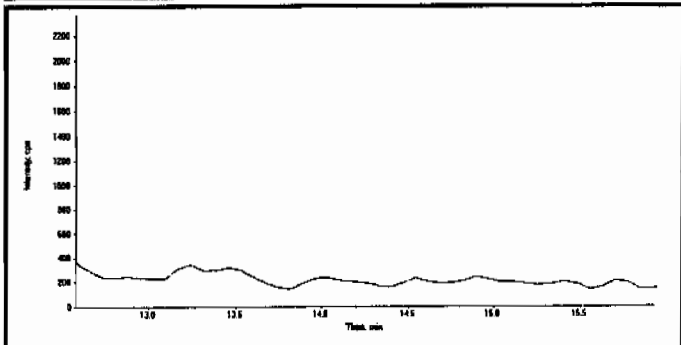

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

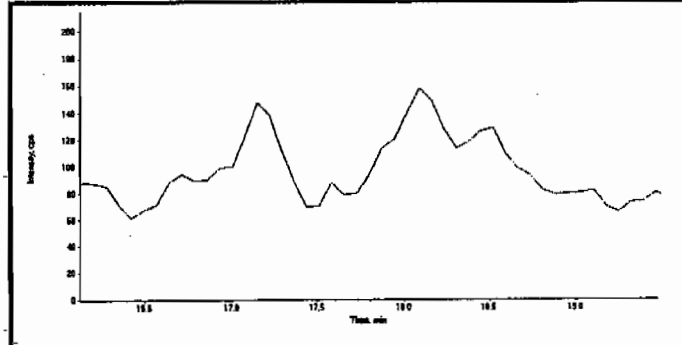

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

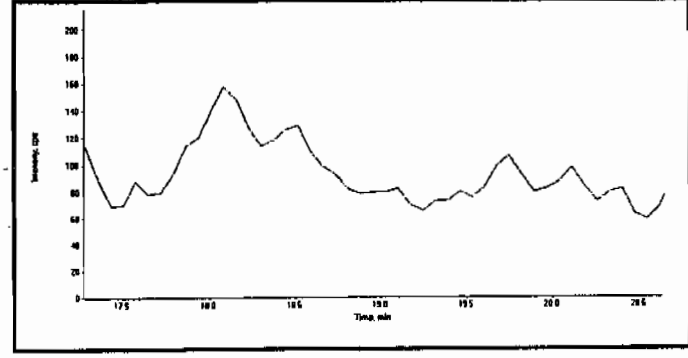

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330022.wiff	**Acquisition Date**	3/30/2010 5:51:25 PM
Sample Name	247193002	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

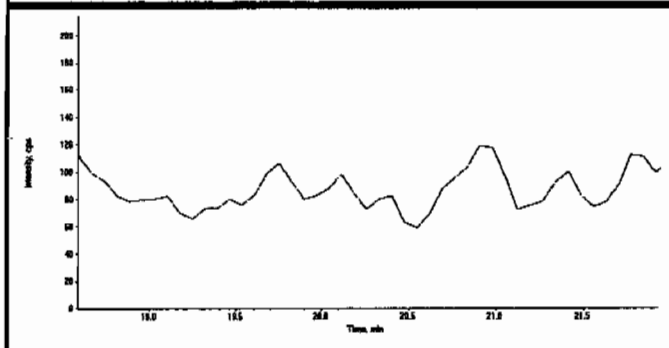

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

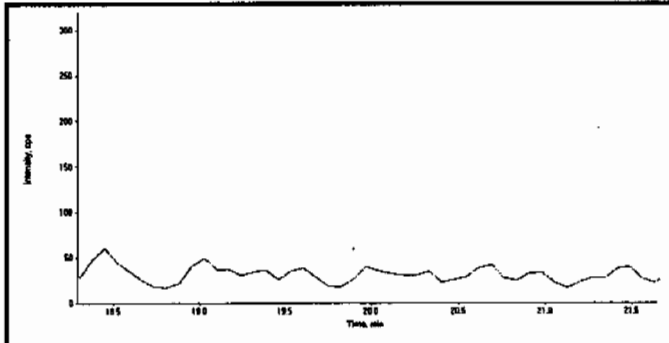

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8186

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193002

Sample Amount 2

Moisture: 1.2

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100087.wiff

Date Analyzed: 11-MAR-10 14:02

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

LCR 3/14/10

Sample Name: "247193002" Sample ID: "954328|2|LER" File: "EXS03100087.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 2:02:02 PM

Modified: No

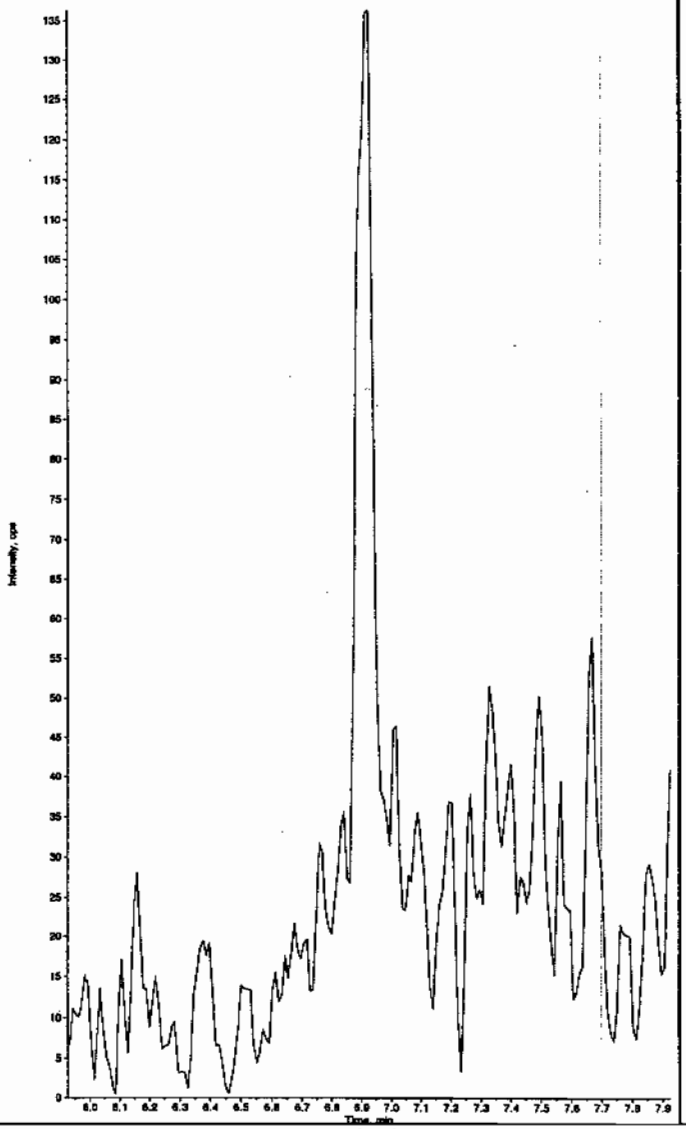

Sample Name: "247193002" Sample ID: "954328|2|LER" File: "EXS03100087.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 2:02:02 PM

Modified: No

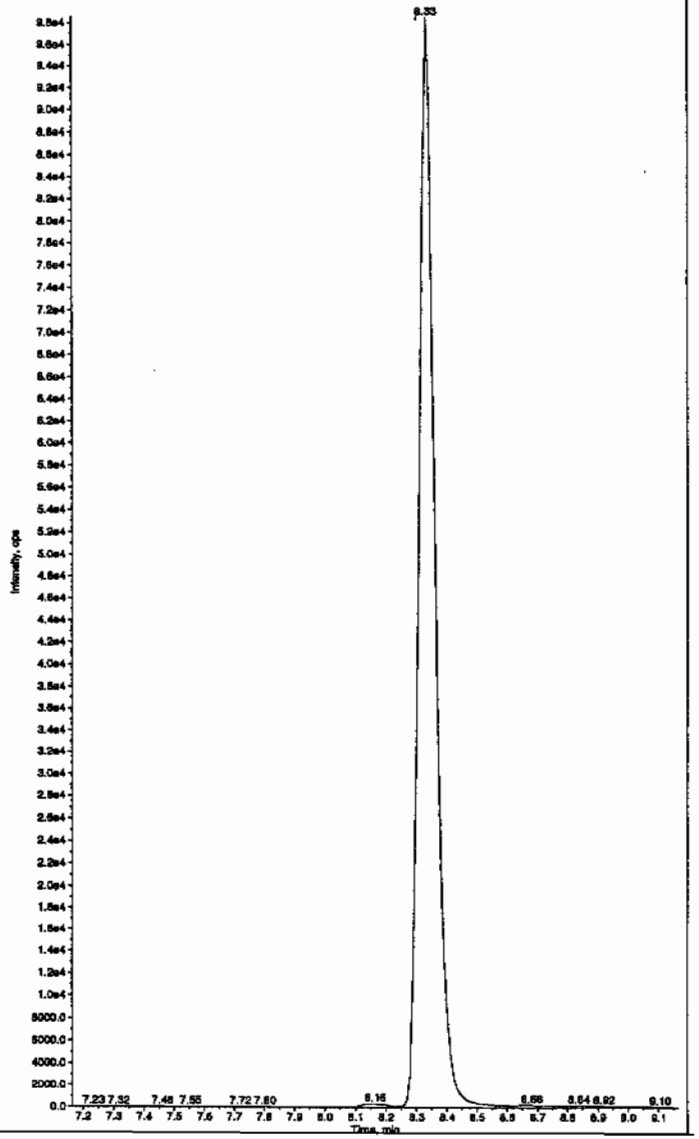

Hmm 03/15/10

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Sample Name: "247193002" Sample ID: "954328|2|LER" File: "EXS03100087.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "162.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 279. ng/mL
cq. Date: 3/11/2010
cq. Time: 2:02:02 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 1460.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
r window: 15.0 sec
xpected RT: 8.32 min
se Reactive RT: No

nt. Type: Valley
etention Time: 8.32 min
rea: 2.80e+006 counts
eight: 743082.886 cps
tart Time: 8.23 min
nd Time: 8.67 min

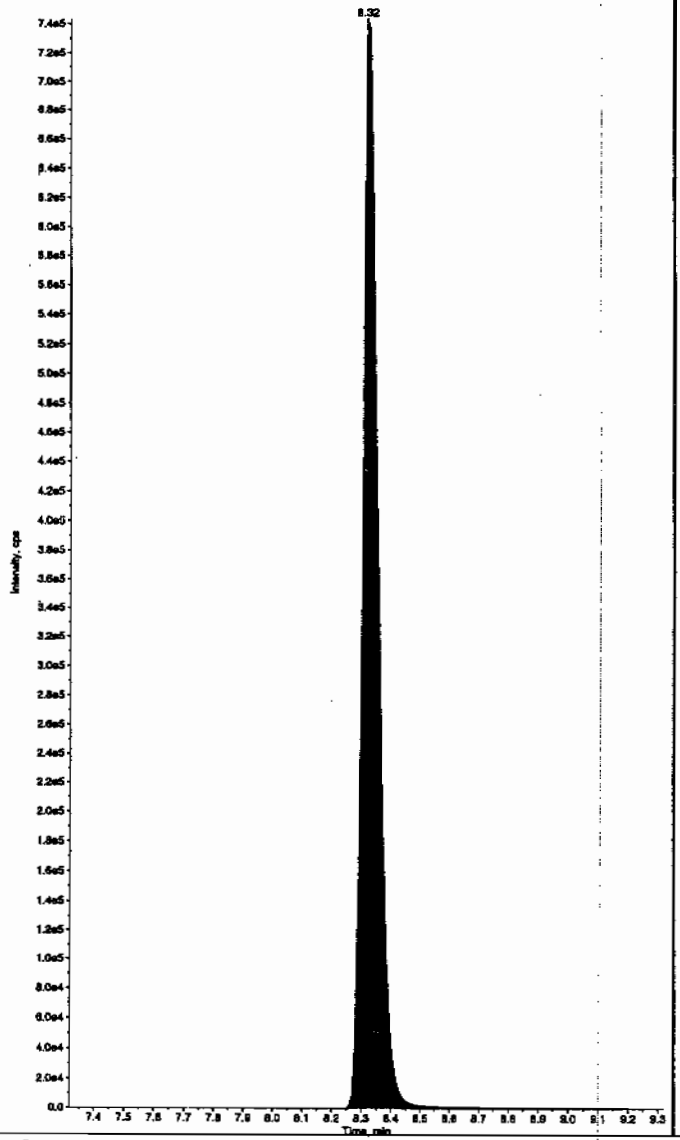

Sample Name: "247193002" Sample ID: "954328|2|LER" File: "EXS03100087.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 2:02:02 PM

Modified: No

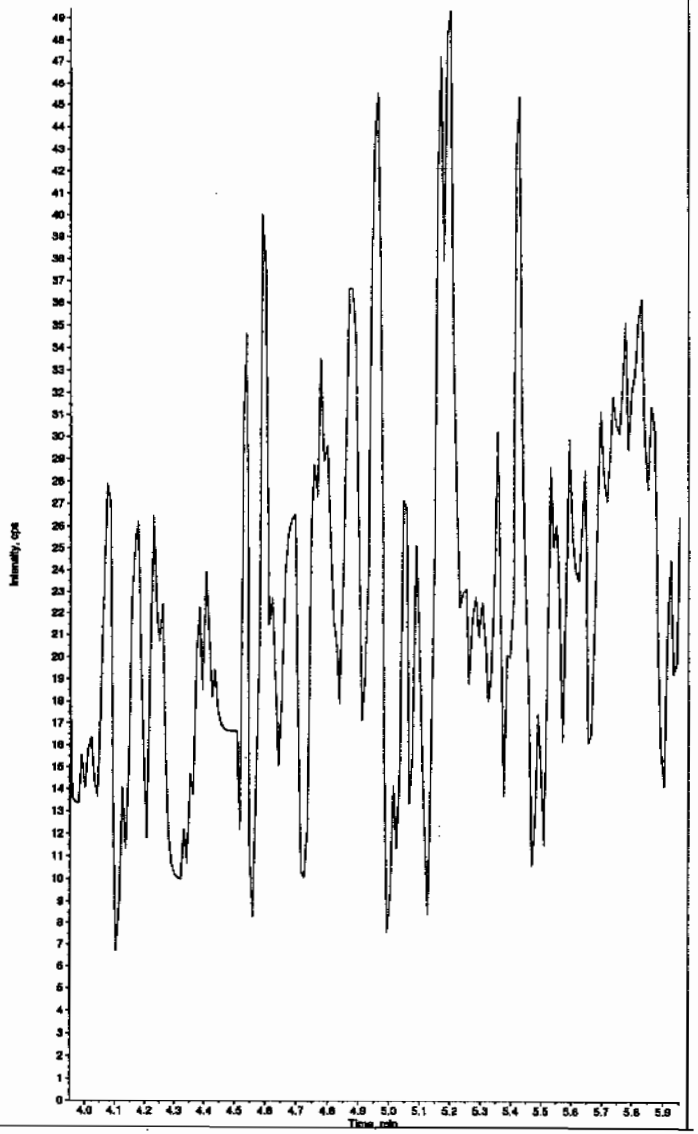

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Sample Name: "247193002" Sample ID: "954328|2|LER" File: "EXS03100087.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 2:02:02 PM

Modified: No

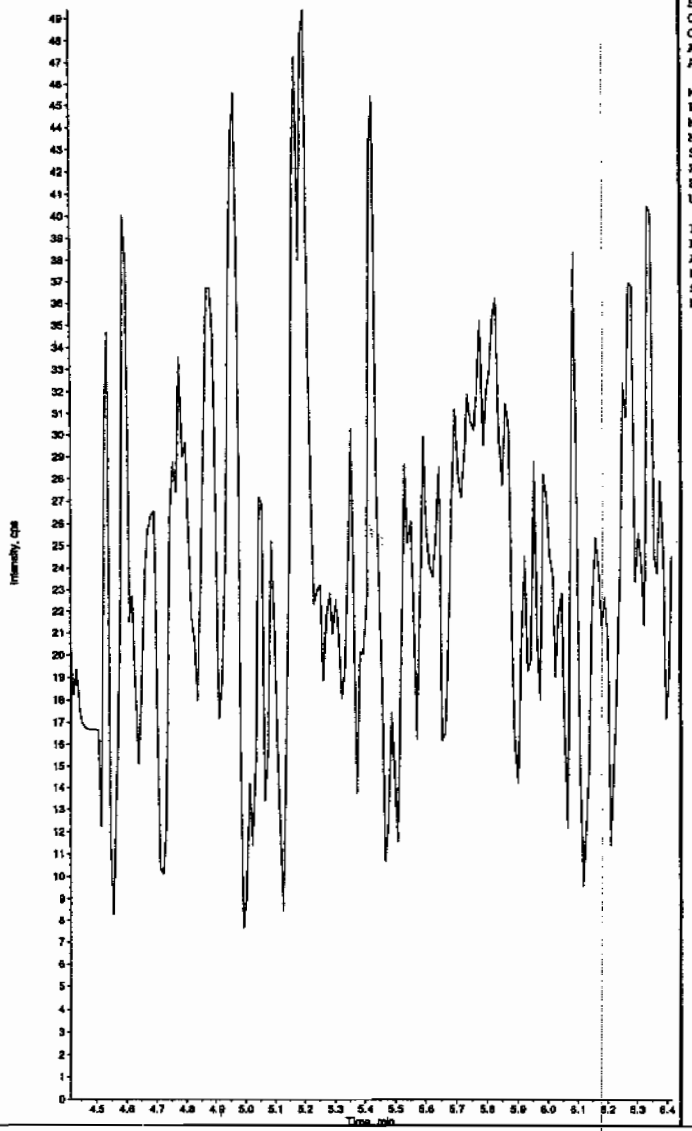

Sample Name: "247193002" Sample ID: "954328|2|LER" File: "EXS03100087.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/11/2010
Acq. Time: 2:02:02 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 6000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 3.73e+004 counts
Height: 9301.153 cps
Start Time: 10.7 min
End Time: 11.1 min

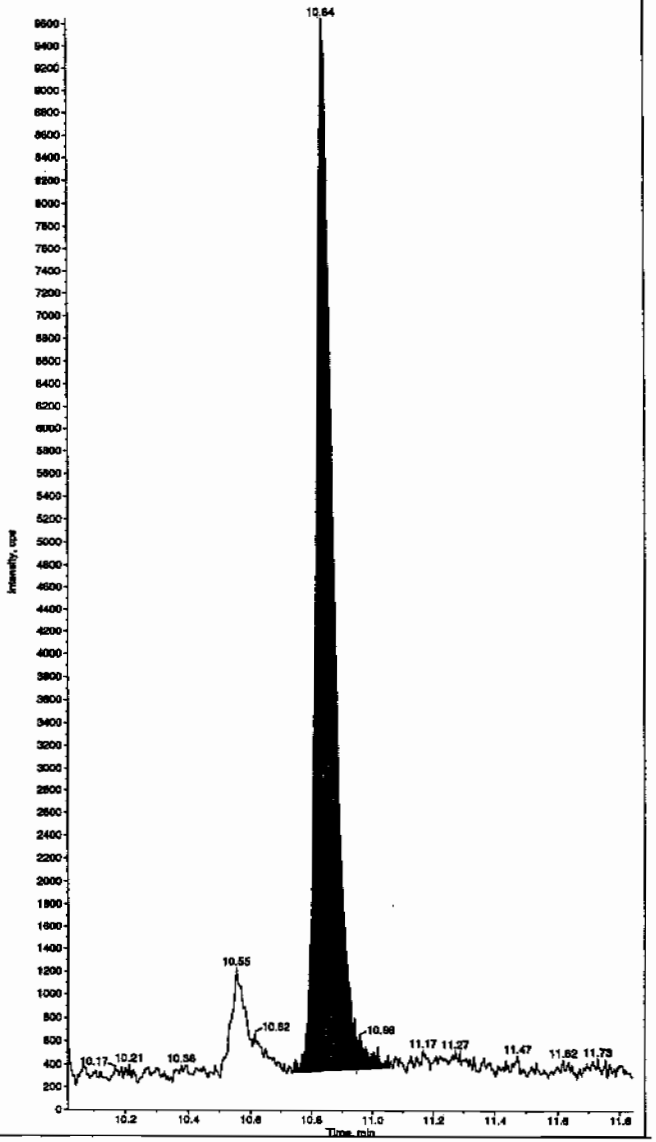

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8194

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193003

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330026.wiff

Date Analyzed: 30-MAR-10 19:37

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330026.wiff	Acquisition Date	3/30/2010 7:37:04 PM
Sample Name	247193003	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	_033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

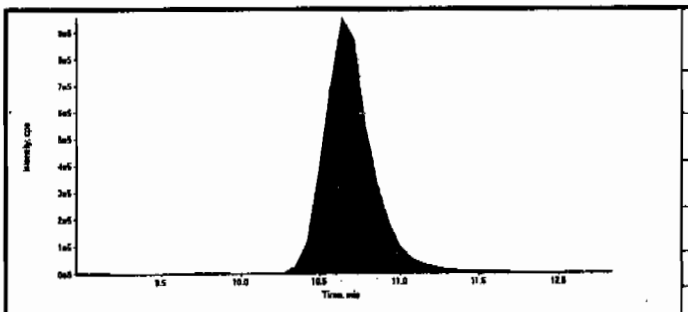

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	18900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

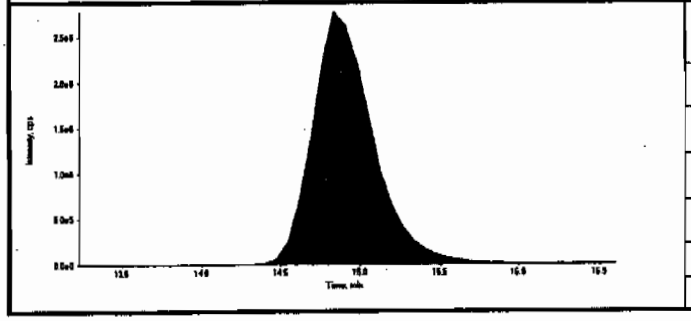

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.80
Area Counts:	73100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

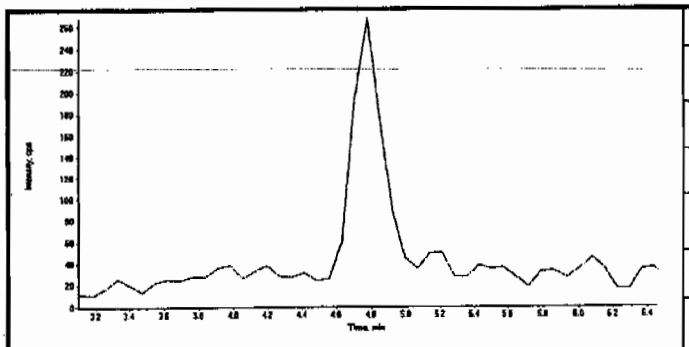

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

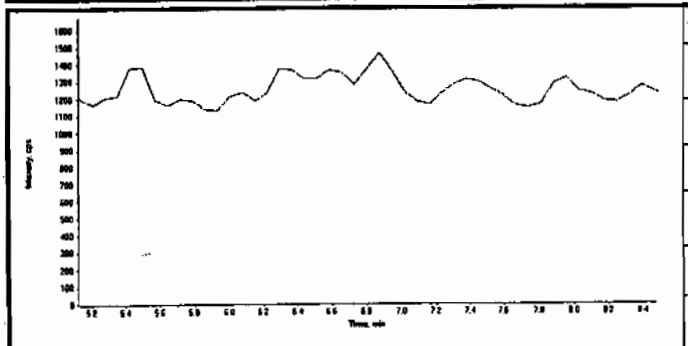

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

HMM 04/02/10
LCR 4/12/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330026.wiff	**Acquisition Date**	3/30/2010 7:37:04 PM
Sample Name	247193003	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	Unknown

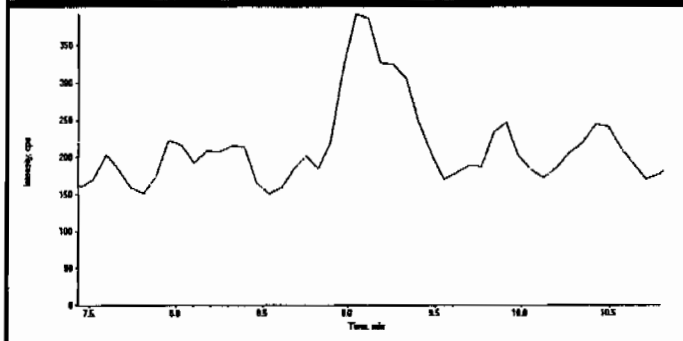

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

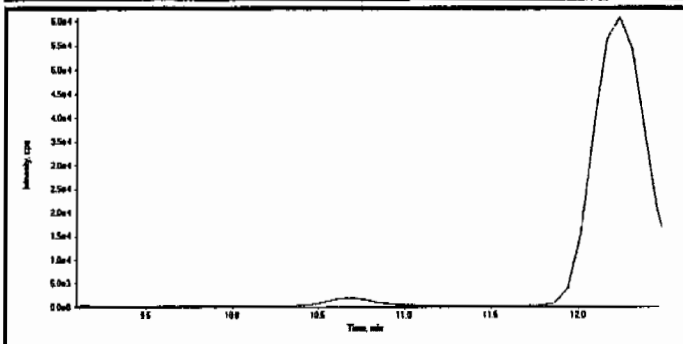

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

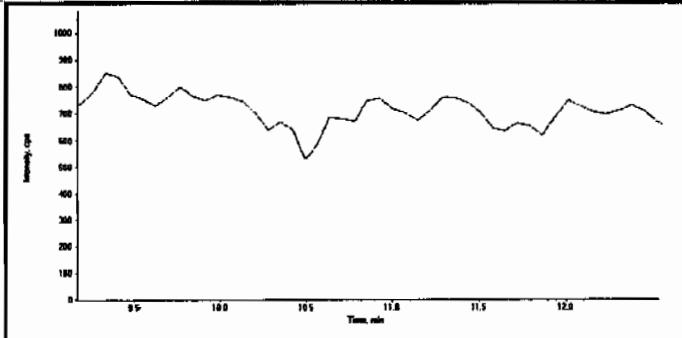

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

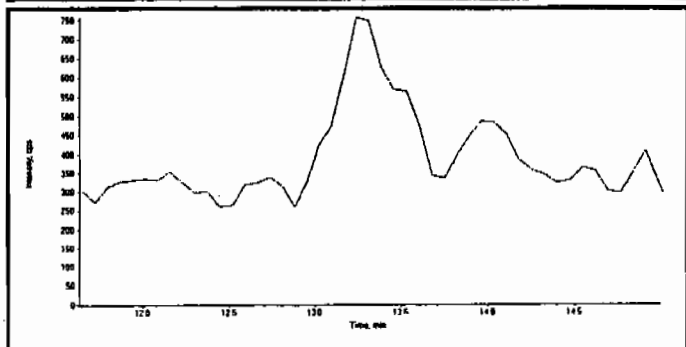

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330026.wiff	Acquisition Date	3/30/2010 7:37:04 PM
Sample Name	247193003	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

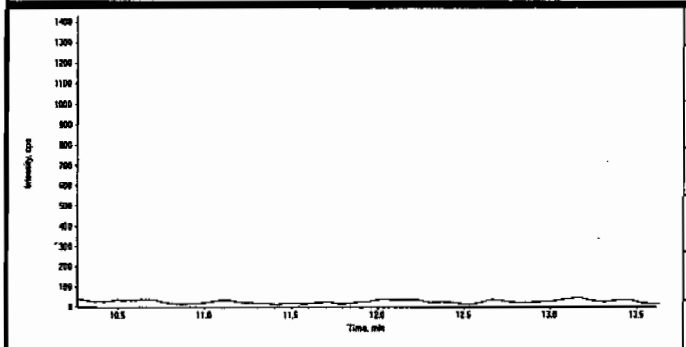

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

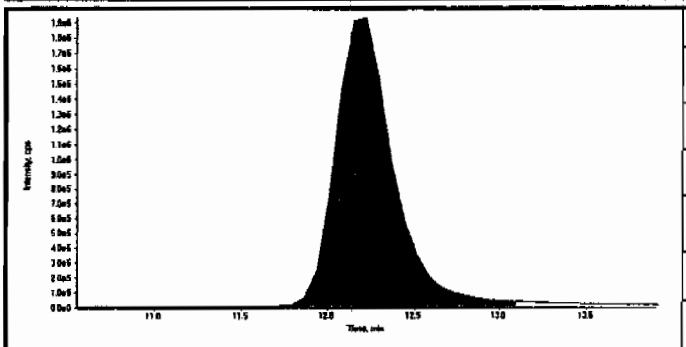

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	12.2
Area Counts:	4.50e+007
Manual Modification	No
Amount:	265. (ng/mL)
% Accuracy:	N/A

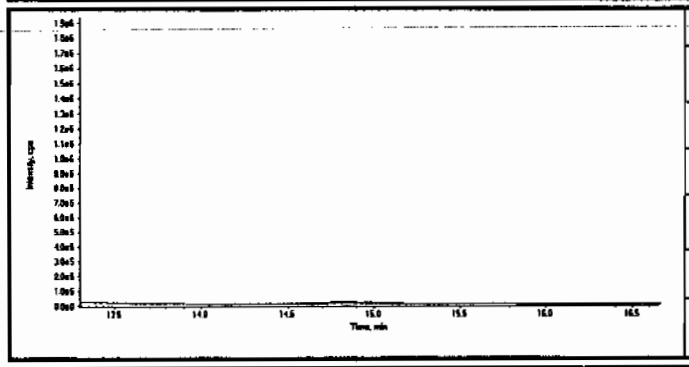

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	14.8
Area Counts:	4.13e+005
Manual Modification	No
Amount:	3.13 (ng/mL)
% Accuracy:	N/A

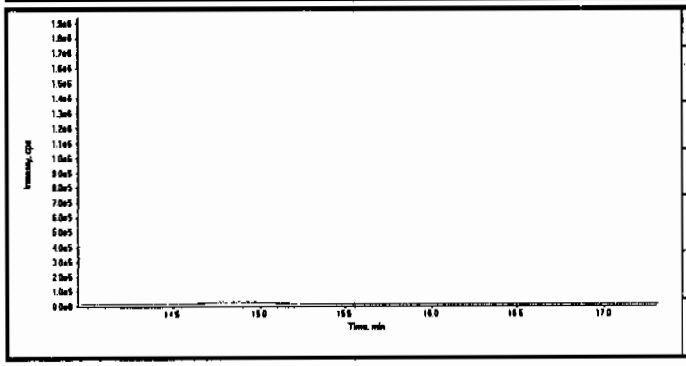

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330026.wiff	**Acquisition Date**	3/30/2010 7:37:04 PM
Sample Name	247193003	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	Unknown

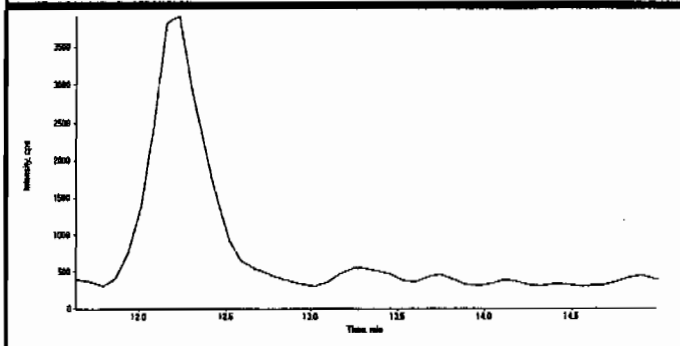

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

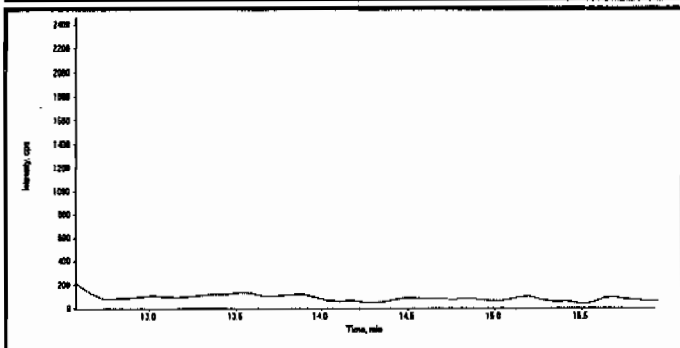

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

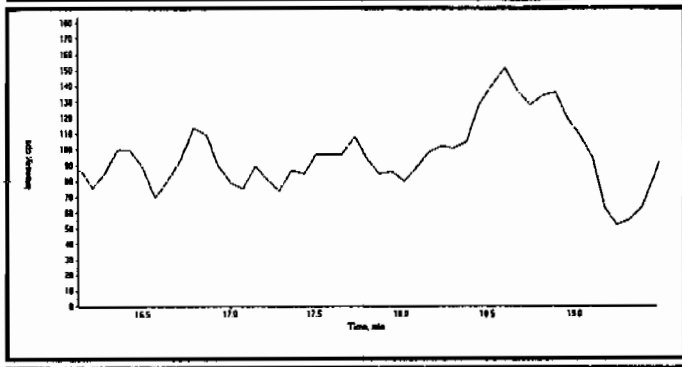

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

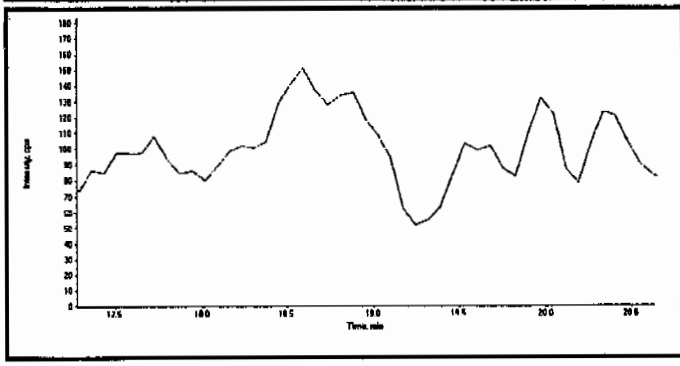

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330026.wiff	**Acquisition Date**	3/30/2010 7:37:04 PM
Sample Name	247193003	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

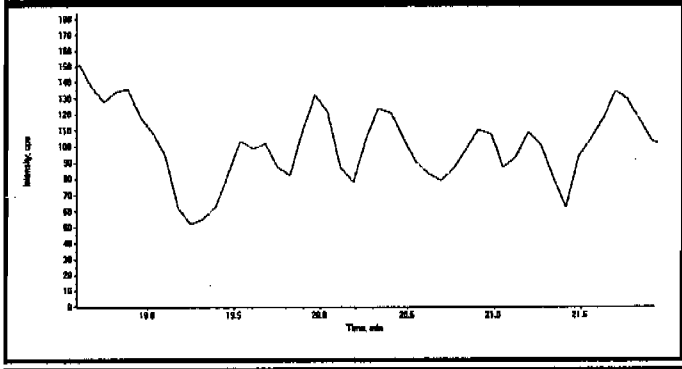

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

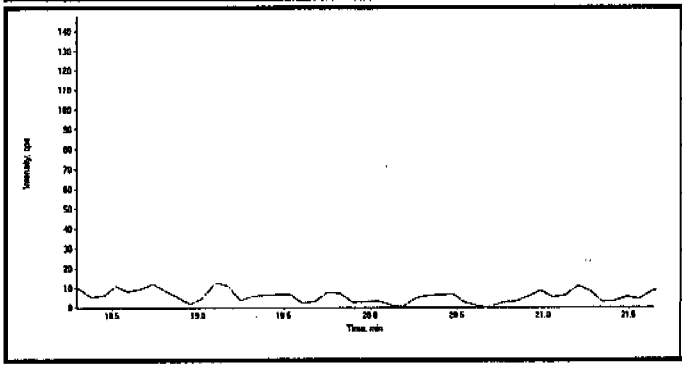

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8194

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193003

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100088.wiff

Date Analyzed: 11-MAR-10 14:17

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lcr 3/14/10

Sample Name: "247193003" Sample ID: "954328[2]LER" File: "EXS03100088.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 2:17:44 PM

Modified: No

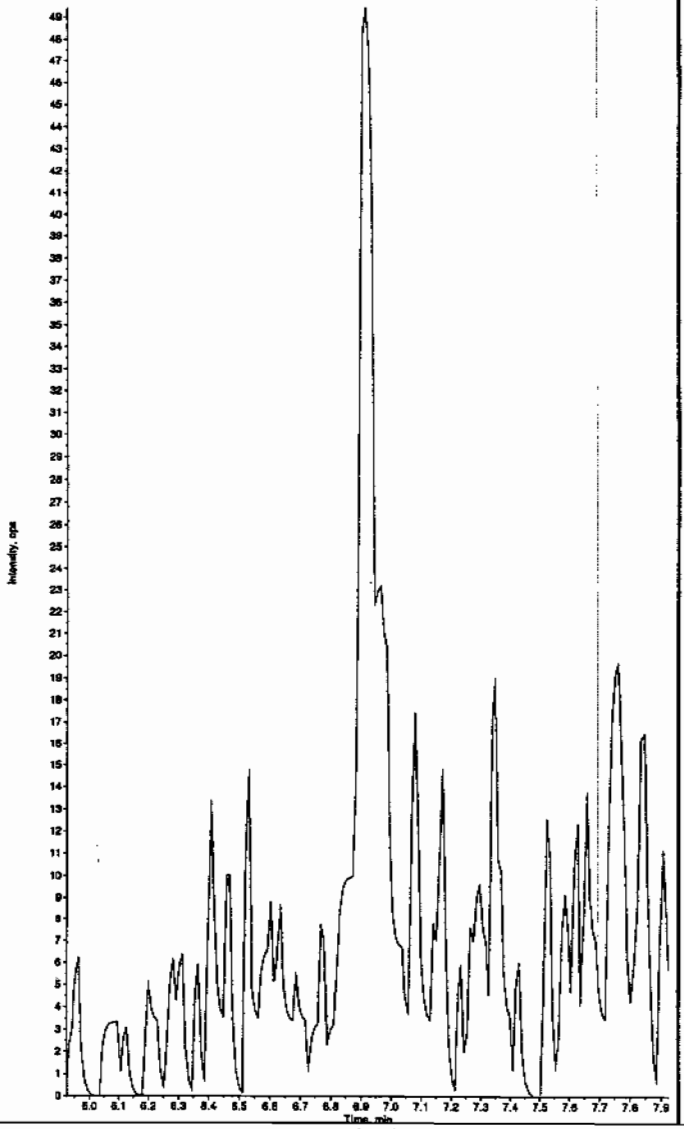

Sample Name: "247193003" Sample ID: "954328[2]LER" File: "EXS03100088.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 2:17:44 PM

Modified: No

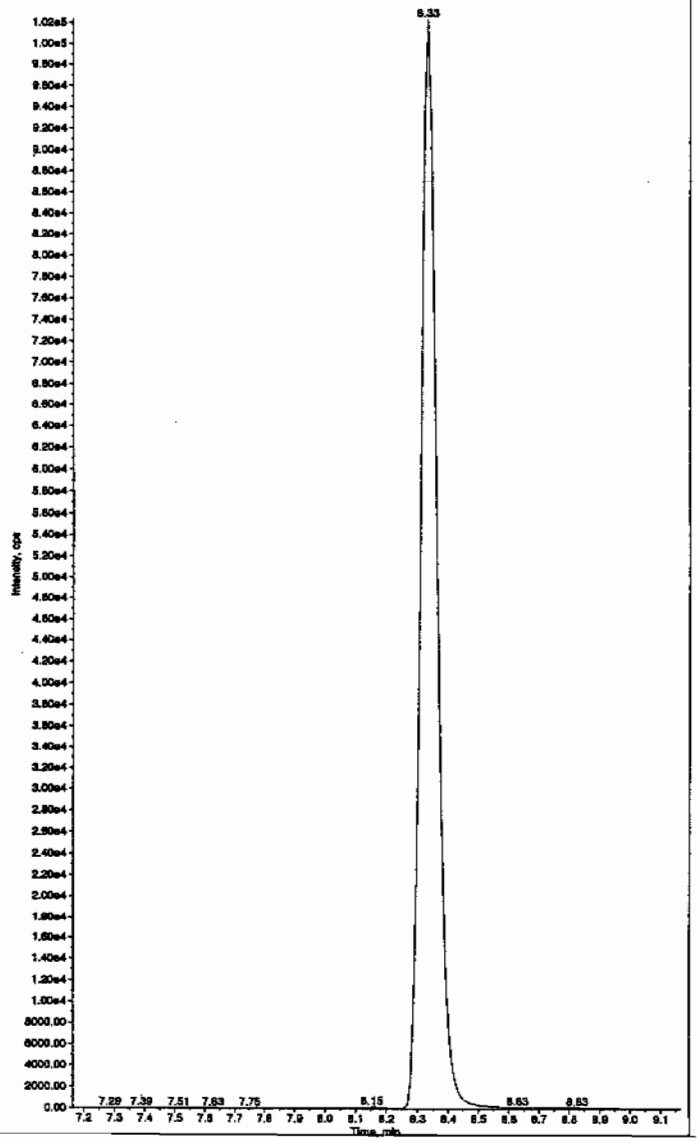

HMM 03/15/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "247193003" Sample ID: "954328|2|LER" File: "EXS03100088.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 270. ng/mL
cq. Date: 3/11/2010
cq. Time: 2:17:44 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 1460.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 15.0 sec
xpected RT: 8.32 min
se Relative RT: No

nt. Type: Valley
etention Time: 8.33 min
rea: 2.71e+006 counts
eight: 709003.357 cps
tart Time: 8.20 min
nd Time: 8.67 min

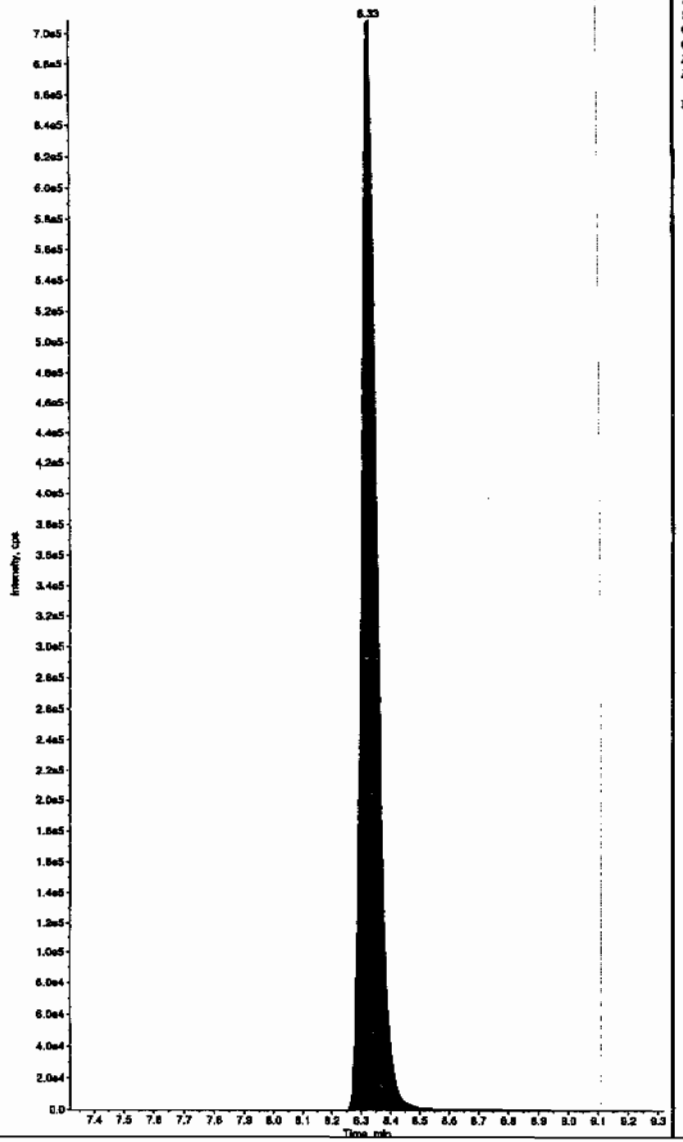

Sample Name: "247193003" Sample ID: "954328|2|LER" File: "EXS03100088.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 2:17:44 PM

Modified: No

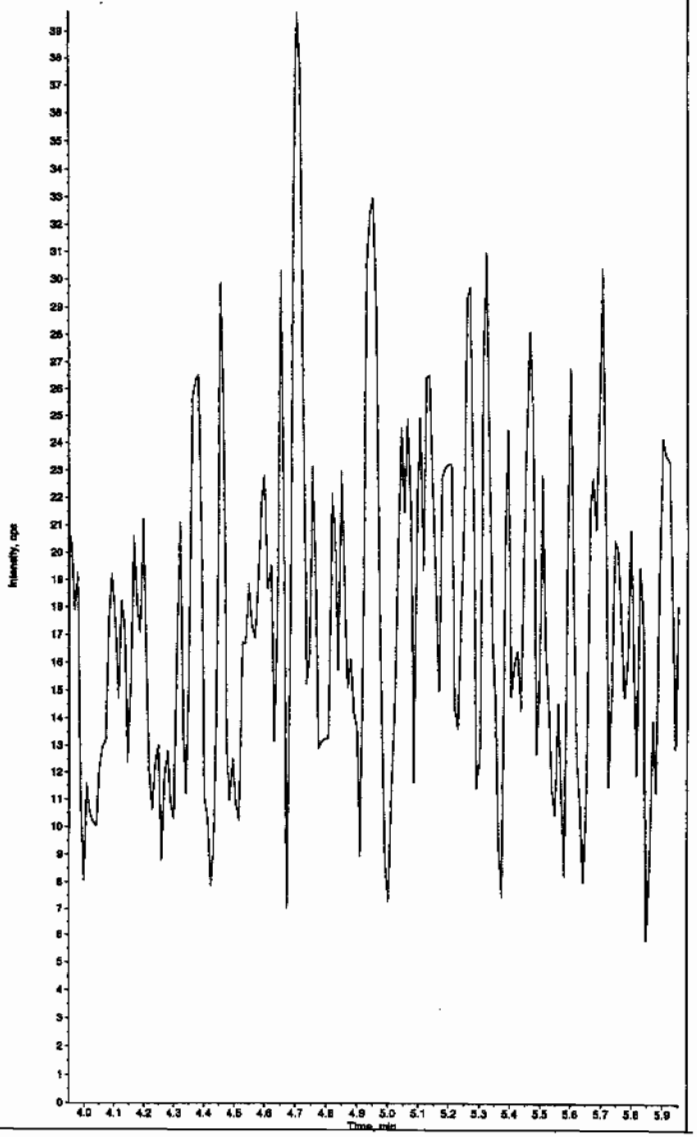

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "247193003" Sample ID: "954328|2|LER" File: "EXS03100086.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 2:17:44 PM

Modified: No

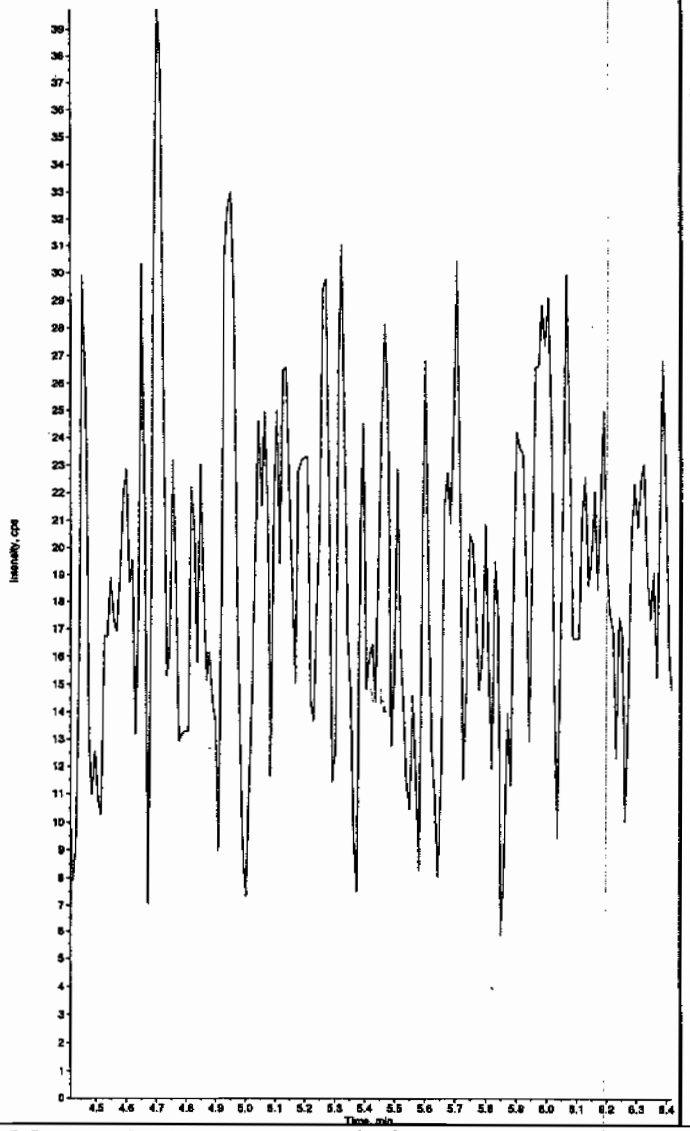

Sample Name: "247193003" Sample ID: "954328|2|LER" File: "EXS03100088.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 2:17:44 PM

Modified: No

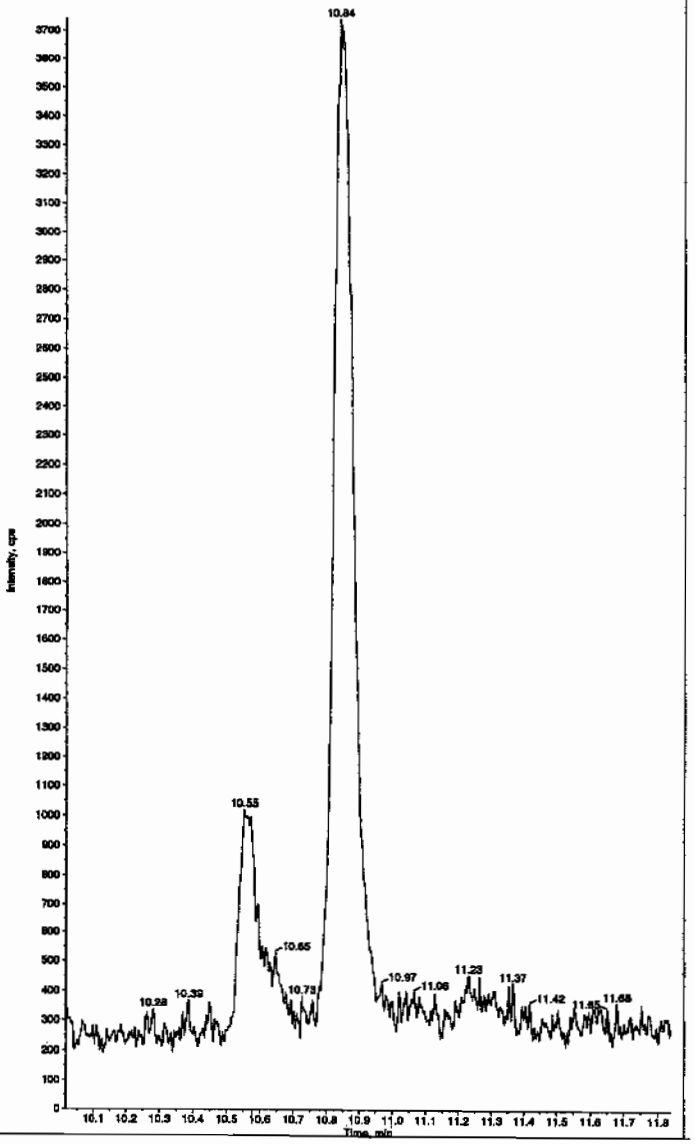

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8189

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193004

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330027.wiff

Date Analyzed: 30-MAR-10 20:03

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330027.wiff	Acquisition Date	3/30/2010 8:03:35 PM
Sample Name	247193004	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

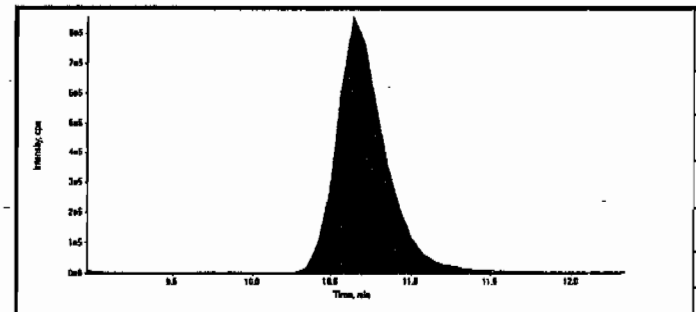

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	17500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

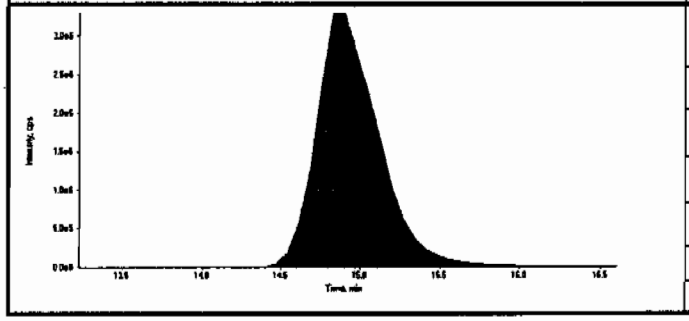

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	89600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

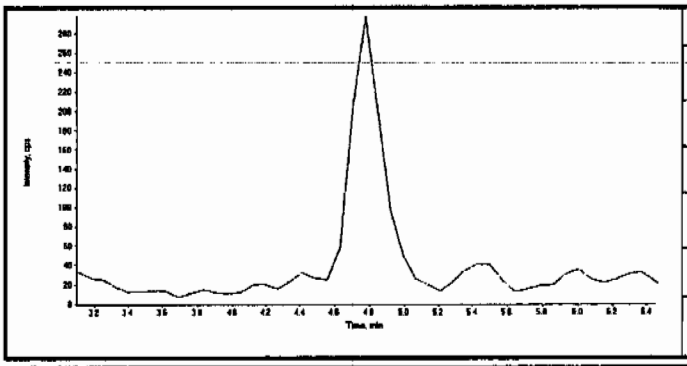

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

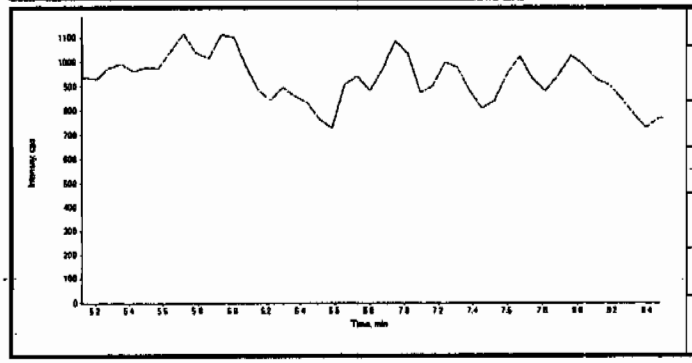

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

dmc 04/02/10
Ran 4/2/10

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Data File	EXP0330027.wiff	**Acquisition Date**	3/30/2010 8:03:35 PM
Sample Name	247193004	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

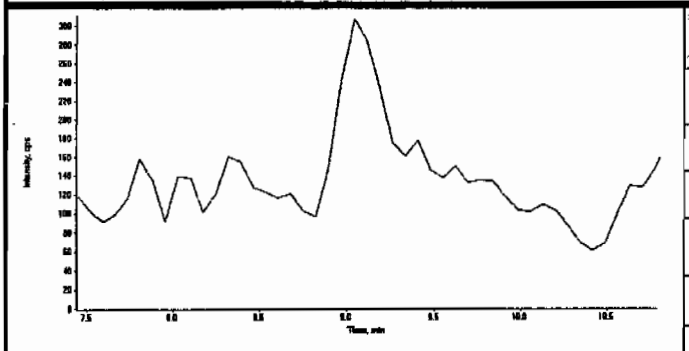

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

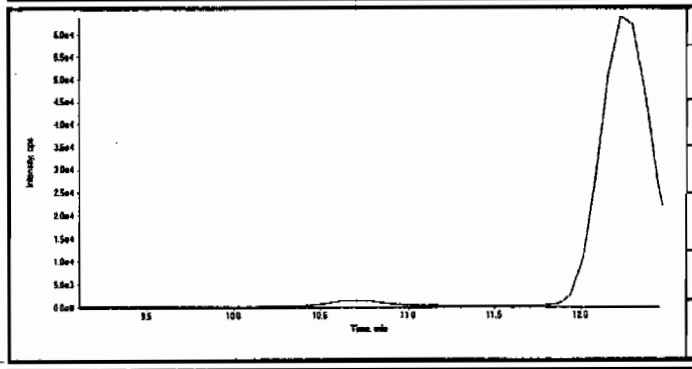

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

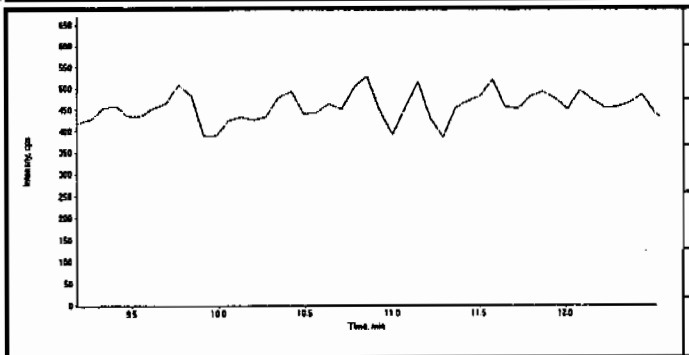

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

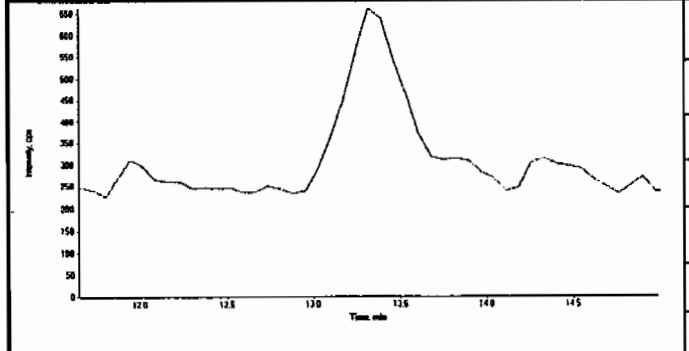

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330027.wiff	Acquisition Date	3/30/2010 8:03:35 PM
Sample Name	247193004	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

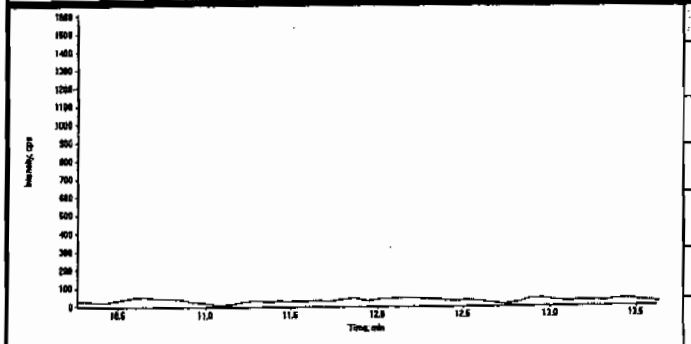

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

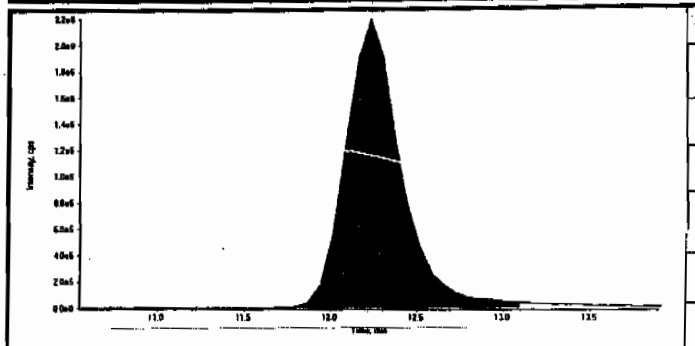

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	12.2
Area Counts:	4.94e+007
Manual Modification	No
Amount:	237. (ng/mL)
% Accuracy:	N/A

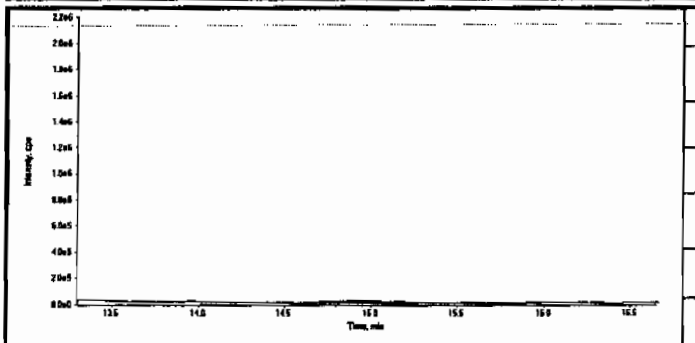

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	15.0
Area Counts:	7.12e+005
Manual Modification	No
Amount:	4.40 (ng/mL)
% Accuracy:	N/A

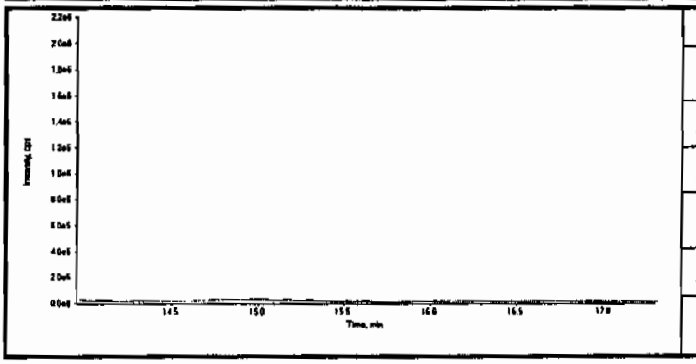

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330027.wiff	**Acquisition Date**	3/30/2010 8:03:35 PM
Sample Name	247193004	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

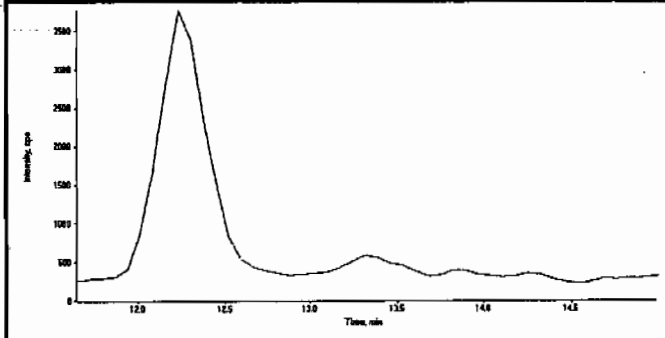

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

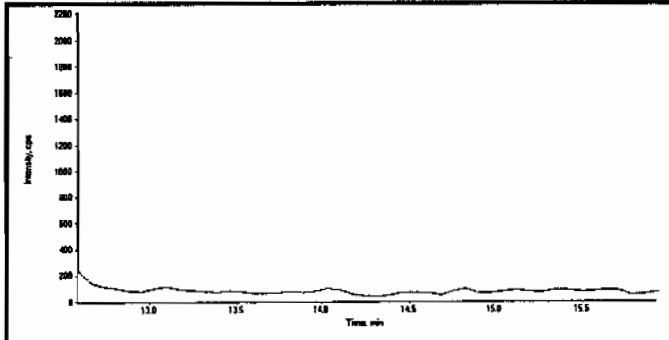

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

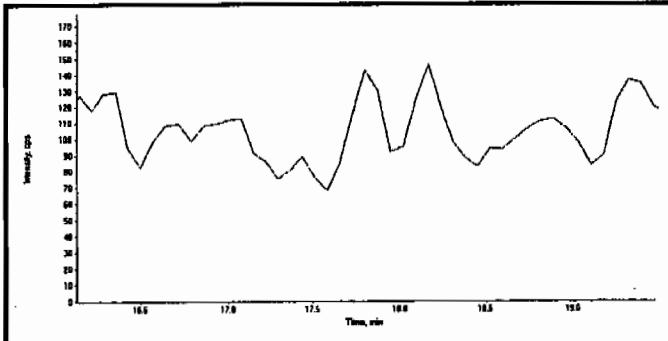

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

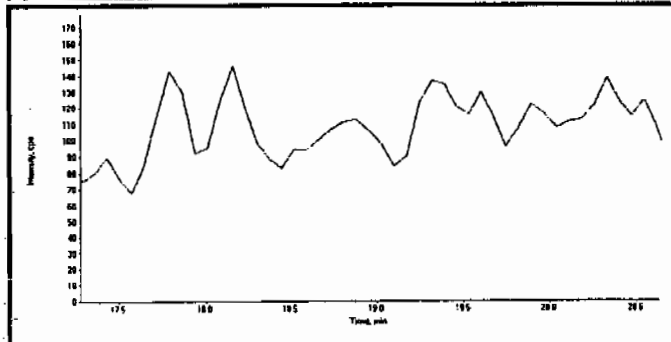

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330027.wiff	**Acquisition Date**	3/30/2010 8:03:35 PM
Sample Name	247193004	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

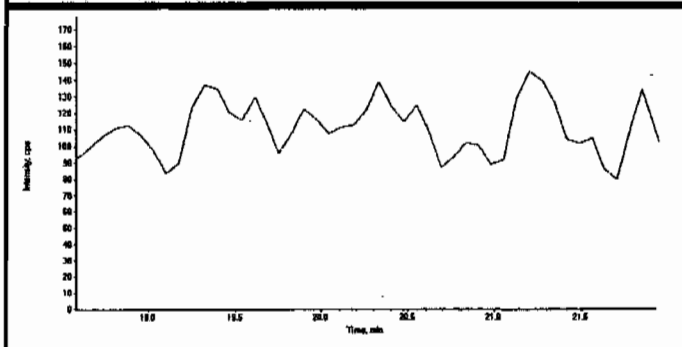

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

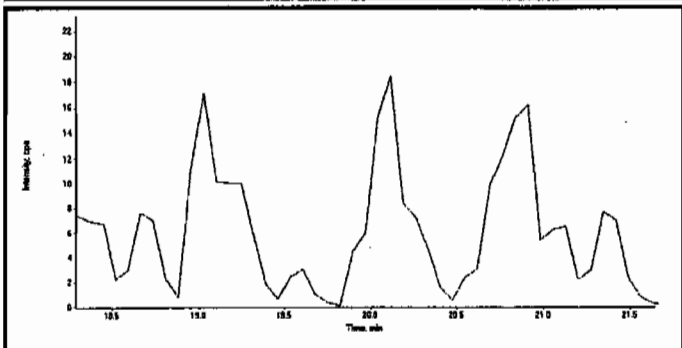

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8189

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193004

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100089.wiff

Date Analyzed: 11-MAR-10 14:33

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

LCH 3/14/10

Sample Name: "247193004" Sample ID: "954328[2]LER" File: "EXS03100089.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 2:33:26 PM

Modified: No

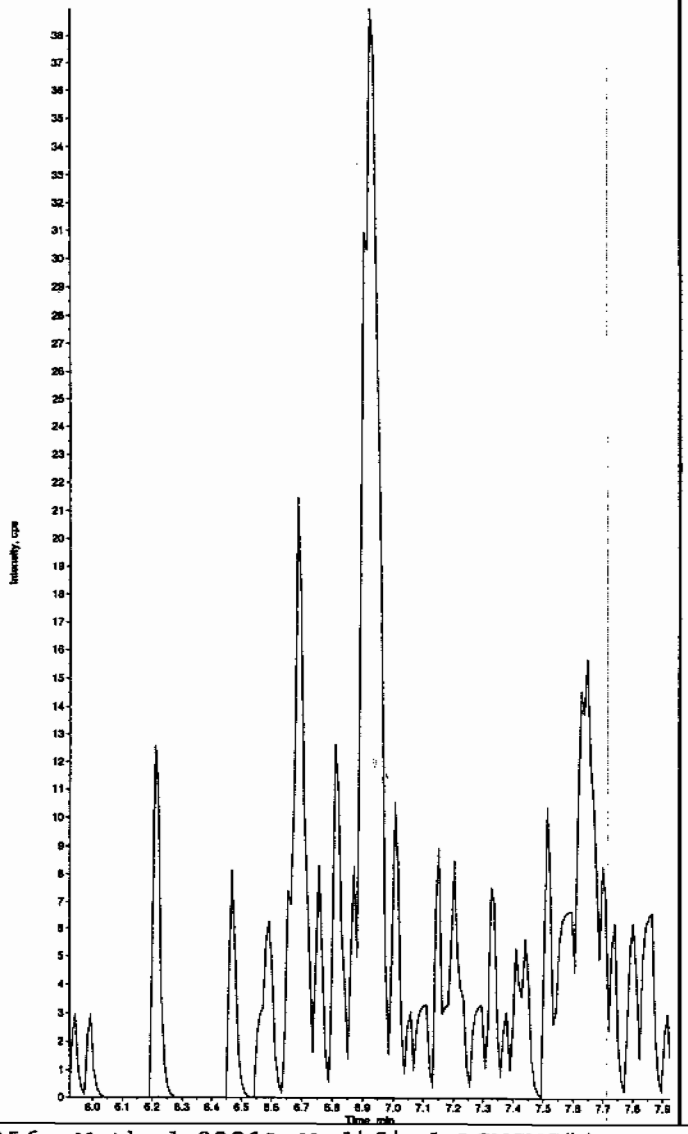

Sample Name: "247193004" Sample ID: "954328[2]LER" File: "EXS03100089.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 2:33:26 PM

Modified: No

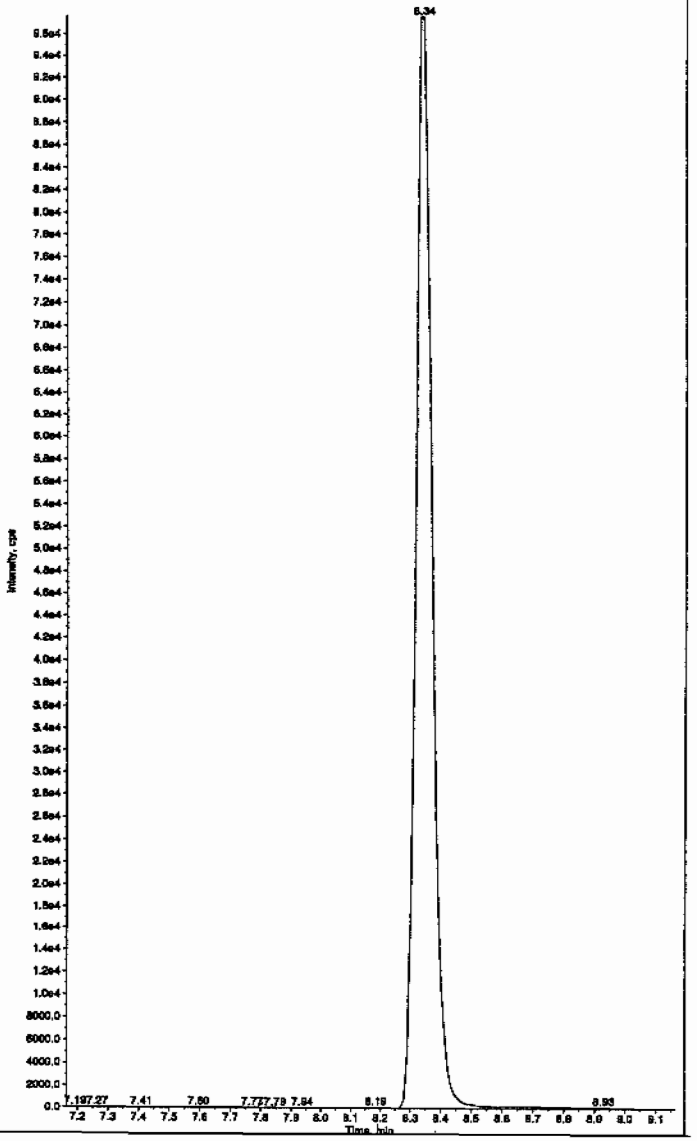

HMK 03/15/10

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Sample Name: "247193004" Sample ID: "954328[2]LER" File: "EXS03100089.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 274. ng/mL
cq. Date: 3/11/2010
cq. Time: 2:33:26 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 1460.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 15.0 sec
xpected RT: 8.32 min
se Relative RT: No

nt. Type: Valley
etention Time: 8.33 min
rea: 2.76e+006 counts
eight: 762083.984 cps
tart Time: 8.23 min
nd Time: 8.67 min

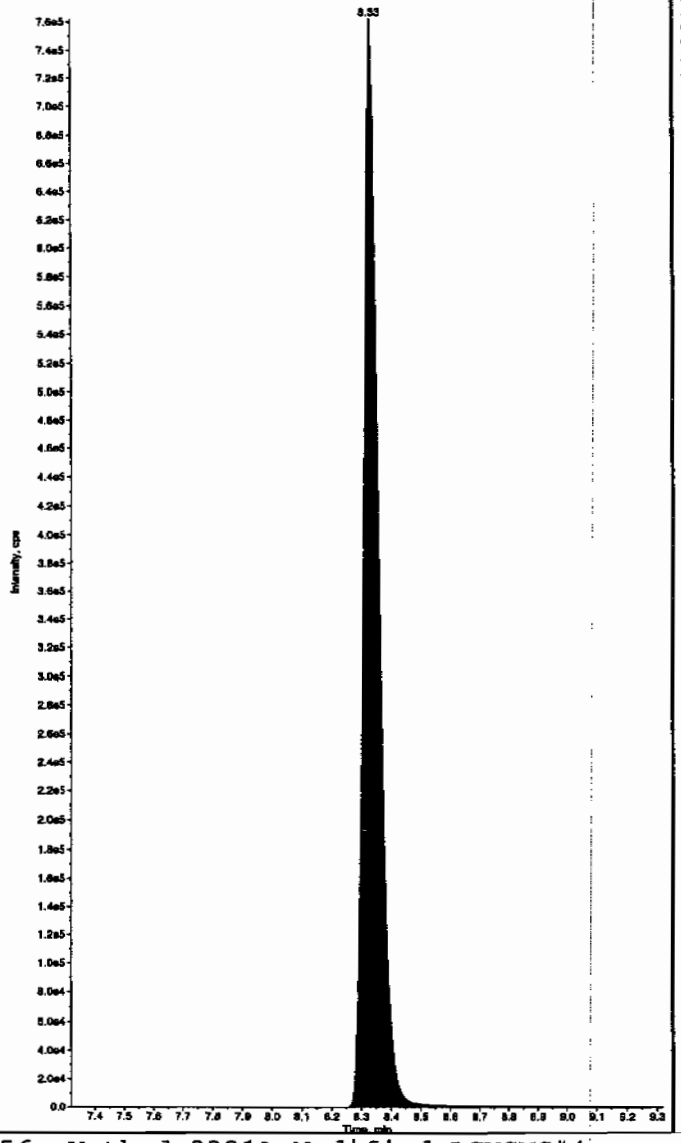

Sample Name: "247193004" Sample ID: "954328[2]LER" File: "EXS03100089.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 2:33:26 PM

Modified: No

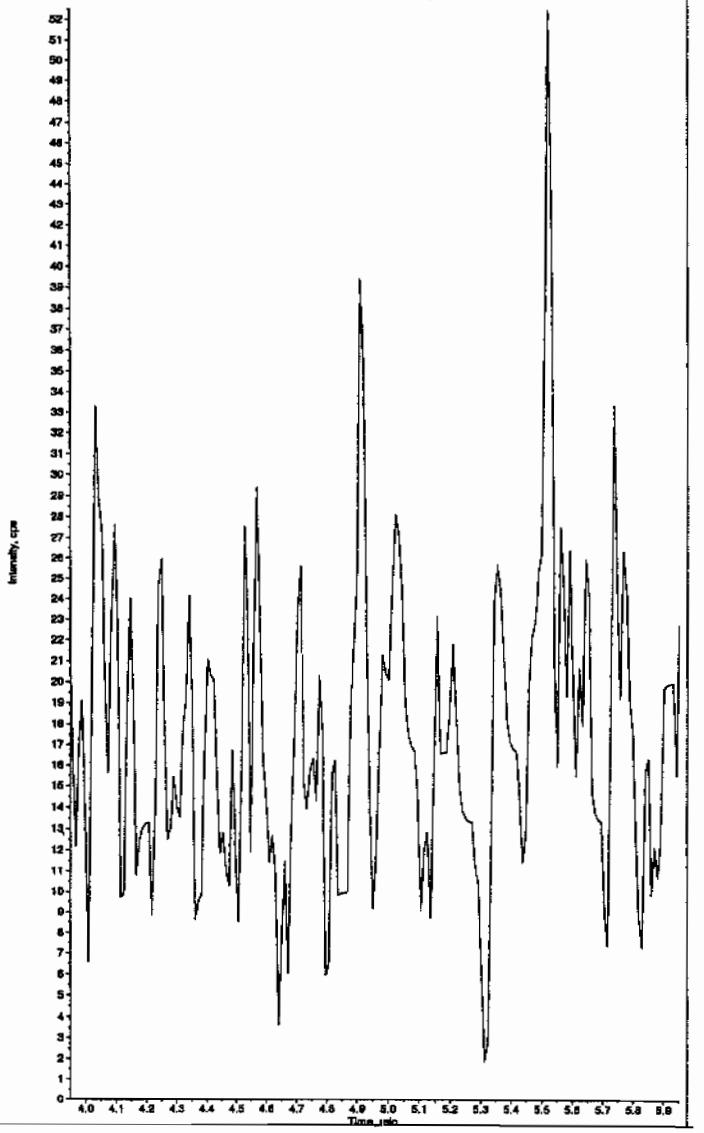

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Sample Name: "247193004" Sample ID: "954328|2|LER" File: "EXS03100089.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 2:33:26 PM

Modified: No

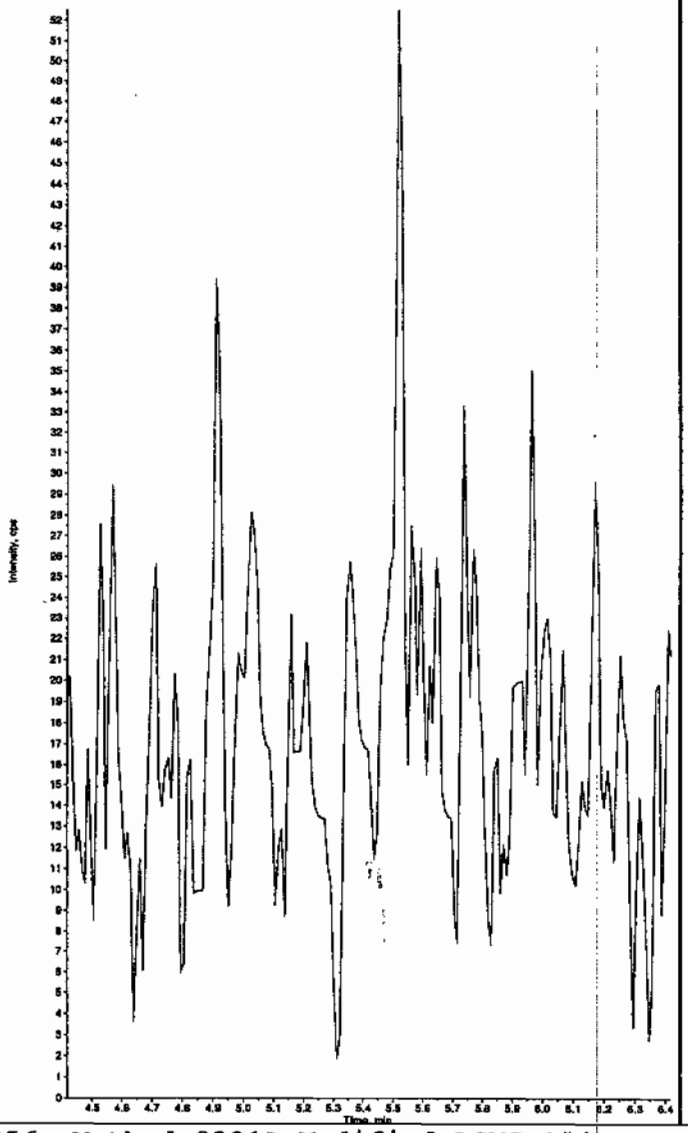

Sample Name: "247193004" Sample ID: "954328|2|LER" File: "EXS03100089.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 2:33:26 PM

Modified: No

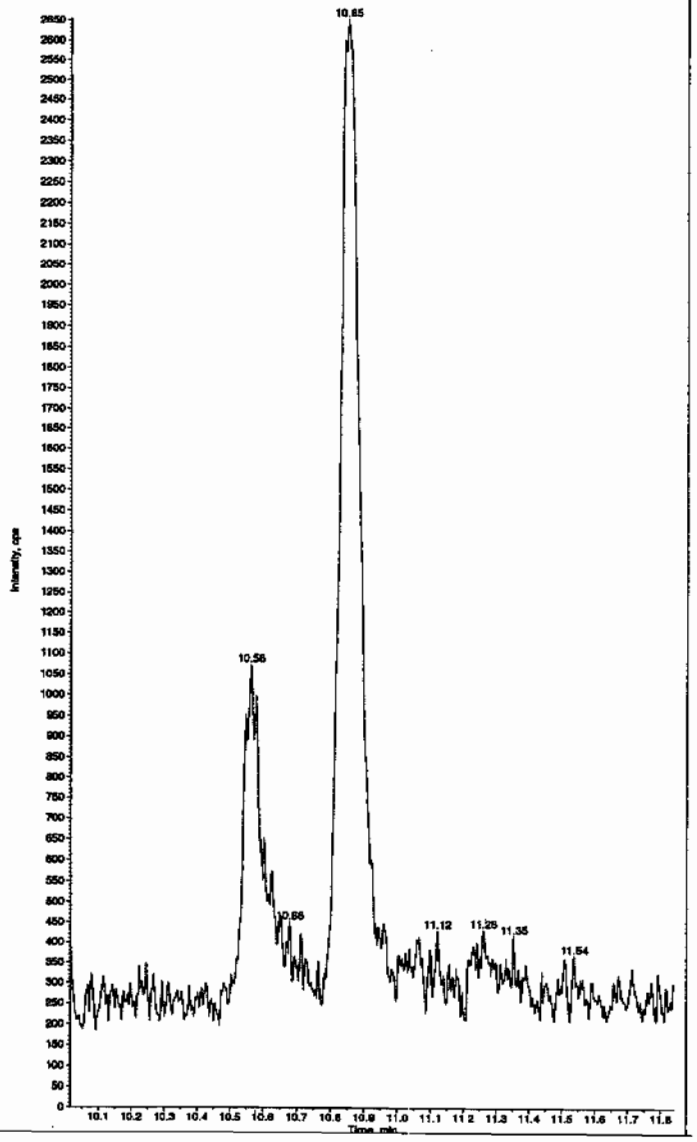

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8188

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330028.wiff

Date Analyzed: 30-MAR-10 20:29

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330028.wiff	Acquisition Date	3/30/2010 8:29:57 PM
Sample Name	247193005	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

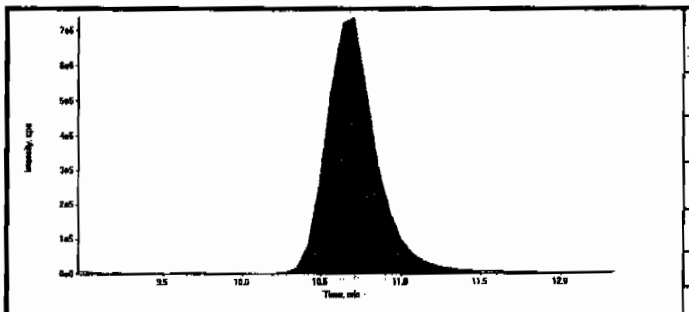

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	15900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

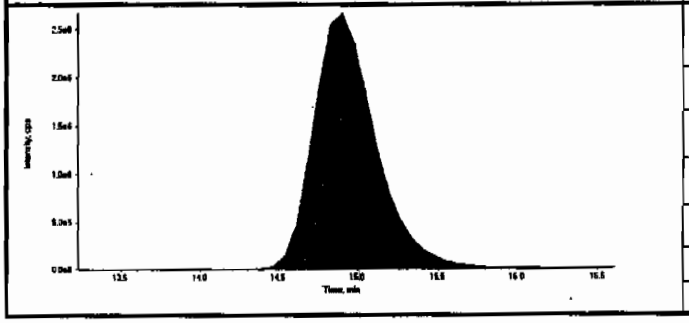

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	73100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

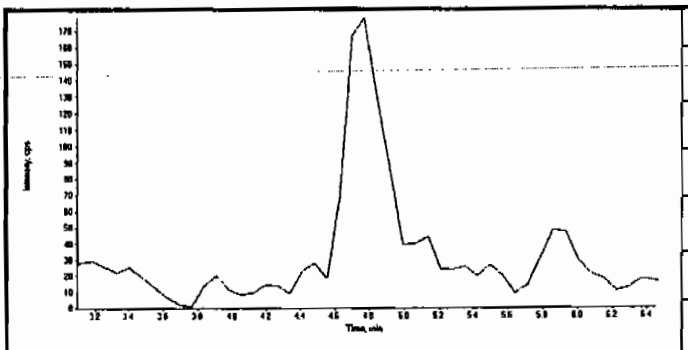

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

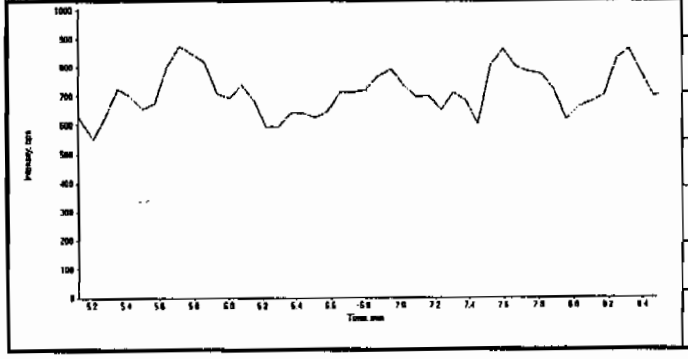

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Hmx 04/02/10
Lcr 4/3/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330028.wiff	Acquisition Date	3/30/2010 8:29:57 PM
Sample Name	247193005	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

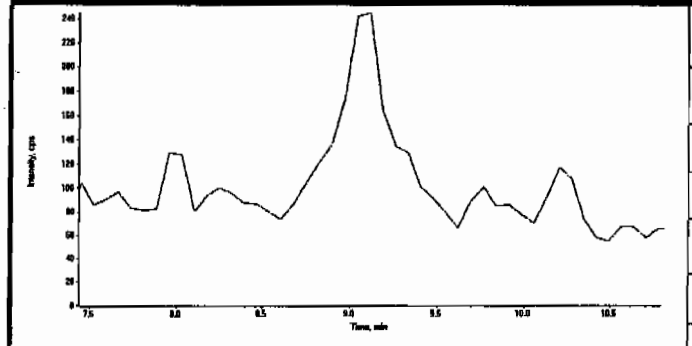

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

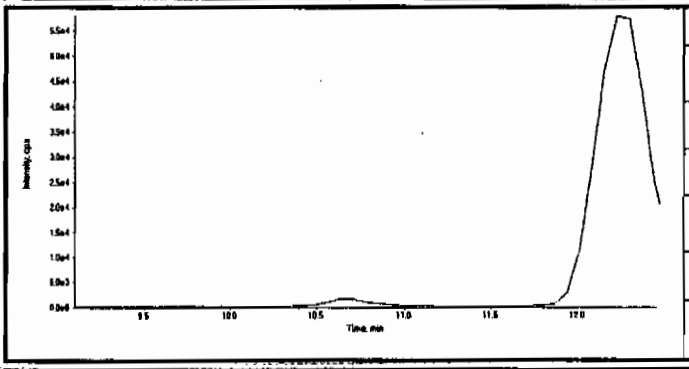

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

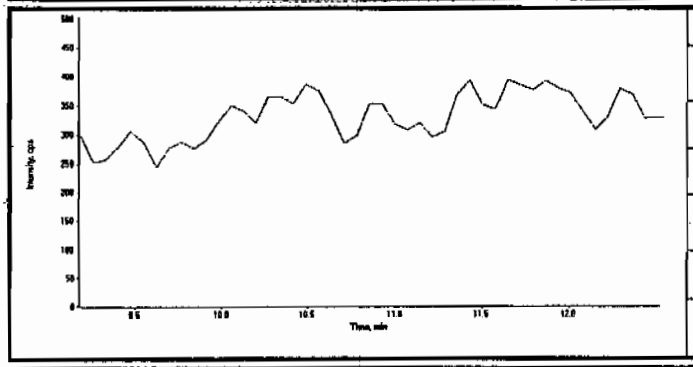

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

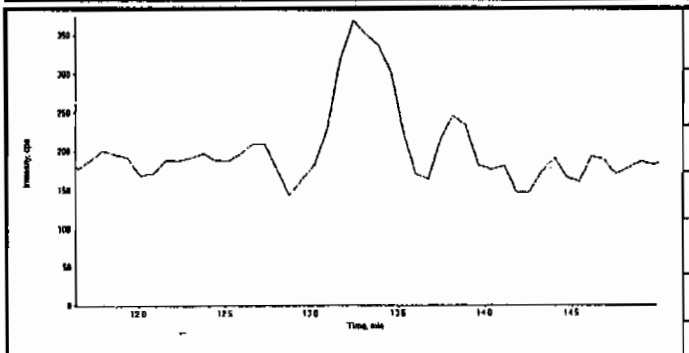

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330028.wiff	**Acquisition Date**	3/30/2010 8:29:57 PM
Sample Name	247193005	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

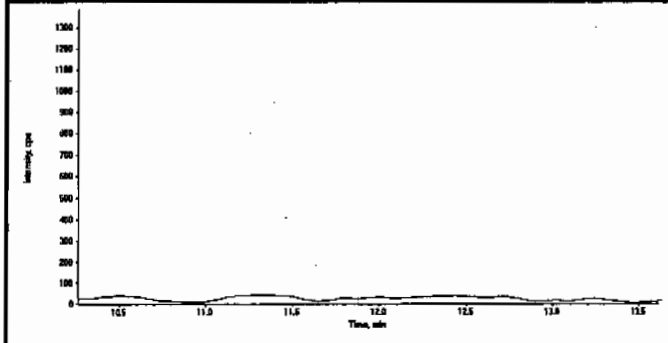

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

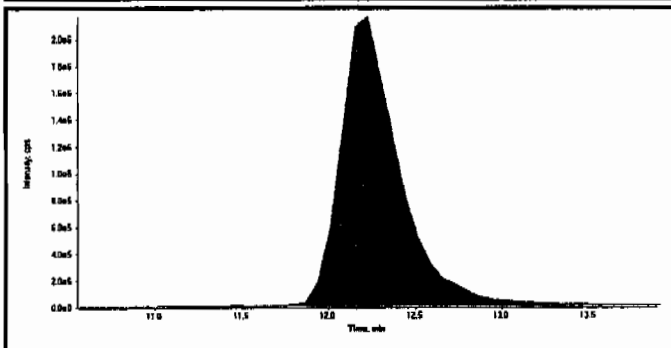

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	12.2
Area Counts:	5.13e+007
Manual Modification	No
Amount:	301. (ng/mL)
% Accuracy:	N/A

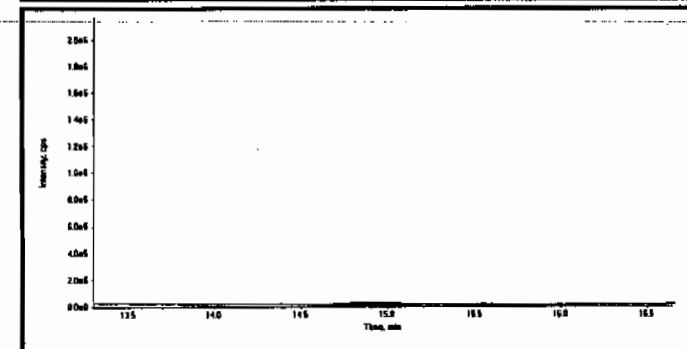

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	15.0
Area Counts:	5.97e+005
Manual Modification	No
Amount:	4.52 (ng/mL)
% Accuracy:	N/A

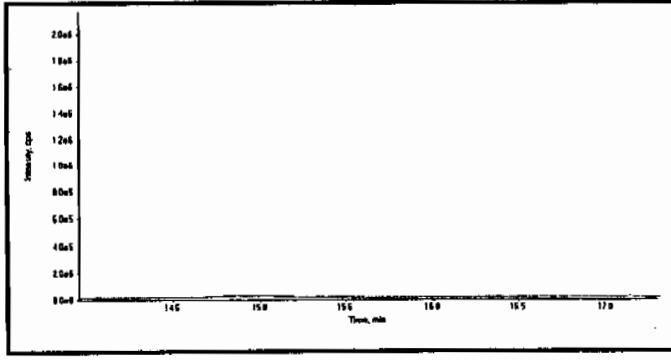

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330028.wiff	**Acquisition Date**	3/30/2010 8:29:57 PM
Sample Name	247193005	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

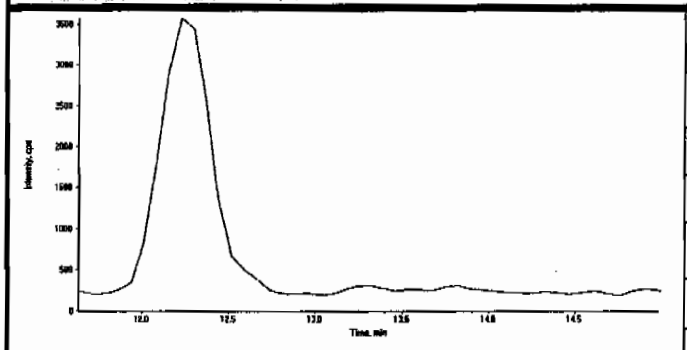

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

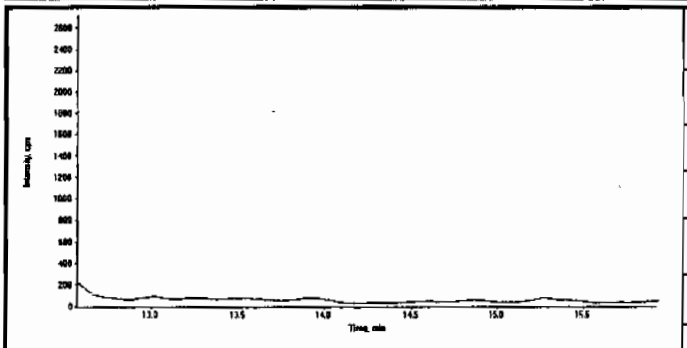

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

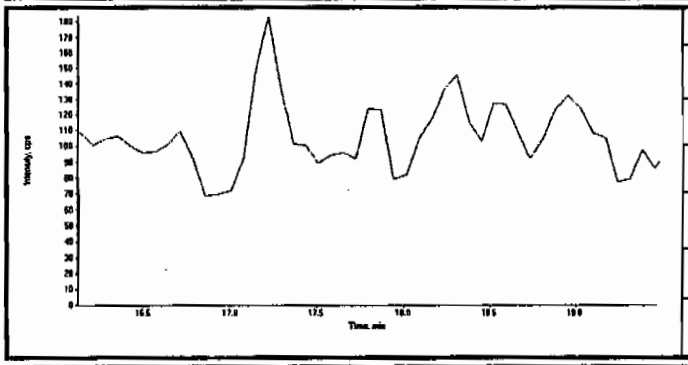

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

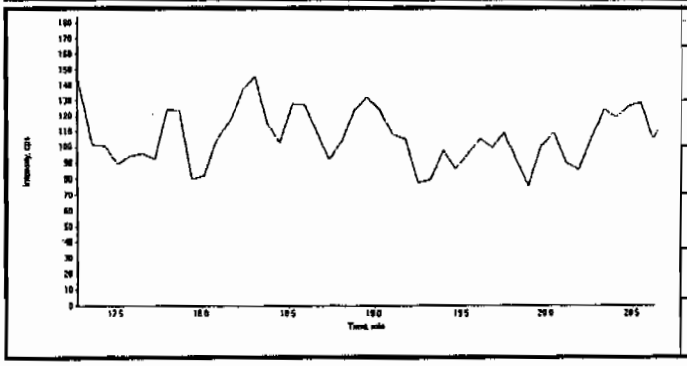

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330028.wiff	**Acquisition Date**	3/30/2010 8:29:57 PM
Sample Name	247193005	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

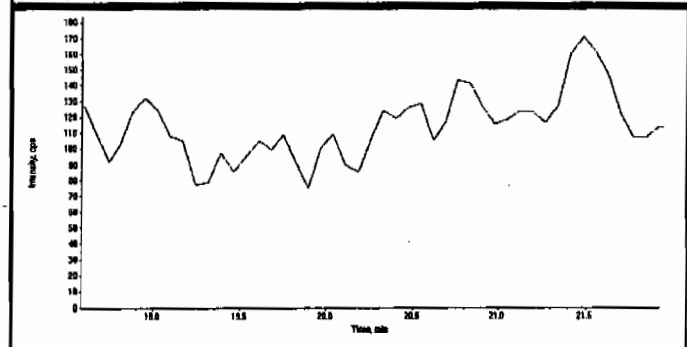

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

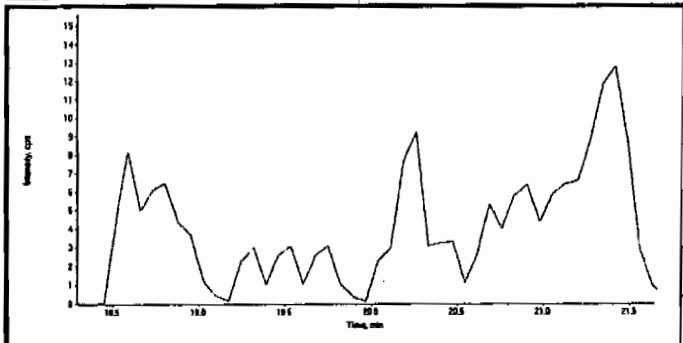

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8188

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193005

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100090.wiff

Date Analyzed: 11-MAR-10 14:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Rcn 3/14/10

Sample Name: "247193005" Sample ID: "954328|2|LER" File: "EXS03100090.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 3/11/2010
cq. Time: 2:49:09 PM

odified: No

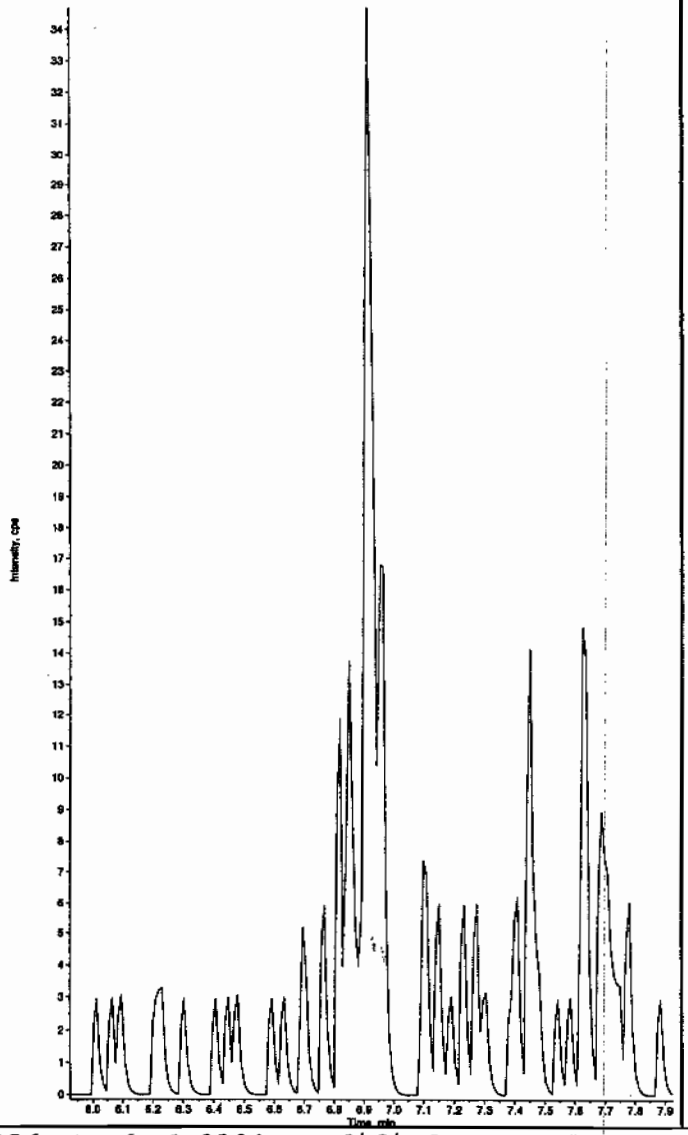

Sample Name: "247193005" Sample ID: "954328|2|LER" File: "EXS03100090.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 2:49:09 PM

Modified: No

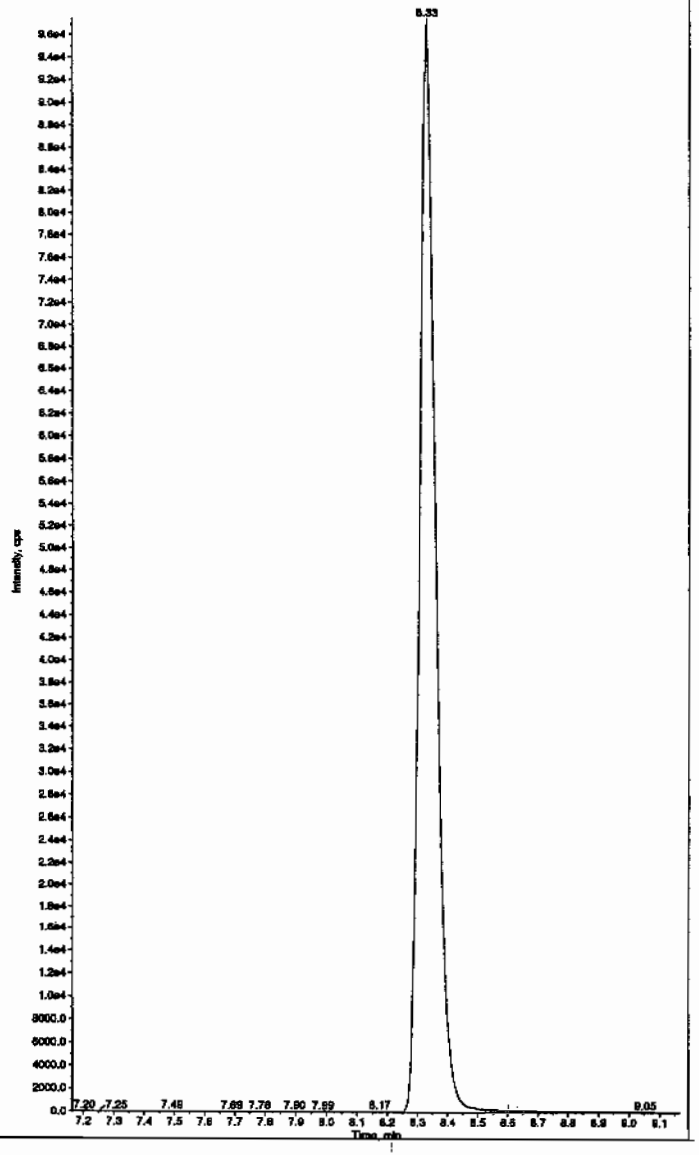

HM 03/15/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "247193005" Sample ID: "954328[2]LER" File: "EXS03100090.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
ncentration: N/A
lculated Conc: 268. ng/mL
q. Date: 3/11/2010
q. Time: 2:49:09 PM

odified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.32 min
e Relative RT: No

t. Type: Valley
tention Time: 8.32 min
ea: 2.70e+006 counts
ight: 722502.319 cps
art Time: 8.24 min
d Time: 8.70 min

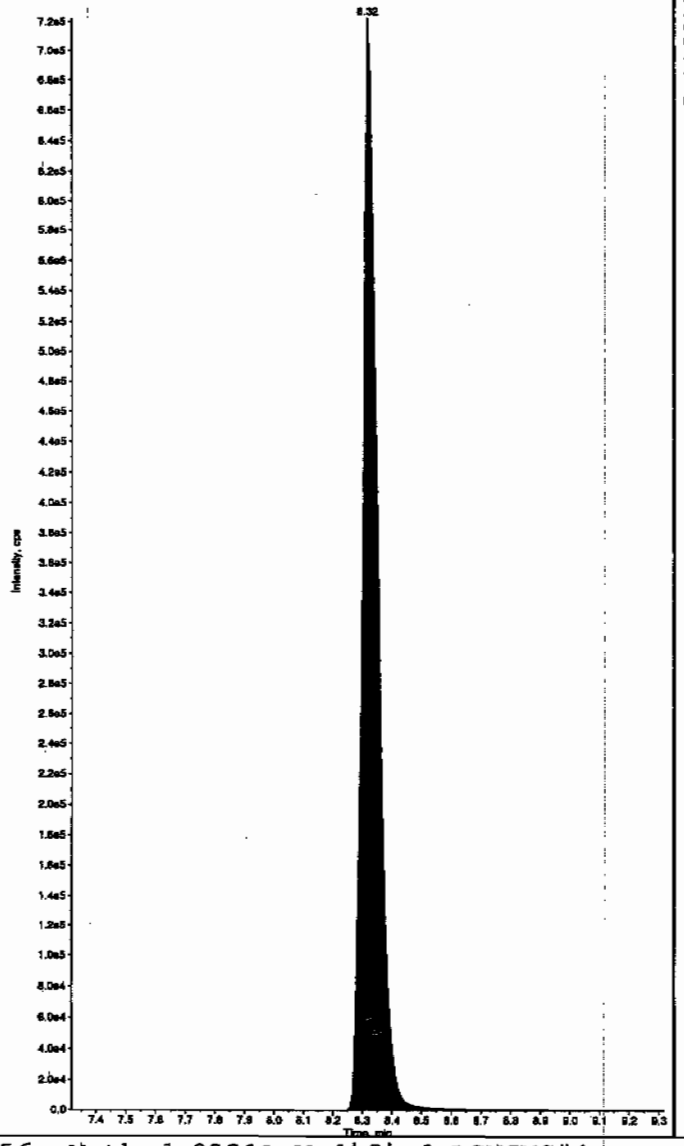

Sample Name: "247193005" Sample ID: "954328[2]LER" File: "EXS03100090.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 2:49:09 PM

Modified: No

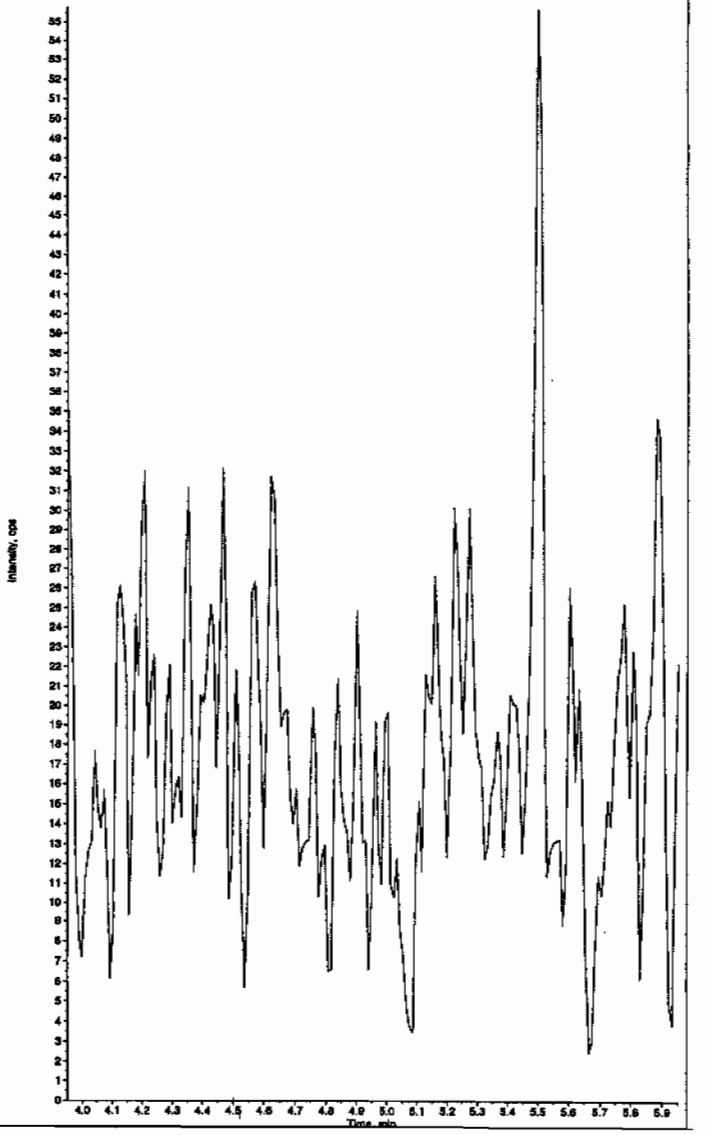

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "247193005" Sample ID: "954328[2]LER" File: "EXS03100090.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 2:49:09 PM

Modified: No

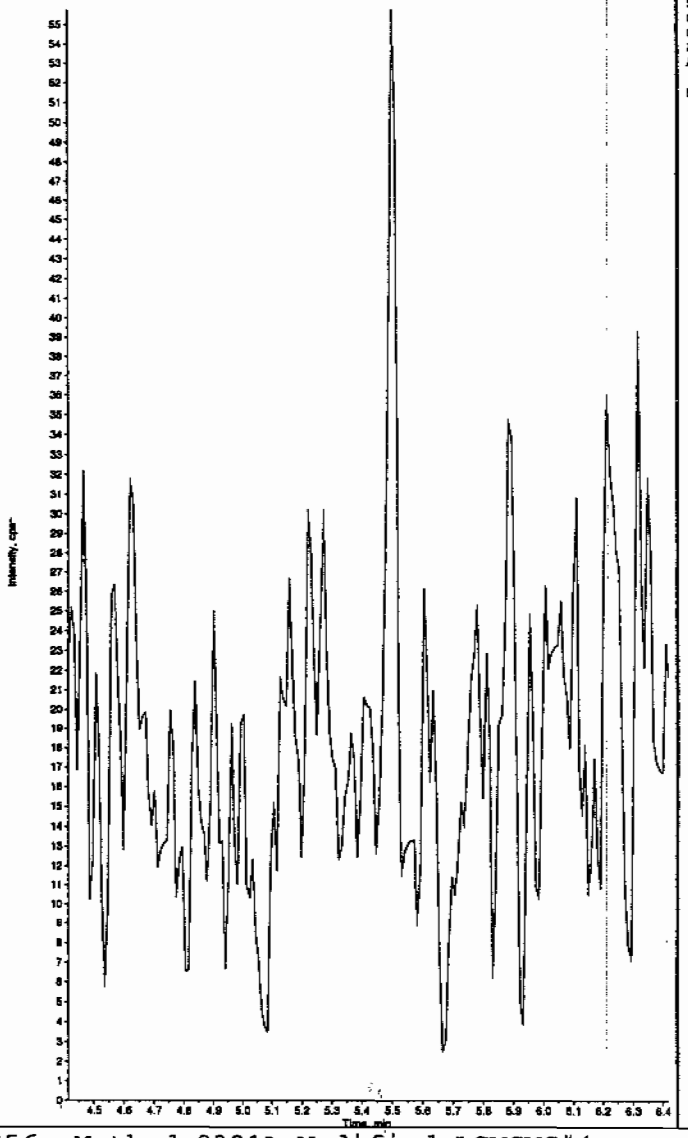

Sample Name: "247193005" Sample ID: "954328[2]LER" File: "EXS03100090.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 2:49:09 PM

Modified: No

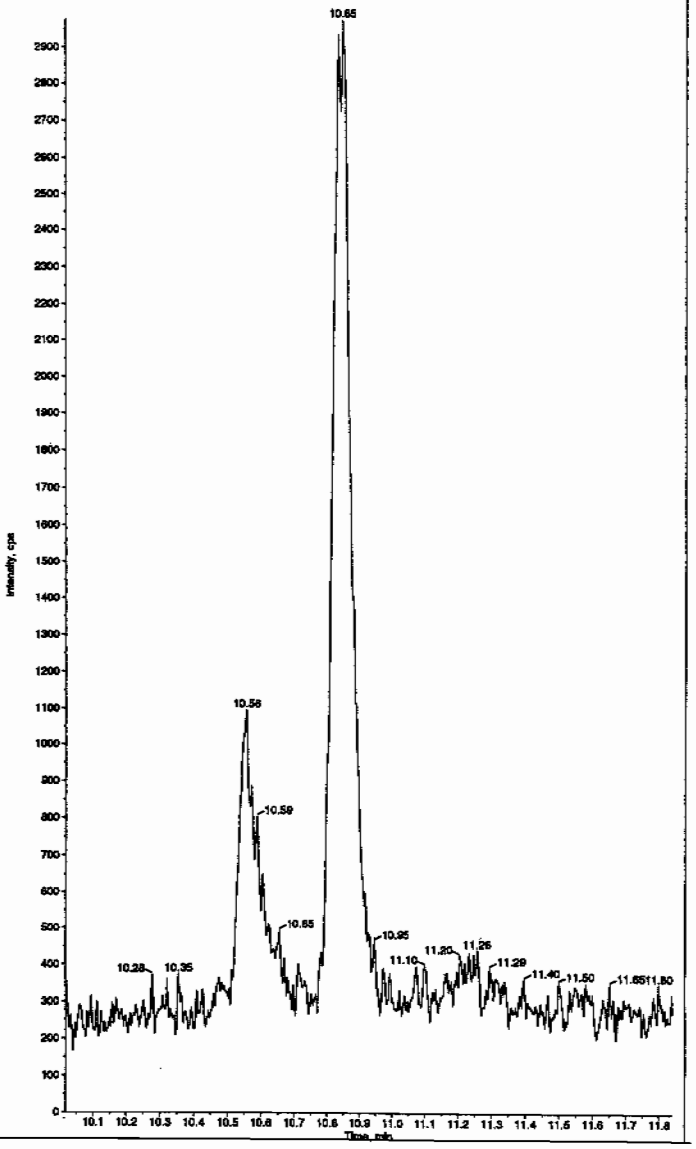

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8187

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193006

Sample Amount 2

Moisture: 2.5

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330029.wiff

Date Analyzed: 30-MAR-10 20:56

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330029.wiff	**Acquisition Date**	3/30/2010 8:56:18 PM
Sample Name	247193006	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

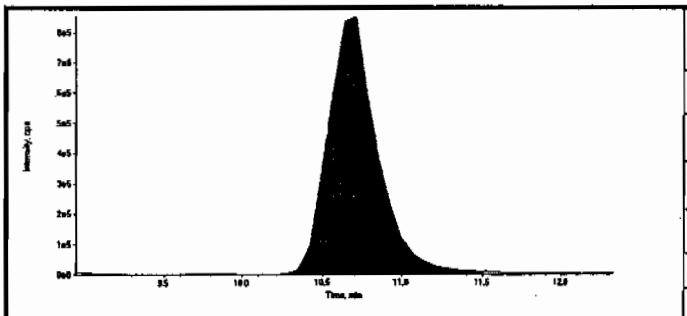

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	18600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

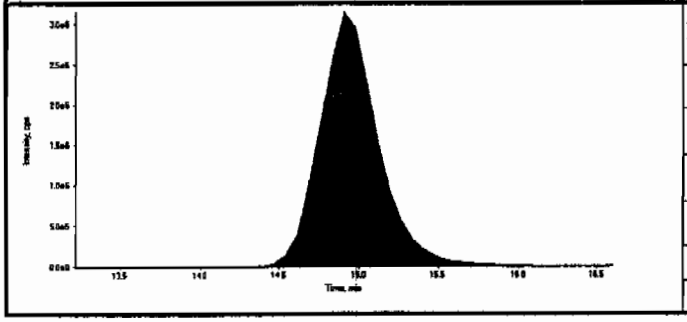

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	80800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

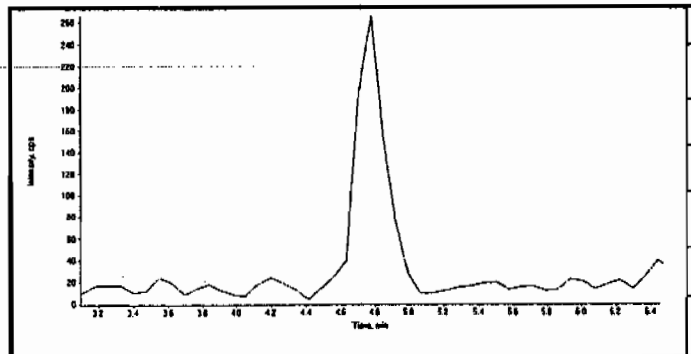

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

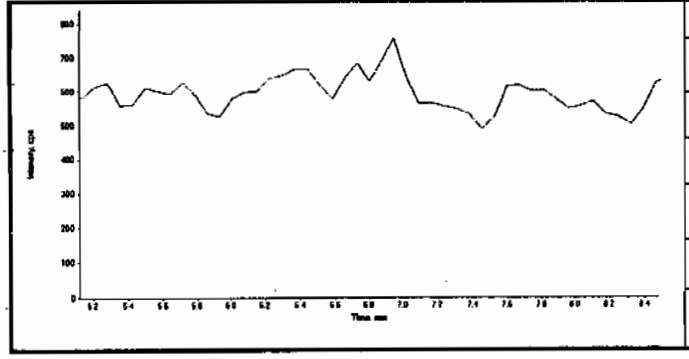

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

HMX 04/02/10
RDX 4/2/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330029.wiff	Acquisition Date	3/30/2010 8:56:18 PM
Sample Name	247193006	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

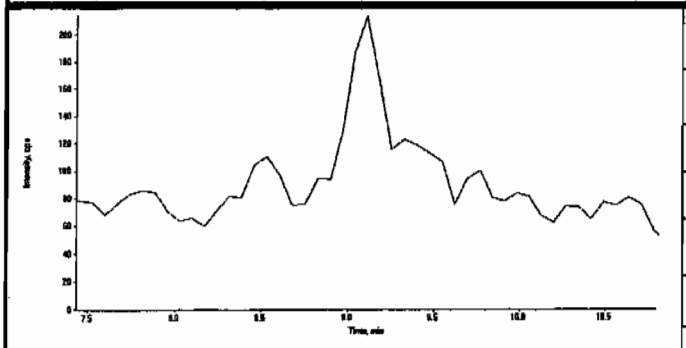

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

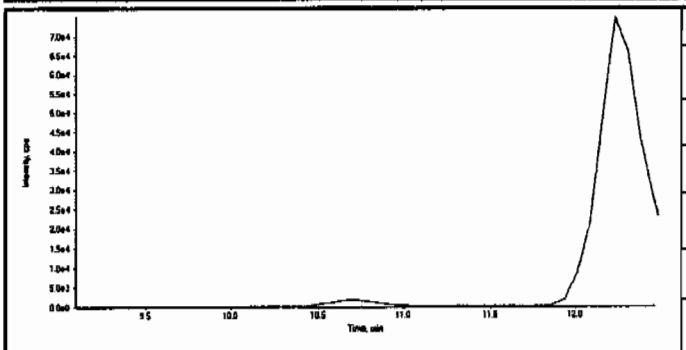

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

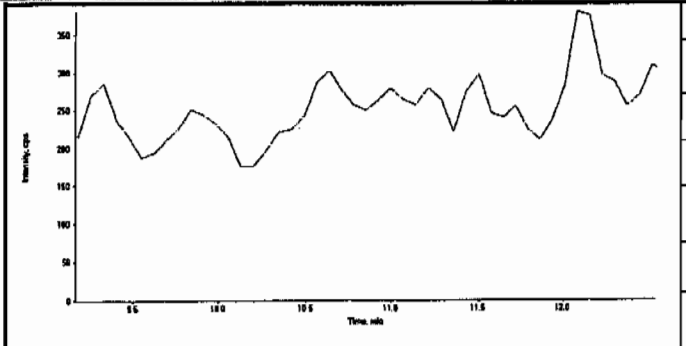

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

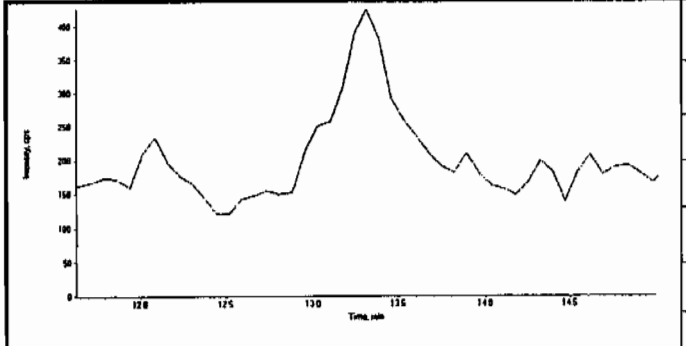

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330029.wiff	**Acquisition Date**	3/30/2010 8:56:18 PM
Sample Name	247193006	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	Unknown

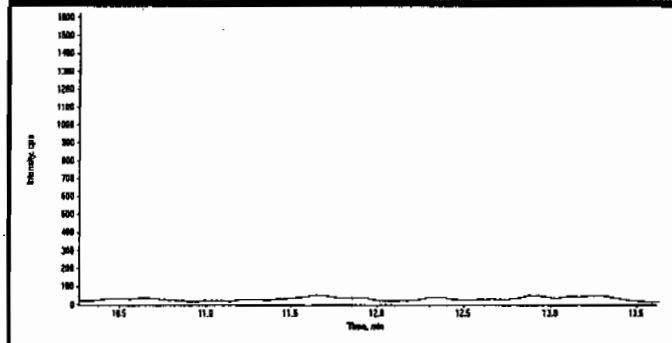

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

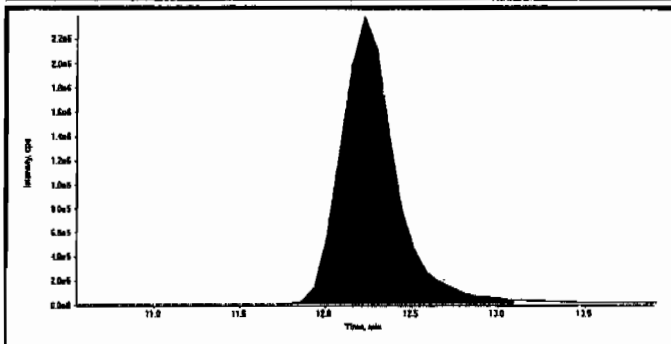

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	12.2
Area Counts:	5.19e+007
Manual Modification	No
Amount:	276. (ng/mL)
% Accuracy:	N/A

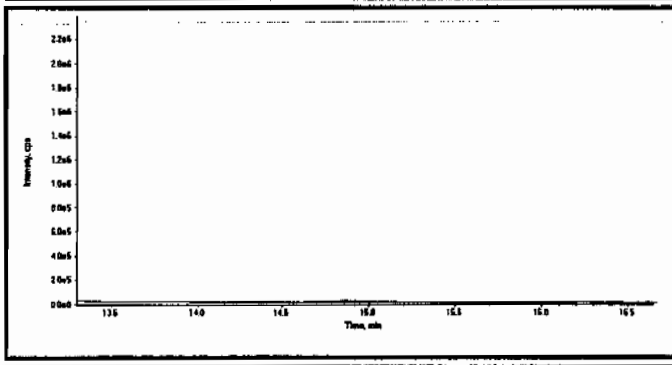

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	14.9
Area Counts:	5.65e+005
Manual Modification	No
Amount:	3.87 (ng/mL)
% Accuracy:	N/A

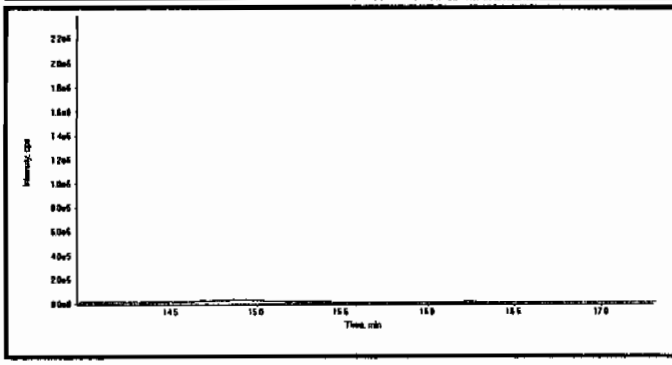

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0330029.wiff	**Acquisition Date**	3/30/2010 8:56:18 PM
Sample Name	247193006	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

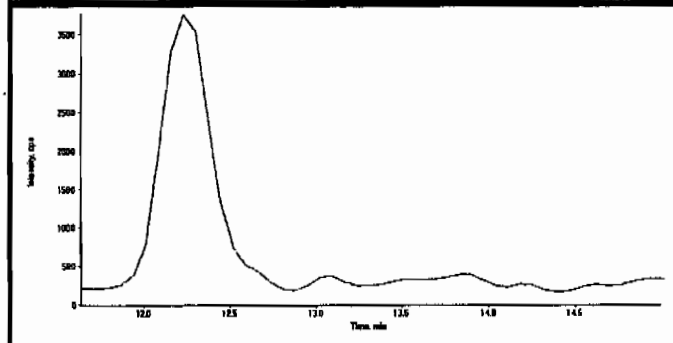

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

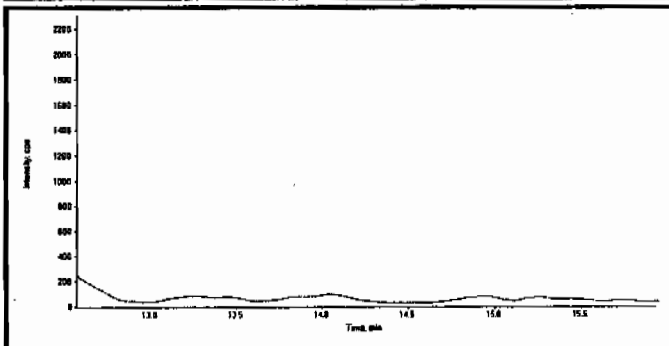

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

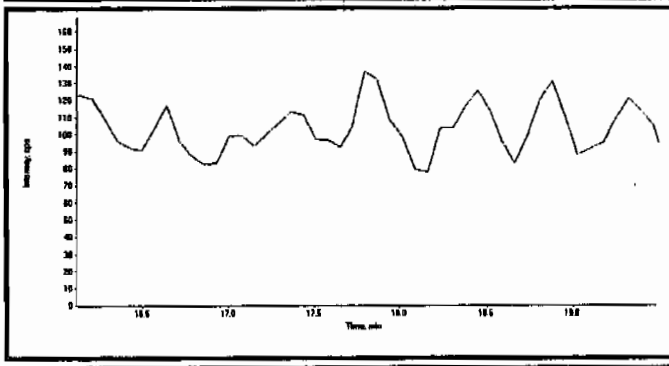

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

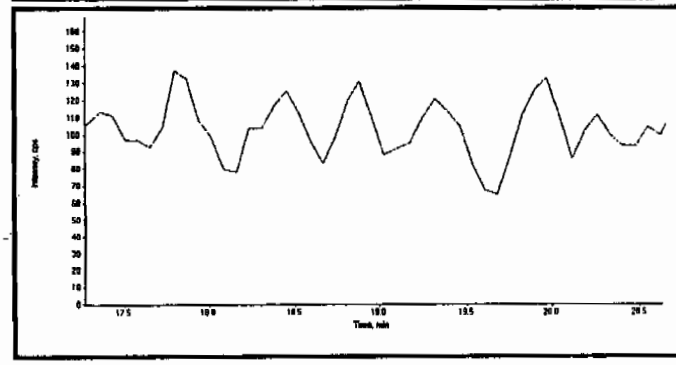

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330029.wiff	**Acquisition Date**	3/30/2010 8:56:18 PM
Sample Name	247193006	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

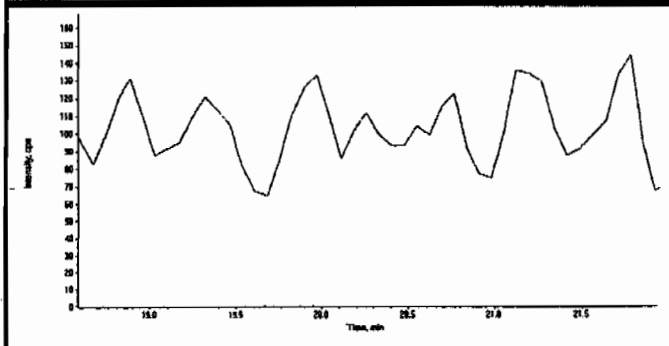

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

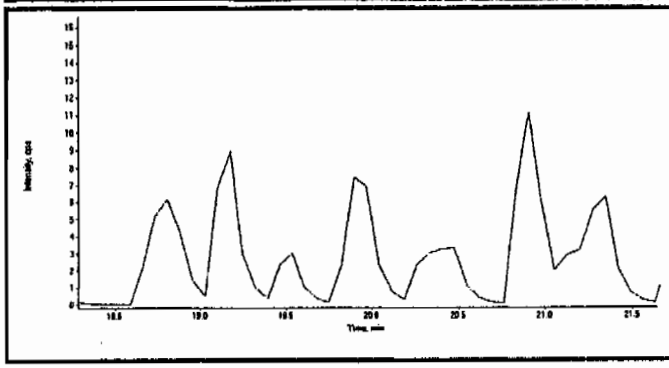

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8187

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193006

Sample Amount 2

Moisture: 2.5

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100091.wiff

Date Analyzed: 11-MAR-10 15:04

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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dcn 3/14/10

Sample Name: "247193006" Sample ID: "954328[2]LER" File: "EXS03100091.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 3:04:52 PM

Modified: No

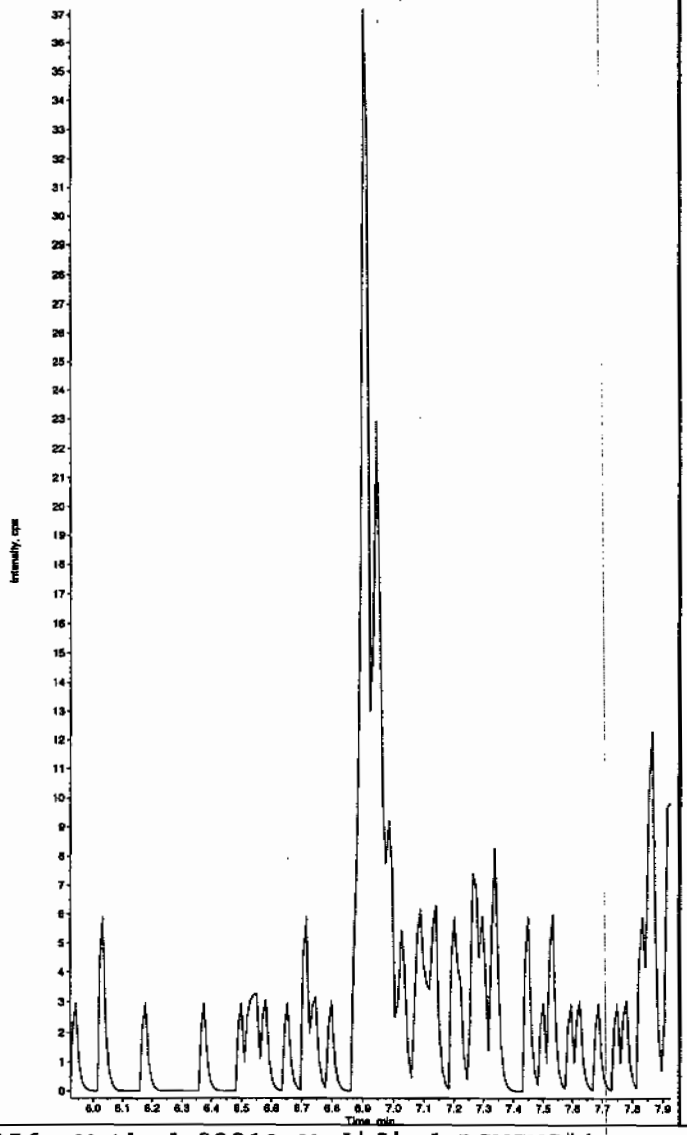

Sample Name: "247193006" Sample ID: "954328[2]LER" File: "EXS03100091.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 3:04:52 PM

Modified: No

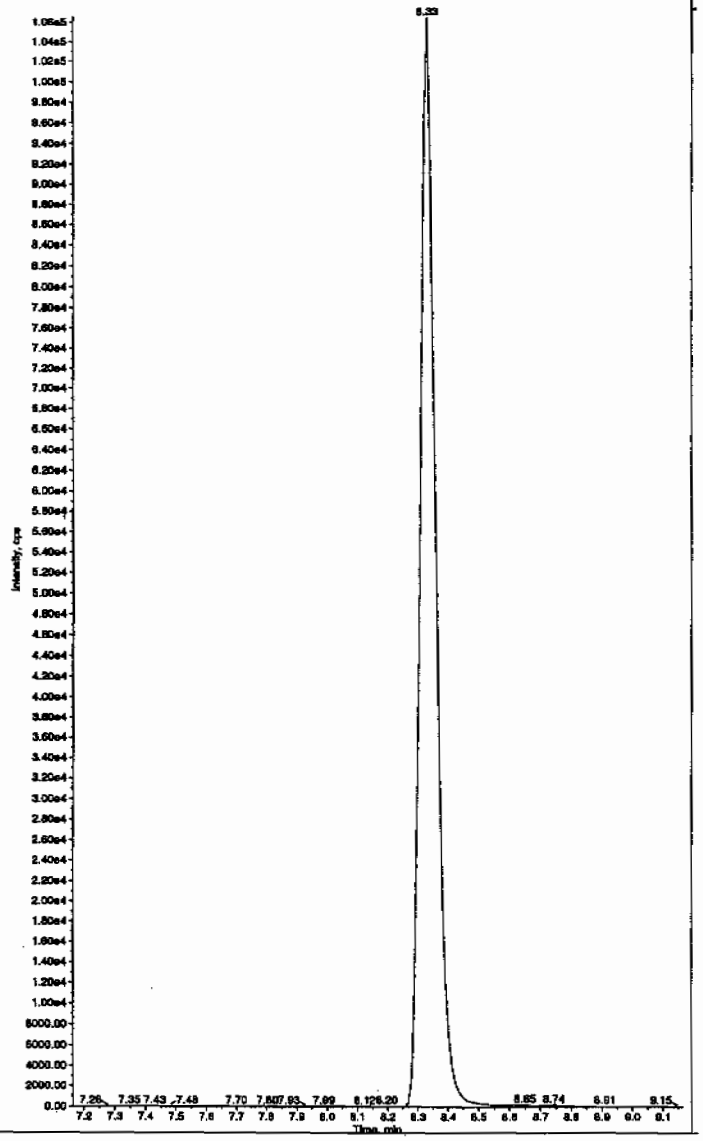

Hmc 03/15/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "247193006" Sample ID: "954328|2|LER" File: "EXS03100091.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 281. ng/mL
cq. Date: 3/11/2010
cq. Time: 3:04:52 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 1460.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 15.0 sec
xpected RT: 8.32 min
se Relative RT: No

nt. Type: Valley
etention Time: 8.33 min
rea: 2.82e+006 counts
eight: 751522.339 cps
tart Time: 8.24 min
nd Time: 8.67 min

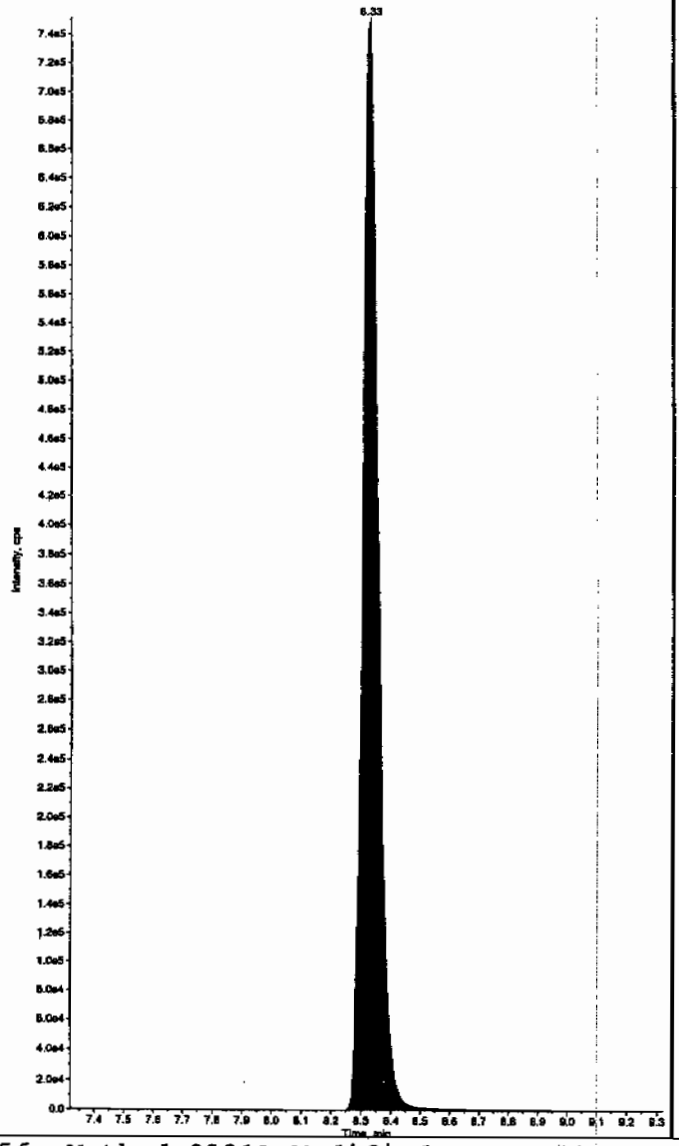

Sample Name: "247193006" Sample ID: "954328|2|LER" File: "EXS03100091.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 3:04:52 PM

Modified: No

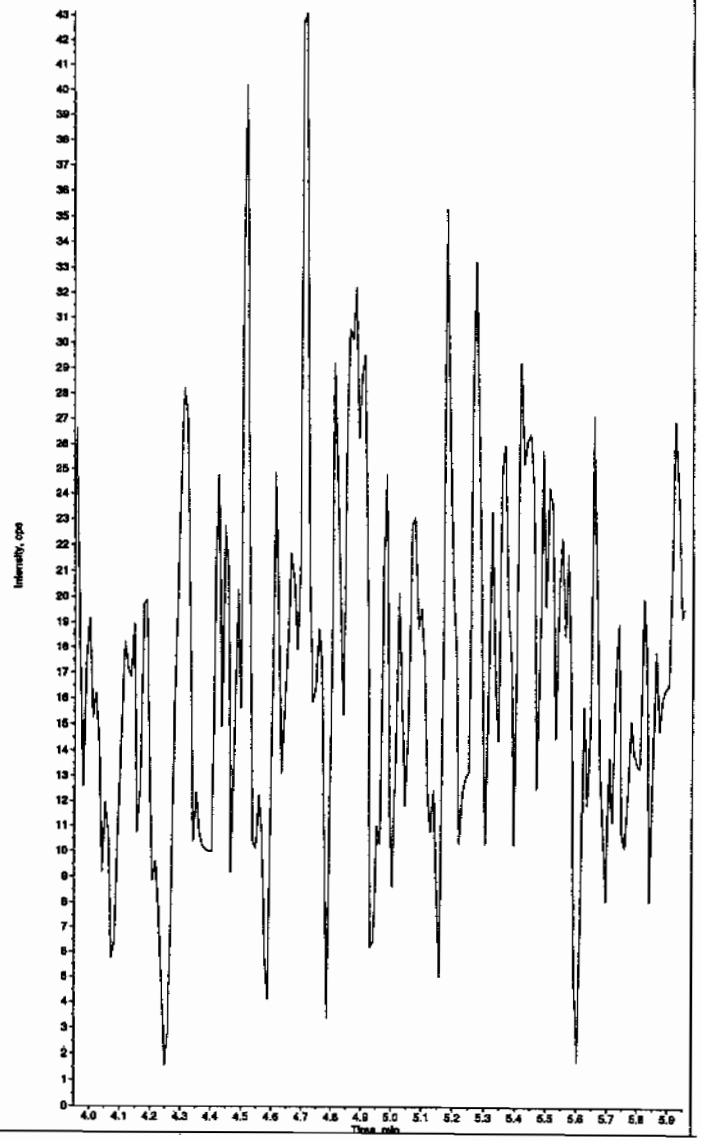

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Sample Name: "247193006" Sample ID: "954328|2|LER" File: "EXS03100091.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 3:04:52 PM

Modified: No

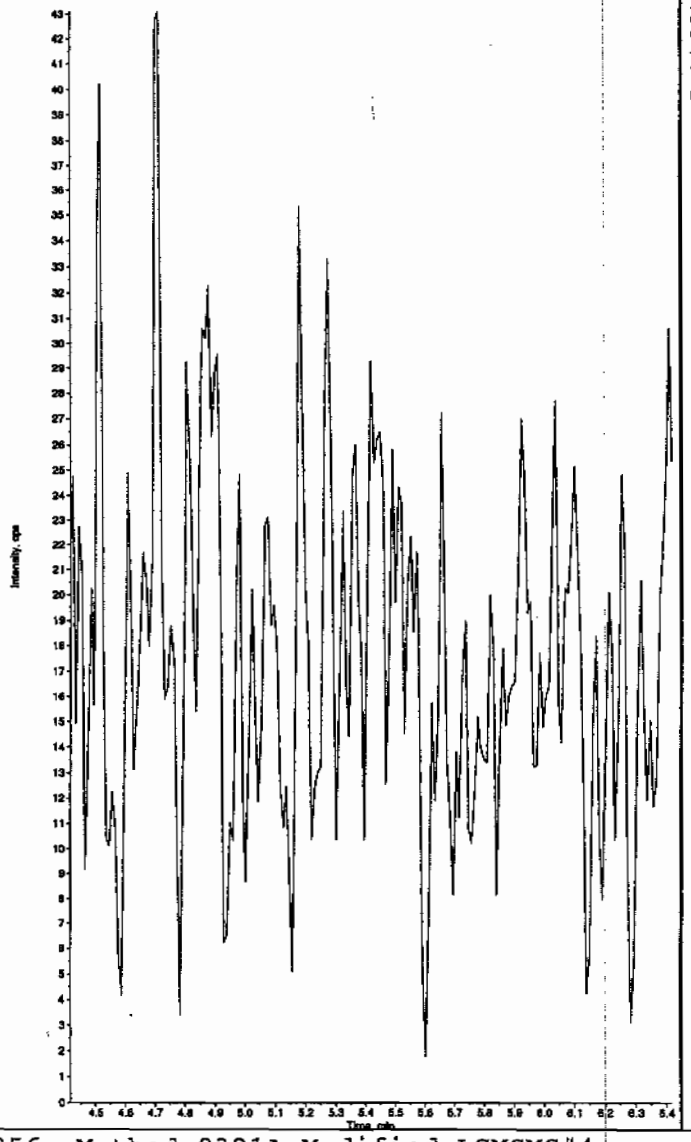

Sample Name: "247193006" Sample ID: "954328|2|LER" File: "EXS03100091.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 3:04:52 PM

Modified: No

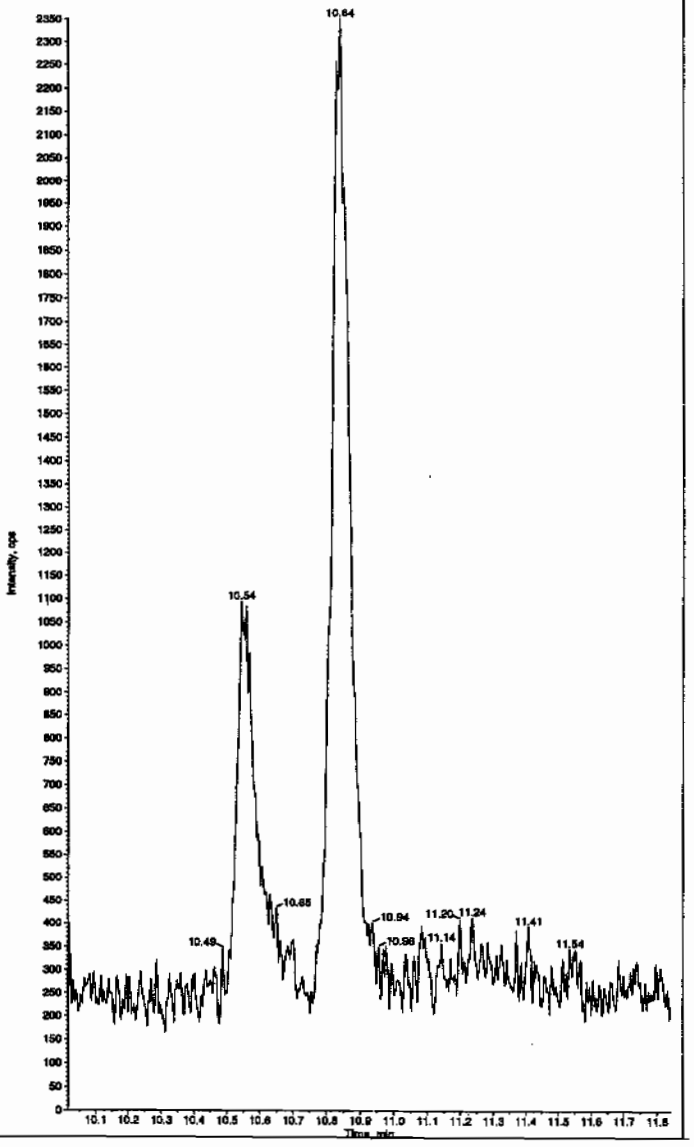

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8197

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193007

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330030.wiff

Date Analyzed: 30-MAR-10 21:22

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330030.wiff	**Acquisition Date**	3/30/2010 9:22:42 PM
Sample Name	247193007	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

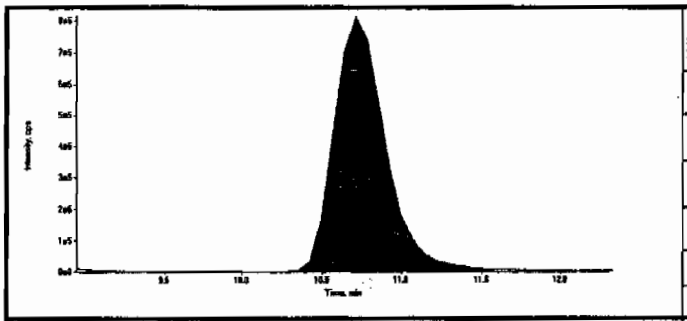

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	18400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

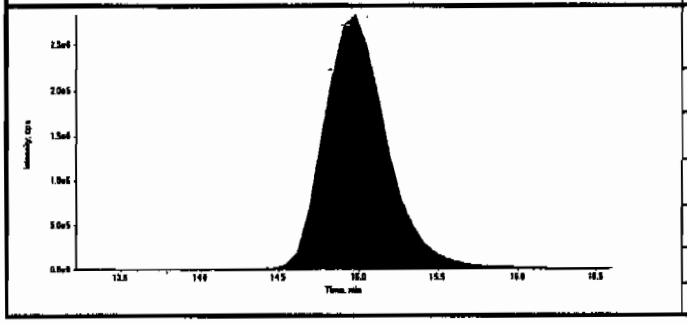

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	15.00
Area Counts:	78400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

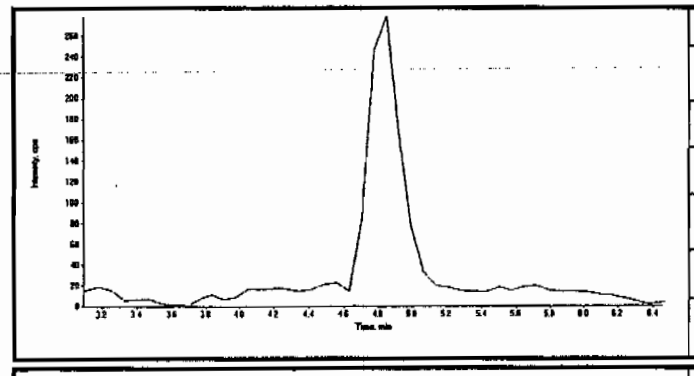

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

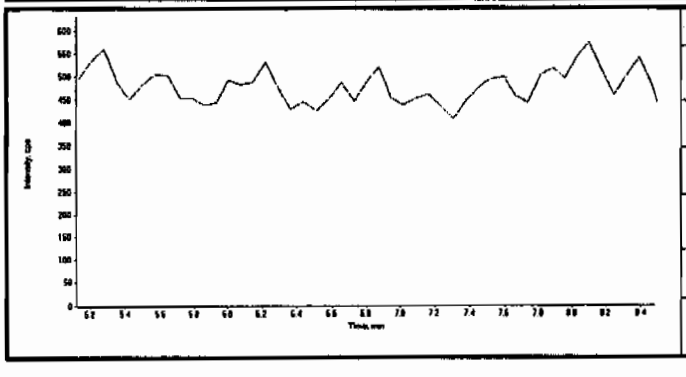

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Hmc 04/06/10
Ken 4/2/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330030.wiff	Acquisition Date	3/30/2010 9:22:42 PM
Sample Name	247193007	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

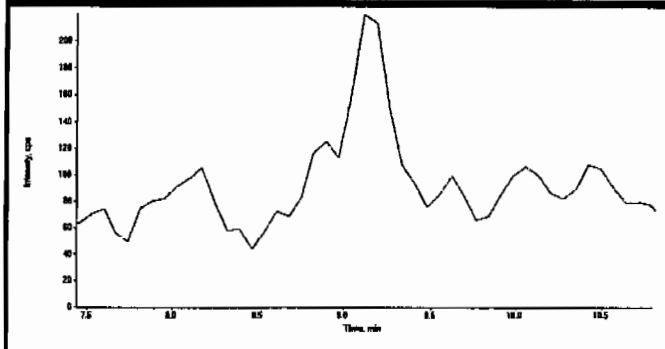

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

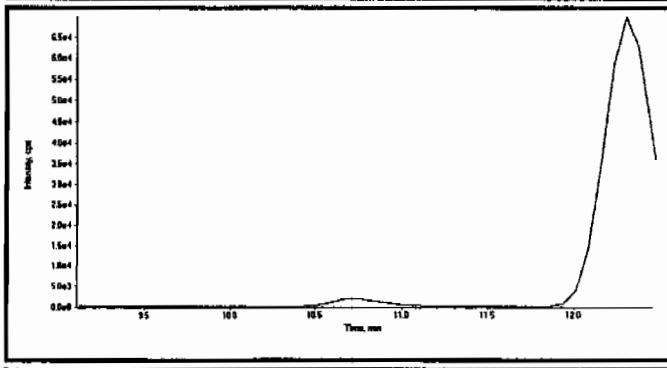

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

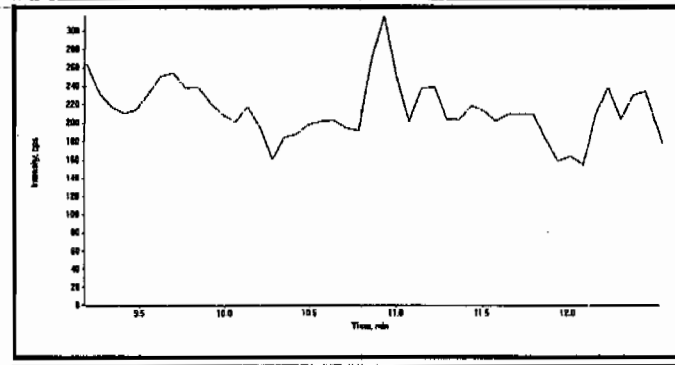

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

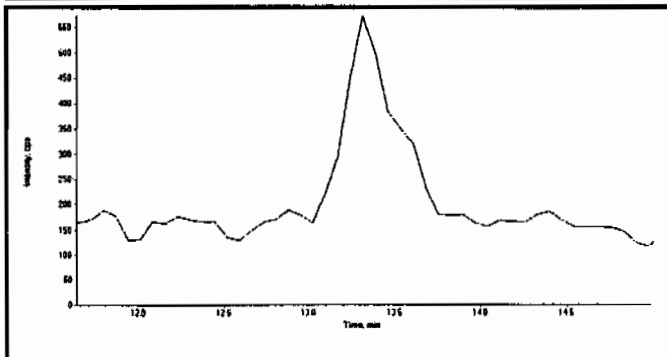

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330030.wiff	Acquisition Date	3/30/2010 9:22:42 PM
Sample Name	247193007	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

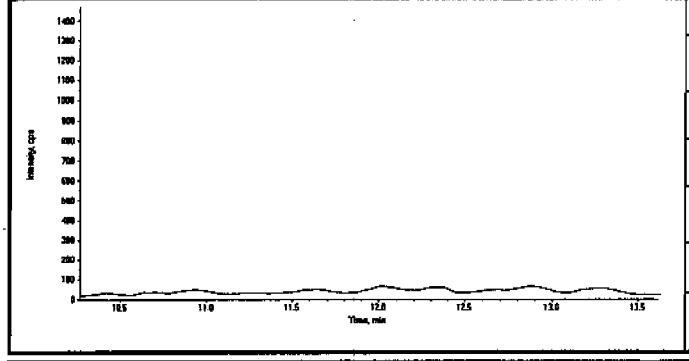

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

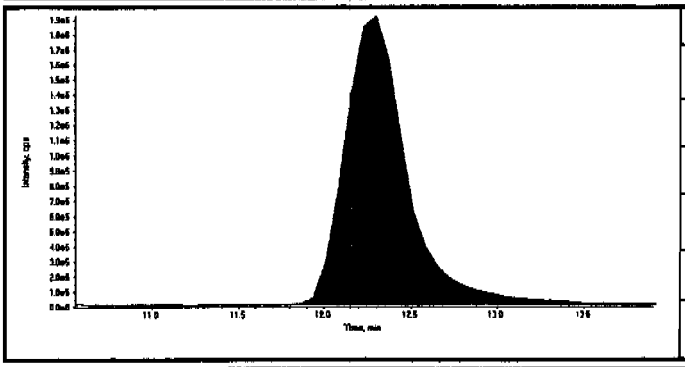

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	12.3
Area Counts:	4.82e+007
Manual Modification	No
Amount:	264. (ng/mL)
% Accuracy:	N/A

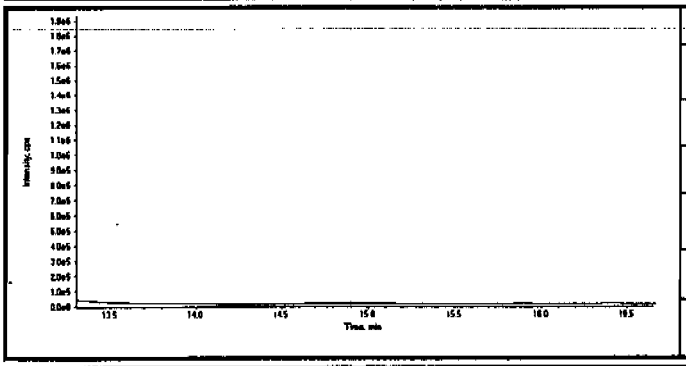

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	15.0
Area Counts:	5.84e+005
Manual Modification	No
Amount:	4.12 (ng/mL)
% Accuracy:	N/A

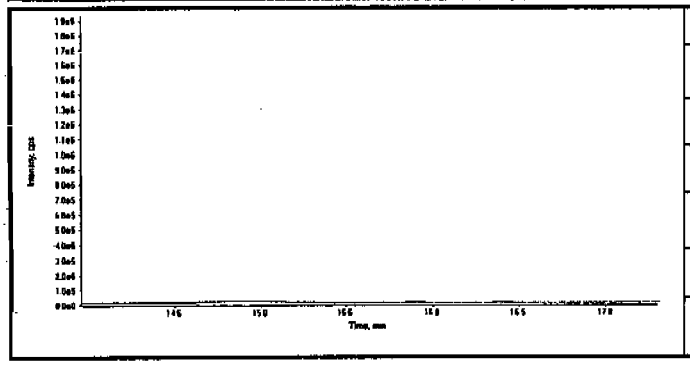

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330030.wiff	**Acquisition Date**	3/30/2010 9:22:42 PM
Sample Name	247193007	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

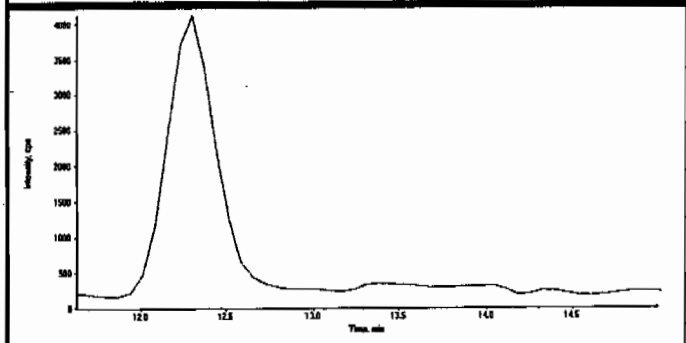

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

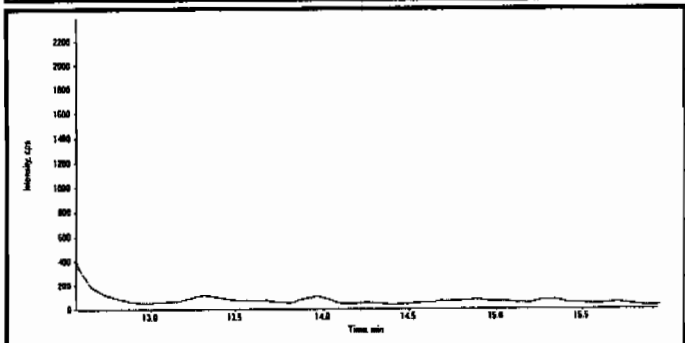

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

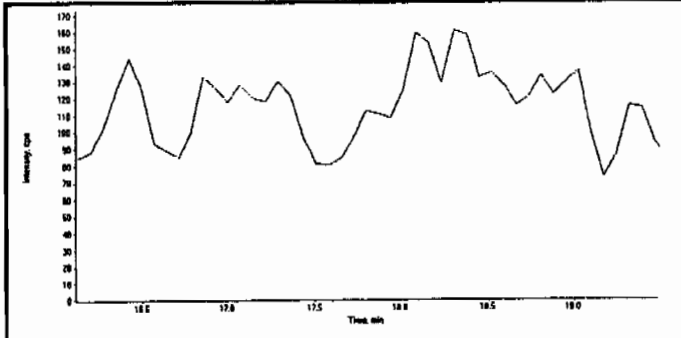

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330030.wiff	**Acquisition Date**	3/30/2010 9:22:42 PM
Sample Name	247193007	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

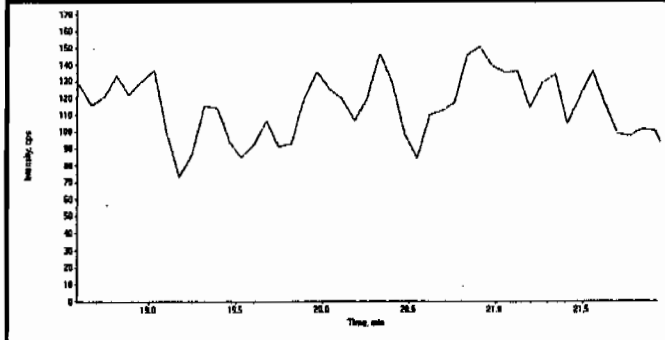

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

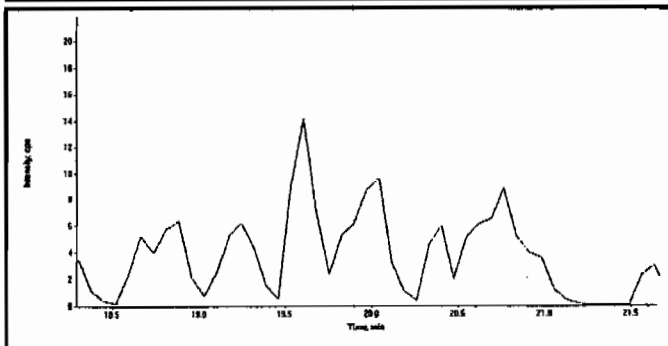

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8197

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193007

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100095.wiff

Date Analyzed: 11-MAR-10 16:07

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

LCM 3/14/10

Sample Name: "247193007" Sample ID: "954328|2|LER" File: "EXS03100095.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 3/11/2010
cq. Time: 4:07:41 PM

odified: No

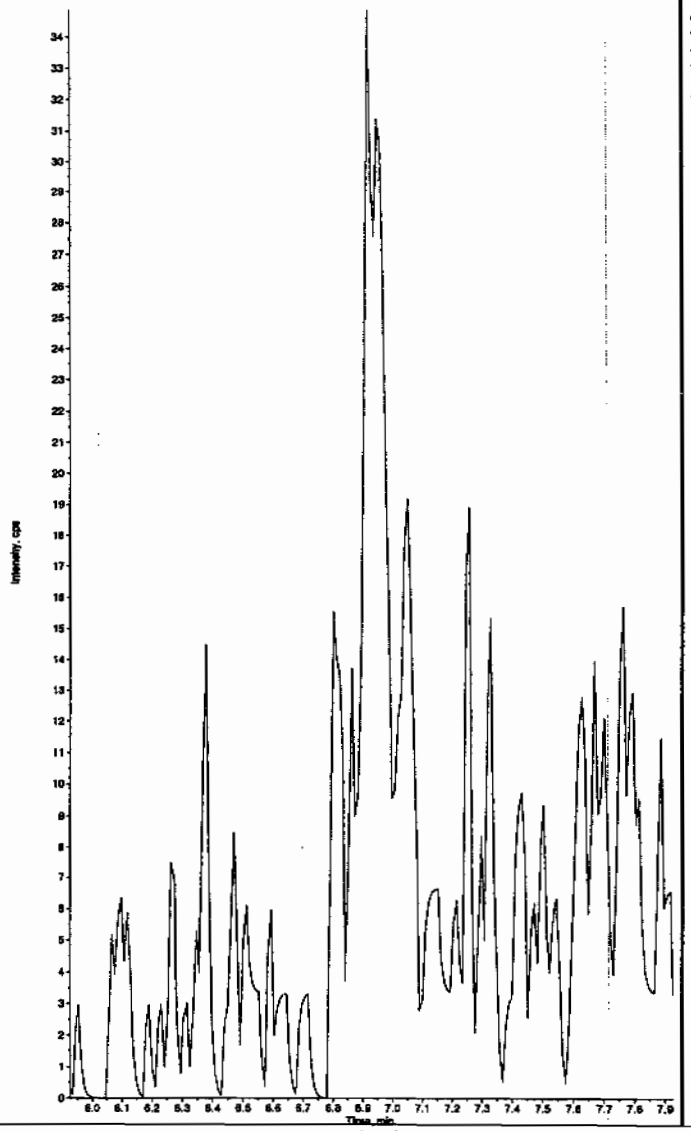

Sample Name: "247193007" Sample ID: "954328|2|LER" File: "EXS03100095.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 4:07:41 PM

Modified: No

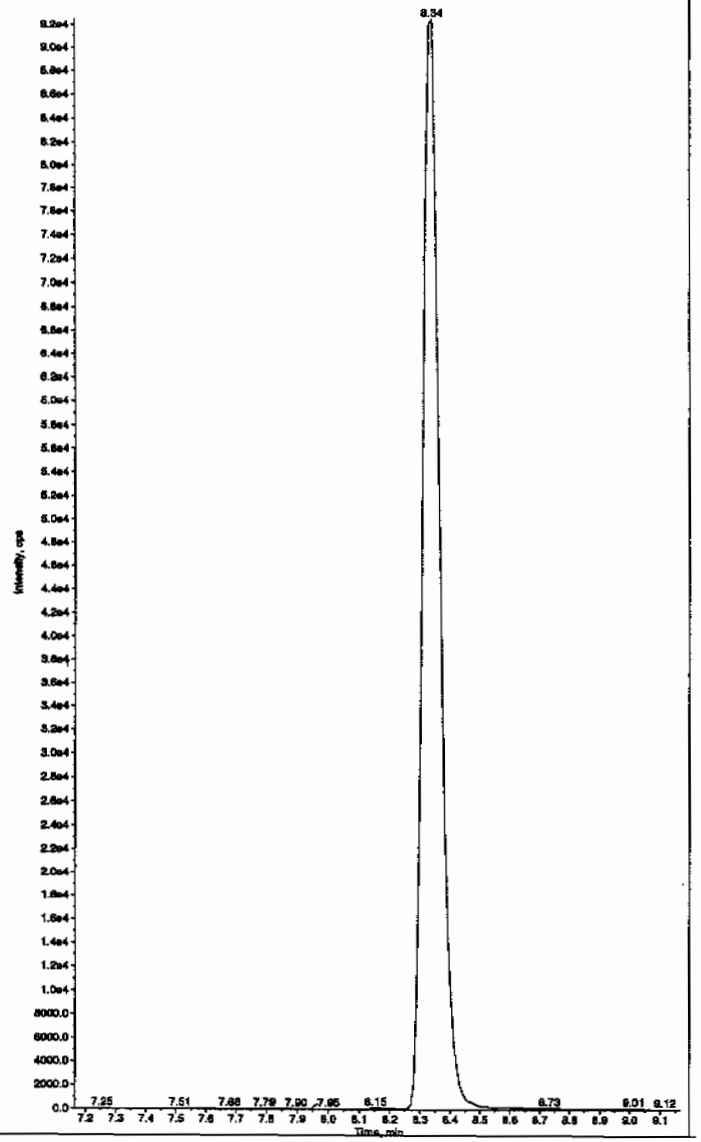

Hum 03/15/10

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Sample Name: "247193007" Sample ID: "954328|2|LER" File: "EXS03100095.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 280.. ng/mL
cq. Date: 3/11/2010
cq. Time: 4:07:41 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 1460.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 15.0 sec
xpected RT: 8.32 min
se Relative RT: No

nt. Type: Valley
etention Time: 8.33 min
rea: 2.82e+006 counts
eight: 726911.621 cps
tart Time: 8.21 min
nd Time: 8.67 min

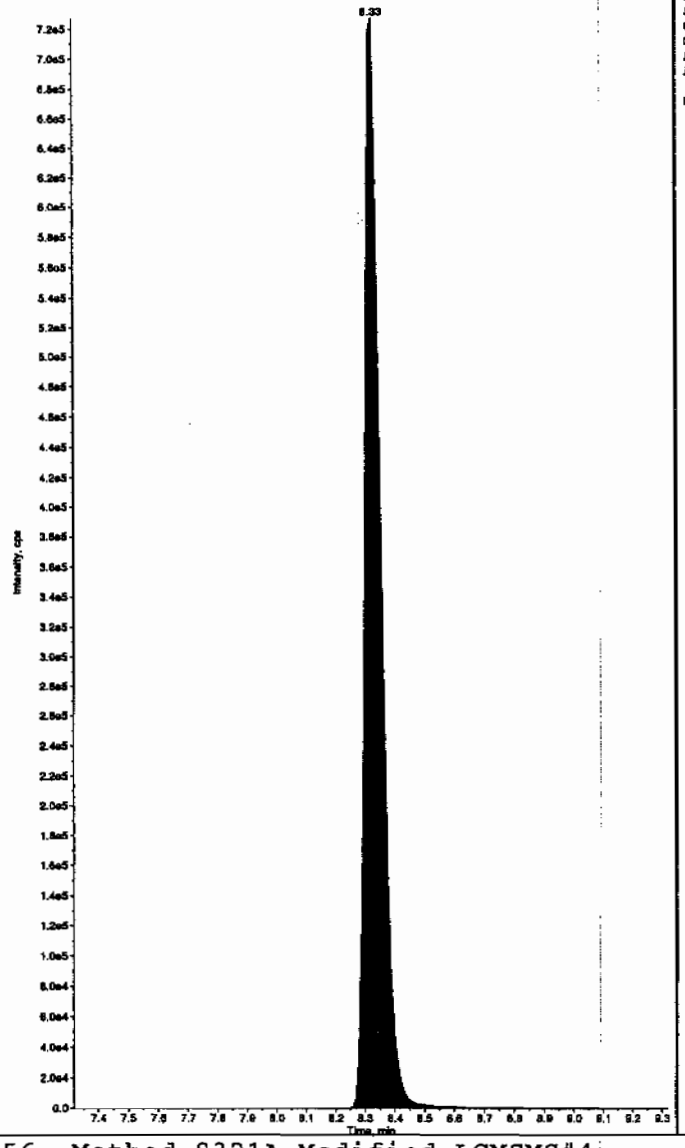

Sample Name: "247193007" Sample ID: "954328|2|LER" File: "EXS03100095.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 4:07:41 PM

Modified: No

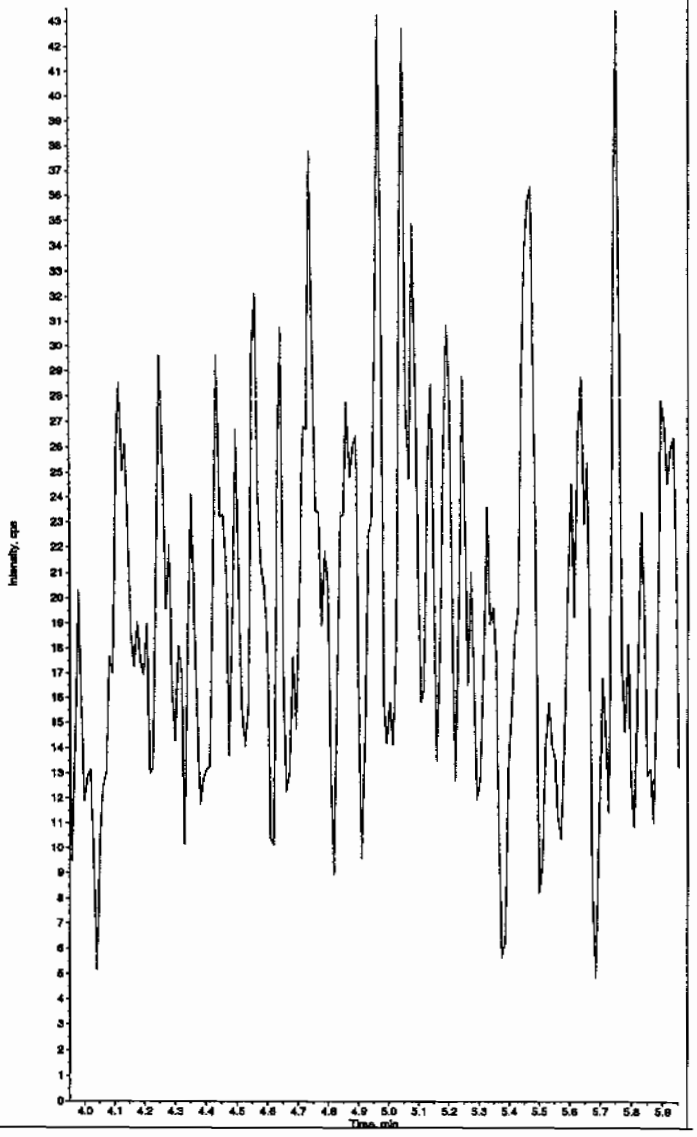

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "247193007" Sample ID: "954328[2]LER" File: "EXS03100095.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: "
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 4:07:41 PM

Modified: No

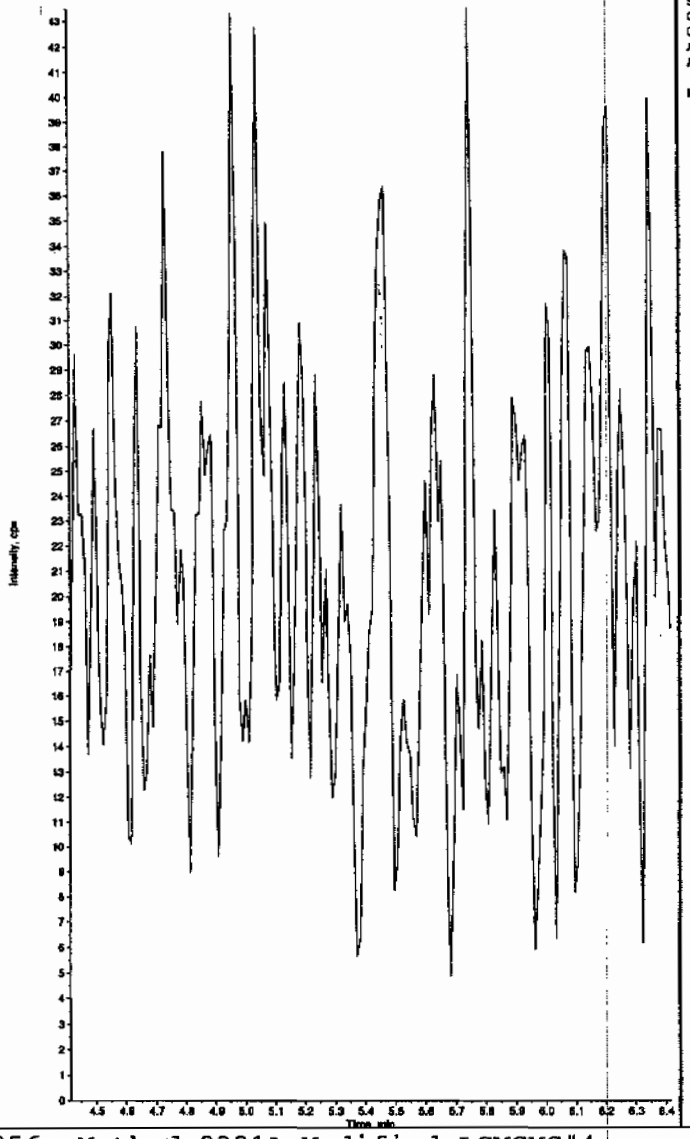

Sample Name: "247193007" Sample ID: "954328[2]LER" File: "EXS03100095.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "368.1/91.0 amu"
Comment: "LCX83212S" Annotation: "
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 4:07:41 PM

Modified: No

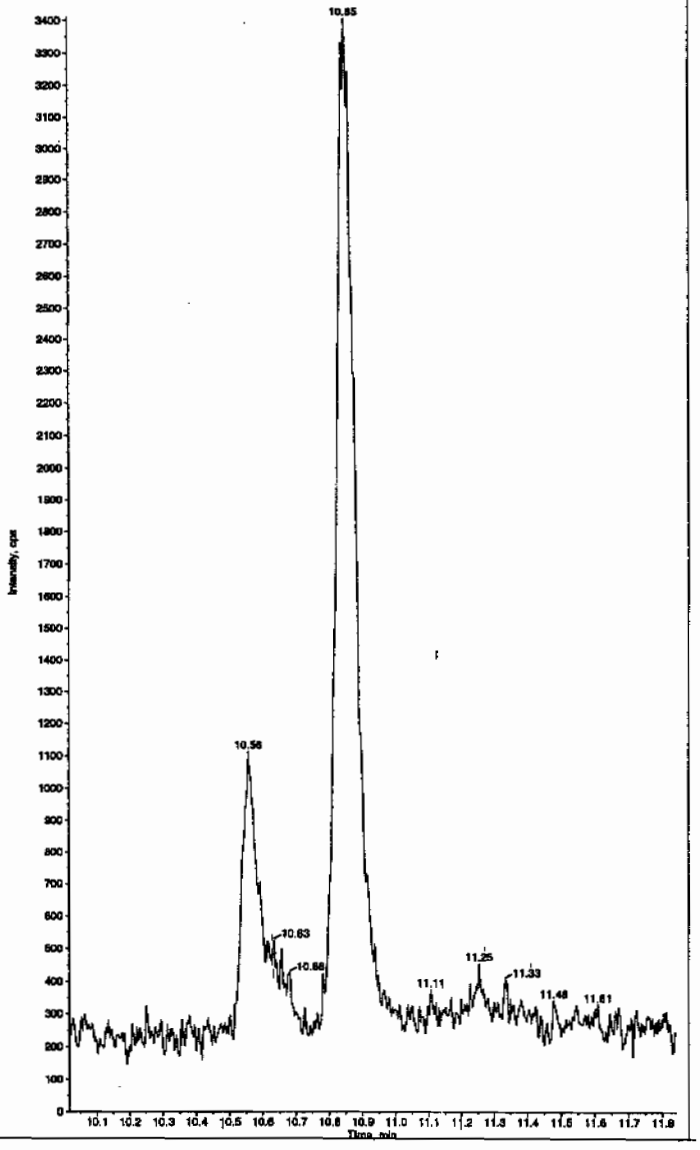

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8190

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193008

Sample Amount 2

Moisture: .9

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330031.wiff

Date Analyzed: 30-MAR-10 21:49

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330031.wiff	Acquisition Date	3/30/2010 9:49:07 PM
Sample Name	247193008	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

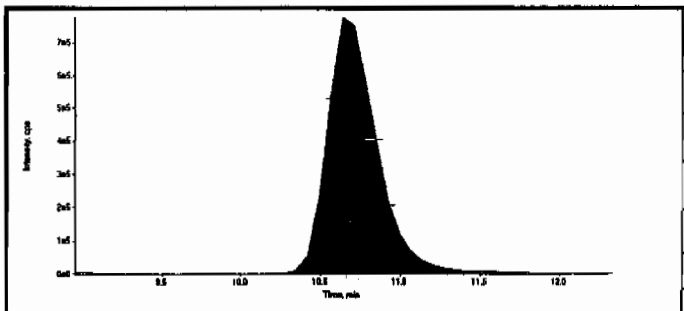

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	16800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

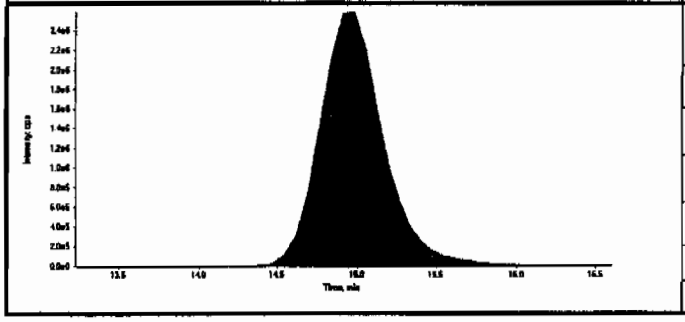

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	15.00
Area Counts:	72400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

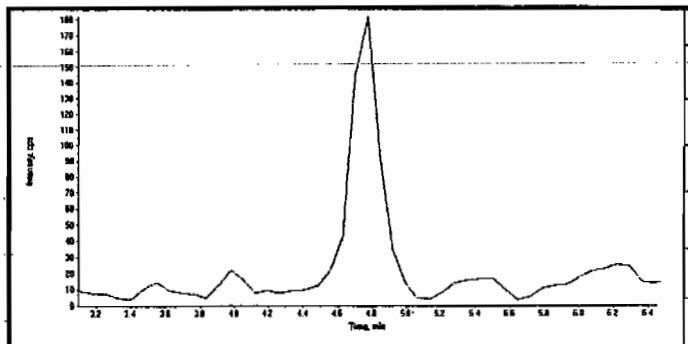

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

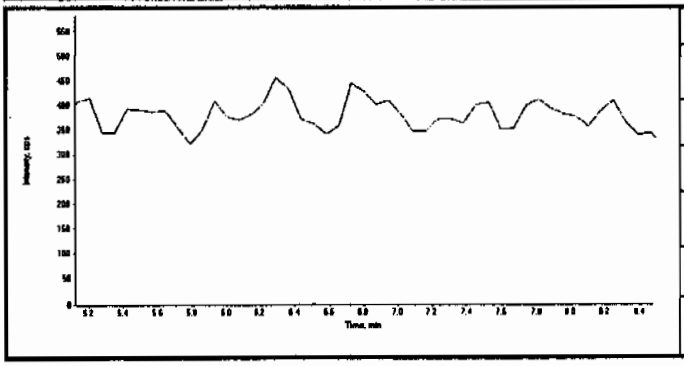

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

HMW 04/02/10
Jan 4/2/10

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Data File	EXP0330031.wiff	Acquisition Date	3/30/2010 9:49:07 PM
Sample Name	247193008	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

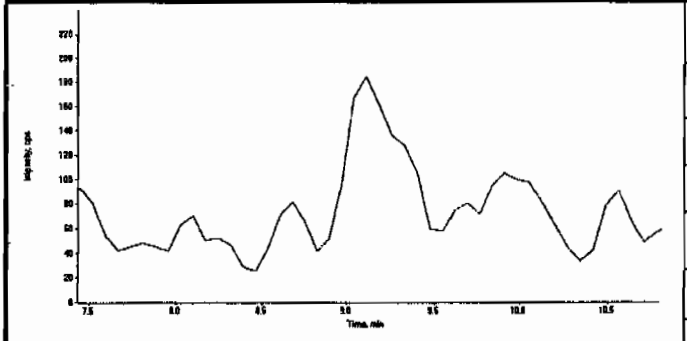

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

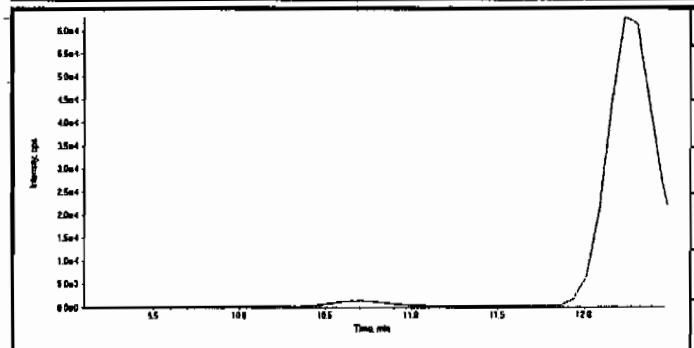

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

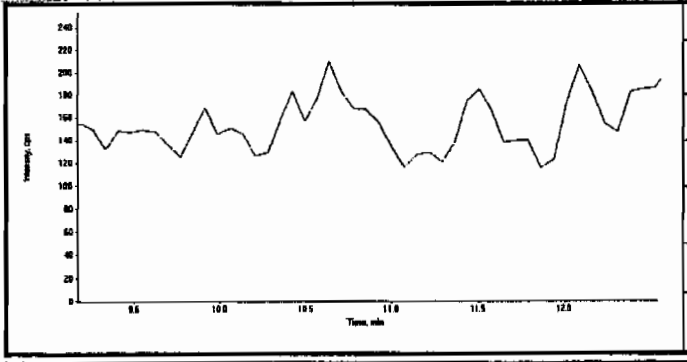

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

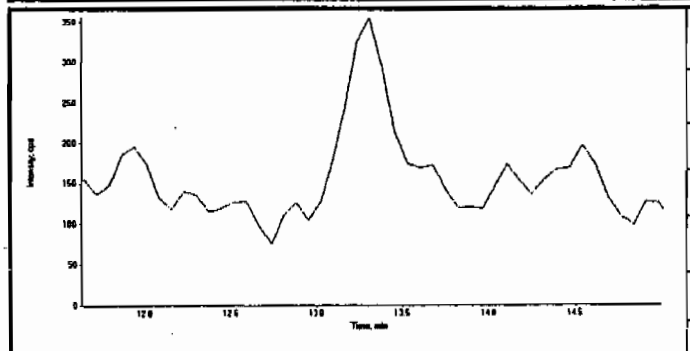

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330031.wiff	Acquisition Date	3/30/2010 9:49:07 PM
Sample Name	247193008	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

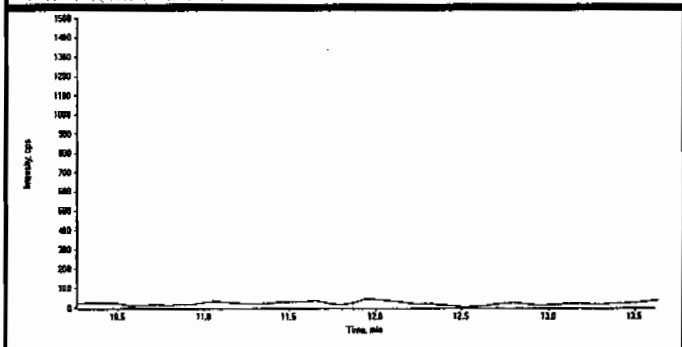

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

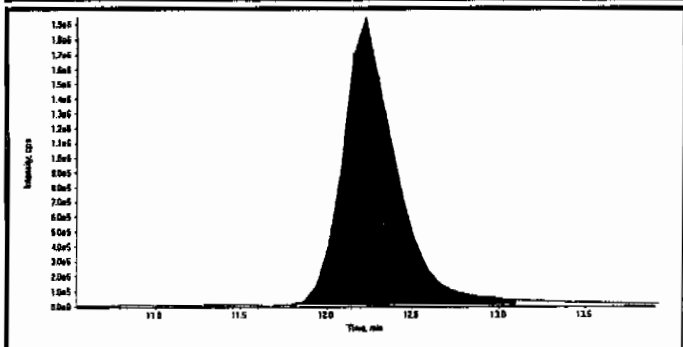

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	12.2
Area Counts:	4.19e+007
Manual Modification	No
Amount:	249. (ng/mL)
% Accuracy:	N/A

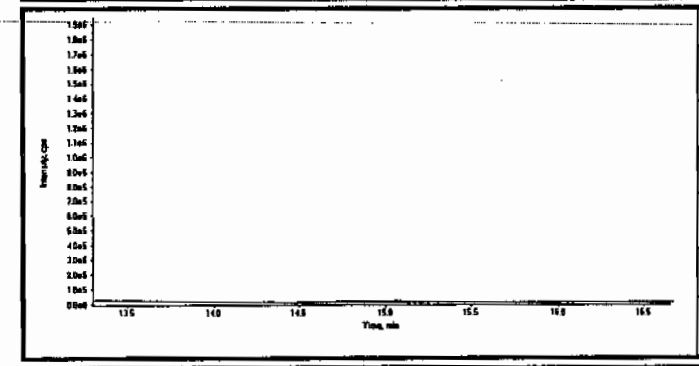

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	15.0
Area Counts:	6.39e+005
Manual Modification	No
Amount:	4.88 (ng/mL)
% Accuracy:	N/A

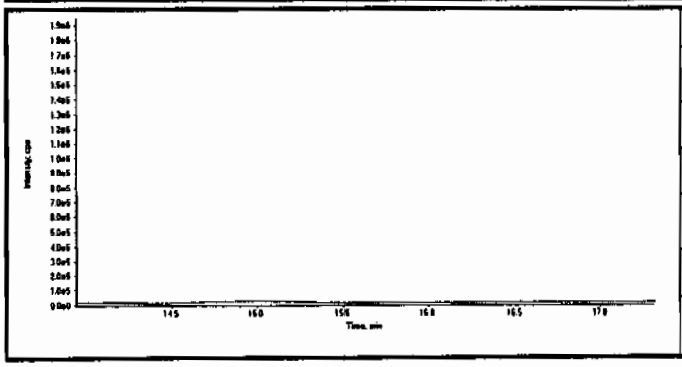

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330031.wiff	Acquisition Date	3/30/2010 9:49:07 PM
Sample Name	247193008	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

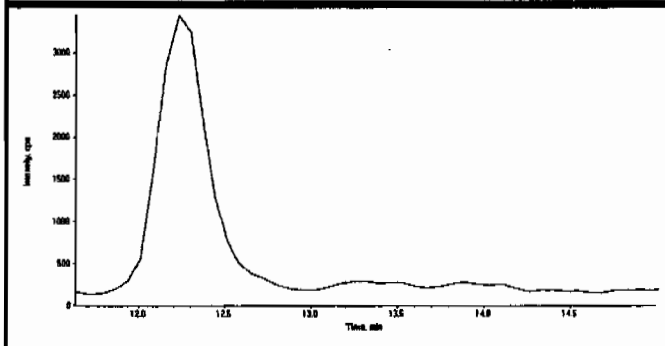

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

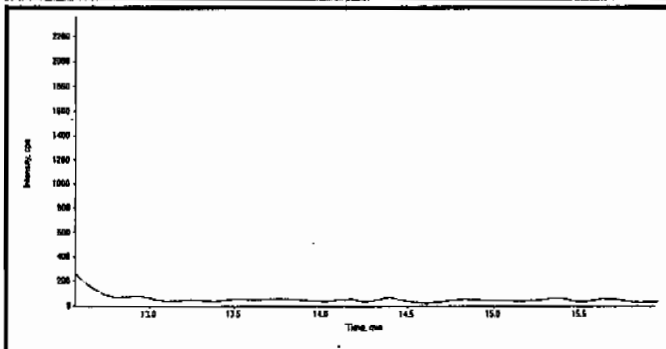

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

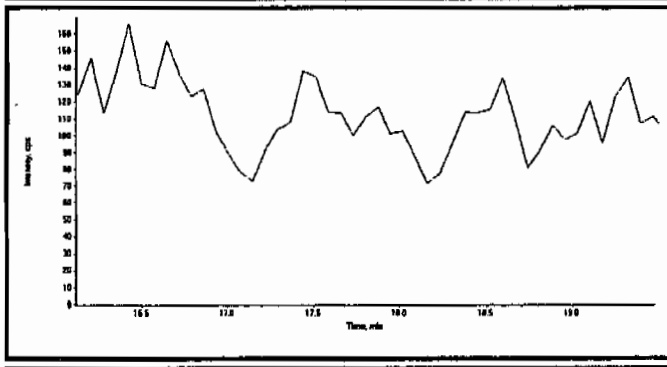

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

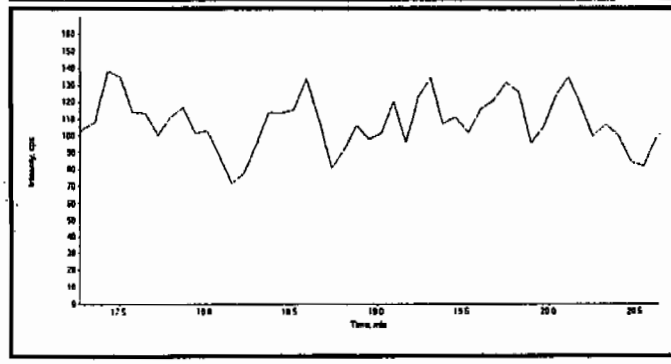

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330031.wiff	**Acquisition Date**	3/30/2010 9:49:07 PM
Sample Name	247193008	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

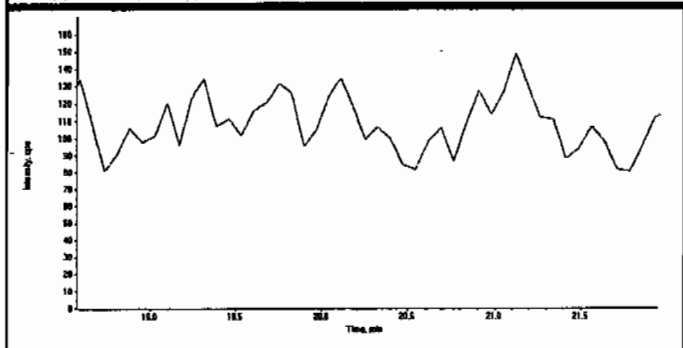

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

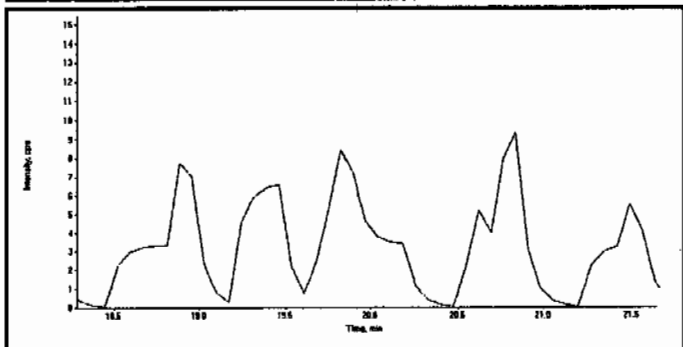

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8190

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193008

Sample Amount 2

Moisture: .9

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100096.wiff

Date Analyzed: 11-MAR-10 16:23

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ran 3/14/10

Sample Name: "247193008" Sample ID: "954328|2|LER" File: "EXS03100096.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCXB3212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 4:23:23 PM

Modified: No

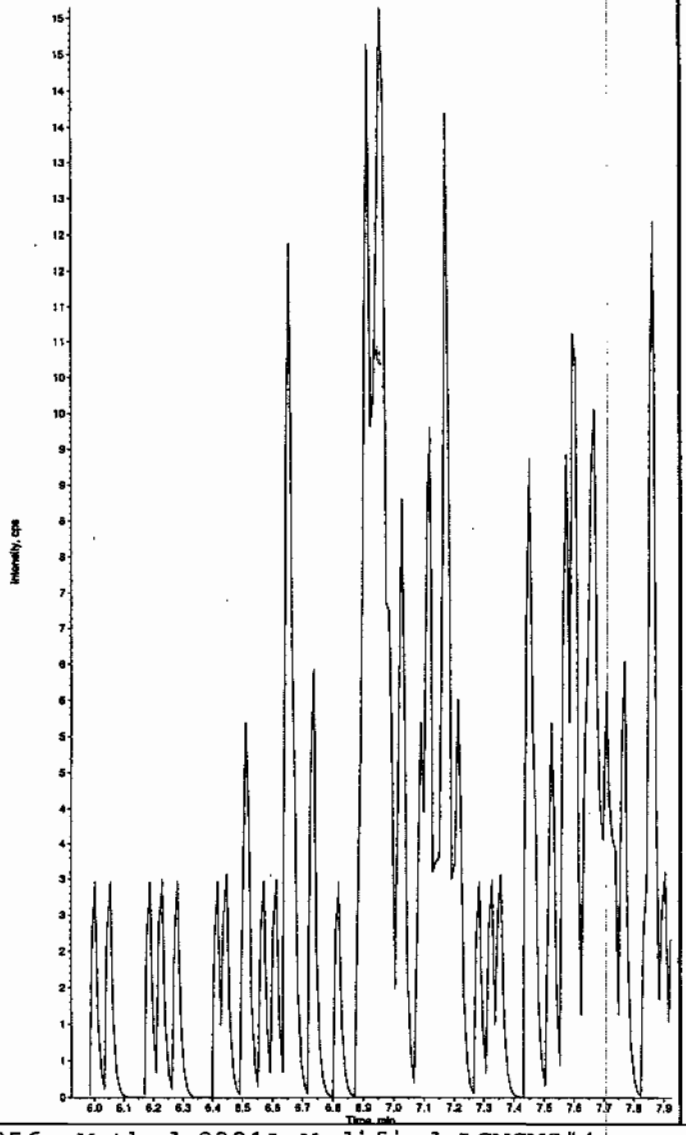

Sample Name: "247193008" Sample ID: "954328|2|LER" File: "EXS03100096.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCXB3212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 4:23:23 PM

Modified: No

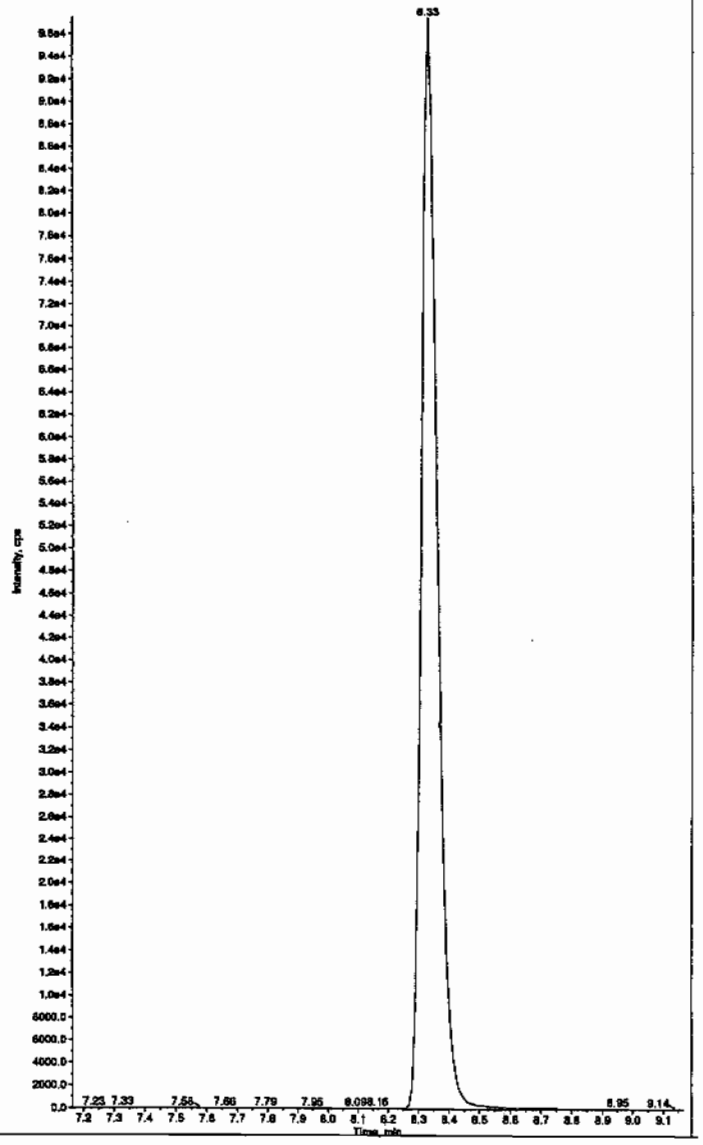

HMW 03/15/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "247193008" Sample ID: "954328[2]LER" File: "EXS03100096.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 273. ng/mL
cq. Date: 3/11/2010
cq. Time: 4:23:23 PM

odified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
moothing Width: 3 points
Window: 15.0 sec
xpected RT: 8.32 min
se Relative RT: No

eak Type: Valley
etention Time: 8.33 min
rea: 2.74e+006 counts
eight: 735850.708 cps
tart Time: 8.24 min
nd Time: 8.67 min

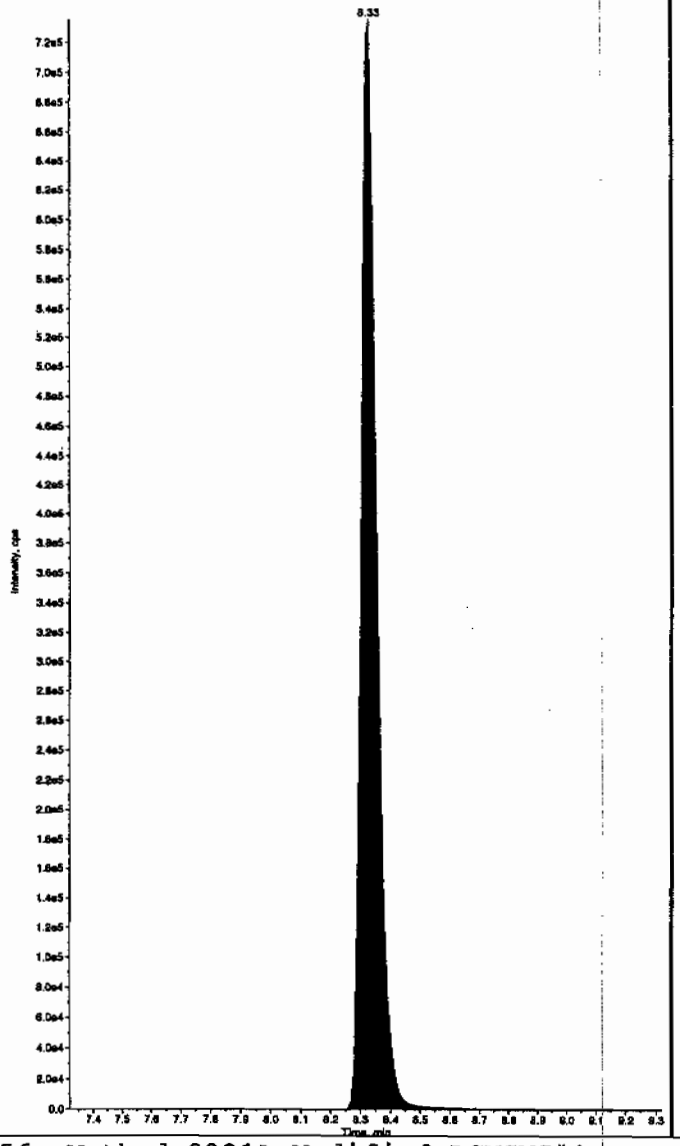

Sample Name: "247193008" Sample ID: "954328[2]LER" File: "EXS03100096.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 4:23:23 PM

Modified: No

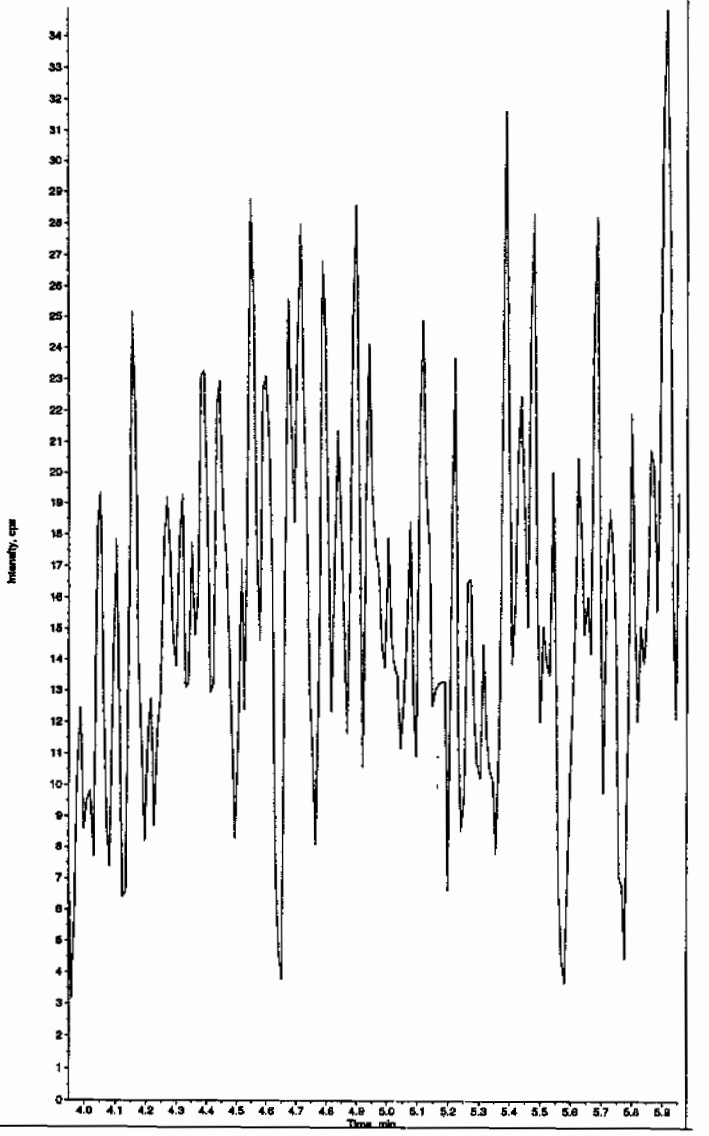

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Sample Name: "247193008" Sample ID: "954328[2]LER" File: "EXS03100096.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 4:23:23 PM

Modified: No

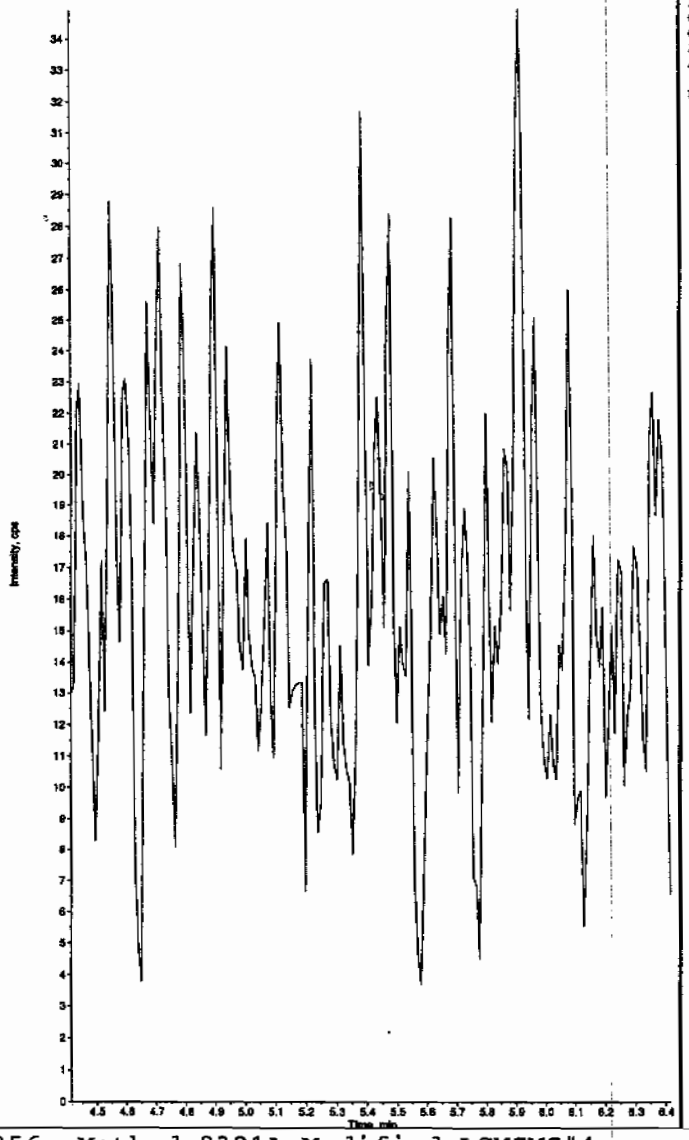

Sample Name: "247193008" Sample ID: "954328[2]LER" File: "EXS03100096.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 4:23:23 PM

Modified: No

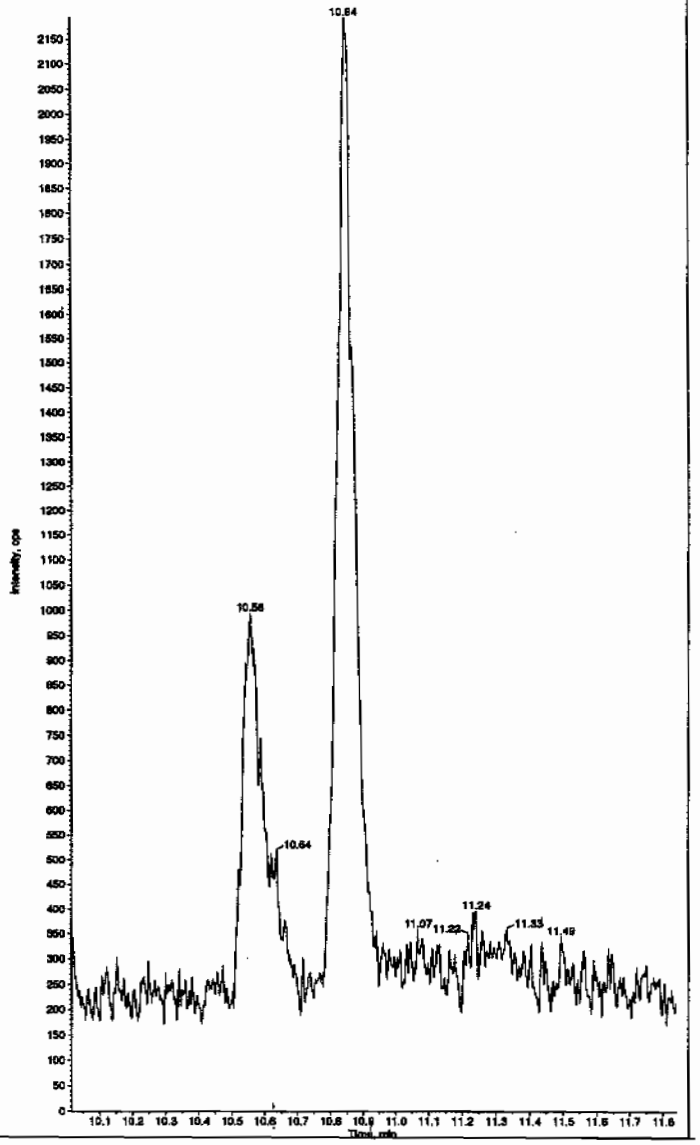

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8193

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193009

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330032.wiff

Date Analyzed: 30-MAR-10 22:15

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330032.wiff	**Acquisition Date**	3/30/2010 10:15:30 PM
Sample Name	247193009	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

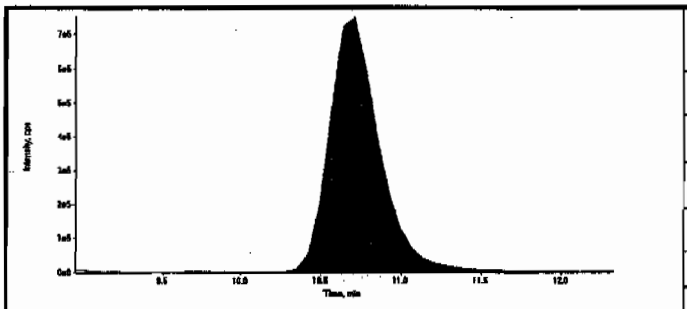

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	16300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

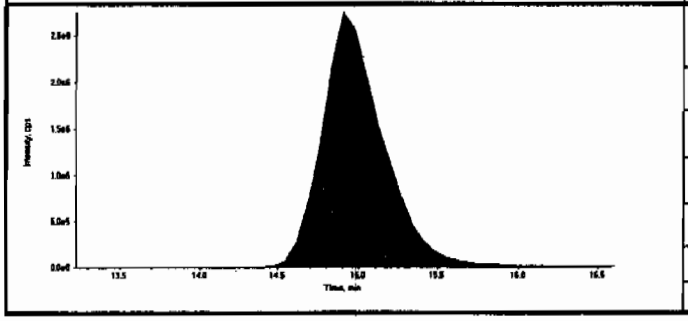

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	73300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

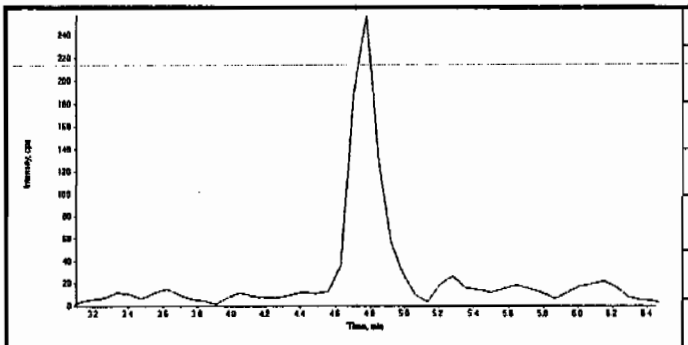

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

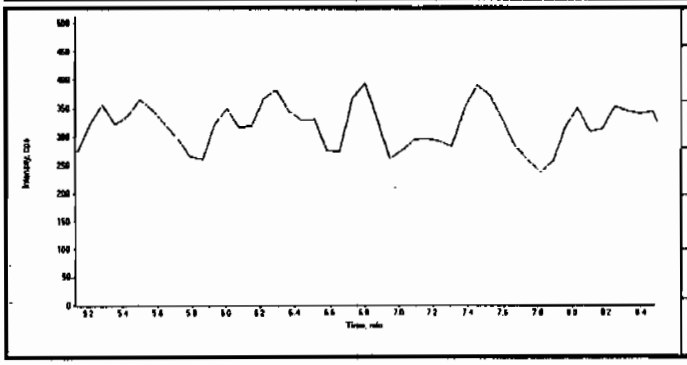

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Jen 4/2/10 Hmc 04/02/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330032.wiff	Acquisition Date	3/30/2010 10:15:30 PM
Sample Name	247193009	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

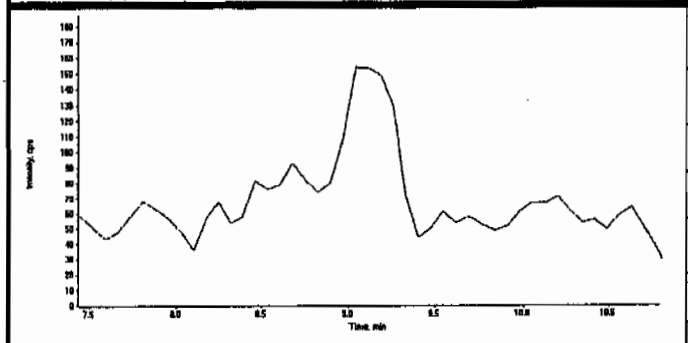

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

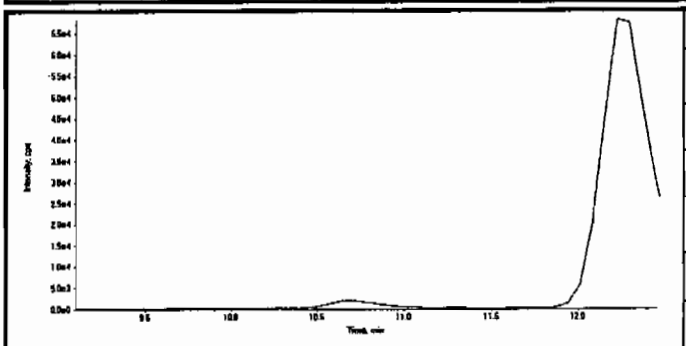

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

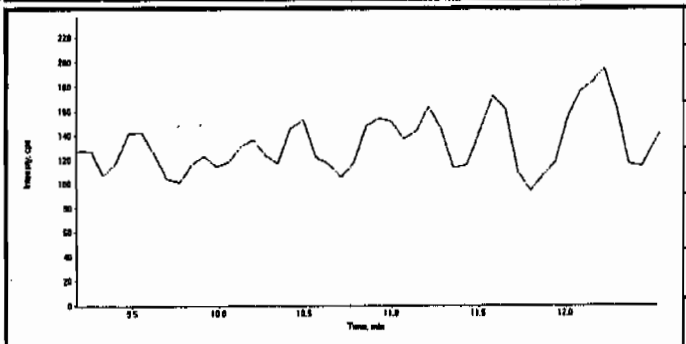

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

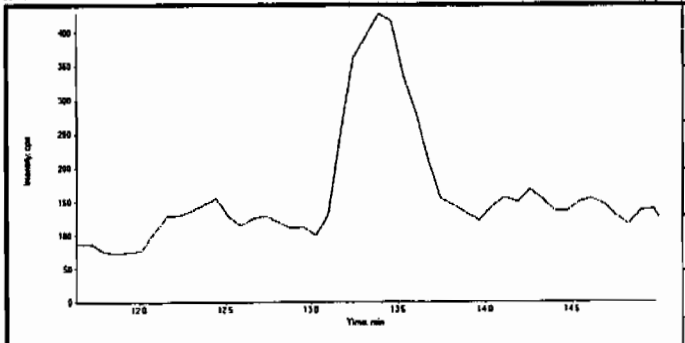

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330032.wiff	**Acquisition Date**	3/30/2010 10:15:30 PM
Sample Name	247193009	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

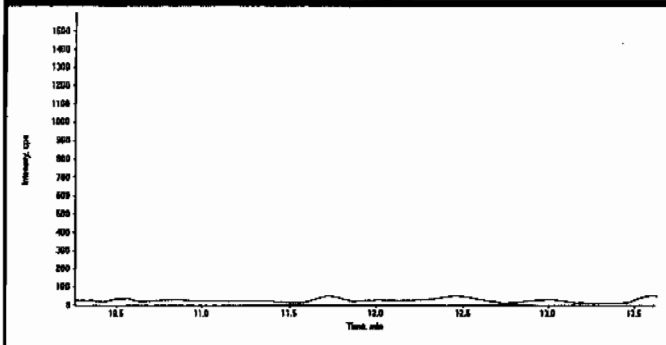

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

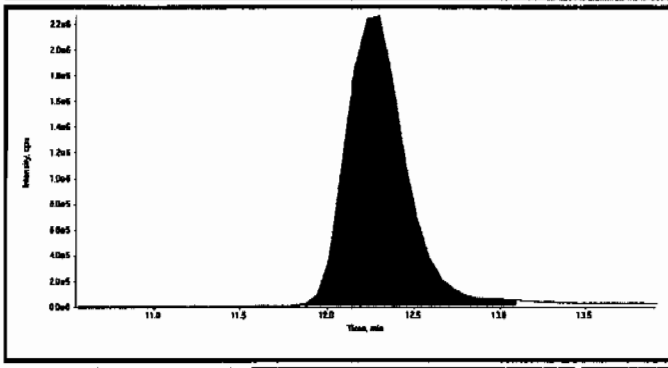

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	12.3
Area Counts:	5.44e+007
Manual Modification	No
Amount:	319. (ng/mL)
% Accuracy:	N/A

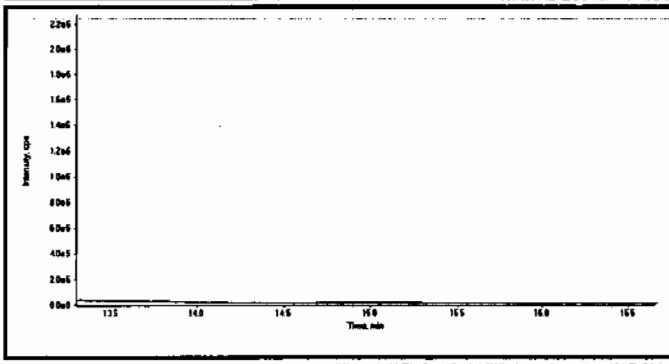

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	14.9
Area Counts:	6.73e+005
Manual Modification	No
Amount:	5.08 (ng/mL)
% Accuracy:	N/A

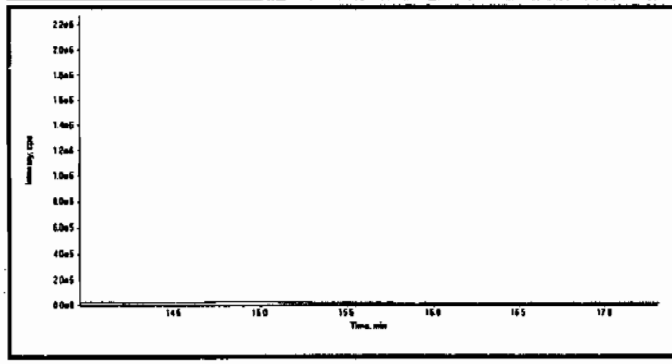

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0330032.wiff	Acquisition Date	3/30/2010 10:15:30 PM
Sample Name	247193009	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

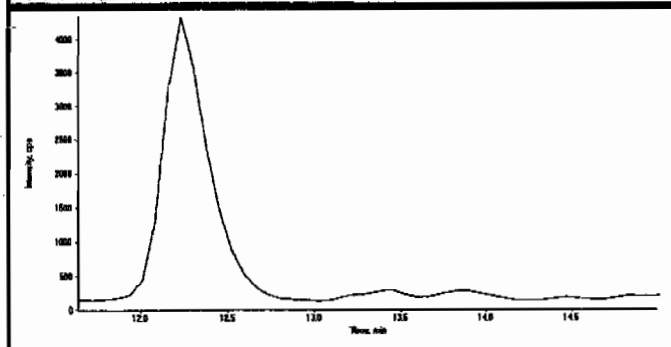

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

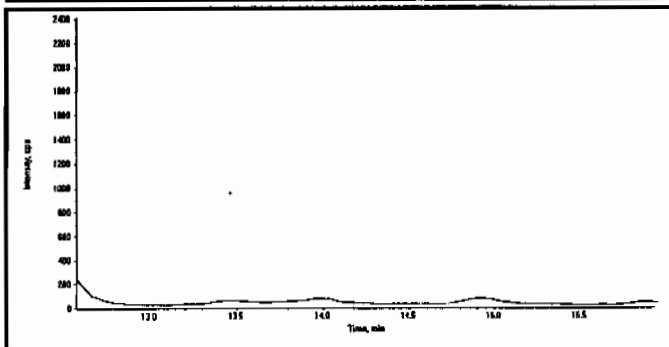

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

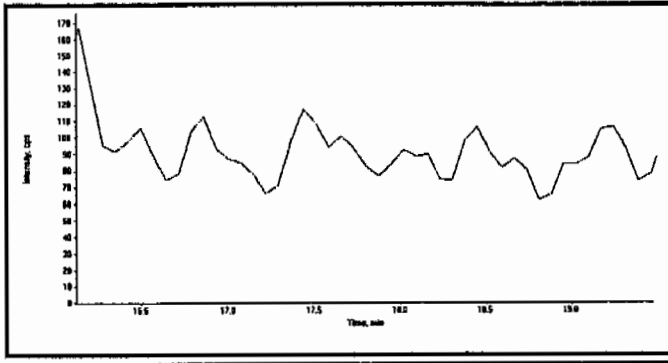

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

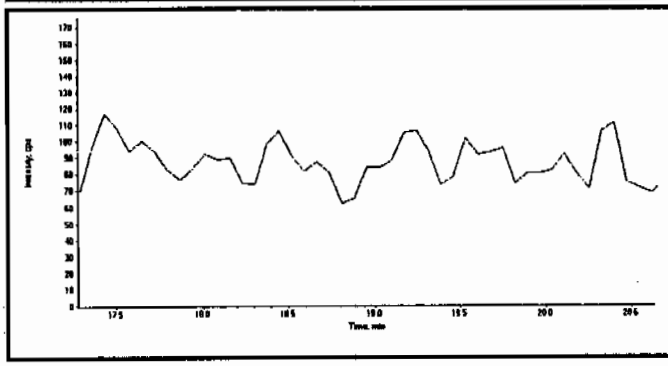

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330032.wiff	**Acquisition Date**	3/30/2010 10:15:30 PM
Sample Name	247193009	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

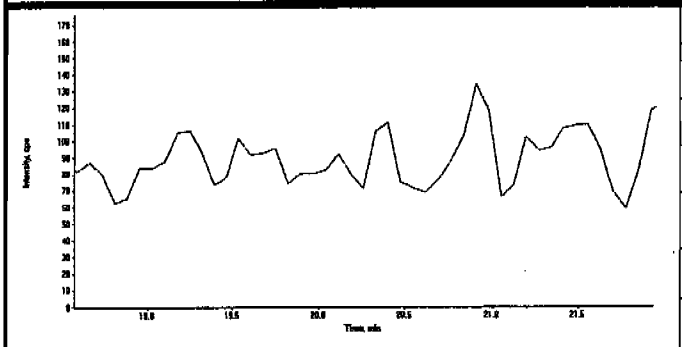

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

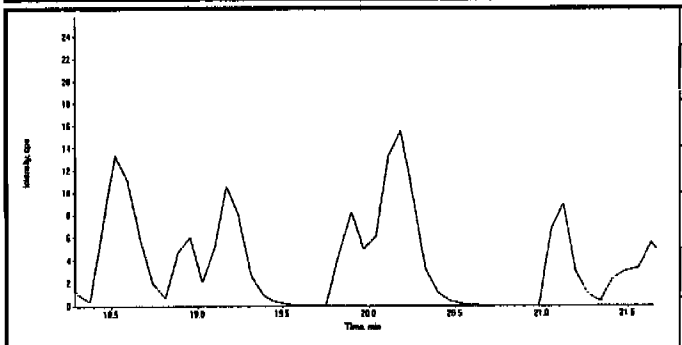

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8193

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193009

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100097.wiff

Date Analyzed: 11-MAR-10 16:39

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Rcn 3/14/10

Sample Name: "247193009" Sample ID: "954328|2|LER" File: "EXS03100097.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 3/11/2010
q. Time: 4:39:04 PM

dified: No

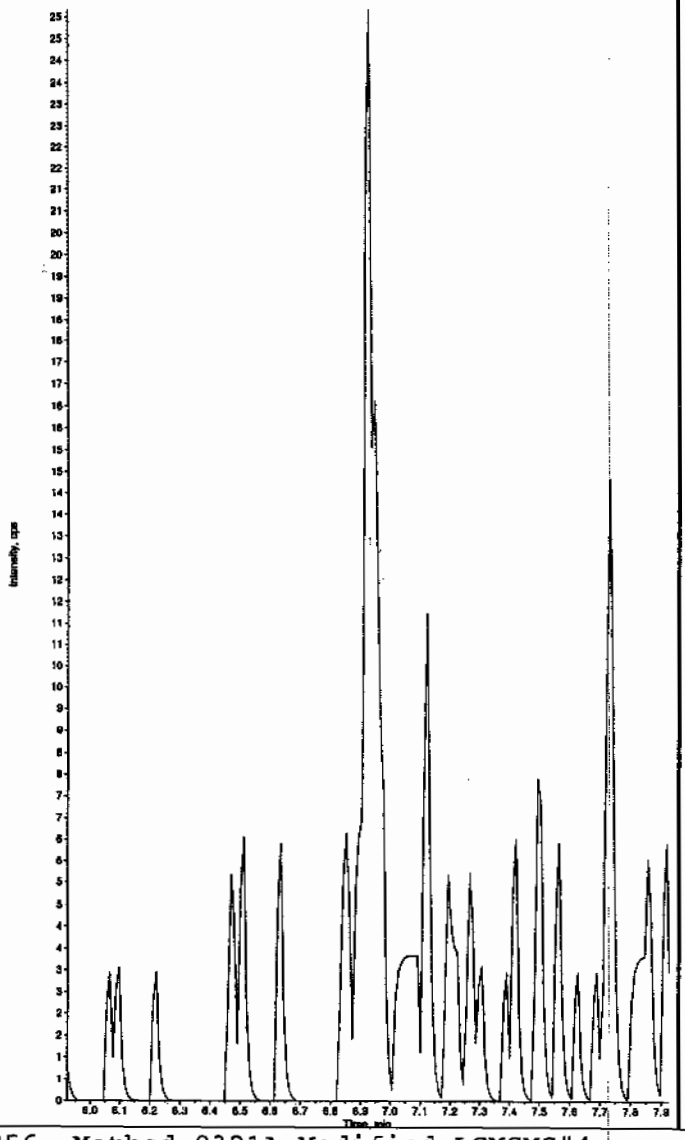

Sample Name: "247193009" Sample ID: "954328|2|LER" File: "EXS03100097.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 4:39:04 PM

Modified: No

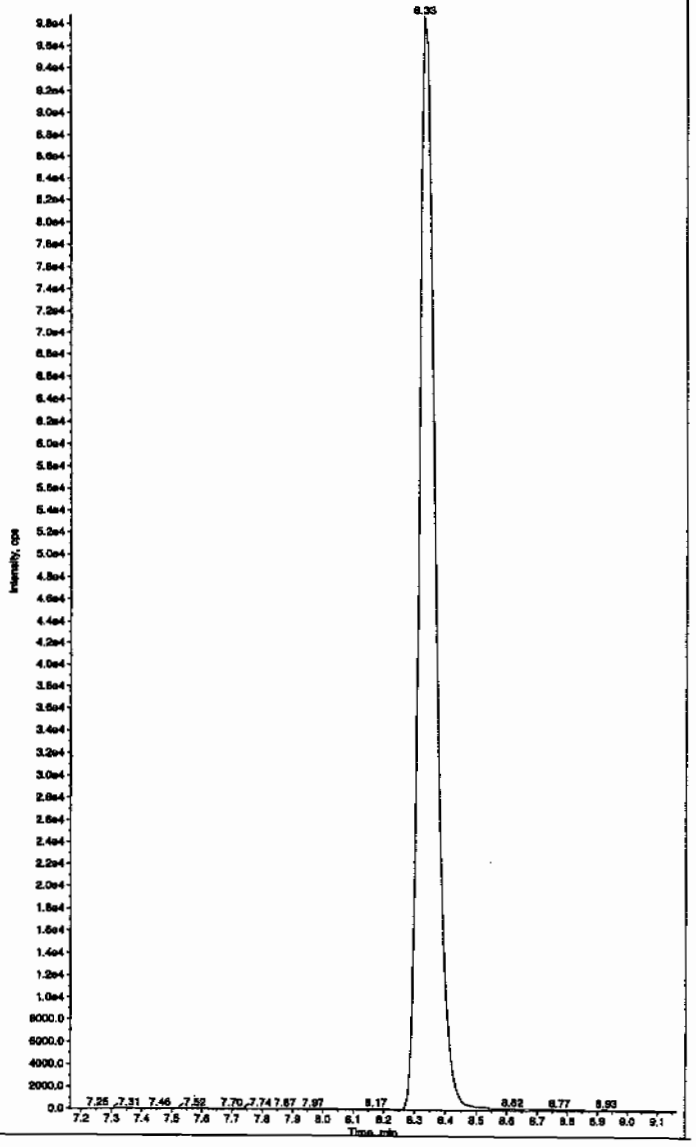

HMW 03/15/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "247193009" Sample ID: "954328|2|LER" File: "EXS03100097.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX832125" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 285. ng/mL
cq. Date: 3/11/2010
cq. Time: 4:39:04 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 1460.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 15.0 sec
xpected RT: 8.32 min
se Relative RT: No

nt. Type: Valley
etention Time: 8.33 min
rea: 2.86e+006 counts
eight: 764944.275 cps
tart Time: 8.24 min
nd Time: 8.64 min

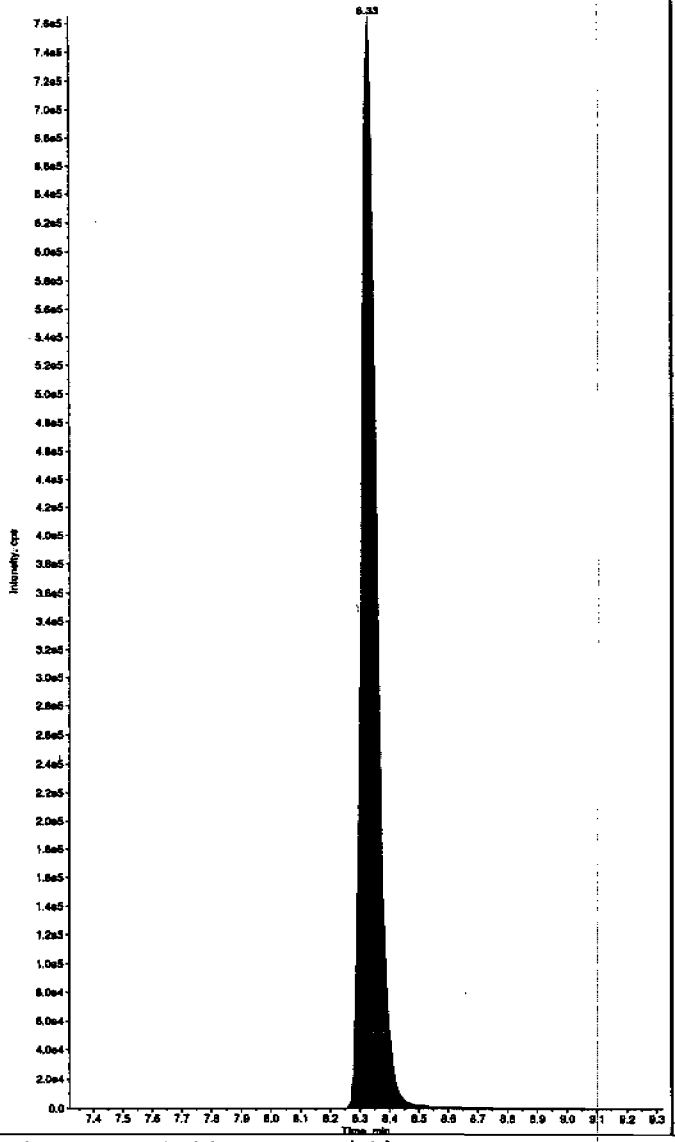

Sample Name: "247193009" Sample ID: "954328|2|LER" File: "EXS03100097.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 4:39:04 PM

Modified: No

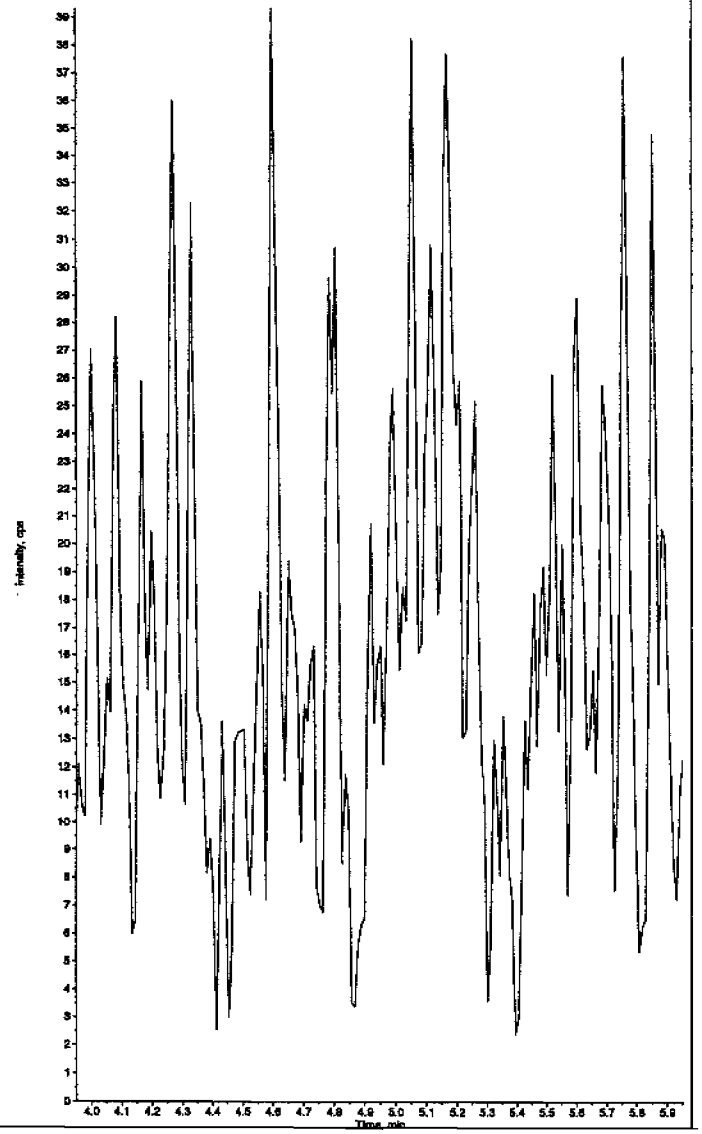

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Sample Name: "247193009" Sample ID: "954328|2|LER" File: "EXS03100097.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 4:39:04 PM

Modified: No

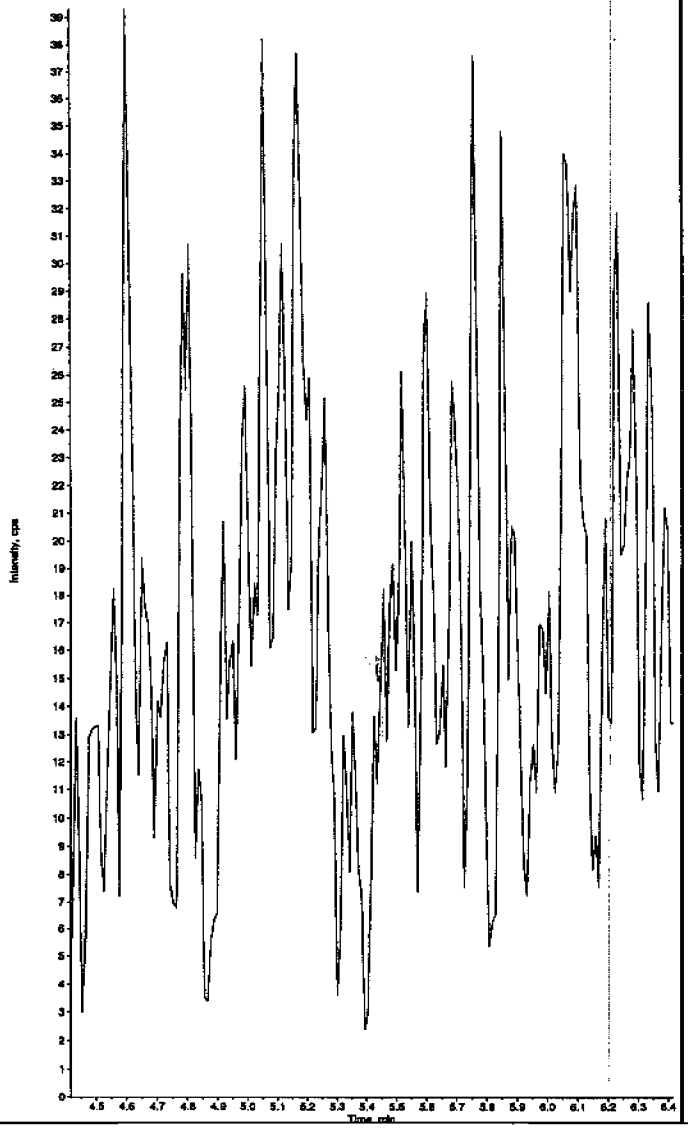

Sample Name: "247193009" Sample ID: "954328|2|LER" File: "EXS03100097.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 4:39:04 PM

Modified: No

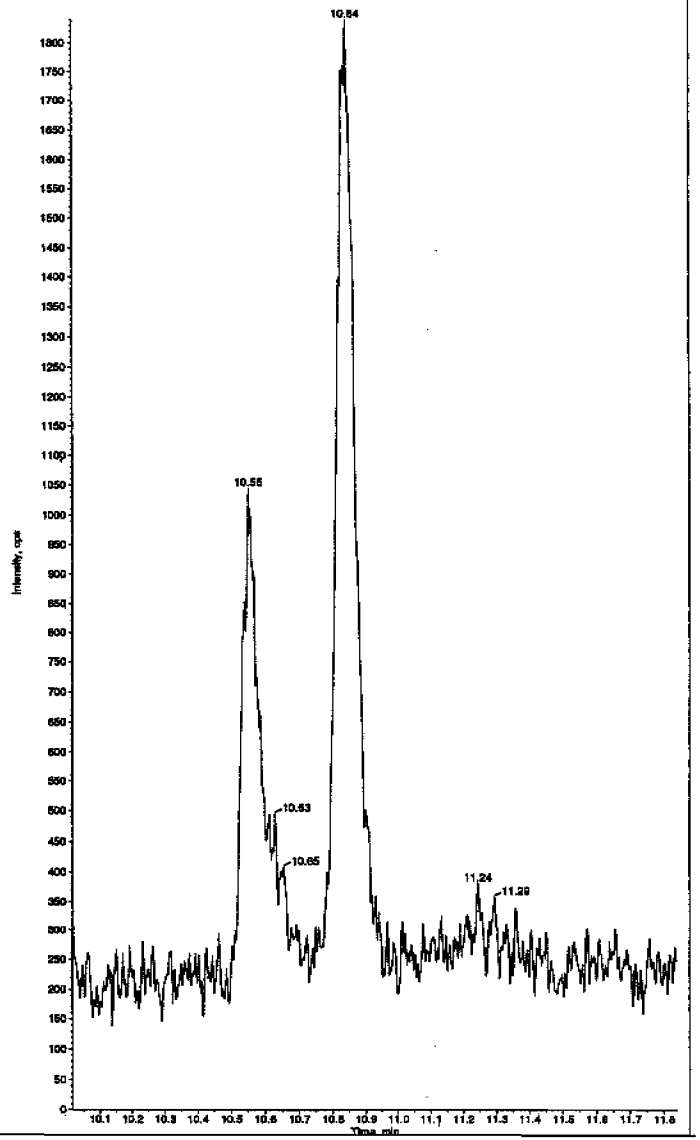

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8191

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193010

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330033.wiff

Date Analyzed: 30-MAR-10 22:41

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330033.wiff	Acquisition Date	3/30/2010 10:41:50 PM
Sample Name	247193010	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

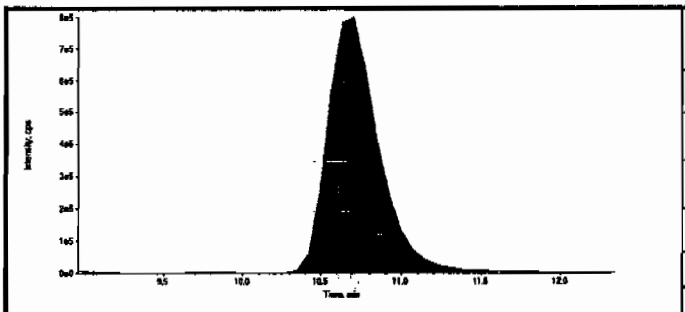

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	17800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

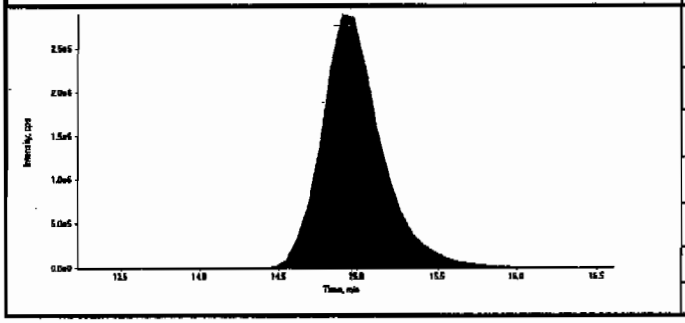

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	75500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

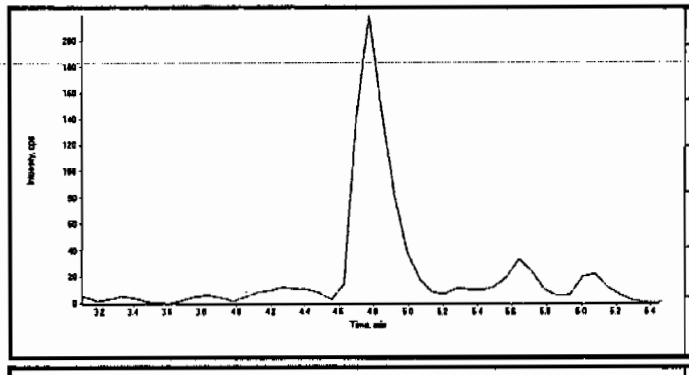

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

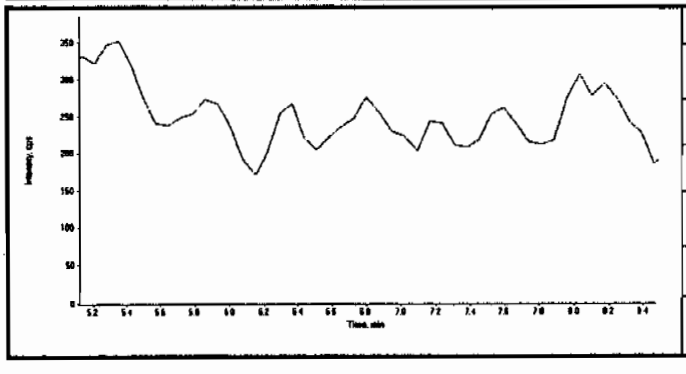

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Hmm 04/02/10
JCM 4/2/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330033.wiff	Acquisition Date	3/30/2010 10:41:50 PM
Sample Name	247193010	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

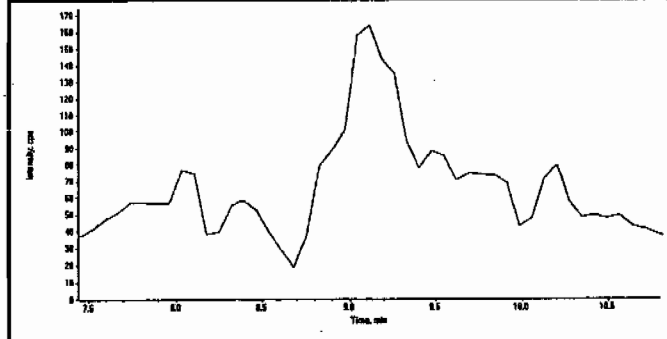

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

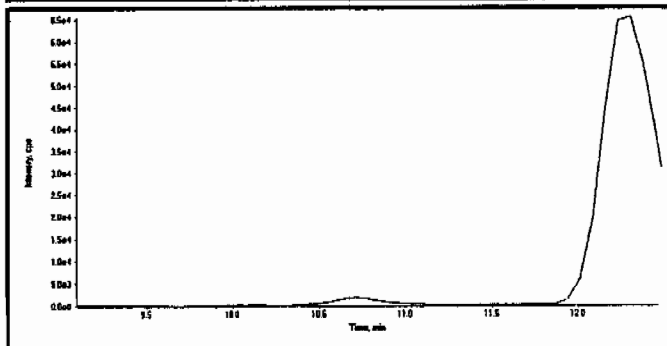

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

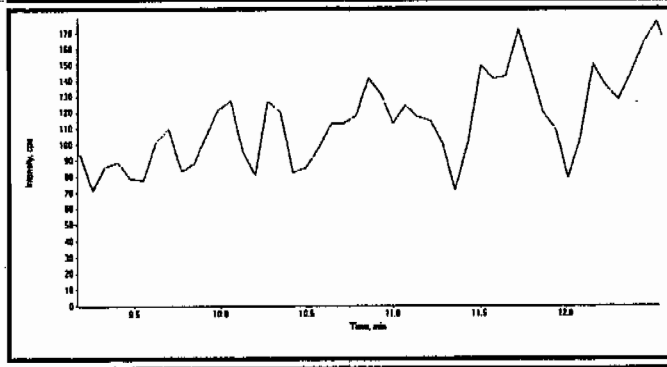

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

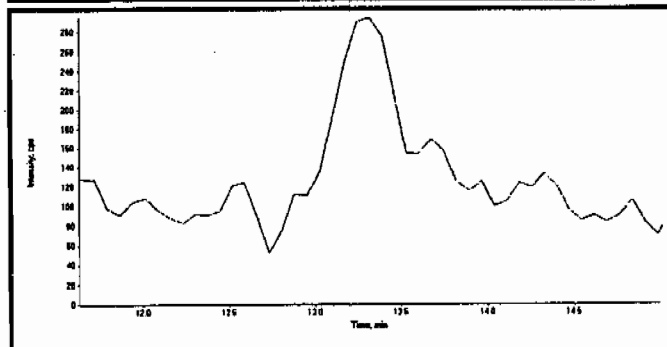

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330033.wiff	Acquisition Date	3/30/2010 10:41:50 PM
Sample Name	247193010	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

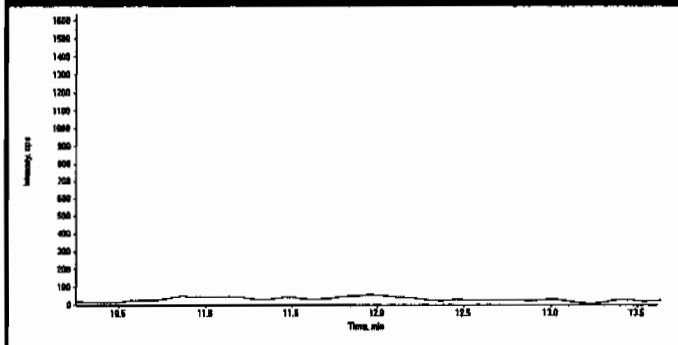

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

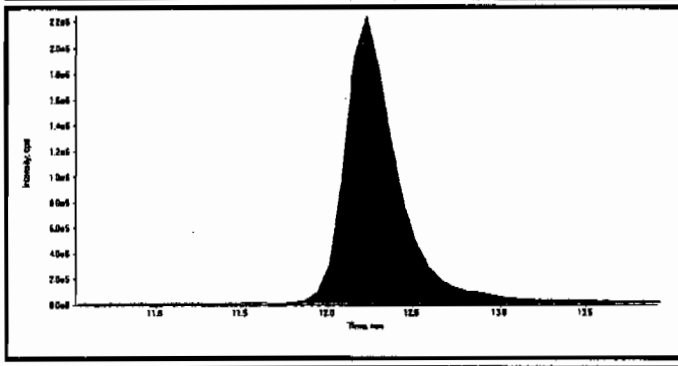

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	12.2
Area Counts:	4.84e+007
Manual Modification	No
Amount:	275. (ng/mL)
% Accuracy:	N/A

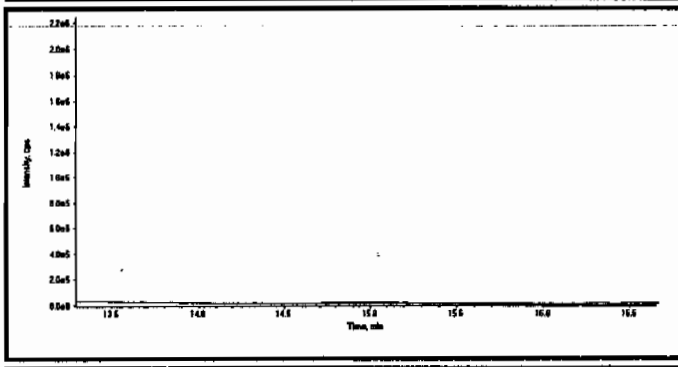

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	15.0
Area Counts:	6.35e+005
Manual Modification	No
Amount:	4.65 (ng/mL)
% Accuracy:	N/A

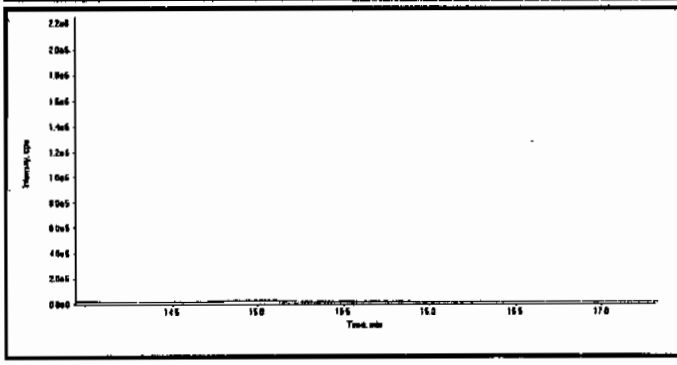

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330033.wiff	**Acquisition Date**	3/30/2010 10:41:50 PM
Sample Name	247193010	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	Unknown

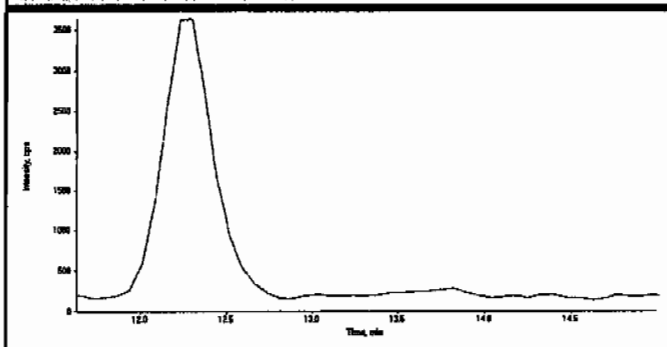

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

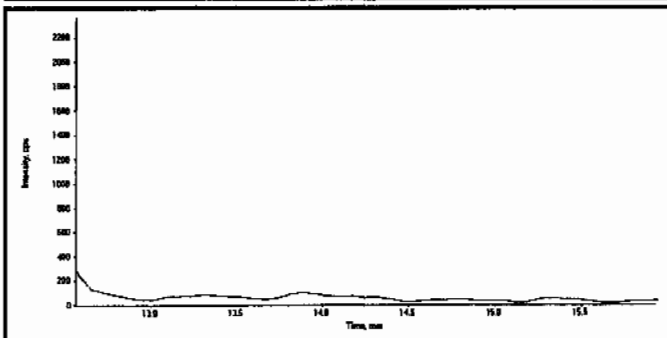

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

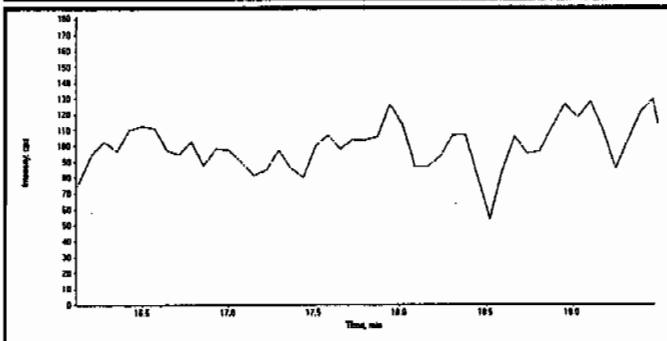

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

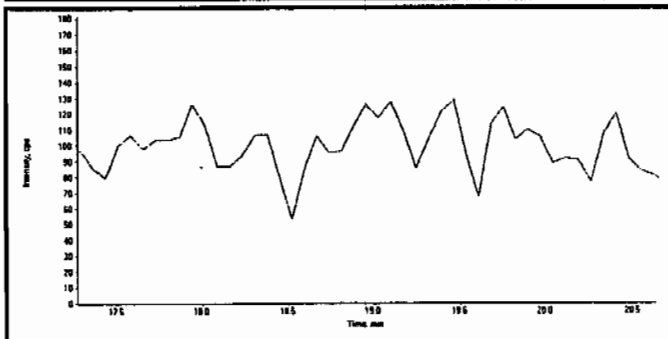

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330033.wiff	Acquisition Date	3/30/2010 10:41:50 PM
Sample Name	247193010	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table -	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

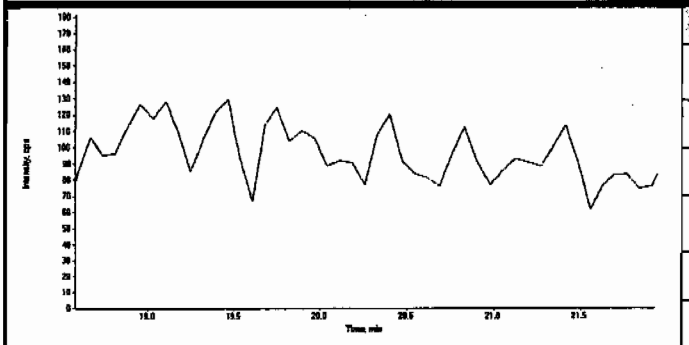

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

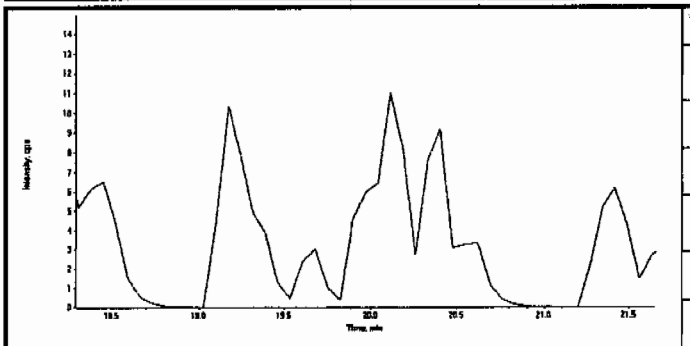

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8191

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193010

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100098.wiff

Date Analyzed: 11-MAR-10 16:54

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

LCM 3/14/10

Sample Name: "247193010" Sample ID: "954328[2]LER" File: "EXS03100096.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 4:54:45 PM
Modified: No

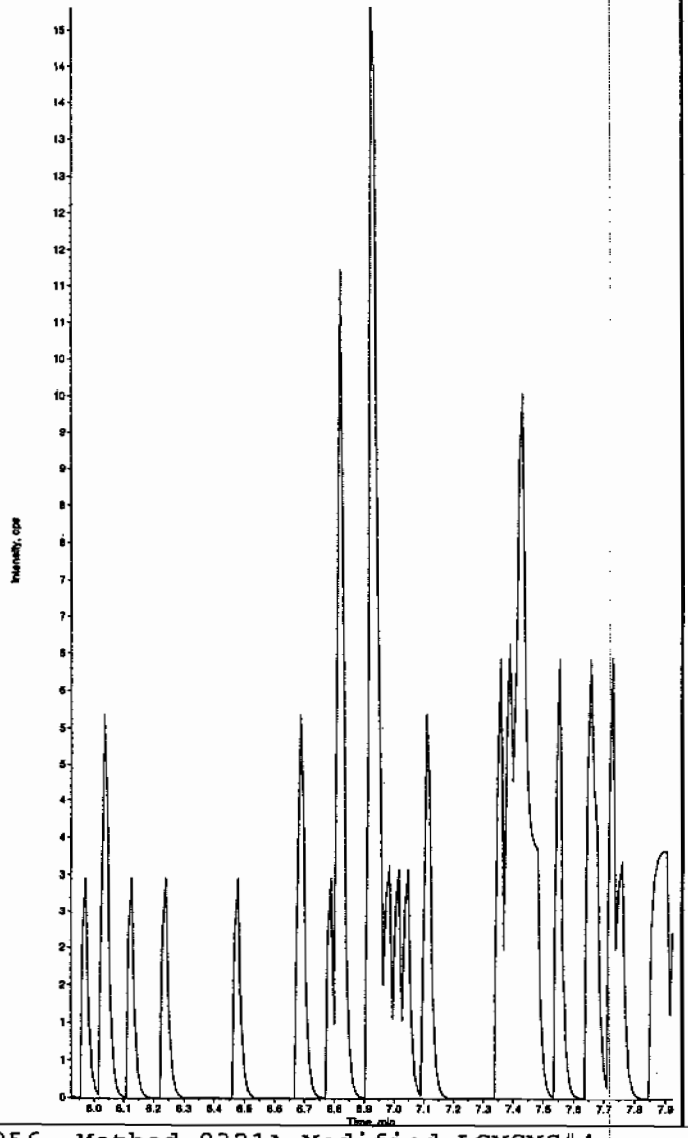

Sample Name: "247193010" Sample ID: "954328[2]LER" File: "EXS03100098.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 4:54:45 PM
Modified: No

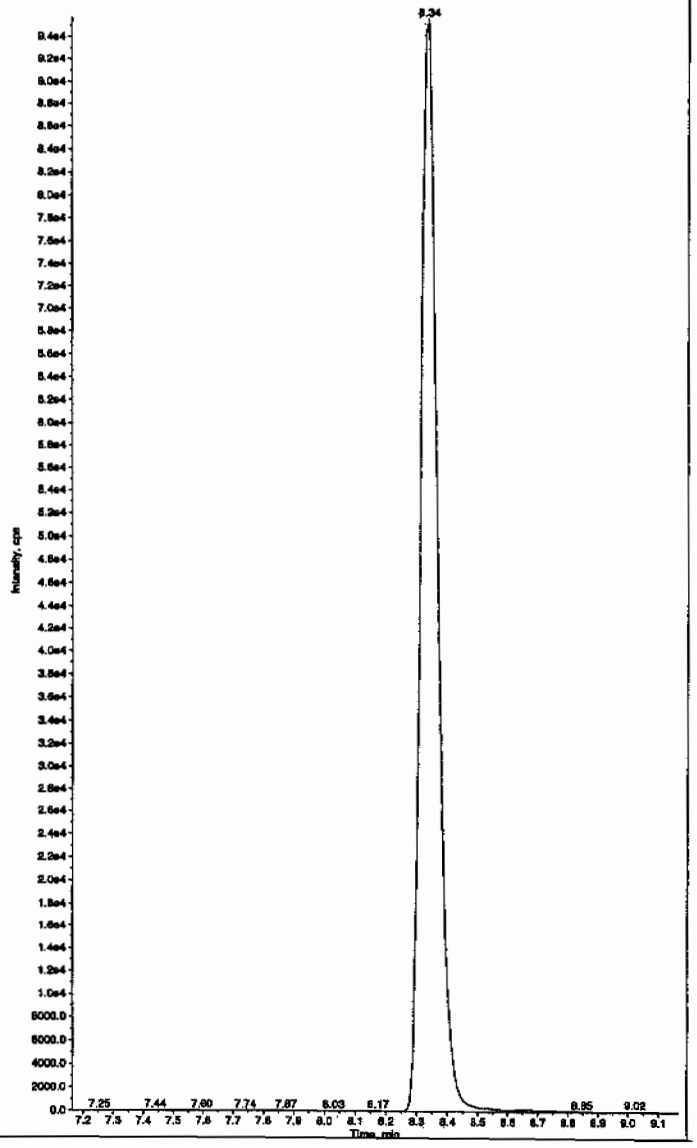

HMM 03/15/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "247193010" Sample ID: "954328[2]LER" File: "EXS03100098.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 286. ng/mL
q. Date: 3/11/2010
q. Time: 4:54:45 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.32 min
e Relative RT: No

t. Type: Valley
tention Time: 8.33 min
ea: 2.87e+006 counts
eight: 794228.516 cps
art Time: 8.24 min
d Time: 8.64 min

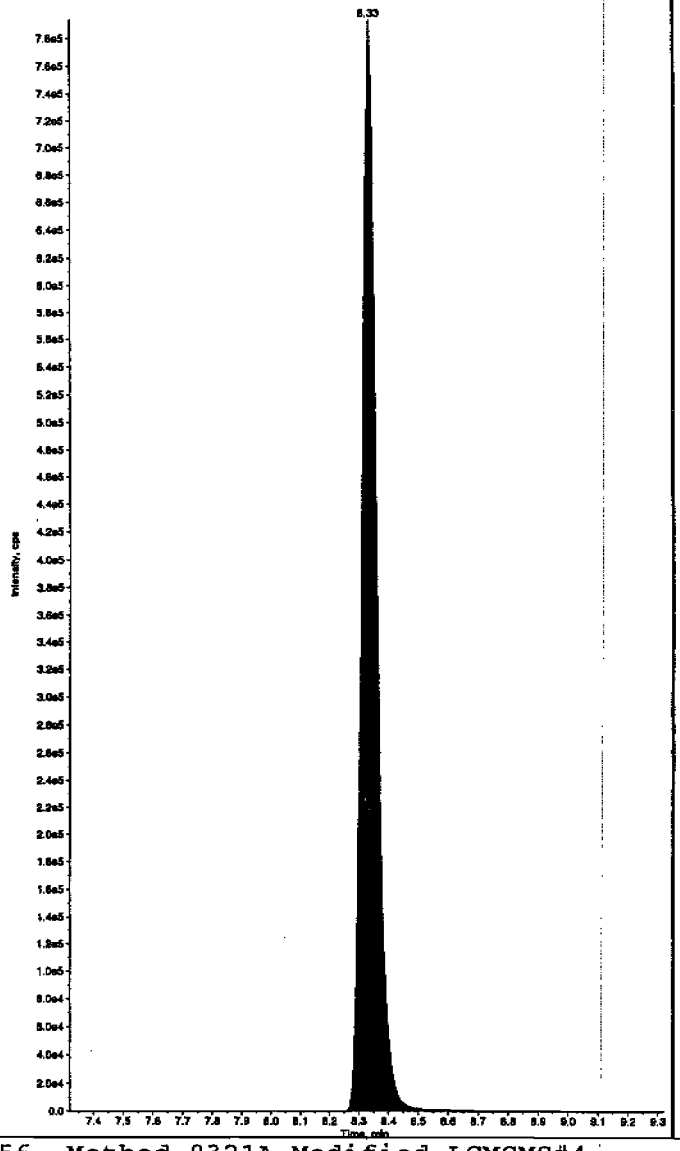

Sample Name: "247193010" Sample ID: "954328[2]LER" File: "EXS03100098.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 4:54:45 PM

Modified: No

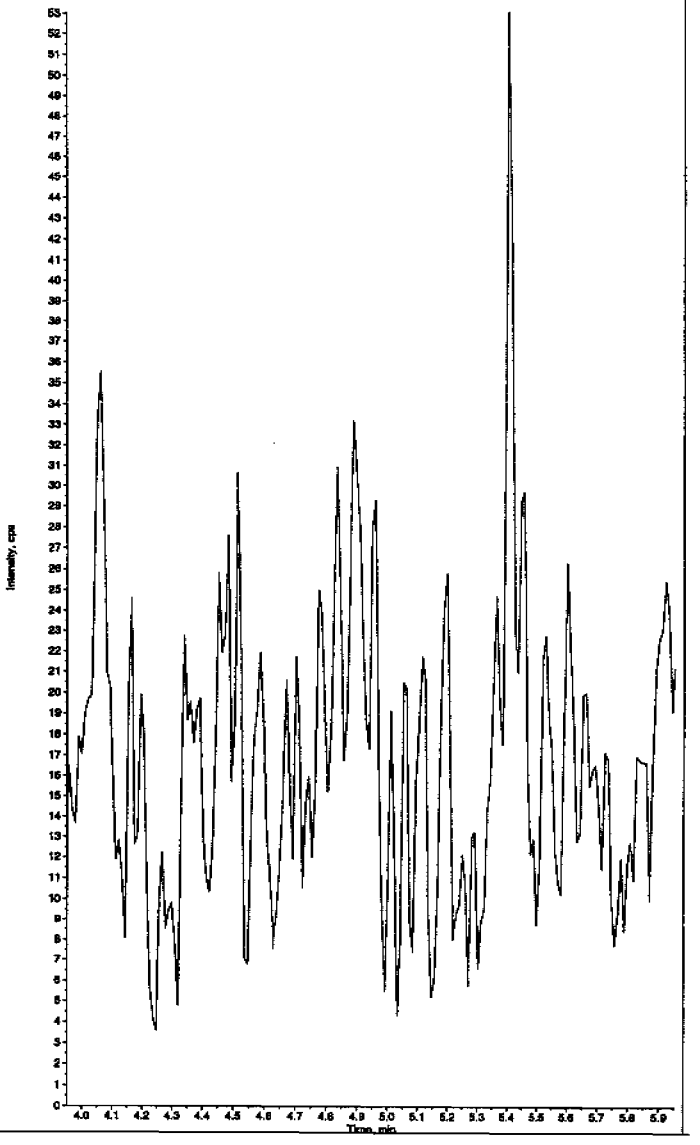

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Sample Name: "247193010" Sample ID: "954328[2]LER" File: "EXS03100098.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/48.0 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 3/11/2010
cq. Time: 4:54:45 PM

odified: No

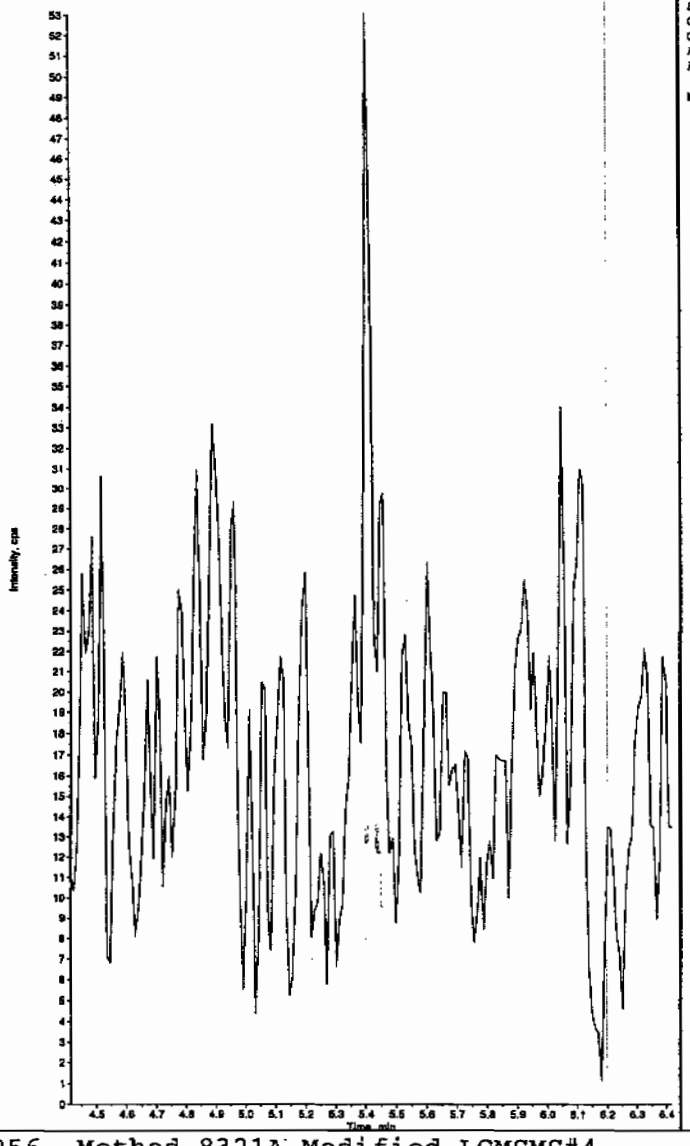

Sample Name: "247193010" Sample ID: "954328[2]LER" File: "EXS03100098.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 4:54:45 PM

Modified: No

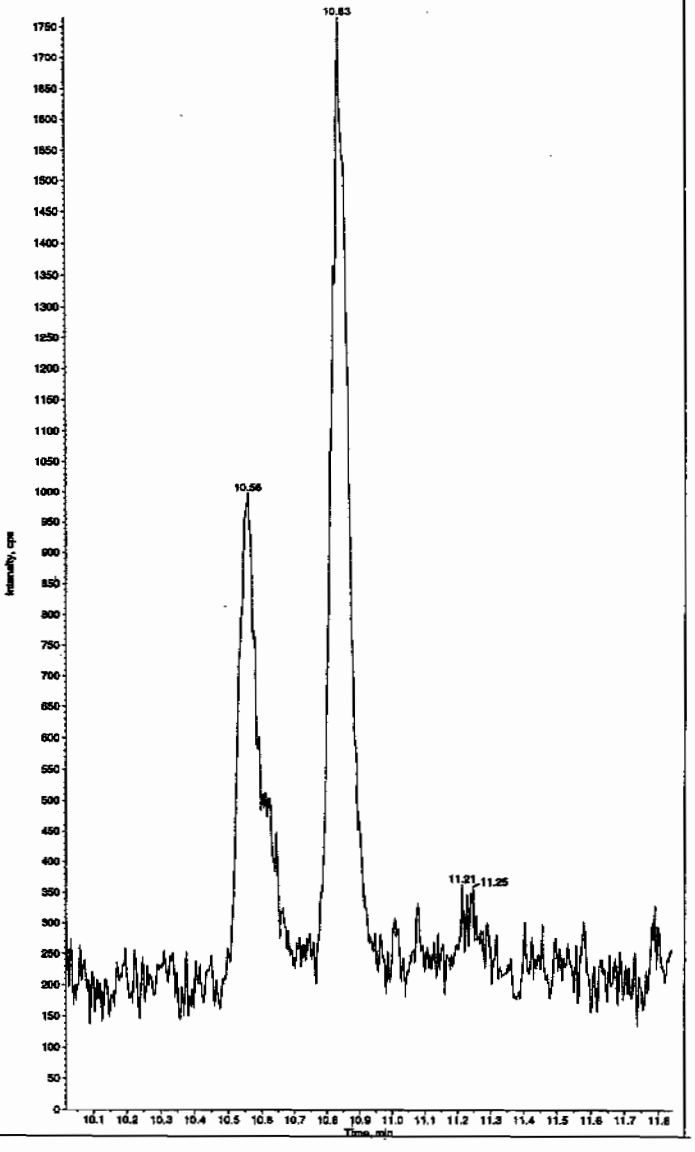

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8192

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193011

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330034.wiff

Date Analyzed: 30-MAR-10 23:08

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330034.wiff	Acquisition Date	3/30/2010 11:08:15 PM
Sample Name	247193011	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

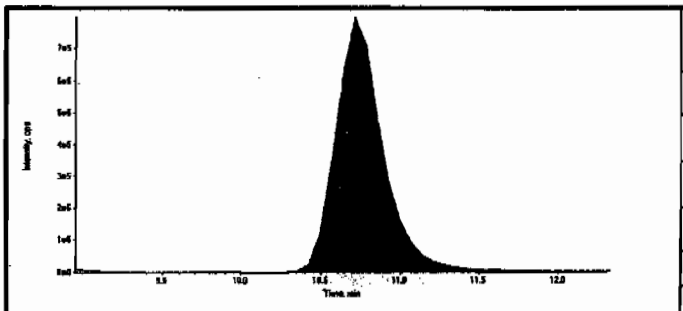

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	16500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

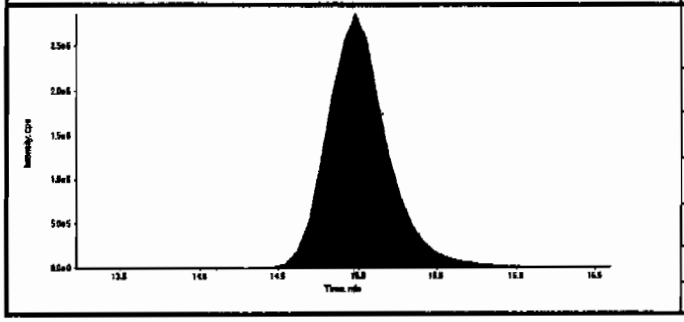

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	15.00
Area Counts:	75300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

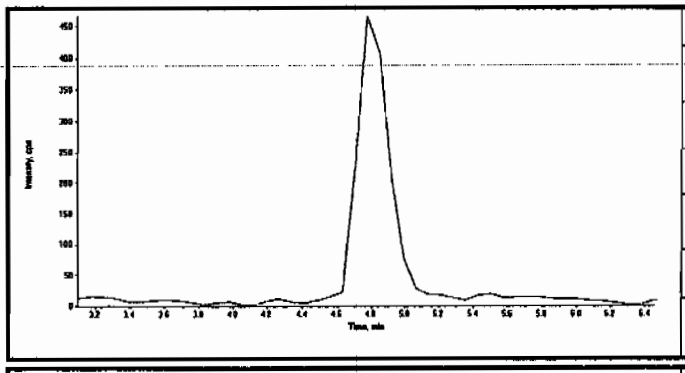

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

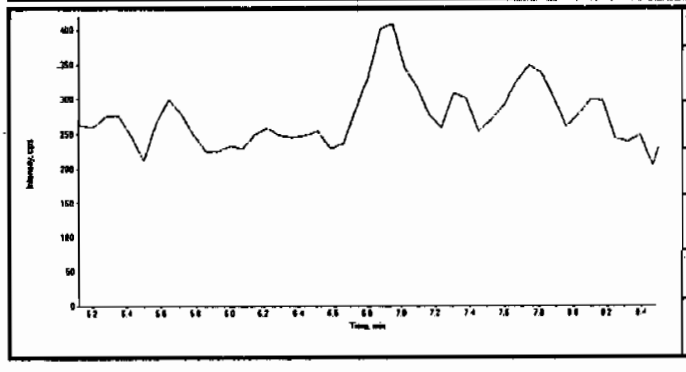

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Hmc 04/02/10
SLCN 4/2/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330034.wiff	Acquisition Date	3/30/2010 11:08:15 PM
Sample Name	247193011	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

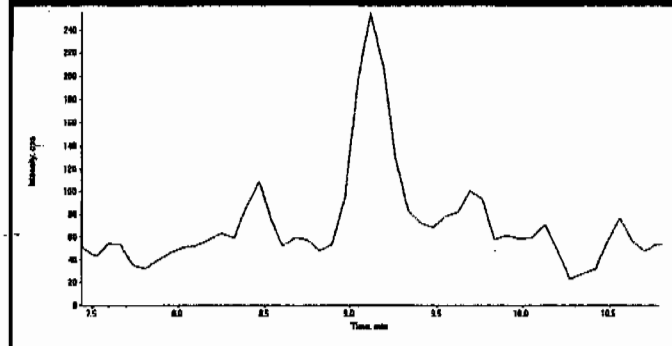

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

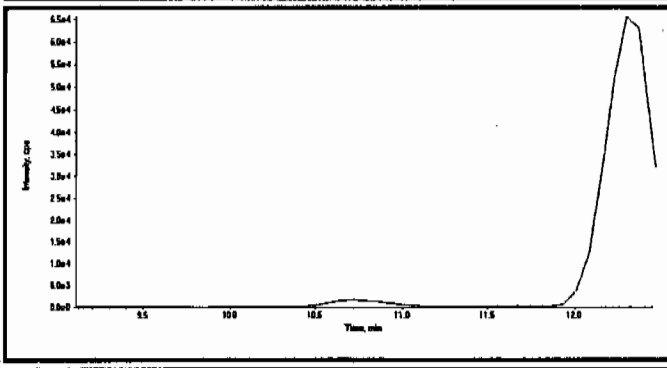

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

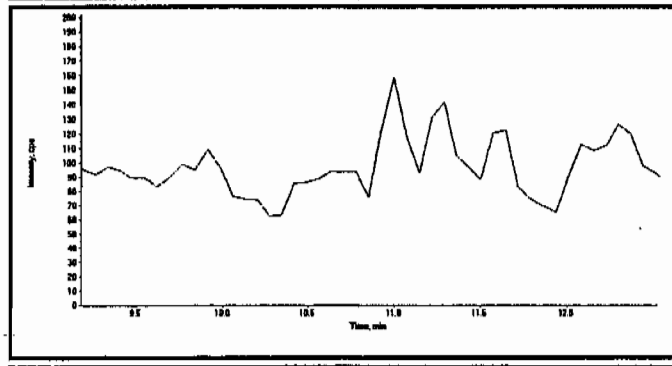

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

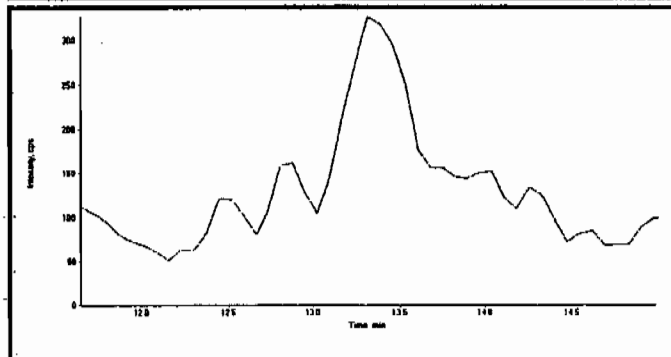

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330034.wiff	Acquisition Date	3/30/2010 11:08:15 PM
Sample Name	247193011	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

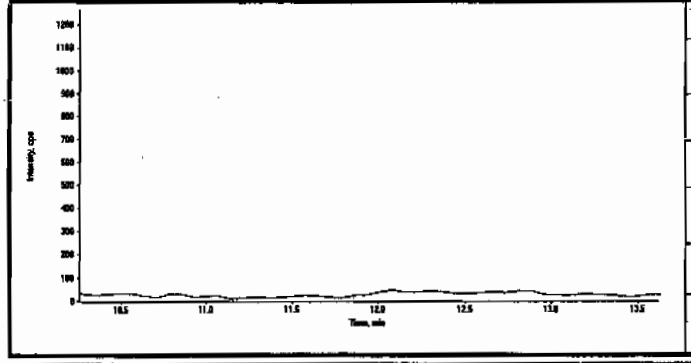

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

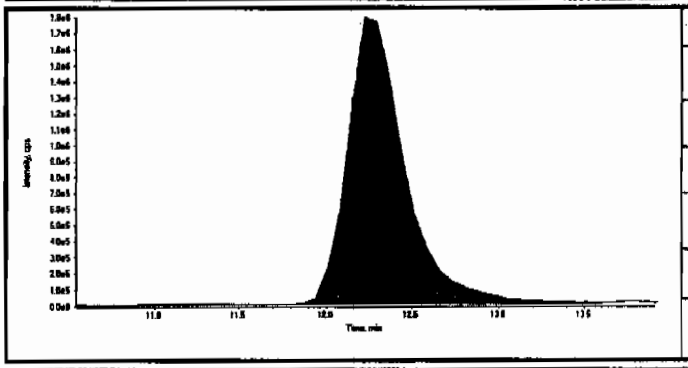

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	12.2
Area Counts:	4.25e+007
Manual Modification	No
Amount:	242. (ng/mL)
% Accuracy:	N/A

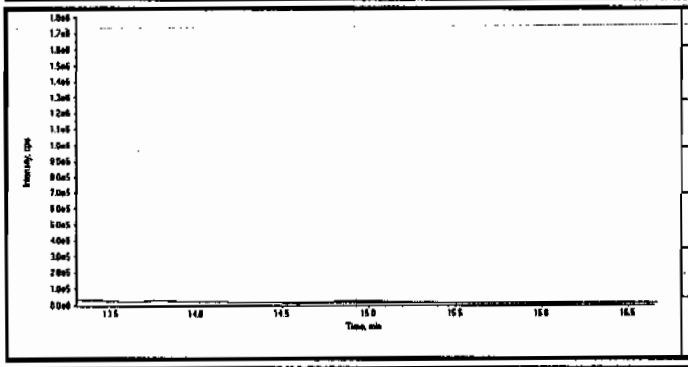

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	15.0
Area Counts:	5.14e+005
Manual Modification	No
Amount:	3.78 (ng/mL)
% Accuracy:	N/A

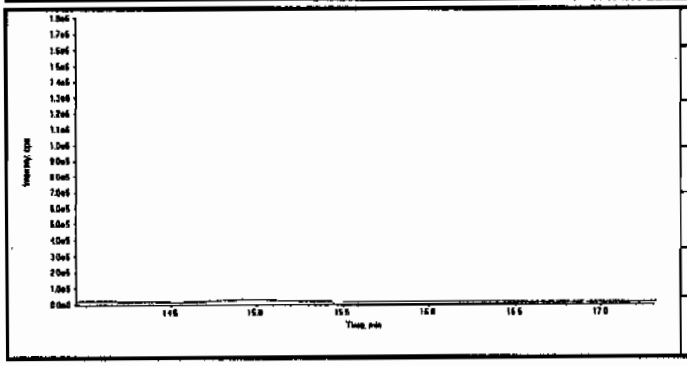

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330034.wiff	Acquisition Date	3/30/2010 11:08:15 PM
Sample Name	247193011	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

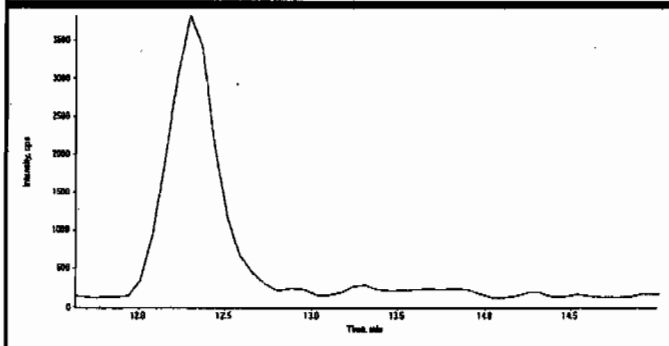

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

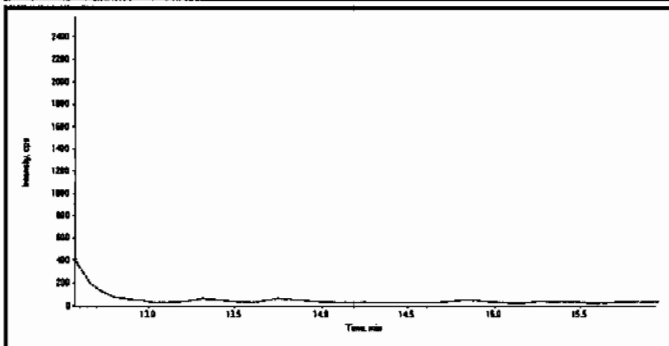

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

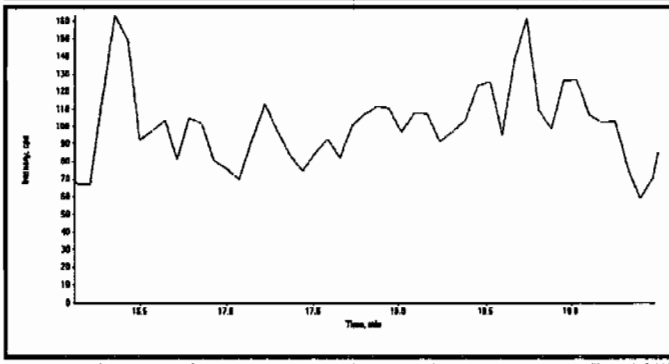

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

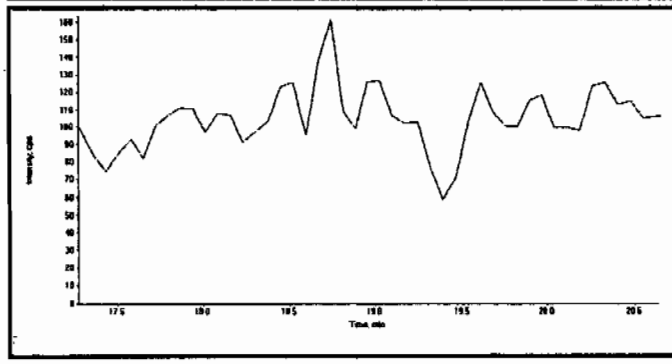

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330034.wiff	Acquisition Date	3/30/2010 11:08:15 PM
Sample Name	247193011	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

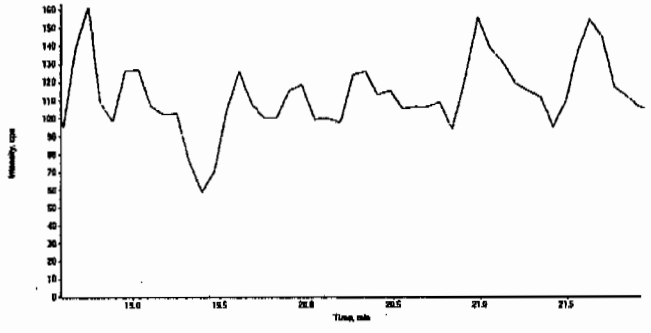

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

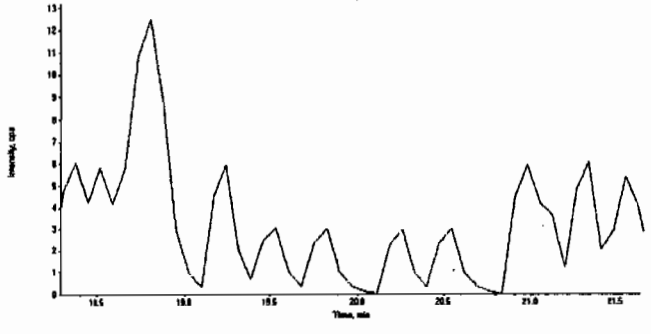

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8192

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193011

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100099.wiff

Date Analyzed: 11-MAR-10 17:10

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 3/14/10

Sample Name: "247193011" Sample ID: "954328[2]LER" File: "EXS03100099.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 5:10:25 PM
Modified: No

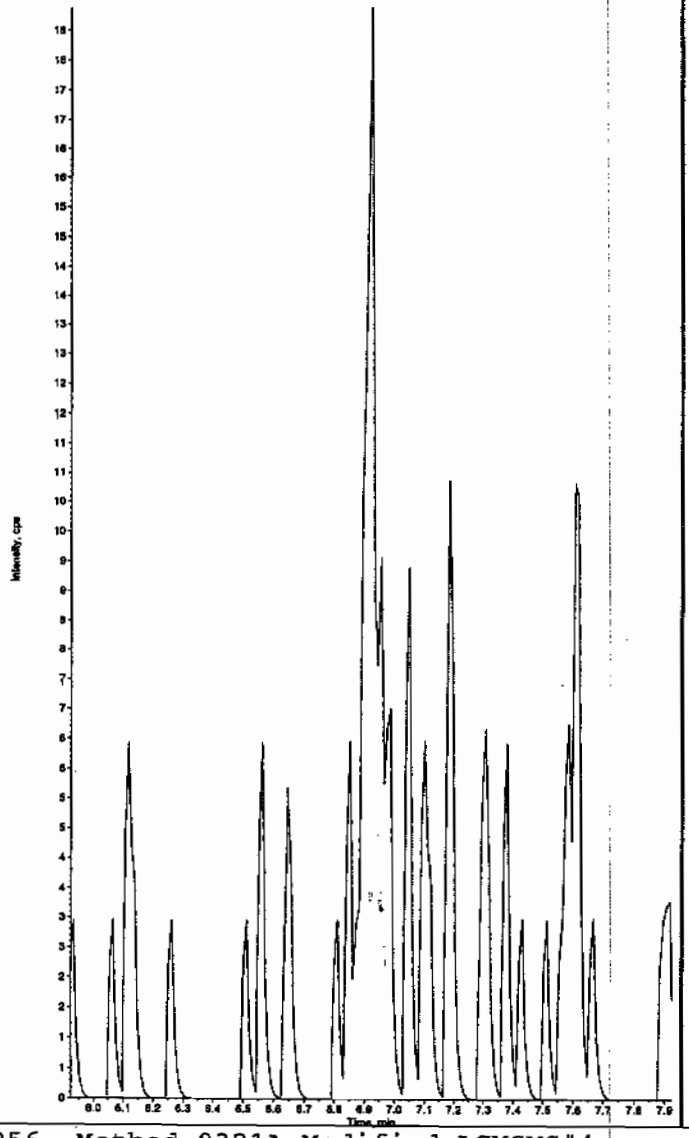

Sample Name: "247193011" Sample ID: "954328[2]LER" File: "EXS03100099.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 5:10:25 PM
Modified: No

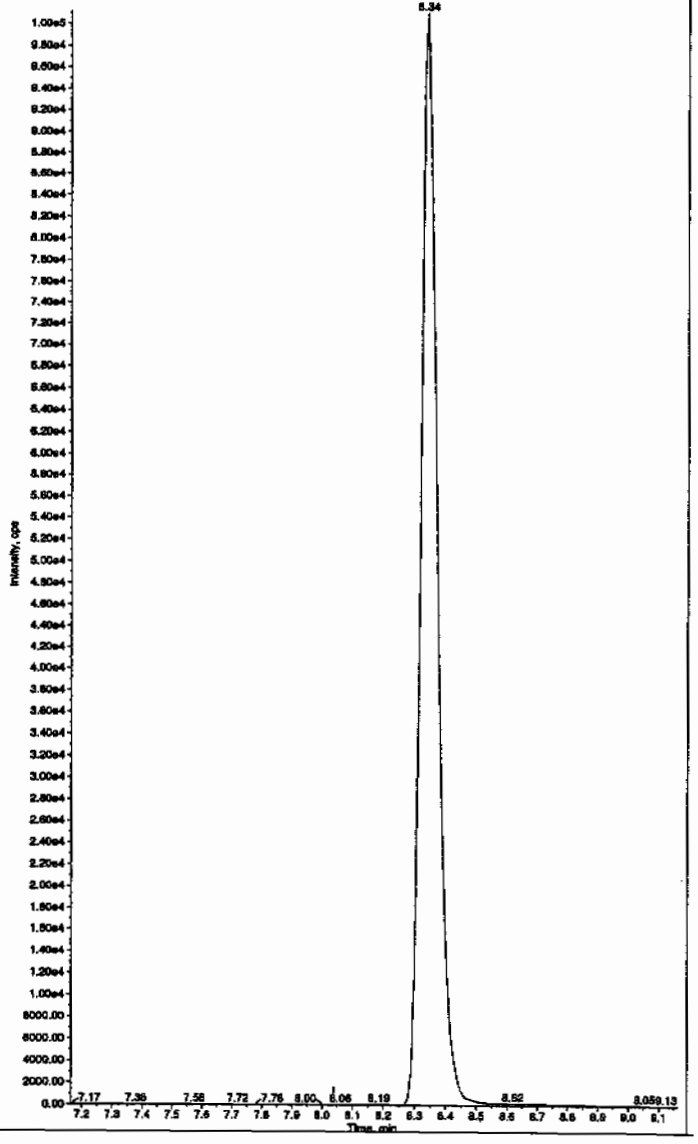

HM11L03/15/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "247193011" Sample ID: "954328|2|LER" File: "EXS03100099.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 283. ng/mL
cq. Date: 3/11/2010
cq. Time: 5:10:25 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 1460.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 15.0 sec
xpected RT: 8.32 min
se Relative RT: No

nt. Type: Valley
etention Time: 8.33 min
rea: 2.84e+006 counts
eight: 755502.197 cps
tart Time: 8.24 min
nd Time: 8.67 min

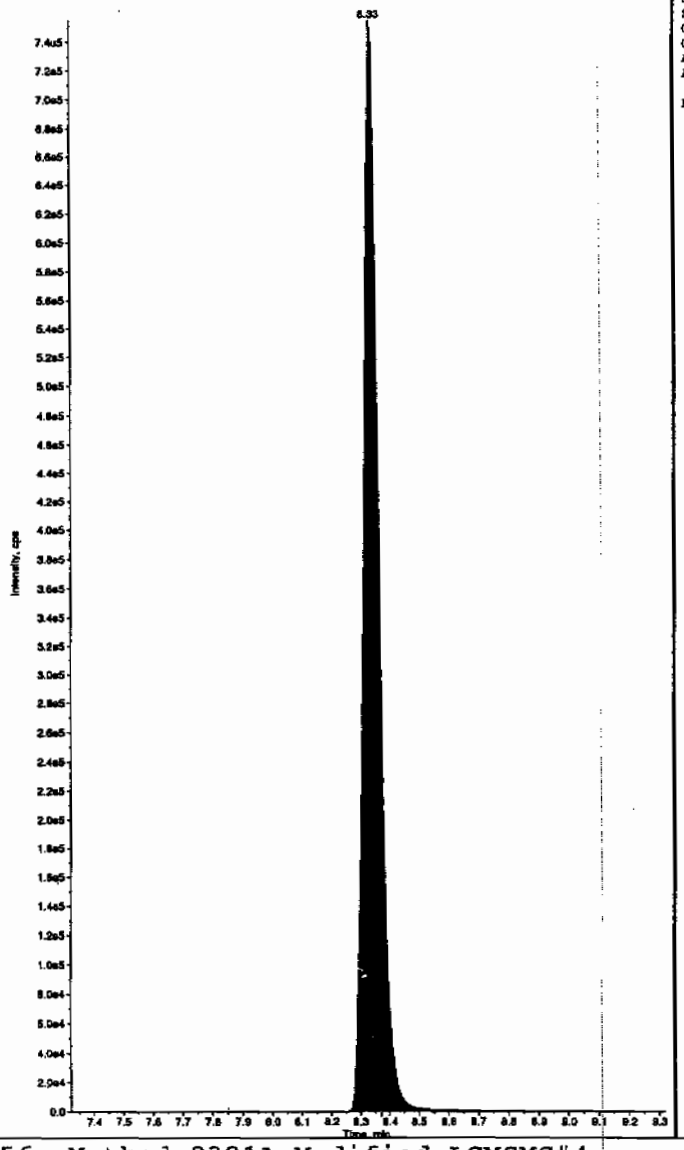

Sample Name: "247193011" Sample ID: "954328|2|LER" File: "EXS03100099.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 5:10:25 PM

Modified: No

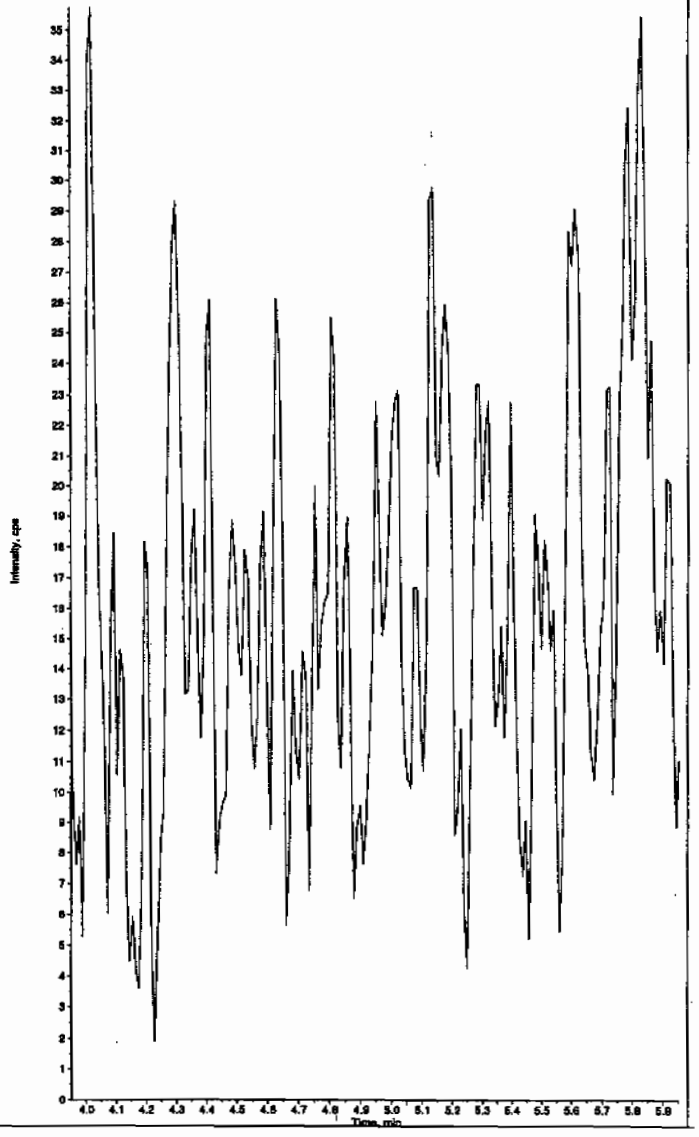

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Sample Name: "247193011" Sample ID: "954328|2|LER" File: "EXS03100099.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 5:10:25 PM
Modified: No

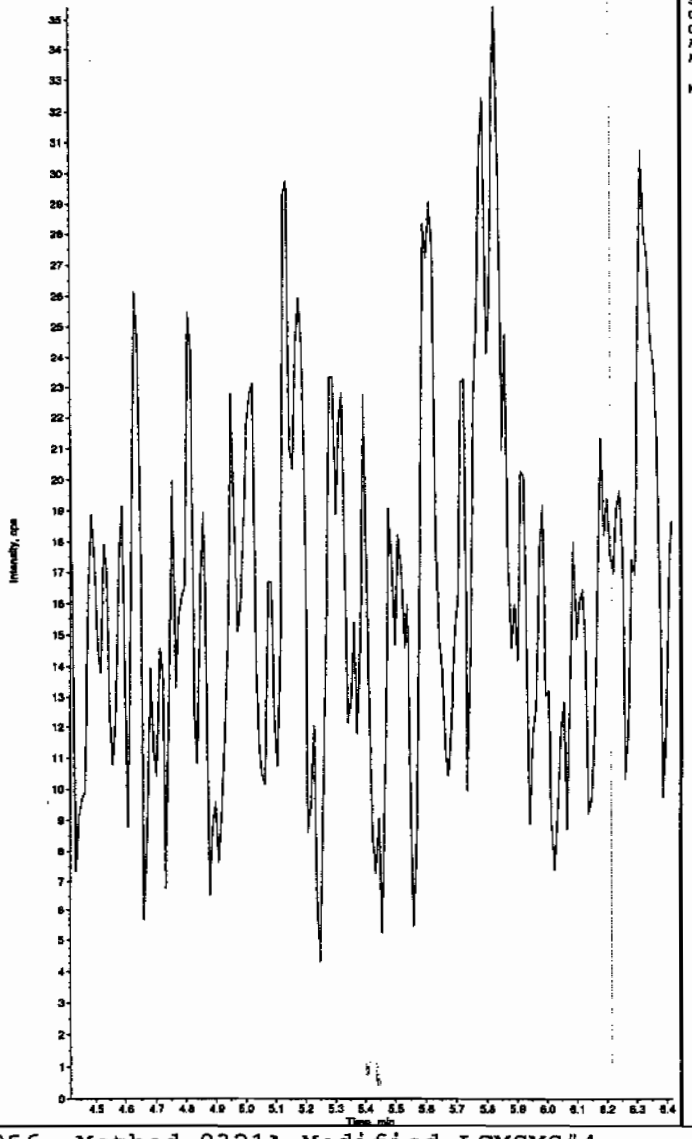

Sample Name: "247193011" Sample ID: "954328|2|LER" File: "EXS03100099.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 5:10:25 PM
Modified: No

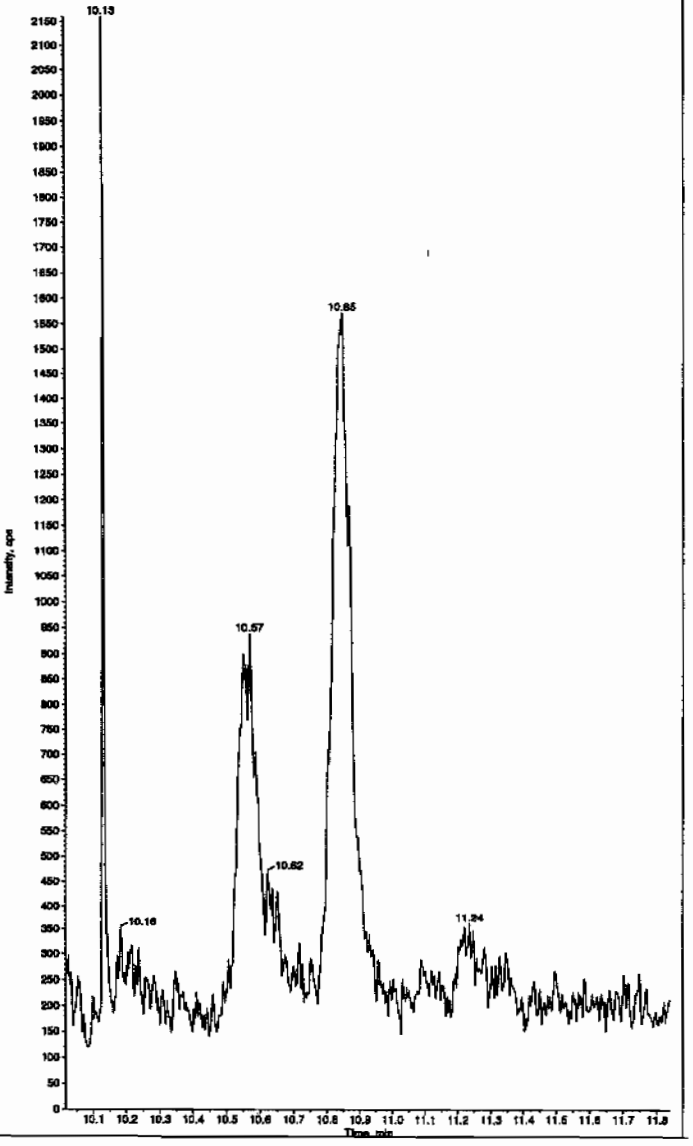

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8195

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193012

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330035.wiff

Date Analyzed: 30-MAR-10 23:34

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330035.wiff	Acquisition Date	3/30/2010 11:34:40 PM
Sample Name	247193012	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

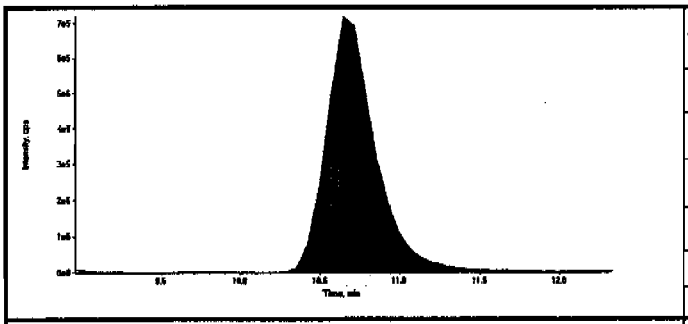

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	15300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

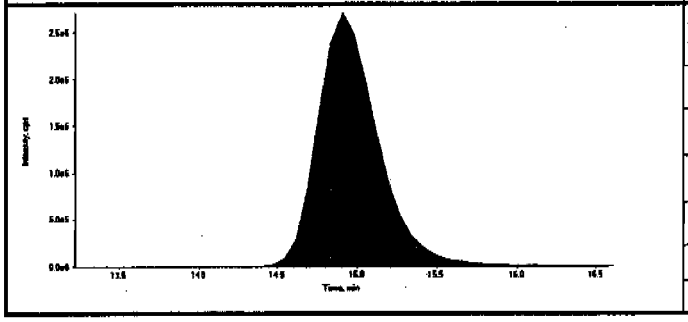

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	71300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

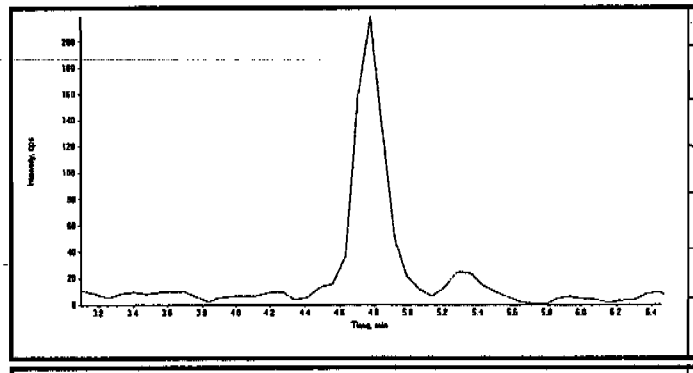

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

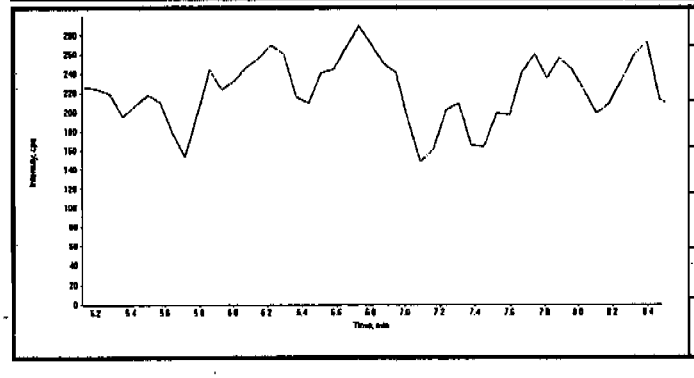

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Am 04/01/10
SLA 4/2/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330035.wiff	Acquisition Date	3/30/2010 11:34:40 PM
Sample Name	247193012	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

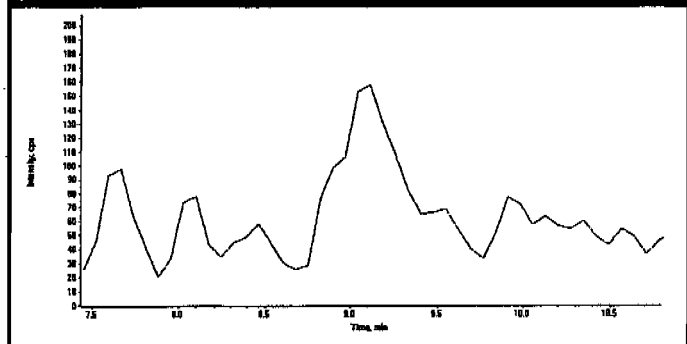

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

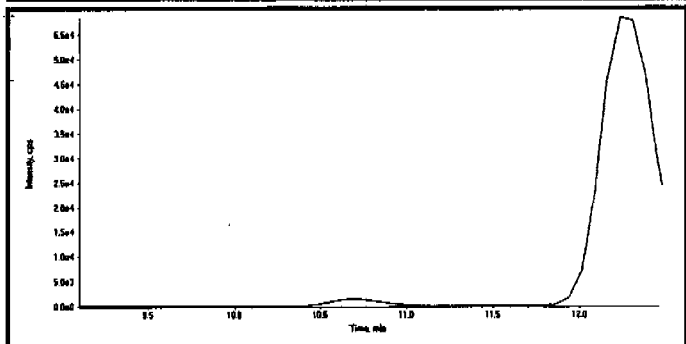

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

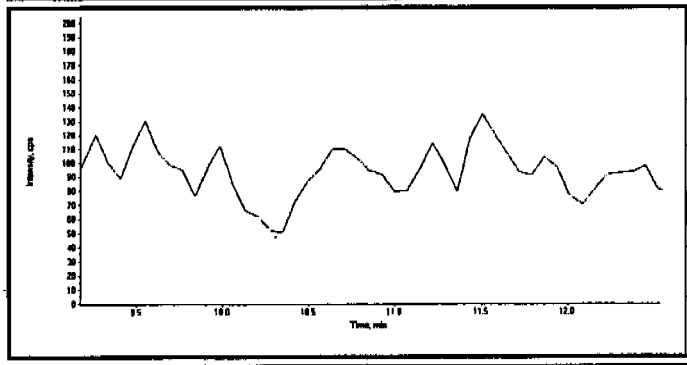

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

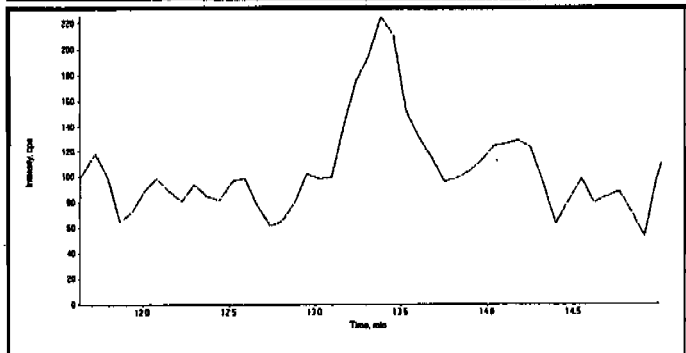

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330035.wiff	**Acquisition Date**	3/30/2010 11:34:40 PM
Sample Name	247193012	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

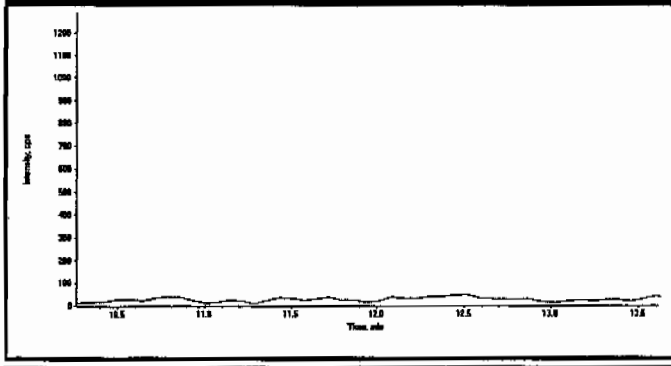

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

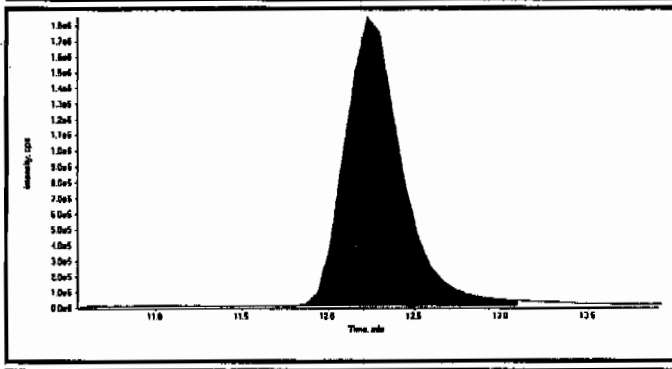

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	12.2
Area Counts:	4.26e+007
Manual Modification	No
Amount:	257. (ng/mL)
% Accuracy:	N/A

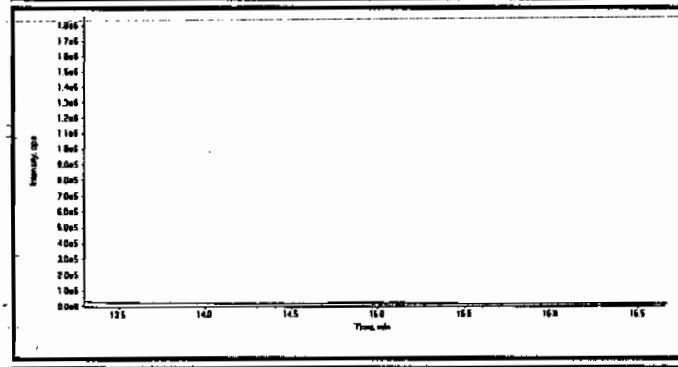

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	14.9
Area Counts:	5.55e+005
Manual Modification	No
Amount:	4.31 (ng/mL)
% Accuracy:	N/A

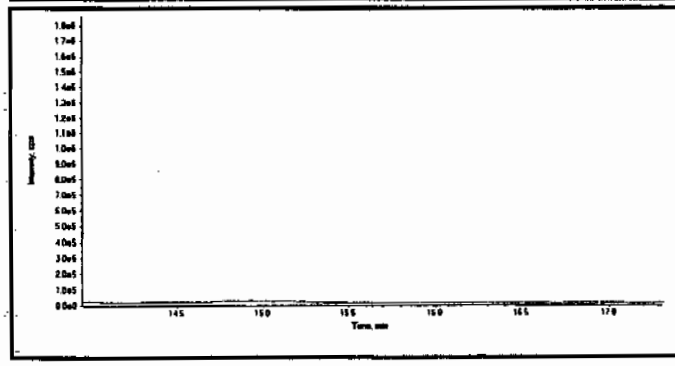

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0330035.wiff	**Acquisition Date**	3/30/2010 11:34:40 PM
Sample Name	247193012	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

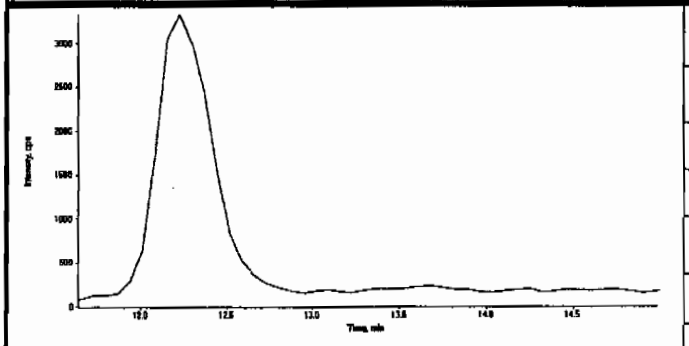

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

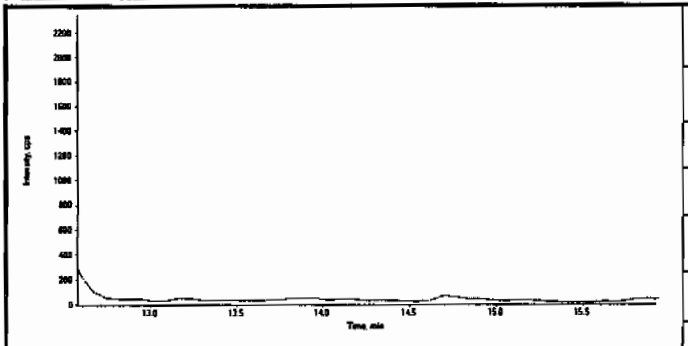

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

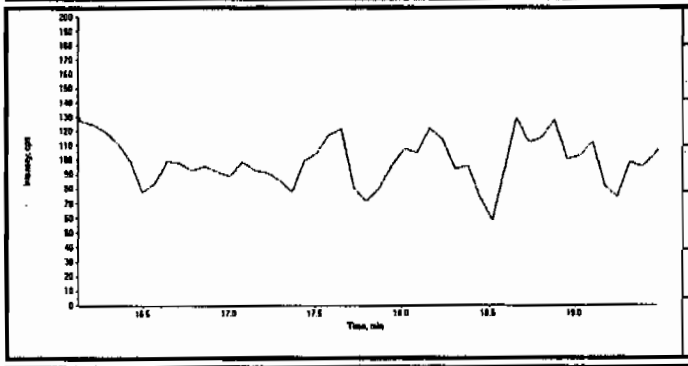

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

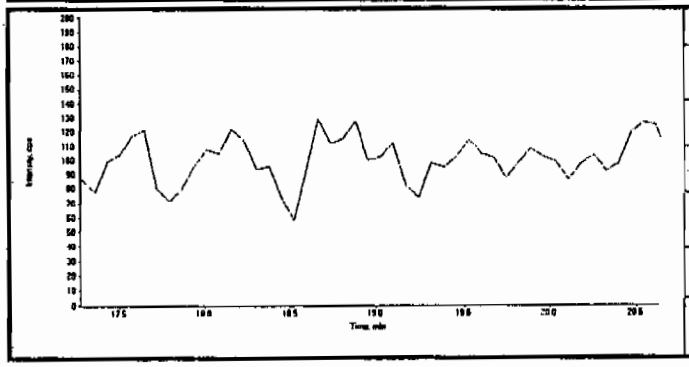

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330035.wiff	**Acquisition Date**	3/30/2010 11:34:40 PM
Sample Name	247193012	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

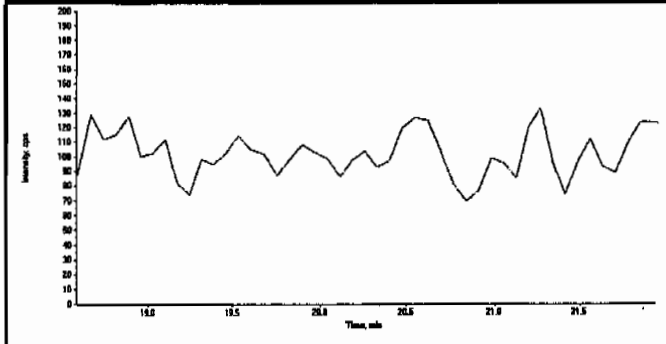

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

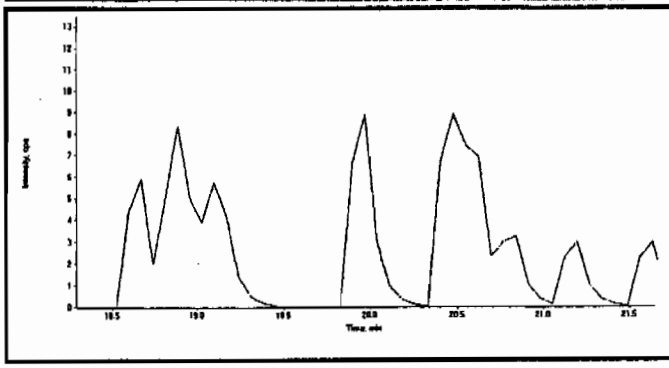

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8195

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193012

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100100.wiff

Date Analyzed: 11-MAR-10 17:26

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Rcvd 3/14/10

Sample Name: "247193012" Sample ID: "954328|2|LER" File: "EXS03100100.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""
ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 3/11/2010
cq. Time: 5:26:09 PM

odified: No

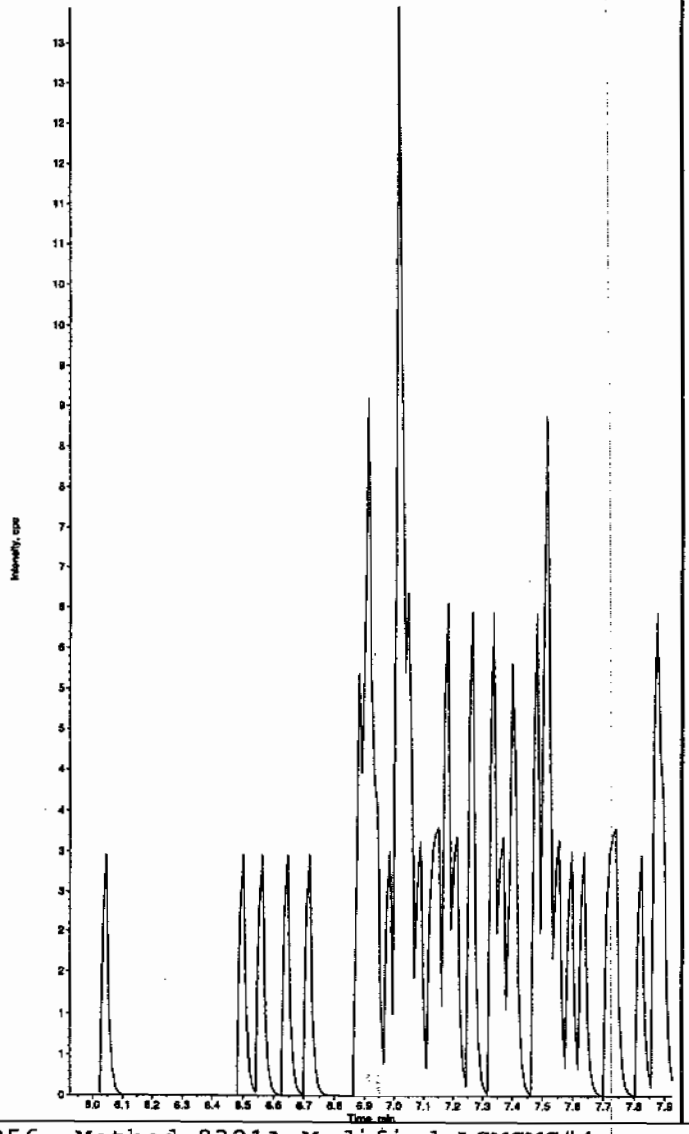

Sample Name: "247193012" Sample ID: "954328|2|LER" File: "EXS03100100.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 5:26:09 PM

Modified: No

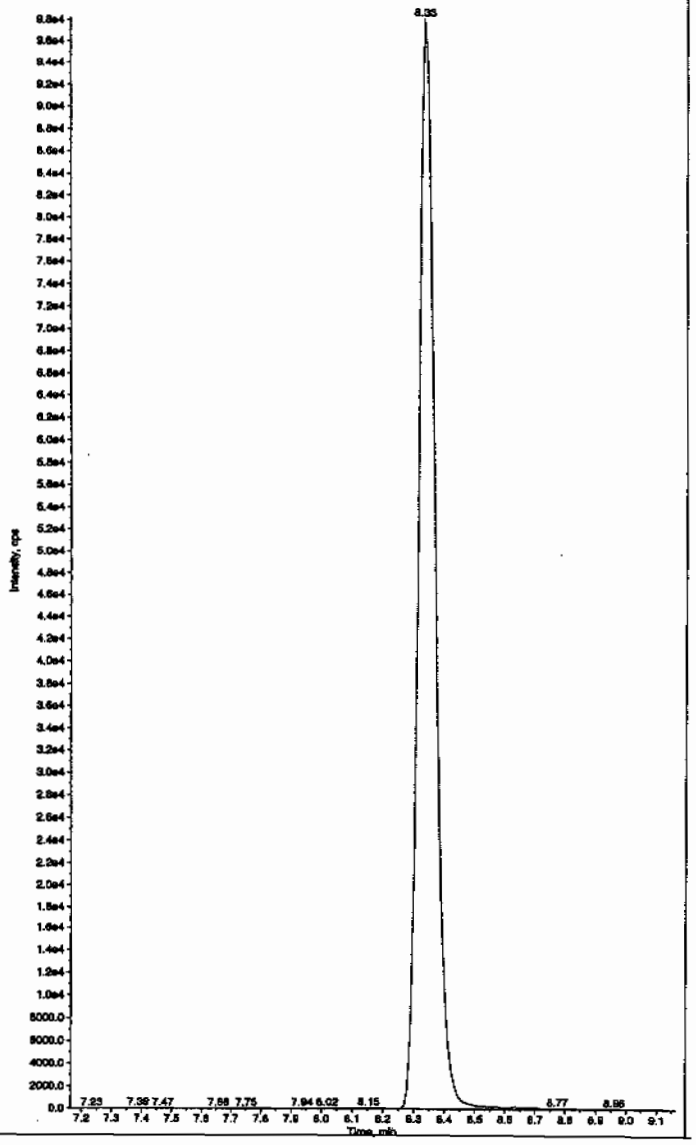

HMM 03/15/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "247193012" Sample ID: "954328|2|LER" File: "EXS03100100.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 280. ng/mL
q. Date: 3/11/2010
q. Time: 5:26:09 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.32 min
e Relative RT: No

t. Type: Valley
tention Time: 8.33 min
ea: 2.81e+006 counts
eight: 757157.043 cps
art Time: 8.23 min
d Time: 8.70 min

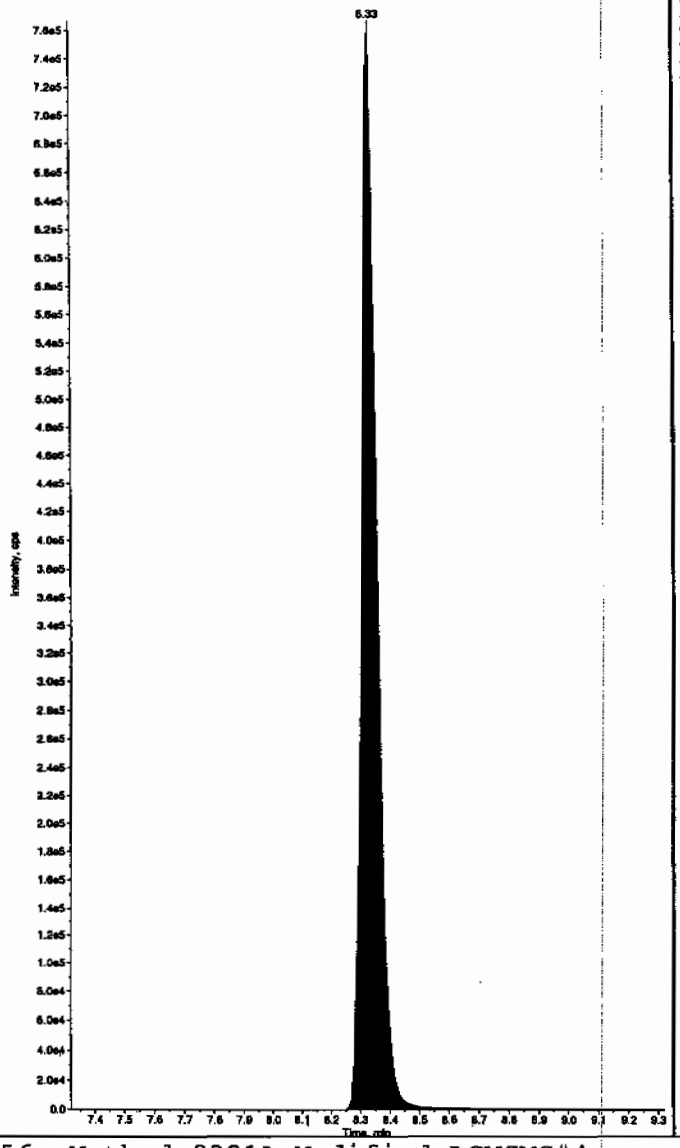

Sample Name: "247193012" Sample ID: "954328|2|LER" File: "EXS03100100.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 5:26:09 PM

Modified: No

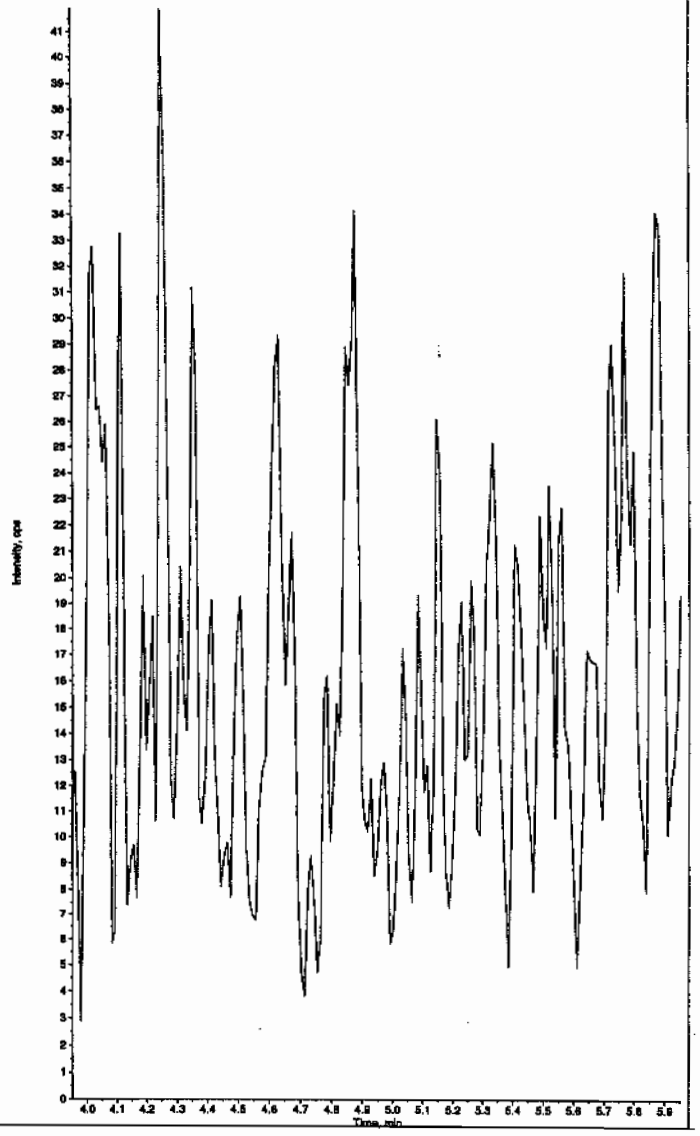

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Sample Name: "247193012" Sample ID: "954328[2]LER" File: "EXS03100100.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/48.0 amu"
Comment: "LCX83212S" Annotation: ""
ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 3/11/2010
cq. Time: 5:26:09 PM
odified: No

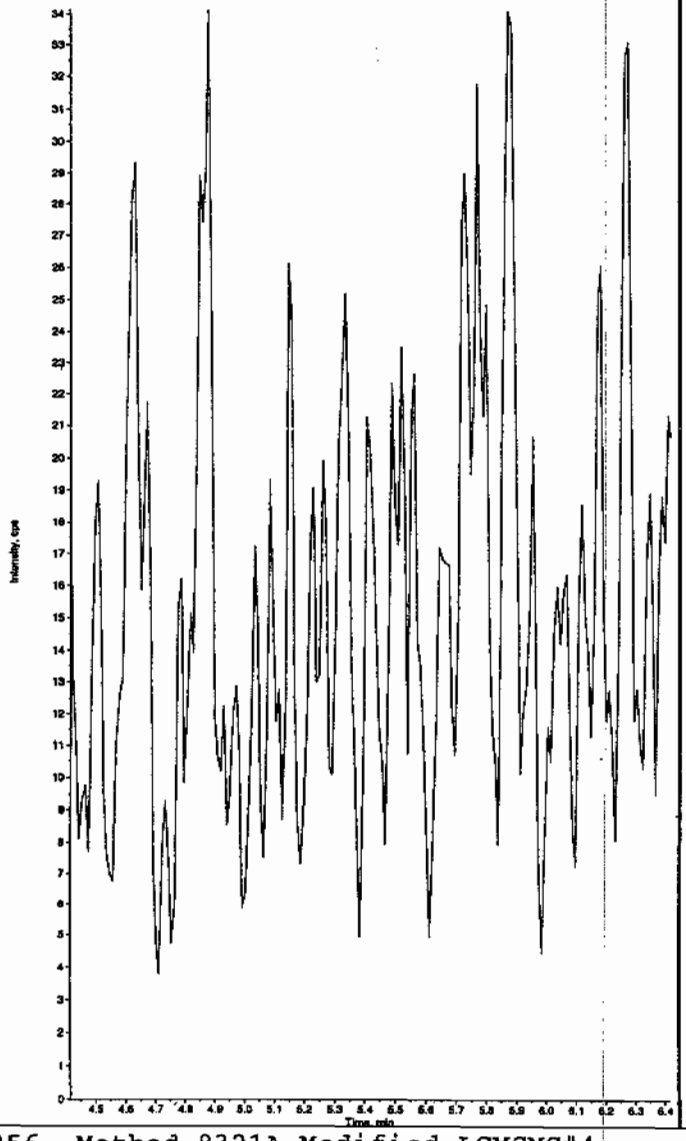

Sample Name: "247193012" Sample ID: "954328[2]LER" File: "EXS03100100.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 5:26:09 PM

Modified: No

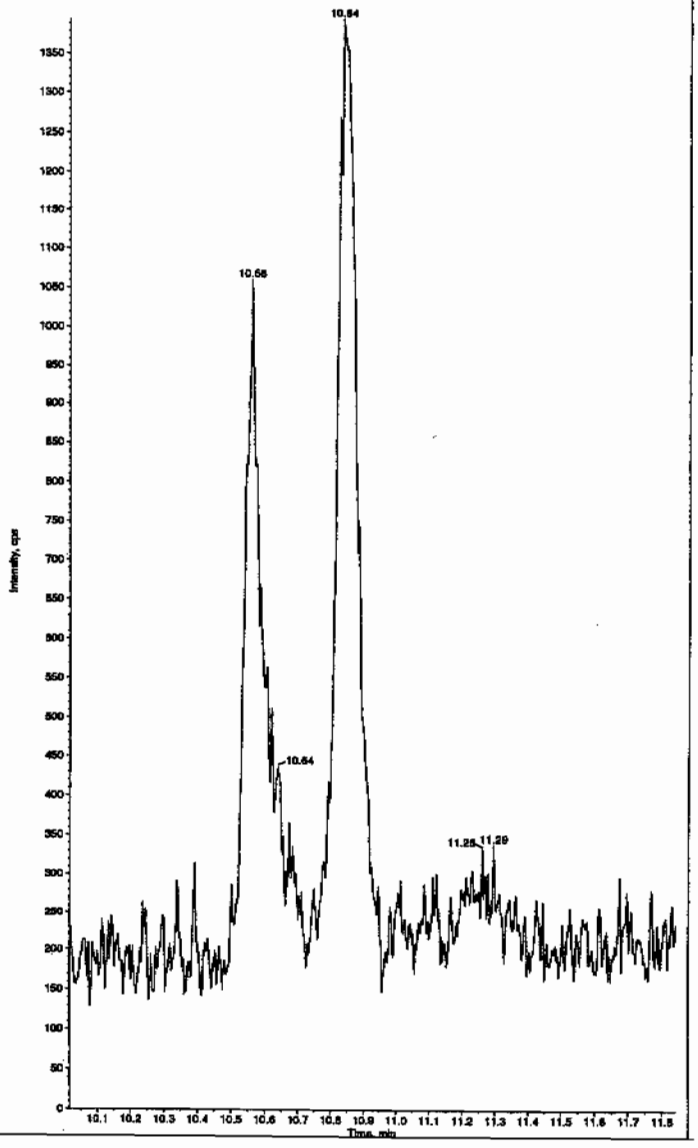

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8226

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193013

Sample Amount 2

Moisture: 2.4

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0401013.wiff

Date Analyzed: 01-APR-10 16:54

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401013.wiff	**Acquisition Date**	4/1/2010 4:54:59 PM
Sample Name	247193013	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	040110.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

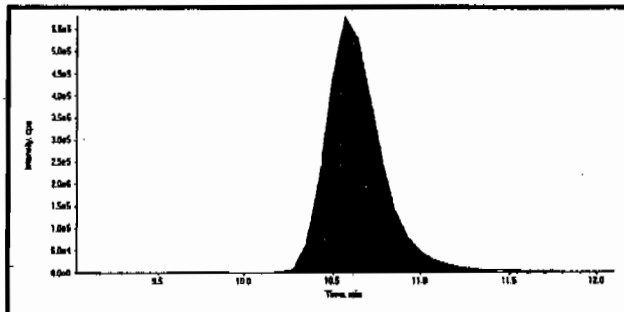

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	12300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

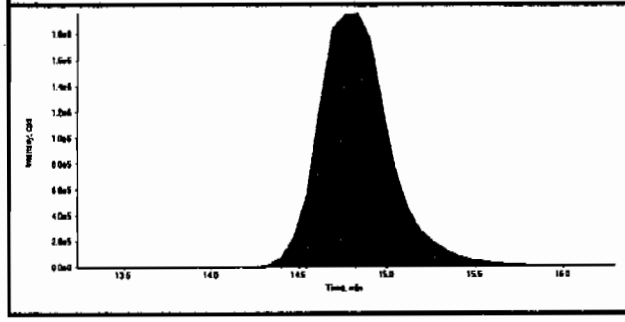

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.80
Actual RT:	14.80
Area Counts:	56700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

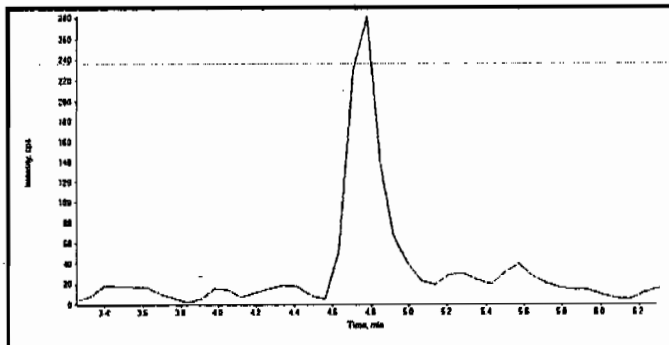

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

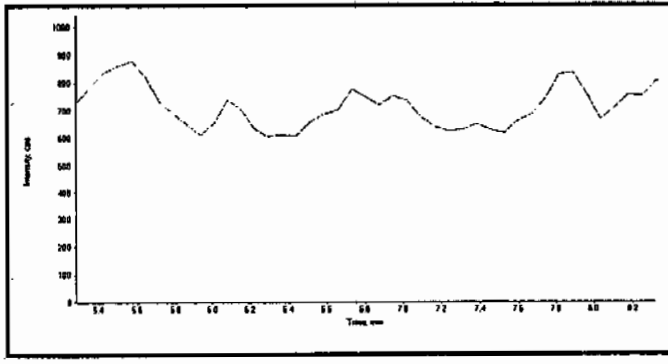

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Lar 4/9/10 HMW 04/09/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401013.wiff	**Acquisition Date**	4/1/2010 4:54:59 PM
Sample Name	247193013	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	040110.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

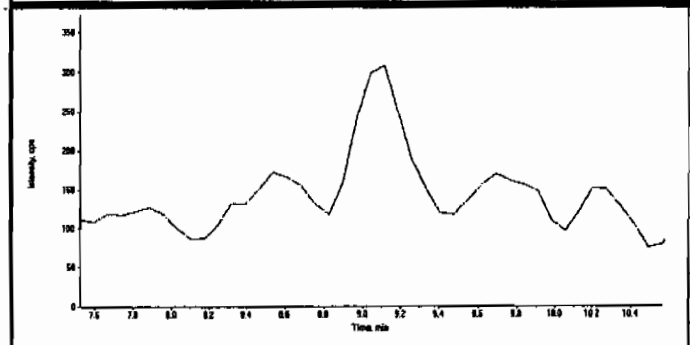

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.04
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

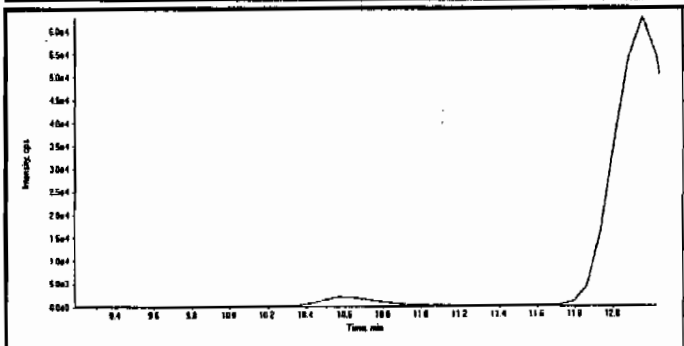

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

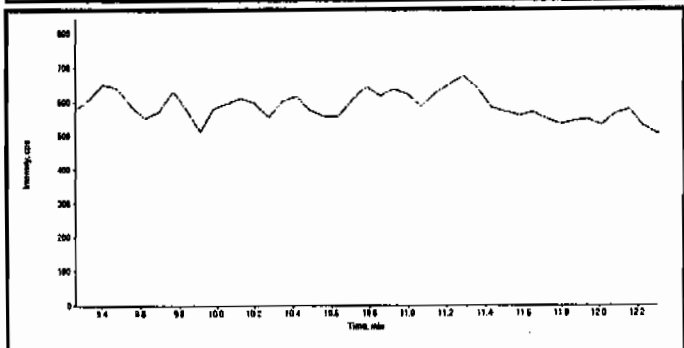

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

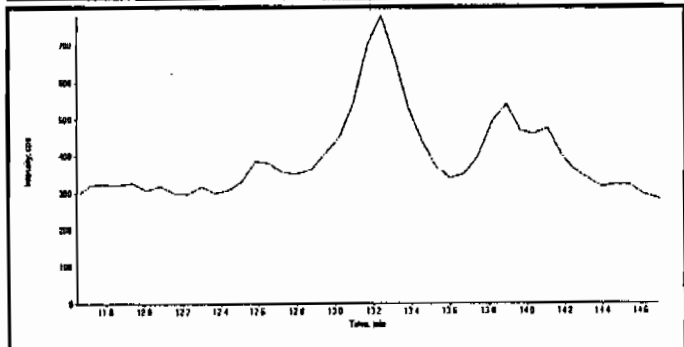

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401013.wiff	**Acquisition Date**	4/1/2010 4:54:59 PM
Sample Name	247193013	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	040110.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

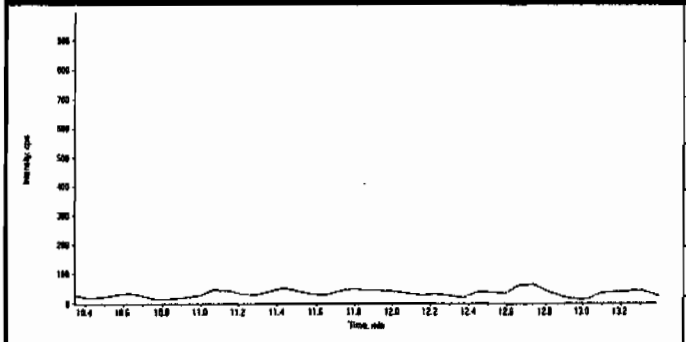

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

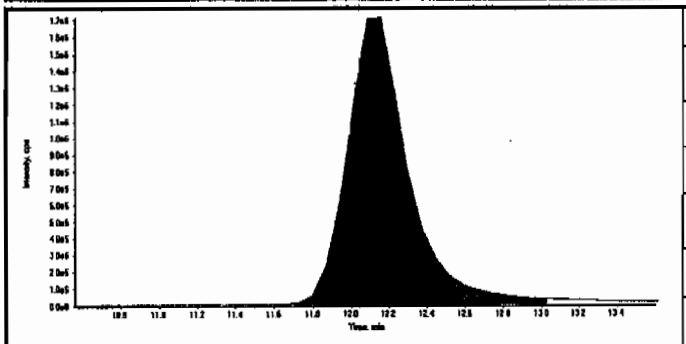

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	3.89e+007
Manual Modification	No
Amount:	274. (ng/mL)
% Accuracy:	N/A

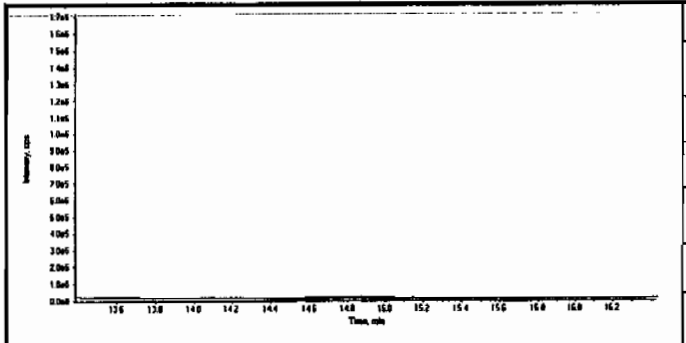

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.9
Actual RT:	14.8
Area Counts:	5.82e+005
Manual Modification	No
Amount:	5.48 (ng/mL)
% Accuracy:	N/A

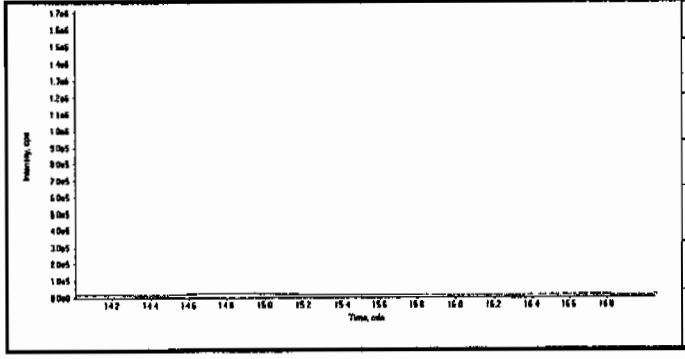

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401013.wiff	**Acquisition Date**	4/1/2010 4:54:59 PM
Sample Name	247193013	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	040110.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

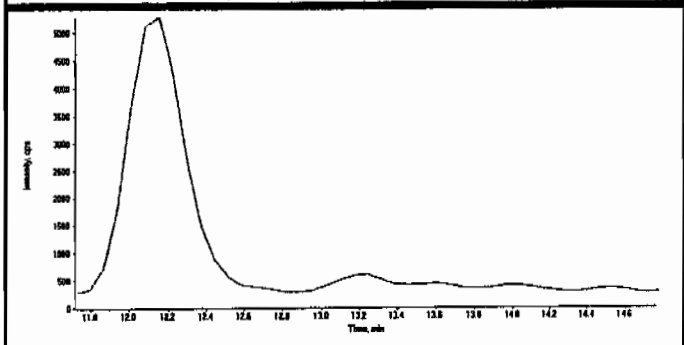

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

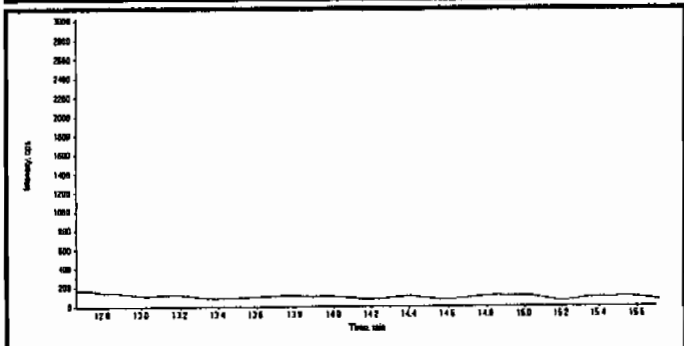

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

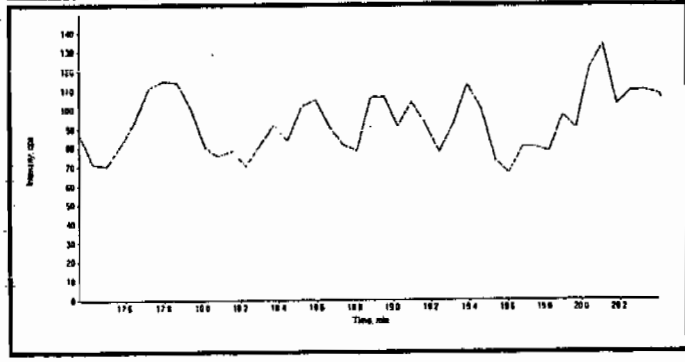

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401013.wiff	**Acquisition Date**	4/1/2010 4:54:59 PM
Sample Name	247193013	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	040110.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

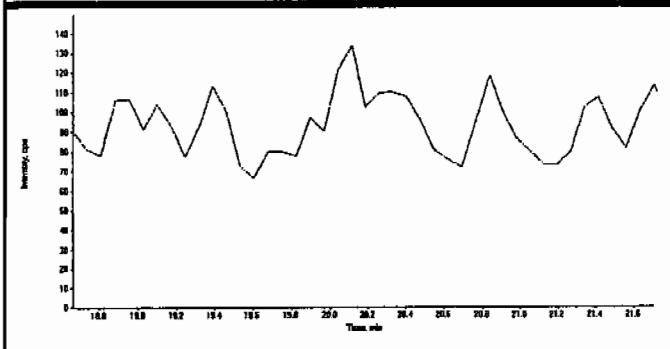

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

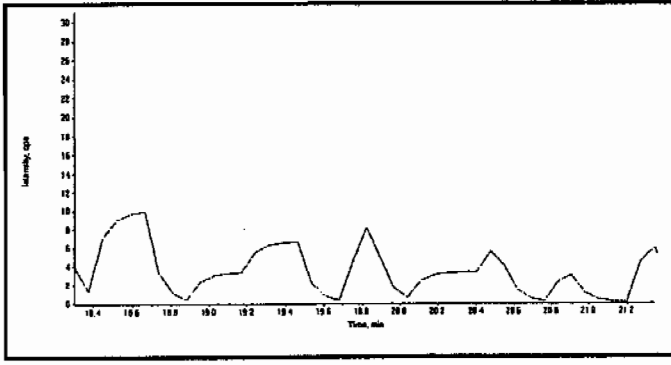

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8226

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193013

Sample Amount 2

Moisture: 2.4

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100101.wiff

Date Analyzed: 11-MAR-10 17:41

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 3/14/10

Sample Name: "247193013" Sample ID: "954328|2|LER" File: "EXS03100101.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 5:41:50 PM

Modified: No

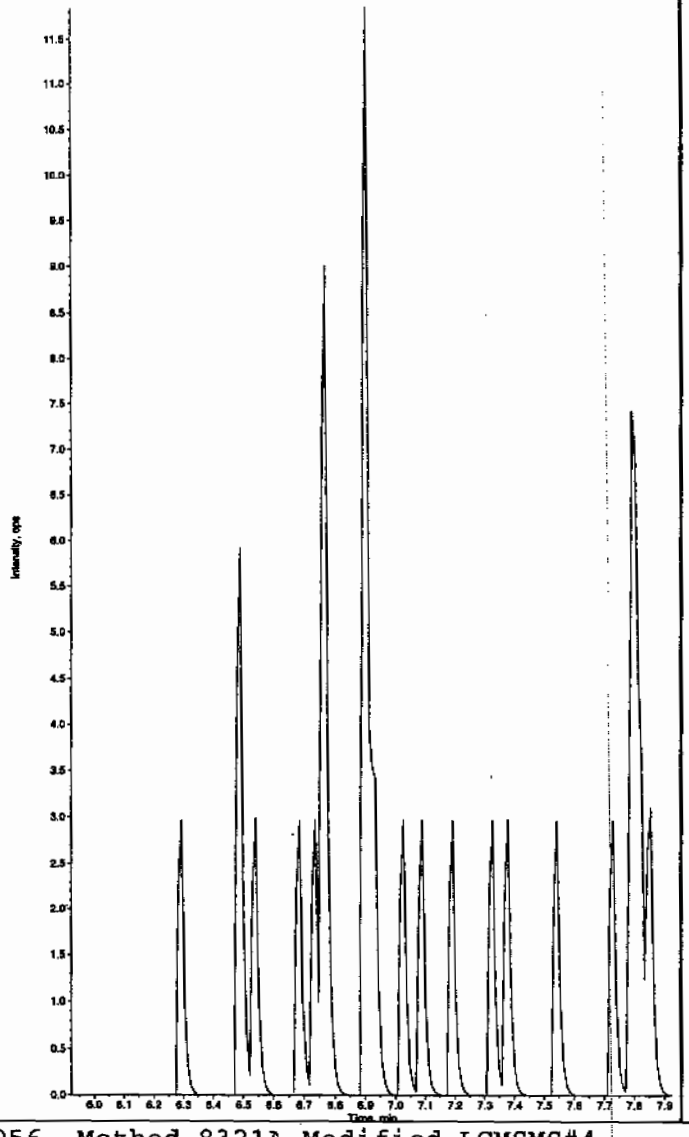

Sample Name: "247193013" Sample ID: "954328|2|LER" File: "EXS03100101.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 5:41:50 PM

Modified: No

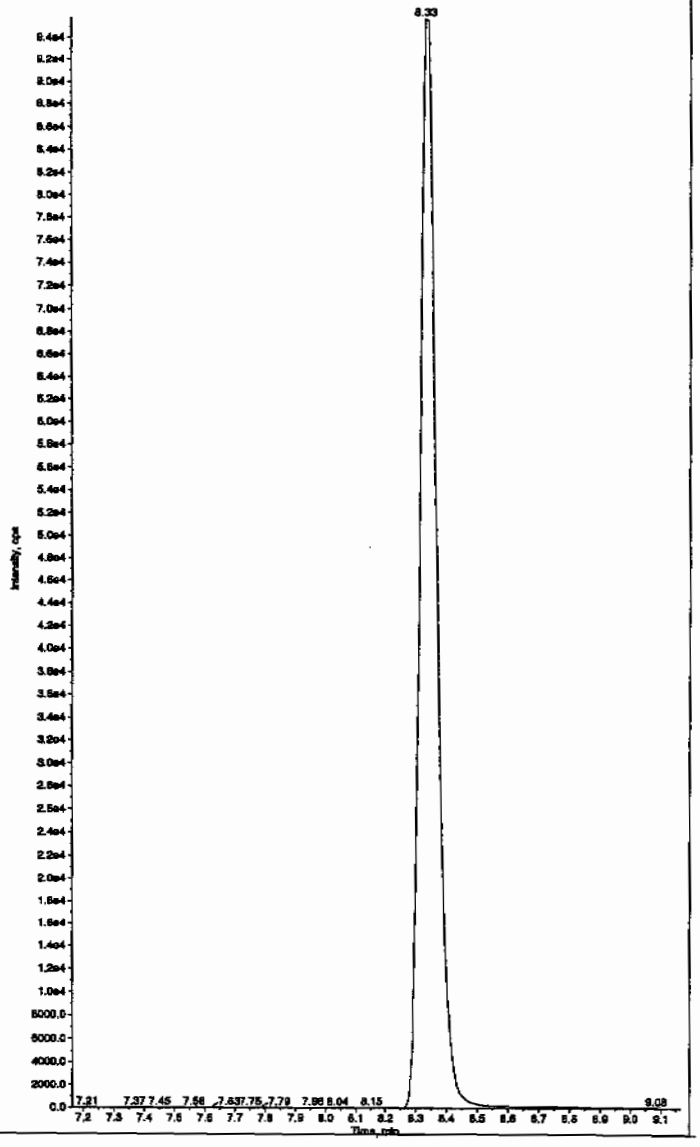

HMK 03/15/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "247193013" Sample ID: "954328[2]LER" File: "EXS03100101.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

```
mple Index:        1
mple Type:      Unknown
ncentration:       N/A
lculated Conc:     274.     ng/mL
q. Date:        3/11/2010
q. Time:        5:41:50 PM

odified:           No
oc. Algorithm:  IntelliQuan - IQA
n. Peak Height: 1460.00    cps
n. Peak Width:     0.00    sec
oothing Width:  3          points
 Window:          15.0     sec
pected RT:         8.32    min
e Relative RT:     No

t. Type:        Valley
tention Time:      8.33    min
ea:          2.76e+006    counts
eight:        749002.319   cps
art Time:          8.23    min
d Time:            8.69    min
```

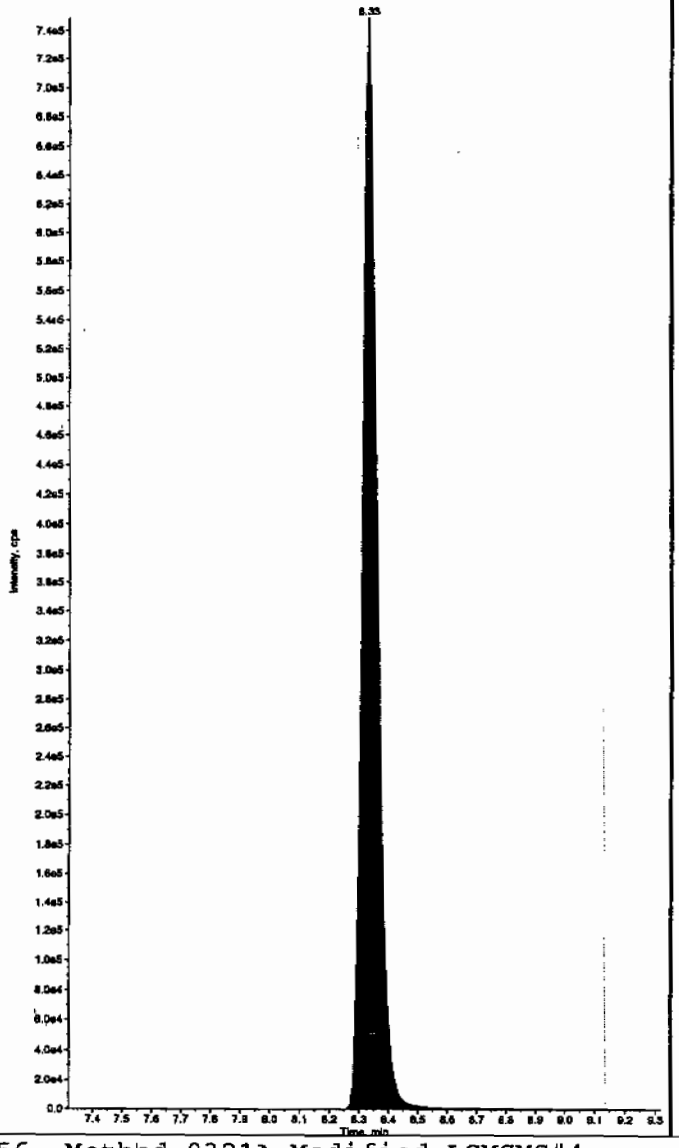

Sample Name: "247193013" Sample ID: "954328[2]LER" File: "EXS03100101.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:      1
Sample Type:    Unknown
Concentration:     N/A
Calculated Conc:   0.00     ng/mL
Acq. Date:      3/11/2010
Acq. Time:      5:41:50 PM

Modified:          No
```

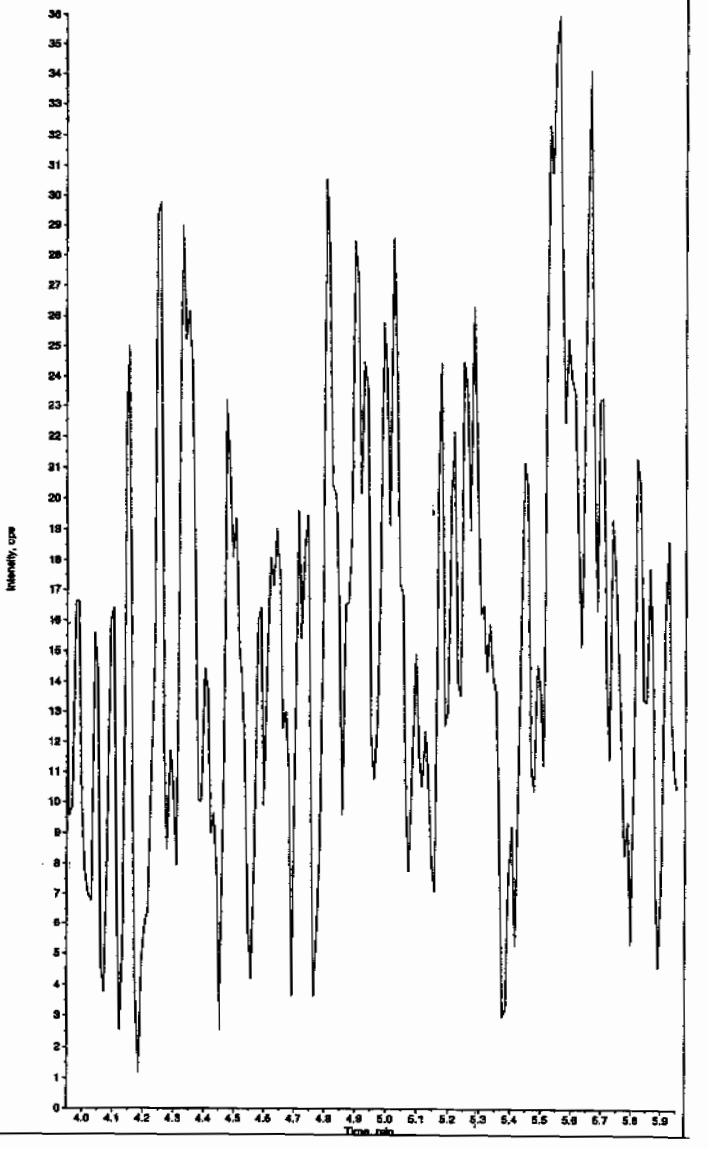

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "247193013" Sample ID: "954328|2|LER" File: "EXS03100101.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 5:41:50 PM

Modified: No

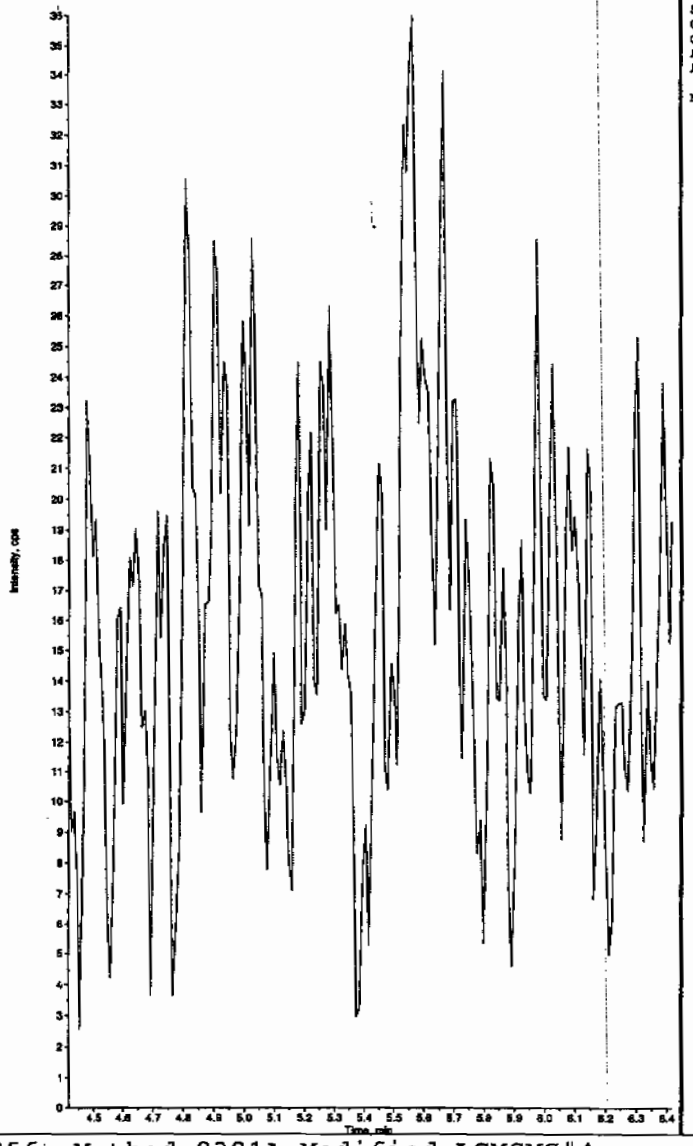

Sample Name: "247193013" Sample ID: "954328|2|LER" File: "EXS03100101.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 5:41:50 PM

Modified: No

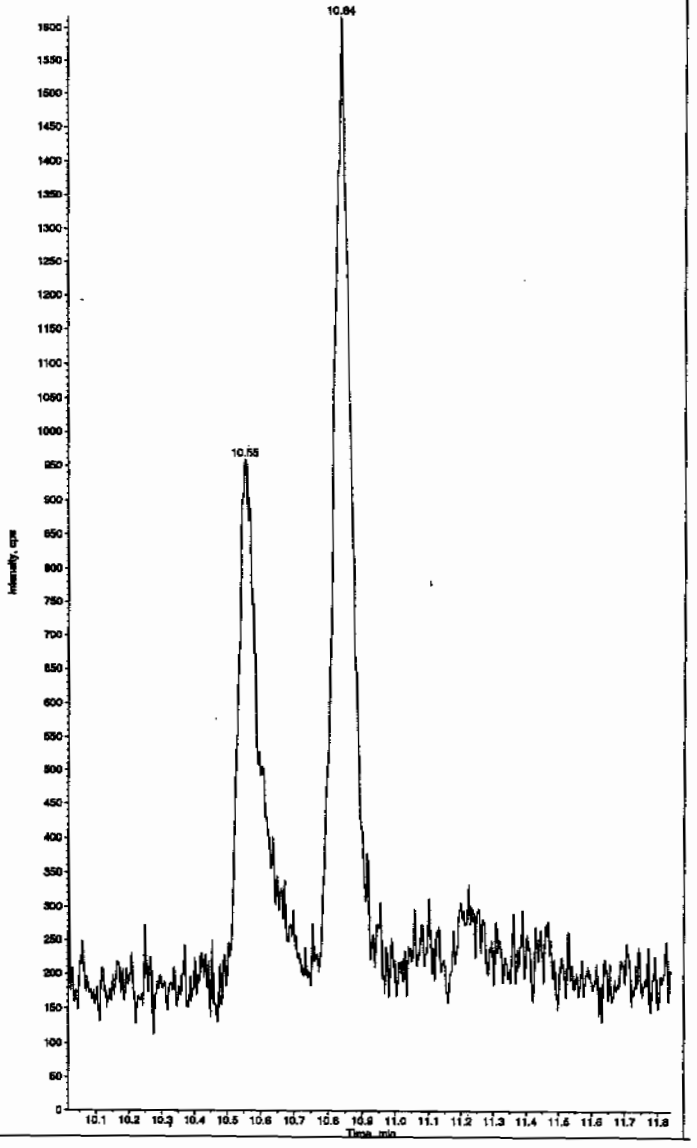

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8211

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193014

Sample Amount 2

Moisture: 1.2

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0401014.wiff

Date Analyzed: 01-APR-10 17:21

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401014.wiff	**Acquisition Date**	4/1/2010 5:21:27 PM
Sample Name	247193014	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	040110.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

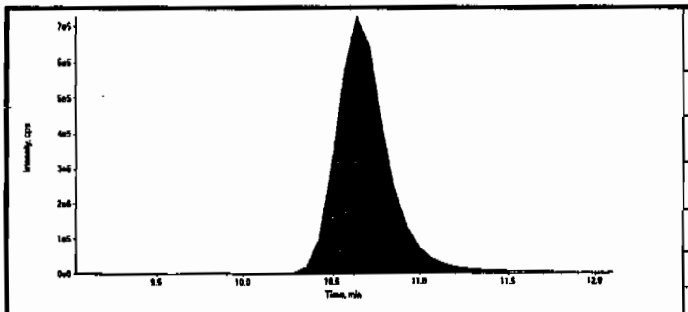

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	14700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

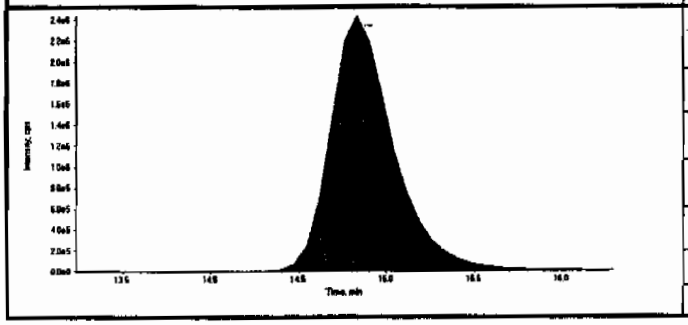

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.80
Actual RT:	14.80
Area Counts:	62200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

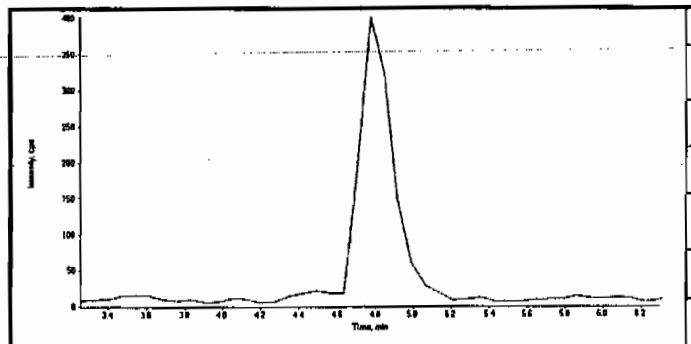

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

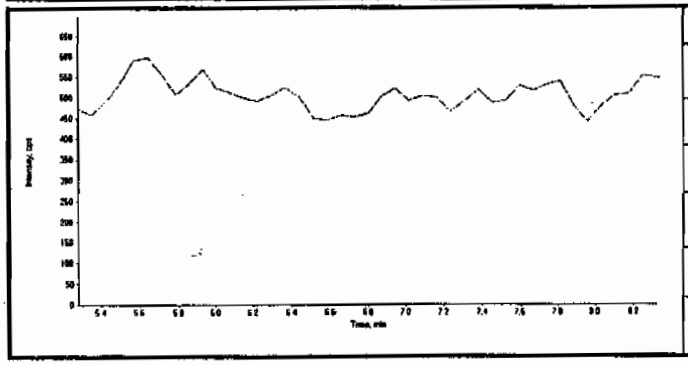

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

LCer 4/9/10 HMM 04/05/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401014.wiff	**Acquisition Date**	4/1/2010 5:21:27 PM
Sample Name	247193014	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	040110.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

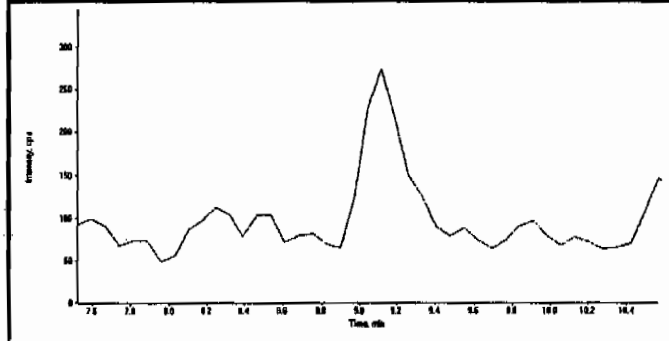

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.04
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

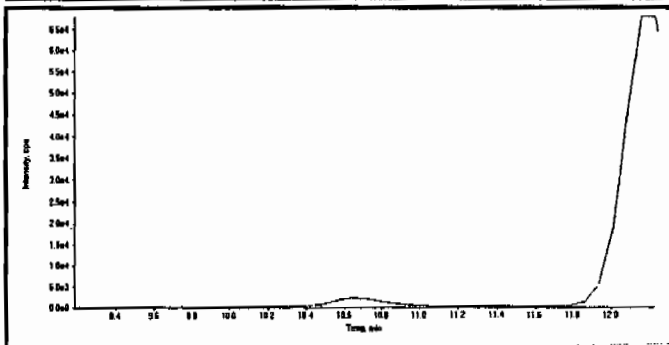

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

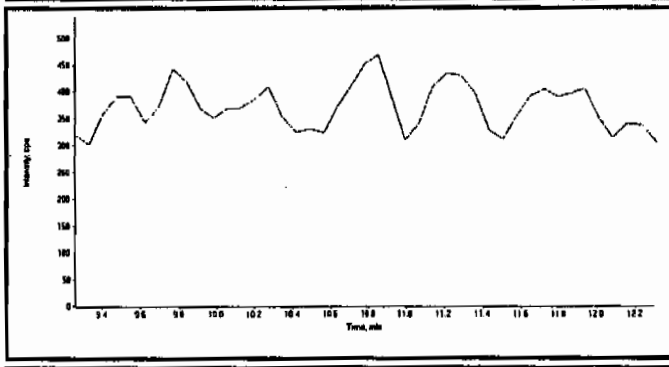

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

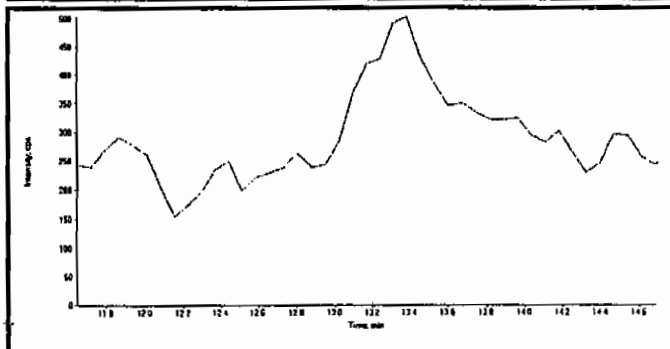

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401014.wiff	**Acquisition Date**	4/1/2010 5:21:27 PM
Sample Name	247193014	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	040110.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

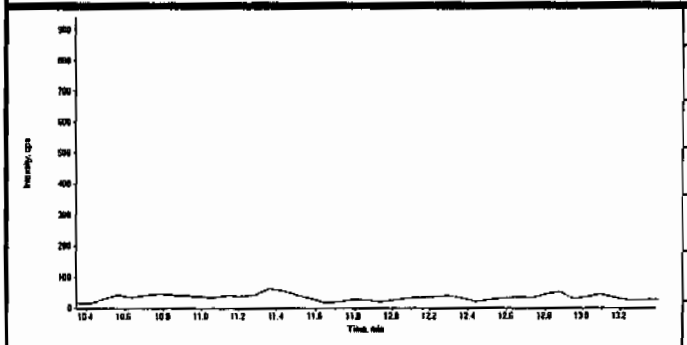

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

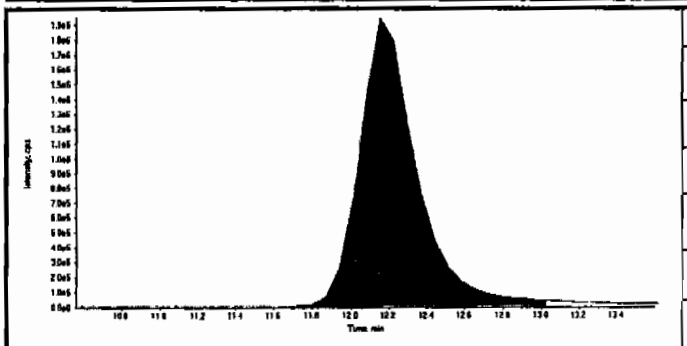

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	4.07e+007
Manual Modification	No
Amount:	261. (ng/mL)
% Accuracy:	N/A

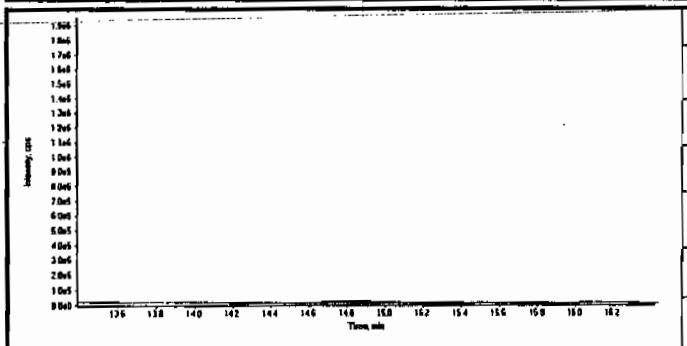

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.9
Actual RT:	14.8
Area Counts:	5.02e+005
Manual Modification	No
Amount:	4.31 (ng/mL)
% Accuracy:	N/A

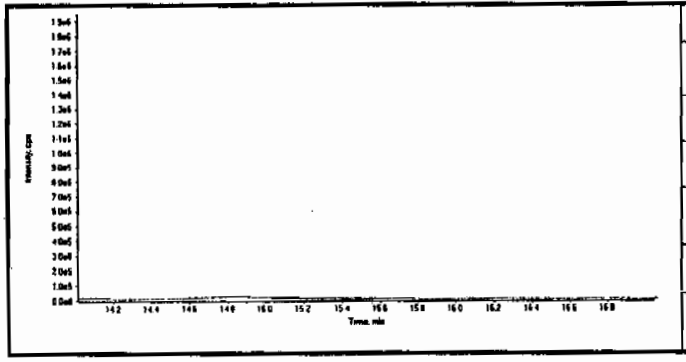

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0401014.wiff	**Acquisition Date**	4/1/2010 5:21:27 PM
Sample Name	247193014	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	040110.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

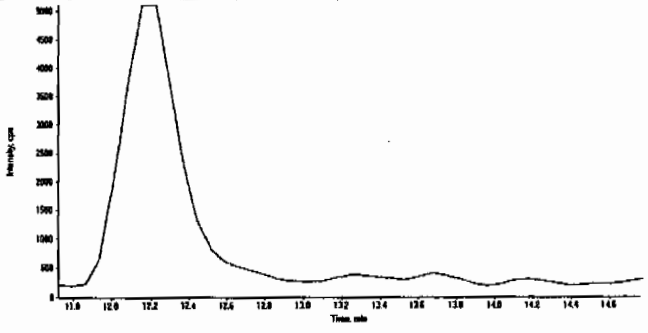

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

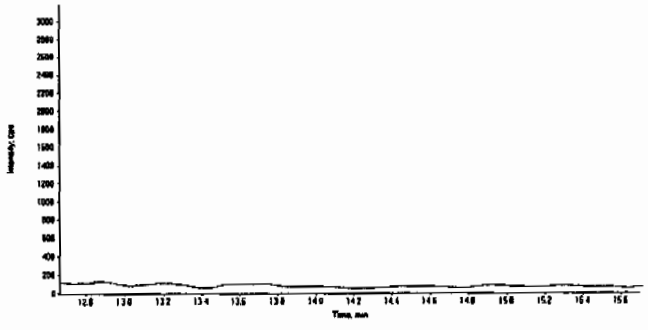

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

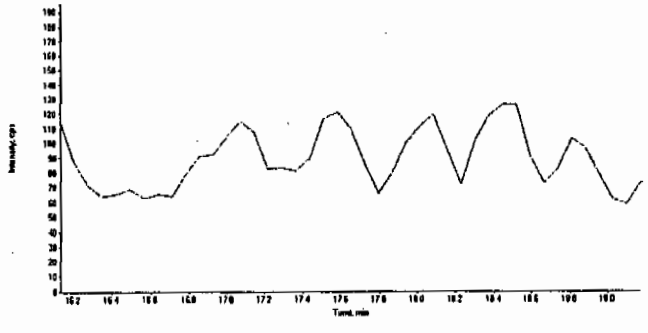

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.7
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

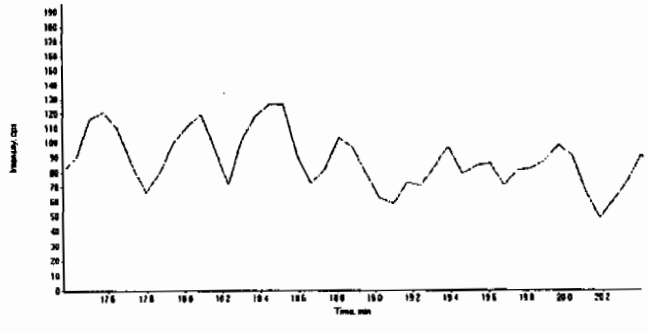

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401014.wiff	**Acquisition Date**	4/1/2010 5:21:27 PM
Sample Name	247193014	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	040110.rdb_
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

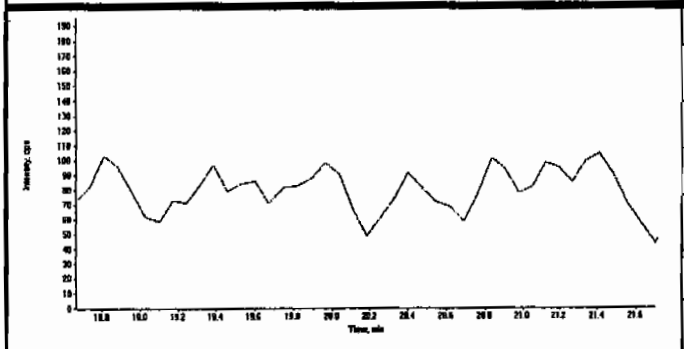

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

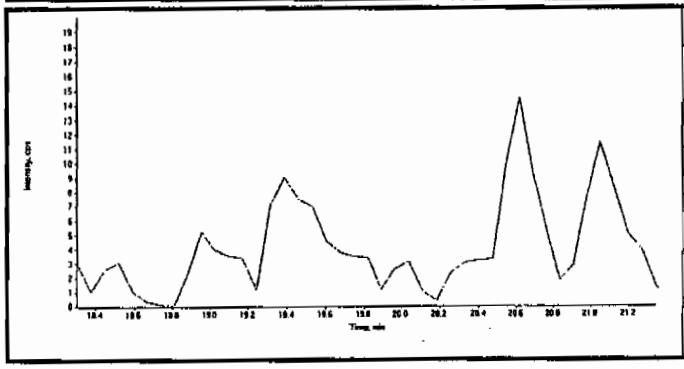

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15--10--8211

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 247193014

Sample Amount 2

Moisture: 1.2

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100102.wiff

Date Analyzed: 11-MAR-10 17:57

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1000	U
59229-75-3	2,6-Diamino-4-nitrotoluene	2000	U
618-87-1	3,5-Dinitroaniline	1000	U
6629-29-4	2,4-Diamino-6-nitrotoluene	2000	U
78-30-8	tris(o-cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 3/14/10

Sample Name: "247193014" Sample ID: "954328|2|LER" File: "EXS03100102.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 5:57:33 PM

Modified: No

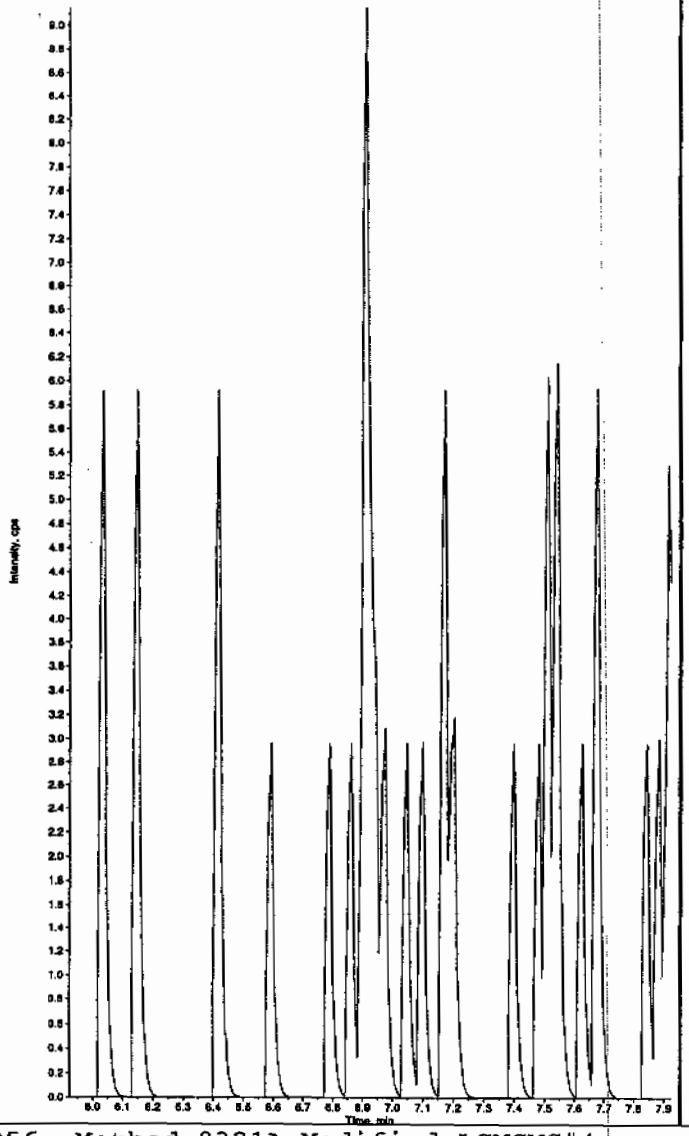

Sample Name: "247193014" Sample ID: "954328|2|LER" File: "EXS03100102.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 5:57:33 PM

Modified: No

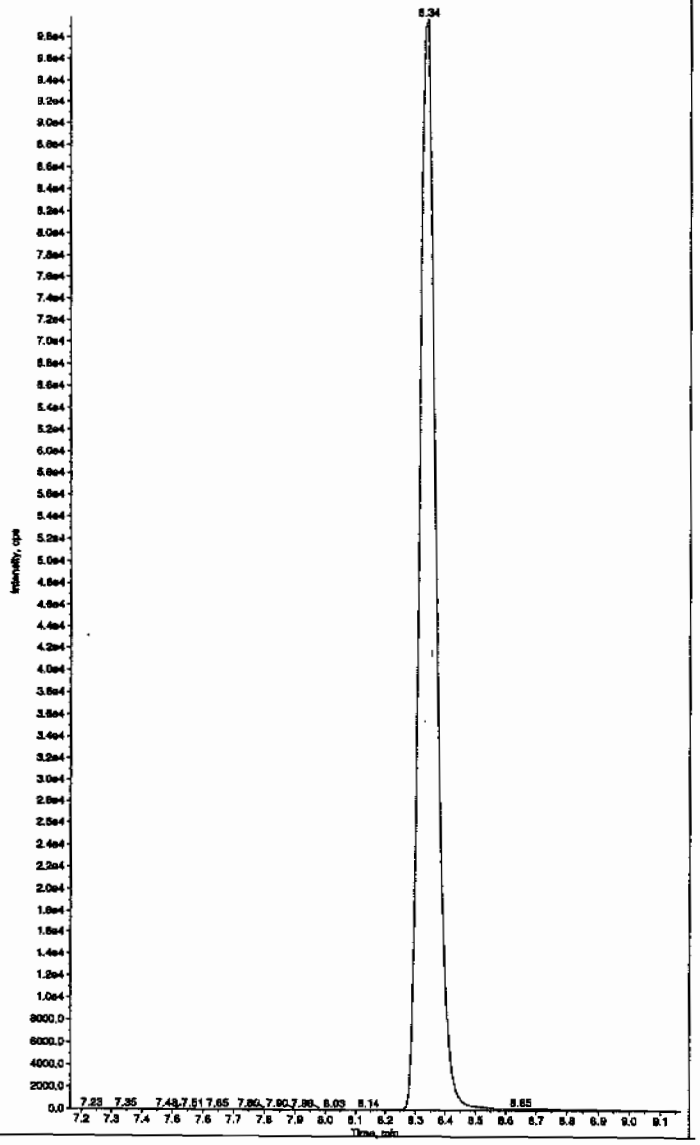

Hmk 03/15/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "247193014" Sample ID: "954328|2|LER" File: "EXS03100102.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX832125" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 276. ng/mL
cq. Date: 3/11/2010
cq. Time: 5:57:33 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 1460.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 15.0 sec
xpected RT: 8.32 min
se Relative RT: No

nt. Type: Valley
etention Time: 8.33 min
rea: 2.78e+006 counts
eight: 733850.840 cps
tart Time: 8.24 min
nd Time: 8.64 min

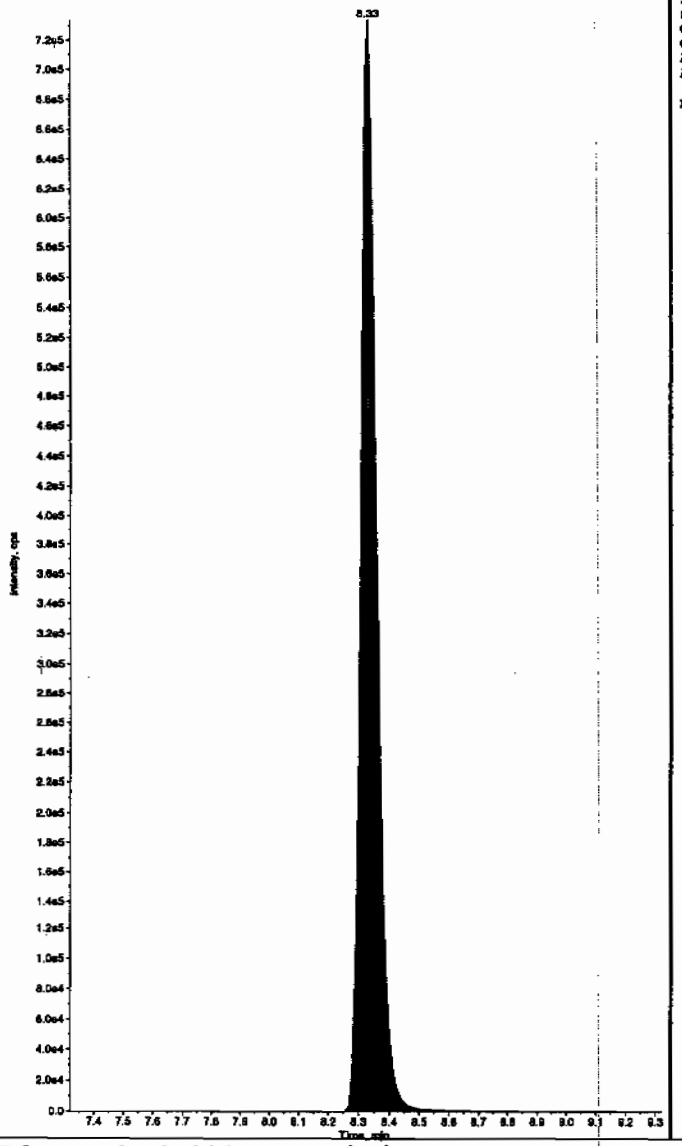

Sample Name: "247193014" Sample ID: "954328|2|LER" File: "EXS03100102.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX832125" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 5:57:33 PM

Modified: No

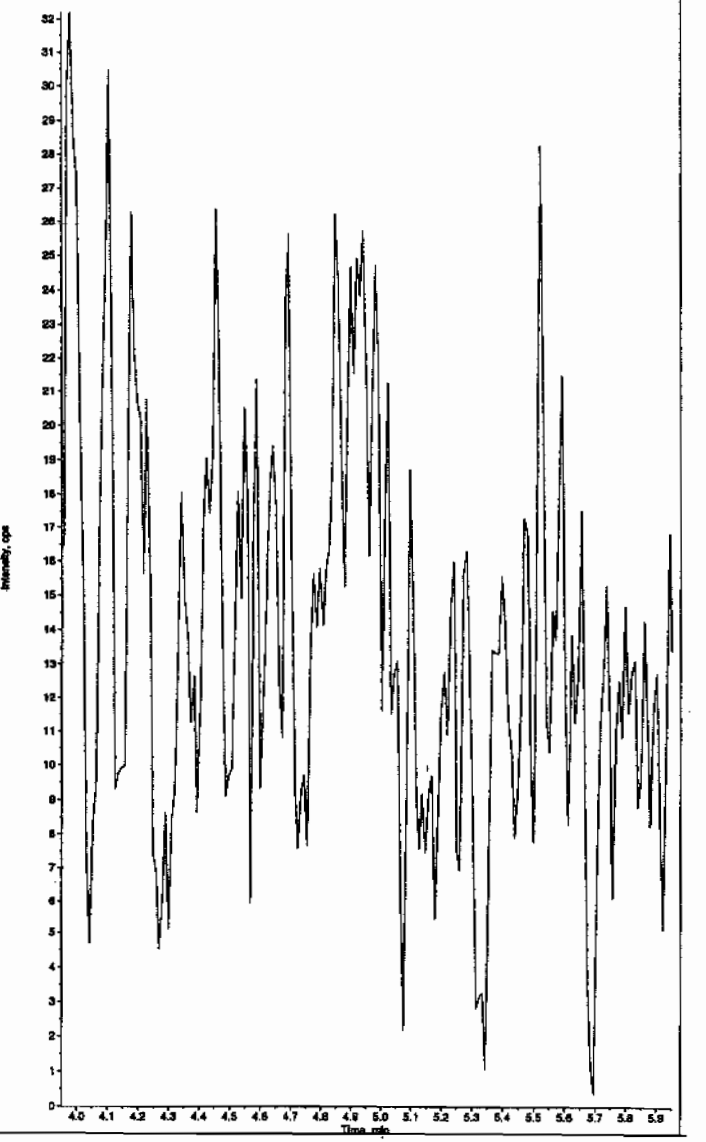

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "247193014" Sample ID: "954328[2]LER" File: "EXS03100102.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 5:57:33 PM

Modified: No

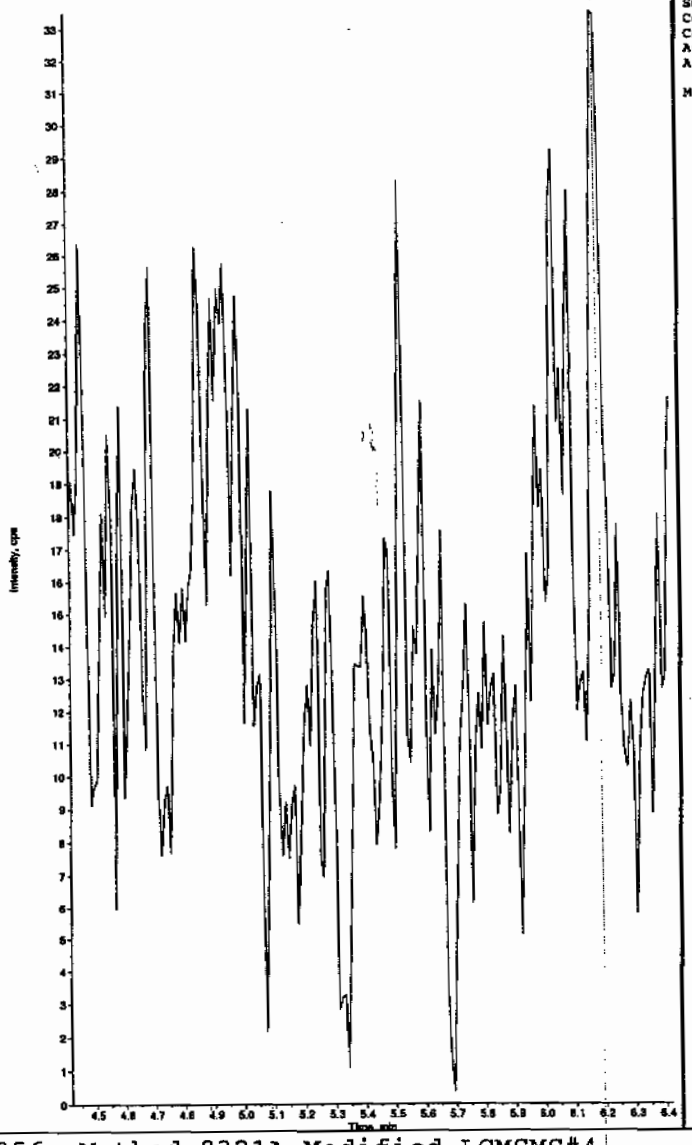

Sample Name: "247193014" Sample ID: "954328[2]LER" File: "EXS03100102.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 5:57:33 PM

Modified: No

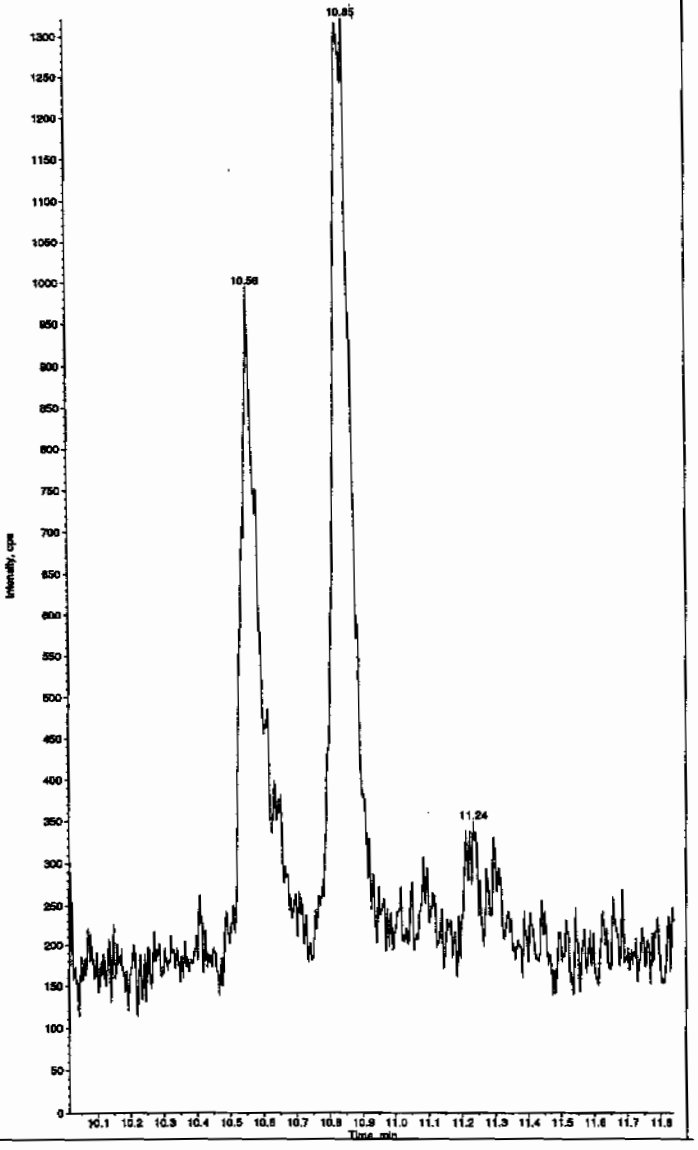

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STANDARDS DATA

SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MNX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1864

Lab Code: GEL

Run Date: 01-APR-10,10-MAR-10,30-MAR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	50	51	52	53	54	55	Ave RF	RSD	Q
Data File:	EXP0330003.wi	EXP0330004.wi	EXP0330005.wi	EXP0330006.wi	EXP0330007.wi	EXP0330008.wi			
Parmname									
1,3,5-Trinitrobenzene	7.79	7.46	7.86	6.7	5.21	6.07	6.848	15.4	
2,4-Dinitrotoluene	.55	.539	.561	.571	.489	.593	0.551	6.46	
2,6-Dinitrotoluene	1.02	.905	.948	.902	.854	.788	0.903	8.91	
2-Amino-4,6-dinitrotoluene	.039	.032	.039	.039	.04	.038	0.038	7.56	
3,4-Dinitrotoluene	1.23	1.15	1.3	1.04	1.11	1.15	1.163	7.66	
4-Amino-2,6-dinitrotoluene	1.14	.916	1.19	.967	.932	.905	1.008	12.4	
HMX	2.42	2.3	2.22	2.06	1.68	2.1	2.130	12.1	
Nitrobenzene	.111	.137	.156	.127	.12	.153	0.134	13.6	
PETN	.016	.012	.014	.013	.013	.016	0.014	11.3	
RDX	1.33	1.4	1.49	1.27	1.17	1.56	1.370	10.5	
Tetryl	5.66	4.9	5.34	4.62	3.73	4.42	4.778	14.3	
m-Dinitrobenzene	2.83	2.79	3.07	2.83	2.49	2.81	2.803	6.6	
m-Nitrotoluene	.009	.009	.009	.009	.009	.01	0.009	5.63	
o-Nitrotolnene	.012	.011	.013	.012	.014	.015	0.013	10.8	
p-Nitrotoluene	.007	.007	.008	.007	.008	.008	0.008	8.49	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1864

Lab Code: GEL

Run Date: 01-APR-10,10-MAR-10,30-MAR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	50	51	52	53	54	55	X	X^2	Intercept	COD	Q
Data File:	EXP0330003.wiff	EXP0330004.wiff	EXP0330005.wiff	EXP0330006.wiff	EXP0330007.wiff	EXP0330008.wiff					
Parmname:											
2,4,6-Trinitrotoluene	14000000	27700000	109000000	181000000	303000000	337000000	.079	2.97	-.401	.9986	

Quadradic Fit: $y = Ax^2 + Bx + C$
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Peak Name: 13-Dinitrobenzene-d4
Use as Internal Standard
Q1/Q3 Masses: 172.05/46.10 amu
Peak Name: 26-Dinitrotoluene-d3
Use as Internal Standard
Q1/Q3 Masses: 184.99/155.00 amu

Peak Name: HMX
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 341.20/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 2.13
Standard deviation 0.258
%RSD 12.1
Use Area

Peak Name: RDX
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 267.01/46.10 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.37
Standard deviation 0.143
%RSD 10.5
Use Area

Peak Name: 135-Trinitrobenzene
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 212.97/182.80 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 6.85
Standard deviation 1.06
%RSD 15.4
Use Area

Peak Name: 13-Dinitrobenzene
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 167.95/137.90 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 2.81
Standard deviation 0.185

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%RSD 6.6
Use Area

Peak Name: Tetryl
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 240.95/180.80 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 4.78
Standard deviation 0.685
%RSD 14.3
Use Area

Peak Name: 246-Trinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 227.12/209.80 amu

Fit Quadratic Weighting None Iterate No
a0 0.0793
a1 2.97
a2 -0.401
Correlation coefficient 0.9986
Use Area

Peak Name: Nitrobenzene
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 123.04/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.134
Standard deviation 0.0182
%RSD 13.6
Use Area

Peak Name: 34-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 182.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.16
Standard deviation 0.0891
%RSD 7.66
Use Area

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Peak Name: 26-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 182.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.904
Standard deviation 0.0805
%RSD 8.91
Use Area

Peak Name: 24-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 182.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.551
Standard deviation 0.0356
%RSD 6.46
Use Area

Peak Name: 4-Amino-26-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 197.02/167.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.01
Standard deviation 0.125
%RSD 12.4
Use Area

Peak Name: 2-Amino-46-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 197.02/180.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.0378
Standard deviation 0.00286
%RSD 7.56
Use Area

Peak Name: 2-Nitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 137.00/46.00 amu

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Fit Mean Response Factor Weighting None Iterate No
Factor 0.013
Standard deviation 0.0014
%RSD 10.8
Use Area

Peak Name: 4-Nitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 137.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.00731
Standard deviation 0.000621
%RSD 8.49
Use Area

Peak Name: 3-Nitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 137.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.00905
Standard deviation 0.00051
%RSD 5.63
Use Area

Peak Name: PETN
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 361.06/62.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.0142
Standard deviation 0.0016
%RSD 11.3
Use Area

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033010.rdb
Analyte Name: HMX

Regression Equation: y = 2.13 x (std. dev. = 0.258)

Expected Concentration	Calculated Concentration	% Accuracy
25	28.38	113.5
50	54.03	108.1
200	208.96	104.5
400	386.76	96.7
800	630.06	78.8
1000	984.84	98.5

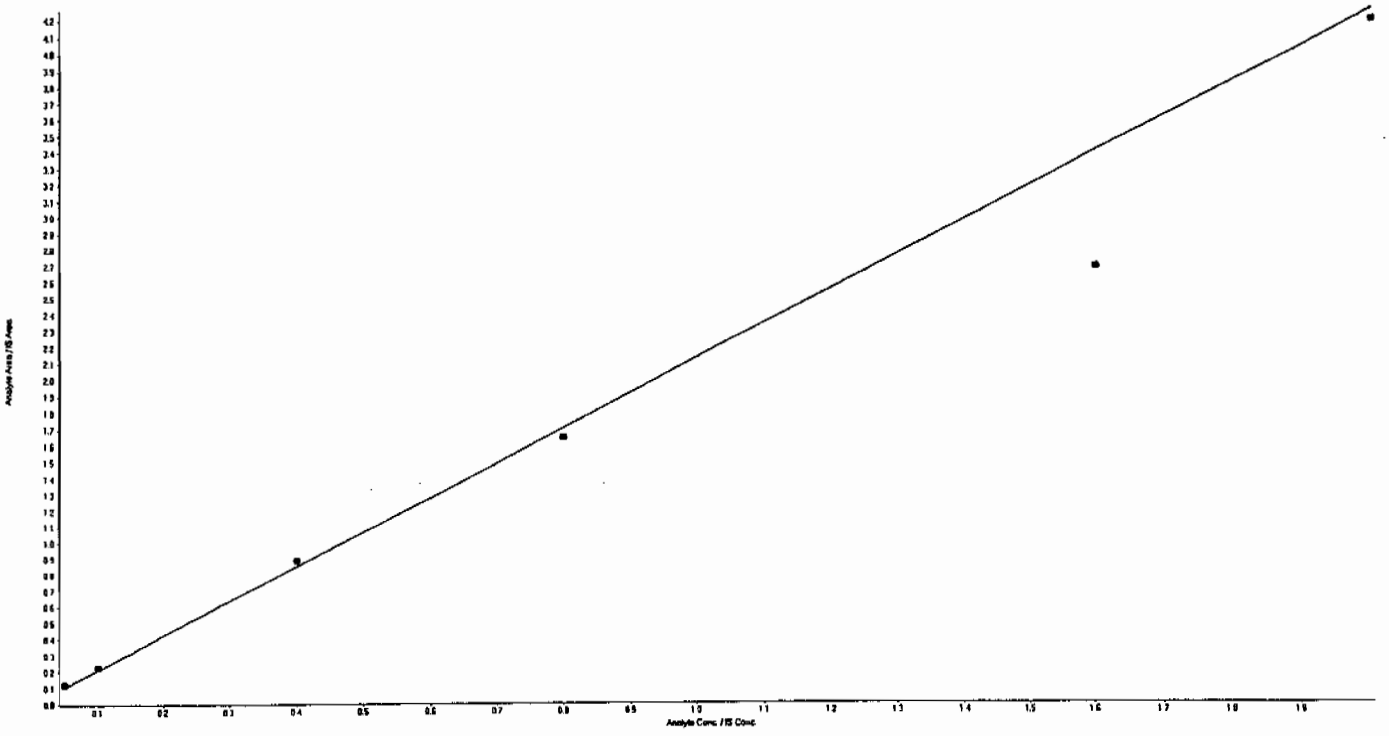

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Analyte Name: RDX

Regression Equation: y = 1.37 x (std. dev. = 0.143)

Expected Concentration	Calculated Concentration	% Accuracy
25	24.24	97.0
50	51.04	102.1
200	217.88	108.9
400	371.47	92.9
800	683.21	85.4
1000	1137.35	113.7

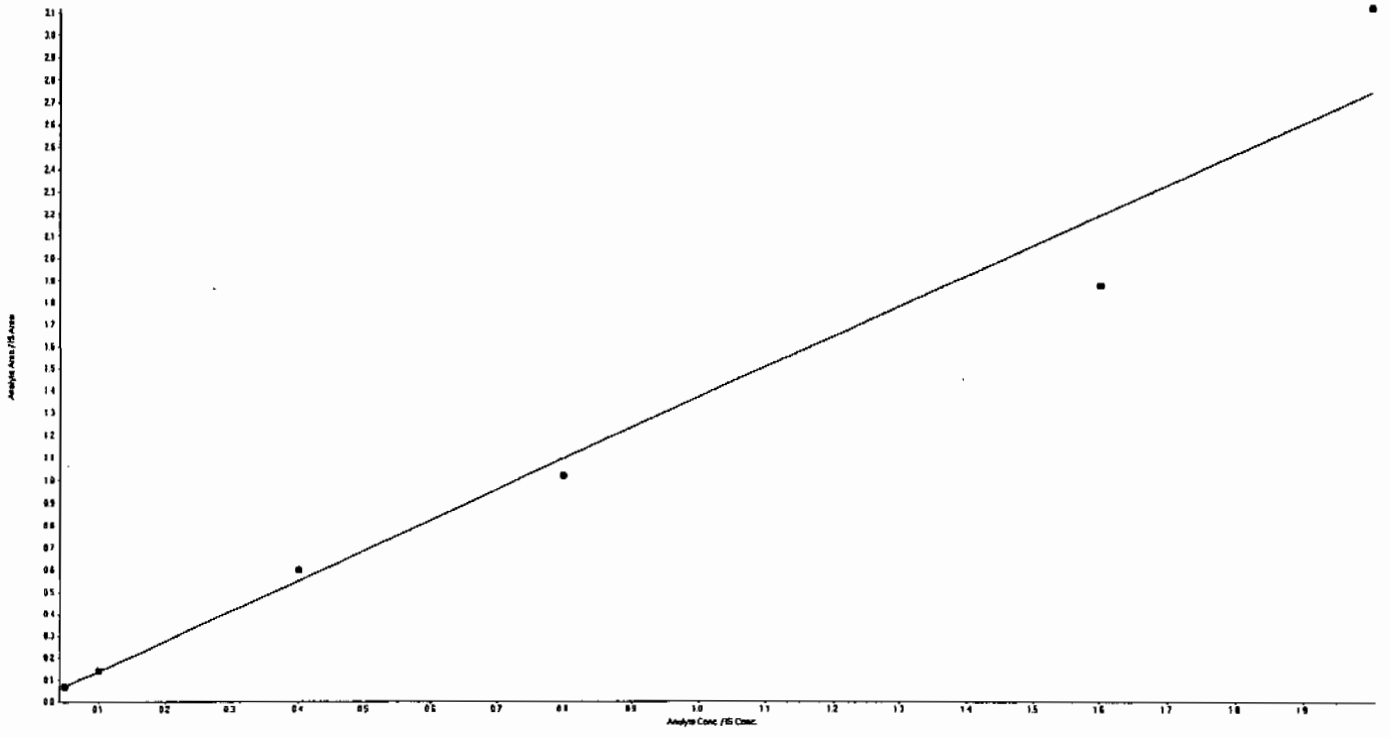

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Analyte Name: 135-Trinitrobenzene

Regression Equation: y = 6.85 x (std. dev. = 1.06)

Expected Concentration	Calculated Concentration	% Accuracy
25	28.43	113.7
50	54.48	109.0
200	229.46	114.7
400	391.28	97.8
800	609.13	76.1
1000	886.29	88.6

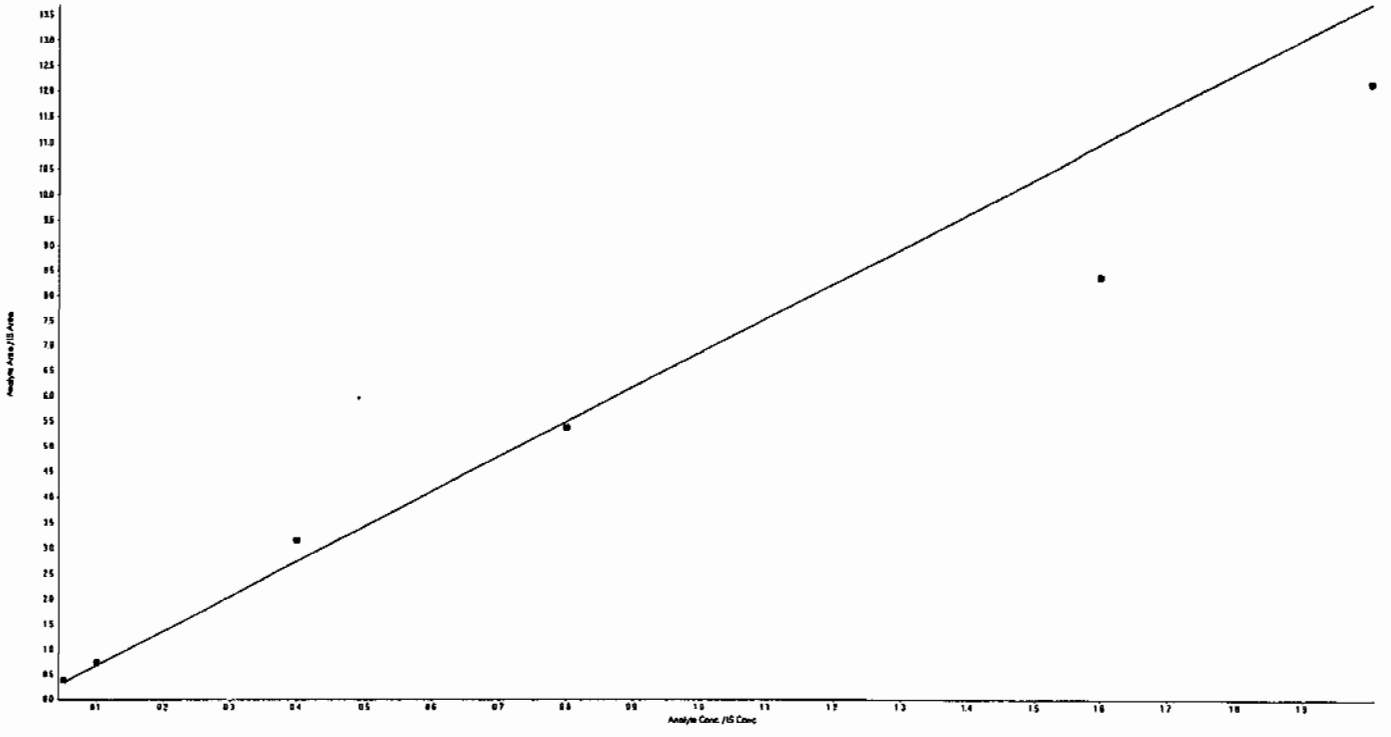

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Analyte Name: 13-Dinitrobenzene

Regression Equation: y = 2.81 x (std. dev. = 0.185)

Expected Concentration	Calculated Concentration	% Accuracy
25	25.25	101.0
50	49.76	99.5
200	219.17	109.6
400	403.25	100.8
800	710.82	88.9
1000	1002.43	100.2

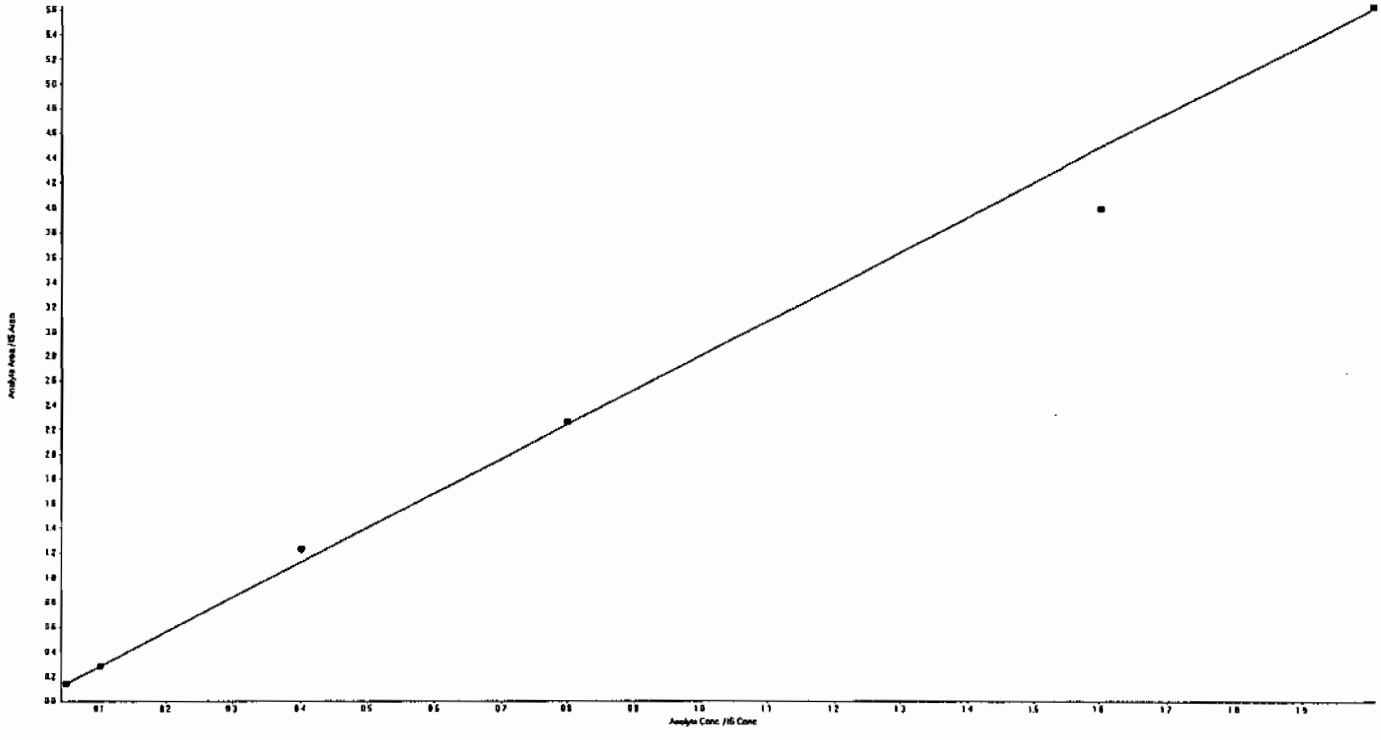

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Analyte Name: Tetryl

Regression Equation: y = 4.78 x (std. dev. = 0.685)

Expected Concentration	Calculated Concentration	% Accuracy
25	29.59	118.4
50	51.23	102.5
200	223.60	111.8
400	386.62	96.7
800	625.12	78.1
1000	925.81	92.6

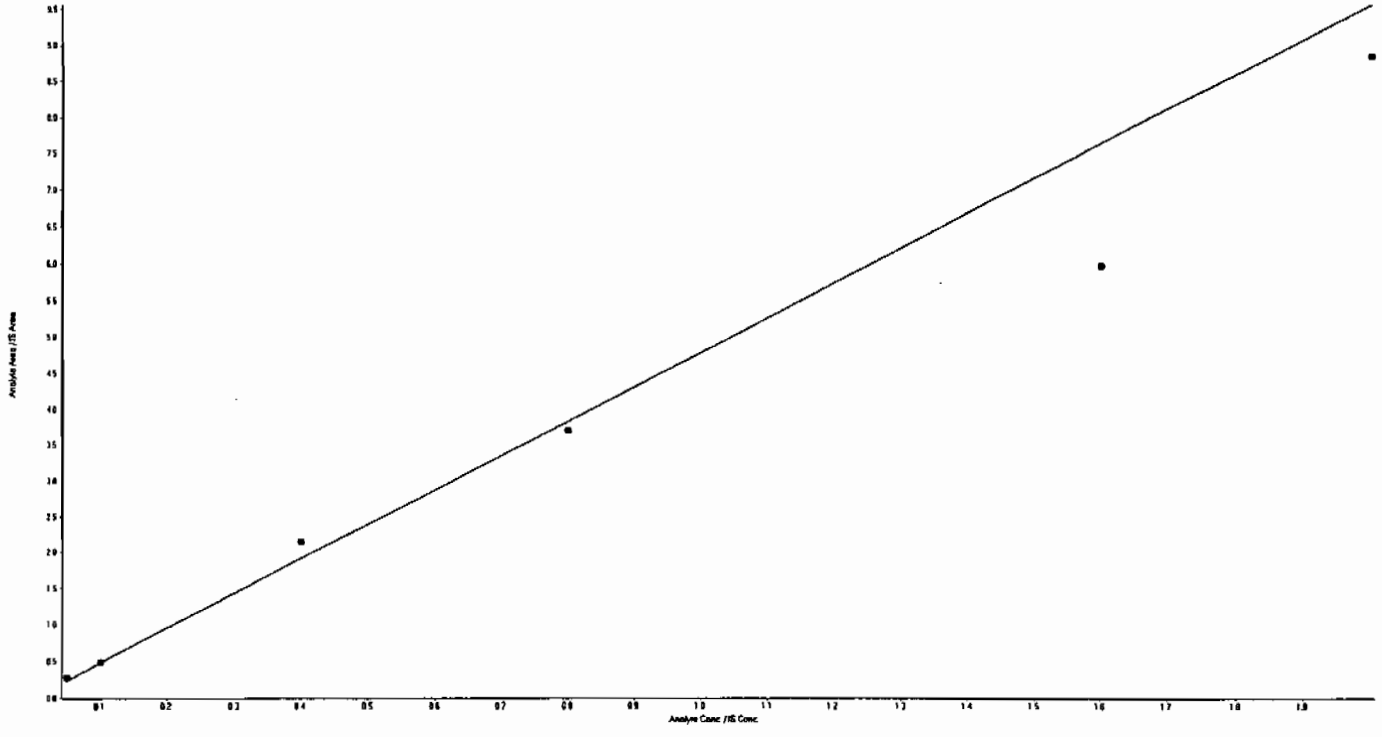

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Analyte Name: 246-Trinitrotoluene

Regression Equation: y = -0.401 x^2 + 2.97 x + 0.0793 (r = 0.9986)

Expected Concentration	Calculated Concentration	% Accuracy
25	17.25	69.0
50	42.81	85.6
200	233.89	116.9
400	381.07	95.3
800	792.52	99.1
1000	1008.61	100.9

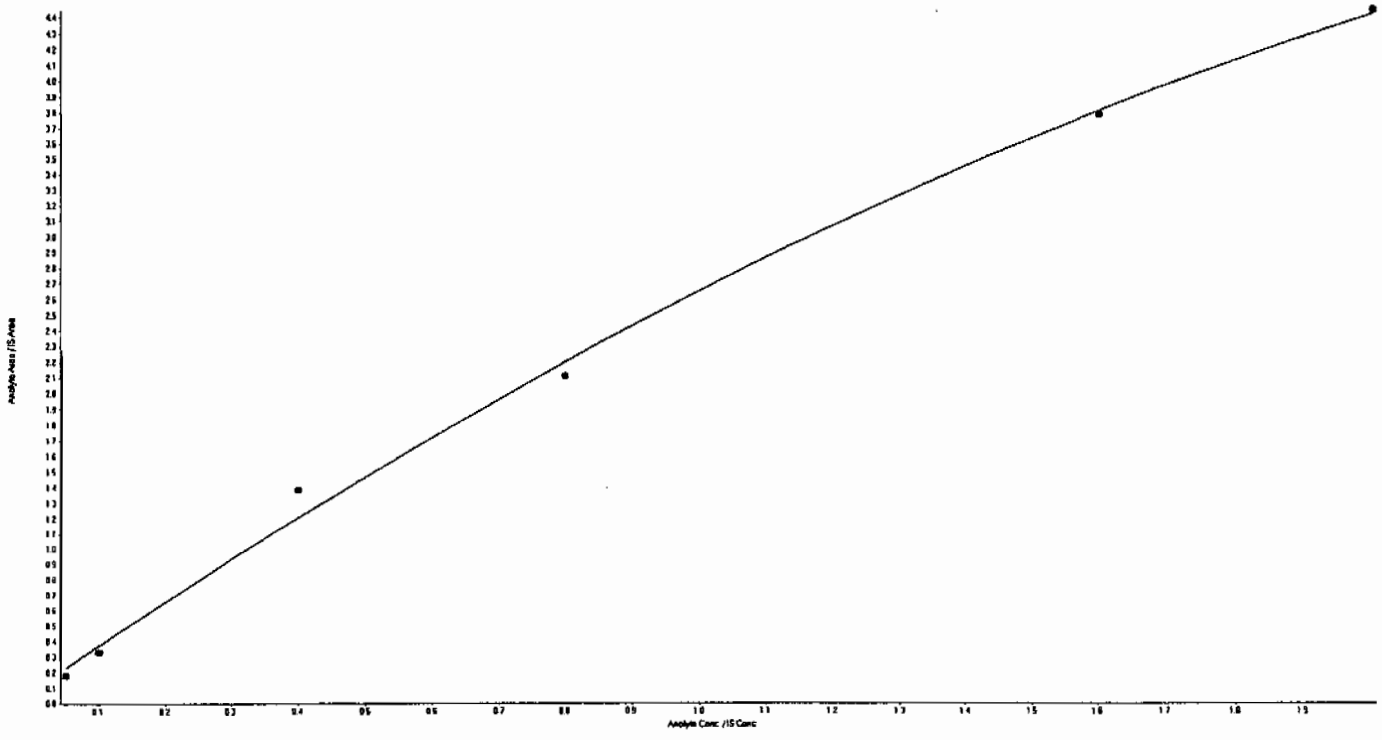

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Analyte Name: Nitrobenzene

Regression Equation: y = 0.134 x (std. dev. = 0.0182)

Expected Concentration	Calculated Concentration	% Accuracy
25	20.65	82.6
50	51.17	102.3
200	232.94	116.5
400	379.76	94.9
800	715.24	89.4
1000	1142.49	114.2

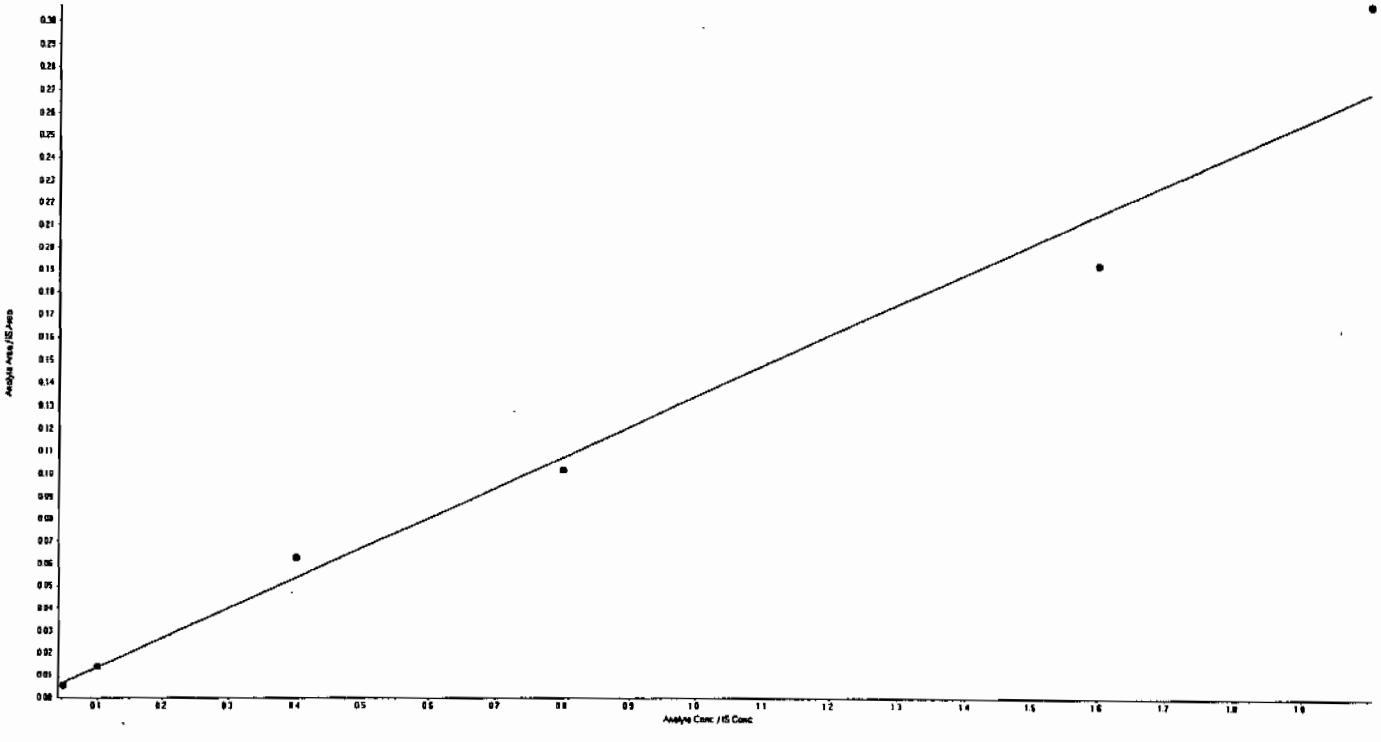

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Analyte Name: 34-dinitrotoluene

Regression Equation: y = 1.16 x (std. dev. = 0.0891)

Expected Concentration	Calculated Concentration	% Accuracy
12.5	13.16	105.3
25	24.67	98.7
100	111.82	111.8
200	179.58	89.8
400	383.20	95.8
500	493.05	98.6

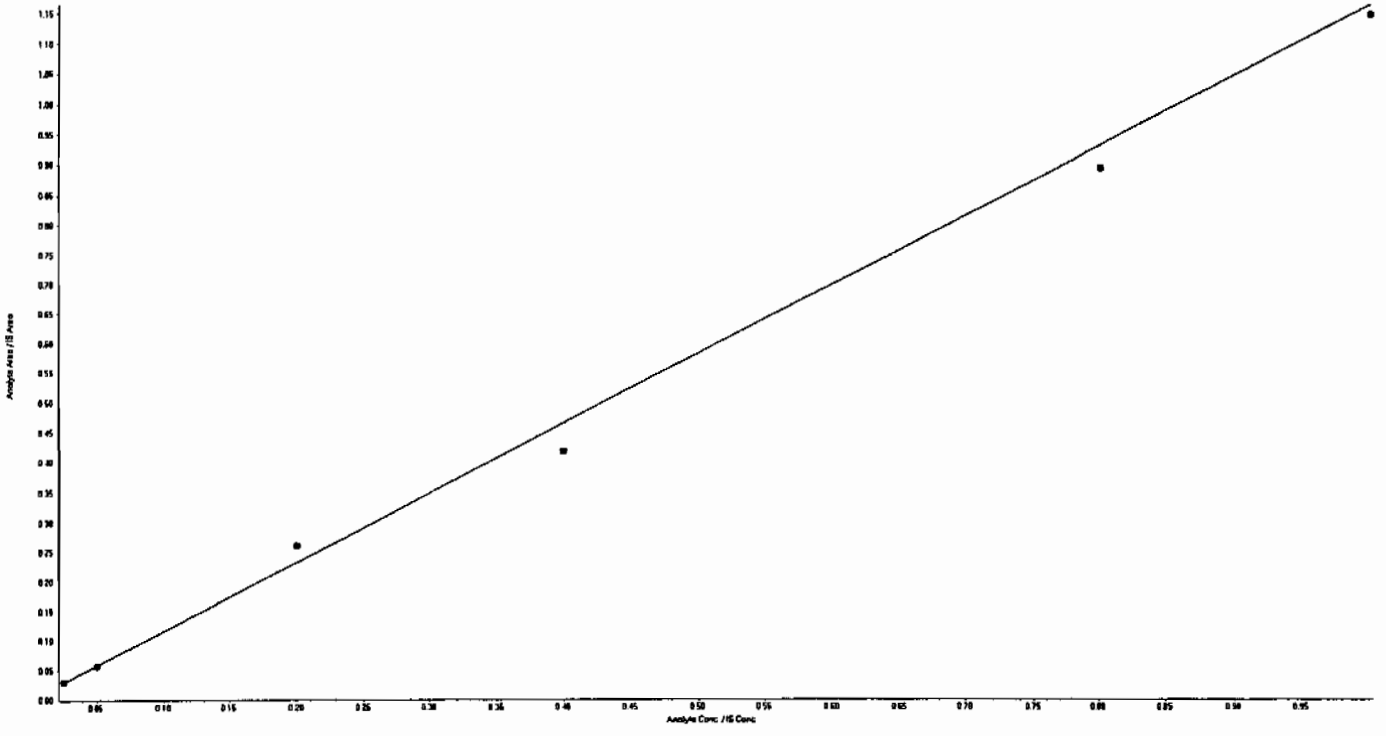

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Analyte Name: 26-dinitrotoluene

Regression Equation: y = 0.904 x (std. dev. = 0.0805)

Expected Concentration	Calculated Concentration	% Accuracy
25	28.35	113.4
50	50.06	100.1
200	209.92	105.0
400	399.32	99.8
800	755.64	94.5
1000	872.44	87.2

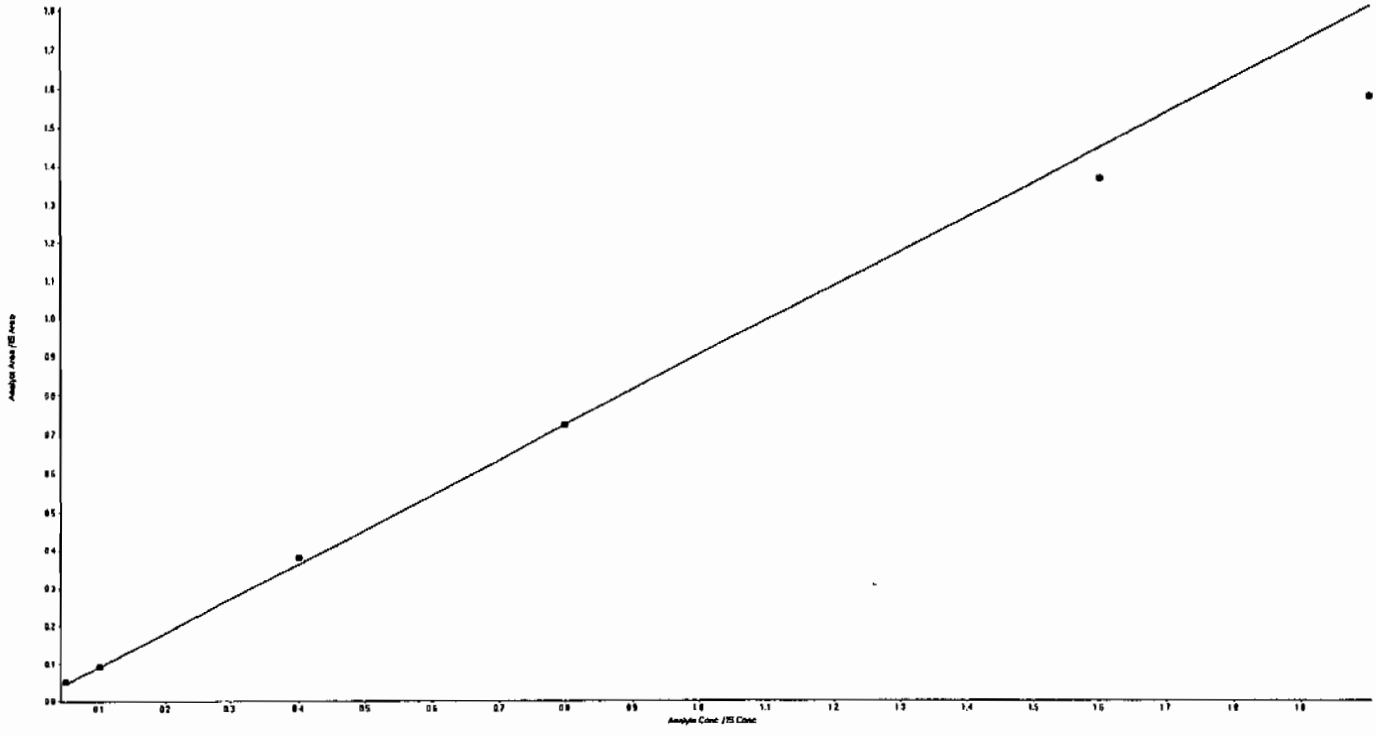

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Analyte Name: 24-dinitrotoluene

Regression Equation: y = 0.551 x (std. dev. = 0.0356)

Expected Concentration	Calculated Concentration	% Accuracy
25	24.97	99.9
50	48.98	98.0
200	203.75	101.9
400	415.08	103.8
800	710.10	88.8
1000	1077.62	107.8

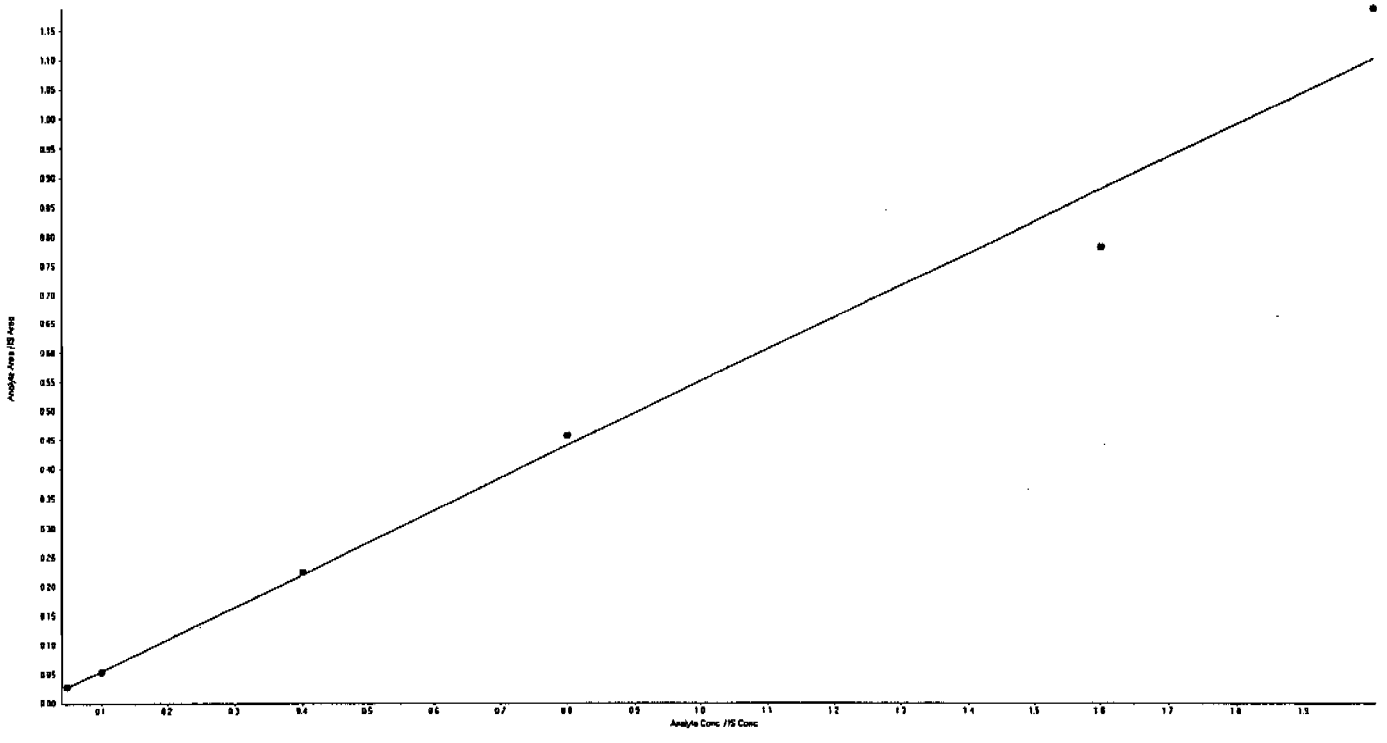

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Analyte Name: 4-Amino-26-dinitrotoluene

Regression Equation: y = 1.01 x (std. dev. = 0.125)

Expected Concentration	Calculated Concentration	% Accuracy
25	28.26	113.0
50	45.39	90.8
200	236.28	118.1
400	383.50	95.9
800	739.59	92.4
1000	897.34	89.7

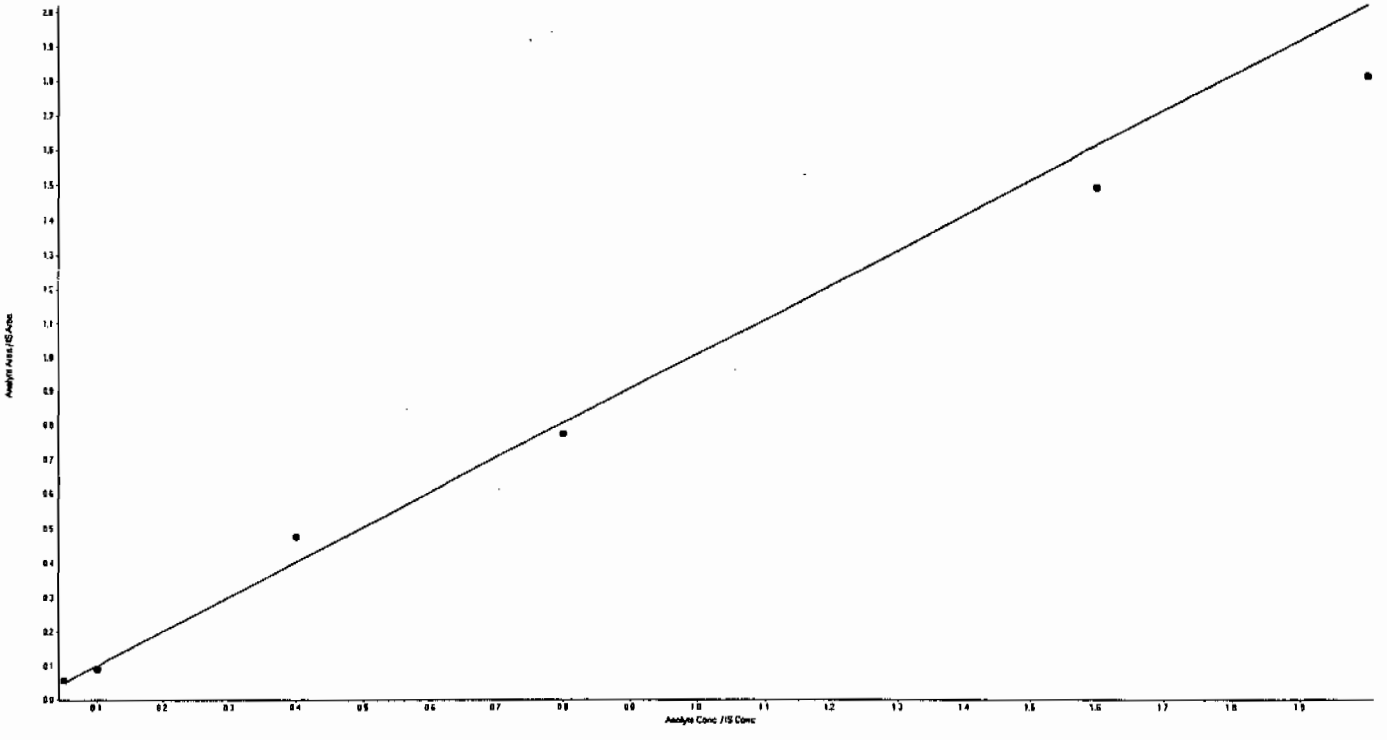

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Analyte Name: 2-Amino-46-dinitrotoluene

Regression Equation: y = 0.0378 x (std. dev. = 0.00286)

Expected Concentration	Calculated Concentration	% Accuracy
25	25.52	102.1
50	42.63	85.3
200	207.98	104.0
400	411.29	102.8
800	850.72	106.3
1000	995.09	99.5

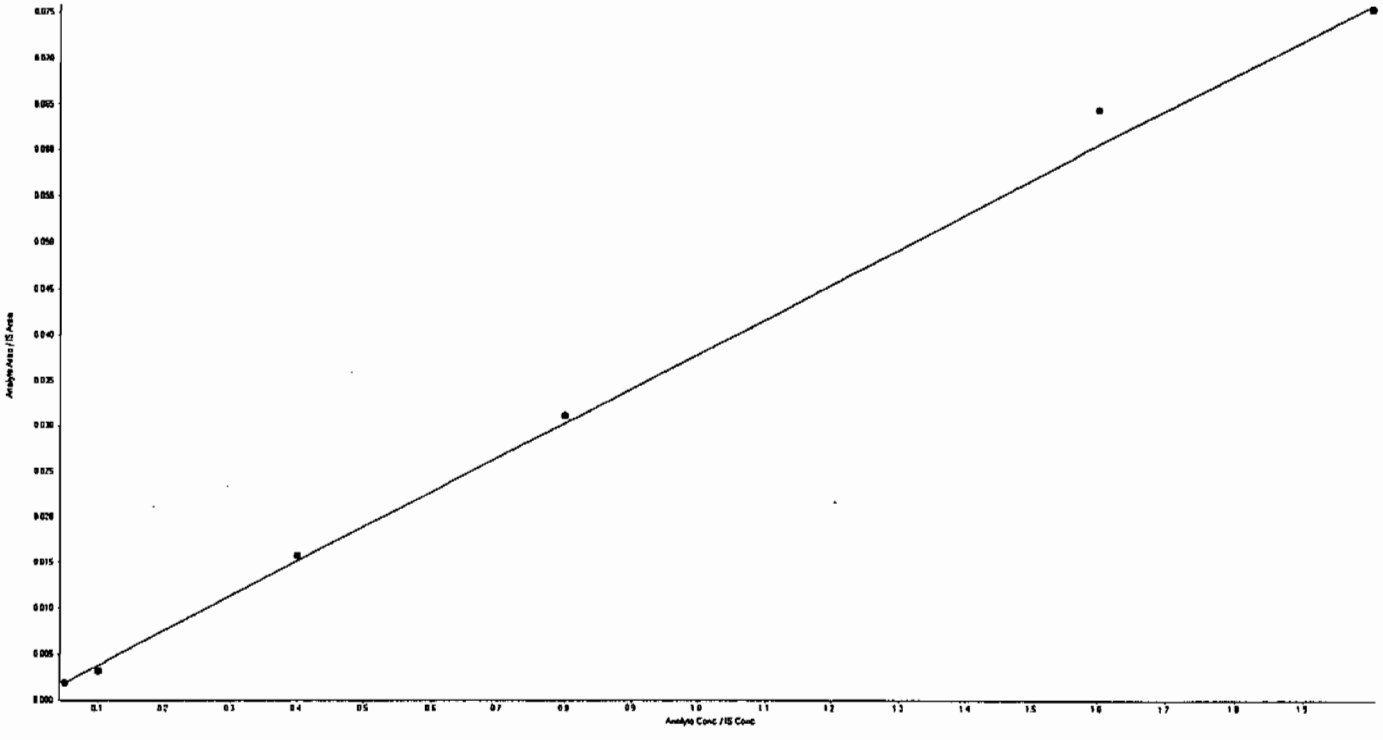

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Analyte Name: 2-Nitrotoluene

Regression Equation: y = 0.013 x (std. dev. = 0.0014)

Expected Concentration	Calculated Concentration	% Accuracy
25	23.00	92.0
50	43.88	87.8
200	205.28	102.6
400	375.91	94.0
800	857.51	107.2
1000	1164.27	116.4

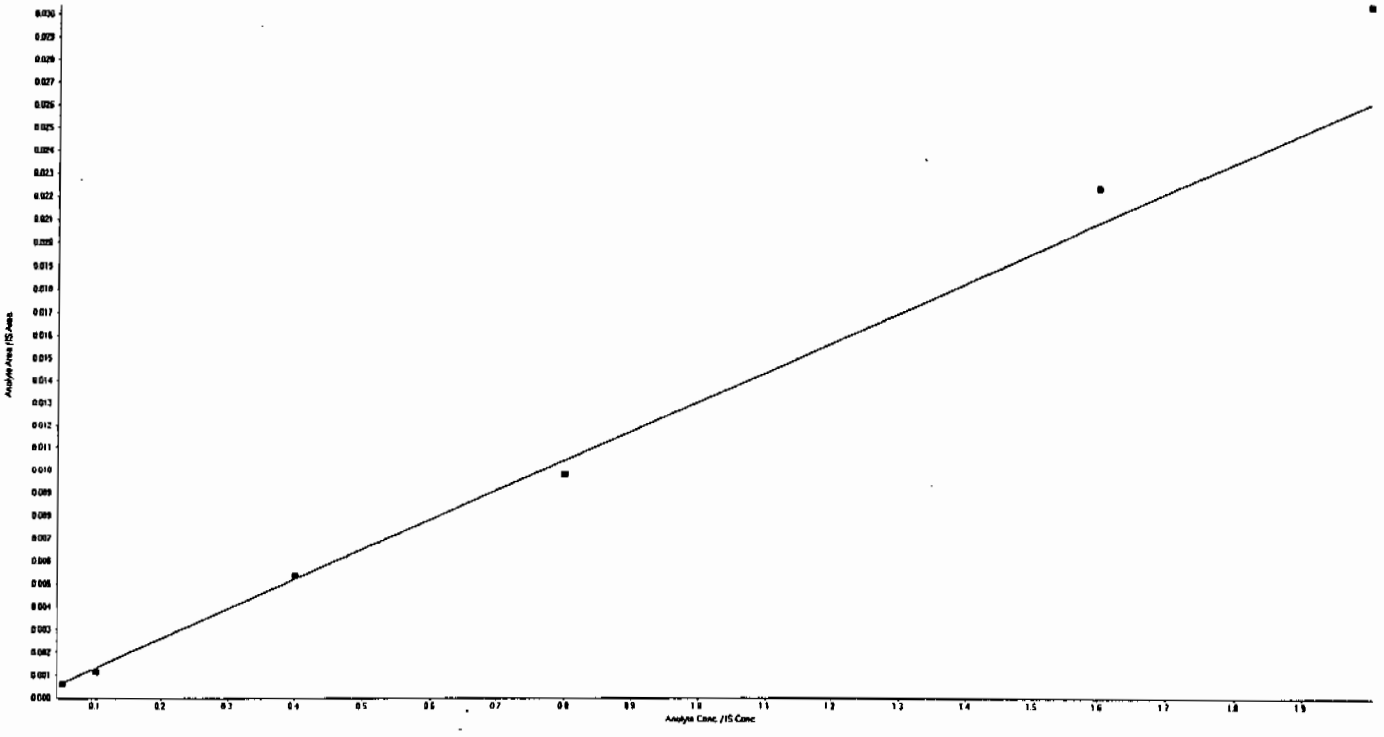

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LCMSMS#3

Analyte Name: 4-Nitrotoluene

Regression Equation: y = 0.00731 x (std. dev. = 0.000621)

Expected Concentration	Calculated Concentration	% Accuracy
25	24.07	96.3
50	44.81	89.6
200	212.01	106.0
400	366.88	91.7
800	866.02	108.3
1000	1081.11	108.1

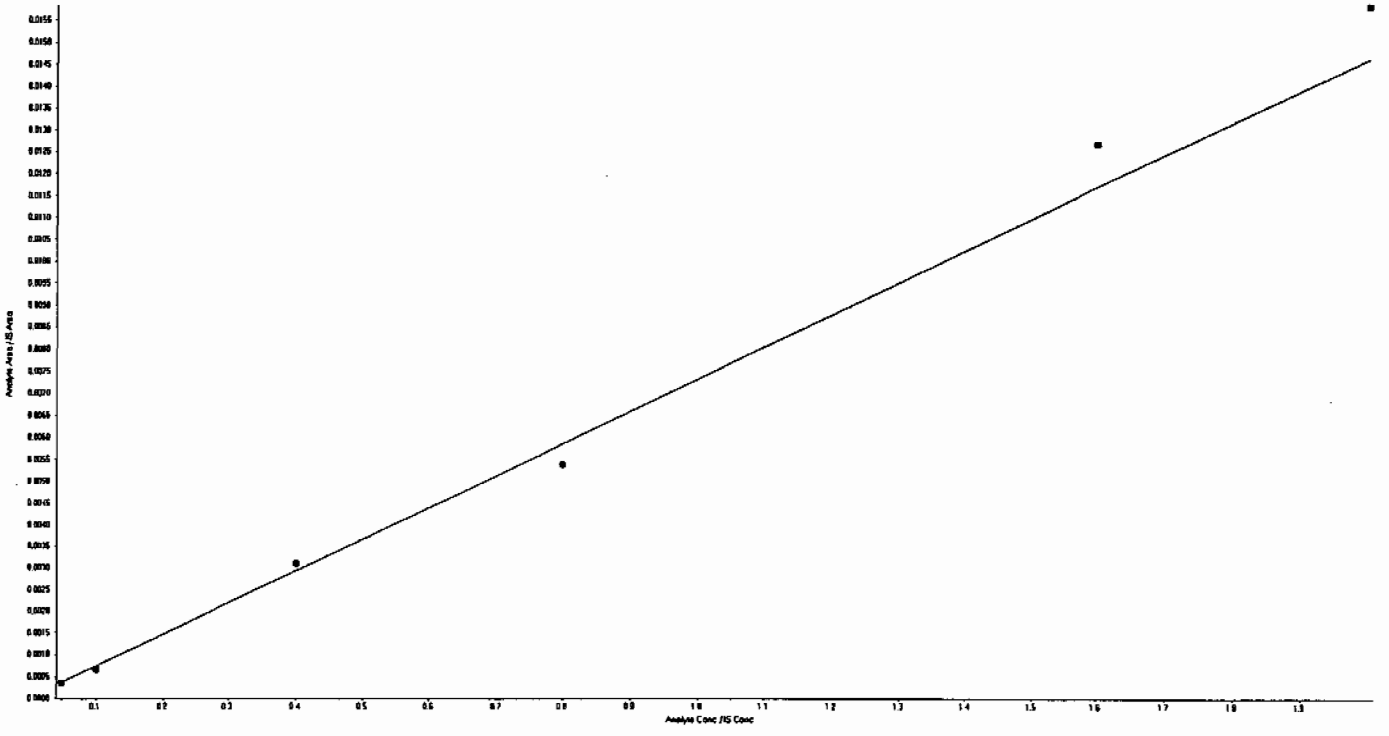

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LCMSMS#3

Analyte Name: 3-Nitrotoluene

Regression Equation: y = 0.00905 x (std. dev. = 0.00051)

Expected Concentration	Calculated Concentration	% Accuracy
25	23.72	94.9
50	49.58	99.2
200	198.94	99.5
400	398.92	99.7
800	768.05	96.0
1000	1107.49	110.7

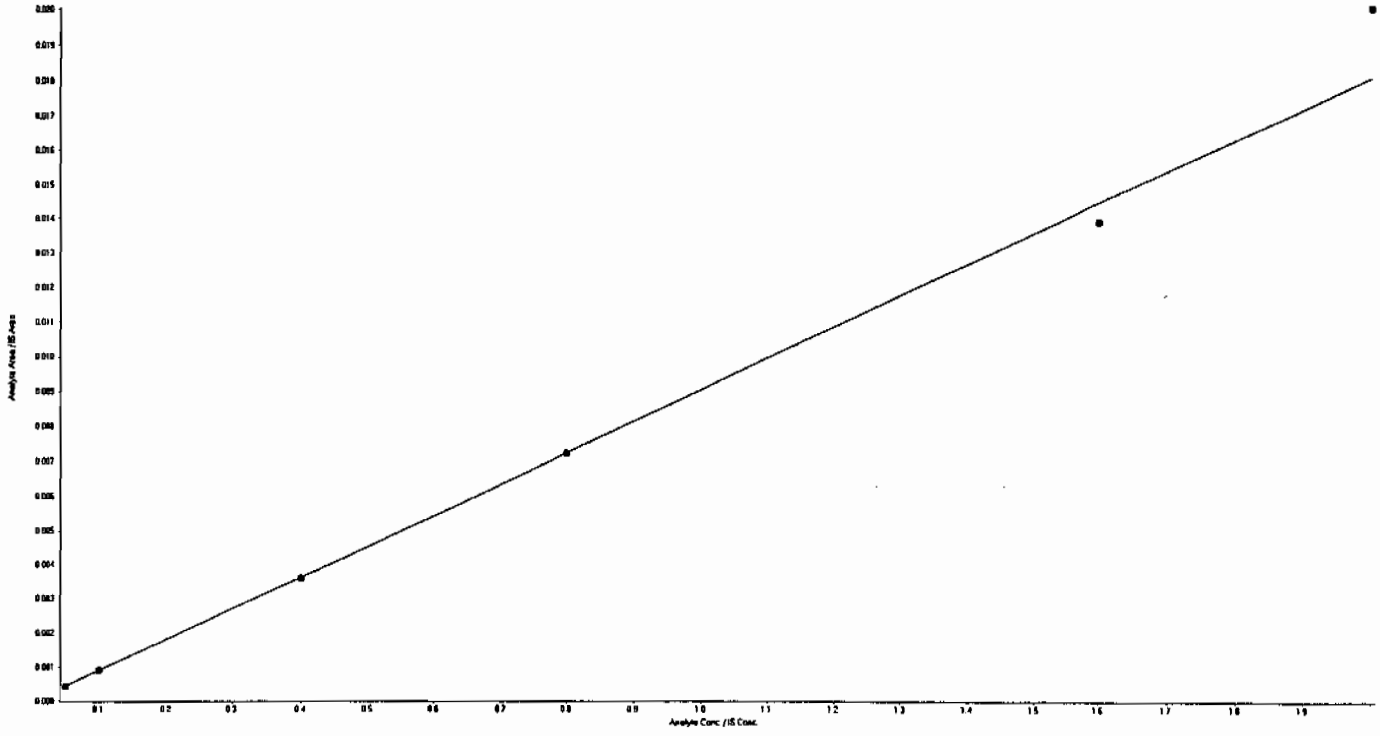

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

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LCMSMS#3

Analyte Name: PETN

Regression Equation: y = 0.0142 x (std. dev. = 0.0016)

Expected Concentration	Calculated Concentration	% Accuracy
25	28.90	115.6
50	43.48	87.0
200	201.08	100.5
400	375.40	93.9
800	736.85	92.1
1000	1109.50	110.9

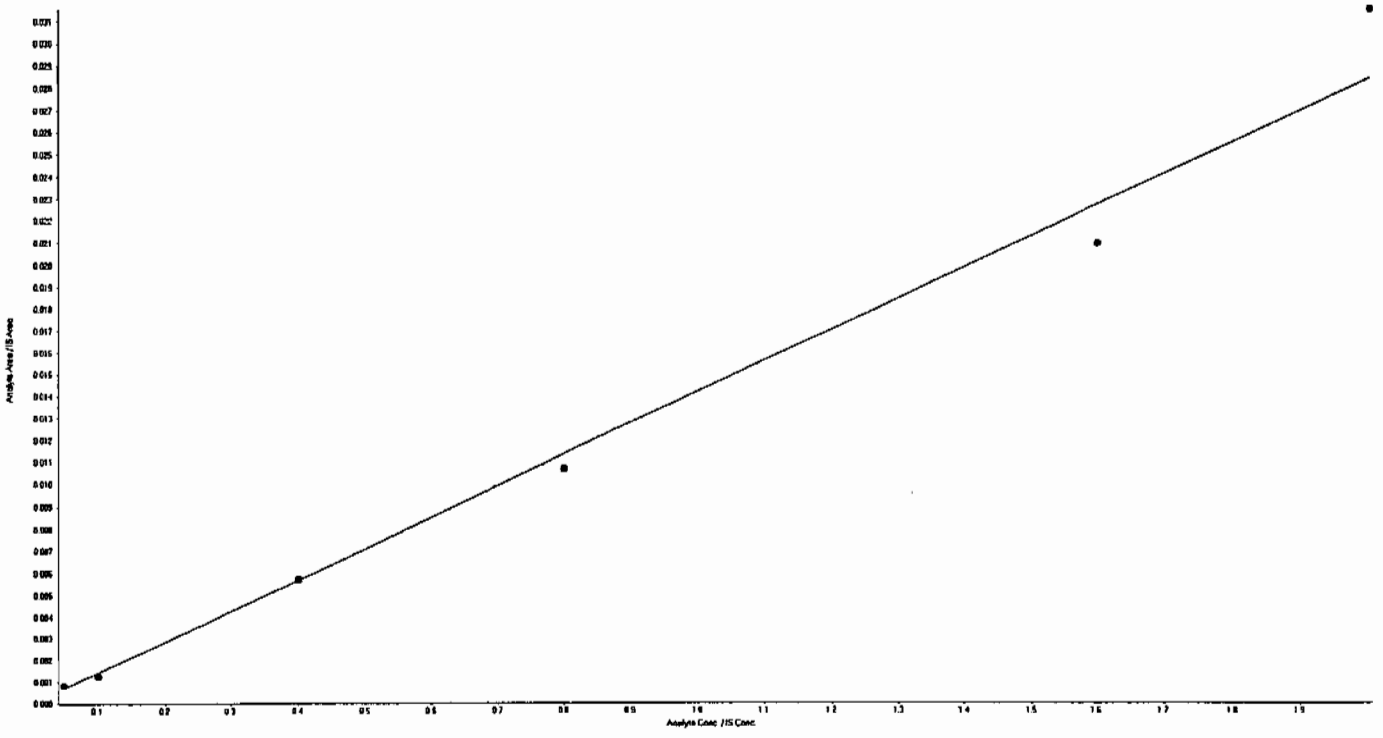

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1864

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0330010.wiff

Analysis Date: 30–MAR–10 12:34

LCMSMS ID: 1189

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	562	94	
2,4,6–Trinitrotoluene	600	610	102	
2,4–Dinitrotoluene	600	663	111	
2,6–Dinitrotoluene	600	537	90	
2–Amino–4,6–dinitrotoluene	600	513	86	
3,4–Dinitrotoluene	300	309	103	
4–Amino–2,6–dinitrotoluene	600	607	101	
HMX	600	503	84	
Nitrobenzene	600	703	117	
PETN	600	569	95	
RDX	600	649	108	
Tetryl	600	604	101	
m–Dinitrobenzene	600	593	99	
m–Nitrotoluene	600	591	99	
o–Nitrotoluene	600	651	108	
p–Nitrotoluene	600	686	114	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330010.wiff	**Acquisition Date**	3/30/2010 12:34:33 PM
Sample Name	WXX100330-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

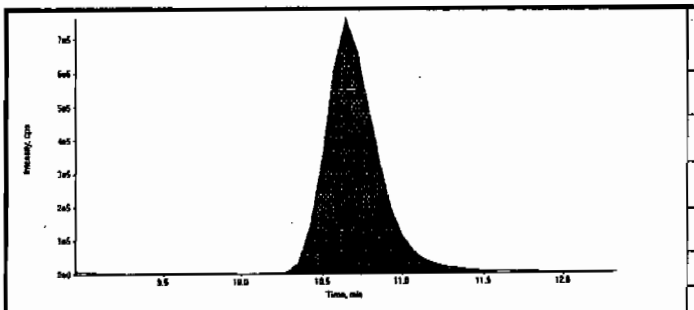

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	16900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

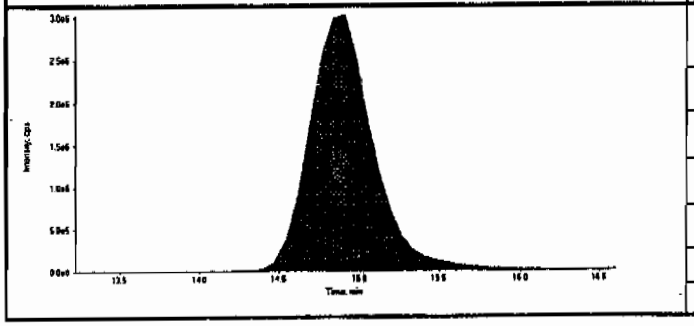

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	83700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

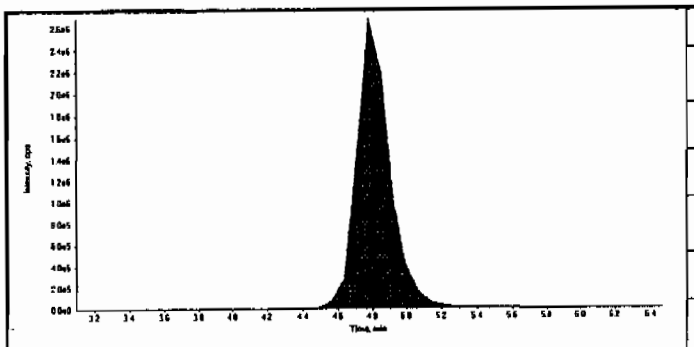

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	3.63e+007
Manual Modification	No
Amount:	503. (ng/mL)
% Accuracy:	83.90

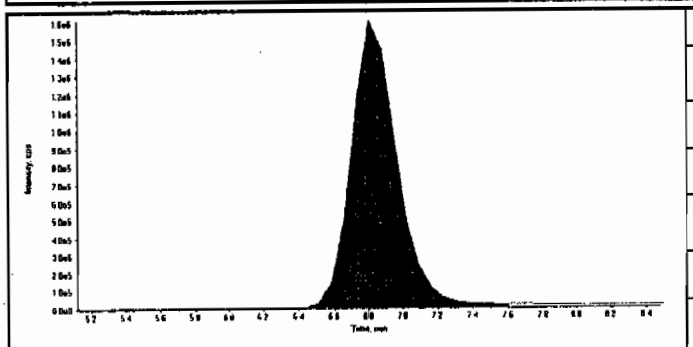

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	6.80
Area Counts:	3.01e+007
Manual Modification	No
Amount:	649. (ng/mL)
% Accuracy:	108.00

HWM 04/02/10

JLar 4/2/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330010.wiff	**Acquisition Date**	3/30/2010 12:34:33 PM
Sample Name	WXX100330-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

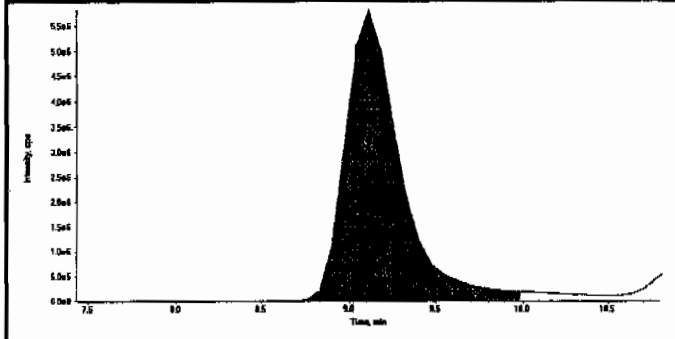

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	9.12
Area Counts:	1.30e+008
Manual Modification	No
Amount:	562. (ng/mL)
% Accuracy:	93.70

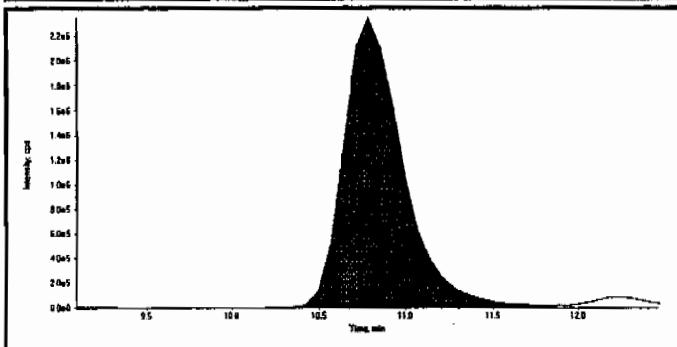

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	10.8
Area Counts:	5.63e+007
Manual Modification	No
Amount:	593. (ng/mL)
% Accuracy:	98.80

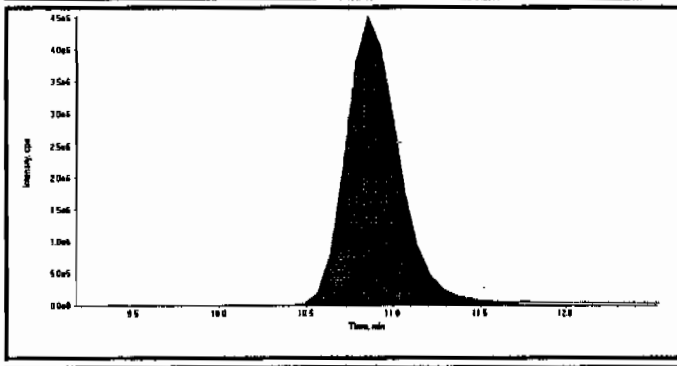

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	9.77e+007
Manual Modification	No
Amount:	604. (ng/mL)
% Accuracy:	101.00

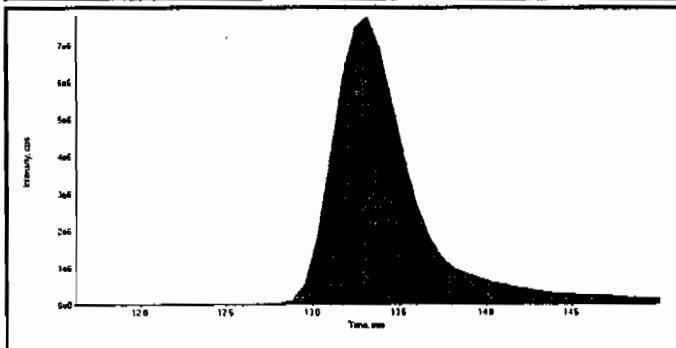

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	13.3
Area Counts:	2.60e+008
Manual Modification	No
Amount:	610. (ng/mL)
% Accuracy:	102.00

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330010.wiff	**Acquisition Date**	3/30/2010 12:34:33 PM
Sample Name	WXX100330-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

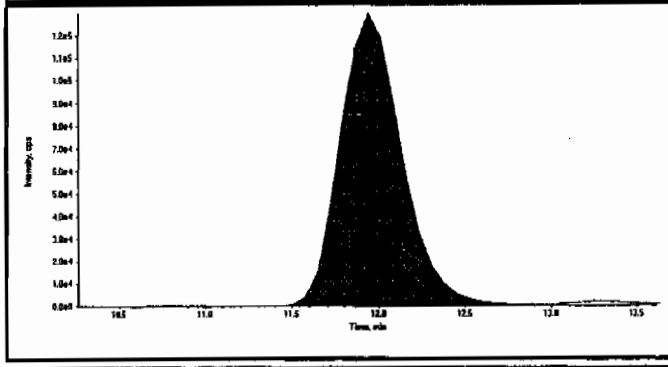

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	11.9
Area Counts:	3.20e+006
Manual Modification	No
Amount:	703. (ng/mL)
% Accuracy:	117.00

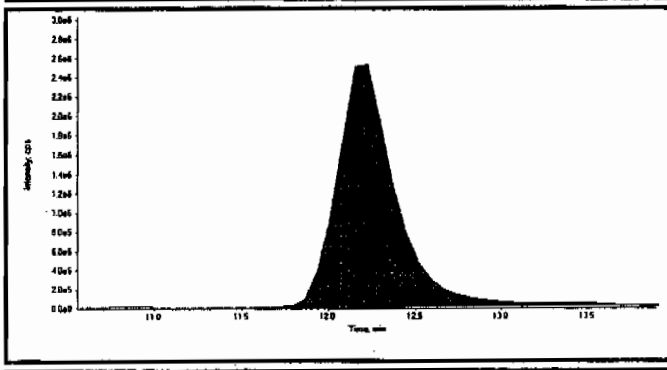

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	12.2
Area Counts:	6.03e+007
Manual Modification	No
Amount:	309. (ng/mL)
% Accuracy:	103.00

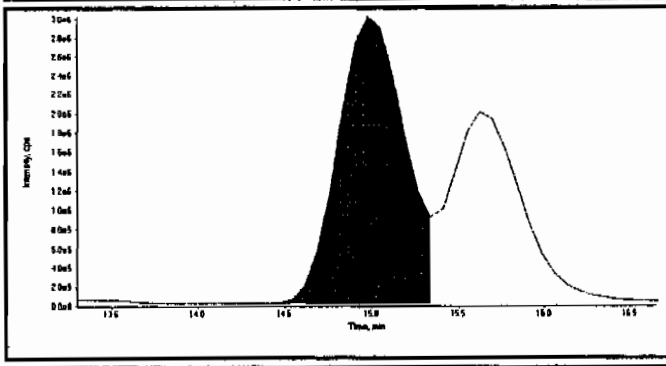

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	15.0
Area Counts:	8.12e+007
Manual Modification	No
Amount:	537. (ng/mL)
% Accuracy:	89.50

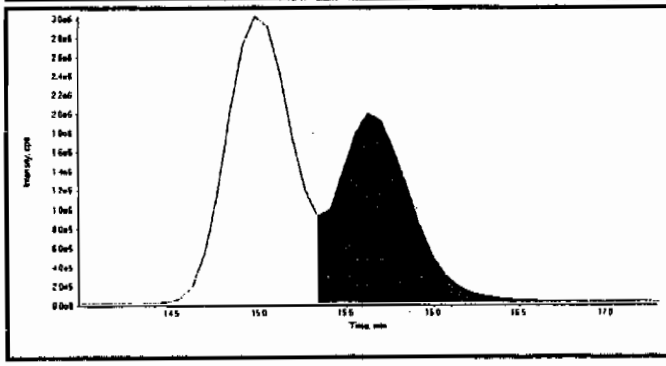

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.6
Area Counts:	6.12e+007
Manual Modification	No
Amount:	663. (ng/mL)
% Accuracy:	111.00

Before Lab 4/1/10

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mple Name: "WXX100330-S6ICV" Sample ID: "TILER" File: "EXP0330010.wiff"
sk Name: "2-Amino-4-dinitrotoluene" Mass(es): "197.0/130.0 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 600. ng/mL
lated Conc: 283. ng/mL
Date: 3/30/2010
Time: 12:34:33 PM

led: No
Algorithm: IntelliQuan - IQA
Peak Height: 1000.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 14.3 min
elation: No

Type: Valley
tion Time: 14.3 min
1.83e+006 counts
t: 8.07e-004 cps
Time 14.0 min
ime: 14.8 min

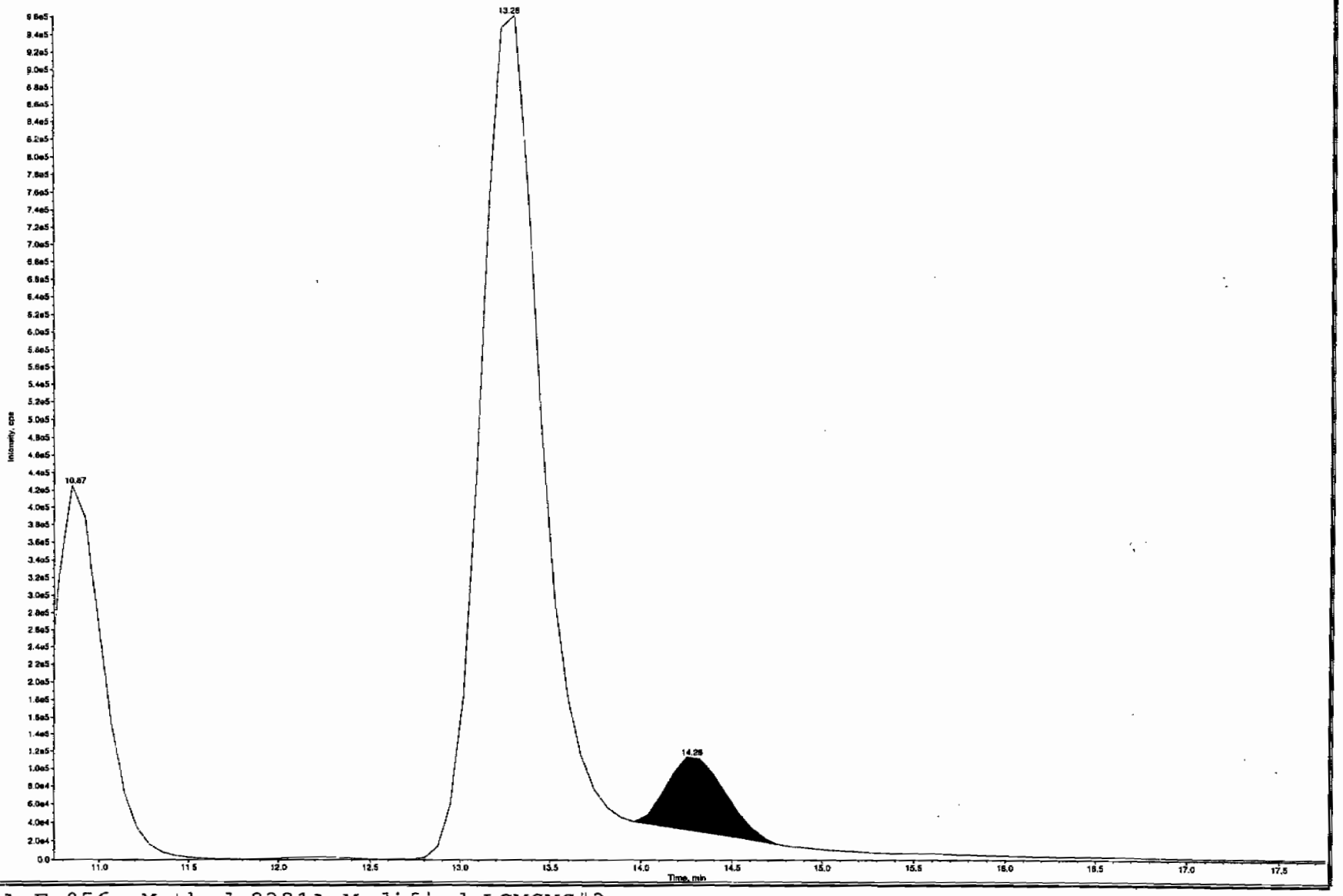

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330010.wiff	**Acquisition Date**	3/30/2010 12:34:33 PM
Sample Name	WXX100330-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

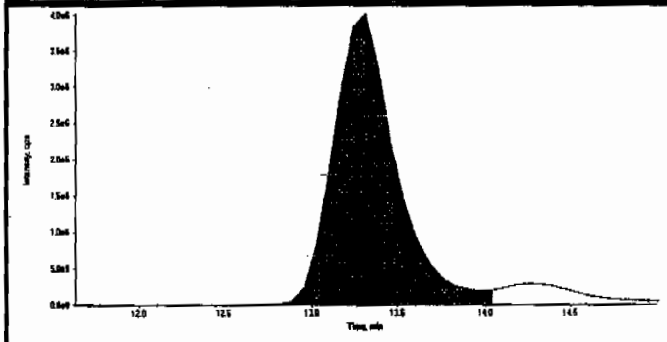

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	13.3
Area Counts:	1.02e+008
Manual Modification	No
Amount:	607. (ng/mL)
% Accuracy:	101.00

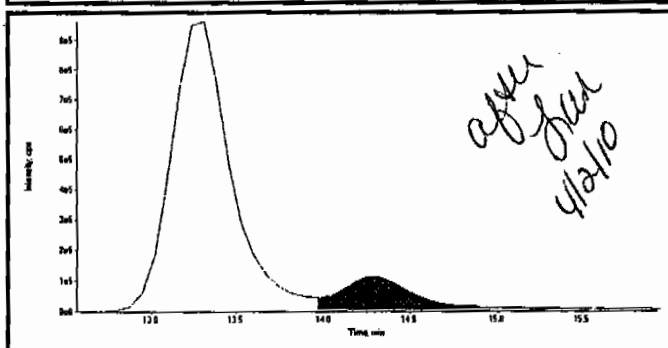

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	14.3
Area Counts:	3.25e+006
Manual Modification	Yes
Amount:	513. (ng/mL)
% Accuracy:	85.50

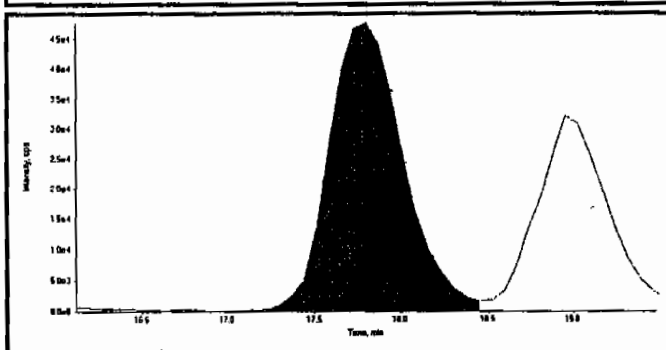

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	17.8
Area Counts:	1.42e+006
Manual Modification	No
Amount:	651. (ng/mL)
% Accuracy:	108.00

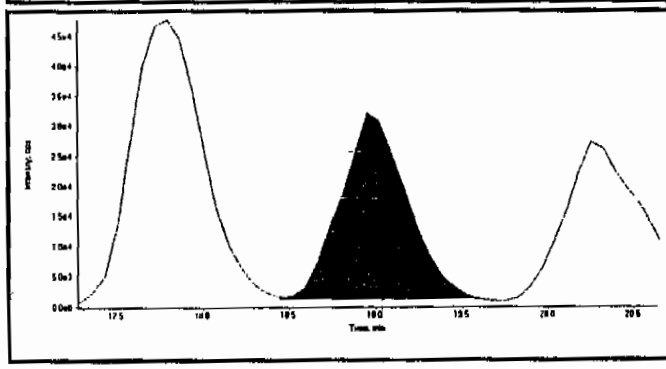

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	19.0
Area Counts:	8.40e+005
Manual Modification	No
Amount:	686. (ng/mL)
% Accuracy:	114.00

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330010.wiff	**Acquisition Date**	3/30/2010 12:34:33 PM
Sample Name	WXX100330-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

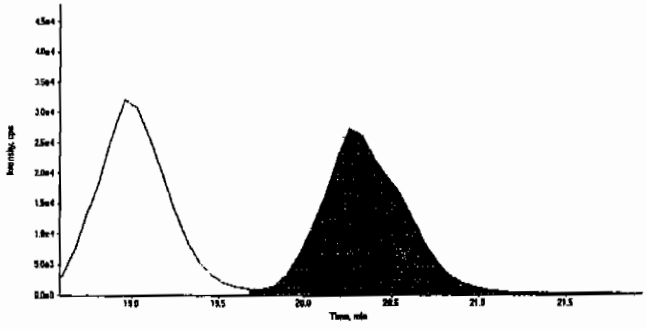

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	20.3
Area Counts:	8.95e+005
Manual Modification	No
Amount:	591. (ng/mL)
% Accuracy:	98.50

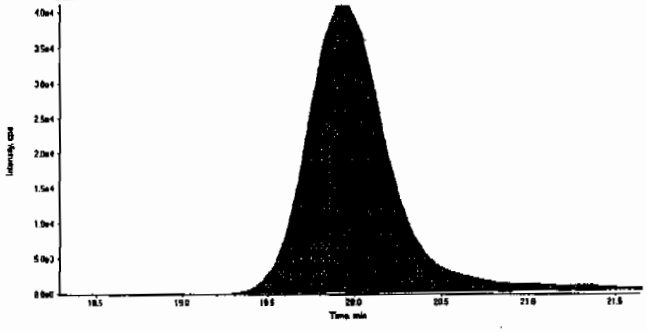

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	20.0
Area Counts:	1.35e+006
Manual Modification	No
Amount:	569. (ng/mL)
% Accuracy:	94.90

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/30/10
Time of Injection 1234
Standard Number WXX100330-56ICV
Data File EXP0330010a

HMX	83.9
RDX	108.0
135-Trinitrobenzene	93.7
13-Dinitrobenzene	98.8
Tetryl	101.0
246-Trinitrotoluene	102.0
Nitrobenzene	117.0
34-dinitrotoluene	103.0
26-dinitrotoluene	89.5
24-dinitrotoluene	111.0
4-Amino-26-dinitrotoluene	101.0
2-Amino-46-dinitrotoluene	85.5
2-Nitrotoluene	108.0
4-Nitrotoluene	114.0
3-Nitrotoluene	98.5
PETN	94.9
TOTAL	1609.8
AVERAGE	100.6

tm 04/02/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lan 3/31/10

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1864

Lab Code: GEL

Run Date: 01-APR-10,10-MAR-10,30-MAR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	50	51	52	53	54	55	Ave RF	RSD	Q
Data File:	EXP0401003.wi	EXP0401004.wi	EXP0401005.wi	EXP0401006.wi	EXP0401007.wi	EXP0401008.wi			
Parmname									
1,3,5-Trinitrobenzene	7.2	8.28	8.65	7.25	6.99	6.65	7.503	10.4	
2,4,6-Trinitrotoluene	3.45	3.05	3.46	2.66	2.38	2.36	2.893	17.3	
2,4-Dinitrotoluene	.65	.64	.634	.568	.521	.638	0.609	8.51	
2,6-Dinitrotoluene	1.1	.999	.948	.945	.778	.851	0.937	12	
2-Amino-4,6-dinitrotoluene	.042	.047	.046	.053	.04	.047	0.046	9.22	
3,4-Dinitrotoluene	1.35	1.23	1.33	1.22	1.08	1.28	1.248	7.76	
4-Amino-2,6-dinitrotoluene	1.31	1.33	1.43	1.25	1.08	1.11	1.252	10.6	
HMX	3.75	3.23	3.37	3.16	2.93	3.01	3.242	9.07	
Nitrobenzene	.141	.158	.153	.145	.157	.169	0.154	6.65	
PETN	.016	.016	.016	.016	.015	.019	0.016	8.26	
RDX	1.78	2	1.98	1.79	1.94	2.04	1.922	5.76	
m-Dinitrobenzene	3.04	3.24	2.85	2.65	2.71	2.73	2.870	8.01	
m-Nitrotoluene	.011	.011	.011	.01	.01	.012	0.011	4.99	
o-Nitrotoluene	.018	.017	.019	.017	.017	.021	0.018	8.9	
p-Nitrotoluene	.008	.009	.01	.009	.009	.011	0.009	9.1	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1864

Lab Code: GEL

Run Date: 01-APR-10,10-MAR-10,30-MAR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	50	51	52	53	54	55	X	X^2	Intercept	COD	Q
Data File:	EXP0401003.wiff	EXP0401004.wiff	EXP0401005.wiff	EXP0401006.wiff	EXP0401007.wiff	EXP0401008.wiff					
Parmname:											
Tetryl	1960000	5870000	29300000	54400000	104000000	118000000	-.106	5.83	-.393	.9999	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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040110ICAL

Peak Name: 13-Dinitrobenzene-d4
Use as Internal Standard
Q1/Q3 Masses: 172.05/46.10 amu
Peak Name: 26-Dinitrotoluene-d3
Use as Internal Standard
Q1/Q3 Masses: 184.99/155.00 amu

Peak Name: HMX
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 341.20/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 3.24
Standard deviation 0.294
%RSD 9.07
Use Area

Peak Name: RDX
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 267.01/46.10 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.92
Standard deviation 0.111
%RSD 5.76
Use Area

Peak Name: 135-Trinitrobenzene
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 212.97/182.80 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 7.5
Standard deviation 0.784
%RSD 10.4
Use Area

Peak Name: 13-Dinitrobenzene
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 167.95/137.90 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 2.87
Standard deviation 0.23

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%RSD 8.01
Use Area

Peak Name: Tetryl
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 240.95/180.80 amu

Fit Quadratic Weighting None Iterate No
a0 -0.106
a1 5.83
a2 -0.393
Correlation coefficient 0.9999
Use Area

Peak Name: 246-Trinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 227.12/209.80 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 2.89
Standard deviation 0.501
%RSD 17.3
Use Area

Peak Name: Nitrobenzene
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 123.04/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.154
Standard deviation 0.0102
%RSD 6.65
Use Area

Peak Name: 34-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 182.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.25
Standard deviation 0.0971
%RSD 7.76
Use Area

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Peak Name: 26-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 182.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.937
Standard deviation 0.113
%RSD 12
Use Area

Peak Name: 24-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 182.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.608
Standard deviation 0.0518
%RSD 8.51
Use Area

Peak Name: 4-Amino-26-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 197.02/167.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.25
Standard deviation 0.132
%RSD 10.6
Use Area

Peak Name; 2-Amino-46-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 197.02/180.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.0459
Standard deviation 0.00423
%RSD 9.22
Use Area

Peak Name: 2-Nitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 137.00/46.00 amu

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Fit Mean Response Factor Weighting None Iterate No
Factor 0.0183
Standard deviation 0.00163
%RSD 8.9
Use Area

Peak Name: 4-Nitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 137.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.00909
Standard deviation 0.000827
%RSD 9.1
Use Area

Peak Name: 3-Nitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 137.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.0107
Standard deviation 0.000535
%RSD 4.99
Use Area

Peak Name: PETN
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 361.06/62.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.0164
Standard deviation 0.00136
%RSD 8.26
Use Area

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GEL SOP GL-OA-E-056, Method 8321A-Modified

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LCMSMS#3

040110.rdb
Analyte Name: HMX

Regression Equation: y = 3.24 x (std. dev. = 0.294)

Expected Concentration	Calculated Concentration	% Accuracy
25	28.91	115.6
50	49.79	99.6
200	208.11	104.1
400	389.88	97.5
800	722.50	90.3
1000	929.39	92.9

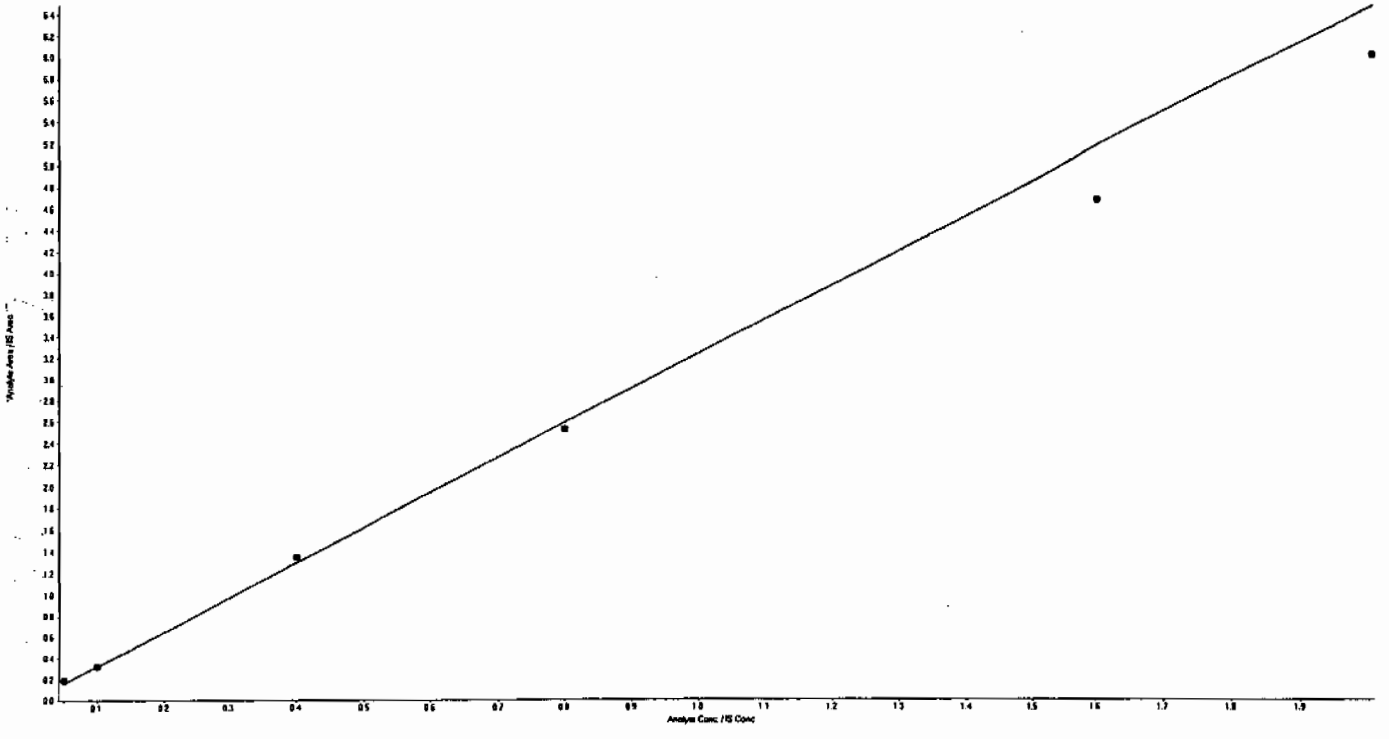

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Analyte Name: RDX

Regression Equation: y = 1.92 x (std. dev. = 0.111)

Expected Concentration	Calculated Concentration	% Accuracy
25	23.13	92.5
50	51.99	104.0
200	206.58	103.3
400	373.07	93.3
800	806.56	100.8
1000	1061.09	106.1

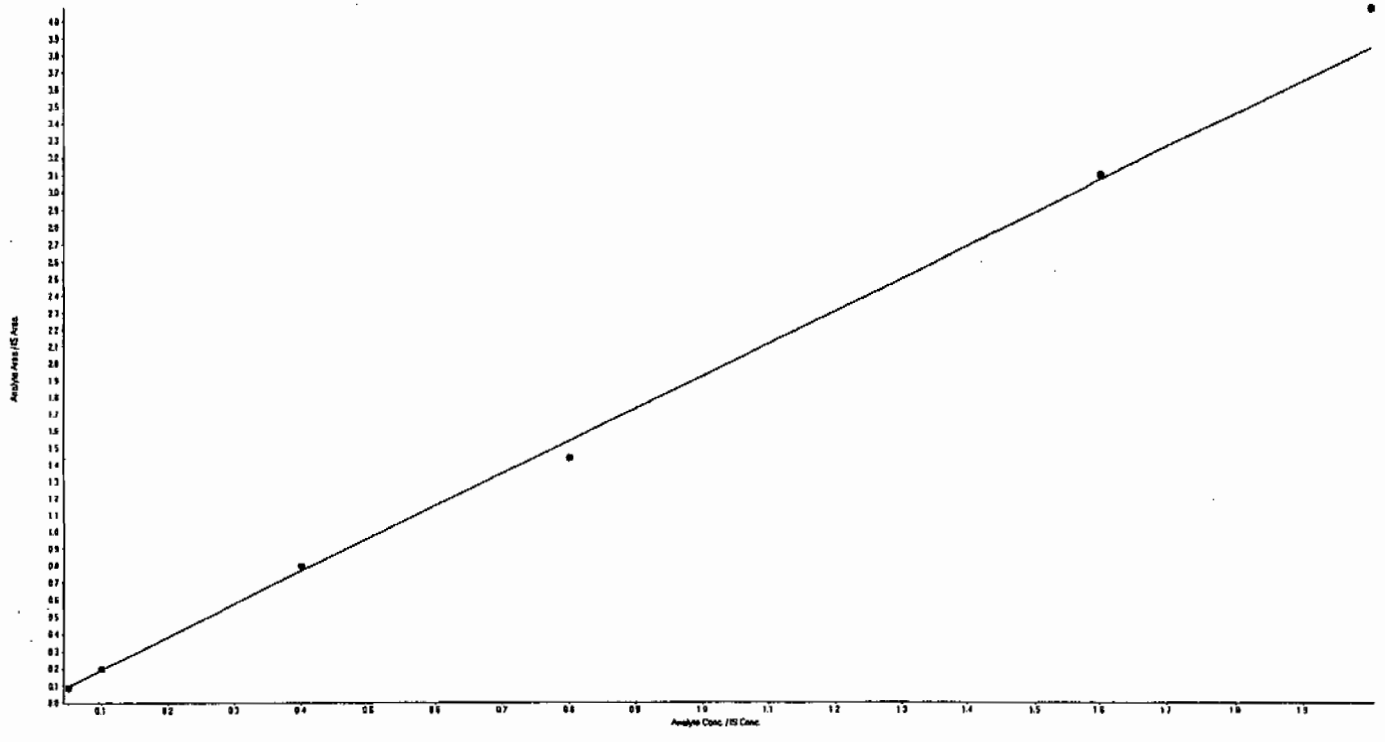

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Analyte Name: 135-Trinitrobenzene

Regression Equation: y = 7.5 x (std. dev. = 0.784)

Expected Concentration	Calculated Concentration	% Accuracy
25	23.99	96.0
50	55.20	110.4
200	230.58	115.3
400	386.22	96.6
800	745.04	93.1
1000	886.56	88.7

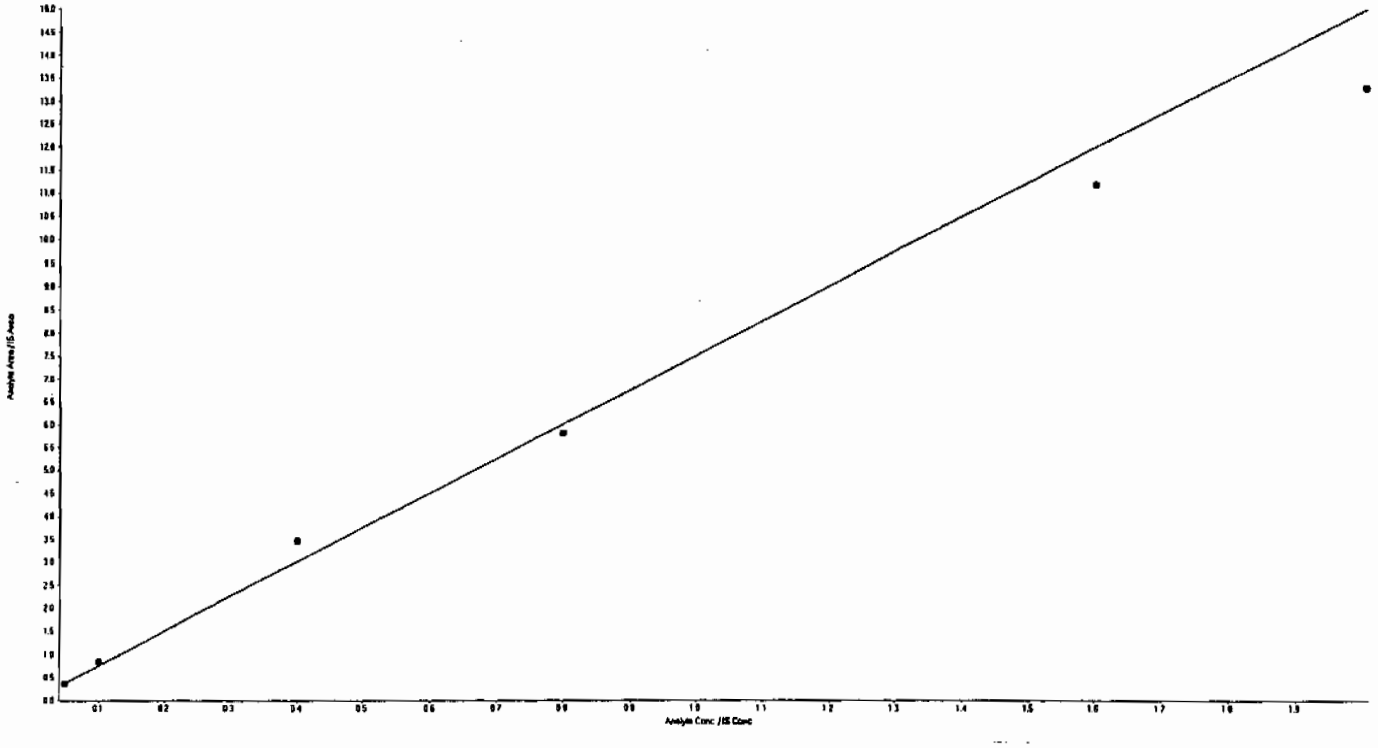

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Analyte Name: 13-Dinitrobenzene

Regression Equation: y = 2.87 x (std. dev. = 0.23)

Expected Concentration	Calculated Concentration	% Accuracy
25	26.46	105.8
50	56.54	113.1
200	198.61	99.3
400	368.93	92.2
800	754.61	94.3
1000	952.30	95.2

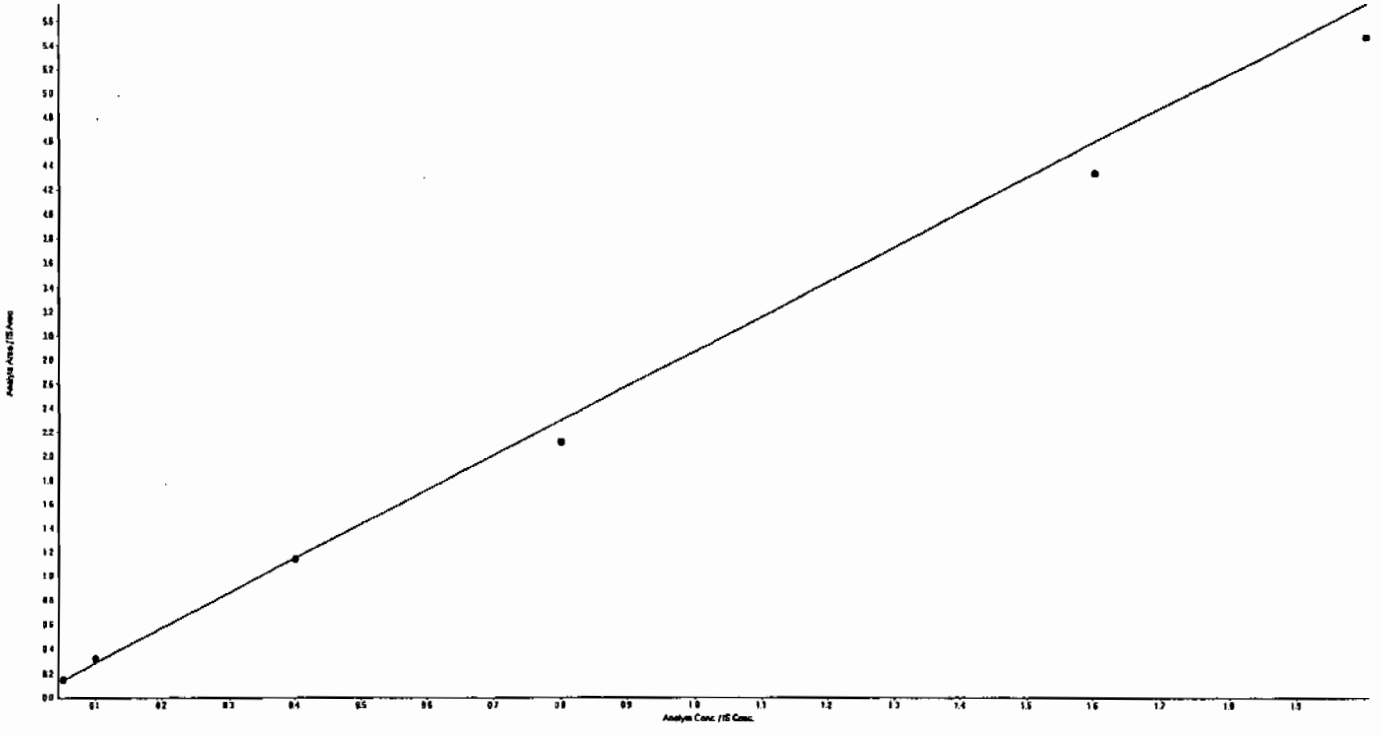

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Analyte Name: Tetryl

Regression Equation: y = -0.393 x^2 + 5.83 x + -0.106 (r = 0.9999)

Expected Concentration	Calculated Concentration	% Accuracy
25	21.55	86.2
50	49.00	98.0
200	208.51	104.3
400	397.39	99.3
800	795.26	99.4
1000	1003.34	100.3

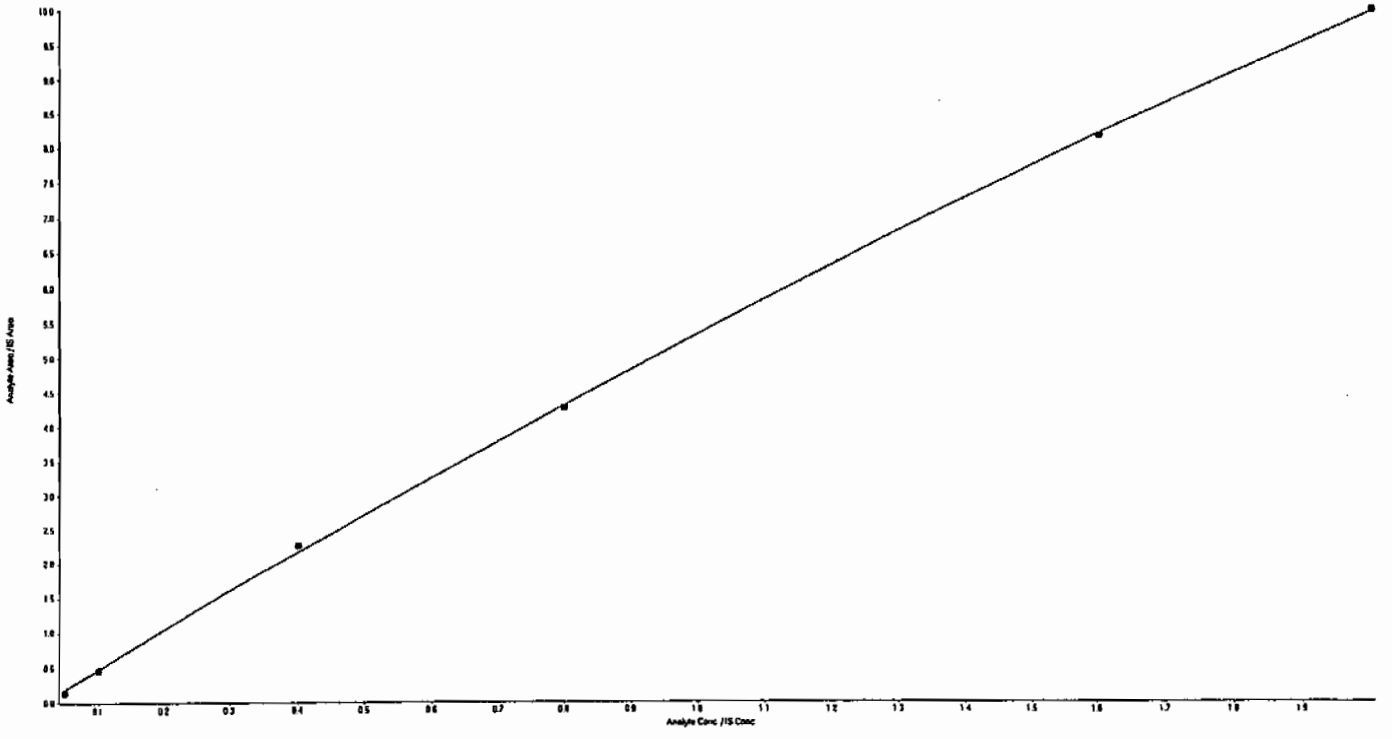

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Analyte Name: 246-Trinitrotoluene

Regression Equation: y = 2.89 x (std. dev. = 0.501)

Expected Concentration	Calculated Concentration	% Accuracy
25	29.77	119.1
50	52.76	105.5
200	239.24	119.6
400	368.34	92.1
800	657.26	82.2
1000	815.38	81.5

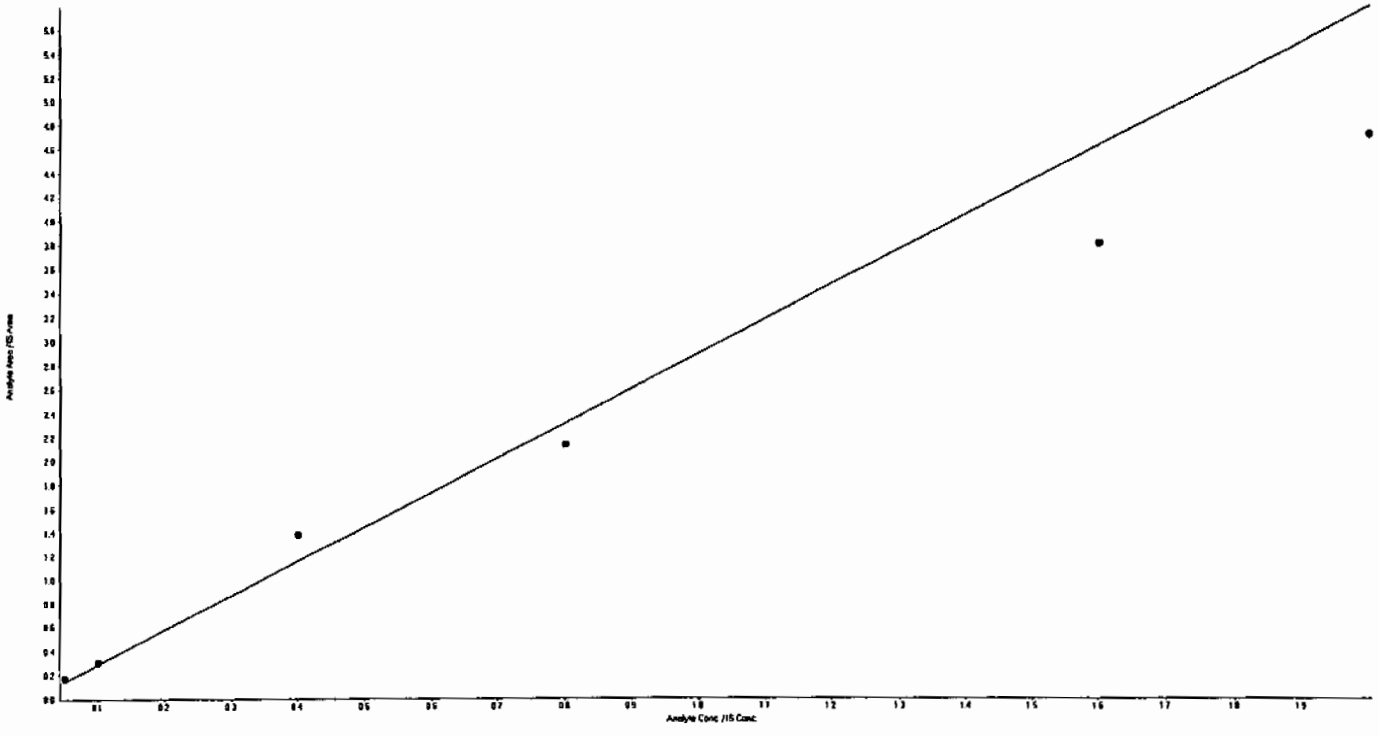

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Analyte Name: Nitrobenzene

Regression Equation: y = 0.154 x (std. dev. = 0.0102)

Expected Concentration	Calculated Concentration	% Accuracy
25	22.84	91.4
50	51.35	102.7
200	199.25	99.6
400	376.24	94.1
800	818.33	102.3
1000	1099.41	109.9

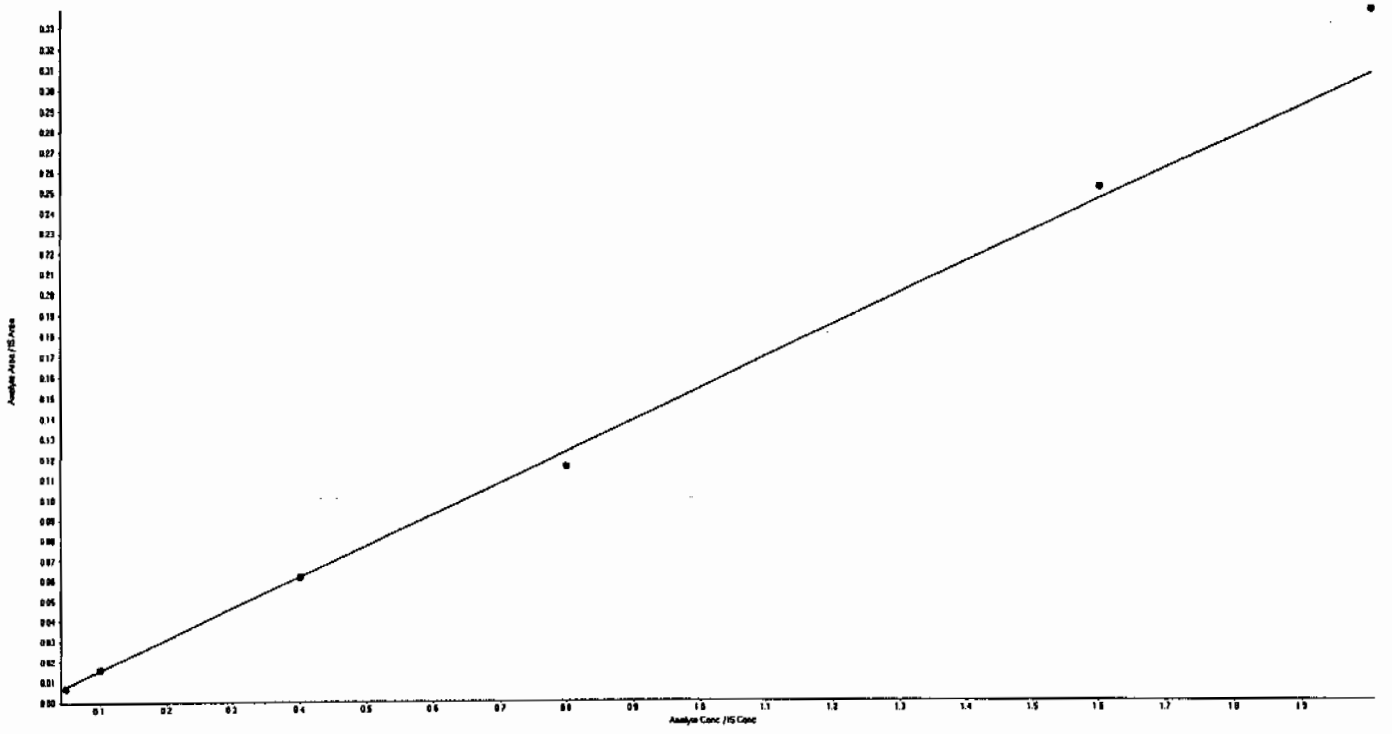

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Analyte Name: 34-dinitrotoluene

Regression Equation: y = 1.25 x (std. dev. = 0.0971)

Expected Concentration	Calculated Concentration	% Accuracy
12.5	13.52	108.1
25	24.66	98.7
100	106.45	106.5
200	195.47	97.7
400	346.30	86.6
500	512.20	102.4

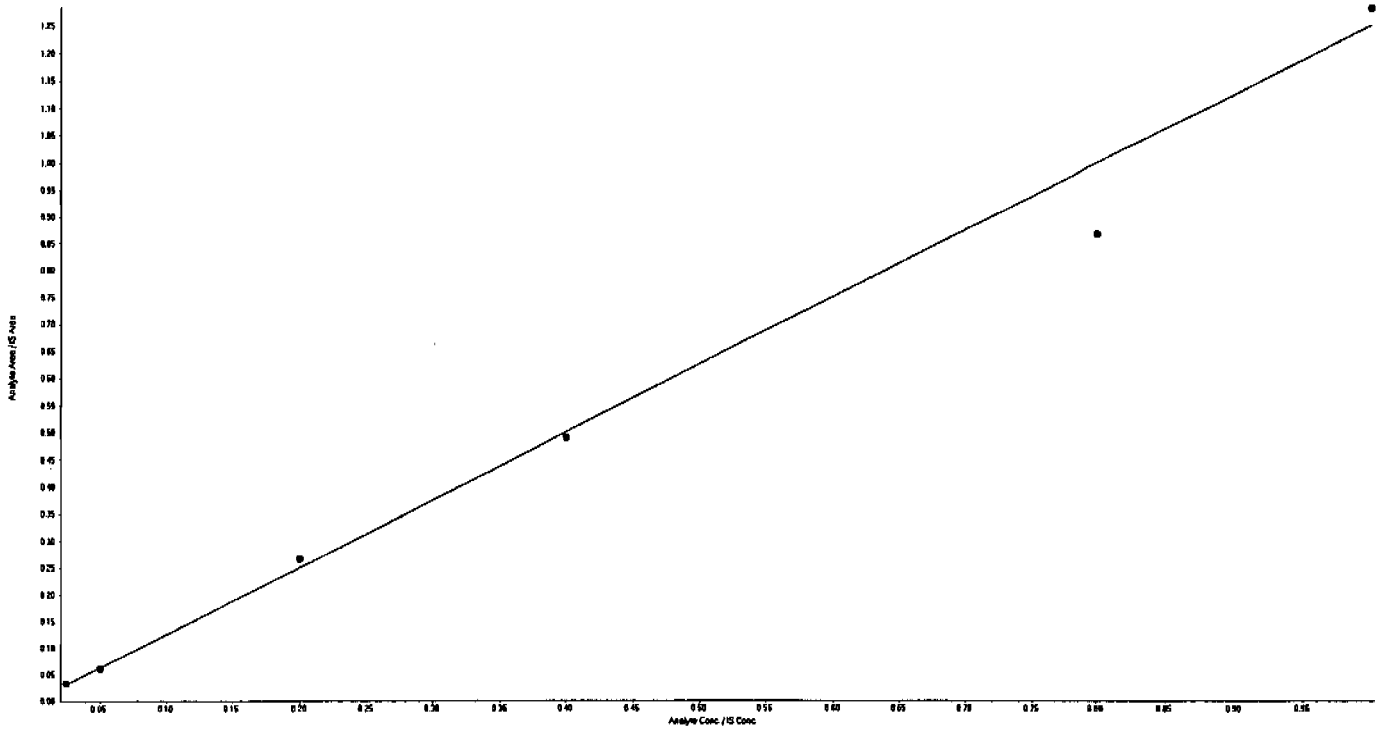

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Analyte Name: 26-dinitrotoluene

Regression Equation: y = 0.937 x (std. dev. = 0.113)

Expected Concentration	Calculated Concentration	% Accuracy
25	29.36	117.4
50	53.30	106.6
200	202.42	101.2
400	403.33	100.8
800	664.36	83.0
1000	908.70	90.9

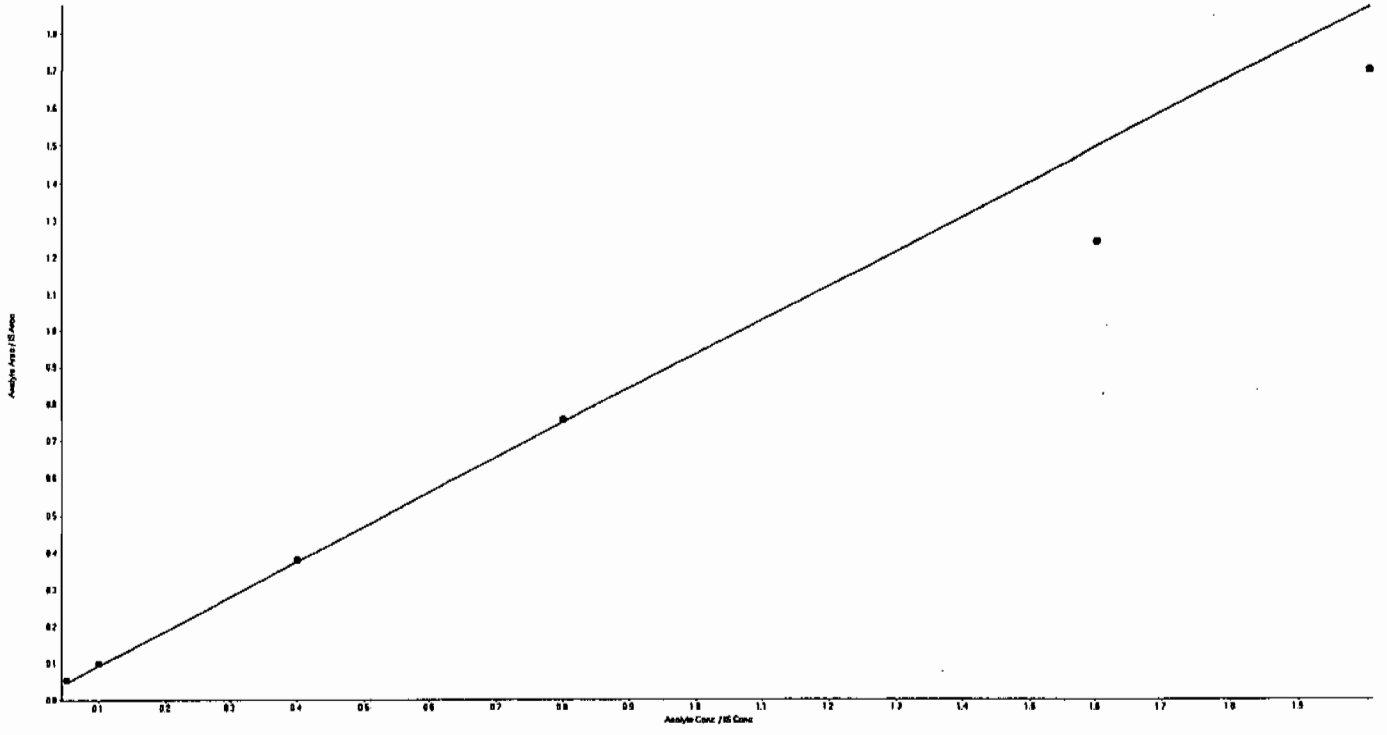

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Analyte Name: 24-dinitrotoluene

Regression Equation: y = 0.608 x (std. dev. = 0.0518)

Expected Concentration	Calculated Concentration	% Accuracy
25	26.70	106.8
50	52.62	105.2
200	208.23	104.1
400	373.65	93.4
800	685.31	85.7
1000	1047.91	104.8

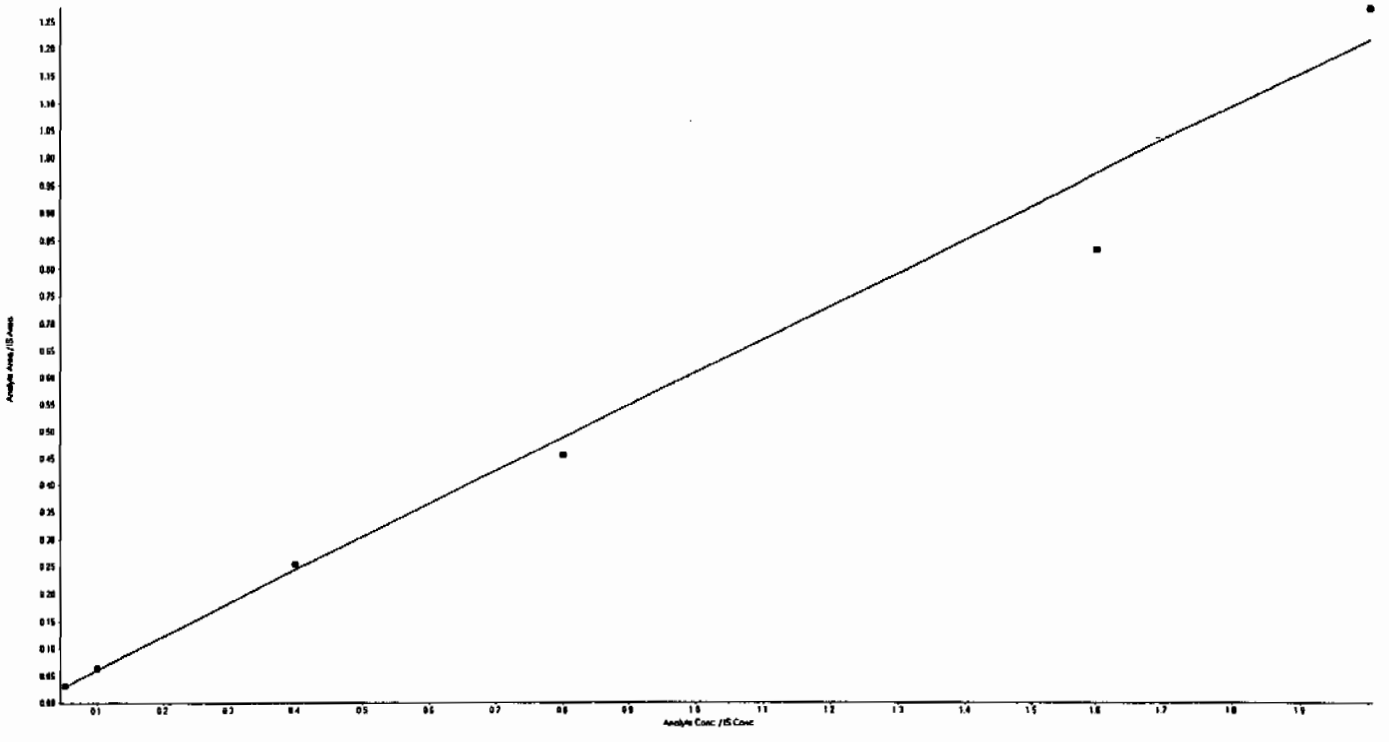

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Analyte Name: 4-Amino-26-dinitrotoluene

Regression Equation: y = 1.25 x (std. dev. = 0.132)

Expected Concentration	Calculated Concentration	% Accuracy
25	26.09	104.3
50	53.05	106.1
200	228.18	114.1
400	400.03	100.0
800	692.50	86.6
1000	888.96	88.9

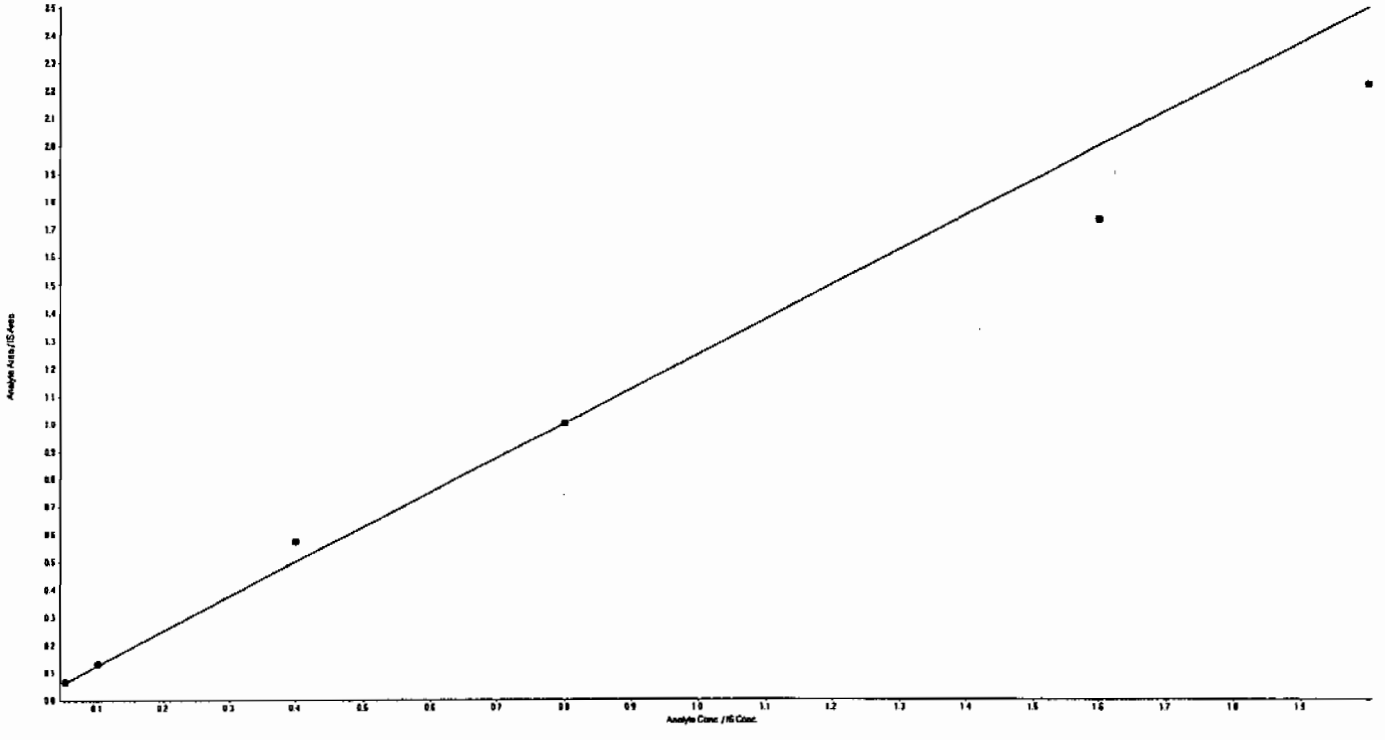

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Analyte Name: 2-Amino-46-dinitrotoluene

Regression Equation: y = 0.0459 x (std. dev. = 0.00423)

Expected Concentration	Calculated Concentration	% Accuracy
25	23.10	92.4
50	51.62	103.2
200	199.27	99.6
400	457.62	114.4
800	704.26	88.0
1000	1022.95	102.3

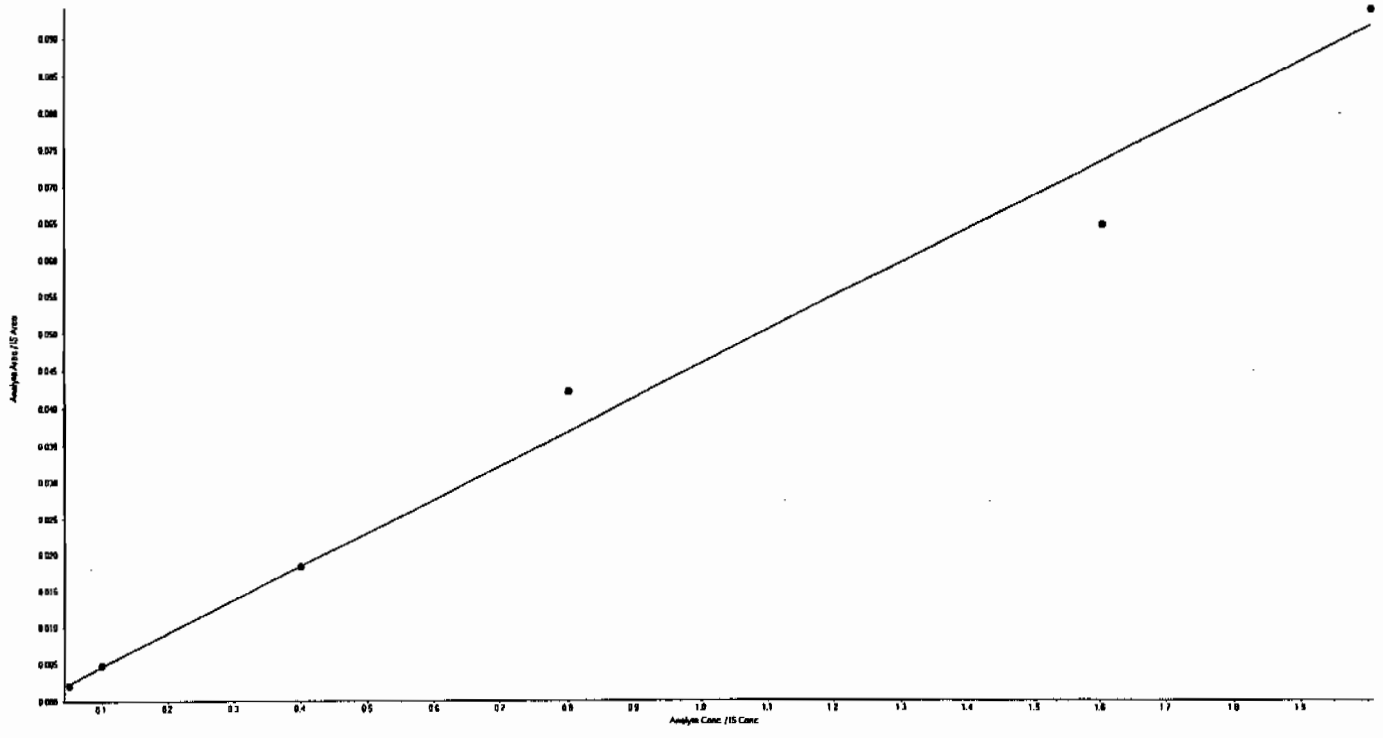

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Analyte Name: 2-Nitrotoluene

Regression Equation: y = 0.0183 x (std. dev. = 0.00163)

Expected Concentration	Calculated Concentration	% Accuracy
25	24.58	98.3
50	47.35	94.7
200	209.00	104.5
400	371.74	92.9
800	748.85	93.6
1000	1159.37	115.9

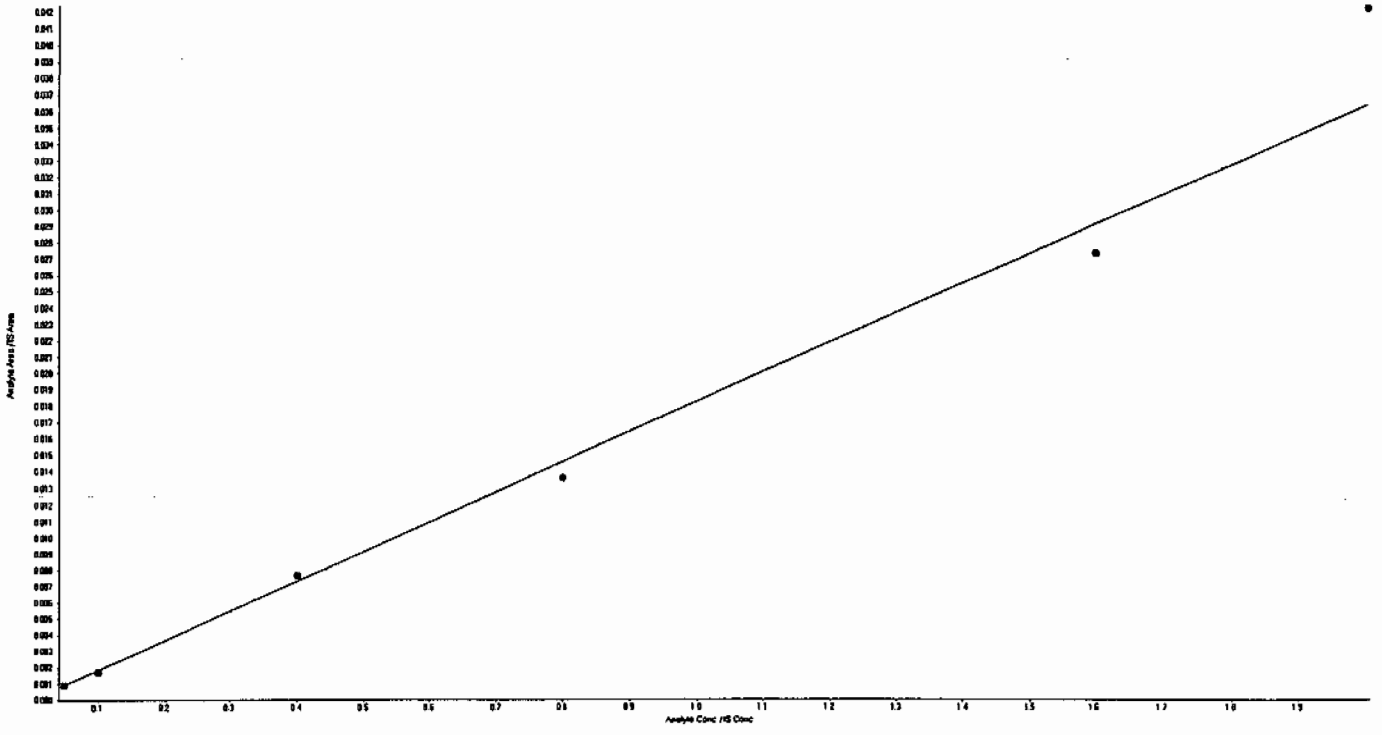

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Analyte Name: 4-Nitrotoluene

Regression Equation: y = 0.00909 x (std. dev. = 0.000827)

Expected Concentration	Calculated Concentration	% Accuracy
25	22.86	91.4
50	47.15	94.3
200	211.73	105.9
400	377.02	94.3
800	789.54	98.7
1000	1154.59	115.5

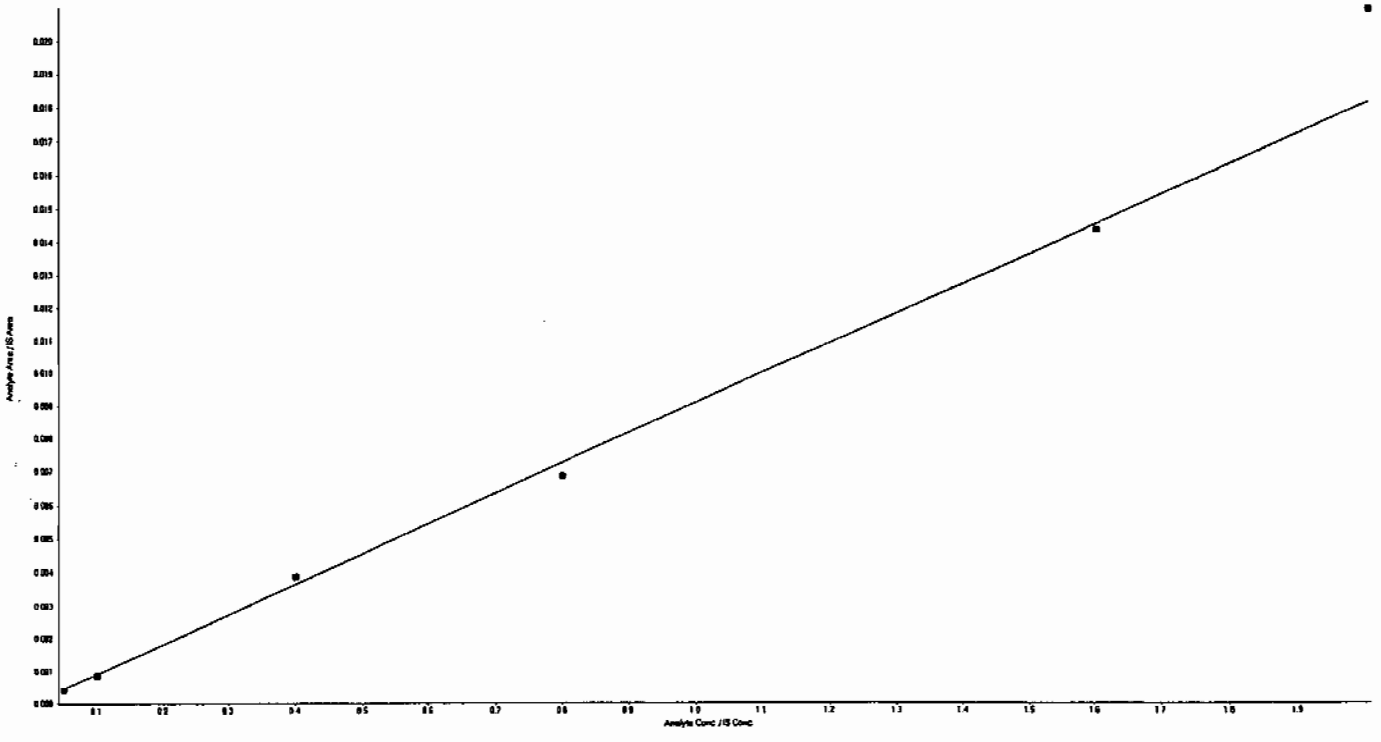

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Analyte Name: 3-Nitrotoluene

Regression Equation: y = 0.0107 x (std. dev. = 0.000535)

Expected Concentration	Calculated Concentration	% Accuracy
25	24.85	99.4
50	52.35	104.7
200	197.33	98.7
400	376.78	94.2
800	767.70	96.0
1000	1070.95	107.1

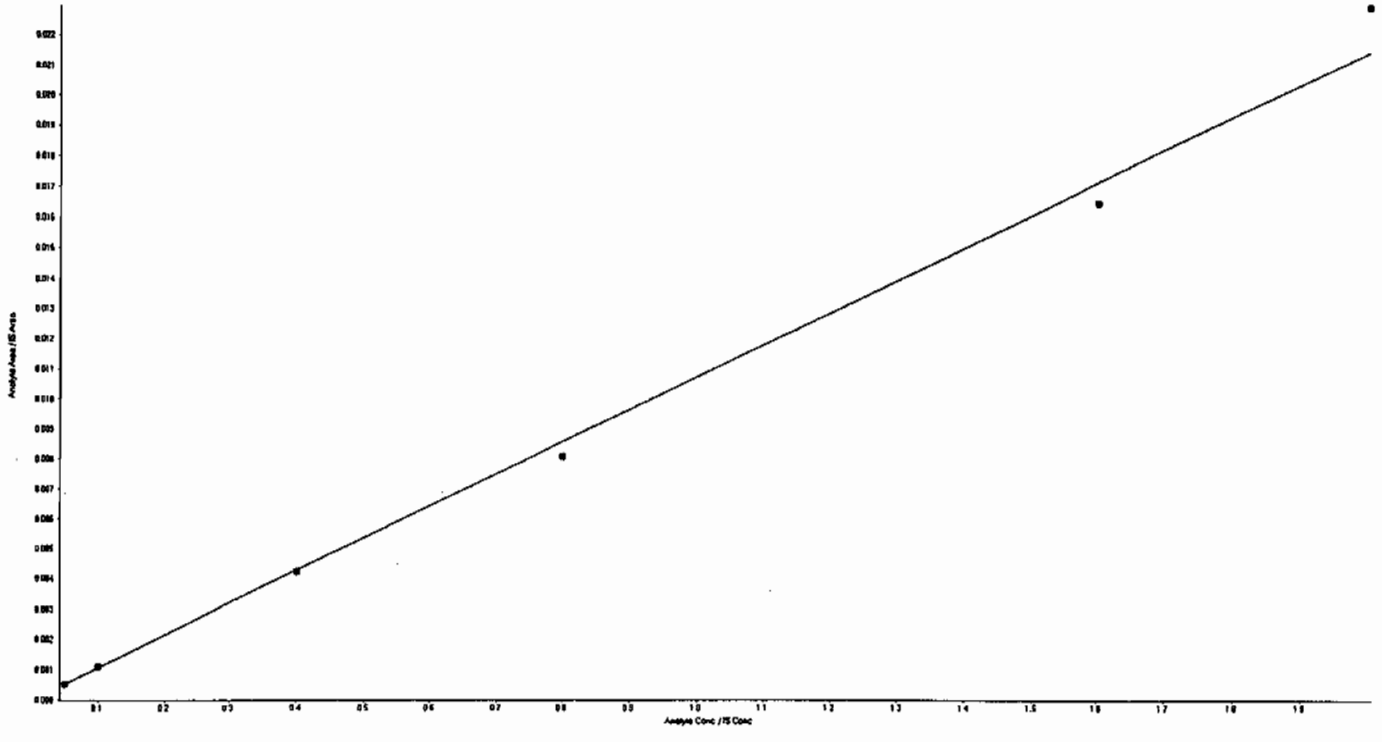

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Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Analyte Name: PETN

Regression Equation: y = 0.0164 x (std. dev. = 0.00136)

Expected Concentration	Calculated Concentration	% Accuracy
25	24.90	99.6
50	49.35	98.7
200	195.30	97.7
400	394.07	98.5
800	721.39	90.2
1000	1153.39	115.3

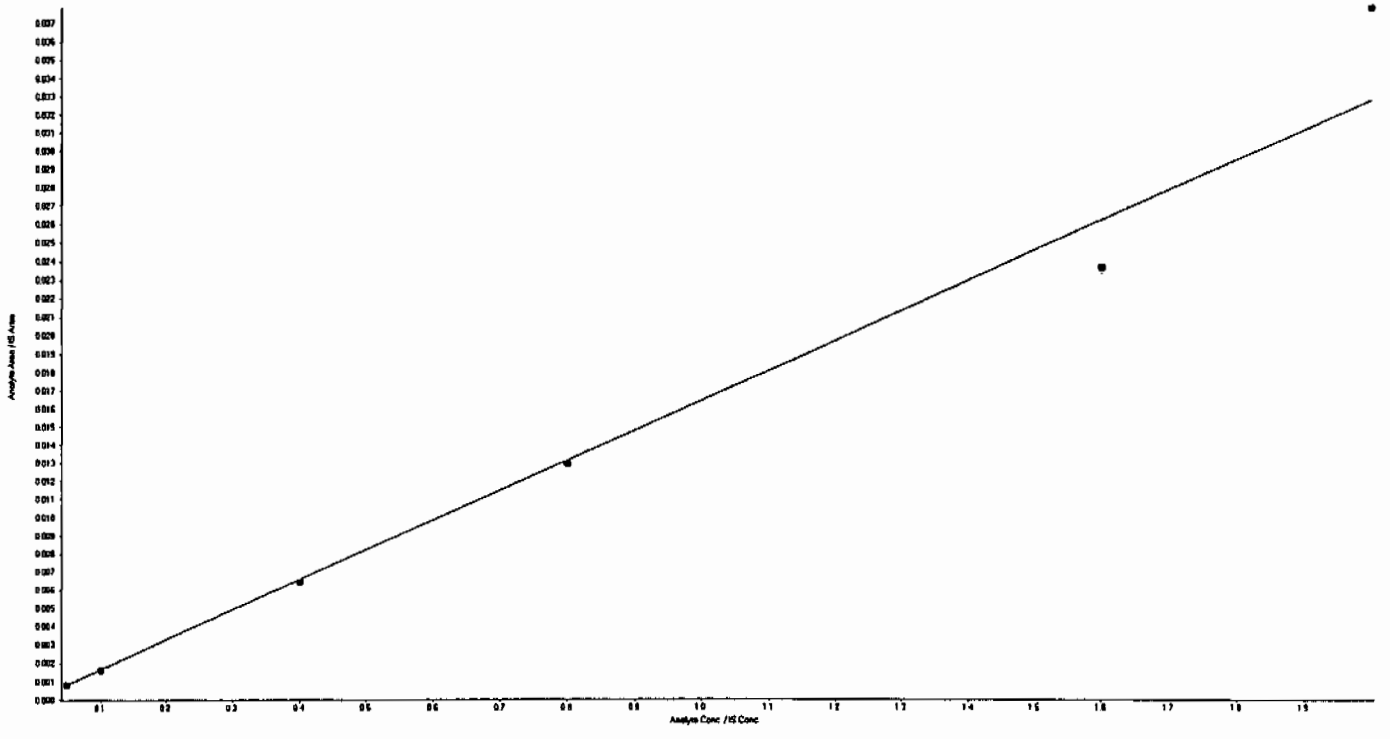

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1864

Lab Code: GEI

GEL Sample ID: WXXICV

GEL Data File EXP0401010.wiff

Analysis Date: 01–APR–10 15:35

LCMSMS ID: 1189

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
m–Nitrotoluene	600	759	126	
o–Nitrotoluene	600	606	101	
p–Nitrotoluene	600	730	122	
1,3,5–Trinitrobenzene	600	581	97	
2,4,6–Trinitrotoluene	600	625	104	
2,4–Dinitrotoluene	600	566	94	
2,6–Dinitrotoluene	600	601	100	
2–Amino–4,6–dinitrotoluene	600	696	116	
3,4–Dinitrotoluene	300	319	106	
4–Amino–2,6–dinitrotoluene	600	658	110	
HMX	600	585	98	
Nitrobenzene	600	627	104	
PETN	600	694	116	
RDX	600	628	105	
Tetryl	600	596	99	
m–Dinitrobenzene	600	593	99	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401010.wiff	**Acquisition Date**	4/1/2010 3:35:34 PM
Sample Name	WXX100401-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

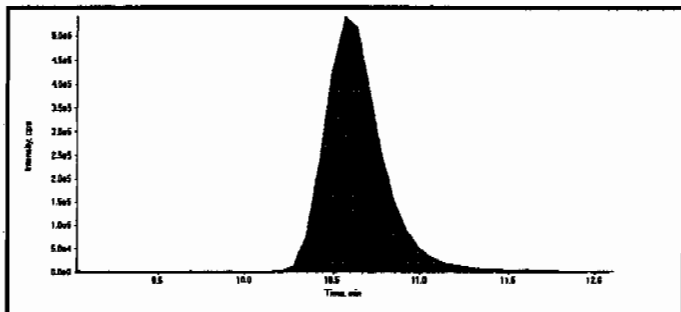

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	12300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

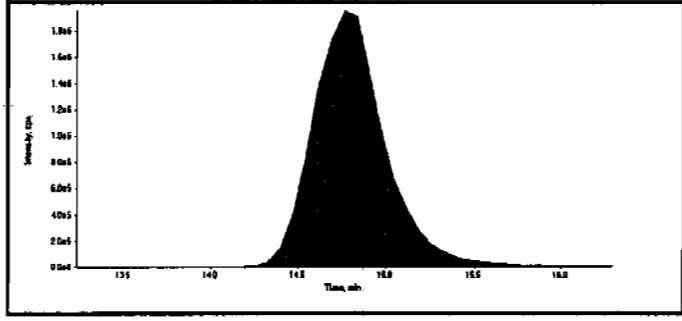

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.80
Actual RT:	14.80
Area Counts:	56300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

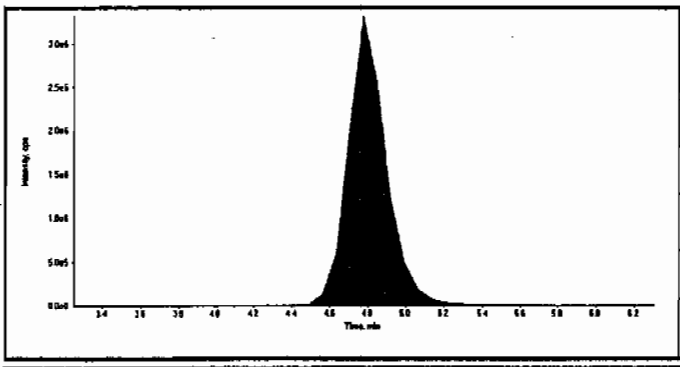

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	4.66e+007
Manual Modification	No
Amount:	585. (ng/mL)
% Accuracy:	97.50

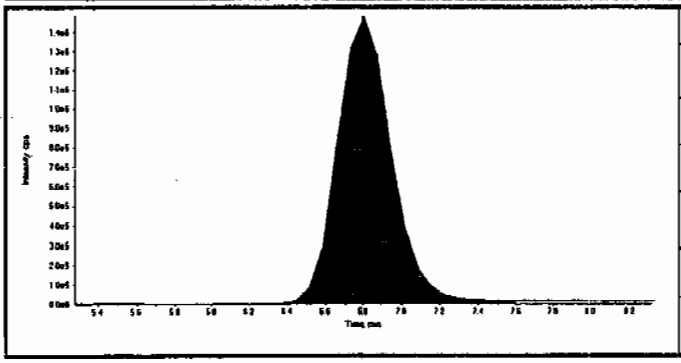

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	6.80
Area Counts:	2.97e+007
Manual Modification	No
Amount:	628. (ng/mL)
% Accuracy:	105.00

HMW 04/09/10

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Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401010.wiff	**Acquisition Date**	4/1/2010 3:35:34 PM
Sample Name	WXX100401-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

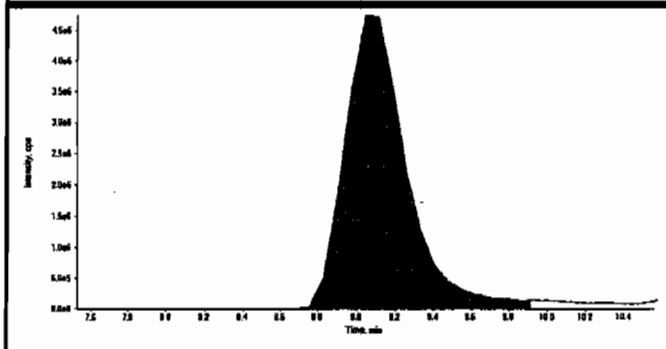

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.04
Actual RT:	9.04
Area Counts:	1.07e+008
Manual Modification	No
Amount:	581. (ng/mL)
% Accuracy:	96.80

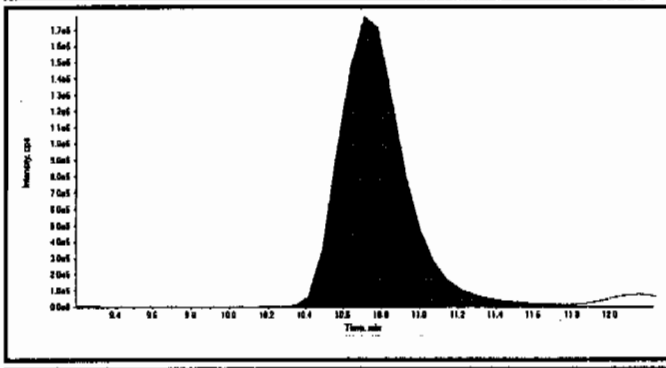

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.7
Area Counts:	4.19e+007
Manual Modification	No
Amount:	593. (ng/mL)
% Accuracy:	98.90

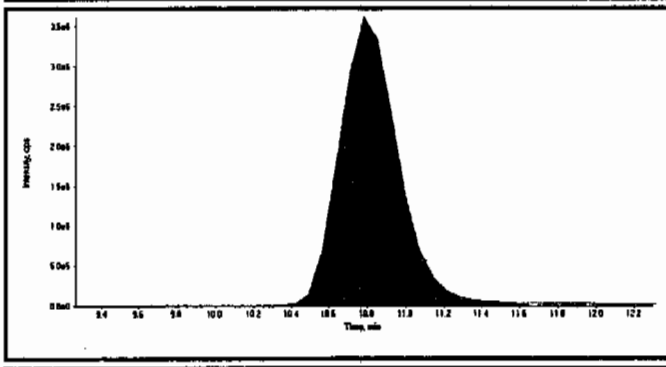

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.8
Actual RT:	10.8
Area Counts:	7.73e+007
Manual Modification	No
Amount:	596. (ng/mL)
% Accuracy:	99.30

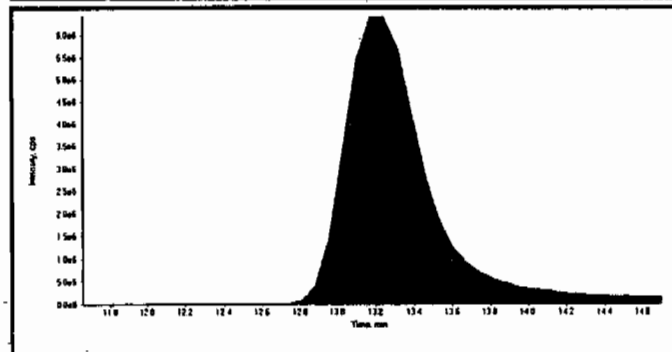

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.2
Actual RT:	13.2
Area Counts:	2.04e+008
Manual Modification	No
Amount:	625. (ng/mL)
% Accuracy:	104.00

Before Clean 4/9/10

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ple Name: "W0X100401-56ICV" Sample ID: "TIILER" File: "EXP040100.wiff"
k Name: "24-dinitrotoluene" Mass(es): "182.0/48.0 amu"
nment: "LCMSEXP_C" Annotation: "
e Index: 1
e Type: QC
ntration: 600. ng/mL
lated Conc: 0.00 ng/mL
Date: 4/1/2010
Time: 3:35:34 PM
ted: No

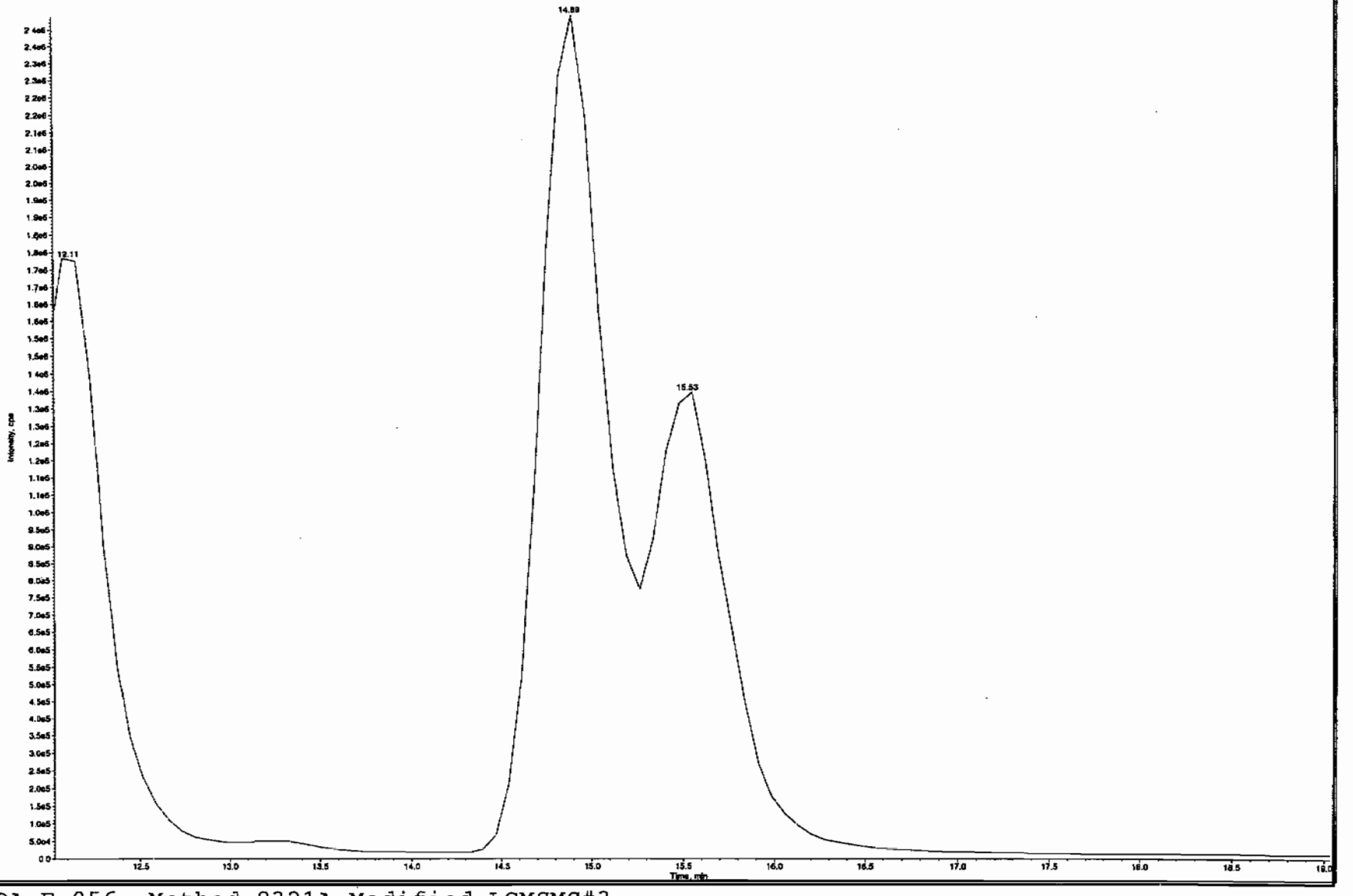

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401010.wiff	**Acquisition Date**	4/1/2010 3:35:34 PM
Sample Name	WXX100401-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	_040110.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

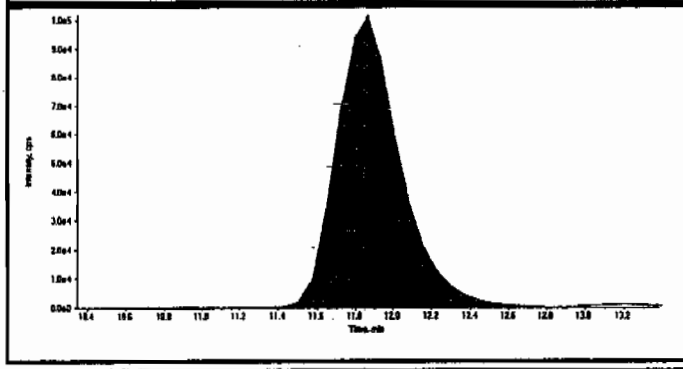

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	11.9
Area Counts:	2.37e+006
Manual Modification	No
Amount:	627. (ng/mL)
% Accuracy:	104.00

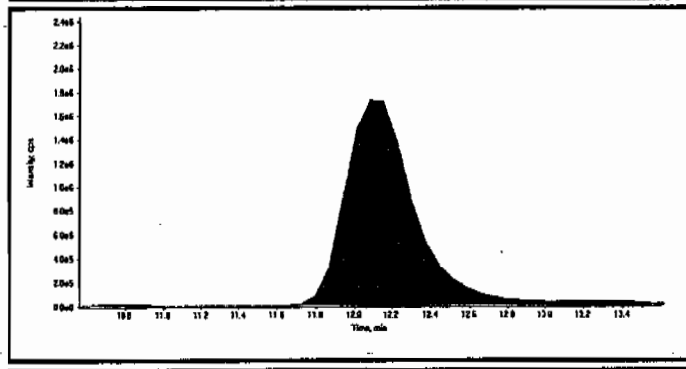

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	4.50e+007
Manual Modification	No
Amount:	319. (ng/mL)
% Accuracy:	106.00

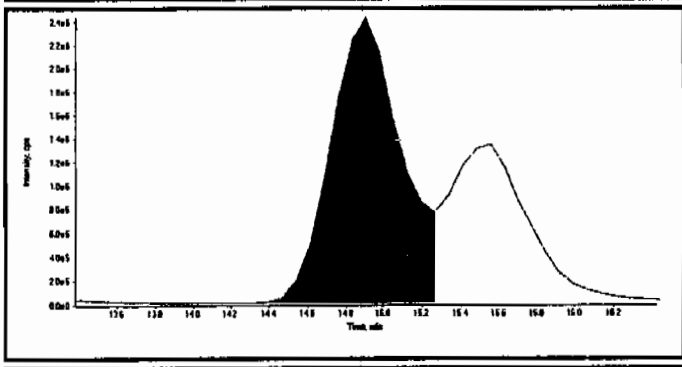

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.9
Actual RT:	14.9
Area Counts:	6.34e+007
Manual Modification	No
Amount:	601. (ng/mL)
% Accuracy:	100.00

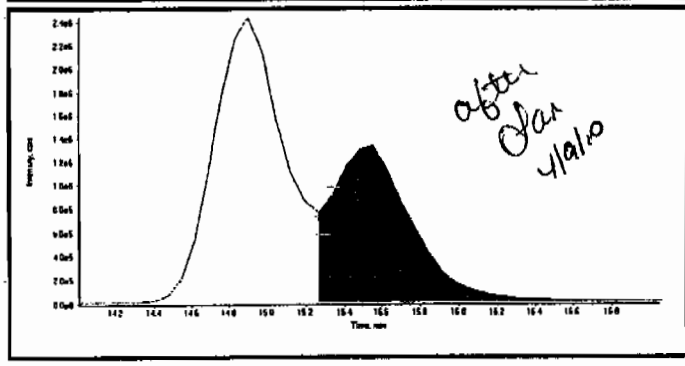

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	15.5
Area Counts:	3.88e+007
Manual Modification	Yes
Amount:	566. (ng/mL)
% Accuracy:	94.30

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401010.wiff	**Acquisition Date**	4/1/2010 3:35:34 PM
Sample Name	WXX100401-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

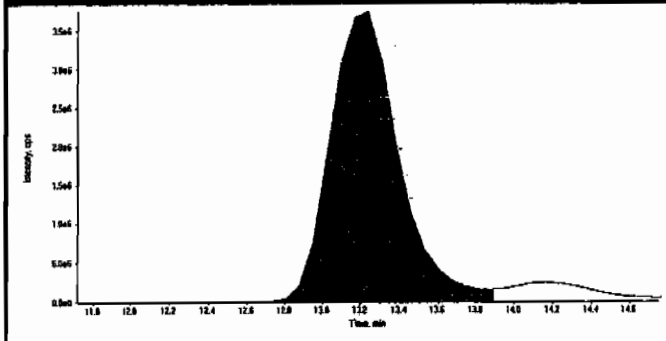

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.2
Actual RT:	13.2
Area Counts:	9.29e+007
Manual Modification	No
Amount:	658. (ng/mL)
% Accuracy:	110.00

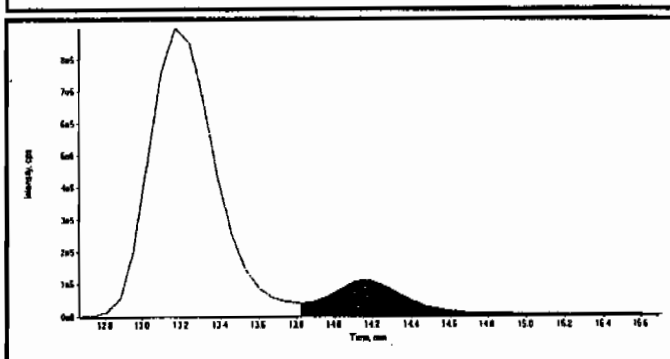

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.2
Actual RT:	14.2
Area Counts:	3.60e+006
Manual Modification	No
Amount:	696. (ng/mL)
% Accuracy:	116.00

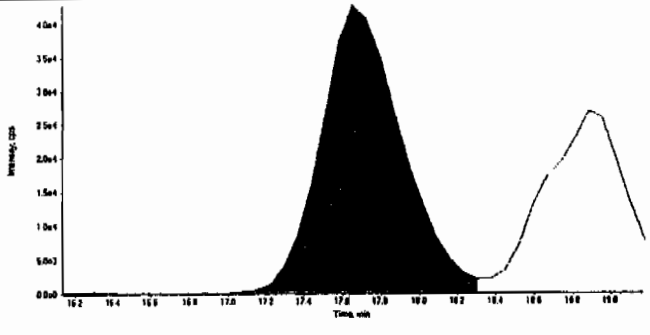

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.7
Actual RT:	17.7
Area Counts:	1.25e+006
Manual Modification	No
Amount:	606. (ng/mL)
% Accuracy:	101.00

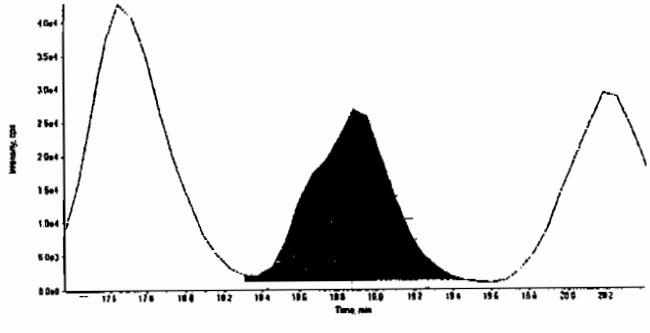

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.9
Actual RT:	18.9
Area Counts:	7.48e+005
Manual Modification	No
Amount:	730. (ng/mL)
% Accuracy:	122.00

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401010.wiff	**Acquisition Date**	4/1/2010 3:35:34 PM
Sample Name	WXX100401-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

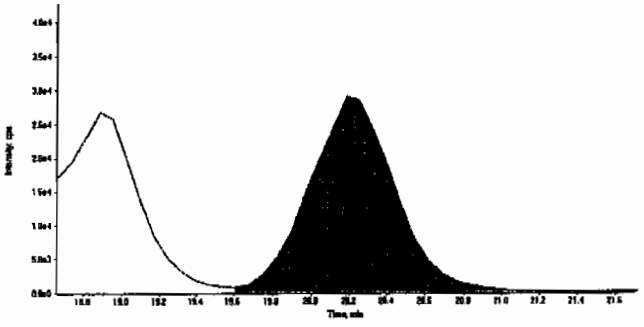

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.2
Actual RT:	20.2
Area Counts:	9.17e+005
Manual Modification	No
Amount:	759. (ng/mL)
% Accuracy:	126.00

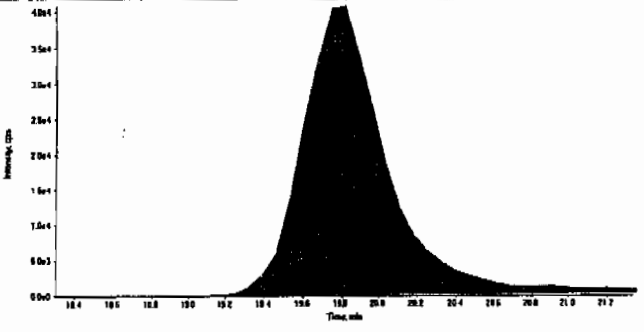

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.8
Actual RT:	19.8
Area Counts:	1.28e+006
Manual Modification	No
Amount:	694. (ng/mL)
% Accuracy:	116.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 04/01/10
Time of Injection 1535
Standard Number WXX100401-56ICV
Data File EXP0401010a

HMX	97.5
RDX	105.0
135-Trinitrobenzene	96.8
13-Dinitrobenzene	98.9
Tetryl	99.3
246-Trinitrotoluene	104.0
Nitrobenzene	104.0
34-dinitrotoluene	106.0
26-dinitrotoluene	100.0
24-dinitrotoluene	94.3
4-Amino-26-dinitrotoluene	110.0
2-Amino-46-dinitrotoluene	116.0
2-Nitrotoluene	101.0
4-Nitrotoluene	122.0
3-Nitrotoluene	126.0
PETN	116.0
TOTAL	1696.8
AVERAGE	106.1

Hmc 04/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lan 4/9/10

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1864

Lab Code: GEL

Run Date: 01-APR-10,10-MAR-10,30-MAR-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8O

Calibration Type: Average RF

Calibration Level:	19	20	21	22	23	25	Ave RF	RSD	Q
Data File:	EXS03100003.w	EXS03100004.w	EXS03100005.w	EXS03100006.w	EXS03100007.w	EXS03100009.w			
Parmname									
2,4-Diamino-6-nitrotoluene	1090	1070	1100	1030	1110	938	1056.333	6.07	
2,6-Diamino-4-nitrotoluene	1620	1550	1540	1570	1520	1380	1530.000	5.41	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1864

Lab Code: GEL

Run Date: 01-APR-10,10-MAR-10,30-MAR-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H80

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	25	X	X^2	Intercept	COD	Q
Data File:	EXS03100003.wifl	EXS03100004.wifl	EXS03100005.wifl	EXS03100006.wifl	EXS03100007.wifl	EXS03100009.wifl					
Parmname:											
3,4-Dinitrotoluene	269000	536000	1300000	2570000	3200000	9020000	22800	10300	-1.34	1	
3,5-Dinitroaniline	414000	823000	2000000	3900000	4810000	12200000	189000	6930	-.459	.9986	
TATB	64800	130000	329000	728000	1060000	2830000	-15900	1460	-.021	.9999	
tris(o-cresyl) phosphate	689000	1380000	3340000	6340000	9120000	20300000	65000	13300	-1.59	1	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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031010ICAL

Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit Quadratic Weighting None Iterate No
a0 -1.59e+004
a1 1.46e+003
a2 -0.0212
Correlation coefficient 0.9999
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit Quadratic Weighting None Iterate No
a0 1.89e+005
a1 6.93e+003
a2 -0.459
Correlation coefficient 0.9986
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit Quadratic Weighting None Iterate No
a0 2.28e+004
a1 1.03e+004
a2 -1.34
Correlation coefficient 1.0000
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.53e+003
Standard deviation 82.8
%RSD 5.41
Use Area

Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

dan 3/13/10

thinw 03/15/10

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031010ICAL

Fit Mean Response Factor Weighting None Iterate No
Factor 1.06e+003
Standard deviation 64.2
%RSD 6.07
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit Quadratic Weighting None Iterate No
a0 6.5e+004
a1 1.33e+004
a2 -1.59
Correlation coefficient 1.0000
Use Area

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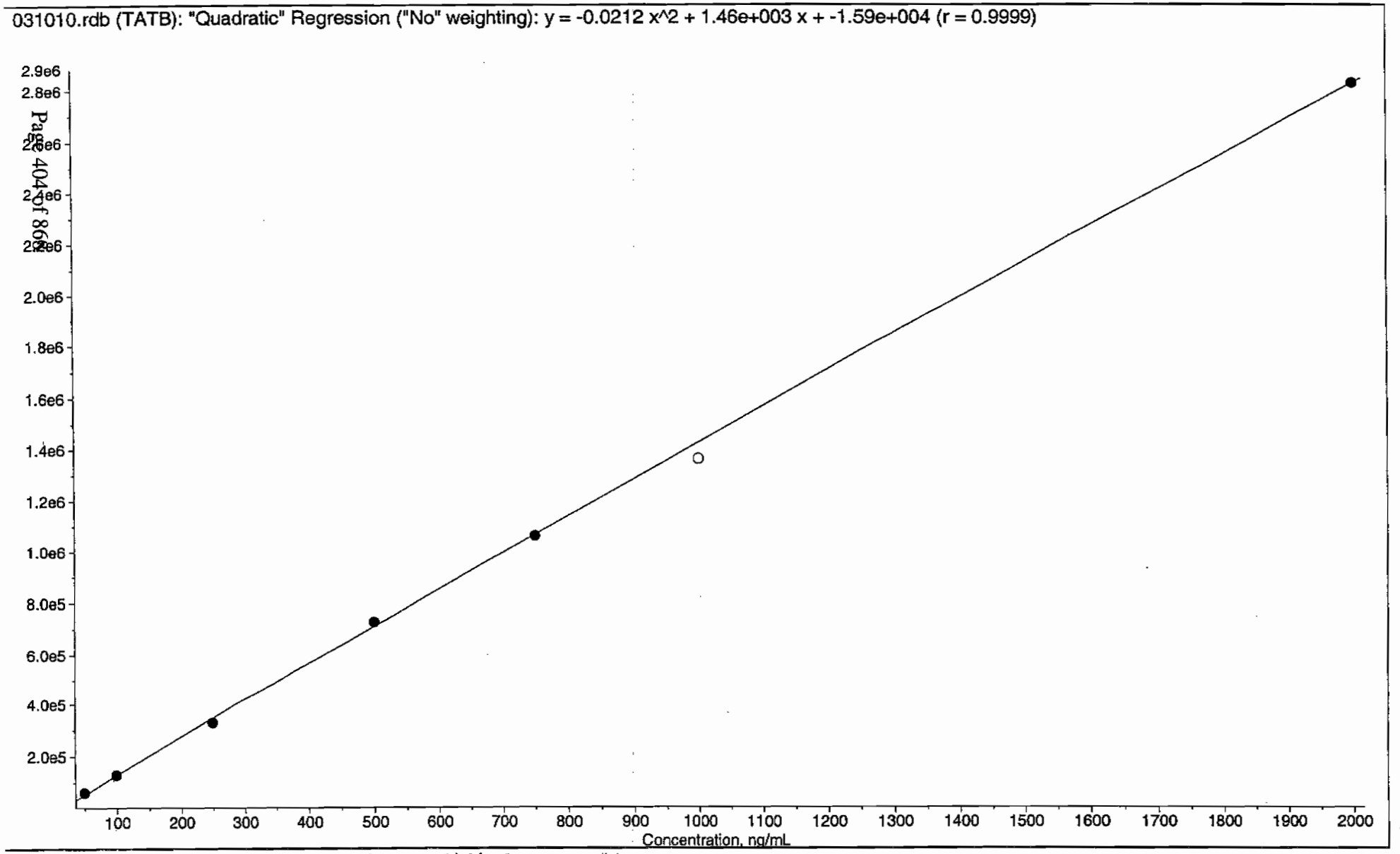

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031010.rdb (35-Dinitroaniline): "Quadratic" Regression ("No" weighting): y = -0.459 x^2 + 6.93e+003 x + 1.89e+005 (r = 0.9986)

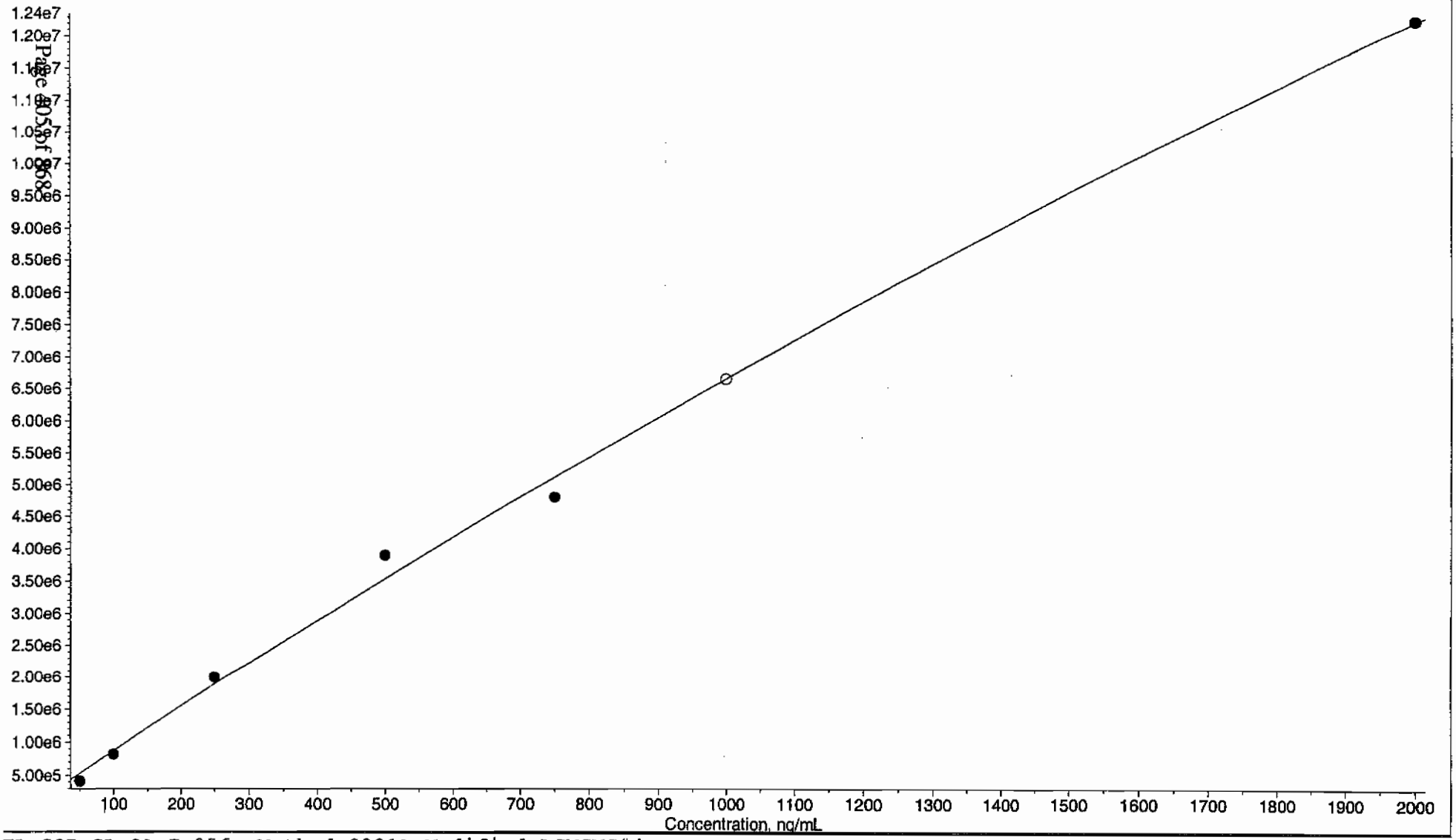

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031010.rdb (34-Dinitrotoluene): "Quadratic" Regression ("No" weighting): y = -1.34 x^2 + 1.03e+004 x + 2.28e+004 (r = 1.0000)

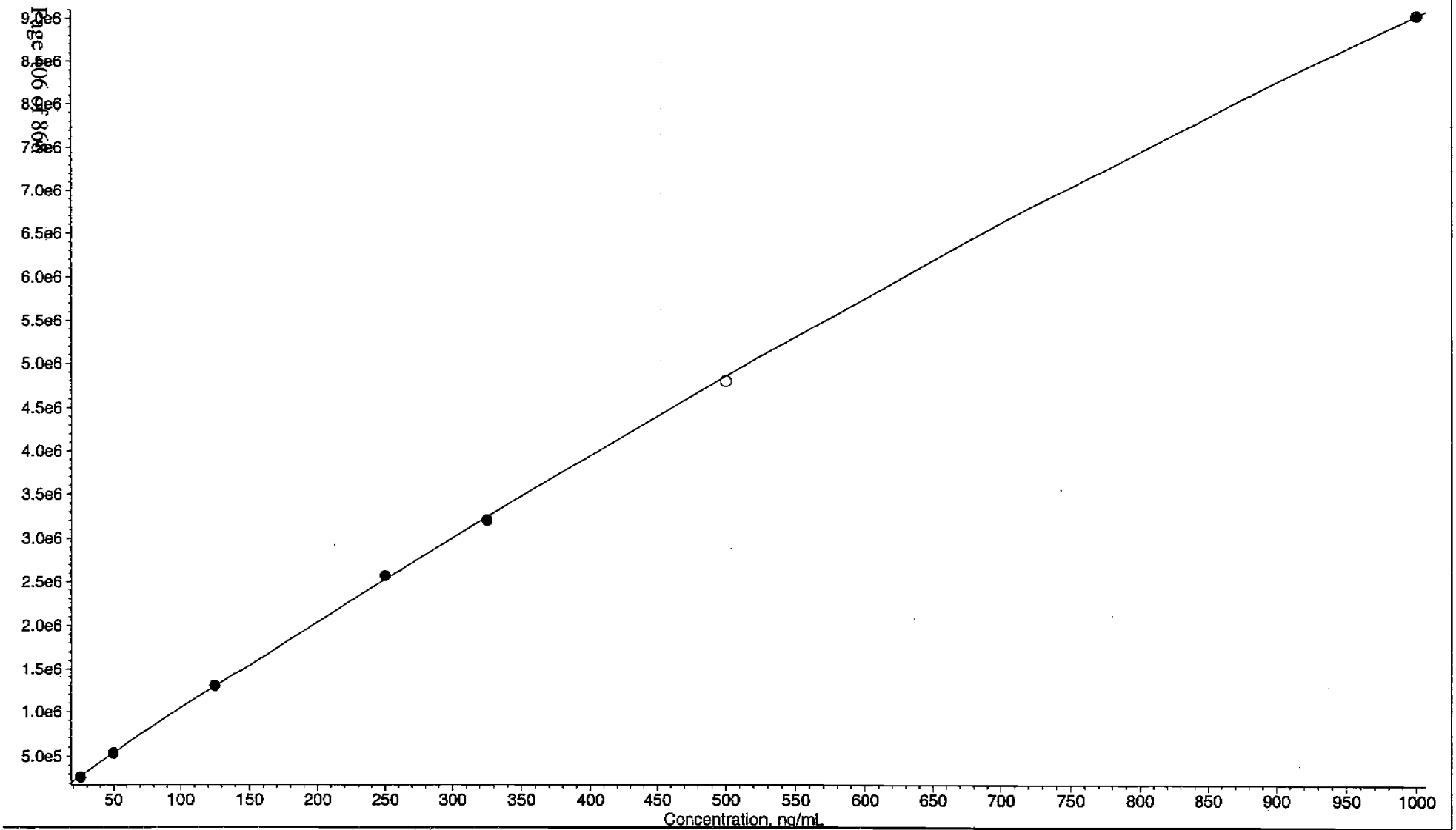

031010.rdb (26-Diamino-4-nitrotoluene): "Mean Response Factor" Regression ("No" weighting): y = 1.53e+003 x (std. dev. = 82.8)

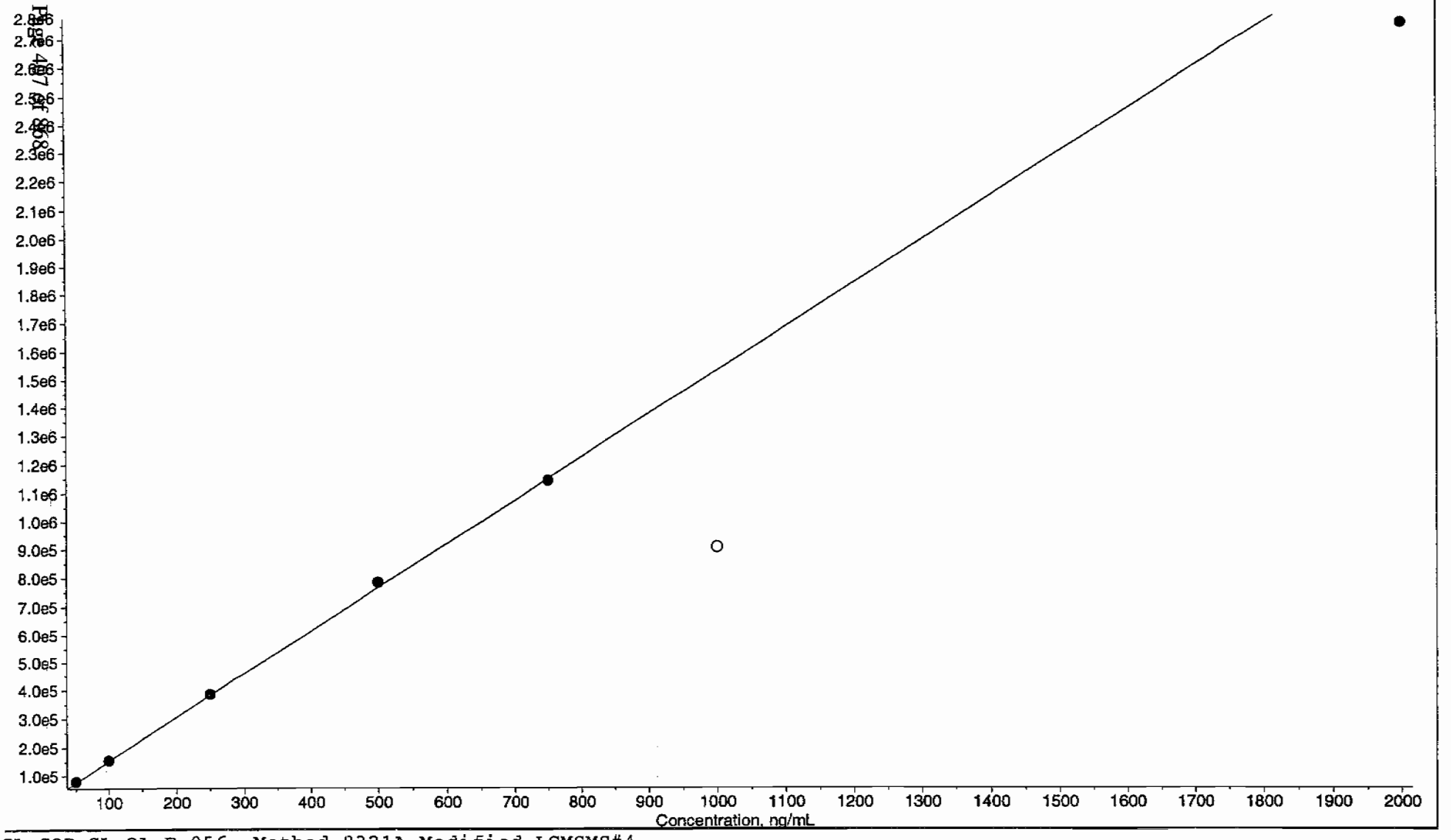

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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031010.rdb (24-Diamino-6-nitrotoluene): "Mean Response Factor" Regression ("No" weighting): y = 1.06e+003 x (std. dev. = 64.2)

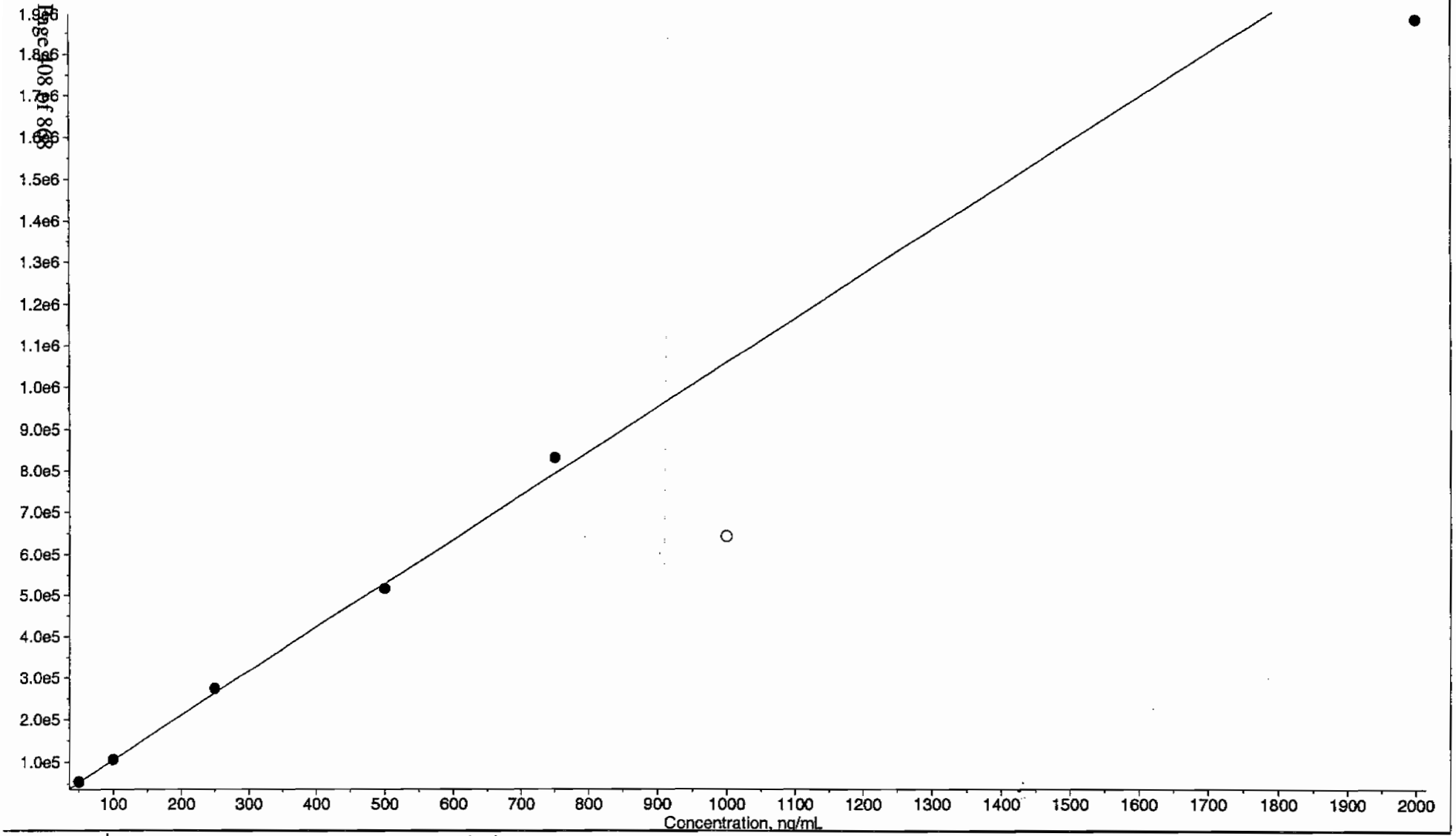

031010.rdb (tris(o-cresyl) phosphate): "Quadratic" Regression ("No" weighting): y = -1.59 x^2 + 1.33e+004 x + 6.5e+004 (r = 1.0000)

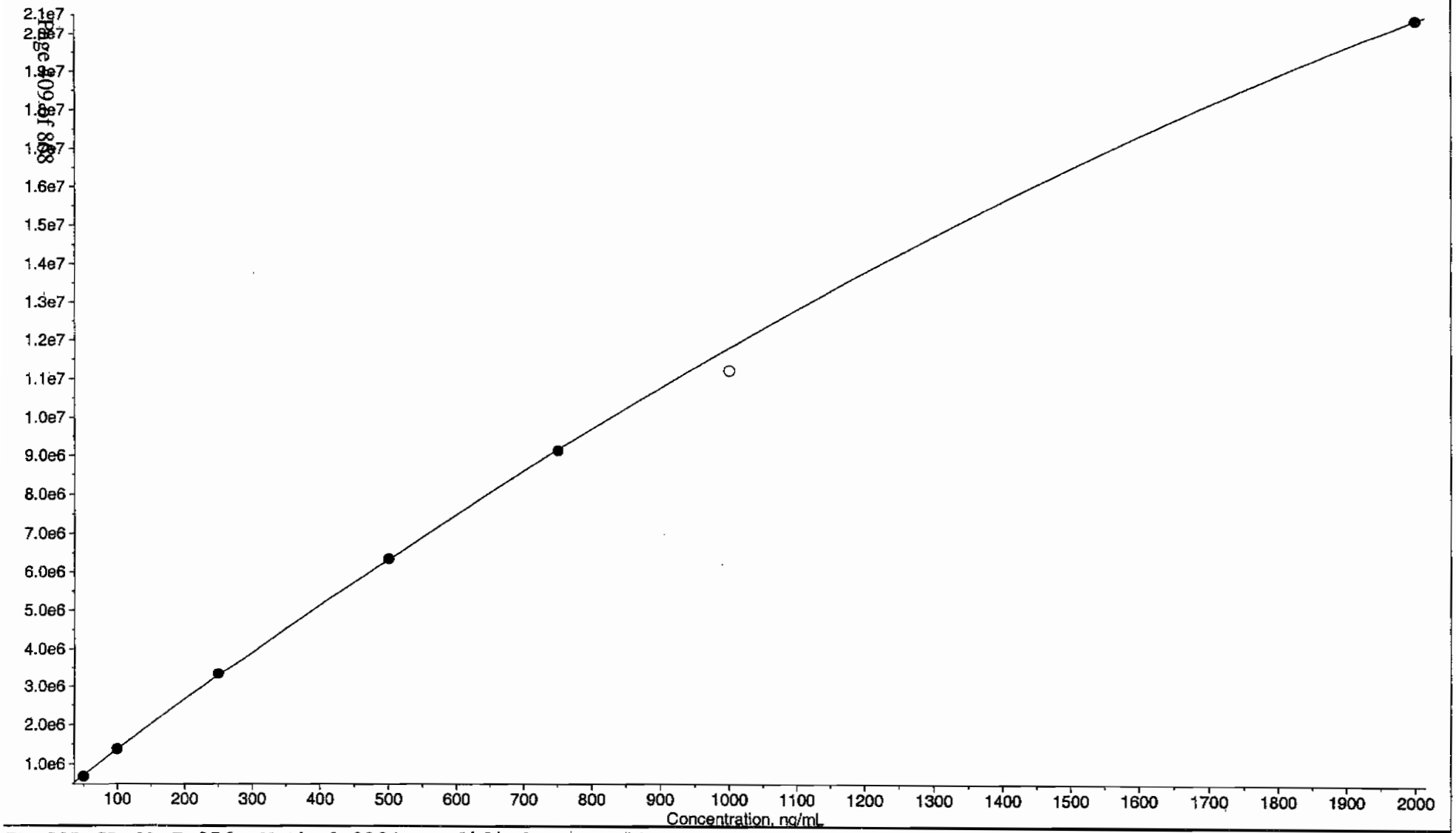

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1864

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS03100011.wiff

Analysis Date: 10–MAR–10 18:08

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
3,4–Dinitrotoluene	250	243	97	
3,5–Dinitroaniline	500	527	105	
TATB	500	461	92	
tris(o–cresyl) phosphate	500	483	97	
2,4–Diamino–6–nitrotoluene	500	506	101	
2,6–Diamino–4–nitrotoluene	500	502	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lar 3/13/10

mple Name: "WXX100310-26ICV" Sample ID: "[1]LER" File: "EXS03100011.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 461. ng/mL
Date 3/10/2010
Time 6:08:30 PM

fied No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
dindow: 30.0 sec
cted RT: 6.92 min
Relative RT: No

Type: Valley
ntion Time: 6.92 min
: 6.54e+005 counts
ht: 151460.114 cps
t Time: 6.82 min
Time: 7.73 min

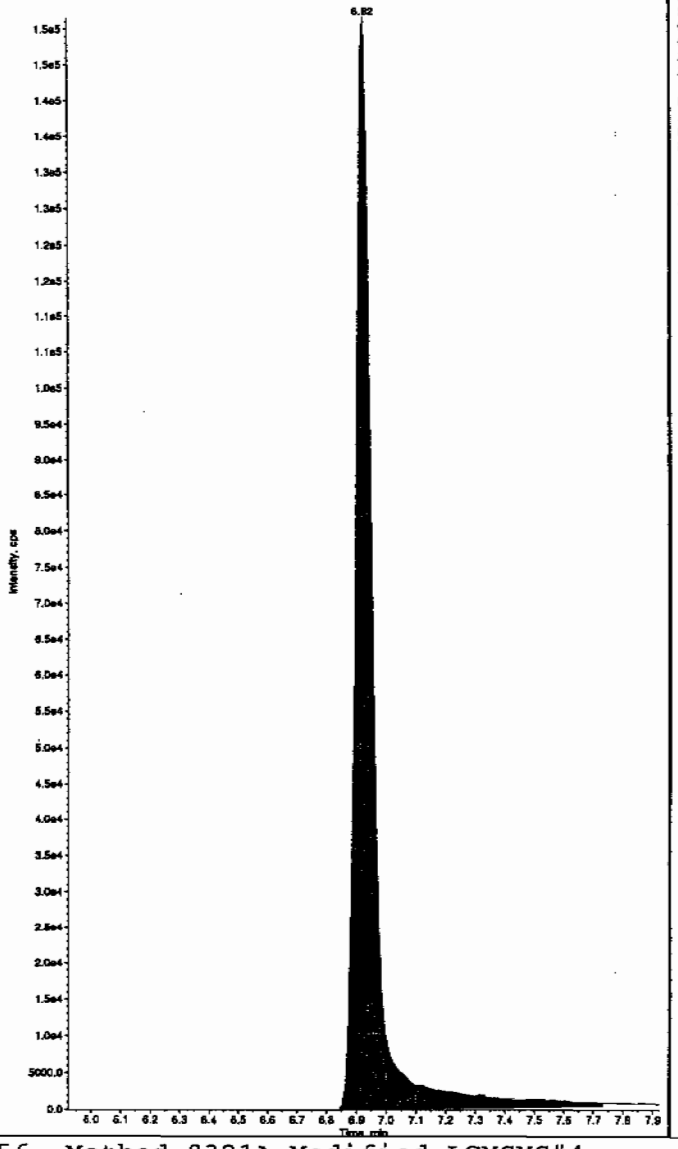

Sample Name: "WXX100310-26ICV" Sample ID: "[1]LER" File: "EXS03100011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 527. ng/mL
Acq. Date: 3/10/2010
Acq. Time: 6:08:30 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.16 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.16 min
Area: 3.71e+006 counts
Height: 934657.959 cps
Start Time: 8.06 min
End Time: 8.28 min

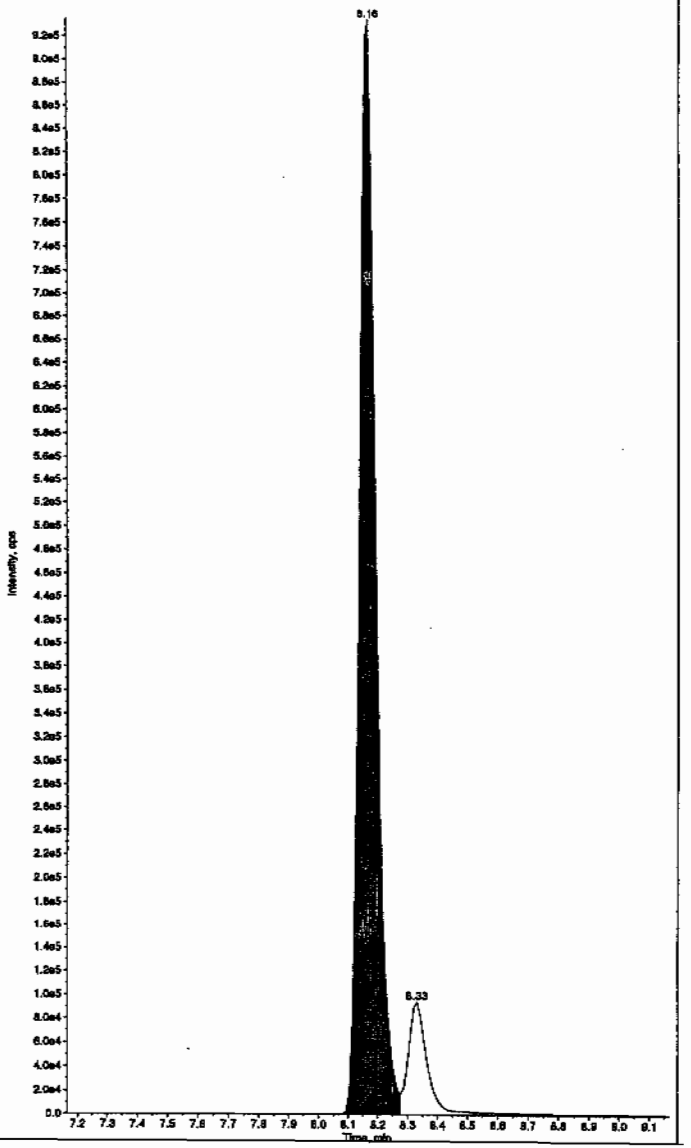

AMW 03/15/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION : No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100310-26ICV" Sample ID: "[1]LER" File: "EXS03100011.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 250. ng/mL
culated Conc: 243. ng/mL
. Date 3/10/2010
. Time 6:08:30 PM

ified No
. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window 15.0 sec
ected RT: 8.32 min
Relative RT: No

. Type: Valley
ention Time: 8.32 min
a: 2.46e+006 counts
ght: 650270.996 cps
rt Time: 8.25 min
Time: 8.69 min

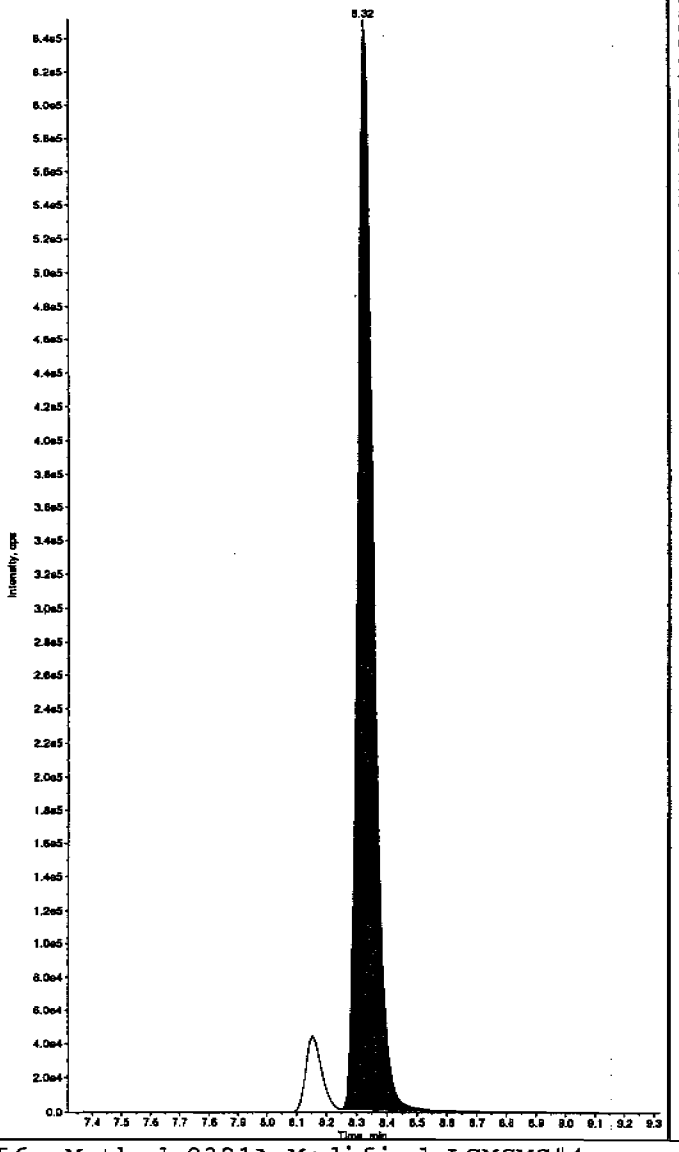

Sample Name: "WXX100310-26ICV" Sample ID: "[1]LER" File: "EXS03100011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 502. ng/mL
Acq. Date: 3/10/2010
Acq. Time: 6:08:30 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.95 min
Area: 7.68e+005 counts
Height: 182806.763 cps
Start Time: 4.87 min
End Time: 5.26 min

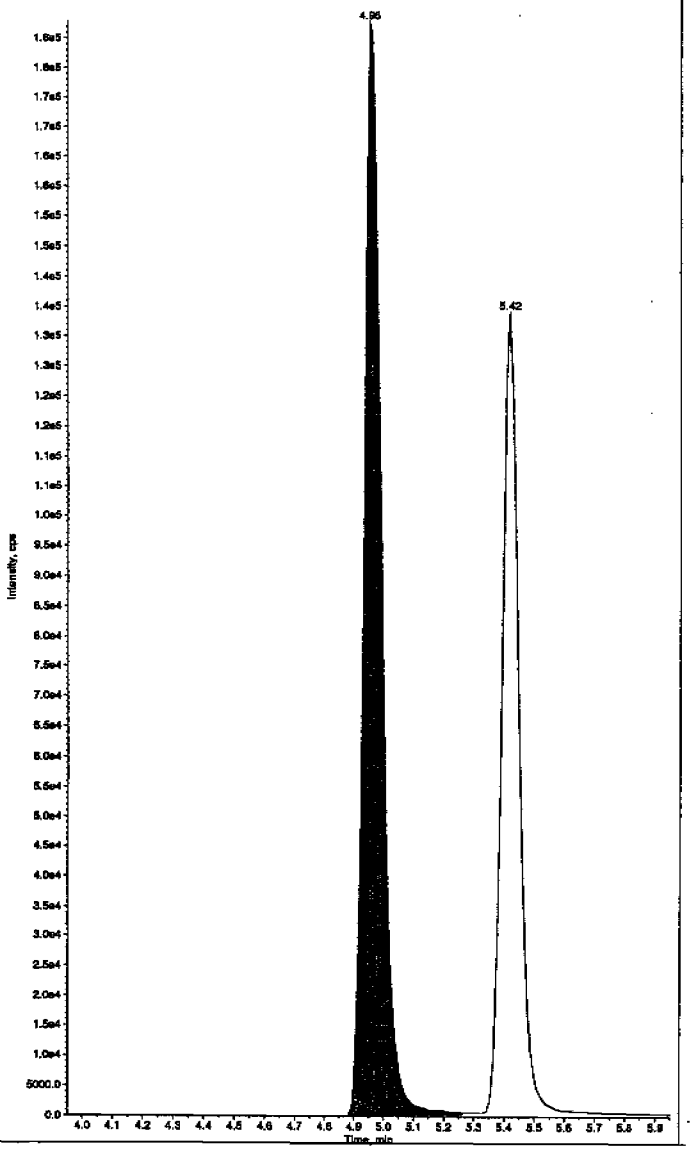

mple Name: "WXX100310-26ICV" Sample ID: "[1]LER" File: "EXS03100011.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
mment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 506. ng/mL
. Date: 3/10/2010
. Time: 6:08:30 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 5.42 min
Relative RT: No

. Type: Valley
ention Time: 5.42 min
a: 5.35e+005 counts
ght: 134036.285 cps
rt Time: 5.31 min
Time: 6.12 min

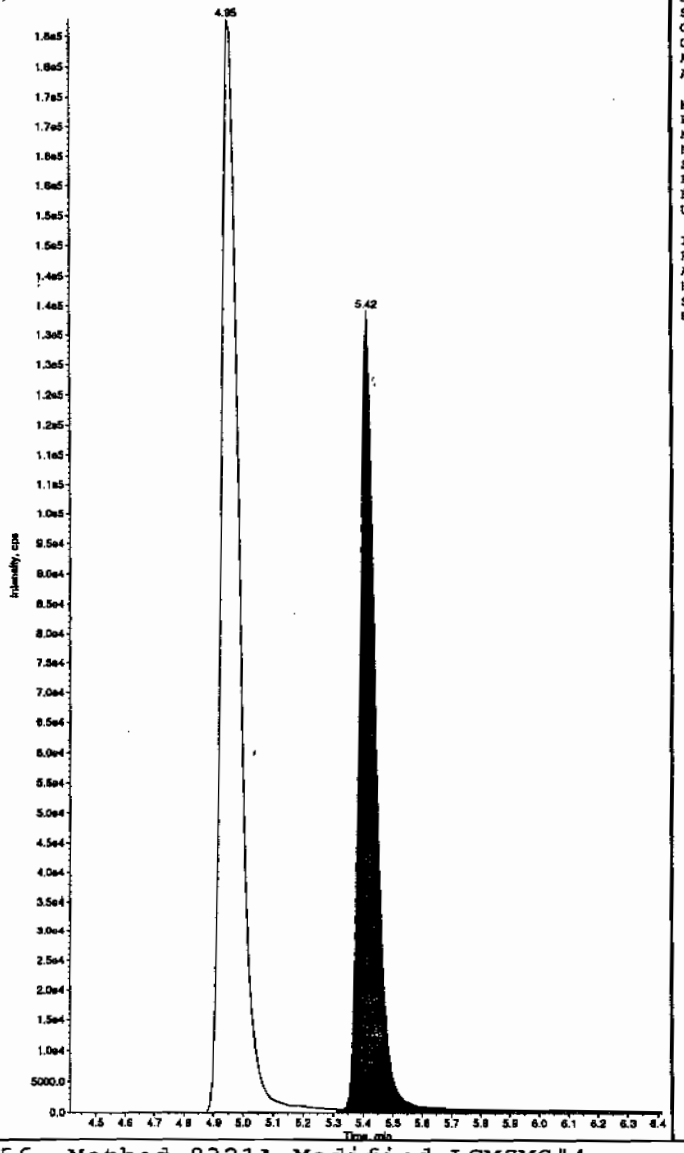

Sample Name: "WXX100310-26ICV" Sample ID: "[1]LER" File: "EXS03100011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 483. ng/mL
Acq. Date: 3/10/2010
Acq. Time: 6:08:30 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 6.12e+006 counts
Height: 1537228.882 cps
Start Time: 10.7 min
End Time: 11.1 min

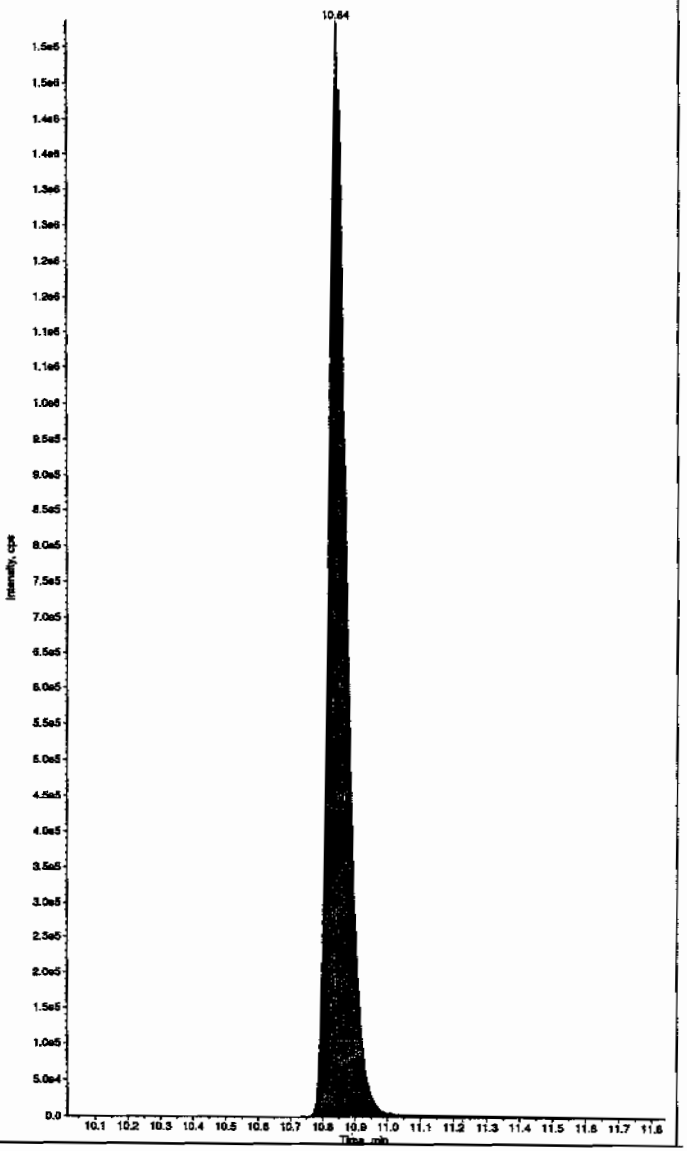

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1864

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0330012.wiff

Analysis Date: 30–MAR–10 13:27

LCMSMS ID: 1189

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	37.2	93	
2,4,6–Trinitrotoluene	40	29.9	75	
2,4–Dinitrotoluene	40	35.4	89	
2,6–Dinitrotoluene	40	40.4	101	
2–Amino–4,6–dinitrotoluene	40	34	85	
3,4–Dinitrotoluene	20	20	100	
4–Amino–2,6–dinitrotoluene	40	40.2	100	
HMX	40	34.5	86	
Nitrobenzene	40	32.4	81	
PETN	40	28.8	72	
RDX	40	32.5	81	
Tetryl	40	37.1	93	
m–Dinitrobenzene	40	41	102	
m–Nitrotoluene	40	42.9	107	
o–Nitrotoluene	40	41	102	
p–Nitrotoluene	40	41.4	103	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330012.wiff	**Acquisition Date**	3/30/2010 1:27:19 PM
Sample Name	WXX100330-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

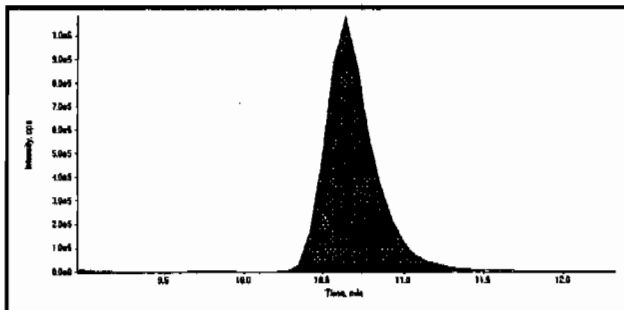

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	21600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

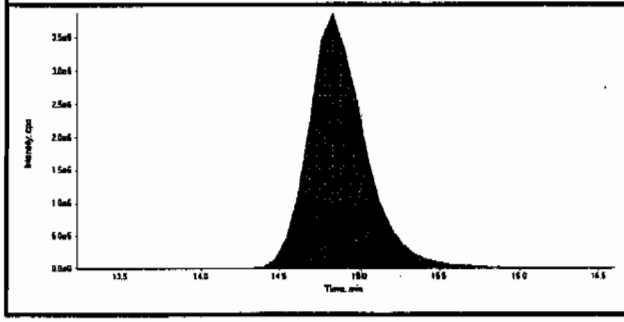

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.80
Area Counts:	93900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

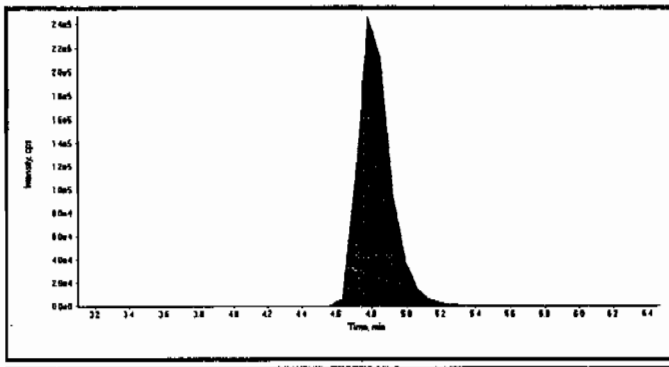

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	3.18e+006
Manual Modification	No
Amount:	34.5 (ng/mL)
% Accuracy:	86.30

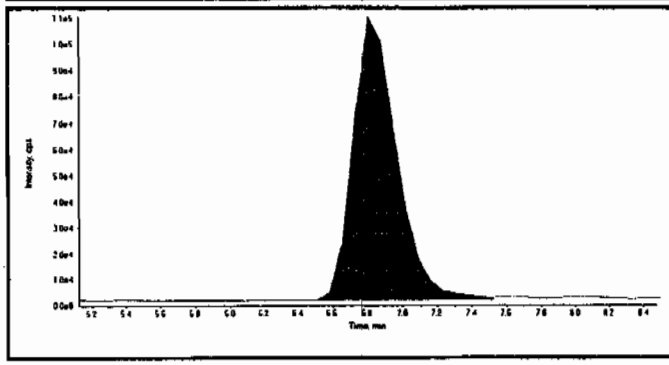

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	6.80
Area Counts:	1.93e+006
Manual Modification	No
Amount:	32.5 (ng/mL)
% Accuracy:	81.30

LER 4/2/10 [illegible] 04/02/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330012.wiff	**Acquisition Date**	3/30/2010 1:27:19 PM
Sample Name	WXX100330-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

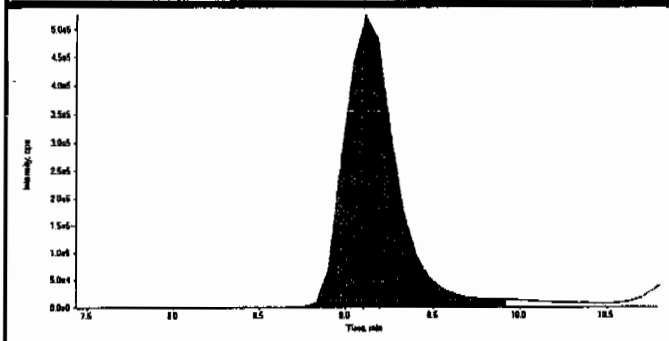

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	9.12
Area Counts:	1.10e+007
Manual Modification	No
Amount:	37.2 (ng/mL)
% Accuracy:	93.10

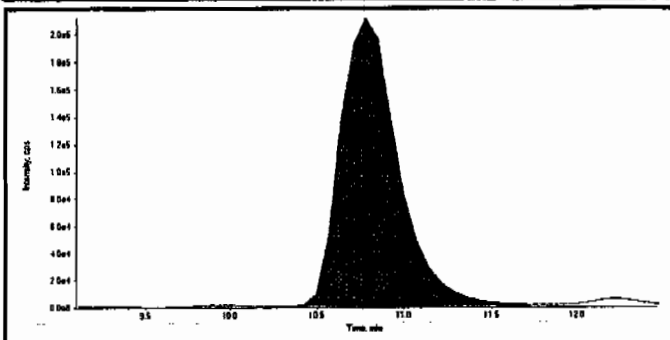

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	10.8
Area Counts:	4.97e+006
Manual Modification	No
Amount:	41.0 (ng/mL)
% Accuracy:	102.00

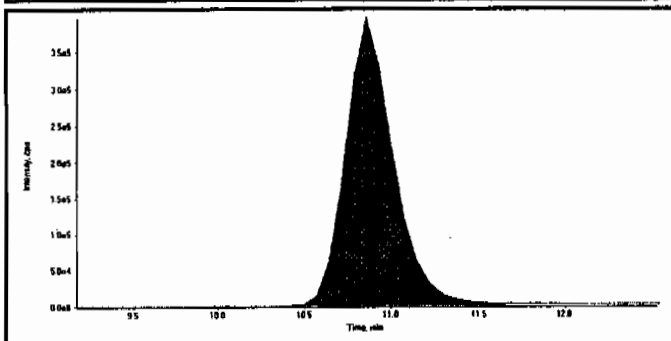

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	7.66e+006
Manual Modification	No
Amount:	37.1 (ng/mL)
% Accuracy:	92.80

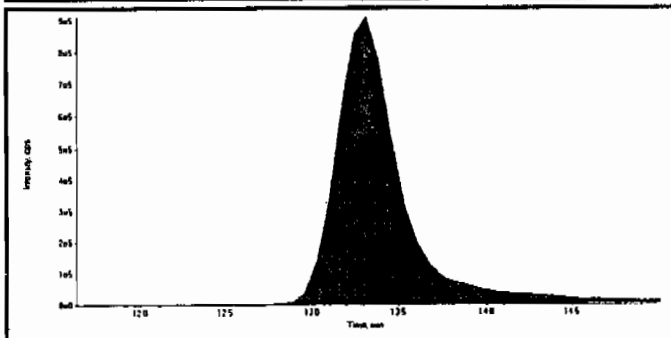

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	13.3
Area Counts:	2.40e+007
Manual Modification	No
Amount:	29.9 (ng/mL)
% Accuracy:	74.90

Before Lan 4/1/10

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ple Name: "WXX100330-57CRI" Sample ID: "[1]LER" File: "EXP0330012.wiff"
: Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""

: Index:	1	
: Type:	QC	
ntration:	40.0	ng/mL
ected Conc:	16.8	ng/mL
ate:	3/30/2010	
ime:	1:27:19 PM	
ed:	No	
Algorithm:	IntelliQuan - TOA	
eak Height:	1.00e4	cps
eak Width:	0.90	sec
ing Width:	3	points
dow:	30.0	sec
ed RT:	15.6	min
lative RT:	No	
ype:	Valley	
ion Time:	15.5	min
	1.74e+006	counts
:	8.85e-004	cps
Time:	15.3	min
me:	16.0	min

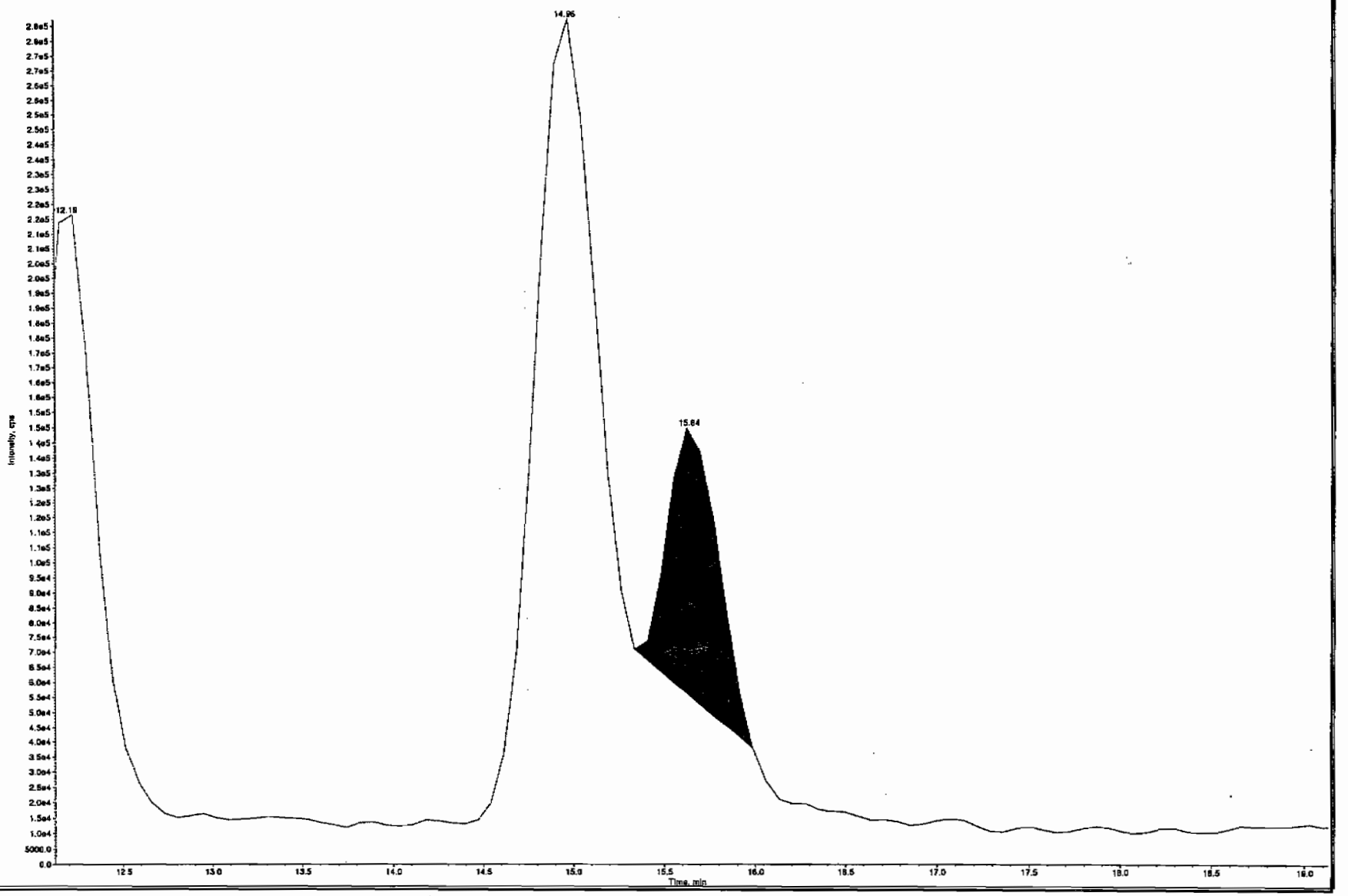

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330012.wiff	**Acquisition Date**	3/30/2010 1:27:19 PM
Sample Name	WXX100330-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

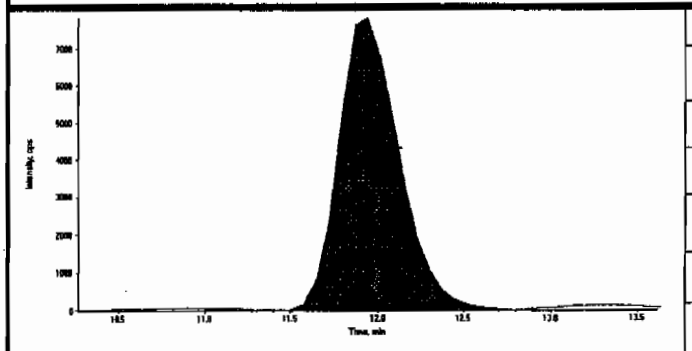

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	11.9
Area Counts:	1.88e+005
Manual Modification	No
Amount:	32.4 (ng/mL)
% Accuracy:	81.10

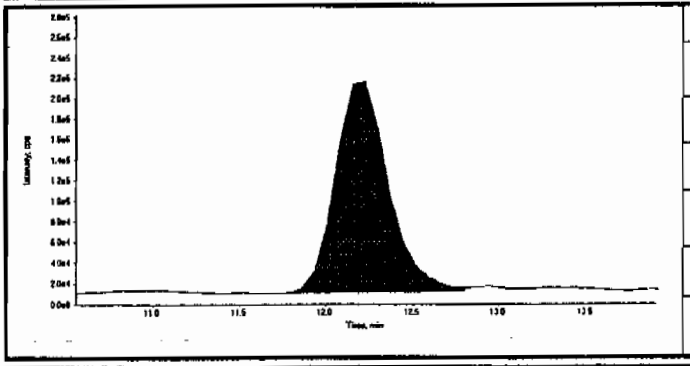

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	12.2
Area Counts:	4.38e+006
Manual Modification	No
Amount:	20.0 (ng/mL)
% Accuracy:	100.00

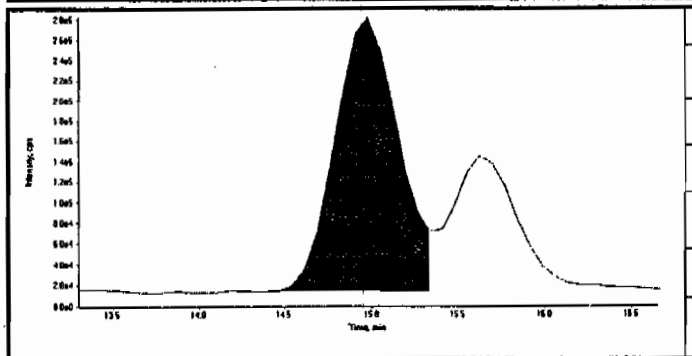

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	15.0
Area Counts:	6.86e+006
Manual Modification	No
Amount:	40.4 (ng/mL)
% Accuracy:	101.00

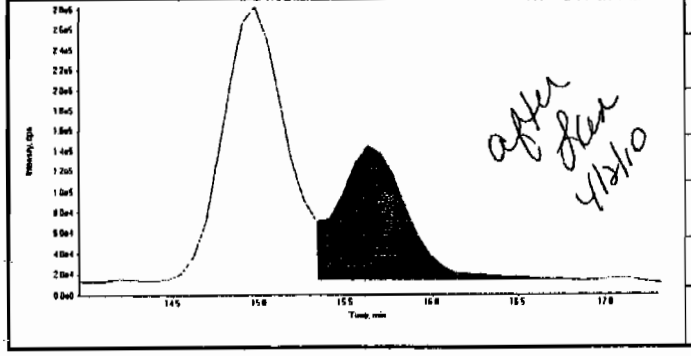

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.6
Area Counts:	3.66e+006
Manual Modification	Yes
Amount:	35.4 (ng/mL)
% Accuracy:	88.50

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330012.wiff	**Acquisition Date**	3/30/2010 1:27:19 PM
Sample Name	WXX100330-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

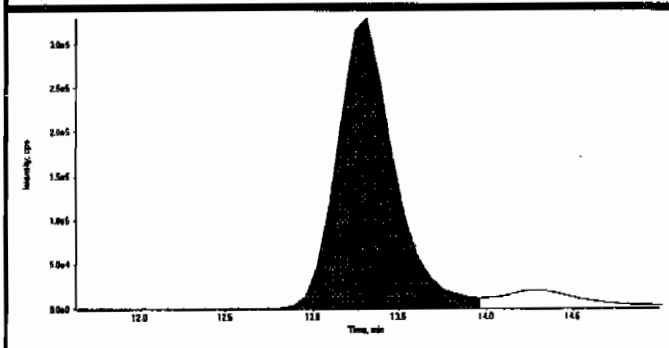

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	13.3
Area Counts:	7.61e+006
Manual Modification	No
Amount:	40.2 (ng/mL)
% Accuracy:	100.00

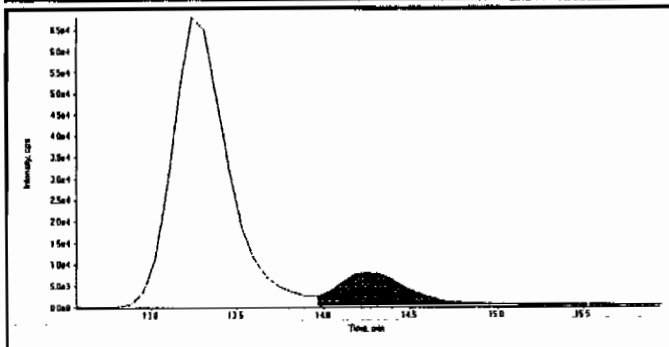

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	14.3
Area Counts:	2.41e+005
Manual Modification	No
Amount:	34.0 (ng/mL)
% Accuracy:	84.90

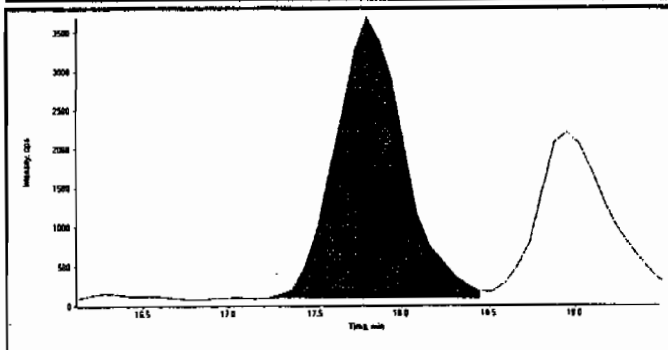

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	17.8
Area Counts:	1.00e+005
Manual Modification	No
Amount:	41.0 (ng/mL)
% Accuracy:	102.00

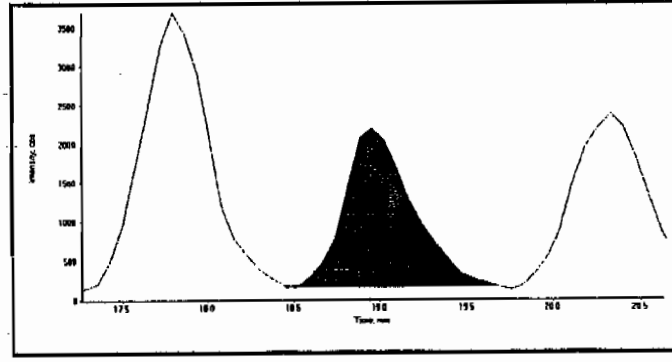

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	19.0
Area Counts:	5.68e+004
Manual Modification	No
Amount:	41.4 (ng/mL)
% Accuracy:	103.00

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330012.wiff	**Acquisition Date**	3/30/2010 1:27:19 PM
Sample Name	WXX100330-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

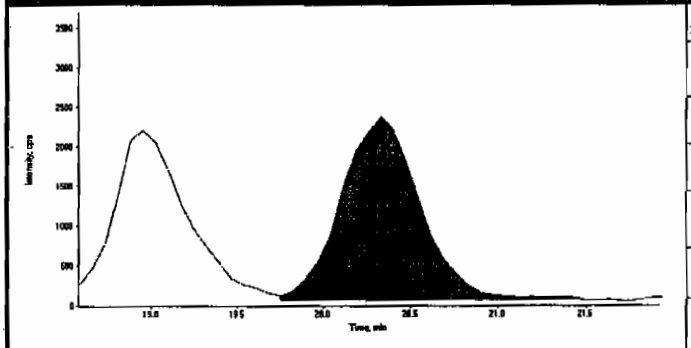

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	20.3
Area Counts:	7.29e+004
Manual Modification	No
Amount:	42.9 (ng/mL)
% Accuracy:	107.00

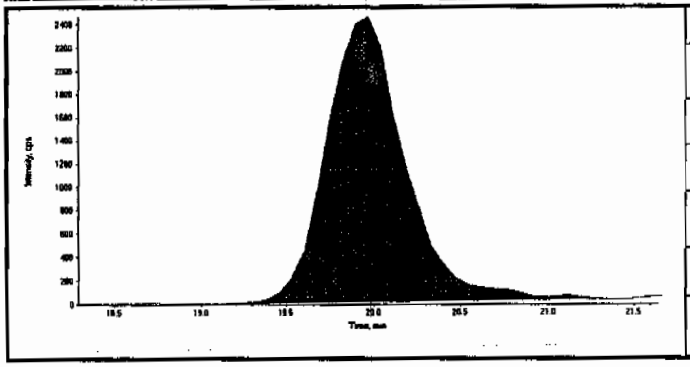

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	20.0
Area Counts:	7.69e+004
Manual Modification	No
Amount:	28.8 (ng/mL)
% Accuracy:	72.10

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/30/10
Time of Injection 1327
Standard Number WXX100330-57CRI
Data File EXP0330012a

HMX	86.3
RDX	81.3
135-Trinitrobenzene	93.1
13-Dinitrobenzene	102.0
Tetryl	92.8
246-Trinitrotoluene	74.9
Nitrobenzene	81.1
34-dinitrotoluene	100.0
26-dinitrotoluene	101.0
24-dinitrotoluene	88.5
4-Amino-26-dinitrotoluene	100.0
2-Amino-46-dinitrotoluene	84.9
2-Nitrotoluene	102.0
4-Nitrotoluene	103.0
3-Nitrotoluene	107.0
PETN	72.1
TOTAL	1470.0
AVERAGE	91.9

Hnm 04/02/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lcn 4/1/10

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1864

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0330023.wiff **Analysis Date:** 30-MAR-10 18:17

LCMSMS ID: 1189 **Column ID:** JSphere ODS-H80

Compound	True	Found	Recovery	Q
HMX	600	598	100	
Nitrobenzene	600	631	105	
PETN	600	778	130	
RDX	600	649	108	
Tetryl	600	553	92	
m-Dinitrobenzene	600	559	93	
m-Nitrotoluene	600	620	103	
o-Nitrotoluene	600	718	120	
p-Nitrotoluene	600	713	119	
1,3,5-Trinitrobenzene	600	539	90	
2,4,6-Trinitrotoluene	600	626	104	
2,4-Dinitrotoluene	600	621	104	
2,6-Dinitrotoluene	600	565	94	
2-Amino-4,6-dinitrotoluene	600	649	108	
3,4-Dinitrotoluene	300	287	96	
4-Amino-2,6-dinitrotoluene	600	583	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330023.wiff	**Acquisition Date**	3/30/2010 6:17:49 PM
Sample Name	WXX100330-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

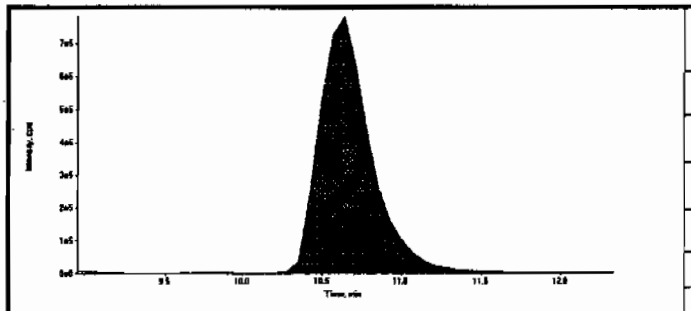

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	17800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

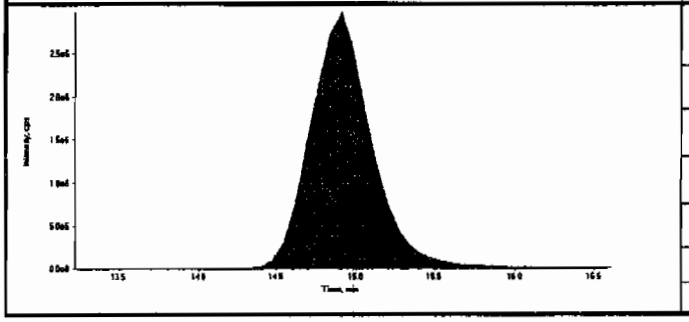

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	79800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

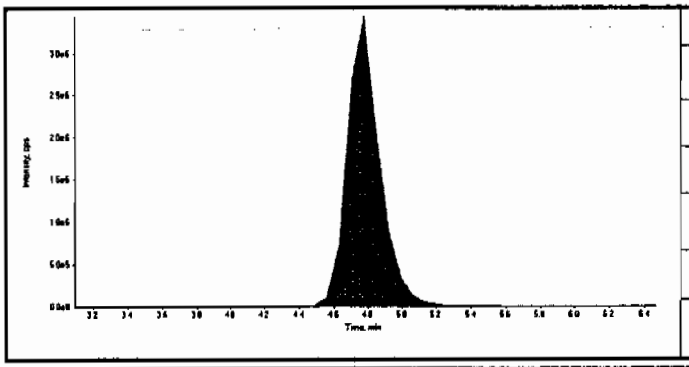

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	4.54e+007
Manual Modification	No
Amount:	598. (ng/mL)
% Accuracy:	99.70

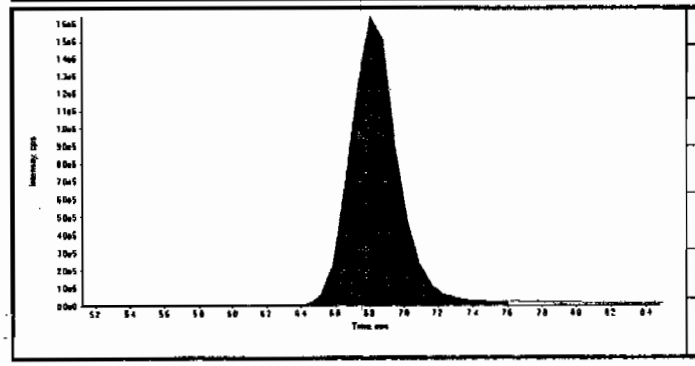

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	6.80
Area Counts:	3.17e+007
Manual Modification	No
Amount:	649. (ng/mL)
% Accuracy:	108.00

LCR 4/5/10 dmm 04/02/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330023.wiff	**Acquisition Date**	3/30/2010 6:17:49 PM
Sample Name	WXX100330-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

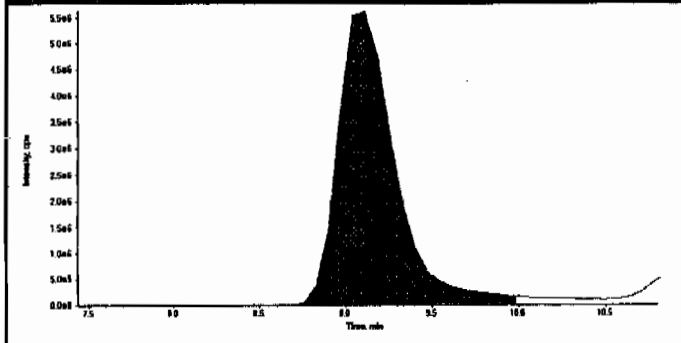

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	9.12
Area Counts:	1.32e+008
Manual Modification	No
Amount:	539. (ng/mL)
% Accuracy:	89.80

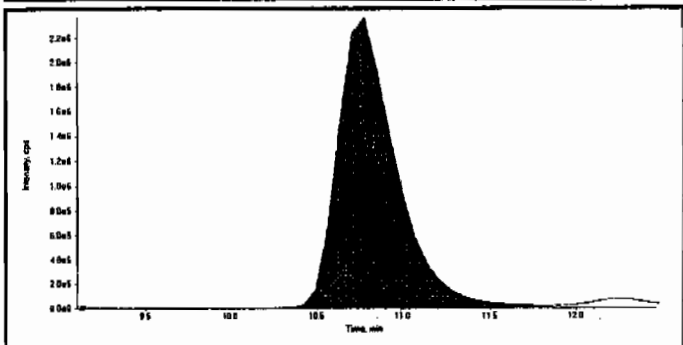

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	10.8
Area Counts:	5.60e+007
Manual Modification	No
Amount:	559. (ng/mL)
% Accuracy:	93.20

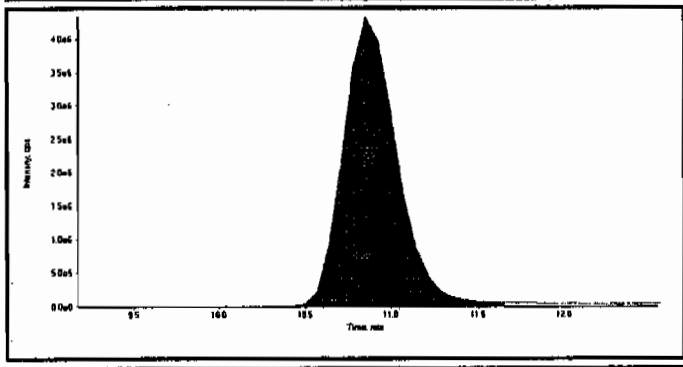

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	9.43e+007
Manual Modification	No
Amount:	553. (ng/mL)
% Accuracy:	92.20

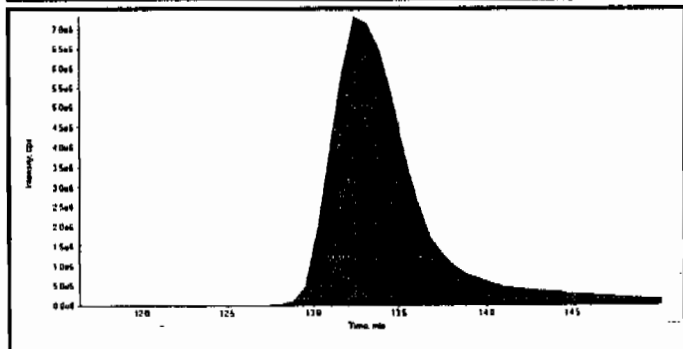

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	13.2
Area Counts:	2.53e+008
Manual Modification	No
Amount:	626. (ng/mL)
% Accuracy:	104.00

Before Ken 4/11/10

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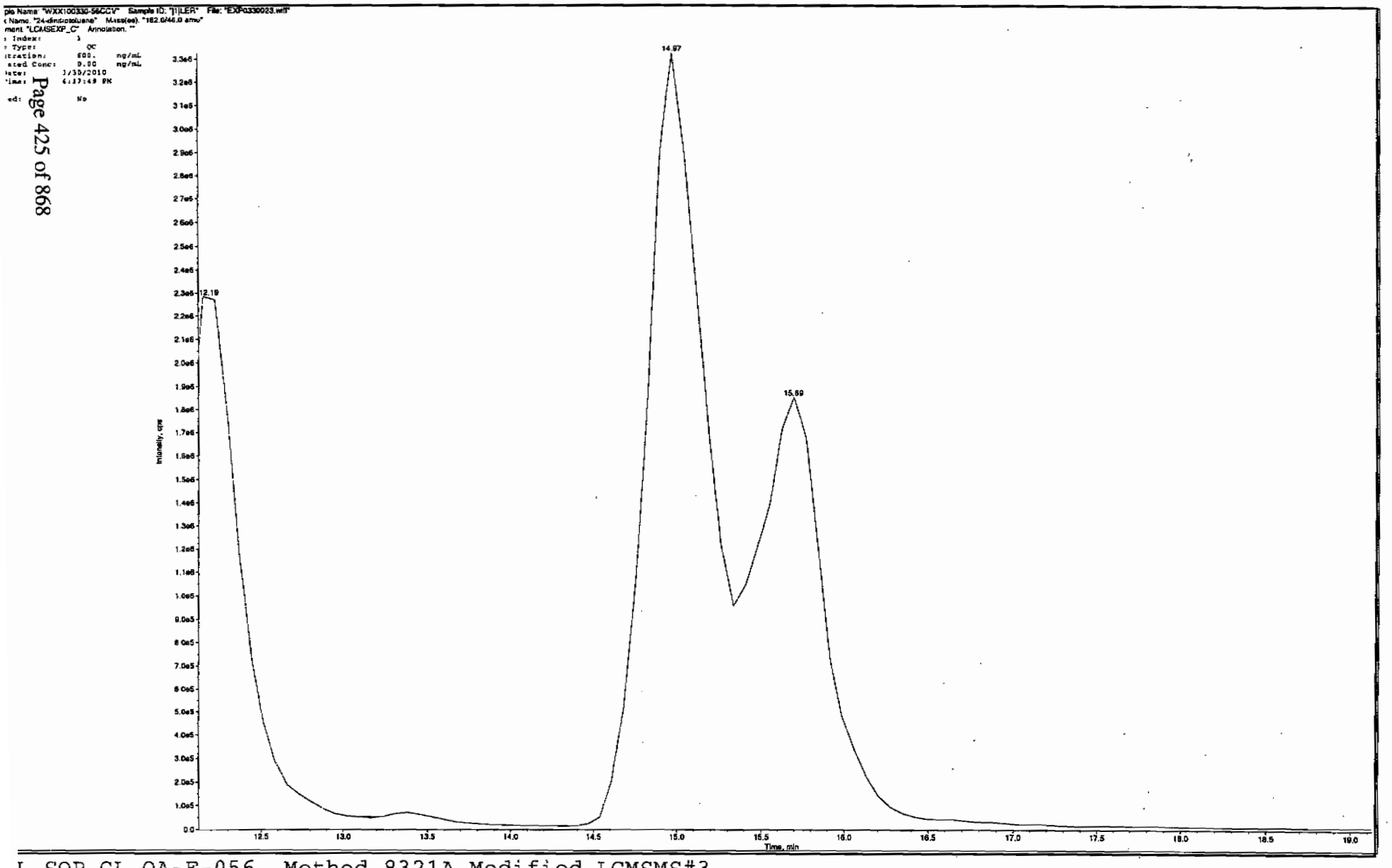

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330023.wiff	**Acquisition Date**	3/30/2010 6:17:49 PM
Sample Name	WXX100330-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

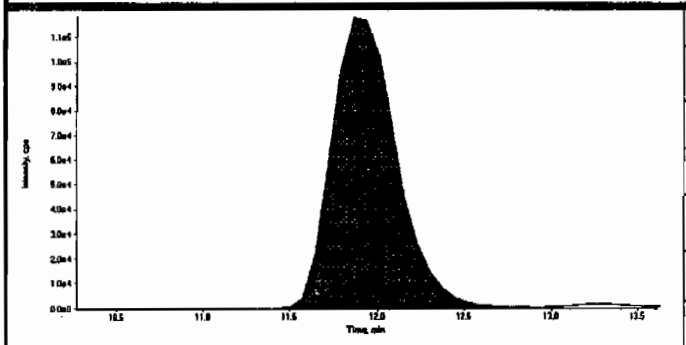

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	11.9
Area Counts:	3.02e+006
Manual Modification	No
Amount:	631. (ng/mL)
% Accuracy:	105.00

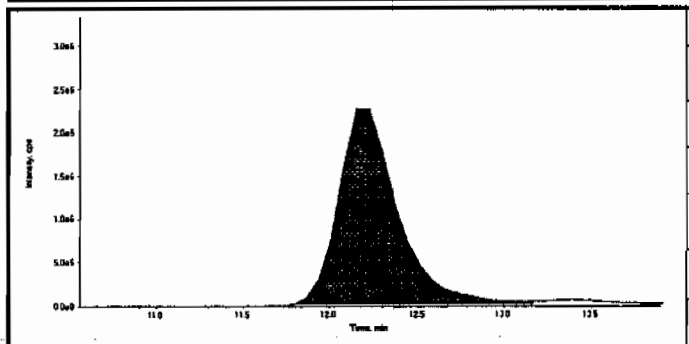

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	12.2
Area Counts:	5.34e+007
Manual Modification	No
Amount:	287. (ng/mL)
% Accuracy:	95.80

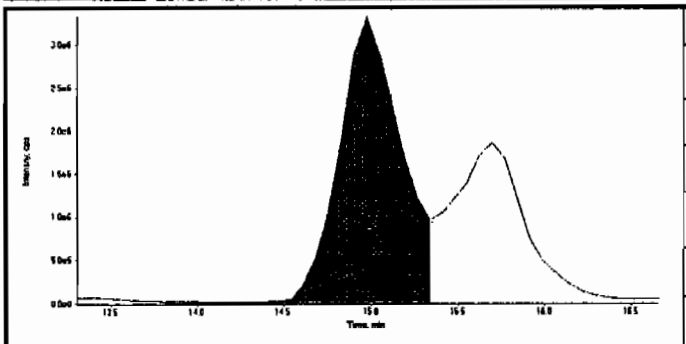

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	15.0
Area Counts:	8.15e+007
Manual Modification	No
Amount:	565. (ng/mL)
% Accuracy:	94.20

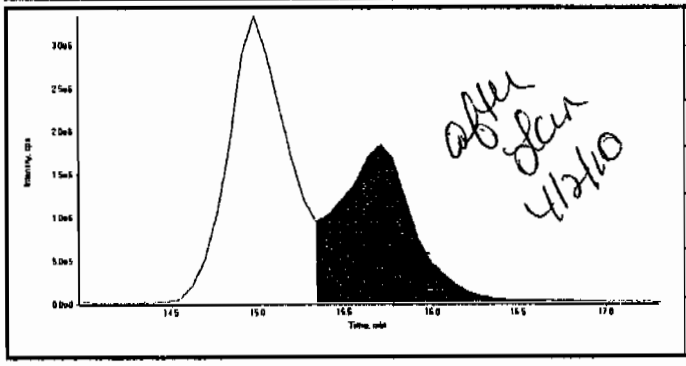

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.7
Area Counts:	5.46e+007
Manual Modification	Yes
Amount:	621. (ng/mL)
% Accuracy:	104.00

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330023.wiff	**Acquisition Date**	3/30/2010 6:17:49 PM
Sample Name	WXX100330-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

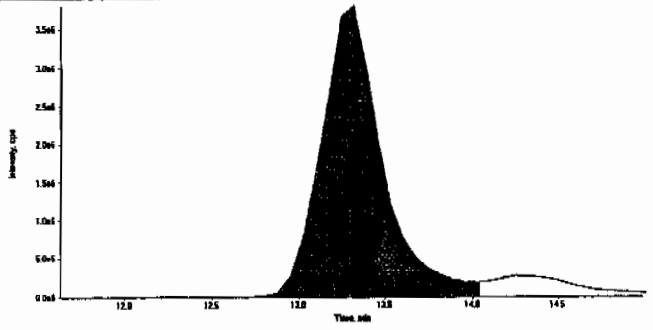

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	13.3
Area Counts:	9.38e+007
Manual Modification	No
Amount:	583. (ng/mL)
% Accuracy:	97.10

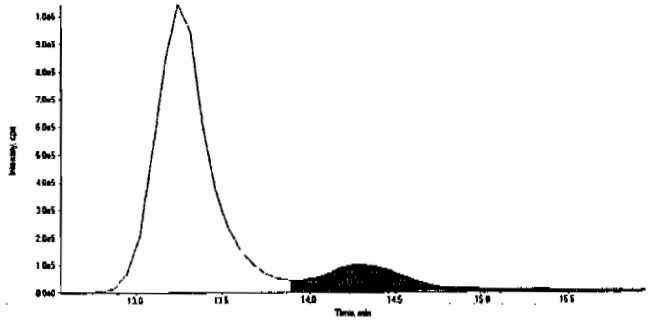

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	14.3
Area Counts:	3.92e+006
Manual Modification	No
Amount:	649. (ng/mL)
% Accuracy:	108.00

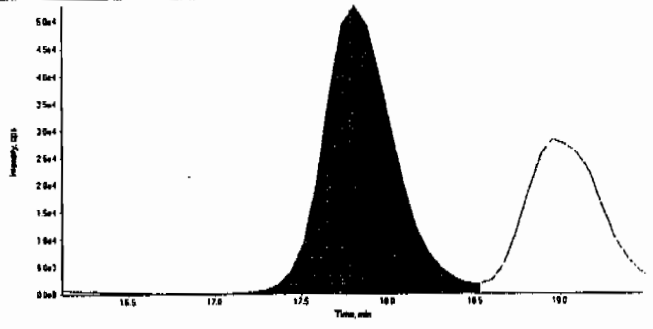

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	17.8
Area Counts:	1.49e+006
Manual Modification	No
Amount:	718. (ng/mL)
% Accuracy:	120.00

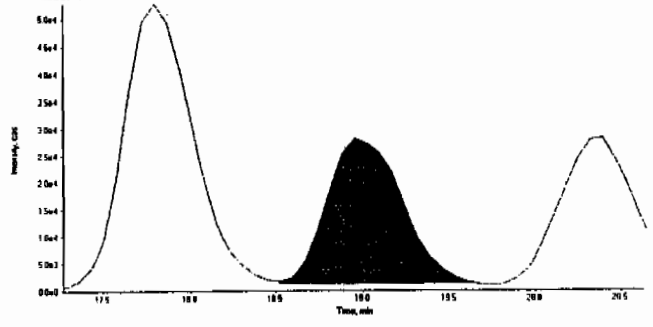

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	19.0
Area Counts:	8.33e+005
Manual Modification	No
Amount:	713. (ng/mL)
% Accuracy:	119.00

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330023.wiff	**Acquisition Date**	3/30/2010 6:17:49 PM
Sample Name	WXX100330-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

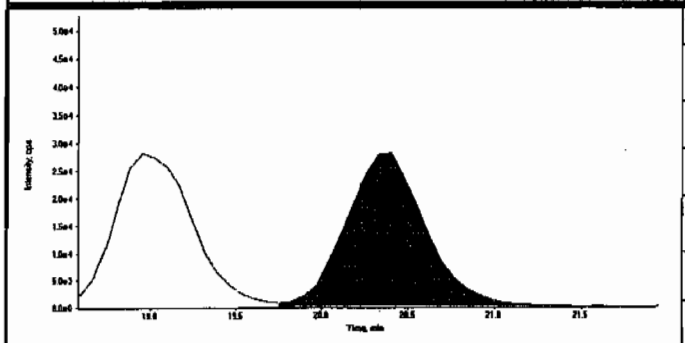

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	20.4
Area Counts:	8.95e+005
Manual Modification	No
Amount:	620. (ng/mL)
% Accuracy:	103.00

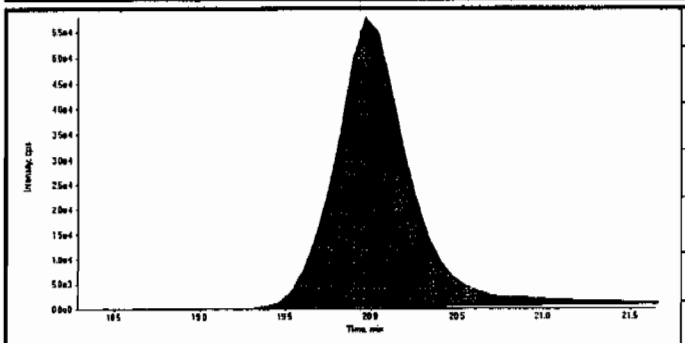

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	20.0
Area Counts:	1.76e+006
Manual Modification	No
Amount:	778. (ng/mL)
% Accuracy:	130.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/30/10
Time of Injection 1817
Standard Number WXX100330-56CCV
Data File EXP0330023a

HMX	99.7
RDX	108.0
135-Trinitrobenzene	89.8
13-Dinitrobenzene	93.2
Tetryl	92.2
246-Trinitrotoluene	104.0
Nitrobenzene	105.0
34-dinitrotoluene	95.8
26-dinitrotoluene	94.2
24-dinitrotoluene	104.0
4-Amino-26-dinitrotoluene	97.1
2-Amino-46-dinitrotoluene	108.0
2-Nitrotoluene	120.0
4-Nitrotoluene	119.0
3-Nitrotoluene	103.0
PETN	130.0
	✓
TOTAL	1663.0
AVERAGE	✓ 103.9

Hn m 04/02/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Hal 4/1/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1864

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0330025.wiff

Analysis Date: 30-MAR-10 19:10

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	38.7	97	
2,4,6-Trinitrotoluene	40	35.3	88	
2,4-Dinitrotoluene	40	44	110	
2,6-Dinitrotoluene	40	48.3	121	
2-Amino-4,6-dinitrotoluene	40	35.9	90	
3,4-Dinitrotoluene	20	23.3	117	
4-Amino-2,6-dinitrotoluene	40	50.4	126	
HMX	40	38.9	97	
Nitrobenzene	40	35.6	89	
PETN	40	52.7	132	
RDX	40	41	103	
Tetryl	40	39.3	98	
m-Dinitrobenzene	40	36.6	92	
m-Nitrotoluene	40	38.1	95	
o-Nitrotoluene	40	47.7	119	
p-Nitrotoluene	40	45.5	114	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330025.wiff	**Acquisition Date**	3/30/2010 7:10:35 PM
Sample Name	WXX100330-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

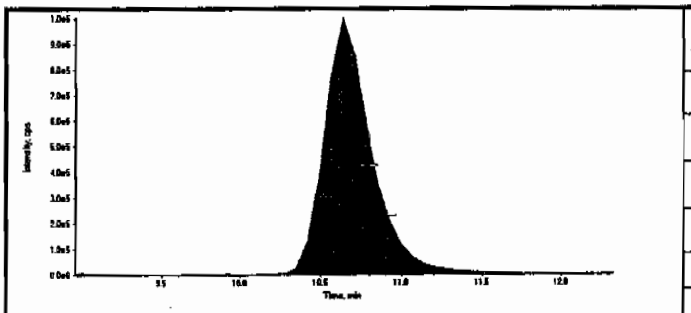

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	20100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

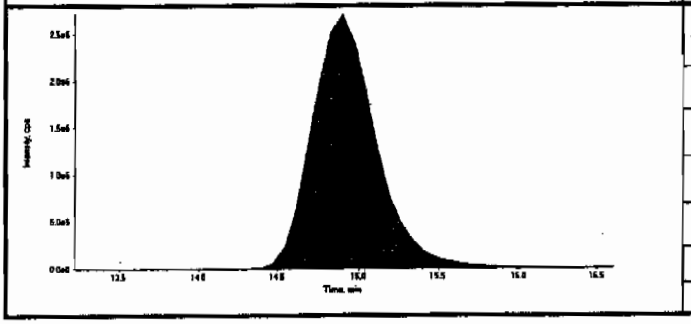

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	74600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

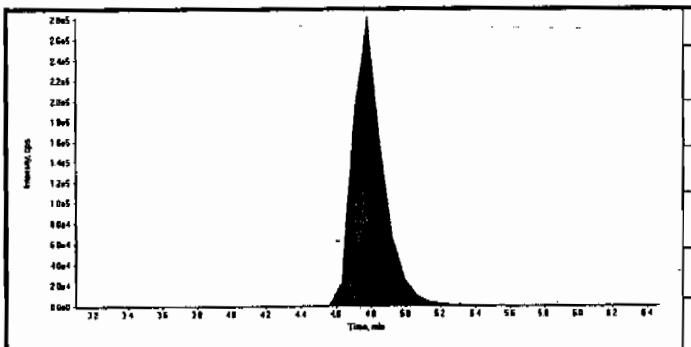

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	3.33e+006
Manual Modification	No
Amount:	38.9 (ng/mL)
% Accuracy:	97.30

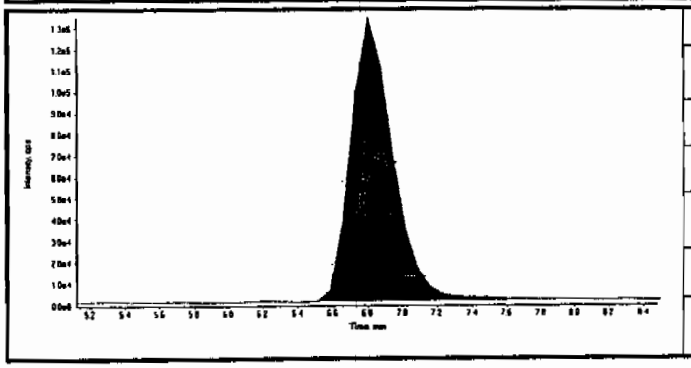

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	6.80
Area Counts:	2.26e+006
Manual Modification	No
Amount:	41.0 (ng/mL)
% Accuracy:	103.00

Lar 4/2/10

HMM 04/02/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330025.wiff	**Acquisition Date**	3/30/2010 7:10:35 PM
Sample Name	WXX100330-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

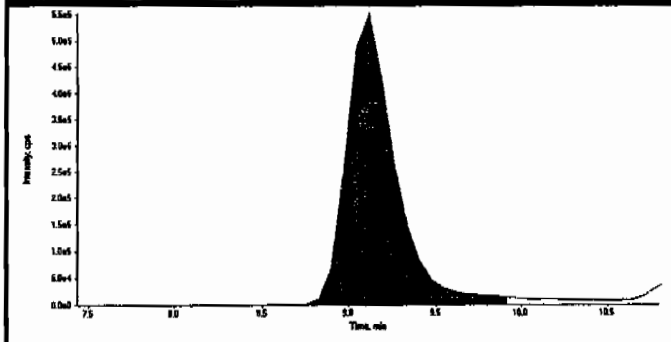

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	9.12
Area Counts:	1.07e+007
Manual Modification	No
Amount:	38.7 (ng/mL)
% Accuracy:	96.80

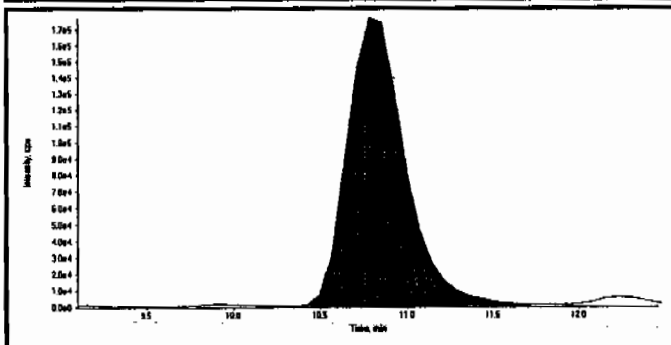

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	10.8
Area Counts:	4.13e+006
Manual Modification	No
Amount:	36.6 (ng/mL)
% Accuracy:	91.50

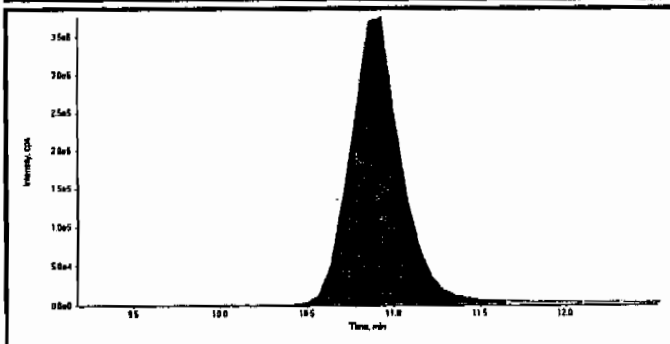

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	7.56e+006
Manual Modification	No
Amount:	39.3 (ng/mL)
% Accuracy:	98.30

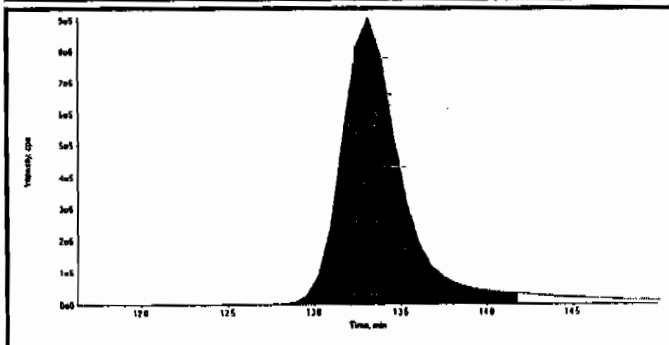

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	13.3
Area Counts:	2.14e+007
Manual Modification	No
Amount:	35.3 (ng/mL)
% Accuracy:	88.20

Before Lar 4/1/10

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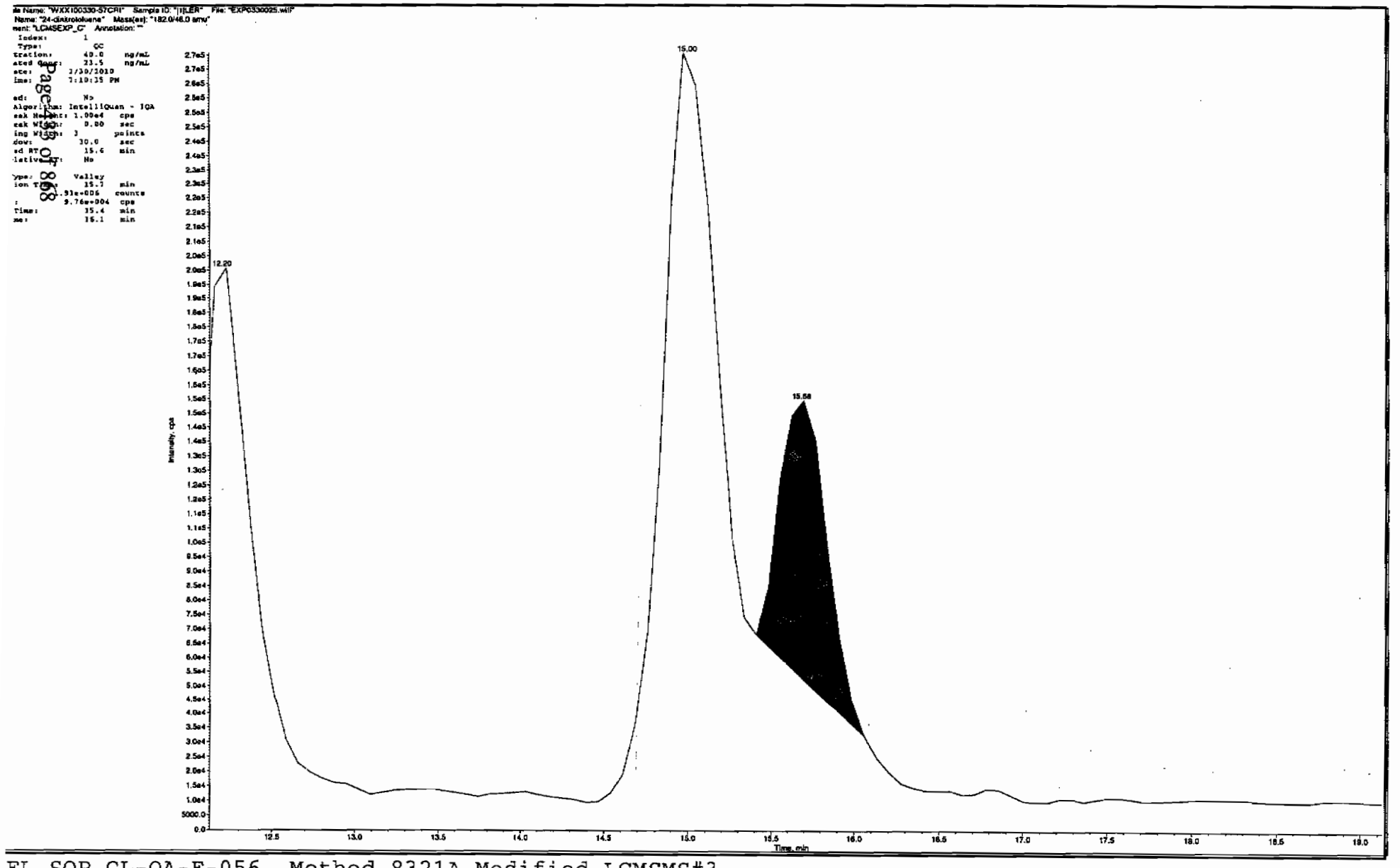

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330025.wiff	**Acquisition Date**	3/30/2010 7:10:35 PM
Sample Name	WXX100330-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

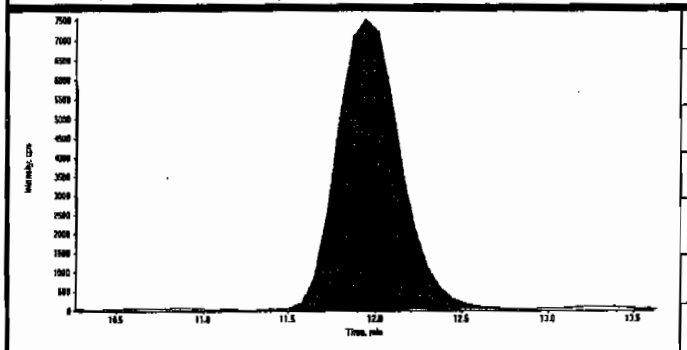

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	11.9
Area Counts:	1.92e+005
Manual Modification	No
Amount:	35.6 (ng/mL)
% Accuracy:	89.00

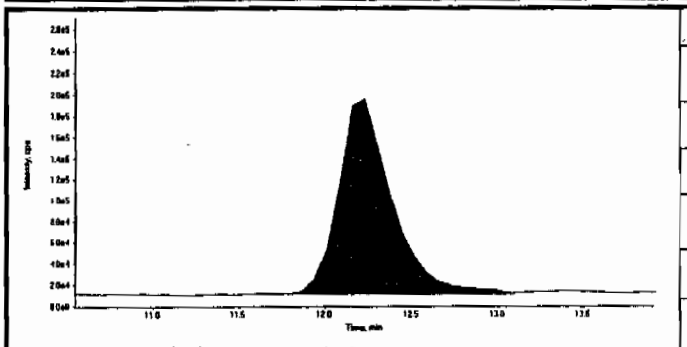

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	12.2
Area Counts:	4.05e+006
Manual Modification	No
Amount:	23.3 (ng/mL)
% Accuracy:	117.00

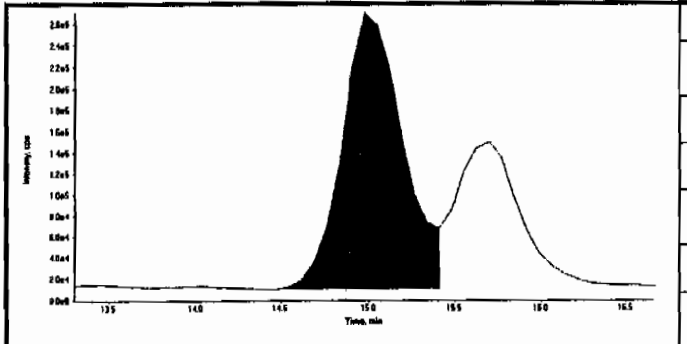

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	15.0
Area Counts:	6.51e+006
Manual Modification	No
Amount:	48.3 (ng/mL)
% Accuracy:	121.00

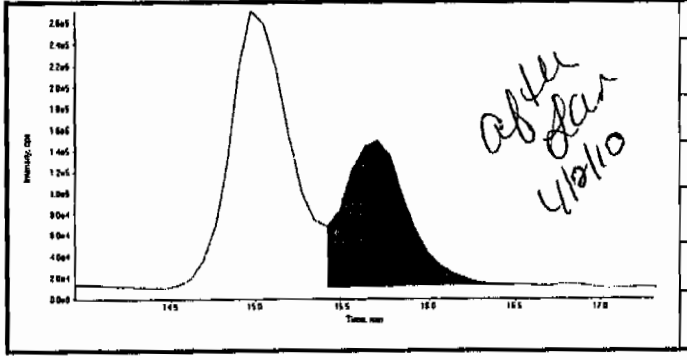

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.7
Area Counts:	3.61e+006
Manual Modification	Yes
Amount:	44.0 (ng/mL)
% Accuracy:	110.00

Before Jan 4/1/10

e Name: "WXX100330-37CRI" Sample ID: "[1]LER" File: "EXP0330025.wiff"
Name "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
ent: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
ration: 40.0 ng/mL
ted Conc: 21.1 ng/mL
te: 3/10/2010
me: 9:10:35 PM

d: No
Algorithm: intelliQuan - IQA
eak Height: 1000.00 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 14.3 min
lative RT: No

ype: Valley
ion Time: 14.3 min
.19e+005 counts
: 5.63e+003 cps
Time: 14.0 min
me: 14.8 min

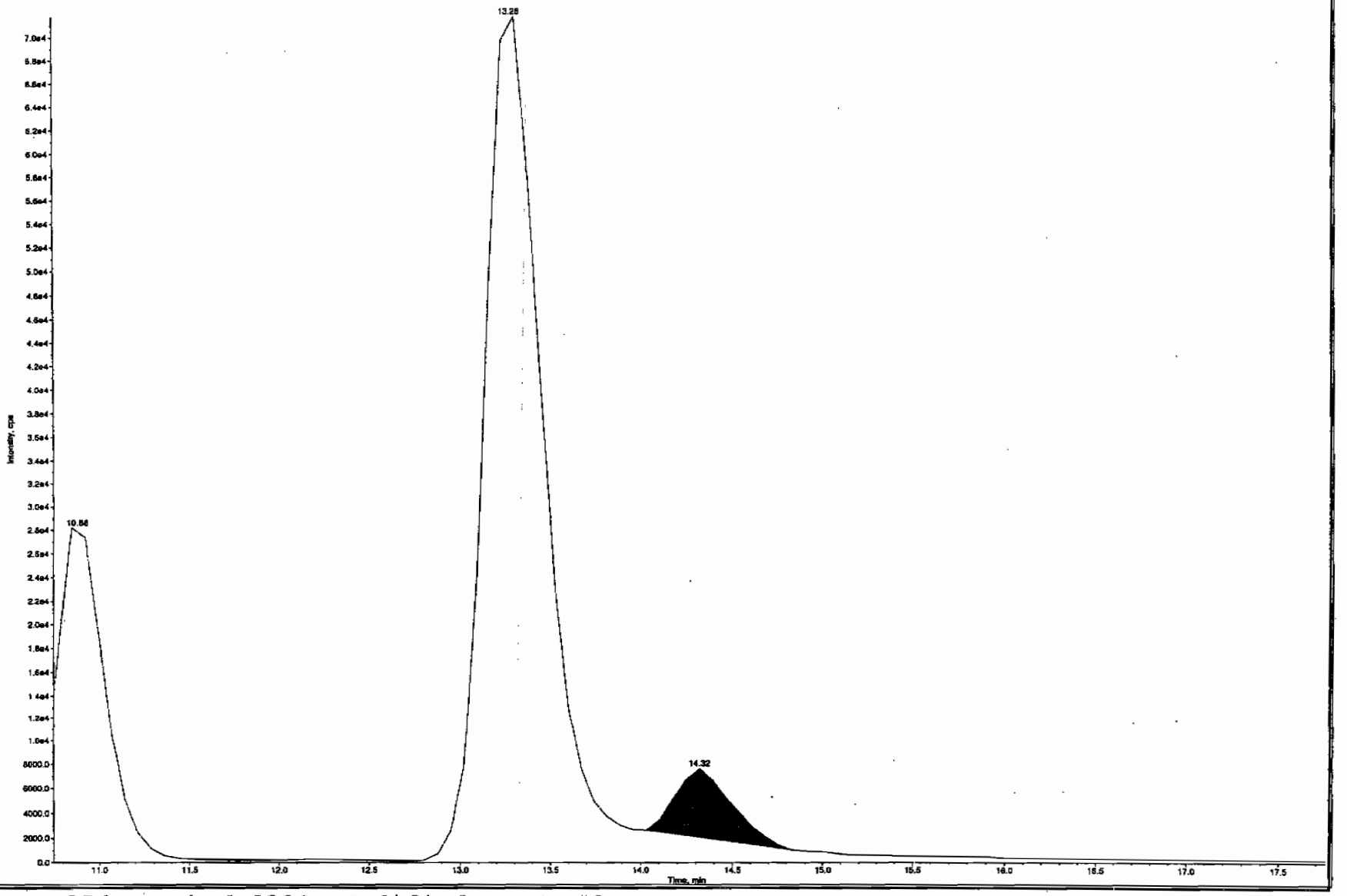

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330025.wiff	**Acquisition Date**	3/30/2010 7:10:35 PM
Sample Name	WXX100330-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

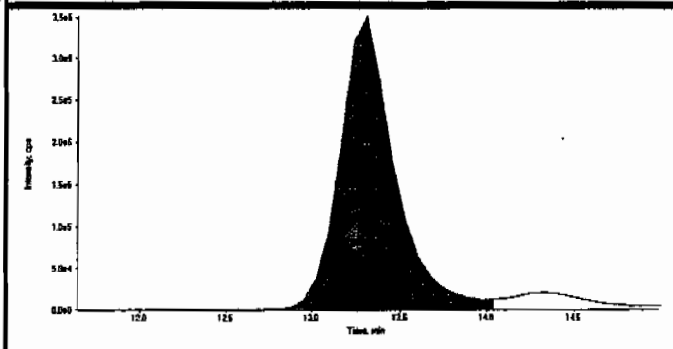

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	13.3
Area Counts:	7.58e+006
Manual Modification	No
Amount:	50.4 (ng/mL)
% Accuracy:	126.00

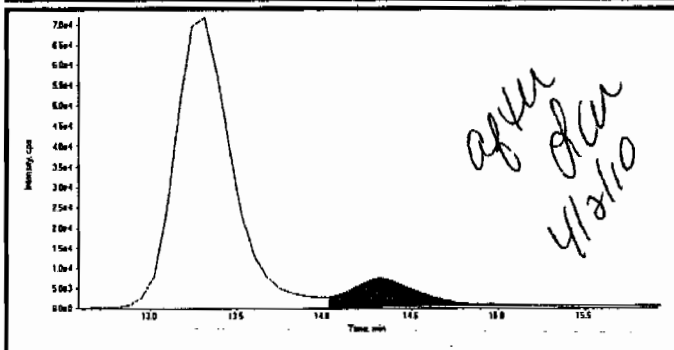

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	14.3
Area Counts:	2.02e+005
Manual Modification	Yes
Amount:	35.9 (ng/mL)
% Accuracy:	89.60

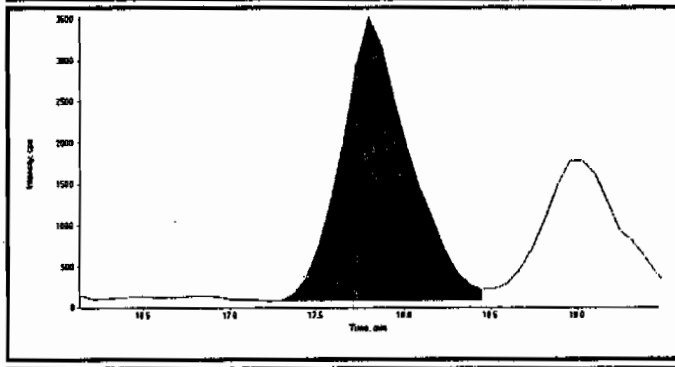

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	17.8
Area Counts:	9.29e+004
Manual Modification	No
Amount:	47.7 (ng/mL)
% Accuracy:	119.00

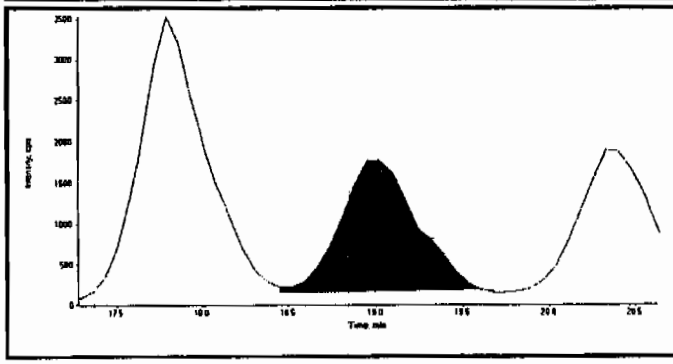

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	19.0
Area Counts:	4.96e+004
Manual Modification	No
Amount:	45.5 (ng/mL)
% Accuracy:	114.00

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330025.wiff	**Acquisition Date**	3/30/2010 7:10:35 PM
Sample Name	WXX100330-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

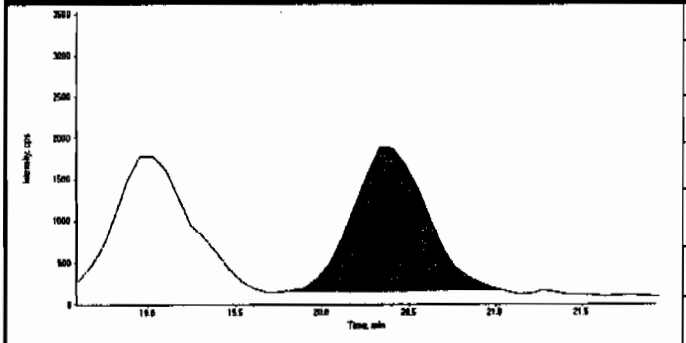

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	20.3
Area Counts:	5.15e+004
Manual Modification	No
Amount:	38.1 (ng/mL)
% Accuracy:	95.40

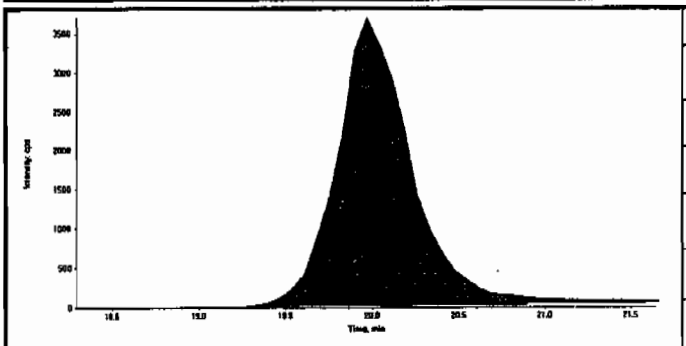

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	20.0
Area Counts:	1.12e+005
Manual Modification	No
Amount:	52.7 (ng/mL)
% Accuracy:	132.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/30/10
Time of Injection 1910
Standard Number WXX100330-57CRI
Data File EXP0330025a

HMX	97.3
RDX	103.0
135-Trinitrobenzene	96.8
13-Dinitrobenzene	91.5
Tetryl	98.3
246-Trinitrotoluene	88.2
Nitrobenzene	89.0
34-dinitrotoluene	117.0
26-dinitrotoluene	121.0
24-dinitrotoluene	110.0
4-Amino-26-dinitrotoluene	126.0
2-Amino-46-dinitrotoluene	89.6
2-Nitrotoluene	119.0
4-Nitrotoluene	114.0
3-Nitrotoluene	95.4
PETN	132.0
TOTAL	1688.1
AVERAGE	105.5

Hnm 04/02/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lar 4/1/10

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1864

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0330036.wiff **Analysis Date:** 31-MAR-10 00:01

LCMSMS ID: 1189 **Column ID:** JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	497	83	
2,4,6-Trinitrotoluene	600	574	96	
2,4-Dinitrotoluene	600	580	97	
2,6-Dinitrotoluene	600	558	93	
2-Amino-4,6-dinitrotoluene	600	597	100	
3,4-Dinitrotoluene	300	302	101	
4-Amino-2,6-dinitrotoluene	600	553	92	
HMX	600	430	72	
Nitrobenzene	600	594	99	
PETN	600	593	99	
RDX	600	585	97	
Tetryl	600	562	94	
m-Dinitrobenzene	600	585	98	
m-Nitrotoluene	600	526	88	
o-Nitrotoluene	600	564	94	
p-Nitrotoluene	600	533	89	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330036.wiff	**Acquisition Date**	3/31/2010 12:01:12 AM
Sample Name	WXX100330-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

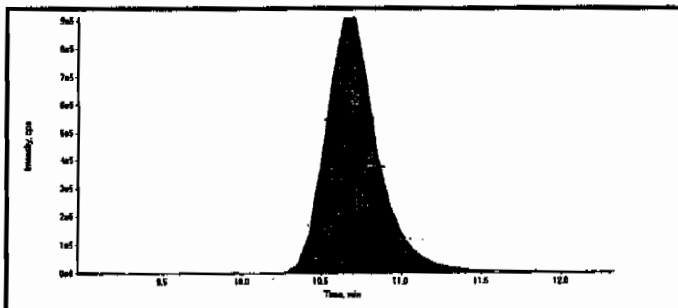

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	20700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

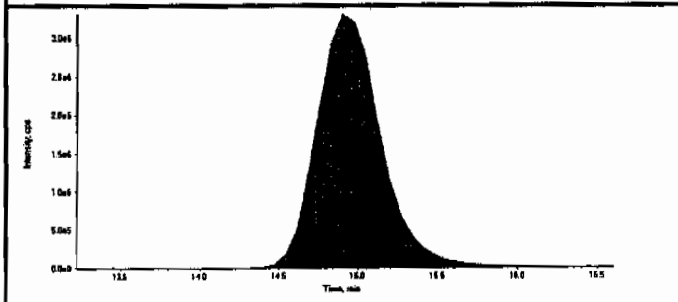

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	93100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

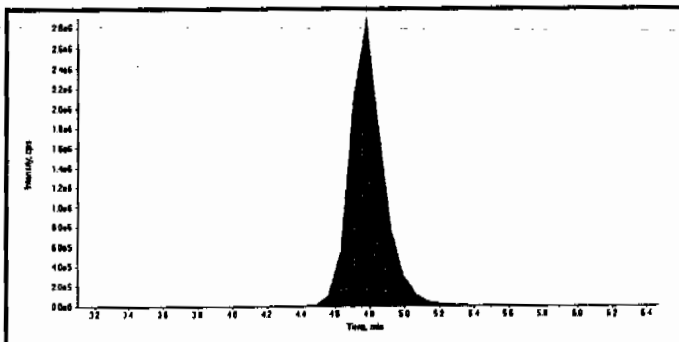

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	3.79e+007
Manual Modification	No
Amount:	430. (ng/mL)
% Accuracy:	71.60

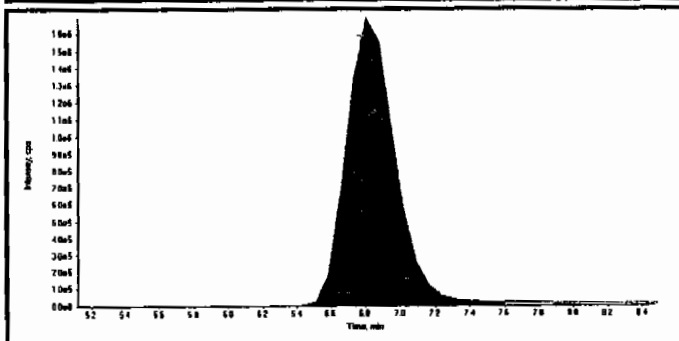

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	6.80
Area Counts:	3.32e+007
Manual Modification	No
Amount:	585. (ng/mL)
% Accuracy:	97.40

HMM 04/02/10

dar 4/2/10

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330036.wiff	**Acquisition Date**	3/31/2010 12:01:12 AM
Sample Name	WXX100330-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

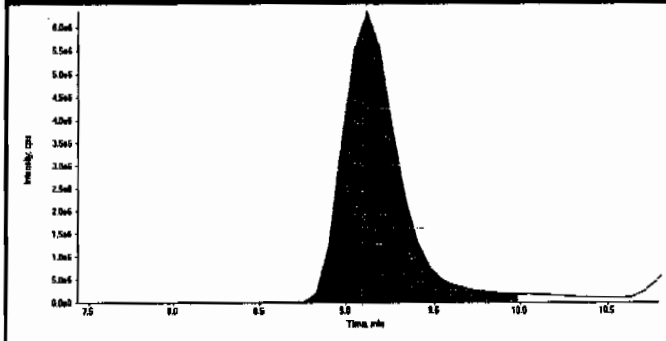

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	9.12
Area Counts:	1.41e+008
Manual Modification	No
Amount:	497. (ng/mL)
% Accuracy:	82.90

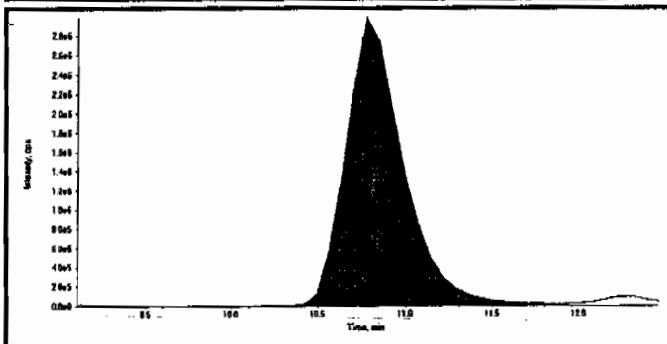

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	10.8
Area Counts:	6.80e+007
Manual Modification	No
Amount:	585. (ng/mL)
% Accuracy:	97.50

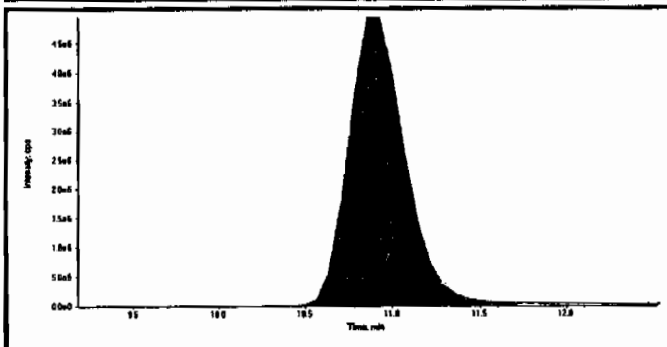

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	1.11e+008
Manual Modification	No
Amount:	562. (ng/mL)
% Accuracy:	93.60

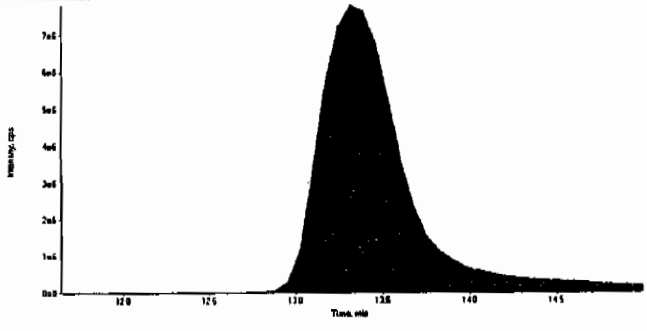

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	13.3
Area Counts:	2.76e+008
Manual Modification	No
Amount:	574. (ng/mL)
% Accuracy:	95.60

Before LCM 4/1/10

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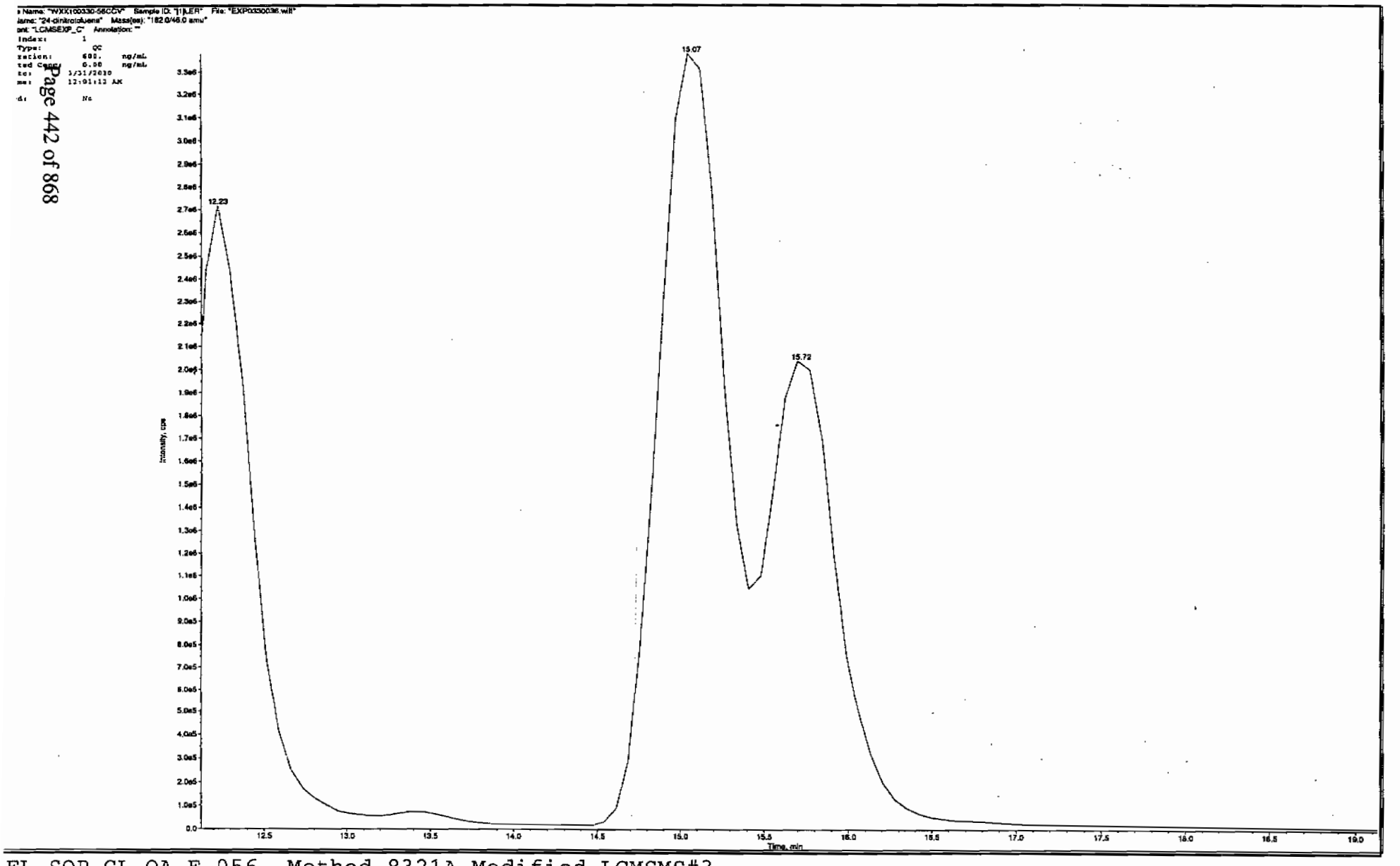

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330036.wiff	**Acquisition Date**	3/31/2010 12:01:12 AM
Sample Name	WXX100330-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

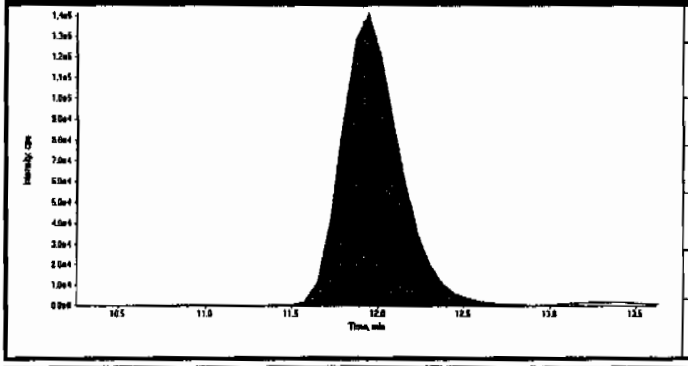

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	11.9
Area Counts:	3.31e+006
Manual Modification	No
Amount:	594. (ng/mL)
% Accuracy:	99.10

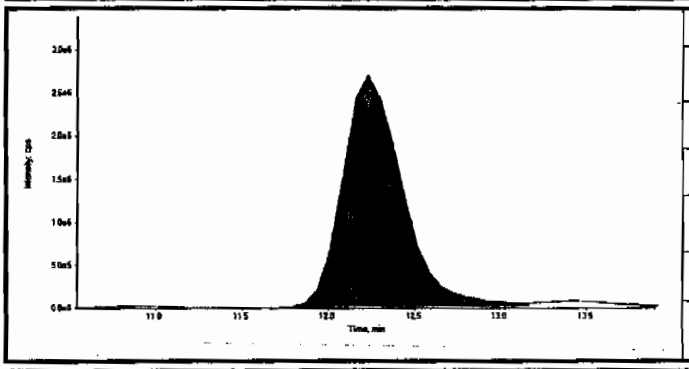

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	12.2
Area Counts:	6.54e+007
Manual Modification	No
Amount:	302. (ng/mL)
% Accuracy:	101.00

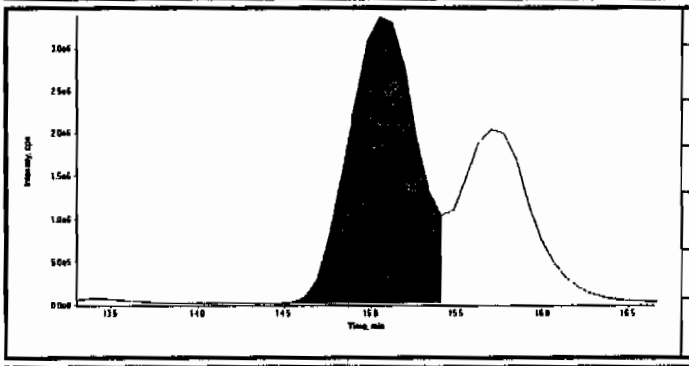

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	15.0
Area Counts:	9.40e+007
Manual Modification	No
Amount:	558. (ng/mL)
% Accuracy:	93.10

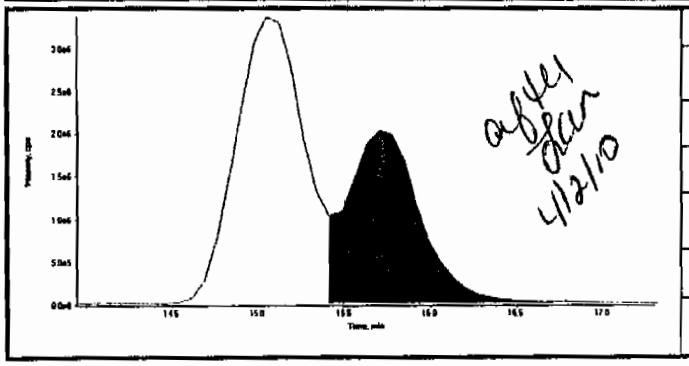

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.7
Area Counts:	5.95e+007
Manual Modification	Yes
Amount:	580. (ng/mL)
% Accuracy:	96.70

Before Lcn 4/1/10

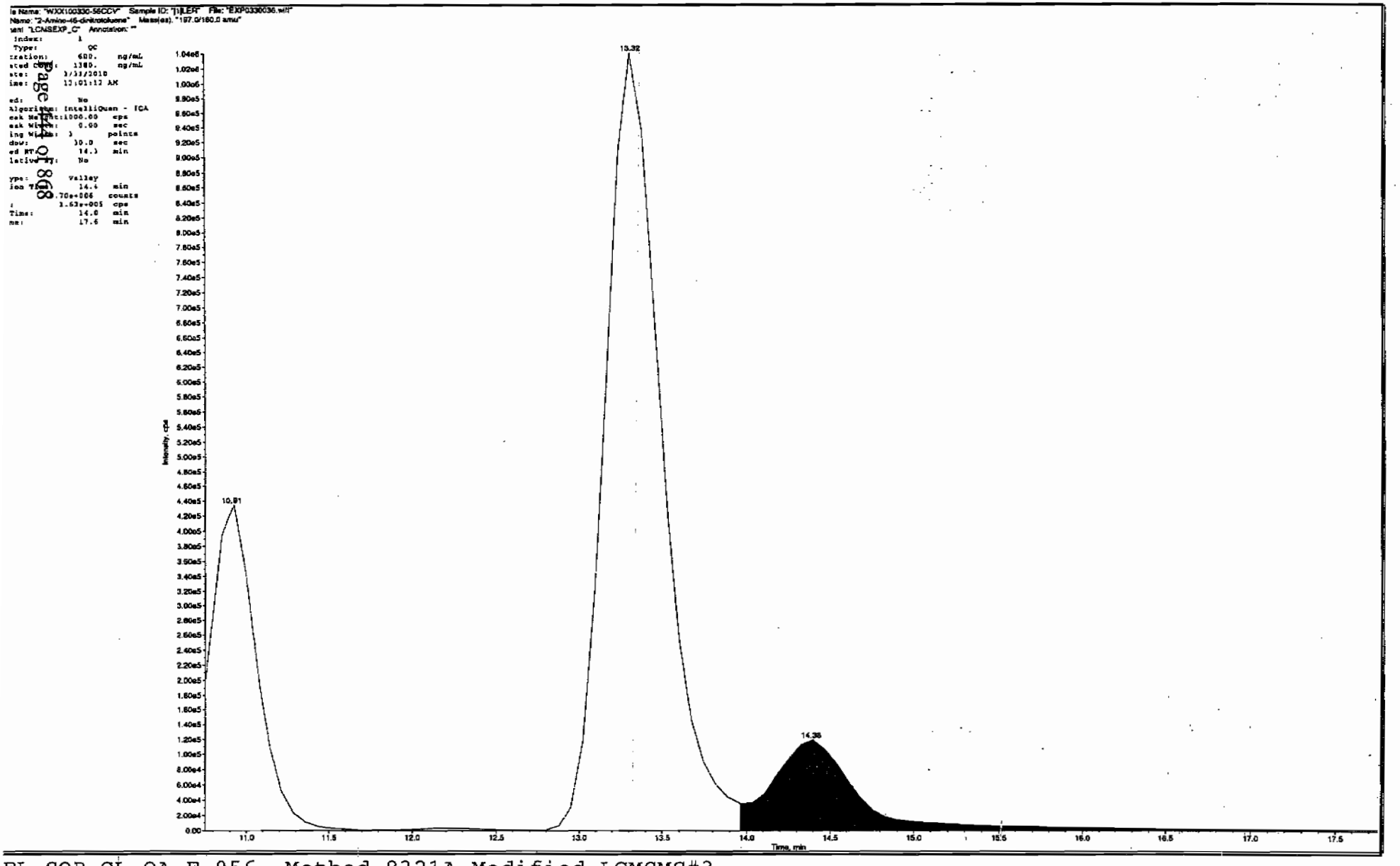

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330036.wiff	**Acquisition Date**	3/31/2010 12:01:12 AM
Sample Name	WXX100330-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

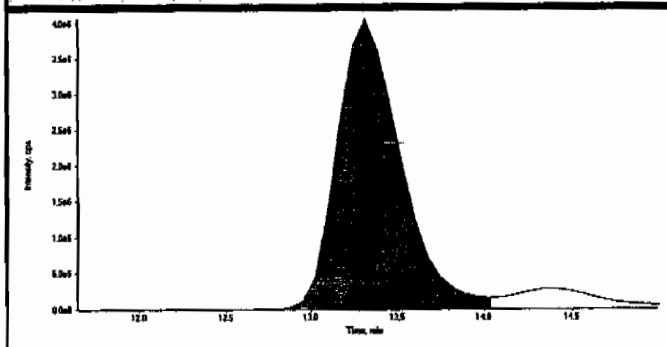

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	13.3
Area Counts:	1.04e+008
Manual Modification	No
Amount:	553. (ng/mL)
% Accuracy:	92.10

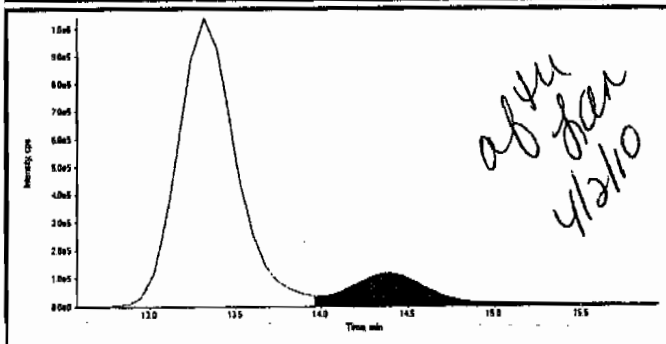

abu 4/2/10

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	14.4
Area Counts:	4.21e+006
Manual Modification	Yes
Amount:	597. (ng/mL)
% Accuracy:	99.50

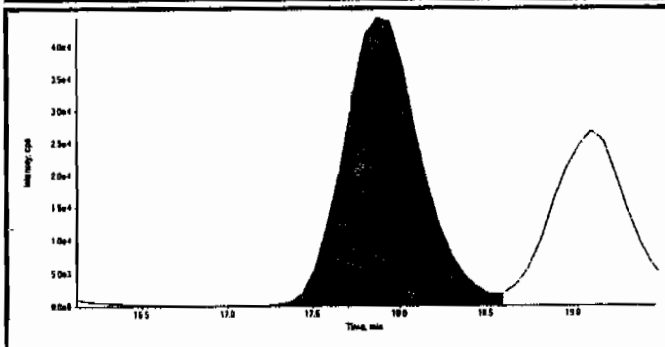

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	17.9
Area Counts:	1.37e+006
Manual Modification	No
Amount:	564. (ng/mL)
% Accuracy:	94.10

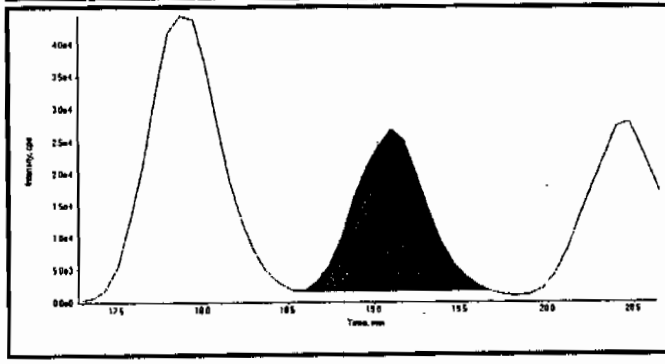

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	19.1
Area Counts:	7.26e+005
Manual Modification	No
Amount:	533. (ng/mL)
% Accuracy:	88.80

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330036.wiff	**Acquisition Date**	3/31/2010 12:01:12 AM
Sample Name	WXX100330-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

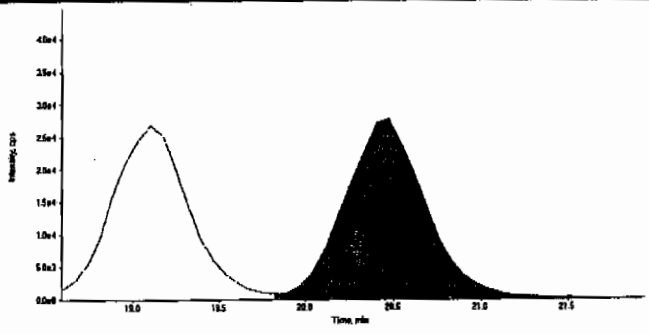

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	20.5
Area Counts:	8.86e+005
Manual Modification	No
Amount:	526. (ng/mL)
% Accuracy:	87.60

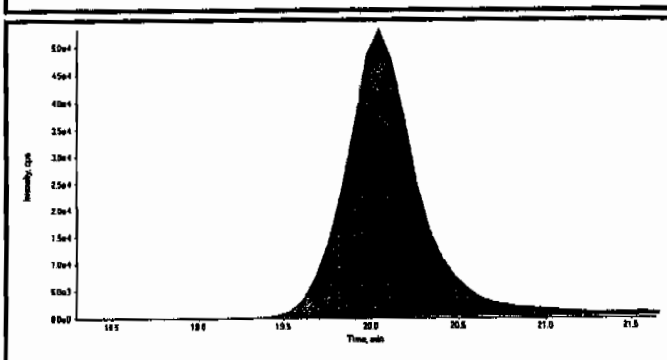

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	20.0
Area Counts:	1.57e+006
Manual Modification	No
Amount:	593. (ng/mL)
% Accuracy:	98.80

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/31/10
Time of Injection 0001
Standard Number WXX100330-56CCV
Data File EXP0330036a

HMX	71.6
RDX	97.4
135-Trinitrobenzene	82.9
13-Dinitrobenzene	97.5
Tetryl	93.6
246-Trinitrotoluene	95.6
Nitrobenzene	99.1
34-dinitrotoluene	101.0
26-dinitrotoluene	93.1
24-dinitrotoluene	96.7
4-Amino-26-dinitrotoluene	92.1
2-Amino-46-dinitrotoluene	99.5
2-Nitrotoluene	94.1
4-Nitrotoluene	88.8
3-Nitrotoluene	87.6
PETN	98.8
TOTAL	1489.4
AVERAGE	93.1

HMM 04/02/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lad 4/1/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-1864

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0330038.wiff **Analysis Date:** 31-MAR-10 00:53

LCMSMS ID: 1189 **Column ID:** JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	47.4	118	
2,4,6-Trinitrotoluene	40	29.7	74	
2,4-Dinitrotoluene	40	35.5	89	
2,6-Dinitrotoluene	40	48	120	
2-Amino-4,6-dinitrotoluene	40	31.4	78	
3,4-Dinitrotoluene	20	19.8	99	
4-Amino-2,6-dinitrotoluene	40	38.8	97	
HMX	40	48	120	
Nitrobenzene	40	36.3	91	
PETN	40	33.3	83	
RDX	40	38.5	96	
Tetryl	40	45	112	
m-Dinitrobenzene	40	42.3	106	
m-Nitrotoluene	40	25.7	64	
o-Nitrotoluene	40	25.9	65	
p-Nitrotoluene	40	27.3	68	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330038.wiff	**Acquisition Date**	3/31/2010 12:53:49 AM
Sample Name	WXX100330-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

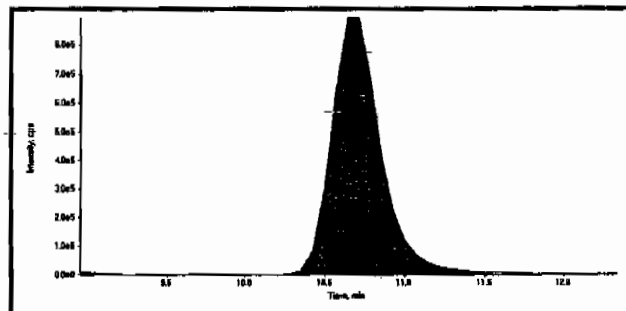

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	19500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

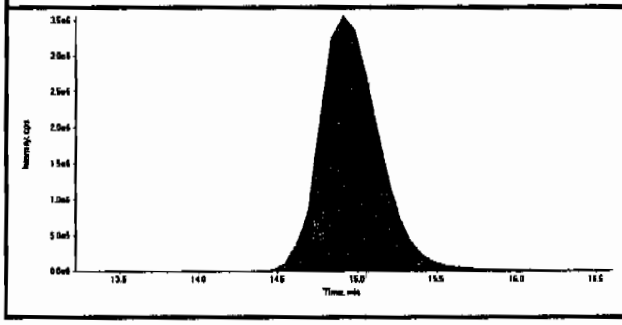

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	93200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

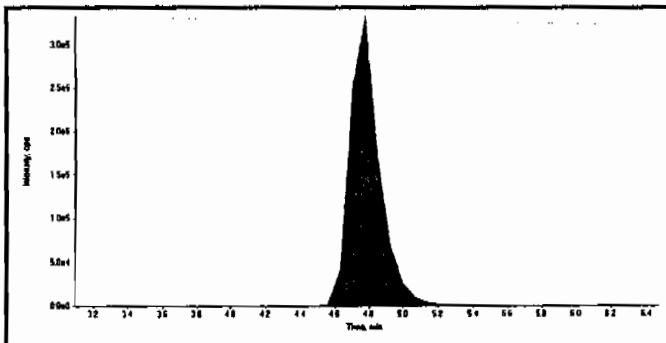

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	3.98e+006
Manual Modification	No
Amount:	48.0 (ng/mL)
% Accuracy:	120.00

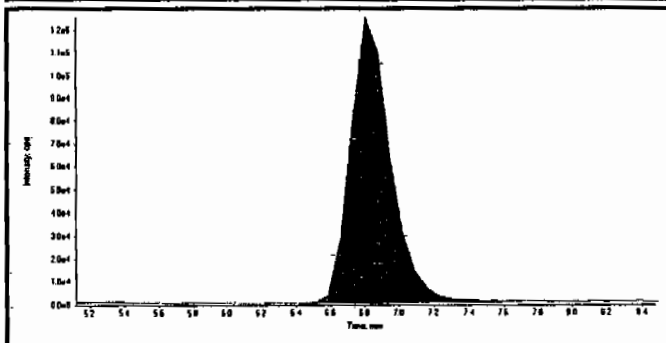

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	6.80
Area Counts:	2.06e+006
Manual Modification	No
Amount:	38.5 (ng/mL)
% Accuracy:	96.30

4/2/10 04/02/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330038.wiff	**Acquisition Date**	3/31/2010 12:53:49 AM
Sample Name	WXX100330-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

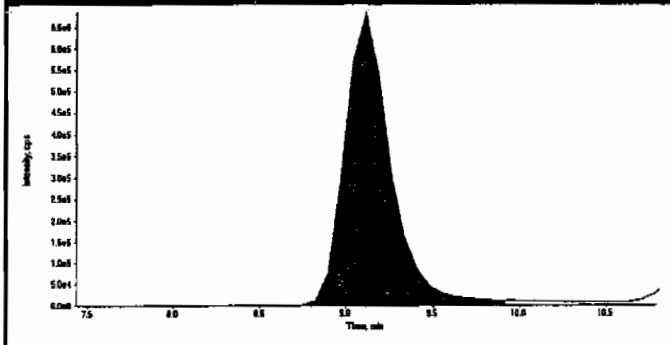

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	9.12
Area Counts:	1.26e+007
Manual Modification	No
Amount:	47.4 (ng/mL)
% Accuracy:	118.00

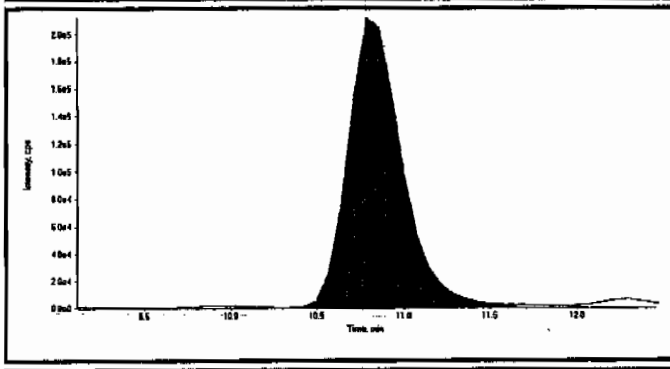

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	10.8
Area Counts:	4.62e+006
Manual Modification	No
Amount:	42.3 (ng/mL)
% Accuracy:	106.00

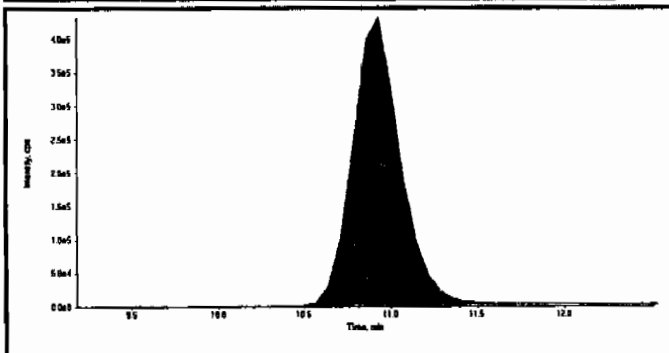

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	8.38e+006
Manual Modification	No
Amount:	45.0 (ng/mL)
% Accuracy:	112.00

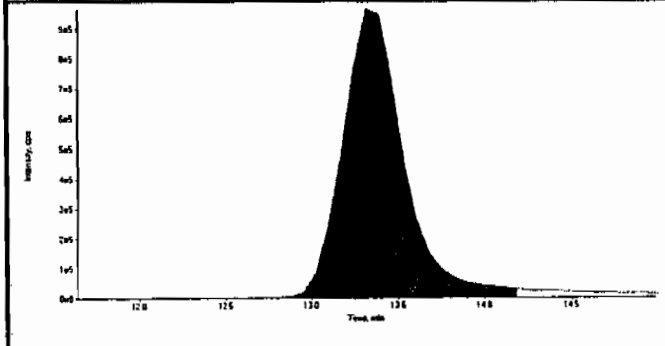

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	13.3
Area Counts:	2.37e+007
Manual Modification	No
Amount:	29.7 (ng/mL)
% Accuracy:	74.40

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330038.wiff	**Acquisition Date**	3/31/2010 12:53:49 AM
Sample Name	WXX100330-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

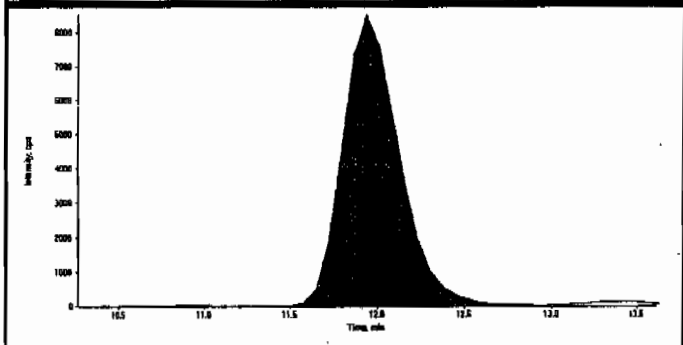

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	11.9
Area Counts:	1.90e+005
Manual Modification	No
Amount:	36.3 (ng/mL)
% Accuracy:	90.70

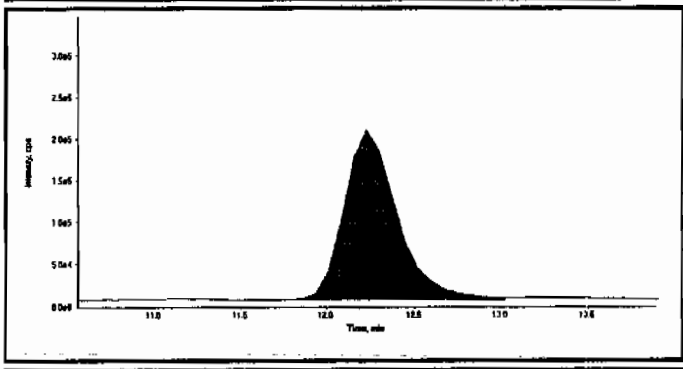

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	12.2
Area Counts:	4.28e+006
Manual Modification	No
Amount:	19.8 (ng/mL)
% Accuracy:	98.80

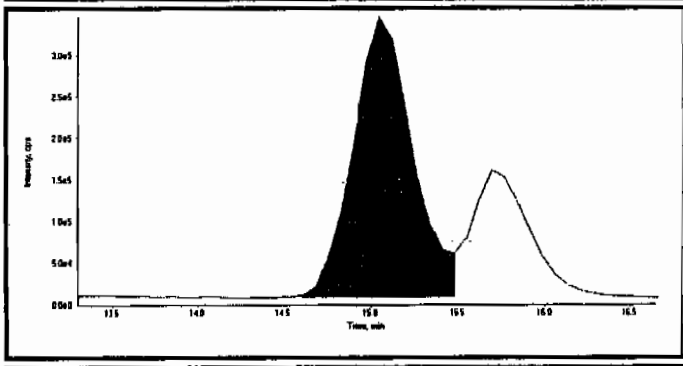

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	15.0
Area Counts:	8.08e+006
Manual Modification	No
Amount:	48.0 (ng/mL)
% Accuracy:	120.00

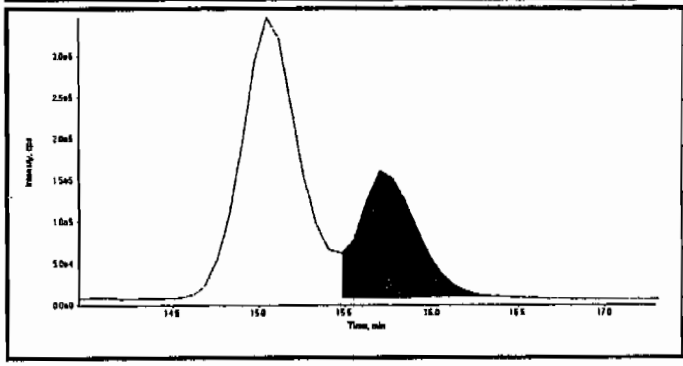

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.7
Area Counts:	3.65e+006
Manual Modification	No
Amount:	35.5 (ng/mL)
% Accuracy:	88.80

Before Dar 4/1/10

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le Name: "WXX100330-57CRI" Sample ID: "[1]LER" File: "EXP0330038.wiff"
Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
ent "LCMSEXP_C" Annotation: ""

Index:	1
Type:	QC
tration:	40.0 ng/mL
ated Conc:	17.7 ng/mL
ate:	3/31/2010
ime:	12:53:49 AM
ed:	No
Algorithm:	IntelliQuan - IQA
eak Height:	1000.00 cps
eak Width:	0.00 sec
ing Width:	3 points
dow:	30.0 sec
ed RT:	14.3 min
lative RT:	No
ype:	Valley
ion Time:	14.4 min
	.25e+005 counts
:	5.62e+003 cps
Time:	14.0 min
me:	14.8 min

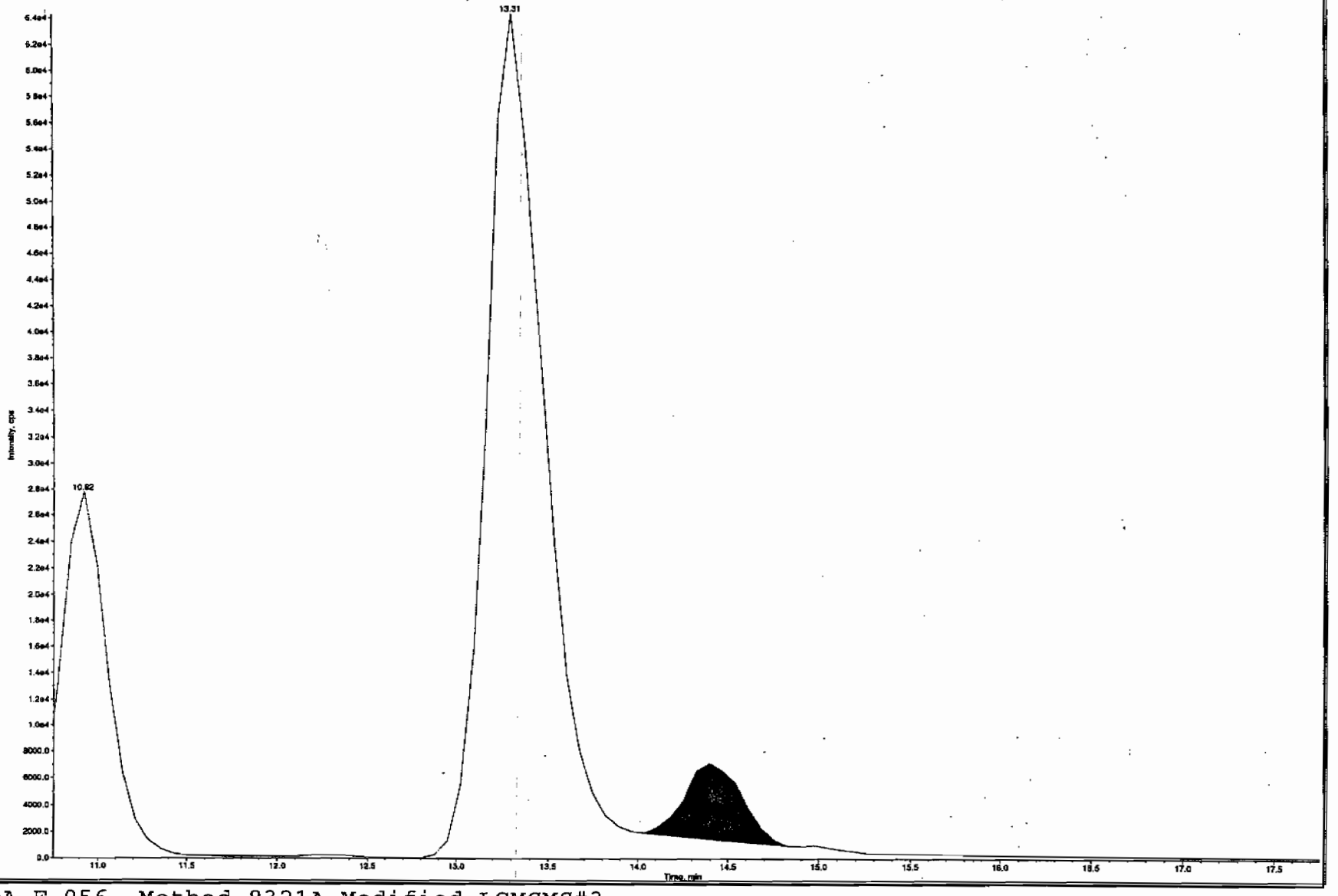

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330038.wiff	**Acquisition Date**	3/31/2010 12:53:49 AM
Sample Name	WXX100330-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

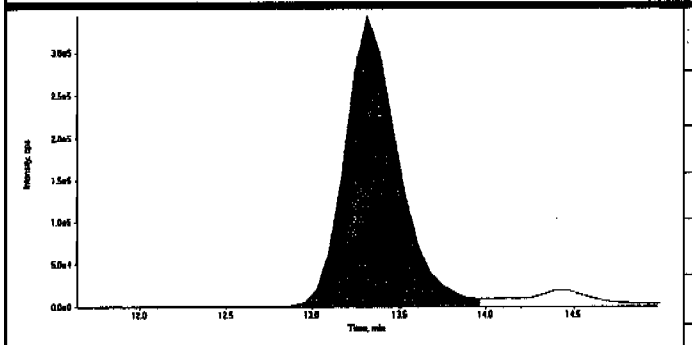

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	13.3
Area Counts:	7.28e+006
Manual Modification	No
Amount:	38.8 (ng/mL)
% Accuracy:	96.90

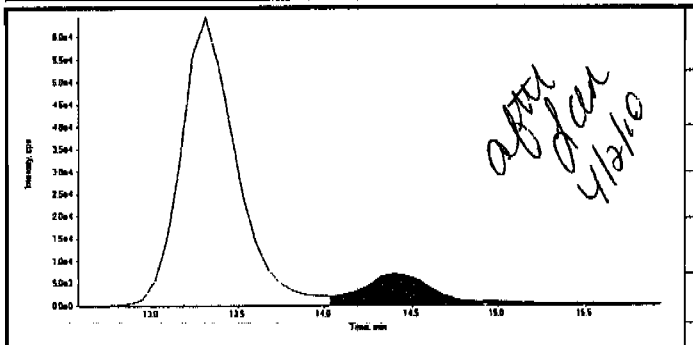

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	14.4
Area Counts:	2.21e+005
Manual Modification	Yes
Amount:	31.4 (ng/mL)
% Accuracy:	78.40

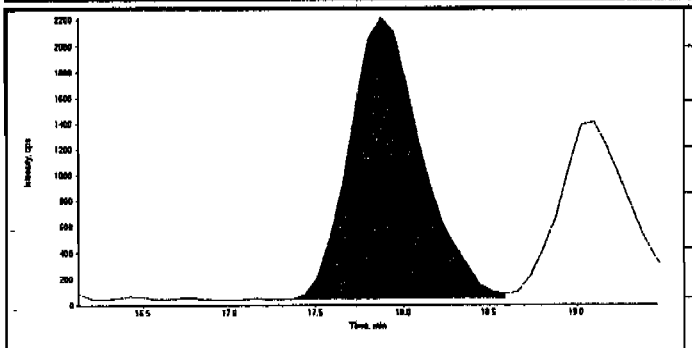

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	17.9
Area Counts:	6.30e+004
Manual Modification	No
Amount:	25.9 (ng/mL)
% Accuracy:	64.80

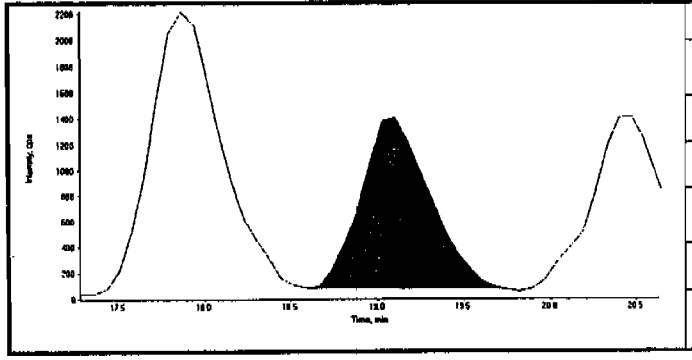

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	19.1
Area Counts:	3.72e+004
Manual Modification	No
Amount:	27.3 (ng/mL)
% Accuracy:	68.30

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330038.wiff	**Acquisition Date**	3/31/2010 12:53:49 AM
Sample Name	WXX100330-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	033010.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

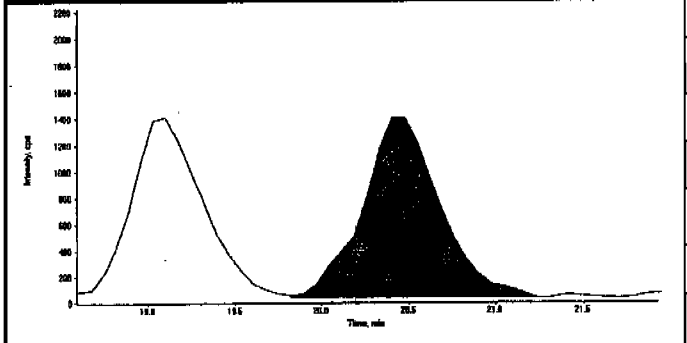

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	20.5
Area Counts:	4.33e+004
Manual Modification	No
Amount:	25.7 (ng/mL)
% Accuracy:	64.20

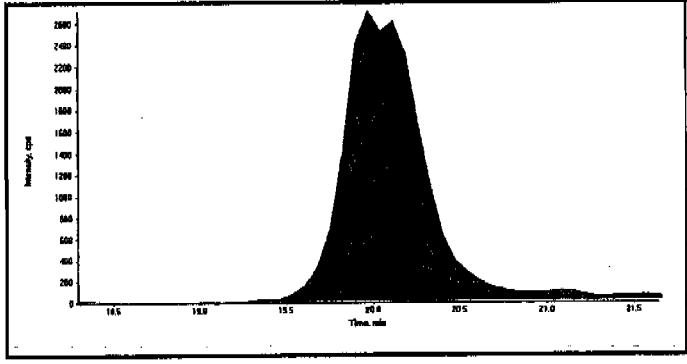

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	20.0
Area Counts:	8.82e+004
Manual Modification	No
Amount:	33.3 (ng/mL)
% Accuracy:	83.30

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/31/10
Time of Injection 0053
Standard Number WXX100330-57CRI
Data File EXP0330038a

HMX	120.0
RDX	96.3
135-Trinitrobenzene	118.0
13-Dinitrobenzene	106.0
Tetryl	112.0
246-Trinitrotoluene	74.4
Nitrobenzene	90.7
34-dinitrotoluene	98.8
26-dinitrotoluene	120.0
24-dinitrotoluene	88.8
4-Amino-26-dinitrotoluene	96.9
2-Amino-46-dinitrotoluene	78.4
2-Nitrotoluene	64.8
4-Nitrotoluene	68.3
3-Nitrotoluene	64.2
PETN	83.3
TOTAL	1480.9
AVERAGE	92.6

HMX 04/02/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lar 4/1/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1864

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0401012.wiff

Analysis Date: 01–APR–10 16:28

LCMSMS ID: 1189

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4,6–Trinitrotoluene	40	51.5	129	
2,4–Dinitrotoluene	40	42.9	107	
2,6–Dinitrotoluene	40	43.9	110	
2–Amino–4,6–dinitrotoluene	40	40.3	101	
3,4–Dinitrotoluene	20	21.4	107	
4–Amino–2,6–dinitrotoluene	40	44.7	112	
HMX	40	37.8	95	
Nitrobenzene	40	43	107	
PETN	40	42.2	105	
RDX	40	36.9	92	
Tetryl	40	47.2	118	
m–Dinitrobenzene	40	40.8	102	
m–Nitrotoluene	40	45	113	
o–Nitrotoluene	40	42.1	105	
p–Nitrotoluene	40	42.8	107	
1,3,5–Trinitrobenzene	40	46	115	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401012.wiff	**Acquisition Date**	4/1/2010 4:28:28 PM
Sample Name	WXX100401-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

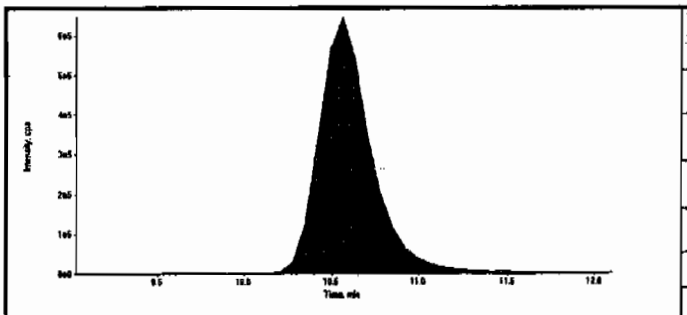

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	13400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

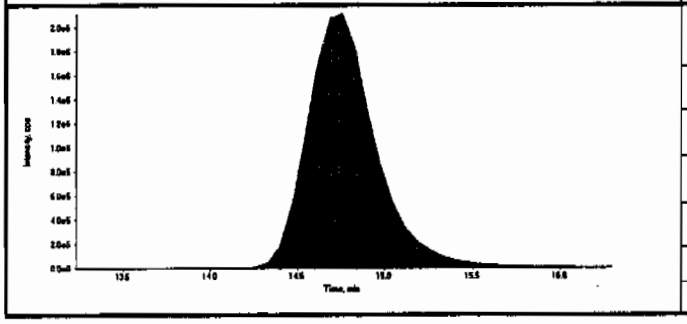

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.80
Actual RT:	14.80
Area Counts:	58100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

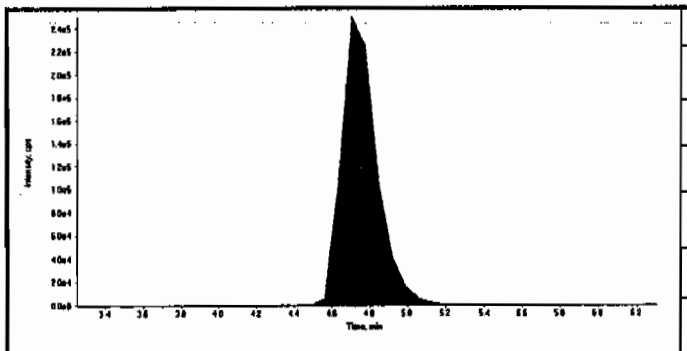

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.70
Area Counts:	3.29e+006
Manual Modification	No
Amount:	37.8 (ng/mL)
% Accuracy:	94.60

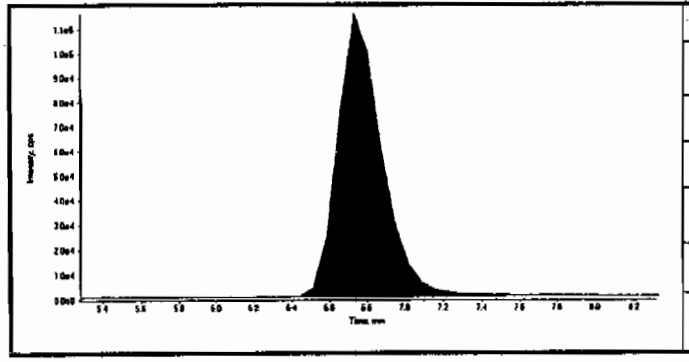

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	6.73
Area Counts:	1.90e+006
Manual Modification	No
Amount:	36.9 (ng/mL)
% Accuracy:	92.20

Lar 4/9/10

Hmc 04/09/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401012.wiff	**Acquisition Date**	4/1/2010 4:28:28 PM
Sample Name	WXX100401-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

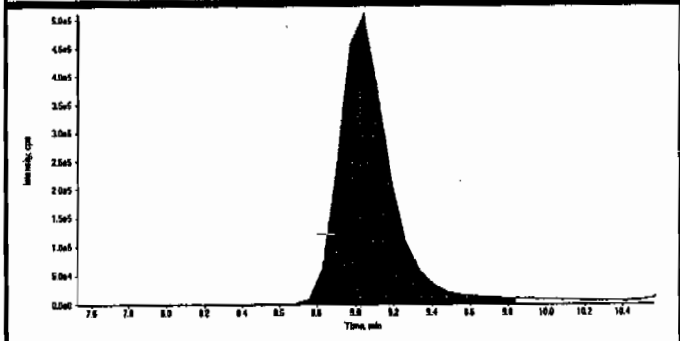

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.04
Actual RT:	9.04
Area Counts:	9.27e+006
Manual Modification	No
Amount:	46.0 (ng/mL)
% Accuracy:	115.00

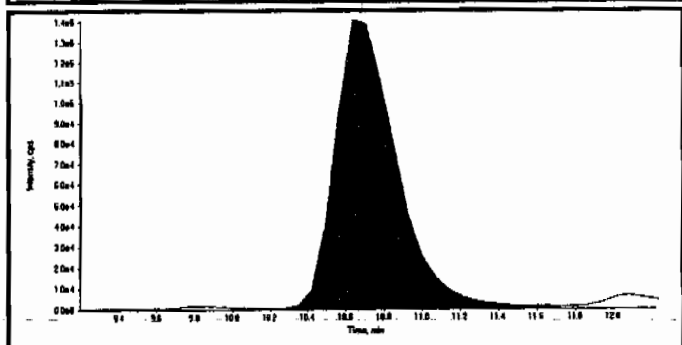

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.6
Area Counts:	3.14e+006
Manual Modification	No
Amount:	40.8 (ng/mL)
% Accuracy:	102.00

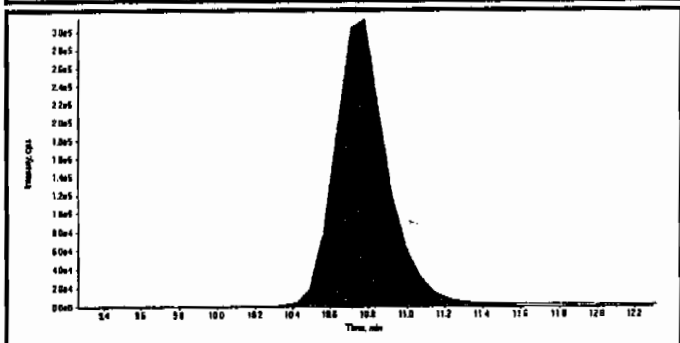

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.8
Actual RT:	10.8
Area Counts:	5.91e+006
Manual Modification	No
Amount:	47.2 (ng/mL)
% Accuracy:	118.00

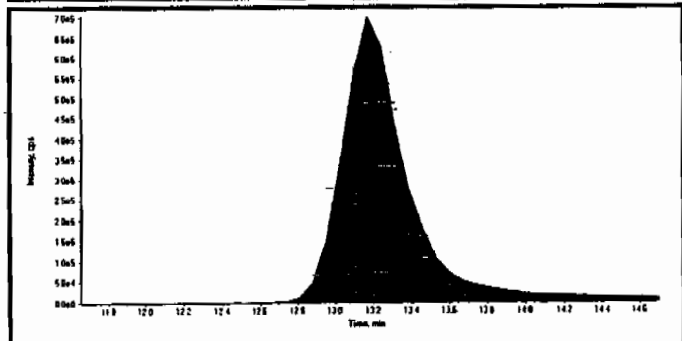

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.2
Actual RT:	13.2
Area Counts:	1.73e+007
Manual Modification	No
Amount:	51.5 (ng/mL)
% Accuracy:	129.00

Before Lan 4/9/10

e Name: "WXX100401-57CRI" Sample ID: "[1]LER" File: "EXP0401012.wif"
Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
ent: "LCMSEXP_C" Annotation: ""
Index: 1
Type: QC
ration: 40.0 ng/mL
rpd Conc: 0.00 ng/mL
te: 4/1/2010
me: 4:29:28 PM
d: No

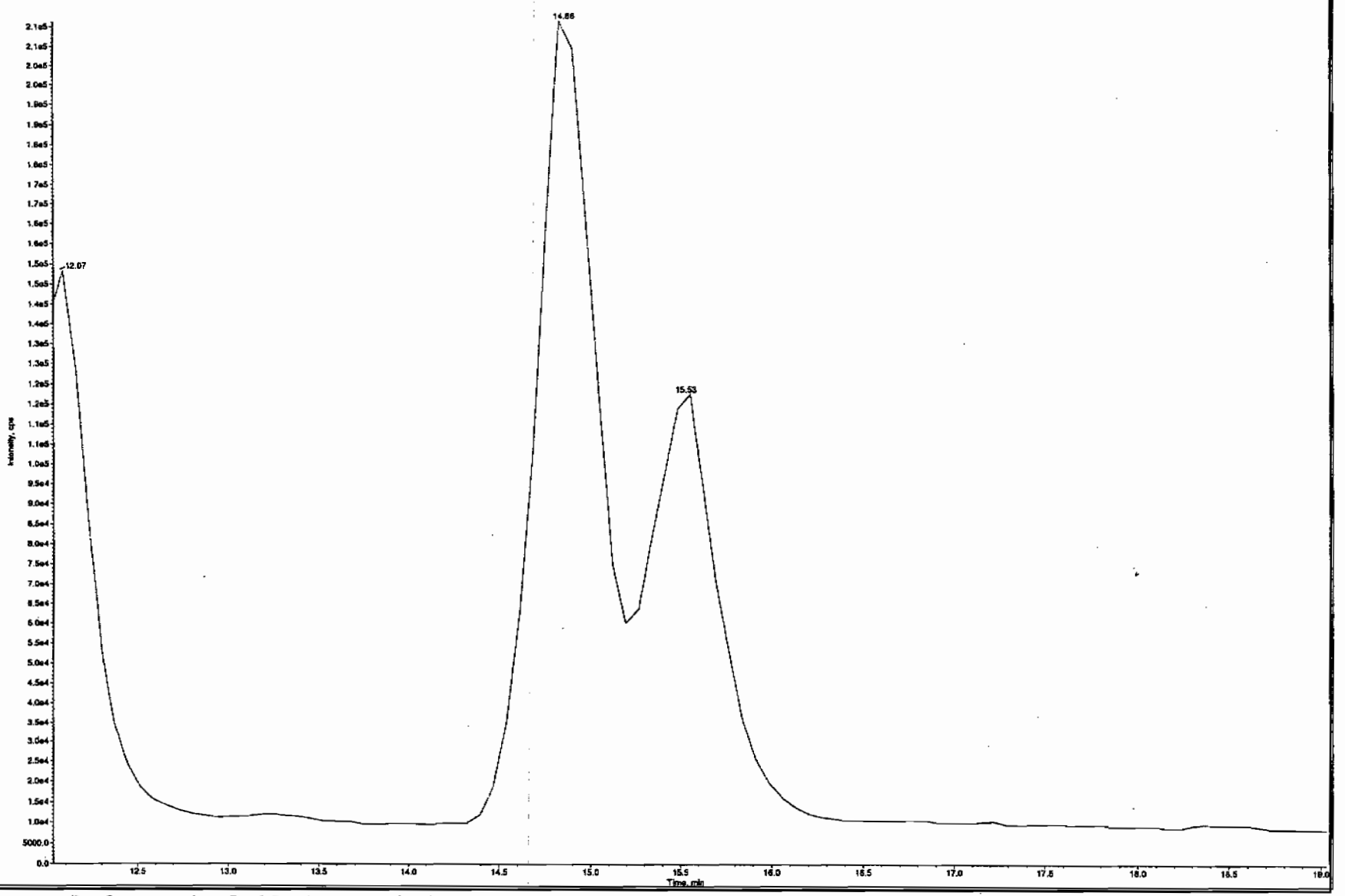

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401012.wiff	**Acquisition Date**	4/1/2010 4:28:28 PM
Sample Name	WXX100401-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

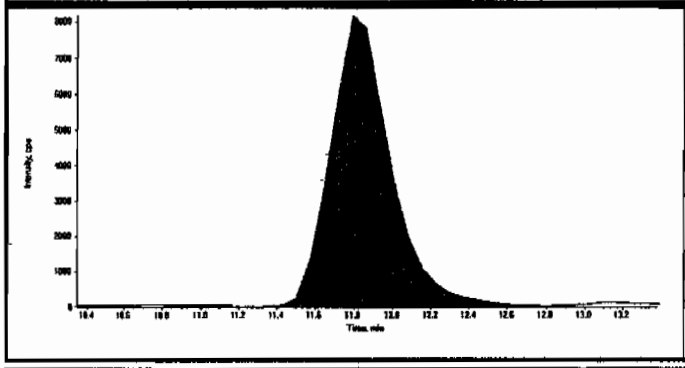

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	11.8
Area Counts:	1.77e+005
Manual Modification	No
Amount:	43.0 (ng/mL)
% Accuracy:	107.00

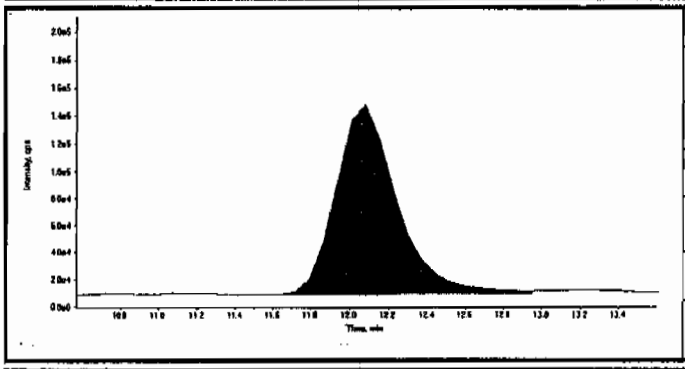

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	3.11e+006
Manual Modification	No
Amount:	21.4 (ng/mL)
% Accuracy:	107.00

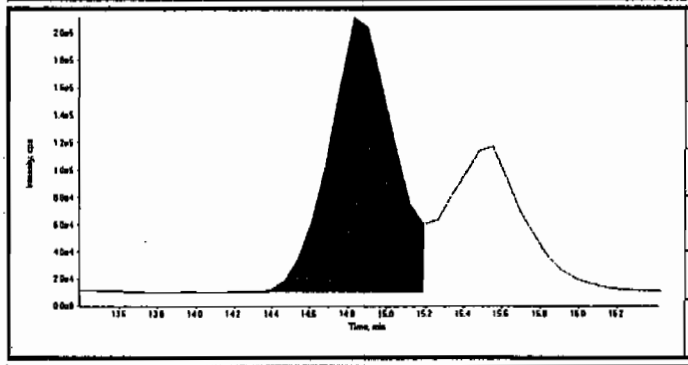

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.9
Actual RT:	14.8
Area Counts:	4.78e+006
Manual Modification	No
Amount:	43.9 (ng/mL)
% Accuracy:	110.00

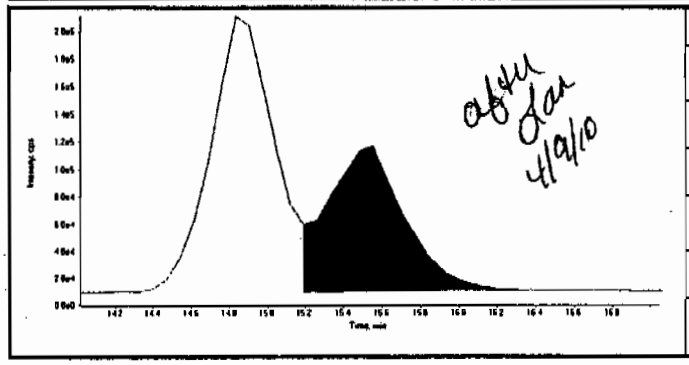

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	15.5
Area Counts:	3.03e+006
Manual Modification	Yes
Amount:	42.9 (ng/mL)
% Accuracy:	107.00

Before Dan 4/9/10

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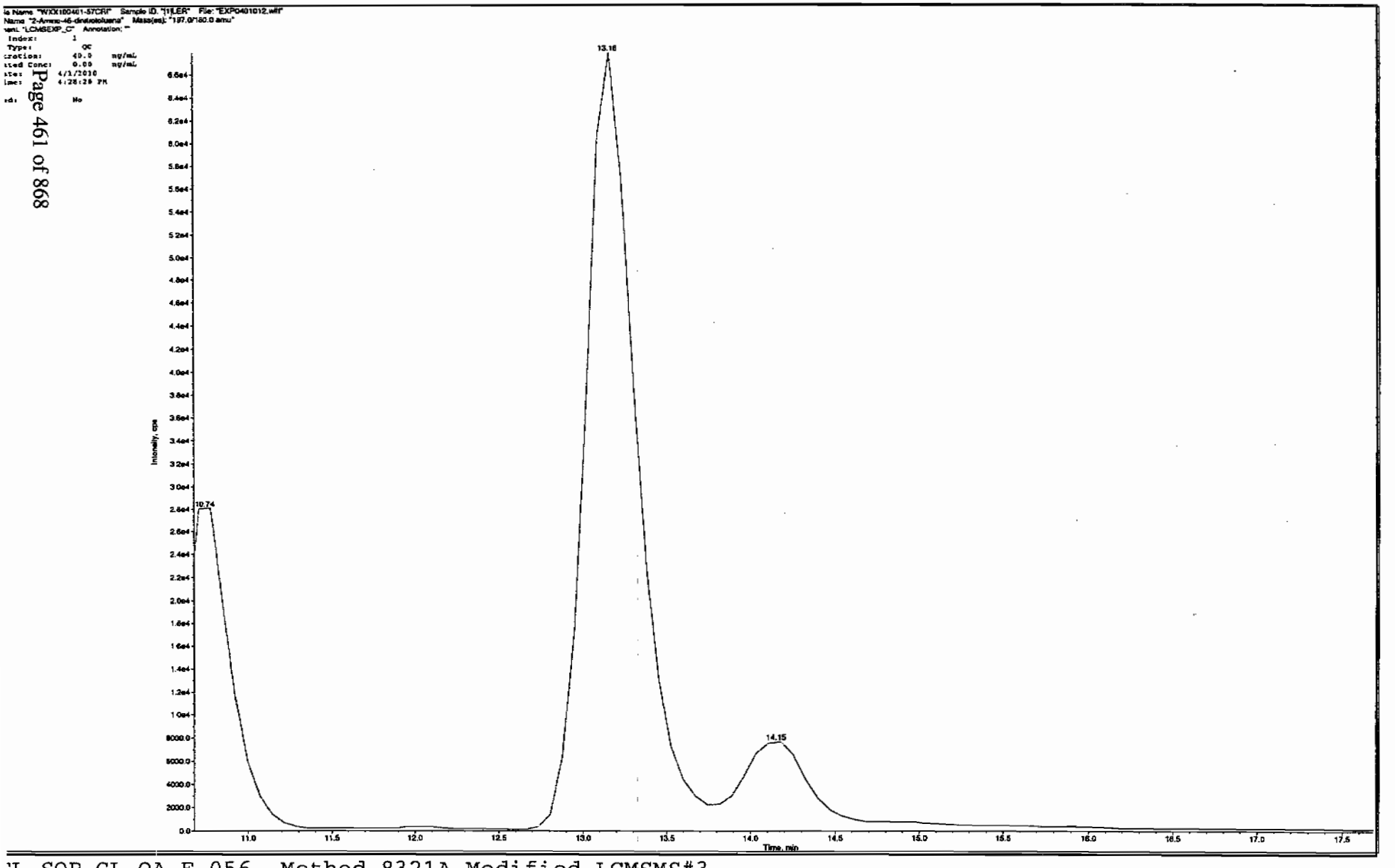

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401012.wiff	**Acquisition Date**	4/1/2010 4:28:28 PM
Sample Name	WXX100401-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

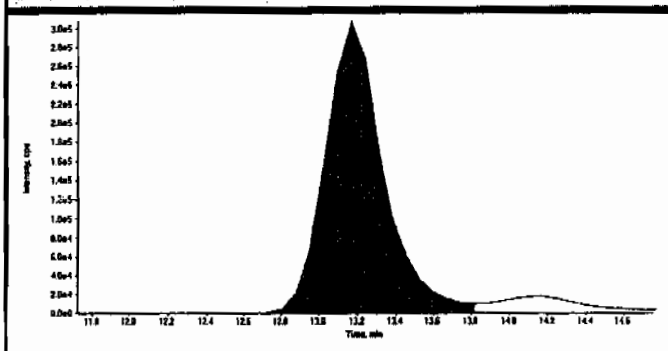

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.2
Actual RT:	13.2
Area Counts:	6.50e+006
Manual Modification	No
Amount:	44.7 (ng/mL)
% Accuracy:	112.00

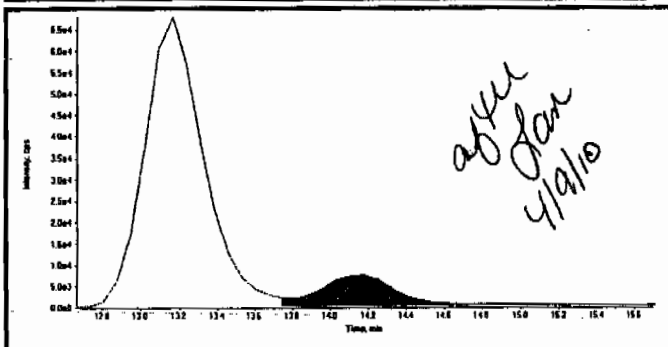

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.2
Actual RT:	14.2
Area Counts:	2.15e+005
Manual Modification	Yes
Amount:	40.3 (ng/mL)
% Accuracy:	101.00

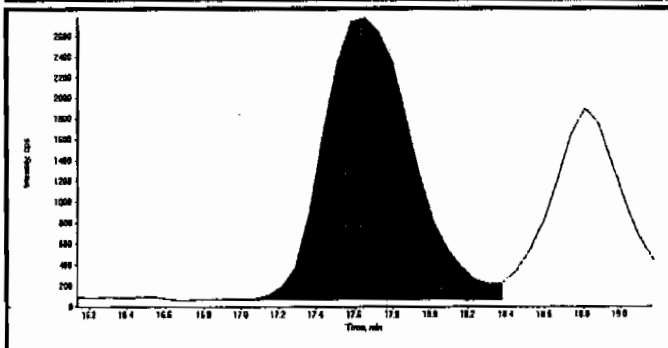

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.7
Actual RT:	17.7
Area Counts:	8.94e+004
Manual Modification	No
Amount:	42.1 (ng/mL)
% Accuracy:	105.00

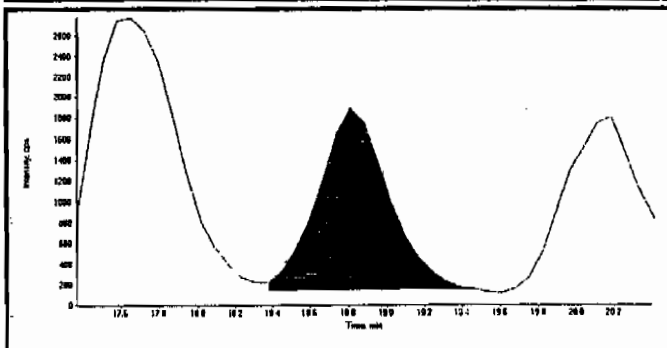

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.9
Actual RT:	18.8
Area Counts:	4.52e+004
Manual Modification	No
Amount:	42.8 (ng/mL)
% Accuracy:	107.00

Before Dan 4/9/10

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e Name: "WX100401-57CRI" Sample ID: "[1]LER" File: "EXP0401012.wiff"
ame: "PETN" Mass(es): "351.1/62.0 amu"
ort: "LCMSEXP_C" Annotation: ""
Index: 1
Type: QC
ration: 40.0 ng/mL
ted Conc: 43.3 ng/mL
te: 4/1/2010
me: 4:28:28 PM

d: No
Algorithm: IntelliQuan - IQA
ak Height: 100.00 cps
ak Width: 9.00 sec
ng Width: 3 points
low: 50.0 sec
d RT: 19.8 min
ative RT: No

pe: Valley
on TIME: 19.7 min
25e+004 counts
2.84e+003 cps
Time: 19.0 min
e: 21.9 min

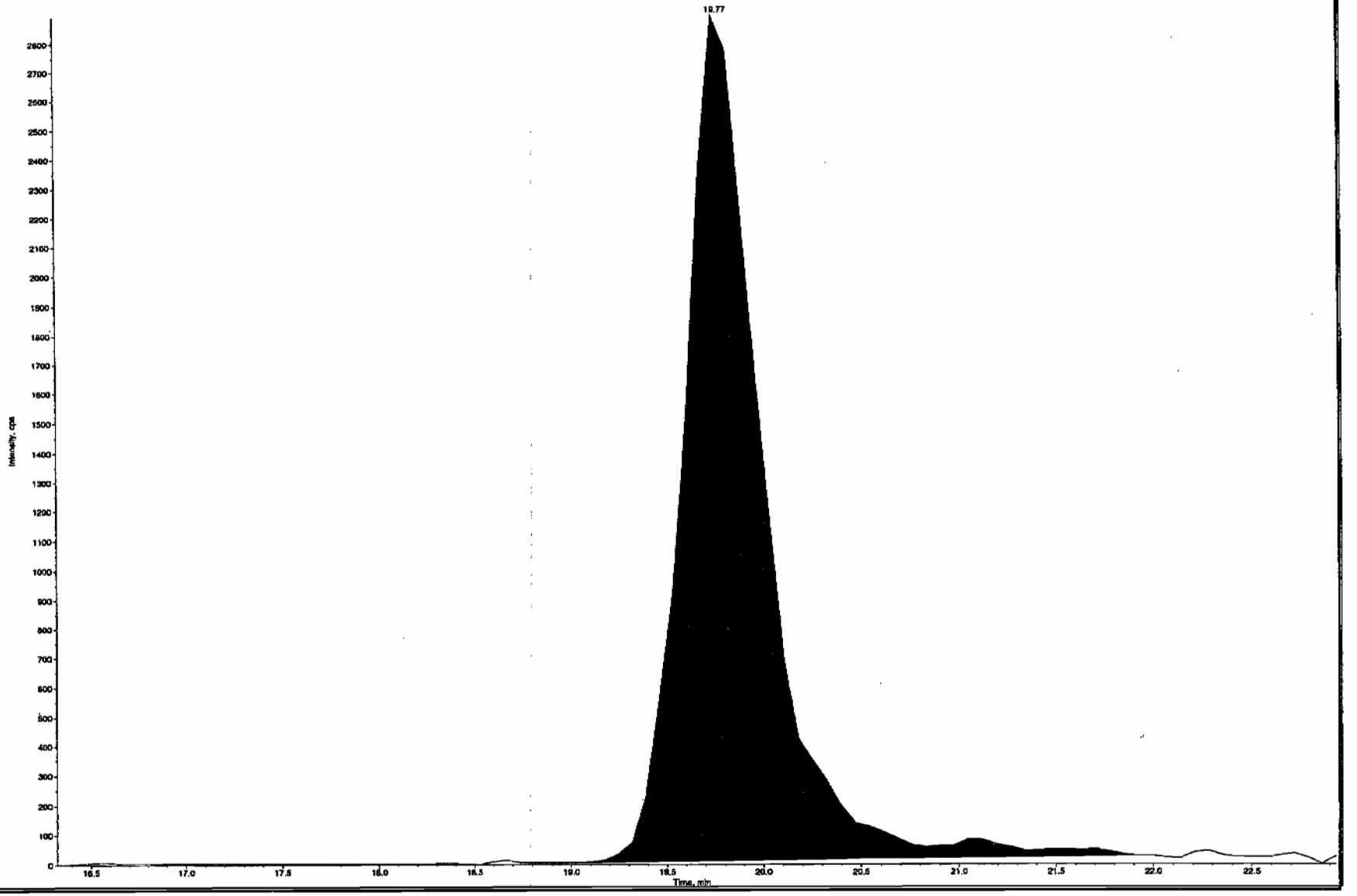

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401012.wiff	**Acquisition Date**	4/1/2010 4:28:28 PM
Sample Name	WXX100401-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

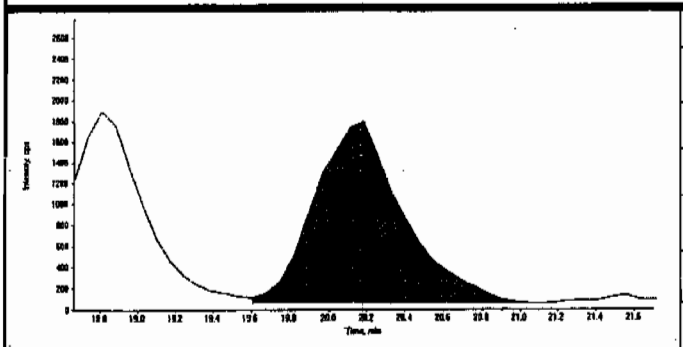

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.2
Actual RT:	20.2
Area Counts:	5.61e+004
Manual Modification	No
Amount:	45.0 (ng/mL)
% Accuracy:	113.00

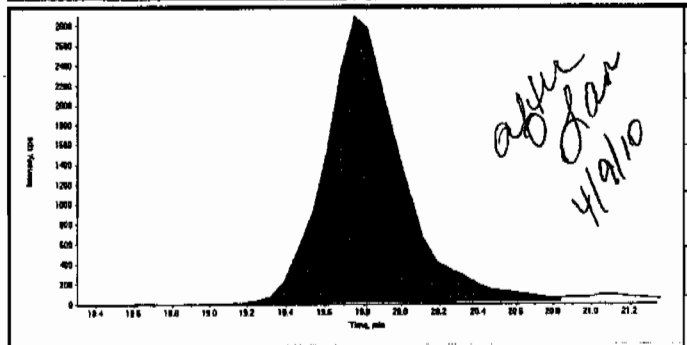

abu Lar 4/9/10

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.8
Actual RT:	19.8
Area Counts:	8.05e+004
Manual Modification	Yes
Amount:	42.2 (ng/mL)
% Accuracy:	105.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 04/01/10
Time of Injection 1628
Standard Number WXX100401-57CRI
Data File EXP0401012a

HMX	94.6
RDX	92.2
135-Trinitrobenzene	115.0
13-Dinitrobenzene	102.0
Tetryl	118.0
246-Trinitrotoluene	129.0
Nitrobenzene	107.0
34-dinitrotoluene	107.0
26-dinitrotoluene	110.0
24-dinitrotoluene	107.0
4-Amino-26-dinitrotoluene	112.0
2-Amino-46-dinitrotoluene	101.0
2-Nitrotoluene	105.0
4-Nitrotoluene	107.0
3-Nitrotoluene	113.0
PETN	105.0
TOTAL	1724.8
AVERAGE	107.8

dmm 04/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lar 4/9/10

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1864

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0401023.wiff

Analysis Date: 01–APR–10 21:18

LCMSMS ID: 1189

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
Nitrobenzene	600	621	103	
PETN	600	571	95	
RDX	600	558	93	
Tetryl	600	588	98	
m–Dinitrobenzene	600	549	92	
m–Nitrotoluene	600	589	98	
o–Nitrotoluene	600	591	98	
p–Nitrotoluene	600	627	104	
1,3,5–Trinitrobenzene	600	543	91	
2,4,6–Trinitrotoluene	600	551	92	
2,4–Dinitrotoluene	600	652	109	
2,6–Dinitrotoluene	600	572	95	
2–Amino–4,6–dinitrotoluene	600	629	105	
3,4–Dinitrotoluene	300	288	96	
4–Amino–2,6–dinitrotoluene	600	626	104	
HMX	600	480	80	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401023.wiff	**Acquisition Date**	4/1/2010 9:18:51 PM
Sample Name	WXX100401-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

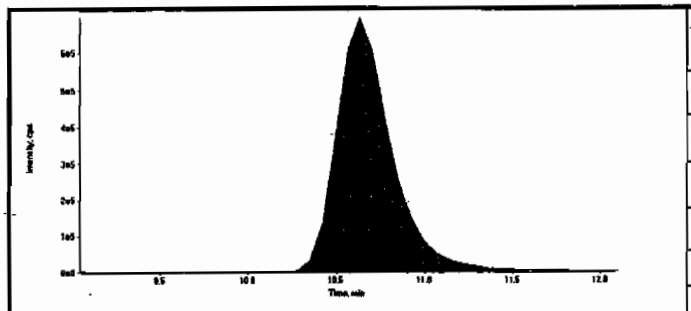

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	15200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

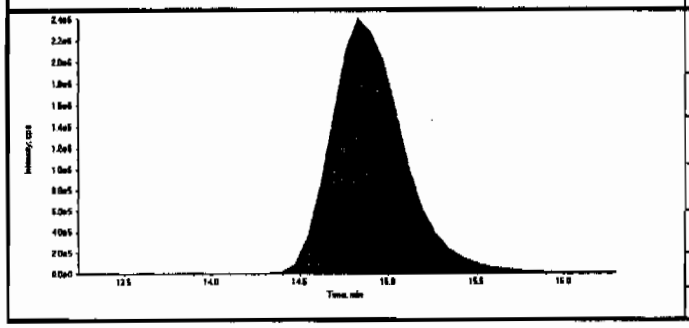

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.80
Actual RT:	14.80
Area Counts:	69500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

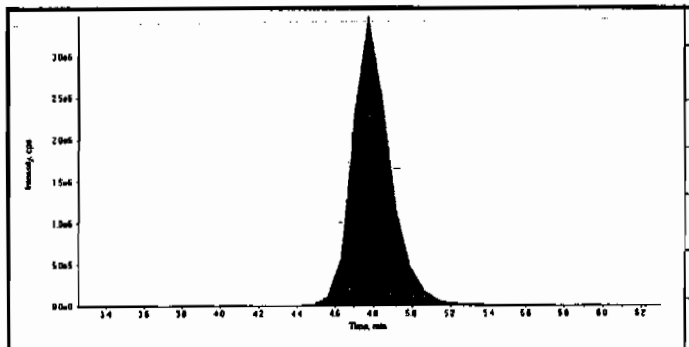

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	4.72e+007
Manual Modification	No
Amount:	480. (ng/mL)
% Accuracy:	80.00

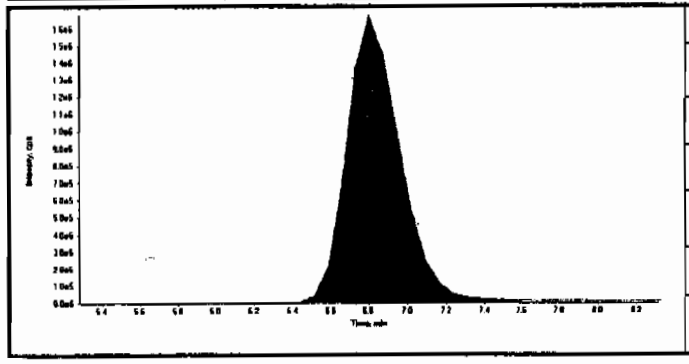

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	6.80
Area Counts:	3.26e+007
Manual Modification	No
Amount:	558. (ng/mL)
% Accuracy:	93.10

Jan 4/9/10 atmw 8/11/09/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401023.wiff	**Acquisition Date**	4/1/2010 9:18:51 PM
Sample Name	WXX100401-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

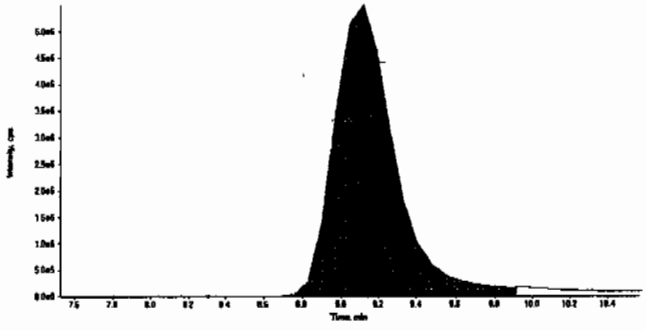

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.04
Actual RT:	9.12
Area Counts:	1.24e+008
Manual Modification	No
Amount:	543. (ng/mL)
% Accuracy:	90.50

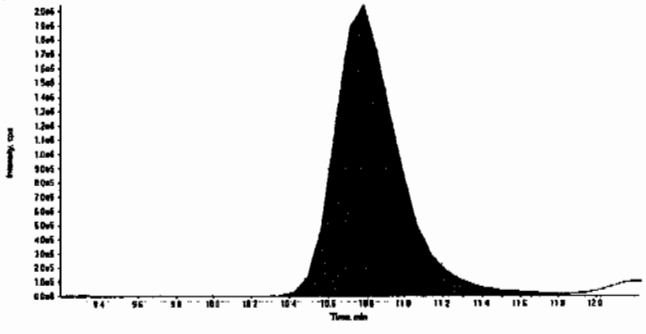

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.8
Area Counts:	4.78e+007
Manual Modification	No
Amount:	549. (ng/mL)
% Accuracy:	91.50

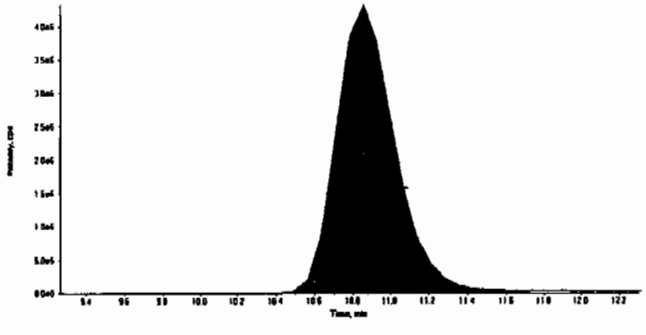

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.8
Actual RT:	10.9
Area Counts:	9.42e+007
Manual Modification	No
Amount:	588. (ng/mL)
% Accuracy:	98.00

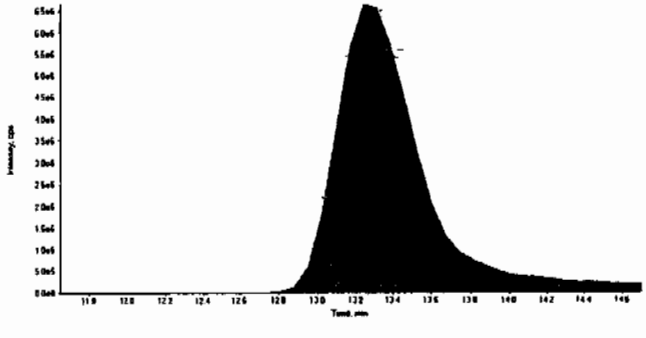

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.2
Actual RT:	13.2
Area Counts:	2.22e+008
Manual Modification	No
Amount:	551. (ng/mL)
% Accuracy:	91.80

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401023.wiff	**Acquisition Date**	4/1/2010 9:18:51 PM
Sample Name	WXX100401-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

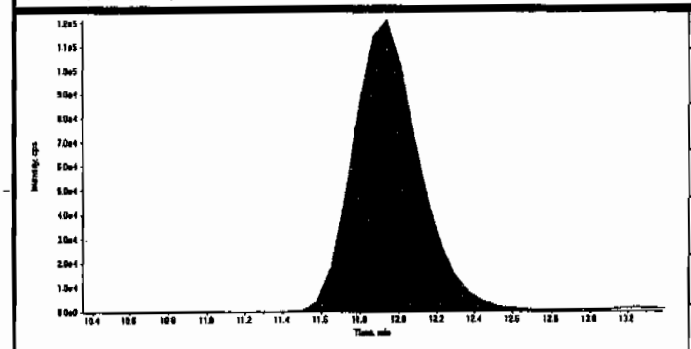

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	11.9
Area Counts:	2.90e+006
Manual Modification	No
Amount:	621. (ng/mL)
% Accuracy:	103.00

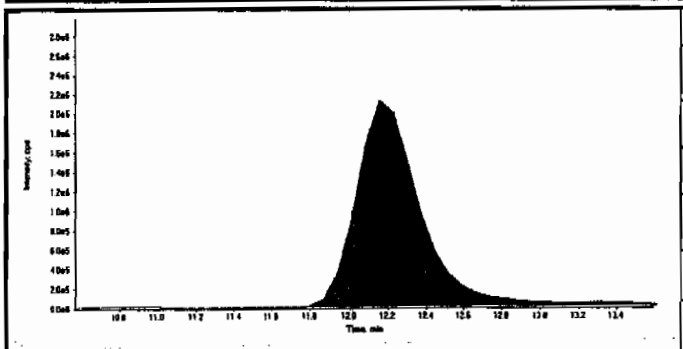

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	5.02e+007
Manual Modification	No
Amount:	288. (ng/mL)
% Accuracy:	96.10

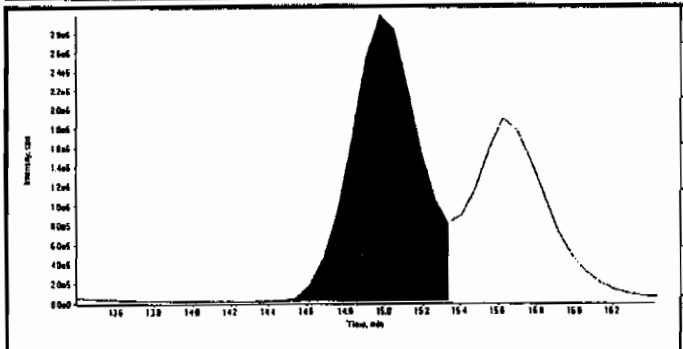

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.9
Actual RT:	15.0
Area Counts:	7.44e+007
Manual Modification	No
Amount:	572. (ng/mL)
% Accuracy:	95.30

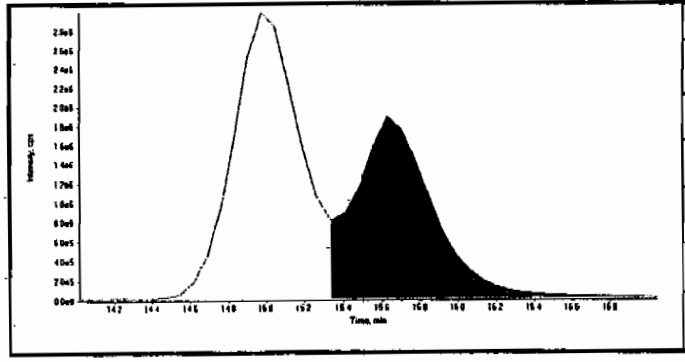

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	15.6
Area Counts:	5.51e+007
Manual Modification	No
Amount:	652. (ng/mL)
% Accuracy:	109.00

Before Lar 4/9/10

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ie Name: "WXX100401-56CCV" Sample ID: "[1]LER" File: "EXP0401023.wiff"
Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
nent "LCMSEXP_C" Annotation: ""
Index: 1
Type: QC
ration: 600. ng/mL
ated Conc: 388. ng/mL
ate: 4/1/2010
ime: 9:18:51 PM

ad: No
Algorithm: IntelliQuan - IQA
eak Height: 1.00e4 cps
eak Width: 0.00 sec
ing Width: 3 points
Area: 10.0 sec
ed RT: 14.2 min
lative RT: No

ype: Valley
ion Ti 14.3 min
.48e+006 counts
: 9.58e+004 cps
Time: 13.9 min
se: 14.8 min

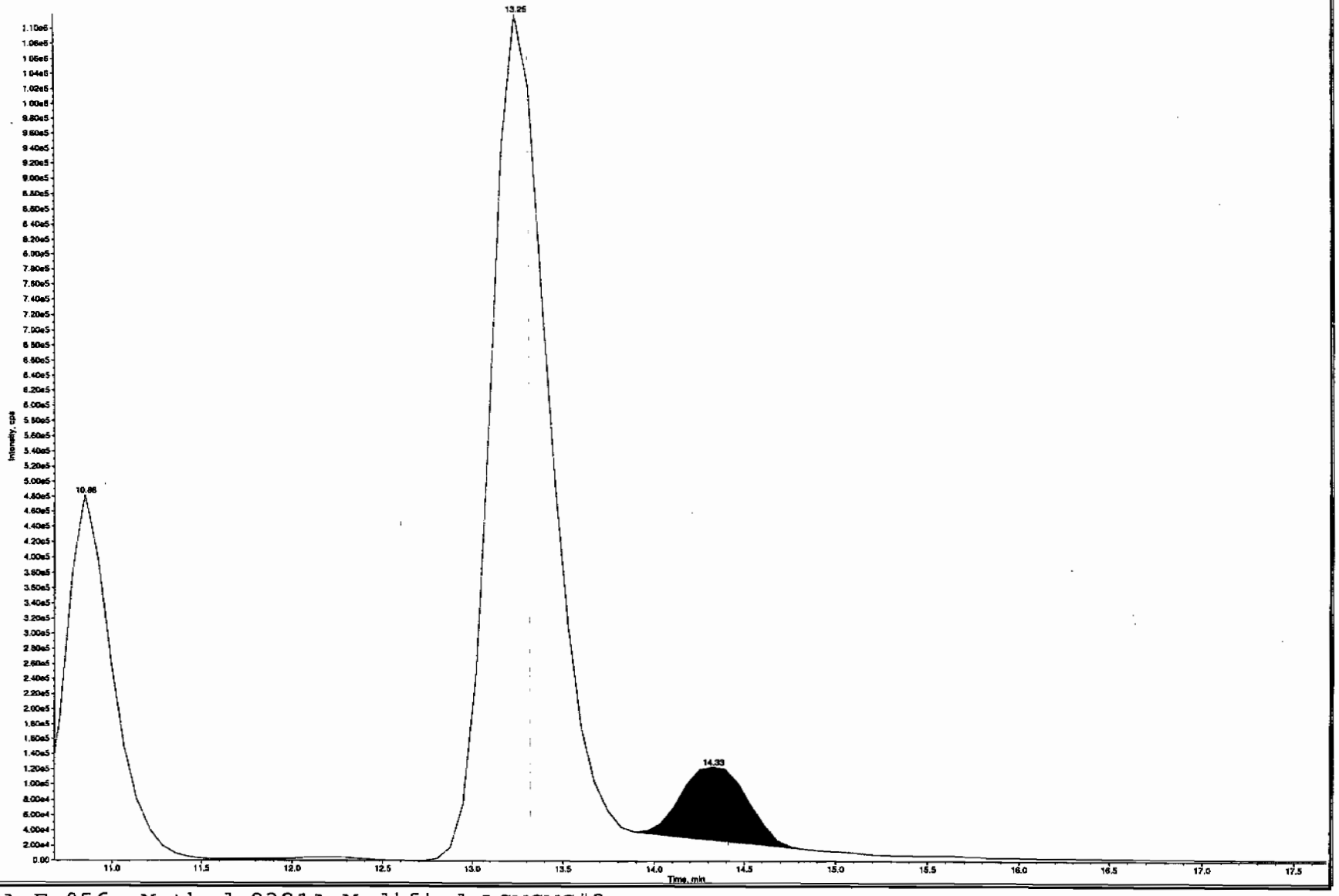

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401023.wiff	**Acquisition Date**	4/1/2010 9:18:51 PM
Sample Name	WXX100401-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

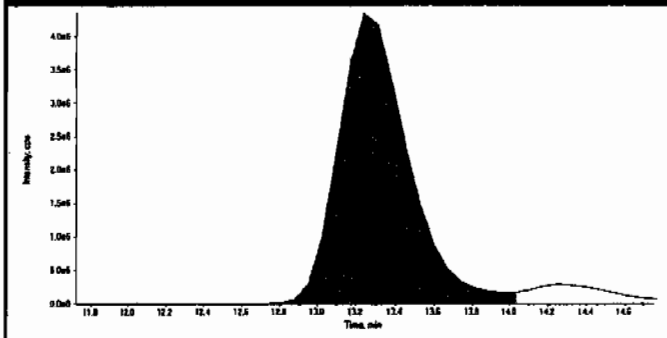

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.2
Actual RT:	13.2
Area Counts:	1.09e+008
Manual Modification	No
Amount:	626. (ng/mL)
% Accuracy:	104.00

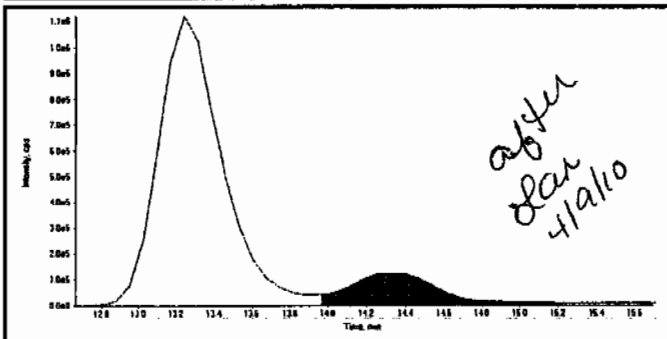

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.2
Actual RT:	14.3
Area Counts:	4.01e+006
Manual Modification	Yes
Amount:	629. (ng/mL)
% Accuracy:	105.00

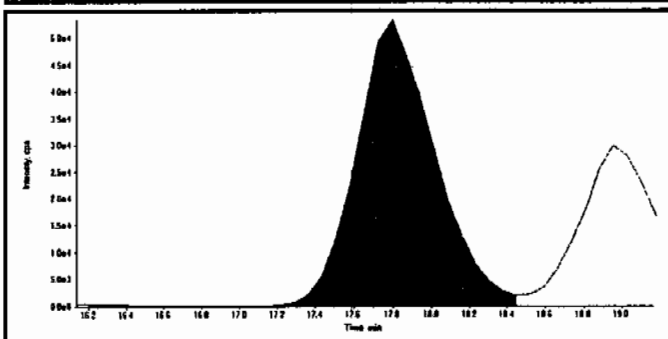

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.7
Actual RT:	17.8
Area Counts:	1.50e+006
Manual Modification	No
Amount:	591. (ng/mL)
% Accuracy:	98.40

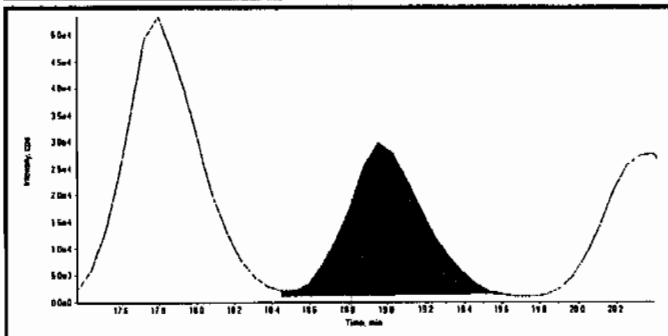

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.9
Actual RT:	19.0
Area Counts:	7.92e+005
Manual Modification	No
Amount:	627. (ng/mL)
% Accuracy:	104.00

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401023.wiff	**Acquisition Date**	4/1/2010 9:18:51 PM
Sample Name	WXX100401-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

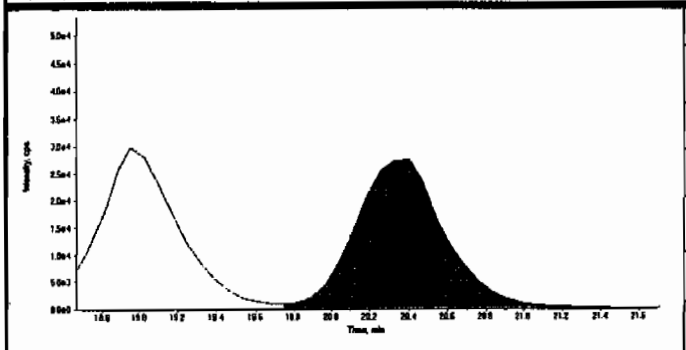

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.2
Actual RT:	20.4
Area Counts:	8.77e+005
Manual Modification	No
Amount:	589. (ng/mL)
% Accuracy:	98.10

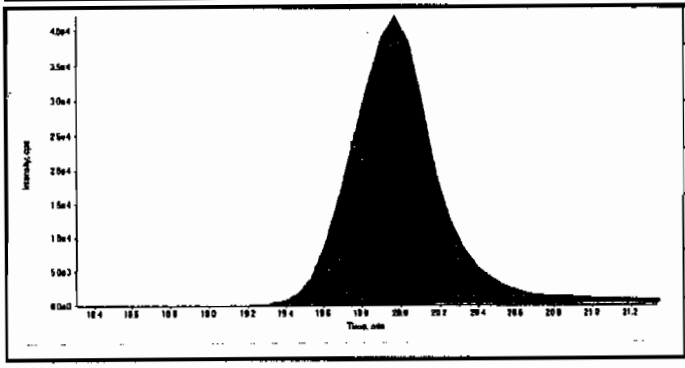

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.8
Actual RT:	20.0
Area Counts:	1.30e+006
Manual Modification	No
Amount:	571. (ng/mL)
% Accuracy:	95.10

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 04/01/10
Time of Injection 2118
Standard Number WXX100401-56CCV
Data File EXP0401023a

HMX	80.0
RDX	93.1
135-Trinitrobenzene	90.5
13-Dinitrobenzene	91.5
Tetryl	98.0
246-Trinitrotoluene	91.8
Nitrobenzene	103.0
34-dinitrotoluene	96.1
26-dinitrotoluene	95.3
24-dinitrotoluene	109.0
4-Amino-26-dinitrotoluene	104.0
2-Amino-46-dinitrotoluene	105.0
2-Nitrotoluene	98.4
4-Nitrotoluene	104.0
3-Nitrotoluene	98.1
PETN	95.1
	✓
TOTAL	1552.9
AVERAGE	✓ 97.1

Hmm 04/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lar 4/9/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1864

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0401025.wiff

Analysis Date: 01–APR–10 22:11

LCMSMS ID: 1189

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	46.9	117	
2,4,6–Trinitrotoluene	40	47.6	119	
2,4–Dinitrotoluene	40	44.4	111	
2,6–Dinitrotoluene	40	45.4	113	
2–Amino–4,6–dinitrotoluene	40	40.5	101	
3,4–Dinitrotoluene	20	20.9	105	
4–Amino–2,6–dinitrotoluene	40	47.2	118	
HMX	40	46.2	116	
Nitrobenzene	40	42	105	
PETN	40	42.9	107	
RDX	40	47.7	119	
Tetryl	40	51.9	130	
m–Dinitrobenzene	40	40.6	101	
m–Nitrotoluene	40	46.2	115	
o–Nitrotoluene	40	46.2	116	
p–Nitrotoluene	40	49.2	123	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401025.wiff	**Acquisition Date**	4/1/2010 10:11:39 PM
Sample Name	WXX100401-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

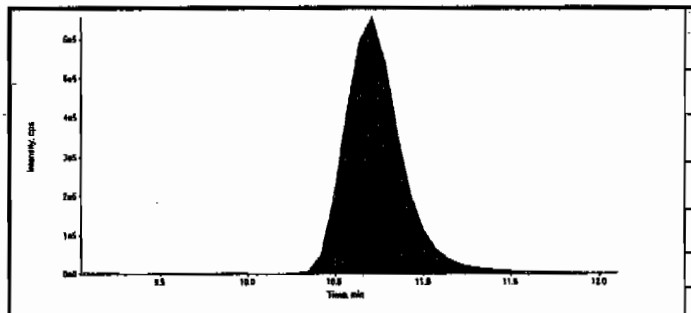

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.70
Area Counts:	14400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

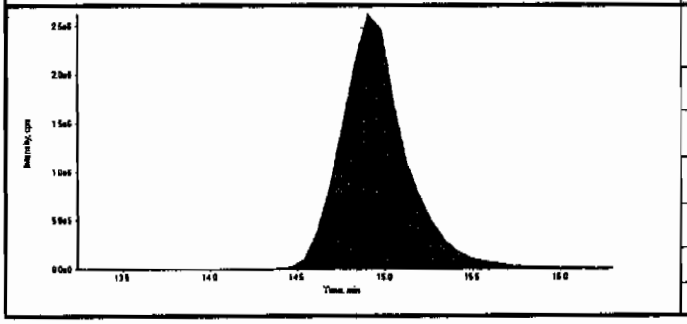

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.80
Actual RT:	14.90
Area Counts:	65700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

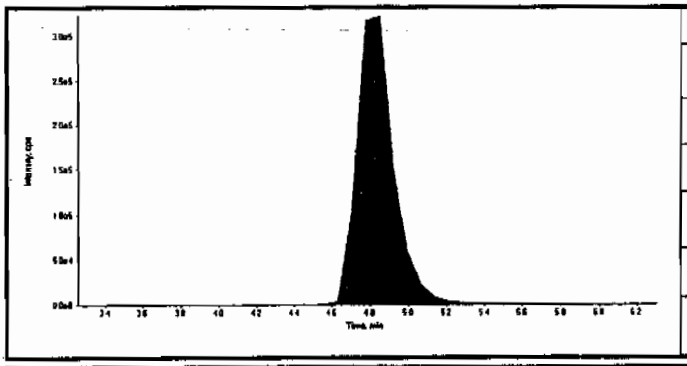

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.85
Area Counts:	4.32e+006
Manual Modification	No
Amount:	46.2 (ng/mL)
% Accuracy:	116.00

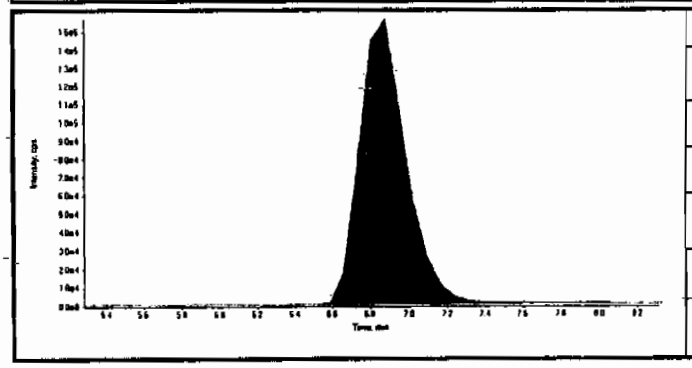

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	6.87
Area Counts:	2.65e+006
Manual Modification	No
Amount:	47.7 (ng/mL)
% Accuracy:	119.00

4/9/10 04/09/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401025.wiff	**Acquisition Date**	4/1/2010 10:11:39 PM
Sample Name	WXX100401-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

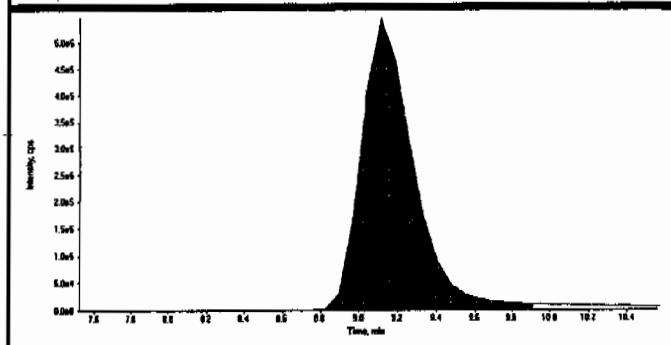

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.04
Actual RT:	9.12
Area Counts:	1.02e+007
Manual Modification	No
Amount:	46.9 (ng/mL)
% Accuracy:	117.00

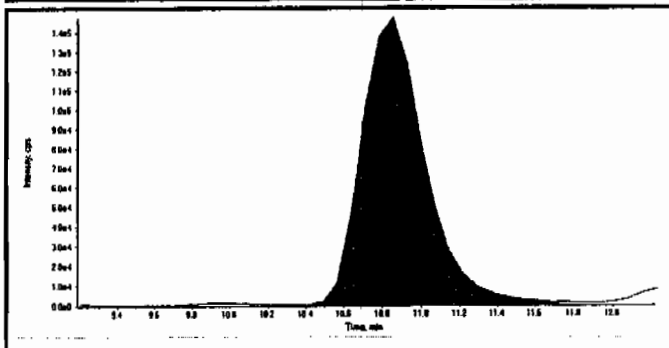

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.7
Actual RT:	10.9
Area Counts:	3.36e+006
Manual Modification	No
Amount:	40.6 (ng/mL)
% Accuracy:	101.00

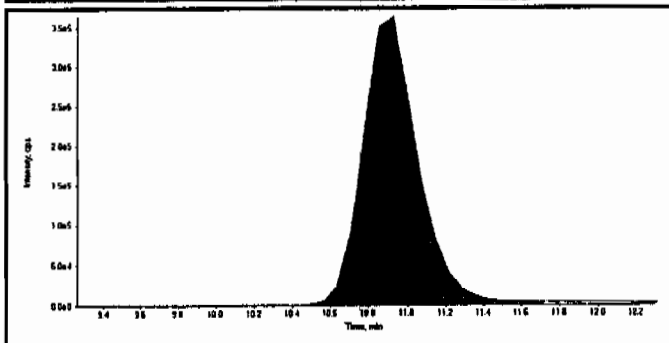

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.8
Actual RT:	10.9
Area Counts:	7.15e+006
Manual Modification	No
Amount:	51.9 (ng/mL)
% Accuracy:	130.00

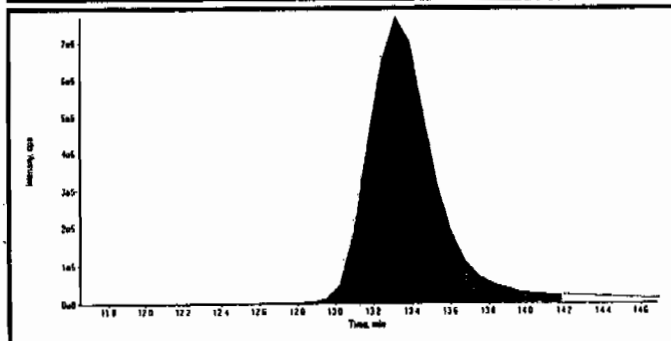

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.2
Actual RT:	13.3
Area Counts:	1.81e+007
Manual Modification	No
Amount:	47.6 (ng/mL)
% Accuracy:	119.00

Before Dan 4/9/10

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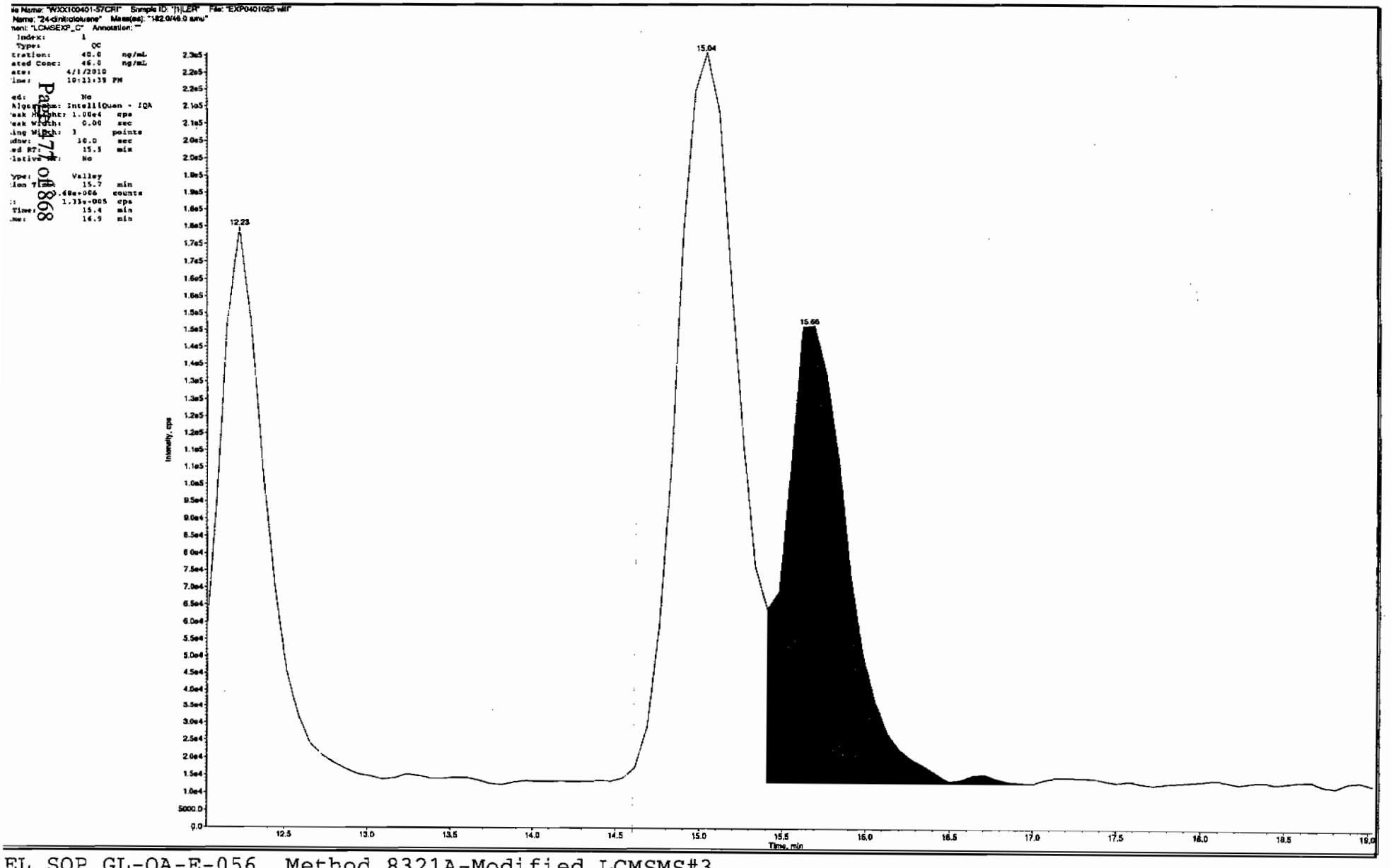

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401025.wiff	**Acquisition Date**	4/1/2010 10:11:39 PM
Sample Name	WXX100401-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

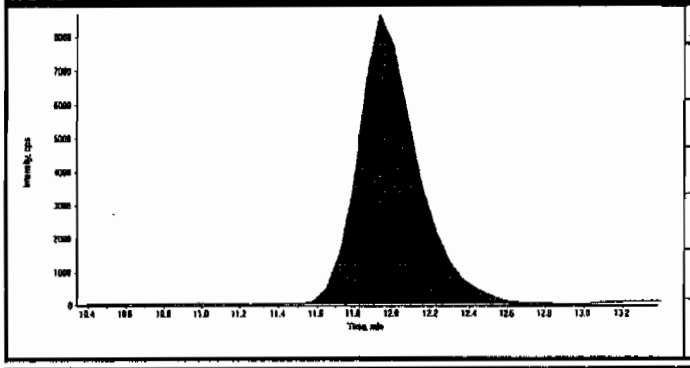

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	11.9
Area Counts:	1.87e+005
Manual Modification	No
Amount:	42.0 (ng/mL)
% Accuracy:	105.00

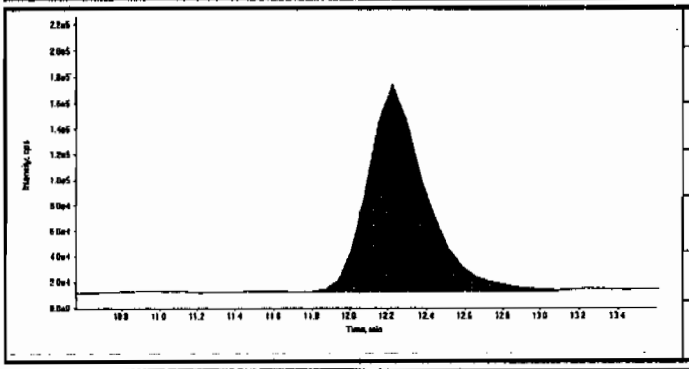

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	3.44e+006
Manual Modification	No
Amount:	20.9 (ng/mL)
% Accuracy:	105.00

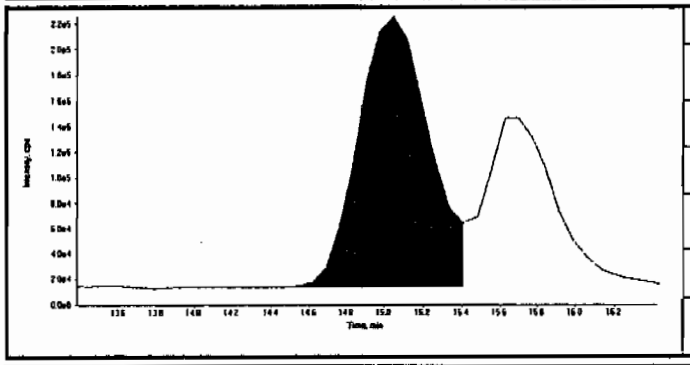

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	14.9
Actual RT:	15.0
Area Counts:	5.59e+006
Manual Modification	No
Amount:	45.4 (ng/mL)
% Accuracy:	113.00

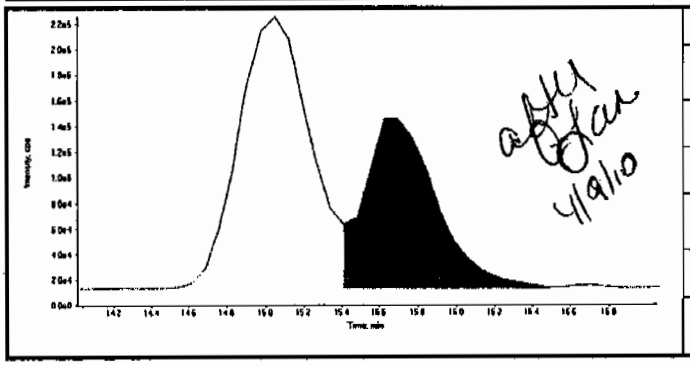

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.5
Actual RT:	15.7
Area Counts:	3.54e+006
Manual Modification	Yes
Amount:	44.4 (ng/mL)
% Accuracy:	111.00

Before Lar 4/9/10

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ple Name: "WX(100401-57OR)" Sample ID: "[1]LER" File: "EXF0401025.wiff"
e Name: "2-Amino-4S-dinitrotoluene" Mass(es): "197.0/180.0 amu"
nment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 40.0 ng/mL
lated Conc: 0.00 ng/mL
Date: 4/1/2010
Time: 10:11:39 PM
ied: No

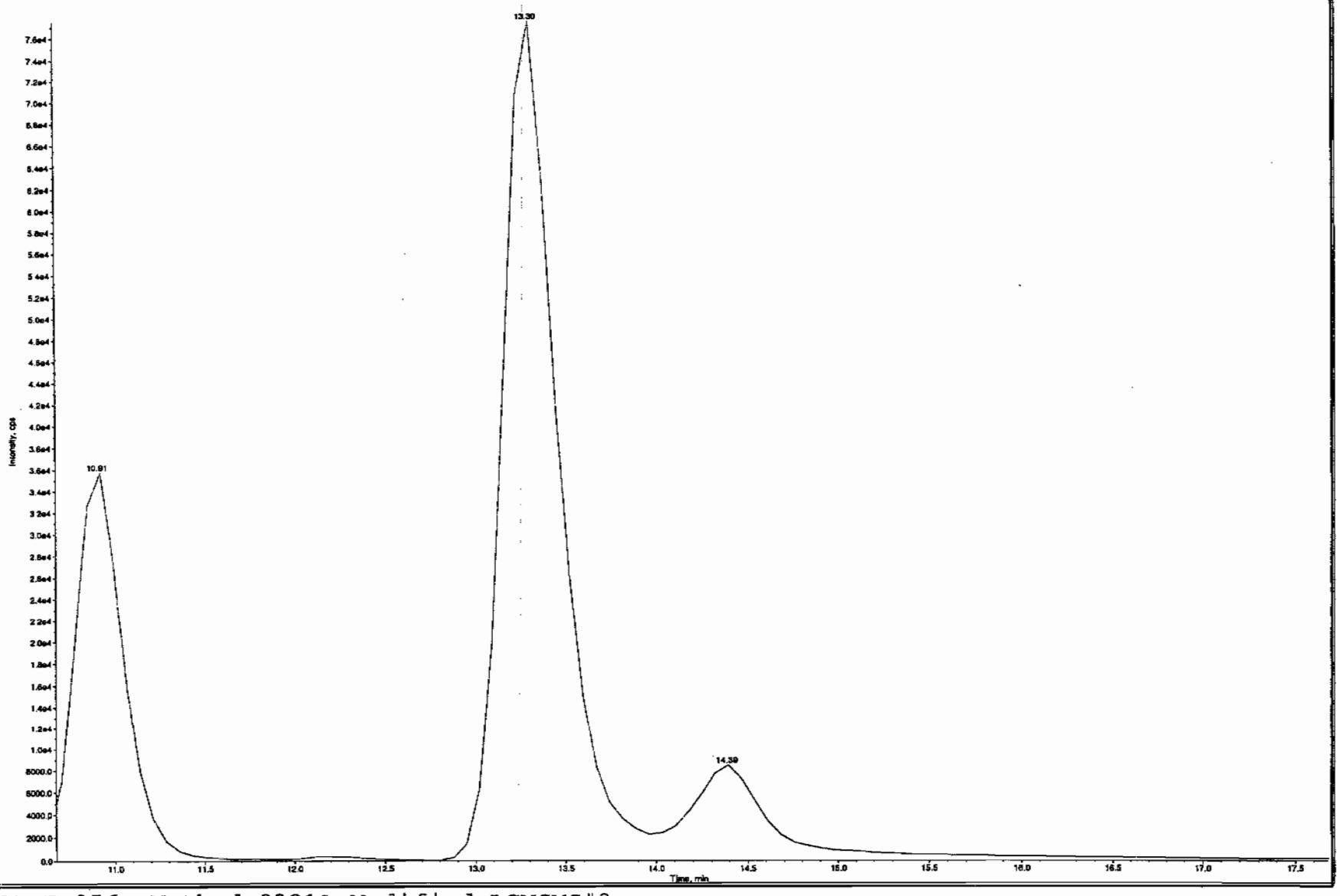

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401025.wiff	**Acquisition Date**	4/1/2010 10:11:39 PM
Sample Name	WXX100401-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

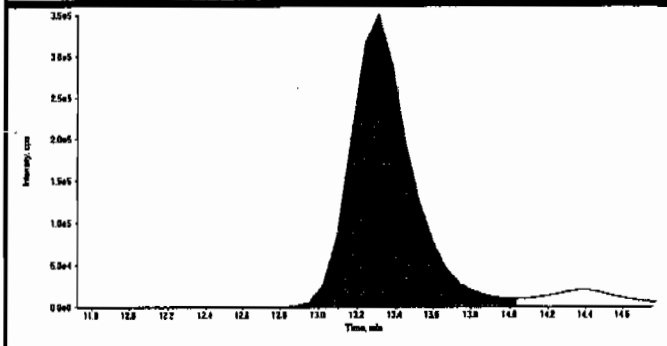

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.2
Actual RT:	13.3
Area Counts:	7.77e+006
Manual Modification	No
Amount:	47.2 (ng/mL)
% Accuracy:	118.00

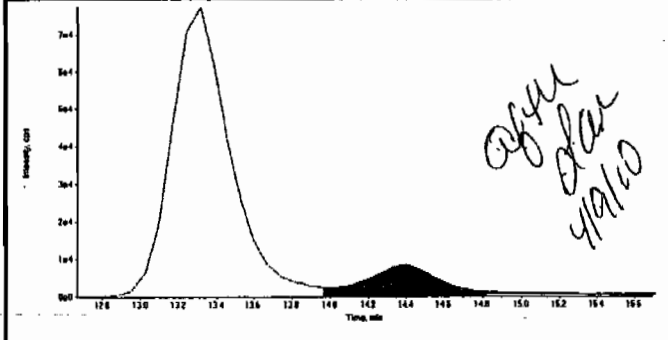

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.2
Actual RT:	14.4
Area Counts:	2.44e+005
Manual Modification	Yes
Amount:	40.5 (ng/mL)
% Accuracy:	101.00

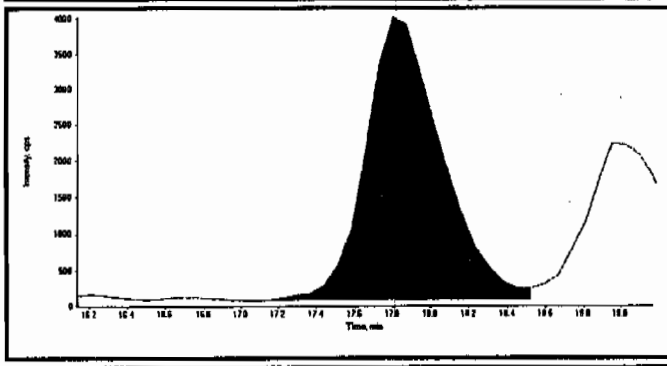

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.7
Actual RT:	17.8
Area Counts:	1.11e+005
Manual Modification	No
Amount:	46.2 (ng/mL)
% Accuracy:	116.00

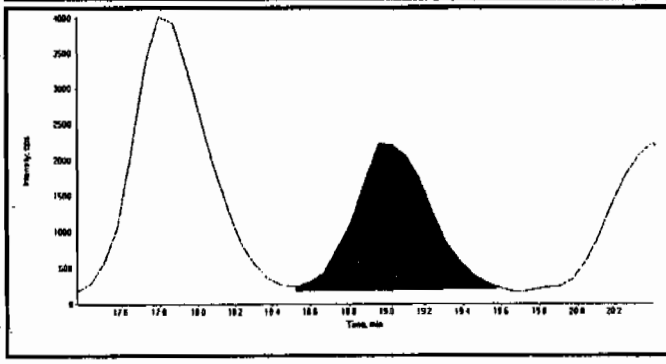

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.9
Actual RT:	19.0
Area Counts:	5.87e+004
Manual Modification	No
Amount:	49.2 (ng/mL)
% Accuracy:	123.00

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 09/04/2010 9:18:00 AM
LCMSMS#3

Data File	EXP0401025.wiff	**Acquisition Date**	4/1/2010 10:11:39 PM
Sample Name	WXX100401-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	040110.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

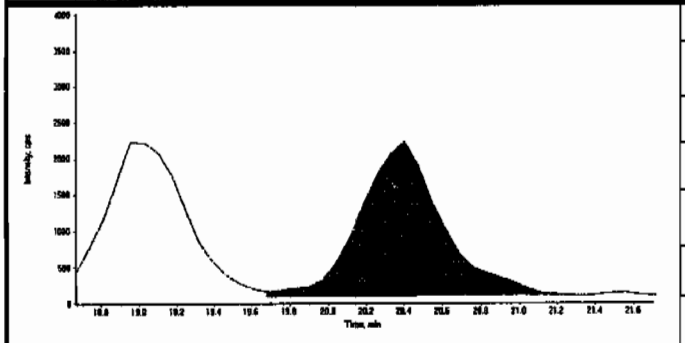

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.2
Actual RT:	20.4
Area Counts:	6.50e+004
Manual Modification	No
Amount:	46.2 (ng/mL)
% Accuracy:	115.00

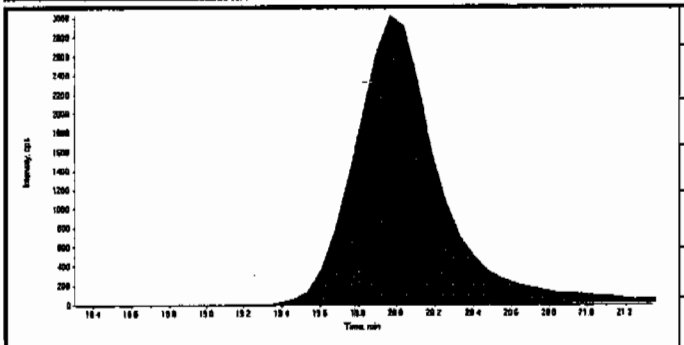

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	19.8
Actual RT:	20.0
Area Counts:	9.25e+004
Manual Modification	No
Amount:	42.9 (ng/mL)
% Accuracy:	107.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 04/01/10
Time of Injection 2211
Standard Number WXX100401-57CRI
Data File EXP0401025a

HMX	116.0
RDX	119.0
135-Trinitrobenzene	117.0
13-Dinitrobenzene	101.0
Tetryl	130.0
246-Trinitrotoluene	119.0
Nitrobenzene	105.0
34-dinitrotoluene	105.0
26-dinitrotoluene	113.0
24-dinitrotoluene	111.0
4-Amino-26-dinitrotoluene	118.0
2-Amino-46-dinitrotoluene	101.0
2-Nitrotoluene	116.0
4-Nitrotoluene	123.0
3-Nitrotoluene	115.0
PETN	107.0
TOTAL	1816.0
AVERAGE	113.5

HMW 04/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lar 4/9/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1864

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03100013.wiff

Analysis Date: 10-MAR-10 18:39

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	103	103	
2,6-Diamino-4-nitrotoluene	100	103	103	
3,4-Dinitrotoluene	50	48.5	97	
3,5-Dinitroaniline	100	87.1	87	
TATB	100	91.8	92	
tris(o-cresyl) phosphate	100	97.1	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

LCer 3/13/10

ple Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100013.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
ntration: 100. ng/mL
lated Conc: 91.8 ng/mL
Date: 3/10/2010
Time: 6:39:55 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
ndow: 30.0 sec
cted RT: 6.92 min
Relative RT: No

Type: Valley
ntion Time: 6.91 min
: 1.18e+005 counts
ht: 30457.434 cps
Time: 6.83 min
Time: 7.25 min

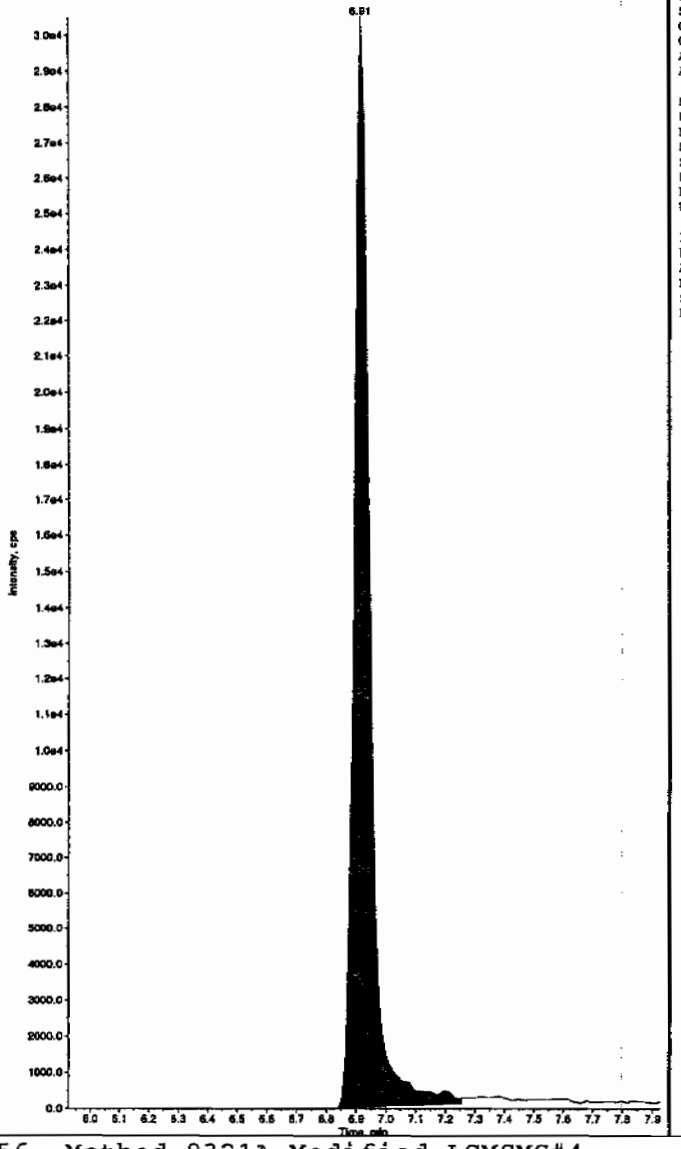

Sample Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 87.1 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 6:39:55 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.16 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.15 min
Area: 7.89e+005 counts
Height: 205905.838 cps
Start Time: 8.06 min
End Time: 8.26 min

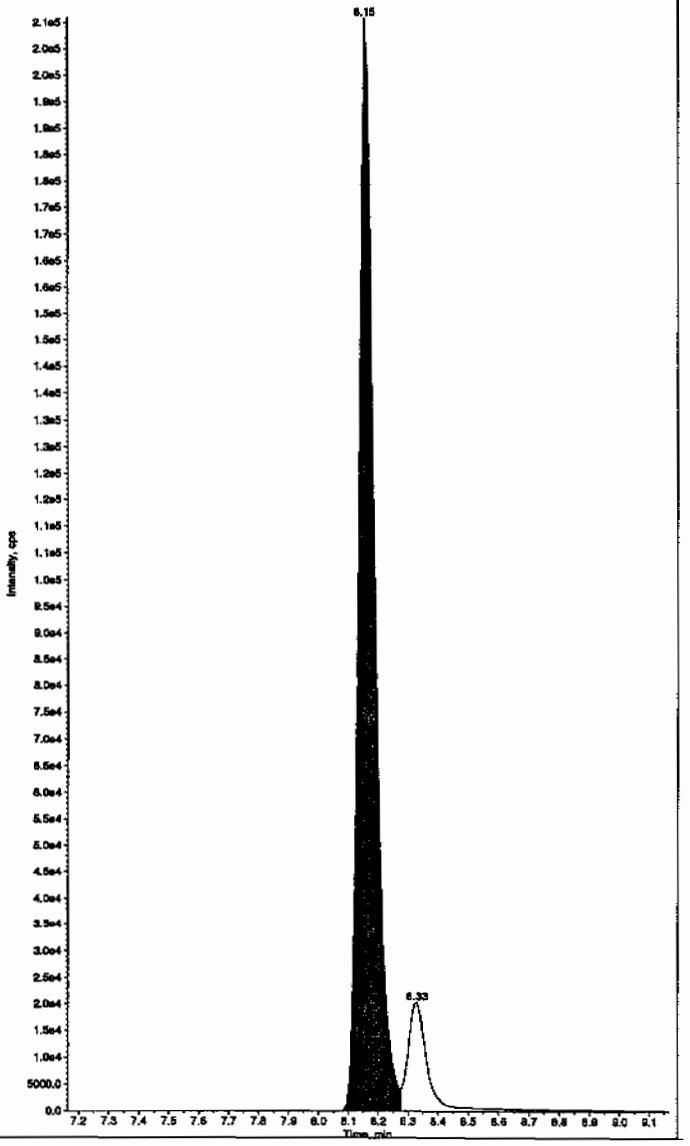

AMM 03/15/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100310-27CRI" Sample ID: "|1|LER" File: "EXS03100013.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: ""

e Index:	1	
e Type:	QC	
ntration:	50.0	ng/mL
lated Conc:	48.5	ng/mL
Date:	3/10/2010	
Time:	6:39:55 PM	
ied:	No	
Algorithm:	IntelliQuan - IQA	
Peak Height:	1460.00	cps
Peak Width:	0.00	sec
hing Width:	3	points
ndow:	15.0	sec
ted RT:	8.32	min
elative RT:	No	
Type:	Valley	
tion Time:	8.32	min
	5.21e+005	counts
t:	142593.994	cps
Time:	8.25	min
ime:	8.61	min

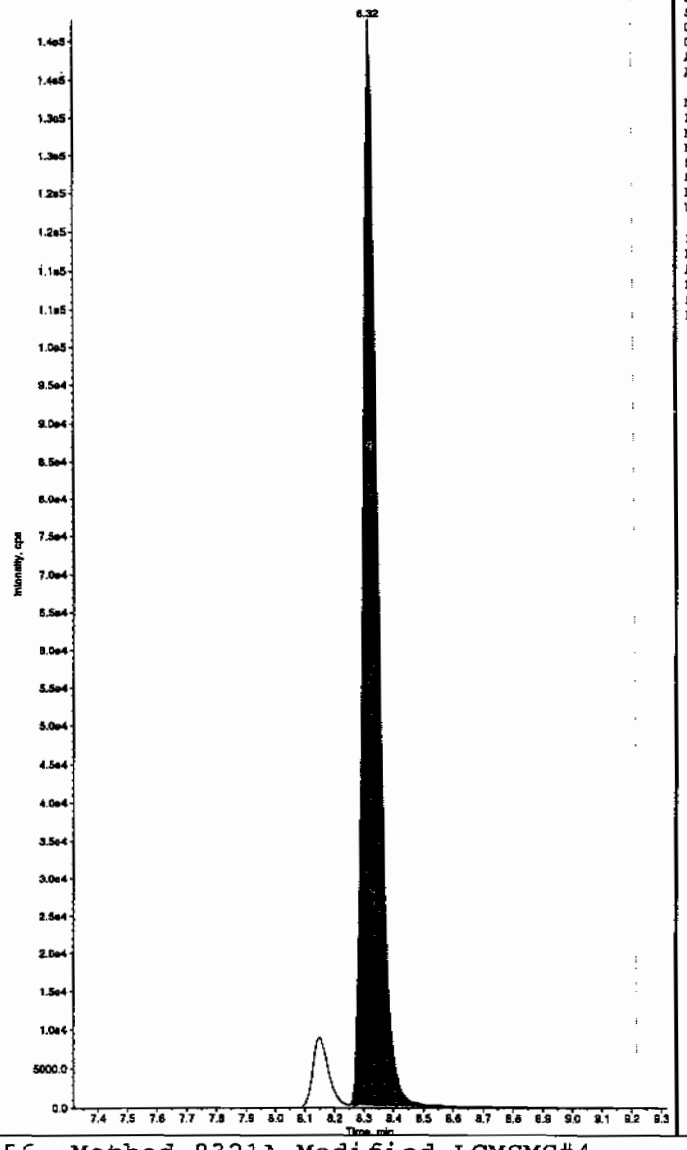

Sample Name: "WXX100310-27CRI" Sample ID: "|1|LER" File: "EXS03100013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	103.	ng/mL
Acq. Date:	3/10/2010	
Acq. Time:	6:39:55 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	4.95	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	4.95	min
Area:	1.58e+005	counts
Height:	38183.716	cps
Start Time:	4.82	min
End Time:	5.20	min

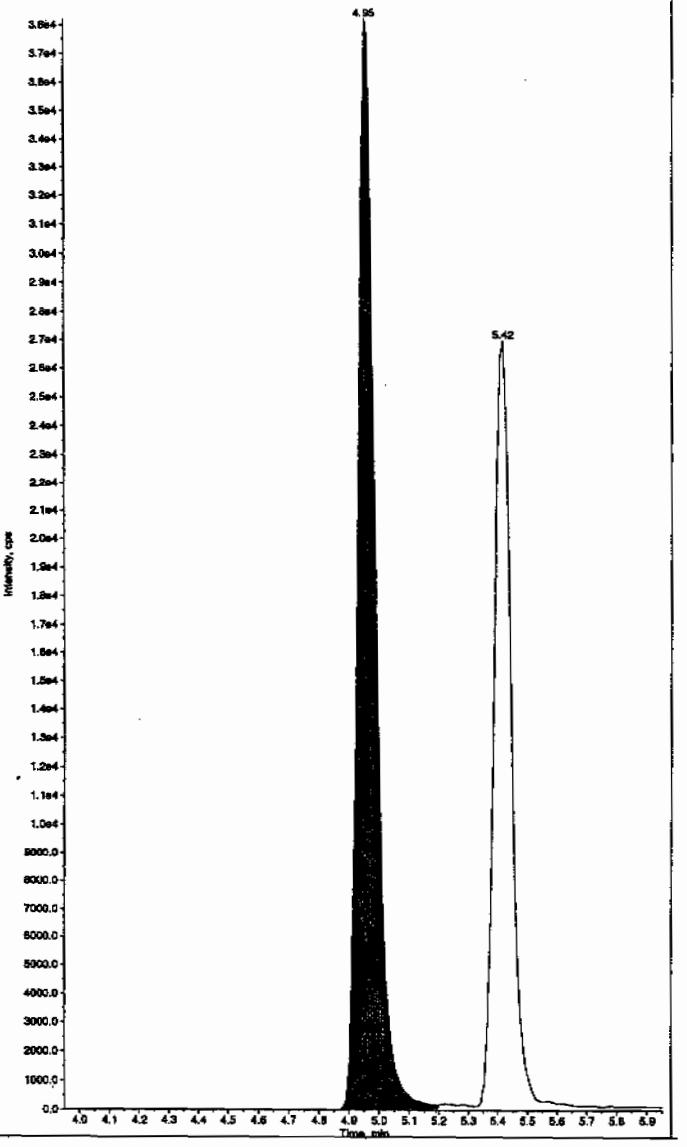

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

ple Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100013.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "168.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""

.e Index:	1	
.e Type:	QC	
ntration:	100.	ng/mL
ulated Conc:	103.	ng/mL
Date:	3/10/2010	
Time:	6:39:55 PM	
fied:	No	
. Algorithm:	IntelliQuan - IQA	
Peak Height:	350.00	cps
Peak Width:	0.00	sec
thing Width:	3	points
indow:	30.0	sec
cted RT:	5.42	min
Relative RT:	No	
Type:	Valley	
tion Time:	5.42	min
:	1.08e+005	counts
ht:	26822.714	cps
: Time:	5.31	min
Time:	5.67	min

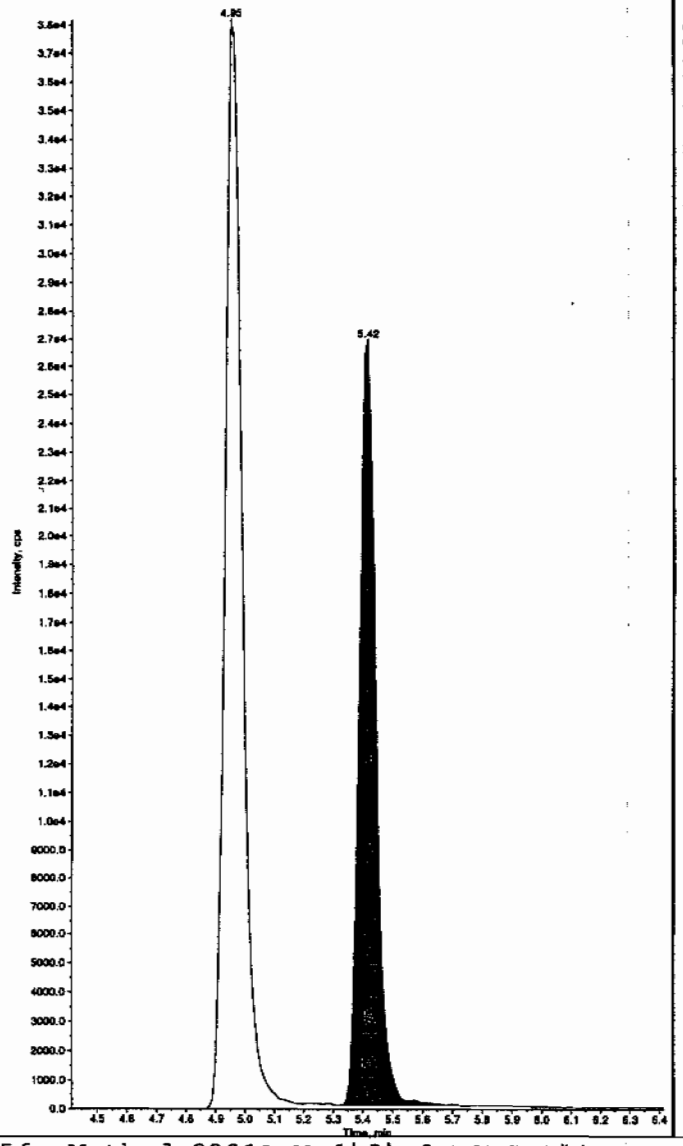

Sample Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	97.1	ng/mL
Acq. Date:	3/10/2010	
Acq. Time:	6:39:55 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.8	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.8	min
Area:	1.34e+006	counts
Height:	348340.515	cps
Start Time:	10.7	min
End Time:	11.1	min

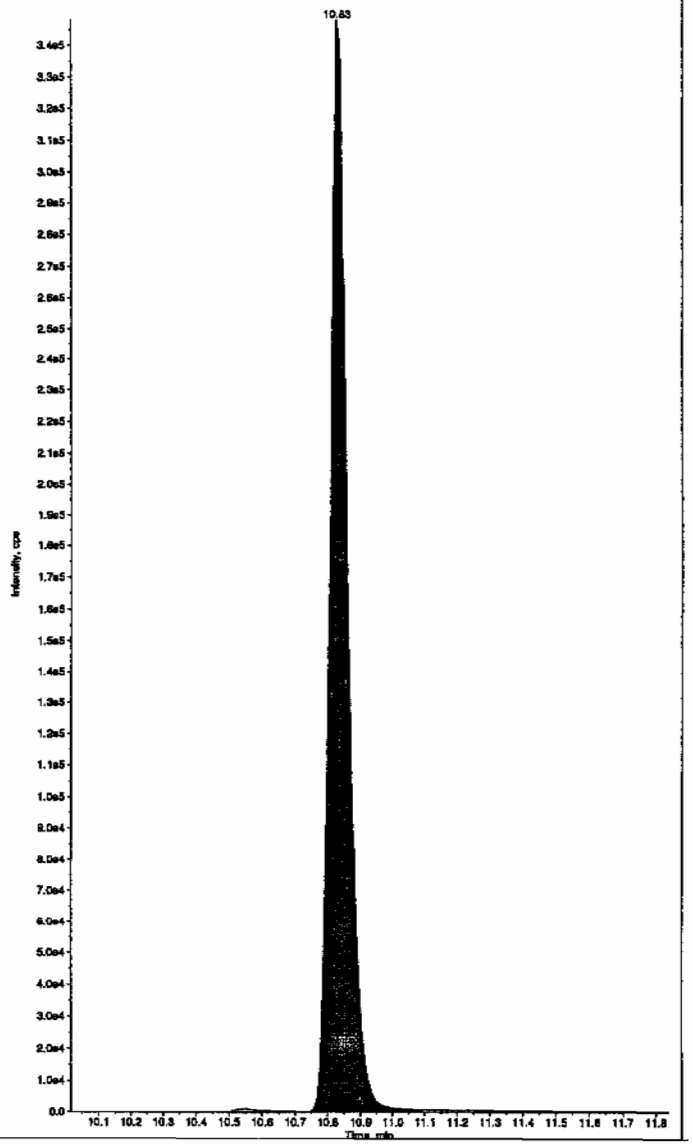

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1864

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03100024.wiff

Analysis Date: 10–MAR–10 21:32

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	519	104	
2,6–Diamino–4–nitrotoluene	500	522	104	
3,4–Dinitrotoluene	250	258	103	
3,5–Dinitroaniline	500	541	108	
TATB	500	483	97	
tris(o–cresyl) phosphate	500	480	96	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 3/13/10

ple Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100024.wiff"
: Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 500. ng/mL
lated Conc: 483. ng/mL
Date: 3/10/2010
Time: 9:32:36 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 6.92 min
elative RT: No

Type: Valley
tion Time: 6.92 min
6.86e+005 counts
t: 158058.670 cps
Time: 6.83 min
ime: 7.85 min

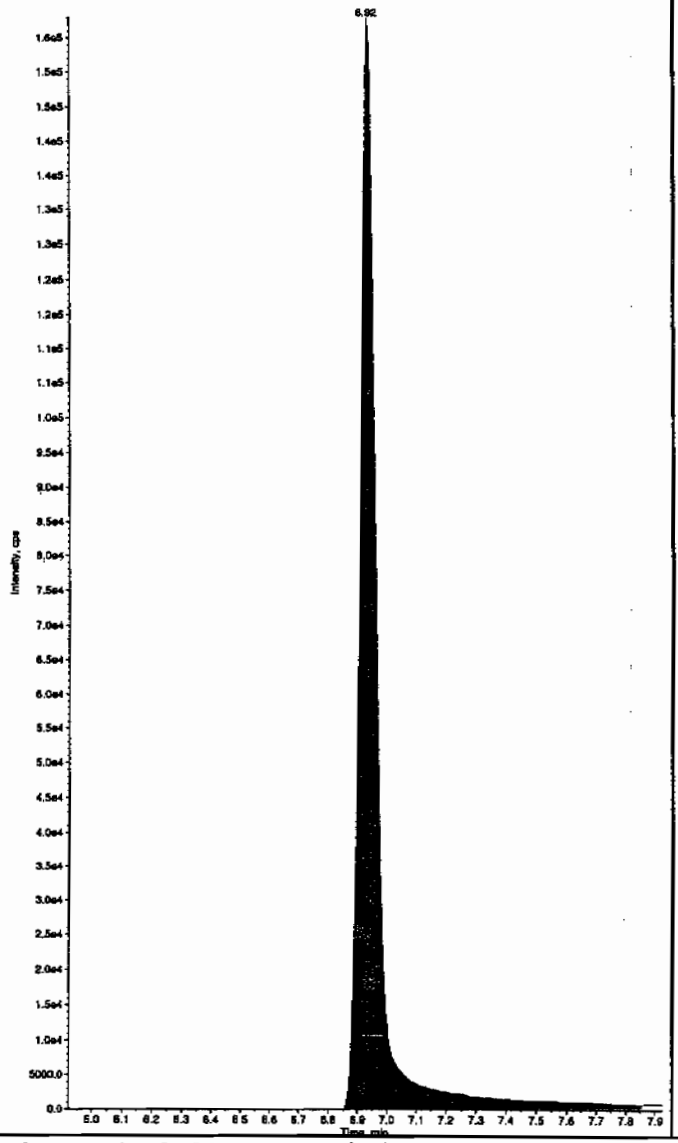

Sample Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 528. ng/mL
Acq. Date: 3/10/2010
Acq. Time: 9:32:36 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.16 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.16 min
Area: 3.72e+006 counts
Height: 972553.406 cps
Start Time: 8.09 min
End Time: 8.29 min

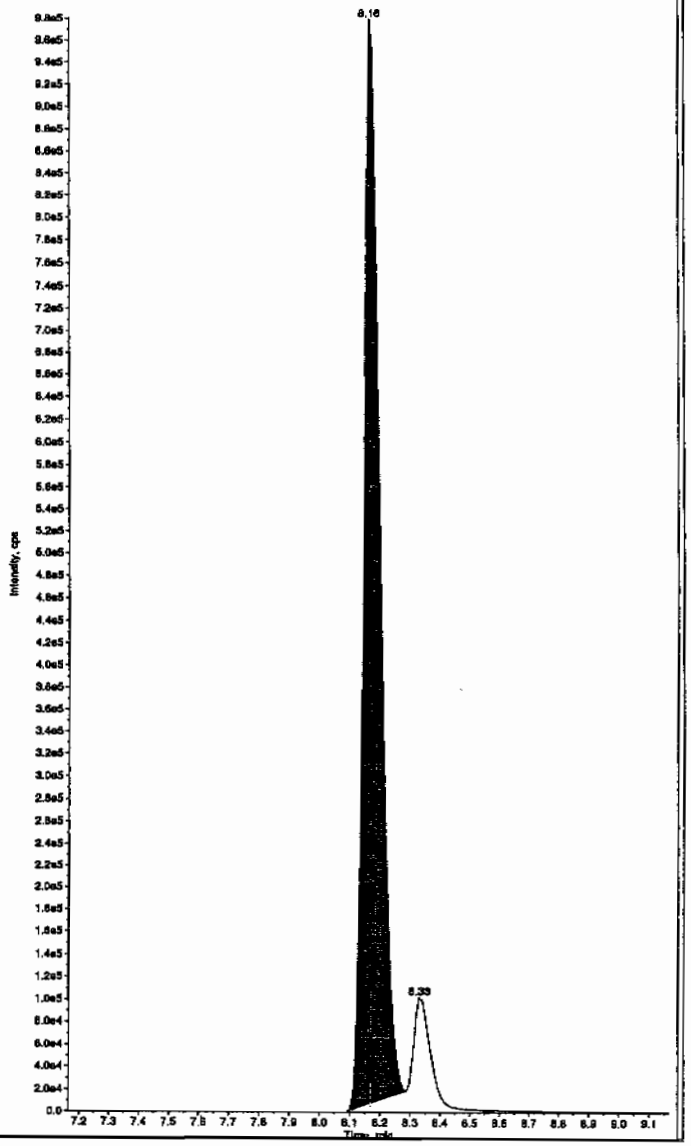

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

after Ran 3/13/10

ple Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100024.wiff"
k Name: "TATB" Mass(as): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 500. ng/mL
ulated Conc: 483. ng/mL
Date: 3/10/2010
Time: 9:32:36 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 6.92 min
elative RT: No

Type: Valley
tion Time: 6.92 min
6.86e+005 counts
C: 158058.670 cps
Time: 6.83 min
ime: 7.85 min

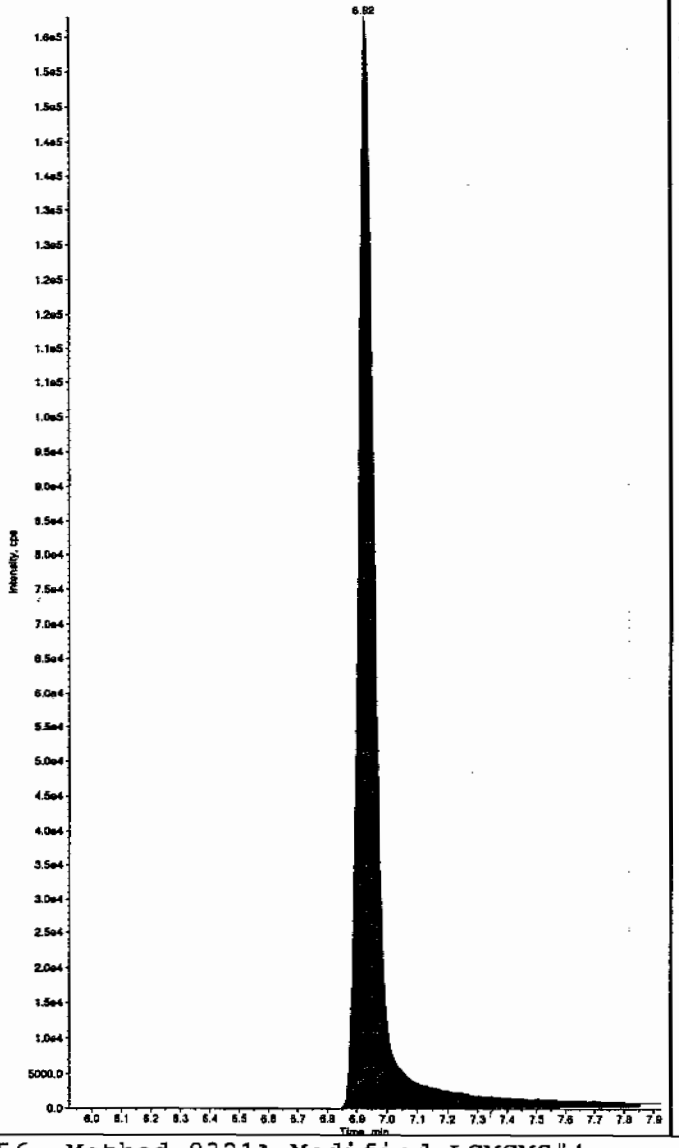

Sample Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100024.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 541. ng/mL
Acq. Date: 3/10/2010
Acq. Time: 9:32:36 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.16 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.17 min
Area: 3.80e+006 counts
Height: 988879.620 cps
Start Time: 8.09 min
End Time: 8.28 min

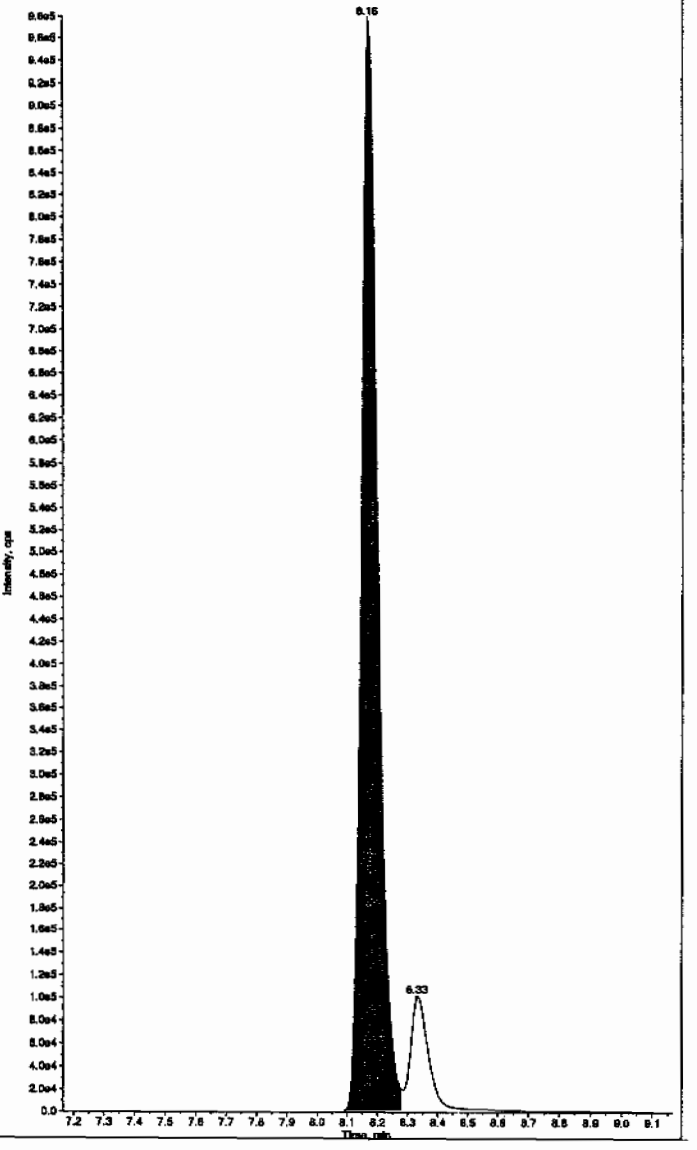

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100024.wiff"
: Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 250. ng/mL
lated Conc: 258. ng/mL
Date: 3/10/2010
Time: 9:32:36 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 15.0 sec
ted RT: 8.32 min
elative RT: No

Type: Valley
tion Time: 8.33 min
2.60e+006 counts
t: 696777.588 cps
Time: 8.26 min
ime: 8.65 min

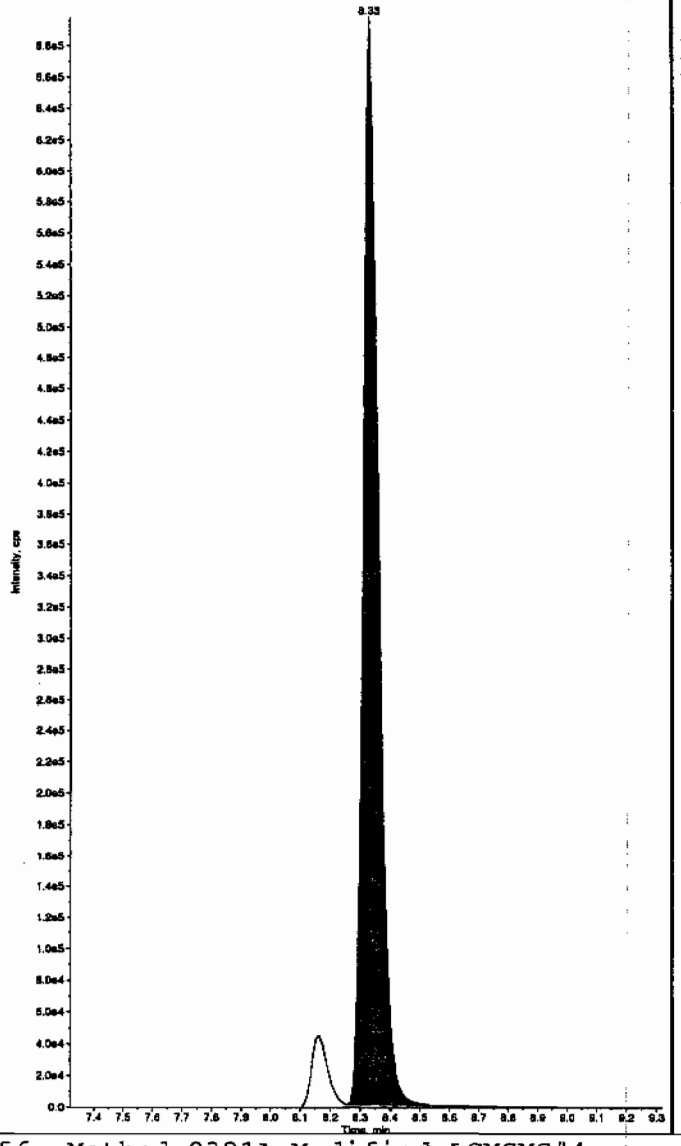

Sample Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 522. ng/mL
Acq. Date: 3/10/2010
Acq. Time: 9:32:36 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.96 min
Area: 8.00e+005 counts
Height: 193529.419 cps
Start Time: 4.87 min
End Time: 5.26 min

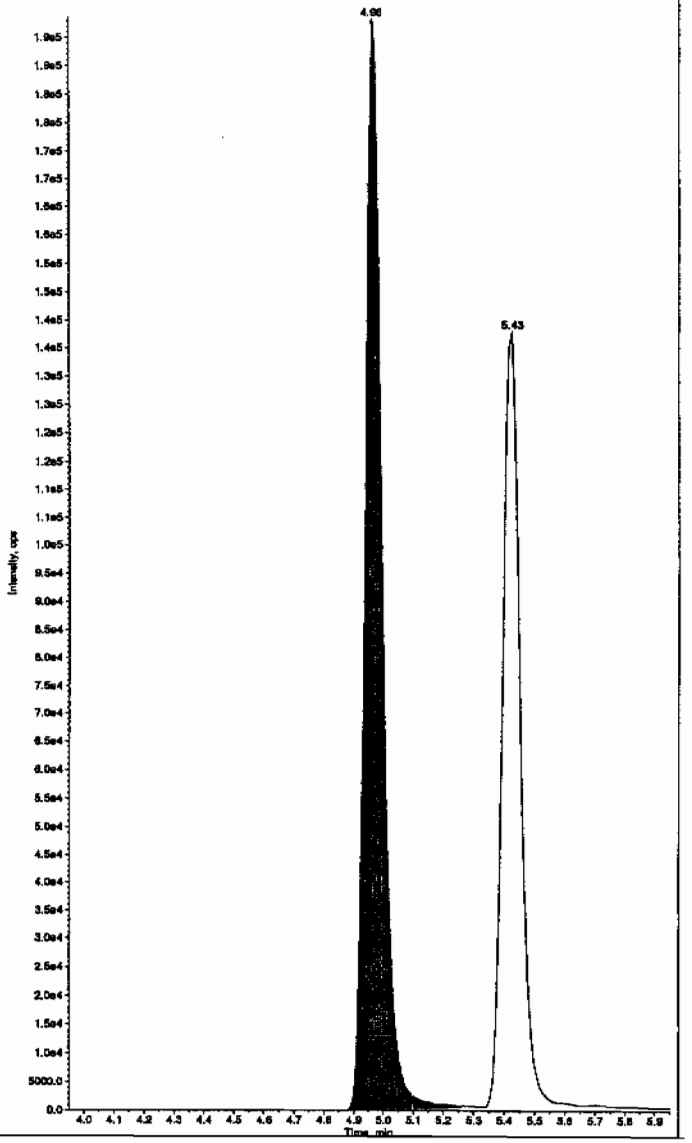

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100310-26CCV" Sample ID: "1|LER" File: "EXS03100024.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "165.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 500. ng/mL
ilated Conc: 519. ng/mL
Date: 3/10/2010
Time: 9:32:36 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.42 min
Relative RT: No

Type: Valley
ntion Time: 5.43 min
: 5.49e+005 counts
ht: 137506.027 cps
t Time: 5.32 min
Time: 5.66 min

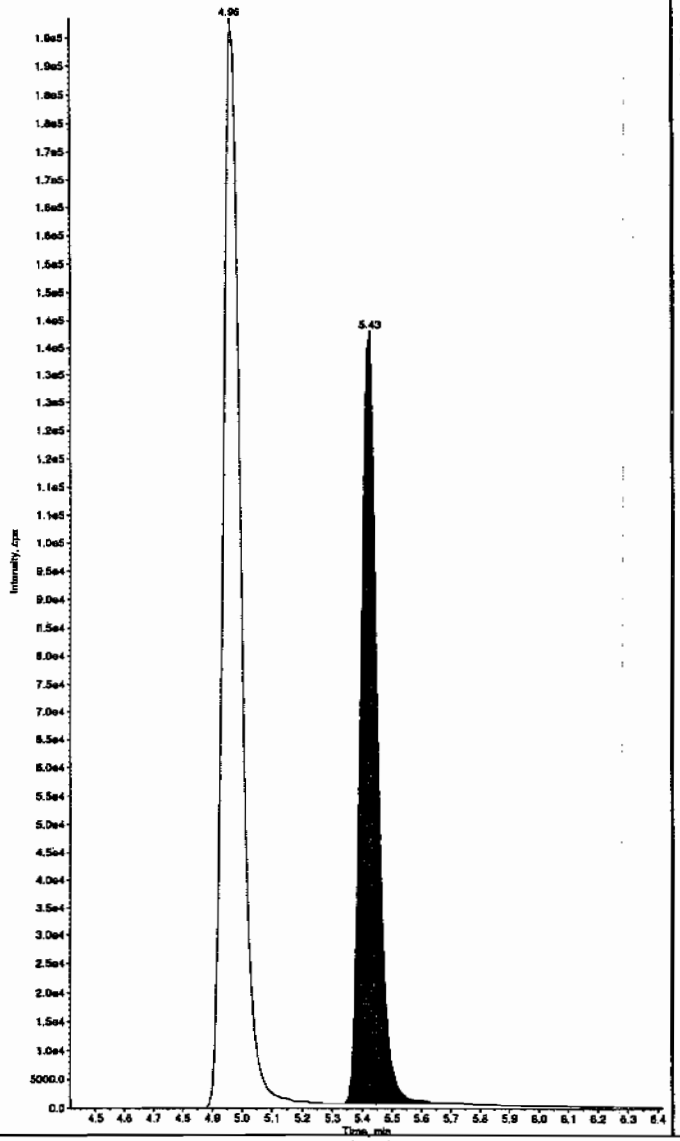

Sample Name: "WXX100310-26CCV" Sample ID: "1|LER" File: "EXS03100024.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 480. ng/mL
Acq. Date: 3/10/2010
Acq. Time: 9:32:36 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 6.09e+006 counts
Height: 1499399.048 cps
Start Time: 10.7 min
End Time: 11.1 min

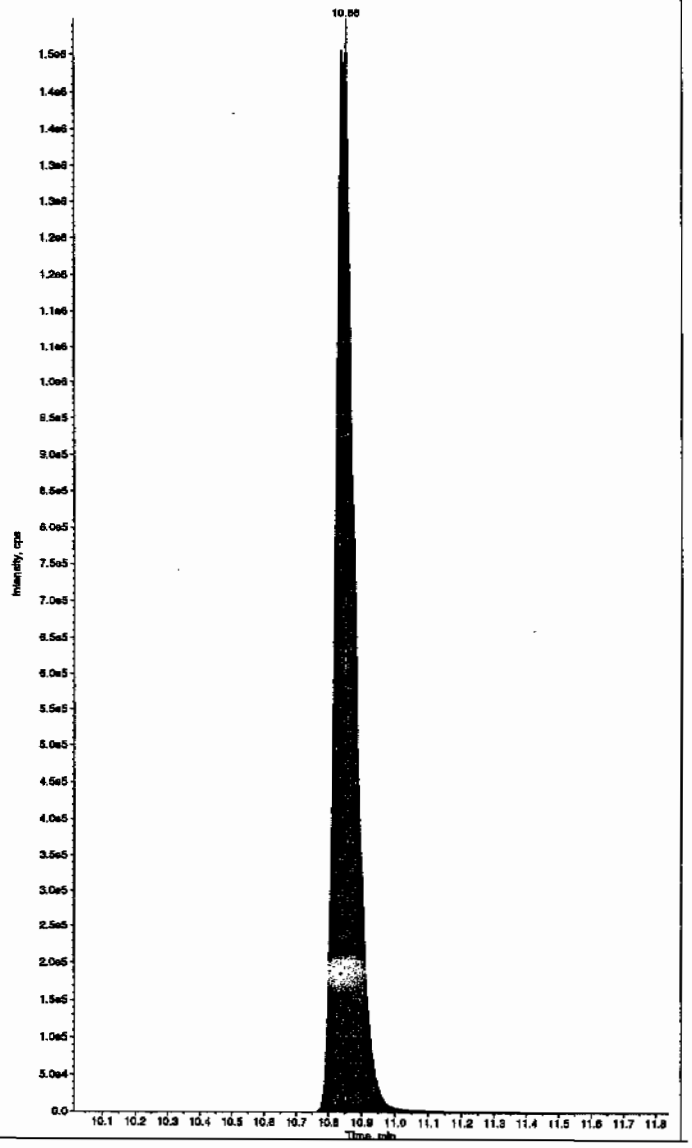

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1864

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03100026.wiff

Analysis Date: 10–MAR–10 22:04

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
3,4–Dinitrotoluene	50	50	100	
3,5–Dinitroaniline	100	88.4	88	
TATB	100	91.2	91	
tris(o–cresyl) phosphate	100	98.2	98	
2,6–Diamino–4–nitrotoluene	100	101	101	
2,4–Diamino–6–nitrotoluene	100	104	104	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Scan 3/13/10

nple Name: "WXX100310-27CRI" Sample ID: "|1|LER" File: "EXS03100026.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index:	1	
le Type:	QC	
entration:	100.	ng/mL
lated Conc:	91.2	ng/mL
Date:	3/10/2010	
Time:	10:04:01 PM	
fied:	No	
Algorithm:	IntelliQuan - IQA	
Peak Height:	2500.00	cps
Peak Width:	0.00	sec
thing Width:	3	points
indow:	30.0	sec
cted:	6.92	min
elative RT:	No	
Type:	Valley	
ntion Time:	6.93	min
:	1.17e+005	counts
t:	30209.900	cps
Time:	6.85	min
Time:	7.20	min

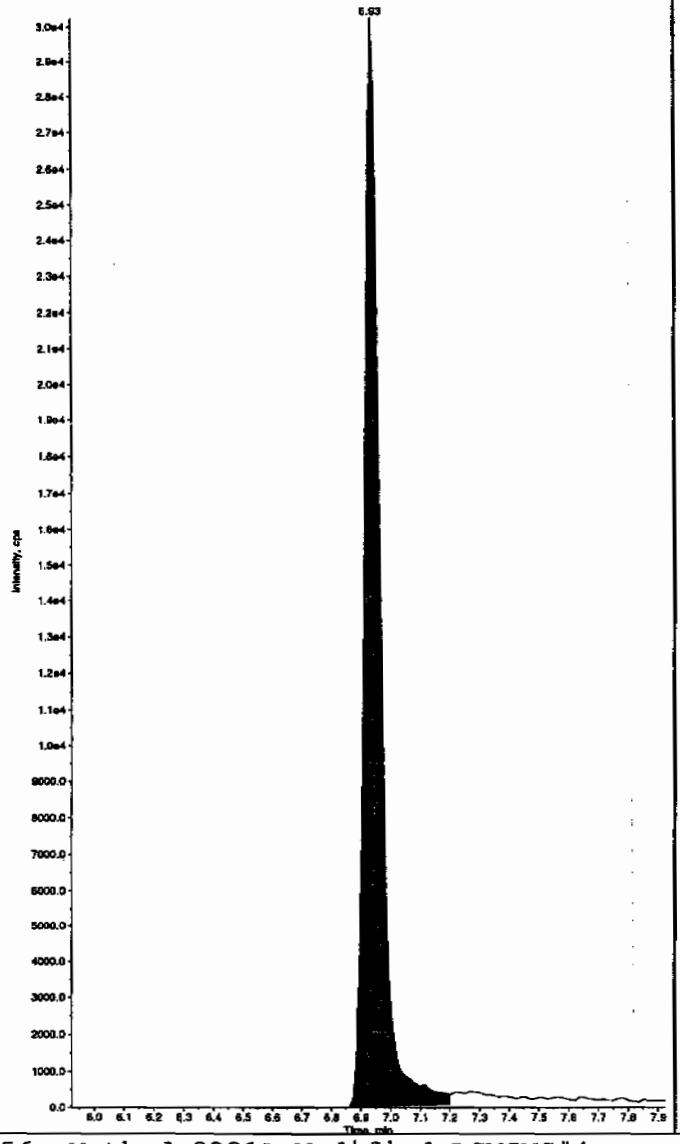

Sample Name: "WXX100310-27CRI" Sample ID: "|1|LER" File: "EXS03100026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	88.4	ng/mL
Acq. Date:	3/10/2010	
Acq. Time:	10:04:01 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.16	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.17	min
Area:	7.98e+005	counts
Height:	199310.104	cps
Start Time:	8.06	min
End Time:	8.30	min

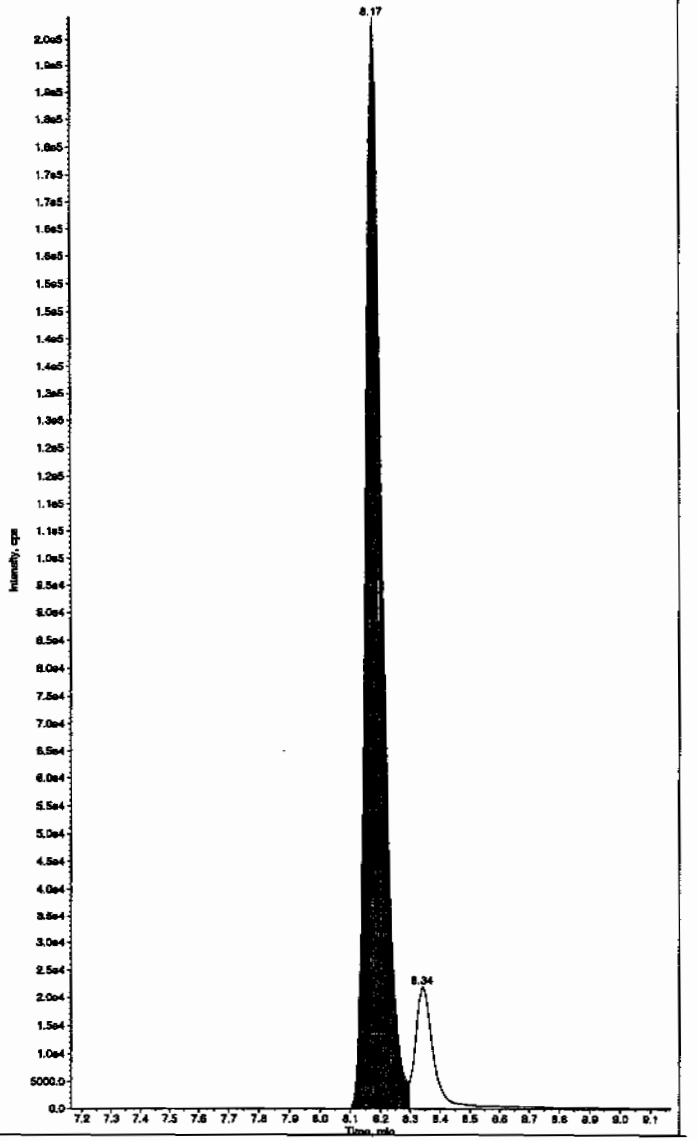

Hmm 03/15/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100026.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: ""

```
e Index:          1
e Type:             QC
ntration:        50.0     ng/mL
lated Conc:      50.0     ng/mL
Date:         3/10/2010
Time:         10:04:01 PM

ied:              No
 Algorithm: IntelliQuan - IQA
Peak Height:1460.00    cps
Peak Width:     0.00    sec
hing Width:  3        points
ndow:          15.0     sec
ted RT:         8.34    min
elative RT:      No

Type:          Valley
tion Time:      8.34    min
          5.37e+005    counts
t:          144983.612  cps
 Time:          8.27    min
ime:            8.66    min
```

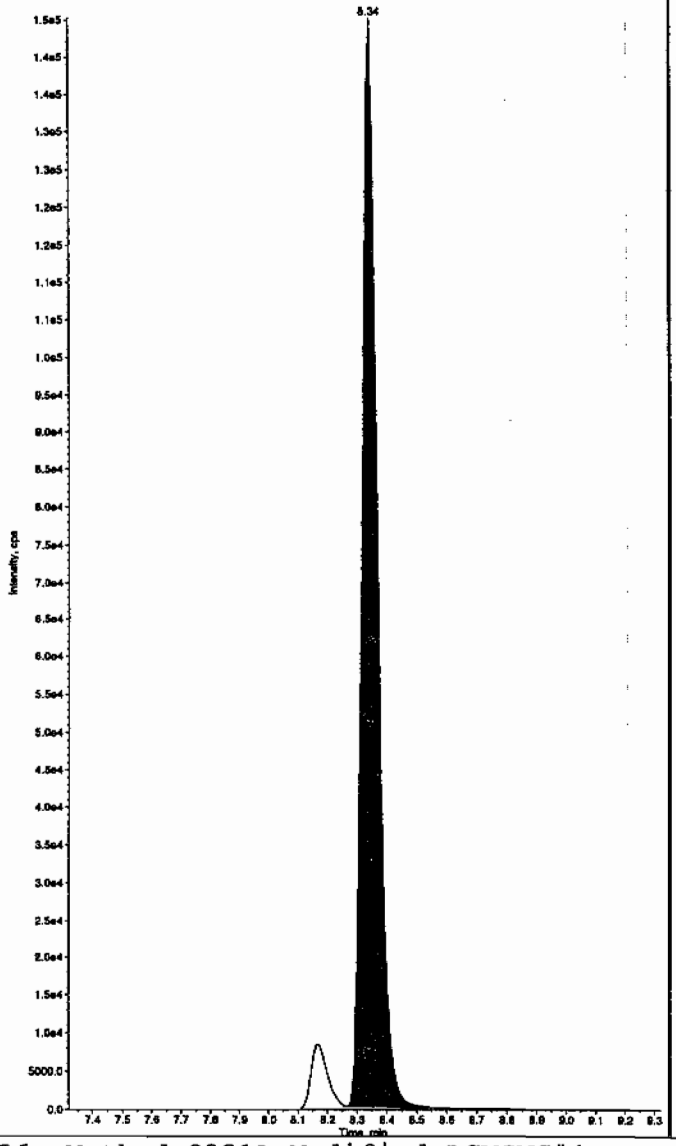

Sample Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100026.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:           QC
Concentration:      100.     ng/mL
Calculated Conc:    101.     ng/mL
Acq. Date:       3/10/2010
Acq. Time:       10:04:01 PM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:        4.95    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     4.97    min
Area:          1.55e+005   counts
Height:        38699.741   cps
Start Time:         4.88    min
End Time:           5.25    min
```

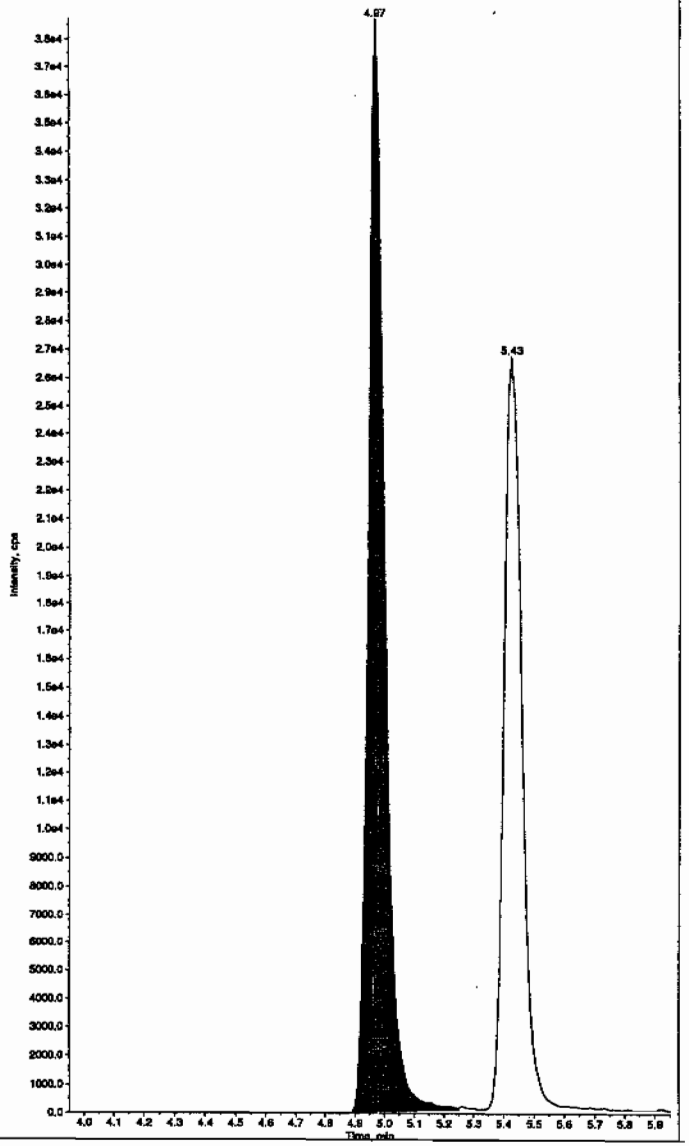

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100026.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 104. ng/mL
Date: 3/10/2010
Time: 10:04:01 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.42 min
Relative RT: No

Type: Valley
ntion Time: 5.43 min
: 1.10e+005 counts
ht: 26636.885 cps
t Time: 5.32 min
Time: 5.86 min

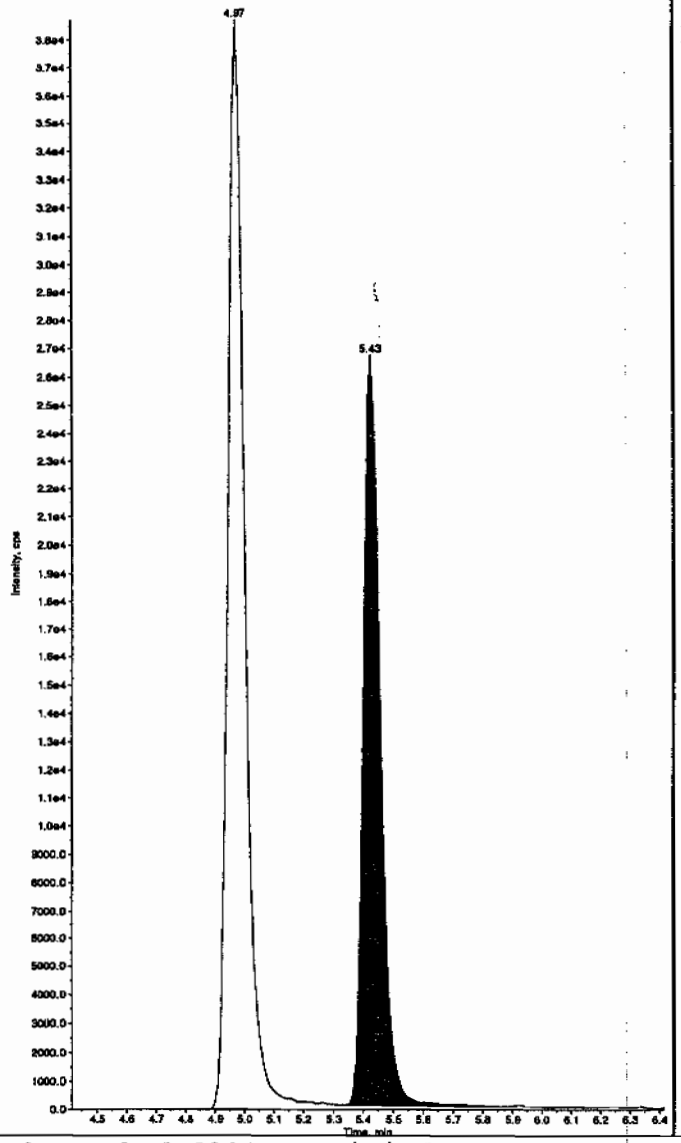

Sample Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100026.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 98.2 ng/mL
Acq. Date: 3/10/2010
Acq. Time: 10:04:01 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.36e+006 counts
Height: 337527.466 cps
Start Time: 10.7 min
End Time: 11.2 min

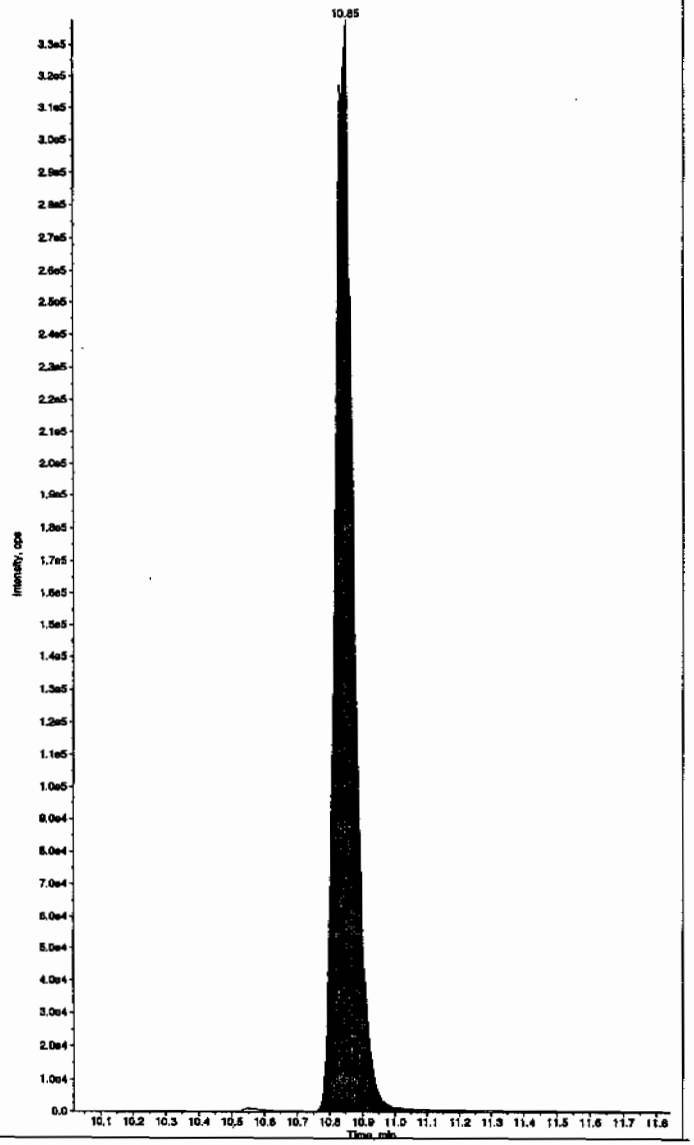

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1864

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03100037.wiff

Analysis Date: 11–MAR–10 00:56

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	546	109	
2,6–Diamino–4–nitrotoluene	500	531	106	
3,4–Dinitrotoluene	250	265	106	
3,5–Dinitroaniline	500	561	112	
TATB	500	471	94	
tris(o–cresyl) phosphate	500	478	96	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

SCL 3/13/10

nple Name: "WXX100310-25CCV" Sample ID: "|1|LER" File: "EXS03100037.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index:	1	
le Type:	QC	
entration:	500.	ng/mL
ulated Conc:	471.	ng/mL
Date:	3/11/2010	
Time:	12:56:47 AM	
fied:	No	
. Algorithm:	IntelliQuan - IQA	
Peak Height:	2500.00	cps
Peak Width:	0.00	sec
thing Width:	3	points
indow:	30.0	sec
cted RT:	6.92	min
Relative RT:	No	
Type:	Valley	
ction Time:	6.92	min
:	6.69e+005	counts
ht:	154032.074	cps
: Time:	6.83	min
Time:	7.70	min

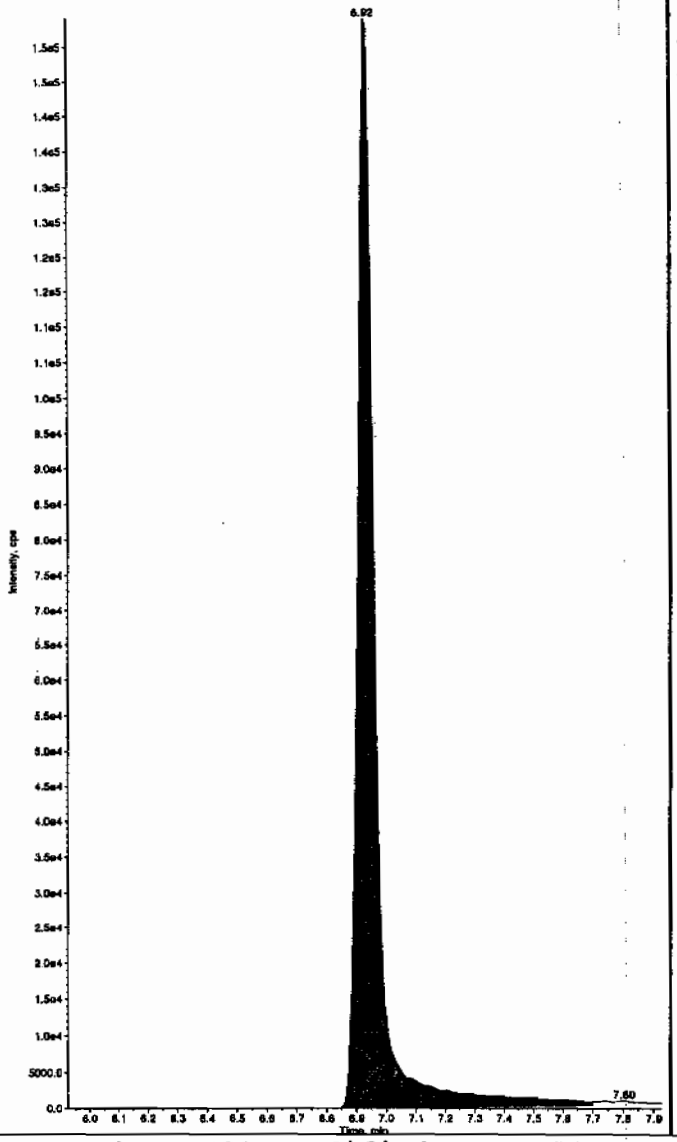

Sample Name: "WXX100310-26CCV" Sample ID: "|1|LER" File: "EXS03100037.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	561.	ng/mL
Acq. Date:	3/11/2010	
Acq. Time:	12:56:47 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.16	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.16	min
Area:	3.94e+006	counts
Height:	983121.094	cps
Start Time:	8.06	min
End Time:	8.29	min

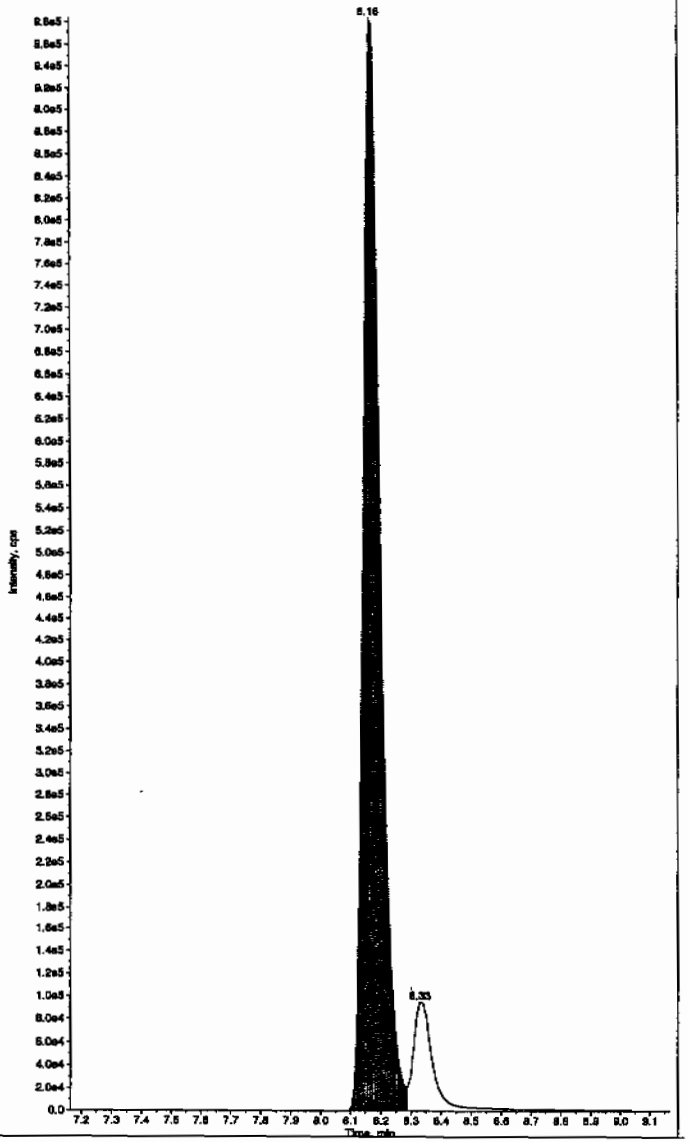

Hnm 03/15/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100310-25CCV" Sample ID: "[1]LER" File: "EXS03100037.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: "

e Index:	1
e Type:	QC
ntration:	250. ng/mL
lated Conc:	265. ng/mL
Date:	3/11/2010
Time:	12:56:47 AM
ied:	No
Algorithm:	IntelliQuan - IQA
Peak Height:	1460.00 cps
Peak Width:	0.00 sec
hing Width:	3 points
ndow:	15.0 sec
ted RT:	8.32 min
elative RT:	No
Type:	Valley
tion Time:	8.33 min
	2.67e+006 counts
t:	717082.520 cps
Time:	8.26 min
ime:	8.69 min

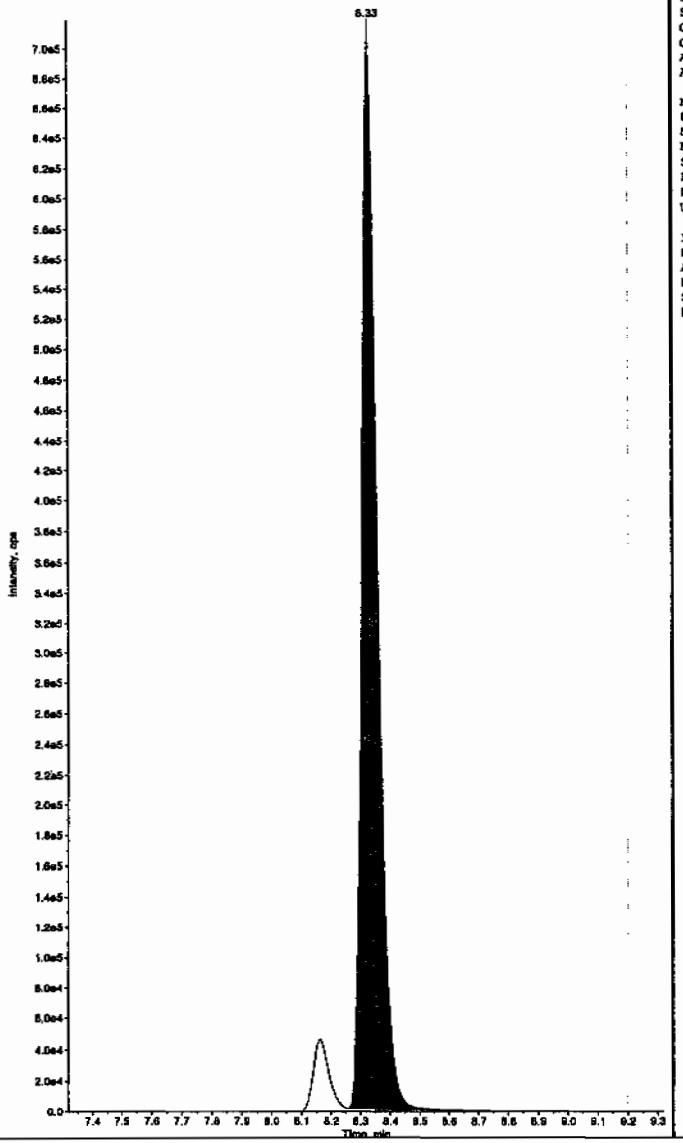

Sample Name: "WXX100310-25CCV" Sample ID: "[1]LER" File: "EXS03100037.wiff"
Peak Name: "25-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	531. ng/mL
Acq. Date:	3/11/2010
Acq. Time:	12:56:47 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	450.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	4.95 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	4.96 min
Area:	8.14e+005 counts
Height:	200217.407 cps
Start Time:	4.87 min
End Time:	5.26 min

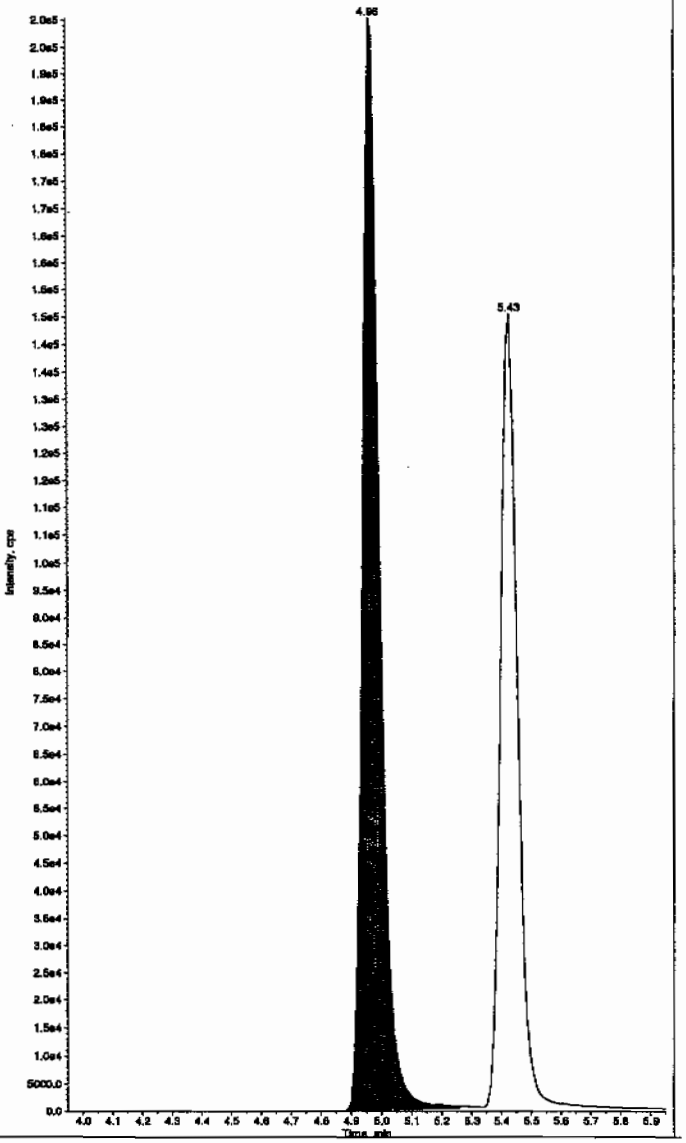

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100310-26CCV" Sample ID: "|1|LER" File: "EXS03100037.wiff"
k Name: "24-Diamino-5-nitrotoluene" Mass(es): "165.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: I
le Type: QC
entration: 500. ng/mL
ulated Conc: 546. ng/mL
Date: 3/11/2010
Time: 12:56:47 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.42 min
Relative RT: No

Type: Valley
ntion Time: 5.43 min
: 5.77e+005 counts
ht: 144970.825 cps
t Time: 5.33 min
Time: 5.86 min

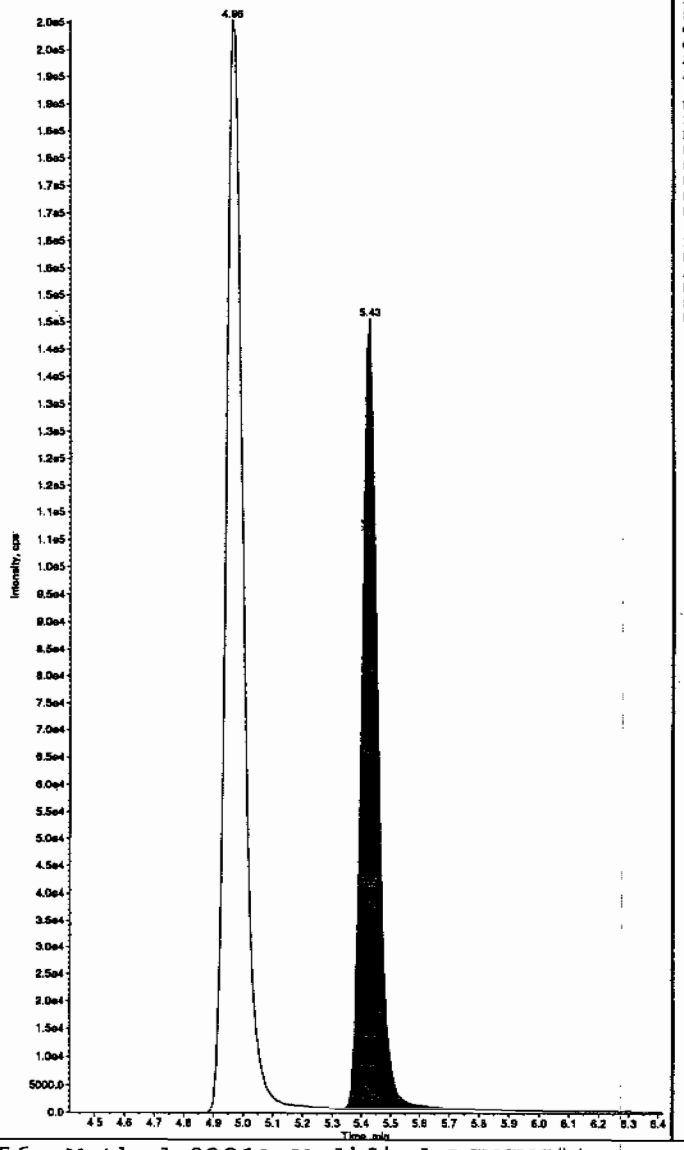

Sample Name: "WXX100310-26CCV" Sample ID: "|1|LER" File: "EXS03100037.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 478. ng/mL
Acq. Date: 3/11/2010
Acq. Time: 12:56:47 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 6.07e+006 counts
Height: 1434870.972 cps
Start Time: 10.7 min
End Time: 11.2 min

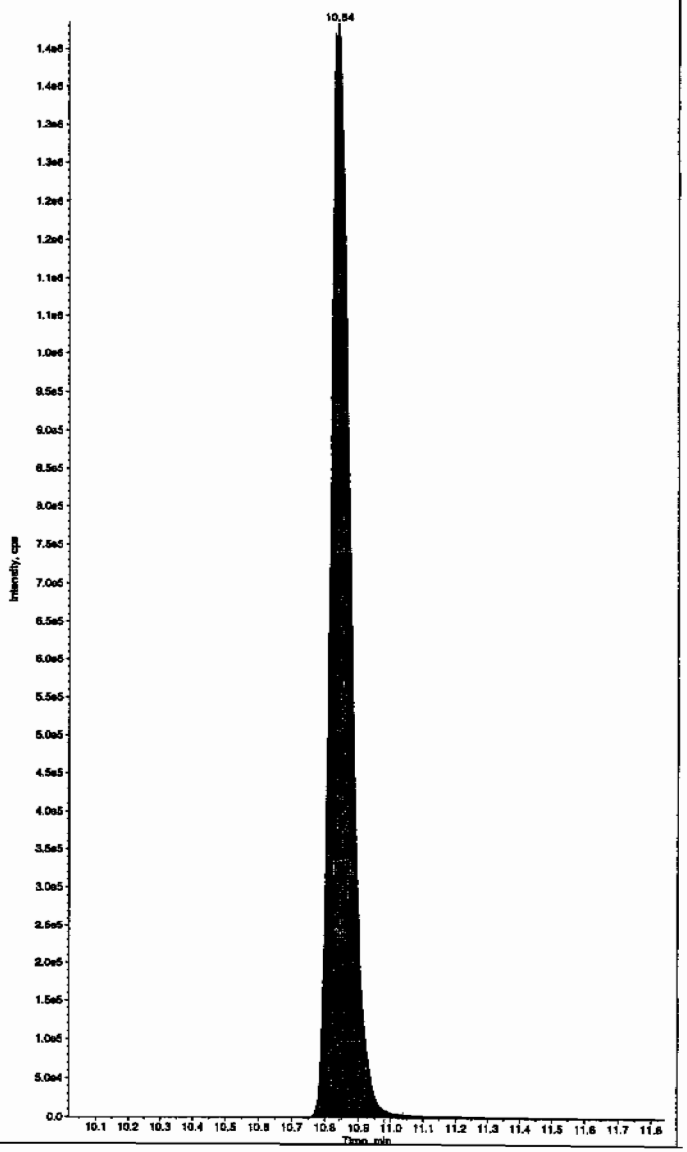

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1864

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03100039.wiff

Analysis Date: 11-MAR-10 01:28

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	108	108	
2,6-Diamino-4-nitrotoluene	100	107	107	
3,4-Dinitrotoluene	50	50.3	101	
3,5-Dinitroaniline	100	87.8	88	
TATB	100	93.6	94	
tris(o-cresyl) phosphate	100	95.4	95	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

LCR 3/13/10

ple Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100039.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 100. ng/mL
lated Conc: 93.6 ng/mL
Date: 3/11/2010
Time: 1:28:11 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 6.92 min
elative RT: No

Type: Valley
tion Time: 6.92 min
1.21e+005 counts
t: 29508.844 cps
Time: 6.83 min
ime: 7.47 min

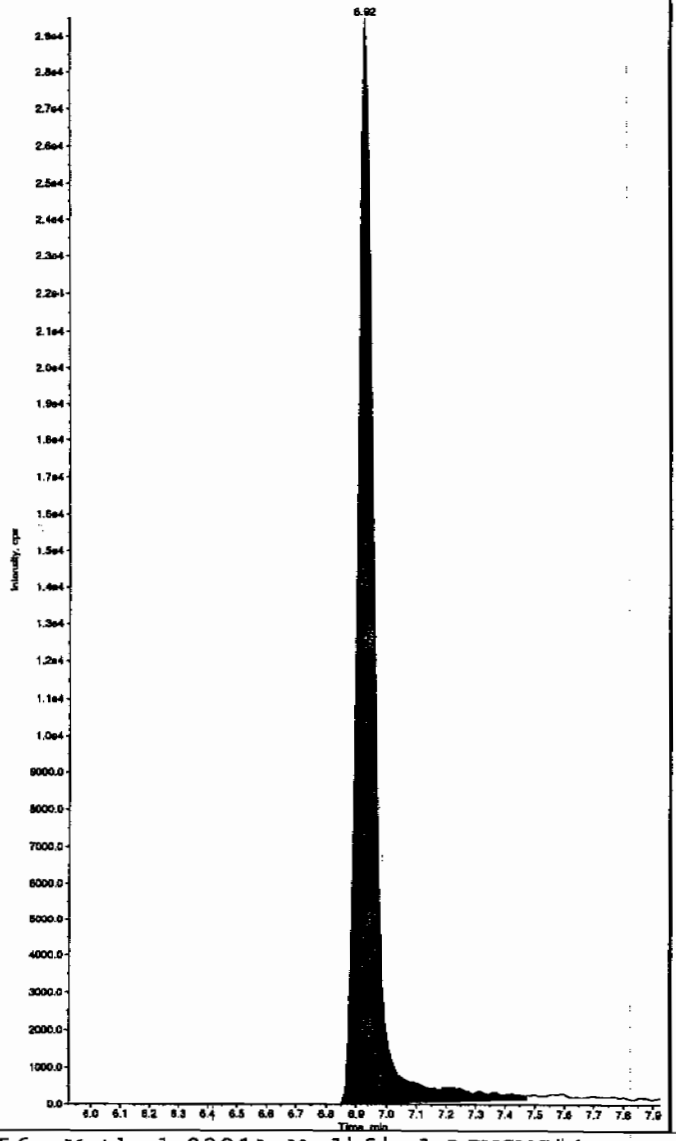

Sample Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100039.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 87.8 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 1:28:11 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.16 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.16 min
Area: 7.94e+005 counts
Height: 205333.389 cps
Start Time: 8.07 min
End Time: 8.28 min

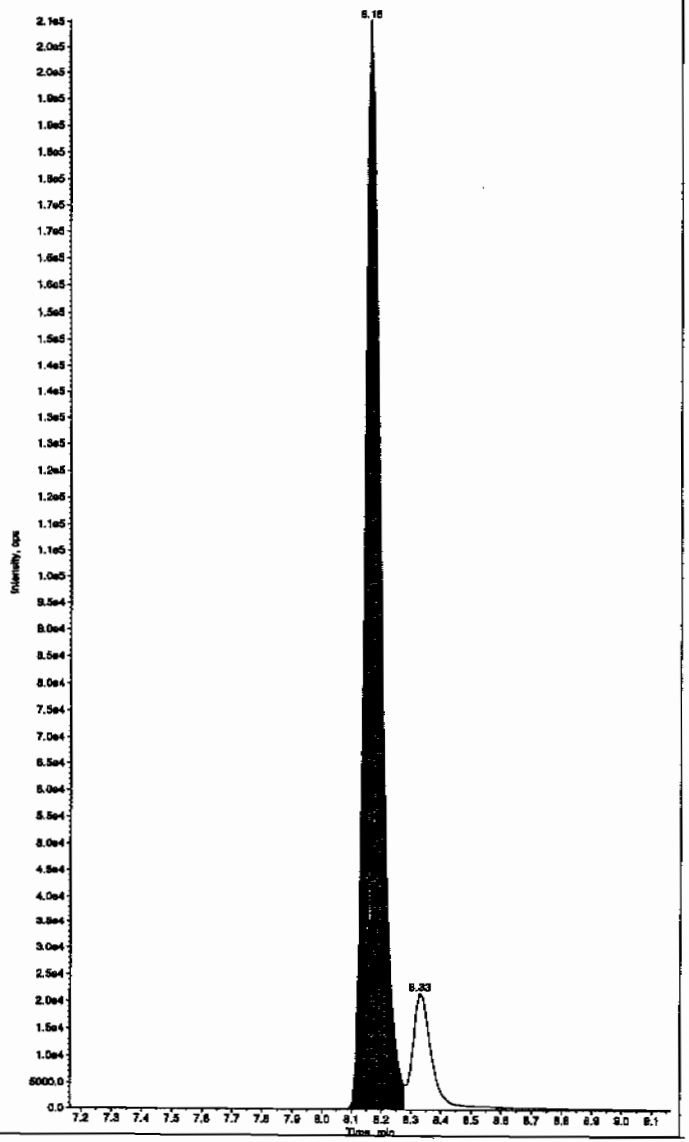

Hmm 03/15/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100039.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index: 1
e Type: QC
ntration: 50.0 ng/mL
lated Conc: 50.3 ng/mL
Date: 3/11/2010
Time: 1:28:11 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 15.0 sec
ted RT: 8.32 min
elative RT: No

Type: Valley
tion Time: 8.33 min
5.39e+005 counts
t: 143335.968 cps
Time: 8.26 min
ime: 8.58 min

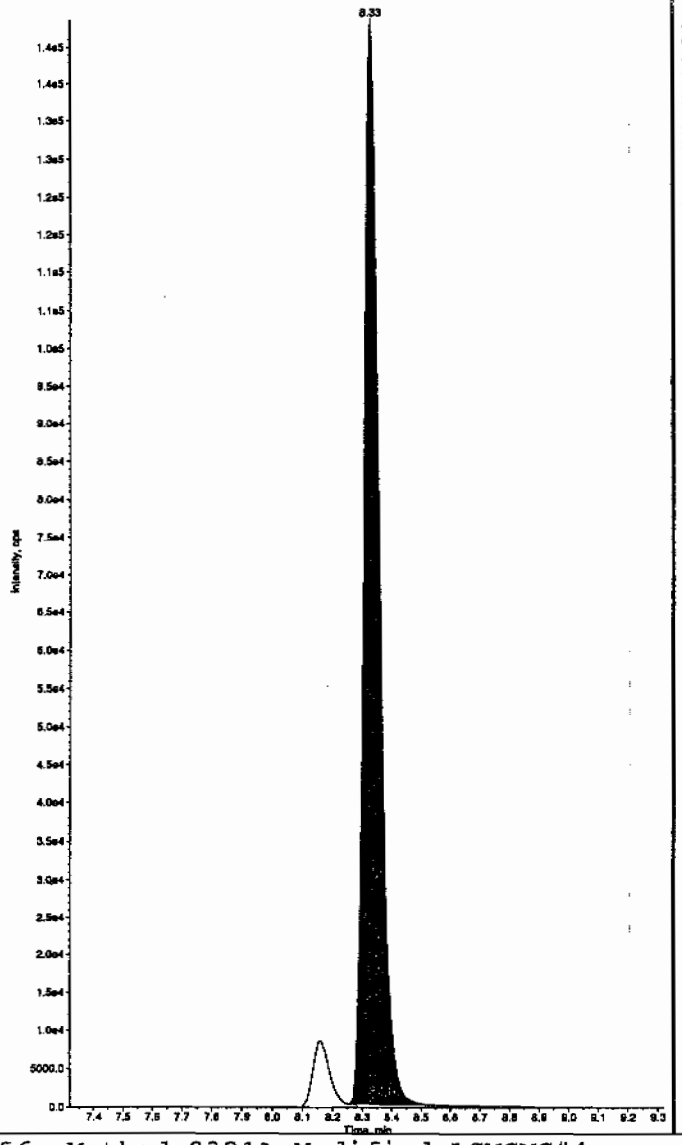

Sample Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100039.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 107. ng/mL
Acq. Date: 3/11/2010
Acq. Time: 1:28:11 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.96 min
Area: 1.64e+005 counts
Height: 40503.166 cps
Start Time: 4.83 min
End Time: 5.26 min

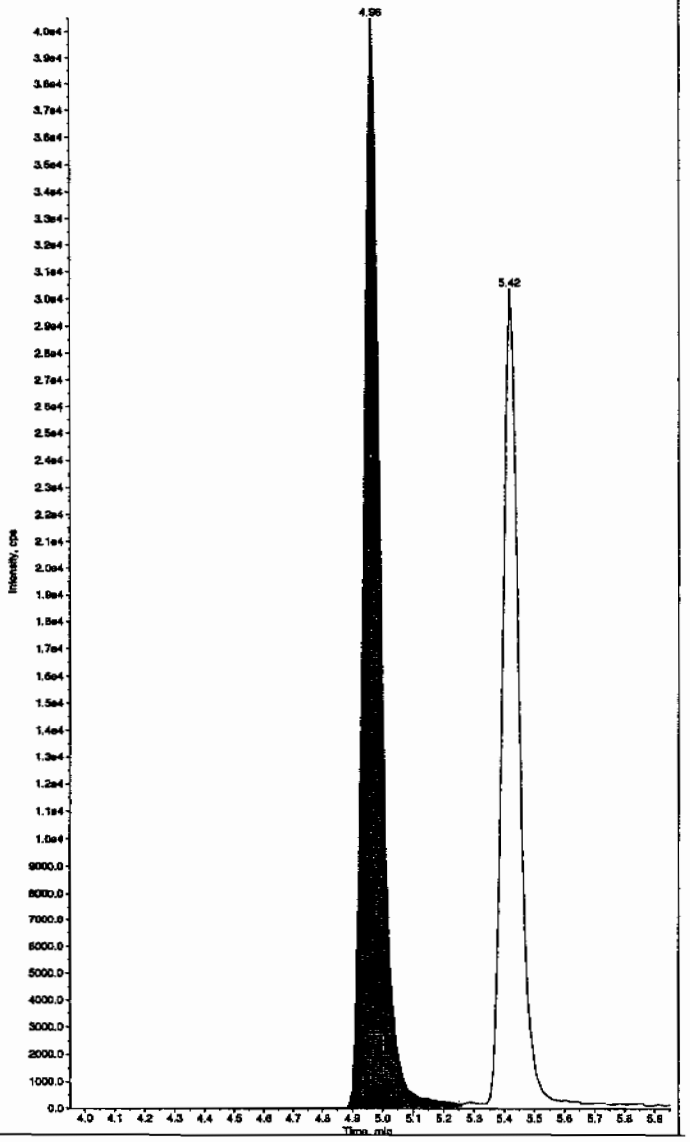

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100039.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""

.e Index: 1
.e Type: QC
ntration: 100. ng/mL
ilated Conc: 108. ng/mL
Date: 3/11/2010
Time: 1:28:11 AM

fied: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
ndow: 30.0 sec
cted: 5.42 min
telative RT: No

Type: Valley
tion Time: 5.42 min
1.14e+005 counts
t: 30214.819 cps
Time: 5.32 min
Time: 5.66 min

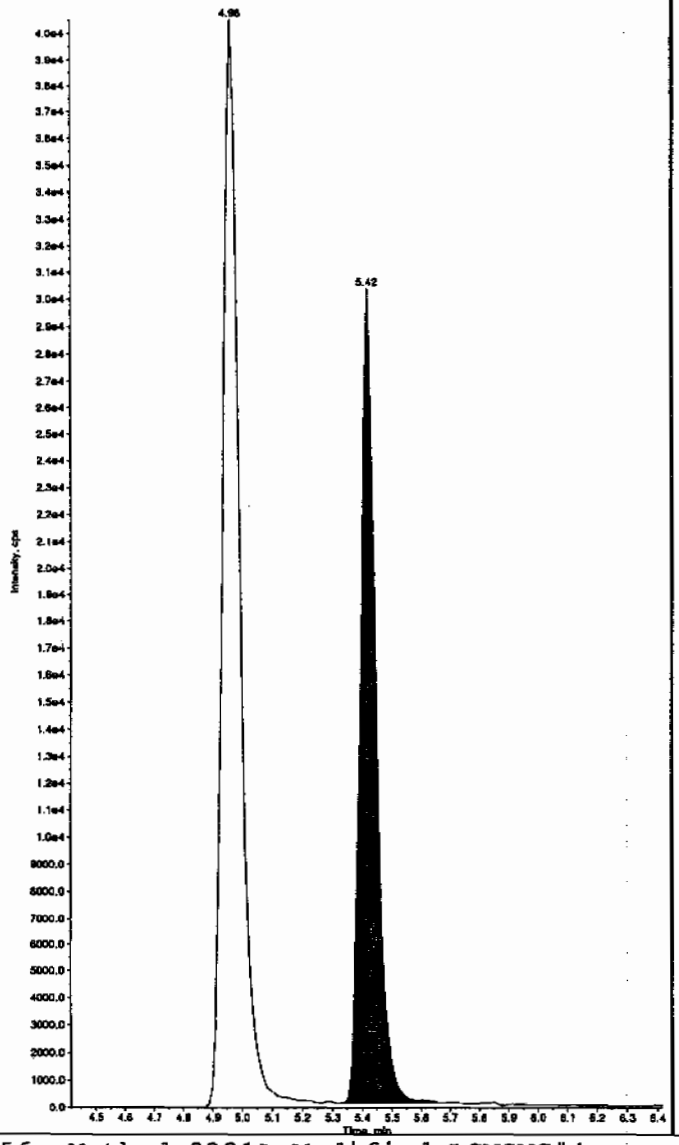

Sample Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100039.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 95.4 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 1:28:11 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.32e+006 counts
Height: 335501.434 cps
Start Time: 10.7 min
End Time: 11.1 min

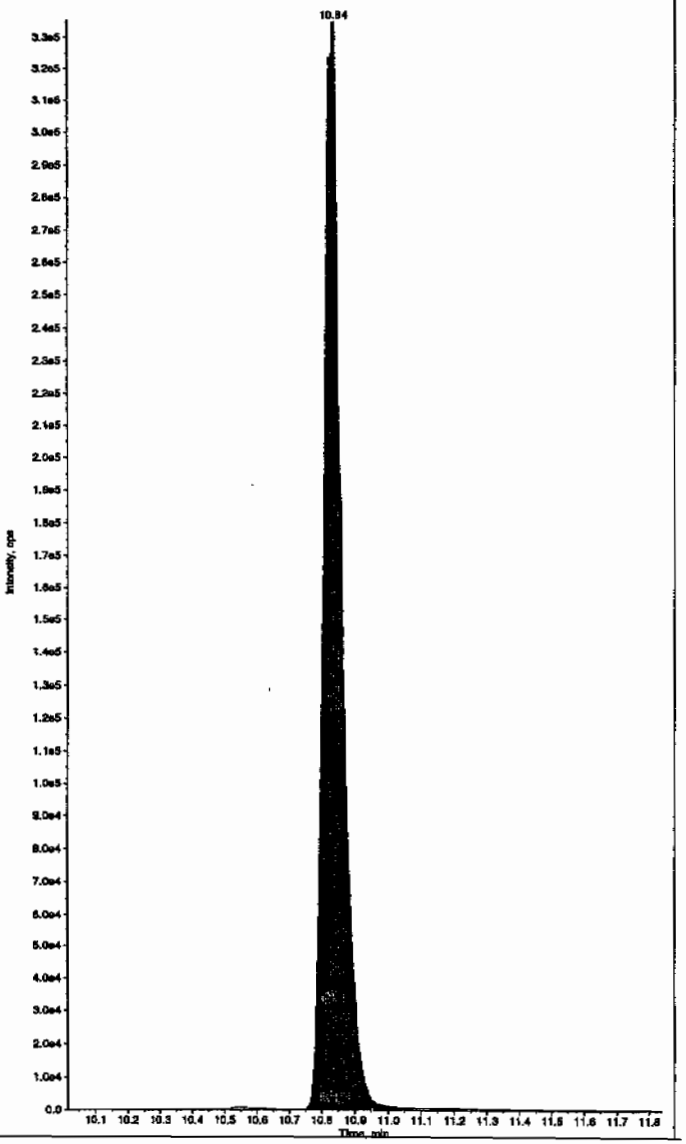

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1864

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03100044.wiff

Analysis Date: 11–MAR–10 02:46

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	566	113	
2,6–Diamino–4–nitrotoluene	500	543	109	
3,4–Dinitrotoluene	250	268	107	
3,5–Dinitroaniline	500	562	112	
TATB	500	493	99	
tris(o–cresyl) phosphate	500	470	94	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 3/14/10

ple Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100044.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""

e Index:	1	
e Type:	QC	
ntration:	500.	ng/mL
lated Conc:	493.	ng/mL
Date:	3/11/2010	
Time:	2:46:46 AM	
ied:	No	
Algorithm:	IntelliQuan - IQA	
Peak Height:	2500.00	cps
Peak Width:	0.00	sec
hing Width:	3	points
ndow:	30.0	sec
ted RT:	6.92	min
elative RT:	No	
Type:	Valley	
tion Time:	6.93	min
	7.01e+005	counts
t:	162431.442	cps
Time:	6.82	min
ime:	7.74	min

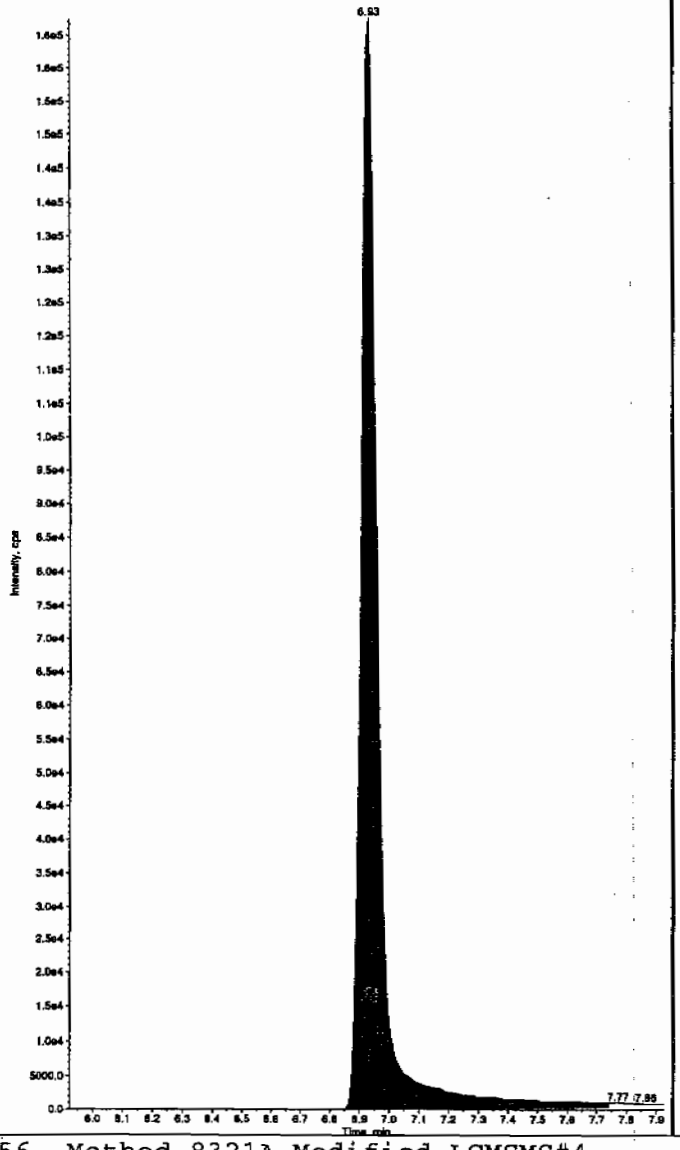

Sample Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100044.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	562.	ng/mL
Acq. Date:	3/11/2010	
Acq. Time:	2:46:46 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.16	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.17	min
Area:	3.94e+006	counts
Height:	997615.479	cps
Start Time:	8.08	min
End Time:	8.29	min

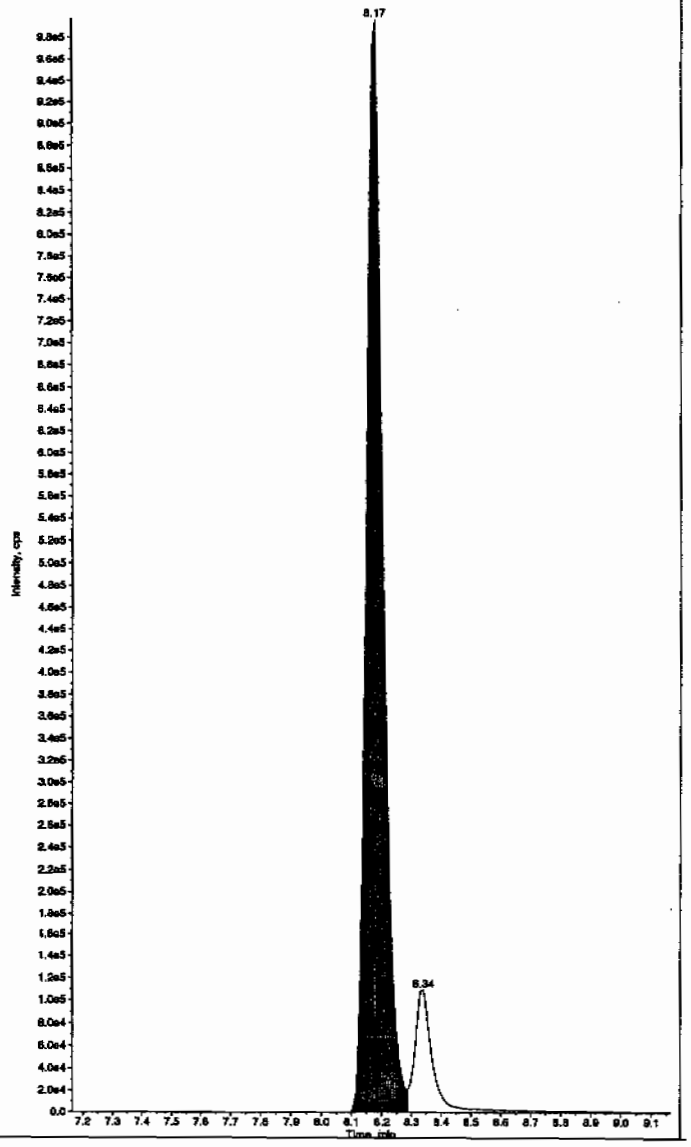

Hmm 03/15/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100310-25CCV" Sample ID: "[1]LER" File: "EXS03100044.wiff"
: Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 250. ng/mL
lated Conc: 268. ng/mL
Date: 3/11/2010
Time: 2:46:46 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 15.0 sec
ted RT: 8.32 min
elative RT: No

Type: Valley
tion Time: 8.33 min
2.69e+006 counts
t: 746569.519 cps
Time: 8.26 min
ime: 8.65 min

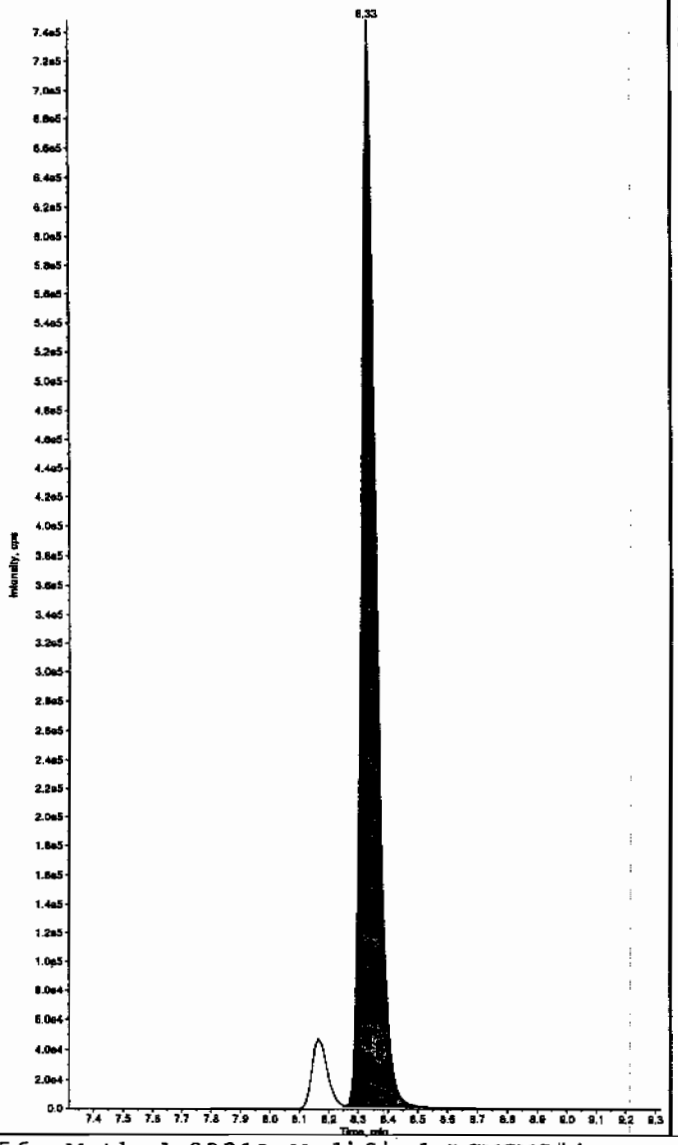

Sample Name: "WXX100310-25CCV" Sample ID: "[1]LER" File: "EXS03100044.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 543. ng/mL
Acq. Date: 3/11/2010
Acq. Time: 2:46:46 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.96 min
Area: 8.31e+005 counts
Height: 203297.394 cps
Start Time: 4.87 min
End Time: 5.26 min

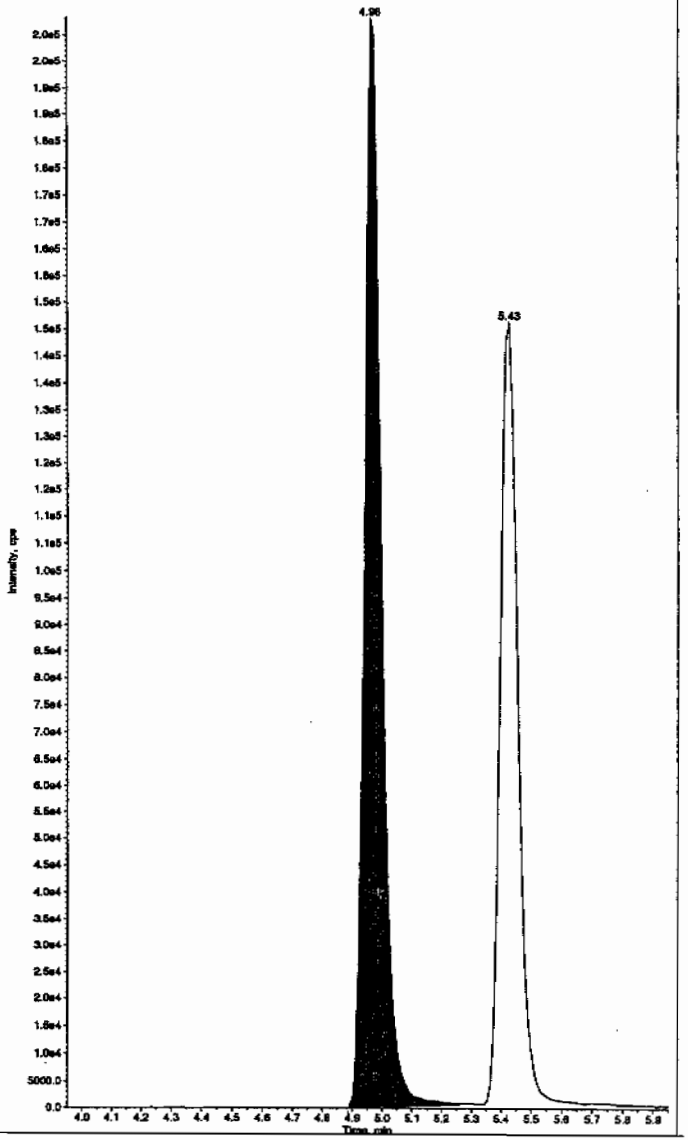

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ples Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100044.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
ntration: 500. ng/mL
ulated Conc: 566. ng/mL
Date: 3/11/2010
Time: 2:46:46 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
ndow: 30.0 sec
cted RT: 5.42 min
elative RT: No

Type: Valley
tion Time: 5.43 min
5.98e+005 counts
t: 145700.638 cps
Time: 5.33 min
Time: 5.67 min

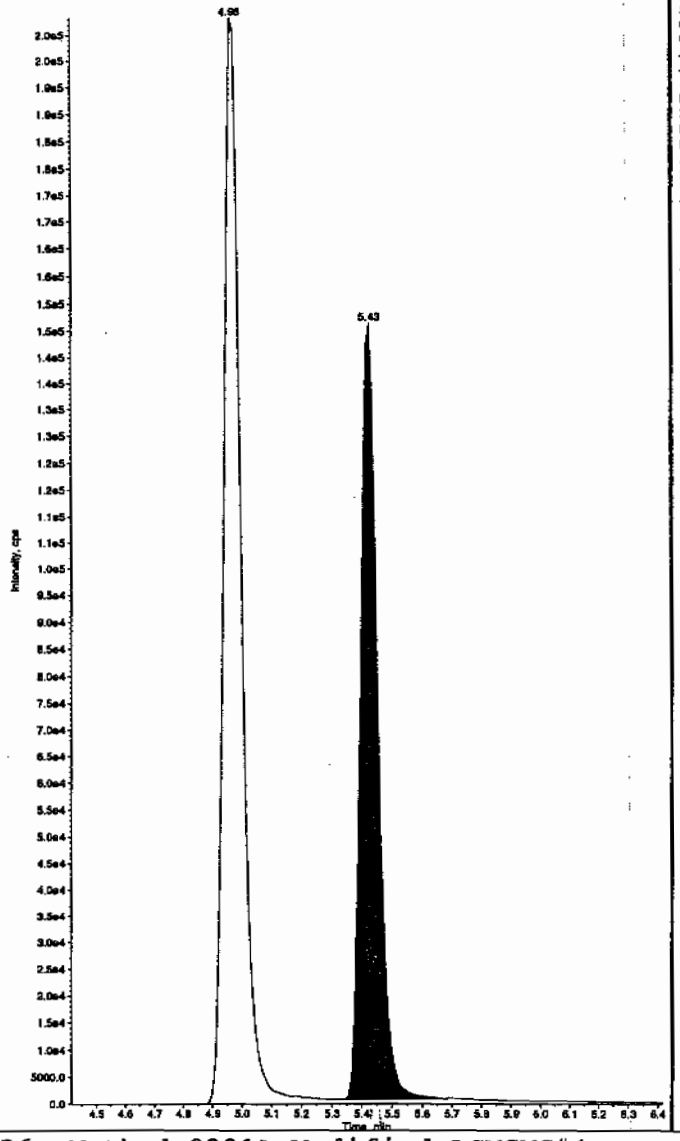

Sample Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100044.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 470. ng/mL
Acq. Date: 3/11/2010
Acq. Time: 2:46:46 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 5.97e+006 counts
Height: 1468909.424 cps
Start Time: 10.7 min
End Time: 11.2 min

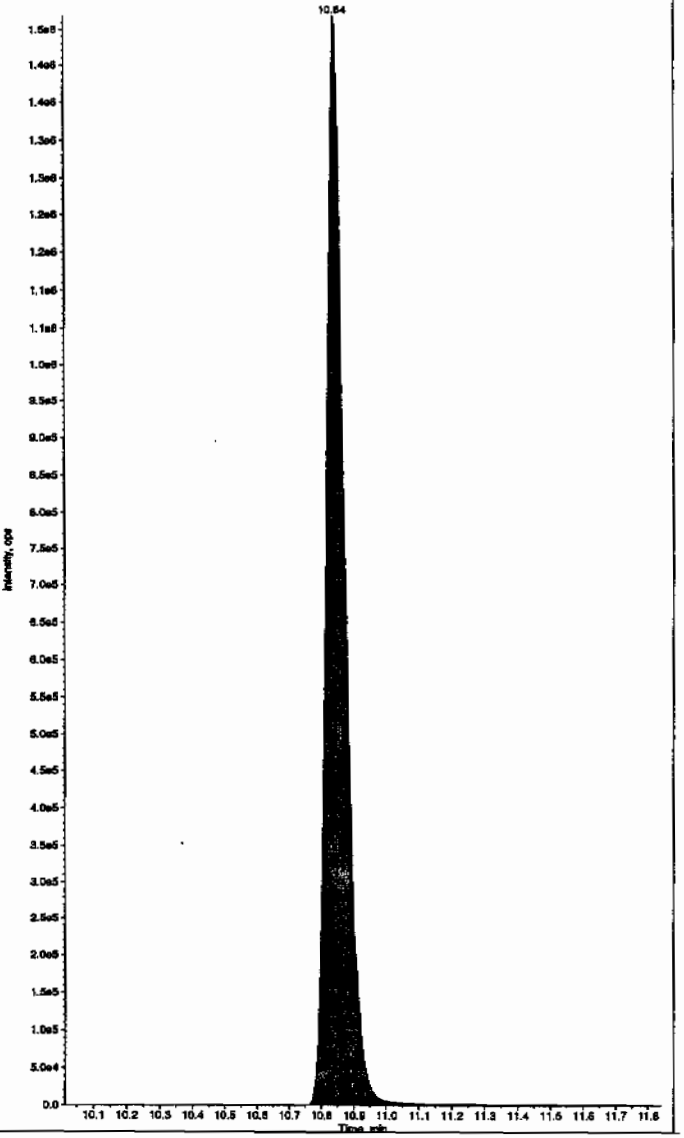

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1864

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03100046.wiff

Analysis Date: 11-MAR-10 03:18

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	107	107	
2,6-Diamino-4-nitrotoluene	100	106	106	
3,4-Dinitrotoluene	50	50.3	101	
3,5-Dinitroaniline	100	91	91	
TATB	100	98.2	98	
tris(o-cresyl) phosphate	100	94.3	94	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

LCM 3/14/10

ple Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100046.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
e Type: QC
entration: 100. ng/mL
lated Conc: 98.2 ng/mL
Date: 3/11/2010
Time: 3:18:11 AM

fied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 6.92 min
elative RT: No

Type: Valley
tion Time: 6.92 min
1.28e+005 counts
t: 29875.080 cps
. Time: 6.79 min
ime: 7.76 min

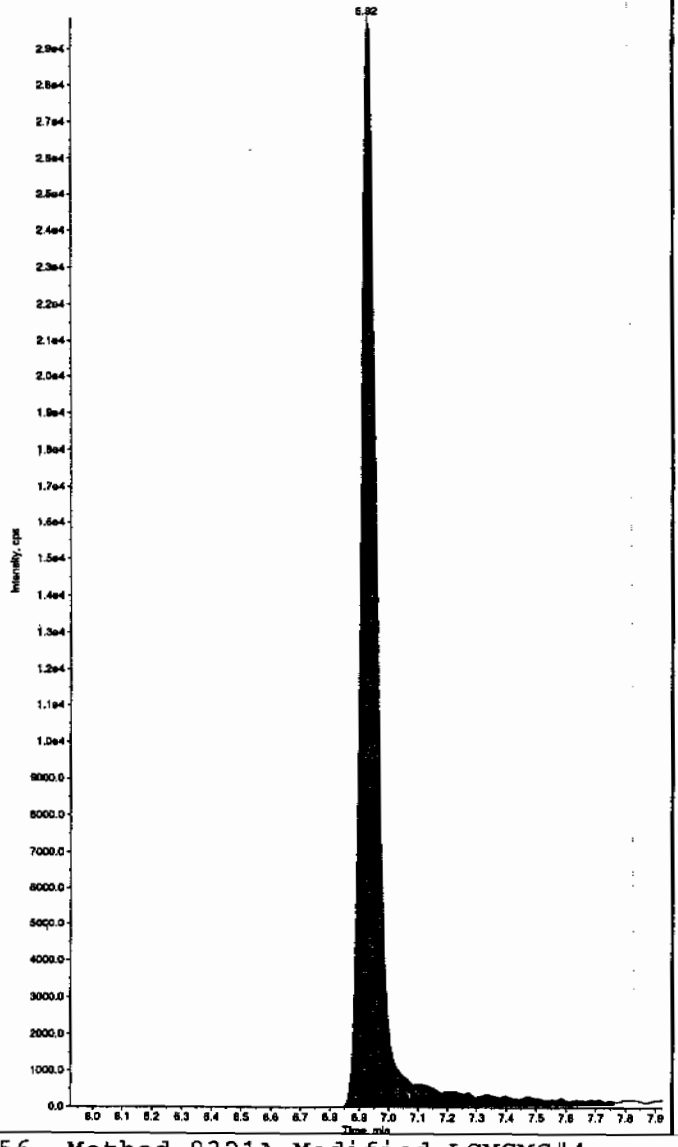

Sample Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100046.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 91.0 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 3:18:11 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.16 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.16 min
Area: 8.16e+005 counts
Height: 209255.585 cps
Start Time: 8.05 min
End Time: 8.29 min

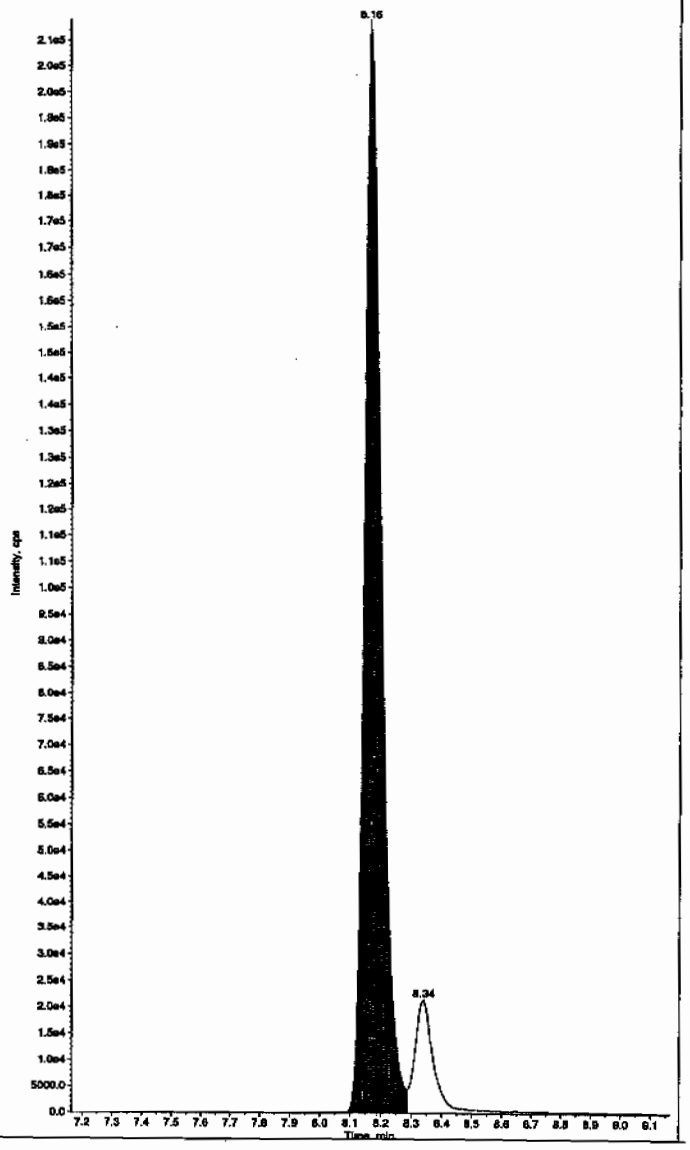

HMM 03/15/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100046.wif"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
ntration: 50.0 ng/mL
lated Conc: 50.3 ng/mL
Date: 3/11/2010
Time: 3:18:11 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.32 min
Relative RT: No

Type: Valley
ntion Time: 8.33 min
: 5.40e+005 counts
t: 143562.103 cps
t Time: 8.26 min
Time: 8.66 min

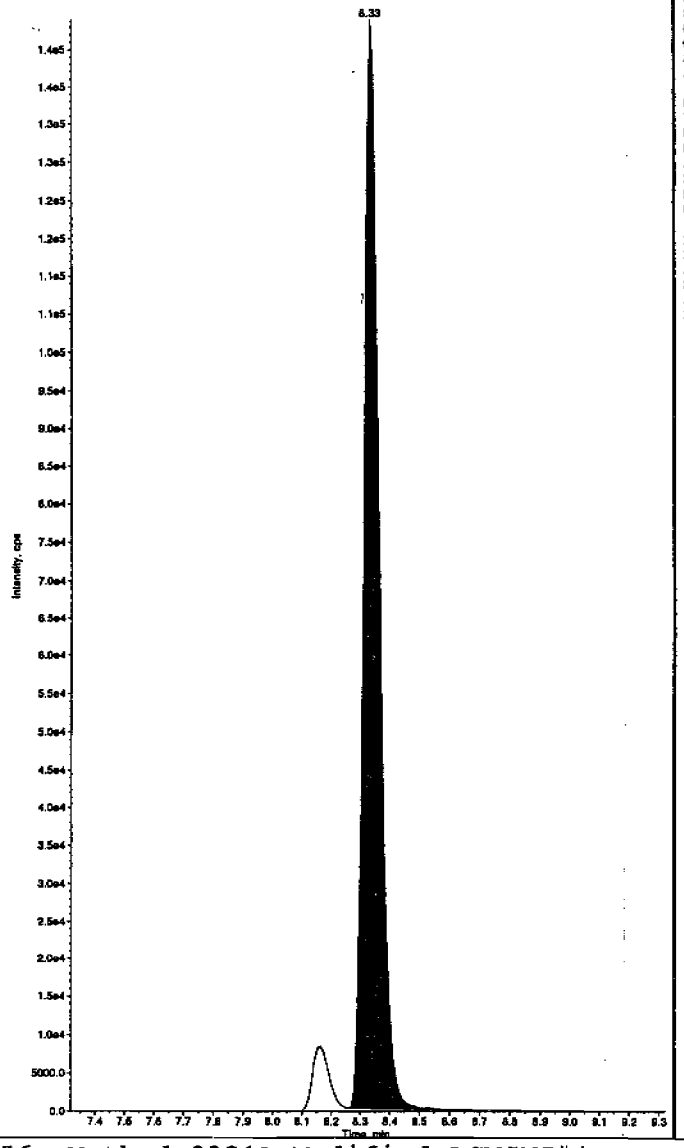

Sample Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100046.wif"
Peak Name: "2,6-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 106. ng/mL
Acq. Date: 3/11/2010
Acq. Time: 3:18:11 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.96 min
Area: 1.62e+005 counts
Height: 39546.810 cps
Start Time: 4.87 min
End Time: 5.25 min

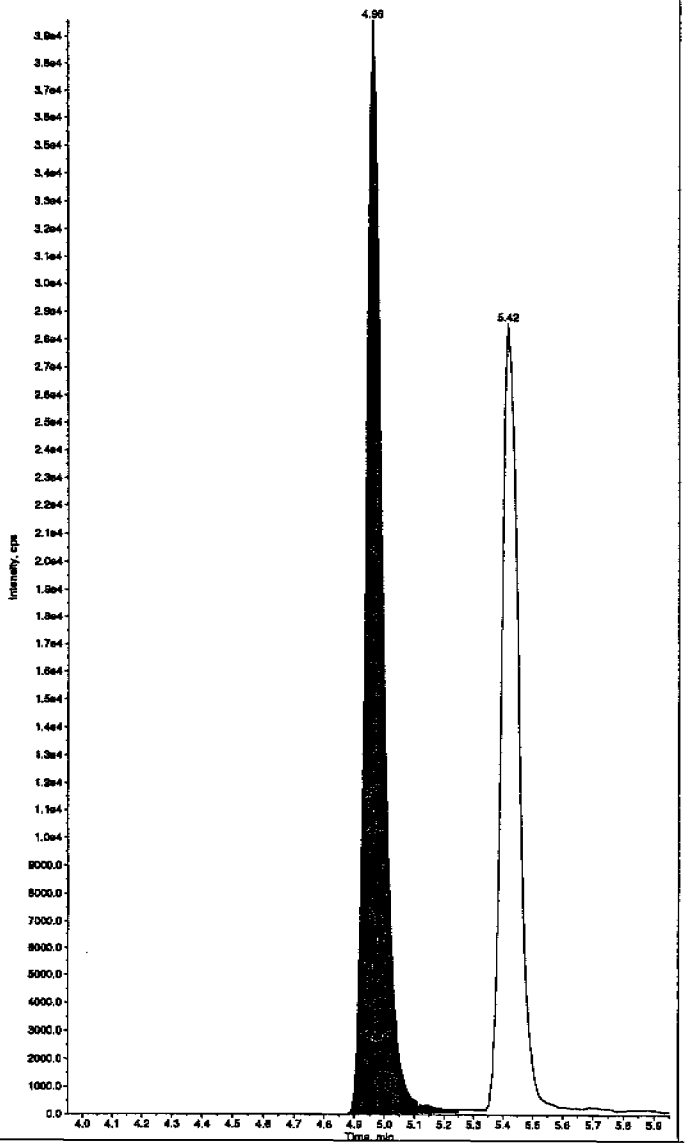

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100046.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: "

le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 107. ng/mL
Date: 3/11/2010
Time: 3:18:11 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.42 min
Relative RT: No

Type: Valley
ntion Time: 5.42 min
: 1.13e+005 counts
ht: 28350.166 cps
t Time: 5.34 min
Time: 5.59 min

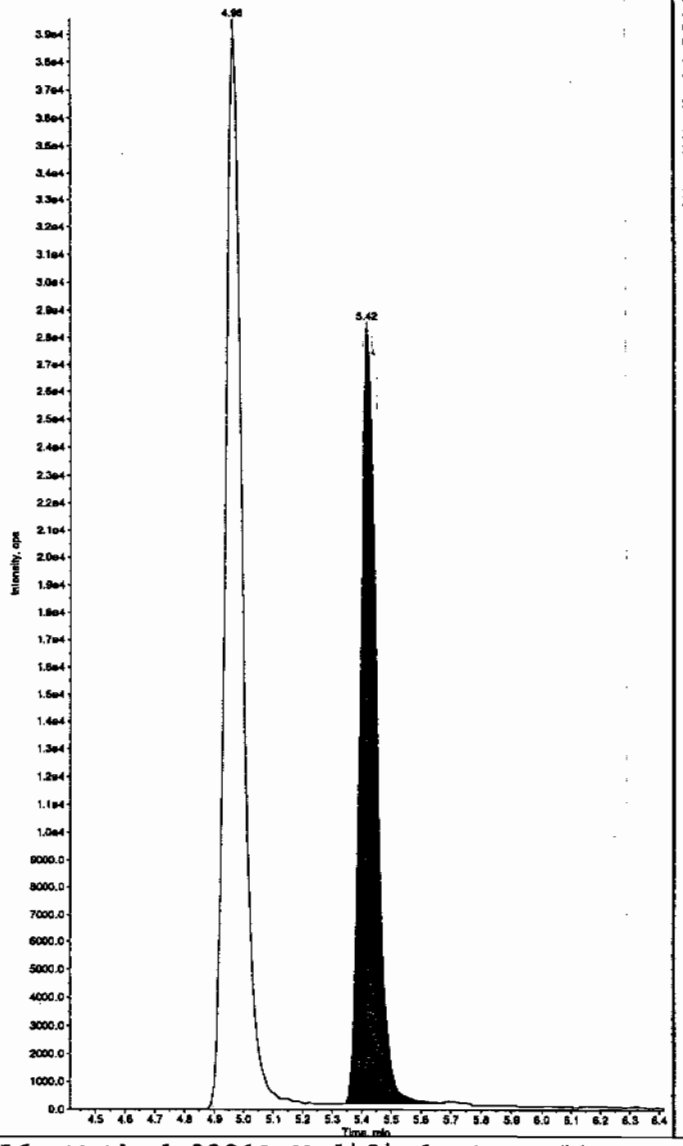

Sample Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100046.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 94.3 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 3:18:11 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.31e+006 counts
Height: 349152.496 cps
Start Time: 10.8 min
End Time: 11.2 min

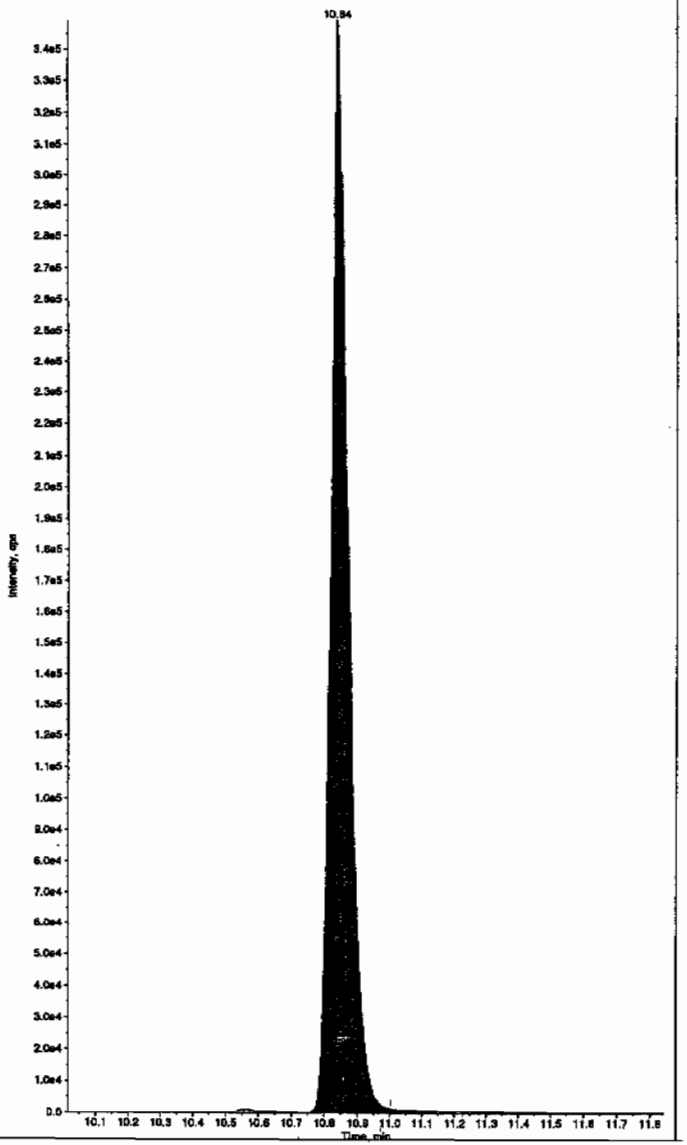

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1864

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03100055.wiff

Analysis Date: 11-MAR-10 05:39

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	576	115	
2,6-Diamino-4-nitrotoluene	500	535	107	
3,4-Dinitrotoluene	250	266	106	
3,5-Dinitroaniline	500	568	114	
TATB	500	489	98	
tris(o-cresyl) phosphate	500	491	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dan 3/14/10

Sample Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100055.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	489. ng/mL
Acq. Date:	3/11/2010
Acq. Time:	5:39:33 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	2500.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	6.92 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	6.92 min
Area:	6.94e+005 counts
Height:	156305.649 cps
Start Time:	6.82 min
End Time:	7.86 min

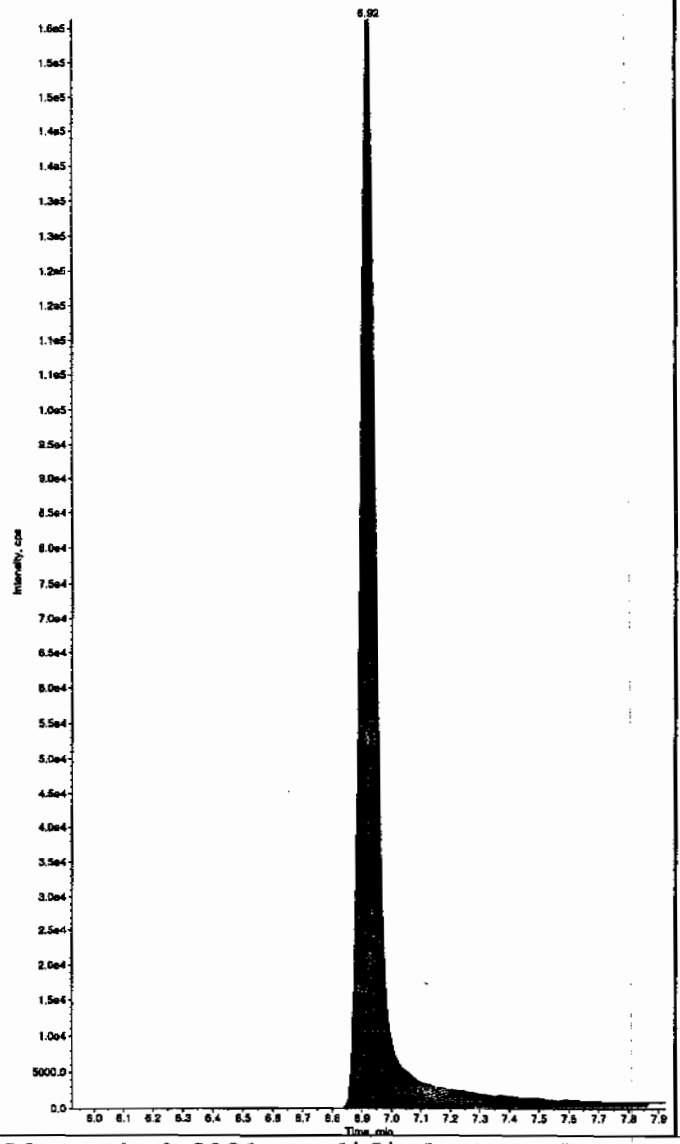

Sample Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100055.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "162.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	568. ng/mL
Acq. Date:	3/11/2010
Acq. Time:	5:39:33 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	2000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	15.0 sec
Expected RT:	8.16 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	8.16 min
Area:	3.98e+006 counts
Height:	994362.305 cps
Start Time:	8.06 min
End Time:	8.28 min

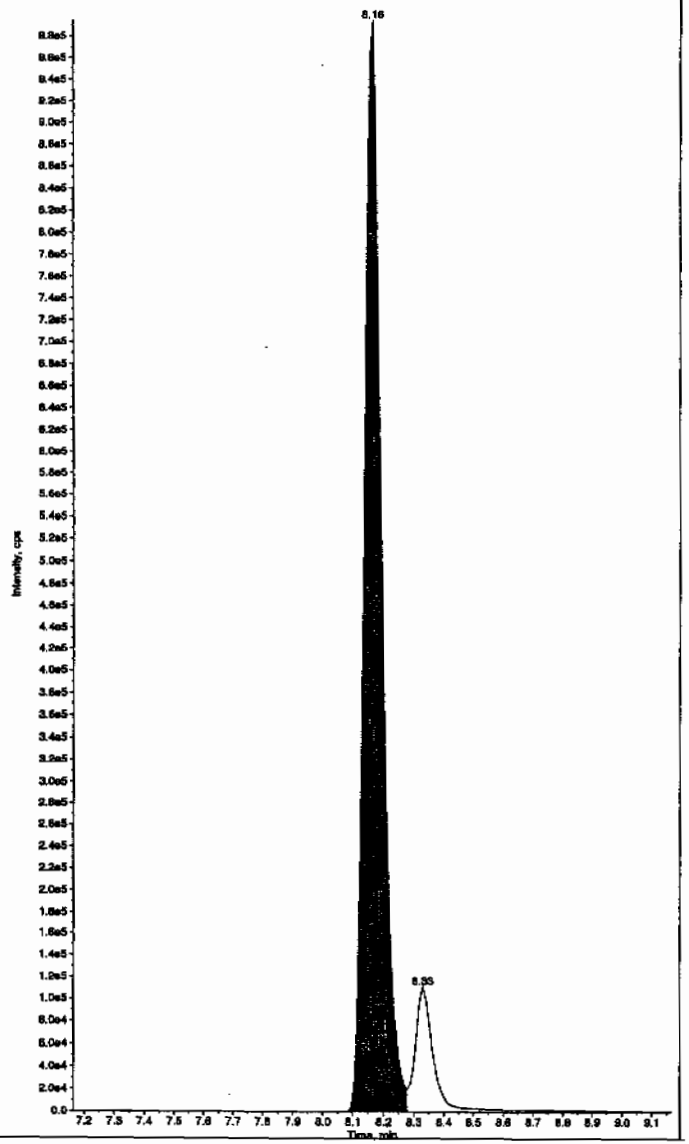

Ann. 03/15/10

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nple Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100055.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: ""

```
le Index:          1
le Type:           QC
entration:       250.    ng/mL
ulated Conc:     266.    ng/mL
 Date:        3/11/2010
 Time:        5:39:33 AM

fied:            No
. Algorithm: IntelliQuan - IQA
 Peak Height:1460.00    cps
 Peak Width:    0.00    sec
ching Width:  3        points
indow:          15.0    sec
cted RT:         8.32   min
Relative RT:     No

 Type:         Valley
ation Time:      8.33   min
:          2.68e+006   counts
ht:          725171.692  cps
 Time:           8.25   min
Time:            8.57   min
```

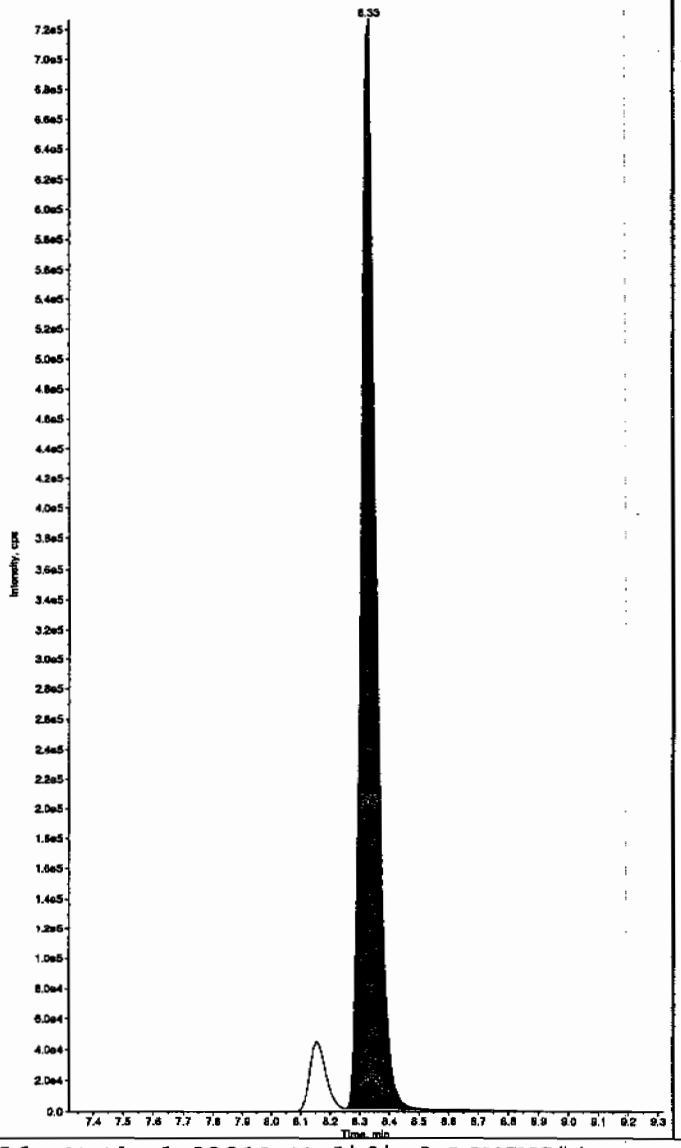

Sample Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100055.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:     500.    ng/mL
Calculated Conc:   535.    ng/mL
Acq. Date:       3/11/2010
Acq. Time:       5:39:33 AM

Modified:          No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         30.0    sec
Expected RT:        4.95   min
Use Relative RT:   No

Int. Type:       Valley
Retention Time:     4.96   min
Area:        8.19e+005   counts
Height:      195946.381  cps
Start Time:         4.87   min
End Time:           5.26   min
```

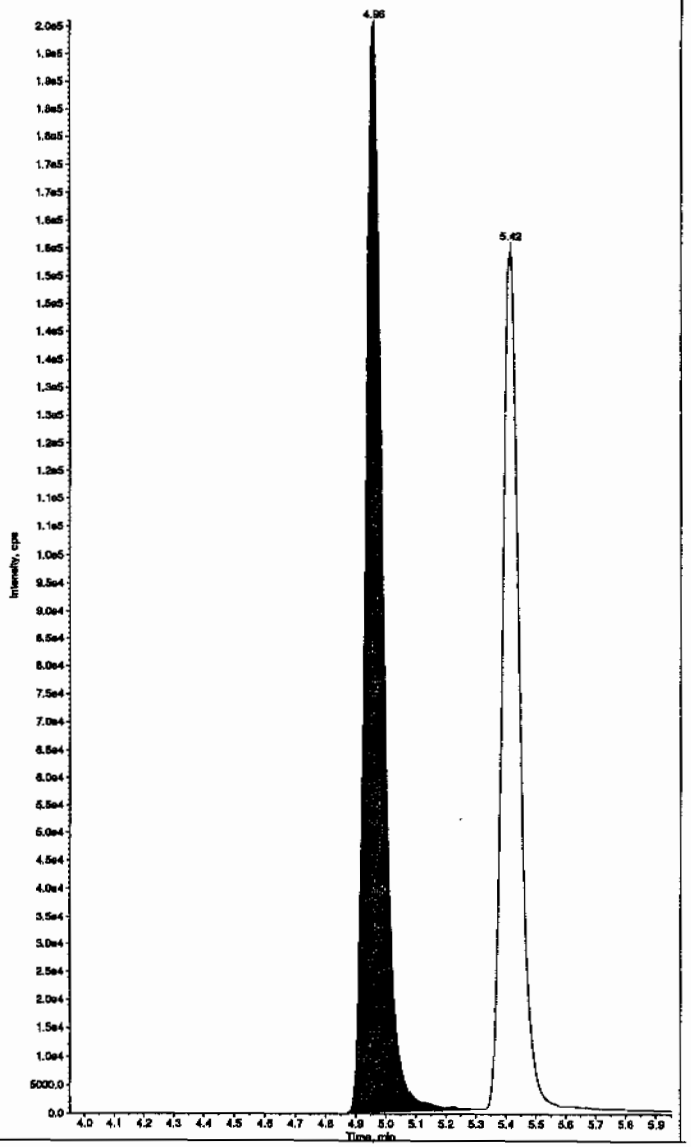

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

mple Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100055.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 576. ng/mL
Date: 3/11/2010
Time: 5:39:33 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.42 min
Relative RT: No

Type: Valley
ntion Time: 5.42 min
: 6.08e+005 counts
ht: 155212.540 cps
c Time: 5.32 min
Time: 5.73 min

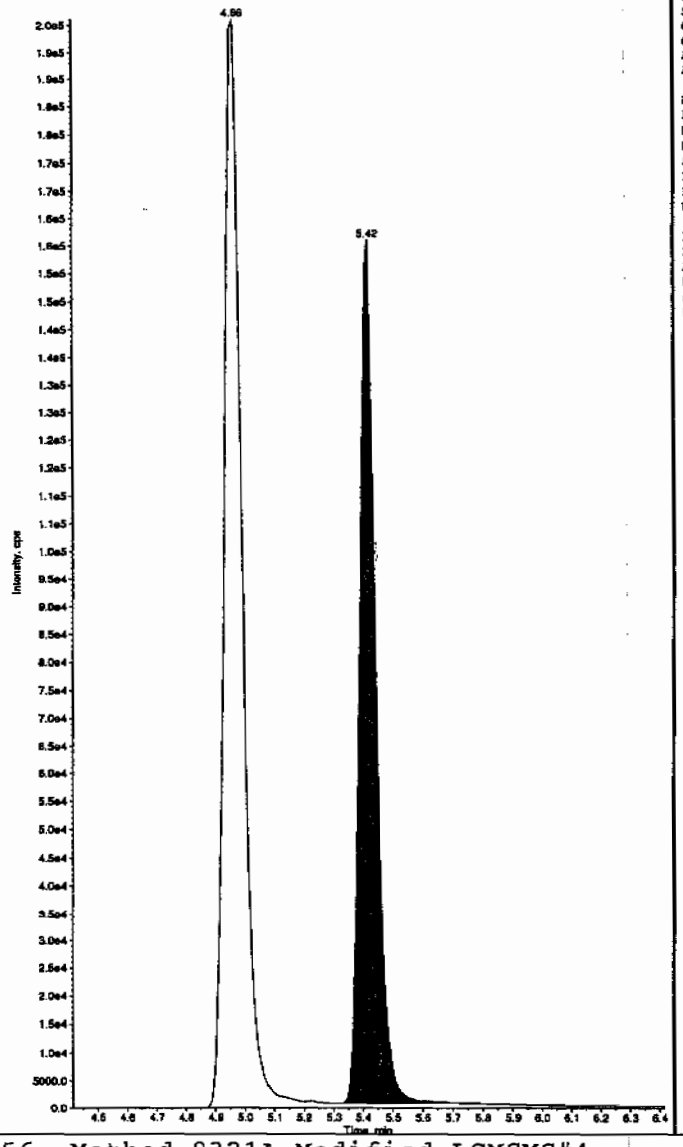

Sample Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100055.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "368.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 491. ng/mL
Acq. Date: 3/11/2010
Acq. Time: 5:39:33 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.6 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 6.21e+006 counts
Height: 1554313.599 cps
Start Time: 10.7 min
End Time: 11.2 min

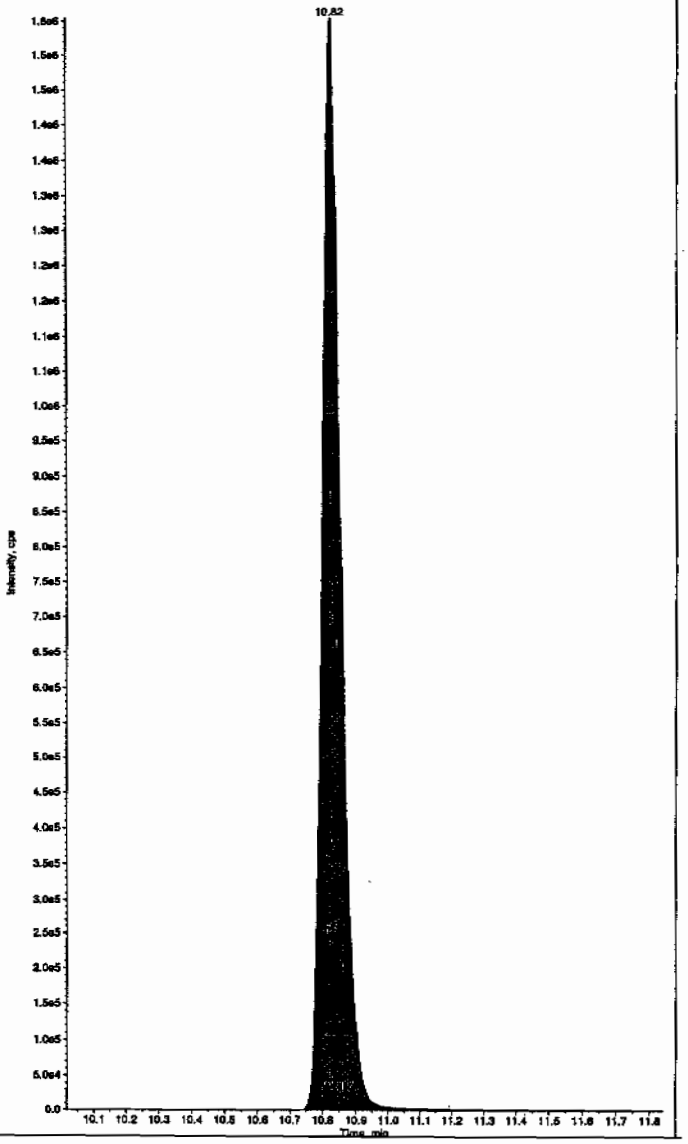

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1864

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03100057.wiff

Analysis Date: 11–MAR–10 06:10

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	111	111	
2,6–Diamino–4–nitrotoluene	100	114	114	
3,4–Dinitrotoluene	50	52.3	105	
3,5–Dinitroaniline	100	92.3	92	
TATB	100	95.8	96	
tris(o–cresyl) phosphate	100	94.8	95	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 3/14/10

mple Name: "WXX100310-27CRI" Sample ID: "|1|LER" File: "EXS03100057.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
entration:	100.	ng/mL
culated Conc:	95.8	ng/mL
Date:	3/11/2010	
Time:	6:10:58 AM	
fied:	No	
. Algorithm:	IntelliQuan - IQA	
Peak Height:	2500.00	cps
Peak Width:	0.00	sec
thing Width:	3	points
indow:	30.0	sec
cted RT:	6.92	min
Relative RT:	No	
Type:	Valley	
ntion Time:	6.91	min
:	1.24e+005	counts
ht:	30373.878	cps
t Time:	6.79	min
Time:	7.45	min

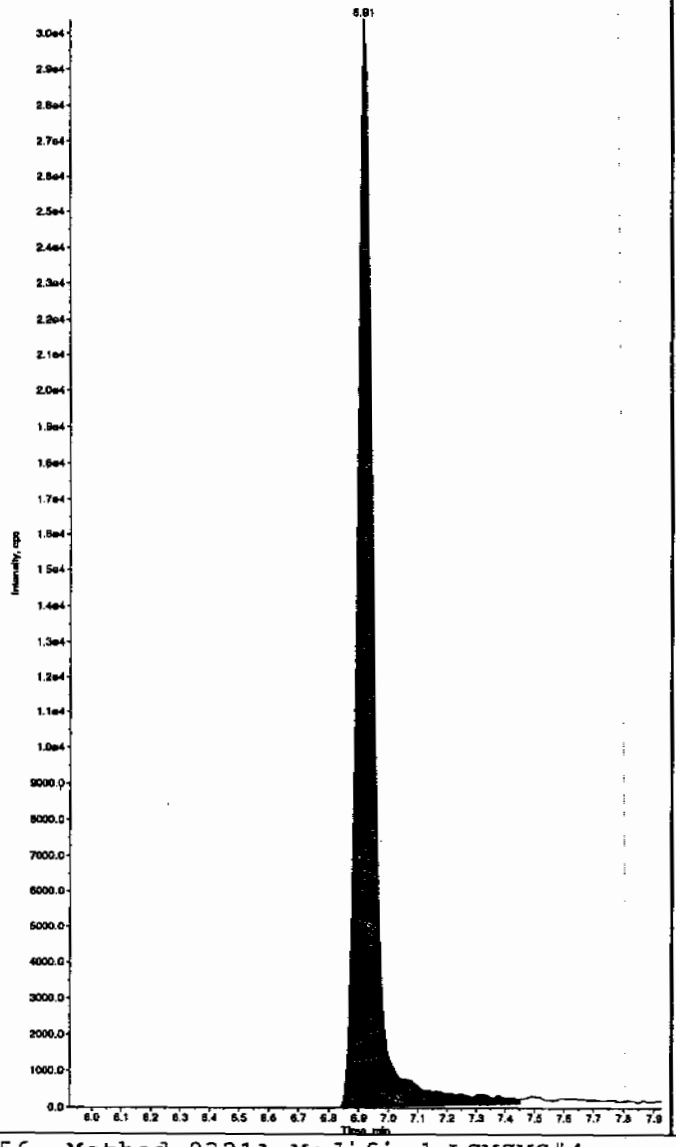

Sample Name: "WXX100310-27CRI" Sample ID: "|1|LER" File: "EXS03100057.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	92.3	ng/mL
Acq. Date:	3/11/2010	
Acq. Time:	6:10:58 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.16	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.16	min
Area:	8.25e+005	counts
Height:	207729.156	cps
Start Time:	8.06	min
End Time:	8.28	min

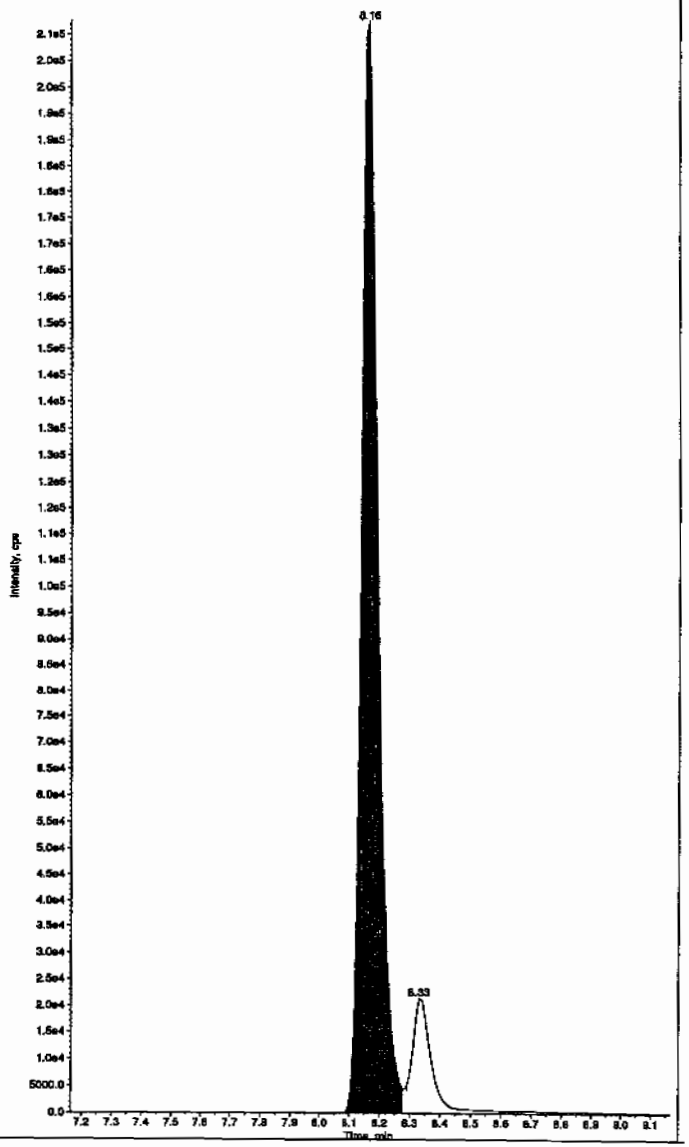

Hnm 03/15/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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nple Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100057.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "162.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: "
le Index: 1
le Type: QC
entration: 50.0 ng/mL
ulated Conc: 52.3 ng/mL
Date: 3/11/2010
Time: 6:10:58 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.32 min
Relative RT: No

Type: Valley
ntion Time: 8.33 min
: 5.59e+005 counts
ht: 151058.655 cps
t Time: 8.26 min
Time: 8.65 min

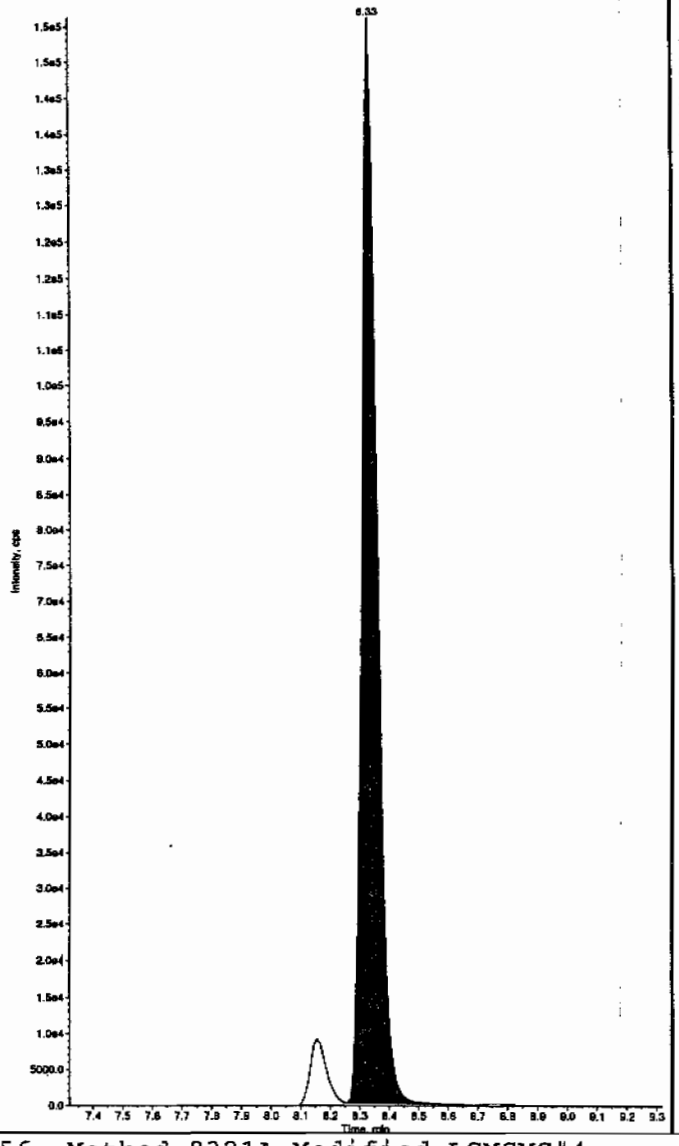

Sample Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100057.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 114. ng/mL
Acq. Date: 3/11/2010
Acq. Time: 6:10:58 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.95 min
Area: 1.74e+005 counts
Height: 43974.716 cps
Start Time: 4.87 min
End Time: 5.21 min

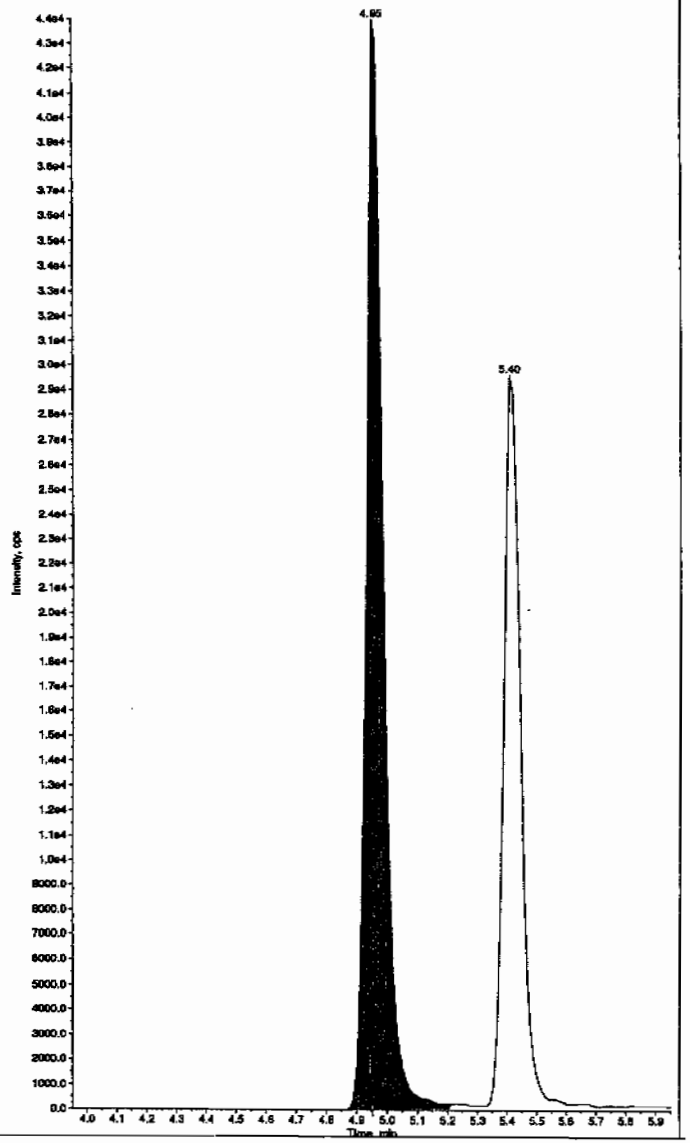

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100057.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 111. ng/mL
Date: 3/11/2010
Time: 6:10:58 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.42 min
Relative RT: No

Type: Valley
ntion Time: 5.40 min
: 1.17e+005 counts
ht: 29458.841 cps
t Time: 5.32 min
Time: 5.72 min

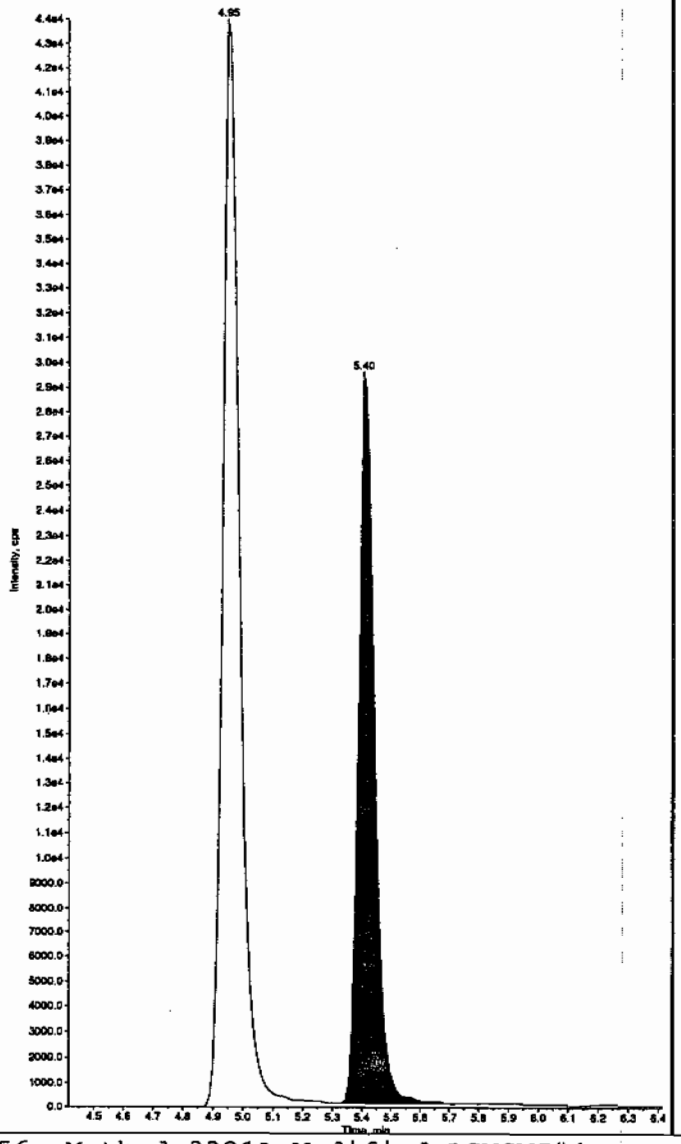

Sample Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100057.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 94.8 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 6:10:58 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.31e+006 counts
Height: 326508.972 cps
Start Time: 10.7 min
End Time: 11.2 min

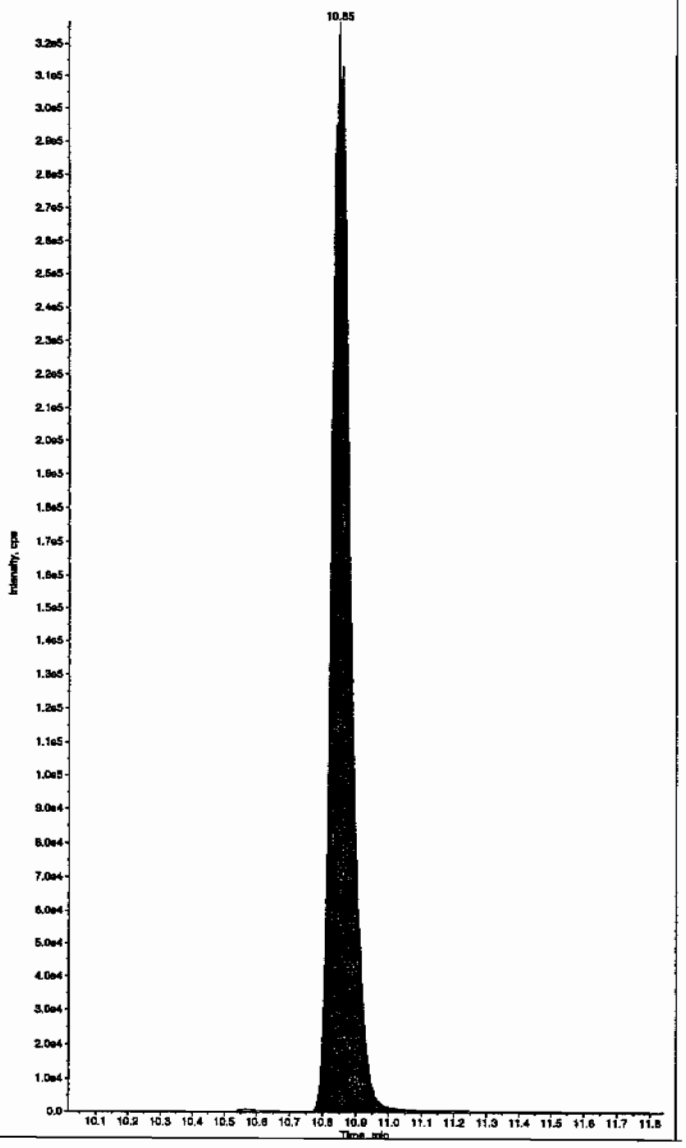

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1864

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03100066.wiff

Analysis Date: 11–MAR–10 08:32

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	457	91	
2,6–Diamino–4–nitrotoluene	500	480	96	
3,4–Dinitrotoluene	250	240	96	
3,5–Dinitroaniline	500	501	100	
TATB	500	485	97	
tris(o–cresyl) phosphate	500	471	94	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Char 3/13/10

mple Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100066.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 485. ng/mL
Date: 3/11/2010
Time: 8:32:21 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.92 min
Relative RT: No

Type: Valley
ntion Time: 6.93 min
: 6.88e+005 counts
ht: 155859.207 cps
t Time: 6.83 min
Time: 7.83 min

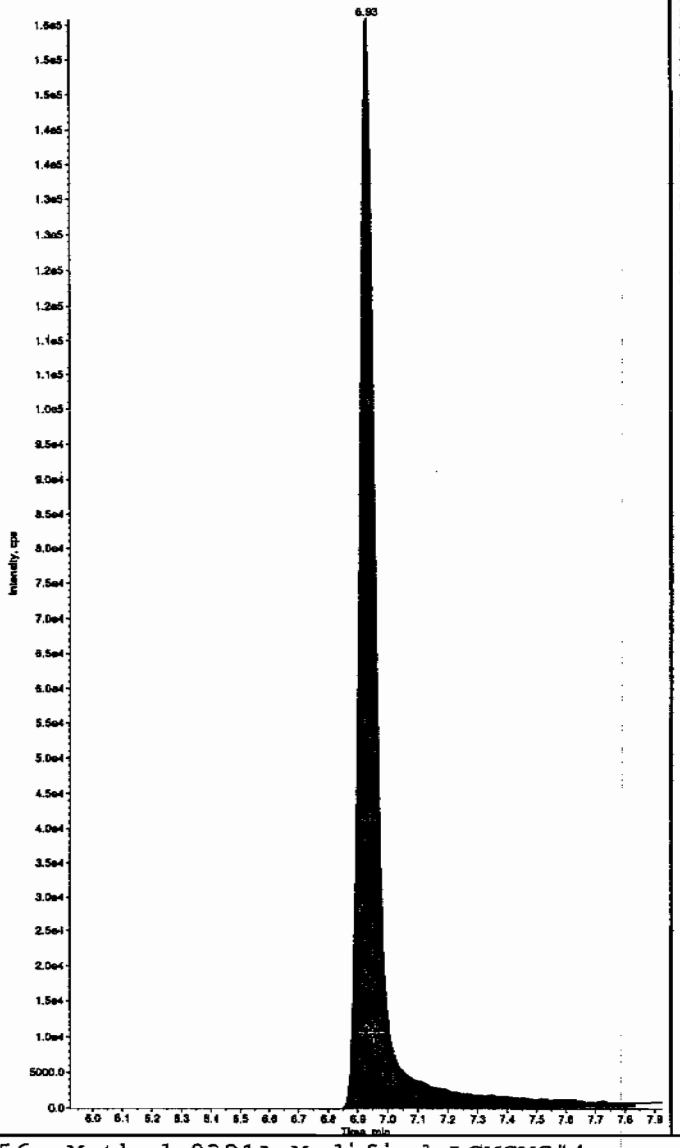

Sample Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100066.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "162.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 486. ng/mL
Acq. Date: 3/11/2010
Acq. Time: 8:32:21 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.16 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.16 min
Area: 3.45e+006 counts
Height: 883696.472 cps
Start Time: 8.09 min
End Time: 8.29 min

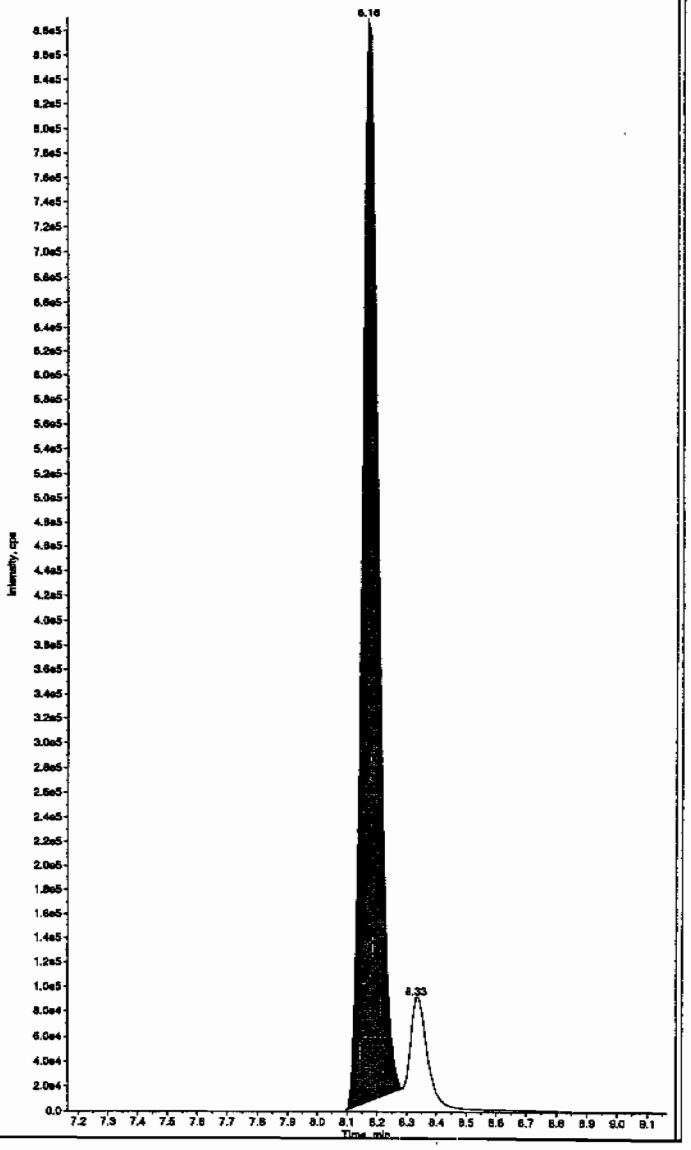

HMN 03/15/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Run 3/14/10

nple Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100066.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 485. ng/mL
Date: 3/11/2010
Time: 8:32:21 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 30.0 sec
cted RT: 6.92 min
Relative RT: No

Type: Valley
ation Time: 6.93 min
: 6.88e+005 counts
a: 155859.207 cps
: Time: 6.83 min
Time: 7.83 min

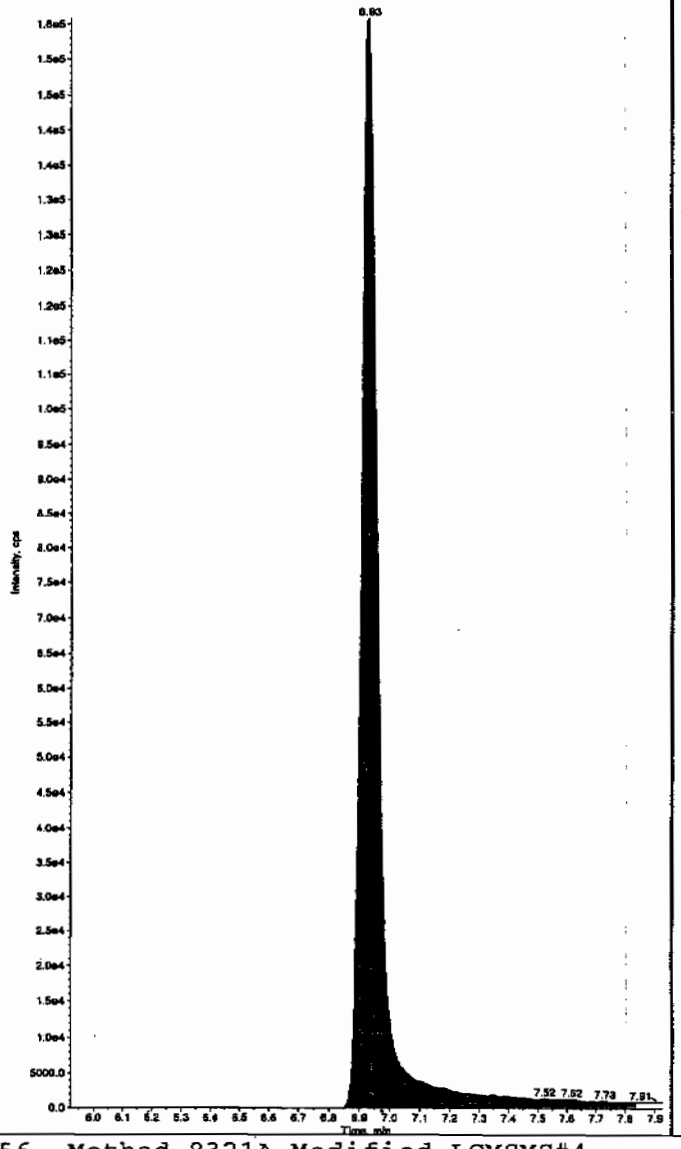

Sample Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100066.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "162.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 501. ng/mL
Acq. Date: 3/11/2010
Acq. Time: 8:32:21 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.16 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.17 min
Area: 3.55e+006 counts
Height: 903038.127 cps
Start Time: 8.09 min
End Time: 8.29 min

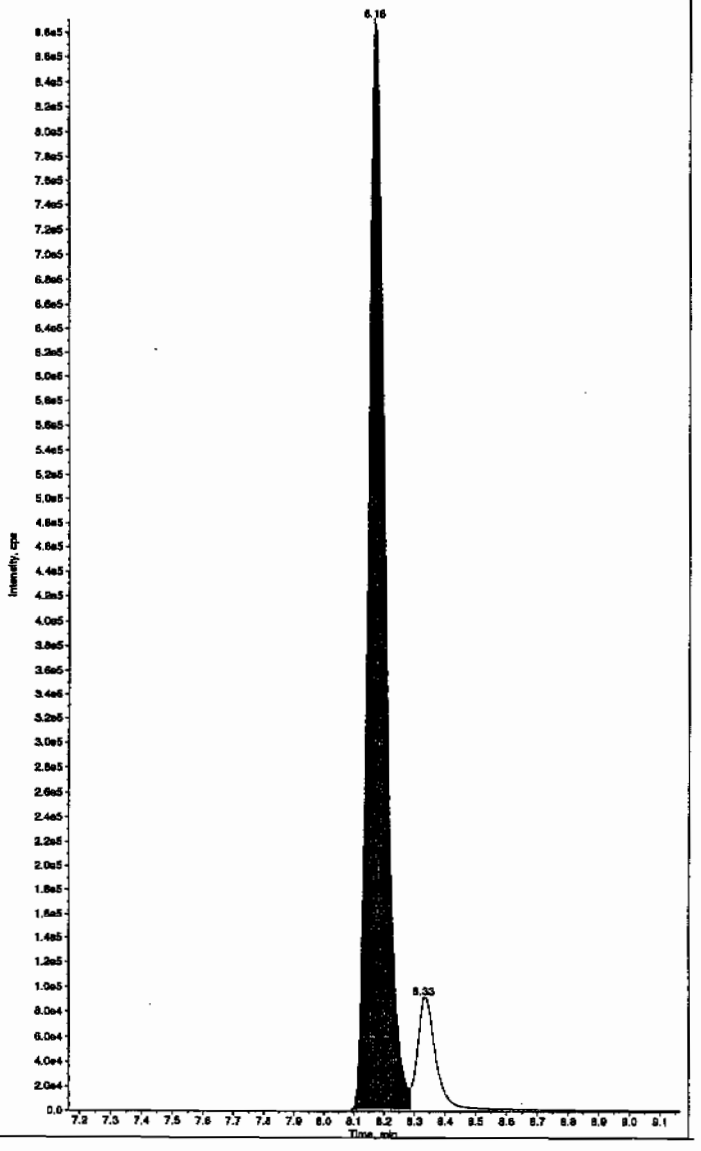

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100056.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 250. ng/mL
ulated Conc: 240. ng/mL
Date: 3/11/2010
Time: 8:32:21 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.32 min
Relative RT: No

Type: Valley
ntion Time: 8.33 min
: 2.42e+006 counts
ht: 640585.632 cps
t Time: 8.26 min
Time: 8.59 min

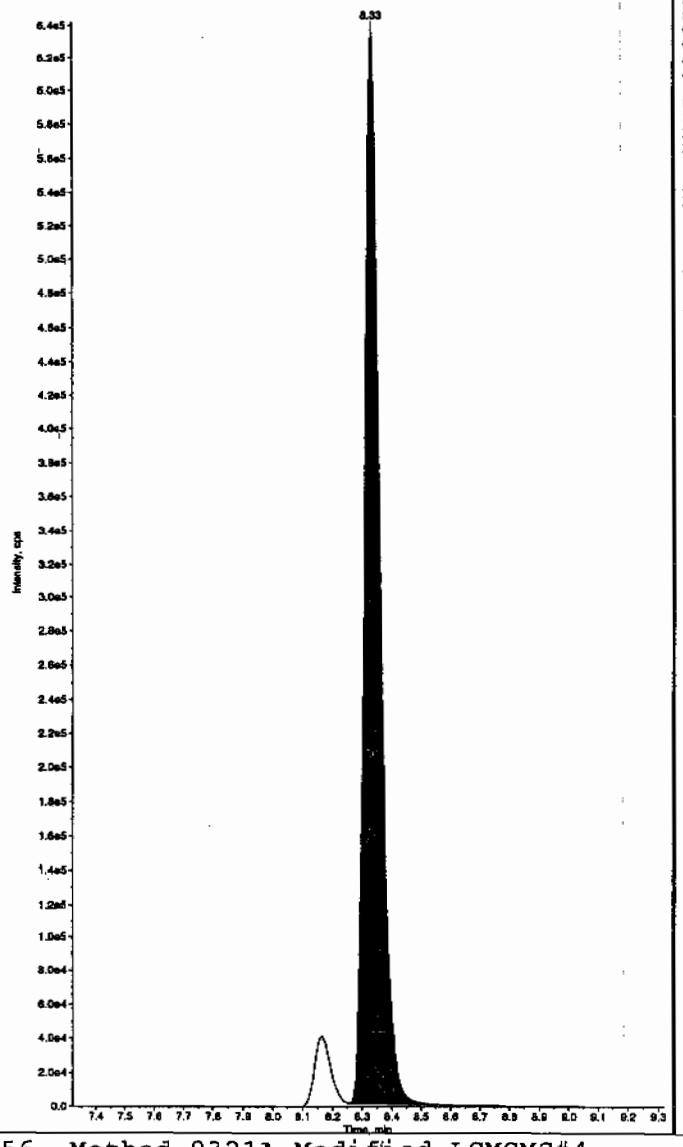

Sample Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100066.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 480. ng/mL
Acq. Date: 3/11/2010
Acq. Time: 8:32:21 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.96 min
Area: 7.35e+005 counts
Height: 181154.343 cps
Start Time: 4.88 min
End Time: 5.27 min

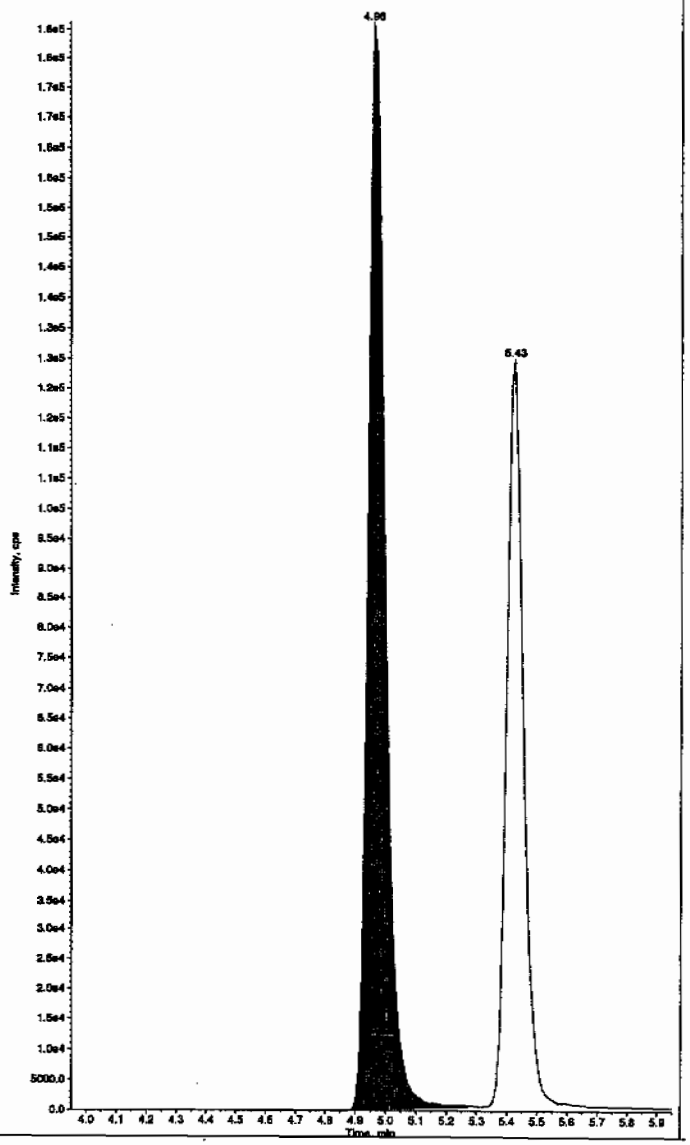

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "WXX100310-26CCV" Sample ID: "|1|LER" File: "EXS03100066.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:        1
ple Type:          QC
centration:      500.    ng/mL
culated Conc:    457.    ng/mL
 Date:        3/11/2010
 Time:        8:32:21 AM

fied:              No
. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00   cps
 Peak Width:    0.00   sec
othing Width:  3       points
Window:        30.0    sec
ected RT:       5.42   min
 Relative RT:   No

 Type:         Valley
ntion Time:     5.43   min
:          4.83e+005   counts
ht:         124390.259  cps
t Time:         5.31   min
 Time:          5.67   min
```

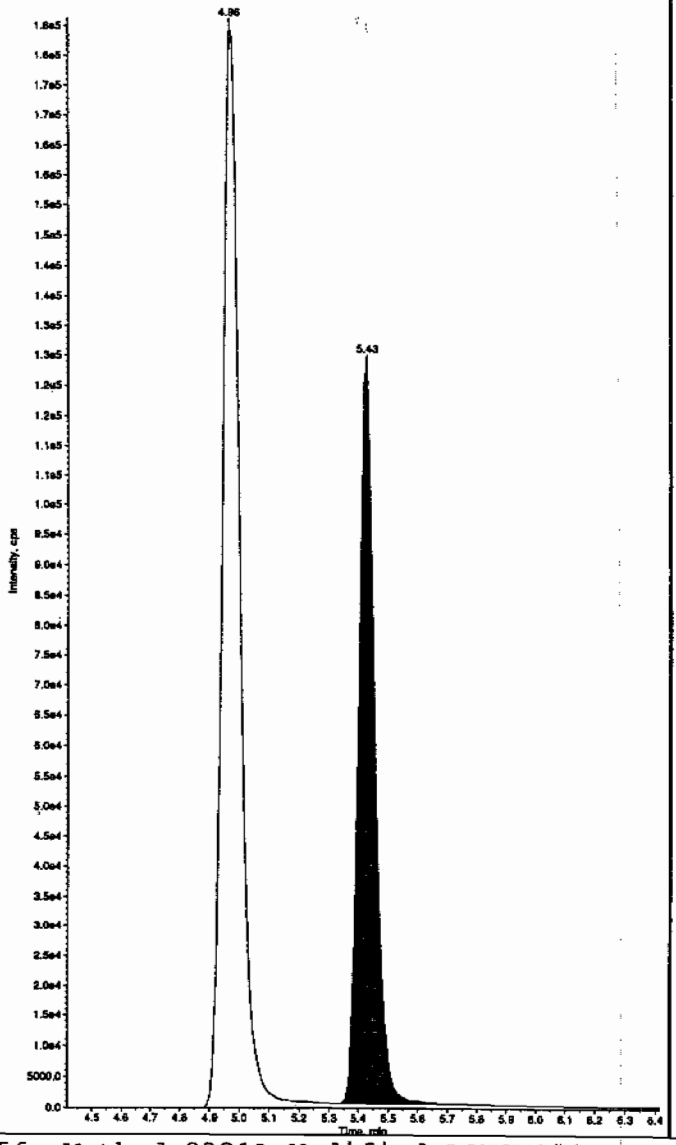

Sample Name: "WXX100310-26CCV" Sample ID: "|1|LER" File: "EXS03100066.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:          QC
Concentration:      500.    ng/mL
Calculated Conc:    471.    ng/mL
Acq. Date:        3/11/2010
Acq. Time:        8:32:21 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:        30.0     sec
Expected RT:      10.8     min
Use Relative RT:  No

Int. Type:        Valley
Retention Time:    10.8    min
Area:        5.98e+006    counts
Height:       1520639.160  cps
Start Time:        10.7    min
End Time:          11.1    min
```

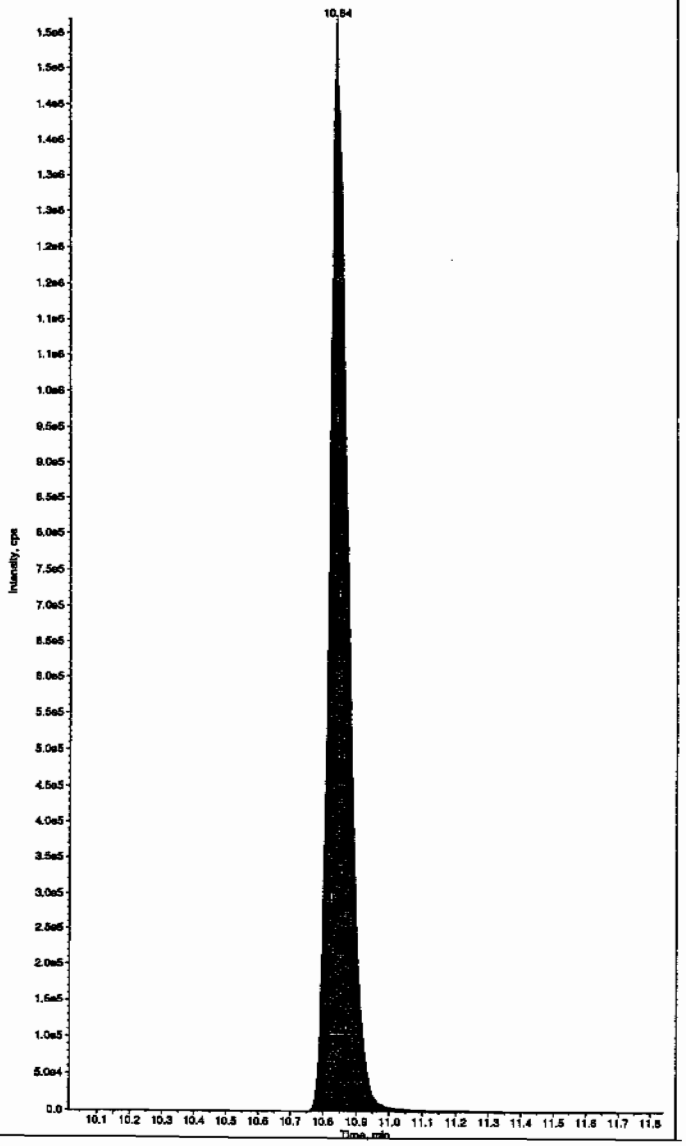

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1864

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03100068.wiff

Analysis Date: 11–MAR–10 09:03

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	93.6	94	
2,6–Diamino–4–nitrotoluene	100	95.6	96	
3,4–Dinitrotoluene	50	47.8	96	
3,5–Dinitroaniline	100	82.2	82	
TATB	100	91.3	91	
tris(o–cresyl) phosphate	100	93.5	94	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 3/14/10

nple Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100068.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index:	1
le Type:	QC
entration:	100. ng/mL
ulated Conc:	91.3 ng/mL
Date:	3/11/2010
Time:	9:03:44 AM
fied:	No
. Algorithm:	IntelliQuan - IQA
Peak Height:	2500.00 cps
Peak Width:	0.00 sec
thing Width:	3 points
indow:	30.0 sec
cted RT:	6.92 min
Relative RT:	No
Type:	Valley
ntion Time:	6.92 min
:	1.18e+005 counts
ht:	29609.625 cps
t Time:	6.83 min
Time:	7.32 min

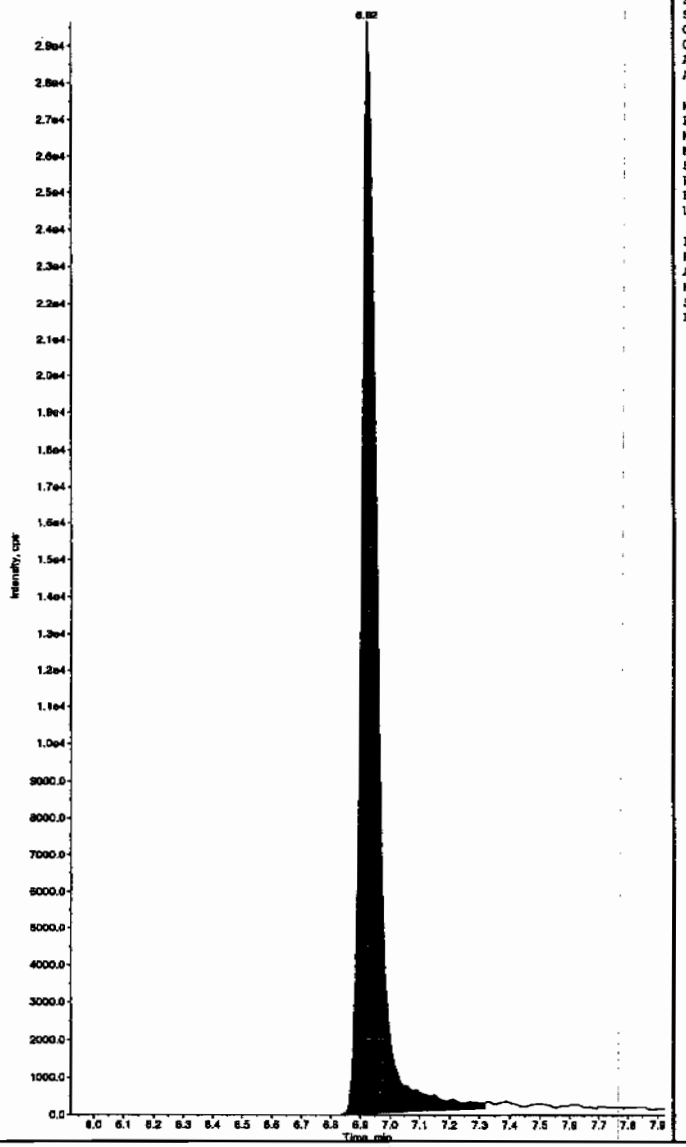

Sample Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100068.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	100. ng/mL
Calculated Conc:	82.2 ng/mL
Acq. Date:	3/11/2010
Acq. Time:	9:03:44 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	2000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	15.0 sec
Expected RT:	8.16 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	8.16 min
Area:	7.56e+005 counts
Height:	197009.735 cps
Start Time:	8.05 min
End Time:	8.29 min

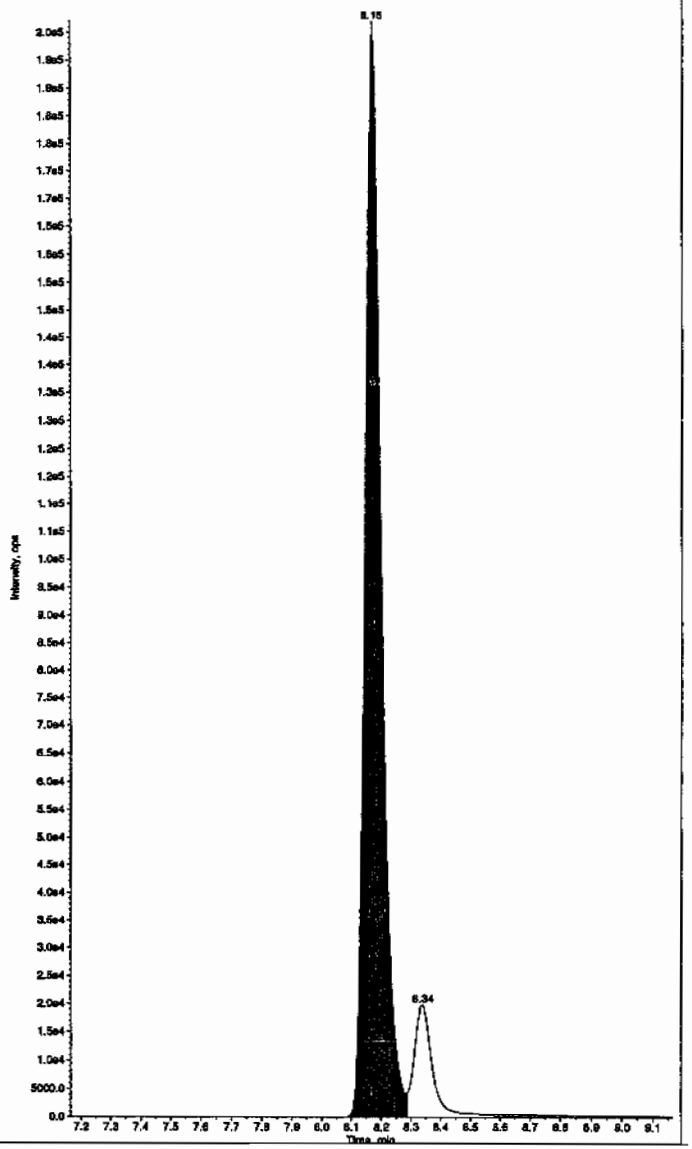

HMM 03/15/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ple Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100068.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: "

e Index:	1
e Type:	QC
ntration:	50.0 ng/mL
lated Conc:	47.8 ng/mL
Date:	3/11/2010
Time:	9:03:44 AM
ied:	No
Algorithm:	IntelliQuan - IQA
Peak Height:	1460.00 cps
Peak Width:	0.00 sec
hing Width:	3 points
ndow:	15.0 sec
cted RT:	8.32 min
elative RT:	No
Type:	Valley
tion Time:	8.33 min
	5.14e+005 counts
t:	141885.071 cps
Time:	8.26 min
ime:	8.57 min

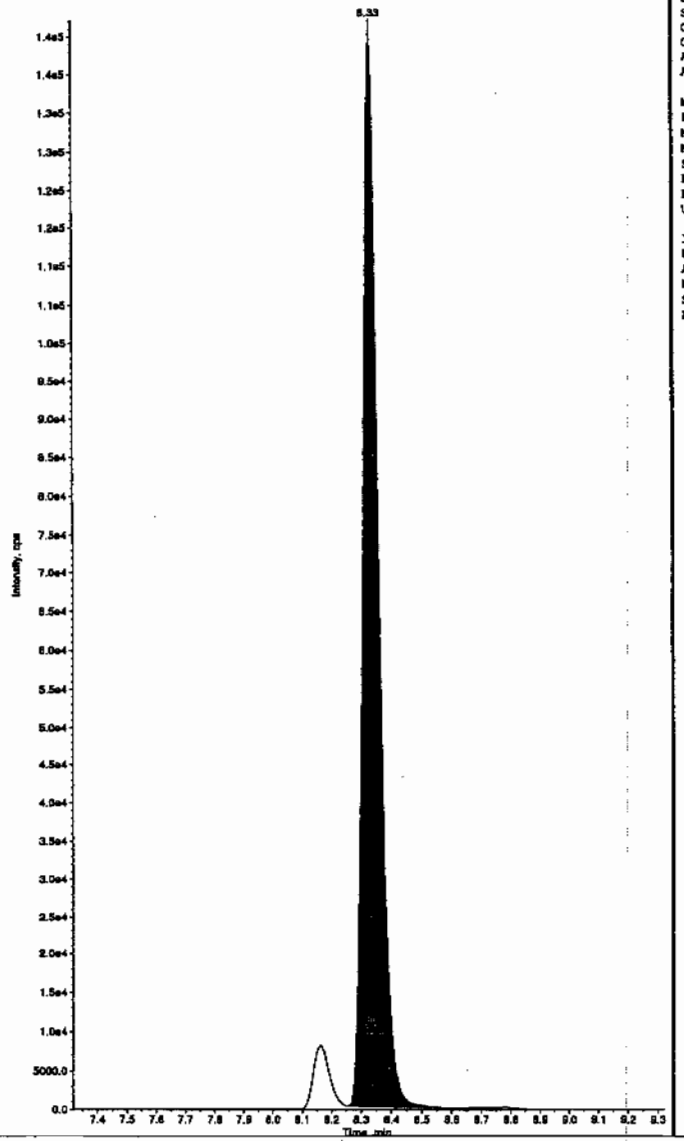

Sample Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100068.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index:	1
Sample Type:	QC
Concentration:	100. ng/mL
Calculated Conc:	95.6 ng/mL
Acq. Date:	3/11/2010
Acq. Time:	9:03:44 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	450.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	4.95 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	4.96 min
Area:	1.46e+005 counts
Height:	35039.734 cps
Start Time:	4.87 min
End Time:	5.24 min

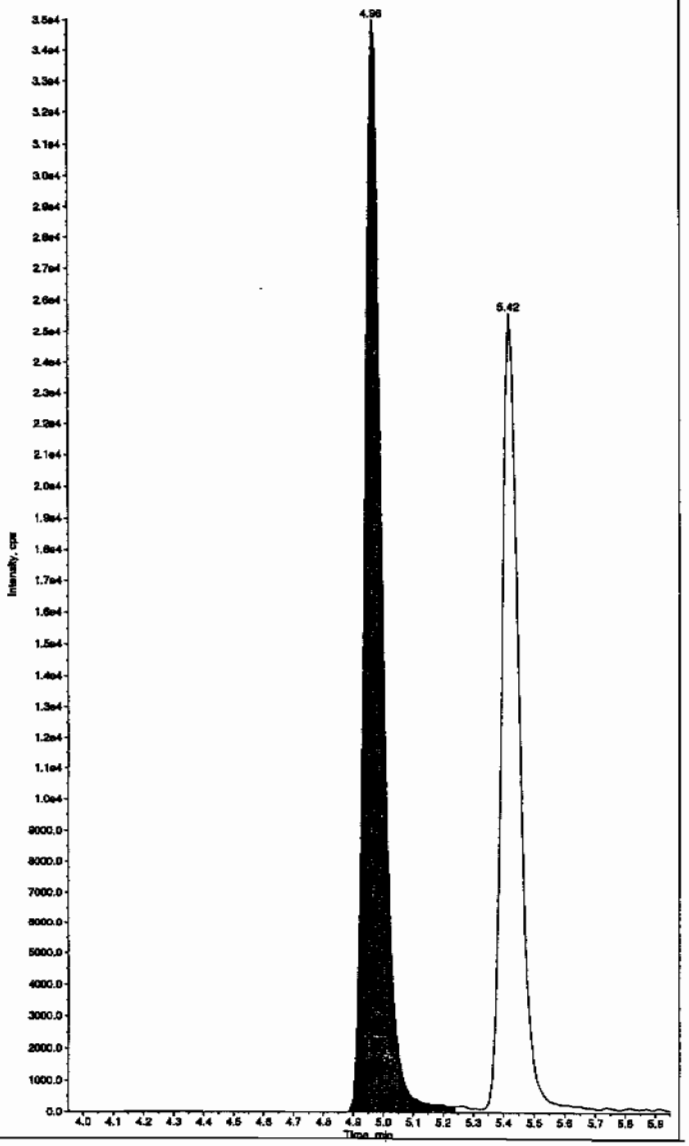

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

mple Name: "WXX100310-27CRI" Sample ID: "|1|LER" File: "EXS03100068.wiff"
ak Name: "24-Diamino-5-nitrotoluene" Mass(as): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 93.6 ng/mL
Date: 3/11/2010
Time: 9:03:44 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.42 min
Relative RT: No

Type: Valley
ntion Time: 5.42 min
: 9.89e+004 counts
ht: 25501.459 cps
t Time: 5.32 min
Time: 5.69 min

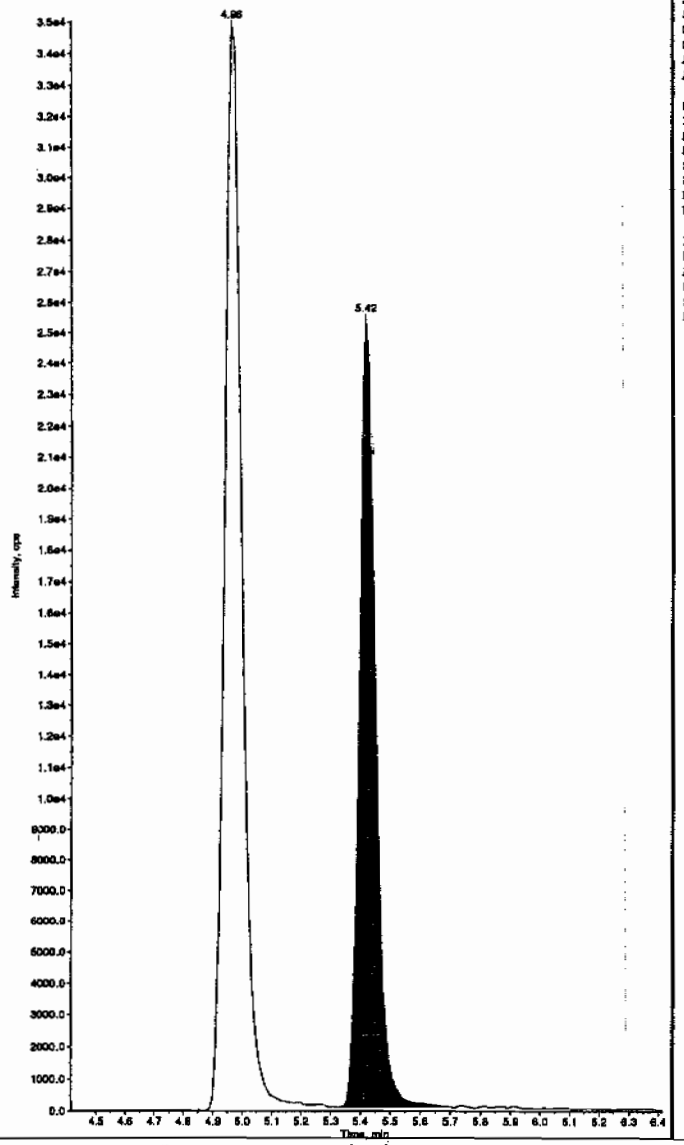

Sample Name: "WXX100310-27CRI" Sample ID: "|1|LER" File: "EXS03100068.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 93.5 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 9:03:44 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 6000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.29e+006 counts
Height: 318151.825 cps
Start Time: 10.7 min
End Time: 11.1 min

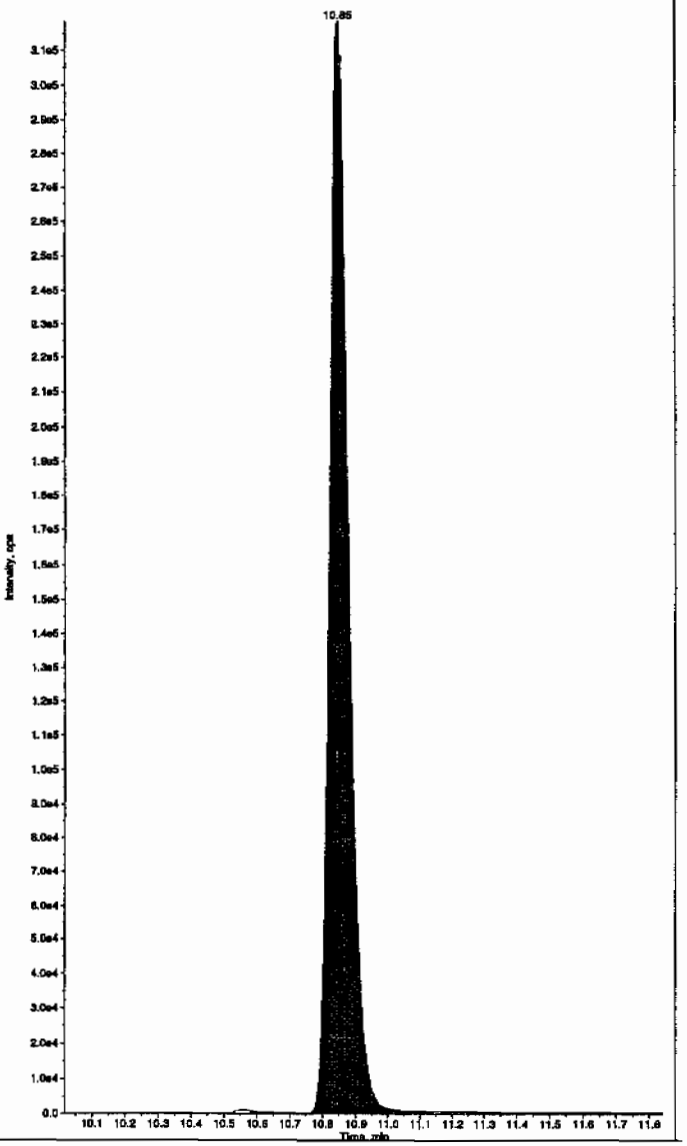

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1864

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03100079.wiff

Analysis Date: 11-MAR-10 11:56

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	479	96	
2,6-Diamino-4-nitrotoluene	500	499	100	
3,4-Dinitrotoluene	250	252	101	
3,5-Dinitroaniline	500	515	103	
TATB	500	463	93	
tris(o-cresyl) phosphate	500	464	93	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 3/14/10

mple Name: "WXX100310-25CCV" Sample ID: "|1|LER" File: "EXS03100079.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 463. ng/mL
Date: 3/11/2010
Time: 11:56:27 AM

dified: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 30.0 sec
cted RT: 6.92 min
Relative RT: No

Type: Valley
ntion Time: 6.93 min
: 6.57e+005 counts
ht: 157873.840 cps
t Time: 6.83 min
Time: 7.64 min

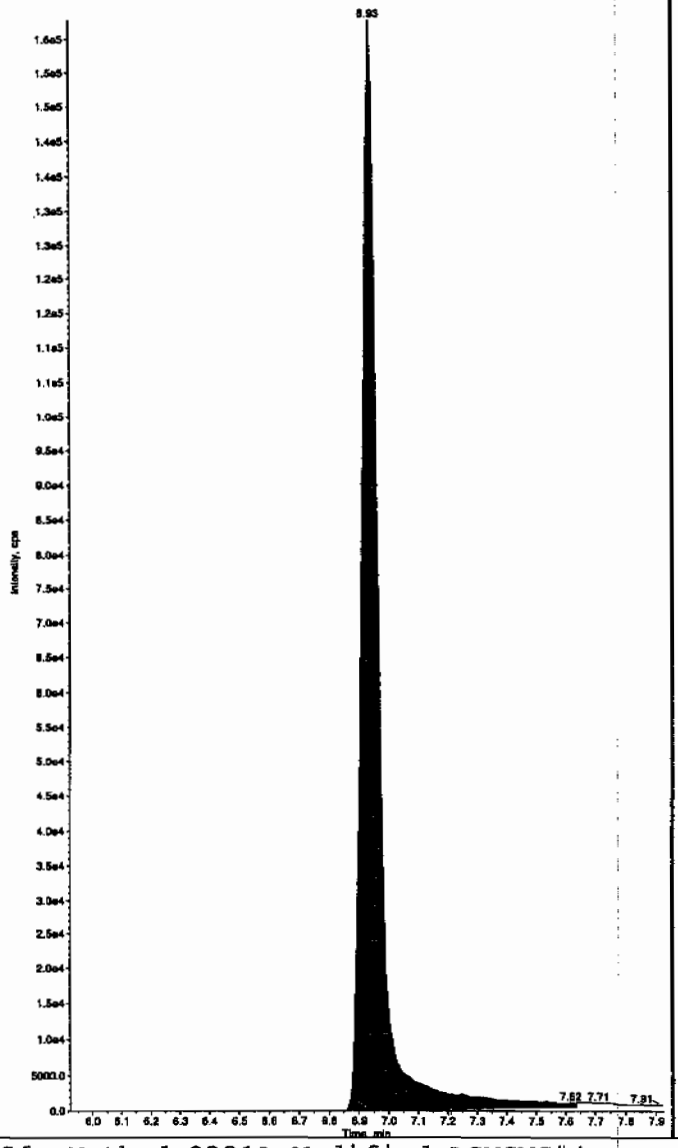

Sample Name: "WXX100310-25CCV" Sample ID: "|1|LER" File: "EXS03100079.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 515. ng/mL
Acq. Date: 3/11/2010
Acq. Time: 11:56:27 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.16 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.17 min
Area: 3.64e+006 counts
Height: 930742.249 cps
Start Time: 8.08 min
End Time: 8.29 min

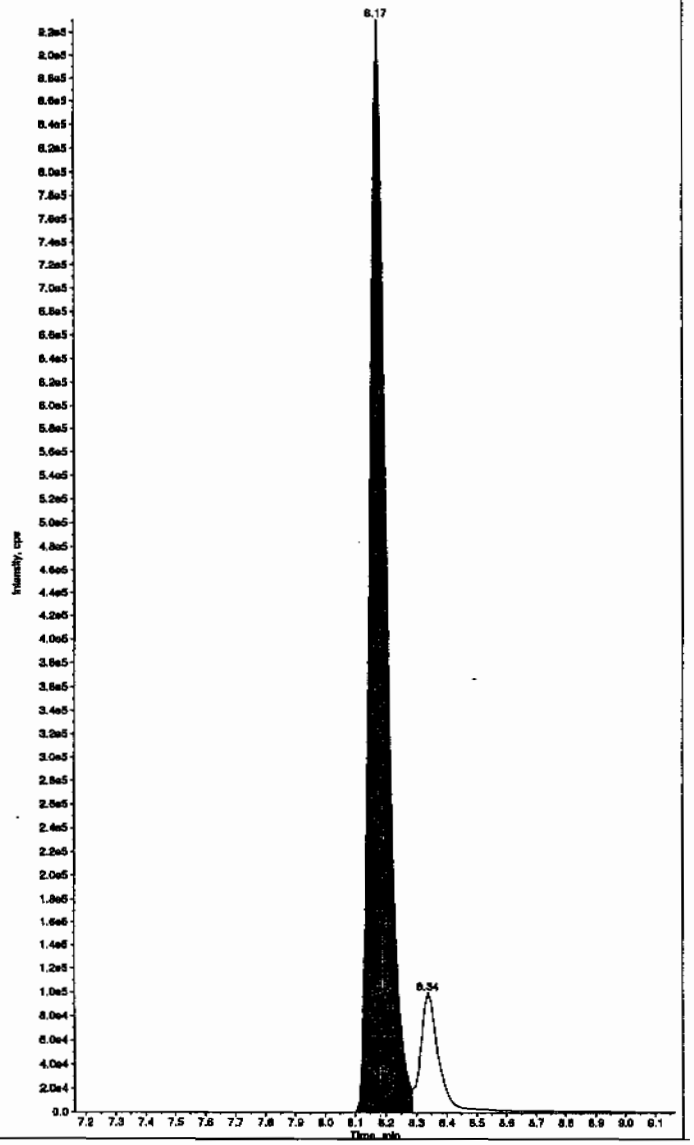

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100079.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 250. ng/mL
culated Conc: 252. ng/mL
Date: 3/11/2010
Time: 11:56:27 AM

ified: No
. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.32 min
Relative RT: No

. Type: Valley
ention Time: 8.34 min
: 2.55e+006 counts
ght: 701126.648 cps
t Time: 8.26 min
Time: 8.62 min

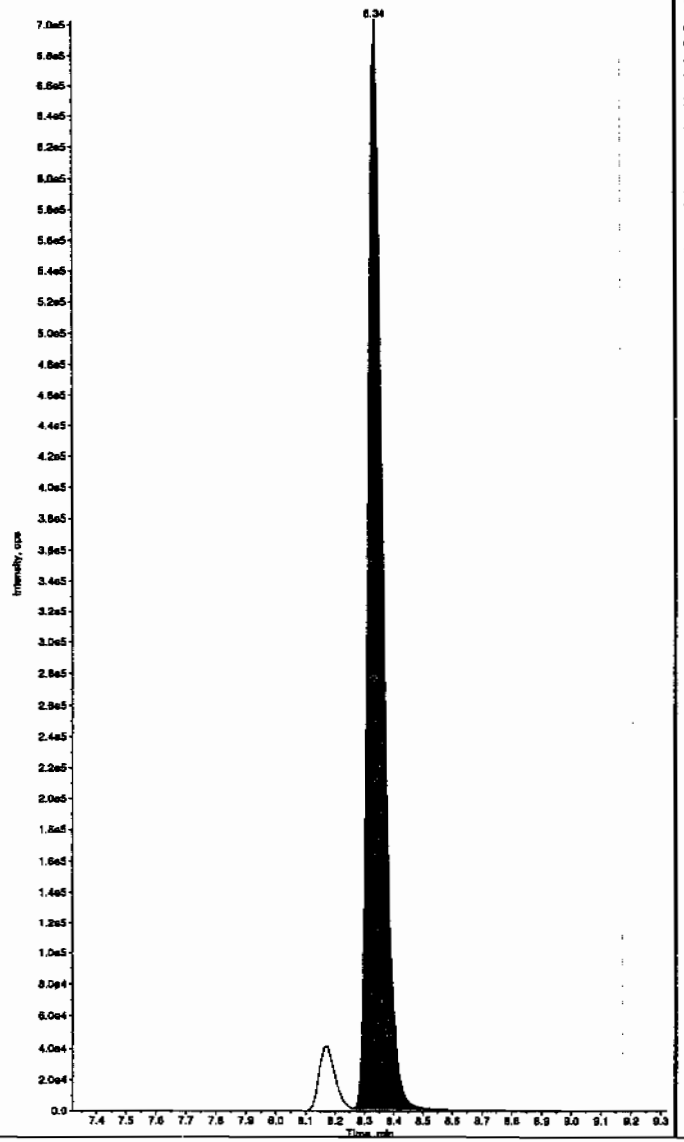

Sample Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100079.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 499. ng/mL
Acq. Date: 3/11/2010
Acq. Time: 11:56:27 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.96 min
Area: 7.63e+005 counts
Height: 183503.555 cps
Start Time: 4.87 min
End Time: 5.24 min

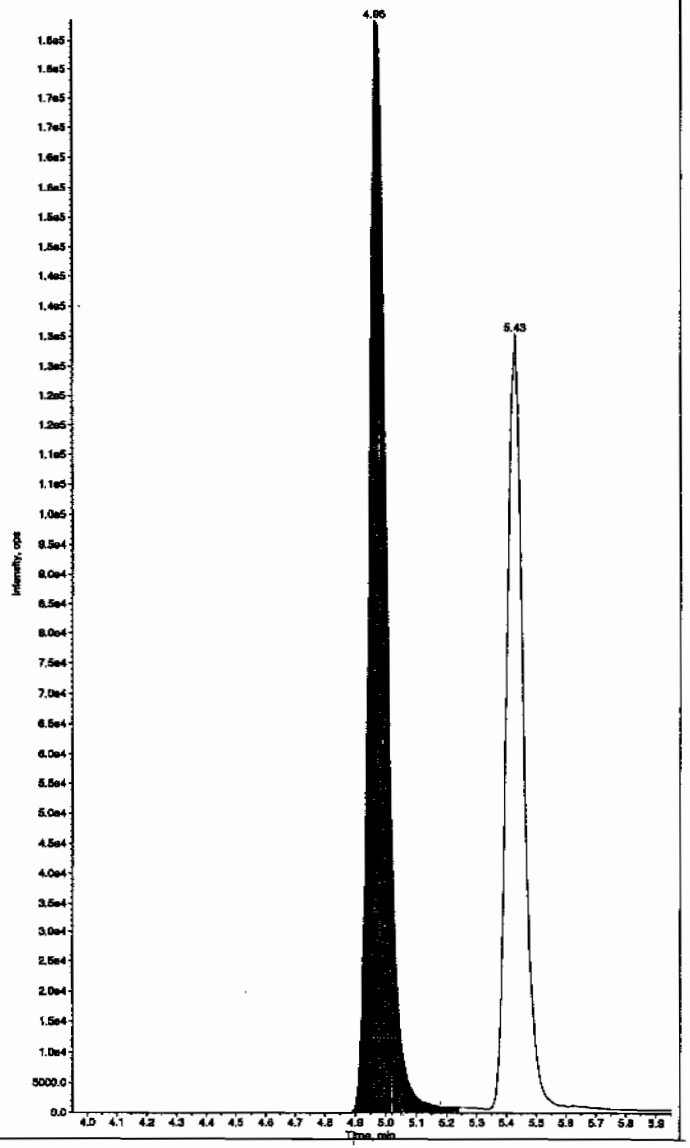

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100310-28CCV" Sample ID: "[1]LER" File: "EXS03100079.wiff"
ak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
le Index:          1
le Type:           QC
entration:         500.     ng/mL
culated Conc:      479.     ng/mL
Date:          3/11/2010
Time:          11:56:27 AM

fied:              No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00    cps
Peak Width:    0.00    sec
thing Width:  3        points
indow:         30.0    sec
cted RT:        5.42   min
Relative RT:   No

Type:          Valley
ntion Time:     5.43   min
:          5.06e+005   counts
ht:        129995.911  cps
t Time:         5.33   min
Time:           5.78   min
```

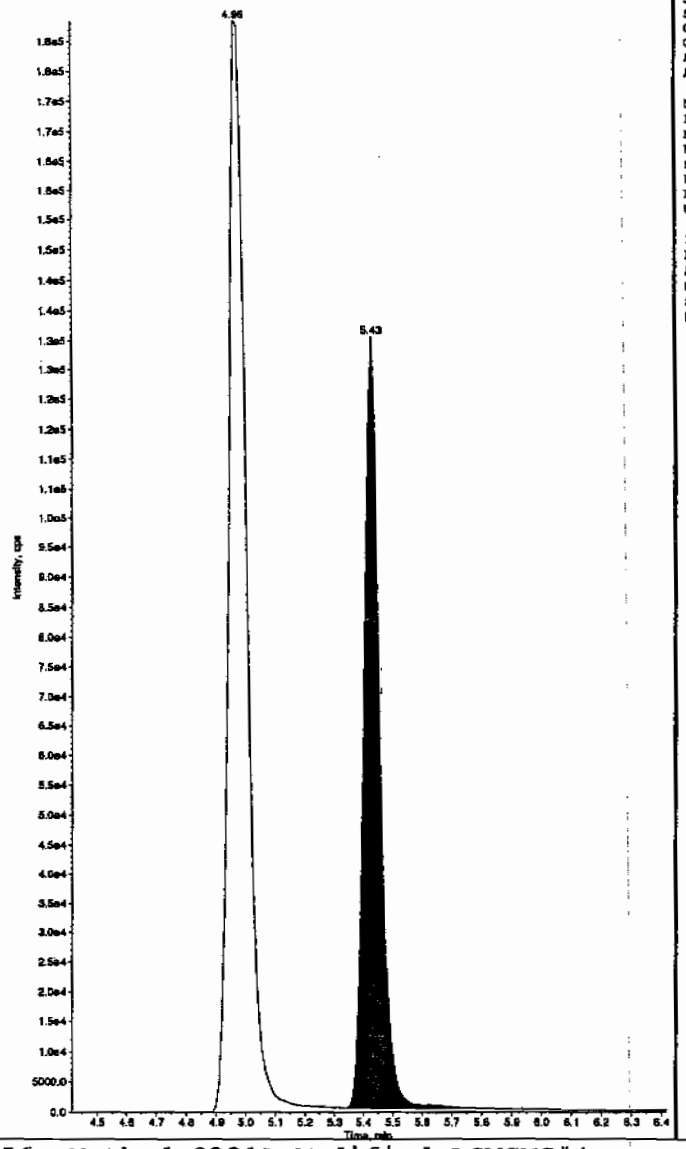

Sample Name: "WXX100310-28CCV" Sample ID: "[1]LER" File: "EXS03100079.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         500.     ng/mL
Calculated Conc:       464.     ng/mL
Acq. Date:         3/11/2010
Acq. Time:         11:56:27 AM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:          30.0    sec
Expected RT:        10.8    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.8    min
Area:          5.89e+006   counts
Height:        1459754.883  cps
Start Time:         10.7    min
End Time:           11.2    min
```

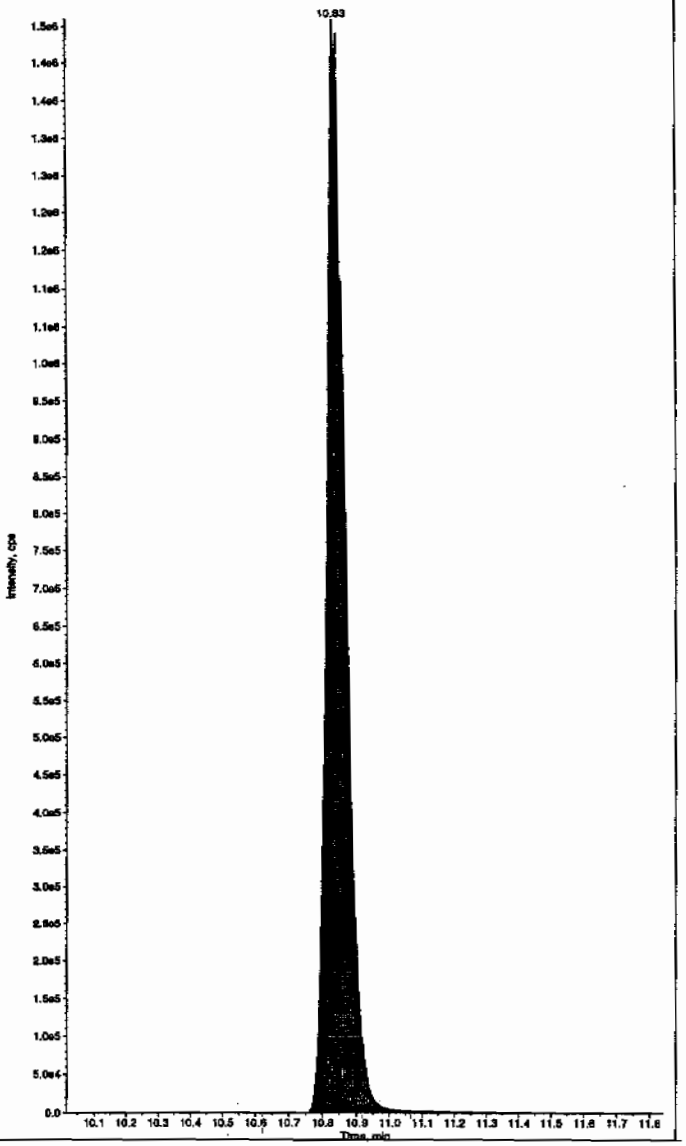

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1864

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03100081.wiff

Analysis Date: 11-MAR-10 12:27

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
3,4-Dinitrotoluene	50	49	98	
3,5-Dinitroaniline	100	84.2	84	
TATB	100	92.4	92	
tris(o-cresyl) phosphate	100	93.5	94	
2,4-Diamino-6-nitrotoluene	100	97.2	97	
2,6-Diamino-4-nitrotoluene	100	97.5	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 3/14/10

mple Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100081.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 92.4 ng/mL
Date: 3/11/2010
Time: 12:27:51 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
'indow: 30.0 sec
cted RT: 6.92 min
Relative RT: No

Type: Valley
ntion Time: 6.92 min
: 1.19e+005 counts
ht: 29524.757 cps
t Time: 6.83 min
Time: 7.37 min

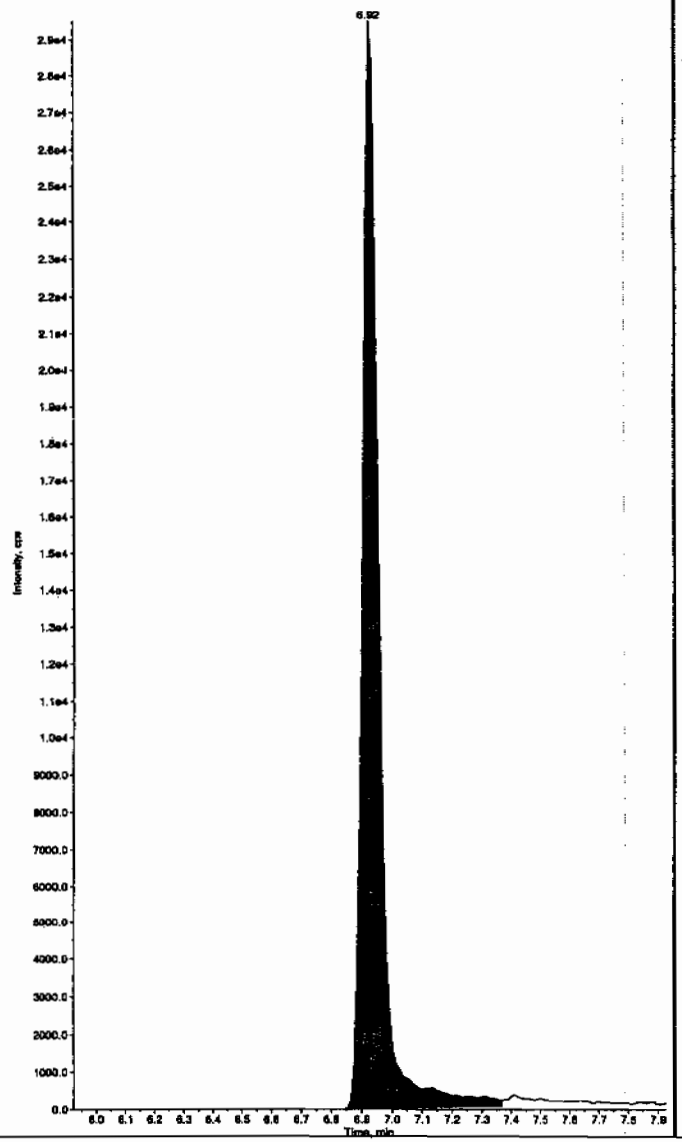

Sample Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100081.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 84.2 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 12:27:51 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.16 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.16 min
Area: 7.69e+005 counts
Height: 200933.228 cps
Start Time: 8.03 min
End Time: 8.29 min

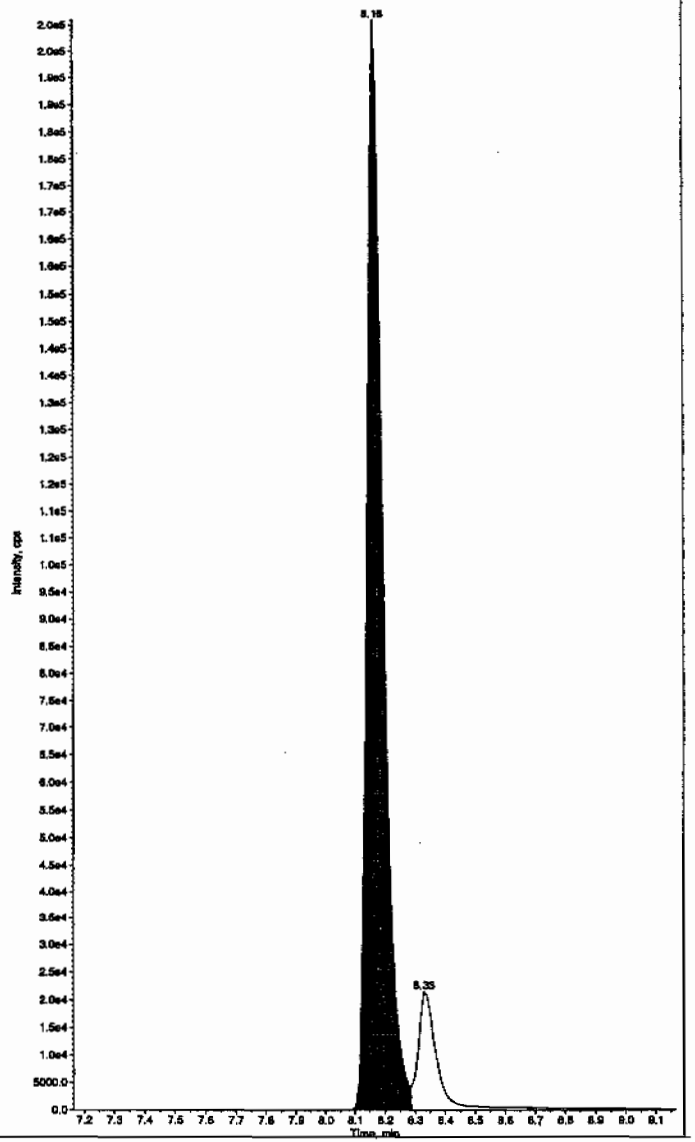

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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nple Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100081.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 50.0 ng/mL
ulated Conc: 49.0 ng/mL
Date: 3/11/2010
Time: 12:27:51 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 15.0 sec
cted RT: 8.32 min
Relative RT: No

Type: Valley
ntion Time: 8.33 min
: 5.26e+005 counts
ht: 149325.211 cps
t Time: 8.26 min
Time: 8.61 min

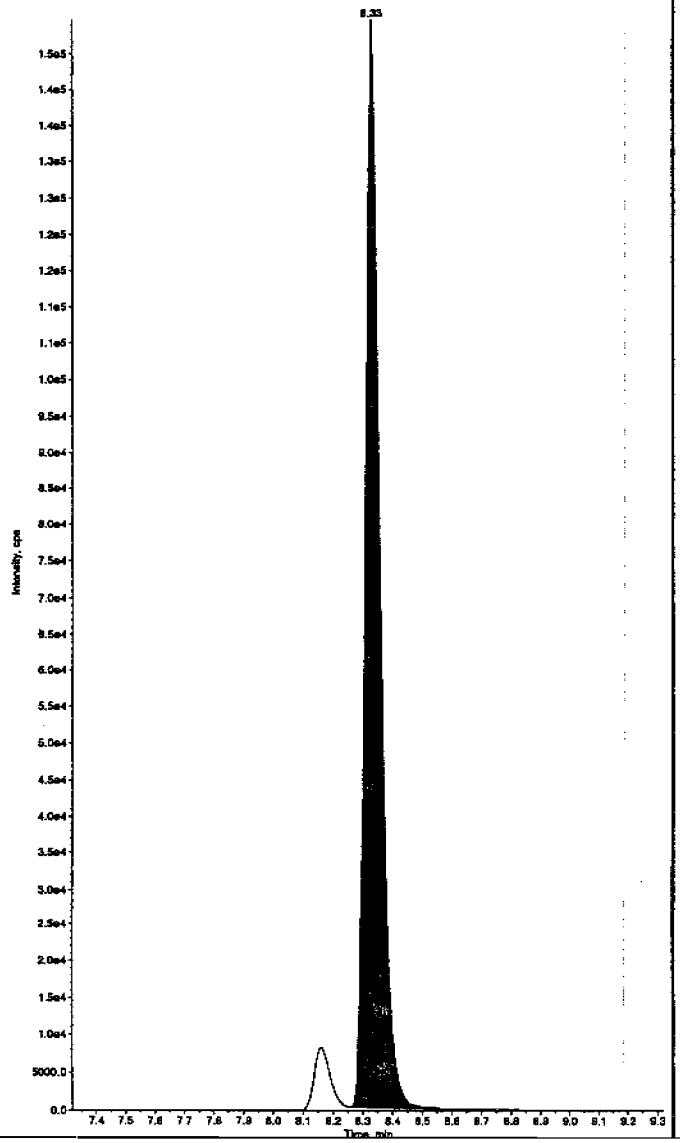

Sample Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100081.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 97.5 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 12:27:51 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.96 min
Area: 1.49e+005 counts
Height: 36447.231 cps
Start Time: 4.87 min
End Time: 5.24 min

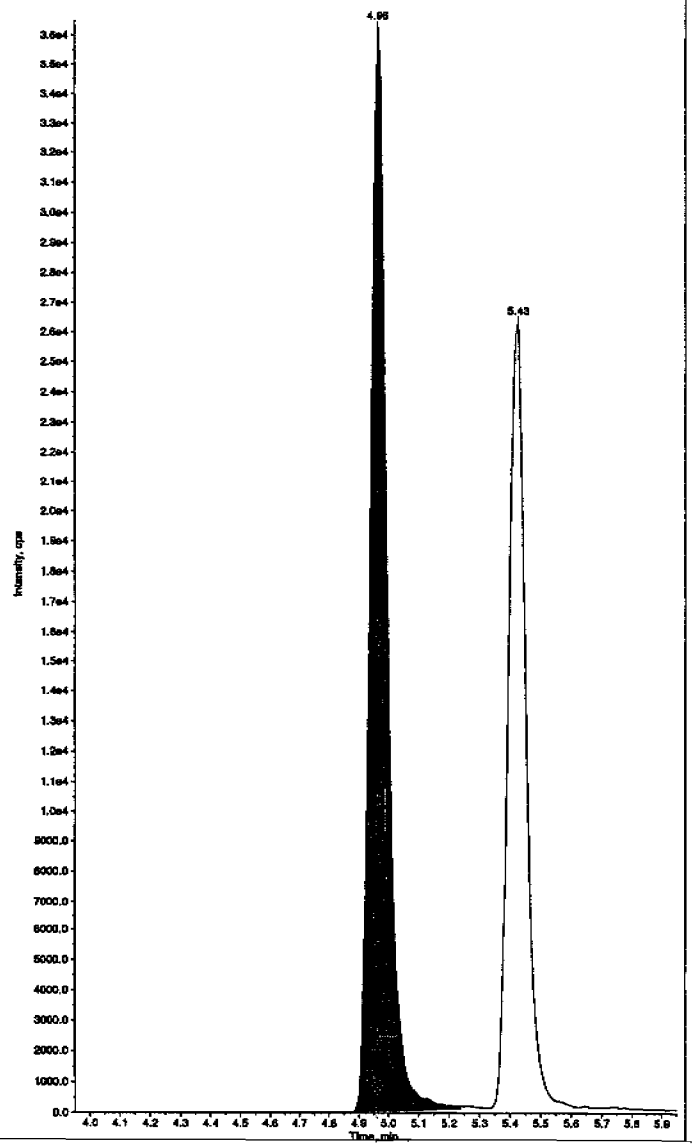

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100081.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 97.2 ng/mL
Date: 3/11/2010
Time: 12:27:51 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 30.0 sec
cted RT: 5.42 min
Relative RT: No

Type: Valley
ntion Time: 5.43 min
: 1.03e+005 counts
ht: 26360.556 cps
t Time: 5.34 min
Time: 5.62 min

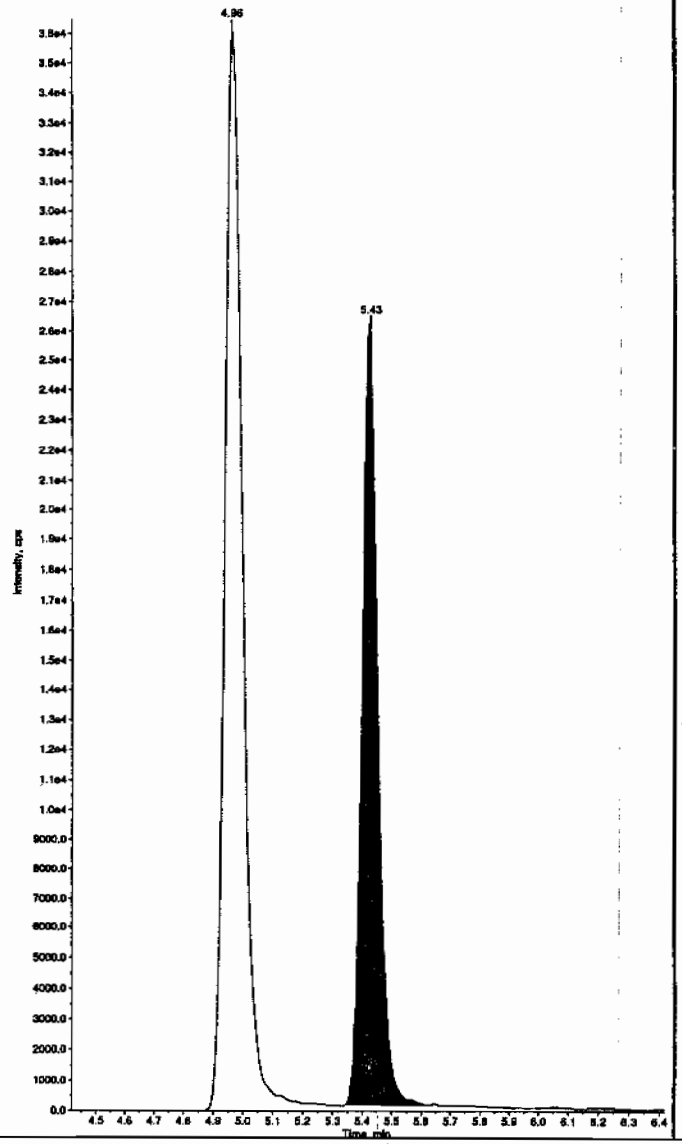

Sample Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100081.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 93.5 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 12:27:51 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.29e+006 counts
Height: 341350.006 cps
Start Time: 10.7 min
End Time: 11.1 min

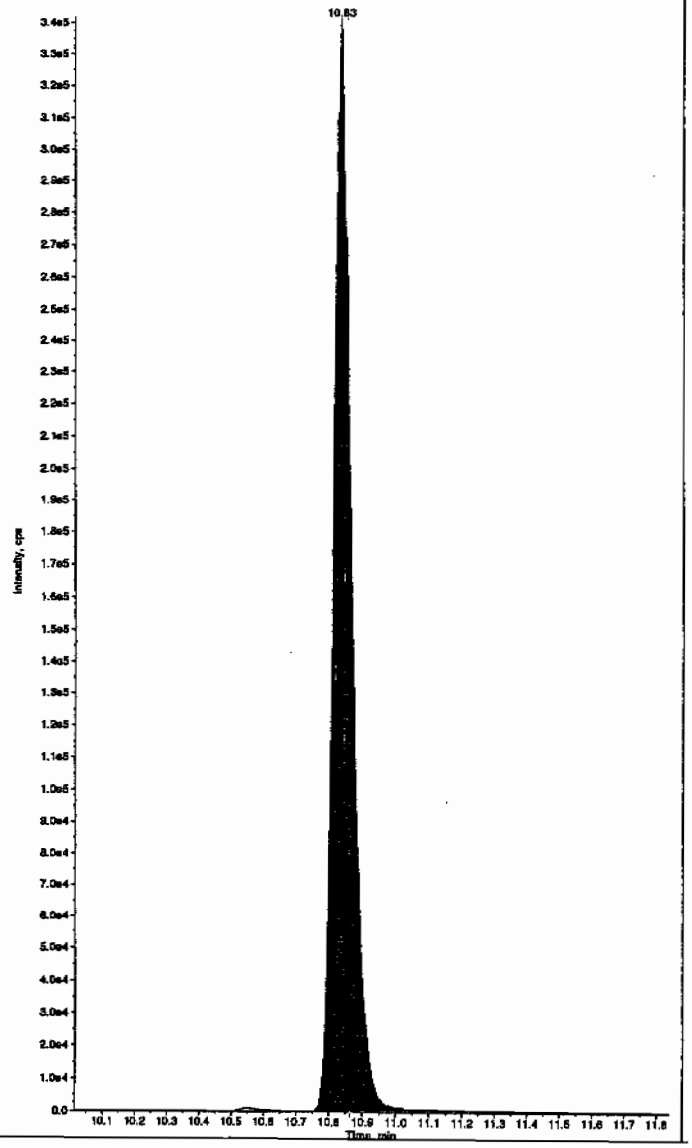

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1864

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03100092.wiff

Analysis Date: 11-MAR-10 15:20

LCMSMS ID: 1358

Column ID JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	488	98	
2,6-Diamino-4-nitrotoluene	500	475	95	
3,4-Dinitrotoluene	250	260	104	
3,5-Dinitroaniline	500	540	108	
TATB	500	473	95	
tris(o-cresyl) phosphate	500	461	92	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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ple Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100092.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 473. ng/mL
Date: 3/11/2010
Time: 3:20:35 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.92 min
Relative RT: No

Type: Valley
ntion Time: 6.92 min
: 6.71e+005 counts
ht: 156559.967 cps
t Time: 6.83 min
Time: 7.70 min

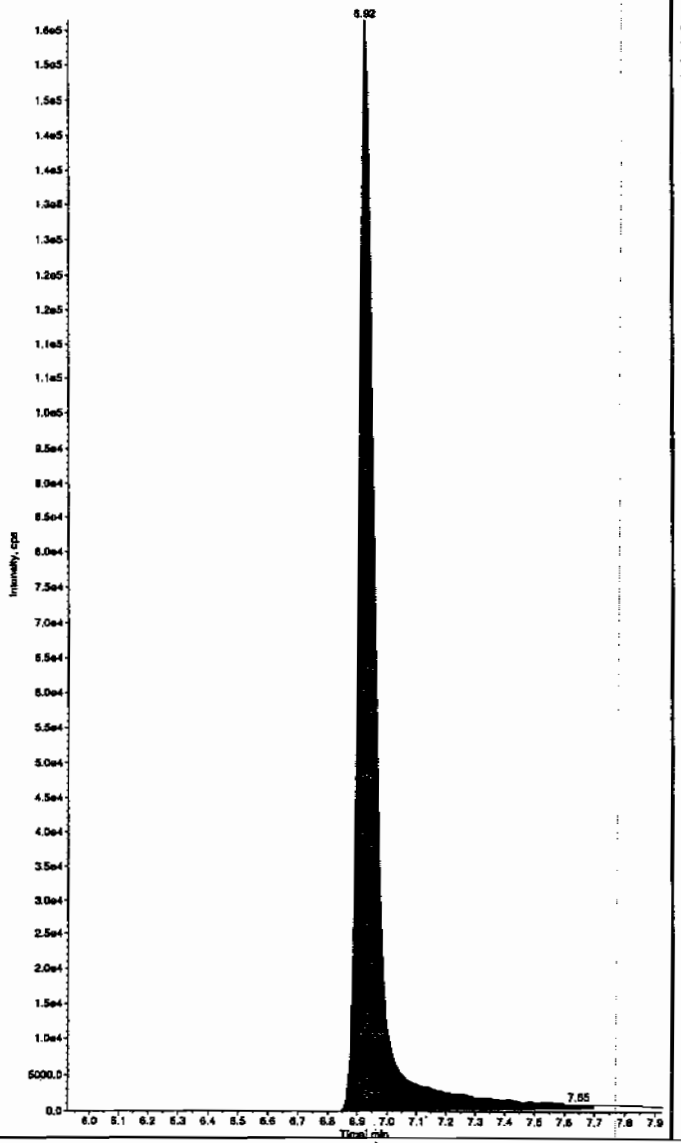

Sample Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100092.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 540. ng/mL
Acq. Date: 3/11/2010
Acq. Time: 3:20:35 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.16 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.16 min
Area: 3.80e+006 counts
Height: 985013.916 cps
Start Time: 8.07 min
End Time: 8.28 min

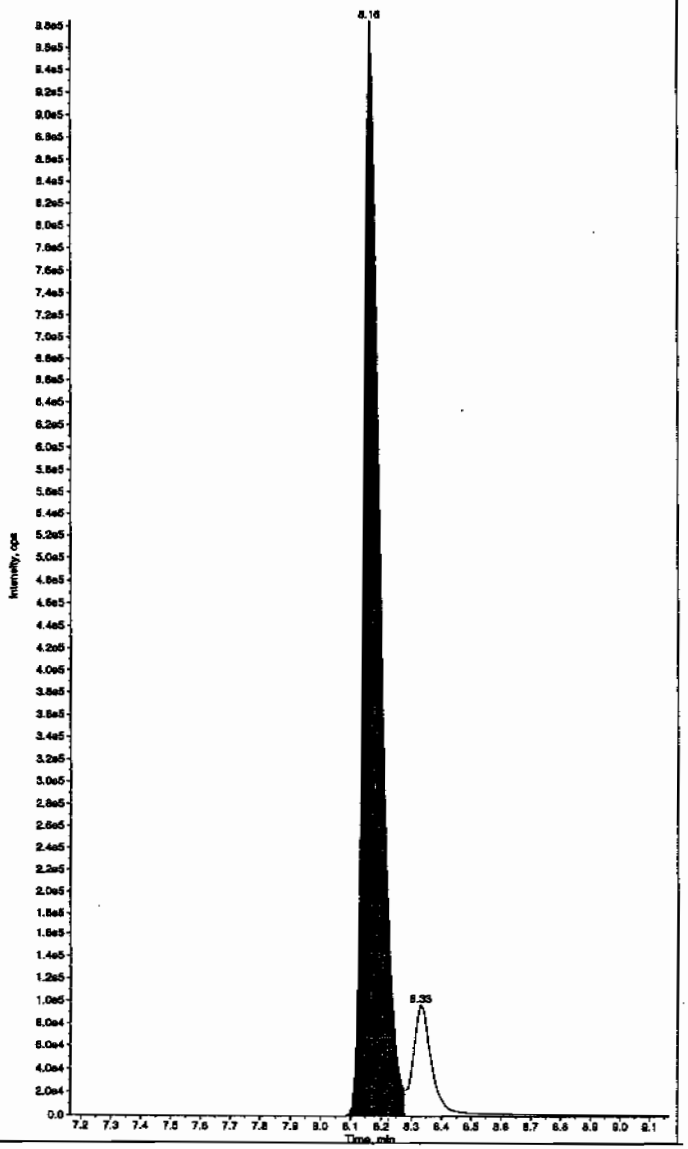

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100092.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 250. ng/mL
ulated Conc: 260. ng/mL
Date: 3/11/2010
Time: 3:20:35 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.32 min
Relative RT: No

Type: Valley
ntion Time: 8.33 min
: 2.62e+006 counts
ht: 713975.891 cps
t Time: 8.26 min
Time: 8.58 min

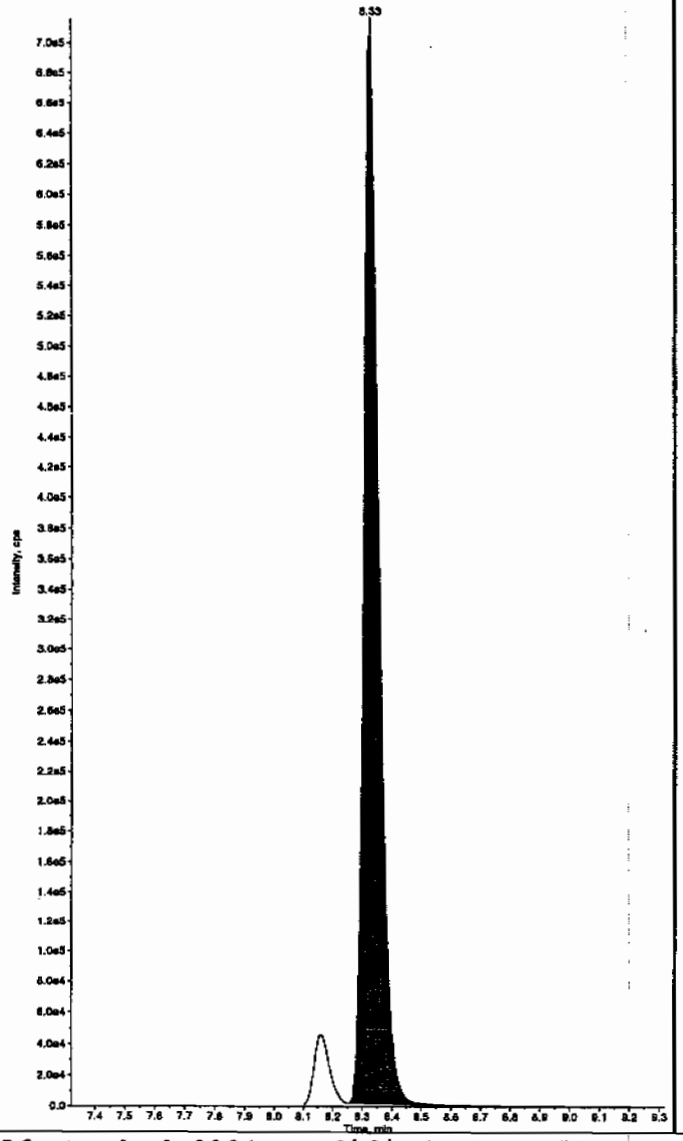

Sample Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100092.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 475. ng/mL
Acq. Date: 3/11/2010
Acq. Time: 3:20:35 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.96 min
Area: 7.27e+005 counts
Height: 179221.359 cps
Start Time: 4.87 min
End Time: 5.25 min

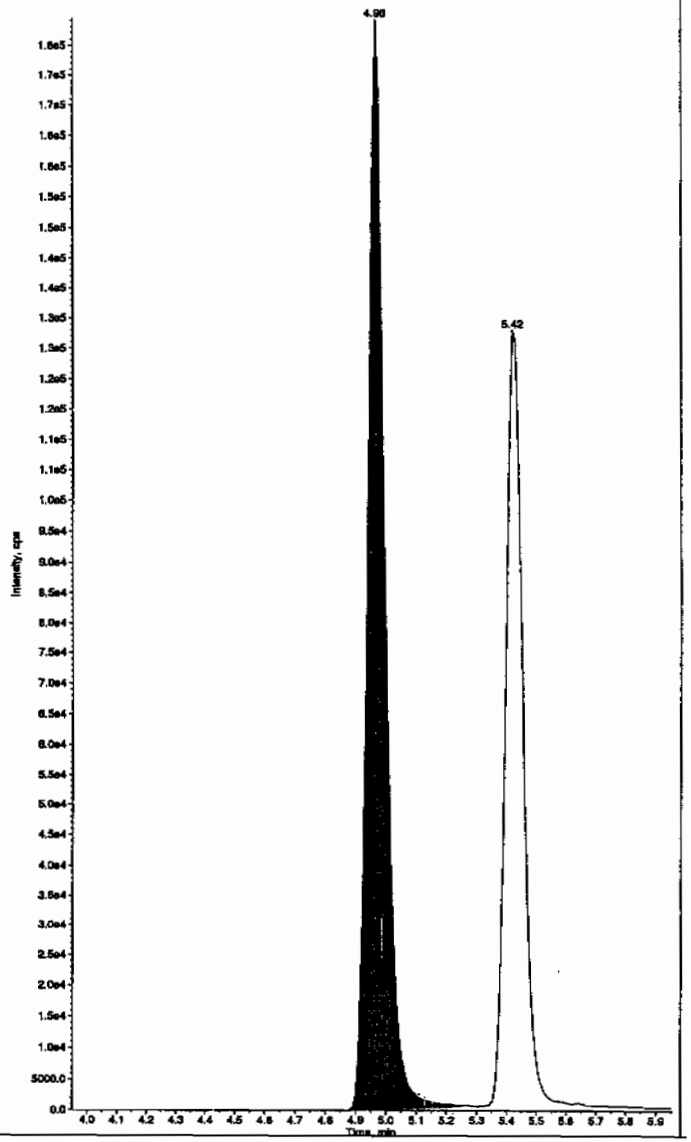

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100092.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "165.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 488. ng/mL
. Date: 3/11/2010
. Time: 3:20:35 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 5.42 min
Relative RT: No

. Type: Valley
ention Time: 5.42 min
a: 5.15e+005 counts
ght: 127567.894 cps
rt Time: 5.30 min
Time: 5.68 min

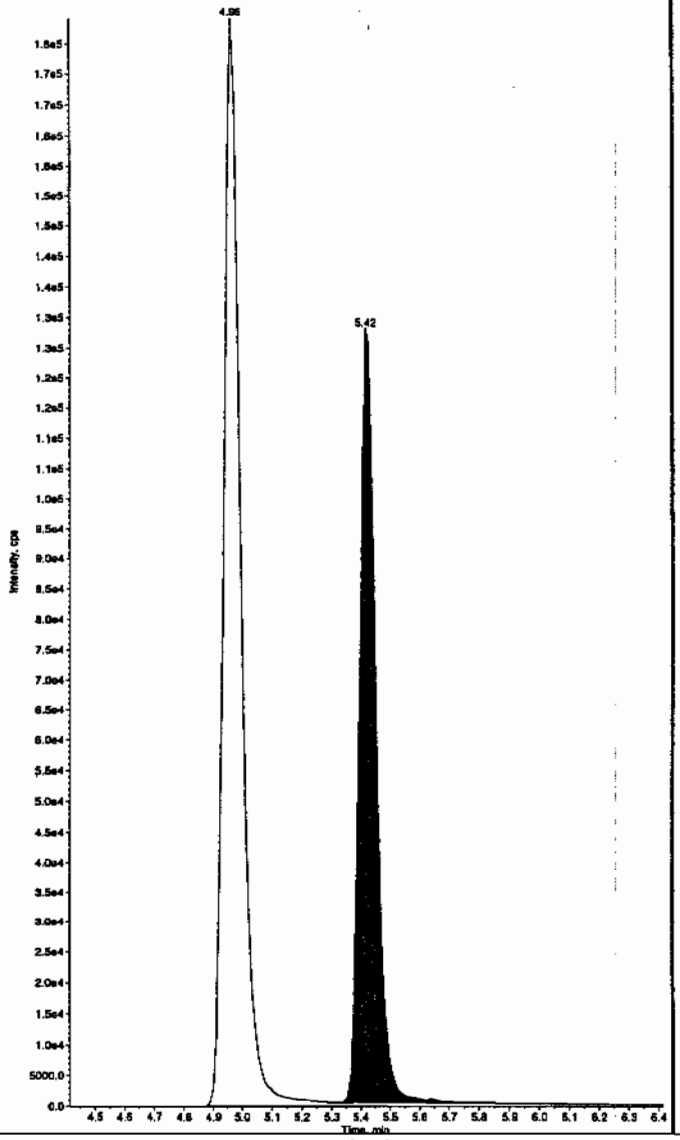

Sample Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100092.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 461. ng/mL
Acq. Date: 3/11/2010
Acq. Time: 3:20:35 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 5.86e+006 counts
Height: 1445143.921 cps
Start Time: 10.7 min
End Time: 11.2 min

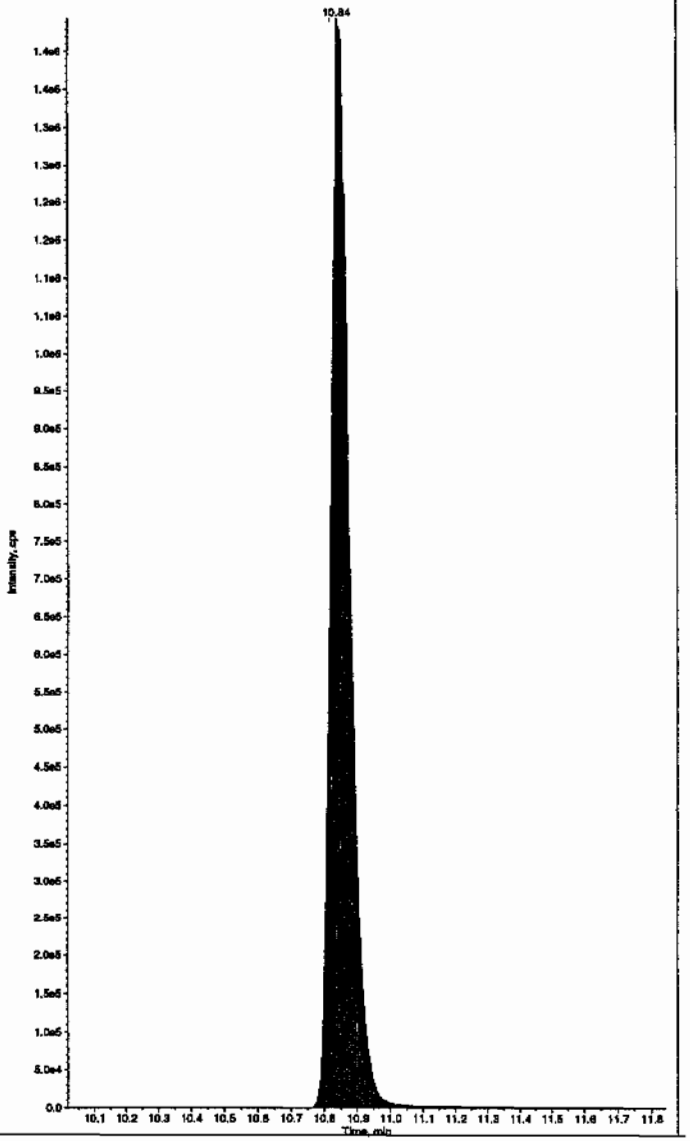

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1864

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03100094.wiff

Analysis Date: 11–MAR–10 15:51

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	90.1	90	
2,6–Diamino–4–nitrotoluene	100	94.6	95	
3,4–Dinitrotoluene	50	48.1	96	
3,5–Dinitroaniline	100	87.8	88	
TATB	100	89.8	90	
tris(o–cresyl) phosphate	100	91.8	92	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

RCW 3/14/10

mple Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100094.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	100.	ng/mL
culated Conc:	89.8	ng/mL
Date:	3/11/2010	
Time:	3:51:59 PM	
fied:	No	
. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	6.92	min
Relative RT:	No	
Type:	Valley	
ention Time:	6.91	min
:	1.15e+005	counts
ght:	26975.094	cps
t Time:	6.81	min
Time:	7.24	min

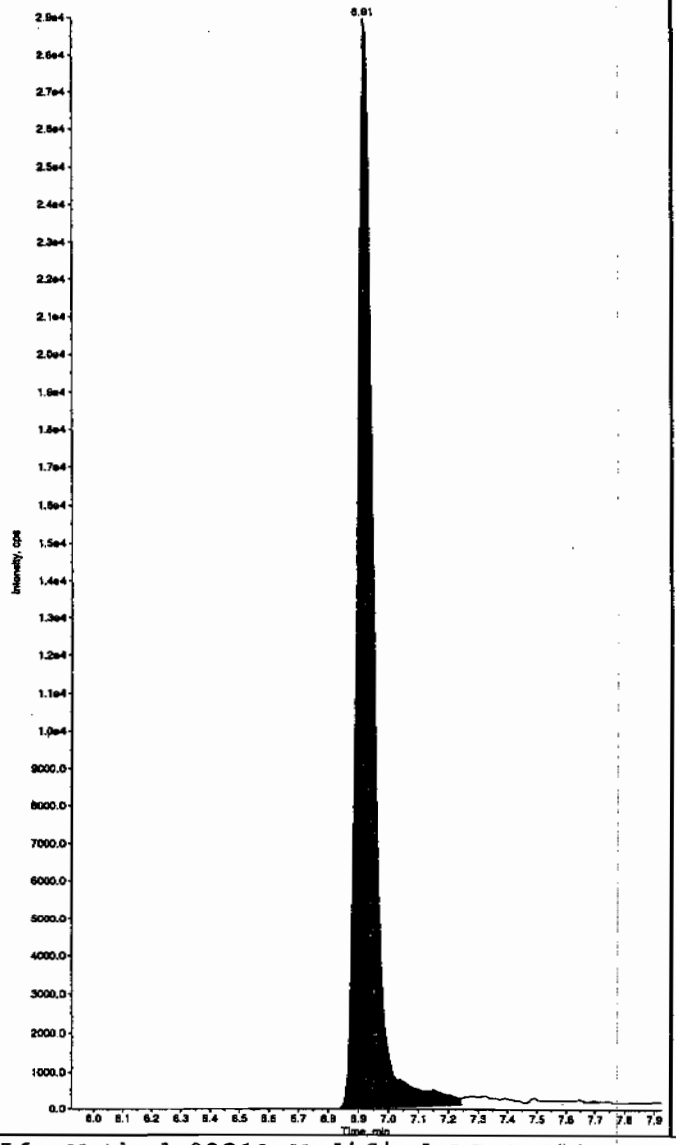

Sample Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100094.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	87.8	ng/mL
Acq. Date:	3/11/2010	
Acq. Time:	3:51:59 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.16	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.16	min
Area:	7.94e+005	counts
Height:	207574.371	cps
Start Time:	8.07	min
End Time:	8.28	min

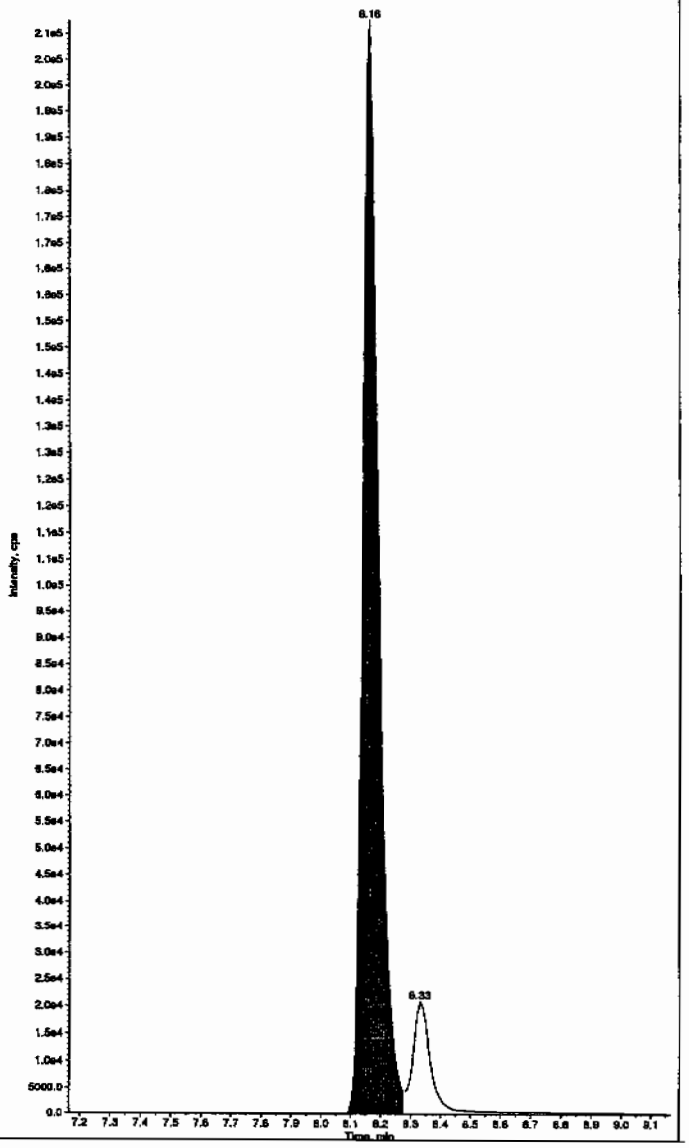

HMM 03/15/10

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ple Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100094.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 50.0 ng/mL
lated Conc: 48.1 ng/mL
Date: 3/11/2010
Time: 3:51:59 PM
fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 15.0 sec
cted RT: 8.32 min
Relative RT: No
Type: Valley
ntion Time: 8.33 min
: 5.17e+005 counts
ht: 137839.188 cps
t Time: 8.26 min
Time: 8.60 min

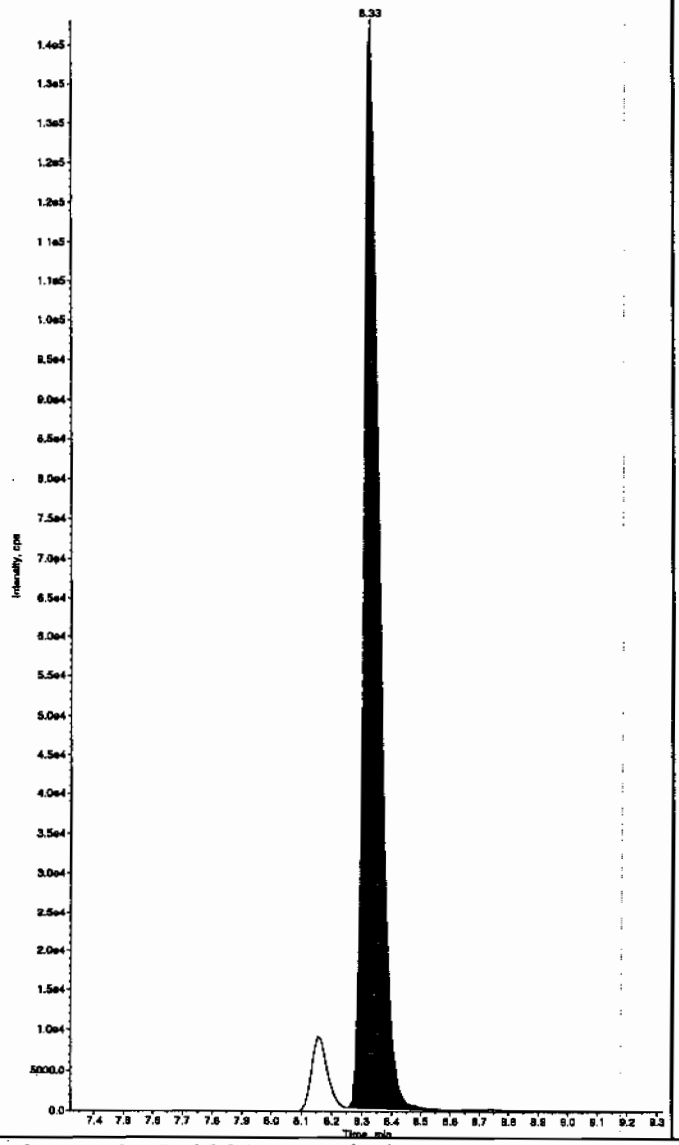

Sample Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100094.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 94.6 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 3:51:59 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.96 min
Area: 1.45e+005 counts
Height: 35026.691 cps
Start Time: 4.85 min
End Time: 5.20 min

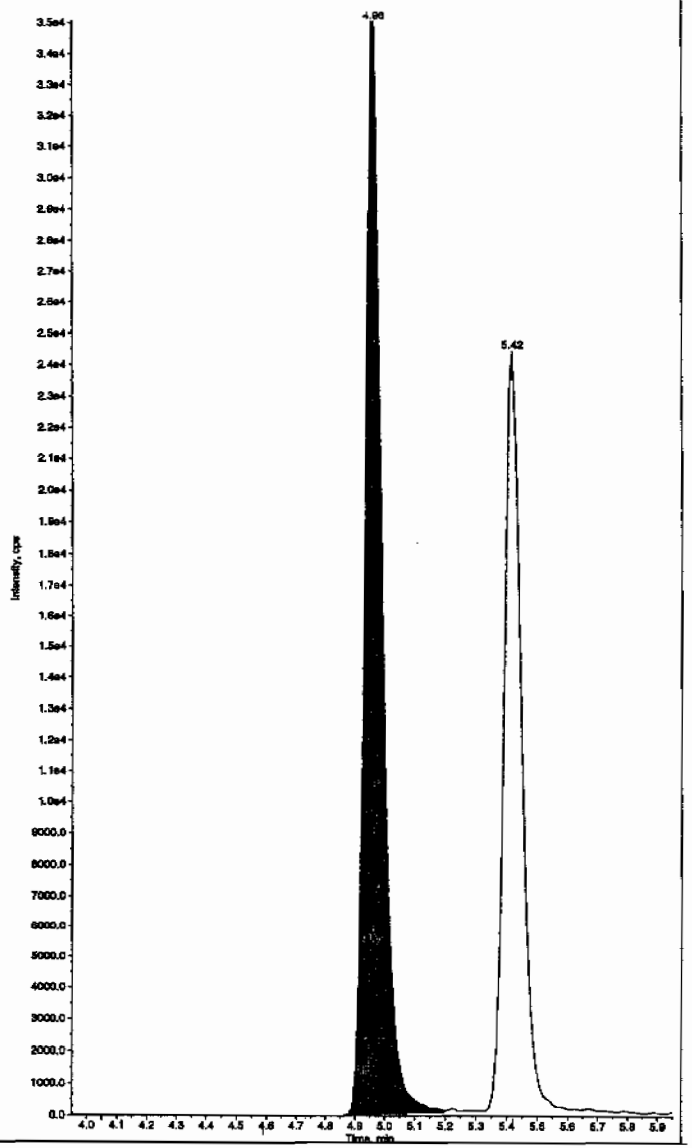

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

nple Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100094.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 90.1 ng/mL
Date: 3/11/2010
Time: 3:51:59 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.42 min
Relative RT: No

Type: Valley
ntion Time: 5.42 min
: 9.52e+004 counts
ht: 24293.383 cps
t Time: 5.26 min
Time: 5.61 min

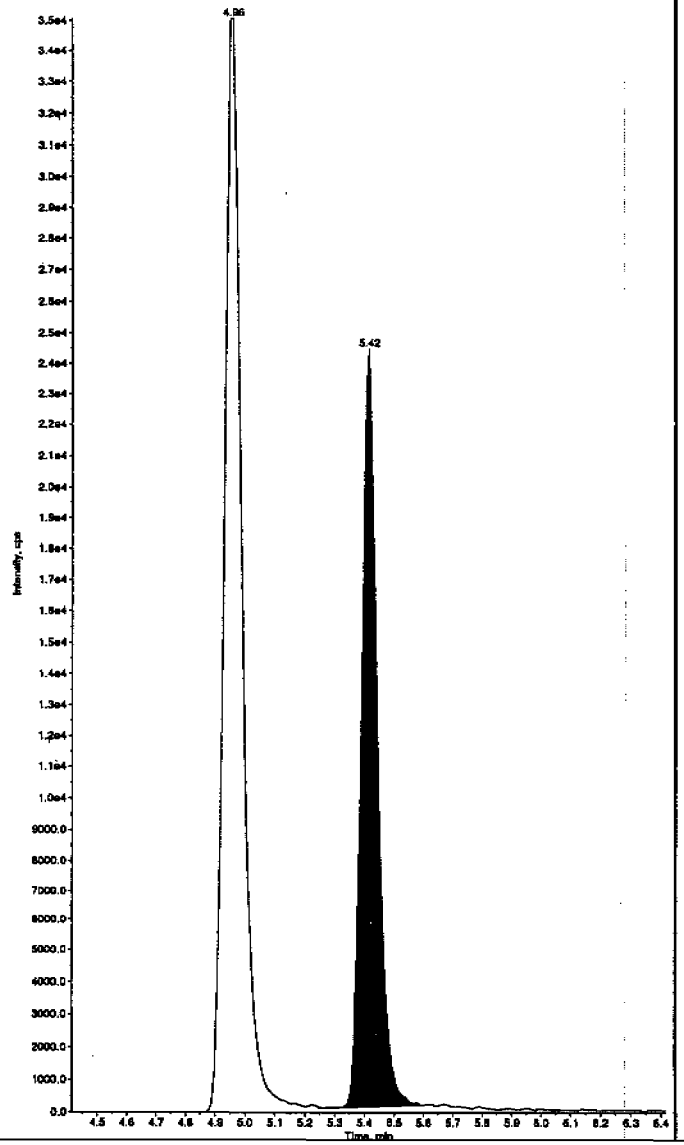

Sample Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100094.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 91.8 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 3:51:59 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.27e+006 counts
Height: 328995.087 cps
Start Time: 10.8 min
End Time: 11.1 min

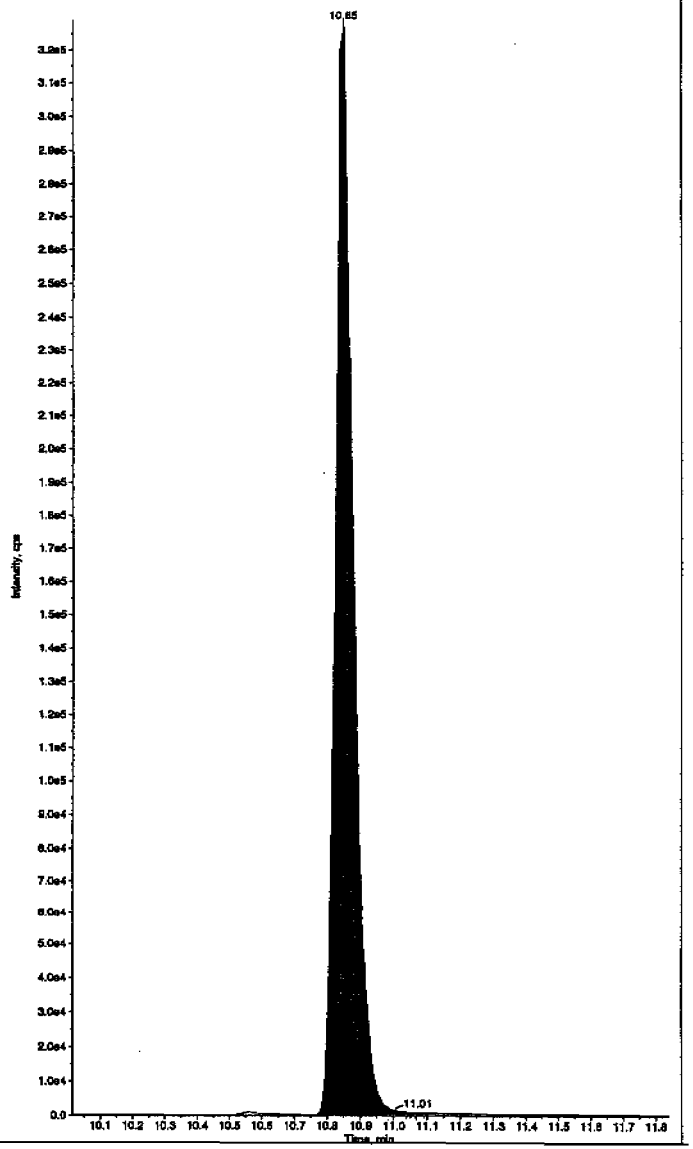

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1864

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03100103.wiff

Analysis Date: 11–MAR–10 18:13

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	499	100	
2,6–Diamino–4–nitrotoluene	500	493	99	
3,4–Dinitrotoluene	250	258	103	
3,5–Dinitroaniline	500	527	105	
TATB	500	473	95	
tris(o–cresyl) phosphate	500	467	93	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Scan 3/13/10

nple Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100103.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 473. ng/mL
Date: 3/11/2010
Time: 6:13:16 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.92 min
Relative RT: No

Type: Valley
ntion Time: 6.92 min
: 6.72e+005 counts
ht: 161980.011 cps
t Time: 6.82 min
Time: 7.77 min

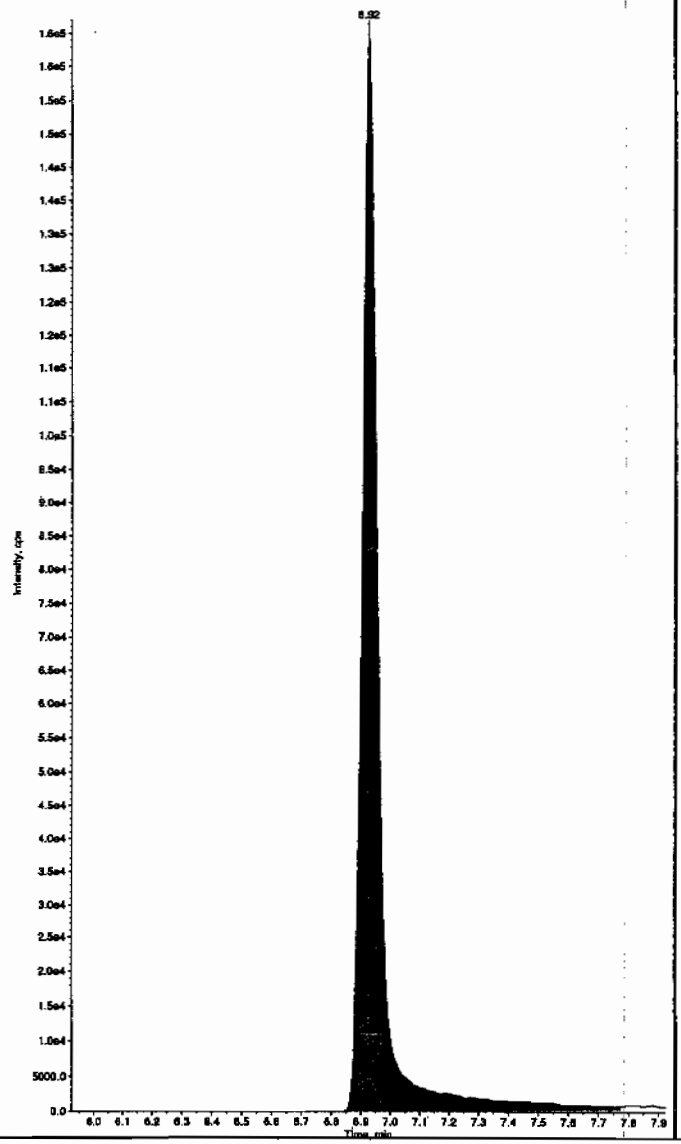

Sample Name: "WXX100310-25CCV" Sample ID: "[1]LER" File: "EXS03100103.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 512. ng/mL
Acq. Date: 3/11/2010
Acq. Time: 6:13:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.16 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.16 min
Area: 3.62e+006 counts
Height: 941751.038 cps
Start Time: 8.09 min
End Time: 8.29 min

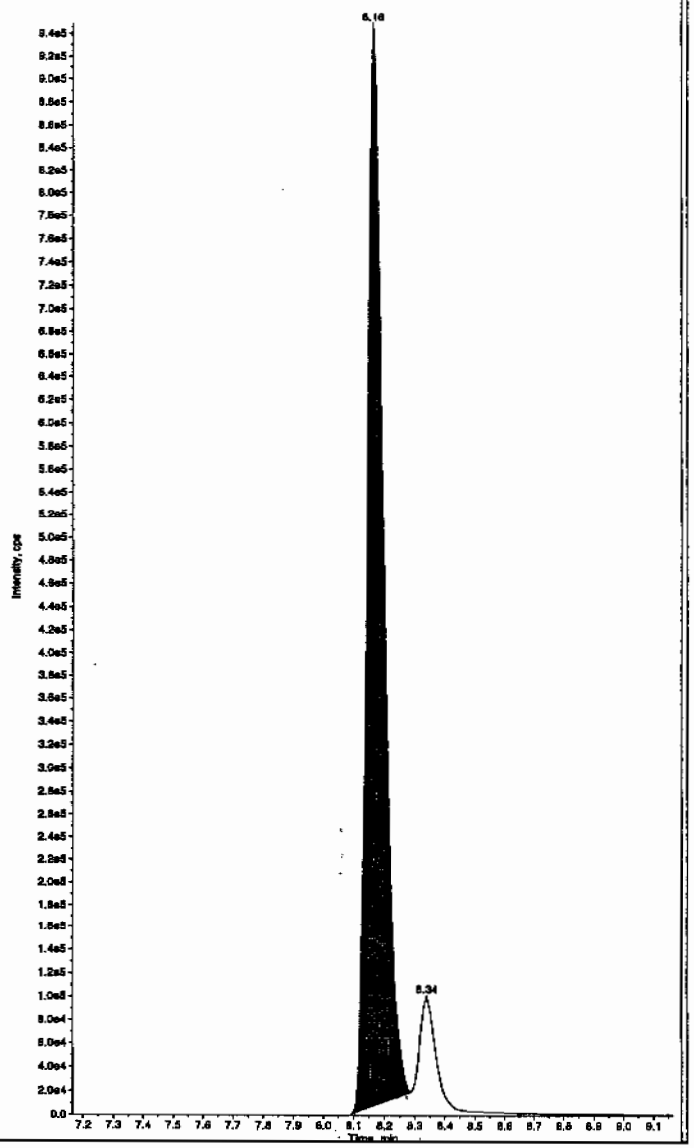

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after Run 3/14/10

nple Name: "WXX100310-26CCV" Sample ID: "|1|LER" File: "EXS03100103.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: "
le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 473. ng/mL
Date: 3/11/2010
Time: 6:13:16 PM
fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.92 min
Relative RT: No
Type: Valley
ation Time: 6.92 min
: 6.72e+005 counts
ht: 161980.011 cps
t Time: 6.82 min
Time: 7.77 min

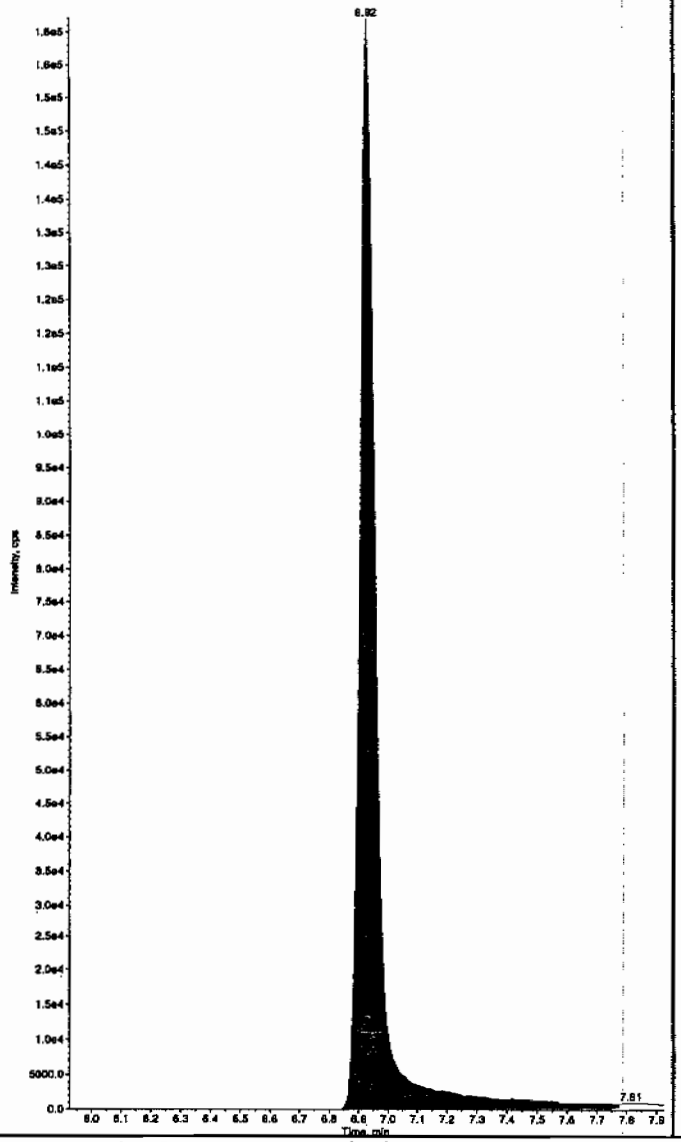

Sample Name: "WXX100310-26CCV" Sample ID: "|1|LER" File: "EXS03100103.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 527. ng/mL
Acq. Date: 3/11/2010
Acq. Time: 6:13:16 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.16 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.17 min
Area: 3.71e+006 counts
Height: 951287.743 cps
Start Time: 8.09 min
End Time: 8.29 min

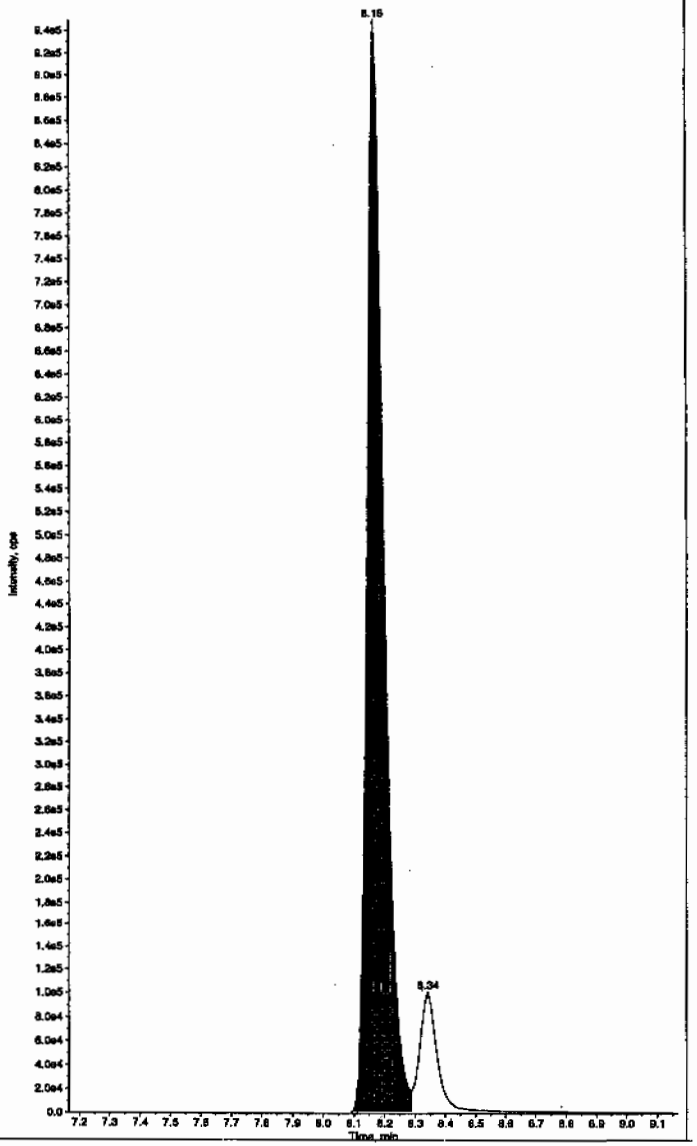

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100103.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 250. ng/mL
culated Conc: 258. ng/mL
Date: 3/11/2010
Time: 6:13:16 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 15.0 sec
cted RT: 8.32 min
Relative RT: No

Type: Valley
ntion Time: 8.33 min
: 2.60e+006 counts
ht: 697389.465 cps
t Time: 8.26 min
Time: 8.66 min

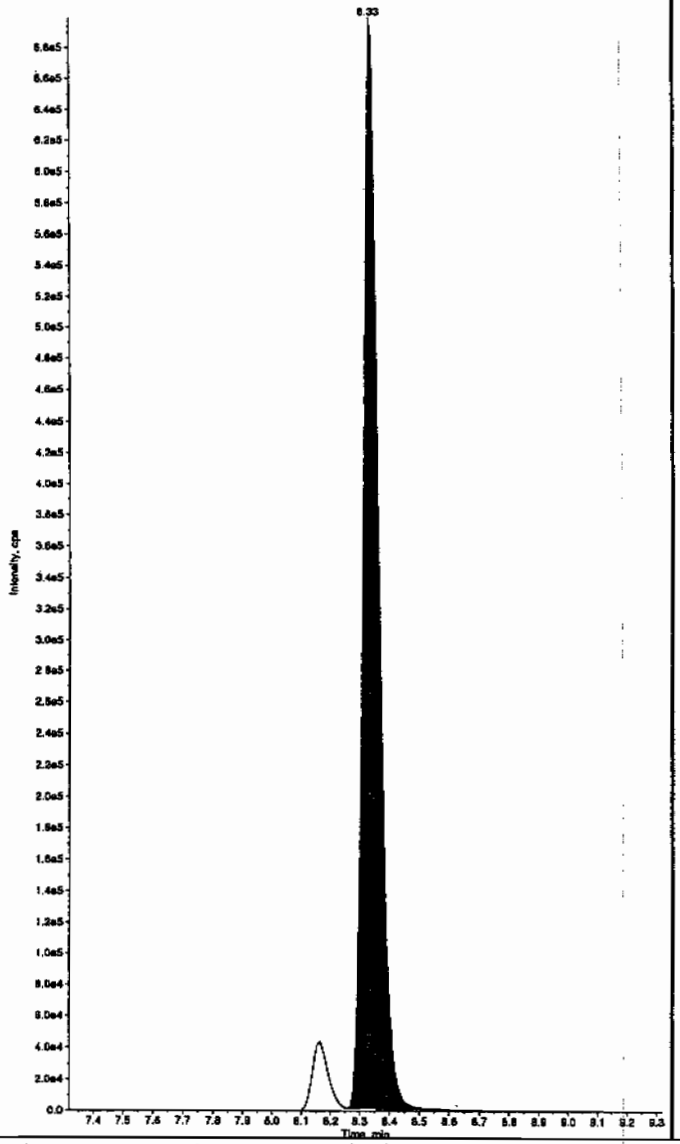

Sample Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100103.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/48.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 493. ng/mL
Acq. Date: 3/11/2010
Acq. Time: 6:13:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.96 min
Area: 7.55e+005 counts
Height: 186099.518 cps
Start Time: 4.87 min
End Time: 5.25 min

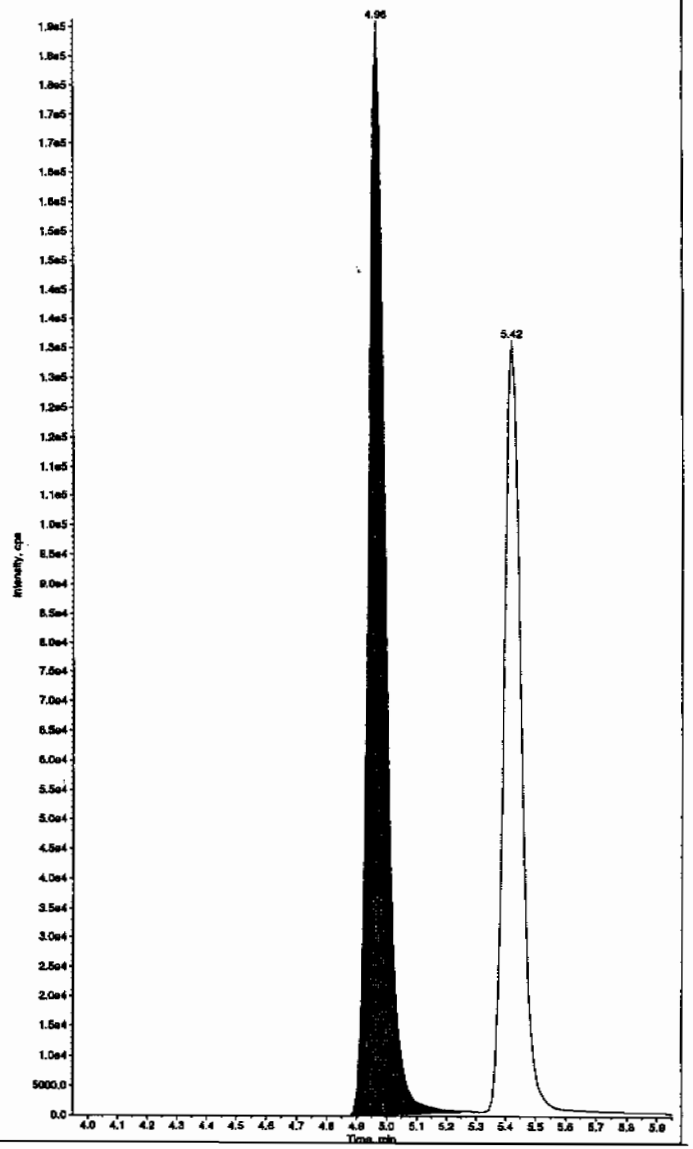

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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nple Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100103.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 499. ng/mL
Date: 3/11/2010
Time: 6:13:16 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.42 min
Relative RT: No

Type: Valley
ntion Time: 5.42 min
: 5.27e+005 counts
ht: 130849.045 cps
t Time: 5.32 min
Time: 5.74 min

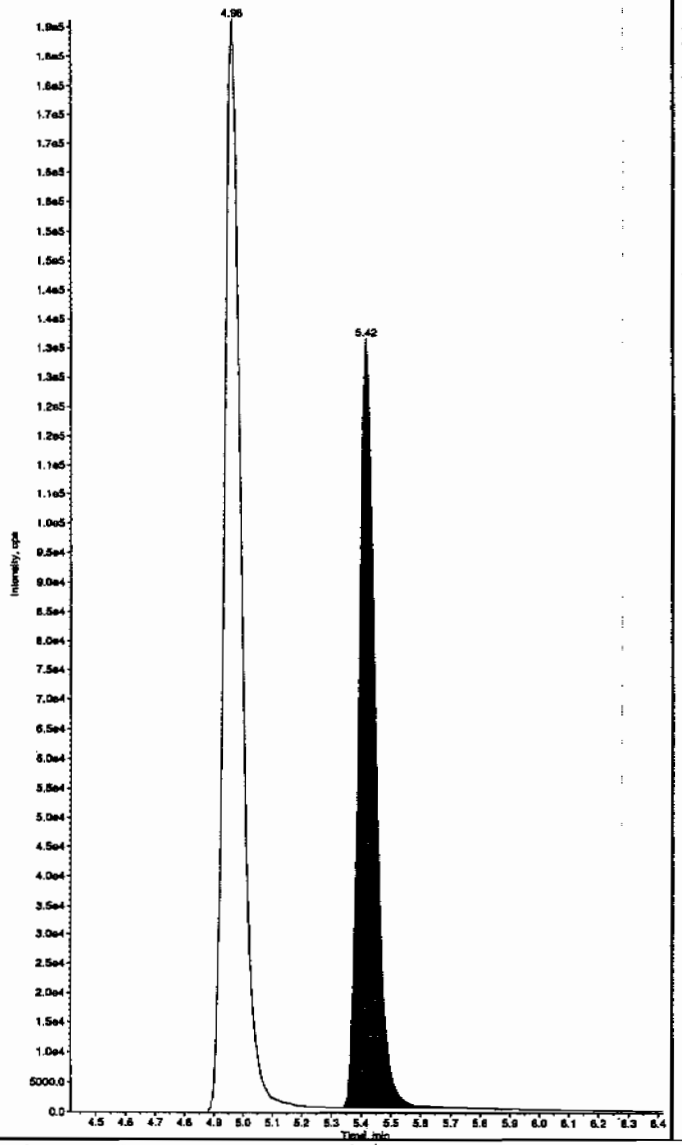

Sample Name: "WXX100310-26CCV" Sample ID: "[1]LER" File: "EXS03100103.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 467. ng/mL
Acq. Date: 3/11/2010
Acq. Time: 6:13:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 5.93e+006 counts
Height: 1543179.810 cps
Start Time: 10.7 min
End Time: 11.2 min

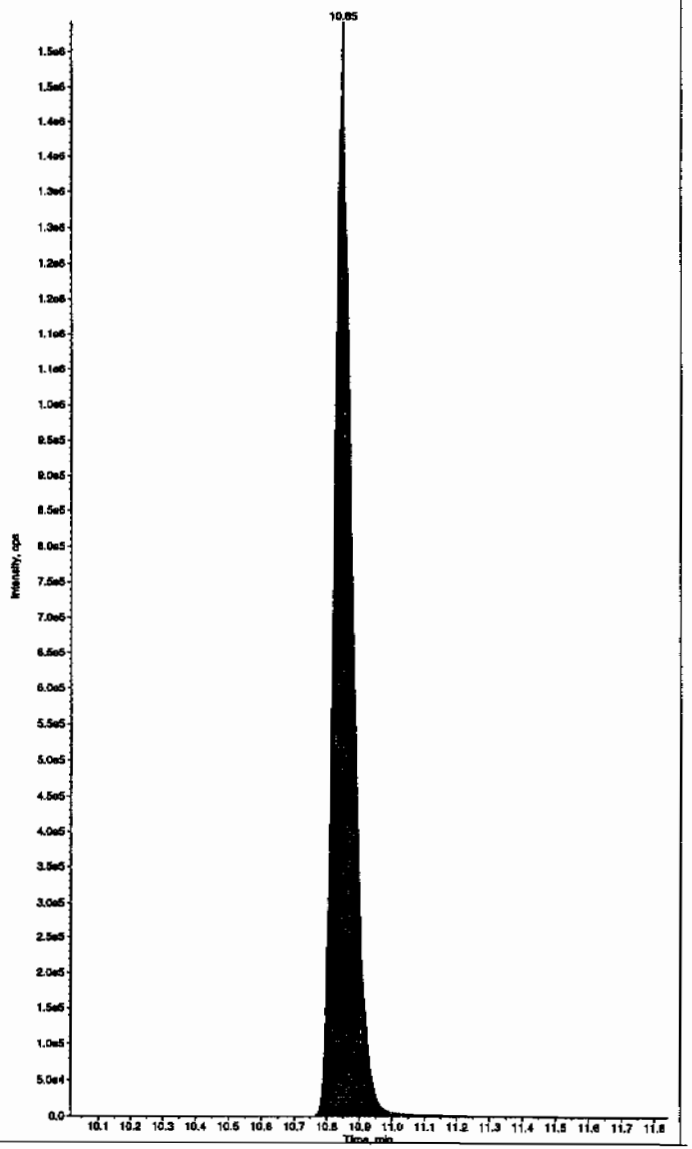

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1864

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03100105.wiff

Analysis Date: 11–MAR–10 18:44

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	98.1	98	
2,6–Diamino–4–nitrotoluene	100	102	102	
3,4–Dinitrotoluene	50	47.4	95	
3,5–Dinitroaniline	100	86.9	87	
TATB	100	90	90	
tris(o–cresyl) phosphate	100	91.7	92	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 3/14/10

ample Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100105.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 100. ng/mL
culated Conc: 90.0 ng/mL
. Date: 3/11/2010
. Time: 6:44:40 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
ected RT: 6.92 min
Relative RT: No

. Type: Valley
ention Time: 6.92 min
a: 1.16e+005 counts
ght: 28811.375 cps
rt Time: 6.84 min
Time: 7.22 min

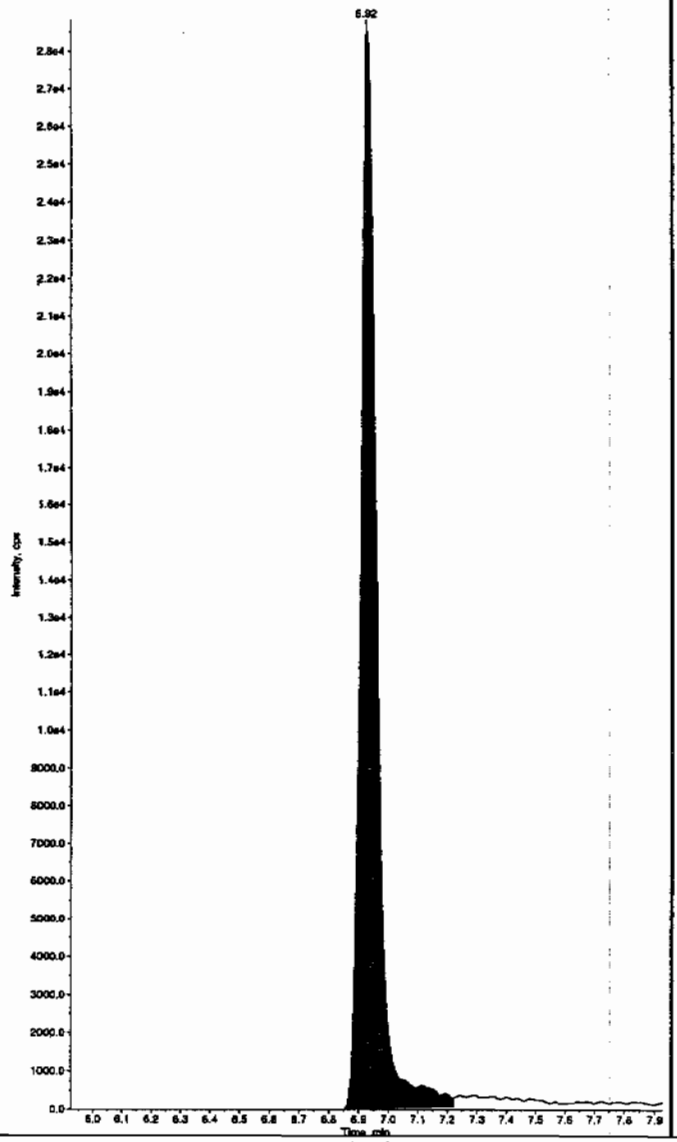

Sample Name: "WXX100310-27CRI" Sample ID: "[1]LER" File: "EXS03100105.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 86.9 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 6:44:40 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.16 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.16 min
Area: 7.88e+005 counts
Height: 197062.973 cps
Start Time: 8.05 min
End Time: 8.29 min

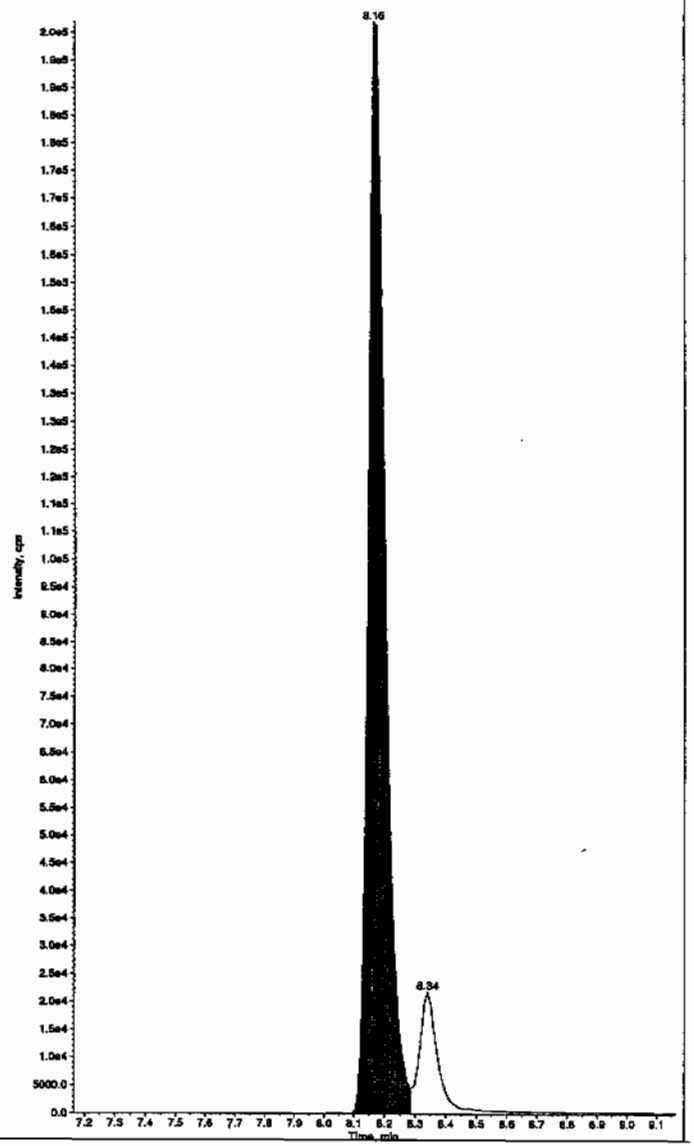

Hnw 03/15/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "WXX100310-27CRI" Sample ID: "|1|LER" File: "EXS03100105.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
centration: 50.0 ng/mL
culated Conc: 47.4 ng/mL
. Date: 3/11/2010
. Time: 6:44:40 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.32 min
Relative RT: No

. Type: Valley
ention Time: 8.33 min
a: 5.10e+006 counts
ght: 138147.934 cps
rt Time: 8.26 min
Time: 8.59 min

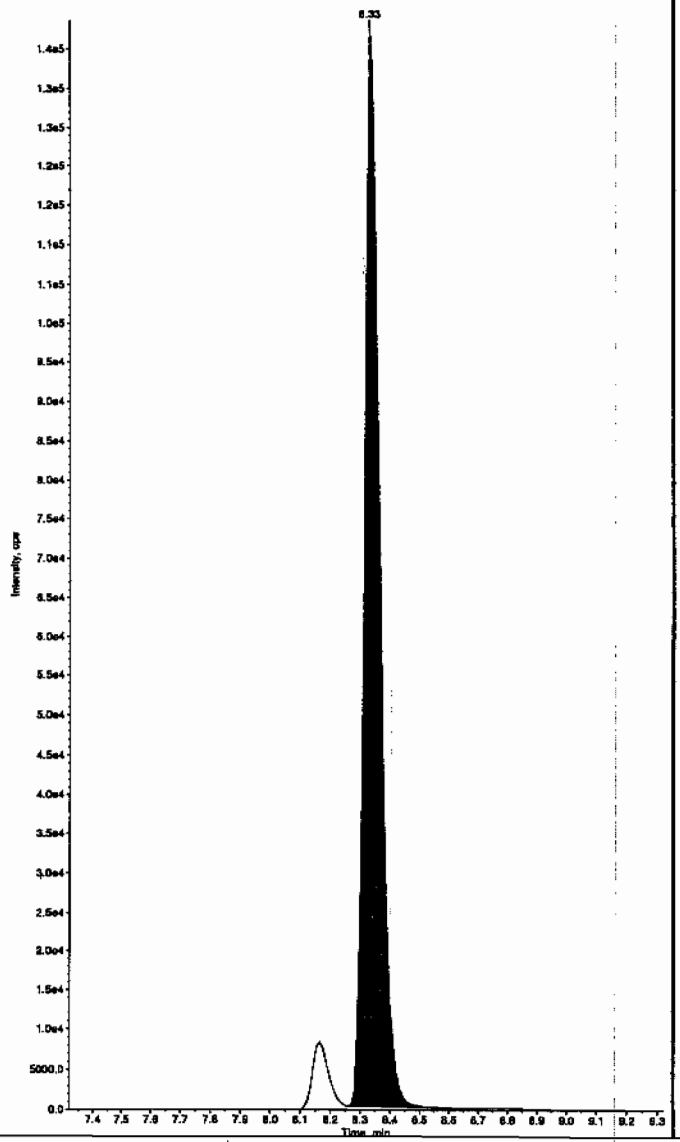

Sample Name: "WXX100310-27CRI" Sample ID: "|1|LER" File: "EXS03100105.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 102. ng/mL
Acq. Date: 3/11/2010
Acq. Time: 6:44:40 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.96 min
Area: 1.57e+005 counts
Height: 39103.901 cps
Start Time: 4.87 min
End Time: 5.26 min

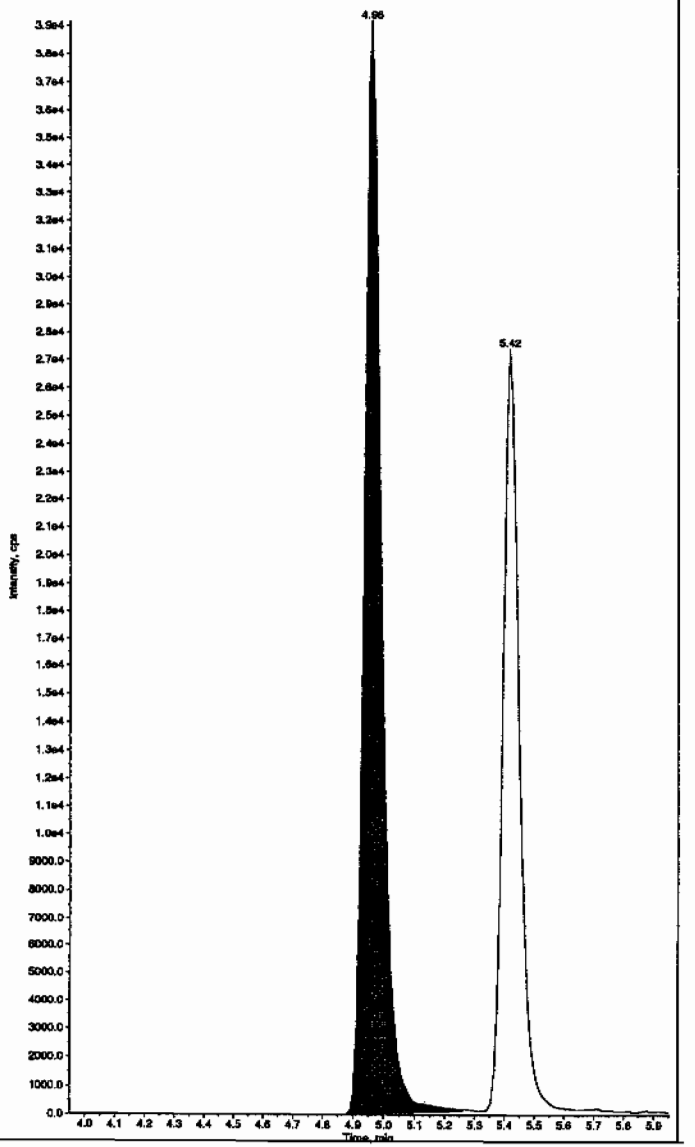

ample Name: "WXX100310-27CRI" Sample ID: "|1|LER" File: "EXS03100105.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:           QC
centration:       100.     ng/mL
culated Conc:      98.1     ng/mL
. Date:        3/11/2010
. Time:        6:44:40 PM

ified:             No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00   cps
. Peak Width:    0.00   sec
othing Width:  3        points
Window:          30.0   sec
ected RT:         5.42  min
 Relative RT:     No

. Type:         Valley
ention Time:      5.42  min
a:          1.04e+005   counts
ght:          27178.761 cps
rt Time:          5.34  min
 Time:            5.60  min
```

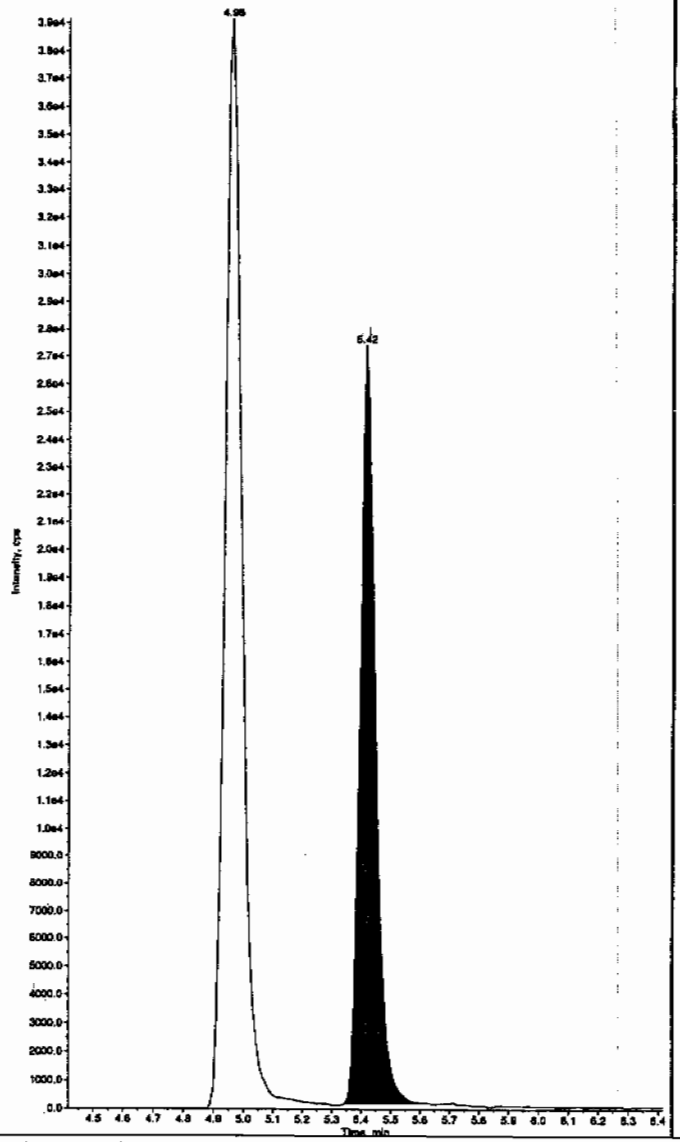

Sample Name: "WXX100310-27CRI" Sample ID: "|1|LER" File: "EXS03100105.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       100.     ng/mL
Calculated Conc:      91.7     ng/mL
Acq. Date:        3/11/2010
Acq. Time:        6:44:40 PM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:          30.0   sec
Expected RT:        10.8   min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.8   min
Area:         1.27e+006    counts
Height:         324973.297 cps
Start Time:         10.8   min
End Time:           11.1   min
```

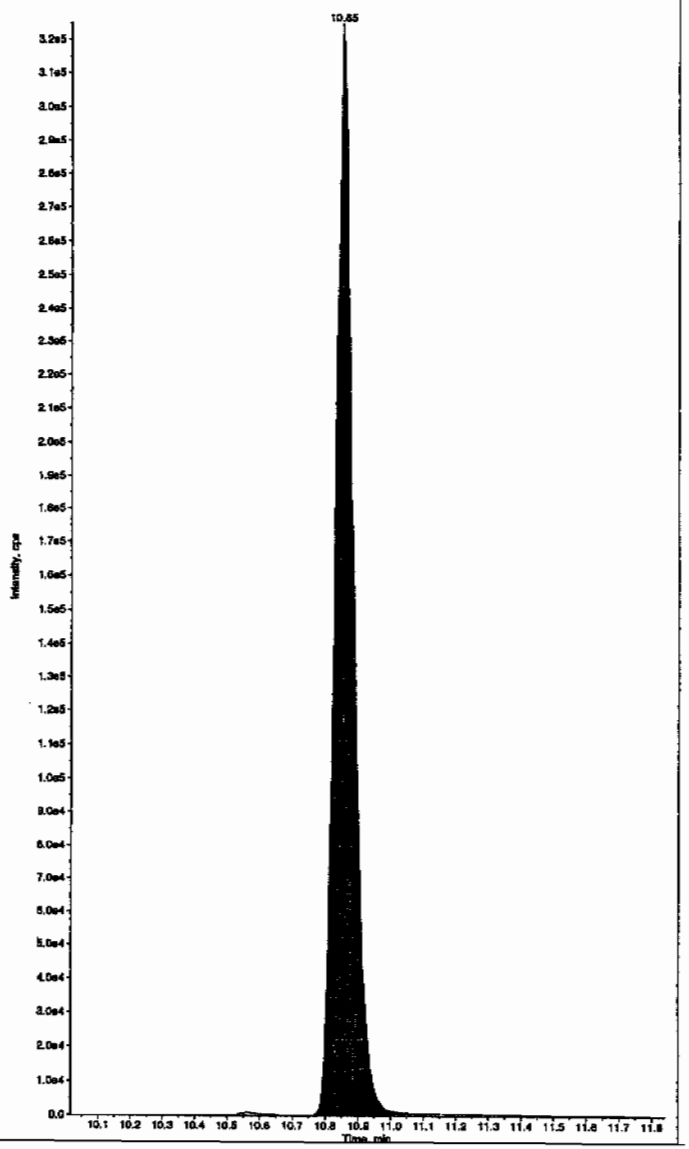

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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QUALITY CONTROL DATA

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 954324

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 1202045748

Sample Amount 2

Moisture:

Amount Units g

Date Received: 17-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330017.wiff

Date Analyzed: 30-MAR-10 15:39

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	500	U
121-14-2	2,4-Dinitrotoluene	500	U
121-82-4	RDX	500	U
19406-51-0	4-Amino-2,6-dinitrotoluene	500	U
2691-41-0	HMX	500	U
35572-78-2	2-Amino-4,6-dinitrotoluene	500	U
479-45-8	Tetryl	500	U
606-20-2	2,6-Dinitrotoluene	500	U
78-11-5	PETN	1000	U
88-72-2	o-Nitrotoluene	500	U
98-95-3	Nitrobenzene	500	U
99-08-1	m-Nitrotoluene	500	U
99-35-4	1,3,5-Trinitrobenzene	500	U
99-65-0	m-Dinitrobenzene	500	U
99-99-0	p-Nitrotoluene	500	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330017.wiff	Acquisition Date	3/30/2010 3:39:14 PM
Sample Name	1202045748	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

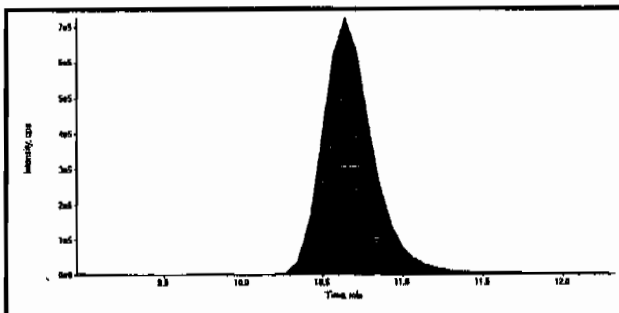

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	15600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

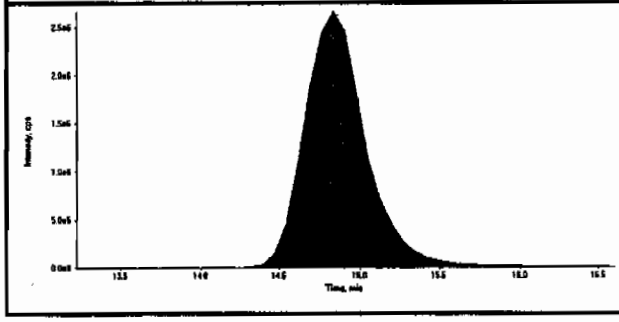

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.80
Area Counts:	70400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

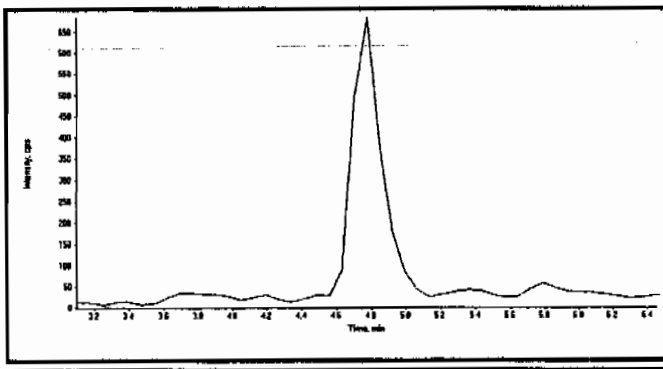

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

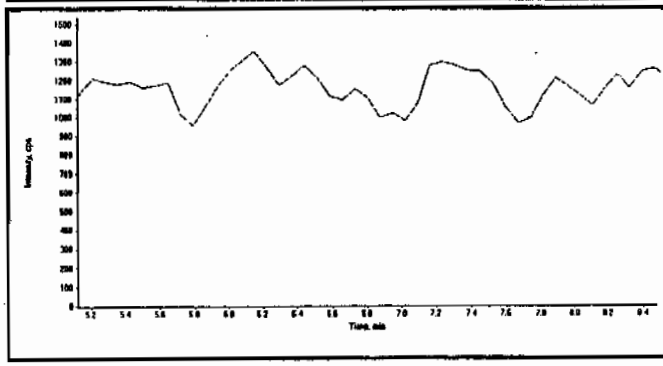

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

HMK 04/02/10 Kan 4/2/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330017.wiff	**Acquisition Date**	3/30/2010 3:39:14 PM
Sample Name	1202045748	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

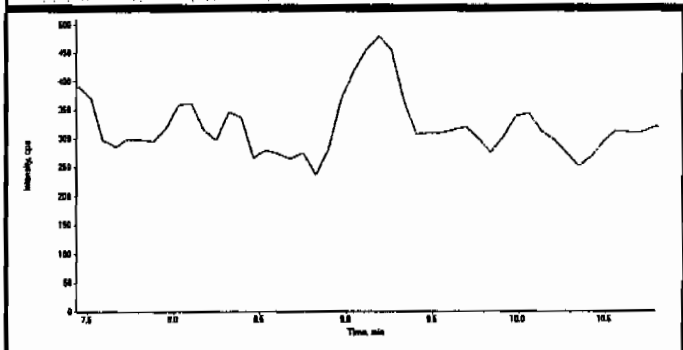

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

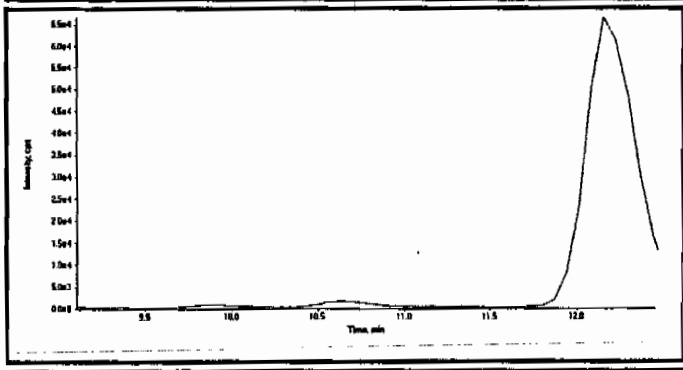

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

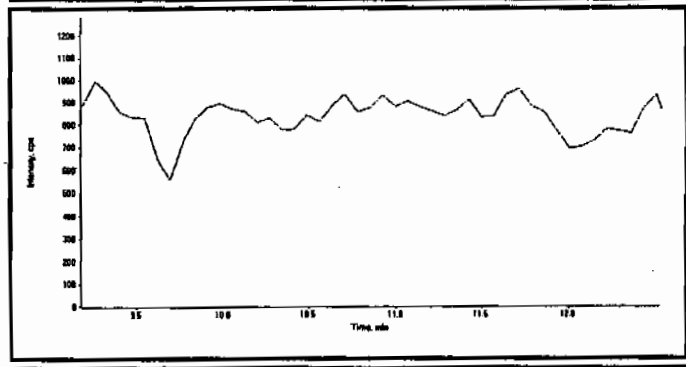

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

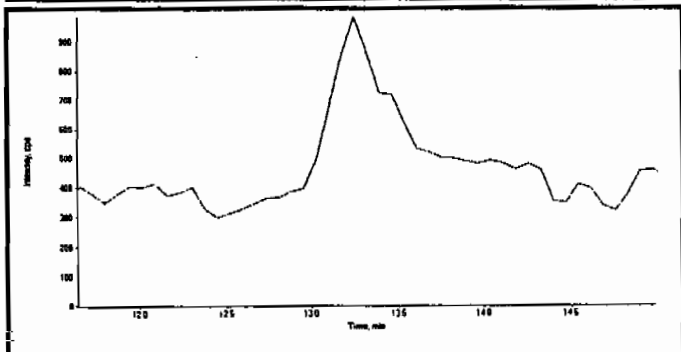

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330017.wiff	**Acquisition Date**	3/30/2010 3:39:14 PM
Sample Name	1202045748	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

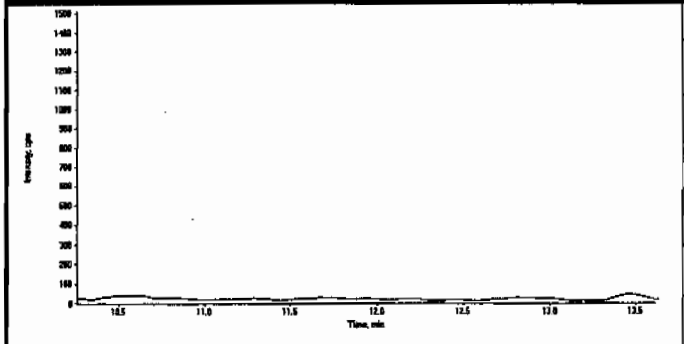

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

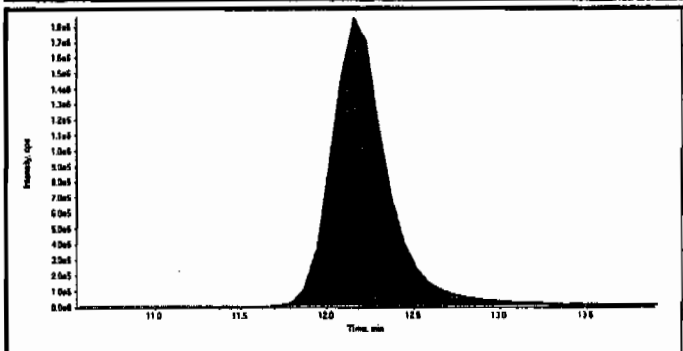

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	12.2
Area Counts:	4.17e+007
Manual Modification	No
Amount:	254. (ng/mL)
% Accuracy:	N/A

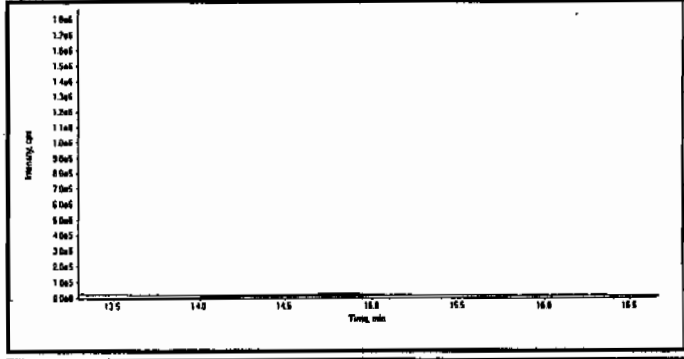

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	14.8
Area Counts:	6.13e+005
Manual Modification	No
Amount:	4.82 (ng/mL)
% Accuracy:	N/A

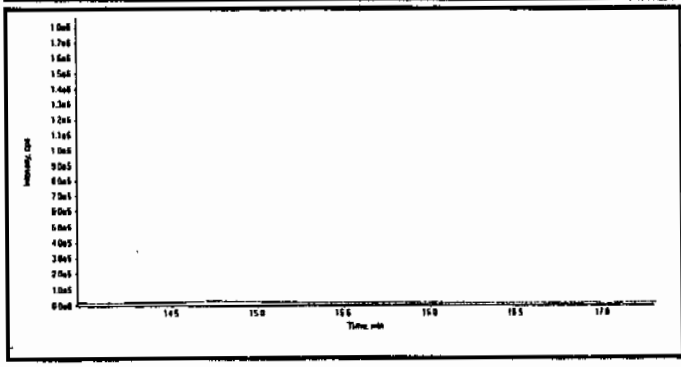

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330017.wiff	**Acquisition Date**	3/30/2010 3:39:14 PM
Sample Name	1202045748	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

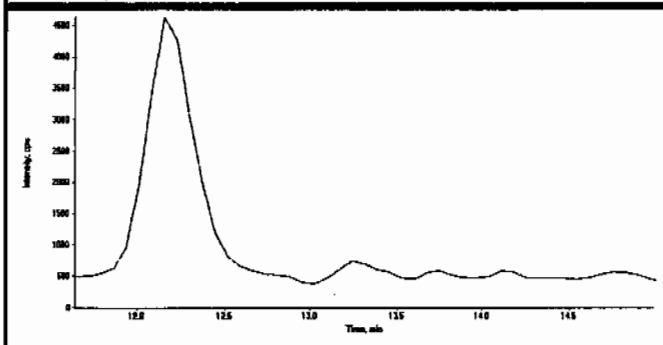

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

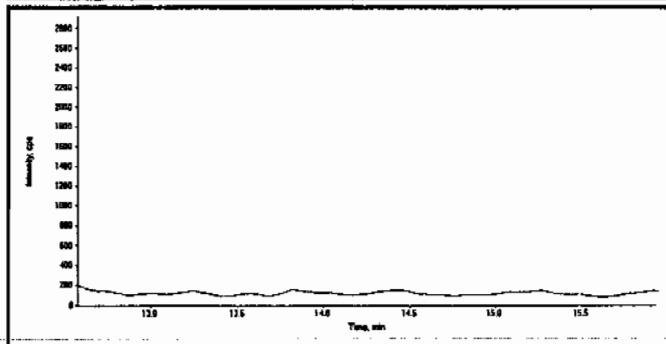

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

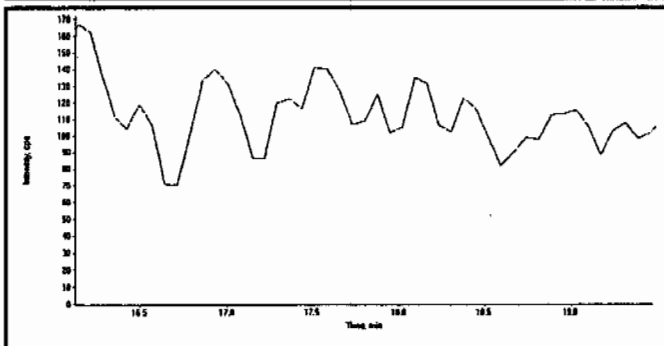

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

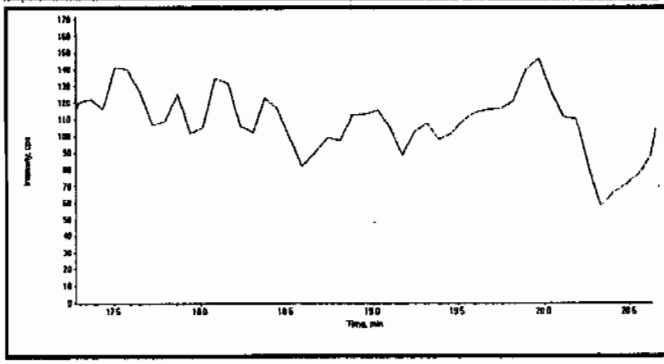

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330017.wiff	**Acquisition Date**	3/30/2010 3:39:14 PM
Sample Name	1202045748	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

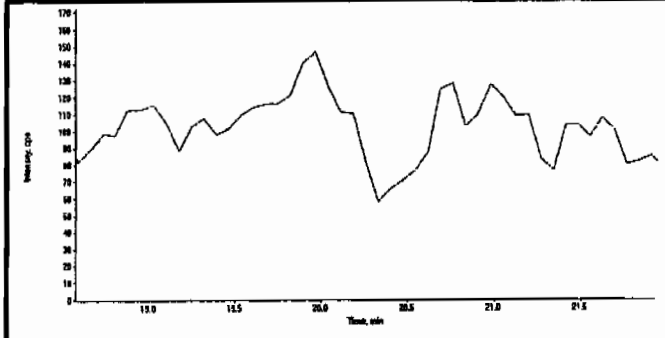

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

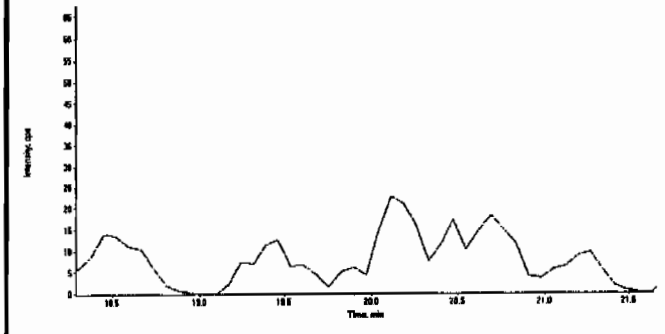

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 954324

Lab Code: GEL

GEL Job No (SDG) 10–1864

Matrix: SOIL

GEL Sample ID: 1202045748

Sample Amount 2

Moisture:

Amount Units g

Date Received: 17–FEB–10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22–FEB–10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100082.wiff

Date Analyzed: 11–MAR–10 12:43

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058–38–6	TATB	1000	U
59229–75–3	2,6–Diamino–4–nitrotoluene	2000	U
618–87–1	3,5–Dinitroaniline	1000	U
6629–29–4	2,4–Diamino–6–nitrotoluene	2000	U
78–30–8	tris(o–cresyl) phosphate	1000	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 3/14/10

ample Name: "1202045748" Sample ID: "954328|2|LER" File: "EXS03100082.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/11/2010
. Time: 12:43:33 PM

ified: No

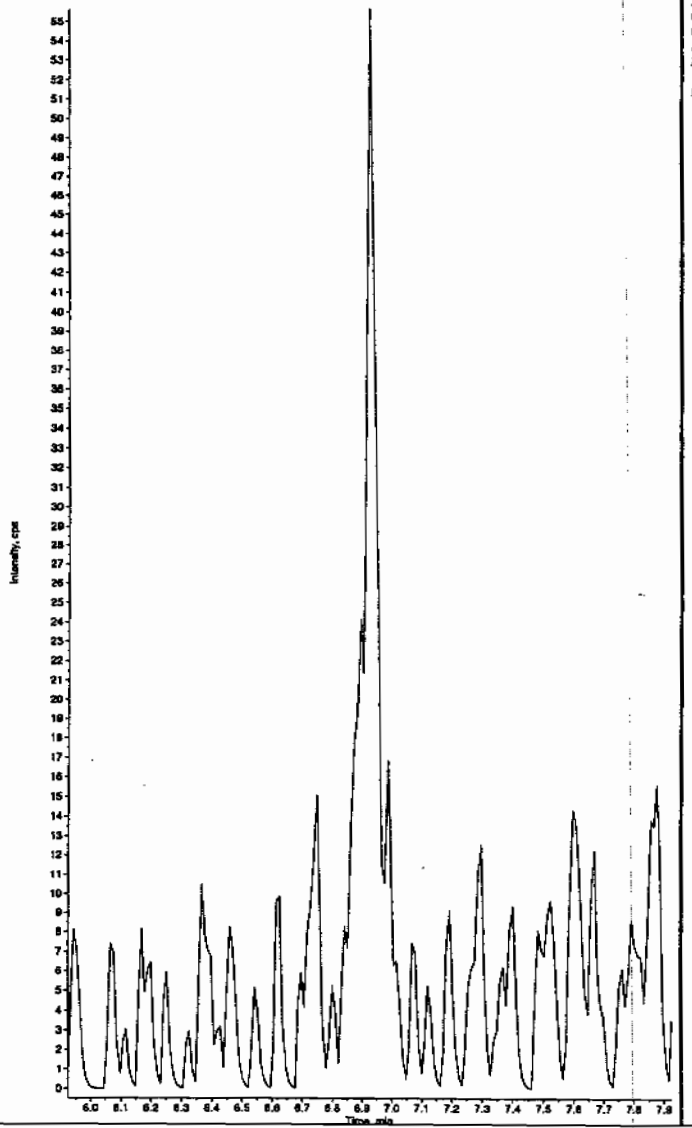

Sample Name: "1202045748" Sample ID: "954328|2|LER" File: "EXS03100082.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 12:43:33 PM

Modified: No

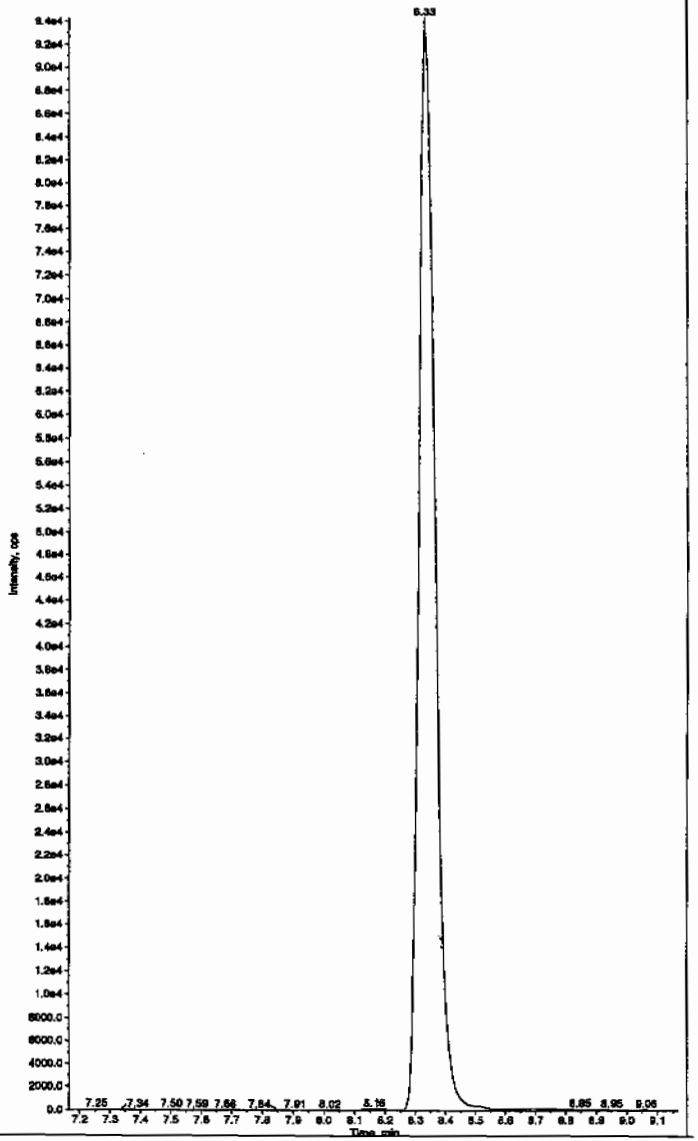

HMW 03/15/10

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "1202045748" Sample ID: "954328|2|LER" File: "EXS03100062.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212S" Annotation: ""

ple Index:	1	
ple Type:	Unknown	
centration:	N/A	
culated Conc:	275.	ng/mL
. Date:	3/11/2010	
. Time:	12:43:33 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	1460.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	15.0	sec
ected RT:	8.32	min
Relative RT:	No	
. Type:	Valley	
ention Time:	8.33	min
a:	2.76e+006	counts
ght:	758834.045	cps
t Time:	8.23	min
Time:	8.82	min

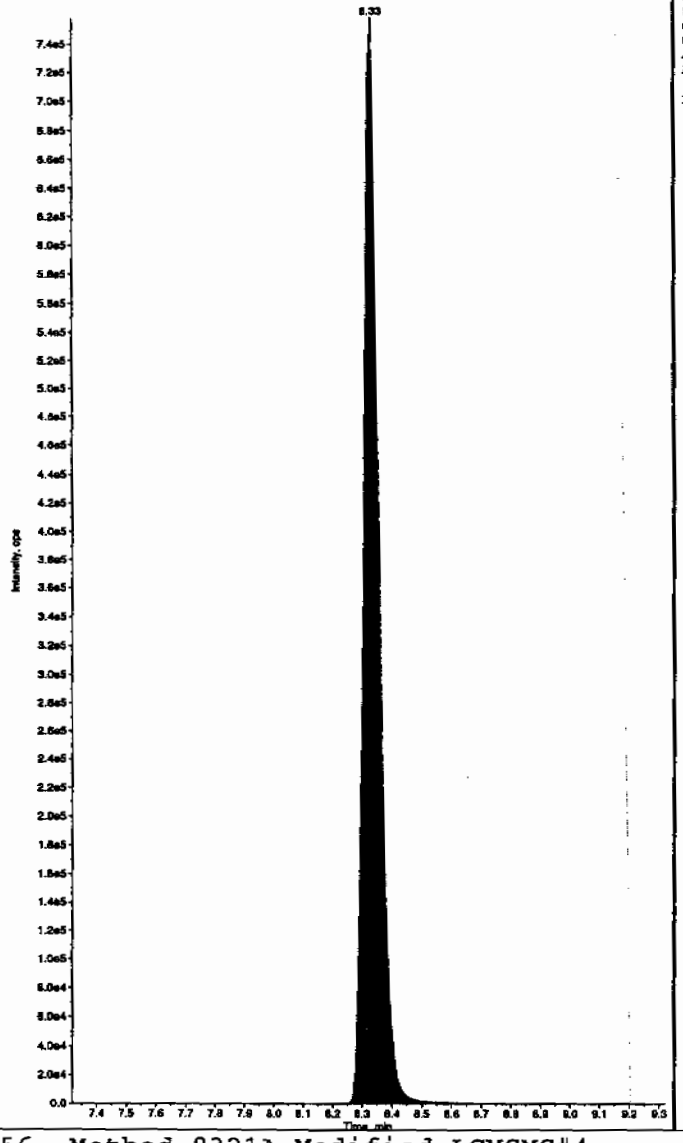

Sample Name: "1202045748" Sample ID: "954328|2|LER" File: "EXS03100062.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	0.00	ng/mL
Acq. Date:	3/11/2010	
Acq. Time:	12:43:33 PM	
Modified:	No	

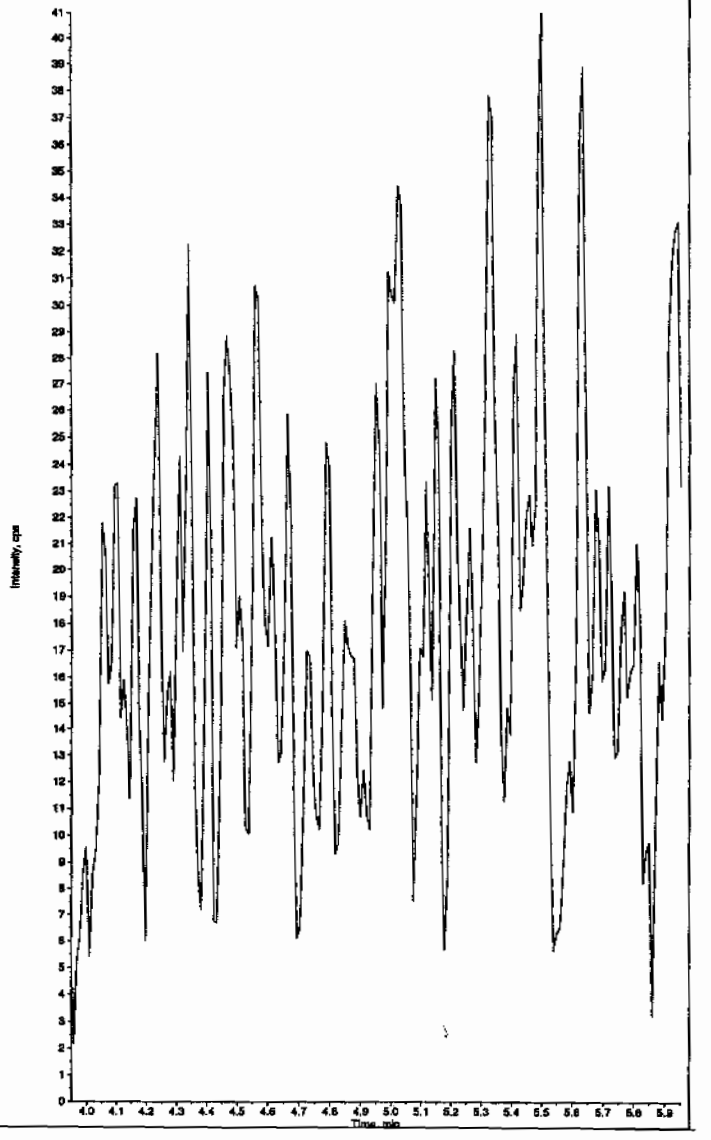

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "1202045748" Sample ID: "954328[2]LER" File: "EXS03100082.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
culated Conc: 0.00 ng/mL
Date: 3/11/2010
Time: 12:43:33 PM
fied: No

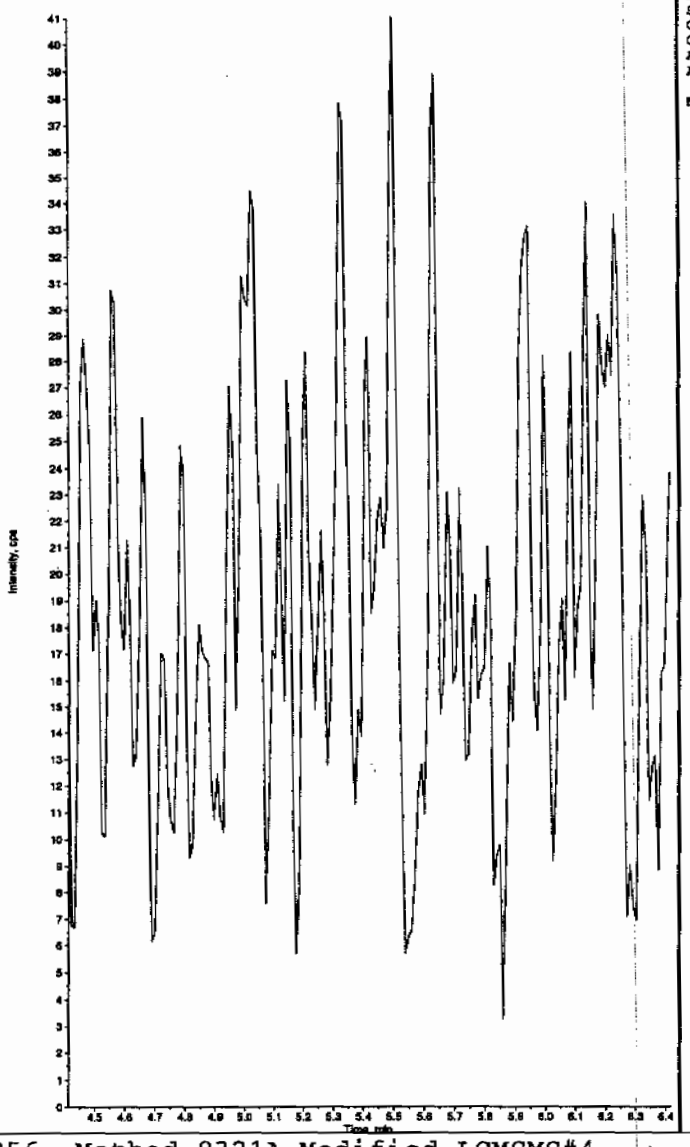

Sample Name: "1202045748" Sample ID: "954328[2]LER" File: "EXS03100082.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/11/2010
Acq. Time: 12:43:33 PM

Modified: No

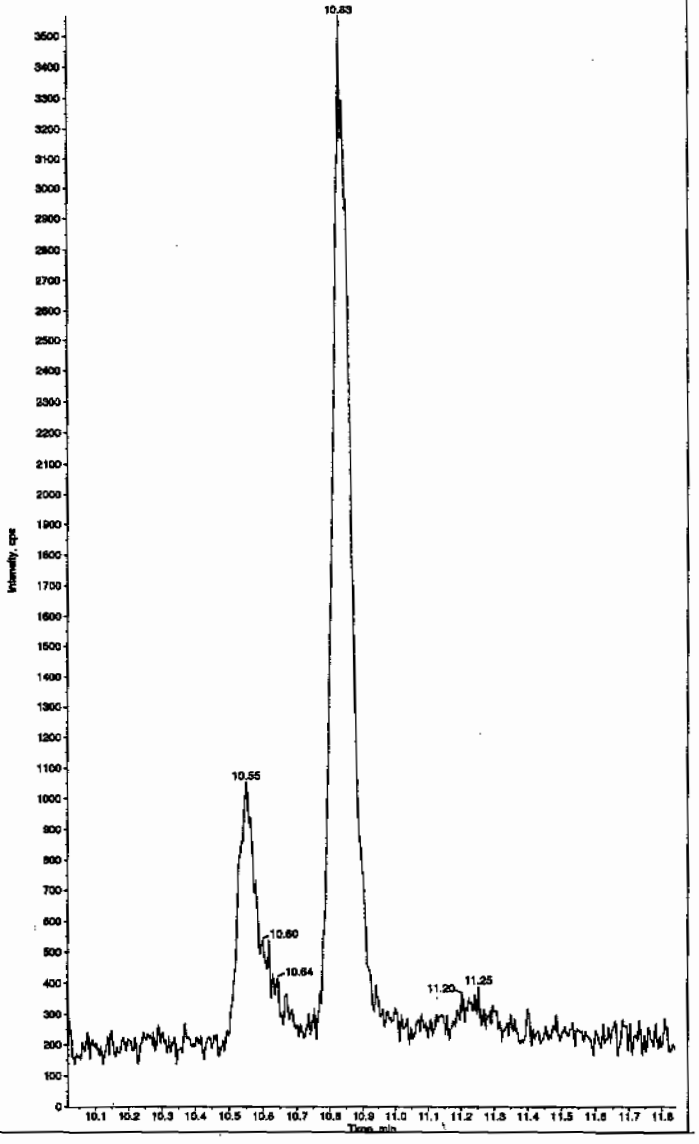

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 954324

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 1202045749

Sample Amount 2

Moisture:

Amount Units g

Date Received: 17-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330018.wiff

Date Analyzed: 30-MAR-10 16:05

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4910	
121-14-2	2,4-Dinitrotoluene	4710	
121-82-4	RDX	5630	
19406-51-0	4-Amino-2,6-dinitrotoluene	5400	
2691-41-0	HMX	4360	
35572-78-2	2-Amino-4,6-dinitrotoluene	4800	
479-45-8	Tetryl	1450	
606-20-2	2,6-Dinitrotoluene	5270	
78-11-5	PETN	6610	
88-72-2	o-Nitrotoluene	6080	
98-95-3	Nitrobenzene	4990	
99-08-1	m-Nitrotoluene	5860	
99-35-4	1,3,5-Trinitrobenzene	4020	
99-65-0	m-Dinitrobenzene	4510	
99-99-0	p-Nitrotoluene	5440	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330018.wiff	**Acquisition Date**	3/30/2010 4:05:39 PM
Sample Name	1202045749	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

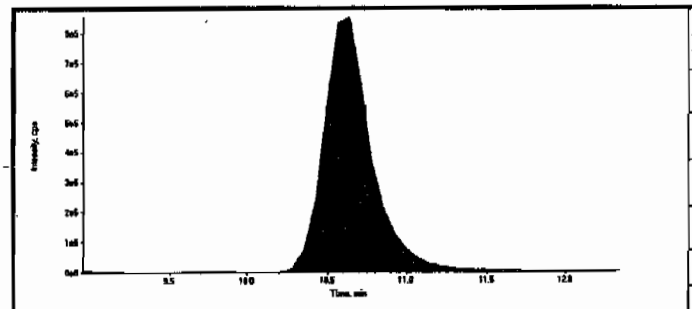

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	17900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

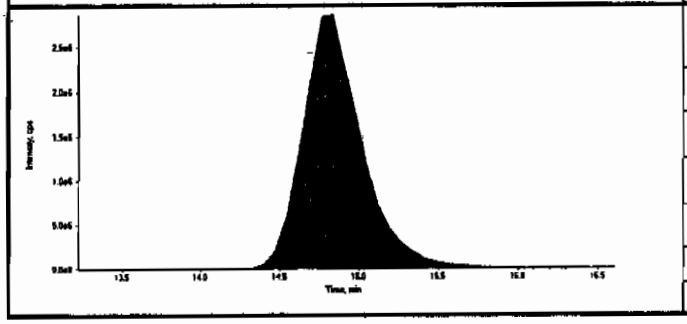

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.80
Area Counts:	75800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

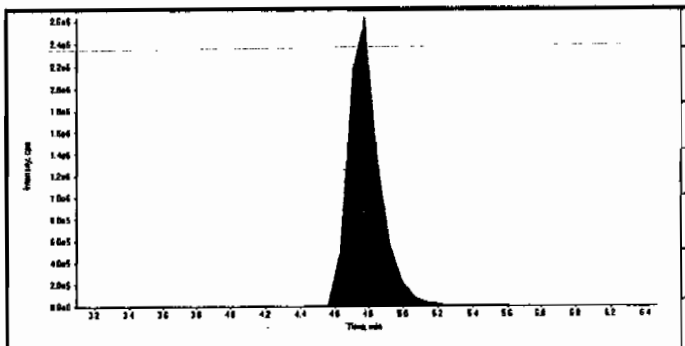

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	3.32e+007
Manual Modification	No
Amount:	436. (ng/mL)
% Accuracy:	N/A

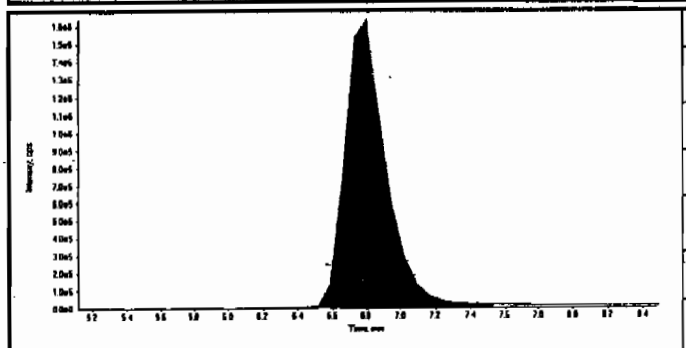

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	6.80
Area Counts:	2.77e+007
Manual Modification	No
Amount:	563. (ng/mL)
% Accuracy:	N/A

HMW 04/02/10
[illegible] 4/2/10

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330018.wiff	**Acquisition Date**	3/30/2010 4:05:39 PM
Sample Name	1202045749	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

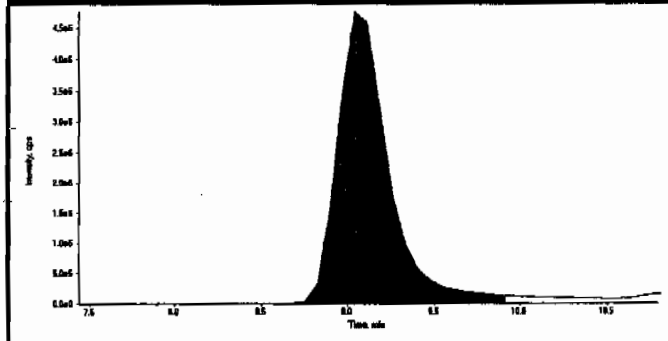

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	9.04
Area Counts:	9.87e+007
Manual Modification	No
Amount:	402. (ng/mL)
% Accuracy:	N/A

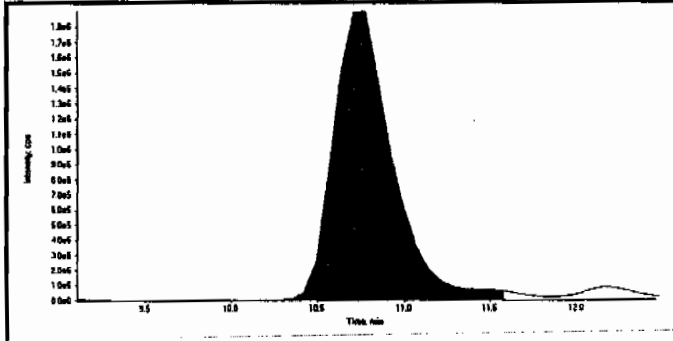

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	10.8
Area Counts:	4.54e+007
Manual Modification	No
Amount:	451. (ng/mL)
% Accuracy:	N/A

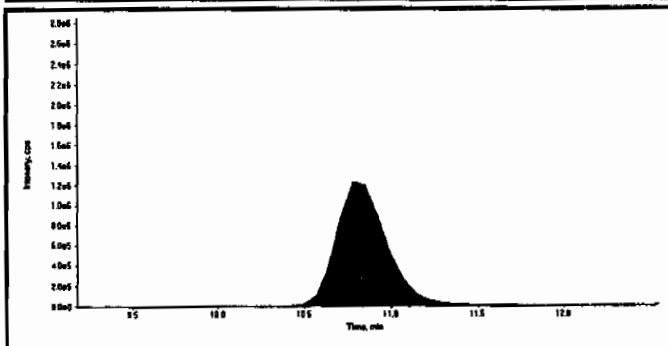

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	10.8
Area Counts:	2.49e+007
Manual Modification	No
Amount:	145. (ng/mL)
% Accuracy:	N/A

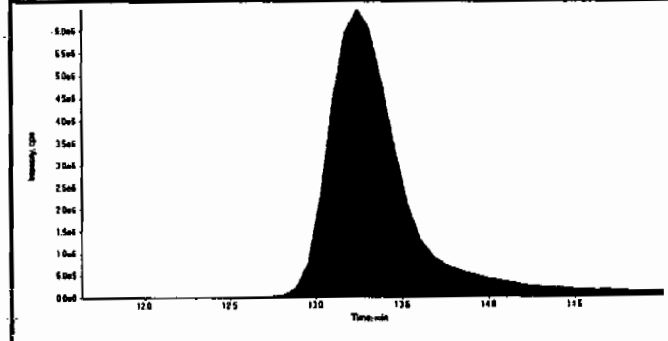

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	13.2
Area Counts:	1.98e+008
Manual Modification	No
Amount:	491. (ng/mL)
% Accuracy:	N/A

Before Lab 4/1/10

Sample Name: "1202045749" Sample ID: "854328[illegible]LER" File: "EXP0330016.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCX8321_S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/30/2010
. Time: 4:05:39 PM
filter: No

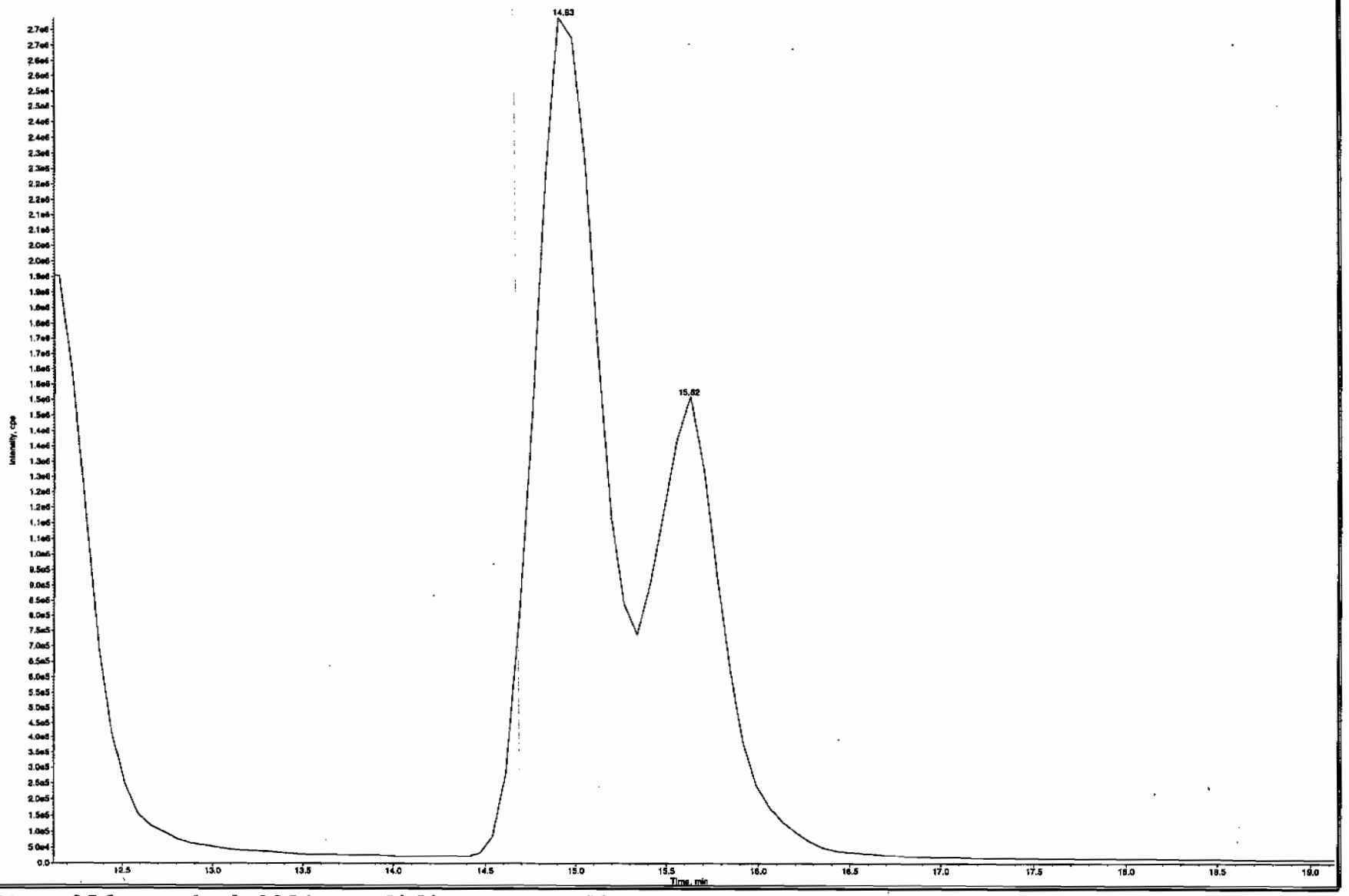

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330018.wiff	Acquisition Date	3/30/2010 4:05:39 PM
Sample Name	1202045749	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	Result Table	033010.rdb
Procedure Code	LCX8321_S	Sample Type	Unknown

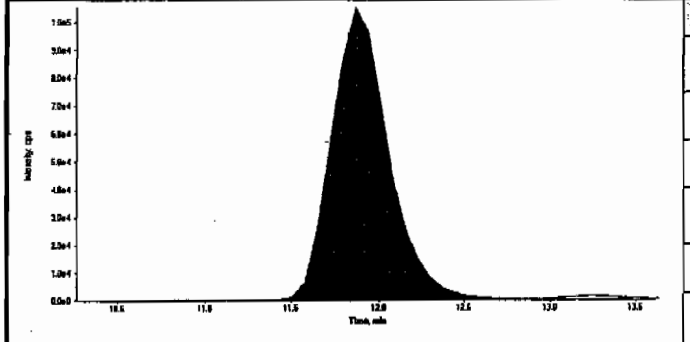

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	11.9
Area Counts:	2.40e+006
Manual Modification	No
Amount:	499. (ng/mL)
% Accuracy:	N/A

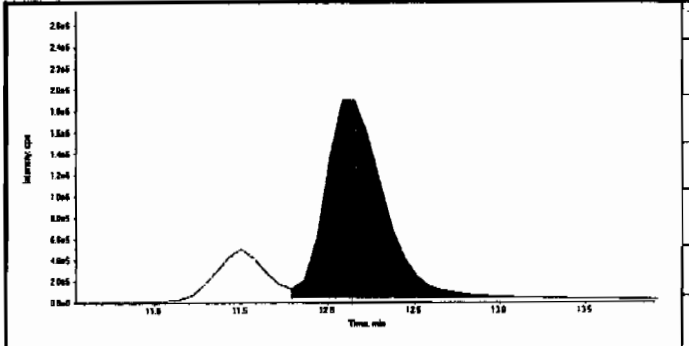

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	12.1
Area Counts:	4.40e+007
Manual Modification	No
Amount:	249. (ng/mL)
% Accuracy:	N/A

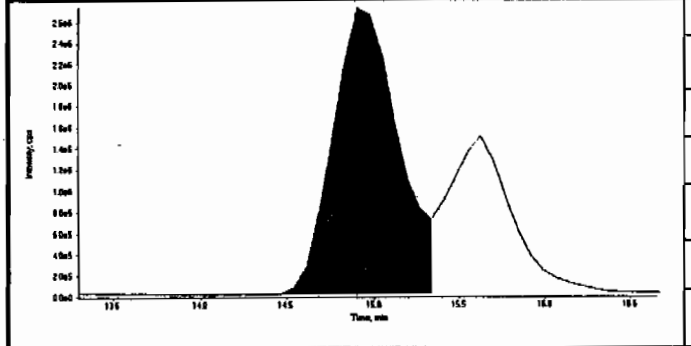

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	14.9
Area Counts:	7.22e+007
Manual Modification	No
Amount:	527. (ng/mL)
% Accuracy:	N/A

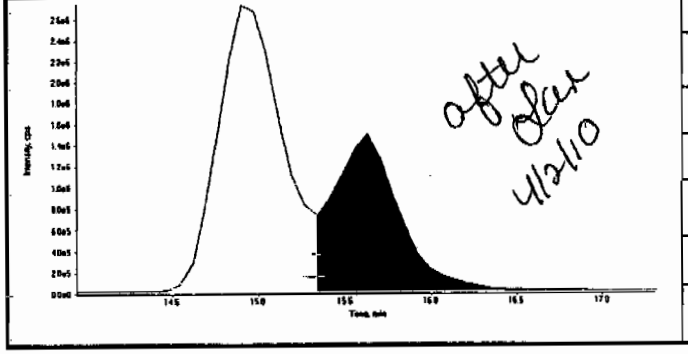

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.6
Area Counts:	3.94e+007
Manual Modification	Yes
Amount:	471. (ng/mL)
% Accuracy:	N/A

Before Lcer 4/1/10

Sample Name: "1202045749" Sample ID: "0543268[2]LER" File: "EXP0330018.wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCX6321_S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
j. Date: 3/30/2010
j. Time: 4:05:39 PM
Filter: No

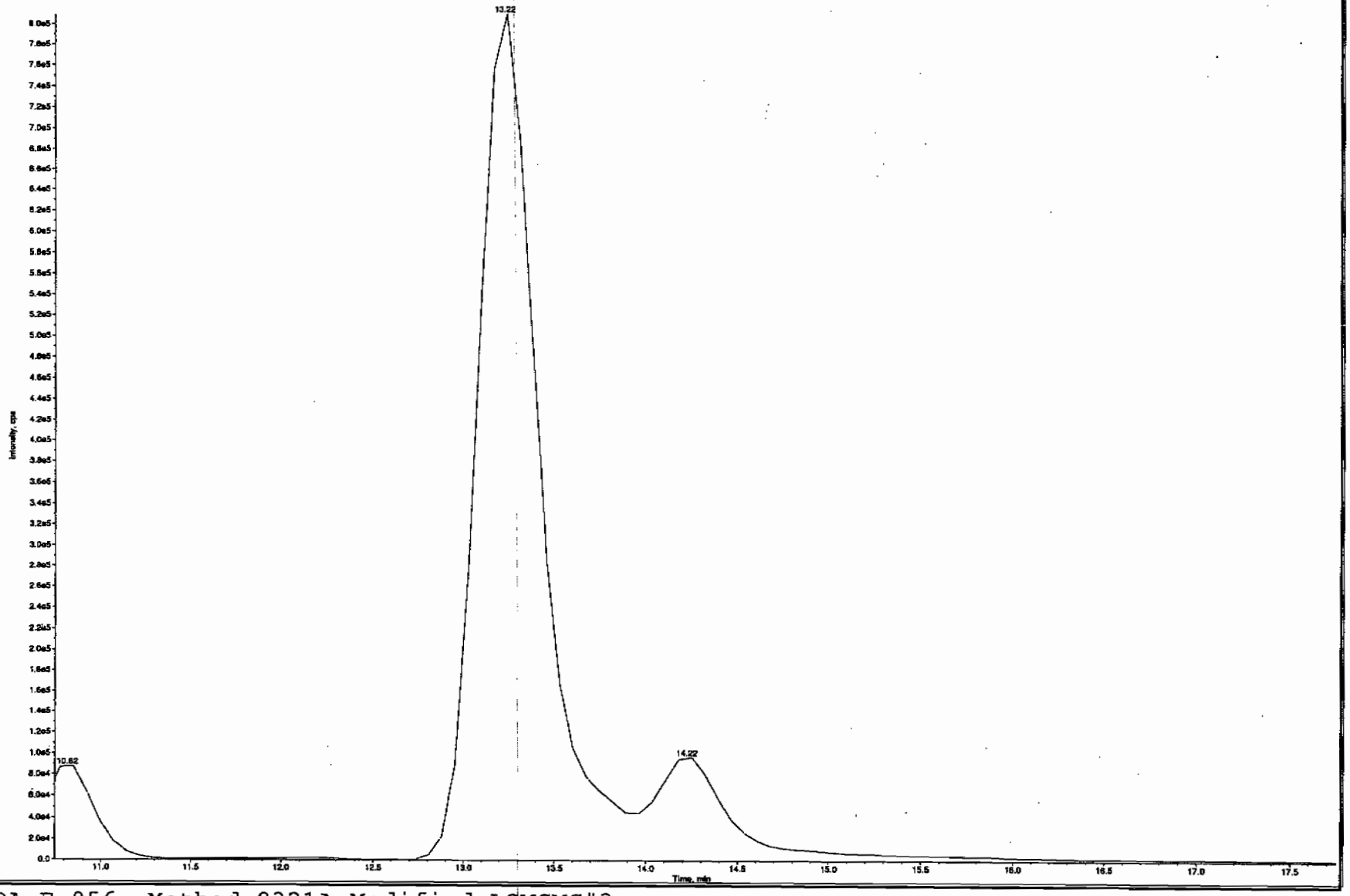

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330018.wiff	**Acquisition Date**	3/30/2010 4:05:39 PM
Sample Name	1202045749	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

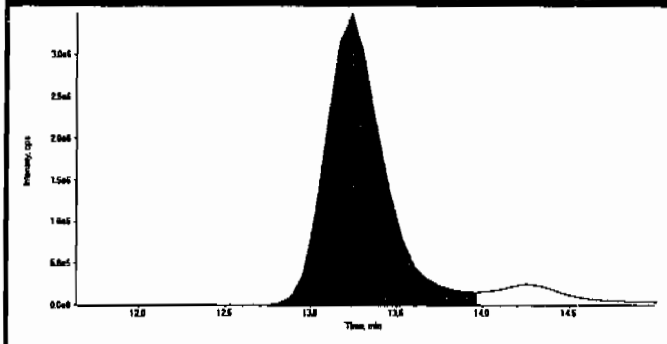

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	13.2
Area Counts:	8.25e+007
Manual Modification	No
Amount:	540. (ng/mL)
% Accuracy:	N/A

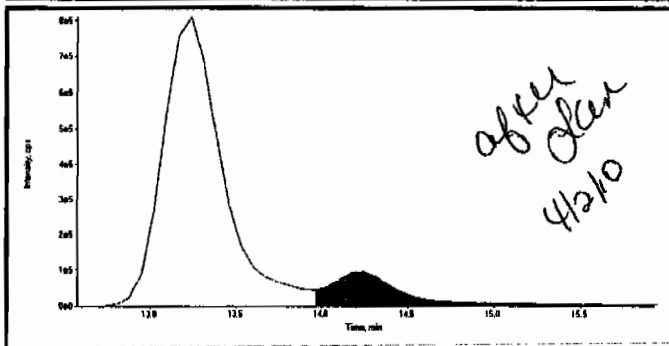

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	14.2
Area Counts:	2.76e+006
Manual Modification	Yes
Amount:	480. (ng/mL)
% Accuracy:	N/A

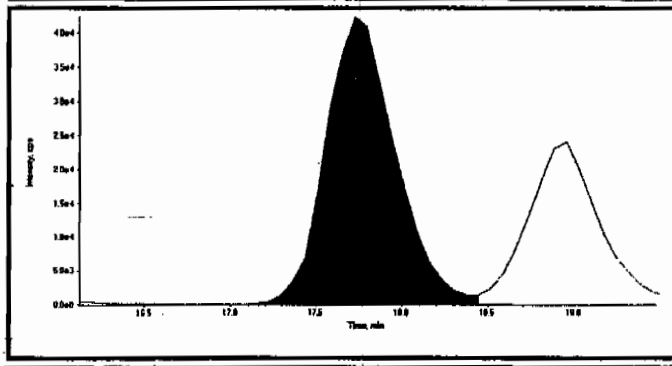

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	17.7
Area Counts:	1.20e+006
Manual Modification	No
Amount:	608. (ng/mL)
% Accuracy:	N/A

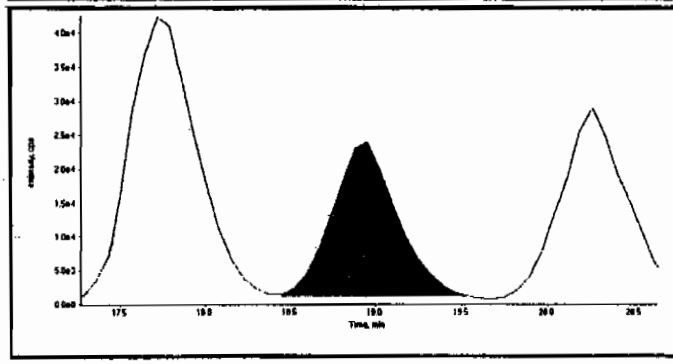

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	19.0
Area Counts:	6.04e+005
Manual Modification	No
Amount:	544. (ng/mL)
% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330018.wiff	**Acquisition Date**	3/30/2010 4:05:39 PM
Sample Name	1202045749	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

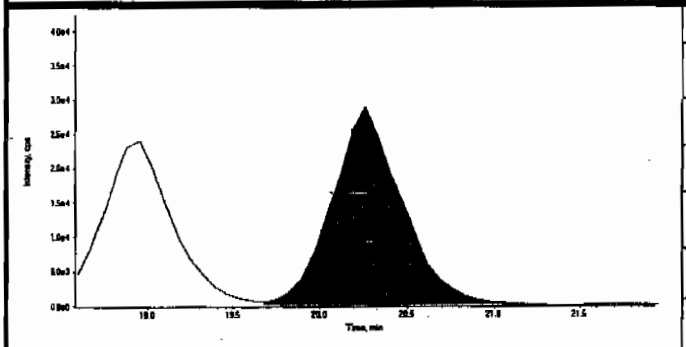

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	20.3
Area Counts:	8.04e+005
Manual Modification	No
Amount:	586. (ng/mL)
% Accuracy:	N/A

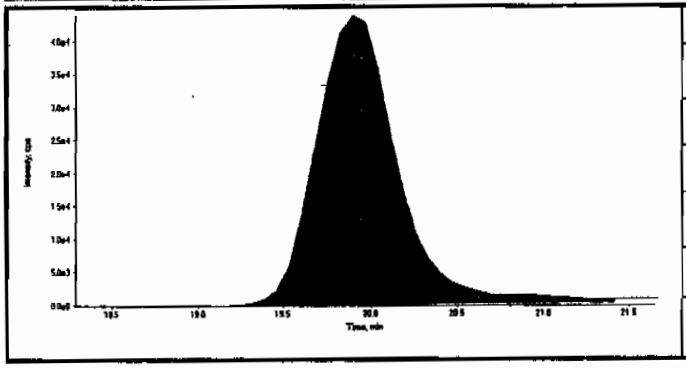

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	19.9
Area Counts:	1.42e+006
Manual Modification	No
Amount:	661. (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 954324

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 1202045749

Sample Amount 2

Moisture:

Amount Units g

Date Received: 17-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100083.wiff

Date Analyzed: 11-MAR-10 12:59

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	4630	
59229-75-3	2,6-Diamino-4-nitrotoluene	4850	
618-87-1	3,5-Dinitroaniline	5110	
6629-29-4	2,4-Diamino-6-nitrotoluene	4560	
78-30-8	tris(o-cresyl) phosphate	4670	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 3/14/10

ample Name: "1202045749" Sample ID: "954328|2|LER" File: "EXS03100083.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212S" Annotation: ""

ple Index:	1	
ple Type:	Unknown	
centration:	N/A	
culated Conc:	463.	ng/mL
. Date:	3/11/2010	
. Time:	12:59:15 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	6.92	min
Relative RT:	No	
. Type:	Valley	
ention Time:	6.92	min
a:	6.57e+005	counts
ght:	150411.484	cps
rt Time:	6.83	min
Time:	7.62	min

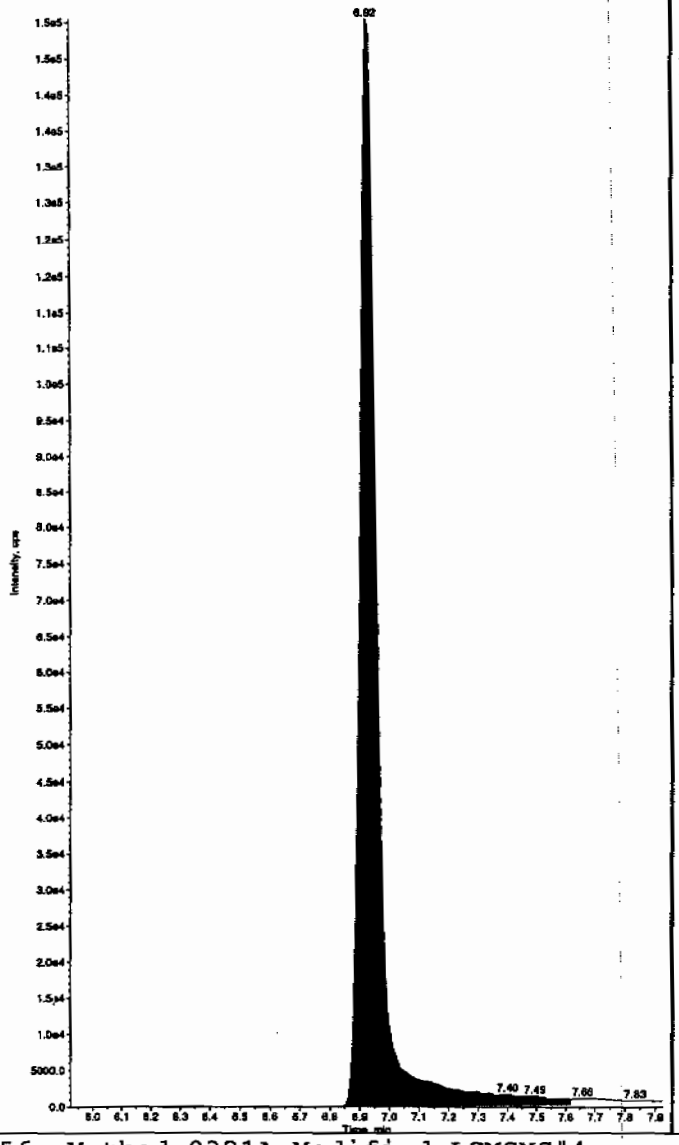

Sample Name: "1202045749" Sample ID: "954328|2|LER" File: "EXS03100083.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	511.	ng/mL
Acq. Date:	3/11/2010	
Acq. Time:	12:59:15 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.16	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.16	min
Area:	3.61e+006	counts
Height:	934358.765	cps
Start Time:	8.10	min
End Time:	8.29	min

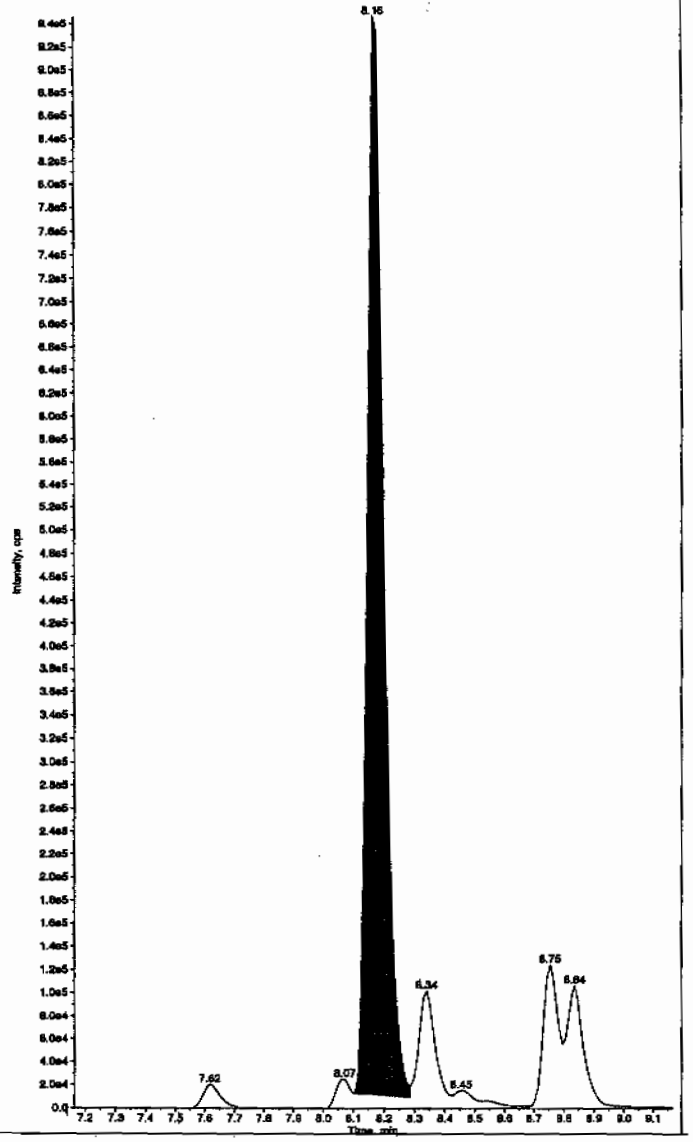

HMC 03/15/10

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ample Name: "1202045749" Sample ID: "954328|2|LER" File: "EXS03100083.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212S" Annotation: ""

ple Index:	1	
ple Type:	Unknown	
centration:	N/A	
culated Conc:	262.	ng/mL
. Date:	3/11/2010	
. Time:	12:59:15 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	1460.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	15.0	sec
ected RT:	8.32	min
Relative RT:	No	
. Type:	Valley	
ention Time:	8.33	min
a:	2.64e+006	counts
ght:	695510.559	cps
rt Time:	8.26	min
Time:	8.56	min

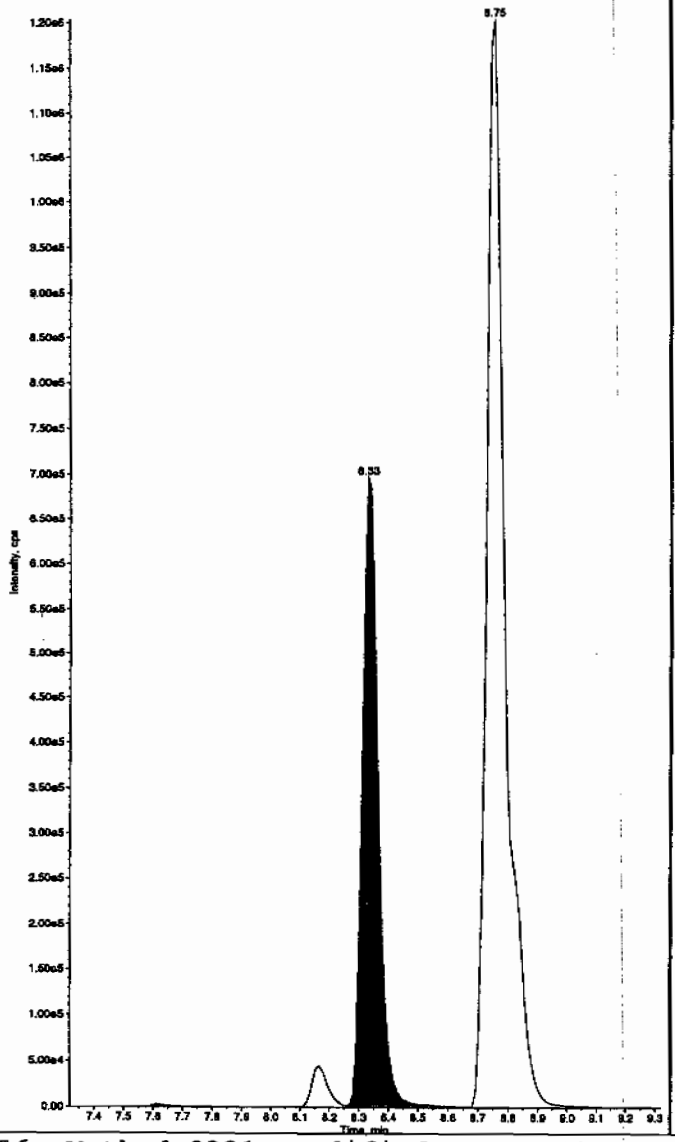

Sample Name: "1202045749" Sample ID: "954328|2|LER" File: "EXS03100083.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	485.	ng/mL
Acq. Date:	3/11/2010	
Acq. Time:	12:59:15 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	4.95	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	4.96	min
Area:	7.43e+005	counts
Height:	179077.744	cps
Start Time:	4.85	min
End Time:	5.26	min

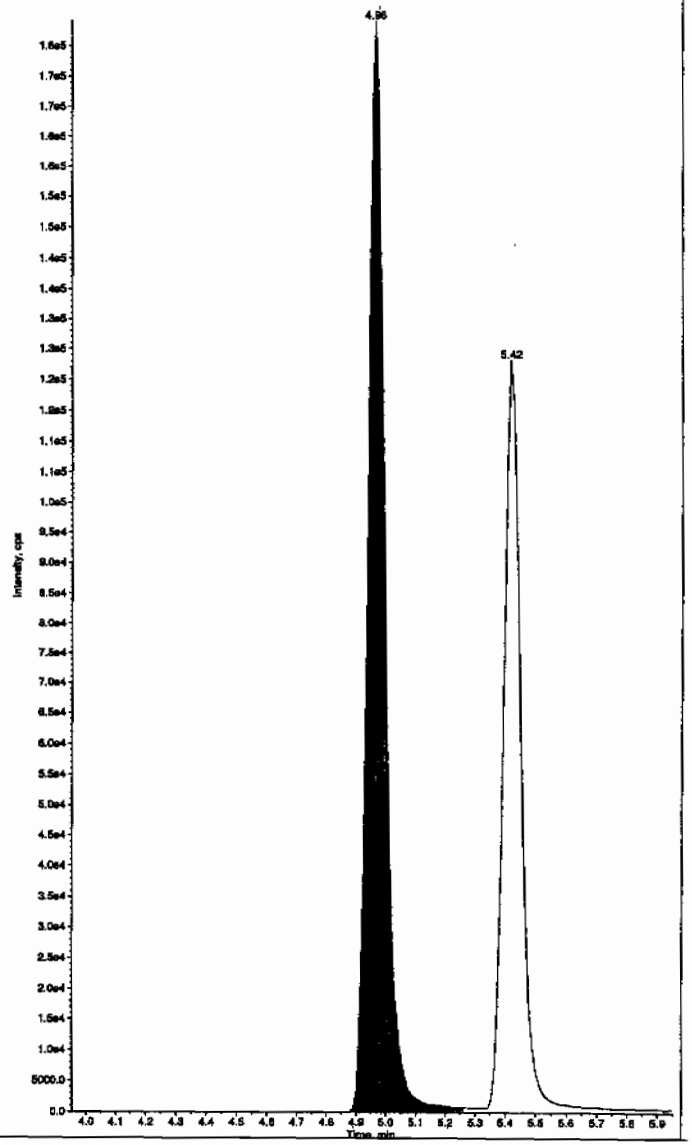

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "1202045749" Sample ID: "954328|2|LER" File: "EXS03100083.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCX83212S" Annotation: ""

ple Index:	1	
ple Type:	Unknown	
centration:	N/A	
culated Conc:	456.	ng/mL
. Date:	3/11/2010	
. Time:	12:59:15 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	350.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	5.42	min
Relative RT:	No	
. Type:	Valley	
ention Time:	5.42	min
a:	4.82e+005	counts
ght:	122715.126	cps
rt Time:	5.32	min
Time:	5.81	min

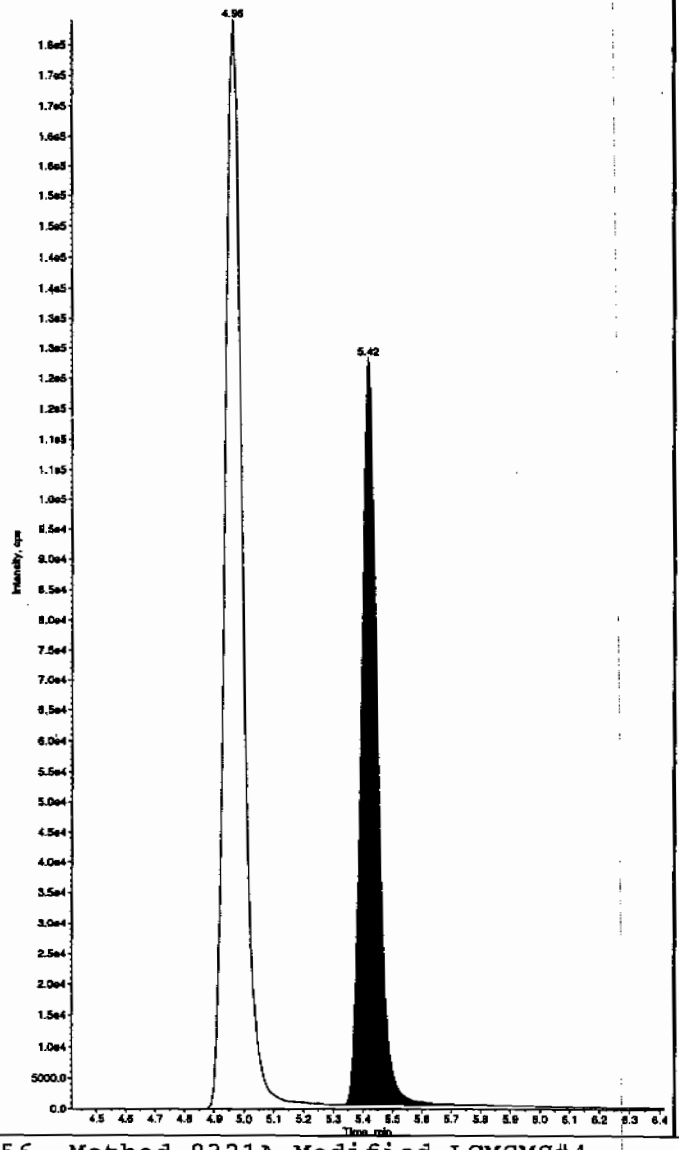

Sample Name: "1202045749" Sample ID: "954328|2|LER" File: "EXS03100083.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	467.	ng/mL
Acq. Date:	3/11/2010	
Acq. Time:	12:59:15 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.8	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.8	min
Area:	5.94e+006	counts
Height:	1447286.377	cps
Start Time:	10.7	min
End Time:	11.2	min

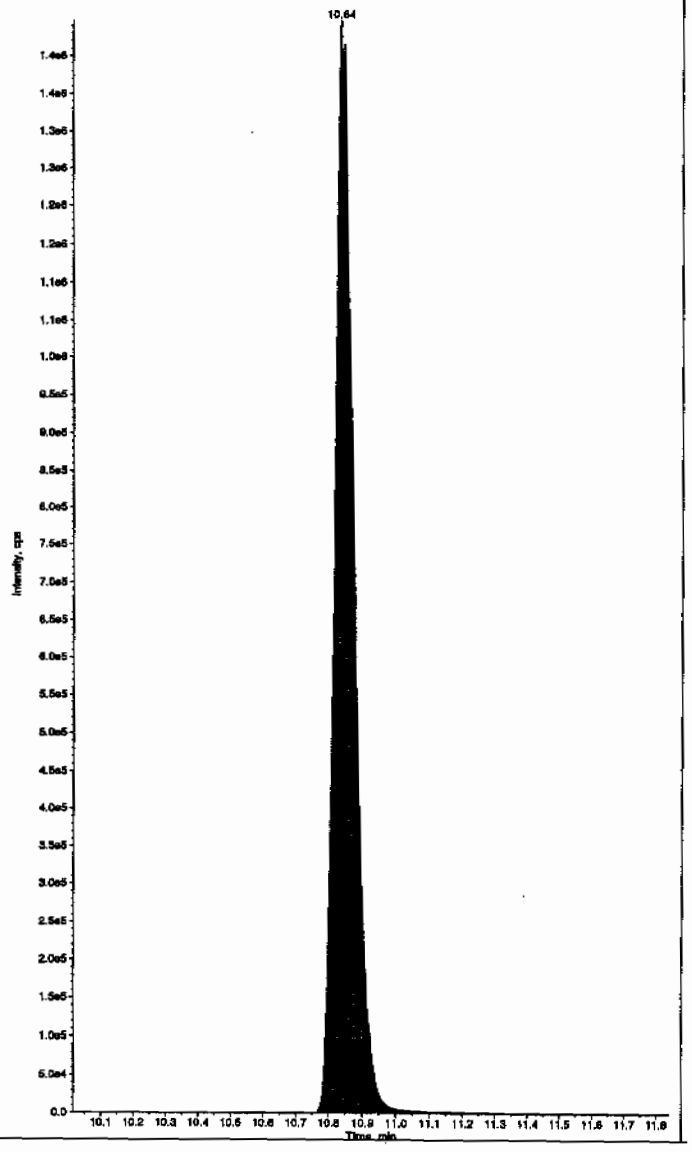

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8196(247193001MS)

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 1202045750

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330020.wiff

Date Analyzed: 30-MAR-10 16:58

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	4560	
121-14-2	2,4-Dinitrotoluene	5300	
121-82-4	RDX	6520	
19406-51-0	4-Amino-2,6-dinitrotoluene	5030	
2691-41-0	HMX	5220	
35572-78-2	2-Amino-4,6-dinitrotoluene	4720	
479-45-8	Tetryl	2440	
606-20-2	2,6-Dinitrotoluene	4750	
78-11-5	PETN	5860	
88-72-2	o-Nitrotoluene	5960	
98-95-3	Nitrobenzene	5440	
99-08-1	m-Nitrotoluene	5200	
99-35-4	1,3,5-Trinitrobenzene	4520	
99-65-0	m-Dinitrobenzene	5080	
99-99-0	p-Nitrotoluene	5510	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330020.wiff	**Acquisition Date**	3/30/2010 4:58:31 PM
Sample Name	1202045750	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

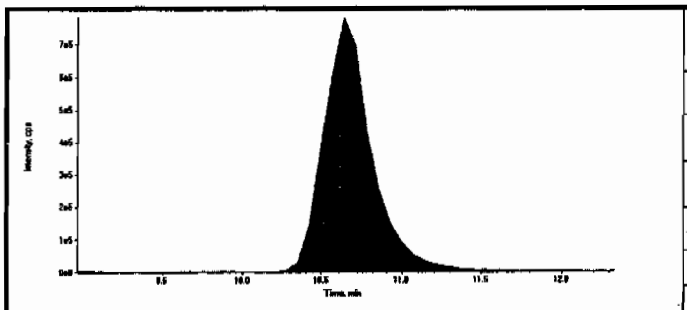

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	16100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

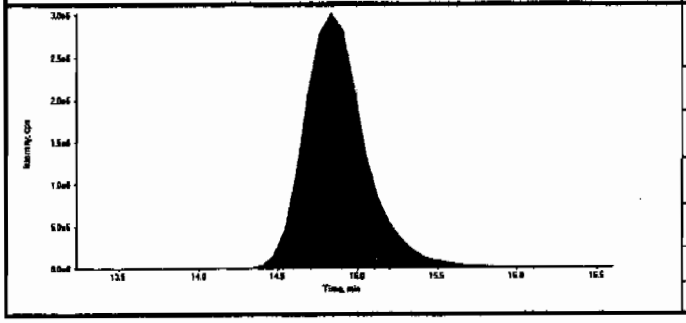

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.80
Area Counts:	80300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

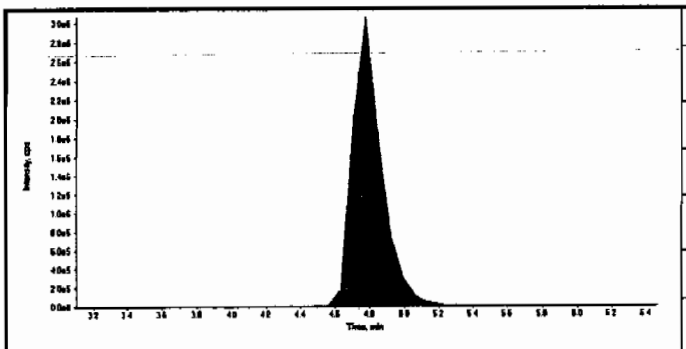

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	3.58e+007
Manual Modification	No
Amount:	522. (ng/mL)
% Accuracy:	N/A

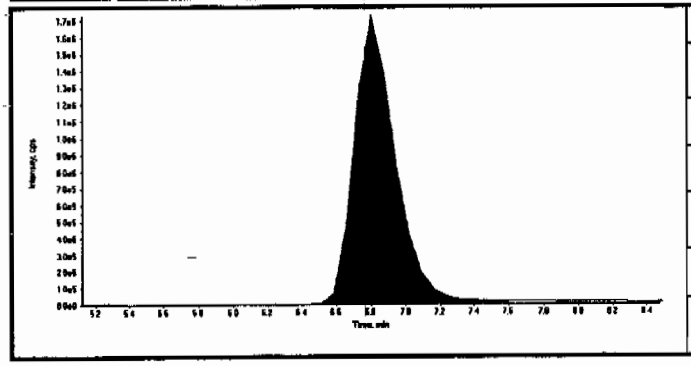

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	6.80
Area Counts:	2.88e+007
Manual Modification	No
Amount:	652. (ng/mL)
% Accuracy:	N/A

dhw 04/02/10
LAR 4/2/10

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330020.wiff	**Acquisition Date**	3/30/2010 4:58:31 PM
Sample Name	1202045750	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

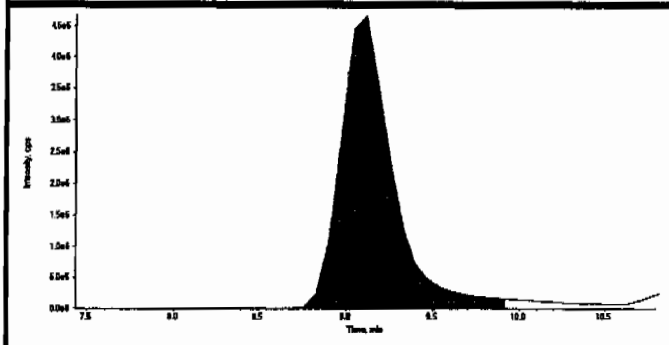

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	9.12
Area Counts:	9.97e+007
Manual Modification	No
Amount:	452. (ng/mL)
% Accuracy:	N/A

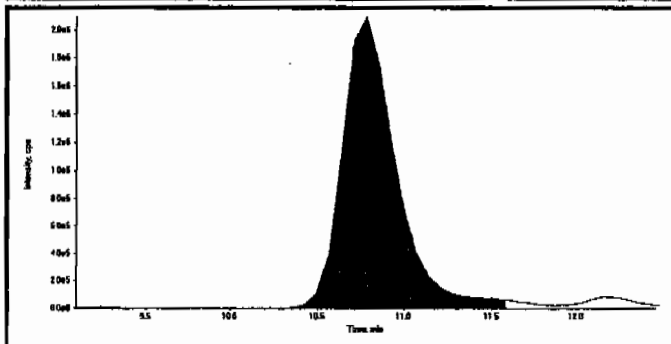

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	10.8
Area Counts:	4.59e+007
Manual Modification	No
Amount:	508. (ng/mL)
% Accuracy:	N/A

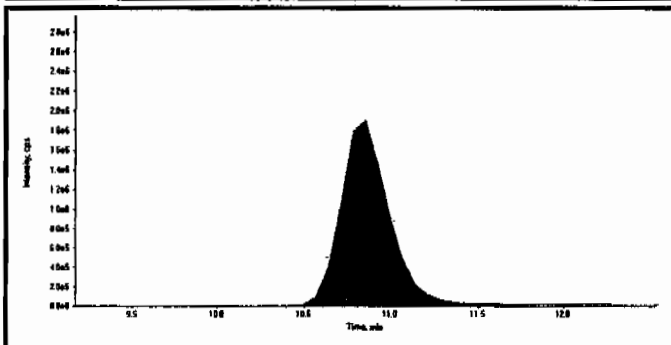

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	3.76e+007
Manual Modification	No
Amount:	244. (ng/mL)
% Accuracy:	N/A

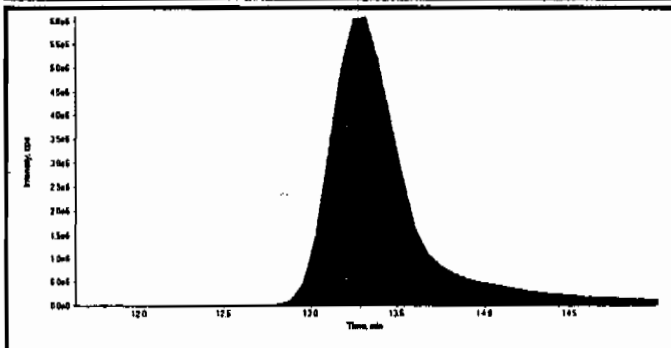

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	13.3
Area Counts:	1.97e+008
Manual Modification	No
Amount:	456. (ng/mL)
% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330020.wiff	**Acquisition Date**	3/30/2010 4:58:31 PM
Sample Name	1202045750	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

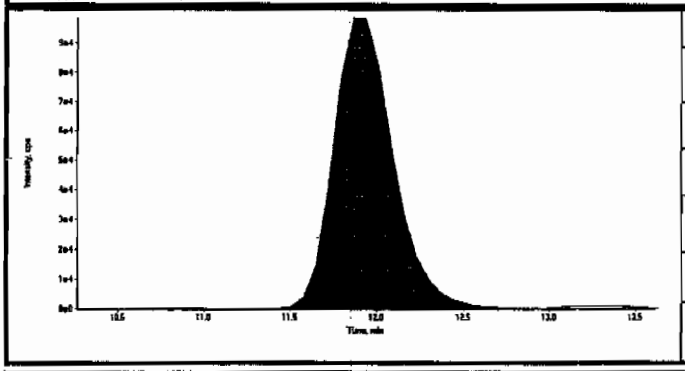

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	11.9
Area Counts:	2.35e+006
Manual Modification	No
Amount:	544. (ng/mL)
% Accuracy:	N/A

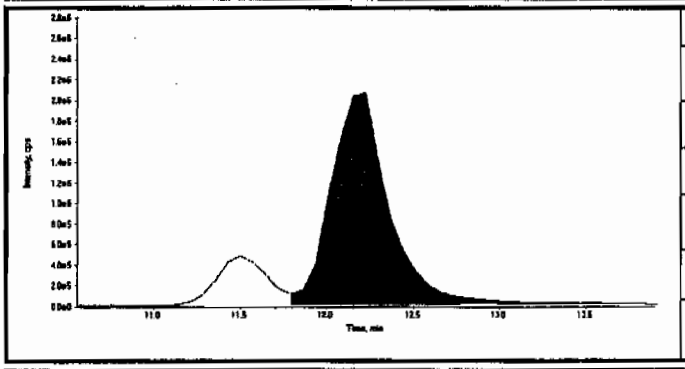

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	12.2
Area Counts:	4.83e+007
Manual Modification	No
Amount:	258. (ng/mL)
% Accuracy:	N/A

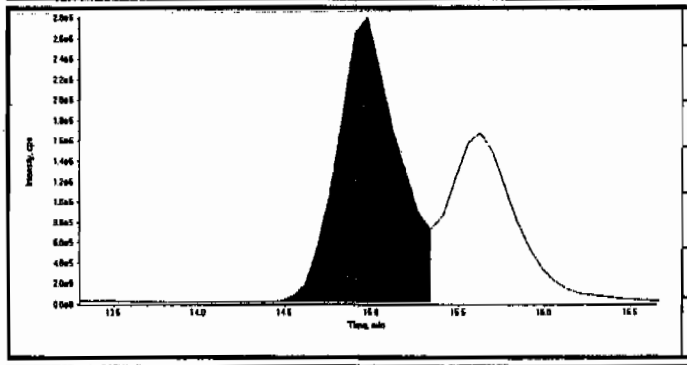

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	15.0
Area Counts:	6.89e+007
Manual Modification	No
Amount:	475. (ng/mL)
% Accuracy:	N/A

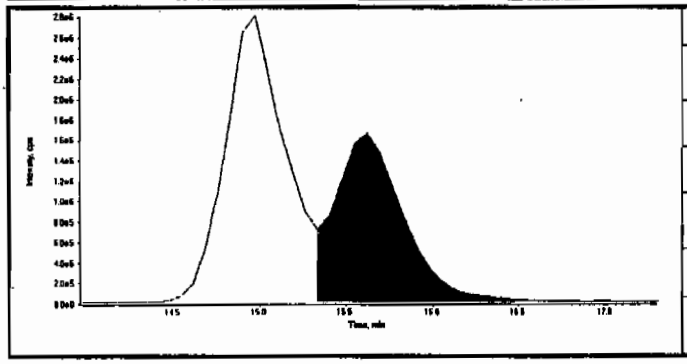

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.6
Area Counts:	4.68e+007
Manual Modification	No
Amount:	530. (ng/mL)
% Accuracy:	N/A

Before Ben 4/1/10

Sample Name: "1202045750" Sample ID: "9543282[LER]" File: "EXP6330020.wiff"
Peak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/150.0 amu"
Comment: "LCX8321_S" Annotation: "

ple Index: 1
ple Type: Unknown
ncentration: N/A
lculated Conc: 369. ng/mL
q. Date: 3/30/2010
q. Time: 4:58:31 PM

ifier: No
c. Algorithm: IntelliQuan - IQA
q. Peak Height: 1060.00 cps
q. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 14.3 min
Relative RT: No

. Type: Valley
entified Time: 14.3 min
a: 2.24e+006 counts
ight: 8.25e+004 cps
art Time: 14.0 min
d Time: 14.6 min

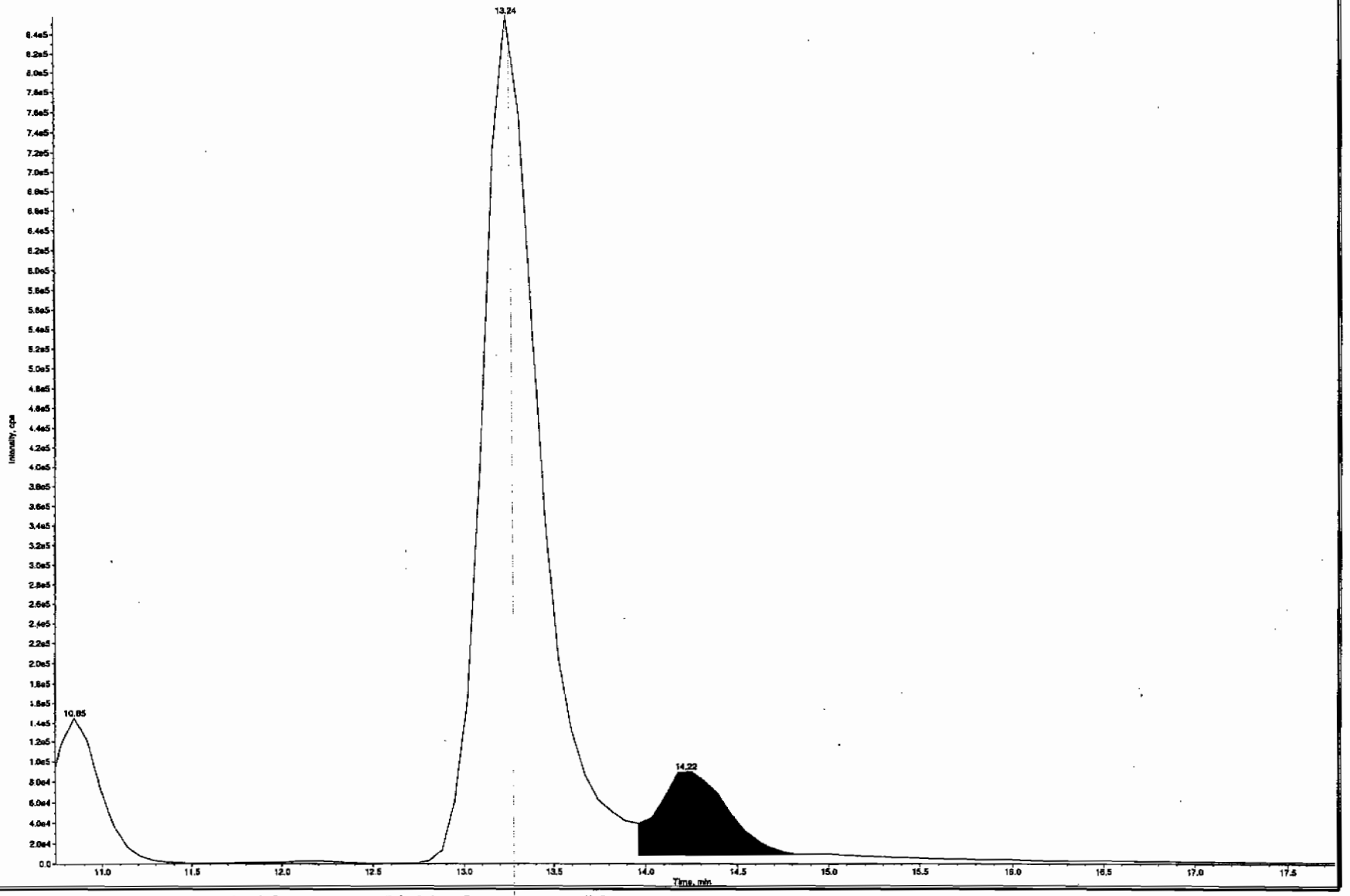

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330020.wiff	**Acquisition Date**	3/30/2010 4:58:31 PM
Sample Name	1202045750	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

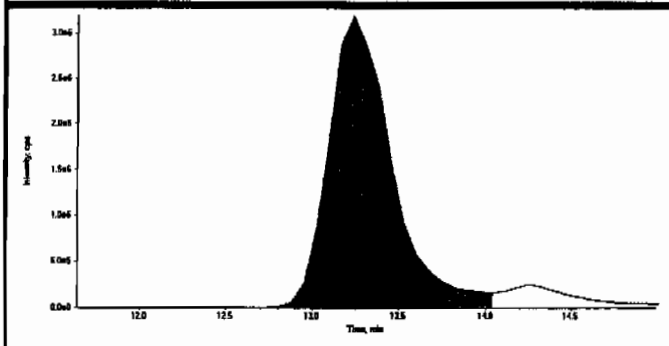

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	13.2
Area Counts:	8.14e+007
Manual Modification	No
Amount:	503. (ng/mL)
% Accuracy:	N/A

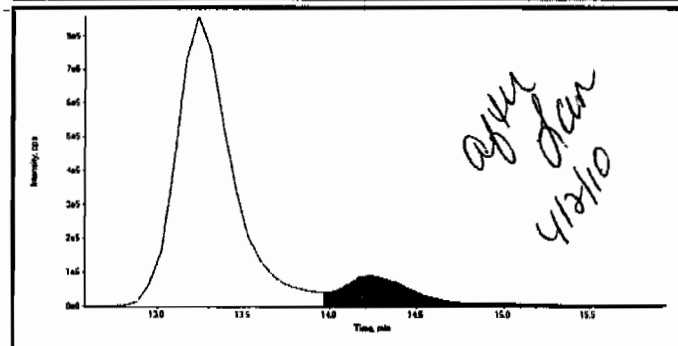

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	14.2
Area Counts:	2.87e+006
Manual Modification	Yes
Amount:	472. (ng/mL)
% Accuracy:	N/A

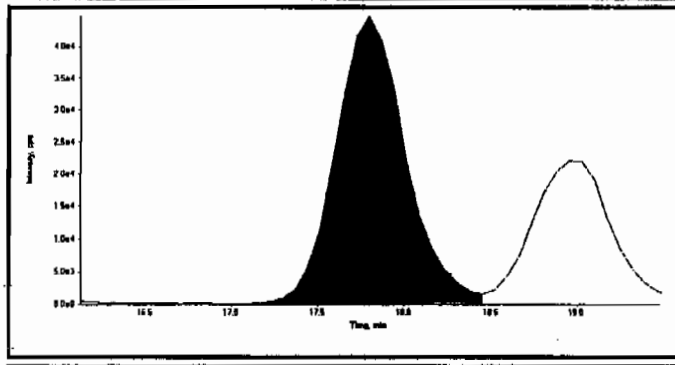

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	17.8
Area Counts:	1.25e+006
Manual Modification	No
Amount:	596. (ng/mL)
% Accuracy:	N/A

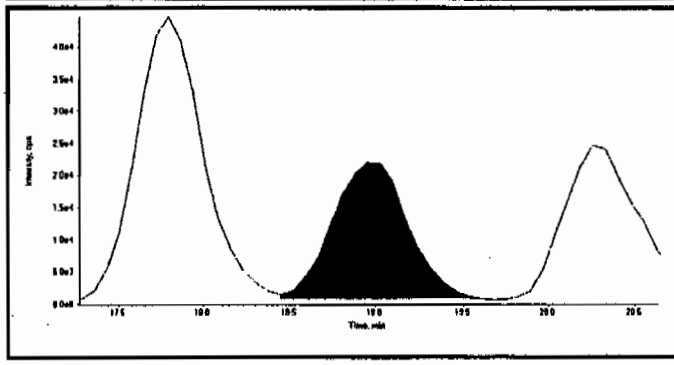

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	19.0
Area Counts:	6.47e+005
Manual Modification	No
Amount:	551. (ng/mL)
% Accuracy:	N/A

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Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330020.wiff	**Acquisition Date**	3/30/2010 4:58:31 PM
Sample Name	1202045750	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

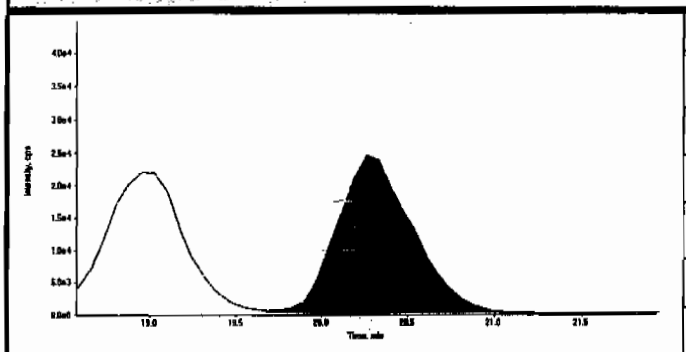

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	20.3
Area Counts:	7.56e+005
Manual Modification	No
Amount:	520. (ng/mL)
% Accuracy:	N/A

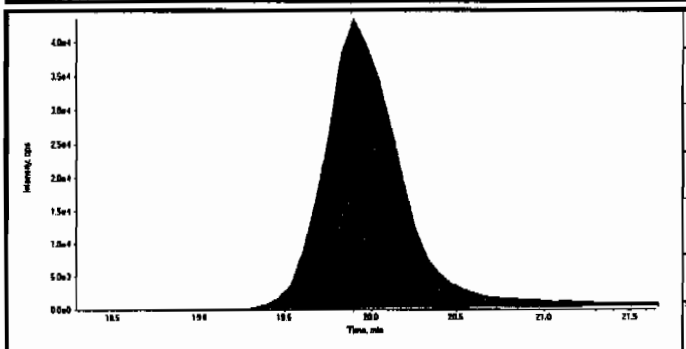

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	19.9
Area Counts:	1.34e+006
Manual Modification	No
Amount:	586. (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8196(247193001MS)

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 1202045750

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100085.wiff

Date Analyzed: 11-MAR-10 13:30

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	9940	
59229-75-3	2,6-Diamino-4-nitrotoluene	4850	
618-87-1	3,5-Dinitroaniline	5030	
6629-29-4	2,4-Diamino-6-nitrotoluene	4930	
78-30-8	tris(o-cresyl) phosphate	4710	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Kan 3/14/10

Sample Name: "1202045750" Sample ID: "954328[2]LER" File: "EXS03100085.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	994.	ng/mL
Acq. Date:	3/11/2010	
Acq. Time:	1:30:40 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2500.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	6.92	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	6.93	min
Area:	1.42e+006	counts
Height:	318768.677	cps
Start Time:	6.83	min
End Time:	8.08	min

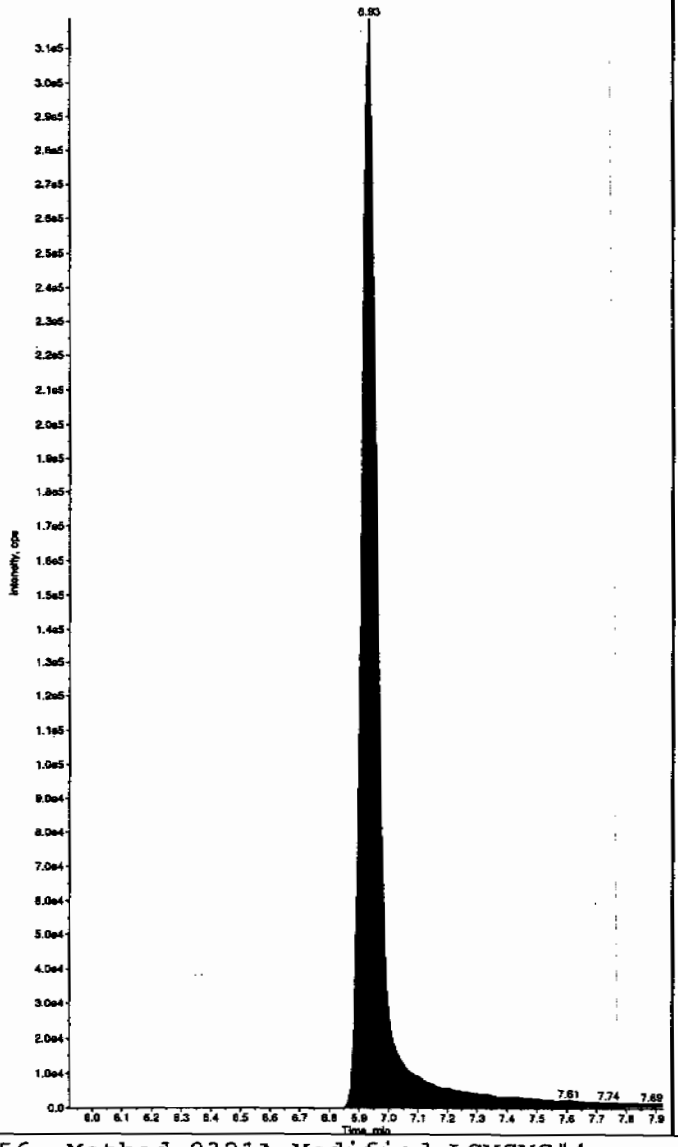

Sample Name: "1202045750" Sample ID: "954328[2]LER" File: "EXS03100085.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	503.	ng/mL
Acq. Date:	3/11/2010	
Acq. Time:	1:30:40 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.16	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.17	min
Area:	3.56e+006	counts
Height:	925836.548	cps
Start Time:	8.10	min
End Time:	8.29	min

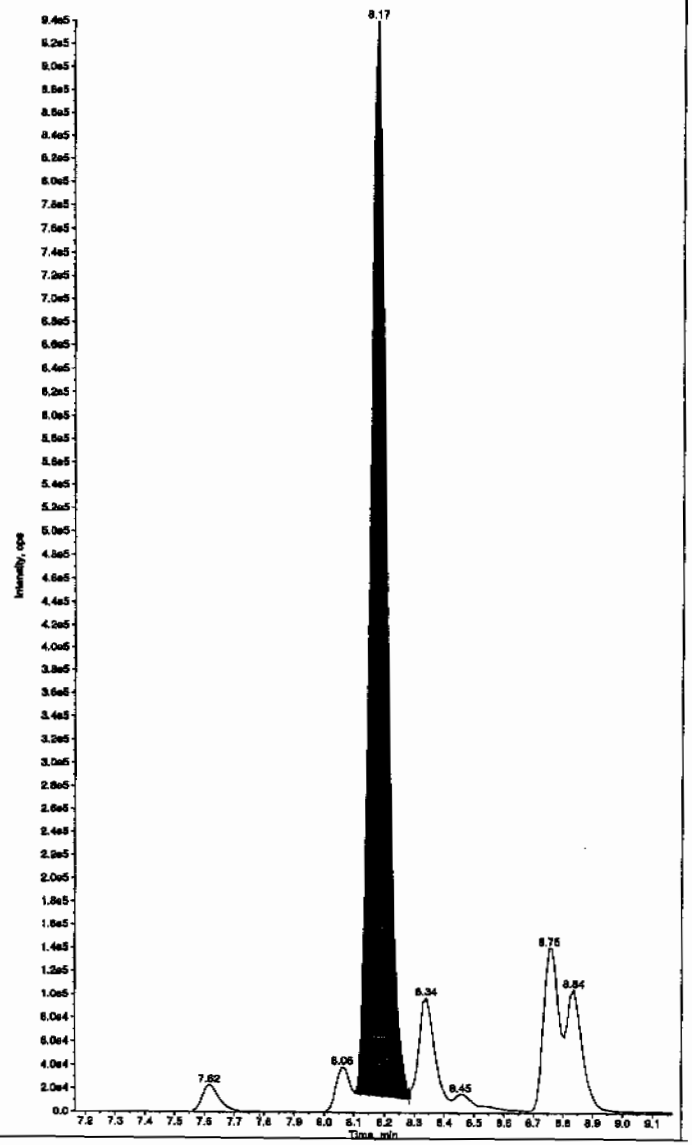

HMW 03/15/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202045750" Sample ID: "954328|2|LER" File: "EXS03100085.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
ncentration: N/A
lculated Conc: 255. ng/mL
q. Date: 3/11/2010
q. Time: 1:30:40 PM

iified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.32 min
Relative RT: No

t. Type: Valley
tention Time: 8.33 min
ea: 2.58e+006 counts
ight: 703443.359 cps
art Time: 8.26 min
d Time: 8.55 min

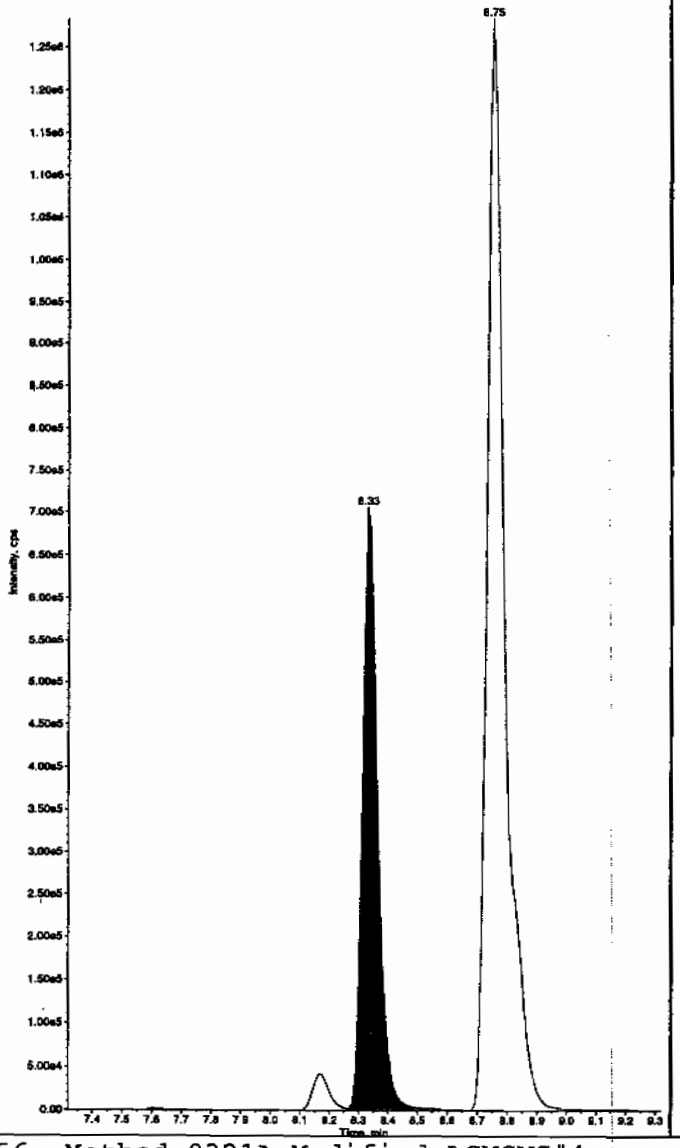

Sample Name: "1202045750" Sample ID: "954328|2|LER" File: "EXS03100085.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 485. ng/mL
Acq. Date: 3/11/2010
Acq. Time: 1:30:40 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.96 min
Area: 7.42e+005 counts
Height: 177544.830 cps
Start Time: 4.88 min
End Time: 5.25 min

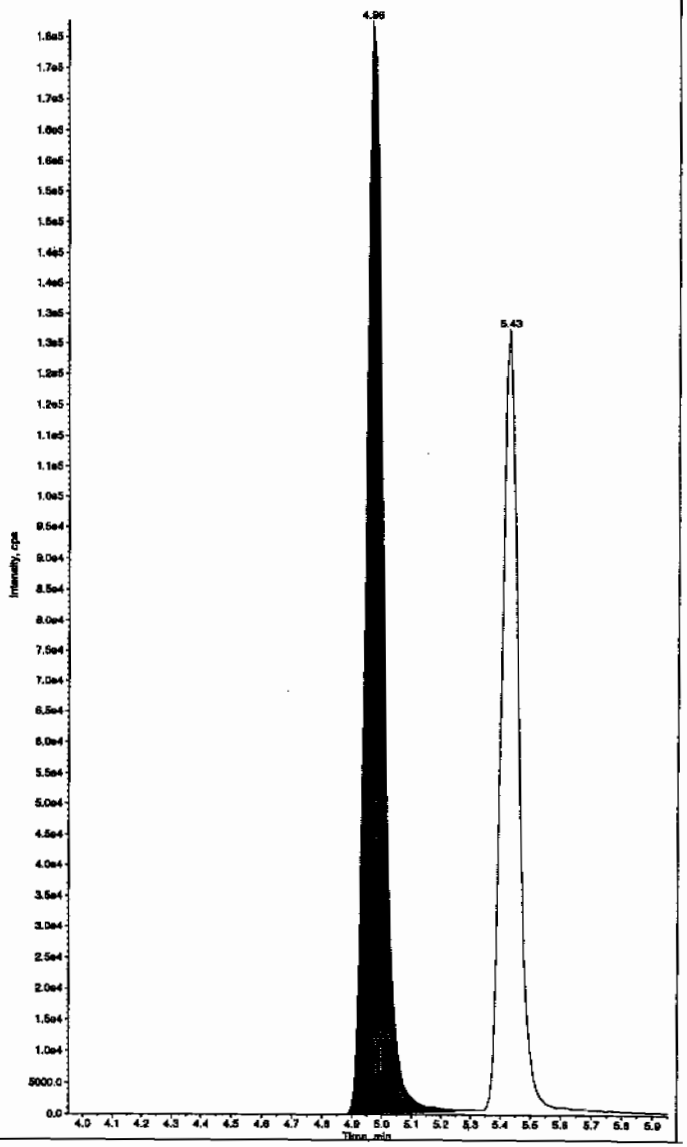

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202045750" Sample ID: "954328|2|LER" File: "EXS03100065.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 493. ng/mL
q. Date: 3/11/2010
q. Time: 1:30:40 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 350.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 5.42 min
e Relative RT: No

t. Type: Valley
tention Time: 5.43 min
ea: 5.21e+005 counts
ight: 127524.460 cps
art Time: 5.34 min
d Time: 6.26 min

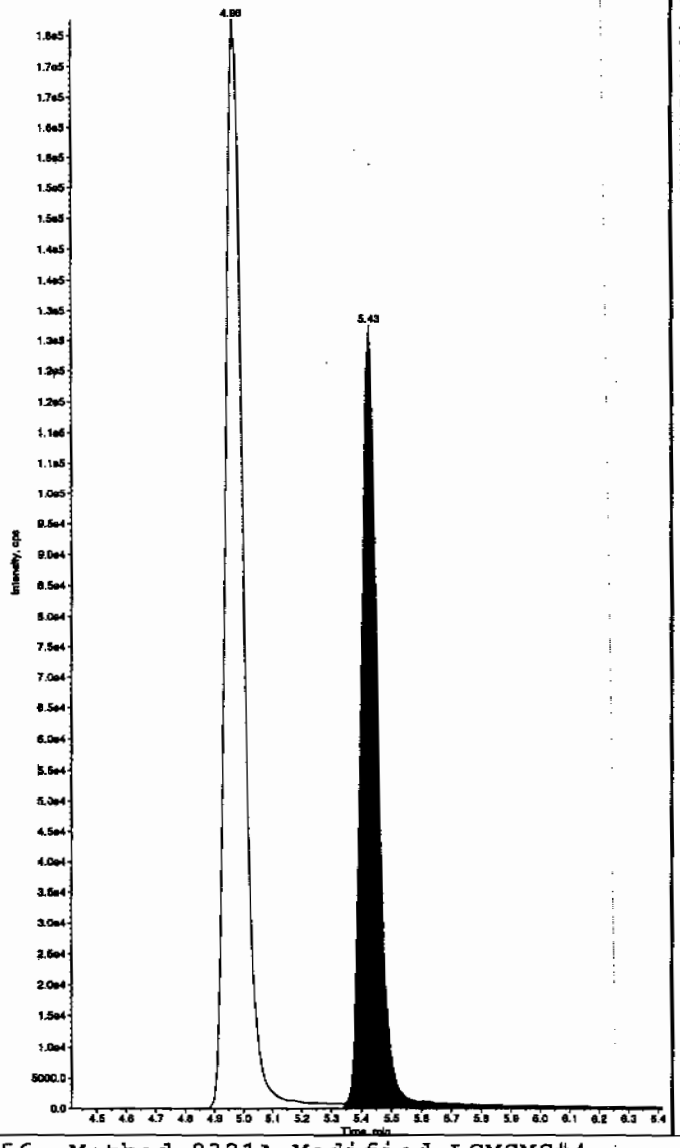

Sample Name: "1202045750" Sample ID: "954328|2|LER" File: "EXS03100065.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 471. ng/mL
Acq. Date: 3/11/2010
Acq. Time: 1:30:40 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 5.98e+006 counts
Height: 1446859.009 cps
Start Time: 10.7 min
End Time: 11.2 min

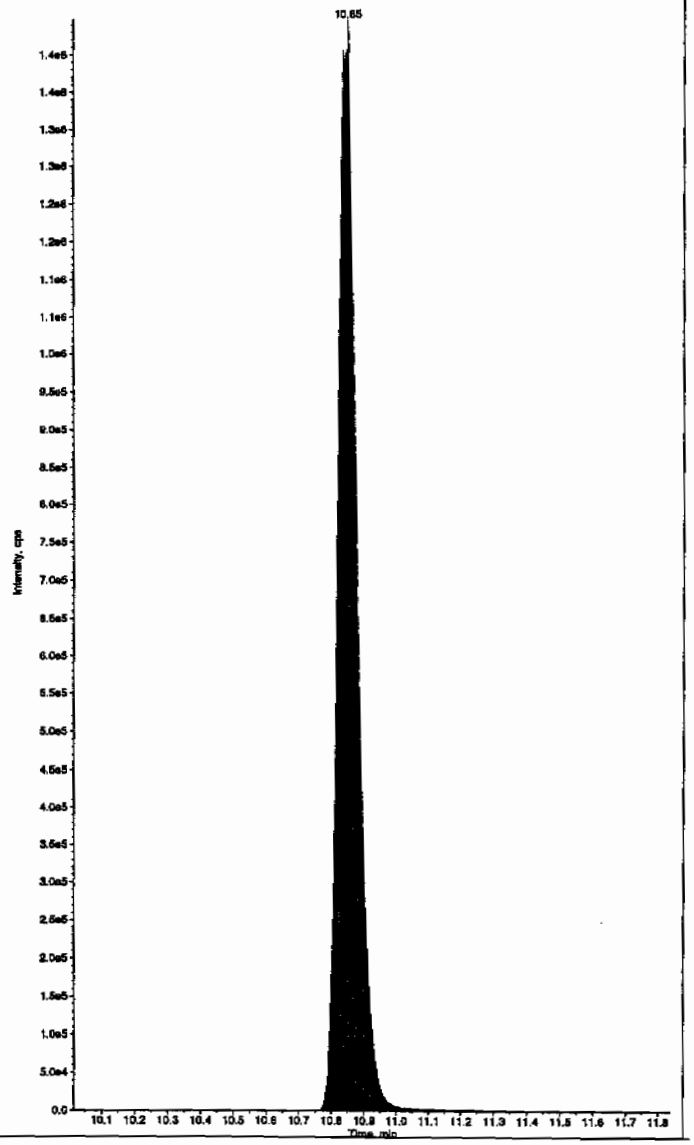

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8196(247193001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 1202045751

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0330021.wiff

Date Analyzed: 30-MAR-10 17:25

Units: ug/kg

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5150	
121-14-2	2,4-Dinitrotoluene	4860	
121-82-4	RDX	5310	
19406-51-0	4-Amino-2,6-dinitrotoluene	5710	
2691-41-0	HMX	4430	
35572-78-2	2-Amino-4,6-dinitrotoluene	4800	
479-45-8	Tetryl	2260	
606-20-2	2,6-Dinitrotoluene	5050	
78-11-5	PETN	6380	
88-72-2	o-Nitrotoluene	5960	
98-95-3	Nitrobenzene	5280	
99-08-1	m-Nitrotoluene	5520	
99-35-4	1,3,5-Trinitrobenzene	4290	
99-65-0	m-Dinitrobenzene	4780	
99-99-0	p-Nitrotoluene	5680	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330021.wiff	**Acquisition Date**	3/30/2010 5:25:00 PM
Sample Name	1202045751	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	_033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

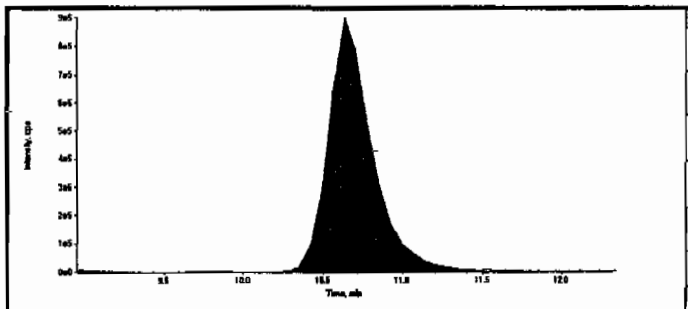

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.60
Actual RT:	10.60
Area Counts:	17400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

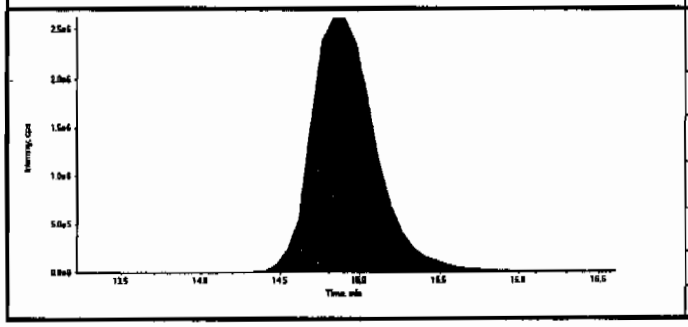

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	14.90
Actual RT:	14.90
Area Counts:	75200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

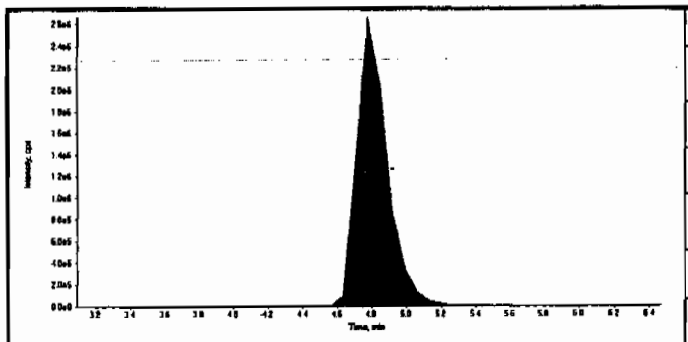

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	3.28e+007
Manual Modification	No
Amount:	443. (ng/mL)
% Accuracy:	N/A

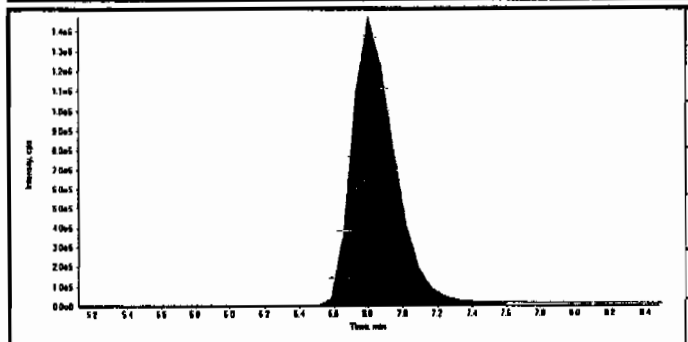

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.80
Actual RT:	6.80
Area Counts:	2.53e+007
Manual Modification	No
Amount:	531. (ng/mL)
% Accuracy:	N/A

4/2/10 4/2/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330021.wiff	**Acquisition Date**	3/30/2010 5:25:00 PM
Sample Name	1202045751	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

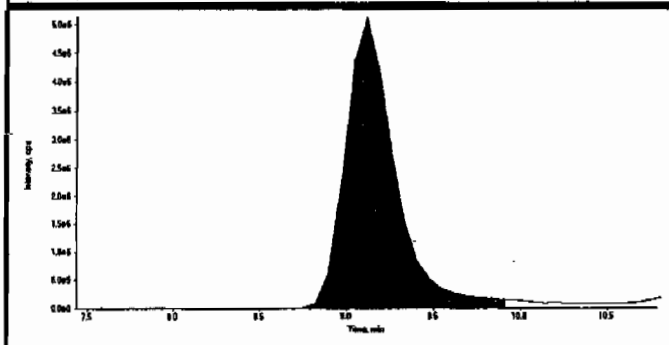

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.12
Actual RT:	9.12
Area Counts:	1.02e+008
Manual Modification	No
Amount:	429. (ng/mL)
% Accuracy:	N/A

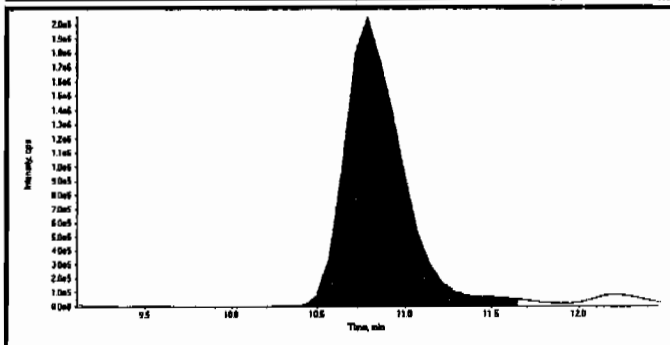

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.8
Actual RT:	10.8
Area Counts:	4.67e+007
Manual Modification	No
Amount:	478. (ng/mL)
% Accuracy:	N/A

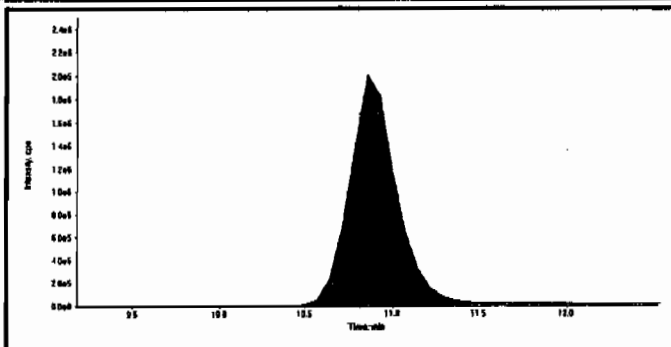

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	3.76e+007
Manual Modification	No
Amount:	226. (ng/mL)
% Accuracy:	N/A

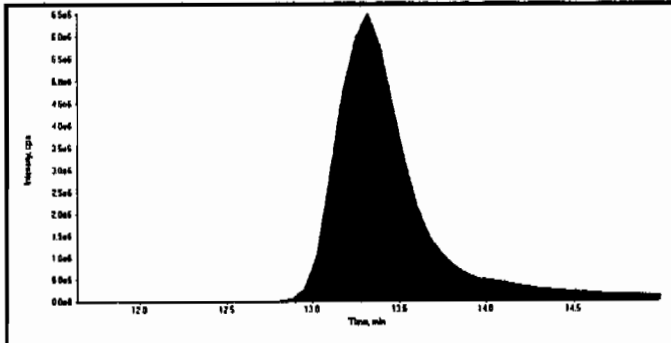

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.3
Actual RT:	13.3
Area Counts:	2.04e+008
Manual Modification	No
Amount:	515. (ng/mL)
% Accuracy:	N/A

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Data File	EXP0330021.wiff	**Acquisition Date**	3/30/2010 5:25:00 PM
Sample Name	1202045751	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

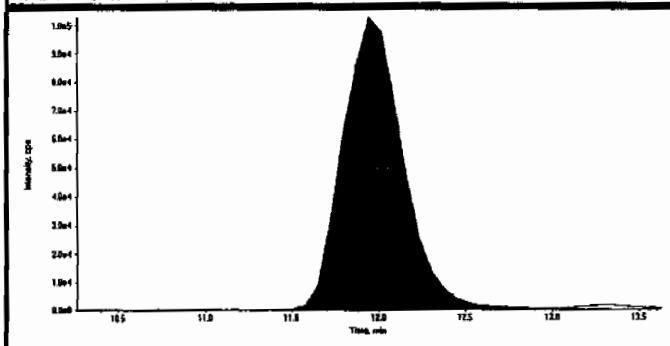

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	11.9
Actual RT:	11.9
Area Counts:	2.47e+006
Manual Modification	No
Amount:	528. (ng/mL)
% Accuracy:	N/A

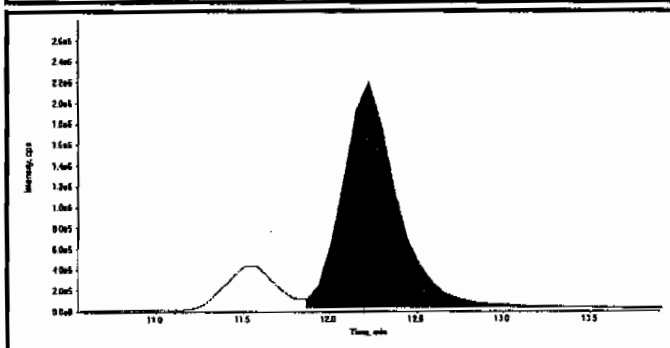

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.2
Actual RT:	12.2
Area Counts:	4.75e+007
Manual Modification	No
Amount:	272. (ng/mL)
% Accuracy:	N/A

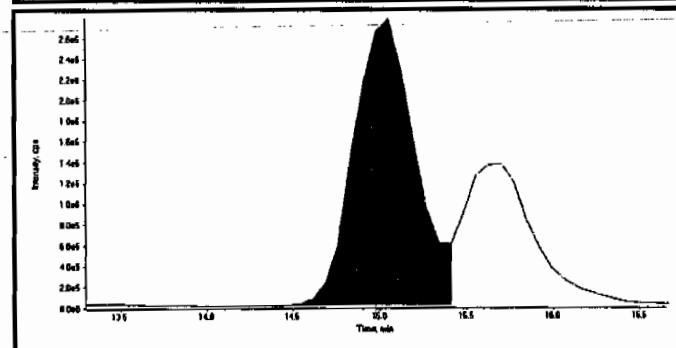

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.0
Actual RT:	15.0
Area Counts:	6.86e+007
Manual Modification	No
Amount:	505. (ng/mL)
% Accuracy:	N/A

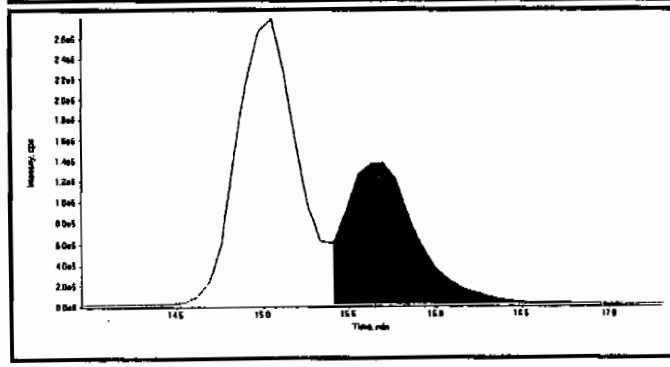

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.6
Actual RT:	15.7
Area Counts:	4.02e+007
Manual Modification	No
Amount:	486. (ng/mL)
% Accuracy:	N/A

Before Dan 4/1/10

Sample Name: "120245751" Sample ID: "954328[illegible]LER" File: "EXP033021.wiff"
Peak Name "2-Amino-4-dinitrotoluene" Mass(es): "197.0/180.0 amu"
Comment: "LCX8321_S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	236. ng/mL
Acq. Date:	3/30/2010
Acq. Time:	5:25:00 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	1000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	14.3 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	14.3 min
Area:	1.35e+006 counts
Height:	6.14e+004 cps
Start Time:	14.0 min
End Time:	14.7 min

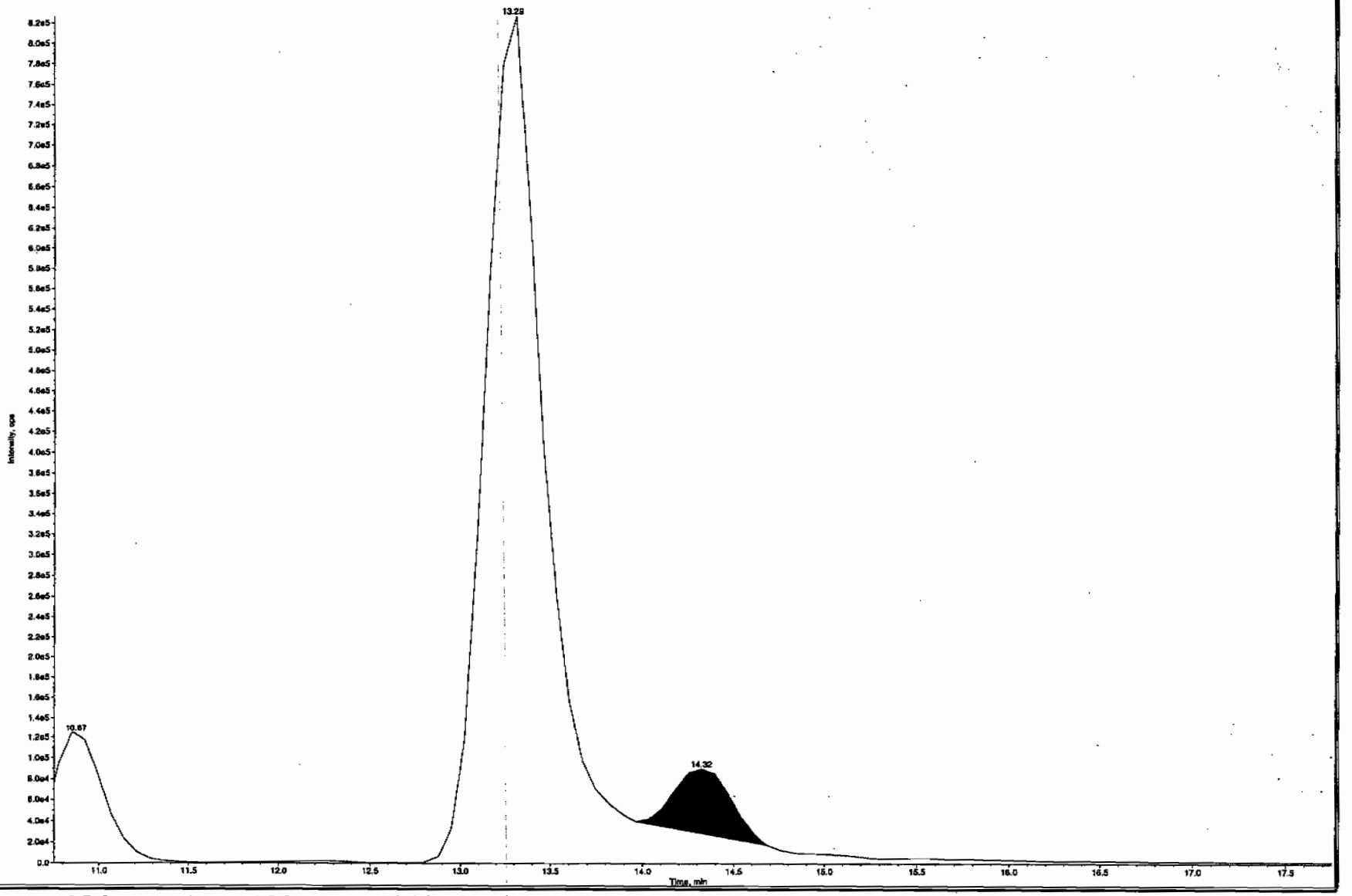

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330021.wiff	**Acquisition Date**	3/30/2010 5:25:00 PM
Sample Name	1202045751	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

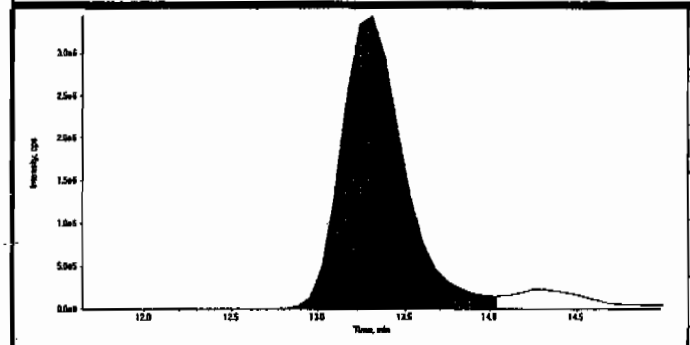

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.3
Actual RT:	13.3
Area Counts:	8.67e+007
Manual Modification	No
Amount:	571. (ng/mL)
% Accuracy:	N/A

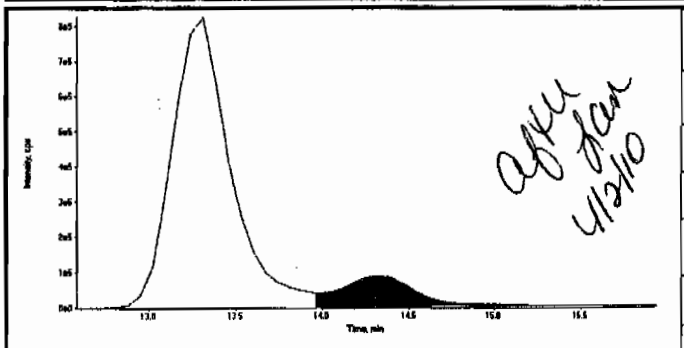

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.3
Actual RT:	14.3
Area Counts:	2.73e+006
Manual Modification	Yes
Amount:	480. (ng/mL)
% Accuracy:	N/A

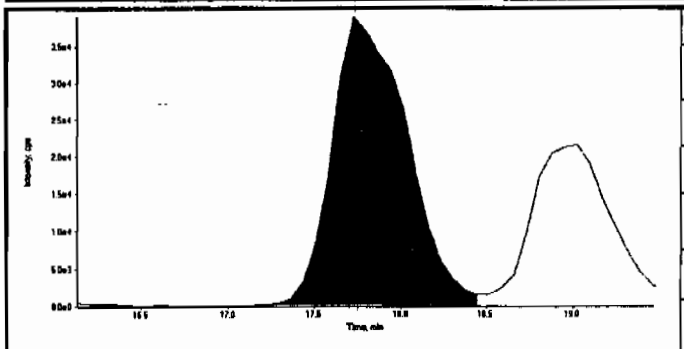

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	17.8
Actual RT:	17.7
Area Counts:	1.17e+006
Manual Modification	No
Amount:	596. (ng/mL)
% Accuracy:	N/A

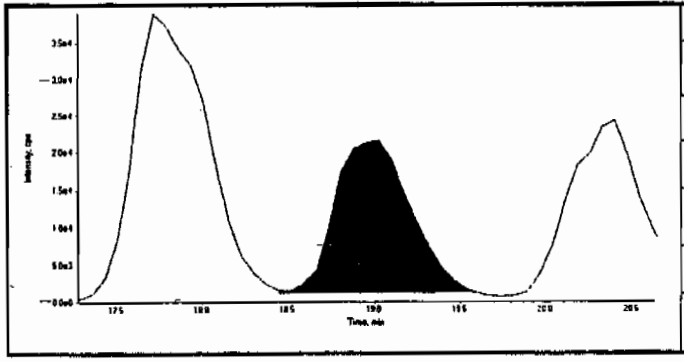

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.0
Actual RT:	19.0
Area Counts:	6.25e+005
Manual Modification	No
Amount:	568. (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 31/03/2010 4:24:00 PM
LCMSMS#3

Data File	EXP0330021.wiff	**Acquisition Date**	3/30/2010 5:25:00 PM
Sample Name	1202045751	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	954328|2|LER	**Result Table**	033010.rdb
Procedure Code	LCX8321_S	**Sample Type**	**Unknown**

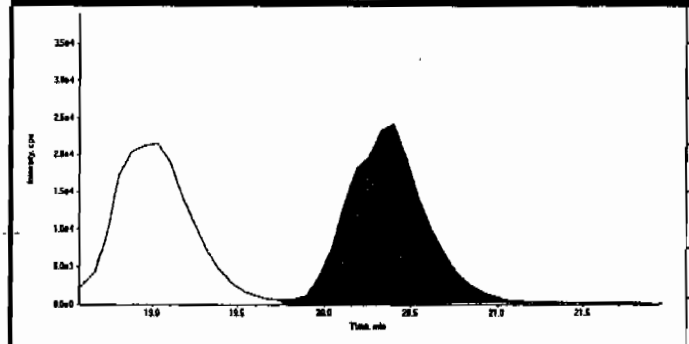

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.3
Actual RT:	20.4
Area Counts:	7.51e+005
Manual Modification	No
Amount:	552. (ng/mL)
% Accuracy:	N/A

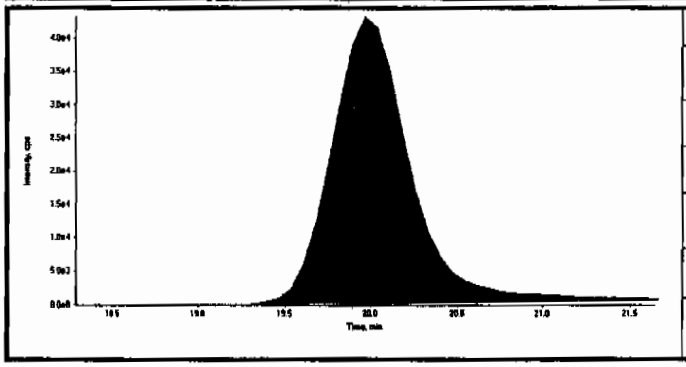

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.0
Actual RT:	20.0
Area Counts:	1.36e+006
Manual Modification	No
Amount:	638. (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: RE15-10-8196(247193001MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1864

Matrix: SOIL

GEL Sample ID: 1202045751

Sample Amount 2

Moisture: *****

Amount Units g

Date Received: 16-FEB-10

Extraction Type Sonication

Extraction Batch ID: 954324

Concentrated Extract Volume (mL) 10

Date Extracted: 22-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03100086.wiff

Date Analyzed: 11-MAR-10 13:46

Units: ug/kg

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5970	
59229-75-3	2,6-Diamino-4-nitrotoluene	4860	
618-87-1	3,5-Dinitroaniline	4990	
6629-29-4	2,4-Diamino-6-nitrotoluene	4860	
78-30-8	tris(o-cresyl) phosphate	4720	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

LLer 3/14/10

Sample Name: "1202045751" Sample ID: "9543282|LER" File: "EXS03100086.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 597. ng/mL
cq. Date: 3/11/2010
cq. Time: 1:46:21 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 2500.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 30.0 sec
xpected RT: 6.92 min
se Relative RT: No

nt. Type: Valley
etention Time: 6.92 min
rea: 8.51e+005 counts
eight: 193230.255 cps
tart Time: 6.81 min
nd Time: 7.93 min

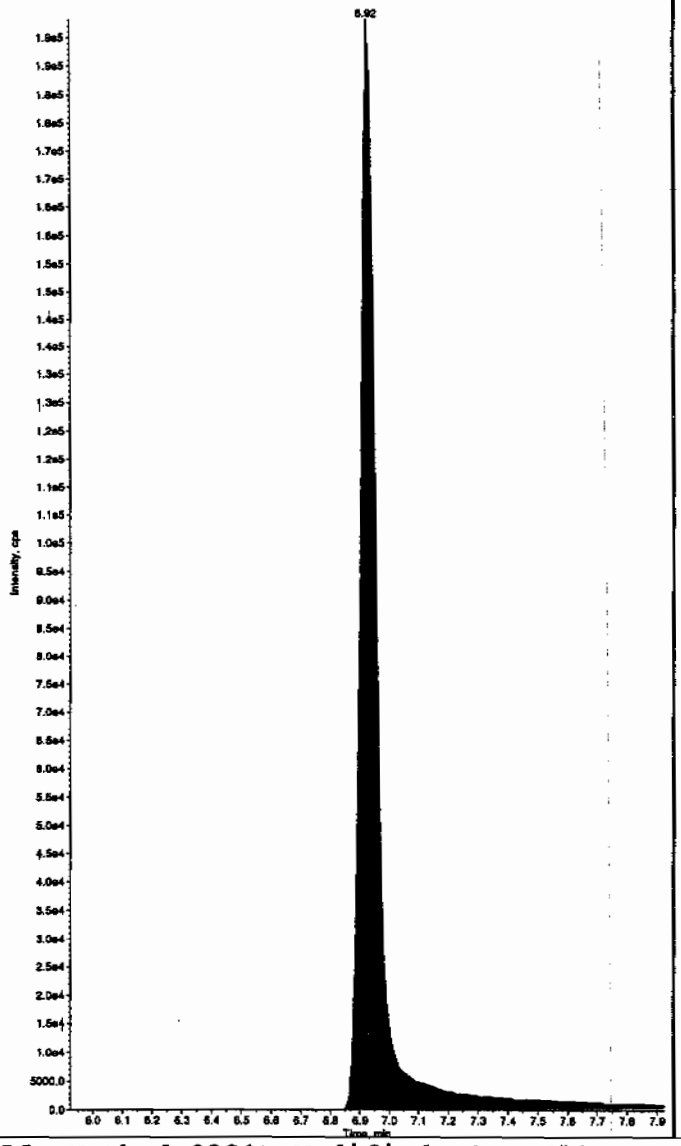

Sample Name: "1202045751" Sample ID: "9543282|LER" File: "EXS03100086.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 499. ng/mL
Acq. Date: 3/11/2010
Acq. Time: 1:46:21 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.16 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.16 min
Area: 3.53e+006 counts
Height: 901576.782 cps
Start Time: 8.10 min
End Time: 8.29 min

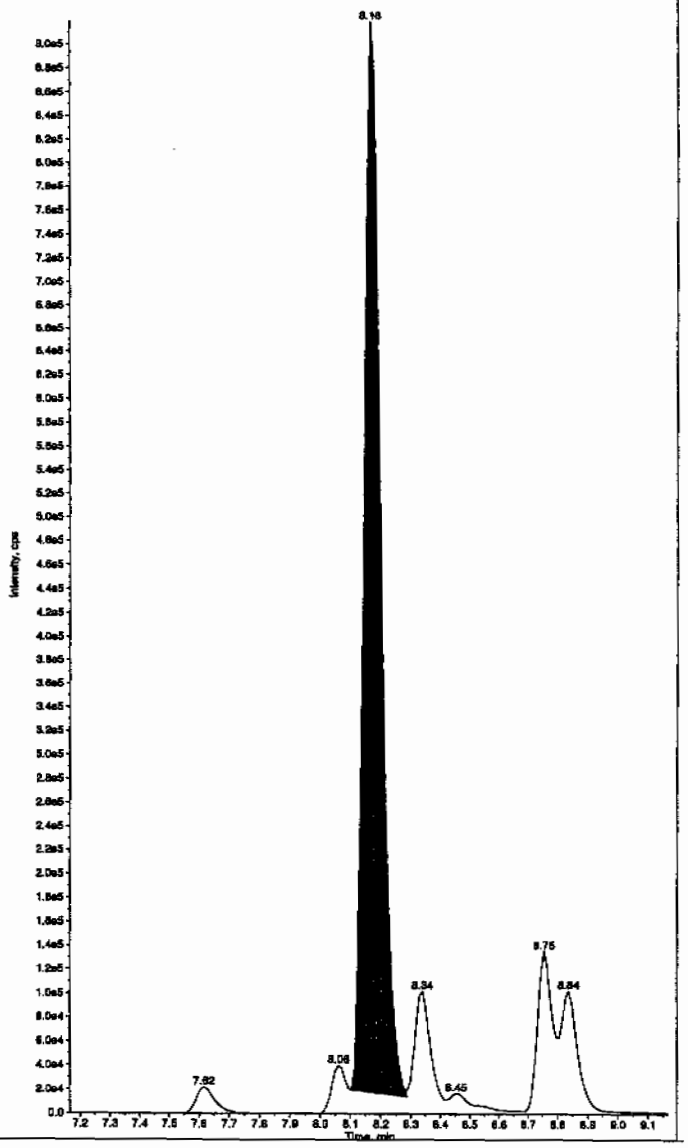

HMM 03/15/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202045751" Sample ID: "954328|2|LER" File: "EXS03100086.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

mple Index:	1
mple Type:	Unknown
ncentration:	N/A
lculated Conc:	265. ng/mL
cq. Date:	3/11/2010
cq. Time:	1:46:21 PM
dified:	No
oc. Algorithm:	IntelliQuan - IQA
n. Peak Height:	1460.00 cps
n. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	15.0 sec
pected RT:	8.32 min
e Relative RT:	No
t. Type:	Valley
tention Time:	8.33 min
ea:	2.66e+006 counts
ight:	728957.092 cps
art Time:	8.26 min
d Time:	8.54 min

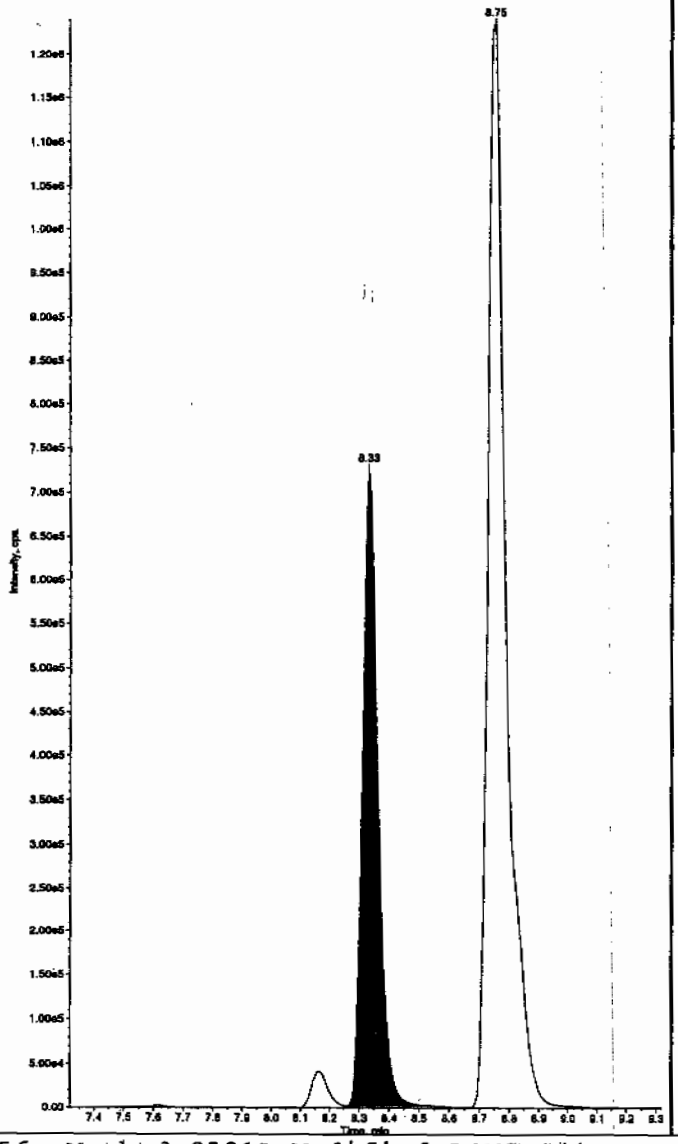

Sample Name: "1202045751" Sample ID: "954328|2|LER" File: "EXS03100086.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	486. ng/mL
Acq. Date:	3/11/2010
Acq. Time:	1:46:21 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	450.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	4.95 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	4.96 min
Area:	7.44e+005 counts
Height:	181644.852 cps
Start Time:	4.87 min
End Time:	5.22 min

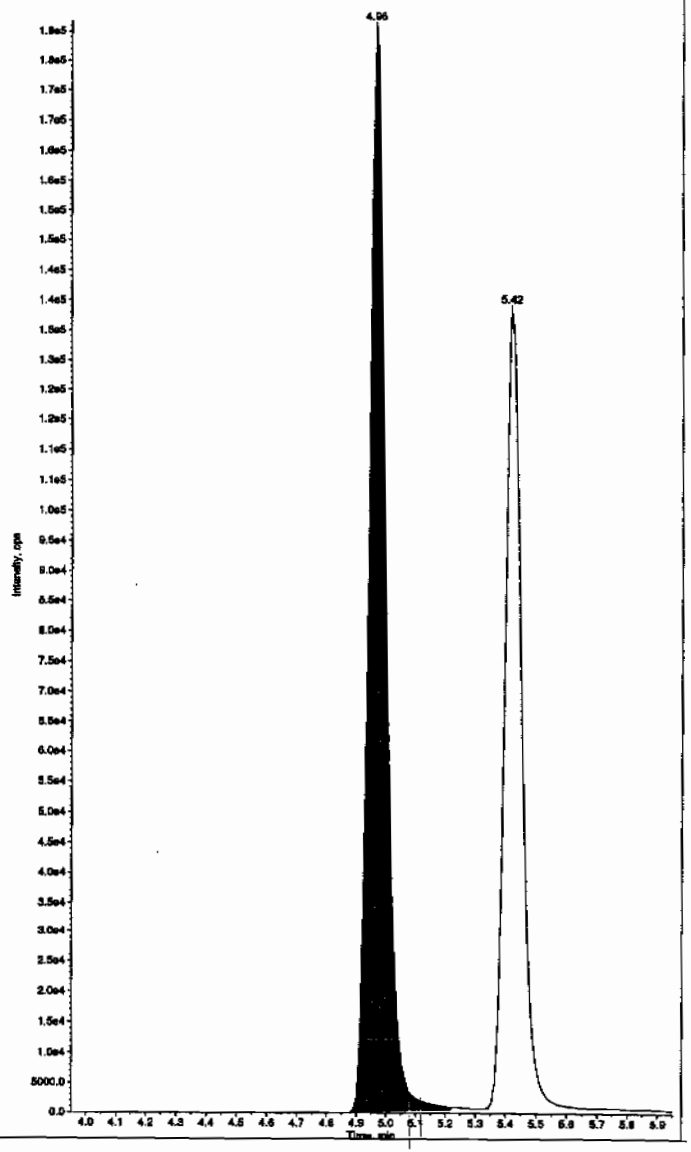

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202045751" Sample ID: "954328[2]LER" File: "EXS03100066.wiff"
Peak Name: "24-Dismino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 486. ng/mL
cq. Date: 3/11/2010
cq. Time: 1:46:21 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 350.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 30.0 sec
xpected RT: 5.42 min
se Relative RT: No

nt. Type: Valley
etention Time: 5.42 min
rea: 5.14e+005 counts
eight: 133693.558 cps
tart Time: 5.31 min
nd Time: 5.68 min

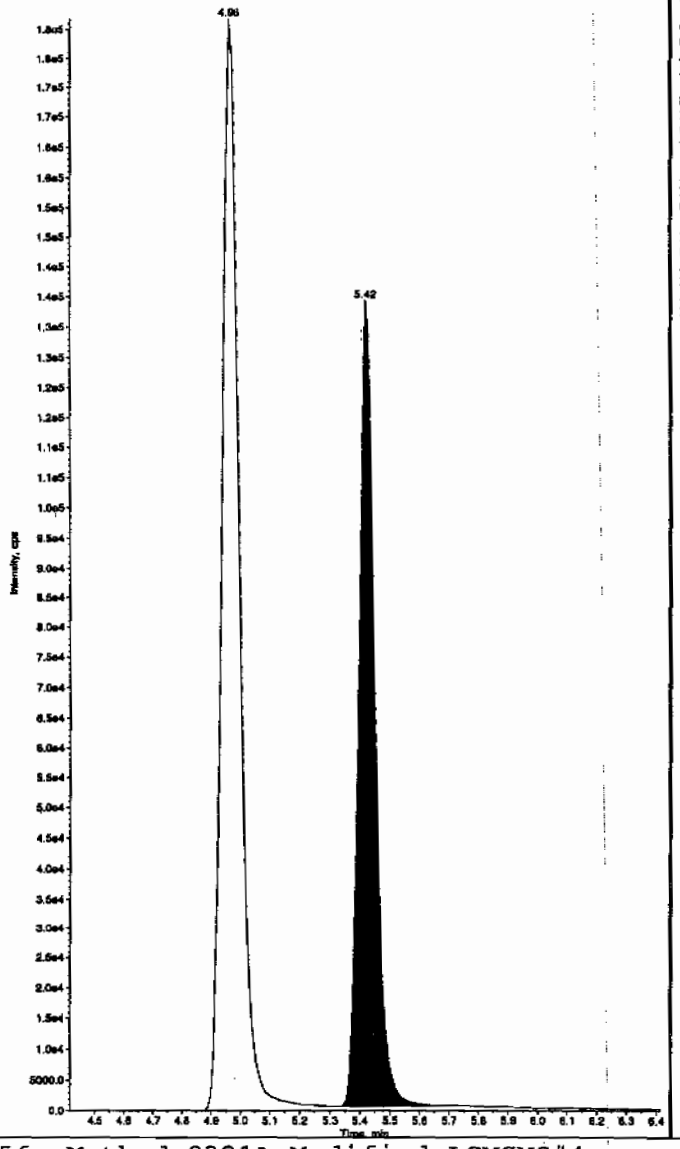

Sample Name: "1202045751" Sample ID: "954328[2]LER" File: "EXS03100066.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 472. ng/mL
Acq. Date: 3/11/2010
Acq. Time: 1:46:21 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 6.00e+006 counts
Height: 1488573.975 cps
Start Time: 10.7 min
End Time: 11.2 min

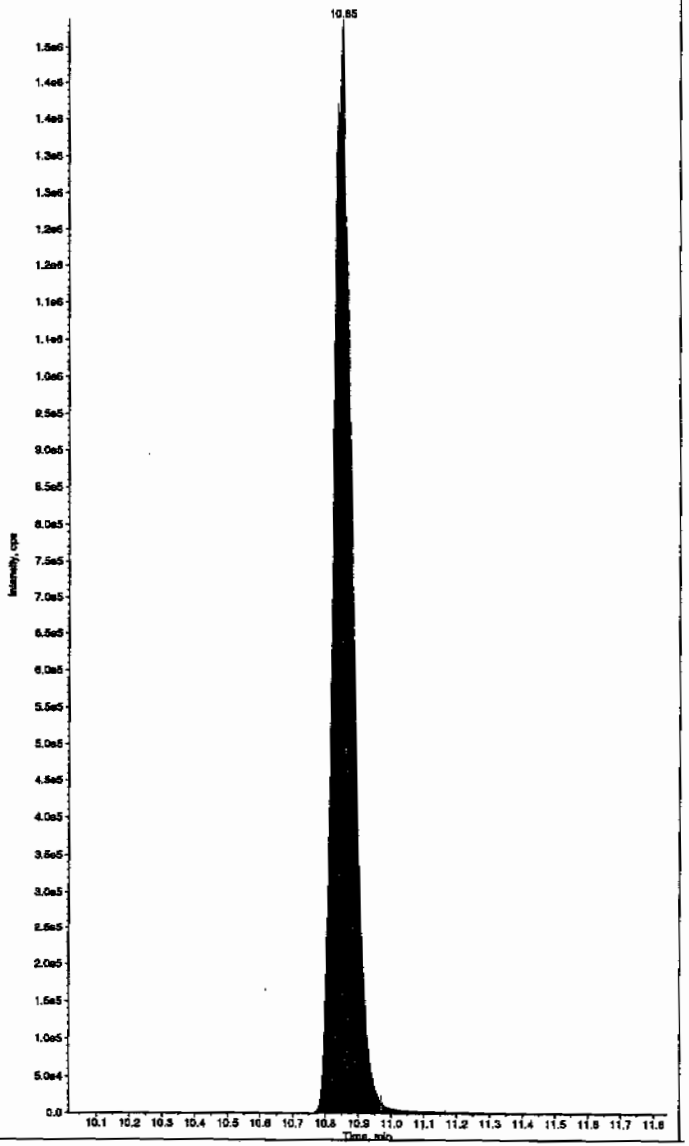

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 954324 **Verified by:** _____
Analyst: Sirena White
Method: SW846 8330 PREP

Lab SOP: GL-OA-E-033 REV# 17
Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Aliquot (g)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202045748 MB	22-FEB-2010 15:58:00	2	10	5
1202045749 LCS	22-FEB-2010 15:58:00	2	10	5
247193001	22-FEB-2010 15:58:00	2	10	5
1202045750 MS (247193001)	22-FEB-2010 15:58:00	2	10	5
1202045751 MSD (247193001)	22-FEB-2010 15:58:00	2	10	5
247193002	22-FEB-2010 15:58:00	2	10	5
247193003	22-FEB-2010 15:58:00	2	10	5
247193004	22-FEB-2010 15:58:00	2	10	5
247193005	22-FEB-2010 15:58:00	2	10	5
247193006	22-FEB-2010 15:58:00	2	10	5
247193007	22-FEB-2010 15:58:00	2	10	5
247193008	22-FEB-2010 15:58:00	2	10	5
247193009	22-FEB-2010 15:58:00	2	10	5
247193010	22-FEB-2010 15:58:00	2	10	5
247193011	22-FEB-2010 15:58:00	2	10	5
247193012	22-FEB-2010 15:58:00	2	10	5
247193013	22-FEB-2010 15:58:00	2	10	5
247193014	22-FEB-2010 15:58:00	2	10	5

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202045749	8321 Explosives LCS	DXX100208-03	.1	mL
LCS	1202045749	8321 LANL Explosives Mix 10mg/L	UXX100210-02.3	1	mL
MS	1202045750	8321 Explosives LCS	DXX100208-03	.1	mL
MS	1202045750	8321 LANL Explosives Mix 10mg/L	UXX100210-02.3	1	mL
MSD	1202045751	8321 Explosives LCS	DXX100208-03	.1	mL
MSD	1202045751	8321 LANL Explosives Mix 10mg/L	UXX100210-02.3	1	mL
SURR	All	3,4-Dinitrotoluene (8330 Surr.) 100ppm	DXP100218-02	.05	mL

Comments:

Final Solvent: ACN

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS#3

Date: 03/30/10
Extr. Injection Volume: 10uL
Sequence Number: 033010
Initial Calibration Date: 033010

Method: 8321A-Modified
Int. Std.: UXX1003090-01.4
Mobile Phase Lot#:1290941, 1289686
Standard-Samp Reagent Lot#:1284736, 1292884

Reviewed BY: [illegible]
Date: 04/02/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100330-56

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXP0330001.wiff	XIBLK01	LER	3/30/2010 8:37			1		USE	B
EXP0330002.wiff	XIBLK01	LER	3/30/2010 9:03			1		USE	B
EXP0330003.wiff	WXXICAL-50	LER	3/30/2010 9:29			1		USE	I
EXP0330004.wiff	WXXICAL-51	LER	3/30/2010 9:56			1		USE	I
EXP0330005.wiff	WXXICAL-52	LER	3/30/2010 10:22			1		USE	I
EXP0330006.wiff	WXXICAL-53	LER	3/30/2010 10:48			1		USE	I
EXP0330007.wiff	WXXICAL-54	LER	3/30/2010 11:15			1		USE	I
EXP0330008.wiff	WXXICAL-55	LER	3/30/2010 11:41			1		USE	I
EXP0330009.wiff	XIBLK02	LER	3/30/2010 12:08			1		USE	B
EXP0330010.wiff	WXXICV	LER	3/30/2010 12:34			1		USE	C
EXP0330011.wiff	XIBLK03	LER	3/30/2010 13:00			1		USE	B
EXP0330012.wiff	WXXCRI	LER	3/30/2010 13:27			1		USE	C
EXP0330013.wiff	247830002	LER	3/30/2010 13:53	957192	10-2007	2	LANL	DUSE	S
EXP0330014.wiff	1202073691	LER	3/30/2010 14:20	966289	10-2428	2	LANL	USE	S
EXP0330015.wiff	1202041954	LER	3/30/2010 14:46	952706	10-1758	2	LANL	USE	S
EXP0330016.wiff	XIBLK04	LER	3/30/2010 15:12			1		USE	B
EXP0330017.wiff	1202045748	LER	3/30/2010 15:39	954328	10-1864	2	LANL	USE	S
EXP0330018.wiff	1202045749	LER	3/30/2010 16:05	954328	10-1864	2	LANL	USE	S
EXP0330019.wiff	247193001	LER	3/30/2010 16:32	954328	10-1864	2	LANL	USE	S
EXP0330020.wiff	1202045750	LER	3/30/2010 16:58	954328	10-1864	2	LANL	USE	S
EXP0330021.wiff	1202045751	LER	3/30/2010 17:25	954328	10-1864	2	LANL	USE	S
EXP0330022.wiff	247193002	LER	3/30/2010 17:51	954328	10-1864	2	LANL	USE	S
EXP0330023.wiff	WXXCCV	LER	3/30/2010 18:17			1		USE	C
EXP0330024.wiff	XIBLK05	LER	3/30/2010 18:44			1		USE	B
EXP0330025.wiff	WXXCRI	LER	3/30/2010 19:10			1		USE	C
EXP0330026.wiff	247193003	LER	3/30/2010 19:37	954328	10-1864	2	LANL	USE	S
EXP0330027.wiff	247193004	LER	3/30/2010 20:03	954328	10-1864	2	LANL	USE	S
EXP0330028.wiff	247193005	LER	3/30/2010 20:29	954328	10-1864	2	LANL	USE	S
EXP0330029.wiff	247193006	LER	3/30/2010 20:56	954328	10-1864	2	LANL	USE	S

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EXP0330030.wiff	247193007	LER	3/30/2010 21:22	954328	10-1864	2	LANL	USE	S
EXP0330031.wiff	247193008	LER	3/30/2010 21:49	954328	10-1864	2	LANL	USE	S
EXP0330032.wiff	247193009	LER	3/30/2010 22:15	954328	10-1864	2	LANL	USE	S
EXP0330033.wiff	247193010	LER	3/30/2010 22:41	954328	10-1864	2	LANL	USE	S
EXP0330034.wiff	247193011	LER	3/30/2010 23:08	954328	10-1864	2	LANL	USE	S
EXP0330035.wiff	247193012	LER	3/30/2010 23:34	954328	10-1864	2	LANL	USE	S
EXP0330036.wiff	WXXCCV	LER	3/31/2010 0:01			1		USE	C
EXP0330037.wiff	XIBLK06	LER	3/31/2010 0:27			1		USE	B
EXP0330038.wiff	WXXCRI	LER	3/31/2010 0:53			1		USE	C
EXP0330039.wiff	247193013	LER	3/31/2010 1:20	954328	10-1864	2	LANL	DUSE-RA	S
EXP0330040.wiff	247193014	LER	3/31/2010 1:46	954328	10-1864	2	LANL	DUSE-RA	S
EXP0330041.wiff	XIBLK07	LER	3/31/2010 2:13			1		DUSE	B
EXP0330042.wiff	1202045643	LER	3/31/2010 2:39	954271	VARIOUS	2	LANL	DUSE-RA	S
EXP0330043.wiff	1202045644	LER	3/31/2010 3:05	954271	VARIOUS	2	LANL	DUSE-RA	S
EXP0330044.wiff	247172001	LER	3/31/2010 3:32	954271	10-1866	2	LANL	DUSE-RA	S
EXP0330045.wiff	247172002	LER	3/31/2010 3:58	954271	10-1866	2	LANL	DUSE-RA	S
EXP0330046.wiff	247175001	LER	3/31/2010 4:24	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0330047.wiff	247175002	LER	3/31/2010 4:51	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0330048.wiff	247175003	LER	3/31/2010 5:17	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0330049.wiff	WXXCCV	LER	3/31/2010 5:44			1		DUSE	C
EXP0330050.wiff	XIBLK08	LER	3/31/2010 6:10			1		DUSE	B
EXP0330051.wiff	WXXCRI	LER	3/31/2010 6:36			1		DUSE	C
EXP0330052.wiff	247175004	LER	3/31/2010 7:03	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0330053.wiff	247175005	LER	3/31/2010 7:29	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0330054.wiff	247175006	LER	3/31/2010 7:56	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0330055.wiff	XIBLK09	LER	3/31/2010 8:22			1		DUSE	B
EXP0330056.wiff	1202045806	LER	3/31/2010 8:49	954365	10-1872	2	LANL	DUSE-RA	S
EXP0330057.wiff	1202045807	LER	3/31/2010 9:15	954365	10-1872	2	LANL	DUSE-RA	S
EXP0330058.wiff	247200001	LER	3/31/2010 9:42	954365	10-1872	2	LANL	DUSE-RA	S
EXP0330059.wiff	1202045808	LER	3/31/2010 10:08	954365	10-1872	2	LANL	DUSE-RA	S
EXP0330060.wiff	1202045809	LER	3/31/2010 10:35	954365	10-1872	2	LANL	DUSE-RA	S
EXP0330061.wiff	247200002	LER	3/31/2010 11:01	954365	10-1872	2	LANL	DUSE-RA	S
EXP0330062.wiff	WXXCCV	LER	3/31/2010 11:27			1		DUSE	C
EXP0330063.wiff	XIBLK10	LER	3/31/2010 11:54			1		DUSE	B
EXP0330064.wiff	WXXCRI	LER	3/31/2010 12:20			1		DUSE	C

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS#3

Date:4/1/10
Extr. Injection Volume: 10uL
Sequence Number: 040110
Initial Calibration Date: 040110

Method: 8321A-Modified
Int. Std.: UXX100309-01.4
Mobile Phase Lot#:1290941, 1289686
Standard-Samp Reagent Lot#:1284736, 1292884

Reviewed BY: [illegible]
Date: 04/09/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100401-56

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXP0401001.wiff	XIBLK01	LER	4/1/2010 11:38			1		USE	B
EXP0401002.wiff	XIBLK01	LER	4/1/2010 12:04			1		USE	B
EXP0401003.wiff	WXXICAL-50	LER	4/1/2010 12:30			1		USE	I
EXP0401004.wiff	WXXICAL-51	LER	4/1/2010 12:57			1		USE	I
EXP0401005.wiff	WXXICAL-52	LER	4/1/2010 13:23			1		USE	I
EXP0401006.wiff	WXXICAL-53	LER	4/1/2010 13:50			1		USE	I
EXP0401007.wiff	WXXICAL-54	LER	4/1/2010 14:16			1		USE	I
EXP0401008.wiff	WXXICAL-55	LER	4/1/2010 14:42			1		USE	I
EXP0401009.wiff	XIBLK02	LER	4/1/2010 15:09			1		USE	B
EXP0401010.wiff	WXXICV	LER	4/1/2010 15:35			1		USE	C
EXP0401011.wiff	XIBLK03	LER	4/1/2010 16:02			1		USE	B
EXP0401012.wiff	WXXCRI	LER	4/1/2010 16:28			1		USE	C
EXP0401013.wiff	247193013	LER	4/1/2010 16:54	954328	10-1864	2	LANL	USE	S
EXP0401014.wiff	247193014	LER	4/1/2010 17:21	954328	10-1864	2	LANL	USE	S
EXP0401015.wiff	XIBLK04	LER	4/1/2010 17:47			1		USE	B
EXP0401016.wiff	1202045643	LER	4/1/2010 18:14	954271	VARIOUS	2	LANL	USE	S
EXP0401017.wiff	1202045644	LER	4/1/2010 18:40	954271	VARIOUS	2	LANL	USE	S
EXP0401018.wiff	247172001	LER	4/1/2010 19:07	954271	10-1866	2	LANL	USE	S
EXP0401019.wiff	247172002	LER	4/1/2010 19:33	954271	10-1866	2	LANL	USE	S
EXP0401020.wiff	247175001	LER	4/1/2010 19:59	954271	10-1870-1	2	LANL	USE	S
EXP0401021.wiff	247175002	LER	4/1/2010 20:26	954271	10-1870-1	2	LANL	USE	S
EXP0401022.wiff	247175003	LER	4/1/2010 20:52	954271	10-1870-1	2	LANL	USE	S
EXP0401023.wiff	WXXCCV	LER	4/1/2010 21:18			1		USE	C
EXP0401024.wiff	XIBLK05	LER	4/1/2010 21:45			1		USE	B
EXP0401025.wiff	WXXCRI	LER	4/1/2010 22:11			1		USE	C
EXP0401026.wiff	247175004	LER	4/1/2010 22:38	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0401027.wiff	247175005	LER	4/1/2010 23:04	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0401028.wiff	247175006	LER	4/1/2010 23:30	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0401029.wiff	XIBLK06	LER	4/1/2010 23:57			1		DUSE	B

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EXP0401030.wiff	1202045806	LER	4/2/2010 0:23	954365	10-1872	2	LANL	DUSE-RA	S
EXP0401031.wiff	1202045807	LER	4/2/2010 0:49	954365	10-1872	2	LANL	DUSE-RA	S
EXP0401032.wiff	247200001	LER	4/2/2010 1:16	954365	10-1872	5	LANL	DUSE-RA	S
EXP0401033.wiff	247200001	LER	4/2/2010 1:42	954365	10-1872	2	LANL	DUSE-RA	S
EXP0401034.wiff	1202045808	LER	4/2/2010 2:09	954365	10-1872	2	LANL	DUSE-RA	S
EXP0401035.wiff	1202045809	LER	4/2/2010 2:35	954365	10-1872	2	LANL	DUSE-RA	S
EXP0401036.wiff	WXXCCV	LER	4/2/2010 3:02			1		DUSE	C
EXP0401037.wiff	XIBLK07	LER	4/2/2010 3:28			1		DUSE	B
EXP0401038.wiff	WXXCRI	LER	4/2/2010 3:54			1		DUSE	C

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2°

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS4

Date: 03/10/10
Extr. Injection Volume: 10uL
Sequence Number: 031010exs
Initial Calibration Date: 031010

Method: 8321A-Modified
Int. Std.: N/A
Mobile Phase Lot#:1268566, 1268568
Standard-Samp Reagent Lot# :1274562, 1261217

Reviewed By: HMK
Date: 03/15/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100310-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS03100001.wiff	XIBLK01	LER	3/10/2010 15:31			1		USE	B
EXS03100002.wiff	XIBLK01	LER	3/10/2010 15:47			1		USE	B
EXS03100003.wiff	WXXICAL-19	LER	3/10/2010 16:02			1		USE	I
EXS03100004.wiff	WXXICAL-20	LER	3/10/2010 16:18			1		USE	I
EXS03100005.wiff	WXXICAL-21	LER	3/10/2010 16:34			1		USE	I
EXS03100006.wiff	WXXICAL-22	LER	3/10/2010 16:50			1		USE	I
EXS03100007.wiff	WXXICAL-23	LER	3/10/2010 17:05			1		USE	I
EXS03100008.wiff	WXXICAL-24	LER	3/10/2010 17:21			1		DUSE	I
EXS03100009.wiff	WXXICAL-25	LER	3/10/2010 17:37			1		USE	I
EXS03100010.wiff	XIBLK02	LER	3/10/2010 17:52			1		USE	B
EXS03100011.wiff	WXXICV	LER	3/10/2010 18:08			1		USE	C
EXS03100012.wiff	XIBLK03	LER	3/10/2010 18:24			1		USE	B
EXS03100013.wiff	WXXCRI	LER	3/10/2010 18:39			1		USE	C
EXS03100014.wiff	1202049901	LER	3/10/2010 18:55	956045	VARIOUS	2	LANL	USE	S
EXS03100015.wiff	1202049902	LER	3/10/2010 19:11	956045	VARIOUS	2	LANL	USE	S
EXS03100016.wiff	247421002	LER	3/10/2010 19:26	956045	10-1920	2	LANL	USE	S
EXS03100017.wiff	1202049903	LER	3/10/2010 19:42	956045	10-1920	2	LANL	USE	S
EXS03100018.wiff	1202049904	LER	3/10/2010 19:58	956045	10-1920	2	LANL	USE	S
EXS03100019.wiff	247421003	LER	3/10/2010 20:14	956045	10-1920	2	LANL	USE	S
EXS03100020.wiff	247421004	LER	3/10/2010 20:29	956045	10-1920	2	LANL	USE	S
EXS03100021.wiff	247421005	LER	3/10/2010 20:45	956045	10-1920	2	LANL	USE	S
EXS03100022.wiff	247421006	LER	3/10/2010 21:01	956045	10-1920	2	LANL	USE	S
EXS03100023.wiff	247421007	LER	3/10/2010 21:16	956045	10-1920	2	LANL	USE	S
EXS03100024.wiff	WXXCCV	LER	3/10/2010 21:32			1		USE	C
EXS03100025.wiff	XIBLK04	LER	3/10/2010 21:48			1		USE	B
EXS03100026.wiff	WXXCRI	LER	3/10/2010 22:04			1		USE	C
EXS03100027.wiff	247450002	LER	3/10/2010 22:19	956045	10-1937	2	LANL	USE	S
EXS03100028.wiff	247450003	LER	3/10/2010 22:35	956045	10-1937	2	LANL	USE	S
EXS03100029.wiff	247450004	LER	3/10/2010 22:51	956045	10-1937	2	LANL	USE	S
EXS03100030.wiff	247450005	LER	3/10/2010 23:06	956045	10-1937	2	LANL	USE	S

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EXS03100031.wiff	247450006	LER	3/10/2010 23:22	956045	10-1937	2	LANL	USE	S
EXS03100032.wiff	247450007	LER	3/10/2010 23:38	956045	10-1937	2	LANL	USE	S
EXS03100033.wiff	247562002	LER	3/10/2010 23:53	956045	10-1950	2	LANL	USE	S
EXS03100034.wiff	247562003	LER	3/11/2010 0:09	956045	10-1950	2	LANL	USE	S
EXS03100035.wiff	247562004	LER	3/11/2010 0:25	956045	10-1950	2	LANL	USE	S
EXS03100036.wiff	247562005	LER	3/11/2010 0:41	956045	10-1950	2	LANL	USE	S
EXS03100037.wiff	WXXCCV	LER	3/11/2010 0:56			1		USE	C
EXS03100038.wiff	XIBLK05	LER	3/11/2010 1:12			1		USE	B
EXS03100039.wiff	WXXCRI	LER	3/11/2010 1:28			1		USE	C
EXS03100040.wiff	247562006	LER	3/11/2010 1:43	956045	10-1950	2	LANL	USE	S
EXS03100041.wiff	247562007	LER	3/11/2010 1:59	956045	10-1950	2	LANL	USE	S
EXS03100042.wiff	247562008	LER	3/11/2010 2:15	956045	10-1950	2	LANL	USE	S
EXS03100043.wiff	247562009	LER	3/11/2010 2:31	956045	10-1950	2	LANL	USE	S
EXS03100044.wiff	WXXCCV	LER	3/11/2010 2:46			1		USE	C
EXS03100045.wiff	XIBLK06	LER	3/11/2010 3:02			1		USE	B
EXS03100046.wiff	WXXCRI	LER	3/11/2010 3:18			1		USE	C
EXS03100047.wiff	1202056029	LER	3/11/2010 3:33	958682	VARIOUS	2	LANL	USE	S
EXS03100048.wiff	1202056030	LER	3/11/2010 3:49	958682	VARIOUS	2	LANL	USE	S
EXS03100049.wiff	1202056034	LER	3/11/2010 4:05	958682	VARIOUS	2	LANL	USE	S
EXS03100050.wiff	248152002	LER	3/11/2010 4:21	958682	10-2101	2	LANL	USE	S
EXS03100051.wiff	248152004	LER	3/11/2010 4:36	958682	10-2101	2	LANL	USE	S
EXS03100052.wiff	248168006	LER	3/11/2010 4:52	958682	10-2107	2	LANL	USE	S
EXS03100053.wiff	1202056031	LER	3/11/2010 5:08	958682	10-2107	2	LANL	USE	S
EXS03100054.wiff	1202056032	LER	3/11/2010 5:23	958682	10-2107	2	LANL	USE	S
EXS03100055.wiff	WXXCCV	LER	3/11/2010 5:39			1		USE	C
EXS03100056.wiff	XIBLK07	LER	3/11/2010 5:55			1		USE	B
EXS03100057.wiff	WXXCRI	LER	3/11/2010 6:10			1		USE	C
EXS03100058.wiff	1202041884	LER	3/11/2010 6:26	952673	VARIOUS	2	LANL	USE	S
EXS03100059.wiff	1202041885	LER	3/11/2010 6:42	952673	VARIOUS	2	LANL	USE	S
EXS03100060.wiff	1202041891	LER	3/11/2010 6:58	952673	VARIOUS	2	LANL	USE	S
EXS03100061.wiff	246859005	LER	3/11/2010 7:13	952673	10-1779	2	LANL	USE	S
EXS03100062.wiff	246879005	LER	3/11/2010 7:29	952673	10-1776	2	LANL	USE	S
EXS03100063.wiff	246879012	LER	3/11/2010 7:45	952673	10-1776	2	LANL	USE	S
EXS03100064.wiff	246888006	LER	3/11/2010 8:00	952673	10-1773	2	LANL	USE	S
EXS03100065.wiff	246888010	LER	3/11/2010 8:16	952673	10-1773	2	LANL	USE	S
EXS03100066.wiff	WXXCCV	LER	3/11/2010 8:32			1		USE	C
EXS03100067.wiff	XIBLK08	LER	3/11/2010 8:48			1		USE	B

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EXS03100068.wiff	WXXCRI	LER	3/11/2010 9:03			1		USE	C
EXS03100069.wiff	1202043685	LER	3/11/2010 9:19	953344	VARIOUS	2	LANL	USE	S
EXS03100070.wiff	1202043686	LER	3/11/2010 9:35	953344	VARIOUS	2	LANL	USE	S
EXS03100071.wiff	246965005	LER	3/11/2010 9:50	953344	10-1806	2	LANL	USE	S
EXS03100072.wiff	246965011	LER	3/11/2010 10:06	953344	10-1806	2	LANL	USE	S
EXS03100073.wiff	1202043687	LER	3/11/2010 10:22	953344	10-1806	2	LANL	USE	S
EXS03100074.wiff	1202043688	LER	3/11/2010 10:37	953344	10-1806	2	LANL	USE	S
EXS03100075.wiff	247035005	LER	3/11/2010 10:53	953344	10-1825	2	LANL	USE	S
EXS03100076.wiff	247035011	LER	3/11/2010 11:09	953344	10-1825	2	LANL	USE	S
EXS03100077.wiff	247041006	LER	3/11/2010 11:25	953344	10-1816	2	LANL	USE	S
EXS03100078.wiff	247041011	LER	3/11/2010 11:40	953344	10-1816	2	LANL	USE	S
EXS03100079.wiff	WXXCCV	LER	3/11/2010 11:56			1		USE	C
EXS03100080.wiff	XIBLK09	LER	3/11/2010 12:12			1		USE	B
EXS03100081.wiff	WXXCRI	LER	3/11/2010 12:27			1		USE	C
EXS03100082.wiff	1202045748	LER	3/11/2010 12:43	954328	10-1864	2	LANL	USE	S
EXS03100083.wiff	1202045749	LER	3/11/2010 12:59	954328	10-1864	2	LANL	USE	S
EXS03100084.wiff	247193001	LER	3/11/2010 13:14	954328	10-1864	2	LANL	USE	S
EXS03100085.wiff	1202045750	LER	3/11/2010 13:30	954328	10-1864	2	LANL	USE	S
EXS03100086.wiff	1202045751	LER	3/11/2010 13:46	954328	10-1864	2	LANL	USE	S
EXS03100087.wiff	247193002	LER	3/11/2010 14:02	954328	10-1864	2	LANL	USE	S
EXS03100088.wiff	247193003	LER	3/11/2010 14:17	954328	10-1864	2	LANL	USE	S
EXS03100089.wiff	247193004	LER	3/11/2010 14:33	954328	10-1864	2	LANL	USE	S
EXS03100090.wiff	247193005	LER	3/11/2010 14:49	954328	10-1864	2	LANL	USE	S
EXS03100091.wiff	247193006	LER	3/11/2010 15:04	954328	10-1864	2	LANL	USE	S
EXS03100092.wiff	WXXCCV	LER	3/11/2010 15:20			1		USE	C
EXS03100093.wiff	XIBLK10	LER	3/11/2010 15:36			1		USE	B
EXS03100094.wiff	WXXCRI	LER	3/11/2010 15:51			1		USE	C
EXS03100095.wiff	247193007	LER	3/11/2010 16:07	954328	10-1864	2	LANL	USE	S
EXS03100096.wiff	247193008	LER	3/11/2010 16:23	954328	10-1864	2	LANL	USE	S
EXS03100097.wiff	247193009	LER	3/11/2010 16:39	954328	10-1864	2	LANL	USE	S
EXS03100098.wiff	247193010	LER	3/11/2010 16:54	954328	10-1864	2	LANL	USE	S
EXS03100099.wiff	247193011	LER	3/11/2010 17:10	954328	10-1864	2	LANL	USE	S
EXS03100100.wiff	247193012	LER	3/11/2010 17:26	954328	10-1864	2	LANL	USE	S
EXS03100101.wiff	247193013	LER	3/11/2010 17:41	954328	10-1864	2	LANL	USE	S
EXS03100102.wiff	247193014	LER	3/11/2010 17:57	954328	10-1864	2	LANL	USE	S
EXS03100103.wiff	WXXCCV	LER	3/11/2010 18:13			1		USE	C
EXS03100104.wiff	XIBLK11	LER	3/11/2010 18:28			1		USE	B

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EXS03100105.wiff	WXXCRI	LER	3/11/2010 18:44			1		USE	C
EXS03100106.wiff	1202052402	LER	3/11/2010 19:00	957198	10-1975	2	LANL	USE	S
EXS03100107.wiff	1202052403	LER	3/11/2010 19:16	957198	10-1975	2	LANL	USE	S
EXS03100108.wiff	247775003	LER	3/11/2010 19:31	957198	10-1975	2	LANL	USE	S
EXS03100109.wiff	1202052404	LER	3/11/2010 19:47	957198	10-1975	2	LANL	USE	S
EXS03100110.wiff	1202052405	LER	3/11/2010 20:03	957198	10-1975	2	LANL	USE	S
EXS03100111.wiff	247775004	LER	3/11/2010 20:18	957198	10-1975	2	LANL	USE	S
EXS03100112.wiff	247775005	LER	3/11/2010 20:34	957198	10-1975	2	LANL	USE	S
EXS03100113.wiff	247775006	LER	3/11/2010 20:50	957198	10-1975	2	LANL	USE	S
EXS03100114.wiff	247775007	LER	3/11/2010 21:06	957198	10-1975	2	LANL	USE	S
EXS03100115.wiff	247775008	LER	3/11/2010 21:21	957198	10-1975	2	LANL	USE	S
EXS03100116.wiff	WXXCCV	LER	3/11/2010 21:37			1		USE	C
EXS03100117.wiff	XIBLK12	LER	3/11/2010 21:53			1		USE	B
EXS03100118.wiff	WXXCRI	LER	3/11/2010 22:08			1		USE	C
EXS03100119.wiff	247775009	LER	3/11/2010 22:24	957198	10-1975	2	LANL	USE	S
EXS03100120.wiff	247775010	LER	3/11/2010 22:40	957198	10-1975	2	LANL	USE	S
EXS03100121.wiff	247775011	LER	3/11/2010 22:55	957198	10-1975	2	LANL	USE	S
EXS03100122.wiff	247775012	LER	3/11/2010 23:11	957198	10-1975	2	LANL	USE	S
EXS03100123.wiff	247775013	LER	3/11/2010 23:27	957198	10-1975	2	LANL	USE	S
EXS03100124.wiff	247775014	LER	3/11/2010 23:43	957198	10-1975	2	LANL	USE	S
EXS03100125.wiff	247775015	LER	3/11/2010 23:58	957198	10-1975	2	LANL	USE	S
EXS03100126.wiff	247775016	LER	3/12/2010 0:14	957198	10-1975	2	LANL	USE	S
EXS03100127.wiff	247775017	LER	3/12/2010 0:30	957198	10-1975	2	LANL	USE	S
EXS03100128.wiff	WXXCCV	LER	3/12/2010 0:45			1		USE	C
EXS03100129.wiff	XIBLK13	LER	3/12/2010 1:01			1		USE	B
EXS03100130.wiff	WXXCRI	LER	3/12/2010 1:17			1		USE	C
EXS03100131.wiff	1202047525	LER	3/12/2010 1:32	955063	VARIOUS	2	LANL	USE	S
EXS03100132.wiff	1202047526	LER	3/12/2010 1:48	955063	VARIOUS	2	LANL	USE	S
EXS03100133.wiff	247332002	LER	3/12/2010 2:04	955063	10-1905	2	LANL	USE	S
EXS03100134.wiff	1202047527	LER	3/12/2010 2:20	955063	10-1905	2	LANL	USE	S
EXS03100135.wiff	1202047528	LER	3/12/2010 2:35	955063	10-1905	2	LANL	USE	S
EXS03100136.wiff	247332003	LER	3/12/2010 2:51	955063	10-1905	2	LANL	USE	S
EXS03100137.wiff	247332004	LER	3/12/2010 3:07	955063	10-1905	2	LANL	USE	S
EXS03100138.wiff	247332005	LER	3/12/2010 3:22	955063	10-1905	2	LANL	USE	S
EXS03100139.wiff	247332006	LER	3/12/2010 3:38	955063	10-1905	2	LANL	USE	S
EXS03100140.wiff	247332007	LER	3/12/2010 3:54	955063	10-1905	2	LANL	USE	S
EXS03100141.wiff	WXXCCV	LER	3/12/2010 4:09			1		USE	C

EXS03100142.wiff	XIBLK14	LER	3/12/2010 4:25			1		USE	B
EXS03100143.wiff	WXXCRI	LER	3/12/2010 4:41			1		USE	C
EXS03100144.wiff	247332008	LER	3/12/2010 4:56	955063	10-1905	2	LANL	USE	S
EXS03100145.wiff	247343001	LER	3/12/2010 5:12	955063	10-1908	2	LANL	USE	S
EXS03100146.wiff	247343002	LER	3/12/2010 5:28	955063	10-1908	2	LANL	USE	S
EXS03100147.wiff	247343003	LER	3/12/2010 5:44	955063	10-1908	2	LANL	USE	S
EXS03100148.wiff	247343004	LER	3/12/2010 5:59	955063	10-1908	2	LANL	USE	S
EXS03100149.wiff	247343005	LER	3/12/2010 6:15	955063	10-1908	2	LANL	USE	S
EXS03100150.wiff	247343006	LER	3/12/2010 6:31	955063	10-1908	2	LANL	USE	S
EXS03100151.wiff	247343007	LER	3/12/2010 6:47	955063	10-1908	2	LANL	USE	S
EXS03100152.wiff	247343008	LER	3/12/2010 7:02	955063	10-1908	2	LANL	USE	S
EXS03100153.wiff	247343009	LER	3/12/2010 7:18	955063	10-1908	2	LANL	USE	S
EXS03100154.wiff	WXXCCV	LER	3/12/2010 7:34			1		USE	C
EXS03100155.wiff	XIBLK15	LER	3/12/2010 7:50			1		USE	B
EXS03100156.wiff	WXXCRI	LER	3/12/2010 8:05			1		USE	C
EXS03100157.wiff	247343010	LER	3/12/2010 8:21	955063	10-1908	2	LANL	USE	S
EXS03100158.wiff	247343011	LER	3/12/2010 8:37	955063	10-1908	2	LANL	USE	S
EXS03100159.wiff	WXXCCV	LER	3/12/2010 8:53			1		USE	C
EXS03100160.wiff	XIBLK16	LER	3/12/2010 9:08			1		USE	B
EXS03100161.wiff	WXXCRI	LER	3/12/2010 9:24			1		USE	C

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DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
09-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LC-MS/MS	SW846 8321A Modified	Solid	LANL
Batch ID:	**Sample Numbers:**		
954328	See Below		

Potentially affected work order(s)(SDG): 247193(10-1864)

Application Issues:

Failed Recovery for LCS/LCSD

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The LCS(1202045749) did not meet acceptance criteria for the recovery of Tetryl at 29% with limits of 51-112% and o-Nitrotoluene at 122% with limits of 72-119%.	1. The MS(1202045750) and MSD(1202045751) met acceptance criteria for Tetryl and 0-Nitrotoluene. The data are reported.
2. The MS(1202045750) did not meet acceptance criteria for the recovery of TATB at 199%. The limits are 29-155%.	2. The LCS(1202045749) and the MSD(1202045751) had passing recoveries for TATB. TATB was not detected in the parent sample. The data are considered unaffected and are reported.
3. The MS(1202045750)/MSD(1202045751) did not meet acceptance criteria for RPD limits for TATB at 49.9%. The limit is 30%.	3. TATB was not detected in the parent sample. The data are reported.

Originator's Name:

Lynne Russell 09-APR-10

Data Validator/Group Leader:

Herbert Maier 09-APR-10

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1864

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3550B
Analytical Batch Number:	956221
Prep Batch Number:	956219

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
247193002	RE15-10-8186
247193006	RE15-10-8187
247193008	RE15-10-8190
247193013	RE15-10-8226
247193014	RE15-10-8211
1202050442	Method Blank (MB)
1202050443	Laboratory Control Sample (LCS)
1202050444	247245001(RE46-10-12664) Matrix Spike (MS)
1202050445	247245001(RE46-10-12664) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

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

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is

adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All calibration verification standards (CVS, ICV, or CCV) requirements have been met for this SDG.

Two of the five quantified peaks did not meet the acceptance criteria in one of the Aroclor-1260 standards bracketing the samples in this SDG; however, the average concentration of the five quantitated peaks met the acceptance criteria.

Quality Control (QC) Information

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

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-1876) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

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

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. All sample extracts were cleaned using alumina. Additionally, copper was added to all sample extracts to remove sulfur.

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

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

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

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: Jimmi Cao Date: 3/15/10

Roadmap for LANL 10-1864 PCB

This roadmap was analyzed by yip00818 on 02-25-2010, 08:28.
This roadmap was reviewed by jim01140 on 02-25-2010, 12:45.
This roadmap was packaged by yml on 03-13-2010, 07:18.
This roadmap was validated by jim01140 on 03-15-2010, 11:10.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/022410.b/040f4001.d	247193002	sample	24-FEB-2010	13:48	10-1864.sub	RE15-10-8186	1.00000	956221	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/022410.b/041f4101.d	247193006	sample	24-FEB-2010	14:00	10-1864.sub	RE15-10-8187	1.00000	956221	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/022410.b/042f4201.d	247193008	sample	24-FEB-2010	14:13	10-1864.sub	RE15-10-8190	1.00000	956221	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/022410.b/043f4301.d	247193013	sample	24-FEB-2010	14:25	10-1864.sub	RE15-10-8226	1.00000	956221	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/022410.b/044f4401.d	247193014	sample	24-FEB-2010	14:38	10-1864.sub	RE15-10-8211	1.00000	956221	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/022410.b/040b4001.d	247193002	sample	24-FEB-2010	13:48	10-1864.sub	RE15-10-8186	1.00000	956221	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/022410.b/041b4101.d	247193006	sample	24-FEB-2010	14:00	10-1864.sub	RE15-10-8187	1.00000	956221	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/022410.b/042b4201.d	247193008	sample	24-FEB-2010	14:13	10-1864.sub	RE15-10-8190	1.00000	956221	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/022410.b/043b4301.d	247193013	sample	24-FEB-2010	14:25	10-1864.sub	RE15-10-8226	1.00000	956221	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/022410.b/044b4401.d	247193014	sample	24-FEB-2010	14:38	10-1864.sub	RE15-10-8211	1.00000	956221	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/022410.b/027f2701-1.d	1202050442	mb	24-FEB-2010	11:12	10-1864.sub	PBLK01	1.00000	956221	
☐	N	/chem/ecd1a.i/022410.b/028f2801-1.d	1202050443	lcs	24-FEB-2010	11:22	10-1864.sub	PBLK01LCS	1.00000	956221	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/022410.b/027b2701-1.d	1202050442	mb	24-FEB-2010	11:12	10-1864.sub	PBLK01	1.00000	956221	
☐	N	/chem/ecd1a.i/022410.b/028b2801-1.d	1202050443	lcs	24-FEB-2010	11:22	10-1864.sub	PBLK01LCS	1.00000	956221	

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1864**	**Date Collected:**	**02/10/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**247193002**	**Date Received:**	**02/16/2010 08:50**	**%Moisture:**	**1.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15–10–8186**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**956221**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 13:48**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/23/2010 11:04**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**040f4001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	040b4001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.37	ug/kg	1.12	3.37	1
11104–28–2	Aroclor–1221	U	3.37	ug/kg	1.12	3.37	1
11141–16–5	Aroclor–1232	U	3.37	ug/kg	1.12	3.37	1
53469–21–9	Aroclor–1242	U	3.37	ug/kg	1.12	3.37	1
12672–29–6	Aroclor–1248	U	3.37	ug/kg	1.12	3.37	1
11097–69–1	Aroclor–1254	U	3.37	ug/kg	1.12	3.37	1
11096–82–5	Aroclor–1260	U	3.37	ug/kg	1.12	3.37	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1864	**Date Collected:**	02/10/2010 12:00	**Matrix:**	R
Lab Sample ID:	247193006	**Date Received:**	02/16/2010 08:50	**%Moisture:**	2.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-8187	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	956221	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/24/2010 14:00	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/23/2010 11:04	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	041f4101.d	**Column:**	1 CLP1	**Level:**	LOW
	041b4101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.42	ug/kg	1.14	3.42	1
11104-28-2	Aroclor-1221	U	3.42	ug/kg	1.14	3.42	1
11141-16-5	Aroclor-1232	U	3.42	ug/kg	1.14	3.42	1
53469-21-9	Aroclor-1242	U	3.42	ug/kg	1.14	3.42	1
12672-29-6	Aroclor-1248	U	3.42	ug/kg	1.14	3.42	1
11097-69-1	Aroclor-1254	U	3.42	ug/kg	1.14	3.42	1
11096-82-5	Aroclor-1260	U	3.42	ug/kg	1.14	3.42	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1864**	**Date Collected:**	**02/10/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**247193008**	**Date Received:**	**02/16/2010 08:50**	**%Moisture:**	**.9**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15-10-8190**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**956221**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 14:13**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/23/2010 11:04**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**042f4201.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	042b4201.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.36	ug/kg	1.12	3.36	1
11104-28-2	Aroclor-1221	U	3.36	ug/kg	1.12	3.36	1
11141-16-5	Aroclor-1232	U	3.36	ug/kg	1.12	3.36	1
53469-21-9	Aroclor-1242	U	3.36	ug/kg	1.12	3.36	1
12672-29-6	Aroclor-1248	U	3.36	ug/kg	1.12	3.36	1
11097-69-1	Aroclor-1254	U	3.36	ug/kg	1.12	3.36	1
11096-82-5	Aroclor-1260	U	3.36	ug/kg	1.12	3.36	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1864	**Date Collected:**	02/10/2010 12:00	**Matrix:**	R
Lab Sample ID:	247193014	**Date Received:**	02/16/2010 08:50	**%Moisture:**	1.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–8211	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	956221	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/24/2010 14:38	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/23/2010 11:04	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	044f4401.d	**Column:**	1 CLP1	**Level:**	LOW
	044b4401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.37	ug/kg	1.12	3.37	1
11104–28–2	Aroclor–1221	U	3.37	ug/kg	1.12	3.37	1
11141–16–5	Aroclor–1232	U	3.37	ug/kg	1.12	3.37	1
53469–21–9	Aroclor–1242	U	3.37	ug/kg	1.12	3.37	1
12672–29–6	Aroclor–1248	U	3.37	ug/kg	1.12	3.37	1
11097–69–1	Aroclor–1254	U	3.37	ug/kg	1.12	3.37	1
11096–82–5	Aroclor–1260	U	3.37	ug/kg	1.12	3.37	1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-1864	**Date Collected:**	02/10/2010 12:00	**Matrix:**	R
Lab Sample ID:	247193013	**Date Received:**	02/16/2010 08:50	**%Moisture:**	2.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15-10-8226	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	956221	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/24/2010 14:25	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/23/2010 11:04	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	043f4301.d	**Column:**	1 CLP1	**Level:**	LOW
	043b4301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.42	ug/kg	1.14	3.42	1
11104-28-2	Aroclor-1221	U	3.42	ug/kg	1.14	3.42	1
11141-16-5	Aroclor-1232	U	3.42	ug/kg	1.14	3.42	1
53469-21-9	Aroclor-1242	U	3.42	ug/kg	1.14	3.42	1
12672-29-6	Aroclor-1248	U	3.42	ug/kg	1.14	3.42	1
11097-69-1	Aroclor-1254	U	3.42	ug/kg	1.14	3.42	1
11096-82-5	Aroclor-1260	U	3.42	ug/kg	1.14	3.42	1

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10-1864

Matrix Type: SOLID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202050442	MB for batch 956219	59	54	71	66
1202050443	LCS for batch 956219	62	58	59	69
247193002	RE15-10-8186	42	40	62	59
247193006	RE15-10-8187	42	41	69	64
247193008	RE15-10-8190	39	38	61	61
247193013	RE15-10-8226	37	36	52	62
247193014	RE15-10-8211	36	34	66	63

Surrogate	Acceptance Limits
4CMX = 4cmx	(32%-120%)
DCB = Decachlorobiphenyl	(30%-116%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1864
Client ID: LCS for batch 956219
Lab Sample ID: 1202050443
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: SOIL
Analysis Date: 02/24/2010 11:22
Dilution: 1
Prep Batch ID: 956219
Batch ID: 956221

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg	Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	33.3	0.0	21.2	64	39-102
11096-82-5	LCS	Aroclor-1260	33.3	0.0	27.0	81	45-118

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1876
Client ID: RE46-10-12664MS
Lab Sample ID: 1202050444
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: S
%Moisture: 10
Analysis Date: 02/24/2010 15:24
Prep Batch ID: 956219
Batch ID: 956221

Dilution: 5

CAS No		Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	37.0	0.00	U	23.7	64	23-119
11096-82-5	MS	Aroclor-1260	37.0	0.00	U	22.8	62	28-124

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1876
Client ID: RE46-10-12664MSD
Lab Sample ID: 1202050445
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: S
%Moisture: 10
Analysis Date: 02/24/2010 15:37
Prep Batch ID: 956219
Batch ID: 956221
Dilution: 5

CAS No	Parmname	Amount Added ug/kg	Sample Conc. ug/kg		Spike Conc. ug/kg	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	37.0	0.00	U	25.7	69	23-119	8	0-28
11096-82-5	MSD Aroclor-1260	37.0	0.00	U	26.9	73	28-124	17	0-30

Method Blank Summary

SDG Number:	10-1864	Client:	LANL010	Matrix:	SOIL
Client ID:	MB for batch 956219	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	027b2701-1.d 027f2701-1.d
Lab Sample ID:	1202050442				
Column:	CLP2 CLP1	Prep Date:	02/23/2010 11:04	Analyzed:	02/24/10 11:12
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 956219	1202050443	028f2801-1.d 028b2801-1.d	02/24/10	1122
02 RE15-10-8186	247193002	040f4001.d 040b4001.d	02/24/10	1348
03 RE15-10-8187	247193006	041f4101.d 041b4101.d	02/24/10	1400
04 RE15-10-8190	247193008	042f4201.d 042b4201.d	02/24/10	1413
05 RE15-10-8226	247193013	043f4301.d 043b4301.d	02/24/10	1425
06 RE15-10-8211	247193014	044f4401.d 044b4401.d	02/24/10	1438

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1864	**Date Collected:**	02/10/2010 12:00	**Matrix:**	R
Lab Sample ID:	247193002	**Date Received:**	02/16/2010 08:50	**%Moisture:**	1.2
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–8186	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	956221	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/24/2010 13:48	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/23/2010 11:04	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	040f4001.d	**Column:**	1 CLP1	**Level:**	LOW
	040b4001.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.37	ug/kg	1.12	3.37	1
11104–28–2	Aroclor–1221	U	3.37	ug/kg	1.12	3.37	1
11141–16–5	Aroclor–1232	U	3.37	ug/kg	1.12	3.37	1
53469–21–9	Aroclor–1242	U	3.37	ug/kg	1.12	3.37	1
12672–29–6	Aroclor–1248	U	3.37	ug/kg	1.12	3.37	1
11097–69–1	Aroclor–1254	U	3.37	ug/kg	1.12	3.37	1
11096–82–5	Aroclor–1260	U	3.37	ug/kg	1.12	3.37	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/040f4001.d
Lab Smp Id: 247193002 Client Smp ID: RE15-10-8186
Inj Date : 24-FEB-2010 13:48
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |247193002|1|
Misc Info : |ECD82P_1S|956221|SVA|LANL|SOIL|RE15-10-8186|||
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 13:47 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 40
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1864.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	1.16070	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.922	1.922	0.000	35794125	83.1190	2.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.231	5.231	0.000	38401029	124.967	4.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/022410.b/040f4001.d
Date : 24-FEB-2010 13:48
Client ID: RE15-10-8186
Sample Info: |247193002|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

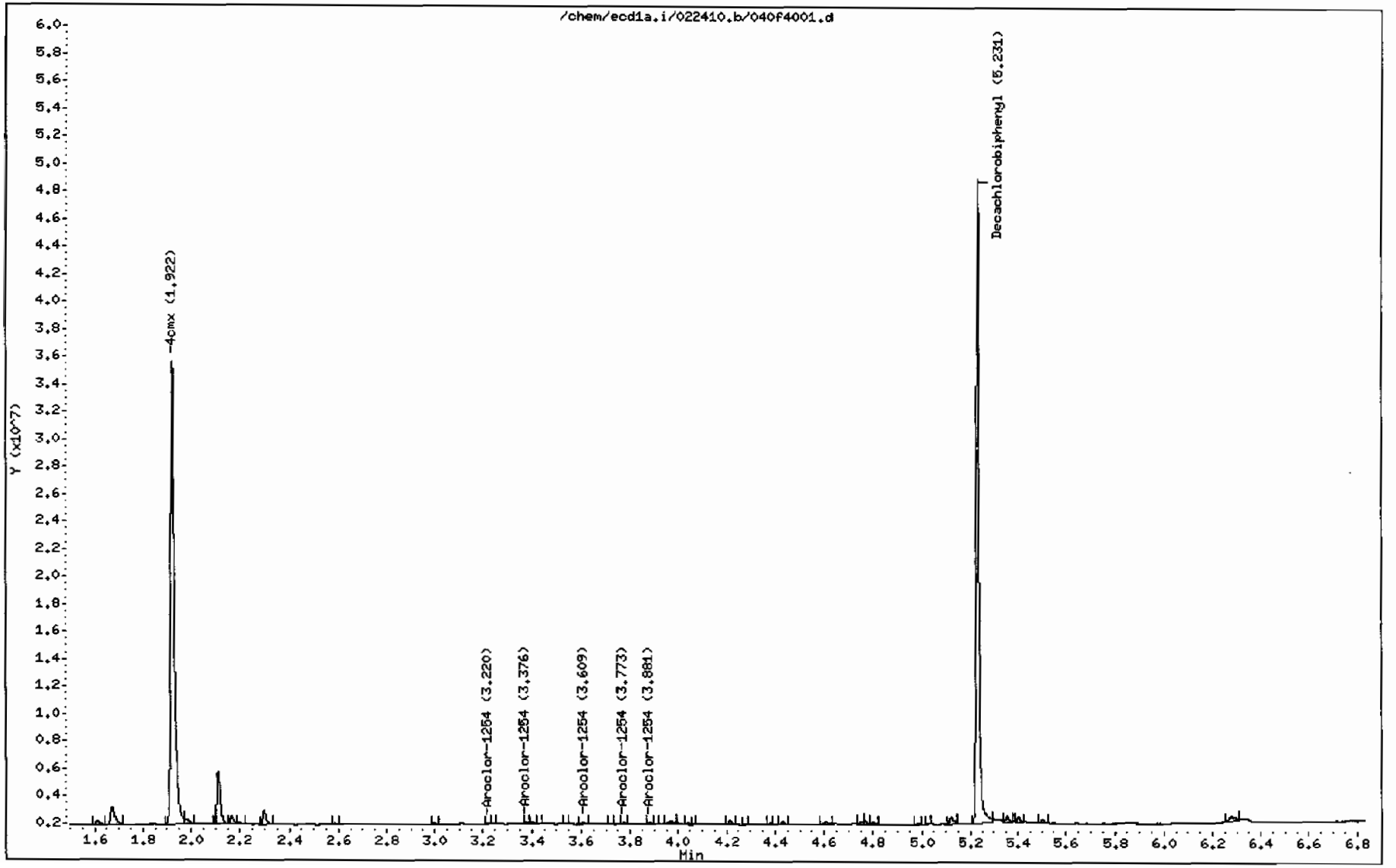

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/040b4001.d
Lab Smp Id: 247193002 Client Smp ID: RE15-10-8186
Inj Date : 24-FEB-2010 13:48
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |247193002|1|
Misc Info : |ECD82P_1S|956221|SVA|LANL|SOIL|RE15-10-8186|||
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 13:47 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 40
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1864.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	1.16070	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.288	2.288	0.000	24030093	80.8014	2.7	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.935	5.935	0.000	24777936	117.154	4.0	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/022410.b/040b4001.d
Date : 24-FEB-2010 13:48
Client ID: RE15-10-8186
Sample Info: |247193002|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

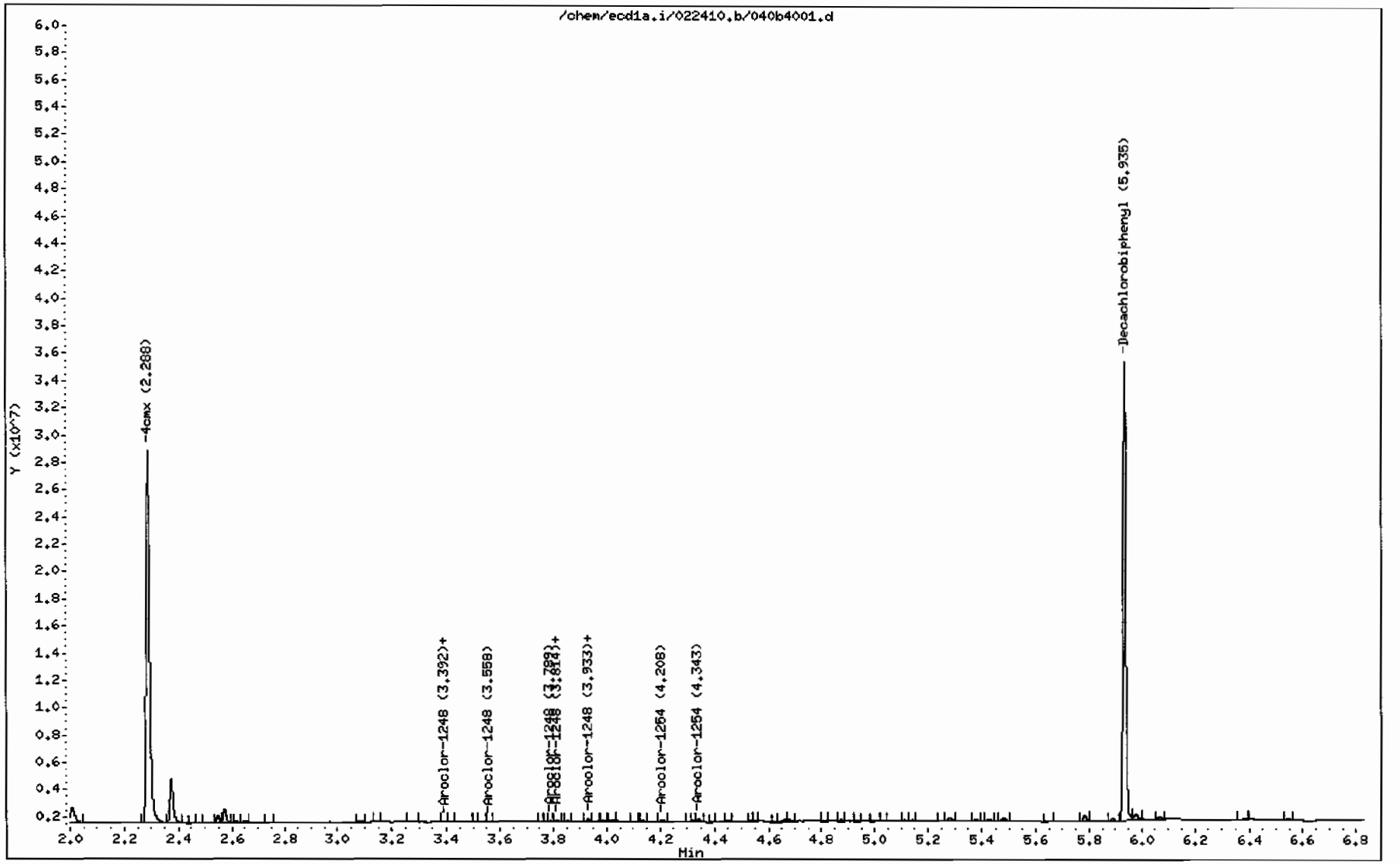

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1864	**Date Collected:**	02/10/2010 12:00	**Matrix:**	R
Lab Sample ID:	247193006	**Date Received:**	02/16/2010 08:50	**%Moisture:**	2.5
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–8187	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	956221	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/24/2010 14:00	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/23/2010 11:04	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	041f4101.d	**Column:**	1 CLP1	**Level:**	LOW
	041b4101.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.42	ug/kg	1.14	3.42	1
11104–28–2	Aroclor–1221	U	3.42	ug/kg	1.14	3.42	1
11141–16–5	Aroclor–1232	U	3.42	ug/kg	1.14	3.42	1
53469–21–9	Aroclor–1242	U	3.42	ug/kg	1.14	3.42	1
12672–29–6	Aroclor–1248	U	3.42	ug/kg	1.14	3.42	1
11097–69–1	Aroclor–1254	U	3.42	ug/kg	1.14	3.42	1
11096–82–5	Aroclor–1260	U	3.42	ug/kg	1.14	3.42	1

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/041f4101.d
Lab Smp Id: 247193006 Client Smp ID: RE15-10-8187
Inj Date : 24-FEB-2010 14:00
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |247193006|1|
Misc Info : |ECD82P_1S|956221|SVA|LANL|SOIL|RE15-10-8187|||
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 13:47 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 41
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1864.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	2.48730	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.922	1.922	0.000	36134749	83.9100	2.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.230	5.231	-0.001	42193894	137.310	4.7	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/022410.b/041f4101.d
Date : 24-FEB-2010 14:00
Client ID: RE15-10-8187
Sample Info: |247193006|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

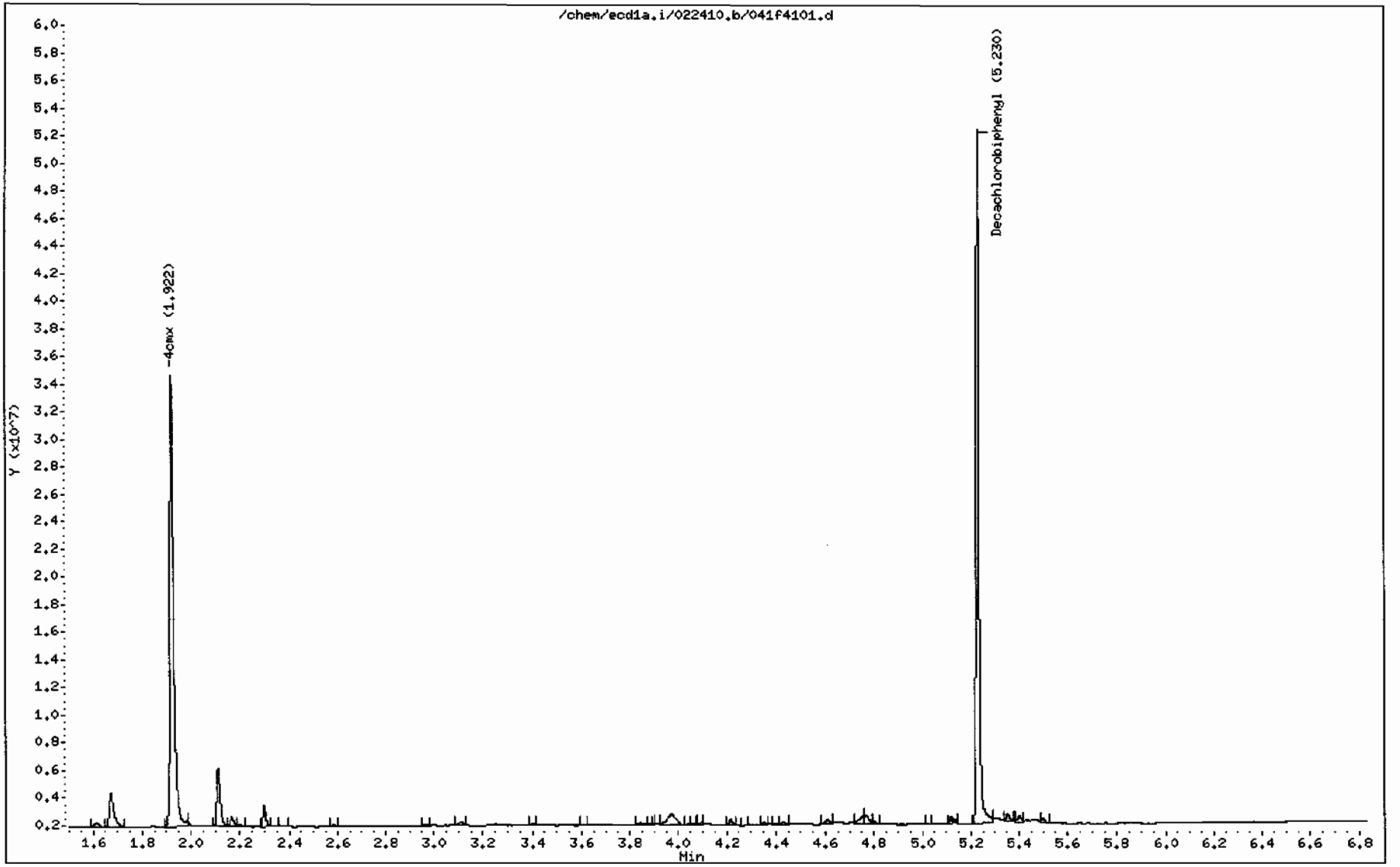

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/041b4101.d
Lab Smp Id: 247193006 Client Smp ID: RE15-10-8187
Inj Date : 24-FEB-2010 14:00
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |247193006|1|
Misc Info : |ECD82P_1S|956221|SVA|LANL|SOIL|RE15-10-8187|||
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 13:47 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 41
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1864.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	2.48730	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.288	2.288	0.000	24225824	81.4596	2.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.934	5.935	-0.001	27161947	128.426	4.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/022410.b/041b4101.d
Date : 24-FEB-2010 14:00
Client ID: RE15-10-8187
Sample Info: |2471930061|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

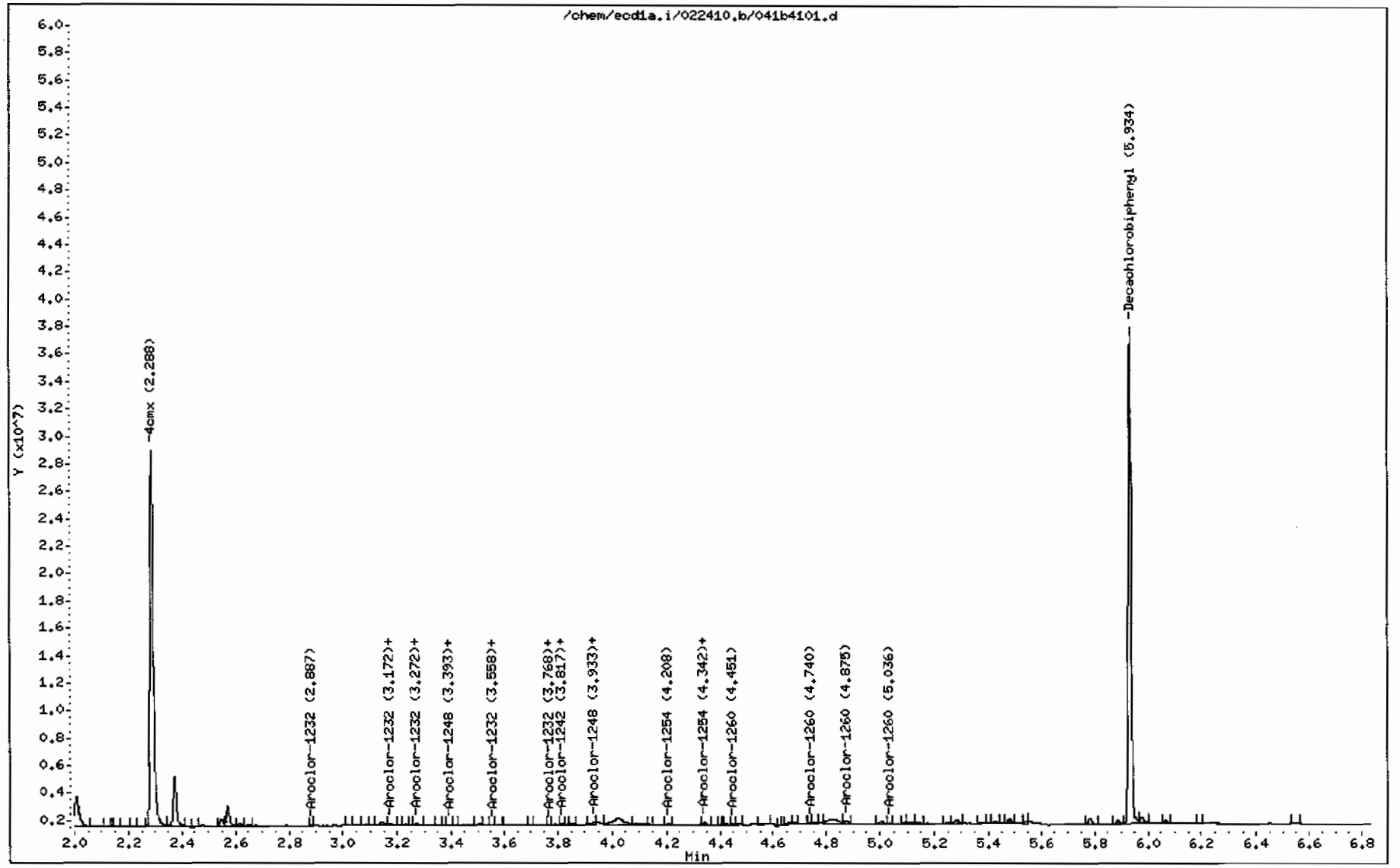

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1864	**Date Collected:**	02/10/2010 12:00	**Matrix:**	R
Lab Sample ID:	247193008	**Date Received:**	02/16/2010 08:50	**%Moisture:**	.9
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–8190	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	956221	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/24/2010 14:13	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/23/2010 11:04	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	042f4201.d	**Column:**	1 CLP1	**Level:**	LOW
	042b4201.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.36	ug/kg	1.12	3.36	1
11104–28–2	Aroclor–1221	U	3.36	ug/kg	1.12	3.36	1
11141–16–5	Aroclor–1232	U	3.36	ug/kg	1.12	3.36	1
53469–21–9	Aroclor–1242	U	3.36	ug/kg	1.12	3.36	1
12672–29–6	Aroclor–1248	U	3.36	ug/kg	1.12	3.36	1
11097–69–1	Aroclor–1254	U	3.36	ug/kg	1.12	3.36	1
11096–82–5	Aroclor–1260	U	3.36	ug/kg	1.12	3.36	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/042f4201.d
Lab Smp Id: 247193008 Client Smp ID: RE15-10-8190
Inj Date : 24-FEB-2010 14:13
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |247193008|1|
Misc Info : |ECD82P_1S|956221|SVA|LANL|SOIL|RE15-10-8190|||
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 25-Feb-2010 06:05 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 42
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1864.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.92510	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.922	1.922	0.000	33447942	77.6709	2.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.231	5.231	0.000	37712375	122.726	4.1	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/022410.b/042f4201.d

Date : 24-FEB-2010 14:13

Client ID: RE15-10-8190

Sample Info: 1247193008111

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

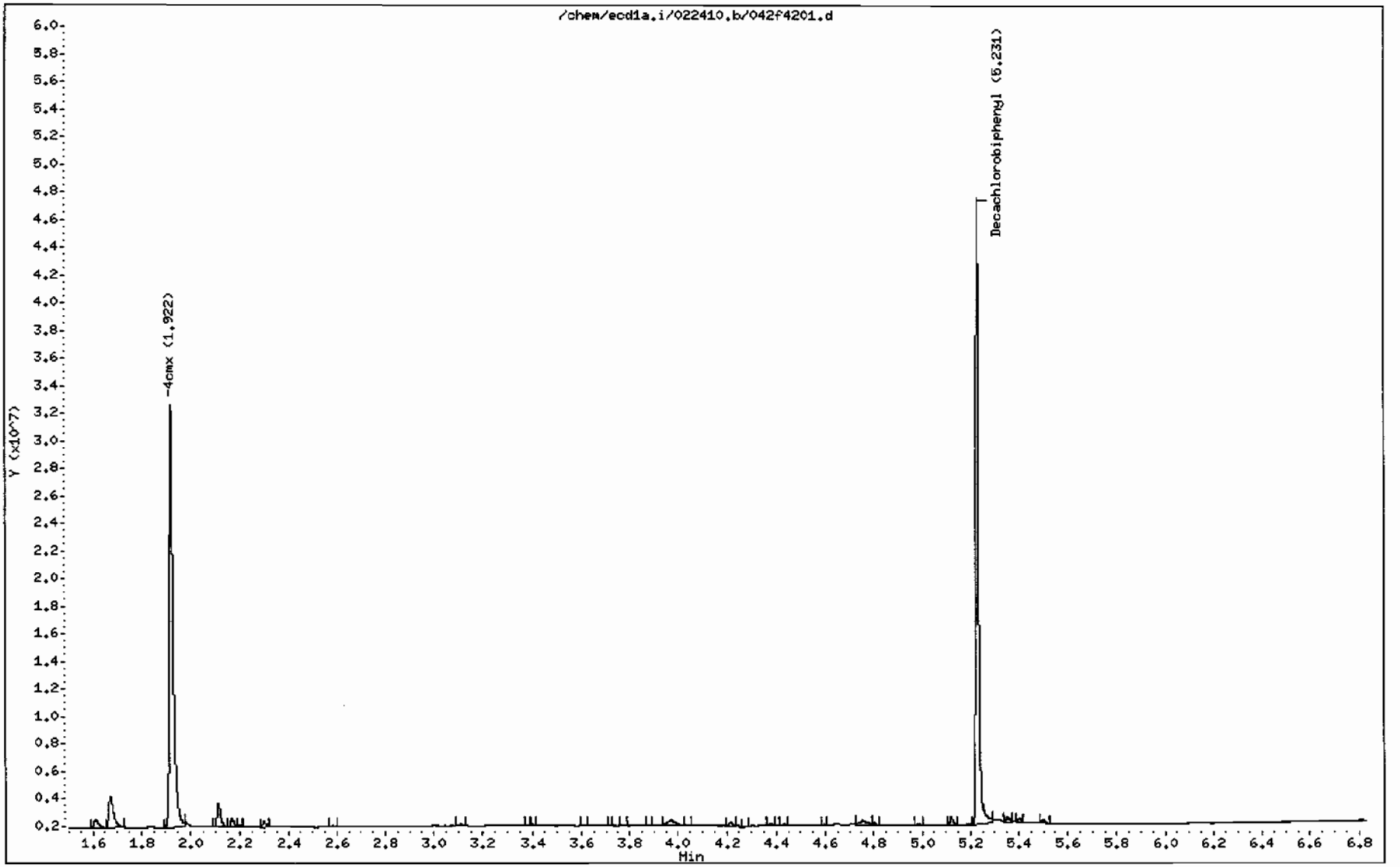

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/042b4201.d
Lab Smp Id: 247193008 Client Smp ID: RE15-10-8190
Inj Date : 24-FEB-2010 14:13
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |247193008|1|
Misc Info : |ECD82P_1S|956221|SVA|LANL|SOIL|RE15-10-8190|||
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 25-Feb-2010 06:10 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 42
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1864.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.92510	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.287	2.288	-0.001	22508730	75.6858	2.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.935	5.935	0.000	25922336	122.565	4.1	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/022410.b/042b4201.d
Date : 24-FEB-2010 14:13
Client ID: RE15-10-8190
Sample Info: |247193008|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

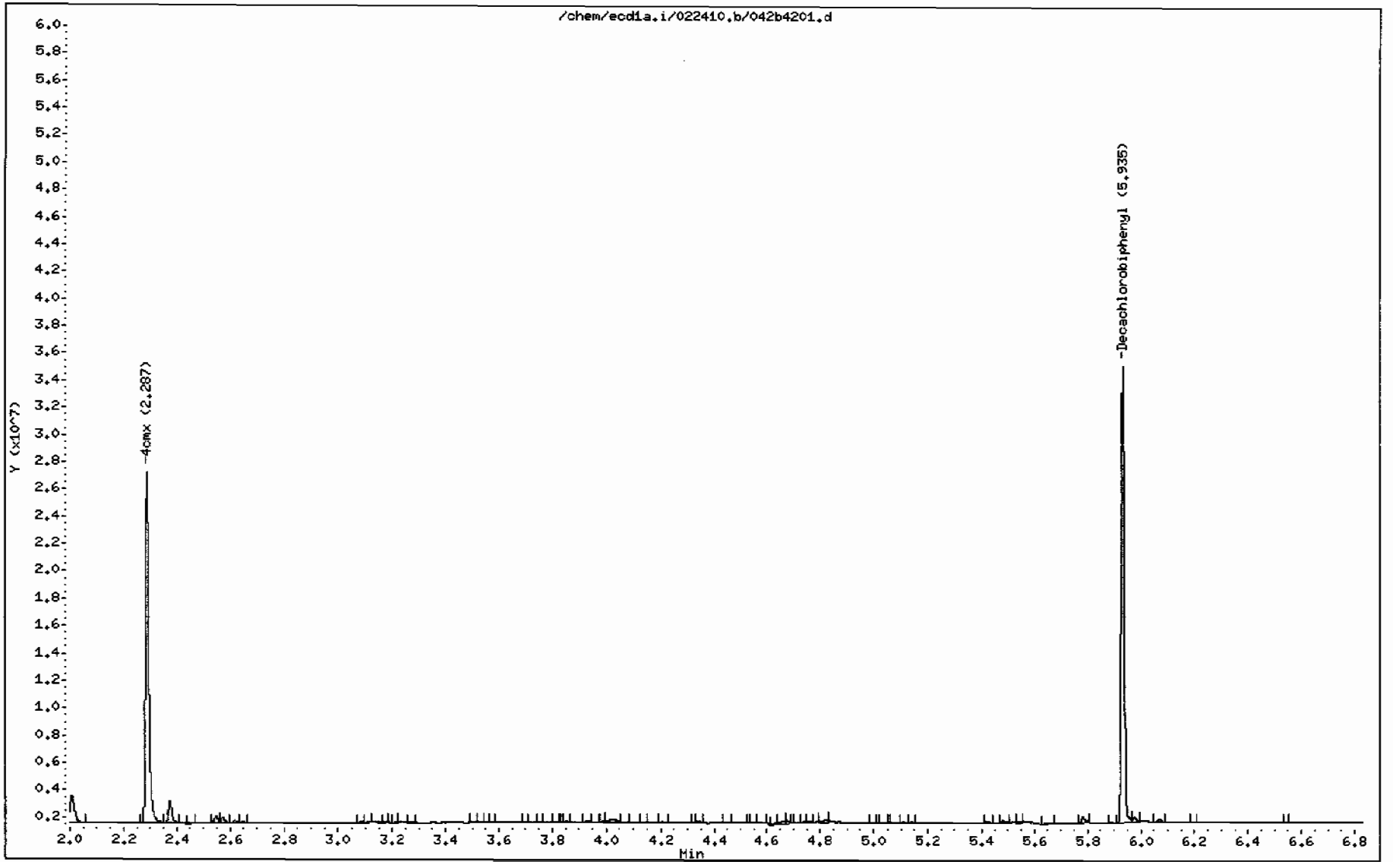

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1864**	**Date Collected:**	**02/10/2010 12:00**	**Matrix:**	**R**
Lab Sample ID:	**247193014**	**Date Received:**	**02/16/2010 08:50**	**%Moisture:**	**1.2**
		Client:	**LANL010**	**Project:**	**LANL01004**
Client ID:	**RE15–10–8211**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**956221**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 14:38**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/23/2010 11:04**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**044f4401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	044b4401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.37	ug/kg	1.12	3.37	1
11104–28–2	Aroclor–1221	U	3.37	ug/kg	1.12	3.37	1
11141–16–5	Aroclor–1232	U	3.37	ug/kg	1.12	3.37	1
53469–21–9	Aroclor–1242	U	3.37	ug/kg	1.12	3.37	1
12672–29–6	Aroclor–1248	U	3.37	ug/kg	1.12	3.37	1
11097–69–1	Aroclor–1254	U	3.37	ug/kg	1.12	3.37	1
11096–82–5	Aroclor–1260	U	3.37	ug/kg	1.12	3.37	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/044f4401.d
Lab Smp Id: 247193014 Client Smp ID: RE15-10-8211
Inj Date : 24-FEB-2010 14:38
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |247193014|1|
Misc Info : |ECD82P_1S|956221|SVA|LANL|SOIL|RE15-10-8211|||
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 25-Feb-2010 06:11 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 44
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1864.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	1.22950	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.921	1.922	-0.001	30717428	71.3302	2.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.230	5.231	-0.001	40697956	132.442	4.5	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/022410.b/044f4401.d
Date : 24-FEB-2010 14:38
Client ID: RE15-10-8211
Sample Info: |247193014|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

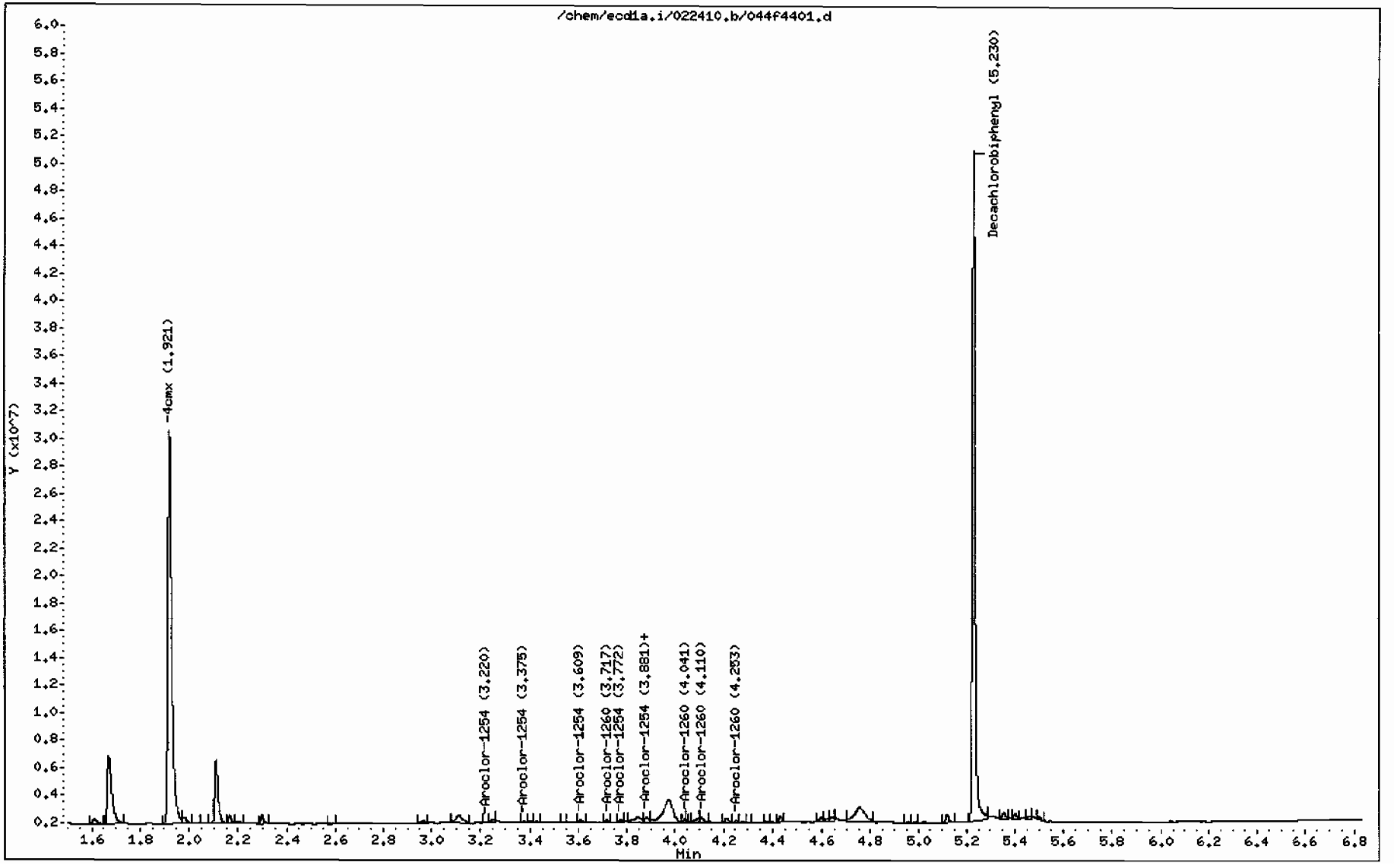

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/044b4401.d
Lab Smp Id: 247193014 Client Smp ID: RE15-10-8211
Inj Date : 24-FEB-2010 14:38
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |247193014|1|
Misc Info : |ECD82P_1S|956221|SVA|LANL|SOIL|RE15-10-8211|||
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 25-Feb-2010 06:10 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 44
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1864.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	1.22950	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.287	2.288	-0.001	20428936	68.6925	2.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.935	5.935	0.000	26641455	125.965	4.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/022410.b/044b4401.d
Date : 24-FEB-2010 14:38
Client ID: RE15-10-8211
Sample Info: 1247193014111
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: VS1
Column diameter: 0.25

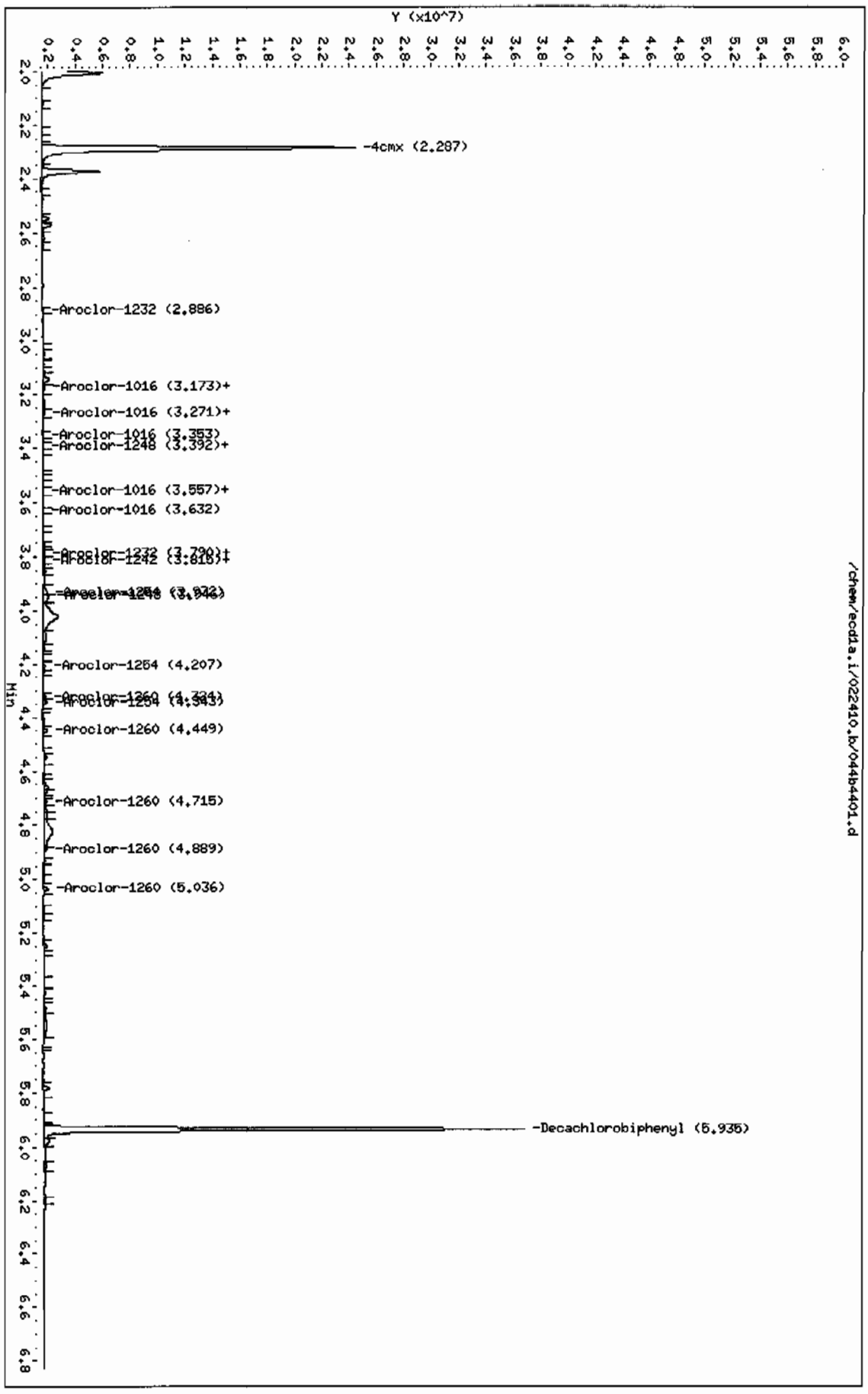

Page 1

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–1864	**Date Collected:**	02/10/2010 12:00	**Matrix:**	R
Lab Sample ID:	247193013	**Date Received:**	02/16/2010 08:50	**%Moisture:**	2.4
		Client:	LANL010	**Project:**	LANL01004
Client ID:	RE15–10–8226	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	956221	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	02/24/2010 14:25	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	02/23/2010 11:04	**Aliquot:**	30 g	**Final Volume:**	1 mL
Data File:	043f4301.d	**Column:**	1 CLP1	**Level:**	LOW
	043b4301.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	3.42	ug/kg	1.14	3.42	1
11104–28–2	Aroclor–1221	U	3.42	ug/kg	1.14	3.42	1
11141–16–5	Aroclor–1232	U	3.42	ug/kg	1.14	3.42	1
53469–21–9	Aroclor–1242	U	3.42	ug/kg	1.14	3.42	1
12672–29–6	Aroclor–1248	U	3.42	ug/kg	1.14	3.42	1
11097–69–1	Aroclor–1254	U	3.42	ug/kg	1.14	3.42	1
11096–82–5	Aroclor–1260	U	3.42	ug/kg	1.14	3.42	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/043f4301.d
Lab Smp Id: 247193013 Client Smp ID: RE15-10-8226
Inj Date : 24-FEB-2010 14:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |247193013|1|
Misc Info : |ECD82P_1S|956221|SVA|LANL|SOIL|RE15-10-8226|||
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 25-Feb-2010 06:05 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 43
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1864.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	2.43380	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.922	1.922	0.000	32255612	74.9021	2.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.231	5.231	0.000	31982460	104.079	3.6	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/022410.b/043f4301.d
Date : 24-FEB-2010 14:25
Client ID: RE15-10-8226
Sample Info: 1247193013|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

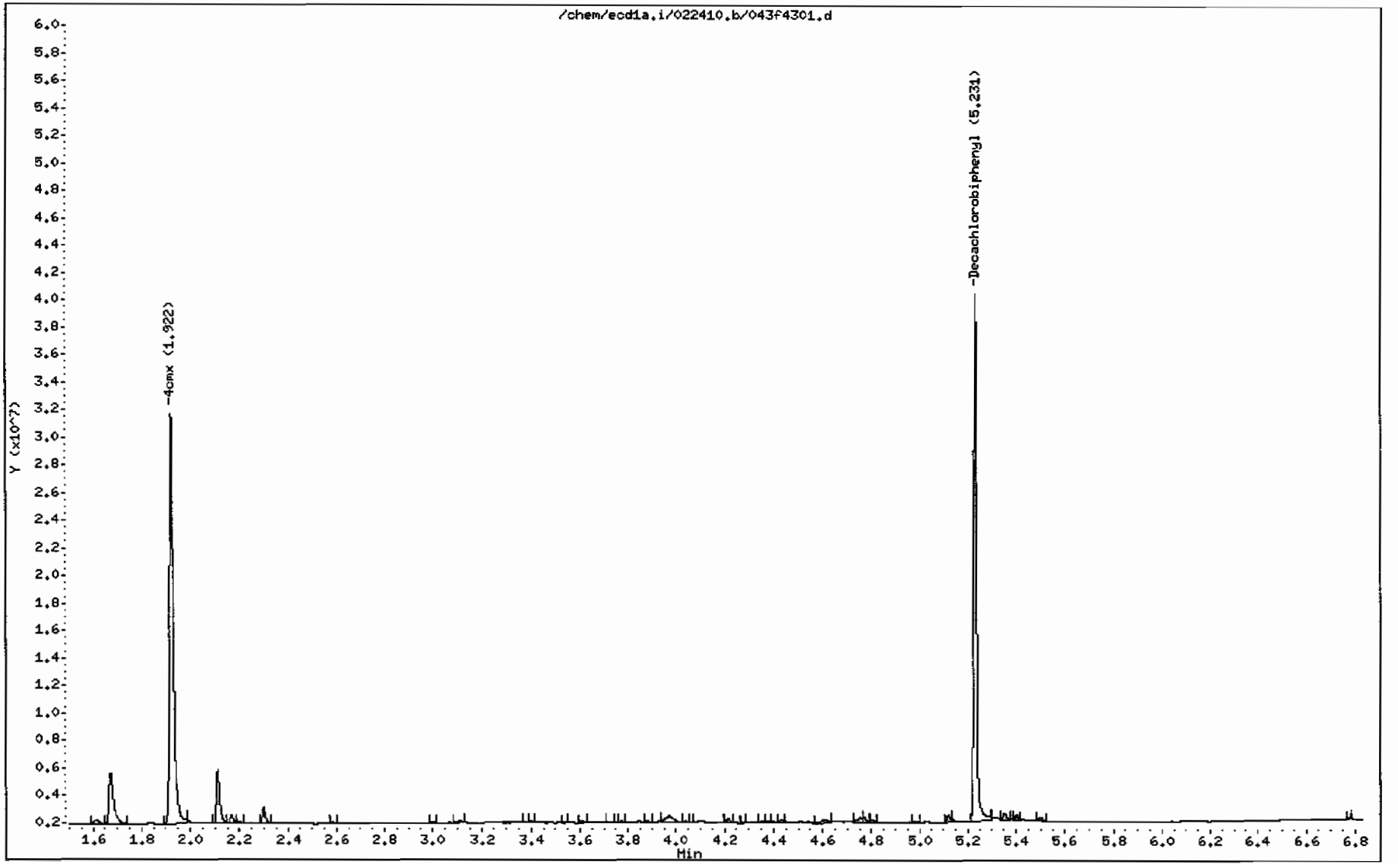

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/043b4301.d
Lab Smp Id: 247193013 Client Smp ID: RE15-10-8226
Inj Date : 24-FEB-2010 14:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |247193013|1|
Misc Info : |ECD82P_1S|956221|SVA|LANL|SOIL|RE15-10-8226|||
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 25-Feb-2010 06:10 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 43
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1864.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	2.43380	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.287	2.288	-0.001	21665002	72.8488	2.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.935	5.935	0.000	26027453	123.062	4.2	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/022410.b/043b4301.d
Date : 24-FEB-2010 14:25
Client ID: RE15-10-8226
Sample Info: |247193013|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

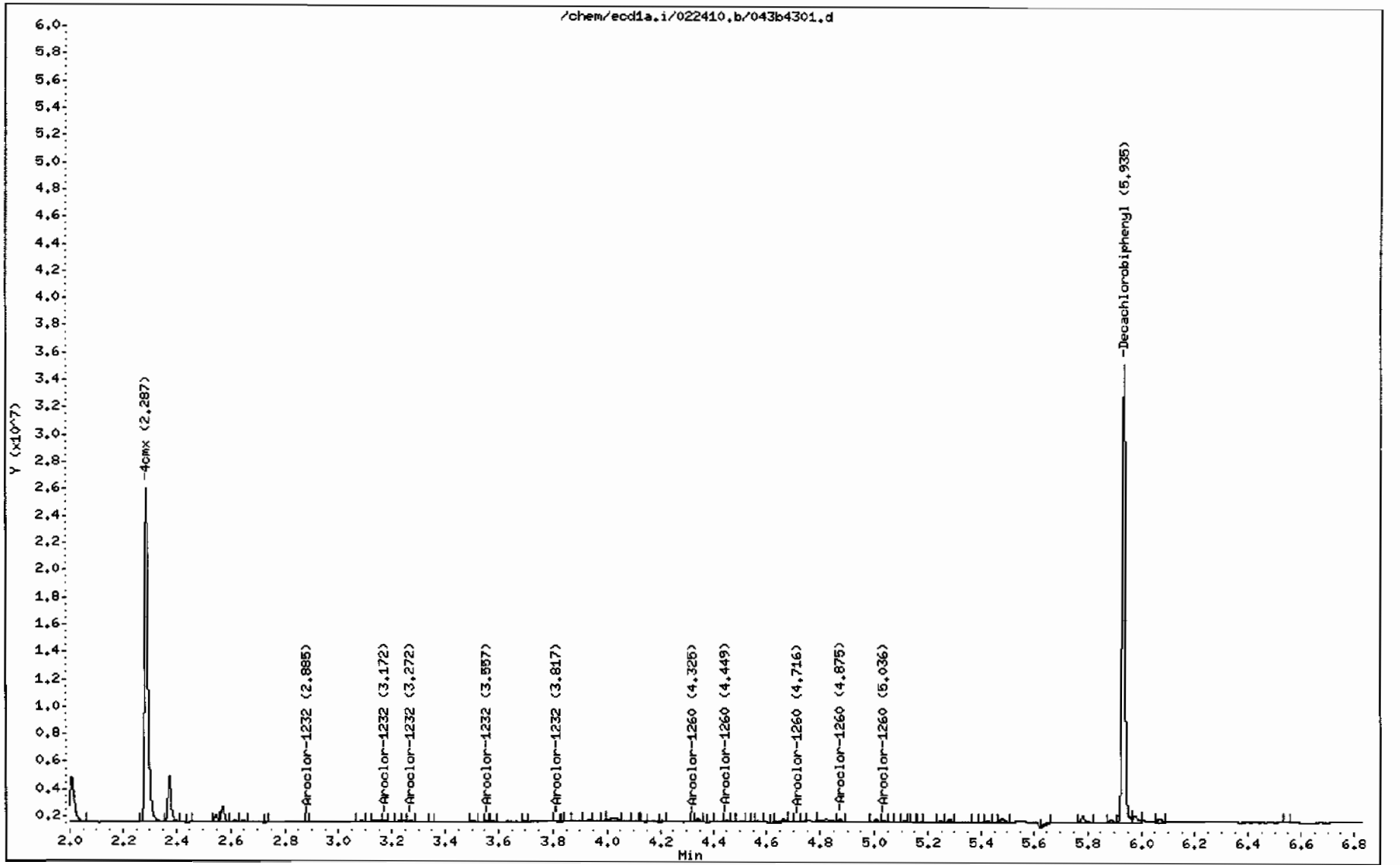

STANDARDS DATA

Report Date: 25-Feb-2010 07:50

Calibration History

Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032f3201.d
22-FEB-2010 10:23	AR1248	/chem/ecd1a.i/022210.b/026f2601.d
22-FEB-2010 09:20	AR1242	/chem/ecd1a.i/022210.b/020f2001.d
22-FEB-2010 08:16	AR1254	/chem/ecd1a.i/022210.b/014f1401.d
22-FEB-2010 07:13	AR1660	/chem/ecd1a.i/022210.b/008f0801.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033f3301.d
22-FEB-2010 10:33	AR1248	/chem/ecd1a.i/022210.b/027f2701.d
22-FEB-2010 09:30	AR1242	/chem/ecd1a.i/022210.b/021f2101.d
22-FEB-2010 08:27	AR1254	/chem/ecd1a.i/022210.b/015f1501.d
22-FEB-2010 07:24	AR1660	/chem/ecd1a.i/022210.b/009f0901.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034f3401.d
22-FEB-2010 10:44	AR1248	/chem/ecd1a.i/022210.b/028f2801.d
22-FEB-2010 09:41	AR1242	/chem/ecd1a.i/022210.b/022f2201.d
22-FEB-2010 08:37	AR1254	/chem/ecd1a.i/022210.b/016f1601.d
22-FEB-2010 07:34	AR1660	/chem/ecd1a.i/022210.b/010f1001.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035f3501.d
22-FEB-2010 11:05	AR1248	/chem/ecd1a.i/022210.b/030f3001.d
22-FEB-2010 09:51	AR1242	/chem/ecd1a.i/022210.b/023f2301.d
22-FEB-2010 08:48	AR1254	/chem/ecd1a.i/022210.b/017f1701.d
22-FEB-2010 07:45	AR1660	/chem/ecd1a.i/022210.b/011f1101.d
22-FEB-2010 07:03	AR1262	/chem/ecd1a.i/022210.b/007f0701.d
22-FEB-2010 06:52	AR1221	/chem/ecd1a.i/022210.b/006f0601.d
22-FEB-2010 06:41	AR1232	/chem/ecd1a.i/022210.b/005f0501.d
22-FEB-2010 06:31	DDTANALOGSTD	/chem/ecd1a.i/022210.b/004f0401.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036f3601.d
22-FEB-2010 10:54	AR1248	/chem/ecd1a.i/022210.b/029f2901.d
22-FEB-2010 10:02	AR1242	/chem/ecd1a.i/022210.b/024f2401.d
22-FEB-2010 08:59	AR1254	/chem/ecd1a.i/022210.b/018f1801.d
22-FEB-2010 07:55	AR1660	/chem/ecd1a.i/022210.b/012f1201.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 16:40	AR1660	/chem/ecd1a.i/022410.b/054f5401.d
Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 14:51	AR1660	/chem/ecd1a.i/022410.b/045f4501.d
Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 13:14	AR1660	/chem/ecd1a.i/022410.b/037f3701.d
Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 10:51	AR1660	/chem/ecd1a.i/022410.b/025f2501.d
Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 09:41	AR1660	/chem/ecd1a.i/022410.b/019f1901.d
Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 06:32	AR1660	/chem/ecd1a.i/022410.b/002f0201.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 07:45	AR1660	/chem/ecd1a.i/022210.b/011f1101.d
Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 07:46	AR1268	/chem/ecd1a.i/022410.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 07:35	AR1262	/chem/ecd1a.i/022410.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 07:25	AR1221	/chem/ecd1a.i/022410.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 07:14	AR1232	/chem/ecd1a.i/022410.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 07:04	AR1248	/chem/ecd1a.i/022410.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 06:43	AR1254	/chem/ecd1a.i/022410.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 06:53	AR1242	/chem/ecd1a.i/022410.b/004f0401.d

Report Date: 25-Feb-2010 08:16

Calibration History

Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032b3201.d
22-FEB-2010 10:23	AR1248	/chem/ecd1a.i/022210.b/026b2601.d
22-FEB-2010 09:20	AR1242	/chem/ecd1a.i/022210.b/020b2001.d
22-FEB-2010 08:16	AR1254	/chem/ecd1a.i/022210.b/014b1401.d
22-FEB-2010 07:13	AR1660	/chem/ecd1a.i/022210.b/008b0801.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033b3301.d
22-FEB-2010 10:33	AR1248	/chem/ecd1a.i/022210.b/027b2701.d
22-FEB-2010 09:30	AR1242	/chem/ecd1a.i/022210.b/021b2101.d
22-FEB-2010 08:27	AR1254	/chem/ecd1a.i/022210.b/015b1501.d
22-FEB-2010 07:24	AR1660	/chem/ecd1a.i/022210.b/009b0901.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034b3401.d
22-FEB-2010 10:44	AR1248	/chem/ecd1a.i/022210.b/028b2801.d
22-FEB-2010 09:41	AR1242	/chem/ecd1a.i/022210.b/022b2201.d
22-FEB-2010 08:37	AR1254	/chem/ecd1a.i/022210.b/016b1601.d
22-FEB-2010 07:34	AR1660	/chem/ecd1a.i/022210.b/010b1001.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035b3501.d
22-FEB-2010 11:05	AR1248	/chem/ecd1a.i/022210.b/030b3001.d
22-FEB-2010 09:51	AR1242	/chem/ecd1a.i/022210.b/023b2301.d
22-FEB-2010 08:48	AR1254	/chem/ecd1a.i/022210.b/017b1701.d
22-FEB-2010 07:45	AR1660	/chem/ecd1a.i/022210.b/011b1101.d
22-FEB-2010 07:03	AR1262	/chem/ecd1a.i/022210.b/007b0701.d
22-FEB-2010 06:52	AR1221	/chem/ecd1a.i/022210.b/006b0601.d
22-FEB-2010 06:41	AR1232	/chem/ecd1a.i/022210.b/005b0501.d
22-FEB-2010 06:31	DDTANALOGSTD	/chem/ecd1a.i/022210.b/004b0401.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036b3601.d
22-FEB-2010 10:54	AR1248	/chem/ecd1a.i/022210.b/029b2901.d
22-FEB-2010 10:02	AR1242	/chem/ecd1a.i/022210.b/024b2401.d
22-FEB-2010 08:59	AR1254	/chem/ecd1a.i/022210.b/018b1801.d
22-FEB-2010 07:55	AR1660	/chem/ecd1a.i/022210.b/012b1201.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 16:40	AR1660	/chem/ecd1a.i/022410.b/054b5401.d
Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 14:51	AR1660	/chem/ecd1a.i/022410.b/045b4501.d
Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 13:14	AR1660	/chem/ecd1a.i/022410.b/037b3701.d
Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 10:51	AR1660	/chem/ecd1a.i/022410.b/025b2501.d
Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 06:32	AR1660	/chem/ecd1a.i/022410.b/002b0201.d
Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 09:41	AR1660	/chem/ecd1a.i/022410.b/019b1901.d
Ccal Level: 4 , Ccal Amount: 1000		
22-FEB-2010 07:45	AR1660	/chem/ecd1a.i/022210.b/011b1101.d
Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 07:46	AR1268	/chem/ecd1a.i/022410.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 07:35	AR1262	/chem/ecd1a.i/022410.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 07:25	AR1221	/chem/ecd1a.i/022410.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 07:14	AR1232	/chem/ecd1a.i/022410.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 07:04	AR1248	/chem/ecd1a.i/022410.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 06:53	AR1242	/chem/ecd1a.i/022410.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
24-FEB-2010 06:43	AR1254	/chem/ecd1a.i/022410.b/003b0301.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Quant Method : ESTD Target Version : 3.50
Last Update : 25-Feb-2010 06:11 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.376	2.346-2.406	1.538e+04
	2.663	2.633-2.693	1.824e+04
	2.744	2.714-2.774	1.207e+04
	2.781	2.751-2.811	7.096e+03
	2.991	2.961-3.021	8.912e+03
63 4,4-DDD	3.900	3.880-3.920	3.060e+05
64 4,4-DDE	3.551	3.531-3.571	3.552e+05
62 4,4-DDT	4.064	4.044-4.084	2.080e+05
2 Aroclor-1221	2.035	2.005-2.065	4.398e+03
	2.128	2.098-2.158	2.431e+03
	2.153	2.123-2.183	1.042e+04
3 Aroclor-1232	2.376	2.346-2.406	6.218e+03
	2.663	2.633-2.693	7.488e+03
	2.743	2.713-2.773	4.887e+03
	2.858	2.828-2.888	2.191e+03
	3.245	3.215-3.275	2.731e+03
4 Aroclor-1242	2.377	2.347-2.407	1.256e+04
	2.664	2.634-2.694	1.461e+04
	2.782	2.752-2.812	5.629e+03
	2.992	2.962-3.022	7.310e+03
	3.246	3.216-3.276	6.183e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m

Compound	RT	RT Window	RF
5 Aroclor-1248	2.858	2.828-2.888	9.301e+03
	2.993	2.962-3.022	1.241e+04
	3.245	3.215-3.275	1.220e+04
	3.377	3.348-3.408	1.042e+04
	3.610	3.580-3.640	6.820e+03
6 Aroclor-1254	3.221	3.191-3.251	1.201e+04
	3.376	3.346-3.406	1.583e+04
	3.610	3.580-3.640	1.952e+04
	3.773	3.743-3.803	1.381e+04
	3.882	3.852-3.912	1.428e+04
7 Aroclor-1260	3.718	3.688-3.748	1.707e+04
	3.881	3.851-3.911	2.364e+04
	4.043	4.013-4.073	2.497e+04
	4.111	4.081-4.141	1.441e+04
	4.253	4.223-4.283	1.443e+04
8 Aroclor-1262	3.718	3.688-3.748	1.261e+04
	3.881	3.851-3.911	1.569e+04
	4.111	4.081-4.141	1.995e+04
	4.254	4.224-4.284	1.798e+04
	4.433	4.403-4.463	3.725e+04
9 Aroclor-1268	4.618	4.588-4.648	4.848e+04
	4.640	4.610-4.670	5.448e+04
	4.754	4.724-4.784	3.862e+04
	4.956	4.926-4.986	1.635e+04
	5.121	5.091-5.151	1.121e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.922	1.892-1.952	4.306e+05
$ 12 Decachlorobiphenyl	5.231	5.201-5.261	3.073e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Quant Method : ESTD Target Version : 3.50
Last Update : 25-Feb-2010 06:10 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.184	3.154-3.214	1.279e+04
	3.266	3.236-3.296	8.918e+03
	3.330	3.300-3.360	5.406e+03
	3.557	3.527-3.587	6.916e+03
	3.632	3.602-3.662	6.425e+03
62 4,4-DDT	4.660	4.640-4.680	1.000e+05
63 4,4-DDE	4.128	4.108-4.148	2.505e+05
64 4,4-DDD	4.473	4.453-4.493	2.085e+05
2 Aroclor-1221	2.485	2.455-2.515	3.431e+03
	2.579	2.549-2.609	2.152e+03
	2.620	2.590-2.650	7.328e+03
3 Aroclor-1232	2.886	2.856-2.916	4.920e+03
	3.184	3.154-3.214	5.252e+03
	3.267	3.237-3.297	3.768e+03
	3.558	3.528-3.588	2.699e+03
	3.792	3.762-3.822	2.631e+03
4 Aroclor-1242	3.184	3.154-3.214	1.035e+04
	3.267	3.237-3.297	7.279e+03
	3.557	3.527-3.587	5.768e+03
	3.791	3.761-3.821	5.788e+03
	3.819	3.789-3.849	6.641e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.393	3.363-3.423	7.602e+03
	3.558	3.527-3.587	9.360e+03
	3.792	3.762-3.822	1.065e+04
	3.819	3.789-3.849	1.210e+04
	3.956	3.926-3.986	1.150e+04
6 Aroclor-1254	3.393	3.363-3.423	6.068e+03
	3.815	3.785-3.845	1.074e+04
	3.931	3.901-3.961	1.164e+04
	4.208	4.178-4.238	1.590e+04
	4.344	4.314-4.375	1.198e+04
7 Aroclor-1260	4.324	4.294-4.354	1.321e+04
	4.449	4.419-4.479	1.557e+04
	4.715	4.685-4.745	1.184e+04
	4.888	4.858-4.918	1.220e+04
	5.036	5.006-5.066	2.653e+04
8 Aroclor-1262	4.449	4.419-4.479	1.126e+04
	4.715	4.685-4.745	1.550e+04
	4.889	4.859-4.919	1.407e+04
	5.036	5.006-5.066	2.845e+04
	5.249	5.219-5.279	1.972e+04
9 Aroclor-1268	5.247	5.217-5.277	3.730e+04
	5.275	5.245-5.305	3.492e+04
	5.425	5.395-5.455	2.658e+04
	5.589	5.559-5.619	1.223e+04
	5.783	5.753-5.813	7.433e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.288	2.258-2.318	2.974e+05
$ 12 Decachlorobiphenyl	5.935	5.905-5.965	2.115e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Cal Date : 25-Feb-2010 06:11 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032f3201.d
Level 2: /chem/ecd1a.i/022210.b/033f3301.d
Level 3: /chem/ecd1a.i/022210.b/034f3401.d
Level 4: /chem/ecd1a.i/022210.b/035f3501.d
Level 5: /chem/ecd1a.i/022210.b/036f3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	18473	16312	15150	14238	12749	15384	14.060
(2)	20194	18537	17759	17625	17070	18237	6.651
(3)	14170	12473	11875	11163	10646	12065	11.317
(4)	8163	7198	6933	6624	6564	7096	9.135
(5)	10345	9178	8623	8273	8142	8912	10.051
63 4,4-DDD	+++++	+++++	+++++	305990	+++++	305990	0.000
64 4,4-DDE	+++++	+++++	+++++	355239	+++++	355239	0.000
62 4,4-DDT	+++++	+++++	+++++	208015	+++++	208015	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4398	+++++	4398	0.000
(2)	+++++	+++++	+++++	2431	+++++	2431	0.000
(3)	+++++	+++++	+++++	10418	+++++	10418	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6218	+++++	6218	0.000
(2)	+++++	+++++	+++++	7488	+++++	7488	0.000
(3)	+++++	+++++	+++++	4887	+++++	4887	0.000
(4)	+++++	+++++	+++++	2191	+++++	2191	0.000
(5)	+++++	+++++	+++++	2731	+++++	2731	0.000
4 Aroclor-1242(1)	14895	13406	12308	11554	10624	12557	13.200
(2)	15940	15326	14418	13613	13761	14612	6.870
(3)	6066	5934	5542	5337	5267	5629	6.326
(4)	8523	7616	7127	6725	6562	7310	10.814
(5)	6824	6256	5999	5817	6020	6183	6.317
5 Aroclor-1248(1)	10594	9810	9017	8885	8199	9301	9.911
(2)	14228	12736	11895	11712	11476	12409	9.043
(3)	12841	12156	11815	11785	12410	12201	3.615
(4)	11297	10503	10013	9956	10333	10420	5.179
(5)	7445	6917	6453	6460	6824	6820	5.977

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Cal Date : 25-Feb-2010 06:11 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	13496	12213	11744	11466	11117	12007	7.694
(2)	16789	15969	15727	15423	15253	15832	3.802
(3)	20267	19353	19208	19481	19310	19524	2.185
(4)	14142	13669	13487	13772	13976	13809	1.858
(5)	15228	14234	13851	14228	13864	14281	3.932
7 Aroclor-1260(1)	19445	17307	16758	16208	15645	17072	8.574
(2)	25625	23757	23316	22992	22528	23643	5.056
(3)	27164	24948	24176	24127	24442	24971	5.079
(4)	16166	14596	13941	13551	13775	14406	7.345
(5)	15672	14437	13986	13647	14411	14431	5.316
8 Aroclor-1262(1)	+++++	+++++	+++++	12612	+++++	12612	0.000
(2)	+++++	+++++	+++++	15693	+++++	15693	0.000
(3)	+++++	+++++	+++++	19946	+++++	19946	0.000
(4)	+++++	+++++	+++++	17981	+++++	17981	0.000
(5)	+++++	+++++	+++++	37250	+++++	37250	0.000
9 Aroclor-1268(1)	49163	48928	48151	48132	48019	48478	1.086
(2)	55254	54719	54718	54649	53075	54483	1.512
(3)	39937	38826	38121	38191	38006	38616	2.083
(4)	16234	16191	16152	16347	16815	16348	1.657
(5)	114910	115297	111446	111050	107804	112101	2.753
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	457836	439032	431646	423676	400995	430637	4.841
$ 12 Decachlorobiphenyl	331580	312081	303953	298909	289924	307289	5.135

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Cal Date : 25-Feb-2010 06:10 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032b3201.d
Level 2: /chem/ecd1a.i/022210.b/033b3301.d
Level 3: /chem/ecd1a.i/022210.b/034b3401.d
Level 4: /chem/ecd1a.i/022210.b/035b3501.d
Level 5: /chem/ecd1a.i/022210.b/036b3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14790	13406	12599	11956	11198	12790	10.807
(2)	11020	9550	8735	8081	7204	8918	16.336
(3)	6667	5702	5261	4923	4477	5406	15.464
(4)	8469	7466	6811	6206	5627	6916	15.991
(5)	7861	6755	6366	5845	5300	6425	15.123
62 4,4-DDT	+++++	+++++	+++++	100019	+++++	100019	0.000
63 4,4-DDE	+++++	+++++	+++++	250510	+++++	250510	0.000
64 4,4-DDD	+++++	+++++	+++++	208527	+++++	208527	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3431	+++++	3431	0.000
(2)	+++++	+++++	+++++	2152	+++++	2152	0.000
(3)	+++++	+++++	+++++	7328	+++++	7328	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	4920	+++++	4920	0.000
(2)	+++++	+++++	+++++	5252	+++++	5252	0.000
(3)	+++++	+++++	+++++	3768	+++++	3768	0.000
(4)	+++++	+++++	+++++	2699	+++++	2699	0.000
(5)	+++++	+++++	+++++	2631	+++++	2631	0.000
4 Aroclor-1242(1)	12162	10602	10267	9852	8873	10351	11.615
(2)	8972	7860	7095	6551	5917	7279	16.286
(3)	7172	6222	5595	5138	4714	5768	16.707
(4)	7092	6149	5608	5215	4876	5788	15.018
(5)	8262	7049	6439	5944	5512	6641	16.138
5 Aroclor-1248(1)	9375	8130	7334	6873	6297	7602	15.743
(2)	11273	9902	9059	8609	7955	9360	13.704
(3)	12356	11118	10348	9982	9432	10647	10.657
(4)	14147	12783	11698	11327	10532	12097	11.596
(5)	13387	12032	11069	10719	10286	11499	10.750

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Cal Date : 25-Feb-2010 06:10 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254 (1)	7593	6474	5915	5463	4897	6068	16.986
(2)	13079	11278	10543	9836	8978	10743	14.511
(3)	14023	12144	11373	10769	9907	11643	13.419
(4)	18579	16173	15683	15087	13972	15899	10.745
(5)	14693	12059	11530	11303	10291	11975	13.772
7 Aroclor-1260 (1)	16156	14478	12627	11898	10869	13206	15.988
(2)	18308	16389	15401	14483	13254	15567	12.332
(3)	14169	12468	11644	10875	10061	11844	13.319
(4)	14677	12787	11930	11182	10430	12201	13.416
(5)	30570	27429	26347	25126	23163	26527	10.405
8 Aroclor-1262 (1)	+++++	+++++	+++++	11265	+++++	11265	0.000
(2)	+++++	+++++	+++++	15504	+++++	15504	0.000
(3)	+++++	+++++	+++++	14070	+++++	14070	0.000
(4)	+++++	+++++	+++++	28448	+++++	28448	0.000
(5)	+++++	+++++	+++++	19723	+++++	19723	0.000
9 Aroclor-1268 (1)	41829	39003	36612	35751	33294	37298	8.721
(2)	39747	36378	33891	33096	31474	34917	9.246
(3)	30202	27679	25801	25188	24032	26580	9.093
(4)	14370	12834	11677	11309	10971	12232	11.329
(5)	81955	77588	73073	71224	67792	74326	7.452
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	335261	308362	295849	285028	262485	297397	9.098
$ 12 Decachlorobiphenyl	252219	220293	206273	196840	181867	211498	12.633

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1864

Instrument ID: ECD1A Calibration Date: 02/24/10 Time: 0632

Lab File ID: 002F0201 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15384.345	13427.895	0.01	-12.7	15.0
(2)	18237.012	16489.120	0.01	-9.6	15.0
(3)	12065.482	10832.969	0.01	-10.2	15.0
(4)	7096.105	6527.905	0.01	-8.0	15.0
(5)	8912.192	8272.378	0.01	-7.2	15.0
Aroclor-1260	17072.421	18068.149	0.01	5.8	15.0
(2)	23643.449	25976.957	0.01	9.9	15.0
(3)	24971.335	27840.961	0.01	11.5	15.0
(4)	14405.675	15896.654	0.01	10.3	15.0
(5)	14430.527	16426.479	0.01	13.8	15.0
4cmx	430636.91	397854.29	0.01	-7.6	15.0
Decachlorobiphenyl	307289.35	299154.36	0.01	-2.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1864

Instrument ID: ECD1A Calibration Date: 02/24/10 Time: 0632

Lab File ID: 002B0201 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	11626.730	0.01	-9.1	15.0
(2)	8917.926	7738.792	0.01	-13.2	15.0
(3)	5406.011	4834.032	0.01	-10.6	15.0
(4)	6915.638	6207.565	0.01	-10.2	15.0
(5)	6425.213	5830.059	0.01	-9.3	15.0
Aroclor-1260	13205.642	12355.615	0.01	-6.4	15.0
(2)	15566.814	15164.876	0.01	-2.6	15.0
(3)	11843.501	11419.788	0.01	-3.6	15.0
(4)	12201.193	11826.008	0.01	-3.1	15.0
(5)	26527.172	26560.151	0.01	0.1	15.0
4cmx	297396.93	264689.36	0.01	-11.0	15.0
Decachlorobiphenyl	211498.34	191645.37	0.01	-9.4	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1864

Instrument ID: ECD1A Calibration Date: 02/24/10 Time: 1051

Lab File ID: 025F2501 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	15384.345	13945.026	0.01	-9.4	15.0	
(2)	18237.012	17307.662	0.01	-5.1	15.0	
(3)	12065.482	11282.855	0.01	-6.5	15.0	
(4)	7096.105	6782.373	0.01	-4.4	15.0	
(5)	8912.192	8688.103	0.01	-2.5	15.0	
Aroclor-1260	17072.421	18771.215	0.01	10.0	15.0	
(2)	23643.449	27054.979	0.01	14.4	15.0	
(3)	24971.335	28746.087	0.01	15.1	15.0	<-
(4)	14405.675	16522.205	0.01	14.7	15.0	
(5)	14430.527	16924.301	0.01	17.3	15.0	<-
4cmx	430636.91	413472.98	0.01	-4.0	15.0	
Decachlorobiphenyl	307289.35	309477.29	0.01	0.7	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1864

Instrument ID: ECD1A Calibration Date: 02/24/10 Time: 1051

Lab File ID: 025B2501 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	11741.008	0.01	-8.2	15.0
(2)	8917.926	7791.221	0.01	-12.6	15.0
(3)	5406.011	4831.942	0.01	-10.6	15.0
(4)	6915.638	6281.464	0.01	-9.2	15.0
(5)	6425.213	5846.423	0.01	-9.0	15.0
Aroclor-1260	13205.642	12550.438	0.01	-5.0	15.0
(2)	15566.814	15460.947	0.01	-0.7	15.0
(3)	11843.501	11599.404	0.01	-2.1	15.0
(4)	12201.193	12009.317	0.01	-1.6	15.0
(5)	26527.172	26886.302	0.01	1.4	15.0
4cmx	297396.93	271004.03	0.01	-8.9	15.0
Decachlorobiphenyl	211498.34	193955.74	0.01	-8.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1864

Instrument ID: ECD1A Calibration Date: 02/24/10 Time: 1314

Lab File ID: 037F3701 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15384.345	14098.891	0.01	-8.4	15.0
(2)	18237.012	17693.202	0.01	-3.0	15.0
(3)	12065.482	11362.236	0.01	-5.8	15.0
(4)	7096.105	6819.501	0.01	-3.9	15.0
(5)	8912.192	8610.537	0.01	-3.4	15.0
Aroclor-1260	17072.421	17340.289	0.01	1.6	15.0
(2)	23643.449	25076.356	0.01	6.1	15.0
(3)	24971.335	26785.373	0.01	7.3	15.0
(4)	14405.675	15264.596	0.01	6.0	15.0
(5)	14430.527	15675.993	0.01	8.6	15.0
4cmx	430636.91	415623.78	0.01	-3.5	15.0
Decachlorobiphenyl	307289.35	302793.40	0.01	-1.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1864

Instrument ID: ECD1A Calibration Date: 02/24/10 Time: 1314

Lab File ID: 037B3701 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	11710.642	0.01	-8.4	15.0
(2)	8917.926	7731.938	0.01	-13.3	15.0
(3)	5406.011	4787.140	0.01	-11.4	15.0
(4)	6915.638	5980.682	0.01	-13.5	15.0
(5)	6425.213	5536.976	0.01	-13.8	15.0
Aroclor-1260	13205.642	11417.358	0.01	-13.5	15.0
(2)	15566.814	14017.795	0.01	-10.0	15.0
(3)	11843.501	10357.784	0.01	-12.5	15.0
(4)	12201.193	10693.470	0.01	-12.4	15.0
(5)	26527.172	24125.068	0.01	-9.0	15.0
4cmx	297396.93	270669.59	0.01	-9.0	15.0
Decachlorobiphenyl	211498.34	184629.78	0.01	-12.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1864

Instrument ID: ECD1A Calibration Date: 02/24/10 Time: 1451

Lab File ID: 045F4501 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15384.345	14129.875	0.01	-8.2	15.0
(2)	18237.012	16861.584	0.01	-7.5	15.0
(3)	12065.482	11056.456	0.01	-8.4	15.0
(4)	7096.105	6653.749	0.01	-6.2	15.0
(5)	8912.192	8474.332	0.01	-4.9	15.0
Aroclor-1260	17072.421	17024.349	0.01	-0.3	15.0
(2)	23643.449	24526.981	0.01	3.7	15.0
(3)	24971.335	25989.653	0.01	4.1	15.0
(4)	14405.675	14958.747	0.01	3.8	15.0
(5)	14430.527	15487.665	0.01	7.3	15.0
4cmx	430636.91	404754.33	0.01	-6.0	15.0
Decachlorobiphenyl	307289.35	303258.07	0.01	-1.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1864

Instrument ID: ECD1A Calibration Date: 02/24/10 Time: 1451

Lab File ID: 045B4501 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	11421.692	0.01	-10.7	15.0
(2)	8917.926	7692.757	0.01	-13.7	15.0
(3)	5406.011	4743.304	0.01	-12.2	15.0
(4)	6915.638	6193.519	0.01	-10.4	15.0
(5)	6425.213	5715.125	0.01	-11.0	15.0
Aroclor-1260	13205.642	11557.265	0.01	-12.5	15.0
(2)	15566.814	14291.651	0.01	-8.2	15.0
(3)	11843.501	10709.568	0.01	-9.6	15.0
(4)	12201.193	11071.388	0.01	-9.2	15.0
(5)	26527.172	24692.537	0.01	-6.9	15.0
4cmx	297396.93	266138.48	0.01	-10.5	15.0
Decachlorobiphenyl	211498.34	192301.61	0.01	-9.1	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/002f0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 24-FEB-2010 06:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 11:17 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
11 4cmx					CAS #: 877-09-8		
1.922	1.922	0.000	39785429	100.000	92.4	80.00- 120.00	100.00
12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.231	5.231	0.000	29915436	100.000	97.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.376	2.376	0.000	13427895	1000.00	873	80.00- 120.00	100.00
2.663	2.663	0.000	16489120	1000.00	904	102.80- 142.80	122.80
2.744	2.744	0.000	10832969	1000.00	898	60.68- 100.68	80.68
2.781	2.781	0.000	6527905	1000.00	920	28.61- 68.61	48.61
2.991	2.991	0.000	8272378	1000.00	928	41.61- 81.61	61.61
Average of Peak Amounts =					905		
7 Aroclor-1260					CAS #: 11096-82-5		
3.718	3.718	0.000	18068149	1000.00	1060	80.00- 120.00	100.00
3.881	3.881	0.000	25976957	1000.00	1100	123.77- 163.77	143.77
4.043	4.043	0.000	27840961	1000.00	1110	134.09- 174.09	154.09
4.111	4.111	0.000	15896654	1000.00	1100	67.98- 107.98	87.98
4.253	4.253	0.000	16426479	1000.00	1140	70.91- 110.91	90.91
Average of Peak Amounts =					1.1e+03		

Data File: /chem/ecd1a.i/022410.b/002f0201.d
Date : 24-FEB-2010 06:32
Client ID: AR166001
Sample Info: IWAR100222-60 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

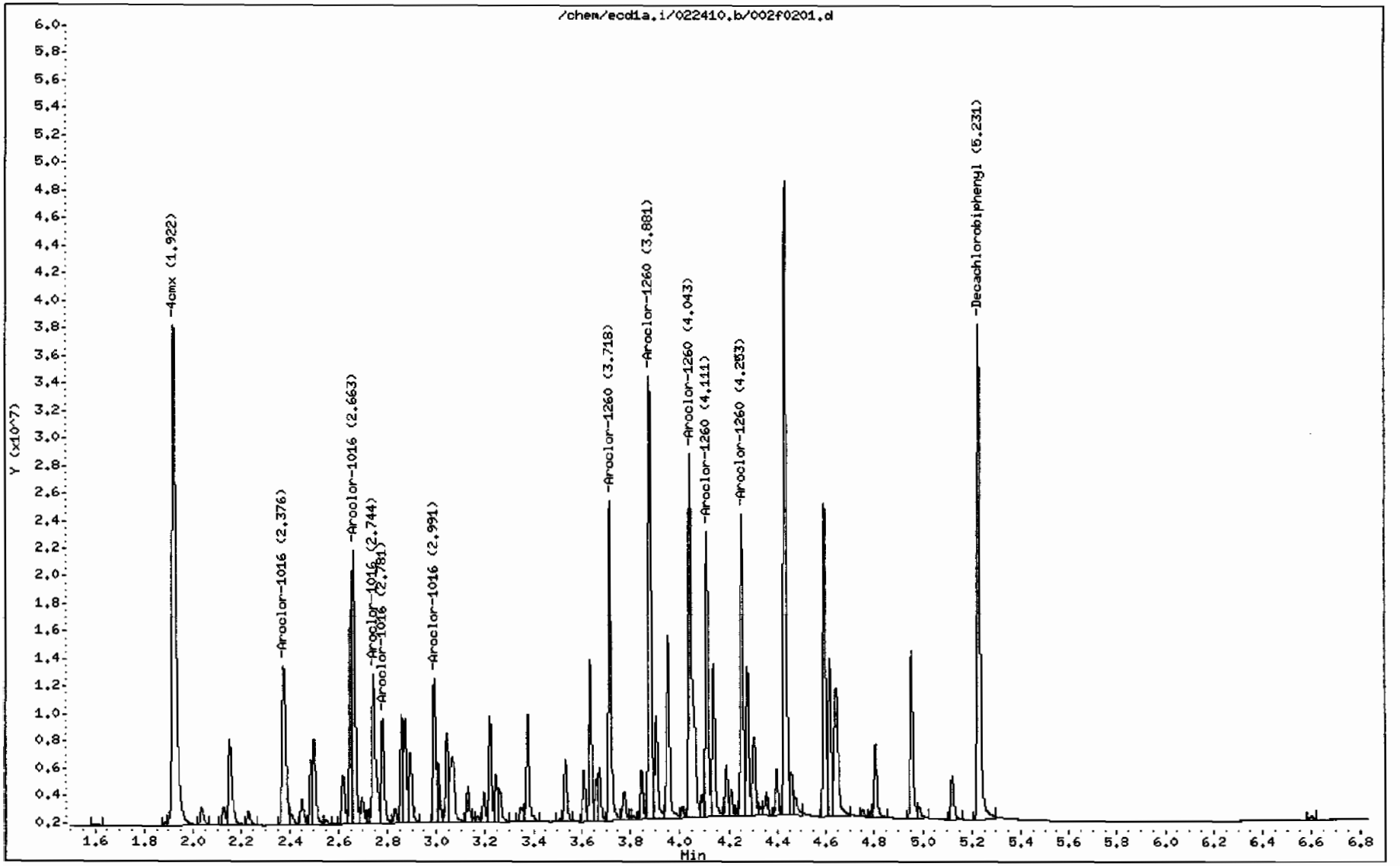

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/002b0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 24-FEB-2010 06:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 11:24 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
11 4cmx					CAS #: 877-09-8		
2.288	2.288	0.000	26468936	100.000	89.0	80.00- 120.00	100.00
12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.935	5.935	0.000	19164537	100.000	90.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.184	3.184	0.000	11626730	1000.00	909	80.00- 120.00	100.00(M)
3.266	3.266	0.000	7738792	1000.00	868	46.56- 86.56	66.56
3.330	3.330	0.000	4834032	1000.00	894	21.58- 61.58	41.58
3.557	3.557	0.000	6207565	1000.00	898	33.39- 73.39	53.39
3.632	3.632	0.000	5830059	1000.00	907	30.14- 70.14	50.14
Average of Peak Amounts =					895		
7 Aroclor-1260					CAS #: 11096-82-5		
4.324	4.324	0.000	12355615	1000.00	936	80.00- 120.00	100.00
4.449	4.449	0.000	15164876	1000.00	974	102.74- 142.74	122.74
4.715	4.715	0.000	11419788	1000.00	964	72.43- 112.43	92.43
4.888	4.888	0.000	11826008	1000.00	969	75.71- 115.71	95.71
5.036	5.036	0.000	26560151	1000.00	1000	194.96- 234.96	214.96
Average of Peak Amounts =					969		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/022410.b/002b0201.d
Date : 24-FEB-2010 06:32
Client ID: AR166001
Sample Info: IWAR100222-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

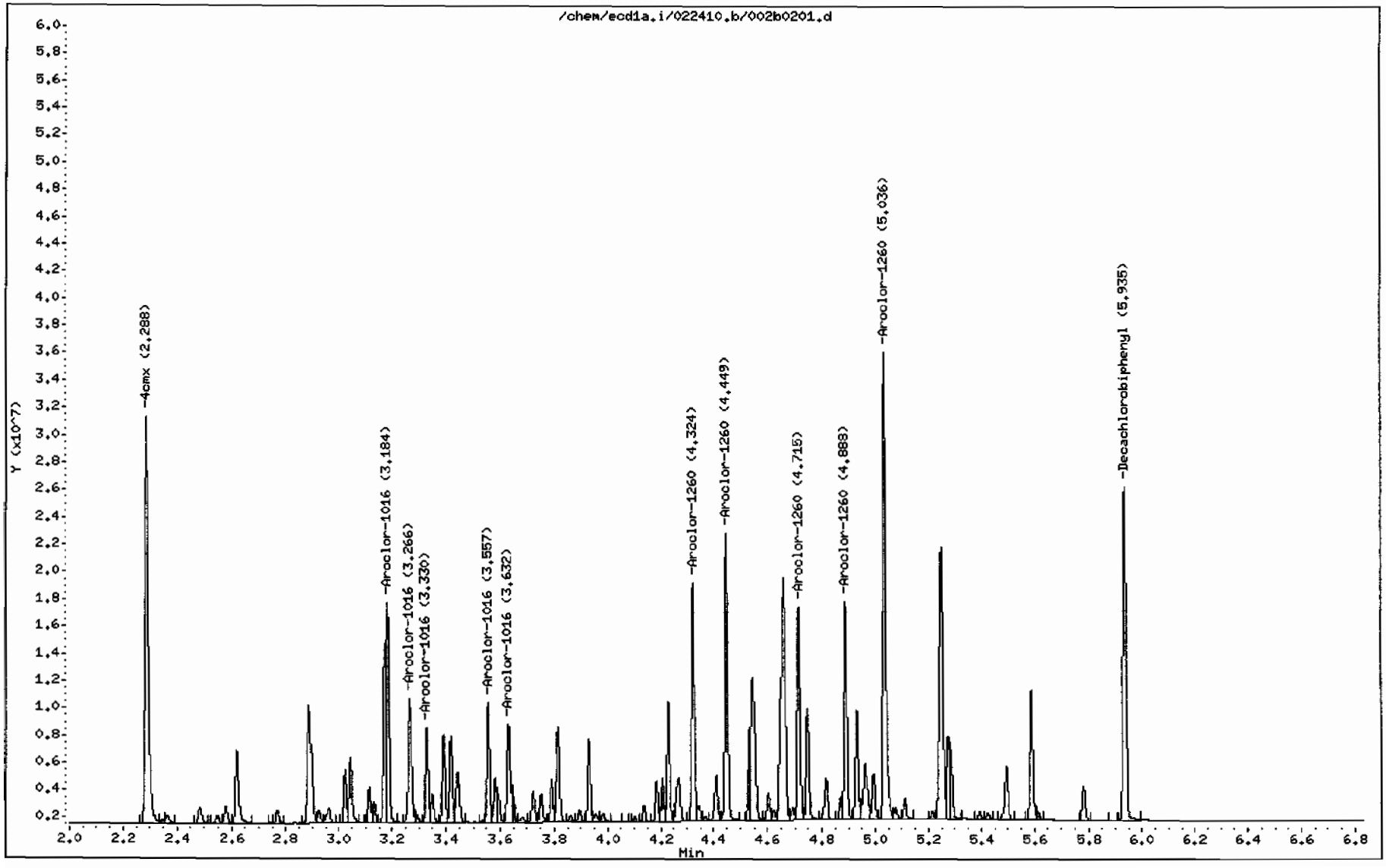

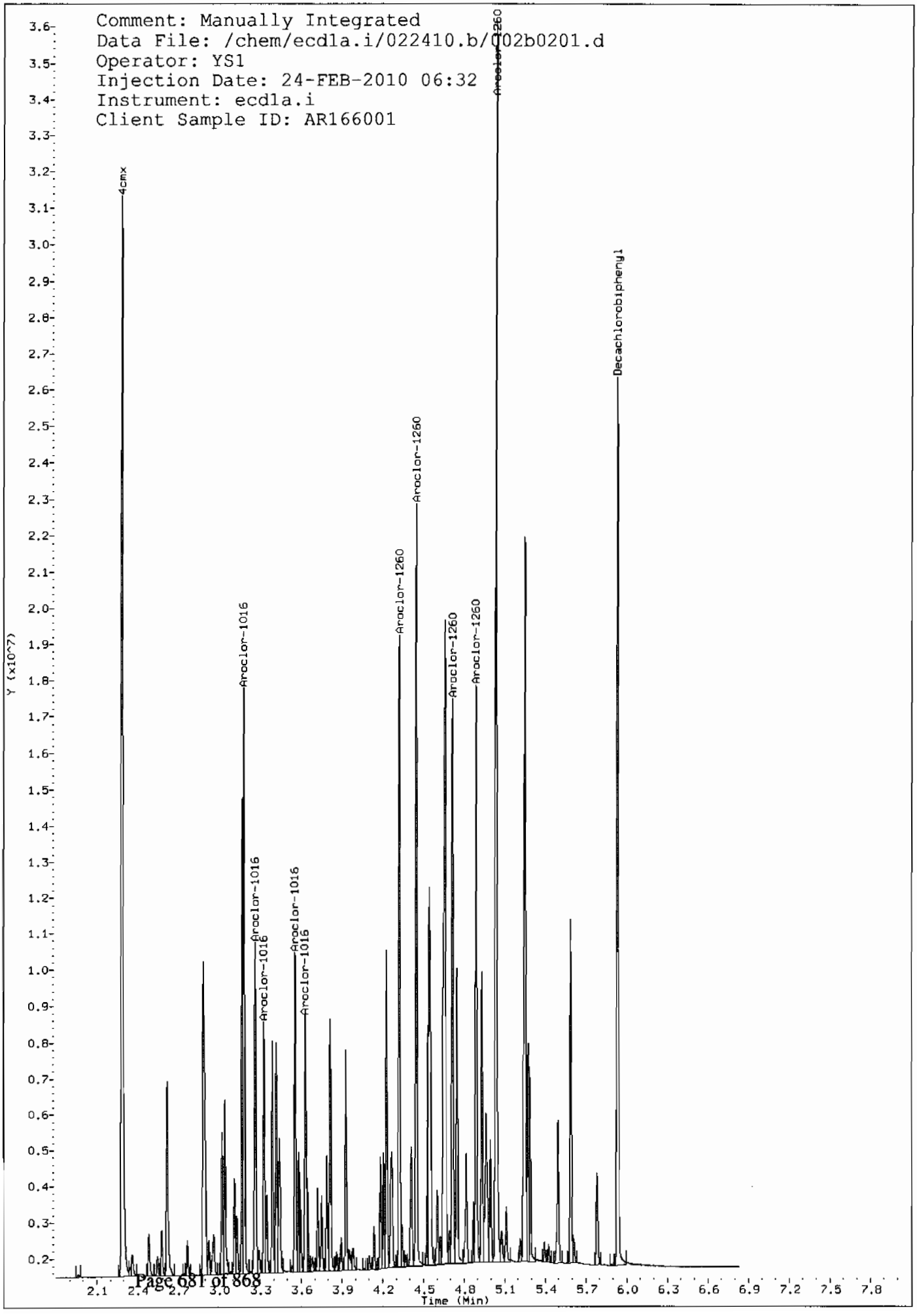
Comment: Manually Integrated
Data File: /chem/ecd1a.i/022410.b/002b0201.d
Operator: YS1
Injection Date: 24-FEB-2010 06:32
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

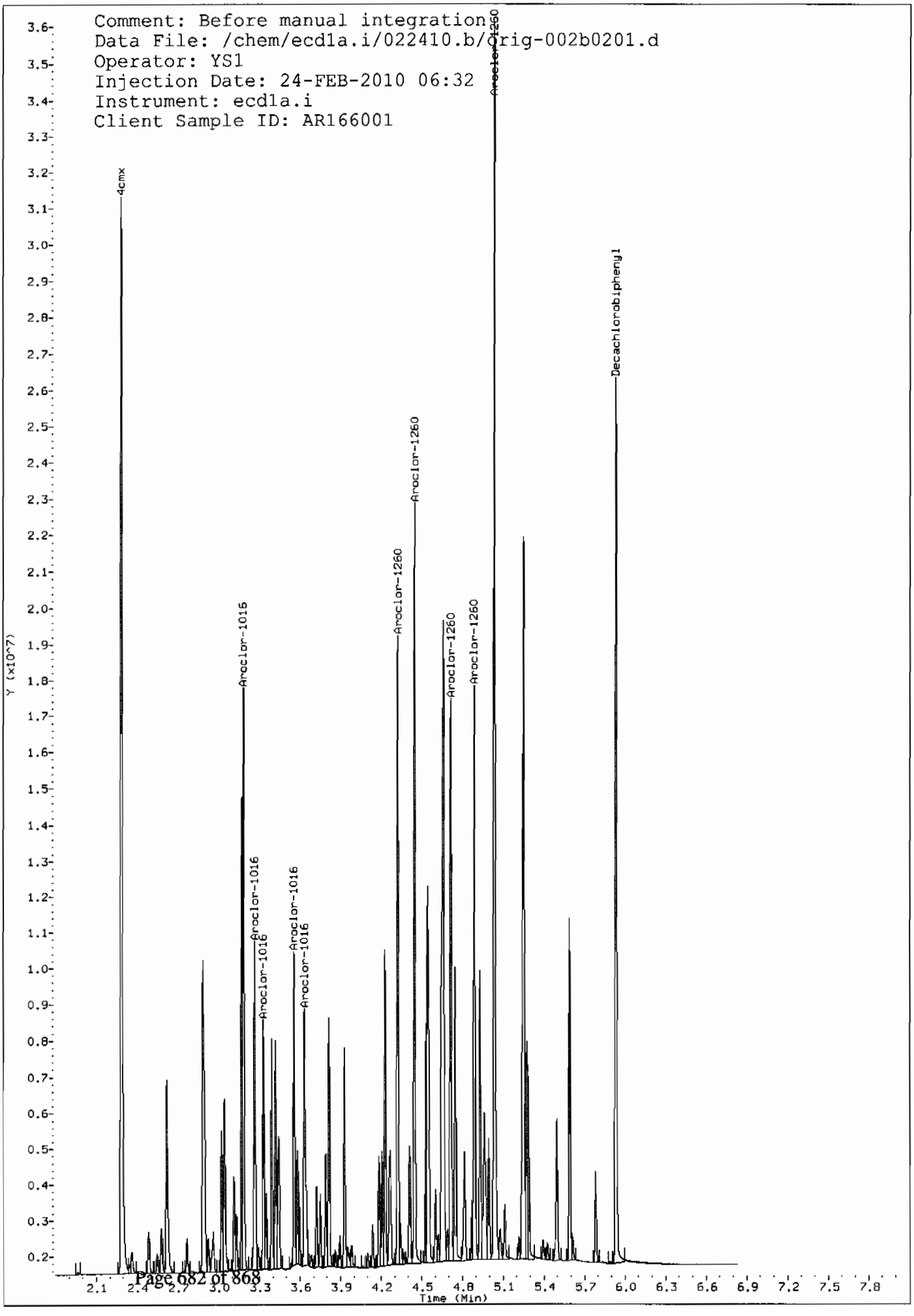
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Operator: YS1
Injection Date: 24-FEB-2010 06:32
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/003f0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 24-FEB-2010 06:43
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 09:41 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:47 Cal File: 034f3401.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.221	3.221	0.000	12628659	1000.00	1050	80.00- 120.00	100.00
3.376	3.376	0.000	16765069	1000.00	1060	112.75- 152.75	132.75
3.610	3.610	0.000	21822982	1000.00	1120	152.81- 192.81	172.81
3.773	3.773	0.000	15523465	1000.00	1120	102.92- 142.92	122.92
3.882	3.882	0.000	16308080	1000.00	1140	109.14- 149.14	129.14

Average of Peak Amounts = 1.1e+03

Data File: /chem/ecd1a.i/022410.b/003f0301.d

Date : 24-FEB-2010 06:43

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

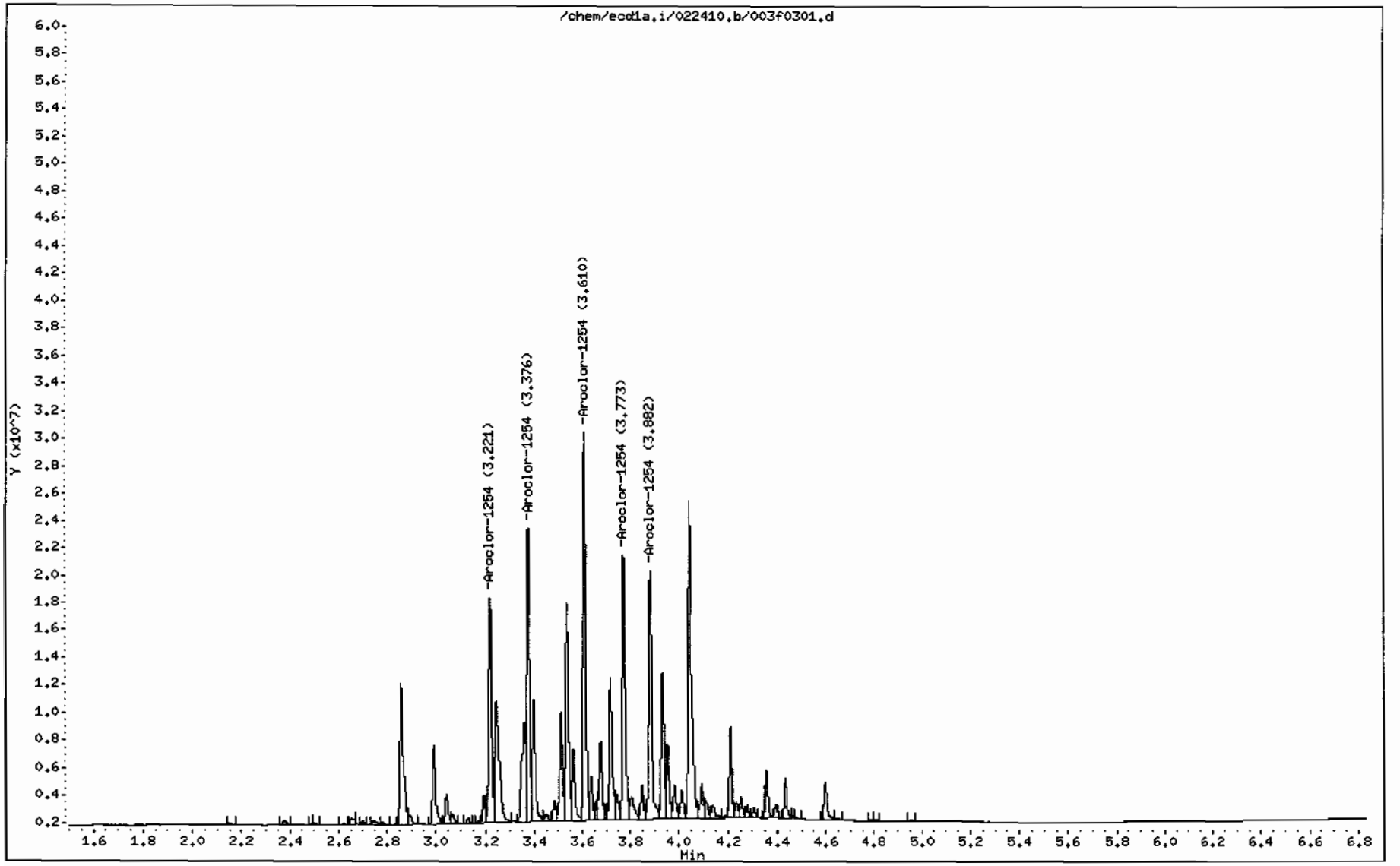

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/003b0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 24-FEB-2010 06:43
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 09:40 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:37 Cal File: 033b3301.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.393	3.393	0.000	5643057	1000.00	930	80.00- 120.00	100.00
3.815	3.815	0.000	10159002	1000.00	946	160.03- 200.03	180.03
3.931	3.931	0.000	11165214	1000.00	959	177.86- 217.86	197.86
4.208	4.208	0.000	15706895	1000.00	988	258.34- 298.34	278.34
4.344	4.344	0.000	11467239	1000.00	958	183.21- 223.21	203.21
Average of Peak Amounts =					956		

Data File: /chem/ecd1a.i/022410.b/003b0301.d

Date : 24-FEB-2010 06:43

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

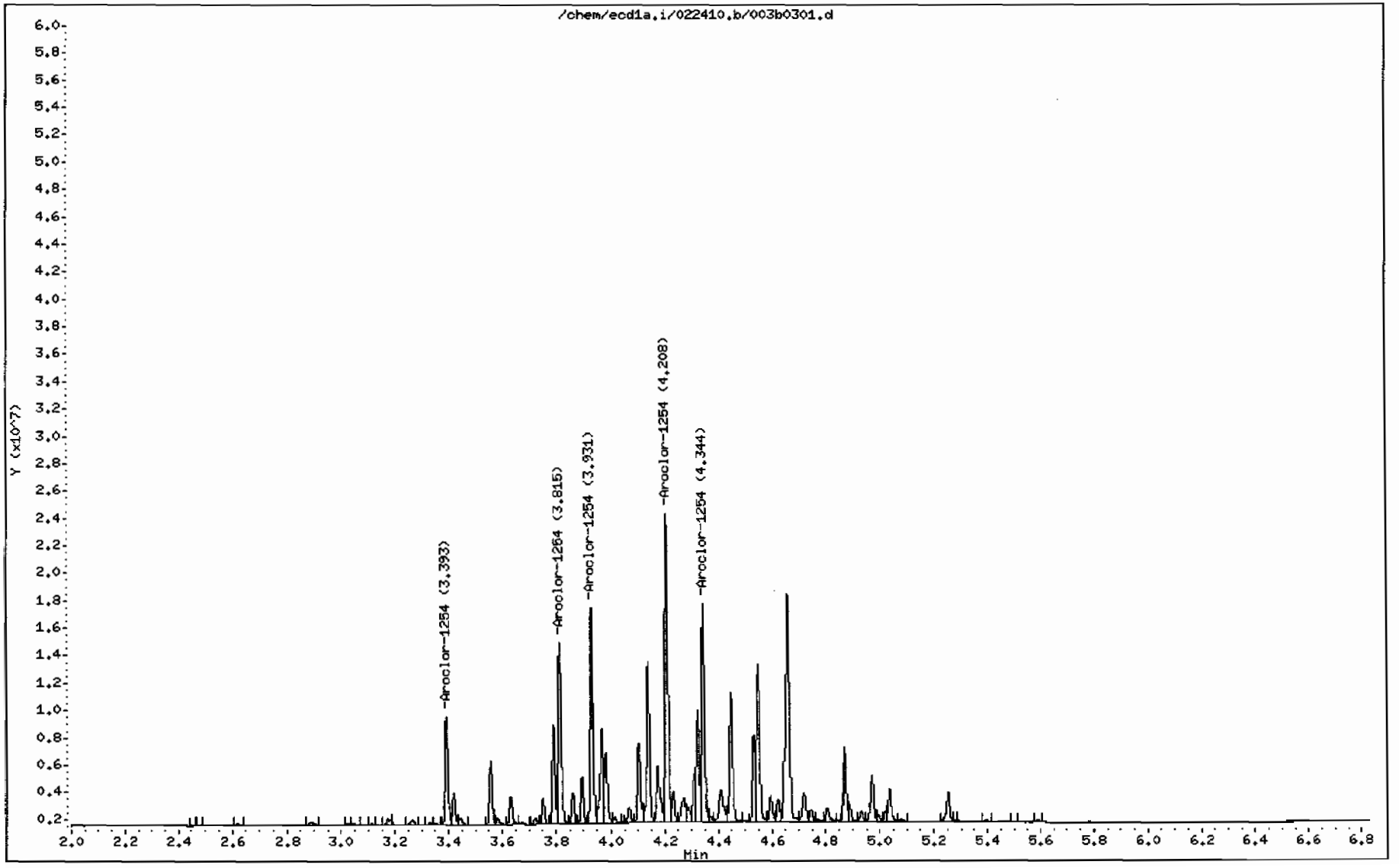

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/004f0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 24-FEB-2010 06:53
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 09:41 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:47 Cal File: 034f3401.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.377	2.377	0.000	12244511	1000.00	975	80.00- 120.00	100.00
2.664	2.664	0.000	15097330	1000.00	1030	103.30- 143.30	123.30
2.782	2.782	0.000	5864589	1000.00	1040	27.90- 67.90	47.90
2.992	2.992	0.000	7615697	1000.00	1040	42.20- 82.20	62.20
3.246	3.246	0.000	6745924	1000.00	1090	35.09- 75.09	55.09

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd1a.i/022410.b/004f0401.d

Page 1

Date : 24-FEB-2010 06:53

Client ID: AR124201

Instrument: ecd1a.i

Sample Info: IWAR100219-42

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

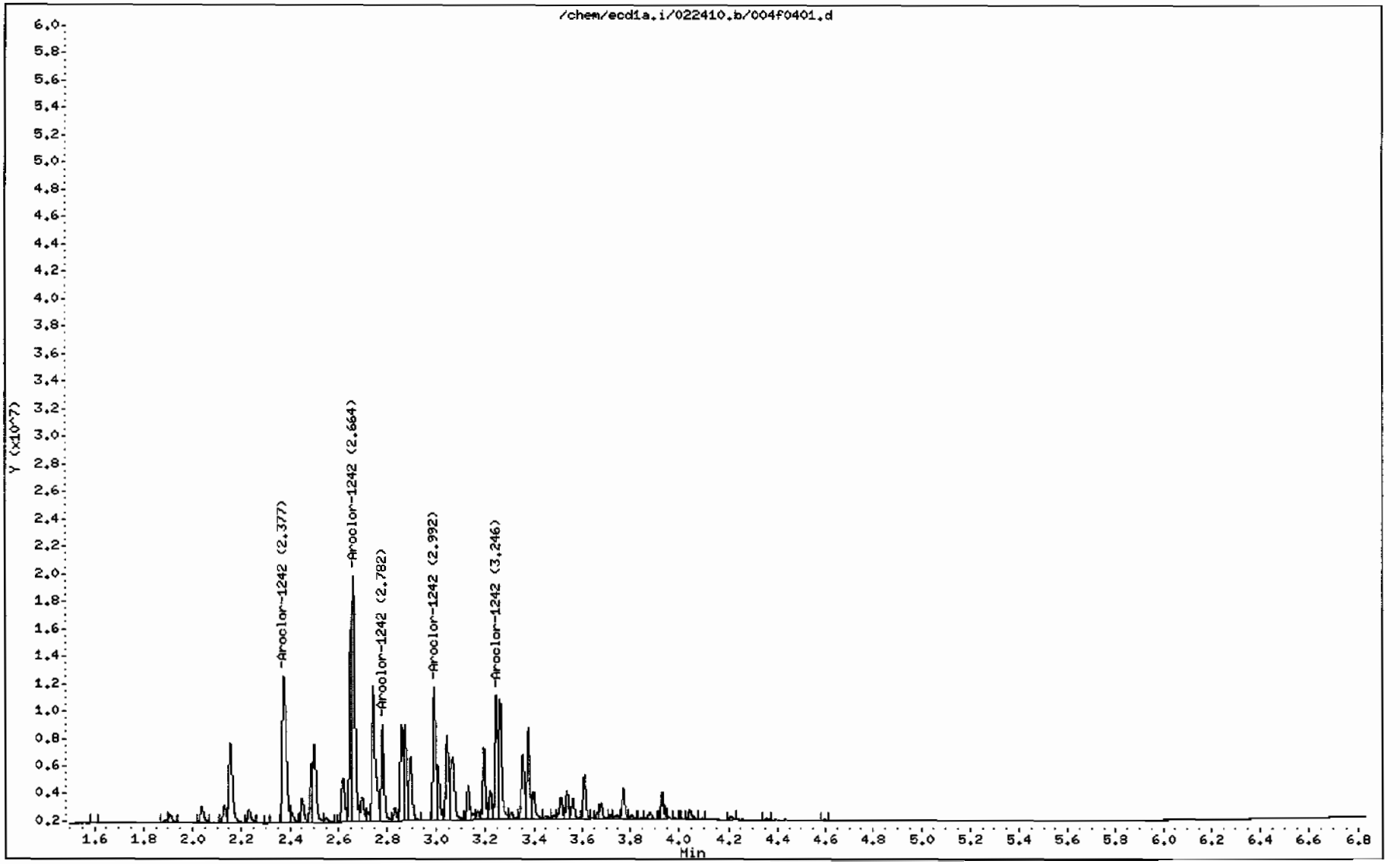

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/004b0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 24-FEB-2010 06:53
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 09:40 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:37 Cal File: 033b3301.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.184	3.184	0.000	10219608	1000.00	987	80.00- 120.00	100.00
3.267	3.267	0.000	6765861	1000.00	930	46.20- 86.20	66.20
3.557	3.557	0.000	5349275	1000.00	927	32.34- 72.34	52.34
3.791	3.791	0.000	5539202	1000.00	957	34.20- 74.20	54.20
3.819	3.819	0.000	6222259	1000.00	937	40.89- 80.89	60.89
Average of Peak Amounts =					948		

Data File: /chem/ecd1a.i/022410.b/004b0401.d
Date : 24-FEB-2010 06:53
Client ID: AR124201
Sample Info: IWAR100219-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

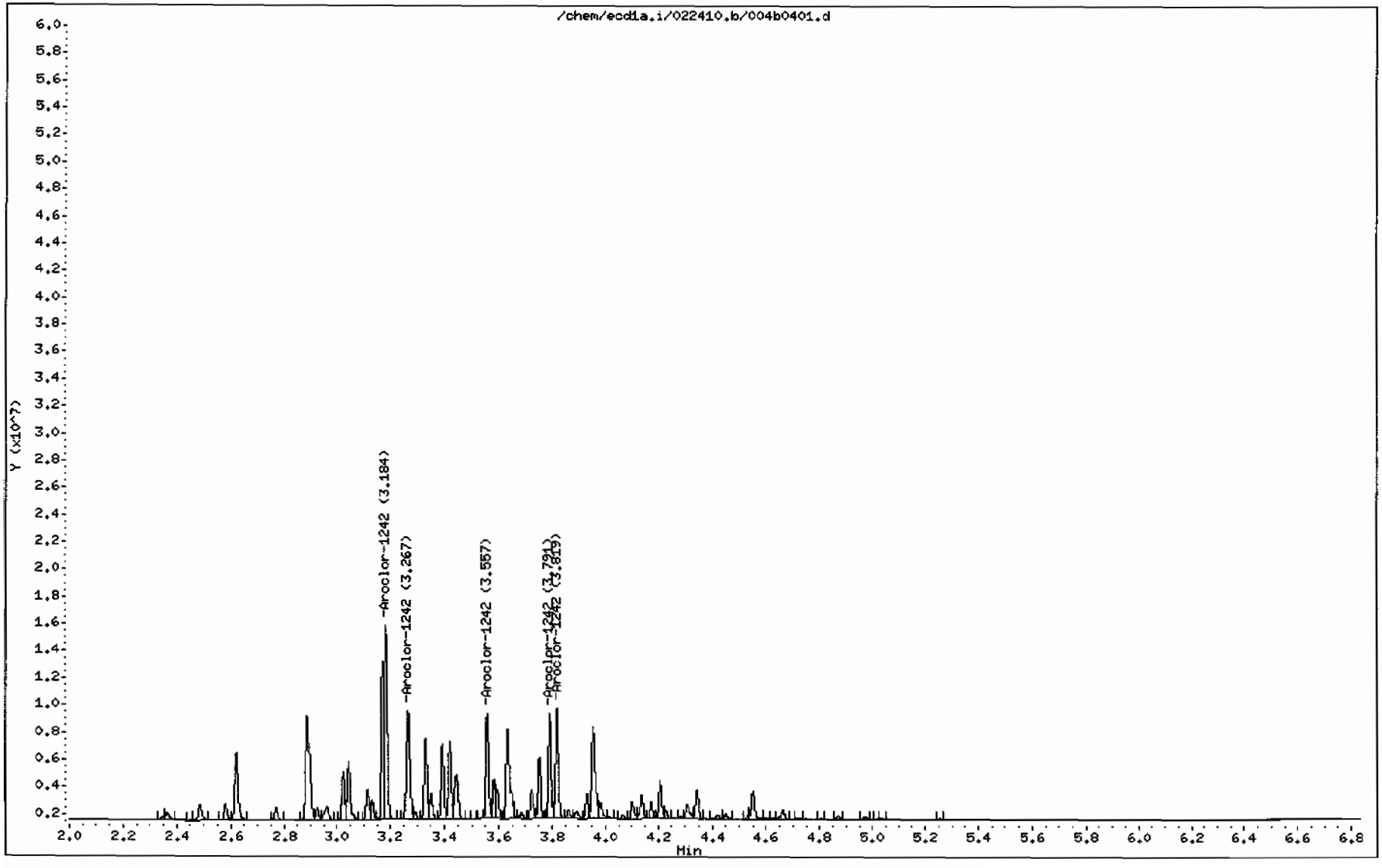

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/005f0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 24-FEB-2010 07:04
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 09:41 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:47 Cal File: 034f3401.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
2.858	2.858	0.000	9792765	1000.00	1050	80.00- 120.00	100.00
2.993	2.993	0.000	12672690	1000.00	1020	109.41- 149.41	129.41
3.245	3.245	0.000	12781052	1000.00	1050	110.52- 150.52	130.52
3.377	3.377	0.000	10817108	1000.00	1040	90.46- 130.46	110.46
3.610	3.610	0.000	6944904	1000.00	1020	50.92- 90.92	70.92

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd1a.i/022410.b/005f0501.d
Date : 24-FEB-2010 07:04
Client ID: AR124801
Sample Info: IWAR100223-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

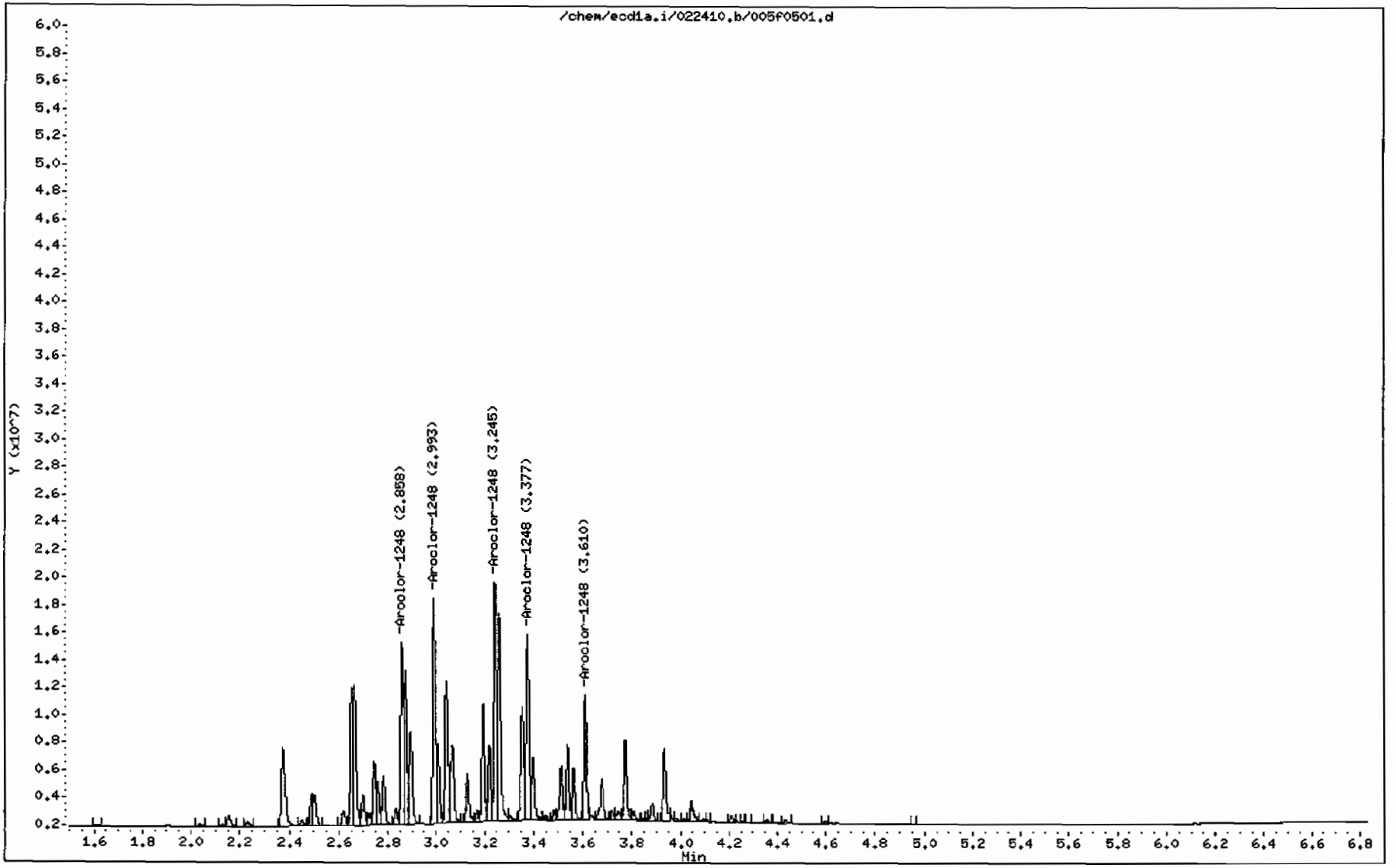

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/005b0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 24-FEB-2010 07:04
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 09:40 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:37 Cal File: 033b3301.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.393	3.393	0.000	7180249	1000.00	944	80.00- 120.00	100.00
3.558	3.558	0.000	9000157	1000.00	962	105.35- 145.35	125.35
3.792	3.792	0.000	10333910	1000.00	970	123.92- 163.92	143.92
3.819	3.819	0.000	11604427	1000.00	959	141.62- 181.62	161.62
3.956	3.956	0.000	11105281	1000.00	966	134.66- 174.66	154.66
		Average of Peak Amounts =			960		

Data File: /chem/ecd1a.i/022410.b/005b0501.d

Page 1

Date : 24-FEB-2010 07:04

Client ID: AR124801

Instrument: ecd1a.i

Sample Info: IWAR100223-48

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

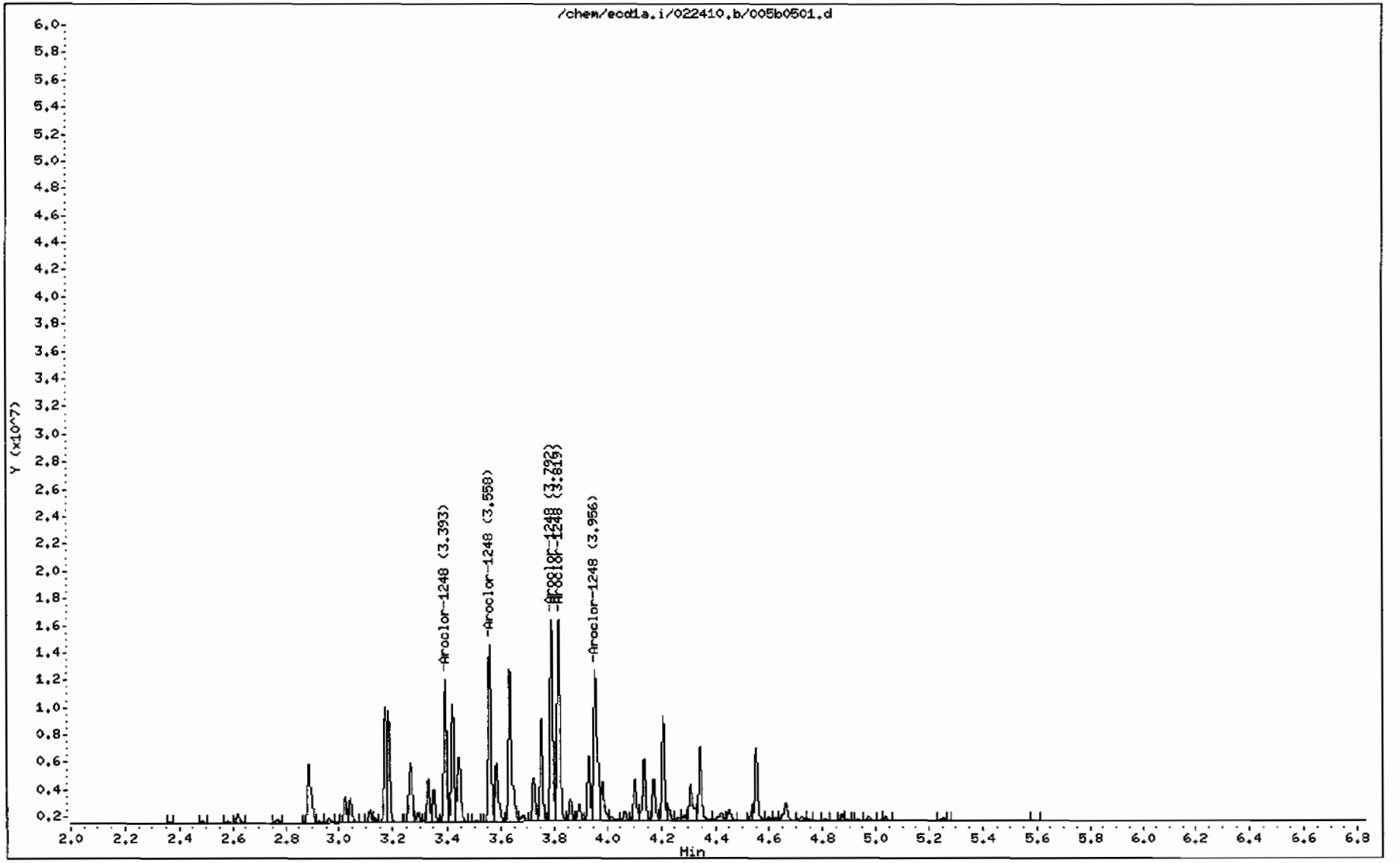

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/006f0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 24-FEB-2010 07:14
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 09:41 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:47 Cal File: 034f3401.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.376	2.376	0.000	6807333	1000.00	1090	80.00- 120.00	100.00
2.663	2.663	0.000	8299680	1000.00	1110	101.92- 141.92	121.92
2.743	2.743	0.000	5497358	1000.00	1120	60.76- 100.76	80.76
2.858	2.858	0.000	2625872	1000.00	1200	18.57- 58.57	38.57
3.245	3.245	0.000	3329983	1000.00	1220	28.92- 68.92	48.92

Average of Peak Amounts = 1.15e+03

Data File: /chem/ecd1a.i/022410.b/006f0601.d

Page 1

Date : 24-FEB-2010 07:14

Client ID: AR123201

Instrument: ecd1a.i

Sample Info: IWAR100104-32

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

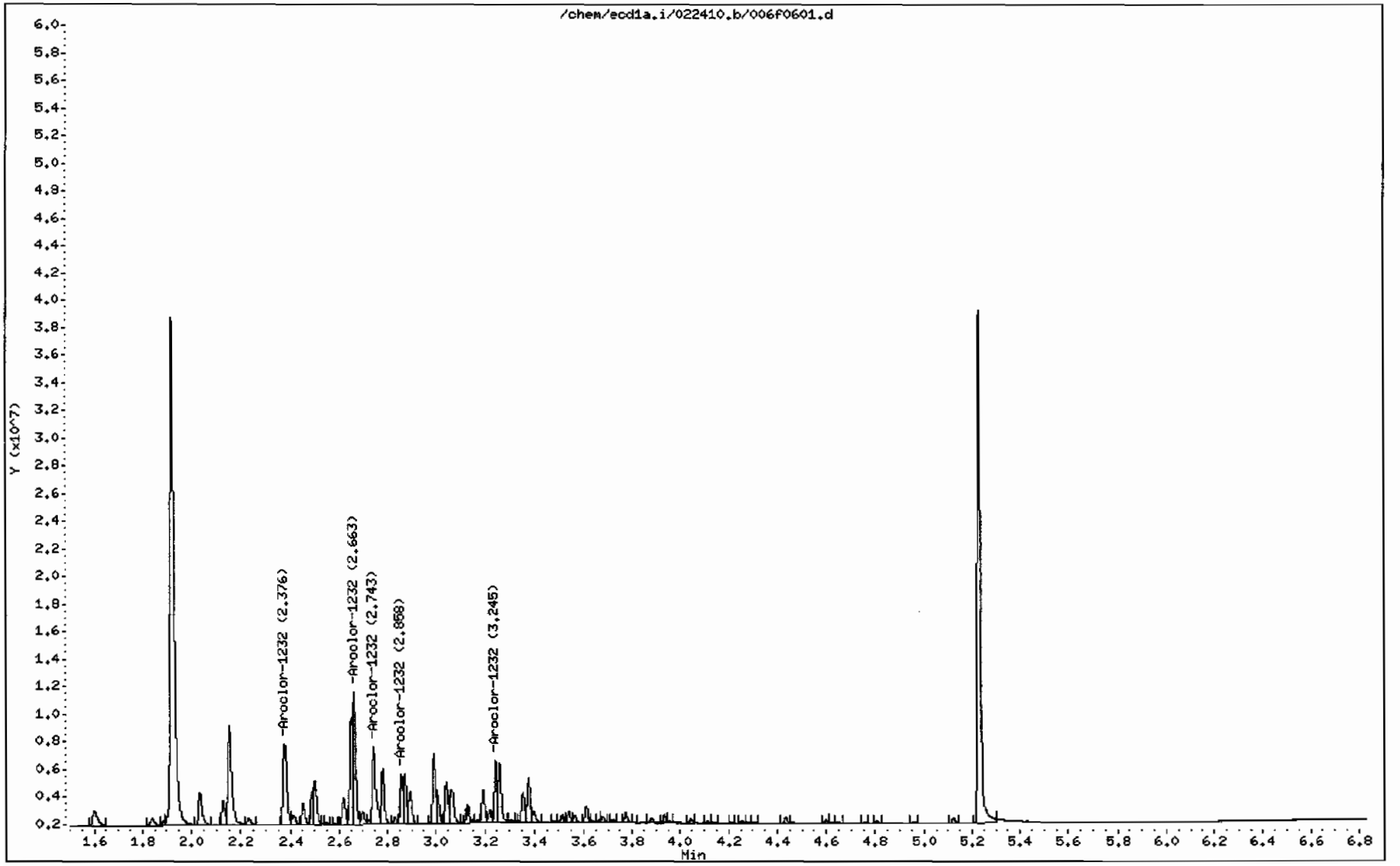

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/006b0601.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 24-FEB-2010 07:14
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 09:40 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:37 Cal File: 033b3301.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.886	2.886	0.000	5197519	1000.00	1060	80.00- 120.00	100.00
3.184	3.184	0.000	5716076	1000.00	1090	89.98- 129.98	109.98
3.267	3.267	0.000	3952071	1000.00	1050	56.04- 96.04	76.04
3.558	3.558	0.000	2908160	1000.00	1080	35.95- 75.95	55.95
3.792	3.792	0.000	2875599	1000.00	1090	35.33- 75.33	55.33

Average of Peak Amounts = 1.07e+03

Data File: /chem/ecd1a.i/022410.b/006b0601.d
Date : 24-FEB-2010 07:14
Client ID: AR123201
Sample Info: IWAR100104-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

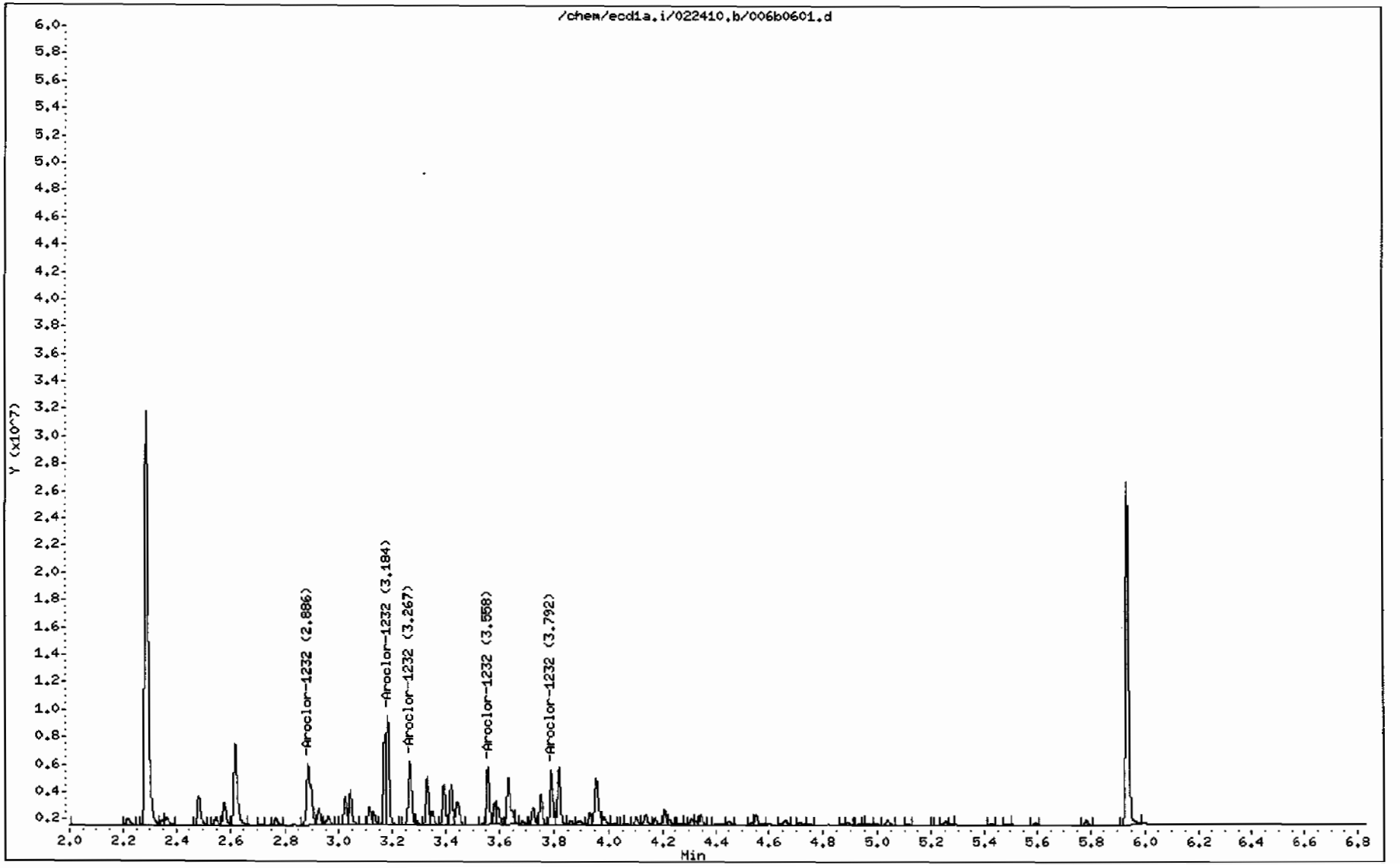

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/007f0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 24-FEB-2010 07:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 09:41 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:47 Cal File: 034f3401.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.035	2.035	0.000	4752555	1000.00	1080	80.00- 120.00	100.00
2.128	2.128	0.000	2650625	1000.00	1090	35.77- 75.77	55.77
2.153	2.153	0.000	11342772	1000.00	1090	218.67- 258.67	238.67

Average of Peak Amounts = 1.09e+03

Data File: /chem/ecd1a.i/022410.b/007f0701.d

Date : 24-FEB-2010 07:25

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

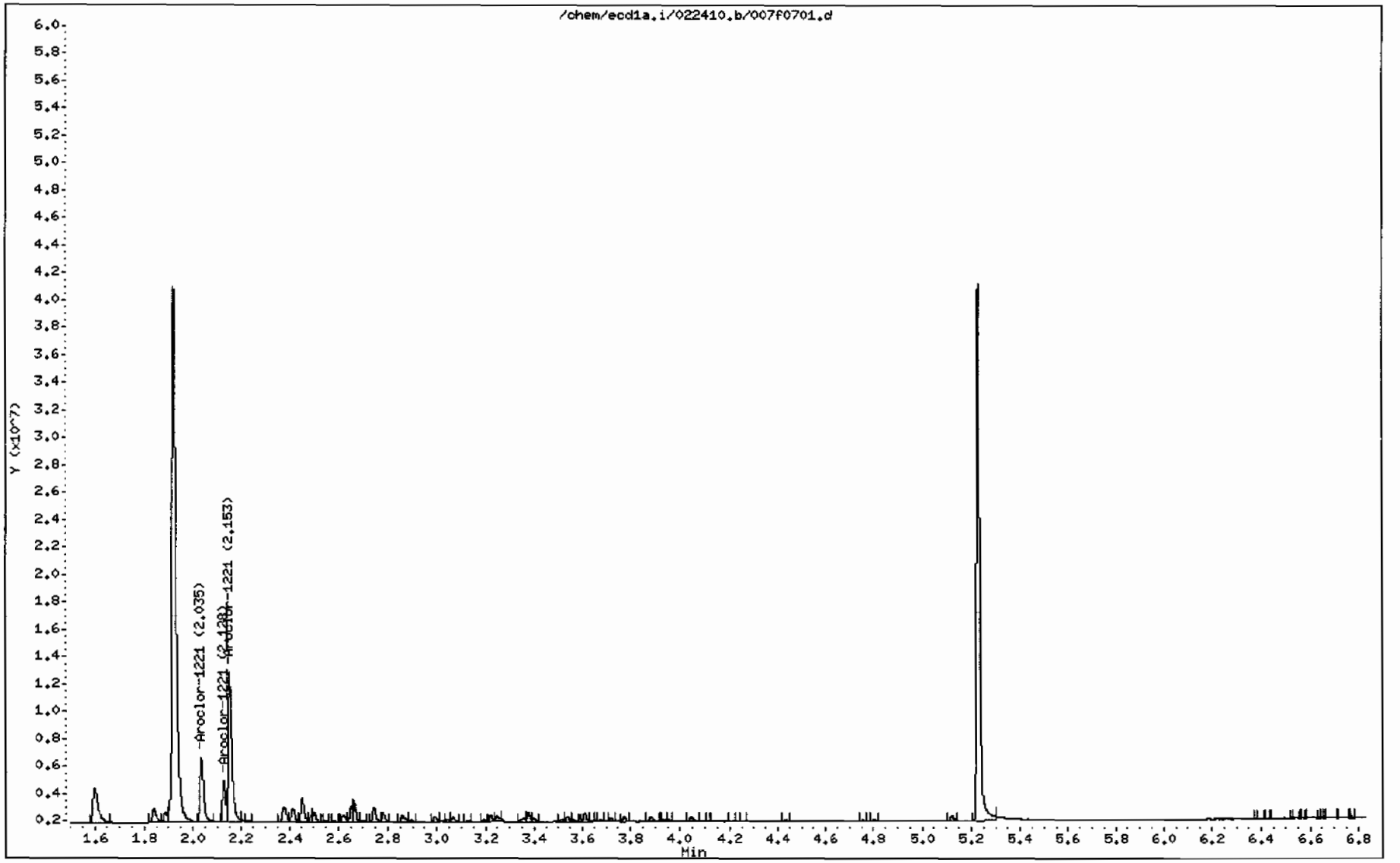

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/007b0701.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 24-FEB-2010 07:25
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 09:40 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:37 Cal File: 033b3301.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.485	2.485	0.000	3440189	1000.00	1000	80.00- 120.00	100.00
2.579	2.579	0.000	2221998	1000.00	1030	44.59- 84.59	64.59
2.620	2.620	0.000	7708272	1000.00	1050	204.07- 244.07	224.07

Average of Peak Amounts = 1.03e+03

Data File: /chem/ecd1a.i/022410.b/007b0701.d

Date : 24-FEB-2010 07:25

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

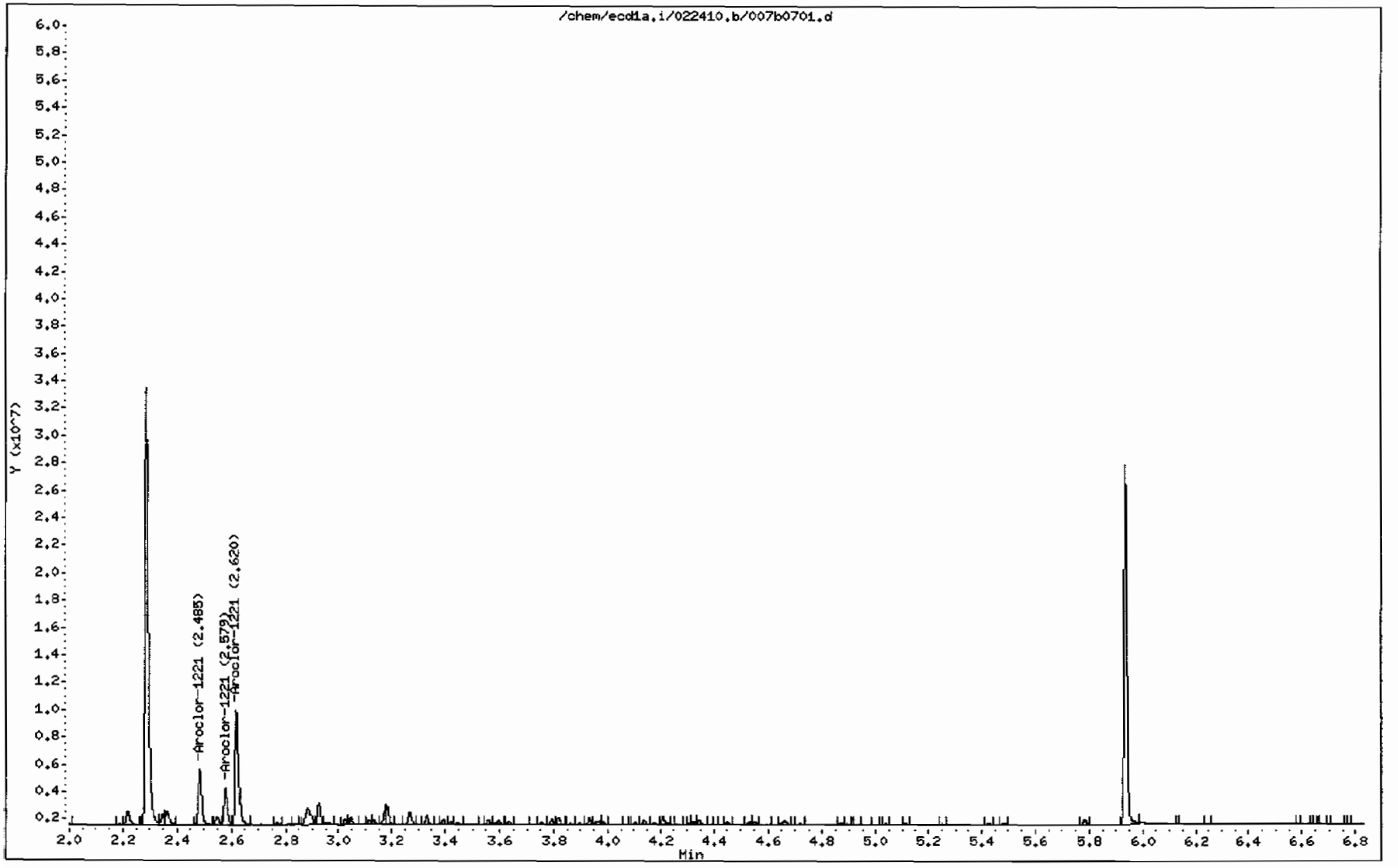

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/025f2501.d
Lab Smp Id: WAR100222-60 03 Client Smp ID: AR166003
Inj Date : 24-FEB-2010 10:51
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 11:31 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.921	1.922	-0.001	41347298	100.000	96.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.236	5.231	0.005	30947729	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.377	2.376	0.001	13945026	1000.00	906	80.00- 120.00	100.00
2.664	2.663	0.001	17307662	1000.00	949	104.11- 144.11	124.11
2.745	2.744	0.001	11282855	1000.00	935	60.91- 100.91	80.91
2.783	2.781	0.002	6782373	1000.00	956	28.64- 68.64	48.64
2.994	2.991	0.003	8688103	1000.00	975	42.30- 82.30	62.30
Average of Peak Amounts =					944		
7 Aroclor-1260					CAS #: 11096-82-5		
3.722	3.718	0.004	18771215	1000.00	1100	80.00- 120.00	100.00
3.885	3.881	0.004	27054979	1000.00	1140	124.13- 164.13	144.13
4.047	4.043	0.004	28746087	1000.00	1150	133.14- 173.14	153.14
4.115	4.111	0.004	16522205	1000.00	1150	68.02- 108.02	88.02
4.258	4.253	0.005	16924301	1000.00	1170	70.16- 110.16	90.16
Average of Peak Amounts =					1.14e+03		

Data File: /chem/ecd1a.i/022410.b/025f2501.d
Date : 24-FEB-2010 10:51
Client ID: AR166003
Sample Info: !WAR100222-60 03

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

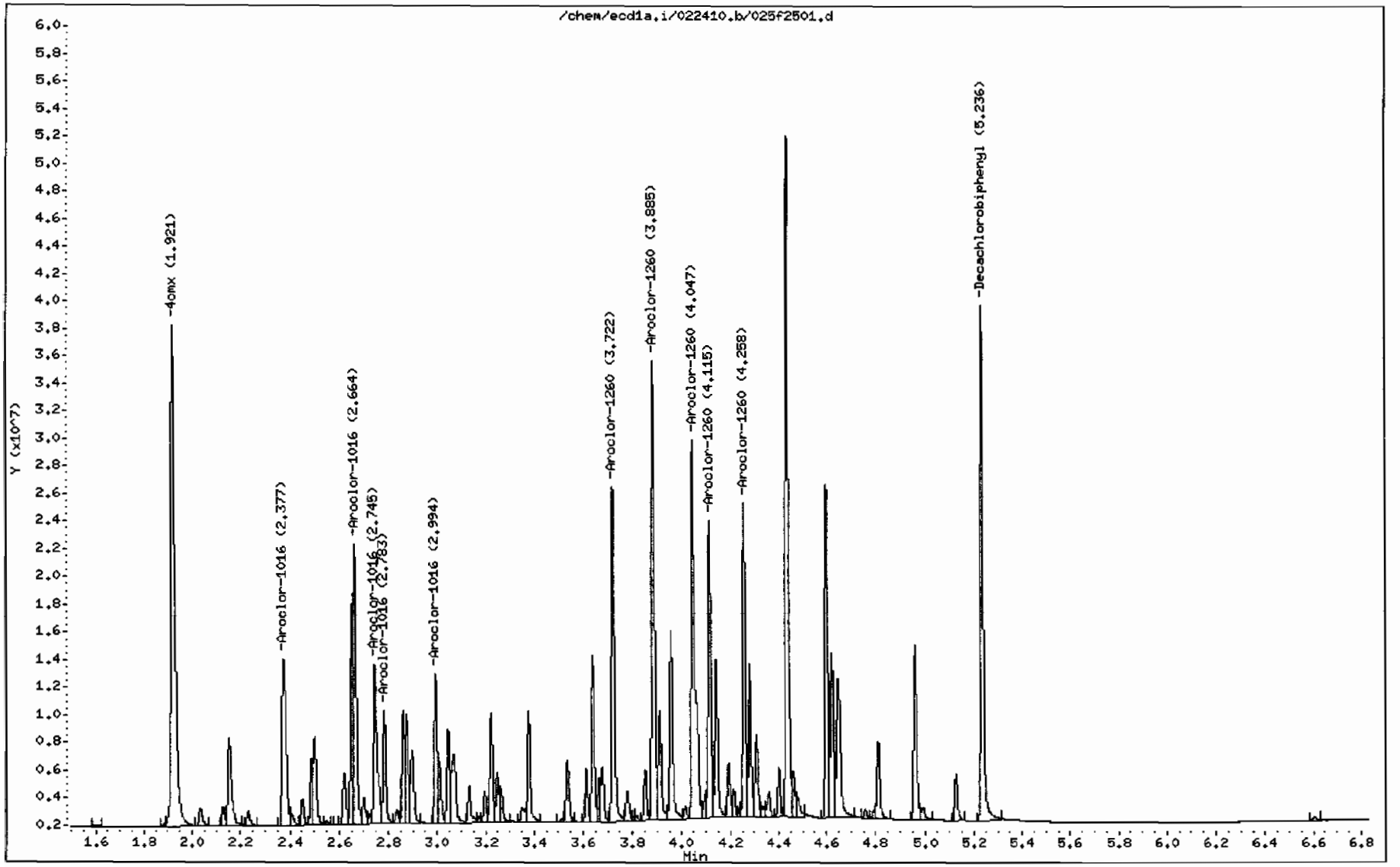

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/025b2501.d
Lab Smp Id: WAR100222-60 03 Client Smp ID: AR166003
Inj Date : 24-FEB-2010 10:51
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 11:35 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.286	2.288	-0.002	27100403	100.000	91.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.938	5.935	0.003	19395574	100.000	91.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.185	3.184	0.001	11741008	1000.00	918	80.00- 120.00	100.00(M)
3.268	3.266	0.002	7791221	1000.00	874	46.36- 86.36	66.36
3.332	3.330	0.002	4831942	1000.00	894	21.15- 61.15	41.15
3.559	3.557	0.002	6281464	1000.00	908	33.50- 73.50	53.50
3.635	3.632	0.003	5846422	1000.00	910	29.79- 69.79	49.79
Average of Peak Amounts =					901		
7 Aroclor-1260					CAS #: 11096-82-5		
4.326	4.324	0.002	12550438	1000.00	950	80.00- 120.00	100.00
4.452	4.449	0.003	15460947	1000.00	993	103.19- 143.19	123.19
4.718	4.715	0.003	11599404	1000.00	979	72.42- 112.42	92.42
4.892	4.888	0.004	12009317	1000.00	984	75.69- 115.69	95.69
5.038	5.036	0.002	26886302	1000.00	1010	194.23- 234.23	214.23
Average of Peak Amounts =					984		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/022410.b/025b2501.d
Date : 24-FEB-2010 10:51
Client ID: AR166003
Sample Info: IWAR100222-60 03

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

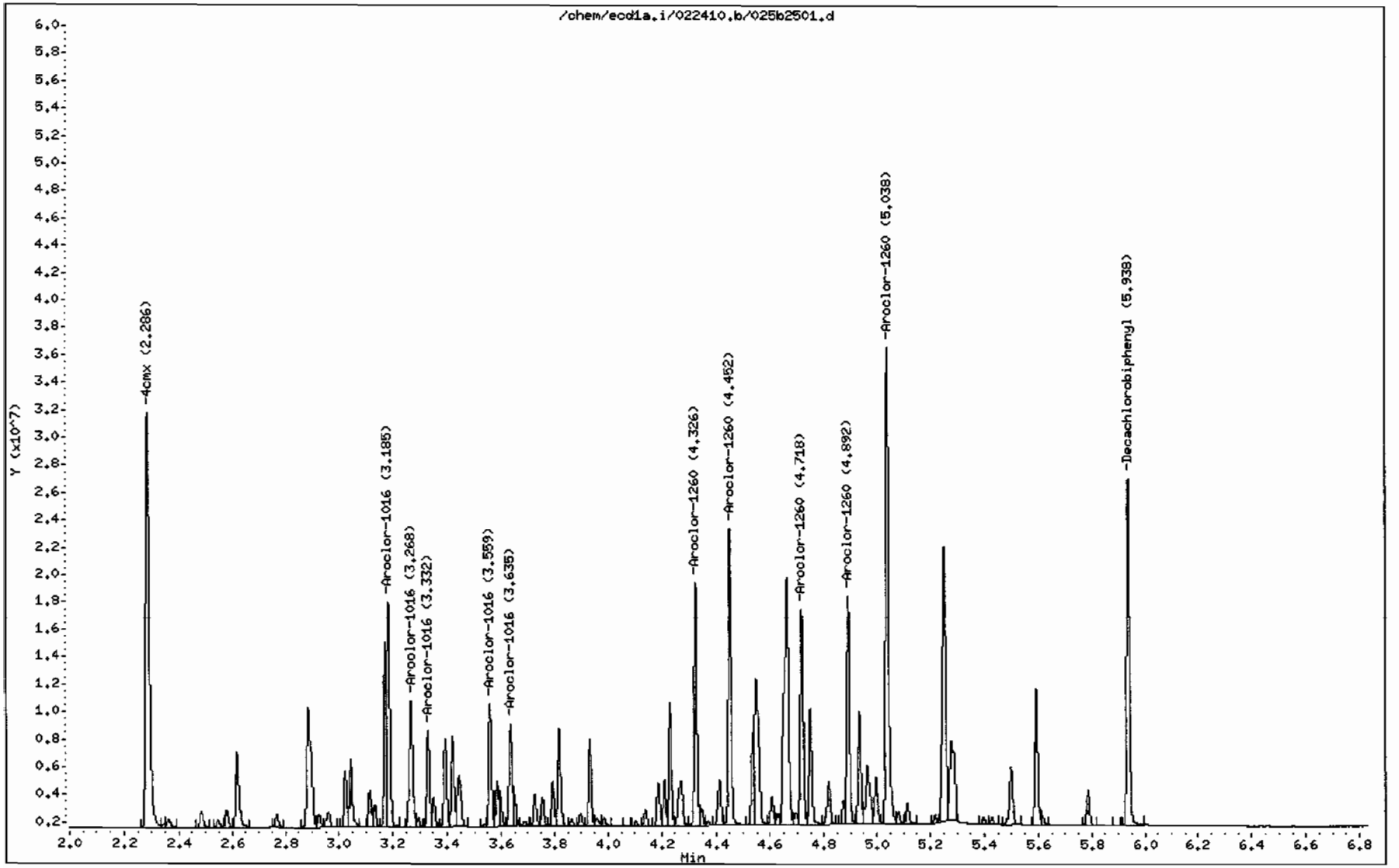

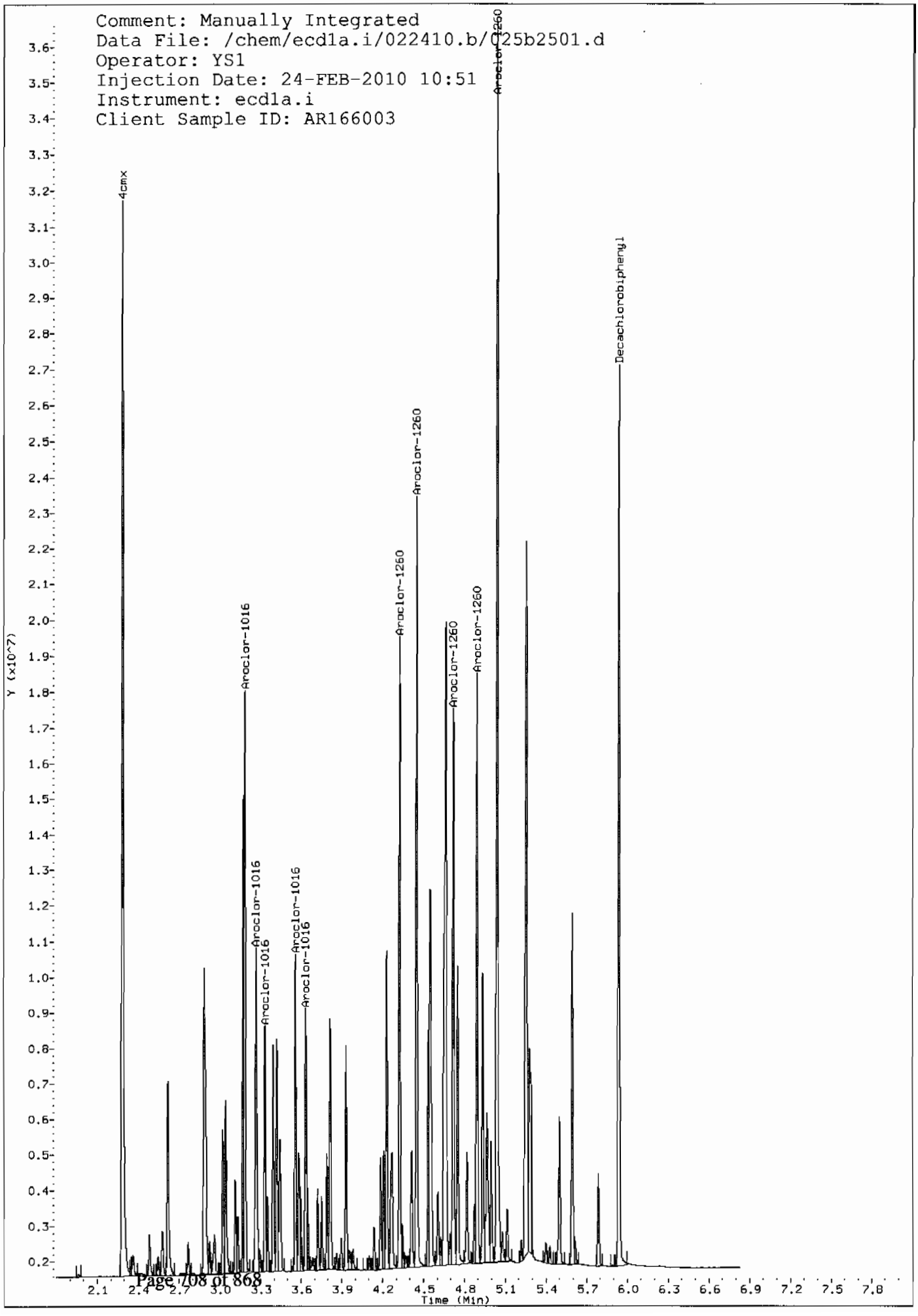
Comment: Manually Integrated
Data File: /chem/ecd1a.i/022410.b/C25b2501.d
Operator: YS1
Injection Date: 24-FEB-2010 10:51
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

Comment: Before manual integration
Data File: /chem/ecd1a.i/022410.b/Orig-025b2501.d
Operator: YS1
Injection Date: 24-FEB-2010 10:51
Instrument: ecd1a.i
Client Sample ID: AR166003

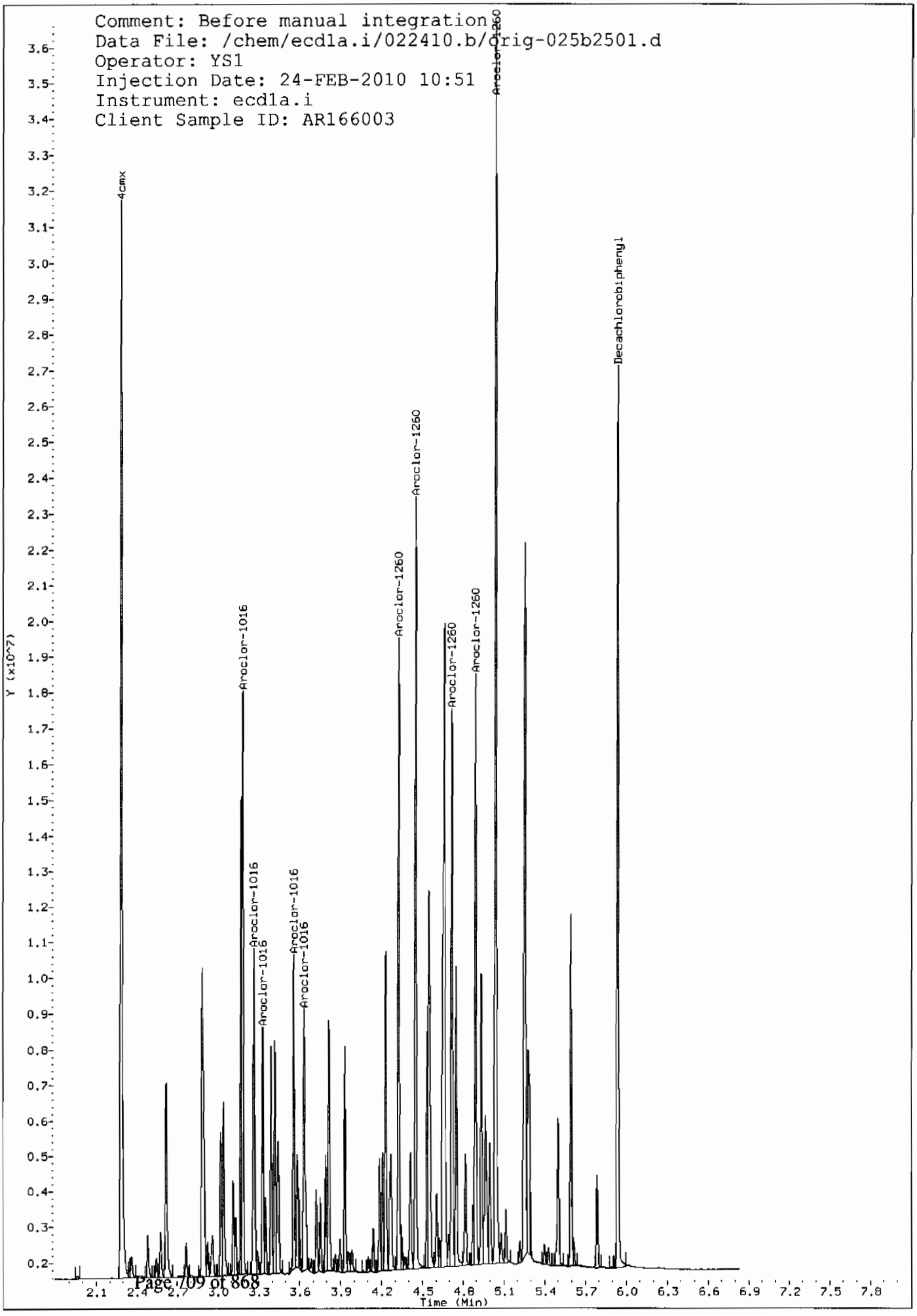

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/037f3701.d
Lab Smp Id: WAR100222-60 04 Client Smp ID: AR166004
Inj Date : 24-FEB-2010 13:14
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 13:47 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 37 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.923	1.922	0.001	41562378	100.000	96.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.231	5.231	0.000	30279340	100.000	98.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.375	2.376	-0.001	14098891	1000.00	916	80.00- 120.00	100.00
2.663	2.663	0.000	17693202	1000.00	970	105.49- 145.49	125.49
2.743	2.744	-0.001	11362236	1000.00	942	60.59- 100.59	80.59
2.780	2.781	-0.001	6819501	1000.00	961	28.37- 68.37	48.37
2.990	2.991	-0.001	8610537	1000.00	966	41.07- 81.07	61.07
Average of Peak Amounts =					951		
7 Aroclor-1260					CAS #: 11096-82-5		
3.717	3.718	-0.001	17340289	1000.00	1020	80.00- 120.00	100.00
3.879	3.881	-0.002	25076356	1000.00	1060	124.61- 164.61	144.61
4.042	4.043	-0.001	26785373	1000.00	1070	134.47- 174.47	154.47
4.110	4.111	-0.001	15264596	1000.00	1060	68.03- 108.03	88.03
4.253	4.253	0.000	15675993	1000.00	1090	70.40- 110.40	90.40
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecd1a.i/022410.b/037f3701.d
Date : 24-FEB-2010 13:14
Client ID: AR166004
Sample Info: IWAR100222-60 04

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

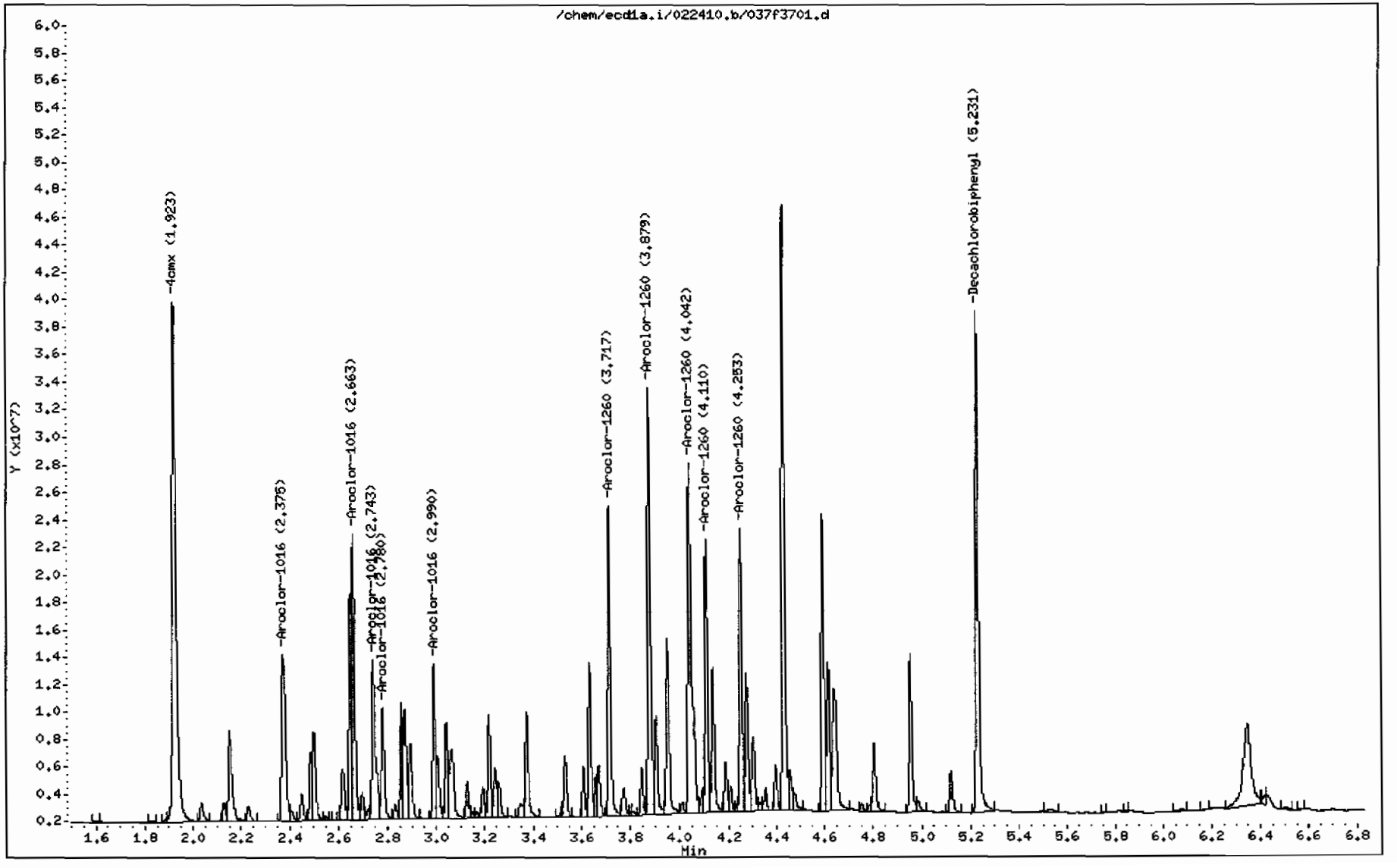

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/037b3701.d
Lab Smp Id: WAR100222-60 04 Client Smp ID: AR166004
Inj Date : 24-FEB-2010 13:14
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 13:47 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 37 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.288	2.288	0.000	27066959	100.000	91.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.934	5.935	-0.001	18462978	100.000	87.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.184	3.184	0.000	11710642	1000.00	916	80.00- 120.00	100.00(M)
3.266	3.266	0.000	7731938	1000.00	867	46.02- 86.02	66.02
3.330	3.330	0.000	4787140	1000.00	886	20.88- 60.88	40.88
3.557	3.557	0.000	5980682	1000.00	865	31.07- 71.07	51.07
3.633	3.632	0.001	5536976	1000.00	862	27.28- 67.28	47.28
Average of Peak Amounts =					879		
7 Aroclor-1260					CAS #: 11096-82-5		
4.324	4.324	0.000	11417358	1000.00	864	80.00- 120.00	100.00
4.449	4.449	0.000	14017795	1000.00	900	102.78- 142.78	122.78
4.714	4.715	-0.001	10357784	1000.00	874	70.72- 110.72	90.72
4.889	4.888	0.001	10693470	1000.00	876	73.66- 113.66	93.66
5.035	5.036	-0.001	24125068	1000.00	909	191.30- 231.30	211.30
Average of Peak Amounts =					885		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdia.i/022410.b/037b3701.d
Date : 24-FEB-2010 13:14
Client ID: AR166004
Sample Info: IWAR100222-60 04
Column phase: CLP2

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

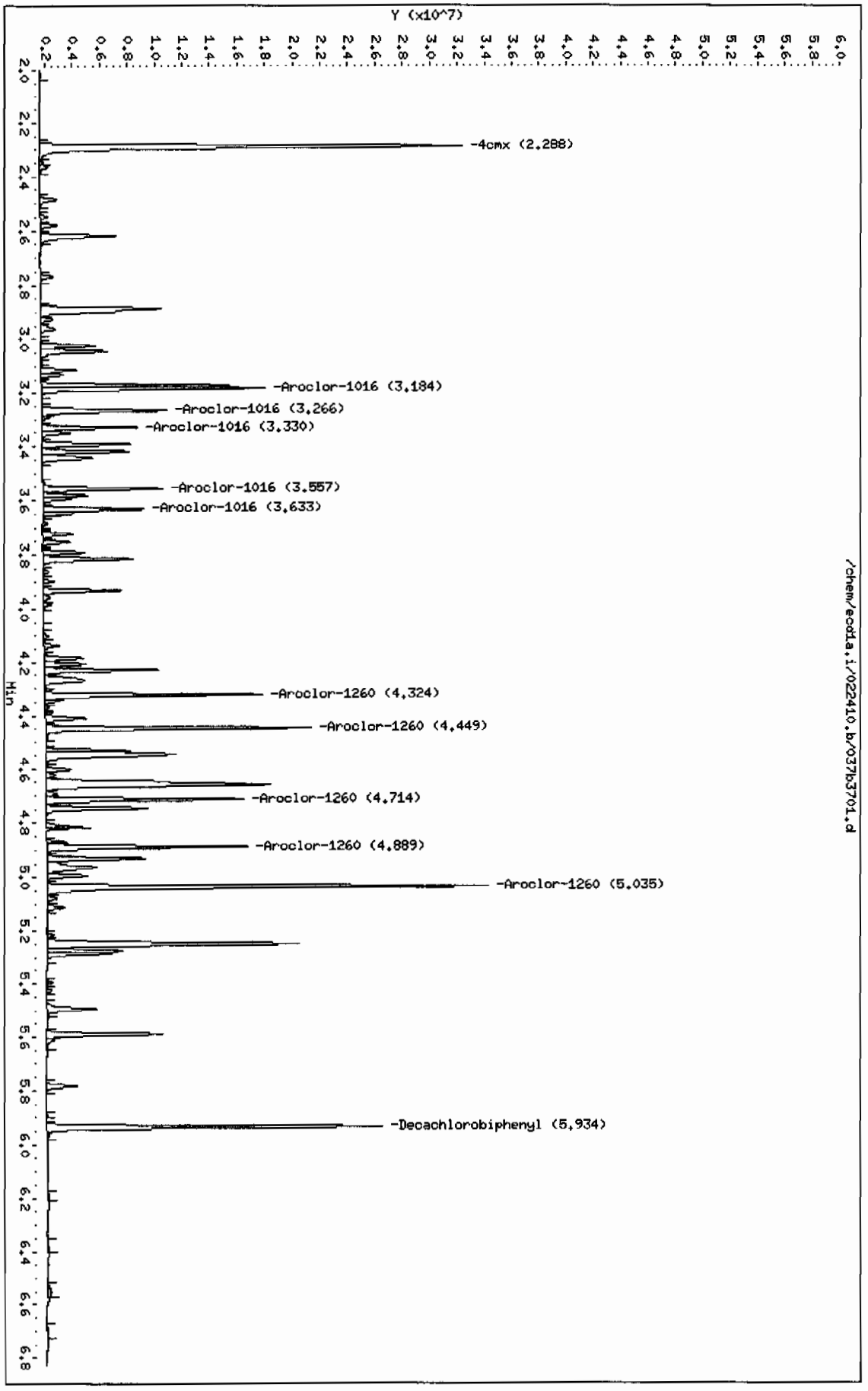

Page 1

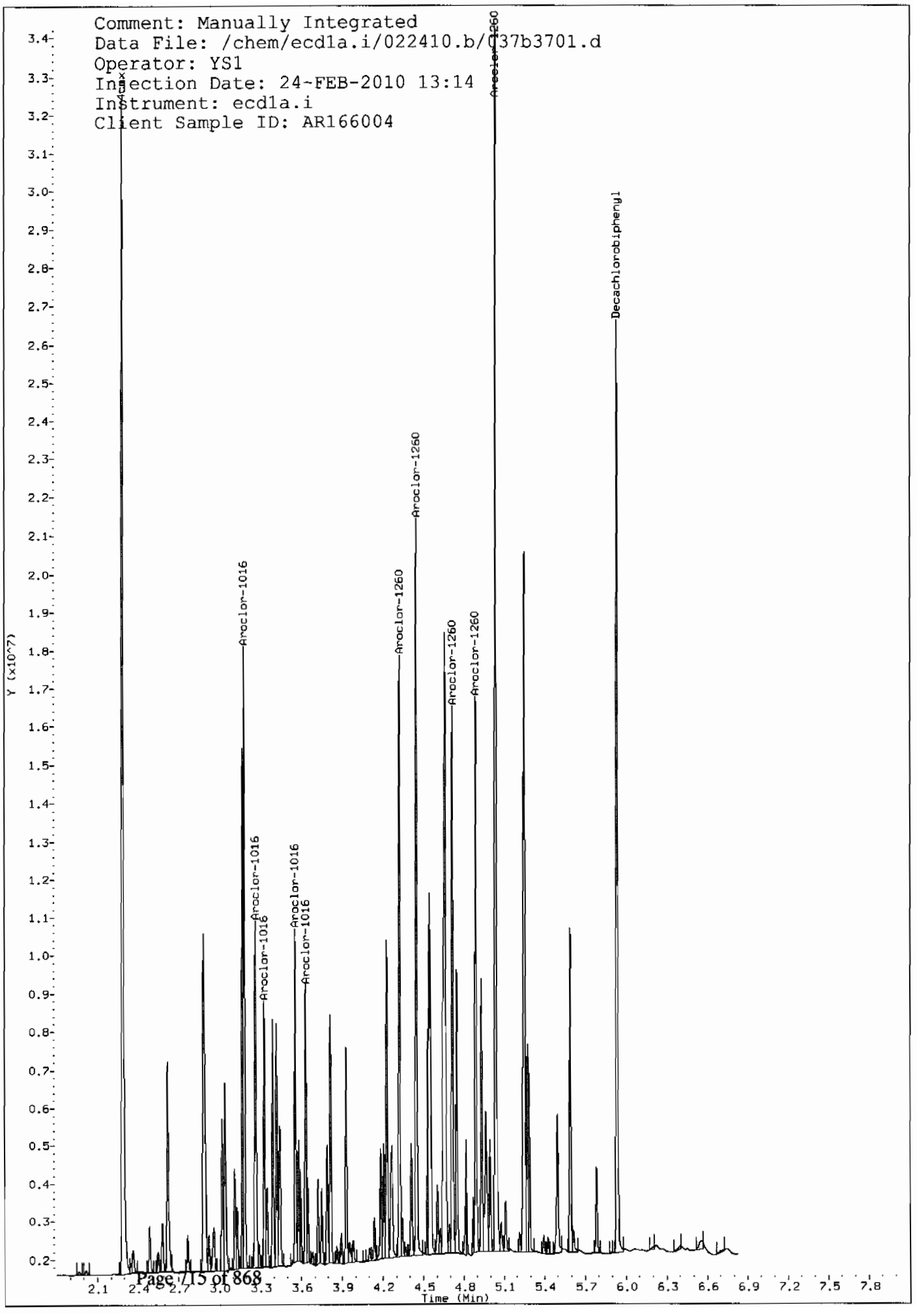
Comment: Manually Integrated
Data File: /chem/ecd1a.i/022410.b/037b3701.d
Operator: YS1
Injection Date: 24-FEB-2010 13:14
Instrument: ecd1a.i
Client Sample ID: AR166004
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

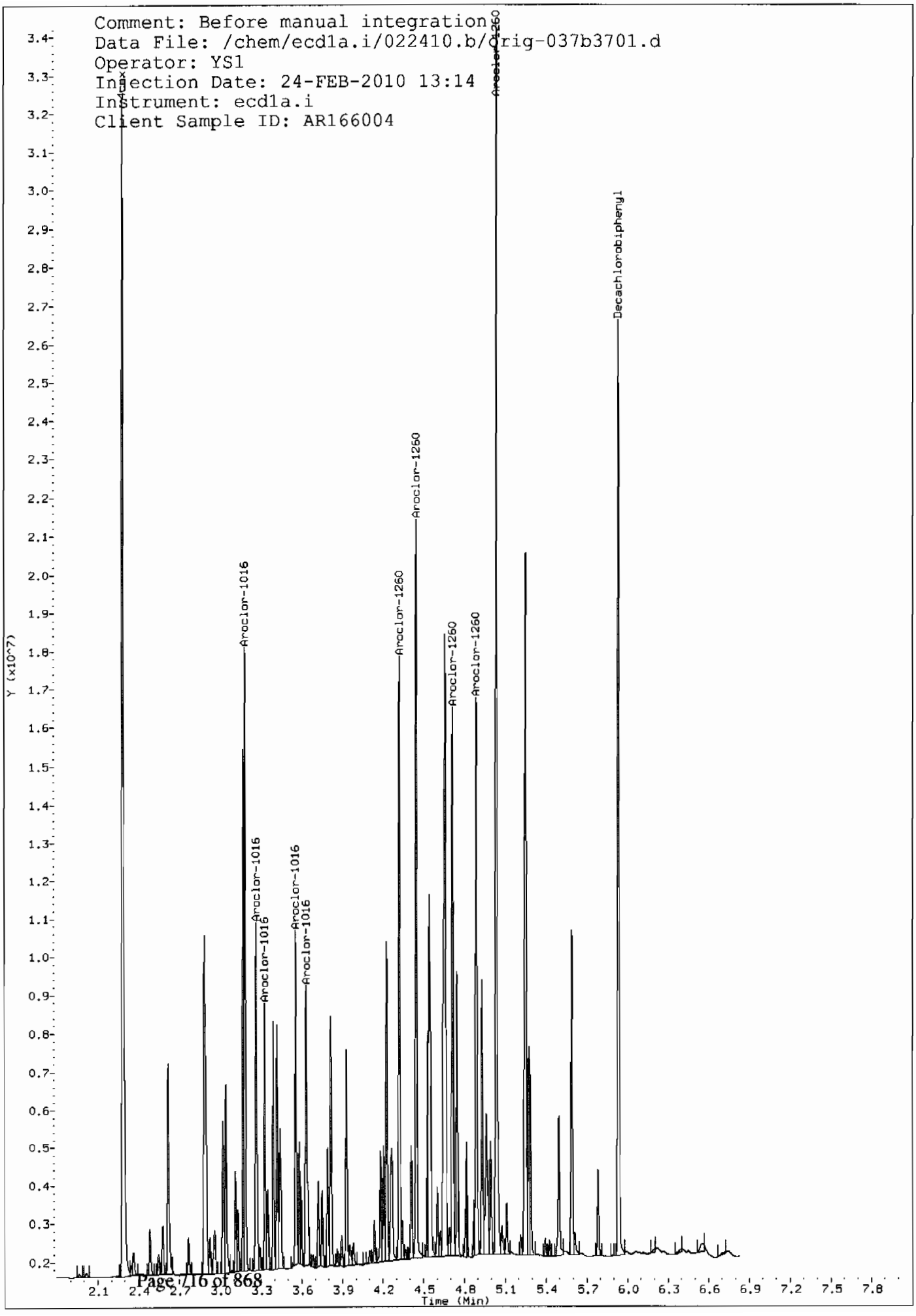
Comment: Before manual integration
Data File: /chem/ecd1a.i/022410.b/Orig-037b3701.d
Operator: YS1
Injection Date: 24-FEB-2010 13:14
Instrument: ecd1a.i
Client Sample ID: AR166004
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/045f4501.d
Lab Smp Id: WAR100222-60 05 Client Smp ID: AR166005
Inj Date : 24-FEB-2010 14:51
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 05
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 25-Feb-2010 06:09 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 45 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.922	1.922	0.000	40475433	100.000	94.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.230	5.231	-0.001	30325807	100.000	98.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.375	2.376	-0.001	14129874	1000.00	918	80.00- 120.00	100.00
2.662	2.663	-0.001	16861583	1000.00	924	99.33- 139.33	119.33
2.742	2.744	-0.002	11056455	1000.00	916	58.25- 98.25	78.25
2.780	2.781	-0.001	6653749	1000.00	938	27.09- 67.09	47.09
2.990	2.991	-0.001	8474332	1000.00	951	39.97- 79.97	59.97
Average of Peak Amounts =					930		
7 Aroclor-1260					CAS #: 11096-82-5		
3.717	3.718	-0.001	17024349	1000.00	997	80.00- 120.00	100.00
3.879	3.881	-0.002	24526980	1000.00	1040	124.07- 164.07	144.07
4.041	4.043	-0.002	25989653	1000.00	1040	132.66- 172.66	152.66
4.110	4.111	-0.001	14958746	1000.00	1040	67.87- 107.87	87.87
4.252	4.253	-0.001	15487664	1000.00	1070	70.97- 110.97	90.97
Average of Peak Amounts =					1.04e+03		

Data File: /chem/ecd1a.i/022410.b/045f4501.d
Date : 24-FEB-2010 14:51
Client ID: AR166005
Sample Info: !WAR100222-60 05

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

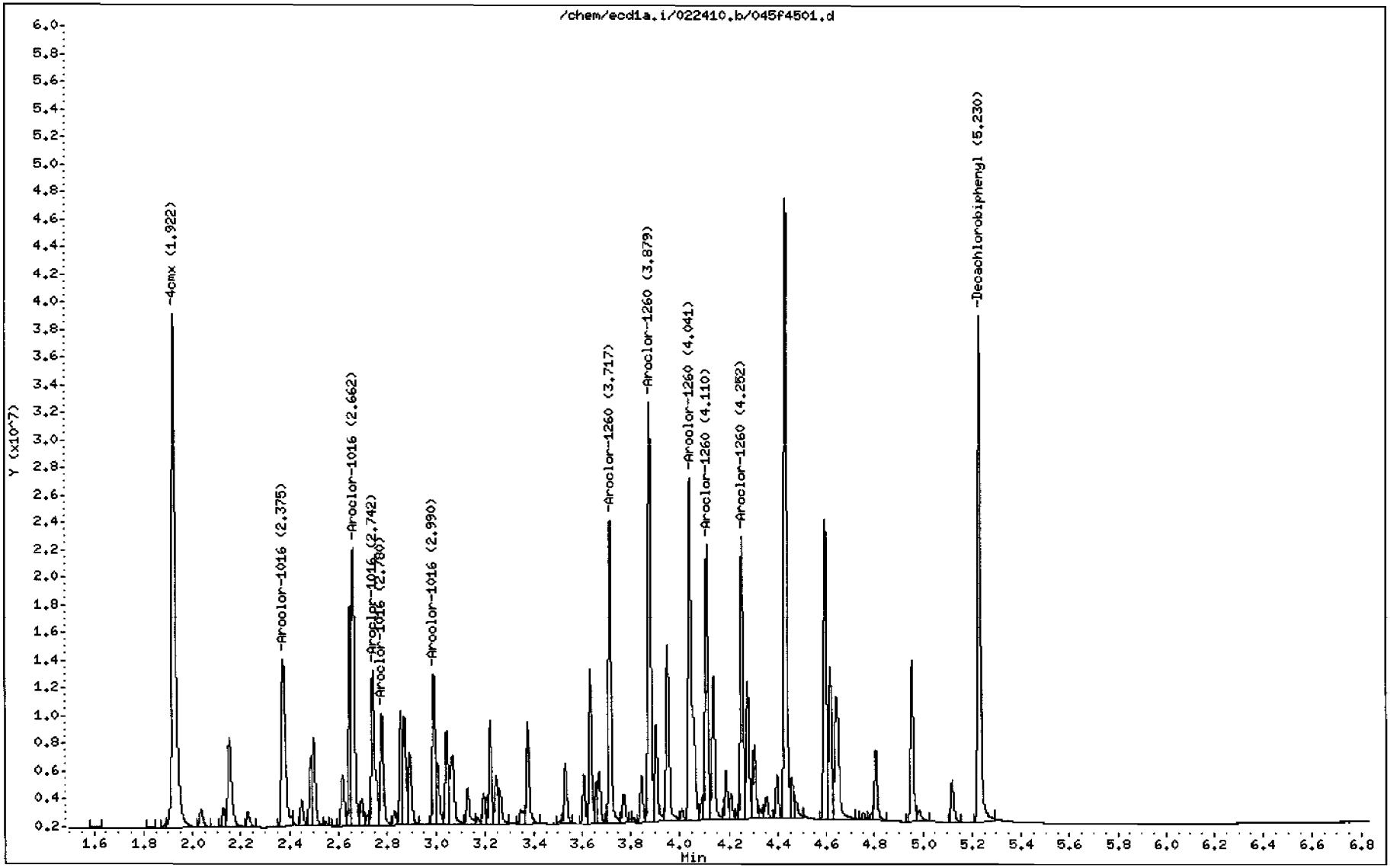

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/045b4501.d
Lab Smp Id: WAR100222-60 05 Client Smp ID: AR166005
Inj Date : 24-FEB-2010 14:51
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 05
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 25-Feb-2010 06:10 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 45 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.287	2.288	-0.001	26613848	100.000	89.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.934	5.935	-0.001	19230161	100.000	90.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.183	3.184	-0.001	11421692	1000.00	893	80.00- 120.00	100.00(M)
3.266	3.266	0.000	7692757	1000.00	863	45.24- 85.24	67.35
3.329	3.330	-0.001	4743304	1000.00	877	20.45- 60.45	41.53
3.557	3.557	0.000	6193519	1000.00	896	30.19- 70.19	54.23
3.632	3.632	0.000	5715125	1000.00	889	36.05- 76.05	60.48
Average of Peak Amounts =					884		
7 Aroclor-1260					CAS #: 11096-82-5		
4.322	4.324	-0.002	11557265	1000.00	875	80.00- 120.00	100.00
4.447	4.449	-0.002	14291651	1000.00	918	102.94- 142.94	123.66
4.714	4.715	-0.001	10709568	1000.00	904	71.18- 111.18	92.67
4.888	4.888	0.000	11071388	1000.00	907	73.56- 113.56	95.80
5.035	5.036	-0.001	24692537	1000.00	931	188.42- 228.42	213.65
Average of Peak Amounts =					907		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/022410.b/045b4501.d

Date : 24-FEB-2010 14:51

Client ID: AR166005

Sample Info: IWAR100222-60 05

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

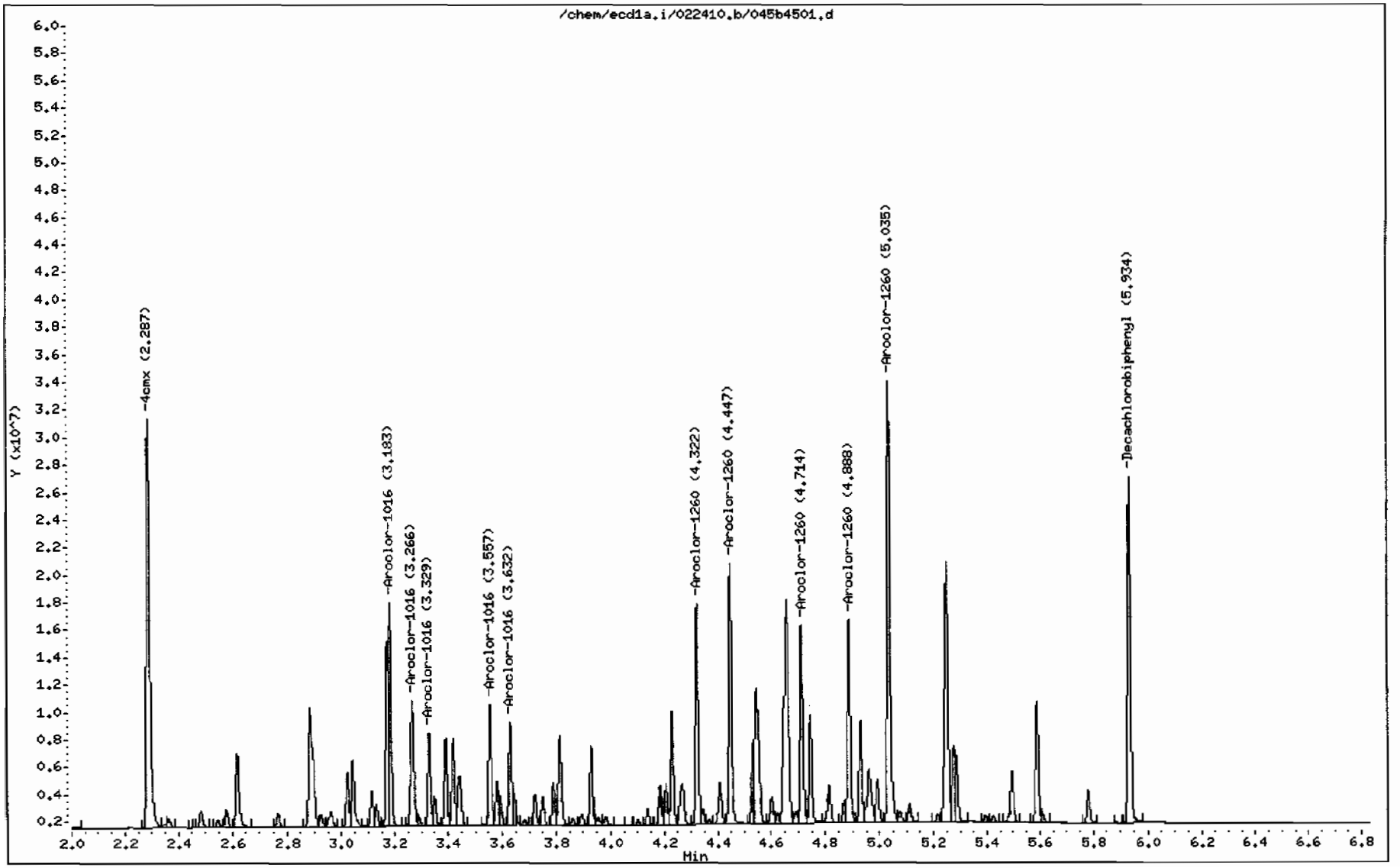

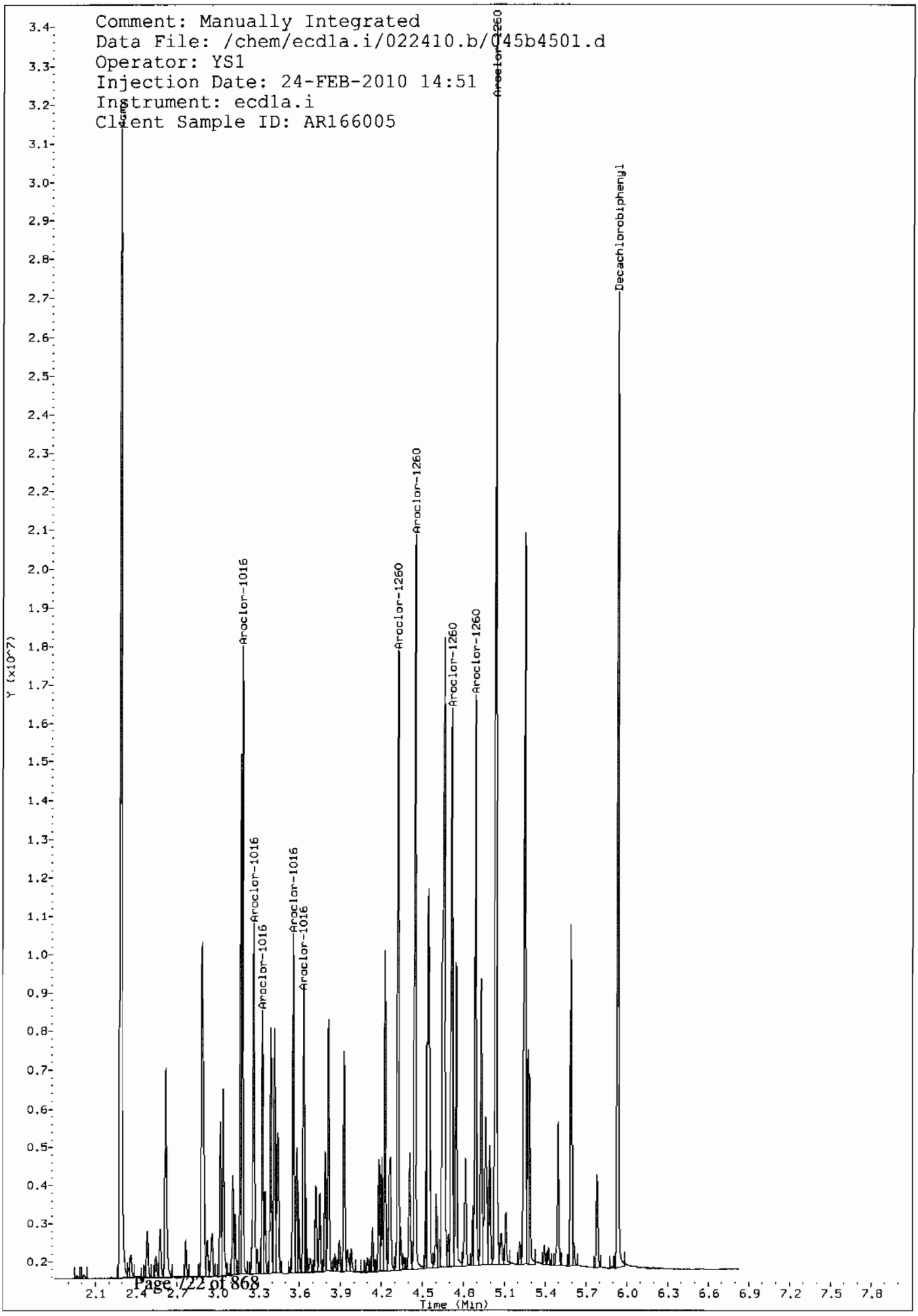
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Data File: /chem/ecd1a.i/022410.b/045b4501.d
Operator: YS1
Injection Date: 24-FEB-2010 14:51
Instrument: ecd1a.i
Client Sample ID: AR166005
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
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Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

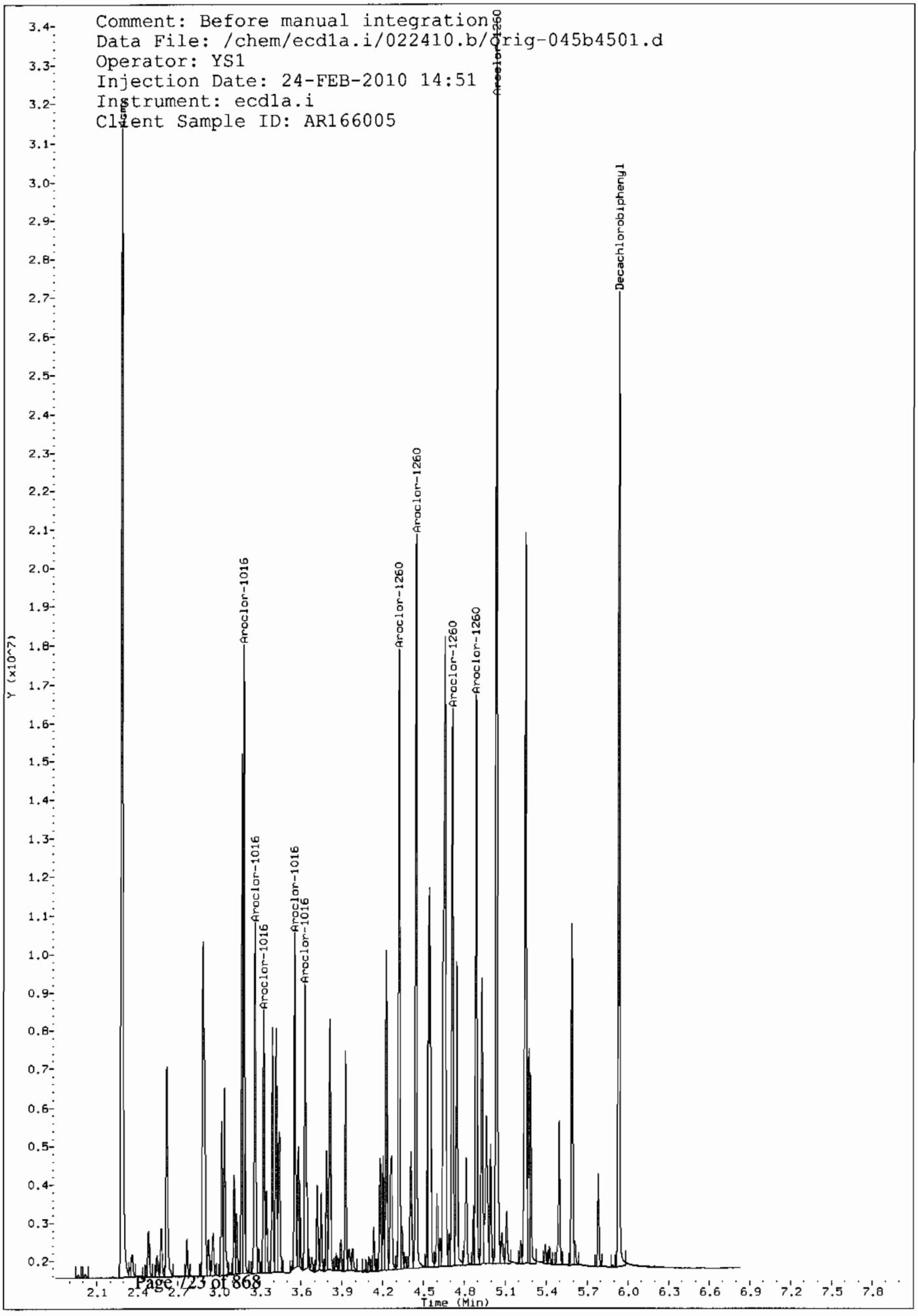
Comment: Before manual integration
Data File: /chem/ecd1a.i/022410.b/Orig-045b4501.d
Operator: YS1
Injection Date: 24-FEB-2010 14:51
Instrument: ecd1a.i
Client Sample ID: AR166005
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1864

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.92 DCB: 5.23

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/22/10	0559	1.92	5.23
02	ZZZZZ	ZZZZZ	02/22/10	0610	1.92	5.23
03	ZZZZZ	ZZZZZ	02/22/10	0620	1.92	5.23
04	DDTANALOGSTD	WAR091219-DD	02/22/10	0631		
05	AR123201	WAR100104-32	02/22/10	0641		
06	AR122101	WAR100104-21	02/22/10	0652		
07	AR126201	WAR100104-62	02/22/10	0703		
08	AR166001	WAR100222-01	02/22/10	0713	1.92	5.23
09	AR166002	WAR100222-02	02/22/10	0724	1.92	5.23
10	AR166003	WAR100222-03	02/22/10	0734	1.92	5.23
11	AR166004	WAR100222-04	02/22/10	0745	1.92	5.23
12	AR166005	IAR100104-01	02/22/10	0755	1.92	5.23
13	AR166001	WAR100203-60	02/22/10	0806	1.92	5.23
14	AR125401	WAR100222-05	02/22/10	0816		
15	AR125402	WAR100222-06	02/22/10	0827		
16	AR125403	WAR100222-07	02/22/10	0837		
17	AR125404	WAR100222-08	02/22/10	0848		
18	AR125405	IAR100219-02	02/22/10	0859		
19	AR125401	WAR100219-54	02/22/10	0909		
20	AR124201	WAR100222-09	02/22/10	0920		
21	AR124202	WAR100222-10	02/22/10	0930		
22	AR124203	WAR100222-11	02/22/10	0941		
23	AR124204	WAR100222-12	02/22/10	0951		
24	AR124205	IAR100219-01	02/22/10	1002		
25	AR124201	WAR100219-42	02/22/10	1012		
26	AR124801	WAR100222-13	02/22/10	1023		
27	AR124802	WAR100222-14	02/22/10	1033		
28	AR124803	WAR100222-15	02/22/10	1044		
29	AR124805	IAR100211-01	02/22/10	1054		
30	AR124804	WAR100222-16	02/22/10	1105		
31	AR124801	WAR091217-48	02/22/10	1116		
32	AR126801	WAR100222-17	02/22/10	1126		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1864

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.92 DCB: 5.23

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR126802	WAR100222-18	02/22/10	1137		
02	AR126803	WAR100222-19	02/22/10	1147		
03	AR126804	WAR100222-20	02/22/10	1158		
04	AR126805	IAR100104-05	02/22/10	1208		
05	AR126801	WAR100107-68	02/22/10	1219		
06	PIBLK02	WAR100219-99	02/22/10	1229	1.92	5.23
07	ZZZZZ	ZZZZZ	02/22/10	1240	1.92	5.23
08	ZZZZZ	ZZZZZ	02/22/10	1250	1.93	5.23
09	ZZZZZ	ZZZZZ	02/22/10	1301	1.92	5.23
10	ZZZZZ	ZZZZZ	02/22/10	1314	1.92	5.23
11	ZZZZZ	ZZZZZ	02/22/10	1326	1.92	5.23
12	ZZZZZ	ZZZZZ	02/22/10	1339	1.92	5.23
13	ZZZZZ	ZZZZZ	02/22/10	1351	1.92	5.23
14	ZZZZZ	ZZZZZ	02/22/10	1404	1.92	5.23
15	ZZZZZ	ZZZZZ	02/22/10	1417	1.92	5.23
16	ZZZZZ	ZZZZZ	02/22/10	1430	1.92	5.23
17	AR166002	WAR100203-60	02/22/10	1442	1.92	5.23
18	PIBLK03	WAR100219-99	02/22/10	1453	1.92	5.23
19	ZZZZZ	ZZZZZ	02/22/10	1503	1.92	5.23
20	ZZZZZ	ZZZZZ	02/22/10	1516	1.92	5.23
21	ZZZZZ	ZZZZZ	02/22/10	1528	1.92	5.23
22	ZZZZZ	ZZZZZ	02/22/10	1541	1.92	5.23
23	ZZZZZ	ZZZZZ	02/22/10	1554	1.92	5.23
24	ZZZZZ	ZZZZZ	02/22/10	1606	1.92	5.23
25	ZZZZZ	ZZZZZ	02/22/10	1619	1.92	5.23
26	ZZZZZ	ZZZZZ	02/22/10	1632	1.92	5.23
27	ZZZZZ	ZZZZZ	02/22/10	1644	1.92	5.23
28	ZZZZZ	ZZZZZ	02/22/10	1657	1.92	5.23
29	AR166003	WAR100203-60	02/22/10	1710	1.92	5.23
30	PIBLK04	WAR100219-99	02/22/10	1722	1.92	5.23
31	ZZZZZ	ZZZZZ	02/22/10	1735	1.92	5.23
32	ZZZZZ	ZZZZZ	02/22/10	1748	1.92	5.23

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1864

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/22/10	0559	2.29	5.93
02	ZZZZZ	ZZZZZ	02/22/10	0610	2.29	5.94
03	ZZZZZ	ZZZZZ	02/22/10	0620	2.29	5.94
04	DDTANALOGSTD	WAR091219-DD	02/22/10	0631		
05	AR123201	WAR100104-32	02/22/10	0641		
06	AR122101	WAR100104-21	02/22/10	0652		
07	AR126201	WAR100104-62	02/22/10	0703		
08	AR166001	WAR100222-01	02/22/10	0713	2.29	5.94
09	AR166002	WAR100222-02	02/22/10	0724	2.29	5.94
10	AR166003	WAR100222-03	02/22/10	0734	2.29	5.94
11	AR166004	WAR100222-04	02/22/10	0745	2.29	5.94
12	AR166005	IAR100104-01	02/22/10	0755	2.29	5.94
13	AR166001	WAR100203-60	02/22/10	0806	2.29	5.94
14	AR125401	WAR100222-05	02/22/10	0816		
15	AR125402	WAR100222-06	02/22/10	0827		
16	AR125403	WAR100222-07	02/22/10	0837		
17	AR125404	WAR100222-08	02/22/10	0848		
18	AR125405	IAR100219-02	02/22/10	0859		
19	AR125401	WAR100219-54	02/22/10	0909		
20	AR124201	WAR100222-09	02/22/10	0920		
21	AR124202	WAR100222-10	02/22/10	0930		
22	AR124203	WAR100222-11	02/22/10	0941		
23	AR124204	WAR100222-12	02/22/10	0951		
24	AR124205	IAR100219-01	02/22/10	1002		
25	AR124201	WAR100219-42	02/22/10	1012		
26	AR124801	WAR100222-13	02/22/10	1023		
27	AR124802	WAR100222-14	02/22/10	1033		
28	AR124803	WAR100222-15	02/22/10	1044		
29	AR124805	IAR100211-01	02/22/10	1054		
30	AR124804	WAR100222-16	02/22/10	1105		
31	AR124801	WAR091217-48	02/22/10	1116		
32	AR126801	WAR100222-17	02/22/10	1126		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1864

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR126802	WAR100222-18	02/22/10	1137		
02	AR126803	WAR100222-19	02/22/10	1147		
03	AR126804	WAR100222-20	02/22/10	1158		
04	AR126805	IAR100104-05	02/22/10	1208		
05	AR126801	WAR100107-68	02/22/10	1219		
06	PIBLK02	WAR100219-99	02/22/10	1229	2.29	5.94
07	ZZZZZ	ZZZZZ	02/22/10	1240	2.29	5.94
08	ZZZZZ	ZZZZZ	02/22/10	1250	2.29	5.94
09	ZZZZZ	ZZZZZ	02/22/10	1301	2.29	5.94
10	ZZZZZ	ZZZZZ	02/22/10	1314	2.29	5.94
11	ZZZZZ	ZZZZZ	02/22/10	1326	2.29	5.94
12	ZZZZZ	ZZZZZ	02/22/10	1339	2.29	5.93
13	ZZZZZ	ZZZZZ	02/22/10	1351	2.29	5.93
14	ZZZZZ	ZZZZZ	02/22/10	1404	2.29	5.94
15	ZZZZZ	ZZZZZ	02/22/10	1417	2.29	5.93
16	ZZZZZ	ZZZZZ	02/22/10	1430	2.29	5.93
17	AR166002	WAR100203-60	02/22/10	1442	2.29	5.94
18	PIBLK03	WAR100219-99	02/22/10	1453	2.29	5.94
19	ZZZZZ	ZZZZZ	02/22/10	1503	2.29	5.94
20	ZZZZZ	ZZZZZ	02/22/10	1516	2.29	5.93
21	ZZZZZ	ZZZZZ	02/22/10	1528	2.29	5.93
22	ZZZZZ	ZZZZZ	02/22/10	1541	2.29	5.94
23	ZZZZZ	ZZZZZ	02/22/10	1554	2.29	5.93
24	ZZZZZ	ZZZZZ	02/22/10	1606	2.29	5.93
25	ZZZZZ	ZZZZZ	02/22/10	1619	2.29	5.94
26	ZZZZZ	ZZZZZ	02/22/10	1632	2.29	5.93
27	ZZZZZ	ZZZZZ	02/22/10	1644	2.29	5.93
28	ZZZZZ	ZZZZZ	02/22/10	1657	2.29	5.93
29	AR166003	WAR100203-60	02/22/10	1710	2.29	5.93
30	PIBLK04	WAR100219-99	02/22/10	1722	2.29	5.93
31	ZZZZZ	ZZZZZ	02/22/10	1735	2.29	5.93
32	ZZZZZ	ZZZZZ	02/22/10	1748	2.29	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1864

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.92 DCB: 5.23

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/24/10	0622	1.92	5.23
02	AR166001	WAR100222-60	02/24/10	0632	1.92	5.23
03	AR125401	WAR100219-54	02/24/10	0643		
04	AR124201	WAR100219-42	02/24/10	0653		
05	AR124801	WAR100223-48	02/24/10	0704		
06	AR123201	WAR100104-32	02/24/10	0714		
07	AR122101	WAR100104-21	02/24/10	0725		
08	AR126201	WAR100104-62	02/24/10	0735		
09	AR126801	WAR100107-68	02/24/10	0746		
10	DDTANALOGSTD	WAR091219-DD	02/24/10	0757		
11	PIBLK02	WAR100219-99	02/24/10	0807	1.92	5.23
12	ZZZZZ	ZZZZZ	02/24/10	0818	1.92	5.23
13	ZZZZZ	ZZZZZ	02/24/10	0828	1.92	5.23
14	ZZZZZ	ZZZZZ	02/24/10	0839	1.92	5.23
15	ZZZZZ	ZZZZZ	02/24/10	0849	1.92	5.23
16	ZZZZZ	ZZZZZ	02/24/10	0902	1.92	5.23
17	ZZZZZ	ZZZZZ	02/24/10	0914	1.92	5.23
18	ZZZZZ	ZZZZZ	02/24/10	0927	1.92	5.23
19	AR166002	WAR100222-60	02/24/10	0941	1.92	5.23
20	PIBLK03	WAR100219-99	02/24/10	0951	1.92	5.23
21	ZZZZZ	ZZZZZ	02/24/10	1002	1.92	5.23
22	ZZZZZ	ZZZZZ	02/24/10	1012	1.92	5.23
23	ZZZZZ	ZZZZZ	02/24/10	1023	1.92	5.23
24	ZZZZZ	ZZZZZ	02/24/10	1033	1.92	5.23
25	AR166003	WAR100222-60	02/24/10	1051	1.92	5.24
26	PIBLK04	WAR100219-99	02/24/10	1101	1.92	5.23
27	PBLK01	1202050442	02/24/10	1112	1.92	5.23
28	PBLK01LCS	1202050443	02/24/10	1122	1.92	5.23
29	ZZZZZ	ZZZZZ	02/24/10	1133	1.92	5.23
30	ZZZZZ	ZZZZZ	02/24/10	1146	1.92	5.23
31	ZZZZZ	ZZZZZ	02/24/10	1158	1.92	5.23
32	ZZZZZ	ZZZZZ	02/24/10	1211	1.92	5.23

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1864

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.92 DCB: 5.23

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	02/24/10	1223	1.92	5.23
02	ZZZZZ	ZZZZZ	02/24/10	1236	1.92	5.23
03	ZZZZZ	ZZZZZ	02/24/10	1249	1.92	5.23
04	ZZZZZ	ZZZZZ	02/24/10	1301	1.92	5.23
05	AR166004	WAR100222-60	02/24/10	1314	1.92	5.23
06	PIBLK05	WAR100219-99	02/24/10	1324	1.92	5.23
07	ZZZZZ	ZZZZZ	02/24/10	1335	1.92	5.23
08	RE15-10-8186	247193002	02/24/10	1348	1.92	5.23
09	RE15-10-8187	247193006	02/24/10	1400	1.92	5.23
10	RE15-10-8190	247193008	02/24/10	1413	1.92	5.23
11	RE15-10-8226	247193013	02/24/10	1425	1.92	5.23
12	RE15-10-8211	247193014	02/24/10	1438	1.92	5.23
13	AR166005	WAR100222-60	02/24/10	1451	1.92	5.23
14	PIBLK06	WAR100219-99	02/24/10	1501	1.92	5.23
15	ZZZZZ	ZZZZZ	02/24/10	1512	1.92	5.23
16	ZZZZZ	ZZZZZ	02/24/10	1524	1.92	5.23
17	ZZZZZ	ZZZZZ	02/24/10	1537	1.92	5.23
18	ZZZZZ	ZZZZZ	02/24/10	1550	1.92	5.23
19	ZZZZZ	ZZZZZ	02/24/10	1602	1.92	5.23
20	ZZZZZ	ZZZZZ	02/24/10	1615	1.92	5.23
21	ZZZZZ	ZZZZZ	02/24/10	1627	1.92	5.23
22	AR166006	WAR100222-60	02/24/10	1640	1.92	5.23
23	PIBLK07	WAR100219-99	02/24/10	1651	1.92	5.23
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1864

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.93

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/24/10	0622	2.29	5.93
02	AR166001	WAR100222-60	02/24/10	0632	2.29	5.93
03	AR125401	WAR100219-54	02/24/10	0643		
04	AR124201	WAR100219-42	02/24/10	0653		
05	AR124801	WAR100223-48	02/24/10	0704		
06	AR123201	WAR100104-32	02/24/10	0714		
07	AR122101	WAR100104-21	02/24/10	0725		
08	AR126201	WAR100104-62	02/24/10	0735		
09	AR126801	WAR100107-68	02/24/10	0746		
10	DDTANALOGSTD	WAR091219-DD	02/24/10	0757		
11	PIBLK02	WAR100219-99	02/24/10	0807	2.29	5.94
12	ZZZZZ	ZZZZZ	02/24/10	0818	2.29	5.94
13	ZZZZZ	ZZZZZ	02/24/10	0828	2.29	5.94
14	ZZZZZ	ZZZZZ	02/24/10	0839	2.29	5.94
15	ZZZZZ	ZZZZZ	02/24/10	0849	2.29	5.94
16	ZZZZZ	ZZZZZ	02/24/10	0902	2.29	5.93
17	ZZZZZ	ZZZZZ	02/24/10	0914	2.29	5.93
18	ZZZZZ	ZZZZZ	02/24/10	0927	2.29	5.93
19	AR166002	WAR100222-60	02/24/10	0941	2.29	5.94
20	PIBLK03	WAR100219-99	02/24/10	0951	2.29	5.94
21	ZZZZZ	ZZZZZ	02/24/10	1002	2.29	5.94
22	ZZZZZ	ZZZZZ	02/24/10	1012	2.29	5.94
23	ZZZZZ	ZZZZZ	02/24/10	1023	2.29	5.93
24	ZZZZZ	ZZZZZ	02/24/10	1033	2.29	5.94
25	AR166003	WAR100222-60	02/24/10	1051	2.29	5.94
26	PIBLK04	WAR100219-99	02/24/10	1101	2.29	5.94
27	PBLK01	1202050442	02/24/10	1112	2.29	5.93
28	PBLK01LCS	1202050443	02/24/10	1122	2.29	5.93
29	ZZZZZ	ZZZZZ	02/24/10	1133	2.29	5.94
30	ZZZZZ	ZZZZZ	02/24/10	1146	2.29	5.93
31	ZZZZZ	ZZZZZ	02/24/10	1158	2.29	5.93
32	ZZZZZ	ZZZZZ	02/24/10	1211	2.29	5.93

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1864

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.93

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	02/24/10	1223	2.29	5.93
02	ZZZZZ	ZZZZZ	02/24/10	1236	2.29	5.93
03	ZZZZZ	ZZZZZ	02/24/10	1249	2.29	5.94
04	ZZZZZ	ZZZZZ	02/24/10	1301	2.29	5.94
05	AR166004	WAR100222-60	02/24/10	1314	2.29	5.93
06	PIBLK05	WAR100219-99	02/24/10	1324	2.29	5.94
07	ZZZZZ	ZZZZZ	02/24/10	1335	2.29	5.93
08	RE15-10-8186	247193002	02/24/10	1348	2.29	5.94
09	RE15-10-8187	247193006	02/24/10	1400	2.29	5.93
10	RE15-10-8190	247193008	02/24/10	1413	2.29	5.93
11	RE15-10-8226	247193013	02/24/10	1425	2.29	5.93
12	RE15-10-8211	247193014	02/24/10	1438	2.29	5.93
13	AR166005	WAR100222-60	02/24/10	1451	2.29	5.93
14	PIBLK06	WAR100219-99	02/24/10	1501	2.29	5.94
15	ZZZZZ	ZZZZZ	02/24/10	1512	2.29	5.93
16	ZZZZZ	ZZZZZ	02/24/10	1524	2.29	5.93
17	ZZZZZ	ZZZZZ	02/24/10	1537	2.29	5.93
18	ZZZZZ	ZZZZZ	02/24/10	1550	2.29	5.93
19	ZZZZZ	ZZZZZ	02/24/10	1602	2.29	5.93
20	ZZZZZ	ZZZZZ	02/24/10	1615	2.29	5.93
21	ZZZZZ	ZZZZZ	02/24/10	1627	2.29	5.93
22	AR166006	WAR100222-60	02/24/10	1640	2.29	5.93
23	PIBLK07	WAR100219-99	02/24/10	1651	2.29	5.94
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10–1864 **Client ID:** LCS for batch 956219

Lab Sample ID: 1202050443

Data File:	028f2801.d	**Data File:**	028b2801.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	24–FEB–10 11:22	**Analyzed:**	24–FEB–10 11:22

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							5.17
Column 1	1	2.38	2.35 – 2.41	20.3		ug/kg	
	2	2.66	2.63 – 2.69	21.2		ug/kg	
	3	2.74	2.71 – 2.77	21.3		ug/kg	
	4	2.78	2.75 – 2.81	21.3		ug/kg	
	5	2.99	2.96 – 3.02	22.1		ug/kg	
					21.2		
Column 2	1	3.18	3.15 – 3.21	20.6		ug/kg	
	2	3.27	3.24 – 3.3	20.7		ug/kg	
	3	3.33	3.3 – 3.36	19.3		ug/kg	
	4	3.56	3.53 – 3.59	20.3		ug/kg	
	5	3.63	3.6 – 3.66	19.9		ug/kg	
					20.2		
Aroclor–1260							12.2
Column 1	1	3.72	3.69 – 3.75	26.3		ug/kg	
	2	3.88	3.85 – 3.91	28.3		ug/kg	
	3	4.04	4.01 – 4.07	22.3		ug/kg	
	4	4.11	4.08 – 4.14	29.4		ug/kg	
	5	4.25	4.22 – 4.28	28.5		ug/kg	
					27		
Column 2	1	4.32	4.29 – 4.35	22		ug/kg	
	2	4.45	4.42 – 4.48	23.6		ug/kg	
	3	4.71	4.68 – 4.74	24.1		ug/kg	
	4	4.89	4.86 – 4.92	24.4		ug/kg	
	5	5.04	5.01 – 5.07	25.3		ug/kg	
					23.9		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1864**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202050442**				
Client Sample:	**QC for batch 956219**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 956219**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**956221**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 11:12**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/23/2010 11:04**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**027f2701-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	027b2701-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	3.33	ug/kg	1.11	3.33	1
11104-28-2	Aroclor-1221	U	3.33	ug/kg	1.11	3.33	1
11141-16-5	Aroclor-1232	U	3.33	ug/kg	1.11	3.33	1
53469-21-9	Aroclor-1242	U	3.33	ug/kg	1.11	3.33	1
12672-29-6	Aroclor-1248	U	3.33	ug/kg	1.11	3.33	1
11097-69-1	Aroclor-1254	U	3.33	ug/kg	1.11	3.33	1
11096-82-5	Aroclor-1260	U	3.33	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/027f2701-1.d
Lab Smp Id: 1202050442 Client Smp ID: PBLK01
Inj Date : 24-FEB-2010 11:12
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202050442|1|
Misc Info : |ECD82P_1S|956221|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 13:47 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 27 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1864.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.923	1.922	0.001	50496677	117.260	3.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.231	5.231	0.000	43685350	142.164	4.7	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/022410.b/027f2701-1.d

Date : 24-FEB-2010 11:12

Client ID: PBLK01

Sample Info: |1202050442|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

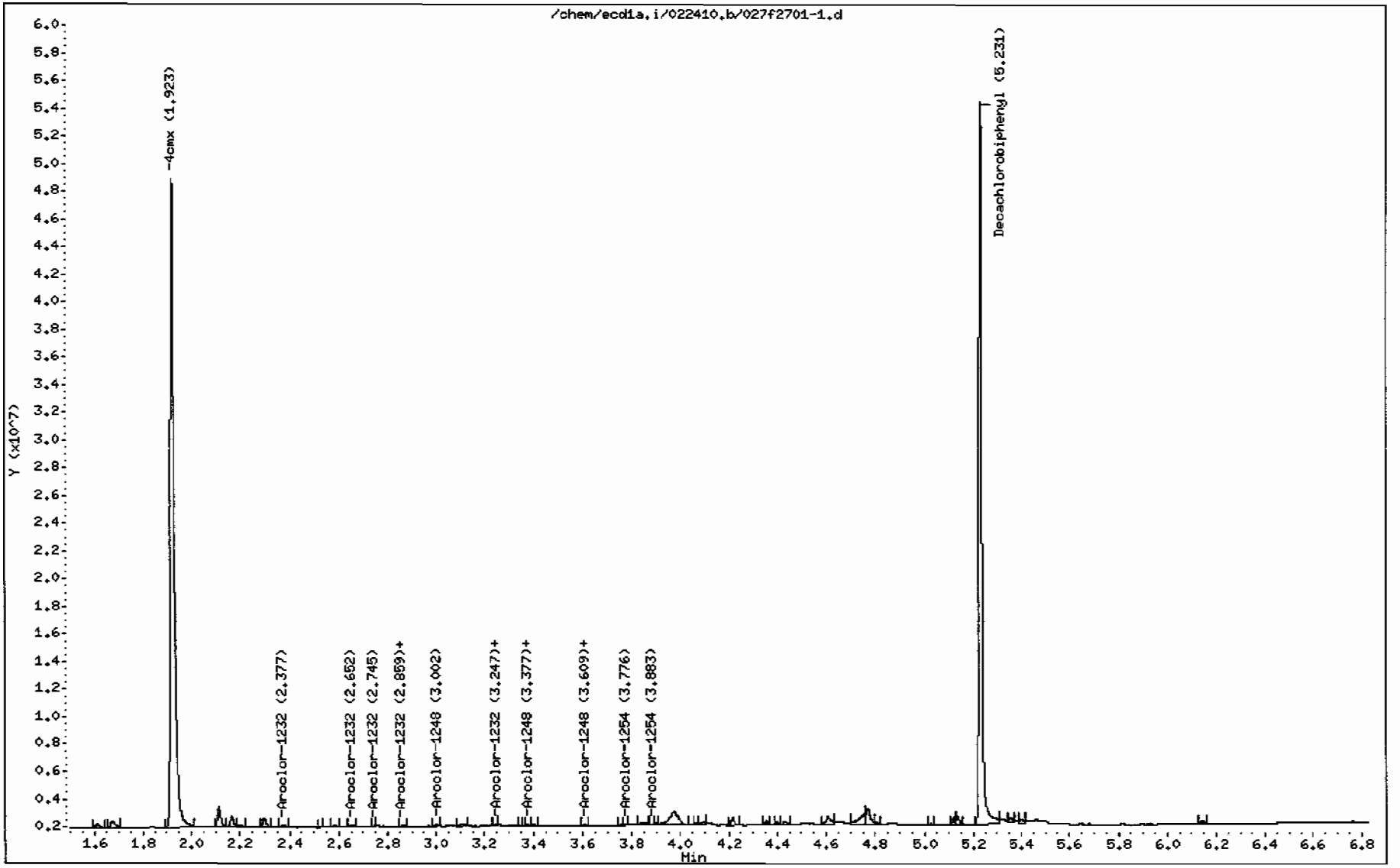

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/027b2701-1.d
Lab Smp Id: 1202050442 Client Smp ID: PBLK01
Inj Date : 24-FEB-2010 11:12
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202050442|1|
Misc Info : |ECD82P_1S|956221|SVA|QC A|SOIL|MB|||
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 13:47 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 27 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1864.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.288	2.288	0.000	32043981	107.748	3.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.934	5.935	-0.001	27842346	131.643	4.4	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/022410.b/027b2701-1.d

Date : 24-FEB-2010 11:12

Client ID: PBLK01

Sample Info: |1202050442|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

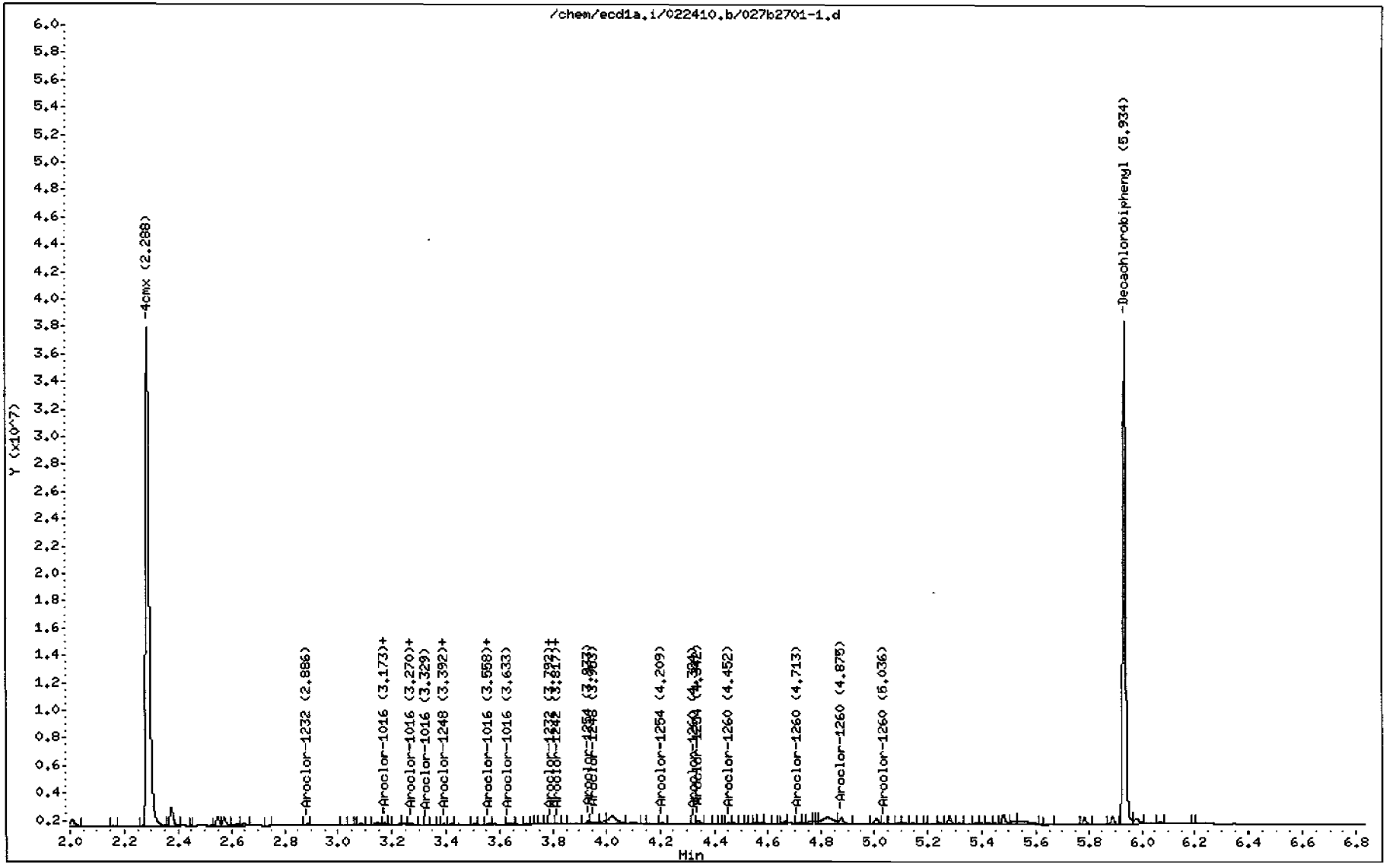

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1864**			**Matrix:**	**SOIL**
Lab Sample ID:	**1202050443**				
Client Sample:	**QC for batch 956219**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 956219**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**956221**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**02/24/2010 11:22**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/23/2010 11:04**	**Aliquot:**	**30 g**	**Final Volume:**	**1 mL**
Data File:	**028f2801–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	028b2801–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		21.2	ug/kg	1.11	3.33	1
11104–28–2	Aroclor–1221	U	3.33	ug/kg	1.11	3.33	1
11141–16–5	Aroclor–1232	U	3.33	ug/kg	1.11	3.33	1
53469–21–9	Aroclor–1242	U	3.33	ug/kg	1.11	3.33	1
12672–29–6	Aroclor–1248	U	3.33	ug/kg	1.11	3.33	1
11097–69–1	Aroclor–1254	U	3.33	ug/kg	1.11	3.33	1
11096–82–5	Aroclor–1260		27.0	ug/kg	1.11	3.33	1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/028f2801-1.d
Lab Smp Id: 1202050443 Client Smp ID: PBLK01LCS
Inj Date : 24-FEB-2010 11:22
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202050443|1|
Misc Info : |ECD82P_1S|956221|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 13:47 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 28 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1864.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.923	1.922	0.001	53271792	123.705	4.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.231	5.231	0.000	36099700	117.478	3.9	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.376	2.376	0.000	9362047	608.544	20.3	80.00- 120.00	100.00
2.664	2.663	0.001	11574918	634.694	21.2	105.49- 145.49	123.64
2.744	2.744	0.000	7717121	639.603	21.3	60.59- 100.59	82.43
2.781	2.781	0.000	4526570	637.895	21.3	28.37- 68.37	48.35

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.992	2.991	0.001	5910806	663.227	22.1	41.07- 81.07	63.14
Average of Peak Concentrations =					21.2		
7 Aroclor-1260					CAS #: 11096-82-5		
3.718	3.718	0.000	13482709	789.736	26.3	80.00- 120.00	100.00
3.880	3.881	-0.001	20064044	848.609	28.3	124.61- 164.61	148.81
4.043	4.043	0.000	16675975	667.805	22.3	134.47- 174.47	123.68
4.111	4.111	0.000	12721318	883.077	29.4	68.03- 108.03	94.35
4.254	4.253	0.001	12355831	856.229	28.5	70.40- 110.40	91.64
Average of Peak Concentrations =					27.0		

Data File: /chem/ecd1a.i/022410.b/028f2801-1.d
Date : 24-FEB-2010 11:22
Client ID: PBLK01LCS
Sample Info: |1202050443|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

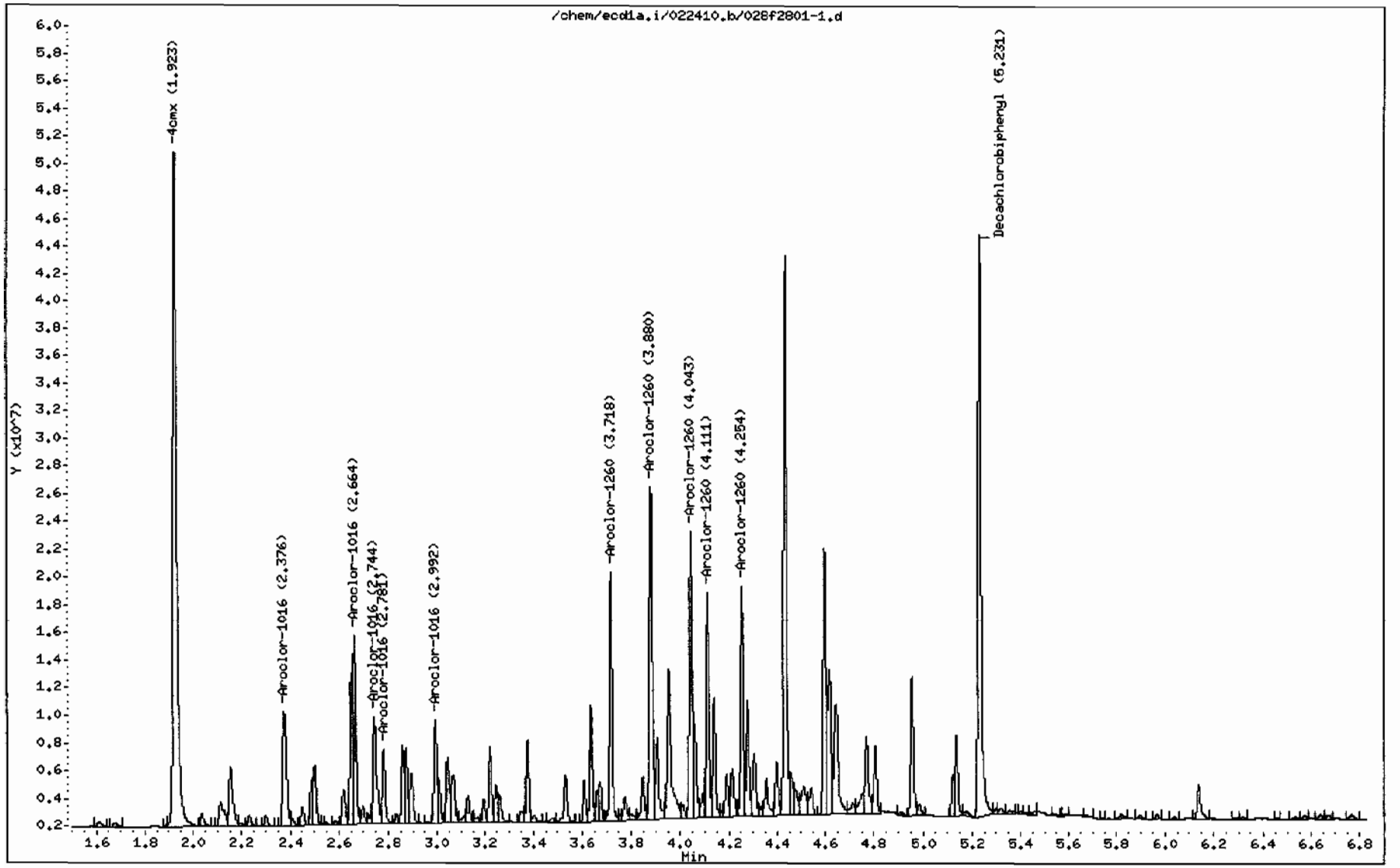

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/028b2801-1.d
Lab Smp Id: 1202050443 Client Smp ID: PBLK01LCS
Inj Date : 24-FEB-2010 11:22
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202050443|1|
Misc Info : |ECD82P_1S|956221|SVA|QC A|SOIL|LCS|||
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 13:47 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 28 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1864.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	0.00000	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.289	2.288	0.001	34468246	115.900	3.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.934	5.935	-0.001	29012683	137.177	4.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.184	3.184	0.000	7912049	618.623	20.6	80.00- 120.00	100.00(M)
3.267	3.266	0.001	5531120	620.225	20.7	46.02- 86.02	69.91
3.330	3.330	0.000	3129923	578.971	19.3	20.88- 60.88	39.56
3.558	3.557	0.001	4207222	608.364	20.3	31.07- 71.07	53.17

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.634	3.632	0.002	3838657	597.437	19.9	27.28- 67.28	48.52
Average of Peak Concentrations =					20.2		
7 Aroclor-1260					CAS #: 11096-82-5		
4.324	4.324	0.000	8714286	659.891	22.0	80.00- 120.00	100.00
4.449	4.449	0.000	11015699	707.640	23.6	102.78- 142.78	126.41
4.714	4.715	-0.001	8547738	721.724	24.0	70.72- 110.72	98.09
4.888	4.888	0.000	8929441	731.850	24.4	73.66- 113.66	102.47
5.035	5.036	-0.001	20105708	757.929	25.3	191.30- 231.30	230.72
Average of Peak Concentrations =					23.9		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/022410.b/028b2801-1.d
Date : 24-FEB-2010 11:22
Client ID: PBLK01LCS
Sample Info: |1202050443|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

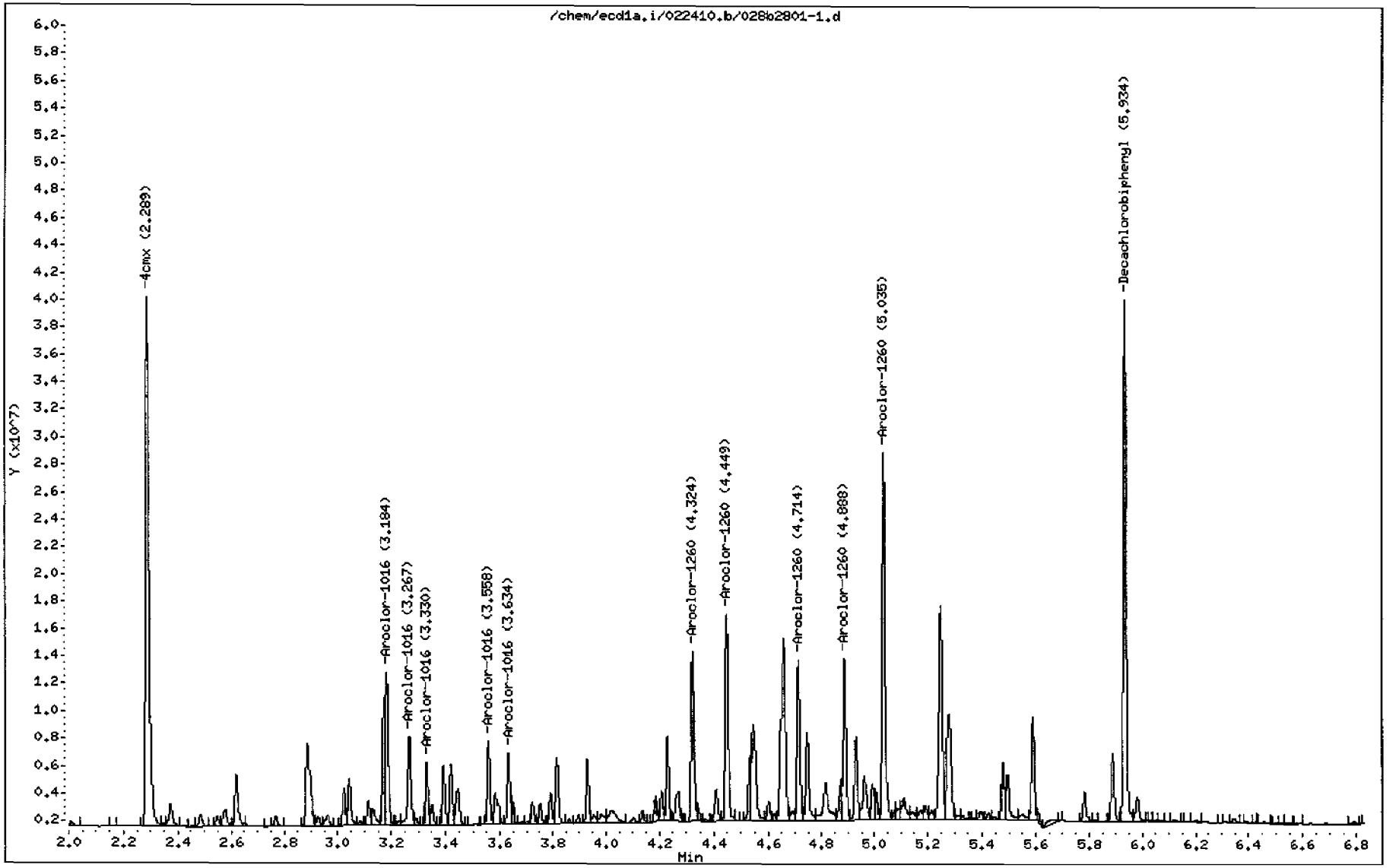

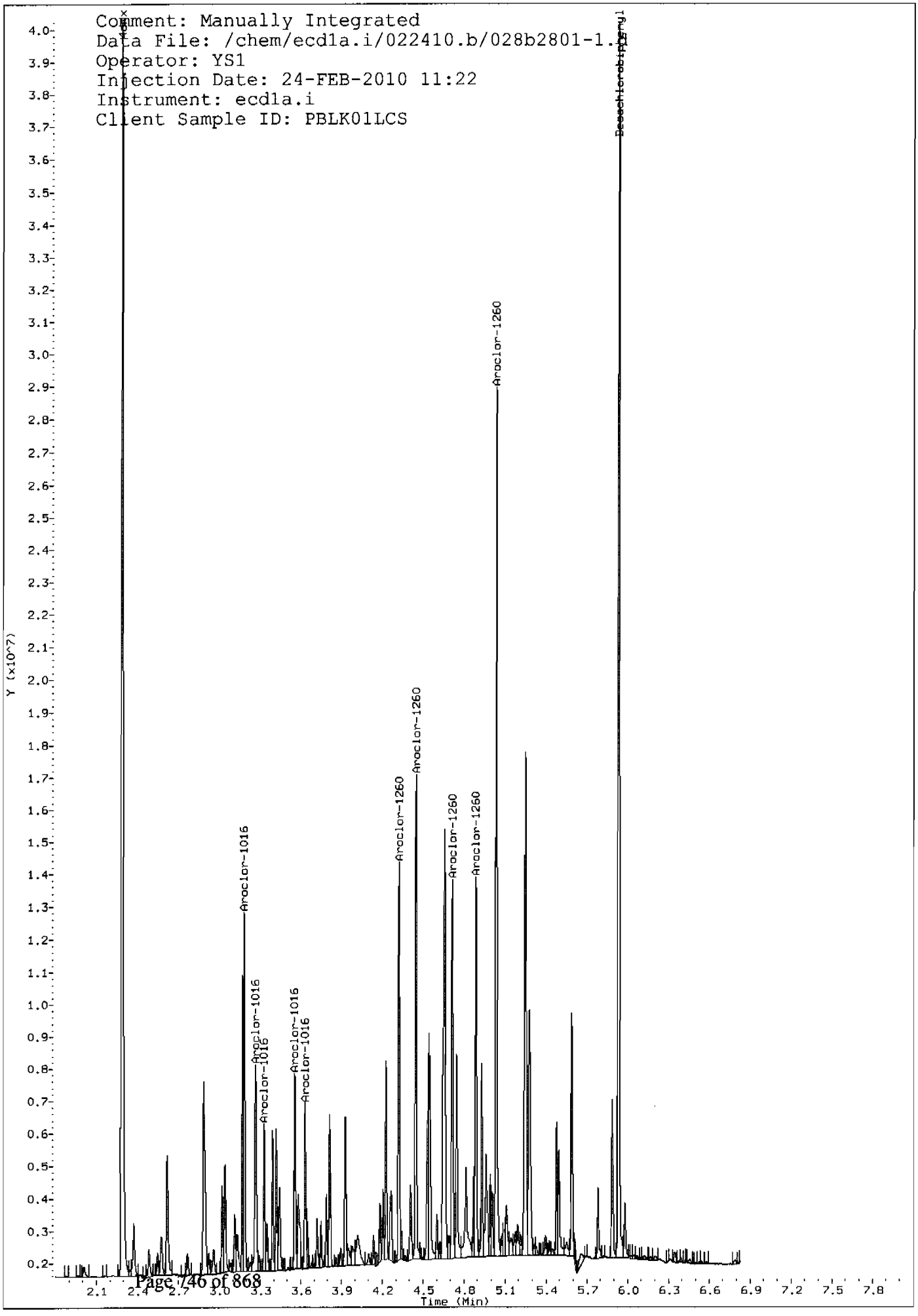
Comment: Manually Integrated
Data File: /chem/ecd1a.i/022410.b/028b2801-1.
Operator: YS1
Injection Date: 24-FEB-2010 11:22
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

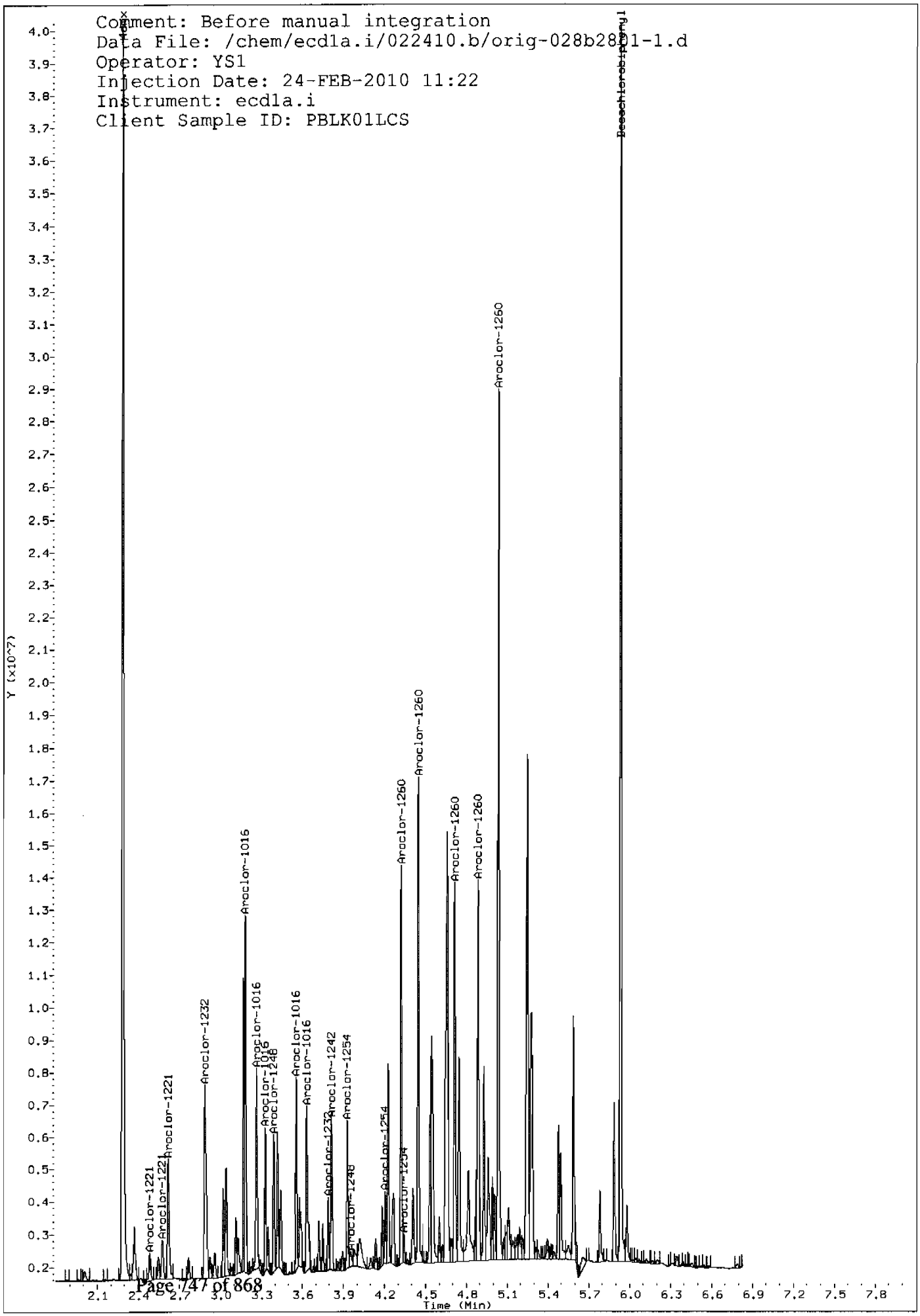
Comment: Before manual integration
Data File: /chem/ecd1a.i/022410.b/orig-028b2801-1.d
Operator: YS1
Injection Date: 24-FEB-2010 11:22
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1016
Aroclor-1016
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Aroclor-1242
Aroclor-1254
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1254
Aroclor-1254
Aroclor-1248
Aroclor-1248
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 02/23/2010 METHOD: ECD1-F-8082-022210.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/022210.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	22-FEB-2010 05:59		022210	1.0		CLEAN
002f0201.d	WAR100203-60 01	YS1	22-FEB-2010 06:10		022210	1.0		DUSE RE-ICAL
003f0301.d	AR1660-4	YS1	22-FEB-2010 06:20		022210	1.0		DUSE SCREEN
004f0401.d	WAR091219-DDT	YS1	22-FEB-2010 06:31		022210	1.0		DDT ANALOG STANDARD
005f0501.d	WAR100104-32	YS1	22-FEB-2010 06:41		022210	1.0		PATTERN ONLY
006f0601.d	WAR100104-21	YS1	22-FEB-2010 06:52		022210	1.0		PATTERN ONLY
007f0701.d	WAR100104-62	YS1	22-FEB-2010 07:03		022210	1.0		PATTERN ONLY
008f0801.d	WAR100222-01 60	YS1	22-FEB-2010 07:13		022210	1.0		AR1660 I-CAL LEVEL 1
009f0901.d	WAR100222-02 60	YS1	22-FEB-2010 07:24		022210	1.0		AR1660 I-CAL LEVEL 2
010f1001.d	WAR100222-03 60	YS1	22-FEB-2010 07:34		022210	1.0		AR1660 I-CAL LEVEL 3
011f1101.d	WAR100222-04 60	YS1	22-FEB-2010 07:45		022210	1.0		AR1660 I-CAL LEVEL 4
012f1201.d	IAR100104-01	YS1	22-FEB-2010 07:55		022210	1.0		AR1660 I-CAL LEVEL 5
013f1301.d	WAR100203-60 01	YS1	22-FEB-2010 08:06		022210	1.0		PASSED ON BOTH COLUMNS
014f1401.d	WAR100222-05 54	YS1	22-FEB-2010 08:16		022210	1.0		AR1254 I-CAL LEVEL 1
015f1501.d	WAR100222-06 54	YS1	22-FEB-2010 08:27		022210	1.0		AR1254 I-CAL LEVEL 2

Instrument Batch: /chem/ecd1a.i/022210.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR100222-07 54	YS1	22-FEB-2010 08:37		022210		1.0	AR1254 I-CAL LEVEL 3
017f1701.d	WAR100222-08 54	YS1	22-FEB-2010 08:48		022210		1.0	AR1254 I-CAL LEVEL 4
018f1801.d	IAR100219-02	YS1	22-FEB-2010 08:59		022210		1.0	AR1254 I-CAL LEVEL 5
019f1901.d	WAR100219-54	YS1	22-FEB-2010 09:09		022210		1.0	PASSED ON BOTH COLUMNS
020f2001.d	WAR100222-09 42	YS1	22-FEB-2010 09:20		022210		1.0	AR1242 I-CAL LEVEL 1
021f2101.d	WAR100222-10 42	YS1	22-FEB-2010 09:30		022210		1.0	AR1242 I-CAL LEVEL 2
022f2201.d	WAR100222-11 42	YS1	22-FEB-2010 09:41		022210		1.0	AR1242 I-CAL LEVEL 3
023f2301.d	WAR100222-12 42	YS1	22-FEB-2010 09:51		022210		1.0	AR1242 I-CAL LEVEL 4
024f2401.d	IAR100219-01	YS1	22-FEB-2010 10:02		022210		1.0	AR1242 I-CAL LEVEL 5
025f2501.d	WAR100219-42	YS1	22-FEB-2010 10:12		022210		1.0	PASSED ON BOTH COLUMNS
026f2601.d	WAR100222-13 48	YS1	22-FEB-2010 10:23		022210		1.0	AR1248 I-CAL LEVEL 1
027f2701.d	WAR100222-14 48	YS1	22-FEB-2010 10:33		022210		1.0	AR1248 I-CAL LEVEL 2
028f2801.d	WAR100222-15 48	YS1	22-FEB-2010 10:44		022210		1.0	AR1248 I-CAL LEVEL 3
029f2901.d	IAR100211-01	YS1	22-FEB-2010 10:54		022210		1.0	AR1248 I-CAL LEVEL 5
030f3001.d	WAR100222-16	YS1	22-FEB-2010 11:05		022210		1.0	AR1248 I-CAL LEVEL 4
031f3101.d	WAR091217-48	YS1	22-FEB-2010 11:16		022210		1.0	PASSED ON BOTH COLUMNS
032f3201.d	WAR100222-17 68	YS1	22-FEB-2010 11:26		022210		1.0	AR1268 I-CAL LEVEL 1
033f3301.d	WAR100222-18 68	YS1	22-FEB-2010 11:37		022210		1.0	AR1268 I-CAL LEVEL 2
034f3401.d	WAR100222-19 68	YS1	22-FEB-2010 11:47		022210		1.0	AR1268 I-CAL LEVEL 3
035f3501.d	WAR100222-20 68	YS1	22-FEB-2010 11:58		022210		1.0	AR1268 I-CAL LEVEL 4

Instrument Batch: /chem/ecd1a.i/022210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	IAR100104-05	YS1	22-FEB-2010 12:08		022210		1.0	AR1268 I-CAL LEVEL 5
037f3701.d	WAR100107-68	YS1	22-FEB-2010 12:19		022210		1.0	PASSED ON BOTH COLUMNS
038f3801.d	WAR100219-99 02	YS1	22-FEB-2010 12:29		022210		1.0	CLEAN
039f3901-1.d	1202046866	YS1	22-FEB-2010 12:40	954781	10-1846		1.0	QC A UPLOAD BOTH COLUMNS, USE HIGHER
039f3901-2.d	1202046866	YS1	22-FEB-2010 12:40	954781	10-1848		1.0	QC A UPLOAD BOTH COLUMNS, USE HIGHER

039f3901.d	1202046866	YS1	22-FEB-2010 12:40	954781	10-1808		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001-1.d	1202046867	YS1	22-FEB-2010 12:50	954781	10-1846		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001-2.d	1202046867	YS1	22-FEB-2010 12:50	954781	10-1848		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	1202046867	YS1	22-FEB-2010 12:50	954781	10-1808		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
041f4101.d	246968001	YS1	22-FEB-2010 13:01	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
042f4201.d	246968002	YS1	22-FEB-2010 13:14	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
043f4301.d	246968003	YS1	22-FEB-2010 13:26	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
044f4401.d	246968004	YS1	22-FEB-2010 13:39	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	246968005	YS1	22-FEB-2010 13:51	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
046f4601.d	246968006	YS1	22-FEB-2010 14:04	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
047f4701.d	246968007	YS1	22-FEB-2010 14:17	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
048f4801.d	246968008	YS1	22-FEB-2010 14:30	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	WAR100203-60 02	YS1	22-FEB-2010 14:42		022210		1.0		PASSED ON BOTH COLUMNS
050f5001.d	WAR100219-99 03	YS1	22-FEB-2010 14:53		022210		1.0		CLEAN
051f5101.d	246968009	YS1	22-FEB-2010 15:03	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/022210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
052f5201.d	246968010	YS1	22-FEB-2010 15:16	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	246968011	YS1	22-FEB-2010 15:28	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	246968012	YS1	22-FEB-2010 15:41	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	246968013	YS1	22-FEB-2010 15:54	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
056f5601.d	246968014	YS1	22-FEB-2010 16:06	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	246968015	YS1	22-FEB-2010 16:19	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	246968016	YS1	22-FEB-2010 16:32	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	246968017	YS1	22-FEB-2010 16:44	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
060f6001.d	247121002	YS1	22-FEB-2010 16:57	954781	10-1846	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

061f6101.d	WAR100203-60 03	YS1	22-FEB-2010 17:10		022210		1.0		PASSED ON BOTH COLUMNS
062f6201.d	WAR100219-99 04	YS1	22-FEB-2010 17:22		022210		1.0		CLEAN
063f6301.d	247123001	YS1	22-FEB-2010 17:35	954781	10-1848		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	1202046868	YS1	22-FEB-2010 17:48	954781	10-1848		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
065f6501.d	1202046869	YS1	22-FEB-2010 18:00	954781	10-1848		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	WAR100203-60 04	YS1	22-FEB-2010 18:13		022210		1.0		PASSED ON BOTH COLUMNS
067f6701.d	WAR100219-99 05	YS1	22-FEB-2010 18:26		022210		1.0		CLEAN
068f6801.d	1202048527	YS1	22-FEB-2010 18:38	955479	10-1818		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	1202048528	YS1	22-FEB-2010 18:51	955479	10-1818		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	247043003	YS1	22-FEB-2010 19:04	955479	10-1818		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
071f7101.d	1202048529	YS1	22-FEB-2010 19:16	955479	10-1818		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/022210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
072f7201.d	1202048530	YS1	22-FEB-2010 19:29	955479	10-1818	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	247043004	YS1	22-FEB-2010 19:42	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	247043005	YS1	22-FEB-2010 19:54	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	247043006	YS1	22-FEB-2010 20:07	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
076f7601.d	247043007	YS1	22-FEB-2010 20:20	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	247043008	YS1	22-FEB-2010 20:32	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	WAR100203-60 05	YS1	22-FEB-2010 20:45		022210	1.0		PASSED ON BOTH COLUMNS
079f7901.d	WAR100219-99 06	YS1	22-FEB-2010 20:58		022210	1.0		CLEAN
080f8001.d	247043009	YS1	22-FEB-2010 21:10	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
081f8101.d	247043010	YS1	22-FEB-2010 21:23	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
082f8201.d	247043011	YS1	22-FEB-2010 21:35	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
083f8301.d	247043012	YS1	22-FEB-2010 21:48	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
084f8401.d	247043013	YS1	22-FEB-2010 22:01	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
085f8501.d	247043014	YS1	22-FEB-2010 22:13	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

086f8601.d	247043015	YS1	22-FEB-2010 22:26	955479	10-1818		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	247043016	YS1	22-FEB-2010 22:39	955479	10-1818		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
088f8801.d	247043017	YS1	22-FEB-2010 22:51	955479	10-1818		1.0	LANL	SURROGATE LOW RE
089f8901.d	247043018	YS1	22-FEB-2010 23:04	955479	10-1818		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
090f9001.d	WAR100203-60 06	YS1	22-FEB-2010 23:17		022210		1.0		PASSED ON BOTH COLUMNS
091f9101.d	WAR100219-99 07	YS1	22-FEB-2010 23:29		022210		1.0		CLEAN

Instrument Batch: /chem/ecd1a.i/022210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
092f9201.d	1660	YS1	22-FEB-2010 23:42		022210	1.0		DUSE SCREEN
093f9301.d	1660-4	YS1	22-FEB-2010 23:55		022210	1.0		DUSE SCREEN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 02/25/2010 METHOD: ECD1-F-8082-022210.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/022410.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	24-FEB-2010 06:22		022310a	1.0		CLEAN
002f0201.d	WAR100222-60 01	YS1	24-FEB-2010 06:32		022310a	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR100219-54	YS1	24-FEB-2010 06:43		022310a	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR100219-42	YS1	24-FEB-2010 06:53		022410	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR100223-48	YS1	24-FEB-2010 07:04		022410	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100104-32	YS1	24-FEB-2010 07:14		022410	1.0		PATTERN ONLY
007f0701.d	WAR100104-21	YS1	24-FEB-2010 07:25		022410	1.0		PATTERN ONLY
008f0801.d	WAR100104-62	YS1	24-FEB-2010 07:35		022410	1.0		PATTERN ONLY
009f0901.d	WAR100107-68	YS1	24-FEB-2010 07:46		022410	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	YS1	24-FEB-2010 07:57		022410	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100219-99 02	YS1	24-FEB-2010 08:07		022410	1.0		CLEAN
012f1201.d	1202051267	YS1	24-FEB-2010 08:18	956669	EUI-7517	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
013f1301.d	1202051268	YS1	24-FEB-2010 08:28	956669	EUI-7517	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
014f1401.d	1202051271	YS1	24-FEB-2010 08:39	956669	EUI-7517	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
015f1501.d	247764001	YS1	24-FEB-2010 08:49	956669	EUI-7517	10.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/022410.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	1202051269	YS1	24-FEB-2010 09:02	956669	EUI-7517		10.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
017f1701.d	1202051270	YS1	24-FEB-2010 09:14	956669	EUI-7517		10.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
018f1801.d	247764002	YS1	24-FEB-2010 09:27	956669	EUI-7517		10.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
019f1901.d	WAR100222-60 02	YS1	24-FEB-2010 09:41		022410		1.0		PASSED ON BOTH COLUMNS
020f2001.d	WAR100219-99 03	YS1	24-FEB-2010 09:51		022410		1.0		CLEAN
021f2101.d	1202051284	YS1	24-FEB-2010 10:02	956679	10-1818		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	1202051285	YS1	24-FEB-2010 10:12	956679	10-1818		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
023f2301.d	1202051288	YS1	24-FEB-2010 10:23	956679	10-1818		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
024f2401.d	247043017	YS1	24-FEB-2010 10:33	956679	10-1818		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
025f2501.d	WAR100222-60 03	YS1	24-FEB-2010 10:51		022410		1.0		PASSED ON BOTH COLUMNS
026f2601.d	WAR100219-99 04	YS1	24-FEB-2010 11:01		022410		1.0		CLEAN
027f2701.d	1202050442	YS1	24-FEB-2010 11:12	956221	10-1834		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	1202050443	YS1	24-FEB-2010 11:22	956221	10-1834		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	247100001	YS1	24-FEB-2010 11:33	956221	10-1834		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
030f3001.d	247100002	YS1	24-FEB-2010 11:46	956221	10-1834		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
031f3101.d	247100003	YS1	24-FEB-2010 11:58	956221	10-1834		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	247100004	YS1	24-FEB-2010 12:11	956221	10-1834		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	247100005	YS1	24-FEB-2010 12:23	956221	10-1834		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	247100006	YS1	24-FEB-2010 12:36	956221	10-1834		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	247100007	YS1	24-FEB-2010 12:49	956221	10-1834		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	247100008	YS1	24-FEB-2010 13:01	956221	10-1834		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	WAR100222-60 04	YS1	24-FEB-2010 13:14		022410		1.0		PASSED ON BOTH COLUMNS
038f3801.d	WAR100219-99 05	YS1	24-FEB-2010 13:24		022410		1.0		CLEAN
039f3901.d	247100009	YS1	24-FEB-2010 13:35	956221	10-1834		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	247193002	YS1	24-FEB-2010 13:48	956221	10-1864		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

041f4101.d	247193006	YS1	24-FEB-2010 14:00	956221	10-1864		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
042f4201.d	247193008	YS1	24-FEB-2010 14:13	956221	10-1864		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
043f4301.d	247193013	YS1	24-FEB-2010 14:25	956221	10-1864		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
044f4401.d	247193014	YS1	24-FEB-2010 14:38	956221	10-1864		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	WAR100222-60 05	YS1	24-FEB-2010 14:51		022410		1.0		PASSED ON BOTH COLUMNS
046f4601.d	WAR100219-99 06	YS1	24-FEB-2010 15:01		022410		1.0		CLEAN
047f4701.d	247245001	YS1	24-FEB-2010 15:12	956221	10-1876		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
048f4801.d	1202050444	YS1	24-FEB-2010 15:24	956221	10-1876		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	1202050445	YS1	24-FEB-2010 15:37	956221	10-1876		5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
050f5001.d	247245002	YS1	24-FEB-2010 15:50	956221	10-1876		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
051f5101.d	247245003	YS1	24-FEB-2010 16:02	956221	10-1876		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
052f5201.d	247245004	YS1	24-FEB-2010 16:15	956221	10-1876		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	247245006	YS1	24-FEB-2010 16:27	956221	10-1876		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	WAR100222-60 06	YS1	24-FEB-2010 16:40		022410		1.0		PASSED ON BOTH COLUMNS
055f5501.d	WAR100219-99 07	YS1	24-FEB-2010 16:51		022410		1.0		CLEAN

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/048b4801.d
Lab Smp Id: 1202050444 Client Smp ID: RE46-10-12664MS
Inj Date : 24-FEB-2010 15:24
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202050444|5|
Misc Info : |ECD82P_1S|956221|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 25-Feb-2010 06:10 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 48 QC Sample: MS
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-1876.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	9.98920	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.288	2.288	0.000	5632607	18.9397	3.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.933	5.935	-0.002	4356886	20.6001	3.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.183	3.184	-0.001	1448032	113.218	21.0	80.00- 120.00	100.00(M)
3.267	3.266	0.001	1094318	122.710	22.7	47.35- 87.35	75.57
3.330	3.330	0.000	649295	120.106	22.2	21.53- 61.53	44.84
3.557	3.557	0.000	836717	120.989	22.4	34.23- 74.23	57.78

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.633	3.632	0.001	761062	118.449	21.9	30.04- 70.04	64.05
Average of Peak Concentrations =					22.0		
7 Aroclor-1260					CAS #: 11096-82-5		
4.323	4.324	-0.001	1718337	130.121	24.1	80.00- 120.00	100.00
4.448	4.449	-0.001	1860742	119.533	22.1	103.66- 143.66	108.29
4.714	4.715	-0.001	1349791	113.969	21.1	72.67- 112.67	78.55
4.888	4.888	0.000	1406894	115.308	21.4	75.80- 115.80	81.88
5.035	5.036	-0.001	3059361	115.329	21.4	193.65- 233.65	178.04
Average of Peak Concentrations =					22.0		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/022410.b/048b4801.d
Date : 24-FEB-2010 15:24
Client ID: RE46-10-12664MS
Sample Info: |1202050444|5|
Volume Injected (uL): 1.0
Column phase: CLP2

Page 1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

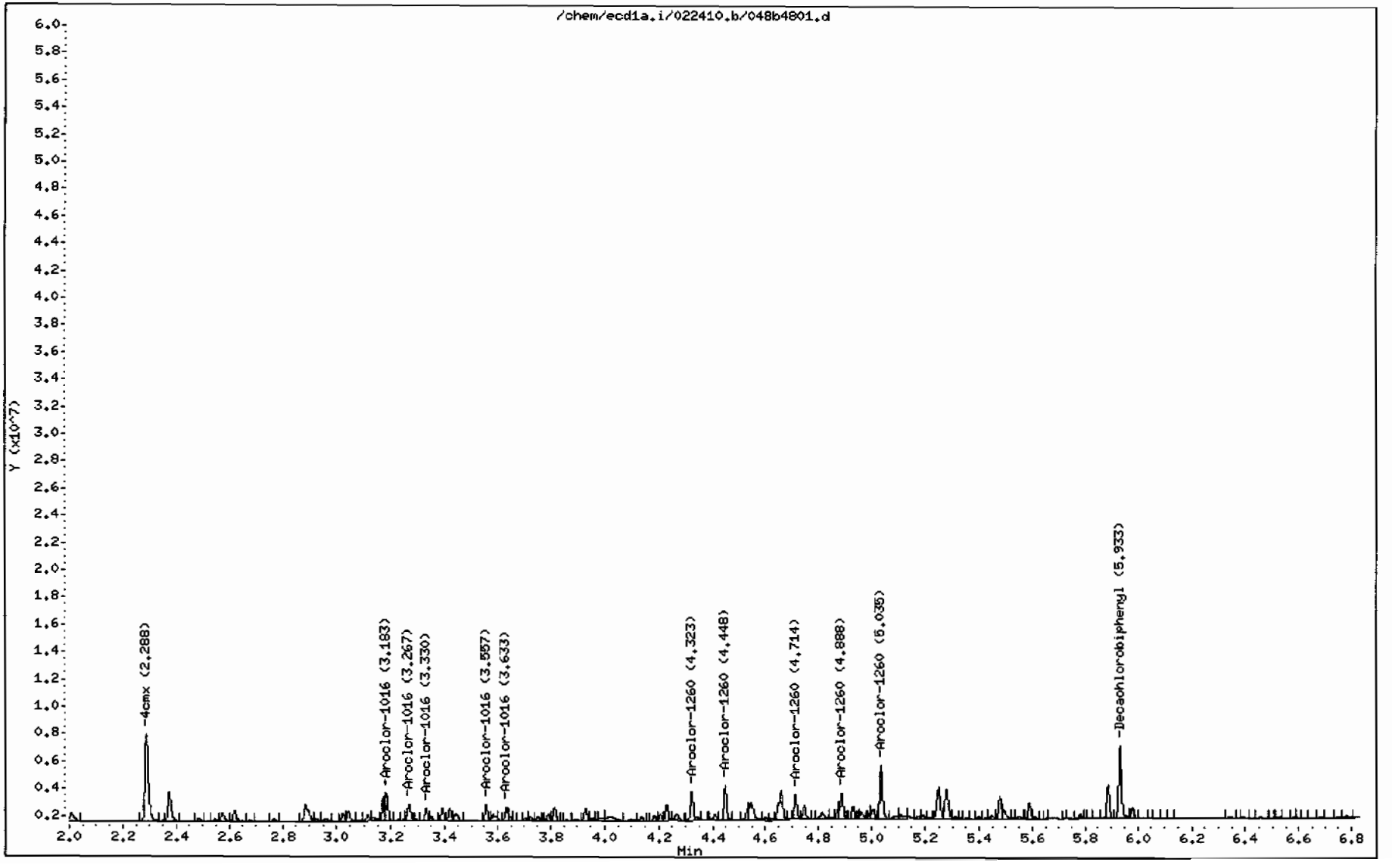

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/048f4801.d
Lab Smp Id: 1202050444 Client Smp ID: RE46-10-12664MS
Inj Date : 24-FEB-2010 15:24
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202050444|5|
Misc Info : |ECD82P_1S|956221|SVA|QC A|SOIL|MS|||
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 25-Feb-2010 06:11 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 48 QC Sample: MS
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-1876.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	9.98920	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.923	1.922	0.001	8067690	18.7343	3.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.229	5.231	-0.002	6839797	22.2585	4.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.376	2.376	0.000	1896021	123.244	22.8	80.00- 120.00	100.00
2.663	2.663	0.000	2075584	113.812	21.1	105.15- 145.15	109.47
2.743	2.744	-0.001	1505211	124.753	23.1	61.10- 101.10	79.39
2.781	2.781	0.000	849456	119.707	22.2	28.57- 68.57	44.80

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.991	2.991	0.000	1415754	158.856	29.4	41.99- 81.99	74.67
Average of Peak Concentrations =					23.7		
7 Aroclor-1260					CAS #: 11096-82-5		
3.717	3.718	-0.001	2146381	125.722	23.3	80.00- 120.00	100.00(M)
3.879	3.881	-0.002	3154171	133.406	24.7	125.37- 165.37	146.95
4.041	4.043	-0.002	2471309	98.9658	18.3	131.41- 171.41	145.32
4.109	4.111	-0.002	2015508	139.911	25.9	67.27- 107.27	93.90
4.252	4.253	-0.001	1683172	116.640	21.6	69.28- 109.28	78.42
Average of Peak Concentrations =					22.8		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/022410.b/048f4801.d

Date : 24-FEB-2010 15:24

Client ID: RE46-10-12664MS

Sample Info: |1202050444|5|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

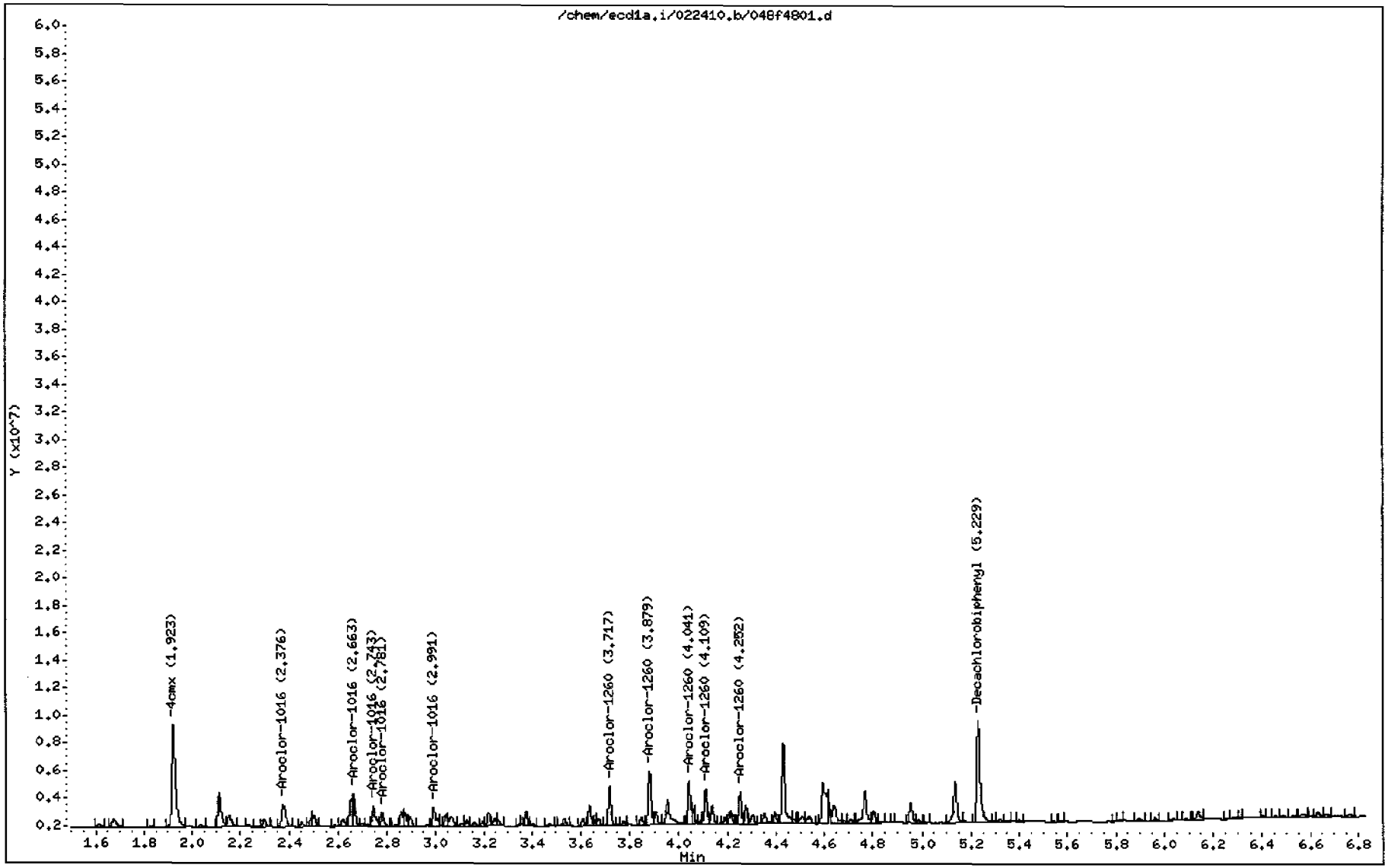

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/049b4901.d
Lab Smp Id: 1202050445 Client Smp ID: RE46-10-12664MSD
Inj Date : 24-FEB-2010 15:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202050445|5|
Misc Info : |ECD82P_1S|956221|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 25-Feb-2010 06:10 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 49 QC Sample: MSD
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-1876.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	9.98920	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.288	2.288	0.000	6496202	21.8435	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.933	5.935	-0.002	4875453	23.0520	4.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.183	3.184	-0.001	1669560	130.539	24.2	80.00- 120.00	100.00(M)
3.266	3.266	0.000	1216299	136.388	25.2	47.35- 87.35	72.85
3.329	3.330	-0.001	746512	138.089	25.6	21.53- 61.53	44.71
3.557	3.557	0.000	966557	139.764	25.9	34.23- 74.23	57.89

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
3.632	3.632	0.000	930399	144.804	26.8	30.04- 70.04	67.71
Average of Peak Concentrations =					25.5		
7 Aroclor-1260					CAS #: 11096-82-5		
4.323	4.324	-0.001	2127515	161.107	29.8	80.00- 120.00	100.00(M)
4.448	4.449	-0.001	2360359	151.628	28.1	103.66- 143.66	110.94
4.713	4.715	-0.002	1634038	137.969	25.5	72.67- 112.67	76.80
4.888	4.888	0.000	1518898	124.488	23.0	75.80- 115.80	71.39
5.035	5.036	-0.001	3482639	131.286	24.3	193.65- 233.65	163.70
Average of Peak Concentrations =					26.1		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/022410.b/049b4901.d

Date : 24-FEB-2010 15:37

Client ID: RE46-10-12664MSD

Sample Info: |1202050445|5|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

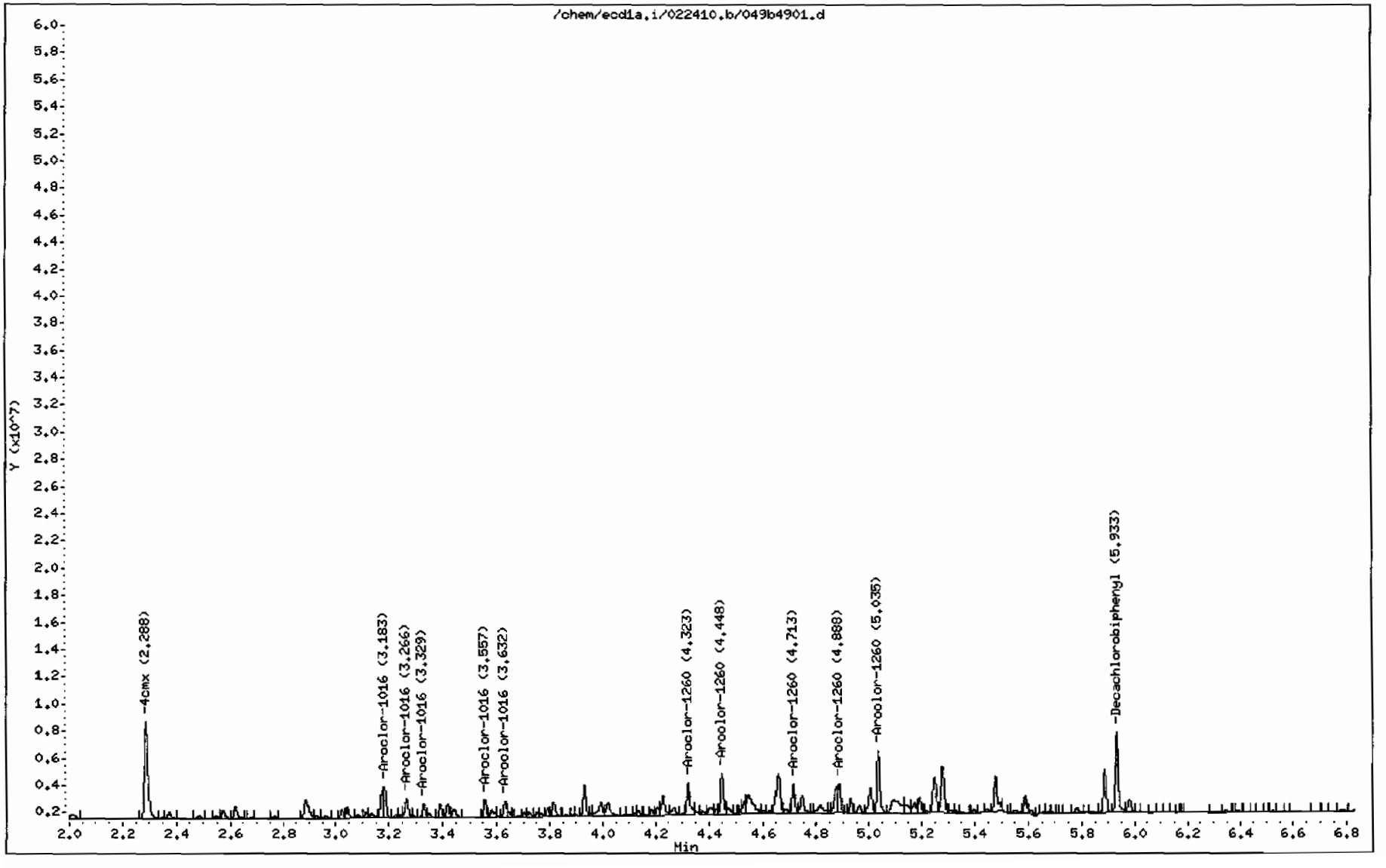

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022410.b/049f4901.d
Lab Smp Id: 1202050445 Client Smp ID: RE46-10-12664MSD
Inj Date : 24-FEB-2010 15:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202050445|5|
Misc Info : |ECD82P_1S|956221|SVA|QC A|SOIL|MSD|||
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 25-Feb-2010 06:11 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 49 QC Sample: MSD
Dil Factor: 5.00000
Integrator: Falcon Compound Sublist: 10-1876.sub
Target Version: 3.50 Sample Matrix: Soil
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vi * Ws * (100 - M)/100) * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vi	1.00000	Volume injected (uL)
Ws	30.00000	Weight of sample extracted (g)
M	9.98920	% Moisture

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.923	1.922	0.001	9347270	21.7057	4.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.229	5.231	-0.002	7070180	23.0082	4.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.375	2.376	-0.001	2129246	138.403	25.6	80.00- 120.00	100.00(M)
2.663	2.663	0.000	2371436	130.034	24.1	105.15- 145.15	111.37
2.743	2.744	-0.001	1790133	148.368	27.5	61.10- 101.10	84.07
2.780	2.781	-0.001	999787	140.892	26.1	28.57- 68.57	46.95

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/Kg)	TARGET RANGE	RATIO
1 Aroclor-1016 (continued)							
2.991	2.991	0.000	1214019	136.220	25.2	41.99- 81.99	72.95
Average of Peak Concentrations =					25.7		
7 Aroclor-1260					CAS #: 11096-82-5		
3.716	3.718	-0.002	2419751	141.735	26.2	80.00- 120.00	100.00(M)
3.878	3.881	-0.003	3951174	167.115	30.9	125.37- 165.37	163.29
4.041	4.043	-0.002	2847569	114.034	21.1	131.41- 171.41	117.68
4.109	4.111	-0.002	2396826	166.381	30.8	67.27- 107.27	99.05
4.252	4.253	-0.001	2005009	138.942	25.7	69.28- 109.28	82.86
Average of Peak Concentrations =					26.9		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/022410.b/049f4901.d
Date : 24-FEB-2010 15:37
Client ID: RE46-10-12664MSD
Sample Info: |120205044515|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

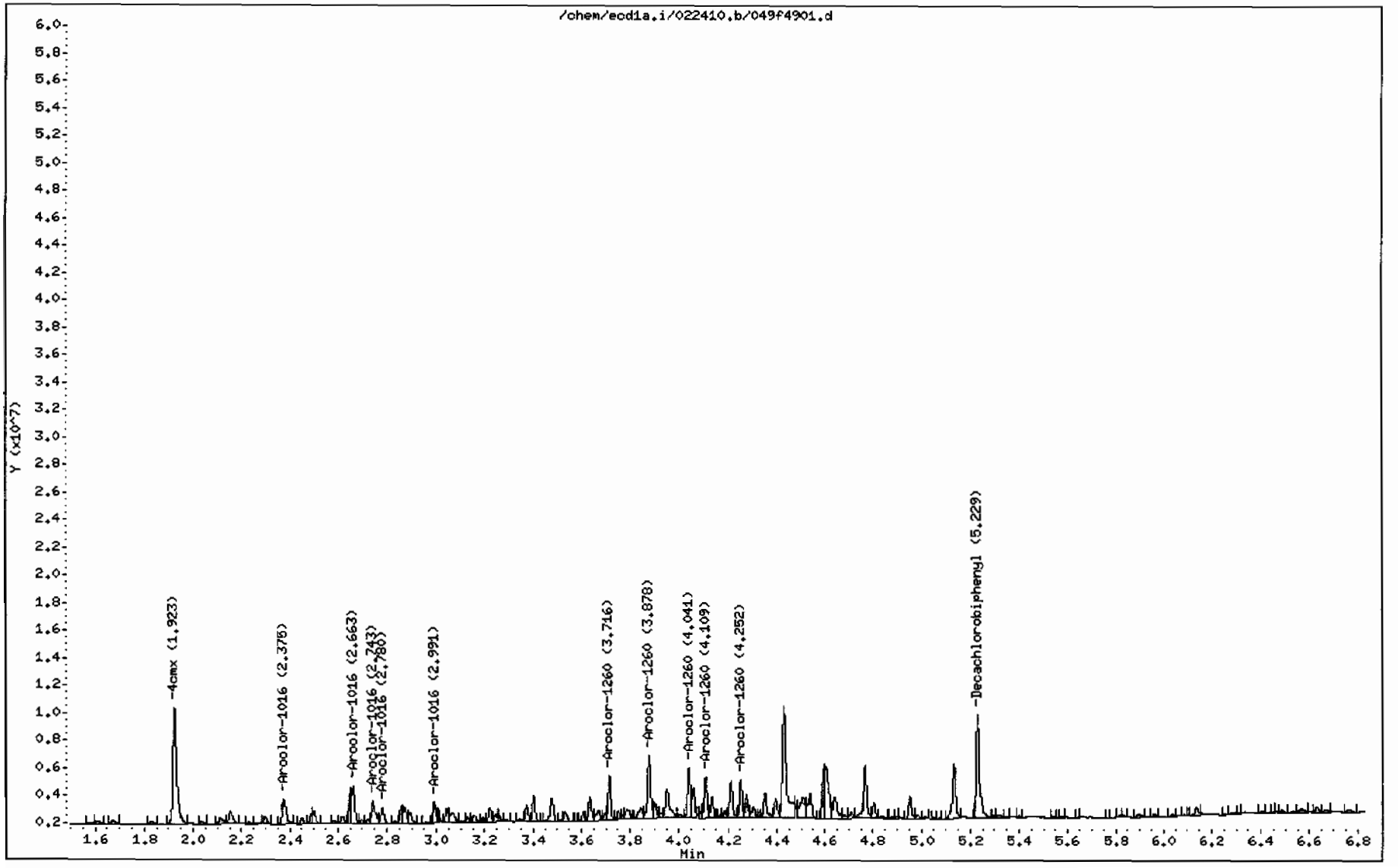

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Soil, Sludge, and Other Miscellaneous Solid Samples

Batch ID: 956219 **Verified by:** _____

Analyst: Robin Hunt

Method: SW846 3550B

Lab SOP: GL–OA–E–010 REV# 18

Instrument: Semi–Volatiles Manual
Volatiles Manual Instrument

Sample ID	Run Date	Aliquot (g)	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Prepped Aliquot (mL)	Prepped Factor (mL/g)
1202050443 LCS	23–FEB–2010 11:04:00	30	H2SO4/KMn1		1	8	1	0.03333
247100001	23–FEB–2010 11:04:00	30	H2SO4/KMn1		1	8	1	0.03333
247100002	23–FEB–2010 11:04:00	30	H2SO4/KMn1		1	8	1	0.03333
247100003	23–FEB–2010 11:04:00	30	H2SO4/KMn1		1	8	1	0.03333
247100004	23–FEB–2010 11:04:00	30	H2SO4/KMn1		1	8	1	0.03333
247100005	23–FEB–2010 11:04:00	30	H2SO4/KMn1		1	8	1	0.03333
247100006	23–FEB–2010 11:04:00	30	H2SO4/KMn1		1	8	1	0.03333
247100007	23–FEB–2010 11:04:00	30	H2SO4/KMn1		1	8	1	0.03333
247100008	23–FEB–2010 11:04:00	30	H2SO4/KMn1		1	8	1	0.03333
247100009	23–FEB–2010 11:04:00	30	H2SO4/KMn1		1	8	1	0.03333
247193002	23–FEB–2010 11:04:00	30	H2SO4/KMn1		1	8	1	0.03333
247193006	23–FEB–2010 11:04:00	30	H2SO4/KMn1		1	8	1	0.03333
247193008	23–FEB–2010 11:04:00	30	H2SO4/KMn1		1	8	1	0.03333
247193013	23–FEB–2010 11:04:00	30	H2SO4/KMn1		1	8	1	0.03333
247193014	23–FEB–2010 11:04:00	30	H2SO4/KMn1		1	8	1	0.03333
247245001	23–FEB–2010 11:04:00	30	H2SO4/KMn1		1	8	1	0.03333
1202050444 MS (247245001)	23–FEB–2010 11:04:00	30	H2SO4/KMn1		1	8	1	0.03333
1202050445 MSD (247245001)	23–FEB–2010 11:04:00	30	H2SO4/KMn1		1	8	1	0.03333
247245002	23–FEB–2010 11:04:00	30	H2SO4/KMn1		1	8	1	0.03333
247245003	23–FEB–2010 11:04:00	30	H2SO4/KMn1		1	8	1	0.03333
247245004	23–FEB–2010 11:04:00	30	H2SO4/KMn1		1	8	1	0.03333
247245006	23–FEB–2010 11:04:00	30	H2SO4/KMn1		1	8	1	0.03333
1202050442 MB	23–FEB–2010 11:04:00	30	H2SO4/KMn1		1	8	1	0.03333

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202050443	PCB Laboratory Control	WE100210–07	1	mL
MS	1202050444	PCB Laboratory Control	WE100210–07	1	mL
MSD	1202050445	PCB Laboratory Control	WE100210–07	1	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100203–15	1	mL
REGNT	All	Acetone	100211–B1	150	mL
REGNT	All	1:1 sulfuric acid	1260695a	5	mL
REGNT	All	Hexane	1273338–B2	150	mL
REGNT	All	5% Potassium Permanganate	B1202457–F	5	mL
SOURC	All	SODIUM SULFATE	1269268	30	g

Comments:

Clean up Date: 02/23/2010
Clean up Initials: RWH
Verified By: JAM
Final Solvent: Hexane
Clean Up SOP: GL–OA–E–037

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1864

Method/Analysis Information

Procedure: **Dry Weight-Percent Moisture**

Analytical Method:

Analytical Batch Number: 956634

Sample ID	Client ID
247193002	RE15-10-8186
247193006	RE15-10-8187
247193008	RE15-10-8190
247193013	RE15-10-8226
247193014	RE15-10-8211
1202051230	247188001(RE15-10-8196) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-020 REV# 9.

Calibration Information:

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Quality Control (QC) Information:

Designated QC
The following sample was used for QC: 247188001 (RE15-10-8196). The QC was from LANL work order 247188.

QC Information
All of the QC samples met the required acceptance limits.

CSU
Not Applicable. The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
Not Applicable. The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Solid**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	961331

Sample ID	Client ID
247193001	RE15-10-8196
247193002	RE15-10-8186
247193003	RE15-10-8194
247193004	RE15-10-8189
247193008	RE15-10-8190
247193009	RE15-10-8193
247193010	RE15-10-8191
247193011	RE15-10-8192
247193014	RE15-10-8211
1202062033	Method Blank (MB)
1202062034	247193001(RE15-10-8196) Sample Duplicate (DUP)
1202062035	247193001(RE15-10-8196) Matrix Spike (MS)
1202062036	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in August 2009.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 247193001 (RE15-10-8196). The QC was from LANL work order 247193.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were recounted due to a detector lock out condition. Recount is being reported.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**H3**
Analytical Method:	GL-RAD-A-002
Analytical Batch Number:	956741

Sample ID	Client ID
247193005	RE15-10-8188
247193006	RE15-10-8187
247193007	RE15-10-8197
247193012	RE15-10-8195
247193013	RE15-10-8226
1202051378	Method Blank (MB)
1202051379	247337001(RE15-10-8346) Sample Duplicate (DUP)
1202051380	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 247337001 (RE15-10-8346). The QC was from LANL work order 247337.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Certification Statement

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

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer/Date: 3/11/10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

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

Certificate of Analysis Report
for

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

Client SDG: 10-1864 GEL Work Order: 247193

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID:	RE15-10-8196	Project:	LANL01004
Sample ID:	247193001	Client ID:	LANL010
Matrix:	R		
Collect Date:	10-FEB-10		
Receive Date:	16-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid "As Received"												
Tritium	U	1.23	4.14	+/-1.24	6.00	pCi/g		KXK2	03/08/10	1603	961331	1

The following Analytical Methods were performed

Method	Description
1	EPA 906.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID: RE15-10-8196
Sample ID: 247193001

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID: RE15-10-8186
Sample ID: 247193002
Matrix: R
Collect Date: 10-FEB-10
Receive Date: 16-FEB-10
Collector: Client
Moisture: 1.16%

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid "As Received"												
Tritium	U	1.69	4.11	+/-1.25	6.00	pCi/g		KXK2	03/08/10	1650	961331	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	EPA 906.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).
Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID: RE15-10-8186
Sample ID: 247193002

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID: RE15-10-8194
Sample ID: 247193003
Matrix: R
Collect Date: 10-FEB-10
Receive Date: 16-FEB-10
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid "As Received"												
Tritium	U	0.966	4.14	+/-1.23	6.00	pCi/g		KXK2	03/08/10	1738	961331	1

The following Analytical Methods were performed

Method	Description
1	EPA 906.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
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> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID: RE15-10-8194
Sample ID: 247193003

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID:	RE15-10-8189	Project:	LANL01004
Sample ID:	247193004	Client ID:	LANL010
Matrix:	R		
Collect Date:	10-FEB-10		
Receive Date:	16-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid "As Received"												
Tritium		38.6	4.15	+/-4.93	6.00	pCi/g		KXK2	03/08/10	1825	961331	1

The following Analytical Methods were performed

Method	Description
1	EPA 906.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID: RE15-10-8189
Sample ID: 247193004

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID:	RE15-10-8188	Project:	LANL01004
Sample ID:	247193005	Client ID:	LANL010
Matrix:	R		
Collect Date:	10-FEB-10		
Receive Date:	16-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		1.82E+05	286	+/-12800	250	pCi/L		KXK2	03/04/10	0714	956741	1

The following Analytical Methods were performed

Method	Description
1	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
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A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID: RE15-10-8188
Sample ID: 247193005

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID:	RE15-10-8187	Project:	LANL01004
Sample ID:	247193006	Client ID:	LANL010
Matrix:	R		
Collect Date:	10-FEB-10		
Receive Date:	16-FEB-10		
Collector:	Client		
Moisture:	2.49%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		89400	182	+/-6290	250	pCi/L		KXK2	03/04/10	0728	956741	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).
Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID: RE15-10-8187
Sample ID: 247193006

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID:	RE15-10-8197	Project:	LANL01004
Sample ID:	247193007	Client ID:	LANL010
Matrix:	R		
Collect Date:	10-FEB-10		
Receive Date:	16-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		22100	157	+/-1570	250	pCi/L		KXK2	03/04/10	0749	956741	1

The following Analytical Methods were performed

Method	Description
1	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID: RE15-10-8197
Sample ID: 247193007

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID:	RE15-10-8190	Project:	LANL01004
Sample ID:	247193008	Client ID:	LANL010
Matrix:	R		
Collect Date:	10-FEB-10		
Receive Date:	16-FEB-10		
Collector:	Client		
Moisture:	.925%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid "As Received"												
Tritium		127	4.13	+/-15.1	6.00	pCi/g		KXK2	03/08/10	1912	961331	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	EPA 906.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
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A The TIC is a suspected aldol-condensation product
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BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC).
Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is

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Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID: RE15-10-8190
Sample ID: 247193008

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID:	RE15-10-8193	Project:	LANL01004
Sample ID:	247193009	Client ID:	LANL010
Matrix:	R		
Collect Date:	10-FEB-10		
Receive Date:	16-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid "As Received"												
Tritium	U	0.0665	4.13	+/-1.19	6.00	pCi/g		KXK2	03/08/10	1959	961331	1

The following Analytical Methods were performed

Method	Description
1	EPA 906.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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A The TIC is a suspected aldol-condensation product
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D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID: RE15-10-8193
Sample ID: 247193009

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID: RE15-10-8191
Sample ID: 247193010
Matrix: R
Collect Date: 10-FEB-10
Receive Date: 16-FEB-10
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid "As Received"												
Tritium		14.7	4.08	+/-2.31	6.00	pCi/g		KXK2	03/08/10	2046	961331	1

The following Analytical Methods were performed

Method	Description
1	EPA 906.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID: RE15-10-8191
Sample ID: 247193010

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID: RE15-10-8192
Sample ID: 247193011
Matrix: R
Collect Date: 10-FEB-10
Receive Date: 16-FEB-10
Collector: Client

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid "As Received"												
Tritium	U	3.87	4.11	+/-1.37	6.00	pCi/g		KXK2	03/08/10	2159	961331	1

The following Analytical Methods were performed

Method	Description
1	EPA 906.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification

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Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID: RE15-10-8192
Sample ID: 247193011

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID:	RE15-10-8195	Project:	LANL01004
Sample ID:	247193012	Client ID:	LANL010
Matrix:	R		
Collect Date:	10-FEB-10		
Receive Date:	16-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		28000	137	+/-1980	250	pCi/L		KXK2	03/04/10	0852	956741	1

The following Analytical Methods were performed

Method	Description
1	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID: RE15-10-8195
Sample ID: 247193012

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID:	RE15-10-8226	Project:	LANL01004
Sample ID:	247193013	Client ID:	LANL010
Matrix:	R		
Collect Date:	10-FEB-10		
Receive Date:	16-FEB-10		
Collector:	Client		
Moisture:	2.43%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
H3 "As Received"												
Tritium		86900	178	+/-6110	250	pCi/L		KXK2	03/04/10	0955	956741	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	GL-RAD-A-002

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID: RE15-10-8226
Sample ID: 247193013

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID:	RE15-10-8211	Project:	LANL01004
Sample ID:	247193014	Client ID:	LANL010
Matrix:	R		
Collect Date:	10-FEB-10		
Receive Date:	16-FEB-10		
Collector:	Client		
Moisture:	1.23%		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids												
"As Received"												
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid "As Received"												
Tritium	U	0.867	4.14	+/-1.22	6.00	pCi/g		KXK2	03/08/10	2246	961331	2

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	EPA 906.0 Modified

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Organics--Concentration of the target analyte exceeds the instrument calibration range
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is

Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL ER Project

Report Date: March 10, 2010

Client Sample ID: RE15-10-8211
Sample ID: 247193014

Project: LANL01004
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

also <70%
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

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QC Summary

Report Date: March 10, 2010
Page 1 of 2

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 247193

Parmname	NOM		Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation											
Batch 956741											
QC1202051379 247337001 DUP											
Tritium			301		272	pCi/L	0.151		(0-1)	KXK2	03/04/1018:37
		TPU:	+/-48.7		+/-46.2						
QC1202051380 LCS											
Tritium	5540				5950	pCi/L		107	(80%-120%)		03/04/1019:40
		TPU:			+/-489						
QC1202051378 MB											
Tritium				U	3.31	pCi/L					03/04/1017:35
		TPU:			+/-32.5						
Batch 961331											
QC1202062034 247193001 DUP											
Tritium		U	1.23	U	2.37	pCi/g	0.225		(0-1)	KXK2	03/09/1001:08
		TPU:	+/-1.24		+/-1.30						
QC1202062036 LCS											
Tritium	33.6				35.2	pCi/g		105	(80%-120%)		03/09/1002:11
		TPU:			+/-5.21						
QC1202062033 MB											
Tritium				U	0.295	pCi/g					03/09/1000:20
		TPU:			+/-1.18						
QC1202062035 247193001 MS											
Tritium	33.8	U	1.23		32.6	pCi/g		96.4	(75%-125%)		03/09/1001:55
		TPU:	+/-1.24		+/-4.92						

Notes:
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- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on

QC Summary

Workorder: 247193

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time

	nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 956741 Product: Tritium Date: 3/5/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		AT JP 3/5/10
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Alyndsey Pare LANL 3/16/10

Secondary Review Performed By: Laysta Lyon 3/5/10

Tritium Que Sheet

120 or 60 on Orange

02-MAR-10

Batch #: 956741 **Analyst:** KXK2 **First Client Due Date** 16-MAR-10 **Internal Due Date:** 05-MAR-10

Spike Isotope: Hydrogen-3 **Spike Code:** — **Expiration Date:** — **Vol:** —

LCS Isotope: Hydrogen-3 **LCS Code:** 0134-K **Expiration Date:** 3/27/10 **Vol:** 0.1

Prep Date: 3/2/10 **Initials:** KKK **Pipet ID:** 2970968 **Witness:** 3/3/10

Sample ID	Client Samp ID	Type	Hazard Code	Min CRDL	Matrix	Client	Sample Date	Aliquot in vial (g/mL)	LSC Rack #	Dist Rig #	Vol added for Dist (mL)	Initial Sample Aliquot (g/mL)	Final Wt (g)	Total Moisture Dist Vol (mL) KKK 3/2/10	
247193005-1	RE15-10-8188	SAMPLE		.25 pCi/mL	SOIL	LANL010	10-FEB-10	8	30	5		603.52	593.86	9.66	
247193006-1	RE15-10-8187	SAMPLE		.25 pCi/mL	SOIL	LANL010	10-FEB-10	10	31	6		561.46	547.98	13.48	
247193007-1	RE15-10-8197	SAMPLE		.25 pCi/mL	SOIL	LANL010	10-FEB-10	7.5	32	7		570.43	562.44	7.99	
247193012-1	RE15-10-8195	SAMPLE		.25 pCi/mL	SOIL	LANL010	10-FEB-10	8.5	33	12		~~594.73~~	585.81	8.92	594.73
247193013-1	RE15-10-8226	SAMPLE		.25 pCi/mL	SOIL	LANL010	10-FEB-10	10	34	13		571.21	557.50	13.71	
247337001-1	RE15-10-8346	SAMPLE		.25 pCi/mL	SOIL	LANL010	12-FEB-10	10	35	15		620.36	555.22	65.14	
247337002-1	RE15-10-8347	SAMPLE		.25 pCi/mL	SOIL	LANL010	12-FEB-10	10	36	16		599.81	583.62	16.19	
247337003-1	RE15-10-8344	SAMPLE		.25 pCi/mL	SOIL	LANL010	12-FEB-10	10	37	17		593.30	561.26	32.04	
247337004-1	RE15-10-8345	SAMPLE		.25 pCi/mL	SOIL	LANL010	12-FEB-10	10	38	18		647.10	606.98	40.12	
247337005-1	RE15-10-8342	SAMPLE		.25 pCi/mL	SOIL	LANL010	12-FEB-10	10	39	19		~~592.19~~	560.80	31.39	592.19
247337006-1	RE15-10-8343	SAMPLE		.25 pCi/mL	SOIL	LANL010	12-FEB-10	10	40	20		577.79	554.10	23.69	
247337007-1	RE15-10-8377	SAMPLE		.25 pCi/mL	SOIL	LANL010	12-FEB-10	10	41	21		612.92	580.44	32.48	
1202051378-1	MB for batch 956741	MB		.25 pCi/mL	SOIL	QC ACCOUNT		10	42	22		20.00	0.00	20.00	
1202051379-1	RE15-10-8346(247337001DUP)	DUP		.25 pCi/mL	SOIL	QC ACCOUNT	12-FEB-10	10	43	15		620.36	555.22	65.14	
1202051380-1	LCS for batch 956741	LCS		.25 pCi/mL	SOIL	QC ACCOUNT		10	44	23		20.00	0.00	20.00	

KKK 3/2/10

Bkg Rack #: 29

Comments:

Bkg prepared with dead water? Yes/No

Instrument Used (circle as appropriate): *LS6000 (Red) 7065155, LS6500 (Blue) 7067083, LS6500 (Gold) 7070506, LS6500 (Green) 7067404, Wallac (Yellow) 4140127, LS6000 (Brown) 7060655, Wallac (Pink) 2200082, Wallac (White) 4140299, Purple 7069123, Silver 7060656, Orange DG06095168*

Calibration Used : *Ecoscint Ultra (10 mL sample/13 mL Ecoscint Ultra)*

Data Reviewed By: Lynda Lyne 3/5/10

GEL Laboratories LLC, Radiochemistry Division

DATE	3/1/2010	INITIALS	KXK2		BATCH NUMBER	956741

Sample #	Sample Wet (g)	% Moisture of Sample (Balance Interface using % Moisture Batch)	Total Moisture in Sample (mL)	Sample Dry (g)	mLs aliquoted into LSC vial	Collection Tube Number
~~247193001~~	~~0.00~~	~~0.011~~	~~0.00~~	~~0.00~~	~~10~~	
~~247193002~~	~~0.00~~	~~0.011~~	~~0.00~~	~~0.00~~	~~10~~	
~~247193003~~	~~0.00~~	~~0.010~~	~~0.00~~	~~0.00~~	~~10~~	
~~247193004~~	~~0.00~~	~~0.010~~	~~0.00~~	~~0.00~~	~~10~~	
247193005	603.52	0.016	9.66	593.86	8	
247193006	561.46	0.024	13.48	547.98	10	
247193007	570.43	0.014	7.99	562.44	7.5	
~~247193008~~	~~0.00~~	~~0.009~~	~~0.00~~	~~0.00~~	~~10~~	
~~247193009~~	~~0.00~~	~~0.012~~	~~0.00~~	~~0.00~~	~~10~~	
~~247193010~~	~~0.00~~	~~0.006~~	~~0.00~~	~~0.00~~	~~10~~	
~~247193011~~	~~0.00~~	~~0.012~~	~~0.00~~	~~0.00~~	~~10~~	
247193012	594.73	0.015	8.92	585.81	8.5	
247193013	571.21	0.024	13.71	557.50	10	
~~247193014~~	~~0.00~~	~~0.012~~	~~0.00~~	~~0.00~~	~~10~~	
247337001	620.36	0.105	65.14	555.22	10	
247337002	599.81	0.027	16.19	583.62	10	
247337003	593.30	0.054	32.04	561.26	10	
247337004	647.10	0.062	40.12	606.98	10	
247337005	592.19	0.053	31.39	560.80	10	
247337006	577.79	0.041	23.69	554.10	10	
247337007	612.92	0.053	32.48	580.44	10	
MB	20.00	1.000	20.00	0.00	10	
DUP	620.36	0.105	65.14	555.22	10	
LCS	20.00	1.000	20.00	0.00	10	

Tritium Solid

Filename : H3VAC.XLS
File type : Excel
Version # : 1.2.6

Batch : 956741
Analyst : KXK2
Prep Date : 3/2/2010

H-3 Abundance : 1
Method Uncertainty : 0.0691
Geometry: 10mL DW/13mL Ecoscint Ultra

Spike S/N :	N/A	
Spike Exp Date :	N/A	
Spike Activity (dpm/ml):	N/A	
Spike Volume Added:	N/A	
Pipet, 0.1 ml Stdev : +/-	0.000701	ml
Pipet, 0.5 ml Stdev : +/-	0.002564	ml
Pipet, 1.0 ml Stdev : +/-	0.005480	ml
Pipet, 5.0 ml Stdev : +/-	0.025729	ml

LCS S/N :	0134-K	
LCS Exp Date :	3/27/2010	
LCS Activity (dpm/ml):	2460.99	
LCS Volume Added:	0.10	
Procedure Code :	LSC_VH3S	
Parmname :	Tritium	
Required MDC :	250	pCi/L
Halflife of Tritium :	12.32	years

Sample Characteristics

Pos.	Sample ID	Wet Sample Weight (g)	Total Moisture L	Sample Aliquot in Vial L	Sample Aliquot Stdev. L	Dry Sample Weight (g)	% Moisture of Sample	Rig number	Sample Date/Time
1	247193005.1	603.52	0.0097	0.0080	2.5729E-05	593.86	1.60%	5	2/10/2010 12:00
2	247193006.1	561.46	0.0135	0.0100	2.5729E-05	547.98	2.40%	6	2/10/2010 12:00
3	247193007.1	570.43	0.0080	0.0075	2.5729E-05	562.44	1.40%	7	2/10/2010 12:00
4	247193012.1	594.73	0.0089	0.0085	2.5729E-05	585.81	1.50%	12	2/10/2010 12:00
5	247193013.1	571.21	0.0137	0.0100	2.5729E-05	557.50	2.40%	13	2/10/2010 12:00
6	247337001.1	620.36	0.0651	0.0100	2.5729E-05	555.22	10.50%	15	2/12/2010 12:00
7	247337002.1	599.81	0.0162	0.0100	2.5729E-05	583.62	2.70%	16	2/12/2010 12:00
8	247337003.1	593.30	0.0320	0.0100	2.5729E-05	561.26	5.40%	17	2/12/2010 12:00
9	247337004.1	647.10	0.0401	0.0100	2.5729E-05	606.98	6.20%	18	2/12/2010 12:00
10	247337005.1	592.19	0.0314	0.0100	2.5729E-05	560.80	5.30%	19	2/12/2010 12:00
11	247337006.1	577.79	0.0237	0.0100	2.5729E-05	554.10	4.10%	20	2/12/2010 12:00
12	247337007.1	612.92	0.0325	0.0100	2.5729E-05	580.44	5.30%	21	2/12/2010 12:00
13	1202051378.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	22	3/2/2010 0:00
14	1202051379.1	620.36	0.0651	0.0100	2.5729E-05	555.22	10.50%	15	2/12/2010 12:00
15	1202051380.1	20.00	0.0200	0.0100	2.5729E-05	0.00	100.00%	23	3/2/2010 0:00

Count raw Data					Background				Calibration Data					Backgrounds	
Pos.	Rack Position #	Counting Time (min.)	Quench#	Gross cpm	cpm	Count Time (min.)	Count Start Date/Time	Sample Decay	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Rack Position #	Count Start Date/Time
1	30	11.5463	762.45	888.28	1.15	60	3/4/2010 7:14	0.997	LSCORANGE	7/23/2009	7/31/2010	0.2751	0.00792	29	3/4/2010 6:11
2	31	19.3297	757.63	529.99	1.15	60	3/4/2010 7:28	0.997	LSCORANGE	7/23/2009	7/31/2010	0.2672	0.00792	29	3/4/2010 6:11
3	32	60.0297	757.01	98.6	1.15	60	3/4/2010 7:49	0.997	LSCORANGE	7/23/2009	7/31/2010	0.2662	0.00792	29	3/4/2010 6:11
4	33	60.0297	758.6	142.78	1.15	60	3/4/2010 8:52	0.997	LSCORANGE	7/23/2009	7/31/2010	0.2688	0.00792	29	3/4/2010 6:11
5	34	19.463	761.42	526.51	1.15	60	3/4/2010 9:55	0.997	LSCORANGE	7/23/2009	7/31/2010	0.2734	0.00792	29	3/4/2010 6:11
6	35	60.0297	758.47	2.94	1.15	60	3/4/2010 10:16	0.997	LSCORANGE	7/23/2009	7/31/2010	0.2686	0.00792	29	3/4/2010 6:11
7	36	60.0297	759.55	2.64	1.15	60	3/4/2010 11:19	0.997	LSCORANGE	7/23/2009	7/31/2010	0.2704	0.00792	29	3/4/2010 6:11
8	37	60.013	759.03	3.24	1.15	60	3/4/2010 12:21	0.997	LSCORANGE	7/23/2009	7/31/2010	0.2695	0.00792	29	3/4/2010 6:11
9	38	60.0297	758.81	2.18	1.15	60	3/4/2010 13:24	0.997	LSCORANGE	7/23/2009	7/31/2010	0.2691	0.00792	29	3/4/2010 6:11
10	39	60.013	761.49	3.03	1.15	60	3/4/2010 14:26	0.997	LSCORANGE	7/23/2009	7/31/2010	0.2735	0.00792	29	3/4/2010 6:11
11	40	60.0297	762.89	2.69	1.15	60	3/4/2010 15:29	0.997	LSCORANGE	7/23/2009	7/31/2010	0.2758	0.00792	29	3/4/2010 6:11
12	41	60.0297	757.99	2.5	1.15	60	3/4/2010 16:32	0.997	LSCORANGE	7/23/2009	7/31/2010	0.2678	0.00792	29	3/4/2010 6:11
13	42	60.0296	760.97	1.17	1.15	60	3/4/2010 17:35	1.000	LSCORANGE	7/23/2009	7/31/2010	0.2727	0.00792	29	3/4/2010 6:11
14	43	60.0296	762.59	2.81	1.15	60	3/4/2010 18:37	0.997	LSCORANGE	7/23/2009	7/31/2010	0.2753	0.00792	29	3/4/2010 6:11
15	44	15.013	761.76	37.29	1.15	60	3/4/2010 19:40	1.000	LSCORANGE	7/23/2009	7/31/2010	0.2739	0.00792	29	3/4/2010 6:11

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	164.9213	116.4358	250	286.2384	**182213.4264**	0.013	887.130	8.772	1801.7732	12827.6194		SAMPLE				
2	110.5242	78.0310	250	182.3130	**89448.4642**	0.013	528.840	5.238	885.9760	6292.5483		SAMPLE				
3	103.2487	72.8945	250	157.1026	**22061.2211**	0.016	97.450	1.289	291.8241	1565.5777		SAMPLE				
4	90.2187	63.6951	250	137.2762	**28012.6007**	0.014	141.610	1.548	306.2824	1975.9128		SAMPLE				
5	107.7477	76.0708	250	177.6239	**86852.9059**	0.013	525.360	5.203	860.1605	6109.9388		SAMPLE				
6	76.7236	54.1675	250	116.7422	**301.1240**	0.146	1.790	0.261	43.9108	48.6621		SAMPLE				
7	76.2236	53.8145	250	115.9813	**249.0225**	0.169	1.490	0.251	41.9942	45.4348		SAMPLE				
8	76.4693	53.9880	250	116.3570	**350.4020**	0.130	2.090	0.270	45.3434	51.4938		SAMPLE				
9	76.5667	54.0567	250	116.5034	**172.9180**	0.229	1.030	0.236	39.5405	41.3339		SAMPLE				
10	75.3519	53.1991	250	114.6567	**310.5882**	0.141	1.880	0.264	43.5989	48.6703		SAMPLE				
11	74.7295	52.7597	250	113.7079	**252.3340**	0.164	1.540	0.253	41.4417	45.0142		SAMPLE				
12	76.9519	54.3287	250	117.0896	**227.7804**	0.183	1.350	0.247	41.6051	44.5271		SAMPLE				
13	75.3776	53.2172	250	114.6941	**3.3055**	9.829	0.020	0.197	32.4912	32.4921		MB				
14	74.8622	52.8534	250	113.9099	**272.4795**	0.155	1.660	0.257	42.1590	46.2334	247337001.1	DUP	10.0%	0.1509		
15	118.6095	83.7393	250	200.3510	**5945.1778**	0.045	36.140	1.582	260.2603	489.0673		LCS			5542.7664	107.3%

REGISTRY

THU 4 MAR 2010 6:09

*** DIRECTORY PATH :S:\LSC\O\DA\956741A0 ***

PARAMETER GROUP: 8
ID: H-3 (2)

00A PROGRAM MODE 6 ->

ORDER	POS	ID	CTIME	COUNTS	CUCNTS	MCW	REP	STD	STMS	STIME
1	29	BKG	60:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
2	30	247193005	60:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
3	31	247193006	60:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
4	32	247193007	60:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
5	33	247193012	60:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
6	34	247193013	60:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
7	35	247337001	60:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
8	36	247337002	60:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
9	37	247337003	60:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
10	38	247337004	60:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
11	39	247337005	60:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
12	40	247337006	60:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
13	41	247337007	60:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
14	42	1202051378	60:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
15	43	1202051379	60:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
16	44	1202051380	15:00	1.0E04	NO LIM	1	1	Y	1/10	1:00

NUMBER OF CYCLES 1
COINCIDENCE BIAS (L/H) L

MCA	INPUT	TRIGG.	INHIBIT	MEMORY SPLIT
1	LRSUM	DCOS	G	L*R
2	GSUM	G		L*R

WINDOW	CHANNELS	MCA	HALF
1	50- 175	1	2
2	5- 320	1	2
3	1- 1024	1	2
4	50- 320	1	1
5	50- 270	1	1
6	60- 220	1	1
7	1- 1024	2	1
8	1- 1024	2	2

SELECTED PRINTOUT FOR TERMINAL 1 (A)

SELECTED PRINTOUT FOR TERMINAL 2 (B)

1.	2.	3.	4.	5.	6.	7.
POS	ID	CTIME	SQP	CPM1	CPM2	CPM3

SEND SPECTRA 12
RESOLUTION OF SPECTRA 1024
LISTING Y
INSTRUMENT NUMBER 1

POS	ID	CTIME	SQP	CPM1	CPM2	CPM3

Page 1

Q012901N.001 4 MAR 2010 7:12						
29	BKG	60:01.780	759.71	1.15	2.40	6.97
Q023001N.001 4 MAR 2010 7:26						
30	247193005	11:32.780	762.45	888.28	970.11	974.45
Q033101N.001 4 MAR 2010 7:48						
31	247193006	19:19.780	757.63	529.99	577.44	582.10
Q043201N.001 4 MAR 2010 8:50						
32	247193007	60:01.780	757.01	98.60	107.69	112.86
Q053301N.001 4 MAR 2010 9:53						
33	247193012	60:01.780	758.60	142.76	155.30	159.99
Q063401N.001 4 MAR 2010 10:15						
34	247193013	19:27.780	761.42	526.51	580.32	585.73
Q073501N.001 4 MAR 2010 11:17						
35	247337001	60:01.780	758.47	2.94	4.33	8.69
Q083601N.001 4 MAR 2010 12:20						
36	247337002	60:01.779	759.55	2.64	3.95	8.52
Q093701N.001 4 MAR 2010 13:22						
37	247337003	60:00.779	759.03	3.24	4.51	9.65
Q103801N.001 4 MAR 2010 14:25						
38	247337004	60:01.779	758.81	2.18	3.68	8.66
Q113901N.001 4 MAR 2010 15:27						
39	247337005	60:00.779	761.49	3.03	4.55	9.85
Q124001N.001 4 MAR 2010 16:30						
40	247337006	60:01.779	762.89	2.69	4.10	8.96
Q134101N.001 4 MAR 2010 17:33						
41	247337007	60:01.779	757.99	2.50	3.78	8.44
Q144201N.001 4 MAR 2010 18:36						
42	1202051378	60:01.778	760.97	1.17	2.50	7.28
Q154301N.001 4 MAR 2010 19:38						
43	1202051379	60:01.778	762.59	2.81	4.41	8.90
Q164401N.001 4 MAR 2010 19:56						
44	1202051380	15:00.778	761.76	37.29	42.88	46.77

Instrument Type:	Quantulus
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Quench:	759.71
Start, End, X-Axis	50-175

Channel	Counts

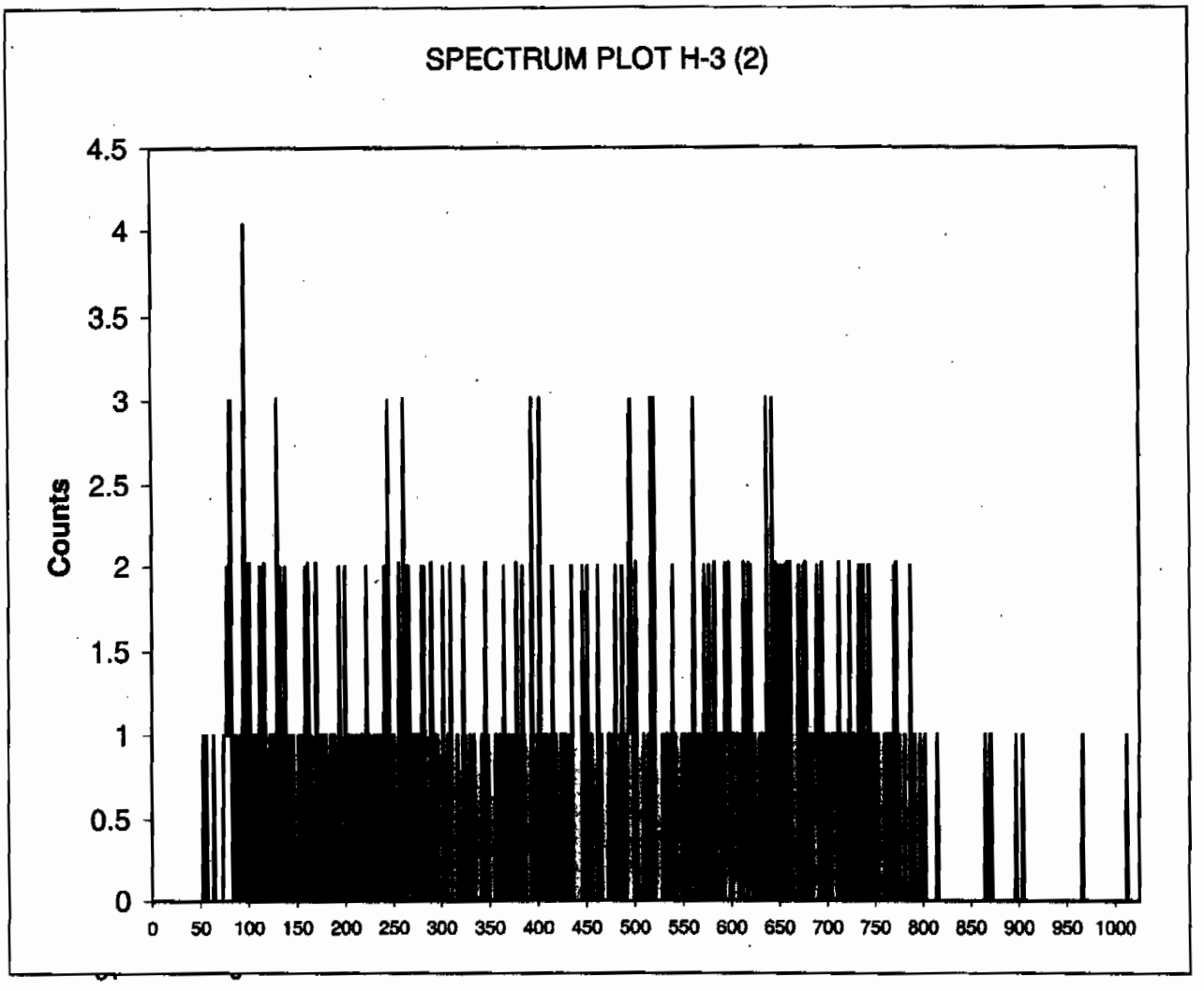

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Quench:	762.45
Start, End, X-Axis	50-175

Channel Counts

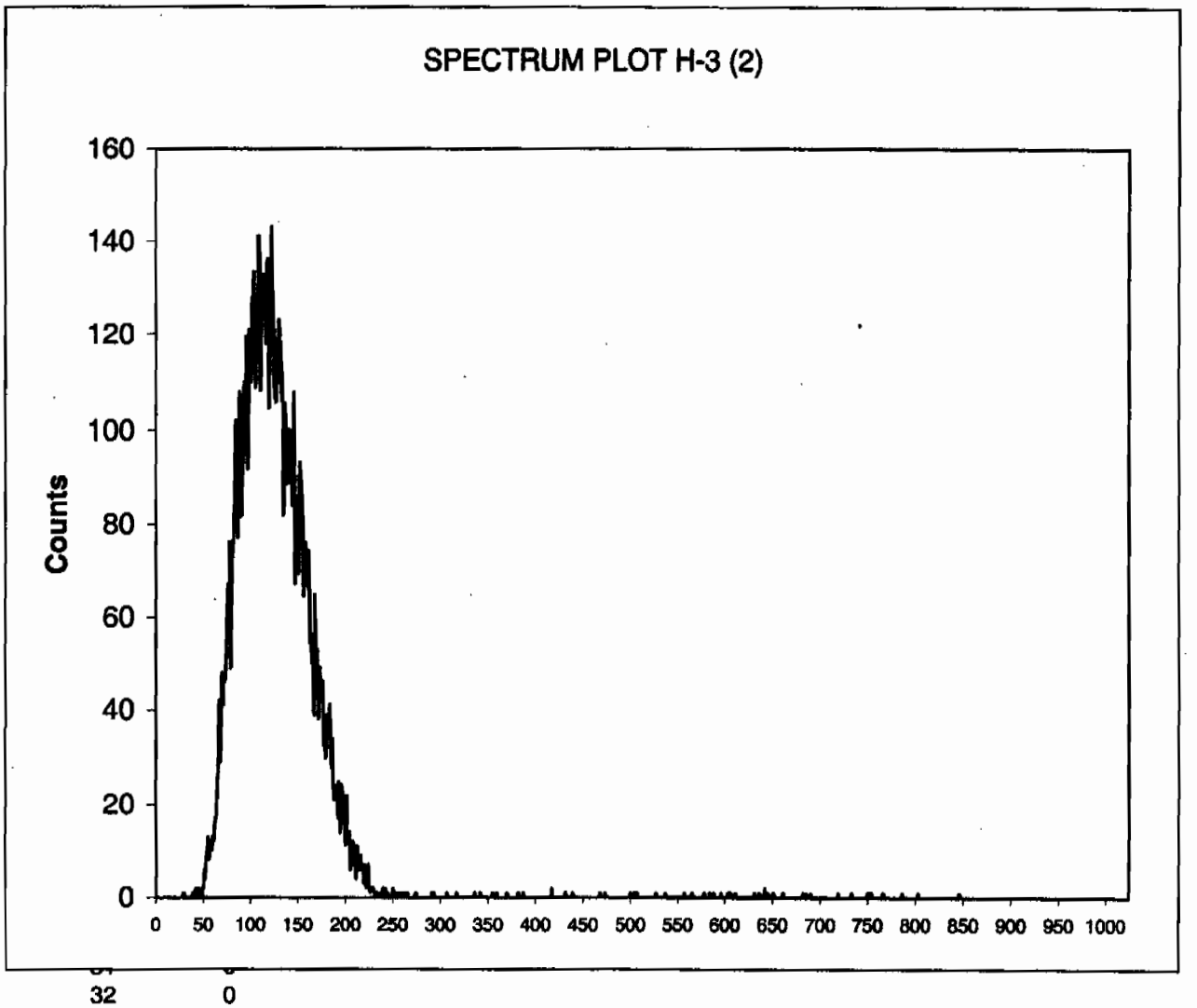

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Comments:	ORANGE

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Quench:	757.63
Start, End, X-Axis	50-175

Channel Counts

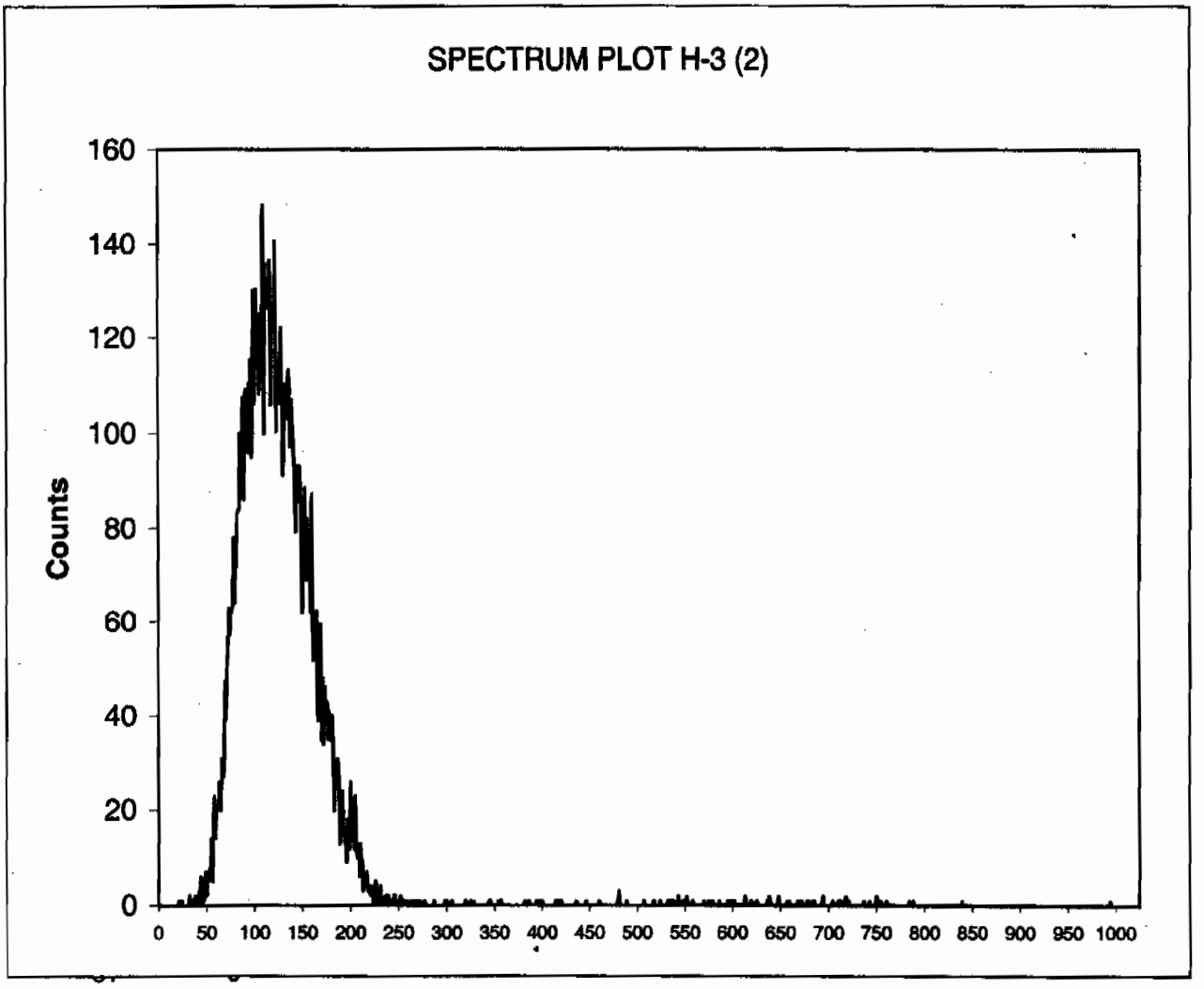

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Quench:	757.01
Start, End, X-Axis	50-175

Channel Counts

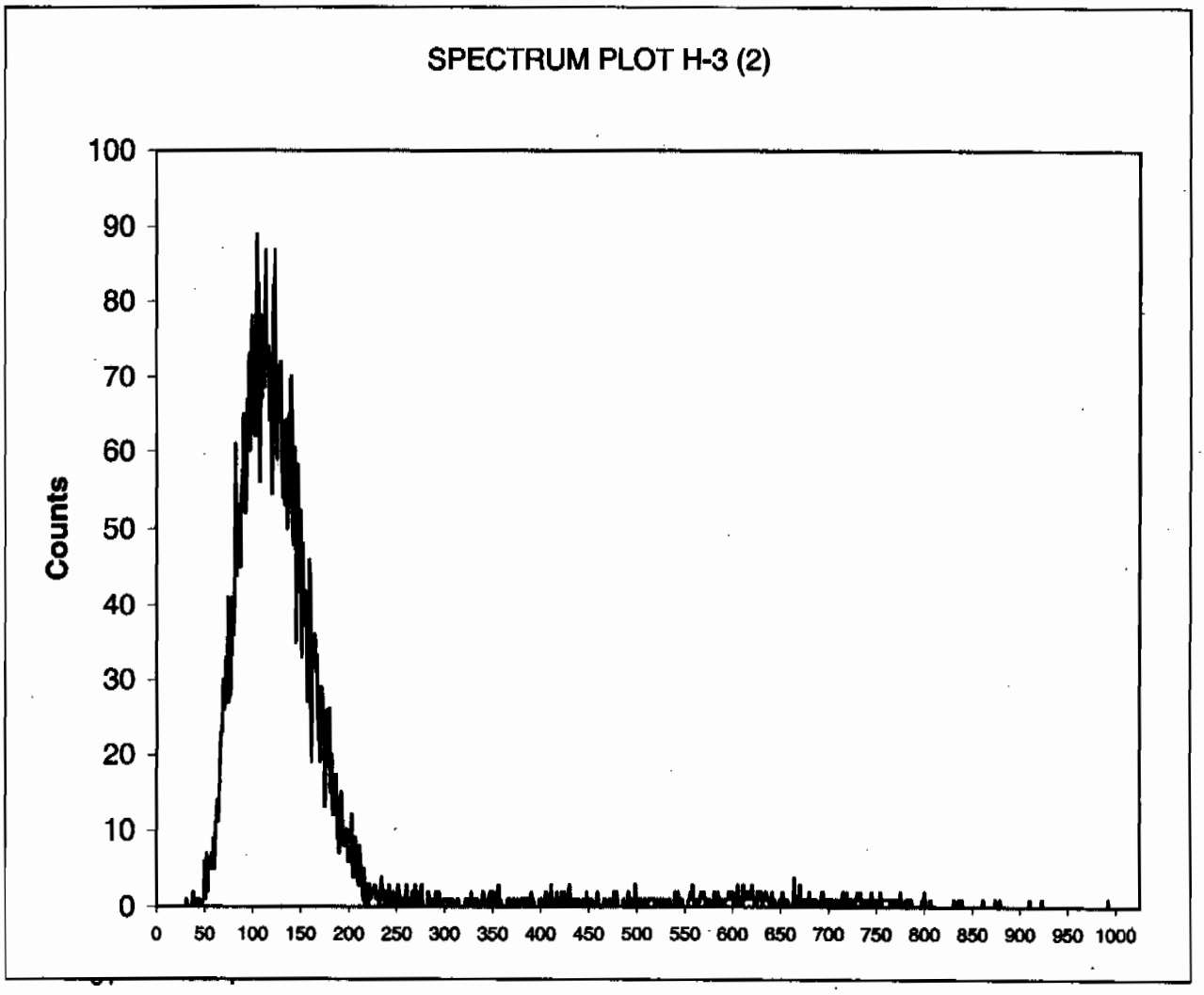

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Quench:	758.6
Start, End, X-Axis	50-175

Channel Counts

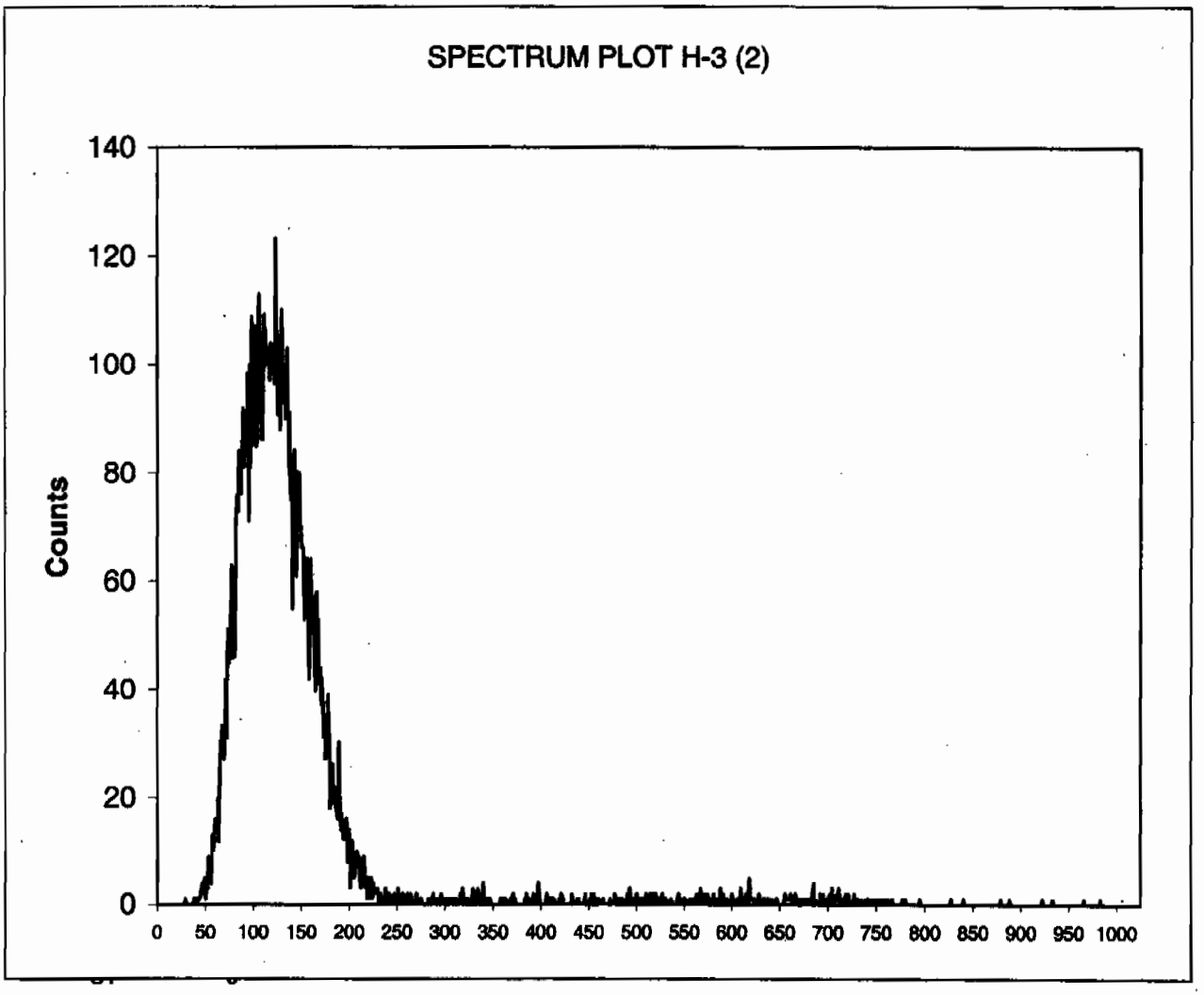

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Start, End, X-Axis	50-175

Channel Counts

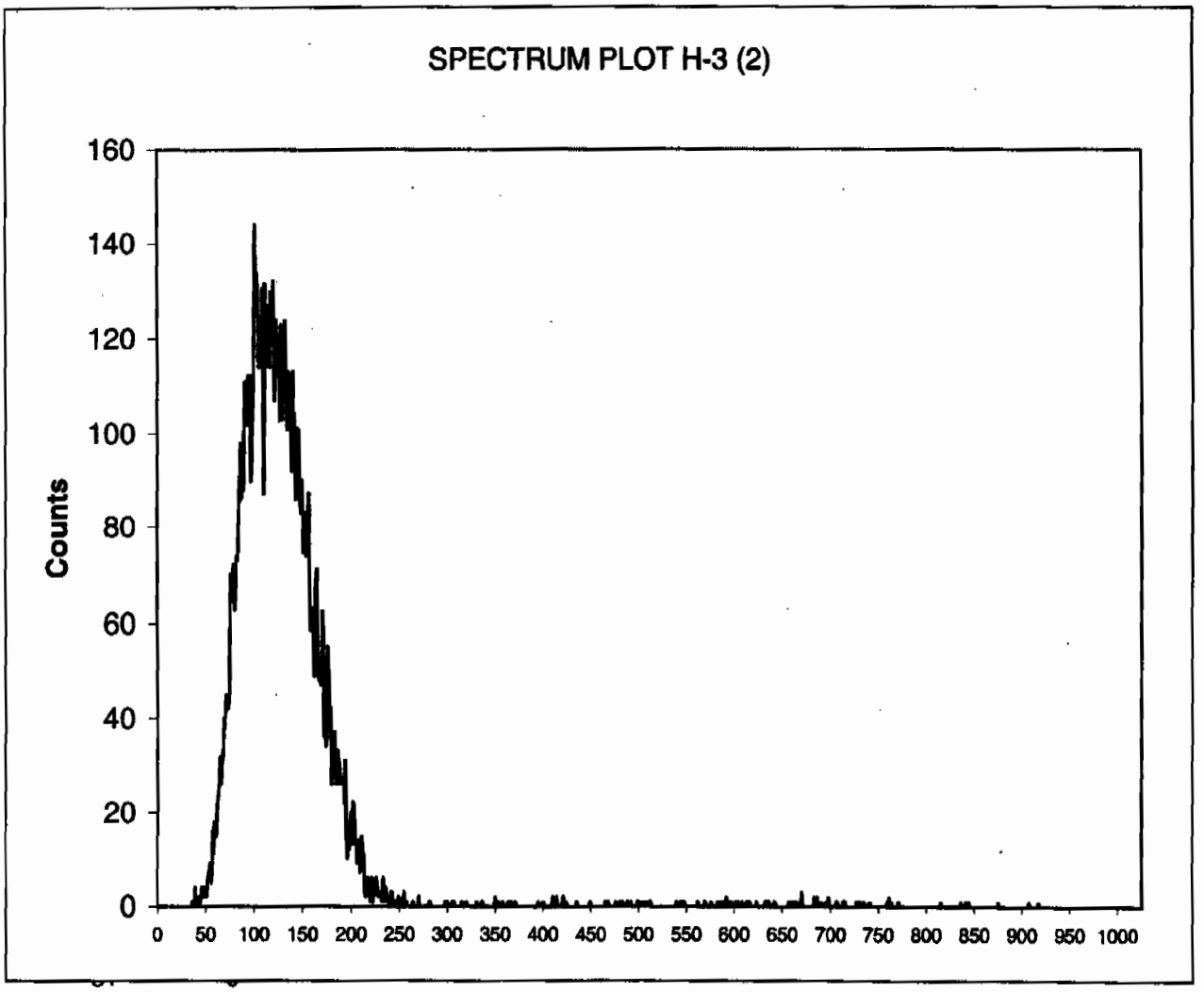

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Start, End, X-Axis	50-175

Channel Counts

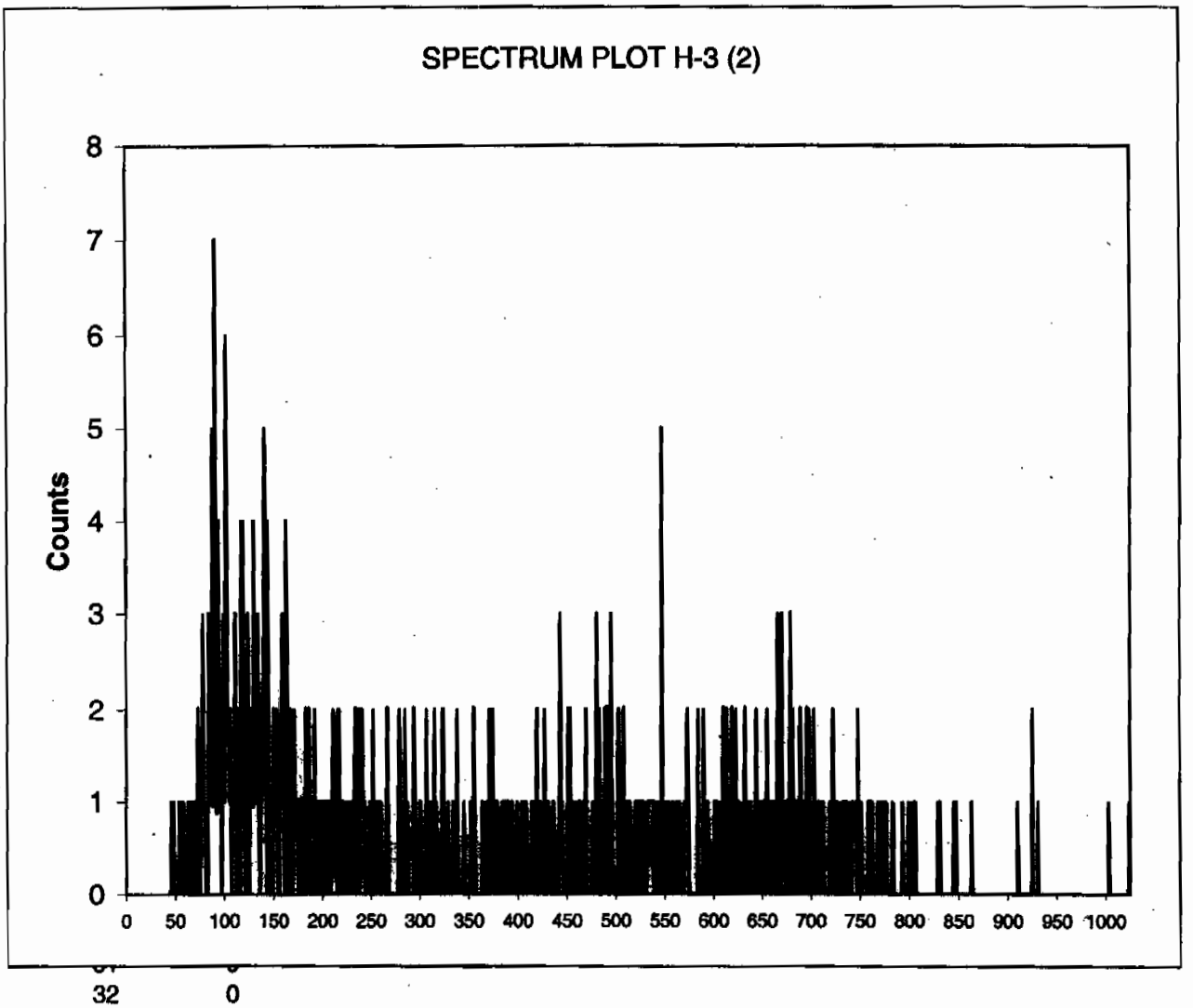

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ID:	H-3 (2)
Comments:	ORANGE
Sample, Rack-Pos, Time:	8, 247337002, 60.02965:
Quench:	759.55
Start, End, X-Axis	50-175

Channel Counts

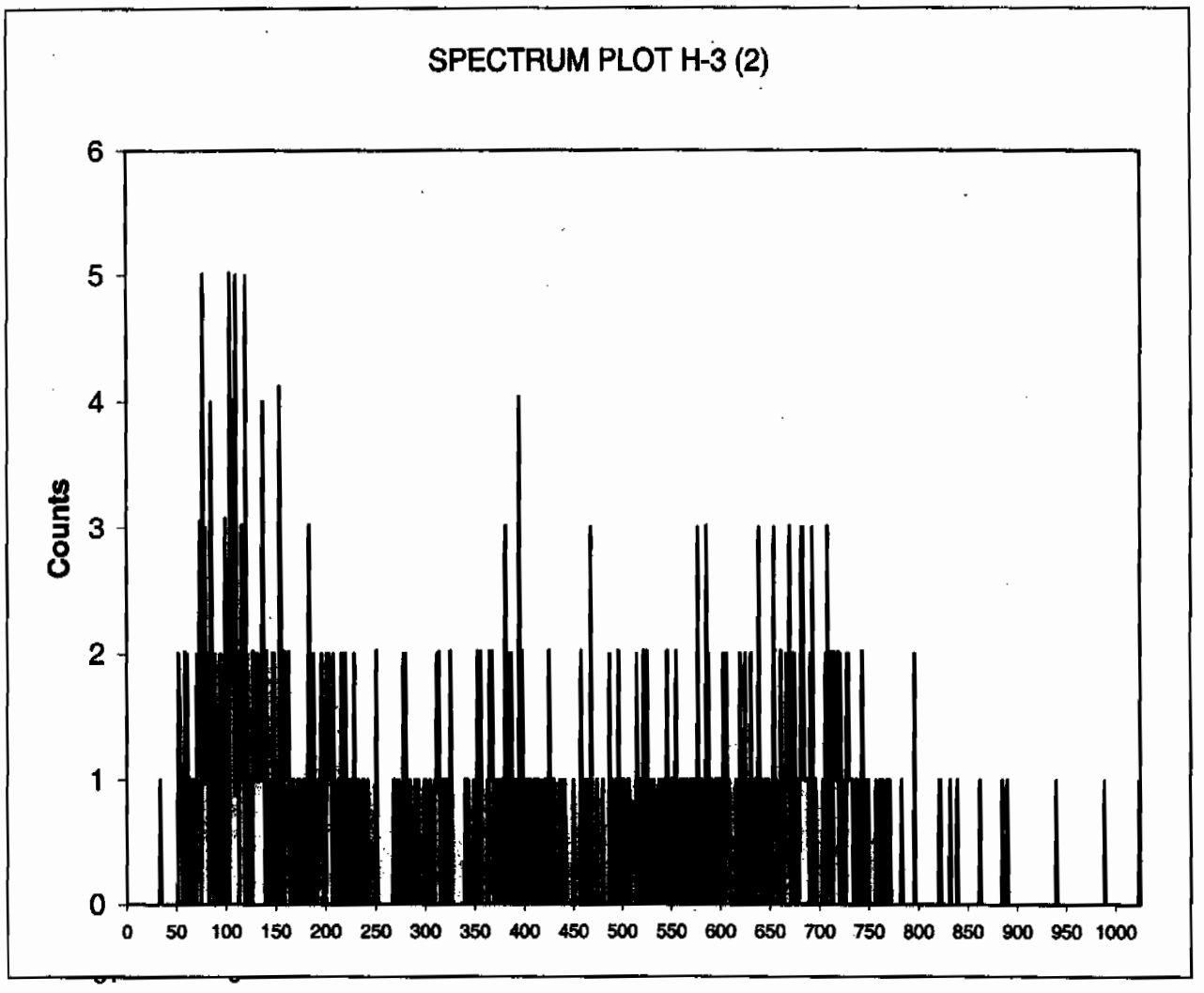

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ID:	H-3 (2)
Comments:	ORANGE

Sample, Rack-Pos, Time:	9, 247337003, 60.01299:
Quench:	759.03
Start, End, X-Axis	50-175

Channel Counts

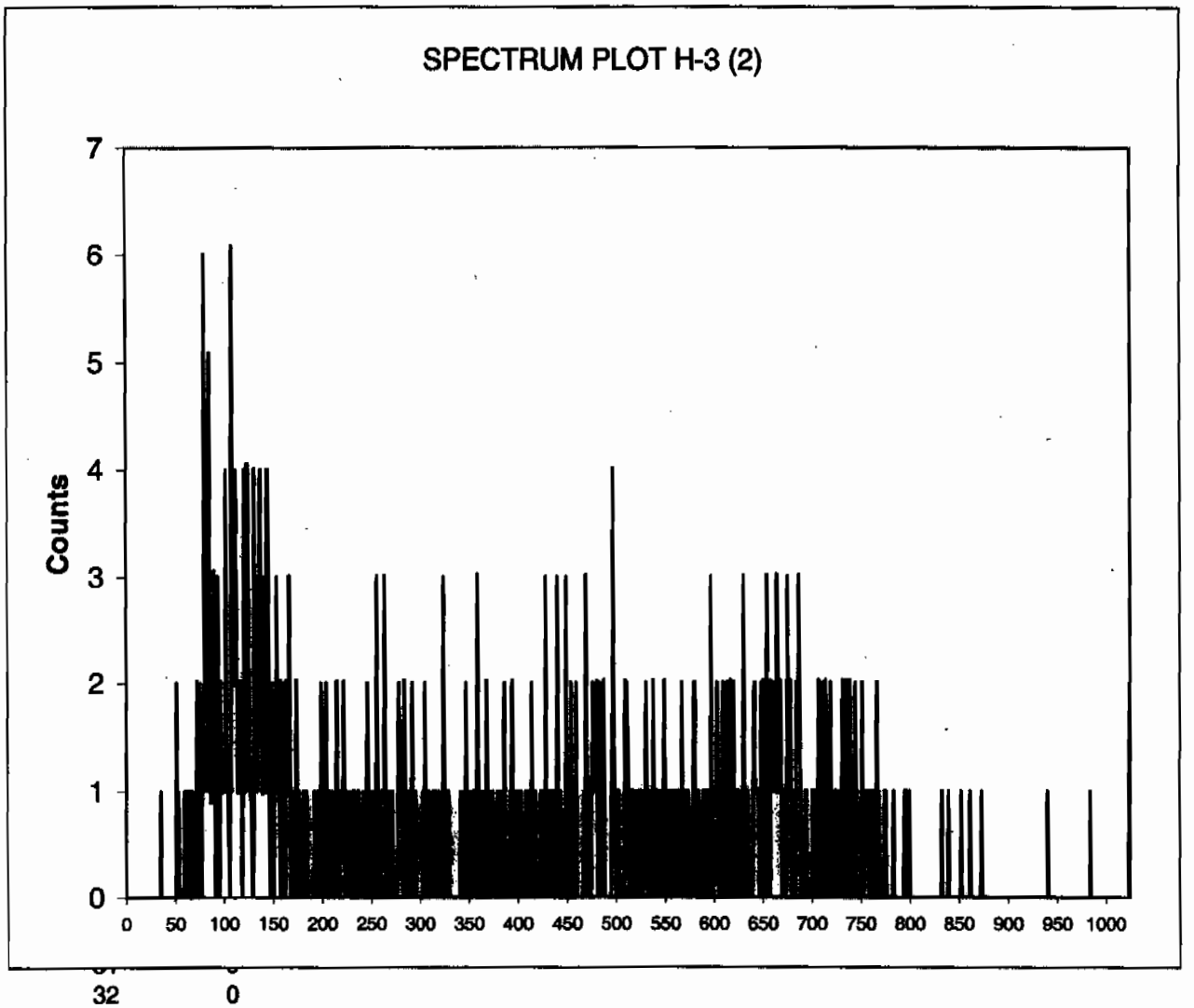

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ID:	H-3 (2)
Comments:	ORANGE
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Quench:	758.81
Start, End, X-Axis	50-175

Channel Counts

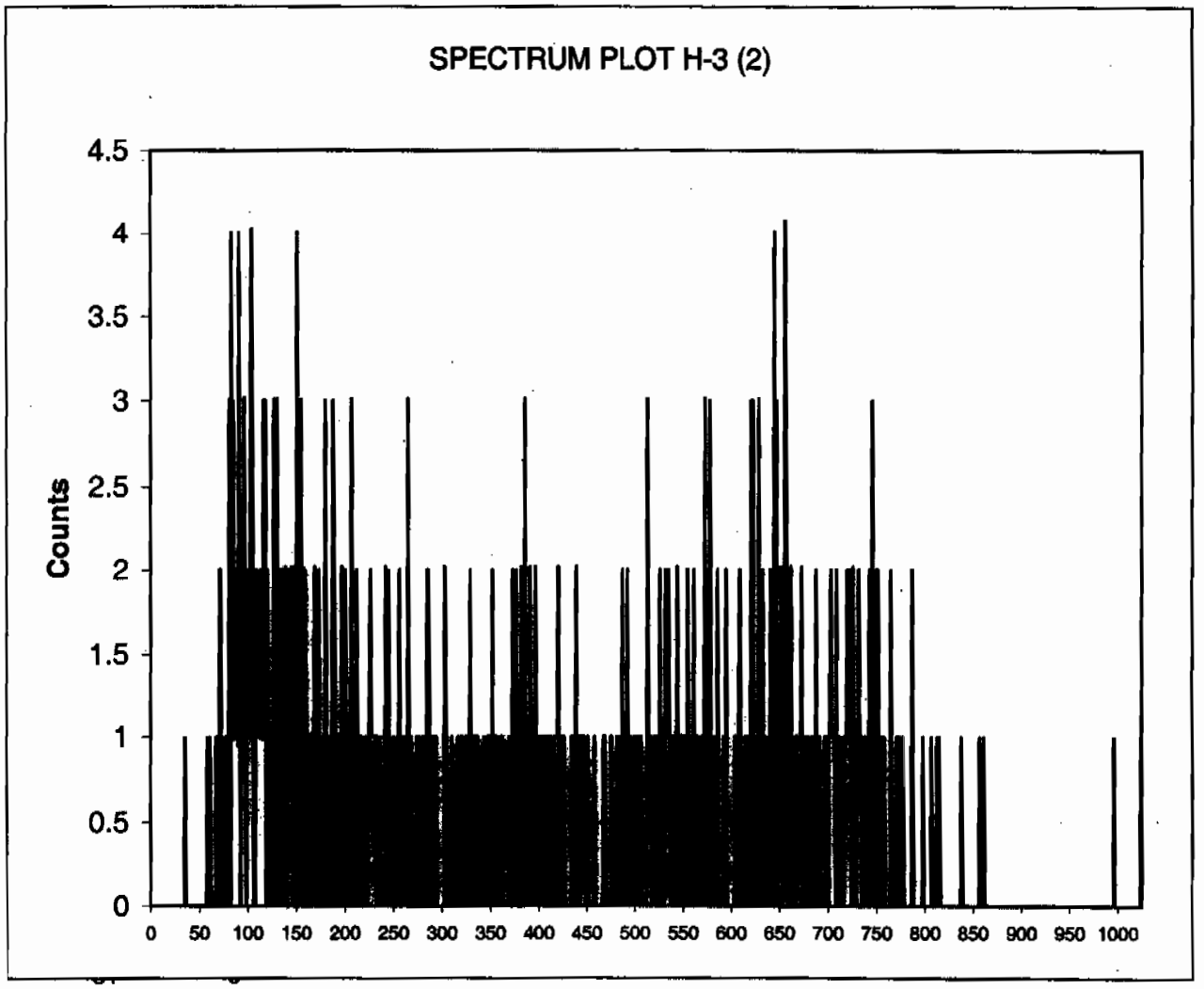

32	0
33	0
34	0
35	1

Instrument Type:	Quantulus
Data Capture Date:	THU 4 MAR 2010 6:09
FileName:	s:\lsc\files\orange\956741A0\SQ113901N.001.xls
File Info:	s:\lsc\files\orange\956741A0\U956741A0.xls
ID:	H-3 (2)
Comments:	ORANGE
Sample, Rack-Pos, Time:	11, 247337005, 60.01299:
Quench:	761.49
Start, End, X-Axis	50-175

Channel Counts

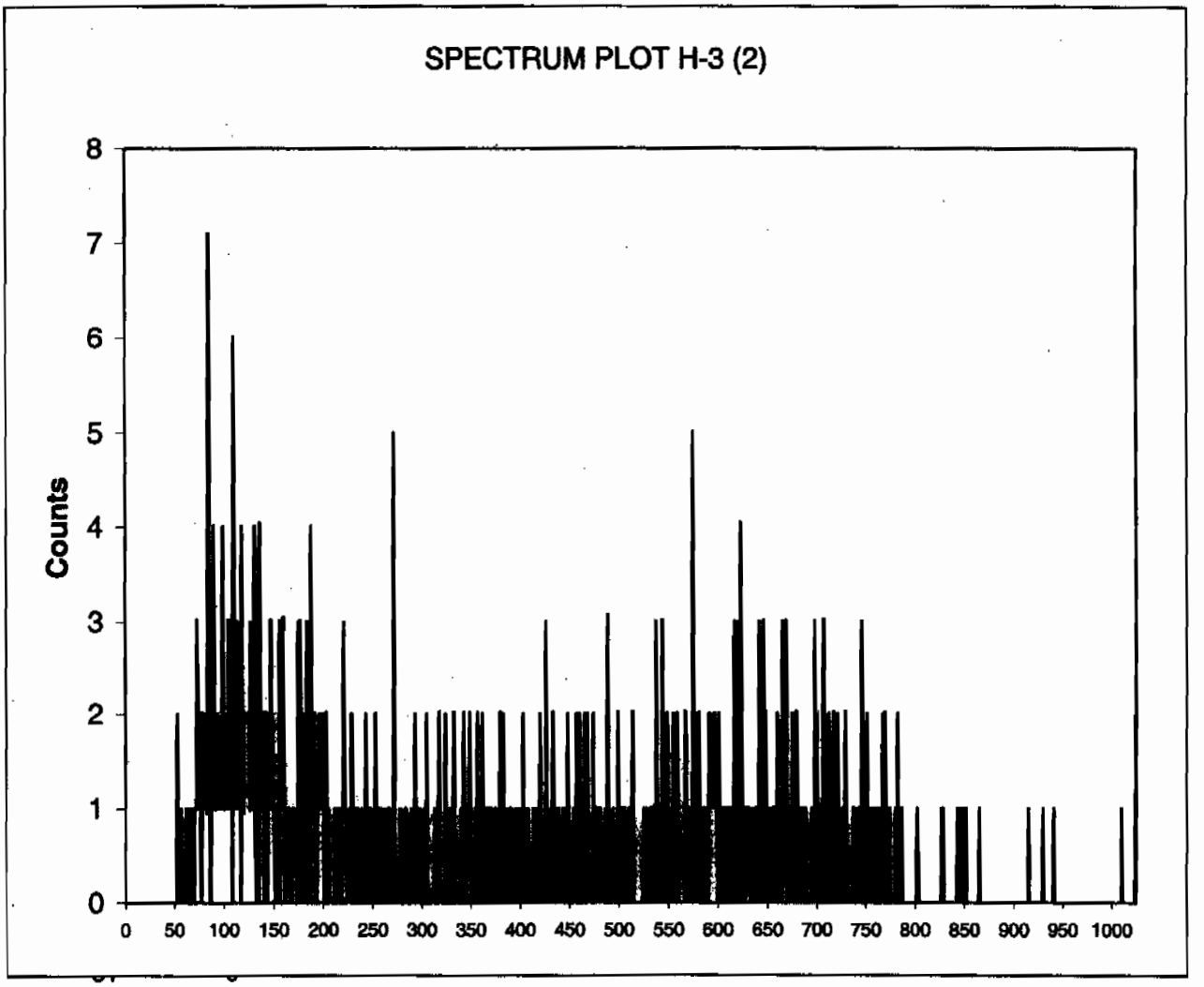

32	0
33	0
34	0
35	0

Instrument Type:	Quantulus
Data Capture Date:	THU 4 MAR 2010 6:09
FileName:	s:\lsc\files\orange\956741A0\SQ124001N.001.xls
File Info:	s:\lsc\files\orange\956741A0\U956741A0.xls

ID:	H-3 (2)
Comments:	ORANGE

Sample, Rack-Pos, Time:	12, 247337006, 60.02965:
Quench:	762.89
Start, End, X-Axis	50-175

Channel Counts

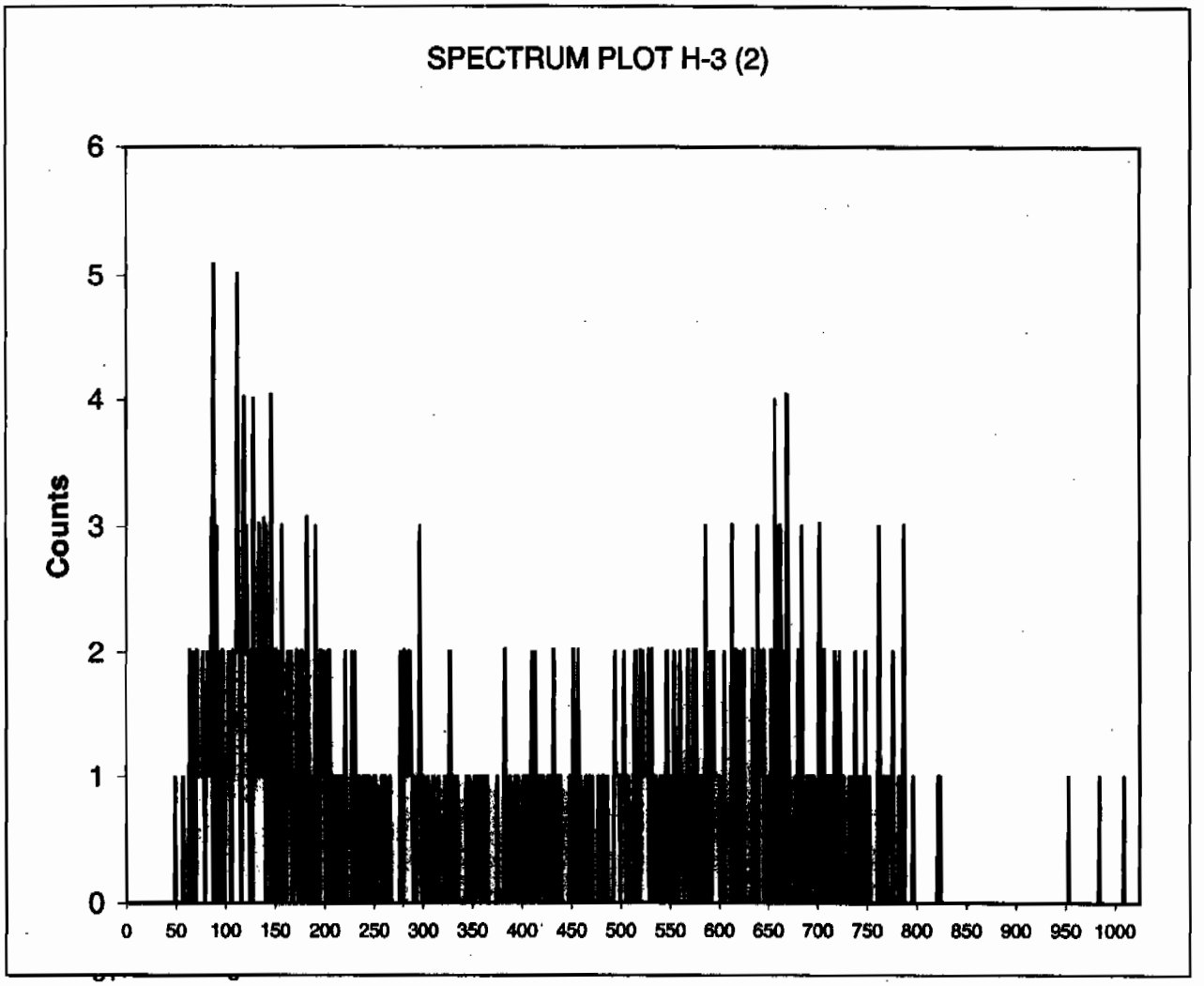

32	0
33	0
34	0
35	0

Instrument Type:	Quantulus
Data Capture Date:	THU 4 MAR 2010 6:09
FileName:	s:\lsc\files\orange\956741A0\SQ134101N.001.xls
File Info:	s:\lsc\files\orange\956741A0\U956741A0.xls

ID:	H-3 (2)
Comments:	ORANGE

Sample, Rack-Pos, Time:	13, 247337007, 60.02965:
Quench:	757.99
Start, End, X-Axis	50-175

Channel Counts

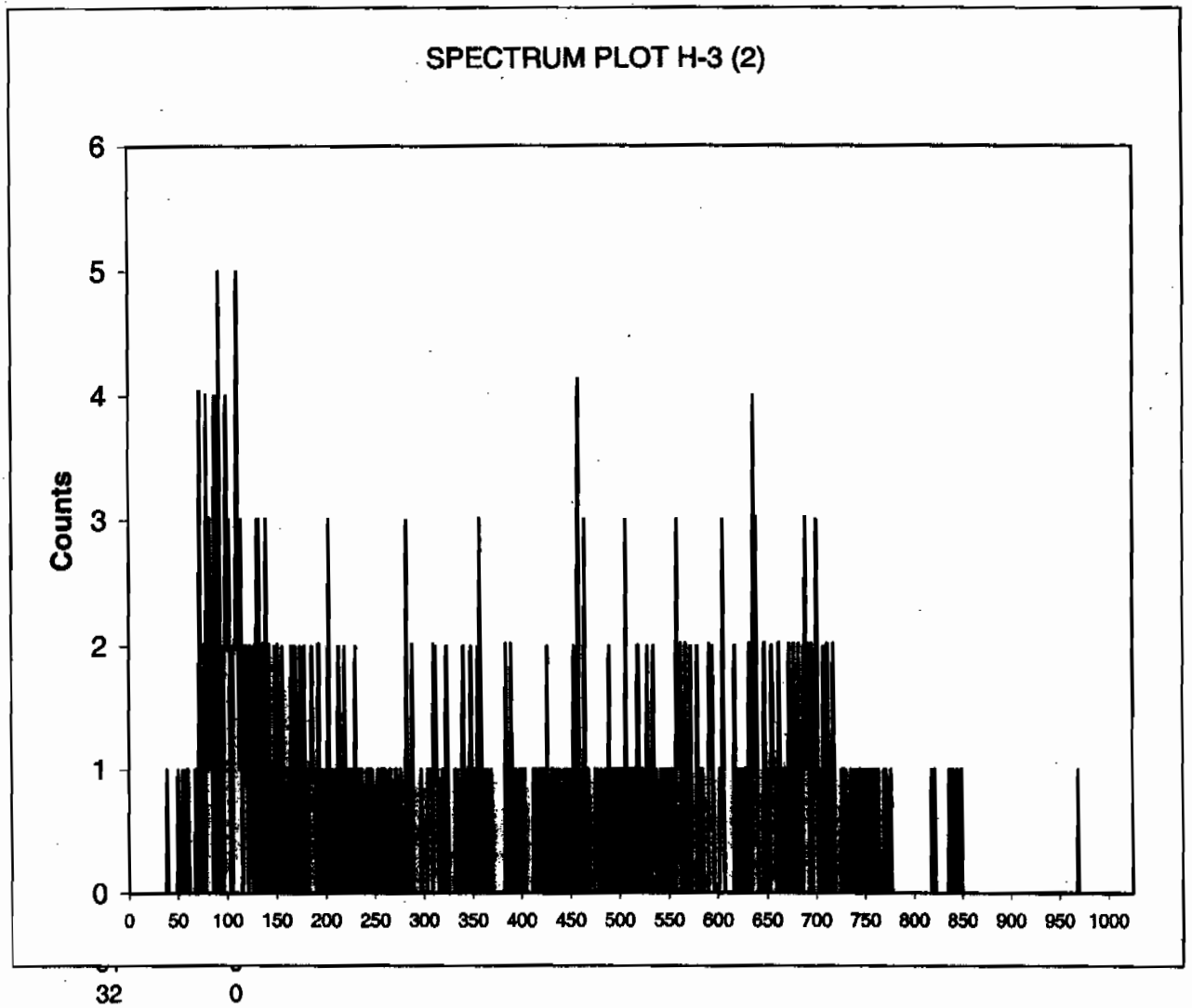

32	0
33	0
34	0
35	0

Instrument Type:	Quantulus
Data Capture Date:	THU 4 MAR 2010 6:09
FileName:	s:\lsc\files\orange\956741A0\SQ144201N.001.xls
File Info:	s:\lsc\files\orange\956741A0\U956741A0.xls

ID:	H-3 (2)
Comments:	ORANGE

Sample, Rack-Pos, Time:	14, 1202051378, 60.02963:
Quench:	760.97
Start, End, X-Axis	50-175

Channel Counts

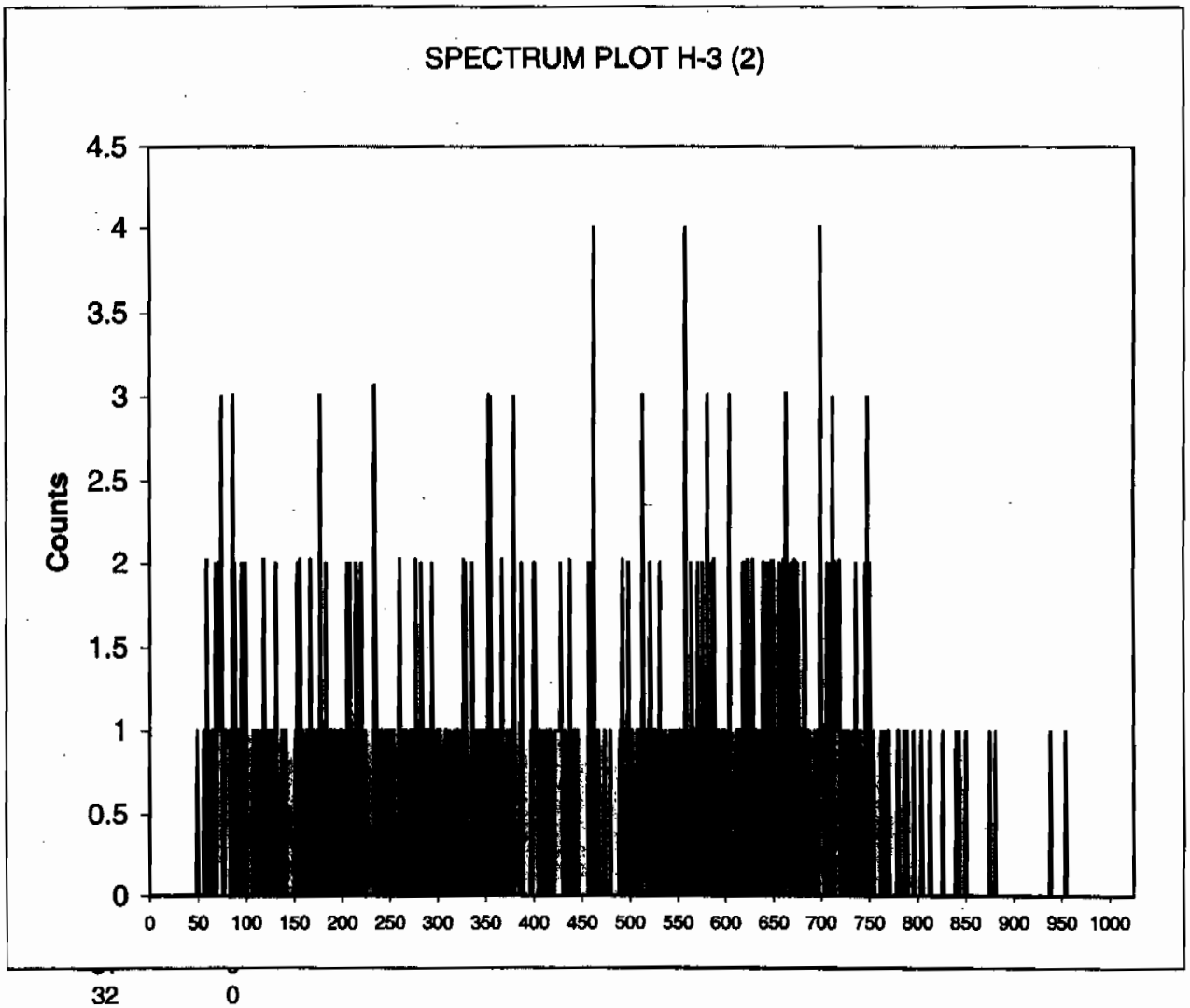

32	0
33	0
34	0
35	0

Instrument Type:	Quantulus
Data Capture Date:	THU 4 MAR 2010 6:09
FileName:	s:\lsc\files\orange\956741A0\SQ154301N.001.xls
File Info:	s:\lsc\files\orange\956741A0\U956741A0.xls
ID:	H-3 (2)
Comments:	ORANGE
Sample, Rack-Pos, Time:	15, 1202051379, 60.02963:
Quench:	762.59
Start, End, X-Axis	50-175

Channel Counts

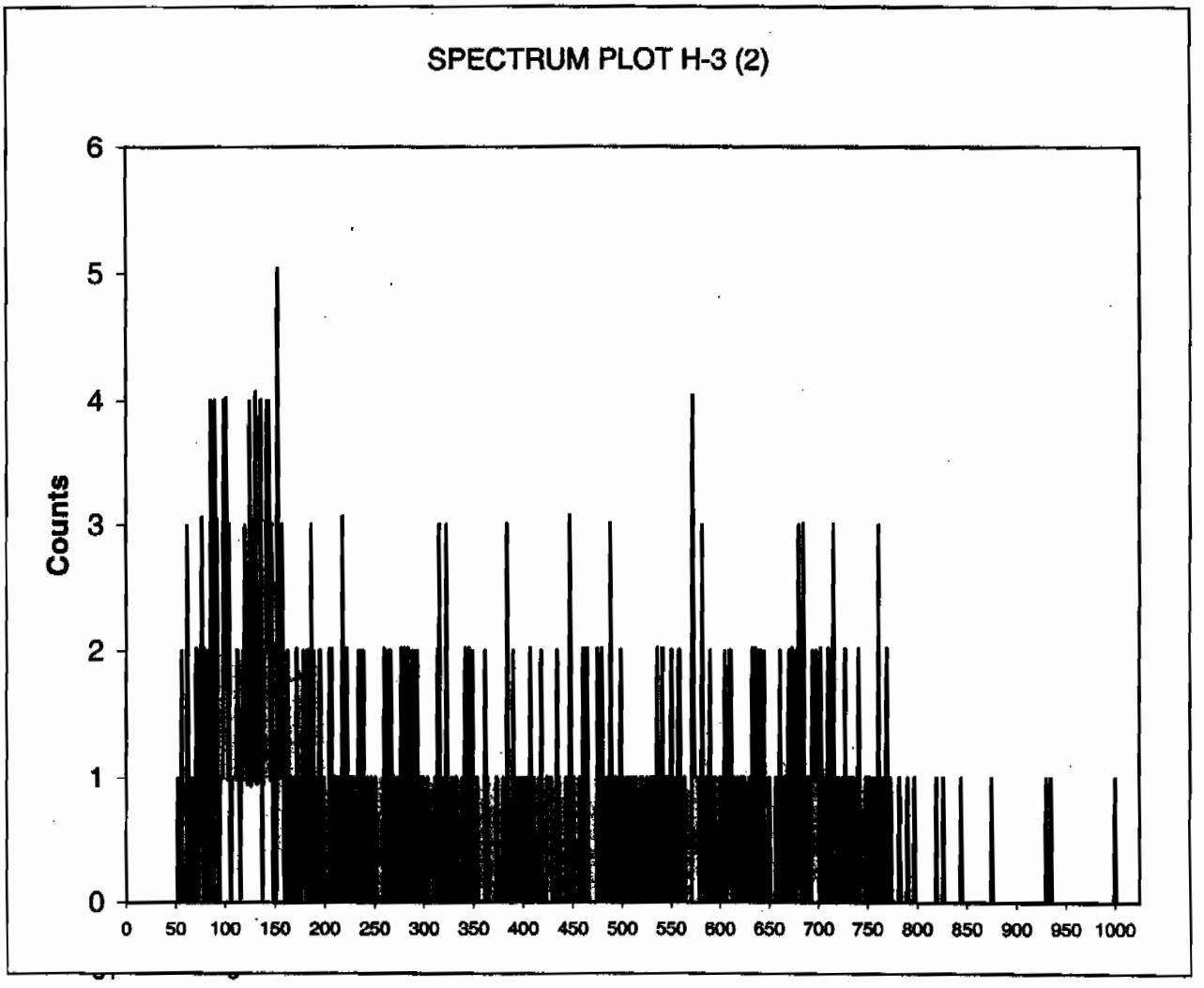

32	0
33	0
34	0
35	0

Instrument Type:	Quantulus
Data Capture Date:	THU 4 MAR 2010 6:09
FileName:	s:\lsc\files\orange\956741A0\SQ164401N.001.xls
File Info:	s:\lsc\files\orange\956741A0\U956741A0.xls
ID:	H-3 (2)
Comments:	ORANGE
Sample, Rack-Pos, Time:	16, 1202051380, 15.01297:
Quench:	761.76
Start, End, X-Axis	50-175

Channel Counts

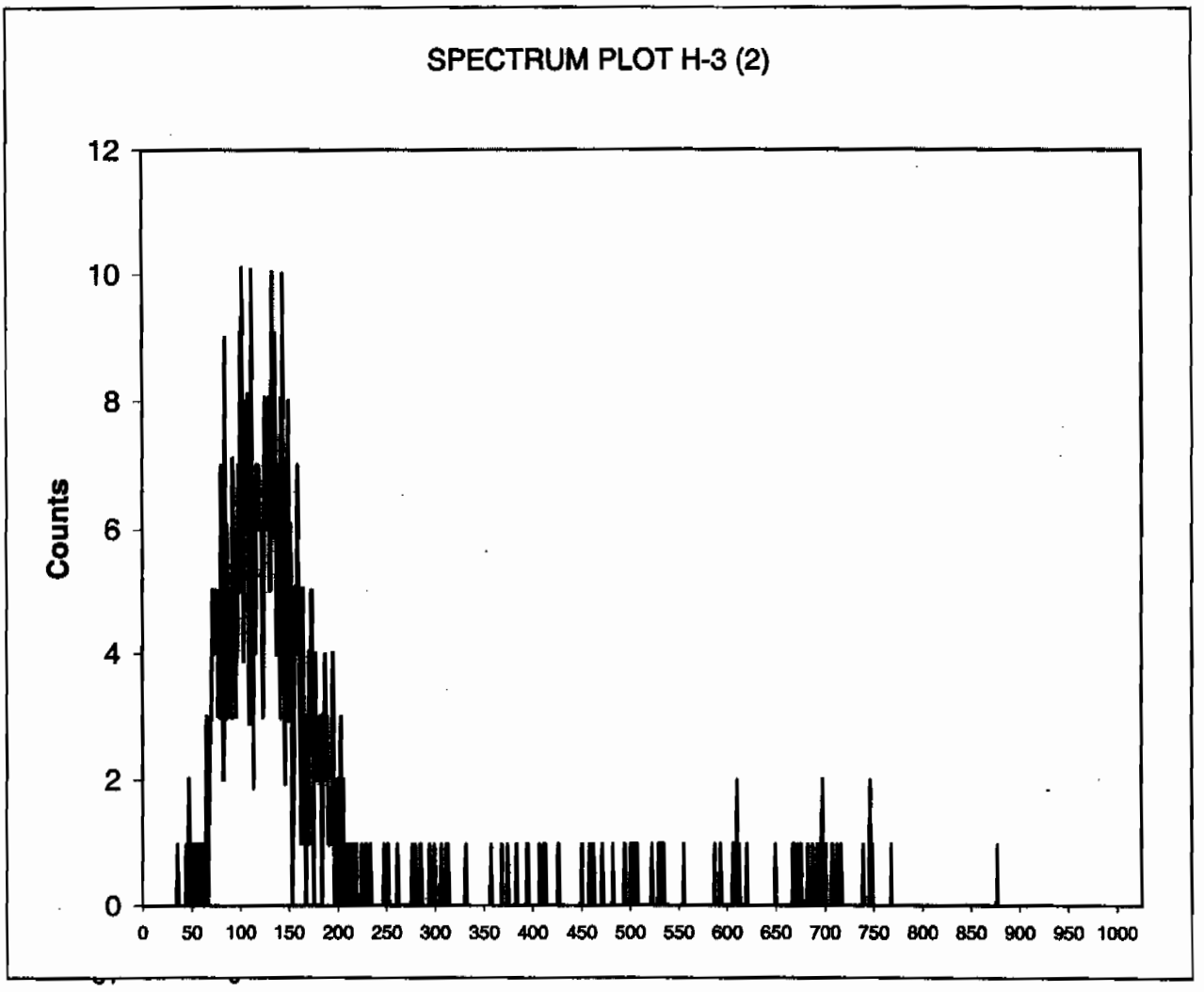

32	0
33	0
34	0
35	1

Radiochemistry Batch Checklist, Rev10

Batch# 961331 Product: H3 Date: 3/9/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW			
Hit notification complete (if necessary)	✓		
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.	✓		
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.	✓		
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 3/9/10

Secondary Review Performed By: [signature] 3/10/10

LANL 3/16

Tritium Que Sheet

45 / 04-MAR-10

Batch #: 961331 **Analyst:** KXK2 **First Client Due Date** 16-MAR-10 **Internal Due Date:** 09-MAR-10

Spike Isotope: Hydrogen-3 **Spike Code:** 0134-K **Expiration Date:** 3/27/10 **Vol:** 0.1

LCS Isotope: Hydrogen-3 **LCS Code:** 0134-K **Expiration Date:** 3/27/10 **Vol:** 0.1

Prep Date: 3/5/10 **Initials:** KKW **Pipet ID:** 2970968 **Witness:** DJM 3-5-10

Sample ID	Client Samp ID	Type	Hazard Code	Min CRDL	Matrix	Client	Sample Date	Aliquot in vial (g/mL)	LSC Rack #	Dist Rig #	Vol added for Dist (mL)	Initial Sample Aliquot (g/mL)	Final Wt (g)	Dist Vol (mL)	LSC Rack#
247193001-1	RE15-10-8196	SAMPLE		6 pCi/g	SOIL	LANL010	10-FEB-10	10	47-2	21	50	3.26		13	60-2
247193002-1	RE15-10-8186	SAMPLE		6 pCi/g	SOIL	LANL010	10-FEB-10	10	47-3	56	50	3.28		13	60-3
247193003-1	RE15-10-8194	SAMPLE		6 pCi/g	SOIL	LANL010	10-FEB-10	10	47-4	90	50	3.27		13	60-4
247193004-1	RE15-10-8189	SAMPLE		6 pCi/g	SOIL	LANL010	10-FEB-10	10	47-5	99	50	3.25		13	60-5
247193008-1	RE15-10-8190	SAMPLE		6 pCi/g	SOIL	LANL010	10-FEB-10	10	47-6	102	50	3.27		13	60-6
247193009-1	RE15-10-8193	SAMPLE		6 pCi/g	SOIL	LANL010	10-FEB-10	10	47-7	109	50	3.27		13	60-7
247193010-1	RE15-10-8191	SAMPLE		6 pCi/g	SOIL	LANL010	10-FEB-10	10	45-8	128	50	3.30		13	60-8
247193011-1	RE15-10-8192	SAMPLE		6 pCi/g	SOIL	LANL010	10-FEB-10	10	45-9	136	50	3.29		13	60-9
247193014-1	RE15-10-8211	SAMPLE		6 pCi/g	SOIL	LANL010	10-FEB-10	10	45-10	136B	50	3.26		13	60-10
247344002-1	RE15-10-8203	SAMPLE		6 pCi/g	SOIL	LANL010	12-FEB-10	10	45-11	141	50	3.25		13	60-11
1202062033-1	MB for batch 961331	MB		6 pCi/g	SOIL	QC ACCOUNT	10-FEB-10	10	45-12	333	50	3.30		13	60-12
1202062034-1	RE15-10-8196(247193001DUP)	DUP		6 pCi/g	SOIL	QC ACCOUNT	10-FEB-10	10	45-12	304	50	3.25		13	1-1
1202062035-1	RE15-10-8196(247193001MS)	MS		6 pCi/g	SOIL	QC ACCOUNT	10-FEB-10	10	12-1	500	50	3.29		13	5-1
1202062036-1	LCS for batch 961331	LCS		6 pCi/g	SOIL	QC ACCOUNT	10-FEB-10	10	12-2	517	50	3.30		13	5-2

KKW 3/5/10

*LY 3/6/10

Bkg Rack #: 47-1 (60-1) 3/10/10

Comments: 3/9/10

Bkg prepared with dead water? Yes/No

Instrument Used (circle as appropriate): *LS6000 (Red) 7065155, LS6500 (Blue) 7067083, LS6500 (Gold) 7070506, LS6500 (Green) 7067404, Wallac (Yellow) 4140127, LS6000 (Brown) 7060655, Wallac (Pink) 2200082, Wallac (White) 4140299, Purple 7069123, Silver 7060656, Orange DG06095168*

Calibration Used : *Ecoscint Ultra (10 mL sample/13 mL Econscint Ultra)*

Data Reviewed By: 3/9/10

GEL Laboratories LLC, Radiochemistry Division

Tritium Solid

Filename : H3DST.XLS
File type : Excel
Version # : 1.2.5

Batch : 961331
Analyst : KXK2
Prep Date : 3/5/2010

Spike S/N : 0134-K
Spike Exp Date : 3/27/2010
Spike Activity (dpm/ml): 2459.85
Spike Volume Added: 0.10

LCS S/N : 0134-K
LCS Exp Date : 3/27/2010
LCS Activity (dpm/ml): 2459.85
LCS Volume Added: 0.10

H-3 Abundance : 1
Method Uncertainty : 0.1155
Geometry: 10mL DW/13mL Ecoscint Ultra

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1.0 ml Stdev : +/- 0.005480 ml
Pipet, 5.0 ml Stdev : +/- 0.025729 ml

Procedure Code : LSCDSH3S
Parmname : Tritium
Required MDC : 6 pCi/G
Halflife of Tritium : 12.32 years

Sample Characteristics

Pos.	Sample ID	Total Sample Volume (L)	Sample Aliquot G	Sample Aliquot StDev. G	Distilled Sample Counted L	Sample Counted StDev. L	Rig number	Sample Date/Time
1	247193001.1	0.0500	3.2600	3.5572E-03	0.0100	2.5729E-05	21	2/10/2010 12:00
2	247193002.1	0.0500	3.2800	3.5593E-03	0.0100	2.5729E-05	56	2/10/2010 12:00
3	247193003.1	0.0500	3.2700	3.5582E-03	0.0100	2.5729E-05	90	2/10/2010 12:00
4	247193004.1	0.0500	3.2500	3.5562E-03	0.0100	2.5729E-05	99	2/10/2010 12:00
5	247193008.1	0.0500	3.2700	3.5582E-03	0.0100	2.5729E-05	102	2/10/2010 12:00
6	247193009.1	0.0500	3.2700	3.5582E-03	0.0100	2.5729E-05	109	2/10/2010 12:00
7	247193010.1	0.0500	3.3000	3.5613E-03	0.0100	2.5729E-05	128	2/10/2010 12:00
8	247193011.1	0.0500	3.2900	3.5603E-03	0.0100	2.5729E-05	136	2/10/2010 12:00
9	247193014.1	0.0500	3.2600	3.5572E-03	0.0100	2.5729E-05	136B	2/10/2010 12:00
10	247344002.1	0.0500	3.2500	3.5562E-03	0.0100	2.5729E-05	141	2/12/2010 12:00
11	1202062033.1	0.0500	3.3000	3.5613E-03	0.0100	2.5729E-05	333	3/5/2010 0:00
12	1202062034.1	0.0500	3.2500	3.5562E-03	0.0100	2.5729E-05	304	2/10/2010 12:00
13	1202062035.1	0.0500	3.2900	3.5603E-03	0.0100	2.5729E-05	500	2/10/2010 12:00
14	1202062036.1	0.0500	3.3000	3.5613E-03	0.0100	2.5729E-05	517	3/5/2010 0:00

Count raw Data					Background				Calibration Data					Backgrounds	
Pos.	Rack Position #	Counting Time (min.)	Quench#	Gross cpm	cpm	Count Time (min.)	Count Start Date/Time	Sample Decay	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Rack Position #	Count Start Date/Time
1	60-2	45	114.6	3.24	2.87	45	3/8/2010 16:03	0.996	LSCRED	8/21/2009	8/31/2010	0.2079	0.00792	60-1	3/8/2010 15:16
2	60-3	45	113.8	3.38	2.87	45	3/8/2010 16:50	0.996	LSCRED	8/21/2009	8/31/2010	0.2082	0.00792	60-1	3/8/2010 15:16
3	60-4	45	115.5	3.16	2.87	45	3/8/2010 17:38	0.996	LSCRED	8/21/2009	8/31/2010	0.2075	0.00792	60-1	3/8/2010 15:16
4	60-5	45	114.3	14.42	2.87	45	3/8/2010 18:25	0.996	LSCRED	8/21/2009	8/31/2010	0.2080	0.00792	60-1	3/8/2010 15:16
5	60-6	45	114.7	41.11	2.87	45	3/8/2010 19:12	0.996	LSCRED	8/21/2009	8/31/2010	0.2079	0.00792	60-1	3/8/2010 15:16
6	60-7	45	114.3	2.89	2.87	45	3/8/2010 19:59	0.996	LSCRED	8/21/2009	8/31/2010	0.2080	0.00792	60-1	3/8/2010 15:16
7	60-8	45	113.3	7.33	2.87	45	3/8/2010 20:46	0.996	LSCRED	8/21/2009	8/31/2010	0.2084	0.00792	60-1	3/8/2010 15:16
8	60-9	45	115.3	4.04	2.87	45	3/8/2010 21:59	0.996	LSCRED	8/21/2009	8/31/2010	0.2076	0.00792	60-1	3/8/2010 15:16
9	60-10	45	114.5	3.13	2.87	45	3/8/2010 22:46	0.996	LSCRED	8/21/2009	8/31/2010	0.2080	0.00792	60-1	3/8/2010 15:16
10	60-11	45	114.6	4.67	2.87	45	3/8/2010 23:33	0.996	LSCRED	8/21/2009	8/31/2010	0.2079	0.00792	60-1	3/8/2010 15:16
11	60-12	45	113.8	2.96	2.87	45	3/9/2010 0:20	0.999	LSCRED	8/21/2009	8/31/2010	0.2082	0.00792	60-1	3/8/2010 15:16
12	1-1	45	114.2	3.58	2.87	45	3/9/2010 1:08	0.996	LSCRED	8/21/2009	8/31/2010	0.2081	0.00792	60-1	3/8/2010 15:16
13	5-1	15	114.3	12.73	2.87	45	3/9/2010 1:55	0.996	LSCRED	8/21/2009	8/31/2010	0.2080	0.00792	60-1	3/8/2010 15:16
14	5-2	15	114.6	13.6	2.87	45	3/9/2010 2:11	0.999	LSCRED	8/21/2009	8/31/2010	0.2079	0.00792	60-1	3/8/2010 15:16

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

* - RPD changed to 0% due to activity below MDC for 1202062034.1

Results

Pos.	Decision Level pCi/G	Critical Level pCi/G	Required MDC pCi/G	MDC pCi/G	Sample Act. Conc. pCi/G	Sample Act. Error pCi/G	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/G	1 SIGMA Total Prop. Uncertainty pCi/G	Sample QC	Sample Type	RPD	RER	Nominal pCi/G	Recovery
1	2.7763	1.9601	6	4.1427	**1.2344**	0.9959	0.3700	0.3685	1.2294	1.2377		SAMPLE				
2	2.7550	1.9451	6	4.1109	**1.6885**	0.7308	0.5100	0.3727	1.2338	1.2492		SAMPLE				
3	2.7732	1.9579	6	4.1380	**0.9665**	1.2623	0.2900	0.3661	1.2199	1.2251		SAMPLE				
4	2.7832	1.9650	6	4.1529	**38.6300**	0.0544	11.5500	0.6199	2.0732	4.9316		SAMPLE				
5	2.7685	1.9546	6	4.1309	**127.2198**	0.0273	38.2400	0.9886	3.2890	15.0989		SAMPLE				
6	2.7662	1.9530	6	4.1276	**0.0665**	17.8885	0.0200	0.3578	1.1893	1.1893		SAMPLE				
7	2.7358	1.9315	6	4.0822	**14.6629**	0.1071	4.4600	0.4761	1.5652	2.3097		SAMPLE				
8	2.7552	1.9452	6	4.1112	**3.8738**	0.3350	1.1700	0.3919	1.2974	1.3728		SAMPLE				
9	2.7759	1.9598	6	4.1420	**0.8673**	1.4044	0.2600	0.3651	1.2181	1.2222		SAMPLE				
10	2.7842	1.9656	6	4.1543	**6.0223**	0.2276	1.8000	0.4093	1.3695	1.5369		SAMPLE				
11	2.7290	1.9267	6	4.0720	**0.2951**	3.9993	0.0900	0.3599	1.1804	1.1809		MB				
12	2.7828	1.9647	6	4.1523	**2.3743**	0.5333	0.7100	0.3786	1.2660	1.2956	247193001.1	DUP	0.0%	0.2250		
13	3.8884	2.7452	6	6.1513	**32.5782**	0.0973	9.8600	0.9552	3.1561	4.9195	247193001.1	MS			33.7960	96.4%
14	3.8656	2.7291	6	6.1152	**35.2447**	0.0922	10.7300	0.9851	3.2358	5.2093		LCS			33.5770	105.0%

ID: TRITIUM 8 MAR 2010 15:26

USER: 2 COMMENT: RED

PRESET TIME : 45.00

DATA CALC :	CPM	H#	:YES	SAMPLE REPEATS:	1	PRINTER	:EDIT
COUNT BLANK :	NO	IC#	: NO	REPLICATES :	1	RS232	:EDIT
TWO PHASE :	NO	AQC	: NO	CYCLE REPEATS :	1	DISK	: OFF
SCINTILLATOR:	LIQUID	LUMEX	:YES	LOW SAMPLE REJ:	0		
LOW LEVEL :	NO	HALF LIFE CORRECTION DATE:				none	

CHAN: 65.0 - 225.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 990.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

ALPHA-BETA DISCRIMINATION: NO

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
Bkg 1	60-1	45.00	114.6	2.87	19.30	42.60	4.60	1.32	46.57
2	60-2	45.00	114.6	3.24	17.65	41.00	4.68	1.09	93.66
2 3	60-3	45.00	113.8	3.38	17.46	43.56	4.55	1.19	140.78
3 4	60-4	45.00	115.5	3.16	18.20	43.38	4.56	1.27	187.90
4 5	60-5	45.00	114.3	14.42	8.00	58.87	3.90	0.99	235.01
5 6	60-6	45.00	114.7	41.11	4.68	97.53	3.03	0.58	282.13
6 7	60-7	45.00	114.3	2.89	19.03	42.27	4.61	1.16	329.33
7 8	60-8	45.00	113.3	7.33	11.39	49.98	4.24	1.03	376.43
9	60-9	SAMPLE TERMINATED:							

Sample Count Start Time:	8 Mar 2010 15:16:40		
Data Capture Date	08 Mar 2010 16:02:07		
User Filename	S02030860-1A.XLS		
	U02030860-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	60-1	45.00
H#, Total Counts:	114.6	2291	
Win1: Tritium - Start, End, Counts:	65	225	131
Win2: - Start, End, Counts:	0	990	1921

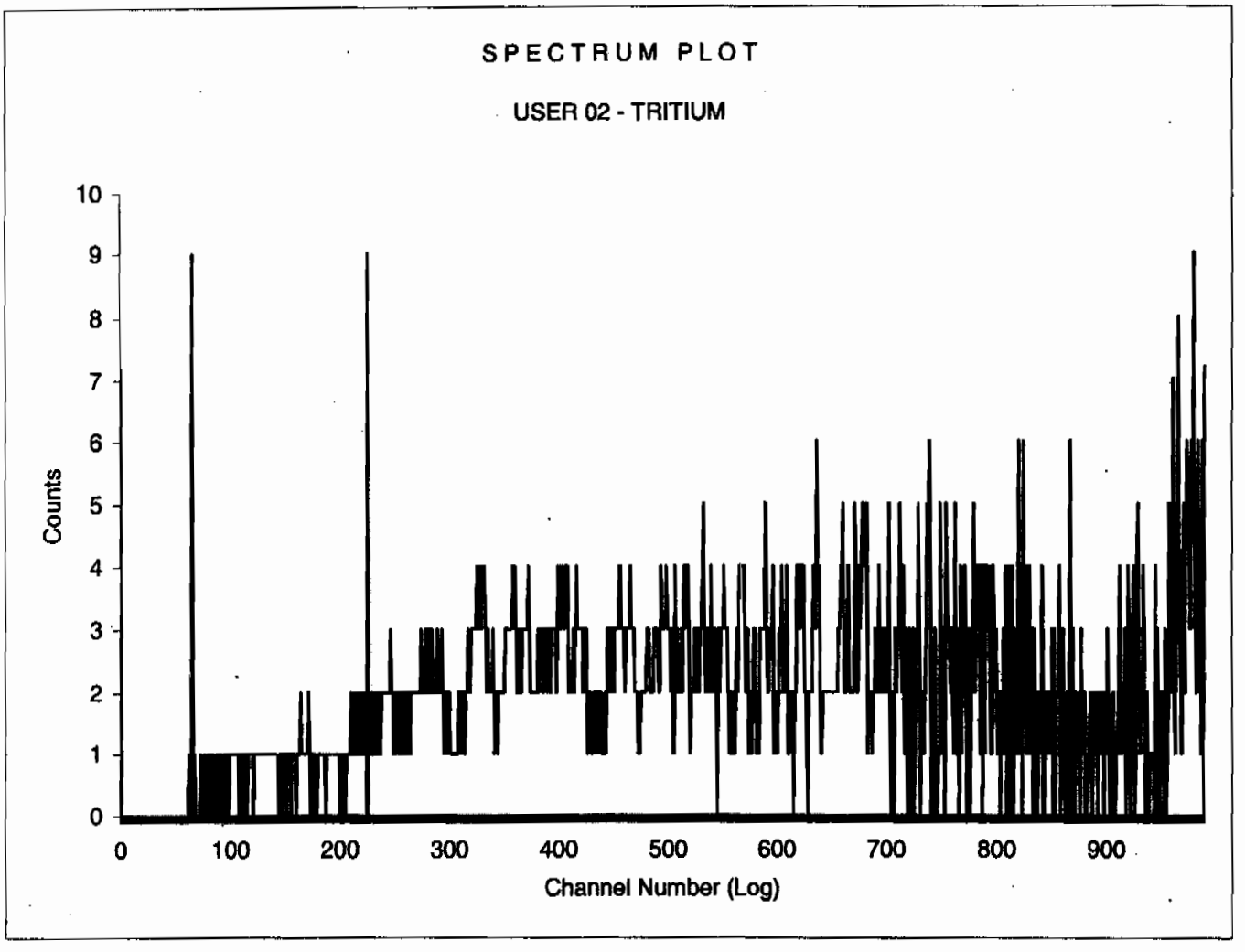

Sample Count Start Time:	8 Mar 2010 16:03:46		
Data Capture Date	08 Mar 2010 16:48:12		
User Filename	S02030860-2A.XLS		
	U02030860-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	60-2	45.00
H#, Total Counts:	114.6	2150	
Win1: Tritium - Start, End, Counts:	65	225	148
Win2: - Start, End, Counts:	0	990	1850

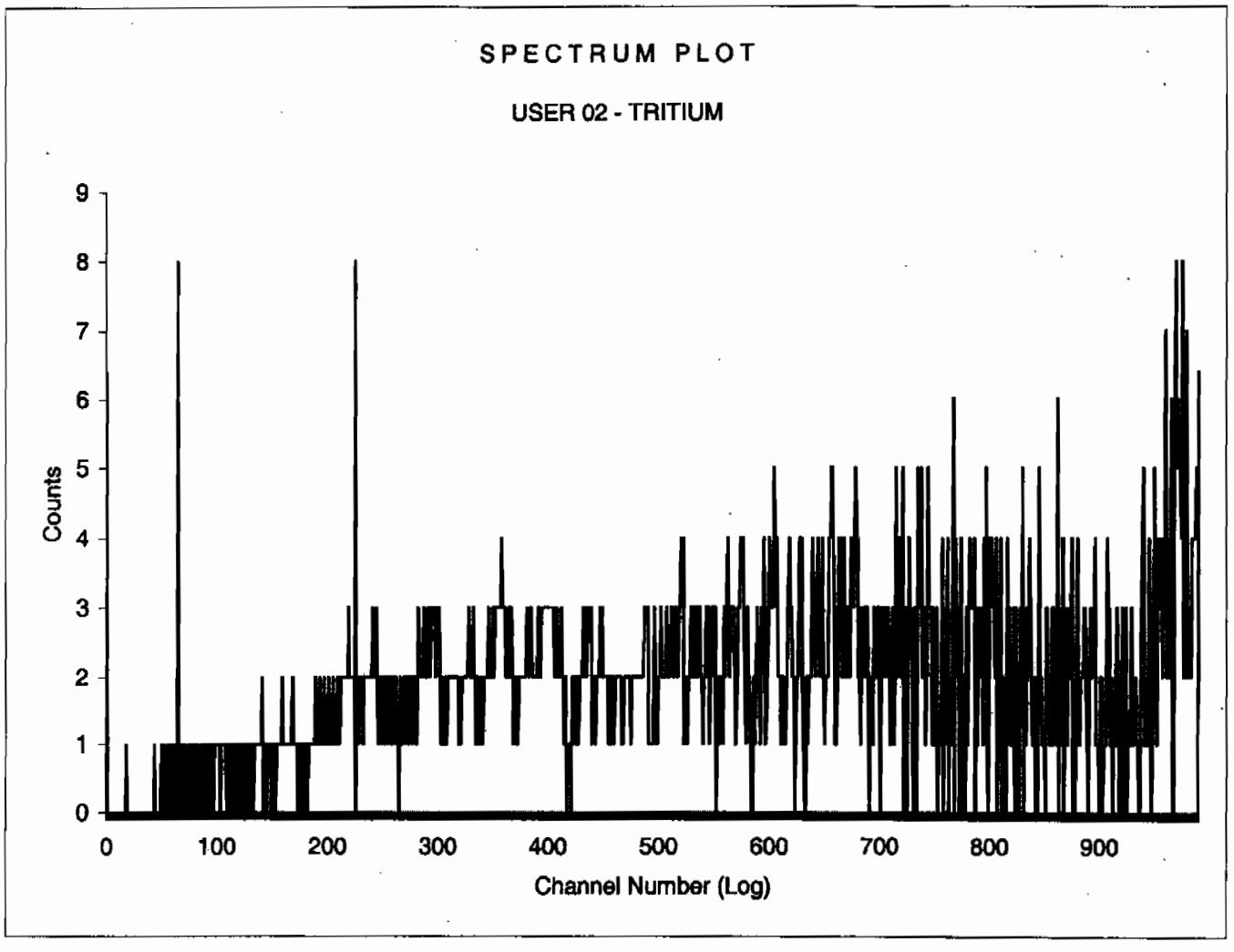

Sample Count Start Time:	8 Mar 2010 16:50:53		
Data Capture Date	08 Mar 2010 17:35:29		
User Filename	S02030860-3A.XLS		
	U02030860-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	60-3	45.00
H#, Total Counts:	113.8	2356	
Win1: Tritium - Start, End, Counts:	65	225	152
Win2: - Start, End, Counts:	0	990	1963

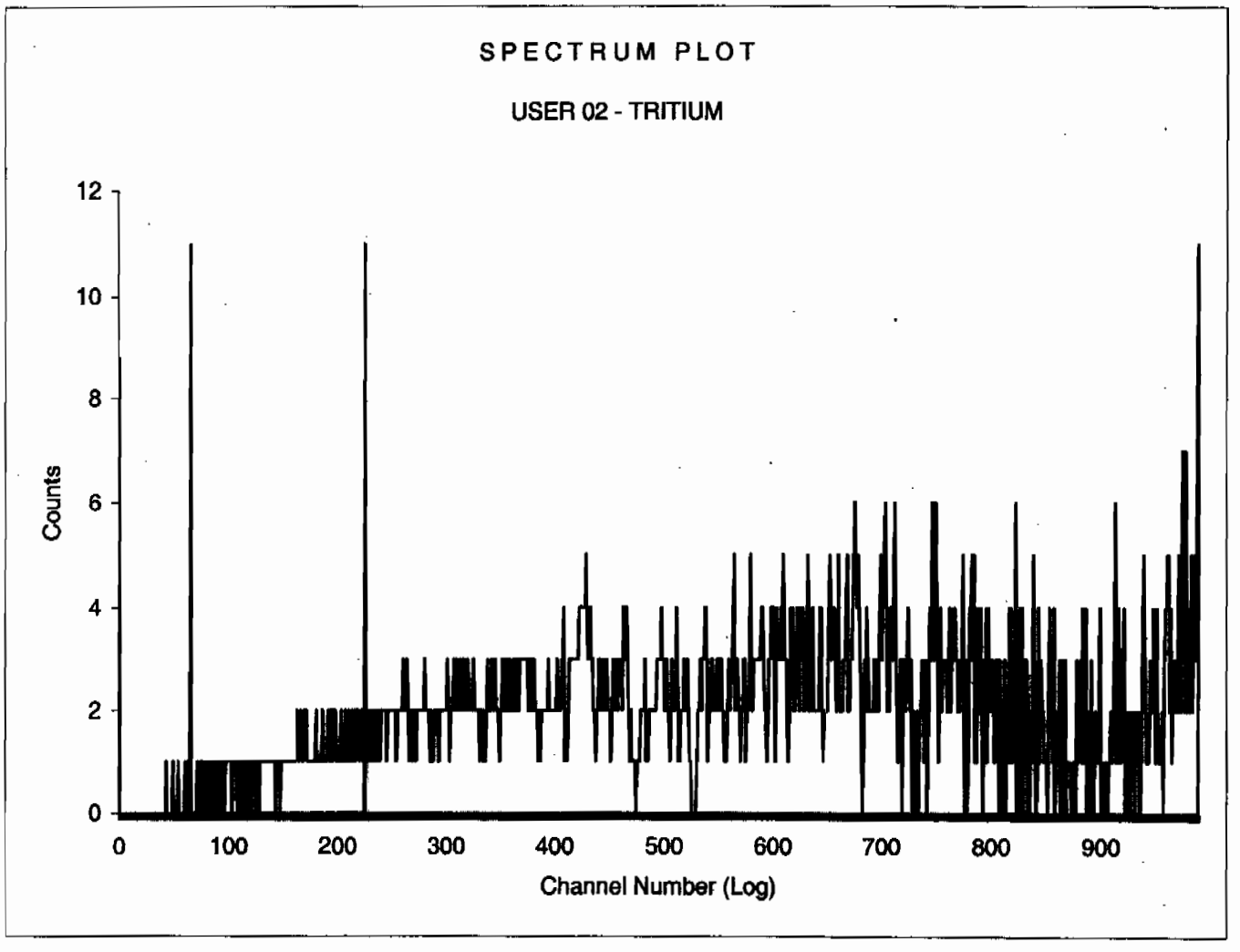

Sample Count Start Time:	8 Mar 2010 17:38:00		
Data Capture Date	08 Mar 2010 18:22:26		
User Filename	S02030860-4A.XLS		
	U02030860-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	60-4	45.00
H#, Total Counts:	115.5	1972	
Win1: Tritium - Start, End, Counts:	65	225	142
Win2: - Start, End, Counts:	0	990	1954

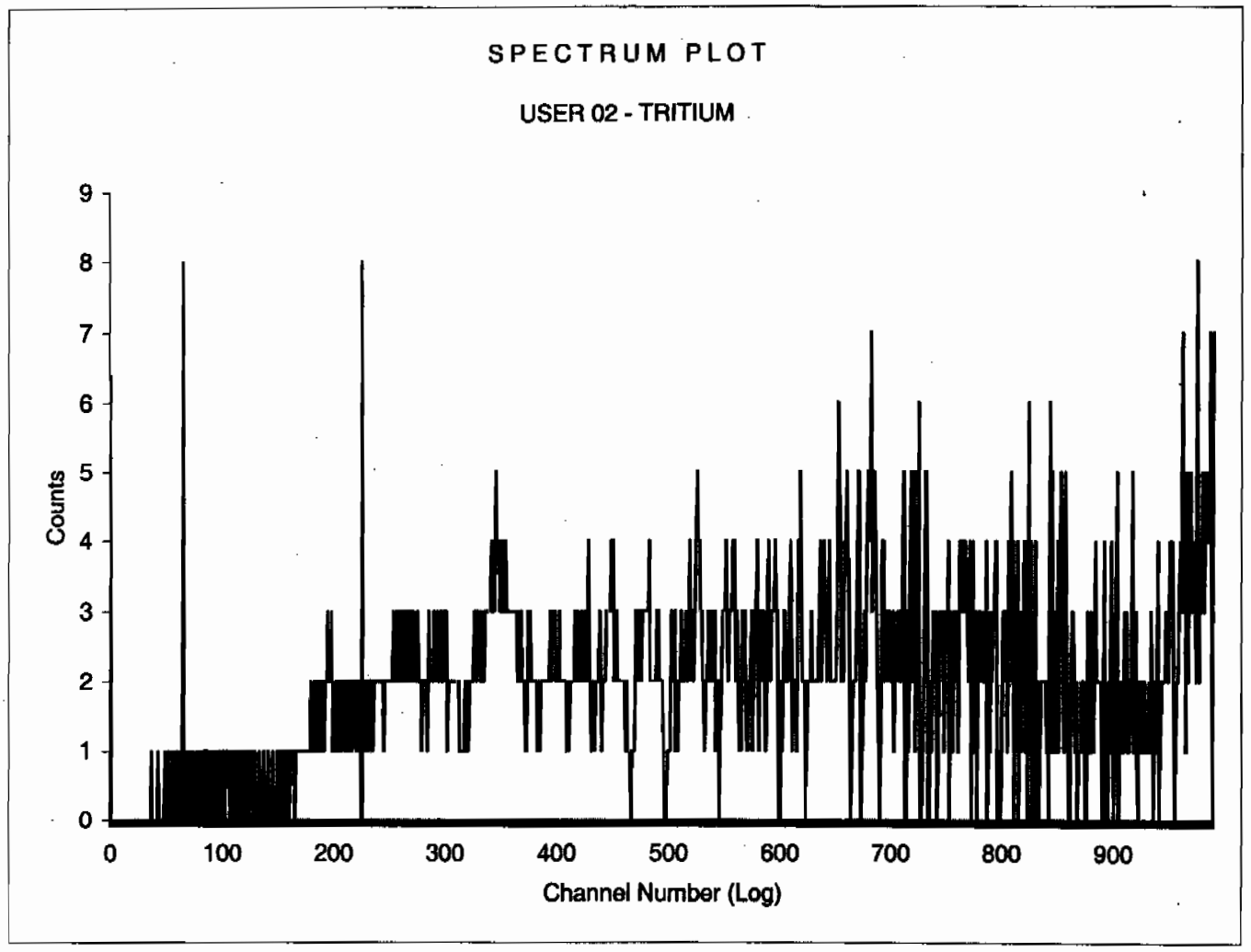

Sample Count Start Time:	8 Mar 2010 18:25:07		
Data Capture Date	08 Mar 2010 19:09:34		
User Filename	S02030860-5A.XLS		
	U02030860-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	60-5	45.00
H#, Total Counts:	114.3	3067	
Win1: Tritium - Start, End, Counts:	65	225	654
Win2: - Start, End, Counts:	0	990	2655

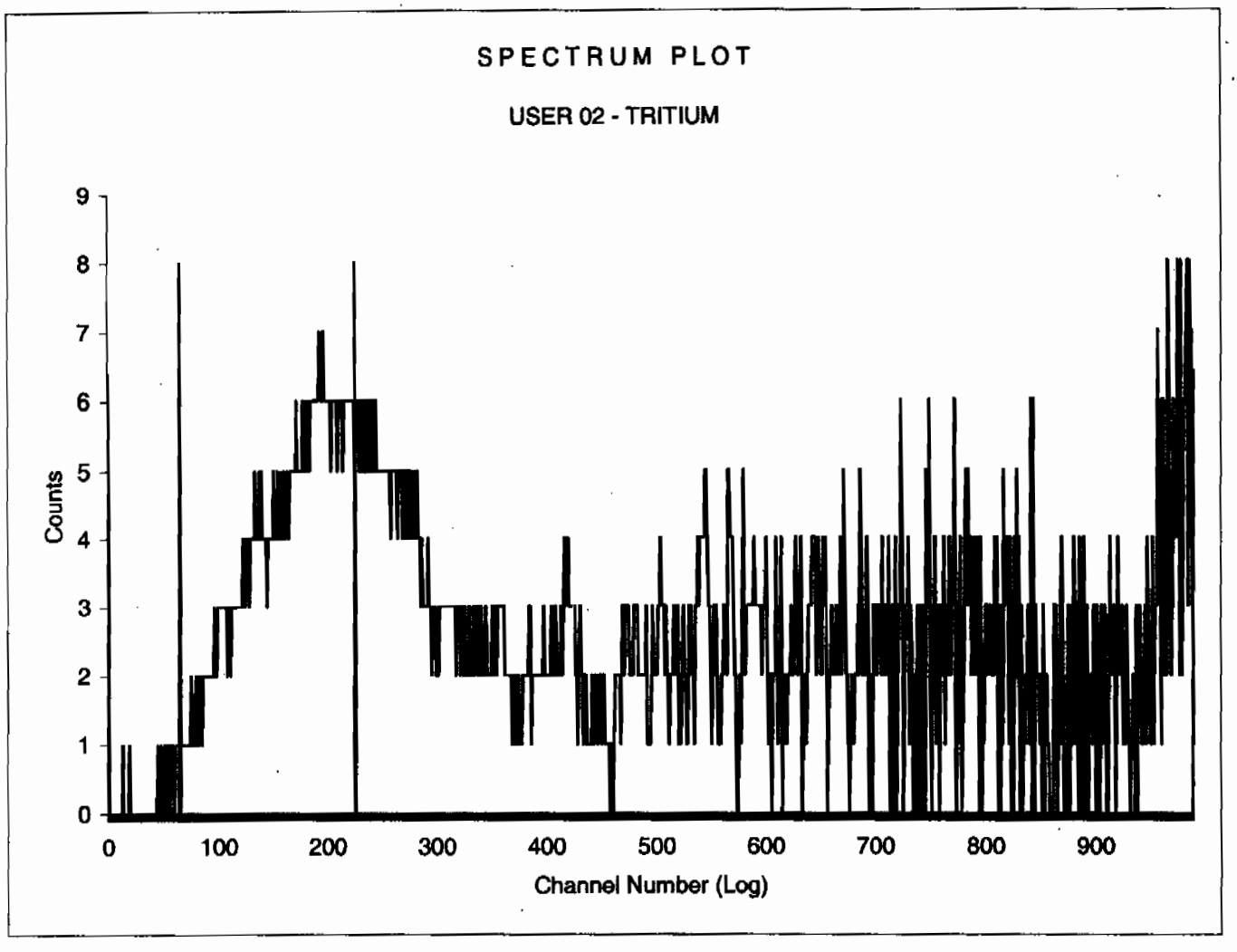

Sample Count Start Time:	8 Mar 2010 19:12:14		
Data Capture Date	08 Mar 2010 19:56:40		
User Filename	S02030860-6A.XLS		
	U02030860-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	60-6	45.00
H#, Total Counts:	114.7	4811	
Win1: Tritium - Start, End, Counts:	65	225	1863
Win2: - Start, End, Counts:	0	990	4396

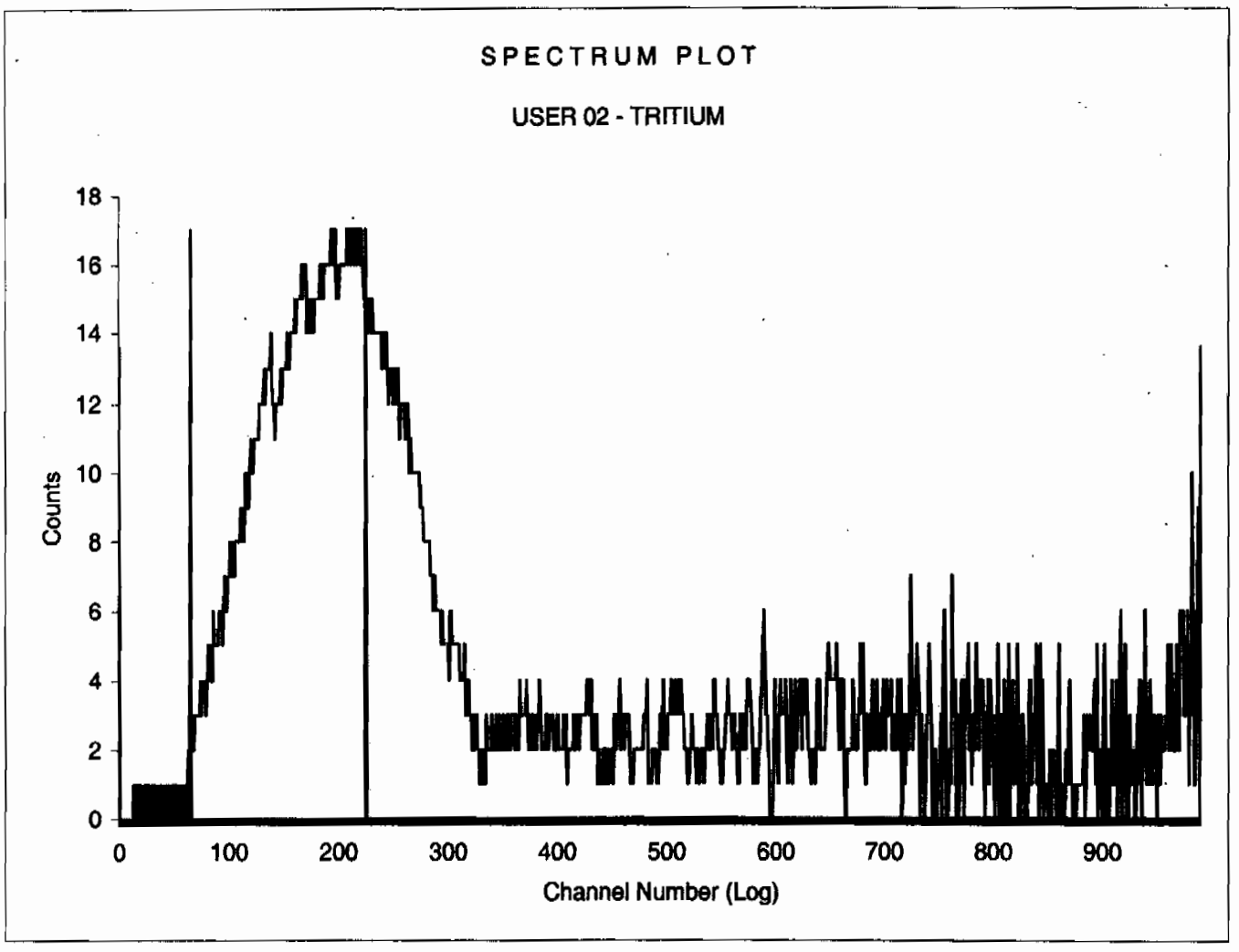

Sample Count Start Time:	8 Mar 2010 19:59:26		
Data Capture Date	08 Mar 2010 20:43:51		
User Filename	S02030860-7A.XLS		
	U02030860-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	7	60-7	45.00
H#, Total Counts:	114.3	2334	
Win1: Tritium - Start, End, Counts:	65	225	132
Win2: - Start, End, Counts:	0	990	1904

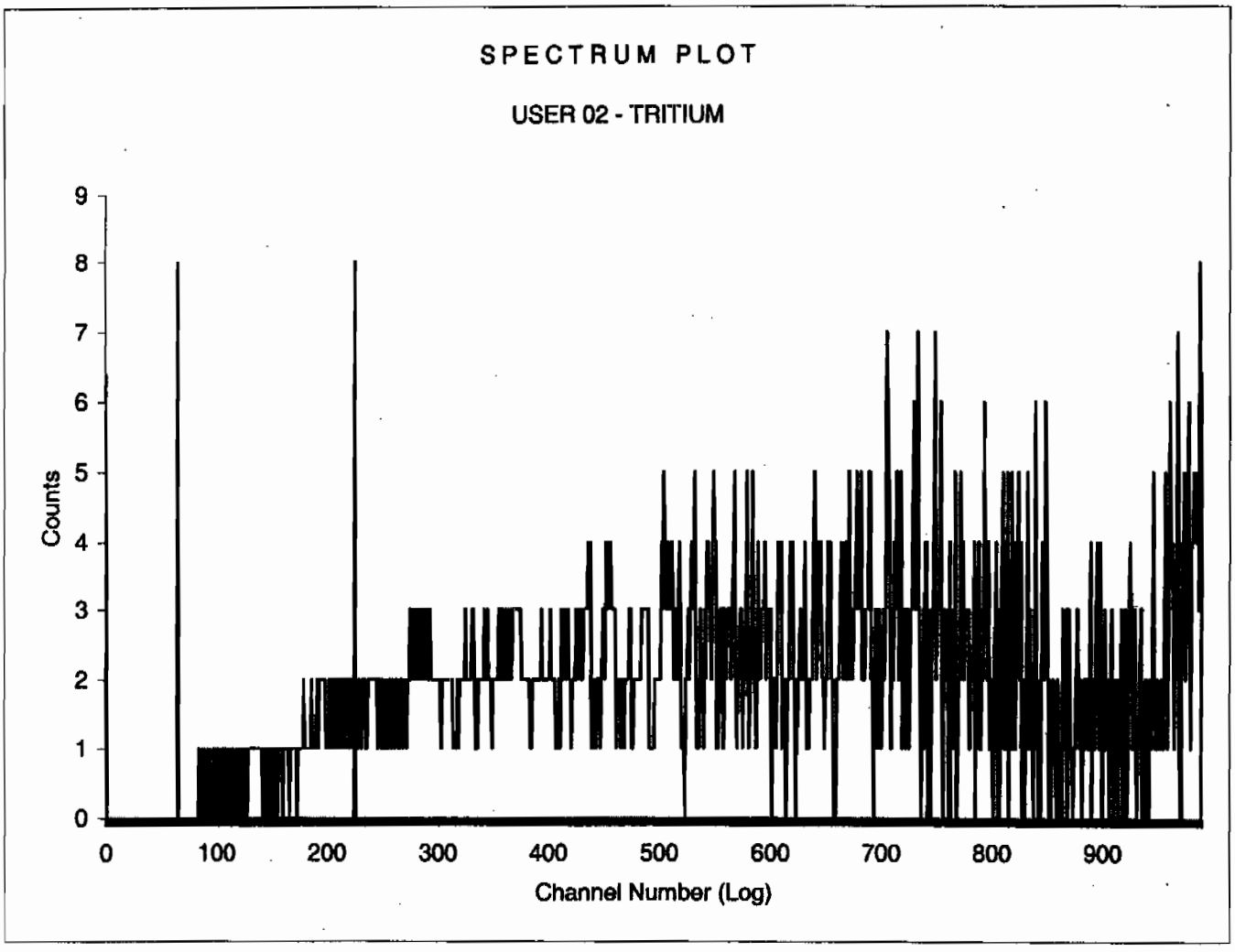

Sample Count Start Time:	8 Mar 2010 20:46:32		
Data Capture Date	08 Mar 2010 21:30:58		
User Filename	S02030860-8A.XLS		
	U02030860-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	8	60-8	45.00
H#, Total Counts:	113.3	2569	
Win1: Tritium - Start, End, Counts:	65	225	333
Win2: - Start, End, Counts:	0	990	2253

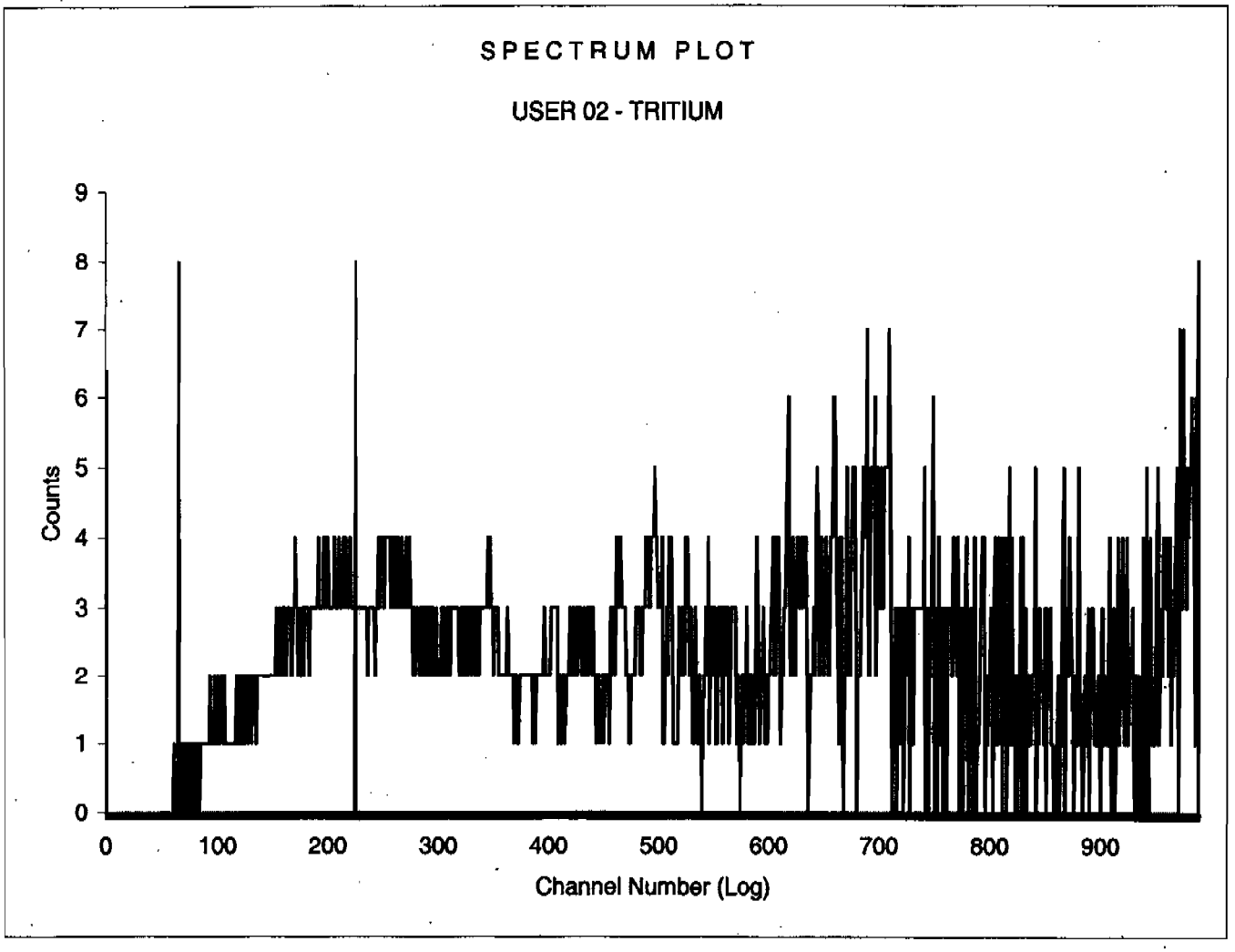

ID: TRITIUM

8 MAR 2010 22:10

USER: 2 COMMENT: RED

PRESET TIME :	45.00						
DATA CALC :	CPM	H#	:YES	SAMPLE REPEATS:	1	PRINTER	:EDIT
COUNT BLANK :	NO	IC#	: NO	REPLICATES :	1	RS232	:EDIT
TWO PHASE :	NO	AQC	: NO	CYCLE REPEATS :	1	DISK	: OFF
SCINTILLATOR:	LIQUID	LUMEX	:YES	LOW SAMPLE REJ:	0		
LOW LEVEL :	NO	HALF LIFE CORRECTION DATE:				none	

CHAN: 65.0 - 225.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 990.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

ALPHA-BETA DISCRIMINATION: NO

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
MISSING SAMPLE									
8 9	60-9	45.00	115.3	4.04	15.62	43.20	4.56	1.04	46.77
9 10	60-10	45.00	114.5	3.13	17.94	42.40	4.60	0.99	93.85
10 11	60-11	45.00	114.6	4.67	14.35	45.47	4.44	0.88	140.93
11 12	60-12	45.00	113.8	2.96	18.48	42.11	4.62	0.91	187.99
12 13	1-1	45.00	114.2	3.58	16.62	43.73	4.53	0.93	235.18

Sample Count Start Time:	8 Mar 2010 21:59:35		
Data Capture Date	08 Mar 2010 22:45:02		
User Filename	S02030860-9A.XLS		
	U02030860-9A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	9	60-9	45.00
H#, Total Counts:	115.3	2335	
Win1: Tritium - Start, End, Counts:	65	225	183
Win2: - Start, End, Counts:	0	990	1950

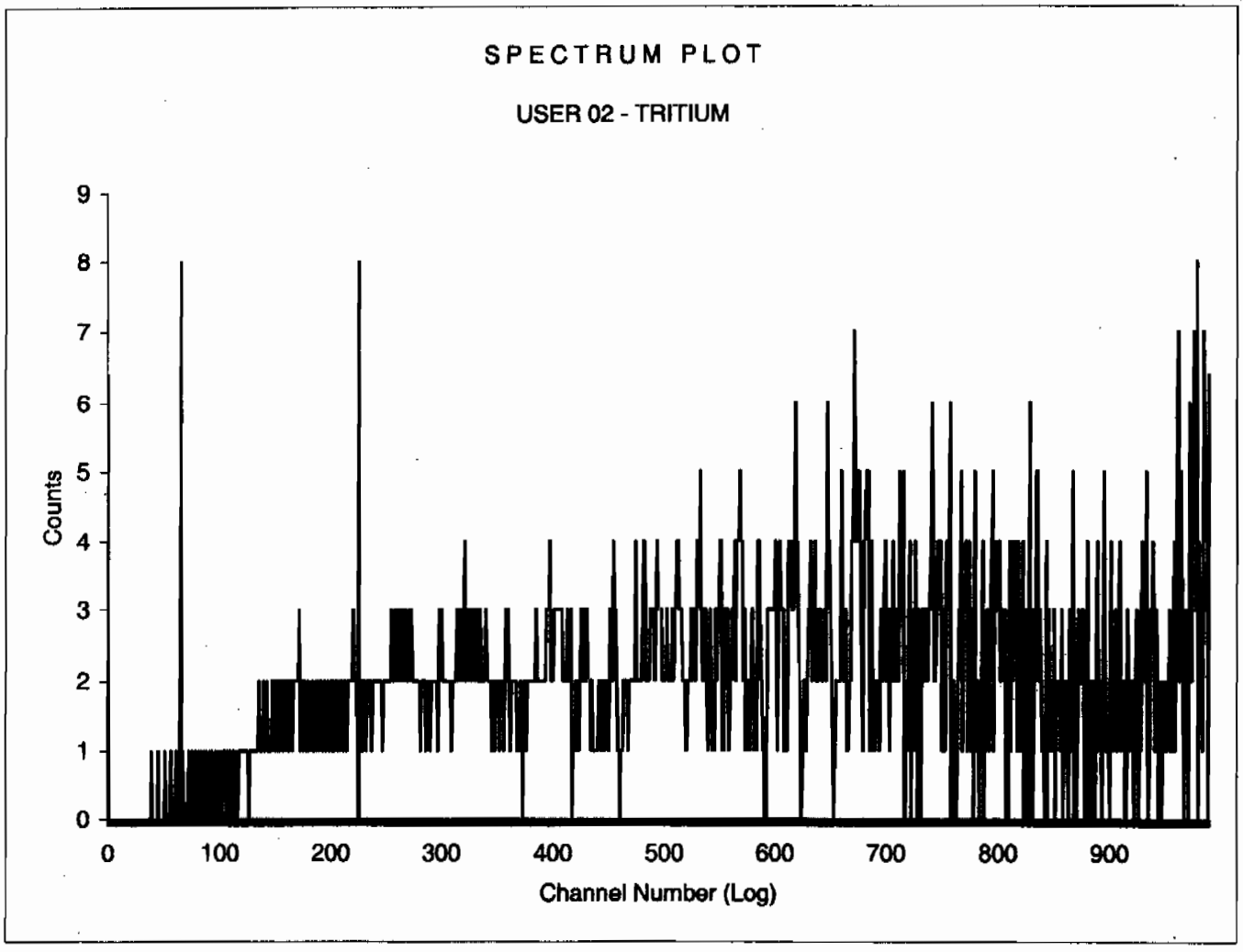

Sample Count Start Time:	8 Mar 2010 22:46:40		
Data Capture Date	08 Mar 2010 23:32:07		
User Filename	S02030860-10A.XLS		
	U02030860-9A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	10	60-10	45.00
H#, Total Counts:	114.5	2303	
Win1: Tritium - Start, End, Counts:	65	225	143
Win2: - Start, End, Counts:	0	990	1917

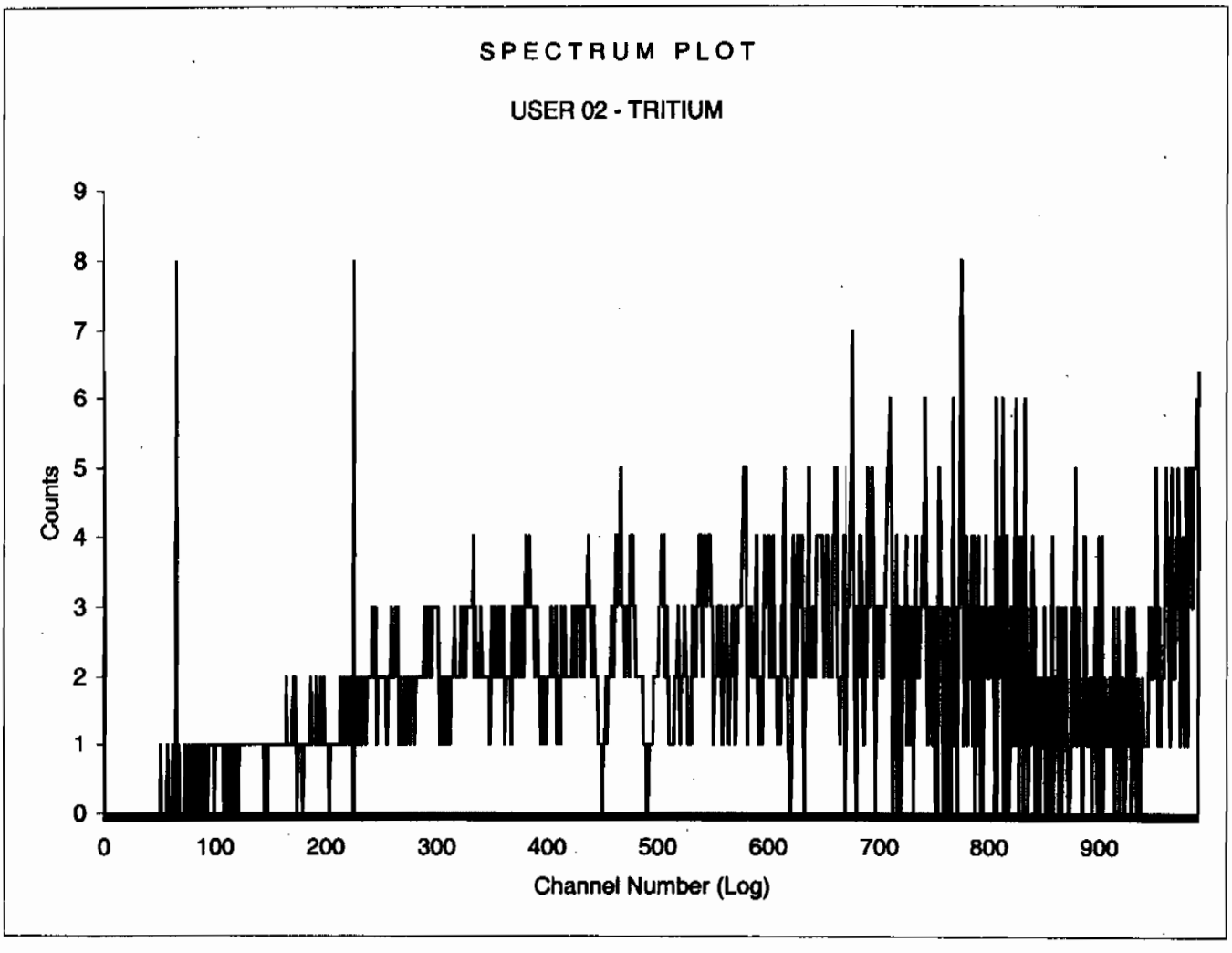

Sample Count Start Time:	8 Mar 2010 23:33:45		
Data Capture Date	09 Mar 2010 00:19:11		
User Filename	S02030960-11A.XLS		
	U02030860-9A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	11	60-11	45.00
H#, Total Counts:	114.6	2384	
Win1: Tritium - Start, End, Counts:	65	225	211
Win2: - Start, End, Counts:	0	990	2047

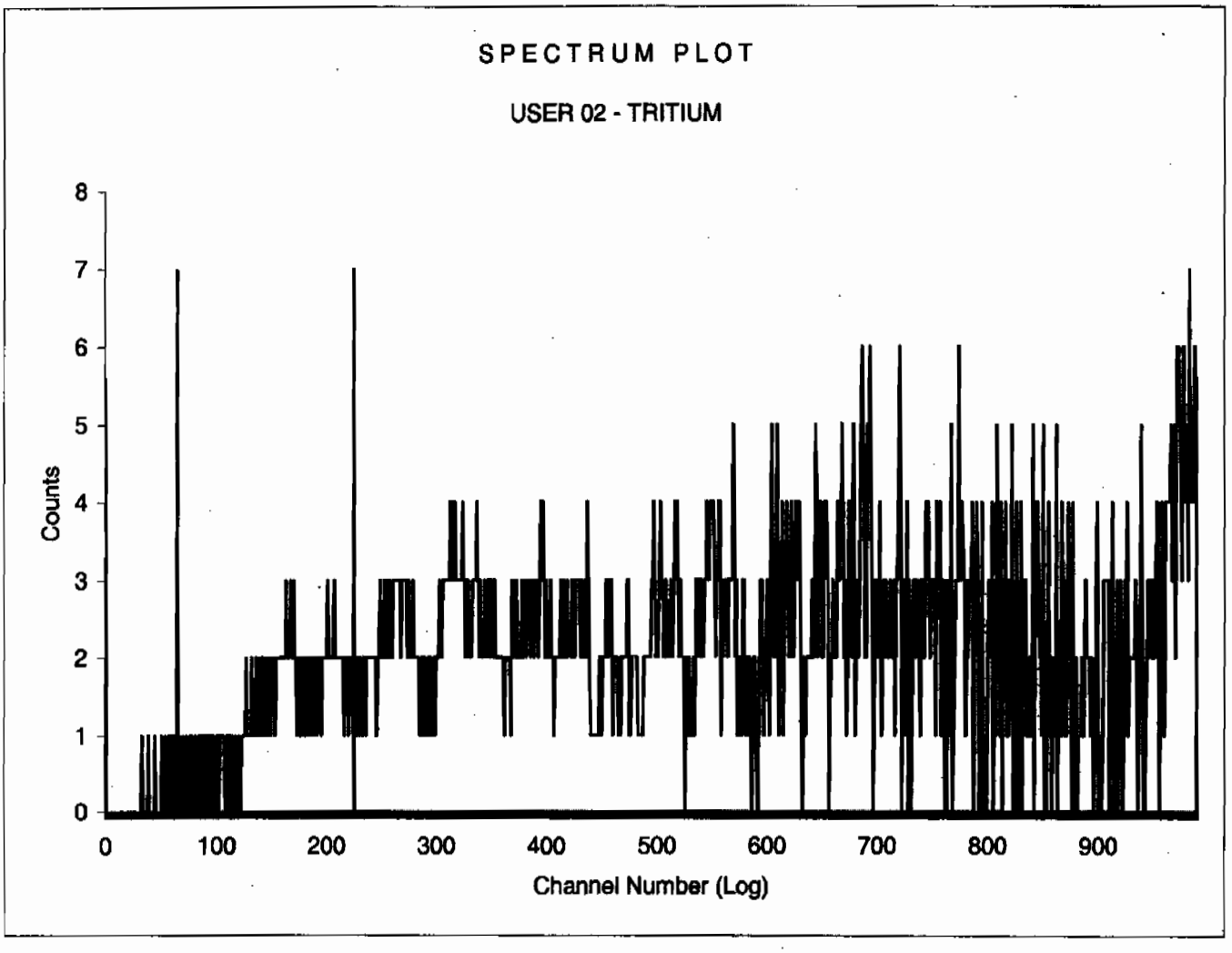

Sample Count Start Time:	9 Mar 2010 00:20:48		
Data Capture Date	09 Mar 2010 01:06:16		
User Filename	S02030960-12A.XLS		
	U02030860-9A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	12	60-12	45.00
H#, Total Counts:	113.8	2230	
Win1: Tritium - Start, End, Counts:	65	225	134
Win2: - Start, End, Counts:	0	990	1900

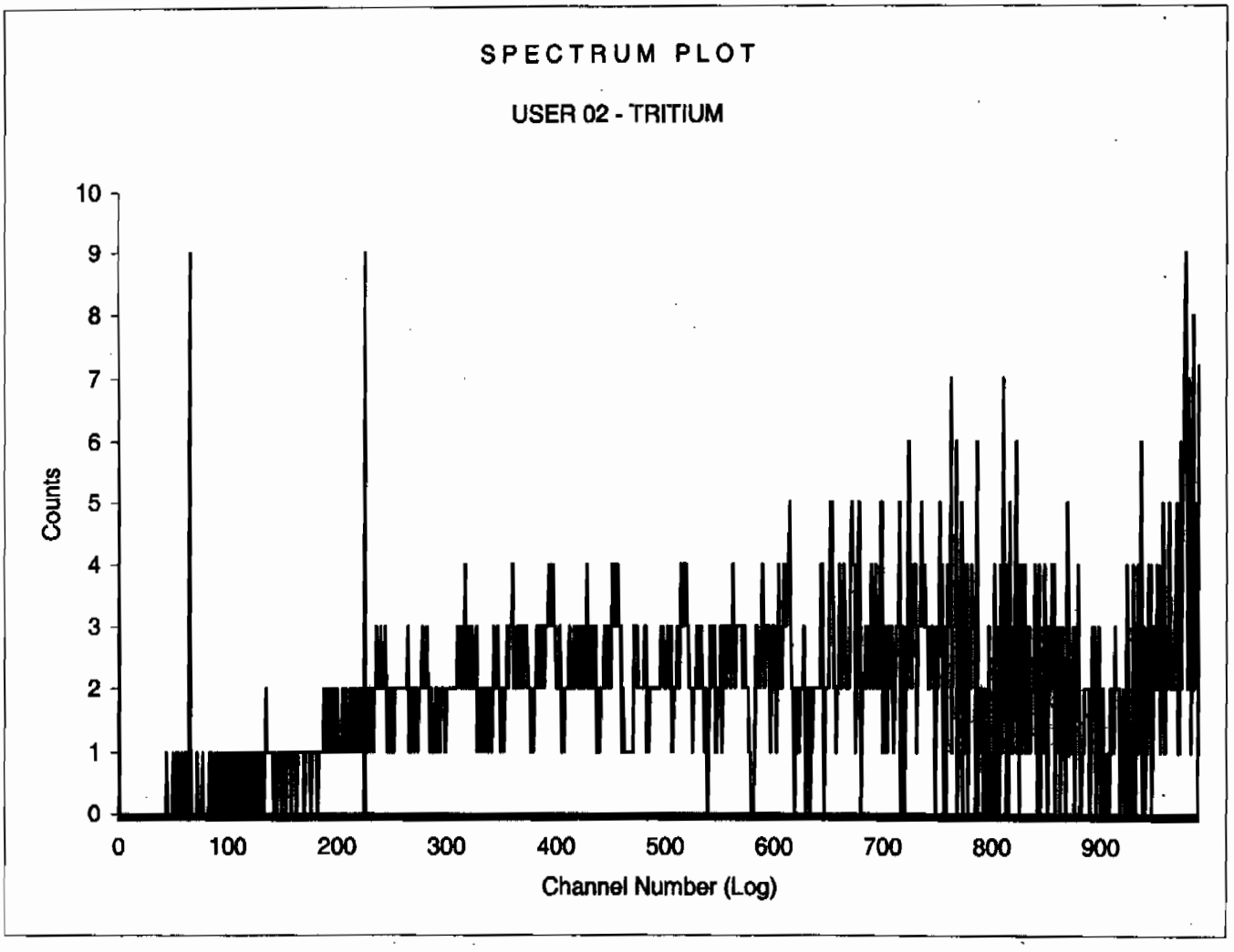

Sample Count Start Time:	9 Mar 2010 01:08:00		
Data Capture Date	09 Mar 2010 01:53:27		
User Filename	S02030901-1A.XLS		
	U02030860-9A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	RED		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	13	1-1	45.00
H#, Total Counts:	114.2	2392	
Win1: Tritium - Start, End, Counts:	65	225	163
Win2: - Start, End, Counts:	0	990	1973

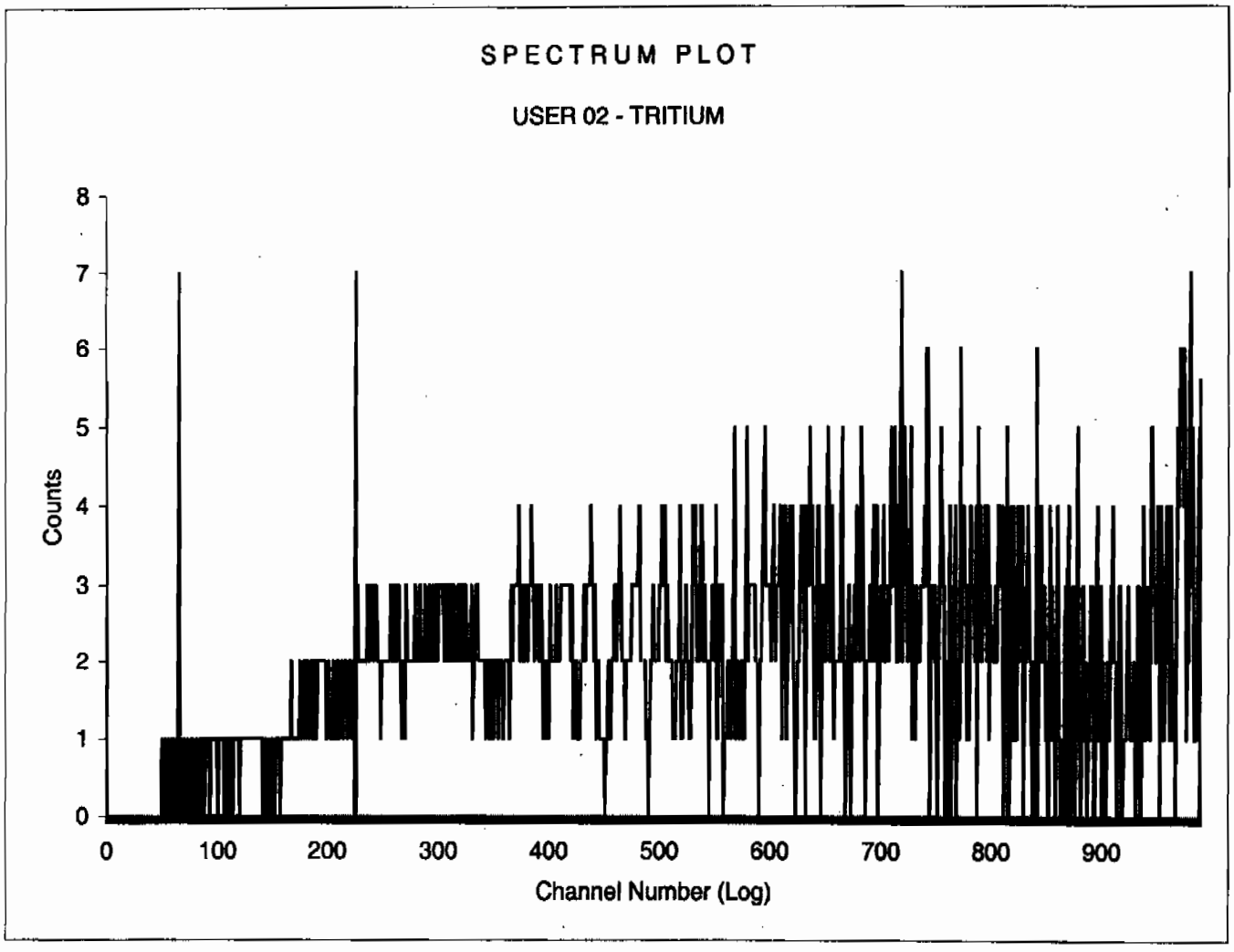

ID: TRITIUM 9 MAR 2010 02:06

USER: 3 COMMENT:RED

PRESET TIME :	15.00						
DATA CALC :	CPM	H#	:YES	SAMPLE REPEATS:	1	PRINTER	:EDIT
COUNT BLANK :	NO	IC#	: NO	REPLICATES :	1	RS232	:EDIT
TWO PHASE :	NO	AQC	: NO	CYCLE REPEATS :	1	DISK	: OFF
SCINTILLATOR:	LIQUID	LUMEX	:YES	LOW SAMPLE REJ:	0		
LOW LEVEL :	NO	HALF LIFE CORRECTION DATE:				none	

CHAN: 65.0 - 225.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0
CHAN: 0.0 - 990.0 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

ALPHA-BETA DISCRIMINATION: NO

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	WIND2 CPM	WIND2 %ERROR	LUMEX %	ELAPSED TIME
13 1	5-1	15.00	114.3	12.73	14.66	58.33	6.78	0.68	15.84
14 2	5-2	15.00	114.6	13.60	14.21	58.33	6.78	0.74	32.19

INSTRUMENT CALIBRATION: Mini 9 MAR 2010 02:42
Calibration successful

Calibrating Auto DPM
Counting Standard for 14C
Calibration Complete: 14C
Counting Standard for 3H
Calibration Complete: 3H
Calibration Successful

Sample Count Start Time:	9 Mar 2010 01:55:35		
Data Capture Date	09 Mar 2010 02:10:06		
User Filename	S03030905-1A.XLS		
	U03030905-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	RED		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	5-1	15.00
H#, Total Counts:	114.3	965	
Win1: Tritium - Start, End, Counts:	65	225	192
Win2: - Start, End, Counts:	0	990	876

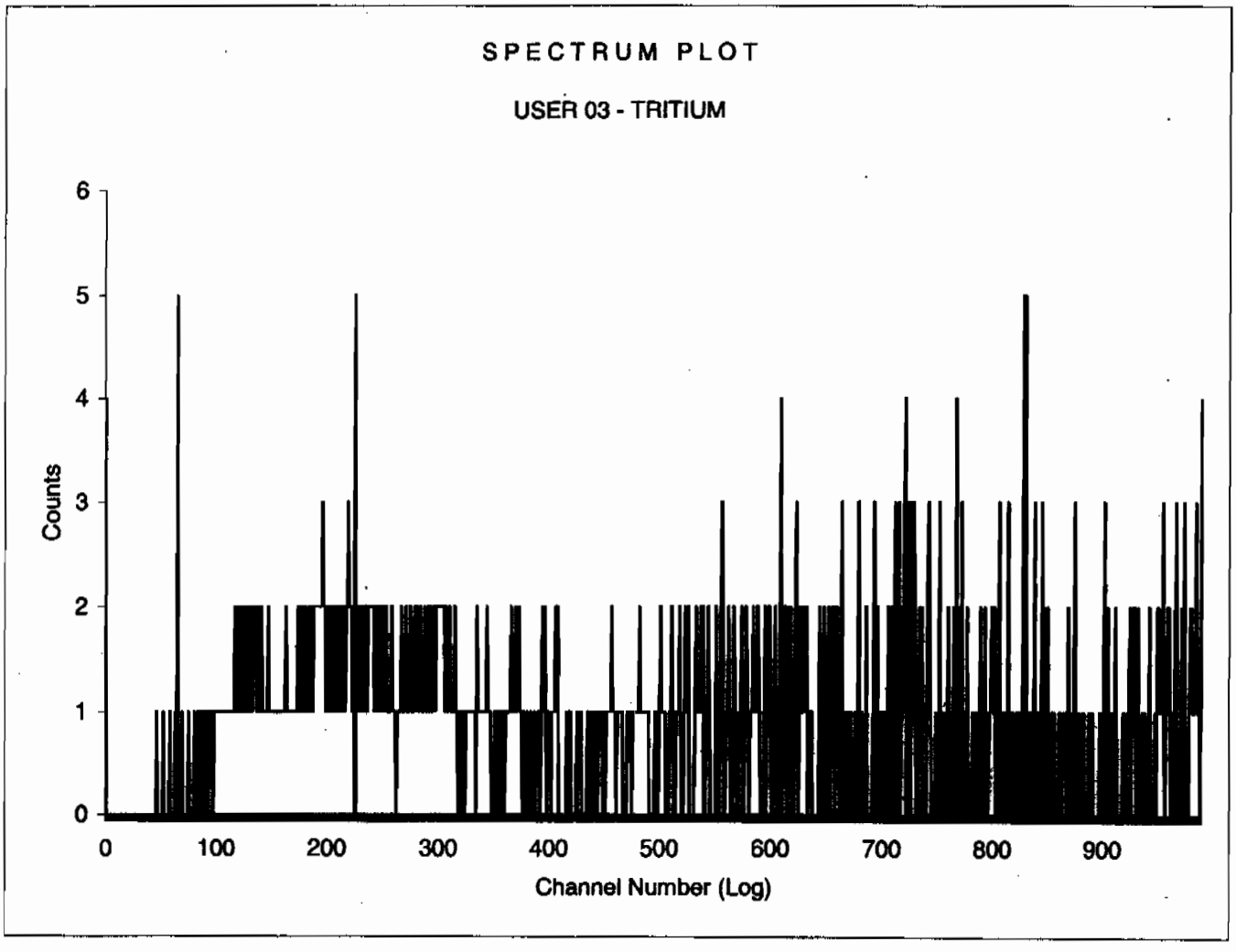

Sample Count Start Time:	9 Mar 2010 02:11:56		
Data Capture Date	09 Mar 2010 02:26:27		
User Filename	S03030905-2A.XLS		
	U03030905-1A.XLS		
Spectrum Type	Log Counts		
User Number	03		
User Id	TRITIUM		
User Comment	RED		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	5-2	15.00
H#, Total Counts:	114.6	961	
Win1: Tritium - Start, End, Counts:	65	225	205
Win2: - Start, End, Counts:	0	990	875

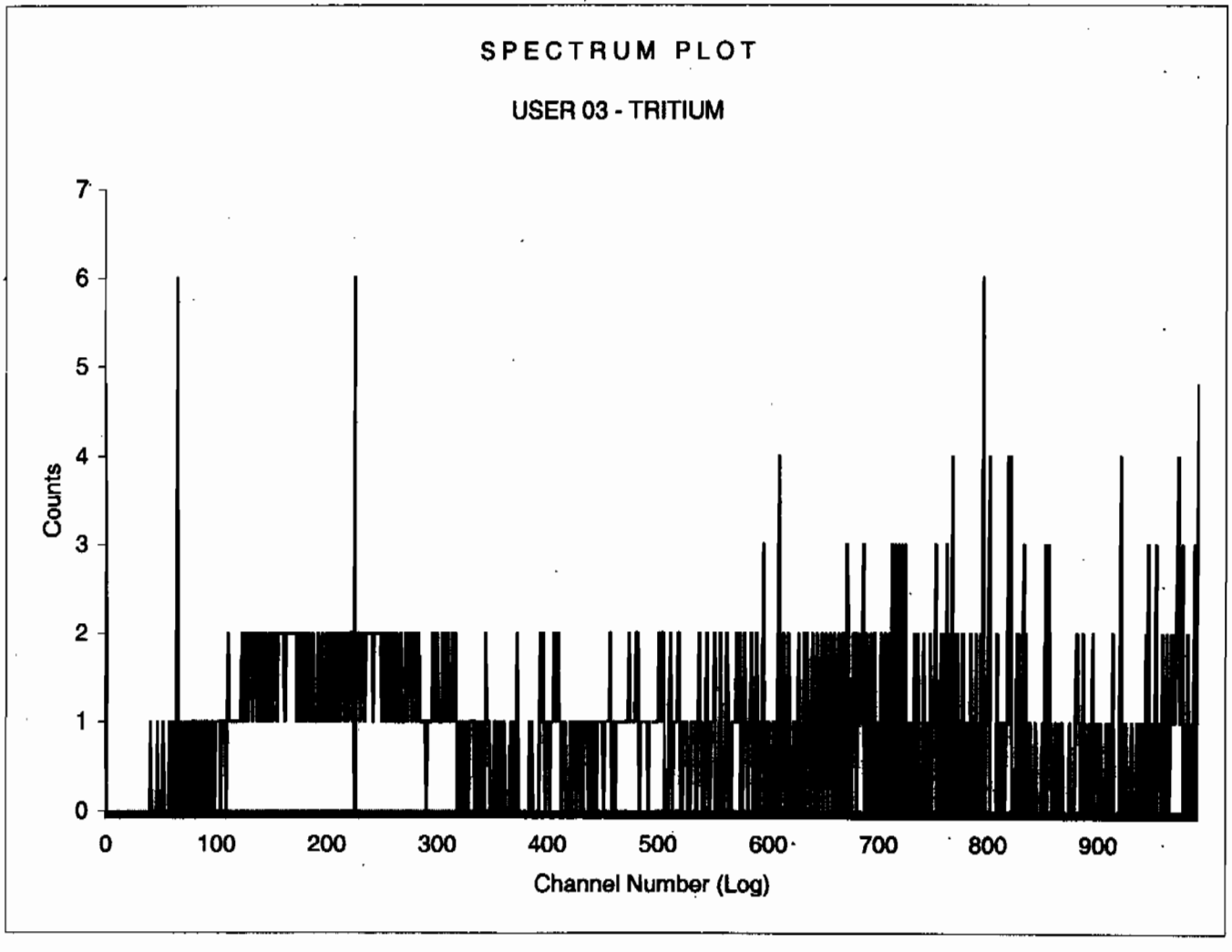

BACKGROUND AND EFFICIENCY DATA

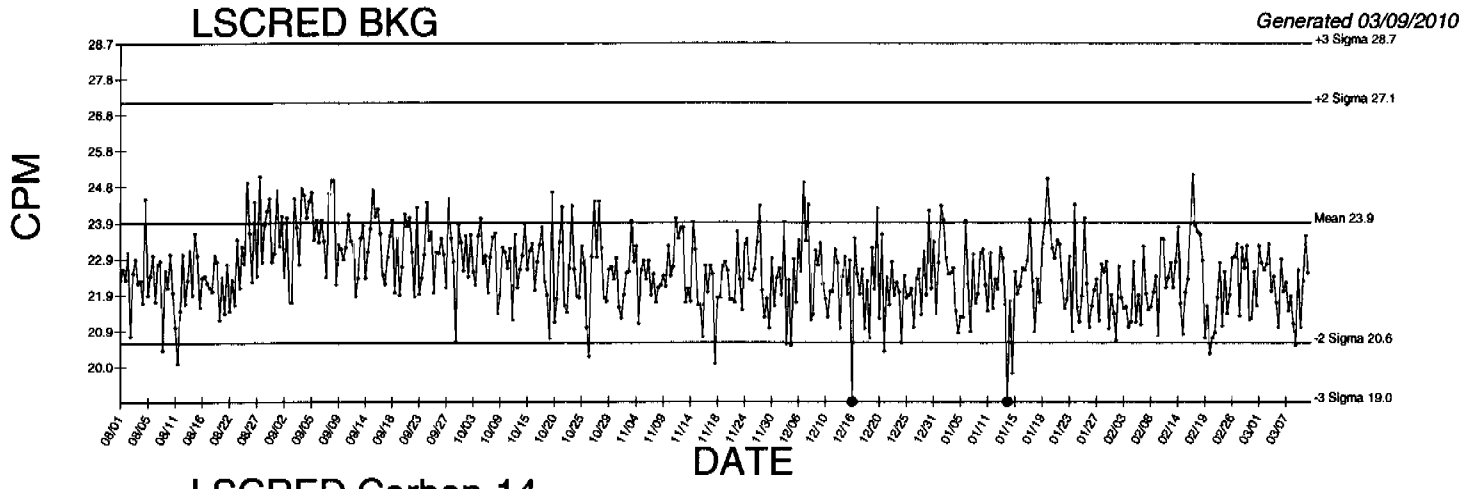

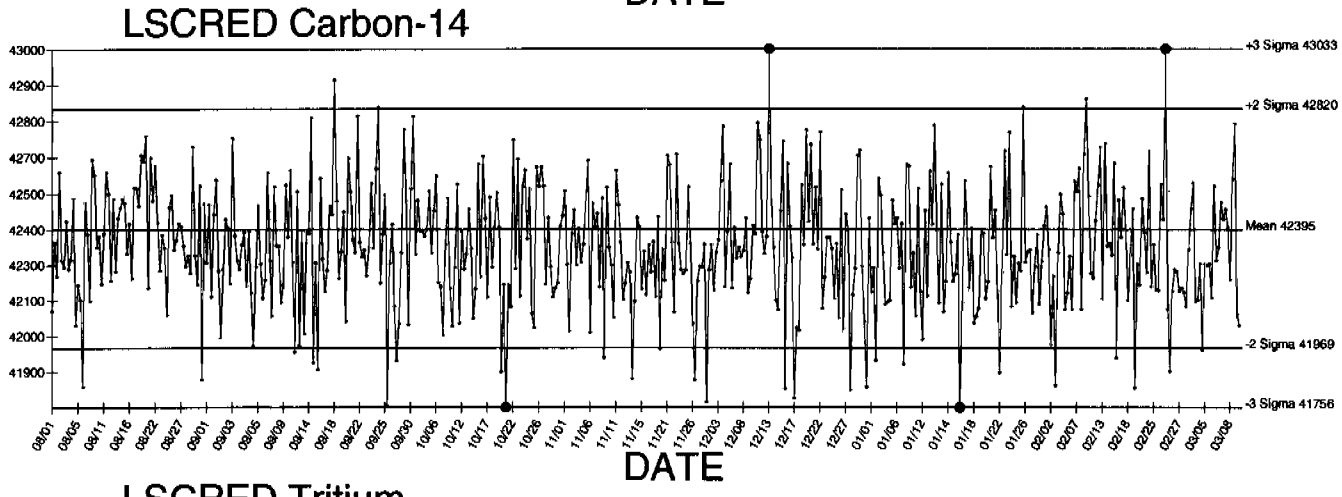

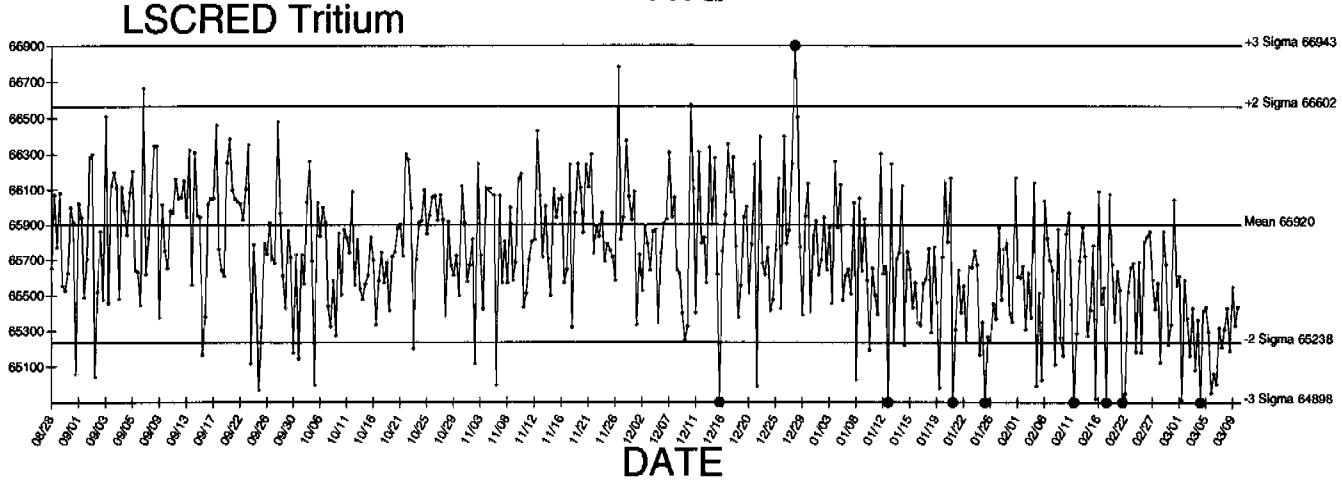

● Denotes Outlier

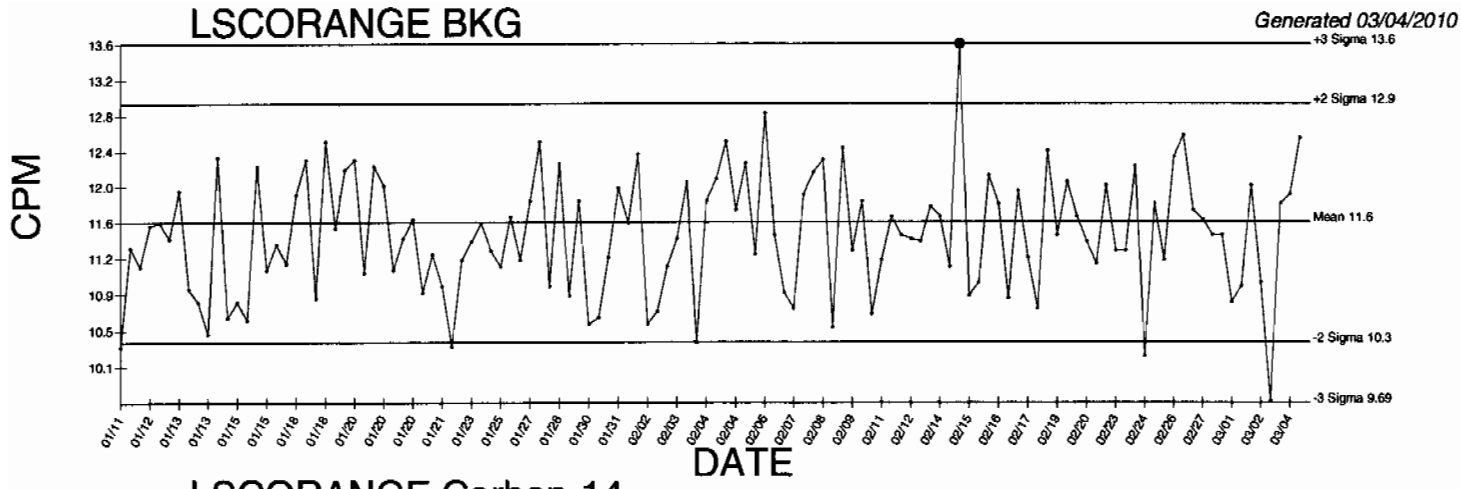

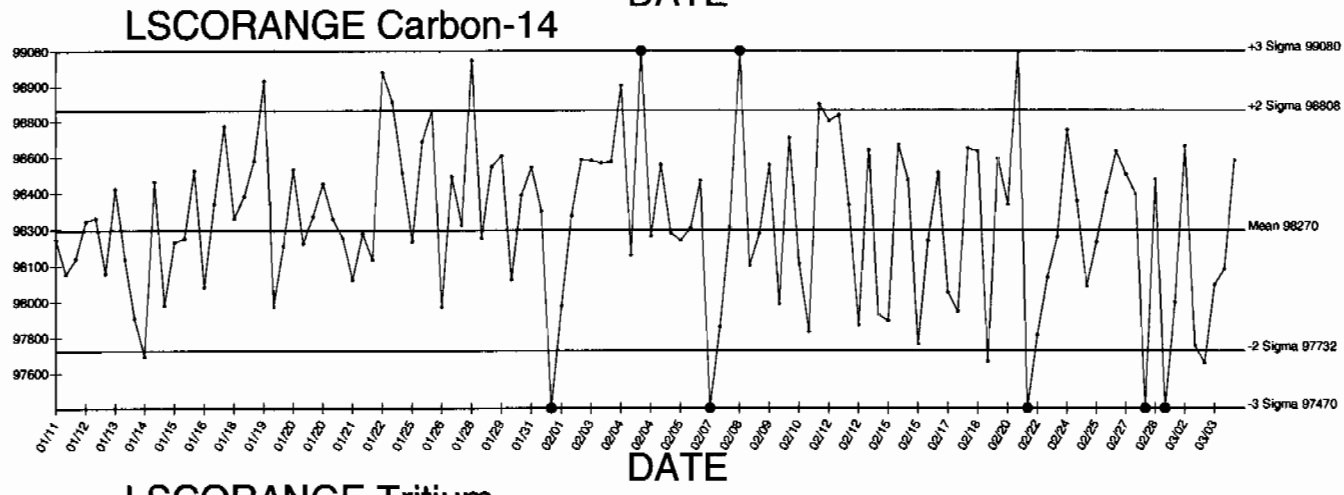

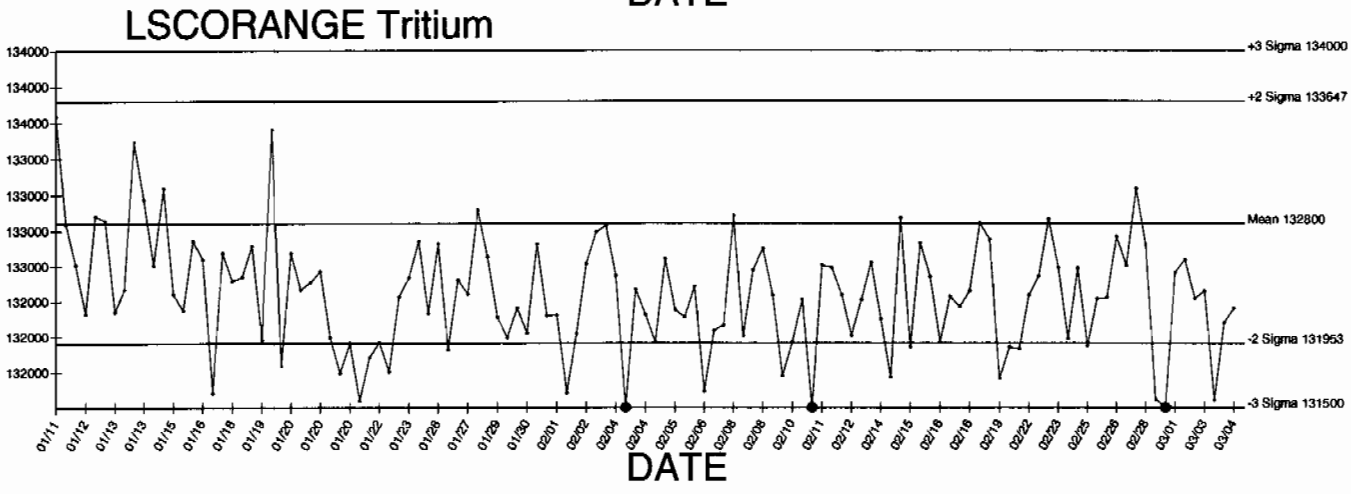

● Denotes Outlier

STANDARDS DATA

Amersham International plc
Amersham Laboratories

0134

[redacted]

NAMAS
CALIBRATION
No. 0146

Description

Radionuclide: TRITIUM (HYDROGEN-3) Product code: TRY·64

Chemical form: water Batch: 111

Measurement

Reference time: 1200 GMT on 1 March 1996

Radioactive concentration of tritium: 488.0 kilobecquerels per gram of water

which is equivalent to: 13.19 microcuries per gram of water

or: 2.93×10^7 disintegrations per minute per gram of water

Method of Measurement
This reference material was calibrated by direct comparison with a standard of tritium-labelled water obtained from the National Institute of Standards and Technology, USA.

Accuracy

The OVERALL UNCERTAINTY of the result quoted above is estimated to be less than ±2.5%

This estimate of uncertainty was calculated in accordance with the recommendations of the International Commission on Radiation Units and Measurements (ICRU Report 12). The limits of uncertainty were taken as the arithmetic sum of the uncertainty due to random variations, calculated at the 99·7% confidence level, and the estimated systematic uncertainties.

Purity

No radioactive impurities were detected. (Impurities with total activity greater than 0.001% of the activity of the tritium would have been detected).

Physical Data

Half-life of tritium: 12·43 ± 0·11 years

Maximum beta energy of tritium: 18·6 keV

Remarks:

The S.I. unit of radioactivity is the becquerel.

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = $3{\cdot}7 \times 10^{10}$ becquerels exactly.

Useful conversion factors are:

1 microcurie (μCi) = $3{\cdot}7 \times 10^4$ Bq = 37 kilobecquerels (kBq)

1 kilobecquerel (kBq) = 27·027 nanocuries (nCi)

This product meets the quality assurance requirements of NRC Regulatory Guide 4.15 for achieving implicit NIST (NBS) traceability as defined in NCRP58 (1985).

Approved signatory

W. F. Case
W.F. Case

RC-5-023-061a

Amersham
The Health Science Group

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0134
Prepared By:	Angela Johnson
Carrier Conc:	DI WATER
Reference Date:	03/01/1996
Ampoule Mass (g):	5 g
Uncertainty:	+/- 2.5 %
LogBook No:	RC S 023 061

A Solution Material Info	
Isotope:	Tritium
Prepared By:	Angela Johnson
Prep Date:	02/21/2001
Verification Date:	09/10/2008
Expiration Date:	03/27/2010
Primary Code:	0134-A
Dilution(mL):	100 mL
Mass of Parent(g):	3.3659 g
Density(g/mL):	1.0004
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (100 mL) = 985535.5200 dpm/mL
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (1.0004 g/mL) / (100 mL) = 985180.3116 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/20/2004	Amanda Fehr	5.86	1000	0134-H	5773.1566 dpm/mL	07/25/2006	07/25/2007
12/20/2005	Amanda Fehr	5.5451	1000	0134-I	5462.92 dpm/mL	12/20/2006	12/20/2007
07/11/2007	Daniel Roy	5.5863	1000	0134-J	5503.5128 dpm/ml	07/29/2008	07/29/2009
03/25/2009	Mary Aders	5.4917	1000	0134-K	5410.3147 dpm/ml	03/27/2009	03/27/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for H-3 Standard 0134-K

M. Aders	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Mass. Used (mL)	Source DPM/mL
4/9/2009	0134-K N1	1097.2000	54.0000	1043.2000	0.380548	1.0000	2741.3099
	0134-K N2	1073.2000	54.0000	1019.2000	0.380548	1.0000	2678.242955
	0134-K N3	1085.2000	54.0000	1031.2000	0.380548	1.0000	2709.776428
						Average =	2709.776428
Mean Value (Counting) =	2709.776428		**104.954429**	**Pass**			
Stdev =	31.53347278		0.01163693	**Rule 3 (Pass/Fail)**			

Certificate Value =	2581.86	dpm/mL
Lower Limit =	2646.709482	dpm/mL
Upper Limit =	2772.843373	dpm/mL
Rule 1 Pass/Fail	**Fail**	***exception taken due to full recovery of standard**
Two sigma =	63.06694556	dpm/mL
10 % of Mean =	270.9776428	dpm/mL
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for H-3 source 0134-K by transferring 0.1 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on Silver for H-3 source standard verification. The H-3 efficiency calibration which was used for verification calculations was performed on 4/9/09 using 0020-A (H-3). Calibration data is recorded in this logbook under H-3 0020. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference RAD SOP M-001

Mary L. Adams 4/9/09
Amanda L. Lehr 4/9/09

RUNLOGS

Instrument Run Log

Instrument Type: LSC **Batch ID: 956741**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
247193005	SAMPLE	KXK2	LSCORANGE	04-MAR-10 07:14	DONE		
247193006	SAMPLE	KXK2	LSCORANGE	04-MAR-10 07:28	DONE		
247193007	SAMPLE	KXK2	LSCORANGE	04-MAR-10 07:49	DONE		
247193012	SAMPLE	KXK2	LSCORANGE	04-MAR-10 08:52	DONE		
247193013	SAMPLE	KXK2	LSCORANGE	04-MAR-10 09:55	DONE		
247337001	SAMPLE	KXK2	LSCORANGE	04-MAR-10 10:16	DONE		
247337002	SAMPLE	KXK2	LSCORANGE	04-MAR-10 11:19	DONE		
247337003	SAMPLE	KXK2	LSCORANGE	04-MAR-10 12:21	DONE		
247337004	SAMPLE	KXK2	LSCORANGE	04-MAR-10 13:24	DONE		
247337005	SAMPLE	KXK2	LSCORANGE	04-MAR-10 14:26	DONE		
247337006	SAMPLE	KXK2	LSCORANGE	04-MAR-10 15:29	DONE		
247337007	SAMPLE	KXK2	LSCORANGE	04-MAR-10 16:32	DONE		
1202051378	MB	KXK2	LSCORANGE	04-MAR-10 17:35	DONE		
1202051379	DUP	KXK2	LSCORANGE	04-MAR-10 18:37	DONE		
1202051380	LCS	KXK2	LSCORANGE	04-MAR-10 19:40	DONE		

Instrument Run Log

Instrument Type: LSC **Batch ID: 961331**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
247193001	SAMPLE	KXK2	LSCRED	08-MAR-10 16:03	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
247193002	SAMPLE	KXK2	LSCRED	08-MAR-10 16:50	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
247193003	SAMPLE	KXK2	LSCRED	08-MAR-10 17:38	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
247193004	SAMPLE	KXK2	LSCRED	08-MAR-10 18:25	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
247193008	SAMPLE	KXK2	LSCRED	08-MAR-10 19:12	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
247193009	SAMPLE	KXK2	LSCRED	08-MAR-10 19:59	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
247193010	SAMPLE	KXK2	LSCRED	08-MAR-10 20:46	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
247193011	SAMPLE	KXK2	LSCRED	08-MAR-10 21:59	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
247193014	SAMPLE	KXK2	LSCRED	08-MAR-10 22:46	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
247344002	SAMPLE	KXK2	LSCRED	08-MAR-10 23:33	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
1202062033	MB	KXK2	LSCRED	09-MAR-10 00:20	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
1202062034	DUP	KXK2	LSCRED	09-MAR-10 01:08	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
1202062035	MS	KXK2	LSCRED	09-MAR-10 01:55	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00
1202062036	LCS	KXK2	LSCRED	09-MAR-10 02:11	DONE	10mL DW/13mL Ecoscint Ultra	21-AUG-09 00:00

Monday, December 21, 2009

REQUEST NUMBER: 10-1024

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Danny Coleman
American Radiation Services - Primary
1726 Wooddale Court
Baton Rouge, LA 70806

These Samples are on:
LANL Request Number:10-1024
Per Agreement Number:126310041
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/21/2009
TURNAROUND/REPORT DUE: 1/20/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	Generic:Low_Level_Tritium	1	CAPA-10-6390	WG	12/17/2009	
		1	CAPA-10-6746	WG	12/17/2009	
		1	CAPA-10-6753	WG	12/16/2009	
		1	CAPA-10-6767	WG	12/16/2009	
		1	CAPA-10-6793	WG	12/17/2009	

Final Page of REQUEST NUMBER 10-1024

Monday, December 21, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1024

REQUEST NUMBER: 10-1024

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Danny Coleman

American Radiation Services - Primary

1726 Wooddale Court

Baton Rouge, LA 70806

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6390	1	POLY	WSP-LL-H-3	None	WG
CAPA-10-6746	1	POLY	WSP-LL-H-3	None	WG
CAPA-10-6753	1	POLY	WSP-LL-H-3	None	WG
CAPA-10-6767	1	POLY	WSP-LL-H-3	None	WG
CAPA-10-6793	1	POLY	WSP-LL-H-3	None	WG

Relinquished By:		Date	Time	Received By:		Date	Time
Jeffrey	Jeffrey	12/21/09	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6753 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/16/09	MEDIA:	WGA	OK
TIME COLLECTED (HH:MM)		1210	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	BP	
LOCATION ID:	~~PCAO-7a~~ 3MAO-2 12/11/09	3MAO-2	FIELD QC TYPE:	FD	
LOCATION TYPE:	MON	OK	FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 ~~3~~		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
1 ~~3~~		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	
1 ~~3~~		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
1 ~~2~~		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
1 ~~3~~		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
1 ~~2~~		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	

12/9/09

SAMPLE DESC: ~~QC Sample of CAPA-10-6749~~ 12/11/09

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

See CAPA 10 6767

COLLECTED BY (PRINT) W. Shaw **REVIEWED BY (PRINT)** H. Wershow

RELINQUISHED BY (Printed Name) Hal Wershow (Signature)	**Date/Time** 12/16/09 1555	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time** 12/16/09 1555
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6767 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/16/09	MEDIA:	WGA	OK
TIME COLLECTED (HH:MM)		1210	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	BP	
LOCATION ID:	3MAO-2		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
~~2~~	~~1~~	WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
~~2~~	~~1~~ HW 12/16/09	WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	
~~2~~	~~1~~	WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
~~2~~	~~1~~ HW 12/16/09	WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
~~2~~	~~1~~	WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
~~2~~	~~1~~ HW 12/16/09	WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	
1		Ra226+228	1 GAL POLY	Nitric Acid	Y	
L ~~2~~	~~1~~ HW 12/16/09	WSP-8151A-Herb	1 LITER AMBER GLASS	Ice	Y	

HW 12/11/09

SAMPLE DESC:

SAMPLE COMMENTS: 3rd full suite sample.

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

12/15/09	Time	pH	T °C	Sp.Cond mS/cm	DO mg/L	ORP mV	Turb NTU	Q gpm
	1159	5.37	8.28	186	2.96	513.7	24.7	0.13

COLLECTED BY (PRINT) H. Wershow **REVIEWED BY (PRINT)** W. Shaw

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Hal Wershow (Signature) Hal Wershow	12/16/09 1565	(Printed Name) (Signature)	12/16/09 1655
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6745 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/17/2009	MEDIA:	WGA	ok
TIME COLLECTED (HH:MM)		1312	SUB-MEDIA:	UA	
PRS ID:	C-00-011	ok	SAMPLE TECH CODE:	RP	
LOCATION ID:	PCAO-5		FIELD QC TYPE:	FB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	
1	ws 12/14/09	WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
1		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
1		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
1		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of CAPA-10-6390

SAMPLE COMMENTS: 4th full suite sample.

See CAAA-10-6390

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) W Shaw **REVIEWED BY (PRINT)** H Borshow

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) William Shaw	12/17/09 1543	(Printed Name) Sherri Sherwood	12/17/09 1543
(Signature)		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6746 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/17/2009	MEDIA:	WGA	OK
TIME COLLECTED (HH:MM)		1312	SUB-MEDIA:	UA	
PRS ID:	C-00-011		SAMPLE TECH CODE:	BP	
LOCATION ID:	PCAO-5		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	5	WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
1	2	WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	
1	5	WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
1	2	WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
1	5	WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
1	2	WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	

SAMPLE DESC: QC Sample of CAPA-10-6390

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

See CAPA-10-6390

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

See CAPA -10-6340

COLLECTED BY (PRINT) H. Vershow **REVIEWED BY (PRINT)** William Shaw

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) W. Williamshaw	12/17/09 1543	(Printed Name) Sherri Sherwood	12/17/09 1543
(Signature)		(Signature) Sherri Sherwood	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6390 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/17/09	MEDIA:	WGA	OK
TIME COLLECTED (HH:MM)		1312	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	BP	
LOCATION ID:	PCAO-5		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: N/A COMPOSITE TIME INTERVAL: N/A WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: N/A BOREHOLE DIRECTION: N/A

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2 3	ns 12/14/09	WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
2 3		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	
2 3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
2 3		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	

SAMPLE DESC: N/A

SAMPLE COMMENTS: 4th full suite sample.
Floaters in the filtered 40 mL and 500 mL; Also floaters in 500 mL unfiltered

LOCATION DESC: N/A

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

Time	pH	T °C	Spc Cond µS/cm	DO mg/L	Turb (NTU)	ORP mV	Qgpm
1301	8.00	11.08	701	0.28	1.04	3483	0.16

COLLECTED BY (PRINT) H. Wershow **REVIEWED BY (PRINT)** W. Shaw

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) W. Wiam Shaw (Signature)	12/17/09 1543	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/17/09 1543
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6793 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/17/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1257	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-38		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2	DW 12/17/09	WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
2	DW 12/17/09	WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH <2
2	DW 12/17/09	WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
2	DW 12/17/09	WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH >12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	pH <2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2
1		WSP-H-3	250 ML AMBER GLASS	Ice	Y	Analysis by direct count with 10-day turnaround.

SAMPLE DESC:

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH (SU)	Temp (°C)	SC (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mV)	Q (gpm)
~~1.38~~ 7.32	18.18	152	6.47	1.29	89.2	2.5

DW 12/17/09

COLLECTED BY (PRINT) J Berryhill, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/17/09	(Printed Name) Sherri Sherwood	12/17/09
(Signature) D. Woody	1430	(Signature) Sherri Sherwood	1430
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1024 VALIDATION DATE: 03/13/10 LAB CODE: ARS

CONTRACT LABORATORY NAME: American Radiation Services

VALIDATOR: Rebecca Keith ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. An MS/MSD pair was not analyzed. However, an LCS/LCSD pair was analyzed and, thus, was used to assess precision. No sample data were qualified.

Reviewed by: Allison Felix Level: 1 Date: 3/15/10

VALIDATOR'S SIGNATURE: R. Keith DATE: 03/13/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☐	☐	☒	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☐	☒	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☐	☒	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☐	☒	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☐	☒	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-09-03111
Client Sample ID: CAPA-10-6390
Sample Collection Date: 12/17/09
Sample Matrix: Aqueous

Request or PO Number: 10-1024
ARS Sample ID: ARS1-09-03111-001
Date Received: 12/22/09
Report Date: 01/22/10

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	DLC	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Enriched H-3	14.040	2.130	0.680	0.330		TU	ARS-054/EPA 906.0	01/18/10 12:10	BJS	N/A

NOTES: Project cost code MR1A015AGWM0

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the American Radiation Services, Inc.

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RLK 3/13/10

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group:	ARS1-09-03111	**Request or PO Number:**	10-1024
Client Sample ID:	CAPA-10-6746	**ARS Sample ID:**	ARS1-09-03111-002
Sample Collection Date:	12/17/09	**Date Received:**	12/22/09
Sample Matrix:	Aqueous	**Report Date:**	01/22/10

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	DLC	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Enriched H-3	13.640	2.080	0.700	0.340		TU	ARS-054/EPA 906.0	01/18/10 18:22	BJS	N/A

NOTES: Project cost code MR1A015AGWM0

DN

Project Manager Review

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LELAP Certificate# 01949 NELAP Certificate # E87558

RLK 3/13/10

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group:	ARS1-09-03111	**Request or PO Number:**	10-1024
Client Sample ID:	CAPA-10-6753	**ARS Sample ID:**	ARS1-09-03111-003
Sample Collection Date:	12/16/09	**Date Received:**	12/22/09
Sample Matrix:	Aqueous	**Report Date:**	01/22/10

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	DLC	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Enriched H-3	48.040	7.230	0.640	0.310		TU	ARS-054/EPA 906.0	01/19/10 06:46	BJS	N/A

NOTES: Project cost code MR1A015AGWM0

pN

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the American Radiation Services, Inc.

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RLK 3/13/10

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group:	ARS1-09-03111	**Request or PO Number:**	10-1024
Client Sample ID:	CAPA-10-6767	**ARS Sample ID:**	ARS1-09-03111-004
Sample Collection Date:	12/16/09	**Date Received:**	12/22/09
Sample Matrix:	Aqueous	**Report Date:**	01/22/10

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	DLC	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Enriched H-3	48.010	7.230	0.810	0.400		TU	ARS-054/EPA 906.0	01/19/10 19:11	BJS	N/A

NOTES: Project cost code MR1A015AGWM0

DW

Project Manager Review

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RLK 3/13/10

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group:	ARS1-09-03111	**Request or PO Number:**	10-1024
Client Sample ID:	CAPA-10-6793	**ARS Sample ID:**	ARS1-09-03111-005
Sample Collection Date:	12/17/09	**Date Received:**	12/22/09
Sample Matrix:	Aqueous	**Report Date:**	01/22/10

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	DLC	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Enriched H-3	0.160	0.200	0.680	0.330	U	TU	ARS-054/EPA 906.0	01/20/10 07:36	BJS	N/A

NOTES: Project cost code MR1A015AGWM0

Project Manager Review

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LELAP Certificate# 01949 NELAP Certificate # E87558

RLK 3/13/10

Monday, December 21, 2009

REQUEST NUMBER: 10-1024

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Danny Coleman
American Radiation Services - Primary
1726 Wooddale Court
Baton Rouge, LA 70806

These Samples are on:
LANL Request Number:10-1024
Per Agreement Number:126310041
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/21/2009
TURNAROUND/REPORT DUE: 1/20/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	Generic:Low_Level_Tritium	1	CAPA-10-6390	WG	12/17/2009	
		1	CAPA-10-6746	WG	12/17/2009	
		1	CAPA-10-6753	WG	12/16/2009	
		1	CAPA-10-6767	WG	12/16/2009	
		1	CAPA-10-6793	WG	12/17/2009	

Final Page of REQUEST NUMBER 10-1024

Monday, December 21, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1024

REQUEST NUMBER: 10-1024

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Danny Coleman

American Radiation Services - Primary

1726 Wooddale Court

Baton Rouge, LA 70806

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6390	1	POLY	WSP-LL-H-3	None	WG
CAPA-10-6746	1	POLY	WSP-LL-H-3	None	WG
CAPA-10-6753	1	POLY	WSP-LL-H-3	None	WG
CAPA-10-6767	1	POLY	WSP-LL-H-3	None	WG
CAPA-10-6793	1	POLY	WSP-LL-H-3	None	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/21/09	1400	William Stickle	[illegible]	12-22-09	13:00
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

Remarks:

2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

American Radiation Services Analytical Reports

for

Los Alamos National Laboratory

Request Number: 10-1024

2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

American Radiation Services Analytical Reports

for

Los Alamos National Laboratory Request: 10-1024

Original COC

Monday, December 21, 2009

REQUEST NUMBER: 10-1024

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Danny Coleman
American Radiation Services - Primary
1726 Wooddale Court
Baton Rouge, LA 70806

These Samples are on:
LANL Request Number:10-1024
Per Agreement Number:126310041
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/21/2009
TURNAROUND/REPORT DUE: 1/20/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	Generic:Low_Level_Tritium	1	CAPA-10-6390	WG	12/17/2009	
		1	CAPA-10-6746	WG	12/17/2009	
		1	CAPA-10-6753	WG	12/16/2009	
		1	CAPA-10-6767	WG	12/16/2009	
		1	CAPA-10-6793	WG	12/17/2009	

Final Page of REQUEST NUMBER 10-1024

Monday, December 21, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1024

REQUEST NUMBER: 10-1024

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Danny Coleman

American Radiation Services - Primary

1726 Wooddale Court

Baton Rouge, LA 70806

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6390	1	POLY	WSP-LL-H-3	None	WG
CAPA-10-6746	1	POLY	WSP-LL-H-3	None	WG
CAPA-10-6753	1	POLY	WSP-LL-H-3	None	WG
CAPA-10-6767	1	POLY	WSP-LL-H-3	None	WG
CAPA-10-6793	1	POLY	WSP-LL-H-3	None	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/22/09	1400	William Stickle	[illegible]	12-22-09	13:00
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

American Radiation Services Analytical Reports

for

Los Alamos National Laboratory Request: 10-1024

Case Narrative

ARS INTERNATIONAL

2609 North River Road • Port Allen, Louisiana 70767

1 (800) 401-4277 • Fax (225) 381-2996

January 22, 2010

LANL
Keith Greene
Drop Point MS H865
Los Alamos, NM 87545

Request Number: 10-1024
LANL Sample ID: CAPA-10-6390; CAPA-10-6746; CAPA-10-6753; CAPA-10-6767; CAPA-10-6793

Dear Mr. Greene;

On December 22, 2009, ARS International received five (5) Low-Level Tritium sample(s) to be analyzed.

The samples were processed and counted using the appropriate counting equipment and QA/QC for this type of analysis. Results of the analysis and QA/QC are attached in the data package.

The client and QA/QC samples were counted with a count time sufficient to meet quality control parameters for counting equipment and were within acceptance criteria and statistical sound detection limits.

If you have any questions please do not hesitate to call at 225.381.2991 or email ProjectManagers@amrad.com.

Sincerely,

Lab Management
ARS International

ARS INTERNATIONAL

2609 North River Road • Port Allen, Louisiana 70767

1 (800) 401-4277 • Fax (225) 381-2996

COVER PAGE

18980SOW0-8S
Statement of Work for Analytical Laboratories

PROJECT SAMPLE IDENTIFICATION
CROSS-REFERENCE
TO ARS SAMPLE LABORATORY IDs

Subcontract (LANL Agreement Number) 126310041

Request Number	LANL PROJECT SAMPLE ID NUMBER	American Radiation Services SAMPLE ID NUMBER(S)
10-1024	CAPA-10-6390	ARS1-09-03111-001
10-1024	CAPA-10-6764	ARS1-09-03111-002
10-1024	CAPA-10-6753	ARS1-09-03111-003
10-1024	CAPA-10-6767	ARS1-09-03111-004
10-1024	CAPA-10-6793	ARS1-09-03111-005

ANALYTICAL METHODS

Low-Level Tritium analyses were performed with **ARS-054 – Low-Level Tritium by Enrichment Process in (Aqueous [AQ]).**

ANALYTICAL RESULTS

The result data that are flagged with "U" indicate that the activity is below the MDC.

Due to the time constraint imposed on the analytical procedure, duplicate samples were processed in case of equipment malfunction, failure, etc.

ARS INTERNATIONAL

2609 North River Road • Port Allen, Louisiana 70767

1 (800) 401-4277 • Fax (225) 381-2996

American Radiation Services Project Manager/Laboratory Director's Comments:
"I certify that this sample data package is in compliance with SOW requirements, both technically and for completeness, other than the conditions detailed above. Release of the data contained in this sample data package and the computer-readable EDD, as applicable, submitted on diskette or by modem, has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature."

"I certify that this electronic image and all hardcopies produced from this image accurately represent the data and is in compliance with the LANL specific requirements, both technically and for completeness, other than the conditions detailed above or in the sample data package narrative. Release, by submission through email, the data contained in this electronic image and the computer-readable EDD (as applicable), has been authorized by the laboratory Manager/Technical Director or the Manager's designee."

Signature	Title	Date
	Lab Management, ARS International	1-22-10

ARS INTERNATIONAL

2609 North River Road • Port Allen, Louisiana 70767

1 (800) 401-4277 • Fax (225) 381-2996

American Radiation Services Analytical Reports

for

Los Alamos National Laboratory

Low Level Tritium by Low Level Liquid Scintillation Counting

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-09-03111
Client Sample ID: CAPA-10-6390
Sample Collection Date: 12/17/09
Sample Matrix: Aqueous

Request or PO Number: 10-1024
ARS Sample ID: ARS1-09-03111-001
Date Received: 12/22/09
Report Date: 01/22/10

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	DLC	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Enriched H-3	14.040	2.130	0.680	0.330		TU	ARS-054/EPA 906.0	01/18/10 12:10	BJS	N/A

NOTES: Project cost code MR1A015AGWM0

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the American Radiation Services, Inc.

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ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-09-03111
Client Sample ID: CAPA-10-6746
Sample Collection Date: 12/17/09
Sample Matrix: Aqueous

Request or PO Number: 10-1024
ARS Sample ID: ARS1-09-03111-002
Date Received: 12/22/09
Report Date: 01/22/10

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	DLC	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Enriched H-3	13.640	2.080	0.700	0.340		TU	ARS-054/EPA 906.0	01/18/10 18:22	BJS	N/A

NOTES: Project cost code MR1A015AGWM0

DN

Project Manager Review

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LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-09-03111
Client Sample ID: CAPA-10-6753
Sample Collection Date: 12/16/09
Sample Matrix: Aqueous

Request or PO Number: 10-1024
ARS Sample ID: ARS1-09-03111-003
Date Received: 12/22/09
Report Date: 01/22/10

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	DLC	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Enriched H-3	48.040	7.230	0.640	0.310		TU	ARS-054/EPA 906.0	01/19/10 06:46	BJS	N/A

NOTES: Project cost code MR1A015AGWM0

pN

Project Manager Review

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LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL

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1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group: ARS1-09-03111
Client Sample ID: CAPA-10-6767
Sample Collection Date: 12/16/09
Sample Matrix: Aqueous

Request or PO Number: 10-1024
ARS Sample ID: ARS1-09-03111-004
Date Received: 12/22/09
Report Date: 01/22/10

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	DLC	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Enriched H-3	48.010	7.230	0.810	0.400		TU	ARS-054/EPA 906.0	01/19/10 19:11	BJS	N/A

NOTES: Project cost code MR1A015AGWM0

pW

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the American Radiation Services, Inc.

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group:	ARS1-09-03111	**Request or PO Number:**	10-1024
Client Sample ID:	CAPA-10-6793	**ARS Sample ID:**	ARS1-09-03111-005
Sample Collection Date:	12/17/09	**Date Received:**	12/22/09
Sample Matrix:	Aqueous	**Report Date:**	01/22/10

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	DLC	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Enriched H-3	0.160	0.200	0.680	0.330	U	TU	ARS-054/EPA 906.0	01/20/10 07:36	BJS	N/A

NOTES: Project cost code MR1A015AGWM0

Project Manager Review

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QC Results Report

Sample Delivery Group: ARS1-09-03111
Date Received: 12/22/2009

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (1s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B09-05378	LCS	H3	26.450	4.100	2.350	28.560		pCi/L	ARS-040	1/15/10 7:59	BJS	93	50%-150%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (1s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B09-05378	MBL	H3	0.470	0.550	1.830	NA	U	pCi/L	ARS-040	1/15/10 20:24	BJS

Sample RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (1s)	Result 2	CSU 1 (1s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B09-05378	LCSD	H3	26.450	4.100	28.840	4.410		pCi/L	ARS-040	1/15/10 14:12	BJS	0.28	< 1

Sample DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (1s)	Result 2	CSU 1 (1s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B09-05378	LCSD	H3	26.450	4.100	28.840	4.410		pCi/L	ARS-040	1/15/10 14:12	BJS	0.79	< 3

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of ARS International.

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American Radiation Services Analytical Reports

for

Los Alamos National Laboratory

Low Level Tritium by Low Level Liquid Scintillation Counting Samples

ARS, International
Port Allen Lab

Tritium Enrichment Data

Printed: 1/19/2010 10:58 AM

Procedures: ARS-040

Date: 12/29/2009

ARS File ID Numbers:

ARS Batch ID: ARS1-B09-05378

	A Batch ID:	Enrichment Cell No.	Tare Wt of Electrolysis Cell & Electrodes	Tare Wt. Reservoir	m_i Wt. Na_2O_2	Gross Weight of Sample Reservoir	V_i Gross Sample Added	Electrolysis Start Date & Time	Start AMP	Start Bath C°	Electrolysis End Date & Time	End Bath C°	End Wt of Cell + Resv. + Sample	V_f Gross Sample Recovered	Enrichment Factor	Cryo-Distil Flask #	Tare Wt Cryo-Distil flask	Gross Wt flask + Sample	Recovered Water	Tare Weight of LSC Vial	Vial + Sample	Aliquot Net Sample
1	ARS1-B09-05378-01	58	339.99	192.11	2.03	692.77	500.05	12/29/09 10:08	5.00	2.0	1/12/10 8:08	2.0	545.19	13.09	39.29	E,E	99.07	107.18	8.11	6.45	11.47	5.02
2	ARS1-B09-05378-02	59	337.35	201.45	2.04	707.44	505.99	12/29/09 10:45	5.00	2.0	1/10/10 11:31	2.0	546.92	8.12	62.31	G,C	97.32	100.96	3.64	6.41	9.98	3.57
3	ARS1-B09-05378-03	65	338.51	200.12	2.00	719.46	519.34	12/29/09 11:04	5.00	2.0	1/11/10 8:01	2.0	549.53	10.90	47.65	D,D	111.34	118.30	6.96	6.52	11.54	5.02
4	ARS1-B09-05378-04	33	340.15	197.52	2.03	615.44	417.92	12/29/09 13:20	5.00	2.0	1/11/10 8:02	2.0	549.22	11.85	36.16	C,C	107.99	115.28	7.29	6.41	11.45	5.04
5							0.00							0.00	–				0.00			0.00
6	ARS1-B09-05378-05D	51	336.28	197.67	2.04	674.43	476.76	12/29/09 14:04	5.00	2.0	1/14/10 11:19	2.0	546.03	12.08	36.47	5,5	98.44	106.72	8.28	6.42	11.44	5.02
7	ARS1-B09-05378-06	40	336.40	181.16	2.01	682.14	499.95	12/29/09 15:28	5.00	2.0	1/15/10 11:15	2.0	540.27	12.69	38.69	N/A,N/A	115.23	123.86	8.63	6.55	11.57	5.02
8	ARS1-B09-05378-06D	28	340.28	199.33	2.02	691.75	492.42	12/29/09 15:20	5.00	2.0	1/11/10 8:05	2.0	546.21	8.80	74.61	N/A,N/A	121.04	123.76	2.72	6.36	8.91	2.55
9							0.00							0.00	–				0.00			0.00
10	ARS1-B09-05378-07D	77	340.41	190.27	2.03	664.91	474.64	12/29/09 15:12	5.00	2.0	1/11/10 8:08	2.0	539.02	8.34	36.91	5,D	97.92	102.34	4.42	6.51	10.91	4.40
11	ARS1-B09-05378-08	67	336.68	202.81	2.02	662.37	459.75	12/29/09 15:47	5.00	2.0	1/11/10 8:06	2.0	550.71	11.42	46.26	N/A,N/A	117.23	125.18	7.95	6.42	11.44	5.02
12							0.00							0.00	–				0.00			0.00
13	ARS1-B09-05378-09	12	332.82	205.05	2.04	701.72	496.67	12/29/09 16:22	5.00	2.0	1/11/10 12:01	2.0	550.30	12.43	39.56	N/A,N/A	121.16	129.65	8.49	6.53	11.54	5.01
14	ARS1-B09-05378-09D	44	335.44	193.70	2.01	667.52	473.82	12/30/09 8:16	5.00	2.0	1/14/10 12:01	2.0	540.31	11.17	34.21	N/A,N/A	121.03	128.70	7.67	6.36	11.39	5.03
15	ARS1-B09-05378-10	65	339.52	208.04	2.03	688.91	480.87	12/30/09 8:31	5.00	2.0	1/13/10 15:39	2.0	558.69	11.13	43.20	N/A,C	113.68	121.37	7.69	6.41	11.42	5.01
16	ARS1-B09-05378-10D	63	333.00	204.50	2.04	715.11	510.61	12/30/09 8:47	5.00	2.0	1/14/10 6:58	2.0	547.65	10.16	50.31	N/A,S	113.75	120.47	6.72	6.50	11.53	5.03
17	ARS1-B09-05378-11	7	337.09	168.42	2.04	686.43	498.01	12/30/09 9:04	5.00	2.0	1/13/10 17:10	2.0	538.62	11.11	44.83	S,11	100.85	104.79	3.94	6.56	10.36	3.83
18	ARS1-B09-05378-11D	98	338.21	199.53	2.03	698.97	499.44	12/30/09 9:37	5.00	2.0	1/16/10 13:29	2.0	549.81	12.07	41.38	6, N/A	99.68	106.53	6.85	6.54	11.53	5.02
19	ARS1-B09-05378-12	97	335.33	203.31	2.01	707.58	504.27	12/30/09 9:52	5.00	2.0	1/14/10 16:10	2.0	550.76	12.12	41.61	A,C	100.66	108.20	7.54	6.43	11.45	5.02
20	ARS1-B09-05378-12D	16	337.61	197.97	2.01	673.98	476.01	12/30/09 10:07	5.00	2.0	1/15/10 8:08	2.0	545.64	10.06	47.32	N/A, C	119.04	125.74	6.70	8.34	11.35	5.01
21							0.00							0.00	–				0.00			0.00
22							0.00							0.00	–				0.00			0.00
23							0.00							0.00	–				0.00			0.00

"D" at the end of the Batch ID denotes that the sample is a duplicate.

S:\Laboratory Department\LabDocuments\LowLevelTritium\2009 LowLevelTritiumData\ARS1-B09-05378 LowLevelTritiumData

Chemist Signature: Jimmy D. Rahn

ARS INTERNATIONAL

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American Radiation Services Analytical Reports

for

Los Alamos National Laboratory

Low Level Tritium by Low Level Liquid Scintillation Counting

Laboratory Records

American Radiation Services, Inc.
Baton Rouge Laboratory

Analysis Batch Report

ARS INTERNATIONAL

Analysis Batch ID **ARS1-B09-05378**

Method **ARS-054** **Analysis** **LSC-A-022** **Matrix** **AQ**

Description **Low Level Tritium by Enrichment Process in (Aqueous [AQ])**

ABatch Sample ID	Type	Blind Iso1	Blind Iso2	Blind Iso3	SDG	FR	Run	Client ID	Isotope Group	Lab Deadline
ARS1-B09-05378-01	LCS	B-08862								
ARS1-B09-05378-02	LCSD	B-08863								
ARS1-B09-05378-03	MBL									
ARS1-B09-05378-04	TRG				**ARS1-09-03109**	001	1	GW54-10-7740	STD	01/18/10
ARS1-B09-05378-05	TRG				**ARS1-09-03109**	002	1	GW54-10-7741	STD	01/18/10
ARS1-B09-05378-06	TRG				**ARS1-09-03110**	001	1	CAPA-10-6823	STD	01/18/10
ARS1-B09-05378-07	TRG				**ARS1-09-03110**	002	1	CAPA-10-6824	STD	01/18/10
ARS1-B09-05378-08	TRG				**ARS1-09-03111**	001	1	CAPA-10-6390	STD	01/18/10
ARS1-B09-05378-09	TRG				**ARS1-09-03111**	002	1	CAPA-10-6746	STD	01/18/10
ARS1-B09-05378-10	TRG				**ARS1-09-03111**	003	1	CAPA-10-6753	STD	01/18/10
ARS1-B09-05378-11	TRG				**ARS1-09-03111**	004	1	CAPA-10-6767	STD	01/18/10
ARS1-B09-05378-12	TRG				**ARS1-09-03111**	005	1	CAPA-10-6793	STD	01/18/10

42515
09-03109-001-12
WRAD

42521
09-03109-002-12
WRAD

42522
09-03110-001-12
WRAD

42523
09-03110-002-12
WRAD

42524
09-03111-001-12
WRAD

42525
09-03111-002-12
WRAD

42526
09-03111-003-12
WRAD

42527
09-03111-004-12
WRAD

42528
09-03111-005-12
WRAD

DUP Evaluation

Method:	ARS LL3H
Batch ID:	ARS1-B09- 05378 -09
DO SDG:	ARS1-09- 03111-002
DUP SDG:	ARS1-09- 03111-002

DO Act	43.940	DO CSU	13.110
DUP Act	43.370	DUPCSU	12.920

$$\text{DER} = \frac{\text{abs(LSC-LSCD)}}{\text{sqr((2s CSU/2)^2)+((2s CSU-D/2)^2)}} = \quad < 3$$

$$\text{DER} = \frac{0.57}{9.203239919} = 0.061935 < 3$$

$$\text{\% RPD} = \frac{\text{ABS(LCS - LSCD)}}{\text{(LCS+LCSD)/2}} * 100 = \quad < 25\%$$

$$\text{\%RPD} = \frac{0.57}{43.655} * 100 = 1.305692 < 25\%$$

The *RPD* shall be less than 25% or other client-applied criteria

$$\text{RER} = \frac{\text{abs((LCS-LCSD))}}{\text{(CSU)+(CSD)}} = \quad <1$$ ⇦ LANL ONLY

$$\text{RER} = \frac{0.57}{26.0300} = 0.021898 <1$$

DUP Evaluation

Method:	ARS LL3H
Batch ID:	ARS1-B09- 05378 -10
DO SDG:	ARS1-09- 03111-003
DUP SDG:	ARS1-09- 03111-003

DO Act	154.730	DO CSU	45.620
DUP Act	150.660	DUPCSU	44.400

DER = $\frac{\text{abs(LSC-LSCD)}}{\text{sqr((2s CSU/2)^2)+((2s CSU-D/2)^2)}}$ = **< 3**

DER = $\frac{4.07}{31.82979893}$ = 0.127868 **< 3**

% RPD = $\frac{\text{ABS(LCS - LSCD)}}{\text{(LCS+LCSD)/2}}$ * 100 = **< 25%**

%RPD = $\frac{4.07}{152.695}$ *100 = 2.665444 **< 25%**

The *RPD* shall be less than 25% or other client-applied criteria

RER = $\frac{\text{abs((LCS-LCSD))}}{\text{(CSU)+(CSD)}}$ = **<1** ⇦ LANL ONLY

RER = $\frac{4.07}{90.0200}$ = 0.045212 **<1**

DUP Evaluation

Method:	ARS LL3H
Batch ID:	ARS1-B09- 05378 -11
DO SDG:	ARS1-09- 03111-004
DUP SDG:	ARS1-09- 03111-004

DO Act	154.650	DO CSU	45.640
DUP Act	147.220	DUPCSU	43.420

$$\text{DER} = \frac{\text{abs(LSC-LSCD)}}{\text{sqr((2s CSU/2)^2)+((2s CSU-D/2)^2)}} = \quad < 3$$

$$\text{DER} = \frac{7.43}{31.49724591} = 0.235894 < 3$$

$$\text{\% RPD} = \frac{\text{ABS(LCS - LSCD)}}{\text{(LCS+LCSD)/2}} * 100 = \quad < 25\%$$

$$\text{\%RPD} = \frac{7.43}{150.935} *100 = 4.922649 < 25\%$$

The *RPD* shall be less than 25% or other client-applied criteria

$$\text{RER} = \frac{\text{abs((LCS-LCSD))}}{\text{(CSU)+(CSD)}} = \quad <1$$ ⇦ LANL ONLY

$$\text{RER} = \frac{7.43}{89.0600} = 0.083427 <1$$

QC Evaluation

EPA Method: Eichrom ACW-03-15
Batch ID: ARS1-B09-04248
SDG's: ARS1-09-02276

LCS	24.4500	**CSU (2s)**	8.0300
LCSD	28.8400	**CSU-D (2s)**	8.6500

DER = $\frac{\text{abs(LSC-LSCD)}}{\text{sqr((2s CSU/2)^2)+((2s CSU-D/2)^2)}}$ *at 1 sigma* = **< 3**

DER $\frac{4.39}{5.9013431}$ = 0.743898 **< 3**

% RPD= $\frac{\text{ABS(LCS - LSCD)}}{\text{(LCS+LCSD)/2}}$ * 100 = **< 25%**

%RPD $\frac{4.39}{26.645}$ *100 = 16.47589 **< 25%**

The *RPD* shall be less than 25% or other client-applied criteria

RER= $\frac{\text{abs((LCS-LCSD))}}{\text{(CSU)+(CSD)}}$ *at 2 sigma* = **<1** ***<--LANL Requirement***

RER = $\frac{4.39}{16.6800}$ 0.263189448 **<1**

Blank Information

	Act	CSU(2s)	MDA	Act>MDA
AM-241				
U-234				
U-235				
U-238				
Pu-238				
Pu-239/240				
Th-228				
Th-230				
Th-232				
H3	0.47	1.09	1.83	
Ra-226				
Ra-228				
Total U				
Pb-210				
Po-209				
Sr-90				
TC-99				
NI-63				

*MDA should be below RDL
*Blank activity must be below MDA
*Blank activity must be < 1.65*CSU (DOE only)

ACT = 0.47
CSU = 1.09
Is ACT<1.65*CSU? [redacted]

ARS Tritium Enrichment Calculations

Procedures	ARS-040 , ARS-060
ARS File ID Number	ARS1-09-03109, 03110, 03112
ARS Batch ID Number	ARS1-B09-05378

Enrichment Factor Curve coeff. - Power y = a * x^b	
a	8.978E-01
b	-9.611E-01
c	

Bkg Quench Curve coeff. - Polynomial y = ax^3+bx^2+cx+d	
a	-2.795E-06
b	3.267E-03
c	-1.265E+00
d	1.637E+02

1 Sigma

lambda	1.3863E-04	ACF (def. = 1)	1
Syserror	0.15	Reporting Units	TU
Coverage Factor	1	UCF	7.151

Aliquot must be entered in liters!!

Sample ID	Initial Mass sample (g) V_i	Mass Na2O2 added (g) m_i	Final mass electrolyzed sample w/ NaOH (g) V_f	Mass equivalent NaOH (g) m_f	Final Mass Electrolyzed sample (g pure H2O) V_f	Volume factor X	Enrichment Factor Y	Average Sample CPM R_s	Bkg CPM R_b	QP tSIE	Detector Eff Eff	Aliquot Aliquot	Enter aliq. in final Rep. Units Units	Activity reference date To	Start Date of Count Tc	Total Sample Count Duration (min) t cnt (min)	Total Bkg Count Duration (min) t cnt (min)	Decay Correction to To DF	Sample Activity Conc. AC_i	Standard Counting Uncertainty CU	Counting Uncertainty 1s CU	Combined Standard Uncertainty 1s CSU	Minimum Detectable Conc. MDC	Decision Level Conc. DLC	Reporting Units Units
ARS1-B09-05378-01	500.66	2.03	13.09	2.09	11.00	0.02	35.23	5	1.59	502.74	0.3590	0.00502	L	2/25/2009	1/15/2010	360	360	0.95603	8.21	0.32	0.32	1.27	0.73	0.36	TU
ARS1-B09-05378-02	505.90	2.04	8.12	2.10	6.02	0.01	63.51	7	1.59	503.23	0.3591	0.00357	L	2/25/2009	1/15/2010	360	360	0.956	8.95	0.27	0.27	1.37	0.57	0.28	TU
ARS1-B09-05378-03	519.34	2.00	10.90	2.06	8.64	0.02	45.02	2	1.59	511.65	0.3610	0.00502	L	2/25/2009	1/16/2010	360	360	0.95596	0.15	0.17	0.17	0.17	0.57	0.28	TU
ARS1-B09-05378-04	417.92	2.03	11.55	2.09	9.46	0.02	34.23	2	1.59	501.91	0.3588	0.00504	L	2/25/2009	1/16/2010	360	360	0.95593	1.16	0.24	0.24	0.30	0.75	0.37	TU
ARS1-B09-05378-05D	476.76	2.04	12.08	2.10	9.98	0.02	36.90	2	1.59	504.19	0.3593	0.00502	L	2/25/2009	1/16/2010	360	360	0.95589	0.59	0.22	0.22	0.23	0.70	0.34	TU
ARS1-B09-05378-06	490.95	2.01	12.69	2.07	10.62	0.02	35.76	5	1.66	512.91	0.3613	0.00502	L	2/25/2009	1/17/2010	360	360	0.95575	8.24	0.31	0.31	1.28	0.73	0.36	TU
ARS1-B09-05378-06D	492.42	2.02	6.60	2.08	4.52	0.01	81.51	6	1.66	502.58	0.3590	0.00255	L	2/25/2009	1/17/2010	360	360	0.95571	9.14	0.29	0.29	1.40	0.63	0.31	TU
ARS1-B09-05378-07D	474.84	2.03	8.34	2.09	6.25	0.01	57.82	6	1.66	518.58	0.3635	0.00440	L	2/25/2009	1/18/2010	360	360	0.95568	7.65	0.24	0.24	1.17	0.51	0.25	TU
ARS1-B09-05378-08	469.78	2.02	11.42	2.08	9.34	0.02	38.78	8	1.66	507.40	0.3600	0.00502	L	2/25/2009	1/18/2010	360	360	0.95564	14.04	0.35	0.35	2.13	0.68	0.33	TU
ARS1-B09-05378-09	496.67	2.04	12.43	2.10	10.33	0.02	37.13	8	1.66	516.80	0.3627	0.00501	L	2/25/2009	1/18/2010	360	360	0.95561	13.64	0.35	0.35	2.08	0.70	0.34	TU
ARS1-B09-05378-09D	493.82	2.01	11.17	2.07	9.10	0.02	41.71	9	1.66	508.90	0.3606	0.00503	L	2/25/2009	1/19/2010	360	360	0.95558	13.46	0.33	0.33	2.05	0.63	0.31	TU
ARS1-B09-05378-10	480.87	2.03	11.13	2.09	9.04	0.02	40.82	26	1.66	512.37	0.3611	0.00501	L	2/25/2009	1/19/2010	360	360	0.95554	48.04	0.55	0.55	7.23	0.64	0.31	TU
ARS1-B09-05378-10D	510.61	2.04	10.15	2.10	8.05	0.02	46.46	30	1.66	513.60	0.3614	0.00503	L	2/25/2009	1/19/2010	360	360	0.95551	46.77	0.49	0.49	7.03	0.54	0.26	TU
ARS1-B09-05378-11	498.01	2.04	11.11	2.10	9.01	0.02	42.46	21	1.66	507.07	0.3600	0.00383	L	2/25/2009	1/19/2010	360	360	0.95547	48.01	0.63	0.63	7.23	0.81	0.40	TU
ARS1-B09-05378-11D	499.44	2.03	12.07	2.09	9.98	0.02	38.59	23	1.66	495.26	0.3573	0.00502	L	2/25/2009	1/20/2010	360	360	0.95544	45.70	0.56	0.56	6.88	0.68	0.33	TU
ARS1-B09-05378-12	504.27	2.01	12.12	2.07	10.05	0.02	38.68	2	1.66	505.72	0.3597	0.00502	L	2/25/2009	1/20/2010	360	360	0.9554	0.16	0.20	0.20	0.20	0.68	0.33	TU

ARS Tritium Enrichment Calculations

Procedures	ARS-040 , ARS-060
ARS File ID Number	ARS1-09-03109, 03110, 03112
ARS Batch ID Number	ARS1-B09-05378

Enrichment Factor Curve coeff. - Power y = a * x^b	
a	8.978E-01
b	-9.611E-01
c	

Bkg Quench Curve coeff. - Polynomial y = ax^3+bx^2+cx+d	
a	-2.785E-06
b	3.287E-03
c	-1.265E+00
d	1.637E+02

2 Sigma

lambda	1.3863E-04	ACF (def. = 1)	1
Syserror	0.15	Reporting Units	TU
Coverage Factor	1.96	UCF	7.151

Aliquot must be entered in literal!

Sample ID	Initial Mass sample (g) V_i	Mass Na2O2 added (g) m_i	Final mass electrolyzed sample w/ NaOH (g) V_T	Mass equivalent NaOH (g) m_f	Final Mass Electrolyzed sample (g pure H2O) V_f	Volume factor X	Enrichment Factor Y	Average Sample CPM R_s	Bkg CPM R_b	QIP tSIE	Detector Eff Eff	Aliquot Aliquot	Enter aliq. in final Rep. Units Units	Activity reference date To	Start Date of Count Tc	Total Sample Count Duration (min) t cnt (min)	Total Bkg Count Duration (min) t cnt (min)	Decay Correction to To DF	Sample Activity Conc. AC_i	Standard Counting Uncertainty CU	Counting Uncertainty 1.96s CU	Combined Standard Uncertainty 1.96s CSU	Minimum Detectable Conc. MDC	Decision Level Conc. DLC	Reporting Units Units
ARS1-B09-05378-01	500.66	2.03	13.09	2.09	11.00	0.02	35.23	5	1.59	502.74	0.3590	0.00502	L	2/25/2009	1/15/2010	360	360	0.95603	8.21	0.32	0.62	2.49	0.73	0.36	TU
ARS1-B09-05378-02	505.90	2.04	8.12	2.10	6.02	0.01	63.51	7	1.59	503.23	0.3591	0.00357	L	2/25/2009	1/15/2010	360	360	0.956	8.95	0.27	0.53	2.66	0.57	0.28	TU
ARS1-B09-05378-03	519.34	2.00	10.90	2.06	8.84	0.02	45.02	2	1.59	511.65	0.3610	0.00502	L	2/25/2009	1/16/2010	360	360	0.95596	0.15	0.17	0.33	0.34	0.57	0.28	TU
ARS1-B09-05378-04	417.92	2.03	11.55	2.09	9.46	0.02	34.23	2	1.59	501.91	0.3588	0.00504	L	2/25/2009	1/16/2010	360	360	0.95593	1.16	0.24	0.47	0.58	0.75	0.37	TU
ARS1-B09-05378-05D	476.76	2.04	12.08	2.10	9.98	0.02	36.90	2	1.59	504.19	0.3593	0.00502	L	2/25/2009	1/16/2010	360	360	0.95589	0.59	0.22	0.42	0.46	0.70	-0.34	TU
ARS1-B09-05378-06	490.95	2.01	12.69	2.07	10.62	0.02	35.76	5	1.66	512.91	0.3613	0.00502	L	2/25/2009	1/17/2010	360	360	0.95575	8.24	0.31	0.62	2.50	0.73	0.36	TU
ARS1-B09-05378-06D	492.42	2.02	6.60	2.08	4.52	0.01	81.51	6	1.66	502.50	0.3590	0.00255	L	2/25/2009	1/17/2010	360	360	0.95571	9.14	0.29	0.57	2.75	0.63	0.31	TU
ARS1-B09-05378-07D	474.64	2.03	8.34	2.09	6.25	0.01	57.62	6	1.66	518.58	0.3635	0.00440	L	2/25/2009	1/18/2010	360	360	0.95568	7.65	0.24	0.47	2.30	0.51	0.25	TU
ARS1-B09-05378-08	469.78	2.02	11.42	2.08	9.34	0.02	38.78	8	1.66	507.40	0.3600	0.00502	L	2/25/2009	1/18/2010	360	360	0.95564	14.04	0.35	0.68	4.18	0.66	0.33	TU
ARS1-B09-05378-09	496.67	2.04	12.43	2.10	10.33	0.02	37.13	6	1.66	516.80	0.3627	0.00501	L	2/25/2009	1/18/2010	360	360	0.95561	13.64	0.35	0.69	4.07	0.70	0.34	TU
ARS1-B09-05378-09D	493.82	2.01	11.17	2.07	9.10	0.02	41.71	9	1.66	509.90	0.3606	0.00503	L	2/25/2009	1/19/2010	360	360	0.95558	13.46	0.33	0.64	4.01	0.63	0.31	TU
ARS1-B09-05378-10	480.67	2.03	11.13	2.09	9.04	0.02	40.92	26	1.66	512.37	0.3611	0.00501	L	2/25/2009	1/19/2010	360	360	0.95554	48.04	0.55	1.07	14.16	0.64	0.31	TU
ARS1-B09-05378-10D	510.61	2.04	10.15	2.10	8.05	0.02	48.48	30	1.66	513.60	0.3614	0.00503	L	2/25/2009	1/19/2010	360	360	0.95551	46.77	0.49	0.96	13.78	0.54	0.26	TU
ARS1-B09-05378-11	498.01	2.04	11.11	2.10	9.01	0.02	42.46	21	1.66	507.07	0.3600	0.00383	L	2/25/2009	1/19/2010	360	360	0.95547	46.01	0.63	1.23	14.17	0.81	0.40	TU
ARS1-B09-05378-11D	499.44	2.03	12.07	2.09	9.98	0.02	38.59	23	1.66	495.26	0.3573	0.00502	L	2/25/2009	1/20/2010	360	360	0.95544	45.70	0.56	1.09	13.46	0.68	0.33	TU
ARS1-B09-05378-12	504.27	2.01	12.12	2.07	10.05	0.02	38.68	2	1.66	505.72	0.3597	0.00502	L	2/25/2009	1/20/2010	360	360	0.9554	0.16	0.20	0.40	0.40	0.66	0.33	TU

ARS Tritium Enrichment Calculations

Procedures	ARS-040 , ARS-060
ARS File ID Number	ARS1-09-03109, 03110, 03112
ARS Batch ID Number	ARS1-B09-05378

Enrichment Factor Curve coeff. - Power y = a * x^b	
a	8.978E-01
b	-9.611E-01
c	

Bkg Quench Curve coeff. - Polynomial y = ax^3+bx^2+cx+d	
a	-2.795E-06
b	3.267E-03
c	-1.265E+00
d	1.637E+02

1 Sigma

lambda	1.3863E-04	ACF (def. = 1)	1
Syserror	0.15	Reporting Units	pCi
Coverage Factor	1	UCF	2.22

Sample ID	Initial Mass sample (g) V_i	Mass Na2O2 added (g) m_i	Final mass electrolyzed sample w/ NaOH (g) V_f	Mass equivalent NaOH (g) m_f	Final Mass Electrolyzed sample (g pure H2O) V_f	Volume factor X	Enrichment Factor Y	Average Sample CPM R_s	Bkg CPM R_b	QIP tSIE	Detector Eff Eff	Aliquot Aliquot	Enter aliq. in final Rep. Units Units	Activity reference date To	Start Date of Count Tc	Total Sample Count Duration (min) t cnt (min)	Total Bkg Count Duration (min) t cnt (min)	Decay Correction to To DF	Sample Activity Conc. AC_i	Standard Counting Uncertainty CU	Counting Uncertainty 1s CU	Combined Standard Uncertainty 1s CSU	Minimum Detectable Conc. MDC	Decision Level Conc. DLC	Reporting Units Units
ARS1-B09-05378-01	500.66	2.03	13.09	2.09	11.00	0.02	35.23	5	1.59	502.74	0.3590	0.00502	L	2/25/2009	1/15/2010	360	360	0.95603	26.45	1.02	1.02	4.10	2.35	1.15	pCi/L
ARS1-B09-05378-02	505.90	2.04	8.12	2.10	6.02	0.01	63.51	7	1.59	503.23	0.3591	0.00357	L	2/25/2009	1/15/2010	360	360	0.956	26.84	0.87	0.87	4.41	1.83	0.90	pCi/L
ARS1-B09-05378-03	519.34	2.00	10.90	2.06	8.84	0.02	45.02	2	1.59	511.65	0.3610	0.00502	L	2/25/2009	1/16/2010	360	360	0.95596	0.47	0.55	0.55	0.55	1.83	0.89	pCi/L
ARS1-B09-05378-04	417.92	2.03	11.55	2.09	9.46	0.02	34.23	2	1.59	501.91	0.3588	0.00504	L	2/25/2009	1/16/2010	360	360	0.95593	3.72	0.77	0.77	0.95	2.41	1.18	pCi/L
ARS1-B09-05378-05D	476.76	2.04	12.08	2.10	9.98	0.02	36.90	2	1.59	504.19	0.3593	0.00502	L	2/25/2009	1/16/2010	360	360	0.95589	1.89	0.69	0.69	0.75	2.24	1.10	pCi/L
ARS1-B09-05378-06	490.95	2.01	12.69	2.07	10.62	0.02	35.76	5	1.66	512.91	0.3613	0.00502	L	2/25/2009	1/17/2010	360	360	0.95575	26.64	1.01	1.01	4.11	2.35	1.15	pCi/L
ARS1-B09-05378-06D	492.42	2.02	6.60	2.08	4.52	0.01	81.51	6	1.66	502.58	0.3590	0.00255	L	2/25/2009	1/17/2010	360	360	0.95571	29.44	0.94	0.94	4.52	2.05	1.00	pCi/L
ARS1-B09-05378-07D	474.64	2.03	8.34	2.09	6.25	0.01	57.62	6	1.66	518.58	0.3635	0.00440	L	2/25/2009	1/18/2010	360	360	0.95568	24.65	0.77	0.77	3.78	1.66	0.81	pCi/L
ARS1-B09-05378-08	469.78	2.02	11.42	2.08	9.34	0.02	38.78	8	1.66	507.40	0.3600	0.00502	L	2/25/2009	1/18/2010	360	360	0.95564	45.22	1.12	1.12	6.88	2.18	1.06	pCi/L
ARS1-B09-05378-09	496.67	2.04	12.43	2.10	10.33	0.02	37.13	8	1.66	516.80	0.3627	0.00501	L	2/25/2009	1/18/2010	360	360	0.95561	43.94	1.14	1.14	6.69	2.26	1.10	pCi/L
ARS1-B09-05378-09D	493.82	2.01	11.17	2.07	9.10	0.02	41.71	9	1.66	509.90	0.3606	0.00503	L	2/25/2009	1/19/2010	360	360	0.95558	43.37	1.05	1.05	6.59	2.02	0.99	pCi/L
ARS1-B09-05378-10	480.87	2.03	11.13	2.09	9.04	0.02	40.92	26	1.66	512.37	0.3611	0.00501	L	2/25/2009	1/19/2010	360	360	0.95554	164.73	1.76	1.76	23.28	2.06	1.01	pCi/L
ARS1-B09-05378-10D	510.61	2.04	10.15	2.10	8.05	0.02	48.46	30	1.66	513.60	0.3614	0.00503	L	2/25/2009	1/19/2010	360	360	0.95551	150.66	1.58	1.58	22.65	1.73	0.85	pCi/L
ARS1-B09-05378-11	498.01	2.04	11.11	2.10	9.01	0.02	42.46	21	1.66	507.07	0.3600	0.00383	L	2/25/2009	1/19/2010	360	360	0.95547	154.65	2.01	2.01	23.29	2.61	1.27	pCi/L
ARS1-B09-05378-11D	499.44	2.03	12.07	2.09	9.98	0.02	38.59	23	1.66	495.26	0.3573	0.00502	L	2/25/2009	1/20/2010	360	360	0.95544	147.22	1.79	1.79	22.16	2.21	1.08	pCi/L
ARS1-B09-05378-12	504.27	2.01	12.12	2.07	10.05	0.02	38.68	2	1.66	505.72	0.3597	0.00502	L	2/25/2009	1/20/2010	360	360	0.9554	0.50	0.66	0.66	0.66	2.19	1.07	pCi/L

ARS Tritium Enrichment Calculations

Procedures	ARS-040 , ARS-060
ARS File ID Number	ARS1-09-03109, 03110, 03112
ARS Batch ID Number	ARS1-B09-05378

Enrichment Factor Curve coeff. - Power y = a * x^b	
a	8.978E-01
b	-9.611E-01
c	

Bkg Quench Curve coeff. - Polynomial y = ax^3+bx^2+cx+d	
a	-2.795E-06
b	3.257E-03
c	-1.265E+00
d	1.637E+02

2 Sigma

lambda	1.3863E-04	ACF (def. = 1)	1
Syserror	0.15	Reporting Units	pCi
Coverage Factor	1.96	UCF	2.22

Sample ID	Initial Mass sample (g) V_i	Mass Na2O2 added (g) m_s	Final mass electrolyzed sample w/ NaOH (g) V_F	Mass equivalent NaOH (g) m_F	Final Mass Electrolyzed sample (g pure H2O) V_f	Volume factor X	Enrichment Factor Y	Average Sample CPM R_s	Bkg CPM R_b	QIP tSIE	Detector Eff Eff	Aliquot Aliquot	Enter aliq. in final Rep. Units Units	Activity reference date To	Start Date of Count Tc	Total Sample Count Duration (min) t cnt (min)	Total Bkg Count Duration (min) t cnt (min)	Decay Correction to To DF	Sample Activity Conc. AC_i	Standard Counting Uncertainty CU	Counting Uncertainty 1.96s CU	Combined Standard Uncertainty 1.96s CSU	Minimum Detectable Conc. MDC	Decision Level Conc. DLC	Reporting Units Units
ARS1-B09-05378-01	500.66	2.03	13.09	2.09	11.00	0.02	35.23	5	1.59	502.74	0.3590	0.00502	L	2/25/2009	1/15/2010	360	360	0.95603	26.45	1.02	1.99	8.03	2.35	1.15	pCi/L
ARS1-B09-05378-02	505.90	2.04	8.12	2.10	6.02	0.01	63.51	7	1.59	503.23	0.3591	0.00357	L	2/25/2009	1/15/2010	360	360	0.956	28.64	0.87	1.71	8.65	1.83	0.90	pCi/L
ARS1-B09-05378-03	519.34	2.00	10.90	2.06	8.84	0.02	45.02	2	1.59	511.65	0.3610	0.00502	L	2/25/2009	1/16/2010	360	360	0.95596	0.47	0.55	1.08	1.09	1.83	0.89	pCi/L
ARS1-B09-05378-04	417.92	2.03	11.55	2.09	9.46	0.02	34.23	2	1.59	501.91	0.3588	0.00504	L	2/25/2009	1/16/2010	360	360	0.95593	3.72	0.77	1.51	1.86	2.41	1.18	pCi/L
ARS1-B09-05378-05D	476.76	2.04	12.08	2.10	9.98	0.02	36.90	2	1.59	504.19	0.3593	0.00502	L	2/25/2009	1/16/2010	360	360	0.95589	1.89	0.69	1.36	1.47	2.24	1.10	pCi/L
ARS1-B09-05378-06	490.95	2.01	12.69	2.07	10.62	0.02	35.76	5	1.66	512.91	0.3613	0.00502	L	2/25/2009	1/17/2010	360	360	0.95575	26.54	1.01	1.98	8.05	2.35	1.15	pCi/L
ARS1-B09-05378-06D	492.42	2.02	6.60	2.06	4.52	0.01	81.51	6	1.66	502.58	0.3590	0.00255	L	2/25/2009	1/17/2010	360	360	0.95571	29.44	0.94	1.84	8.85	2.05	1.00	pCi/L
ARS1-B09-05378-07D	474.64	2.03	8.34	2.09	6.25	0.01	57.62	6	1.66	518.58	0.3635	0.00440	L	2/25/2009	1/18/2010	360	360	0.95568	24.65	0.77	1.51	7.40	1.66	0.81	pCi/L
ARS1-B09-05378-08	469.78	2.02	11.42	2.08	9.34	0.02	38.78	8	1.66	507.40	0.3600	0.00502	L	2/25/2009	1/18/2010	360	360	0.95564	45.22	1.12	2.20	13.48	2.18	1.06	pCi/L
ARS1-B09-05378-09	496.67	2.04	12.43	2.10	10.33	0.02	37.13	8	1.66	516.80	0.3627	0.00501	L	2/25/2009	1/18/2010	360	360	0.95561	43.94	1.14	2.24	13.11	2.26	1.10	pCi/L
ARS1-B09-05378-09D	493.82	2.01	11.17	2.07	9.10	0.02	41.71	9	1.66	509.90	0.3606	0.00503	L	2/25/2009	1/19/2010	360	360	0.95558	43.37	1.05	2.06	12.92	2.02	0.99	pCi/L
ARS1-B09-05378-10	480.87	2.03	11.13	2.09	9.04	0.02	40.92	26	1.66	512.37	0.3611	0.00501	L	2/25/2009	1/19/2010	360	360	0.95554	154.73	1.76	3.46	45.62	2.06	1.01	pCi/L
ARS1-B09-05378-10D	510.61	2.04	10.15	2.10	8.05	0.02	46.46	30	1.66	513.60	0.3614	0.00503	L	2/25/2009	1/19/2010	360	360	0.95551	150.66	1.58	3.10	44.40	1.73	0.85	pCi/L
ARS1-B09-05378-11	498.01	2.04	11.11	2.10	9.01	0.02	42.46	21	1.66	507.07	0.3600	0.00383	L	2/25/2009	1/19/2010	360	360	0.95547	154.65	2.01	3.95	45.64	2.61	1.27	pCi/L
ARS1-B09-05378-11D	499.44	2.03	12.07	2.09	9.98	0.02	38.59	23	1.66	495.26	0.3573	0.00502	L	2/25/2009	1/20/2010	360	360	0.95544	147.22	1.79	3.51	43.42	2.21	1.08	pCi/L
ARS1-B09-05378-12	504.27	2.01	12.12	2.07	10.05	0.02	38.68	2	1.66	505.72	0.3597	0.00502	L	2/25/2009	1/20/2010	360	360	0.9554	0.50	0.66	1.29	1.29	2.19	1.07	pCi/L

Standards Activity as of: 01/15/10 14:07

Active	Std ID	Isotope	FSCLT	Verification Date	Exp Date	Status	Ref Date	Ref ACT (dpm)	ACT at Date Above (dpm/g)	Halflife (days)	Parent ID	Expended Date	Comments
A	S-0023	Pu-238	S	11/02/05	11/02/06	EXP	11/01/05	1.1657E+01	11.2759	3.204E+04	S-0071		S-0023 Entered information from dilution records.
A	S-0027	Tc-99	SLC	09/01/06	09/01/07	EXP	10/18/05	9.4141E+03	9414.0087	7.710E+07	S-0113		S-0027 - Information entered from dilution records - RTS 4/19/2006
A	S-0031	H-3	S	10/26/05	10/26/06	EXP	10/19/05	6.0776E+05	478751.1794	4.500E+03	S-0107		S-0031 Intermediate dilution - Information entered from dilution recor
A	S-0039	Tc-99	SC	04/01/09	04/01/10	OK	03/30/06	1.1146E+04	11146.2009	7.710E+07	S-0114		S-0039 - Information entered from dilution records - 4/19/2006 RTS
A	S-0065	Th-230	P			Not Ver	01/27/95	1.7100E+00	1.7098	2.753E+07			S-0036 Information entered on 1/6/2006 RTS Density entered based on m
A	S-0069	Am-241	PL			Not Ver	04/18/96	9.6000E-03	0.0094	1.579E+05			S-0001 Information entered from dilution records Dilution incorre
A	S-0073	Pu-239	PL			Not Ver	11/15/99	3.9240E+01	39.2285	8.807E+06			S-0024 Information entered from dilution records
A	S-0075	Pu-242	PT			Not Ver	06/04/94	2.6310E+01	26.3092	1.365E+08			S-0025 Information entered from dilution records
A	S-0103	U-nat	SC	06/18/07	06/18/08	EXP	10/26/05	7.0226E+01	70.2265	1.632E+12	S-0102		S-0028 relogged as total uranium solution. Activity is the sum total o
A	S-0105	Ra-226	P			Not Ver	01/01/93	1.1900E+01	11.8124	5.840E+05			Primary solution for S-0007 - Information entered from dilution record
A	S-0108	Sr-90	PC			Not Ver	07/01/95	4.0100E+03	2815.3327	1.041E+04			Primary for S-0017
A	S-0111	H-3	PC			Not Ver	04/01/06	2.0870E+00	1.6860	4.500E+03			Primary
A	S-0113	Tc-99	PLC			Not Ver	09/01/96	3.2610E+04	32608.5683	7.710E+07			Primary solution
A	S-0115	Cs-137	PL			Not Ver	01/23/95	2.9000E+01	20.5324	1.098E+04			S-0003 primary - Information entered from dilution records - 4/19/2006
A	S-0117	Sr-90	PLCT			Not Ver	07/01/95	4.0100E+03	2815.3327	1.041E+04			S-0017 primary - Information entered from dilution records. 4/18/2006
A	S-0119	Cs-137	SC	04/19/06	04/19/07	EXP	04/03/06	1.1621E+04	10649.6940	1.098E+04	S-0118		Solution for use as calibration stock standard.
A	S-0121	Sr-90	SC	12/04/08	12/04/09	EXP	03/31/06	1.1282E+04	10287.2941	1.041E+04	S-0120		Solution for use as calibration stock standard.
A	S-0123	Am-241	SC	04/24/06	04/24/07	EXP	04/03/06	1.1632E+04	11561.5872	1.579E+05	S-0122		Solution for use as calibration stock standard.
A	S-0125	Th-230	SC	09/24/07	09/24/08	EXP	03/27/06	1.0413E+04	10412.6542	2.753E+07	S-0124		Solution for use as calibration stock standard. Entered from dilution
A	S-0127	Ra-228	SL	09/29/09	09/29/10	OK	05/10/06	1.1274E+04	7229.7909	2.100E+03	S-0126		Measurements performed using Balance# 1325103449 and Pipette# 929940.
A	S-0129	Sr-90	PL			Not Ver	07/01/95	4.0100E+03	2815.3327	1.041E+04			
A	S-0137	Th-229	PT			Not Ver	12/05/03	1.2294E+05	122869.0329	2.681E+06			Primary Th-229 standard.

Standards Activity as of: 01/15/10 14:07

Active	Std ID	Isotope	PSCLT	Verification Date	Exp Date	Status	Ref Date	Ref ACT (dpm)	ACT at Date Above (dpm/g)	Halflife (days)	Parent ID	Expected Date	Comments
A	S-0139	Po-209	P			Not Ver	03/15/94	5.1252E+03	4602.2370	3.726E+04			Primary Po-209 standard.
A	S-0140	Po-209	SC			Not Ver	10/17/05	1.1602E+01	11.3862	3.726E+04	S-0139		
A	S-0141	Ra-226	PC			Not Ver	01/21/93	2.6418E+04	26224.2166	5.840E+05			Primary solution for creating calibration stock.
A	S-0142	Ra-226	SC	04/03/07	04/03/08	EXP	07/21/06	5.5310E+02	549.1324	5.840E+05	S-0141		
A	S-0143	Pb-210	P			Not Ver	07/18/06	7.6400E+00	6.8519	8.130E+03			ARS-WRM-001
A	S-0144	Pb-210	SC	07/13/09	07/13/10	EXP	07/13/05	1.5961E+01	13.0117	8.130E+03	S-0143		
A	S-0145	Th-229	ST			Not Ver	01/28/05	1.1938E+02	119.3275	2.681E+06	S-0138		Information was gathered from existing incomplete dilution records are
A	S-0146	Th-229	SC	04/01/08	04/01/10	OK	03/01/05	1.2201E+02	122.0107	2.681E+06	S-0145		
A	S-0148	C-14	PL			Not Ver	03/07/06	4.7320E+05	472974.4838	2.090E+06			Primary C-14 standard. The certified activity in dpm/g was derived by
A	S-0149	C-14	S			Not Ver	10/13/06	8.6764E+02	867.3019	2.090E+06	S-0148		
A	S-0151	C-14	CLS			Not Ver	10/13/06	2.4320E+05	243000.0000	2.090E+06			Primary C-14 LCS standard
A	S-0152	H-3	PL	05/09/08	05/09/09	EXP	09/03/98	2.0090E+00	1.0598	4.500E+03			Liquid in a 500-ml borosilicate-glass reagent bottle with teflon-lined s
A	S-0153	C-14	PL			Not Ver	10/13/06	1.1837E+03	1183.7000	2.090E+06	S-0148		
A	S-0154	C-14	S	08/20/10	08/20/11	OK	10/13/06	1.7245E+02	172.3821	2.090E+06	S-0153		LCS standard for C-14. Originally logged as S-0150. See parent comment
A	S-0155	C-14	SC	08/06/09	08/06/10	EXP	03/20/07	5.0002E+01	50.0291	2.090E+06	S-0154		
A	S-0157	Sr-90	P			Not Ver	05/15/07	7.6040E+03	7125.5391	1.041E+04			Primary Sr-90 LCS standard
A	S-0158	U-232	PT			Not Ver	06/06/07	5.2318E+02	505.5627	2.516E+04			Primary U-232 standard
A	S-0159	Sr-89	PC			Not Ver	05/15/07	1.7538E+04	0.0269	5.053E+01			Primary Sr-89 standard
A	S-0160	Sr-89	SC	07/10/07	07/10/08	EXP	06/01/07	5.1128E+03	5.0269	5.053E+01	S-0159		
A	S-0161	U-232	ST	06/18/07	06/18/08	EXP	06/06/07	5.1903E+02	505.5627	2.516E+04	S-0158		Intermediate U-232 standard to be used in creating stock tracer solut
A	S-0162	Sr-89	ST	06/20/07	06/20/08	OK	05/08/07	5.1407E+03	5.0269	5.053E+01	S-0160		
A	S-0164	Sr-89	PC			Not Ver	05/15/07	1.7533E+04	0.0269	5.053E+01			Primary Sr-89 calibration standard.
A	S-0165	Sr-89	SC	04/10/07	04/10/08	EXP	06/06/07	1.2518E+03	1.2269	5.053E+01	S-0164		
A	S-0168	Pu-242	PT			Not Ver	06/07/94	2.6310E+01	26.3092	1.365E+08			Primary Pu-242 standard
A	S-0169	Pu-242	ST	06/25/09	06/25/10	OK	02/17/07	2.6319E+00	2.6319	1.365E+08	S-0168		
A	S-0170	Th-230	PL			Not Ver	09/10/07	7.9235E+03	7923.3278	2.753E+07			Primary Th-230 standard.
A	S-0171	Th-230	PT			Not Ver	09/10/07	7.9012E+03	7901.2000	2.753E+07			Primary Th-230 standard
A	S-0172	Th-230	SL	02/21/08	02/21/09	EXP	02/05/08	4.7041E+03	4704.0042	2.753E+07	S-0170		Intermediate level Th-230 standard for use in creating LCS stock solut
A	S-0173	Th-230	S	02/20/08	02/20/09	EXP	02/20/08	7.0039E+02	700.3942	2.753E+07	S-0172		
A	S-0177	Ni-63	PL			Not Ver	02/07/08	7.6217E+03	7520.2065	3.660E+04			Primary Ni-63 LCS standard.
A	S-0178	Ni-63	SL	08/21/08	02/21/09	EXP	02/07/08	1.5240E+03	1504.0413	3.660E+04	S-0177		
A	S-0179	Ni-63	PC			Not Ver	11/15/05	4.7100E+04	45761.7547	3.660E+04			Primary Ni-63 calibration standard.
A	S-0180	Ni-63	SC	03/20/08	03/20/09	EXP	03/17/08	1.7595E+03	1736.0000	3.660E+04	S-0179		
A	S-0181	Am-243	PT			Not Ver	03/29/05	2.2248E+05	222379.6068	2.692E+06			Primary Am-243 standard.
A	S-0182	Fe-55	PL			Not Ver	07/10/06	5.8430E+04	20251.8272	9.860E+02			Primary Fe-55 standard
A	S-0183	Fe-55	SC			Not Ver	04/09/08	1.9025E+04	12080.6903	9.860E+02	S-0182		Fe-55 standard for use in calibrating counting instruments and making
A	S-0184	Am-243	PT			Not Ver	04/05/08	2.2248E+01	22.2379	2.692E+06			Primary Am-243 standard
A	S-0185	Am-243	ST	07/19/09	07/19/10	OK	04/29/08	1.0981E+01	10.9795	2.692E+06	S-0184		Am-243 tracer stock solution. Dilution performed as stated above by B
A	S-0186	PU-239	PC			Not Ver	04/17/08	6.5210E+03	6510.3552	8.907E+06			Primary PU-239
A	S-0187	Ra-226	SC	08/01/08	08/01/09	EXP	05/08/08	5.8759E+01	58.7162	5.840E+05	S-0142		Secondary calibration solution for use in calibrating Lucas cells. DI
A	S-0188	PU-241	PC			Not Ver	05/01/08	1.5520E+01	15.5000	5.242E+03			Primary PU-241 standard
A	S-0189	H-3	SL	05/20/08	05/20/09	EXP	05/16/08	7.1011E-02	0.0647	4.500E+03	S-0152		LLJH LCS soln. Dilution preformed by April Johnson.
A	S-0190	H-3	SC	05/20/08	05/20/09	EXP	05/20/08	7.0792E-02	0.0645	4.500E+03	S-0152		
A	S-0191	PU-241	SLC	05/20/08	05/20/09	EXP	05/20/08	4.8833E+03	4507.8297	5.242E+03	S-0188		PU-241 calibration standard. Dilution performed as stated above by S S

Standards Activity as of: 01/15/10 14:07

Active	Std ID	Isotope	PSCLT	Verification Date	Exp Date	Status	Ref Date	Ref ACT (dpm)	ACT at Date Above (dpm/g)	Halflife (days)	Parent ID	Expanded Date	Comments
A	S-0192	[illegible]	SLC	[illegible]	[illegible]	EXP	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0193	Ra-226	PL			Not Ver	09/01/03	2.4820E+03	2475.1515	5.840E+05			Ra-226 LCS Standard
A	S-0195	[illegible]	SLC	[illegible]	[illegible]	Not Ver	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0196	Ra-226	SLC			Not Ver	07/03/08	2.3567E+02	235.5140	5.840E+05	S-0195		Calibration standard for Ra-226.
A	S-0197	[illegible]	SL	09/29/09	[illegible]	OK	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0198	Ra-226	SL	09/24/09	09/24/10	OK	07/07/08	1.4886E+03	1487.6531	5.840E+05	S-0193		Intermediate Ra-226 standards for use in creating LCS stock solutions.
A	S-0199	Ni-63	SC	08/25/09	08/25/09	EXP	08/25/08	[illegible]	[illegible]	[illegible]	S-0178		[illegible]
A	S-0200	Sr-89	PC			Not Ver	09/17/08	1.9942E+04	25.7281	5.053E+01			Primary Sr-89 calibration standard
A	S-0201	[illegible]	SL	[illegible]	[illegible]	EXP	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0202	Ni-63	SL	01/05/09	01/05/10	EXP	12/30/08	4.5444E+01	45.1177	3.660E+04	S-0178		Primary Ni-63 LCS stock solution. Dilution performed as stated above w
A	S-0203	[illegible]	SC	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0204	H-3	SL	01/28/09	01/28/10	OK	01/13/09	2.8053E+00	2.6511	4.500E+03	S-0032		Primary std. level LCS standard. Dilution performed as stated above by
A	S-0205	[illegible]	SL	[illegible]	[illegible]	OK	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0206	H-3	SL	05/04/09	05/04/10	OK	02/25/09	6.6781E+00	6.3529	4.500E+03	S-0152		Use as HILL LCS creation. Dilution performed as stated above by M Tilla
A	S-0207	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0208	H-3	S			Not Ver	04/15/09	1.3263E+01	12.7125	4.500E+03	S-0152		LLIH LCS solution, dilution performed by M. Thibodeaux on 4-15-09.
A	S-0209	[illegible]	SL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0210	Ba-133	PT			Not Ver	05/15/09	7.6431E+02	731.2494	3.840E+03			Primary Ba-133 tracer
A	S-0211	[illegible]	SLT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0212	Ba-133	SLT	05/21/09	05/21/10	OK	05/18/09	9.9546E+00	9.5291	3.840E+03	S-0211		Ba-133 tracer solution. Dilution performed as stated above by S Steffe
A	S-0213	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0214	Th-229	ST	06/03/09	06/03/10	OK	06/01/09	1.1511E+01	11.5108	2.681E+06	S-0171		TH-229 Tracer
A	S-0215	C-14	P	[illegible]	[illegible]	Not Ver	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0216	AM-241	P			Not Ver	05/16/07	1.0640E+02	105.9455	1.579E+05			Pseudo Am-241 Working Soln (1g in 5 mL NIST tetrasilicate glass ampoule
A	S-0217	[illegible]	SC	[illegible]	[illegible]	OK	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0218	C-14	SC	08/05/09	08/05/10	OK	07/22/09	2.9419E+05	294172.5357	2.082E+06	S-0215		C-14 Calibration Standard used to validate the C-14 at ardard in-house
A	S-0219	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0220	Am-241	PL			Not Ver	08/19/09	2.6725E+01	26.7075	1.579E+05			
A	S-0221	[illegible]	SL	[illegible]	[illegible]	OK	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0222	PU-242	PT	09/28/09	09/28/10	OK	09/23/09	2.6314E+01	26.3143	1.365E+08			
A	S-0223	[illegible]	SL	[illegible]	[illegible]	OK	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0224	Ra-226	SL	11/05/09	11/05/10	OK	11/04/09	6.4243E+01	64.2377	5.840E+05	S-0198		Ra-226 LCS stock solution. Dilution performed as stated above by S Sto
A	S-0225	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0226	PU-239	SC	11/19/09	11/19/10	OK	11/16/09	1.9777E+03	1977.7223	8.807E+06	S-0186		Pu-239 calibration standard. Dilution performed as stated above by B S
A	S-0227	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0228	U-238	SC	11/19/09	11/19/10	OK	11/17/09	2.6904E+02	269.0445	1.632E+12	S-0227		Uranium standard for use in creating Alpha Spec check sources. Dilutio
A	S-0229	[illegible]	SC	[illegible]	[illegible]	OK	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0230	U-238	PL			Not Ver	11/23/09	1.8617E+02	186.1684	1.632E+12			Primary U-238, 235, 234 standard. Std liquid in flame sealed vial.
I	S-0006	[illegible]	S	[illegible]	[illegible]	EXP	[illegible]	[illegible]	[illegible]	[illegible]	S-0049	10/12/09	[illegible]
I	S-0007	Ra-226	S	09/24/09	09/24/10	OK	02/01/06	6.5015E+01	64.9034	5.840E+05	S-0105	12/30/09	TBS - information entered from dilution records - 4/16/2008 - RTS
I	S-0020	[illegible]	SC	[illegible]	[illegible]	EXP	[illegible]	[illegible]	[illegible]	[illegible]	S-0109		[illegible]
I	S-0025	Pu-242	ST	04/17/07	04/17/08	EXP	10/24/05	7.6328E+00	7.6328	1.365E+08	S-0075	01/09/08	S-0025 Information entered from dilution records
I	S-0029	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
I	S-0030	H-3	P	11/19/05	11/19/06	EXP	12/10/98	6.9370E-01	0.3715	4.500E+03			Tritium in Oil
I	S-0032	H-3	SL	[illegible]	[illegible]	EXP	[illegible]	[illegible]	[illegible]	[illegible]	S-0031	07/19/09	

Standards Activity as of: 01/15/10 14:07

Active	Std ID	Isotope	PSCLT	Verification Date	Exp Date	Status	Ref Date	Ref ACT (cpm)	ACT at Date Above (dpm/g)	Halflife (days)	Parent ID	Expended Date	Comments
I	S-0033	Tc-99	SLC	10/18/05	10/18/06	EXP	10/18/05	1.9470E+02	194.6945	7.710E+07	S-0027	04/25/06	S-0033 working level dilution - Information entered from dilution reco
I	S-0036	[illegible]	[illegible]	[illegible]	[illegible]	EXP	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
I	S-0038	Am-243	ST	06/07/07	06/07/08	EXP	01/25/06	1.0656E+01	10.6524	2.692E+06	S-0067	05/07/08	S-0038 Entered from dilution documention. Density from certificate use
I	S-0040	H-3	[illegible]	[illegible]	[illegible]	EXP	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
I	S-0077	U-232	PT			Not Ver	07/01/02	3.8220E+01	35.4267	2.516E+04			S-0026 Information eneterd from dilution records
I	S-0130	Sr-90	SL	[illegible]	[illegible]	Not Ver	09/25/03	5.1620E+02	[illegible]	[illegible]	S-0129	05/26/06	[illegible]
I	S-0131	Sr-90	SL			Not Ver	02/02/06	0.0000E+00	0.0000	1.041E+04	S-0130	05/18/06	
I	S-0132	[illegible]	SL	[illegible]	[illegible]	EXP	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
I	S-0133	Sr-90	SL	01/09/06	01/09/07	EXP	06/09/04	5.8438E+01	50.9947	1.041E+04	S-0130	05/26/06	Original solution ID# was T11c-1/S-0017. Information entered from dilu
I	S-0135	[illegible]	[illegible]	[illegible]	[illegible]	Not Ver	09/26/03	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
I	S-0136	Sr-90	SL	05/26/06	05/26/07	EXP	06/09/04	5.2036E+01	45.4085	1.041E+04	S-0134	07/17/07	Original standard ID# was T11c-1/S-0017. Dilution information entered
I	S-0145	[illegible]	[illegible]	[illegible]	[illegible]	EXP	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
I	S-0156	H-3	S	05/09/08	05/09/09	EXP	04/27/07	2.7672E+00	2.3743	4.500E+03	S-0032	07/14/08	Normal-level tritium LCS standard. Dilution performed as stated above.
I	S-0162	[illegible]	[illegible]	[illegible]	[illegible]	EXP	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
I	S-0166	Th-229	ST	03/04/09	03/04/10	OK	08/27/07	5.6494E+00	5.6482	2.681E+06	S-0145	06/02/09	Th-229 tracer. Dilution performed as stated above by B Stuffens. -BJS
I	S-0167	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
I	S-0173	Th-230	SL	02/21/08	02/21/09	EXP	02/05/08	1.2638E+01	12.6381	2.753E+07	S-0172	03/10/09	Th-230 standard for use as LCS stock solution. Dilution performed as s
I	S-0174	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
I	S-0175	H-3	S	02/11/08	02/11/09	EXP	02/11/08	7.0455E-02	0.0632	4.500E+03	S-0152	05/20/08	Low level tritium LCS solution. Dilution performed as stated above by
I	S-0176	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

Expected Value Calculations

LANL

ARS Batch Number: ARS1-B09 - 05378

LCS	**CALCULATED EXPECTED VALUE**	=	28.560			
			Range	14.280	–	42.839
LCSD	**CALCULATED EXPECTED VALUE**	=	28.560			
			Range	14.280	–	42.839

LCS Report
Analytical Batch: ARS1-B09-05378

BatchID	ABatch	ABatchSampleID	BatchGroup	SMID	Section	ExpectedRadiation	ExpectedValue	EmptyWt	GrossWt	NetWt	UserID	MeasDate	ExpectedValue_CT	MeasureCountDate	KnownValue
B-08862	ARS1-B09-05378	ARS1-B09-05378-01	B-H3	S-0206	H-3	5	2.87184023	13.28	18.27	4.99	ANORMAN	12/23/2009			
B-08863	ARS1-B09-05378	ARS1-B09-05378-02	B-H3	S-0206	H-3	5	2.87184023	13.22	18.21	4.99	ANORMAN	12/23/2009			

not loaded into LIMS
AB 1-22-10

Assay Definition-

Assay Description:
LLH3 Assay in DPM Mode

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\H3 Low Level\Low Level H3\20100115_0750
Raw Results Path: C:\Packard\Tricarb\Results\H3 Low Level\Low Level H3\20100115_0750\20100115_0750.results
RTF File Name: C:\Packard\Tricarb\Results\H3 Low Level\Low Level H3\20100115_0750\Report1.rtf
Comma-Delimited File Name: C:\Packard\Tricarb\Results\H3 Low Level\Low Level H3\20100115_0750\Report1.txt
Assay File Name: C:\Packard\TriCarb\Assays\Low Level H3.lsa

Count Conditions-

Nuclide: LL H3
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: LL H3 PLASTIC
Count Time (min): 360.00
Count Mode: Low Level
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: Off
Low CPM Threshold: Off
2 Sigma % Terminator: On - Any Region

Regions	LL	UL	2Sigma % Terminator
A	0.0	18.6	0.50
B	0.0	2000.0	0.00
C	0.0	2000.0	0.00

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time

A
B
C

Cycle 1 Results
Quench Curve Block Data

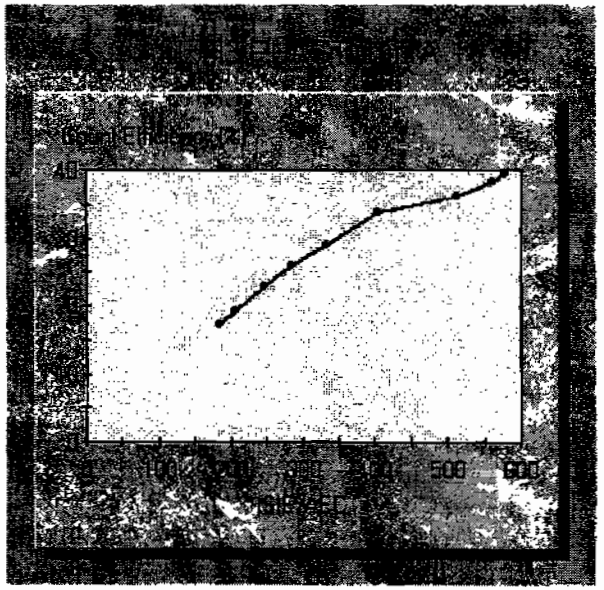

Date Acquired: 09/08/2009
Date Modified:
LL H3 PLASTIC in A

tSIE/AEC	Count Efficiency (%)
577.71	39.37
561.32	38.19
514.09	36.15
404.21	33.71
334.90	29.12
284.93	26.04
246.14	22.78
207.51	19.18
185.88	17.18

Protocol# 2 - Low Level H3.lsa User: H3 Low Level

P#	S#	SMPL_ID	Count Time	CPMA	DPM1	tSIE	Eff Nucl In A	DATE	TIME	MESSAGES
2	1	BACKGROUND	360.00	1.592	4.42	509.78	36.06	1/15/2010	7:59:28 AM	
2	2	B09-05378-01	360.00	5.156	14.36	502.74	35.90	1/15/2010	2:12:07 PM	
2	3	B09-05378-02	360.00	6.575	18.31	503.23	35.91	1/15/2010	8:24:32 PM	
2	4	B09-05378-03	360.00	1.674	4.64	511.65	36.10	1/16/2010	2:37:00 AM	
2	5	B09-05378-04	360.00	2.081	5.80	501.91	35.88	1/16/2010	8:49:16 AM	
2	6	B09-05378-05D	360.00	1.859	5.17	504.19	35.93	1/16/2010	3:01:27 PM	

Assay Definition-

Assay Description:
LLH3 Assay in DPM Mode

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\H3 Low Level\Low Level H3\20100117_1112
Raw Results Path: C:\Packard\Tricarb\Results\H3 Low Level\Low Level H3\20100117_1112\20100117_1112.results
RTF File Name: C:\Packard\Tricarb\Results\H3 Low Level\Low Level H3\20100117_1112\Report1.rtf
Comma-Delimited File Name: C:\Packard\Tricarb\Results\H3 Low Level\Low Level H3\20100117_1112\Report1.txt
Assay File Name: C:\Packard\TriCarb\Assays\Low Level H3.lsa

Count Conditions-

Nuclide: LL H3
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: LL H3 PLASTIC
Count Time (min): 360.00
Count Mode: Low Level
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: Off
Low CPM Threshold: Off
2 Sigma % Terminator: On - Any Region

Regions	LL	UL	2Sigma % Terminator
A	0.0	18.6	0.50
B	0.0	2000.0	0.00
C	0.0	2000.0	0.00

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time

A
B
C

Cycle 1 Results
Quench Curve Block Data

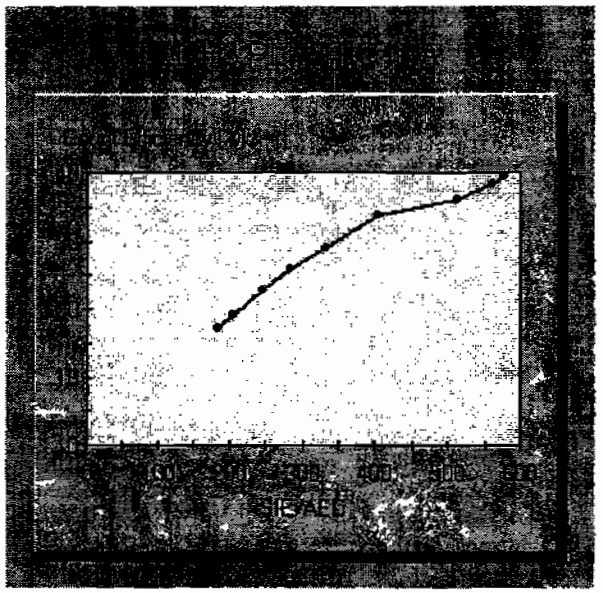

Date Acquired: 09/08/2009
Date Modified:
LL H3 PLASTIC in A

tSIE/AEC	Count Efficiency (%)
577.71	39.37
561.32	38.19
514.09	36.15
404.21	33.71
334.90	29.12
284.93	26.04
246.14	22.78
207.51	19.18
185.88	17.18

Protocol# 2 - Low Level H3.lsa User: H3 Low Level

P#	S#	SMPL_ID	Count Time	CPMA	DPM1	tSIE	Eff Nucl In A	DATE	TIME	MESSAGES
2	1	B09-05378-05D	360.00	1.663	4.60	512.14	36.11	1/17/2010	11:21:37 AM	
2	2	B09-05378-06	360.00	5.315	14.71	512.91	36.13	1/17/2010	5:33:59 PM	
2	3	B09-05378-06D	360.00	6.324	17.62	502.58	35.90	1/17/2010	11:46:14 PM	
2	4	B09-05378-07D	360.00	6.483	17.84	518.58	36.35	1/18/2010	5:58:29 AM	
2	5	B09-05378-08	360.00	8.386	23.29	507.40	36.00	1/18/2010	12:10:44 PM	
2	6	B09-05378-09	360.00	7.953	21.93	516.80	36.27	1/18/2010	6:22:51 PM	
2	7	B09-05378-09D	360.00	8.624	23.92	509.90	36.06	1/19/2010	12:34:53 AM	
2	8	B09-05378-10	360.00	25.962	71.89	512.37	36.11	1/19/2010	6:46:59 AM	
2	9	B09-05378-10D	360.00	29.819	82.51	513.60	36.14	1/19/2010	12:59:22 PM	
2	10	B09-05378-11	360.00	20.867	57.97	507.07	36.00	1/19/2010	7:11:49 PM	
2	11	B09-06378-11D	360.00	23.276	65.14	495.26	35.73	1/20/2010	1:24:10 AM	
2	12	B09-05378-12	360.00	1.737	4.83	505.72	35.97	1/20/2010	7:36:45 AM	
2	13	B09-05378-12D	360.00	1.752	4.91	493.15	35.69	1/20/2010	1:49:06 PM	

ARS-054

ID_31001_054	ABatch	ABatchSampleID	ClientID	Aliquot1	AliquotUnits1	IC_ID1	Aliquot2	AliquotUnits2	IC_ID2	UserID	ModDate
4281	ARS1-B09-05378	ARS1-B09-05378-01		1	g					JRABER	01/19/2010 11:12:28
4282	ARS1-B09-05378	ARS1-B09-05378-02		1	g					JRABER	01/19/2010 11:12:28
4283	ARS1-B09-05378	ARS1-B09-05378-03		1	g					JRABER	01/19/2010 11:12:28
4284	ARS1-B09-05378	ARS1-B09-05378-04	GW54-10-7740	5.04	g	42515				JRABER	01/19/2010 11:12:28
4285	ARS1-B09-05378	ARS1-B09-05378-05	GW54-10-7741	0	g	42521				JRABER	01/19/2010 11:12:28
4286	ARS1-B09-05378	ARS1-B09-05378-06	CAPA-10-6823	5.02	g	42522				JRABER	01/19/2010 11:12:28
4287	ARS1-B09-05378	ARS1-B09-05378-07	CAPA-10-6824	0	g	42523				JRABER	01/19/2010 11:12:28
4288	ARS1-B09-05378	ARS1-B09-05378-08	CAPA-10-6390	5.02	g	42524				JRABER	01/19/2010 11:12:28
4289	ARS1-B09-05378	ARS1-B09-05378-09	CAPA-10-6746	5.01	g	42525				JRABER	01/19/2010 11:12:28
4290	ARS1-B09-05378	ARS1-B09-05378-10	CAPA-10-6753	5.01	g	42526				JRABER	01/19/2010 11:12:28
4291	ARS1-B09-05378	ARS1-B09-05378-11	CAPA-10-6767	3.83	g	42527				JRABER	01/19/2010 11:12:28
4292	ARS1-B09-05378	ARS1-B09-05378-12	CAPA-10-6793	5.02	g	42528				JRABER	01/19/2010 11:12:28

ARS INTERNATIONAL		**ARS1-B09-05378**	
		LSC-A-022	
		ARS-054	
		AQ	
[illegible]	[illegible]	[illegible]	[illegible]
1	01/11/10 10:49	**CHEMISTRY**	B09-05378-02 After enrichment complete, remaining water has a slight yellowish tint and black particles were observed at bottom of electrolysis cell.	JRABER
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	01/11/10 11:04	**CHEMISTRY**	B09-05378-05; B09-05378-07; B09-05378-08D These 3 samples were lost during the enrichment stage of the analysis. Samples were checked and all had water levels of not less than 100mL before leaving for the weekend. I came into the lab Sunday morning to check on the samples and the levels should have been at no less than 50mL of water remaining in the electrolytic cells; however the 3 cells were completely dry. It is my opinion that the increased amount of sodium peroxide increases the rate of water reduction substantially greater than the rate of 1mL/hr as written in the procedure.	JRABER
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	01/13/10 12:32	**CHEMISTRY**	B09-05378-01 After enrichment complete, small amount of black precipitate in bottom of cell (less than in B09-05378-02).	JRABER
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	01/14/10 14:58	**CHEMISTRY**	B09-05378-05D After enrichment complete, remaining water had small amount of black precipitate observed at bottom of electrolytic cell.	JRABER
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	01/16/10 12:32	**CHEMISTRY**	Humidity increased drastically on 1-16-2010. For the entire course of the analysis, the humidity has been between 15% and 35%. However, today it is nearly 80%.	JRABER
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	01/16/10 19:16	**CHEMISTRY**	B09-05378-09 After completion of enrichment, there was a small amount of black precipitate observed in the bottom of the electrolytic cell.	JRABER
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	01/17/10 15:41	**CHEMISTRY**	B09-05378-10D had very small amount of black precipitate in electrolytic cell after completion of enrichment.	JRABER
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	01/18/10 14:14	**CHEMISTRY**	B09-05378-11 Had great difficulty cryo-distilling this sample. Some of the sample was undoubtedly lost as condensation built up in the upper regions of the stem and was probably sucked out by vacuum.	JRABER
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	01/19/10 08:22	**CHEMISTRY**	B09-05378-12 After completion of enrichment, a moderate amount of black precipitate was observed in bottom of electrolytic cell.	JRABER
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

ARS INTERNATIONAL		**ARS1-B09-05378**	
		LSC-A-022	
		ARS-054	
		AQ	
19	01/19/10 08:49	**CHEMISTRY**	Some type of system malfunction occurred in the liquid scintillator sometime after 19:00 hrs 1-16-10 causing a 12 hour delay in counting. The Background, LCS, LCSD, MBL, and B09-05378-04 had already been counted before the malfunction took place. Therefore, I took 5 samples out of the LSC tray and replaced them starting with B09-05378-05D. Counting was resumed at 11:15 hrs on 1-17-10. Samples were transferred from tray 16 to tray 5. I discussed this with Brian and he seems to believe that the malfunction was tray related.	JRABER
20	[illegible]	[illegible]	[illegible]

Beta Liquid Scintillation Counter Log Book

Date	Time	ARS Sample I.D. Number	Batch Number	Liquid Scintillation File Number	Technician Initials
1-15-10	1049	SNC 51	QA	QA	[illegible]
↓	↓	Background	B10-00136		[illegible]
↓	↓	B10-00136-01	↓		[illegible]
↓	↓	B10-00136-02	↓		[illegible]
↓	↓	B10-00136-03	↓		[illegible]
↓	↓	B10-00136-04	↓		[illegible]
↓	↓	B10-00136-05	↓		[illegible]
↓	↓	B10-00136-06 1-15-10	↓		[illegible]
↓	↓	B10-00136-07	↓		[illegible]
↓	↓	B10-00136-08	↓		[illegible]
↓	↓	B10-00136-09	↓		[illegible]
↓	↓	B10-00136-10	↓		[illegible]
↓	↓	B10-00136-11	↓		[illegible]
↓	↓	B10-00136-12	↓		[illegible]
↓	↓	B10-00136-13	↓		[illegible]
↓	↓	B10-00136-14	↓		[illegible]
1-17-10	1108	B09-05378-05D	B09-05378	1112	SDR
↓	↓	B09-05378-06	↓	↓	SDR
↓	↓	B09-05378-06D	↓	↓	SDR
↓	↓	B09-05378-07D	↓	↓	SDR

Reviewed By: JB Date: 1-22-10
Initials

Beta Liquid Scintillation Counter Log Book

Date	Time	ARS Sample I.D. Number	Batch Number	Liquid Scintillation File Number	Technician Initials
1-12-10	1108	B09-05378-08	B09-05378	1112	SDR
↓	↓	B09-05378-09	↓	↓	SDR
↓	↓	B09-05378-09D	↓	↓	SDR
↓	↓	B09-05378-10	↓	↓	SDR
↓	↓	B09-05378-10D	↓	↓	SDR
↓	↓	B09-05378-11	↓	↓	SDR
↓	↓	B09-05378-11D	↓	↓	SDR
↓	↓	B09-05378-12	↓	↓	SDR
↓	↓	B09-05378-12D	↓	↓	SDR
1-20-10	1313	SNC 51	Q4	Q4 2128 ~~1112~~ 1-21-10	[illegible]
↓	↓	Background	B10-00288		[illegible]
↓	↓	B10-00288-01	↓	↓	[illegible]
↓	↓	B10-00288-02	↓	↓	[illegible]
↓	↓	B10-00288-03	↓	↓	[illegible]
↓	↓	B10-00288-04	↓	↓	[illegible]
↓	↓	B10-00288-05	↓	↓	[illegible]
↓	↓	B10-00288-06	↓	↓	[illegible]
↓	↓	B10-00288-07	↓	↓	[illegible]
↓	↓	B10-00288-08	↓	↓	[illegible]
↓	↓	B10-00288-09	↓	↓	[illegible]

Reviewed By: JB Date: 1-22-10
Initials

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American Radiation Services Analytical Reports

for

Los Alamos National Laboratory

Low Level Tritium by Low Level Liquid Scintillation Counting

Control Charts

3H Efficiency
Total # pts : 5014
Valid # pts : 38
Mean : 64.44
SD : 0.15

Date	Value	Valid Pt
Nov 15, 2009	64.35	X
Nov 15, 2009	64.28	X
Nov 15, 2009	64.37	X
Nov 15, 2009	64.56	X
Nov 15, 2009	64.58	X
Nov 15, 2009	64.56	X
Nov 15, 2009	64.46	X
Nov 16, 2009	64.65	X
Nov 16, 2009	64.39	X
Nov 16, 2009	64.46	X
Nov 16, 2009	64.23	X
Nov 16, 2009	64.38	X
Nov 16, 2009	64.53	X
Dec 02, 2009	64.10	X
Dec 04, 2009	64.32	X
Dec 06, 2009	64.38	X
Dec 06, 2009	64.56	X
Dec 06, 2009	64.46	X
Dec 06, 2009	64.65	X
Dec 06, 2009	64.68	X
Dec 06, 2009	64.60	X
Dec 06, 2009	64.50	X
Dec 07, 2009	64.46	X
Dec 07, 2009	64.57	X
Dec 07, 2009	64.26	X
Dec 07, 2009	64.68	X
Dec 07, 2009	64.22	X
Dec 07, 2009	64.18	X
Dec 07, 2009	64.48	X
Dec 09, 2009	64.34	X
Dec 11, 2009	64.50	X
Dec 14, 2009	64.32	X
Dec 18, 2009	64.58	X
Jan 08, 2010	64.47	X
Jan 11, 2010	64.49	X
Jan 13, 2010	64.25	X
Jan 16, 2010	64.40	X
Jan 20, 2010	64.41	X

3H Efficiency

Total # pts	: 5014
Valid # pts	: 38
Mean	: 64.44
SD	: 0.15

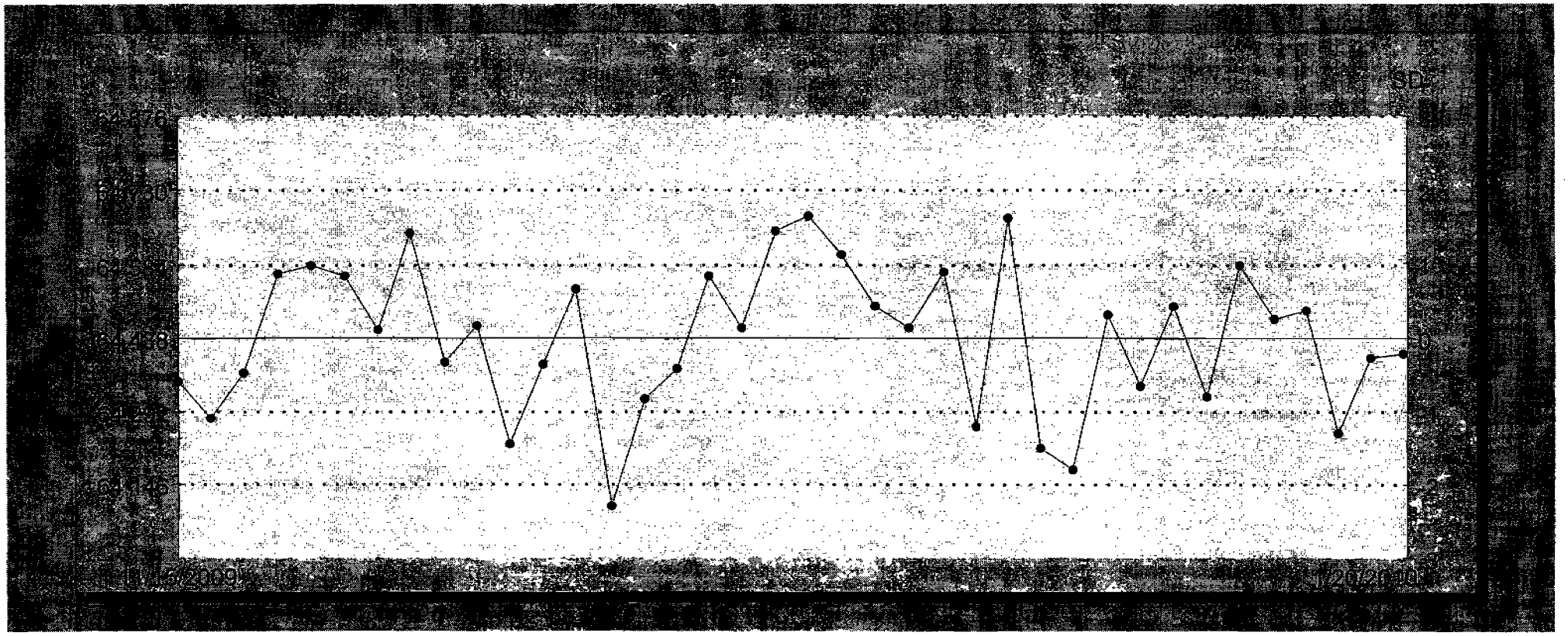

3H Background
Total # pts : 4950
Valid # pts : 37
Mean : 2.15
SD : 0.20

Date	Value	Valid Pt
Nov 15, 2009	1.90	X
Nov 15, 2009	2.13	X
Nov 15, 2009	2.05	X
Nov 15, 2009	2.00	X
Nov 15, 2009	2.56	X
Nov 15, 2009	1.99	X
Nov 15, 2009	2.29	X
Nov 16, 2009	2.37	X
Nov 16, 2009	1.99	X
Nov 16, 2009	1.99	X
Nov 16, 2009	2.24	X
Nov 16, 2009	2.07	X
Nov 16, 2009	2.19	X
Dec 02, 2009	2.40	X
Dec 04, 2009	2.56	X
Dec 06, 2009	2.20	X
Dec 06, 2009	1.98	X
Dec 06, 2009	1.94	X
Dec 06, 2009	2.51	X
Dec 06, 2009	2.31	X
Dec 06, 2009	2.19	X
Dec 06, 2009	2.16	X
Dec 07, 2009	2.29	X
Dec 07, 2009	1.89	X
Dec 07, 2009	2.15	X
Dec 07, 2009	1.86	X
Dec 07, 2009	2.36	X
Dec 07, 2009	2.13	X
Dec 09, 2009	2.09	X
Dec 11, 2009	2.32	X
Dec 14, 2009	1.93	X
Dec 18, 2009	2.30	X
Jan 08, 2010	1.90	X
Jan 11, 2010	2.21	X
Jan 13, 2010	1.79	X
Jan 16, 2010	2.08	X
Jan 20, 2010	2.12	X

3H Background

Total # pts	: 4950
Valid # pts	: 37
Mean	: 2.15
SD	: 0.20

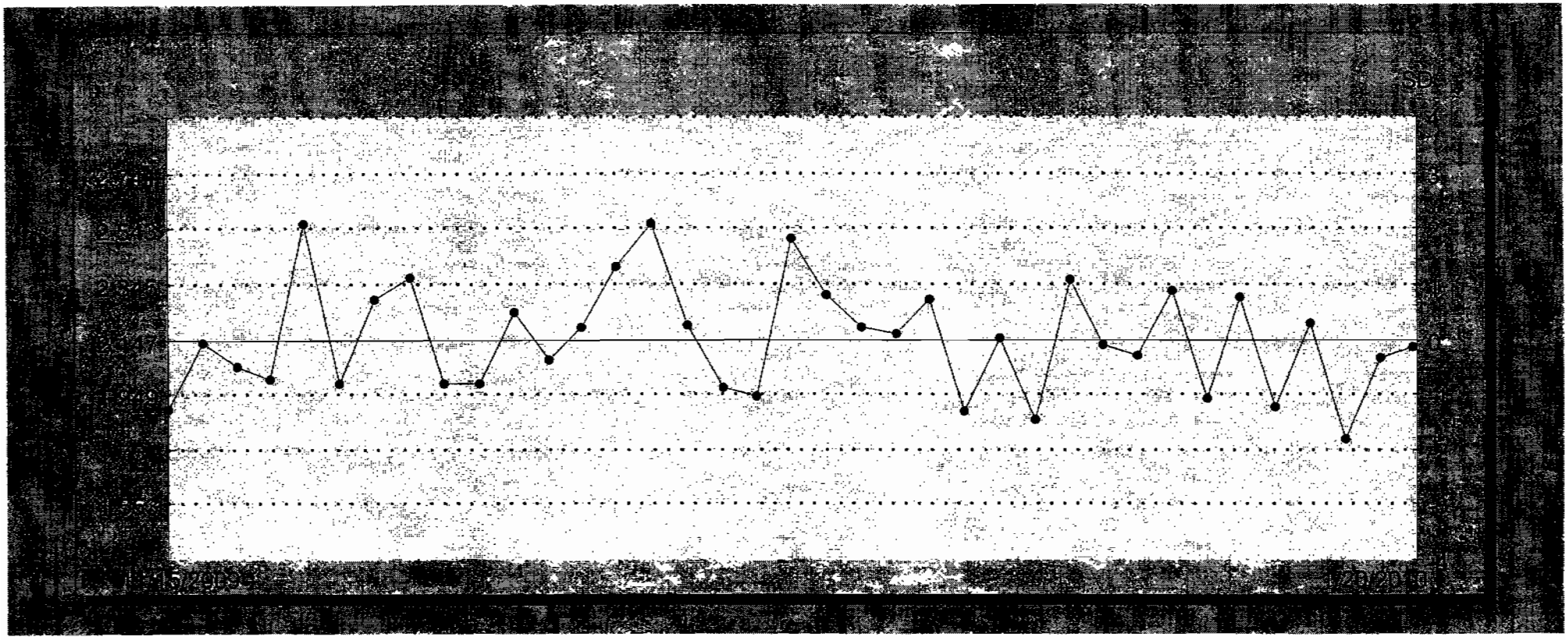

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American Radiation Services Analytical Reports

for

Los Alamos National Laboratory

Low Level Liquid Scintillation Counting

Calibration Information

Glass

ARS INTERNATIONAL

QUALITY CONTROL PROGRAM

AMERICAN RADIATION SERVICES
RADIOACTIVE REFERENCE SOLUTIONS

ANNUAL ACTIVITY VERIFICATION

VERIFICATION DATE: 5/1/2009 23:44 *date counted*
STANDARD REFERENCE #: S-0206

Principal Radionuclide		Half Life, Years		Half Life, Days
H-3	*ENTER -->*		*OR -->*	4.4998E+03
		1.232E+01		4.4998E+03

Radionuclide: H-3 Dilution Reference Date: 2/25/2009 8:30

Dilution Activity	3.01	pCi per gram ===> dpm/g	6.68
Verif. Date Decay Corrected	2.98	pCi per gram ===> dpm/g	6.61

Minimum of 3 Required

Trial ID	Sample Counts	Count Time (min)	Detector	Efficiency	Bkg. (cpm)	Net Weight	Decay Corrected Activity Result (dpm/g)	Decay Corrected Activity Result (pCi/g)
S-0206-V1B	11.20	1	LSC	0.2909	1.80	5.026	6.43	2.90
S-0206-V2B	11.38	1	LSC	0.2898	1.80	5.037	6.56	2.96
S-0206-V3B	11.62	1	LSC	0.2887	1.80	5.022	6.78	3.05
S-0206-V4B	11.66	1	LSC	0.2924	1.80	5.028	6.71	3.02
S-0206-V5B	11.87	1	LSC	0.2916	1.80	5.036	6.86	3.09

	Average	6.67	3.00
	Two Sigma Uncertainty	0.34	0.15
10% Max *PASS*	Standard Deviation percent of known concentration	2.59%	2.59%
	Target Activity	6.61	2.98
5% Max *PASS*	% Diff	0.86%	0.86%

Verification Expiration Date: May 1, 2010

Prepared & Counted By: [signature] Date: 5/1/2009 23:44

Verified & Approved By: Lindsay Kaumel Date: 5-4-09

QC Approval: [signature] Date: 5-4-09

H-3 Standard Verification

Verifier's Name: Brian Steffens **Date:** 3/19/2009

Pipettor ID: CH84076

Pipettor ID: Auto-pipettor

Pipettor ID: na

Standard ID: S-0206

Standard ID: N/A

Standards brought up to ~5g with distilled dead water.
Standards made in glass vials.

15mL of Ultima Gold added to standard

	Weight of Standard
S-0206-V1B	5.026 **g**
S-0206-V2B	5.037 **g**
S-0206-V3B	5.022 **g**
S-0206-V4B	5.028 **g**
S-0206-V5B	5.036 **g**

Balance ID: H1331122173560P

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American Radiation Services Analytical Reports

for

Los Alamos National Laboratory

Tritium- Screening by Low Level Liquid Scintillation Counting

Procedures: ARS-060 ARS-040 *Section 14.1 Tritium Screen in Clean Water without Distillation*

ARS File ID Numbers: ARS1-09-03109, -03110; -03111
ARS Batch ID: ARS1-B09-05400

	Sample ID:	COUNT TIME	CPMA	Background CPMA	Eff Nucl in A	Aliquot (grams)	ACTIVITY	units	MDA	Sample Must be analyzed as LSC-A-001
1	ARS1-09-03109-001	120	0.974	1.135	22.73	5.00	-63.812	pCi/L	228.9477	NO
2	ARS1-09-03109-002	120	1.261	1.135	26.7	5.01	42.430	pCi/L	194.5166	NO
3	ARS1-09-03110-001	120	1.570	1.135	34.23	5.00	114.488	pCi/L	152.0298	NO
4	ARS1-09-03110-002	120	1.234	1.135	29.7	5.03	29.851	pCi/L	174.1732	NO
5	ARS1-09-03111-001	120	1.372	1.135	28.05	5.00	76.119	pCi/L	185.5252	NO
6	ARS1-09-03111-002	120	1.552	1.135	30.25	5.02	123.696	pCi/L	171.3471	NO
7	ARS1-09-03111-003	120	1.909	1.135	33.46	5.03	207.154	pCi/L	154.6008	YES, analyze by LSC-A-001. *
8	ARS1-09-03111-004	120	1.840	1.135	29.5	5.03	214.016	pCi/L	175.354	YES, analyze by LSC-A-001. *
9	ARS1-09-03111-005	120	1.266	1.135	33.87	5.01	34.775	pCi/L	153.3391	NO
10							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
11							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
12							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
13							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
14							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
15							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
16							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
17							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
18							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
19							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
20							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
21							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
22							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
23							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!

* Processing of Samples via low level method authorized by Virgene Mulligan
1-22-10

Analysis Batch Report

ARS INTERNATIONAL

Analysis Batch ID **ARS1-B09-05400**

Method	ARS-054	Analysis	LSC-A-021	Matrix	AQ
Description	TRITIUM IN WATER				

ABatch Sample ID	Type	Blind Iso1	Blind Iso2	Blind Iso3	SDG	FR	Run	Client ID	Isotope Group	Lab Deadline
ARS1-B09-05400-01	LCS									
ARS1-B09-05400-02	LCSD									
ARS1-B09-05400-03	MBL									
ARS1-B09-05400-04	TRG				ARS1-09-03109	001	1	GW54-10-7740		01/18/10
ARS1-B09-05400-05	TRG				ARS1-09-03109	002	1	GW54-10-7741		01/18/10
ARS1-B09-05400-06	TRG				ARS1-09-03110	001	1	CAPA-10-6823		01/18/10
ARS1-B09-05400-07	TRG				ARS1-09-03110	002	1	CAPA-10-6824		01/18/10
ARS1-B09-05400-08	TRG				ARS1-09-03111	001	1	CAPA-10-6390		01/18/10
ARS1-B09-05400-09	TRG				ARS1-09-03111	002	1	CAPA-10-6746		01/18/10
ARS1-B09-05400-10	TRG				ARS1-09-03111	003	1	CAPA-10-6753		01/18/10
ARS1-B09-05400-11	TRG				ARS1-09-03111	004	1	CAPA-10-6767		01/18/10
ARS1-B09-05400-12	TRG				ARS1-09-03111	005	1	CAPA-10-6793		01/18/10

Background consists of 5.04 g of distilled dead H_2O w/ ~15 g of Ultima Gold LLT cocktail.

Low Low Level H-3 Testing

Assay Definition-

Assay Description:
Low Low Level Tritium

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\ARS\Low Low Level Tritium\20091225_2354
Raw Results Path: C:\Packard\Tricarb\Results\ARS\Low Low Level Tritium\20091225_2354\20091225_2354.results
RTF File Name: C:\Packard\Tricarb\Results\ARS\Low Low Level Tritium\20091225_2354\Report1.rtf
Comma-Delimited File Name: C:\Packard\Tricarb\Results\ARS\Low Low Level Tritium\20091225_2354\Report1.txt
Assay File Name: C:\Packard\TriCarb\Assays\Low Low Level Tritium.lsa

Count Conditions-

Nuclide: H-3 LL
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: ARS LL H3
Count Time (min): 120.00
Count Mode: Low Level
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: Off
Low CPM Threshold: Off
2 Sigma % Terminator: On - Any Region

Regions	LL	UL	2Sigma % Terminator
A	2.0	18.6	0.50
B	0.0	2000.0	0.00
C	0.0	2000.0	0.00

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time

Protocol# 41 - Low Low Level Tritium.lsa User: ARS

Low Low Level H-3 Testing

A
B
C

Cycle 1 Results
Quench Curve Block Data

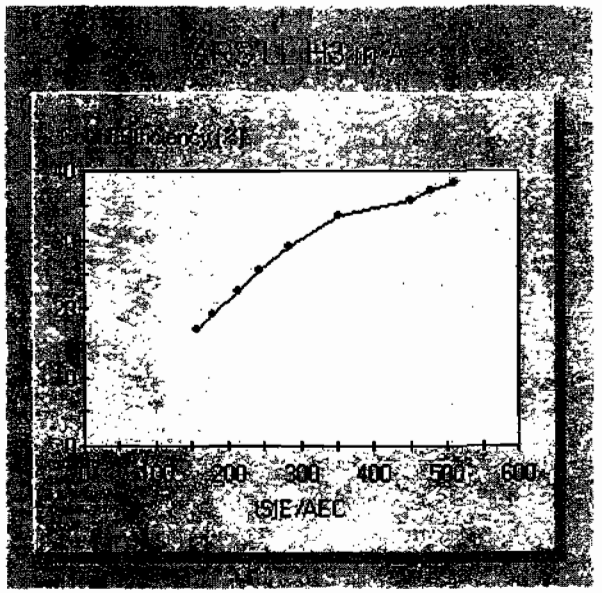

Date Acquired: 08/20/2009
Date Modified:
ARS LL H3 in A

tSIE/AEC	Count Efficiency (%)
511.20	38.34
478.38	37.12
449.85	35.67
353.69	33.62
285.92	29.01
244.67	25.63
213.71	22.60
179.76	19.18
158.61	16.81

Protocol# 41 - Low Low Level Tritium.lsa

User: ARS

Low Low Level H-3 Testing

P#	S#	SMPL_ID	Count Time	CPMA	DPM1	tSIE	Eff Nucl In A	DATE	TIME	MESSAGES
41	1	BACKGROUND	120.00	1.135	3.890	288.45	29.18	12/26/2009	12:03:56 AM	
41	2	B09-05400-04	120.00	0.974	4.285	214.97	22.73	12/26/2009	2:14:17 AM	
41	3	B09-05400-05	120.00	1.261	4.722	257.72	26.70	12/26/2009	4:24:42 AM	
41	4	B09-05400-06	120.00	1.570	4.588	382.26	34.23	12/26/2009	6:35:07 AM	
41	5	B09-05400-07	120.00	1.234	4.156	296.12	29.70	12/26/2009	8:45:30 AM	
41	6	B09-05400-08	120.00	1.372	4.892	274.23	28.05	12/26/2009	10:55:53 AM	
41	7	B09-05400-09	120.00	1.552	5.129	304.15	30.25	12/26/2009	1:06:19 PM	
41	8	B09-05400-10	120.00	1.909	5.704	351.30	33.46	12/26/2009	3:16:47 PM	
41	9	B09-05400-11	120.00	1.840	6.235	293.25	29.50	12/26/2009	5:27:15 PM	
41	10	B09-05400-12	120.00	1.266	3.739	365.49	33.87	12/26/2009	7:37:40 PM	

ARS-054

ID_31001_054	ABatch	ABatchSampleID	ClientID	Aliquot1	AliquotUnits1	IC_ID1	Aliquot2	AliquotUnits2	IC_ID2	UserID	ModDate
4293	ARS1-B09-05400	ARS1-B09-05400-01		0	g					JRABER	12/23/2009 10:42:53
4294	ARS1-B09-05400	ARS1-B09-05400-02		0	g					JRABER	12/23/2009 10:42:53
4295	ARS1-B09-05400	ARS1-B09-05400-03		0	g					JRABER	12/23/2009 10:42:53
4296	ARS1-B09-05400	ARS1-B09-05400-04	GW54-10-7740	5	g	42579				JRABER	12/23/2009 10:42:54
4297	ARS1-B09-05400	ARS1-B09-05400-05	GW54-10-7741	5.01	g	42580				JRABER	12/23/2009 10:42:54
4298	ARS1-B09-05400	ARS1-B09-05400-06	CAPA-10-6823	5	g	42582				JRABER	12/23/2009 10:42:54
4299	ARS1-B09-05400	ARS1-B09-05400-07	CAPA-10-6824	5.03	g	42583				JRABER	12/23/2009 10:42:55
4300	ARS1-B09-05400	ARS1-B09-05400-08	CAPA-10-6390	5	g	42584				JRABER	12/23/2009 10:42:55
4301	ARS1-B09-05400	ARS1-B09-05400-09	CAPA-10-6746	5.02	g	42586				JRABER	12/23/2009 10:42:56
4302	ARS1-B09-05400	ARS1-B09-05400-10	CAPA-10-6753	5.03	g	42587				JRABER	12/23/2009 10:42:56
4303	ARS1-B09-05400	ARS1-B09-05400-11	CAPA-10-6767	5.03	g	42589				JRABER	12/23/2009 10:42:56
4304	ARS1-B09-05400	ARS1-B09-05400-12	CAPA-10-6793	5.01	g	42590				JRABER	12/23/2009 10:42:57

Beta Liquid Scintillation Counter Log Book

Date	Time	ARS Sample I.D. Number	Batch Number	Liquid Scintillation File Number	Technician Initials
12-22-09	1625	B09-05307-04	B09-05307	1956	
↓	↓	B09-05307-05	↓	↓	
↓	↓	B09-05307-06	↓	↓	
↓	↓	B09-05307-07	↓	↓	
↓	↓	B09-05307-08	↓	↓	
↓	↓	B09-05307-09	↓	↓	
↓	↓	B09-05307-10	↓	↓	
↓	↓	B09-05307-11	↓	↓	
↓	↓	B09-05307-12	↓	↓	
↓	↓	B09-05307-13	↓	↓	
↓	↓	B09-05307-14	↓	↓	
↓	↓	B09-05307-15	↓	↓	
12-23-09	1057	SNC 117	QA	QA	
↓	↓	Background	B09-05400	2354	
↓	↓	B09-05400-04	↓	↓	
↓	↓	B09-05400-05	↓	↓	
↓	↓	B09-05400-06	↓	↓	
↓	↓	B09-05400-07	↓	↓	
↓	↓	B09-05400-08	↓	↓	
↓	↓	B09-05400-09	↓	↓	

Reviewed By: JB Date: 1-22-10
Initials

Beta Liquid Scintillation Counter Log Book

Date	Time	ARS Sample I.D. Number	Batch Number	Liquid Scintillation File Number	Technician Initials
12-23-09	1057	BOG-05400-10	BOG-05400-	2354	[illegible]
↓	↓	BOG-05400-11	↓	↓	[illegible]
↓	↓	BOG-05400-12	↓	↓	[illegible]

[illegible] 12-28-09

Reviewed By: NB Date: 1-22-10
Initials

3H Efficiency
Total # pts : 1358
Valid # pts : 57
Mean : 65.12
SD : 0.20

Date	Value	Valid Pt
Dec 03, 2009	65.11	X
Dec 03, 2009	64.92	X
Dec 05, 2009	64.95	X
Dec 05, 2009	65.28	X
Dec 05, 2009	65.27	X
Dec 05, 2009	64.56	X
Dec 05, 2009	64.83	X
Dec 05, 2009	65.42	X
Dec 05, 2009	65.07	X
Dec 05, 2009	64.83	X
Dec 05, 2009	65.16	X
Dec 06, 2009	65.29	X
Dec 06, 2009	65.19	X
Dec 06, 2009	65.23	X
Dec 06, 2009	64.91	X
Dec 06, 2009	65.00	X
Dec 06, 2009	65.36	X
Dec 06, 2009	65.02	X
Dec 06, 2009	65.44	X
Dec 06, 2009	65.07	X
Dec 06, 2009	64.86	X
Dec 06, 2009	65.09	X
Dec 06, 2009	65.41	X
Dec 06, 2009	65.22	X
Dec 06, 2009	65.01	X
Dec 07, 2009	65.11	X
Dec 07, 2009	65.25	X
Dec 07, 2009	64.97	X
Dec 07, 2009	65.30	X
Dec 07, 2009	65.40	X
Dec 07, 2009	64.93	X
Dec 07, 2009	65.31	X
Dec 08, 2009	65.26	X
Dec 15, 2009	65.40	X
Dec 16, 2009	65.21	X
Dec 21, 2009	65.24	X
Dec 25, 2009	64.94	X
Dec 26, 2009	65.32	X
Dec 27, 2009	65.25	X
Dec 27, 2009	65.08	X
Dec 27, 2009	64.77	X
Dec 27, 2009	65.26	X
Dec 27, 2009	65.32	X
Dec 27, 2009	65.09	X
Dec 27, 2009	65.09	X
Dec 27, 2009	64.82	X
Dec 27, 2009	65.20	X

Dec 27, 2009	65.21	X
Dec 27, 2009	65.19	X
Dec 27, 2009	64.96	X
Dec 27, 2009	65.04	X
Dec 27, 2009	65.44	X
Dec 28, 2009	65.06	X
Dec 28, 2009	64.67	X
Dec 28, 2009	65.20	X
Dec 28, 2009	64.99	X
Dec 28, 2009	64.94	X

3H Efficiency

Total # pts	: 1358
Valid # pts	: 57
Mean	: 65.12
SD	: 0.20

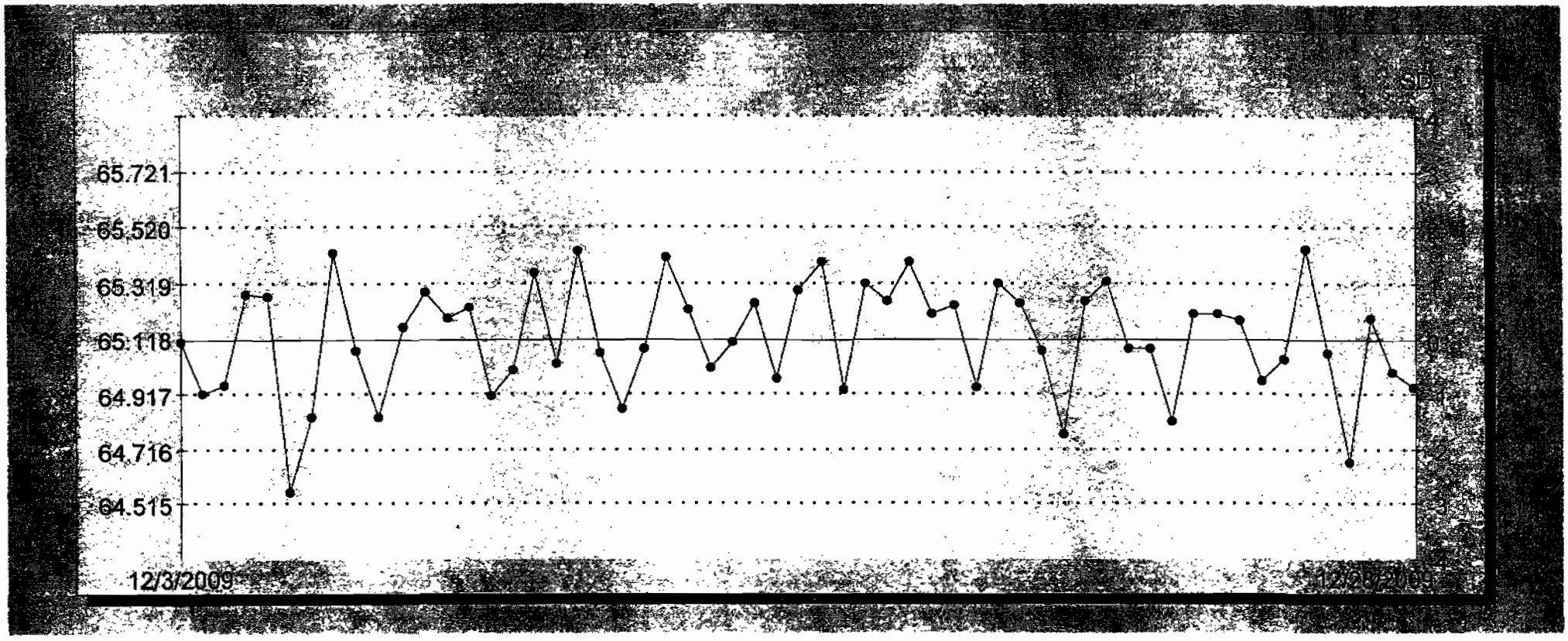

3H Background
Total # pts : 1323
Valid # pts : 58
Mean : 2.45
SD : 0.24

Date	Value	Valid Pt
Dec 02, 2009	2.20	X
Dec 03, 2009	2.07	X
Dec 03, 2009	1.93	X
Dec 05, 2009	2.49	X
Dec 05, 2009	2.58	X
Dec 05, 2009	2.38	X
Dec 05, 2009	2.54	X
Dec 05, 2009	2.41	X
Dec 05, 2009	2.76	X
Dec 05, 2009	2.39	X
Dec 05, 2009	2.45	X
Dec 05, 2009	2.69	X
Dec 06, 2009	2.76	X
Dec 06, 2009	2.55	X
Dec 06, 2009	2.60	X
Dec 06, 2009	2.61	X
Dec 06, 2009	2.50	X
Dec 06, 2009	2.44	X
Dec 06, 2009	2.54	X
Dec 06, 2009	2.11	X
Dec 06, 2009	2.41	X
Dec 06, 2009	2.68	X
Dec 06, 2009	2.45	X
Dec 06, 2009	2.66	X
Dec 06, 2009	2.99	X
Dec 06, 2009	2.37	X
Dec 07, 2009	2.35	X
Dec 07, 2009	3.05	X
Dec 07, 2009	2.88	X
Dec 07, 2009	2.61	X
Dec 07, 2009	2.41	X
Dec 07, 2009	2.37	X
Dec 07, 2009	2.73	X
Dec 08, 2009	2.00	X
Dec 15, 2009	2.66	X
Dec 16, 2009	2.20	X
Dec 21, 2009	2.76	X
Dec 25, 2009	2.29	X
Dec 26, 2009	2.48	X
Dec 27, 2009	2.17	X
Dec 27, 2009	2.58	X
Dec 27, 2009	2.48	X
Dec 27, 2009	2.54	X
Dec 27, 2009	2.24	X
Dec 27, 2009	1.90	X
Dec 27, 2009	2.37	X
Dec 27, 2009	2.79	X

Dec 27, 2009	2.14	X
Dec 27, 2009	2.27	X
Dec 27, 2009	2.40	X
Dec 27, 2009	2.20	X
Dec 27, 2009	2.31	X
Dec 27, 2009	2.42	X
Dec 28, 2009	2.33	X
Dec 28, 2009	2.12	X
Dec 28, 2009	2.36	X
Dec 28, 2009	2.42	X
Dec 28, 2009	2.58	X

3H Background

Total # pts	: 1323
Valid # pts	: 58
Mean	: 2.45
SD	: 0.24

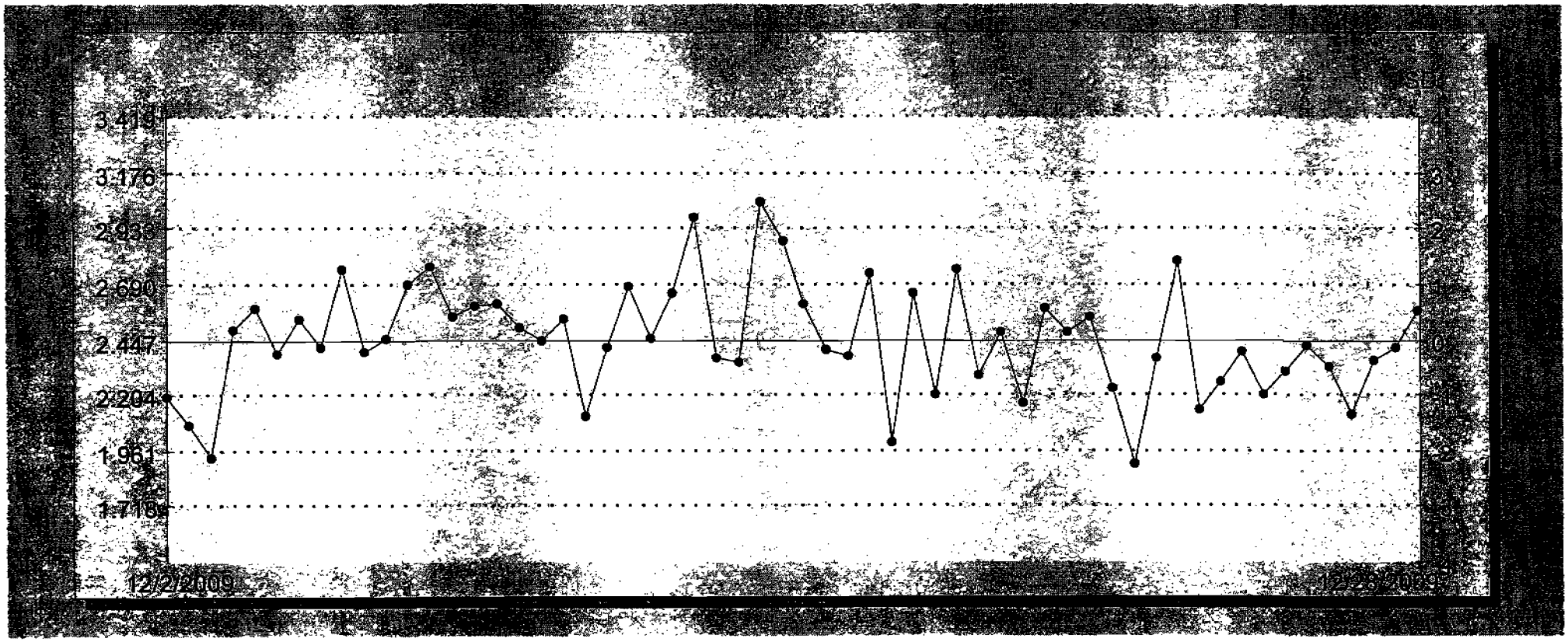

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Los Alamos National Laboratory

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ARS INTERNATIONAL

Report Compilation Checklist

ARS SDG: 09-03111 **Client Name:** LANL **Sample Matrix:** AQ

LEVEL 1 COMPONENTS	1st Reviewer	
1) Cover Page Complete and Accurate (see ARS-059)?	~~Yes~~ No N/A	
2) Technical Review Checklist(s) Complete and Accurate?	~~Yes~~ No N/A	
3) Case Narrative Complete and Accurate (see ARS-059)?	~~Yes~~ No N/A	
4) Form 1s Present for all Samples and Tests?	~~Yes~~ No N/A	
5) Client Specific Components are Present and Complete?	~~Yes~~ No N/A	

LEVEL 2 COMPONENTS	1st Reviewer	
6) Batch Quality Control Report is Present and Accurate?	~~Yes~~ No N/A	
7) DQO Report is Present and Accurate?	~~Yes~~ No N/A	
8) Client Specific Batch QC Components are Present and Complete?	~~Yes~~ No N/A	

LEVEL 3 COMPONENTS	1st Reviewer	
9) Efficiencies are Present?	~~Yes~~ No N/A	
10) Calibrations are Present?	~~Yes~~ No N/A	
11) Backgrounds are Present?	~~Yes~~ No N/A	
12) Spectrum Analysis is Present?	~~Yes~~ No N/A	
13) Spectral Plots are Present?	~~Yes~~ No N/A	
14) Plateaus are Present?	~~Yes~~ No N/A	
15) Control Charts are Present?	~~Yes~~ No N/A	
16) Other:	~~Yes~~ No N/A	

LEVEL 4 COMPONENTS	1st Reviewer	
17) Preparation Raw Data Present and Complete?	~~Yes~~ No N/A	
18) Instrument Raw Data Present and Complete?	~~Yes~~ No N/A	
19) Calibration Certificates Present?	~~Yes~~ No N/A	
20) Copies of Log Book Pages Present?	~~Yes~~ No N/A	
21) Sample Receiving Documentation Present?	~~Yes~~ No N/A	
22) LIMS Reports Present?	~~Yes~~ No N/A	
23) Applicable Correspondence Present?	~~Yes~~ No N/A	
24) Other:	~~Yes~~ No N/A	

Ashley [illegible] — Report Generator Signature — Date

[illegible] — Management Review Signature — Date 1-22-10

n

ARS INTERNATIONAL

LSC
Technical Review Checklist

ARS SDG ARS1-09-03111

Sample Matrix: AQ **Aliquot** (Circle One) : Dry As Received Filtered Other: _____

Required QC Samples (Mark all that apply): Blank LCS LCSD Sample Dup MS MSD

ARS A. Batch ID(s): **Batch A:** ARS1-B09-05378 **Batch B:** _____ **Batch C:** _____

Test Method(s): LSC-A-022

A. RADIOCHEMICAL PREPARATION REVIEW

	Chemist Review	Verifier Review
1) 100% of Manual Transcriptions Verified?	Yes No N/A	Yes No N/A
2) 100% of Manual Calculations Verified?	Yes No N/A	Yes No N/A
3) Blank Composition/Configuration Matches Calibration?	Yes No N/A	Yes No N/A
4) Deviations from procedure are documented and verified?	Yes No N/A	Yes No N/A
5) Appropriate Cocktail Selected?	Yes No N/A	Yes No N/A

6) Sample Prep Anomaly? ☑ No ☐ Yes (See Tech Notes) NCR # (If initiated): _____

Chemist Signature: [signature] Date: 1-15-10 Verifier Review Signature: Jamaa Brown Date: 1-15-10

B. ANALYSIS REVIEW

	Analyst Review	QA Officer Review
1) Calibrations Valid and Current?	Yes No N/A	Yes No N/A
2) Backgrounds Valid and Current?	Yes No N/A	Yes No N/A
3) Source Checks Completed and Acceptable?	Yes No N/A	Yes No N/A

QA Officer Signature: [signature] Date: 1-22-10

	Analyst Review	Technicial Review
4) Background Checks Complete and Acceptable?	Yes No N/A	Yes No N/A
5) 100% of Manually Entered Parameters Verified Accurate?	Yes No N/A	Yes No N/A
6) Appropriate QC samples initiated at required frequency?	Yes No N/A	Yes No N/A
6) Test/Sample Specific Parameters (See ARS-059 for details)		
a) Analysis Parameters Checked and Correct and Peak Shapes are Acceptable?	Yes No N/A	Yes No N/A
b) Spectra show no Evidence of Interferences?	Yes No N/A	Yes No N/A
c) Sample Quench for All Samples within Range of Quench Curve?	Yes No N/A	Yes No N/A

7) Analysis Anomaly? ☒ No ☐ Yes (See Comments) NCR # (If initiated): _____

Analyst Signature: [signature] Date: 1-21-10 Technicial Reviewer Signature: N/A Date: _____

Batch A: ARS1-B09-05378

LSC
Technical Review Checklist

C. BATCH QC VALIDATION

	Proj. Mgr. Review	QA Officer Review
1) Activity + 3xCSU a Negative Number?	Yes (No) N/A	Yes ~~No~~ N/A
2) RDL Criteria are Met?	(Yes) No N/A	~~Yes~~ No N/A
3) Method Blank Criterion Met?	(Yes) No N/A	~~Yes~~ No N/A
4) LCS/LCD Criteria Met?	(Yes) No N/A	~~Yes~~ No N/A
5) Duplicate (Sample Duplicate, LCSD, MSD) Criteria Met?	(Yes) No N/A	~~Yes~~ No N/A
6) MS/MSD Criteria Met?	Yes No (N/A)	Yes No ~~N/A~~
7) Batch QC Anomaly? ☑ No ☐ Yes (See Tech Notes) NCR # (If initiated):		

Project Manager Signature	Date	QA Officer Signature	Date
[signature]	1-22-10	[signature]	1-22-10

GENERAL COMMENTS

LSC
Technical Review Checklist

ARS INTERNATIONAL

ARS SDG ARS1-09-03111

Sample Matrix: AQ **Aliquot** (Circle One) : Dry As Received Filtered Other: _____

Required QC Samples (Mark all that apply): Blank LCS LCSD Sample Dup MS MSD

ARS A. Batch ID(s): **Batch A:** ARS1-B09-05400 **Batch B:** _____ **Batch C:** _____

Test Method(s): LSC-A-021

A. RADIOCHEMICAL PREPARATION REVIEW

	Chemist Review	Verifier Review
1) 100% of Manual Transcriptions Verified?	Yes No N/A	Yes No N/A
2) 100% of Manual Calculations Verified?	Yes No N/A	Yes No N/A
3) Blank Composition/Configuration Matches Calibration?	Yes No N/A	Yes No N/A
4) Deviations from procedure are documented and verified?	Yes No N/A	Yes No N/A
5) Appropriate Cocktail Selected?	Yes No N/A	Yes No N/A

6) Sample Prep Anomaly? ☑ No ☐ Yes (See Tech Notes) NCR # (If initiated): _____

Chemist Signature: [signature] Date: 12-23-09 Verifier Review Signature: [signature] Date: 12-23-09

B. ANALYSIS REVIEW

	Analyst Review	QA Officer Review
1) Calibrations Valid and Current?	Yes No N/A	Yes No N/A
2) Backgrounds Valid and Current?	Yes No N/A	Yes No N/A
3) Source Checks Completed and Acceptable?	Yes No N/A	Yes No N/A

QA Officer Signature: [signature] Date: 12-22-10

	Analyst Review	Technicial Review
4) Background Checks Complete and Acceptable?	Yes No N/A	Yes No N/A
5) 100% of Manually Entered Parameters Verified Accurate?	Yes No N/A	Yes No N/A
6) Appropriate QC samples initiated at required frequency?	Yes No N/A	Yes No N/A
6) Test/Sample Specific Parameters (See ARS-059 for details)		
a) Analysis Parameters Checked and Correct and Peak Shapes are Acceptable?	Yes No N/A	Yes No N/A
b) Spectra show no Evidence of Interferences?	Yes No N/A	Yes No N/A
c) Sample Quench for All Samples within Range of Quench Curve?	Yes No N/A	Yes No N/A

7) Analysis Anomaly? ☑ No ☐ Yes (See Comments) NCR # (If initiated): _____

Analyst Signature: [signature] Date: 12-28-09 Technicial Reviewer Signature: N/A Date: 12-28-09

Batch A: ARS1-B09-05400

LSC
Technical Review Checklist

C. BATCH QC VALIDATION

	Proj. Mgr. Review	QA Officer Review
1) Activity + 3xCSU a Negative Number? DN	Yes (No) N/A	Yes No N/A
2) RDL Criteria are Met? 1-22-10	(Yes) No N/A	Yes No N/A
3) Method Blank Criterion Met?	(Yes) No N/A	Yes No N/A
4) LCS/LCD Criteria Met?	(Yes) No N/A	Yes No N/A
5) Duplicate (Sample Duplicate, LCSD, MSD) Criteria Met?	(Yes) No N/A	Yes No N/A
6) MS/MSD Criteria Met?	Yes No (N/A)	Yes No N/A

7) Batch QC Anomaly? ☑ No ☐ Yes (See Tech Notes) NCR # (If initiated): _____

Project Manager Signature	Date	QA Officer Signature	Date
[signature]	1-22-10	[signature]	1-22-10

GENERAL COMMENTS

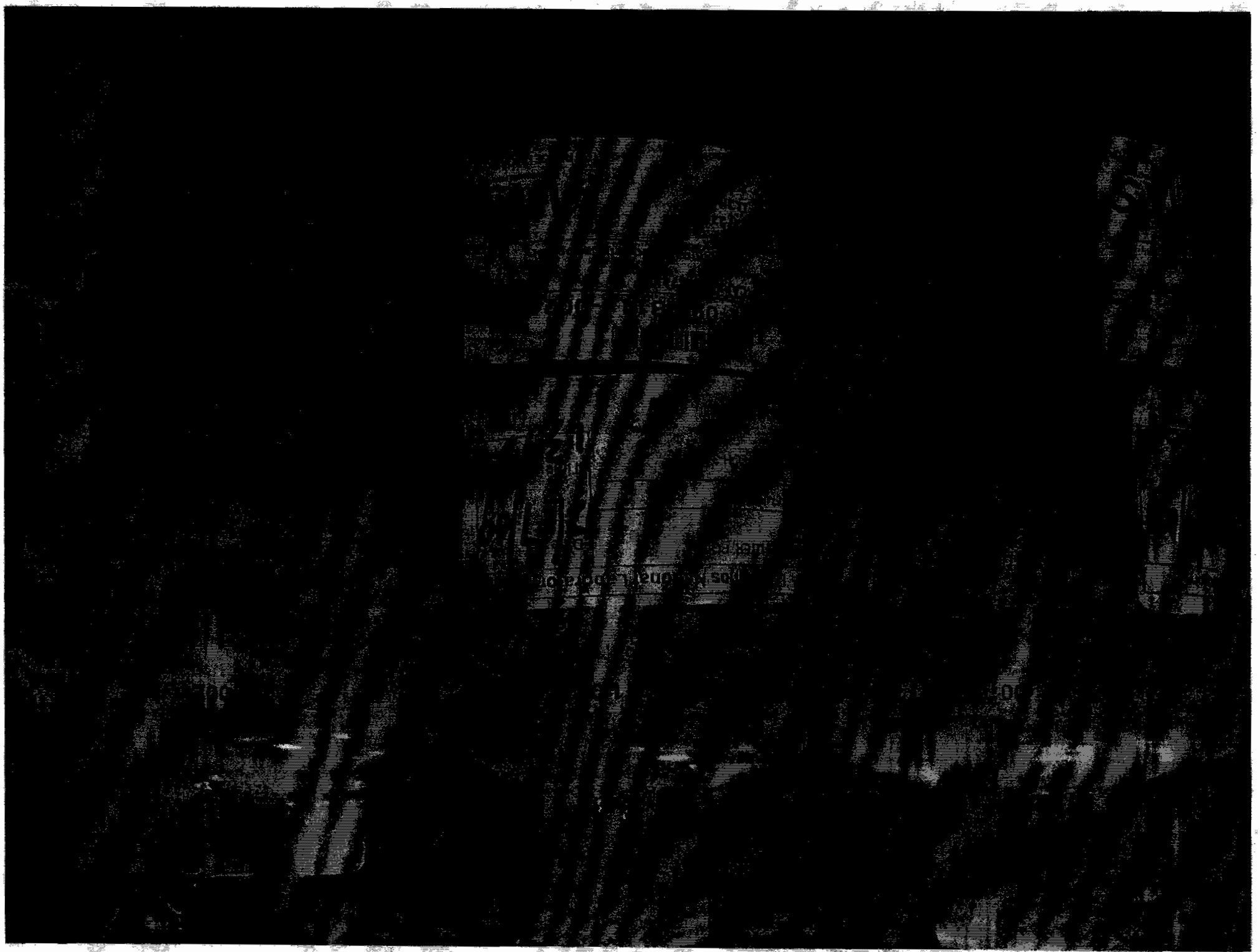

Monday, December 21, 2009

REQUEST NUMBER: 10-1023

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Martha Maier

Alta Analytical Lab Incorporated
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

These Samples are on:
LANL Request Number:10-1023
Per Agreement Number:176450010
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/21/2009
TURNAROUND/REPORT DUE: 1/20/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8290	1	CAPA-10-6390	WG	12/17/2009	
		2	CAPA-10-6390	WG	12/17/2009	
		1	CAPA-10-6745	WG	12/17/2009	
		1	CAPA-10-6746	WG	12/17/2009	
		1	CAPA-10-6793	WG	12/17/2009	
		2	CAPA-10-6793	WG	12/17/2009	

Final Page of REQUEST NUMBER 10-1023

Monday, December 21, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1023

REQUEST NUMBER: 10-1023

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Martha Maier

Alta Analytical Lab Incorporated
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

TURNAROUND/REPORT DUE: 1/20/2010
TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6390	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6390	2	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6745	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6746	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6793	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6793	2	AMBER GLASS	WSP-8290-D/F	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
Printed Name	Signature	12/21/09	1400	Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6390 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/17/09	MEDIA:	WGA	OK
TIME COLLECTED (HH:MM)		1312	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	BP	
LOCATION ID:	PCAO-5		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		

FIELD MATRIX: WG **EXCAVATED:** YES / NO / NA

COMPOSITE TYPE: N/A **COMPOSITE TIME INTERVAL:** N/A **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** N/A **BOREHOLE DIRECTION:** N/A

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2 3	ns 12/14/09	WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
2 3		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	
2 3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
2 3		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	

SAMPLE DESC: N/A

SAMPLE COMMENTS: 4th full suite sample.
Floaters in the filtered 40 mL and 500 mL; Also floaters in 500 mL unfiltered

LOCATION DESC: N/A

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

Time	pH	T°C	Spec Cond mS/cm	DO mg/L	Turb (NTU)	ORP mV	Q gpm
1301	8.00	11.08	701	0.28	1.04	3483	0.16

COLLECTED BY (PRINT) H. Wershow

REVIEWED BY (PRINT) W. Shaw

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) W. Liam Shaw (Signature)	12/17/09 1543	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/17/09 1543
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6745 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/17/2009	MEDIA:	WGA	ok
TIME COLLECTED (HH:MM)		1312	SUB-MEDIA:	UA	
PRS ID:	C-00-011	ok	SAMPLE TECH CODE:	RP	
LOCATION ID:	PCAO-5		FIELD QC TYPE:	FB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		

FIELD MATRIX: WG **EXCAVATED:** YES / NO / NA

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	
1	WS 12/14/09	WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
1		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
1		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
1		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of CAPA-10-6390

SAMPLE COMMENTS: 4th full suite sample. See CAAA-10-6390

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) W. Shaw **REVIEWED BY (PRINT)** H. Shaw

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) William Shaw (Signature)	12/17/09 1543	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/17/09 1543
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6746 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/17/2009	MEDIA:	WGA	OK
TIME COLLECTED (HH:MM)		1312	SUB-MEDIA:	UA	
PRS ID:	C-00-011		SAMPLE TECH CODE:	BP	
LOCATION ID:	PCAO-5		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		

FIELD MATRIX: WG **EXCAVATED: YES / NO / NA** (NO)

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 ~~3~~	ws 12/14/09	WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
1 ~~2~~		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	
1 ~~5~~		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
1 ~~2~~		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
1 ~~5~~		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
1 ~~2~~		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	

SAMPLE DESC: QC Sample of CAPA-10-6390

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

See CAPA-10-6390

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

See CAPA-10-6340

COLLECTED BY (PRINT) H. Wershow **REVIEWED BY (PRINT)** William Shaw

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) W. William Shaw (Signature)	12/17/09 1543	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/17/09 1543
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

Los Alamos National Laboratory

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6793 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/17/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1257	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-38		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2/3	DW 12/17/09	WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
2/3	DW 12/17/09	WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH <2
2/3	DW 12/17/09	WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
2/3	DW 12/17/09	WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH >12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	pH <2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2
1		WSP-H-3	250 ML AMBER GLASS	Ice	Y	Analysis by direct count with 10-day turnaround.

SAMPLE DESC:

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH (STV)	Temp (oC)	SC (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mV)	Q (gpm)
~~1.38~~ 7.32	18.18	152	6.47	1.29	89.2	2.5

DW 12/17/09

COLLECTED BY (PRINT) J Berryhill, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/17/09	(Printed Name) Sherri Sherwood	12/17/09
(Signature) D. Woody	1430	(Signature) Sherri Sherwood	1430
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5123-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1023 VALIDATION DATE: 02/15/10 LAB CODE: ALTC

CONTRACT LABORATORY NAME: Vista Analytical Laboratory

VALIDATOR: Maryann Jordan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. 1,2,3,4,6,7,8-HpCDD; OCDD and Total HpCDD were detected in the MB. 1,2,3,4,6,7,8-HpCDD; OCDD and Total HpCDD were detected in sample CAPA-10-6390, and OCDD was detected in samples -6745; -6746; and -6793 at concentrations ≤5X the blank concentrations and, thus, were qualified U,DF4.
2. It should be noted that laboratory ion abundance limits were used for evaluation of the PeCDD compounds since the laboratory uses an alternate ion for these masses due to interferences.
3. MS/MSD analyses were not performed with the samples from this RN. No sample results were qualified.
4. Precision analysis was not performed with the samples from this RN. No sample results were qualified.
5. The samples were received by the laboratory at temperatures of 0.8° C and -0.3° C. No sample results were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/15/10

VALIDATOR'S SIGNATURE: Maryann Jordan DATE: 02/15/10

DATA VALIDATION COVER SHEET

5123-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943
Form 5123-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

DIOXIN/FURAN ANALYTICAL DATA VALIDATION CHECKLIST

5123-2

Dioxin/Furan Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time and qualitative criteria for target compound identification were not met.	R, DF0	R, DF0
☐	☒	☐	2. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF0b	R, DF0b
☐	☒	☐	3. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF1d	R, DF1d
☒	☐	☐	4. The sample result is ≤5 times the concentration of the related analyte in the method blank.	N/A	U, DF4
☐	☒	☐	5. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, DF4a
☐	☒	☐	6. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	N/A	U, DF4d
☐	☒	☐	7. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF4e	R, DF4e
☐	☒	☐	8. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, DF7	J, DF7
☐	☒	☐	9. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria.	UJ, R, DF7a	J, DF7a
☐	☒	☐	10. The affected analytes were analyzed with an out of range ion abundance in the initial calibration and/or CCV.	R, DF7b	R, DF7b
☐	☒	☐	11. The ICV and/or CCV were recovered outside the method specific limits.	UJ, R, DF7c	J, R, DF7c
☐	☒	☐	12. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, DF7d	J, DF7d

DIOXIN/FURAN ANALYTICAL DATA VALIDATION CHECKLIST

5123-2

Dioxin/Furan Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, DF7f	R, DF7f
☐	☒	☐	14. The affected analyte is considered rejected because the ion abundances did not meet specifications.	N/A	R, DF8
☐	☒	☐	15. The ion abundance documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF8a	R, DF8a
☐	☒	☐	16. If GC column performance was not evaluated at the required frequency or if method criteria were not met, qualify all associated detects as J and all associated non-detects as UJ.	UJ, DF8b	J, DF8b
☐	☐	☒	17. If 2, 3, 7, 8-TCDF was detected in a sample and the result was not confirmed on a second column with successful analysis of the GC column performance mix, qualify all associated detects as U.	N/A	U, DF8c
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, DF9	J-, DF9
☐	☒	☐	19. The holding time was >2 times the applicable holding time requirement.	R, DF9a	J-, DF9a
☐	☒	☐	20. The LCS percent recovery was <10%.	R, DF12	J-, DF12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, DF12a	J-, DF12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, DF12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF12c	R, DF12c

DIOXIN/FURAN ANALYTICAL DATA VALIDATION CHECKLIST

5123-2

Dioxin/Furan Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	24. The MS/MSD percent recovery was <10%.	R, DF12d	R, DF12d
☐	☐	☒	25. The MS/MSD percent recovery was >10% but <70%.	UJ, DF12e	J, DF12e
☐	☐	☒	26. The MS/MSD percent recovery was >70%	N/A	J+, DF12f
☐	☐	☒	27. The MS/MSD relative percent difference was >30%.	UJ, DF12g	J, DF12g
☐	☒	☐	28. The fortification sample percent recovery was <10%.	R, DF12h	J-, DF12h
☐	☒	☐	29. The fortification sample percent recovery was <40% but >10%	UJ, DF12i	J-, DF12i
☐	☒	☐	30. The fortification sample percent recovery was >135%.	N/A	J+, DF12j
☐	☒	☐	31. The fortification sample documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF12k	R, DF12k
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference.	R, DF15	UJ, DF15
☐	☐	☒	33. Sample clean-up was not performed. If run log notations, spectral data and/or internal standard or labeled compound recoveries indicate interferences and extract cleanup was not performed, qualify all associated detects as J and all non-detects as UJ.	RJ, DF15a	J, DF15a
☐	☐	☒	34. The instrument performance sample did not pass method acceptance criteria.	R, DF16	R, DF16
☐	☐	☒	35. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, DF16c	R, DF16c

DIOXIN/FURAN ANALYTICAL DATA VALIDATION CHECKLIST

5123-2

Dioxin/Furan Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	36. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, DF19	J, R, DR19
☐	☒	☐	37. Duplicate, dilution, or reanalysis.	UJ, DF88	J, DF88

Sample ID: **CAPA-10-6390** **EPA Method 8290**

Client Data		Sample Data		Laboratory Data			
Name:	Los Alamos National Laboratory	Matrix:	Aqueous	Lab Sample:	32322-001	Date Received:	22-Dec-09
Project:	10-1023	Sample Size:	0.809 L	QC Batch No.:	2725	Date Extracted:	12-Jan-10
Date Collected:	17-Dec-09			Date Analyzed DB-5:	19-Jan-10	Date Analyzed DB-225:	NA
Time Collected:	1312						

Analyte	Conc. (pg/L)		DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND		0.536		
1,2,3,7,8-PeCDD	ND		0.741		
1,2,3,4,7,8-HxCDD	ND		1.34		
1,2,3,6,7,8-HxCDD	ND		1.36		
1,2,3,7,8,9-HxCDD	ND		1.36		
1,2,3,4,6,7,8-HpCDD	2.22	U,DF4			J,B
OCDD	19.2	U,DF4			J,B
2,3,7,8-TCDF	ND		0.411		
1,2,3,7,8-PeCDF	ND		0.581		
2,3,4,7,8-PeCDF	ND		0.530		
1,2,3,4,7,8-HxCDF	ND		0.659		
1,2,3,6,7,8-HxCDF	ND		0.689		
2,3,4,6,7,8-HxCDF	ND		0.797		
1,2,3,7,8,9-HxCDF	ND		1.17		
1,2,3,4,6,7,8-HpCDF	ND		1.12		
1,2,3,4,7,8,9-HpCDF	ND		1.23		
OCDF	1.93				J

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	99.2	40 - 135	
	13C-1,2,3,7,8-PeCDD	96.5	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	83.2	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	86.1	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	83.7	40 - 135	
	13C-OCDD	84.2	40 - 135	
	13C-2,3,7,8-TCDF	87.3	40 - 135	
	13C-1,2,3,7,8-PeCDF	83.9	40 - 135	
	13C-2,3,4,7,8-PeCDF	90.2	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	89.7	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	91.4	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	88.0	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	86.4	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	84.7	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	78.7	40 - 135	
	13C-OCDF	85.7	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	97.8	40 - 135	

Totals			
Total TCDD	ND		0.536
Total PeCDD	ND		0.741
Total HxCDD	ND		1.35
Total HpCDD	5.76	U,DF4	
Total TCDF	ND		0.411
Total PeCDF	ND		0.556
Total HxCDF	ND		0.829
Total HpCDF	ND		1.18

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): **0.0433**

a. Sample specific estimated detection limit.

b. Estimated maximum possible concentration.

c. Method detection limit.

d. Lower control limit - upper control limit.

e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: WJL

Approved By: Martha M. Maier 20-Jan-2010 13:02

MJ
02/15/10

Sample ID: **CAPA-10-6745** **EPA Method 8290**

Client Data		Sample Data		Laboratory Data			
Name:	Los Alamos National Laboratory	Matrix:	Aqueous	Lab Sample:	32322-002	Date Received:	22-Dec-09
Project:	10-1023	Sample Size:	0.899 L	QC Batch No.:	2725	Date Extracted:	12-Jan-10
Date Collected:	17-Dec-09			Date Analyzed DB-5:	19-Jan-10	Date Analyzed DB-225:	NA
Time Collected:	1312						

Analyte	Conc. (pg/L)		DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND		0.495		
1,2,3,7,8-PeCDD	ND		1.00		
1,2,3,4,7,8-HxCDD	ND		1.23		
1,2,3,6,7,8-HxCDD	ND		1.33		
1,2,3,7,8,9-HxCDD	ND		1.30		
1,2,3,4,6,7,8-HpCDD	ND		1.79		
OCDD	17.1	U,DF4			J,B
2,3,7,8-TCDF	ND		0.353		
1,2,3,7,8-PeCDF	ND		0.507		
2,3,4,7,8-PeCDF	ND		0.441		
1,2,3,4,7,8-HxCDF	ND		0.626		
1,2,3,6,7,8-HxCDF	ND		0.692		
2,3,4,6,7,8-HxCDF	ND		0.741		
1,2,3,7,8,9-HxCDF	ND		0.988		
1,2,3,4,6,7,8-HpCDF	ND		1.08		
1,2,3,4,7,8,9-HpCDF	ND		1.23		
OCDF	ND			1.13	

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	92.7	40 - 135	
	13C-1,2,3,7,8-PeCDD	89.9	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	78.3	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	80.5	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	77.2	40 - 135	
	13C-OCDD	77.5	40 - 135	
	13C-2,3,7,8-TCDF	80.6	40 - 135	
	13C-1,2,3,7,8-PeCDF	79.2	40 - 135	
	13C-2,3,4,7,8-PeCDF	85.5	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	83.5	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	84.9	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	82.7	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	79.6	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	80.8	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	73.5	40 - 135	
	13C-OCDF	79.6	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	97.4	40 - 135	

Totals				
Total TCDD	ND		0.495	
Total PeCDD	ND		1.00	
Total HxCDD	ND		1.29	
Total HpCDD	ND			2.67
Total TCDF	ND		0.353	
Total PeCDF	ND		0.474	
Total HxCDF	ND		0.762	
Total HpCDF	ND		1.16	

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): **0.0171**

a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Method detection limit.
d. Lower control limit - upper control limit.
e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: WJL

Approved By: Martha M. Maier 20-Jan-2010 13:02

MJ
02/15/10

Sample ID: CAPA-10-6746 **EPA Method 8290**

Client Data		Sample Data		Laboratory Data			
Name:	Los Alamos National Laboratory	Matrix:	Aqueous	Lab Sample:	32322-003	Date Received:	22-Dec-09
Project:	10-1023	Sample Size:	0.894 L	QC Batch No.:	2725	Date Extracted:	12-Jan-10
Date Collected:	17-Dec-09			Date Analyzed DB-5:	19-Jan-10	Date Analyzed DB-225:	NA
Time Collected:	1312						

Analyte	Conc. (pg/L)		DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND		0.566		
1,2,3,7,8-PeCDD	ND		0.903		
1,2,3,4,7,8-HxCDD	ND		1.36		
1,2,3,6,7,8-HxCDD	ND		1.47		
1,2,3,7,8,9-HxCDD	ND		1.41		
1,2,3,4,6,7,8-HpCDD	ND		2.76		
OCDD	18.3	U,DF4			J,B
2,3,7,8-TCDF	ND		0.414		
1,2,3,7,8-PeCDF	ND		0.683		
2,3,4,7,8-PeCDF	ND		0.621		
1,2,3,4,7,8-HxCDF	ND		0.675		
1,2,3,6,7,8-HxCDF	ND		0.703		
2,3,4,6,7,8-HxCDF	ND		0.821		
1,2,3,7,8,9-HxCDF	ND		1.17		
1,2,3,4,6,7,8-HpCDF	ND		1.76		
1,2,3,4,7,8,9-HpCDF	ND		1.04		
OCDF	ND		0.967		

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	94.7	40 - 135	
	13C-1,2,3,7,8-PeCDD	77.0	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	76.7	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	77.9	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	50.2	40 - 135	
	13C-OCDD	42.8	40 - 135	
	13C-2,3,7,8-TCDF	92.4	40 - 135	
	13C-1,2,3,7,8-PeCDF	66.9	40 - 135	
	13C-2,3,4,7,8-PeCDF	76.2	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	82.6	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	84.3	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	80.7	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	76.6	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	47.1	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	56.5	40 - 135	
	13C-OCDF	53.6	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	94.7	40 - 135	

Totals		
Total TCDD	ND	0.566
Total PeCDD	ND	0.903
Total HxCDD	ND	1.41
Total HpCDD	ND	2.76
Total TCDF	ND	0.414
Total PeCDF	ND	0.652
Total HxCDF	ND	0.842
Total HpCDF	ND	1.40

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): 0.0183

a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Method detection limit.
d. Lower control limit - upper control limit.
e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: WJL

Approved By: Martha M. Maier 20-Jan-2010 13:02

MJ
02/15/10

Sample ID: CAPA-10-6793 **EPA Method 8290**

Client Data		Sample Data		Laboratory Data			
Name:	Los Alamos National Laboratory	Matrix:	Aqueous	Lab Sample:	32322-004	Date Received:	22-Dec-09
Project:	10-1023	Sample Size:	0.886 L	QC Batch No.:	2725	Date Extracted:	12-Jan-10
Date Collected:	17-Dec-09			Date Analyzed DB-5:	19-Jan-10	Date Analyzed DB-225:	NA
Time Collected:	1257						

Analyte	Conc. (pg/L)		DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND		0.604		
1,2,3,7,8-PeCDD	ND		0.897		
1,2,3,4,7,8-HxCDD	ND		1.40		
1,2,3,6,7,8-HxCDD	ND		1.54		
1,2,3,7,8,9-HxCDD	ND		1.51		
1,2,3,4,6,7,8-HpCDD	ND			2.29	
OCDD	16.5	U,DF4			J,B
2,3,7,8-TCDF	ND		0.465		
1,2,3,7,8-PeCDF	ND		0.639		
2,3,4,7,8-PeCDF	ND		0.587		
1,2,3,4,7,8-HxCDF	ND		0.712		
1,2,3,6,7,8-HxCDF	ND		0.742		
2,3,4,6,7,8-HxCDF	ND		0.835		
1,2,3,7,8,9-HxCDF	ND		1.23		
1,2,3,4,6,7,8-HpCDF	ND		1.41		
1,2,3,4,7,8,9-HpCDF	ND		1.40		
OCDF	ND		1.22		

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	83.0	40 - 135	
	13C-1,2,3,7,8-PeCDD	79.5	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	72.7	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	73.0	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	63.1	40 - 135	
	13C-OCDD	68.2	40 - 135	
	13C-2,3,7,8-TCDF	80.3	40 - 135	
	13C-1,2,3,7,8-PeCDF	72.4	40 - 135	
	13C-2,3,4,7,8-PeCDF	78.2	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	74.9	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	77.4	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	76.3	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	75.0	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	63.1	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	63.5	40 - 135	
	13C-OCDF	70.3	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	86.1	40 - 135	

Totals			
Total TCDD	ND	0.604	
Total PeCDD	ND	0.897	
Total HxCDD	ND	1.48	
Total HpCDD	ND		2.29
Total TCDF	ND	0.465	
Total PeCDF	ND	0.613	
Total HxCDF	ND	0.880	
Total HpCDF	ND	1.40	

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): 0.0165

a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Method detection limit.
d. Lower control limit - upper control limit.
e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: WJL

Approved By: Martha M. Maier 20-Jan-2010 13:02

MJ
02/15/10

Monday, December 21, 2009

REQUEST NUMBER: 10-1023

32322

-0.3°C, 0.8°C

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Martha Maier

Alta Analytical Lab Incorporated
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

These Samples are on:
LANL Request Number:10-1023
Per Agreement Number:176450010
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/21/2009
TURNAROUND/REPORT DUE: 1/20/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8290	1	CAPA-10-6390	WG	12/17/2009	
		2	CAPA-10-6390	WG	12/17/2009	
		1	CAPA-10-6745	WG	12/17/2009	
		1	CAPA-10-6746	WG	12/17/2009	
		1	CAPA-10-6793	WG	12/17/2009	
		2	CAPA-10-6793	WG	12/17/2009	

Final Page of REQUEST NUMBER 10-1023

Monday, December 21, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1023

REQUEST NUMBER: 10-1023

32322

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Martha Maier

Alta Analytical Lab Incorporated
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6390	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6390	2	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6745	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6746	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6793	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6793	2	AMBER GLASS	WSP-8290-D/F	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		12/21/09	1400	B. Benedict	[illegible] Benedict	12/22/09	1201
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

Vista
Analytical Laboratory

January 20, 2010

Vista Project I.D.: 32322

Mr. Keith Greene
Los Alamos National Laboratory
ER Sample Management Office
TA-3, Building 271, DP O1-U
Los Alamos, NM 87545

Dear Mr. Greene,

Enclosed are the results for the four aqueous samples received at Vista Analytical Laboratory on December 22, 2009 under your Project Name "10-1023". These samples were extracted and analyzed using EPA Method 8290 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

The following report consists of a Sample Inventory (Section I), Analytical Results (Section II) and the Appendix, which contains the chain-of-custody, a list of data qualifiers and abbreviations, Vista's current certifications, and copies of the raw data (if requested).

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com. Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier

Martha M. Maier
Laboratory Director

Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAC for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista Analytical Laboratory.

Vista

Section I: Sample Inventory Report

Date Received: **12/22/2009**

Vista Lab. ID	Client Sample ID
32322-001	CAPA-10-6390
32322-002	CAPA-10-6745
32322-003	CAPA-10-6746
32322-004	CAPA-10-6793

SECTION II

Vista

Method Blank — **EPA Method 8290**

Matrix:	Aqueous	QC Batch No.:	2725	Lab Sample:	0-MB001
Sample Size:	1.00 L	Date Extracted:	12-Jan-10	Date Analyzed DB-5:	19-Jan-10
				Date Analyzed DB-225:	NA

Analyte	Conc. (pg/L)	DL [a]	EMPC [b]	Qualifiers
2,3,7,8-TCDD	ND	0.525		
1,2,3,7,8-PeCDD	ND	1.19		
1,2,3,4,7,8-HxCDD	ND	1.33		
1,2,3,6,7,8-HxCDD	ND	1.40		
1,2,3,7,8,9-HxCDD	ND	1.35		
1,2,3,4,6,7,8-HpCDD	3.51			J
OCDD	29.8			J
2,3,7,8-TCDF	ND	0.368		
1,2,3,7,8-PeCDF	ND	0.559		
2,3,4,7,8-PeCDF	ND	0.503		
1,2,3,4,7,8-HxCDF	ND	0.606		
1,2,3,6,7,8-HxCDF	ND	0.678		
2,3,4,6,7,8-HxCDF	ND	0.775		
1,2,3,7,8,9-HxCDF	ND	1.05		
1,2,3,4,6,7,8-HpCDF	ND	1.28		
1,2,3,4,7,8,9-HpCDF	ND	1.25		
OCDF	ND		3.05	

	Labeled Standard	%R	LCL-UCL [d]	Qualifiers
IS	13C-2,3,7,8-TCDD	85.9	40 - 135	
	13C-1,2,3,7,8-PeCDD	82.5	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	71.7	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	74.7	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	67.5	40 - 135	
	13C-OCDD	65.8	40 - 135	
	13C-2,3,7,8-TCDF	80.9	40 - 135	
	13C-1,2,3,7,8-PeCDF	78.2	40 - 135	
	13C-2,3,4,7,8-PeCDF	84.3	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	78.0	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	79.7	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	74.9	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	75.0	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	70.0	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	66.9	40 - 135	
	13C-OCDF	65.8	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	89.6	40 - 135	

Totals		
Total TCDD	ND	0.525
Total PeCDD	ND	1.19
Total HxCDD	ND	1.36
Total HpCDD	3.51	
Total TCDF	ND	0.368
Total PeCDF	ND	0.531
Total HxCDF	ND	0.777
Total HpCDF	ND	1.26

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): 0.0649

a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Method detection limit.
d. Lower control limit - upper control limit.
e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: WJL

Approved By: Martha M. Maier 20-Jan-2010 13:02

Vista

OPR Results **EPA Method 8290**

Matrix:	Aqueous	QC Batch No.:	2725	Lab Sample:	0-OPR001
Sample Size:	1.00 L	Date Extracted:	12-Jan-10	Date Analyzed DB-5:	19-Jan-10
				Date Analyzed DB-225:	NA

Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits
2,3,7,8-TCDD	10.0	9.88	7 - 13
1,2,3,7,8-PeCDD	50.0	50.9	35 - 65
1,2,3,4,7,8-HxCDD	50.0	49.4	35 - 65
1,2,3,6,7,8-HxCDD	50.0	50.7	35 - 65
1,2,3,7,8,9-HxCDD	50.0	50.2	35 - 65
1,2,3,4,6,7,8-HpCDD	50.0	49.0	35 - 65
OCDD	100	99.2	70 - 130
2,3,7,8-TCDF	10.0	9.68	7 - 13
1,2,3,7,8-PeCDF	50.0	46.8	35 - 65
2,3,4,7,8-PeCDF	50.0	46.6	35 - 65
1,2,3,4,7,8-HxCDF	50.0	46.6	35 - 65
1,2,3,6,7,8-HxCDF	50.0	47.4	35 - 65
2,3,4,6,7,8-HxCDF	50.0	46.8	35 - 65
1,2,3,7,8,9-HxCDF	50.0	47.1	35 - 65
1,2,3,4,6,7,8-HpCDF	50.0	46.7	35 - 65
1,2,3,4,7,8,9-HpCDF	50.0	46.3	35 - 65
OCDF	100	93.4	70 - 130

	Labeled Standard	%R	LCL-UCL	Qualifier
IS	13C-2,3,7,8-TCDD	92.4	40 - 135	
	13C-1,2,3,7,8-PeCDD	87.6	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	75.4	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	75.2	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	69.7	40 - 135	
	13C-OCDD	68.5	40 - 135	
	13C-2,3,7,8-TCDF	86.6	40 - 135	
	13C-1,2,3,7,8-PeCDF	81.2	40 - 135	
	13C-2,3,4,7,8-PeCDF	86.8	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	80.7	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	80.9	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	78.0	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	76.3	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	71.9	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	69.9	40 - 135	
	13C-OCDF	70.8	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	95.7	40 - 135	

Analyst: WJL

Approved By: Martha M. Maier 20-Jan-2010 13:02

Vista

Sample ID: CAPA-10-6390 **EPA Method 8290**

Client Data		Sample Data		Laboratory Data			
Name:	Los Alamos National Laboratory	Matrix:	Aqueous	Lab Sample:	32322-001	Date Received:	22-Dec-09
Project:	10-1023	Sample Size:	0.809 L	QC Batch No.:	2725	Date Extracted:	12-Jan-10
Date Collected:	17-Dec-09			Date Analyzed DB-5:	19-Jan-10	Date Analyzed DB-225:	NA
Time Collected:	1312						

Analyte	Conc. (pg/L)	DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND	0.536		
1,2,3,7,8-PeCDD	ND	0.741		
1,2,3,4,7,8-HxCDD	ND	1.34		
1,2,3,6,7,8-HxCDD	ND	1.36		
1,2,3,7,8,9-HxCDD	ND	1.36		
1,2,3,4,6,7,8-HpCDD	2.22			J,B
OCDD	19.2			J,B
2,3,7,8-TCDF	ND	0.411		
1,2,3,7,8-PeCDF	ND	0.581		
2,3,4,7,8-PeCDF	ND	0.530		
1,2,3,4,7,8-HxCDF	ND	0.659		
1,2,3,6,7,8-HxCDF	ND	0.689		
2,3,4,6,7,8-HxCDF	ND	0.797		
1,2,3,7,8,9-HxCDF	ND	1.17		
1,2,3,4,6,7,8-HpCDF	ND	1.12		
1,2,3,4,7,8,9-HpCDF	ND	1.23		
OCDF	1.93			J

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	99.2	40 - 135	
	13C-1,2,3,7,8-PeCDD	96.5	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	83.2	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	86.1	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	83.7	40 - 135	
	13C-OCDD	84.2	40 - 135	
	13C-2,3,7,8-TCDF	87.3	40 - 135	
	13C-1,2,3,7,8-PeCDF	83.9	40 - 135	
	13C-2,3,4,7,8-PeCDF	90.2	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	89.7	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	91.4	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	88.0	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	86.4	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	84.7	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	78.7	40 - 135	
	13C-OCDF	85.7	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	97.8	40 - 135	

Totals			
Total TCDD	ND	0.536	
Total PeCDD	ND	0.741	
Total HxCDD	ND	1.35	
Total HpCDD	5.76		B
Total TCDF	ND	0.411	
Total PeCDF	ND	0.556	
Total HxCDF	ND	0.829	
Total HpCDF	ND	1.18	

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): 0.0433

a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Method detection limit.
d. Lower control limit - upper control limit.
e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: WJL

Approved By: Martha M. Maier 20-Jan-2010 13:02

Vista

Sample ID: CAPA-10-6745 **EPA Method 8290**

Client Data		Sample Data		Laboratory Data			
Name:	Los Alamos National Laboratory	Matrix:	Aqueous	Lab Sample:	32322-002	Date Received:	22-Dec-09
Project:	10-1023	Sample Size:	0.899 L	QC Batch No.:	2725	Date Extracted:	12-Jan-10
Date Collected:	17-Dec-09			Date Analyzed DB-5:	19-Jan-10	Date Analyzed DB-225:	NA
Time Collected:	1312						

Analyte	Conc. (pg/L)	DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND	0.495		
1,2,3,7,8-PeCDD	ND	1.00		
1,2,3,4,7,8-HxCDD	ND	1.23		
1,2,3,6,7,8-HxCDD	ND	1.33		
1,2,3,7,8,9-HxCDD	ND	1.30		
1,2,3,4,6,7,8-HpCDD	ND	1.79		
OCDD	17.1			J,B
2,3,7,8-TCDF	ND	0.353		
1,2,3,7,8-PeCDF	ND	0.507		
2,3,4,7,8-PeCDF	ND	0.441		
1,2,3,4,7,8-HxCDF	ND	0.626		
1,2,3,6,7,8-HxCDF	ND	0.692		
2,3,4,6,7,8-HxCDF	ND	0.741		
1,2,3,7,8,9-HxCDF	ND	0.988		
1,2,3,4,6,7,8-HpCDF	ND	1.08		
1,2,3,4,7,8,9-HpCDF	ND	1.23		
OCDF	ND		1.13	

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	92.7	40 - 135	
	13C-1,2,3,7,8-PeCDD	89.9	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	78.3	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	80.5	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	77.2	40 - 135	
	13C-OCDD	77.5	40 - 135	
	13C-2,3,7,8-TCDF	80.6	40 - 135	
	13C-1,2,3,7,8-PeCDF	79.2	40 - 135	
	13C-2,3,4,7,8-PeCDF	85.5	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	83.5	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	84.9	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	82.7	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	79.6	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	80.8	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	73.5	40 - 135	
	13C-OCDF	79.6	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	97.4	40 - 135	

Totals			
Total TCDD	ND	0.495	
Total PeCDD	ND	1.00	
Total HxCDD	ND	1.29	
Total HpCDD	ND		2.67
Total TCDF	ND	0.353	
Total PeCDF	ND	0.474	
Total HxCDF	ND	0.762	
Total HpCDF	ND	1.16	

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): 0.0171

a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Method detection limit.
d. Lower control limit - upper control limit.
e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: WJL

Approved By: Martha M. Maier 20-Jan-2010 13:02

Vista

Sample ID: CAPA-10-6746 **EPA Method 8290**

Client Data		Sample Data		Laboratory Data			
Name:	Los Alamos National Laboratory	Matrix:	Aqueous	Lab Sample:	32322-003	Date Received:	22-Dec-09
Project:	10-1023	Sample Size:	0.894 L	QC Batch No.:	2725	Date Extracted:	12-Jan-10
Date Collected:	17-Dec-09			Date Analyzed DB-5:	19-Jan-10	Date Analyzed DB-225:	NA
Time Collected:	1312						

Analyte	Conc. (pg/L)	DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND	0.566		
1,2,3,7,8-PeCDD	ND	0.903		
1,2,3,4,7,8-HxCDD	ND	1.36		
1,2,3,6,7,8-HxCDD	ND	1.47		
1,2,3,7,8,9-HxCDD	ND	1.41		
1,2,3,4,6,7,8-HpCDD	ND	2.76		
OCDD	18.3			J,B
2,3,7,8-TCDF	ND	0.414		
1,2,3,7,8-PeCDF	ND	0.683		
2,3,4,7,8-PeCDF	ND	0.621		
1,2,3,4,7,8-HxCDF	ND	0.675		
1,2,3,6,7,8-HxCDF	ND	0.703		
2,3,4,6,7,8-HxCDF	ND	0.821		
1,2,3,7,8,9-HxCDF	ND	1.17		
1,2,3,4,6,7,8-HpCDF	ND	1.76		
1,2,3,4,7,8,9-HpCDF	ND	1.04		
OCDF	ND	0.967		

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	94.7	40 - 135	
	13C-1,2,3,7,8-PeCDD	77.0	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	76.7	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	77.9	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	50.2	40 - 135	
	13C-OCDD	42.8	40 - 135	
	13C-2,3,7,8-TCDF	92.4	40 - 135	
	13C-1,2,3,7,8-PeCDF	66.9	40 - 135	
	13C-2,3,4,7,8-PeCDF	76.2	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	82.6	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	84.3	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	80.7	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	76.6	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	47.1	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	56.5	40 - 135	
	13C-OCDF	53.6	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	94.7	40 - 135	

Totals		
Total TCDD	ND	0.566
Total PeCDD	ND	0.903
Total HxCDD	ND	1.41
Total HpCDD	ND	2.76
Total TCDF	ND	0.414
Total PeCDF	ND	0.652
Total HxCDF	ND	0.842
Total HpCDF	ND	1.40

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): 0.0183

a. Sample specific estimated detection limit.

b. Estimated maximum possible concentration.

c. Method detection limit.

d. Lower control limit - upper control limit.

e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF)

Analyst: WJL

Approved By: Martha M. Maier 20-Jan-2010 13:02

Vista

Sample ID: **CAPA-10-6793** **EPA Method 8290**

Client Data		Sample Data		Laboratory Data			
Name:	Los Alamos National Laboratory	Matrix:	Aqueous	Lab Sample:	32322-004	Date Received:	22-Dec-09
Project:	10-1023	Sample Size:	0.886 L	QC Batch No.:	2725	Date Extracted:	12-Jan-10
Date Collected:	17-Dec-09			Date Analyzed DB-5:	19-Jan-10	Date Analyzed DB-225:	NA
Time Collected:	1257						

Analyte	Conc. (pg/L)	DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND	0.604		
1,2,3,7,8-PeCDD	ND	0.897		
1,2,3,4,7,8-HxCDD	ND	1.40		
1,2,3,6,7,8-HxCDD	ND	1.54		
1,2,3,7,8,9-HxCDD	ND	1.51		
1,2,3,4,6,7,8-HpCDD	ND		2.29	
OCDD	16.5			J,B
2,3,7,8-TCDF	ND	0.465		
1,2,3,7,8-PeCDF	ND	0.639		
2,3,4,7,8-PeCDF	ND	0.587		
1,2,3,4,7,8-HxCDF	ND	0.712		
1,2,3,6,7,8-HxCDF	ND	0.742		
2,3,4,6,7,8-HxCDF	ND	0.835		
1,2,3,7,8,9-HxCDF	ND	1.23		
1,2,3,4,6,7,8-HpCDF	ND	1.41		
1,2,3,4,7,8,9-HpCDF	ND	1.40		
OCDF	ND	1.22		

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	83.0	40 - 135	
	13C-1,2,3,7,8-PeCDD	79.5	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	72.7	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	73.0	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	63.1	40 - 135	
	13C-OCDD	68.2	40 - 135	
	13C-2,3,7,8-TCDF	80.3	40 - 135	
	13C-1,2,3,7,8-PeCDF	72.4	40 - 135	
	13C-2,3,4,7,8-PeCDF	78.2	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	74.9	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	77.4	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	76.3	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	75.0	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	63.1	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	63.5	40 - 135	
	13C-OCDF	70.3	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	86.1	40 - 135	

Totals			
Total TCDD	ND	0.604	
Total PeCDD	ND	0.897	
Total HxCDD	ND	1.48	
Total HpCDD	ND		2.29
Total TCDF	ND	0.465	
Total PeCDF	ND	0.613	
Total HxCDF	ND	0.880	
Total HpCDF	ND	1.40	

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): **0.0165**

a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Method detection limit.
d. Lower control limit - upper control limit.
e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: WJL

Approved By: Martha M. Maier 20-Jan-2010 13:02

APPENDIX

DATA QUALIFIERS & ABBREVIATIONS

B	**This compound was also detected in the method blank.**
D	**Dilution**
E	**The amount detected is above the High Calibration Limit.**
P	**The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.**
H	**Recovery was outside laboratory acceptance limits.**
I	**Chemical Interference**
J	**The amount detected is below the Low Calibration Limit.**
*****	**See Cover Letter**
Conc.	**Concentration**
DL	**Sample-specific estimated detection limit**
MDL	**The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in the matrix tested.**
EMPC	**Estimated Maximum Possible Concentration**
NA	**Not applicable**
RL	**Reporting Limit – concentrations that correspond to low calibration point**
ND	**Not Detected**
TEQ	**Toxic Equivalency**

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
State of Alaska, DEC	CA413-2008
State of Arizona	AZ0639
State of Arkansas, DEQ	08-043-0
State of Arkansas, DOH	Reciprocity through CA
State of California – NELAP Primary AA	02102CA
State of Colorado	N/A
State of Connecticut	PH-0182
State of Florida, DEP	E87777
State of Indiana Department of Health	C-CA-02
Commonwealth of Kentucky	90063
State of Louisiana, Health and Hospitals	LA08000
State of Louisiana, DEQ	01977
State of Maine	2008024
State of Michigan	9932
State of Mississippi	Reciprocity through CA
Naval Facilities Engineering Service Center	NFESC413
State of Nevada	CA004132007A
State of New Jersey	CA003
State of New Mexico	Reciprocity through CA
State of New York, DOH	11411
State of North Carolina	06700
State of North Dakota, DOH	R-078
State of Oklahoma	D9919
State of Oregon	CA200001-006
State of Pennsylvania	68-00490
State of South Carolina	87002001
State of Tennessee	TN02996
State of Texas	T104704189-08-TX
U.S. Army Corps of Engineers	N/A
State of Utah	CA16400
Commonwealth of Virginia	00013
State of Washington	C1285
State of Wisconsin	998036160
State of Wyoming	8TMS-Q

Monday, December 21, 2009

REQUEST NUMBER: 10-1023

32322

-0.3°C, 0.8°C

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Martha Maier
Alta Analytical Lab Incorporated
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

These Samples are on:
LANL Request Number:10-1023
Per Agreement Number:176450010
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/21/2009
TURNAROUND/REPORT DUE: 1/20/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8290	1	CAPA-10-6390	WG	12/17/2009	
		2	CAPA-10-6390	WG	12/17/2009	
		1	CAPA-10-6745	WG	12/17/2009	
		1	CAPA-10-6746	WG	12/17/2009	
		1	CAPA-10-6793	WG	12/17/2009	
		2	CAPA-10-6793	WG	12/17/2009	

Final Page of REQUEST NUMBER 10-1023

Monday, December 21, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1023

LOS ALAMOS

NATIONAL LABORATORY

REQUEST NUMBER: 10-1023

32322

ATTN: Martha Maier

Alta Analytical Lab Incorporated

5070 Robert J. Mathews Parkway

El Dorado Hills, CA 95762

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6390	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6390	2	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6745	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6746	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6793	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6793	2	AMBER GLASS	WSP-8290-D/F	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
		12/21/09	1400	B. Benedict	Bethni L Benedict	12/22/09	1201
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

SAMPLE LOG-IN CHECKLIST

Vista Analytical Laboratory

Vista Project #: 32322 TAT 30

Samples Arrival:	Date/Time 12/22/09 0913	Initials: VBLB	Location: WR-2 Shelf/Rack: N/A
Logged In:	Date/Time 12/23/09 1701	Initials: VBLB	Location: WR-2 Shelf/Rack: C6

Delivered By:	FedEx	UPS	Cal	DHL	Hand Delivered	Other
Preservation:	Ice	Blue Ice	Dry Ice	None		
Temp °C 0.8°C	Time: 0921	Thermometer ID: IR-1				

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill Trk # 7209 7849 3181	✓		
Sample Container Intact?	✓		
Sample Custody Seals Intact?	✓		
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?		✓	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

$Na_2S_2O_3$ Preservation Documented?	COC	Sample Container	None		
Shipping Container	Vista	Client	Retain	Return	Dispose

Comments:

	date	time	
CAPA-10-6793	VBLB 12/23/09 ~~12/19/09~~	1257	A bottle
CAPA-10-6745	12/17/09	1312	(1 Liter)
CAPA-10-6793	↓	1257	B bottle

Sample Login 3/2007 rmh

SAMPLE LOG-IN CHECKLIST

Vista Analytical Laboratory

Vista Project #: 32322 TAT 30

Samples Arrival:	Date/Time 12/22/09 0913	Initials: [illegible]	Location: WR-2 Shelf/Rack: N/A
Logged In:	Date/Time 12/23/09 1201	Initials: [illegible]	Location: WR-2 Shelf/Rack: C6

Delivered By:	FedEx	UPS	Cal	DHL	Hand Delivered	Other
Preservation:	Ice	Blue Ice	Dry Ice	None		
Temp °C −0.3°C	Time: 0919	Thermometer ID: IR-1				

		YES	NO	NA
Adequate Sample Volume Received?		✓		
Holding Time Acceptable?		✓		
Shipping Container(s) Intact?		✓		
Shipping Custody Seals Intact?		✓		
Shipping Documentation Present?		✓		
Airbill	Trk # 7209 7849 3170	✓		
Sample Container Intact?		✓		
Sample Custody Seals Intact?		✓		
Chain of Custody / Sample Documentation Present?		✓		
COC Anomaly/Sample Acceptance Form completed?			✓	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?				✓

$Na_2S_2O_3$ Preservation Documented?	COC	Sample Container	None		
Shipping Container	Vista	Client	Retain	Return	Dispose

Comments:

	date	time	
CAPA-10-6390	12/17/09	1312	A & B bottle
CAPA-10-6746	↓	↓	(2 liter)

Sample Login 3/2007 rmh

EXTRACTION INFORMATION

PROCESS SHEET

Project No.-AR: 32322-1 of 1

Prep Due: 1/7/2010

Hold Due: 1/16/2010

Client: Los Alamos National Laboratory(LOANM01F

Client Manager: Martha M. Maier

Method: EPA Method 8290 | PCDD/F (Tetra - Octa)

Project Due: 1/19/2010

TAT: 28

Split Type: 272S

Matrix: Aqueous

LabID	Recon	Client-ID	Description	Date Received	SLoc	Shelf
001	☐	CAPA-10-6390 "A"		12/22/2009	WR-2	C-6
002	☑	CAPA-10-6745		12/22/2009	WR-2	C-6
003	☑	CAPA-10-6746	no backup	12/22/2009	WR-2	C-6
004	☐	CAPA-10-6793 "A"		12/22/2009	WR-2	C-6

Instructions:

Report Options

Report Level:

EDD Type:

Report Group: Dioxins NoMDL

TEQ Type: EPA(Default) : Min

Samples Reconciled By: CJ 1/12/10

Vial Box ID: And Done!

Date Requested 1/5/2010

Percent Solids

Vista Analytical Laboratory

Project: 32322-1

Sample ID	Chemist/Date CJ 1/12/10		Chemist/Date CJ 1/13/10	Chemist/Date CJ 1/12/10		
	Boat Wt.	Sample + Boat Wt.	Residue + Boat Wt.	pH before	pH* after	Cl
1	1.33	10.92	1.33	6	N/A	0
2	1.31	11.47	1.31	5	↓	↓
3	1.31	9.84	1.31	6	↓	↓
4	1.31	12.67	1.31	6	↓	↓

Procedure:

- Tare the balance.
- Record Boat Weight.
- Add 2 - 10 g of sample.
- Record Wet Wt. + Boat Wt.
- Dry in oven overnight at 107°C.
- Tare the balance.
- Record Residue + Boat Wt.

Notes:

- *Methods 8280, 613, 1613, 8290, 1614 – pH <9*
- *Methods 1668/PCN – pH 2-3*
- *NCASI 551 – pH 1*

%Solids rmh 10/2009

Aqueous Sample Size Determination

Vista Analytical Laboratory

Project: 32322-1

	Chemist/Date	Chemist/Date	
	CJ 1/12/10	CJ 1/13/10	
Sample ID	**Container Weight (g)**		**Sample Wt (g)**
	Full	***Empty***	
1	1197.92	388.88	809.04
2	1288.97	389.68	899.29
3	1283.10	388.61	894.49
4	1274.42	388.87	885.55

Procedure:

- Tare the balance.
- Record weight of bottle/cap and sample.
- If all of the sample is used, drain overnight.
- Tare the balance.
- Record weight of empty bottle/cap.
- Enter Sample Weight in HALs and on the Extraction Sheet*.

* *Record in 'Liters', rounded to 3 decimal places; assumes density of 1 g/mL*

Notes:

AqWt 3/2007 rmh

Project: 32322

Extraction Set: 2725

Chemist: Christina Vreleve 1/12/10

Method(s): EPA Method 8290 | PCDD/F (Tetra - Octa)

C	ALTA Sample ID	G Eqv	Sample Amt. (L)	IS/NS CHEM/ WIT DATE	CRS CHEM/WIT DATE	AP CHEM/Date	ABSG CHEM/Date	AA CHEM/Date	Florisil CHEM/Date	RS CHEM/WIT DATE
☐	0_2725_MB001	N/A	(1.00)	CV FEB 1/12/10	CV 1/13/10	N/A	CV 1/13/10	CV 1/13/10	CV 1/13/10	CV 1/13/10
☐	0_2725_OPR001	↓	↓	↓	↓	↓	↓	↓	↓	↓
☐	32322_2725_001	↓	0.809	↓	↓	↓	↓	↓	↓	↓
☐	32322_2725_002	↓	0.899	↓	↓	↓	↓	↓	↓	↓
☐	32322_2725_003	↓	0.894	↓	↓	↓	↓	↓	↓	↓
☐	32322_2725_004 (A)	↓	0.886	↓	↓	↓	↓	↓	↓	↓

IS Name (✓20)	NS Name (✓18)	CRS Name (✓)	RS Name (✓2)	Cycle Time	APP.: SEFUN SOX (SDS)	Check Out:
PCDD/F 081104A 10µl	PCDD/F 090922A 10µl	PCDD/F 090922B 10µl	PCDD/F 090922C 10µl	1/12 Start: 1600	SOLV: toluene	Chemist: CV 1/12/10
PCB	PCB	PCB	PCB	1/13 Stop: 0915	Other: SPE	Check-In:
PAH	PAH	PAH	PAH		Final Volume(s): 20µl CV	Chemist: empty ✓

Comments:
(A) Lost ≈15% of sample during SPE due to faulty glassware.

SAMPLE DATA

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-4.qld

Last Altered: Wednesday, January 20, 2010 10:15:45 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 10:16:50 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

	# Name	Resp	RA	IsVal	RF	w/wo	RT	RR	Conc	%Rec	DL	EDL
1	2,3,7,8-TCDD			NO	0.965	1.000					0.525	
2	1,2,3,7,8-PeCDD			NO	0.869	1.000					1.19	
3	1,2,3,4,7,8-HxCDD			NO	0.873	1.000					1.33	
4	1,2,3,6,7,8-HxCDD			NO	0.940	1.000					1.40	
5	1,2,3,7,8,9-HxCDD			NO	0.882	1.000					1.35	
6	1,2,3,4,6,7,8-HpCDD	8.41e2	1.01	NO	0.965	1.000	37.92	1.000	3.5134		2.22	3.5134
7	OCDD	6.65e3	0.88	NO	1.05	1.000	41.26	1.001	29.846		3.70	~~29.846~~
8	2,3,7,8-TCDF			NO	0.952	1.000					0.368	
9	1,2,3,7,8-PeCDF			NO	0.994	1.000					0.559	
10	2,3,4,7,8-PeCDF			NO	0.977	1.000					0.503	
11	1,2,3,4,7,8-HxCDF			NO	1.31	1.000					0.606	
12	1,2,3,6,7,8-HxCDF			NO	1.15	1.000					0.678	
13	2,3,4,6,7,8-HxCDF			NO	1.20	1.000					0.775	
14	1,2,3,7,8,9-HxCDF			NO	1.20	1.000					1.05	
15	1,2,3,4,6,7,8-HpCDF			NO	1.49	1.000					1.28	
16	1,2,3,4,7,8,9-HpCDF			NO	1.44	1.000					1.25	
17	OCDF	9.18e2	1.09	YES	1.02	1.000	41.51	1.001	~~3.3669~~		1.59	3.0502
18	13C-2,3,7,8-TCDD	1.02e6	0.78	NO	1.02	1.000	26.03	1.022	1718.0	85.9	1.93	
19	13C-1,2,3,7,8-PeCDD	7.68e5	0.62	NO	0.806	1.000	30.60	1.202	1650.1	82.5	2.67	
20	13C-1,2,3,4,7,8-HxCDD	6.36e5	1.24	NO	1.07	1.000	33.98	1.014	1433.7	71.7	2.90	
21	13C-1,2,3,6,7,8-HxCDD	5.97e5	1.23	NO	0.968	1.000	34.09	1.018	1493.4	74.7	3.22	
22	13C-1,2,3,7,8,9-HxCDD	6.64e5	1.23	NO	1.13	1.000	34.39	1.027	1415.6	70.8	2.74	
23	13C-1,2,3,4,6,7,8-HpCDD	4.96e5	1.05	NO	0.888	1.000	37.91	1.132	1350.8	67.5	4.47	
24	13C-OCDD	8.52e5	0.91	NO	0.783	1.000	41.22	1.231	2632.9	65.8	3.75	
25	13C-2,3,7,8-TCDF	1.24e6	0.77	NO	1.03	1.000	25.25	0.992	1618.8	80.9	2.91	
26	13C-1,2,3,7,8-PeCDF	1.02e6	1.54	NO	0.880	1.000	29.41	1.155	1563.6	78.2	5.57	
27	13C-2,3,4,7,8-PeCDF	1.09e6	1.53	NO	0.867	1.000	30.33	1.191	1685.3	84.3	5.65	
28	13C-1,2,3,4,7,8-HxCDF	7.65e5	0.52	NO	1.19	1.000	33.08	0.988	1559.5	78.0	4.11	
29	13C-1,2,3,6,7,8-HxCDF	8.58e5	0.52	NO	1.30	1.000	33.20	0.991	1594.4	79.7	3.75	
30	13C-2,3,4,6,7,8-HxCDF	7.20e5	0.52	NO	1.16	1.000	33.81	1.009	1498.5	74.9	4.20	

1/20/10

1/20/10

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-4.qld

Last Altered: Wednesday, January 20, 2010 10:15:45 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 10:16:50 AM Pacific Standard Time

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

	Name	Resp.			RRF		RT	RRT		%Rec.		
31	31 13C-1,2,3,7,8,9-HxCDF	6.36e5	0.52	NO	1.03	1.000	34.78	1.038	1499.7	75.0	4.76	
32	32 13C-1,2,3,4,6,7,8-HpCDF	5.25e5	0.45	NO	0.909	1.000	36.63	1.093	1399.1	70.0	5.21	
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.59e5	0.44	NO	0.830	1.000	38.47	1.148	1337.7	66.9	5.71	
34	34 13C-OCDF	1.07e6	0.89	NO	0.982	1.000	41.45	1.237	2633.3	65.8	2.95	
35	35 37Cl-2,3,7,8-TCDD	2.49e5			0.602	1.000	26.05	1.023	716.63	89.6	0.869	
36	36 13C-1,2,3,4-TCDD	1.16e6	0.79	NO	1.00	1.000	25.46	0.000	2000.0	100	1.98	
37	37 13C-1,2,3,4-TCDF	1.49e6	0.77	NO	1.00	1.000	24.04	0.000	2000.0	100	2.99	
38	38 13C-1,2,3,4,6,9-HxCDF	8.26e5	0.52	NO	1.00	1.000	33.50	0.000	2000.0	100	4.88	
39	39 Total Tetra-Dioxins				0.965	1.000					0.223	
40	40 Total Penta-Dioxins				0.869	1.000					0.489	
41	41 Total Hexa-Dioxins				0.940	1.000					0.772	
42	42 Total Hepta-Dioxins				0.965	1.000			3.5134		2.22	~~3.5134~~
43	43 Total Tetra-Furans				0.952	1.000					0.164	
44	44 1st Func. Penta-Furans				0.994	1.000					0.173	
45	45 Total Penta-Furans				0.994	1.000					0.264	
46	46 Total Hexa-Furans				1.20	1.000					0.420	
47	47 Total Hepta-Furans				1.49	1.000					0.668	

Quantify Totals Report MassLynx 4.1
Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-4.qld

Last Altered: Wednesday, January 20, 2010 10:15:45 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 10:16:50 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

Tetra-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IW	Resp	Conc	EMPC	DL

Penta-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IW	Resp	Conc	EMPC	DL

Hexa-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IW	Resp	Conc	EMPC	DL

Hepta-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IW	Resp	Conc	EMPC	DL
1,2,3,4,6,7,8-HpCDD	37.92	5.936e3	1.045e4	4.226e2	4.183e2	1.01	NO	8.409e2	3.5134	3.5134	2.22

Tetra-Furans

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IW	Resp	Conc	EMPC	DL

Penta-Furans function 1

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IW	Resp	Conc	EMPC	DL

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-4.qld

Last Altered: Wednesday, January 20, 2010 10:15:45 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 10:16:50 AM Pacific Standard Time

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

Penta-Furans

	Name			RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IV	Resp	Conc	EMPC	DL

Hexa-Furans

	Name			RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IV	Resp	Conc	EMPC	DL

Hepta-Furans

	Name			RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IV	Resp	Conc	EMPC	DL

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:43:11 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:43:25 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

2,3,7,8-TCDD

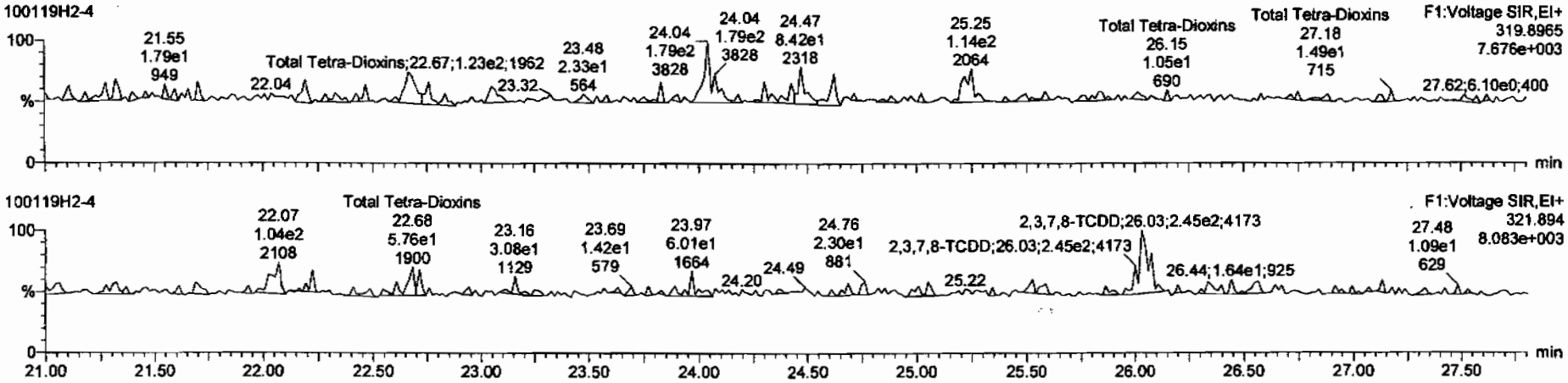

13C-2,3,7,8-TCDD

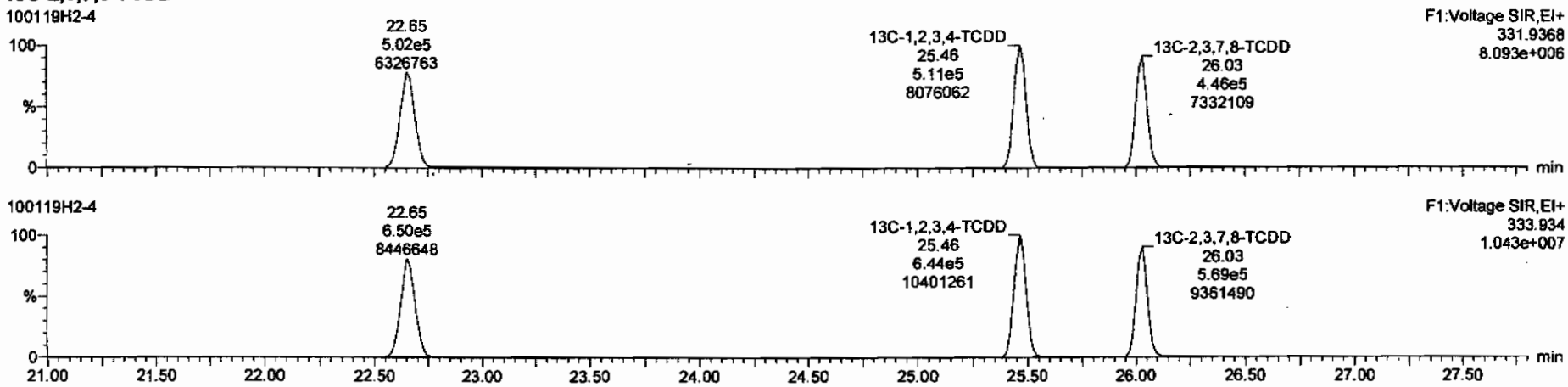

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Last Altered: Wednesday, January 20, 2010 8:43:11 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:43:25 AM Pacific Standard Time

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

37Cl-2,3,7,8-TCDD

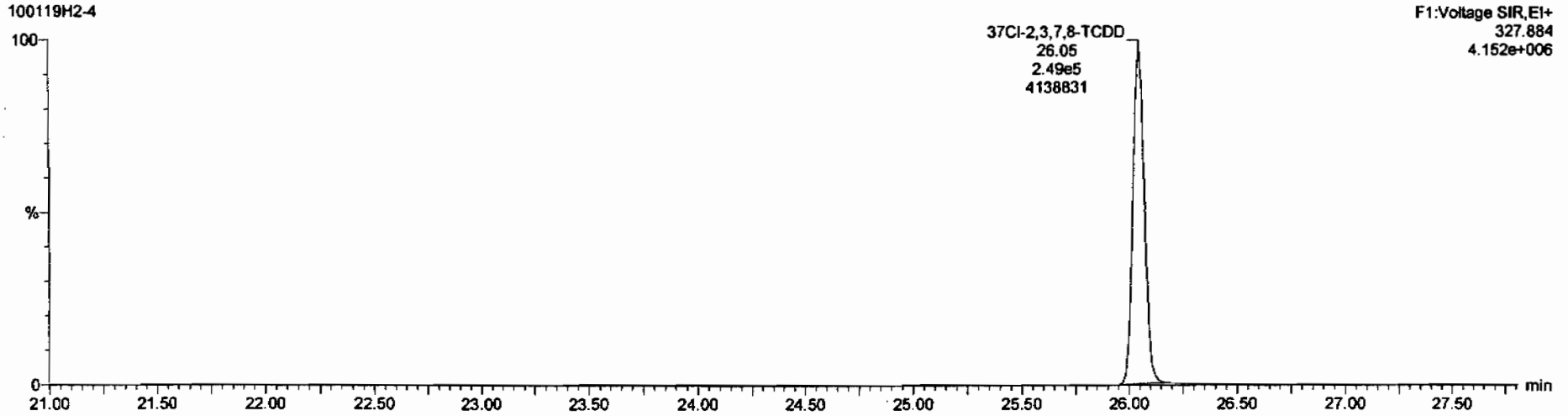

13C-1,2,3,4-TCDD

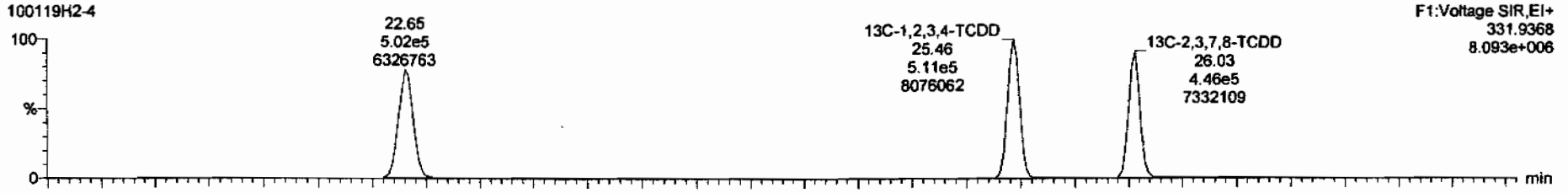

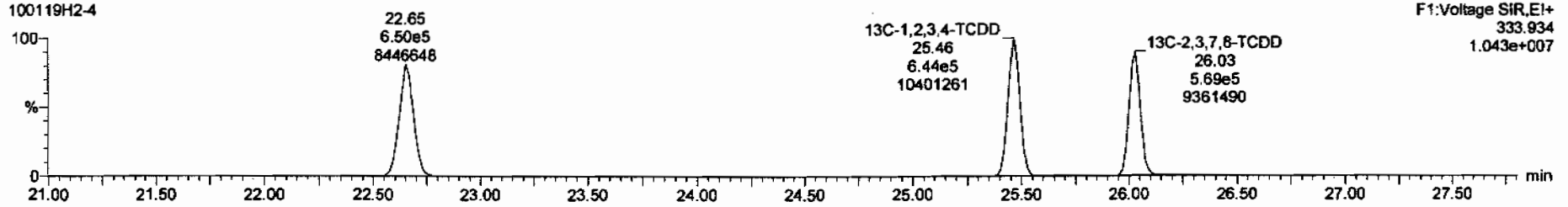

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:43:11 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:43:25 AM Pacific Standard Time

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

1,2,3,7,8-PeCDD

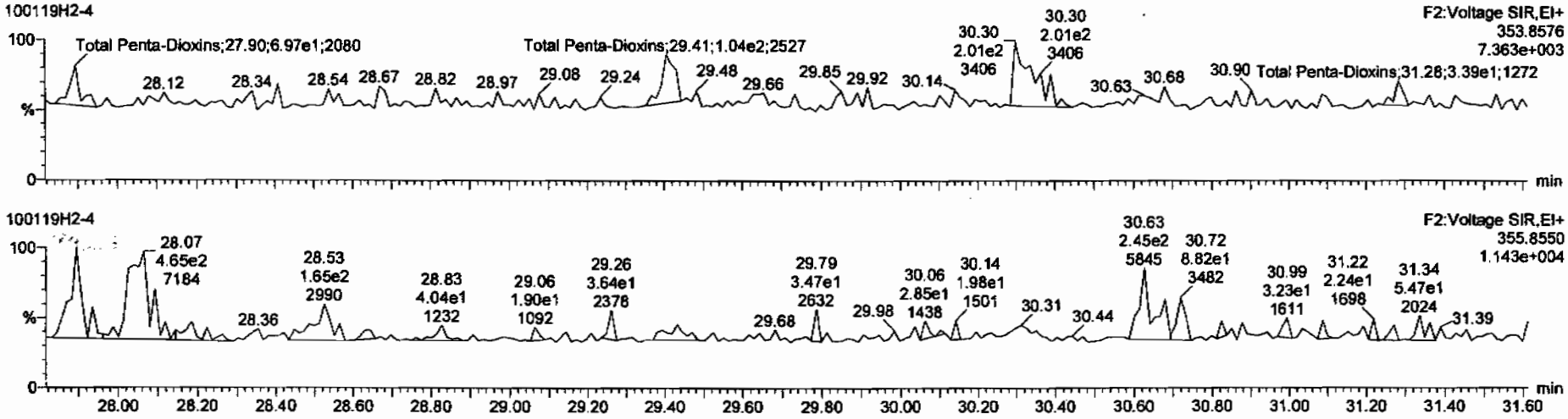

13C-1,2,3,7,8-PeCDD

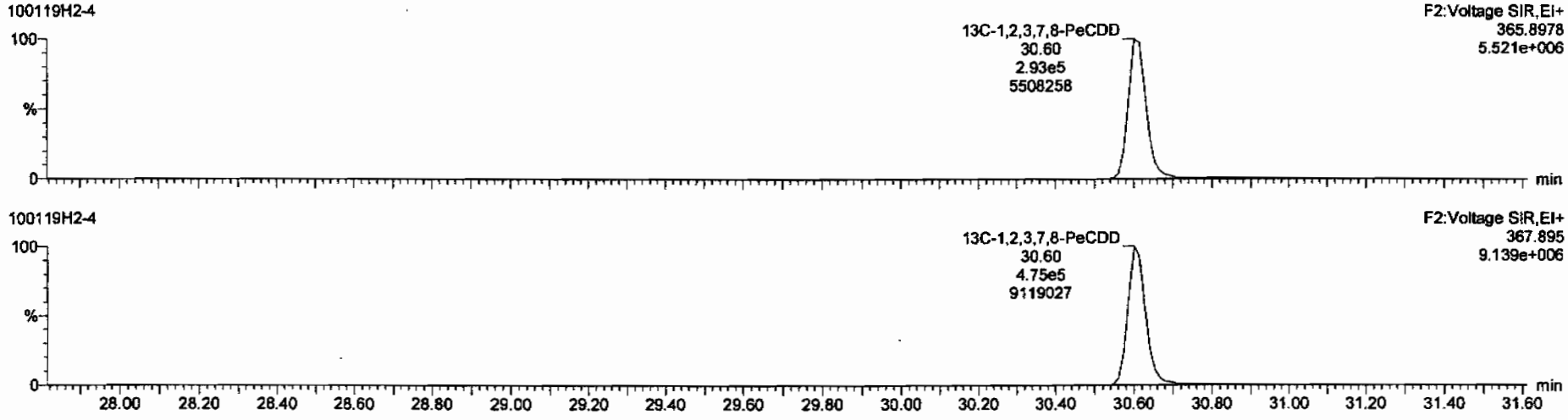

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:43:11 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:43:25 AM Pacific Standard Time

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

1,2,3,4,7,8-HxCDD

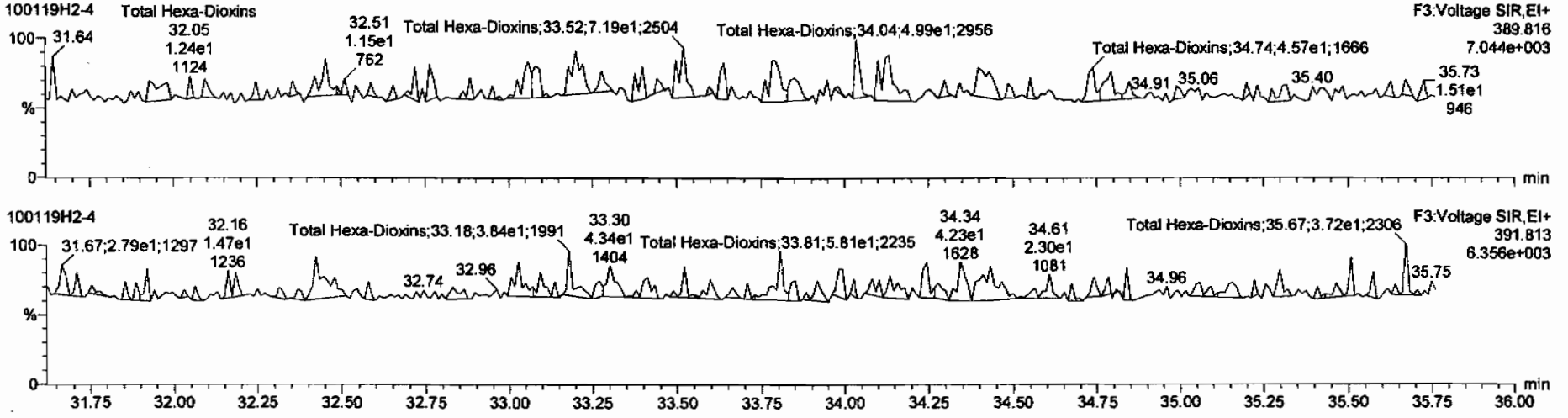

13C-1,2,3,4,7,8-HxCDD

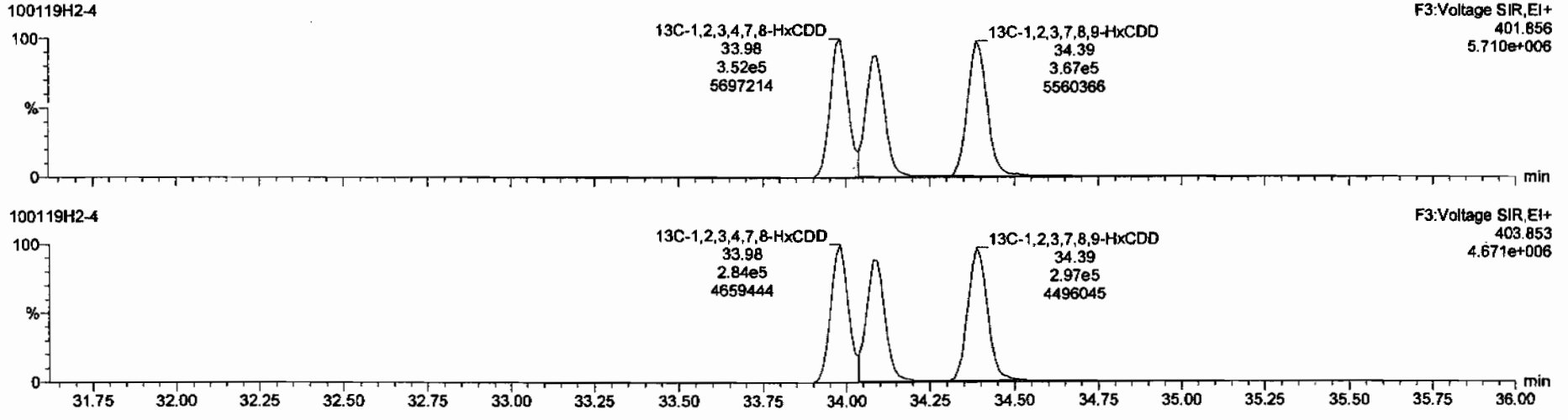

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:43:11 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:43:25 AM Pacific Standard Time

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

1,2,3,4,6,7,8-HpCDD

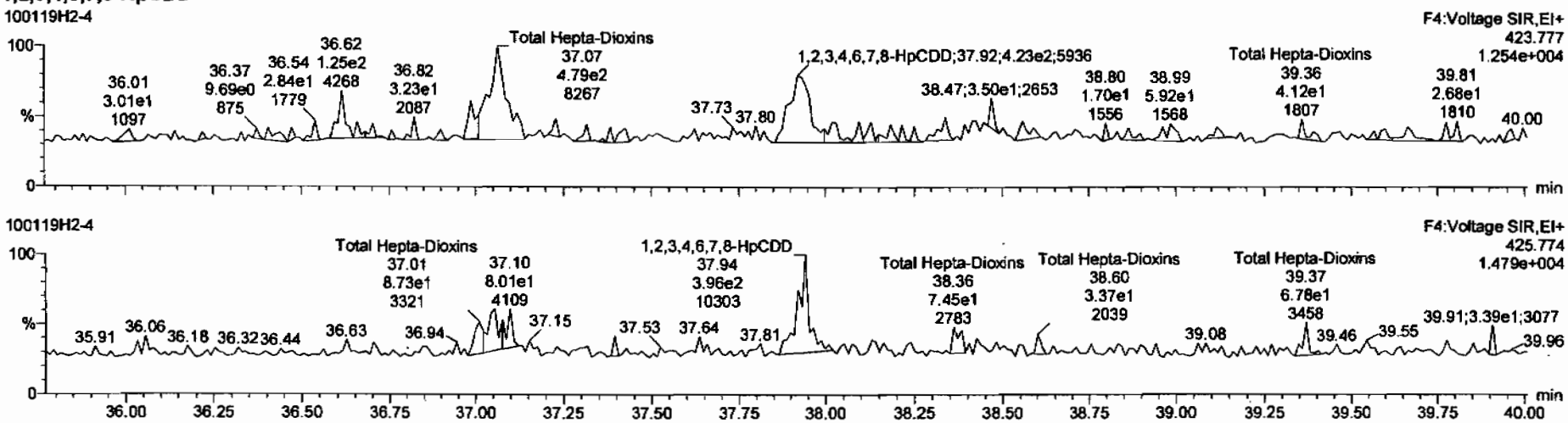

13C-1,2,3,4,6,7,8-HpCDD

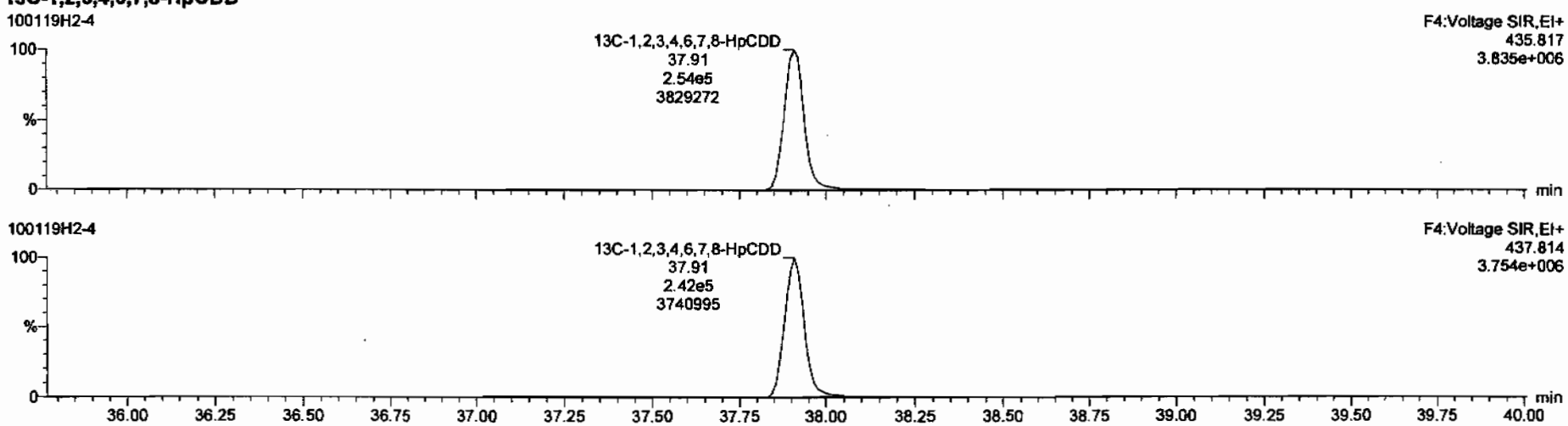

TargetLynx - 100119H2-4.qld * - [Chromatogram]

File Edit View Display Processing Window Help

100119H2-4 - 0_2725_MB001 - 0_2725_MB001

	Name	Resp	RA	ION	RRF	WAQ	S/N	RRT	Conc	%Rec	DL	% EMPC
39	Total Tetra-Dioxins				0.97	1.000					0.223	
40	Total Penta-Dioxins				0.87	1.000					0.469	
41	Total Hexa-Dioxins				0.94	1.000					0.772	
42												
43	Total Tetra-Furans				0.95	1.000			0.135		0.368	1.60
44	1st Func. Penta-Furans				0.99	1.000			0.204		0.361	2.52
45	Total Penta-Furans				0.99	1.000			0.352		0.526	1.41
46	Total Hexa-Furans				1.20	1.000			0.616		0.769	1.71

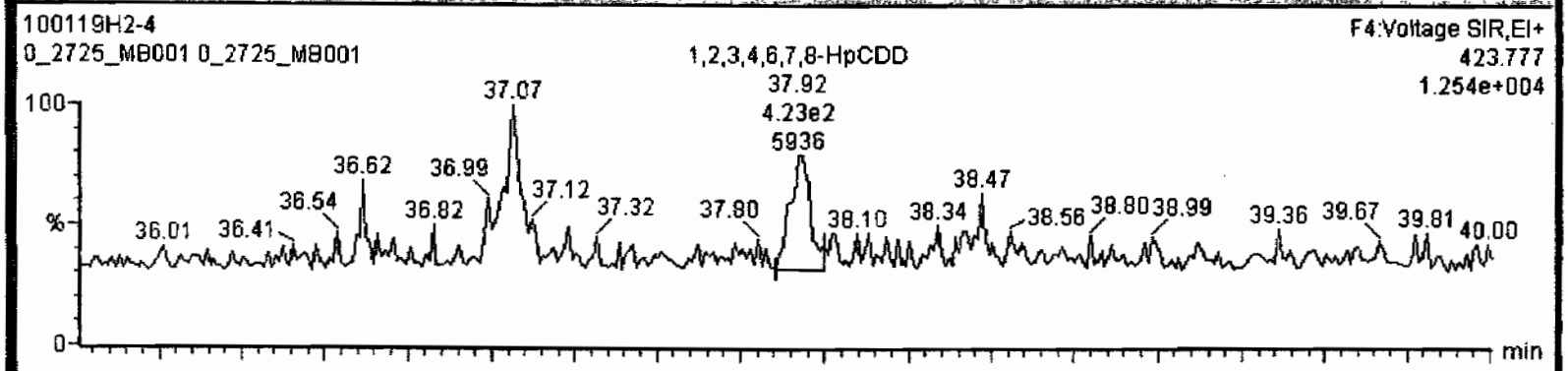

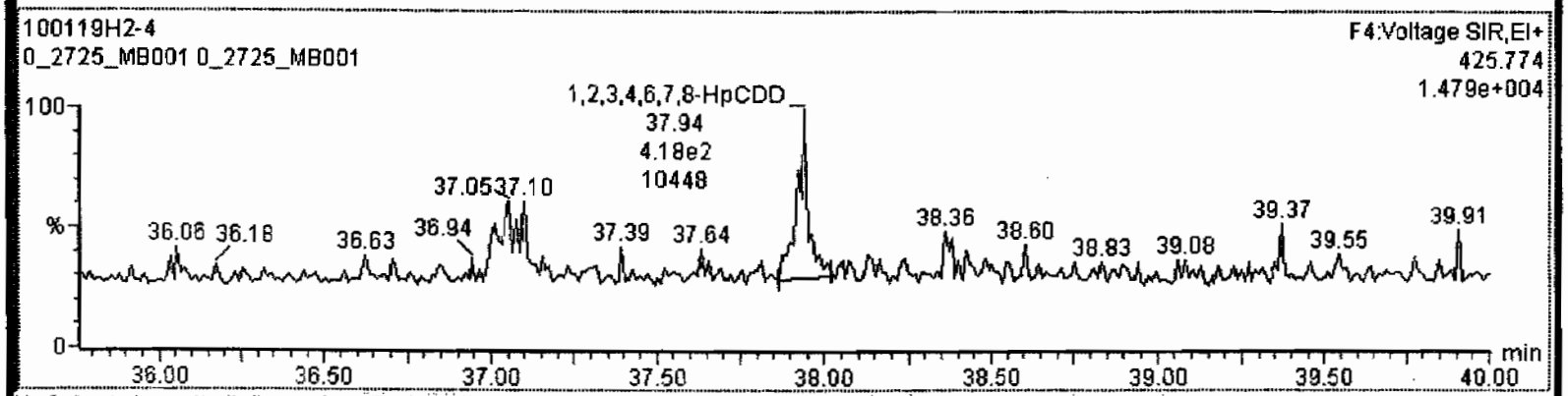

Ready 100119H2-4 NUM

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:43:11 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:43:25 AM Pacific Standard Time

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

OCDD

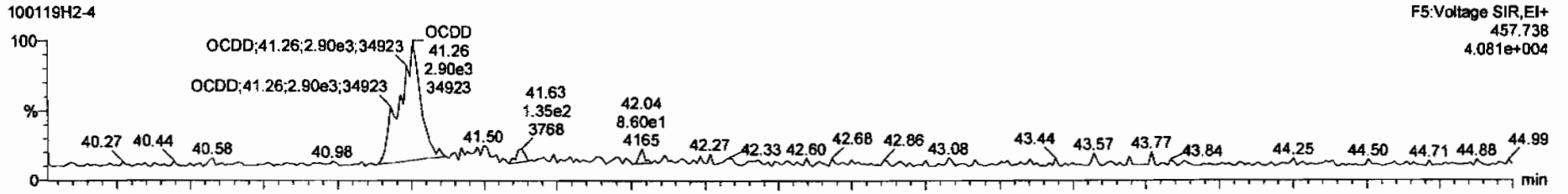

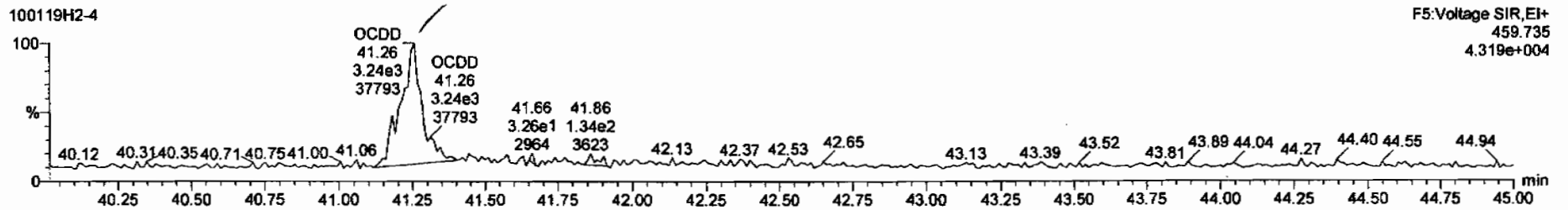

13C-OCDD

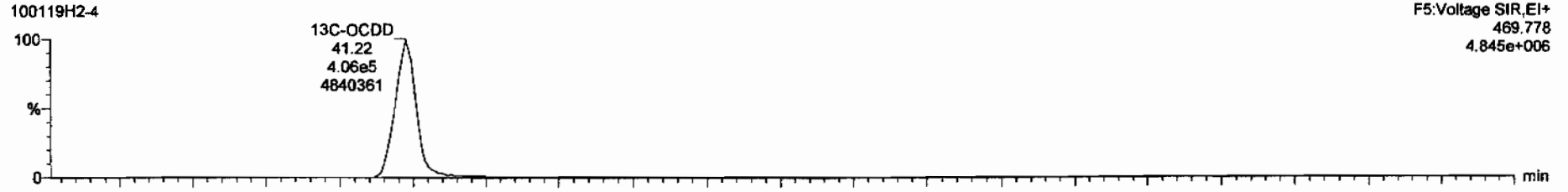

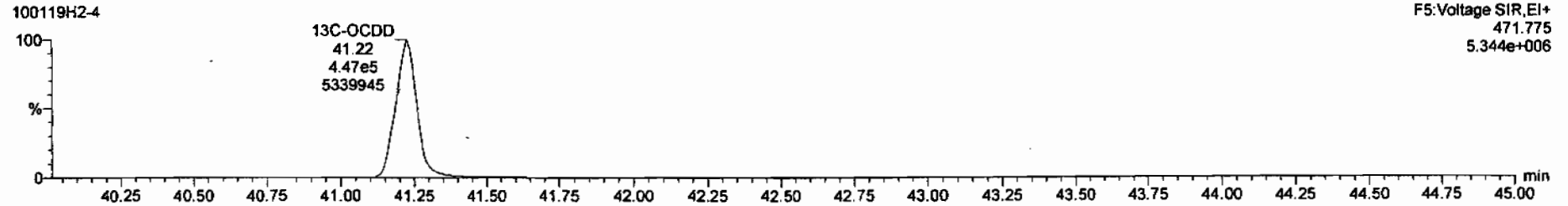

TargetLynx - 100119H2-4.qld * - [Chromatogram]

File Edit View Display Processing Window Help

100119H2-4 - 0_2725_MB001 - 0_2725_MB001

	Name	Resp	DA	IV	RRF	wtAvg	RT	RRT	Conc	%Rec	DL	EMPC
6	1,2,3,4,6,7,8-HpCDD	8.41e2	1.01	NO	0.97	1.000	37.92	1.000	3.51		2.22	3.51
7	OCDD											
8	2,3,7,8-TCDF			NO	0.95	1.000					0.368	
9	1,2,3,7,8-PeCDF			NO	0.99	1.000					0.559	
10	2,3,4,7,8-PeCDF			NO	0.98	1.000					0.503	
11	1,2,3,4,7,8-HxCDF			NO	1.31	1.000					0.606	
12	1,2,3,6,7,8-HxCDF			NO	1.15	1.000					0.678	
13	2,3,4,6,7,8-HxCDF			NO	1.20	1.000					0.775	

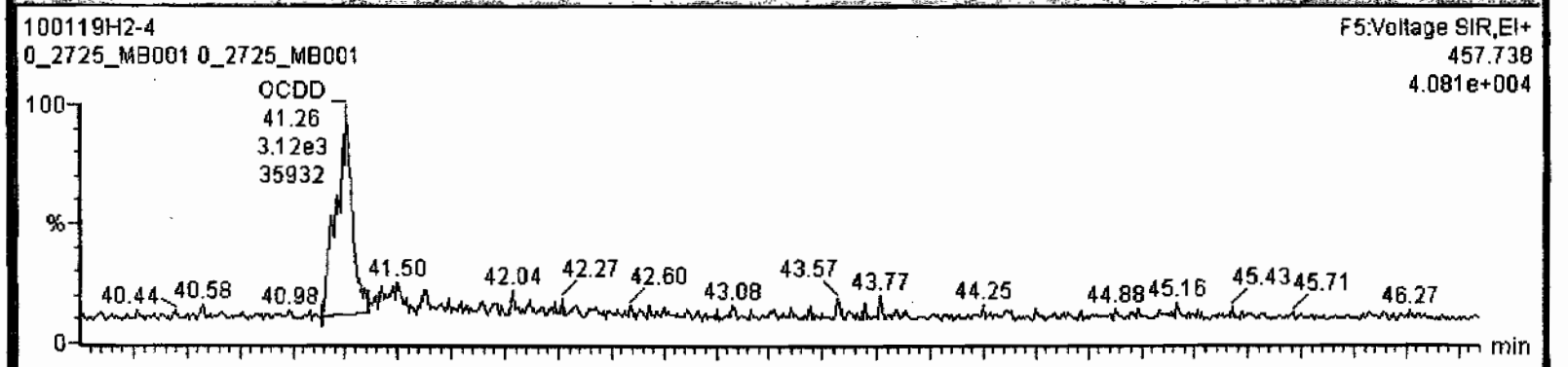

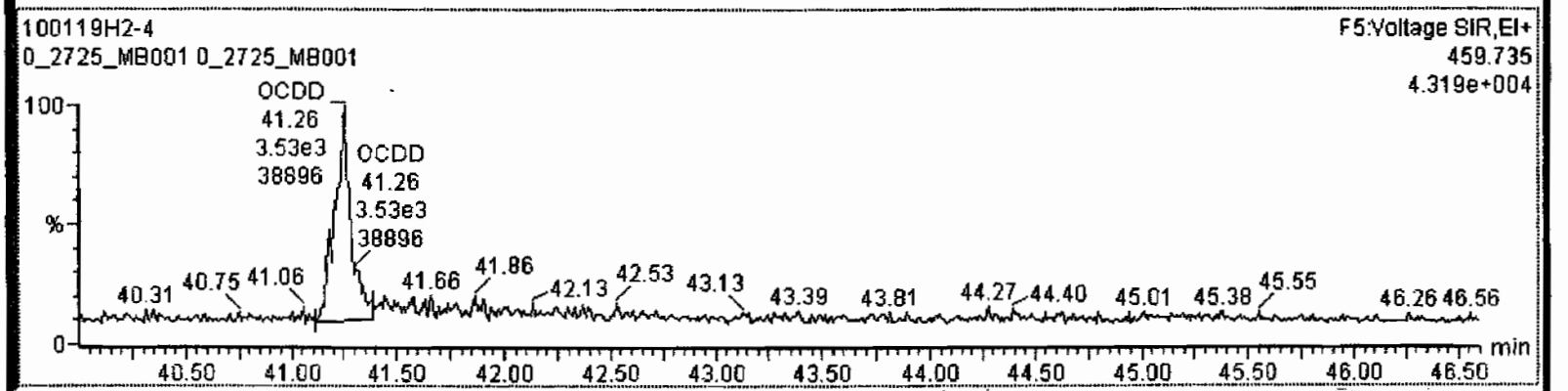

Ready 100119H2-4 NUM

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:43:11 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:43:25 AM Pacific Standard Time

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

2,3,7,8-TCDF

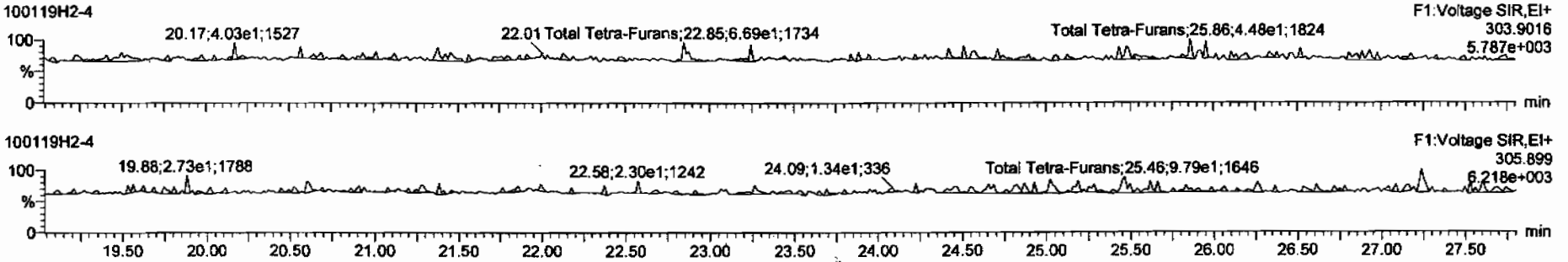

13C-2,3,7,8-TCDF

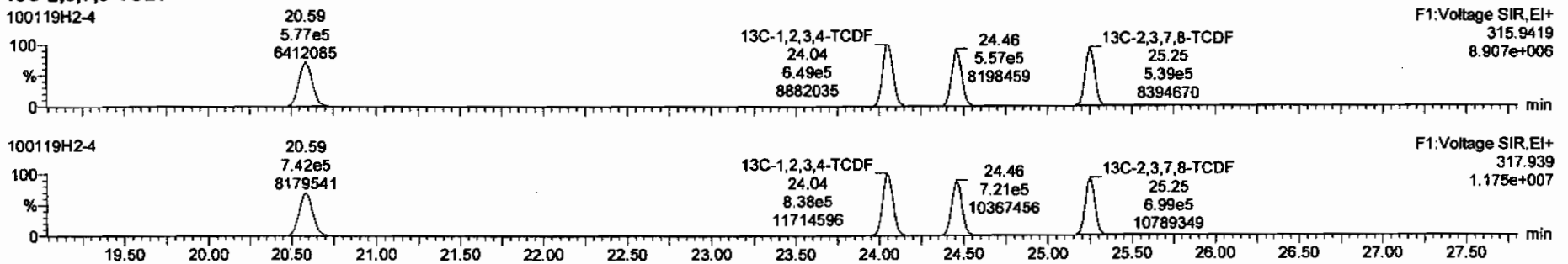

DPE1

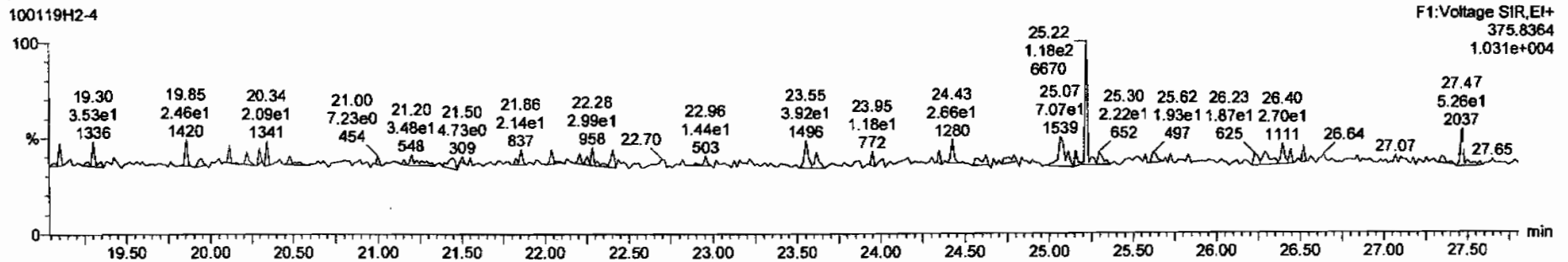

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:43:11 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:43:25 AM Pacific Standard Time

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

1st Func. Penta-Furans

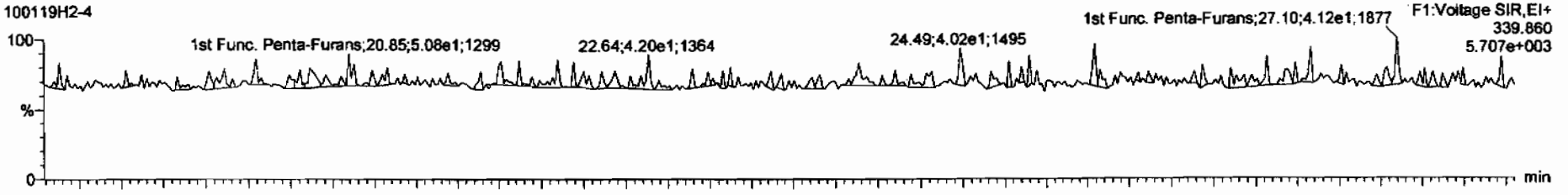

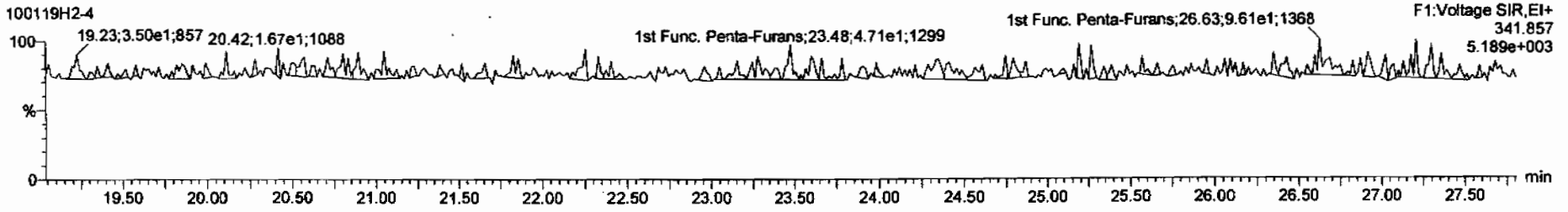

DPE6

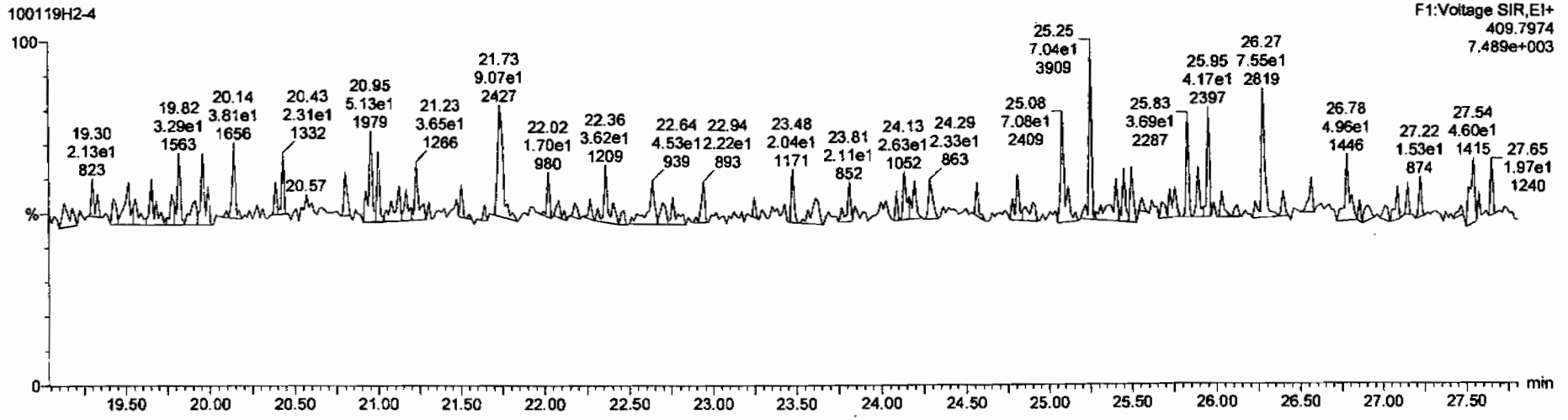

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:43:11 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:43:25 AM Pacific Standard Time

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

1,2,3,7,8-PeCDF

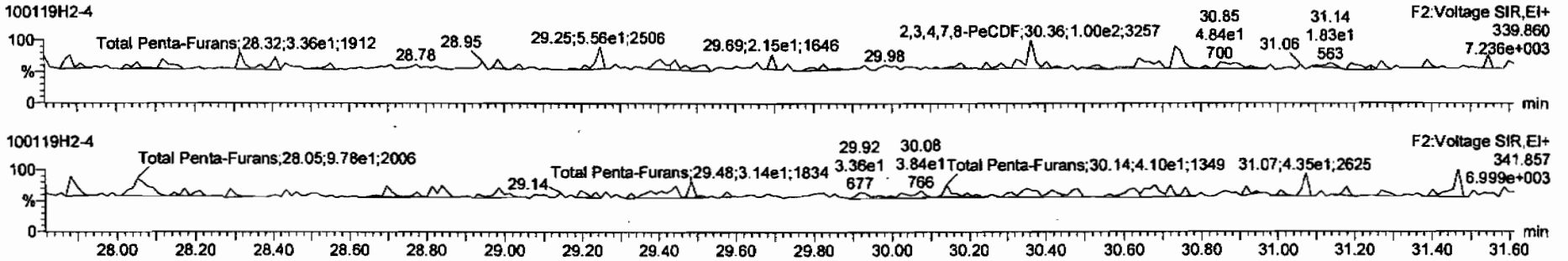

13C-1,2,3,7,8-PeCDF

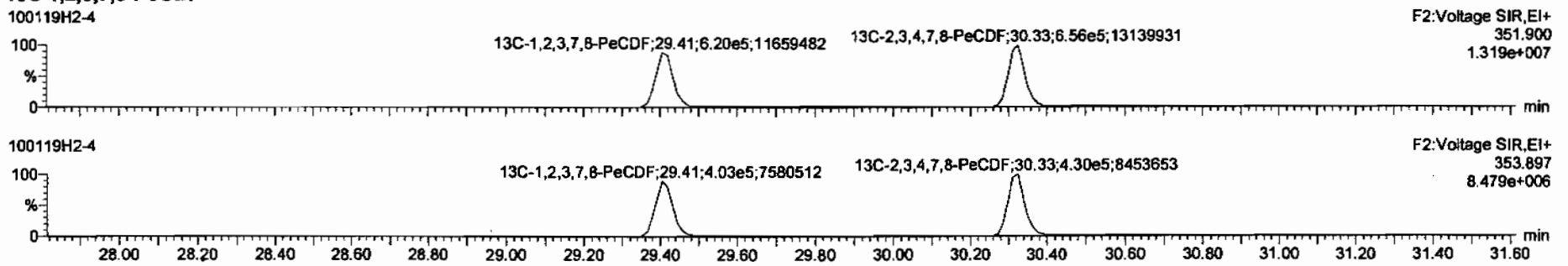

DPE2

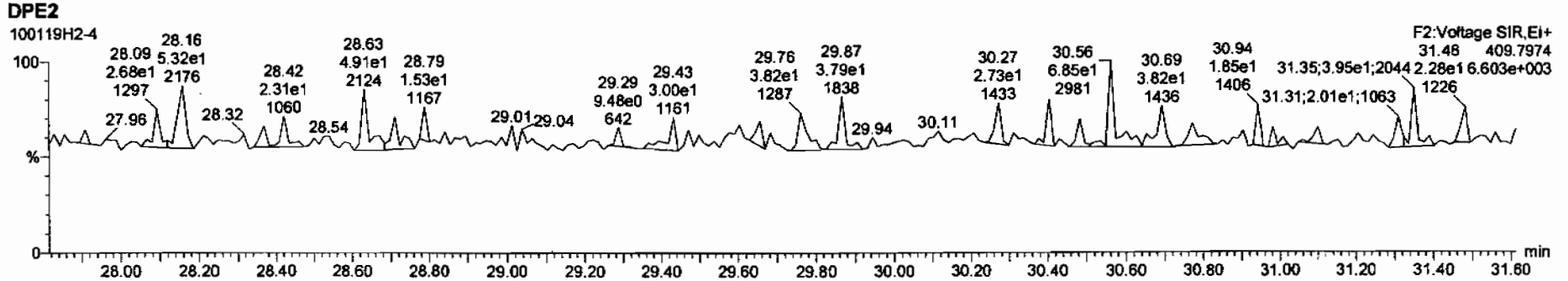

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:43:11 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:43:25 AM Pacific Standard Time

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

1,2,3,4,7,8-HxCDF

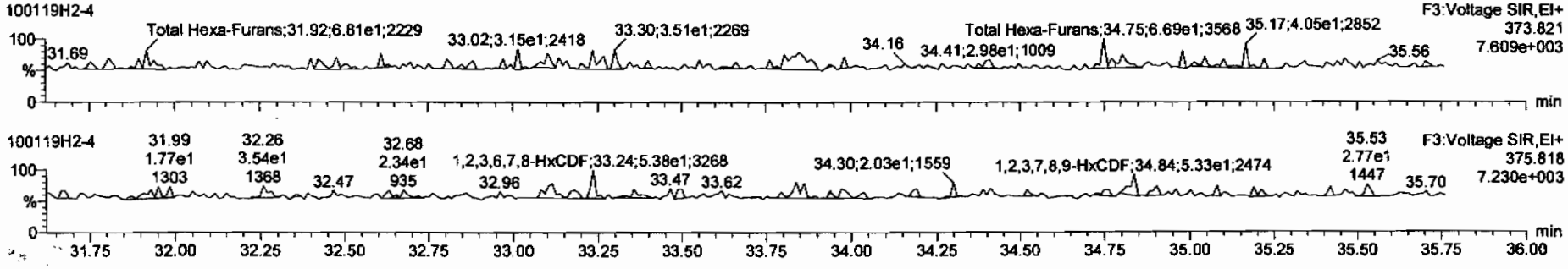

13C-1,2,3,4,7,8-HxCDF

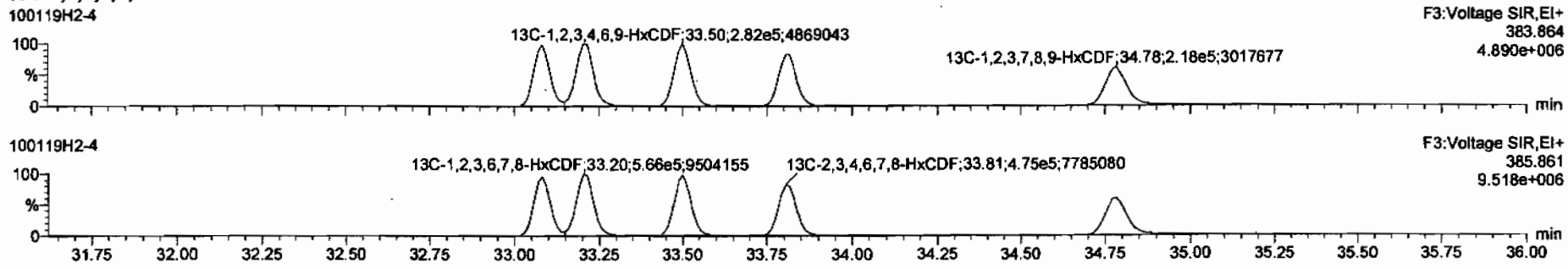

DPE3

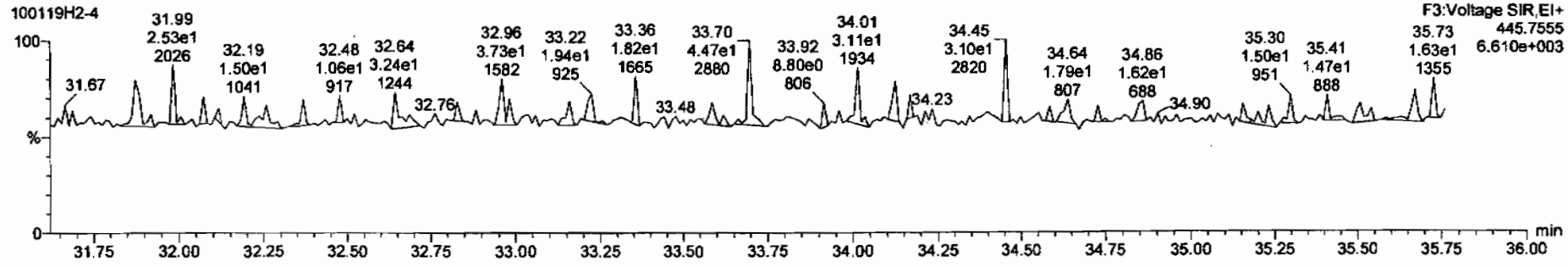

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:43:11 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:43:25 AM Pacific Standard Time

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

1,2,3,4,6,7,8-HpCDF

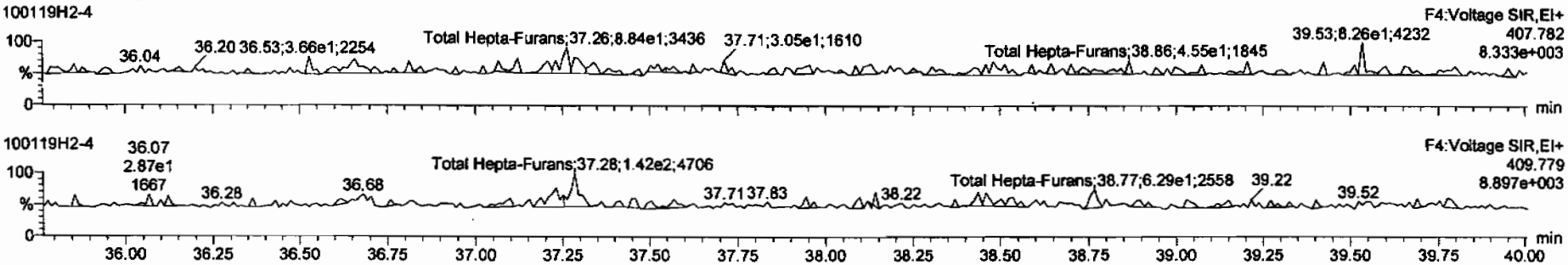

13C-1,2,3,4,6,7,8-HpCDF

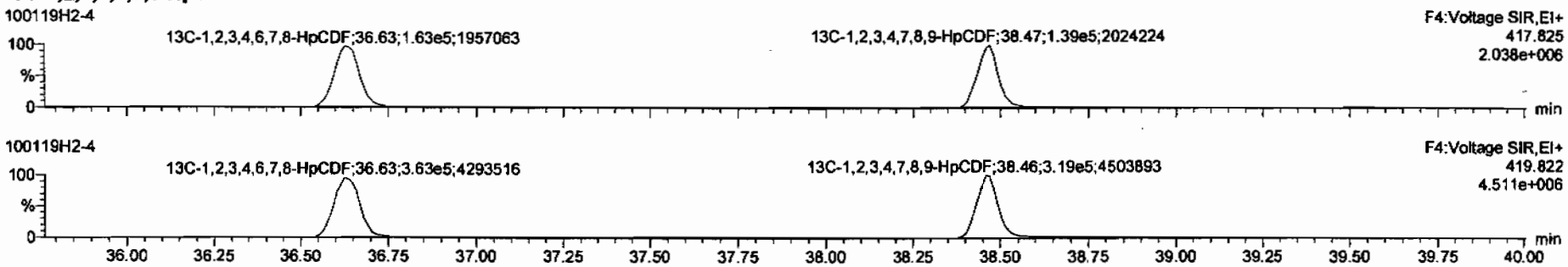

DPE4

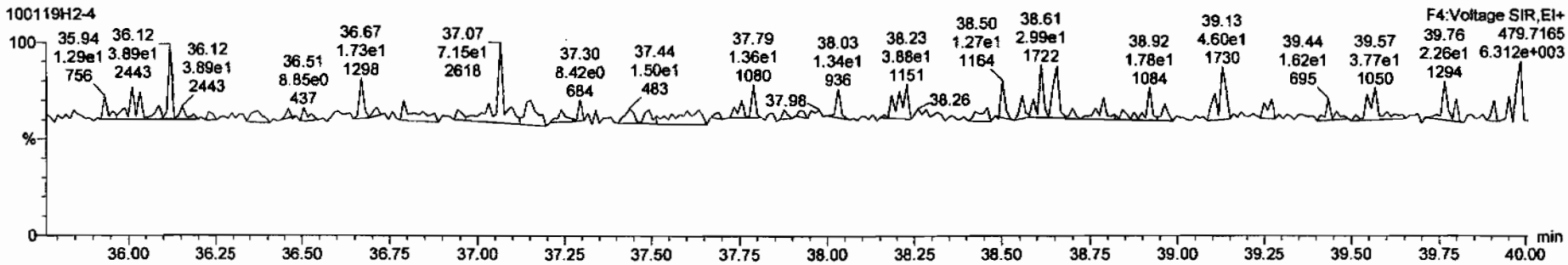

Dataset: Untitled

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Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

OCDF

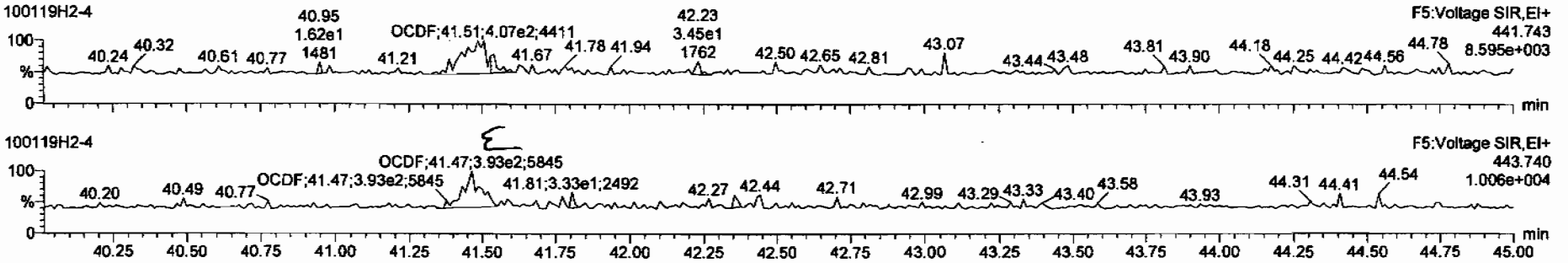

13C-OCDF

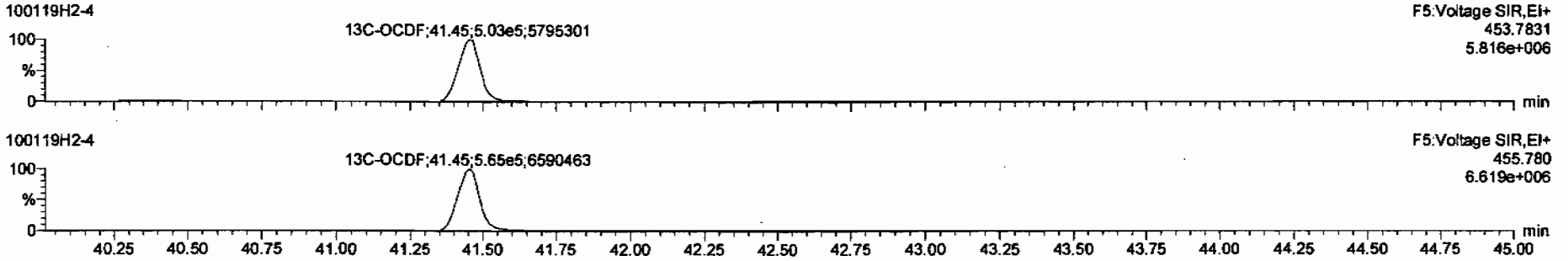

DPE5

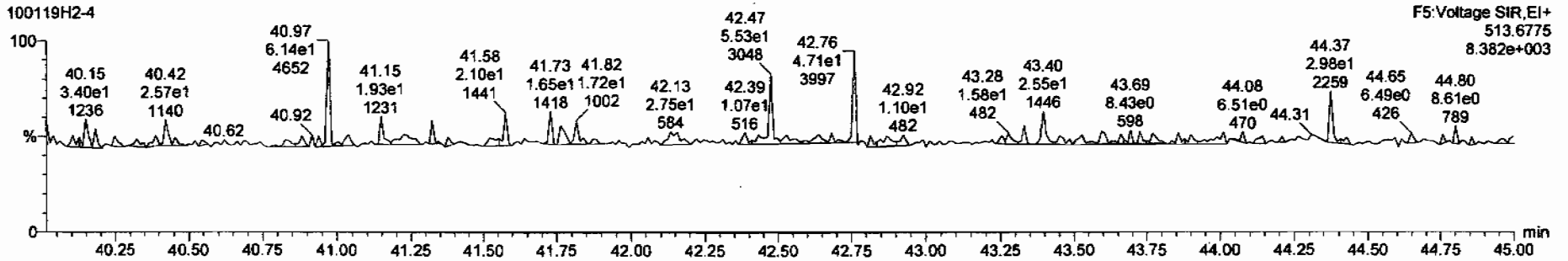

TargetLynx - 100119H2-4.qld * - [Chromatogram]

File Edit View Display Processing Window Help

100119H2-4 - 0_2725_MB001 - 0_2725_MB001

	Name	Resp	RA	Int	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
16	1,2,3,4,7,8,9-HpCDF			NO	1.44	1.000					1.25	
17	OCDF											
18	13C-2,3,7,8-TCDD	1.02e6	0.78	NO	1.02	1.000	26.03	1.022	1720	85.9	1.93	
19	13C-1,2,3,7,8-PeCDD	7.68e5	0.62	NO	0.81	1.000	30.60	1.202	1650	82.5	2.67	
20	13C-1,2,3,4,7,8-HxCDD	6.36e5	1.24	NO	1.07	1.000	33.98	1.014	1430	71.7	2.90	
21	13C-1,2,3,6,7,8-HxCDD	5.97e5	1.23	NO	0.97	1.000	34.09	1.018	1490	74.7	3.22	
22	13C-1,2,3,7,8,9-HxCDD	6.64e5	1.23	NO	1.13	1.000	34.39	1.027	1420	70.8	2.74	
23	13C-1,2,3,4,6,7,8-HpCDD	4.96e5	1.05	NO	0.89	1.000	37.91	1.132	1350	67.5	4.47	

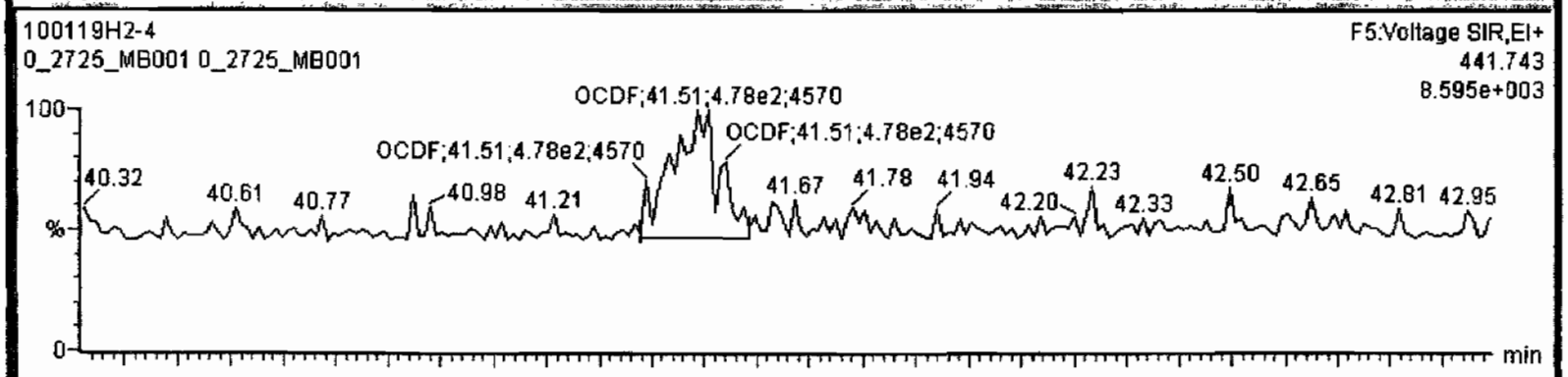

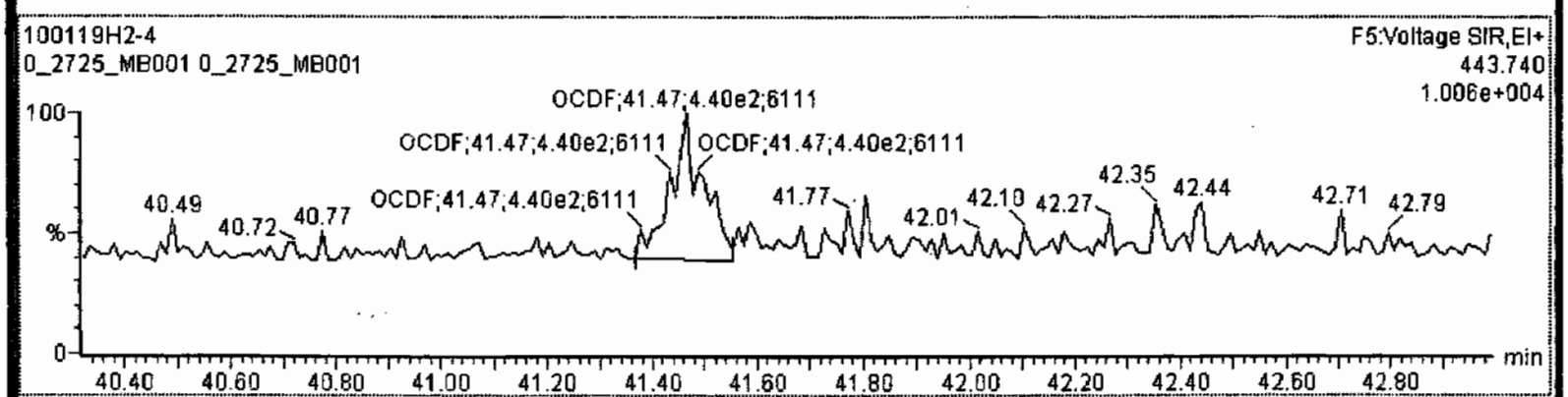

Ready 100119H2-4 NUM

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:43:11 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:43:25 AM Pacific Standard Time

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

PFK1

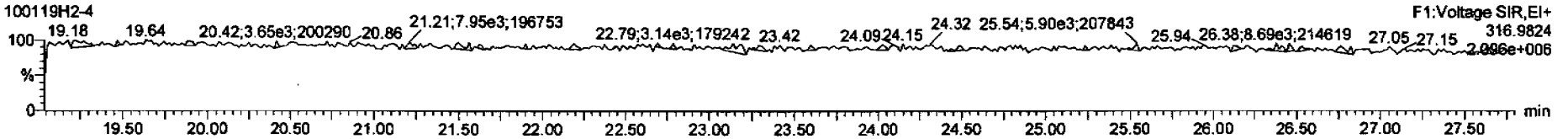

PFK2

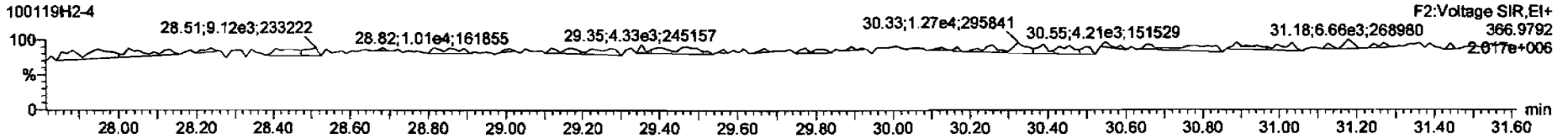

PFK3

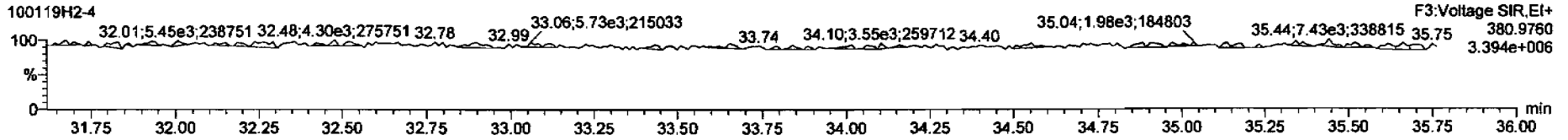

PFK4

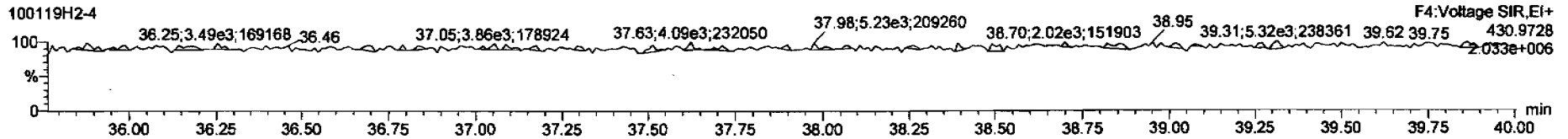

PFK5

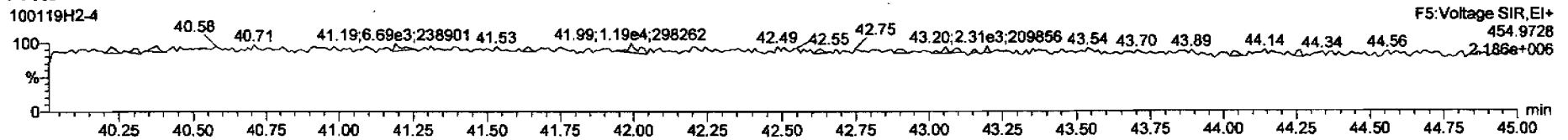

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-2.qld

Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:40:10 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

	# Name	Resp.	RA	IA	RRF	Avg	RT	RRT	Conc.	%Rec	DL	EMPC
1	2,3,7,8-TCDD	9.59e4	0.75	NO	0.965	1.000	26.05	1.001	9.8840	98.8	0.0321	9.8840
2	1,2,3,7,8-PeCDD	3.32e5	0.61	NO	0.869	1.000	30.61	1.000	50.900	102	0.0869	50.900
3	1,2,3,4,7,8-HxCDD	2.66e5	1.24	NO	0.873	1.000	33.98	1.000	49.391	98.8	0.170	49.391
4	1,2,3,6,7,8-HxCDD	2.64e5	1.25	NO	0.940	1.000	34.09	1.000	50.734	101	0.186	50.734
5	1,2,3,7,8,9-HxCDD	2.78e5	1.23	NO	0.882	1.000	34.40	1.001	50.246	100	0.185	50.246
6	1,2,3,4,6,7,8-HpCDD	2.23e5	1.04	NO	0.965	1.000	37.91	1.000	48.995	98.0	0.179	48.995
7	OCDD	4.24e5	0.89	NO	1.05	1.000	41.24	1.001	99.154	99.2	0.298	99.154
8	2,3,7,8-TCDF	1.15e5	0.77	NO	0.952	1.000	25.27	1.001	9.6753	96.8	0.0266	9.6753
9	1,2,3,7,8-PeCDF	4.65e5	1.58	NO	0.994	1.000	29.42	1.000	46.781	93.6	0.0842	46.781
10	2,3,4,7,8-PeCDF	4.80e5	1.57	NO	0.977	1.000	30.33	1.000	46.576	93.2	0.0767	46.576
11	1,2,3,4,7,8-HxCDF	4.46e5	1.25	NO	1.31	1.000	33.08	1.000	46.649	93.3	0.111	46.649
12	1,2,3,6,7,8-HxCDF	4.36e5	1.27	NO	1.15	1.000	33.21	1.000	47.361	94.7	0.128	47.361
13	2,3,4,6,7,8-HxCDF	3.87e5	1.26	NO	1.20	1.000	33.82	1.001	46.814	93.6	0.146	46.814
14	1,2,3,7,8,9-HxCDF	3.37e5	1.30	NO	1.20	1.000	34.78	1.000	47.082	94.2	0.203	47.082
15	1,2,3,4,6,7,8-HpCDF	3.46e5	1.05	NO	1.49	1.000	36.64	1.001	46.724	93.4	0.214	46.724
16	1,2,3,4,7,8,9-HpCDF	2.95e5	1.04	NO	1.44	1.000	38.47	1.000	46.297	92.6	0.225	46.297
17	OCDF	5.05e5	0.92	NO	1.02	1.000	41.47	1.001	93.361	93.4	0.207	93.361
18	13C-2,3,7,8-TCDD	1.01e6	0.77	NO	1.02	1.000	26.02	1.022	92.402	92.4	0.125	
19	13C-1,2,3,7,8-PeCDD	7.50e5	0.63	NO	0.806	1.000	30.60	1.202	87.553	87.6	0.171	
20	13C-1,2,3,4,7,8-HxCDD	6.18e5	1.25	NO	1.07	1.000	33.97	1.014	75.448	75.4	0.210	
21	13C-1,2,3,6,7,8-HxCDD	5.55e5	1.24	NO	0.968	1.000	34.08	1.018	75.184	75.2	0.234	
22	13C-1,2,3,7,8,9-HxCDD	6.27e5	1.23	NO	1.13	1.000	34.38	1.027	72.489	72.5	0.199	
23	13C-1,2,3,4,6,7,8-HpCDD	4.72e5	1.05	NO	0.888	1.000	37.90	1.132	69.674	69.7	0.211	
24	13C-OCDD	8.18e5	0.88	NO	0.783	1.000	41.21	1.231	136.91	68.5	0.234	
25	13C-2,3,7,8-TCDF	1.25e6	0.76	NO	1.03	1.000	25.24	0.991	86.561	86.6	0.142	
26	13C-1,2,3,7,8-PeCDF	1.00e6	1.55	NO	0.880	1.000	29.41	1.155	81.168	81.2	0.230	
27	13C-2,3,4,7,8-PeCDF	1.05e6	1.56	NO	0.867	1.000	30.31	1.190	86.830	86.8	0.233	
28	13C-1,2,3,4,7,8-HxCDF	7.31e5	0.51	NO	1.19	1.000	33.07	0.988	80.743	80.7	0.241	
29	13C-1,2,3,6,7,8-HxCDF	8.03e5	0.52	NO	1.30	1.000	33.20	0.991	80.865	80.9	0.220	
30	13C-2,3,4,6,7,8-HxCDF	6.91e5	0.52	NO	1.16	1.000	33.80	1.009	77.974	78.0	0.246	

1/20/10

1/20/10

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-2.qld

Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:40:10 AM Pacific Standard Time

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

#	Name	Resp	RA	RA?	RRT	Area	RT	RRT	Conc	%Rec	DL	EMPC
31	13C-1,2,3,7,8,9-HxCDF	5.97e5	0.51	NO	1.03	1.000	34.77	1.038	76.315	76.3	0.279	
32	13C-1,2,3,4,6,7,8-HpCDF	4.98e5	0.44	NO	0.909	1.000	36.62	1.093	71.908	71.9	0.473	
33	13C-1,2,3,4,7,8,9-HpCDF	4.42e5	0.45	NO	0.830	1.000	38.46	1.148	69.872	69.9	0.518	
34	13C-OCDF	1.06e6	0.88	NO	0.982	1.000	41.44	1.238	141.54	70.8	0.337	
35	37Cl-2,3,7,8-TCDD	2.45e5			0.602	1.000	26.03	1.022	38.284	95.7	0.0368	
36	13C-1,2,3,4-TCDD	1.06e6	0.78	NO	1.00	1.000	25.46	0.000	100.00	100	0.128	
37	13C-1,2,3,4-TCDF	1.40e6	0.77	NO	1.00	1.000	24.04	0.000	100.00	100	0.146	
38	13C-1,2,3,4,6,9-HxCDF	7.62e5	0.52	NO	1.00	1.000	33.49	0.000	100.00	100	0.286	
39	Total Tetra-Dioxins				0.965	1.000			9.8840		0.0321	9.9064
40	Total Penta-Dioxins				0.869	1.000			50.900		0.0869	50.966
41	Total Hexa-Dioxins				0.940	1.000			150.37		0.172	150.43
42	Total Hepta-Dioxins				0.965	1.000			49.452		0.179	49.452
43	Total Tetra-Furans				0.952	1.000			9.8212		0.0266	9.8428
44	1st Func. Penta-Furans				0.994	1.000			0.024767		0.0201	0.11552
45	Total Penta-Furans				0.994	1.000			94.362		0.0796	94.362
46	Total Hexa-Furans				1.20	1.000			188.05		0.145	188.18
47	Total Hepta-Furans				1.49	1.000			93.021		0.216	93.155

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-2.qld

Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
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Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

2,3,7,8-TCDD

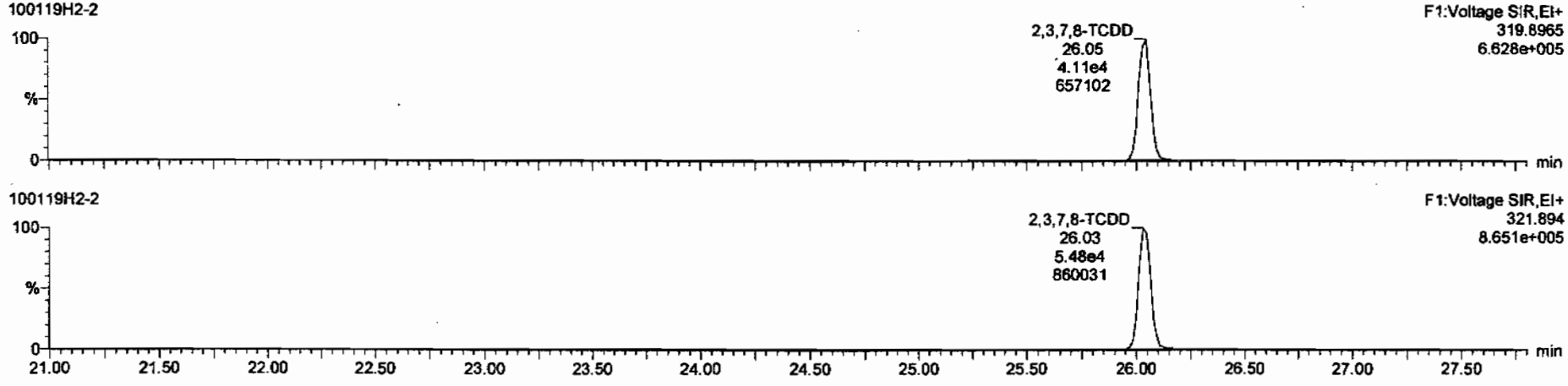

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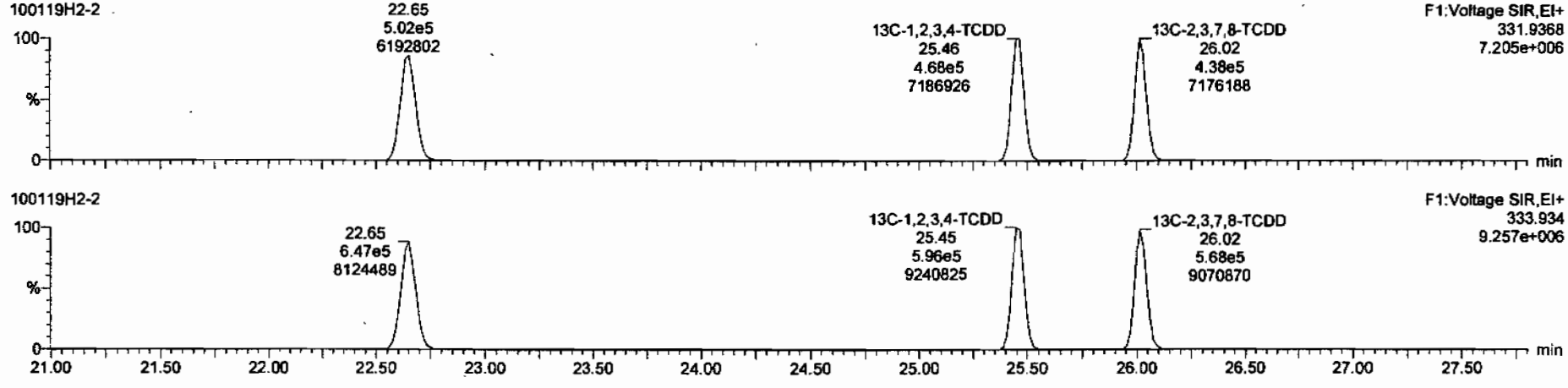

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-2.qld

Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:39:40 AM Pacific Standard Time

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

37Cl-2,3,7,8-TCDD

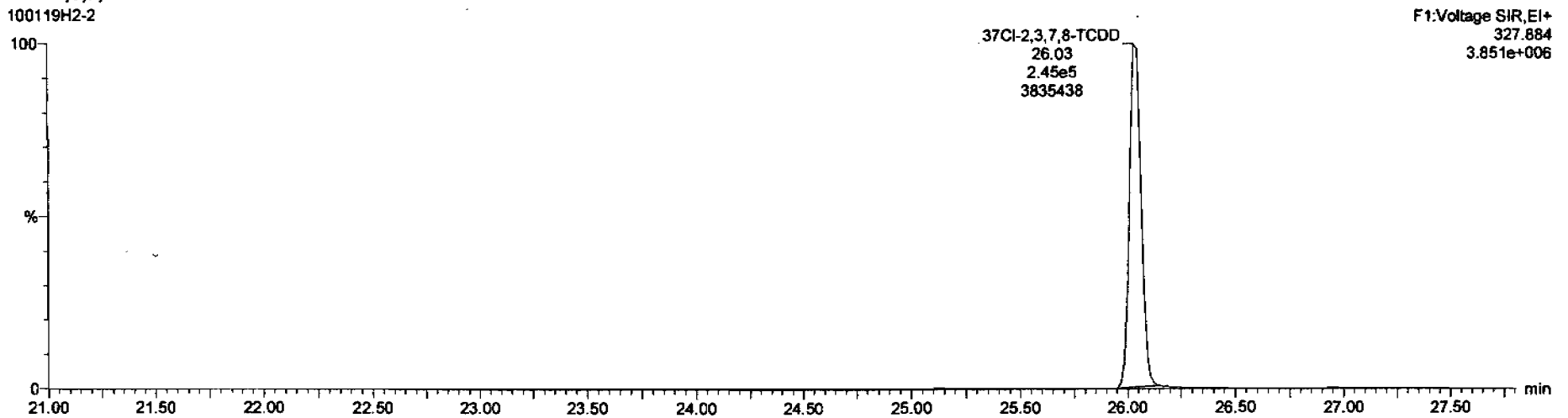

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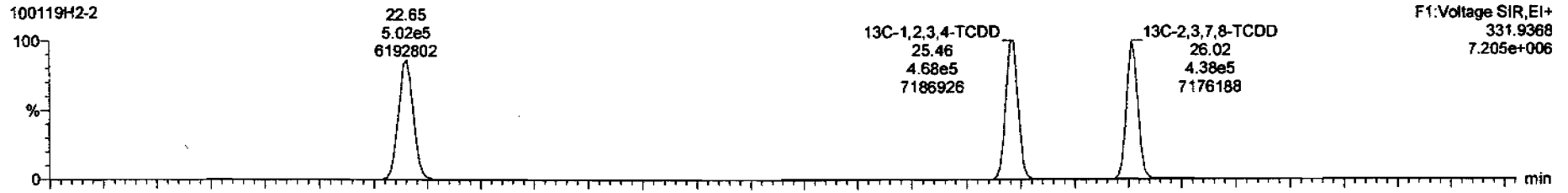

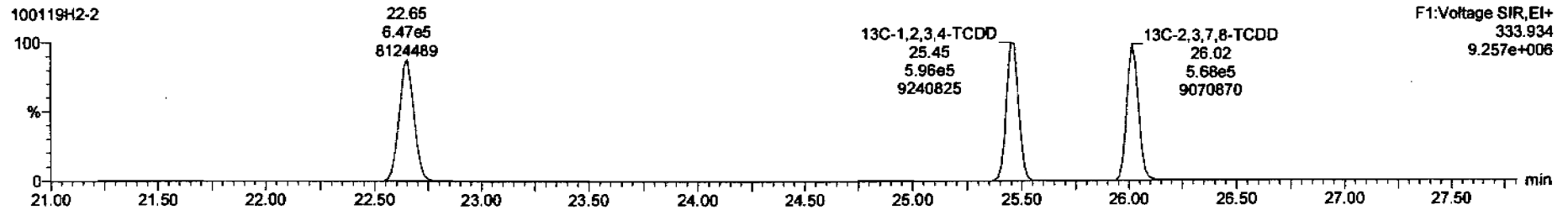

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-2.qld

Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:39:40 AM Pacific Standard Time

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

1,2,3,7,8-PeCDD

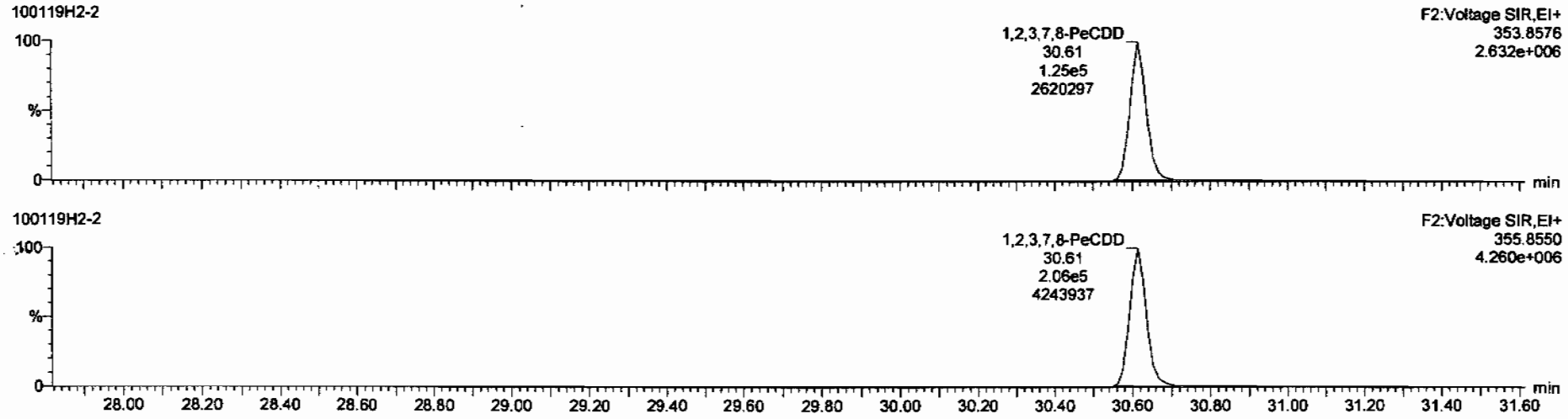

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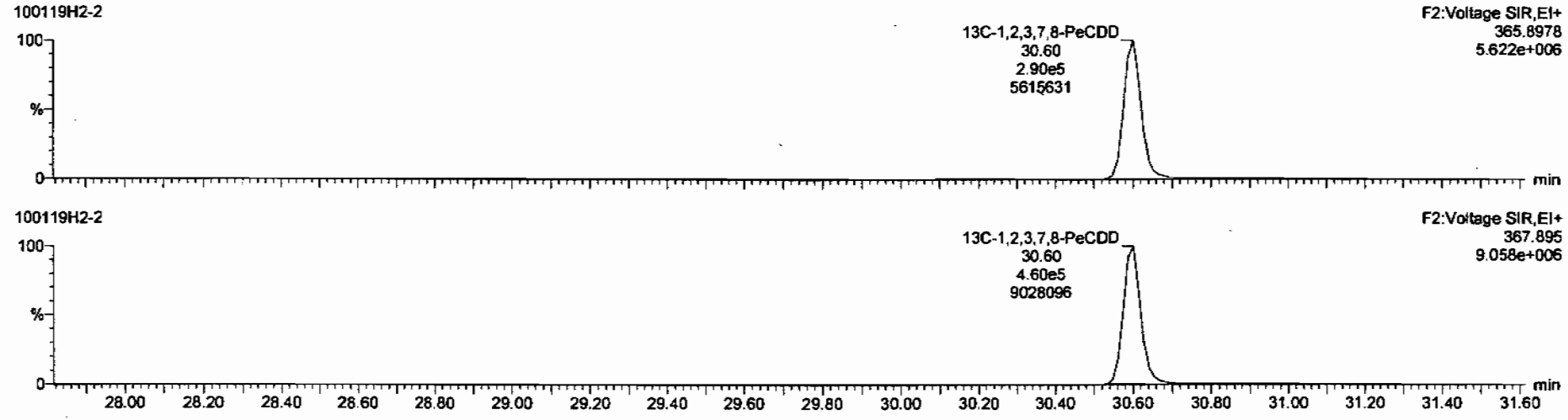

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-2.qld

Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:39:40 AM Pacific Standard Time

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

1,2,3,4,7,8-HxCDD

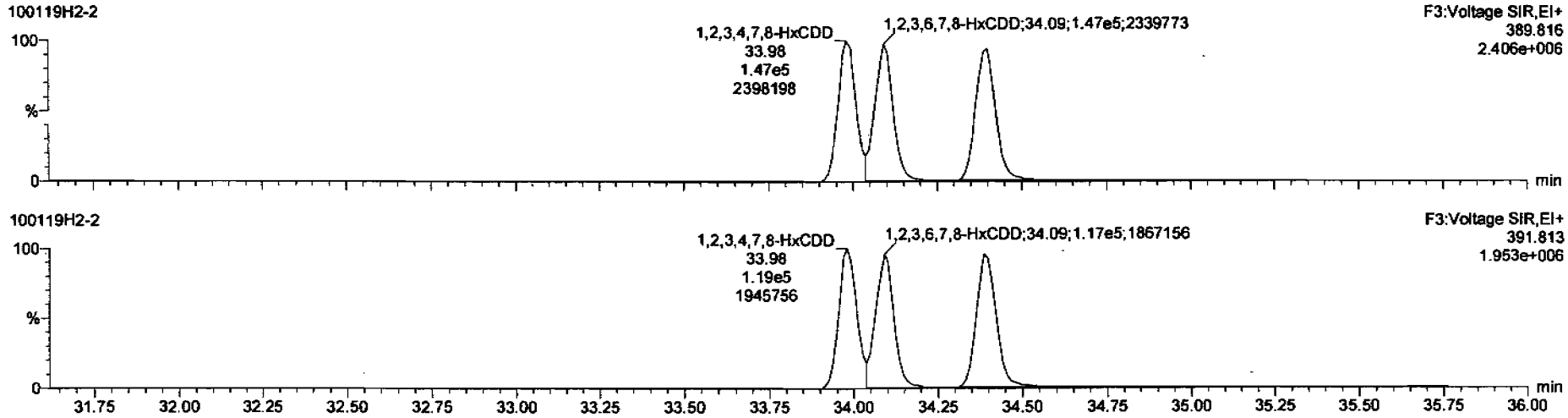

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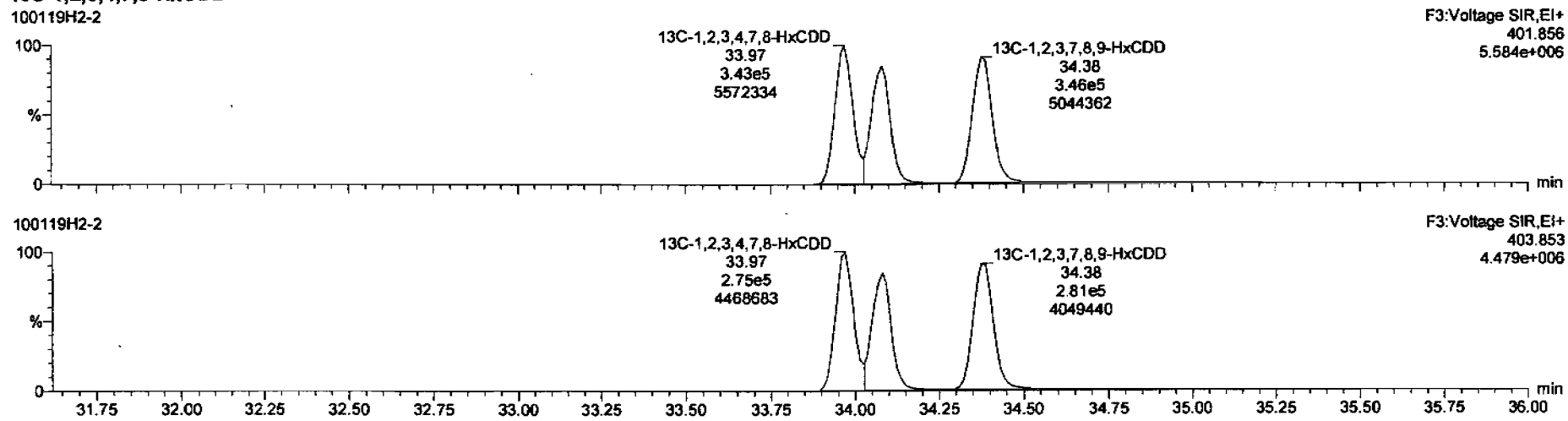

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-2.qld

Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:39:40 AM Pacific Standard Time

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

1,2,3,4,6,7,8-HpCDD

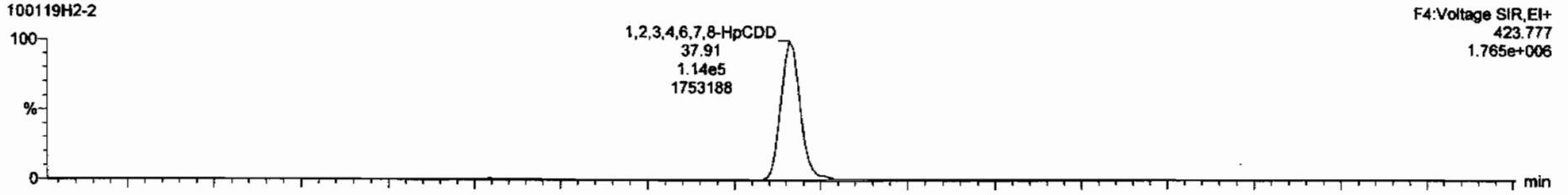

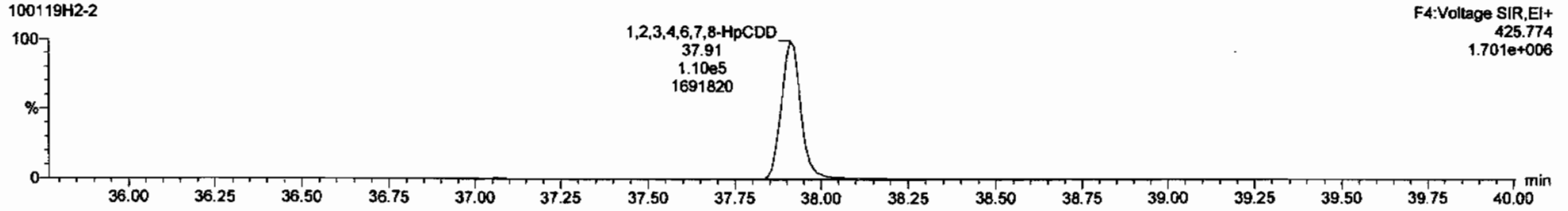

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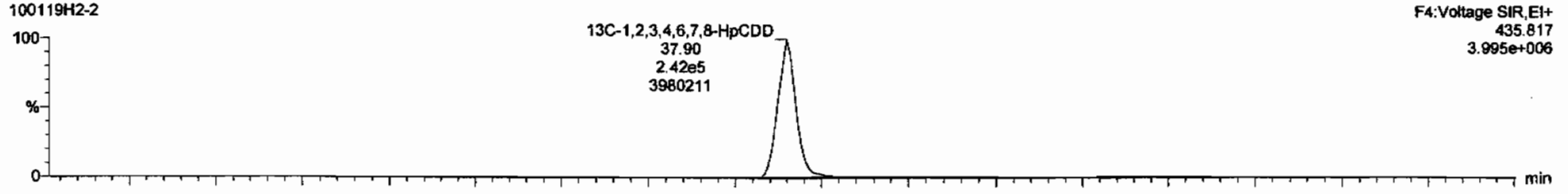

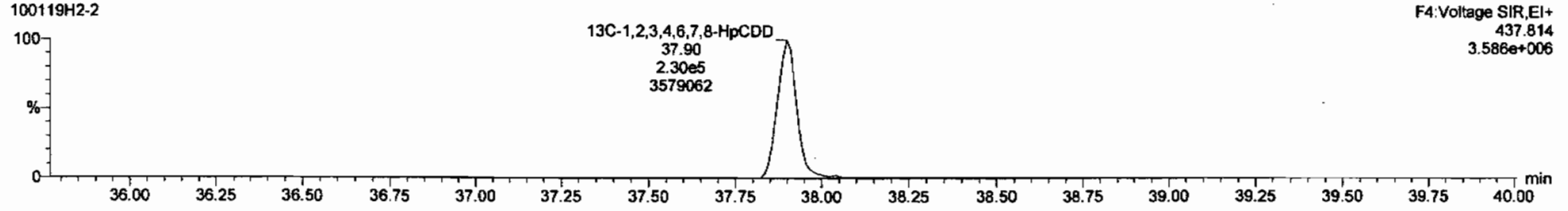

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-2.qld

Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:39:40 AM Pacific Standard Time

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

OCDD

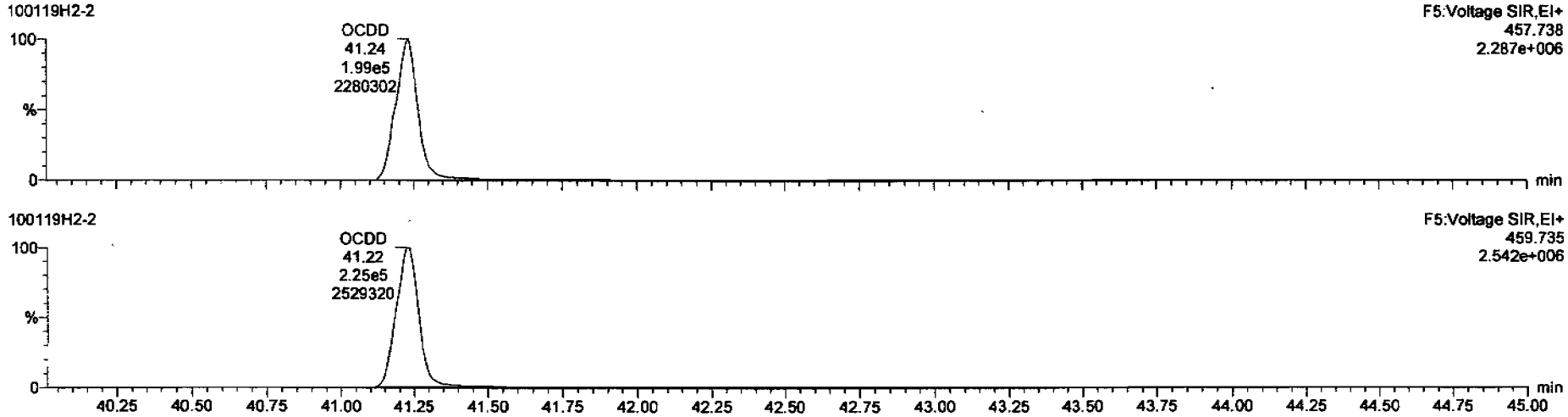

13C-OCDD

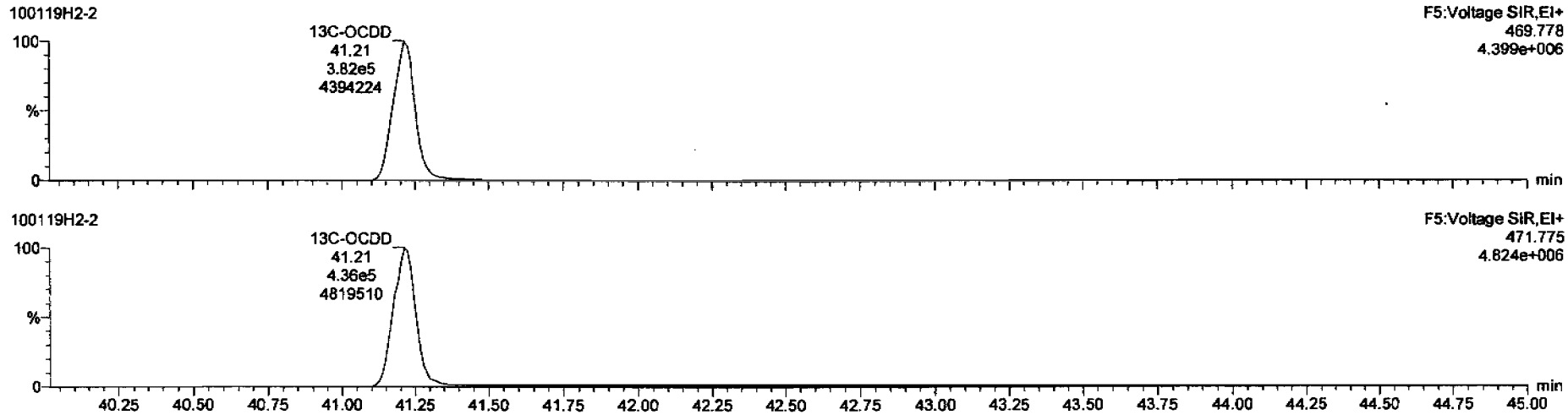

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-2.qld

Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:39:40 AM Pacific Standard Time

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

2,3,7,8-TCDF

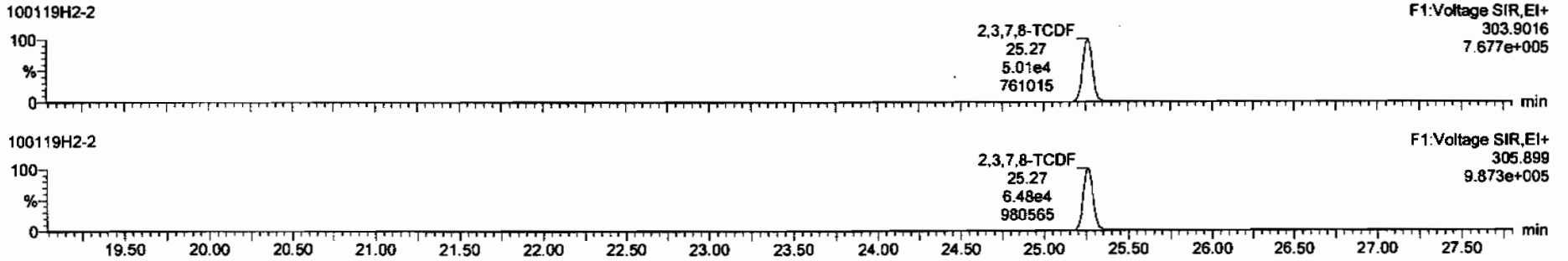

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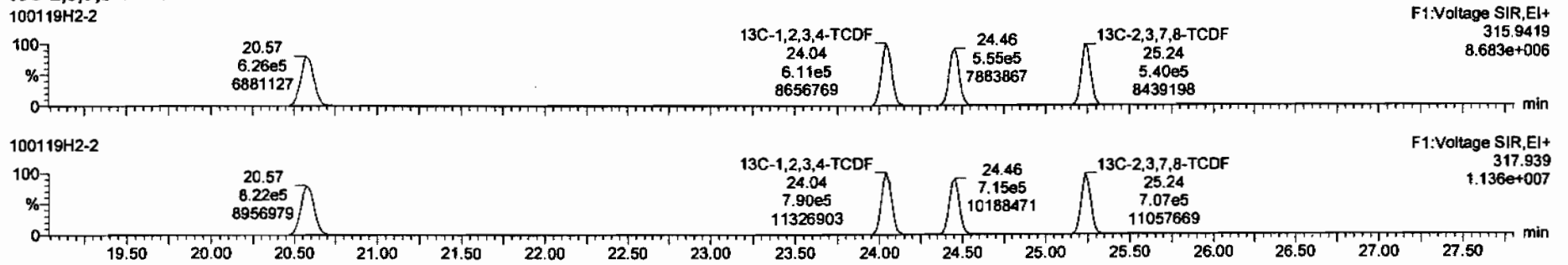

DPE1

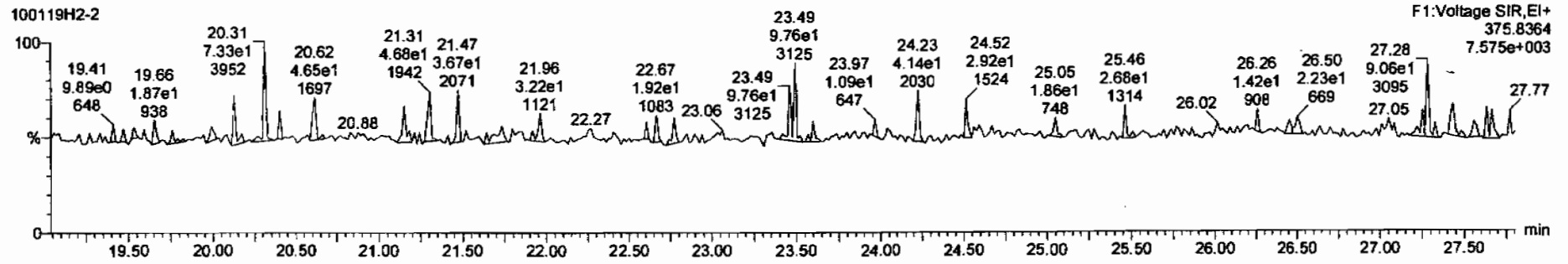

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-2.qld

Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:39:40 AM Pacific Standard Time

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

1st Func. Penta-Furans

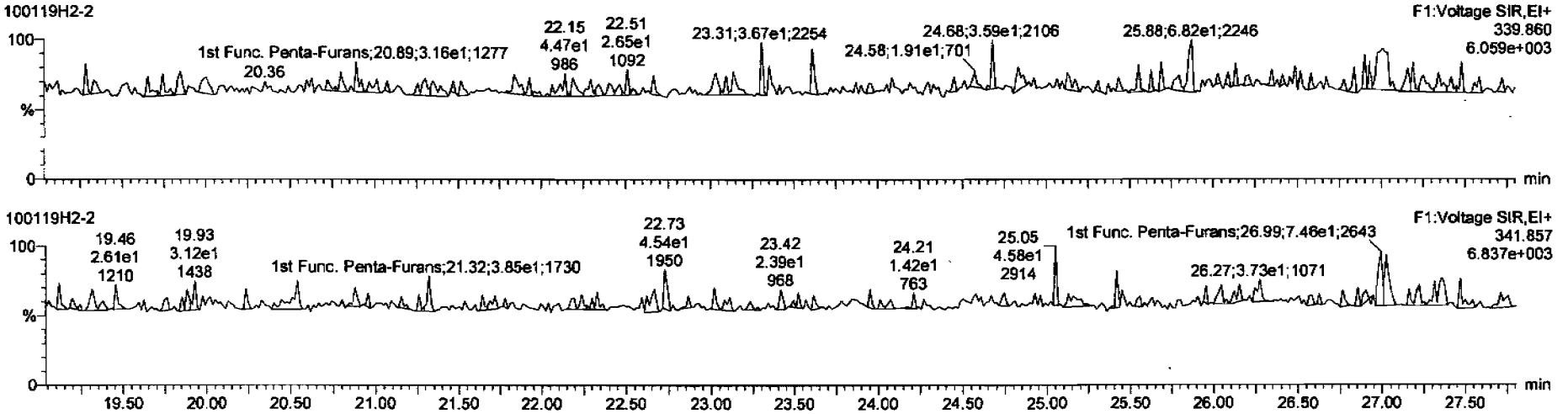

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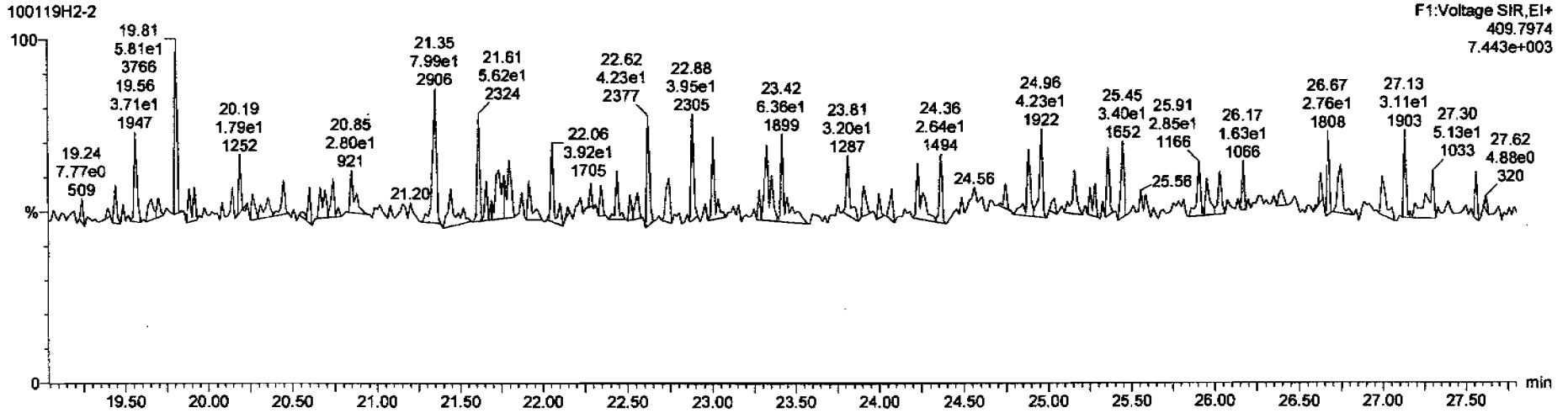

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Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:39:40 AM Pacific Standard Time

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

1,2,3,7,8-PeCDF

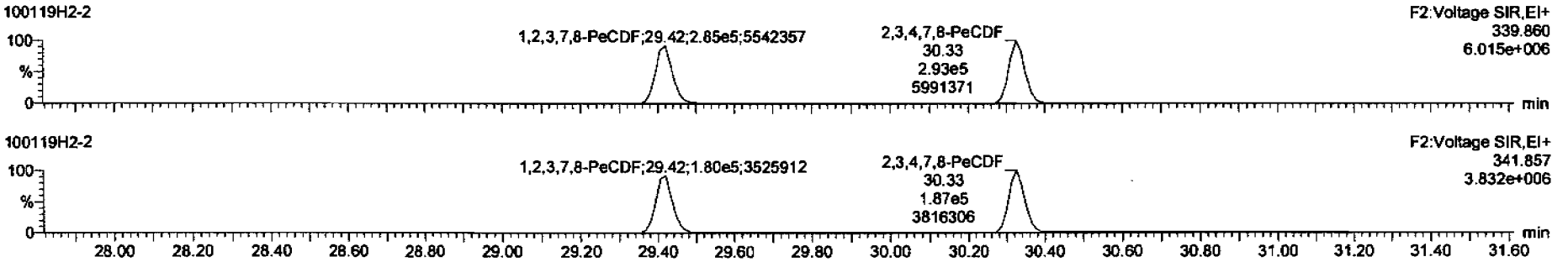

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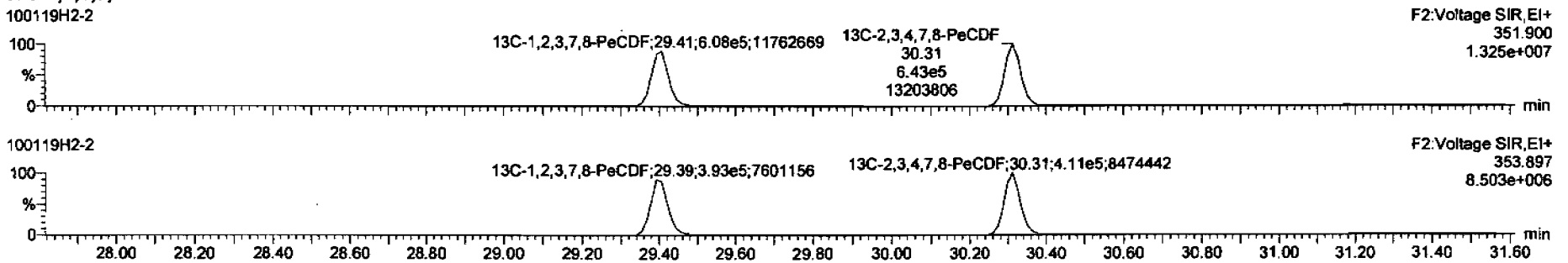

DPE2

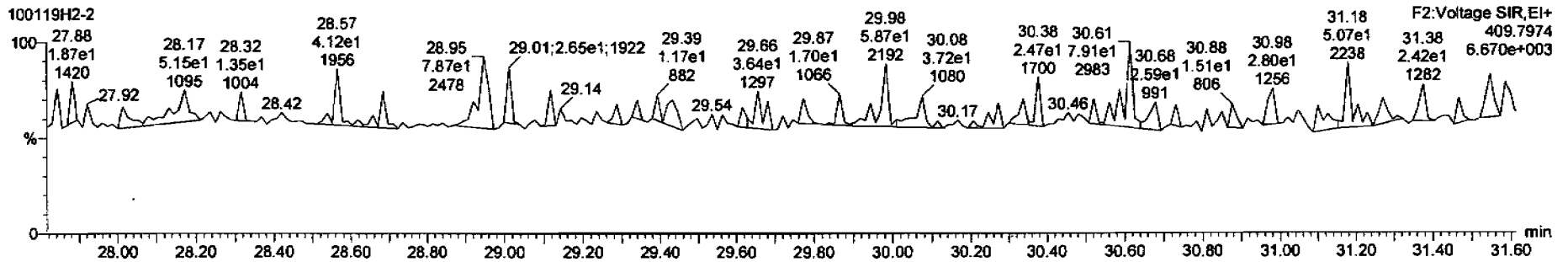

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-2.qld

Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:39:40 AM Pacific Standard Time

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

1,2,3,4,7,8-HxCDF

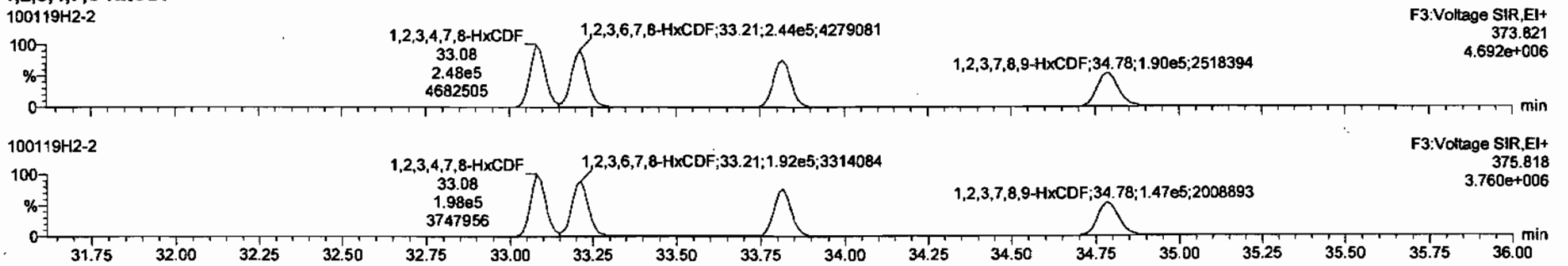

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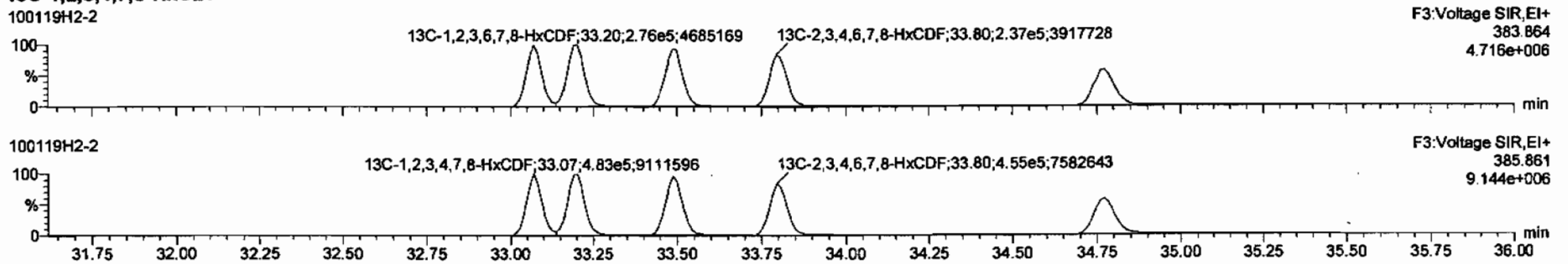

DPE3

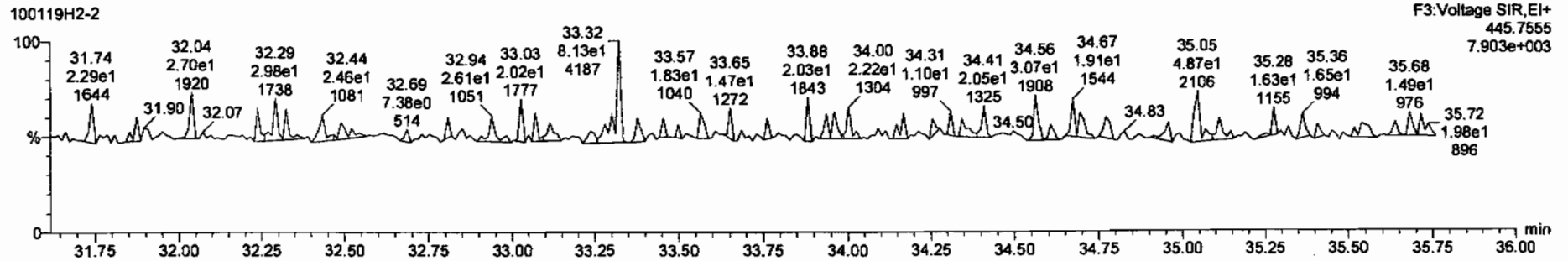

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Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:39:40 AM Pacific Standard Time

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

1,2,3,4,6,7,8-HpCDF

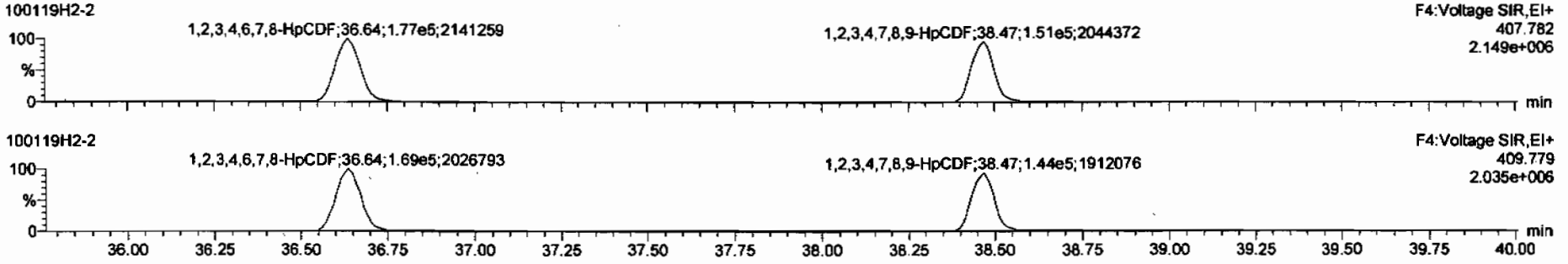

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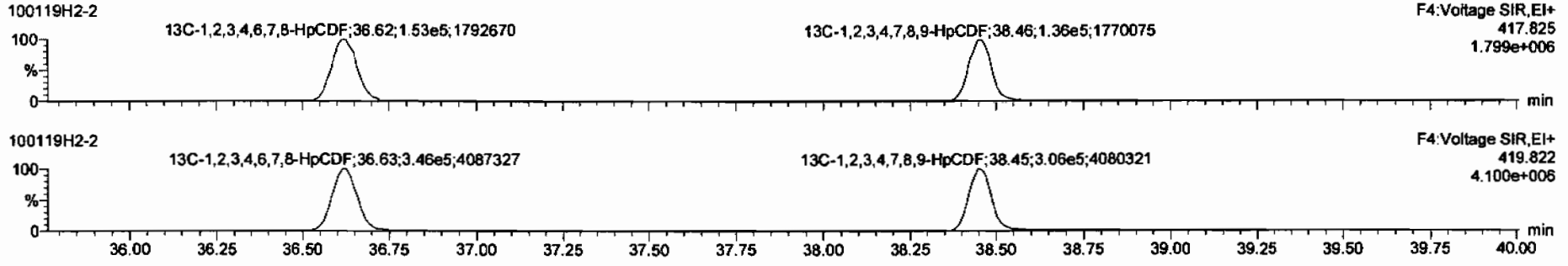

DPE4

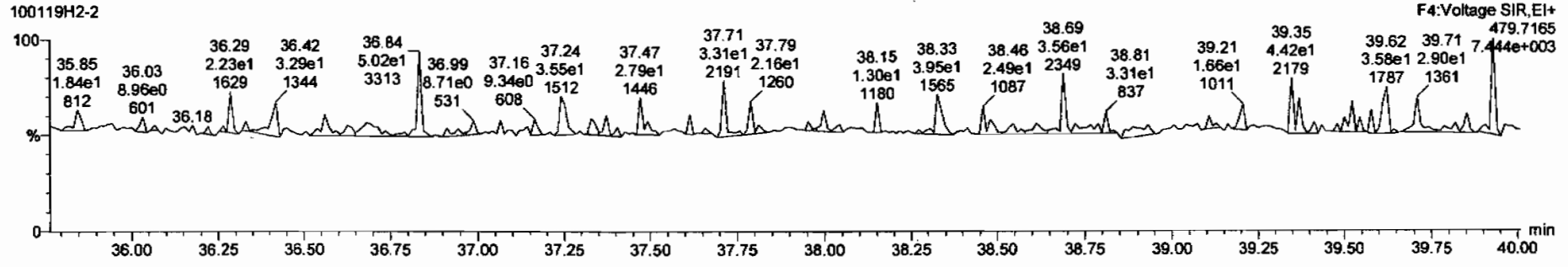

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-2.qld

Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:39:40 AM Pacific Standard Time

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OCDF

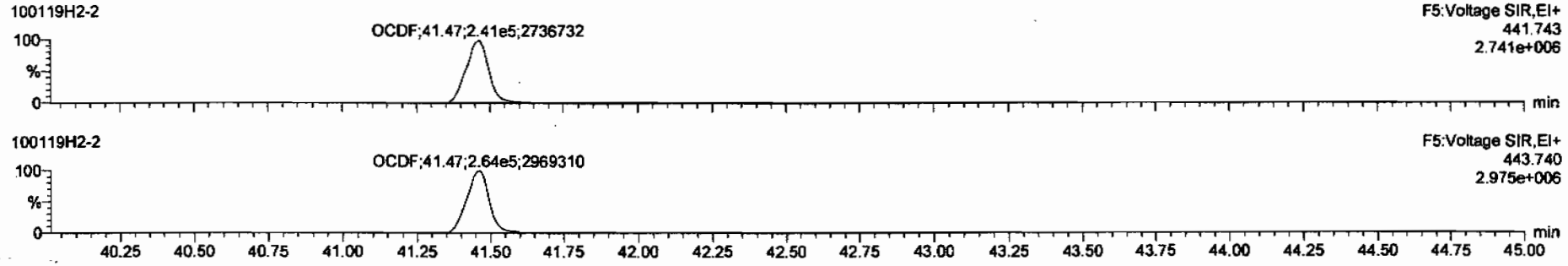

13C-OCDF

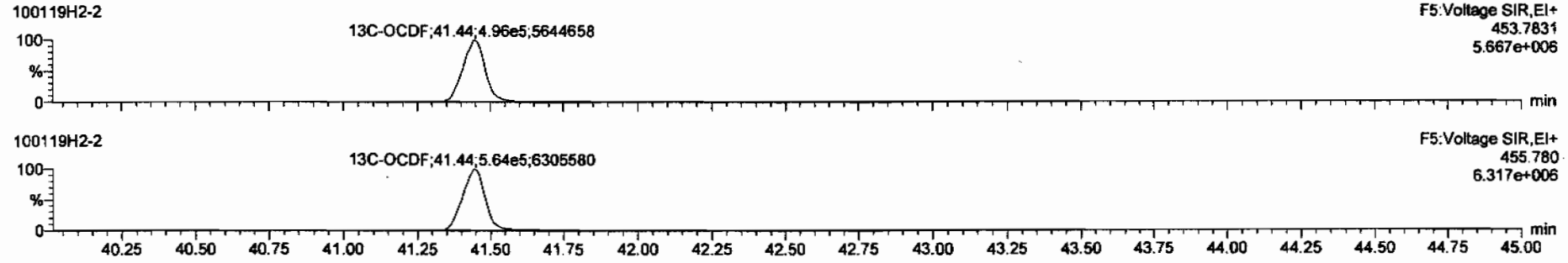

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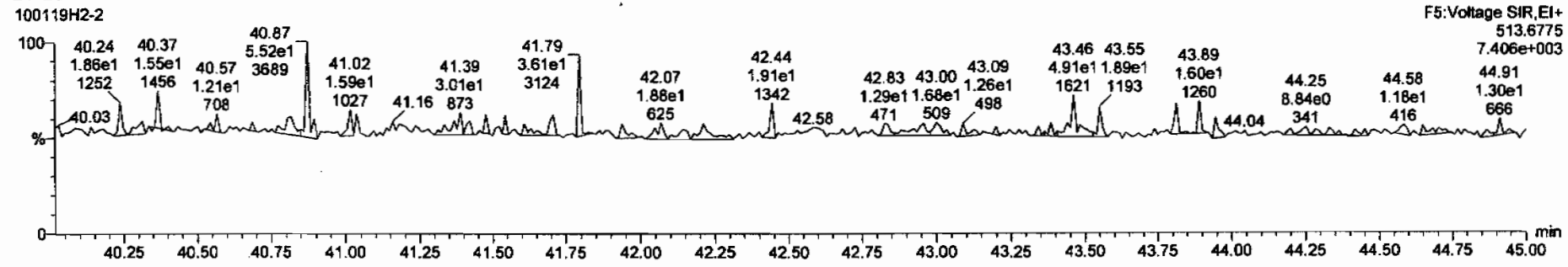

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Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:39:40 AM Pacific Standard Time

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

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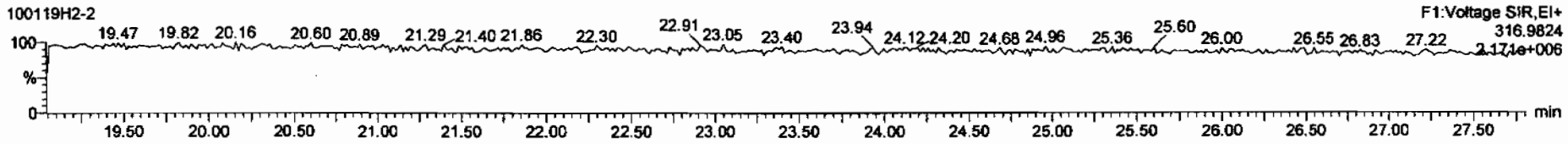

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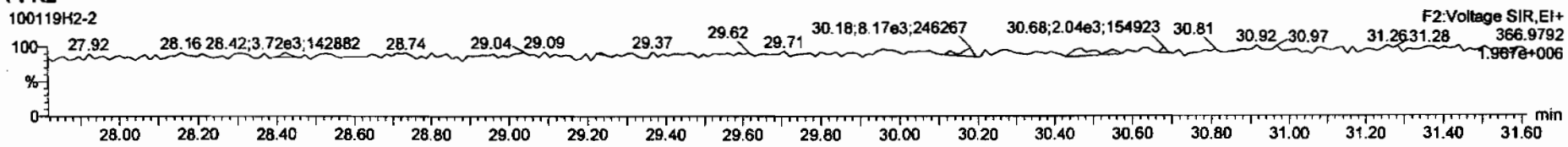

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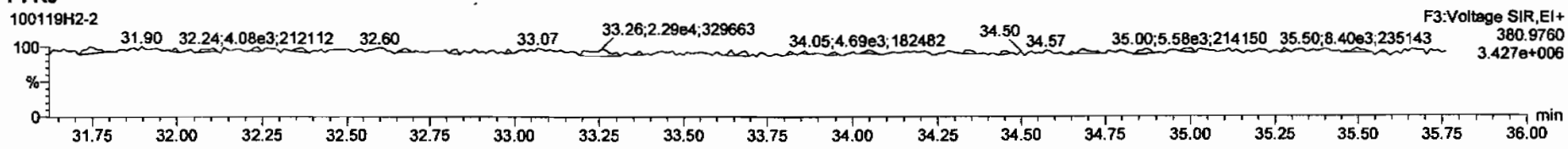

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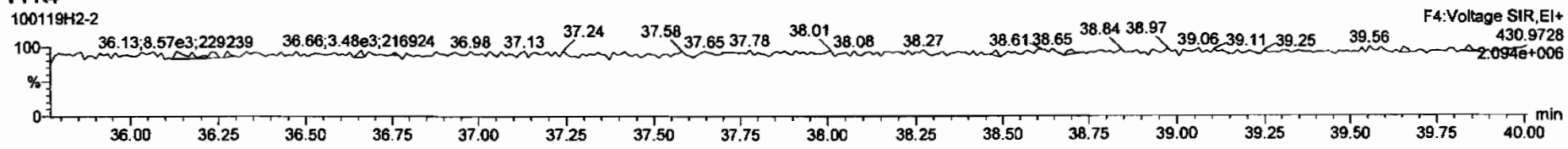

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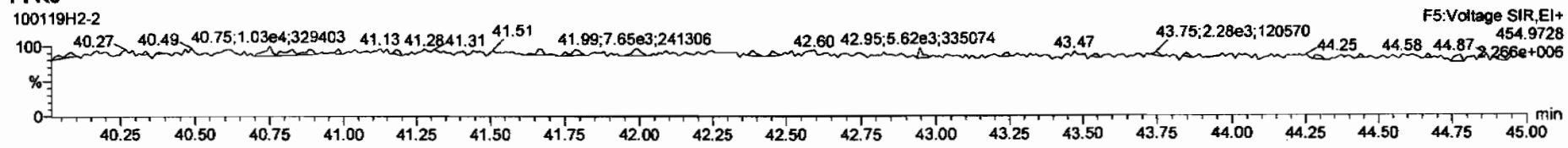

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-11.qld

Last Altered: Wednesday, January 20, 2010 7:41:23 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:43:44 AM Pacific Standard Time

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Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-11, Date: 19-Jan-2010, Time: 17:40:58, ID: 32322_2725_001 CAPA-10-6390 .809, Description: CAPA-10-6390

1	2,3,7,8-TCDD			NO	0.965	0.809					0.536	
2	1,2,3,7,8-PeCDD		0.00	YES	0.869	0.809					0.741	
3	1,2,3,4,7,8-HxCDD			NO	0.873	0.809					1.34	
4	1,2,3,6,7,8-HxCDD		0.00	YES	0.940	0.809					1.36	
5	1,2,3,7,8,9-HxCDD			NO	0.882	0.809					1.36	
6	1,2,3,4,6,7,8-HpCDD	5.69e2	1.17	NO	0.965	0.809	37.94	1.001	2.2235		1.86	~~2.2235~~
7	OCDD	4.72e3	0.91	NO	1.05	0.809	41.25	1.000	19.179		2.55	~~19.179~~
8	2,3,7,8-TCDF			NO	0.952	0.809					0.411	
9	1,2,3,7,8-PeCDF			NO	0.994	0.809					0.581	
10	2,3,4,7,8-PeCDF			NO	0.977	0.809					0.530	
11	1,2,3,4,7,8-HxCDF			NO	1.31	0.809					0.659	
12	1,2,3,6,7,8-HxCDF			NO	1.15	0.809					0.689	
13	2,3,4,6,7,8-HxCDF			NO	1.20	0.809					0.797	
14	1,2,3,7,8,9-HxCDF			NO	1.20	0.809					1.17	
15	1,2,3,4,6,7,8-HpCDF			NO	1.49	0.809					1.12	
16	1,2,3,4,7,8,9-HpCDF			NO	1.44	0.809					1.23	
17	OCDF	5.90e2	0.82	NO	1.02	0.809	41.47	1.000	1.9276		1.12	~~1.9276~~
18	13C-2,3,7,8-TCDD	1.24e6	0.78	NO	1.02	0.809	26.03	1.022	2453.2	99.2	2.85	
19	13C-1,2,3,7,8-PeCDD	9.50e5	0.61	NO	0.806	0.809	30.61	1.201	2385.6	96.5	3.87	
20	13C-1,2,3,4,7,8-HxCDD	7.87e5	1.25	NO	1.07	0.809	33.98	1.014	2055.7	83.2	4.39	
21	13C-1,2,3,6,7,8-HxCDD	7.34e5	1.23	NO	0.968	0.809	34.09	1.017	2128.3	86.1	4.87	
22	13C-1,2,3,7,8,9-HxCDD	8.44e5	1.25	NO	1.13	0.809	34.40	1.027	2086.9	84.4	4.15	
23	13C-1,2,3,4,6,7,8-HpCDD	6.55e5	1.05	NO	0.888	0.809	37.91	1.131	2068.6	83.7	5.74	
24	13C-OCDD	1.16e6	0.89	NO	0.783	0.809	41.24	1.231	4162.6	84.2	3.34	
25	13C-2,3,7,8-TCDF	1.48e6	0.79	NO	1.03	0.809	25.27	0.992	2158.9	87.3	2.82	
26	13C-1,2,3,7,8-PeCDF	1.22e6	1.55	NO	0.880	0.809	29.42	1.155	2074.8	83.9	4.99	
27	13C-2,3,4,7,8-PeCDF	1.29e6	1.55	NO	0.867	0.809	30.33	1.190	2228.9	90.2	5.06	
28	13C-1,2,3,4,7,8-HxCDF	9.38e5	0.52	NO	1.19	0.809	33.09	0.988	2216.8	89.7	6.52	
29	13C-1,2,3,6,7,8-HxCDF	1.05e6	0.53	NO	1.30	0.809	33.21	0.991	2260.7	91.4	5.94	
30	13C-2,3,4,6,7,8-HxCDF	9.02e5	0.52	NO	1.16	0.809	33.82	1.009	2176.5	88.0	6.66	

1/20/10

1/20/10

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-11.qld

Last Altered: Wednesday, January 20, 2010 7:41:23 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:43:44 AM Pacific Standard Time

Name: 100119H2-11, Date: 19-Jan-2010, Time: 17:40:58, ID: 32322_2725_001 CAPA-10-6390 .809, Description: CAPA-10-6390

31	13C-1,2,3,7,8,9-HxCDF	7.82e5	0.52	NO	1.03	0.809	34.78	1.038	2137.0	86.4	7.54	
32	13C-1,2,3,4,6,7,8-HpCDF	6.78e5	0.44	NO	0.909	0.809	36.64	1.093	2093.3	84.7	7.36	
33	13C-1,2,3,4,7,8,9-HpCDF	5.75e5	0.44	NO	0.830	0.809	38.47	1.148	1944.9	78.7	8.06	
34	13C-OCDF	1.48e6	0.89	NO	0.982	0.809	41.47	1.237	4235.3	85.7	3.22	
35	37Cl-2,3,7,8-TCDD	2.88e5			0.602	0.809	26.05	1.022	966.98	97.8	0.976	
36	13C-1,2,3,4-TCDD	1.22e6	0.78	NO	1.00	0.809	25.48	0.000	2472.2	100	2.91	
37	13C-1,2,3,4-TCDF	1.65e6	0.77	NO	1.00	0.809	24.06	0.000	2472.2	100	2.91	
38	13C-1,2,3,4,6,9-HxCDF	8.81e5	0.53	NO	1.00	0.809	33.51	0.000	2472.2	100	7.74	
39	Total Tetra-Dioxins				0.965	0.809					0.241	
40	Total Penta-Dioxins				0.869	0.809					0.310	
41	Total Hexa-Dioxins				0.940	0.809					0.711	
42	Total Hepta-Dioxins				0.965	0.809			5.7606		1.86	~~5.7606~~
43	Total Tetra-Furans				0.952	0.809					0.188	
44	1st Func. Penta-Furans				0.994	0.809					0.184	
45	Total Penta-Furans				0.994	0.809					0.224	
46	Total Hexa-Furans				1.20	0.809					0.490	
47	Total Hepta-Furans				1.49	0.809					0.662	

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-11.qld

Last Altered: Wednesday, January 20, 2010 7:41:23 AM Pacific Standard Time
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Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-11, Date: 19-Jan-2010, Time: 17:40:58, ID: 32322_2725_001 CAPA-10-6390 .809, Description: CAPA-10-6390

Tetra-Dioxins

Penta-Dioxins

	1,2,3,7,8-PeCDD				7.405e3		2.273e2	0.00	YES									0.741

Hexa-Dioxins

	1,2,3,6,7,8-HxCDD				1.336e3		2.517e1	0.00	YES									1.36

Hepta-Dioxins

	Total Hepta-Dioxins	37.09	5.489e3	6.510e3		4.346e2	4.702e2	0.92	NO	9.048e2		3.5371	3.5371					1.86
	1,2,3,4,6,7,8-HpCDD	37.94	5.853e3	5.398e3		3.070e2	2.618e2	1.17	NO	5.688e2		2.2235	2.2235					1.86

Tetra-Furans

Penta-Furans function 1

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-11.qld

Last Altered: Wednesday, January 20, 2010 7:41:23 AM Pacific Standard Time
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Name: 100119H2-11, Date: 19-Jan-2010, Time: 17:40:58, ID: 32322_2725_001 CAPA-10-6390 .809, Description: CAPA-10-6390

Penta-Furans

Hexa-Furans

Hepta-Furans

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 7:34:44 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:35:03 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
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Name: 100119H2-11, Date: 19-Jan-2010, Time: 17:40:58, ID: 32322_2725_001 CAPA-10-6390 .809, Description: CAPA-10-6390

2,3,7,8-TCDD

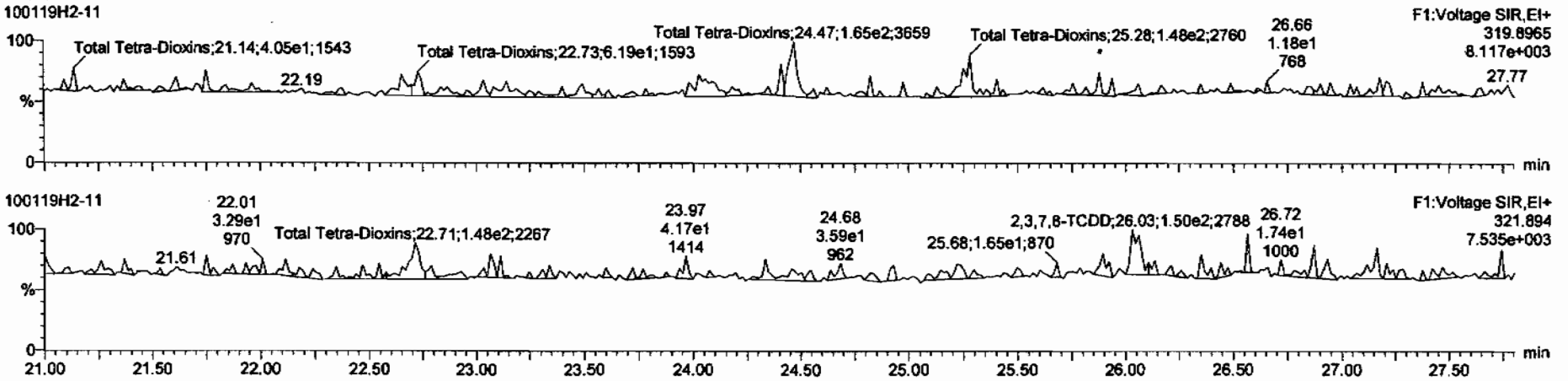

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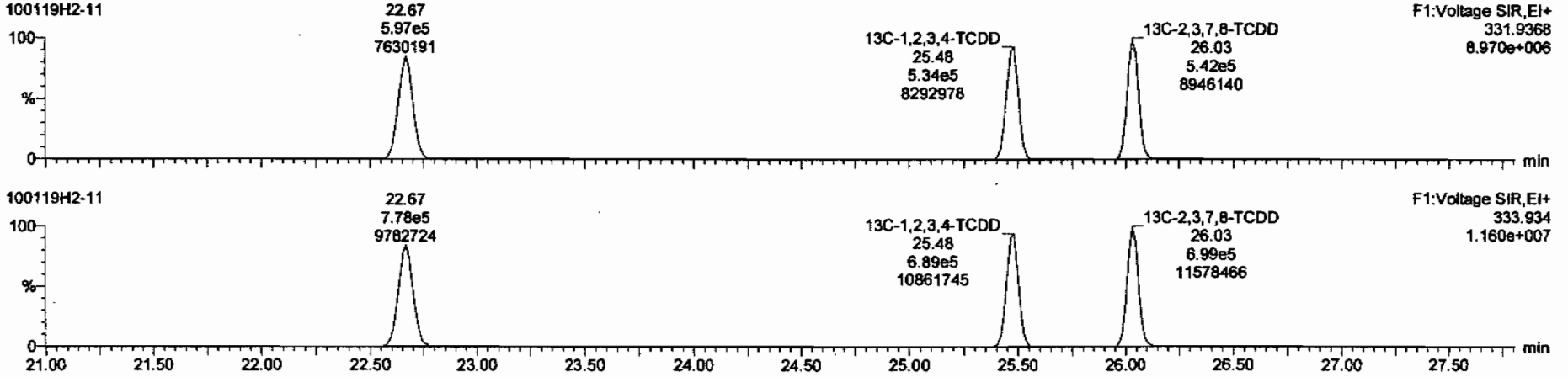

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Name: 100119H2-11, Date: 19-Jan-2010, Time: 17:40:58, ID: 32322_2725_001 CAPA-10-6390 .809, Description: CAPA-10-6390

37Cl-2,3,7,8-TCDD

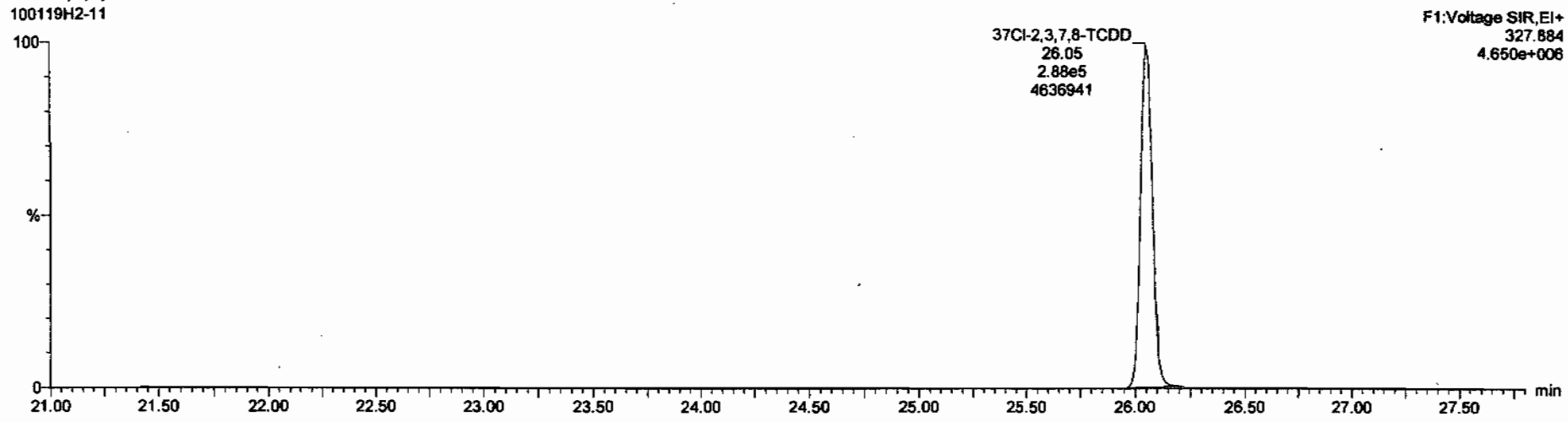

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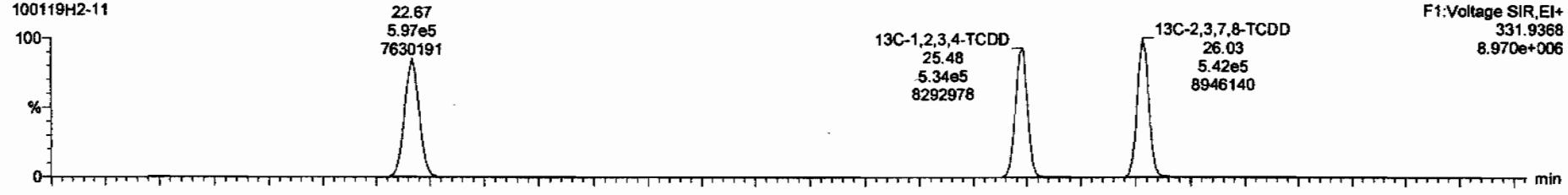

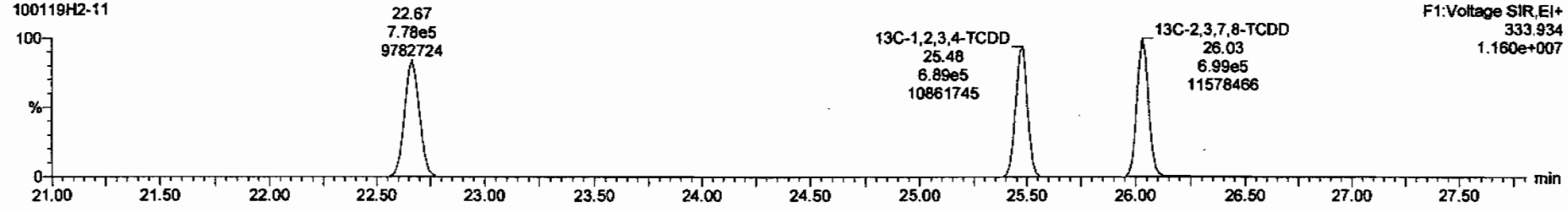

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Name: 100119H2-11, Date: 19-Jan-2010, Time: 17:40:58, ID: 32322_2725_001 CAPA-10-6390 .809, Description: CAPA-10-6390

1,2,3,7,8-PeCDD

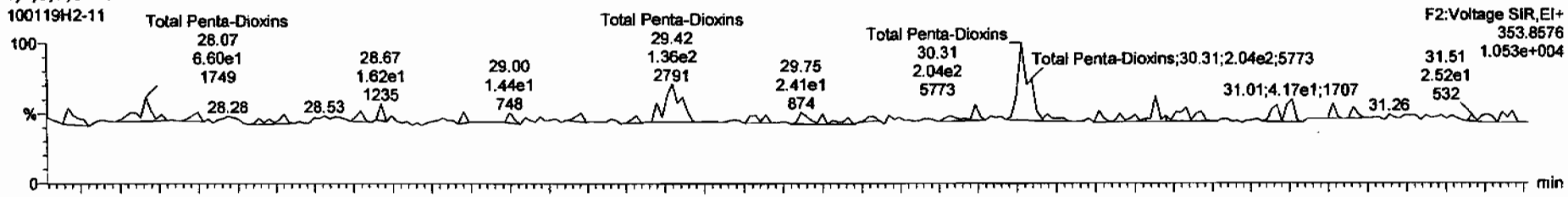

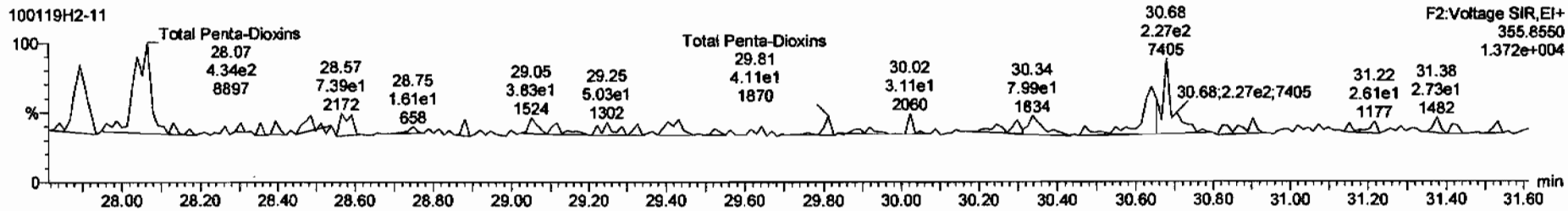

13C-1,2,3,7,8-PeCDD

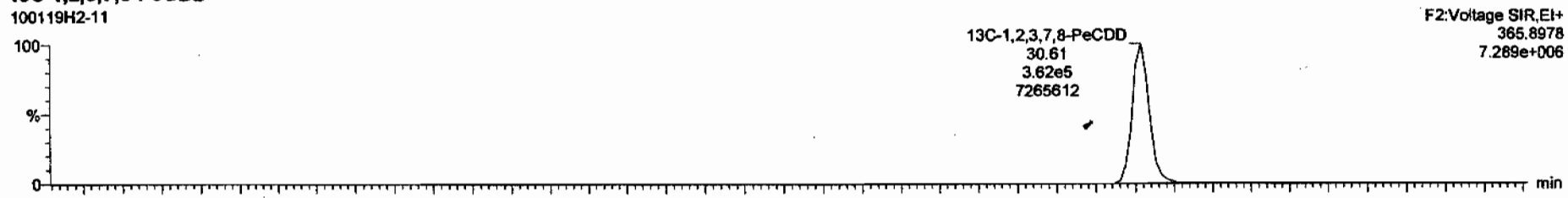

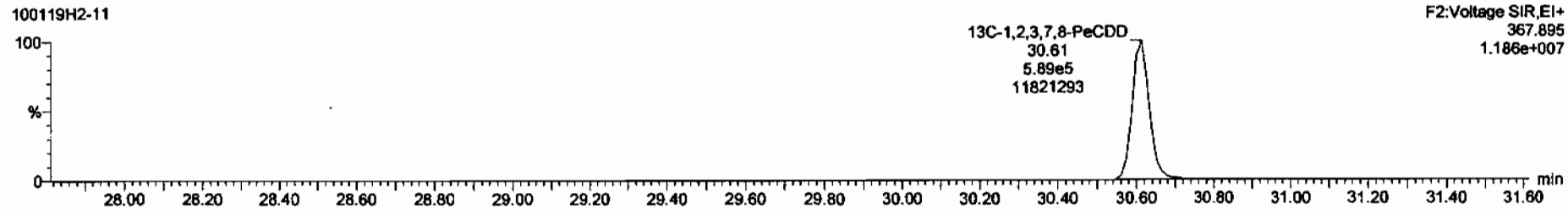

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Last Altered: Wednesday, January 20, 2010 7:34:44 AM Pacific Standard Time
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Name: 100119H2-11, Date: 19-Jan-2010, Time: 17:40:58, ID: 32322_2725_001 CAPA-10-6390 .809, Description: CAPA-10-6390

1,2,3,4,7,8-HxCDD

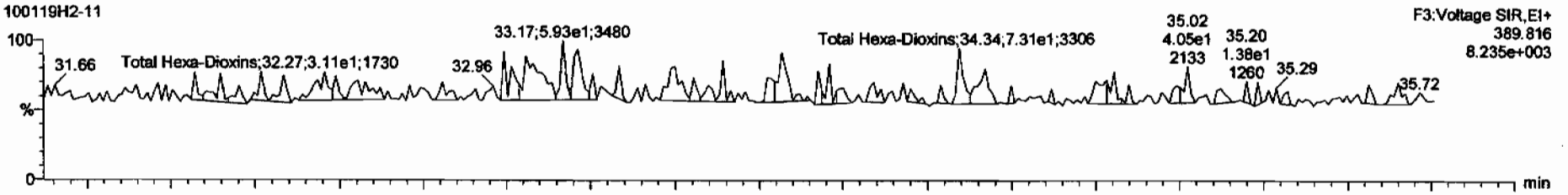

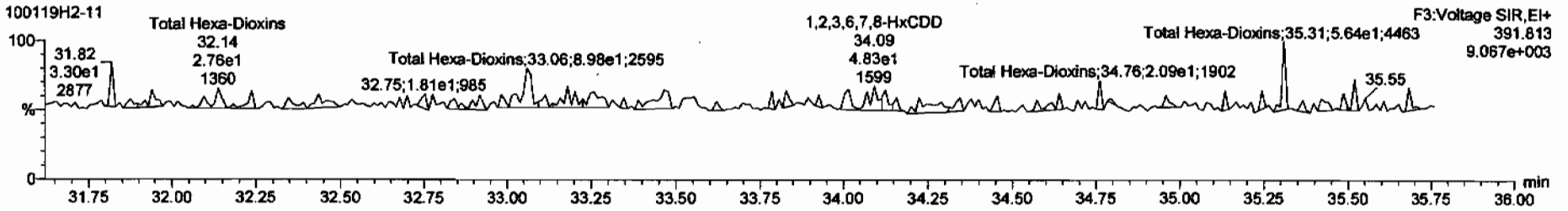

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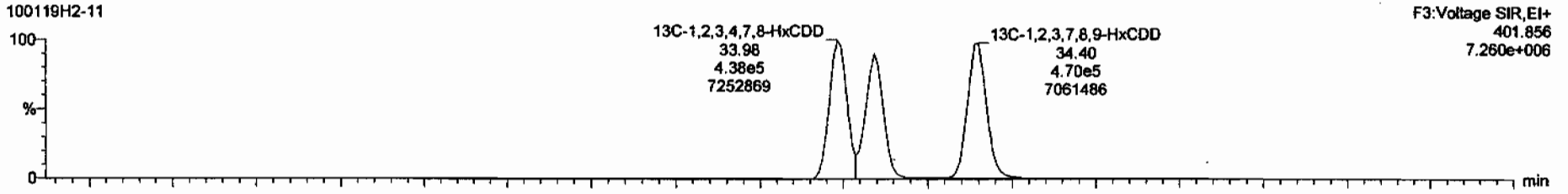

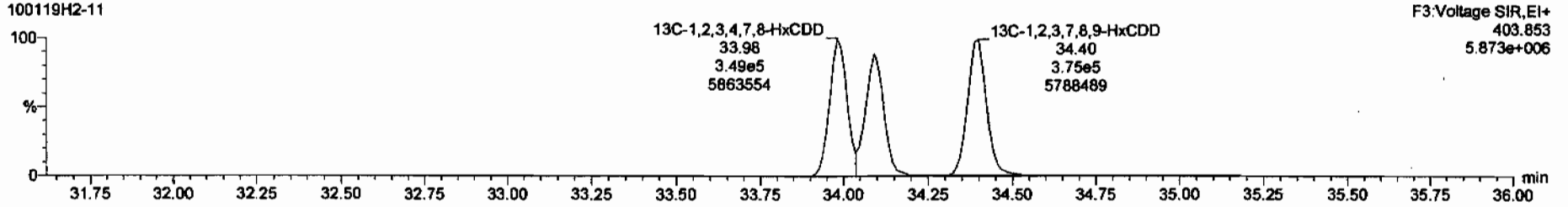

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Last Altered: Wednesday, January 20, 2010 7:34:44 AM Pacific Standard Time
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Name: 100119H2-11, Date: 19-Jan-2010, Time: 17:40:58, ID: 32322_2725_001 CAPA-10-6390 .809, Description: CAPA-10-6390

1,2,3,4,6,7,8-HpCDD

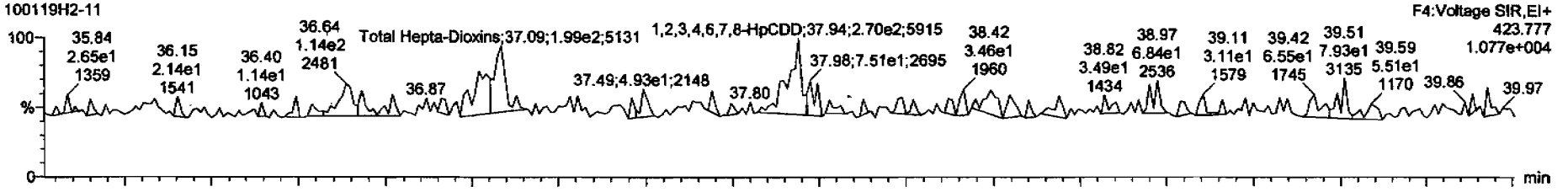

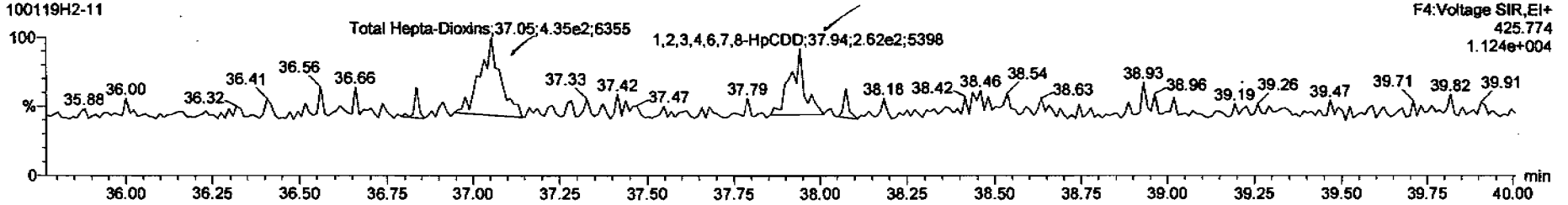

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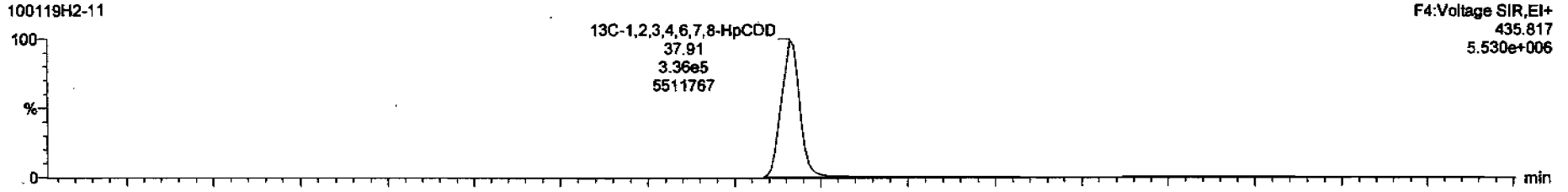

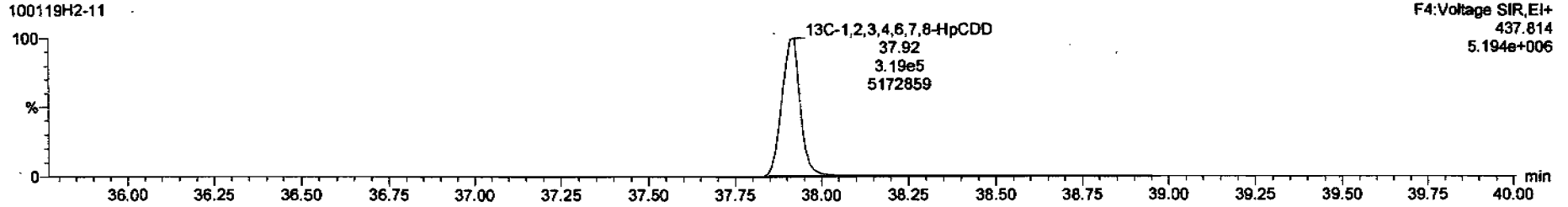

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Last Altered: Wednesday, January 20, 2010 7:34:44 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:35:03 AM Pacific Standard Time

Name: 100119H2-11, Date: 19-Jan-2010, Time: 17:40:58, ID: 32322_2725_001 CAPA-10-6390 .809, Description: CAPA-10-6390

OCDD

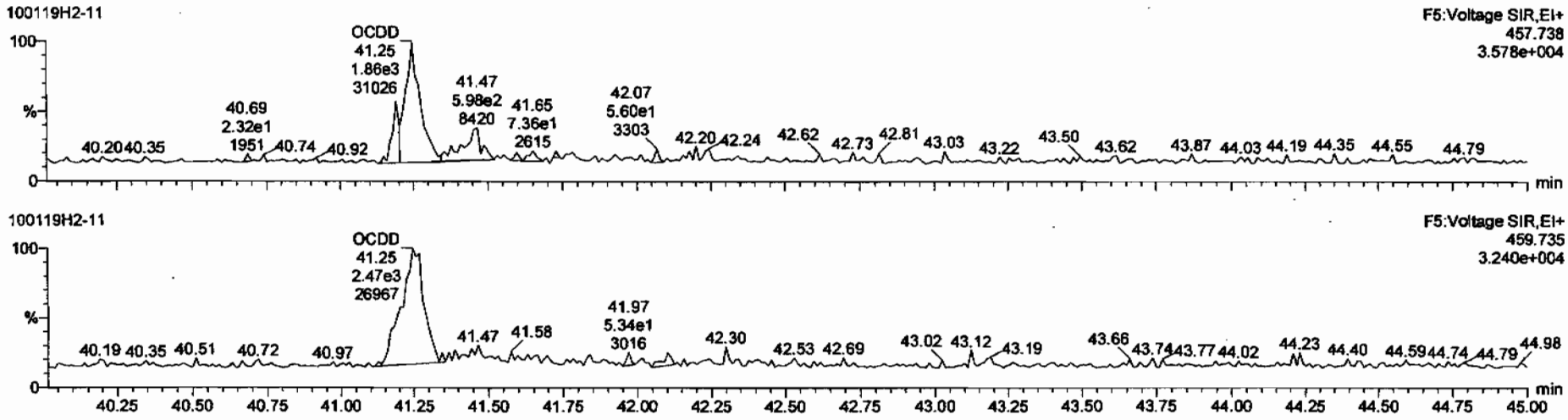

13C-OCDD

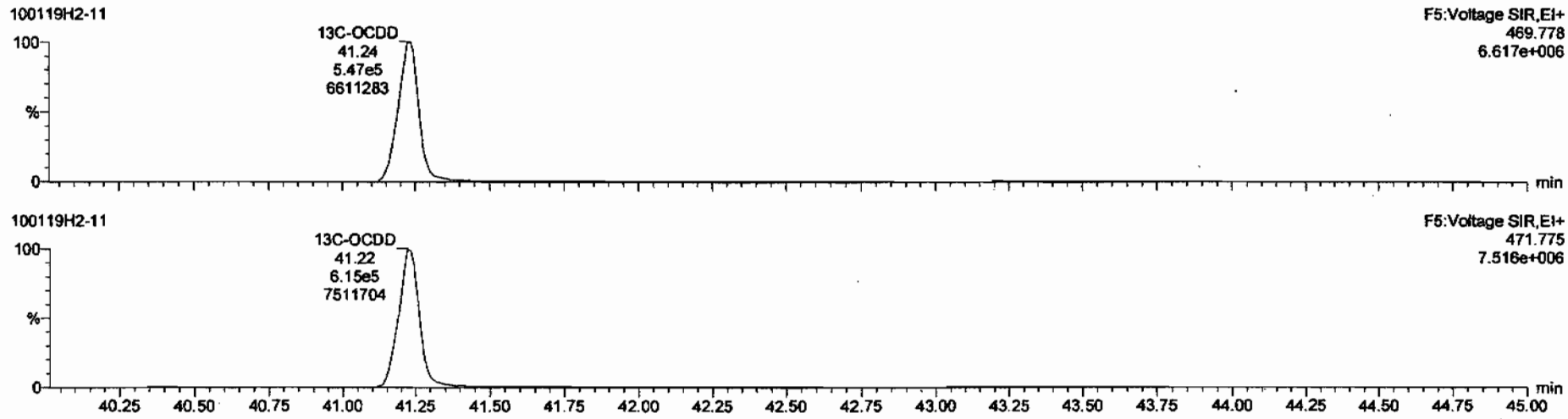

TargetLynx - untitled * - [Chromatogram]

File Edit View Display Processing Window Help

100119H2-11 - 32322_2725_001 CAPA-10-6390 .809 - CAPA-10-6390

	Name											
	1,2,3,6,7,8-HxCDD		0.00	YES	0.94	0.809					1.36	
	1,2,3,7,8,9-HxCDD			NO	0.88	0.809					1.36	
	1,2,3,4,6,7,8-HpCDD	5.69e2	1.17	NO	0.97	0.809	37.94	1.001	2.22		1.86	2.22
	2,3,7,8-TCDF			NO	0.95	0.809					0.411	
	1,2,3,7,8-PeCDF			NO	0.99	0.809					0.581	
	2,3,4,7,8-PeCDF			NO	0.98	0.809					0.530	
	1,2,3,4,7,8-HxCDF			NO	1.31	0.809					0.659	

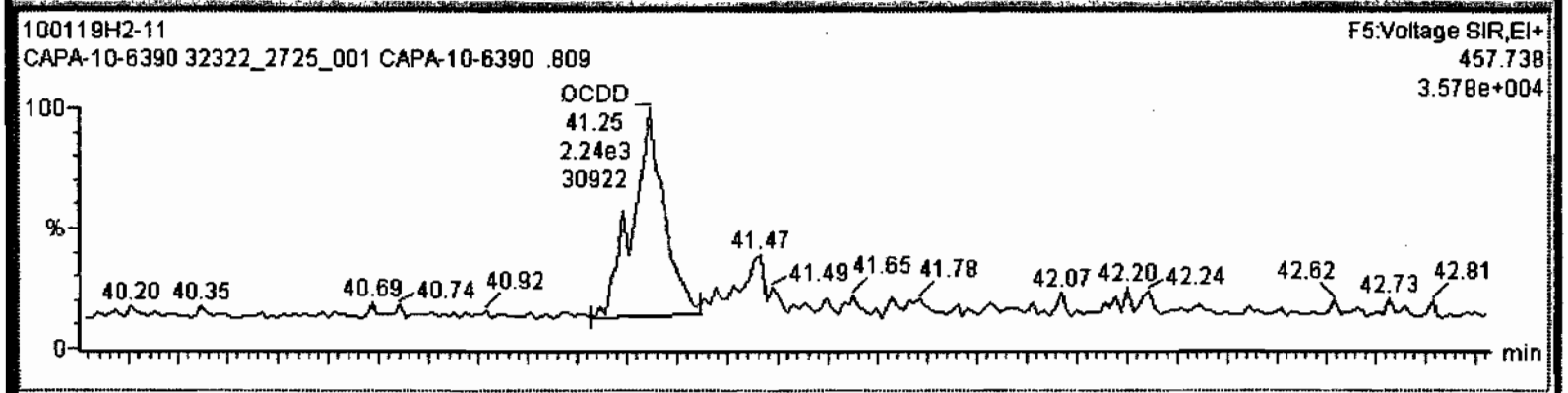

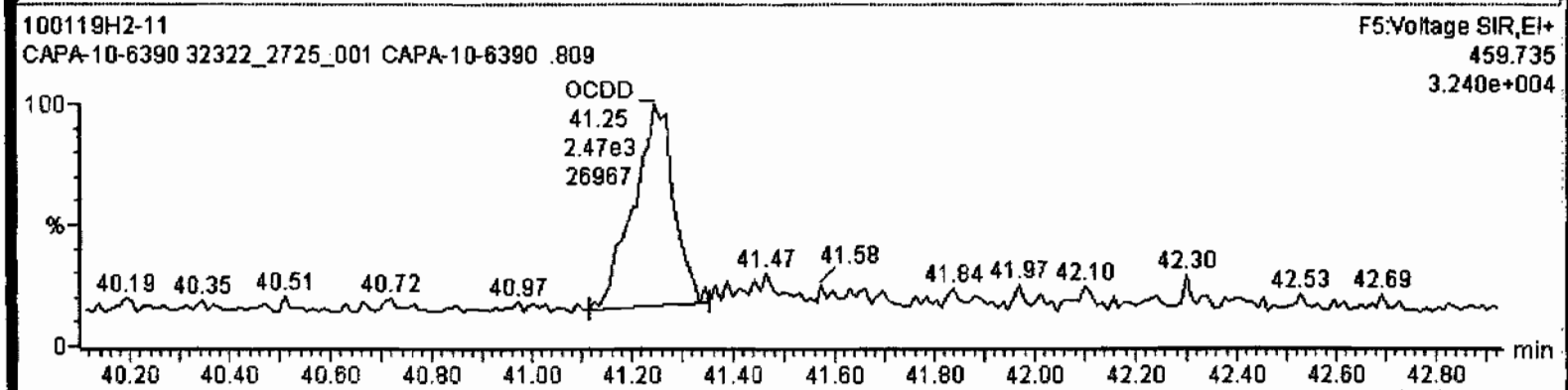

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 7:34:44 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:35:03 AM Pacific Standard Time

Name: 100119H2-11, Date: 19-Jan-2010, Time: 17:40:58, ID: 32322_2725_001 CAPA-10-6390 .809, Description: CAPA-10-6390

2,3,7,8-TCDF

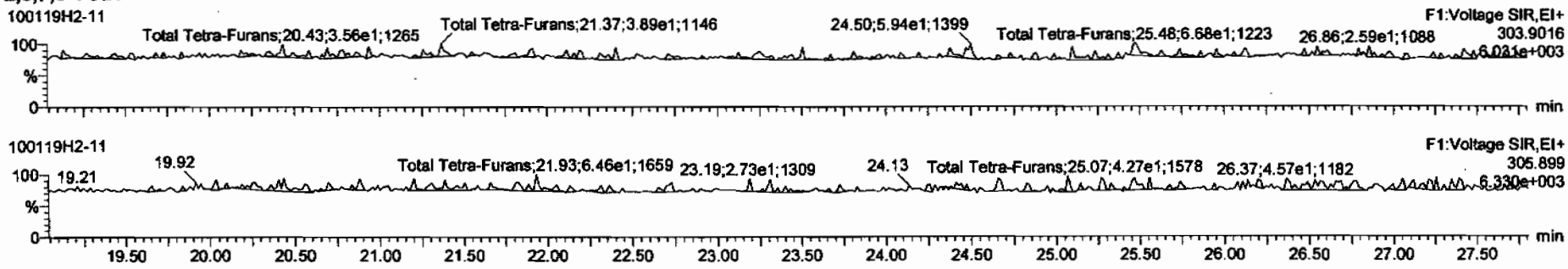

13C-2,3,7,8-TCDF

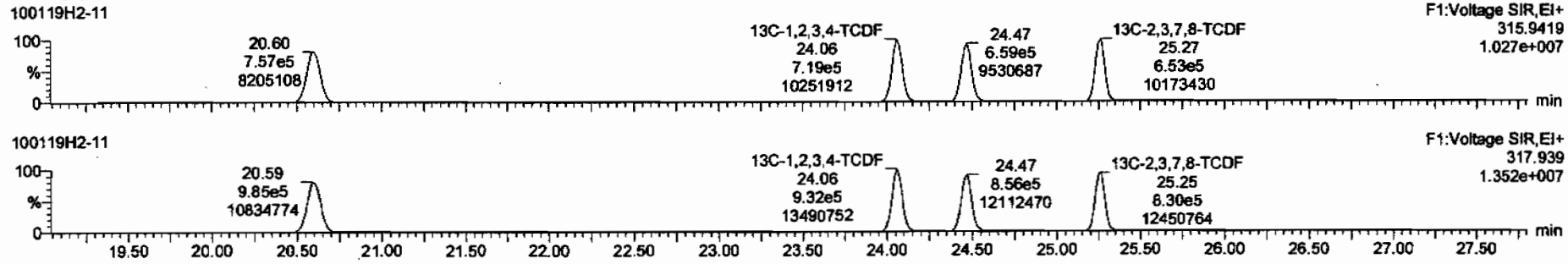

DPE1

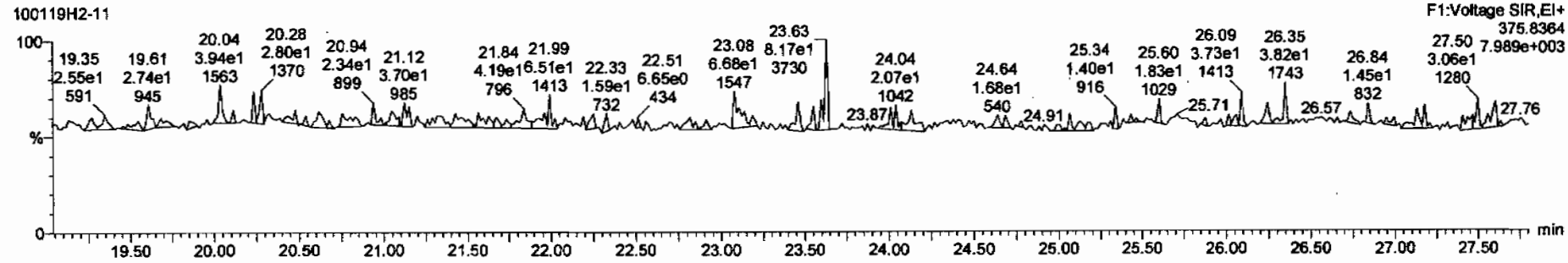

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 7:34:44 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:35:03 AM Pacific Standard Time

Name: 100119H2-11, Date: 19-Jan-2010, Time: 17:40:58, ID: 32322_2725_001 CAPA-10-6390 .809, Description: CAPA-10-6390

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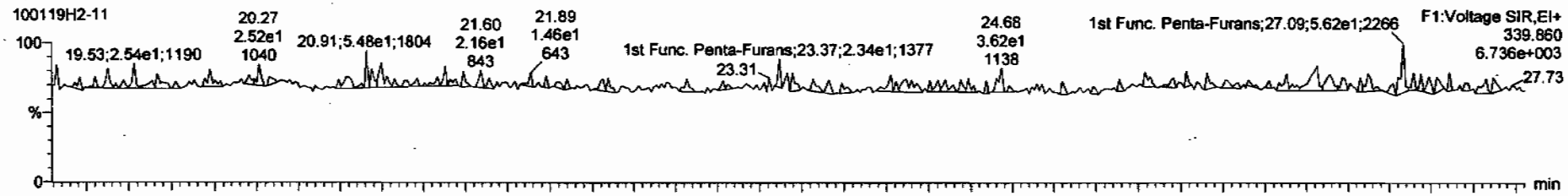

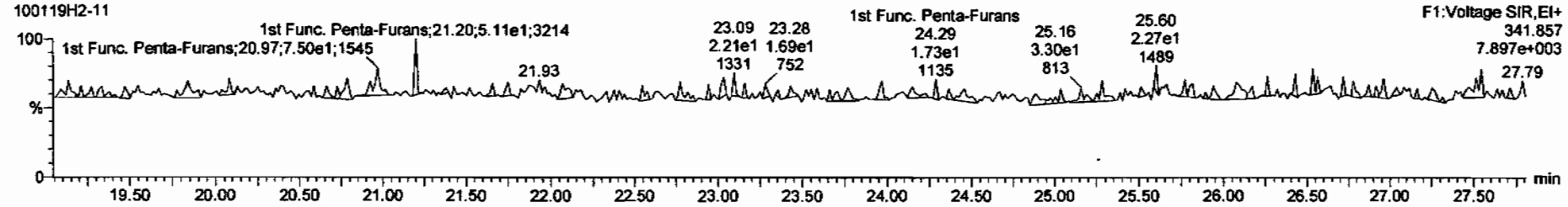

DPE6

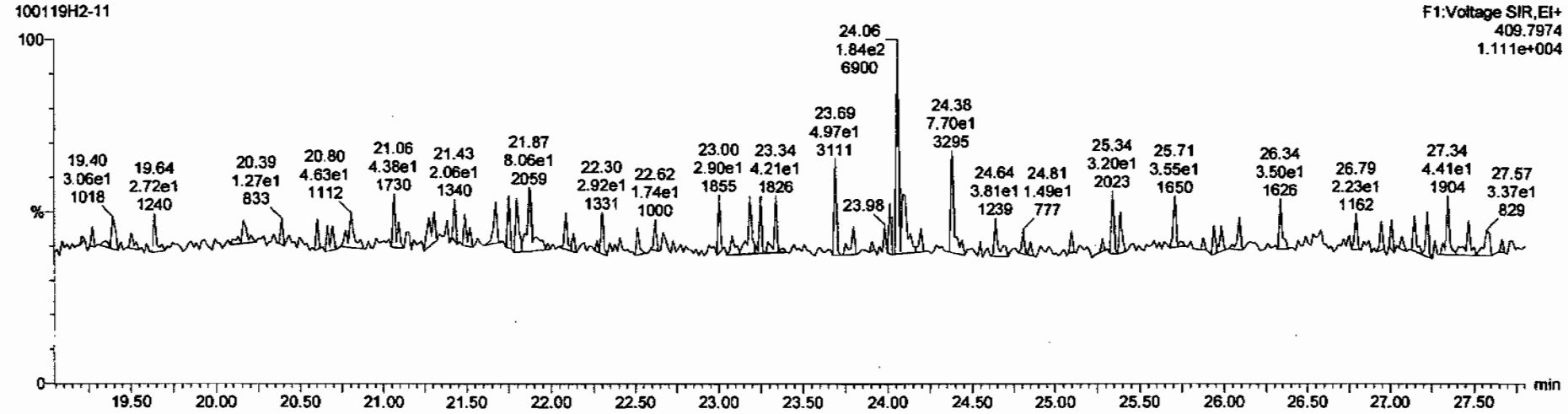

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 7:34:44 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:35:03 AM Pacific Standard Time

Name: 100119H2-11, Date: 19-Jan-2010, Time: 17:40:58, ID: 32322_2725_001 CAPA-10-6390 .809, Description: CAPA-10-6390

1,2,3,7,8-PeCDF

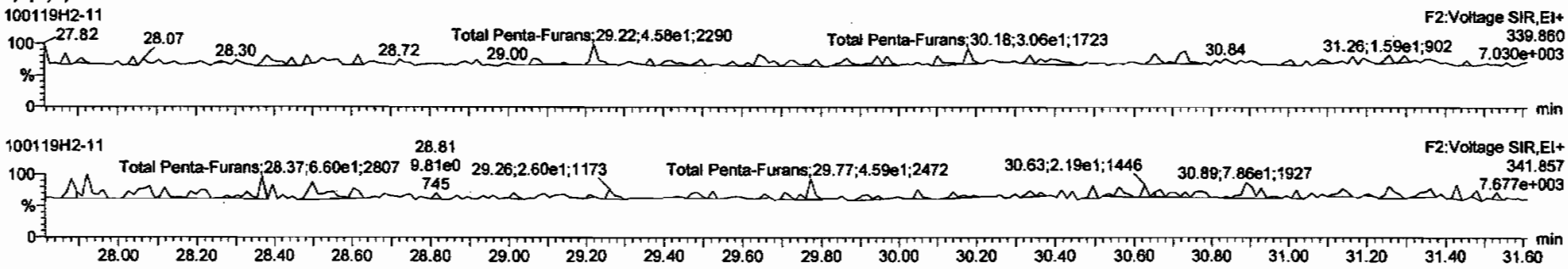

13C-1,2,3,7,8-PeCDF

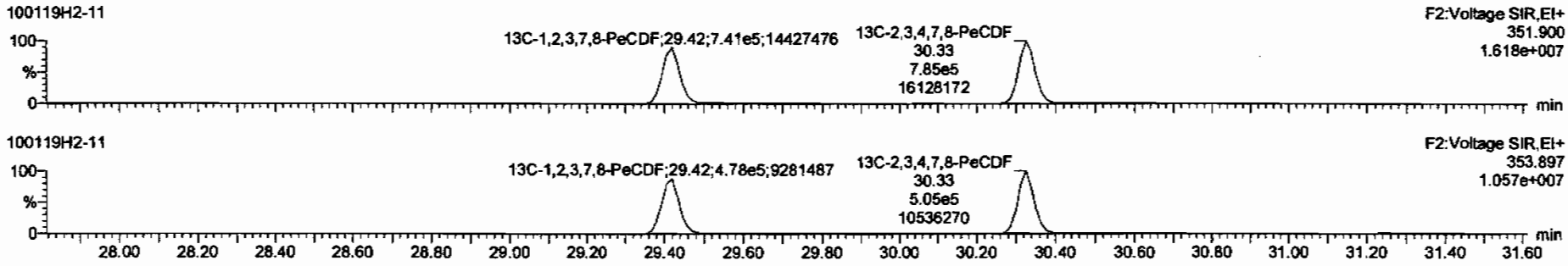

DPE2

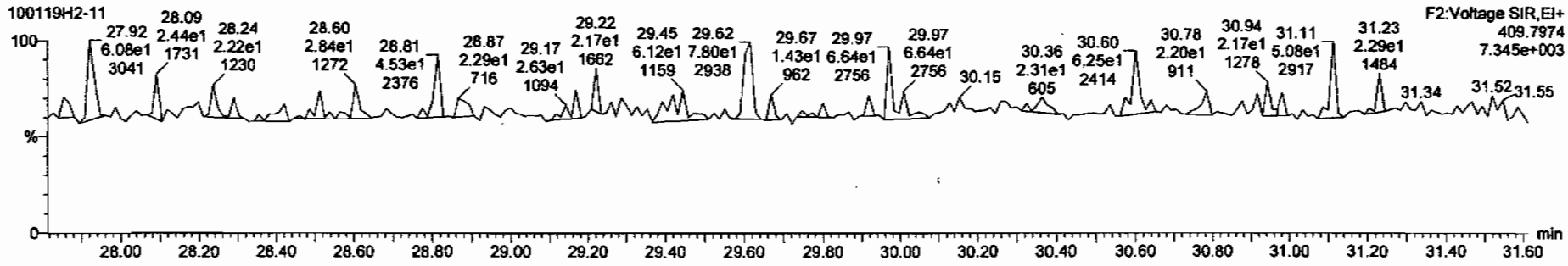

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 7:34:44 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:35:03 AM Pacific Standard Time

Name: 100119H2-11, Date: 19-Jan-2010, Time: 17:40:58, ID: 32322_2725_001 CAPA-10-6390 .809, Description: CAPA-10-6390

1,2,3,4,7,8-HxCDF

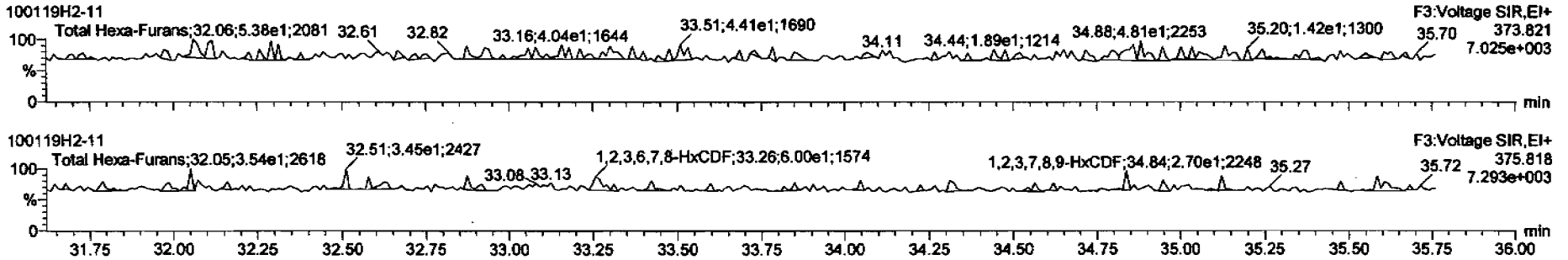

13C-1,2,3,4,7,8-HxCDF

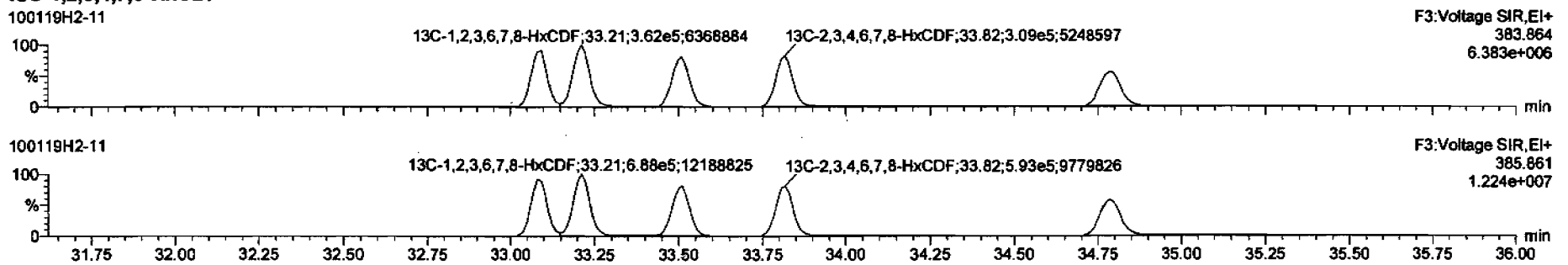

DPE3

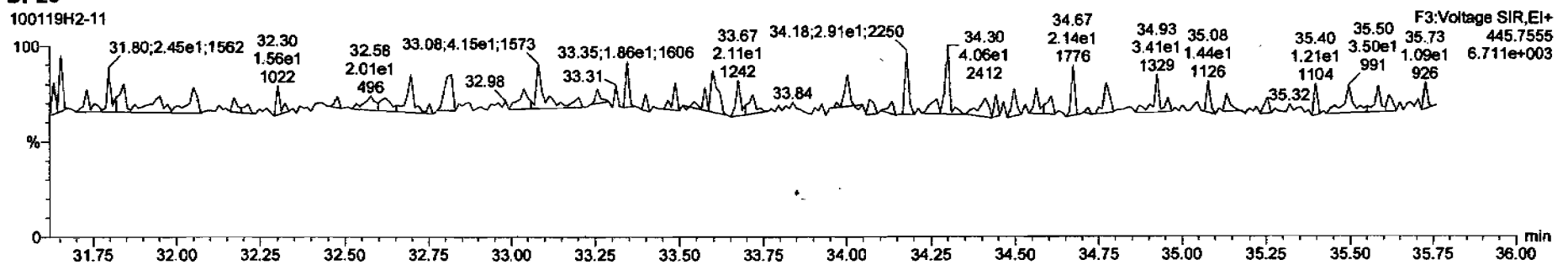

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 7:34:44 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:35:03 AM Pacific Standard Time

Name: 100119H2-11, Date: 19-Jan-2010, Time: 17:40:58, ID: 32322_2725_001 CAPA-10-6390 .809, Description: CAPA-10-6390

1,2,3,4,6,7,8-HpCDF

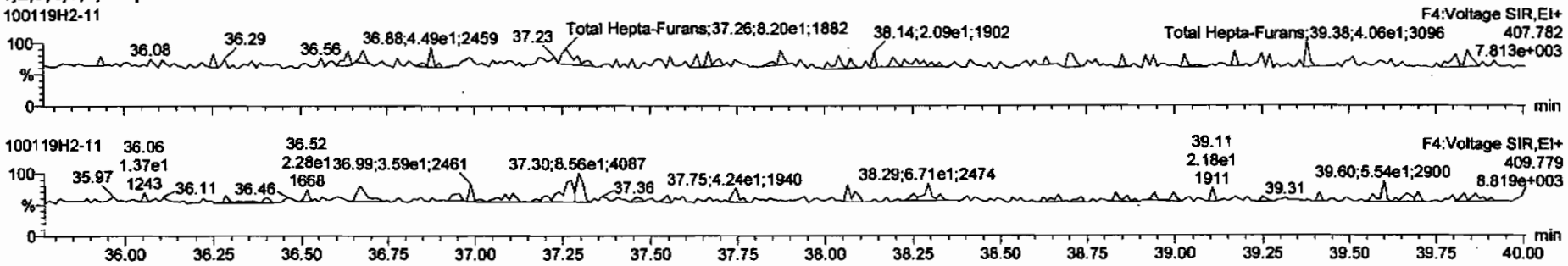

13C-1,2,3,4,6,7,8-HpCDF

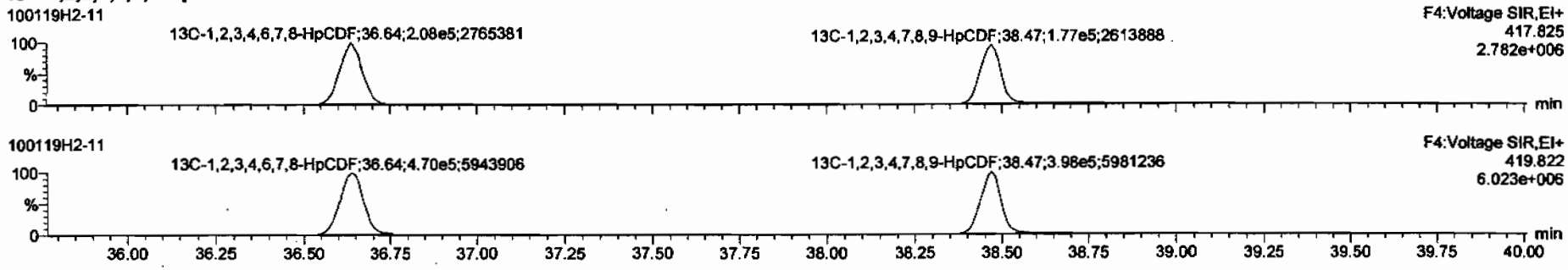

DPE4

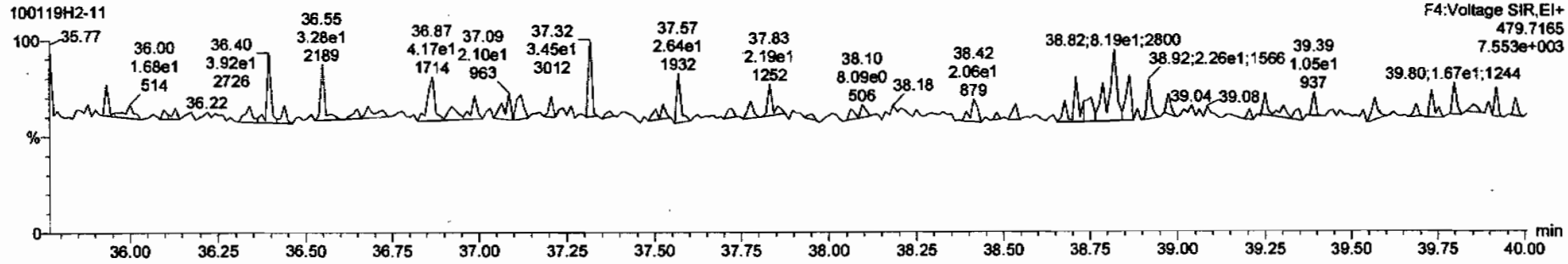

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 7:34:44 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:35:03 AM Pacific Standard Time

Name: 100119H2-11, Date: 19-Jan-2010, Time: 17:40:58, ID: 32322_2725_001 CAPA-10-6390 .809, Description: CAPA-10-6390

OCDF

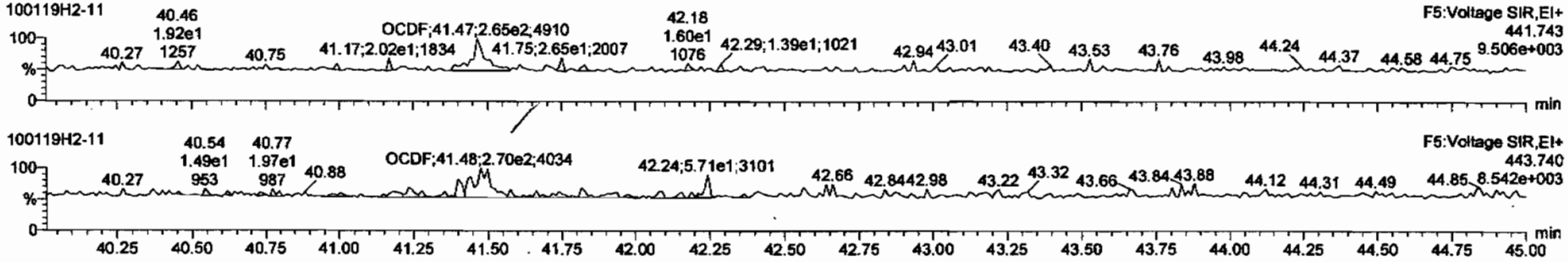

13C-OCDF

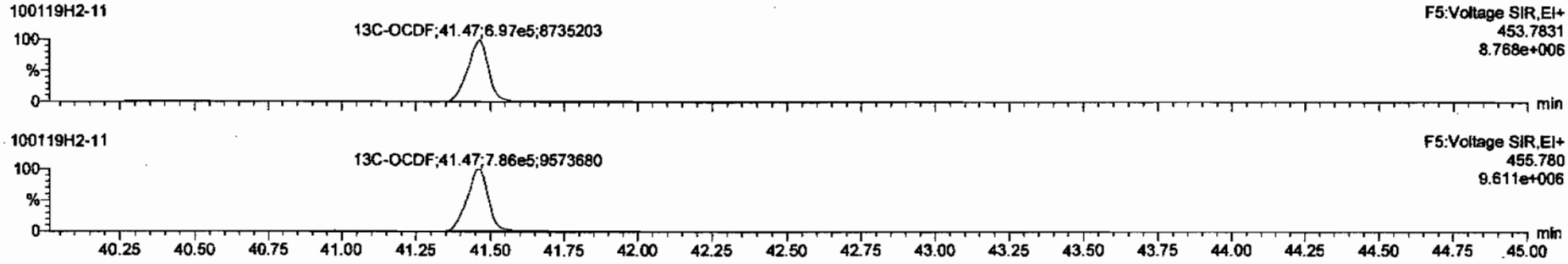

DPE5

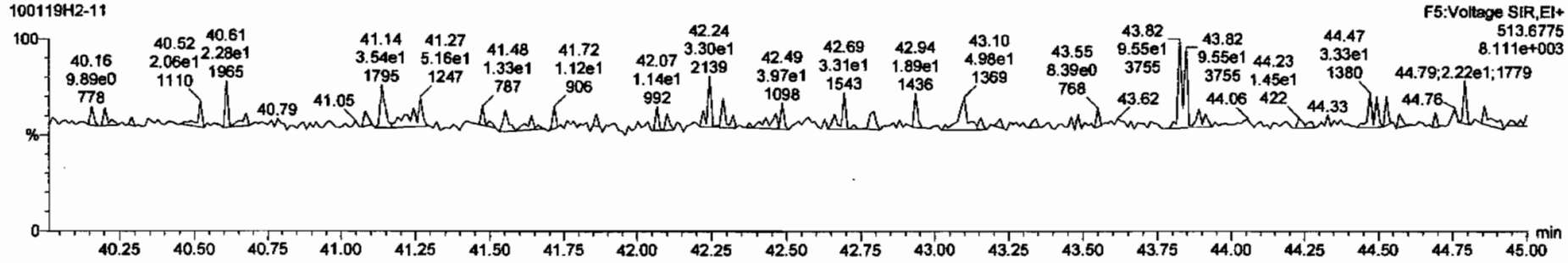

TargetLynx - untitled * - [Chromatogram]

File Edit View Display Processing Window Help

100119H2-11 - 32322_2725_001 CAPA-10-6390 .809 - CAPA-10-6390

	Name	Resp	Int(A)	RV	RRF	w/Vol	Mins	RT	Conc	%Rec	DL	Flags
11	1,2,3,4,7,8-HxCDF			NO	1.31	0.809					0.659	
12	1,2,3,6,7,8-HxCDF			NO	1.15	0.809					0.689	
13	2,3,4,6,7,8-HxCDF			NO	1.20	0.809					0.797	
14	1,2,3,7,8,9-HxCDF			NO	1.20	0.809					1.17	
15	1,2,3,4,6,7,8-HpCDF			NO	1.49	0.809					1.12	
16	1,2,3,4,7,8,9-HpCDF			NO	1.44	0.809					1.23	
17												
18	13C-2,3,7,8-TCDD	1.24e6	0.78	NO	1.02	0.809	26.03	1.022	2450	99.2	2.85	

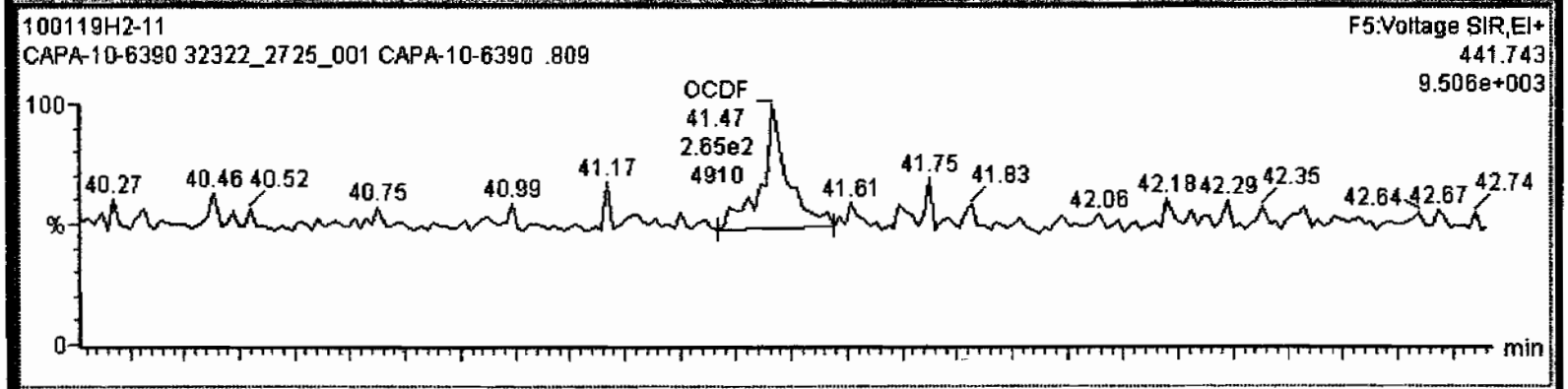

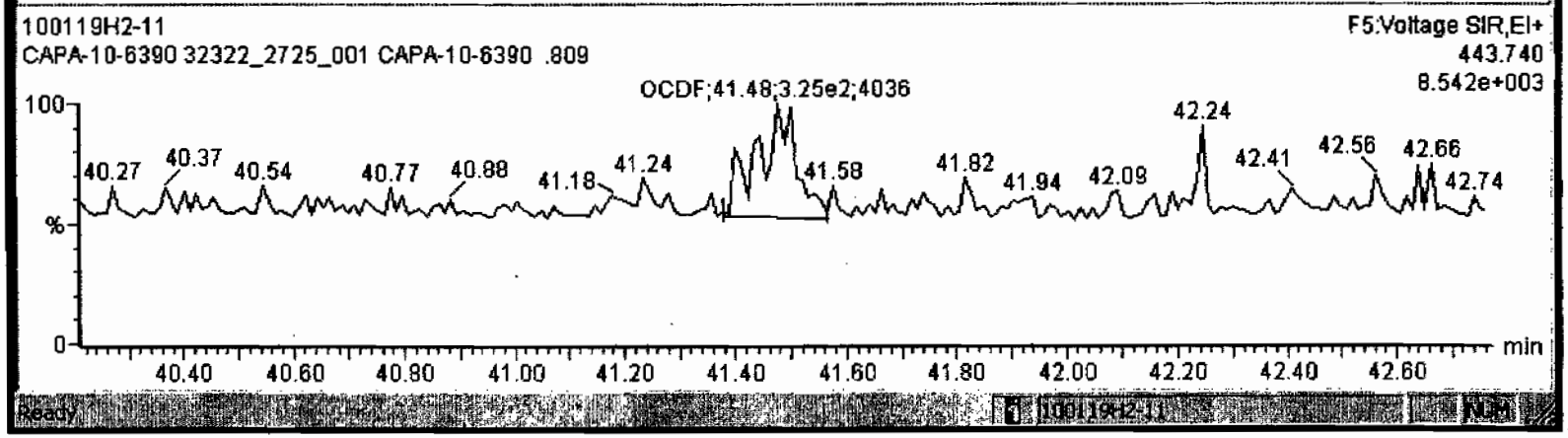

Ready 100119H2-11 NUM

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 7:34:44 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:35:03 AM Pacific Standard Time

Name: 100119H2-11, Date: 19-Jan-2010, Time: 17:40:58, ID: 32322_2725_001 CAPA-10-6390 .809, Description: CAPA-10-6390

PFK1

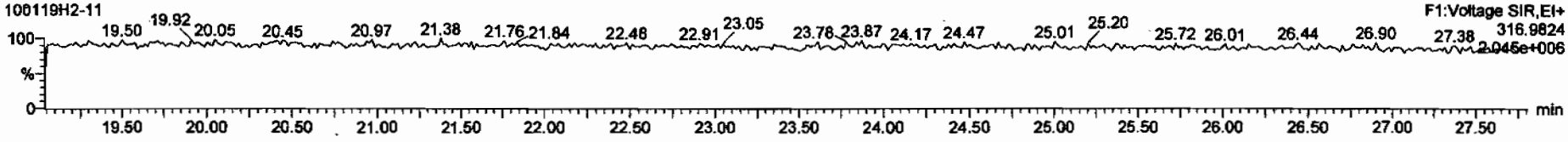

PFK2

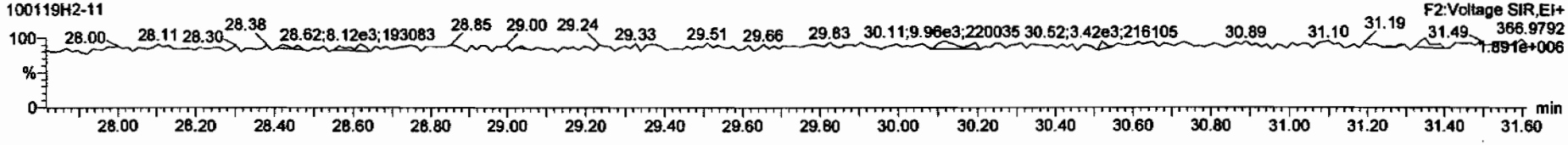

PFK3

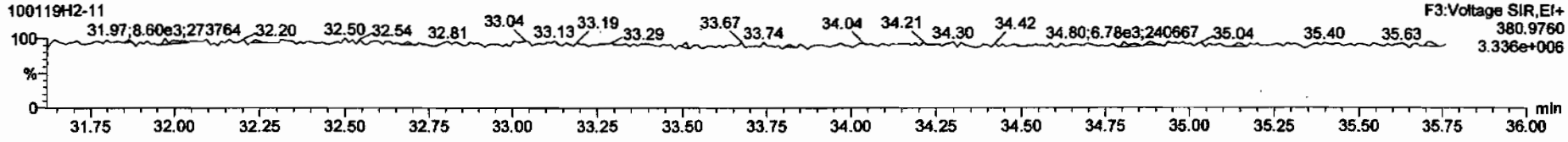

PFK4

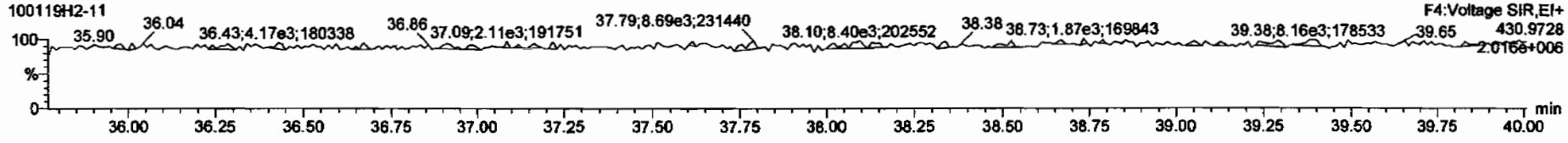

PFK5

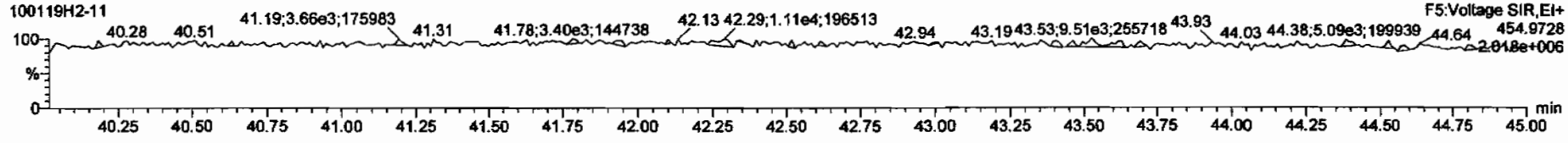

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 7:55:18 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:56:47 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-12, Date: 19-Jan-2010, Time: 18:30:30, ID: 32322_2725_002 CAPA-10-6745 .899, Description: CAPA-10-6745

1	2,3,7,8-TCDD			NO	0.965	0.899					0.495	
2	1,2,3,7,8-PeCDD			NO	0.869	0.899					1.00	
3	1,2,3,4,7,8-HxCDD			NO	0.873	0.899					1.23	
4	1,2,3,6,7,8-HxCDD			NO	0.940	0.899					1.33	
5	1,2,3,7,8,9-HxCDD			NO	0.882	0.899					1.30	
6	1,2,3,4,6,7,8-HpCDD			NO	0.965	0.899					1.79	
7	OCDD	4.27e3	0.80	NO	1.05	0.899	41.26	1.001	17.133		2.64	~~47.135~~
8	2,3,7,8-TCDF			NO	0.952	0.899					0.353	
9	1,2,3,7,8-PeCDF			NO	0.994	0.899					0.507	
10	2,3,4,7,8-PeCDF			NO	0.977	0.899					0.441	
11	1,2,3,4,7,8-HxCDF			NO	1.31	0.899					0.626	
12	1,2,3,6,7,8-HxCDF			NO	1.15	0.899					0.692	
13	2,3,4,6,7,8-HxCDF			NO	1.20	0.899					0.741	
14	1,2,3,7,8,9-HxCDF			NO	1.20	0.899					0.988	
15	1,2,3,4,6,7,8-HpCDF			NO	1.49	0.899					1.08	
16	1,2,3,4,7,8,9-HpCDF			NO	1.44	0.899					1.23	
17	OCDF	4.40e2	1.34	YES	1.02	0.899	41.49	1.001	1.~~4028~~		1.06	1.1314
18	13C-2,3,7,8-TCDD	1.18e6	0.79	NO	1.02	0.899	26.03	1.022	2062.0	92.7	1.80	
19	13C-1,2,3,7,8-PeCDD	9.05e5	0.61	NO	0.806	0.899	30.61	1.202	1999.7	89.9	2.53	
20	13C-1,2,3,4,7,8-HxCDD	7.36e5	1.26	NO	1.07	0.899	33.98	1.014	1742.1	78.3	3.14	
21	13C-1,2,3,6,7,8-HxCDD	6.81e5	1.24	NO	0.968	0.899	34.09	1.017	1790.4	80.5	3.49	
22	13C-1,2,3,7,8,9-HxCDD	7.68e5	1.24	NO	1.13	0.899	34.40	1.027	1721.3	77.4	2.97	
23	13C-1,2,3,4,6,7,8-HpCDD	6.00e5	1.07	NO	0.888	0.899	37.92	1.132	1716.9	77.2	4.76	
24	13C-OCDD	1.06e6	0.89	NO	0.783	0.899	41.22	1.230	3446.3	77.5	3.74	
25	13C-2,3,7,8-TCDF	1.37e6	0.78	NO	1.03	0.899	25.25	0.992	1793.5	80.6	2.45	
26	13C-1,2,3,7,8-PeCDF	1.15e6	1.52	NO	0.880	0.899	29.42	1.155	1760.9	79.2	6.29	
27	13C-2,3,4,7,8-PeCDF	1.22e6	1.56	NO	0.867	0.899	30.33	1.191	1902.1	85.5	6.38	
28	13C-1,2,3,4,7,8-HxCDF	8.66e5	0.52	NO	1.19	0.899	33.08	0.987	1856.7	83.5	4.55	
29	13C-1,2,3,6,7,8-HxCDF	9.67e5	0.52	NO	1.30	0.899	33.21	0.991	1888.7	84.9	4.15	
30	13C-2,3,4,6,7,8-HxCDF	8.41e5	0.53	NO	1.16	0.899	33.82	1.009	1839.9	82.7	4.64	

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1/28/10

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 7:55:18 AM Pacific Standard Time
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Name: 100119H2-12, Date: 19-Jan-2010, Time: 18:30:30, ID: 32322_2725_002 CAPA-10-6745 .899, Description: CAPA-10-6745

31	13C-1,2,3,7,8,9-HxCDF	7.15e5	0.52	NO	1.03	0.899	34.78	1.038	1771.4	79.6	5.26	
32	13C-1,2,3,4,6,7,8-HpCDF	6.42e5	0.46	NO	0.909	0.899	36.64	1.093	1797.0	80.8	6.32	
33	13C-1,2,3,4,7,8,9-HpCDF	5.34e5	0.46	NO	0.830	0.899	38.47	1.148	1636.1	73.5	6.93	
34	13C-OCDF	1.37e6	0.91	NO	0.982	0.899	41.46	1.237	3540.9	79.6	2.74	
35	37Cl-2,3,7,8-TCDD	2.93e5			0.602	0.899	26.05	1.023	866.40	97.4	0.557	
36	13C-1,2,3,4-TCDD	1.25e6	0.79	NO	1.00	0.899	25.46	0.000	2224.7	100	1.85	
37	13C-1,2,3,4-TCDF	1.65e6	0.77	NO	1.00	0.899	24.06	0.000	2224.7	100	2.52	
38	13C-1,2,3,4,6,9-HxCDF	8.75e5	0.52	NO	1.00	0.899	33.51	0.000	2224.7	100	5.40	
39	Total Tetra-Dioxins				0.965	0.899					0.259	
40	Total Penta-Dioxins				0.869	0.899					0.370	
41	Total Hexa-Dioxins				0.940	0.899					0.744	
42	Total Hepta-Dioxins				0.965	0.899			~~0.00000~~		0.899	2.6707
43	Total Tetra-Furans				0.952	0.899					0.155	
44	1st Func. Penta-Furans				0.994	0.899					0.184	
45	Total Penta-Furans				0.994	0.899					0.214	
46	Total Hexa-Furans				1.20	0.899					0.489	
47	Total Hepta-Furans				1.49	0.899					0.536	

Quantify Totals Report MassLynx 4.1
Vista Analytical Laboratory VG-10

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 7:55:18 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:56:47 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-12, Date: 19-Jan-2010, Time: 18:30:30, ID: 32322_2725_002 CAPA-10-6745 .899, Description: CAPA-10-6745

Tetra-Dioxins

Penta-Dioxins

Hexa-Dioxins

Hepta-Dioxins

	Total Hepta-Dioxins	37.04	5.064e3	4.599e3	4.429e2	3.406e2	1.30	YES	0.000e0	0.00000	2.6707	1.79

Tetra-Furans

Penta-Furans function 1

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 7:55:18 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:56:47 AM Pacific Standard Time

Name: 100119H2-12, Date: 19-Jan-2010, Time: 18:30:30, ID: 32322_2725_002 CAPA-10-6745 .899, Description: CAPA-10-6745

Penta-Furans

Hexa-Furans

Hepta-Furans

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 7:44:57 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:45:09 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-12, Date: 19-Jan-2010, Time: 18:30:30, ID: 32322_2725_002 CAPA-10-6745 .899, Description: CAPA-10-6745

2,3,7,8-TCDD

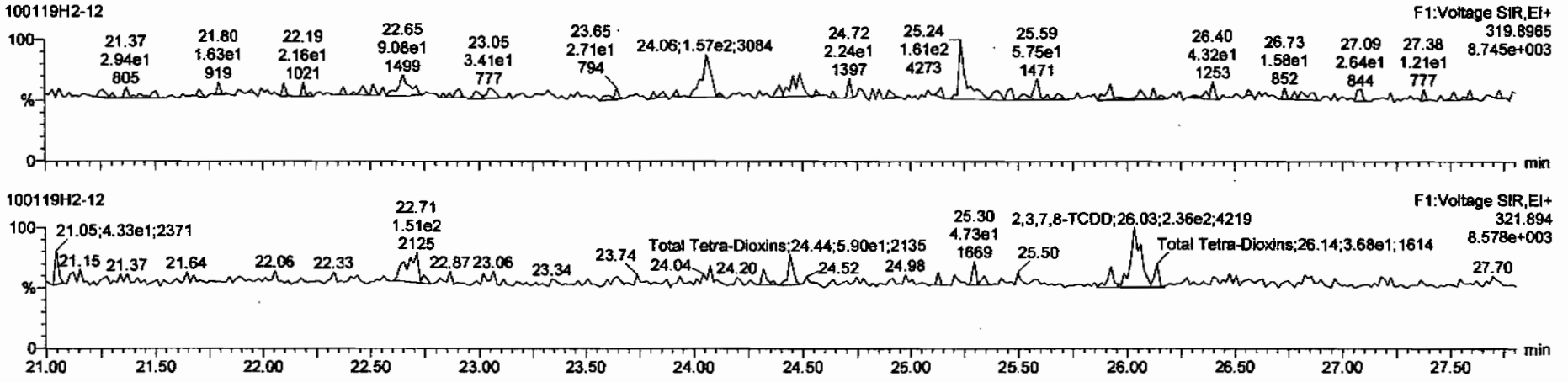

13C-2,3,7,8-TCDD

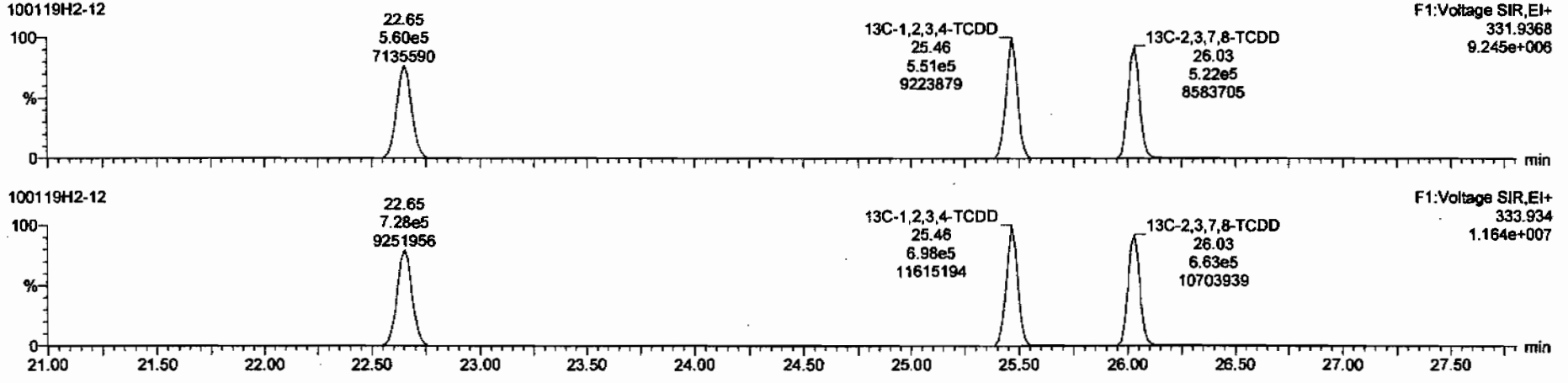

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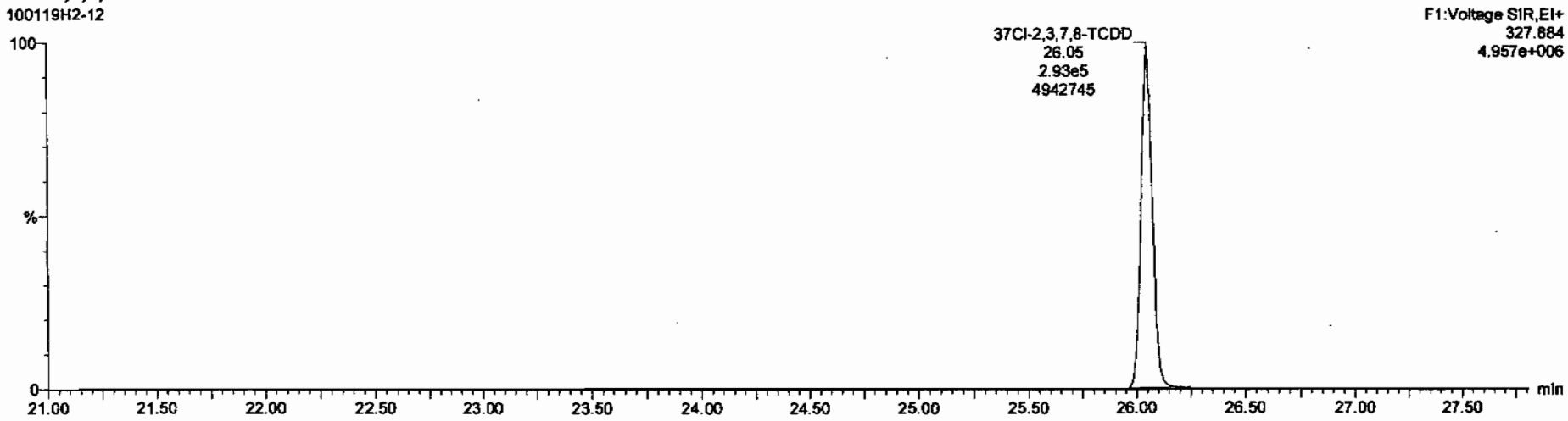

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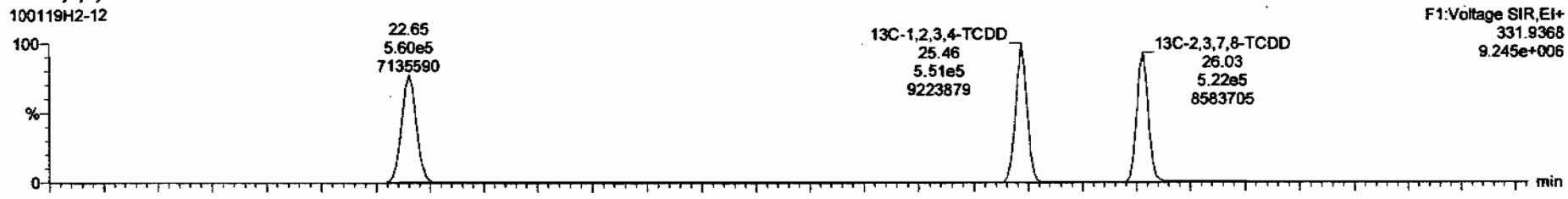

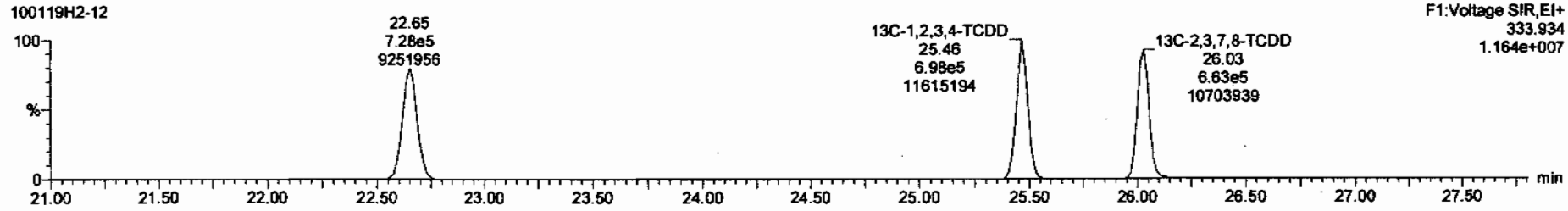

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1,2,3,7,8-PeCDD

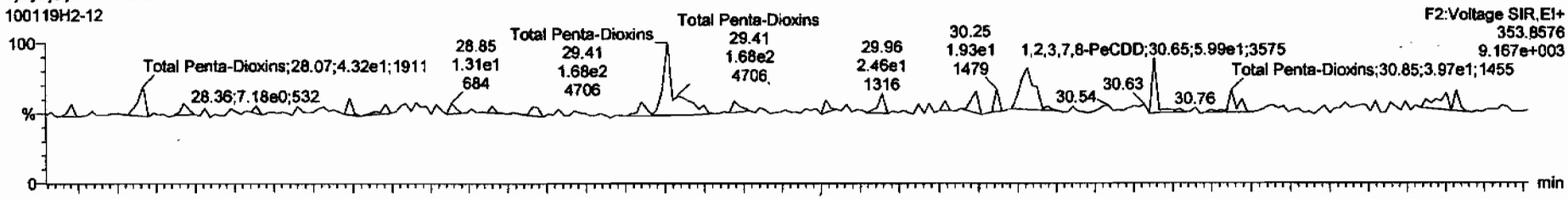

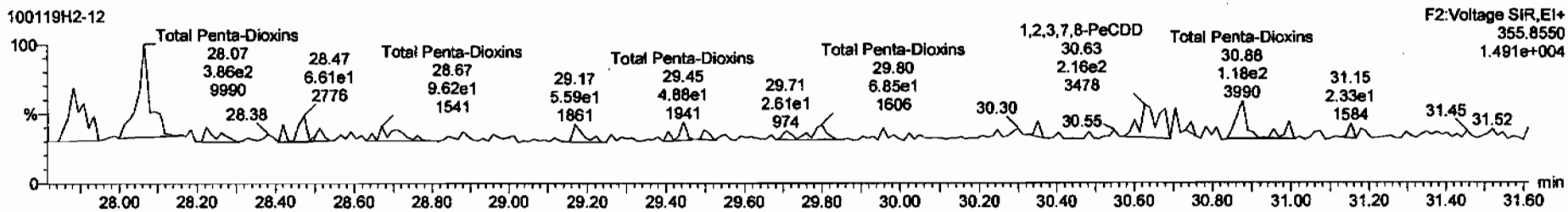

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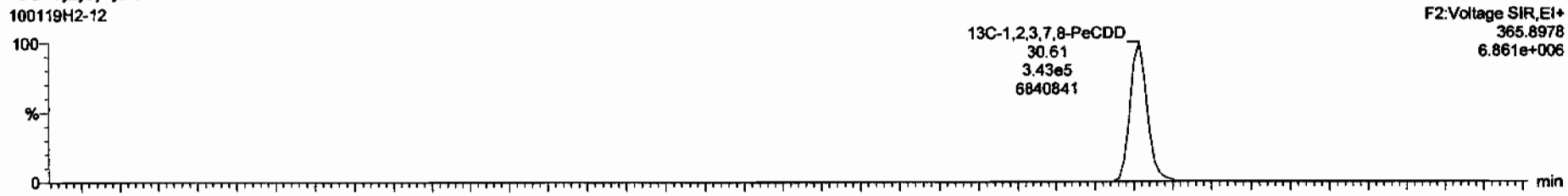

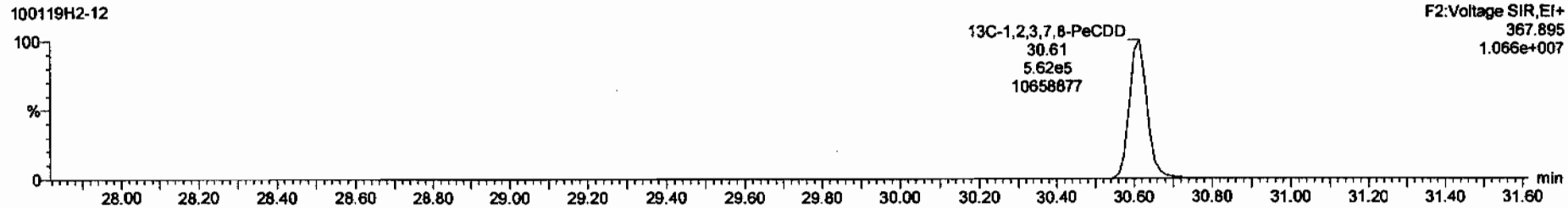

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1,2,3,4,7,8-HxCDD

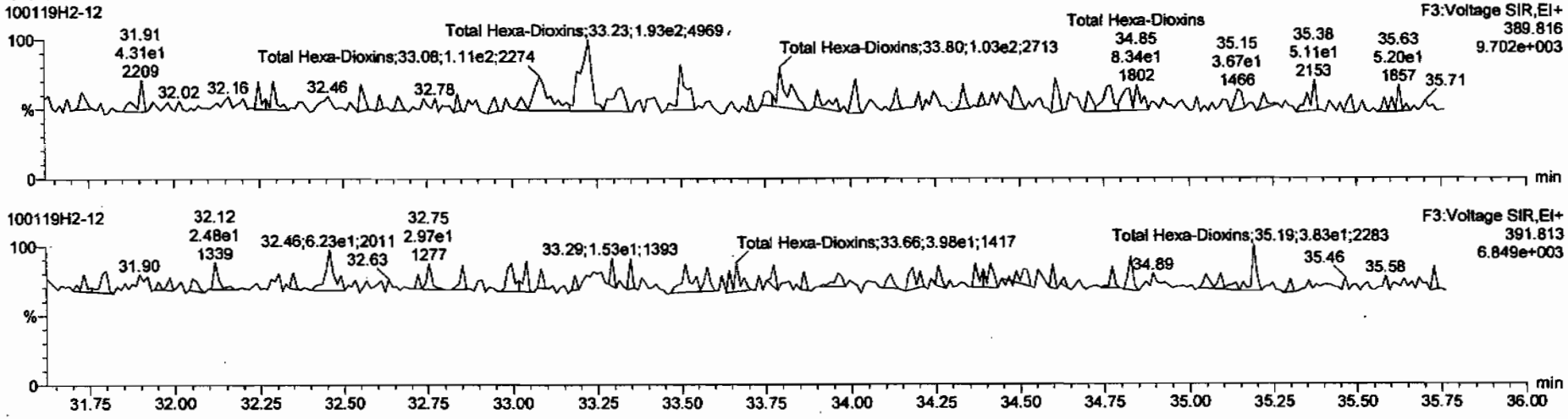

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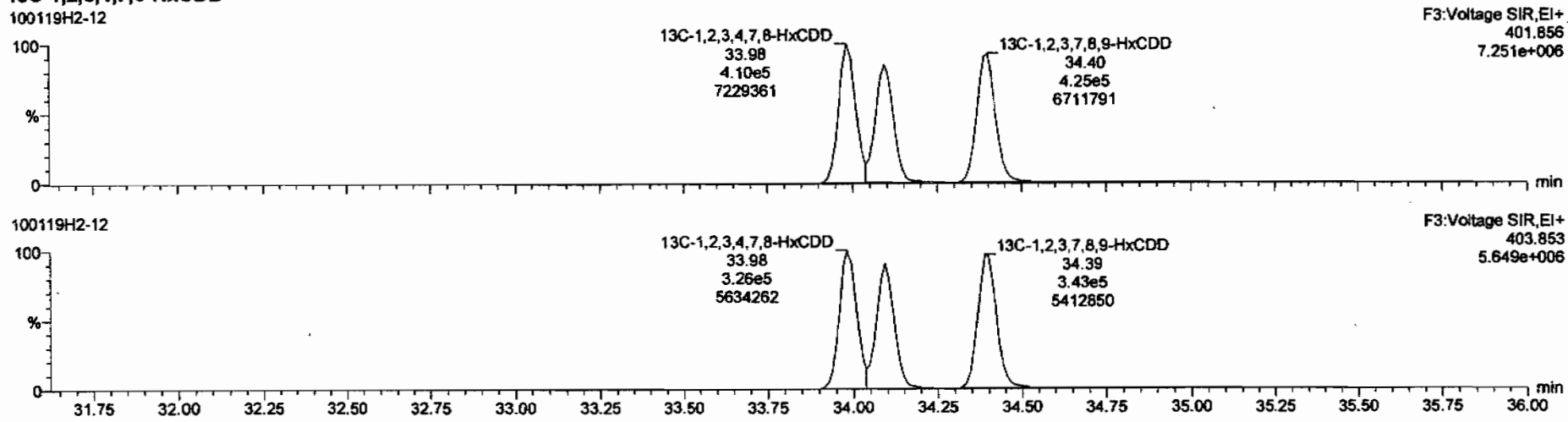

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1,2,3,4,6,7,8-HpCDD

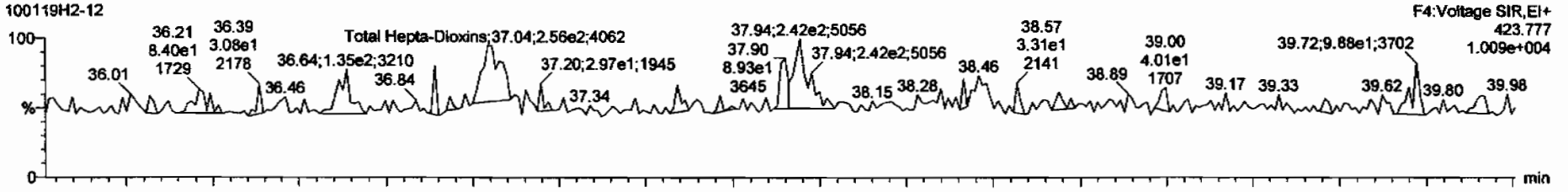

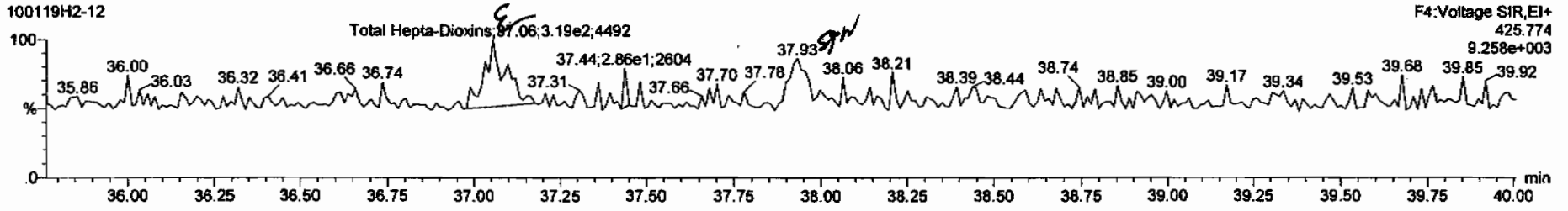

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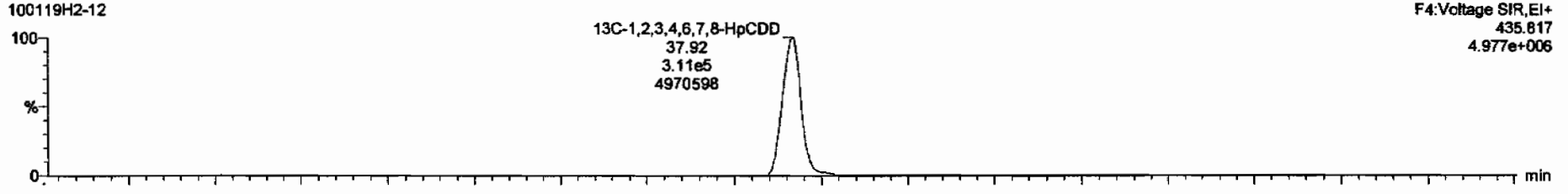

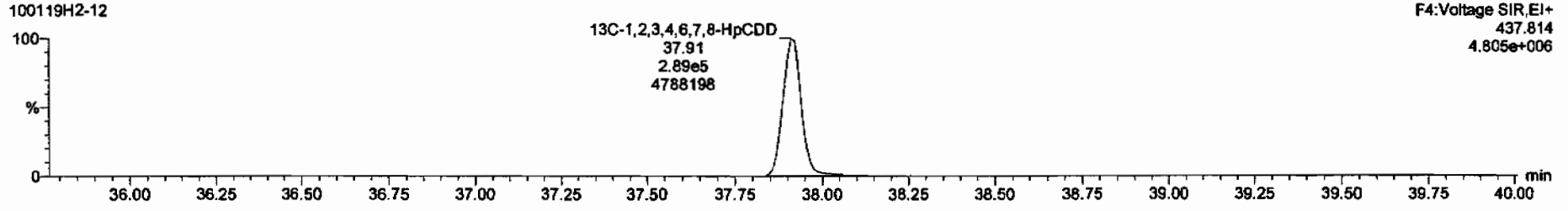

TargetLynx - untitled * - [Chromatogram]

File Edit View Display Processing Window Help

100119H2-12 - 32322_2725_002 CAPA-10-6745 .899 - CAPA-10-6745

	Name	RT	m1 Resp	m2 Resp	RA	OK	EMPC	Conc
1	Total Hepta-Dioxins	37.04	4.429e2	3.406e2	1.30	YES	2.6707	0.00000

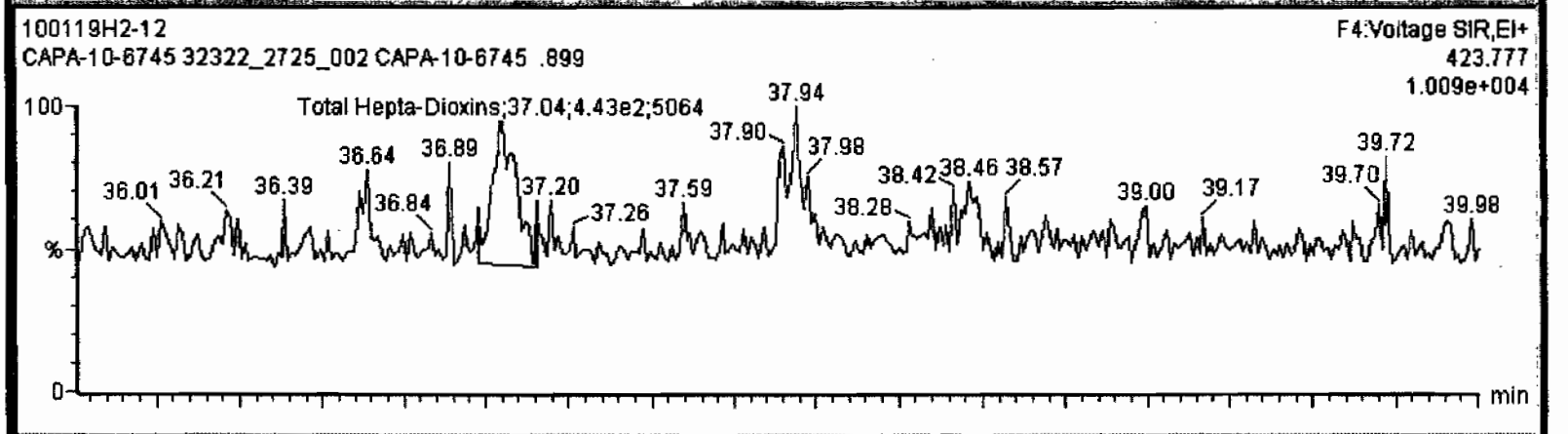

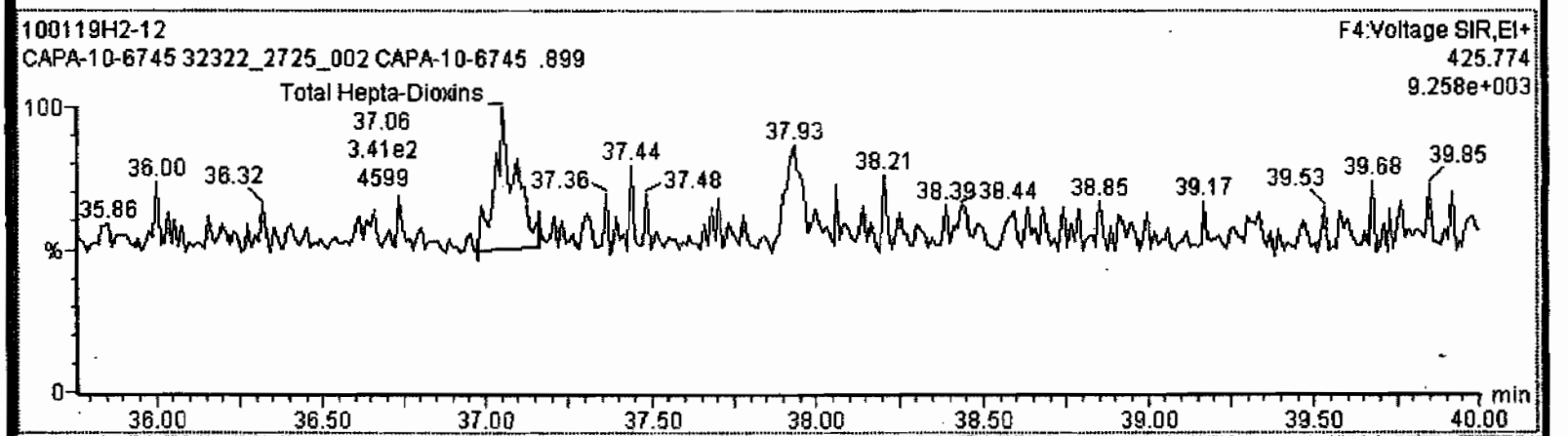

Ready 100119H2-12 NUM

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 7:44:57 AM Pacific Standard Time
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Name: 100119H2-12, Date: 19-Jan-2010, Time: 18:30:30, ID: 32322_2725_002 CAPA-10-6745 .899, Description: CAPA-10-6745

OCDD

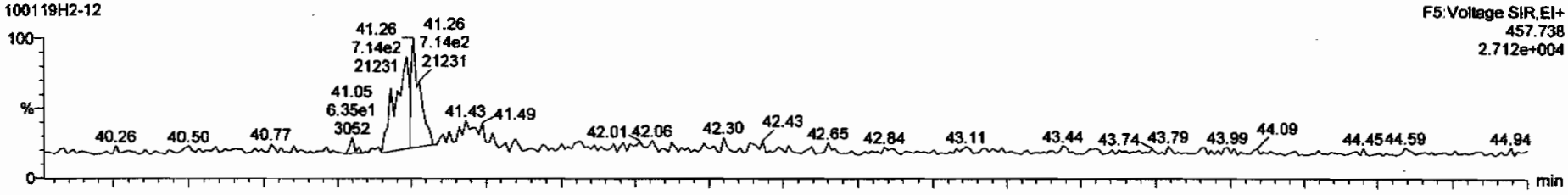

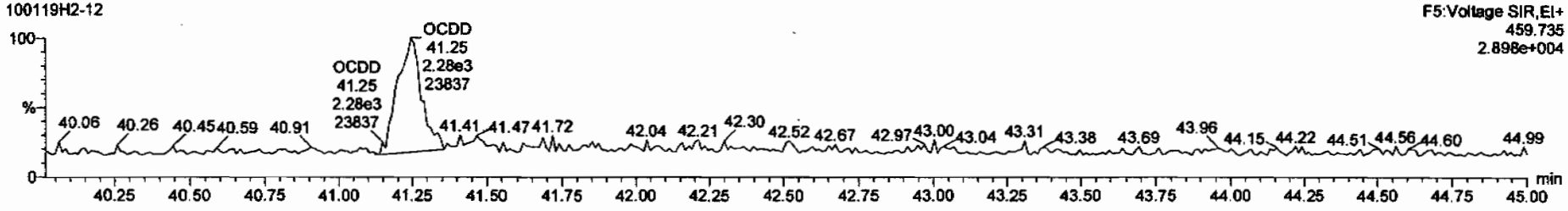

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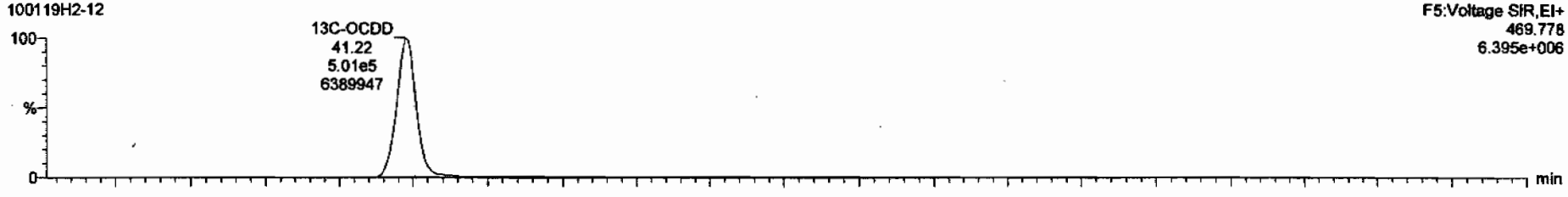

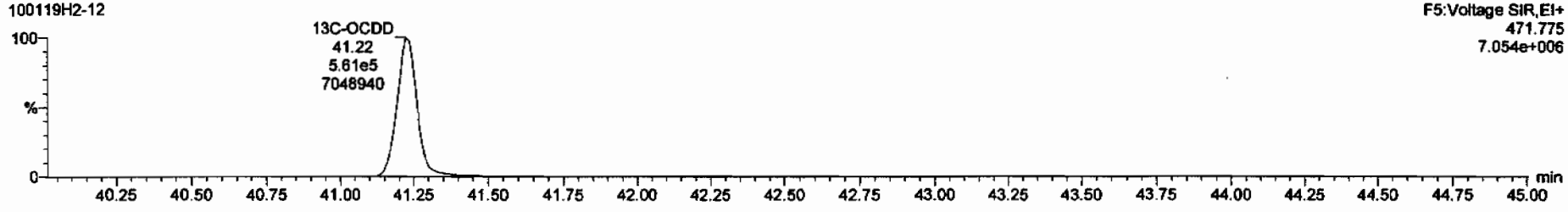

TargetLynx - untitled * - [Chromatogram]

File Edit View Display Processing Window Help

100119H2-12 - 32322_2725_002 CAPA-10-6745 .899 - CAPA-10-6745

	Name	Rsqd	Fit	Qty	RRT	WZ.01	RT	Mon	Conc	Area	TDL	Exp
5	1,2,3,7,8,9-HxCDD			NO	0.88	0.899					1.30	
6	1,2,3,4,6,7,8-HpCDD			NO	0.97	0.899					1.79	
7												
8	2,3,7,8-TCDF			NO	0.95	0.899					0.353	
9	1,2,3,7,8-PeCDF			NO	0.99	0.899					0.507	
10	2,3,4,7,8-PeCDF			NO	0.98	0.899					0.441	
11	1,2,3,4,7,8-HxCDF			NO	1.31	0.899					0.626	
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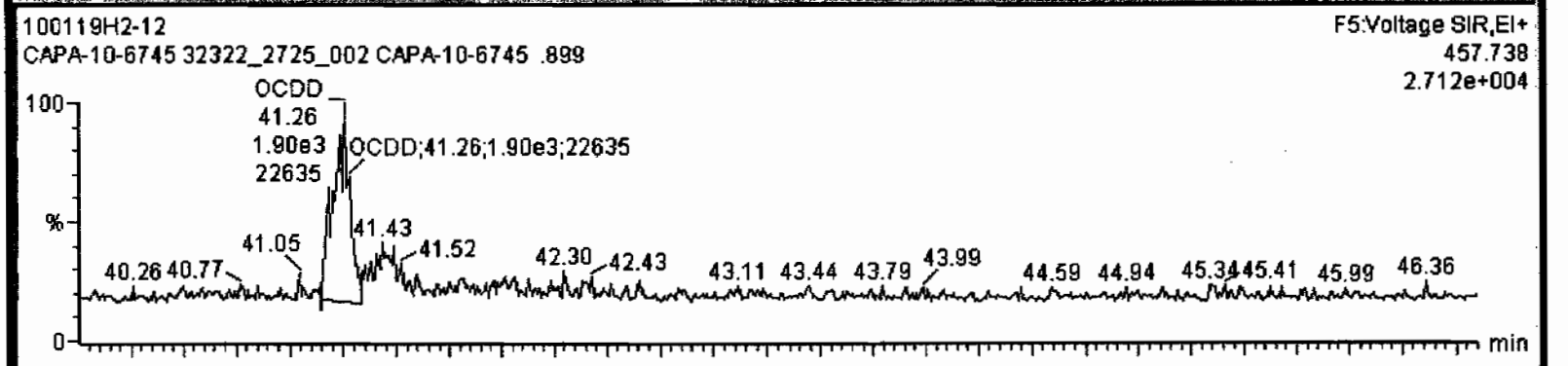

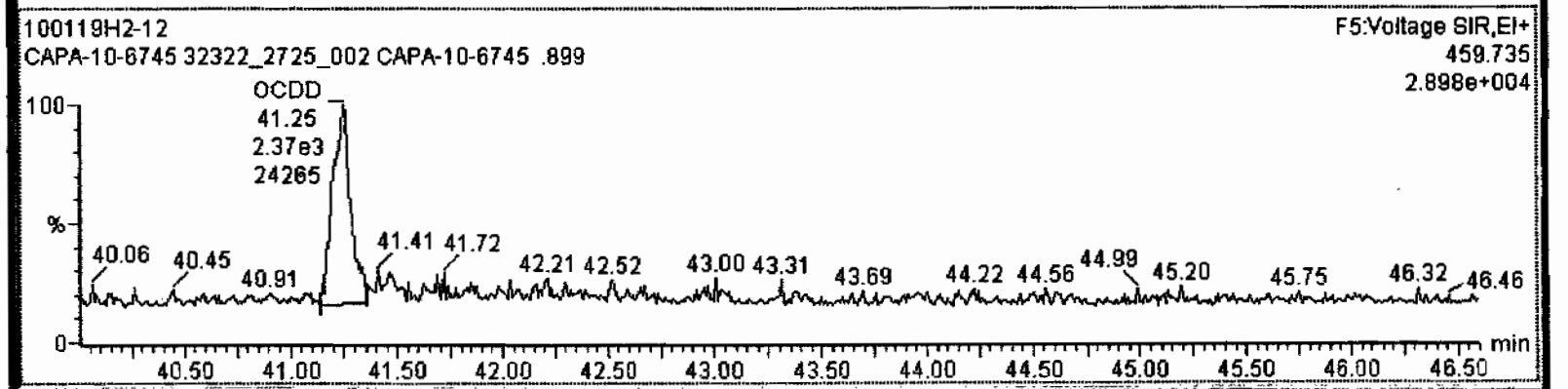

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Last Altered: Wednesday, January 20, 2010 7:44:57 AM Pacific Standard Time
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Name: 100119H2-12, Date: 19-Jan-2010, Time: 18:30:30, ID: 32322_2725_002 CAPA-10-6745 .899, Description: CAPA-10-6745

2,3,7,8-TCDF

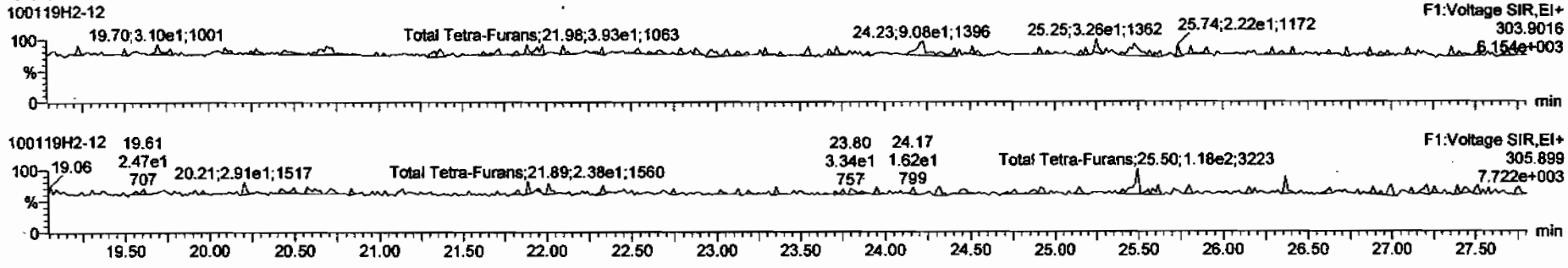

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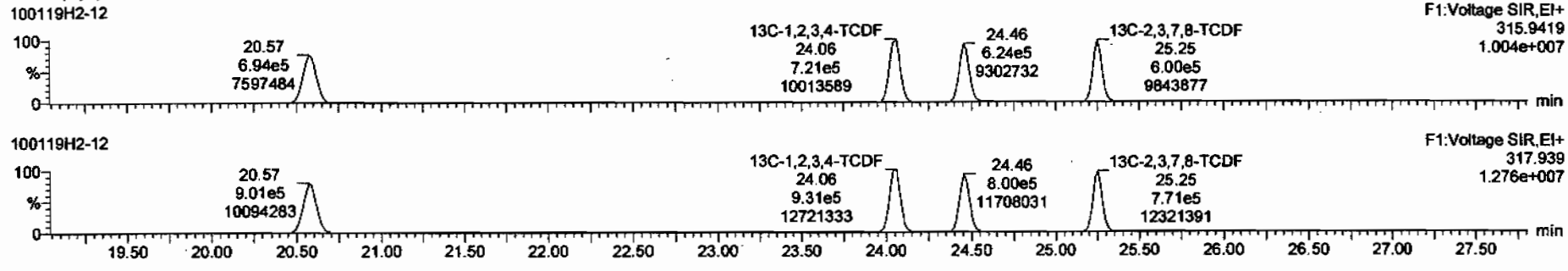

DPE1

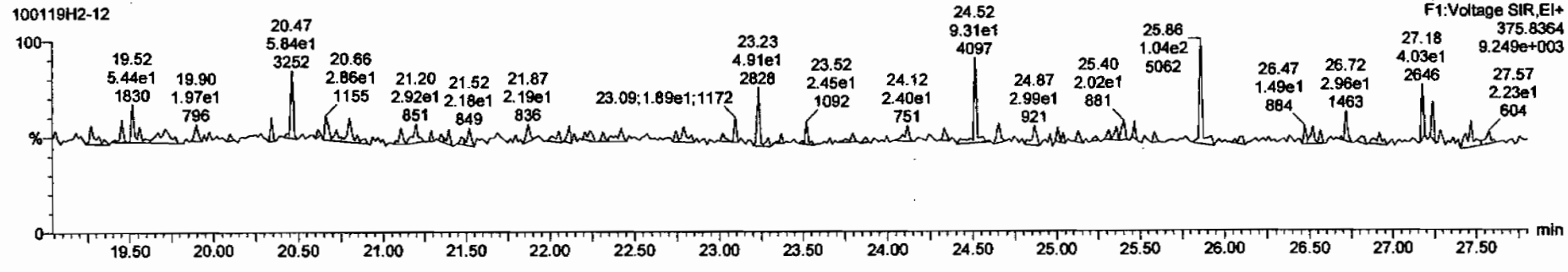

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1st Func. Penta-Furans

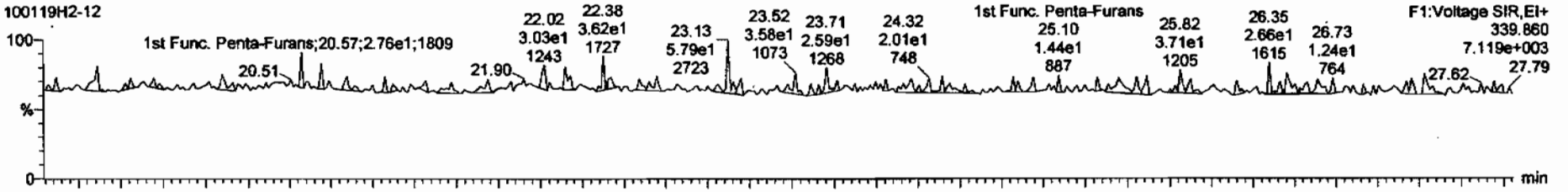

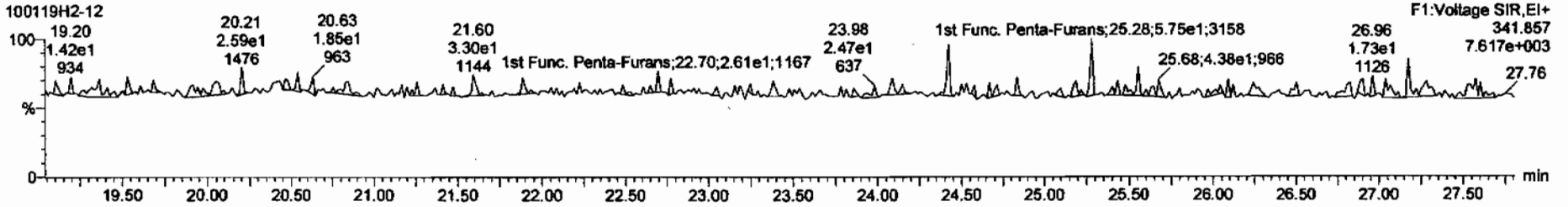

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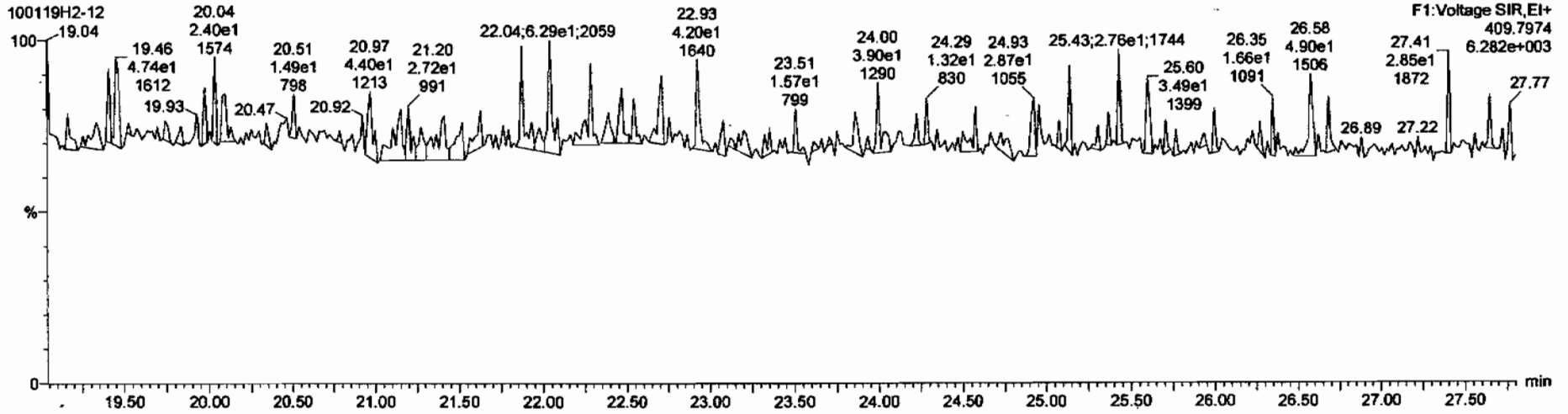

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1,2,3,7,8-PeCDF

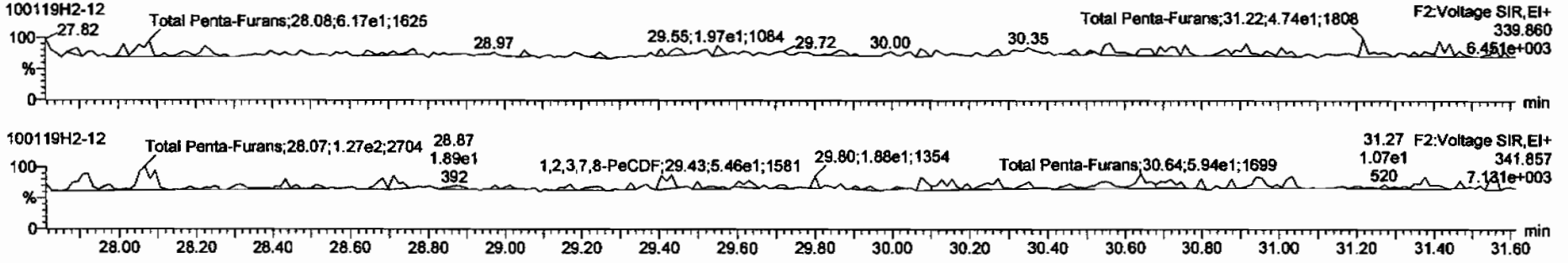

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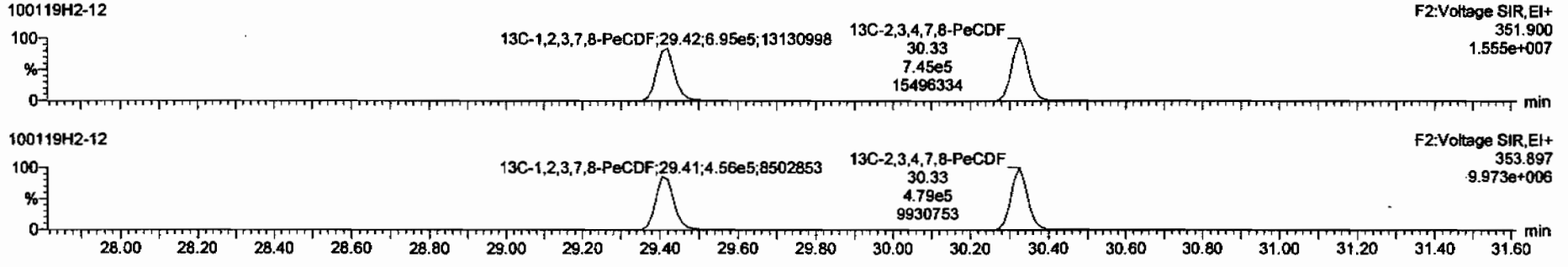

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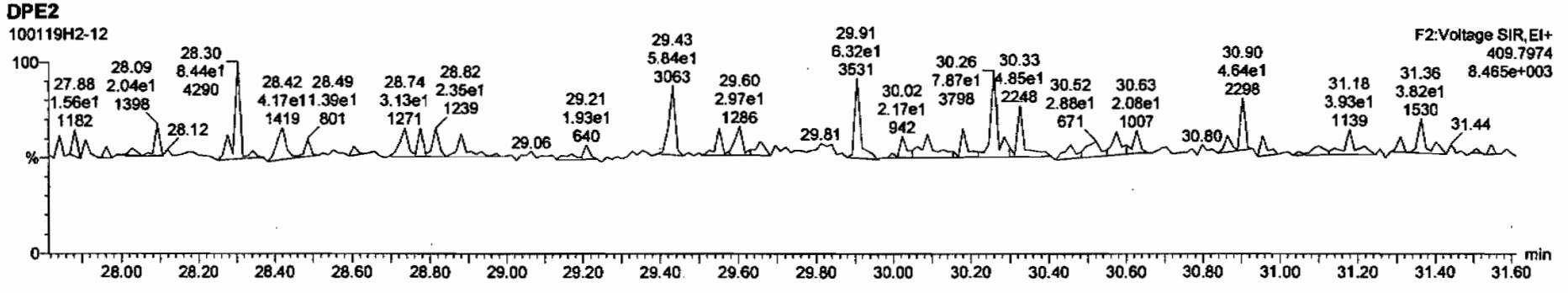

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1,2,3,4,7,8-HxCDF

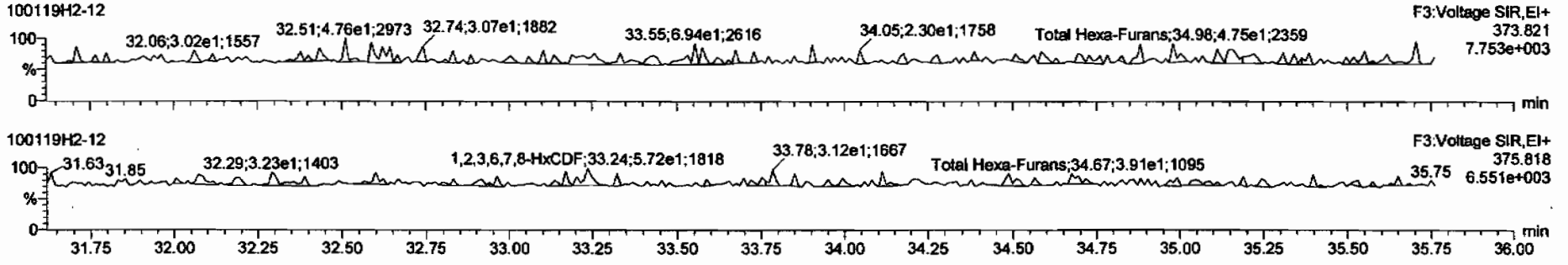

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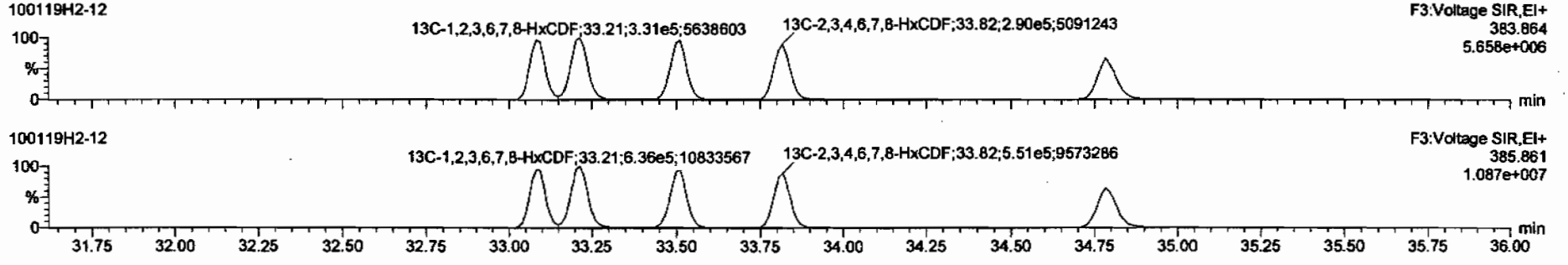

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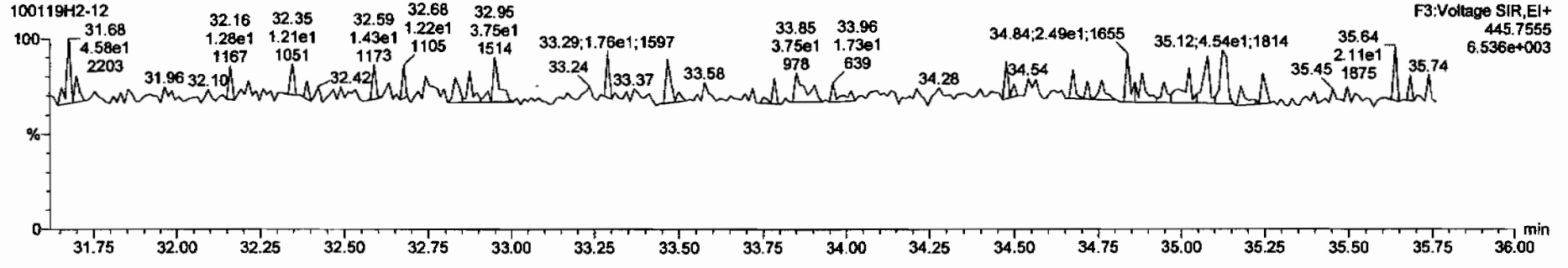

Dataset: Untitled

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1,2,3,4,6,7,8-HpCDF

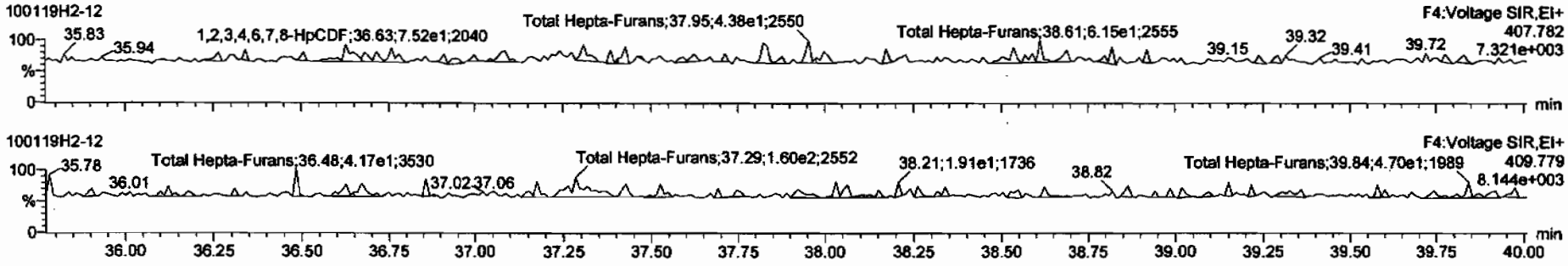

13C-1,2,3,4,6,7,8-HpCDF

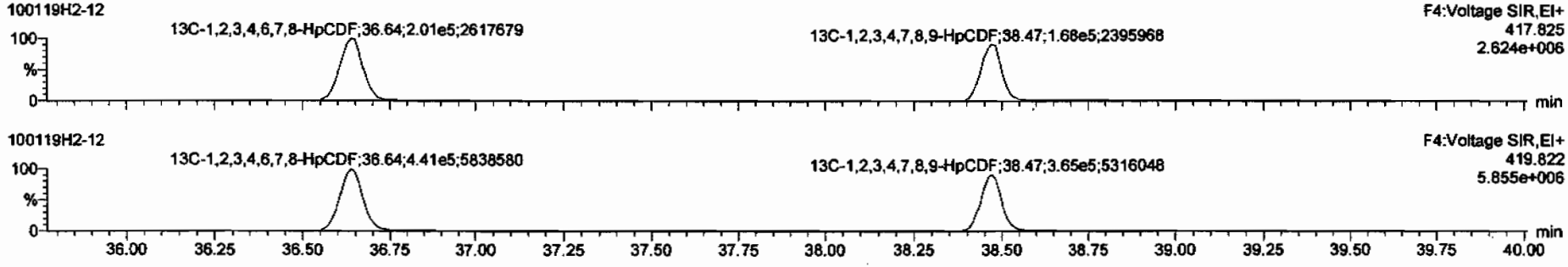

DPE4

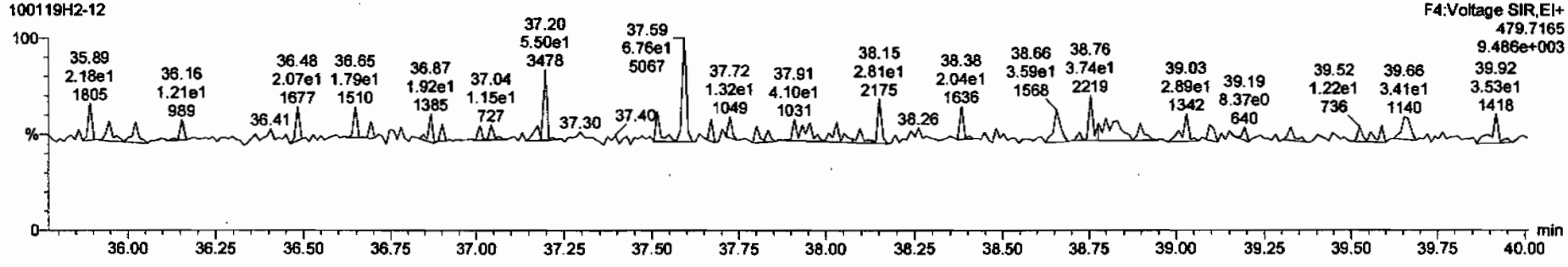

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Printed: Wednesday, January 20, 2010 7:45:09 AM Pacific Standard Time

Name: 100119H2-12, Date: 19-Jan-2010, Time: 18:30:30, ID: 32322_2725_002 CAPA-10-6745 .899, Description: CAPA-10-6745

OCDF

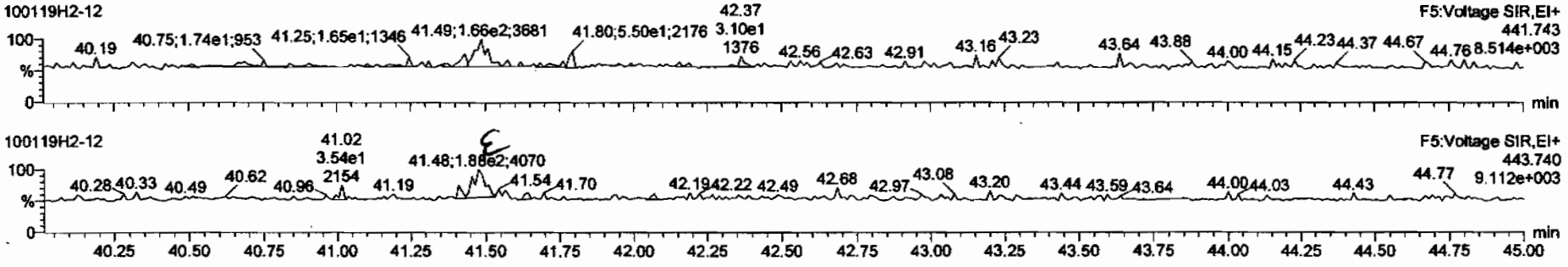

13C-OCDF

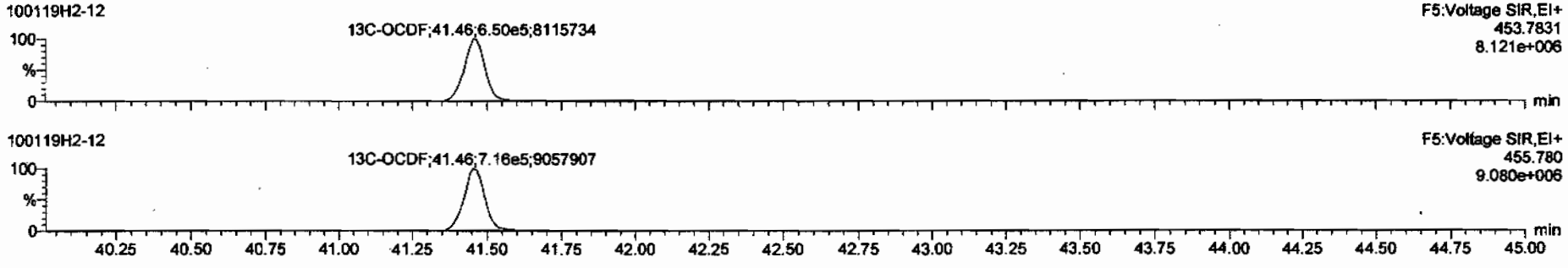

DPE5

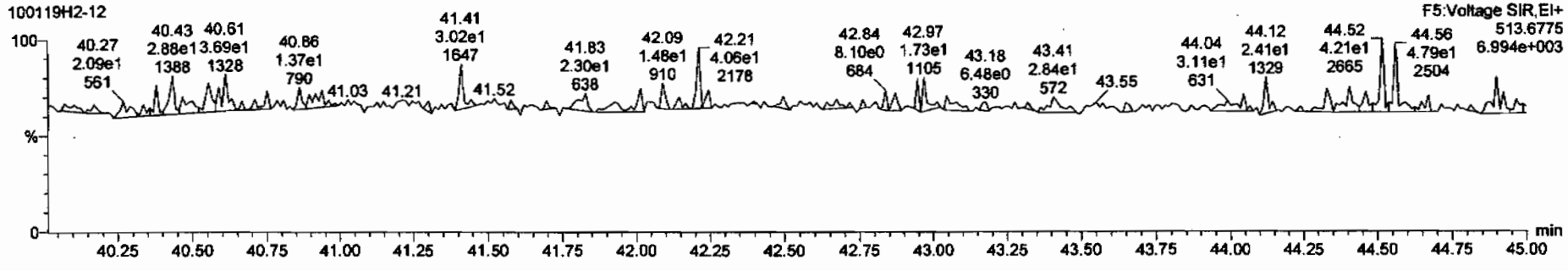

TargetLynx - untitled * - [Chromatogram]

File Edit View Display Processing Window Help

100119H2-12 - 32322_2725_002 CAPA-10-6745 .899 - CAPA-10-6745

	Name	Area	RA	Qual	RT	Exp.Vol	RT	RT	Conc.	Spike	Amount	Flags
11	1,2,3,4,7,8-HxCDF			NO	1.31	0.899					0.626	
12	1,2,3,6,7,8-HxCDF			NO	1.15	0.899					0.692	
13	2,3,4,6,7,8-HxCDF			NO	1.20	0.899					0.741	
14	1,2,3,7,8,9-HxCDF			NO	1.20	0.899					0.988	
15	1,2,3,4,6,7,8-HpCDF			NO	1.49	0.899					1.08	
16	1,2,3,4,7,8,9-HpCDF			NO	1.44	0.899					1.23	
17												
18	13C-2,3,7,8-TCDD	1.18e6	0.79	NO	1.02	0.899	26.03	1.022	2060	92.7	1.60	

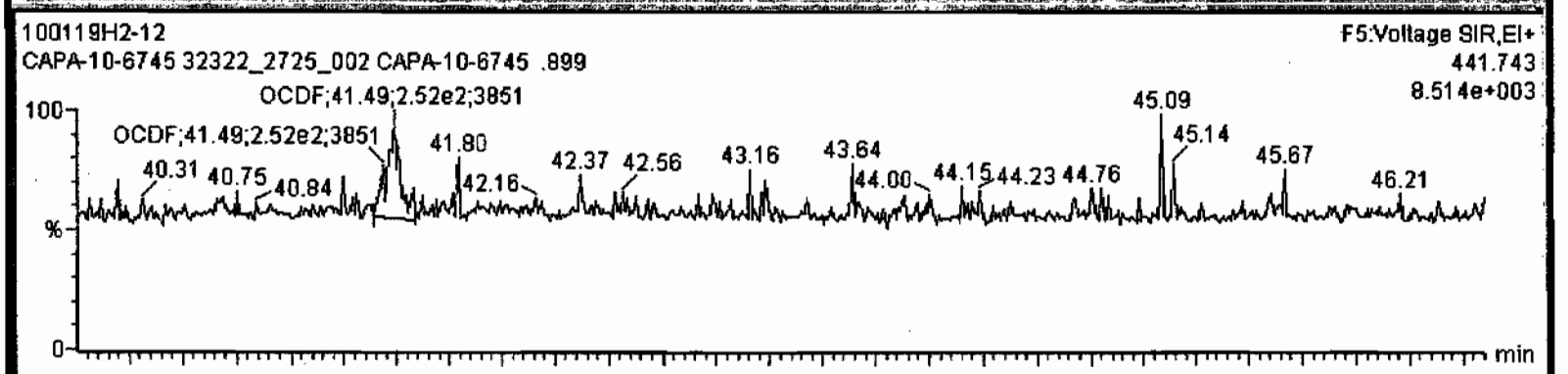

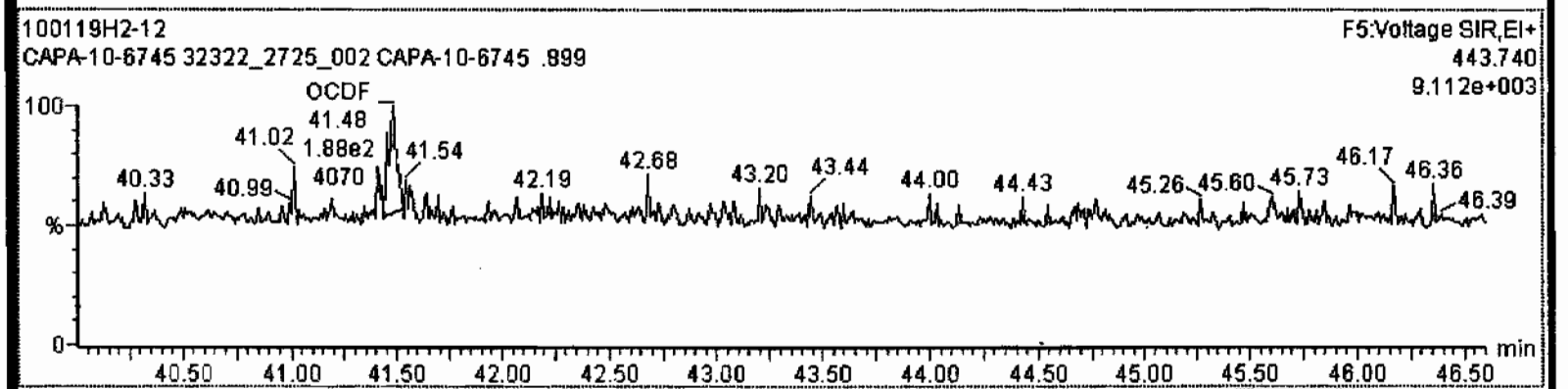

Ready 100119H2-12 NUM

Dataset: Untitled

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Name: 100119H2-12, Date: 19-Jan-2010, Time: 18:30:30, ID: 32322_2725_002 CAPA-10-6745 .899, Description: CAPA-10-6745

PFK1

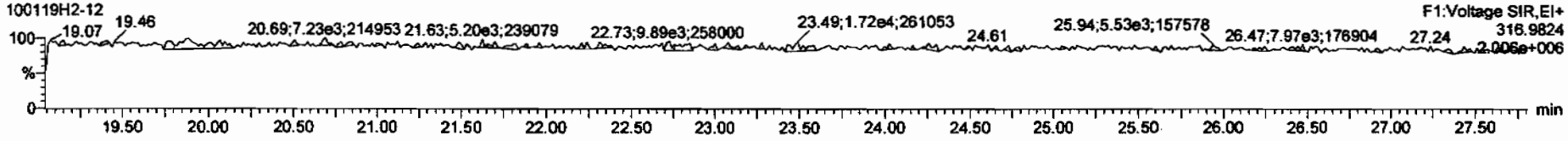

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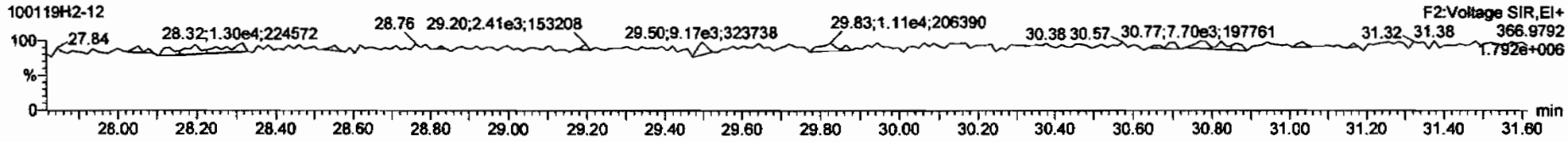

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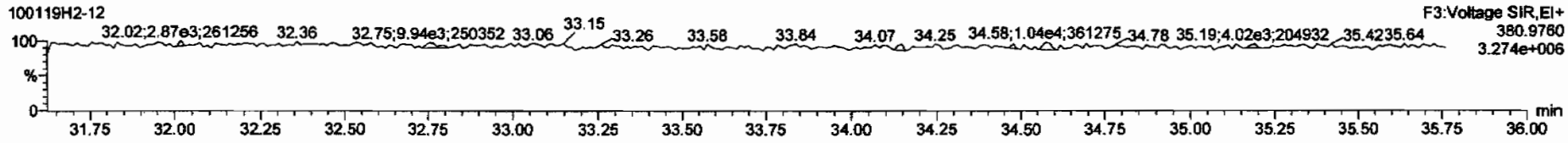

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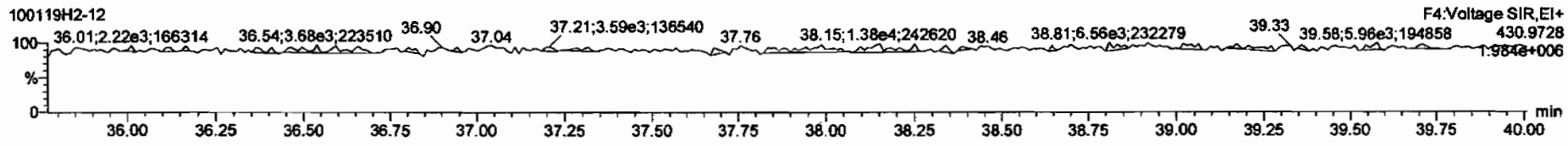

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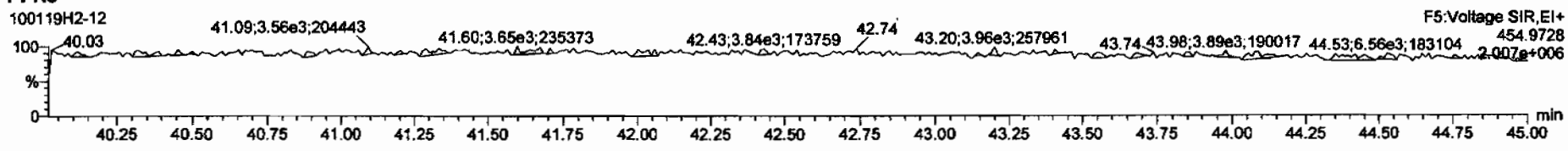

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\100119h2\100119H2-13.qld

Last Altered: Wednesday, January 20, 2010 12:52:57 PM Pacific Standard Time
Printed: Wednesday, January 20, 2010 12:54:17 PM Pacific Standard Time

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Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-13, Date: 19-Jan-2010, Time: 19:20:02, ID: 32322_2725_003 CAPA-10-6746 .894, Description: CAPA-10-6746

1	2,3,7,8-TCDD			NO	0.965	0.894					0.566	
2	1,2,3,7,8-PeCDD			NO	0.869	0.894					0.903	
3	1,2,3,4,7,8-HxCDD			NO	0.873	0.894					1.36	
4	1,2,3,6,7,8-HxCDD			NO	0.940	0.894					1.47	
5	1,2,3,7,8,9-HxCDD			NO	0.882	0.894					1.41	
6	1,2,3,4,6,7,8-HpCDD			NO	0.965	0.894					2.76	
7	OCDD	2.55e3	0.86	NO	1.05	0.894	41.24	1.001	18.289		5.30	18.289
8	2,3,7,8-TCDF			NO	0.952	0.894					0.414	
9	1,2,3,7,8-PeCDF			NO	0.994	0.894					0.683	
10	2,3,4,7,8-PeCDF			NO	0.977	0.894					0.621	
11	1,2,3,4,7,8-HxCDF			NO	1.31	0.894					0.675	
12	1,2,3,6,7,8-HxCDF			NO	1.15	0.894					0.703	
13	2,3,4,6,7,8-HxCDF			NO	1.20	0.894					0.821	
14	1,2,3,7,8,9-HxCDF			NO	1.20	0.894					1.17	
15	1,2,3,4,6,7,8-HpCDF			NO	1.49	0.894					1.76	
16	1,2,3,4,7,8,9-HpCDF			NO	1.44	0.894					1.04	
17	OCDF			NO	1.02	0.894					0.967	
18	13C-2,3,7,8-TCDD	1.08e6	0.78	NO	1.02	0.894	26.01	1.022	2119.2	94.7	2.55	
19	13C-1,2,3,7,8-PeCDD	6.93e5	0.62	NO	0.806	0.894	30.60	1.202	1723.6	77.0	2.68	
20	13C-1,2,3,4,7,8-HxCDD	7.33e5	1.25	NO	1.07	0.894	33.97	1.014	1715.3	76.7	4.31	
21	13C-1,2,3,6,7,8-HxCDD	6.70e5	1.24	NO	0.968	0.894	34.08	1.018	1742.1	77.9	4.78	
22	13C-1,2,3,7,8,9-HxCDD	7.44e5	1.24	NO	1.13	0.894	34.39	1.027	1647.4	73.6	4.08	
23	13C-1,2,3,4,6,7,8-HpCDD	3.97e5	1.05	NO	0.888	0.894	37.91	1.132	1122.9	50.2	5.12	
24	13C-OCDD	5.96e5	0.84	NO	0.783	0.894	41.18	1.230	1913.6	42.8	61.2	
25	13C-2,3,7,8-TCDF	1.40e6	0.77	NO	1.03	0.894	25.25	0.992	2067.0	92.4	2.77	
26	13C-1,2,3,7,8-PeCDF	8.65e5	1.48	NO	0.880	0.894	29.41	1.155	1497.7	66.9	5.48	
27	13C-2,3,4,7,8-PeCDF	9.70e5	1.50	NO	0.867	0.894	30.31	1.190	1705.1	76.2	5.56	
28	13C-1,2,3,4,7,8-HxCDF	8.73e5	0.53	NO	1.19	0.894	33.07	0.988	1848.1	82.6	6.44	
29	13C-1,2,3,6,7,8-HxCDF	9.77e5	0.53	NO	1.30	0.894	33.20	0.991	1885.1	84.3	5.87	
30	13C-2,3,4,6,7,8-HxCDF	8.36e5	0.53	NO	1.16	0.894	33.81	1.009	1806.1	80.7	6.58	

1/20/10

1/20/10

Dataset: C:\MassLynx\Default.pro\Results\100119h2\100119H2-13.qld

Last Altered: Wednesday, January 20, 2010 12:52:57 PM Pacific Standard Time
Printed: Wednesday, January 20, 2010 12:54:17 PM Pacific Standard Time

Name: 100119H2-13, Date: 19-Jan-2010, Time: 19:20:02, ID: 32322_2725_003 CAPA-10-6746 .894, Description: CAPA-10-6746

31	13C-1,2,3,7,8,9-HxCDF	7.00e5	0.52	NO	1.03	0.894	34.77	1.038	1713.6	76.6	7.45
32	13C-1,2,3,4,6,7,8-HpCDF	3.81e5	0.45	NO	0.909	0.894	36.63	1.094	1052.7	47.1	5.95
33	13C-1,2,3,4,7,8,9-HpCDF	4.17e5	0.45	NO	0.830	0.894	38.46	1.148	1264.0	56.5	6.52
34	13C-OCDF	9.37e5	0.84	NO	0.982	0.894	41.46	1.238	2398.0	53.6	12.7
35	37Cl-2,3,7,8-TCDD	2.55e5			0.602	0.894	26.05	1.023	847.26	94.7	1.66
36	13C-1,2,3,4-TCDD	1.12e6	0.78	NO	1.00	0.894	25.47	0.000	2237.1	100	2.81
37	13C-1,2,3,4-TCDF	1.47e6	0.79	NO	1.00	0.894	24.04	0.000	2237.1	100	2.85
38	13C-1,2,3,4,6,9-HxCDF	8.90e5	0.51	NO	1.00	0.894	33.49	0.000	2237.1	100	7.65
39	Total Tetra-Dioxins				0.965	0.894					0.283
40	Total Penta-Dioxins				0.869	0.894					0.420
41	Total Hexa-Dioxins				0.940	0.894					0.789
42	Total Hepta-Dioxins				0.965	0.894					1.43
43	Total Tetra-Furans				0.952	0.894					0.186
44	1st Func. Penta-Furans				0.994	0.894					0.213
45	Total Penta-Furans				0.994	0.894					0.285
46	Total Hexa-Furans				1.20	0.894					0.536
47	Total Hepta-Furans				1.49	0.894					0.711

Dataset: C:\MassLynx\Default.pro\Results\100119h2\100119H2-13.qld

Last Altered: Wednesday, January 20, 2010 12:52:57 PM Pacific Standard Time
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Name: 100119H2-13, Date: 19-Jan-2010, Time: 19:20:02, ID: 32322_2725_003 CAPA-10-6746 .894, Description: CAPA-10-6746

Tetra-Dioxins

Penta-Dioxins

Hexa-Dioxins

Hepta-Dioxins

Tetra-Furans

Penta-Furans function 1

Dataset: C:\MassLynx\Default.pro\Results\100119h2\100119H2-13.qld

Last Altered: Wednesday, January 20, 2010 12:52:57 PM Pacific Standard Time
Printed: Wednesday, January 20, 2010 12:54:17 PM Pacific Standard Time

Name: 100119H2-13, Date: 19-Jan-2010, Time: 19:20:02, ID: 32322_2725_003 CAPA-10-6746 .894, Description: CAPA-10-6746

Penta-Furans

Hexa-Furans

Hepta-Furans

Vista Analytical Laboratory VG-10

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 7:58:44 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:58:55 AM Pacific Standard Time

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Name: 100119H2-13, Date: 19-Jan-2010, Time: 19:20:02, ID: 32322_2725_003 CAPA-10-6746 .894, Description: CAPA-10-6746

2,3,7,8-TCDD

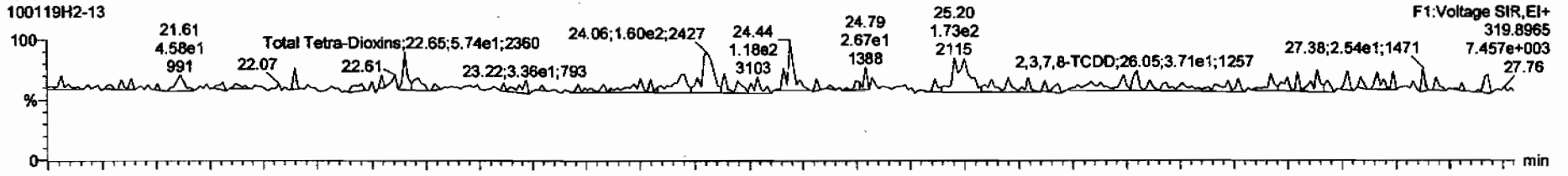

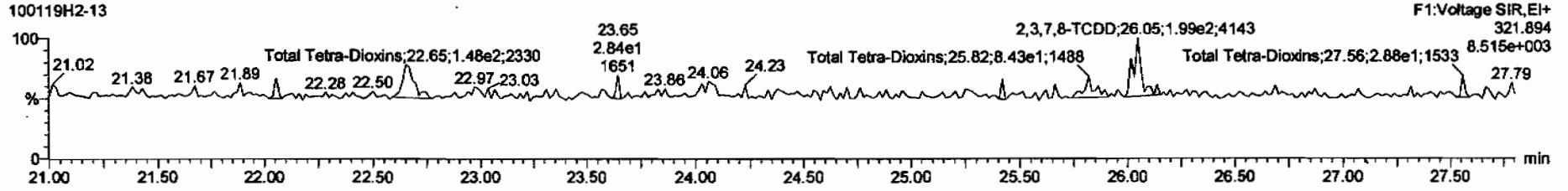

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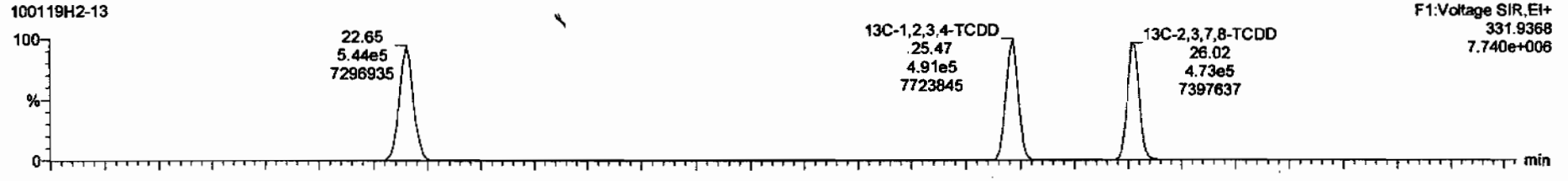

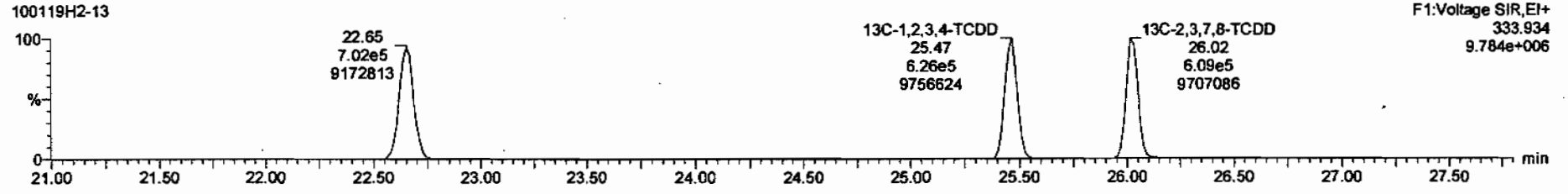

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Name: 100119H2-13, Date: 19-Jan-2010, Time: 19:20:02, ID: 32322_2725_003 CAPA-10-6746 .894, Description: CAPA-10-6746

37Cl-2,3,7,8-TCDD

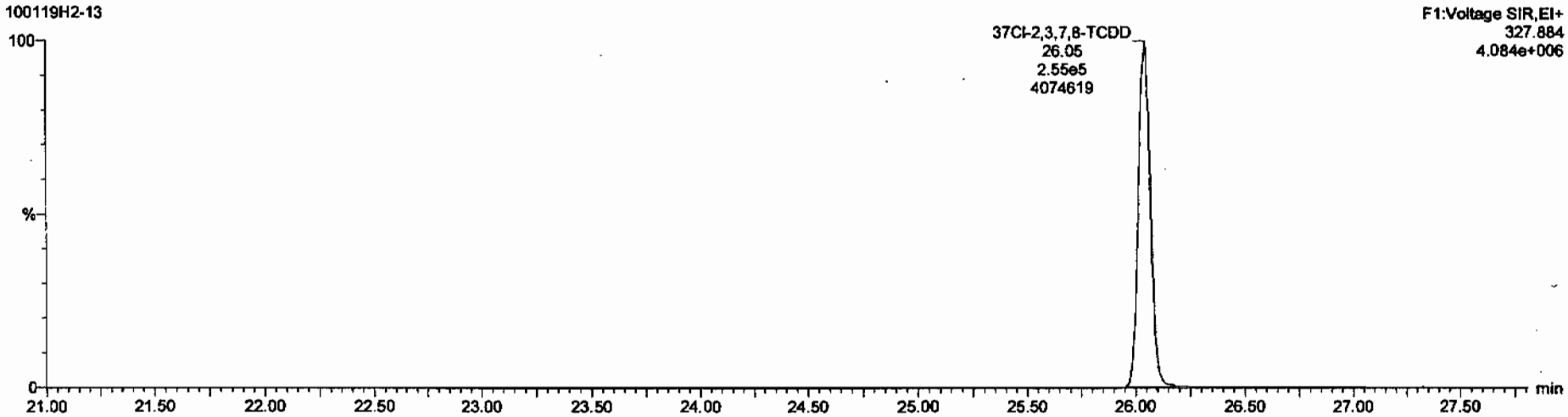

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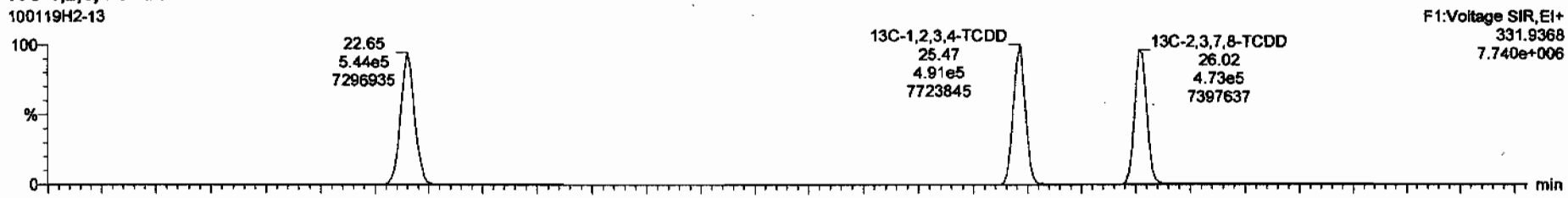

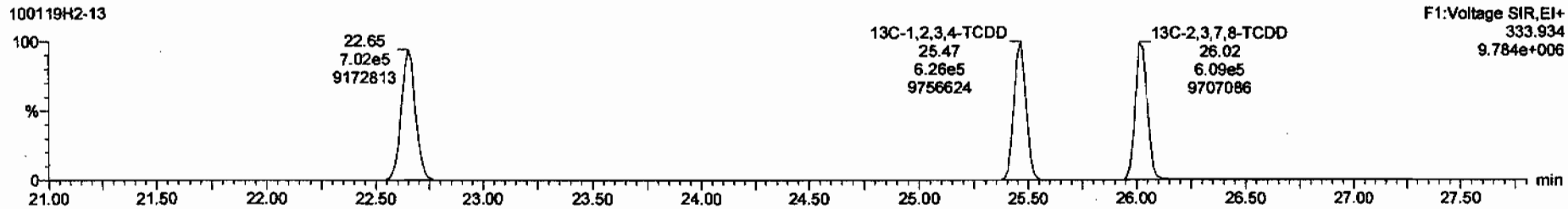

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Name: 100119H2-13, Date: 19-Jan-2010, Time: 19:20:02, ID: 32322_2725_003 CAPA-10-6746 .894, Description: CAPA-10-6746

1,2,3,7,8-PeCDD

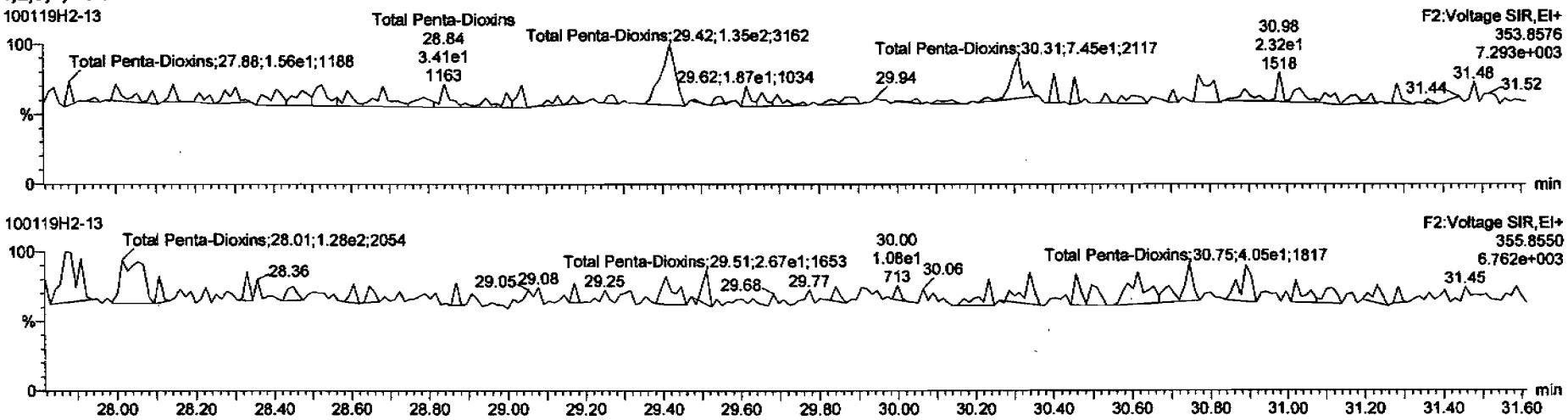

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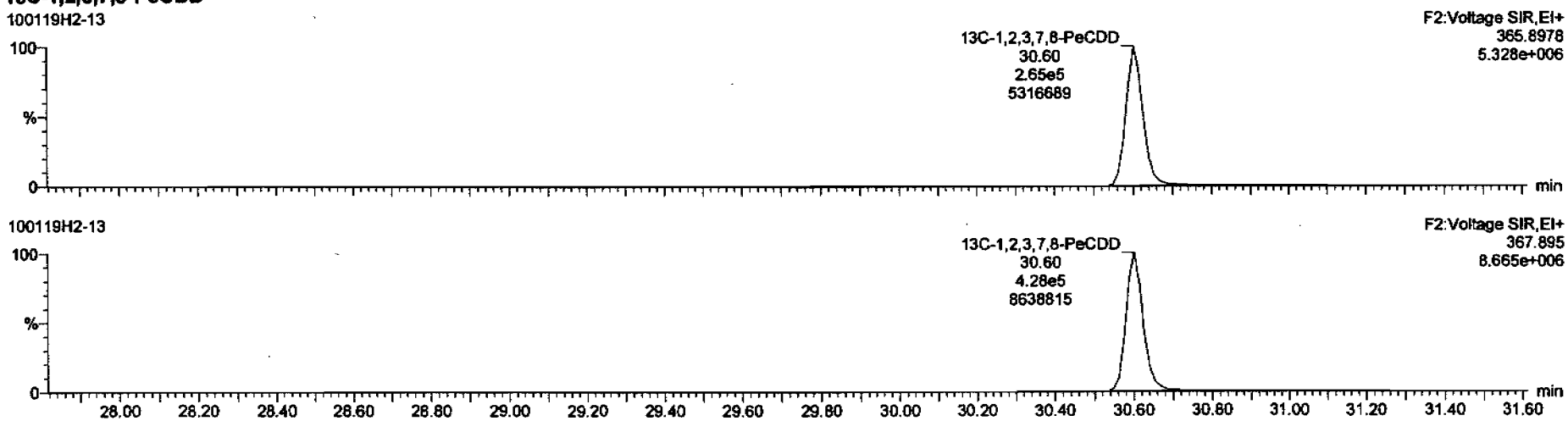

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1,2,3,4,7,8-HxCDD

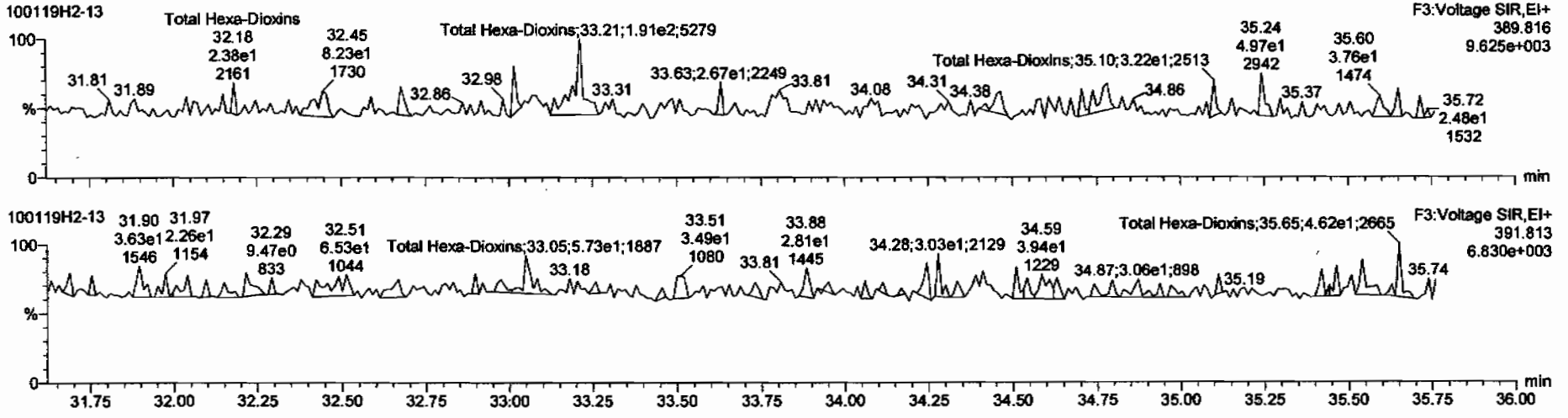

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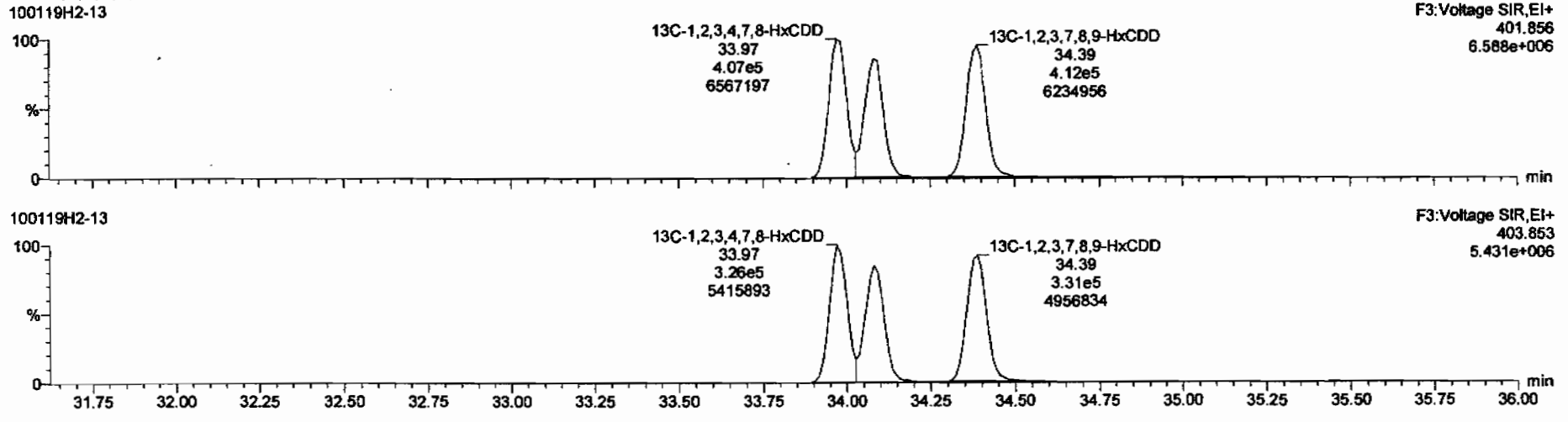

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Name: 100119H2-13, Date: 19-Jan-2010, Time: 19:20:02, ID: 32322_2725_003 CAPA-10-6746 .894, Description: CAPA-10-6746

1,2,3,4,6,7,8-HpCDD

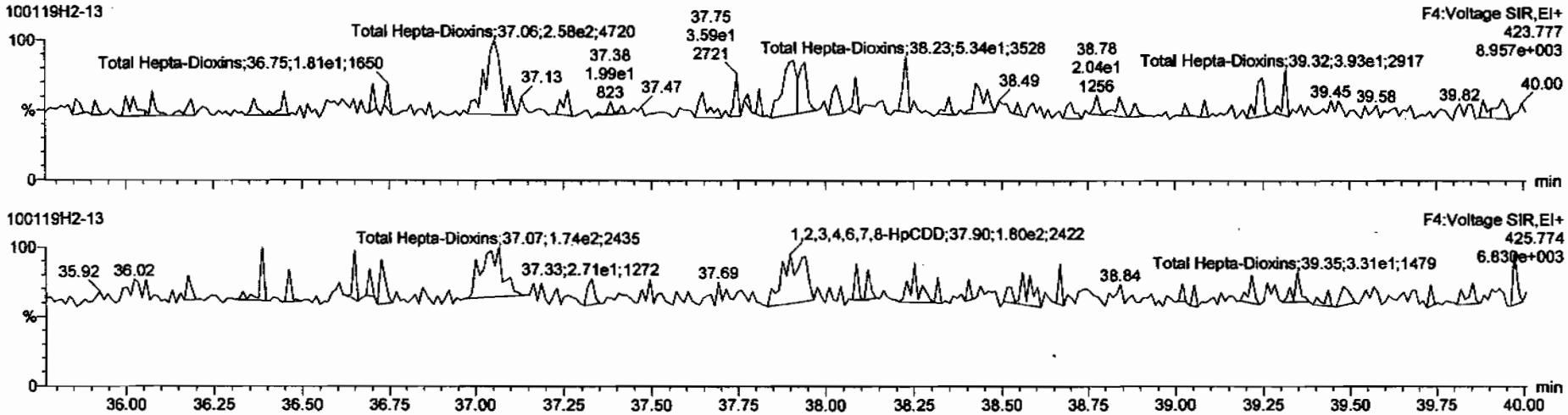

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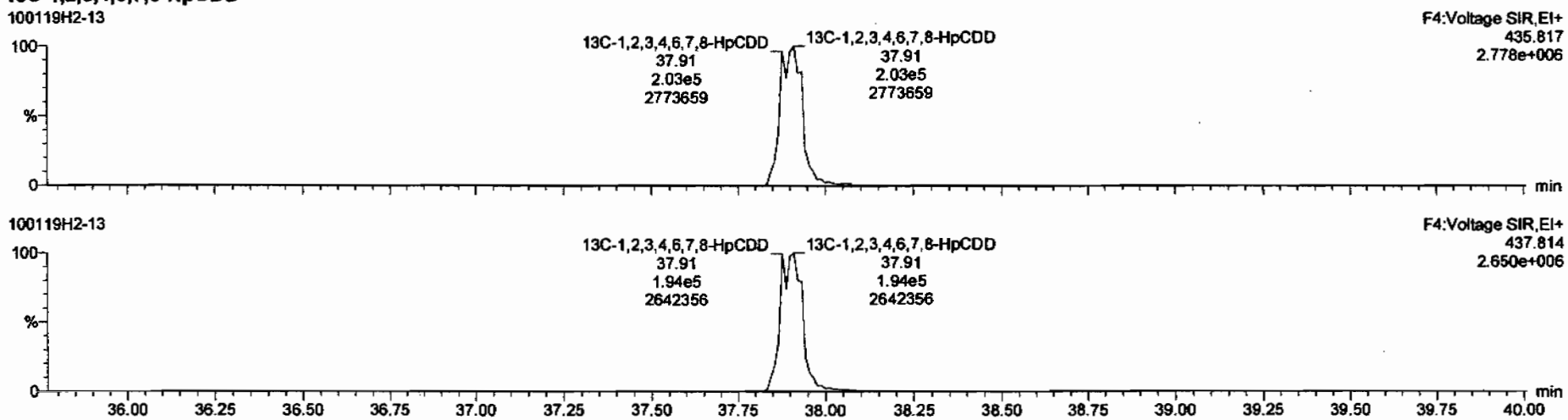

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OCDD

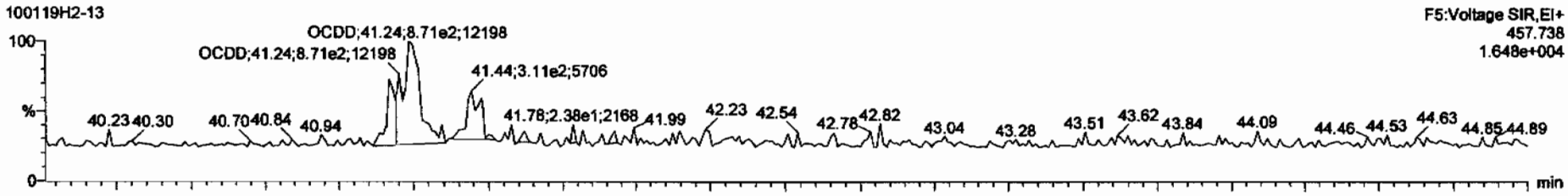

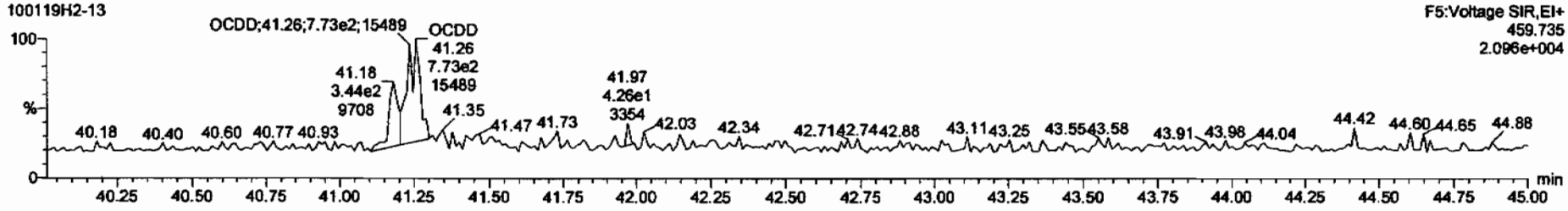

13C-OCDD

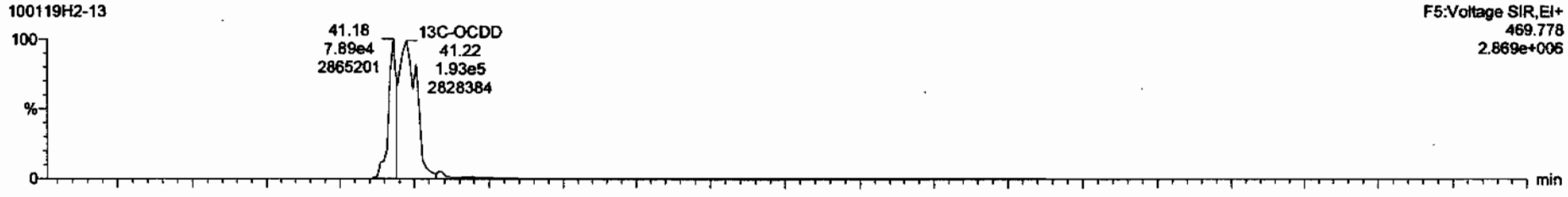

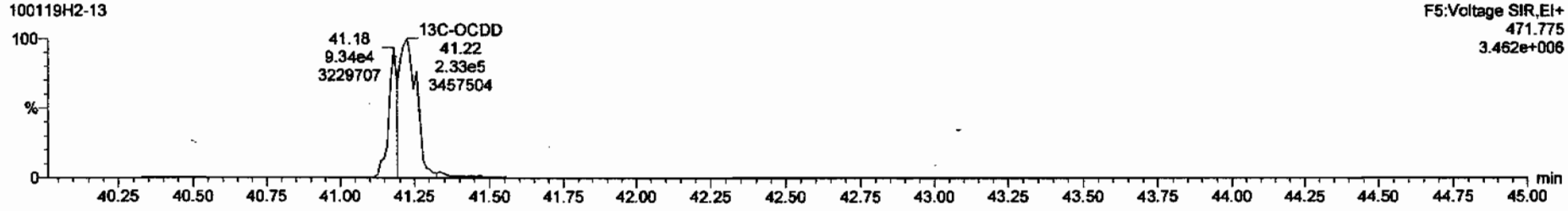

TargetLynx - 100119H2-13.qld * - [Chromatogram]

File Edit View Display Processing Window Help

100119H2-13 - 32322_2725_003 CAPA-10-6746 .894 - CAPA-10-6746

	Name	Resp	RA	ND	Time	Ret		Rt	Conc			
18	13C-2,3,7,8-TCDD	1.08e6	0.78	NO	1.02	0.894	26.01	1.022	2120	94.7	2.55	
19	13C-1,2,3,7,8-PeCDD	6.93e5	0.62	NO	0.81	0.894	30.60	1.202	1720	77.0	2.68	
20	13C-1,2,3,4,7,8-HxCDD	7.33e5	1.25	NO	1.07	0.894	33.97	1.014	1720	76.7	4.31	
21	13C-1,2,3,6,7,8-HxCDD	6.70e5	1.24	NO	0.97	0.894	34.08	1.018	1740	77.9	4.78	
22	13C-1,2,3,7,8,9-HxCDD	7.44e5	1.24	NO	1.13	0.894	34.39	1.027	1650	73.6	4.08	
23	13C-1,2,3,4,6,7,8-HpCDD	3.97e5	1.05	NO	0.89	0.894	37.91	1.132	1120	50.2	5.12	
24												
25	13C-2,3,7,8-TCDF	1.40e6	0.77	NO	1.03	0.894	25.25	0.992	2070	92.4	2.77	

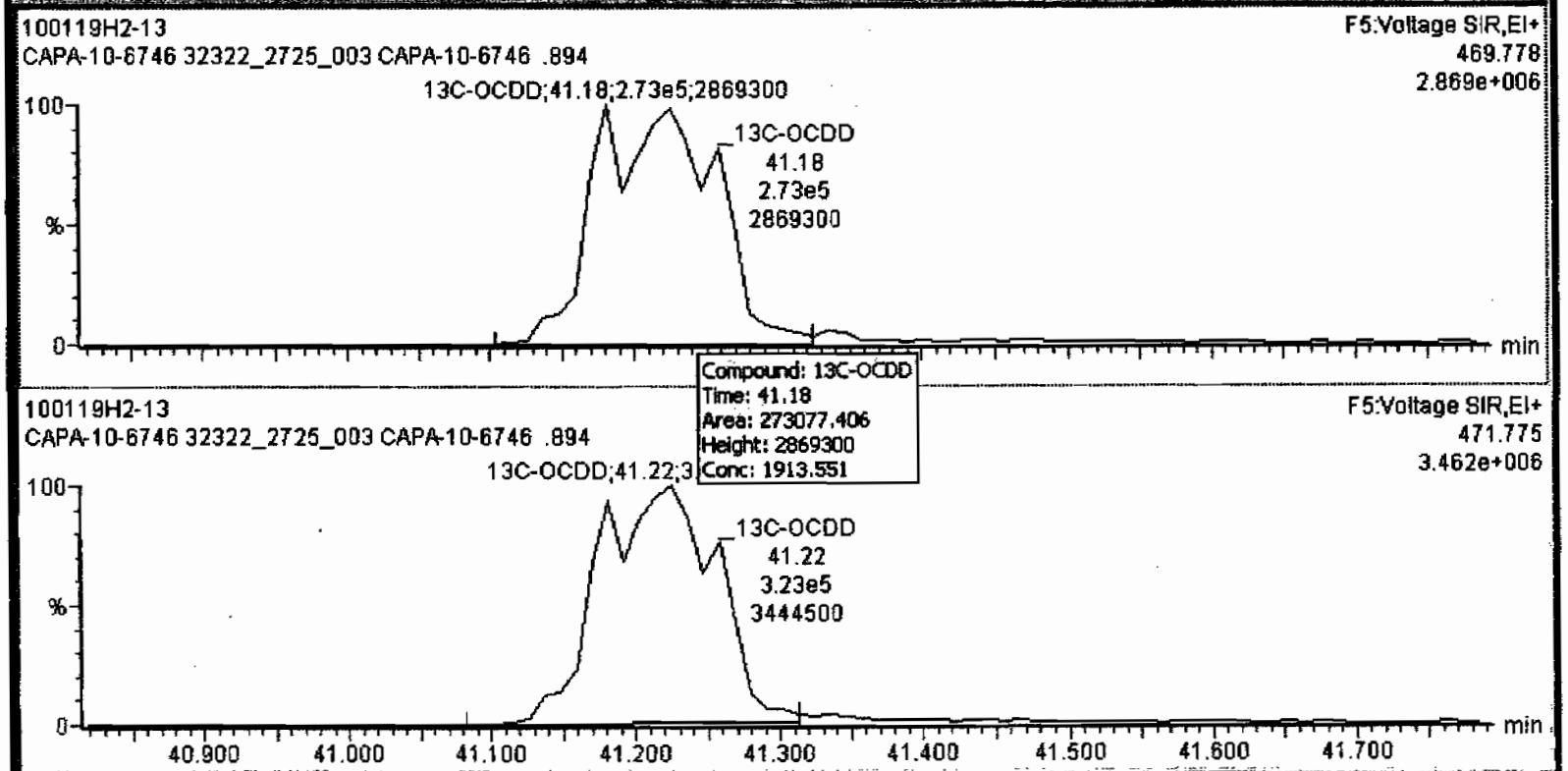

Ready

TargetLynx - untitled * - [Chromatogram]

File Edit View Display Processing Window Help

100119H2-13 - 32322_2725_003 CAPA-10-6746 .894 - CAPA-10-6746

	Name	Rest	NA	Int	RT	wNO	RI	RT	Conc	Area	DL	Comment
	1,2,3,4,6,7,8-HpCDD			NO	0.97	0.894					2.76	
	2,3,7,8-TCDF			NO	0.95	0.894					0.414	
	1,2,3,7,8-PeCDF			NO	0.99	0.894					0.683	
	2,3,4,7,8-PeCDF			NO	0.98	0.894					0.621	
	1,2,3,4,7,8-HxCDF			NO	1.31	0.894					0.675	
	1,2,3,6,7,8-HxCDF			NO	1.15	0.894					0.703	
	2,3,4,6,7,8-HxCDF			NO	1.20	0.894					0.821	

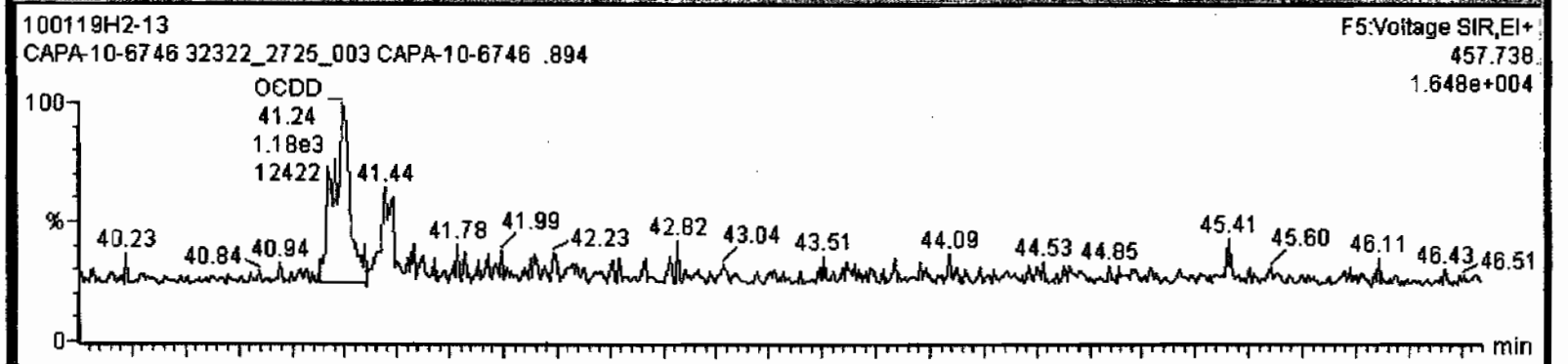

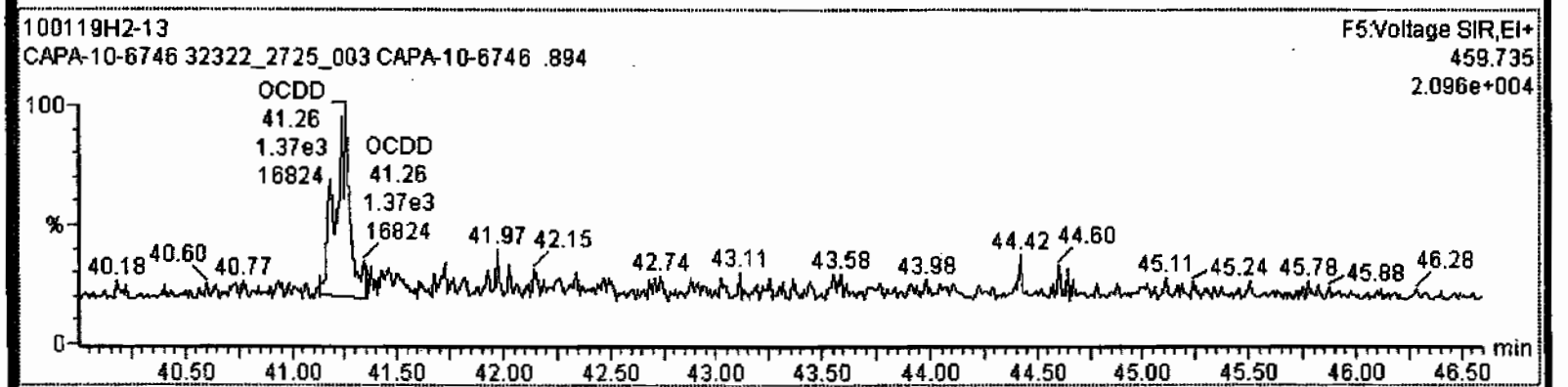

Ready 100119H2-13 NUM

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 7:58:44 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:58:55 AM Pacific Standard Time

Name: 100119H2-13, Date: 19-Jan-2010, Time: 19:20:02, ID: 32322_2725_003 CAPA-10-6746 .894, Description: CAPA-10-6746

2,3,7,8-TCDF

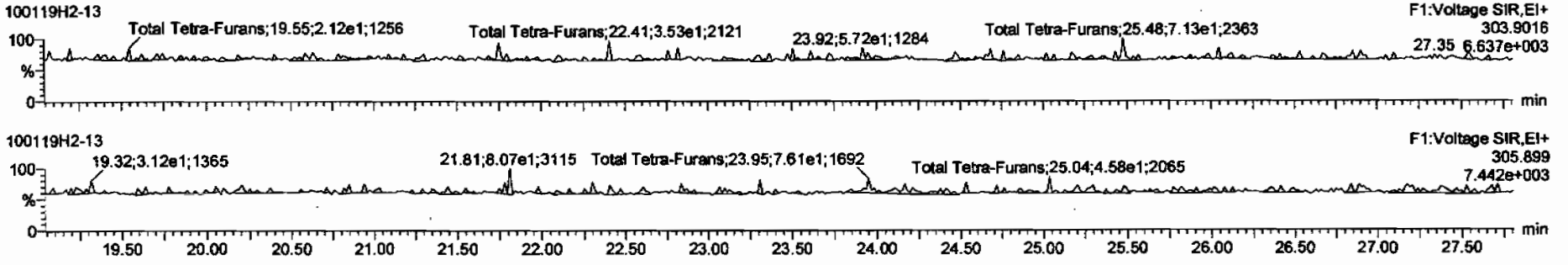

13C-2,3,7,8-TCDF

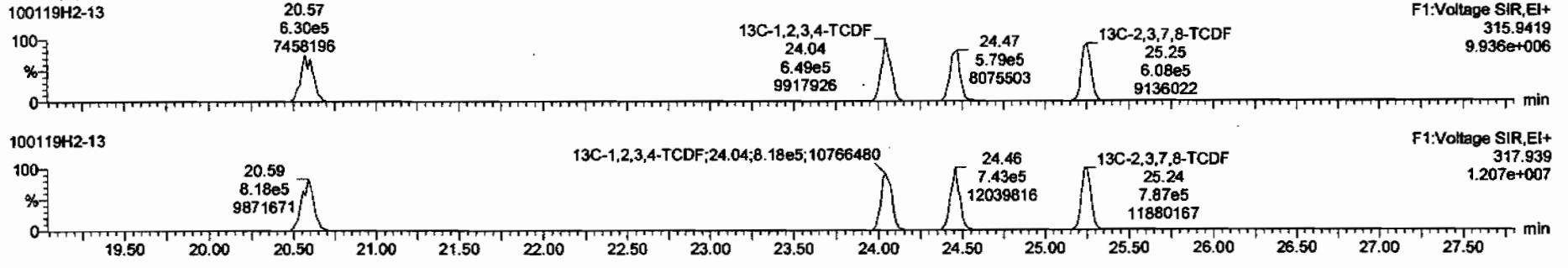

DPE1

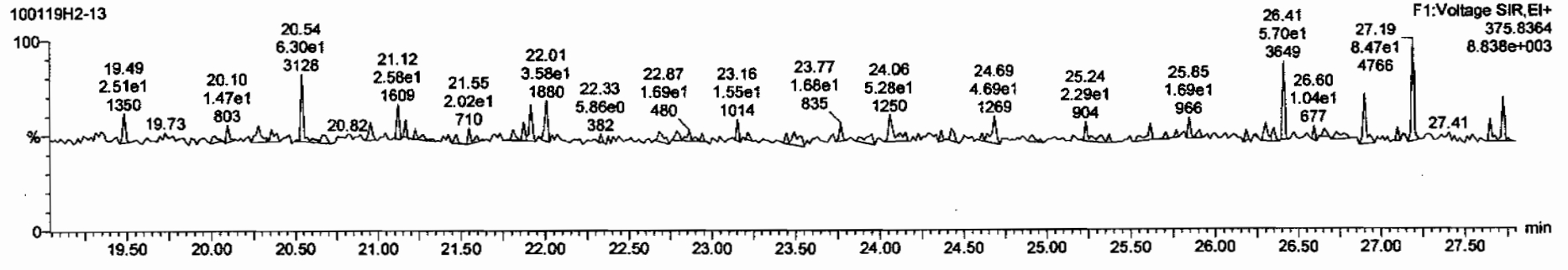

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Last Altered: Wednesday, January 20, 2010 7:58:44 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:58:55 AM Pacific Standard Time

Name: 100119H2-13, Date: 19-Jan-2010, Time: 19:20:02, ID: 32322_2725_003 CAPA-10-6746 .894, Description: CAPA-10-6746

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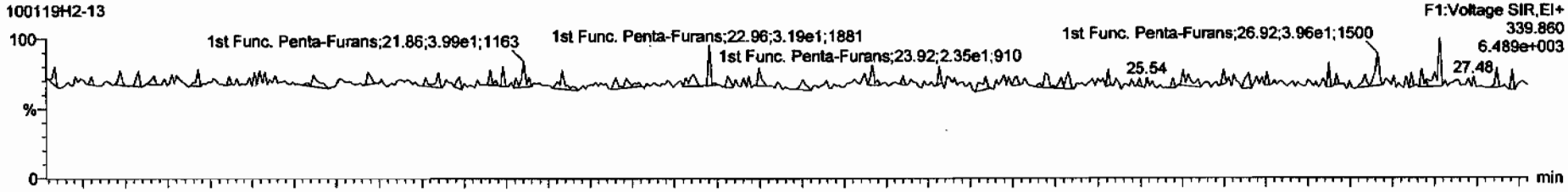

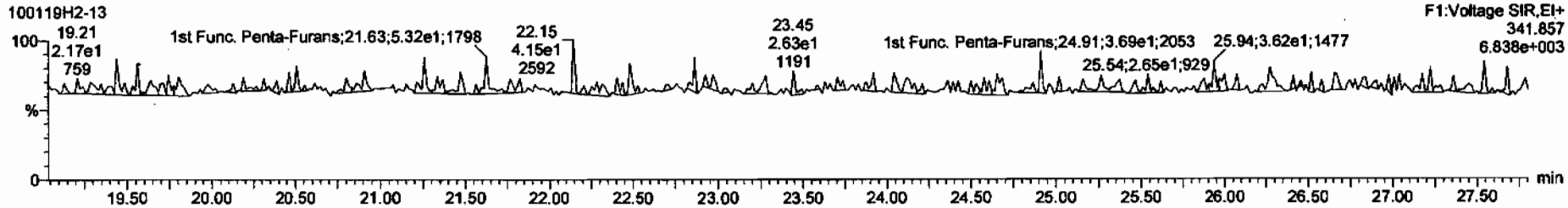

DPE6

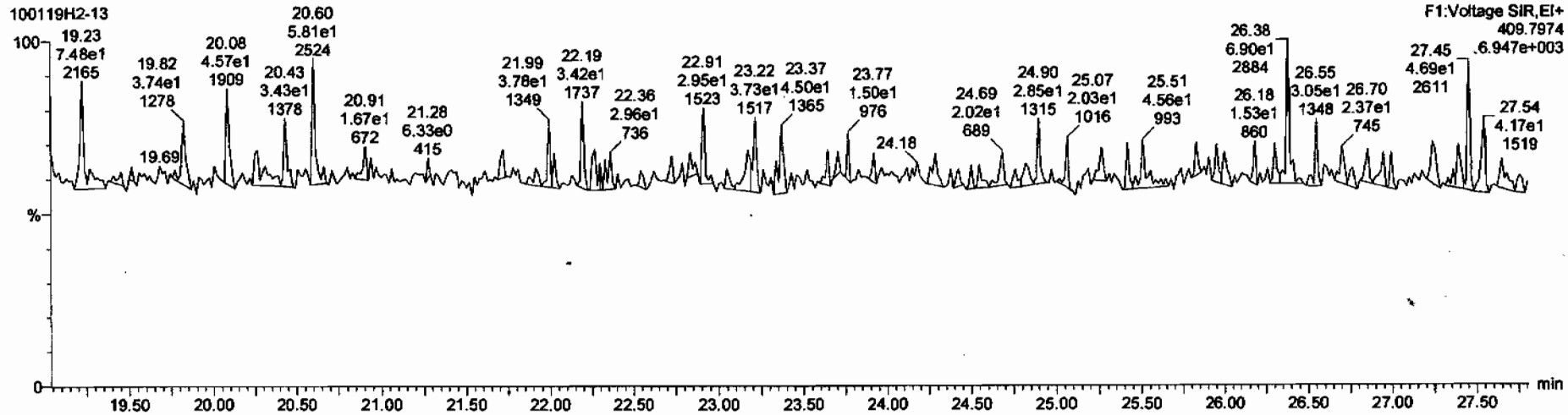

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 7:58:44 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:58:55 AM Pacific Standard Time

Name: 100119H2-13, Date: 19-Jan-2010, Time: 19:20:02, ID: 32322_2725_003 CAPA-10-6746 .894, Description: CAPA-10-6746

1,2,3,7,8-PeCDF

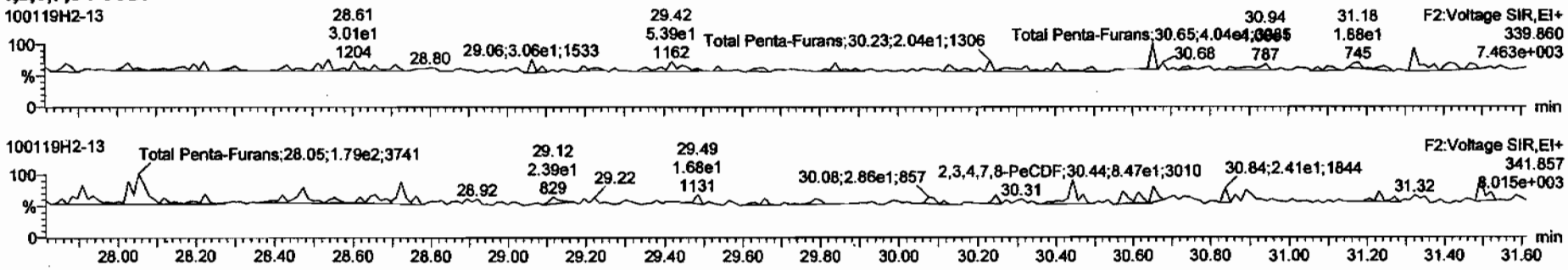

13C-1,2,3,7,8-PeCDF

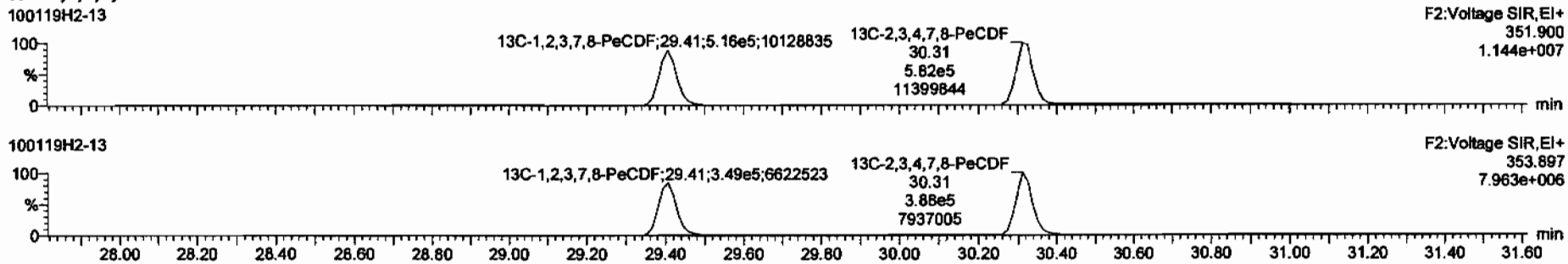

DPE2

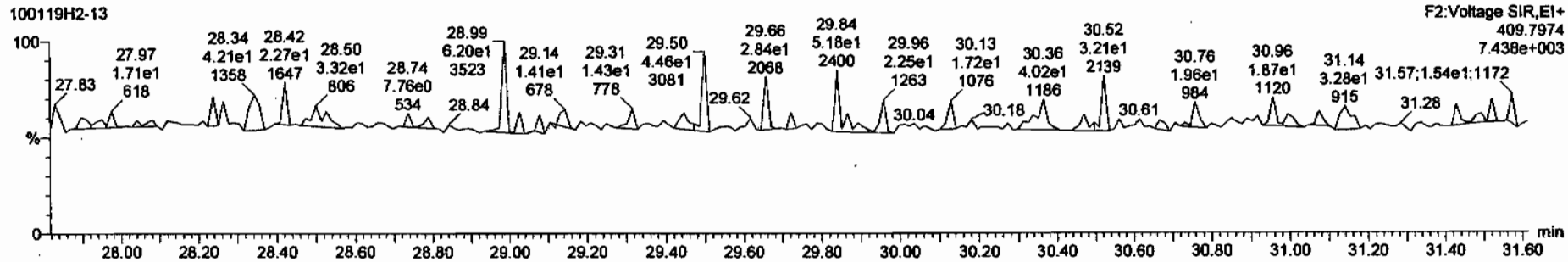

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Last Altered: Wednesday, January 20, 2010 7:58:44 AM Pacific Standard Time
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Name: 100119H2-13, Date: 19-Jan-2010, Time: 19:20:02, ID: 32322_2725_003 CAPA-10-6746 .894, Description: CAPA-10-6746

1,2,3,4,7,8-HxCDF

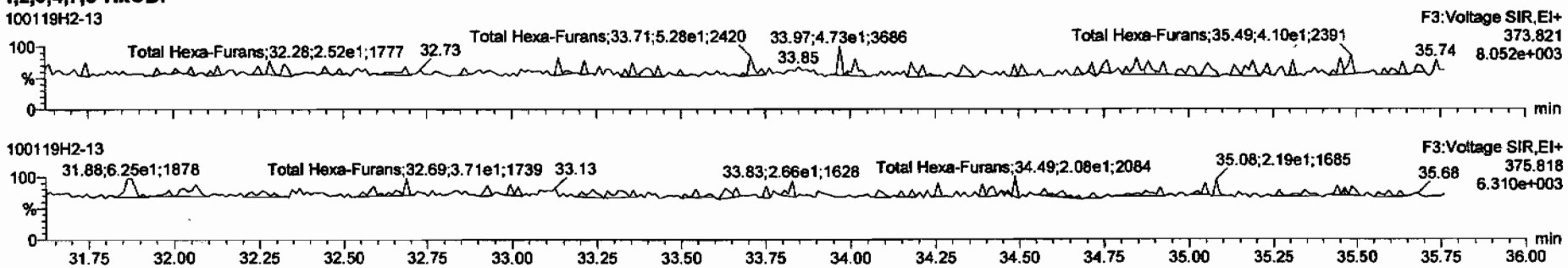

13C-1,2,3,4,7,8-HxCDF

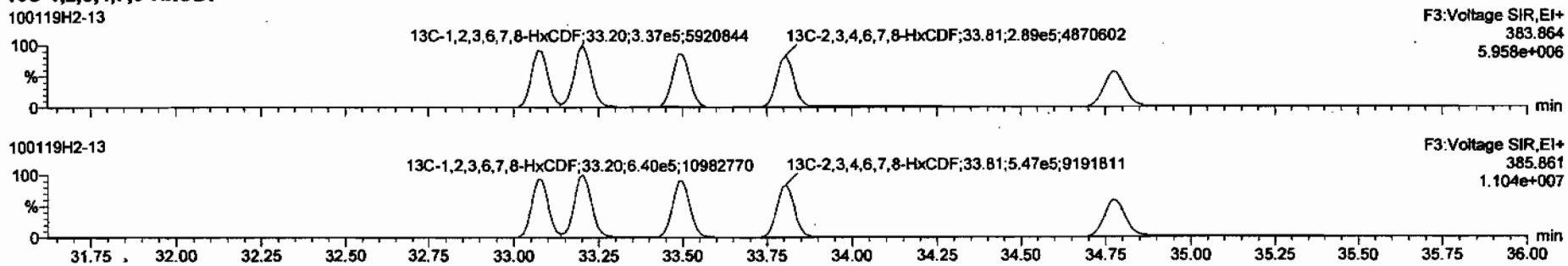

DPE3

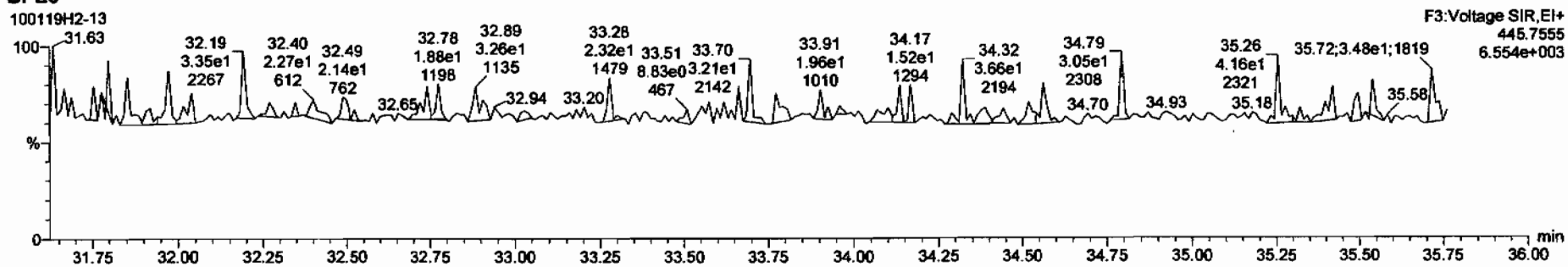

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Printed: Wednesday, January 20, 2010 7:58:55 AM Pacific Standard Time

Name: 100119H2-13, Date: 19-Jan-2010, Time: 19:20:02, ID: 32322_2725_003 CAPA-10-6746 .894, Description: CAPA-10-6746

1,2,3,4,6,7,8-HpCDF

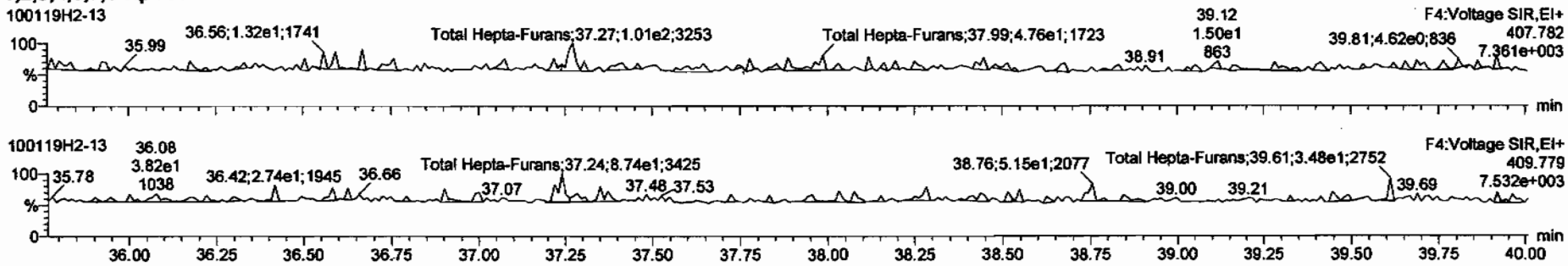

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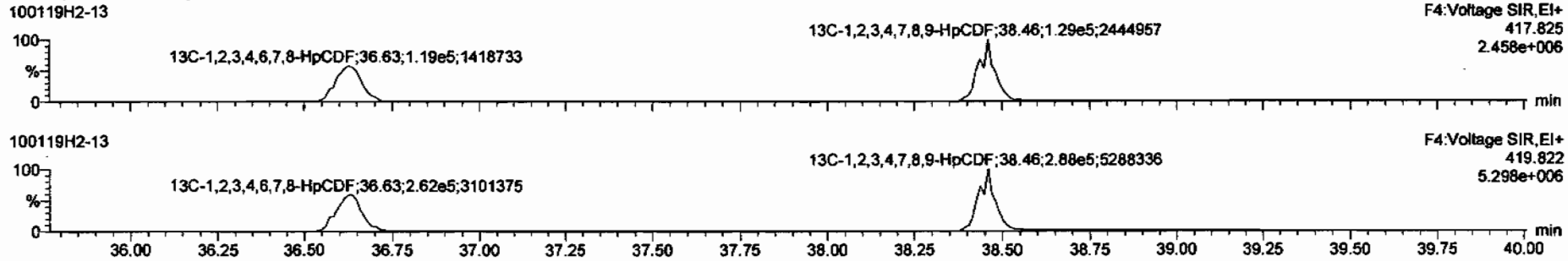

DPE4

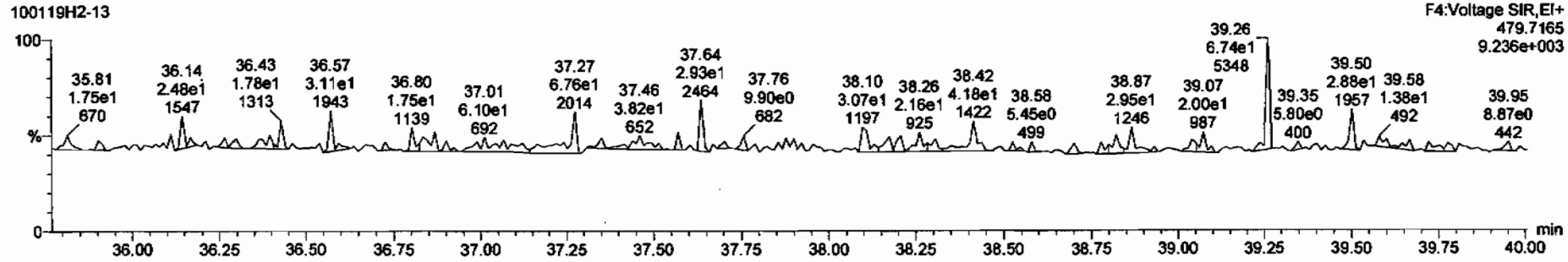

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Last Altered: Wednesday, January 20, 2010 7:58:44 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:58:55 AM Pacific Standard Time

Name: 100119H2-13, Date: 19-Jan-2010, Time: 19:20:02, ID: 32322_2725_003 CAPA-10-6746 .894, Description: CAPA-10-6746

OCDF

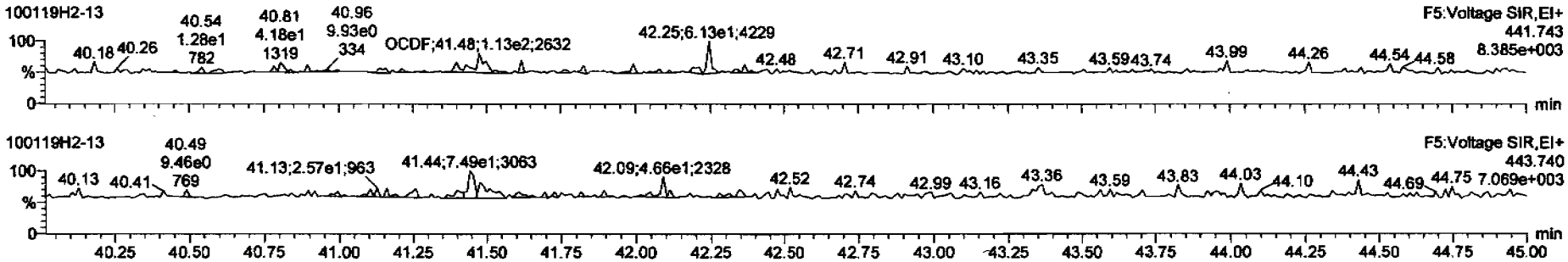

13C-OCDF

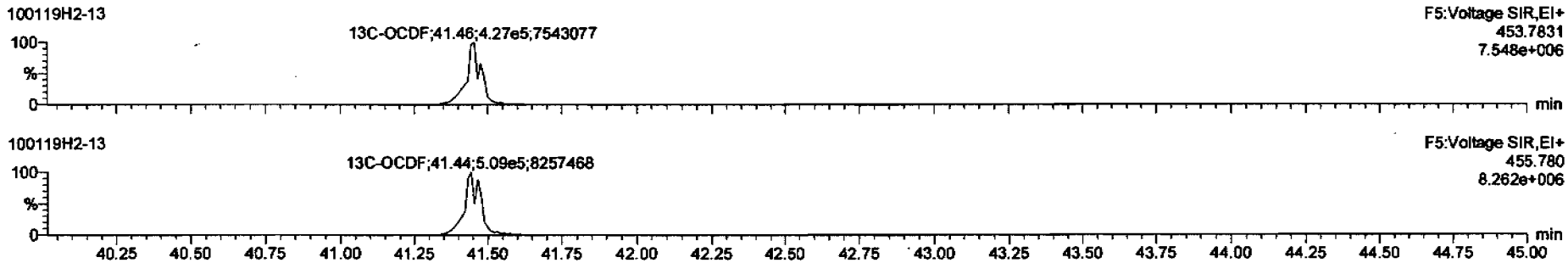

DPE5

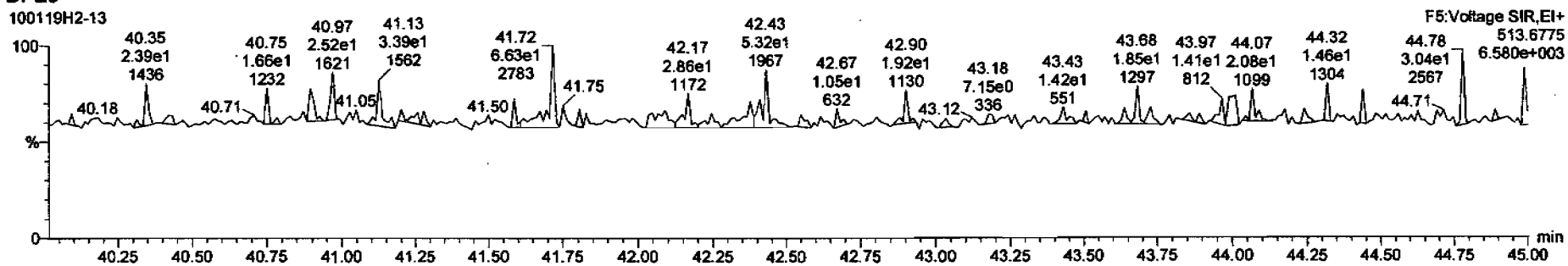

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Last Altered: Wednesday, January 20, 2010 7:58:44 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:58:55 AM Pacific Standard Time

Name: 100119H2-13, Date: 19-Jan-2010, Time: 19:20:02, ID: 32322_2725_003 CAPA-10-6746 .894, Description: CAPA-10-6746

PFK1

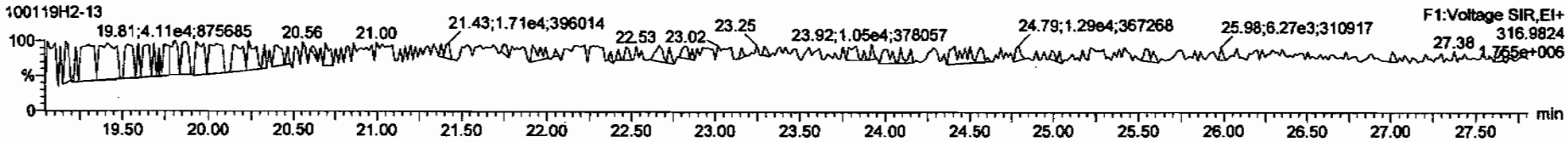

PFK2

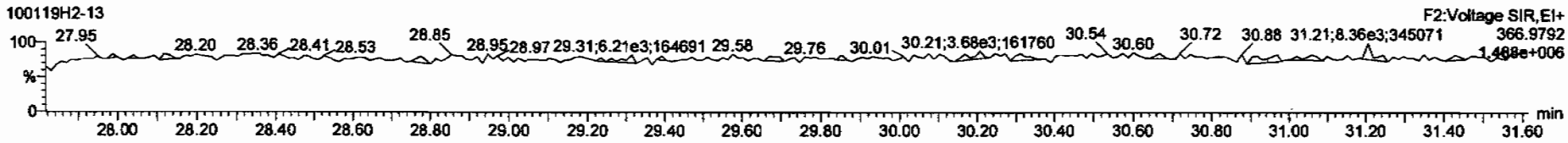

PFK3

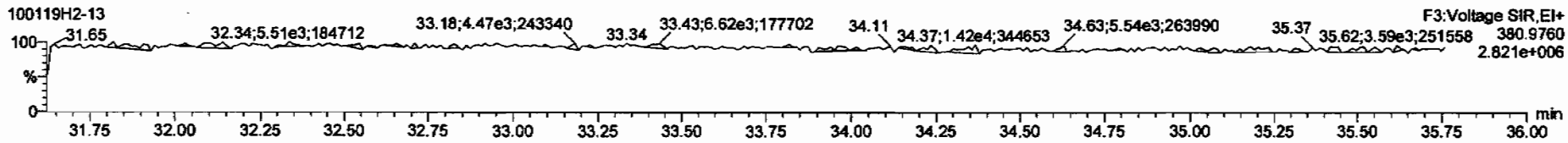

PFK4

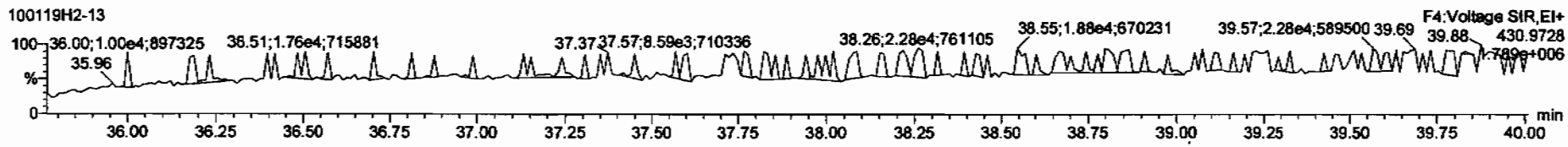

PFK5

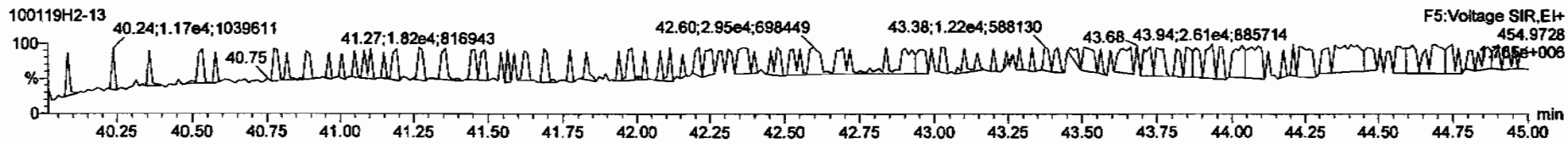

Vista Analytical Laboratory VG-10

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:18:35 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:20:06 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-14, Date: 19-Jan-2010, Time: 20:09:36, ID: 32322_2725_004 CAPA-10-6793 .886, Description: CAPA-10-6793

1	2,3,7,8-TCDD			NO	0.965	0.886					0.604	
2	1,2,3,7,8-PeCDD			NO	0.869	0.886					0.897	
3	1,2,3,4,7,8-HxCDD			NO	0.873	0.886					1.40	
4	1,2,3,6,7,8-HxCDD			NO	0.940	0.886					1.54	
5	1,2,3,7,8,9-HxCDD			NO	0.882	0.886					1.51	
6	1,2,3,4,6,7,8-HpCDD	5.33e2	1.23	YES	0.965	0.886	37.91	1.000	~~2.4978~~		2.07	2.2866
7	OCDD	3.65e3	0.97	NO	1.05	0.886	41.22	1.000	16.539		2.83	~~16.539~~
8	2,3,7,8-TCDF			NO	0.952	0.886					0.465	
9	1,2,3,7,8-PeCDF			NO	0.994	0.886					0.639	
10	2,3,4,7,8-PeCDF			NO	0.977	0.886					0.587	
11	1,2,3,4,7,8-HxCDF			NO	1.31	0.886					0.712	
12	1,2,3,6,7,8-HxCDF			NO	1.15	0.886					0.742	
13	2,3,4,6,7,8-HxCDF			NO	1.20	0.886					0.835	
14	1,2,3,7,8,9-HxCDF			NO	1.20	0.886					1.23	
15	1,2,3,4,6,7,8-HpCDF			NO	1.49	0.886					1.41	
16	1,2,3,4,7,8,9-HpCDF			NO	1.44	0.886					1.40	
17	OCDF			NO	1.02	0.886					1.22	
18	13C-2,3,7,8-TCDD	1.06e6	0.78	NO	1.02	0.886	26.02	1.022	1872.7	83.0	2.80	
19	13C-1,2,3,7,8-PeCDD	7.96e5	0.61	NO	0.806	0.886	30.59	1.202	1794.0	79.5	2.92	
20	13C-1,2,3,4,7,8-HxCDD	6.96e5	1.25	NO	1.07	0.886	33.96	1.014	1641.0	72.7	4.67	
21	13C-1,2,3,6,7,8-HxCDD	6.29e5	1.25	NO	0.968	0.886	34.07	1.017	1647.7	73.0	5.18	
22	13C-1,2,3,7,8,9-HxCDD	7.17e5	1.25	NO	1.13	0.886	34.38	1.027	1601.9	71.0	4.42	
23	13C-1,2,3,4,6,7,8-HpCDD	4.99e5	1.02	NO	0.888	0.886	37.90	1.132	1424.1	63.1	11.3	
24	13C-OCDD	9.51e5	0.89	NO	0.783	0.886	41.21	1.231	3077.1	68.2	4.98	
25	13C-2,3,7,8-TCDF	1.32e6	0.79	NO	1.03	0.886	25.24	0.992	1812.2	80.3	3.18	
26	13C-1,2,3,7,8-PeCDF	1.02e6	1.54	NO	0.880	0.886	29.39	1.155	1634.1	72.4	4.19	
27	13C-2,3,4,7,8-PeCDF	1.09e6	1.54	NO	0.867	0.886	30.31	1.191	1766.2	78.2	4.25	
28	13C-1,2,3,4,7,8-HxCDF	7.92e5	0.53	NO	1.19	0.886	33.07	0.988	1690.4	74.9	6.81	
29	13C-1,2,3,6,7,8-HxCDF	8.98e5	0.53	NO	1.30	0.886	33.19	0.991	1747.2	77.4	6.21	
30	13C-2,3,4,6,7,8-HxCDF	7.91e5	0.52	NO	1.16	0.886	33.80	1.009	1723.4	76.3	6.95	

1/20/10

1/20/10

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:18:35 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:20:06 AM Pacific Standard Time

Name: 100119H2-14, Date: 19-Jan-2010, Time: 20:09:36, ID: 32322_2725_004 CAPA-10-6793 .886, Description: CAPA-10-6793

31	13C-1,2,3,7,8,9-HxCDF	6.86e5	0.52	NO	1.03	0.886	34.77	1.038	1692.1	75.0	7.88	
32	13C-1,2,3,4,6,7,8-HpCDF	5.11e5	0.46	NO	0.909	0.886	36.63	1.094	1424.8	63.1	5.89	
33	13C-1,2,3,4,7,8,9-HpCDF	4.69e5	0.44	NO	0.830	0.886	38.46	1.148	1433.2	63.5	6.45	
34	13C-OCDF	1.23e6	0.88	NO	0.982	0.886	41.44	1.238	3175.5	70.3	3.98	
35	37Cl-2,3,7,8-TCDD	2.58e5			0.602	0.886	26.03	1.023	777.04	86.1	0.737	
36	13C-1,2,3,4-TCDD	1.24e6	0.80	NO	1.00	0.886	25.45	0.000	2257.3	100	2.86	
37	13C-1,2,3,4-TCDF	1.60e6	0.77	NO	1.00	0.886	24.04	0.000	2257.3	100	3.27	
38	13C-1,2,3,4,6,9-HxCDF	8.91e5	0.51	NO	1.00	0.886	33.49	0.000	2257.3	100	8.09	
39	Total Tetra-Dioxins				0.965	0.886					0.304	
40	Total Penta-Dioxins				0.869	0.886					0.296	
41	Total Hexa-Dioxins				0.940	0.886					0.754	
42	Total Hepta-Dioxins				0.965	0.886			0.00000		1.02	2.2866
43	Total Tetra-Furans				0.952	0.886					0.208	
44	1st Func. Penta-Furans				0.994	0.886					0.218	
45	Total Penta-Furans				0.994	0.886					0.282	
46	Total Hexa-Furans				1.20	0.886					0.524	
47	Total Hepta-Furans				1.49	0.886					0.868	

Quantify Totals Report MassLynx 4.1
Vista Analytical Laboratory VG-10

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:18:35 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:20:06 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-14, Date: 19-Jan-2010, Time: 20:09:36, ID: 32322_2725_004 CAPA-10-6793 .886, Description: CAPA-10-6793

Tetra-Dioxins

	Name	RT	% Total	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IsOK	Resp	Conc	EMPC	DL

Penta-Dioxins

	Name	RT	% Total	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IsOK	Resp	Conc	EMPC	DL

Hexa-Dioxins

	Name	RT	% Total	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IsOK	Resp	Conc	EMPC	DL

Hepta-Dioxins

	Name	RT	% Total	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IsOK	Resp	Conc	EMPC	DL
1	1,2,3,4,6,7,8-HpCDD	37.91	7.579e3	3.735e3		2.941e2	2.394e2	1.23	YES	5.334e2	0.00000	2.2866	2.07

Tetra-Furans

	Name	RT	% Total	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IsOK	Resp	Conc	EMPC	DL

Penta-Furans function 1

	Name	RT	% Total	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IsOK	Resp	Conc	EMPC	DL

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:18:35 AM Pacific Standard Time
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Name: 100119H2-14, Date: 19-Jan-2010, Time: 20:09:36, ID: 32322_2725_004 CAPA-10-6793 .886, Description: CAPA-10-6793

Penta-Furans

Hexa-Furans

Hepta-Furans

Vista Analytical Laboratory VG-10

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:07:53 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:08:08 AM Pacific Standard Time

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Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-14, Date: 19-Jan-2010, Time: 20:09:36, ID: 32322_2725_004 CAPA-10-6793 .886, Description: CAPA-10-6793

2,3,7,8-TCDD

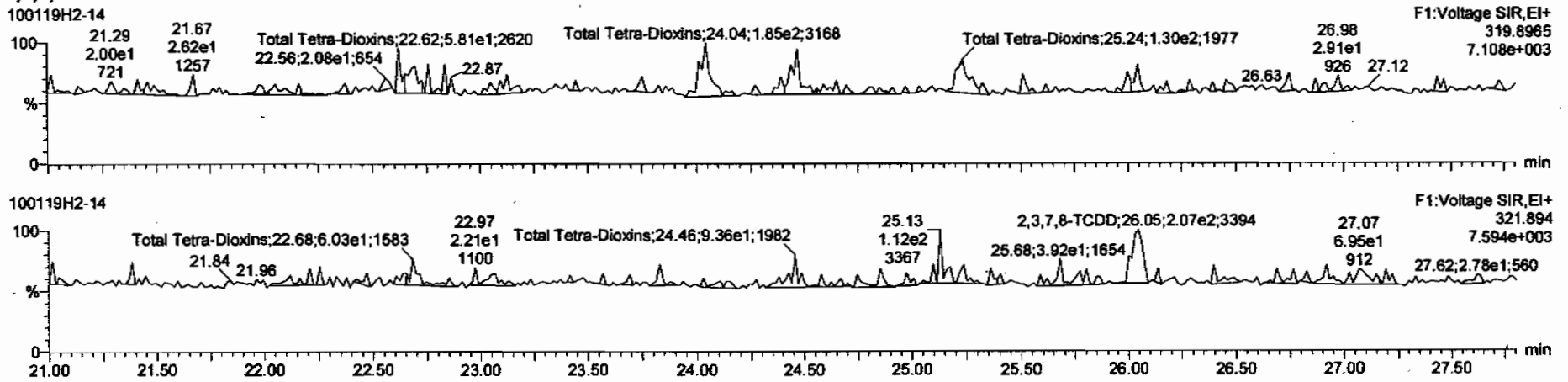

13C-2,3,7,8-TCDD

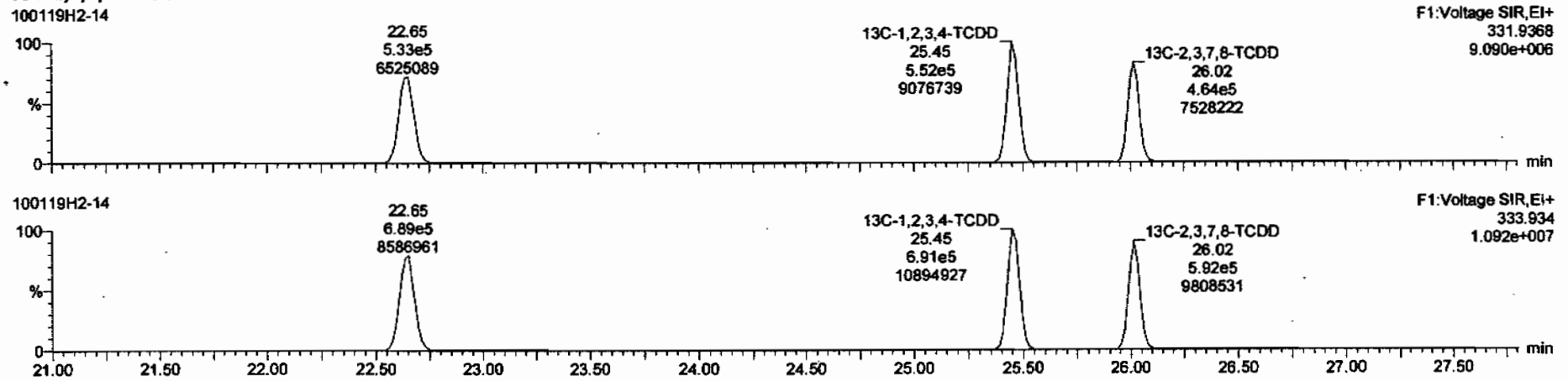

Dataset: Untitled

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37Cl-2,3,7,8-TCDD

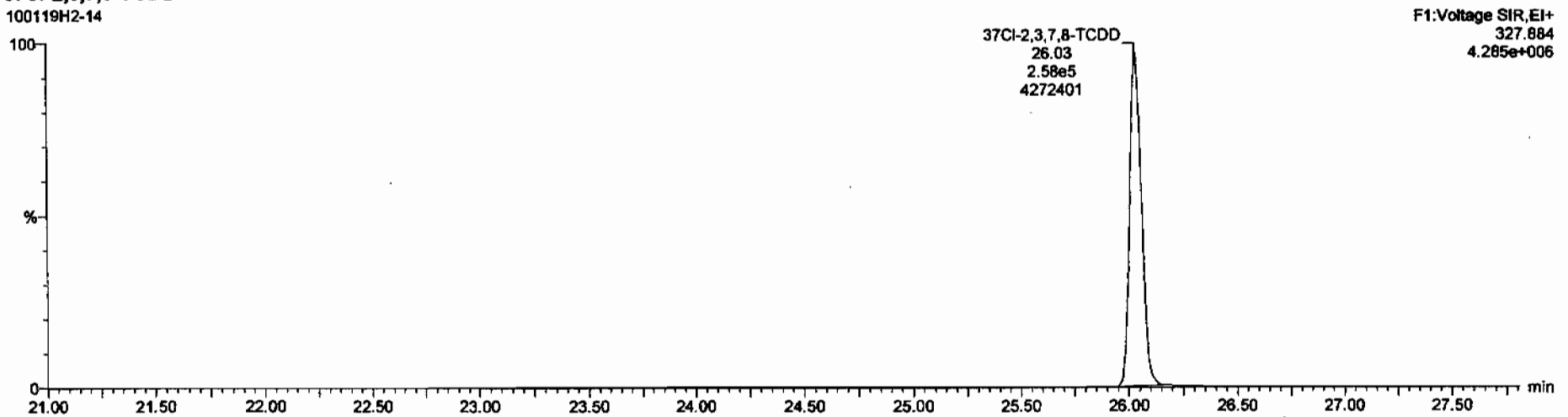

13C-1,2,3,4-TCDD

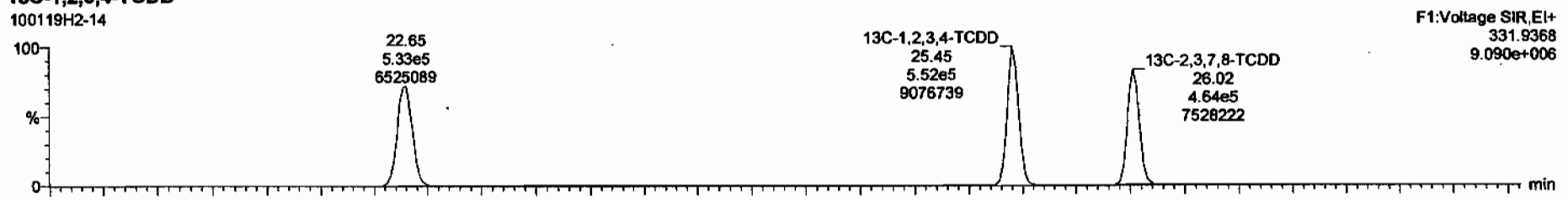

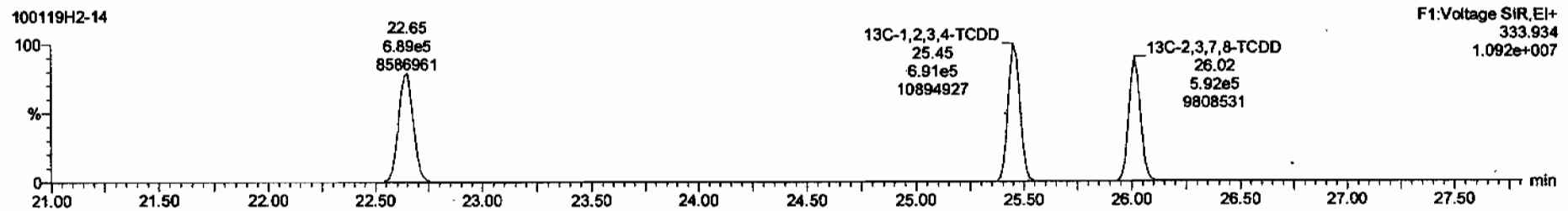

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1,2,3,7,8-PeCDD

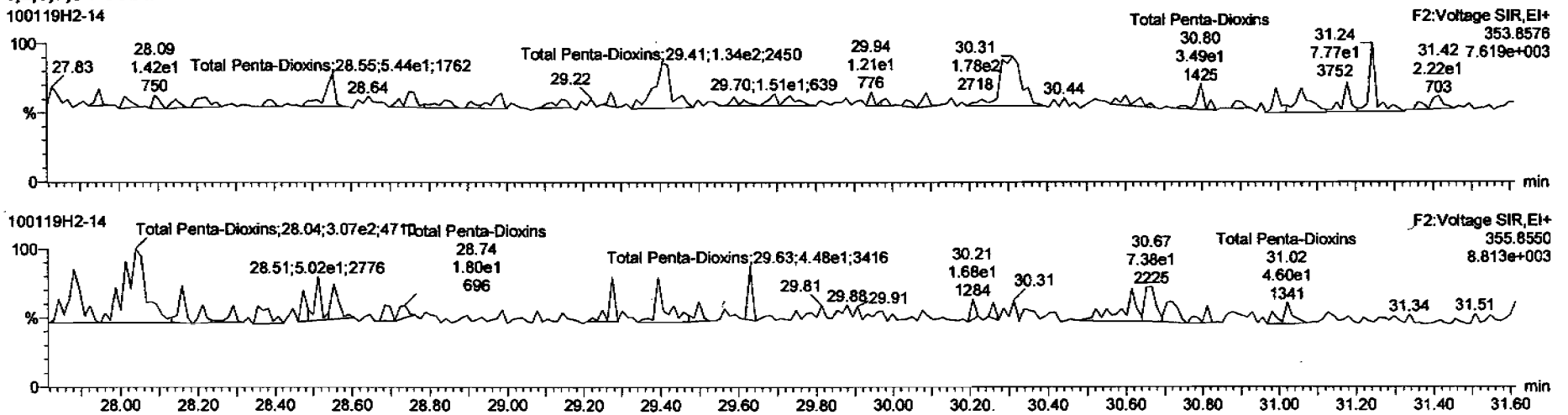

13C-1,2,3,7,8-PeCDD

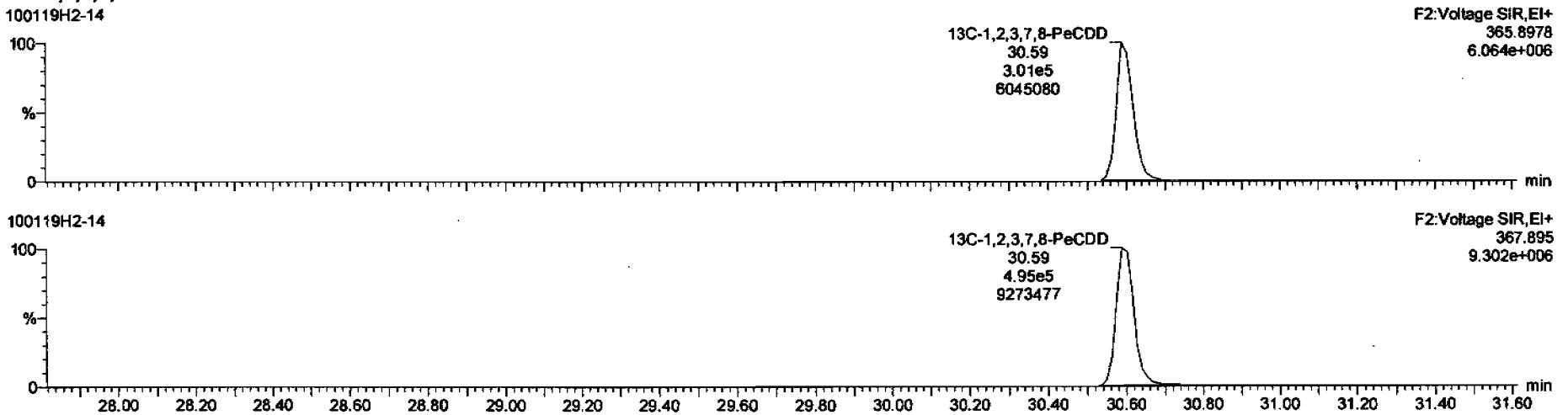

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Name: 100119H2-14, Date: 19-Jan-2010, Time: 20:09:36, ID: 32322_2725_004 CAPA-10-6793 .886, Description: CAPA-10-6793

1,2,3,4,7,8-HxCDD

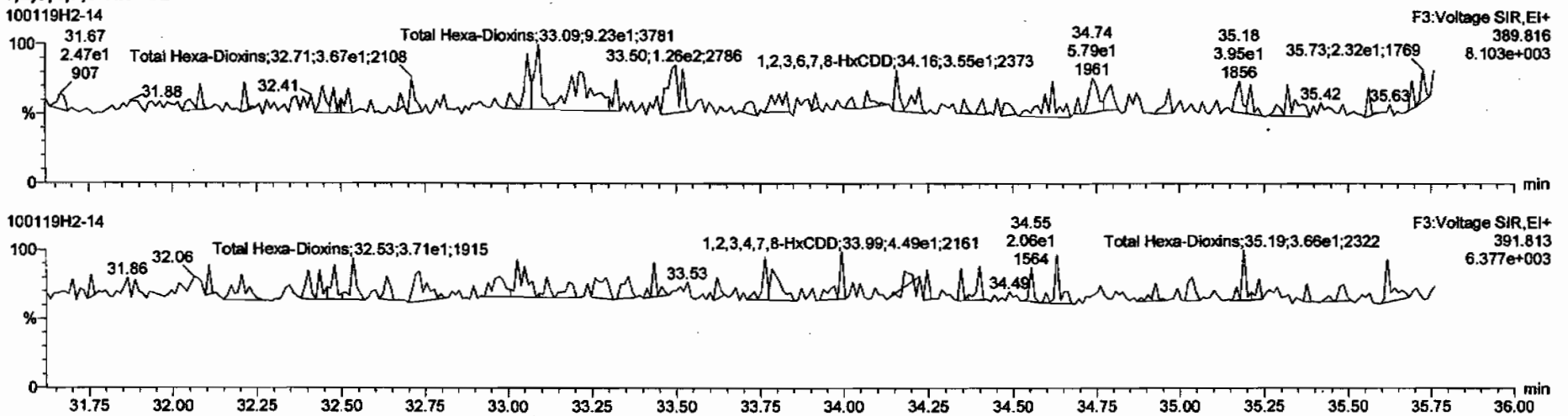

13C-1,2,3,4,7,8-HxCDD

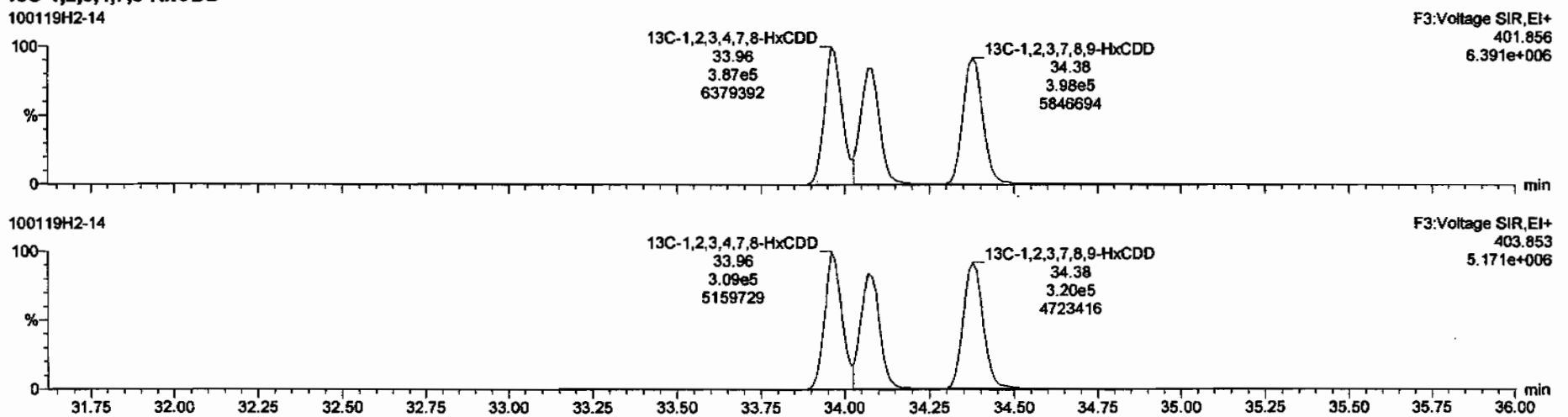

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Name: 100119H2-14, Date: 19-Jan-2010, Time: 20:09:36, ID: 32322_2725_004 CAPA-10-6793 .886, Description: CAPA-10-6793

1,2,3,4,6,7,8-HpCDD

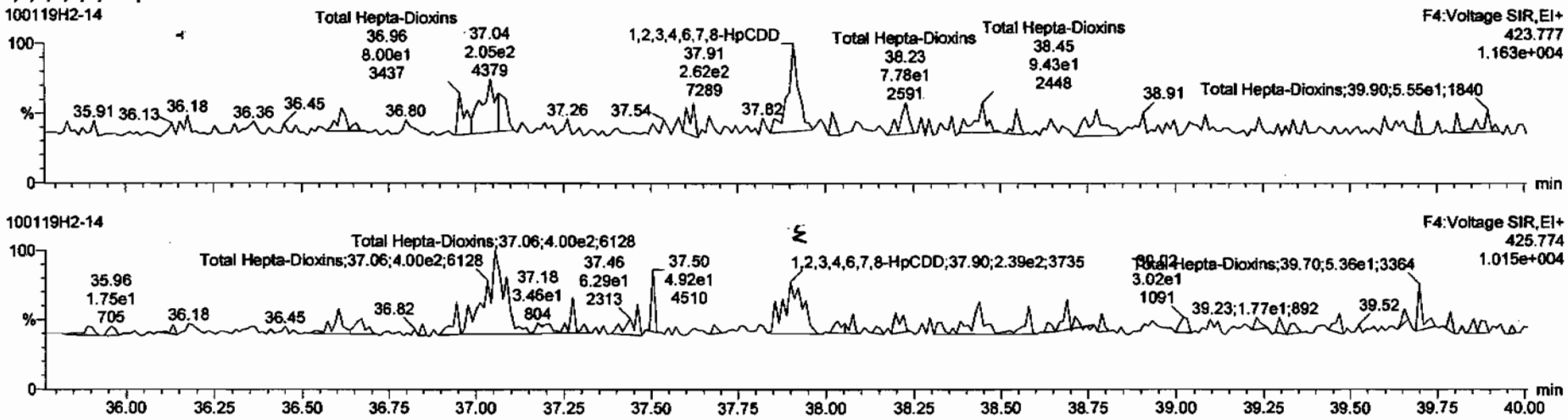

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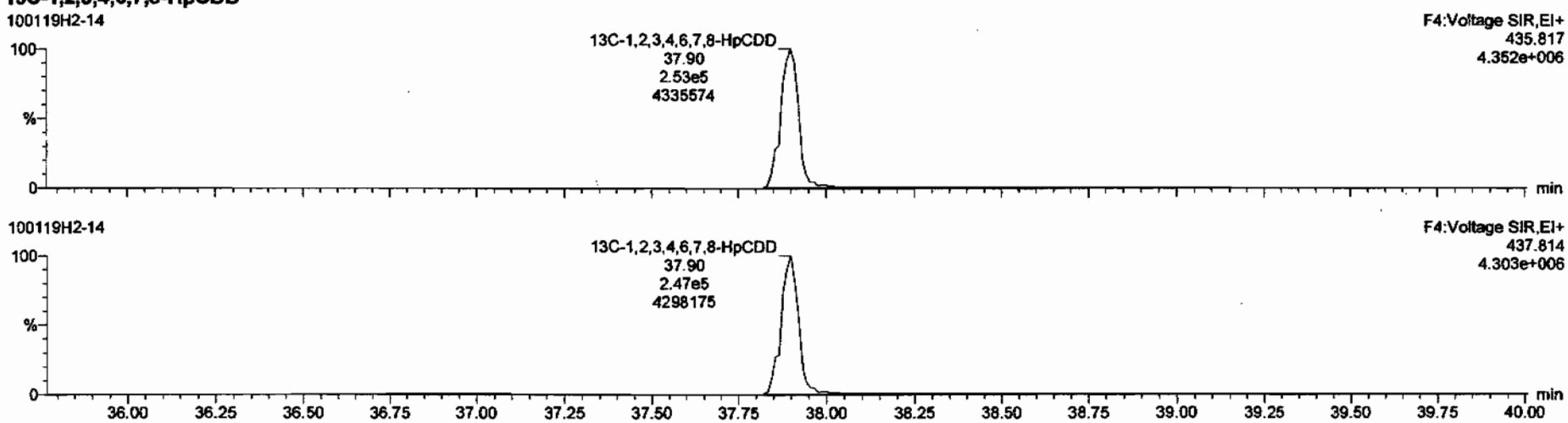

TargetLynx - untitled * - [Chromatogram]

File Edit View Display Processing Window Help

100119H2-14 - 32322_2725_004 CAPA-10-6793 .886 - CAPA-10-6793

	Name	Resp	RA	Flag	RRT	Width	RI	TPI	Conc	Target	DL	Tolerc
7	OCDD	3.65e3	0.97	NO	1.05	0.886	41.22	1.000	16.5		2.83	16.5
8	2,3,7,8-TCDF			NO	0.95	0.886					0.465	
9	1,2,3,7,8-PeCDF			NO	0.99	0.886					0.639	
10	2,3,4,7,8-PeCDF			NO	0.98	0.886					0.587	
11	1,2,3,4,7,8-HxCDF			NO	1.31	0.886					0.712	
12	1,2,3,6,7,8-HxCDF			NO	1.15	0.886					0.742	
13	2,3,4,6,7,8-HxCDF			NO	1.20	0.886					0.635	

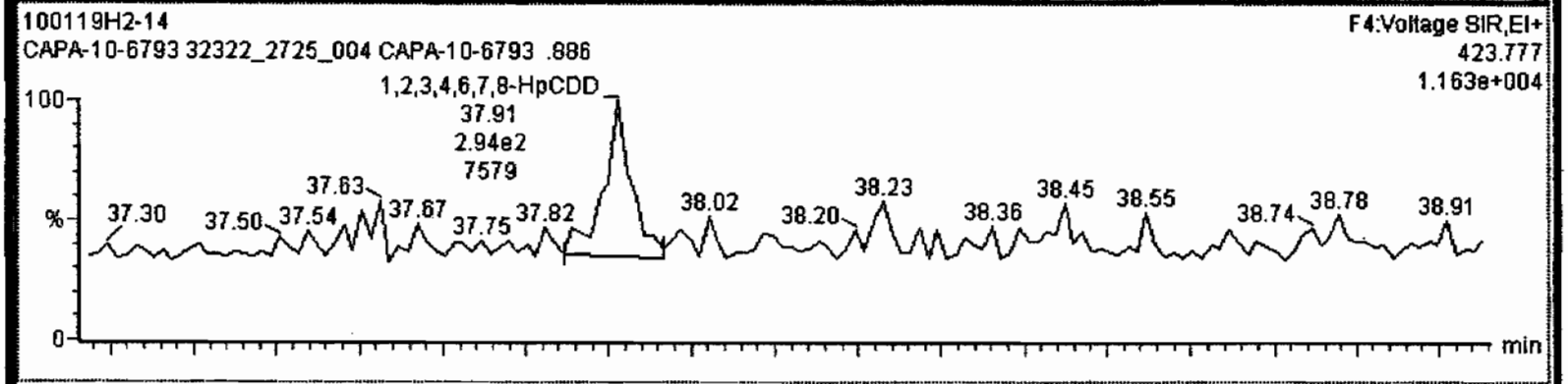

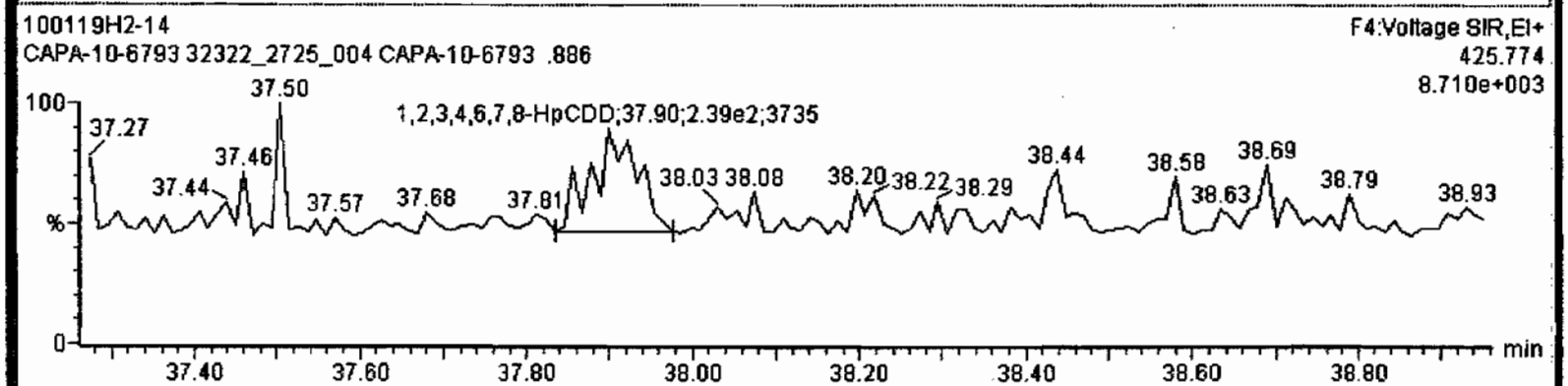

Ready

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Last Altered: Wednesday, January 20, 2010 8:07:53 AM Pacific Standard Time
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Name: 100119H2-14, Date: 19-Jan-2010, Time: 20:09:36, ID: 32322_2725_004 CAPA-10-6793 .886, Description: CAPA-10-6793

OCDD

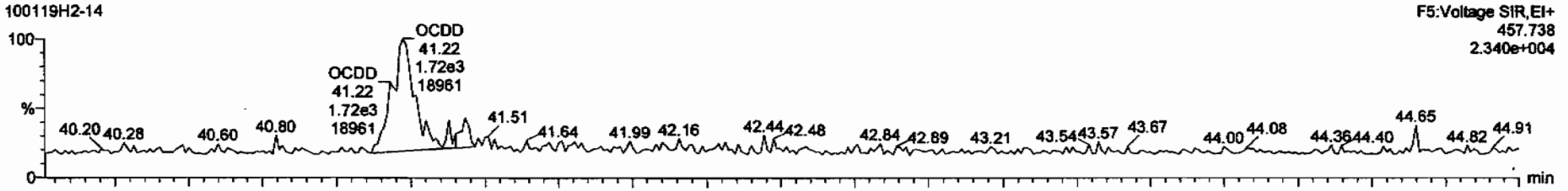

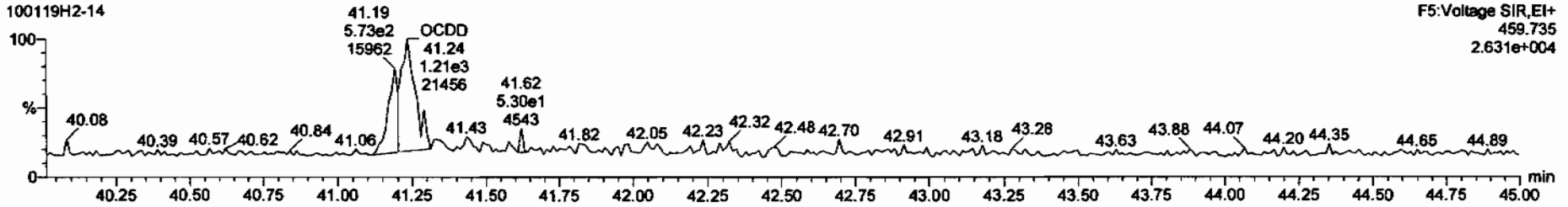

13C-OCDD

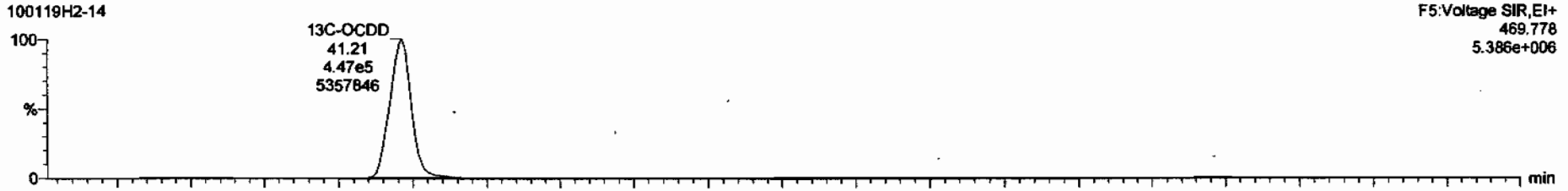

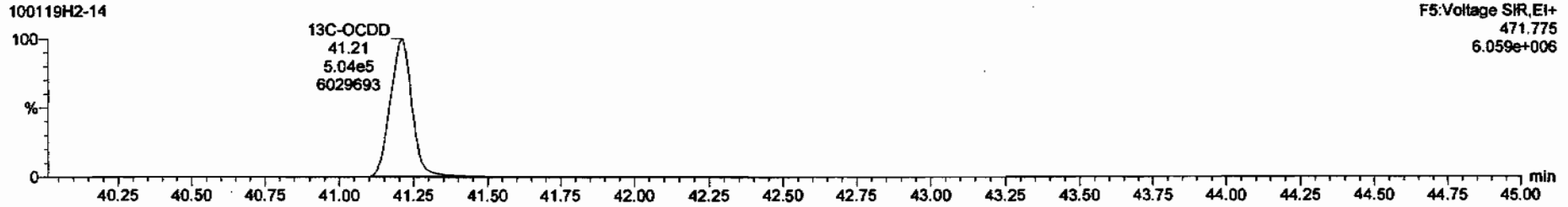

TargetLynx - untitled * - [Chromatogram]

File Edit View Display Processing Window Help

100119H2-14 - 32322_2725_004 CAPA-10-6793 .886 - CAPA-10-6793

	Name	Resp	RA	Int	RT	Area	FT	RRT	Conc	Ratio	D	Ratio
8	1,2,3,4,6,7,8-HpCDD	5.33e2	1.23	YES	0.97	0.886	37.91	1.000	2.50		2.07	2.29
9	2,3,7,8-TCDF			NO	0.95	0.886					0.465	
9	1,2,3,7,8-PeCDF			NO	0.99	0.886					0.639	
10	2,3,4,7,8-PeCDF			NO	0.98	0.886					0.587	
11	1,2,3,4,7,8-HxCDF			NO	1.31	0.886					0.712	
12	1,2,3,6,7,8-HxCDF			NO	1.15	0.886					0.742	
13	2,3,4,6,7,8-HxCDF			NO	1.20	0.886					0.835	

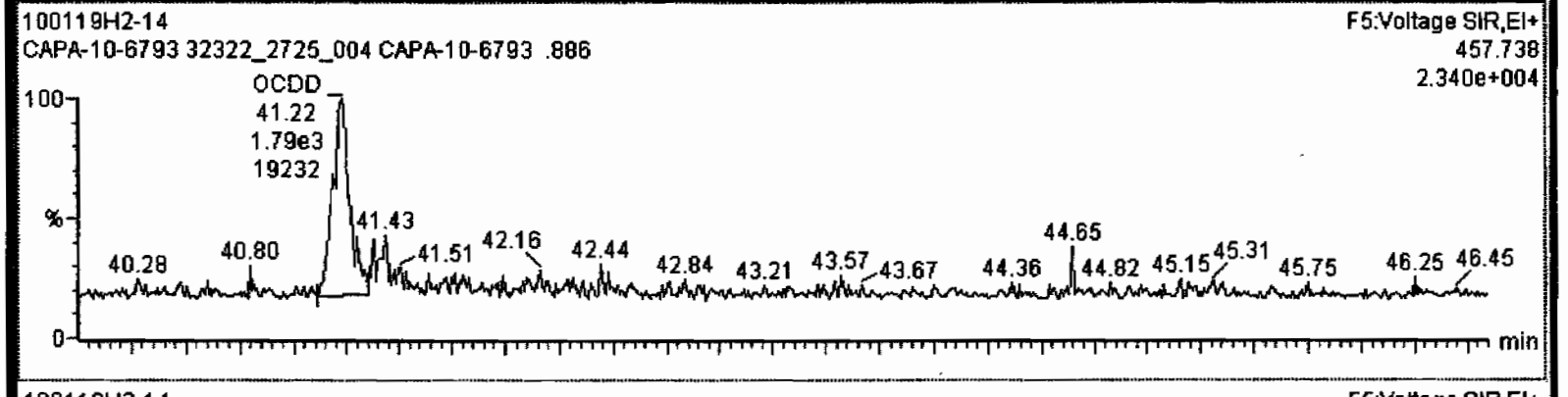

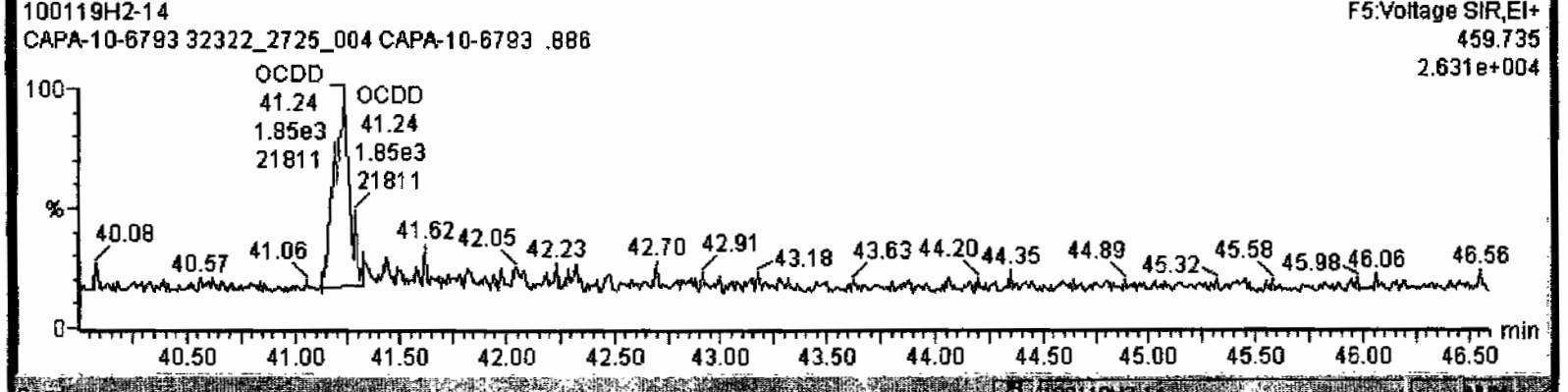

Ready 100119H2-14 NUM

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:07:53 AM Pacific Standard Time
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Name: 100119H2-14, Date: 19-Jan-2010, Time: 20:09:36, ID: 32322_2725_004 CAPA-10-6793 .886, Description: CAPA-10-6793

2,3,7,8-TCDF

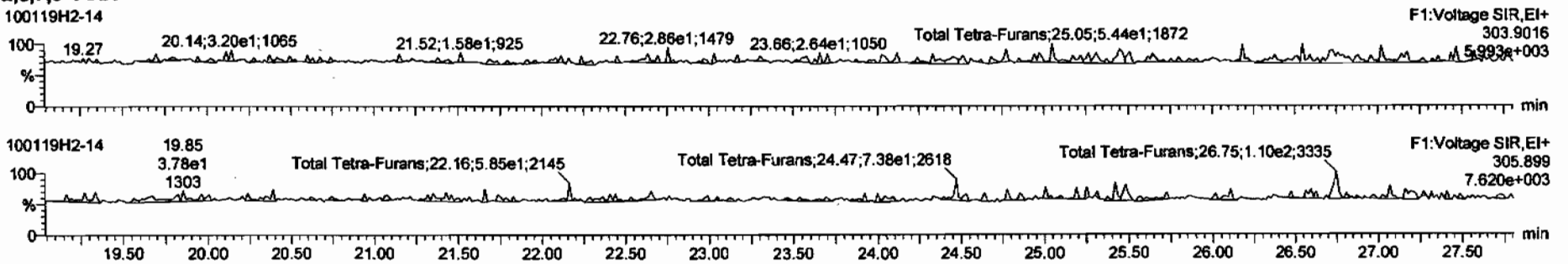

13C-2,3,7,8-TCDF

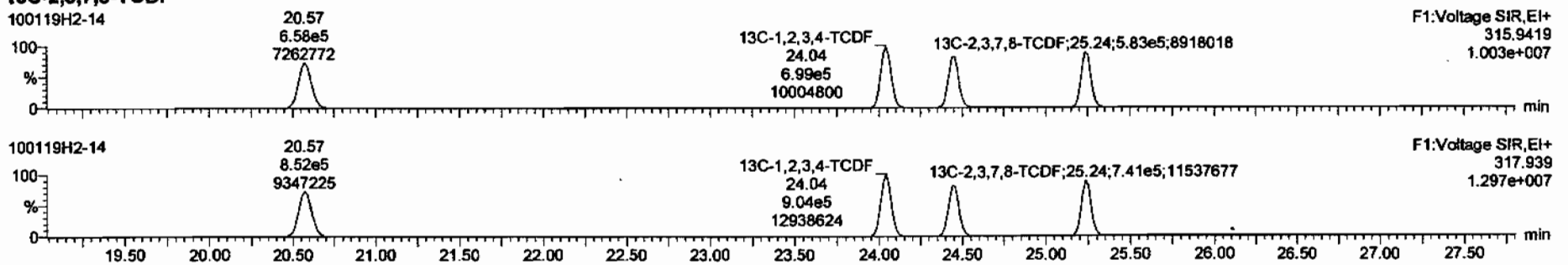

DPE1

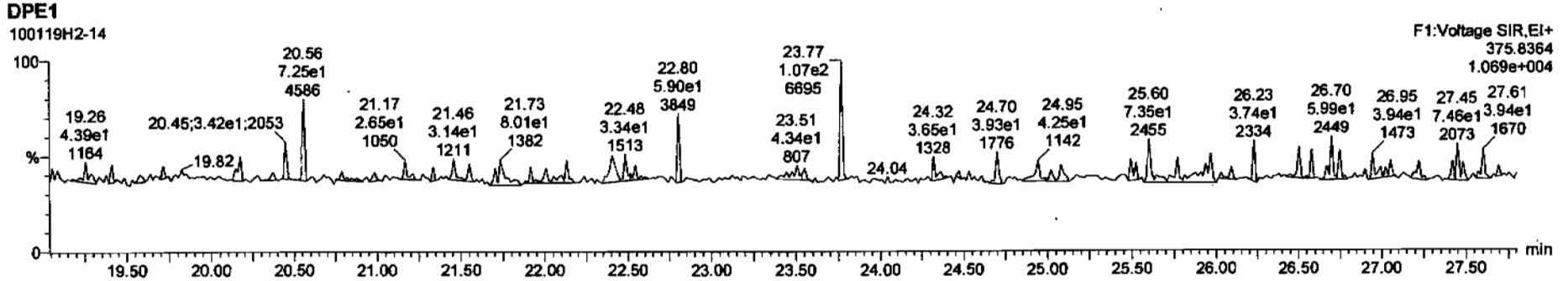

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1st Func. Penta-Furans

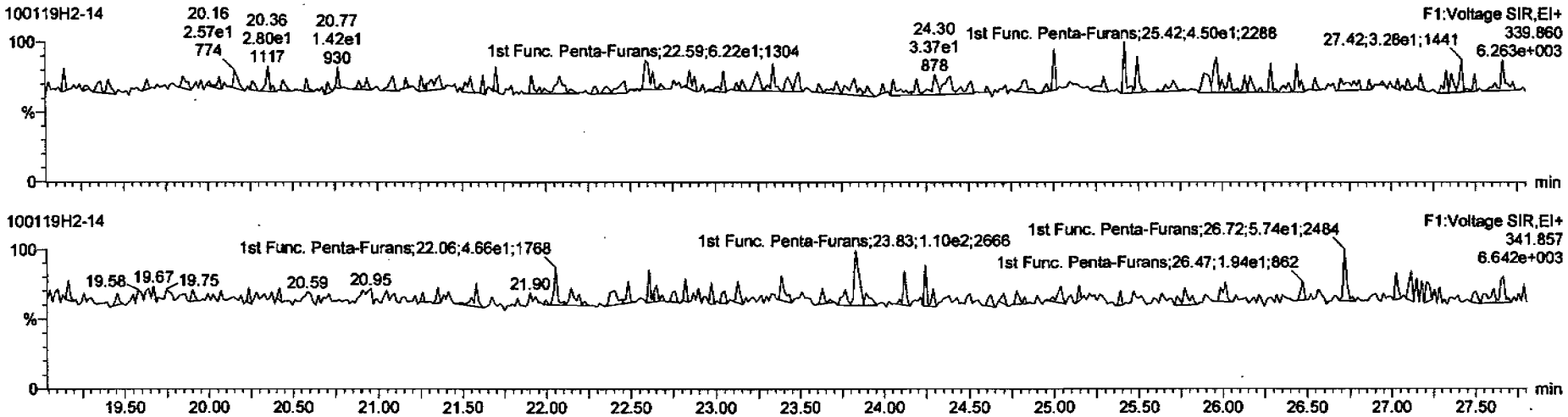

DPE6

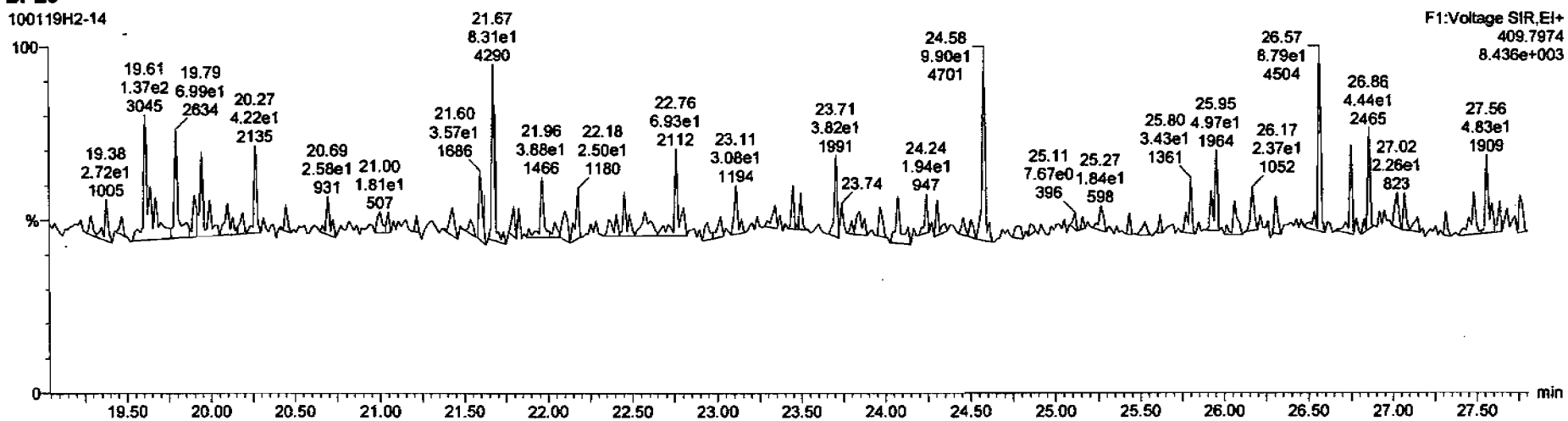

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1,2,3,7,8-PeCDF

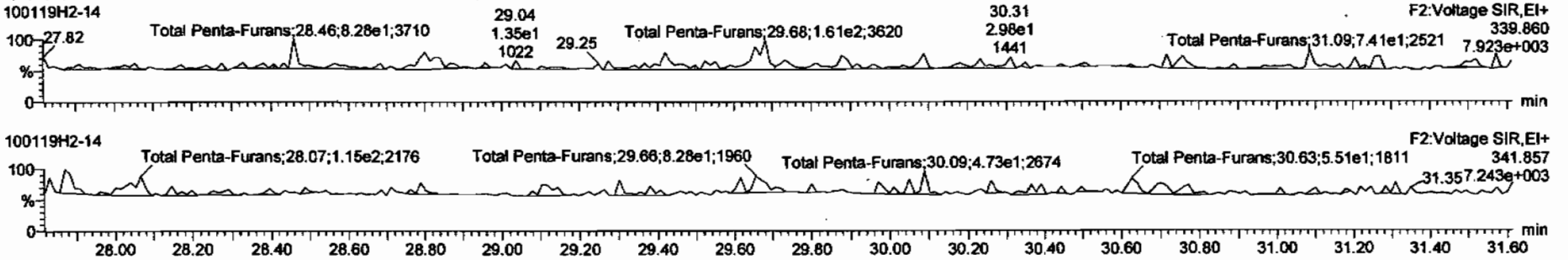

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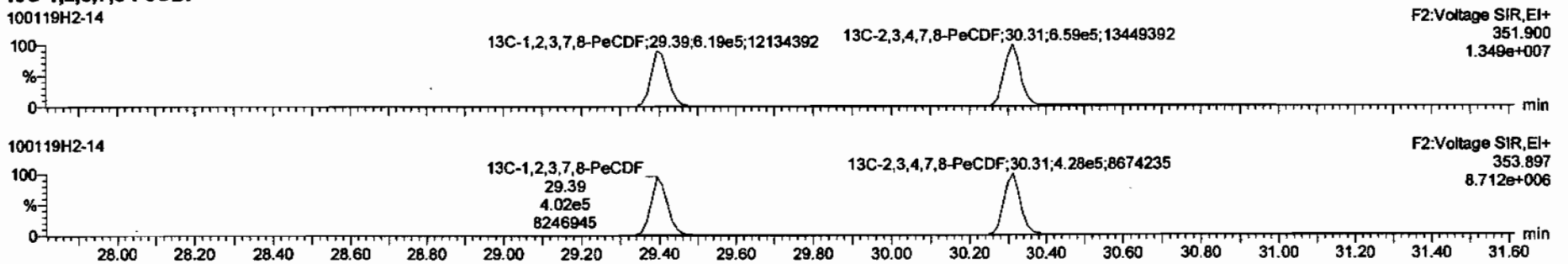

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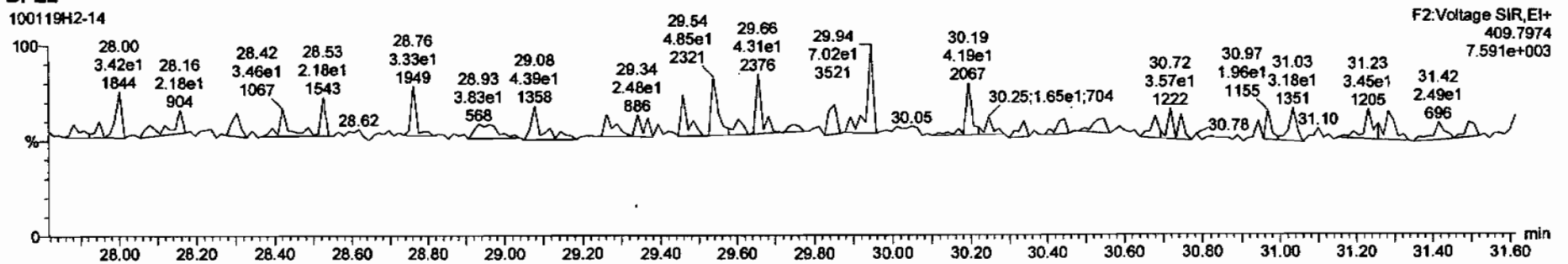

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1,2,3,4,7,8-HxCDF

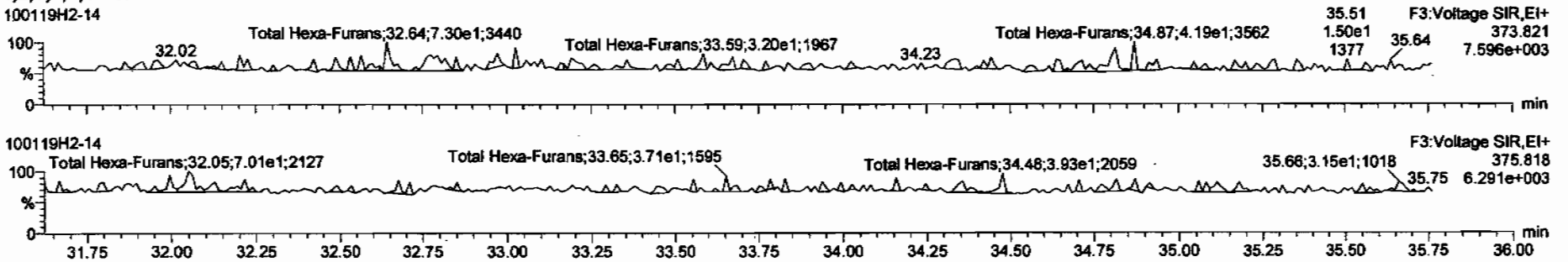

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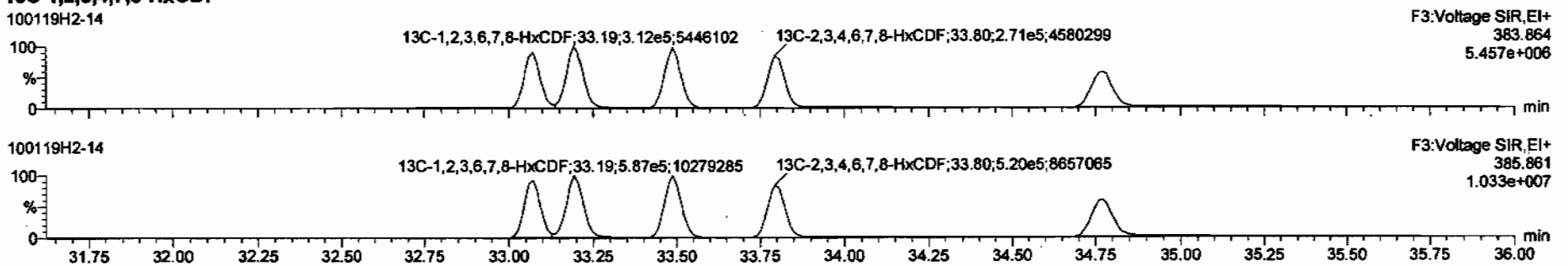

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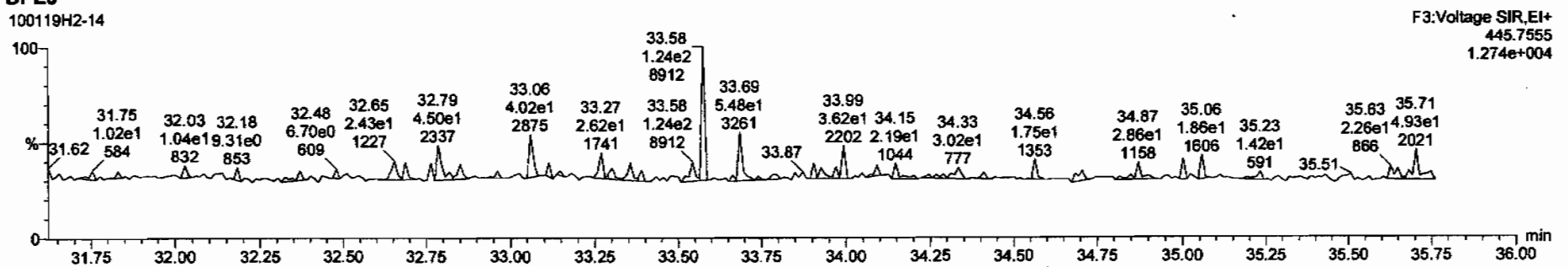

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1,2,3,4,6,7,8-HpCDF

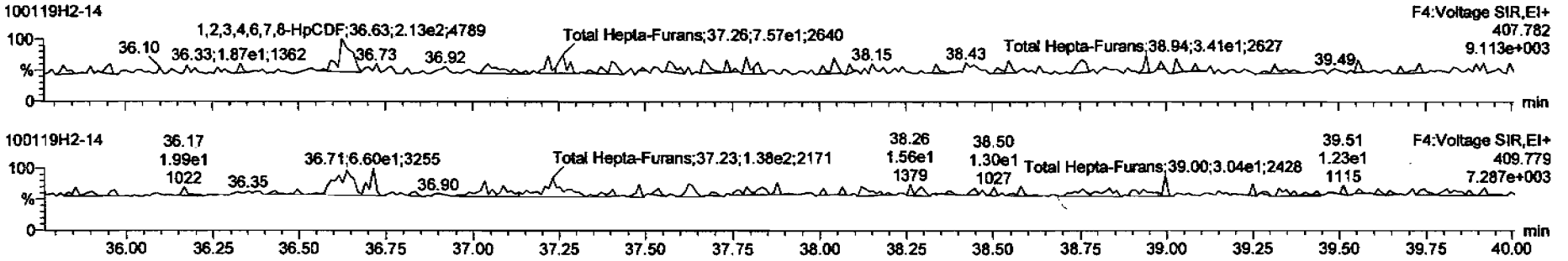

13C-1,2,3,4,6,7,8-HpCDF

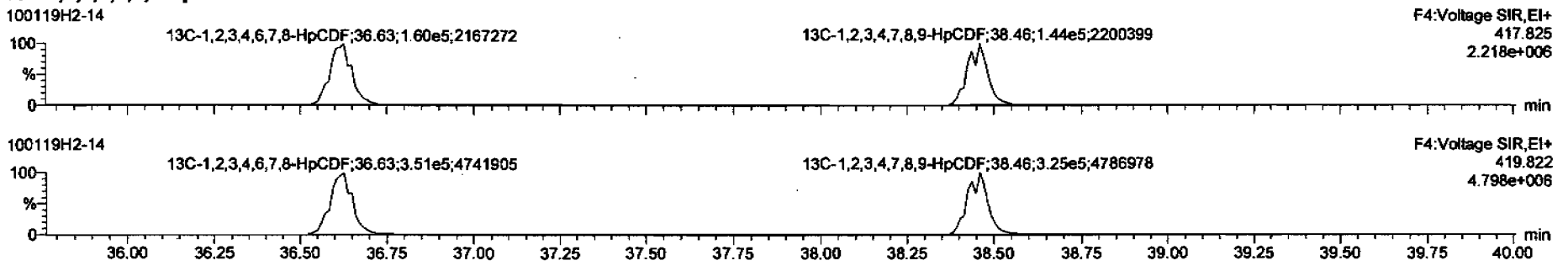

DPE4

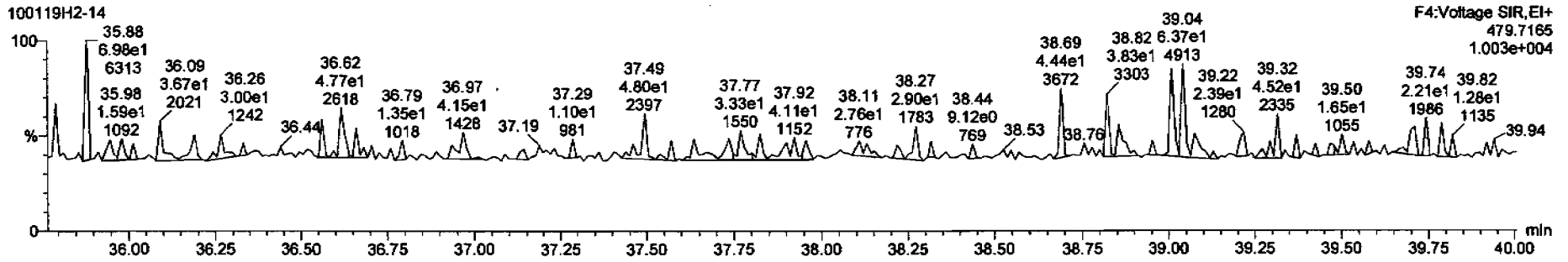

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Printed: Wednesday, January 20, 2010 8:08:08 AM Pacific Standard Time

Name: 100119H2-14, Date: 19-Jan-2010, Time: 20:09:36, ID: 32322_2725_004 CAPA-10-6793 .886, Description: CAPA-10-6793

OCDF

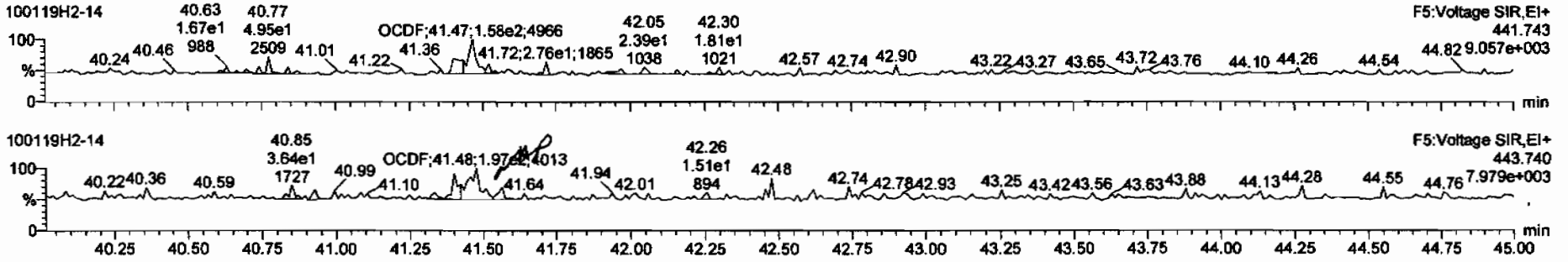

13C-OCDF

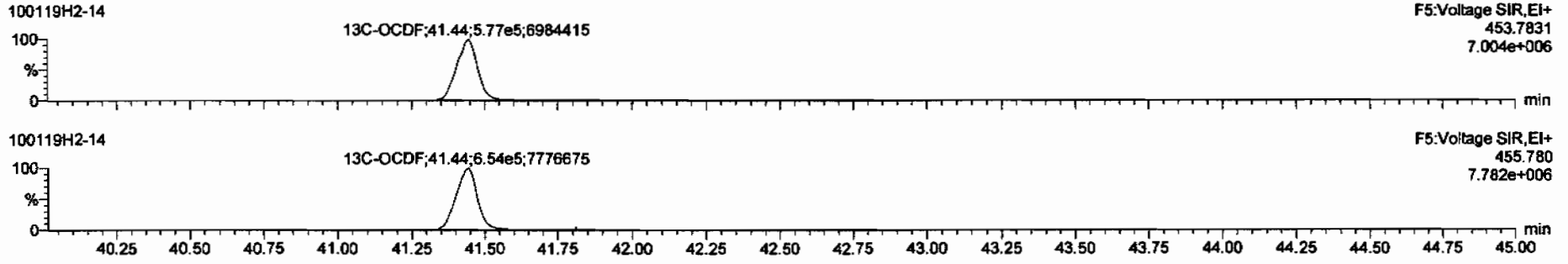

DPE5

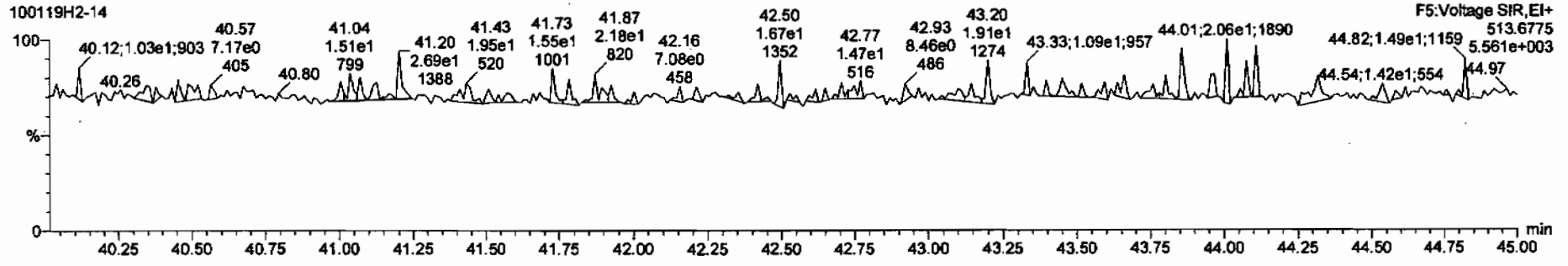

TargetLynx - untitled * - [Chromatogram]

File Edit View Display Processing Window Help

100119H2-14 - 32322_2725_004 CAPA-10-6793 .886 - CAPA-10-6793

	Name	Resp	RF	Pass	RT	Ref	Area	Ratio	Conc	Resp	Noise	Flags
15	1,2,3,4,7,8,9-HpCDF		0.00	YES	1.44	0.886					1.40	
17												
18	13C-2,3,7,8-TCDD	1.06e6	0.78	NO	1.02	0.886	26.02	1.022	1870	83.0	2.80	
19	13C-1,2,3,7,8-PeCDD	7.96e5	0.61	NO	0.81	0.886	30.59	1.202	1790	79.5	2.92	
20	13C-1,2,3,4,7,8-HxCDD	6.96e5	1.25	NO	1.07	0.886	33.96	1.014	1640	72.7	4.67	
21	13C-1,2,3,6,7,8-HxCDD	6.29e5	1.25	NO	0.97	0.886	34.07	1.017	1650	73.0	5.18	
22	13C-1,2,3,7,8,9-HxCDD	7.17e5	1.25	NO	1.13	0.886	34.38	1.027	1600	71.0	4.42	
23	13C-1,2,3,4,6,7,8-HpCDD	4.99e5	1.02	NO	0.89	0.886	37.90	1.132	1420	63.1	11.3	

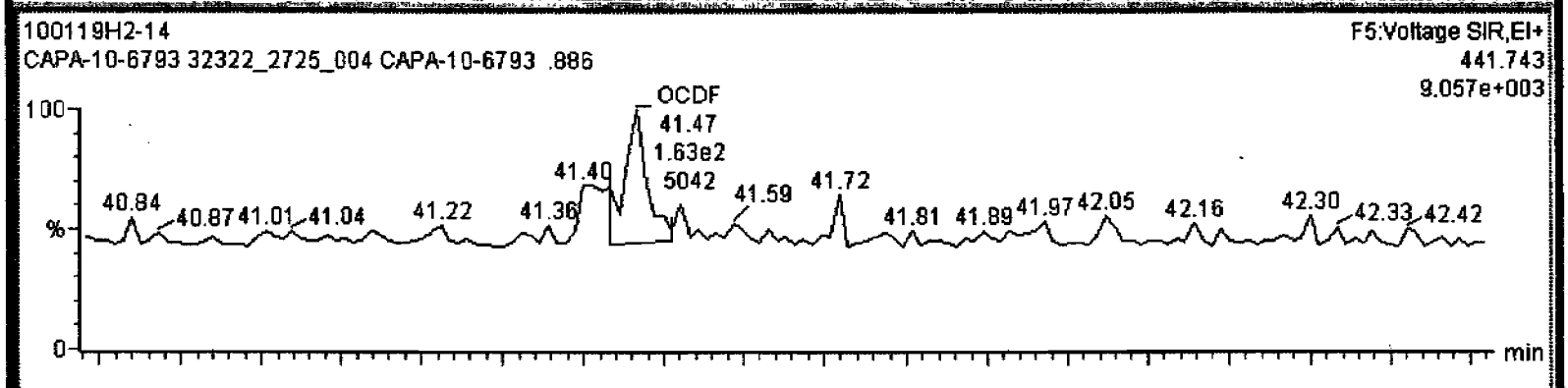

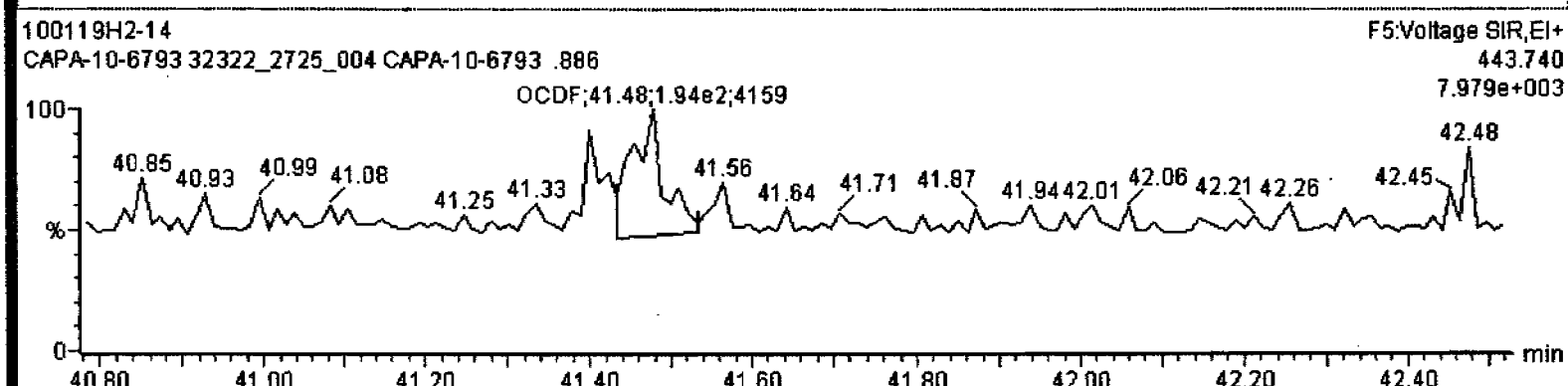

Ready

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:07:53 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:08:08 AM Pacific Standard Time

Name: 100119H2-14, Date: 19-Jan-2010, Time: 20:09:36, ID: 32322_2725_004 CAPA-10-6793 .886, Description: CAPA-10-6793

PFK1

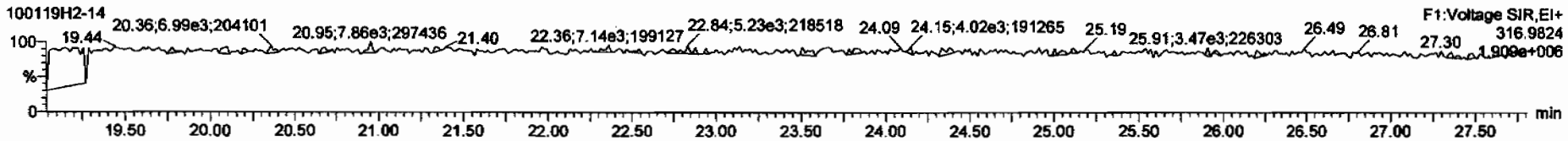

PFK2

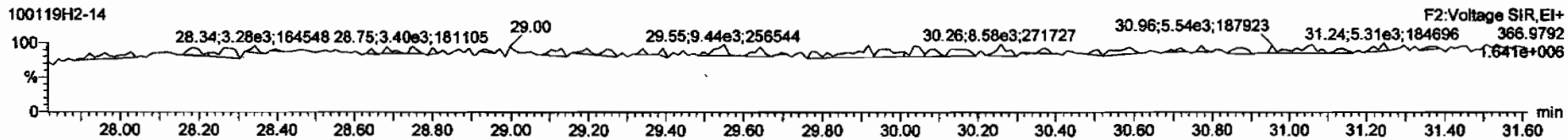

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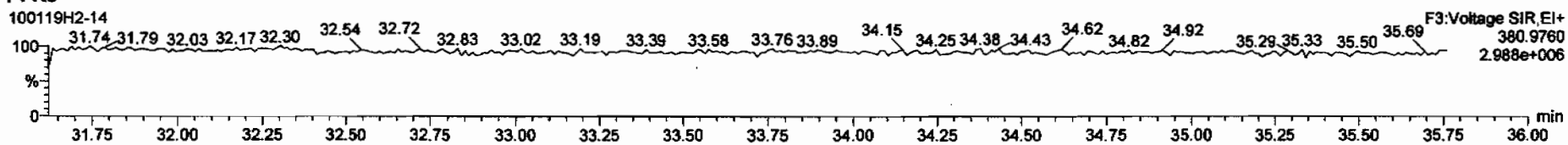

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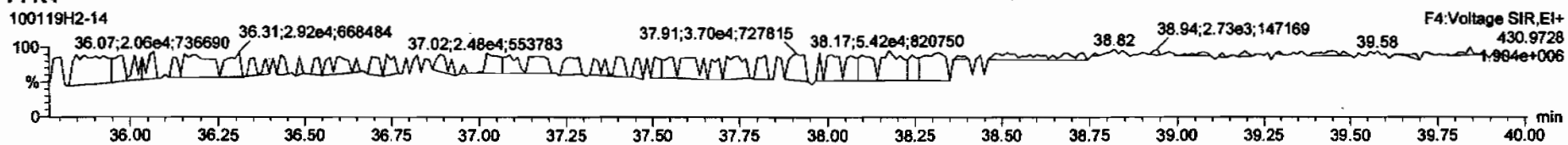

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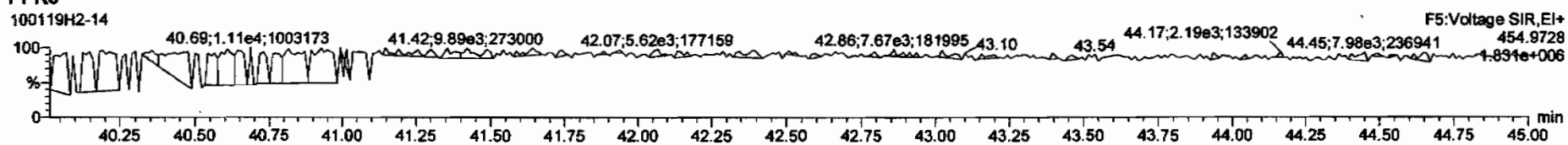

CALIBRATION DATA

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION
CCAL ID: ST100119H2-1

Vista Analytical Laboratory
Initial Calibration Date: 10/29/2009
Instrument ID: VG10
VER Data file name: 100119H2-1

GC Column ID: DB-5
Analysis Date: 19-Jan-10 Analysis Time: 09:25:44

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
2,3,7,8-TCDD	M/M+2	0.77	0.65-0.89	NO	10.3	7.8	12.9	Yes	8.00	12.0	Yes
						8.2	12.3 (4)				
1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	NO	51.9	39.0	65.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	50.5	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	51.7	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDD	M+2/M+4	1.23	1.05-1.43	NO	50.5	41.0	61.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	NO	49.9	43.0	58.0	Yes	40.0	60.0	Yes
OCDD	M+2/M+4	0.88	0.76-1.02	NO	104	79.0	126.0	Yes	80.0	120.0	Yes
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	NO	9.97	8.4	12.0	Yes	8.00	12.0	Yes
						8.6	11.6 (4)				
1,2,3,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	NO	47.8	41.0	60.0	Yes	40.0	60.0	Yes
2,3,4,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	NO	47.8	41.0	60.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	NO	47.7	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	NO	47.5	44.0	57.0	Yes	40.0	60.0	Yes
2,3,4,6,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	NO	46.3	44.0	57.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDF	M+2/M+4	1.28	1.05-1.43	NO	47.6	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.06	0.88-1.20	NO	47.2	45.0	55.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.08	0.88-1.20	NO	47.7	43.0	58.0	Yes	40.0	60.0	Yes
OCDF	M+2/M+4	0.91	0.76-1.02	NO	97.1	63.0	159.0	Yes	80.0	120.0	Yes

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [signature]

Date: 1/19/10

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION
CCAL ID: ST100119H2-1

Vista Analytical Laboratory
Initial Calibration Date: 10/29/2009
Instrument ID: VG10
VER Data file name: 100119H2-1

GC Column ID: DB-5
Analysis Date: 19-Jan-10 Analysis Time: 09:25:44

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
13C-2,3,7,8-TCDD	M+2/M+4	0.78	0.65-0.89	NO	100	82.0	121.0	Yes	70.0	130.0	Yes
						85.0	117.0 (5)				
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	NO	98.5	62.0	160.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	NO	89.8	85.0	117.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	NO	93.3	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.21	1.05-1.43	NO	89.6	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.03	0.88-1.20	NO	81.8	72.0	138.0	Yes	70.0	130.0	Yes
13C-OCDD	M+2/M+4	0.89	0.76-1.02	NO	157	96.0	415.0	Yes	140.0	260.0	Yes
13C-2,3,7,8-TCDF	M/M+2	0.78	0.65-0.89	NO	96.8	71.0	140.0	Yes	70.0	130.0	Yes
						76.0	131.0 (5)				
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	NO	95.8	76.0	130.0	Yes	70.0	130.0	Yes
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	NO	98.6	77.0	130.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.53	0.43-0.59	NO	100	76.0	131.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.53	0.43-0.59	NO	102	70.0	143.0	Yes	70.0	130.0	Yes
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.53	0.43-0.59	NO	97.0	73.0	137.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.52	0.43-0.59	NO	91.6	74.0	135.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.44	0.37-0.51	NO	84.1	78.0	129.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.46	0.37-0.51	NO	79.5	77.0	129.0	Yes	70.0	130.0	Yes
13C-OCDF	M+2/M+4	0.89	0.76-1.02	NO	160	96.0	415.0	Yes	140.0	260.0	Yes
CLEANUP STANDARD (4)											
37Cl-2,3,7,8-TCDD					9.77	7.9	12.7	Yes	7.0	13.0	Yes
						8.3	12.1 (5)				

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) No ion abundance ratio; report concentration found
(5) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [signature]

Date: 1/19/10

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Tuesday, January 19, 2010 10:34:13 AM Pacific Standard Time
Printed: Tuesday, January 19, 2010 10:34:40 AM Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

#	Name	RT
1	1,3,6,8-TCDD (First)	22.68
2	1,2,8,9-TCDD (Last)	26.92
3	1,2,4,7,9-PeCDD (First)	28.54
4	1,2,3,8,9-PeCDD (Last)	31.01
5	12,4,6,7,9-HxCDD (First)	32.45
6	1,2,3,7,8,9-HxCDD (Last)	34.41
7	1,2,3,4,6,7,9-HpCDD (First)	37.05
8	1,2,3,4,6,7,8-HpCDD (Last)	37.92
9	1,3,6,8-TCDF (First)	20.60
10	1,2,8,9-TCDF (Last)	27.07
11	1,3,4,6,8-PeCDF (First)	27.01
12	1,2,3,8,9-PeCDF (Last)	31.26
13	1,2,3,4,6,8-HxCDF (First)	31.90
14	1,2,3,4,8,9-HxCDF (Last)	34.80
15	1,2,3,4,6,7,8-HpCDF (First)	36.66
16	1,2,3,4,7,8,9-HpCDF (Last)	38.48

1/19/10

FORM 6A

PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory
Initial Calibration Date: 10/29/2009
Instrument ID: VG10
VER Data file name: 100119H2-1

CCAL ID: ST100119H2-1

GC Column ID: DB-5
Analysis Date: 19-Jan-10

Analysis Time: 09:25:44

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999	1.002	Yes
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.000	0.999	1.002	Yes
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999	1.003	Yes
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999	1.002	Yes
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999	1.002	Yes
LABELED COMPOUNDS					
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.976	1.043	Yes
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.202	1.000	1.567	Yes
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.992	0.923	1.103	Yes
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.155	1.000	1.425	Yes
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.191	1.011	1.526	Yes
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.023	0.989	1.052	Yes

Analyst: _____

Date: 1/19/10

FORM 6B

PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory

CCAL ID: ST100119H2-1

Initial Calibration Date: 10/29/2009

Instrument ID: VG10

GC Column ID: DB-5

VER Data file name: 100119H2-1

Analysis Date: 19-Jan-10

Analysis Time: 09:25:44

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999	1.001	Yes
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998	1.004	Yes
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.000	0.998	1.004	Yes
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999	1.001	Yes
OCDD	13C-OCDD	1.000	0.999	1.001	Yes
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.001	0.999	1.001	Yes
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	0.997	1.005	Yes
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.000	0.999	1.001	Yes
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999	1.001	Yes
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.001	0.999	1.001	Yes
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999	1.001	Yes
OCDF	13C-OCDF	1.000	0.999	1.001	Yes
LABELED COMPOUNDS					
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.014	1.002	1.026	Yes
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.018	1.007	1.029	Yes
13C-1,2,3,7,8,9-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.027	1.014	1.038	Yes
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,9-HxCDF	1.132	1.117	1.141	Yes
13C-OCDD	13C-1,2,3,4,6,9-HxCDF	1.231	1.085	1.365	Yes
13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.988	0.975	1.001	Yes
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.991	0.979	1.005	Yes
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.009	1.001	1.020	Yes
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.038	1.002	1.072	Yes
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.094	1.069	1.111	Yes
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.148	1.098	1.192	Yes
13C-OCDF	13C-1,2,3,4,6,9-HxCDF	1.238	1.091	1.371	Yes

Analyst: [signature]

Date: 1/19/10

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-1.qld

Last Altered: Tuesday, January 19, 2010 10:30:01 AM Pacific Standard Time
Printed: Tuesday, January 19, 2010 10:31:29 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

	# Name	Resp	S/N	Int	RRt	Ratio	RTol	RRT	Conc	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD	1.15e5	0.77	NO	0.965	1.000	26.05	1.001	10.300	103	0.0407	10.300
2	2 1,2,3,7,8-PeCDD	4.03e5	0.62	NO	0.869	1.000	30.63	1.000	51.949	104	0.0965	51.949
3	3 1,2,3,4,7,8-HxCDD	3.52e5	1.24	NO	0.873	1.000	33.99	1.000	50.477	101	0.135	50.477
4	4 1,2,3,6,7,8-HxCDD	3.63e5	1.25	NO	0.940	1.000	34.10	1.000	51.680	103	0.146	51.680
5	5 1,2,3,7,8,9-HxCDD	3.75e5	1.23	NO	0.882	1.000	34.41	1.000	50.484	101	0.146	50.484
6	6 1,2,3,4,6,7,8-HpCDD	2.90e5	1.05	NO	0.965	1.000	37.92	1.000	49.900	99.8	0.207	49.900
7	7 OCDD	5.56e5	0.88	NO	1.05	1.000	41.25	1.000	104.12	104	0.217	104.12
8	8 2,3,7,8-TCDF	1.37e5	0.77	NO	0.952	1.000	25.27	1.001	9.9677	99.7	0.0470	9.9677
9	9 1,2,3,7,8-PeCDF	5.80e5	1.56	NO	0.994	1.000	29.43	1.000	47.819	95.6	0.0781	47.819
10	10 2,3,4,7,8-PeCDF	5.78e5	1.58	NO	0.977	1.000	30.34	1.000	47.827	95.7	0.0757	47.827
11	11 1,2,3,4,7,8-HxCDF	6.14e5	1.26	NO	1.31	1.000	33.10	1.001	47.687	95.4	0.110	47.687
12	12 1,2,3,6,7,8-HxCDF	6.02e5	1.22	NO	1.15	1.000	33.22	1.000	47.504	95.0	0.124	47.504
13	13 2,3,4,6,7,8-HxCDF	5.18e5	1.25	NO	1.20	1.000	33.83	1.000	46.296	92.6	0.141	46.296
14	14 1,2,3,7,8,9-HxCDF	4.45e5	1.28	NO	1.20	1.000	34.80	1.001	47.645	95.3	0.205	47.645
15	15 1,2,3,4,6,7,8-HpCDF	4.44e5	1.06	NO	1.49	1.000	36.66	1.001	47.236	94.5	0.212	47.236
16	16 1,2,3,4,7,8,9-HpCDF	3.75e5	1.08	NO	1.44	1.000	38.48	1.000	47.671	95.3	0.234	47.671
17	17 OCDF	6.47e5	0.91	NO	1.02	1.000	41.48	1.000	97.146	97.1	0.136	97.146
18	18 13C-2,3,7,8-TCDD	1.15e6	0.78	NO	1.02	1.000	26.03	1.022	100.11	100	0.123	
19	19 13C-1,2,3,7,8-PeCDD	8.93e5	0.62	NO	0.806	1.000	30.61	1.202	98.485	98.5	0.144	
20	20 13C-1,2,3,4,7,8-HxCDD	7.99e5	1.23	NO	1.07	1.000	33.98	1.014	89.808	89.8	0.207	
21	21 13C-1,2,3,6,7,8-HxCDD	7.47e5	1.23	NO	0.968	1.000	34.09	1.018	93.264	93.3	0.230	
22	22 13C-1,2,3,7,8,9-HxCDD	8.42e5	1.21	NO	1.13	1.000	34.40	1.027	89.562	89.6	0.196	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.02e5	1.03	NO	0.888	1.000	37.91	1.132	81.825	81.8	0.241	
24	24 13C-OCDD	1.02e6	0.89	NO	0.783	1.000	41.23	1.231	157.46	78.7	0.192	
25	25 13C-2,3,7,8-TCDF	1.44e6	0.78	NO	1.03	1.000	25.25	0.992	96.826	96.8	0.144	
26	26 13C-1,2,3,7,8-PeCDF	1.22e6	1.55	NO	0.880	1.000	29.42	1.155	95.824	95.8	0.269	
27	27 13C-2,3,4,7,8-PeCDF	1.24e6	1.56	NO	0.867	1.000	30.33	1.191	98.564	98.6	0.273	
28	28 13C-1,2,3,4,7,8-HxCDF	9.84e5	0.53	NO	1.19	1.000	33.08	0.988	100.03	100	0.221	
29	29 13C-1,2,3,6,7,8-HxCDF	1.10e6	0.53	NO	1.30	1.000	33.21	0.991	102.30	102	0.201	
30	30 13C-2,3,4,6,7,8-HxCDF	9.35e5	0.53	NO	1.16	1.000	33.82	1.009	97.046	97.0	0.225	

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-1.qld

Last Altered: Tuesday, January 19, 2010 10:30:01 AM Pacific Standard Time
Printed: Tuesday, January 19, 2010 10:31:29 AM Pacific Standard Time

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

#	Name	Resp	S/N	n/v	RRf	wrvol	RT	RRT	Conc	%Rec	LOD	EMPC
31	13C-1,2,3,7,8,9-HxCDF	7.79e5	0.52	NO	1.03	1.000	34.78	1.038	91.590	91.6	0.255	
32	13C-1,2,3,4,6,7,8-HpCDF	6.33e5	0.44	NO	0.909	1.000	36.64	1.094	84.073	84.1	0.319	
33	13C-1,2,3,4,7,8,9-HpCDF	5.47e5	0.46	NO	0.830	1.000	38.47	1.148	79.537	79.5	0.350	
34	13C-OCDF	1.30e6	0.89	NO	0.982	1.000	41.47	1.238	160.40	80.2	0.253	
35	37Cl-2,3,7,8-TCDD	6.62e4			0.602	1.000	26.05	1.023	9.7657	97.7	0.0448	
36	13C-1,2,3,4-TCDD	1.13e6	0.79	NO	1.00	1.000	25.46	0.000	100.00	100	0.126	
37	13C-1,2,3,4-TCDF	1.45e6	0.78	NO	1.00	1.000	24.06	0.000	100.00	100	0.149	
38	13C-1,2,3,4,6,9-HxCDF	8.28e5	0.53	NO	1.00	1.000	33.50	0.000	100.00	100	0.262	
39	Total Tetra-Dioxins				0.965	1.000			58.911		0.0407	59.134
40	Total Penta-Dioxins				0.869	1.000			159.61		0.0965	159.73
41	Total Hexa-Dioxins				0.940	1.000			202.17		0.136	202.22
42	Total Hepta-Dioxins				0.965	1.000			132.81		0.207	132.81
43	Total Tetra-Furans				0.952	1.000			33.739		0.0470	33.859
44	1st Func. Penta-Furans				0.994	1.000			69.667		0.0205	69.695
45	Total Penta-Furans				0.994	1.000			149.11		0.0762	149.13
46	Total Hexa-Furans				1.20	1.000			238.51		0.142	238.51
47	Total Hepta-Furans				1.49	1.000			95.273		0.219	95.609

Quantify Compound Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 5:12:04 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 5:12:28 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Compound name: 1,3,6,8-TCDD (First)

	Name	ID	AcqDate	AcqTime
1	100119H2-1	ST100119H2-1 1613 CS3 090922G	19-Jan-10	09:25:44
2	100119H2-2	0_2725_OPR001	19-Jan-10	10:15:16
3	100119H2-3	SOLVENT BLANK	19-Jan-10	11:04:48
4	100119H2-4	0_2725_MB001	19-Jan-10	11:54:19
5	100119H2-5	32320_2678_013 EQ/K0911818 1.019	19-Jan-10	12:43:50
6	100119H2-6	32326_2678_013 EQ/K0911819 1.016	19-Jan-10	13:33:21
7	100119H2-7	32327_2678_017 EQ/K0911809 1.015	19-Jan-10	14:22:51
8	100119H2-8	32328_2678_021 EQ/K0911808 1.014	19-Jan-10	15:12:21
9	100119H2-9	32321_2725_001 CAPA-10-6823 .9	19-Jan-10	16:01:54
10	100119H2-10	32321_2725_002 CAPA-10-6824 .898	19-Jan-10	16:51:25
11	100119H2-11	32322_2725_001 CAPA-10-6390 .809	19-Jan-10	17:40:58
12	100119H2-12	32322_2725_002 CAPA-10-6745 .899	19-Jan-10	18:30:30
13	100119H2-13	32322_2725_003 CAPA-10-6746 .894	19-Jan-10	19:20:02
14	100119H2-14	32322_2725_004 CAPA-10-6793 .886	19-Jan-10	20:09:36
15	100119H2-15	32337_2725_001 CAWA-10-6910 .881	19-Jan-10	20:59:09
16	100119H2-16	SOLVENT BLANK	19-Jan-10	21:48:40
17	100119H2-17	ST100119H2-2 1613 CS3 090922G	19-Jan-10	22:38:11

CALIBRATION STANDARDS REVIEW CHECKLIST

Vista Analytical Laboratory

Beg. Calibration ID: ST100119H2-1

End Calibration ID: ST100119H2-2

	Beg.	End
Ion abundance within QC limits?	✓	✓
Concentration within range?	✓	✓*
First and last eluters present?	✓	✓
Retention Times within criteria?	✓	✓
Verification Std. named correctly? (ST-Year-Month-Day-VG ID)	✓	✓
Forms signed and dated?	✓	✓
Correct ICAL referenced?	✓	✓
Run Log:		
-Data file matches Conc Cal ID?	✓	✓
-Correct instrument listed?	✓	✓
-Samples within 12-hour clock?	y	n

	Beg.	End
Mass resolution > 10,000? ▪ Method 1614 > 5,000; CARB 429 > 8,000	✓	✓
TCDD/TCDF valleys < 25%?	✓	✓
Peaks integrated correctly?	✓	
Manual integrations included?	NA	
8280 CS1 Ending Standard		
-Ratios within limits		NA
-S/N > 2.5:1		↓
-CS1 within 12-hour clock		✓

Comments: 13C- OCDD out in end Std (8290 limits)
* OK - native is in

Reviewed by: MM 1/20/10
Initials & Date

* *Ending standard criteria applicable to 8290 only.*

Vista Analytical Laboratory
El Dorado Hills, CA 95762

Calib.Stds.Review 12/2009 mh

Experiment Calibration Report **MassLynx 4.1**

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed: Tuesday, January 19, 2010 09:19:45 Pacific Standard Time

M 292.9824 R 11899

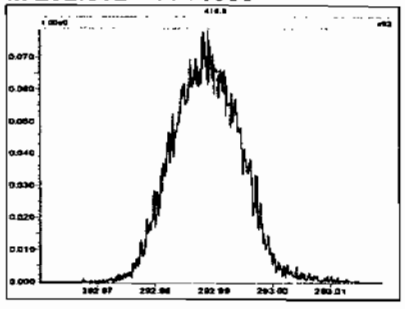

M 304.9824 R 12193

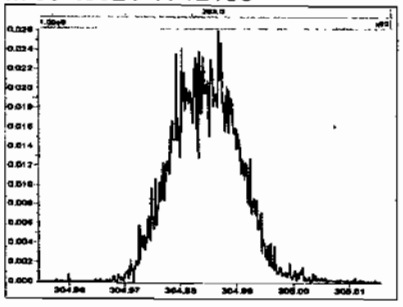

M 318.9792 R 13300

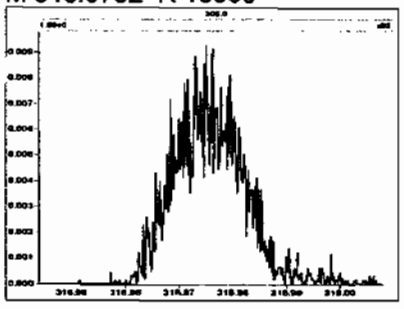

M 330.9792 R 11682

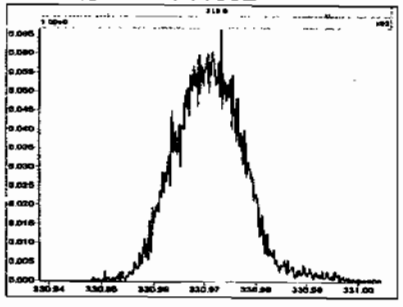

M 342.9792 R 11902

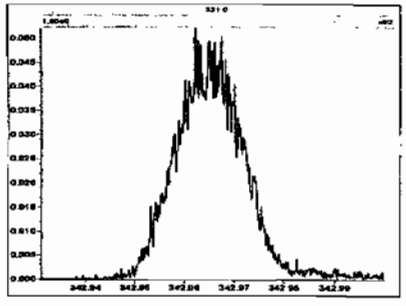

M 354.9792 R 13159

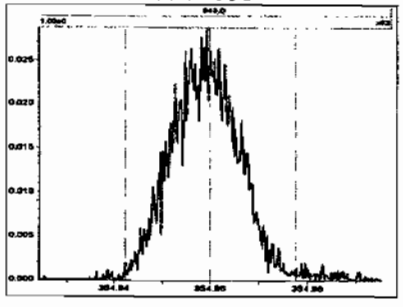

M 366.9792 R 11791

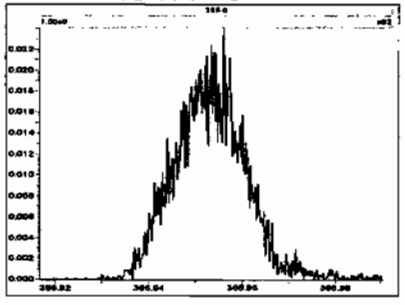

M 380.9760 R 11902

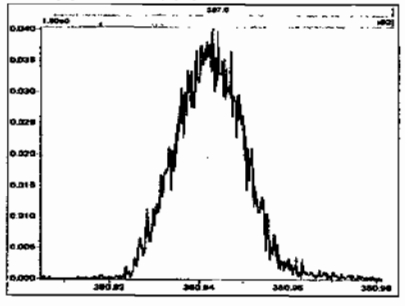

M 392.9760 R 12438

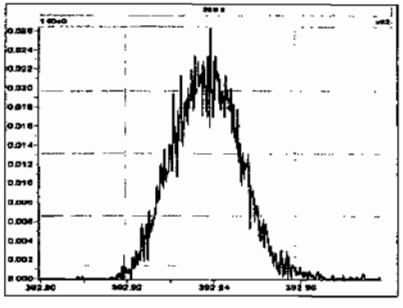

M 404.9760 R 12076

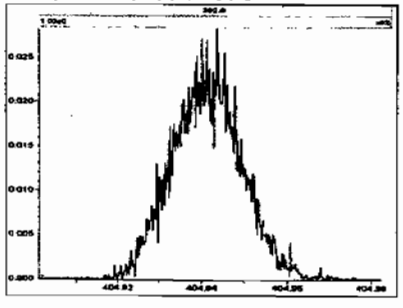

M 416.9760 R 11629

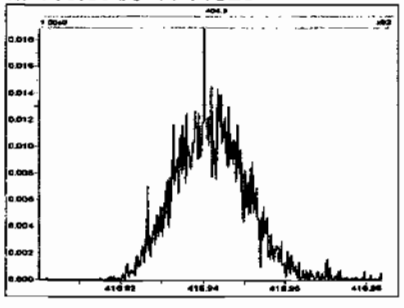

Experiment Calibration Report **MassLynx 4.1**

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed: Tuesday, January 19, 2010 09:20:12 Pacific Standard Time

M 330.9792 R 11468

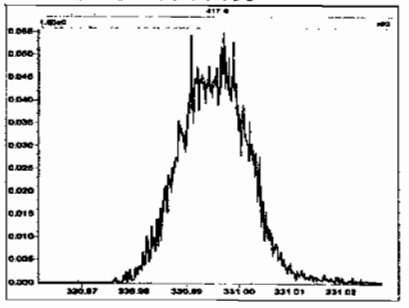

M 342.9792 R 11681

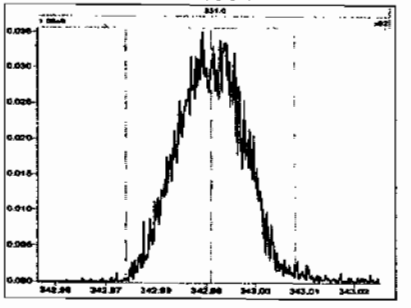

M 354.9792 R 11958

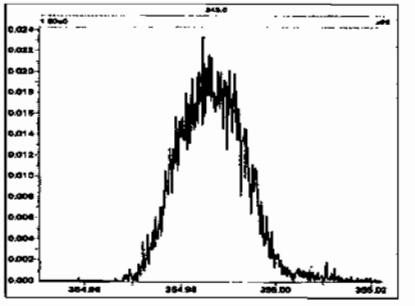

M 366.9792 R 12750

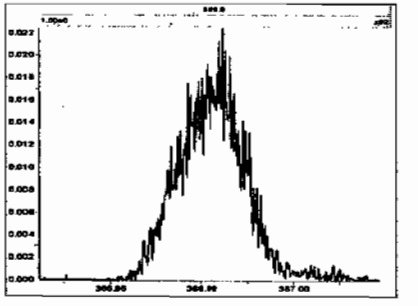

M 380.9760 R 12253

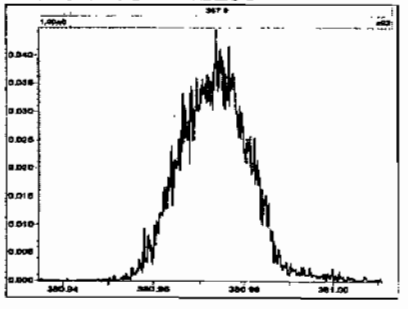

M 392.9760 R 12822

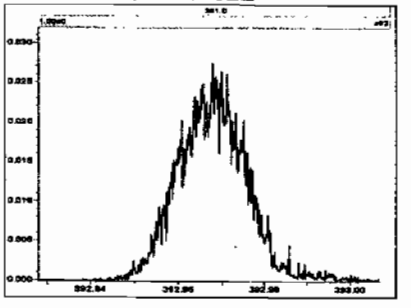

M 404.9760 R 11467

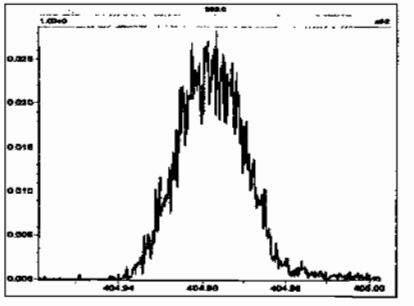

M 416.9760 R 13225

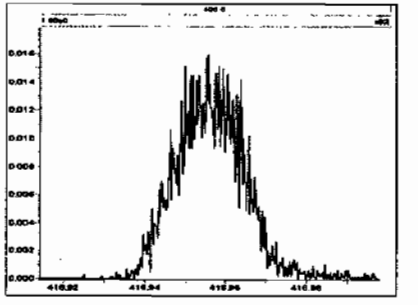

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed: Tuesday, January 19, 2010 09:20:29 Pacific Standard Time

M 330.9792 R 11416

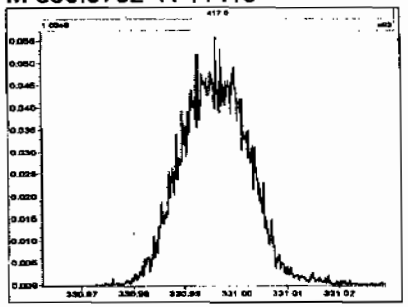

M 342.9792 R 11847

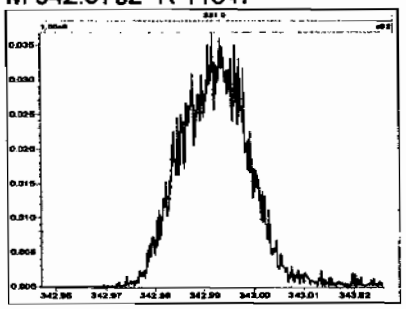

M 354.9792 R 12317

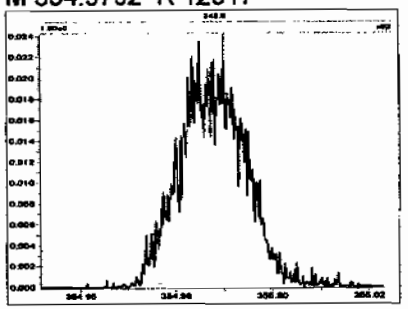

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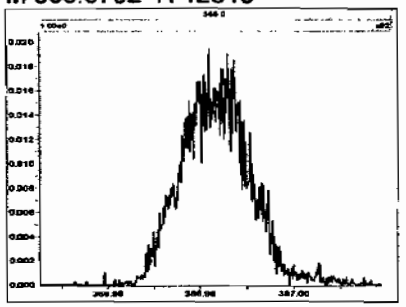

M 380.9760 R 12139

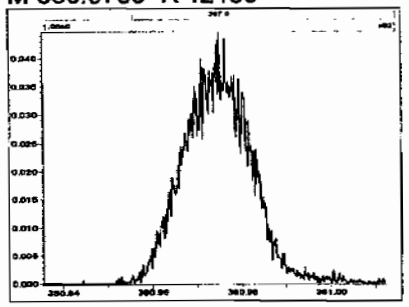

M 392.9760 R 11258

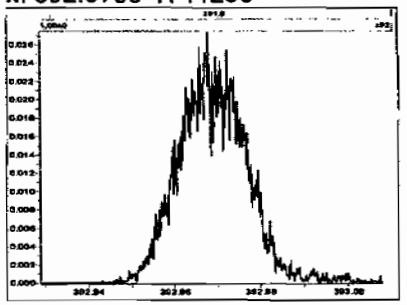

M 404.9760 R 12254

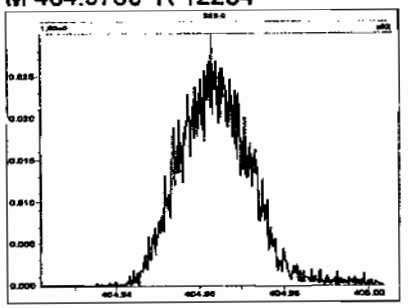

M 416.9760 R 12440

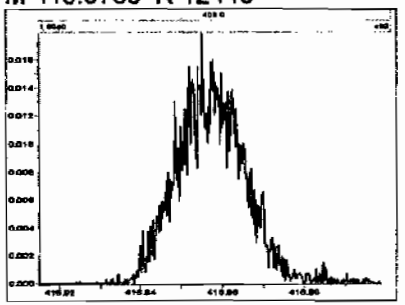

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed: Tuesday, January 19, 2010 09:20:54 Pacific Standard Time

M 366.9792 R 12687

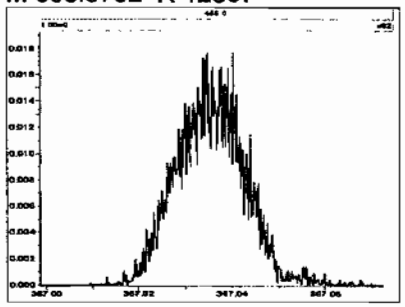

M 380.9760 R 12315

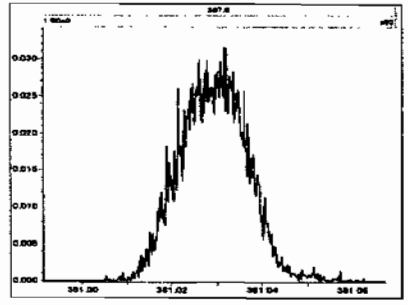

M 392.9760 R 12253

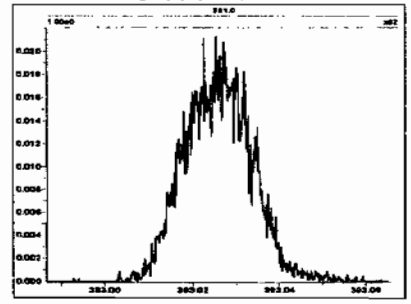

M 404.9760 R 12078

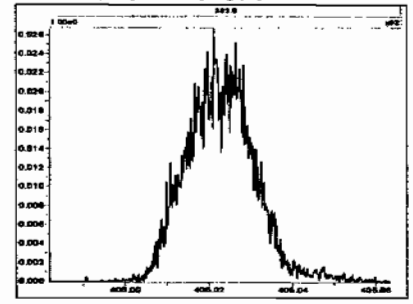

M 416.9760 R 13025

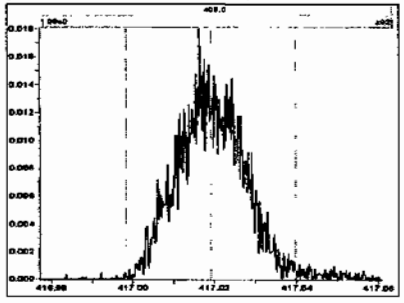

M 430.9728 R 11259

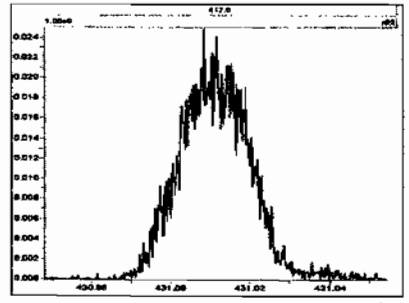

M 442.9728 R 11629

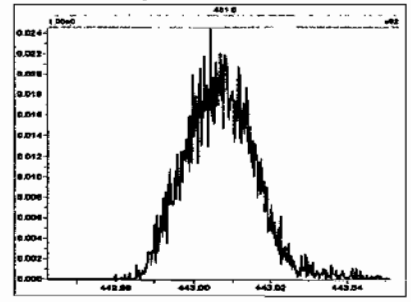

M 454.9728 R 11627

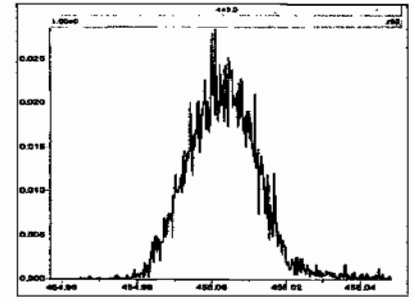

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed: Tuesday, January 19, 2010 09:21:17 Pacific Standard Time

M 404.9760 R 12138

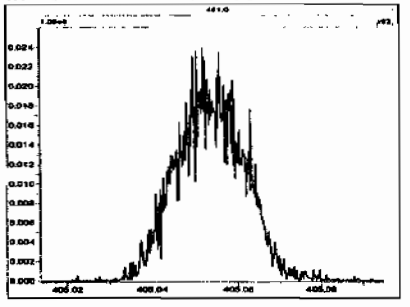

M 416.9760 R 13158

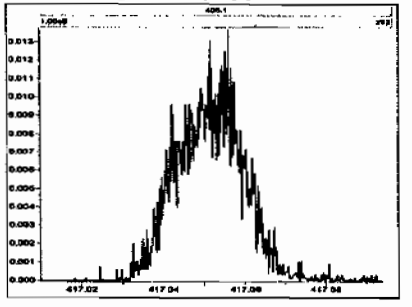

M 430.9728 R 13088

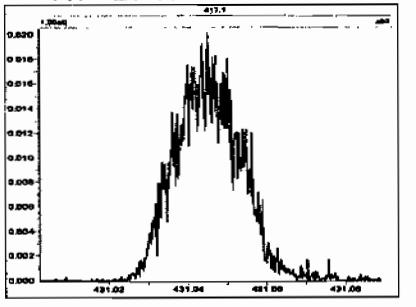

M 442.9728 R 12951

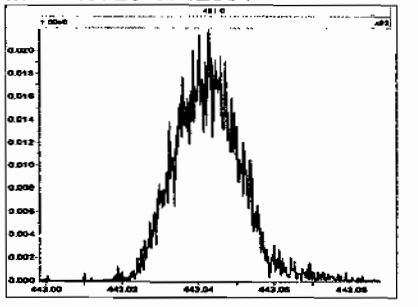

M 454.9728 R 12077

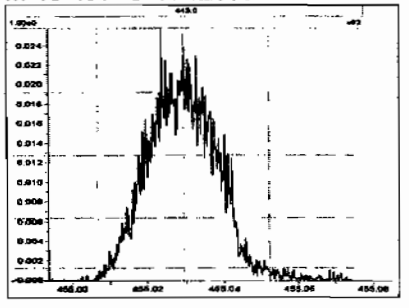

M 466.9728 R 13019

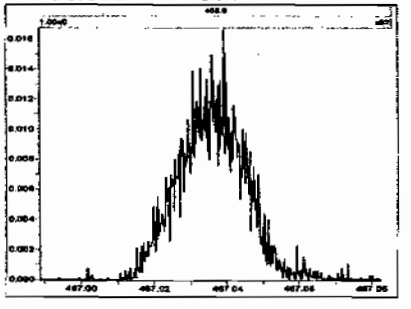

M 480.9696 R 12951

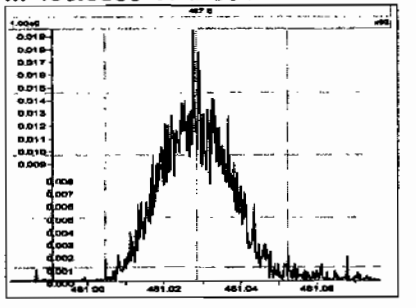

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed: Tuesday, January 19, 2010 09:21:46 Pacific Standard Time

M 430.9728 R 12756

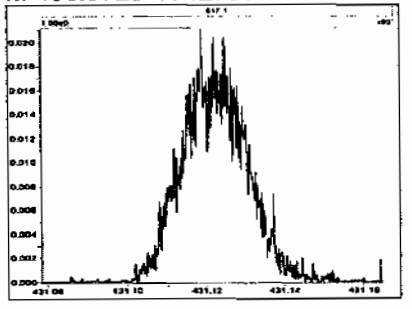

M 442.9728 R 12690

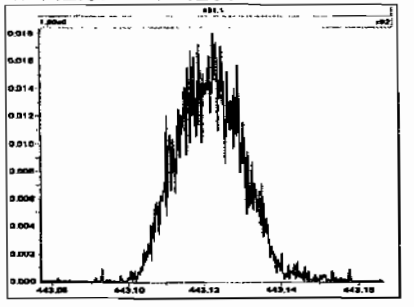

M 454.9728 R 12075

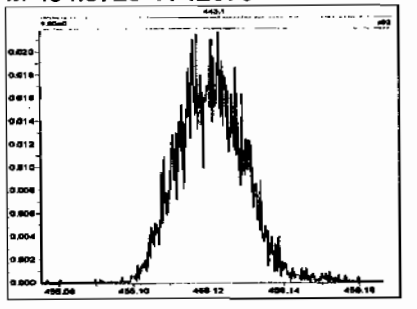

M 466.9728 R 12821

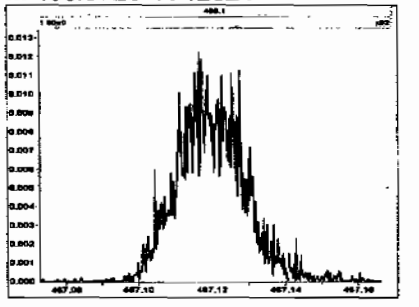

M 480.9696 R 11628

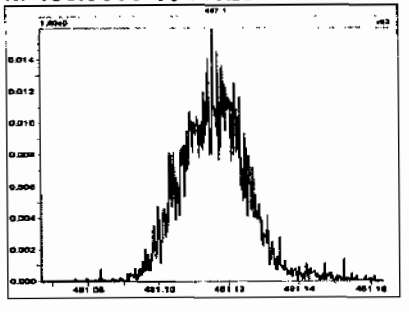

M 492.9696 R 12689

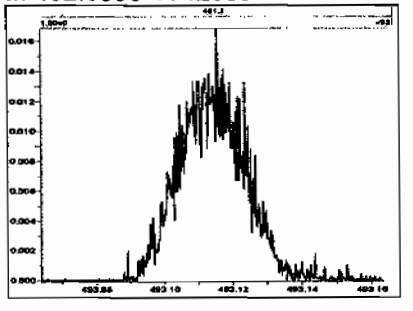

M 504.9696 R 12687

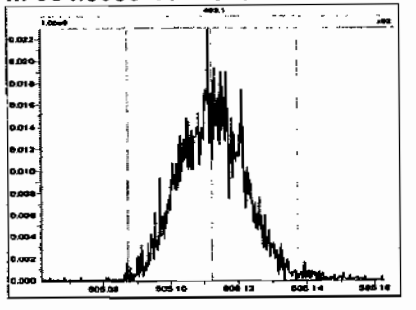

M 516.9697 R 11163

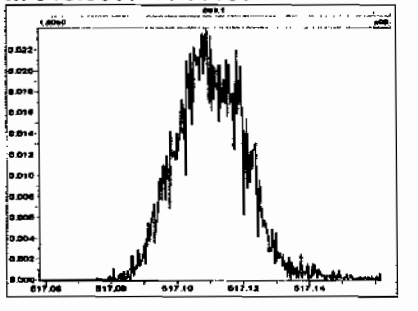

Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Tuesday, January 19, 2010 10:34:13 AM Pacific Standard Time
Printed: Tuesday, January 19, 2010 10:34:40 AM Pacific Standard Time

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Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

1,3,6,8-TCDD (First)

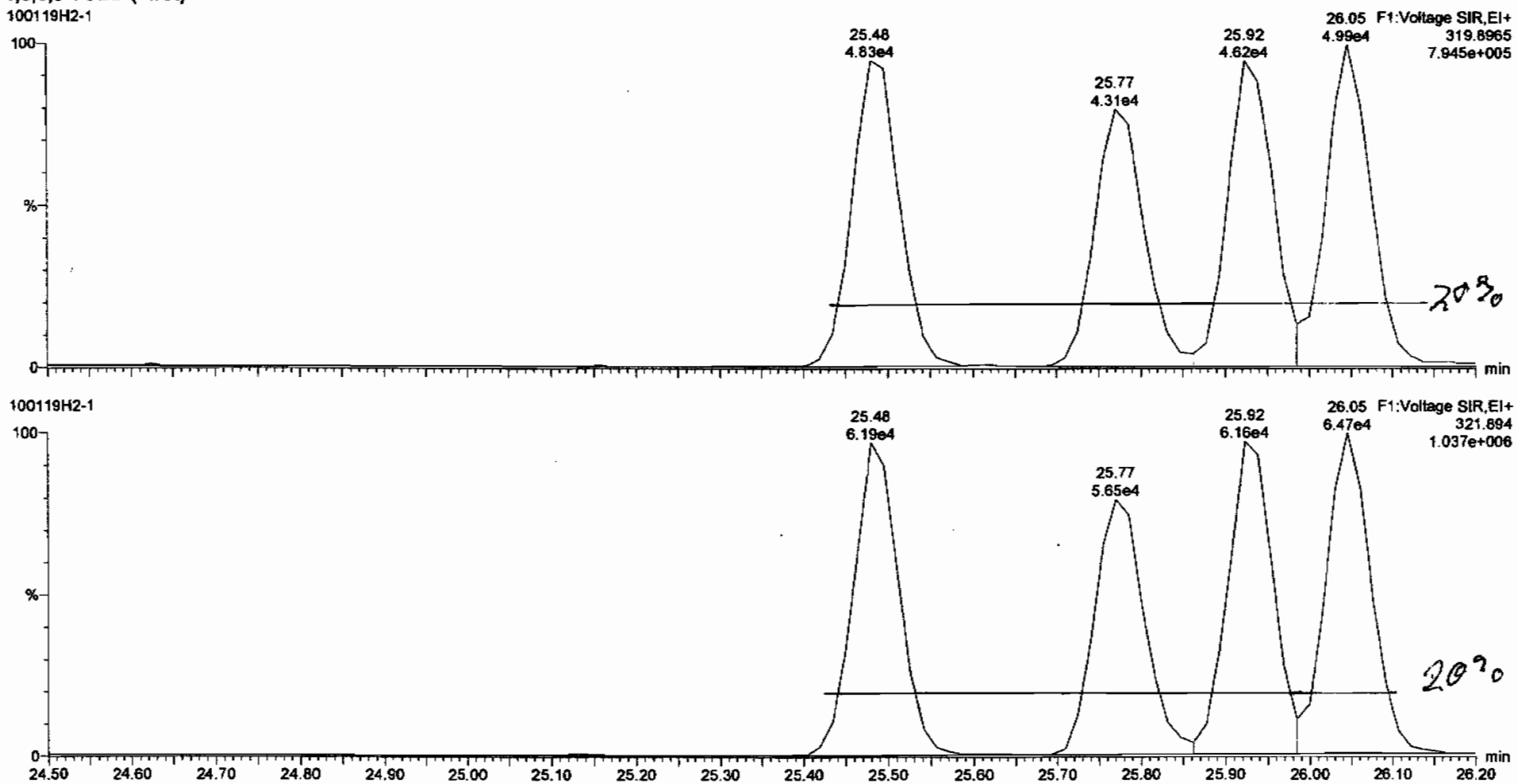

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-1.qld

Last Altered: Tuesday, January 19, 2010 10:30:01 AM Pacific Standard Time
Printed: Tuesday, January 19, 2010 10:30:53 AM Pacific Standard Time

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2,3,7,8-TCDD

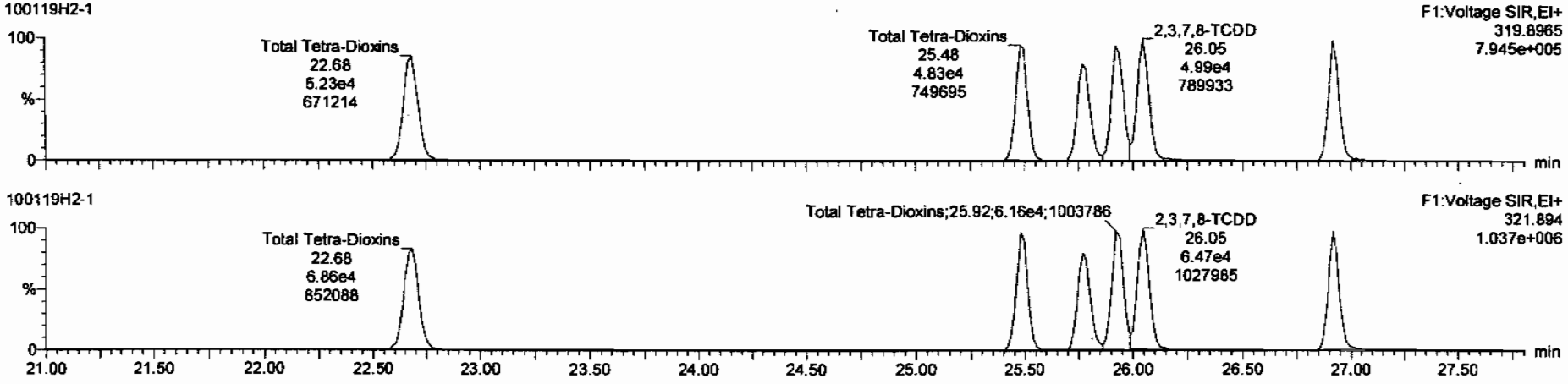

13C-2,3,7,8-TCDD

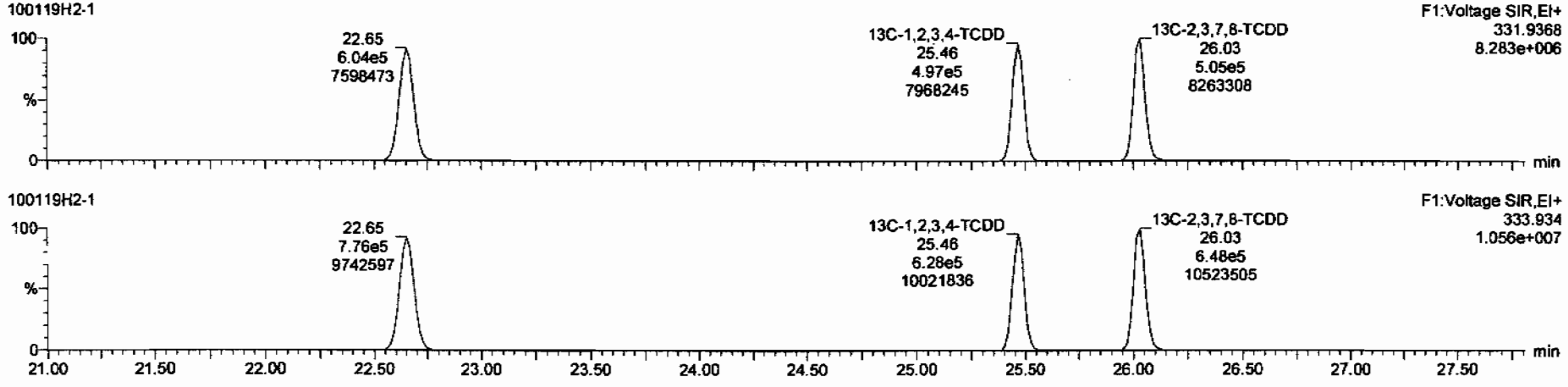

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Last Altered: Tuesday, January 19, 2010 10:30:01 AM Pacific Standard Time
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37Cl-2,3,7,8-TCDD

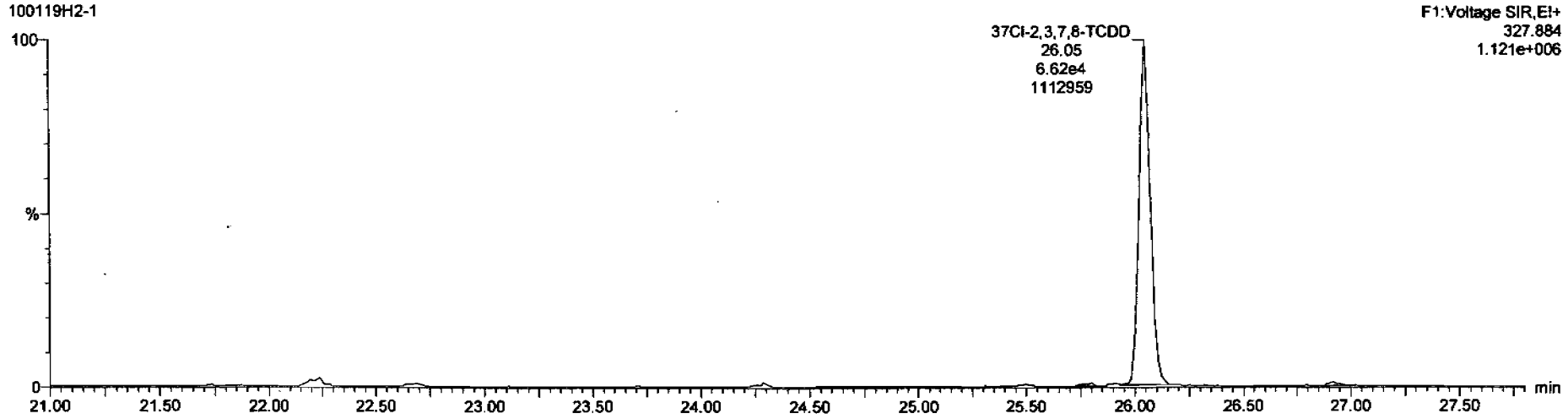

13C-1,2,3,4-TCDD

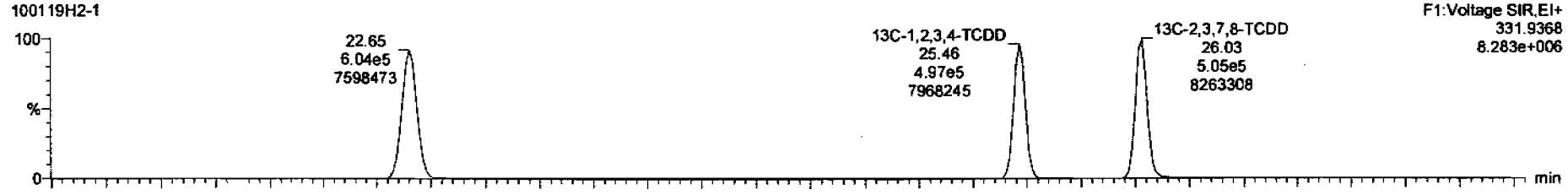

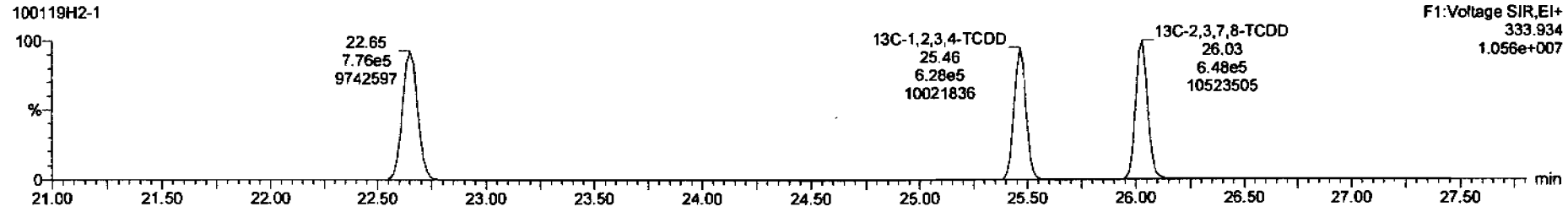

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Printed: Tuesday, January 19, 2010 10:30:53 AM Pacific Standard Time

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

1,2,3,7,8-PeCDD

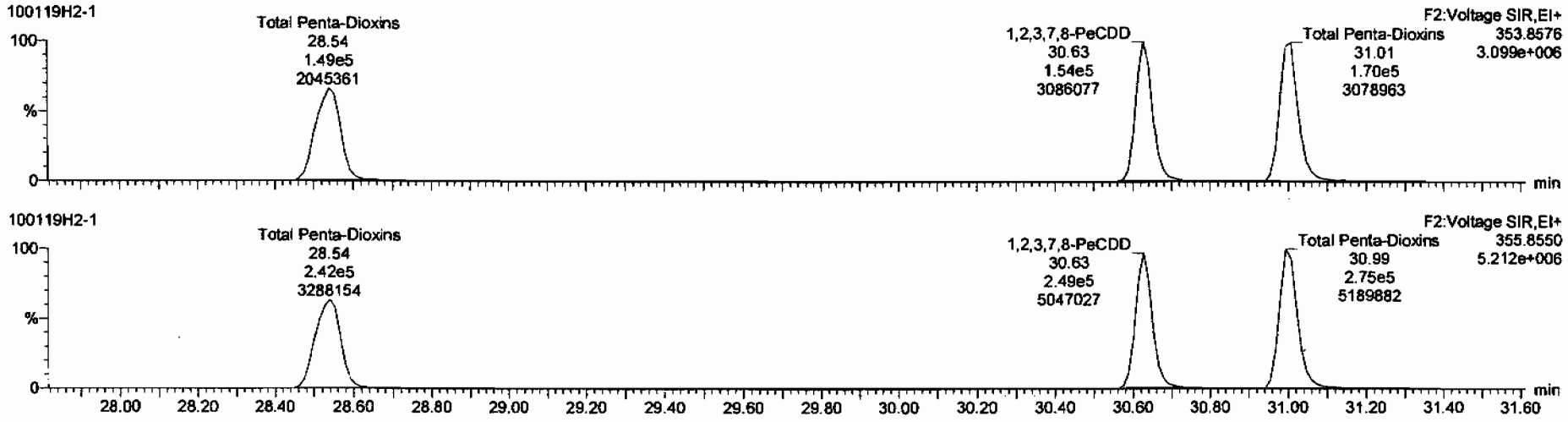

13C-1,2,3,7,8-PeCDD

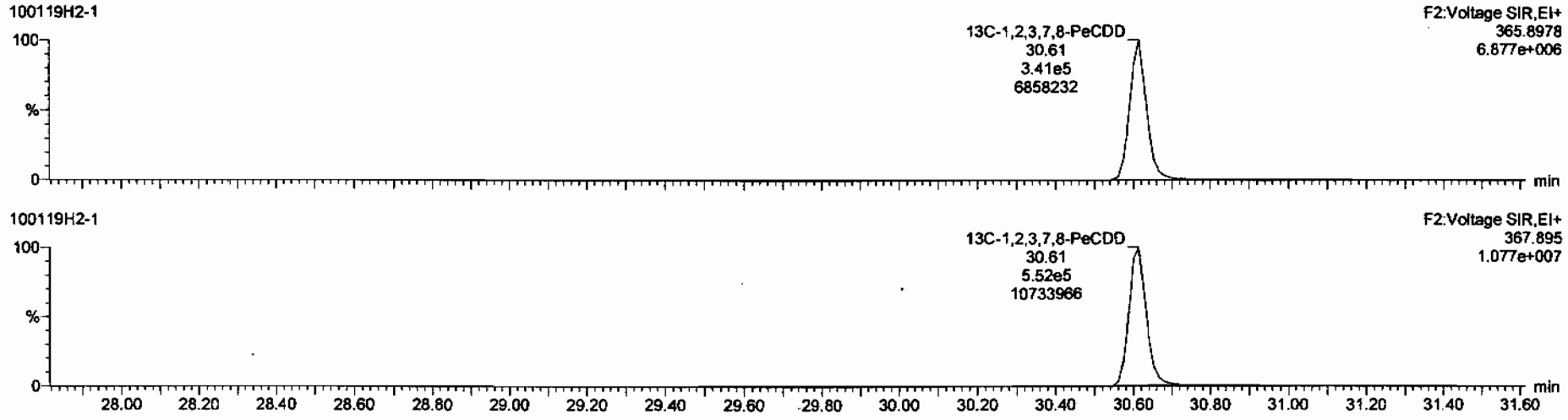

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Printed: Tuesday, January 19, 2010 10:30:53 AM Pacific Standard Time

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

1,2,3,4,7,8-HxCDD

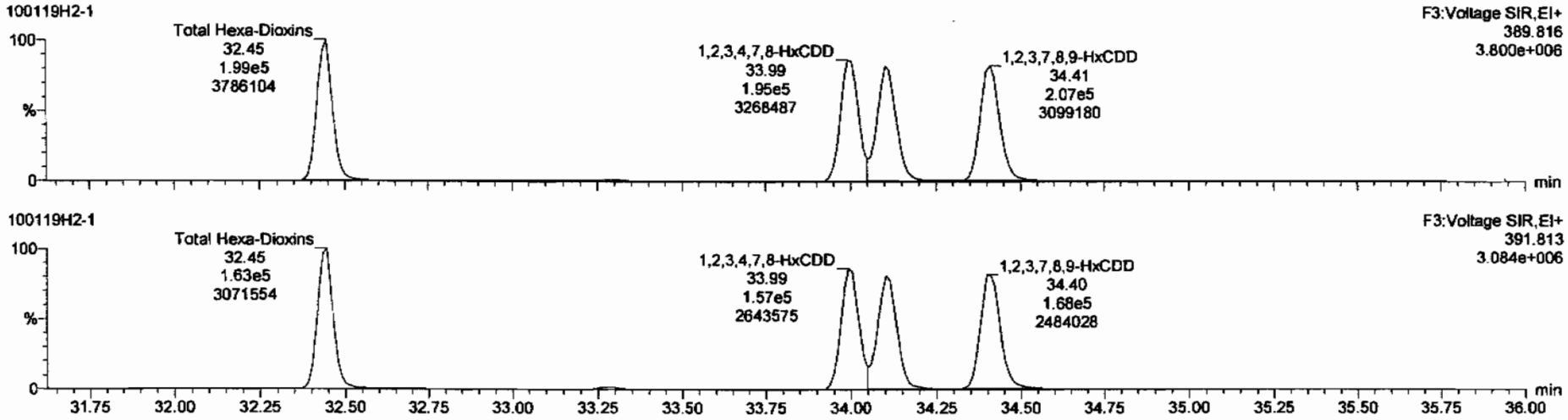

13C-1,2,3,4,7,8-HxCDD

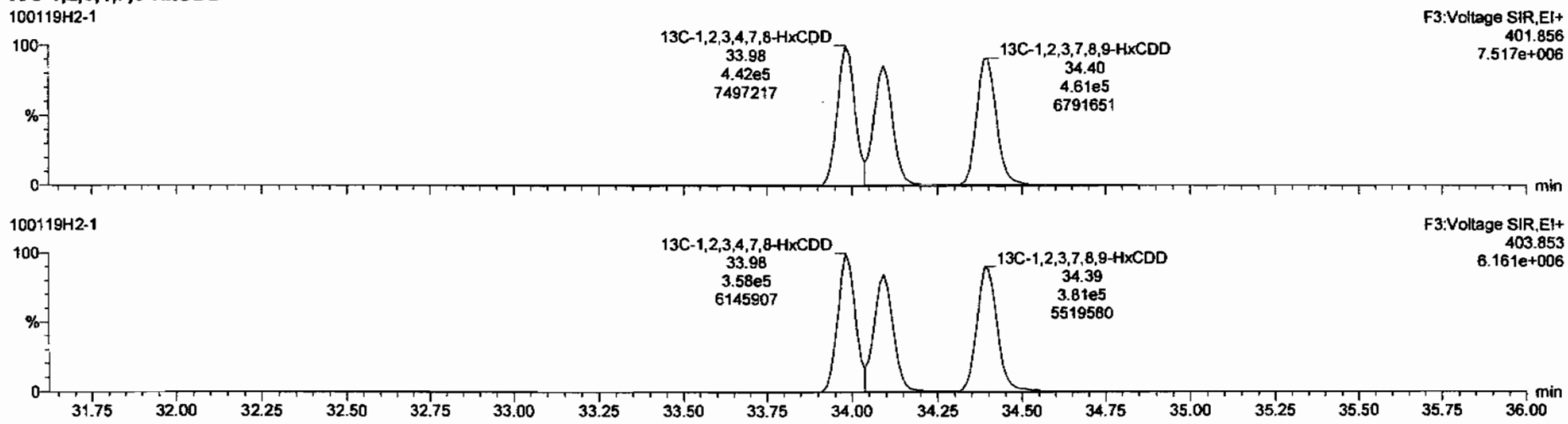

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-1.qld

Last Altered: Tuesday, January 19, 2010 10:30:01 AM Pacific Standard Time
Printed: Tuesday, January 19, 2010 10:30:53 AM Pacific Standard Time

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

1,2,3,4,6,7,8-HpCDD

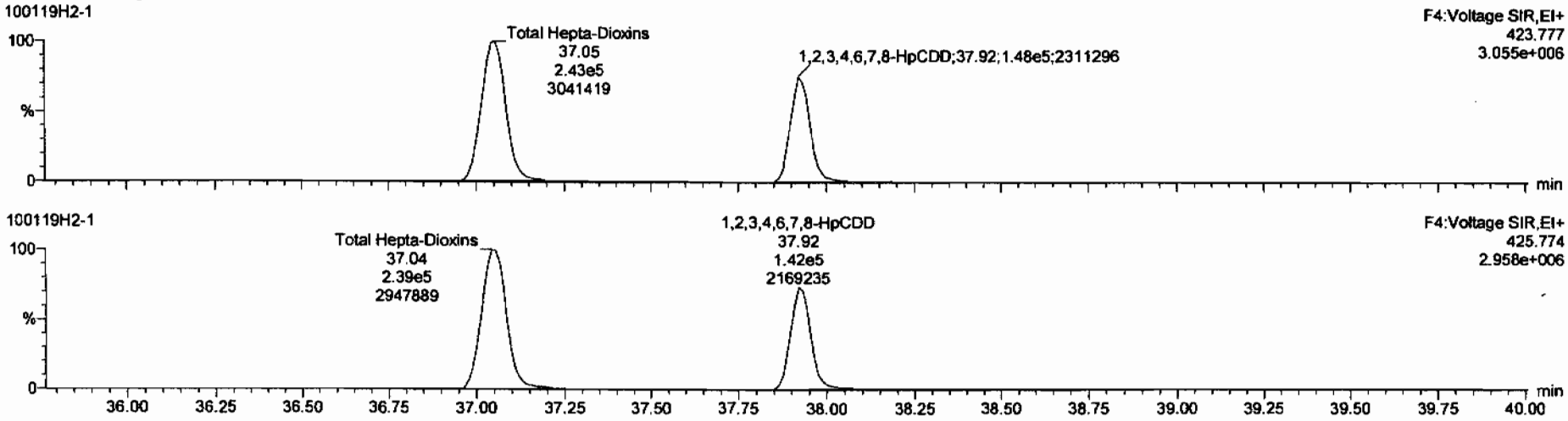

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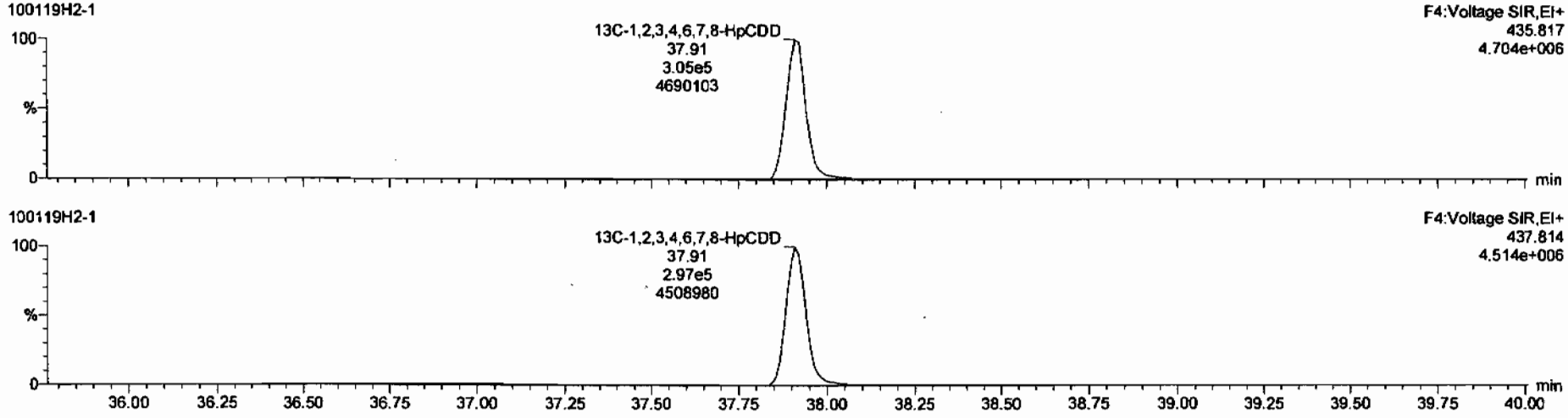

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Printed: Tuesday, January 19, 2010 10:30:53 AM Pacific Standard Time

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OCDD

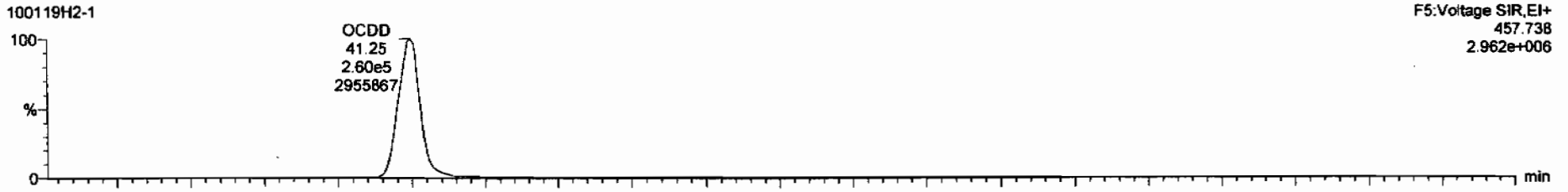

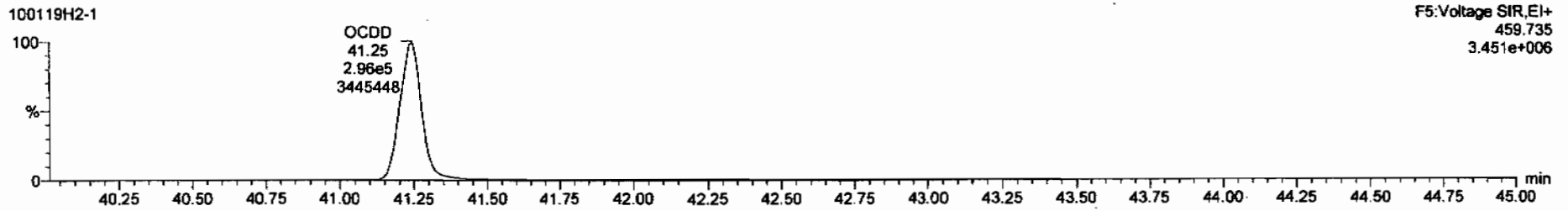

13C-OCDD

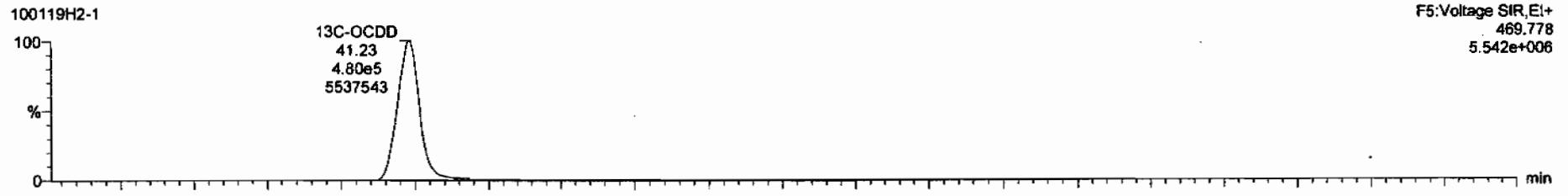

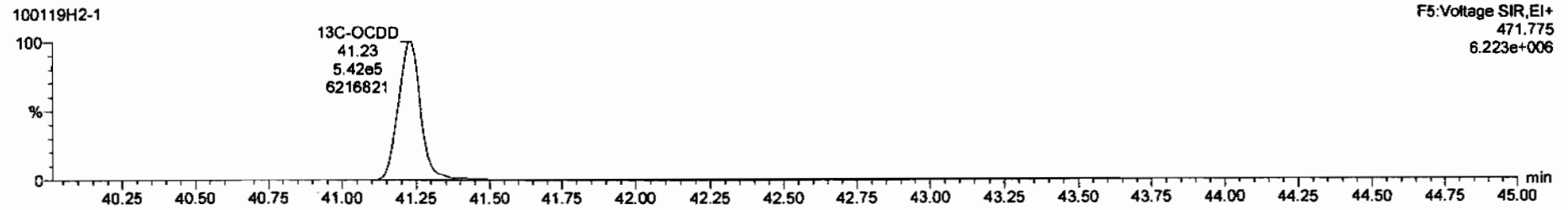

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Last Altered: Tuesday, January 19, 2010 10:30:01 AM Pacific Standard Time
Printed: Tuesday, January 19, 2010 10:30:53 AM Pacific Standard Time

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

2,3,7,8-TCDF

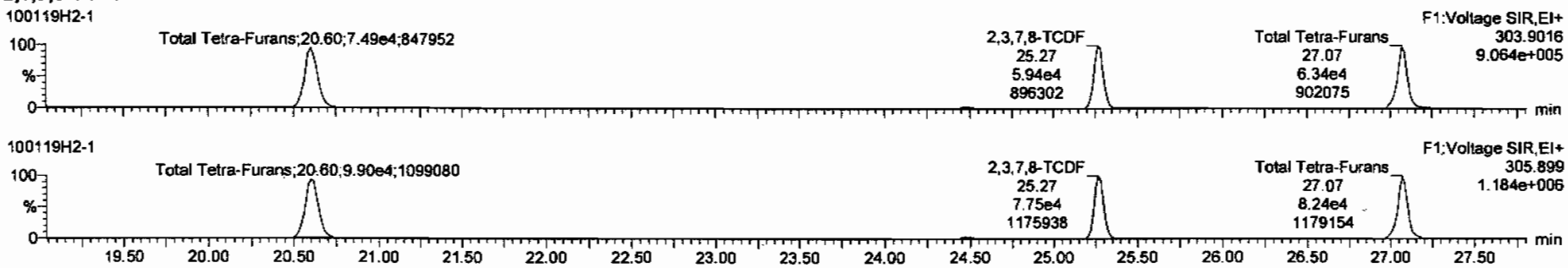

13C-2,3,7,8-TCDF

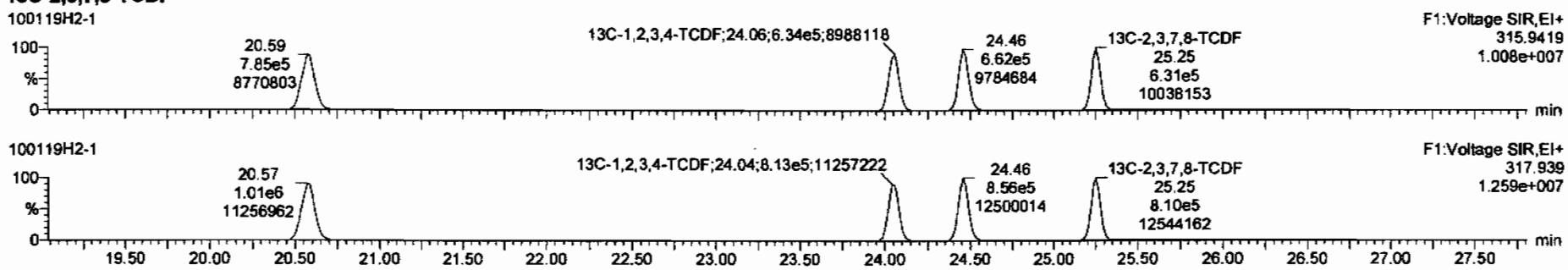

DPE1

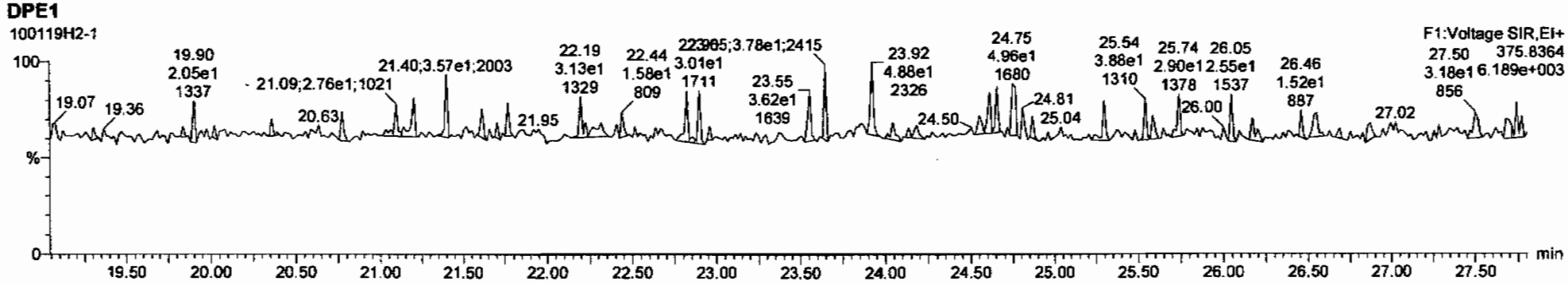

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-1.qld

Last Altered: Tuesday, January 19, 2010 10:30:01 AM Pacific Standard Time
Printed: Tuesday, January 19, 2010 10:30:53 AM Pacific Standard Time

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

1st Func. Penta-Furans

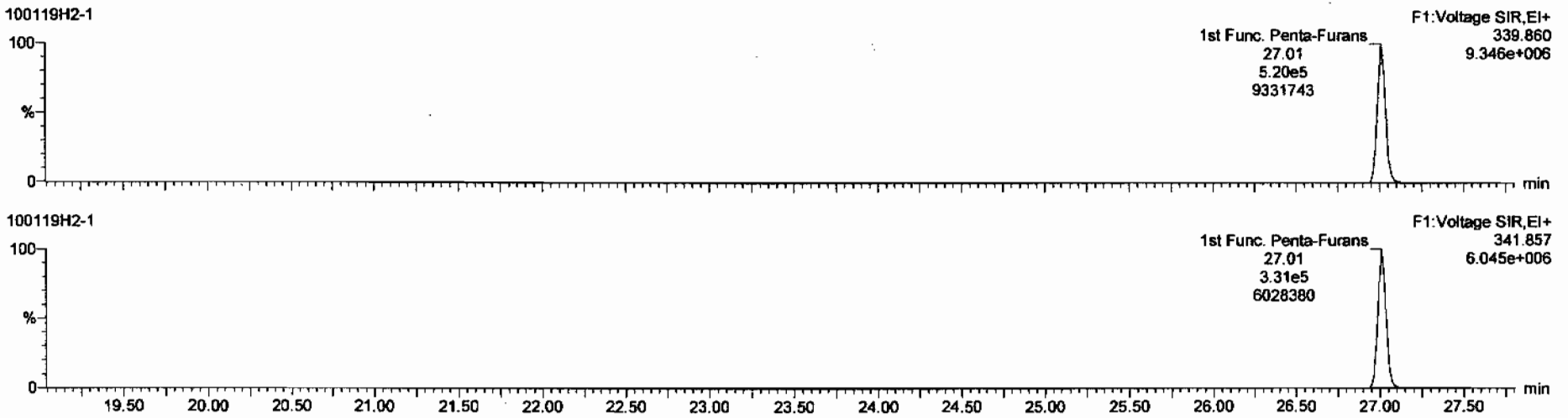

DPE6

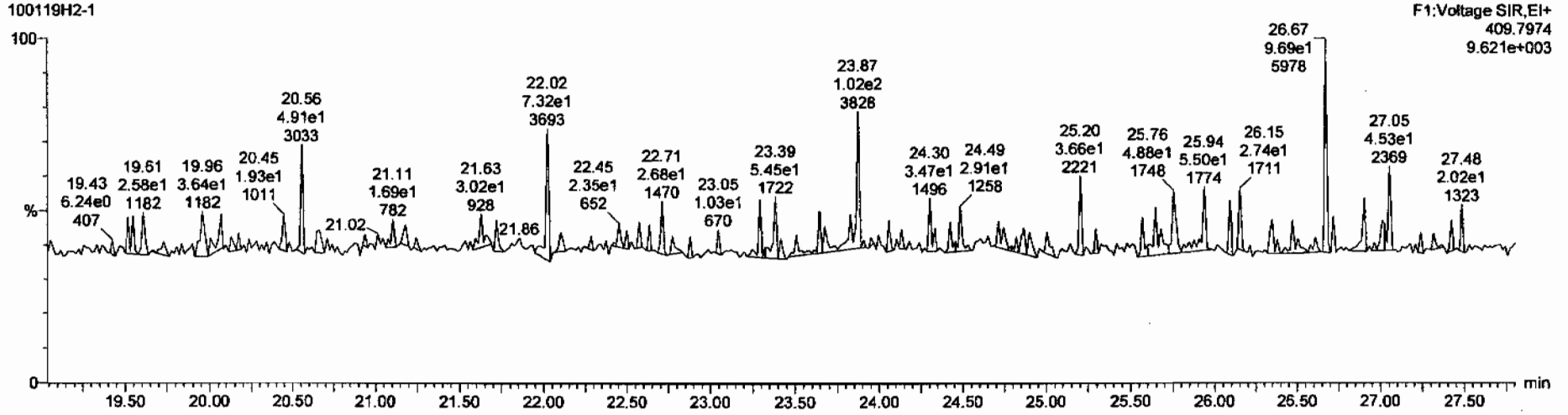

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-1.qld

Last Altered: Tuesday, January 19, 2010 10:30:01 AM Pacific Standard Time
Printed: Tuesday, January 19, 2010 10:30:53 AM Pacific Standard Time

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

1,2,3,7,8-PeCDF

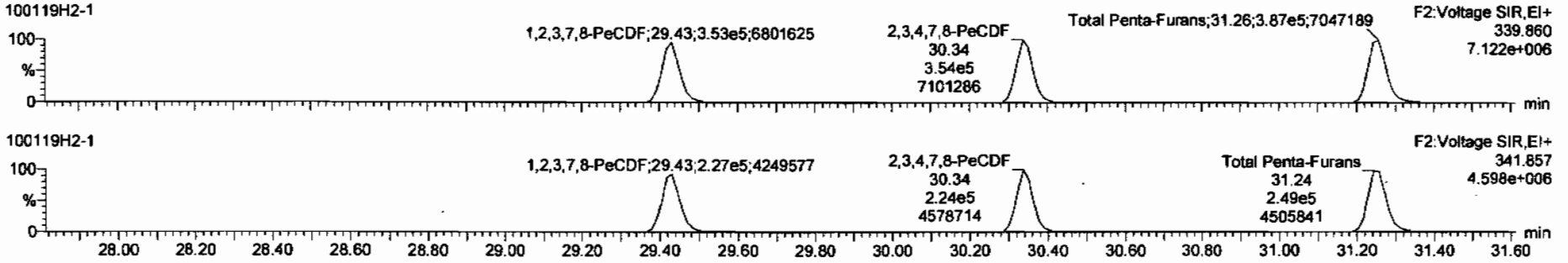

13C-1,2,3,7,8-PeCDF

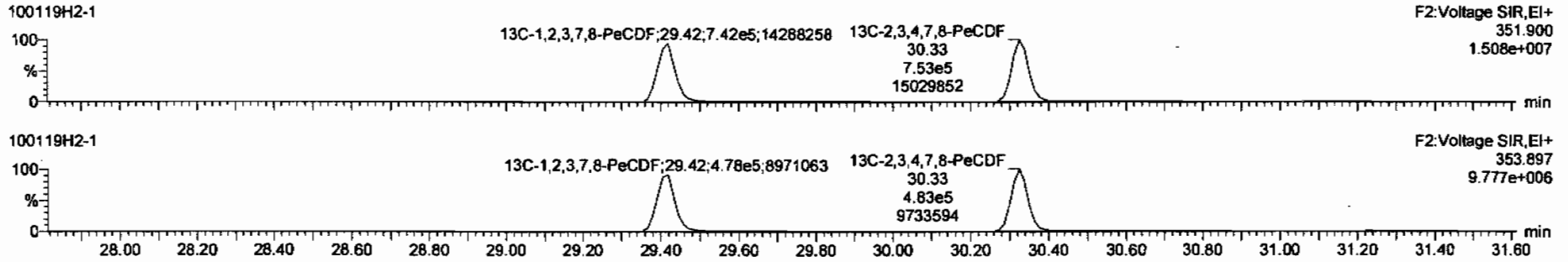

DPE2

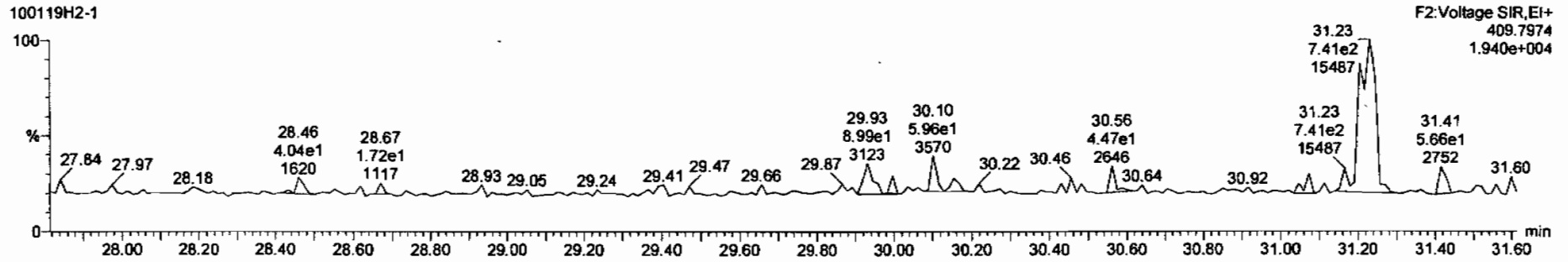

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Last Altered: Tuesday, January 19, 2010 10:30:01 AM Pacific Standard Time
Printed: Tuesday, January 19, 2010 10:30:53 AM Pacific Standard Time

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

1,2,3,4,7,8-HxCDF

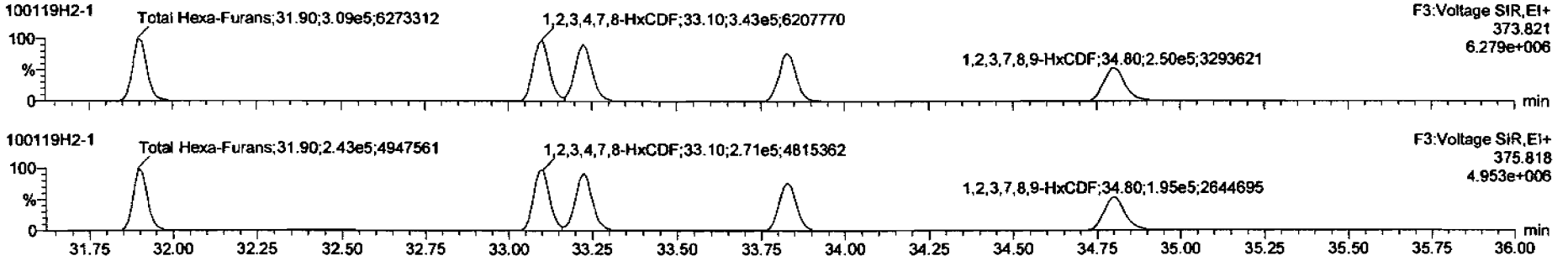

13C-1,2,3,4,7,8-HxCDF

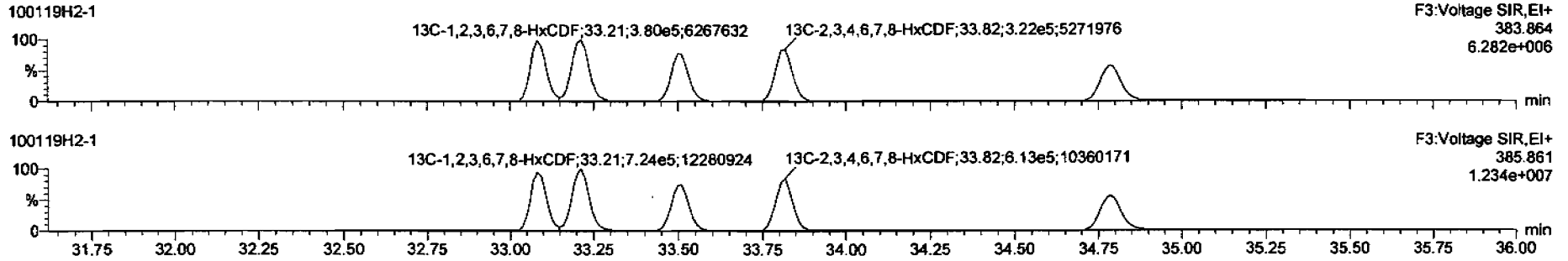

DPE3

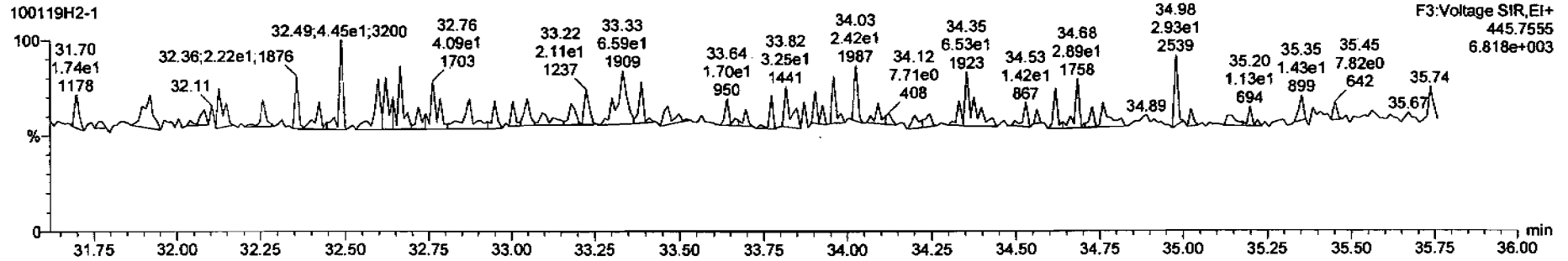

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-1.qld

Last Altered: Tuesday, January 19, 2010 10:30:01 AM Pacific Standard Time
Printed: Tuesday, January 19, 2010 10:30:53 AM Pacific Standard Time

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

1,2,3,4,6,7,8-HpCDF

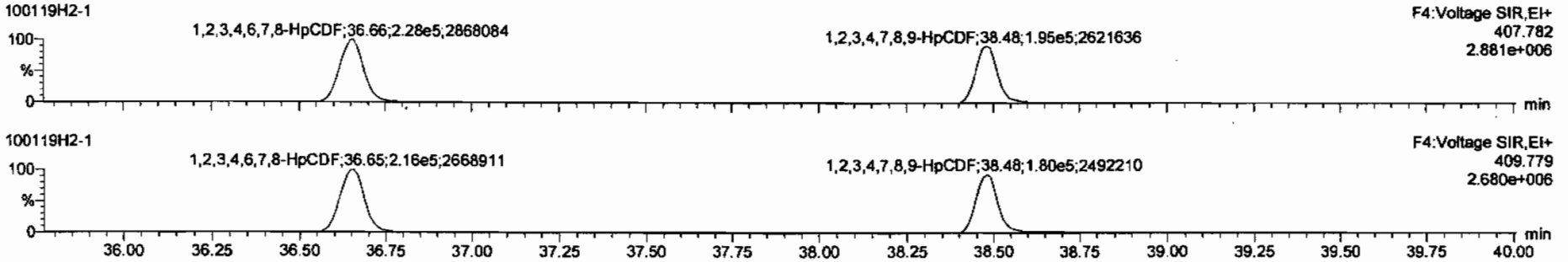

13C-1,2,3,4,6,7,8-HpCDF

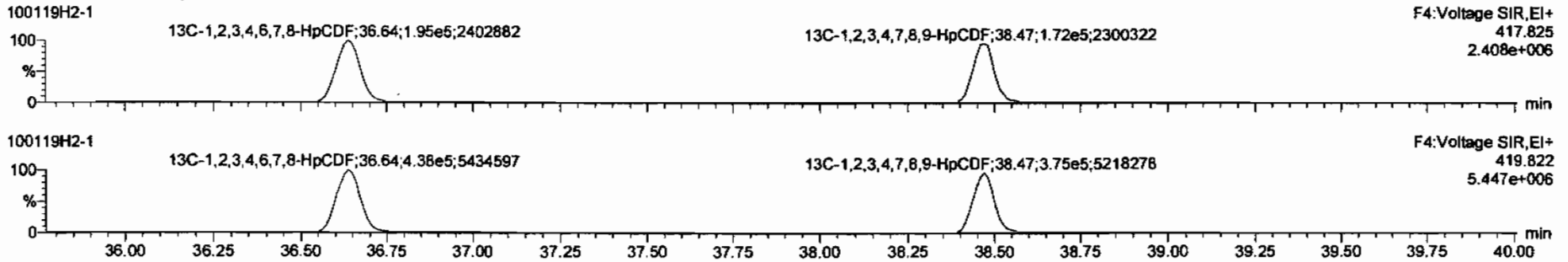

DPE4

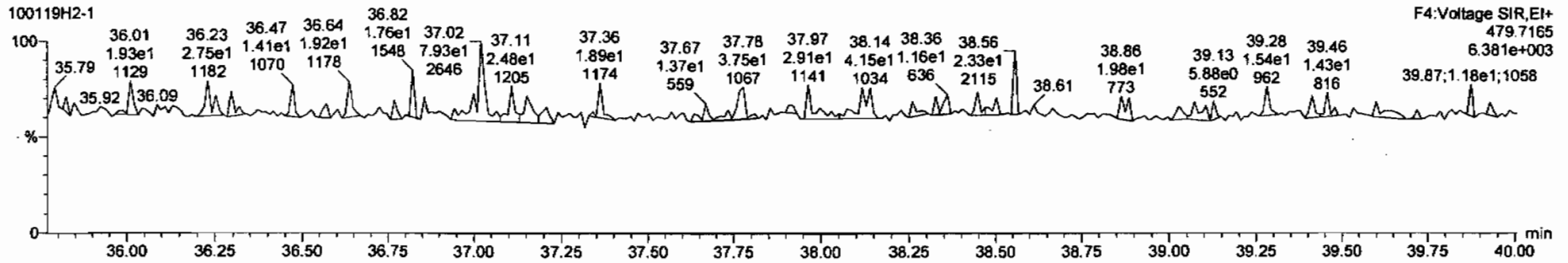

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-1.qld

Last Altered: Tuesday, January 19, 2010 10:30:01 AM Pacific Standard Time
Printed: Tuesday, January 19, 2010 10:30:53 AM Pacific Standard Time

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

OCDF

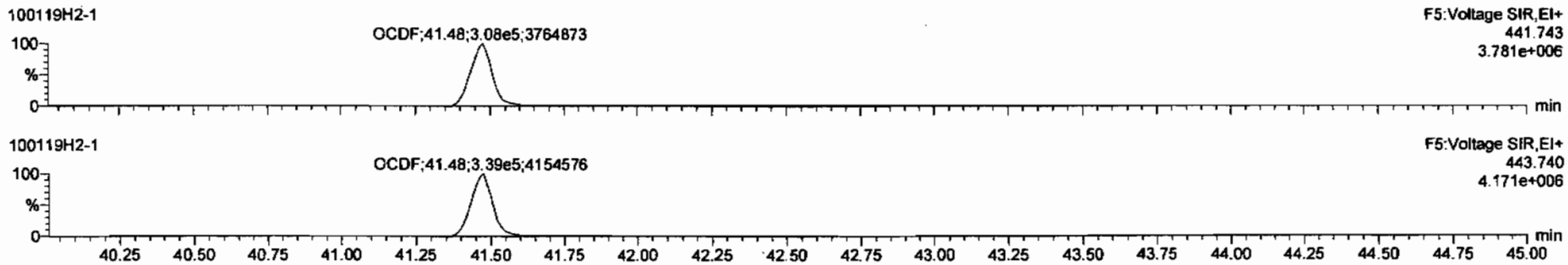

13C-OCDF

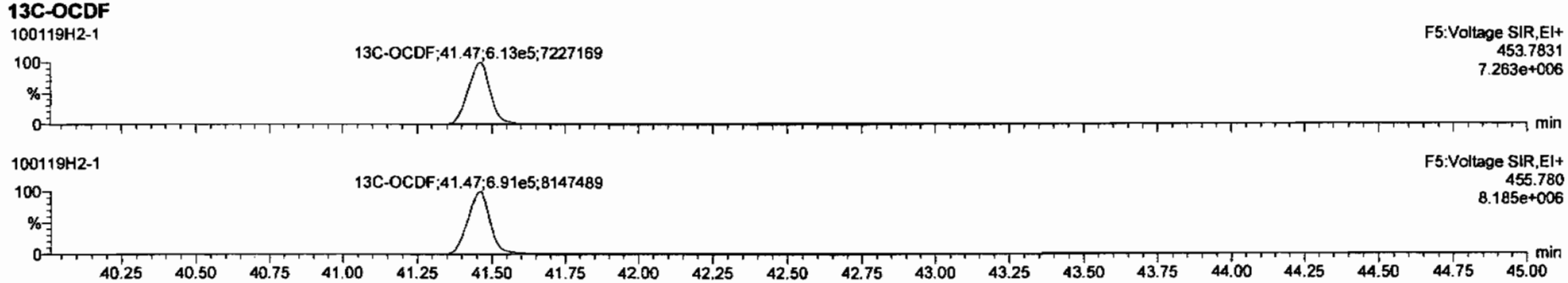

DPE5

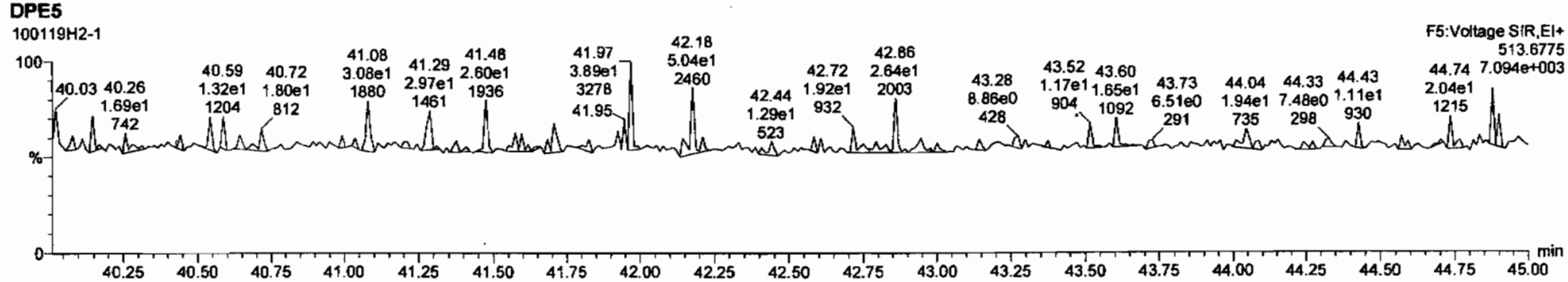

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-1.qld

Last Altered: Tuesday, January 19, 2010 10:30:01 AM Pacific Standard Time
Printed: Tuesday, January 19, 2010 10:30:53 AM Pacific Standard Time

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

PFK1

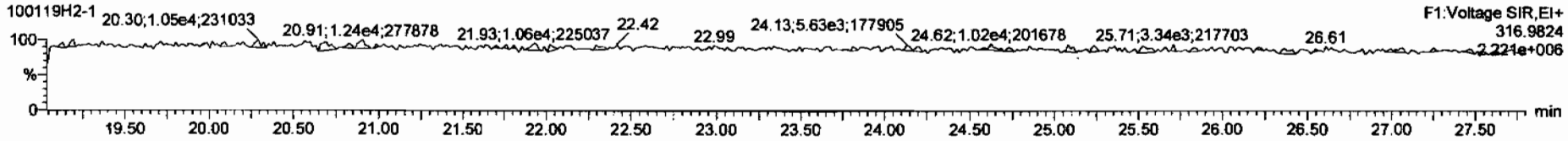

PFK2

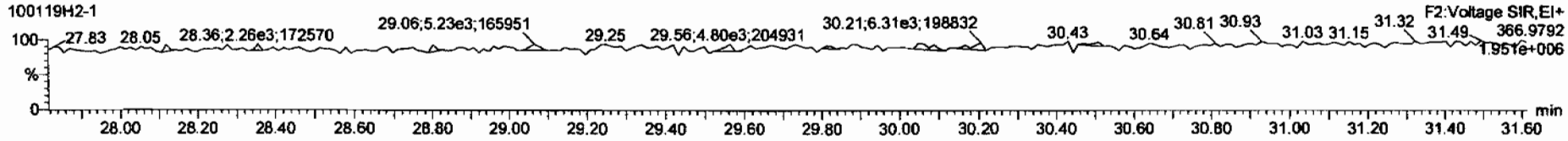

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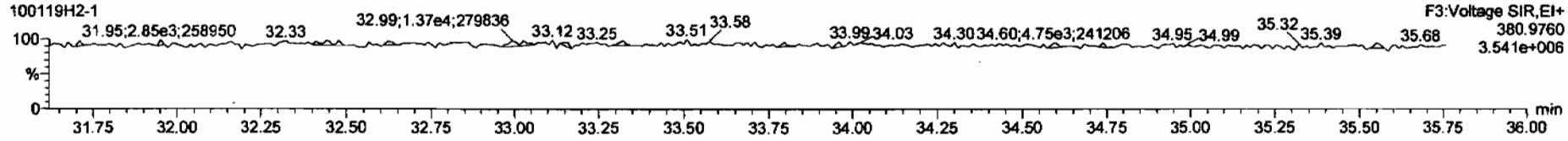

PFK4

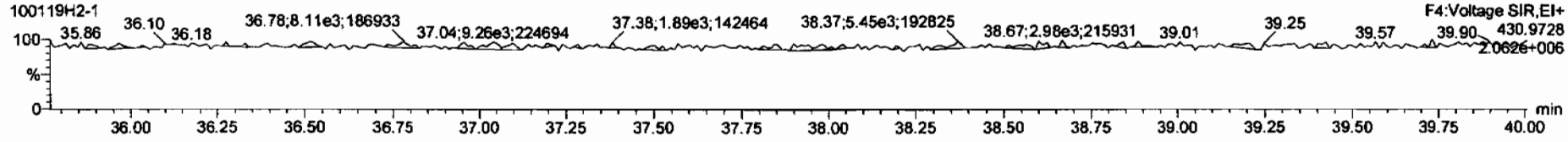

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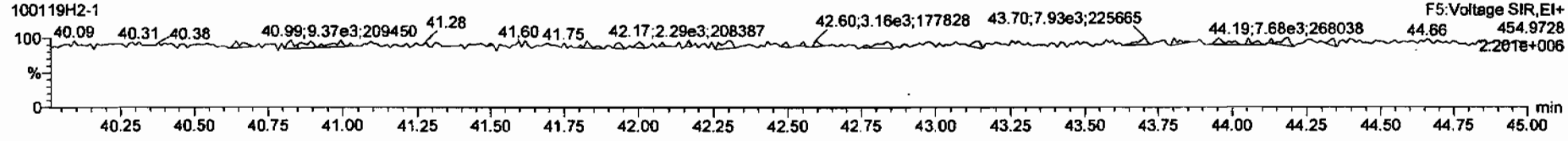

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION
CCAL ID: ST100119H2-2

Vista Analytical Laboratory
Initial Calibration Date: 10/29/2009
Instrument ID: VG10
VER Data file name: 100119H2-17

GC Column ID: DB-5
Analysis Date: 19-Jan-10 Analysis Time: 22:38:11

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
2,3,7,8-TCDD	M/M+2	0.75	0.65-0.89	NO	10.1	7.8	12.9	Yes	8.00	12.0	Yes
						8.2	12.3 (4)				
1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	NO	52.8	39.0	65.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	50.9	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	NO	51.0	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	51.9	41.0	61.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	NO	49.3	43.0	58.0	Yes	40.0	60.0	Yes
OCDD	M+2/M+4	0.85	0.76-1.02	NO	104	79.0	126.0	Yes	80.0	120.0	Yes
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	NO	10.0	8.4	12.0	Yes	8.00	12.0	Yes
						8.6	11.6 (4)				
1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	NO	47.8	41.0	60.0	Yes	40.0	60.0	Yes
2,3,4,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	NO	47.4	41.0	60.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	NO	47.5	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	NO	46.8	44.0	57.0	Yes	40.0	60.0	Yes
2,3,4,6,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	NO	47.1	44.0	57.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDF	M+2/M+4	1.25	1.05-1.43	NO	46.8	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.06	0.88-1.20	NO	46.9	45.0	55.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.09	0.88-1.20	NO	47.9	43.0	58.0	Yes	40.0	60.0	Yes
OCDF	M+2/M+4	0.96	0.76-1.02	NO	99.0	63.0	159.0	Yes	80.0	120.0	Yes

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [illegible]
Date: 1/20/10

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION
CCAL ID: ST100119H2-2

Vista Analytical Laboratory
Initial Calibration Date: 10/29/2009
Instrument ID: VG10
VER Data file name: 100119H2-17

GC Column ID: DB-5
Analysis Date: 19-Jan-10 Analysis Time: 22:38:11

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3). (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
13C-2,3,7,8-TCDD	M+2/M+4	0.79	0.65-0.89	NO	101	82.0	121.0	Yes	70.0	130.0	Yes
						85.0	117.0 (5)				
13C-1,2,3,7,8-PeCDD	M/M+2	0.61	0.54-0.72	NO	101	62.0	160.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	NO	90.6	85.0	117.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	93.7	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	89.3	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.09	0.88-1.20	NO	82.7	72.0	138.0	Yes	70.0	130.0	Yes
13C-OCDD	M+2/M+4	0.84	0.76-1.02	NO	125	96.0	415.0	Yes	140.0	260.0	No
13C-2,3,7,8-TCDF	M/M+2	0.78	0.65-0.89	NO	97.0	71.0	140.0	Yes	70.0	130.0	Yes
						76.0	131.0 (5)				
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.52	1.32-1.78	NO	94.3	76.0	130.0	Yes	70.0	130.0	Yes
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.52	1.32-1.78	NO	100	77.0	130.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	103	76.0	131.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.51	0.43-0.59	NO	105	70.0	143.0	Yes	70.0	130.0	Yes
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	97.5	73.0	137.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.52	0.43-0.59	NO	95.5	74.0	135.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.44	0.37-0.51	NO	86.5	78.0	129.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.45	0.37-0.51	NO	81.1	77.0	129.0	Yes	70.0	130.0	Yes
13C-OCDF	M+2/M+4	0.86	0.76-1.02	NO	140	96.0	415.0	Yes	140.0	260.0	Yes
CLEANUP STANDARD (4)											
37Cl-2,3,7,8-TCDD					9.80	7.9	12.7	Yes	7.0	13.0	Yes
						8.3	12.1 (5)				

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) No ion abundance ratio; report concentration found
(5) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [illegible]

Date: 1/20/10

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 5:10:42 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 5:11:35 AM Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-17, Date: 19-Jan-2010, Time: 22:38:11, ID: ST100119H2-2 1613 CS3 090922G, Description: 1612 CS3 090922G

	Name	RT
1	1,3,6,8-TCDD (First)	22.67
2	1,2,8,9-TCDD (Last)	26.90
3	1,2,4,7,9-PeCDD (First)	28.53
4	1,2,3,8,9-PeCDD (Last)	30.99
5	12,4,6,7,9-HxCDD (First)	32.42
6	1,2,3,7,8,9-HxCDD (Last)	34.40
7	1,2,3,4,6,7,9-HpCDD (First)	37.03
8	1,2,3,4,6,7,8-HpCDD (Last)	37.92
9	1,3,6,8-TCDF (First)	20.59
10	1,2,8,9-TCDF (Last)	27.07
11	1,3,4,6,8-PeCDF (First)	27.01
12	1,2,3,8,9-PeCDF (Last)	31.24
13	1,2,3,4,6,8-HxCDF (First)	31.89
14	1,2,3,4,8,9-HxCDF (Last)	34.79
15	1,2,3,4,6,7,8-HpCDF (First)	36.65
16	1,2,3,4,7,8,9-HpCDF (Last)	38.47

1/20/10

FORM 6A

PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory

CCAL ID: ST100119H2-2

Initial Calibration Date: 10/29/2009

Instrument ID: VG10

GC Column ID: DB-5

VER Data file name: 100119H2-17

Analysis Date: 19-Jan-10

Analysis Time: 22:38:11

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999	1.002	Yes
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.000	0.999	1.002	Yes
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999	1.003	Yes
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999	1.002	Yes
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999	1.002	Yes
LABELED COMPOUNDS					
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.976	1.043	Yes
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.202	1.000	1.567	Yes
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.992	0.923	1.103	Yes
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.155	1.000	1.425	Yes
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.191	1.011	1.526	Yes
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.023	0.989	1.052	Yes

Analyst: [signature]

Date: 1/20/10

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory
Initial Calibration Date: 10/29/2009
Instrument ID: VG10
VER Data file name: 100119H2-17

CCAL ID: ST100119H2-2

GC Column ID: DB-5
Analysis Date: 19-Jan-10

Analysis Time: 22:38:11

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.001	0.999	1.001	Yes
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998	1.004	Yes
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.001	0.998	1.004	Yes
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999	1.001	Yes
OCDD	13C-OCDD	1.000	0.999	1.001	Yes
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.001	0.999	1.001	Yes
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	0.997	1.005	Yes
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.000	0.999	1.001	Yes
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999	1.001	Yes
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.001	0.999	1.001	Yes
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999	1.001	Yes
OCDF	13C-OCDF	1.000	0.999	1.001	Yes
LABELED COMPOUNDS					
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.014	1.002	1.026	Yes
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.017	1.007	1.029	Yes
13C-1,2,3,7,8,9-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.026	1.014	1.038	Yes
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,9-HxCDF	1.132	1.117	1.141	Yes
13C-OCDD	13C-1,2,3,4,6,9-HxCDF	1.231	1.085	1.365	Yes
13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.987	0.975	1.001	Yes
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.991	0.979	1.005	Yes
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.009	1.001	1.020	Yes
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.038	1.002	1.072	Yes
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.093	1.069	1.111	Yes
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.148	1.098	1.192	Yes
13C-OCDF	13C-1,2,3,4,6,9-HxCDF	1.238	1.091	1.371	Yes

Analyst: _____

Date: 1/20/10

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-17.qld

Last Altered: Wednesday, January 20, 2010 5:04:49 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 5:06:49 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-17, Date: 19-Jan-2010, Time: 22:38:11, ID: ST100119H2-2 1613 CS3 090922G, Description: 1612 CS3 090922G

	Name	Resp	RA	Qual	RRF	Std Vol	RT	RRT	Conc	%Rec	Q	DL	EMPC
1	2,3,7,8-TCDD	1.18e5	0.75	NO	0.965	1.000	26.05	1.001	10.074	101		0.0378	10.074
2	1,2,3,7,8-PeCDD	4.41e5	0.62	NO	0.869	1.000	30.61	1.000	52.776	106		0.109	52.776
3	1,2,3,4,7,8-HxCDD	3.60e5	1.25	NO	0.873	1.000	33.99	1.001	50.875	102		0.139	50.875
4	1,2,3,6,7,8-HxCDD	3.62e5	1.23	NO	0.940	1.000	34.09	1.000	50.967	102		0.141	50.967
5	1,2,3,7,8,9-HxCDD	3.87e5	1.25	NO	0.882	1.000	34.40	1.001	51.890	104		0.143	51.890
6	1,2,3,4,6,7,8-HpCDD	2.92e5	1.05	NO	0.965	1.000	37.92	1.000	49.337	98.7		0.171	49.337
7	OCDD	4.45e5	0.85	NO	1.05	1.000	41.24	1.000	103.93	104		0.207	103.93
8	2,3,7,8-TCDF	1.47e5	0.77	NO	0.952	1.000	25.27	1.001	10.045	100		0.0392	10.045
9	1,2,3,7,8-PeCDF	6.07e5	1.57	NO	0.994	1.000	29.42	1.000	47.810	95.6		0.0967	47.810
10	2,3,4,7,8-PeCDF	6.19e5	1.55	NO	0.977	1.000	30.33	1.000	47.441	94.9		0.0889	47.441
11	1,2,3,4,7,8-HxCDF	6.35e5	1.26	NO	1.31	1.000	33.09	1.001	47.537	95.1		0.0879	47.537
12	1,2,3,6,7,8-HxCDF	6.13e5	1.25	NO	1.15	1.000	33.21	1.000	46.836	93.7		0.0946	46.836
13	2,3,4,6,7,8-HxCDF	5.33e5	1.25	NO	1.20	1.000	33.82	1.000	47.105	94.2		0.114	47.105
14	1,2,3,7,8,9-HxCDF	4.58e5	1.25	NO	1.20	1.000	34.79	1.001	46.812	93.6		0.165	46.812
15	1,2,3,4,6,7,8-HpCDF	4.56e5	1.06	NO	1.49	1.000	36.65	1.001	46.882	93.8		0.157	46.882
16	1,2,3,4,7,8,9-HpCDF	3.88e5	1.09	NO	1.44	1.000	38.47	1.000	47.943	95.9		0.169	47.943
17	OCDF	5.80e5	0.96	NO	1.02	1.000	41.47	1.000	98.961	99.0		0.109	98.961
18	13C-2,3,7,8-TCDD	1.22e6	0.79	NO	1.02	1.000	26.02	1.022	101.14	101		0.109	
19	13C-1,2,3,7,8-PeCDD	9.62e5	0.61	NO	0.806	1.000	30.60	1.202	101.41	101		0.156	
20	13C-1,2,3,4,7,8-HxCDD	8.12e5	1.23	NO	1.07	1.000	33.97	1.014	90.599	90.6		0.162	
21	13C-1,2,3,6,7,8-HxCDD	7.56e5	1.25	NO	0.968	1.000	34.08	1.017	93.658	93.7		0.180	
22	13C-1,2,3,7,8,9-HxCDD	8.45e5	1.25	NO	1.13	1.000	34.38	1.026	89.321	89.3		0.154	
23	13C-1,2,3,4,6,7,8-HpCDD	6.13e5	1.09	NO	0.888	1.000	37.91	1.132	82.720	82.7		0.225	
24	13C-OCDD	8.18e5	0.84	NO	0.783	1.000	41.22	1.231	125.23	62.6		0.139	
25	13C-2,3,7,8-TCDF	1.53e6	0.78	NO	1.03	1.000	25.24	0.992	96.998	97.0		0.143	
26	13C-1,2,3,7,8-PeCDF	1.28e6	1.52	NO	0.880	1.000	29.41	1.155	94.282	94.3		0.279	
27	13C-2,3,4,7,8-PeCDF	1.34e6	1.52	NO	0.867	1.000	30.31	1.191	100.23	100		0.284	
28	13C-1,2,3,4,7,8-HxCDF	1.02e6	0.52	NO	1.19	1.000	33.07	0.987	103.22	103		0.247	
29	13C-1,2,3,6,7,8-HxCDF	1.14e6	0.51	NO	1.30	1.000	33.20	0.991	104.99	105		0.225	
30	13C-2,3,4,6,7,8-HxCDF	9.45e5	0.52	NO	1.16	1.000	33.81	1.009	97.474	97.5		0.252	

AL/2
1/20/10

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-17.qld

Last Altered: Wednesday, January 20, 2010 5:04:49 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 5:06:49 AM Pacific Standard Time

Name: 100119H2-17, Date: 19-Jan-2010, Time: 22:38:11, ID: ST100119H2-2 1613 CS3 090922G, Description: 1612 CS3 090922G

	Name	Resp	RA	Qual	ANRR	Wgt	RT	RRT	Conc	%Rec	PrepDL
31	13C-1,2,3,7,8,9-HxCDF	8.17e5	0.52	NO	1.03	1.000	34.77	1.038	95.468	95.5	0.286
32	13C-1,2,3,4,6,7,8-HpCDF	6.55e5	0.44	NO	0.909	1.000	36.63	1.093	86.456	86.5	0.234
33	13C-1,2,3,4,7,8,9-HpCDF	5.61e5	0.45	NO	0.830	1.000	38.46	1.148	81.137	81.1	0.256
34	13C-OCDF	1.15e6	0.86	NO	0.982	1.000	41.47	1.238	140.31	70.2	0.116
35	37Cl-2,3,7,8-TCDD	6.94e4			0.602	1.000	26.03	1.023	9.7982	98.0	0.0361
36	13C-1,2,3,4-TCDD	1.18e6	0.79	NO	1.00	1.000	25.45	0.000	100.00	100	0.112
37	13C-1,2,3,4-TCDF	1.54e6	0.78	NO	1.00	1.000	24.04	0.000	100.00	100	0.147
38	13C-1,2,3,4,6,9-HxCDF	8.34e5	0.53	NO	1.00	1.000	33.50	0.000	100.00	100	0.294

Quantify Compound Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 5:12:04 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 5:12:22 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Compound name: 1,3,6,8-TCDD (First)

	Name	ID	Acq. Date	Acq. Time
1	100119H2-1	ST100119H2-1 1613 CS3 090922G	19-Jan-10	09:25:44
2	100119H2-2	0_2725_OPR001	19-Jan-10	10:15:16
3	100119H2-3	SOLVENT BLANK	19-Jan-10	11:04:48
4	100119H2-4	0_2725_MB001	19-Jan-10	11:54:19
5	100119H2-5	32320_2678_013 EQ/K0911818 1.019	19-Jan-10	12:43:50
6	100119H2-6	32326_2678_013 EQ/K0911819 1.016	19-Jan-10	13:33:21
7	100119H2-7	32327_2678_017 EQ/K0911809 1.015	19-Jan-10	14:22:51
8	100119H2-8	32328_2678_021 EQ/K0911808 1.014	19-Jan-10	15:12:21
9	100119H2-9	32321_2725_001 CAPA-10-6823 .9	19-Jan-10	16:01:54
10	100119H2-10	32321_2725_002 CAPA-10-6824 .898	19-Jan-10	16:51:25
11	100119H2-11	32322_2725_001 CAPA-10-6390 .809	19-Jan-10	17:40:58
12	100119H2-12	32322_2725_002 CAPA-10-6745 .899	19-Jan-10	18:30:30
13	100119H2-13	32322_2725_003 CAPA-10-6746 .894	19-Jan-10	19:20:02
14	100119H2-14	32322_2725_004 CAPA-10-6793 .886	19-Jan-10	20:09:36
15	100119H2-15	32337_2725_001 CAWA-10-6910 .881	19-Jan-10	20:59:09
16	100119H2-16	SOLVENT BLANK	19-Jan-10	21:48:40
17	100119H2-17	ST100119H2-2 1613 CS3 090922G	19-Jan-10	22:38:11

Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 5:10:42 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 5:11:35 AM Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-17, Date: 19-Jan-2010, Time: 22:38:11, ID: ST100119H2-2 1613 CS3 090922G, Description: 1612 CS3 090922G

1,3,6,8-TCDD (First)

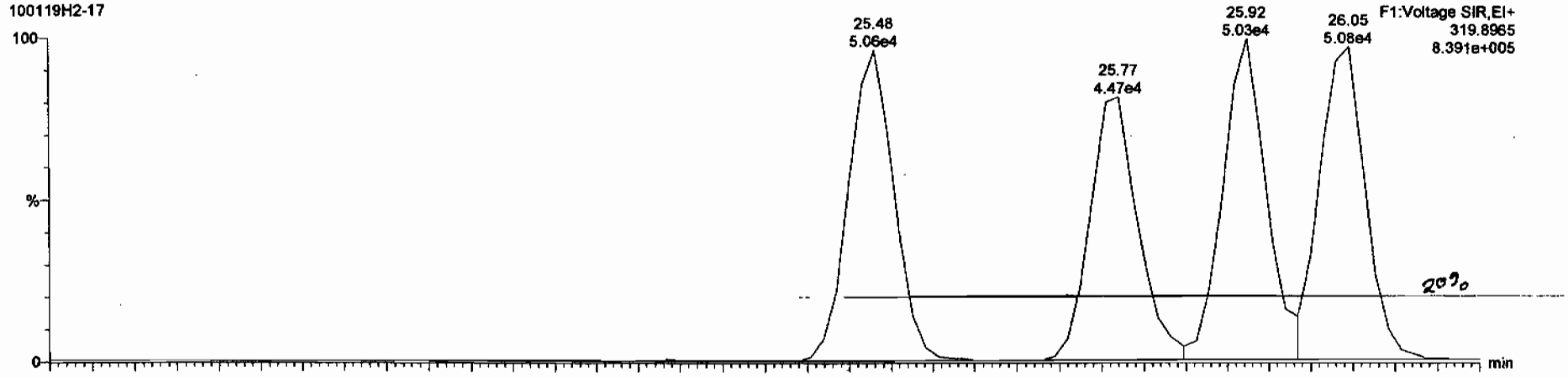

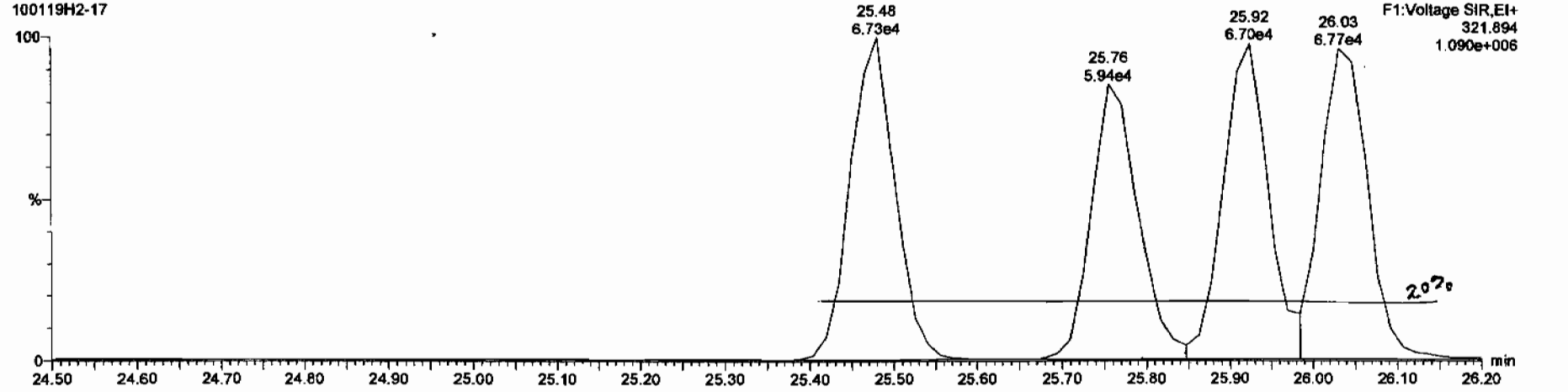

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-17.qid

Last Altered: Wednesday, January 20, 2010 5:04:49 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 5:06:00 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-17, Date: 19-Jan-2010, Time: 22:38:11, ID: ST100119H2-2 1613 CS3 090922G, Description: 1612 CS3 090922G

2,3,7,8-TCDD

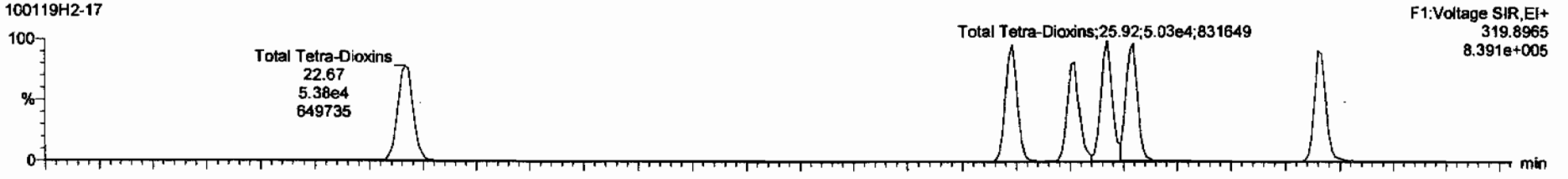

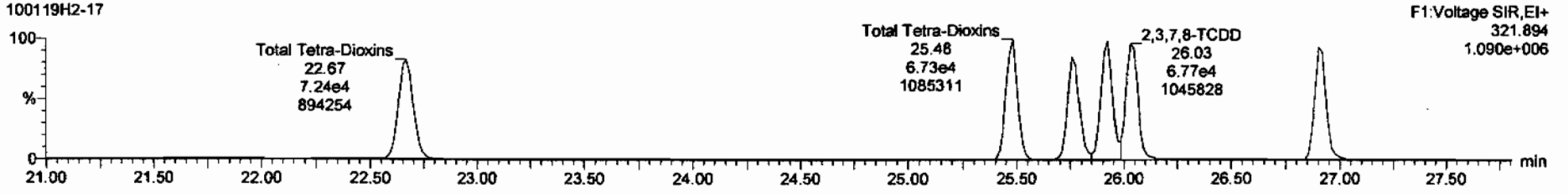

13C-2,3,7,8-TCDD

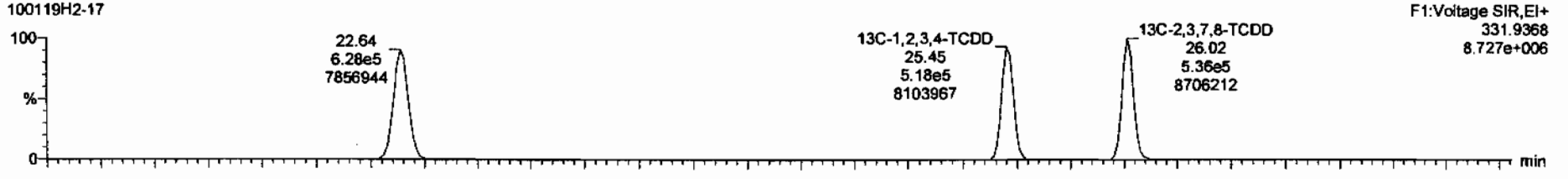

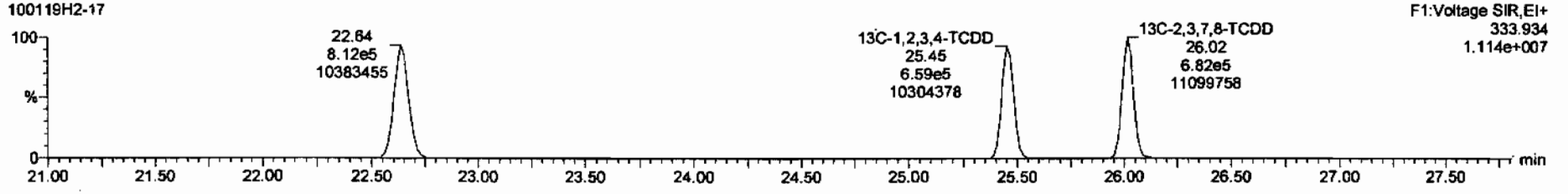

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-17.qld

Last Altered: Wednesday, January 20, 2010 5:04:49 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 5:06:00 AM Pacific Standard Time

Name: 100119H2-17, Date: 19-Jan-2010, Time: 22:38:11, ID: ST100119H2-2 1613 CS3 090922G, Description: 1612 CS3 090922G

37Cl-2,3,7,8-TCDD

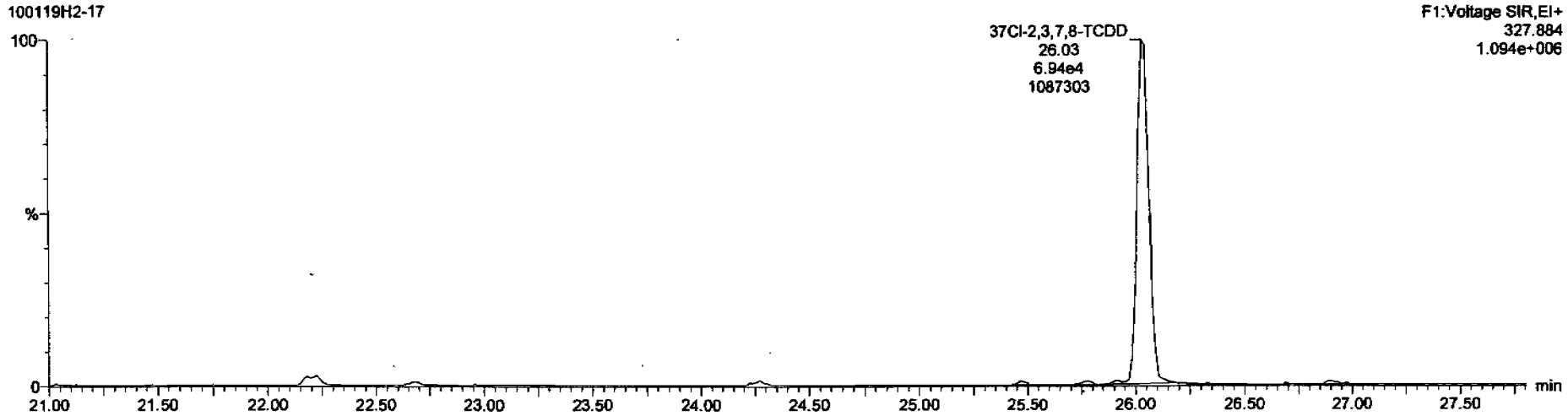

13C-1,2,3,4-TCDD

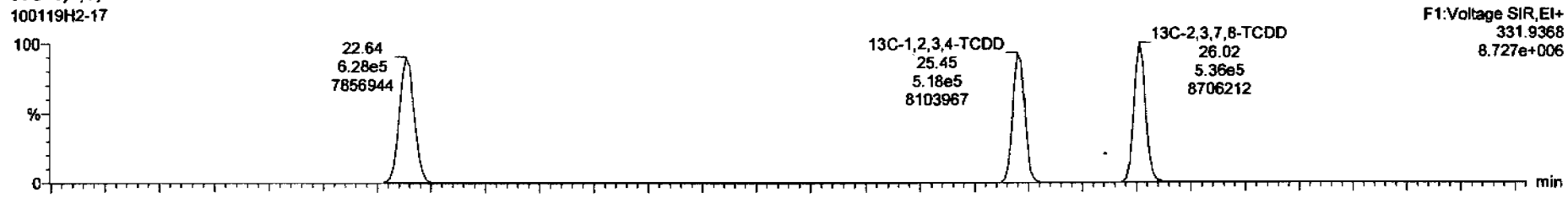

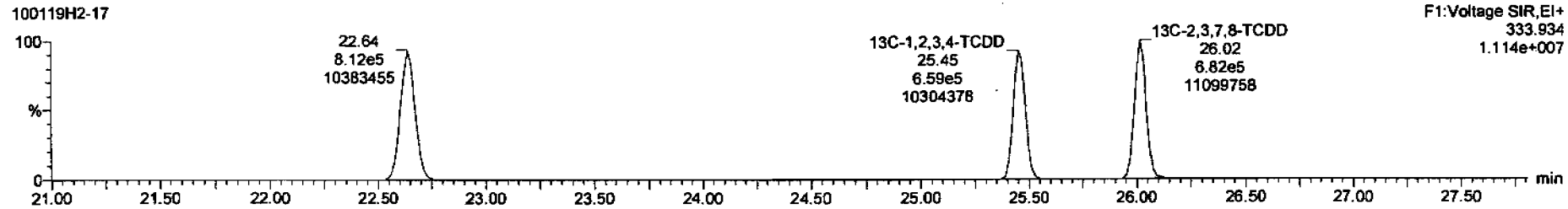

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-17.qld

Last Altered: Wednesday, January 20, 2010 5:04:49 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 5:06:00 AM Pacific Standard Time

Name: 100119H2-17, Date: 19-Jan-2010, Time: 22:38:11, ID: ST100119H2-2 1613 CS3 090922G, Description: 1612 CS3 090922G

1,2,3,7,8-PeCDD

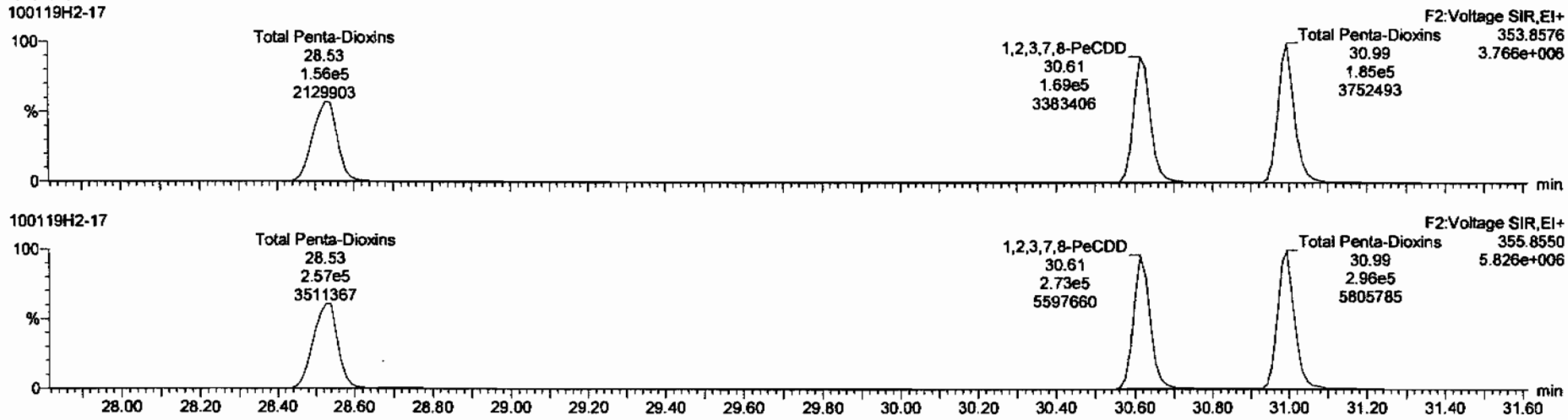

13C-1,2,3,7,8-PeCDD

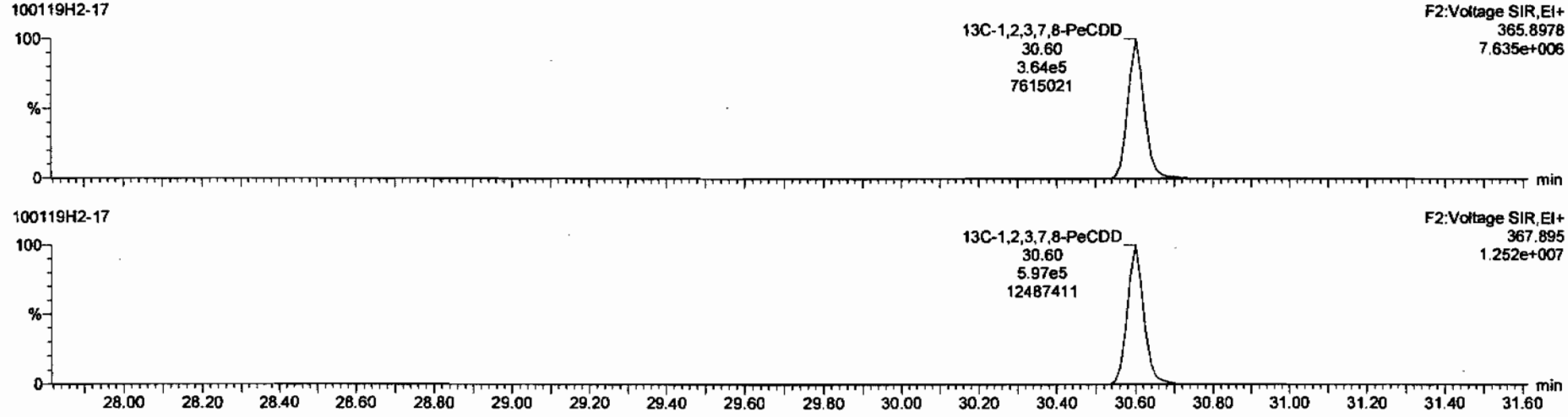

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-17.qld

Last Altered: Wednesday, January 20, 2010 5:04:49 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 5:06:00 AM Pacific Standard Time

Name: 100119H2-17, Date: 19-Jan-2010, Time: 22:38:11, ID: ST100119H2-2 1613 CS3 090922G, Description: 1612 CS3 090922G

1,2,3,4,7,8-HxCDD

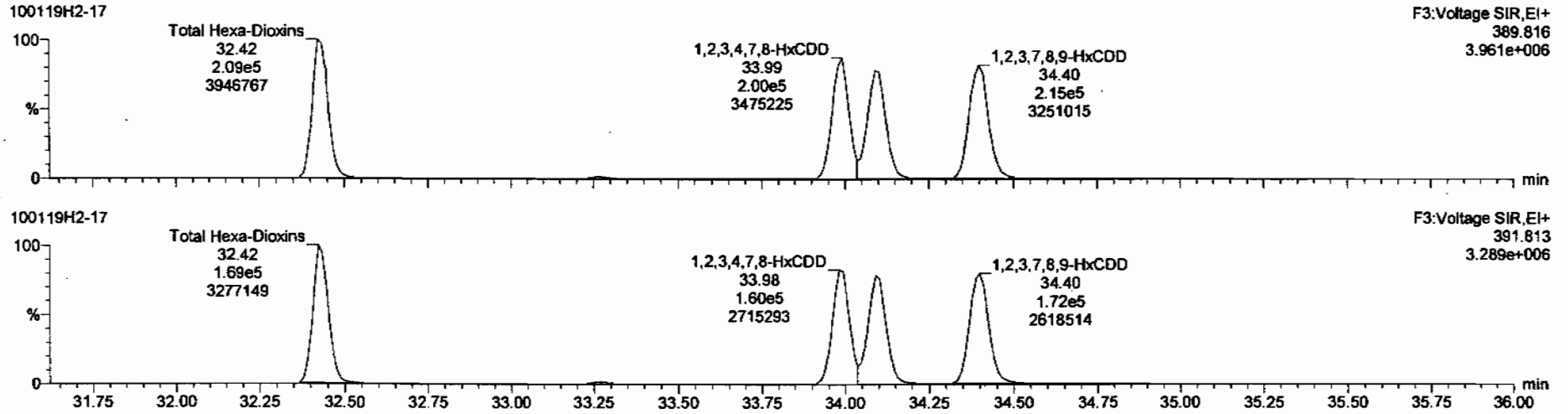

13C-1,2,3,4,7,8-HxCDD

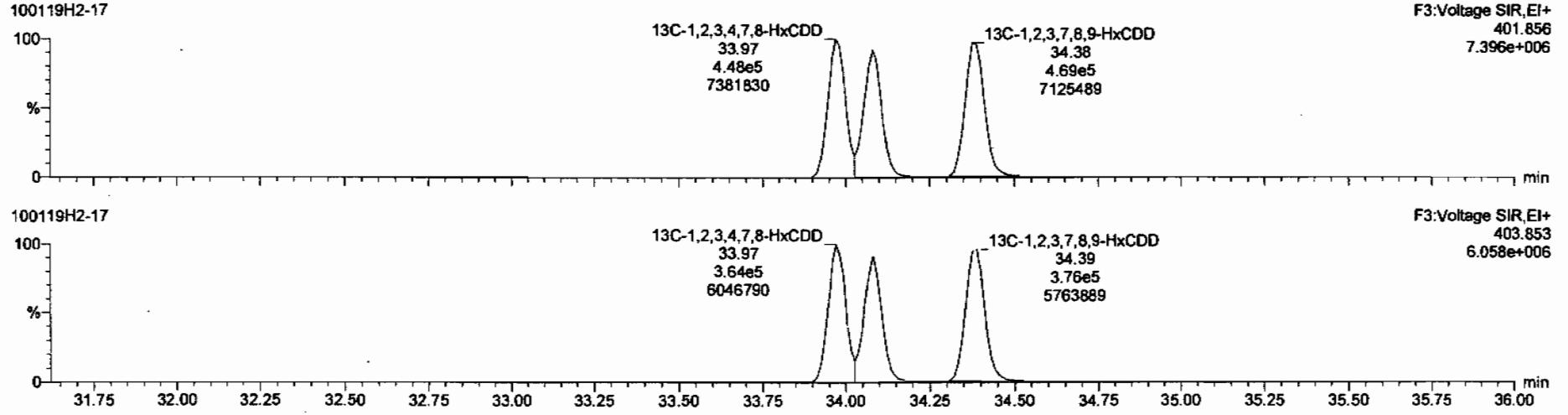

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-17.qld

Last Altered: Wednesday, January 20, 2010 5:04:49 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 5:06:00 AM Pacific Standard Time

Name: 100119H2-17, Date: 19-Jan-2010, Time: 22:38:11, ID: ST100119H2-2 1613 CS3 090922G, Description: 1612 CS3 090922G

1,2,3,4,6,7,8-HpCDD

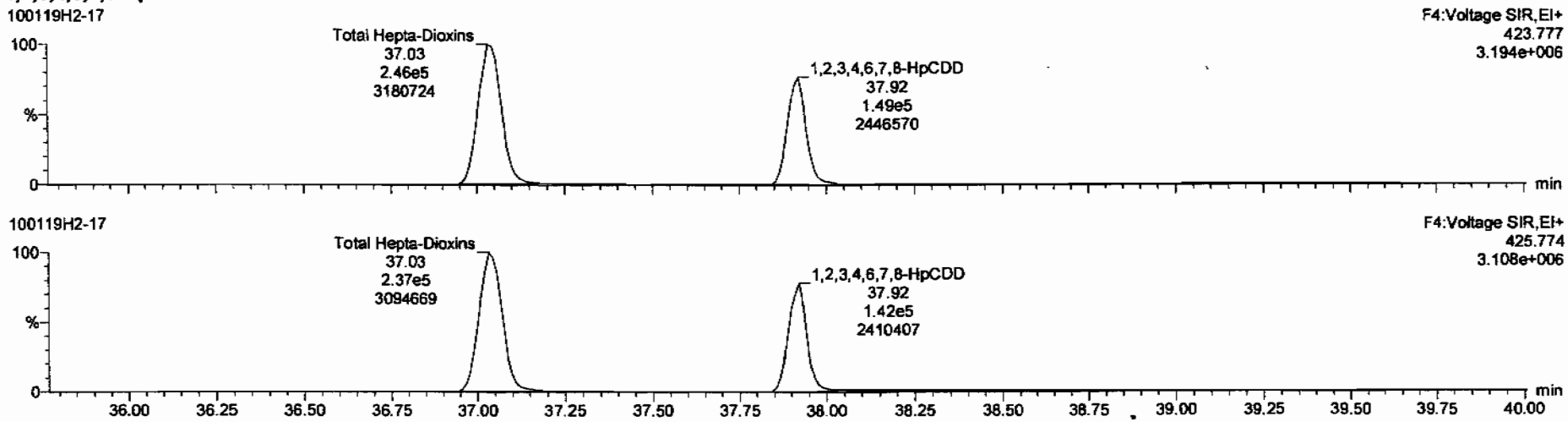

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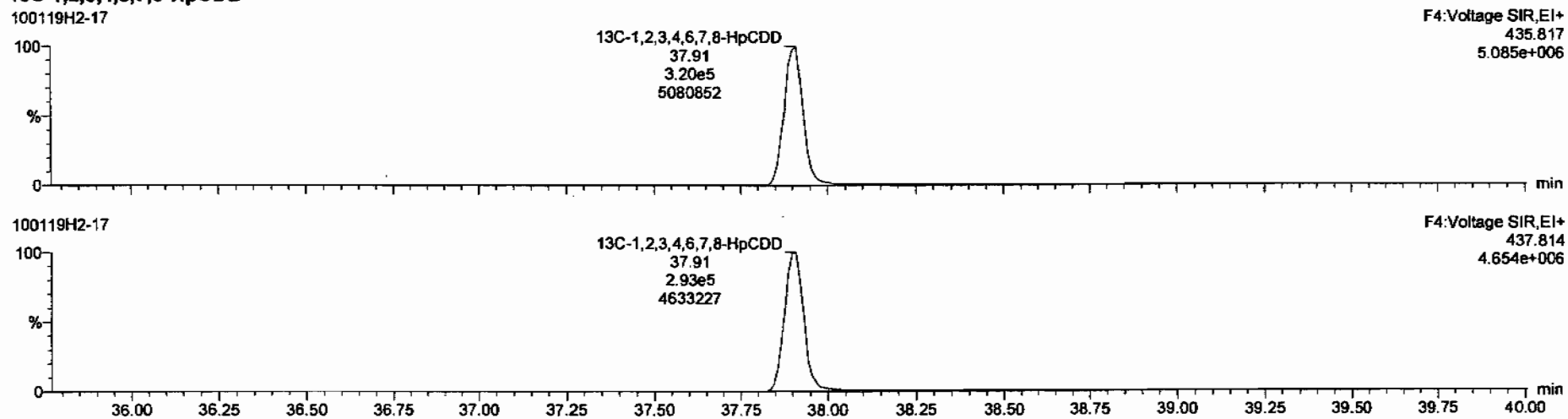

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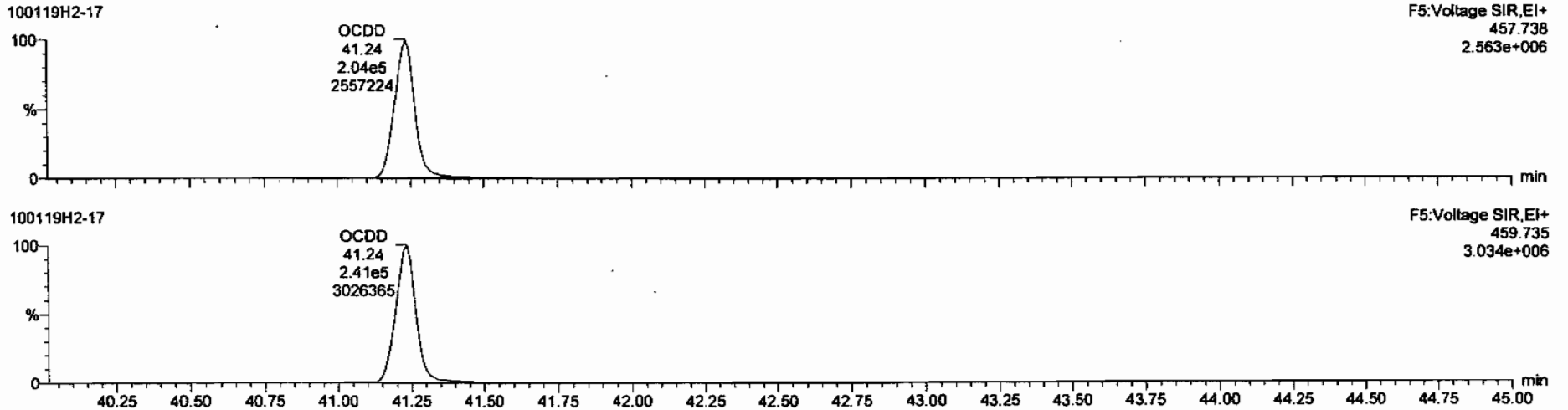

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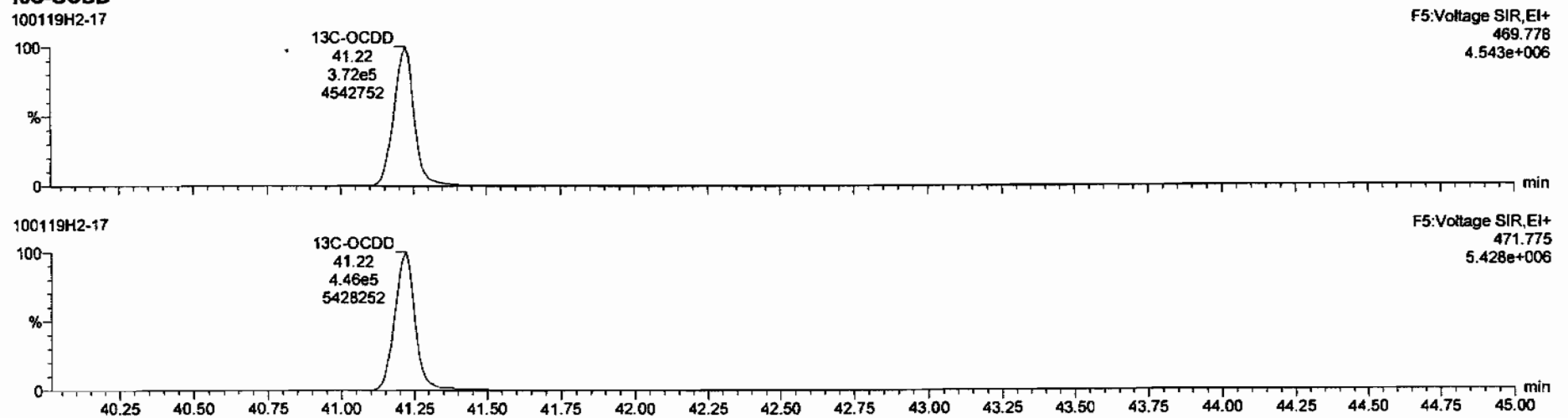

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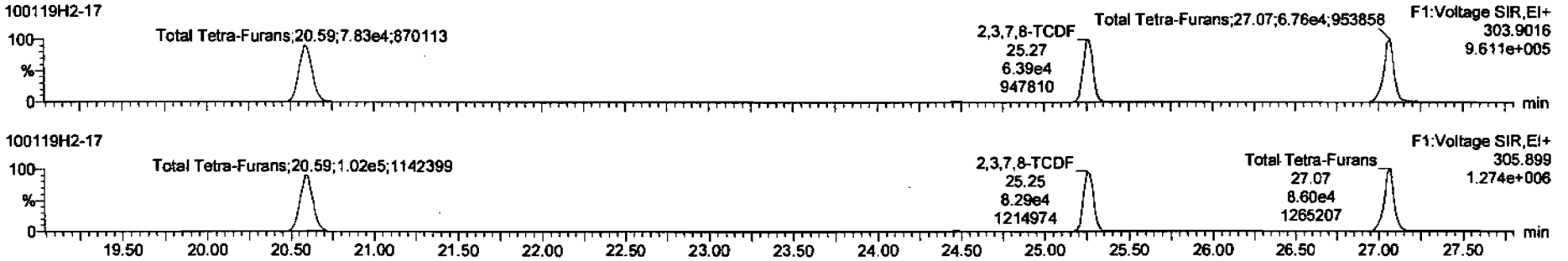

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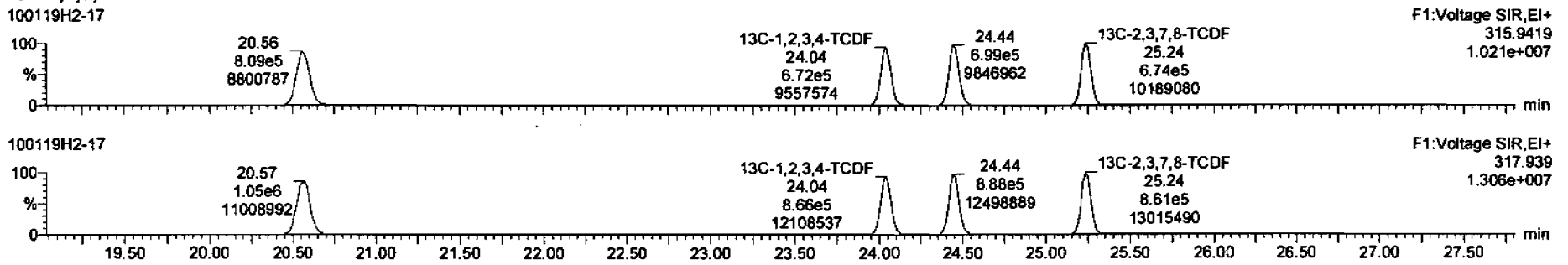

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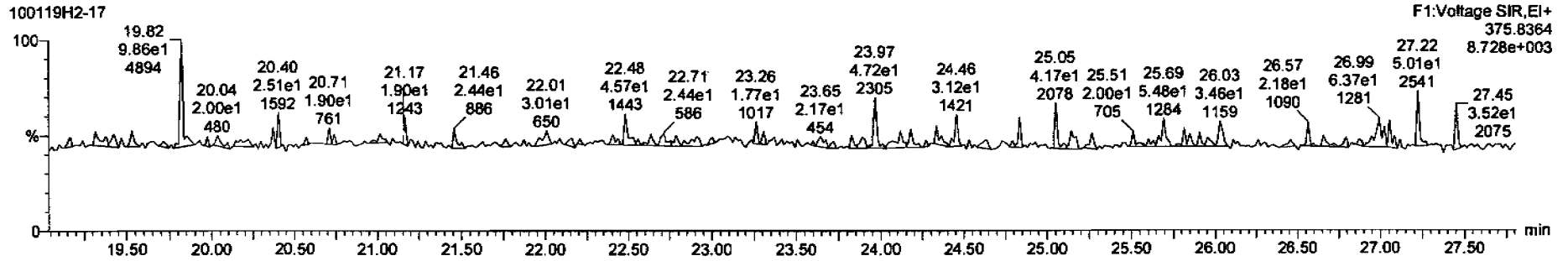

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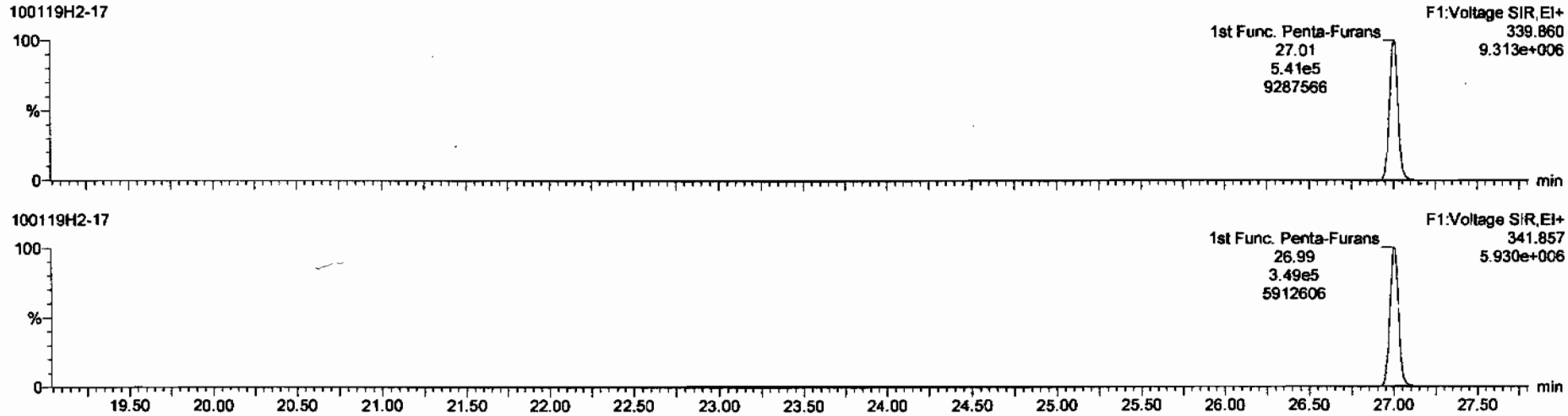

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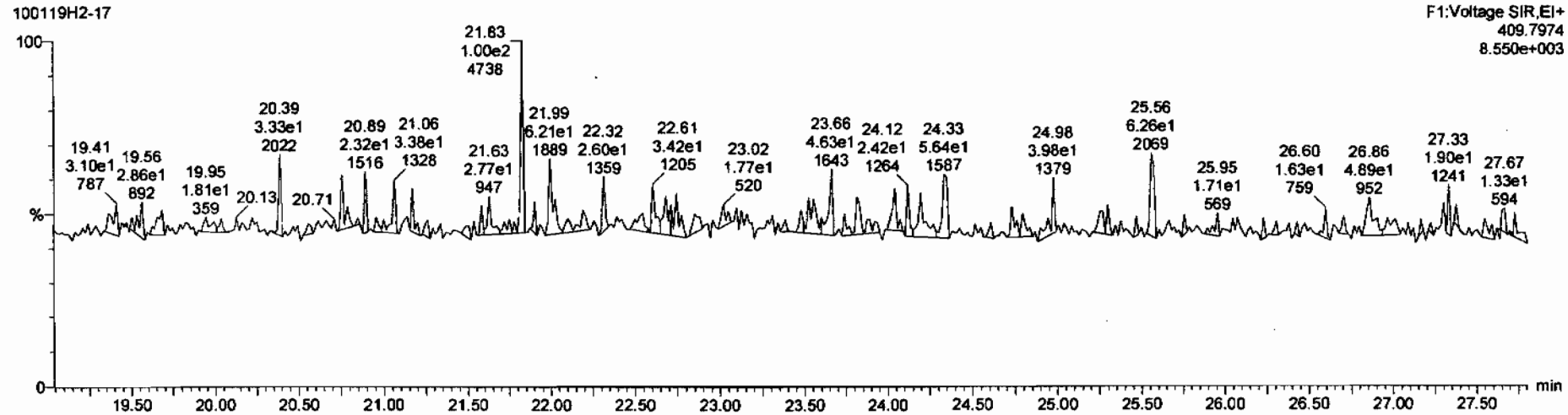

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1,2,3,7,8-PeCDF

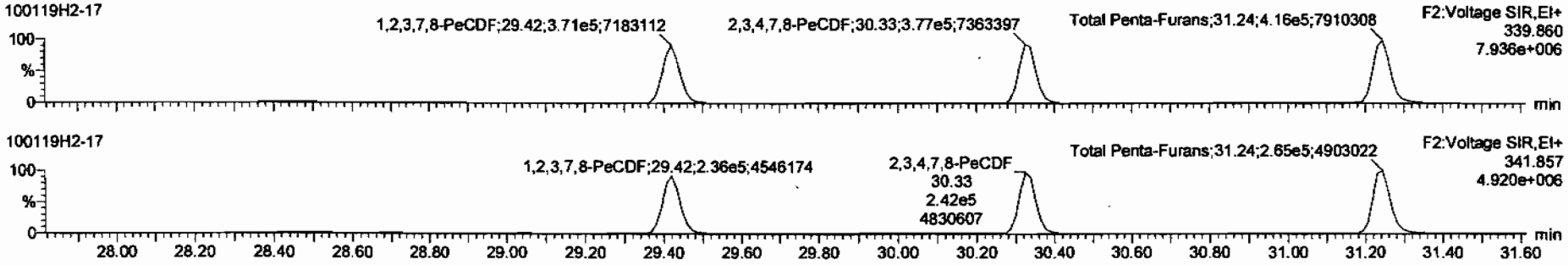

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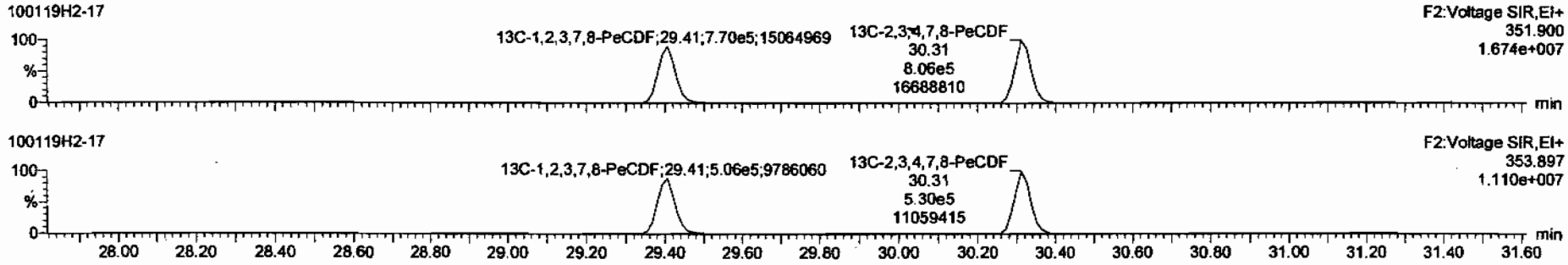

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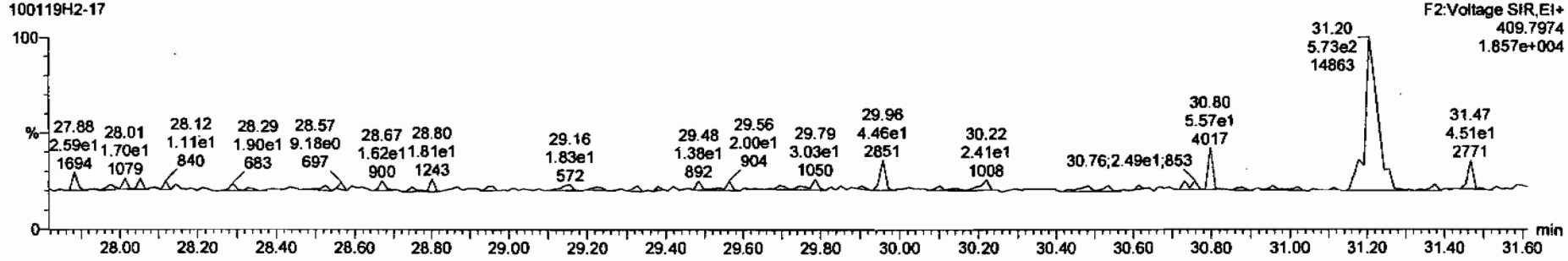

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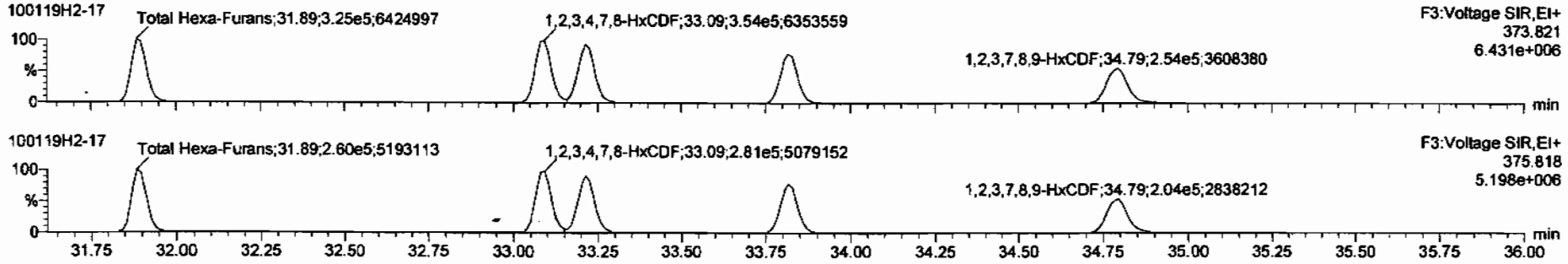

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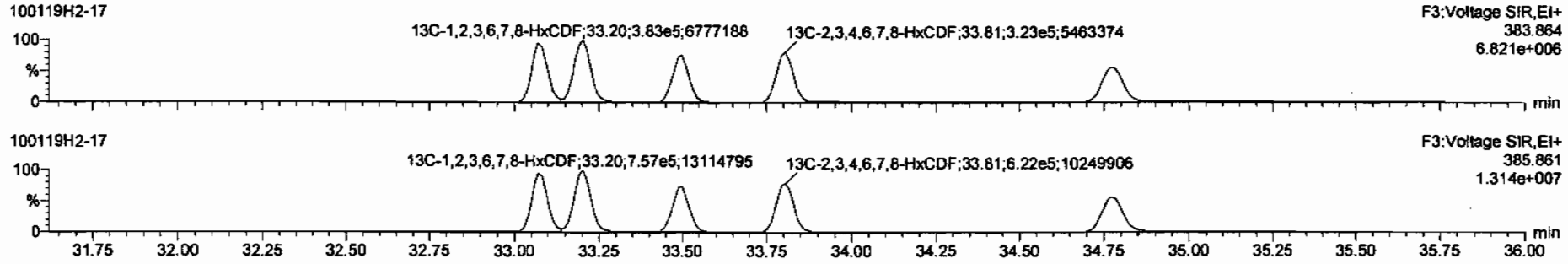

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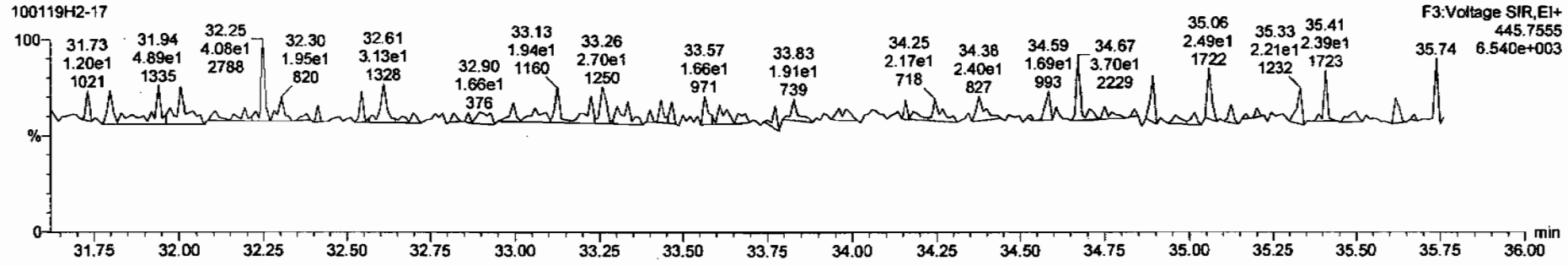

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1,2,3,4,6,7,8-HpCDF

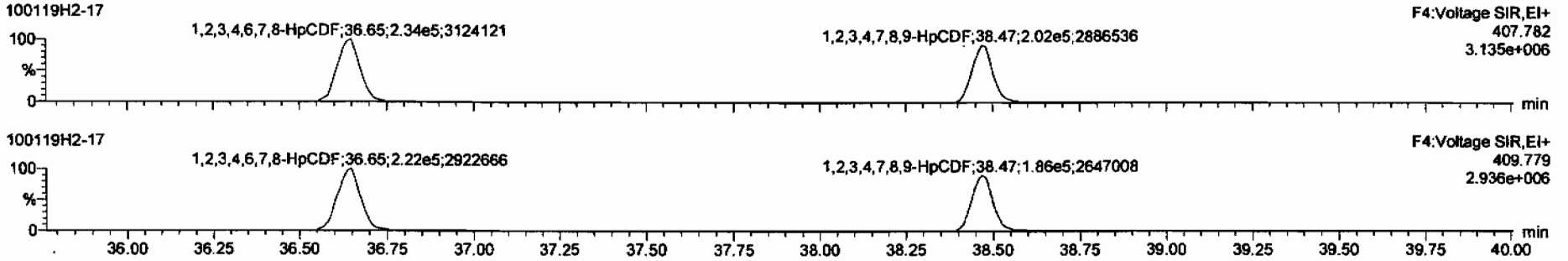

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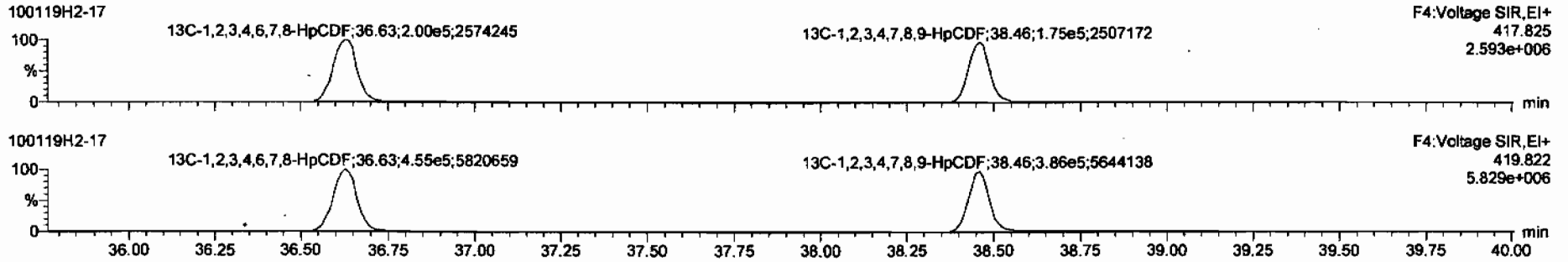

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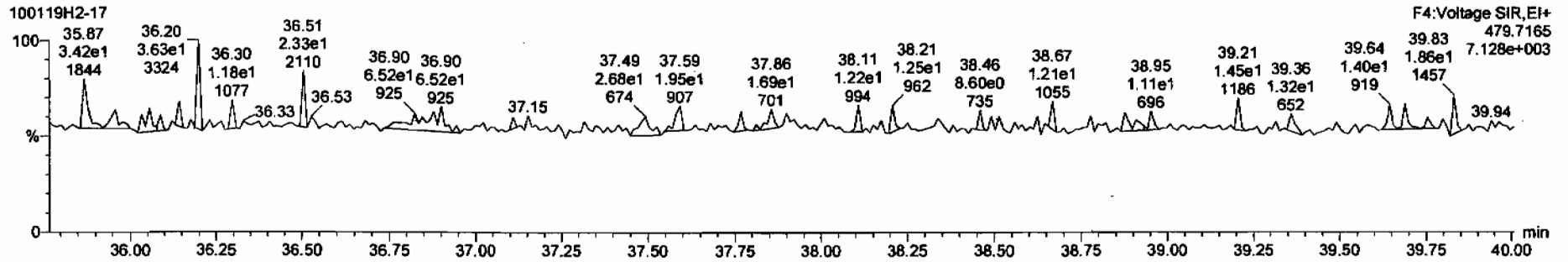

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OCDF

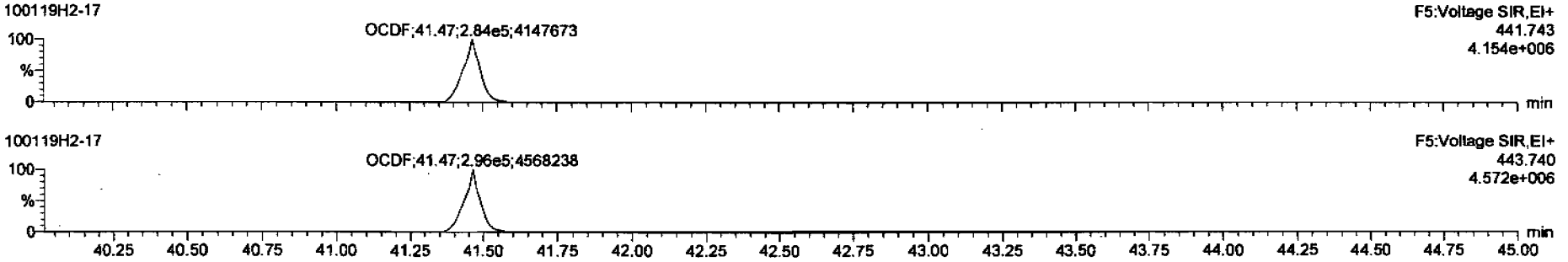

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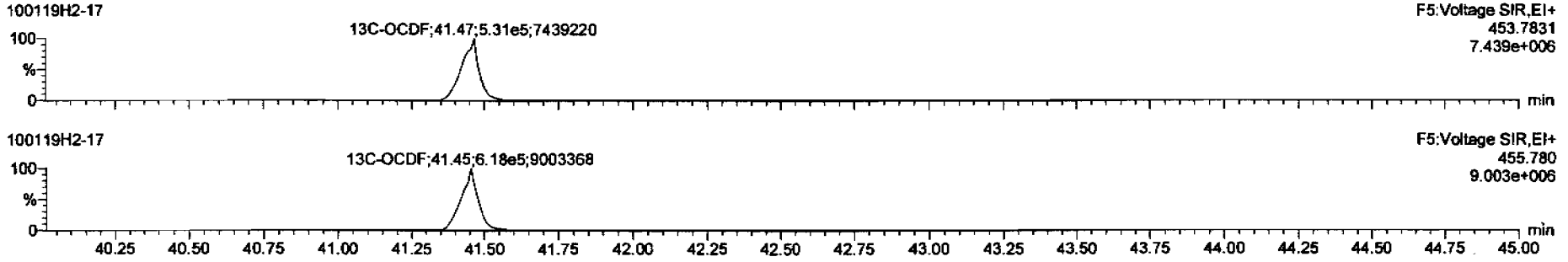

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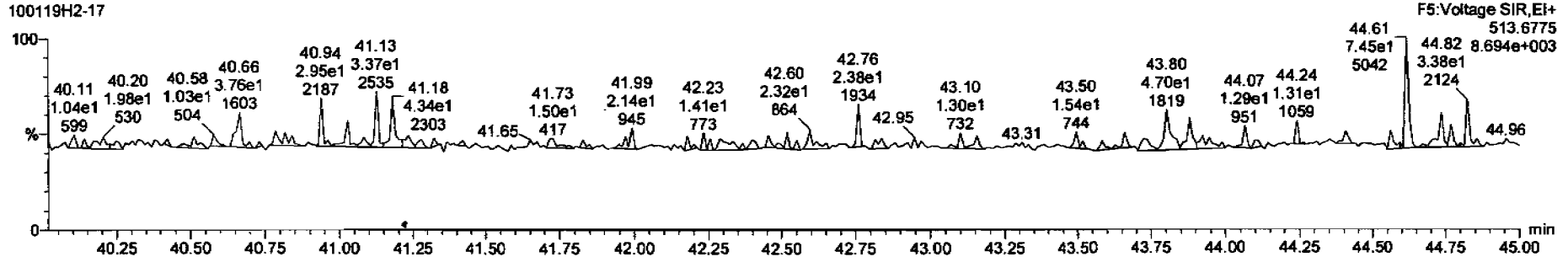

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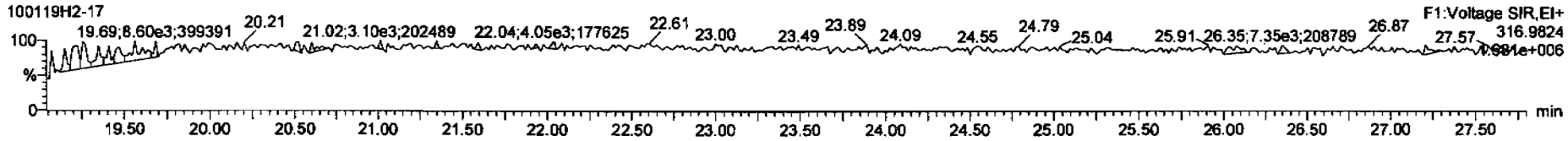

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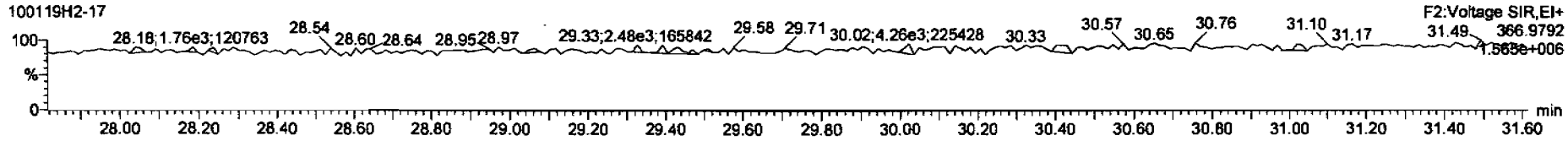

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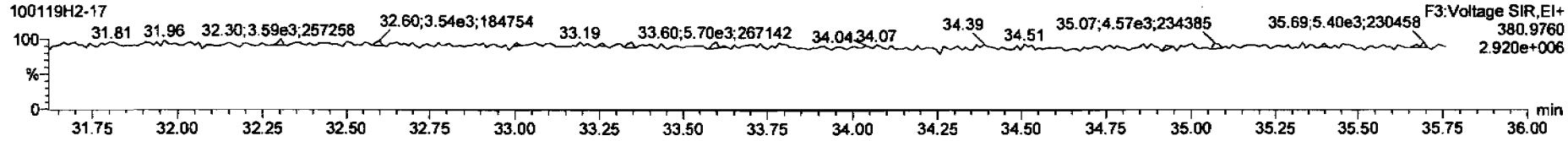

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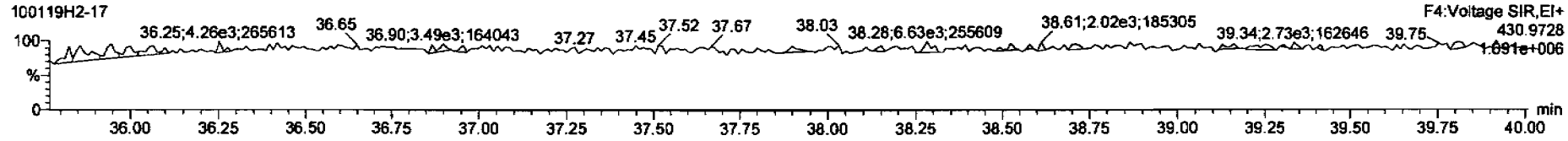

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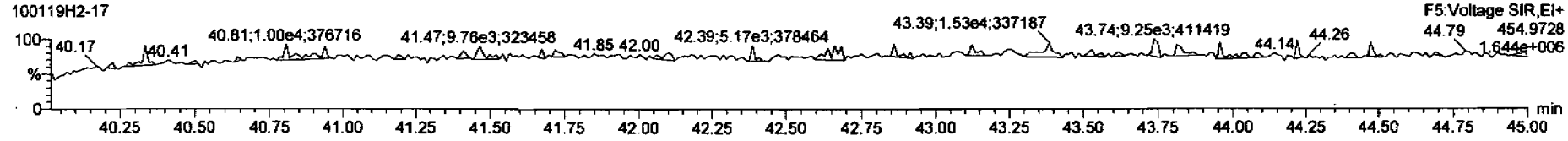

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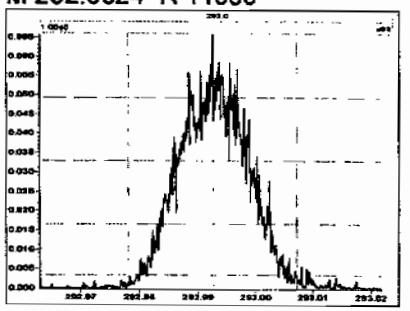

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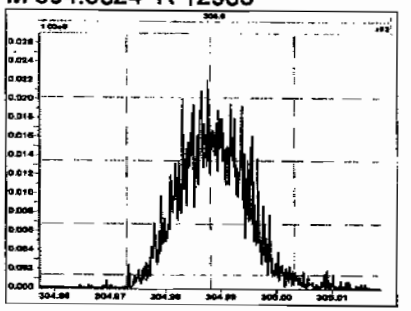

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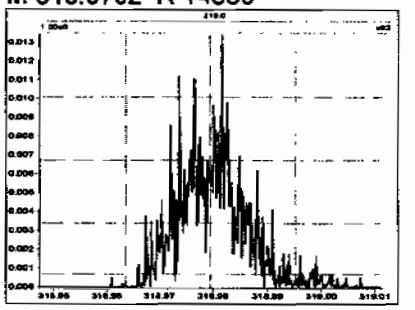

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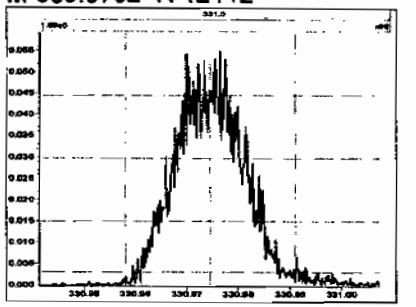

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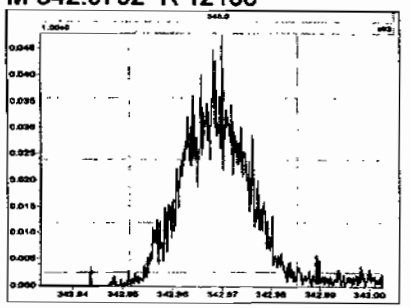

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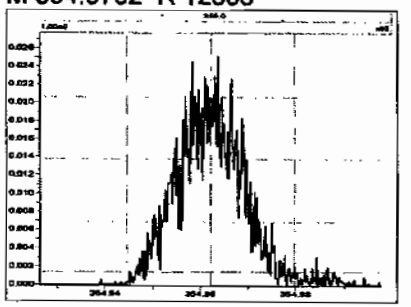

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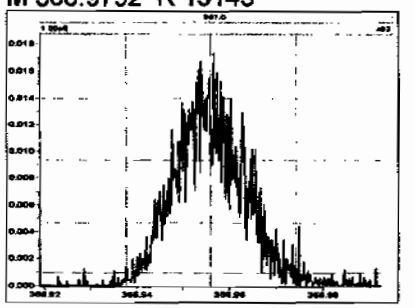

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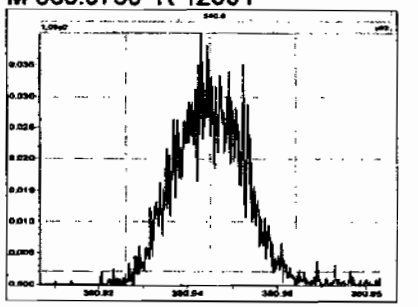

M 392.9760 R 12470

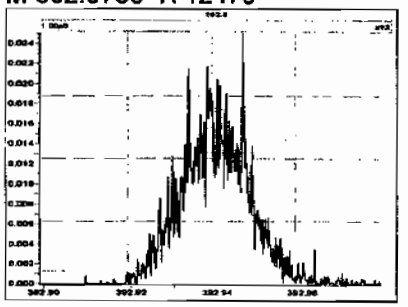

M 404.9760 R 12427

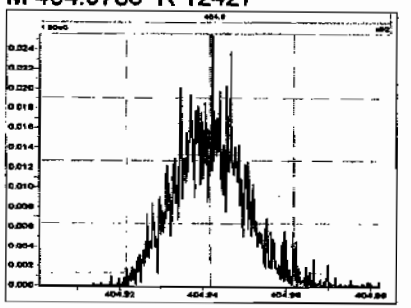

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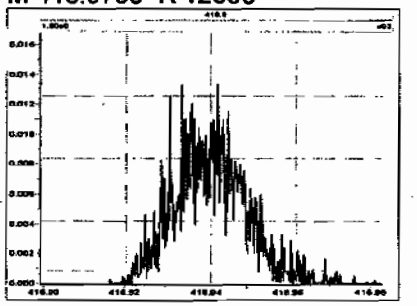

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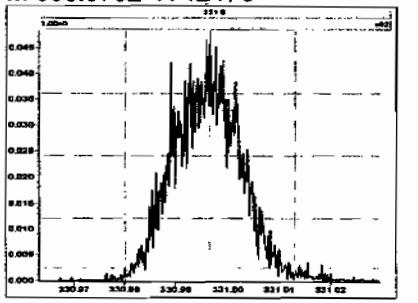

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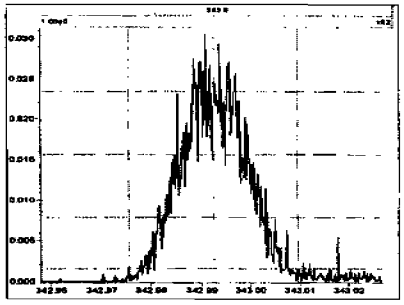

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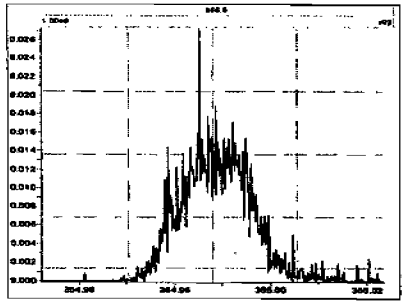

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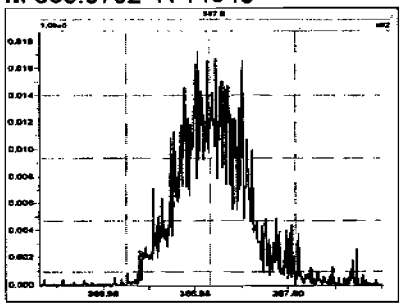

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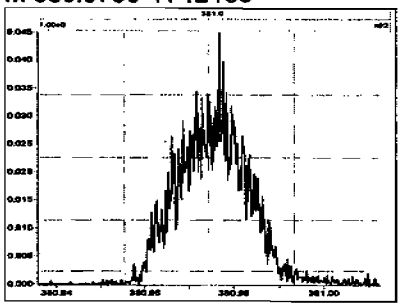

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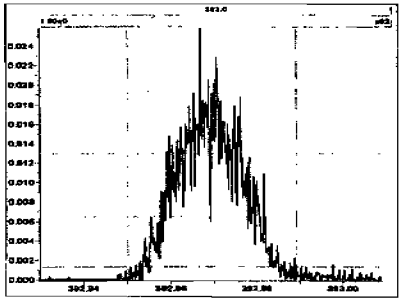

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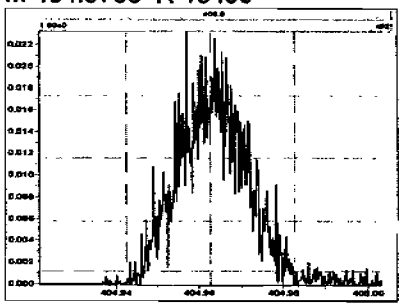

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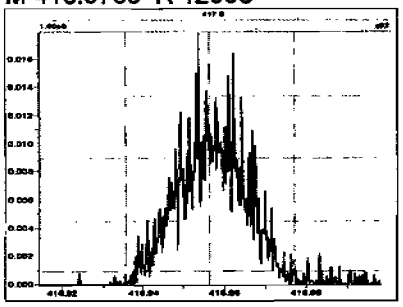

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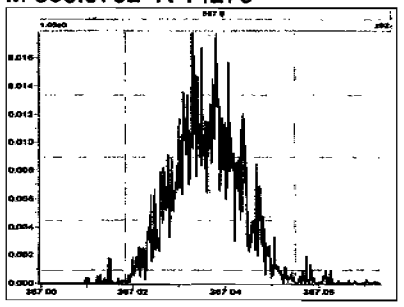

M 380.9760 R 11998

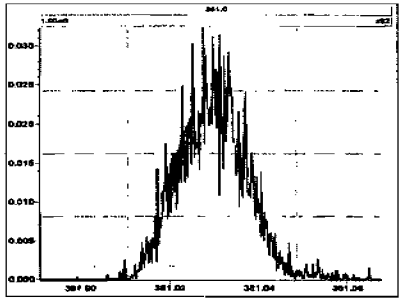

M 392.9760 R 14036

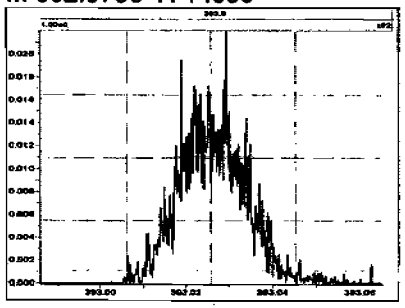

M 404.9760 R 13090

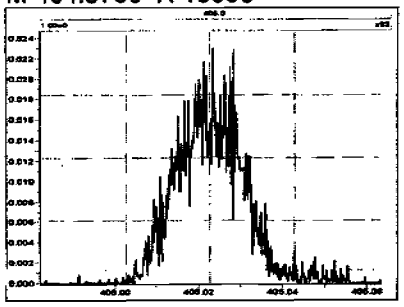

M 416.9760 R 14164

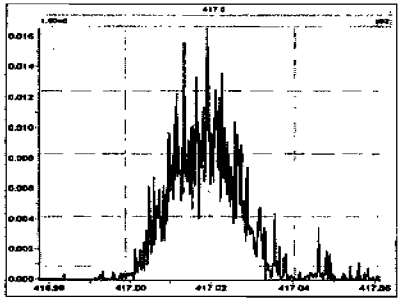

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M 430.9728 R 12794

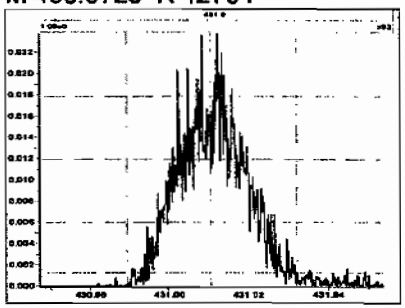

M 442.9728 R 13021

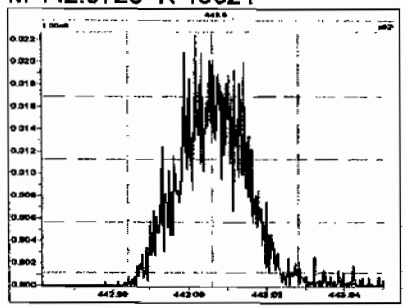

M 454.9728 R 12563

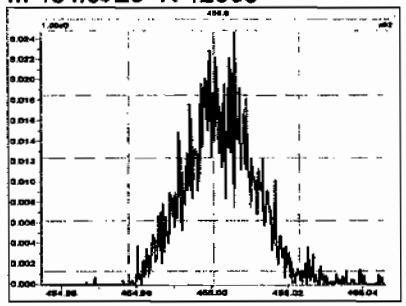

M 404.9760 R 14340

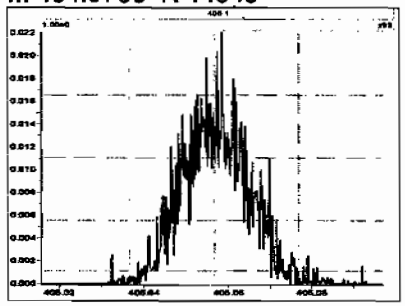

M 416.9760 R 14097

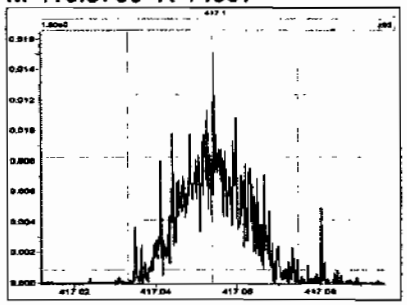

M 430.9728 R 12577

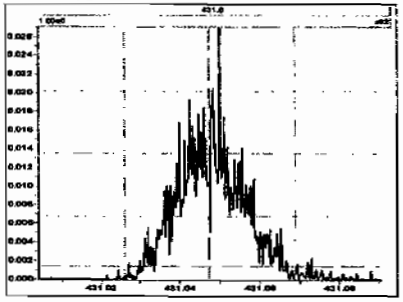

M 442.9728 R 13596

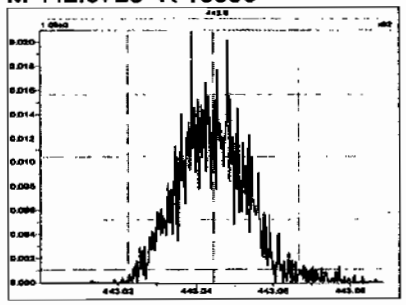

M 454.9728 R 13368

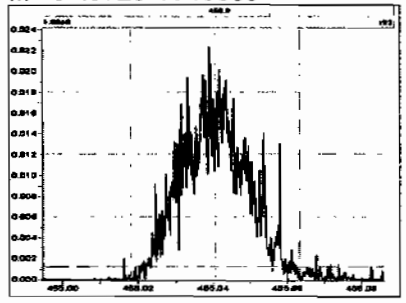

M 466.9728 R 14051

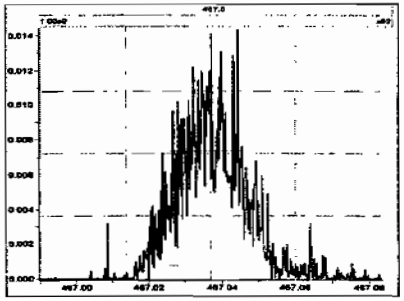

M 480.9696 R 13987

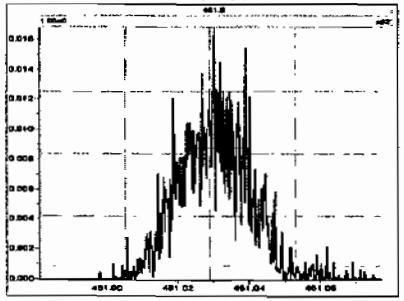

M 430.9728 R 12345

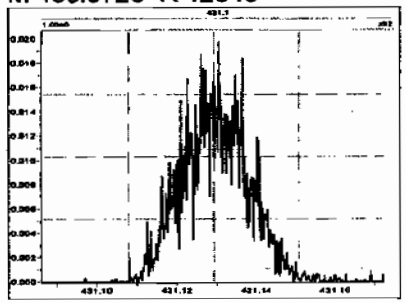

M 442.9728 R 13307

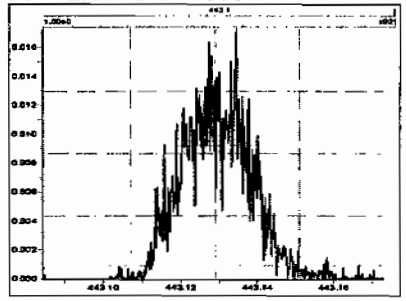

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M 454.9728 R 13160

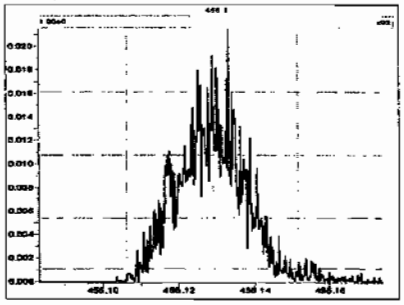

M 466.9728 R 13606

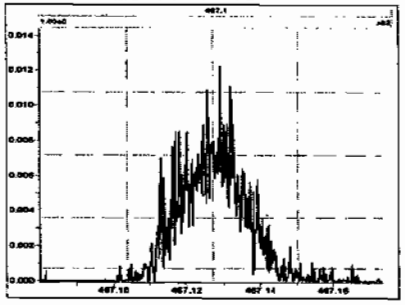

M 480.9696 R 14409

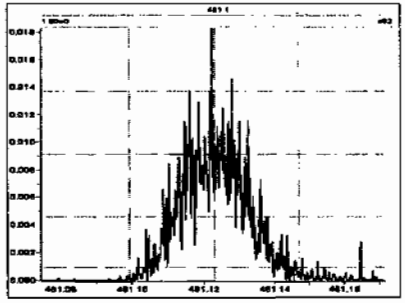

M 492.9696 R 13465

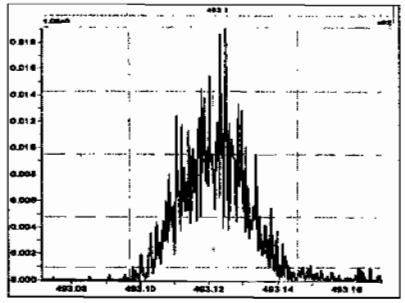

M 504.9696 R 13337

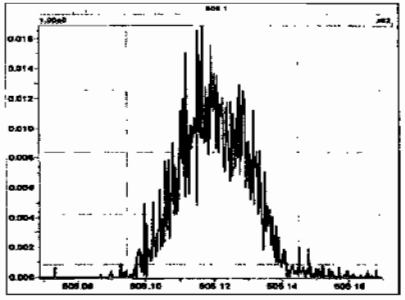

M 516.9697 R 13333

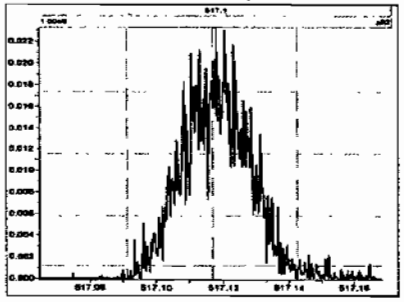

ICAL

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

Last Altered: Friday, October 30, 2009 08:35:54 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 21 Oct 2009 08:49:07
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 08:35:54

Compound name: 2,3,7,8-TCDD
Response Factor: 0.965178
RRF SD: 0.0384904, Relative SD: 3.98791
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	10.0	0.76	NO	25.80	1.001	2.70e5	2.89e6	9.66	-3.4	0.933
2	091029H1_3	0.250	0.84	NO	25.80	1.001	7.61e3	3.01e6	0.262	4.7	1.01
3	091029H1_4	0.500	0.78	NO	25.79	1.001	1.50e4	3.00e6	0.518	3.6	1.00
4	091029H1_5	2.00	0.77	NO	25.80	1.001	5.37e4	2.95e6	1.89	-5.7	0.910
5	091029H1_6	40.0	0.76	NO	25.80	1.001	1.19e6	3.08e6	40.0	0.1	0.966
6	091029H1_7	200	0.76	NO	25.80	1.001	4.94e6	2.54e6	202	0.8	0.972

Compound name: 1,2,3,7,8-PeCDD
Response Factor: 0.869202
RRF SD: 0.0185487, Relative SD: 2.134
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	0.61	NO	30.60	1.000	9.93e5	2.30e6	49.6	-0.7	0.863
2	091029H1_3	1.25	0.63	NO	30.61	1.001	2.55e4	2.34e6	1.25	0.1	0.870
3	091029H1_4	2.50	0.61	NO	30.60	1.000	5.19e4	2.32e6	2.57	2.9	0.894
4	091029H1_5	10.0	0.61	NO	30.60	1.001	1.90e5	2.27e6	9.64	-3.6	0.838
5	091029H1_6	200	0.61	NO	30.60	1.000	4.25e6	2.42e6	202	1.0	0.878
6	091029H1_7	1000	0.62	NO	30.60	1.000	1.81e7	2.08e6	1000	0.3	0.872

JL 10/30/09
on MS 10/30/09

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

Last Altered: Friday, October 30, 2009 08:35:54 Pacific Daylight Time
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Compound name: 1,2,3,4,7,8-HxCDD
Response Factor: 0.872922
RRF SD: 0.0286881, Relative SD: 3.28645
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	1.25	NO	33.95	1.000	8.67e5	2.05e6	48.5	-3.1	0.846
2	091029H1_3	1.25	1.23	NO	33.96	1.000	2.29e4	2.06e6	1.28	2.3	0.893
3	091029H1_4	2.50	1.22	NO	33.95	1.000	4.70e4	2.07e6	2.60	4.2	0.909
4	091029H1_5	10.0	1.24	NO	33.95	1.000	1.73e5	2.07e6	9.57	-4.3	0.835
5	091029H1_6	200	1.24	NO	33.95	1.000	3.76e6	2.17e6	199	-0.7	0.867
6	091029H1_7	1000	1.24	NO	33.96	1.000	1.66e7	1.87e6	1020	1.7	0.887

Compound name: 1,2,3,6,7,8-HxCDD
Response Factor: 0.939623
RRF SD: 0.0239863, Relative SD: 2.55276
Response type: Internal Std (Ref 21), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	1.24	NO	34.06	1.000	8.55e5	1.85e6	49.2	-1.6	0.925
2	091029H1_3	1.25	1.26	NO	34.07	1.000	2.21e4	1.84e6	1.28	2.3	0.961
3	091029H1_4	2.50	1.26	NO	34.06	1.000	4.55e4	1.87e6	2.58	3.4	0.971
4	091029H1_5	10.0	1.25	NO	34.06	1.001	1.67e5	1.84e6	9.67	-3.3	0.909
5	091029H1_6	200	1.24	NO	34.06	1.000	3.70e6	1.95e6	201	0.7	0.946
6	091029H1_7	1000	1.23	NO	34.07	1.001	1.58e7	1.70e6	986	-1.4	0.926

Compound name: 1,2,3,7,8,9-HxCDD
Response Factor: 0.882337
RRF SD: 0.0216134, Relative SD: 2.44956
Response type: Internal Std (Ref 22), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	1.23	NO	34.34	1.000	9.40e5	2.17e6	49.0	-1.9	0.866
2	091029H1_3	1.25	1.22	NO	34.35	1.000	2.45e4	2.14e6	1.30	3.8	0.916

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

Last Altered: Friday, October 30, 2009 08:35:54 Pacific Daylight Time
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Compound name: 1,2,3,7,8,9-HxCDD

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev.	RRF
3	091029H1_4	2.50	1.26	NO	34.34	1.000	4.93e4	2.19e6	2.55	2.0	0.900
4	091029H1_5	10.0	1.20	NO	34.33	1.000	1.84e5	2.14e6	9.76	-2.4	0.861
5	091029H1_6	200	1.24	NO	34.34	1.000	4.03e6	2.29e6	200	-0.1	0.881
6	091029H1_7	1000	1.23	NO	34.35	1.001	1.76e7	2.03e6	986	-1.4	0.870

Compound name: 1,2,3,4,6,7,8-HpCDD
Response Factor: 0.965318
RRF SD: 0.0196816, Relative SD: 2.03887
Response type: Internal Std (Ref 23), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	1.05	NO	37.92	1.001	8.08e5	1.69e6	49.5	-1.0	0.956
2	091029H1_3	1.25	1.02	NO	37.92	1.000	2.07e4	1.68e6	1.28	2.1	0.986
3	091029H1_4	2.50	1.05	NO	37.91	1.000	4.26e4	1.73e6	2.55	2.1	0.986
4	091029H1_5	10.0	1.04	NO	37.91	1.000	1.59e5	1.70e6	9.68	-3.2	0.934
5	091029H1_6	200	1.04	NO	37.91	1.000	3.42e6	1.78e6	199	-0.5	0.960
6	091029H1_7	1000	1.04	NO	37.91	1.000	1.53e7	1.57e6	1000	0.5	0.970

Compound name: OCDD
Response Factor: 1.04577
RRF SD: 0.0303372, Relative SD: 2.90094
Response type: Internal Std (Ref 24), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.87	NO	41.15	1.000	1.55e6	3.02e6	98.0	-2.0	1.02
2	091029H1_3	2.50	0.86	NO	41.15	1.000	3.84e4	2.89e6	2.55	1.9	1.07
3	091029H1_4	5.00	0.93	NO	41.14	1.000	8.10e4	2.96e6	5.23	4.6	1.09
4	091029H1_5	20.0	0.88	NO	41.14	1.000	2.97e5	2.94e6	19.3	-3.6	1.01
5	091029H1_6	400	0.88	NO	41.15	1.000	6.48e6	3.10e6	399	-0.1	1.04
6	091029H1_7	2000	0.88	NO	41.14	1.000	3.06e7	2.95e6	1990	-0.7	1.04

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

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Compound name: 2,3,7,8-TCDF
Response Factor: 0.95224
RRF SD: 0.0234343, Relative SD: 2.46097
Response type: Internal Std (Ref 25), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	10.0	0.76	NO	24.98	1.001	3.23e5	3.43e6	9.89	-1.1	0.941
2	091029H1_3	0.250	0.73	NO	24.99	1.001	8.53e3	3.60e6	0.249	-0.5	0.948
3	091029H1_4	0.500	0.80	NO	24.98	1.001	1.77e4	3.62e6	0.513	2.7	0.978
4	091029H1_5	2.00	0.81	NO	24.96	1.001	6.47e4	3.54e6	1.92	-4.1	0.913
5	091029H1_6	40.0	0.77	NO	24.98	1.001	1.42e6	3.66e6	40.8	2.0	0.971
6	091029H1_7	200	0.78	NO	24.98	1.001	5.86e6	3.05e6	202	1.0	0.962

Compound name: 1,2,3,7,8-PeCDF
Response Factor: 0.994347
RRF SD: 0.034594, Relative SD: 3.47907
Response type: Internal Std (Ref 26), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	1.59	NO	29.35	1.000	1.51e6	3.14e6	48.5	-3.0	0.965
2	091029H1_3	1.25	1.63	NO	29.37	1.000	3.84e4	2.95e6	1.31	4.8	1.04
3	091029H1_4	2.50	1.61	NO	29.35	1.000	7.77e4	3.04e6	2.57	2.8	1.02
4	091029H1_5	10.0	1.59	NO	29.35	1.001	2.83e5	2.98e6	9.54	-4.6	0.949
5	091029H1_6	200	1.58	NO	29.35	1.000	6.12e6	3.08e6	200	0.0	0.995
6	091029H1_7	1000	1.58	NO	29.37	1.001	2.65e7	2.67e6	999	-0.1	0.993

Compound name: 2,3,4,7,8-PeCDF
Response Factor: 0.976655
RRF SD: 0.0326115, Relative SD: 3.3391
Response type: Internal Std (Ref 27), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	1.60	NO	30.31	1.000	1.41e6	2.94e6	49.1	-1.9	0.958
2	091029H1_3	1.25	1.55	NO	30.33	1.000	3.79e4	2.99e6	1.30	3.9	1.01

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

Last Altered: Friday, October 30, 2009 08:35:54 Pacific Daylight Time
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Compound name: 2,3,4,7,8-PeCDF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
3	091029H1_4	2.50	1.66	NO	30.31	1.000	7.57e4	2.98e6	2.60	4.2	1.02
4	091029H1_5	10.0	1.58	NO	30.31	1.000	2.72e5	2.91e6	9.57	-4.3	0.935
5	091029H1_6	200	1.57	NO	30.31	1.000	6.03e6	3.11e6	198	-0.8	0.969
6	091029H1_7	1000	1.58	NO	30.33	1.001	2.57e7	2.66e6	989	-1.1	0.966

Compound name: 1,2,3,4,7,8-HxCDF
Response Factor: 1.30821
RRF SD: 0.0290667, Relative SD: 2.22186
Response type: Internal Std (Ref 28), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	1.27	NO	33.07	1.000	1.57e6	2.43e6	49.5	-1.0	1.30
2	091029H1_3	1.25	1.26	NO	33.08	1.000	3.69e4	2.21e6	1.28	2.2	1.34
3	091029H1_4	2.50	1.22	NO	33.07	1.000	7.86e4	2.34e6	2.57	2.9	1.35
4	091029H1_5	10.0	1.26	NO	33.07	1.001	2.85e5	2.25e6	9.68	-3.2	1.27
5	091029H1_6	200	1.27	NO	33.07	1.000	6.04e6	2.32e6	199	-0.4	1.30
6	091029H1_7	1000	1.27	NO	33.08	1.000	2.65e7	2.04e6	995	-0.5	1.30

Compound name: 1,2,3,6,7,8-HxCDF
Response Factor: 1.14729
RRF SD: 0.0278692, Relative SD: 2.42914
Response type: Internal Std (Ref 29), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	1.26	NO	33.20	1.001	1.43e6	2.51e6	49.5	-0.9	1.14
2	091029H1_3	1.25	1.33	NO	33.20	1.000	3.60e4	2.48e6	1.27	1.2	1.16
3	091029H1_4	2.50	1.29	NO	33.19	1.000	7.53e4	2.52e6	2.61	4.3	1.20
4	091029H1_5	10.0	1.26	NO	33.19	1.000	2.76e5	2.46e6	9.75	-2.5	1.12
5	091029H1_6	200	1.26	NO	33.20	1.001	5.98e6	2.63e6	198	-0.9	1.14
6	091029H1_7	1000	1.26	NO	33.20	1.000	2.59e7	2.29e6	987	-1.3	1.13

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

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Compound name: 2,3,4,6,7,8-HxCDF
Response Factor: 1.19708
RRF SD: 0.0396654, Relative SD: 3.3135
Response type: Internal Std (Ref 30), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	1.27	NO	33.80	1.001	1.32e6	2.22e6	49.5	-1.1	1.18
2	091029H1_3	1.25	1.26	NO	33.81	1.001	3.32e4	2.22e6	1.25	0.1	1.20
3	091029H1_4	2.50	1.27	NO	33.80	1.001	7.11e4	2.24e6	2.65	6.0	1.27
4	091029H1_5	10.0	1.27	NO	33.78	1.000	2.56e5	2.23e6	9.59	-4.1	1.15
5	091029H1_6	200	1.27	NO	33.80	1.001	5.58e6	2.35e6	198	-0.8	1.19
6	091029H1_7	1000	1.27	NO	33.79	1.000	2.43e7	2.04e6	999	-0.1	1.20

Compound name: 1,2,3,7,8,9-HxCDF
Response Factor: 1.19871
RRF SD: 0.0279161, Relative SD: 2.32883
Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	1.27	NO	34.73	1.001	1.15e6	1.94e6	49.7	-0.5	1.19
2	091029H1_3	1.25	1.25	NO	34.73	1.000	2.93e4	1.93e6	1.26	1.0	1.21
3	091029H1_4	2.50	1.24	NO	34.73	1.001	6.20e4	1.99e6	2.59	3.8	1.24
4	091029H1_5	10.0	1.30	NO	34.72	1.000	2.26e5	1.95e6	9.67	-3.3	1.16
5	091029H1_6	200	1.28	NO	34.73	1.001	4.92e6	2.06e6	199	-0.4	1.19
6	091029H1_7	1000	1.27	NO	34.73	1.000	2.20e7	1.84e6	994	-0.6	1.19

Compound name: 1,2,3,4,6,7,8-HpCDF
Response Factor: 1.48578
RRF SD: 0.0448674, Relative SD: 3.01978
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	1.06	NO	36.51	1.001	1.24e6	1.70e6	49.1	-1.8	1.46
2	091029H1_3	1.25	1.00	NO	36.52	1.001	3.26e4	1.73e6	1.27	1.7	1.51

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

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Compound name: 1,2,3,4,6,7,8-HpCDF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
3	091029H1_4	2.50	1.09	NO	36.51	1.001	6.96e4	1.79e6	2.62	4.9	1.56
4	091029H1_5	10.0	1.04	NO	36.49	1.000	2.49e5	1.74e6	9.63	-3.7	1.43
5	091029H1_6	200	1.06	NO	36.51	1.000	5.42e6	1.82e6	200	0.2	1.49
6	091029H1_7	1000	1.06	NO	36.51	1.001	2.36e7	1.61e6	987	-1.3	1.47

Compound name: 1,2,3,4,7,8,9-HpCDF
Response Factor: 1.44071
RRF SD: 0.0446827, Relative SD: 3.10143
Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	1.06	NO	38.47	1.000	1.14e6	1.61e6	49.2	-1.5	1.42
2	091029H1_3	1.25	1.12	NO	38.47	1.000	2.90e4	1.54e6	1.30	4.2	1.50
3	091029H1_4	2.50	1.06	NO	38.47	1.000	5.94e4	1.60e6	2.58	3.3	1.49
4	091029H1_5	10.0	1.05	NO	38.47	1.001	2.18e5	1.57e6	9.63	-3.7	1.39
5	091029H1_6	200	1.05	NO	38.47	1.000	4.72e6	1.65e6	198	-1.0	1.43
6	091029H1_7	1000	1.06	NO	38.47	1.000	2.13e7	1.50e6	987	-1.3	1.42

Compound name: OCDF
Response Factor: 1.02107
RRF SD: 0.0213676, Relative SD: 2.09268
Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.92	NO	41.37	1.000	1.92e6	3.79e6	99.1	-0.9	1.01
2	091029H1_3	2.50	0.90	NO	41.38	1.000	4.60e4	3.58e6	2.52	0.8	1.03
3	091029H1_4	5.00	0.89	NO	41.36	1.000	9.75e4	3.70e6	5.17	3.3	1.05
4	091029H1_5	20.0	0.91	NO	41.36	1.000	3.62e5	3.65e6	19.4	-3.0	0.991
5	091029H1_6	400	0.92	NO	41.37	1.000	7.97e6	3.88e6	402	0.5	1.03
6	091029H1_7	2000	0.92	NO	41.37	1.000	3.82e7	3.77e6	1990	-0.6	1.01

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

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Compound name: 13C-2,3,7,8-TCDD
Response Factor: 1.02322
RRF SD: 0.0171503, Relative SD: 1.67611
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.78	NO	25.79	1.025	2.89e6	2.83e6	99.8	-0.2	1.02
2	091029H1_3	100	0.77	NO	25.79	1.024	3.01e6	2.98e6	98.9	-1.1	1.01
3	091029H1_4	100	0.77	NO	25.77	1.024	3.00e6	2.98e6	98.2	-1.8	1.00
4	091029H1_5	100	0.78	NO	25.77	1.024	2.95e6	2.89e6	99.8	-0.2	1.02
5	091029H1_6	100	0.77	NO	25.77	1.024	3.08e6	3.00e6	100	0.3	1.03
6	091029H1_7	100	0.77	NO	25.79	1.025	2.54e6	2.41e6	103	3.1	1.05

Compound name: 13C-1,2,3,7,8-PeCDD
Response Factor: 0.805681
RRF SD: 0.0305278, Relative SD: 3.78907
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.62	NO	30.59	1.216	2.30e6	2.83e6	101	0.9	0.813
2	091029H1_3	100	0.61	NO	30.59	1.215	2.34e6	2.98e6	97.7	-2.3	0.787
3	091029H1_4	100	0.62	NO	30.59	1.216	2.32e6	2.98e6	96.7	-3.3	0.779
4	091029H1_5	100	0.63	NO	30.57	1.215	2.27e6	2.89e6	97.4	-2.6	0.785
5	091029H1_6	100	0.61	NO	30.59	1.216	2.42e6	3.00e6	100	0.4	0.809
6	091029H1_7	100	0.62	NO	30.59	1.216	2.08e6	2.41e6	107	6.9	0.861

Compound name: 13C-1,2,3,4,7,8-HxCDD
Response Factor: 1.07437
RRF SD: 0.0525525, Relative SD: 4.89147
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	1.24	NO	33.94	1.014	2.05e6	1.94e6	98.4	-1.6	1.06
2	091029H1_3	100	1.24	NO	33.95	1.014	2.06e6	1.97e6	97.3	-2.7	1.05

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Compound name: 13C-1,2,3,4,7,8-HxCDD

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
3	091029H1_4	100	1.25	NO	33.94	1.014	2.07e6	2.00e6	96.2	-3.8	1.03
4	091029H1_5	100	1.26	NO	33.94	1.014	2.07e6	1.95e6	98.7	-1.3	1.06
5	091029H1_6	100	1.25	NO	33.94	1.014	2.17e6	2.03e6	99.5	-0.5	1.07
6	091029H1_7	100	1.25	NO	33.95	1.014	1.87e6	1.59e6	110	9.7	1.18

Compound name: 13C-1,2,3,6,7,8-HxCDD
Response Factor: 0.967557
RRF SD: 0.0516769, Relative SD: 5.34097
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	1.23	NO	34.05	1.017	1.85e6	1.94e6	98.7	-1.3	0.955
2	091029H1_3	100	1.24	NO	34.06	1.017	1.84e6	1.97e6	96.7	-3.3	0.936
3	091029H1_4	100	1.24	NO	34.05	1.017	1.87e6	2.00e6	96.7	-3.3	0.936
4	091029H1_5	100	1.19	NO	34.04	1.017	1.84e6	1.95e6	97.8	-2.2	0.946
5	091029H1_6	100	1.25	NO	34.05	1.017	1.95e6	2.03e6	99.5	-0.5	0.963
6	091029H1_7	100	1.24	NO	34.05	1.017	1.70e6	1.59e6	111	10.7	1.07

Compound name: 13C-1,2,3,7,8,9-HxCDD
Response Factor: 1.13478
RRF SD: 0.0706211, Relative SD: 6.22336
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	1.22	NO	34.33	1.026	2.17e6	1.94e6	98.8	-1.2	1.12
2	091029H1_3	100	1.22	NO	34.34	1.026	2.14e6	1.97e6	96.1	-3.9	1.09
3	091029H1_4	100	1.24	NO	34.33	1.026	2.19e6	2.00e6	96.5	-3.5	1.09
4	091029H1_5	100	1.24	NO	34.33	1.026	2.14e6	1.95e6	96.9	-3.1	1.10
5	091029H1_6	100	1.24	NO	34.33	1.026	2.29e6	2.03e6	99.3	-0.7	1.13
6	091029H1_7	100	1.22	NO	34.33	1.026	2.03e6	1.59e6	112	12.4	1.28

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Compound name: 13C-1,2,3,4,6,7,8-HpCDD
Response Factor: 0.888498
RRF SD: 0.0503922, Relative SD: 5.67162
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	1.04	NO	37.90	1.133	1.69e6	1.94e6	98.2	-1.8	0.873
2	091029H1_3	100	1.04	NO	37.91	1.132	1.68e6	1.97e6	96.1	-3.9	0.854
3	091029H1_4	100	1.05	NO	37.90	1.133	1.73e6	2.00e6	97.3	-2.7	0.864
4	091029H1_5	100	1.04	NO	37.90	1.133	1.70e6	1.95e6	98.2	-1.8	0.873
5	091029H1_6	100	1.05	NO	37.90	1.133	1.78e6	2.03e6	98.8	-1.2	0.877
6	091029H1_7	100	1.04	NO	37.90	1.132	1.57e6	1.59e6	111	11.4	0.990

Compound name: 13C-OCDD
Response Factor: 0.783435
RRF SD: 0.0723055, Relative SD: 9.22929
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	200	0.88	NO	41.14	1.229	3.02e6	1.94e6	199	-0.4	0.780
2	091029H1_3	200	0.88	NO	41.14	1.229	2.89e6	1.97e6	187	-6.3	0.734
3	091029H1_4	200	0.89	NO	41.13	1.229	2.96e6	2.00e6	189	-5.5	0.740
4	091029H1_5	200	0.88	NO	41.11	1.229	2.94e6	1.95e6	193	-3.5	0.756
5	091029H1_6	200	0.88	NO	41.13	1.229	3.10e6	2.03e6	195	-2.5	0.764
6	091029H1_7	200	0.88	NO	41.13	1.229	2.95e6	1.59e6	237	18.3	0.927

Compound name: 13C-2,3,7,8-TCDF
Response Factor: 1.02888
RRF SD: 0.0172818, Relative SD: 1.67967
Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.78	NO	24.94	0.992	3.43e6	3.38e6	98.7	-1.3	1.02
2	091029H1_3	100	0.77	NO	24.96	0.992	3.60e6	3.51e6	99.8	-0.2	1.03

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Compound name: 13C-2,3,7,8-TCDF

	Name	Std. Conc.	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
3	091029H1_4	100	0.77	NO	24.94	0.992	3.62e6	3.56e6	98.9	-1.1	1.02
4	091029H1_5	100	0.78	NO	24.94	0.992	3.54e6	3.45e6	99.8	-0.2	1.03
5	091029H1_6	100	0.78	NO	24.94	0.992	3.66e6	3.58e6	99.4	-0.6	1.02
6	091029H1_7	100	0.78	NO	24.94	0.992	3.05e6	2.87e6	103	3.3	1.06

Compound name: 13C-1,2,3,7,8-PeCDF
Response Factor: 0.880151
RRF SD: 0.0392659, Relative SD: 4.46127
Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc.	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	1.56	NO	29.34	1.166	3.14e6	3.38e6	106	5.5	0.929
2	091029H1_3	100	1.55	NO	29.35	1.166	2.95e6	3.51e6	95.6	-4.4	0.841
3	091029H1_4	100	1.55	NO	29.34	1.166	3.04e6	3.56e6	97.1	-2.9	0.854
4	091029H1_5	100	1.54	NO	29.33	1.166	2.98e6	3.45e6	98.3	-1.7	0.865
5	091029H1_6	100	1.57	NO	29.34	1.166	3.08e6	3.58e6	97.8	-2.2	0.861
6	091029H1_7	100	1.56	NO	29.34	1.166	2.67e6	2.87e6	106	5.7	0.931

Compound name: 13C-2,3,4,7,8-PeCDF
Response Factor: 0.866826
RRF SD: 0.0333378, Relative SD: 3.84596
Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	1.56	NO	30.30	1.204	2.94e6	3.38e6	100	0.4	0.870
2	091029H1_3	100	1.55	NO	30.31	1.204	2.99e6	3.51e6	98.2	-1.8	0.851
3	091029H1_4	100	1.56	NO	30.30	1.204	2.98e6	3.56e6	96.5	-3.5	0.837
4	091029H1_5	100	1.55	NO	30.30	1.204	2.91e6	3.45e6	97.3	-2.7	0.844
5	091029H1_6	100	1.56	NO	30.30	1.204	3.11e6	3.58e6	100	0.5	0.871
6	091029H1_7	100	1.55	NO	30.30	1.204	2.66e6	2.87e6	107	7.1	0.929

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Compound name: 13C-1,2,3,4,7,8-HxCDF
Response Factor: 1.18709
RRF SD: 0.0641312, Relative SD: 5.4024
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.52	NO	33.06	0.988	2.43e6	1.94e6	105	5.4	1.25
2	091029H1_3	100	0.52	NO	33.07	0.988	2.21e6	1.97e6	94.7	-5.3	1.12
3	091029H1_4	100	0.53	NO	33.06	0.988	2.34e6	2.00e6	98.4	-1.6	1.17
4	091029H1_5	100	0.52	NO	33.05	0.988	2.25e6	1.95e6	97.3	-2.7	1.16
5	091029H1_6	100	0.52	NO	33.06	0.988	2.32e6	2.03e6	96.1	-3.9	1.14
6	091029H1_7	100	0.52	NO	33.07	0.988	2.04e6	1.59e6	108	8.0	1.28

Compound name: 13C-1,2,3,6,7,8-HxCDF
Response Factor: 1.30285
RRF SD: 0.0694571, Relative SD: 5.33117
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.53	NO	33.18	0.992	2.51e6	1.94e6	99.5	-0.5	1.30
2	091029H1_3	100	0.52	NO	33.19	0.992	2.48e6	1.97e6	96.9	-3.1	1.26
3	091029H1_4	100	0.52	NO	33.18	0.992	2.52e6	2.00e6	96.5	-3.5	1.26
4	091029H1_5	100	0.53	NO	33.18	0.992	2.46e6	1.95e6	97.1	-2.9	1.26
5	091029H1_6	100	0.53	NO	33.18	0.992	2.63e6	2.03e6	99.4	-0.6	1.30
6	091029H1_7	100	0.52	NO	33.19	0.992	2.29e6	1.59e6	111	10.6	1.44

Compound name: 13C-2,3,4,6,7,8-HxCDF
Response Factor: 1.16297
RRF SD: 0.0593969, Relative SD: 5.10735
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.52	NO	33.77	1.009	2.22e6	1.94e6	98.5	-1.5	1.15
2	091029H1_3	100	0.53	NO	33.78	1.009	2.22e6	1.97e6	97.0	-3.0	1.13

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

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Compound name: 13C-2,3,4,6,7,8-HxCDF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
3	091029H1_4	100	0.52	NO	33.77	1.009	2.24e6	2.00e6	96.3	-3.7	1.12
4	091029H1_5	100	0.52	NO	33.77	1.009	2.23e6	1.95e6	98.5	-1.5	1.15
5	091029H1_6	100	0.53	NO	33.77	1.009	2.35e6	2.03e6	99.6	-0.4	1.16
6	091029H1_7	100	0.52	NO	33.78	1.009	2.04e6	1.59e6	110	10.1	1.28

Compound name: 13C-1,2,3,7,8,9-HxCDF
Response Factor: 1.02651
RRF SD: 0.0663203, Relative SD: 6.46078
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.53	NO	34.71	1.037	1.94e6	1.94e6	97.3	-2.7	0.999
2	091029H1_3	100	0.52	NO	34.72	1.037	1.93e6	1.97e6	95.9	-4.1	0.984
3	091029H1_4	100	0.51	NO	34.71	1.037	1.99e6	2.00e6	97.1	-2.9	0.997
4	091029H1_5	100	0.53	NO	34.71	1.037	1.95e6	1.95e6	97.7	-2.3	1.00
5	091029H1_6	100	0.52	NO	34.71	1.037	2.06e6	2.03e6	98.9	-1.1	1.02
6	091029H1_7	100	0.53	NO	34.72	1.037	1.84e6	1.59e6	113	13.0	1.16

Compound name: 13C-1,2,3,4,6,7,8-HpCDF
Response Factor: 0.908728
RRF SD: 0.0517927, Relative SD: 5.69947
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.45	NO	36.48	1.090	1.70e6	1.94e6	96.4	-3.6	0.876
2	091029H1_3	100	0.45	NO	36.49	1.090	1.73e6	1.97e6	96.7	-3.3	0.879
3	091029H1_4	100	0.46	NO	36.48	1.090	1.79e6	2.00e6	98.2	-1.8	0.892
4	091029H1_5	100	0.45	NO	36.48	1.090	1.74e6	1.95e6	98.5	-1.5	0.895
5	091029H1_6	100	0.45	NO	36.49	1.090	1.82e6	2.03e6	98.7	-1.3	0.897
6	091029H1_7	100	0.45	NO	36.48	1.090	1.61e6	1.59e6	111	11.5	1.01

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Compound name: 13C-1,2,3,4,7,8,9-HpCDF
Response Factor: 0.829637
RRF SD: 0.0571689, Relative SD: 6.89083
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.46	NO	38.46	1.149	1.61e6	1.94e6	99.8	-0.2	0.828
2	091029H1_3	100	0.45	NO	38.47	1.149	1.54e6	1.97e6	94.6	-5.4	0.785
3	091029H1_4	100	0.44	NO	38.46	1.149	1.60e6	2.00e6	96.2	-3.8	0.798
4	091029H1_5	100	0.45	NO	38.45	1.149	1.57e6	1.95e6	97.5	-2.5	0.809
5	091029H1_6	100	0.46	NO	38.46	1.149	1.65e6	2.03e6	98.3	-1.7	0.815
6	091029H1_7	100	0.45	NO	38.46	1.149	1.50e6	1.59e6	114	13.6	0.942

Compound name: 13C-OCDF
Response Factor: 0.981924
RRF SD: 0.102634, Relative SD: 10.4524
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	200	0.89	NO	41.36	1.236	3.79e6	1.94e6	199	-0.4	0.978
2	091029H1_3	200	0.89	NO	41.37	1.236	3.58e6	1.97e6	185	-7.3	0.910
3	091029H1_4	200	0.90	NO	41.35	1.235	3.70e6	2.00e6	188	-5.9	0.924
4	091029H1_5	200	0.90	NO	41.35	1.235	3.65e6	1.95e6	191	-4.5	0.938
5	091029H1_6	200	0.90	NO	41.36	1.236	3.88e6	2.03e6	195	-2.6	0.956
6	091029H1_7	200	0.90	NO	41.35	1.235	3.77e6	1.59e6	242	20.8	1.19

Compound name: 37Cl-2,3,7,8-TCDD
Response Factor: 0.602231
RRF SD: 0.0238218, Relative SD: 3.95559
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	10.0			25.80	1.026	1.61e5	2.83e6	9.42	-5.8	0.568
2	091029H1_3	0.250			25.80	1.025	4.37e3	2.98e6	0.244	-2.5	0.587

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Compound name: 37Cl-2,3,7,8-TCDD

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
3	091029H1_4	0.500			25.80	1.026	9.11e3	2.98e6	0.507	1.4	0.611
4	091029H1_5	2.00			25.79	1.025	3.58e4	2.89e6	2.06	3.0	0.620
5	091029H1_6	40.0			25.80	1.026	7.13e5	3.00e6	39.5	-1.2	0.595
6	091029H1_7	200			25.80	1.026	3.05e6	2.41e6	210	5.1	0.633

Compound name: 13C-1,2,3,4-TCDD
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.78	NO	25.16	0.000	2.83e6	2.83e6	100	0.0	1.00
2	091029H1_3	100	0.78	NO	25.17	0.000	2.98e6	2.98e6	100	0.0	1.00
3	091029H1_4	100	0.78	NO	25.16	0.000	2.98e6	2.98e6	100	0.0	1.00
4	091029H1_5	100	0.77	NO	25.16	0.000	2.89e6	2.89e6	100	0.0	1.00
5	091029H1_6	100	0.79	NO	25.16	0.000	3.00e6	3.00e6	100	0.0	1.00
6	091029H1_7	100	0.77	NO	25.16	0.000	2.41e6	2.41e6	100	0.0	1.00

Compound name: 13C-1,2,3,4-TCDF
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.77	NO	23.61	0.000	3.38e6	3.38e6	100	0.0	1.00
2	091029H1_3	100	0.77	NO	23.61	0.000	3.51e6	3.51e6	100	0.0	1.00
3	091029H1_4	100	0.77	NO	23.60	0.000	3.56e6	3.56e6	100	0.0	1.00
4	091029H1_5	100	0.77	NO	23.60	0.000	3.45e6	3.45e6	100	0.0	1.00
5	091029H1_6	100	0.77	NO	23.60	0.000	3.58e6	3.58e6	100	0.0	1.00
6	091029H1_7	100	0.76	NO	23.60	0.000	2.87e6	2.87e6	100	0.0	1.00

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Compound name: 13C-1,2,3,4,6,9-HxCDF
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.52	NO	33.47	0.000	1.94e6	1.94e6	100	0.0	1.00
2	091029H1_3	100	0.52	NO	33.48	0.000	1.97e6	1.97e6	100	0.0	1.00
3	091029H1_4	100	0.51	NO	33.47	0.000	2.00e6	2.00e6	100	0.0	1.00
4	091029H1_5	100	0.53	NO	33.47	0.000	1.95e6	1.95e6	100	0.0	1.00
5	091029H1_6	100	0.52	NO	33.47	0.000	2.03e6	2.03e6	100	0.0	1.00
6	091029H1_7	100	0.52	NO	33.48	0.000	1.59e6	1.59e6	100	0.0	1.00

Compound name: Total Tetra-Dioxins
Response Factor: 0.965178
RRF SD: 0.0384904, Relative SD: 3.98791
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	10.0						2.89e6	58.2		
2	091029H1_3	0.250						3.01e6	0.262		
3	091029H1_4	0.500						3.00e6	0.518		
4	091029H1_5	2.00						2.95e6	1.89		
5	091029H1_6	40.0						3.08e6	40.1		
6	091029H1_7	200						2.54e6	202		

Compound name: Total Penta-Dioxins
Response Factor: 0.869202
RRF SD: 0.0185487, Relative SD: 2.134
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0						2.30e6	154		
2	091029H1_3	1.25						2.34e6	1.27		

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Compound name: Total Penta-Dioxins

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
3	091029H1_4	2.50						2.32e6	2.57		
4	091029H1_5	10.0						2.27e6	9.64		
5	091029H1_6	200						2.42e6	202		
6	091029H1_7	1000						2.08e6	1000		

Compound name: Total Hexa-Dioxins
Response Factor: 0.939623
RRF SD: 0.0239863, Relative SD: 2.55276
Response type: Internal Std (Ref 21), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0						0.00e0	191		
2	091029H1_3	1.25						0.00e0	3.85		
3	091029H1_4	2.50						0.00e0	7.74		
4	091029H1_5	10.0						0.00e0	29.0		
5	091029H1_6	200						0.00e0	600		
6	091029H1_7	1000						0.00e0	2990		

Compound name: Total Hepta-Dioxins
Response Factor: 0.965318
RRF SD: 0.0196816, Relative SD: 2.03887
Response type: Internal Std (Ref 23), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0						1.69e6	127		
2	091029H1_3	1.25						1.68e6	1.33		
3	091029H1_4	2.50						1.73e6	2.61		
4	091029H1_5	10.0						1.70e6	9.68		
5	091029H1_6	200						1.78e6	200		
6	091029H1_7	1000						1.57e6	1010		

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Compound name: Total Tetra-Furans
Response Factor: 0.95224
RRF SD: 0.0234343, Relative SD: 2.46097
Response type: Internal Std (Ref 25), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	10.0						3.43e6	32.5		
2	091029H1_3	0.250						3.60e6	0.249		
3	091029H1_4	0.500						3.62e6	0.517		
4	091029H1_5	2.00						3.54e6	1.94		
5	091029H1_6	40.0						3.66e6	41.2		
6	091029H1_7	200						3.05e6	204		

Compound name: 1st Func. Penta-Furans
Response Factor: 0.994347
RRF SD: 0.034594, Relative SD: 3.47907
Response type: Internal Std (Ref 26), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0						0.00e0	76.5		
2	091029H1_3	1.25						0.00e0	0.000		
3	091029H1_4	2.50						0.00e0	0.00302		
4	091029H1_5	10.0						0.00e0	0.000		
5	091029H1_6	200						0.00e0	0.00217		
6	091029H1_7	1000						0.00e0	0.00670		

Compound name: Total Penta-Furans
Response Factor: 0.994347
RRF SD: 0.034594, Relative SD: 3.47907
Response type: Internal Std (Ref 26), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0						0.00e0	151		
2	091029H1_3	1.25						0.00e0	2.61		

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Compound name: Total Penta-Furans

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
3	091029H1_4	2.50						0.00e0	5.20		
4	091029H1_5	10.0						0.00e0	19.3		
5	091029H1_6	200						0.00e0	404		
6	091029H1_7	1000						0.00e0	2010		

Compound name: Total Hexa-Furans
Response Factor: 1.19708
RRF SD: 0.0396654, Relative SD: 3.3135
Response type: Internal Std (Ref 30), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0						0.00e0	248		
2	091029H1_3	1.25						0.00e0	5.06		
3	091029H1_4	2.50						0.00e0	10.4		
4	091029H1_5	10.0						0.00e0	38.7		
5	091029H1_6	200						0.00e0	796		
6	091029H1_7	1000						0.00e0	3980		

Compound name: Total Hepta-Furans
Response Factor: 1.48578
RRF SD: 0.0448674, Relative SD: 3.01978
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0						0.00e0	98.5		
2	091029H1_3	1.25						0.00e0	2.57		
3	091029H1_4	2.50						0.00e0	5.21		
4	091029H1_5	10.0						0.00e0	19.3		
5	091029H1_6	200						0.00e0	400		
6	091029H1_7	1000						0.00e0	1980		

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Compound name: PFK1
No Calibration
Response type: External Std, Area
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	1.00									
2	091029H1_3	1.00									
3	091029H1_4	1.00									
4	091029H1_5	1.00									
5	091029H1_6	1.00									
6	091029H1_7	1.00									

Compound name: PFK2
No Calibration
Response type: External Std, Area
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	1.00									
2	091029H1_3	1.00									
3	091029H1_4	1.00									
4	091029H1_5	1.00									
5	091029H1_6	1.00									
6	091029H1_7	1.00									

Compound name: PFK3
No Calibration
Response type: External Std, Area
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	1.00									
2	091029H1_3	1.00									
3	091029H1_4	1.00									
4	091029H1_5	1.00									

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

Last Altered: Friday, October 30, 2009 08:35:54 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

Compound name: PFK3

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
5	091029H1_6	1.00									
6	091029H1_7	1.00									

Compound name: PFK4
No Calibration
Response type: External Std, Area
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	1.00									
2	091029H1_3	1.00									
3	091029H1_4	1.00									
4	091029H1_5	1.00									
5	091029H1_6	1.00									
6	091029H1_7	1.00									

Compound name: PFK5
No Calibration
Response type: External Std, Area
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	1.00									
2	091029H1_3	1.00									
3	091029H1_4	1.00									
4	091029H1_5	1.00									
5	091029H1_6	1.00									
6	091029H1_7	1.00									

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

Last Altered: Friday, October 30, 2009 08:35:54 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

Compound name: DPE1
No Calibration
Response type: External Std, Area
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	1.00									
2	091029H1_3	1.00									
3	091029H1_4	1.00									
4	091029H1_5	1.00									
5	091029H1_6	1.00									
6	091029H1_7	1.00									

Compound name: DPE2
No Calibration
Response type: External Std, Area
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	1.00									
2	091029H1_3	1.00									
3	091029H1_4	1.00									
4	091029H1_5	1.00									
5	091029H1_6	1.00									
6	091029H1_7	1.00									

Compound name: DPE3
No Calibration
Response type: External Std, Area
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	1.00									
2	091029H1_3	1.00									
3	091029H1_4	1.00									
4	091029H1_5	1.00									

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

Last Altered: Friday, October 30, 2009 08:35:54 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

Compound name: DPE3

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
5	091029H1_6	1.00									
6	091029H1_7	1.00									

Compound name: DPE4
No Calibration
Response type: External Std, Area
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	1.00									
2	091029H1_3	1.00									
3	091029H1_4	1.00									
4	091029H1_5	1.00									
5	091029H1_6	1.00									
6	091029H1_7	1.00									

Compound name: DPE5
No Calibration
Response type: External Std, Area
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	1.00									
2	091029H1_3	1.00									
3	091029H1_4	1.00									
4	091029H1_5	1.00									
5	091029H1_6	1.00									
6	091029H1_7	1.00									

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

Last Altered: Friday, October 30, 2009 08:35:54 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

Compound name: DPE6
No Calibration
Response type: External Std, Area
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	1.00									
2	091029H1_3	1.00									
3	091029H1_4	1.00									
4	091029H1_5	1.00									
5	091029H1_6	1.00									
6	091029H1_7	1.00									

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Vista Analytical Laboratory
Initial Calibration Date: 10/29/2009
Instrument ID: VG10
VER Data file name: 091029H1_1

CCAL ID: ST091029H1-1

GC Column ID: DB-5
Analysis Date: 29-Oct-09 Analysis Time: 12:26:55

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
2,3,7,8-TCDD	M/M+2	0.76	0.65-0.89	NO	9.66	7.8	12.9	Yes	8.00	12.0	Yes
						8.2	12.3 (4)				
1,2,3,7,8-PeCDD	M/M+2	0.61	0.54-0.72	NO	49.6	39.0	65.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	48.5	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	49.2	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDD	M+2/M+4	1.23	1.05-1.43	NO	49.0	41.0	61.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	NO	49.5	43.0	58.0	Yes	40.0	60.0	Yes
OCDD	M+2/M+4	0.87	0.76-1.02	NO	98.0	79.0	126.0	Yes	80.0	120.0	Yes
2,3,7,8-TCDF	M/M+2	0.76	0.65-0.89	NO	9.89	8.4	12.0	Yes	8.00	12.0	Yes
						8.6	11.6 (4)				
1,2,3,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78	NO	48.5	41.0	60.0	Yes	40.0	60.0	Yes
2,3,4,7,8-PeCDF	M+2/M+4	1.60	1.32-1.78	NO	49.1	41.0	60.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDF	M+2/M+4	1.27	1.05-1.43	NO	49.5	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	NO	49.5	44.0	57.0	Yes	40.0	60.0	Yes
2,3,4,6,7,8-HxCDF	M+2/M+4	1.27	1.05-1.43	NO	49.5	44.0	57.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDF	M+2/M+4	1.27	1.05-1.43	NO	49.7	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.06	0.88-1.20	NO	49.1	45.0	55.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.06	0.88-1.20	NO	49.2	43.0	58.0	Yes	40.0	60.0	Yes
OCDF	M+2/M+4	0.92	0.76-1.02	NO	99.1	63.0	159.0	Yes	80.0	120.0	Yes

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [signature]
Date: 10/30/09

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Vista Analytical Laboratory
Initial Calibration Date: 10/29/2009
Instrument ID: VG10
VER Data file name: 091029H1_1

CCAL ID: ST091029H1-1

GC Column ID: DB-5
Analysis Date: 29-Oct-09 Analysis Time: 12:26:55

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
13C-2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	NO	99.8	82.0	121.0	Yes	70.0	130.0	Yes
						85.0	117.0 (5)				
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	NO	101	62.0	160.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	98.4	85.0	117.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	NO	98.7	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.22	1.05-1.43	NO	98.8	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.04	0.88-1.20	NO	98.2	72.0	138.0	Yes	70.0	130.0	Yes
13C-OCDD	M+2/M+4	0.88	0.76-1.02	NO	199	96.0	415.0	Yes	140.0	260.0	Yes
13C-2,3,7,8-TCDF	M/M+2	0.78	0.65-0.89	NO	98.7	71.0	140.0	Yes	70.0	130.0	Yes
						76.0	131.0 (5)				
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	NO	106	76.0	130.0	Yes	70.0	130.0	Yes
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	NO	100	77.0	130.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	105	76.0	131.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.53	0.43-0.59	NO	99.5	70.0	143.0	Yes	70.0	130.0	Yes
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	98.5	73.0	137.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.53	0.43-0.59	NO	97.3	74.0	135.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.45	0.37-0.51	NO	96.4	78.0	129.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.46	0.37-0.51	NO	99.8	77.0	129.0	Yes	70.0	130.0	Yes
13C-OCDF	M+2/M+4	0.89	0.76-1.02	NO	199	96.0	415.0	Yes	140.0	260.0	Yes
CLEANUP STANDARD (4)											
37Cl-2,3,7,8-TCDD					9.42	7.9	12.7	Yes	7.0	13.0	Yes
						8.3	12.1 (5)				

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) No ion abundance ratio; report concentration found
(5) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: J
Date: 10/30/09

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, October 30, 2009 8:32:58 AM Pacific Daylight Time
Printed: Friday, October 30, 2009 8:33:22 AM Pacific Daylight Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\cpsm.mdb 26 Oct 2009 09:08:22
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-9-25-09.cdb 25 Sep 2009 14:50:28

Name: 091029H1_1, Date: 29-Oct-2009, Time: 12:26:55, ID: ST091029H1-1 1613 CS3 090922G, Description: 1613 CS3 090922G

	#	Name	RT
1	1	1,3,6,8-TCDD (First)	22.07
2	2	1,2,8,9-TCDD (Last)	26.73
3	3	1,2,4,7,9-PeCDD (First)	28.43
4	4	1,2,3,8,9-PeCDD (Last)	30.98
5	5	12,4,6,7,9-HxCDD (First)	32.44
6	6	1,2,3,7,8,9-HxCDD (Last)	34.34
7	7	1,2,3,4,6,7,9-HpCDD (First)	36.90
8	8	1,2,3,4,6,7,8-HpCDD (Last)	37.92
9	9	1,3,6,8-TCDF (First)	19.95
10	10	1,2,8,9-TCDF (Last)	26.89
11	11	1,3,4,6,8-PeCDF (First)	26.81
12	12	1,2,3,8,9-PeCDF (Last)	31.23
13	13	1,2,3,4,6,8-HxCDF (First)	31.90
14	14	1,2,3,4,8,9-HxCDF (Last)	34.73
15	15	1,2,3,4,6,7,8-HpCDF (First)	36.51
16	16	1,2,3,4,7,8,9-HpCDF (Last)	38.47

10/30/09

FORM 6A

PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory

CCAL ID: ST091029H1-1

Initial Calibration Date: 10/29/2009

Instrument ID: VG10

GC Column ID: DB-5

VER Data file name: 091029H1_1

Analysis Date: 29-Oct-09

Analysis Time: 12:26:55

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999	1.002	Yes
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.000	0.999	1.002	Yes
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999	1.003	Yes
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999	1.002	Yes
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999	1.002	Yes
LABELED COMPOUNDS					
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.025	0.976	1.043	Yes
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.216	1.000	1.567	Yes
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.992	0.923	1.103	Yes
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.166	1.000	1.425	Yes
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.204	1.011	1.526	Yes
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.026	0.989	1.052	Yes

(1) Contract required limits for Relative Retention Times (RRT) as specified in Table2, Method 1613. 10/94

Analyst: _____

Date: 10/30/09

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory
Initial Calibration Date: 10/29/2009
Instrument ID: VG10
VER Data file name: 091029H1_1

CCAL ID: ST091029H1-1

GC Column ID: DB-5
Analysis Date: 29-Oct-09

Analysis Time: 12:26:55

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999	1.001	Yes
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998	1.004	Yes
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.000	1.000	1.019	Yes
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.001	0.999	1.001	Yes
OCDD	13C-OCDD	1.000	0.999	1.001	Yes
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.000	0.999	1.001	Yes
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.001	0.997	1.005	Yes
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.001	0.999	1.001	Yes
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999	1.001	Yes
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.001	0.999	1.001	Yes
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999	1.001	Yes
OCDF	13C-OCDF	1.000	0.999	1.001	Yes
LABELED COMPOUNDS					
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.014	1.002	1.026	Yes
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.017	1.007	1.029	Yes
13C-1,2,3,7,8,9-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.026	1.014	1.038	Yes
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,9-HxCDF	1.133	1.117	1.141	Yes
13C-OCDD	13C-1,2,3,4,6,9-HxCDF	1.229	1.085	1.365	Yes
13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.988	0.975	1.001	Yes
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.992	0.979	1.005	Yes
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.009	1.001	1.020	Yes
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.037	1.002	1.072	Yes
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.090	1.069	1.111	Yes
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.149	1.098	1.192	Yes
13C-OCDF	13C-1,2,3,4,6,9-HxCDF	1.236	1.091	1.371	Yes

(1) Contract required limits for Relative Retention Times (RRT) as specified in Table2, Method 1613. 10/94

Analyst: _____

Date: 10/30/09

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

Last Altered: Friday, October 30, 2009 08:35:54 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:51:57 Pacific Daylight Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 21 Oct 2009 08:49:07
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 08:35:54

Name: 091029H1_1, Date: 29-Oct-2009, Time: 12:26:55, ID: ST091029H1-1 1613 CS3 090922G, Description: 1613 CS3 090922G

	#	Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
1	1	2,3,7,8-TCDD	2.70e5	0.76	NO	0.965	1.000	25.80	1.001	9.6644	96.6	0.0243	9.6640
2	2	1,2,3,7,8-PeCDD	9.93e5	0.61	NO	0.869	1.000	30.60	1.000	49.628	99.3	0.0409	49.628
3	3	1,2,3,4,7,8-HxCDD	8.67e5	1.25	NO	0.873	1.000	33.95	1.000	48.463	96.9	0.0656	48.463
4	4	1,2,3,6,7,8-HxCDD	8.55e5	1.24	NO	0.940	1.000	34.06	1.000	49.198	98.4	0.0706	49.198
5	5	1,2,3,7,8,9-HxCDD	9.40e5	1.23	NO	0.882	1.000	34.34	1.000	49.050	98.1	0.0649	49.050
6	6	1,2,3,4,6,7,8-HpCDD	8.08e5	1.05	NO	0.965	1.000	37.92	1.001	49.497	99.0	0.120	49.497
7	7	OCDD	1.55e6	0.87	NO	1.05	1.000	41.15	1.000	97.965	98.0	0.0583	97.965
8	8	2,3,7,8-TCDF	3.23e5	0.76	NO	0.952	1.000	24.98	1.001	9.8865	98.9	0.0245	9.8870
9	9	1,2,3,7,8-PeCDF	1.51e6	1.59	NO	0.994	1.000	29.35	1.000	48.522	97.0	0.0409	48.522
10	10	2,3,4,7,8-PeCDF	1.41e6	1.60	NO	0.977	1.000	30.31	1.000	49.068	98.1	0.0404	49.068
11	11	1,2,3,4,7,8-HxCDF	1.57e6	1.27	NO	1.31	1.000	33.07	1.000	49.523	99.0	0.0519	49.523
12	12	1,2,3,6,7,8-HxCDF	1.43e6	1.26	NO	1.15	1.000	33.20	1.001	49.536	99.1	0.0624	49.536
13	13	2,3,4,6,7,8-HxCDF	1.32e6	1.27	NO	1.20	1.000	33.80	1.001	49.474	98.9	0.0707	49.474
14	14	1,2,3,7,8,9-HxCDF	1.15e6	1.27	NO	1.20	1.000	34.73	1.001	49.747	99.5	0.0916	49.747
15	15	1,2,3,4,6,7,8-HpCDF	1.24e6	1.06	NO	1.49	1.000	36.51	1.001	49.078	98.2	0.0958	49.078
16	16	1,2,3,4,7,8,9-HpCDF	1.14e6	1.06	NO	1.44	1.000	38.47	1.000	49.232	98.5	0.0905	49.232
17	17	OCDF	1.92e6	0.92	NO	1.02	1.000	41.37	1.000	99.055	99.1	0.0469	99.055
18	18	13C-2,3,7,8-TCDD	2.89e6	0.78	NO	1.02	1.000	25.79	1.025	99.758	99.8	0.0877	
19	19	13C-1,2,3,7,8-PeCDD	2.30e6	0.62	NO	0.806	1.000	30.59	1.216	100.92	101	0.0578	
20	20	13C-1,2,3,4,7,8-HxCDD	2.05e6	1.24	NO	1.07	1.000	33.94	1.014	98.436	98.4	0.0845	
21	21	13C-1,2,3,6,7,8-HxCDD	1.85e6	1.23	NO	0.968	1.000	34.05	1.017	98.652	98.7	0.0938	
22	22	13C-1,2,3,7,8,9-HxCDD	2.17e6	1.22	NO	1.13	1.000	34.33	1.026	98.777	98.8	0.0800	
23	23	13C-1,2,3,4,6,7,8-HpCDD	1.69e6	1.04	NO	0.888	1.000	37.90	1.133	98.246	98.2	0.149	
24	24	13C-OCDD	3.02e6	0.88	NO	0.783	1.000	41.14	1.229	199.12	99.6	0.0892	
25	25	13C-2,3,7,8-TCDF	3.43e6	0.78	NO	1.03	1.000	24.94	0.992	98.718	98.7	0.0890	
26	26	13C-1,2,3,7,8-PeCDF	3.14e6	1.56	NO	0.880	1.000	29.34	1.166	105.53	106	0.145	
27	27	13C-2,3,4,7,8-PeCDF	2.94e6	1.56	NO	0.867	1.000	30.30	1.204	100.36	100	0.147	
28	28	13C-1,2,3,4,7,8-HxCDF	2.43e6	0.52	NO	1.19	1.000	33.06	0.988	105.42	105	0.120	
29	29	13C-1,2,3,6,7,8-HxCDF	2.51e6	0.53	NO	1.30	1.000	33.18	0.992	99.492	99.5	0.109	
30	30	13C-2,3,4,6,7,8-HxCDF	2.22e6	0.52	NO	1.16	1.000	33.77	1.009	98.540	98.5	0.123	

10/30/09

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

Last Altered: Friday, October 30, 2009 08:35:54 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:51:57 Pacific Daylight Time

Name: 091029H1_1, Date: 29-Oct-2009, Time: 12:26:55, ID: ST091029H1-1 1613 CS3 090922G, Description: 1613 CS3 090922G

	#	Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
31	31	13C-1,2,3,7,8,9-HxCDF	1.94e6	0.53	NO	1.03	1.000	34.71	1.037	97.319	97.3	0.139	
32	32	13C-1,2,3,4,6,7,8-HpCDF	1.70e6	0.45	NO	0.909	1.000	36.48	1.090	96.396	96.4	0.185	
33	33	13C-1,2,3,4,7,8,9-HpCDF	1.61e6	0.46	NO	0.830	1.000	38.46	1.149	99.838	99.8	0.202	
34	34	13C-OCDF	3.79e6	0.89	NO	0.982	1.000	41.36	1.236	199.14	99.6	0.0726	
35	35	37Cl-2,3,7,8-TCDD	1.61e5			0.602	1.000	25.80	1.026	9.4233	94.2	0.0293	
36	36	13C-1,2,3,4-TCDD	2.83e6	0.78	NO	1.00	1.000	25.16	0.000	100.00	100	0.0897	
37	37	13C-1,2,3,4-TCDF	3.38e6	0.77	NO	1.00	1.000	23.61	0.000	100.00	100	0.0916	
38	38	13C-1,2,3,4,6,9-HxCDF	1.94e6	0.52	NO	1.00	1.000	33.47	0.000	100.00	100	0.143	

Quantify Compound Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, October 30, 2009 7:42:15 AM Pacific Daylight Time
Printed: Friday, October 30, 2009 8:32:41 AM Pacific Daylight Time

Method: C:\MassLynx\Default.pro\Methdb\cpsm.mdb 26 Oct 2009 09:08:22
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-9-25-09.cdb 25 Sep 2009 14:50:28

Compound name: 1,3,6,8-TCDD (First)

	Name	ID	Acq.Date	Acq.Time
1	091029H1_1	ST091029H1-1 1613 CS3 090922G	29-Oct-09	12:26:55
2	091029H1_2	solvent blank	29-Oct-09	13:16:27
3	091029H1_3	ST091029H1-2 1613 CS0 090922D	29-Oct-09	14:05:59
4	091029H1_4	ST091029H1-3 1613 CS1 090922E	29-Oct-09	14:55:29
5	091029H1_5	ST091029H1-4 1613 CS2 090922F	29-Oct-09	15:45:05
6	091029H1_6	ST091029H1-5 1613 CS4 090922H	29-Oct-09	16:34:36
7	091029H1_7	ST091029H1-6 1613 CS5 090922I	29-Oct-09	17:24:08
8	091029H1_8	solvent blank	29-Oct-09	18:13:39
9	091029H1_9	SSS091029H1-1 Sec Src Std 090219C	29-Oct-09	19:02:56

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed: Thursday, October 29, 2009 12:24:42 Pacific Daylight Time

M 292.9824 R 13964

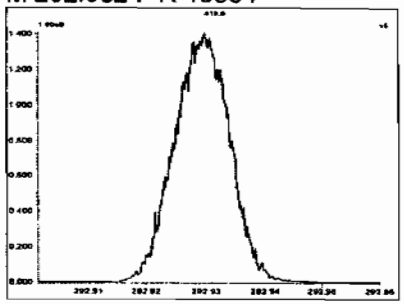

M 304.9824 R 14622

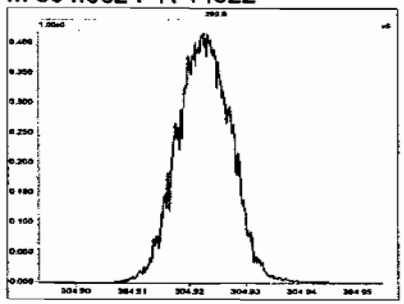

M 318.9792 R 14204

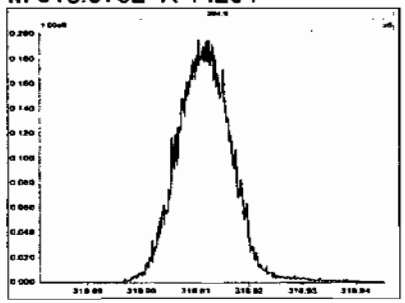

M 330.9792 R 14128

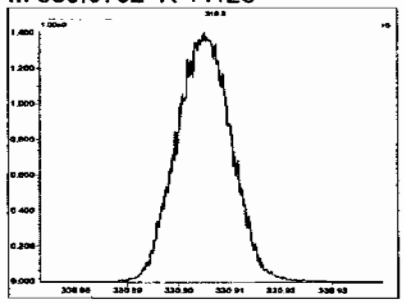

M 342.9792 R 13662

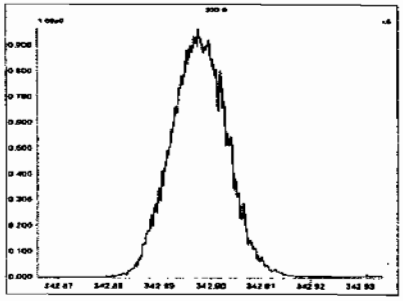

M 354.9792 R 13585

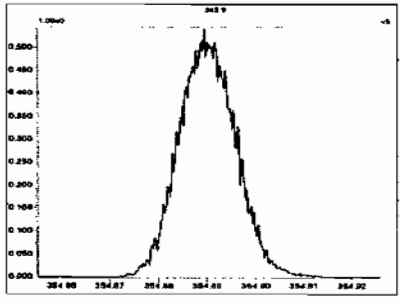

M 366.9792 R 13091

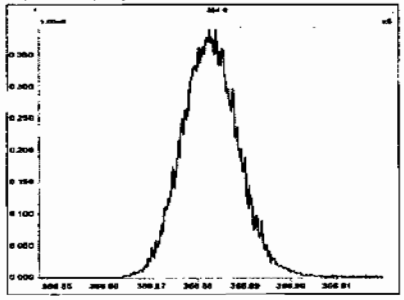

M 380.9760 R 13021

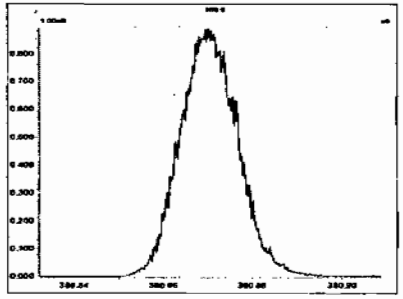

M 392.9760 R 12624

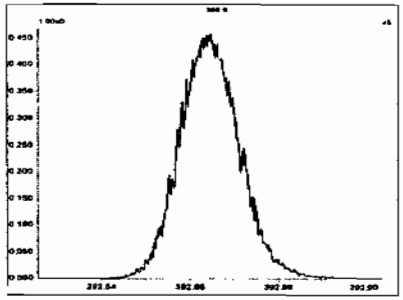

M 404.9760 R 12691

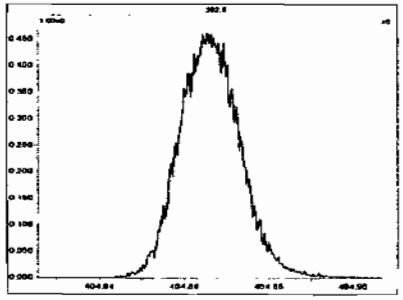

M 416.9760 R 12437

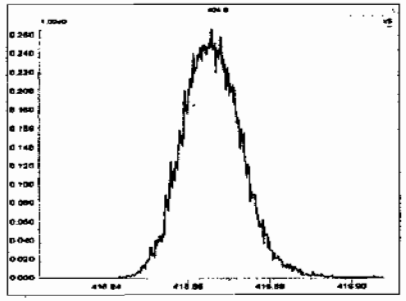

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed: Thursday, October 29, 2009 12:25:09 Pacific Daylight Time

M 330.9792 R 14366

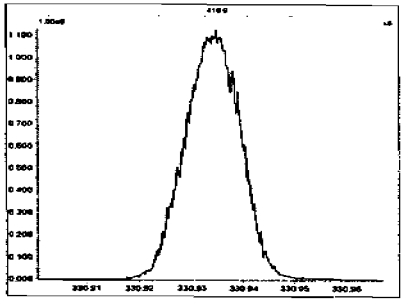

M 342.9792 R 14966

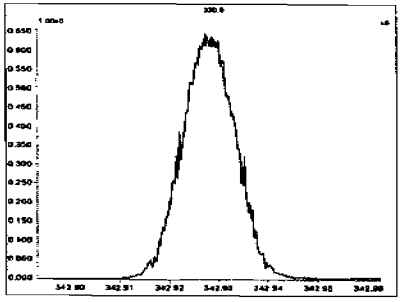

M 354.9792 R 14619

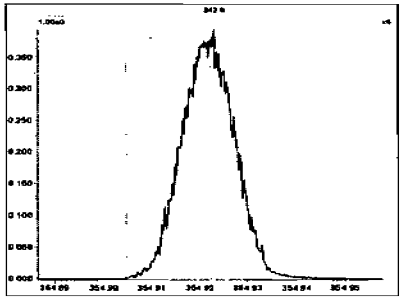

M 366.9792 R 14365

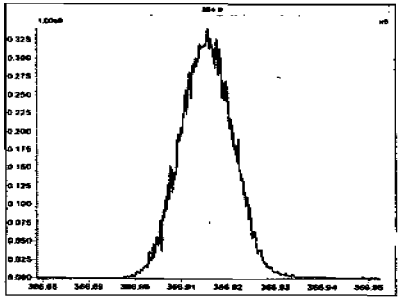

M 380.9760 R 13515

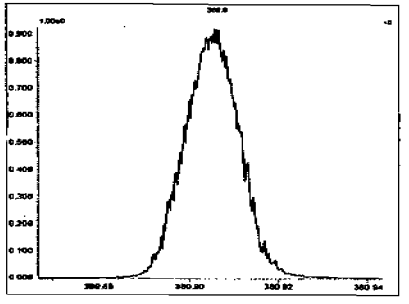

M 392.9760 R 13586

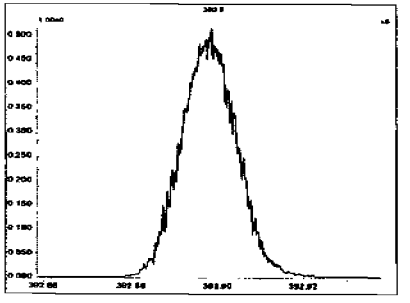

M 404.9760 R 13295

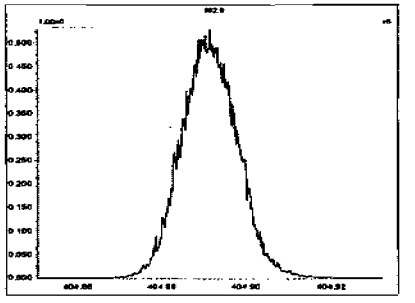

M 416.9760 R 12953

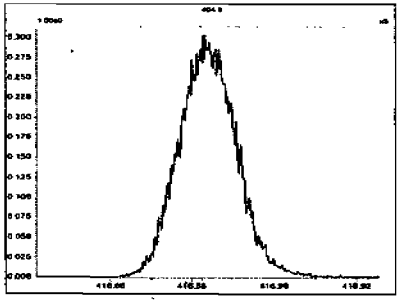

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed: Thursday, October 29, 2009 12:25:39 Pacific Daylight Time

M 366.9792 R 14124

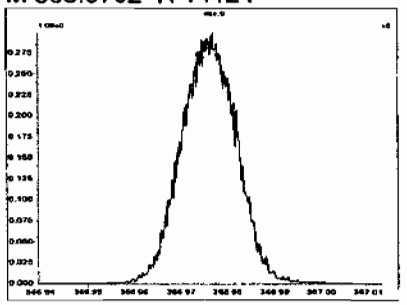

M 380.9760 R 14284

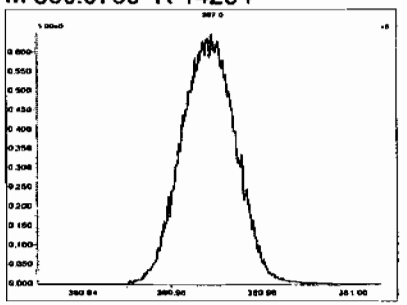

M 392.9760 R 14369

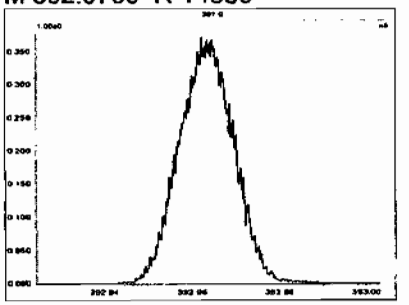

M 404.9760 R 14049

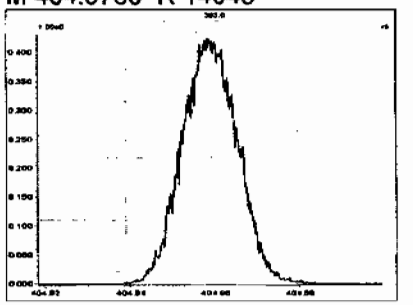

M 416.9760 R 14283

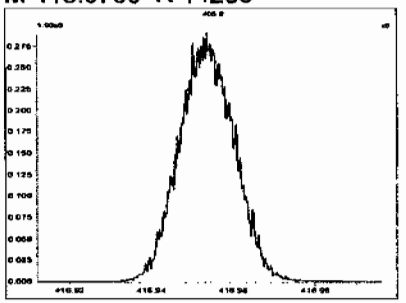

M 430.9728 R 13437

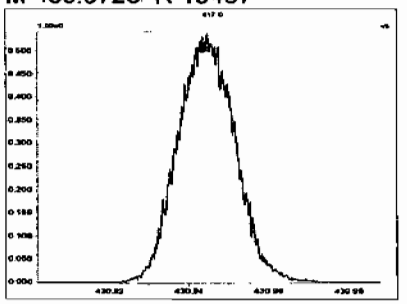

M 442.9728 R 13660

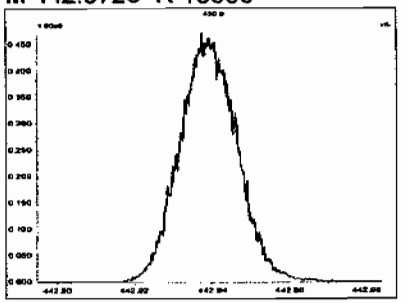

M 454.9728 R 13022

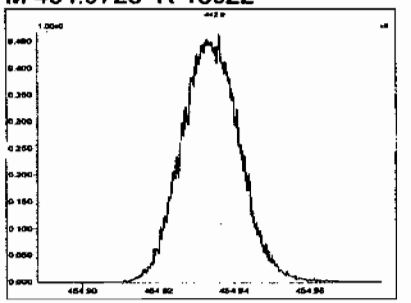

Experiment Calibration Report **MassLynx 4.1**

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed: Thursday, October 29, 2009 12:25:57 Pacific Daylight Time

M 404.9760 R 14971

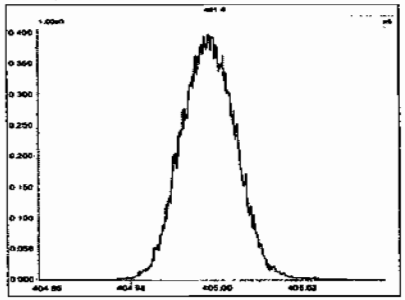

M 416.9760 R 14123

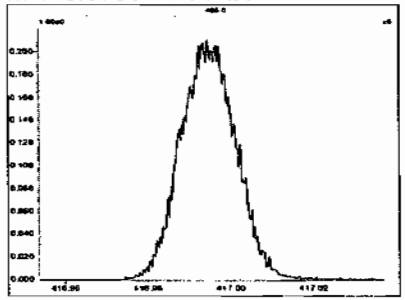

M 430.9728 R 14283

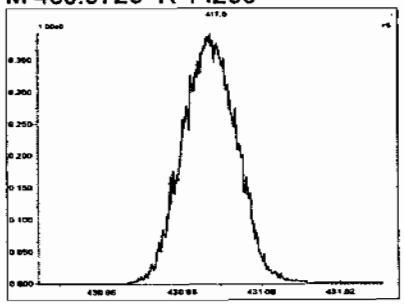

M 442.9728 R 14124

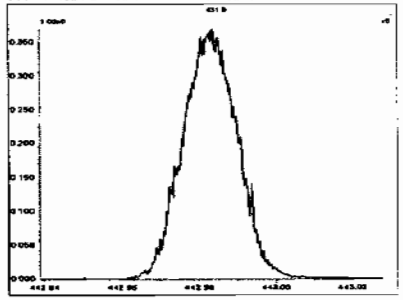

M 454.9728 R 13965

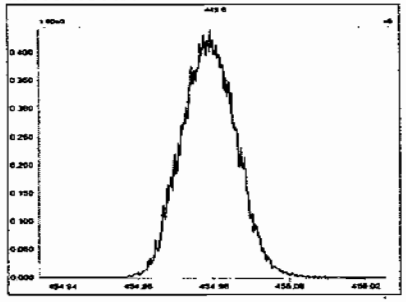

M 466.9728 R 13963

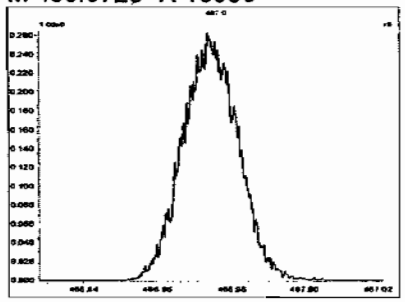

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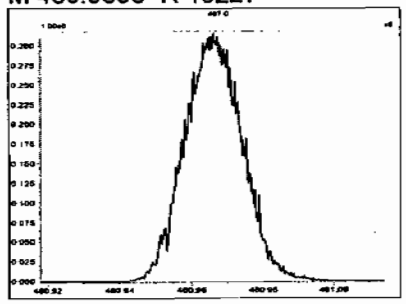

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed: Thursday, October 29, 2009 12:26:22 Pacific Daylight Time

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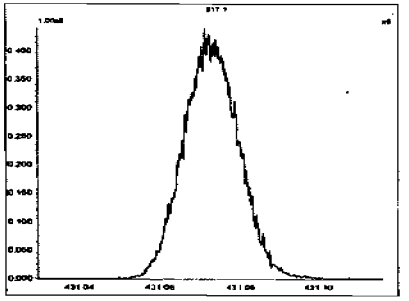

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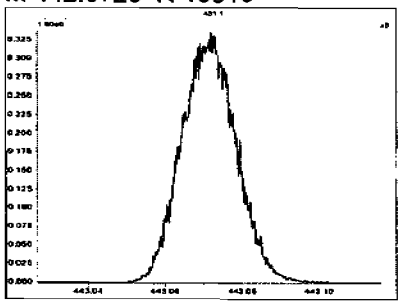

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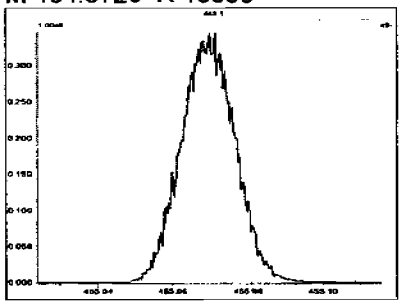

M 466.9728 R 13966

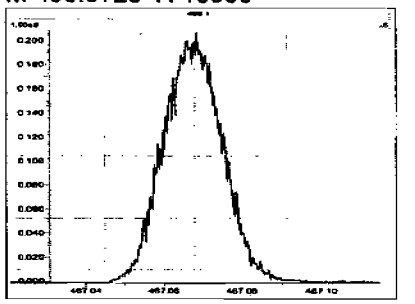

M 480.9696 R 13887

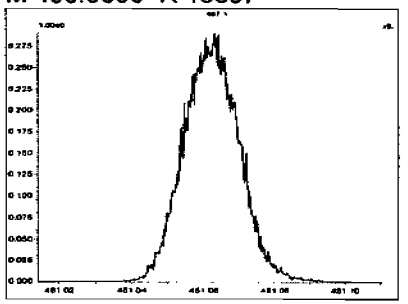

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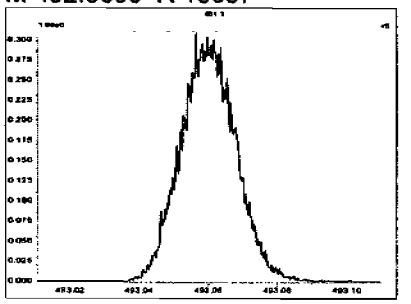

M 504.9696 R 12886

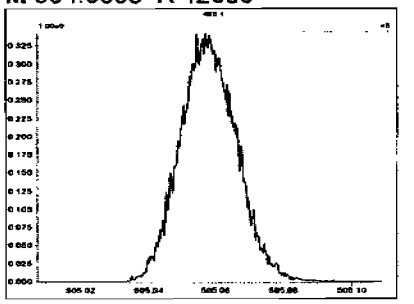

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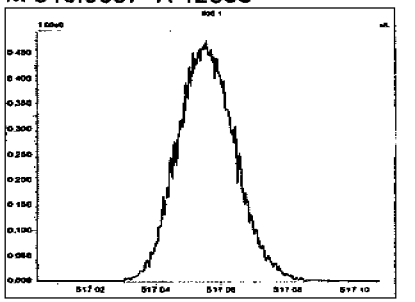

Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, October 30, 2009 8:32:58 AM Pacific Daylight Time
Printed: Friday, October 30, 2009 8:33:22 AM Pacific Daylight Time

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Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-9-25-09.cdb 25 Sep 2009 14:50:28

Name: 091029H1_1, Date: 29-Oct-2009, Time: 12:26:55, ID: ST091029H1-1 1613 CS3 090922G, Description: 1613 CS3 090922G

1,3,6,8-TCDD (First)

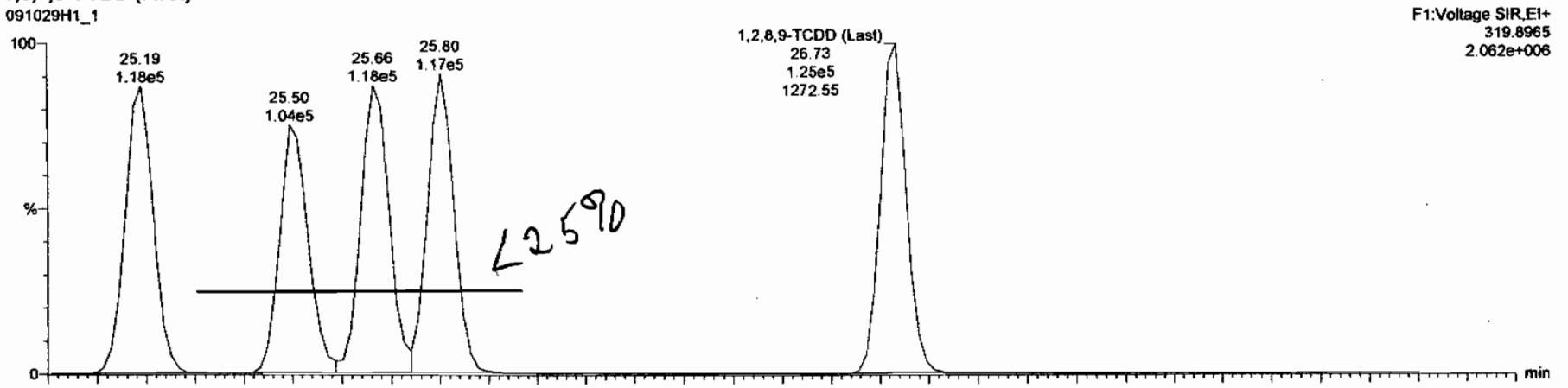

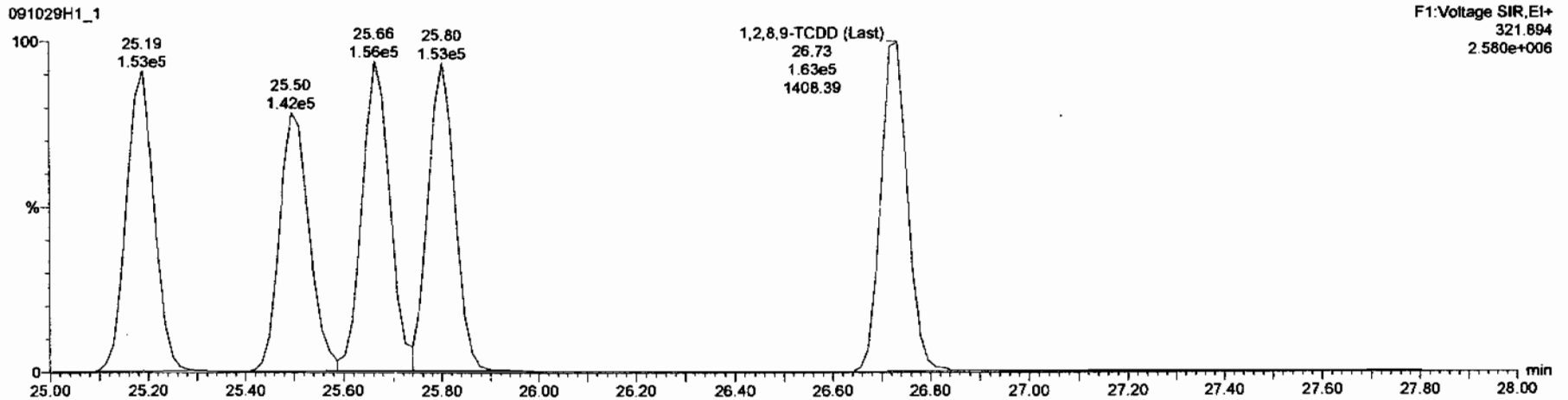

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

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Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

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2,3,7,8-TCDD

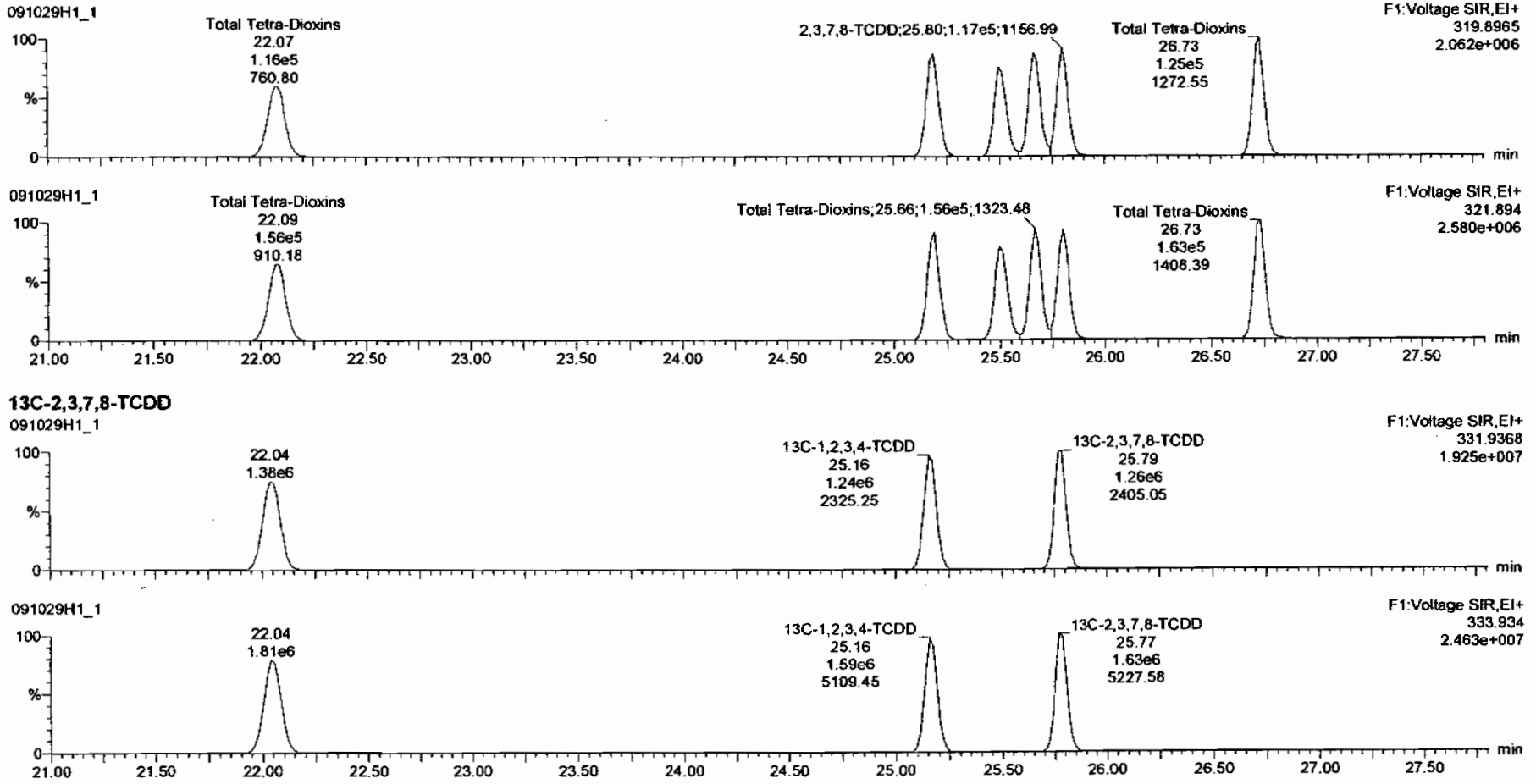

13C-2,3,7,8-TCDD

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

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Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

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37Cl-2,3,7,8-TCDD

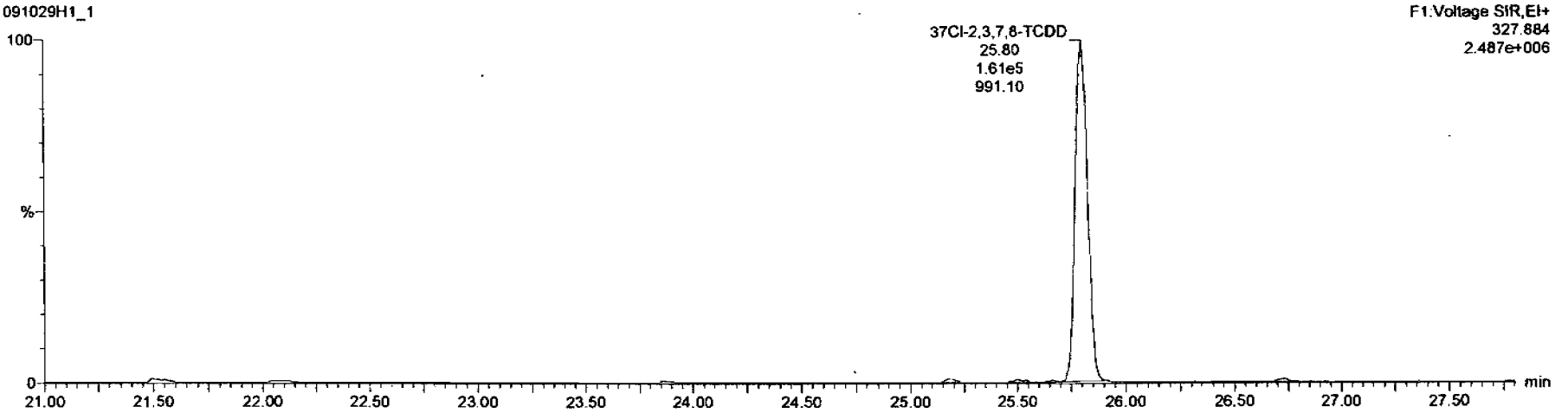

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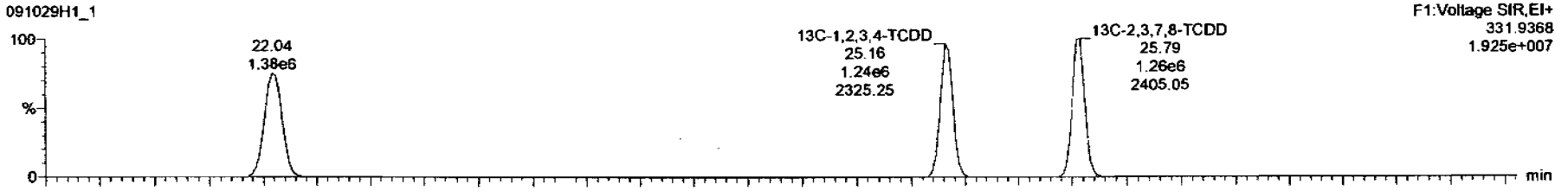

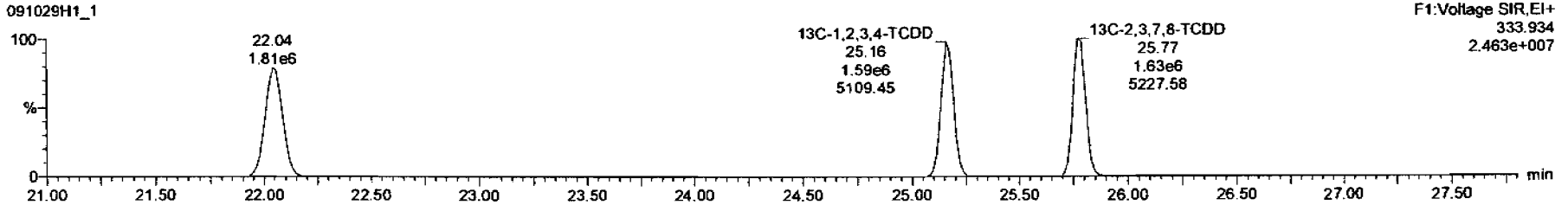

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Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

Name: 091029H1_1, Date: 29-Oct-2009, Time: 12:26:55, ID: ST091029H1-1 1613 CS3 090922G, Description: 1613 CS3 090922G

1,2,3,7,8-PeCDD

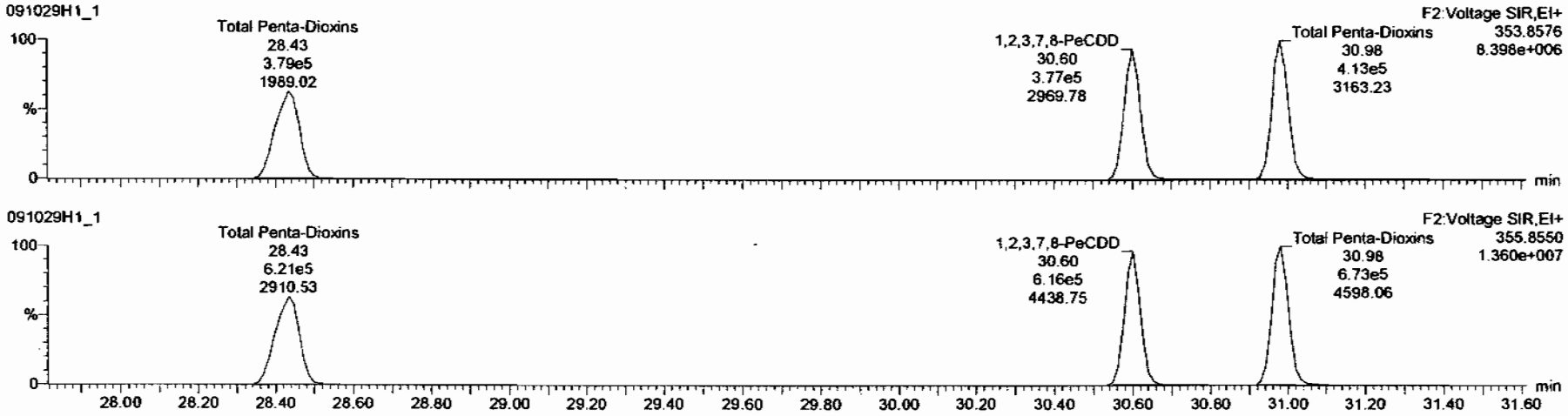

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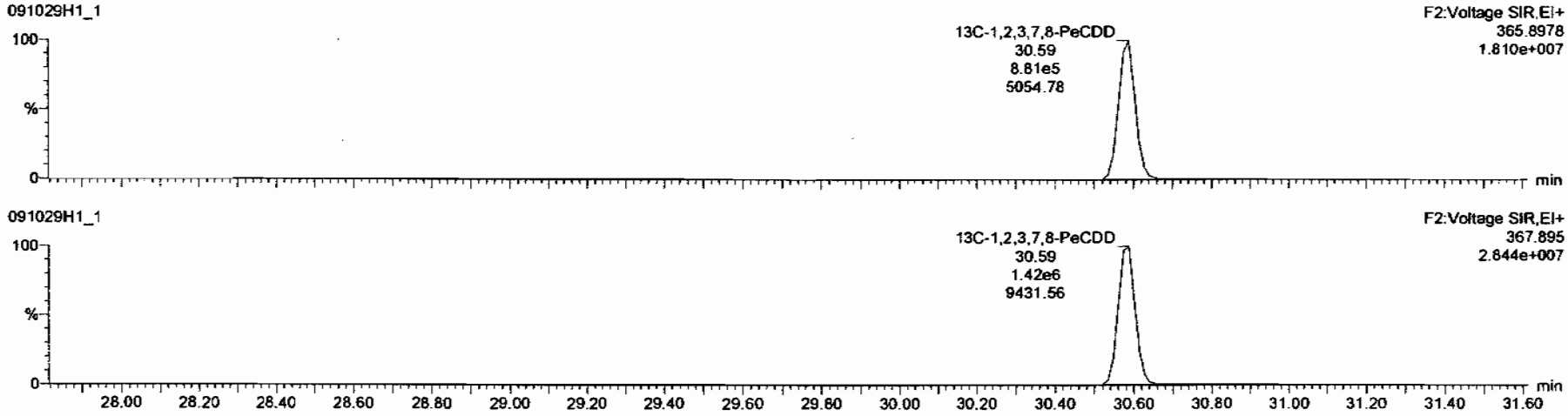

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1,2,3,4,7,8-HxCDD

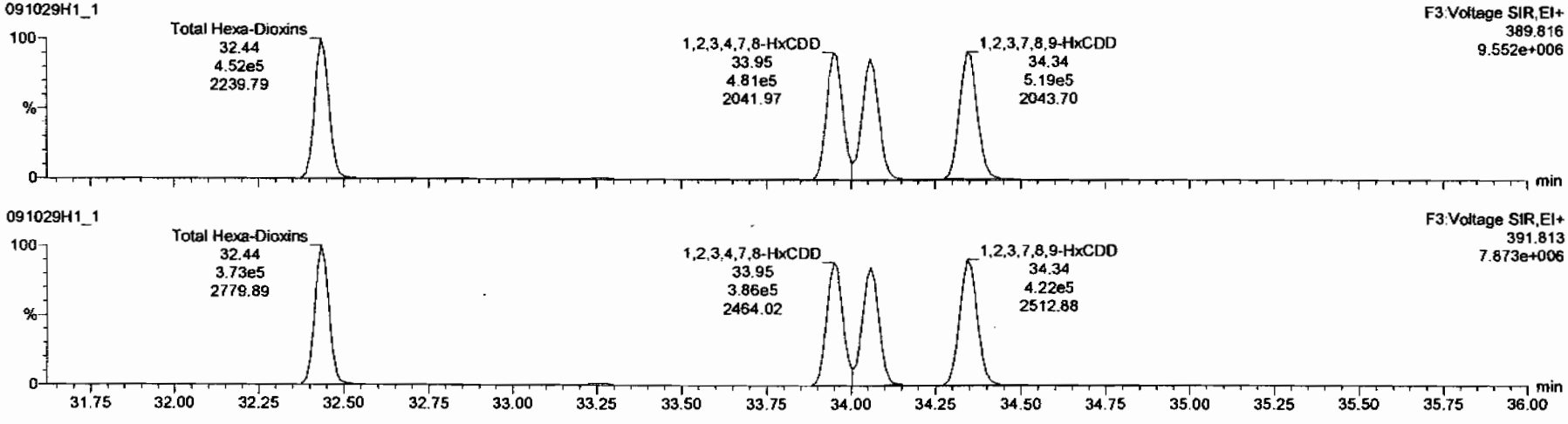

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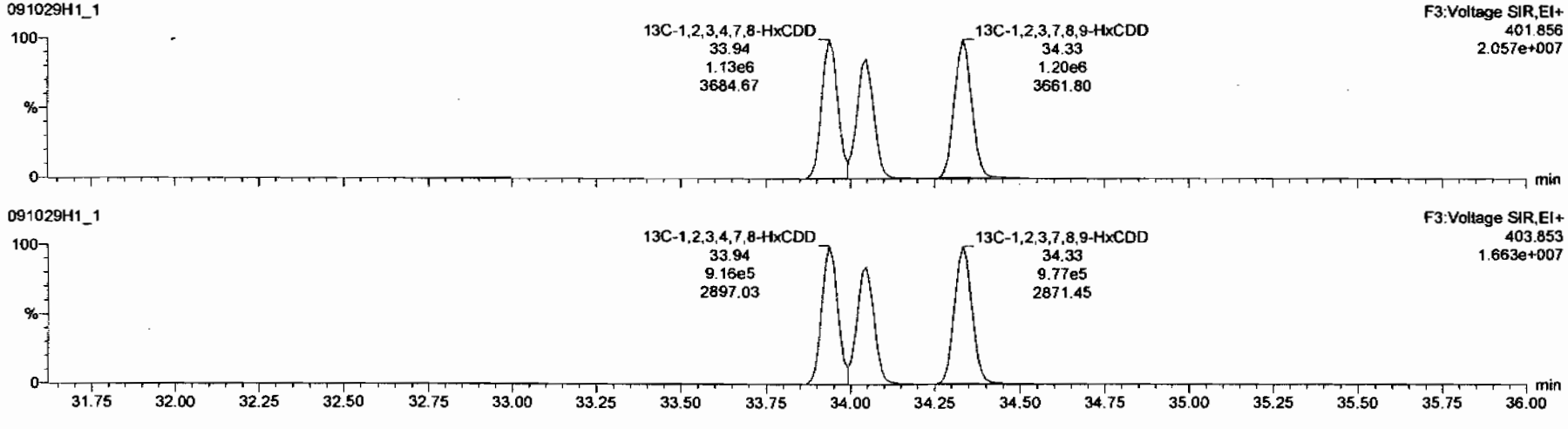

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1,2,3,4,6,7,8-HpCDD

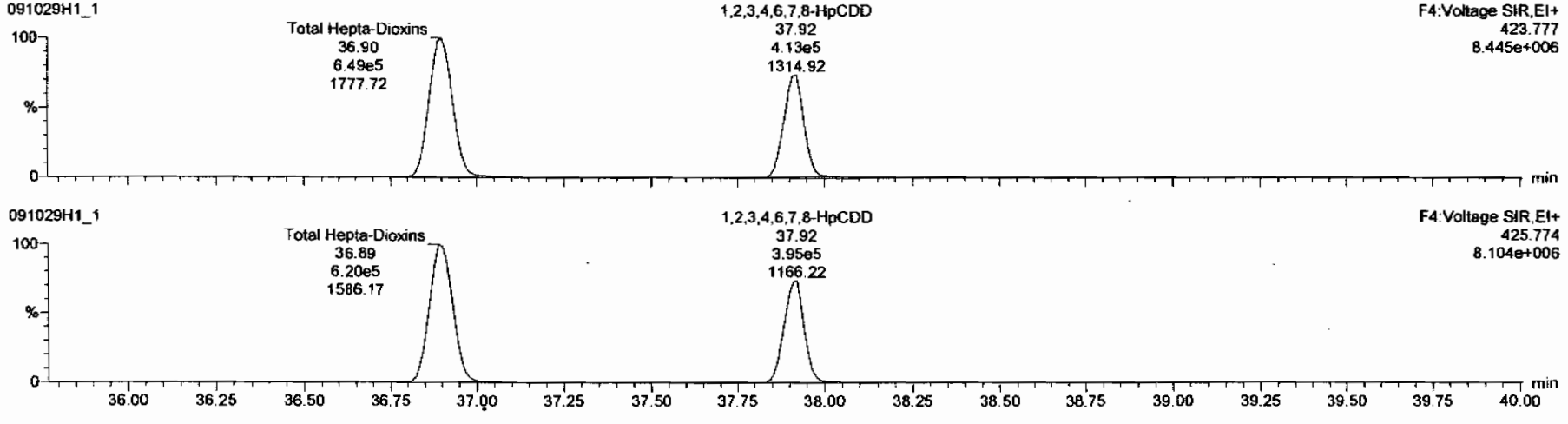

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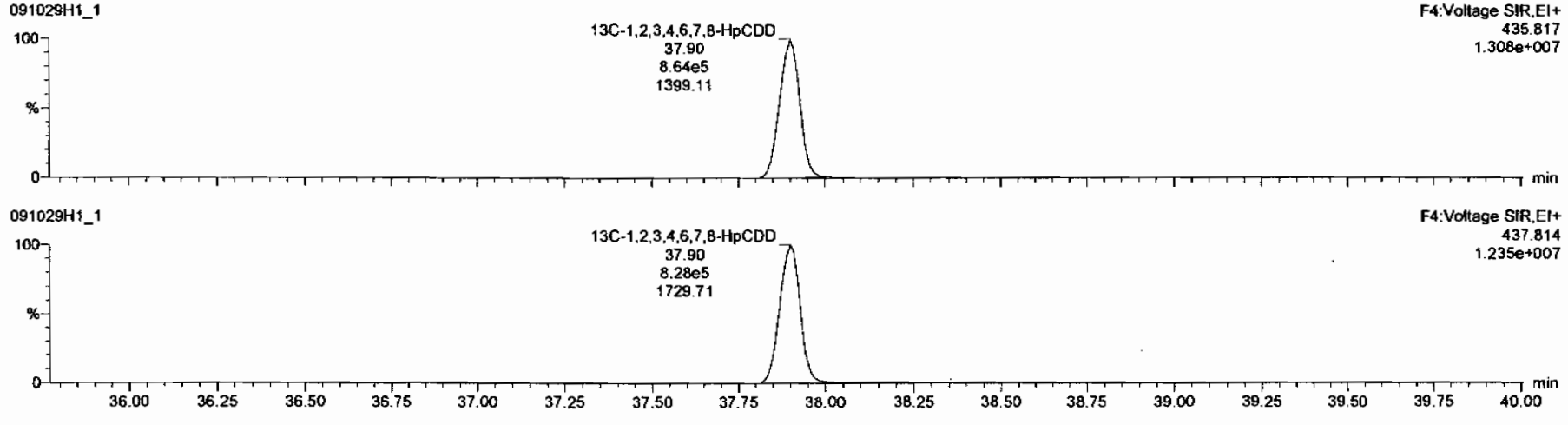

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Name: 091029H1_1, Date: 29-Oct-2009, Time: 12:26:55, ID: ST091029H1-1 1613 CS3 090922G, Description: 1613 CS3 090922G

OCDD

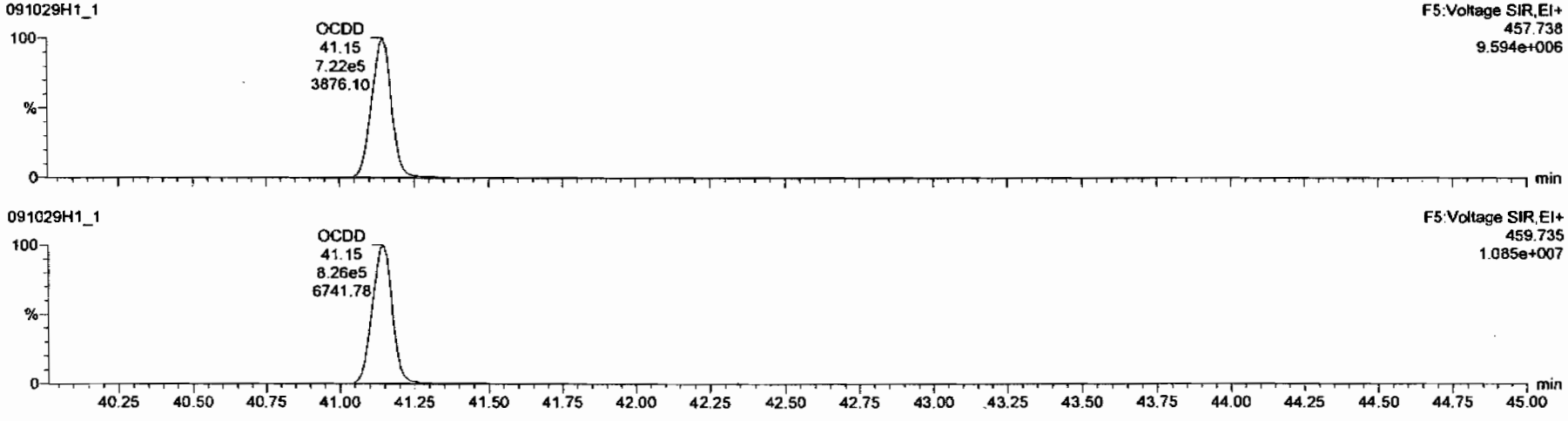

13C-OCDD

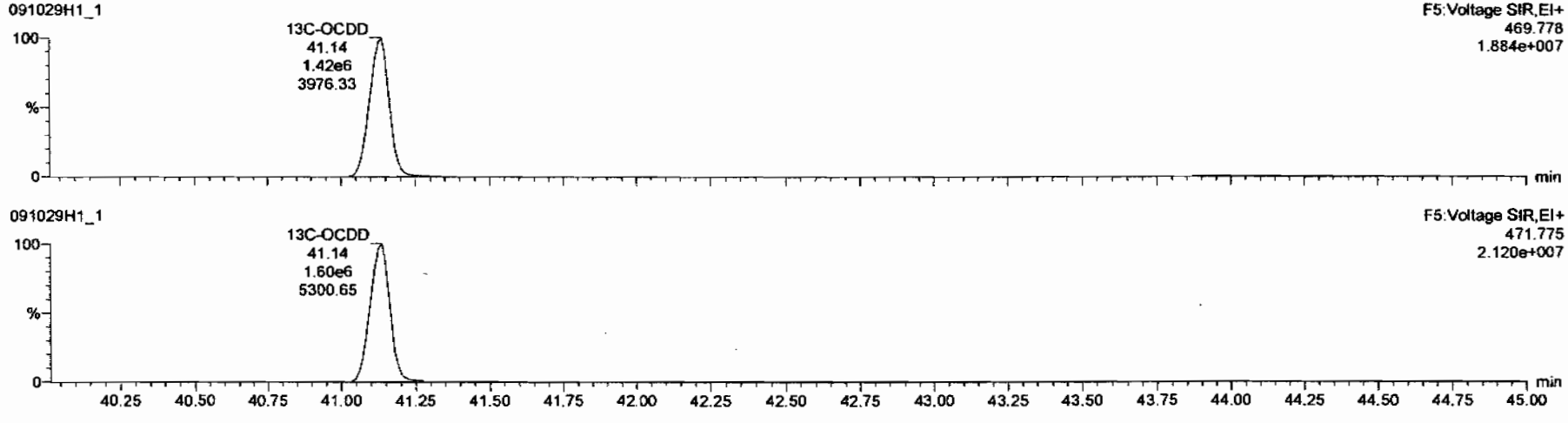

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Name: 091029H1_1, Date: 29-Oct-2009, Time: 12:26:55, ID: ST091029H1-1 1613 CS3 090922G, Description: 1613 CS3 090922G

2,3,7,8-TCDF

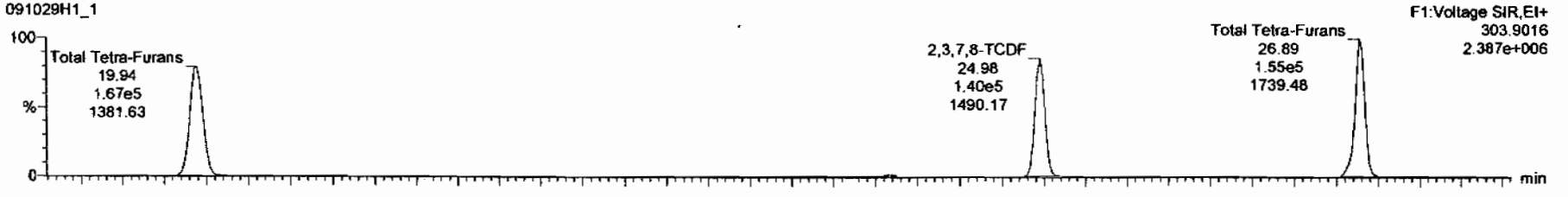

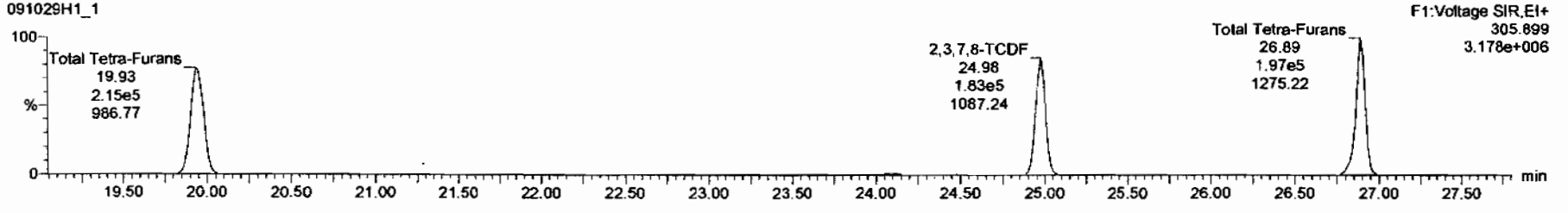

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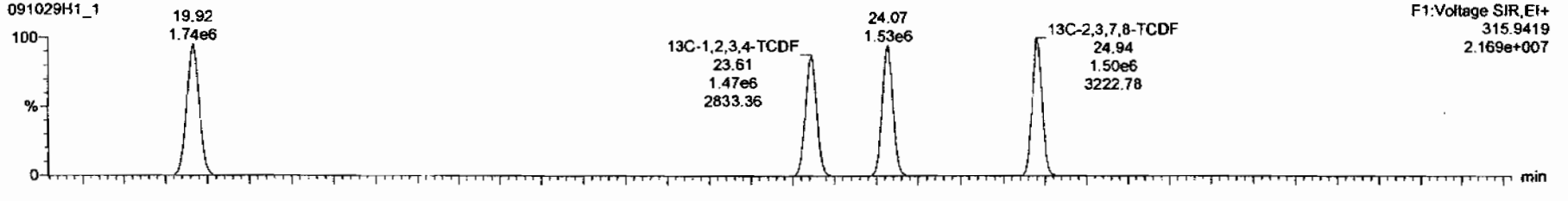

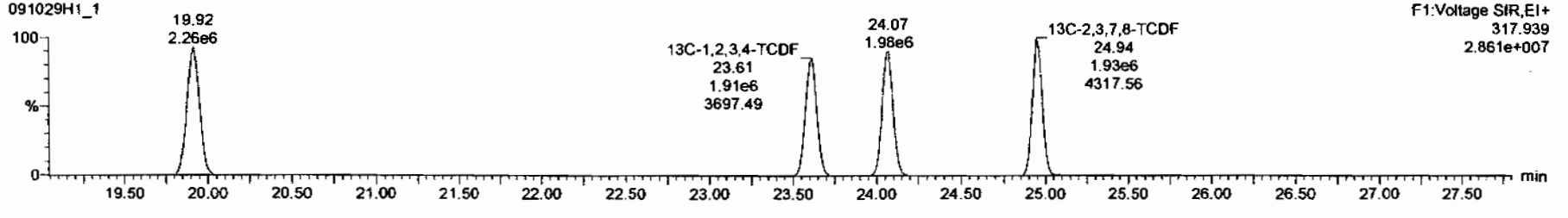

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Name: 091029H1_1, Date: 29-Oct-2009, Time: 12:26:55, ID: ST091029H1-1 1613 CS3 090922G, Description: 1613 CS3 090922G

1st Func. Penta-Furans

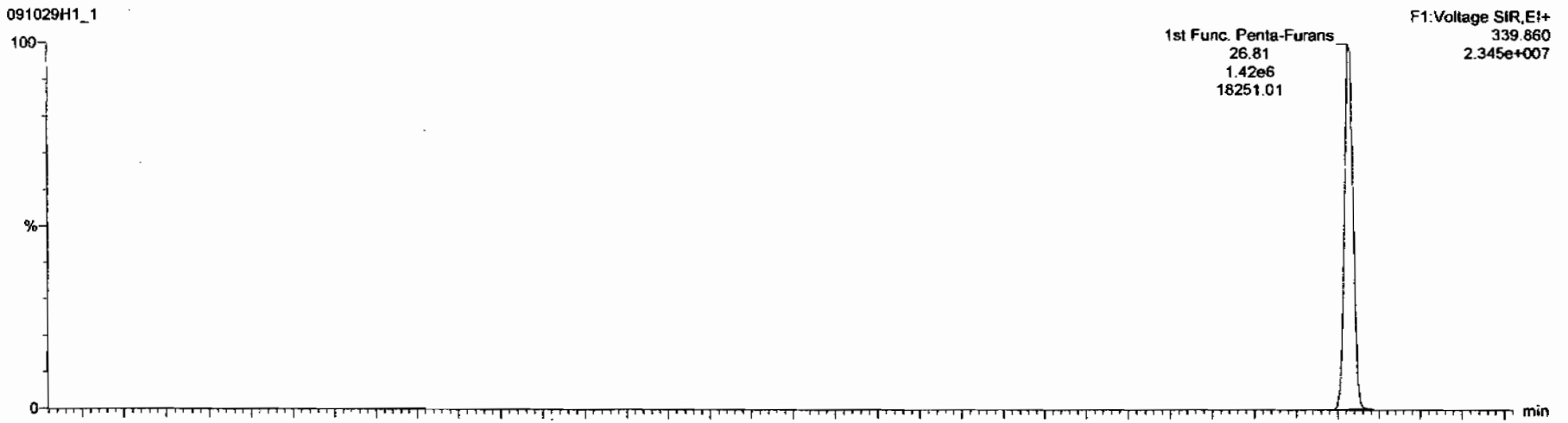

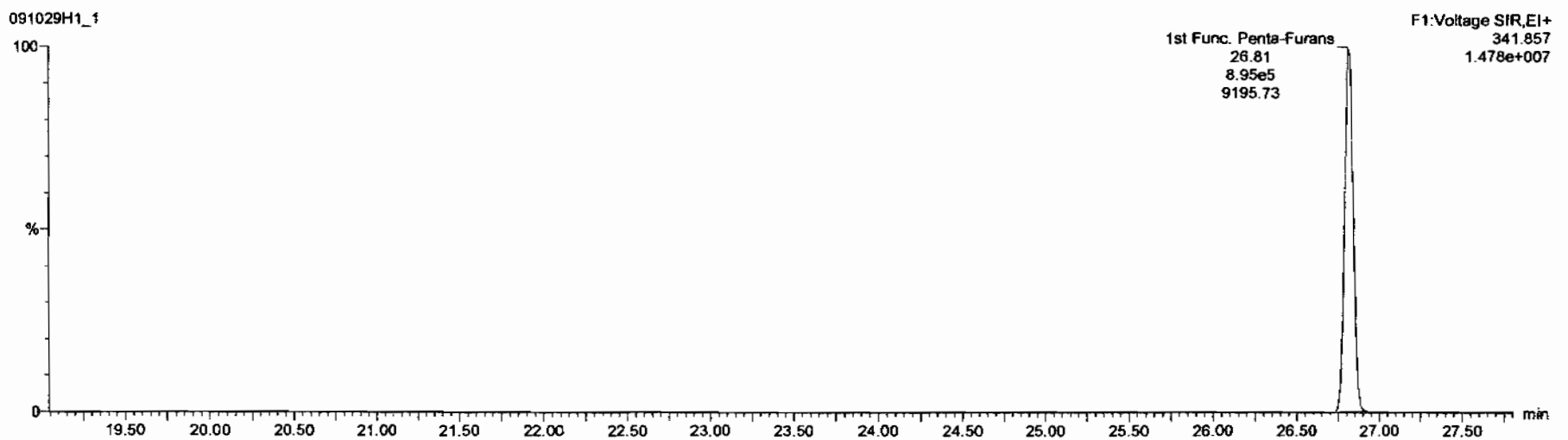

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Name: 091029H1_1, Date: 29-Oct-2009, Time: 12:26:55, ID: ST091029H1-1 1613 CS3 090922G, Description: 1613 CS3 090922G

1,2,3,7,8-PeCDF

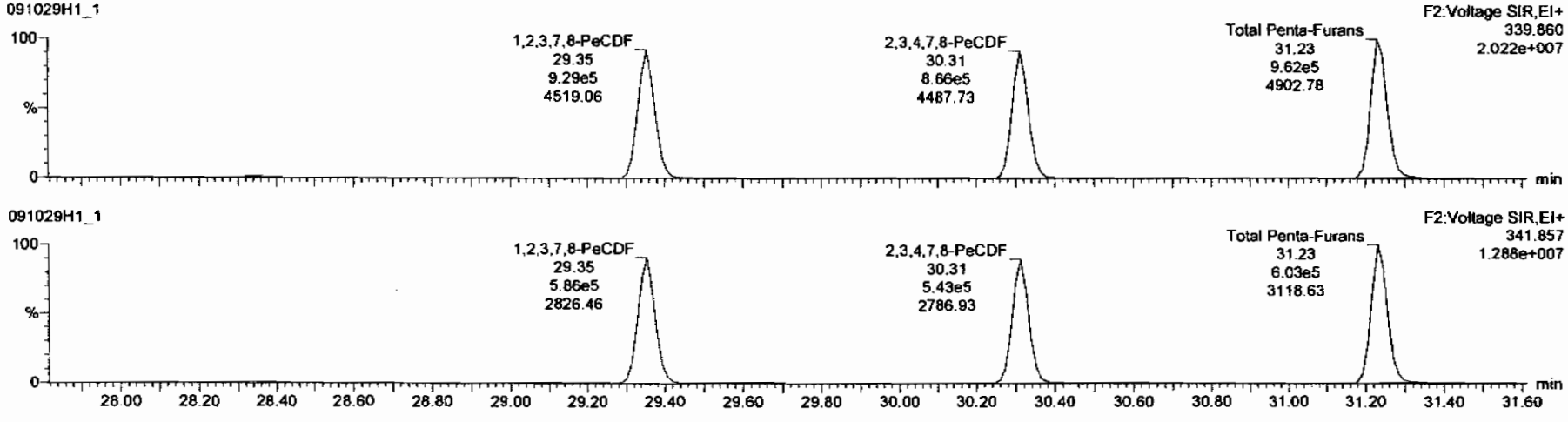

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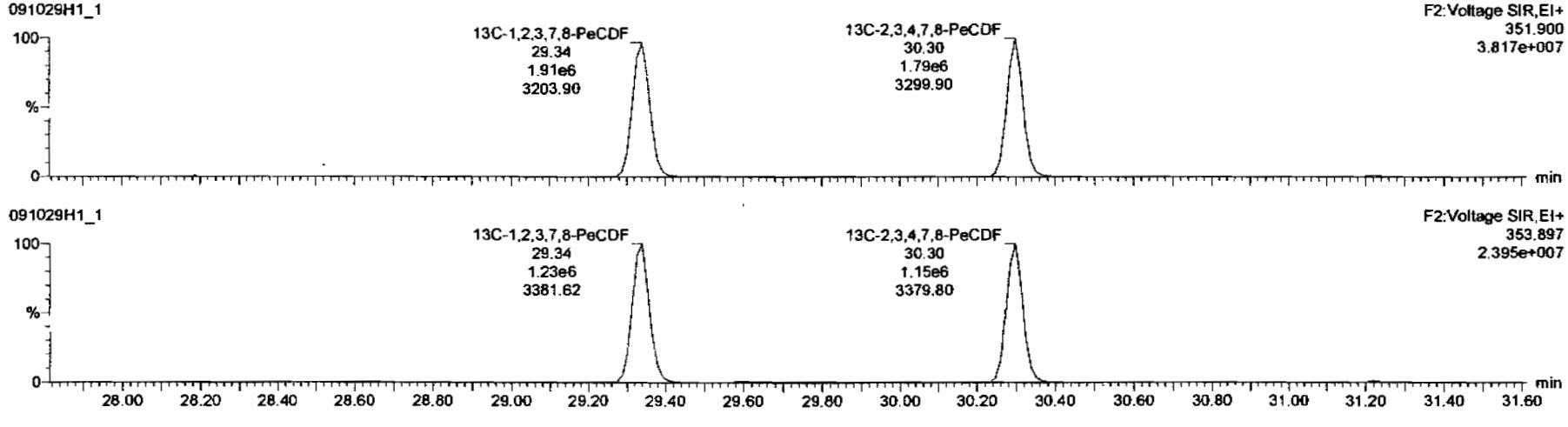

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Name: 091029H1_1, Date: 29-Oct-2009, Time: 12:26:55, ID: ST091029H1-1 1613 CS3 090922G, Description: 1613 CS3 090922G

1,2,3,4,7,8-HxCDF

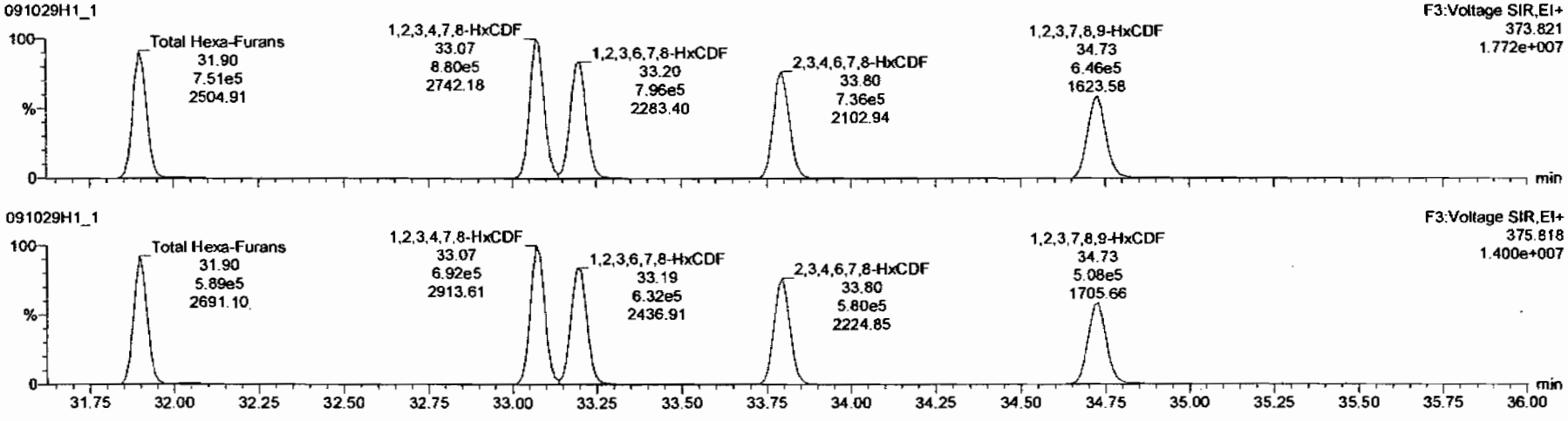

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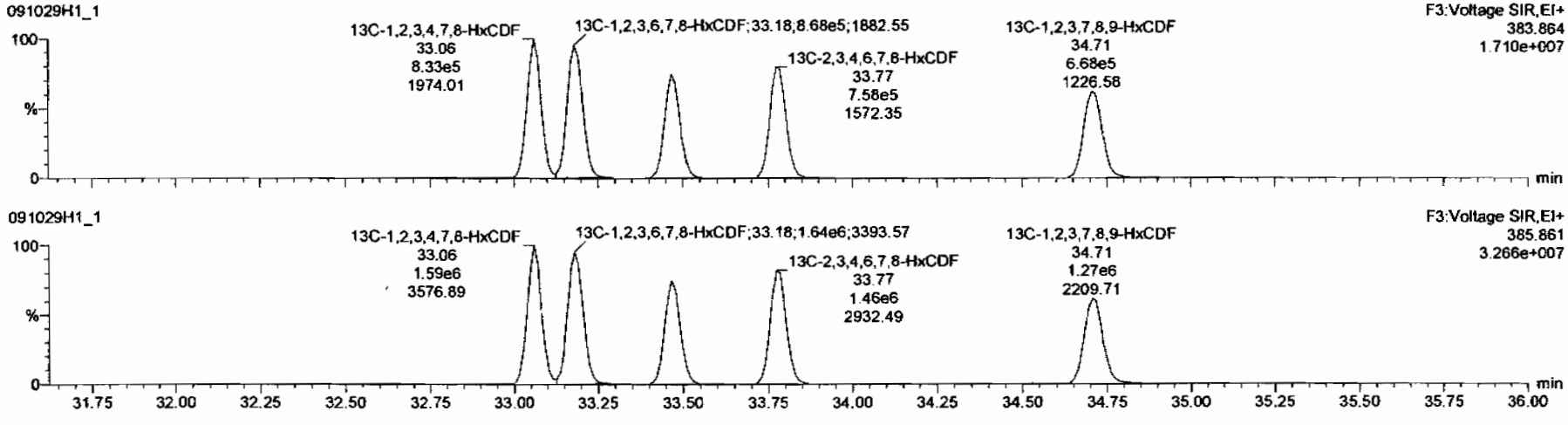

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1,2,3,4,6,7,8-HpCDF

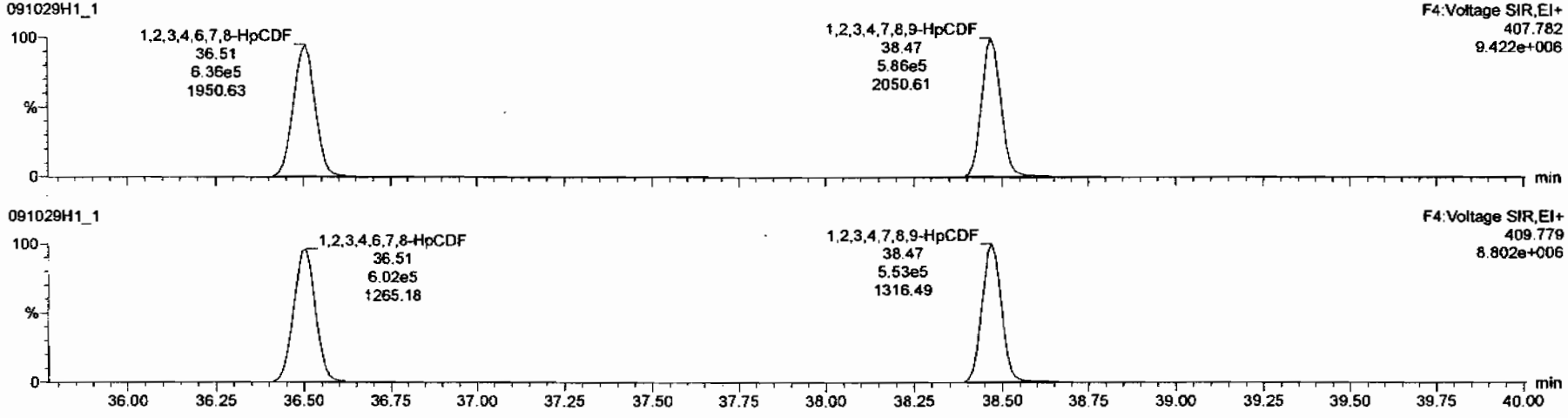

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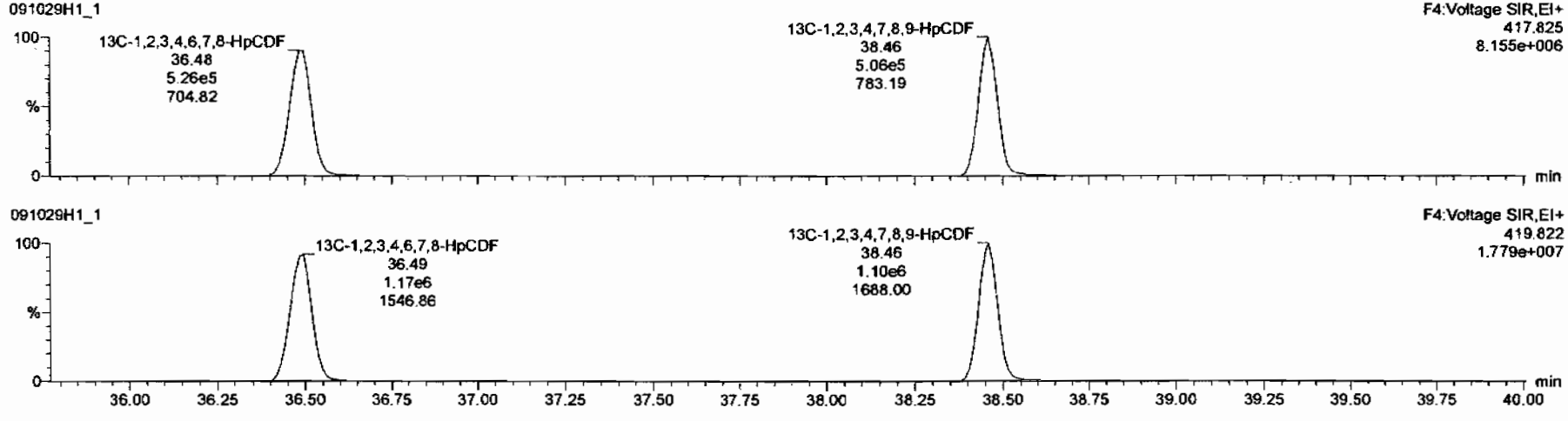

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OCDF

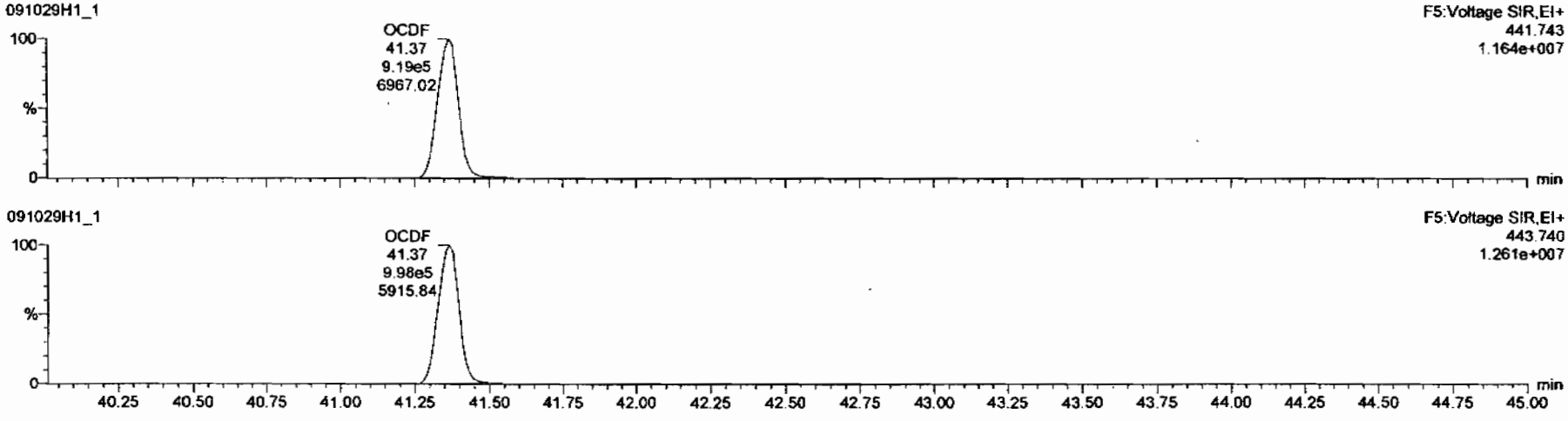

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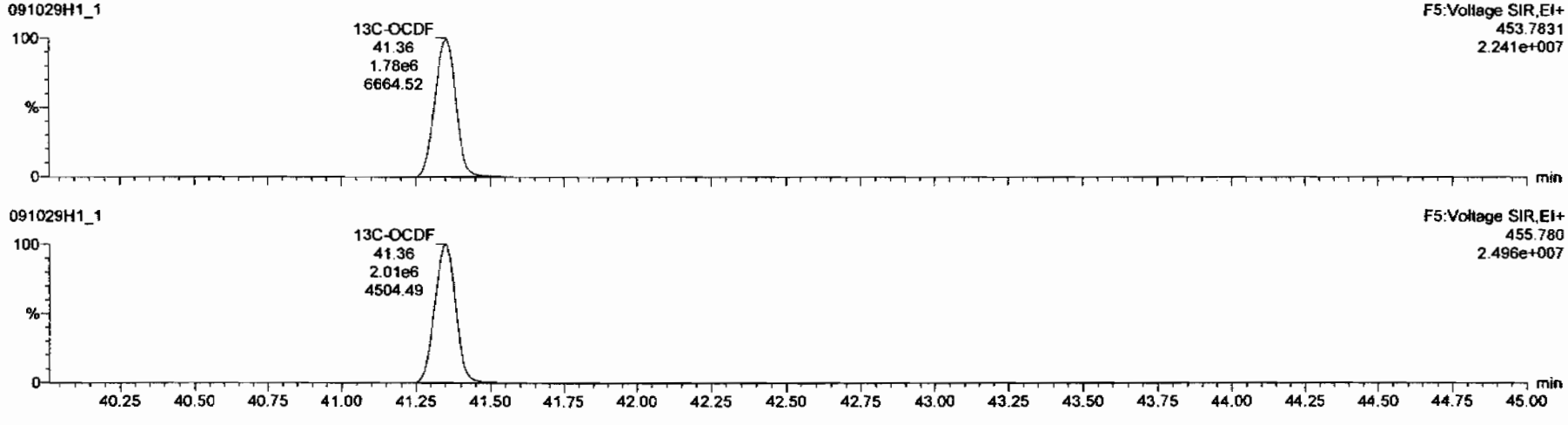

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PFK1

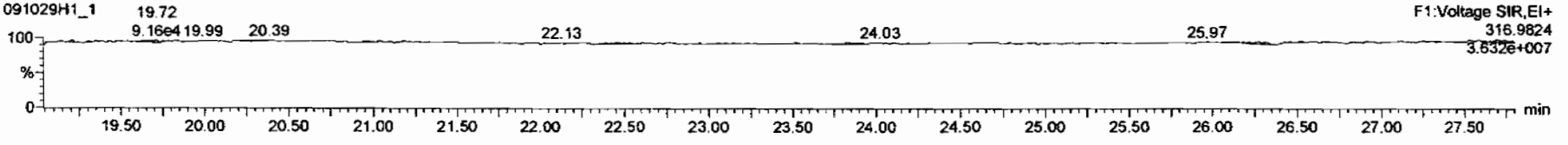

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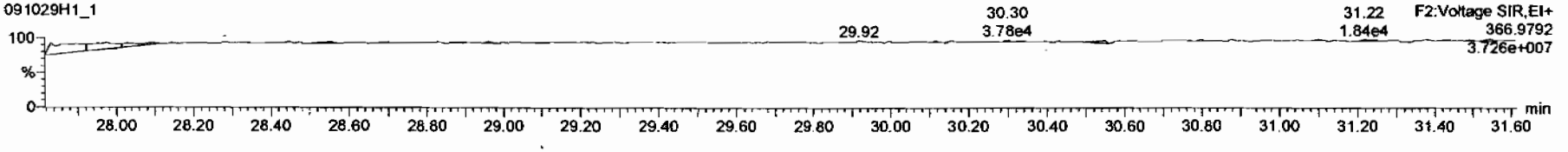

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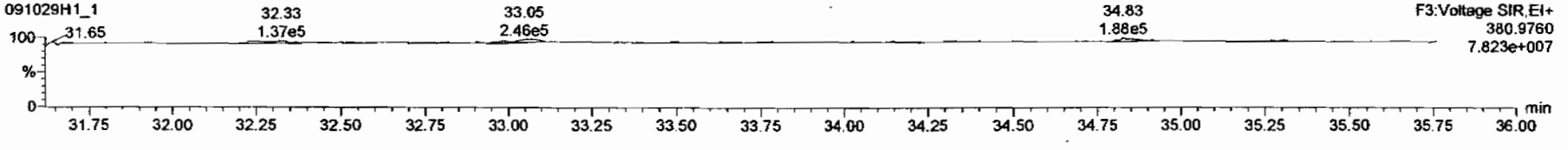

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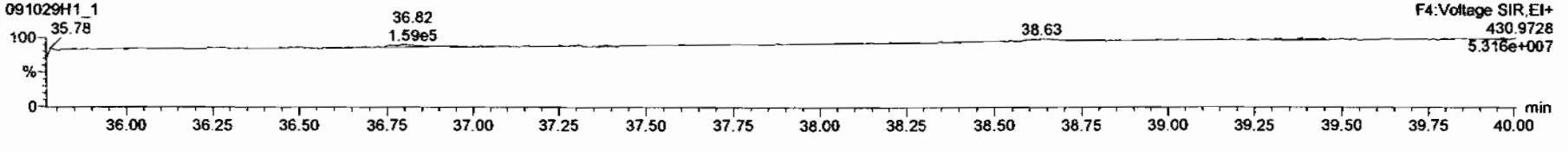

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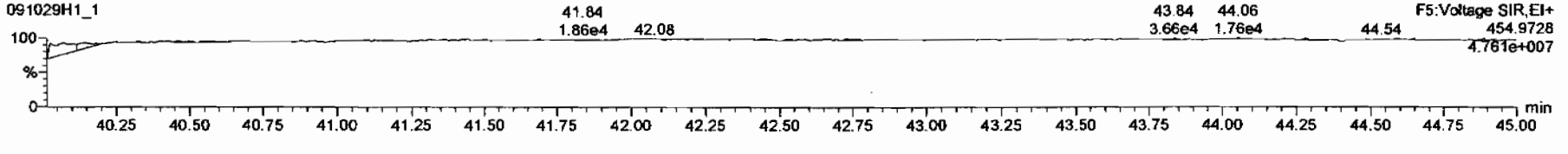

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Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

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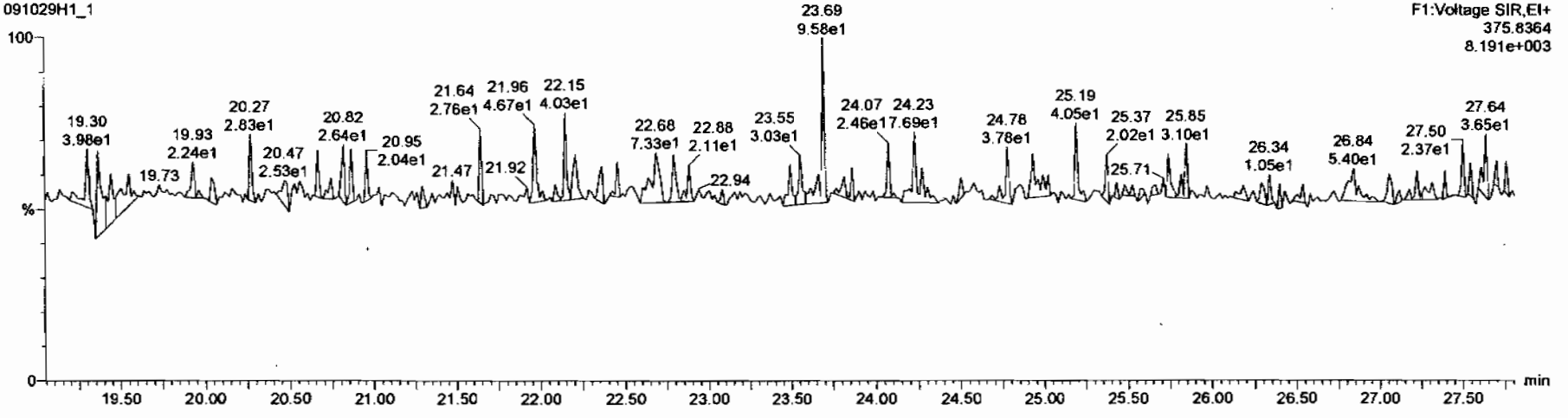

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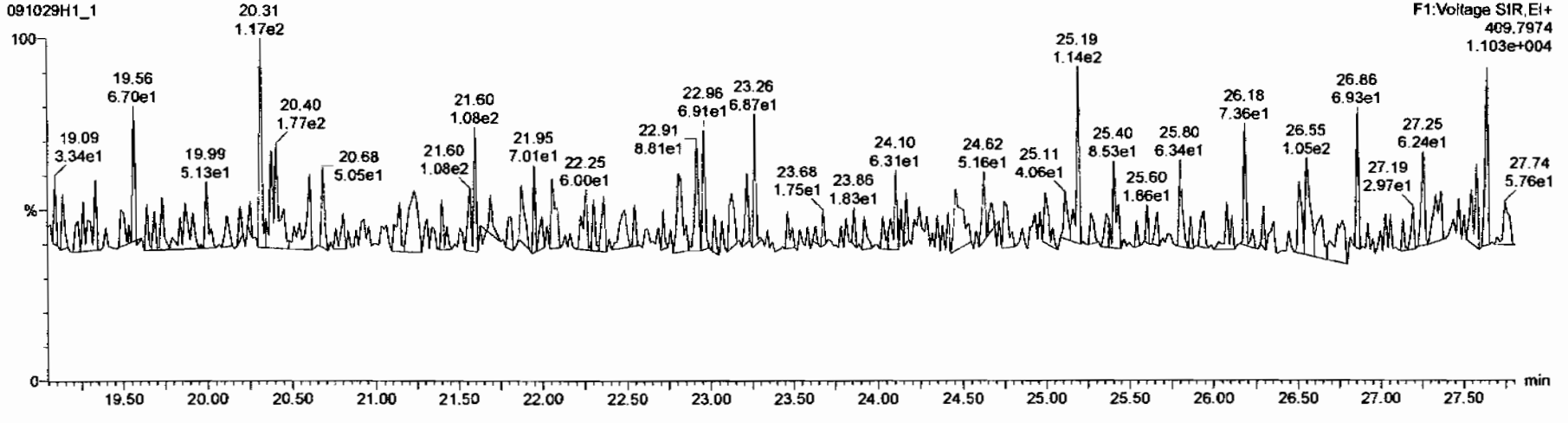

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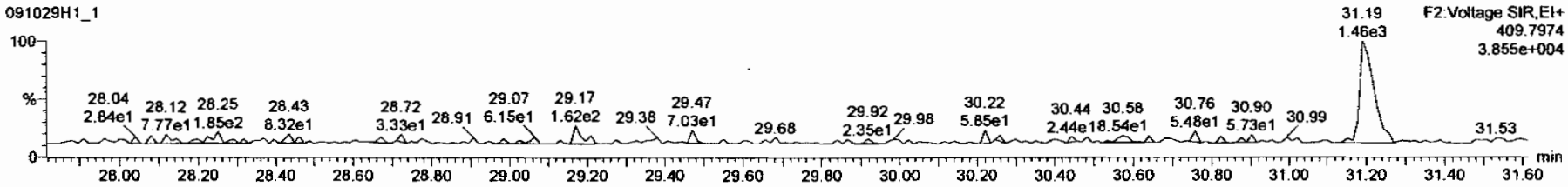

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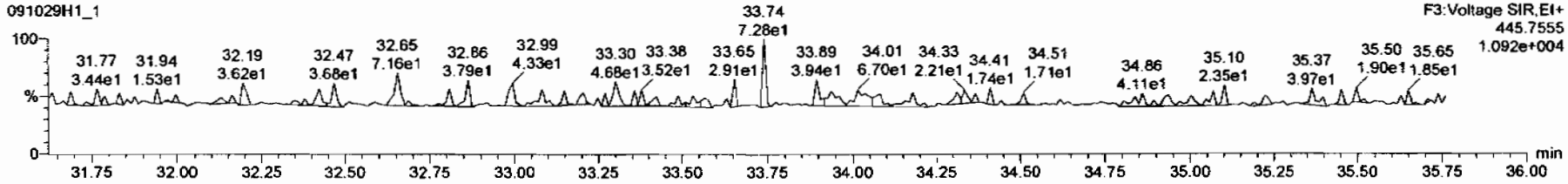

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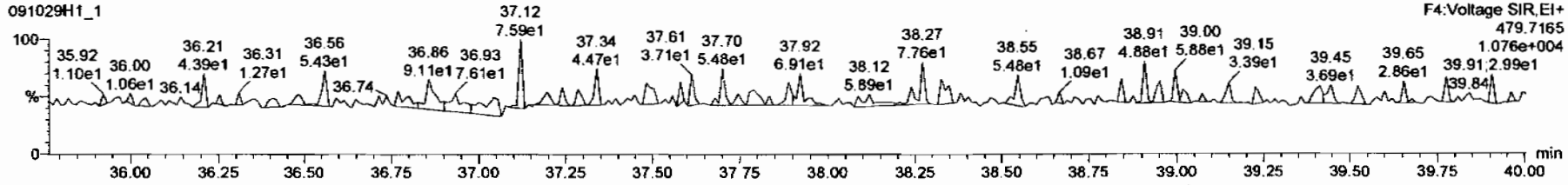

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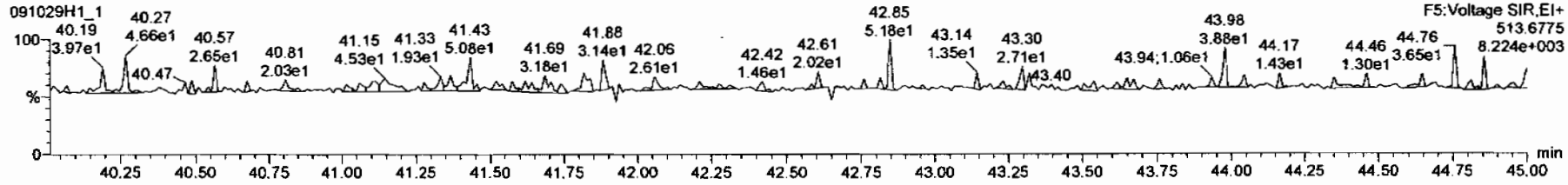

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Name: 091029H1_3, Date: 29-Oct-2009, Time: 14:05:59, ID: ST091029H1-2 1613 CS0 090922D, Description: 1613 CS0 090922D

2,3,7,8-TCDD

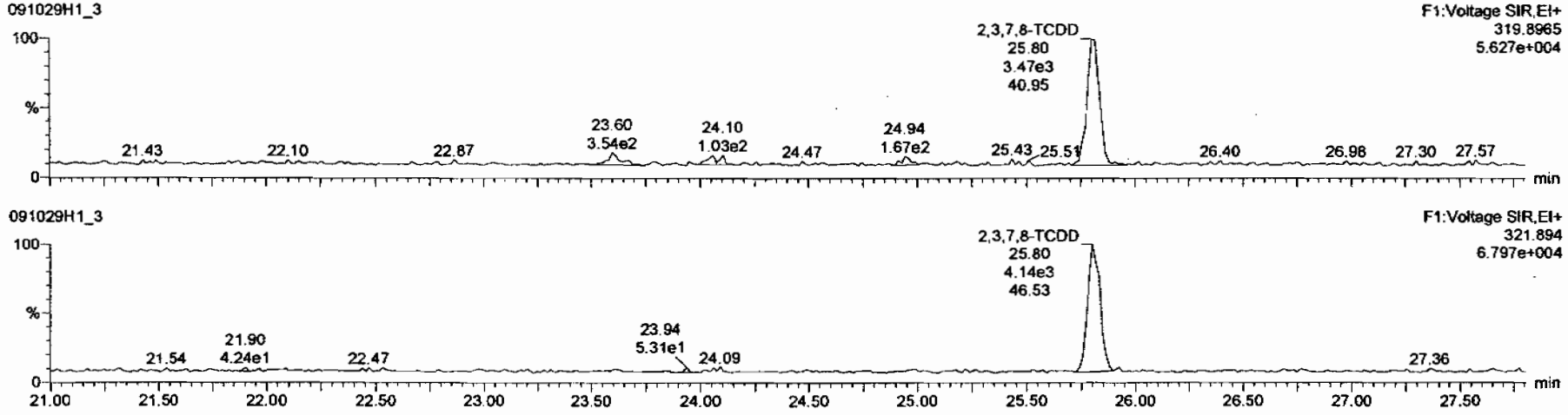

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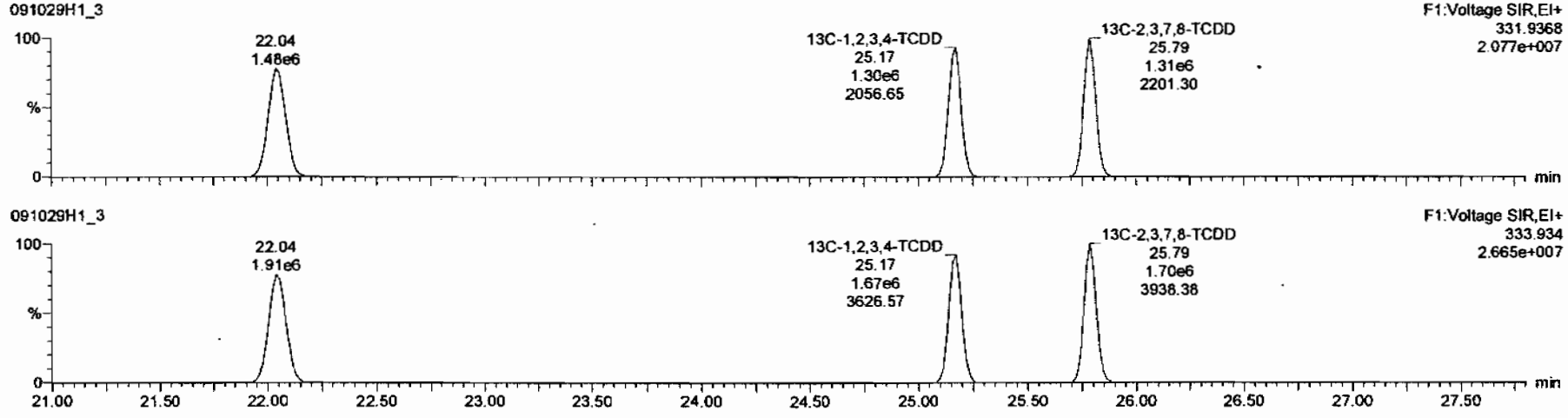

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Name: 091029H1_3, Date: 29-Oct-2009, Time: 14:05:59, ID: ST091029H1-2 1613 CS0 090922D, Description: 1613 CS0 090922D

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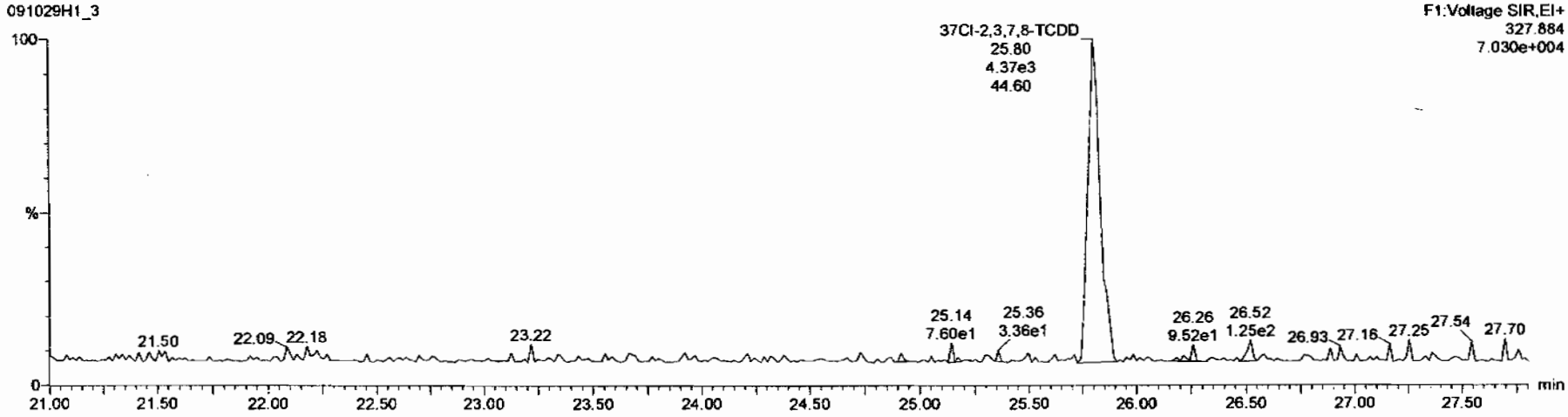

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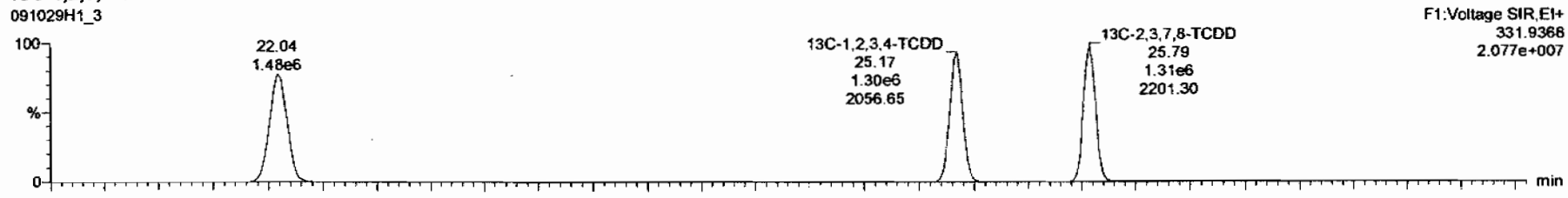

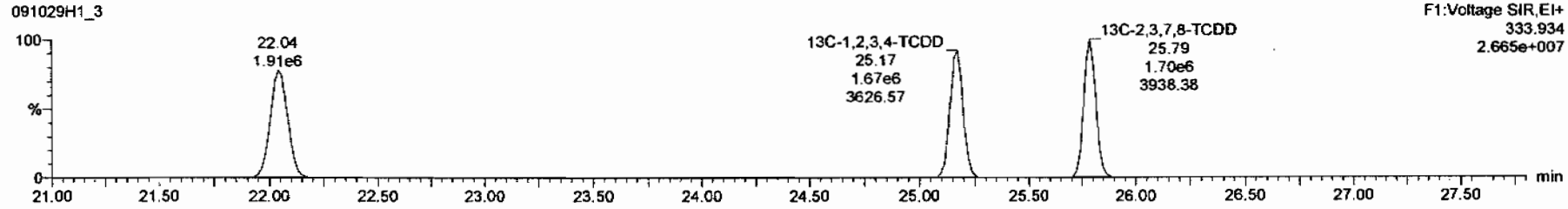

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Name: 091029H1_3, Date: 29-Oct-2009, Time: 14:05:59, ID: ST091029H1-2 1613 CS0 090922D, Description: 1613 CS0 090922D

1,2,3,7,8-PeCDD

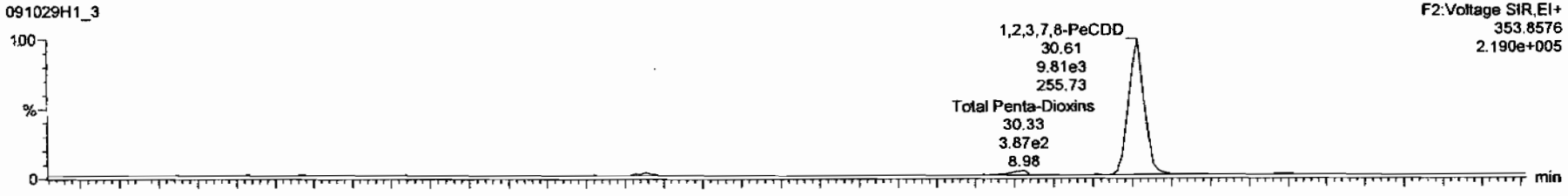

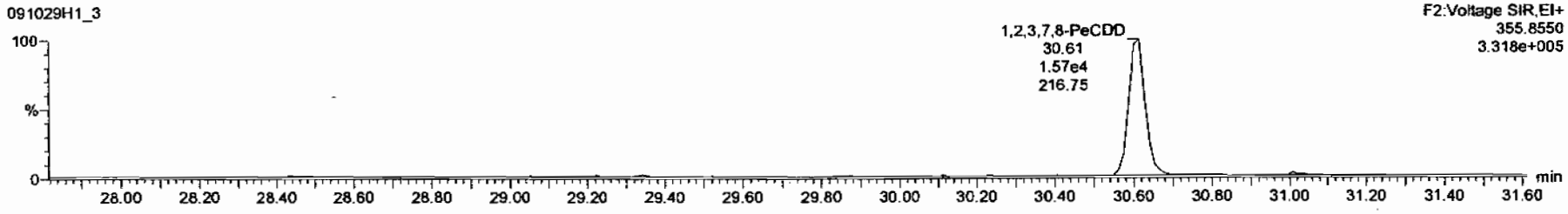

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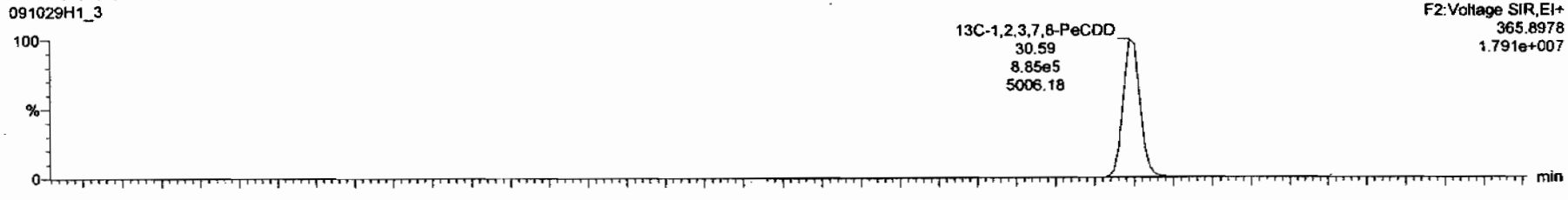

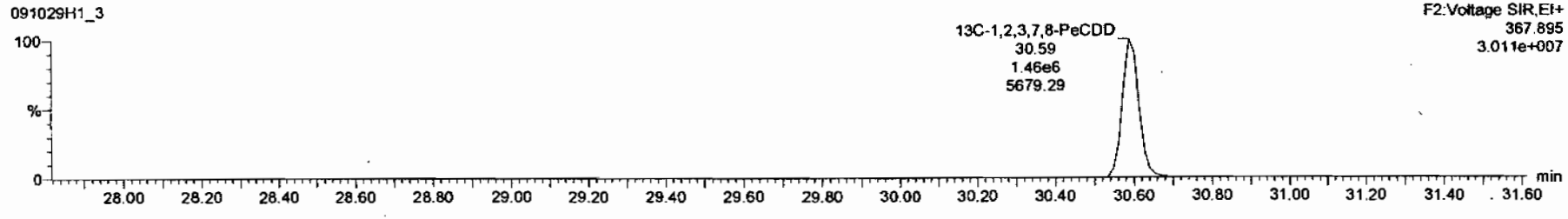

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1,2,3,4,7,8-HxCDD

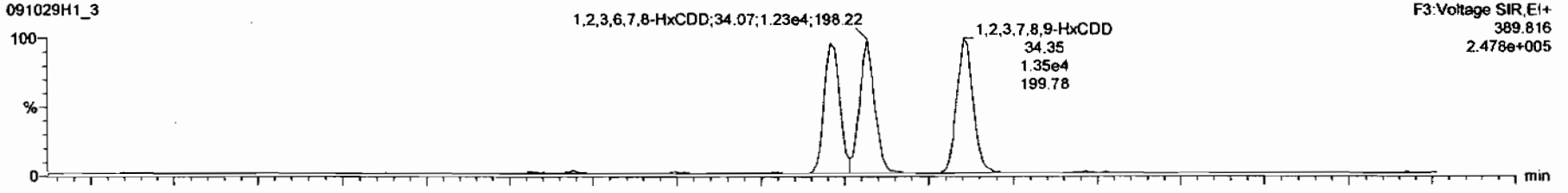

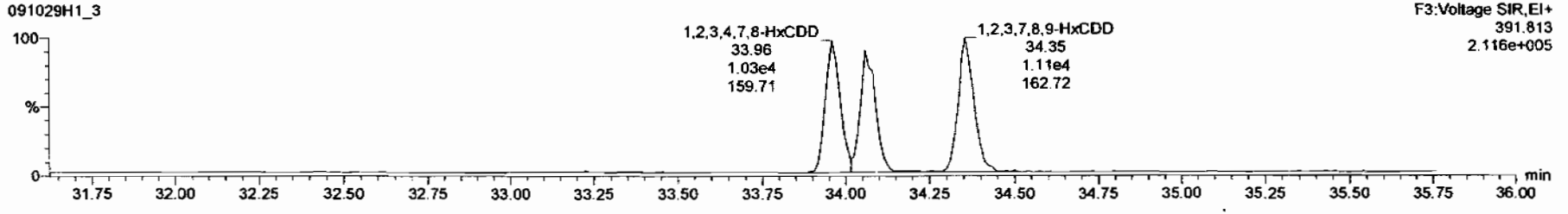

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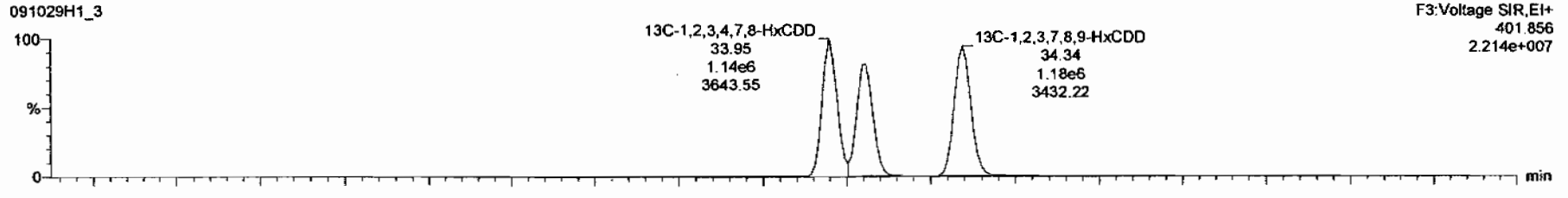

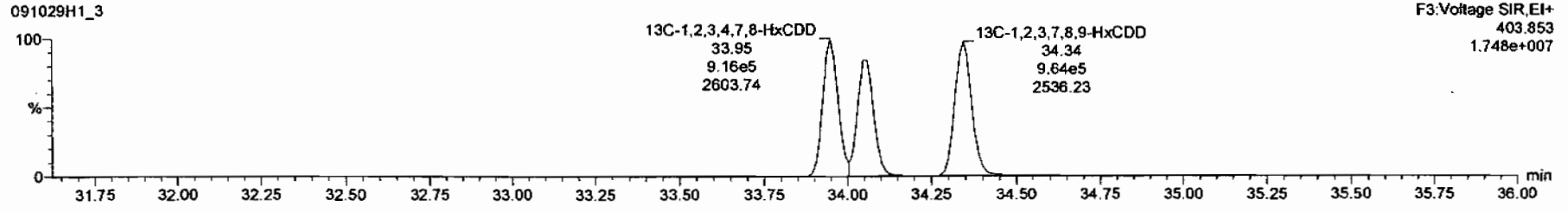

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1,2,3,4,6,7,8-HpCDD

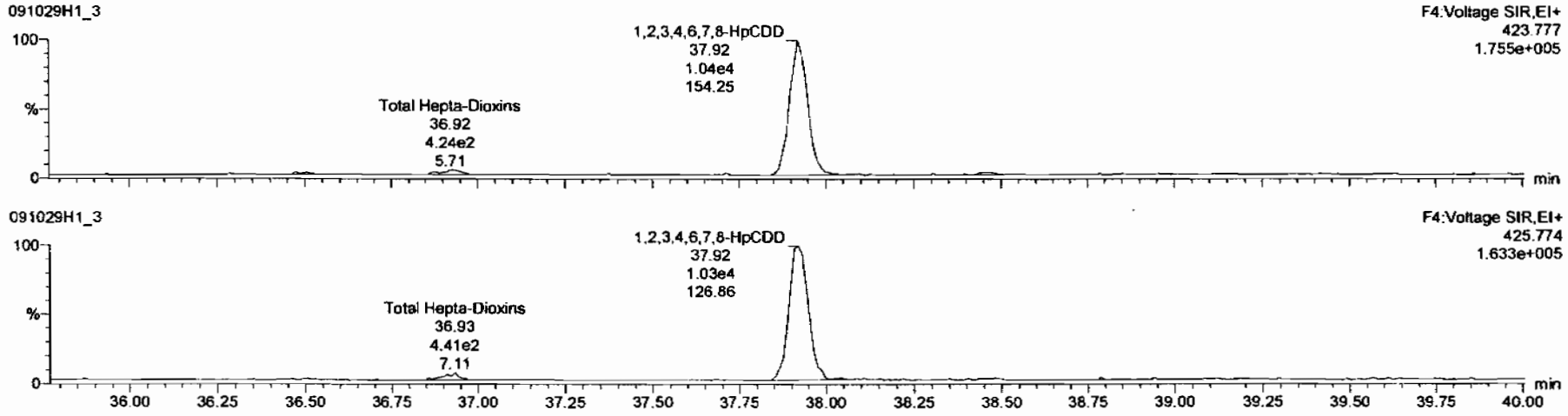

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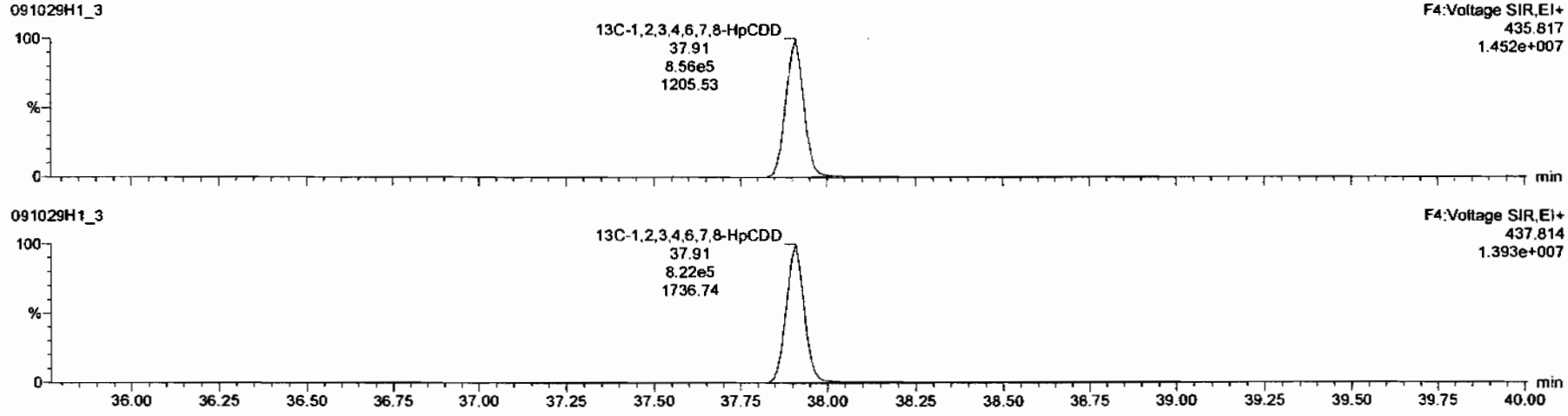

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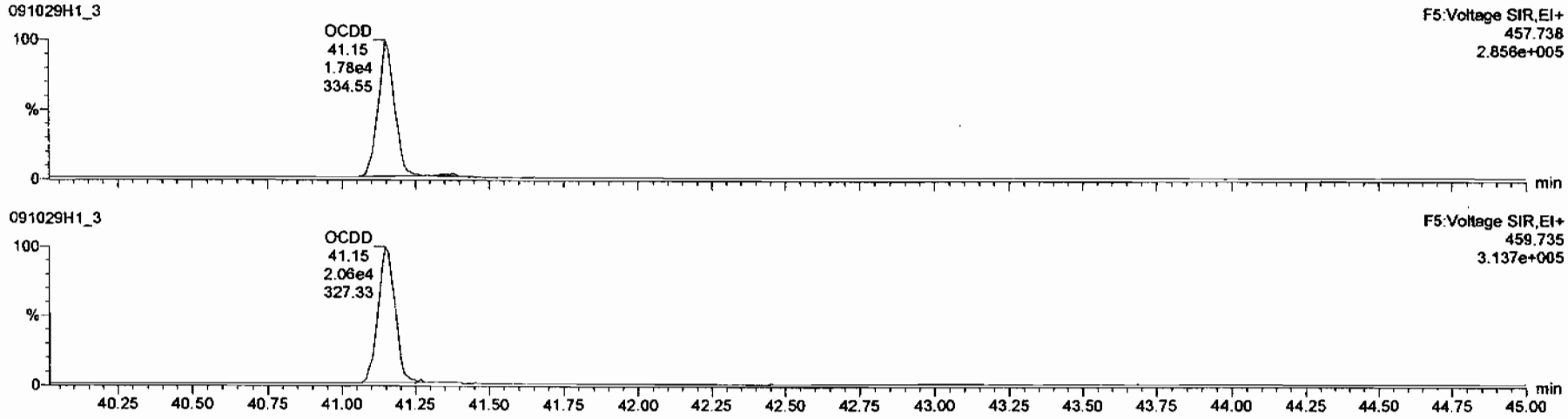

13C-OCDD

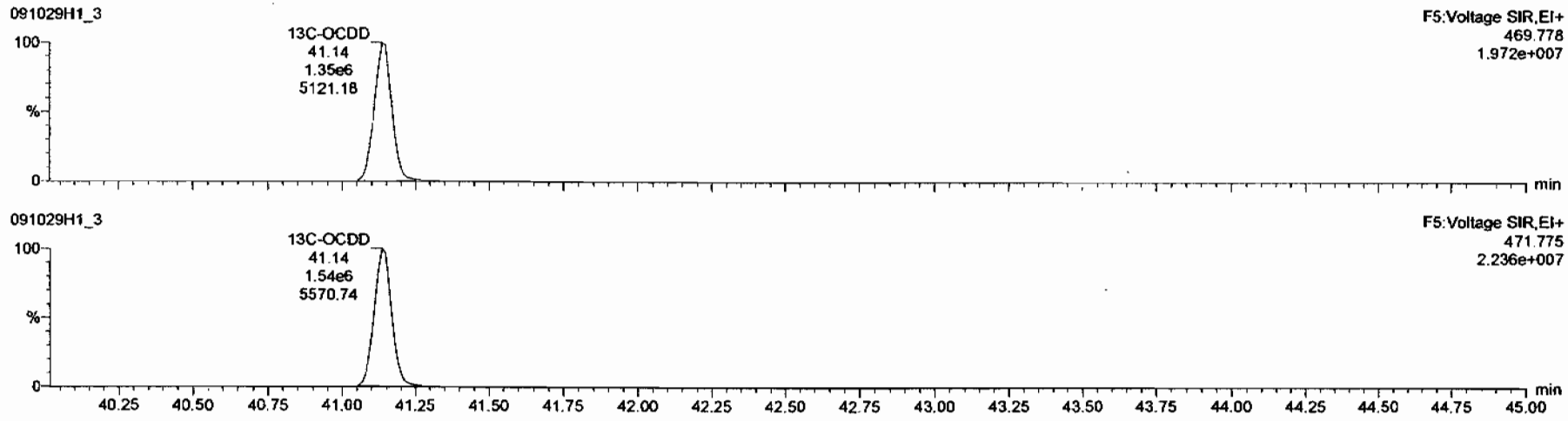

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2,3,7,8-TCDF

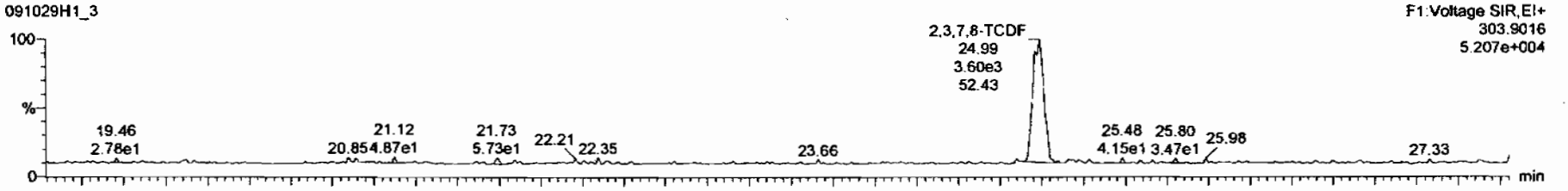

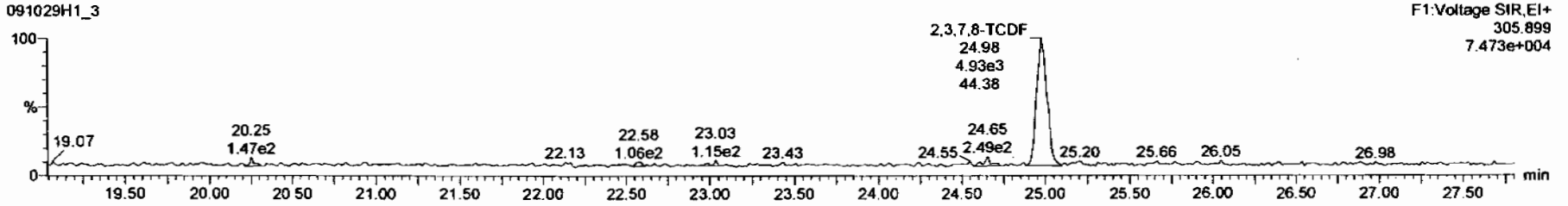

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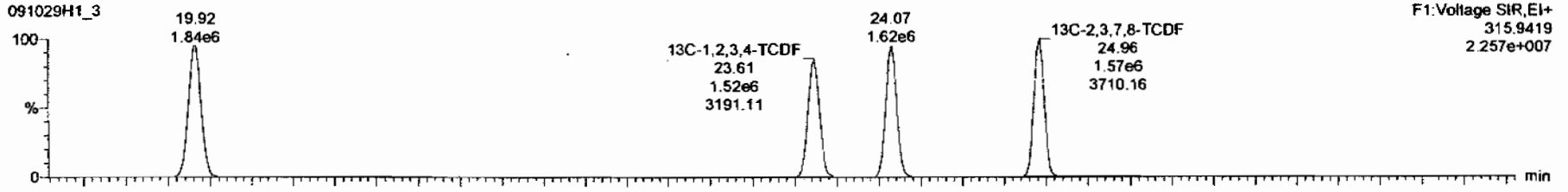

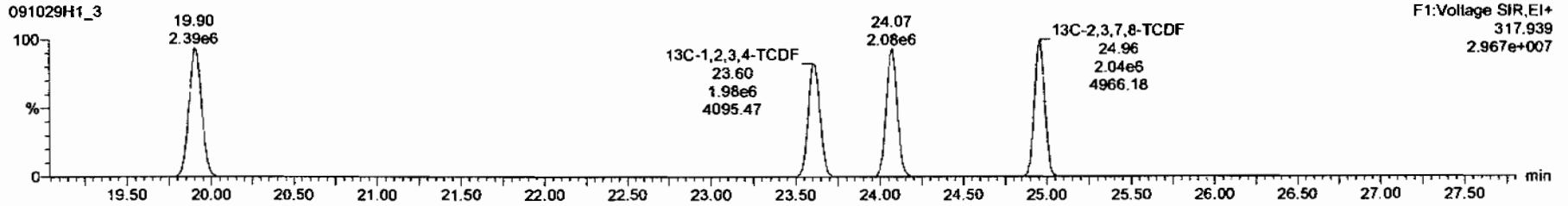

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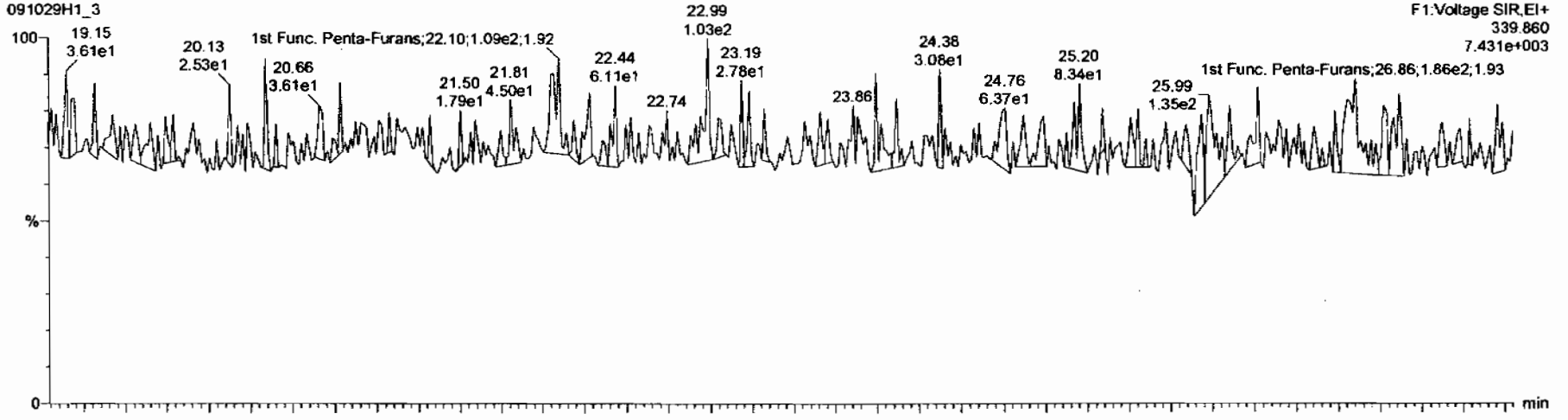

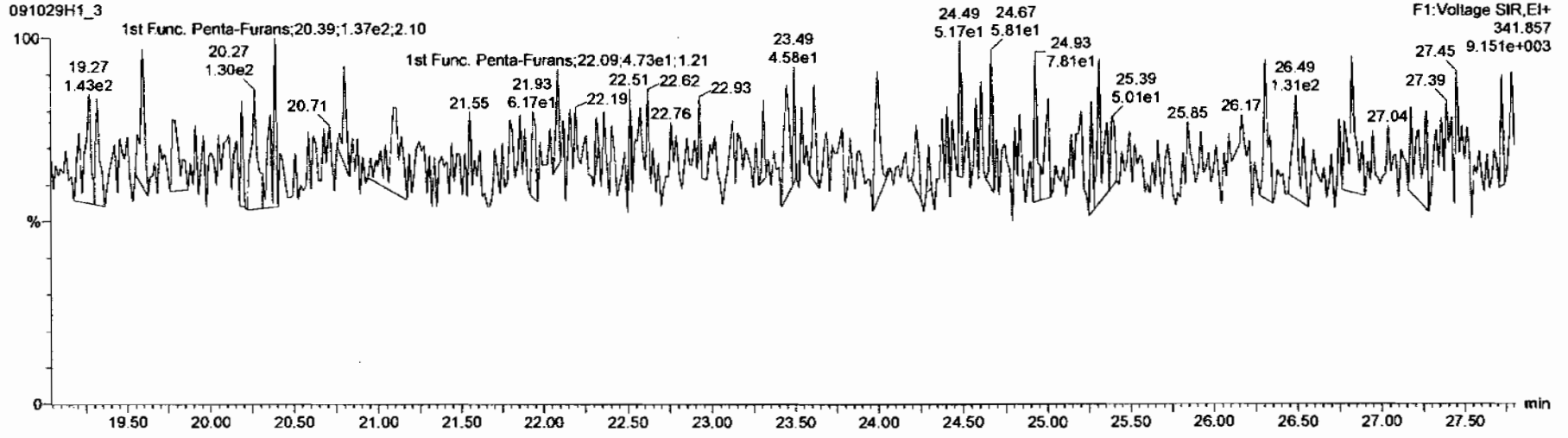

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1,2,3,7,8-PeCDF

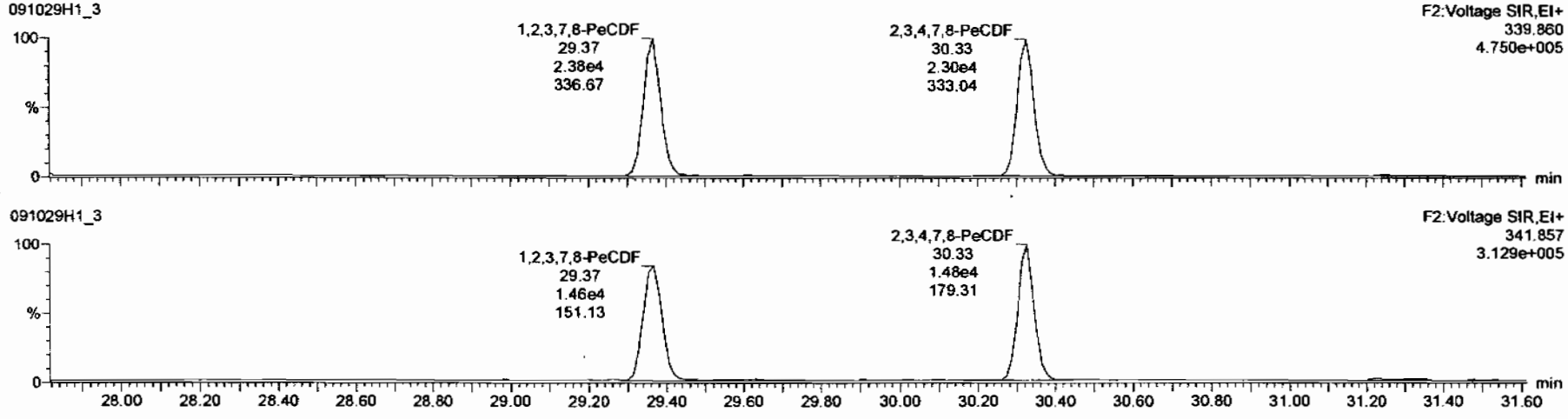

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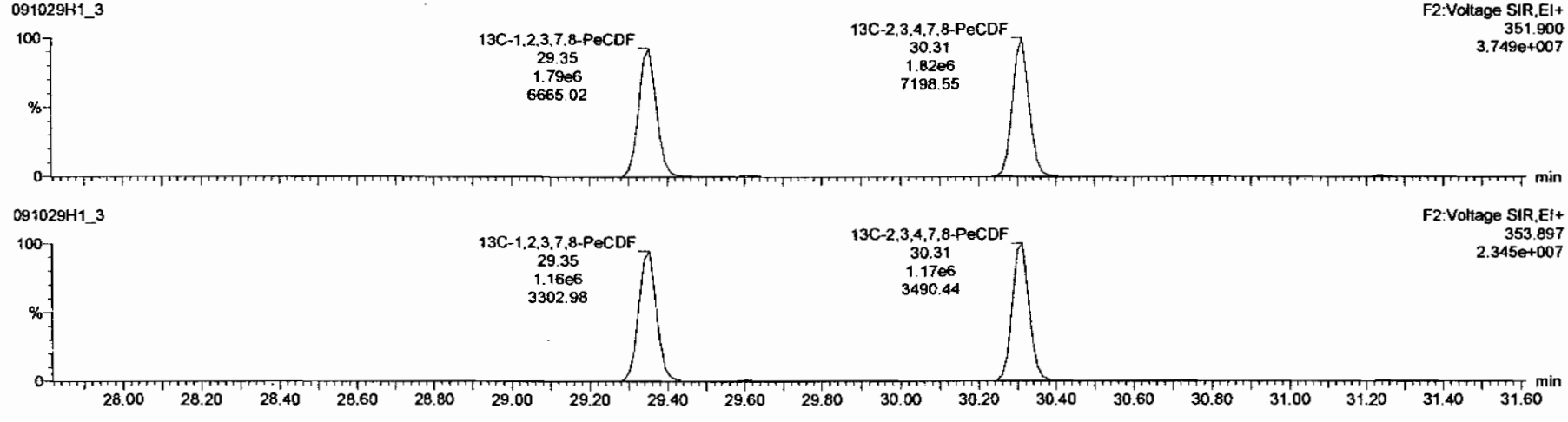

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1,2,3,4,7,8-HxCDF

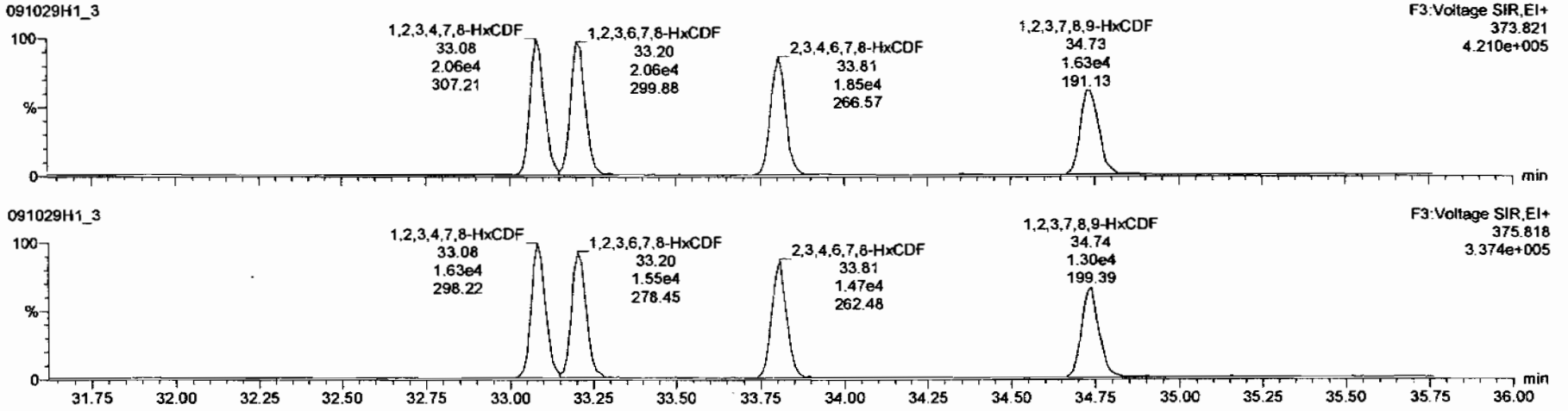

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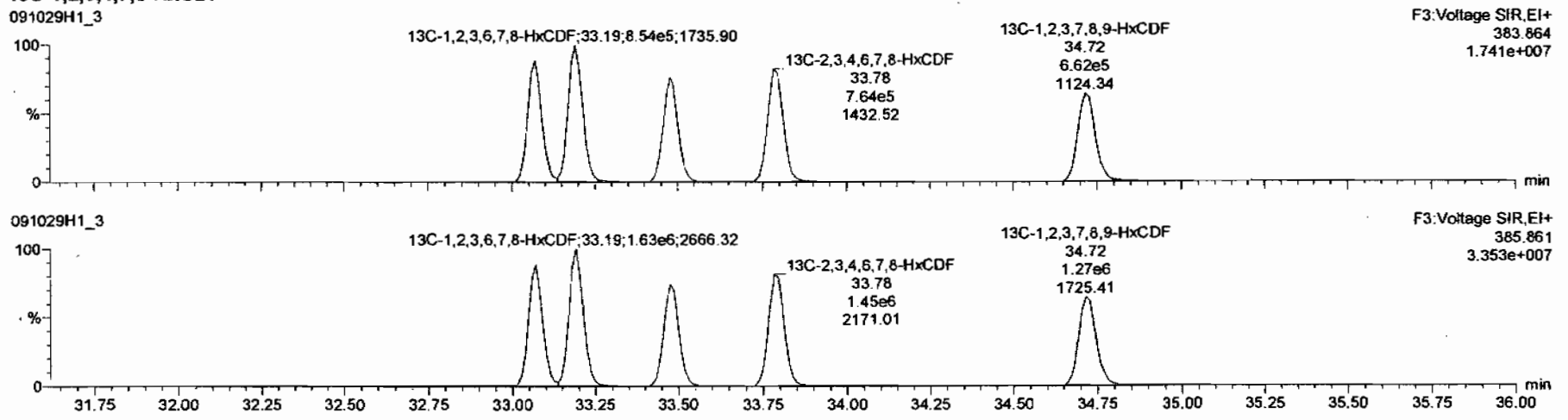

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1,2,3,4,6,7,8-HpCDF

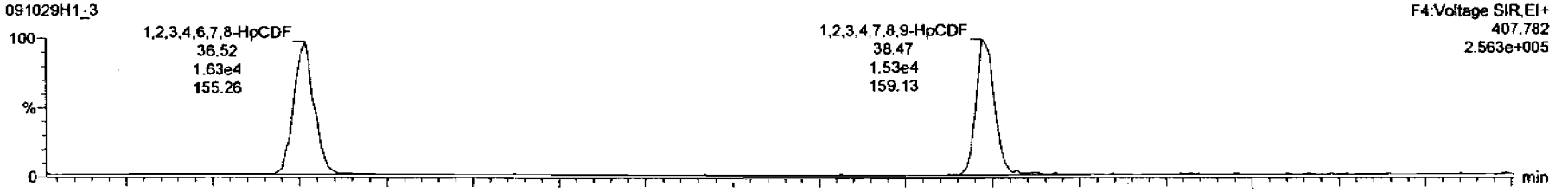

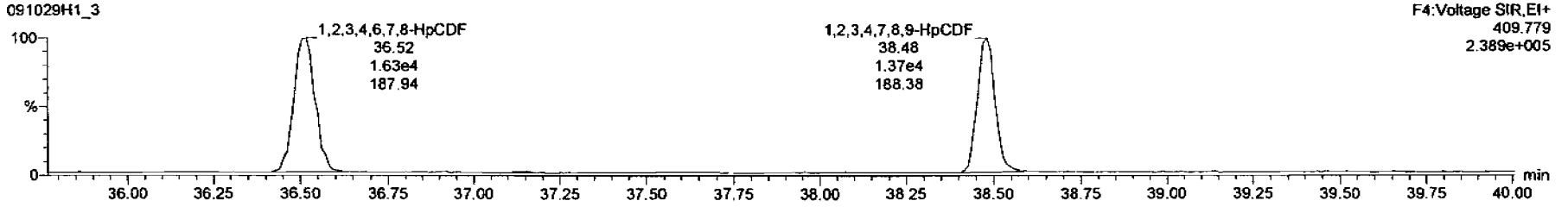

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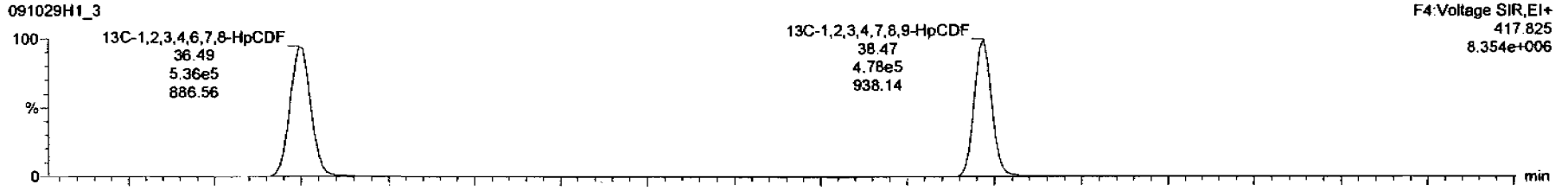

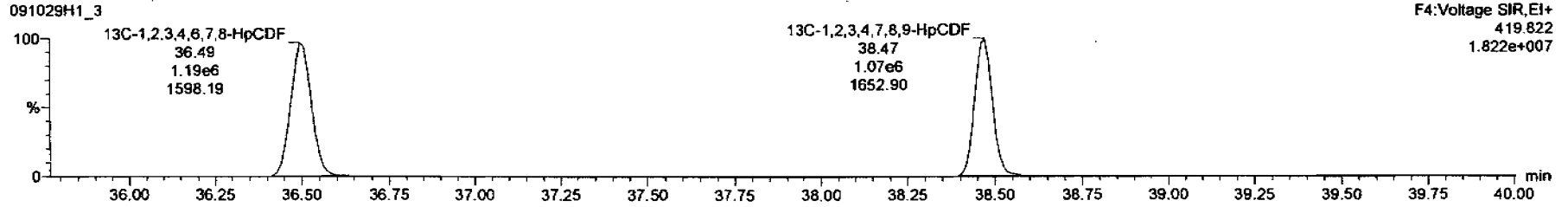

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Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

Name: 091029H1_3, Date: 29-Oct-2009, Time: 14:05:59, ID: ST091029H1-2 1613 CS0 090922D, Description: 1613 CS0 090922D

OCDF

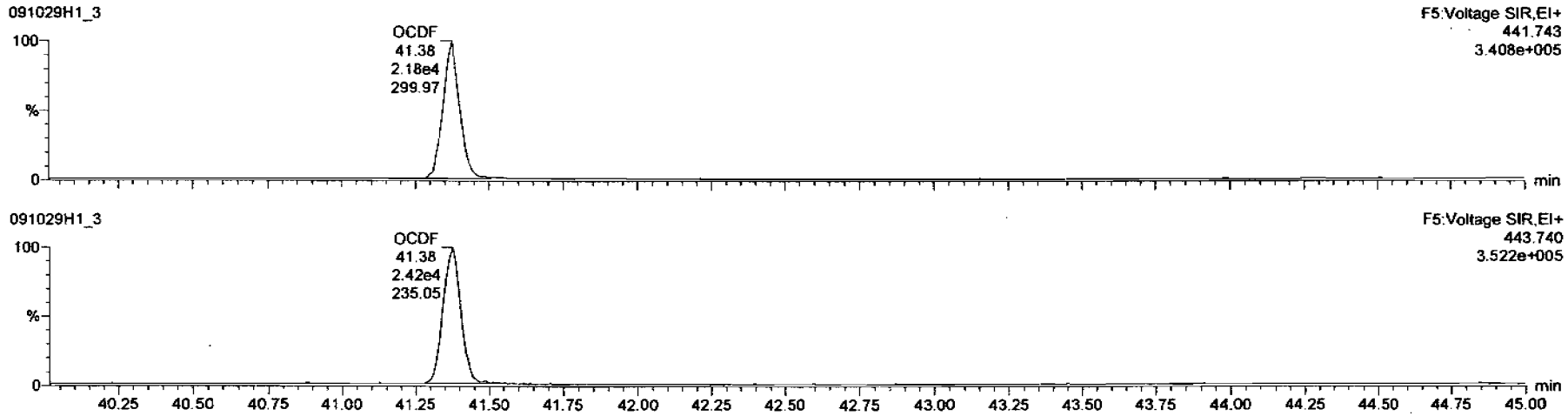

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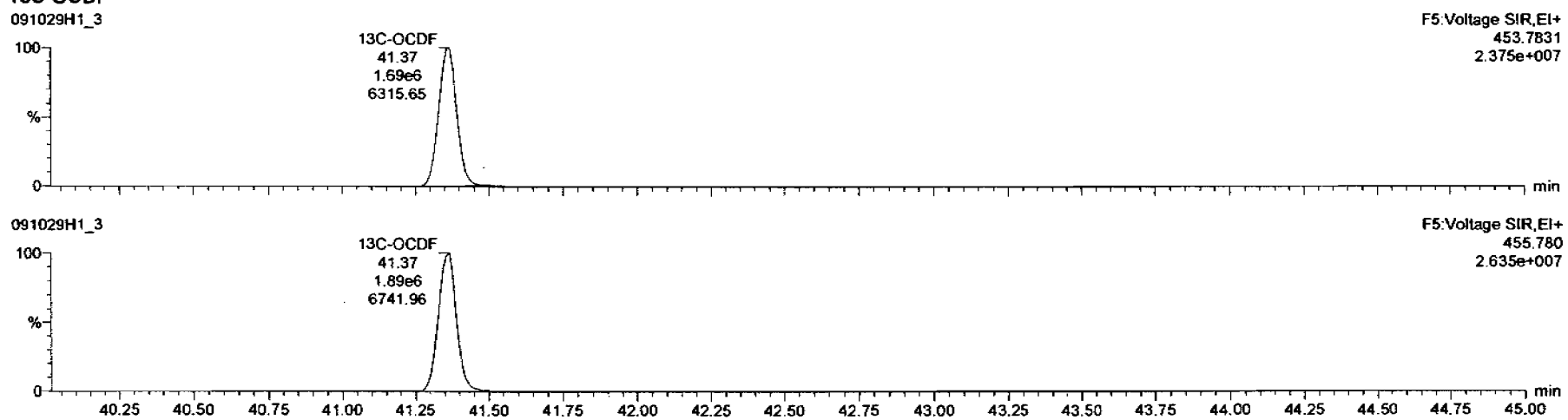

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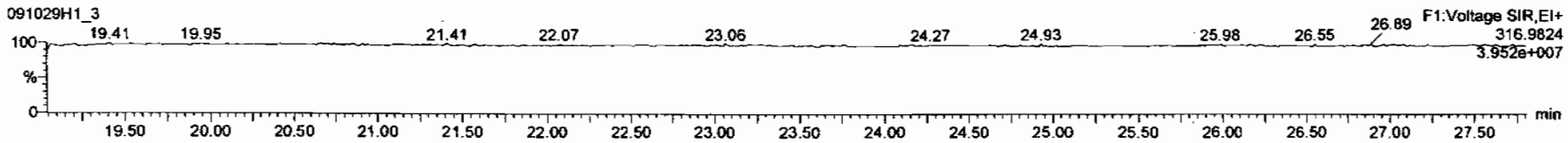

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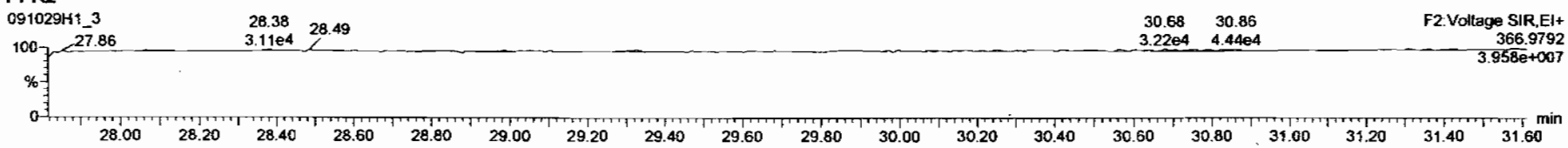

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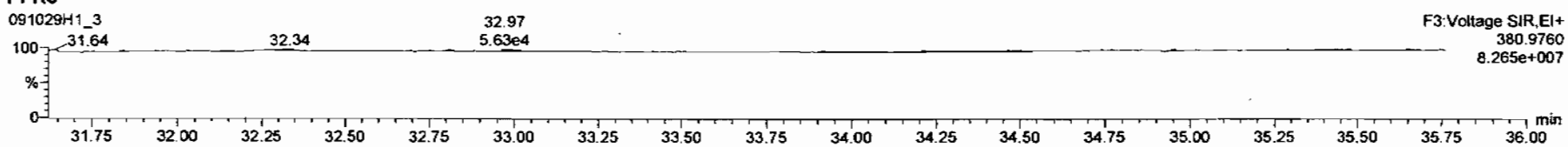

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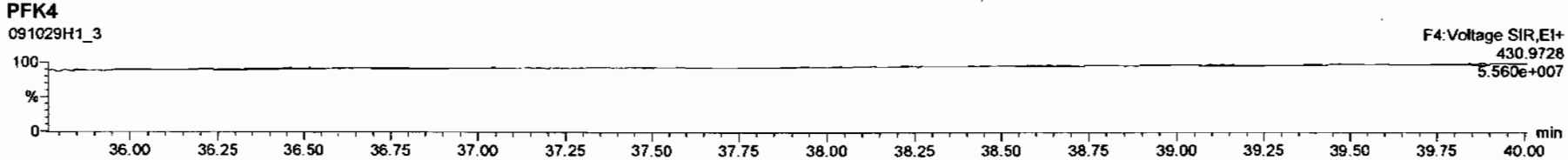

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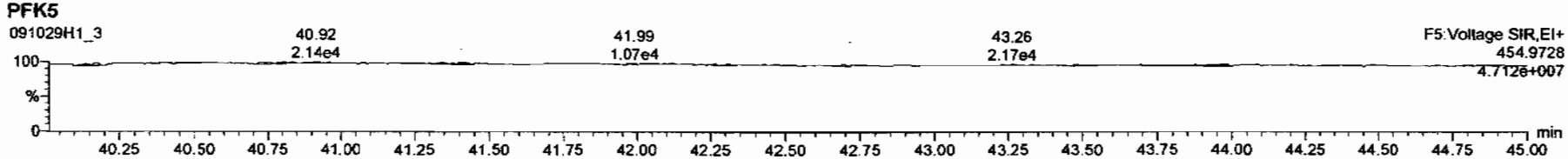

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Name: 091029H1_3, Date: 29-Oct-2009, Time: 14:05:59, ID: ST091029H1-2 1613 CS0 090922D, Description: 1613 CS0 090922D

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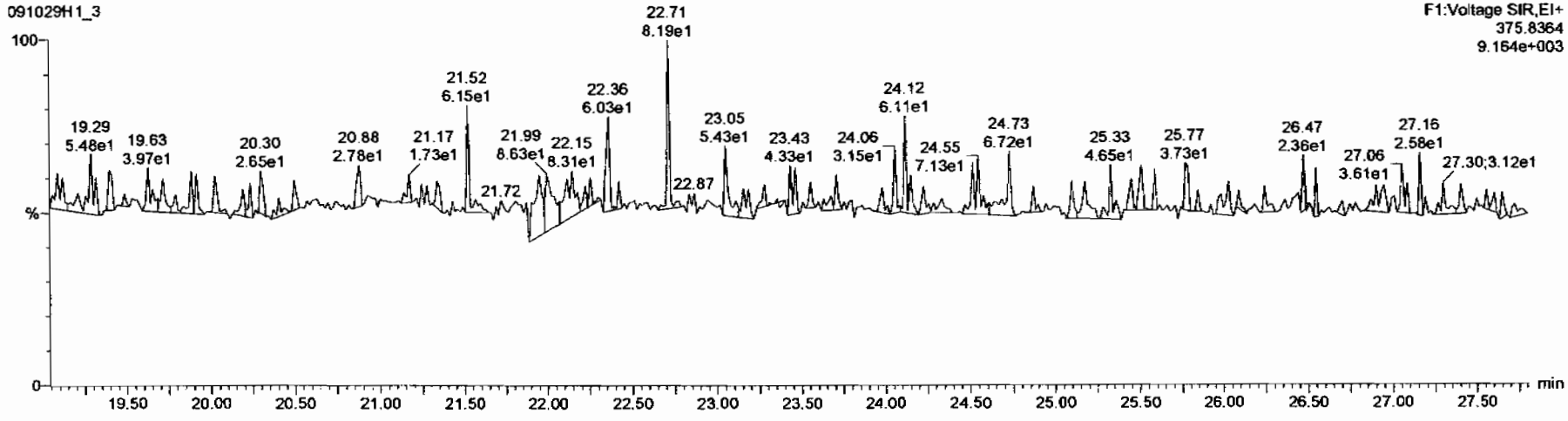

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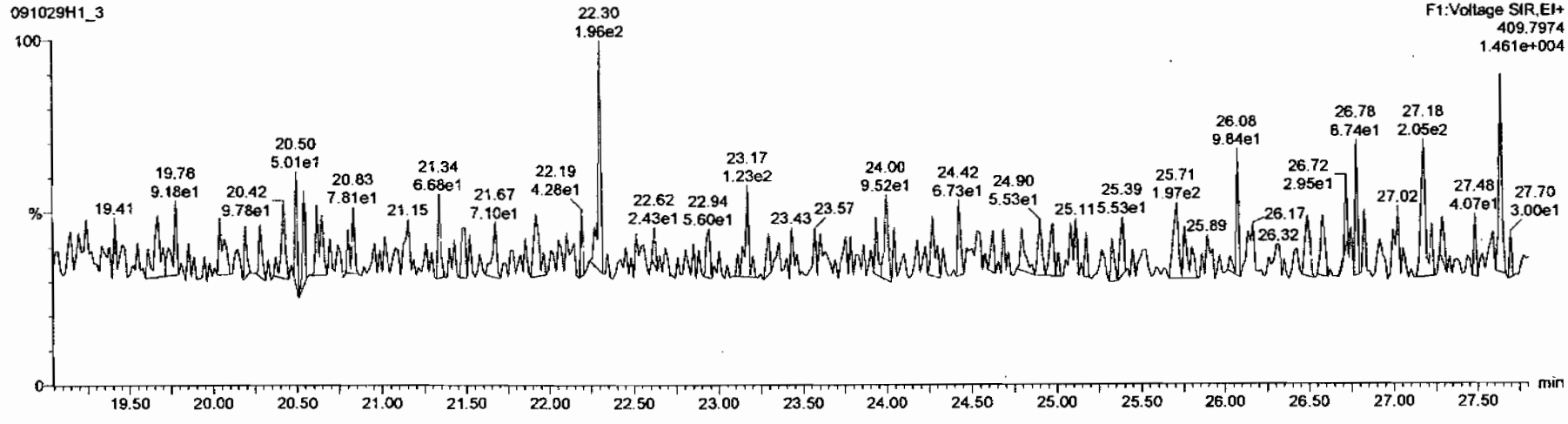

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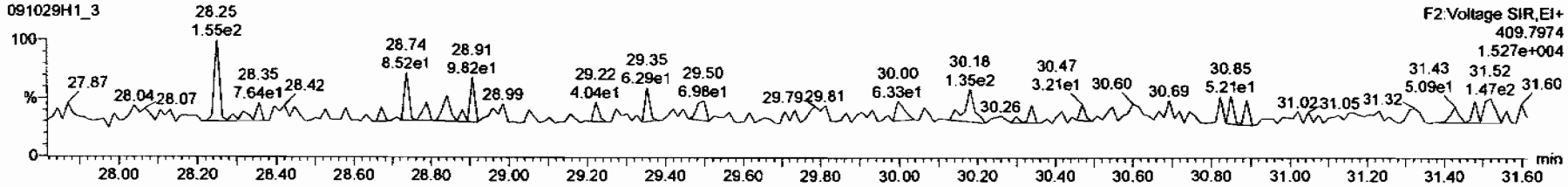

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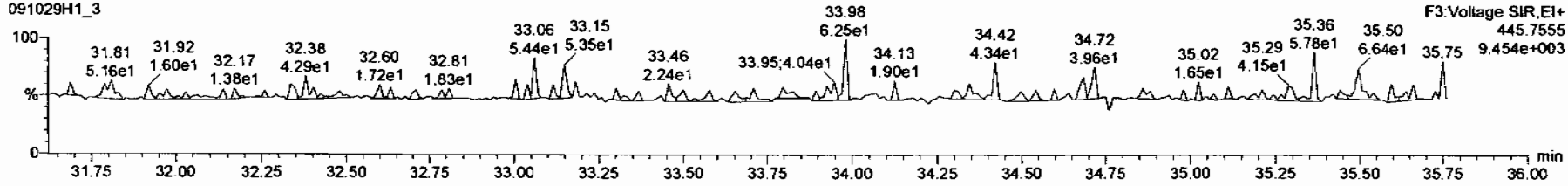

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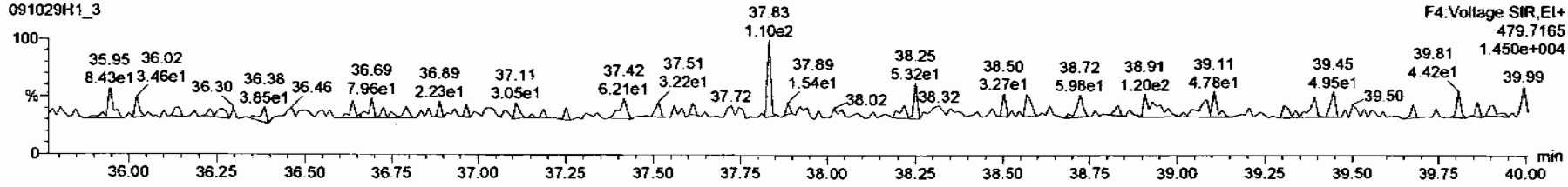

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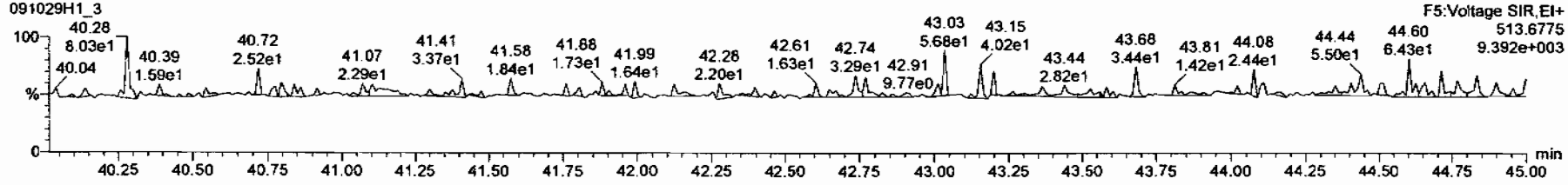

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2,3,7,8-TCDD

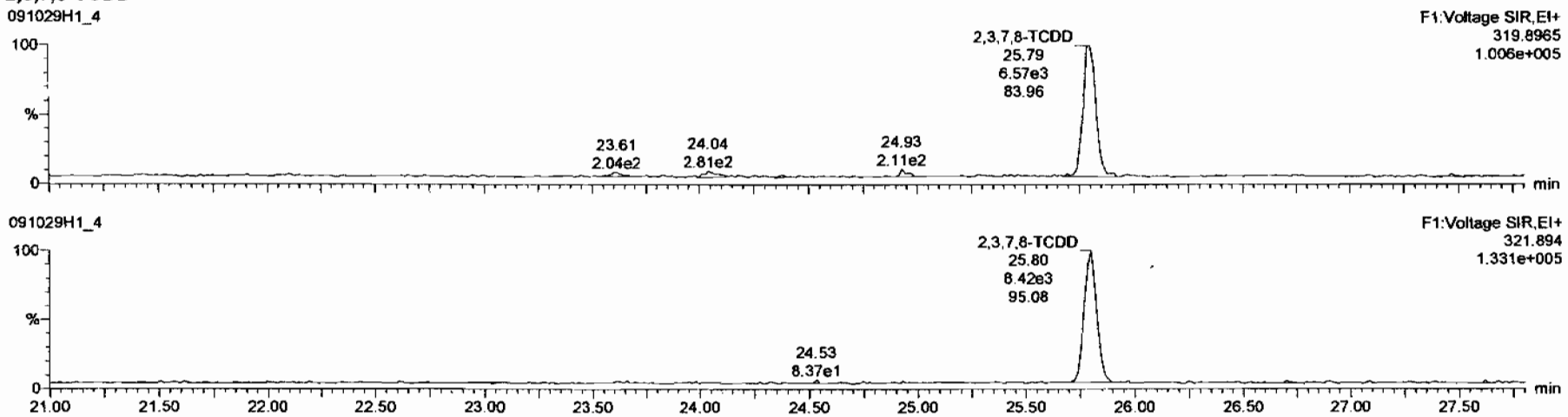

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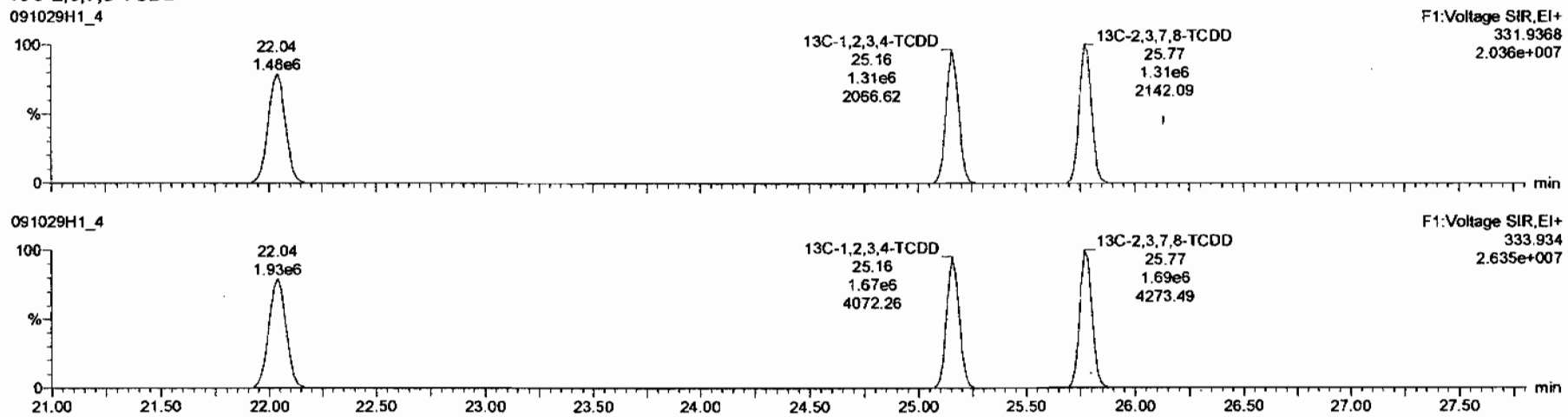

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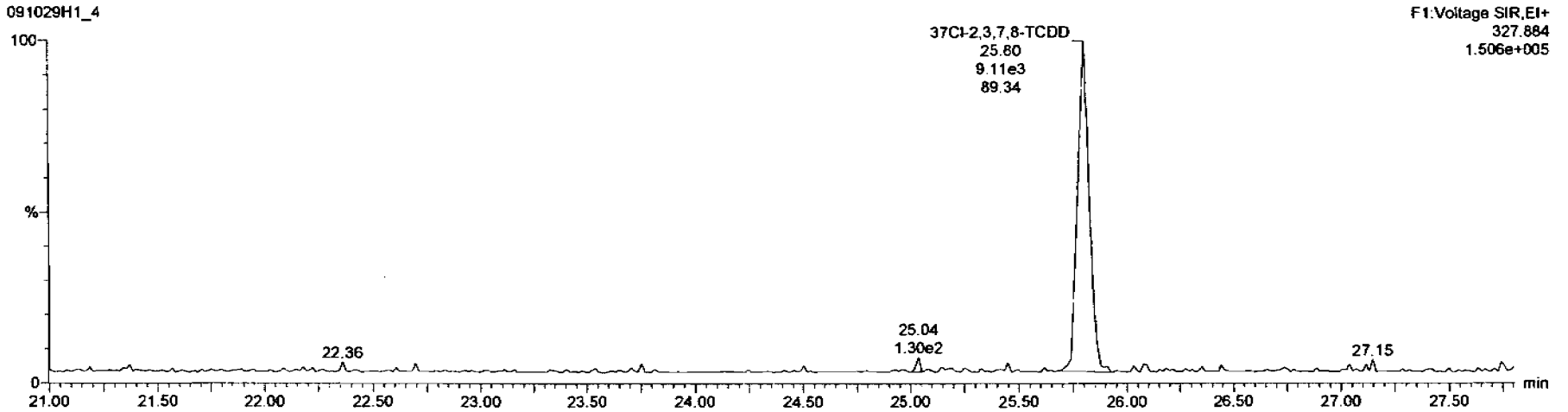

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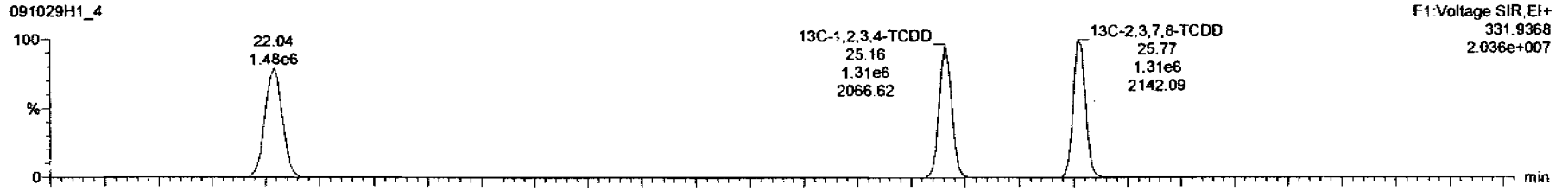

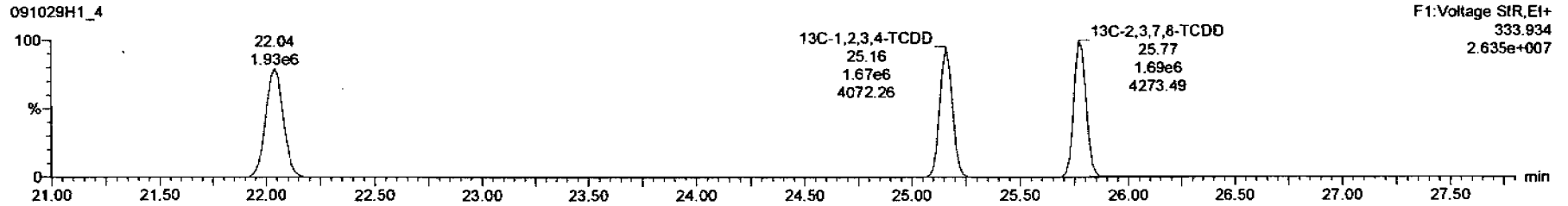

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1,2,3,7,8-PeCDD

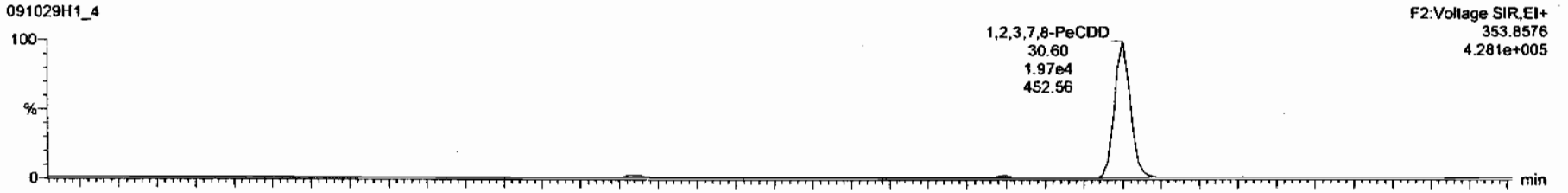

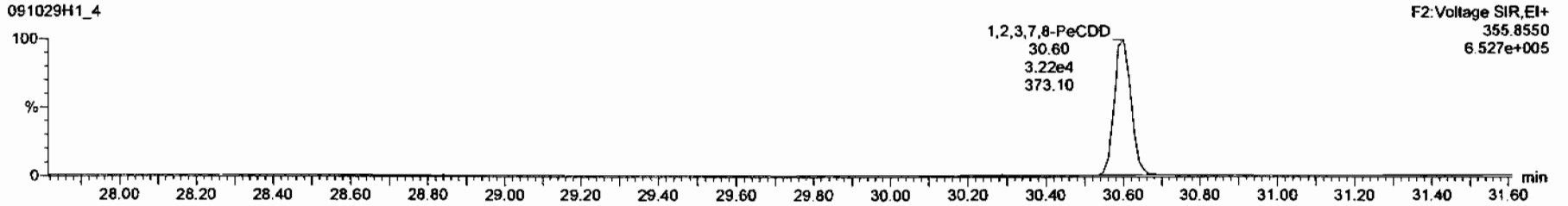

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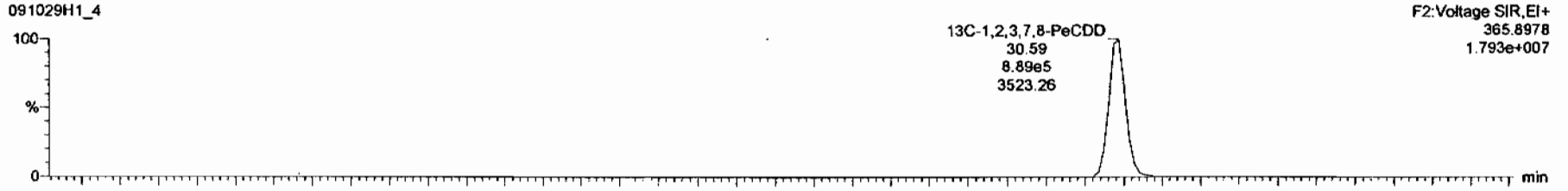

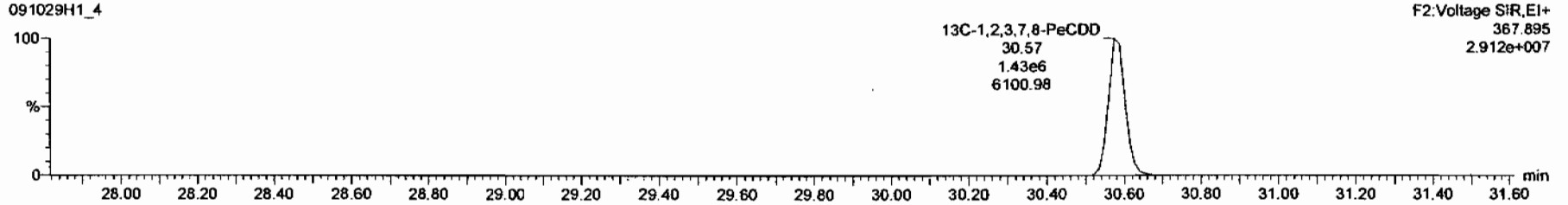

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1,2,3,4,7,8-HxCDD

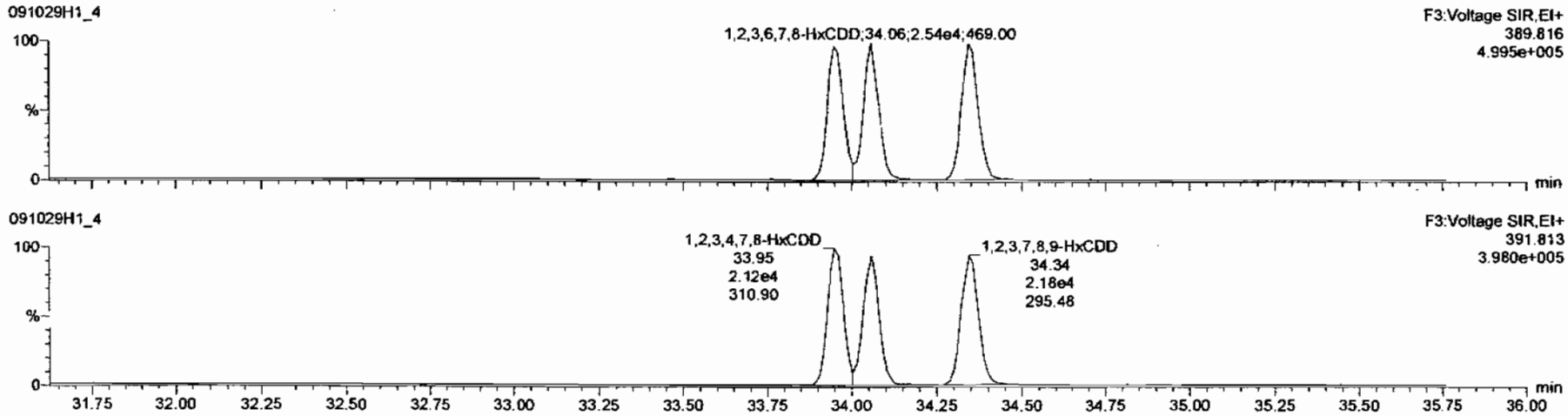

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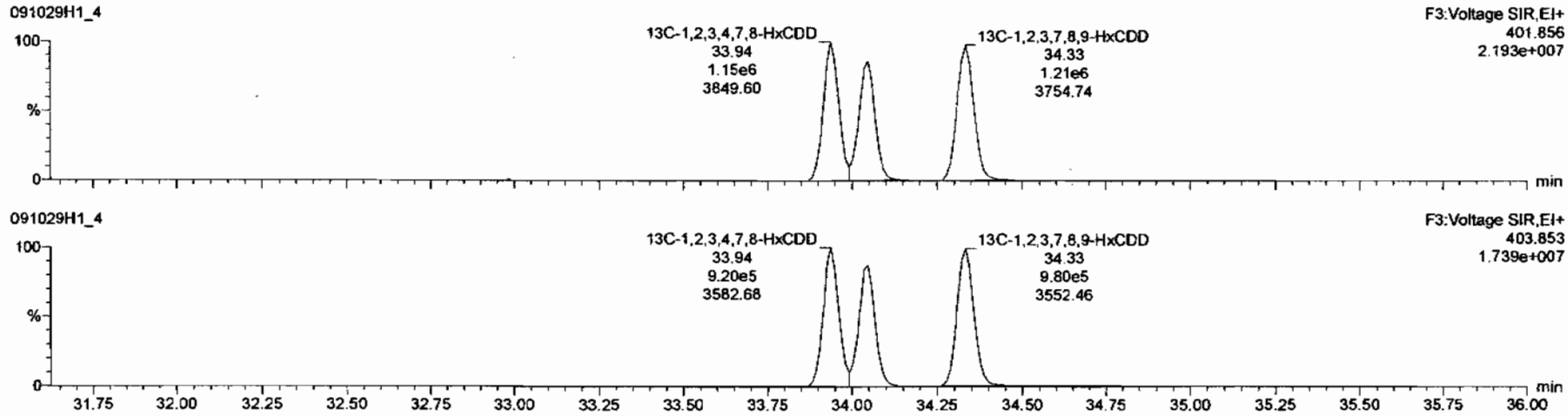

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1,2,3,4,6,7,8-HpCDD

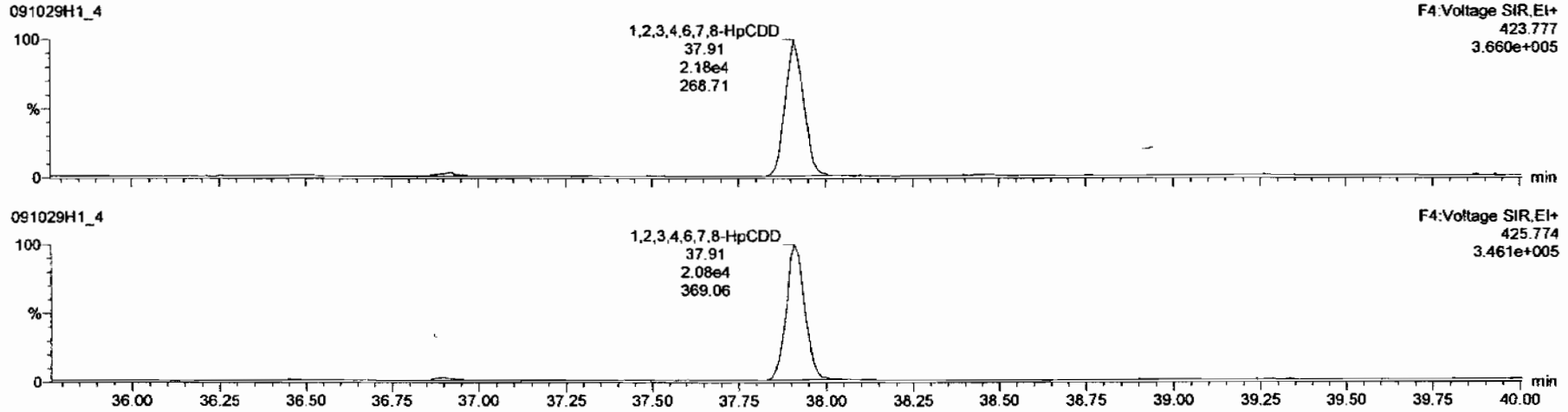

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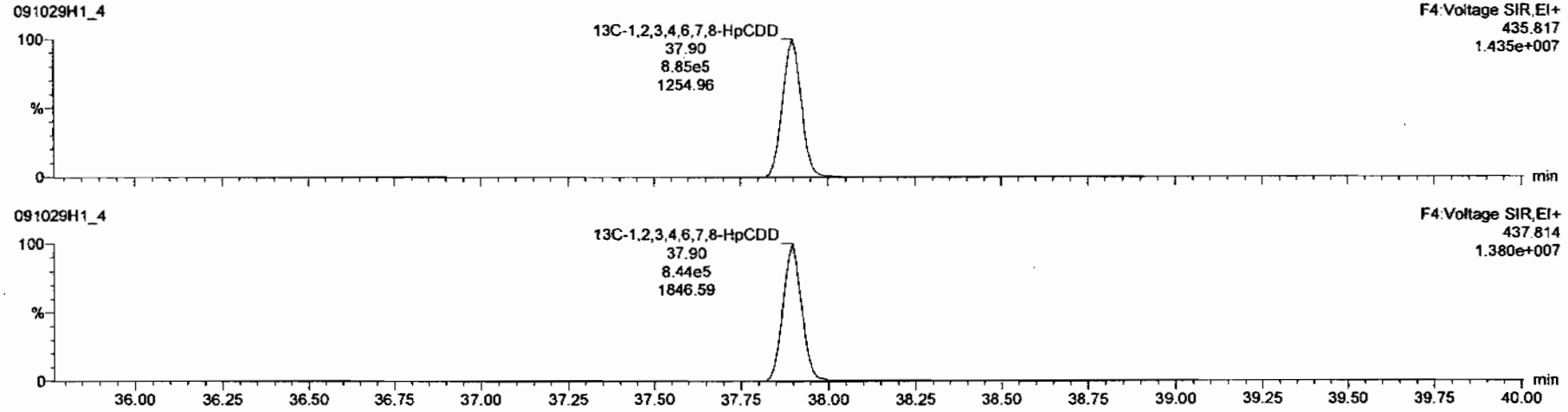

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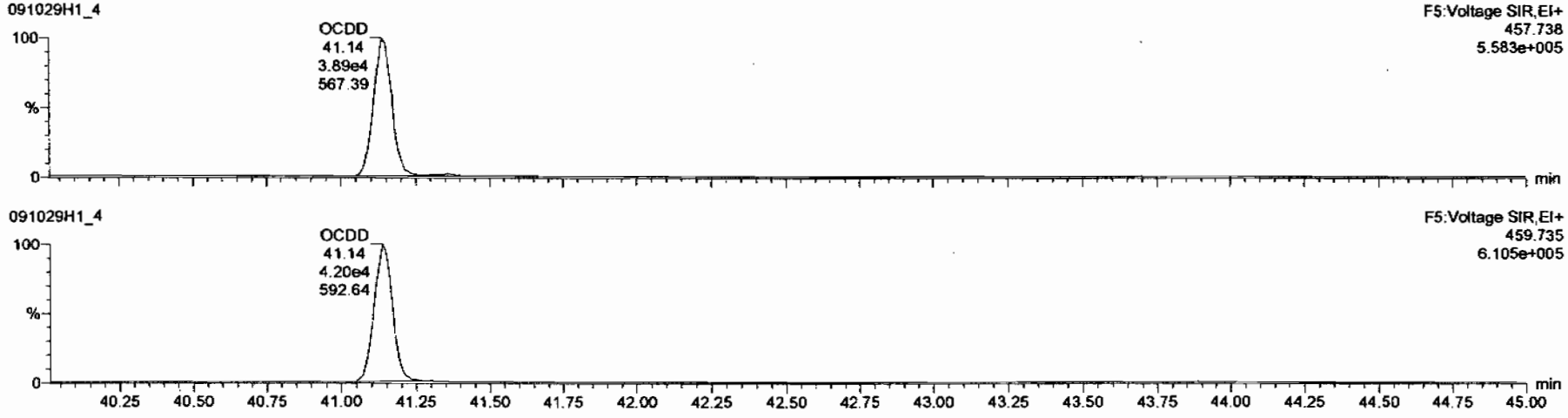

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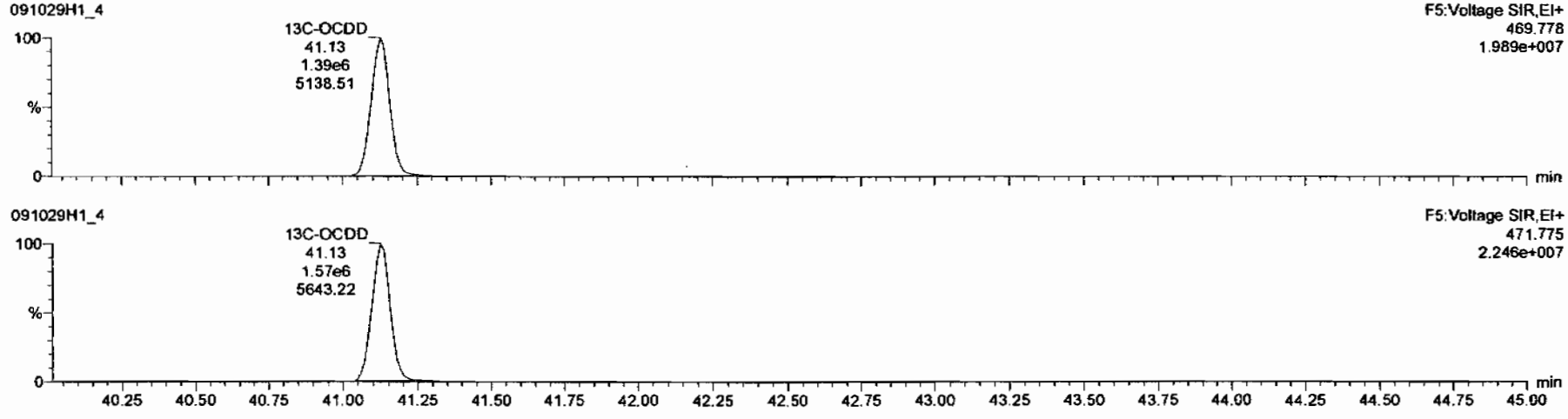

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2,3,7,8-TCDF

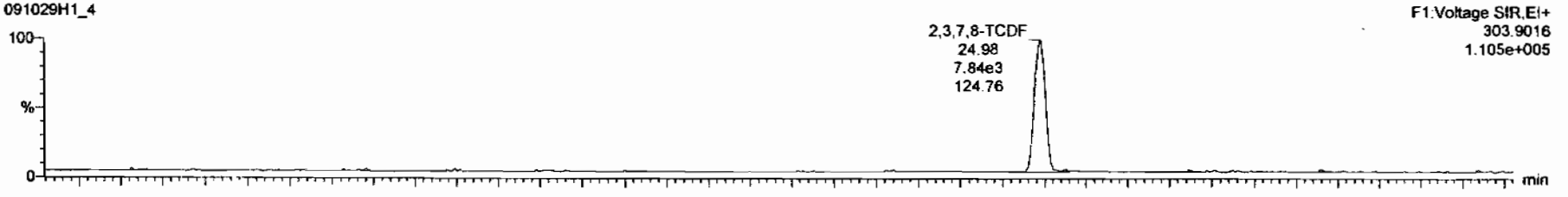

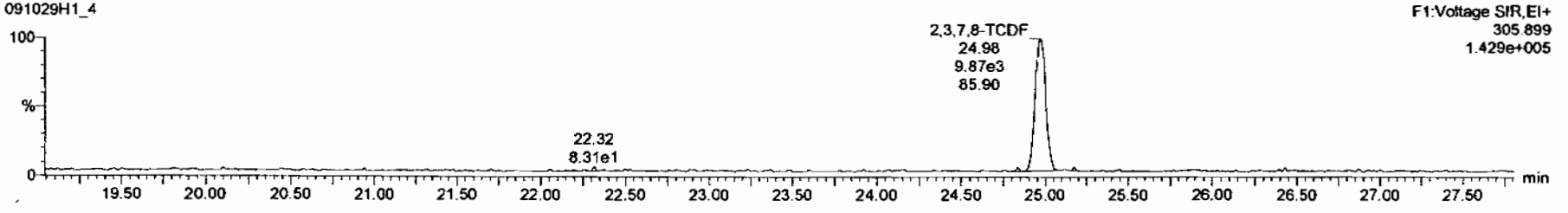

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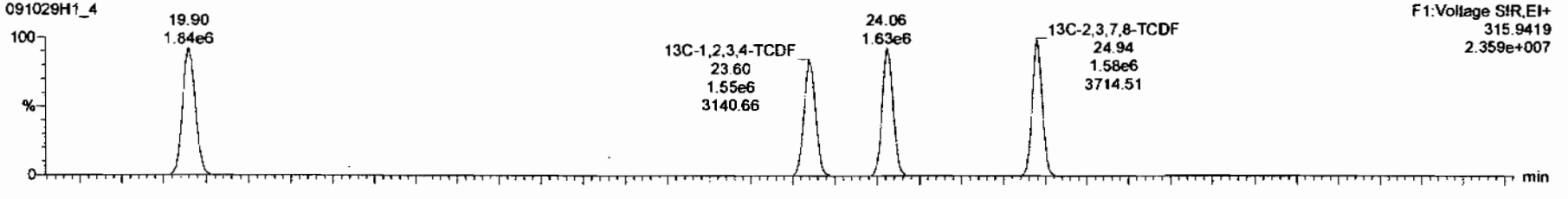

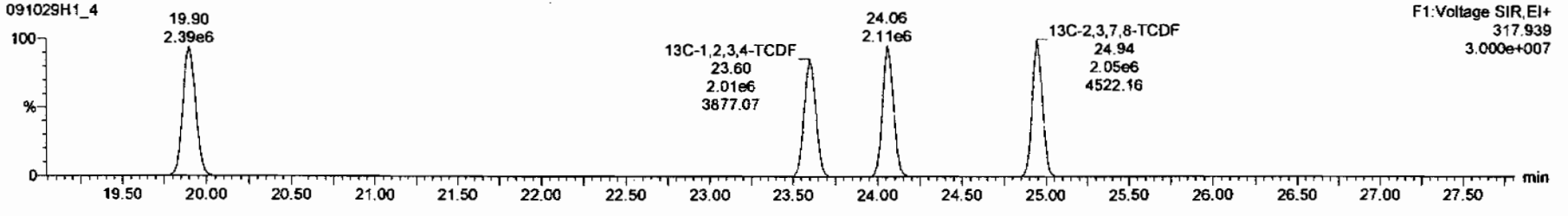

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Name: 091029H1_4, Date: 29-Oct-2009, Time: 14:55:29, ID: ST091029H1-3 1613 CS1 090922E, Description: 1613 CS1 090922E

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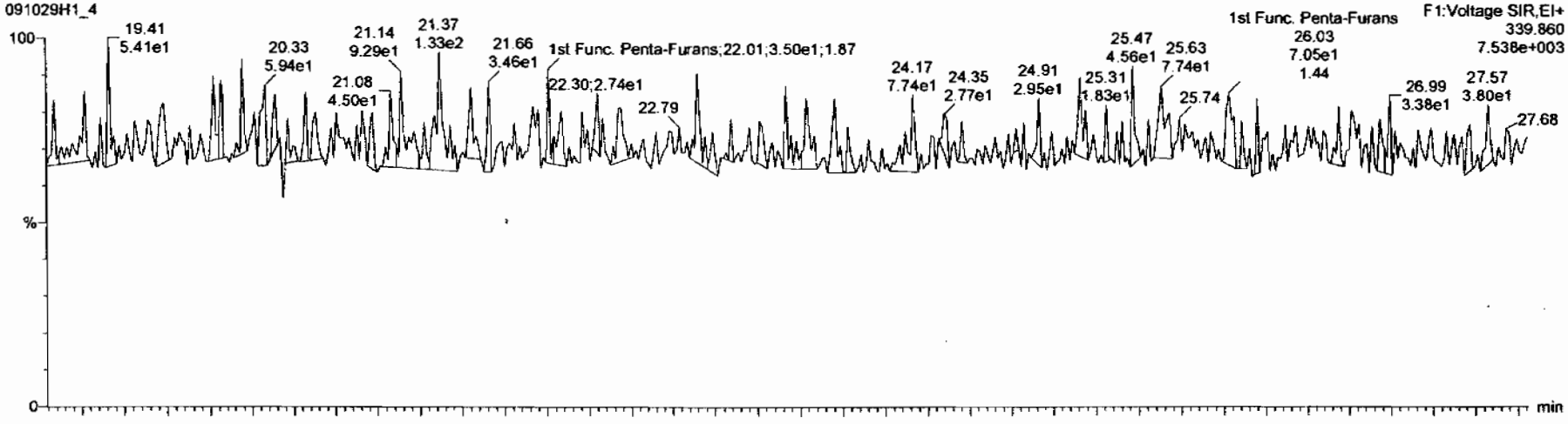

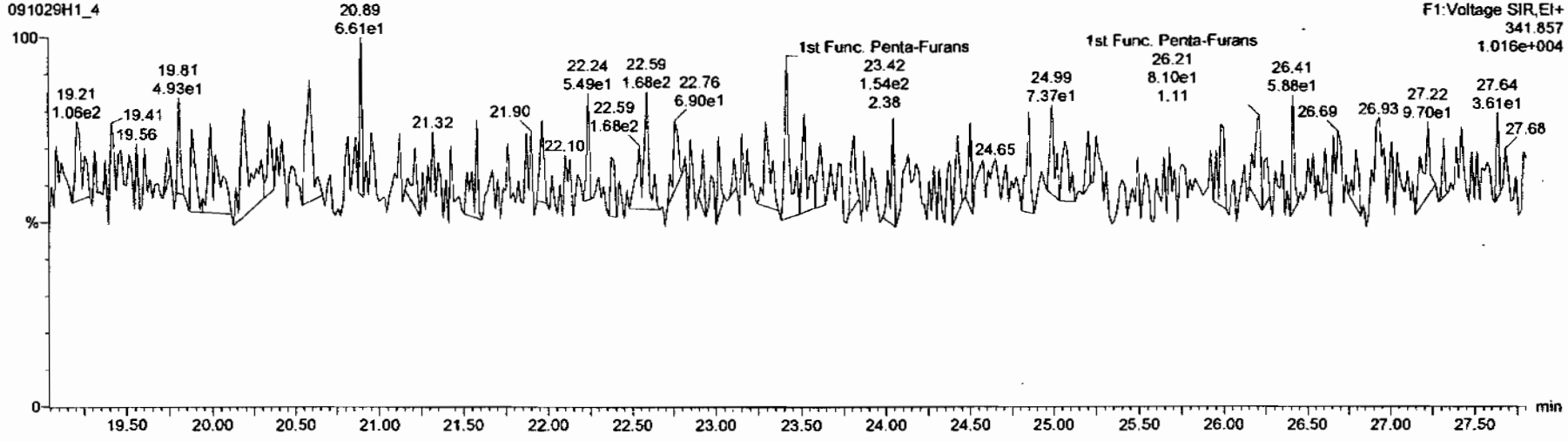

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1,2,3,7,8-PeCDF

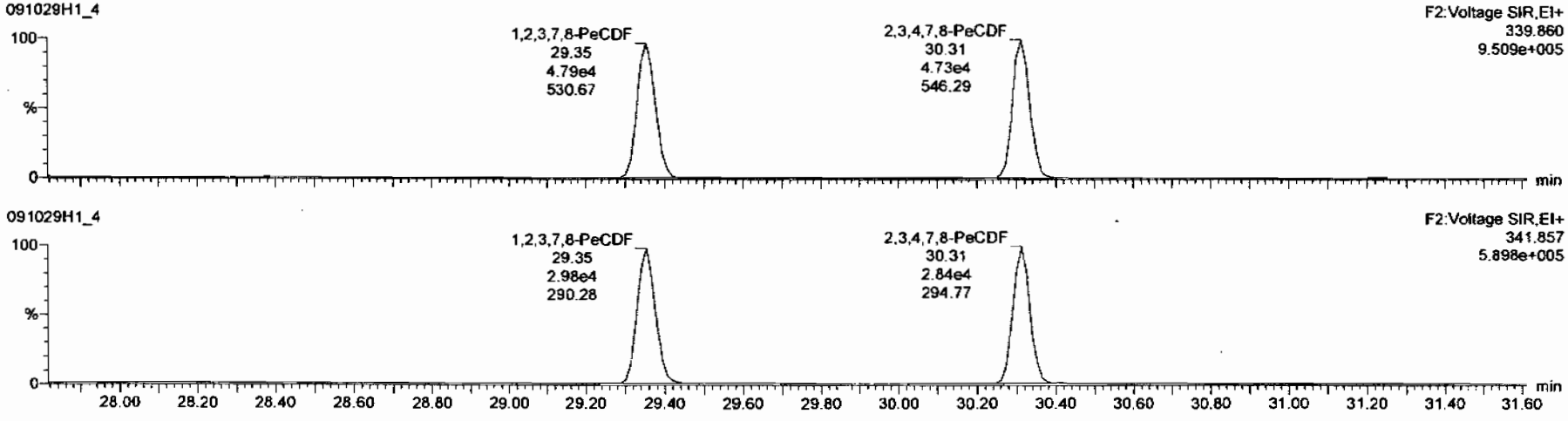

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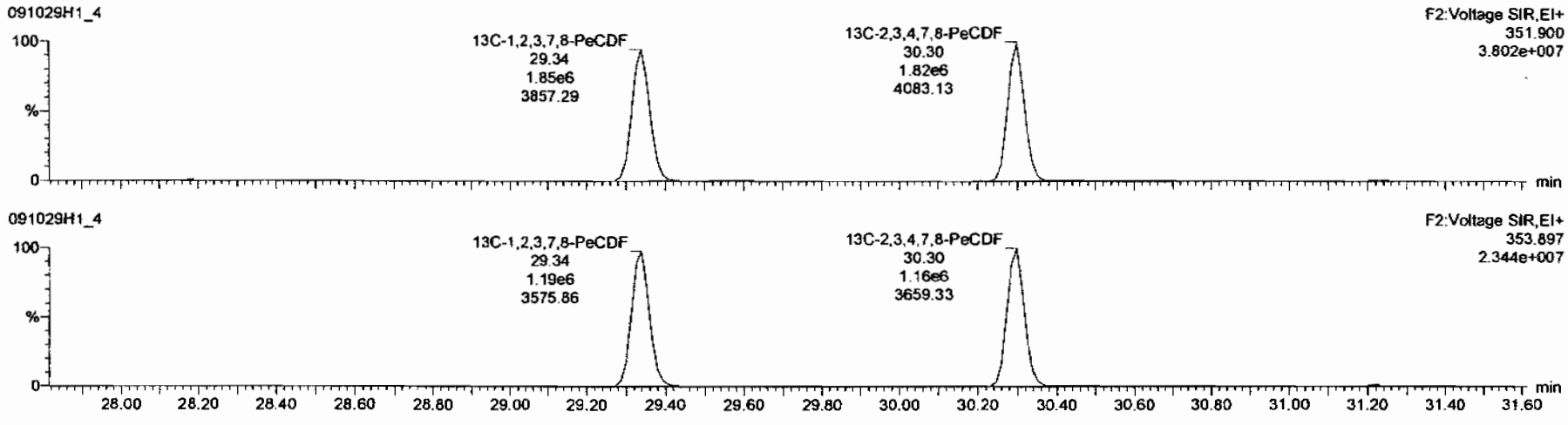

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1,2,3,4,7,8-HxCDF

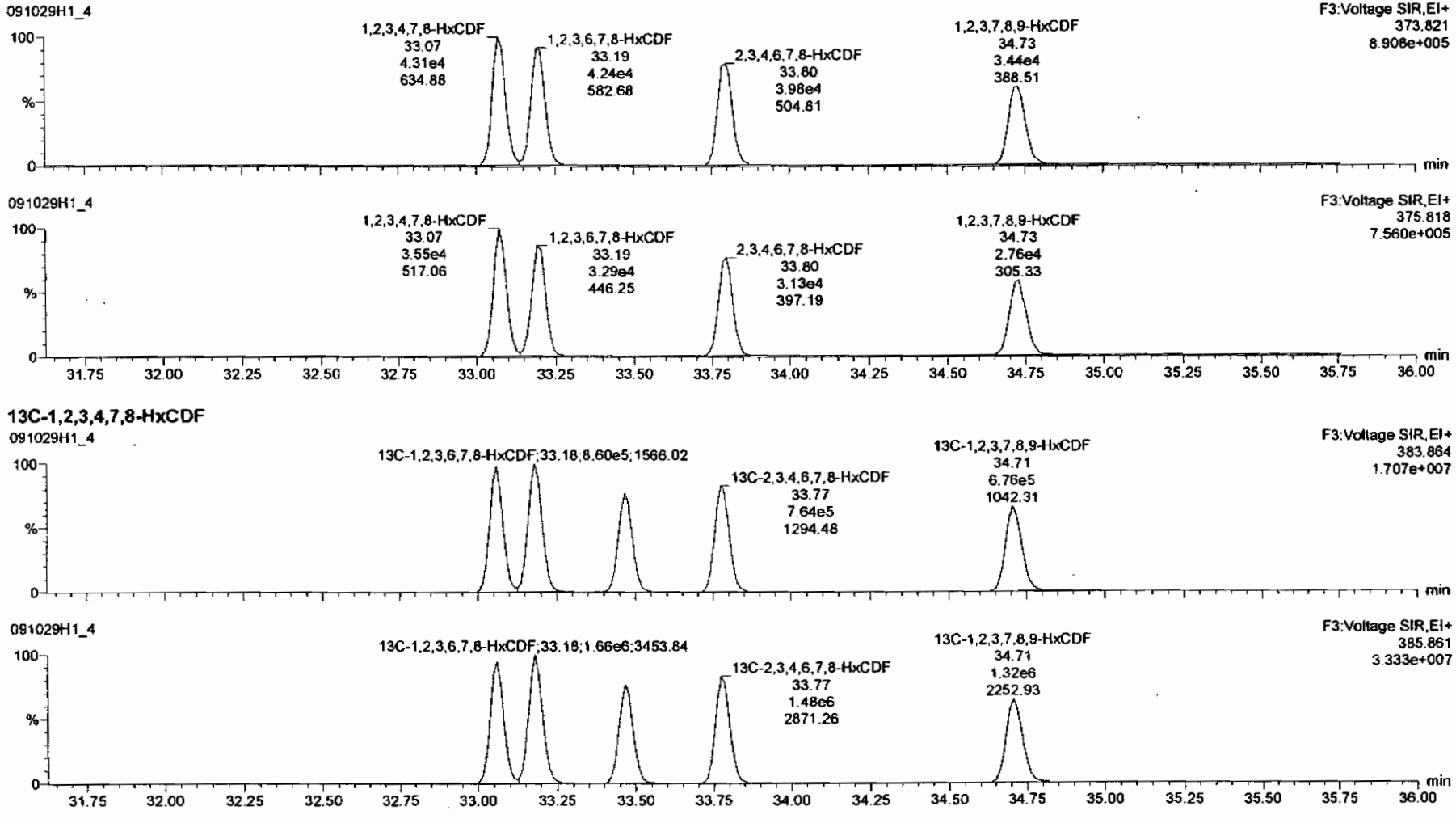

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1,2,3,4,6,7,8-HpCDF

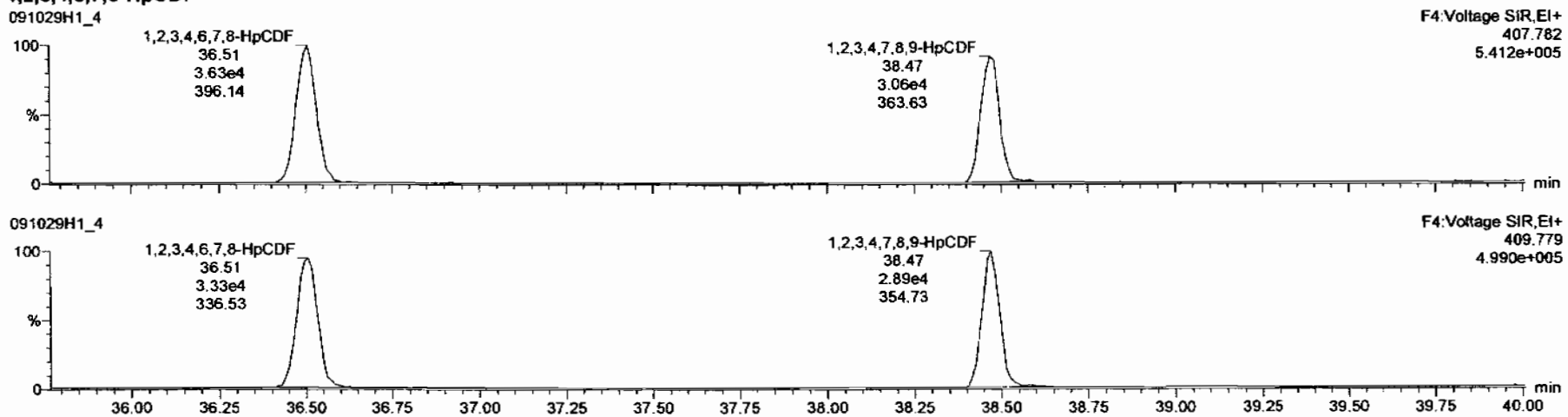

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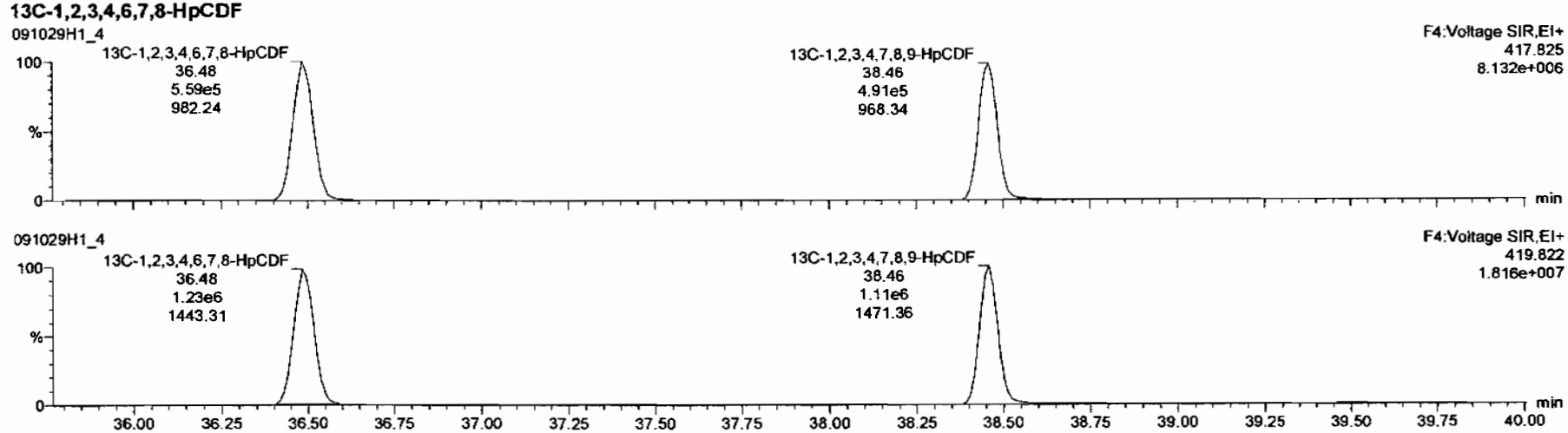

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Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

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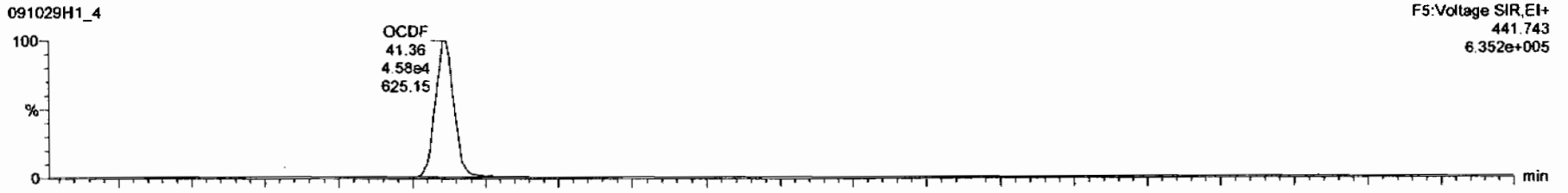

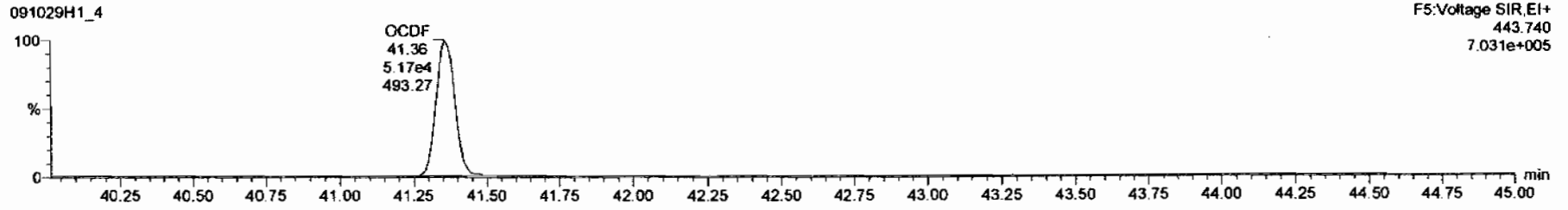

13C-OCDF

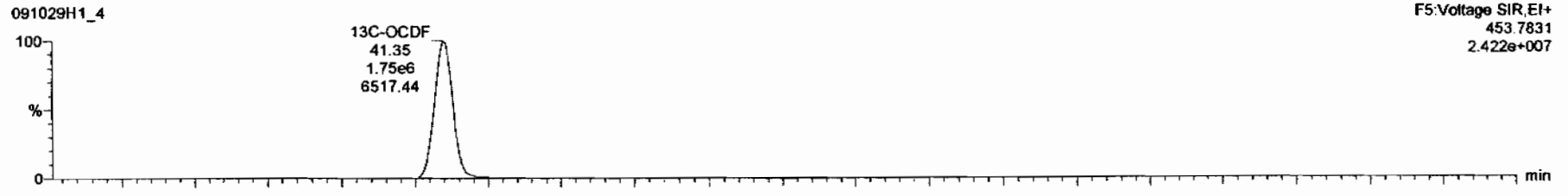

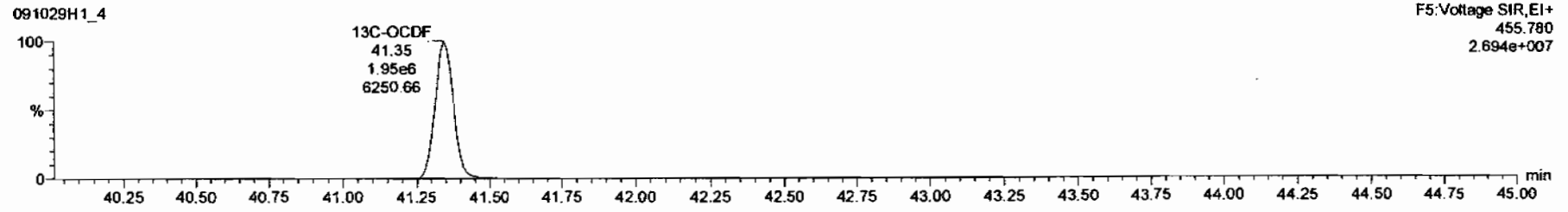

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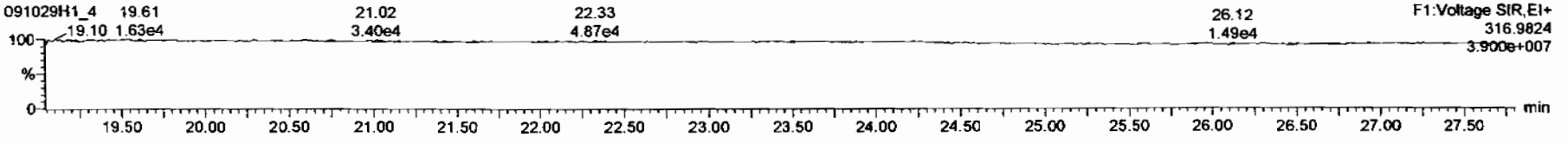

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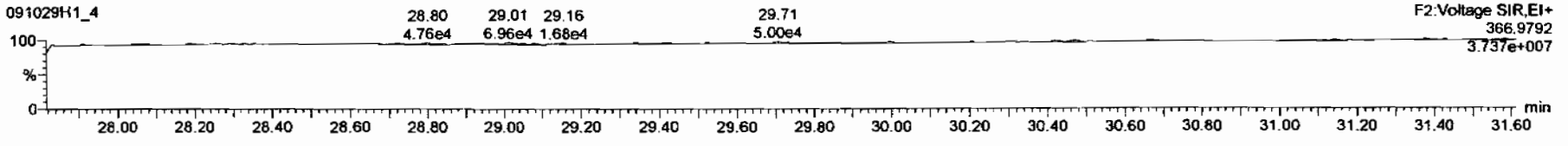

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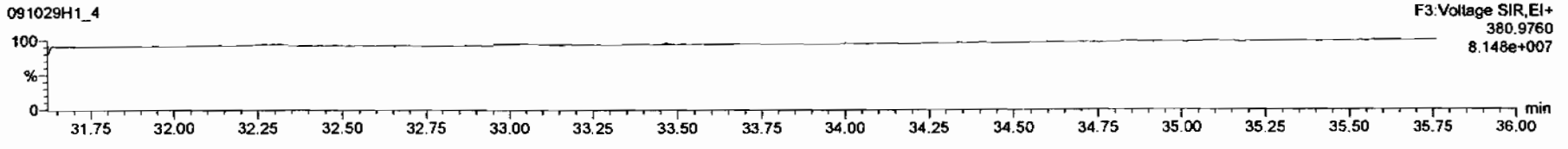

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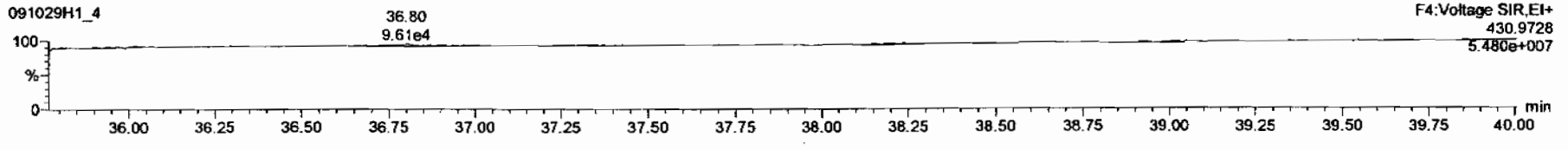

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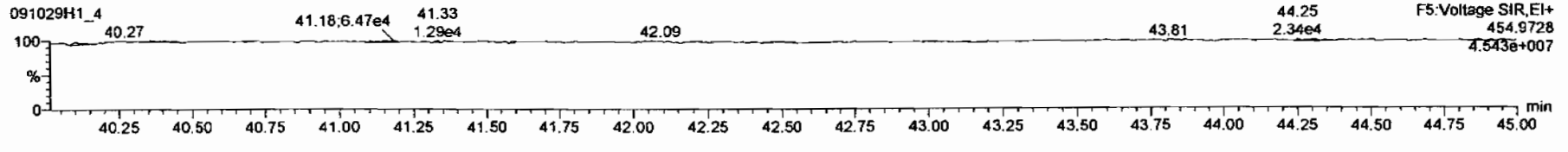

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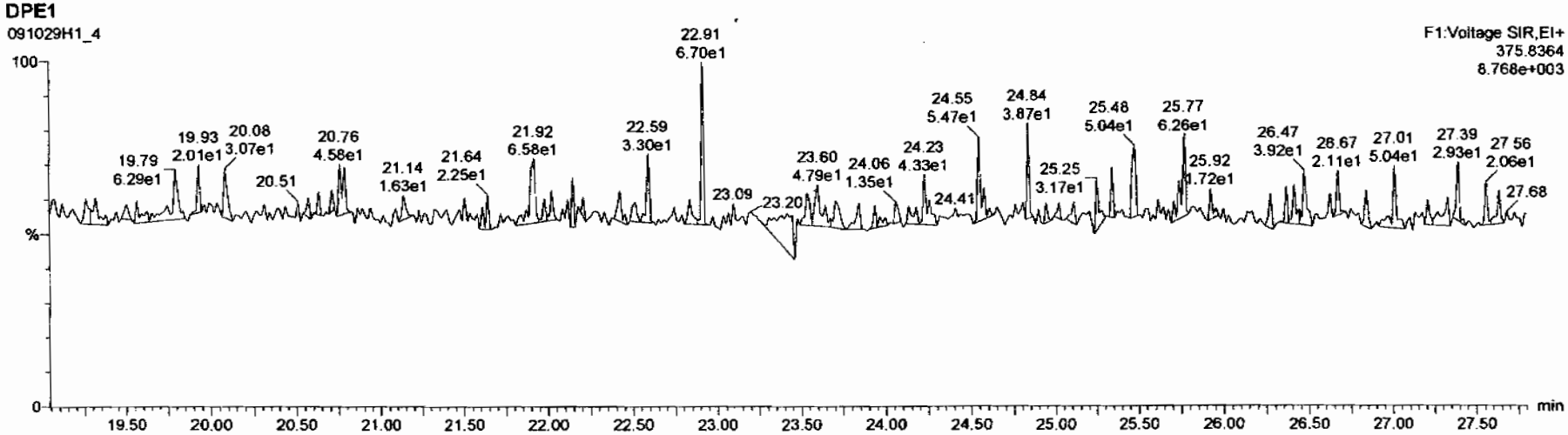

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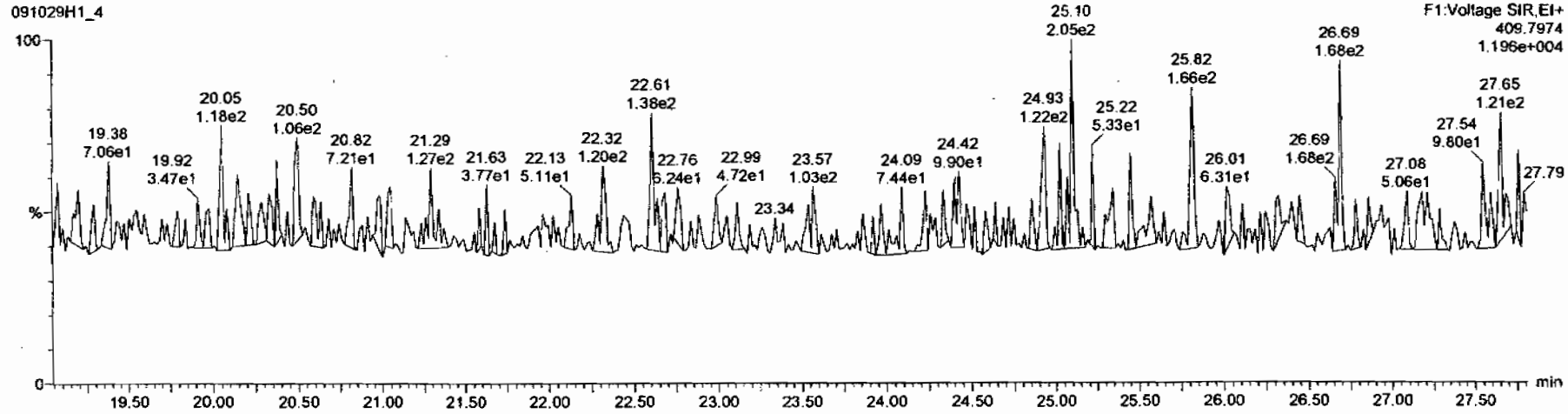

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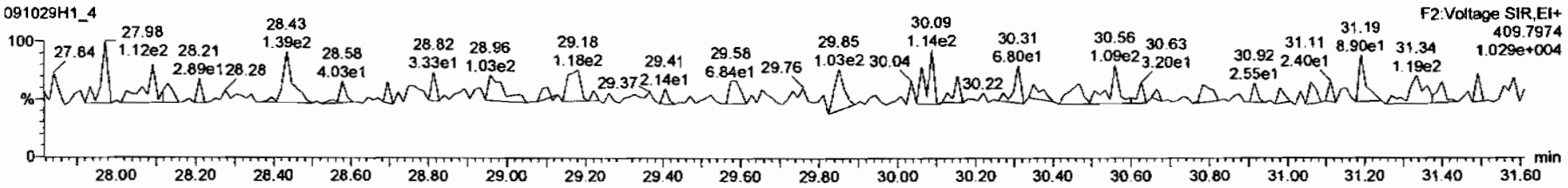

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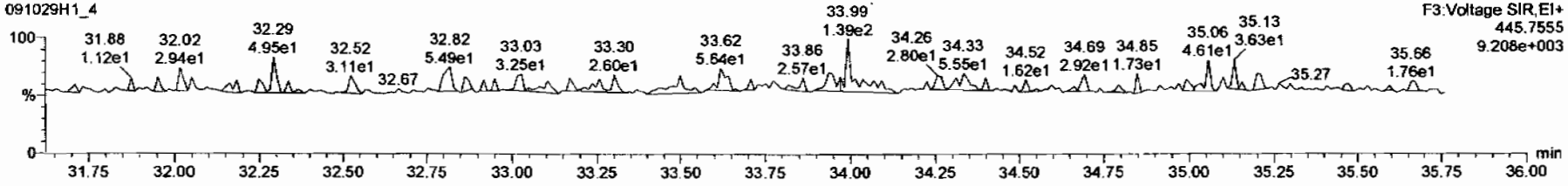

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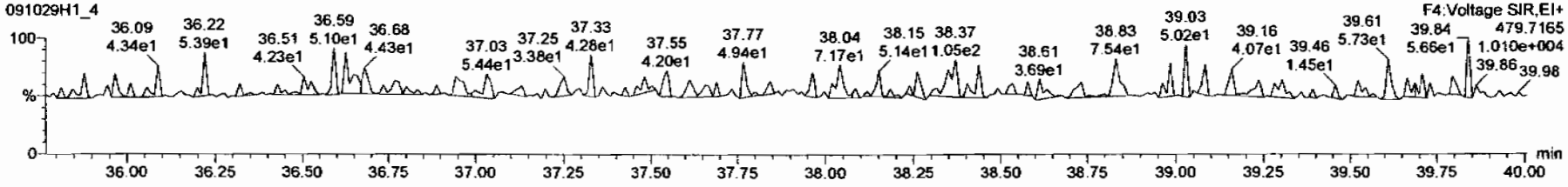

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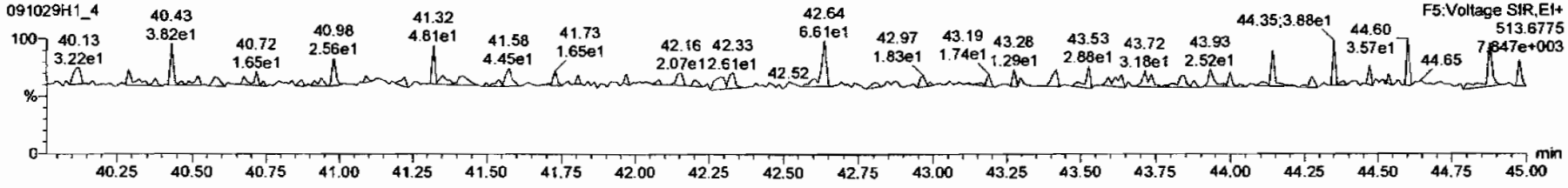

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2,3,7,8-TCDD

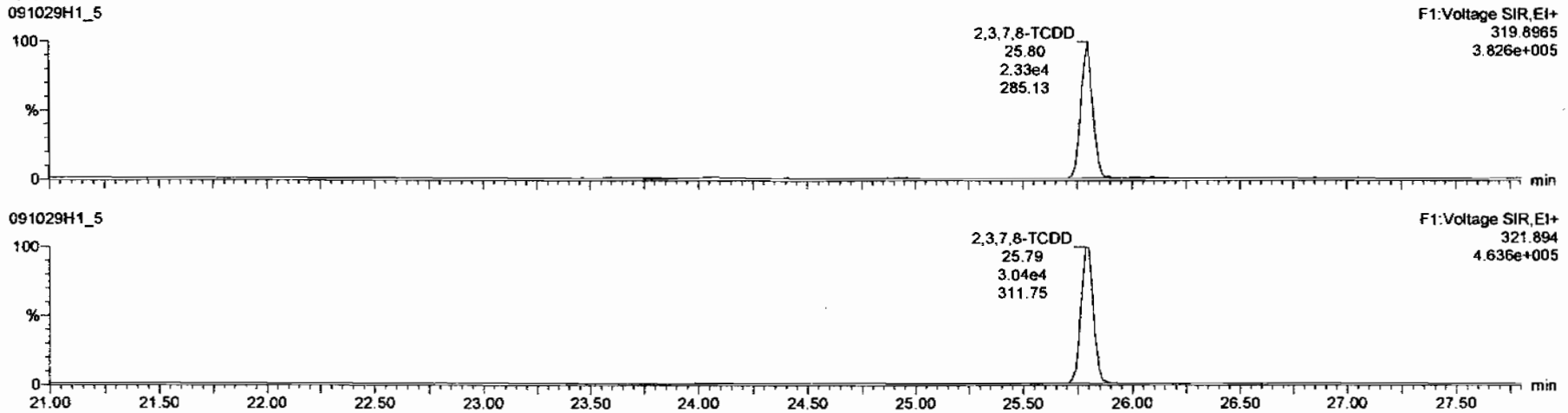

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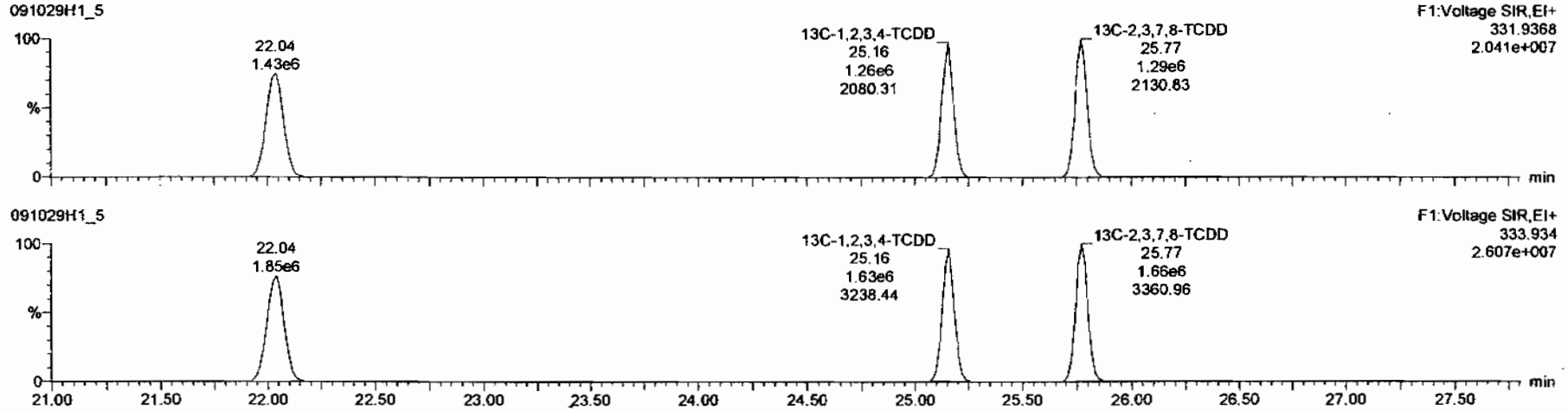

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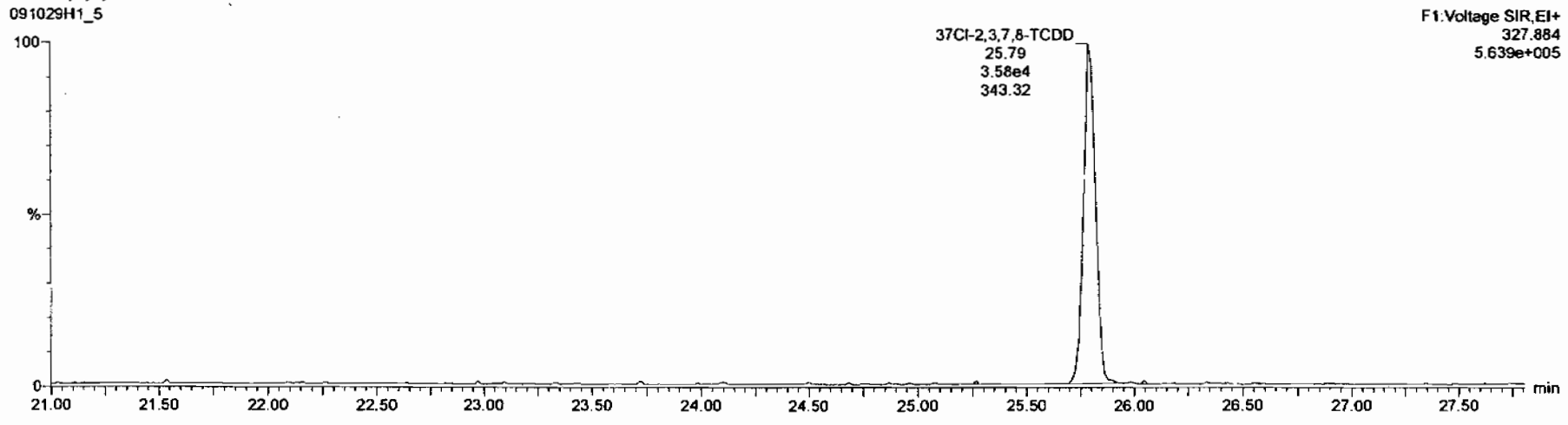

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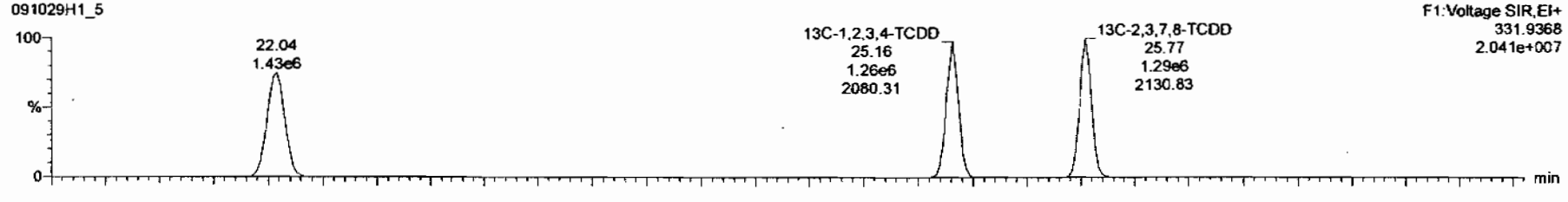

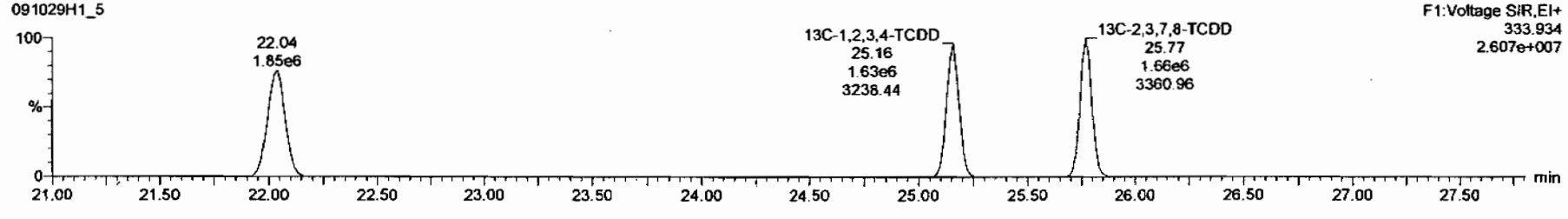

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1,2,3,7,8-PeCDD

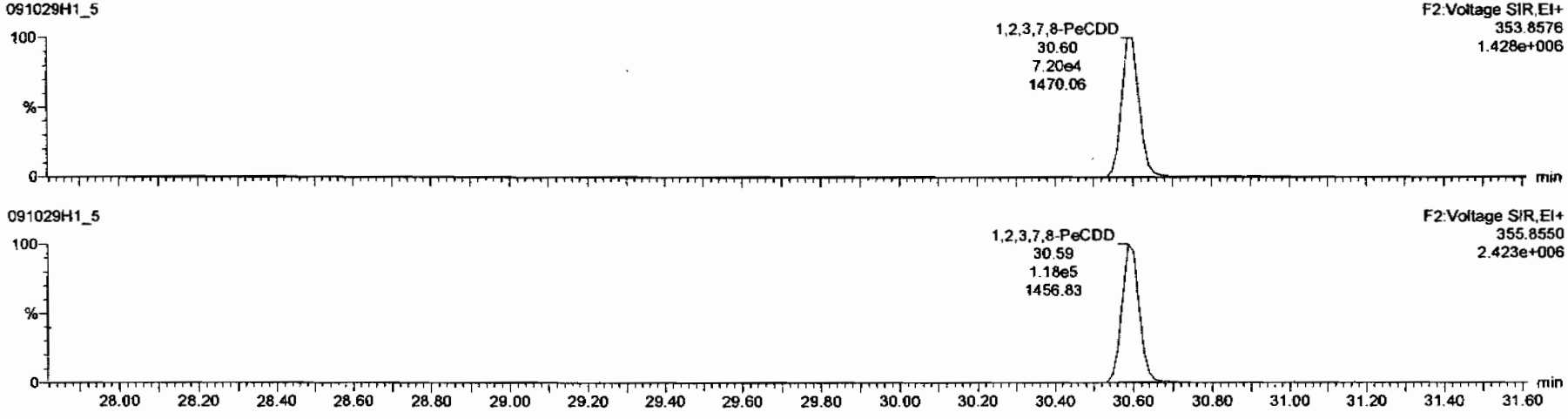

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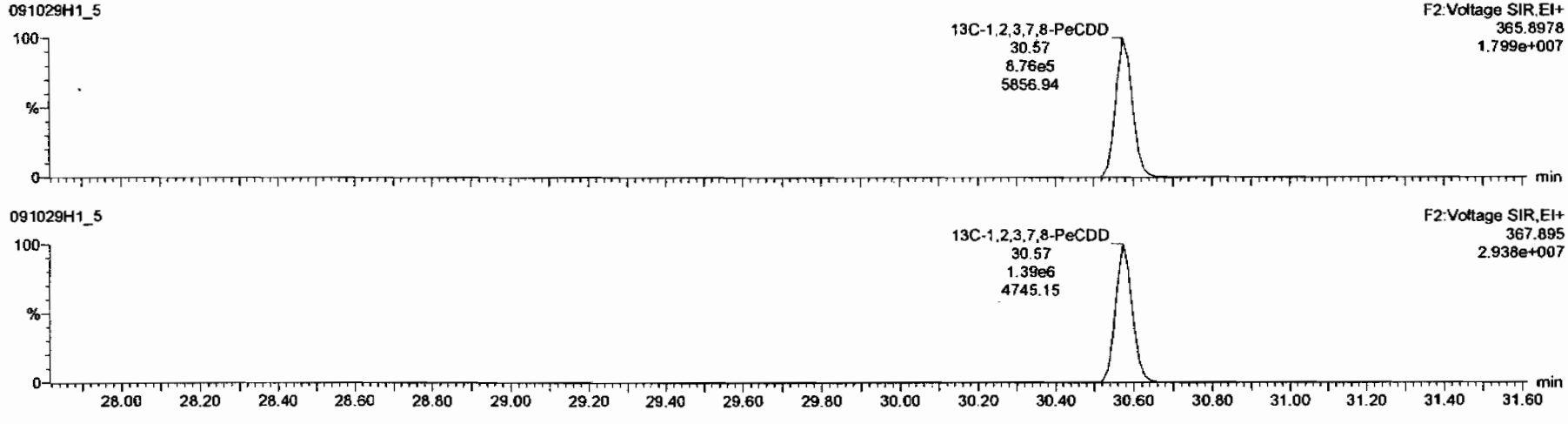

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1,2,3,4,7,8-HxCDD

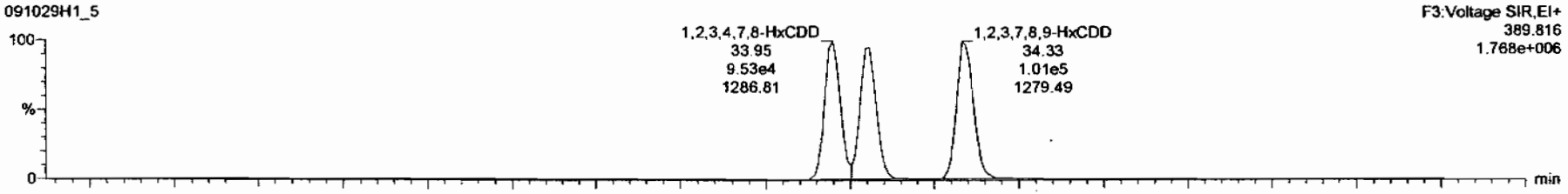

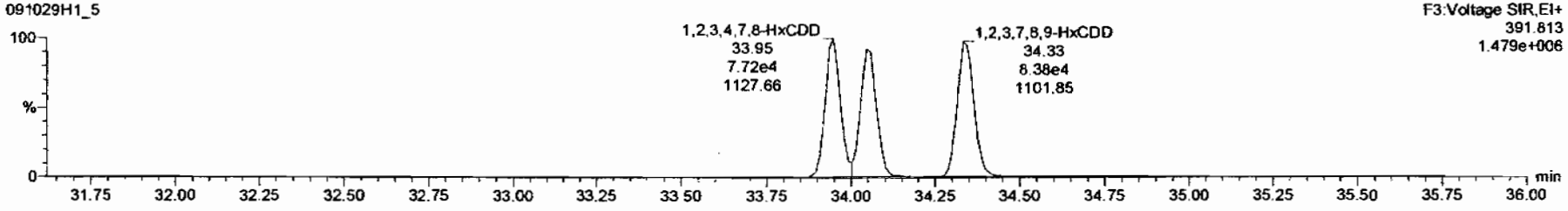

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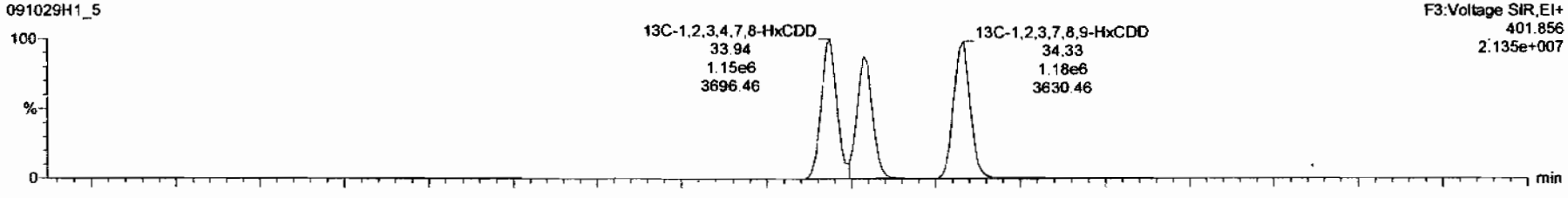

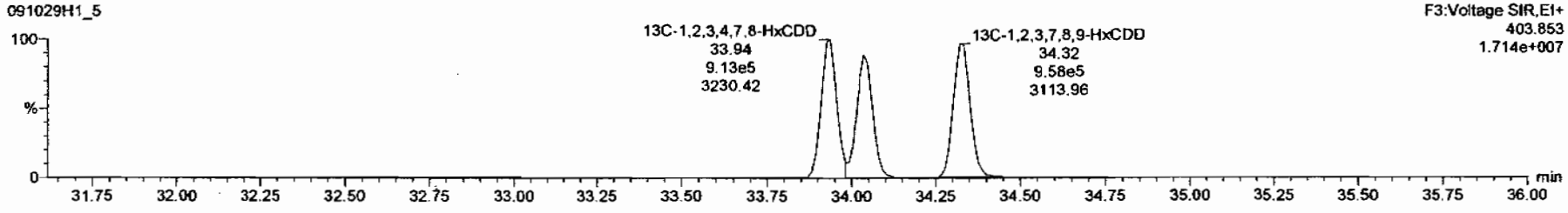

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1,2,3,4,6,7,8-HpCDD

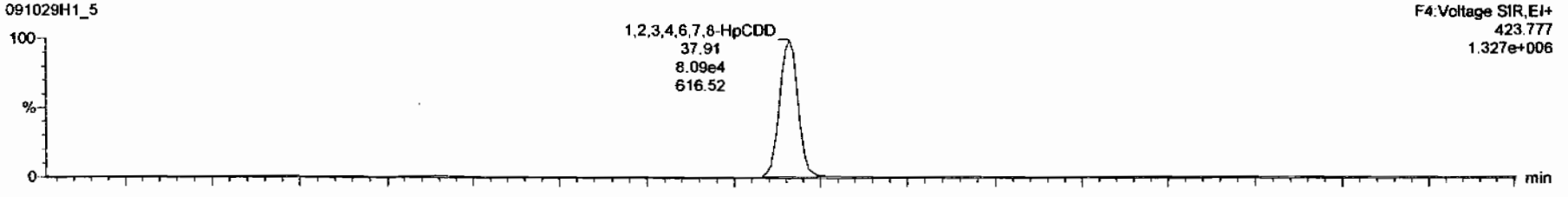

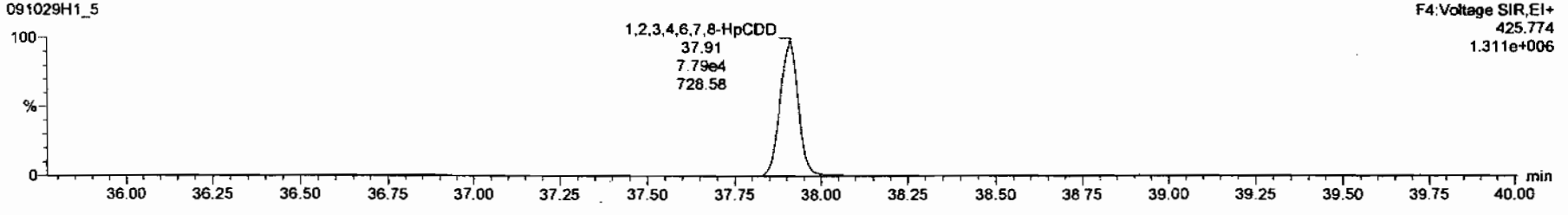

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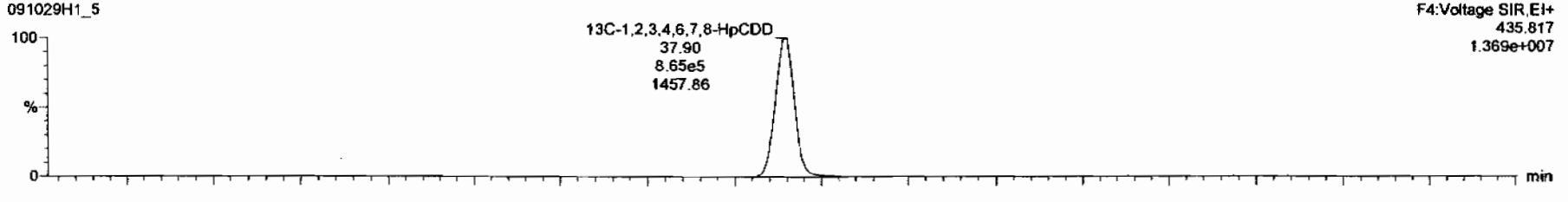

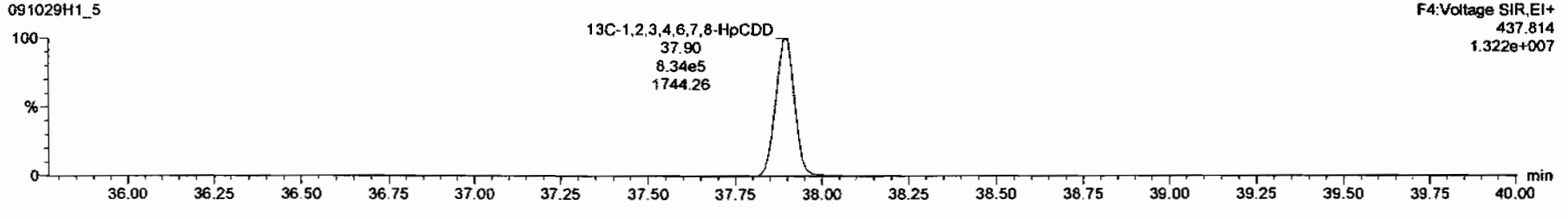

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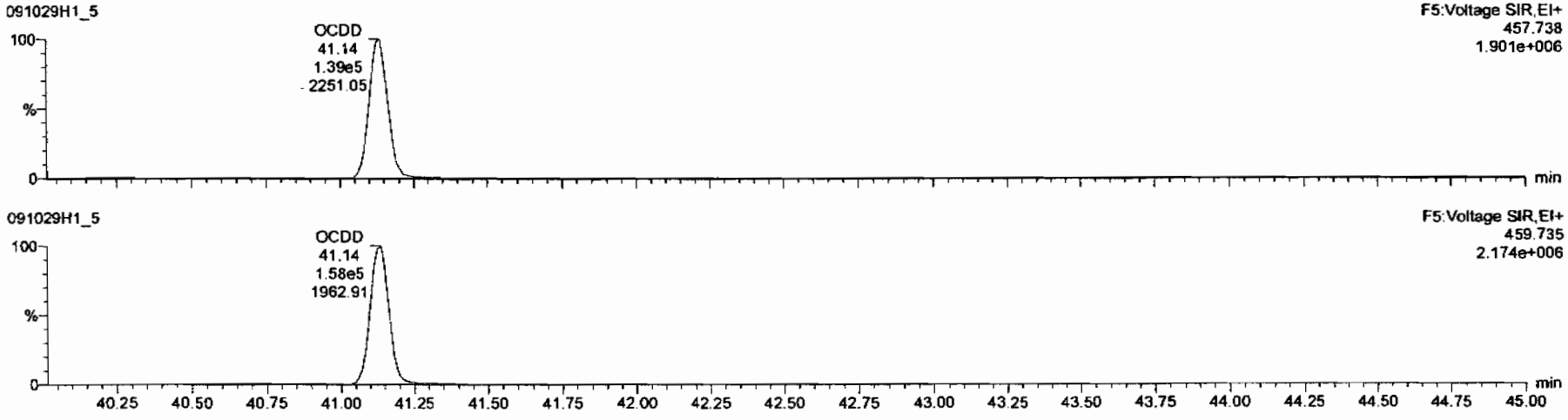

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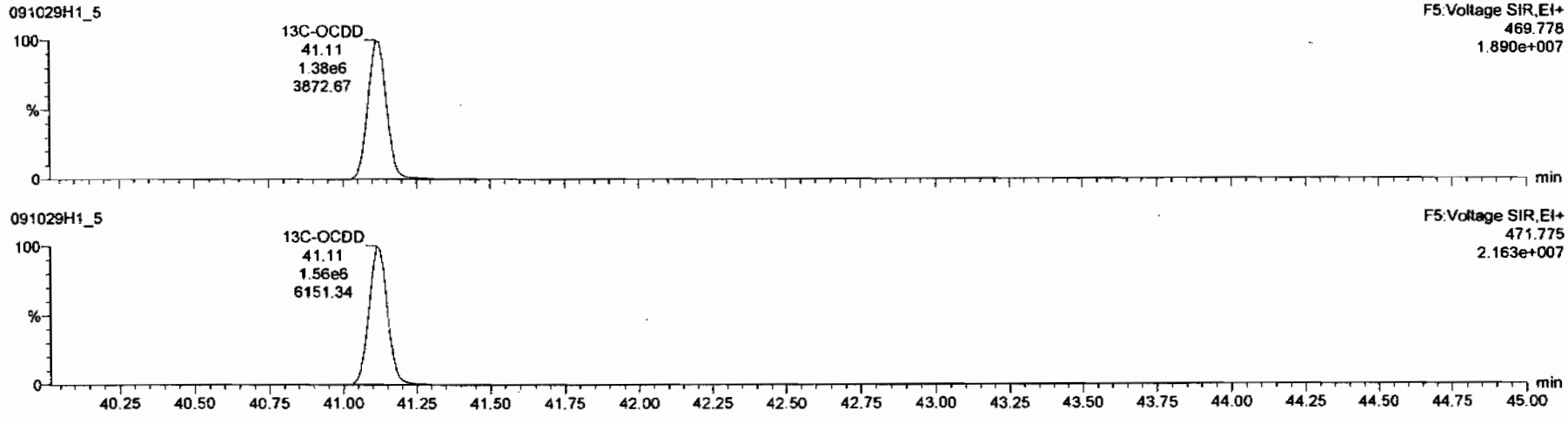

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2,3,7,8-TCDF

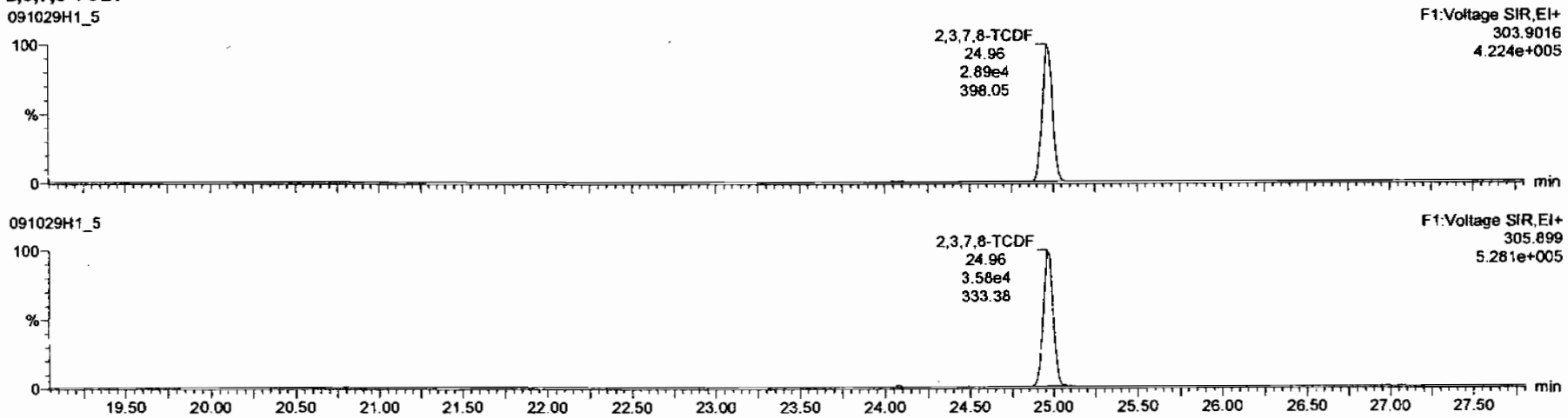

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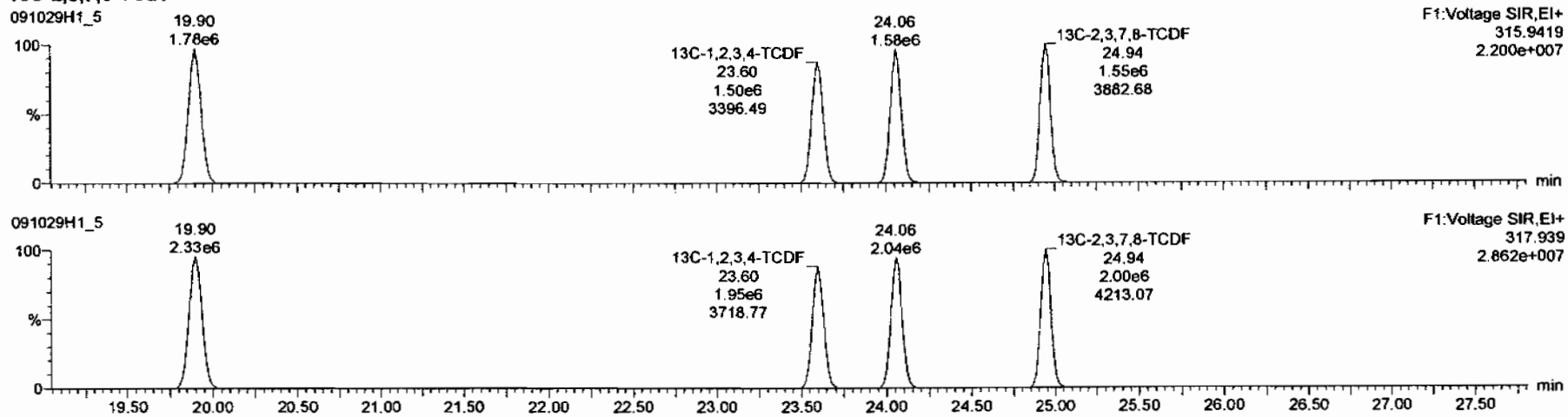

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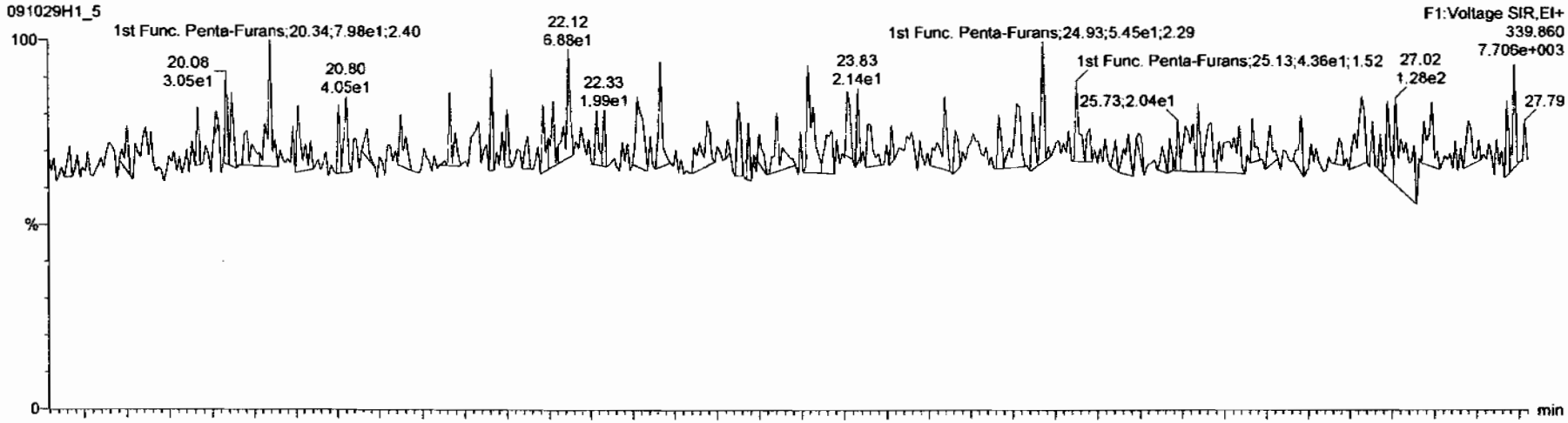

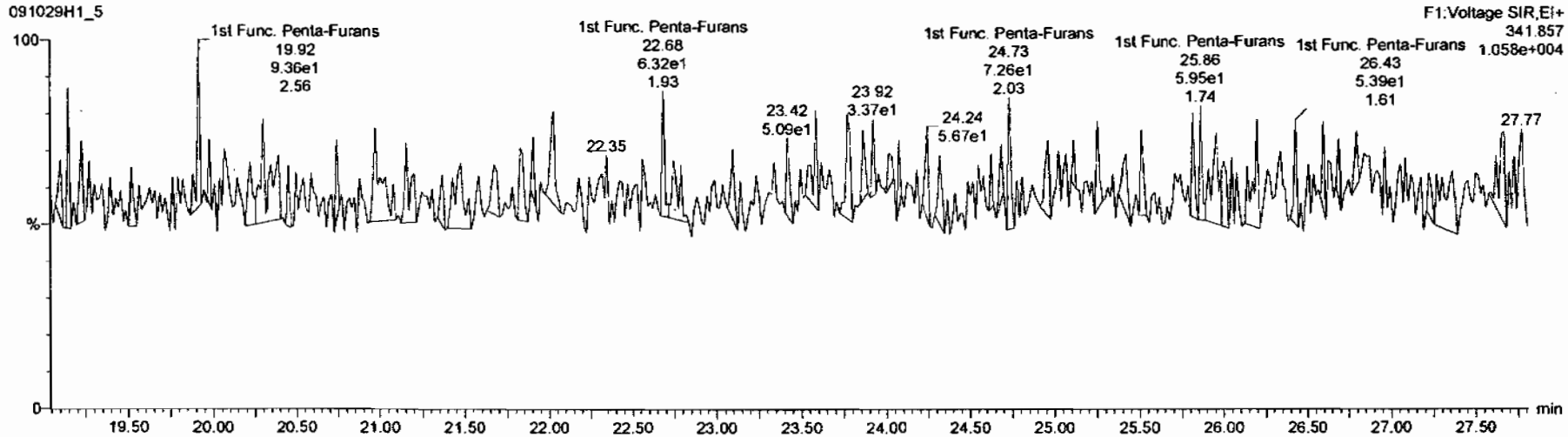

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1,2,3,7,8-PeCDF

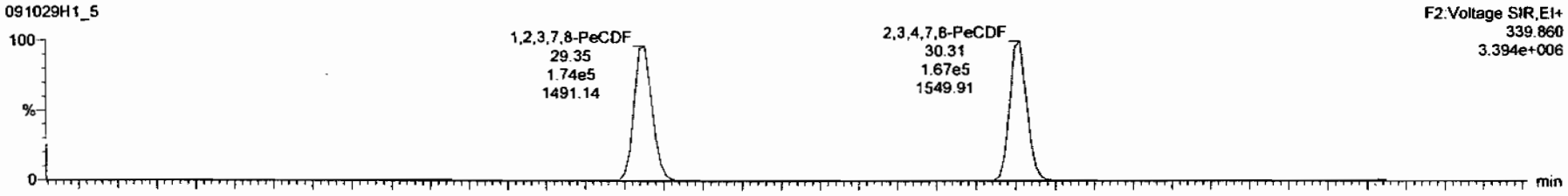

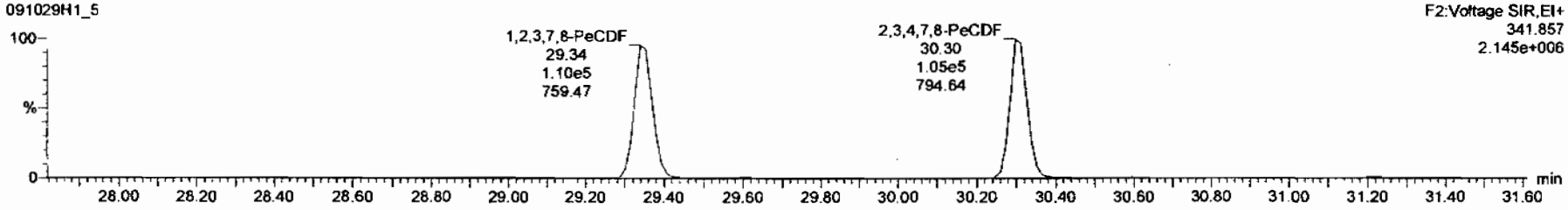

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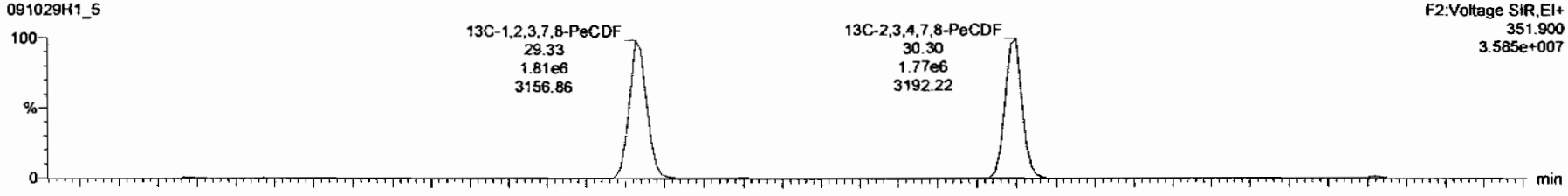

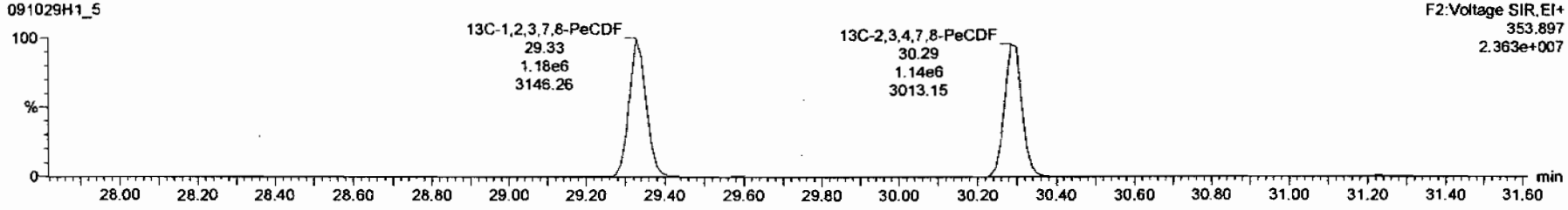

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1,2,3,4,7,8-HxCDF

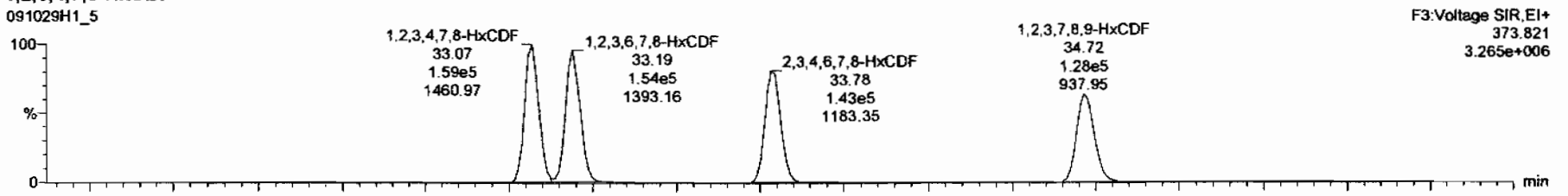

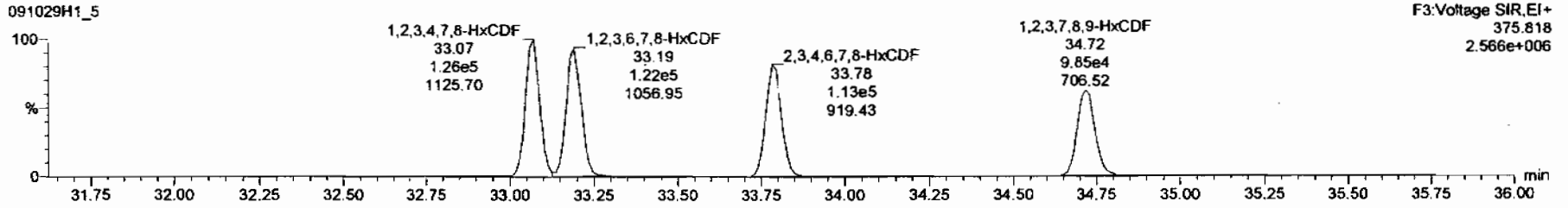

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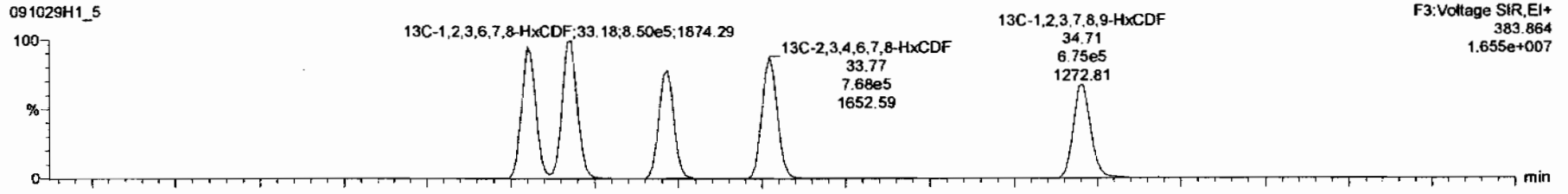

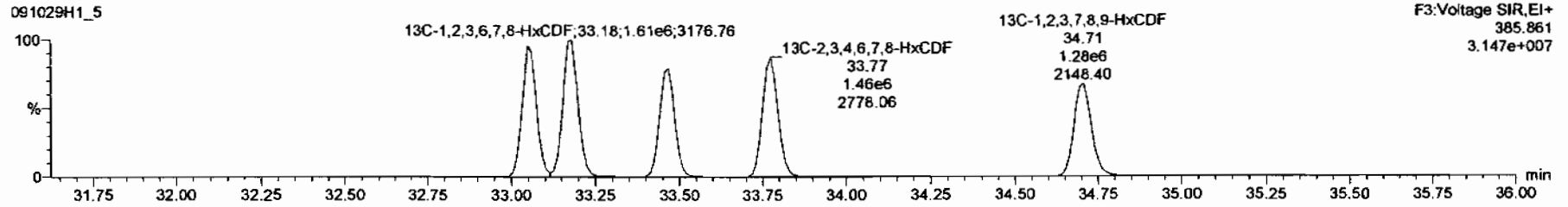

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Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

Name: 091029H1_5, Date: 29-Oct-2009, Time: 15:45:05, ID: ST091029H1-4 1613 CS2 090922F, Description: 1613 CS2 090922F

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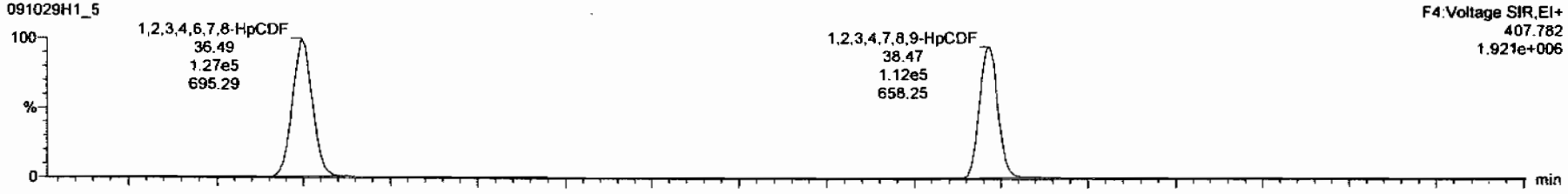

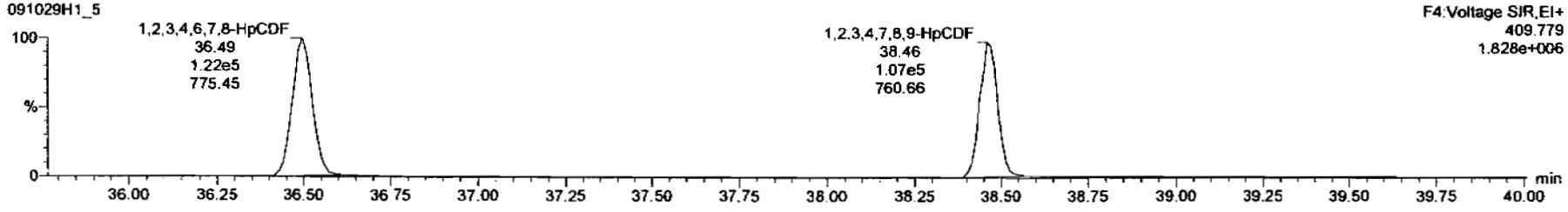

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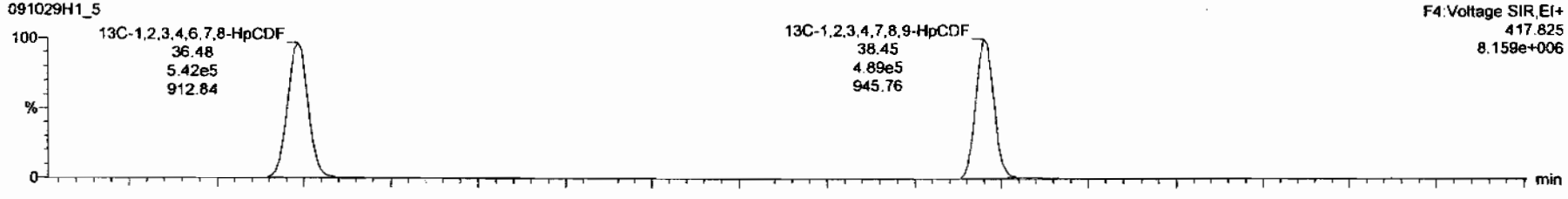

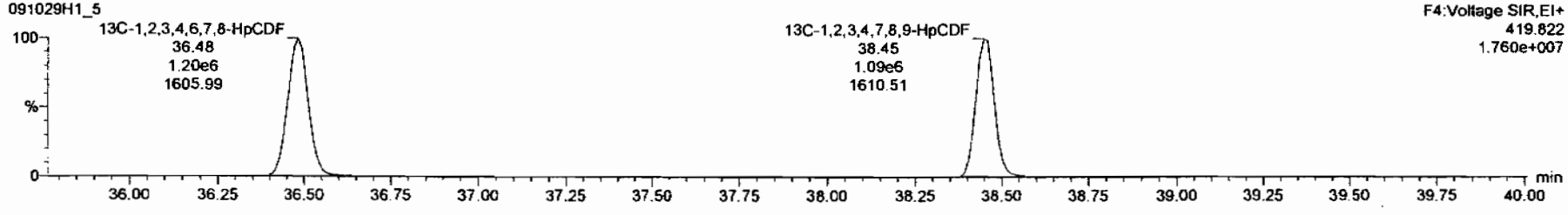

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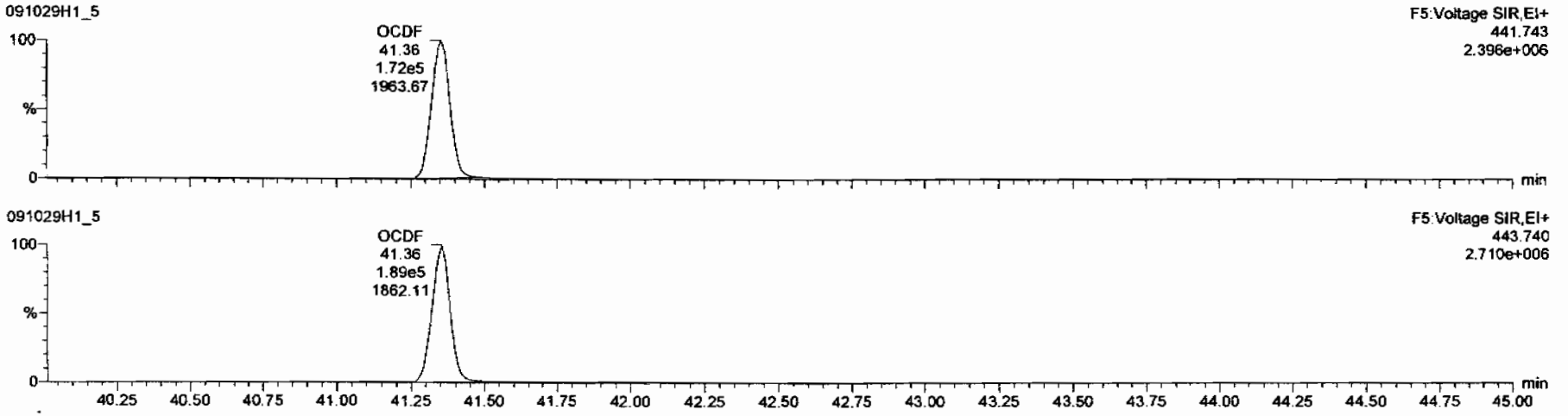

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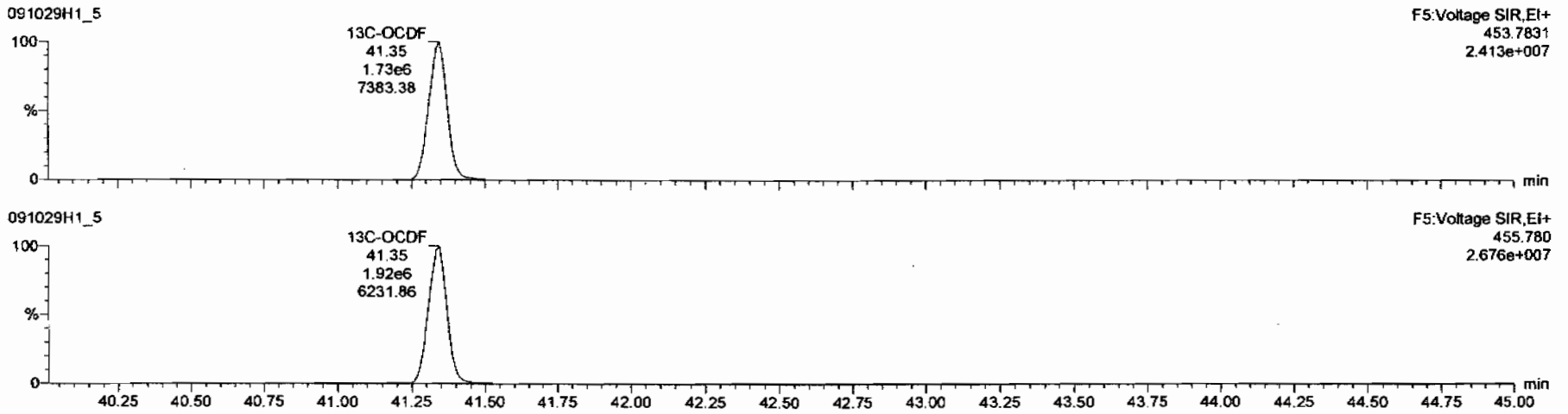

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Name: 091029H1_5, Date: 29-Oct-2009, Time: 15:45:05, ID: ST091029H1-4 1613 CS2 090922F, Description: 1613 CS2 090922F

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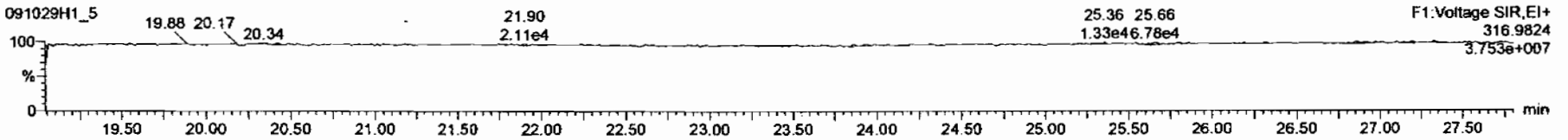

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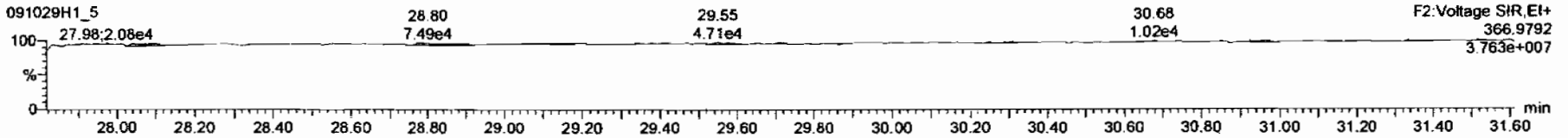

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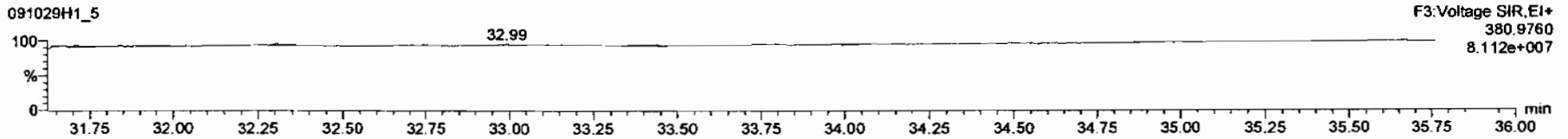

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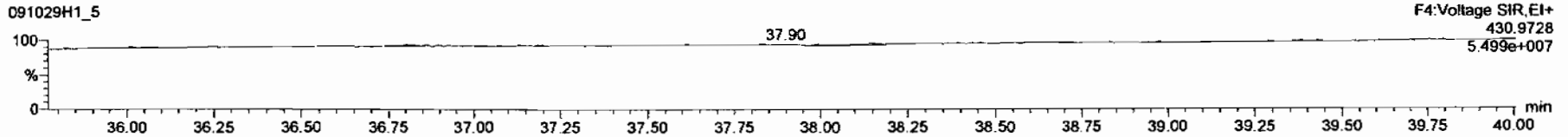

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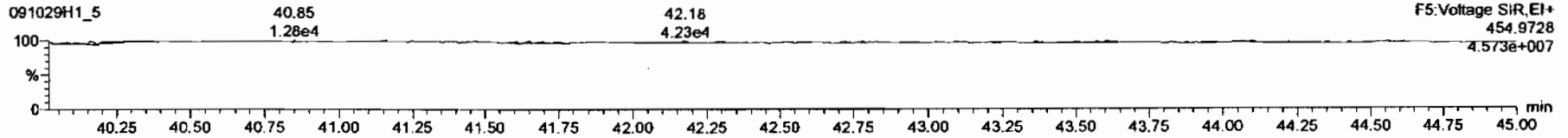

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Name: 091029H1_5, Date: 29-Oct-2009, Time: 15:45:05, ID: ST091029H1-4 1613 CS2 090922F, Description: 1613 CS2 090922F

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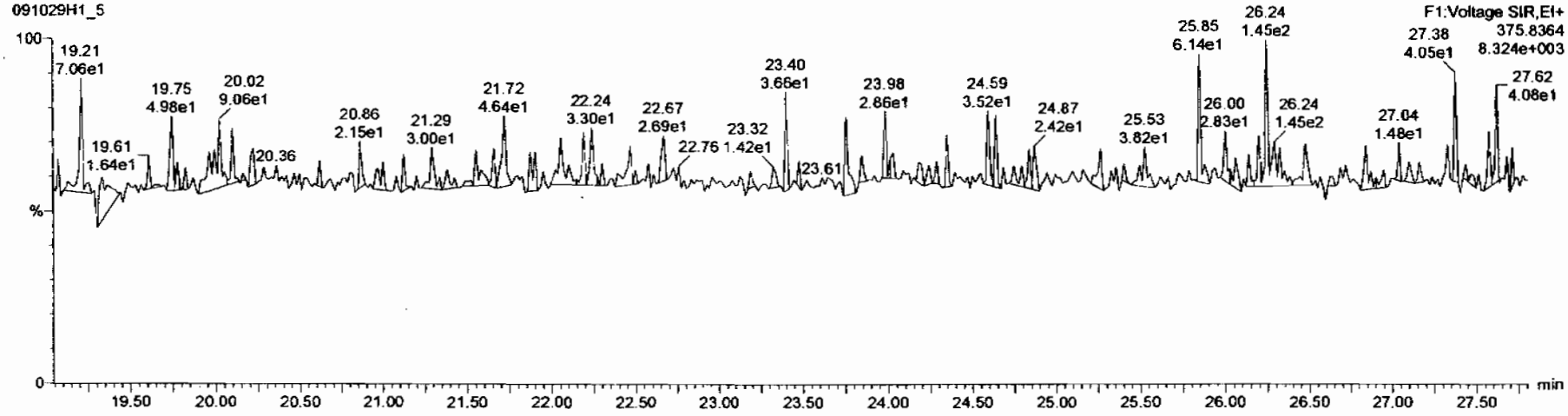

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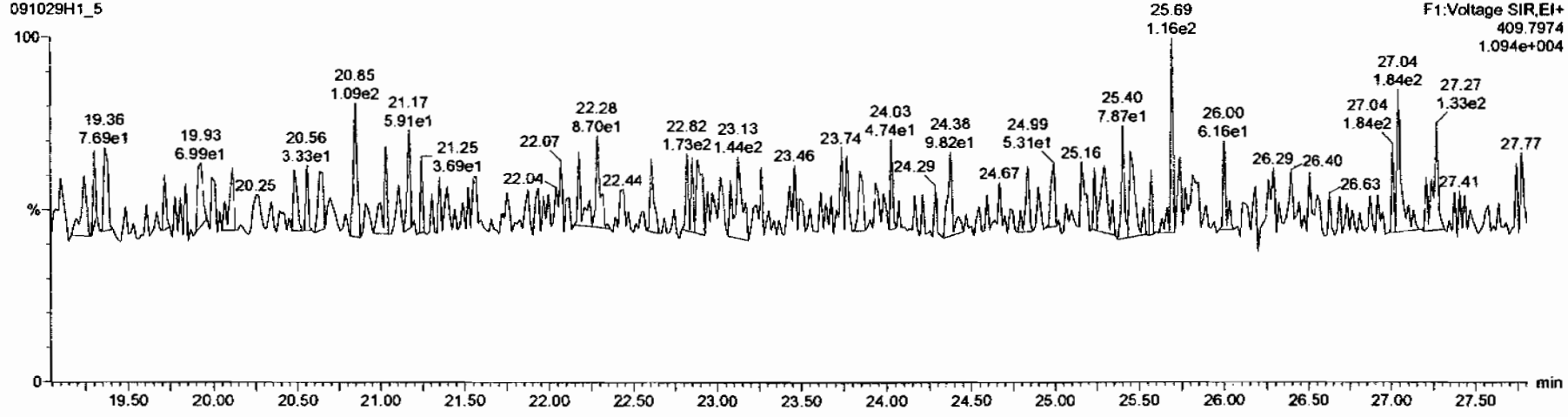

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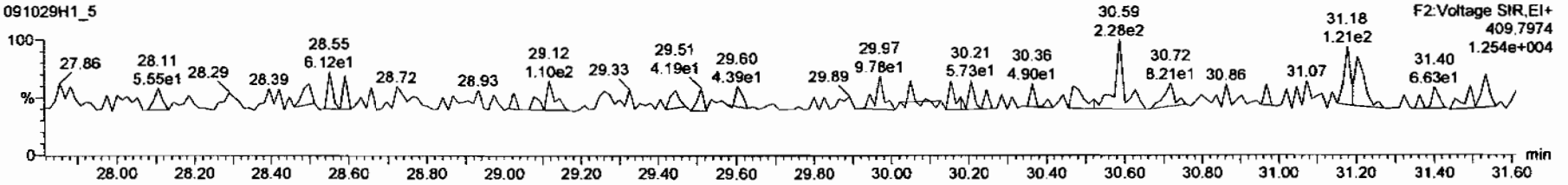

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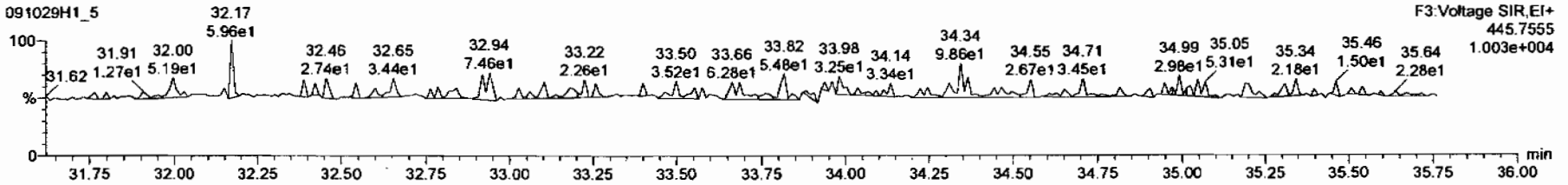

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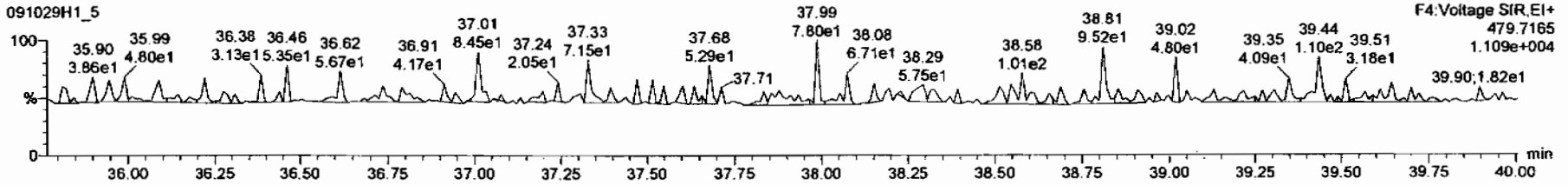

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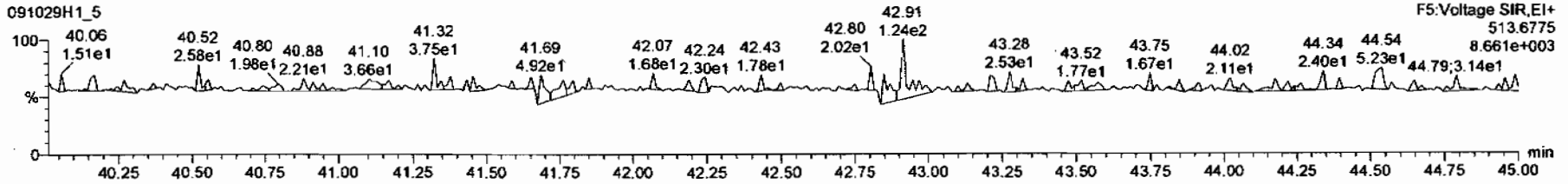

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Name: 091029H1_6, Date: 29-Oct-2009, Time: 16:34:36, ID: ST091029H1-5 1613 CS4 090922H, Description: 1613 CS4 090922H

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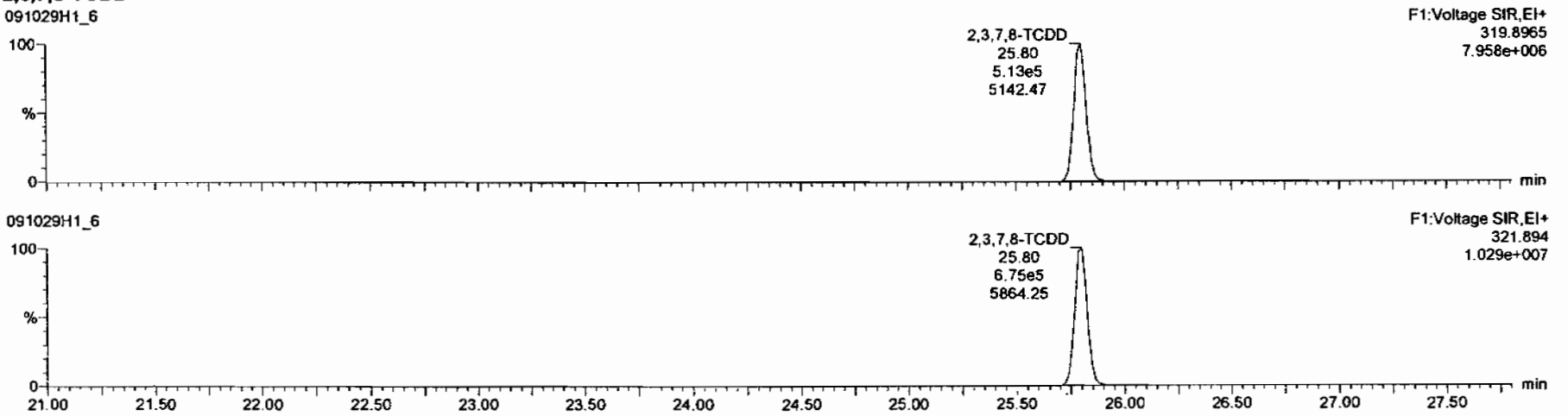

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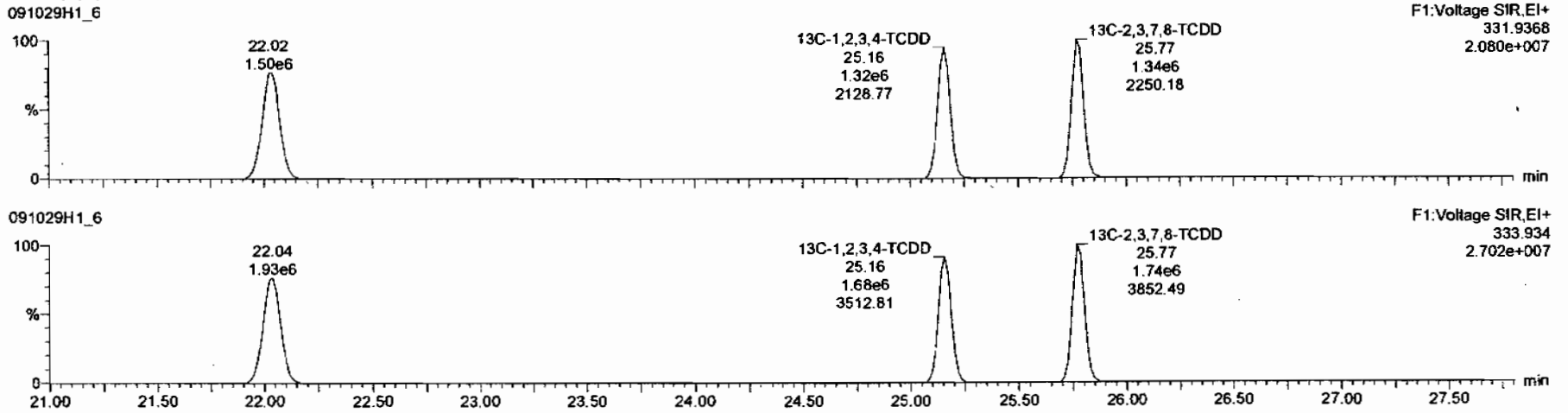

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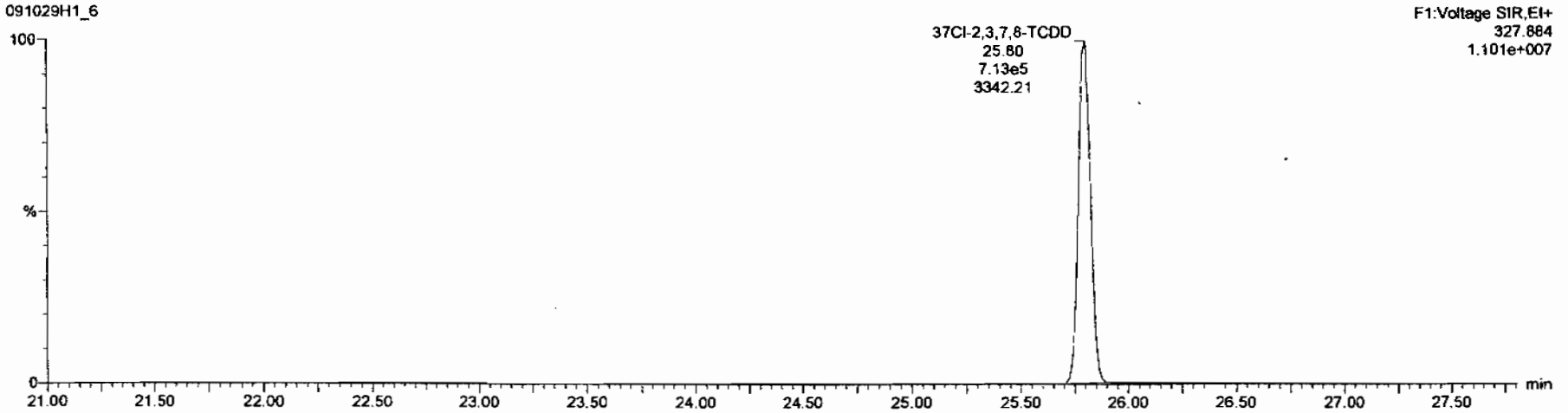

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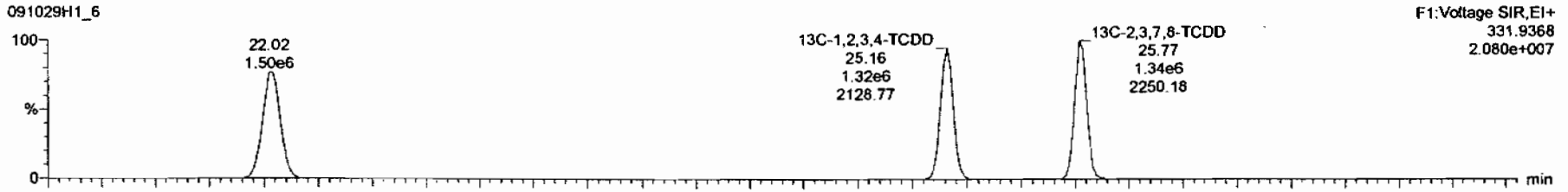

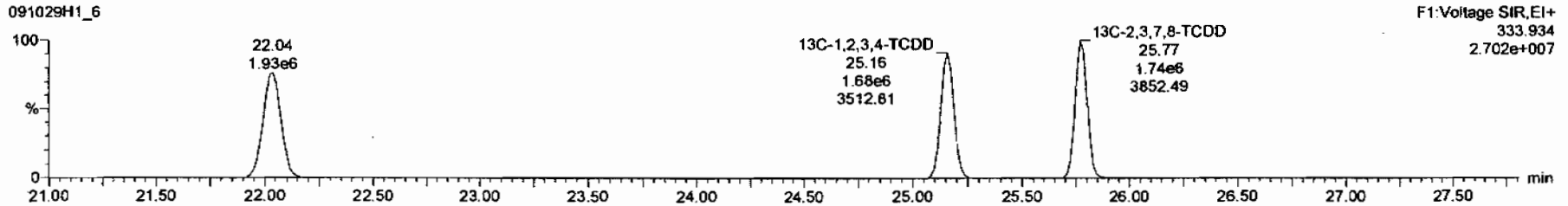

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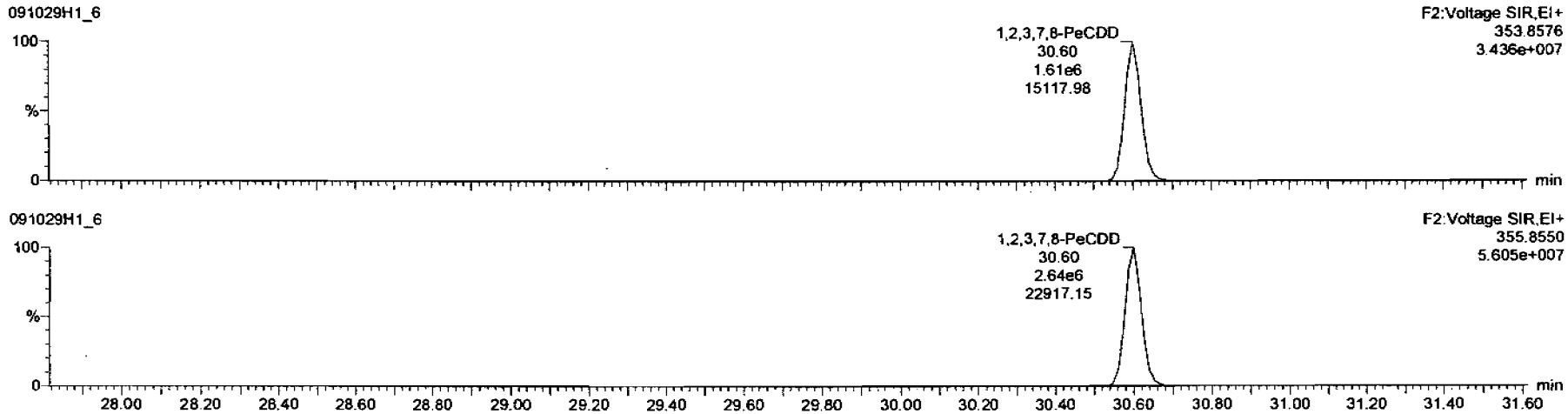

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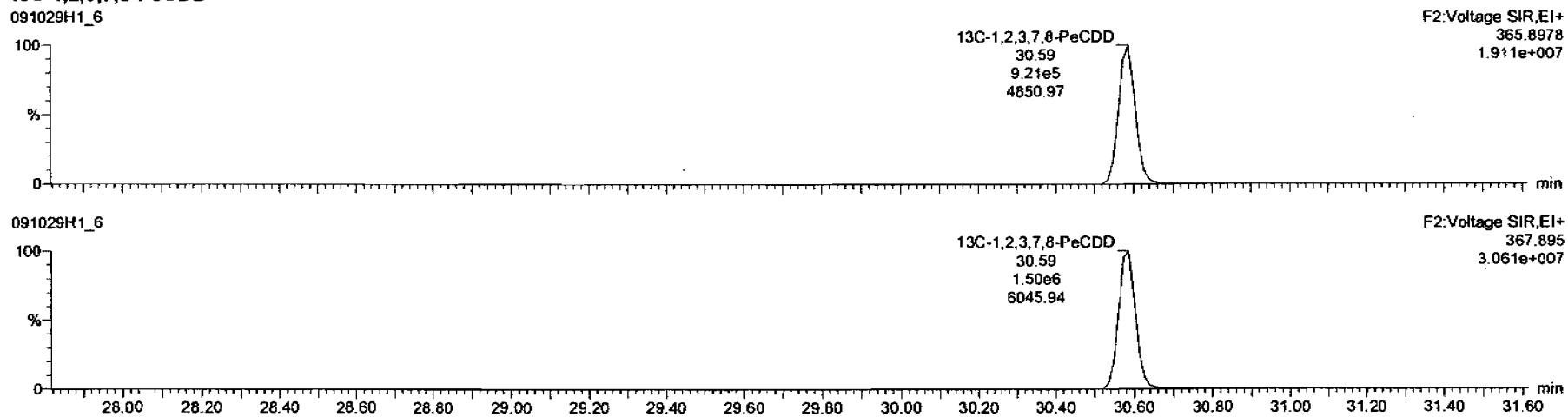

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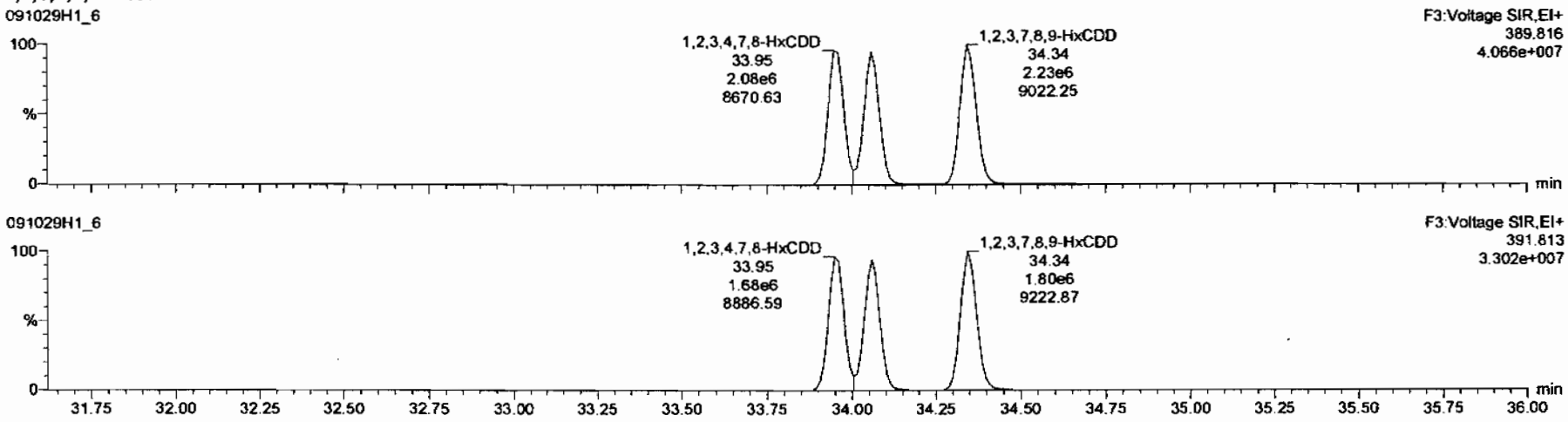

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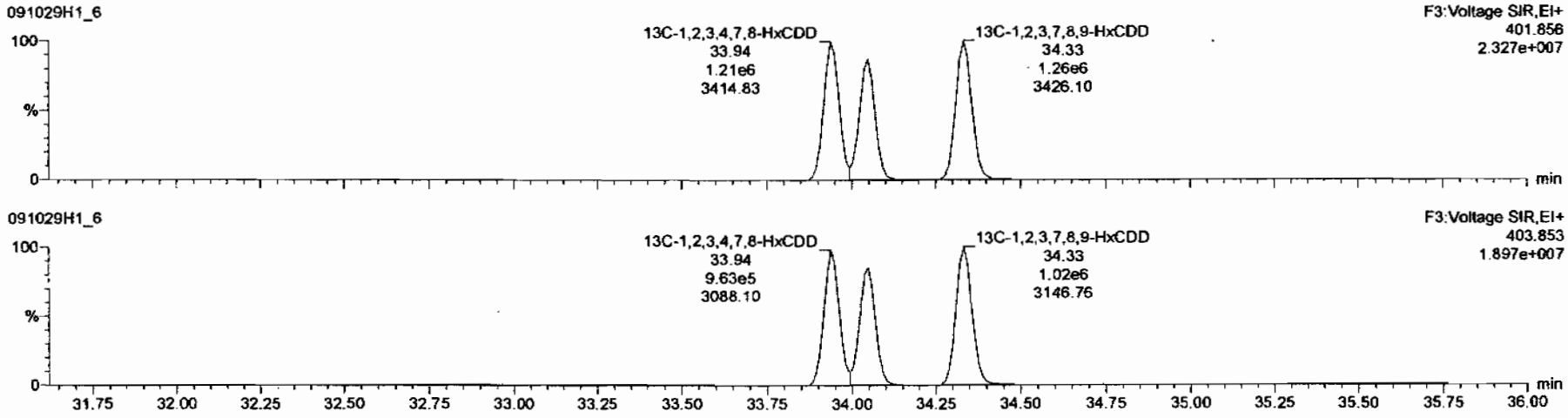

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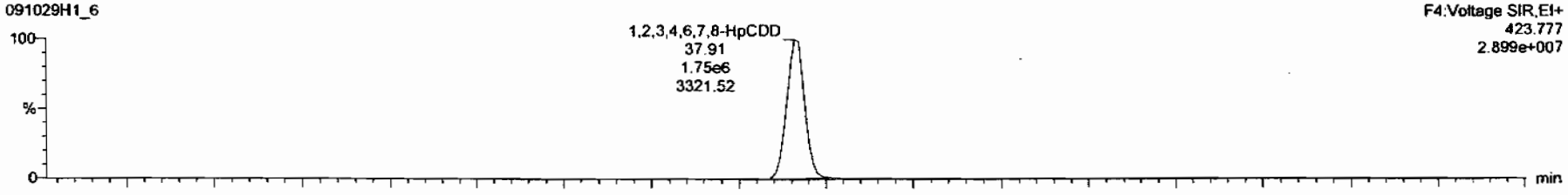

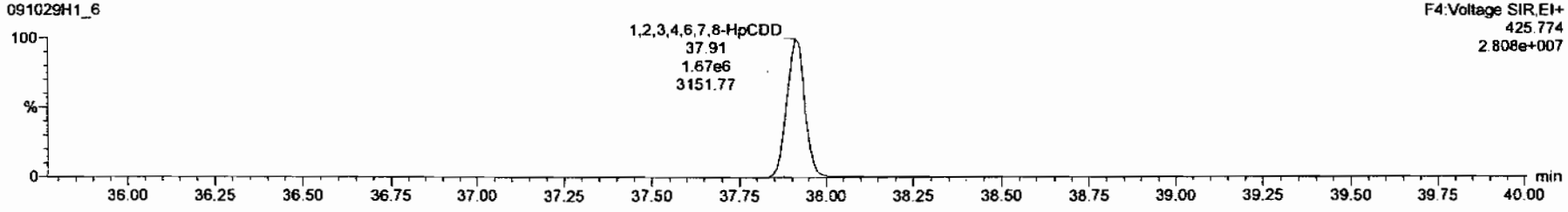

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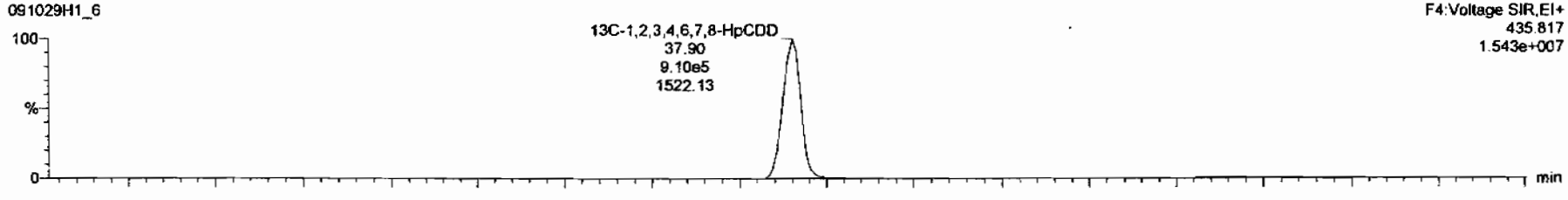

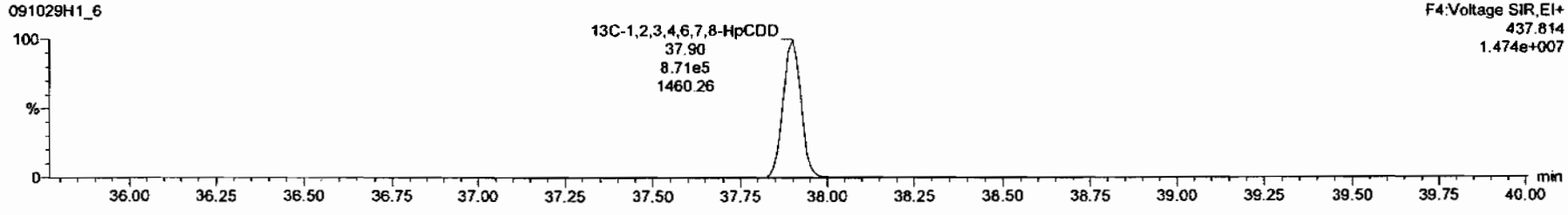

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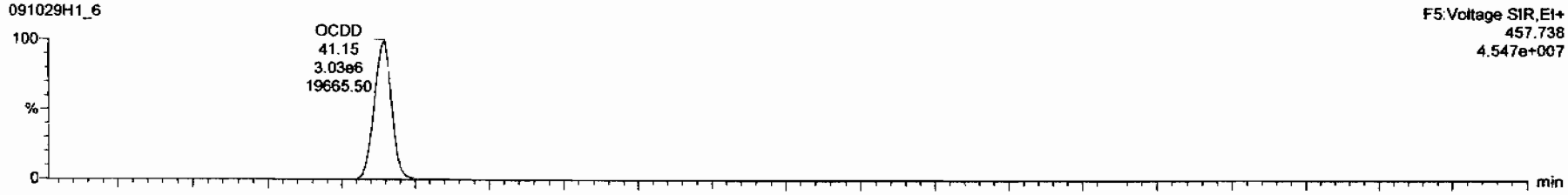

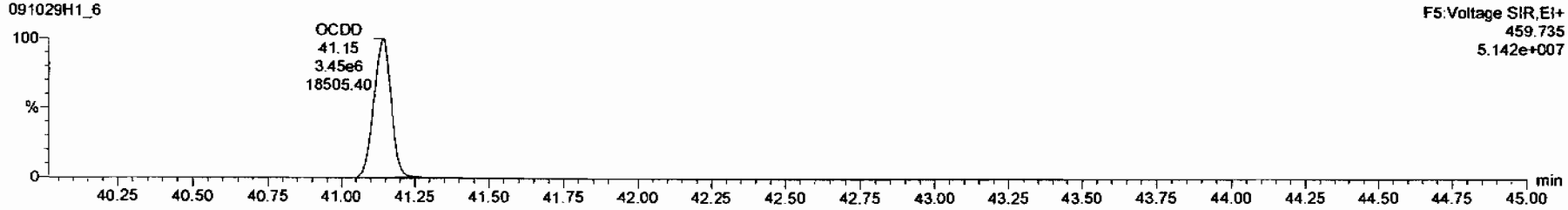

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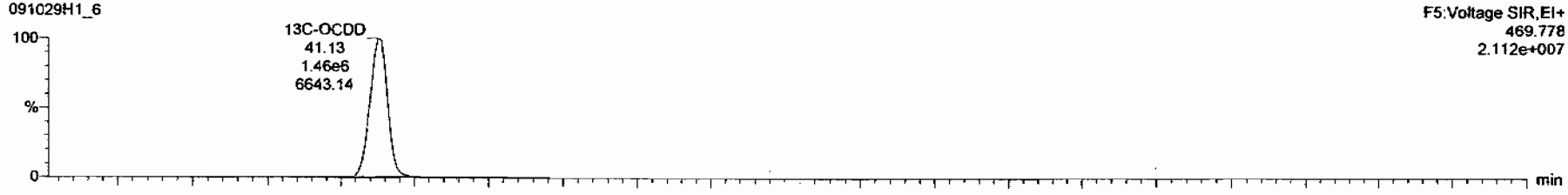

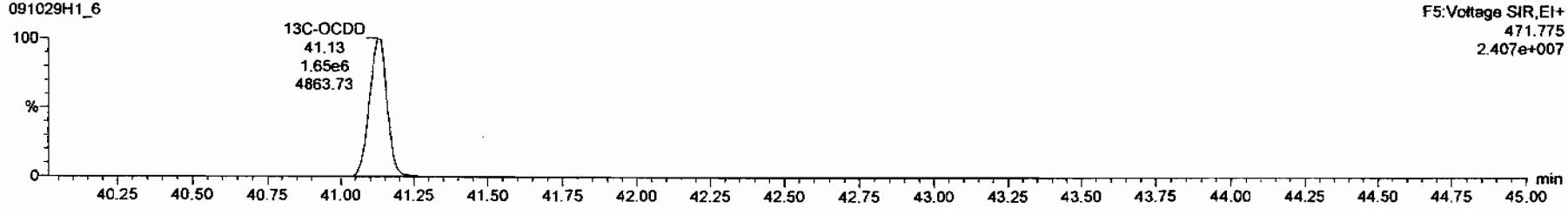

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Name: 091029H1_6, Date: 29-Oct-2009, Time: 16:34:36, ID: ST091029H1-5 1613 CS4 090922H, Description: 1613 CS4 090922H

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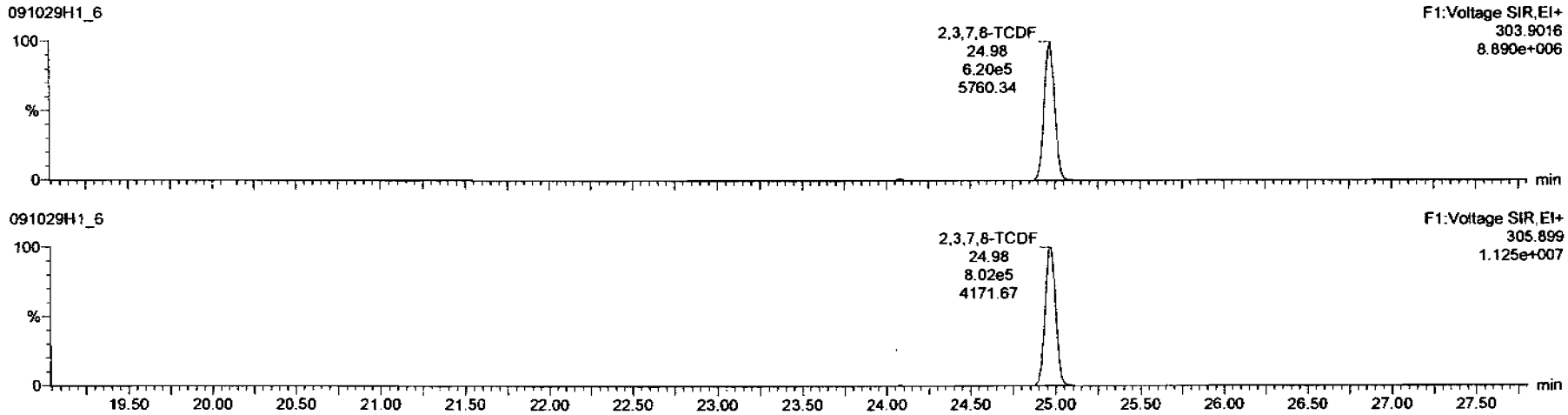

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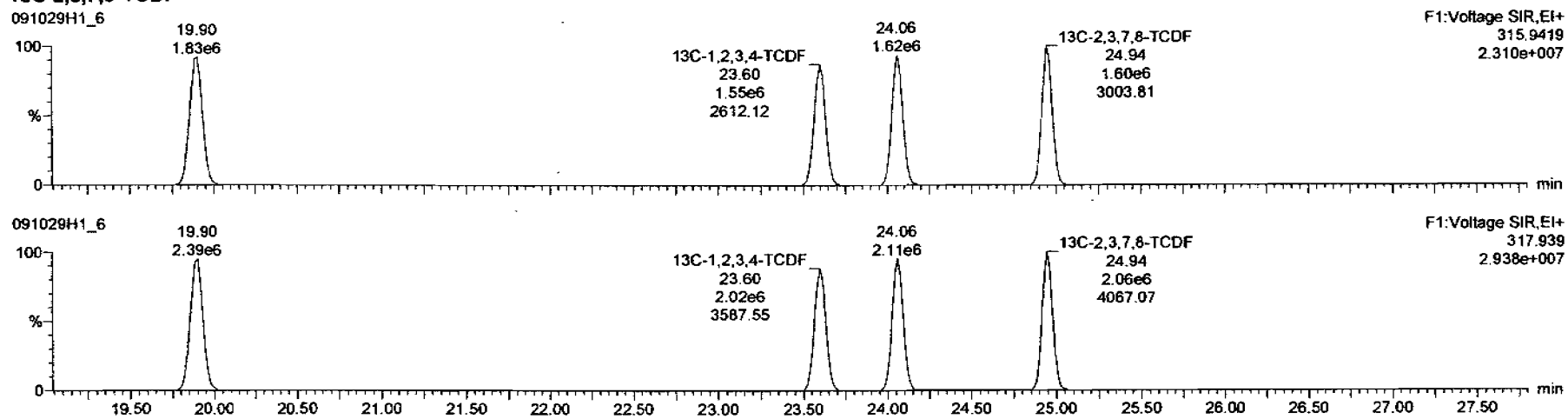

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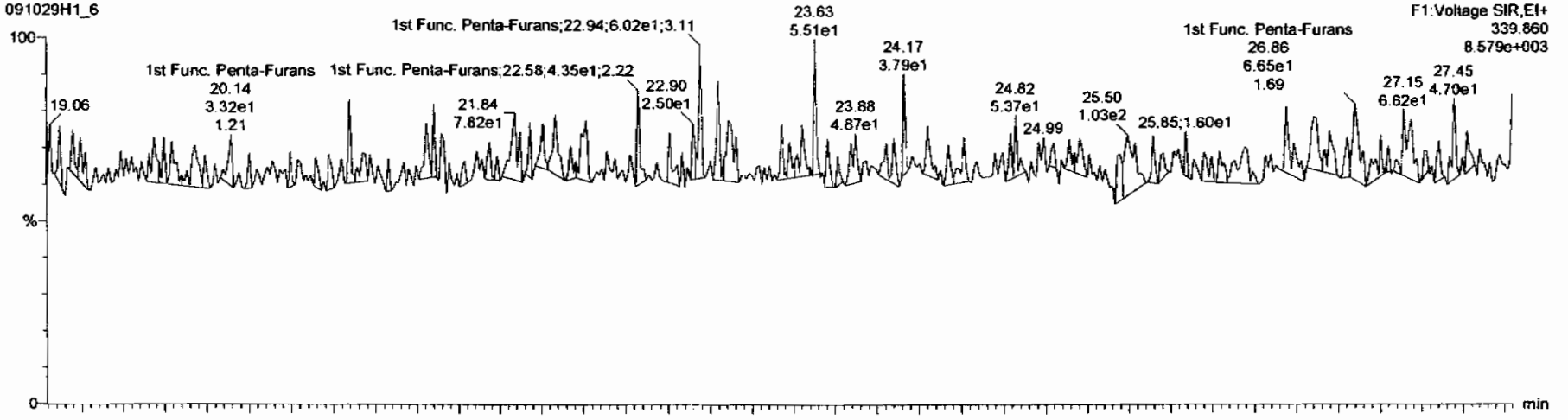

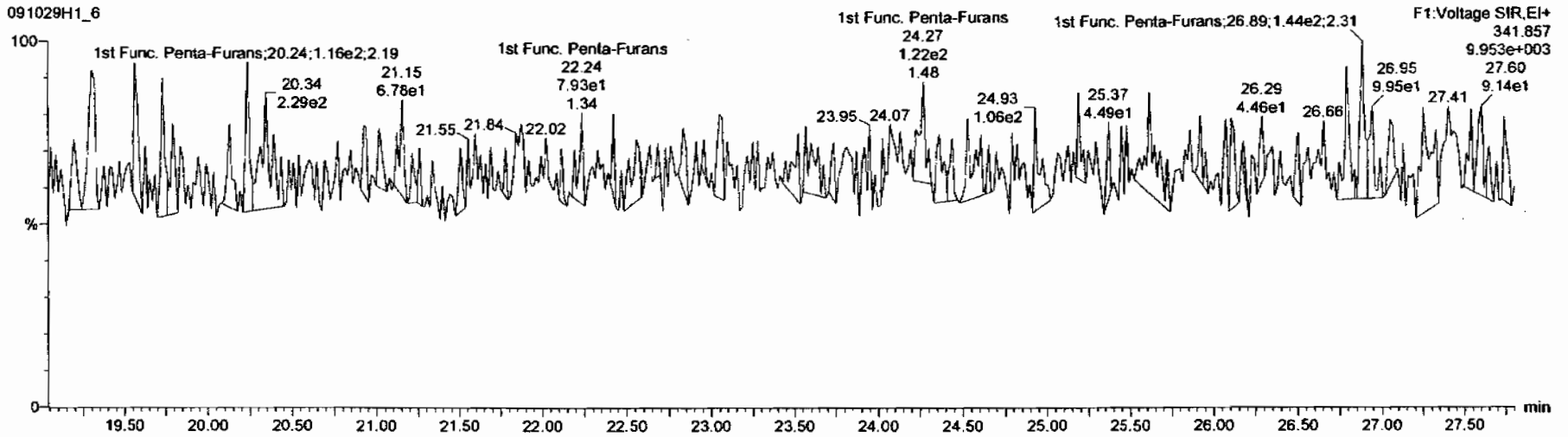

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Name: 091029H1_6, Date: 29-Oct-2009, Time: 16:34:36, ID: ST091029H1-5 1613 CS4 090922H, Description: 1613 CS4 090922H

1,2,3,7,8-PeCDF

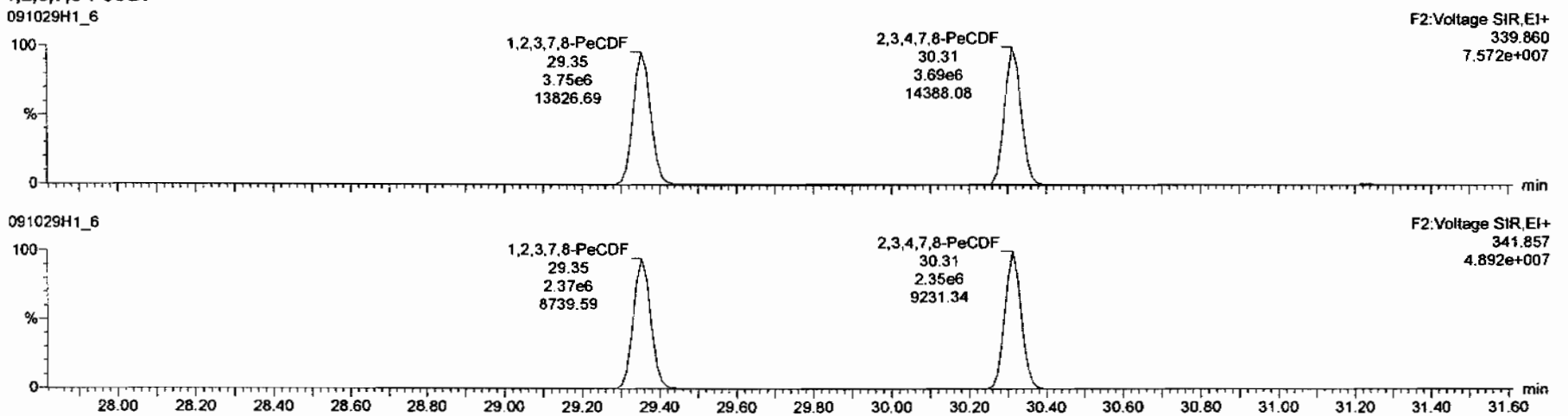

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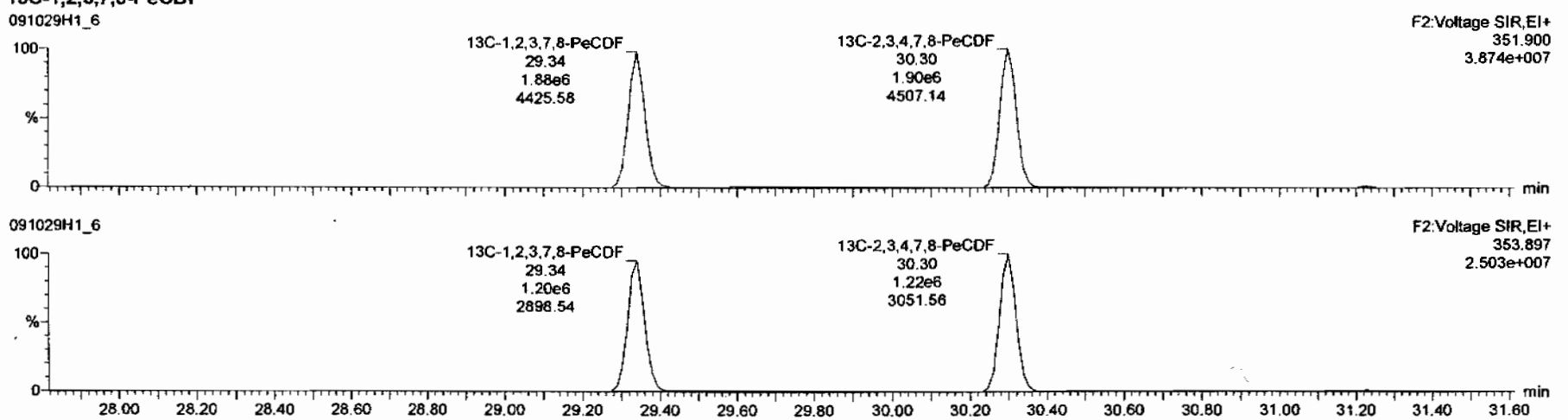

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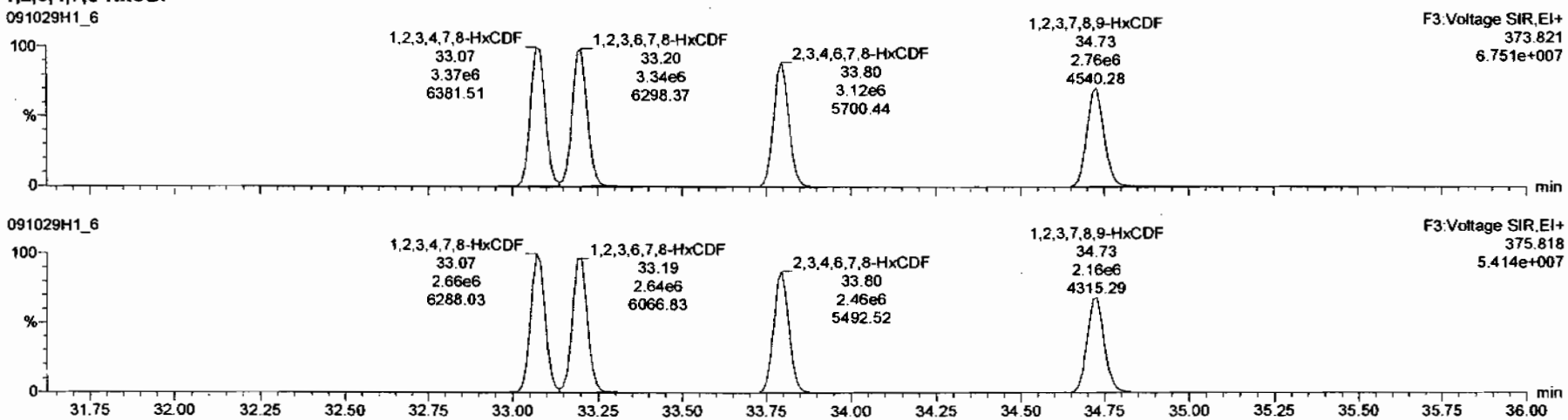

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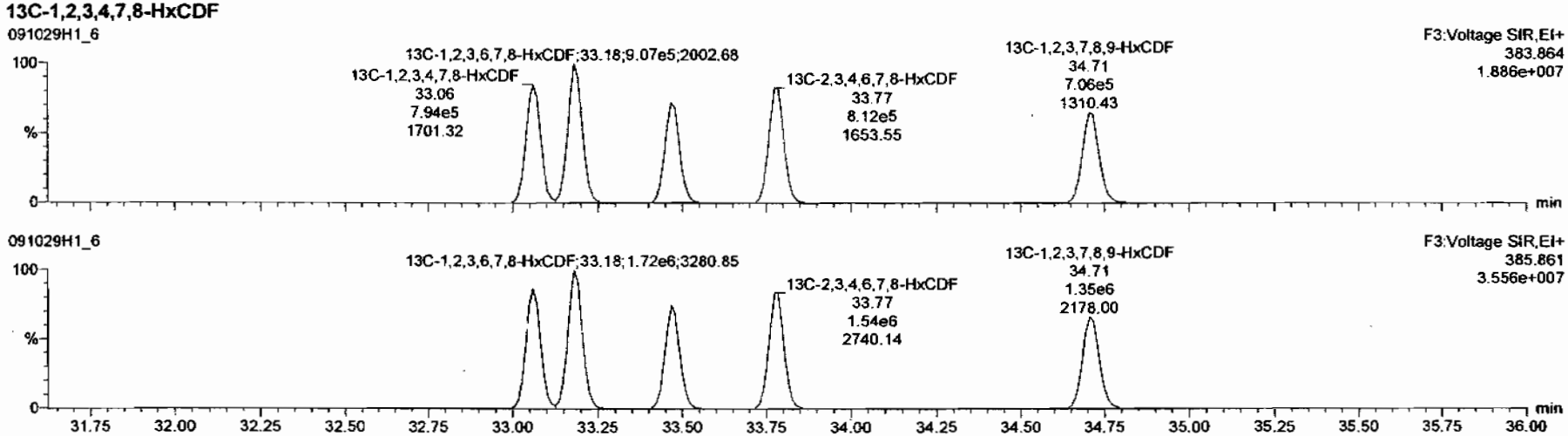

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1,2,3,4,6,7,8-HpCDF

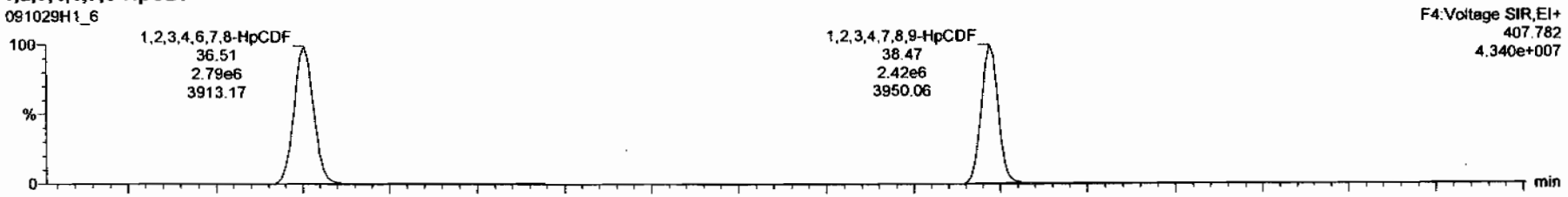

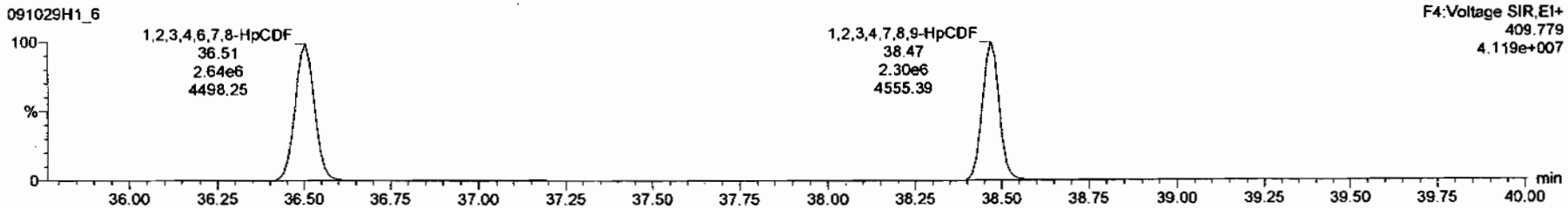

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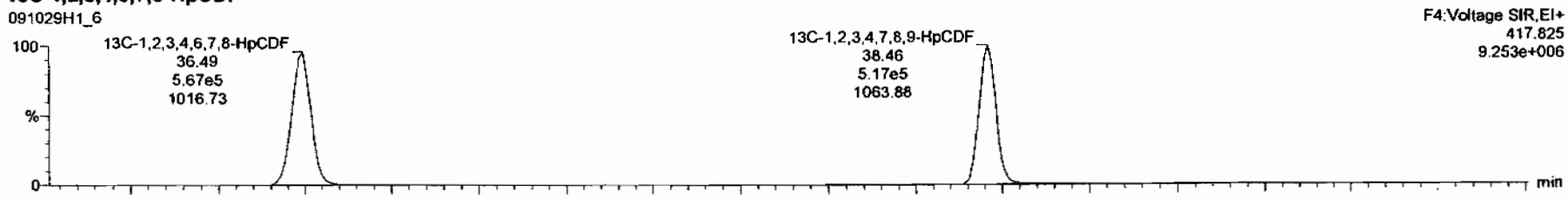

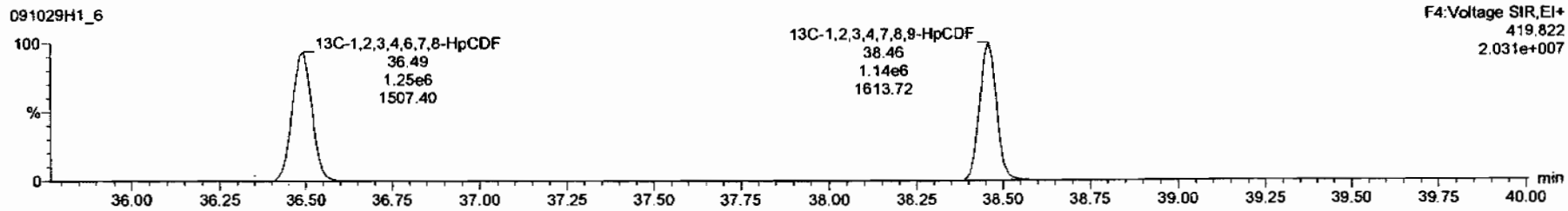

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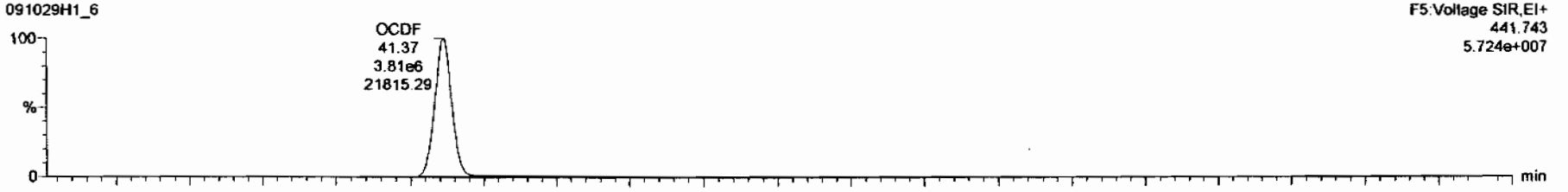

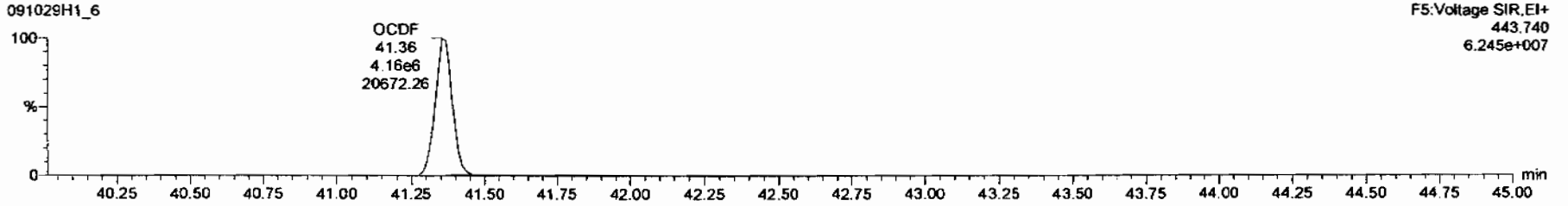

13C-OCDF

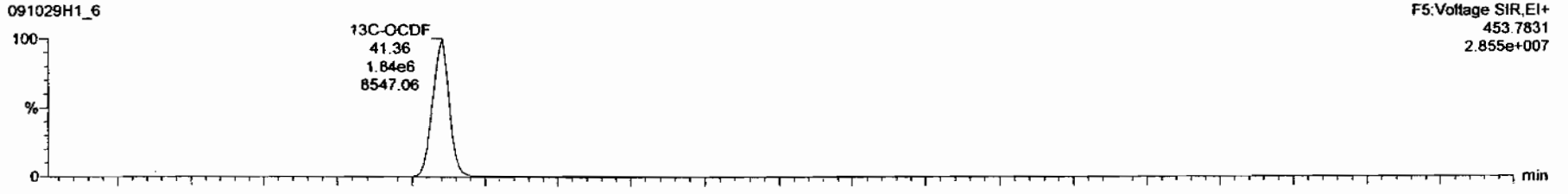

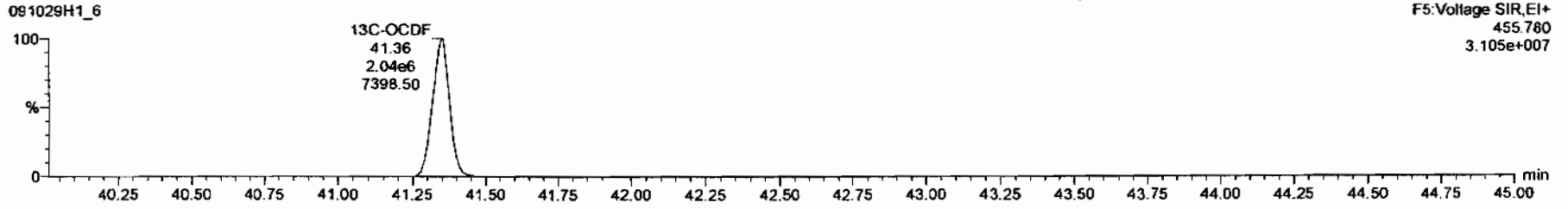

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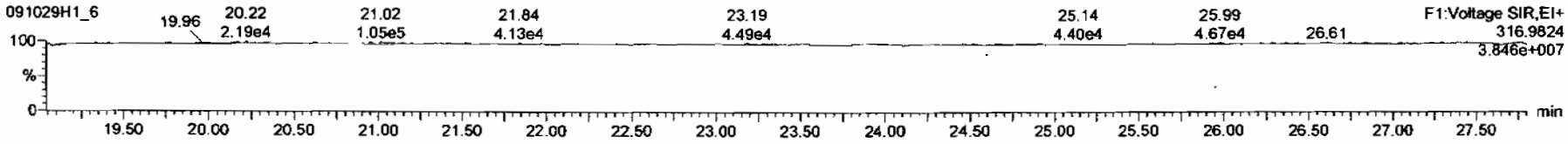

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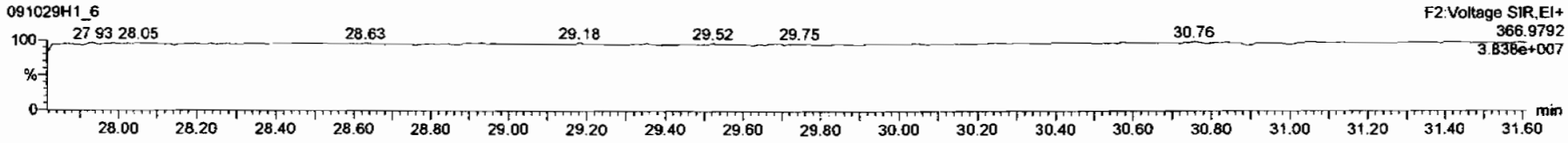

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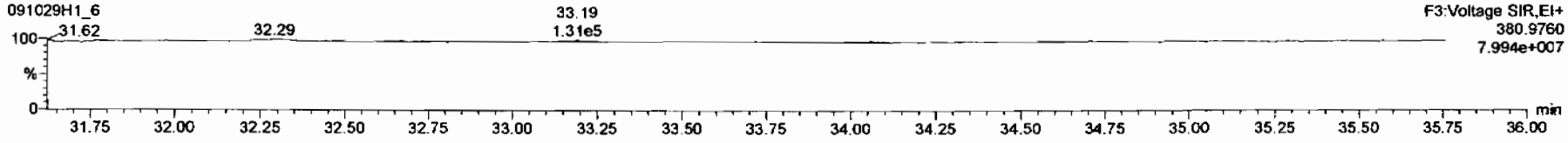

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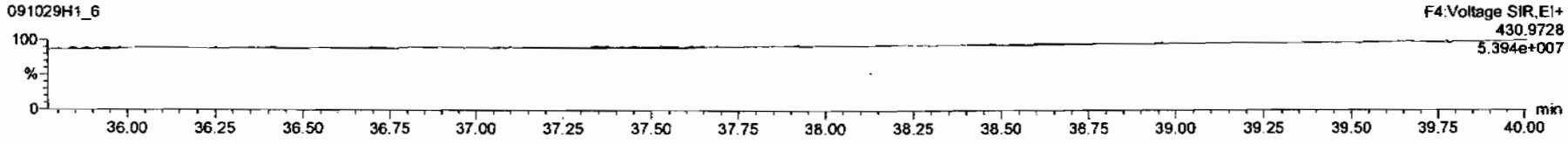

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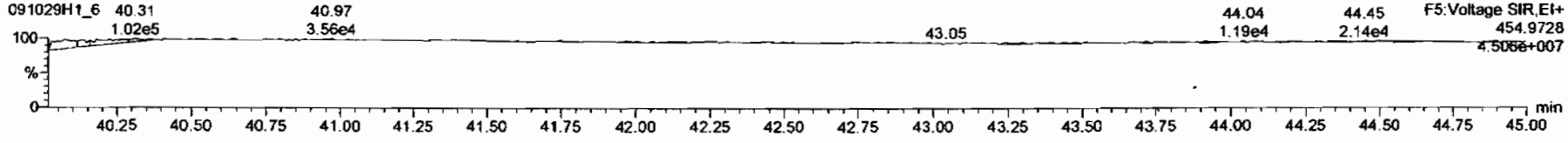

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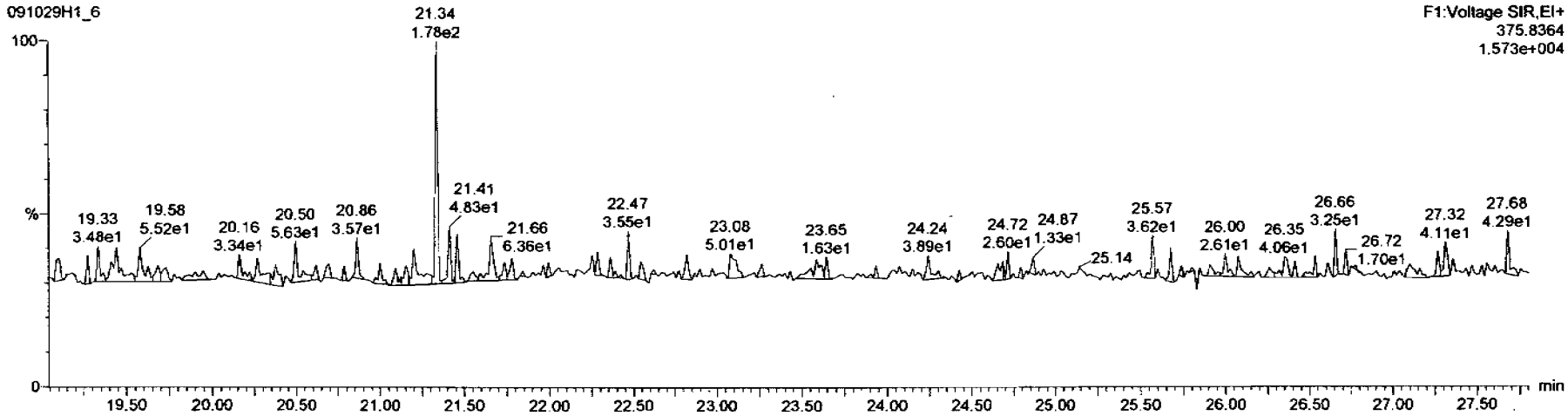

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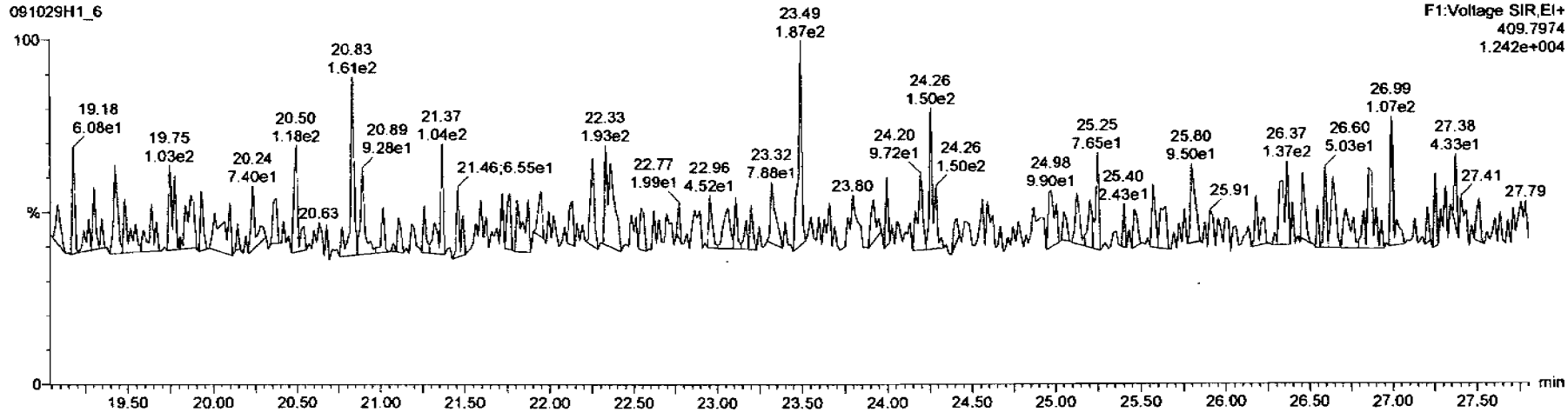

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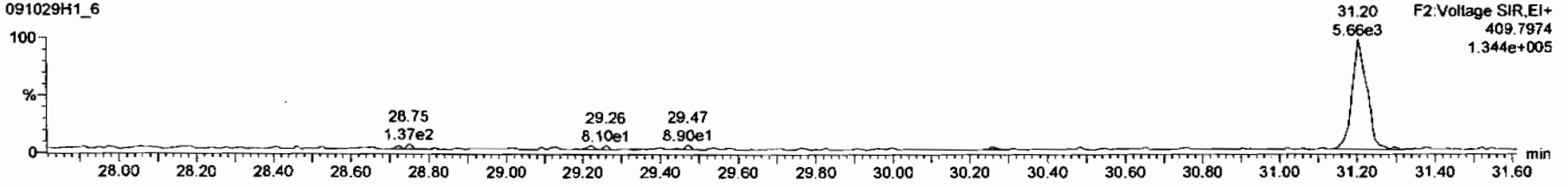

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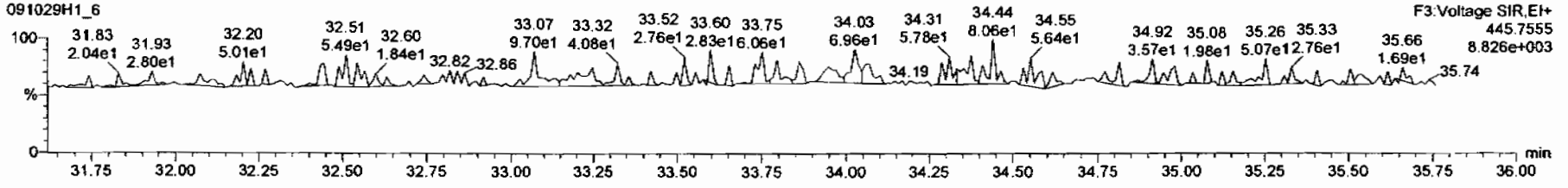

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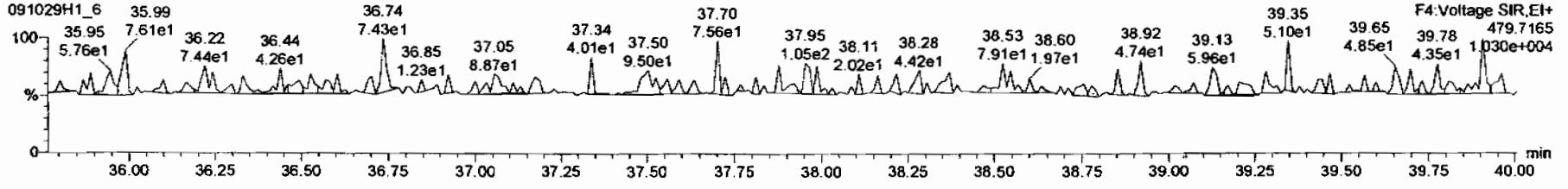

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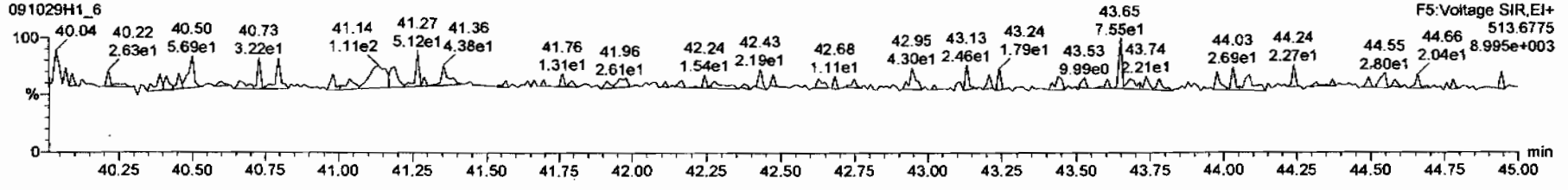

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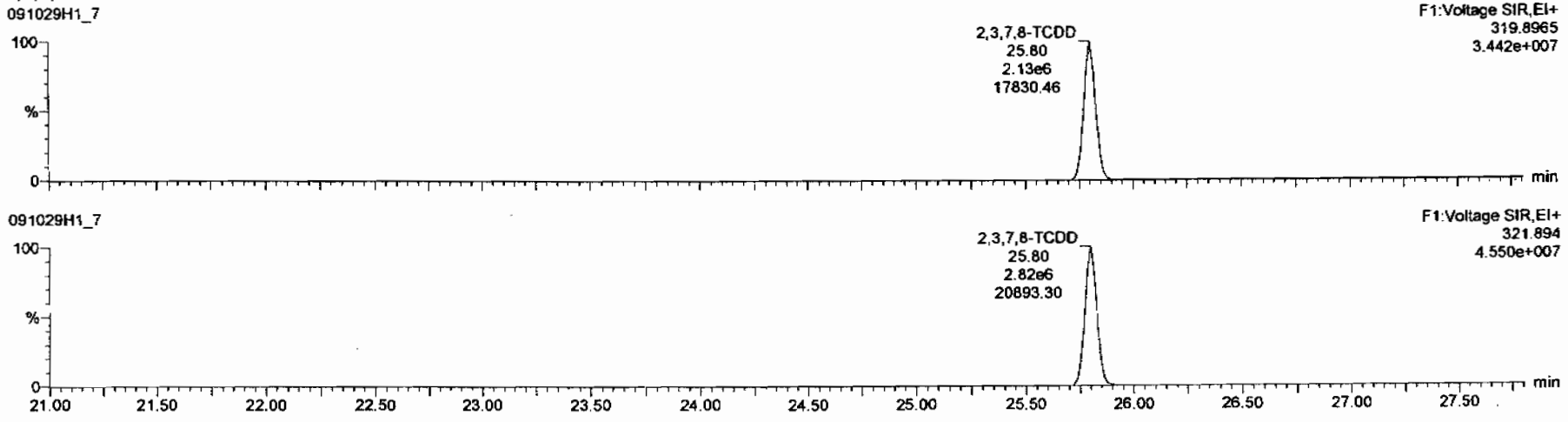

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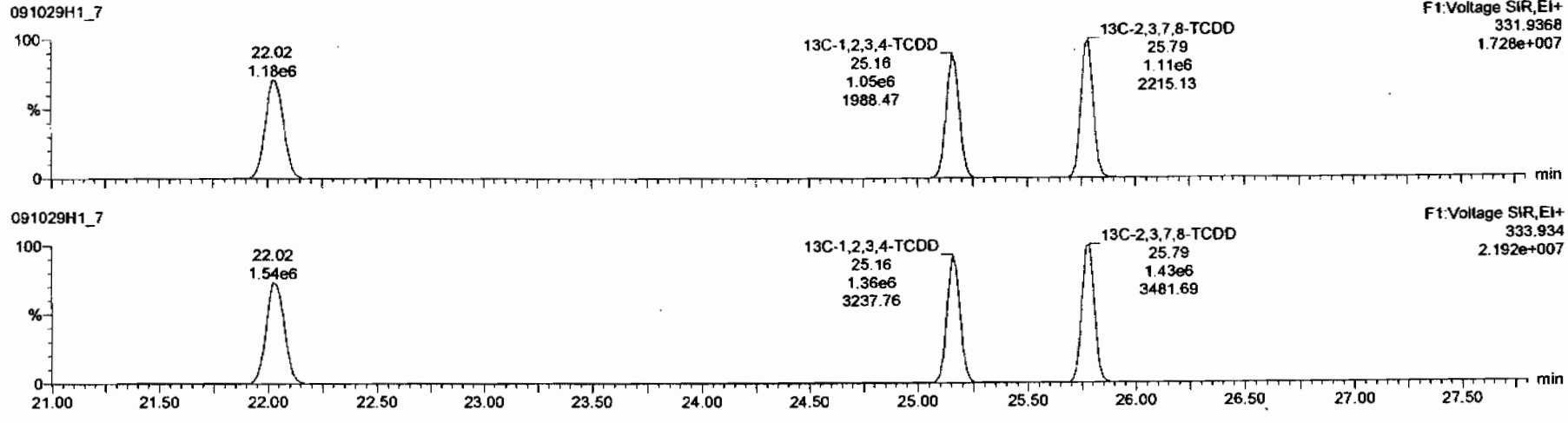

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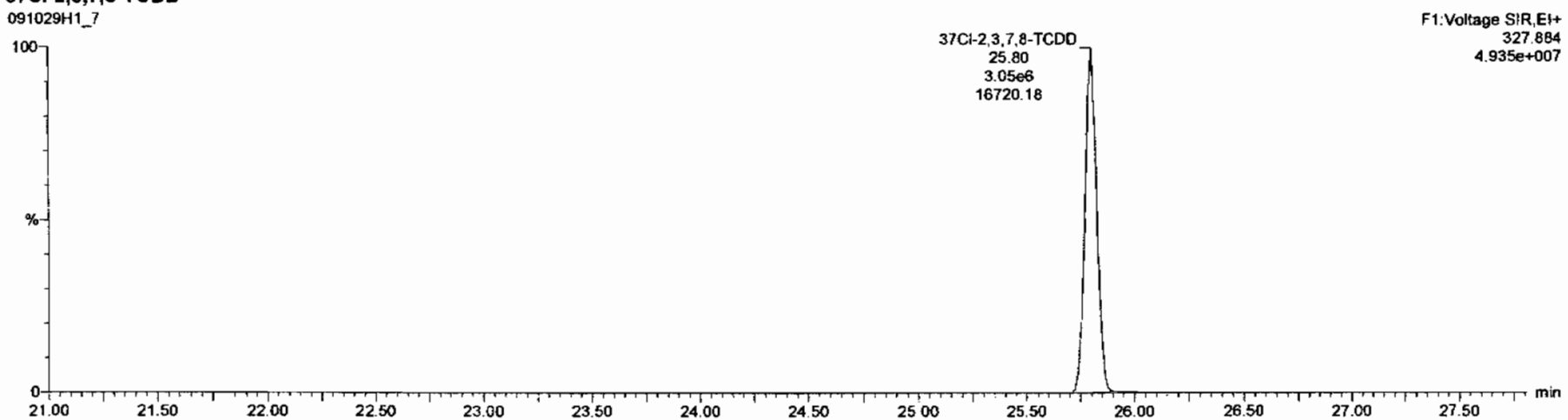

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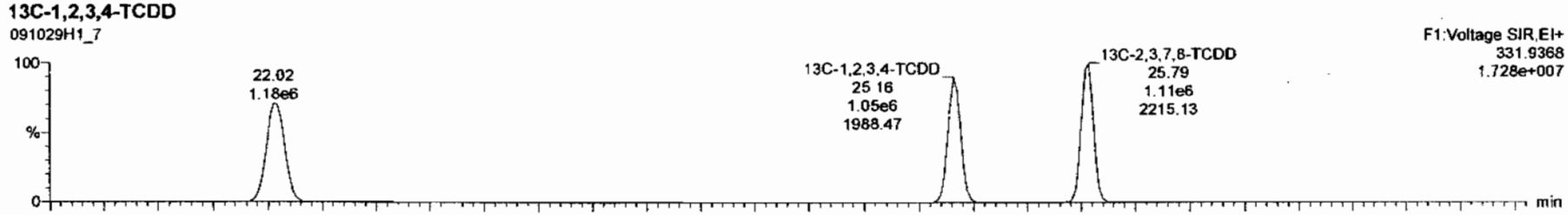

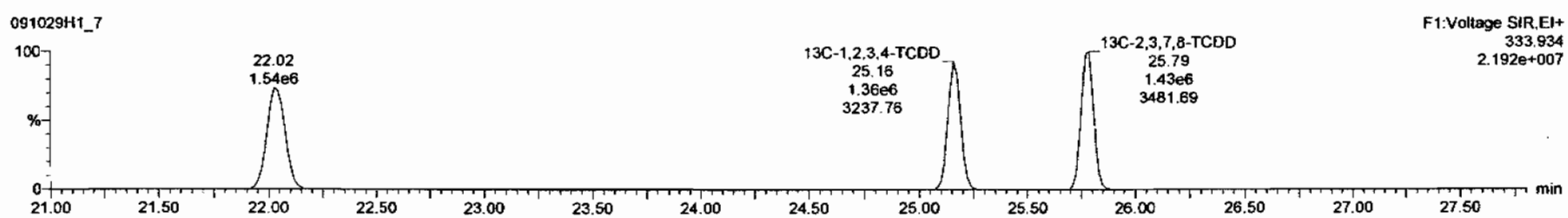

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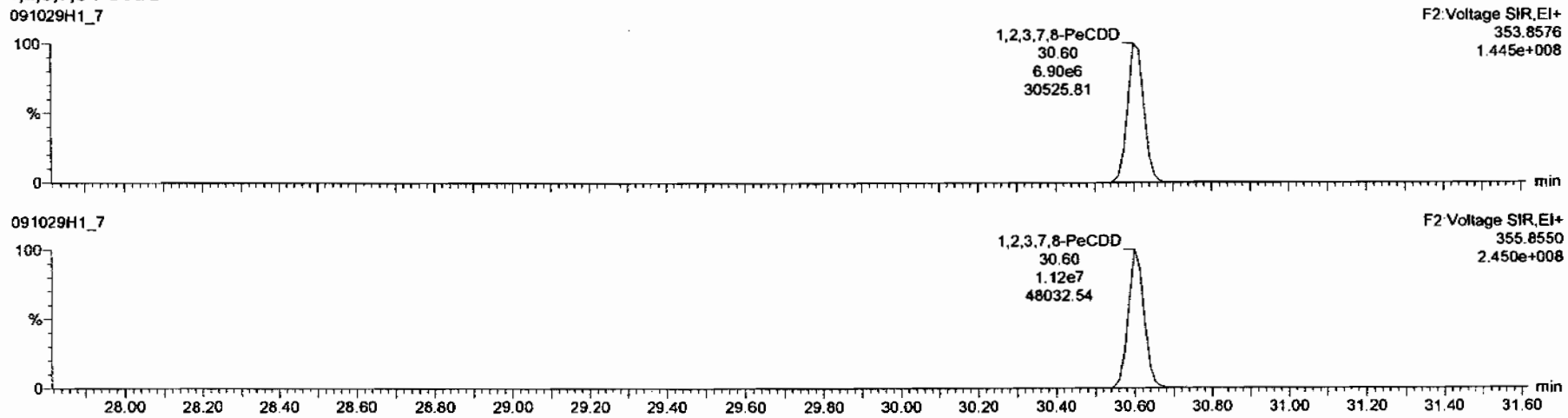

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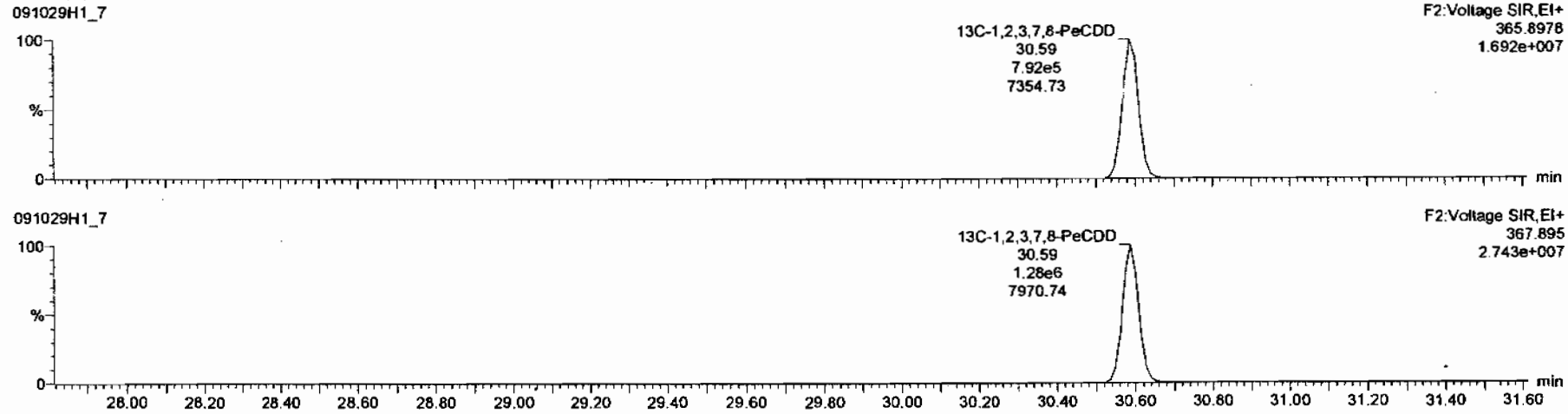

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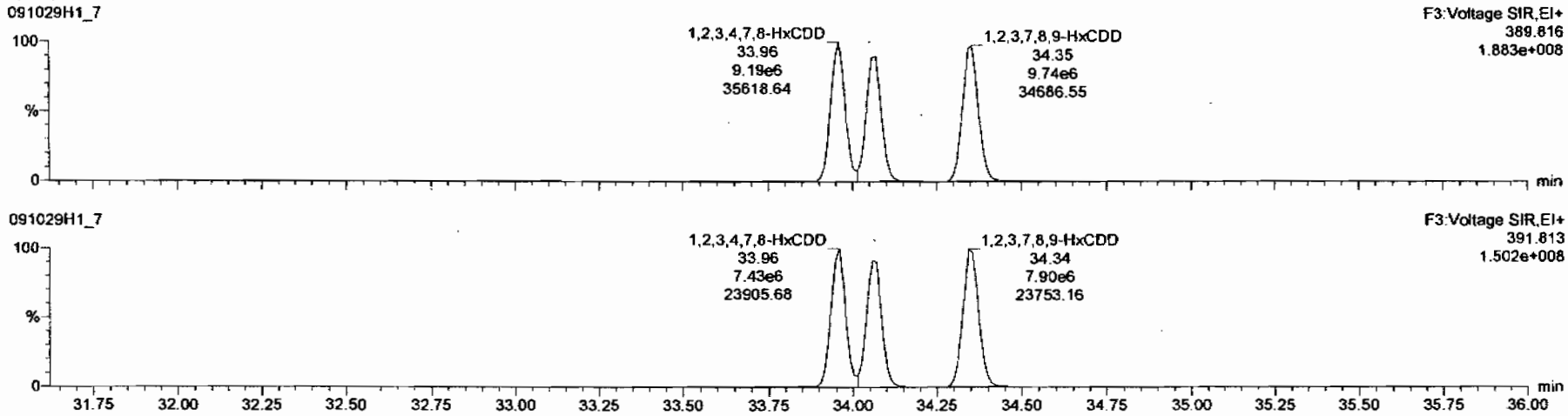

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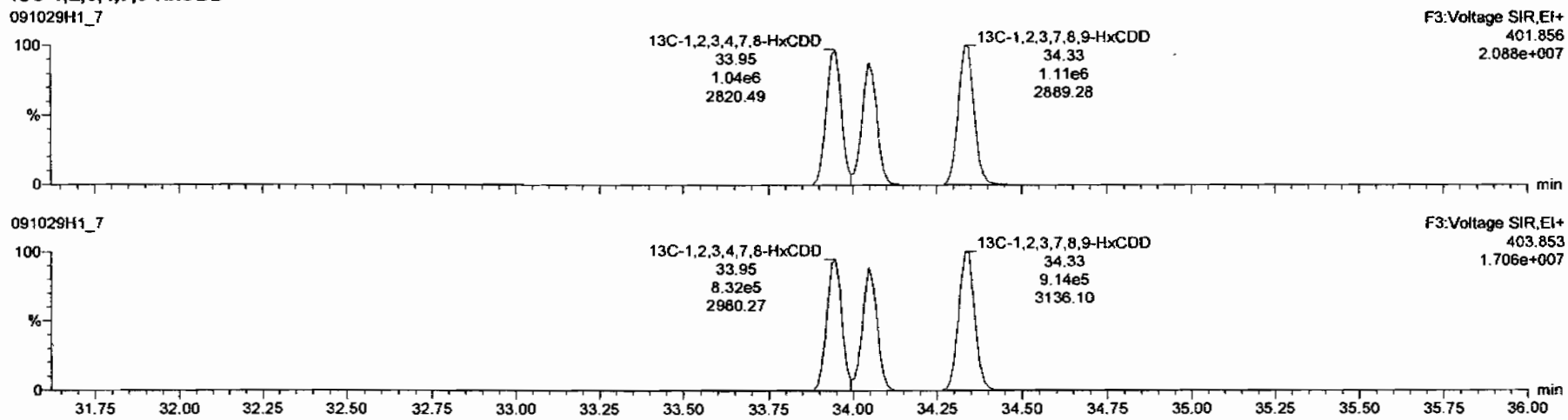

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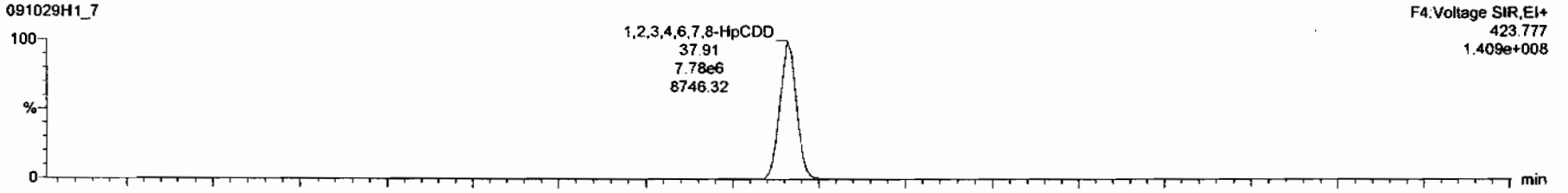

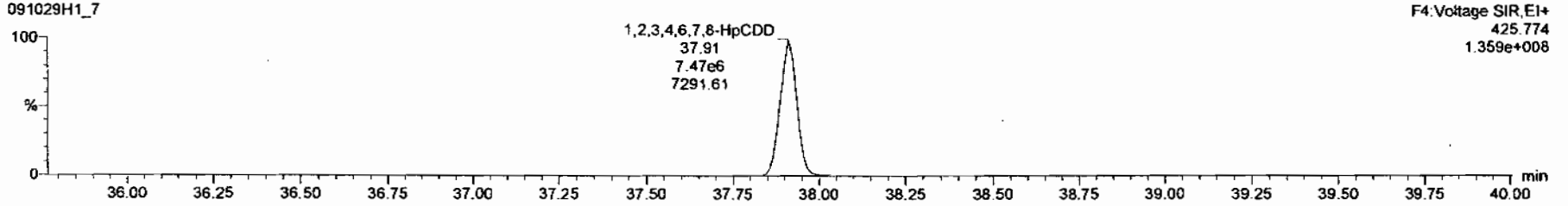

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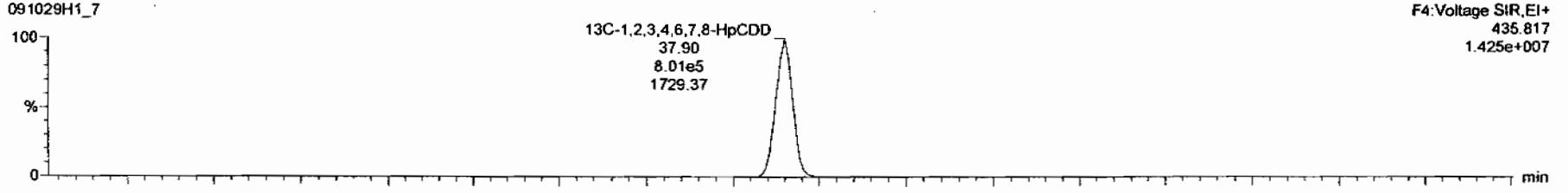

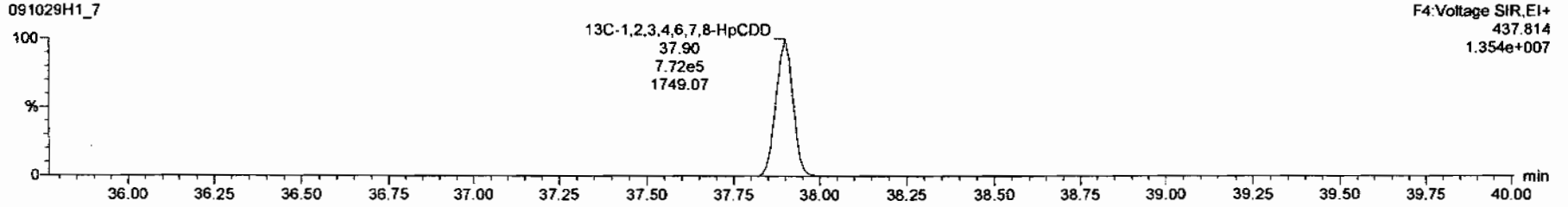

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OCDD

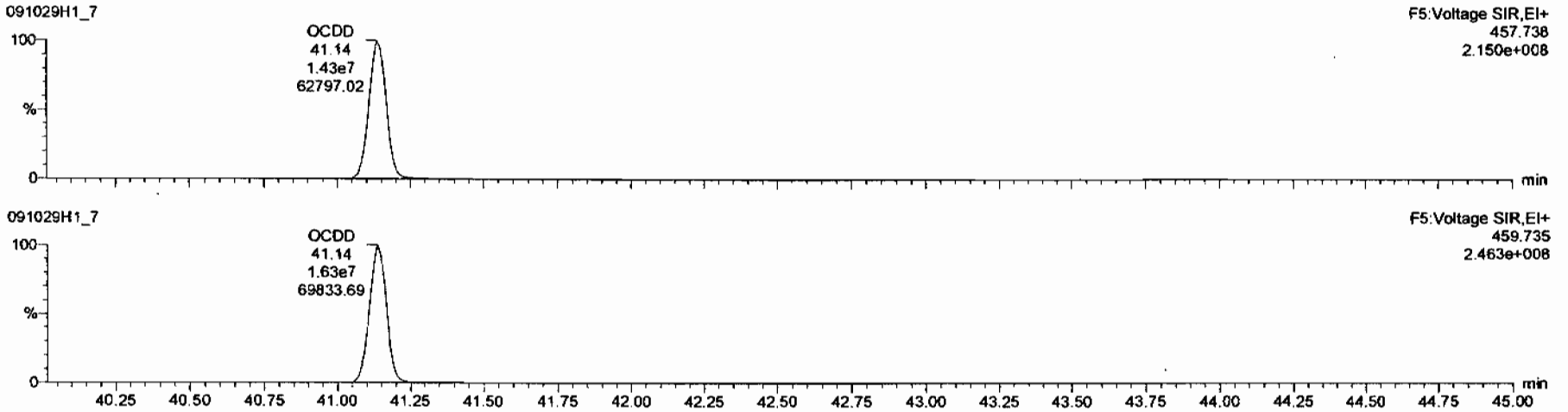

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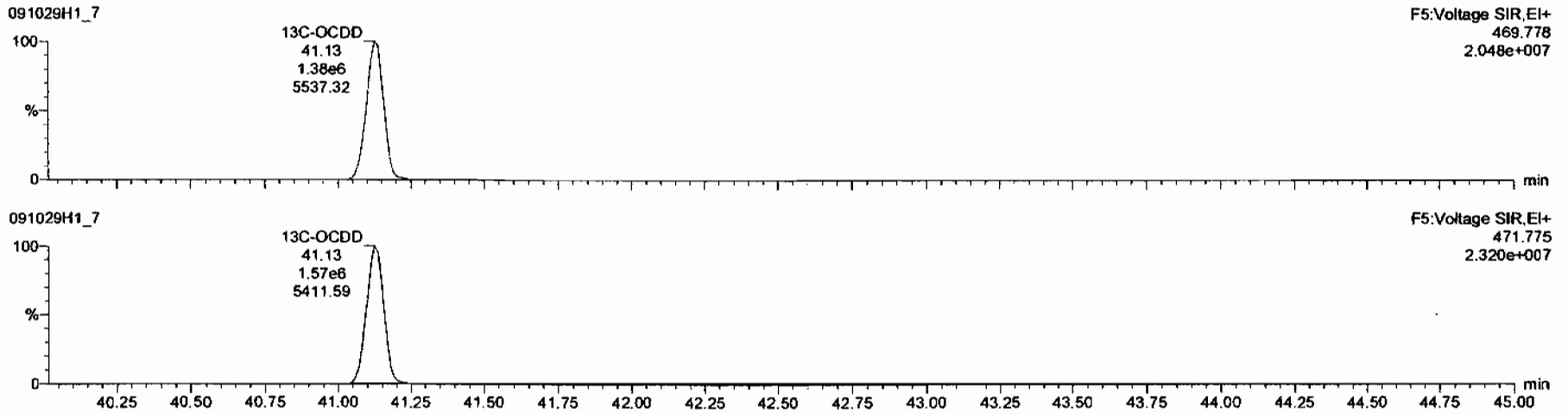

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2,3,7,8-TCDF

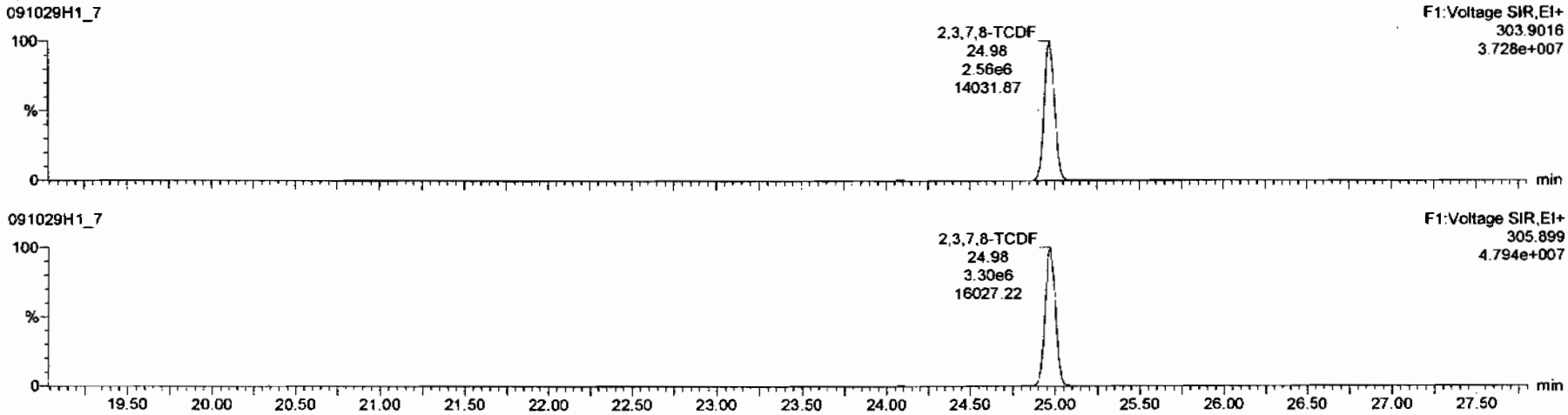

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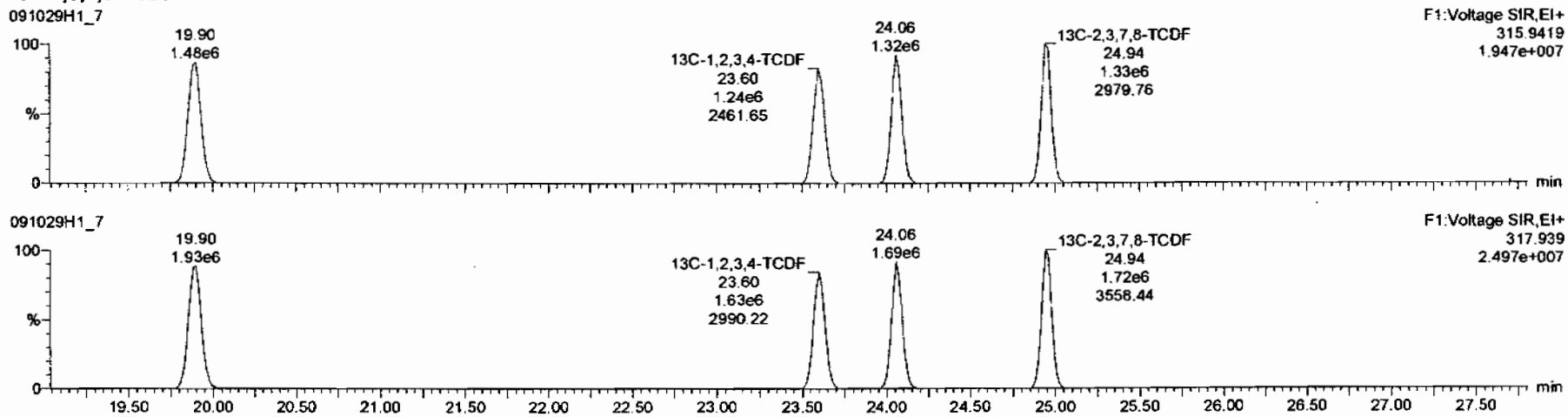

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Name: 091029H1_7, Date: 29-Oct-2009, Time: 17:24:08, ID: ST091029H1-6 1613 CS5 090922I, Description: 1613 CS5 090922I

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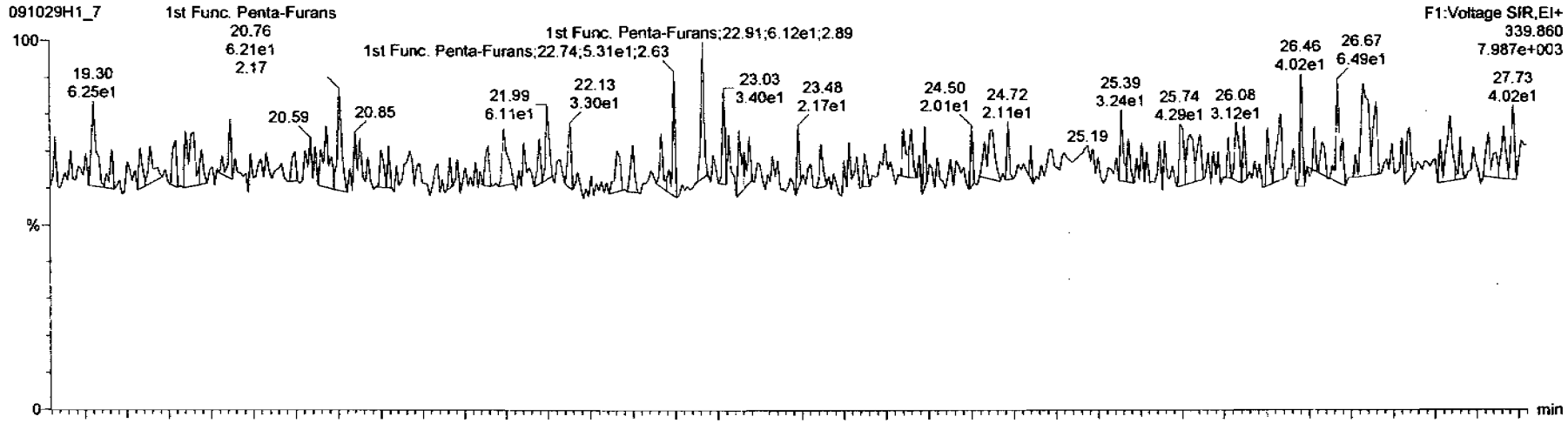

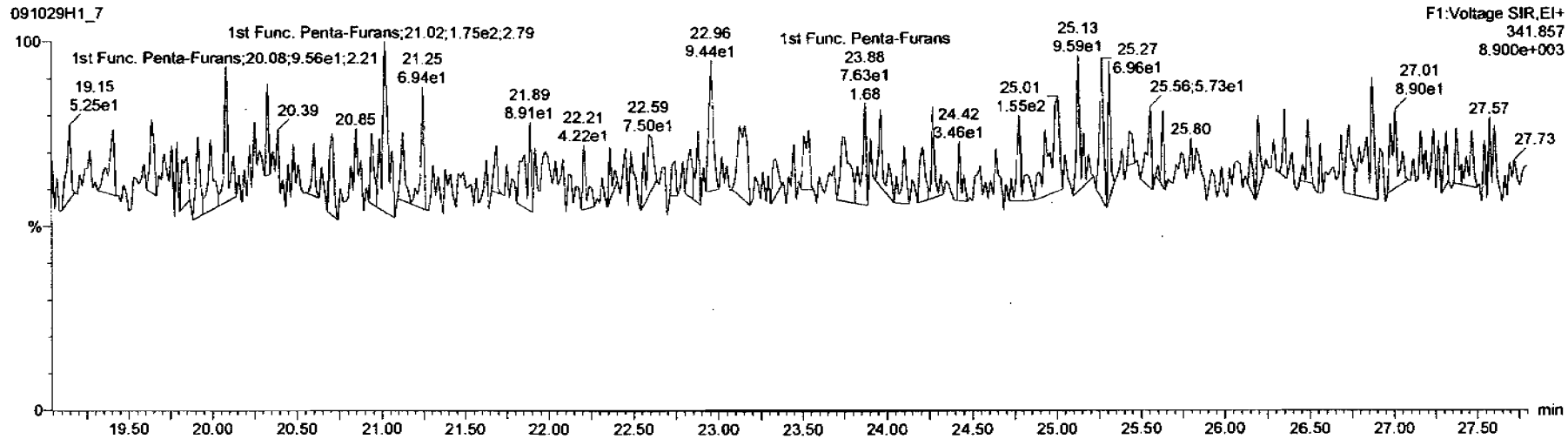

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Name: 091029H1_7, Date: 29-Oct-2009, Time: 17:24:08, ID: ST091029H1-6 1613 CS5 090922I, Description: 1613 CS5 090922I

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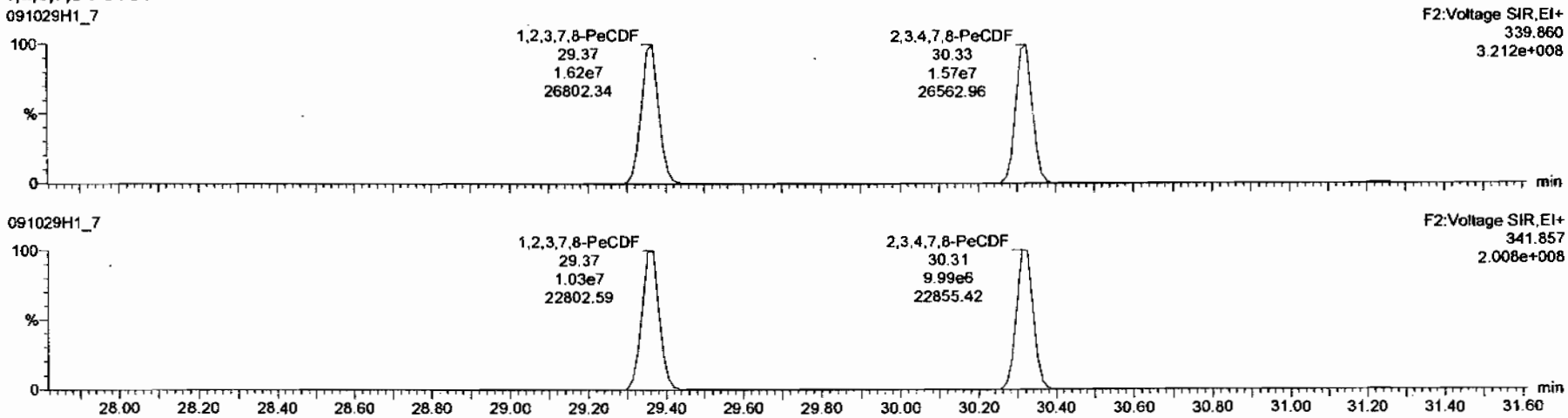

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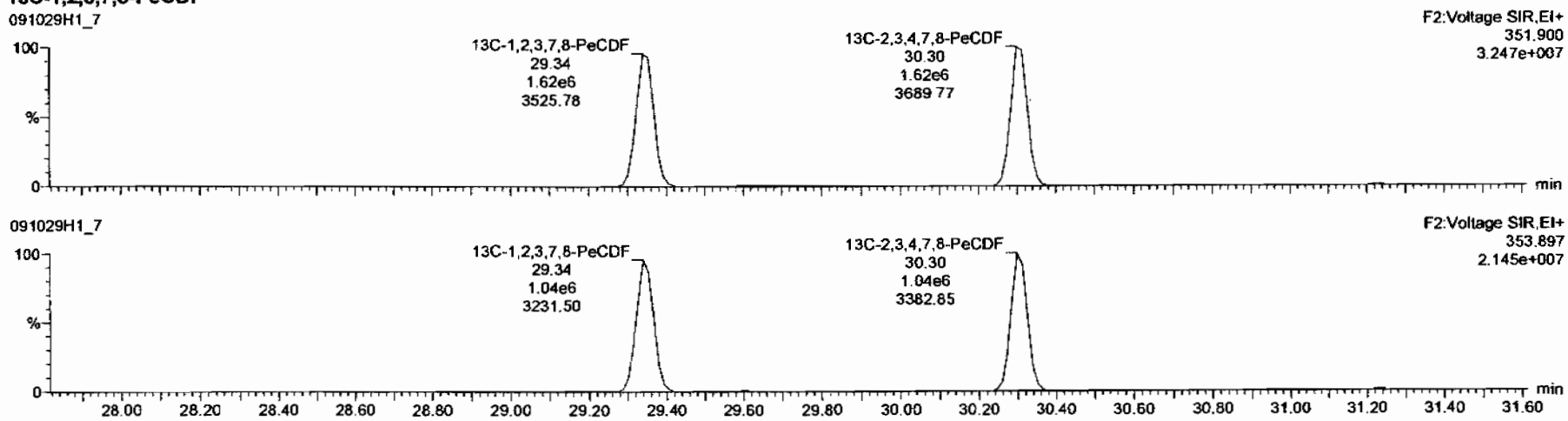

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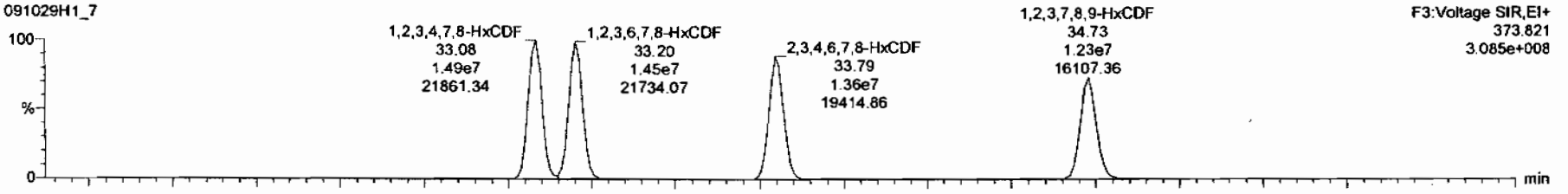

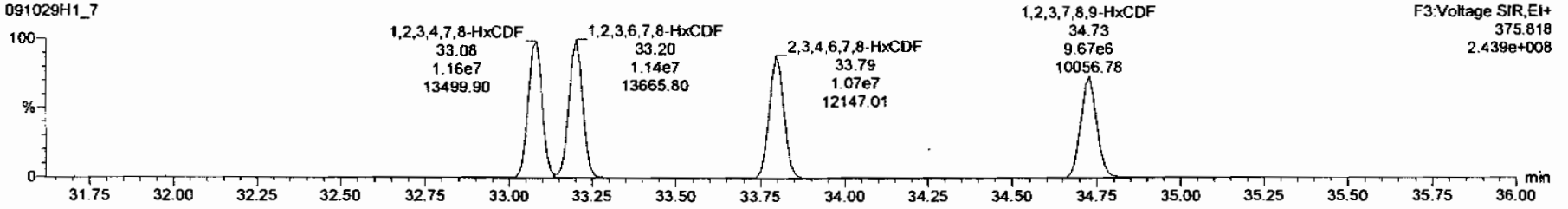

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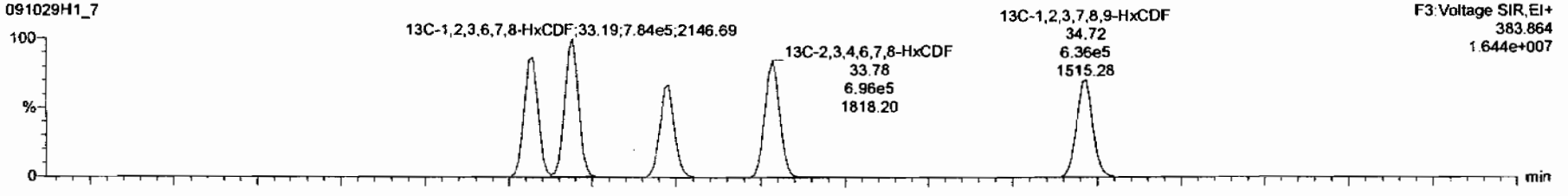

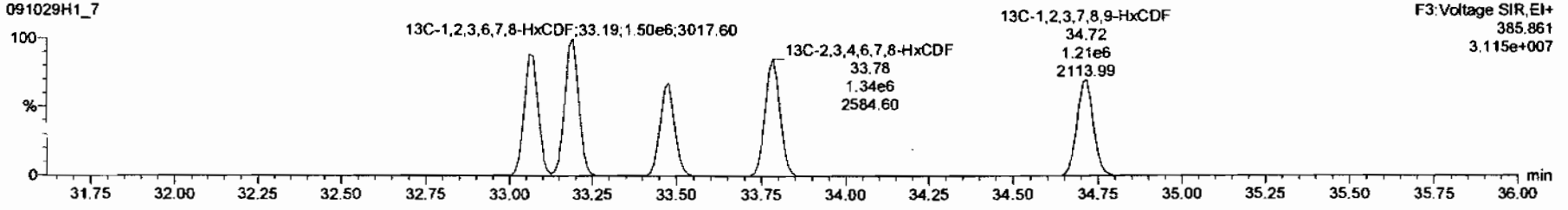

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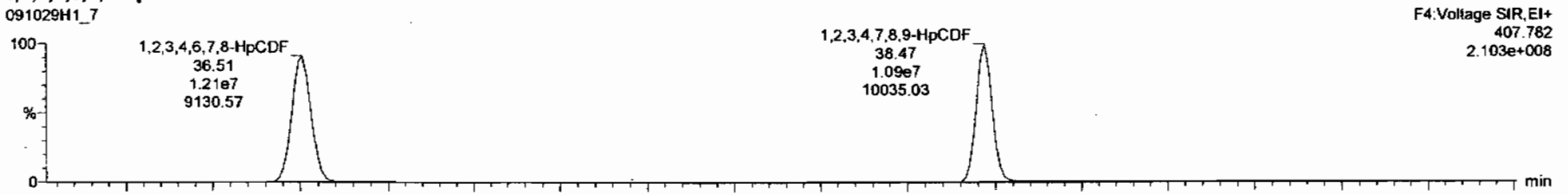

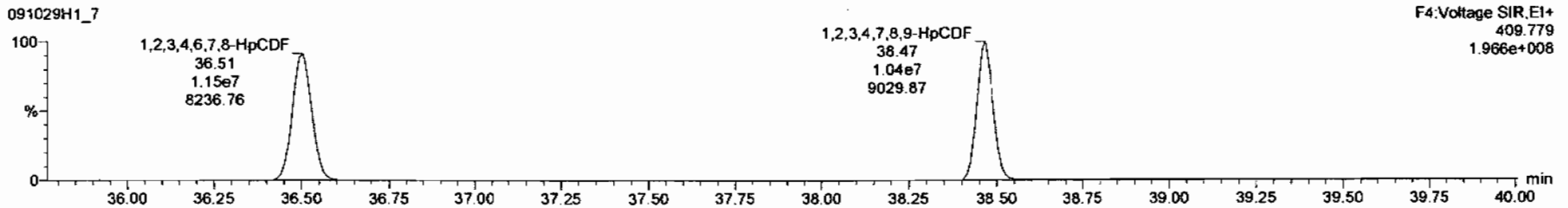

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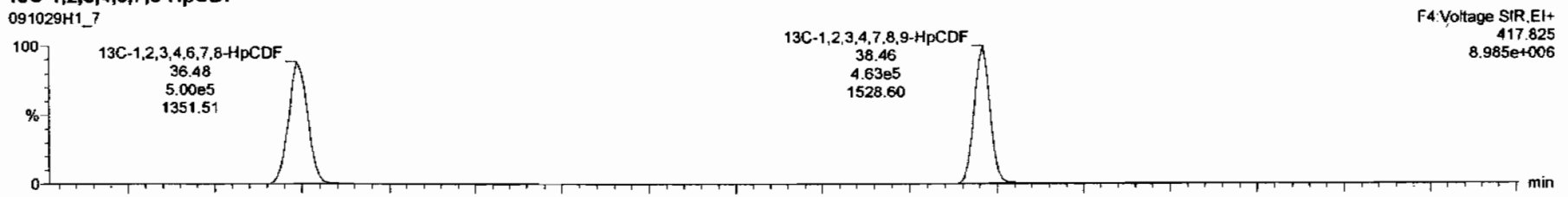

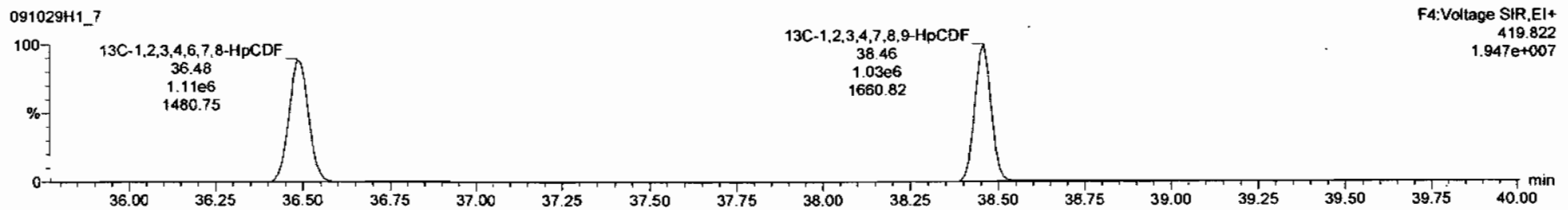

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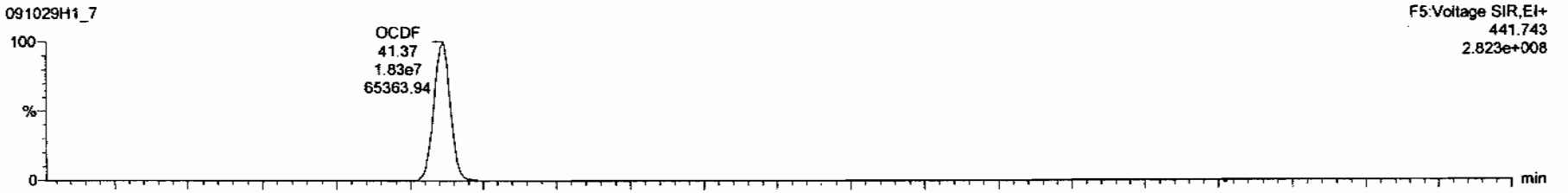

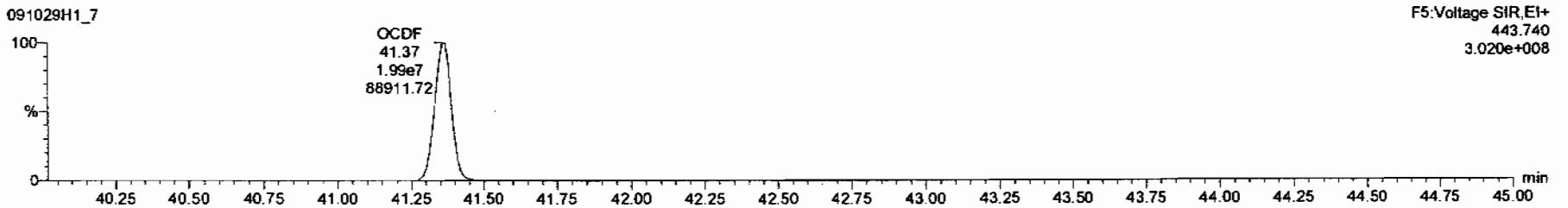

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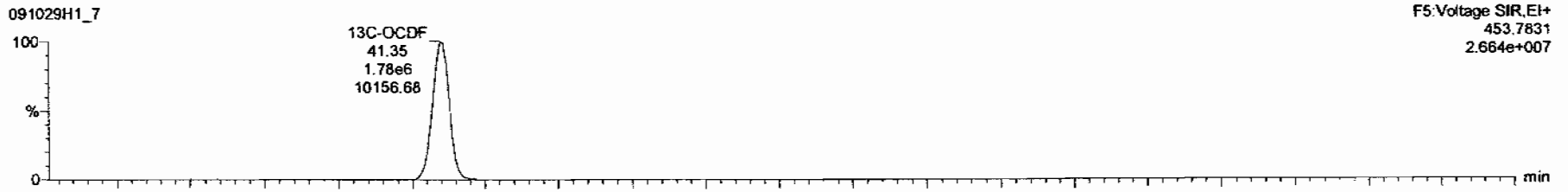

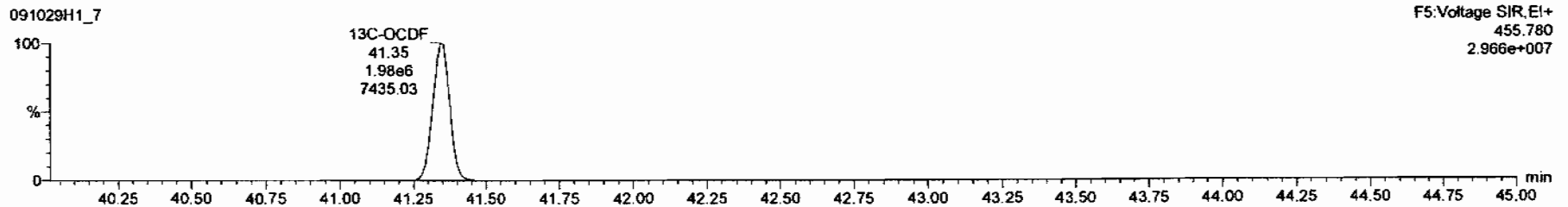

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Name: 091029H1_7, Date: 29-Oct-2009, Time: 17:24:08, ID: ST091029H1-6 1613 CS5 090922I, Description: 1613 CS5 090922I

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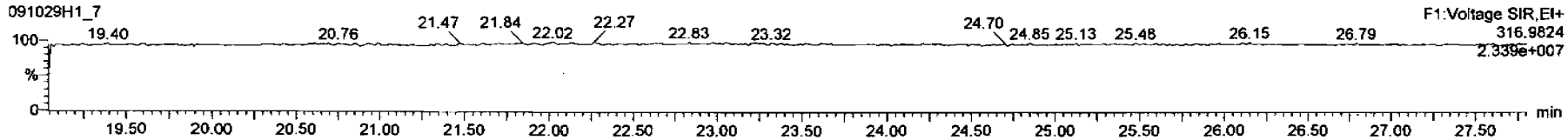

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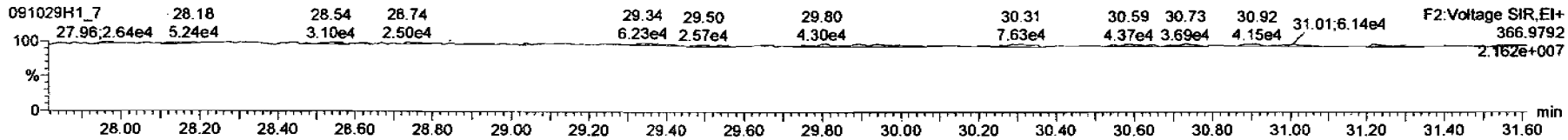

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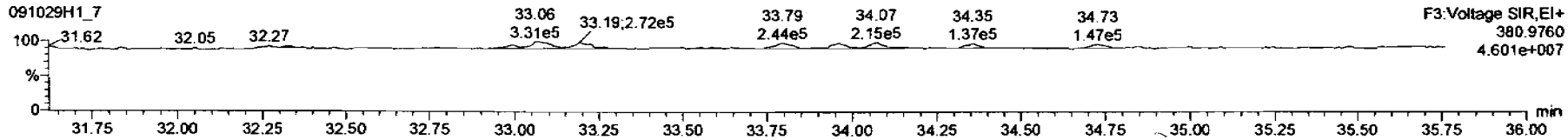

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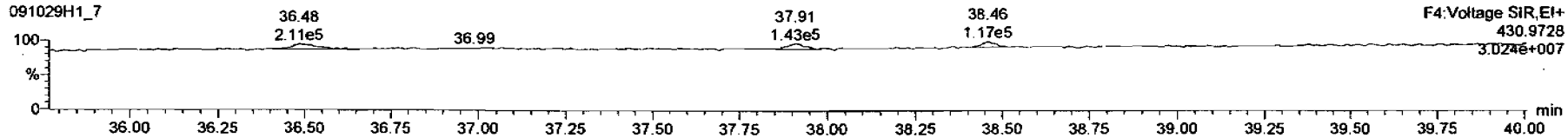

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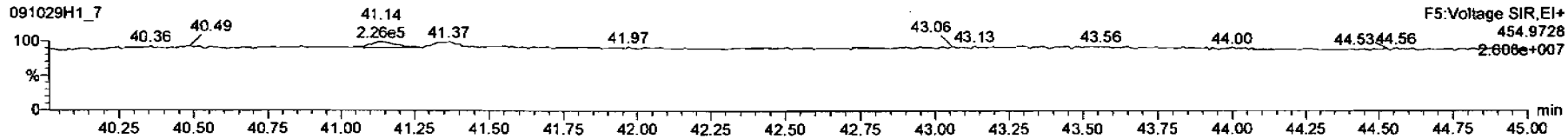

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Name: 091029H1_7, Date: 29-Oct-2009, Time: 17:24:08, ID: ST091029H1-6 1613 CS5 090922I, Description: 1613 CS5 090922I

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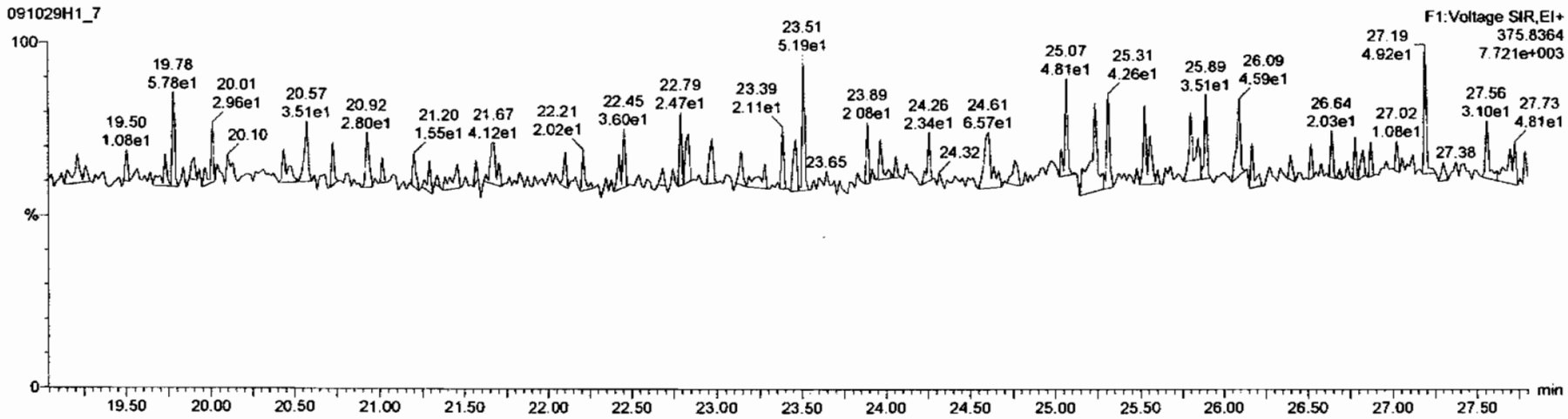

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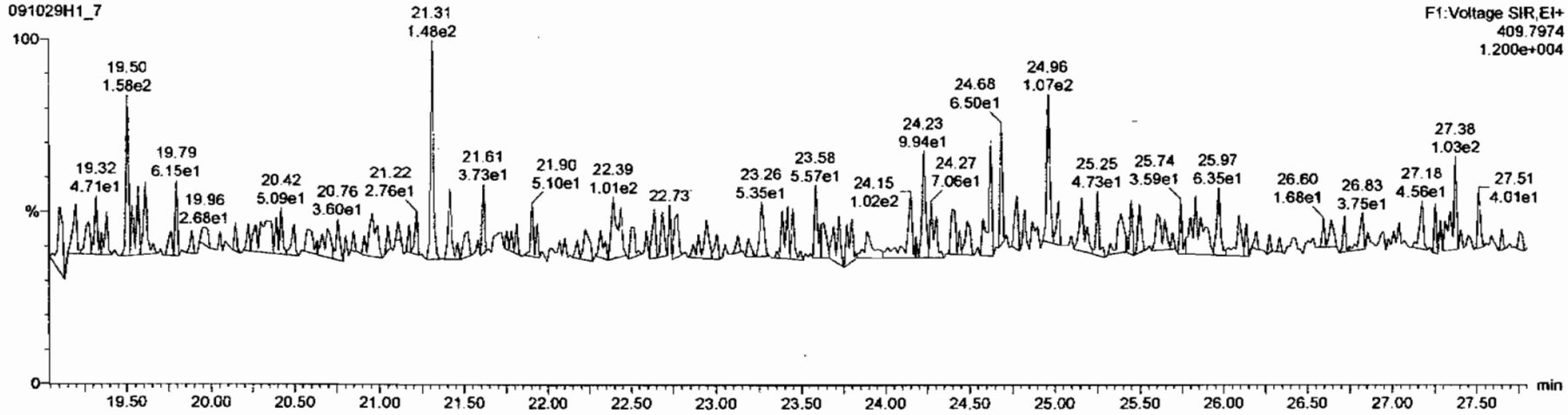

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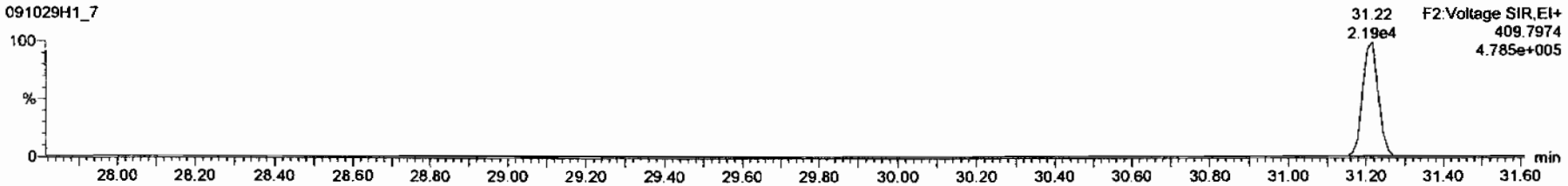

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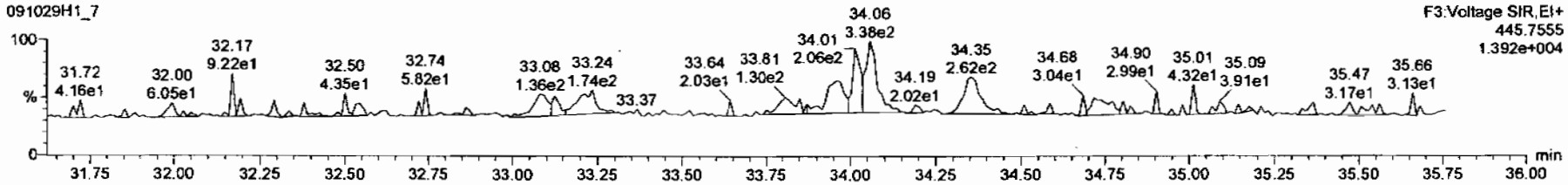

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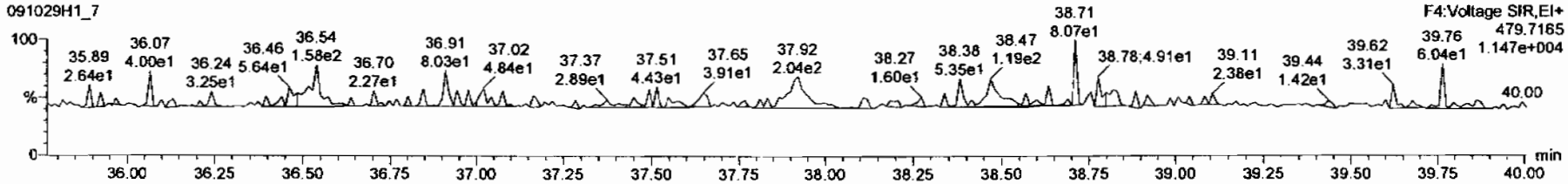

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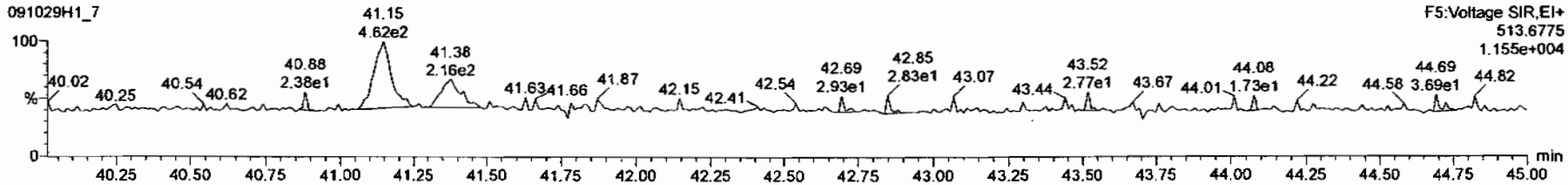

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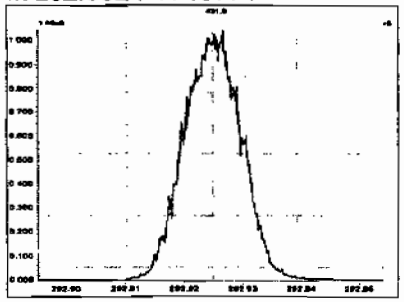

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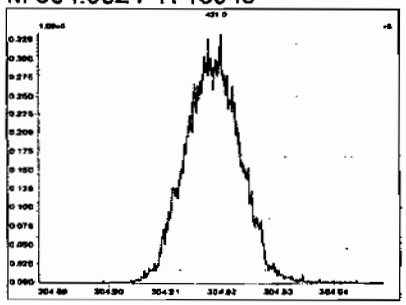

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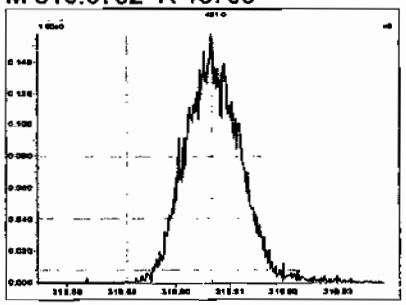

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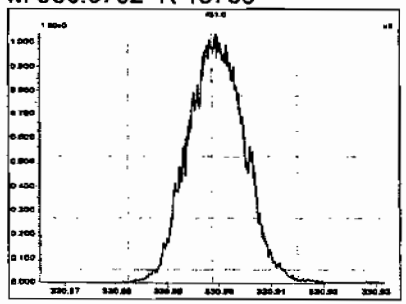

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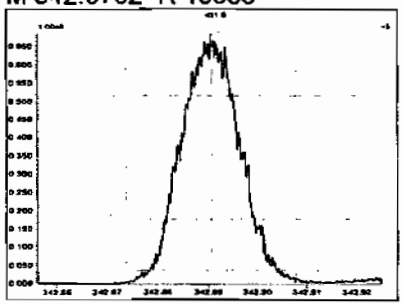

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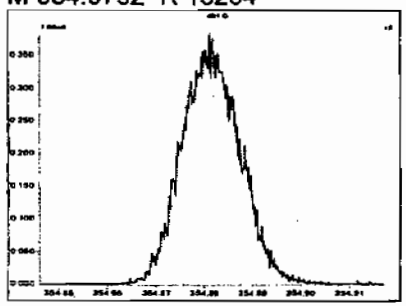

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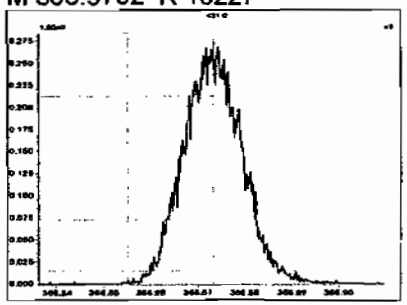

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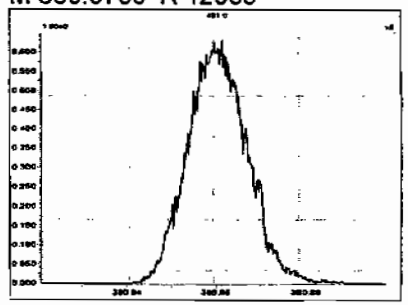

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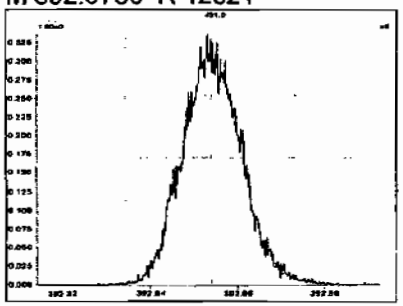

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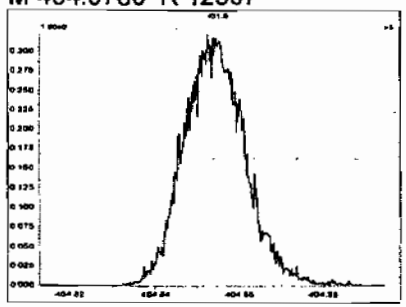

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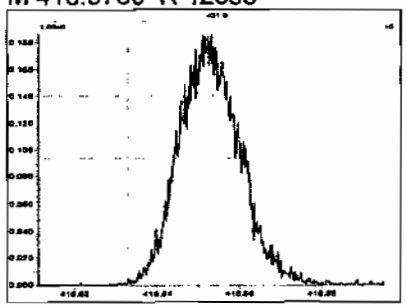

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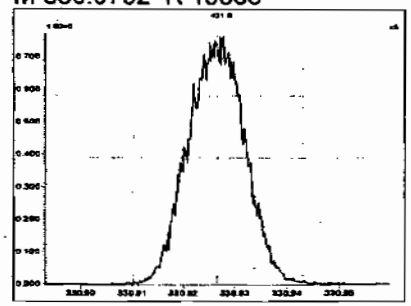

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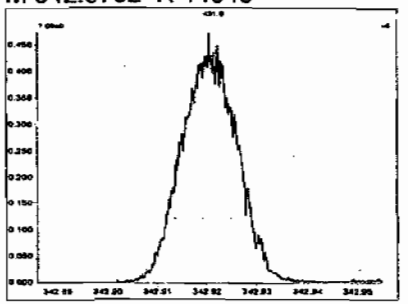

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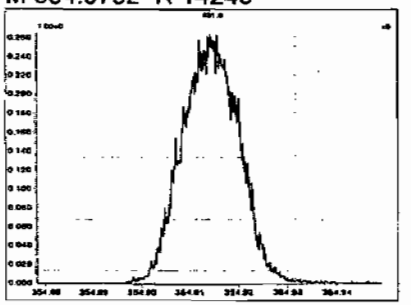

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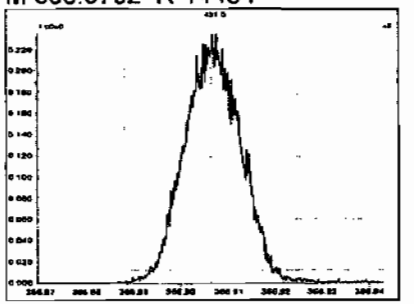

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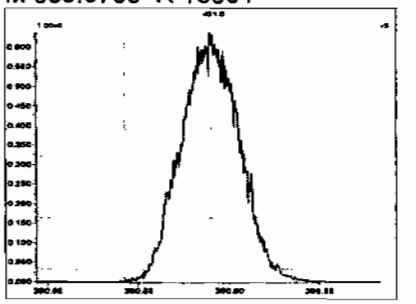

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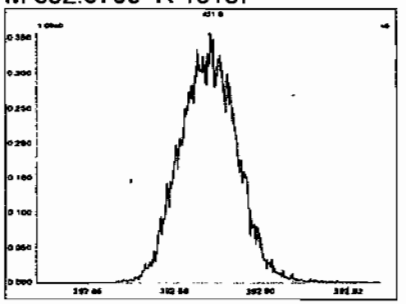

M 404.9760 R 13125

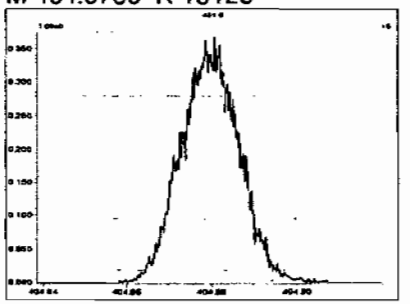

M 416.9760 R 13157

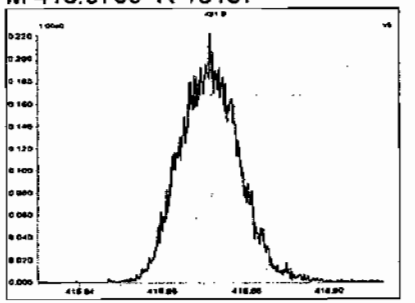

M 366.9792 R 13945

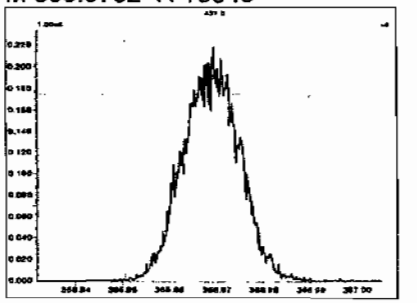

M 380.9760 R 14125

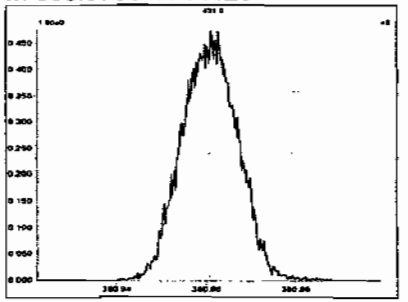

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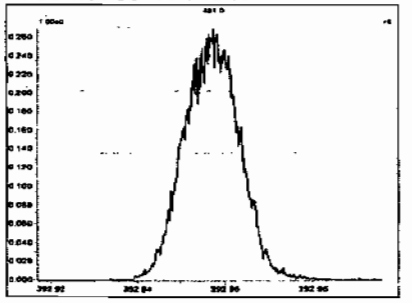

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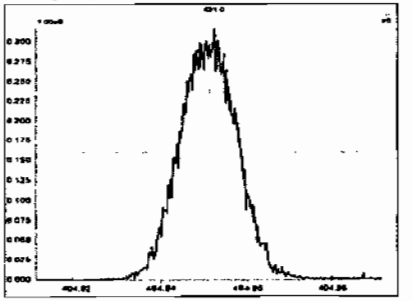

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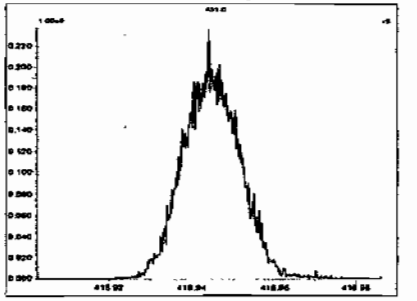

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M 430.9728 R 13481

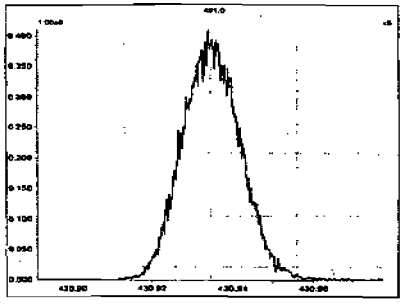

M 442.9728 R 12997

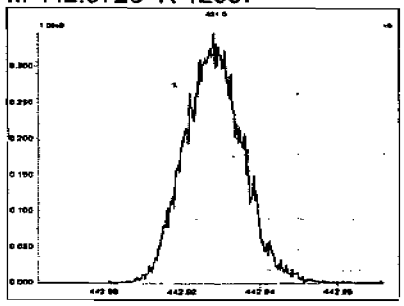

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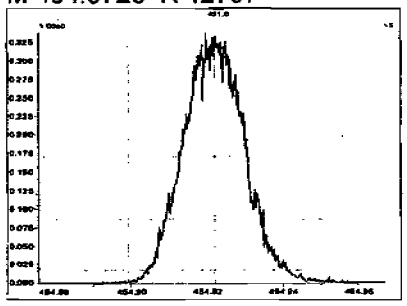

M 404.9760 R 13862

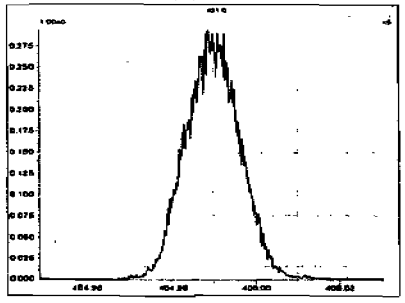

M 416.9760 R 14418

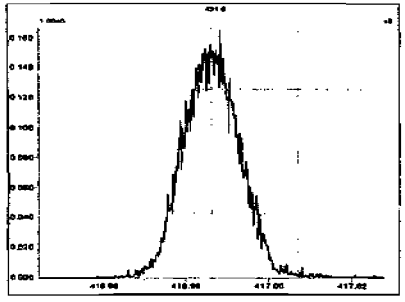

M 430.9728 R 13404

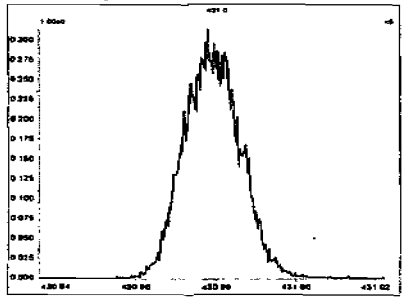

M 442.9728 R 14006

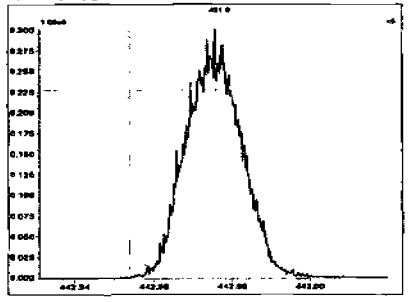

M 454.9728 R 13493

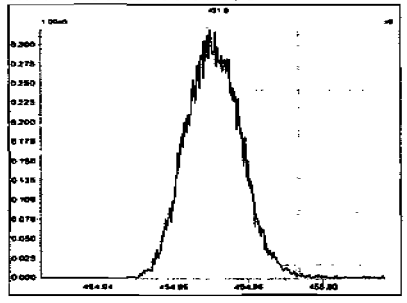

M 466.9728 R 13737

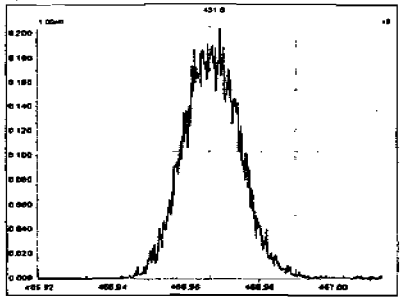

M 480.9696 R 12789

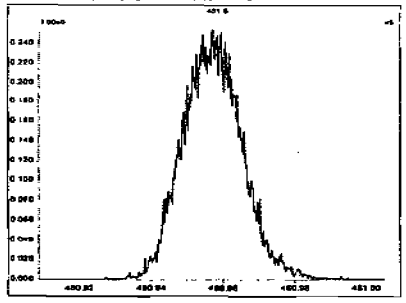

M 430.9728 R 13298

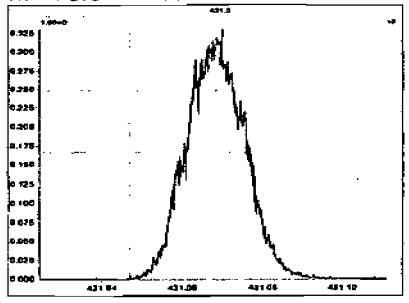

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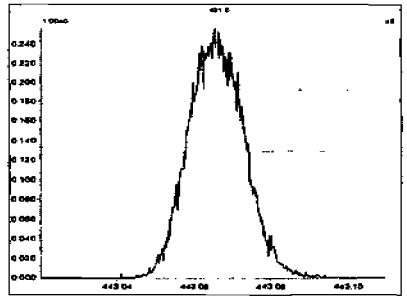

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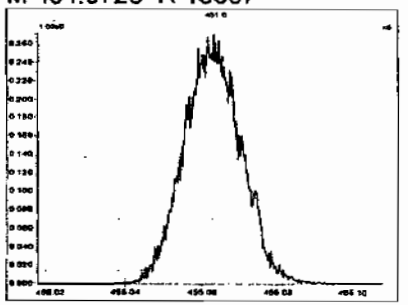

M 466.9728 R 13932

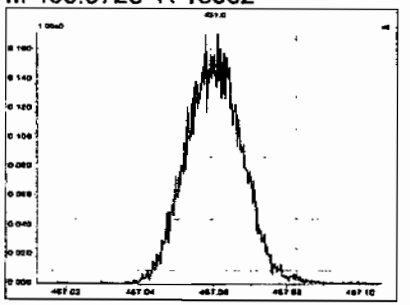

M 480.9696 R 13301

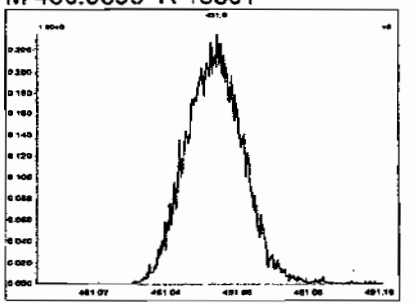

M 492.9696 R 13404

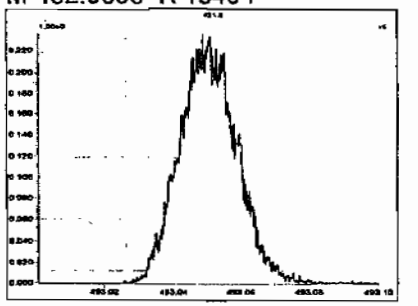

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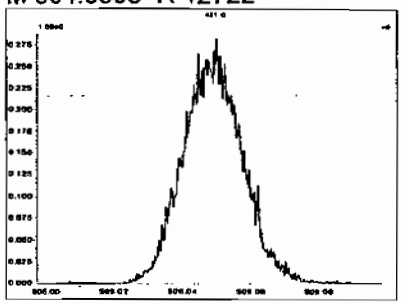

M 516.9697 R 12724

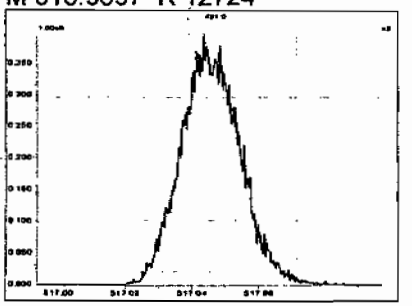

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-sss.qld

Last Altered: Friday, October 30, 2009 08:54:03 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:55:35 Pacific Daylight Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 21 Oct 2009 08:49:07
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 08:35:54

Name: 091029H1_9, Date: 29-Oct-2009, Time: 19:02:56, ID: SSS091029H1-1 Sec Src Std 090219C, Description: Sec Src Std 090219C

	#	Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
1	1	2,3,7,8-TCDD	2.20e5	0.74	NO	0.965	1.000	25.80	1.001	8.9542		0.0194	8.9542
2	2	1,2,3,7,8-PeCDD	8.20e5	0.61	NO	0.869	1.000	30.60	1.001	51.562		0.0338	51.562
3	3	1,2,3,4,7,8-HxCDD	7.49e5	1.22	NO	0.873	1.000	33.95	1.000	52.570		0.0678	52.570
4	4	1,2,3,6,7,8-HxCDD	7.34e5	1.24	NO	0.940	1.000	34.06	1.001	46.213		0.0624	46.213
5	5	1,2,3,7,8,9-HxCDD	7.47e5	1.23	NO	0.882	1.000	34.34	1.000	50.326		0.0709	50.326
6	6	1,2,3,4,6,7,8-HpCDD	6.53e5	1.04	NO	0.965	1.000	37.90	1.000	50.325		0.138	50.325
7	7	OCDD	1.24e6	0.88	NO	1.05	1.000	41.14	1.000	91.851		0.0675	91.851
8	8	2,3,7,8-TCDF	2.83e5	0.78	NO	0.952	1.000	24.98	1.001	9.2593		0.0220	9.2593
9	9	1,2,3,7,8-PeCDF	1.23e6	1.57	NO	0.994	1.000	29.35	1.000	46.837		0.0450	46.837
10	10	2,3,4,7,8-PeCDF	1.22e6	1.57	NO	0.977	1.000	30.31	1.000	50.447		0.0450	50.447
11	11	1,2,3,4,7,8-HxCDF	1.17e6	1.26	NO	1.31	1.000	33.07	1.000	46.658		0.0474	46.658
12	12	1,2,3,6,7,8-HxCDF	1.15e6	1.27	NO	1.15	1.000	33.19	1.000	50.530		0.0560	50.530
13	13	2,3,4,6,7,8-HxCDF	1.11e6	1.26	NO	1.20	1.000	33.78	1.000	48.619		0.0572	48.619
14	14	1,2,3,7,8,9-HxCDF	9.31e5	1.27	NO	1.20	1.000	34.72	1.000	47.744		0.0757	47.744
15	15	1,2,3,4,6,7,8-HpCDF	1.10e6	1.05	NO	1.49	1.000	36.49	1.001	47.847		0.0999	47.847
16	16	1,2,3,4,7,8,9-HpCDF	9.07e5	1.06	NO	1.44	1.000	38.47	1.001	49.900		0.107	49.900
17	17	OCDF	1.53e6	0.91	NO	1.02	1.000	41.36	1.000	95.096		0.0566	95.096
18	18	13C-2,3,7,8-TCDD	2.54e6	0.77	NO	1.02	1.000	25.77	1.024	105.30	105	0.120	
19	19	13C-1,2,3,7,8-PeCDD	1.83e6	0.61	NO	0.806	1.000	30.57	1.215	96.298	96.3	0.104	
20	20	13C-1,2,3,4,7,8-HxCDD	1.63e6	1.24	NO	1.07	1.000	33.94	1.014	84.095	84.1	0.105	
21	21	13C-1,2,3,6,7,8-HxCDD	1.69e6	1.23	NO	0.968	1.000	34.04	1.017	96.802	96.8	0.117	
22	22	13C-1,2,3,7,8,9-HxCDD	1.68e6	1.23	NO	1.13	1.000	34.33	1.026	82.080	82.1	0.0996	
23	23	13C-1,2,3,4,6,7,8-HpCDD	1.34e6	1.06	NO	0.888	1.000	37.90	1.132	83.786	83.8	0.182	
24	24	13C-OCDD	2.58e6	0.88	NO	0.783	1.000	41.13	1.229	182.07	91.0	0.0712	
25	25	13C-2,3,7,8-TCDF	3.21e6	0.77	NO	1.03	1.000	24.94	0.991	99.856	99.9	0.109	
26	26	13C-1,2,3,7,8-PeCDF	2.63e6	1.56	NO	0.880	1.000	29.34	1.166	95.649	95.6	0.113	
27	27	13C-2,3,4,7,8-PeCDF	2.48e6	1.56	NO	0.867	1.000	30.30	1.204	91.618	91.6	0.115	
28	28	13C-1,2,3,4,7,8-HxCDF	1.91e6	0.52	NO	1.19	1.000	33.06	0.988	89.149	89.1	0.149	
29	29	13C-1,2,3,6,7,8-HxCDF	1.99e6	0.52	NO	1.30	1.000	33.18	0.991	84.559	84.6	0.136	
30	30	13C-2,3,4,6,7,8-HxCDF	1.90e6	0.52	NO	1.16	1.000	33.77	1.009	90.573	90.6	0.152	

10/30/09

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-sss.qld

Last Altered: Friday, October 30, 2009 08:54:03 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:55:35 Pacific Daylight Time

Name: 091029H1_9, Date: 29-Oct-2009, Time: 19:02:56, ID: SSS091029H1-1 Sec Src Std 090219C, Description: Sec Src Std 090219C

	#	Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
31	31	13C-1,2,3,7,8,9-HxCDF	1.63e6	0.52	NO	1.03	1.000	34.71	1.037	87.728	87.7	0.172	
32	32	13C-1,2,3,4,6,7,8-HpCDF	1.55e6	0.45	NO	0.909	1.000	36.47	1.090	94.485	94.5	0.183	
33	33	13C-1,2,3,4,7,8,9-HpCDF	1.26e6	0.45	NO	0.830	1.000	38.45	1.149	84.220	84.2	0.201	
34	34	13C-OCDF	3.14e6	0.89	NO	0.982	1.000	41.35	1.235	177.29	88.6	0.0779	
35	35	37Cl-2,3,7,8-TCDD	2.46e5			0.602	1.000	25.80	1.026	17.315	173	0.0270	
36	36	13C-1,2,3,4-TCDD	2.36e6	0.77	NO	1.00	1.000	25.16	0.000	100.00	100	0.122	
37	37	13C-1,2,3,4-TCDF	3.12e6	0.77	NO	1.00	1.000	23.60	0.000	100.00	100	0.112	
38	38	13C-1,2,3,4,6,9-HxCDF	1.81e6	0.52	NO	1.00	1.000	33.47	0.000	100.00	100	0.177	

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-sss.qld

Last Altered: Friday, October 30, 2009 08:54:03 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:55:22 Pacific Daylight Time

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Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 08:35:54

Name: 091029H1_9, Date: 29-Oct-2009, Time: 19:02:56, ID: SSS091029H1-1 Sec Src Std 090219C, Description: Sec Src Std 090219C

2,3,7,8-TCDD

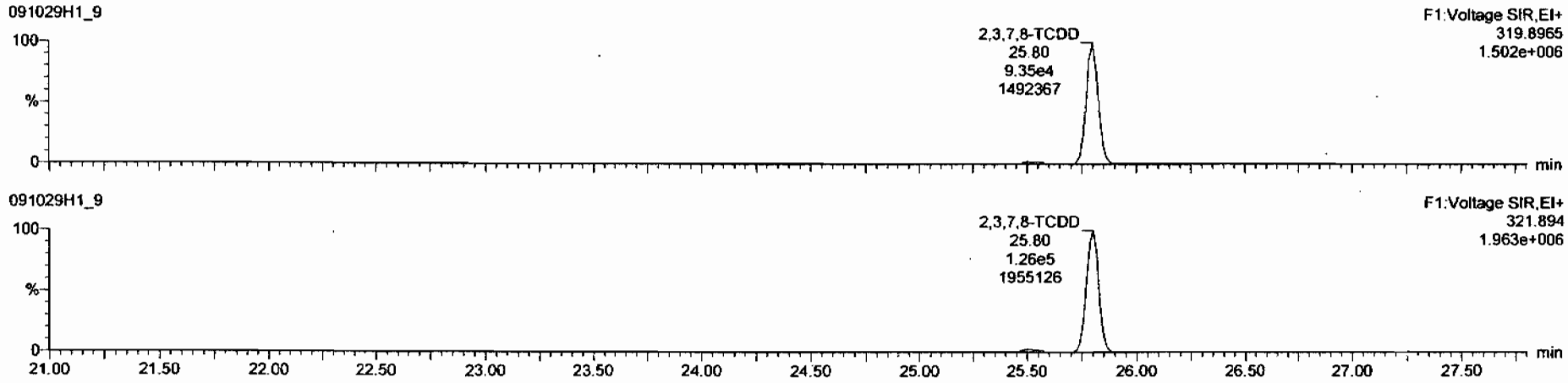

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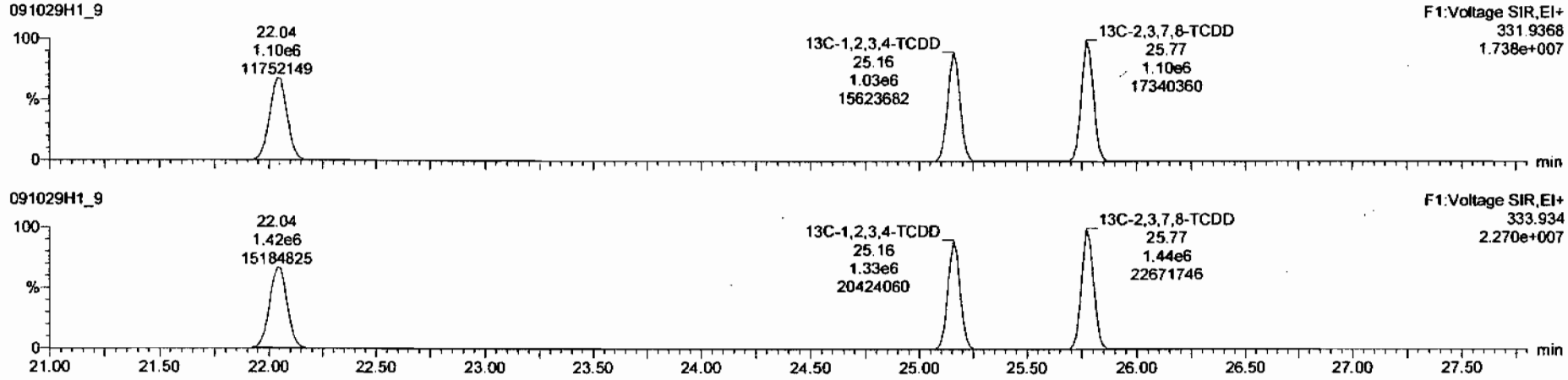

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Name: 091029H1_9, Date: 29-Oct-2009, Time: 19:02:56, ID: SSS091029H1-1 Sec Src Std 090219C, Description: Sec Src Std 090219C

37Cl-2,3,7,8-TCDD

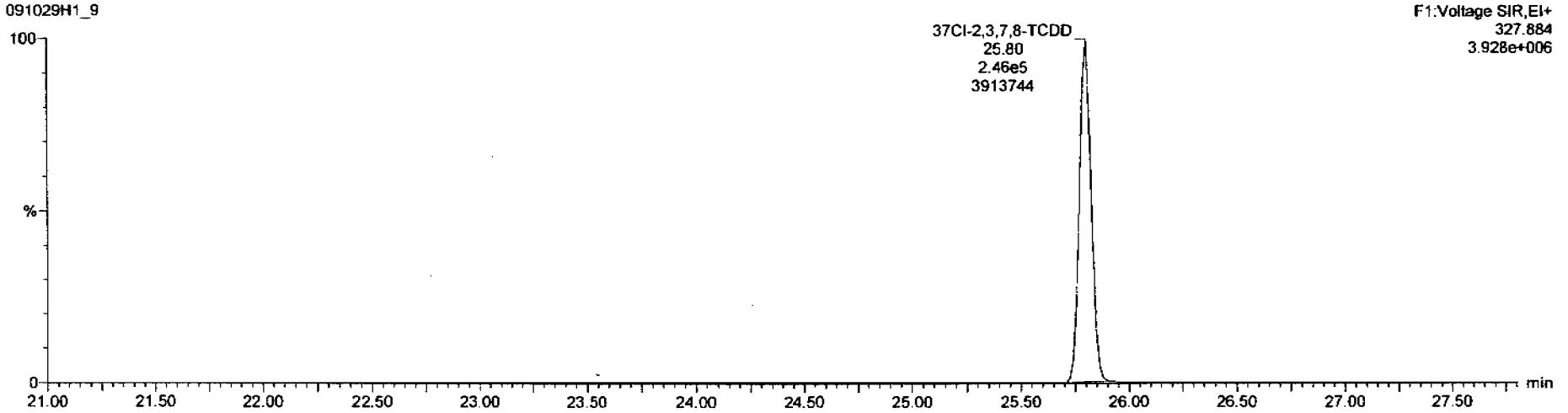

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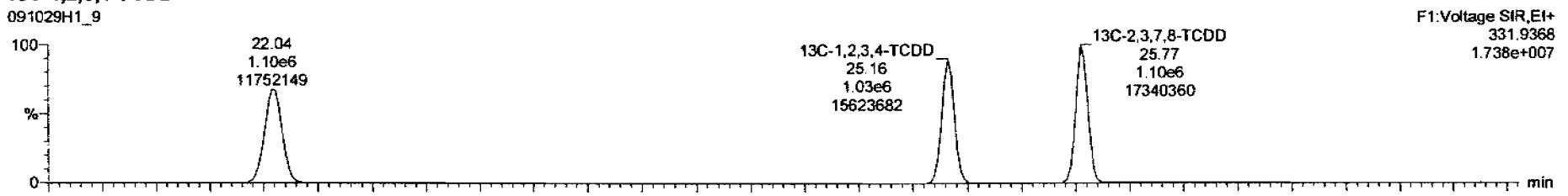

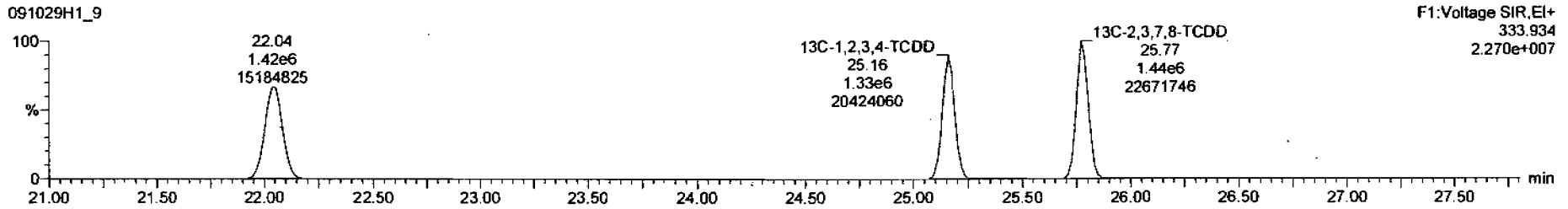

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Name: 091029H1_9, Date: 29-Oct-2009, Time: 19:02:56, ID: SSS091029H1-1 Sec Src Std 090219C, Description: Sec Src Std 090219C

1,2,3,7,8-PeCDD

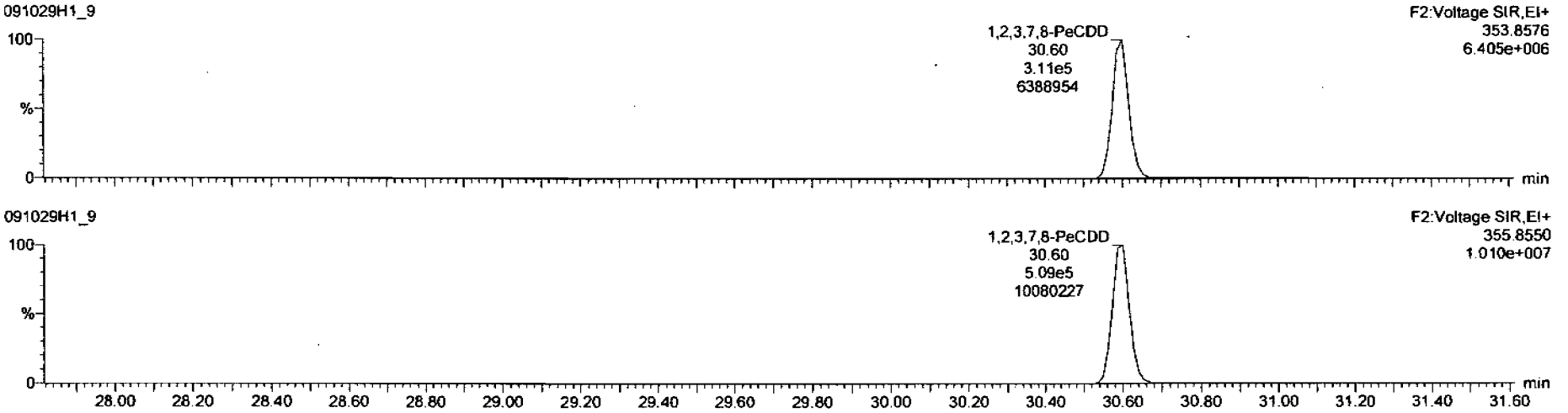

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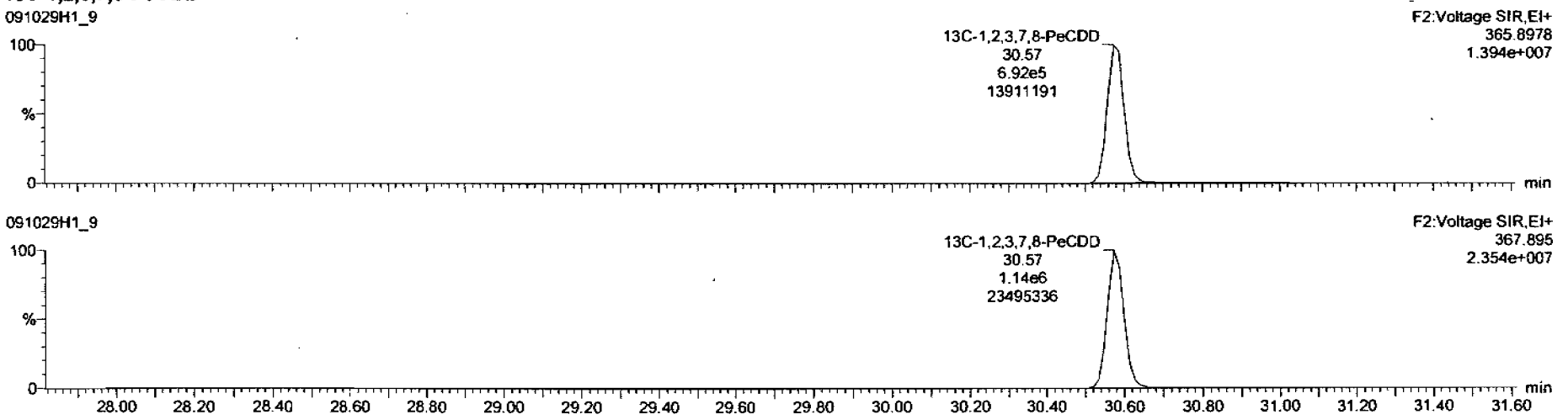

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1,2,3,4,7,8-HxCDD

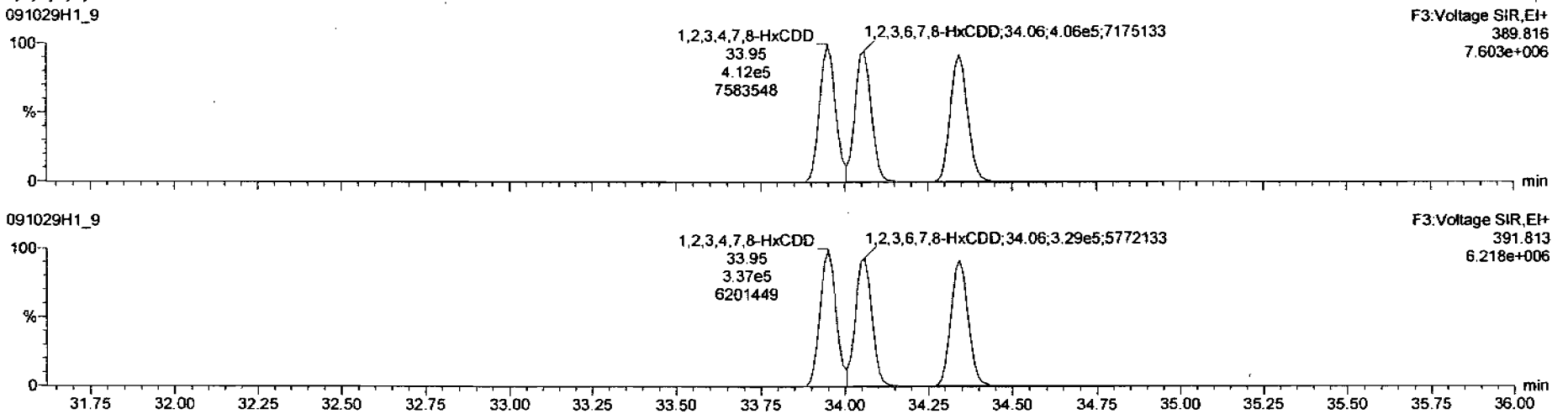

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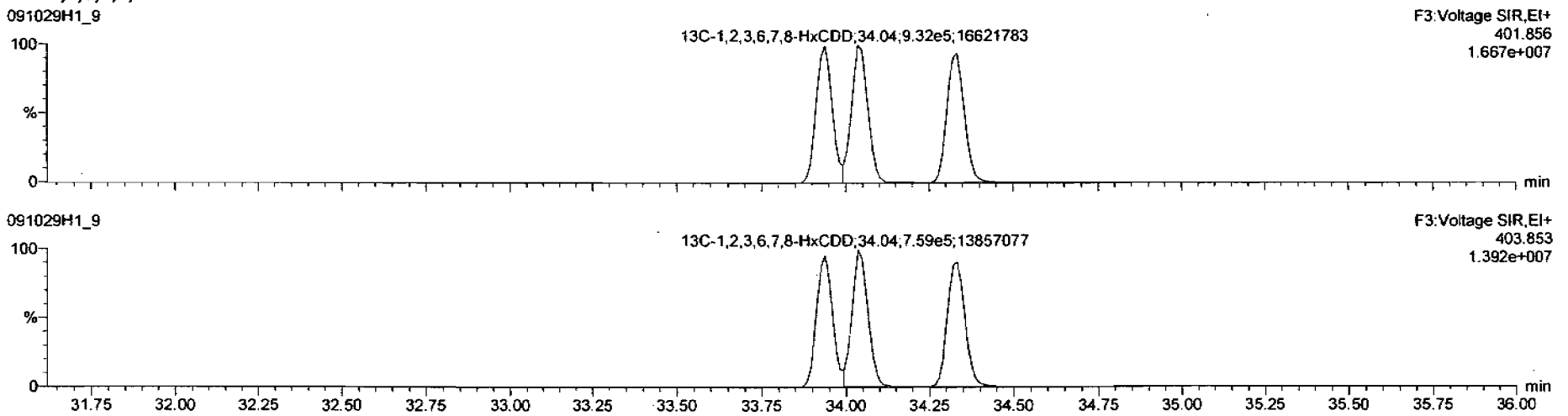

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1,2,3,4,6,7,8-HpCDD

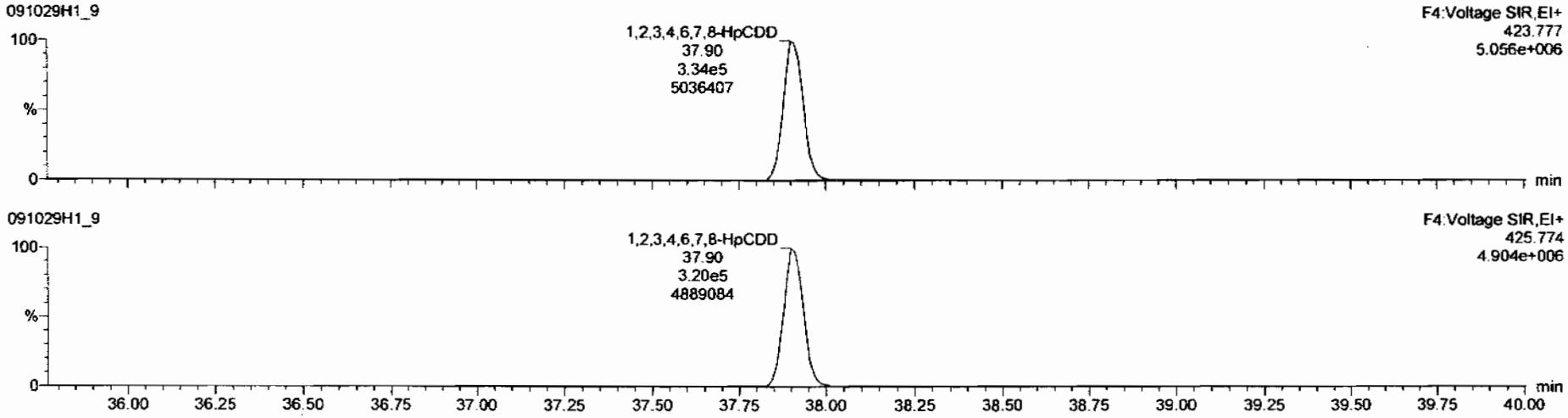

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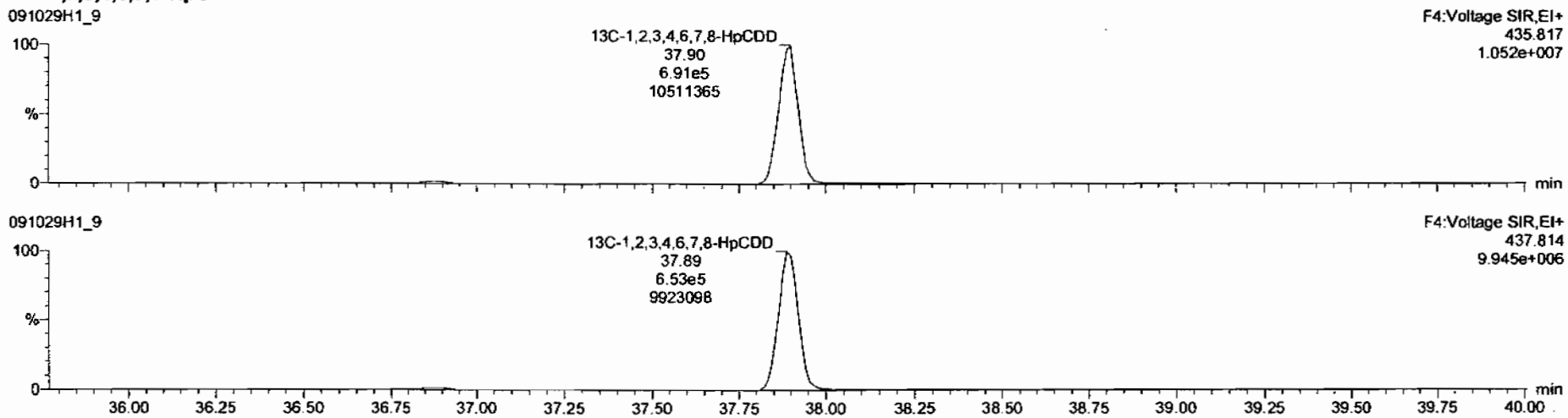

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Name: 091029H1_9, Date: 29-Oct-2009, Time: 19:02:56, ID: SSS091029H1-1 Sec Src Std 090219C, Description: Sec Src Std 090219C

OCDD

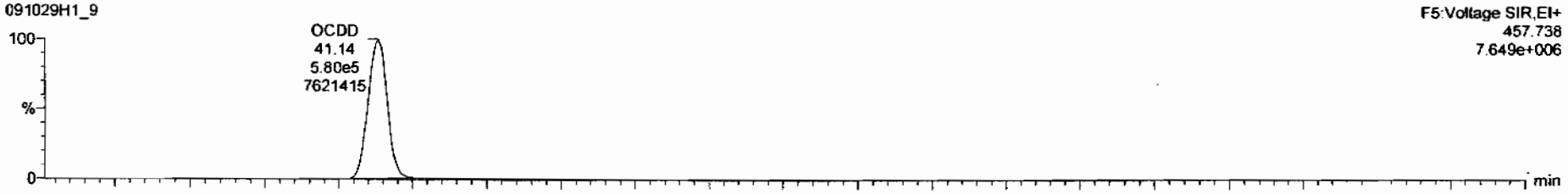

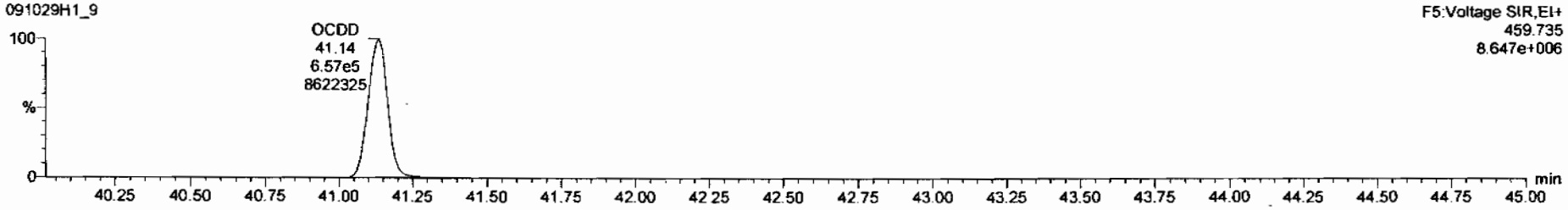

13C-OCDD

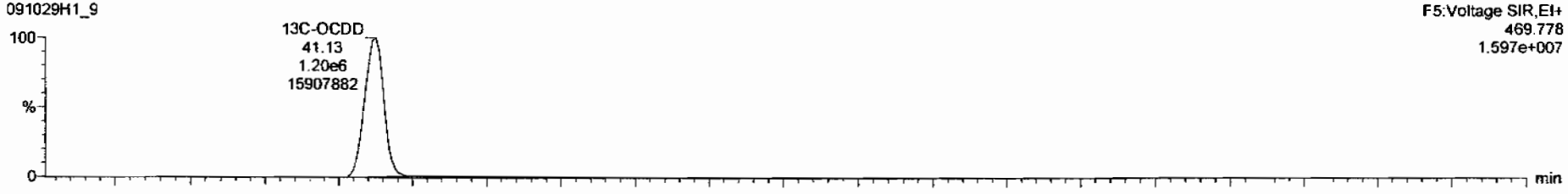

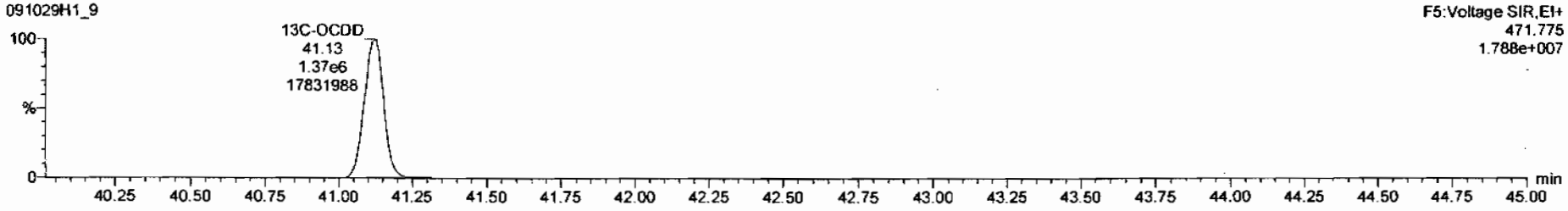

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Name: 091029H1_9, Date: 29-Oct-2009, Time: 19:02:56, ID: SSS091029H1-1 Sec Src Std 090219C, Description: Sec Src Std 090219C

2,3,7,8-TCDF

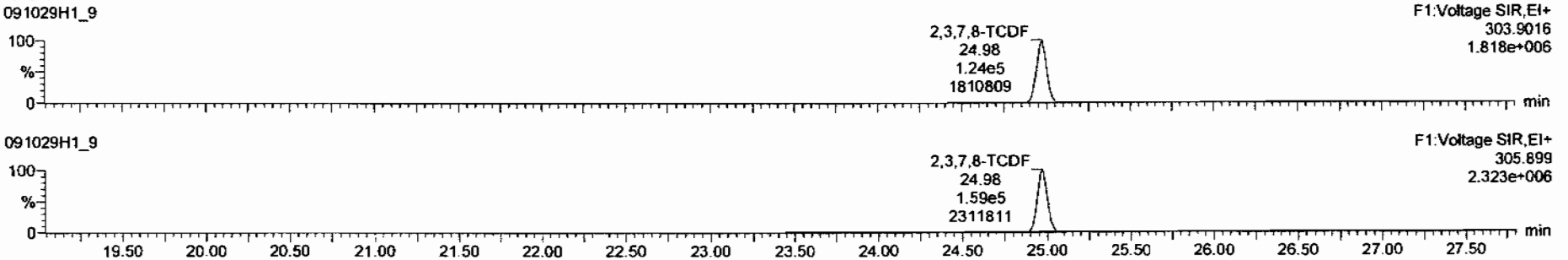

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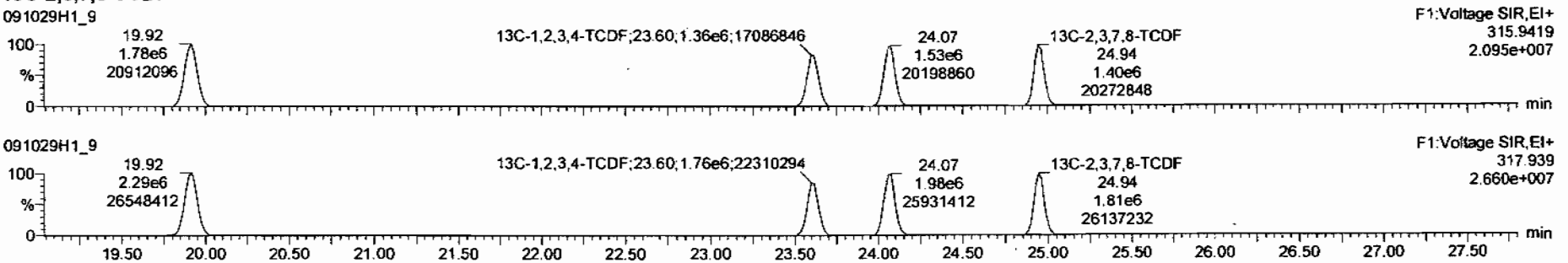

DPE1

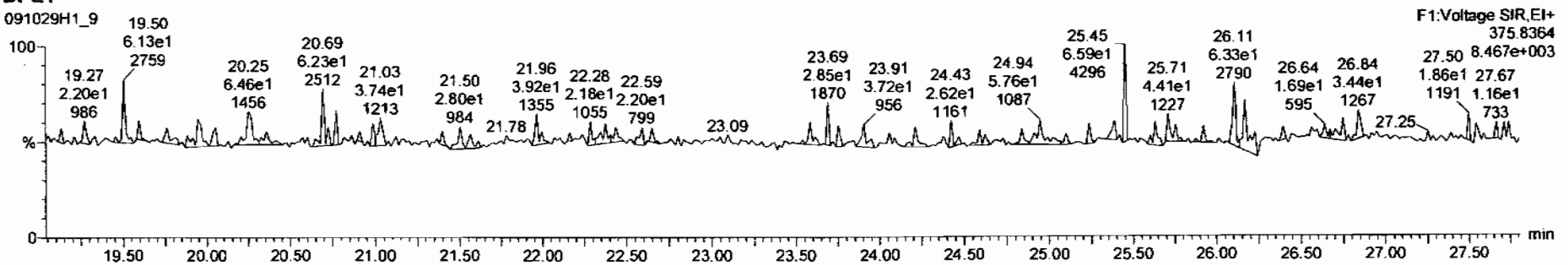

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Name: 091029H1_9, Date: 29-Oct-2009, Time: 19:02:56, ID: SSS091029H1-1 Sec Src Std 090219C, Description: Sec Src Std 090219C

1st Func. Penta-Furans

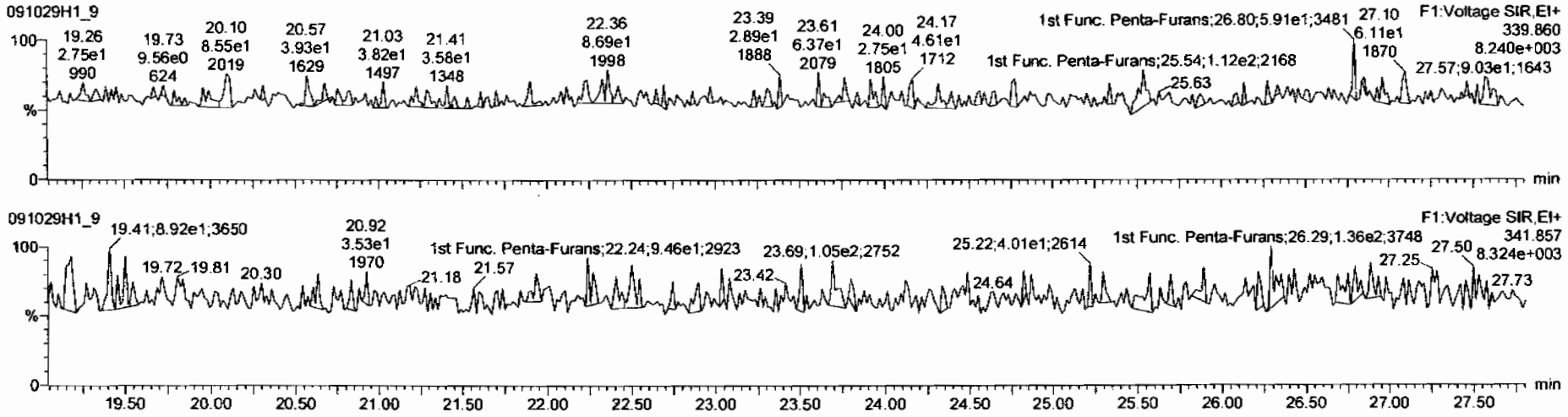

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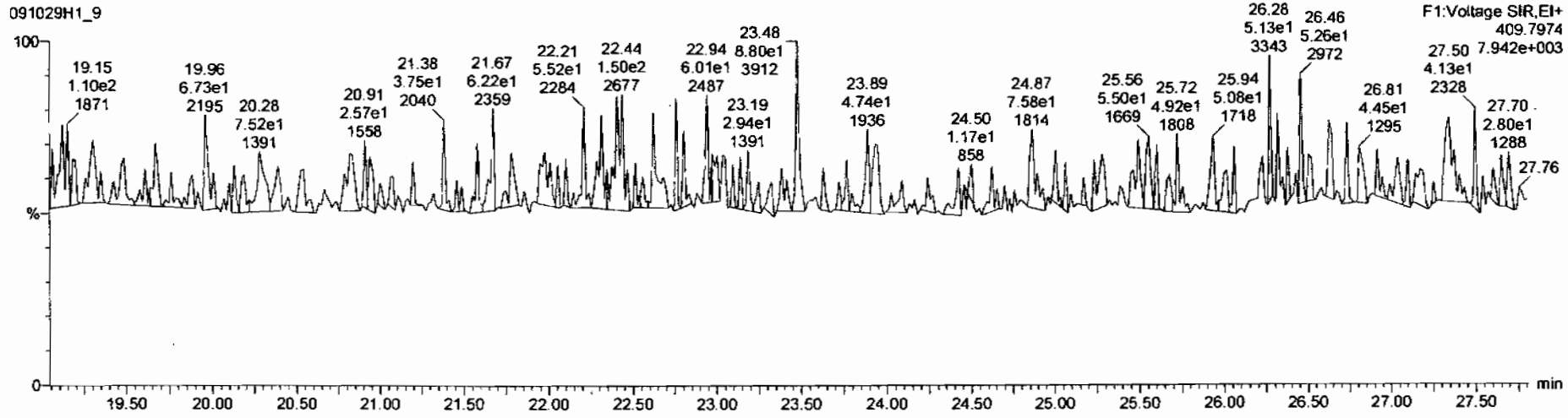

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1,2,3,7,8-PeCDF

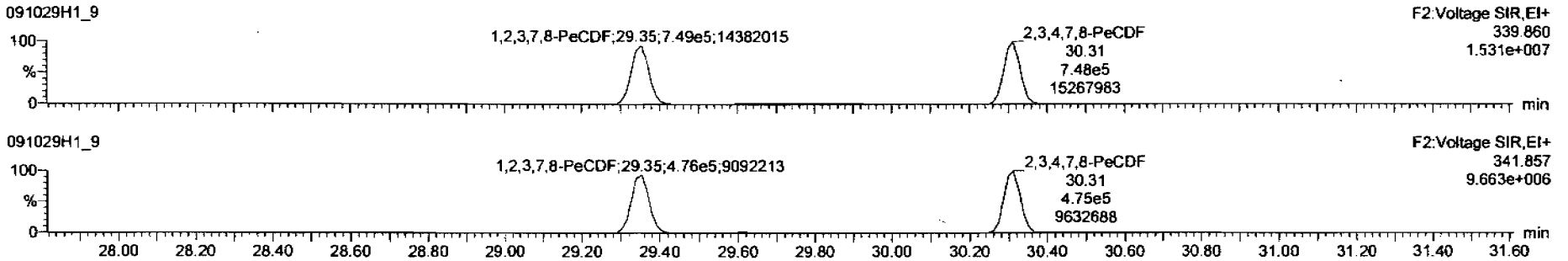

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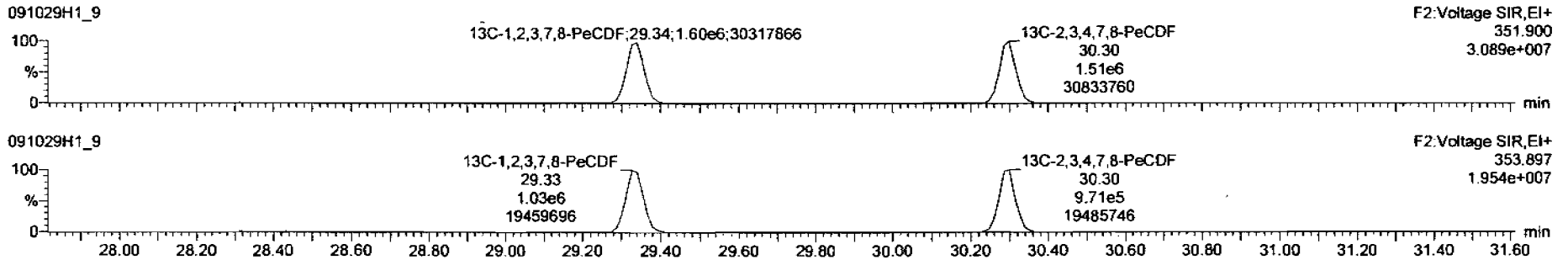

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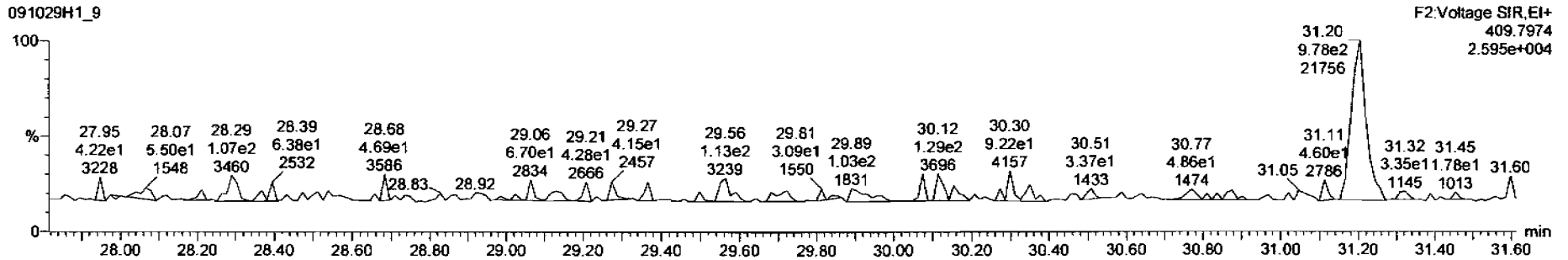

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1,2,3,4,7,8-HxCDF

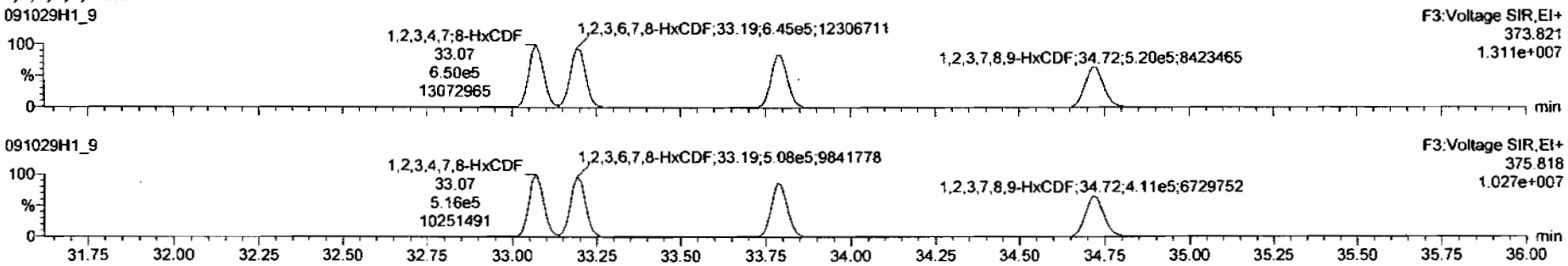

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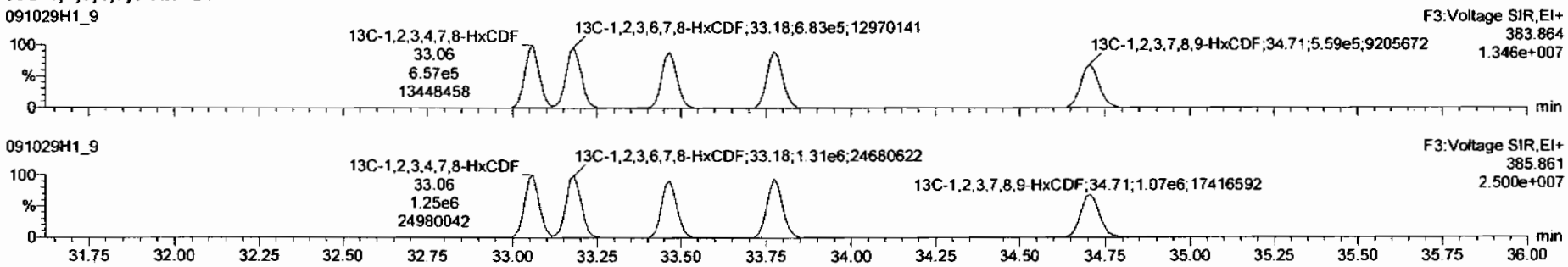

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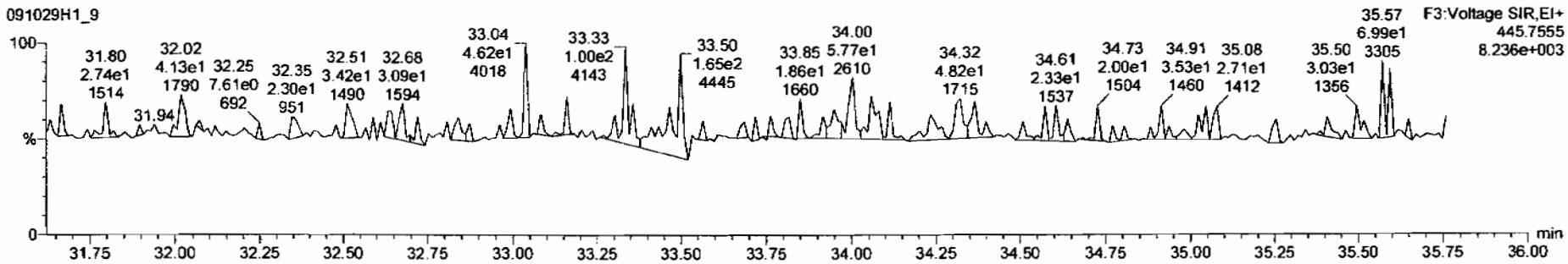

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Printed: Friday, October 30, 2009 08:55:22 Pacific Daylight Time

Name: 091029H1_9, Date: 29-Oct-2009, Time: 19:02:56, ID: SSS091029H1-1 Sec Src Std 090219C, Description: Sec Src Std 090219C

1,2,3,4,6,7,8-HpCDF

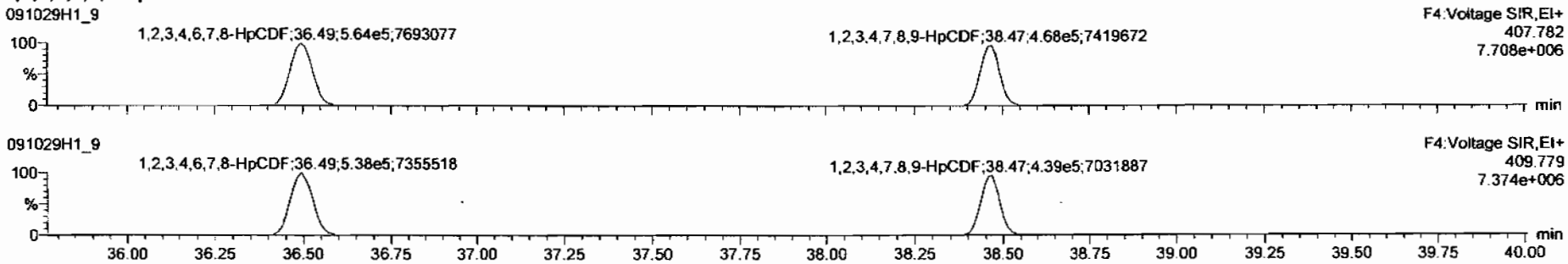

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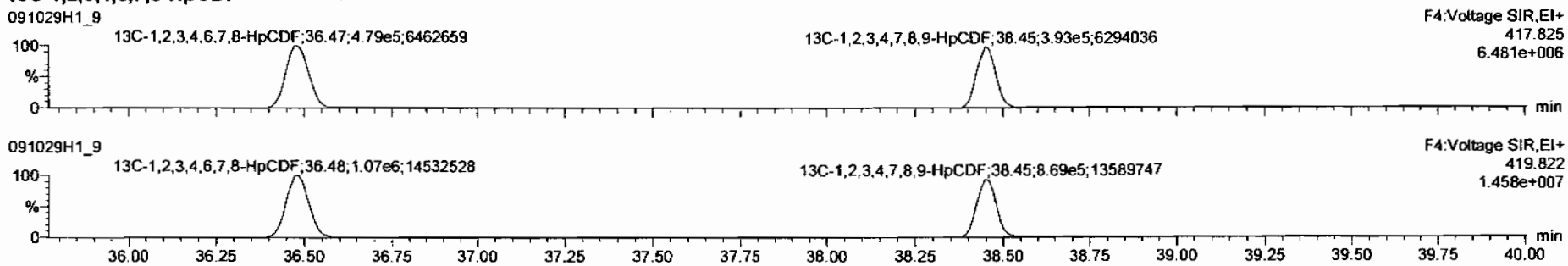

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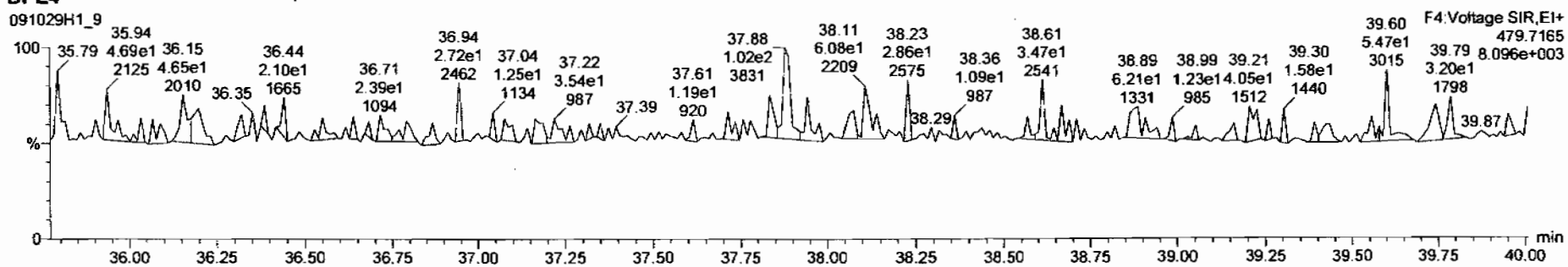

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Last Altered: Friday, October 30, 2009 08:54:03 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:55:22 Pacific Daylight Time

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OCDF

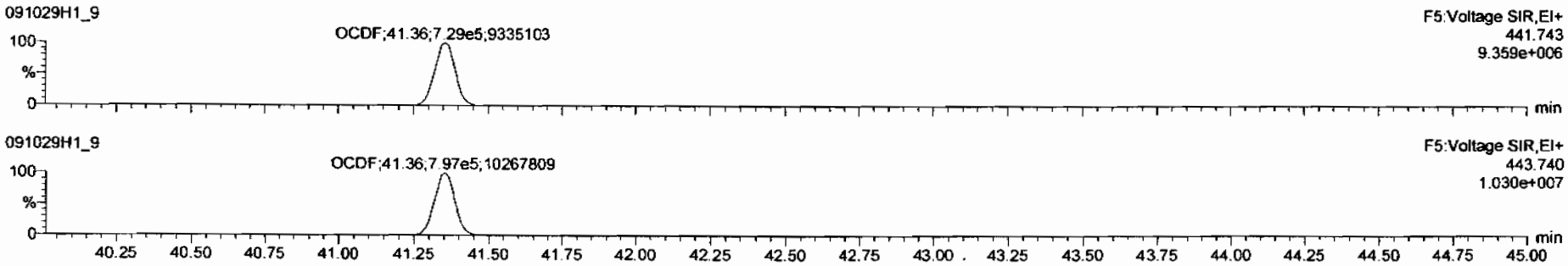

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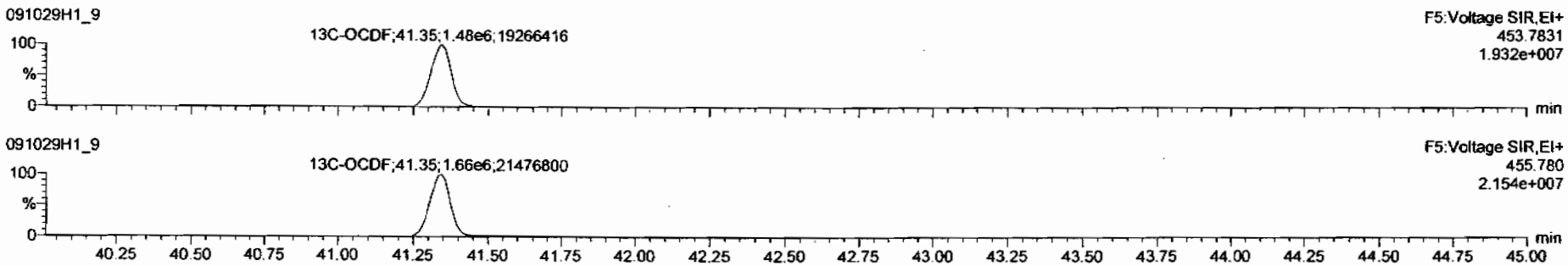

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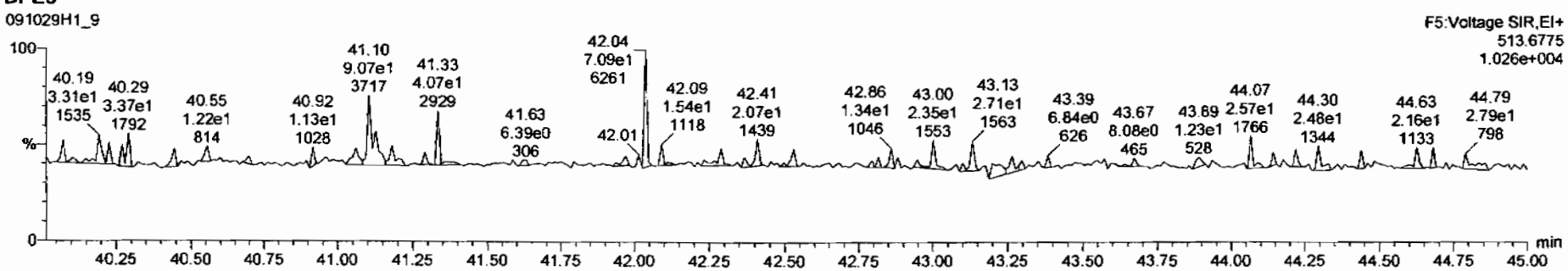

Vista Analytical Laboratory VG-10

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PFK1

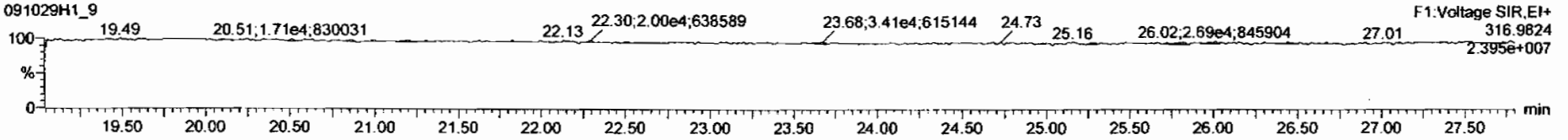

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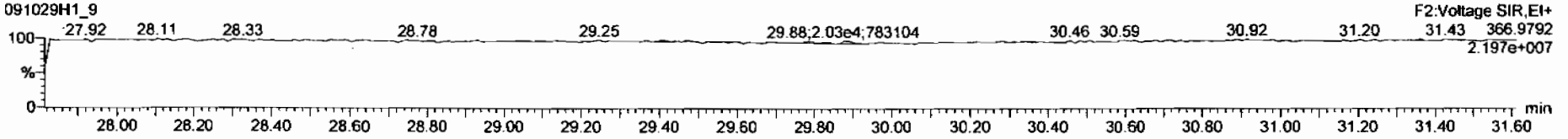

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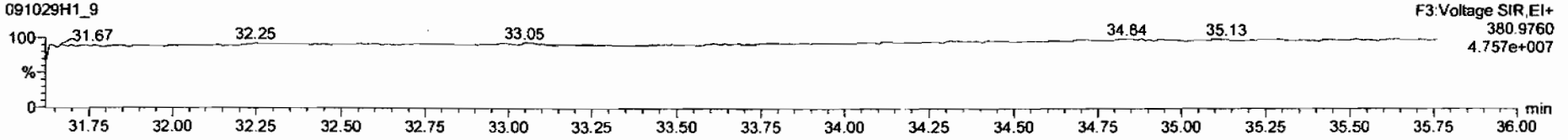

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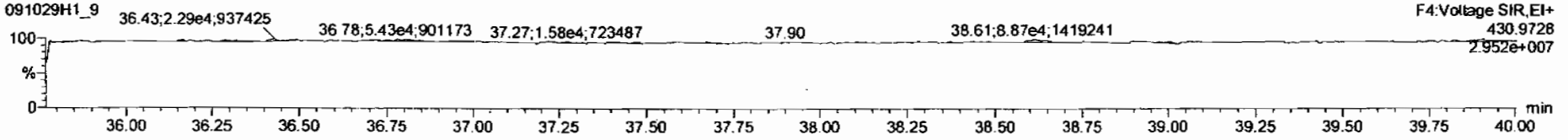

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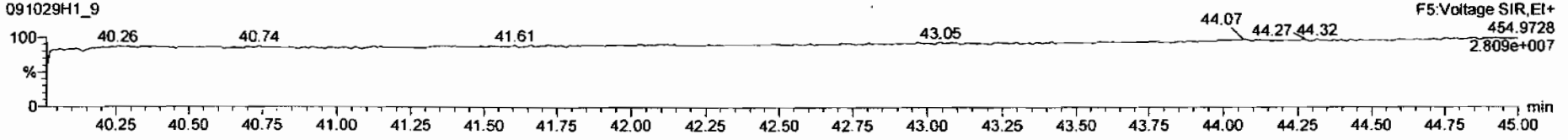

Monday, December 21, 2009

REQUEST NUMBER: 10-1022

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Danny Coleman

American Radiation Services - Primary

1726 Wooddale Court

Baton Rouge, LA 70806

These Samples are on:

LANL Request Number:10-1022

Per Agreement Number:126310041

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/21/2009

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	Generic:Low_Level_Tritium	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	

Final Page of REQUEST NUMBER 10-1022

Monday, December 21, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1022

REQUEST NUMBER: 10-1022

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Danny Coleman

American Radiation Services - Primary

1726 Wooddale Court

Baton Rouge, LA 70806

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6823	1	POLY	WSP-LL-H-3	None	WG
CAPA-10-6824	1	POLY	WSP-LL-H-3	None	WG

Relinquished By:		**Date**	**Time**	**Received By:**		**Date**	**Time**
[illegible]	[illegible]	12/21/09	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		**Date**	**Time**	**Remarks:**
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6820 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1458	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	RSI	
LOCATION ID:	R-37		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P1A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO (NA)		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
~~2~~ 1	1 JW 12/18/09	WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	1HCL

SAMPLE DESC: QC Sample of CAPA-10-6823

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D. Woody, K Crawford, J Berryhill **REVIEWED BY (PRINT)** J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09	(Printed Name) S. MARCZ AL	12/18/09
(Signature) D. Woody	1615	(Signature)	1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6821 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1458	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	RSI	
LOCATION ID:	R-37		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	P1A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH < 2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH < 2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

See CAPA-10-6823

COLLECTED BY (PRINT) J Berryhill, K Crawford, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09	(Printed Name) S. MARCZAK	12/18/09
(Signature) D. Woody	1615	(Signature)	1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6822 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1458	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:		
LOCATION ID:	R-37		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P1A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of CAPA-10-6823

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, D. Woody, K Crawford

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09 1615	(Printed Name) S. MARCZAK	12/18/09 1615
(Signature) D. Woody		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6823 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1458	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	RSI	
LOCATION ID:	R-37		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P1A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
3		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
3		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH <2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
3		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH >12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	pH <2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2
1		Ra226+228	1 GAL POLY	Nitric Acid	Y	pH <2

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH (SU)	T (°C)	SC (µS/cm)	DO (mg/L)	Turb (NTU)	ORP (mV)	Q (gpm)
7.50	17.10	229	3.43	0.97	171.4	.625

COLLECTED BY (PRINT) J Berryhill, K Crawford, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09	(Printed Name) S. MARCTAU	12/18/09
(Signature) D Woody	1615	(Signature)	1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6824 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OY
TIME COLLECTED (HH:MM)		0922	SUB-MEDIA:	UA	
PRS ID:	C-00-011		SAMPLE TECH CODE:	GS1	
LOCATION ID:	R-37		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
3		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
3		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
3		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH>12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH<2
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	pH<2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH<2
1		Ra226+228	1 GAL POLY	Nitric Acid	Y	pH<2

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH (STU)	T (°C)	SC (µS/cm)	DO (mg/L)	Turb (NTU)	ORP (mV)	Q (gpm)
7.79	21.05	215	5.39	2.20	271.5	9.1

COLLECTED BY (PRINT) J Berryhill, D. Woody, K Crawford

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09	(Printed Name) S. Martinez	12/18/09
(Signature) D. Woody	1615	(Signature)	1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6825 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0922	SUB-MEDIA:	UA	
PRS ID:	C-00-011		SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-37		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2	IW 12/18/09	WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2

SAMPLE DESC: QC Sample of CAPA-10-6824

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, K Crawford, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09	(Printed Name) S. MARCZAK	12/18/09
(Signature) D. Woody	1615	(Signature)	1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6826 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0922	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-37		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of CAPA-10-6824

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, D Woody, K Crawford **REVIEWED BY (PRINT)** J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody (Signature) D. Woody	12/18/09 1615	(Printed Name) S. MARIZAN (Signature)	12/18/09 1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6827 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0922	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-37		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

See CAPA-10-6824

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, D. Woody, K Crawford

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09 1615	(Printed Name) S. MARCZAK	12/18/09 1615
(Signature) D. Woody		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1022 VALIDATION DATE: 03/13/10 LAB CODE: ARS

CONTRACT LABORATORY NAME: American Radiation Services

VALIDATOR: Rebecca Keith ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

☐ OTHER (DESCRIBE):

Section II. Completeness Check

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

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

1. An MS/MSD pair was not analyzed. However, an LCS/LCSD pair was analyzed and, thus, was used to assess precision. No sample data were qualified.

Reviewed by: Allison Felix Level: 1 Date: 3/15/10

VALIDATOR'S SIGNATURE: R. Keith DATE: 03/13/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☐	☐	☒	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☐	☒	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☐	☒	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☐	☒	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☐	☒	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☐	☒	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☐	☒	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group:	ARS1-09-03110	**Request or PO Number:**	10-1022
Client Sample ID:	CAPA-10-6823	**ARS Sample ID:**	ARS1-09-03110-001
Sample Collection Date:	12/18/09	**Date Received:**	12/22/09
Sample Matrix:	Aqueous	**Report Date:**	01/22/10

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	DLC	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Enriched H-3	8.240	1.280	0.730	0.360		TU	ARS-054/EPA 906.0	01/17/10 17:33	BJS	N/A

NOTES: Project cost code MR1A015AGWM0

PN

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the American Radiation Services, Inc.

LELAP Certificate# 01949 NELAP Certificate # E87558

RLK 3/13/10

ARS INTERNATIONAL
2609 North River Road, Port Allen, Louisiana 70767
1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group:	ARS1-09-03110	**Request or PO Number:**	10-1022
Client Sample ID:	CAPA-10-6824	**ARS Sample ID:**	ARS1-09-03110-002
Sample Collection Date:	12/18/09	**Date Received:**	12/22/09
Sample Matrix:	Aqueous	**Report Date:**	01/22/10

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	DLC	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Enriched H-3	7.650	1.170	0.510	0.250		TU	ARS-054/EPA 906.0	01/18/10 05:58	BJS	N/A

NOTES: Project cost code MR1A015AGWM0

pN

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the American Radiation Services, Inc.

LELAP Certificate# 01949 NELAP Certificate # E87558

RLK 3/13/10

Monday, December 21, 2009

REQUEST NUMBER: 10-1022

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Danny Coleman
American Radiation Services - Primary
1726 Wooddale Court
Baton Rouge, LA 70806

These Samples are on:
LANL Request Number:10-1022
Per Agreement Number:126310041
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/21/2009
TURNAROUND/REPORT DUE: 1/20/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	Generic:Low_Level_Tritium	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	

Final Page of REQUEST NUMBER 10-1022

Monday, December 21, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1022

REQUEST NUMBER: 10-1022

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Danny Coleman

American Radiation Services - Primary

1726 Wooddale Court

Baton Rouge, LA 70806

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6823	1	POLY	WSP-LL-H-3	None	WG
CAPA-10-6824	1	POLY	WSP-LL-H-3	None	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/21/09	1400	William Stickle	William Stickle	12-22-09	13:00
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

American Radiation Services Analytical Reports

for

Los Alamos National Laboratory

Request Number: 10-1022

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American Radiation Services Analytical Reports

for

Los Alamos National Laboratory Request: 10-1022

Original COC

Monday, December 21, 2009

REQUEST NUMBER: 10-1022

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Danny Coleman
American Radiation Services - Primary
1726 Wooddale Court
Baton Rouge, LA 70806

These Samples are on:
LANL Request Number:10-1022
Per Agreement Number:126310041
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/21/2009
TURNAROUND/REPORT DUE: 1/20/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	Generic:Low_Level_Tritium	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	

Final Page of REQUEST NUMBER 10-1022

Monday, December 21, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1022

REQUEST NUMBER: 10-1022

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Danny Coleman

American Radiation Services - Primary

1726 Wooddale Court

Baton Rouge, LA 70806

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6823	1	POLY	WSP-LL-H-3	None	WG
CAPA-10-6824	1	POLY	WSP-LL-H-3	None	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12-21-09	1400	William Stickle	William Stickle	12-22-09	13:00
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

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American Radiation Services Analytical Reports

for

Los Alamos National Laboratory Request: 10-1022

Case Narrative

ARS INTERNATIONAL

2609 North River Road • Port Allen, Louisiana 70767
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January 22, 2010

LANL
Keith Greene
Drop Point MS H865
Los Alamos, NM 87545

Request Number: 10-1022
LANL Sample ID: CAPA-10-6823; CAPA-10-6824

Dear Mr. Greene;

On December 22, 2009, ARS International received two (2) Low-Level Tritium sample(s) to be analyzed.

The samples were processed and counted using the appropriate counting equipment and QA/QC for this type of analysis. Results of the analysis and QA/QC are attached in the data package.

The client and QA/QC samples were counted with a count time sufficient to meet quality control parameters for counting equipment and were within acceptance criteria and statistical sound detection limits.

If you have any questions please do not hesitate to call at 225.381.2991 or email ProjectManagers@amrad.com.

Sincerely,

Lab Management
ARS International

ARS INTERNATIONAL

2609 North River Road • Port Allen, Louisiana 70767
1 (800) 401-4277 • Fax (225) 381-2996

COVER PAGE

18980SOW0-8S
Statement of Work for Analytical Laboratories

PROJECT SAMPLE IDENTIFICATION CROSS-REFERENCE TO ARS SAMPLE LABORATORY IDs

Subcontract (LANL Agreement Number) 126310041

Request Number	LANL PROJECT SAMPLE ID NUMBER	American Radiation Services SAMPLE ID NUMBER(S)
10-1022	CAPA-10-6823	ARS1-09-03110-001
10-1022	CAPA-10-6824	ARS1-09-03110-002

ANALYTICAL METHODS

Low-Level Tritium analyses were performed with **ARS-054 – Low-Level Tritium by Enrichment Process in (Aqueous [AQ]).**

ANALYTICAL RESULTS

The result data that are flagged with "U" indicate that the activity is below the MDC.

Due to the time constraint imposed on the analytical procedure, duplicate samples were processed in case of equipment malfunction, failure, etc.

American Radiation Services Project Manager/Laboratory Director's Comments:
"I certify that this sample data package is in compliance with SOW requirements, both technically and for completeness, other than the conditions detailed above. Release of the data contained in this sample data package and the computer-readable EDD, as applicable, submitted on diskette or by modem, has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature."

"I certify that this electronic image and all hardcopies produced from this image accurately represent the data and is in compliance with the LANL specific requirements, both technically and for completeness, other than the conditions detailed above or in the sample data package narrative. Release, by submission through email, the data contained in this electronic image and the computer-readable EDD (as applicable), has been authorized by the laboratory Manager/Technical Director or the Manager's designee."

Signature	Title	Date
	Lab Management, ARS International	1-22-10

ARS INTERNATIONAL

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American Radiation Services Analytical Reports

for

Los Alamos National Laboratory

Low Level Tritium by Low Level Liquid Scintillation Counting

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group:	ARS1-09-03110	**Request or PO Number:**	10-1022
Client Sample ID:	CAPA-10-6823	**ARS Sample ID:**	ARS1-09-03110-001
Sample Collection Date:	12/18/09	**Date Received:**	12/22/09
Sample Matrix:	Aqueous	**Report Date:**	01/22/10

Analysis Description	Analysis Results	Analysis Error +/- 2 σ	MDC	DLC	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Enriched H-3	8.240	1.280	0.730	0.360		TU	ARS-054/EPA 906.0	01/17/10 17:33	BJS	N/A

NOTES: Project cost code MR1A015AGWM0

PN

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the American Radiation Services, Inc.

LELAP Certificate# 01949 NELAP Certificate # E87558

ARS INTERNATIONAL

2609 North River Road, Port Allen, Louisiana 70767

1 (800) 401-4277 FAX (225) 381-2996

ARS Sample Delivery Group:	ARS1-09-03110	**Request or PO Number:**	10-1022
Client Sample ID:	CAPA-10-6824	**ARS Sample ID:**	ARS1-09-03110-002
Sample Collection Date:	12/18/09	**Date Received:**	12/22/09
Sample Matrix:	Aqueous	**Report Date:**	01/22/10

Analysis Description	Analysis Results	Analysis Error +/- 2 s	MDC	DLC	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Tracer/Chem Recovery
Enriched H-3	7.650	1.170	0.510	0.250		TU	ARS-054/EPA 906.0	01/18/10 05:58	BJS	N/A

NOTES: Project cost code MR1A015AGWM0

pN

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of the American Radiation Services, Inc.

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QC Results Report

Sample Delivery Group: ARS1-09-03110
Date Received: 12/22/2009

Laboratory Control Sample Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (1s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	Percent Recovery (%)	LCS Acceptance Range
ARS1-B09-05378	LCS	H3	26.450	4.100	2.350	28.560		pCi/L	ARS-040	1/15/10 7:59	BJS	93	50%-150%

Blank Evaluation

Analysis Batch	QC Type	Analyte	Analysis Results	CSU 1 (1s)	MDC	Expected Value	Qual	Report Units	Analysis Test Method	Analysis Date/Time	Analysis Technician
ARS1-B09-05378	MBL	H3	0.470	0.550	1.830	NA	U	pCi/L	ARS-040	1/15/10 20:24	BJS

Sample RER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (1s)	Result 2	CSU 1 (1s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	RER	RER AcceptanceRange
ARS1-B09-05378	LCSD	H3	26.450	4.100	28.840	4.410		pCi/L	ARS-040	1/15/10 14:12	BJS	0.28	< 1

Sample DER Duplicate Evaluation

Analysis Batch	QC Type	Analysis Description	Result 1	CSU 1 (1s)	Result 2	CSU 1 (1s)	Qual	Analysis Units	Analysis Test Method	Analysis Date/Time	Analysis Technician	DER	DER AcceptanceRange
ARS1-B09-05378	LCSD	H3	26.450	4.100	28.840	4.410		pCi/L	ARS-040	1/15/10 14:12	BJS	0.79	< 3

Project Manager Review

Notes: American Radiation Services, Inc. assumes no liability for the use or interpretation of any analytical results provided other than the cost of the analysis itself. Reproduction of this report in less than full requires the written consent of ARS International.

LELAP Certificate# 01949 NELAP Certificate # E87558

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American Radiation Services Analytical Reports

for

Los Alamos National Laboratory

Low Level Tritium by Low Level Liquid Scintillation Counting Samples

ARS, International
Port Allen Lab

Tritium Enrichment Data

Printed: 1/19/2010 10:56 AM

Procedures: ARS-040

Date: 12/29/2009

ARS File ID Numbers:

ARS Batch ID: ARS1-B09-05378

	A Batch ID:	Enrichment Cell No.	Tare Wt of Electrolysis Cell & Electrodes	Tare Wt Reservoir	m_1 Wt Na_2O_2	Gross Weight of Sample Reservoir	V_i Gross Sample Added	Electrolysis Start Date & Time	Start AMP	Start Bath C°	Electrolysis End Date & Time	End Bath C°	End Wt of Cell + Resv. + Sample	V_f Gross Sample Recovered	Enrichment Factor	Cryo-Distil Flask #	Tare Wt Cryo-distil flask	Gross Wt flask + Sample	Recovered Water	Tare Weight of LSC Vial	Vial + Sample	Aliquot Net Sample
1	ARS1-B09-05378-01	58	339.99	192.11	2.03	692.77	500.66	12/28/09 10:06	5.00	2.0	1/12/10 8:08	2.0	545.19	13.09	38.26	E,E	99.07	107.18	8.11	6.45	11.47	5.02
2	ARS1-B09-05378-02	59	337.35	201.45	2.04	707.44	535.90	12/28/09 10:45	5.00	2.0	1/10/10 11:31	2.0	548.92	8.12	62.51	G,C	97.32	100.96	3.64	6.41	8.88	3.57
3	ARS1-B09-05378-03	65	338.51	200.12	2.00	719.46	519.34	12/28/09 11:04	5.00	2.0	1/11/10 8:01	2.0	549.53	10.90	47.84	D,D	111.34	116.30	4.96	6.52	11.54	5.02
4	ARS1-B09-05378-04	33	340.15	197.52	2.03	615.44	417.92	12/29/09 13:20	5.00	2.0	1/11/10 8:02	2.0	548.22	11.55	36.16	C,C	107.99	115.28	7.29	6.41	11.45	5.04
5							0.00							0.00	–				0.00			0.00
6	ARS1-B09-05378-05D	51	336.28	197.87	2.04	674.43	476.76	12/29/09 14:04	5.00	2.0	1/14/10 11:19	2.0	548.03	12.06	39.47	5,5	98.44	106.72	8.28	6.42	11.44	5.02
7	ARS1-B09-05378-06	40	336.40	191.18	2.01	682.14	490.95	12/29/09 15:28	5.00	2.0	1/15/10 11:15	2.0	540.27	12.69	32.89	N/A,N/A	115.23	123.86	8.63	6.55	11.57	5.02
8	ARS1-B09-05378-06D	29	340.26	199.33	2.02	691.75	492.42	12/29/09 15:20	5.00	2.0	1/11/10 8:05	2.0	548.21	6.63	74.51	N/A,N/A	121.04	123.76	2.72	6.36	8.91	2.55
9							0.00							0.00	–				0.00			0.00
10	ARS1-B09-05378-07D	77	340.41	199.27	2.03	684.91	474.64	12/29/09 15:12	5.00	2.0	1/13/10 8:08	2.0	538.02	8.34	56.81	5,D	97.92	102.34	4.42	6.51	10.91	4.40
11	ARS1-B09-05378-08	67	338.66	202.81	2.02	652.37	459.76	12/29/09 15:47	5.00	2.0	1/11/10 8:06	2.0	550.71	11.42	40.28	N/A,N/A	117.23	125.18	7.95	6.42	11.44	5.02
12							0.00							0.00	–				0.00			0.00
13	ARS1-B09-05378-09	12	332.82	205.05	2.04	701.72	496.67	12/29/09 16:22	5.00	2.0	1/11/10 12:01	2.0	550.30	12.43	39.98	N/A,N/A	121.16	129.65	8.49	6.53	11.54	5.01
14	ARS1-B09-05378-09D	44	335.44	193.70	2.01	687.52	493.82	12/30/09 8:16	5.00	2.0	1/14/10 12:01	2.0	540.31	11.17	44.21	N/A,N/A	121.03	128.70	7.67	6.36	11.39	5.03
15	ARS1-B09-05378-10	66	339.52	208.04	2.03	688.91	480.87	12/30/09 8:31	5.00	2.0	1/13/10 15:39	2.0	558.69	11.13	43.22	N/A,C	113.68	121.37	7.69	6.41	11.42	5.01
16	ARS1-B09-05378-10D	83	333.00	204.50	2.04	715.11	510.61	12/30/09 8:47	5.00	2.0	1/14/10 8:59	2.0	547.65	10.15	50.31	N/A,5	113.75	120.47	6.72	6.50	11.53	5.03
17	ARS1-B09-05378-11	7	337.08	188.42	2.04	686.43	496.01	12/30/09 9:04	5.00	2.0	1/13/10 17:10	2.0	536.82	11.11	44.53	5,11	100.85	104.79	3.94	6.55	10.38	3.83
18	ARS1-B09-05378-11D	98	338.21	199.53	2.03	698.87	499.44	12/30/09 9:37	5.00	2.0	1/16/10 13:29	2.0	549.81	12.07	41.38	6, N/A	99.88	108.53	8.65	6.51	11.53	5.02
19	ARS1-B09-05378-12	97	335.33	203.31	2.01	707.58	504.27	12/30/09 9:52	5.00	2.0	1/14/10 16:10	2.0	550.78	12.12	31.61	A,C	100.66	108.20	7.54	6.43	11.45	5.02
20	ARS1-B09-05378-12D	16	337.61	197.87	2.01	673.98	476.01	12/30/09 10:07	5.00	2.0	1/15/10 8:06	2.0	545.64	10.06	47.52	N/A, C	119.04	125.74	6.70	6.34	11.35	5.01
21							0.00							0.00	–				0.00			0.00
22							0.00							0.00	–				0.00			0.00
23							0.00							0.00	–				0.00			0.00

"D" at the end of the Batch ID denotes that the sample is a duplicate.

S:\Laboratory Department\LabDocuments\LowLevelTritium\2009 LowLevelTriburnData\ARS1-B09-05378 LowLevelTritiumData

Chemist Signature: Jimmy D. Rabb

ARS INTERNATIONAL

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American Radiation Services Analytical Reports

for

Los Alamos National Laboratory

Low Level Tritium by Low Level Liquid Scintillation Counting

Laboratory Records

American Radiation Services, Inc.
Baton Rouge Laboratory

Analysis Batch Report

ARS INTERNATIONAL

Analysis Batch ID **ARS1-B09-05378**

				Method	**ARS-054**	**Analysis**		**LSC-A-022**	**Matrix**	**AQ**
				Description	**Low Level Tritium by Enrichment Process in (Aqueous [AQ])**					
ABatch Sample ID	Type	Blind Iso1	Blind Iso2	Blind Iso3	SDG	FR	Run	Client ID	Isotope Group	Lab Deadline
ARS1-B09-05378-01	LCS	B-08862								
ARS1-B09-05378-02	LCSD	B-08863								
ARS1-B09-05378-03	MBL									
ARS1-B09-05378-04	TRG				**ARS1-09-03109**	001	1	GW54-10-7740	STD	01/18/10
ARS1-B09-05378-05	TRG				**ARS1-09-03109**	002	1	GW54-10-7741	STD	01/18/10
ARS1-B09-05378-06	TRG				**ARS1-09-03110**	001	1	CAPA-10-6823	STD	01/18/10
ARS1-B09-05378-07	TRG				**ARS1-09-03110**	002	1	CAPA-10-6824	STD	01/18/10
ARS1-B09-05378-08	TRG				**ARS1-09-03111**	001	1	CAPA-10-6390	STD	01/18/10
ARS1-B09-05378-09	TRG				**ARS1-09-03111**	002	1	CAPA-10-6746	STD	01/18/10
ARS1-B09-05378-10	TRG				**ARS1-09-03111**	003	1	CAPA-10-6753	STD	01/18/10
ARS1-B09-05378-11	TRG				**ARS1-09-03111**	004	1	CAPA-10-6767	STD	01/18/10
ARS1-B09-05378-12	TRG				**ARS1-09-03111**	005	1	CAPA-10-6793	STD	01/18/10

42515
09-03109-001-12
WRAD

42521
09-03109-002-12
WRAD

42522
09-03110-001-12
WRAD

42523
09-03110-002-12
WRAD

42524
09-03111-001-12
WRAD

42525
09-03111-002-12
WRAD

42526
09-03111-003-12
WRAD

42527
09-03111-004-12
WRAD

42528
09-03111-005-12
WRAD

American Radiation Services
Baton Rouge Laboratory

LCS Report
Analytical Batch: ARS1-B09-05378

SampleID	ABatch	ABatchSampleID	BlindGroup	StdID	Isotope	ExpectedRadiation	ExpectedValue	EmptyWt	GrossWt	NetWt	UserID	ModDate	ExpectedValue_CI	MBPostCountDate	KnownValue
B-08862	ARS1-B09-05378	ARS1-B09-05378-01	B-H3	S-0206	H-3	5	2.87184023	13.28	18.27	4.99	ANORMAN	12/23/2009			
B-08863	ARS1-B09-05378	ARS1-B09-05378-02	B-H3	S-0206	H-3	5	2.87184023	13.22	18.21	4.99	ANORMAN	12/23/2009			

data not transferred into
LIMS JB 1-22-10

QC Evaluation

EPA Method: Eichrom ACW-03-15
Batch ID: ARS1-B09-04248
SDG's: ARS1-09-02276

LCS	24.4500	**CSU (2s)**	8.0300
LCSD	28.8400	**CSU-D (2s)**	8.6500

DER = $\frac{\text{abs(LSC-LSCD)}}{\text{sqr((2s CSU/2)^2)+((2s CSU-D/2)^2)}}$ *at 1 sigma* = **< 3**

DER $\frac{4.39}{5.9013431}$ = 0.743898 **< 3**

% RPD= $\frac{\text{ABS(LCS - LSCD)}}{\text{(LCS+LCSD)/2}}$ * 100 = **< 25%**

%RPD $\frac{4.39}{26.645}$ *100 = 16.47589 **< 25%**

The *RPD* shall be less than 25% or other client-applied criteria

RER= $\frac{\text{abs((LCS-LCSD))}}{\text{(CSU)+(CSD)}}$ *at 2 sigma* = **<1** ***<--LANL Requirement***

RER = $\frac{4.39}{16.6800}$ 0.263189448 **<1**

Blank Information

	Act	CSU(2s)	MDA	Act>MDA
AM-241				
U-234				
U-235				
U-238				
Pu-238				
Pu-239/240				
Th-228				
Th-230				
Th-232				
H3	0.47	1.09	1.83	
Ra-226				
Ra-228				
Total U				
Pb-210				
Po-209				
Sr-90				
TC-99				
NI-63				

*MDA should be below RDL
*Blank activity must be below MDA
*Blank activity must be < 1.65*CSU (DOE only)

ACT = 0.47
CSU = 1.09
Is ACT<1.65*CSU? [redacted]

ARS Tritium Enrichment Calculations

Procedures	ARS-040 , ARS-060
ARS File ID Number	ARS1-09-03109, 03110, 03112
ARS Batch ID Number	ARS1-B09-05378

Enrichment Factor Curve coeff. - Power y = a * x^b	
a	9.978E-01
b	-9.611E-01
c	

Bkg Quench Curve coeff. - Polynomial y = ax^3+bx^2+cx+d	
a	-2.795E-06
b	3.267E-03
c	-1.265E+00
d	1.637E+02

1 Sigma

lambda	1.3863E-04	ACF (def. = 1)	1
Syserror	0.15	Reporting Units	TU
Coverage Factor	[redacted]	UCF	7.151

Aliquot must be entered in liters!!

Sample ID	Initial Mass sample (g) V_i	Mass Na2O2 added (g) m_i	Final mass electrolyzed sample w/ NaOH (g) V_f	Mass equivalent NaOH (g) m_f	Final Mass Electrolyzed sample (g pure H2O) V_f	Volume factor X	Enrichment Factor Y	Average Sample CPM R_s	Bkg CPM R_b	QIP tSIE	Detector Eff Eff	Aliquot Aliquot	Enter aliq. in final Rep. Units Units	Activity reference date To	Start Date of Count Tc	Total Sample Count Duration (min) t cnt (min)	Total Bkg Count Duration (min) t cnt (min)	Decay Correction to To DF	Sample Activity Conc. AC_i	Standard Counting Uncertainty CU	Counting Uncertainty 1s CU	Combined Standard Uncertainty 1s CSU	Minimum Detectable Conc. MDC	Decision Level Conc. DLC	Reporting Units Units
ARS1-B09-05378-01	500.66	2.03	13.09	2.09	11.00	0.02	35.23	5	1.59	502.74	0.3590	0.00502	L	2/25/2009	1/15/2010	360	360	0.95603	8.21	0.32	0.32	1.27	0.73	0.36	TU
ARS1-B09-05378-02	505.90	2.04	8.12	2.10	6.02	0.01	63.51	7	1.59	503.23	0.3591	0.00357	L	2/25/2009	1/15/2010	360	360	0.956	8.95	0.27	0.27	1.37	0.57	0.28	TU
ARS1-B09-05378-03	519.34	2.00	10.90	2.08	8.84	0.02	45.02	2	1.59	511.65	0.3610	0.00502	L	2/25/2009	1/16/2010	360	360	0.95596	0.15	0.17	0.17	0.17	0.57	0.28	TU
ARS1-B09-05378-04	417.92	2.03	11.55	2.09	9.46	0.02	34.23	2	1.59	501.91	0.3588	0.00504	L	2/25/2009	1/16/2010	360	360	0.95593	1.16	0.24	0.24	0.30	0.75	0.37	TU
ARS1-B09-05378-05D	478.76	2.04	12.08	2.10	9.98	0.02	36.90	2	1.59	504.19	0.3593	0.00502	L	2/25/2009	1/16/2010	360	360	0.95589	0.59	0.22	0.22	0.23	0.70	0.34	TU
ARS1-B09-05378-06	490.95	2.01	12.69	2.07	10.62	0.02	35.76	5	1.66	512.91	0.3613	0.00502	L	2/25/2009	1/17/2010	360	360	0.95575	8.24	0.31	0.31	1.28	0.73	0.36	TU
ARS1-B09-05378-06D	492.42	2.02	6.60	2.08	4.52	0.01	81.51	6	1.66	502.58	0.3590	0.00255	L	2/25/2009	1/17/2010	360	360	0.95571	9.14	0.29	0.29	1.40	0.63	0.31	TU
ARS1-B09-05378-07D	474.64	2.03	8.34	2.09	6.25	0.01	57.62	6	1.66	518.56	0.3635	0.00440	L	2/25/2009	1/18/2010	360	360	0.95568	7.65	0.24	0.24	1.17	0.51	0.25	TU
ARS1-B09-05378-08	469.78	2.02	11.42	2.08	9.34	0.02	38.76	8	1.66	507.40	0.3600	0.00502	L	2/25/2009	1/18/2010	360	360	0.95564	14.04	0.35	0.35	2.13	0.68	0.33	TU
ARS1-B09-05378-09	496.67	2.04	12.43	2.10	10.33	0.02	37.13	8	1.66	516.80	0.3627	0.00501	L	2/25/2009	1/18/2010	360	360	0.95561	13.64	0.35	0.35	2.08	0.70	0.34	TU
ARS1-B09-05378-09D	493.82	2.01	11.17	2.07	9.10	0.02	41.71	9	1.66	509.90	0.3606	0.00503	L	2/25/2009	1/19/2010	360	360	0.95558	13.46	0.33	0.33	2.05	0.63	0.31	TU
ARS1-B09-05378-10	480.87	2.03	11.13	2.09	9.04	0.02	40.92	26	1.66	512.37	0.3611	0.00501	L	2/25/2009	1/19/2010	360	360	0.95554	48.04	0.55	0.55	7.23	0.64	0.31	TU
ARS1-B09-05378-10D	510.61	2.04	10.15	2.10	8.05	0.02	48.46	30	1.66	513.60	0.3614	0.00503	L	2/25/2009	1/19/2010	360	360	0.95551	46.77	0.49	0.49	7.03	0.54	0.28	TU
ARS1-B09-05378-11	498.01	2.04	11.11	2.10	9.01	0.02	42.46	21	1.66	507.07	0.3600	0.00383	L	2/25/2009	1/19/2010	360	360	0.95547	48.01	0.63	0.63	7.23	0.81	0.40	TU
ARS1-B09-05378-11D	499.44	2.03	12.07	2.09	9.98	0.02	38.59	23	1.66	495.26	0.3573	0.00502	L	2/25/2009	1/20/2010	360	360	0.95544	45.70	0.56	0.56	6.88	0.68	0.33	TU
ARS1-B09-05378-12	504.27	2.01	12.12	2.07	10.05	0.02	38.68	2	1.66	505.72	0.3597	0.00502	L	2/25/2009	1/20/2010	360	360	0.9554	0.16	0.20	0.20	0.20	0.68	0.33	TU

ARS Tritium Enrichment Calculations

Procedures	ARS-040 , ARS-060
ARS File ID Number	ARS1-09-03109, 03110, 03112
ARS Batch ID Number	ARS1-B09-05378

Enrichment Factor Curve coeff. - Power y = a * x^b	
a	8.978E-01
b	-9.811E-01
c	

Bkg Quench Curve coeff. - Polynomial y = ax^3+bx^2+cx+d	
a	-2.795E-06
b	3.267E-03
c	-1.255E+00
d	1.637E+02

2 Sigma

lambda	1.3863E-04	ACF (def. = 1)	1
Syserror	0.15	Reporting Units	TU
Coverage Factor	1.96	UCF	7.151

Aliquot must be entered in liters!!

Sample ID	Initial Mass sample (g) V_s	Mass Na2O2 added (g) m_t	Final mass electrolyzed sample w/ NaOH (g) V_e	Mass equivalent NaOH (g) m_f	Final Mass Electrolyzed sample (g pure H2O) V_f	Volume factor X	Enrichment Factor Y	Average Sample CPM R_s	Bkg CPM R_b	QIP tSIE	Detector Eff Eff	Aliquot Aliquot	Enter aliq. in final Rep. Units Units	Activity reference date To	Start Date of Count Tc	Total Sample Count Duration (min) t cnt (min)	Total Bkg Count Duration (min) t cnt (min)	Decay Correction to To DF	Sample Activity Conc. AC_t	Standard Counting Uncertainty CU	Counting Uncertainty 1.96s CU	Combined Standard Uncertainty 1.96s CSU	Minimum Detectable Conc. MDC	Decision Level Conc. DLC	Reporting Units Units
ARS1-B09-05378-01	500.66	2.03	13.09	2.09	11.00	0.02	35.23	5	1.59	502.74	0.3590	0.00502	L	2/25/2009	1/15/2010	360	360	0.95603	8.21	0.32	0.62	2.49	0.73	0.36	TU
ARS1-B09-05378-02	505.90	2.04	8.12	2.10	6.02	0.01	63.51	7	1.59	503.23	0.3591	0.00357	L	2/25/2009	1/15/2010	360	360	0.956	8.95	0.27	0.53	2.68	0.57	0.28	TU
ARS1-B09-05378-03	519.34	2.00	10.90	2.06	8.84	0.02	45.02	2	1.59	511.65	0.3610	0.00502	L	2/25/2009	1/16/2010	360	360	0.95596	0.15	0.17	0.33	0.34	0.57	0.28	TU
ARS1-B09-05378-04	417.92	2.03	11.55	2.09	9.46	0.02	34.23	2	1.59	501.91	0.3588	0.00504	L	2/25/2009	1/16/2010	360	360	0.95593	1.16	0.24	0.47	0.58	0.75	0.37	TU
ARS1-B09-05378-05D	476.76	2.04	12.06	2.10	9.98	0.02	36.90	2	1.59	504.19	0.3593	0.00502	L	2/25/2009	1/16/2010	360	360	0.95589	0.59	0.22	0.42	0.46	0.70	-0.34	TU
ARS1-B09-05378-06	490.95	2.01	12.69	2.07	10.62	0.02	35.76	5	1.66	512.91	0.3613	0.00502	L	2/25/2009	1/17/2010	360	360	0.95575	8.24	0.31	0.62	2.50	0.73	0.36	TU
ARS1-B09-05378-06D	492.42	2.02	6.60	2.08	4.52	0.01	81.51	6	1.66	502.58	0.3590	0.00255	L	2/25/2009	1/17/2010	360	360	0.95571	9.14	0.29	0.57	2.75	0.63	0.31	TU
ARS1-B09-05378-07D	474.64	2.03	8.34	2.09	6.25	0.01	57.62	6	1.66	518.58	0.3635	0.00440	L	2/25/2009	1/18/2010	360	360	0.95568	7.65	0.24	0.47	2.30	0.51	0.25	TU
ARS1-B09-05378-08	469.78	2.02	11.42	2.06	9.34	0.02	38.76	8	1.66	507.40	0.3600	0.00502	L	2/25/2009	1/18/2010	360	360	0.95564	14.04	0.35	0.68	4.18	0.68	0.33	TU
ARS1-B09-05378-09	496.67	2.04	12.43	2.10	10.33	0.02	37.13	8	1.66	516.80	0.3627	0.00501	L	2/25/2009	1/18/2010	360	360	0.95561	13.64	0.35	0.69	4.07	0.70	0.34	TU
ARS1-B09-05378-09D	493.82	2.01	11.17	2.07	9.10	0.02	41.71	9	1.66	509.90	0.3606	0.00503	L	2/25/2009	1/19/2010	360	360	0.95558	13.46	0.33	0.64	4.01	0.63	0.31	TU
ARS1-B09-05378-10	480.87	2.03	11.13	2.09	9.04	0.02	40.92	26	1.66	512.37	0.3611	0.00501	L	2/25/2009	1/19/2010	360	360	0.95554	46.04	0.55	1.07	14.16	0.64	0.31	TU
ARS1-B09-05378-10D	510.61	2.04	10.15	2.10	8.05	0.02	48.46	30	1.66	513.60	0.3614	0.00503	L	2/25/2009	1/19/2010	360	360	0.95551	46.77	0.49	0.96	13.78	0.54	0.26	TU
ARS1-B09-05378-11	498.01	2.04	11.11	2.10	9.01	0.02	42.46	21	1.66	507.07	0.3600	0.00383	L	2/25/2009	1/19/2010	360	360	0.95547	48.01	0.63	1.23	14.17	0.61	0.40	TU
ARS1-B09-05378-11D	499.44	2.03	12.07	2.09	9.98	0.02	38.59	23	1.66	495.26	0.3573	0.00502	L	2/25/2009	1/20/2010	360	360	0.95544	45.70	0.56	1.09	13.48	0.68	0.33	TU
ARS1-B09-05378-12	504.27	2.01	12.12	2.07	10.05	0.02	38.68	2	1.66	505.72	0.3597	0.00502	L	2/25/2009	1/20/2010	360	360	0.9554	0.16	0.20	0.40	0.40	-0.68	0.33	TU

ARS Tritium Enrichment Calculations

Procedures	ARS-040 , ARS-060
ARS File ID Number	ARS1-09-03109, 03110, 03112
ARS Batch ID Number	ARS1-B09-05378

Enrichment Factor Curve coeff. - Power y = a * x^b	
a	8.978E-01
b	-9.611E-01
c	

Bkg Quench Curve coeff. - Polynomial y = ax^3+bx^2+cx+d	
a	-2.795E-05
b	3.267E-03
c	-1.265E+00
d	1.637E+02

1 Sigma

lambda	1.3863E-04	ACF (def. = 1)	1
Syserror	0.15	Reporting Units	pCi
Coverage Factor	1	UCF	2.22

Sample ID	Initial Mass sample (g) V_i	Mass Na2O2 added (g) m_i	Final mass electrolyzed sample w/ NaOH (g) V_f	Mass equivalent NaOH (g) m_f	Final Mass Electrolyzed sample (g pure H2O) V_f	Volume factor X	Enrichment Factor Y	Average Sample CPM R_s	Bkg CPM R_b	QIP tSIE	Detector Eff Eff	Aliquot Aliquot	Enter aliq. in final Rep. Units Units	Activity reference date To	Start Date of Count Tc	Total Sample Count Duration (min) t cnt (min)	Total Bkg Count Duration (min) t cnt (min)	Decay Correction to To DF	Sample Activity Conc. AC_i	Standard Counting Uncertainty CU	Counting Uncertainty 1s CU	Combined Standard Uncertainty 1s CSU	Minimum Detectable Conc. MDC	Decision Level Conc. DLC	Reporting Units Units
ARS1-B09-05378-01	500.66	2.03	13.09	2.09	11.00	0.02	35.23	5	1.59	502.74	0.3590	0.00502	L	2/25/2009	1/15/2010	360	360	0.95603	26.45	1.02	1.02	4.10	2.35	1.15	pCi/L
ARS1-B09-05378-02	505.90	2.04	8.12	2.10	6.02	0.01	63.51	7	1.59	503.23	0.3591	0.00357	L	2/25/2009	1/15/2010	360	360	0.956	28.84	0.87	0.87	4.41	1.63	0.80	pCi/L
ARS1-B09-05378-03	519.34	2.00	10.90	2.06	8.84	0.02	45.02	2	1.59	511.65	0.3610	0.00502	L	2/25/2009	1/16/2010	360	360	0.95596	0.47	0.56	0.55	0.55	1.63	0.89	pCi/L
ARS1-B09-05378-04	417.92	2.03	11.55	2.09	9.46	0.02	34.23	2	1.59	501.91	0.3588	0.00504	L	2/25/2009	1/16/2010	360	360	0.95593	3.72	0.77	0.77	0.95	2.41	1.18	pCi/L
ARS1-B09-05378-05D	476.76	2.04	12.06	2.10	9.96	0.02	36.90	2	1.59	504.19	0.3593	0.00502	L	2/25/2009	1/16/2010	360	360	0.95589	1.69	0.69	0.69	0.75	2.24	1.10	pCi/L
ARS1-B09-05378-06	490.95	2.01	12.69	2.07	10.62	0.02	35.76	5	1.66	512.91	0.3613	0.00502	L	2/25/2009	1/17/2010	360	360	0.95575	26.54	1.01	1.01	4.11	2.35	1.15	pCi/L
ARS1-B09-05378-06D	492.42	2.02	6.60	2.08	4.52	0.01	81.51	6	1.66	502.58	0.3590	0.00255	L	2/25/2009	1/17/2010	360	360	0.95571	29.44	0.94	0.94	4.52	2.05	1.00	pCi/L
ARS1-B09-05378-07D	474.64	2.03	8.34	2.09	6.25	0.01	57.62	6	1.66	518.58	0.3635	0.00440	L	2/25/2009	1/18/2010	360	360	0.95568	24.65	0.77	0.77	3.76	1.66	0.81	pCi/L
ARS1-B09-05378-08	469.78	2.02	11.42	2.08	9.34	0.02	38.78	8	1.66	507.40	0.3600	0.00502	L	2/25/2009	1/18/2010	360	360	0.95564	45.22	1.12	1.12	6.88	2.18	1.06	pCi/L
ARS1-B09-05378-09	496.67	2.04	12.43	2.10	10.33	0.02	37.13	8	1.66	516.80	0.3627	0.00501	L	2/25/2009	1/18/2010	360	360	0.95561	43.94	1.14	1.14	6.69	2.26	1.10	pCi/L
ARS1-B09-05378-09D	493.82	2.01	11.17	2.07	9.10	0.02	41.71	9	1.66	509.90	0.3606	0.00503	L	2/25/2009	1/19/2010	360	360	0.95558	43.37	1.05	1.05	6.59	2.02	0.99	pCi/L
ARS1-B09-05378-10	480.87	2.03	11.13	2.09	9.04	0.02	40.92	26	1.66	512.37	0.3611	0.00501	L	2/25/2009	1/19/2010	360	360	0.95554	154.73	1.76	1.76	23.28	2.06	1.01	pCi/L
ARS1-B09-05378-10D	510.61	2.04	10.15	2.10	8.05	0.02	46.46	30	1.66	513.60	0.3614	0.00503	L	2/25/2009	1/19/2010	360	360	0.95551	150.68	1.58	1.58	22.65	1.73	0.85	pCi/L
ARS1-B09-05378-11	498.01	2.04	11.11	2.10	9.01	0.02	42.46	21	1.66	507.07	0.3600	0.00383	L	2/25/2009	1/19/2010	360	360	0.95547	154.65	2.01	2.01	23.26	2.61	1.27	pCi/L
ARS1-B09-05378-11D	499.44	2.03	12.07	2.09	9.98	0.02	38.59	23	1.66	495.26	0.3573	0.00502	L	2/25/2009	1/20/2010	360	360	0.95544	147.22	1.79	1.79	22.16	2.21	1.08	pCi/L
ARS1-B09-05378-12	504.27	2.01	12.12	2.07	10.05	0.02	38.68	2	1.66	505.72	0.3597	0.00502	L	2/25/2009	1/20/2010	360	360	0.9554	0.50	0.66	0.66	0.66	2.19	1.07	pCi/L

ARS Tritium Enrichment Calculations

Procedures	ARS-040 , ARS-060
ARS File ID Number	ARS1-09-03109, 03110, 03112
ARS Batch ID Number	ARS1-B09-05378

Enrichment Factor Curve coeff. - Power y = a * x^b	
a	8.978E-01
b	-9.611E-01
c	

Bkg Quench Curve coeff. - Polynomial y = ax^3+bx^2+cx+d	
a	-2.795E-06
b	3.267E-03
c	-1.265E+00
d	1.637E+02

2 Sigma

lambda	1.3863E-04	ACF (def. = 1)	1
Syserror	0.15	Reporting Units	pCi
Coverage Factor	1.96	UCF	2.22

Sample ID	Initial Mass sample (g) V_i	Mass Na2O2 added (g) m_s	Final mass electrolyzed sample w/ NaOH (g) V_f	Mass equivalent NaOH (g) m_f	Final Mass Electrolyzed sample (g pure H2O) V_t	Volume factor X	Enrichment Factor Y	Average Sample CPM R_s	Bkg CPM R_b	QIP tSIE	Detector Eff Eff	Aliquot Aliquot	Enter aliq. in final Rep. Units Units	Activity reference date To	Start Date of Count Tc	Total Sample Count Duration (min) t cnt (min)	Total Bkg Count Duration (min) t cnt (min)	Decay Correction to To DF	Sample Activity Conc. AC_i	Standard Counting Uncertainty CU	Counting Uncertainty 1.96s CU	Combined Standard Uncertainty 1.96s CSU	Minimum Detectable Conc. MDC	Decision Level Conc. DLC	Reporting Units Units
ARS1-B09-05378-01	500.66	2.03	13.09	2.09	11.00	0.02	35.23	5	1.59	502.74	0.3590	0.00502	L	2/25/2009	1/15/2010	360	360	0.95603	26.45	1.02	1.99	8.03	2.35	1.15	pCi/L
ARS1-B09-05378-02	505.90	2.04	8.12	2.10	6.02	0.01	63.51	7	1.59	503.23	0.3591	0.00357	L	2/25/2009	1/15/2010	360	360	0.956	28.84	0.87	1.71	8.65	1.83	0.90	pCi/L
ARS1-B09-05378-03	519.34	2.00	10.90	2.06	8.84	0.02	45.02	2	1.59	511.65	0.3610	0.00502	L	2/25/2009	1/16/2010	360	360	0.95596	0.47	0.55	1.08	1.09	1.83	0.89	pCi/L
ARS1-B09-05378-04	417.92	2.03	11.55	2.09	9.46	0.02	34.23	2	1.59	501.91	0.3588	0.00504	L	2/25/2009	1/16/2010	360	360	0.95593	3.72	0.77	1.51	1.86	2.41	1.18	pCi/L
ARS1-B09-05378-05D	476.76	2.04	12.08	2.10	9.98	0.02	36.90	2	1.59	504.19	0.3593	0.00502	L	2/25/2009	1/16/2010	360	360	0.95589	1.69	0.69	1.36	1.47	2.24	1.10	pCi/L
ARS1-B09-05378-06	490.95	2.01	12.69	2.07	10.62	0.02	35.76	5	1.66	512.91	0.3613	0.00502	L	2/25/2009	1/17/2010	360	360	0.95575	26.54	1.01	1.98	8.05	2.35	1.15	pCi/L
ARS1-B09-05378-06D	492.42	2.02	6.60	2.08	4.52	0.01	81.51	6	1.66	502.58	0.3590	0.00255	L	2/25/2009	1/17/2010	360	360	0.95571	29.44	0.94	1.84	8.85	2.05	1.00	pCi/L
ARS1-B09-05378-07D	474.64	2.03	8.34	2.09	6.25	0.01	57.62	6	1.66	518.58	0.3635	0.00440	L	2/25/2009	1/18/2010	360	360	0.95568	24.65	0.77	1.51	7.40	1.66	0.81	pCi/L
ARS1-B09-05378-08	469.76	2.02	11.42	2.08	9.34	0.02	38.78	8	1.66	507.40	0.3600	0.00502	L	2/25/2009	1/18/2010	360	360	0.95564	45.22	1.12	2.20	13.46	2.18	1.06	pCi/L
ARS1-B09-05378-09	496.67	2.04	12.43	2.10	10.33	0.02	37.13	8	1.66	516.80	0.3627	0.00501	L	2/25/2009	1/18/2010	360	360	0.95561	43.94	1.14	2.24	13.11	2.26	1.10	pCi/L
ARS1-B09-05378-09D	493.82	2.01	11.17	2.07	9.10	0.02	41.71	9	1.66	509.90	0.3606	0.00503	L	2/25/2009	1/18/2010	360	360	0.95558	43.37	1.05	2.06	12.92	2.02	0.99	pCi/L
ARS1-B09-05378-10	480.87	2.03	11.13	2.09	9.04	0.02	40.92	26	1.66	512.37	0.3611	0.00501	L	2/25/2009	1/19/2010	360	360	0.95554	154.73	1.76	3.46	45.62	2.06	1.01	pCi/L
ARS1-B09-05378-10D	510.61	2.04	10.15	2.10	8.05	0.02	48.46	30	1.66	513.60	0.3614	0.00503	L	2/25/2009	1/19/2010	360	360	0.95551	150.66	1.58	3.10	44.40	1.73	0.85	pCi/L
ARS1-B09-05378-11	498.01	2.04	11.11	2.10	9.01	0.02	42.46	21	1.66	507.07	0.3600	0.00363	L	2/25/2009	1/19/2010	360	360	0.95547	154.85	2.01	3.95	45.64	2.61	1.27	pCi/L
ARS1-B09-05378-11D	499.44	2.03	12.07	2.09	9.88	0.02	36.59	23	1.66	495.26	0.3573	0.00502	L	2/25/2009	1/20/2010	360	360	0.95544	147.22	1.79	3.51	43.42	2.21	1.08	pCi/L
ARS1-B09-05378-12	504.27	2.01	12.12	2.07	10.05	0.02	38.66	2	1.66	505.72	0.3597	0.00502	L	2/25/2009	1/20/2010	360	360	0.9554	0.50	0.66	1.29	1.29	2.19	1.07	pCi/L

Expected Value Calculations [redacted]

ARS Batch Number: ARS1-B09 - 05378

LCS	**CALCULATED EXPECTED VALUE**	=	28,560			
			Range	14,280	-	42,839
LCSD	**CALCULATED EXPECTED VALUE**	=	28,560			
			Range	14,280	-	42,839

Standards Activity as of: 01/15/10 14:07

Active	Std ID	Isotope	PSCLT	Verification Date	Exp Date	Status	Ref Date	Ref ACT (dpm)	ACT at Date Above (cpm @	Half-life (days)	Parent ID	Expended Date	Comments
A	S-0003	Cs-137	SC	02/01/06	02/01/07	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	S-0113		[illegible]
A	S-0023	Pu-238	S	11/02/05	11/02/06	EXP	11/01/05	1.1657E+01	11.2759	3.204E+04	S-0071		S-0023 Entered information from dilution records.
A	S-0024	Pu-239	PL	10/18/05	10/18/06	OK	10/18/05	1.1657E+01	11.2759	8.807E+06	S-0071		[illegible]
A	S-0027	Tc-99	SLC	09/01/06	09/01/07	EXP	10/18/05	9.4141E+03	9414.0087	7.710E+07	S-0113		S-0027 - Information entered from dilution records - RTS 6/19/2006
A	S-0028	Pu-242	PT	10/25/05	10/25/06	OK	10/25/05	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0031	H-3	S	10/26/05	10/26/06	EXP	10/19/05	6.0776E+05	478751.1794	4.500E+03	S-0107		S-0031 Intermediate dilution - Information entered from dilution recor
A	S-0037	Pu-238	PL	10/25/06	10/25/07	OK	10/25/06	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0039	Tc-99	SC	04/01/09	04/01/10	OK	03/30/06	1.1146E+04	11146.2009	7.710E+07	S-0114		S-0039 - Information entered from dilution records - 4/19/2006 RTS
A	S-0063	U-238	S	[illegible]	[illegible]	Not Ver	08/01/97	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0065	Th-230	P			Not Ver	01/27/95	1.7100E+00	1.7098	2.753E+07			S-0036 information entered on 4/6/2006 RTS Density entered based on m
A	S-0067	Am-243	PL	[illegible]	[illegible]	Not Ver	10/03/05	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0069	Am-241	PL			Not Ver	04/18/96	9.6000E-03	0.0094	1.579E+05			S-0061 Information entered from dilution records Dilution income
A	S-0071	Pu-239	PL	[illegible]	[illegible]	Not Ver	11/15/99	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0073	Pu-239	PL			Not Ver	11/15/99	3.9240E+01	39.2285	8.807E+06			S-0024 Information entered from dilution records
A	S-0074	Pu-238	PL	[illegible]	[illegible]	Not Ver	10/24/05	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0075	Pu-242	PT			Not Ver	06/04/94	2.6310E+01	26.3092	1.365E+08			S-0025 Information entered from dilution records
A	S-0102	Cs-137	SC	[illegible]	[illegible]	Not Ver	06/01/07	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0103	U-nat	SC	06/18/07	06/18/08	EXP	10/26/05	7.0226E+01	70.2265	1.632E+12	S-0102		S-0026 Relegged as total uranium solution. Activity is the sum total o
A	S-0104	Cs-137	SC	[illegible]	[illegible]	OK	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0105	Ra-226	P			Not Ver	01/01/93	1.1900E+01	11.8124	5.840E+05			Primary solution for S-0007 - Information entered from dilution record
A	S-0107	Cs-137	SC	[illegible]	[illegible]	Not Ver	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0108	Sr-90	PC			Not Ver	07/01/95	4.0100E+03	2815.3327	1.041E+04			Primary for S-0017
A	S-0110	Cs-137	SC	[illegible]	[illegible]	Not Ver	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0111	H-3	PC			Not Ver	04/01/06	2.0870E+00	1.6860	4.500E+03			Primary
A	S-0112	Tc-99	PC	[illegible]	04/22/10	OK	04/18/06	[illegible]	[illegible]	4.500E+03	S-0111		[illegible]
A	S-0113	Tc-99	PLC			Not Ver	09/01/96	3.2610E+04	32608.5683	7.710E+07			Primary solution
A	S-0114	Tc-99	SC	[illegible]	[illegible]	Not Ver	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0115	Cs-137	PL			Not Ver	01/23/95	2.9000E+01	20.5324	1.098E+04			S-0003 primary - Information entered from dilution records - 4/19/2006
A	S-0116	Pu-238	S	[illegible]	[illegible]	Not Ver	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0117	Sr-90	PLCT			Not Ver	07/01/95	4.0100E+03	2815.3327	1.041E+04			S-0017 primary - Information entered from dilution records. 4/19/2006
A	S-0118	Cs-137	SC	[illegible]	[illegible]	Not Ver	04/01/06	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0119	Cs-137	SC	04/19/06	04/19/07	EXP	04/03/06	1.1621E+04	10649.6940	1.098E+04	S-0118		Solution for use as calibration stock standard.
A	S-0120	Sr-90	SC	[illegible]	[illegible]	Not Ver	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0121	Sr-90	SC	12/04/08	12/04/09	EXP	03/31/06	1.1282E+04	10287.2941	1.041E+04	S-0120		Solution for use as calibration stock standard.
A	S-0122	Am-241	SC	[illegible]	[illegible]	Not Ver	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0123	Am-241	SC	04/24/06	04/24/07	EXP	04/03/06	1.1632E+04	11561.5872	1.579E+05	S-0122		Solution for use as calibration stock standard.
A	S-0124	Th-230	SC	[illegible]	[illegible]	Not Ver	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0125	Th-230	SC	09/24/07	09/24/08	EXP	03/27/06	1.0413E+04	10412.6542	2.753E+07	S-0124		Solution for use as calibration stock standard. Entered from dilution
A	S-0126	Ra-228	SL	[illegible]	[illegible]	Not Ver	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0127	Ra-228	SL	09/29/09	09/29/10	OK	05/10/06	1.1274E+04	7229.7909	2.100E+03	S-0126		Measurements performed using Balance# 1131E3449 and Pipette# V29666.
A	S-0128	Tc-99	SC	05/03/06	05/03/07	EXP	04/05/06	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0129	Sr-90	PL			Not Ver	07/01/95	4.0100E+03	2815.3327	1.041E+04			
A	S-0130	Sr-90	SL	[illegible]	[illegible]	Not Ver	06/09/06	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
A	S-0137	Th-229	PT			Not Ver	12/05/03	1.2294E+05	122869.0329	2.681E+06			Primary Th-229 standard.
A	S-0138	Th-229	SC	[illegible]	[illegible]	Not Ver	05/28/04	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]

Standards Activity as of: 01/15/10 14:07

Active	Std ID	Isotope	FSCLT	Verification Date	Exp Date	Status	Ref Date	Ref ACT (dpm)	ACT at Date Above (dpm/g)	Half-life (days)	Parent ID	Expended Date	Comments
A	S-0139	Po-209	P			Not Ver	03/15/94	5.1252E+03	4602.2370	3.726E+04			Primary Po-209 standard.
A	S-0140	Po-209	PL	06/07/06	06/07/07	Not Ver	06/07/06	[illegible]	[illegible]	[illegible]	S-0139		
A	S-0141	Ra-226	PC			Not Ver	01/21/93	2.6418E+04	26224.2166	5.840E+05			Primary solution for creating calibration stock.
A	S-0142	Pb-210	SC	06/07/06	06/07/07	EXP	07/07/06	[illegible]	[illegible]	[illegible]	S-0143		
A	S-0143	Pb-210	P			Not Ver	07/18/06	7.6400E+00	6.8519	8.130E+03			ARS-WRM-001
A	S-0144	Th-229	SC	07/12/05	07/12/06	EXP	07/12/05	[illegible]	[illegible]	[illegible]	S-0145		
A	S-0145	Th-229	ST			Not Ver	01/28/05	1.1938E+02	119.3275	2.681E+06	S-0138		Information was gathered from existing incomplete dilution records cre
A	S-0146	Sr-90	SC	06/07/06	06/07/07	EXP	06/07/06	[illegible]	[illegible]	[illegible]	S-0147		
A	S-0148	C-14	PL			Not Ver	03/07/06	4.7320E+05	472974.4838	2.090E+06			Primary C-14 standard. The certified activity in dpm/g was derived by
A	S-0149	C-14	SL			Not Ver	10/13/06	[illegible]	[illegible]	[illegible]	S-0148		
A	S-0150	C-14	S			Not Ver	10/13/06	8.6764E+02	867.3019	2.090E+06	S-0149		LCS standard for C-14 in water. Dilution performed as stated above. -B
A	S-0151	H-3	PL	05/09/08	05/09/09	EXP	09/03/98	[illegible]	[illegible]	[illegible]			Primary H-3 standard
A	S-0152	H-3	PL	05/09/08	05/09/09	EXP	09/03/98	2.0090E+00	1.0598	4.500E+03			Liquid in a 500-ml borosilicate-glass media bottle with teflon-lined s
A	S-0153	C-14	S			Not Ver	10/13/06	[illegible]	[illegible]	[illegible]	S-0150		
A	S-0154	C-14	S	08/20/10	08/20/11	OK	10/13/06	1.7245E+02	172.3821	2.090E+06	S-0153		LCS standard for C-14. Originally logged as S-0150. See parent comment
A	S-0155	Sr-90	SC	06/07/06	06/07/07	EXP	06/07/06	[illegible]	[illegible]	[illegible]	S-0156		
A	S-0157	Sr-90	P			Not Ver	05/15/07	7.6040E+03	7125.5391	1.041E+04			Primary Sr-90 LCS standard
A	S-0158	U-232	SC	06/07/06	06/07/07	EXP	06/07/06	[illegible]	[illegible]	[illegible]	S-0159		
A	S-0159	Sr-89	PC			Not Ver	05/15/07	1.7538E+04	0.0269	5.053E+01			Primary Sr-89 standard
A	S-0160	U-232	SC	06/07/06	06/07/07	EXP	06/07/06	[illegible]	[illegible]	[illegible]	S-0161		
A	S-0161	U-232	ST	06/18/07	06/18/08	EXP	06/06/07	5.1903E+02	505.5627	2.516E+04	S-0158		Intermediate U-232 standard to be used in creating stock tracer solut
A	S-0162	Sr-89	SC	06/07/06	06/07/07	EXP	06/07/06	[illegible]	[illegible]	[illegible]	S-0163		
A	S-0164	Sr-89	PC			Not Ver	05/15/07	1.7533E+04	0.0269	5.053E+01			Primary Sr-89 calibration standard.
A	S-0165	Pu-242	SC	06/07/06	06/07/07	EXP	06/07/06	[illegible]	[illegible]	[illegible]	S-0166		
A	S-0168	Pu-242	PT			Not Ver	06/07/94	2.6310E+01	26.3092	1.365E+08			Primary Pu-242 standard
A	S-0169	Th-230	SC	06/07/06	06/07/07	EXP	06/07/06	[illegible]	[illegible]	[illegible]	S-0170		
A	S-0170	Th-230	PL			Not Ver	09/10/07	7.9235E+03	7923.3278	2.753E+07			Primary Th-230 standard.
A	S-0171	Th-230	SC	06/07/06	06/07/07	EXP	06/07/06	[illegible]	[illegible]	[illegible]	S-0170		
A	S-0172	Th-230	SL	02/21/08	02/21/09	EXP	02/05/08	4.7041E+03	4704.0042	2.753E+07	S-0170		Intermediate level Th-230 standard for use in creating LCS stock solut
A	S-0176	Ni-63	SC	06/07/06	06/07/07	EXP	06/07/06	[illegible]	[illegible]	[illegible]	S-0177		
A	S-0177	Ni-63	PL			Not Ver	02/07/08	7.6217E+03	7520.2065	3.660E+04			Primary Ni-63 LCS standard.
A	S-0178	Ni-63	SC	06/07/06	06/07/07	EXP	06/07/06	[illegible]	[illegible]	[illegible]	S-0179		
A	S-0179	Ni-63	PC			Not Ver	11/15/05	4.7100E+04	45761.7547	3.660E+04			Primary Ni-63 calibration standard.
A	S-0180	Am-243	SC	06/07/06	06/07/07	EXP	06/07/06	[illegible]	[illegible]	[illegible]	S-0181		
A	S-0181	Am-243	PT			Not Ver	03/29/05	2.2248E+05	222379.6068	2.692E+06			Primary Am-243 standard.
A	S-0182	Fe-55	SC	06/07/06	06/07/07	EXP	06/07/06	[illegible]	[illegible]	[illegible]	S-0183		
A	S-0183	Fe-55	SC			Not Ver	04/09/08	1.9025E+04	12080.6903	9.860E+02	S-0182		Fe-55 standard for use in calibrating counting instruments and making
A	S-0184	Am-243	SC	06/07/06	06/07/07	EXP	06/07/06	[illegible]	[illegible]	[illegible]	S-0185		
A	S-0185	Am-243	ST	07/19/09	07/19/10	OK	04/29/08	1.0981E+01	10.9795	2.692E+06	S-0184		Am-243 tracer stock solution. Dilution performed as stated above by B
A	S-0186	Pu-239	PC	06/07/06	06/07/07	Not Ver	06/07/06	[illegible]	[illegible]	[illegible]			Primary Pu-239
A	S-0187	Ra-226	SC	08/01/08	08/01/09	EXP	05/08/08	5.8759E+01	58.7162	5.840E+05	S-0142		Secondary calibration solution for use in calibrating Lucas cells. Di
A	S-0188	Pu-241	PLC	06/07/06	06/07/07	EXP	06/07/06	[illegible]	[illegible]	[illegible]			
A	S-0189	H-3	SL	05/20/08	05/20/09	EXP	05/16/08	7.1011E-02	0.0647	4.500E+03	S-0152		LL3H LCS soln. Dilution preformed by April Johnson.
A	S-0190	Pu-241	SLC	05/20/08	05/20/09	EXP	05/20/08	[illegible]	[illegible]	[illegible]	S-0188		
A	S-0191	Pu-241	SLC	05/20/08	05/20/09	EXP	05/20/08	4.8833E+03	4507.8297	5.242E+03	S-0188		Pu-241 calibration standard. Dilution performed as stated above by B S

Standards Activity as of: 01/15/10 14:07

Active	Std ID	Isotope	PSC/T	Verification Date	Exp Date	Status	Ref Date	Ref ACT (dpm)	ACT at Date Above (dpm)	Half-life (days)	Parent ID	Expended Date	Comments
A	S-0192	[illegible]	[illegible]	[illegible]	[illegible]	EXP	[illegible]	[illegible]	[illegible]	[illegible]	S-0188		[illegible]
A	S-0193	Ra-226	PL			Not Ver	09/01/03	2.4820E+03	2475.1515	5.840E+05			Ra-226 LCS Standard
A	S-0195	[illegible]	[illegible]	[illegible]	[illegible]	Not Ver	[illegible]	[illegible]	[illegible]	[illegible]			[illegible] for calibration
A	S-0196	Ra-226	SLC			Not Ver	07/03/08	2.3567E+02	235.5140	5.840E+05	S-0195		Calibration standard for Ra-226.
A	S-0197	[illegible]	[illegible]	09/29/09	09/29/10	OK	07/10/08	[illegible]	[illegible]	[illegible]	[illegible]		
A	S-0198	Ra-226	SL	09/24/09	09/24/10	OK	07/07/08	1.4886E+03	1487.6531	5.840E+05	S-0193		Intermediate Ra-226 standards for use in creating LCS stock solutions.
A	S-0199	[illegible]	[illegible]	[illegible]	[illegible]	EXP	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
A	S-0200	Sr-89	PC			Not Ver	09/17/08	1.9942E+04	25.7281	5.053E+01			Primary Sr-89 calibration standard
A	S-0201	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	S-0176		
A	S-0202	Ni-63	SL	01/05/09	01/05/10	EXP	12/30/08	4.5444E+01	45.1177	3.660E+04	S-0178		Primary Ni-63 LCS stock solution. Dilution performed as stated above w
A	S-0203	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	S-0200		
A	S-0204	H-3	SL	01/28/09	01/28/10	OK	01/13/09	2.8053E+00	2.6511	4.500E+03	S-0032		Primary std. level LCS standard. Dilution performed as stated above by
A	S-0205	[illegible]	[illegible]	02/04/09	02/04/10	OK	02/05/09	[illegible]	[illegible]	[illegible]	[illegible]		
A	S-0206	H-3	SL	05/04/09	05/04/10	OK	02/25/09	6.6781E+00	6.3529	4.500E+03	S-0152		Use as HSLL LCS standard. Dilution performed as stated above by M Thib
A	S-0207	[illegible]	[illegible]	[illegible]	[illegible]	Not Ver	01/12/09	[illegible]	[illegible]	[illegible]	[illegible]		
A	S-0208	H-3	S			Not Ver	04/15/09	1.3263E+01	12.7125	4.500E+03	S-0152		LLSH LCS solution, dilution performed by M. Thibodeaux on 4-15-09.
A	S-0209	[illegible]	[illegible]	[illegible]	[illegible]	OK	05/04/09	[illegible]	[illegible]	[illegible]	[illegible]		
A	S-0210	Ba-133	PT			Not Ver	05/15/09	7.6431E+02	731.2494	3.840E+03			Primary Ba-133 tracer
A	S-0211	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
A	S-0212	Ba-133	SLT	05/21/09	05/21/10	OK	05/18/09	9.9546E+00	9.5291	3.840E+03	S-0211		Ba-133 tracer solution. Dilution performed as stated above by B Raffo
A	S-0213	[illegible]	[illegible]	[illegible]	[illegible]	OK	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
A	S-0214	Th-229	ST	06/03/09	06/03/10	OK	06/01/09	1.1511E+01	11.5108	2.681E+06	S-0171		TH-229 Tracer
A	S-0215	[illegible]	[illegible]	[illegible]	[illegible]	Not Ver	09/05/09	[illegible]	[illegible]	[illegible]			
A	S-0216	AM-241	P			Not Ver	05/16/07	1.0640E+02	105.9455	1.579E+05			Parent Am-241 Working Std: [illegible] in 3 ml. NIST [illegible] glass ampoule
A	S-0217	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
A	S-0218	C-14	SC	08/05/09	08/05/10	OK	07/22/09	2.9419E+05	294172.5357	2.082E+06	S-0215		C-14 Calibration Standard used to validate the C-14 standard in-house
A	S-0219	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
A	S-0220	Am-241	PL			Not Ver	08/19/09	2.6725E+01	26.7075	1.579E+05			
A	S-0221	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	S-0220		
A	S-0222	PU-242	PT	09/28/09	09/28/10	OK	09/23/09	2.6314E+01	26.3143	1.365E+08			
A	S-0223	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
A	S-0224	Ra-226	SL	11/05/09	11/05/10	OK	11/04/09	6.4243E+01	64.2377	5.840E+05	S-0198		Ra-226 LCS stock solution. Dilution performed as stated above by B Ra
A	S-0225	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
A	S-0226	PU-239	SC	11/19/09	11/19/10	OK	11/16/09	1.9777E+03	1977.7223	8.807E+06	S-0186		Pu-239 calibration standard. Dilution performed as stated above by B S
A	S-0227	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
A	S-0228	U-238	SC	11/19/09	11/19/10	OK	11/17/09	2.6904E+02	269.0445	1.632E+12	S-0227		Uranium standard for use in creating Alpha Spec check sources. Dilute
A	S-0229	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
A	S-0230	U-238	PL			Not Ver	11/23/09	1.8617E+02	186.1684	1.632E+12			Primary U-238, 235, 234 standard. 5ml liquid in flame sealed vial.
A	S-0006	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
I	S-0007	Ra-226	S	09/24/09	09/24/10	OK	02/01/06	6.5015E+01	64.9034	5.840E+05	S-0105	12/30/09	T80 - Information entered from dilution records - 4/15/2008 - RTS
I	S-0024	[illegible]	[illegible]	[illegible]	[illegible]	EXP	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
I	S-0025	Pu-242	ST	04/17/07	04/17/08	EXP	10/24/05	7.6328E+00	7.6328	1.365E+08	S-0075	01/09/08	S-0025 Information entered from dilution records
I	S-0026	U-[illegible]	[illegible]	[illegible]	[illegible]	EXP	[illegible]	[illegible]	[illegible]	[illegible]	S-0077	[illegible]	[illegible]
I	S-0030	H-3	P	11/19/05	11/19/06	EXP	12/10/98	6.9370E-01	0.3715	4.500E+03			Tritium in Oil
I	S-0032	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	S-0033	[illegible]	[illegible]

Standards Activity as of: 01/15/10 14:07

Active	Std ID	Isotope	PSCUT	Verification Date	Exp Date	Status	Ref Date	Ref ACT (dpm)	ACT at Date Above (dpm/g)	Half Life (days)	Parent ID	Expended Date	Comments
I	S-0033	Tc-99	SLC	10/18/05	10/18/06	EXP	10/18/05	1.9470E+02	194.6945	7.710E+07	S-0027	04/25/06	S-0033 Working level dilution - Information entered from dilution reco
I	S-0038	Am-243	ST	06/07/07	06/07/08	EXP	01/25/06	1.0656E+01	10.6524	2.692E+06	S-0067	05/07/08	S-0038 Entered from dilution documentation. Density from certificate was
I	S-0077	U-232	PT			Not Ver	07/01/02	3.8220E+01	35.4267	2.516E+04			S-0026 Information enetard from dilution records
I	S-0131	Sr-90	SL			Not Ver	02/02/06	0.0000E+00	0.0000	1.041E+04	S-0130	05/18/06	
I	S-0133	Sr-90	SL	01/09/06	01/09/07	EXP	06/09/04	5.8438E+01	50.9947	1.041E+04	S-0130	05/26/06	Original solution ID# was T11c-1/S-0017. Information entered from dilu
I	S-0136	Sr-90	SL	05/26/06	05/26/07	EXP	06/09/04	5.2036E+01	45.4085	1.041E+04	S-0134	07/17/07	Original standard ID# was T11c-1/S-0017. Dilution information entered
I	S-0156	H-3	S	05/09/08	05/09/09	EXP	04/27/07	2.7672E+00	2.3743	4.500E+03	S-0032	07/14/08	Normal level tritium LCS standard. Dilution performed as stated above
I	S-0166	Th-229	ST	03/04/09	03/04/10	OK	08/27/07	5.6494E+00	5.6482	2.681E+06	S-0145	06/02/09	Th-229 tracer. Dilution performed as stated above by B Steffens. -BS
I	S-0173	Th-230	SL	02/21/08	02/21/09	EXP	02/05/08	1.2638E+01	12.6381	2.753E+07	S-0172	03/10/09	Th-230 standard for use as LCS stock solution. Dilution performed as s
I	S-0175	H-3	S	02/11/08	02/11/09	EXP	02/11/08	7.0455E-02	0.0632	4.500E+03	S-0152	05/20/08	Low level tritium LCS solution. Dilution performed as stated above by

DUP Evaluation

Method:	ARS LL3H
Batch ID:	ARS1-B09- 05378 -06
DO SDG:	ARS1-09- 03110-001
DUP SDG:	ARS1-09- 03110-001

DO Act	26.540	DO CSU	8.050
DUP Act	29.440	DUPCSU	8.850

$$\text{DER} = \frac{\text{abs(LSC-LSCD)}}{\text{sqr((2s CSU/2)^2)+((2s CSU-D/2)^2)}} = \quad < 3$$

$$\text{DER} = \frac{2.9}{5.981743057} = 0.484809 < 3$$

$$\text{\% RPD} = \frac{\text{ABS(LCS - LSCD)}}{\text{(LCS+LCSD)/2}} * 100 = \quad < 25\%$$

$$\text{\%RPD} = \frac{2.9}{27.99} *100 = 10.36084 < 25\%$$

The *RPD* shall be less than 25% or other client-applied criteria

$$\text{RER} = \frac{\text{abs((LCS-LCSD))}}{\text{(CSU)+(CSD)}} = \quad <1$$ ⇦ LANL ONLY

$$\text{RER} = \frac{2.9}{16.9000} = 0.171598 <1$$

Assay Definition-

Assay Description:
LLH3 Assay in DPM Mode

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\H3 Low Level\Low Level H3\20100115_0750
Raw Results Path: C:\Packard\Tricarb\Results\H3 Low Level\Low Level H3\20100115_0750\20100115_0750.results
RTF File Name: C:\Packard\Tricarb\Results\H3 Low Level\Low Level H3\20100115_0750\Report1.rtf
Comma-Delimited File Name: C:\Packard\Tricarb\Results\H3 Low Level\Low Level H3\20100115_0750\Report1.txt
Assay File Name: C:\Packard\TriCarb\Assays\Low Level H3.lsa

Count Conditions-

Nuclide: LL H3
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: LL H3 PLASTIC
Count Time (min): 360.00
Count Mode: Low Level
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: Off
Low CPM Threshold: Off
2 Sigma % Terminator: On - Any Region

Regions	LL	UL	2Sigma % Terminator
A	0.0	18.6	0.50
B	0.0	2000.0	0.00
C	0.0	2000.0	0.00

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time

A
B
C

Cycle 1 Results
Quench Curve Block Data

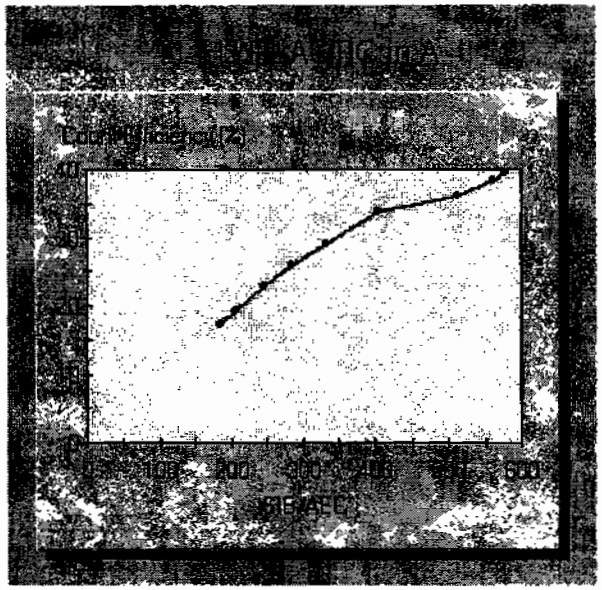

Date Acquired: 09/08/2009
Date Modified:
LL H3 PLASTIC in A

tSIE/AEC	Count Efficiency (%)
577.71	39.37
561.32	38.19
514.09	36.15
404.21	33.71
334.90	29.12
284.93	26.04
246.14	22.78
207.51	19.18
185.88	17.18

P#	S#	SMPL_ID	Count Time	CPMA	DPM1	tSIE	Eff Nucl In A	DATE	TIME	MESSAGES
2	1	BACKGROUND	360.00	1.592	4.42	509.78	36.06	1/15/2010	7:59:28 AM	
2	2	B09-05378-01	360.00	5.156	14.36	502.74	35.90	1/15/2010	2:12:07 PM	
2	3	B09-05378-02	360.00	6.575	18.31	503.23	35.91	1/15/2010	8:24:32 PM	
2	4	B09-05378-03	360.00	1.674	4.64	511.65	36.10	1/16/2010	2:37:00 AM	
2	5	B09-05378-04	360.00	2.081	5.80	501.91	35.88	1/16/2010	8:49:16 AM	
2	6	B09-05378-05D	360.00	1.859	5.17	504.19	35.93	1/16/2010	3:01:27 PM	

Assay Definition-

Assay Description:
LLH3 Assay in DPM Mode

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\H3 Low Level\Low Level H3\20100117_1112
Raw Results Path: C:\Packard\Tricarb\Results\H3 Low Level\Low Level H3\20100117_1112\20100117_1112.results
RTF File Name: C:\Packard\Tricarb\Results\H3 Low Level\Low Level H3\20100117_1112\Report1.rtf
Comma-Delimited File Name: C:\Packard\Tricarb\Results\H3 Low Level\Low Level H3\20100117_1112\Report1.txt
Assay File Name: C:\Packard\TriCarb\Assays\Low Level H3.lsa

Count Conditions-

Nuclide: LL H3
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: LL H3 PLASTIC
Count Time (min): 360.00
Count Mode: Low Level
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: Off
Low CPM Threshold: Off
2 Sigma % Terminator: On - Any Region

Regions	LL	UL	2Sigma % Terminator
A	0.0	18.6	0.50
B	0.0	2000.0	0.00
C	0.0	2000.0	0.00

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time

A
B
C

Cycle 1 Results
Quench Curve Block Data

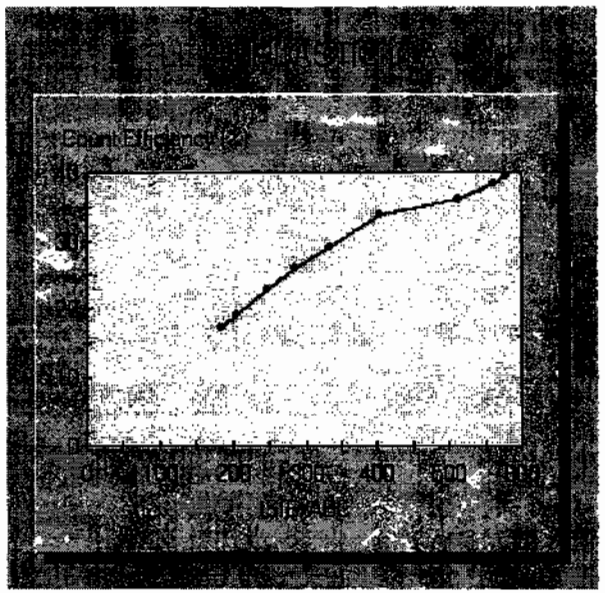

Date Acquired: 09/08/2009
Date Modified:
LL H3 PLASTIC in A

tSIE/AEC	Count Efficiency (%)
577.71	39.37
561.32	38.19
514.09	36.15
404.21	33.71
334.90	29.12
284.93	26.04
246.14	22.78
207.51	19.18
185.88	17.18

Protocol# 2 - Low Level H3.lsa User: H3 Low Level

P#	S#	SMPL_ID	Count Time	CPMA	DPM1	tSIE	Eff Nucl In A	DATE	TIME	MESSAGES
2	1	B09-05378-05D	360.00	1.663	4.60	512.14	36.11	1/17/2010	11:21:37 AM	
2	2	B09-05378-06	360.00	5.315	14.71	512.91	36.13	1/17/2010	5:33:59 PM	
2	3	B09-05378-06D	360.00	6.324	17.62	502.58	35.90	1/17/2010	11:46:14 PM	
2	4	B09-05378-07D	360.00	6.483	17.84	518.58	36.35	1/18/2010	5:58:29 AM	
2	5	B09-05378-08	360.00	8.386	23.29	507.40	36.00	1/18/2010	12:10:44 PM	
2	6	B09-05378-09	360.00	7.953	21.93	516.80	36.27	1/18/2010	6:22:51 PM	
2	7	B09-05378-09D	360.00	8.624	23.92	509.90	36.06	1/19/2010	12:34:53 AM	
2	8	B09-05378-10	360.00	25.962	71.89	512.37	36.11	1/19/2010	6:46:59 AM	
2	9	B09-05378-10D	360.00	29.819	82.51	513.60	36.14	1/19/2010	12:59:22 PM	
2	10	B09-05378-11	360.00	20.867	57.97	507.07	36.00	1/19/2010	7:11:49 PM	
2	11	B09-06378-11D	360.00	23.276	65.14	495.26	35.73	1/20/2010	1:24:10 AM	
2	12	B09-05378-12	360.00	1.737	4.83	505.72	35.97	1/20/2010	7:36:45 AM	
2	13	B09-05378-12D	360.00	1.752	4.91	493.15	35.69	1/20/2010	1:49:06 PM	

ARS-054

ID_31001_054	ABatch	ABatchSampleID	ClientID	Aliquot1	AliquotUnits1	IC_ID1	Aliquot2	AliquotUnits2	IC_ID2	UserID	ModDate
4281	ARS1-B09-05378	ARS1-B09-05378-01		1	g					JRABER	01/19/2010 11:12:28
4282	ARS1-B09-05378	ARS1-B09-05378-02		1	g					JRABER	01/19/2010 11:12:28
4283	ARS1-B09-05378	ARS1-B09-05378-03		1	g					JRABER	01/19/2010 11:12:28
4284	ARS1-B09-05378	ARS1-B09-05378-04	GW54-10-7740	5.04	g	42515				JRABER	01/19/2010 11:12:28
4285	ARS1-B09-05378	ARS1-B09-05378-05	GW54-10-7741	0	g	42521				JRABER	01/19/2010 11:12:28
4286	ARS1-B09-05378	ARS1-B09-05378-06	CAPA-10-6823	5.02	g	42522				JRABER	01/19/2010 11:12:28
4287	ARS1-B09-05378	ARS1-B09-05378-07	CAPA-10-6824	0	g	42523				JRABER	01/19/2010 11:12:28
4288	ARS1-B09-05378	ARS1-B09-05378-08	CAPA-10-6390	5.02	g	42524				JRABER	01/19/2010 11:12:28
4289	ARS1-B09-05378	ARS1-B09-05378-09	CAPA-10-6746	5.01	g	42525				JRABER	01/19/2010 11:12:28
4290	ARS1-B09-05378	ARS1-B09-05378-10	CAPA-10-6753	5.01	g	42526				JRABER	01/19/2010 11:12:28
4291	ARS1-B09-05378	ARS1-B09-05378-11	CAPA-10-6767	3.83	g	42527				JRABER	01/19/2010 11:12:28
4292	ARS1-B09-05378	ARS1-B09-05378-12	CAPA-10-6793	5.02	g	42528				JRABER	01/19/2010 11:12:28

Batch ID	ARS1-B09-05378
Method	LSC-A-022
Client	ARS-054
Matrix	AQ

	Date	Type	Batch Technical Notes	User ID
1	01/11/10 10:49	CHEMISTRY	B09-05378-02 After enrichment complete, remaining water has a slight yellowish tint and black particles were observed at bottom of electrolysis cell.	JRABER
2	[illegible]	CHEMISTRY	[illegible]	JRABER
3	01/11/10 11:04	CHEMISTRY	B09-05378-05; B09-05378-07; B09-05378-08D These 3 samples were lost during the enrichment stage of the analysis. Samples were checked and all had water levels of not less than 100mL before leaving for the weekend. I came into the lab Sunday morning to check on the samples and the levels should have been at no less than 50mL of water remaining in the electrolytic cells; however the 3 cells were completely dry. It is my opinion that the increased amount of sodium peroxide increases the rate of water reduction substantially greater than the rate of 1mL/hr as written in the procedure.	JRABER
4	[illegible]	CHEMISTRY	[illegible]	JRABER
5	01/13/10 12:32	CHEMISTRY	B09-05378-01 After enrichment complete, small amount of black precipitate in bottom of cell (less than in B09-05378-02).	JRABER
6	[illegible]	CHEMISTRY	[illegible]	JRABER
7	01/14/10 14:58	CHEMISTRY	B09-05378-05D After enrichment complete, remaining water had small amount of black precipitate observed at bottom of electrolytic cell.	JRABER
8	[illegible]	CHEMISTRY	[illegible]	JRABER
9	01/16/10 12:32	CHEMISTRY	Humidity increased drastically on 1-16-2010. For the entire course of the analysis, the humidity has been between 15% and 35%. However, today it is nearly 80%.	JRABER
10	[illegible]	CHEMISTRY	[illegible]	JRABER
11	01/16/10 19:16	CHEMISTRY	B09-05378-09 After completion of enrichment, there was a small amount of black precipitate observed in the bottom of the electrolytic cell.	JRABER
12	[illegible]	CHEMISTRY	[illegible]	JRABER
13	01/17/10 15:41	CHEMISTRY	B09-05378-10D had very small amount of black precipitate in electrolytic cell after completion of enrichment.	JRABER
14	[illegible]	CHEMISTRY	[illegible]	JRABER
15	01/18/10 14:14	CHEMISTRY	B09-05378-11 Had great difficulty cryo-distilling this sample. Some of the sample was undoubtedly lost as condensation built up in the upper regions of the stem and was probably sucked out by vacuum.	JRABER
16	[illegible]	CHEMISTRY	[illegible]	JRABER
17	01/19/10 08:22	CHEMISTRY	B09-05378-12 After completion of enrichment, a moderate amount of black precipitate was observed in bottom of electrolytic cell.	JRABER
18	[illegible]	CHEMISTRY	[illegible]	JRABER

[illegible]	**ARS1-B09-05378**
[illegible]	**LSC-A-022**
[illegible]	**ARS-054**
[illegible]	**AQ**

[illegible]	Date	[illegible]	[illegible]	User ID
19	01/19/10 08:49	**CHEMISTRY**	Some type of system malfunction occurred in the liquid scintillator sometime after 19:00 hrs 1-16-10 causing a 12 hour delay in counting. The Background, LCS, LCSD, MBL, and B09-05378-04 had already been counted before the malfunction took place. Therefore, I took 5 samples out of the LSC tray and replaced them starting with B09-05378-05D. Counting was resumed at 11:15 hrs on 1-17-10. Samples were transferred from tray 16 to tray 5. I discussed this with Brian and he seems to believe that the malfunction was tray related.	JRABER
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Beta Liquid Scintillation Counter Log Book

Date	Time	ARS Sample I.D. Number	Batch Number	Liquid Scintillation File Number	Technician Initials
1-15-10	1049	SNC 51	QA	QA	
↓	↓	Background	B10-00136		
↓	↓	B10-00136-01	↓		
↓	↓	B10-00136-02	↓		
↓	↓	B10-00136-03	↓		
↓	↓	B10-00136-04	↓		
↓	↓	B10-00136-05	↓		
↓	↓	B10-00136-06 1-19-10	↓		
↓	↓	B10-00136-07	↓		
↓	↓	B10-00136-08	↓		
↓	↓	B10-00136-09	↓		
↓	↓	B10-00136-10	↓		
↓	↓	B10-00136-11	↓		
↓	↓	B10-00136-12	↓		
↓	↓	B10-00136-13	↓		
↓	↓	B10-00136-14	↓		
1-17-10	1108	B09-05378-05D	B09-05378	1112	SDR
↓	↓	B09-05378-06	↓	↓	SDR
↓	↓	B09-05378-06D	↓	↓	SDR
↓	↓	B09-05378-07D	↓	↓	SDR

Reviewed By: JB Date: 1-22-10
Initials

Beta Liquid Scintillation Counter Log Book

Date	Time	ARS Sample I.D. Number	Batch Number	Liquid Scintillation File Number	Technician Initials
1-12-10	1108	B09-05378-08	B09-05378	1112	JDR
↓	↓	B09-05378-09	↓	↓	JDR
↓	↓	B09-05378-09D	↓	↓	JDR
↓	↓	B09-05378-10	↓	↓	JDR
↓	↓	B09-05378-10D	↓	↓	JDR
↓	↓	B09-05378-11	↓	↓	JDR
↓	↓	B09-05378-11D	↓	↓	JDR
↓	↓	B09-05378-12	↓	↓	JDR
↓	↓	B09-05378-12D	↓	↓	JDR
1-20-10	1313	SNC 51	Q4	Q4 2128 ~~1112~~ 1-21-10	[illegible]
↓	↓	Background	B10-00288		[illegible]
↓	↓	B10-00288-01	↓	↓	[illegible]
↓	↓	B10-00288-02	↓	↓	[illegible]
↓	↓	B10-00288-03	↓	↓	[illegible]
↓	↓	B10-00288-04	↓	↓	[illegible]
↓	↓	B10-00288-05	↓	↓	[illegible]
↓	↓	B10-00288-06	↓	↓	[illegible]
↓	↓	B10-00288-07	↓	↓	[illegible]
↓	↓	B10-00288-08	↓	↓	[illegible]
↓	↓	B10-00288-09	↓	↓	[illegible]

Reviewed By: JD Initials Date: 1-22-10

ARS INTERNATIONAL

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American Radiation Services Analytical Reports

for

Los Alamos National Laboratory

Low Level Tritium by Low Level Liquid Scintillation Counting

Control Charts

3H Efficiency
Total # pts : 5014
Valid # pts : 38
Mean : 64.44
SD : 0.15

Date	Value	Valid Pt
Nov 15, 2009	64.35	X
Nov 15, 2009	64.28	X
Nov 15, 2009	64.37	X
Nov 15, 2009	64.56	X
Nov 15, 2009	64.58	X
Nov 15, 2009	64.56	X
Nov 15, 2009	64.46	X
Nov 16, 2009	64.65	X
Nov 16, 2009	64.39	X
Nov 16, 2009	64.46	X
Nov 16, 2009	64.23	X
Nov 16, 2009	64.38	X
Nov 16, 2009	64.53	X
Dec 02, 2009	64.10	X
Dec 04, 2009	64.32	X
Dec 06, 2009	64.38	X
Dec 06, 2009	64.56	X
Dec 06, 2009	64.46	X
Dec 06, 2009	64.65	X
Dec 06, 2009	64.68	X
Dec 06, 2009	64.60	X
Dec 06, 2009	64.50	X
Dec 07, 2009	64.46	X
Dec 07, 2009	64.57	X
Dec 07, 2009	64.26	X
Dec 07, 2009	64.68	X
Dec 07, 2009	64.22	X
Dec 07, 2009	64.18	X
Dec 07, 2009	64.48	X
Dec 09, 2009	64.34	X
Dec 11, 2009	64.50	X
Dec 14, 2009	64.32	X
Dec 18, 2009	64.58	X
Jan 08, 2010	64.47	X
Jan 11, 2010	64.49	X
Jan 13, 2010	64.25	X
Jan 16, 2010	64.40	X
Jan 20, 2010	64.41	X

3H Efficiency

Total # pts	: 5014
Valid # pts	: 38
Mean	: 64.44
SD	: 0.15

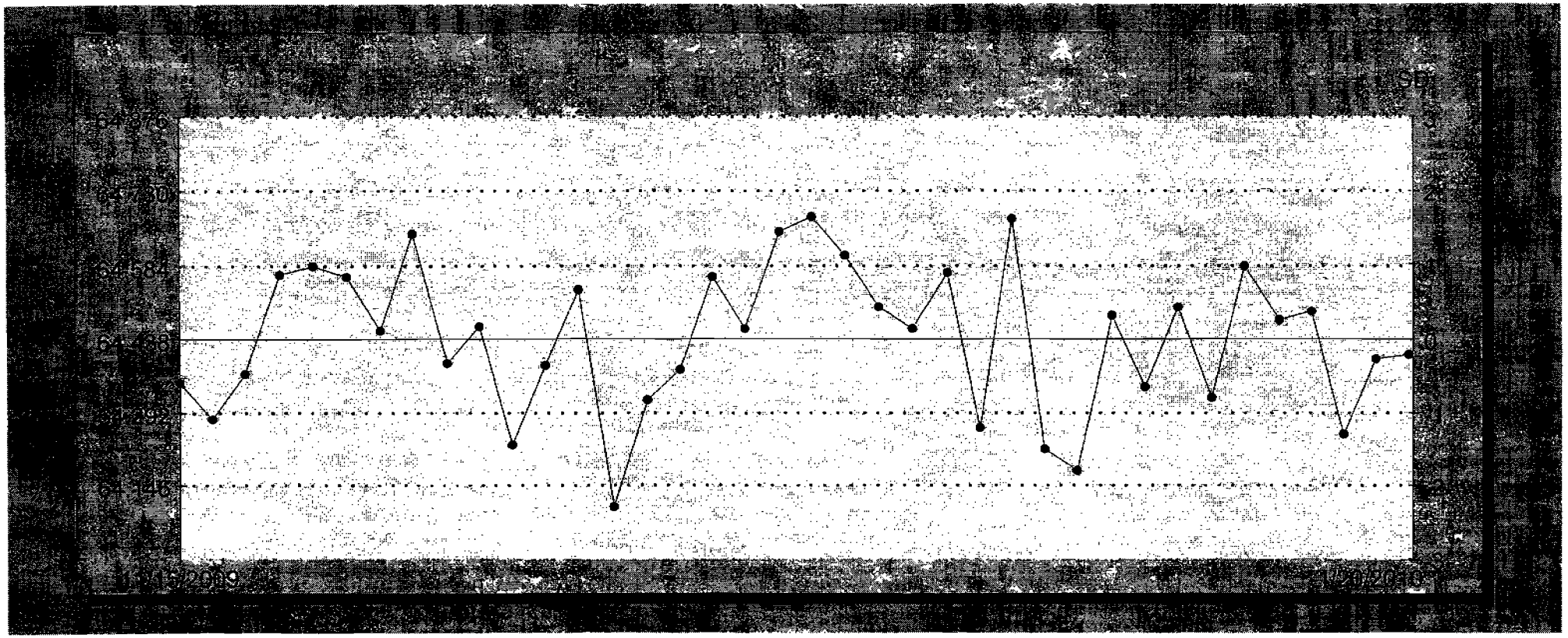

3H Background
Total # pts : 4950
Valid # pts : 37
Mean : 2.15
SD : 0.20

Date	Value	Valid Pt
Nov 15, 2009	1.90	X
Nov 15, 2009	2.13	X
Nov 15, 2009	2.05	X
Nov 15, 2009	2.00	X
Nov 15, 2009	2.56	X
Nov 15, 2009	1.99	X
Nov 15, 2009	2.29	X
Nov 16, 2009	2.37	X
Nov 16, 2009	1.99	X
Nov 16, 2009	1.99	X
Nov 16, 2009	2.24	X
Nov 16, 2009	2.07	X
Nov 16, 2009	2.19	X
Dec 02, 2009	2.40	X
Dec 04, 2009	2.56	X
Dec 06, 2009	2.20	X
Dec 06, 2009	1.98	X
Dec 06, 2009	1.94	X
Dec 06, 2009	2.51	X
Dec 06, 2009	2.31	X
Dec 06, 2009	2.19	X
Dec 06, 2009	2.16	X
Dec 07, 2009	2.29	X
Dec 07, 2009	1.89	X
Dec 07, 2009	2.15	X
Dec 07, 2009	1.86	X
Dec 07, 2009	2.36	X
Dec 07, 2009	2.13	X
Dec 09, 2009	2.09	X
Dec 11, 2009	2.32	X
Dec 14, 2009	1.93	X
Dec 18, 2009	2.30	X
Jan 08, 2010	1.90	X
Jan 11, 2010	2.21	X
Jan 13, 2010	1.79	X
Jan 16, 2010	2.08	X
Jan 20, 2010	2.12	X

3H Background

Total # pts	: 4950
Valid # pts	: 37
Mean	: 2.15
SD	: 0.20

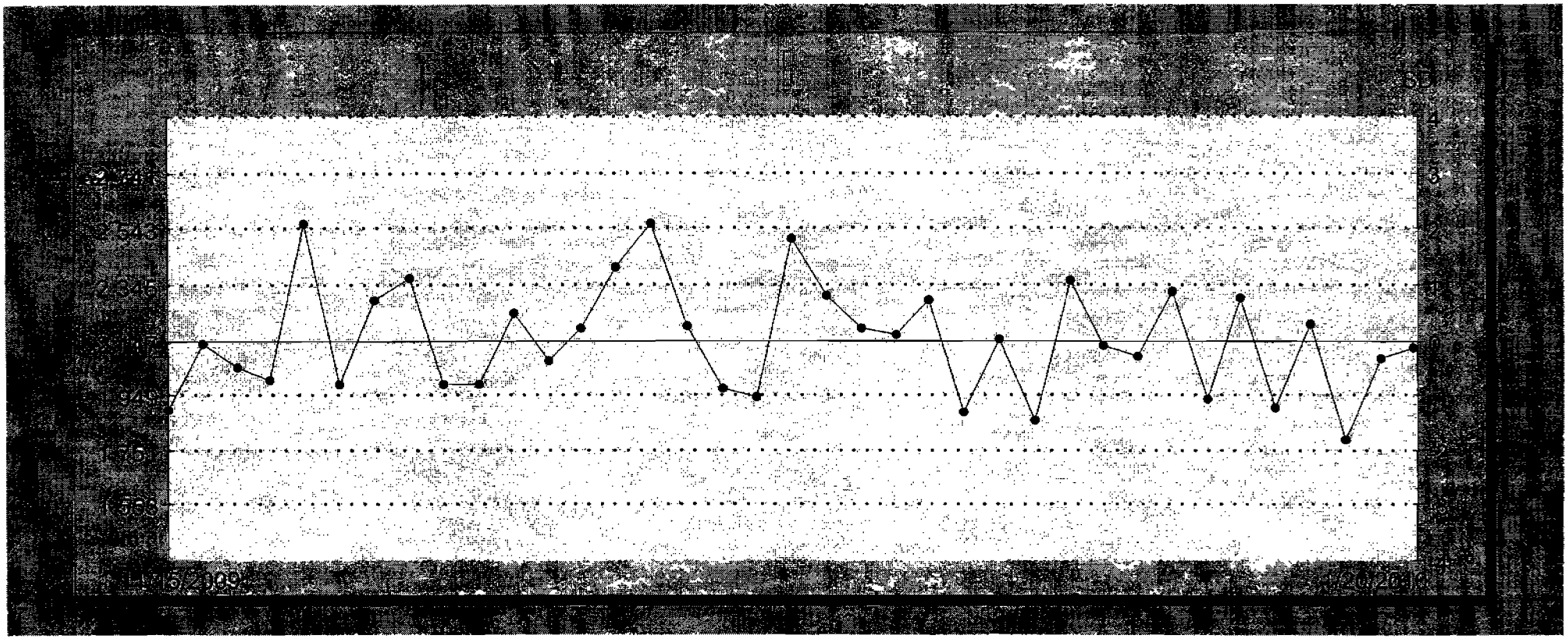

ARS INTERNATIONAL
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American Radiation Services Analytical Reports

for

Los Alamos National Laboratory

Low Level Liquid Scintillation Counting

Calibration Information

Glass

ARS INTERNATIONAL

QUALITY CONTROL PROGRAM

AMERICAN RADIATION SERVICES
RADIOACTIVE REFERENCE SOLUTIONS

ANNUAL ACTIVITY VERIFICATION

VERIFICATION DATE: 5/1/2009 23:44 *date counted*
STANDARD REFERENCE #: S-0206

Principal Radionuclide		Half Life, Years		Half Life, Days
H-3	ENTER -->		OR -->	4.4998E+03
		1.232E+01		4.4998E+03

Radionuclide: H-3 — Dilution Reference Date: 2/25/2009 8:30

Dilution Activity	3.01	pCi per gram ===> dpm/g	6.68
Verif. Date Decay Corrected	2.98	pCi per gram ===> dpm/g	6.61

Minimum of 3 Required

Trial ID	Sample Counts	Count Time (min)	Detector	Efficiency	Bkg. (cpm)	Net Weight	Decay Corrected Activity Result (dpm/g)	Decay Corrected Activity Result (pCi/g)
S-0206-V1B	11.20	1	LSC	0.2909	1.80	5.026	6.43	2.90
S-0206-V2B	11.38	1	LSC	0.2898	1.80	5.037	6.56	2.96
S-0206-V3B	11.62	1	LSC	0.2887	1.80	5.022	6.78	3.05
S-0206-V4B	11.66	1	LSC	0.2924	1.80	5.028	6.71	3.02
S-0206-V5B	11.87	1	LSC	0.2916	1.80	5.036	6.86	3.09

Average	6.67	3.00
Two Sigma Uncertainty	0.34	0.15
Standard Deviation percent of known concentration	2.59%	2.59%
Target Activity	6.61	2.98
% Diff	0.86%	0.86%

10% Max ***PASS*** — ***5% Max*** ***PASS***

Verification Expiration Date: May 1, 2010

Prepared & Counted By: [signature] Date: 5/1/2009 23:44

Verified & Approved By: Lindsay Kaumel Date: 5-4-09

QC Approval: [signature] Date: 5-4-09

H-3 Standard Verification

Verifier's Name: Brian Steffens **Date:** 3/19/2009

Pipettor ID: CH84076

Pipettor ID: Auto-pipettor

Pipettor ID: na

Standard ID: S-0206

Standard ID: N/A

Standards brought up to ~5g with distilled dead water.
Standards made in glass vials.

15mL of Ultima Gold added to standard

	Weight of Standard
S-0206-V1B	5.026 **g**
S-0206-V2B	5.037 **g**
S-0206-V3B	5.022 **g**
S-0206-V4B	5.028 **g**
S-0206-V5B	5.036 **g**

Balance ID: H1331122173560P

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American Radiation Services Analytical Reports

for

Los Alamos National Laboratory

Tritium- Screening by Low Level Liquid Scintillation Counting

Analysis Batch Report

ARS INTERNATIONAL

Analysis Batch ID **ARS1-B09-05400**

Method	ARS-054	Analysis	LSC-A-021	Matrix	AQ
Description	TRITIUM IN WATER				

ABatch Sample ID	Type	Blind Iso1	Blind Iso2	Blind Iso3	SDG	FR	Run	Client ID	Isotope Group	Lab Deadline
ARS1-B09-05400-01	LCS									
ARS1-B09-05400-02	LCSD									
ARS1-B09-05400-03	MBL									
ARS1-B09-05400-04	TRG				ARS1-09-03109	001	1	GW54-10-7740		01/18/10
ARS1-B09-05400-05	TRG				ARS1-09-03109	002	1	GW54-10-7741		01/18/10
ARS1-B09-05400-06	TRG				ARS1-09-03110	001	1	CAPA-10-6823		01/18/10
ARS1-B09-05400-07	TRG				ARS1-09-03110	002	1	CAPA-10-6824		01/18/10
ARS1-B09-05400-08	TRG				ARS1-09-03111	001	1	CAPA-10-6390		01/18/10
ARS1-B09-05400-09	TRG				ARS1-09-03111	002	1	CAPA-10-6746		01/18/10
ARS1-B09-05400-10	TRG				ARS1-09-03111	003	1	CAPA-10-6753		01/18/10
ARS1-B09-05400-11	TRG				ARS1-09-03111	004	1	CAPA-10-6767		01/18/10
ARS1-B09-05400-12	TRG				ARS1-09-03111	005	1	CAPA-10-6793		01/18/10

Background consists of 5.04 g of distilled dead H_2O w/ ~15 g of Ultima Gold LLT cocktail.

Procedures: **ARS-060** **ARS-040** *Section 14.1 Tritium Screen in Clean Water without Distillation*

ARS File ID Numbers: ARS1-09-03109, -03110, -03111
ARS Batch ID: ARS1-B09-05400

	Sample ID:	COUNT TIME	CPMA	Background CPMA	Eff Nucl In A	Aliquot (grams)	ACTIVITY	units	MDA	Sample Must be analyzed as LSC-A-001
1	ARS1-09-03109-001	120	0.974	1.135	22.73	5.00	-63.812	pCi/L	228.9477	NO
2	ARS1-09-03109-002	120	1.261	1.135	26.7	5.01	42.430	pCi/L	194.5166	NO
3	ARS1-09-03110-001	120	1.570	1.135	34.23	5.00	114.488	pCi/L	152.0298	NO
4	ARS1-09-03110-002	120	1.234	1.135	29.7	5.03	29.851	pCi/L	174.1732	NO
5	ARS1-09-03111-001	120	1.372	1.135	28.05	5.00	76.119	pCi/L	185.5252	NO
6	ARS1-09-03111-002	120	1.552	1.135	30.25	5.02	123.696	pCi/L	171.3471	NO
7	ARS1-09-03111-003	120	1.909	1.135	33.46	5.03	207.154	pCi/L	154.6008	YES, analyze by LSC-A-001. *
8	ARS1-09-03111-004	120	1.840	1.135	29.5	5.03	214.016	pCi/L	175.354	YES, analyze by LSC-A-001. *
9	ARS1-09-03111-005	120	1.266	1.135	33.87	5.01	34.775	pCi/L	153.3391	NO
10							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
11							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
12							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
13							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
14							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
15							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
16							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
17							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
18							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
19							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
20							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
21							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
22							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!
23							#DIV/0!	pCi/L	#DIV/0!	#DIV/0!

* Processing of Samples via low level method authorized by Virgene Mulligan
1-22-10

Low Low Level H-3 Testing

Assay Definition-

Assay Description:
Low Low Level Tritium

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\ARS\Low Low Level Tritium\20091225_2354
Raw Results Path: C:\Packard\Tricarb\Results\ARS\Low Low Level Tritium\20091225_2354\20091225_2354.results
RTF File Name: C:\Packard\Tricarb\Results\ARS\Low Low Level Tritium\20091225_2354\Report1.rtf
Comma-Delimited File Name: C:\Packard\Tricarb\Results\ARS\Low Low Level Tritium\20091225_2354\Report1.txt
Assay File Name: C:\Packard\TriCarb\Assays\Low Low Level Tritium.lsa

Count Conditions-

Nuclide: H-3 LL
Quench Indicator: tSIE/AEC
External Std Terminator (sec): 0.5 2s%
Pre-Count Delay (min): 0.00
Quench Set:
Low Energy: ARS LL H3
Count Time (min): 120.00
Count Mode: Low Level
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: Off
Low CPM Threshold: Off
2 Sigma % Terminator: On - Any Region

Regions	LL	UL	2Sigma % Terminator
A	2.0	18.6	0.50
B	0.0	2000.0	0.00
C	0.0	2000.0	0.00

Count Corrections-

Static Controller: On Luminescence Correction: Off
Colored Samples: Off Heterogeneity Monitor: Off
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time

Protocol# 41 - Low Low Level Tritium.lsa User: ARS

Low Low Level H-3 Testing

A
B
C

Cycle 1 Results
Quench Curve Block Data

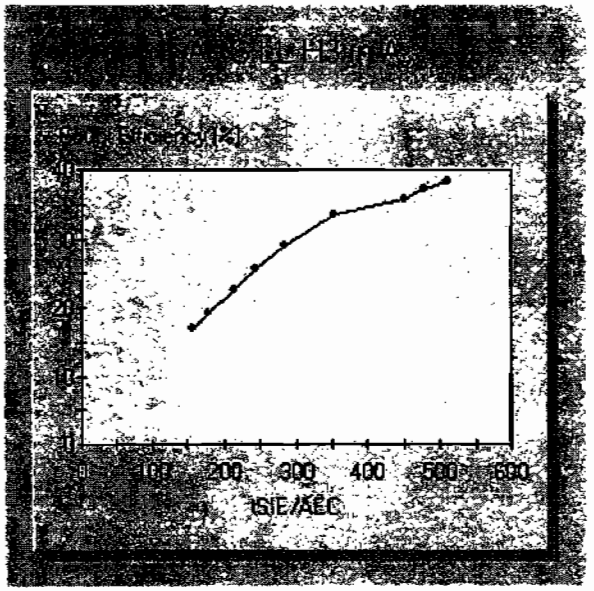

Date Acquired: 08/20/2009
Date Modified:
ARS LL H3 in A

tSIE/AEC	Count Efficiency (%)
511.20	38.34
478.38	37.12
449.85	35.67
353.69	33.62
285.92	29.01
244.67	25.63
213.71	22.60
179.76	19.18
158.61	16.81

Protocol# 41 - Low Low Level Tritium.lsa User: ARS

Low Low Level H-3 Testing

P#	S#	SMPL_ID	Count Time	CPMA	DPM1	tSIE	Eff Nucl In A	DATE	TIME	MESSAGES
41	1	BACKGROUND	120.00	1.135	3.890	288.45	29.18	12/26/2009	12:03:56 AM	
41	2	B09-05400-04	120.00	0.974	4.285	214.97	22.73	12/26/2009	2:14:17 AM	
41	3	B09-05400-05	120.00	1.261	4.722	257.72	26.70	12/26/2009	4:24:42 AM	
41	4	B09-05400-06	120.00	1.570	4.588	382.26	34.23	12/26/2009	6:35:07 AM	
41	5	B09-05400-07	120.00	1.234	4.156	296.12	29.70	12/26/2009	8:45:30 AM	
41	6	B09-05400-08	120.00	1.372	4.892	274.23	28.05	12/26/2009	10:55:53 AM	
41	7	B09-05400-09	120.00	1.552	5.129	304.15	30.25	12/26/2009	1:06:19 PM	
41	8	B09-05400-10	120.00	1.909	5.704	351.30	33.46	12/26/2009	3:16:47 PM	
41	9	B09-05400-11	120.00	1.840	6.235	293.25	29.50	12/26/2009	5:27:15 PM	
41	10	B09-05400-12	120.00	1.266	3.739	365.49	33.87	12/26/2009	7:37:40 PM	

ARS-054

ID_31001_054	ABatch	ABatchSampleID	ClientID	Aliquot1	AliquotUnits1	IC_ID1	Aliquot2	AliquotUnits2	IC_ID2	UserID	ModDate
4293	ARS1-B09-05400	ARS1-B09-05400-01		0	g					JRABER	12/23/2009 10:42:53
4294	ARS1-B09-05400	ARS1-B09-05400-02		0	g					JRABER	12/23/2009 10:42:53
4295	ARS1-B09-05400	ARS1-B09-05400-03		0	g					JRABER	12/23/2009 10:42:53
4296	ARS1-B09-05400	ARS1-B09-05400-04	GW54-10-7740	5	g	42579				JRABER	12/23/2009 10:42:54
4297	ARS1-B09-05400	ARS1-B09-05400-05	GW54-10-7741	5.01	g	42580				JRABER	12/23/2009 10:42:54
4298	ARS1-B09-05400	ARS1-B09-05400-06	CAPA-10-6823	5	g	42582				JRABER	12/23/2009 10:42:54
4299	ARS1-B09-05400	ARS1-B09-05400-07	CAPA-10-6824	5.03	g	42583				JRABER	12/23/2009 10:42:55
4300	ARS1-B09-05400	ARS1-B09-05400-08	CAPA-10-6390	5	g	42584				JRABER	12/23/2009 10:42:55
4301	ARS1-B09-05400	ARS1-B09-05400-09	CAPA-10-6746	5.02	g	42586				JRABER	12/23/2009 10:42:56
4302	ARS1-B09-05400	ARS1-B09-05400-10	CAPA-10-6753	5.03	g	42587				JRABER	12/23/2009 10:42:56
4303	ARS1-B09-05400	ARS1-B09-05400-11	CAPA-10-6767	5.03	g	42589				JRABER	12/23/2009 10:42:56
4304	ARS1-B09-05400	ARS1-B09-05400-12	CAPA-10-6793	5.01	g	42590				JRABER	12/23/2009 10:42:57

Beta Liquid Scintillation Counter Log Book

Date	Time	ARS Sample I.D. Number	Batch Number	Liquid Scintillation File Number	Technician Initials
12-22-09	1625	B09-05307-04	B09-05307	1956	[illegible]
↓	↓	B09-05307-05	↓	↓	[illegible]
↓	↓	B09-05307-06	↓	↓	[illegible]
↓	↓	B09-05307-07	↓	↓	[illegible]
↓	↓	B09-05307-08	↓	↓	[illegible]
↓	↓	B09-05307-09	↓	↓	[illegible]
↓	↓	B09-05307-10	↓	↓	[illegible]
↓	↓	B09-05307-11	↓	↓	[illegible]
↓	↓	B09-05307-12	↓	↓	[illegible]
↓	↓	B09-05307-13	↓	↓	[illegible]
↓	↓	B09-05307-14	↓	↓	[illegible]
↓	↓	B09-05307-15	↓	↓	[illegible]
12-23-09	1057	SNC 117	QA	QA	[illegible]
↓	↓	Background	B09-05400	2354	[illegible]
↓	↓	B09-05400-04	↓	↓	[illegible]
↓	↓	B09-05400-05	↓	↓	[illegible]
↓	↓	B09-05400-06	↓	↓	[illegible]
↓	↓	B09-05400-07	↓	↓	[illegible]
↓	↓	B09-05400-08	↓	↓	[illegible]
↓	↓	B09-05400-09	↓	↓	[illegible]

Reviewed By: JB Date: 1-22-10
Initials

Beta Liquid Scintillation Counter Log Book

Date	Time	ARS Sample I.D. Number	Batch Number	Liquid Scintillation File Number	Technician Initials
12-23-09	1057	B09-05400-10	B09-05400-	2354	[illegible]
↓	↓	B09-05400-11	↓	↓	[illegible]
↓	↓	B09-05400-12	↓	↓	[illegible]

[illegible] 12-28-09

Reviewed By: JB Date: 1-22-10
Initials

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American Radiation Services Analytical Reports

for

Los Alamos National Laboratory

Tritium-Screening by Low Level Liquid Scintillation Counting

Control Charts

3H Efficiency
Total # pts : 1358
Valid # pts : 57
Mean : 65.12
SD : 0.20

Date	Value	Valid Pt
Dec 03, 2009	65.11	X
Dec 03, 2009	64.92	X
Dec 05, 2009	64.95	X
Dec 05, 2009	65.28	X
Dec 05, 2009	65.27	X
Dec 05, 2009	64.56	X
Dec 05, 2009	64.83	X
Dec 05, 2009	65.42	X
Dec 05, 2009	65.07	X
Dec 05, 2009	64.83	X
Dec 05, 2009	65.16	X
Dec 06, 2009	65.29	X
Dec 06, 2009	65.19	X
Dec 06, 2009	65.23	X
Dec 06, 2009	64.91	X
Dec 06, 2009	65.00	X
Dec 06, 2009	65.36	X
Dec 06, 2009	65.02	X
Dec 06, 2009	65.44	X
Dec 06, 2009	65.07	X
Dec 06, 2009	64.86	X
Dec 06, 2009	65.09	X
Dec 06, 2009	65.41	X
Dec 06, 2009	65.22	X
Dec 06, 2009	65.01	X
Dec 07, 2009	65.11	X
Dec 07, 2009	65.25	X
Dec 07, 2009	64.97	X
Dec 07, 2009	65.30	X
Dec 07, 2009	65.40	X
Dec 07, 2009	64.93	X
Dec 07, 2009	65.31	X
Dec 08, 2009	65.26	X
Dec 15, 2009	65.40	X
Dec 16, 2009	65.21	X
Dec 21, 2009	65.24	X
Dec 25, 2009	64.94	X
Dec 26, 2009	65.32	X
Dec 27, 2009	65.25	X
Dec 27, 2009	65.08	X
Dec 27, 2009	64.77	X
Dec 27, 2009	65.26	X
Dec 27, 2009	65.32	X
Dec 27, 2009	65.09	X
Dec 27, 2009	65.09	X
Dec 27, 2009	64.82	X
Dec 27, 2009	65.20	X

Dec 27, 2009	65.21	X
Dec 27, 2009	65.19	X
Dec 27, 2009	64.96	X
Dec 27, 2009	65.04	X
Dec 27, 2009	65.44	X
Dec 28, 2009	65.06	X
Dec 28, 2009	64.67	X
Dec 28, 2009	65.20	X
Dec 28, 2009	64.99	X
Dec 28, 2009	64.94	X

3H Efficiency

Total # pts	: 1358
Valid # pts	: 57
Mean	: 65.12
SD	: 0.20

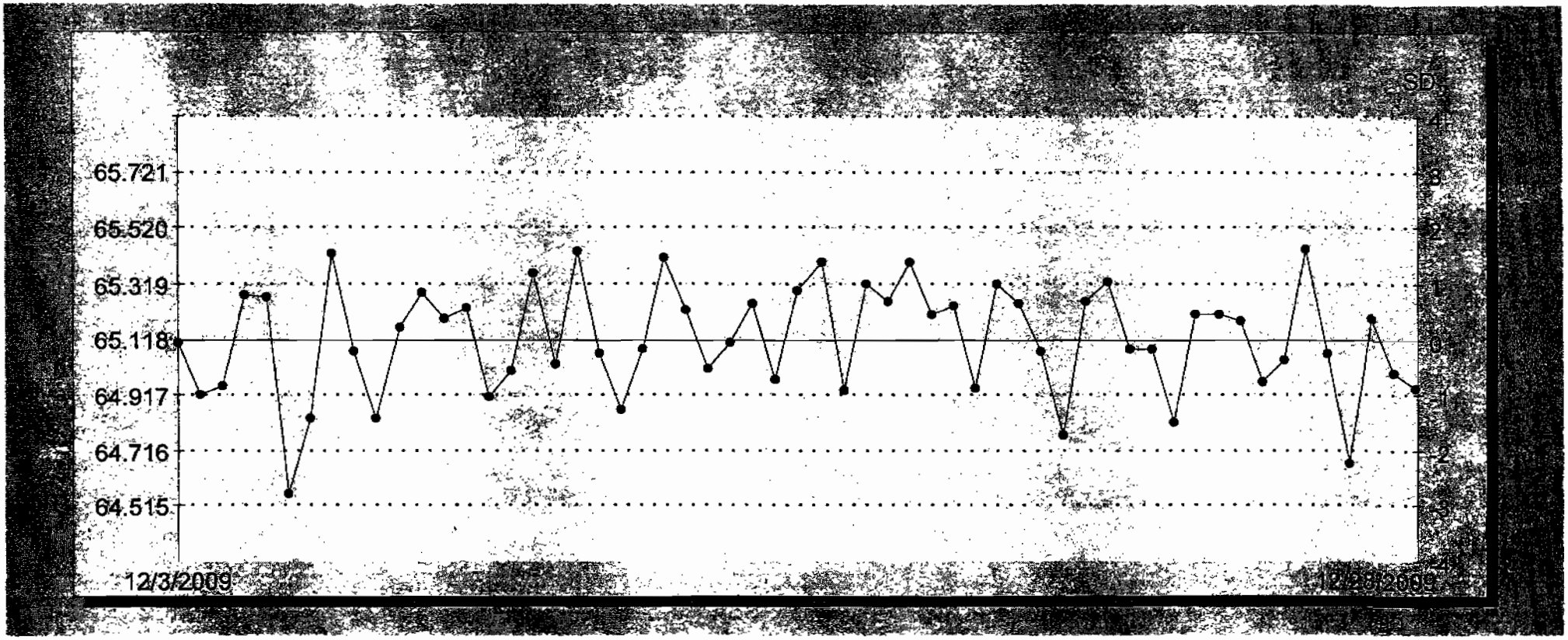

3H Background

Total # pts	: 1323
Valid # pts	: 58
Mean	: 2.45
SD	: 0.24

Date	Value	Valid Pt
Dec 02, 2009	2.20	X
Dec 03, 2009	2.07	X
Dec 03, 2009	1.93	X
Dec 05, 2009	2.49	X
Dec 05, 2009	2.58	X
Dec 05, 2009	2.38	X
Dec 05, 2009	2.54	X
Dec 05, 2009	2.41	X
Dec 05, 2009	2.76	X
Dec 05, 2009	2.39	X
Dec 05, 2009	2.45	X
Dec 05, 2009	2.69	X
Dec 06, 2009	2.76	X
Dec 06, 2009	2.55	X
Dec 06, 2009	2.60	X
Dec 06, 2009	2.61	X
Dec 06, 2009	2.50	X
Dec 06, 2009	2.44	X
Dec 06, 2009	2.54	X
Dec 06, 2009	2.11	X
Dec 06, 2009	2.41	X
Dec 06, 2009	2.68	X
Dec 06, 2009	2.45	X
Dec 06, 2009	2.66	X
Dec 06, 2009	2.99	X
Dec 06, 2009	2.37	X
Dec 07, 2009	2.35	X
Dec 07, 2009	3.05	X
Dec 07, 2009	2.88	X
Dec 07, 2009	2.61	X
Dec 07, 2009	2.41	X
Dec 07, 2009	2.37	X
Dec 07, 2009	2.73	X
Dec 08, 2009	2.00	X
Dec 15, 2009	2.66	X
Dec 16, 2009	2.20	X
Dec 21, 2009	2.76	X
Dec 25, 2009	2.29	X
Dec 26, 2009	2.48	X
Dec 27, 2009	2.17	X
Dec 27, 2009	2.58	X
Dec 27, 2009	2.48	X
Dec 27, 2009	2.54	X
Dec 27, 2009	2.24	X
Dec 27, 2009	1.90	X
Dec 27, 2009	2.37	X
Dec 27, 2009	2.79	X

Dec 27, 2009	2.14	X
Dec 27, 2009	2.27	X
Dec 27, 2009	2.40	X
Dec 27, 2009	2.20	X
Dec 27, 2009	2.31	X
Dec 27, 2009	2.42	X
Dec 28, 2009	2.33	X
Dec 28, 2009	2.12	X
Dec 28, 2009	2.36	X
Dec 28, 2009	2.42	X
Dec 28, 2009	2.58	X

3H Background
Total # pts : 1323
Valid # pts : 58
Mean : 2.45
SD : 0.24

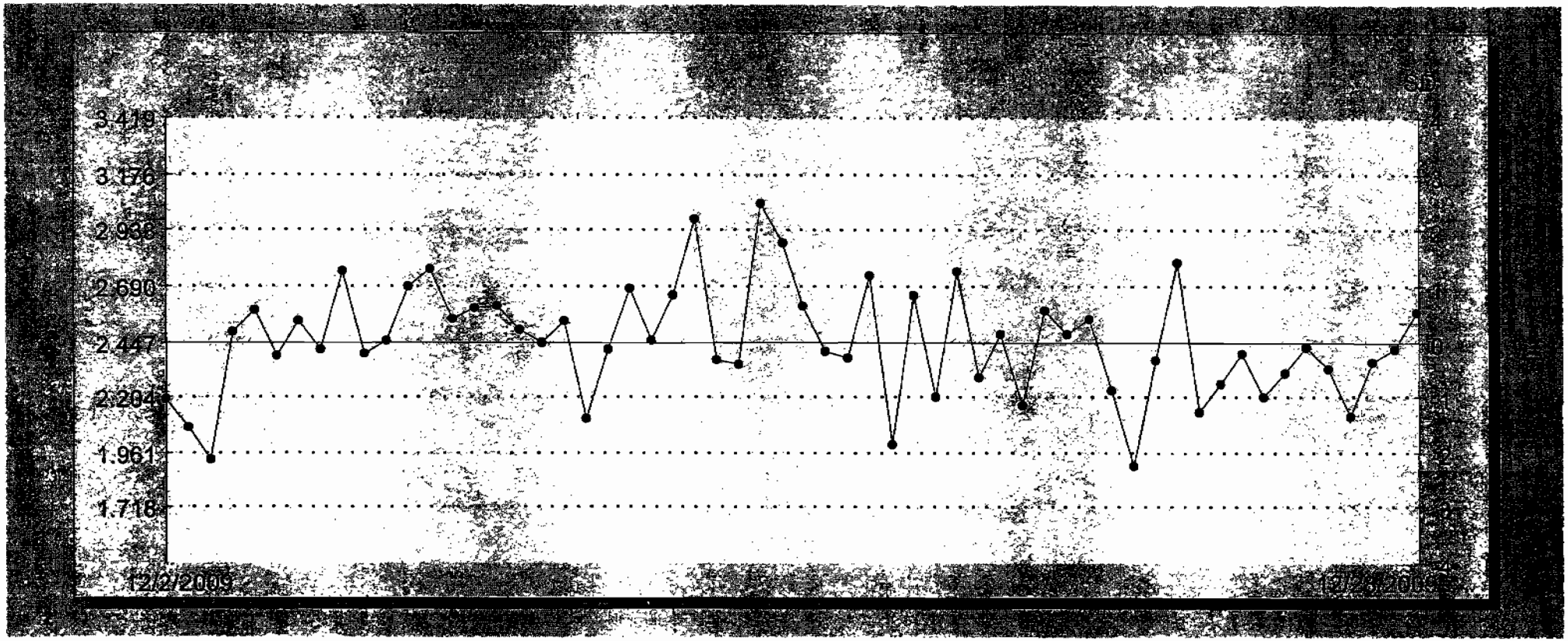

ARS INTERNATIONAL

2609 North River Road • Port Allen, Louisiana 70767

1 (800) 401-4277 • Fax (225) 381-2996

American Radiation Services Analytical Reports

for

Los Alamos National Laboratory

Folder Duplicate

Report Compilation Checklist

ARS INTERNATIONAL

ARS SDG: 09-03110 **Client Name:** LANL **Sample Matrix:** AQ

LEVEL 1 COMPONENTS	1st Reviewer	
1) Cover Page Complete and Accurate (see ARS-059)?	~~Yes~~ No N/A	
2) Technical Review Checklist(s) Complete and Accurate?	~~Yes~~ No N/A	
3) Case Narrative Complete and Accurate (see ARS-059)?	~~Yes~~ No N/A	
4) Form 1s Present for all Samples and Tests?	~~Yes~~ No N/A	
5) Client Specific Components are Present and Complete?	~~Yes~~ No N/A	

LEVEL 2 COMPONENTS	1st Reviewer	
6) Batch Quality Control Report is Present and Accurate?	~~Yes~~ No N/A	
7) DQO Report is Present and Accurate?	~~Yes~~ No N/A	
8) Client Specific Batch QC Components are Present and Complete?	~~Yes~~ No N/A	

LEVEL 3 COMPONENTS	1st Reviewer	
9) Efficiencies are Present?	~~Yes~~ No N/A	
10) Calibrations are Present?	~~Yes~~ No N/A	
11) Backgrounds are Present?	~~Yes~~ No N/A	
12) Spectrum Analysis is Present?	~~Yes~~ No N/A	
13) Spectral Plots are Present?	~~Yes~~ No N/A	
14) Plateaus are Present?	~~Yes~~ No N/A	
15) Control Charts are Present?	~~Yes~~ No N/A	
16) Other:	~~Yes~~ No N/A	

LEVEL 4 COMPONENTS	1st Reviewer	
17) Preparation Raw Data Present and Complete?	~~Yes~~ No N/A	
18) Instrument Raw Data Present and Complete?	~~Yes~~ No N/A	
19) Calibration Certificates Present?	~~Yes~~ No N/A	
20) Copies of Log Book Pages Present?	~~Yes~~ No N/A	
21) Sample Receiving Documentation Present?	~~Yes~~ No N/A	
22) LIMS Reports Present?	~~Yes~~ No N/A	
23) Applicable Correspondence Present?	~~Yes~~ No N/A	
24) Other:	~~Yes~~ No N/A	

Ashley [illegible] 1-22-10
Report Generator Signature Date

[illegible] 1-22-10
Management Review Signature Date

C

ARS INTERNATIONAL

LSC
Technical Review Checklist

ARS SDG ARS1-09-03110

Sample Matrix: AQ **Aliquot** (Circle One) : Dry As Received Filtered Other: _____

Required QC Samples (Mark all that apply): Blank LCS LCSD Sample Dup MS MSD

ARS A. Batch ID(s): **Batch A:** ARS1-B09-05378 **Batch B:** _____ **Batch C:** _____

Test Method(s): LSC-A-022

A. RADIOCHEMICAL PREPARATION REVIEW

	Chemist Review	Verifier Review
1) 100% of Manual Transcriptions Verified?	Yes No N/A	Yes No N/A
2) 100% of Manual Calculations Verified?	Yes No N/A	Yes No N/A
3) Blank Composition/Configuration Matches Calibration?	Yes No N/A	Yes No N/A
4) Deviations from procedure are documented and verified?	Yes No N/A	Yes No N/A
5) Appropriate Cocktail Selected?	Yes No N/A	Yes No N/A

6) Sample Prep Anomaly? ☑ No ☐ Yes (See Tech Notes) NCR # (If initiated): _____

Jimmy D. Rahm 1-15-10 — Chemist Signature, Date

Jamal Brown 1-15-10 — Verifier Review Signature, Date

B. ANALYSIS REVIEW

	Analyst Review	QA Officer Review
1) Calibrations Valid and Current?	Yes No N/A	Yes No N/A
2) Backgrounds Valid and Current?	Yes No N/A	Yes No N/A
3) Source Checks Completed and Acceptable?	Yes No N/A	Yes No N/A

QA Officer Signature, Date: 1-22-10

	Analyst Review	Technicial Review
4) Background Checks Complete and Acceptable?	Yes No N/A	Yes No N/A
5) 100% of Manually Entered Parameters Verified Accurate?	Yes No N/A	Yes No N/A
6) Appropriate QC samples initiated at required frequency?	Yes No N/A	Yes No N/A
6) Test/Sample Specific Parameters (See ARS-059 for details)		
a) Analysis Parameters Checked and Correct and Peak Shapes are Acceptable?	Yes No N/A	Yes No N/A
b) Spectra show no Evidence of Interferences?	Yes No N/A	Yes No N/A
c) Sample Quench for All Samples within Range of Quench Curve?	Yes No N/A	Yes No N/A

7) Analysis Anomaly? ☑ No ☐ Yes (See Comments) NCR # (If initiated): _____

1-21-10 — Analyst Signature, Date

N/A — Technicial Reviewer Signature, Date

Batch A: ARS1-B09-05378

LSC
Technical Review Checklist

C. BATCH QC VALIDATION

	Proj. Mgr. Review	QA Officer Review
1) Activity + 3xCSU a Negative Number?	Yes (No) N/A	Yes ~~No~~ N/A
2) RDL Criteria are Met?	(Yes) No N/A	~~Yes~~ No N/A
3) Method Blank Criterion Met?	(Yes) No N/A	~~Yes~~ No N/A
4) LCS/LCD Criteria Met?	(Yes) No N/A	~~Yes~~ No N/A
5) Duplicate (Sample Duplicate, LCSD, MSD) Criteria Met?	(Yes) No N/A	~~Yes~~ No N/A
6) MS/MSD Criteria Met?	Yes No (N/A)	Yes No ~~N/A~~

7) Batch QC Anomaly? ☑ No ☐ Yes (See Tech Notes) NCR # (If initiated): _____

Project Manager Signature	Date	QA Officer Signature	Date
[signature]	1-12-10	[signature]	1-22-10

GENERAL COMMENTS

LSC
Technical Review Checklist

ARS INTERNATIONAL

ARS SDG ARS1-09-03110

Sample Matrix: AQ **Aliquot** (Circle One) : Dry As Received Filtered Other: _____

Required QC Samples (Mark all that apply): Blank LCS LCSD Sample Dup MS MSD

ARS A. Batch ID(s): **Batch A:** ARS1-B09-05400 **Batch B:** _____ **Batch C:** _____

Test Method(s): LSC-A-021

A. RADIOCHEMICAL PREPARATION REVIEW

	Chemist Review	Verifier Review
1) 100% of Manual Transcriptions Verified?	Yes No N/A	Yes No N/A
2) 100% of Manual Calculations Verified?	Yes No N/A	Yes No N/A
3) Blank Composition/Configuration Matches Calibration?	Yes No N/A	Yes No N/A
4) Deviations from procedure are documented and verified?	Yes No N/A	Yes No N/A
5) Appropriate Cocktail Selected?	Yes No N/A	Yes No N/A

6) Sample Prep Anomaly? ☑ No ☐ Yes (See Tech Notes) NCR # (If initiated): _____

Jennifer D. Rahm 12-23-09 — Chemist Signature, Date

[illegible] 12-23-09 — Verifier Review Signature, Date

B. ANALYSIS REVIEW

	Analyst Review	QA Officer Review
1) Calibrations Valid and Current?	Yes No N/A	Yes No N/A
2) Backgrounds Valid and Current?	Yes No N/A	Yes No N/A
3) Source Checks Completed and Acceptable?	Yes No N/A	Yes No N/A

[illegible] 1-22-10 — QA Officer Signature, Date

	Analyst Review	Technicial Review
4) Background Checks Complete and Acceptable?	Yes No N/A	Yes No N/A
5) 100% of Manually Entered Parameters Verified Accurate?	Yes No N/A	Yes No N/A
6) Appropriate QC samples initiated at required frequency?	Yes No N/A	Yes No N/A
6) Test/Sample Specific Parameters (See ARS-059 for details)		
a) Analysis Parameters Checked and Correct and Peak Shapes are Acceptable?	Yes No N/A	Yes No N/A
b) Spectra show no Evidence of Interferences?	Yes No N/A	Yes No N/A
c) Sample Quench for All Samples within Range of Quench Curve?	Yes No N/A	Yes No N/A

7) Analysis Anomaly? ☑ No ☐ Yes (See Comments) NCR # (If initiated): _____

[illegible] 12-28-09 — Analyst Signature, Date

N/A — Technicial Reviewer Signature, Date

Batch A: ARS1-B09-05400

LSC
Technical Review Checklist

C. BATCH QC VALIDATION

	Proj. Mgr. Review	QA Officer Review
1) Activity + 3xCSU a Negative Number? DN 1-22-10	Yes No N/A	Yes No N/A
2) RDL Criteria are Met?	Yes No N/A	Yes No N/A
3) Method Blank Criterion Met?	Yes No N/A	Yes No N/A
4) LCS/LCD Criteria Met?	Yes No N/A	Yes No N/A
5) Duplicate (Sample Duplicate, LCSD, MSD) Criteria Met?	Yes No N/A	Yes No N/A
6) MS/MSD Criteria Met?	Yes No N/A	Yes No N/A

7) Batch QC Anomaly? ☑ No ☐ Yes (See Tech Notes) NCR # (If initiated): _____

Project Manager Signature	Date	QA Officer Signature	Date
[signature]	1-22-10	[signature]	1-22-10

GENERAL COMMENTS

Monday, December 21, 2009

REQUEST NUMBER: 10-1021

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1021

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/21/2009

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	EPA:150.1	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	EPA:160.1	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	EPA:245.2	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	

Monday, December 21, 2009

REQUEST NUMBER: 10-1021

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:245.2	1	CAPA-10-6827	WG	12/18/2009	
	EPA:300.0	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	EPA:310.1	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	EPA:335.3	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	EPA:350.1	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	EPA:353.2	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	EPA:365.4	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	EPA:900	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	EPA:901.1	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	EPA:903.1	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	EPA:904	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	EPA:905.0	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	HASL-300:AM-241	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	HASL-300:ISOPU	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	HASL-300:ISOU	1	CAPA-10-6823	WG	12/18/2009	

Monday, December 21, 2009

REQUEST NUMBER: 10-1021

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	CAPA-10-6824	WG	12/18/2009	
	SM:A2340B	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	SW-846:6010B	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	SW-846:6020	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	SW-846:6850	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	

Final Page of REQUEST NUMBER 10-1021

Monday, December 21, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1021

REQUEST NUMBER: 10-1021

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6821	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6821	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6821	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6823	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6823	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-6823	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6823	1	POLY	WSP-RAD	Nitric Acid	WG
CAPA-10-6823	1	POLY	Ra226+228	Nitric Acid	WG
CAPA-10-6824	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6824	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-6824	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6824	1	POLY	WSP-RAD	Nitric Acid	WG
CAPA-10-6824	1	POLY	Ra226+228	Nitric Acid	WG
CAPA-10-6827	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6827	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6827	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG

Relinquished By:		Date	Time	Received By:		Date	Time
		12/21/09	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6820 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1458	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	RSI	
LOCATION ID:	R-37		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P1A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2	1 NW 12/18/09	WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	HCL

SAMPLE DESC: QC Sample of CAPA-10-6823

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D. Wooly, K Crawford, J Berryhill **REVIEWED BY (PRINT)** J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Wooly	12/18/09	(Printed Name) S. MARCZ Ad	12/18/09
(Signature) D. Wooly	1615	(Signature)	1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6821 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	GK
TIME COLLECTED (HH:MM)		1458	SUB-MEDIA:	UA	
PRS ID:	C-00-011	GK	SAMPLE TECH CODE:	RSI	
LOCATION ID:	R-37		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	P1A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH < 2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH < 2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

See CAPA-10-6823

COLLECTED BY (PRINT) J Berryhill, K Crawford, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09	(Printed Name) S. MARCZAK	12/18/09
(Signature) D. Woody	1615	(Signature)	1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6822 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1458	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:		
LOCATION ID:	R-37		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P1A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of CAPA-10-6823

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, D. Woody, K Crawford

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09 1615	(Printed Name) S. MARCZAK	12/18/09 1615
(Signature) D. Woody		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6823 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1458	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	RSI	
LOCATION ID:	R-37		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P1A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / (NA)		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
3		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
3		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH <2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
3		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH >12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	pH <2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2
1		Ra226+228	1 GAL POLY	Nitric Acid	Y	pH <2

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH (SU)	T (°C)	SC (µS/cm)	DO (mg/L)	Turb (NTU)	ORP (mV)	Q (gpm)
7.50	17.10	229	3.43	0.97	171.4	.625

COLLECTED BY (PRINT) J Berryhill, K Crawford, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09	(Printed Name) S. MARCIAL	12/18/09
(Signature) D Woody	1615	(Signature)	1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6824 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0922	SUB-MEDIA:	UA	
PRS ID:	C-00-011		SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-37		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
3		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
3		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
3		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH>12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH<2
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	pH<2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH<2
1		Ra226+228	1 GAL POLY	Nitric Acid	Y	pH<2

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH (STU)	T (°C)	SC (µS/cm)	DO (mg/L)	Turb (NTU)	ORP (mV)	Q (gpm)
7.79	21.05	215	5.39	2.20	271.5	9.1

COLLECTED BY (PRINT) J Berryhill, D. Woody, K Crawford

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09	(Printed Name) S. MARCUM	12/18/09
(Signature) D. Woody	1615	(Signature)	1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6825 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0922	SUB-MEDIA:	UA	
PRS ID:	C-00-011		SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-37		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 2	1w 12/18/09	WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	1H<2

SAMPLE DESC: QC Sample of CAPA-10-6824

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, K Crawford, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09	(Printed Name) S. MARCZAK	12/18/09
(Signature) D. Woody	1615	(Signature)	1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6826 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0922	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-37		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of CAPA-10-6824

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J berryhill, B Woody, K Crawford

REVIEWED BY (PRINT) J berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) B. Woody (Signature) B. Woody	12/18/09 1615	(Printed Name) S. MARIZAN (Signature)	12/18/09 1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6827 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0922	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-37		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / (NA)		

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

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

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

See CAPA-10-6824

COLLECTED BY (PRINT) J Berryhill, D. Woody, K Crawford

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09 1615	(Printed Name) S. MARCZAK	12/18/09 1615
(Signature) D. Woody		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1021 VALIDATION DATE: 2/11/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN and that the raw data for the parent sample was not included in the data package. No sample results were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/12/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 2/11/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☒	☐	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☒	☐	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 936065

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6821

Date Received: 22-DEC-09

GEL Job No (SDG): 10-1021

GEL Sample ID: 243400001

Date Filtered: 29-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.576	ug/L		1	29-DEC-09 21:39	per1229071a
	Perchlorate Isotope Ratio			2.96			1	29-DEC-09 21:39	per1229071a
14797-73-0	Perchlorate-101	.05	.2	0.591	ug/L		1	29-DEC-09 21:39	per1229071a
	Perchlorate-O(18)			0.514	ug/L		1	29-DEC-09 21:39	per1229071a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

AMF 2/11/10

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 936065

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6827

Date Received: 22-DEC-09

GEL Job No (SDG): 10-1021

GEL Sample ID: 243400004

Date Filtered: 29-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.465	ug/L		1	29-DEC-09 21:46	per1229072a
	Perchlorate Isotope Ratio			3			1	29-DEC-09 21:46	per1229072a
14797-73-0	Perchlorate-101	.05	.2	0.471	ug/L		1	29-DEC-09 21:46	per1229072a
	Perchlorate-O(18)			0.491	ug/L		1	29-DEC-09 21:46	per1229072a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

AMF 2/11/10

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DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1021 VALIDATION DATE: 2/11/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. Sb and Mg were detected in the ICB/CCBs. The Sb result for sample CAPA-10-6823 was a detect ≤5X the greatest blank concentration and, thus, was qualified U,I4b. All other associated sample results were either NDs or were detects >5X the greatest blank concentration and, thus, were not qualified.
2. It should be noted that the matrix QC analyses for Hg were performed on a LANL sample from another RN. No sample results were qualified.
3. Some results for the filtered samples were slightly > the corresponding results for the unfiltered samples. No sample data were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/12/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 2/11/10

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☐	☒	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☐	☒	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1021 **METHOD TYPE:** EPA

SAMPLE ID: 243400001 **CLIENT ID:** CAPA-10-6821

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 22-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	123009W1-6
7631-86-9	Silica	47.8	mg/L			P	0.053	1	OPTIMA3	010610A-1
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	010610A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100104-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100104-3
7440-39-3	Barium	18.4	ug/L			P	1	1	OPTIMA3	010610A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	010610A-1
7440-42-8	Boron	27.6	ug/L	J		P	15	1	OPTIMA3	010610A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100104-3
7440-70-2	Calcium	23200	ug/L			P	50	1	OPTIMA3	010610A-1
7440-47-3	Chromium	2.5	ug/L	U		MS	2.5	1	ICPMS5	100104-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	010610A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	010610A-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA3	010610A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100104-3
7439-95-4	Magnesium	5240	ug/L			P	85	1	OPTIMA3	010610A-1
7439-96-5	Manganese	2	ug/L	U		P	2	1	OPTIMA3	010610A-1
7439-98-7	Molybdenum	3.03	ug/L			MS	0.1	1	ICPMS5	100104-3
7440-02-0	Nickel	1	ug/L	J		MS	0.5	1	ICPMS5	100104-3
7440-09-7	Potassium	1960	ug/L			P	50	1	OPTIMA3	010610A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100104-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100104-3
7440-23-5	Sodium	15000	ug/L			P	100	1	OPTIMA3	010610A-1
7440-24-6	Strontium	103	ug/L			P	1	1	OPTIMA3	010610A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100105-4
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	010710-2

AMF
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1021 **METHOD TYPE:** EPA

SAMPLE ID: 243400001 **CLIENT ID:** CAPA-10-6821

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 22-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	1.79	ug/L			MS	0.05	1	ICPMS5	100107-5
7440-62-2	Vanadium	5.8	ug/L			P	1	1	OPTIMA3	010610A-1
7440-66-6	Zinc	9.02	ug/L	J		P	3.3	1	OPTIMA3	010610A-1
	Hardness as CaCO3	79.6	mg/L				0.35	1	CALC001	

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1021 **METHOD TYPE:** EPA

SAMPLE ID: 243400002 **CLIENT ID:** CAPA-10-6823

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 22-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte		Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury		0.066	ug/L	U		AV	0.066	1	HG3	123009W1-6
7429-90-5	Aluminum		68	ug/L	U		P	68	1	OPTIMA3	010610A-1
7440-36-0	Antimony	U,I4b	0.541	ug/L	J		MS	0.5	1	ICPMS5	100104-3
7440-38-2	Arsenic		1.5	ug/L	U		MS	1.5	1	ICPMS5	100104-3
7440-39-3	Barium		18.4	ug/L			P	1	1	OPTIMA3	010610A-1
7440-41-7	Beryllium		1	ug/L	U		P	1	1	OPTIMA3	010610A-1
7440-42-8	Boron		27.2	ug/L	J		P	15	1	OPTIMA3	010610A-1
7440-43-9	Cadmium		0.11	ug/L	U		MS	0.11	1	ICPMS5	100104-3
7440-70-2	Calcium		24000	ug/L			P	50	1	OPTIMA3	010610A-1
7440-47-3	Chromium		2.5	ug/L	U		MS	2.5	1	ICPMS5	100104-3
7440-48-4	Cobalt		1	ug/L	U		P	1	1	OPTIMA3	010610A-1
7440-50-8	Copper		3	ug/L	U		P	3	1	OPTIMA3	010610A-1
7439-89-6	Iron		30	ug/L	U		P	30	1	OPTIMA3	010610A-1
7439-92-1	Lead		0.5	ug/L	U		MS	0.5	1	ICPMS5	100104-3
7439-95-4	Magnesium		5390	ug/L			P	85	1	OPTIMA3	010610A-1
7439-96-5	Manganese		2	ug/L	U		P	2	1	OPTIMA3	010610A-1
7439-98-7	Molybdenum		3.11	ug/L			MS	0.1	1	ICPMS5	100104-3
7440-02-0	Nickel		0.964	ug/L	J		MS	0.5	1	ICPMS5	100104-3
7440-09-7	Potassium		2030	ug/L			P	50	1	OPTIMA3	010610A-1
7782-49-2	Selenium		1	ug/L	U		MS	1	1	ICPMS5	100104-3
7440-22-4	Silver		0.2	ug/L	U		MS	0.2	1	ICPMS5	100104-3
7440-23-5	Sodium		15200	ug/L			P	100	1	OPTIMA3	010610A-1
7440-24-6	Strontium		105	ug/L			P	1	1	OPTIMA3	010610A-1
7440-28-0	Thallium		0.3	ug/L	U		MS	0.3	1	ICPMS5	100105-4
7440-31-5	Tin		12.5	ug/L	U		P	12.5	5	OPTIMA3	010710-2
7440-61-1	Uranium		1.87	ug/L			MS	0.05	1	ICPMS5	100107-5

AMF
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1021 **METHOD TYPE:** EPA

SAMPLE ID: 243400002 **CLIENT ID:** CAPA-10-6823

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 22-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	5.43	ug/L			P	1	1	OPTIMA3	010610A-1
7440-66-6	Zinc	12.1	ug/L			P	3.3	1	OPTIMA3	010610A-1
	Hardness as CaCO3	82.3	mg/L				0.35	1	CALC001	

AMF
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METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1021 **METHOD TYPE:** EPA

SAMPLE ID: 243400003 **CLIENT ID:** CAPA-10-6824

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 22-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	123009W1-6
7429-90-5	Aluminum	134	ug/L	J		P	68	1	OPTIMA3	010610A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100104-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100104-3
7440-39-3	Barium	32.1	ug/L			P	1	1	OPTIMA3	010610A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	010610A-1
7440-42-8	Boron	22.7	ug/L	J		P	15	1	OPTIMA3	010610A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100104-3
7440-70-2	Calcium	21400	ug/L			P	50	1	OPTIMA3	010610A-1
7440-47-3	Chromium	2.5	ug/L	U		MS	2.5	1	ICPMS5	100104-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	010610A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	010610A-1
7439-89-6	Iron	109	ug/L			P	30	1	OPTIMA3	010610A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100104-3
7439-95-4	Magnesium	4770	ug/L			P	85	1	OPTIMA3	010610A-1
7439-96-5	Manganese	2	ug/L	U		P	2	1	OPTIMA3	010610A-1
7439-98-7	Molybdenum	3.2	ug/L			MS	0.1	1	ICPMS5	100104-3
7440-02-0	Nickel	1.04	ug/L	J		MS	0.5	1	ICPMS5	100104-3
7440-09-7	Potassium	2140	ug/L			P	50	1	OPTIMA3	010610A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100104-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100104-3
7440-23-5	Sodium	16200	ug/L			P	100	1	OPTIMA3	010610A-1
7440-24-6	Strontium	99.1	ug/L			P	1	1	OPTIMA3	010610A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100105-4
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	010710-2
7440-61-1	Uranium	1.8	ug/L			MS	0.05	1	ICPMS5	100107-5

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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1021 **METHOD TYPE:** EPA

SAMPLE ID: 243400003 **CLIENT ID:** CAPA-10-6824

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 22-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	5.67	ug/L			P	1	1	OPTIMA3	010610A 1
7440-66-6	Zinc	8.99	ug/L	J		P	3.3	1	OPTIMA3	010610A-1
	Hardness as CaCO3	73	mg/L				0.35	1	CALC001	

AMF
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METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1021 **METHOD TYPE:** EPA

SAMPLE ID: 243400004 **CLIENT ID:** CAPA-10-6827

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 22-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	123009W1-6
7631-86-9	Silica	55.7	mg/L			P	0.053	1	OPTIMA3	010610A-1
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	010610A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100104-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100104-3
7440-39-3	Barium	30.9	ug/L			P	1	1	OPTIMA3	010610A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	010610A-1
7440-42-8	Boron	21.6	ug/L	J		P	15	1	OPTIMA3	010610A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100104-3
7440-70-2	Calcium	20400	ug/L			P	50	1	OPTIMA3	010610A-1
7440-47-3	Chromium	2.5	ug/L	U		MS	2.5	1	ICPMS5	100104-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	010610A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	010610A-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA3	010610A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100104-3
7439-95-4	Magnesium	4670	ug/L			P	85	1	OPTIMA3	010610A-1
7439-96-5	Manganese	2	ug/L	U		P	2	1	OPTIMA3	010610A-1
7439-98-7	Molybdenum	3.17	ug/L			MS	0.1	1	ICPMS5	100104-3
7440-02-0	Nickel	0.718	ug/L	J		MS	0.5	1	ICPMS5	100104-3
7440-09-7	Potassium	2030	ug/L			P	50	1	OPTIMA3	010610A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100104-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100104-3
7440-23-5	Sodium	15700	ug/L			P	100	1	OPTIMA3	010610A-1
7440-24-6	Strontium	94.6	ug/L			P	1	1	OPTIMA3	010610A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100105-4
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	010710-2

AMF
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METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1021 **METHOD TYPE:** EPA

SAMPLE ID: 243400004 **CLIENT ID:** CAPA-10-6827

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 22-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	1.75	ug/L			MS	0.05	1	ICPMS5	100107-5
7440-62-2	Vanadium	5.74	ug/L			P	1	1	OPTIMA3	010610A-1
7440-66-6	Zinc	5.73	ug/L	J		P	3.3	1	OPTIMA3	010610A-1
	Hardness as CaCO3	70.1	mg/L				0.35	1	CALC001	

AMF
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DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1021 VALIDATION DATE: 2/11/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. Ammonia as nitrogen and Total P were detected in the MB. The associated sample results were detects ≤5X the MB concentrations and, thus, were qualified U,I4.
2. Total P was detected in the ICB/CCBs. The associated sample results were detects ≤5X the greatest blank concentration and, thus, were qualified U,I4b.
3. The analysis of pH was performed >2X past the method specified holding time. The associated sample results were qualified J-,I9a, based on professional judgment.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/12/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 2/11/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☒	☐	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 13, 2010

Client SDG: 10-1021

Client Sample ID: CAPA-10-6821
Sample ID: 243400001
Matrix: Ground Water
Collect Date: 18-DEC-09 12:00
Receive Date: 22-DEC-09
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Conductivity Analysis											
EPA120.1 Specific Conductivity "As Received"											
Conductivity		231		1.00	1.00	umhos/cm	1	LXA1 12/23/09	1244	936302	1
Electrode Analysis											
EPA 150.1 pH Federal "As Received"											
pH at Temp 15.3C	H	8.00	J-,I9a	0.010	0.100	SU	1	LXA1 12/23/09	1304	936298	2
Ion Chromatography											
EPA 300.0 Anions Liquid 28 day "As Received"											
Bromide	U	ND		0.066	0.200	mg/L	1	GXM 01/05/10 3	0148	938391	3
Chloride		4.18		0.066	0.200	mg/L	1				
Fluoride		0.713		0.033	0.100	mg/L	1				
Sulfate		9.15		0.100	0.400	mg/L	1				
Nutrient Analysis											
EPA 350.1 Nitrogen, Ammonia L "As Received"											
Nitrogen, Ammonia	J	0.022	U,I4	0.016	0.050	mg/L	1	AXH3 12/24/09	1059	936556	4
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"											
Nitrogen, Nitrate/Nitrite		0.710		0.050	0.250	mg/L	5	AXH3 12/28/09	1028	936385	5
EPA 365.4 Phosphorus, Total in "As Received"											
Phosphorus, Total as P	J	0.037	U,I4	0.015	0.050	mg/L	1	AXH3 12/31/09	0932	936389	6
Solids Analysis											
EPA 160.1 Solids, Dissolved-F "As Received"											
Total Dissolved Solids		156		2.38	10.0	mg/L		SDS 12/23/09	1045	936140	7
Titration Analysis											
EPA 310.1 Total Alkalinity Federal "As Received"											
Alkalinity, Total as CaCO3		92.3		0.725	1.00	mg/L		LXA1 12/24/09	1233	936617	8
Carbonate alkalinity (CaCO3)	U	ND		0.725	1.00	mg/L					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	SXJ1	12/24/09	1020	936555
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	SXJ1	12/28/09	1000	936388

The following Analytical Methods were performed

Method	Description	Analyst Comments

AMF
2/11/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
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TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 13, 2010

Client SDG: 10-1021

Client Sample ID: CAPA-10-6823
Sample ID: 243400002
Matrix: Ground Water
Collect Date: 18-DEC-09 12:00
Receive Date: 22-DEC-09
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
EPA 335.4 Cyanide, Total "As Received"											
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2	12/30/09	1018	936398	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	12/29/09	1423	936396

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

AMF
2/11/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
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TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 13, 2010

Client SDG: 10-1021

Client Sample ID:	CAPA-10-6824	Project:	ESHL01000
Sample ID:	243400003	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	18-DEC-09 12:00		
Receive Date:	22-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
EPA 335.4 Cyanide, Total "As Received"											
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2	12/30/09	1025	936398	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	12/29/09	1423	936396

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

AMF
2/11/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 13, 2010

Client SDG: 10-1021

Client Sample ID: CAPA-10-6827
Sample ID: 243400004
Matrix: Ground Water
Collect Date: 18-DEC-09 12:00
Receive Date: 22-DEC-09
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Conductivity Analysis												
EPA120.1 Specific Conductivity "As Received"												
Conductivity		206		1.00	1.00	umhos/cm	1	LXA1	12/23/09	1244	936302	1
Electrode Analysis												
EPA 150.1 pH Federal "As Received"												
pH at Temp 15.8C	H	8.06	J-,I9a	0.010	0.100	SU	1	LXA1	12/23/09	1309	936298	2
Ion Chromatography												
EPA 300.0 Anions Liquid 28 day "As Received"												
Bromide	U	ND		0.066	0.200	mg/L	1	GXM3	01/05/10	0318	938391	3
Chloride		3.84		0.066	0.200	mg/L	1					
Fluoride		0.593		0.033	0.100	mg/L	1					
Sulfate		7.86		0.100	0.400	mg/L	1					
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia L "As Received"												
Nitrogen, Ammonia	J	0.016	U,I4	0.016	0.050	mg/L	1	AXH3	12/24/09	1102	936556	4
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite		0.605		0.050	0.250	mg/L	5	AXH3	12/28/09	1032	936385	5
EPA 365.4 Phosphorus, Total in "As Received"												
Phosphorus, Total as P	J	0.046	U,I4	0.015	0.050	mg/L	1	AXH3	12/31/09	0936	936389	6
Solids Analysis												
EPA 160.1 Solids, Dissolved-F "As Received"												
Total Dissolved Solids		144		2.38	10.0	mg/L		SDS	12/23/09	1045	936140	7
Titration Analysis												
EPA 310.1 Total Alkalinity Federal "As Received"												
Alkalinity, Total as CaCO3		85.8		0.725	1.00	mg/L		LXA1	12/24/09	1247	936617	8
Carbonate alkalinity (CaCO3)	U	ND		0.725	1.00	mg/L						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	SXJ1	12/24/09	1020	936555
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	SXJ1	12/28/09	1000	936388

The following Analytical Methods were performed

Method	Description	Analyst Comments

AMF
2/11/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1021 VALIDATION DATE: 2/11/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

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

Section II. Completeness Check

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

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

1. It should be noted that the matrix QC analyses for Ra-226 were performed on a LANL sample from another RN. No sample results were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/12/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 2/11/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☐	☒	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☒	☐	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☒	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: January 8, 2010

Client Sample ID: CAPA-10-6823
Sample ID: 243400002
Matrix: Ground Water
Collect Date: 18-DEC-09
Receive Date: 22-DEC-09
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
Alphaspec Am241 Liquid "As Received"												
Americium-241	U	0.00816	0.0336	+/-0.0079	0.050	pCi/L		JXD2	12/29/09	1545	936901	1
Alphaspec Pu, Liquid "As Received"												
Plutonium-238	U	-0.00226	0.0332	+/-0.0032	0.050	pCi/L		JXD2	12/29/09	1242	936902	2
Plutonium-239/240	U	0.00226	0.0357	+/-0.00506	0.050	pCi/L						
Alphaspec U, Liquid "As Received"												
Uranium-234		1.03	0.0887	+/-0.0905	1.00	pCi/L		JXD2	12/29/09	1954	936904	3
Uranium-235/236	U	0.020	0.0464	+/-0.0083	1.00	pCi/L						
Uranium-238		0.470	0.0554	+/-0.0489	0.500	pCi/L						
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Liquid "As Received"												
Cesium-137	U	0.644	3.97	+/-1.17	8.00	pCi/L		KXG3	12/31/09	1618	936274	4
Cobalt-60	U	-0.309	3.76	+/-1.10	8.00	pCi/L						
Gross Gamma	U	42.0	55.2	+/-24.1	120	pCi/L						
Neptunium-237	U	0.605	28.5	+/-9.10	10.0	pCi/L						
Potassium-40	U	-32	52.7	+/-17.5	10.0	pCi/L						
Sodium-22	U	-0.568	3.97	+/-1.29	10.0	pCi/L						
Rad Gas Flow Proportional Counting												
GFPC, Gross A/B, liquid "As Received"												
Beta		4.41	2.27	+/-0.996	3.00	pCi/L		DXB5	12/29/09	1230	936958	5
Alpha	U	1.36	2.70	+/-0.848	3.00	pCi/L		DXB5	12/30/09	1549	936958	6
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	0.295	0.836	+/-0.247	1.00	pCi/L		MXS2	12/31/09	1251	936954	7
GFPC, Sr90, liquid "As Received"												
Strontium-90	U	-0.304	0.482	+/-0.111	0.500	pCi/L		MXB1	12/29/09	2058	936955	8
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226	U	0.207	0.279	+/-0.0942	1.00	pCi/L		KSD1	01/07/10	1250	936275	9

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified

AMF
2/11/10

GEL LABORATORIES LLC

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

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: January 8, 2010

Client Sample ID: CAPA-10-6824
Sample ID: 243400003
Matrix: Ground Water
Collect Date: 18-DEC-09
Receive Date: 22-DEC-09
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
Alphaspec Am241 Liquid "As Received"												
Americium-241	U	0.00121	0.0372	+/-0.00328	0.050	pCi/L		JXD2	12/29/09	1545	936901	1
Alphaspec Pu, Liquid "As Received"												
Plutonium-238	U	0.00215	0.0315	+/-0.00215	0.050	pCi/L		JXD2	12/29/09	1242	936902	2
Plutonium-239/240	U	0.00215	0.0339	+/-0.00215	0.050	pCi/L						
Alphaspec U, Liquid "As Received"												
Uranium-234		1.05	0.110	+/-0.0972	1.00	pCi/L		JXD2	12/29/09	1954	936904	3
Uranium-235/236	U	0.0496	0.0574	+/-0.0148	1.00	pCi/L						
Uranium-238		0.482	0.0686	+/-0.0534	0.500	pCi/L						
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Liquid "As Received"												
Cesium-137	U	3.33	5.34	+/-1.42	8.00	pCi/L		KXG3	12/31/09	1618	936274	4
Cobalt-60	U	0.234	4.78	+/-1.44	8.00	pCi/L						
Gross Gamma	U	21.8	38.7	+/-10.8	120	pCi/L						
Neptunium-237	U	-3.75	34.4	+/-11.0	10.0	pCi/L						
Potassium-40	U	4.12	58.3	+/-16.3	10.0	pCi/L						
Sodium-22	U	2.97	5.74	+/-1.49	10.0	pCi/L						
Rad Gas Flow Proportional Counting												
GFPC, Gross A/B, liquid "As Received"												
Beta		2.25	2.24	+/-0.799	3.00	pCi/L		DXB5	12/29/09	1231	936958	5
Alpha	U	2.59	2.93	+/-1.10	3.00	pCi/L		DXB5	12/30/09	1549	936958	6
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	-0.0863	0.816	+/-0.205	1.00	pCi/L		MXS2	12/31/09	1251	936954	7
GFPC, Sr90, liquid "As Received"												
Strontium-90	U	-0.117	0.486	+/-0.125	0.500	pCi/L		MXB1	12/31/09	0718	936955	8
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226	U	0.102	0.259	+/-0.0766	1.00	pCi/L		KSD1	01/07/10	1250	936275	9

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified

AMF
2/11/10

Monday, December 21, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1021

REQUEST NUMBER: 10-1021

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 243400 1/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6821	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6821	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6821	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6823	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6823	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-6823	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6823	1	POLY	WSP-RAD	Nitric Acid	WG
CAPA-10-6823	1	POLY	Ra226+228	Nitric Acid	WG
CAPA-10-6824	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6824	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-6824	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6824	1	POLY	WSP-RAD	Nitric Acid	WG
CAPA-10-6824	1	POLY	Ra226+228	Nitric Acid	WG
CAPA-10-6827	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6827	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6827	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG

Relinquished By:		Date	Time	Received By:		Date	Time
		12/21/09	1400	Patricia Dover-Dent	P.D. Dent	12-22-09	09:55
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

Monday, December 21, 2009

REQUEST NUMBER: 10-1021

LOS ALAMOS
NATIONAL LABORATORY

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

These Samples are on:
LANL Request Number:10-1021
Per Agreement Number:126310011
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/21/2009
TURNAROUND/REPORT DUE: 1/20/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	EPA:150.1	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	EPA:160.1	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	EPA:245.2	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	

Monday, December 21, 2009

REQUEST NUMBER: 10-1021

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:245.2	1	CAPA-10-6827	WG	12/18/2009	
	EPA:300.0	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	EPA:310.1	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	EPA:335.3	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	EPA:350.1	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	EPA:353.2	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	EPA:365.4	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	EPA:900	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	EPA:901.1	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	EPA:903.1	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	EPA:904	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	EPA:905.0	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	HASL-300:AM-241	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	HASL-300:ISOPU	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	HASL-300:ISOPU	1	CAPA-10-6823	WG	12/18/2009	

Monday, December 21, 2009

REQUEST NUMBER: 10-1021

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	CAPA-10-6824	WG	12/18/2009	
	SM:A2340B	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	SW-846:6010B	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	SW-846:6020	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	SW-846:6850	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	

Final Page of REQUEST NUMBER 10-1021

GEL Laboratories LLC
a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

January 04, 2010

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

Re: LANL-WQH Water Samples
Work Order: 243400
SDG: 10-1021

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 22, 2009, and analyzed for General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

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

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1021
Enclosures

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 243400
SDG # : 10-1021

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Quality Control Data.....823
Raw Data.....830
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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 243400
SDG # : 10-1021

January 04, 2010

Laboratory Identification:

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

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 22, 2009 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. The Gross A/B containers were preserved prior to analysis. The containers for radiochemistry were received at 15/16C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
243400001	CAPA-10-6821
243400002	CAPA-10-6823
243400003	CAPA-10-6824
243400004	CAPA-10-6827

Case Narrative

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

Data Package

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry.

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

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 04 January 2010

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

Chain of Custody and Supporting Documentation

Monday, December 21, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1021

REQUEST NUMBER: 10-1021

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS: 243400 1.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6821	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6821	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6821	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6823	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6823	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-6823	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6823	1	POLY	WSP-RAD	Nitric Acid	WG
CAPA-10-6823	1	POLY	Ra226+228	Nitric Acid	WG
CAPA-10-6824	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6824	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-6824	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6824	1	POLY	WSP-RAD	Nitric Acid	WG
CAPA-10-6824	1	POLY	Ra226+228	Nitric Acid	WG
CAPA-10-6827	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6827	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6827	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/21/09	1400	Patricia Dover-Dent	P.D. Dent	12-22-09	09:55
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

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

Printed Name Signature

Monday, December 21, 2009

REQUEST NUMBER: 10-1021

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1021

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/21/2009

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	EPA:150.1	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	EPA:160.1	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	EPA:245.2	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	

Monday, December 21, 2009

REQUEST NUMBER: 10-1021

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:245.2	1	CAPA-10-6827	WG	12/18/2009	
	EPA:300.0	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	EPA:310.1	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	EPA:335.3	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	EPA:350.1	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	EPA:353.2	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	EPA:365.4	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	EPA:900	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	EPA:901.1	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	EPA:903.1	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	EPA:904	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	EPA:905.0	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	HASL-300:AM-241	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	HASL-300:ISOPU	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	HASL-300:ISOU	1	CAPA-10-6823	WG	12/18/2009	

Monday, December 21, 2009

REQUEST NUMBER: 10-1021

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	HASL-300:ISOU	1	CAPA-10-6824	WG	12/18/2009	
	SM:A2340B	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	SW-846:6010B	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	SW-846:6020	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	
	SW-846:6850	1	CAPA-10-6821	WG	12/18/2009	
		1	CAPA-10-6827	WG	12/18/2009	

Final Page of REQUEST NUMBER 10-1021

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client:LANL	**SDG/ARCOC/Work Order:10-1021**
Received By:Patricia Dover-Dent	**Date Received:December 22, 2009**

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

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe
2	Samples requiring cold preservation within (0 < 6 deg. C?	X			Preservation Method: ice bags **BLUE ICE** dry ice **NONE** other (describe) **2,4,6,15,16**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?			X	Sample ID's, containers affected and observed pH. **CAPA-10-6823,6824 for Gross A/Beta** If Preservative added, Lot#H20053
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No Time on Chain of Custody**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:FED EX #'S

7209 7849 3160 2C
7209 7849 3218 2C
7209 7849 3230 2C
7209 7849 3240 2C
7209 7849 3229 4C
7209 7849 3251 4C
7209 7849 3207 6C
7209 7849 3012 15C
7209 7849 3023 16C
7209 7849 3159 16C

PM (or PMA) review: Initials GRT Date 12-23-09

Subject: Sample Receipt for 12/22/09
From: Dionne Francis <Dionne.Francis@gel.com>
Date: Wed, 23 Dec 2009 09:31:10 -0500
To: "Keith R. Greene" <kgreene@lanl.gov>, Joylene Valdez <joylenev@lanl.gov>, Valerie Davis <vsd@gel.com>

Keith,

RN 10-1021: the Gross A/B containers were preserved prior to analysis.

RN 10-1000: the lab did not receive THP-DRO containers for samples WSTR47-10-7141 and 7140. The lab will take an aliquot from other containers.

Thanks,
Dionne

--
Dionne Francis
Project Manager Assistant
GEL Laboratories, LLC
2040 Savage Road
Charleston, SC (USA) 29407
Direct: 843.769.7376 Ext. 4432
Main: 843.556.8171
Fax: 843.766.1178
E-mail: daf@gel.com
Web: www.gel.com

Let the Bible fill the memory, rule the heart, and guide the feet.

ORIGIN ID: SAFA (505)665-99[illegible]
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 21DEC09
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A[illegible]

2C

FedEx Express

2 of 2

TUE - 22DEC A1

TRK# 0263 7209 7849 3160

TUE - 22 DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 21DEC09
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AAREW0130SS00

2C

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TUE - 22DEC A1

TRK# 0201 7209 7849 3218

PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
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TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 21DEC09
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A032VA00

2C

FedEx Express

2 of 2

TUE - 22DEC A1

MPS# 0263 7209 7849 3230

PRIORITY OVERNIGHT

Mstr# 7209 7849 3229 0201

29407
SC-US
CHS

XX CHSA

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 21DEC09
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A032VA00

2C

FedEx Express

1 of 2

TUE - 22DEC A1

TRK# 0201 7209 7849 3240

PRIORITY OVERNIGHT

MASTER

29407
SC-US
CHS

XX CHSA

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 21DEC09
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A032VA00

4c

FedEx Express

1 of 2
TRK# 0201 7209 7849 3229
TUE - 22DEC A1
PRIORITY OVERNIGHT
MASTER

XX CHSA
29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 21DEC09
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A05529E00

6c

FedEx Express

TRK# 0201 7209 7849 3207
TUE - 22DEC A1
PRIORITY OVERNIGHT

XX CHSA
29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 21DEC09
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A032VA00

4c

FedEx Express

2 of 2
MPS# 0263 7209 7849 3251
Mstr# 7209 7849 3240 0201
TUE - 22DEC A1
PRIORITY OVERNIGHT

XX CHSA
29407
SC-US
CHS

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

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 21DEC09
ACTWGT: 69.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGM0

15c

FedEx Express

2 of 3
MPS# 0263 7209 7849 3012
Mstr# 7209 7849 3001 0201
TUE - 22DEC A1
PRIORITY OVERNIGHT

XX CHSA
29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 21DEC09
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGMO

16C

FedEx Express

3 of 3
MPS# 0263 7209 7849 3023
Mstr# 7209 7849 3001 0201

TUE - 22DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-4J4 NRgf V3 03-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 21DEC09
ACTWGT: 39.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWMO

16C

FedEx Express

1 of 2
TRK# 0201 7209 7849 3159
MASTER

TUE - 22DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

DATA REVIEW QUALIFIER FLAG DEFINITION SHEET

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-1021

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	936066
Prep Batch Number:	936065

Sample Analysis

Sample ID	Client ID
243400001	CAPA-10-6821
243400004	CAPA-10-6827
1202002920	Interference Check Sample (ICS)
1202002916	Method Blank (MB)
1202002917	Laboratory Control Sample (LCS)
1202002918	243286004(CAPA-10-6747) Matrix Spike (MS)
1202002919	243286004(CAPA-10-6747) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

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CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 243286004 (CAPA-10-6747) from SDG 10-998 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

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Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception reports (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

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System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert M. Maier **Date:** 01/15/10

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SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 936065

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6821

Date Received: 22-DEC-09

GEL Job No (SDG): 10-1021

GEL Sample ID: 243400001

Date Filtered: 29-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.576	ug/L		1	29-DEC-09 21:39	per1229071a
	Perchlorate Isotope Ratio			2.96			1	29-DEC-09 21:39	per1229071a
14797-73-0	Perchlorate-101	.05	.2	0.591	ug/L		1	29-DEC-09 21:39	per1229071a
	Perchlorate-O(18)			0.514	ug/L		1	29-DEC-09 21:39	per1229071a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 936065

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6827

Date Received: 22-DEC-09

GEL Job No (SDG): 10-1021

GEL Sample ID: 243400004

Date Filtered: 29-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.465	ug/L		1	29-DEC-09 21:46	per1229072a
	Perchlorate Isotope Ratio			3			1	29-DEC-09 21:46	per1229072a
14797-73-0	Perchlorate-101	.05	.2	0.471	ug/L		1	29-DEC-09 21:46	per1229072a
	Perchlorate-O(18)			0.491	ug/L		1	29-DEC-09 21:46	per1229072a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1021

Extract Batch Code: 936065

Date Filtered: 29–DEC–09

Matrix: GROUND WATER

Sample ID: 1202002917

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.183	ug/L	91.5		85 – 115
Perchlorate Isotope Ratio		3.02				–
Perchlorate–101	0.200	.184	ug/L	92.2		85 – 115
Perchlorate–O(18)		.463	ug/L			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–1021

Extract Batch Code: 936065

Date Filtered: 29–DEC–09

Matrix: GROUND WATER

Sample ID: 1202002920

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.199	ug/L	99.6		70 – 130
Perchlorate Isotope Ratio		2.97				
Perchlorate–101	0.200	.204	ug/L	102		70 – 130
Perchlorate–O(18)		.546	ug/L			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229058a
Date: 29-Dec-2009
Time: 20:07:03
ID: 1202002920 | LANL | 936066 | LIQ | ICS | 1 |
Vial: 2:4,C

12/30/09

Perchlorate

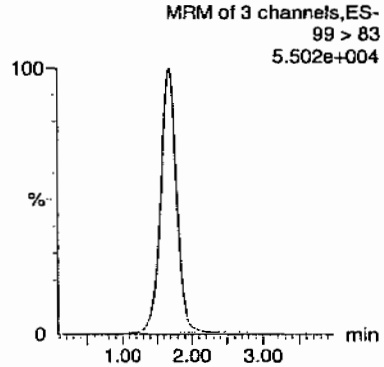

Perchlorate

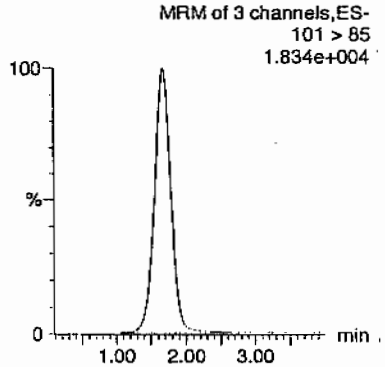

Perchlorate-101

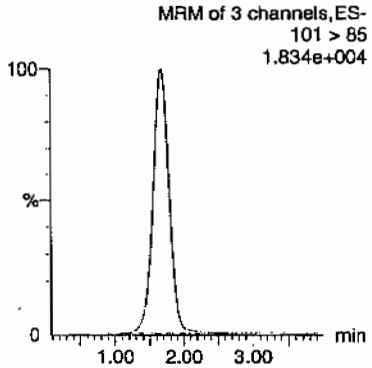

Perchlorate-O(18)

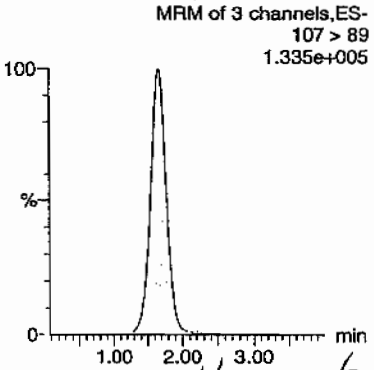

HMM 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202002920	Perchlorate	99 > 83	1.68	14811.310	14811.310	bb			0.1993	99.63	-0.37	723.005	2.97
1202002920	Perchlorate-101	101 > 85	1.67	4987.850	4987.850	bb			0.2038	101.92	1.92	1557.5...	
1202002920	Perchlorate-O(18)	107 > 89	1.67	36368.996	36368.996	bb			0.5463	109.27	9.27	6107.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–1021

Extract Batch Code: 936065

Date Extracted: 29–DEC–09

GEL MS/PS ID: 1202002918

Client ID: CAPA–10–6747

GEL MSD/PSD ID: 1202002919

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	0.200	0.00175	ug/L	0.192	95	.199	98.9	3.97	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.07		2.99		0		–
Perchlorate–101	0.200	0.00226	ug/L	0.190	93.9	.202	100	6.35	30	75 – 125
Perchlorate–O(18)	0	0.532	ug/L	0.477		.553		14.8		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1021

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	29–DEC–09	per1229001a	IPB001
Perchlorate–101	0.00	0	NA	29–DEC–09	per1229001a	IPB001
Perchlorate	0.00	0	NA	29–DEC–09	per1229002a	IPB001
Perchlorate–101	0.00	0	NA	29–DEC–09	per1229002a	IPB001

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per122909a.mdb 29 Dec 2009 14:36:05
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per122909a.cdb 30 Dec 2009 06:51:17

Name: per1229001a
Date: 29-Dec-2009
Time: 13:24:44
ID: IPB001
Vial: 1:1,A

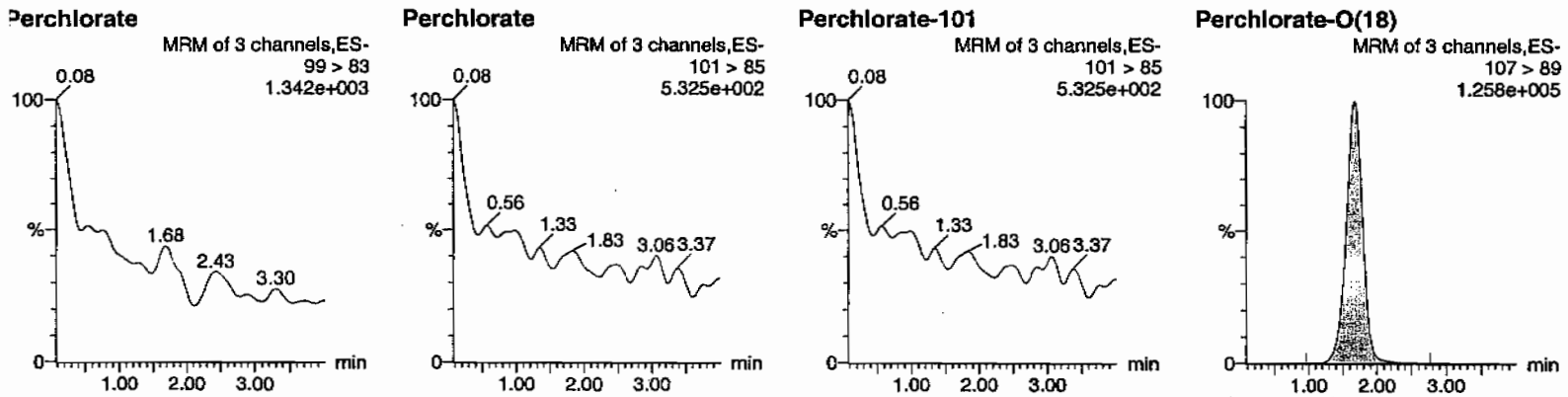

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB001	Perchlorate	99 > 83											0.00
PB001	Perchlorate-101	101 > 85											
PB001	Perchlorate-O(18)	107 > 89	1.67	35086.422	35086.422	bb			0.5271	105.42	5.42	10266....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229002a
Date: 29-Dec-2009
Time: 13:31:57
ID: IPB001
Vial: 1:1,A

MMT 12/30/09

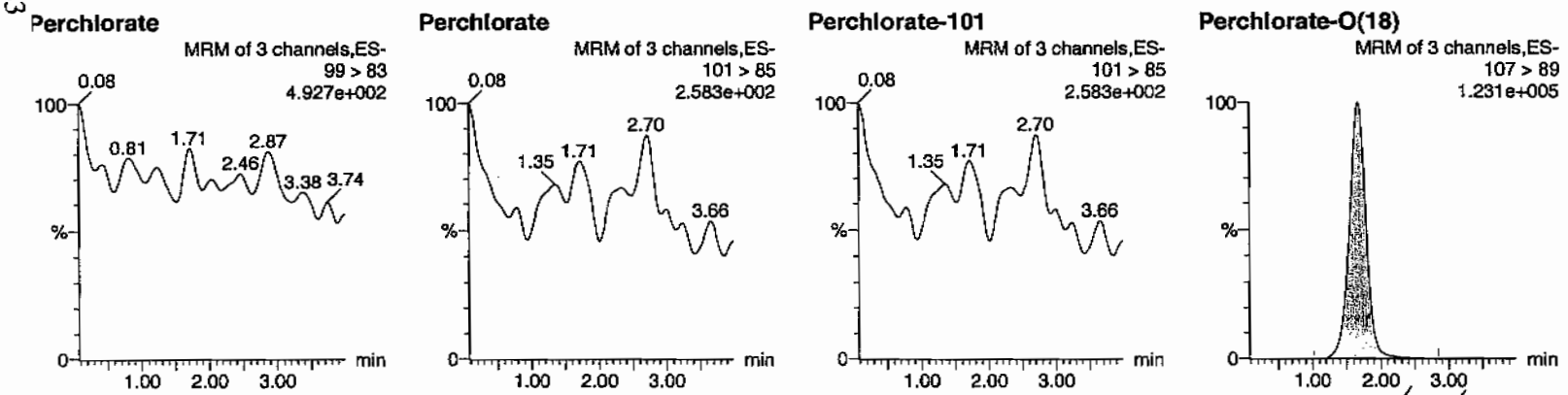

Hmm 12/30/09

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB001	Perchlorate	99 > 83											0.00
PB001	Perchlorate-101	101 > 85											
PB001	Perchlorate-O(18)	107 > 89	1.67	34490.836	34490.836	bb			0.5181	103.63	3.63	3293.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1021

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	29–DEC–09	per1229008a	IPB002
Perchlorate–101	0.00	0	NA	29–DEC–09	per1229008a	IPB002
Perchlorate	0.00	0	NA	29–DEC–09	per1229010a	IPB003
Perchlorate–101	0.00	0	NA	29–DEC–09	per1229010a	IPB003
Perchlorate	0.00	0	NA	29–DEC–09	per1229023a	IPB004
Perchlorate–101	0.00	0	NA	29–DEC–09	per1229023a	IPB004
Perchlorate	0.00	0	NA	29–DEC–09	per1229030a	IPB005
Perchlorate–101	0.00	0	NA	29–DEC–09	per1229030a	IPB005
Perchlorate	0.00	0	NA	29–DEC–09	per1229043a	IPB006
Perchlorate–101	0.00	0	NA	29–DEC–09	per1229043a	IPB006
Perchlorate	0.00	0	NA	29–DEC–09	per1229054a	IPB007
Perchlorate–101	0.00	0	NA	29–DEC–09	per1229054a	IPB007
Perchlorate	0.00	0	NA	29–DEC–09	per1229066a	IPB008

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1021

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate-101	0.00	0	NA	29-DEC-09	per1229066a	IPB008
Perchlorate	0.00	0	NA	29-DEC-09	per1229078a	IPB009
Perchlorate-101	0.00	0	NA	29-DEC-09	per1229078a	IPB009

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

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Date: 29-Dec-2009
Time: 14:14:07
ID: IPB002
Vial: 1:1,A

MMT 12/29/09

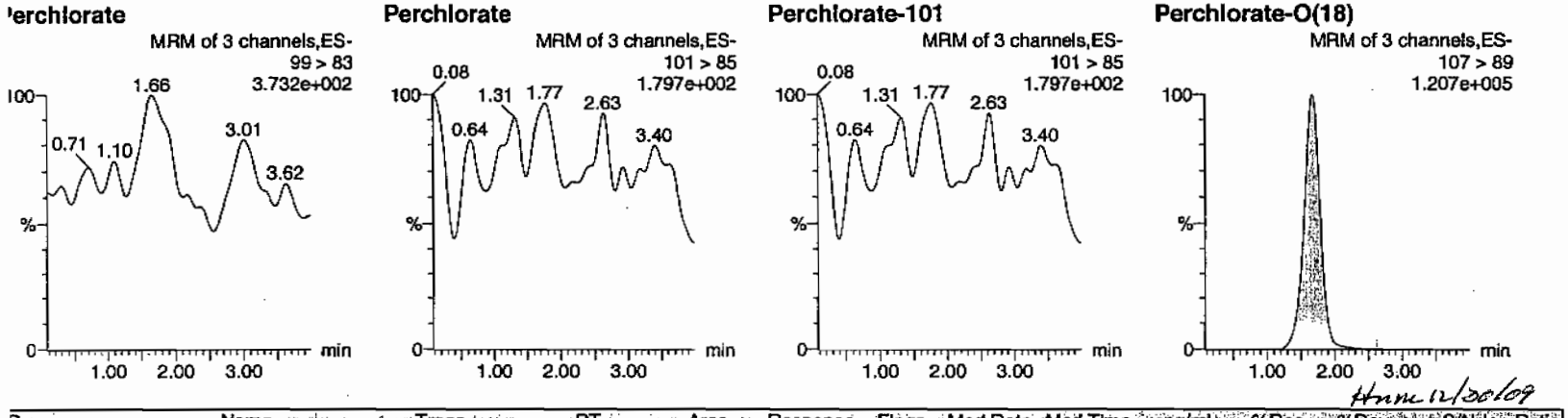

Hmm 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB002	Perchlorate	99 > 83											0.00
PB002	Perchlorate-101	101 > 85											
PB002	Perchlorate-O(18)	107 > 89	1.67	33924.273	33924.273	bb			0.5096	101.92	1.92	7224.2...	

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uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Michael A. Penny

ataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

ast Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
rinted: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

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ate: 29-Dec-2009
ime: 14:28:12
D: IPB003
ial: 1:1,A

MMT 12/30/09

erchlorate

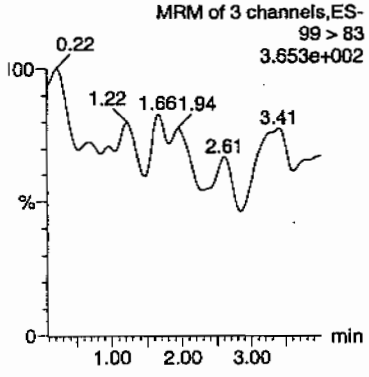

Perchlorate

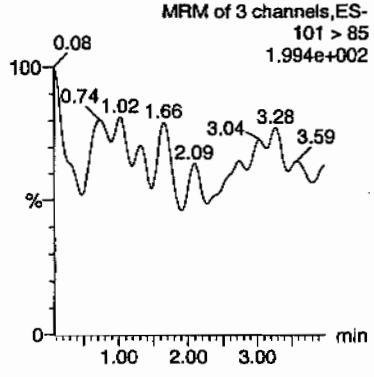

Perchlorate-101

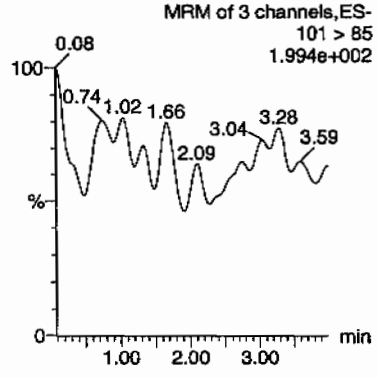

Perchlorate-O(18)

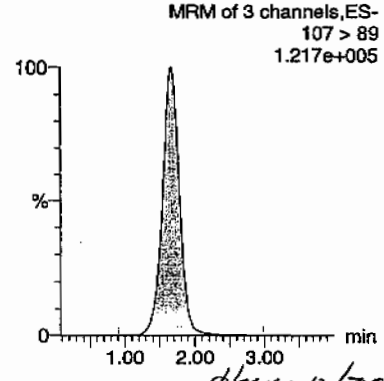

HMM 12/30/09

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB003	Perchlorate	99 > 83											0.00
PB003	Perchlorate-101	101 > 85											
PB003	Perchlorate-O(18)	107 > 89	1.67	34074.816	34074.816	bb			0.5119	102.38	2.38	3513.1...	

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uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Michael A. Penny

ataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

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rinted: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

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ate: 29-Dec-2009
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ial: 1:1,A

MM 12/30/09

erchlorate

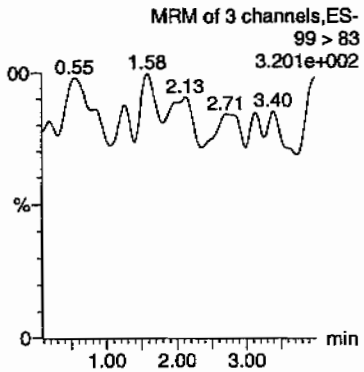

Perchlorate

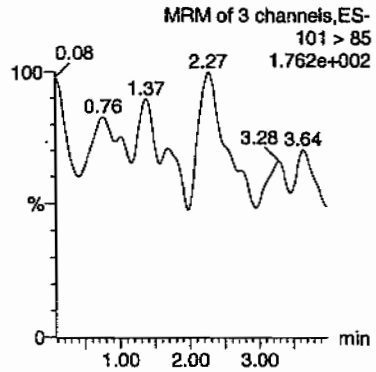

Perchlorate-101

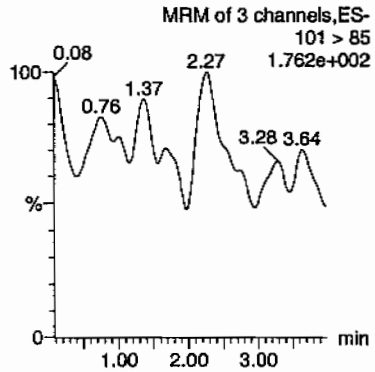

Perchlorate-O(18)

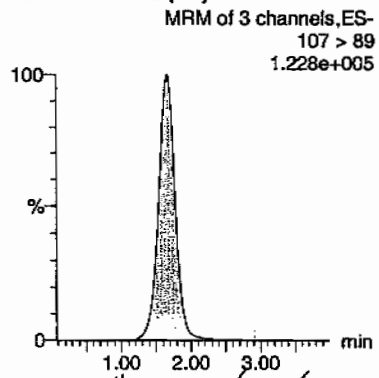

Hmm 12/30/09

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB004	Perchlorate	99 > 83											0.00
PB004	Perchlorate-101	101 > 85											
PB004	Perchlorate-O(18)	107 > 89	1.67	34397.980	34397.980	bb			0.5167	103.35	3.35	5102.0...	

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uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Michael A. Penny

ataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

ast Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
rinted: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

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ate: 29-Dec-2009
ime: 16:49:06
D: IPB005
ial: 1:1,A

MM 12/30/09

erchlorate

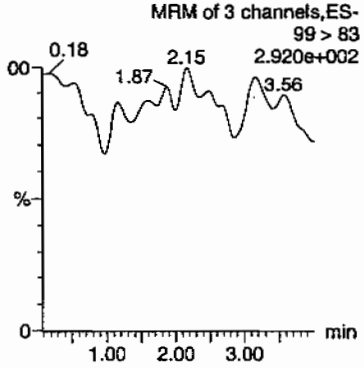

Perchlorate

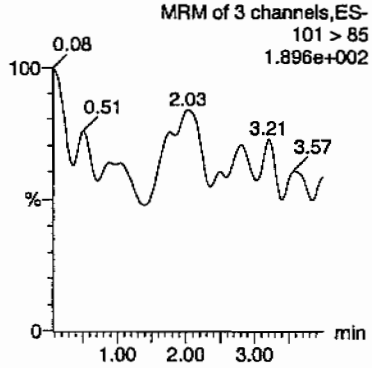

Perchlorate-101

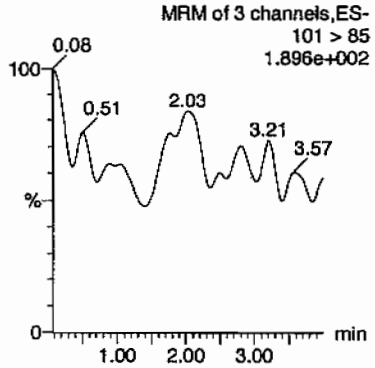

Perchlorate-O(18)

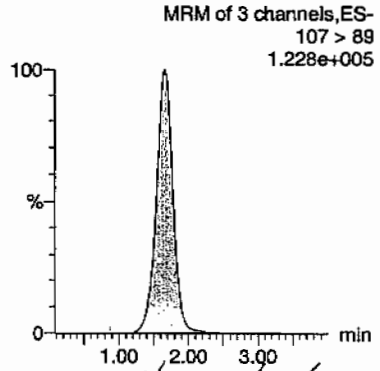

HMC 12/30/09

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB005	Perchlorate	99 > 83											0.00
PB005	Perchlorate-101	101 > 85											
PB005	Perchlorate-O(18)	107 > 89	1.67	34324.867	34324.867	bb			0.5156	103.13	3.13	20032....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

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Date: 29-Dec-2009
Time: 18:20:54
ID: IPB006
Vial: 1:1,A

MMT 12/30/09

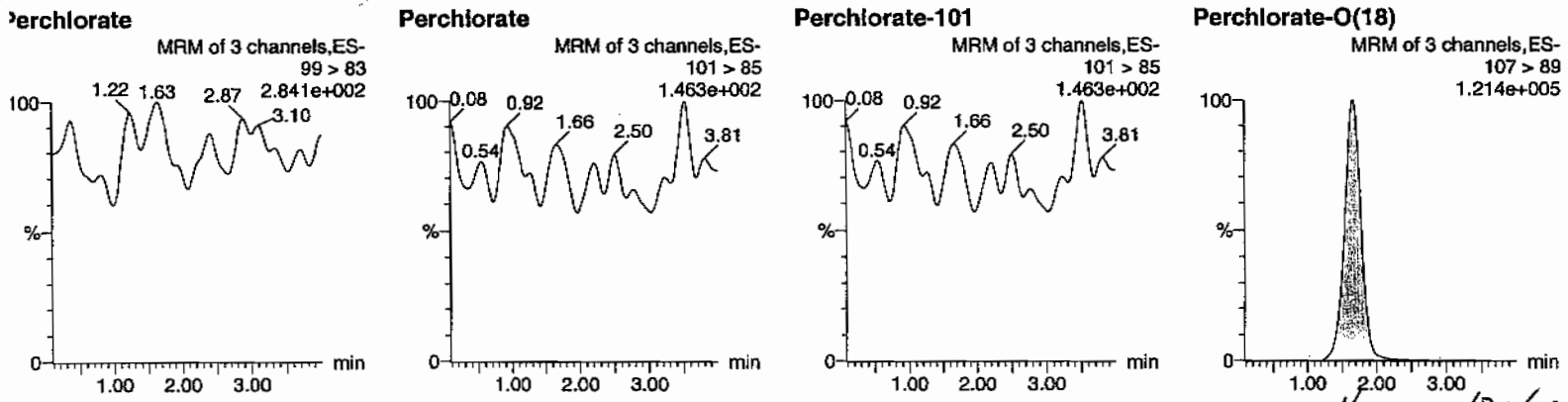

HMM 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB006	Perchlorate	99 > 83											0.00
PB006	Perchlorate-101	101 > 85											
PB006	Perchlorate-O(18)	107 > 89	1.66	33675.824	33675.824	bb			0.5059	101.18	1.18	6382.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229054a
Date: 29-Dec-2009
Time: 19:38:41
ID: IPB007
Vial: 1:1,A

MM 12/30/09

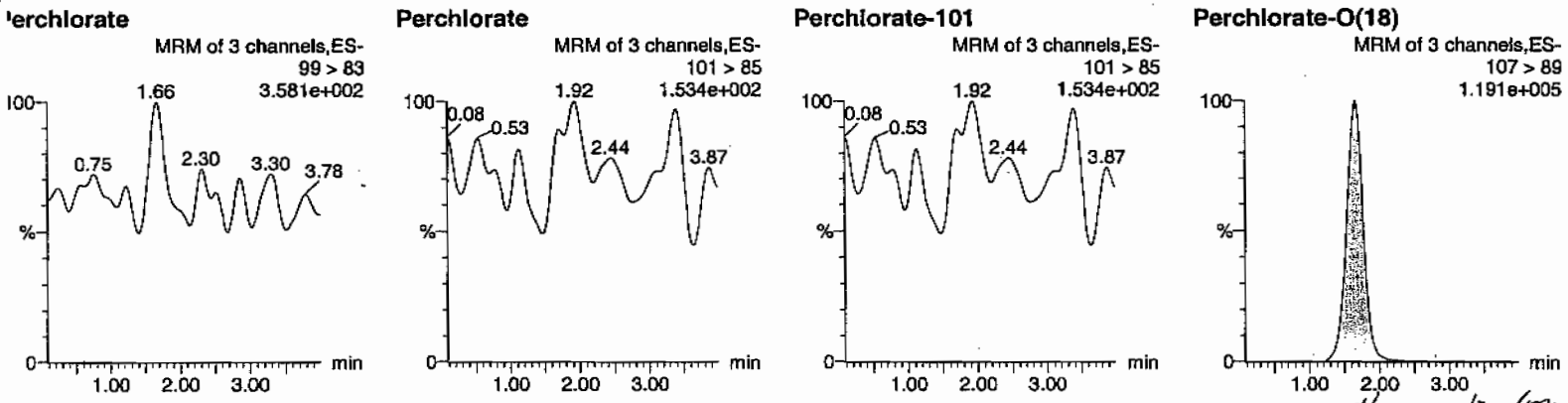

HMM 12/30/09

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB007	Perchlorate	99 > 83											0.00
PB007	Perchlorate-101	101 > 85											
PB007	Perchlorate-O(18)	107 > 89	1.66	32852.363	32852.363	bb			0.4935	98.70	-1.30	3290.1...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

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Date: 29-Dec-2009
Time: 21:03:40
ID: IPB008
Vial: 1:1,A

MMT 12/30/09

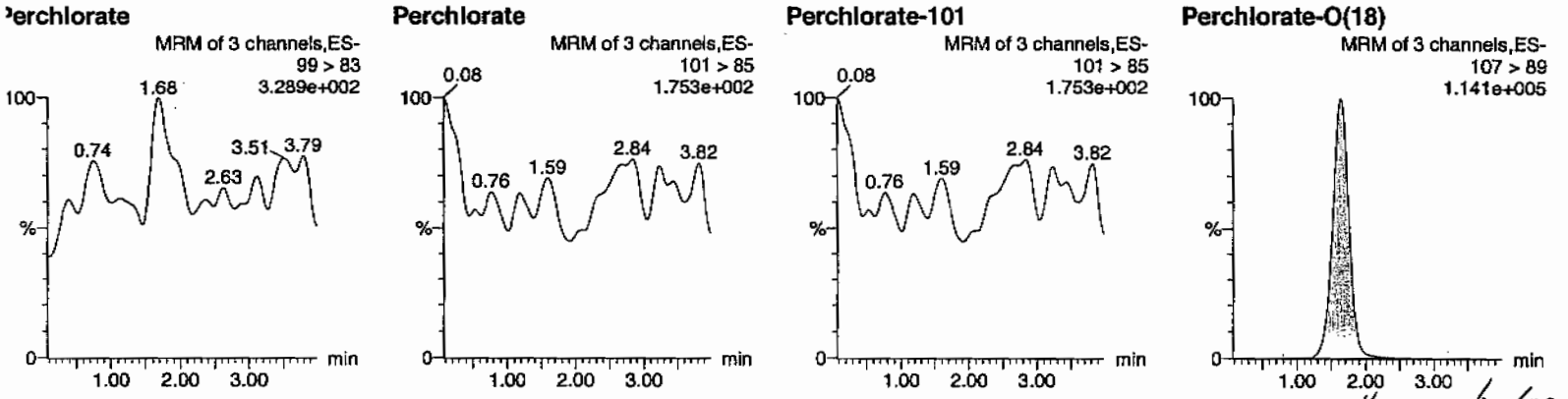

Hmunbolog

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB008	Perchlorate	99 > 83											0.00
PB008	Perchlorate-101	101 > 85											
PB008	Perchlorate-O(18)	107 > 89	1.63	31623.988	31623.988	bb			0.4751	95.01	-4.99	16903....	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

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Date: 29-Dec-2009
Time: 22:28:37
ID: IPB009
Vial: 1:1,A

MATP 12/30/09

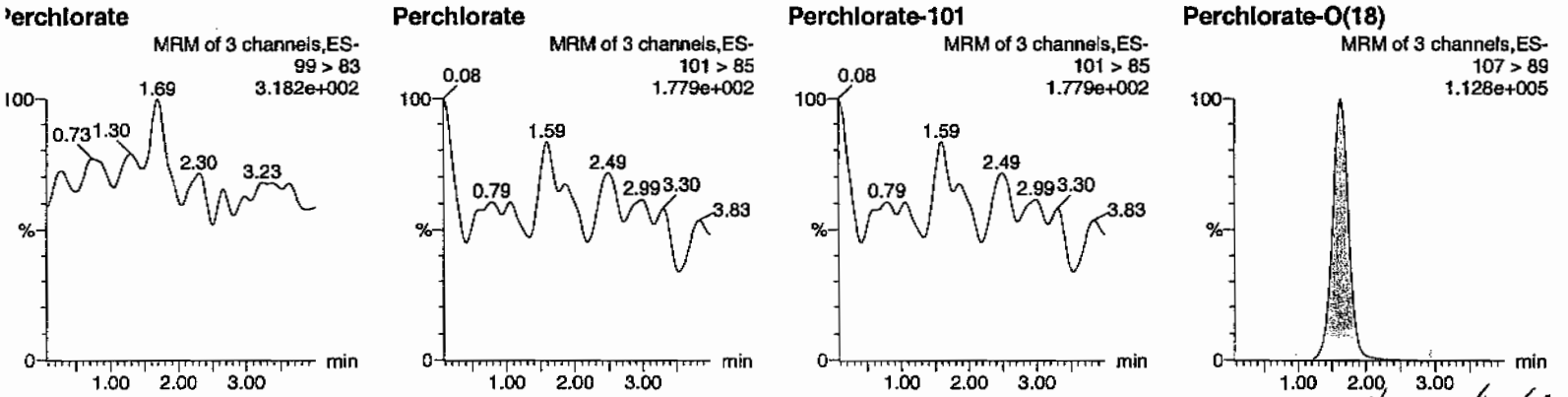

Hanc 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
PB009	Perchlorate	99 > 83											0.00
PB009	Perchlorate-101	101 > 85											
PB009	Perchlorate-O(18)	107 > 89	1.63	30921.221	30921.221	bb			0.4645	92.90	-7.10	7650.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWJ 01-09-08

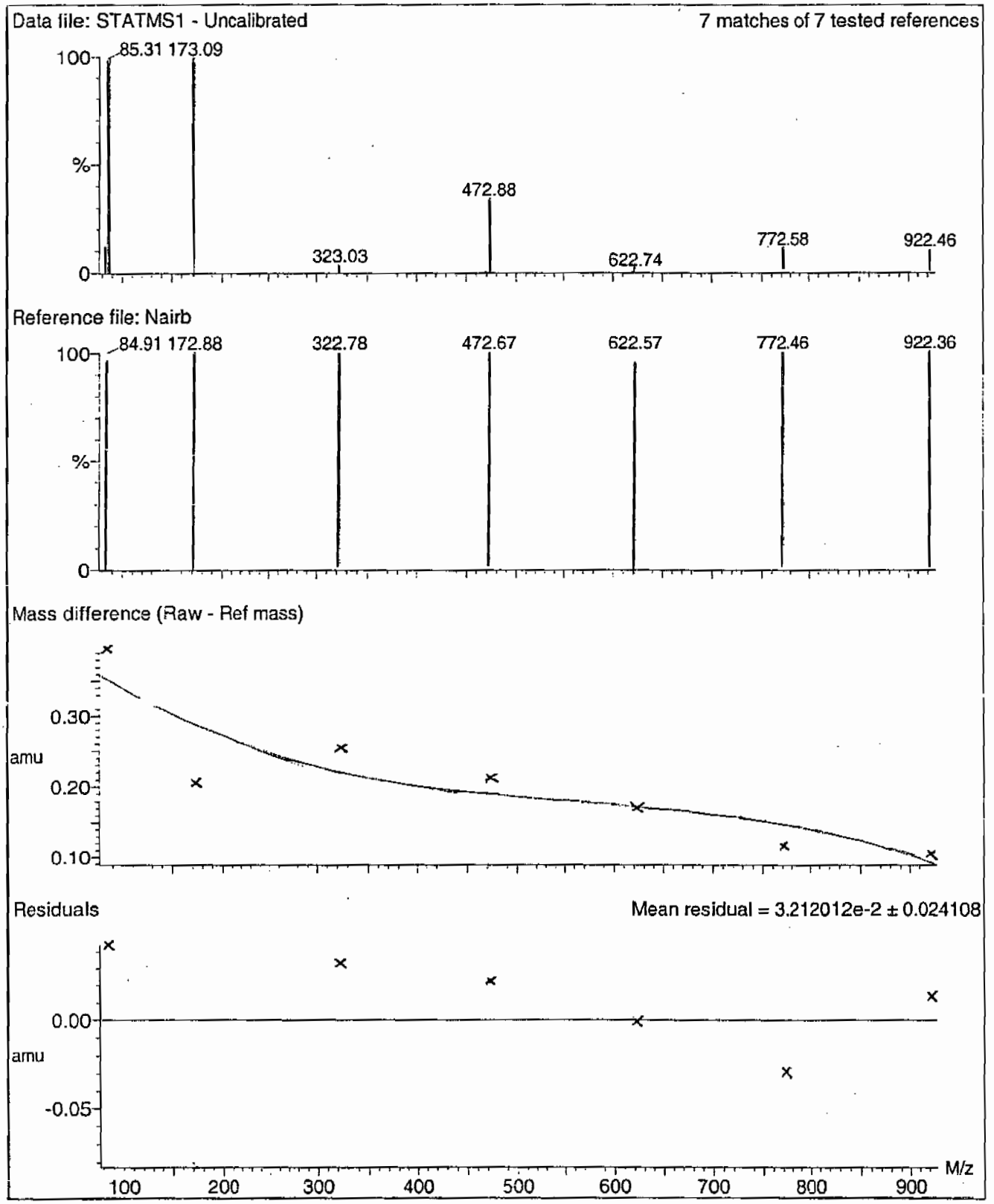

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

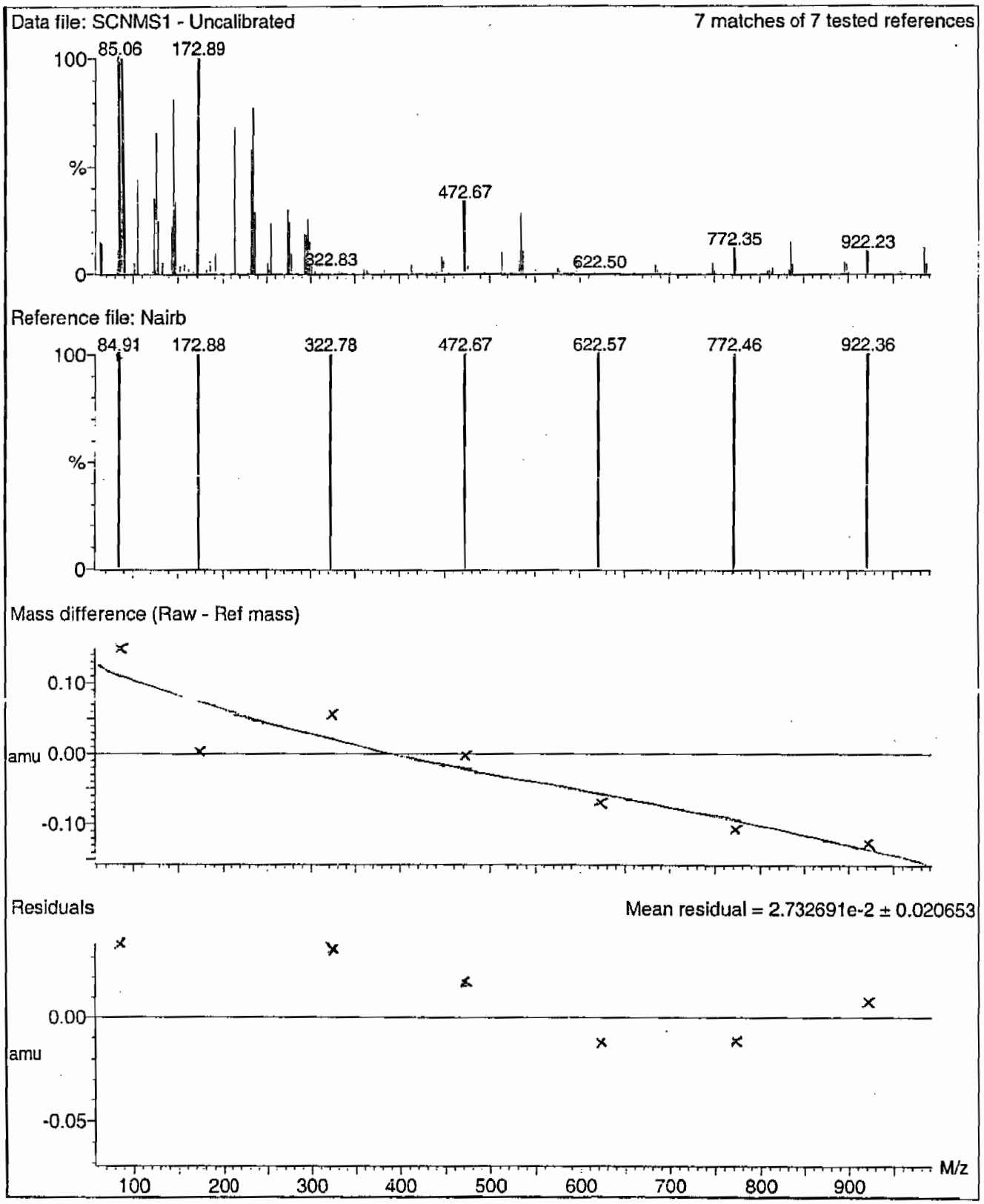

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

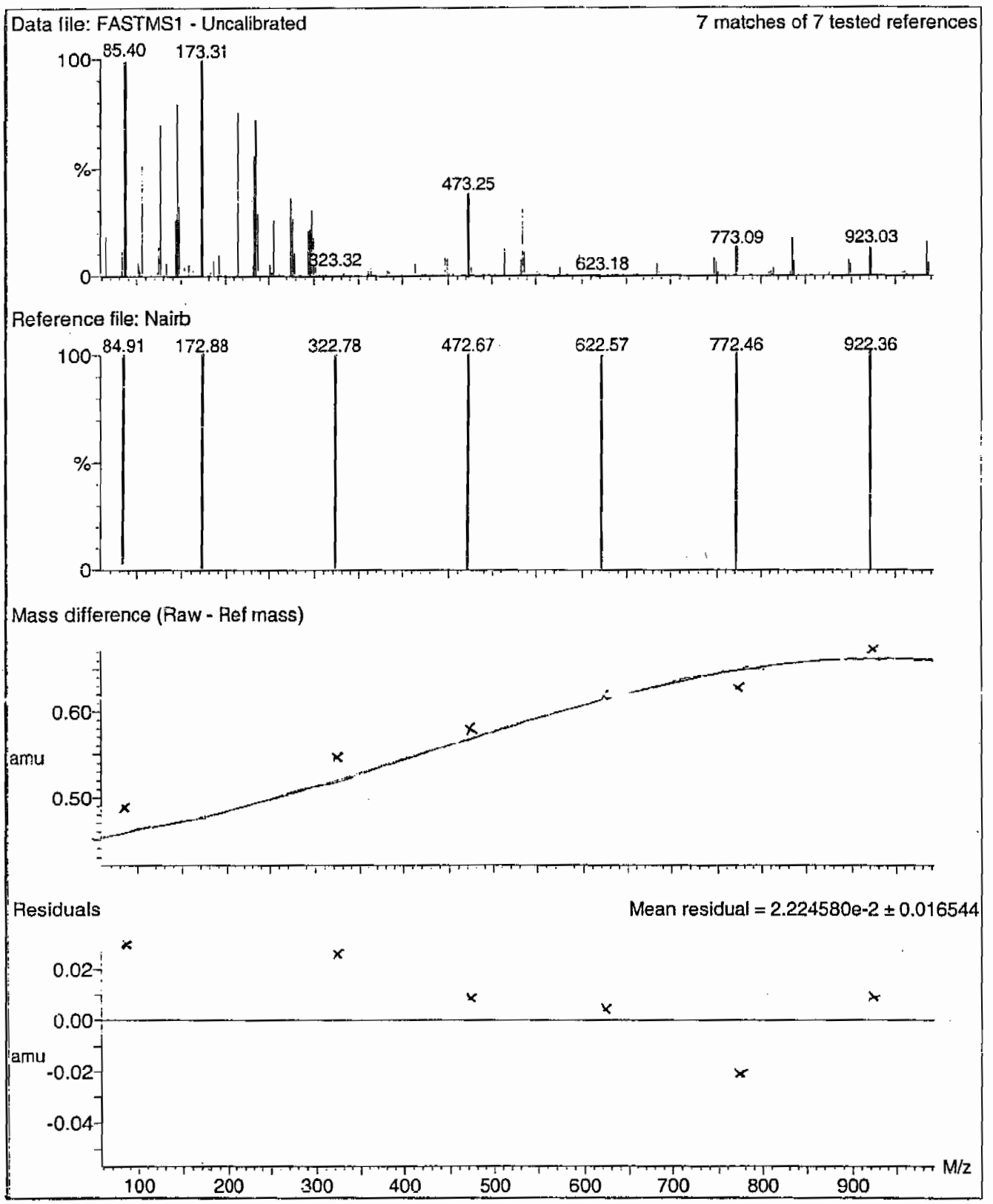

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

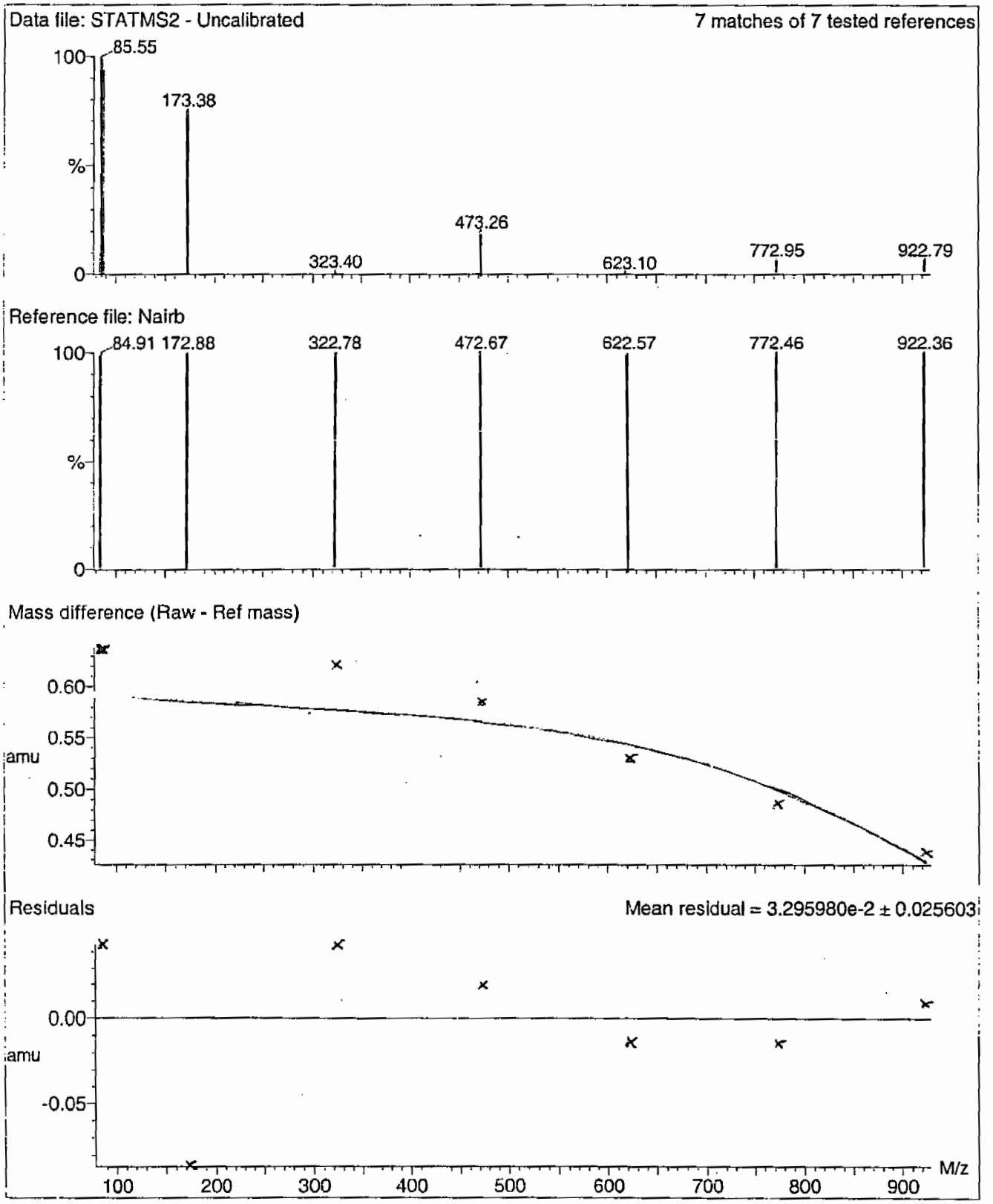

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

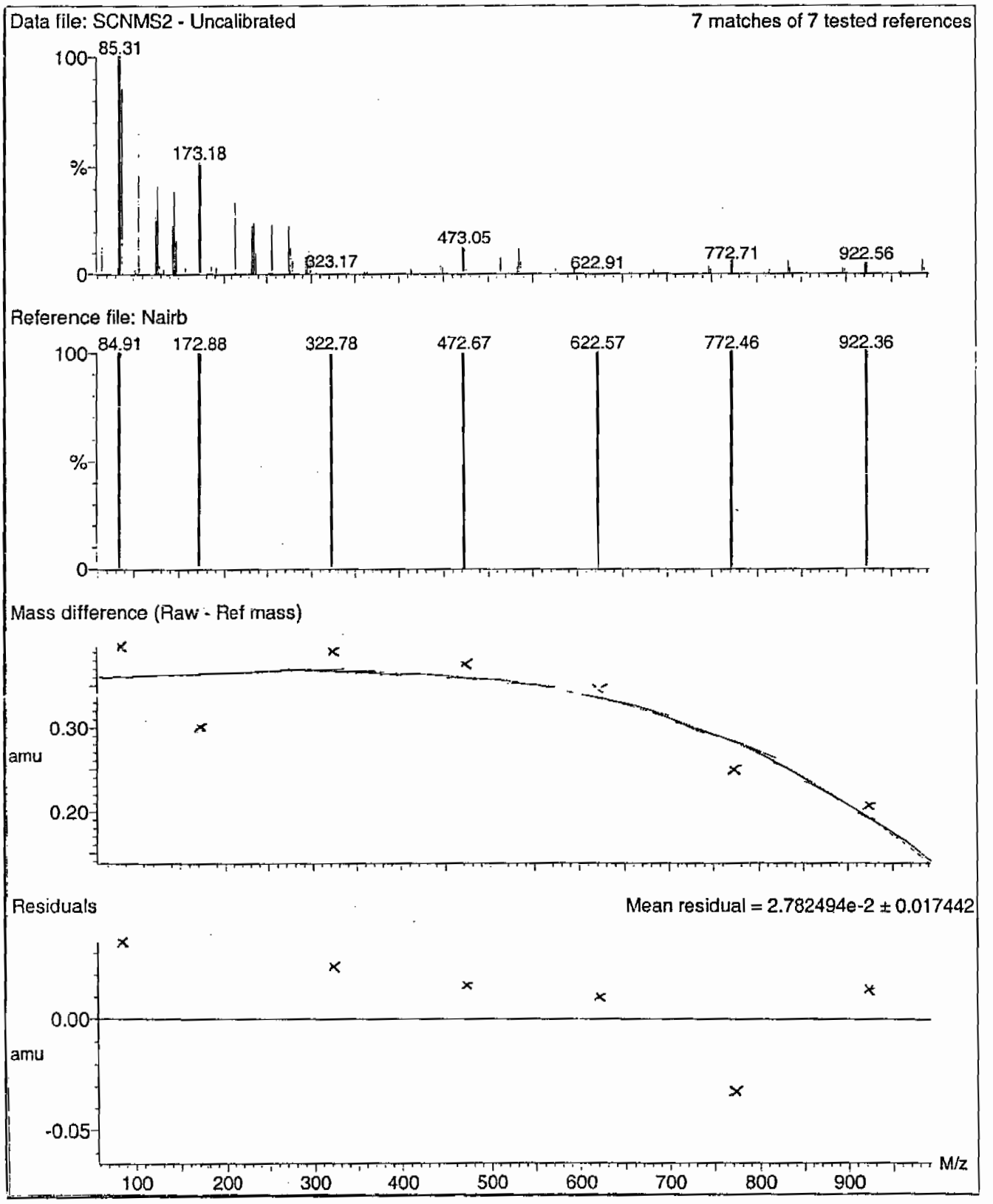

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

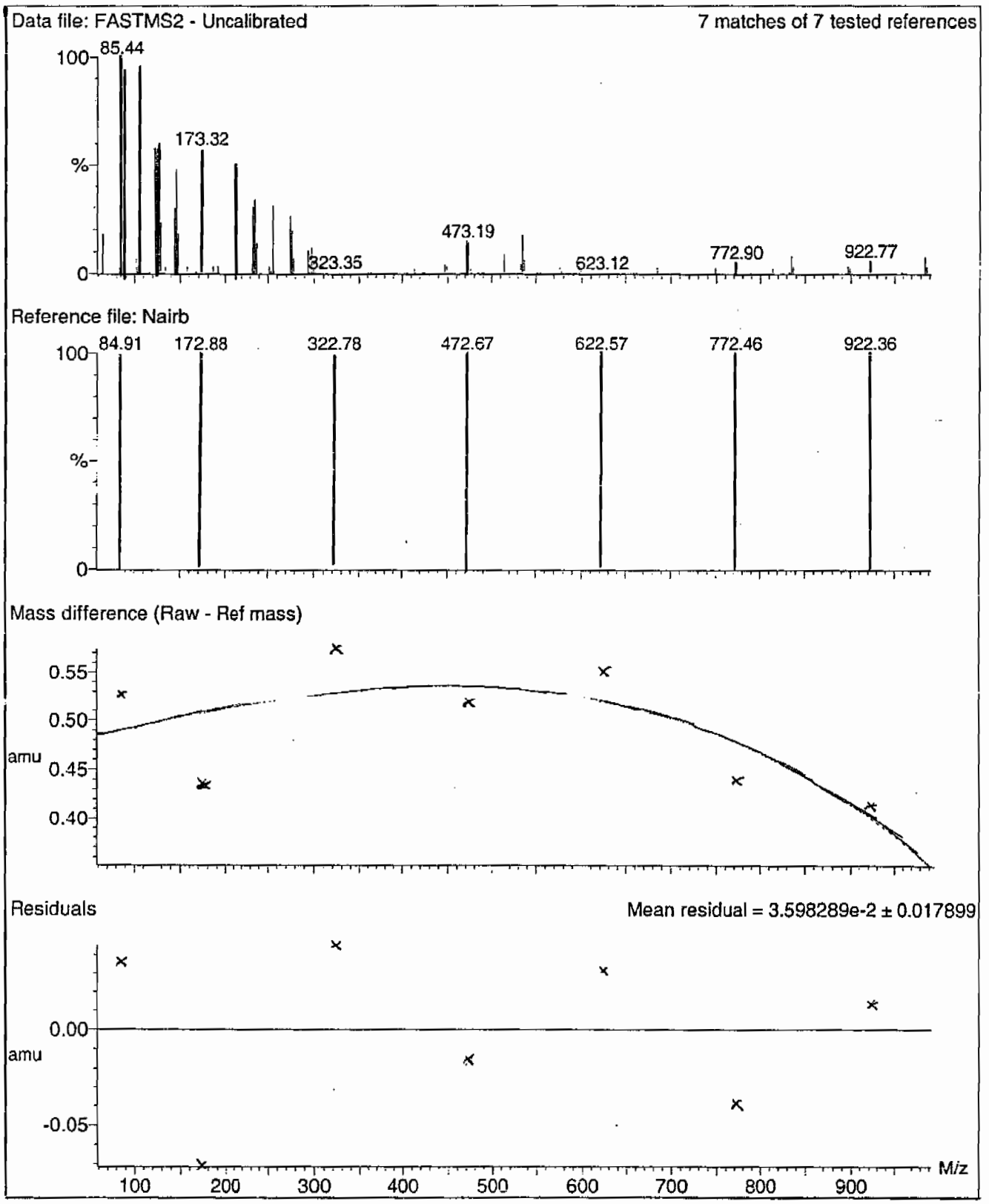

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Tuesday, December 29, 2009 13:23:13 Eastern Standard Time

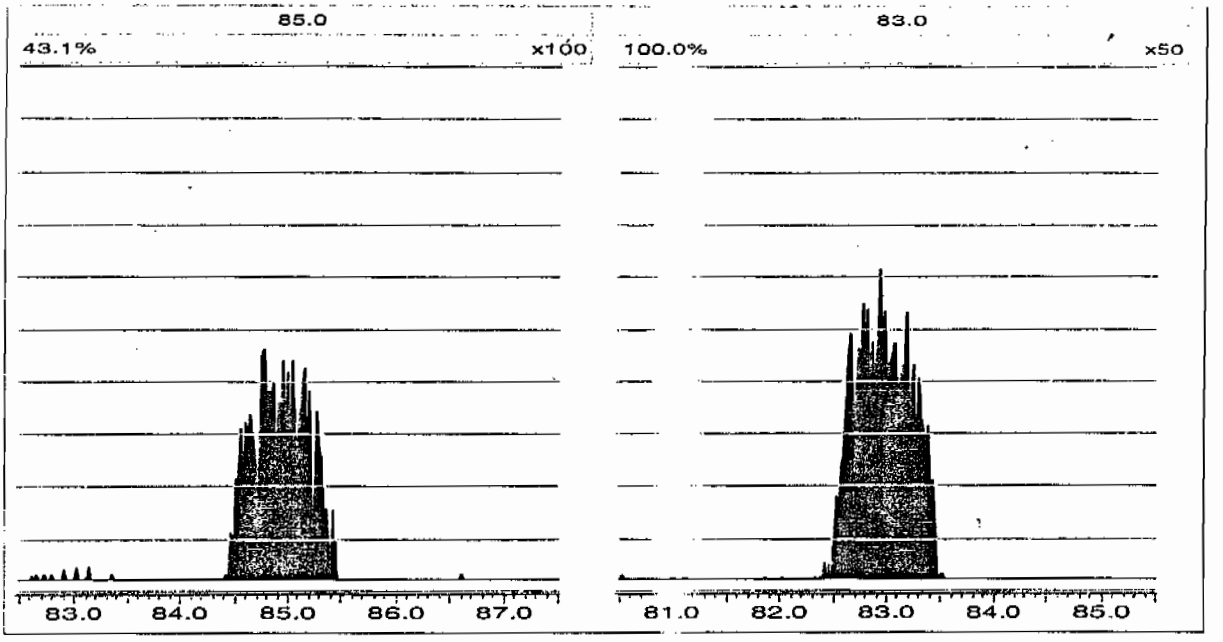

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1021

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per1229006a**	**29–DEC–09**	**33335.8**				
Lower Area Limit			**16667.9**				
Upper Area Limit			**66671.6**				
1202002916	per1229056a	29–DEC–09 19:52	31050.6	1.66	1.64433	.991	
1202002917	per1229057a	29–DEC–09 20:00	30836.8	1.64	1.65668	1.01	
1202002920	per1229058a	29–DEC–09 20:07	36369	1.67	1.68162	1.007	
243400001	per1229071a	29–DEC–09 21:39	34218.5	1.63	1.64437	1.009	
243400004	per1229072a	29–DEC–09 21:46	32691.8	1.63	1.6444	1.009	

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SAMPLE
DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 936065

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6821

Date Received: 22-DEC-09

GEL Job No (SDG): 10-1021

GEL Sample ID: 243400001

Date Filtered: 29-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.576	ug/L		1	29-DEC-09 21:39	per1229071a
	Perchlorate Isotope Ratio			2.96			1	29-DEC-09 21:39	per1229071a
14797-73-0	Perchlorate-101	.05	.2	0.591	ug/L		1	29-DEC-09 21:39	per1229071a
	Perchlorate-O(18)			0.514	ug/L		1	29-DEC-09 21:39	per1229071a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229071a
Date: 29-Dec-2009
Time: 21:39:02
ID: 243400001 | LANL | 936066 | LIQ | 1 |
Vial: 2:6,A

MM 12/30/09

Perchlorate

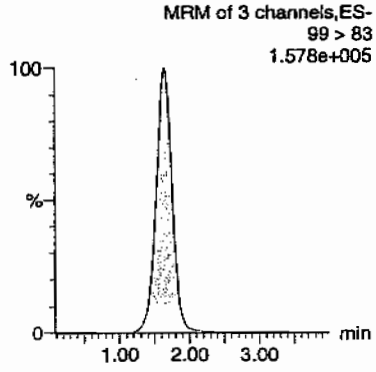

Perchlorate

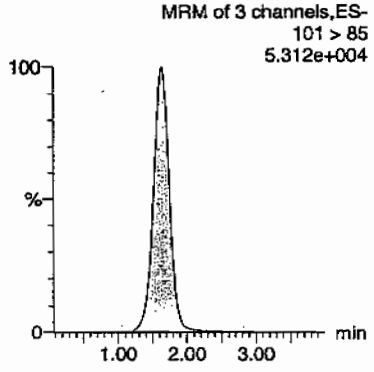

Perchlorate-101

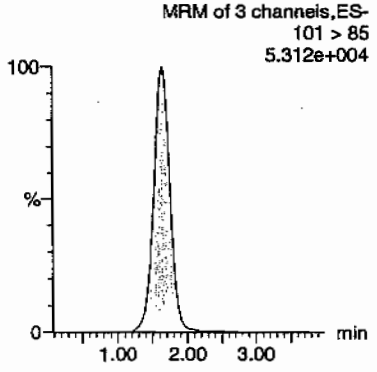

Perchlorate-O(18)

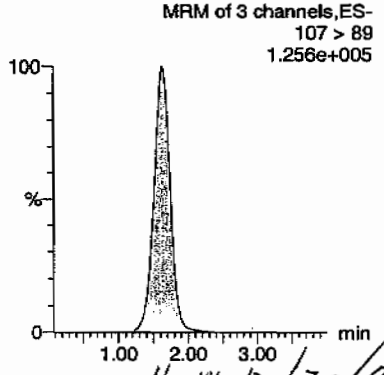

HMM 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243400001	Perchlorate	99 > 83	1.64	42839.797	42839.797	bb			0.5763			6260.0...	2.96
243400001	Perchlorate-101	101 > 85	1.63	14467.583	14467.583	bb			0.5913			6136.7...	
243400001	Perchlorate-O(18)	107 > 89	1.63	34218.465	34218.465	bb			0.5140	102.81	2.81	8134.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 936065

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6827

Date Received: 22-DEC-09

GEL Job No (SDG): 10-1021

GEL Sample ID: 243400004

Date Filtered: 29-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.465	ug/L		1	29-DEC-09 21:46	per1229072a
	Perchlorate Isotope Ratio			3			1	29-DEC-09 21:46	per1229072a
14797-73-0	Perchlorate-101	.05	.2	0.471	ug/L		1	29-DEC-09 21:46	per1229072a
	Perchlorate-O(18)			0.491	ug/L		1	29-DEC-09 21:46	per1229072a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229072a
Date: 29-Dec-2009
Time: 21:46:06
ID: 243400004 | LANL | 936066 | LQ | 1 |
Vial: 2:6,B

MAT 12/30/09

Perchlorate

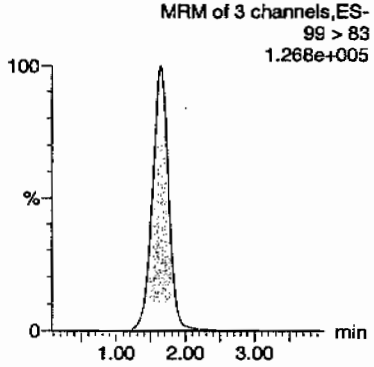

Perchlorate

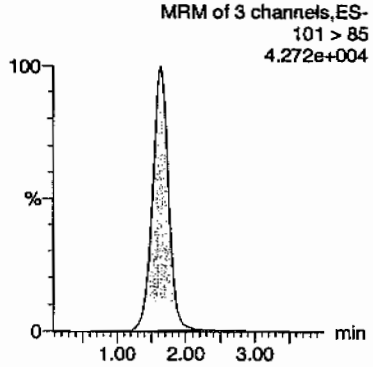

Perchlorate-101

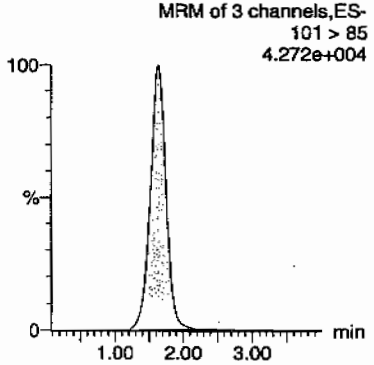

Perchlorate-O(18)

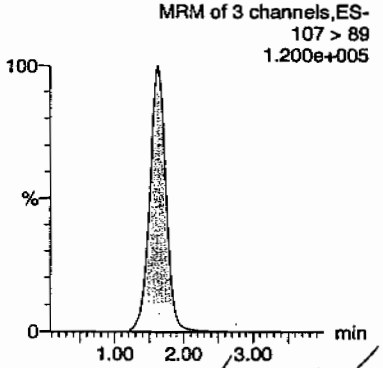

12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243400004	Perchlorate	99 > 83	1.64	34546.125	34546.125	bb			0.4647			6001.2...	3.00
243400004	Perchlorate-101	101 > 85	1.63	11522.395	11522.395	bb			0.4709			1466.7...	
243400004	Perchlorate-O(18)	107 > 89	1.63	32691.826	32691.826	bb			0.4911	98.22	-1.78	8948.5...	

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STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1021

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 29–DEC–09

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 74334.32

Response Type: External Standard

Curve Type: RF

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Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1021

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 29–DEC–09

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 24468.6

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per122909a.mdb 29 Dec 2009 14:36:05
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per122909a.cdb 30 Dec 2009 06:51:17

Compound name: Perchlorate
Response Factor: 74334.3
RF SD: 1798.79, % Relative SD: 2.41986
Response type: External Std, Area
Curve type: RF

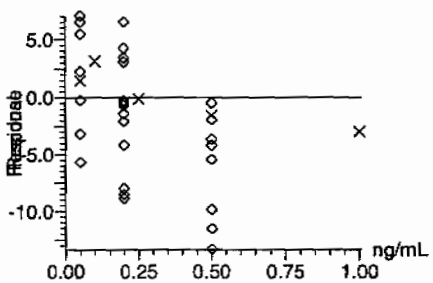

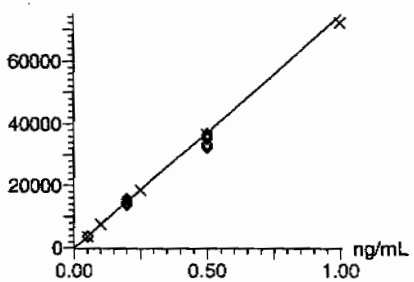

MM 12/30/09

Compound name: Perchlorate-101
Response Factor: 24468.6
RF SD: 542.853, % Relative SD: 2.21857
Response type: External Std, Area
Curve type: RF

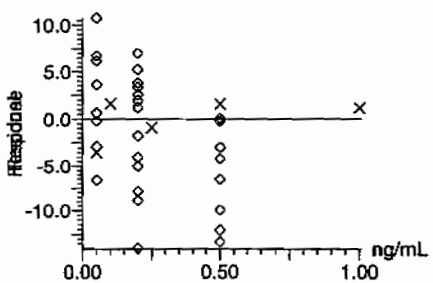

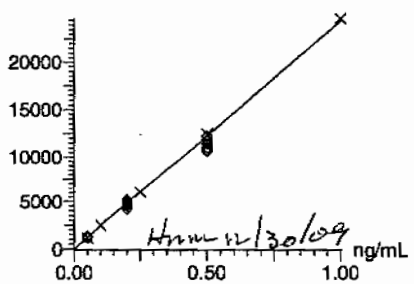

Hmm 12/30/09

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 66568.2
RF SD: 652.618, % Relative SD: 0.980376
Response type: External Std, Area
Curve type: RF

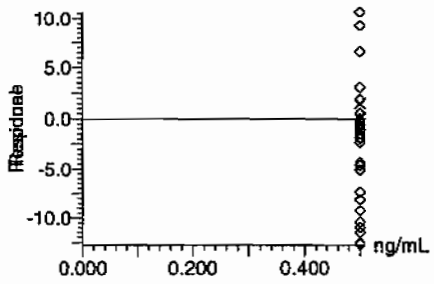

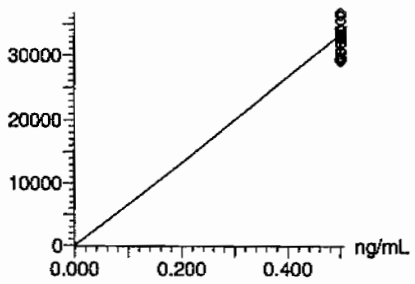

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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luantify Sample Report MassLynx 4.0 SP4
'he GEL Group, LLC Analyst: Michael A. Penny

lataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

ast Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
'rinted: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

lame: per1229003a
late: 29-Dec-2009
ime: 13:39:00
): WCL091218-01
ial: 1:1,B

LMM 12/29/09

'erchlorate

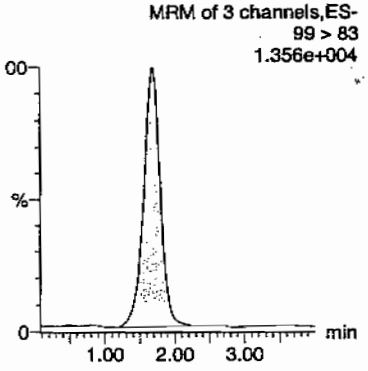

Perchlorate

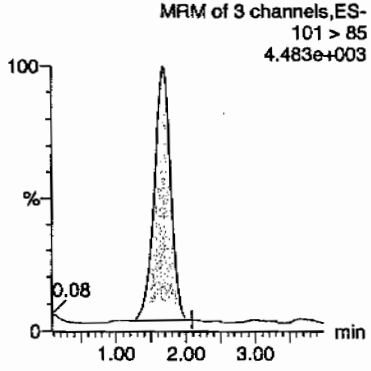

Perchlorate-101

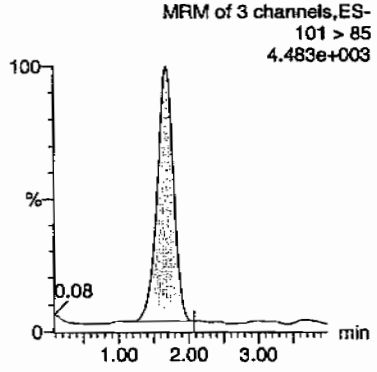

Perchlorate-O(18)

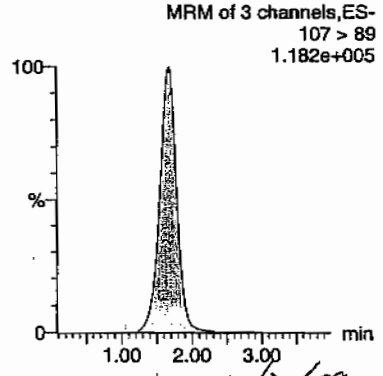

Hmm 12/30/09

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
/CL091218-01	Perchlorate	99 > 83	1.68	3771.588	3771.588	bb			0.0507	101.48	1.48	450.468	3.19
/CL091218-01	Perchlorate-101	101 > 85	1.68	1180.657	1180.657	bb			0.0483	96.50	-3.50	210.807	
/CL091218-01	Perchlorate-O(18)	107 > 89	1.67	33110.020	33110.020	bb			0.4974	99.48	-0.52	6693.5...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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ıe GEL Group, LLC Analyst: Michael A. Penny

ıtaset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

ıst Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
inted: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

ame: per1229004a
ate: 29-Dec-2009
me: 13:46:02
: WCL091218-02
al: 1:1,C

MPT 12/30/09

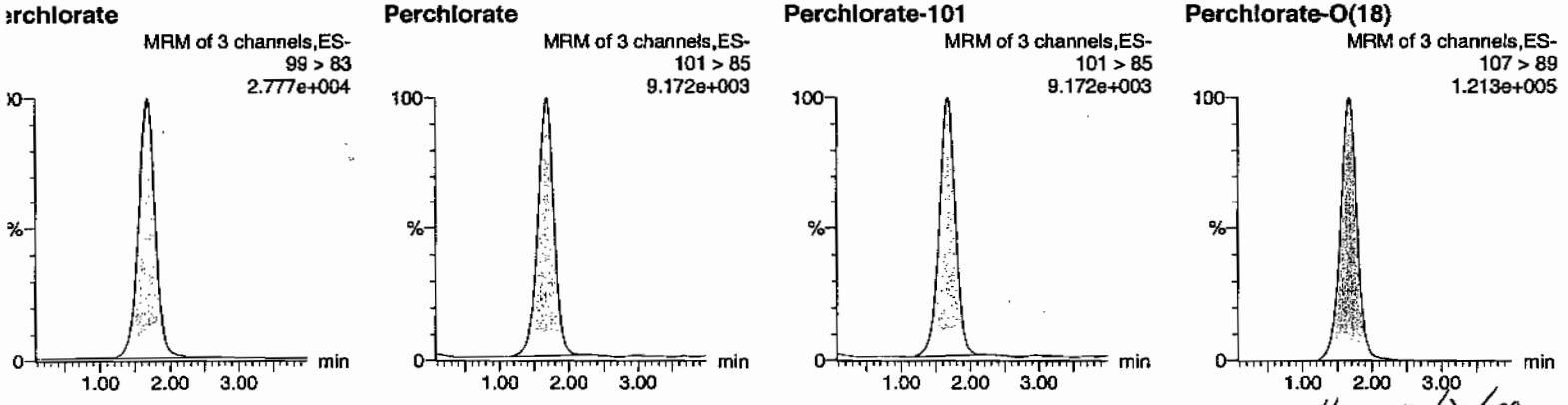

Hum 12/30/09

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL091218-02	Perchlorate	99 > 83	1.68	7668.577	7668.577	bb			0.1032	103.16	3.16	1374.8...	3.08
CL091218-02	Perchlorate-101	101 > 85	1.68	2486.694	2486.694	bb			0.1016	101.63	1.63	741.270	
CL091218-02	Perchlorate-O(18)	107 > 89	1.67	33792.953	33792.953	bb			0.5076	101.53	1.53	17014....	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Sample Report MassLynx 4.0 SP4
ne GEL Group, LLC Analyst: Michael A. Penny

ataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

ast Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
rinted: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

ame: per1229005a
ate: 29-Dec-2009
ime: 13:53:04
): WCL091218-03
ial: 1:1,D

MMT 12/30/09

erchlorate

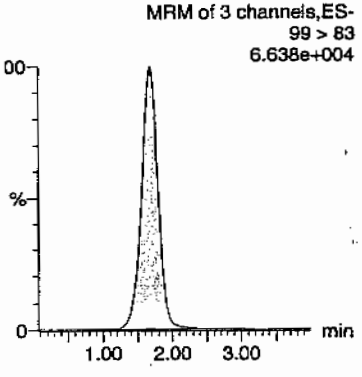

Perchlorate

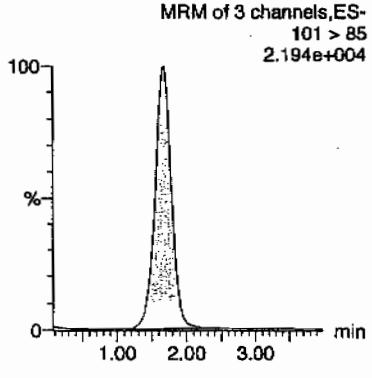

Perchlorate-101

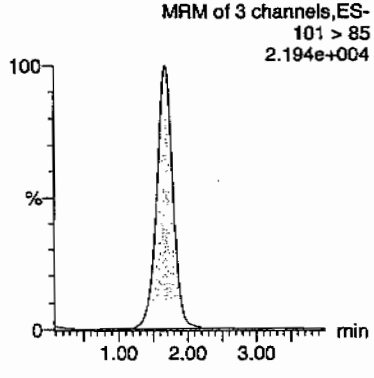

Perchlorate-O(18)

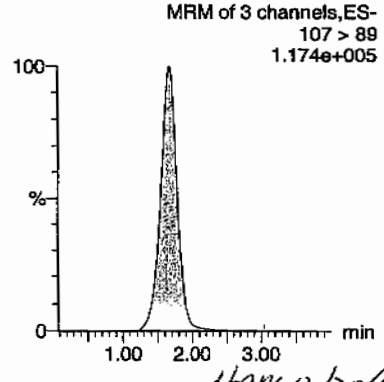

HMK 12/30/09

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'CL091218-03	Perchlorate	99 > 83	1.68	18561.600	18561.600	bb			0.2497	99.88	-0.12	4032.4...	3.06
'CL091218-03	Perchlorate-101	101 > 85	1.68	6060.991	6060.991	bb			0.2477	99.08	-0.92	1501.4...	
'CL091218-03	Perchlorate-O(18)	107 > 89	1.67	32918.648	32918.648	bb			0.4945	98.90	-1.10	5005.5...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Sample Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Michael A. Penny

ataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

ıst Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
:inted: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

ame: per1229006a
ate: 29-Dec-2009
ime: 14:00:05
ı: WCL091218-04
ial: 1:1,E

MMT 12/30/09

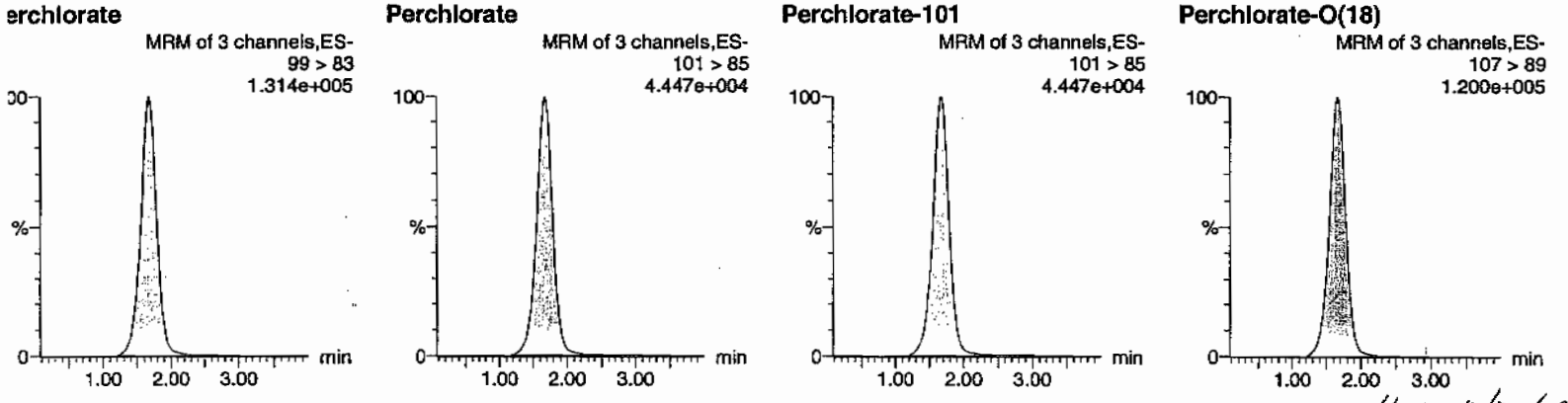

HM 12/30/09

ı	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'CL091218-04	Perchlorate	99 > 83	1.67	36589.797	36589.797	bb			0.4922	98.45	-1.55	6796.6...	2.94
'CL091218-04	Perchlorate-101	101 > 85	1.67	12430.750	12430.750	bb			0.5080	101.61	1.61	3370.9...	
'CL091218-04	Perchlorate-O(18)	107 > 89	1.67	33335.816	33335.816	bb			0.5008	100.16	0.16	4296.9...	

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uantify Sample Report MassLynx 4.0 SP4
ne GEL Group, LLC Analyst: Michael A. Penny

ataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

ast Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
rinted: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

ame: per1229007a
ate: 29-Dec-2009
ime: 14:07:06
l: WCL091218-05
ial: 1:1,F

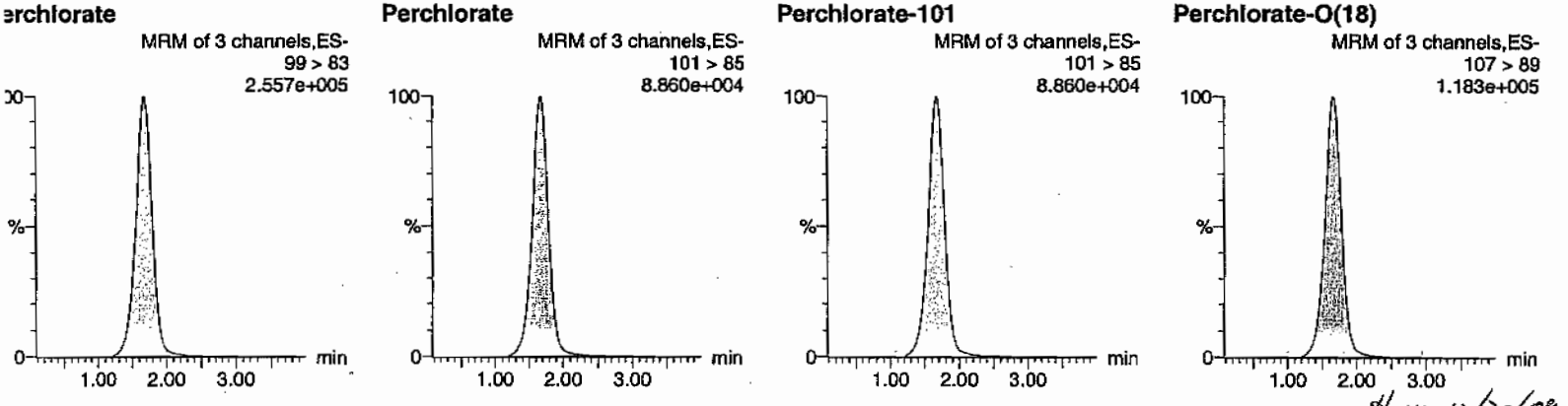

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CL091218-05	Perchlorate-101	101 > 85	1.67	24757.455	24757.455	bb			1.0118	101.18	1.18	4919.8...	
CL091218-05	Perchlorate-O(18)	107 > 89	1.66	33262.992	33262.992	bb			0.4997	99.94	-0.06	1635.4...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1021

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	99.53	29–DEC–09 14:21	per1229009a
Perchlorate Isotope Ratio		3.02		29–DEC–09 14:21	per1229009a
Perchlorate–101	.5	.5	100.07	29–DEC–09 14:21	per1229009a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229009a
Date: 29-Dec-2009
Time: 14:21:09
ID: WCL091218-06ICV
Vial: 1:2,A

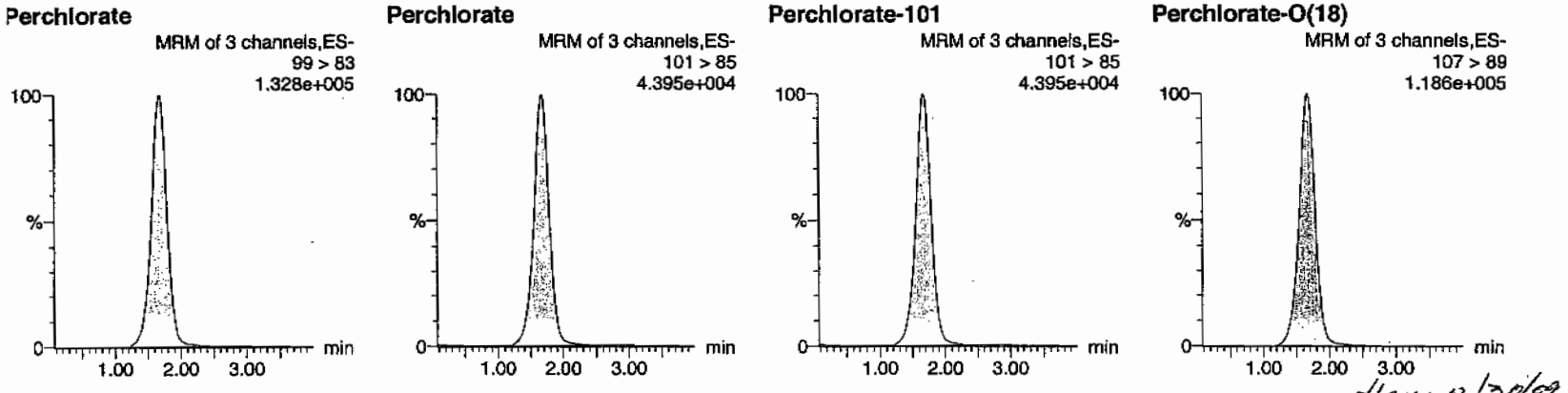

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-06ICV	Perchlorate	99 > 83	1.68	36993.602	36993.602	bb			0.4977	99.53	-0.47	3237.0...	3.02
WCL091218-06ICV	Perchlorate-101	101 > 85	1.67	12242.883	12242.883	bb			0.5004	100.07	0.07	2677.3...	
WCL091218-06ICV	Perchlorate-O(18)	107 > 89	1.67	33292.156	33292.156	bb			0.5001	100.02	0.02	9403.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-1021

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.49	98.1	29-DEC-09 15:52	per1229022a
Perchlorate Isotope Ratio		2.99		29-DEC-09 15:52	per1229022a
Perchlorate-101	.5	.5	99.76	29-DEC-09 15:52	per1229022a
Perchlorate	.5	.48	96.39	29-DEC-09 16:42	per1229029a
Perchlorate Isotope Ratio		3.06		29-DEC-09 16:42	per1229029a
Perchlorate-101	.5	.48	95.84	29-DEC-09 16:42	per1229029a
Perchlorate	.5	.48	95.84	29-DEC-09 18:13	per1229042a
Perchlorate Isotope Ratio		3		29-DEC-09 18:13	per1229042a
Perchlorate-101	.5	.49	97.07	29-DEC-09 18:13	per1229042a
Perchlorate	.5	.47	94.57	29-DEC-09 19:31	per1229053a
Perchlorate Isotope Ratio		3.07		29-DEC-09 19:31	per1229053a
Perchlorate-101	.5	.47	93.48	29-DEC-09 19:31	per1229053a
Perchlorate	.5	.45	90.16	29-DEC-09 20:56	per1229065a

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1021

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		3.04		29–DEC–09 20:56	per1229065a
Perchlorate–101	.5	.45	90.08	29–DEC–09 20:56	per1229065a
Perchlorate	.5	.44	88.49	29–DEC–09 22:21	per1229077a
Perchlorate Isotope Ratio		3.06		29–DEC–09 22:21	per1229077a
Perchlorate–101	.5	.44	87.92	29–DEC–09 22:21	per1229077a

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ıe GEL Group, LLC Analyst: Michael A. Penny

ataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

ıst Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
inted: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

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ate: 29-Dec-2009
me: 15:52:44
: WCL091218-06CCV
al: 1:2,A

MMT 12/30/09

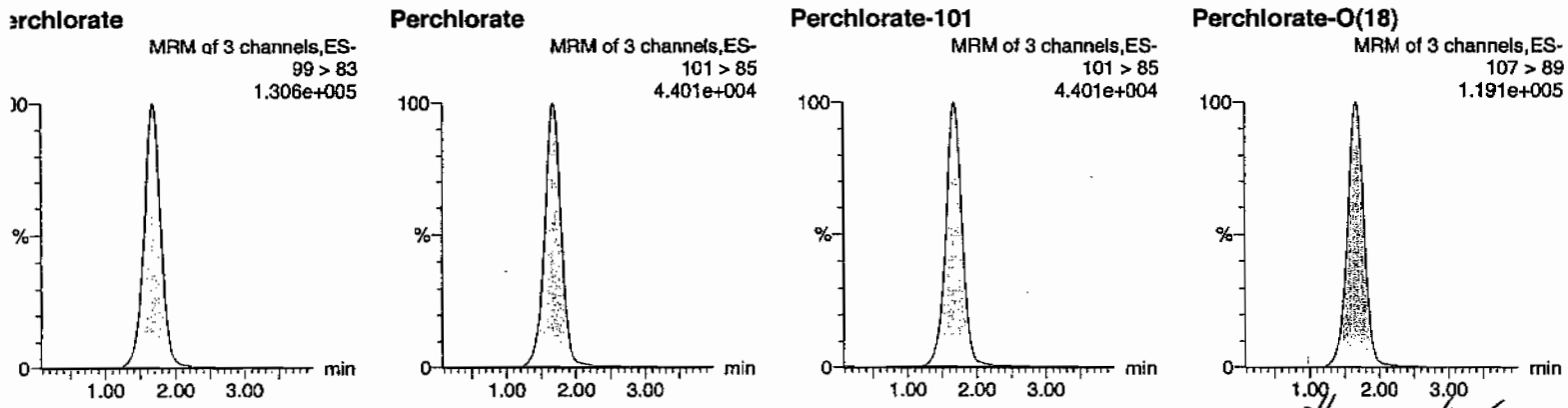

HMM 12/30/09

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL091218-06CCV	Perchlorate	99 > 83	1.68	36461.191	36461.191	bb			0.4905	98.10	-1.90	3999.9...	2.99
CL091218-06CCV	Perchlorate-101	101 > 85	1.67	12204.641	12204.641	bb			0.4988	99.76	-0.24	3695.9...	
CL091218-06CCV	Perchlorate-O(18)	107 > 89	1.67	32995.398	32995.398	bb			0.4957	99.13	-0.87	10703....	

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uantify Sample Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Michael A. Penny

ataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

ıst Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
rinted: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

ame: per1229029a
ate: 29-Dec-2009
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ial: 1:2,A

MM 12/30/09

erchlorate

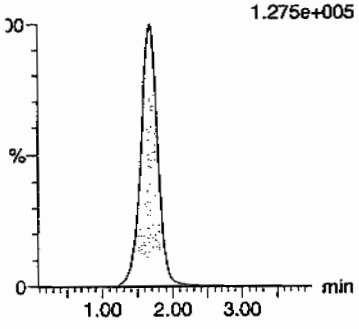

Perchlorate

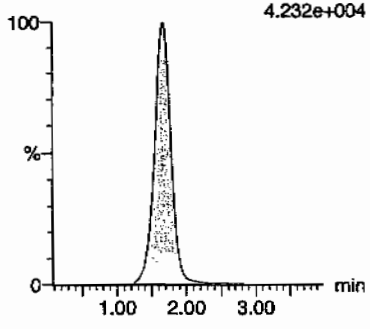

Perchlorate-101

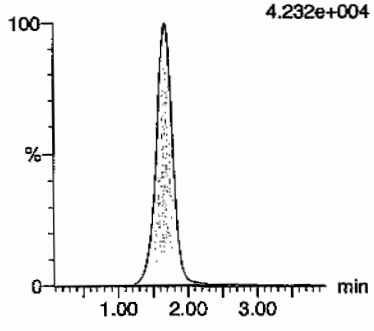

Perchlorate-O(18)

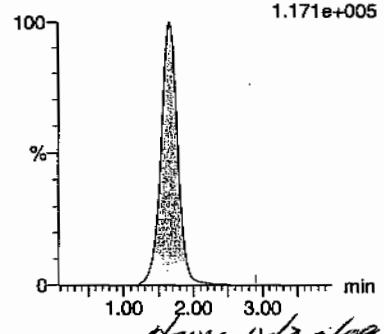

Hume 12/30/09

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL091218-06CCV	Perchlorate	99 > 83	1.67	35824.668	35824.668	bb			0.4819	96.39	-3.61	5571.2...	3.06
CL091218-06CCV	Perchlorate-101	101 > 85	1.67	11724.945	11724.945	bb			0.4792	95.84	-4.16	2980.9...	
CL091218-06CCV	Perchlorate-O(18)	107 > 89	1.66	32661.146	32661.146	bb			0.4906	98.13	-1.87	5311.3...	

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uantify Sample Report MassLynx 4.0 SP4
ne GEL Group, LLC Analyst: Michael A. Penny

ataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

ast Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
rinted: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

ame: per1229042a
ate: 29-Dec-2009
ime: 18:13:37
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ial: 1:2,A

MM 12/30/09

erchlorate

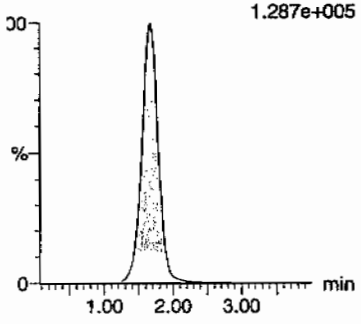

Perchlorate

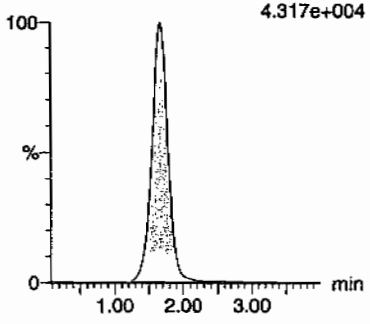

Perchlorate-101

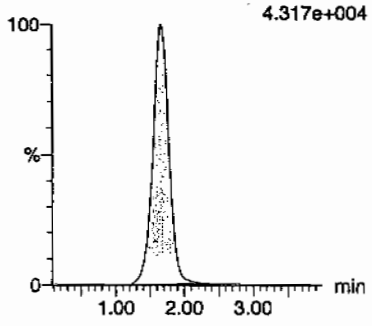

Perchlorate-O(18)

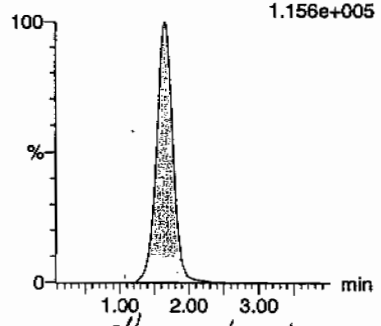

Hme 12/30/09

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL091218-06CCV	Perchlorate	99 > 83	1.67	35622.629	35622.629	bb			0.4792	95.84	-4.16	4705.1...	3.00
CL091218-06CCV	Perchlorate-101	101 > 85	1.66	11875.902	11875.902	bb			0.4854	97.07	-2.93	3464.2...	
CL091218-06CCV	Perchlorate-O(18)	107 > 89	1.66	31837.980	31837.980	bb			0.4783	95.66	-4.34	2223.5...	

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uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Michael A. Penny

ataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

ast Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
rinted: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

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ate: 29-Dec-2009
ime: 19:31:24
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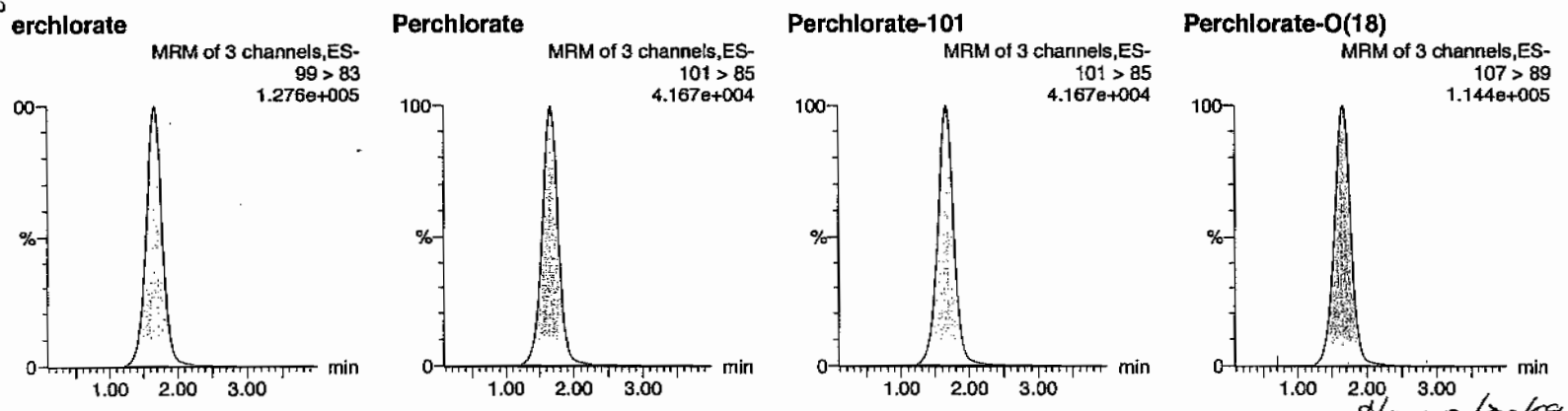

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
/CL091218-06CCV	Perchlorate	99 > 83	1.66	35149.563	35149.563	bb			0.4729	94.57	-5.43	4413.5...	3.07
/CL091218-06CCV	Perchlorate-101	101 > 85	1.66	11436.879	11436.879	bb			0.4674	93.48	-6.52	1527.3...	
/CL091218-06CCV	Perchlorate-O(18)	107 > 89	1.64	31572.385	31572.385	bb			0.4743	94.86	-5.14	9724.2...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229065a
Date: 29-Dec-2009
Time: 20:56:23
ID: WCL091218-06CCV
Vial: 1:2,A

MM 12/30/09

Perchlorate

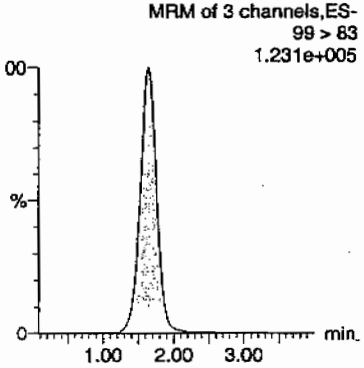

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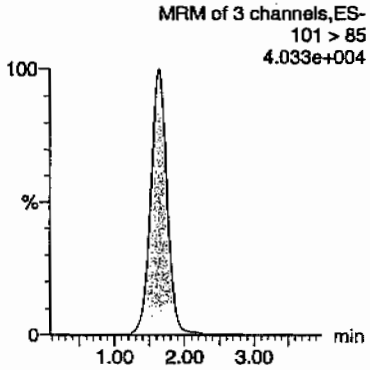

Perchlorate-101

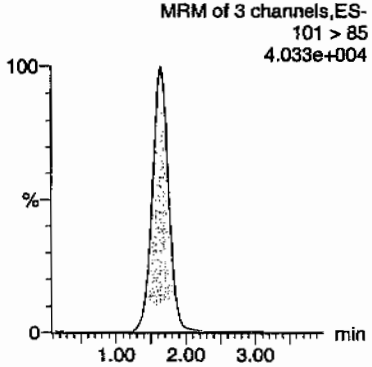

Perchlorate-O(18)

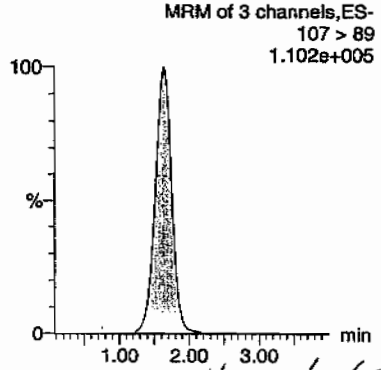

Hume 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-06CCV	Perchlorate	99 > 83	1.64	33508.137	33508.137	bb			0.4508	90.16	-9.84	2316.7...	3.04
WCL091218-06CCV	Perchlorate-101	101 > 85	1.64	11020.529	11020.529	bb			0.4504	90.08	-9.92	2074.1...	
WCL091218-06CCV	Perchlorate-O(18)	107 > 89	1.63	30210.842	30210.842	bb			0.4538	90.77	-9.23	4885.1...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229077a
Date: 29-Dec-2009
Time: 22:21:20
ID: WCL091218-06CCV
Vial: 1:2,A

MMT 12/30/09

Perchlorate

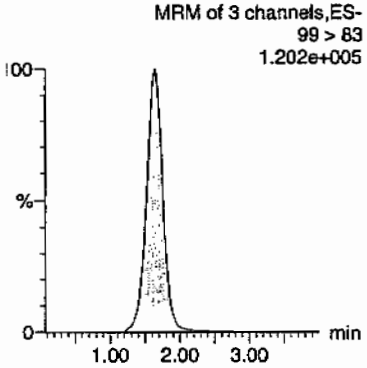

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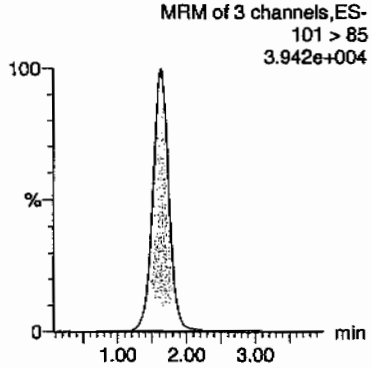

Perchlorate-101

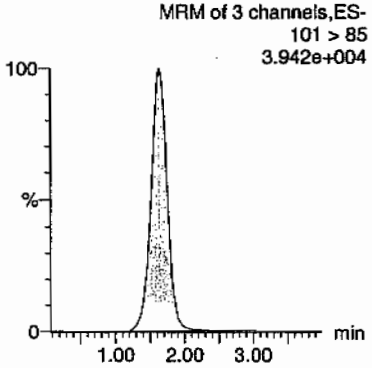

Perchlorate-O(18)

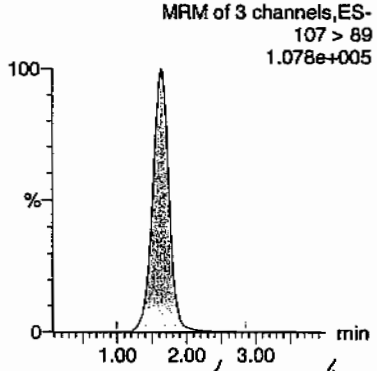

Anne 12/30/09

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
VCL091218-06CCV	Perchlorate	99 > 83	1.64	32890.695	32890.695	bb			0.4425	88.49	-11.51	7122.0...	3.06
VCL091218-06CCV	Perchlorate-101	101 > 85	1.63	10756.576	10756.576	bb			0.4396	87.92	-12.08	1987.1...	
VCL091218-06CCV	Perchlorate-O(18)	107 > 89	1.63	29638.262	29638.262	bb			0.4452	89.05	-10.95	1781.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–1021

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	106.51	29–DEC–09 14:35	per1229011a
Perchlorate Isotope Ratio		3.12		29–DEC–09 14:35	per1229011a
Perchlorate–101	.05	.05	103.65	29–DEC–09 14:35	per1229011a
Perchlorate	.05	.05	102.28	29–DEC–09 16:06	per1229024a
Perchlorate Isotope Ratio		2.8		29–DEC–09 16:06	per1229024a
Perchlorate–101	.05	.06	110.81	29–DEC–09 16:06	per1229024a
Perchlorate	.05	.05	107.05	29–DEC–09 16:56	per1229031a
Perchlorate Isotope Ratio		3.05		29–DEC–09 16:56	per1229031a
Perchlorate–101	.05	.05	106.72	29–DEC–09 16:56	per1229031a
Perchlorate	.05	.05	105.47	29–DEC–09 18:27	per1229044a
Perchlorate Isotope Ratio		3.02		29–DEC–09 18:27	per1229044a

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–1021

Lab Code: GEL

Reporting Units: ug/L

Perchlorate–101	.05	.05	106.16	29–DEC–09 18:27	per1229044a
Perchlorate	.05	.05	99.78	29–DEC–09 19:45	per1229055a
Perchlorate Isotope Ratio		3.01		29–DEC–09 19:45	per1229055a
Perchlorate–101	.05	.05	100.67	29–DEC–09 19:45	per1229055a
Perchlorate	.05	.05	94.36	29–DEC–09 21:10	per1229067a
Perchlorate Isotope Ratio		2.95		29–DEC–09 21:10	per1229067a
Perchlorate–101	.05	.05	97.14	29–DEC–09 21:10	per1229067a
Perchlorate	.05	.05	99.75	29–DEC–09 22:35	per1229079a
Perchlorate Isotope Ratio		3.04		29–DEC–09 22:35	per1229079a
Perchlorate–101	.05	.05	99.81	29–DEC–09 22:35	per1229079a

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uantify Sample Report MassLynx 4.0 SP4
ie GEL Group, LLC Analyst: Michael A. Penny

ıtaset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

st Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
inted: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

ıme: per1229011a
ıte: 29-Dec-2009
me: 14:35:14
: WCL091218-07CRI
al: 1:2,B

MMP 12/30/09

erchlorate

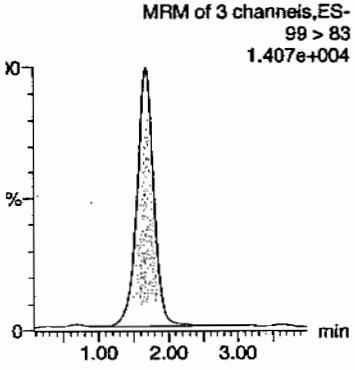

Perchlorate

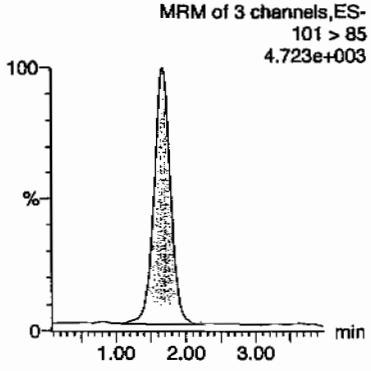

Perchlorate-101

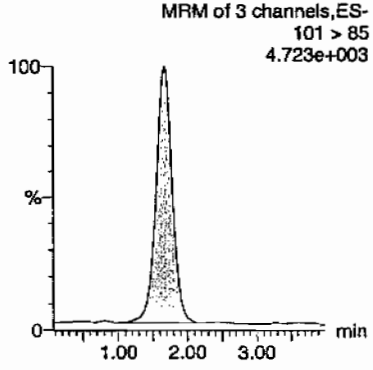

Perchlorate-O(18)

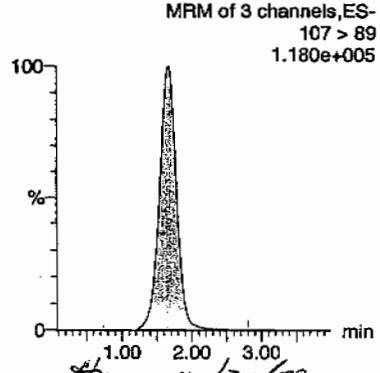

MMP 12/30/09

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL091218-07CRI	Perchlorate	99 > 83	1.68	3958.786	3958.786	bb			0.0533	106.51	6.51	363.360	3.12
CL091218-07CRI	Perchlorate-101	101 > 85	1.67	1268.100	1268.100	bb			0.0518	103.65	3.65	235.884	
CL091218-07CRI	Perchlorate-O(18)	107 > 89	1.67	33050.422	33050.422	bb			0.4965	99.30	-0.70	5866.9...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Sample Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Michael A. Penny

ıtaset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

ıst Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
inted: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

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ate: 29-Dec-2009
me: 16:06:49
: WCL091218-07CRI
al: 1:2,B

MM 12/30/09

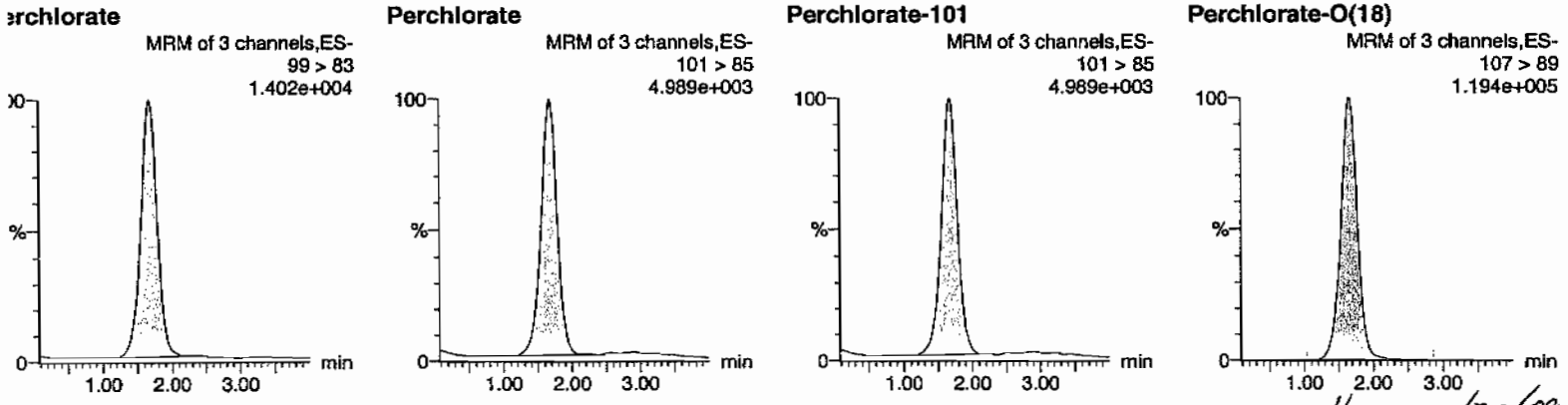

HMM 12/30/09

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL091218-07CRI	Perchlorate	99 > 83	1.67	3801.353	3801.353	bb			0.0511	102.28	2.28	372.962	2.80
CL091218-07CRI	Perchlorate-101	101 > 85	1.67	1355.651	1355.651	bb			0.0554	110.81	10.81	171.230	
CL091218-07CRI	Perchlorate-O(18)	107 > 89	1.66	33458.375	33458.375	bb			0.5026	100.52	0.52	8206.0...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Michael A. Penny

ataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

ast Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
rinted: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

ame: per1229031a
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ime: 16:56:08
): WCL091218-07CRI
ial: 1:2,B

MMT 12/29/09

erchlorate

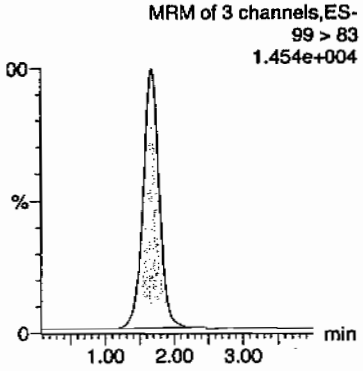

Perchlorate

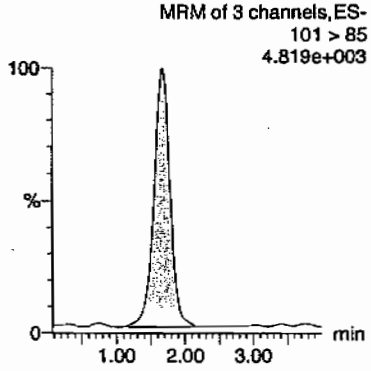

Perchlorate-101

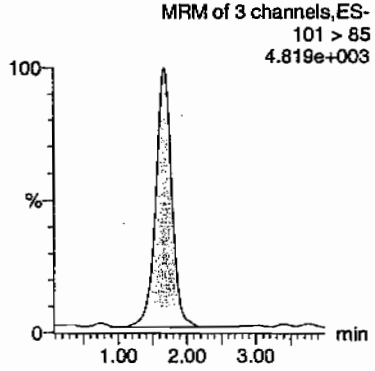

Perchlorate-O(18)

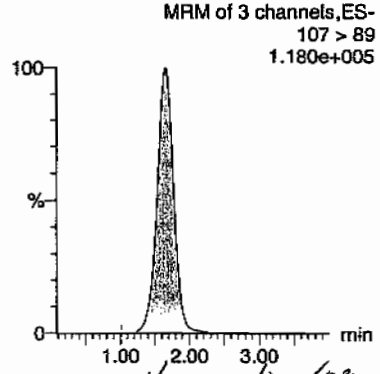

Anne 12/30/09

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'CL091218-07CRI	Perchlorate	99 > 83	1.67	3978.753	3978.753	bb			0.0535	107.05	7.05	1632.9...	3.05
'CL091218-07CRI	Perchlorate-101	101 > 85	1.67	1305.628	1305.628	bb			0.0534	106.72	6.72	556.260	
'CL091218-07CRI	Perchlorate-O(18)	107 > 89	1.66	32789.859	32789.859	bb			0.4926	98.52	-1.48	4096.5...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229044a
Date: 29-Dec-2009
Time: 18:27:56
ID: WCL091218-07CRI
Vial: 1:2,B

MMT 12/30/09

Perchlorate
MRM of 3 channels,ES-
99 > 83
1.428e+004

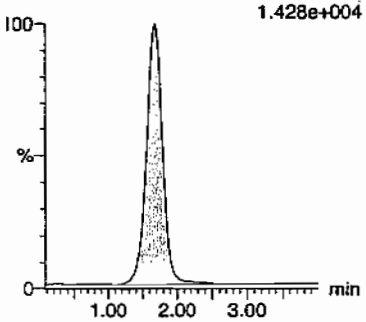

Perchlorate
MRM of 3 channels,ES-
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4.679e+003

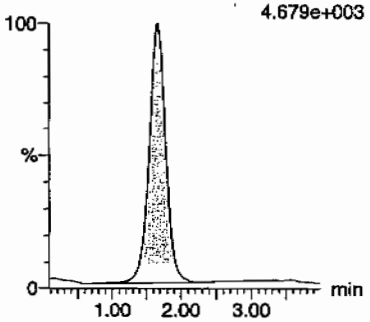

Perchlorate-101
MRM of 3 channels,ES-
101 > 85
4.679e+003

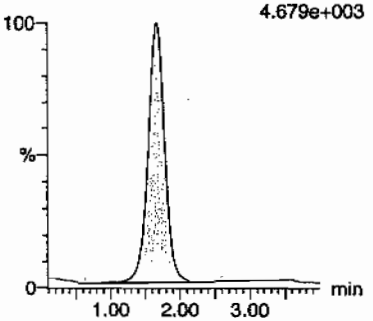

Perchlorate-O(18)
MRM of 3 channels,ES-
107 > 89
1.169e+005

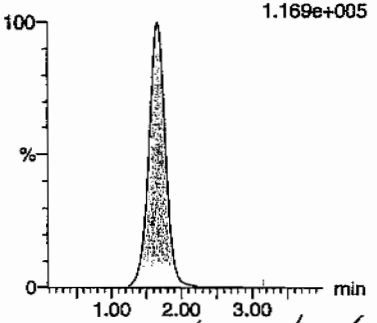

Hmm 12/30/09

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
/CL091218-07CRI	Perchlorate	99 > 83	1.67	3920.063	3920.063	bb			0.0527	105.47	5.47	653.754	3.02
/CL091218-07CRI	Perchlorate-101	101 > 85	1.67	1298.797	1298.797	bb			0.0531	106.16	6.16	251.043	
/CL091218-07CRI	Perchlorate-O(18)	107 > 89	1.66	32513.240	32513.240	bb			0.4884	97.68	-2.32	2527.9...	

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uantify Sample Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Michael A. Penny

ataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

ıst Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
inted: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

ame: per1229055a
ate: 29-Dec-2009
me: 19:45:43
: WCL091218-07CRI
al: 1:2,B

MATT 12/30/09

erchlorate

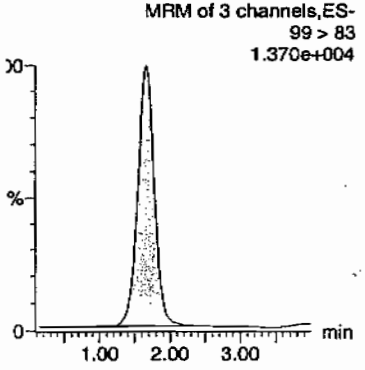

Perchlorate

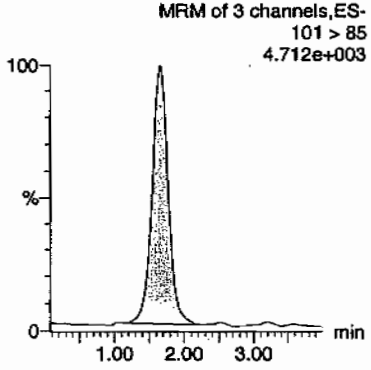

Perchlorate-101

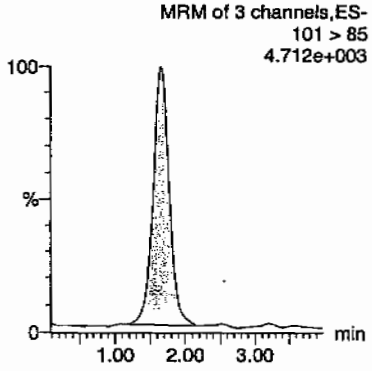

Perchlorate-O(18)

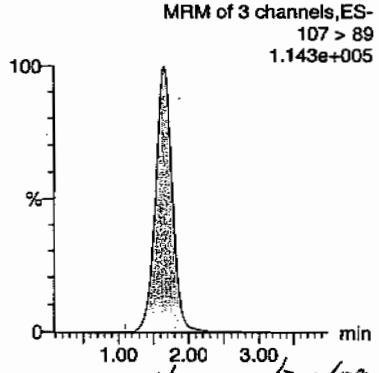

SMM 12/30/09

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL091218-07CRI	Perchlorate	99 > 83	1.67	3708.720	3708.720	bb			0.0499	99.78	-0.22	588.082	3.01
CL091218-07CRI	Perchlorate-101	101 > 85	1.66	1231.665	1231.665	bb			0.0503	100.67	0.67	180.729	
CL091218-07CRI	Perchlorate-O(18)	107 > 89	1.66	31600.350	31600.350	bb			0.4747	94.94	-5.06	6698.1...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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luantify Sample Report MassLynx 4.0 SP4
'he GEL Group, LLC Analyst: Michael A. Penny

)ataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

ast Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
'rinted: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

lame: per1229067a
late: 29-Dec-2009
ime: 21:10:42
): WCL091218-07CRI
ial: 1:2,B

HMP 12/30/09

erchlorate

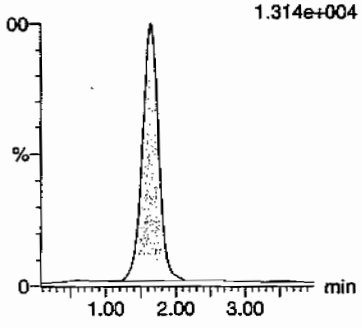

Perchlorate

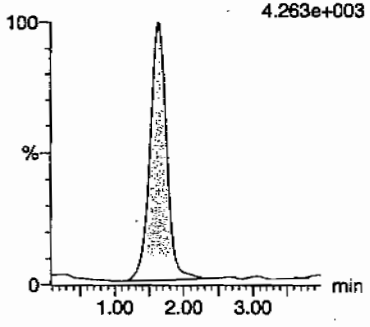

Perchlorate-101

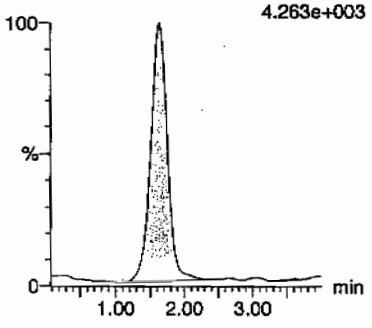

Perchlorate-O(18)

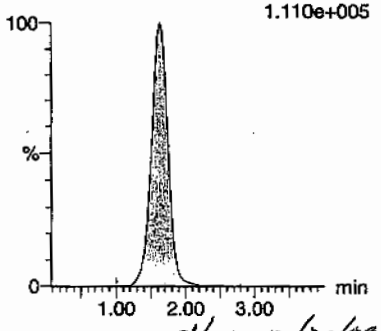

Hmm 12/30/09

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
'CL091218-07CRI	Perchlorate	99 > 83	1.64	3507.066	3507.066	bb			0.0472	94.36	-5.64	669.069	2.95
'CL091218-07CRI	Perchlorate-101	101 > 85	1.63	1188.469	1188.469	bb			0.0486	97.14	-2.86	224.189	
'CL091218-07CRI	Perchlorate-O(18)	107 > 89	1.63	30583.959	30583.959	bb			0.4594	91.89	-8.11	4818.5...	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ıtaset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

ıst Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
inted: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

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ate: 29-Dec-2009
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: WCL091218-07CRI
al: 1:2,B

erchlorate

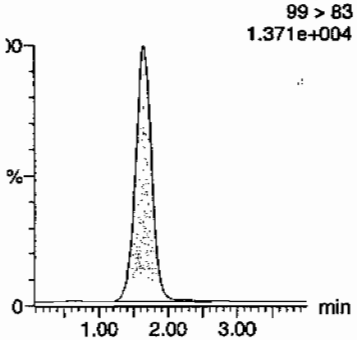

Perchlorate

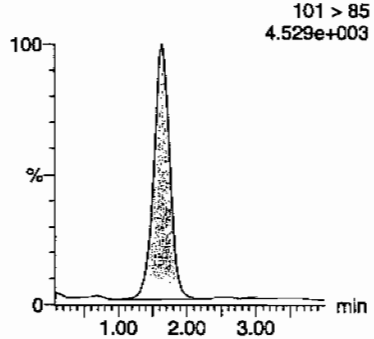

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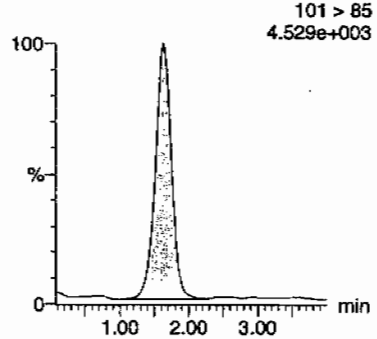

Perchlorate-O(18)

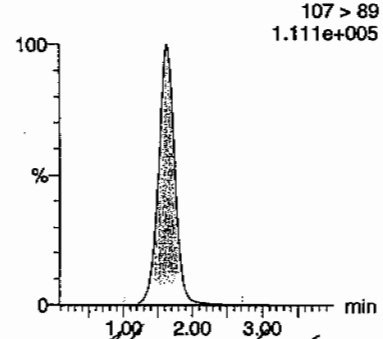

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL091218-07CRI	Perchlorate	99 > 83	1.64	3707.391	3707.391	bb			0.0499	99.75	-0.25	538.964	3.04
CL091218-07CRI	Perchlorate-101	101 > 85	1.64	1221.163	1221.163	bb			0.0499	99.81	-0.19	244.604	
CL091218-07CRI	Perchlorate-O(18)	107 > 89	1.63	30587.445	30587.445	bb			0.4595	91.90	-8.10	20819....	

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 936065

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
MB

Date Received: 29–DEC–09

GEL Job No (SDG): 10–1021

GEL Sample ID: 1202002916

Date Filtered: 29–DEC–09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797–73–0	Perchlorate	.05	.2	0.050	ug/L	U	1	29–DEC–09 19:52	per1229056a
	Perchlorate Isotope Ratio						1	29–DEC–09 19:52	per1229056a
14797–73–0	Perchlorate–101	.05	.2	0.050	ug/L	U	1	29–DEC–09 19:52	per1229056a
	Perchlorate–O(18)			0.466	ug/L		1	29–DEC–09 19:52	per1229056a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229056a
Date: 29-Dec-2009
Time: 19:52:47
ID: 1202002916 | LANL | 936066 | LIQ | MB | 1 |
Vial: 2:4,A

MM 12/30/09

Perchlorate

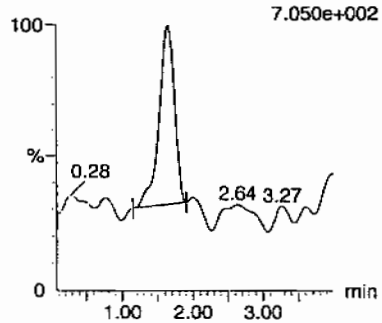

Perchlorate

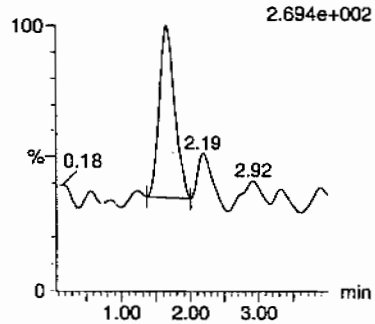

Perchlorate-101

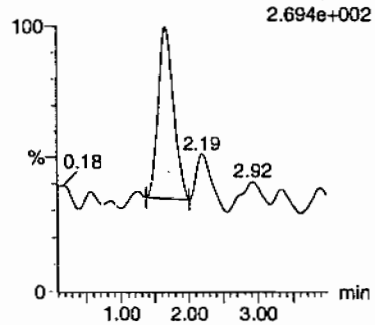

Perchlorate-O(18)

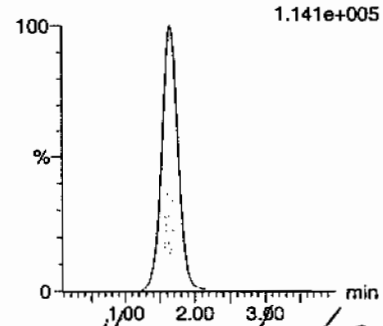

HMM 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202002916	Perchlorate	99 > 83	1.64	122.341	122.341	bb			0.0016			16.810	2.62
1202002916	Perchlorate-101	101 > 85	1.66	46.639	46.639	bb			0.0019			6.498	
1202002916	Perchlorate-O(18)	107 > 89	1.66	31050.627	31050.627	bb			0.4664	93.29	-6.71	3575.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 936065

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
LCS

Date Received: 29–DEC–09

GEL Job No (SDG): 10–1021

GEL Sample ID: 1202002917

Date Filtered: 29–DEC–09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797–73–0	Perchlorate	.05	.2	0.183	ug/L	J	1	29–DEC–09 20:00	per1229057a
	Perchlorate Isotope Ratio			3.02			1	29–DEC–09 20:00	per1229057a
14797–73–0	Perchlorate–101	.05	.2	0.184	ug/L	J	1	29–DEC–09 20:00	per1229057a
	Perchlorate–O(18)			0.463	ug/L		1	29–DEC–09 20:00	per1229057a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229057a
Date: 29-Dec-2009
Time: 20:00:00
ID: 1202002917 | LANL | 936066 | LEO | LCS | 1 |
Vial: 2:4,B

MM 12/30/09

Perchlorate

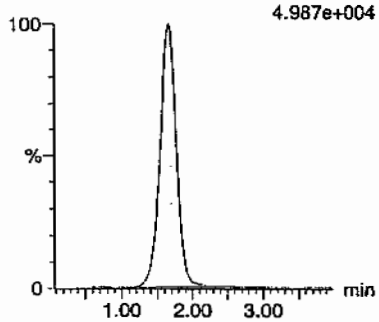

Perchlorate

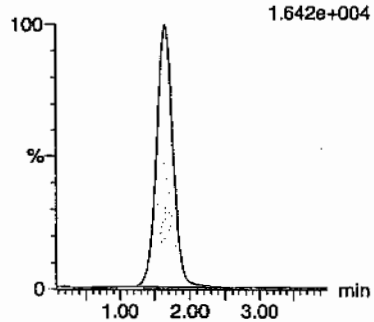

Perchlorate-101

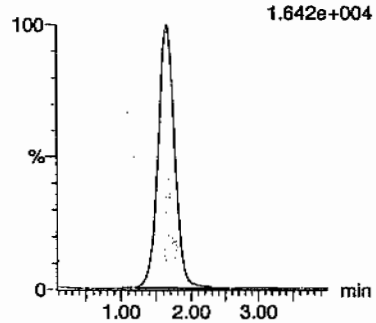

Perchlorate-O(18)

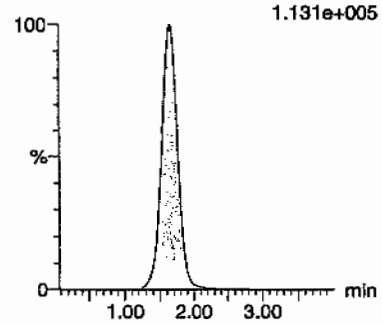

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202002917	Perchlorate	99 > 83	1.66	13602.565	13602.565	bb			0.1830	91.50	-8.50	1408.8...	3.02
1202002917	Perchlorate-101	101 > 85	1.66	4510.471	4510.471	bb			0.1843	92.17	-7.83	506.288	
1202002917	Perchlorate-O(18)	107 > 89	1.64	30836.791	30836.791	bb			0.4632	92.65	-7.35	4099.3...	

$\frac{13602.565}{74334.3} = 0.1830$

HMM 12/30/09

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 936065 **Verified by:** _____

Analyst: Lynne Russell

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202002916 MB	29-DEC-2009 15:24:56	10	10	1
1202002917 LCS	29-DEC-2009 15:24:56	10	10	1
243285002	29-DEC-2009 15:24:56	10	10	1
243286001	29-DEC-2009 15:24:56	10	10	1
243286004	29-DEC-2009 15:24:56	10	10	1
1202002918 MS (243286004)	29-DEC-2009 15:24:56	10	10	1
1202002919 MSD (243286004)	29-DEC-2009 15:24:56	10	10	1
243386001	29-DEC-2009 15:24:56	10	10	1
1202002920 ICS	29-DEC-2009 15:24:56	10	10	1
243396001	29-DEC-2009 15:24:56	10	10	1
1202003536 MS (243396001)	29-DEC-2009 15:24:56	10	10	1
1202003537 MSD (243396001)	29-DEC-2009 15:24:56	10	10	1
243400001	29-DEC-2009 15:24:56	10	10	1
243400004	29-DEC-2009 15:24:56	10	10	1
243405001	29-DEC-2009 15:24:56	10	10	1
243459001	29-DEC-2009 15:24:56	10	10	1
243459002	29-DEC-2009 15:24:56	10	10	1
243461002	29-DEC-2009 15:24:56	10	10	1
243466001	29-DEC-2009 15:24:56	10	10	1
243466002	29-DEC-2009 15:24:56	10	10	1
243493001	29-DEC-2009 15:24:56	10	10	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202002920	10 ug/L ICV/CCV Second Source	UCL091201-01.1	.2	mL
LCS	1202002917	10 ug/L ICV/CCV Second Source	UCL091201-01.1	.2	mL
MS	1202002918	10 ug/L ICV/CCV Second Source	UCL091201-01.1	.2	mL
MS	1202003536	10 ug/L ICV/CCV Second Source	UCL091201-01.1	.2	mL
MSD	1202002919	10 ug/L ICV/CCV Second Source	UCL091201-01.1	.2	mL
MSD	1202003537	10 ug/L ICV/CCV Second Source	UCL091201-01.1	.2	mL
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1236492	10	mL

Comments:

De-salting cartridges used: 090403-1-Ba and 091029-1-H.

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 12/29/09
Extr. Injection Volume: 20uL
Sequence Number: per122909a
Initial Calibration Date: 12/29/09

Method: EPA 6850-Modified
Int. Std.: UCL091019-03.2
Mobile Phase Lot#: 1233781, 1233976
Standard-Samp Reagent Lot#:: 1233976

Reviewed BY: [illegible]
Date: 12/30/09
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL091218-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per1229001a	IPB001	MAP	12/29/2009 13:24			1		USE	B
per1229002a	IPB001	MAP	12/29/2009 13:31			1		USE	B
per1229003a	WCLICAL-01	MAP	12/29/2009 13:39			1		USE	I
per1229004a	WCLICAL-02	MAP	12/29/2009 13:46			1		USE	I
per1229005a	WCLICAL-03	MAP	12/29/2009 13:53			1		USE	I
per1229006a	WCLICAL-04	MAP	12/29/2009 14:00			1		USE	I
per1229007a	WCLICAL-05	MAP	12/29/2009 14:07			1		USE	I
per1229008a	IPB002	MAP	12/29/2009 14:14			1		USE	B
per1229009a	WCLICV	MAP	12/29/2009 14:21			1		USE	C
per1229010a	IPB003	MAP	12/29/2009 14:28			1		USE	B
per1229011a	WCLCRI	MAP	12/29/2009 14:35			1		USE	C
per1229012a	1202004322	MAP	12/29/2009 14:42	936761	Various	1	LANL	USE	S
per1229013a	1202004325	MAP	12/29/2009 14:49	936761	Various	1	LANL	USE	S
per1229014a	1202004326	MAP	12/29/2009 14:56	936761	Various	1	LANL	USE	S
per1229015a	243506001	MAP	12/29/2009 15:03	936761	10-1066-1	1	LANL	USE	S
per1229016a	1202004323	MAP	12/29/2009 15:10	936761	10-1066-1	1	LANL	USE	S
per1229017a	1202004324	MAP	12/29/2009 15:17	936761	10-1066-1	1	LANL	USE	S
per1229018a	243513001	MAP	12/29/2009 15:24	936761	10-1071	1	LANL	USE	S
per1229019a	243513002	MAP	12/29/2009 15:31	936761	10-1071	1	LANL	USE	S
per1229020a	243539001	MAP	12/29/2009 15:38	936761	10-1079	1	LANL	USE	S
per1229021a	243539002	MAP	12/29/2009 15:45	936761	10-1079	1	LANL	USE	S
per1229022a	WCLCCV	MAP	12/29/2009 15:52			1		USE	C
per1229023a	IPB004	MAP	12/29/2009 15:59			1		USE	B
per1229024a	WCLCRI	MAP	12/29/2009 16:06			1		USE	C
per1229025a	243554001	MAP	12/29/2009 16:13	936761	10-1087-1	1	LANL	USE	S
per1229026a	243554002	MAP	12/29/2009 16:20	936761	10-1087-1	1	LANL	USE	S
per1229027a	243554003	MAP	12/29/2009 16:27	936761	10-1087-1	1	LANL	USE	S
per1229028a	243554004	MAP	12/29/2009 16:34	936761	10-1087-1	1	LANL	USE	S
per1229029a	WCLCCV	MAP	12/29/2009 16:42			1		USE	C

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per1229030a	IPB005	MAP	12/29/2009 16:49			1		USE	B
per1229031a	WCLCRI	MAP	12/29/2009 16:56			1		USE	C
per1229032a	1202004143	MAP	12/29/2009 17:03	936669	Various	1	LANL	USE	S
per1229033a	1202004144	MAP	12/29/2009 17:10	936669	Various	1	LANL	USE	S
per1229034a	1202004147	MAP	12/29/2009 17:17	936669	Various	1	LANL	USE	S
per1229035a	243407001	MAP	12/29/2009 17:24	936669	10-1012-1	1	LANL	USE	S
per1229036a	243407002	MAP	12/29/2009 17:31	936669	10-1012-1	1	LANL	USE	S
per1229037a	243407003	MAP	12/29/2009 17:38	936669	10-1012-1	1	LANL	USE	S
per1229038a	243407004	MAP	12/29/2009 17:45	936669	10-1012-1	1	LANL	USE	S
per1229039a	243407005	MAP	12/29/2009 17:52	936669	10-1012-1	1	LANL	USE	S
per1229040a	243407006	MAP	12/29/2009 17:59	936669	10-1012-1	1	LANL	USE	S
per1229041a	243407007	MAP	12/29/2009 18:06	936669	10-1012-1	1	LANL	USE	S
per1229042a	WCLCCV	MAP	12/29/2009 18:13			1		USE	C
per1229043a	IPB006	MAP	12/29/2009 18:20			1		USE	B
per1229044a	WCLCRI	MAP	12/29/2009 18:27			1		USE	C
per1229045a	243407008	MAP	12/29/2009 18:34	936669	10-1012-1	1	LANL	USE	S
per1229046a	243407009	MAP	12/29/2009 18:42	936669	10-1012-1	1	LANL	USE	S
per1229047a	243457001	MAP	12/29/2009 18:49	936669	10-1038	1	LANL	USE	S
per1229048a	1202004145	MAP	12/29/2009 18:56	936669	10-1038	1	LANL	USE	S
per1229049a	1202004146	MAP	12/29/2009 19:03	936669	10-1038	1	LANL	USE	S
per1229050a	243457002	MAP	12/29/2009 19:10	936669	10-1038	1	LANL	USE	S
per1229051a	243457003	MAP	12/29/2009 19:17	936669	10-1038	1	LANL	USE	S
per1229052a	243457004	MAP	12/29/2009 19:24	936669	10-1038	1	LANL	USE	S
per1229053a	WCLCCV	MAP	12/29/2009 19:31			1		USE	C
per1229054a	IPB007	MAP	12/29/2009 19:38			1		USE	B
per1229055a	WCLCRI	MAP	12/29/2009 19:45			1		USE	C
per1229056a	1202002916	MAP	12/29/2009 19:52	936066	Various	1	LANL	USE	S
per1229057a	1202002917	MAP	12/29/2009 20:00	936066	Various	1	LANL	USE	S
per1229058a	1202002920	MAP	12/29/2009 20:07	936066	Various	1	LANL	USE	S
per1229059a	243285002	MAP	12/29/2009 20:14	936066	10-995	1	LANL	USE	S
per1229060a	243286001	MAP	12/29/2009 20:21	936066	10-998	1	LANL	USE	S
per1229061a	243286004	MAP	12/29/2009 20:28	936066	10-998	1	LANL	USE	S
per1229062a	1202002918	MAP	12/29/2009 20:35	936066	10-998	1	LANL	USE	S
per1229063a	1202002919	MAP	12/29/2009 20:42	936066	10-998	1	LANL	USE	S
per1229064a	243386001	MAP	12/29/2009 20:49	936066	10-1032-1	1	LANL	USE	S
per1229065a	WCLCCV	MAP	12/29/2009 20:56			1		USE	C
per1229066a	IPB008	MAP	12/29/2009 21:03			1		USE	B

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

per1229067a	WCLCRI	MAP	12/29/2009 21:10			1		USE	C
per1229068a	243396001	MAP	12/29/2009 21:17	936066	10-1010	1	LANL	USE	S
per1229069a	1202003536	MAP	12/29/2009 21:24	936066	10-1010	1	LANL	USE	S
per1229070a	1202003537	MAP	12/29/2009 21:31	936066	10-1010	1	LANL	USE	S
per1229071a	243400001	MAP	12/29/2009 21:39	936066	10-1021	1	LANL	USE	S
per1229072a	243400004	MAP	12/29/2009 21:46	936066	10-1021	1	LANL	USE	S
per1229073a	243405001	MAP	12/29/2009 21:53	936066	10-1012	1	LANL	USE	S
per1229074a	243459001	MAP	12/29/2009 22:00	936066	10-1045	1	LANL	USE	S
per1229075a	243459002	MAP	12/29/2009 22:07	936066	10-1045	1	LANL	USE	S
per1229076a	243461002	MAP	12/29/2009 22:14	936066	10-1050	1	LANL	USE	S
per1229077a	WCLCCV	MAP	12/29/2009 22:21			1		USE	C
per1229078a	IPB009	MAP	12/29/2009 22:28			1		USE	B
per1229079a	WCLCRI	MAP	12/29/2009 22:35			1		USE	C
per1229080a	243466001	MAP	12/29/2009 22:42	936066	10-1056	1	LANL	DUSE-DL	S
per1229081a	243466002	MAP	12/29/2009 22:49	936066	10-1056	1	LANL	DUSE-DL	S
per1229082a	243493001	MAP	12/29/2009 22:56	936066	10-1037-1	1	LANL	USE	S
per1229083a	WCLCCV	MAP	12/29/2009 23:04			1		USE	C
per1229084a	IPB010	MAP	12/29/2009 23:11			1		USE	B
per1229085a	WCLCRI	MAP	12/29/2009 23:18			1		USE	C

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229062a
Date: 29-Dec-2009
Time: 20:35:13
ID: 1202002918
Vial: 2:5,A

| LANL | 936066 | LCS | 243286004MS | 1 |

MM 12/30/09

Perchlorate

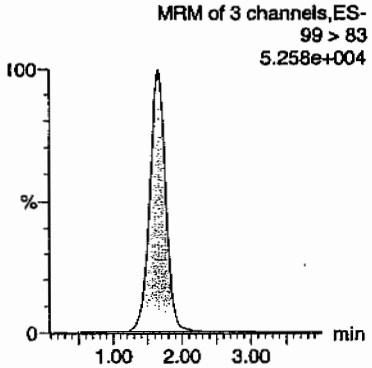

Perchlorate

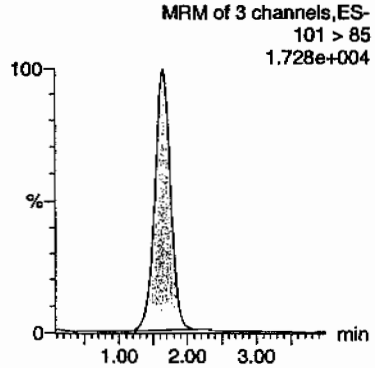

Perchlorate-101

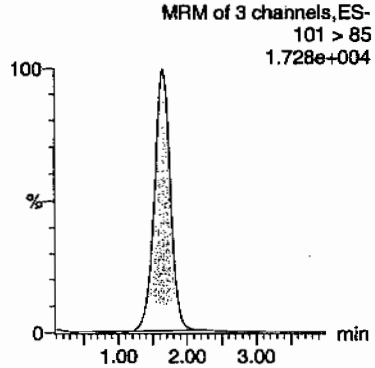

Perchlorate-O(18)

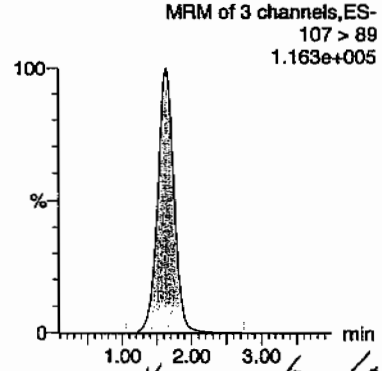

Hnm 12/30/09

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202002918	Perchlorate	99 > 83	1.64	14251.141	14251.141	bb			0.1917	95.86	-4.14	491.034	3.07
202002918	Perchlorate-101	101 > 85	1.64	4648.628	4648.628	bb			0.1900	94.99	-5.01	728.489	
202002918	Perchlorate-O(18)	107 > 89	1.63	31749.266	31749.266	bb			0.4769	95.39	-4.61	4516.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229063a
Date: 29-Dec-2009
Time: 20:42:17
ID: 1202002919 | LANL | 936066 | LCS | 243286004MSD | 1 |
Vial: 2:5,B

MAP 12/30/09

Perchlorate
MRM of 3 channels,ES-
99 > 83
5.482e+004

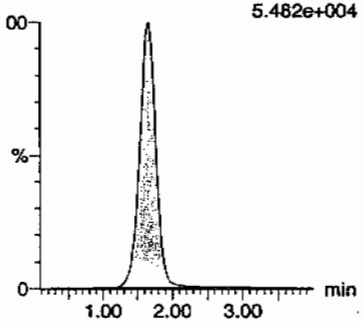

Perchlorate
MRM of 3 channels,ES-
101 > 85
1.828e+004

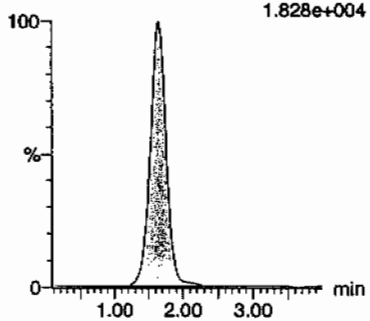

Perchlorate-101
MRM of 3 channels,ES-
101 > 85
1.828e+004

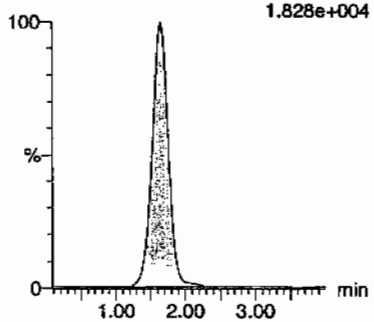

Perchlorate-O(18)
MRM of 3 channels,ES-
107 > 89
1.355e+005

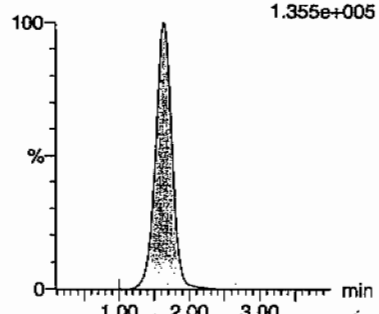

HMM 12/30/09

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202002919	Perchlorate	99 > 83	1.64	14827.767	14827.767	bb			0.1995	99.74	-0.26	2454.5...	2.99
202002919	Perchlorate-101	101 > 85	1.64	4953.448	4953.448	bb			0.2024	101.22	1.22	1031.5...	
202002919	Perchlorate-O(18)	107 > 89	1.64	36840.254	36840.254	bb			0.5534	110.68	10.68	22394....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1021

Sample Analysis

Sample ID	**Client ID**
243400001	CAPA-10-6821
243400002	CAPA-10-6823
243400003	CAPA-10-6824
243400004	CAPA-10-6827
1202003791	Method Blank (MB) **ICP**
1202003792	Laboratory Control Sample (LCS)
1202003795	243400001(CAPA-10-6821L) Serial Dilution (SD)
1202003793	243400001(CAPA-10-6821D) Sample Duplicate (DUP)
1202003794	243400001(CAPA-10-6821S) Matrix Spike (MS)
1202003858	Method Blank (MB) **ICP-MS**
1202003859	Laboratory Control Sample (LCS)
1202003862	243400001(CAPA-10-6821L) Serial Dilution (SD)
1202003860	243400001(CAPA-10-6821D) Sample Duplicate (DUP)
1202003861	243400001(CAPA-10-6821S) Matrix Spike (MS)
1202005716	Method Blank (MB) **CVAA**
1202005717	Laboratory Control Sample (LCS)
1202005720	243461001(CAWA-10-6910L) Serial Dilution (SD)
1202005718	243461001(CAWA-10-6910D) Sample Duplicate (DUP)
1202005719	243461001(CAWA-10-6910S) Matrix Spike (MS)

Method/Analysis Information

Analytical Batch:	936492, 936524, 937315 and 943533
Prep Batch :	936491, 936523 and 937311
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21, GL-MA-E-010 REV# 23 and GL-GC-E-107 REV# 5
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 DOE-AL, EPA 245.1/245.2 and SM 2340 B
Prep Method :	SW846 3005A and EPA 245.1/245.2 Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Hardness as CaCO3 is calculated from Calcium and Magnesium results.

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits with the exception of magnesium, which recovered outside of the advisory limits of 70-130%.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 243400001 and 243461001.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instruments. Dilutions were required for this SDG in order to minimize tin suppression due to matrix interferences.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Total Hardness by Calculation is determined using the results of Total Calcium (Ca) and Total Magnesium (Mg) determined by ICP or ICP-MS.

Hardness = 2.497 (Ca) + 4.118 (Mg)

Please refer to the Total Ca and Total Mg data to validate results appearing on the Hardness Summary sheet. Both results are in the Inorganic/metals section of the package. There is no Batch QC for calculated results, and thus no QC Summary for the Hardness by Calculation Batch. The MDLs and PQLs are calculated using the higher of the two calculated values of Ca or Mg.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Larson **Date:** 1/20/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1021 **METHOD TYPE:** EPA

SAMPLE ID: 243400001 **CLIENT ID:** CAPA-10-6821

CONTRACT: ESHL01000

MATRIX: G **DATE RECEIVED** 22-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	123009W1-6
7631-86-9	Silica	47.8	mg/L			P	0.053	1	OPTIMA3	010610A-1
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	010610A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100104-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100104-3
7440-39-3	Barium	18.4	ug/L			P	1	1	OPTIMA3	010610A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	010610A-1
7440-42-8	Boron	27.6	ug/L	J		P	15	1	OPTIMA3	010610A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100104-3
7440-70-2	Calcium	23200	ug/L			P	50	1	OPTIMA3	010610A-1
7440-47-3	Chromium	2.5	ug/L	U		MS	2.5	1	ICPMS5	100104-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	010610A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	010610A-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA3	010610A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100104-3
7439-95-4	Magnesium	5240	ug/L			P	85	1	OPTIMA3	010610A-1
7439-96-5	Manganese	2	ug/L	U		P	2	1	OPTIMA3	010610A-1
7439-98-7	Molybdenum	3.03	ug/L			MS	0.1	1	ICPMS5	100104-3
7440-02-0	Nickel	1	ug/L	J		MS	0.5	1	ICPMS5	100104-3
7440-09-7	Potassium	1960	ug/L			P	50	1	OPTIMA3	010610A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100104-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100104-3
7440-23-5	Sodium	15000	ug/L			P	100	1	OPTIMA3	010610A-1
7440-24-6	Strontium	103	ug/L			P	1	1	OPTIMA3	010610A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100105-4
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	010710-2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1021 **METHOD TYPE:** EPA

SAMPLE ID: 243400001 **CLIENT ID:** CAPA-10-6821

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 22-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	1.79	ug/L			MS	0.05	1	ICPMS5	100107-5
7440-62-2	Vanadium	5.8	ug/L			P	1	1	OPTIMA3	010610A-1
7440-66-6	Zinc	9.02	ug/L	J		P	3.3	1	OPTIMA3	010610A-1
	Hardness as CaCO3	79.6	mg/L				0.35	1	CALC001	

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1021 **METHOD TYPE:** EPA

SAMPLE ID: 243400002 **CLIENT ID:** CAPA-10-6823

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 22-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	123009W1-6
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	010610A-1
7440-36-0	Antimony	0.541	ug/L	J		MS	0.5	1	ICPMS5	100104-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100104-3
7440-39-3	Barium	18.4	ug/L			P	1	1	OPTIMA3	010610A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	010610A-1
7440-42-8	Boron	27.2	ug/L	J		P	15	1	OPTIMA3	010610A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100104-3
7440-70-2	Calcium	24000	ug/L			P	50	1	OPTIMA3	010610A-1
7440-47-3	Chromium	2.5	ug/L	U		MS	2.5	1	ICPMS5	100104-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	010610A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	010610A-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA3	010610A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100104-3
7439-95-4	Magnesium	5390	ug/L			P	85	1	OPTIMA3	010610A-1
7439-96-5	Manganese	2	ug/L	U		P	2	1	OPTIMA3	010610A-1
7439-98-7	Molybdenum	3.11	ug/L			MS	0.1	1	ICPMS5	100104-3
7440-02-0	Nickel	0.964	ug/L	J		MS	0.5	1	ICPMS5	100104-3
7440-09-7	Potassium	2030	ug/L			P	50	1	OPTIMA3	010610A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100104-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100104-3
7440-23-5	Sodium	15200	ug/L			P	100	1	OPTIMA3	010610A-1
7440-24-6	Strontium	105	ug/L			P	1	1	OPTIMA3	010610A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100105-4
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	010710-2
7440-61-1	Uranium	1.87	ug/L			MS	0.05	1	ICPMS5	100107-5

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1021 **METHOD TYPE:** EPA

SAMPLE ID: 243400002 **CLIENT ID:** CAPA-10-6823

CONTRACT: ESHL01000

MATRIX: G **DATE RECEIVED** 22-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	5.43	ug/L			P	1	1	OPTIMA3	010610A-1
7440-66-6	Zinc	12.1	ug/L			P	3.3	1	OPTIMA3	010610A-1
	Hardness as CaCO3	82.3	mg/L				0.35	1	CALC001	

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1021 **METHOD TYPE:** EPA

SAMPLE ID: 243400003 **CLIENT ID:** CAPA-10-6824

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 22-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	123009W1-6
7429-90-5	Aluminum	134	ug/L	J		P	68	1	OPTIMA3	010610A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100104-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100104-3
7440-39-3	Barium	32.1	ug/L			P	1	1	OPTIMA3	010610A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	010610A-1
7440-42-8	Boron	22.7	ug/L	J		P	15	1	OPTIMA3	010610A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100104-3
7440-70-2	Calcium	21400	ug/L			P	50	1	OPTIMA3	010610A-1
7440-47-3	Chromium	2.5	ug/L	U		MS	2.5	1	ICPMS5	100104-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	010610A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	010610A-1
7439-89-6	Iron	109	ug/L			P	30	1	OPTIMA3	010610A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100104-3
7439-95-4	Magnesium	4770	ug/L			P	85	1	OPTIMA3	010610A-1
7439-96-5	Manganese	2	ug/L	U		P	2	1	OPTIMA3	010610A-1
7439-98-7	Molybdenum	3.2	ug/L			MS	0.1	1	ICPMS5	100104-3
7440-02-0	Nickel	1.04	ug/L	J		MS	0.5	1	ICPMS5	100104-3
7440-09-7	Potassium	2140	ug/L			P	50	1	OPTIMA3	010610A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100104-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100104-3
7440-23-5	Sodium	16200	ug/L			P	100	1	OPTIMA3	010610A-1
7440-24-6	Strontium	99.1	ug/L			P	1	1	OPTIMA3	010610A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100105-4
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	010710-2
7440-61-1	Uranium	1.8	ug/L			MS	0.05	1	ICPMS5	100107-5

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1021 **METHOD TYPE:** EPA

SAMPLE ID: 243400003 **CLIENT ID:** CAPA-10-6824

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 22-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	5.67	ug/L			P	1	1	OPTIMA3	010610A-1
7440-66-6	Zinc	8.99	ug/L	J		P	3.3	1	OPTIMA3	010610A-1
	Hardness as CaCO3	73	mg/L				0.35	1	CALC001	

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1021 **METHOD TYPE:** EPA

SAMPLE ID: 243400004 **CLIENT ID:** CAPA-10-6827

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 22-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	123009W1-6
7631-86-9	Silica	55.7	mg/L			P	0.053	1	OPTIMA3	010610A-1
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	010610A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100104-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100104-3
7440-39-3	Barium	30.9	ug/L			P	1	1	OPTIMA3	010610A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	010610A-1
7440-42-8	Boron	21.6	ug/L	J		P	15	1	OPTIMA3	010610A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100104-3
7440-70-2	Calcium	20400	ug/L			P	50	1	OPTIMA3	010610A-1
7440-47-3	Chromium	2.5	ug/L	U		MS	2.5	1	ICPMS5	100104-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	010610A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	010610A-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA3	010610A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100104-3
7439-95-4	Magnesium	4670	ug/L			P	85	1	OPTIMA3	010610A-1
7439-96-5	Manganese	2	ug/L	U		P	2	1	OPTIMA3	010610A-1
7439-98-7	Molybdenum	3.17	ug/L			MS	0.1	1	ICPMS5	100104-3
7440-02-0	Nickel	0.718	ug/L	J		MS	0.5	1	ICPMS5	100104-3
7440-09-7	Potassium	2030	ug/L			P	50	1	OPTIMA3	010610A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100104-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100104-3
7440-23-5	Sodium	15700	ug/L			P	100	1	OPTIMA3	010610A-1
7440-24-6	Strontium	94.6	ug/L			P	1	1	OPTIMA3	010610A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100105-4
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	010710-2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-1021 **METHOD TYPE:** EPA

SAMPLE ID: 243400004 **CLIENT ID:** CAPA-10-6827

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 22-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	1.75	ug/L			MS	0.05	1	ICPMS5	100107-5
7440-62-2	Vanadium	5.74	ug/L			P	1	1	OPTIMA3	010610A-1
7440-66-6	Zinc	5.73	ug/L	J		P	3.3	1	OPTIMA3	010610A-1
	Hardness as CaCO3	70.1	mg/L				0.35	1	CALC001	

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1021

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.12	ug/L	5	ug/L	102.4	90.0 – 110.0	AV	30–DEC–09 09:12	123009W1–6
	Antimony	52.2	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	04–JAN–10 20:13	100104–3
	Arsenic	49	ug/L	50	ug/L	98	90.0 – 110.0	MS	04–JAN–10 20:13	100104–3
	Cadmium	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	04–JAN–10 20:13	100104–3
	Chromium	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	04–JAN–10 20:13	100104–3
	Lead	53.7	ug/L	50	ug/L	107.4	90.0 – 110.0	MS	04–JAN–10 20:13	100104–3
	Molybdenum	49.7	ug/L	50	ug/L	99.4	90.0 – 110.0	MS	04–JAN–10 20:13	100104–3
	Nickel	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	04–JAN–10 20:13	100104–3
	Selenium	51.1	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	04–JAN–10 20:13	100104–3
	Silver	51.3	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	04–JAN–10 20:13	100104–3
	Thallium	48.5	ug/L	50	ug/L	96.9	90.0 – 110.0	MS	05–JAN–10 10:14	100105–4
	Aluminum	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Barium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Beryllium	260	ug/L	250	ug/L	104.1	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Boron	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Calcium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Cobalt	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Copper	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Iron	5140	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Magnesium	5280	ug/L	5000	ug/L	105.6	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Manganese	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Potassium	2480	ug/L	2500	ug/L	99.2	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Silica	10100	ug/L	10700	ug/L	94.5	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Sodium	2590	ug/L	2500	ug/L	103.5	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Strontium	533	ug/L	500	ug/L	106.7	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Tin	530	ug/L	500	ug/L	106	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Vanadium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Zinc	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Tin	531	ug/L	500	ug/L	106.1	90.0 – 110.0	P	07–JAN–10 11:30	010710–2
	Uranium	52.9	ug/L	50	ug/L	105.7	90.0 – 110.0	MS	07–JAN–10 12:08	100107–5

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1021

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV01										
	Mercury	5.09	ug/L	5	ug/L	101.8	80.0 – 120.0	AV	30–DEC–09 09:18	123009W1–6
	Antimony	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	04–JAN–10 20:43	100104–3
	Arsenic	49	ug/L	50	ug/L	97.9	90.0 – 110.0	MS	04–JAN–10 20:43	100104–3
	Cadmium	51.2	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	04–JAN–10 20:43	100104–3
	Chromium	51.8	ug/L	50	ug/L	103.6	90.0 – 110.0	MS	04–JAN–10 20:43	100104–3
	Lead	53.6	ug/L	50	ug/L	107.2	90.0 – 110.0	MS	04–JAN–10 20:43	100104–3
	Molybdenum	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	04–JAN–10 20:43	100104–3
	Nickel	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	04–JAN–10 20:43	100104–3
	Selenium	50.2	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	04–JAN–10 20:43	100104–3
	Silver	52.2	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	04–JAN–10 20:43	100104–3
	Thallium	49.2	ug/L	50	ug/L	98.4	90.0 – 110.0	MS	05–JAN–10 10:37	100105–4
	Aluminum	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	06–JAN–10 11:40	010610A–1
	Barium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	06–JAN–10 11:40	010610A–1
	Beryllium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	06–JAN–10 11:40	010610A–1
	Boron	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	06–JAN–10 11:40	010610A–1
	Calcium	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	06–JAN–10 11:40	010610A–1
	Cobalt	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	06–JAN–10 11:40	010610A–1
	Copper	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	06–JAN–10 11:40	010610A–1
	Iron	4940	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	06–JAN–10 11:40	010610A–1
	Magnesium	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	06–JAN–10 11:40	010610A–1
	Manganese	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	06–JAN–10 11:40	010610A–1
	Potassium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	06–JAN–10 11:40	010610A–1
	Silica	5180	ug/L	5350	ug/L	96.9	90.0 – 110.0	P	06–JAN–10 11:40	010610A–1
	Sodium	9660	ug/L	10000	ug/L	96.6	90.0 – 110.0	P	06–JAN–10 11:40	010610A–1
	Strontium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	06–JAN–10 11:40	010610A–1
	Tin	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	06–JAN–10 11:40	010610A–1
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	06–JAN–10 11:40	010610A–1
	Zinc	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	06–JAN–10 11:40	010610A–1
	Tin	485	ug/L	500	ug/L	97	90.0 – 110.0	P	07–JAN–10 12:14	010710–2
	Uranium	51.7	ug/L	50	ug/L	103.3	90.0 – 110.0	MS	07–JAN–10 12:23	100107–5

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1021

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV02										
	Mercury	5.04	ug/L	5	ug/L	100.7	80.0 – 120.0	AV	30-DEC-09 09:41	123009W1-6
	Antimony	53.9	ug/L	50	ug/L	107.7	90.0 – 110.0	MS	04-JAN-10 21:01	100104-3
	Arsenic	49.3	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	04-JAN-10 21:01	100104-3
	Cadmium	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	04-JAN-10 21:01	100104-3
	Chromium	52.5	ug/L	50	ug/L	105	90.0 – 110.0	MS	04-JAN-10 21:01	100104-3
	Lead	54.8	ug/L	50	ug/L	109.7	90.0 – 110.0	MS	04-JAN-10 21:01	100104-3
	Molybdenum	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	04-JAN-10 21:01	100104-3
	Nickel	52.3	ug/L	50	ug/L	104.6	90.0 – 110.0	MS	04-JAN-10 21:01	100104-3
	Selenium	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	04-JAN-10 21:01	100104-3
	Silver	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	04-JAN-10 21:01	100104-3
	Thallium	47.6	ug/L	50	ug/L	95.2	90.0 – 110.0	MS	05-JAN-10 11:17	100105-4
	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Barium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Beryllium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Boron	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Calcium	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Cobalt	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Copper	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Iron	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Magnesium	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Manganese	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Potassium	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Silica	5410	ug/L	5350	ug/L	101.1	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Sodium	9970	ug/L	10000	ug/L	99.7	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Strontium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Tin	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Vanadium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Zinc	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Uranium	53	ug/L	50	ug/L	105.9	90.0 – 110.0	MS	07-JAN-10 12:53	100107-5
	Tin	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	07-JAN-10 13:22	010710-2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1021

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV03										
	Mercury	5.16	ug/L	5	ug/L	103.1	80.0 – 120.0	AV	30–DEC–09 10:04	123009W1–6
	Antimony	50.6	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	04–JAN–10 21:50	100104–3
	Arsenic	49.2	ug/L	50	ug/L	98.4	90.0 – 110.0	MS	04–JAN–10 21:50	100104–3
	Cadmium	51.9	ug/L	50	ug/L	103.7	90.0 – 110.0	MS	04–JAN–10 21:50	100104–3
	Chromium	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	04–JAN–10 21:50	100104–3
	Lead	53.8	ug/L	50	ug/L	107.5	90.0 – 110.0	MS	04–JAN–10 21:50	100104–3
	Molybdenum	50.2	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	04–JAN–10 21:50	100104–3
	Nickel	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	04–JAN–10 21:50	100104–3
	Selenium	50.2	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	04–JAN–10 21:50	100104–3
	Silver	51.9	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	04–JAN–10 21:50	100104–3
	Thallium	47.2	ug/L	50	ug/L	94.4	90.0 – 110.0	MS	05–JAN–10 11:53	100105–4
	Aluminum	5110	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	06–JAN–10 14:17	010610A–1
	Barium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	06–JAN–10 14:17	010610A–1
	Beryllium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	06–JAN–10 14:17	010610A–1
	Boron	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	06–JAN–10 14:17	010610A–1
	Calcium	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	06–JAN–10 14:17	010610A–1
	Cobalt	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	06–JAN–10 14:17	010610A–1
	Copper	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	06–JAN–10 14:17	010610A–1
	Iron	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	06–JAN–10 14:17	010610A–1
	Magnesium	5170	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	06–JAN–10 14:17	010610A–1
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	06–JAN–10 14:17	010610A–1
	Potassium	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	06–JAN–10 14:17	010610A–1
	Silica	5310	ug/L	5350	ug/L	99.2	90.0 – 110.0	P	06–JAN–10 14:17	010610A–1
	Sodium	9880	ug/L	10000	ug/L	98.8	90.0 – 110.0	P	06–JAN–10 14:17	010610A–1
	Strontium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	06–JAN–10 14:17	010610A–1
	Tin	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	06–JAN–10 14:17	010610A–1
	Vanadium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	06–JAN–10 14:17	010610A–1
	Zinc	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	06–JAN–10 14:17	010610A–1
	Uranium	51.6	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	07–JAN–10 13:08	100107–5
	Tin	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	07–JAN–10 14:28	010710–2

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1021

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV04										
	Antimony	50.6	ug/L	50	ug/L	101.2	90.0 – 110.0	MS	04–JAN–10 22:39	100104–3
	Arsenic	48.8	ug/L	50	ug/L	97.6	90.0 – 110.0	MS	04–JAN–10 22:39	100104–3
	Cadmium	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	04–JAN–10 22:39	100104–3
	Chromium	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	04–JAN–10 22:39	100104–3
	Lead	53.9	ug/L	50	ug/L	107.8	90.0 – 110.0	MS	04–JAN–10 22:39	100104–3
	Molybdenum	50.6	ug/L	50	ug/L	101.1	90.0 – 110.0	MS	04–JAN–10 22:39	100104–3
	Nickel	52.5	ug/L	50	ug/L	105	90.0 – 110.0	MS	04–JAN–10 22:39	100104–3
	Selenium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	04–JAN–10 22:39	100104–3
	Silver	51.4	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	04–JAN–10 22:39	100104–3
	Thallium	46.6	ug/L	50	ug/L	93.1	90.0 – 110.0	MS	05–JAN–10 12:43	100105–4
	Aluminum	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	06–JAN–10 14:45	010610A–1
	Barium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	06–JAN–10 14:45	010610A–1
	Beryllium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	06–JAN–10 14:45	010610A–1
	Boron	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	06–JAN–10 14:45	010610A–1
	Calcium	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	06–JAN–10 14:45	010610A–1
	Cobalt	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	06–JAN–10 14:45	010610A–1
	Copper	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	06–JAN–10 14:45	010610A–1
	Iron	5020	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	06–JAN–10 14:45	010610A–1
	Magnesium	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	06–JAN–10 14:45	010610A–1
	Manganese	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	06–JAN–10 14:45	010610A–1
	Potassium	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	06–JAN–10 14:45	010610A–1
	Silica	5380	ug/L	5350	ug/L	100.5	90.0 – 110.0	P	06–JAN–10 14:45	010610A–1
	Sodium	10100	ug/L	10000	ug/L	100.6	90.0 – 110.0	P	06–JAN–10 14:45	010610A–1
	Strontium	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	06–JAN–10 14:45	010610A–1
	Tin	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	06–JAN–10 14:45	010610A–1
	Vanadium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	06–JAN–10 14:45	010610A–1
	Zinc	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	06–JAN–10 14:45	010610A–1
	Tin	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	07–JAN–10 15:00	010710–2
CCV05										
	Antimony	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	04–JAN–10 23:29	100104–3

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1021

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Arsenic	48	ug/L	50	ug/L	96.1	90.0 – 110.0	MS	04–JAN–10 23:29	100104–3
	Cadmium	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	04–JAN–10 23:29	100104–3
	Chromium	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	04–JAN–10 23:29	100104–3
	Lead	52.3	ug/L	50	ug/L	104.6	90.0 – 110.0	MS	04–JAN–10 23:29	100104–3
	Molybdenum	48.9	ug/L	50	ug/L	97.8	90.0 – 110.0	MS	04–JAN–10 23:29	100104–3
	Nickel	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	04–JAN–10 23:29	100104–3
	Selenium	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	04–JAN–10 23:29	100104–3
	Silver	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	04–JAN–10 23:29	100104–3
	Aluminum	5210	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Barium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Beryllium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Boron	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Calcium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Cobalt	500	ug/L	500	ug/L	100	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Copper	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Iron	4870	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Magnesium	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Manganese	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Potassium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Silica	5390	ug/L	5350	ug/L	100.7	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Sodium	9610	ug/L	10000	ug/L	96.1	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Strontium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Tin	500	ug/L	500	ug/L	100	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Zinc	500	ug/L	500	ug/L	100	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Tin	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	07–JAN–10 16:02	010710–2
CCV06										
	Antimony	50	ug/L	50	ug/L	100	90.0 – 110.0	MS	04–JAN–10 23:59	100104–3
	Arsenic	47.5	ug/L	50	ug/L	95	90.0 – 110.0	MS	04–JAN–10 23:59	100104–3
	Cadmium	48.7	ug/L	50	ug/L	97.4	90.0 – 110.0	MS	04–JAN–10 23:59	100104–3

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1021

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Chromium	49.3	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	04–JAN–10 23:59	100104–3
	Lead	52.4	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	04–JAN–10 23:59	100104–3
	Molybdenum	48.3	ug/L	50	ug/L	96.5	90.0 – 110.0	MS	04–JAN–10 23:59	100104–3
	Nickel	49.3	ug/L	50	ug/L	98.7	90.0 – 110.0	MS	04–JAN–10 23:59	100104–3
	Selenium	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	04–JAN–10 23:59	100104–3
	Silver	50	ug/L	50	ug/L	100	90.0 – 110.0	MS	04–JAN–10 23:59	100104–3
	Aluminum	5190	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Barium	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Beryllium	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Boron	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Calcium	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Cobalt	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Copper	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Iron	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Magnesium	5240	ug/L	5000	ug/L	104.7	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Manganese	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Potassium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Silica	5480	ug/L	5350	ug/L	102.4	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Sodium	10600	ug/L	10000	ug/L	105.5	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Strontium	528	ug/L	500	ug/L	105.6	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Tin	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Vanadium	515	ug/L	500	ug/L	102.9	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Zinc	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Tin	495	ug/L	500	ug/L	99	90.0 – 110.0	P	07–JAN–10 17:11	010710–2
CCV07										
	Aluminum	5140	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	06–JAN–10 17:59	010610A–1
	Barium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	06–JAN–10 17:59	010610A–1
	Beryllium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	06–JAN–10 17:59	010610A–1
	Boron	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	06–JAN–10 17:59	010610A–1
	Calcium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	06–JAN–10 17:59	010610A–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-1021

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	06-JAN-10 17:59	010610A-1
	Copper	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	06-JAN-10 17:59	010610A-1
	Iron	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	06-JAN-10 17:59	010610A-1
	Magnesium	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	06-JAN-10 17:59	010610A-1
	Manganese	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	06-JAN-10 17:59	010610A-1
	Potassium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	06-JAN-10 17:59	010610A-1
	Silica	5340	ug/L	5350	ug/L	99.9	90.0 – 110.0	P	06-JAN-10 17:59	010610A-1
	Sodium	10400	ug/L	10000	ug/L	104	90.0 – 110.0	P	06-JAN-10 17:59	010610A-1
	Strontium	523	ug/L	500	ug/L	104.6	90.0 – 110.0	P	06-JAN-10 17:59	010610A-1
	Tin	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	06-JAN-10 17:59	010610A-1
	Vanadium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	06-JAN-10 17:59	010610A-1
	Zinc	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	06-JAN-10 17:59	010610A-1
	Tin	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	07-JAN-10 18:26	010710-2
CCV08										
	Aluminum	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	06-JAN-10 19:15	010610A-1
	Barium	531	ug/L	500	ug/L	106.2	90.0 – 110.0	P	06-JAN-10 19:15	010610A-1
	Beryllium	536	ug/L	500	ug/L	107.2	90.0 – 110.0	P	06-JAN-10 19:15	010610A-1
	Boron	522	ug/L	500	ug/L	104.4	90.0 – 110.0	P	06-JAN-10 19:15	010610A-1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	06-JAN-10 19:15	010610A-1
	Cobalt	522	ug/L	500	ug/L	104.5	90.0 – 110.0	P	06-JAN-10 19:15	010610A-1
	Copper	531	ug/L	500	ug/L	106.3	90.0 – 110.0	P	06-JAN-10 19:15	010610A-1
	Iron	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	06-JAN-10 19:15	010610A-1
	Magnesium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	06-JAN-10 19:15	010610A-1
	Manganese	535	ug/L	500	ug/L	107.1	90.0 – 110.0	P	06-JAN-10 19:15	010610A-1
	Potassium	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	06-JAN-10 19:15	010610A-1
	Silica	5600	ug/L	5350	ug/L	104.7	90.0 – 110.0	P	06-JAN-10 19:15	010610A-1
	Sodium	9840	ug/L	10000	ug/L	98.4	90.0 – 110.0	P	06-JAN-10 19:15	010610A-1
	Strontium	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	06-JAN-10 19:15	010610A-1
	Tin	525	ug/L	500	ug/L	105.1	90.0 – 110.0	P	06-JAN-10 19:15	010610A-1
	Vanadium	534	ug/L	500	ug/L	106.7	90.0 – 110.0	P	06-JAN-10 19:15	010610A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1021

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	528	ug/L	500	ug/L	105.6	90.0 – 110.0	P	06–JAN–10 19:15	010610A–1
	Tin	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	07–JAN–10 19:48	010710–2
CCV09										
	Aluminum	5500	ug/L	5000	ug/L	110	90.0 – 110.0	P	06–JAN–10 20:32	010610A–1
	Barium	532	ug/L	500	ug/L	106.4	90.0 – 110.0	P	06–JAN–10 20:32	010610A–1
	Beryllium	537	ug/L	500	ug/L	107.4	90.0 – 110.0	P	06–JAN–10 20:32	010610A–1
	Boron	519	ug/L	500	ug/L	103.8	90.0 – 110.0	P	06–JAN–10 20:32	010610A–1
	Calcium	5370	ug/L	5000	ug/L	107.4	90.0 – 110.0	P	06–JAN–10 20:32	010610A–1
	Cobalt	528	ug/L	500	ug/L	105.6	90.0 – 110.0	P	06–JAN–10 20:32	010610A–1
	Copper	531	ug/L	500	ug/L	106.2	90.0 – 110.0	P	06–JAN–10 20:32	010610A–1
	Iron	5150	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	06–JAN–10 20:32	010610A–1
	Magnesium	5420	ug/L	5000	ug/L	108.4	90.0 – 110.0	P	06–JAN–10 20:32	010610A–1
	Manganese	536	ug/L	500	ug/L	107.2	90.0 – 110.0	P	06–JAN–10 20:32	010610A–1
	Potassium	5220	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	06–JAN–10 20:32	010610A–1
	Silica	5660	ug/L	5350	ug/L	105.8	90.0 – 110.0	P	06–JAN–10 20:32	010610A–1
	Sodium	10400	ug/L	10000	ug/L	104.1	90.0 – 110.0	P	06–JAN–10 20:32	010610A–1
	Strontium	545	ug/L	500	ug/L	109	90.0 – 110.0	P	06–JAN–10 20:32	010610A–1
	Tin	531	ug/L	500	ug/L	106.1	90.0 – 110.0	P	06–JAN–10 20:32	010610A–1
	Vanadium	534	ug/L	500	ug/L	106.8	90.0 – 110.0	P	06–JAN–10 20:32	010610A–1
	Zinc	527	ug/L	500	ug/L	105.4	90.0 – 110.0	P	06–JAN–10 20:32	010610A–1
	Tin	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	07–JAN–10 20:49	010710–2
CCV10										
	Aluminum	5490	ug/L	5000	ug/L	109.7	90.0 – 110.0	P	06–JAN–10 21:40	010610A–1
	Barium	526	ug/L	500	ug/L	105.3	90.0 – 110.0	P	06–JAN–10 21:40	010610A–1
	Beryllium	531	ug/L	500	ug/L	106.3	90.0 – 110.0	P	06–JAN–10 21:40	010610A–1
	Boron	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	06–JAN–10 21:40	010610A–1
	Calcium	5330	ug/L	5000	ug/L	106.5	90.0 – 110.0	P	06–JAN–10 21:40	010610A–1
	Cobalt	520	ug/L	500	ug/L	104	90.0 – 110.0	P	06–JAN–10 21:40	010610A–1
	Copper	525	ug/L	500	ug/L	105.1	90.0 – 110.0	P	06–JAN–10 21:40	010610A–1
	Iron	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	06–JAN–10 21:40	010610A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–1021

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Magnesium	5350	ug/L	5000	ug/L	107.1	90.0 – 110.0	P	06–JAN–10 21:40	010610A–1
	Manganese	530	ug/L	500	ug/L	106	90.0 – 110.0	P	06–JAN–10 21:40	010610A–1
	Potassium	5160	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	06–JAN–10 21:40	010610A–1
	Silica	5560	ug/L	5350	ug/L	103.9	90.0 – 110.0	P	06–JAN–10 21:40	010610A–1
	Sodium	10200	ug/L	10000	ug/L	102.4	90.0 – 110.0	P	06–JAN–10 21:40	010610A–1
	Strontium	541	ug/L	500	ug/L	108.2	90.0 – 110.0	P	06–JAN–10 21:40	010610A–1
	Tin	523	ug/L	500	ug/L	104.6	90.0 – 110.0	P	06–JAN–10 21:40	010610A–1
	Vanadium	529	ug/L	500	ug/L	105.8	90.0 – 110.0	P	06–JAN–10 21:40	010610A–1
	Zinc	521	ug/L	500	ug/L	104.3	90.0 – 110.0	P	06–JAN–10 21:40	010610A–1
CCV11										
	Aluminum	5330	ug/L	5000	ug/L	106.7	90.0 – 110.0	P	06–JAN–10 22:56	010610A–1
	Barium	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	06–JAN–10 22:56	010610A–1
	Beryllium	519	ug/L	500	ug/L	103.8	90.0 – 110.0	P	06–JAN–10 22:56	010610A–1
	Boron	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	06–JAN–10 22:56	010610A–1
	Calcium	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	06–JAN–10 22:56	010610A–1
	Cobalt	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	06–JAN–10 22:56	010610A–1
	Copper	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	06–JAN–10 22:56	010610A–1
	Iron	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	06–JAN–10 22:56	010610A–1
	Magnesium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	06–JAN–10 22:56	010610A–1
	Manganese	518	ug/L	500	ug/L	103.5	90.0 – 110.0	P	06–JAN–10 22:56	010610A–1
	Potassium	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	06–JAN–10 22:56	010610A–1
	Silica	5450	ug/L	5350	ug/L	101.9	90.0 – 110.0	P	06–JAN–10 22:56	010610A–1
	Sodium	10000	ug/L	10000	ug/L	100.1	90.0 – 110.0	P	06–JAN–10 22:56	010610A–1
	Strontium	526	ug/L	500	ug/L	105.3	90.0 – 110.0	P	06–JAN–10 22:56	010610A–1
	Tin	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	06–JAN–10 22:56	010610A–1
	Vanadium	518	ug/L	500	ug/L	103.5	90.0 – 110.0	P	06–JAN–10 22:56	010610A–1
	Zinc	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	06–JAN–10 22:56	010610A–1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–1021

Contract: ESHL01000 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.185	ug/L	.2	ug/L	92.5	70.0 – 130.0	AV	30–DEC–09 09:16	123009W1–6
	Lead	2.43	ug/L	2	ug/L	121.5	70.0 – 130.0	MS	04–JAN–10 20:25	100104–3
	Nickel	2.25	ug/L	2	ug/L	112.6	70.0 – 130.0	MS	04–JAN–10 20:25	100104–3
	Silver	1.08	ug/L	1	ug/L	107.7	70.0 – 130.0	MS	04–JAN–10 20:25	100104–3
	Arsenic	5.55	ug/L	5	ug/L	111	70.0 – 130.0	MS	04–JAN–10 20:25	100104–3
	Chromium	11	ug/L	10	ug/L	109.8	70.0 – 130.0	MS	04–JAN–10 20:25	100104–3
	Molybdenum	.557	ug/L	.5	ug/L	111.4	70.0 – 130.0	MS	04–JAN–10 20:25	100104–3
	Selenium	5.7	ug/L	5	ug/L	114.1	70.0 – 130.0	MS	04–JAN–10 20:25	100104–3
	Cadmium	1.11	ug/L	1	ug/L	110.8	70.0 – 130.0	MS	04–JAN–10 20:25	100104–3
	Antimony	3.24	ug/L	3	ug/L	108.1	70.0 – 130.0	MS	04–JAN–10 20:25	100104–3
	Thallium	1.16	ug/L	1	ug/L	116.4	70.0 – 130.0	MS	05–JAN–10 10:23	100105–4
	Uranium	.258	ug/L	.2	ug/L	129	70.0 – 130.0	MS	07–JAN–10 12:14	100107–5
PQL01										
	Silica	217	ug/L	213	ug/L	101.9	70.0 – 130.0	P	06–JAN–10 10:51	010610A–1
	Manganese	10.5	ug/L	10	ug/L	105.1	70.0 – 130.0	P	06–JAN–10 10:51	010610A–1
	Sodium	308	ug/L	300	ug/L	102.6	70.0 – 130.0	P	06–JAN–10 10:51	010610A–1
	Beryllium	5.03	ug/L	5	ug/L	100.5	70.0 – 130.0	P	06–JAN–10 10:51	010610A–1
	Copper	10.6	ug/L	10	ug/L	106.3	70.0 – 130.0	P	06–JAN–10 10:51	010610A–1
	Strontium	4.84	ug/L	5	ug/L	96.8	70.0 – 130.0	P	06–JAN–10 10:51	010610A–1
	Tin	10.2	ug/L	10	ug/L	102.3	70.0 – 130.0	P	06–JAN–10 10:51	010610A–1
	Boron	51	ug/L	50	ug/L	102.1	70.0 – 130.0	P	06–JAN–10 10:51	010610A–1
	Calcium	210	ug/L	200	ug/L	104.8	70.0 – 130.0	P	06–JAN–10 10:51	010610A–1
	Zinc	10.6	ug/L	10	ug/L	106.4	70.0 – 130.0	P	06–JAN–10 10:51	010610A–1
	Vanadium	5.42	ug/L	5	ug/L	108.4	70.0 – 130.0	P	06–JAN–10 10:51	010610A–1
	Cobalt	4.75	ug/L	5	ug/L	95	70.0 – 130.0	P	06–JAN–10 10:51	010610A–1
	Barium	5.23	ug/L	5	ug/L	104.6	70.0 – 130.0	P	06–JAN–10 10:51	010610A–1
	Potassium	147	ug/L	150	ug/L	98.2	70.0 – 130.0	P	06–JAN–10 10:51	010610A–1
	Magnesium	395	ug/L	300	ug/L	131.5	70.0 – 130.0	P	06–JAN–10 10:51	010610A–1
	Aluminum	214	ug/L	200	ug/L	107.1	70.0 – 130.0	P	06–JAN–10 10:51	010610A–1
	Iron	104	ug/L	100	ug/L	103.8	70.0 – 130.0	P	06–JAN–10 10:51	010610A–1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–1021

Contract: ESHL01000 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
	Tin	9.92	ug/L	10	ug/L	99.2	70.0 – 130.0	P	07–JAN–10 11:43	010710–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1021

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	30–DEC–09 09:14	123009W1–6
	Antimony	0.668	+/–3	J	0.5	3.0	LIQ	MS	04–JAN–10 20:19	100104–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	04–JAN–10 20:19	100104–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	04–JAN–10 20:19	100104–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	04–JAN–10 20:19	100104–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	04–JAN–10 20:19	100104–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	04–JAN–10 20:19	100104–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	04–JAN–10 20:19	100104–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	04–JAN–10 20:19	100104–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	04–JAN–10 20:19	100104–3
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	05–JAN–10 10:19	100105–4
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	06–JAN–10 10:44	010610A–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 10:44	010610A–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 10:44	010610A–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	06–JAN–10 10:44	010610A–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	06–JAN–10 10:44	010610A–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 10:44	010610A–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	06–JAN–10 10:44	010610A–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	06–JAN–10 10:44	010610A–1
	Magnesium	121.5	+/–300	J	85.0	300	LIQ	P	06–JAN–10 10:44	010610A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	06–JAN–10 10:44	010610A–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	06–JAN–10 10:44	010610A–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	06–JAN–10 10:44	010610A–1
	Sodium	100	+/–300	U	100	300	LIQ	P	06–JAN–10 10:44	010610A–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 10:44	010610A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	06–JAN–10 10:44	010610A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 10:44	010610A–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	06–JAN–10 10:44	010610A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	07–JAN–10 11:36	010710–2
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	07–JAN–10 12:11	100107–5

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-1021

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB01										
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	30-DEC-09 09:20	123009W1-6
	Antimony	0.5	+/-3	U	0.5	3.0	LIQ	MS	04-JAN-10 20:49	100104-3
	Arsenic	1.5	+/-5	U	1.5	5.0	LIQ	MS	04-JAN-10 20:49	100104-3
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	04-JAN-10 20:49	100104-3
	Chromium	2.5	+/-10	U	2.5	10.0	LIQ	MS	04-JAN-10 20:49	100104-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	04-JAN-10 20:49	100104-3
	Molybdenum	0.118	+/-.5	J	0.1	0.5	LIQ	MS	04-JAN-10 20:49	100104-3
	Nickel	0.5	+/-2	U	0.5	2.0	LIQ	MS	04-JAN-10 20:49	100104-3
	Selenium	1.0	+/-5	U	1.0	5.0	LIQ	MS	04-JAN-10 20:49	100104-3
	Silver	0.2	+/-1	U	0.2	1.0	LIQ	MS	04-JAN-10 20:49	100104-3
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	05-JAN-10 10:41	100105-4
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	06-JAN-10 11:47	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 11:47	010610A-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 11:47	010610A-1
	Boron	16.45	+/-50	J	15.0	50.0	LIQ	P	06-JAN-10 11:47	010610A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	06-JAN-10 11:47	010610A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 11:47	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	06-JAN-10 11:47	010610A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	06-JAN-10 11:47	010610A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	06-JAN-10 11:47	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	06-JAN-10 11:47	010610A-1
	Potassium	88.07	+/-150	J	50.0	150	LIQ	P	06-JAN-10 11:47	010610A-1
	Silica	53.0	+/-213	U	53.0	213	LIQ	P	06-JAN-10 11:47	010610A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	06-JAN-10 11:47	010610A-1
	Strontium	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 11:47	010610A-1
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	06-JAN-10 11:47	010610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 11:47	010610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	06-JAN-10 11:47	010610A-1
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	07-JAN-10 12:21	010710-2
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	07-JAN-10 12:26	100107-5

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1021

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB02										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	30–DEC–09 09:43	123009W1–6
	Antimony	1.07	+/–3	J	0.5	3.0	LIQ	MS	04–JAN–10 21:08	100104–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	04–JAN–10 21:08	100104–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	04–JAN–10 21:08	100104–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	04–JAN–10 21:08	100104–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	04–JAN–10 21:08	100104–3
	Molybdenum	0.163	+/–.5	J	0.1	0.5	LIQ	MS	04–JAN–10 21:08	100104–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	04–JAN–10 21:08	100104–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	04–JAN–10 21:08	100104–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	04–JAN–10 21:08	100104–3
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	05–JAN–10 11:22	100105–4
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	06–JAN–10 13:06	010610A–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 13:06	010610A–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 13:06	010610A–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	06–JAN–10 13:06	010610A–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	06–JAN–10 13:06	010610A–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 13:06	010610A–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	06–JAN–10 13:06	010610A–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	06–JAN–10 13:06	010610A–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	06–JAN–10 13:06	010610A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	06–JAN–10 13:06	010610A–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	06–JAN–10 13:06	010610A–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	06–JAN–10 13:06	010610A–1
	Sodium	100	+/–300	U	100	300	LIQ	P	06–JAN–10 13:06	010610A–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 13:06	010610A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	06–JAN–10 13:06	010610A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 13:06	010610A–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	06–JAN–10 13:06	010610A–1
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	07–JAN–10 12:56	100107–5
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	07–JAN–10 13:29	010710–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1021

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB03										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	30–DEC–09 10:06	123009W1–6
	Antimony	0.535	+/–3	J	0.5	3.0	LIQ	MS	04–JAN–10 21:57	100104–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	04–JAN–10 21:57	100104–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	04–JAN–10 21:57	100104–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	04–JAN–10 21:57	100104–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	04–JAN–10 21:57	100104–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	04–JAN–10 21:57	100104–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	04–JAN–10 21:57	100104–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	04–JAN–10 21:57	100104–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	04–JAN–10 21:57	100104–3
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	05–JAN–10 11:58	100105–4
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	06–JAN–10 14:24	010610A–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 14:24	010610A–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 14:24	010610A–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	06–JAN–10 14:24	010610A–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	06–JAN–10 14:24	010610A–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 14:24	010610A–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	06–JAN–10 14:24	010610A–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	06–JAN–10 14:24	010610A–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	06–JAN–10 14:24	010610A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	06–JAN–10 14:24	010610A–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	06–JAN–10 14:24	010610A–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	06–JAN–10 14:24	010610A–1
	Sodium	100	+/–300	U	100	300	LIQ	P	06–JAN–10 14:24	010610A–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 14:24	010610A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	06–JAN–10 14:24	010610A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 14:24	010610A–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	06–JAN–10 14:24	010610A–1
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	07–JAN–10 13:11	100107–5
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	07–JAN–10 14:35	010710–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–1021

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB04										
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	04–JAN–10 22:46	100104–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	04–JAN–10 22:46	100104–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	04–JAN–10 22:46	100104–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	04–JAN–10 22:46	100104–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	04–JAN–10 22:46	100104–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	04–JAN–10 22:46	100104–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	04–JAN–10 22:46	100104–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	04–JAN–10 22:46	100104–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	04–JAN–10 22:46	100104–3
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	05–JAN–10 12:47	100105–4
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	06–JAN–10 14:52	010610A–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 14:52	010610A–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 14:52	010610A–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	06–JAN–10 14:52	010610A–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	06–JAN–10 14:52	010610A–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 14:52	010610A–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	06–JAN–10 14:52	010610A–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	06–JAN–10 14:52	010610A–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	06–JAN–10 14:52	010610A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	06–JAN–10 14:52	010610A–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	06–JAN–10 14:52	010610A–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	06–JAN–10 14:52	010610A–1
	Sodium	100	+/–300	U	100	300	LIQ	P	06–JAN–10 14:52	010610A–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 14:52	010610A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	06–JAN–10 14:52	010610A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 14:52	010610A–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	06–JAN–10 14:52	010610A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	07–JAN–10 15:07	010710–2
CCB05										
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	04–JAN–10 23:35	100104–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	04–JAN–10 23:35	100104–3

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1021

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	04–JAN–10 23:35	100104–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	04–JAN–10 23:35	100104–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	04–JAN–10 23:35	100104–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	04–JAN–10 23:35	100104–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	04–JAN–10 23:35	100104–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	04–JAN–10 23:35	100104–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	04–JAN–10 23:35	100104–3
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	06–JAN–10 16:00	010610A–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 16:00	010610A–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 16:00	010610A–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	06–JAN–10 16:00	010610A–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	06–JAN–10 16:00	010610A–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 16:00	010610A–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	06–JAN–10 16:00	010610A–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	06–JAN–10 16:00	010610A–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	06–JAN–10 16:00	010610A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	06–JAN–10 16:00	010610A–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	06–JAN–10 16:00	010610A–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	06–JAN–10 16:00	010610A–1
	Sodium	100	+/–300	U	100	300	LIQ	P	06–JAN–10 16:00	010610A–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 16:00	010610A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	06–JAN–10 16:00	010610A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 16:00	010610A–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	06–JAN–10 16:00	010610A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	07–JAN–10 16:09	010710–2
CCB06										
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	05–JAN–10 00:05	100104–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	05–JAN–10 00:05	100104–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	05–JAN–10 00:05	100104–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	05–JAN–10 00:05	100104–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	05–JAN–10 00:05	100104–3

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-1021

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Molybdenum	0.1	+/-.5	U	0.1	0.5	LIQ	MS	05-JAN-10 00:05	100104-3
	Nickel	0.5	+/-2	U	0.5	2.0	LIQ	MS	05-JAN-10 00:05	100104-3
	Selenium	1.0	+/-5	U	1.0	5.0	LIQ	MS	05-JAN-10 00:05	100104-3
	Silver	0.2	+/-1	U	0.2	1.0	LIQ	MS	05-JAN-10 00:05	100104-3
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	06-JAN-10 17:02	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 17:02	010610A-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 17:02	010610A-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	06-JAN-10 17:02	010610A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	06-JAN-10 17:02	010610A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 17:02	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	06-JAN-10 17:02	010610A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	06-JAN-10 17:02	010610A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	06-JAN-10 17:02	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	06-JAN-10 17:02	010610A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	06-JAN-10 17:02	010610A-1
	Silica	53.0	+/-213	U	53.0	213	LIQ	P	06-JAN-10 17:02	010610A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	06-JAN-10 17:02	010610A-1
	Strontium	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 17:02	010610A-1
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	06-JAN-10 17:02	010610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 17:02	010610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	06-JAN-10 17:02	010610A-1
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	07-JAN-10 17:18	010710-2
CCB07										
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	06-JAN-10 18:06	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 18:06	010610A-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 18:06	010610A-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	06-JAN-10 18:06	010610A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	06-JAN-10 18:06	010610A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 18:06	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	06-JAN-10 18:06	010610A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	06-JAN-10 18:06	010610A-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1021

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	06–JAN–10 18:06	010610A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	06–JAN–10 18:06	010610A–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	06–JAN–10 18:06	010610A–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	06–JAN–10 18:06	010610A–1
	Sodium	100	+/–300	U	100	300	LIQ	P	06–JAN–10 18:06	010610A–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 18:06	010610A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	06–JAN–10 18:06	010610A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 18:06	010610A–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	06–JAN–10 18:06	010610A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	07–JAN–10 18:33	010710–2
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	06–JAN–10 19:21	010610A–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 19:21	010610A–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 19:21	010610A–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	06–JAN–10 19:21	010610A–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	06–JAN–10 19:21	010610A–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 19:21	010610A–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	06–JAN–10 19:21	010610A–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	06–JAN–10 19:21	010610A–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	06–JAN–10 19:21	010610A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	06–JAN–10 19:21	010610A–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	06–JAN–10 19:21	010610A–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	06–JAN–10 19:21	010610A–1
	Sodium	100	+/–300	U	100	300	LIQ	P	06–JAN–10 19:21	010610A–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 19:21	010610A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	06–JAN–10 19:21	010610A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 19:21	010610A–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	06–JAN–10 19:21	010610A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	07–JAN–10 19:54	010710–2
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	06–JAN–10 20:38	010610A–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1021

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 20:38	010610A–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 20:38	010610A–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	06–JAN–10 20:38	010610A–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	06–JAN–10 20:38	010610A–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 20:38	010610A–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	06–JAN–10 20:38	010610A–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	06–JAN–10 20:38	010610A–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	06–JAN–10 20:38	010610A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	06–JAN–10 20:38	010610A–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	06–JAN–10 20:38	010610A–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	06–JAN–10 20:38	010610A–1
	Sodium	100	+/–300	U	100	300	LIQ	P	06–JAN–10 20:38	010610A–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 20:38	010610A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	06–JAN–10 20:38	010610A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 20:38	010610A–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	06–JAN–10 20:38	010610A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	07–JAN–10 20:56	010710–2
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	06–JAN–10 21:47	010610A–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 21:47	010610A–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 21:47	010610A–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	06–JAN–10 21:47	010610A–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	06–JAN–10 21:47	010610A–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 21:47	010610A–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	06–JAN–10 21:47	010610A–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	06–JAN–10 21:47	010610A–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	06–JAN–10 21:47	010610A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	06–JAN–10 21:47	010610A–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	06–JAN–10 21:47	010610A–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	06–JAN–10 21:47	010610A–1
	Sodium	100	+/–300	U	100	300	LIQ	P	06–JAN–10 21:47	010610A–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–1021

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 21:47	010610A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	06–JAN–10 21:47	010610A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 21:47	010610A–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	06–JAN–10 21:47	010610A–1
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	06–JAN–10 23:02	010610A–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 23:02	010610A–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 23:02	010610A–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	06–JAN–10 23:02	010610A–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	06–JAN–10 23:02	010610A–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 23:02	010610A–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	06–JAN–10 23:02	010610A–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	06–JAN–10 23:02	010610A–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	06–JAN–10 23:02	010610A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	06–JAN–10 23:02	010610A–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	06–JAN–10 23:02	010610A–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	06–JAN–10 23:02	010610A–1
	Sodium	100	+/–300	U	100	300	LIQ	P	06–JAN–10 23:02	010610A–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 23:02	010610A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	06–JAN–10 23:02	010610A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 23:02	010610A–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	06–JAN–10 23:02	010610A–1

METALS
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PREPARATION BLANK SUMMARY

SDG NO. 10-1021

Contract: ESHL01000

Matrix: GROUND WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202003791								
	Tin	2.5	ug/L	+/-10	U	P	2.5	10
	Vanadium	1	ug/L	+/-5	U	P	1	5
	Aluminum	68	ug/L	+/-200	U	P	68	200
	Barium	1	ug/L	+/-5	U	P	1	5
	Zinc	3.3	ug/L	+/-10	U	P	3.3	10
	Beryllium	1	ug/L	+/-5	U	P	1	5
	Calcium	50	ug/L	+/-200	U	P	50	200
	Copper	3	ug/L	+/-10	U	P	3	10
	Magnesium	85	ug/L	+/-300	U	P	85	300
	Strontium	1	ug/L	+/-5	U	P	1	5
	Sodium	100	ug/L	+/-300	U	P	100	300
	Silica	0.053	mg/L	+/-0.213	U	P	0.053	0.213
	Potassium	50	ug/L	+/-150	U	P	50	150
	Manganese	2	ug/L	+/-10	U	P	2	10
	Iron	30	ug/L	+/-100	U	P	30	100
	Cobalt	1	ug/L	+/-5	U	P	1	5
	Boron	15	ug/L	+/-50	U	P	15	50
1202003858								
	Antimony	0.5	ug/L	+/-3	U	MS	0.5	3
	Arsenic	1.5	ug/L	+/-5	U	MS	1.5	5
	Cadmium	0.11	ug/L	+/-1	U	MS	0.11	1
	Chromium	2.5	ug/L	+/-10	U	MS	2.5	10
	Lead	0.5	ug/L	+/-2	U	MS	0.5	2
	Molybdenum	0.1	ug/L	+/-0.5	U	MS	0.1	0.5
	Nickel	0.5	ug/L	+/-2	U	MS	0.5	2
	Selenium	1	ug/L	+/-5	U	MS	1	5
	Silver	0.2	ug/L	+/-1	U	MS	0.2	1
	Thallium	0.3	ug/L	+/-1	U	MS	0.3	1
	Uranium	0.05	ug/L	+/-0.2	U	MS	0.05	0.2
1202005716								
	Mercury	0.066	ug/L	+/-0.2	U	AV	0.066	0.2

METALS
-4-
Interference Check Sample

SDG No: 10-1021

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	524000	ug/L	500000	ug/L	105	80.0 - 120.0	06-JAN-10 10:58	010610A-1
	Barium	-1.32	ug/L					06-JAN-10 10:58	010610A-1
	Beryllium	-0.205	ug/L					06-JAN-10 10:58	010610A-1
	Boron	-9.98	ug/L					06-JAN-10 10:58	010610A-1
	Calcium	490000	ug/L	500000	ug/L	98.1	80.0 - 120.0	06-JAN-10 10:58	010610A-1
	Cobalt	-1.75	ug/L					06-JAN-10 10:58	010610A-1
	Copper	0.788	ug/L					06-JAN-10 10:58	010610A-1
	Iron	191000	ug/L	200000	ug/L	95.6	80.0 - 120.0	06-JAN-10 10:58	010610A-1
	Magnesium	494000	ug/L	500000	ug/L	98.9	80.0 - 120.0	06-JAN-10 10:58	010610A-1
	Manganese	8.64	ug/L					06-JAN-10 10:58	010610A-1
	Potassium	-8.89	ug/L					06-JAN-10 10:58	010610A-1
	Silica	-0.469	ug/L					06-JAN-10 10:58	010610A-1
	Sodium	7.21	ug/L					06-JAN-10 10:58	010610A-1
	Strontium	-0.771	ug/L					06-JAN-10 10:58	010610A-1
	Tin	-15.9	ug/L					06-JAN-10 10:58	010610A-1
	Vanadium	-2.85	ug/L					06-JAN-10 10:58	010610A-1
	Zinc	-0.463	ug/L					06-JAN-10 10:58	010610A-1
ICSAB01									
	Aluminum	513000	ug/L	500000	ug/L	103	80.0 - 120.0	06-JAN-10 11:04	010610A-1
	Barium	501	ug/L	500	ug/L	100	80.0 - 120.0	06-JAN-10 11:04	010610A-1
	Beryllium	248	ug/L	250	ug/L	99.1	80.0 - 120.0	06-JAN-10 11:04	010610A-1
	Boron	507	ug/L	500	ug/L	101	80.0 - 120.0	06-JAN-10 11:04	010610A-1
	Calcium	481000	ug/L	500000	ug/L	96.2	80.0 - 120.0	06-JAN-10 11:04	010610A-1
	Cobalt	463	ug/L	500	ug/L	92.5	80.0 - 120.0	06-JAN-10 11:04	010610A-1
	Copper	565	ug/L	500	ug/L	113	80.0 - 120.0	06-JAN-10 11:04	010610A-1
	Iron	186000	ug/L	200000	ug/L	92.9	80.0 - 120.0	06-JAN-10 11:04	010610A-1
	Magnesium	482000	ug/L	500000	ug/L	96.3	80.0 - 120.0	06-JAN-10 11:04	010610A-1
	Manganese	504	ug/L	500	ug/L	101	80.0 - 120.0	06-JAN-10 11:04	010610A-1
	Potassium	5350	ug/L	5000	ug/L	107	80.0 - 120.0	06-JAN-10 11:04	010610A-1

METALS
–4–
Interference Check Sample

SDG No: 10–1021

Contract: ESHL01000 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Silica	11100	ug/L	10700	ug/L	104	80.0 – 120.0	06–JAN–10 11:04	010610A–1
	Sodium	5430	ug/L	5000	ug/L	109	80.0 – 120.0	06–JAN–10 11:04	010610A–1
	Strontium	499	ug/L	500	ug/L	99.7	80.0 – 120.0	06–JAN–10 11:04	010610A–1
	Tin	479	ug/L	500	ug/L	95.8	80.0 – 120.0	06–JAN–10 11:04	010610A–1
	Vanadium	508	ug/L	500	ug/L	102	80.0 – 120.0	06–JAN–10 11:04	010610A–1
	Zinc	488	ug/L	500	ug/L	97.6	80.0 – 120.0	06–JAN–10 11:04	010610A–1

METALS
–4–
Interference Check Sample

SDG No: 10–1021

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Tin	–15.0	ug/L					07–JAN–10 11:50	010710–2
ICSAB01									
	Tin	470	ug/L	500	ug/L	94	80.0 – 120.0	07–JAN–10 11:56	010710–2

METALS
–4–
Interference Check Sample

SDG No: 10–1021

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.252	ug/L					04–JAN–10 20:31	100104–3
	Arsenic	–0.252	ug/L					04–JAN–10 20:31	100104–3
	Cadmium	0.478	ug/L					04–JAN–10 20:31	100104–3
	Chromium	2.67	ug/L					04–JAN–10 20:31	100104–3
	Lead	0.199	ug/L					04–JAN–10 20:31	100104–3
	Molybdenum	1990	ug/L	2000	ug/L	99.5	80.0 – 120.0	04–JAN–10 20:31	100104–3
	Nickel	2.93	ug/L					04–JAN–10 20:31	100104–3
	Selenium	–0.625	ug/L					04–JAN–10 20:31	100104–3
	Silver	0.079	ug/L					04–JAN–10 20:31	100104–3
ICSAB01									
	Antimony	22.9	ug/L	20.1	ug/L	114	80.0 – 120.0	04–JAN–10 20:37	100104–3
	Arsenic	20.5	ug/L	20	ug/L	103	80.0 – 120.0	04–JAN–10 20:37	100104–3
	Cadmium	20.7	ug/L	20.4	ug/L	102	80.0 – 120.0	04–JAN–10 20:37	100104–3
	Chromium	23.4	ug/L	23.7	ug/L	98.7	80.0 – 120.0	04–JAN–10 20:37	100104–3
	Lead	22.3	ug/L	20.5	ug/L	109	80.0 – 120.0	04–JAN–10 20:37	100104–3
	Molybdenum	2070	ug/L	2000	ug/L	104	80.0 – 120.0	04–JAN–10 20:37	100104–3
	Nickel	22.4	ug/L	22.7	ug/L	98.5	80.0 – 120.0	04–JAN–10 20:37	100104–3
	Selenium	19.3	ug/L	20	ug/L	96.5	80.0 – 120.0	04–JAN–10 20:37	100104–3
	Silver	20.7	ug/L	20	ug/L	104	80.0 – 120.0	04–JAN–10 20:37	100104–3

METALS
-4-
Interference Check Sample

SDG No: 10-1021

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Thallium	0.003	ug/L					05-JAN-10 10:28	100105-4
ICSAB01									
	Thallium	21.8	ug/L	20	ug/L	109	80.0 - 120.0	05-JAN-10 10:32	100105-4

METALS
–4–
Interference Check Sample

SDG No: 10–1021

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	–0.001	ug/L					07–JAN–10 12:17	100107–5
ICSAB01									
	Uranium	22.7	ug/L	20	ug/L	113	80.0 – 120.0	07–JAN–10 12:20	100107–5

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1021 **Client ID** CAPA–10–6821S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 243400001 **Spike ID:** 1202003794

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75–125	5460		68	U	5000	109		P
Barium	ug/L	75–125	538		18.4		500	104		P
Beryllium	ug/L	75–125	522		1	U	500	104		P
Boron	ug/L	75–125	532		27.6	J	500	101		P
Calcium	ug/L		29500		23200		5000	125	N/A	P
Cobalt	ug/L	75–125	498		1	U	500	99.6		P
Copper	ug/L	75–125	524		3	U	500	104		P
Iron	ug/L	75–125	5040		30	U	5000	101		P
Magnesium	ug/L	75–125	10700		5240		5000	109		P
Manganese	ug/L	75–125	515		2	U	500	103		P
Potassium	ug/L	75–125	7170		1960		5000	104		P
Silica	mg/L		60		47.8		10.7	114	N/A	P
Sodium	ug/L	75–125	20700		15000		5000	114		P
Strontium	ug/L	75–125	640		103		500	107		P
Tin	ug/L	75–125	506		12.5	U	500	101		P
Vanadium	ug/L	75–125	525		5.8		500	104		P
Zinc	ug/L	75–125	505		9.02	J	500	99.2		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1021 **Client ID** CAPA–10–6821S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 243400001 **Spike ID:** 1202003861

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/L	75–125	78.1		1.5	U	80	97.6		MS
Cadmium	ug/L	75–125	10.6		0.11	U	10	106		MS
Antimony	ug/L	75–125	209		0.5	U	200	104		MS
Chromium	ug/L	75–125	48		2.5	U	50	93.5		MS
Lead	ug/L	75–125	42.2		0.5	U	40	105		MS
Molybdenum	ug/L	75–125	52.8		3.03		50	99.6		MS
Nickel	ug/L	75–125	46.8		1	J	50	91.5		MS
Selenium	ug/L	75–125	21.7		1	U	20	104		MS
Silver	ug/L	75–125	50.8		0.2	U	50	102		MS
Thallium	ug/L	75–125	79.5		0.3	U	100	79.2		MS
Uranium	ug/L	75–125	58.8		1.79		50	114		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–1021 **Client ID** CAWA–10–6910S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 243461001 **Spike ID:** 1202005719

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75–125	2.1		0.066	U	2	105		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1021

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAPA–10–6821D

Sample ID: 243400001 **Duplicate ID:** 1202003793 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		68	U	68	U			P
Barium	ug/L	+/–5	18.4		18.6		.66		P
Beryllium	ug/L		1	U	1	U			P
Boron	ug/L	+/–50	27.6	J	26.2	J	5.05		P
Calcium	ug/L	+/–20%	23200		23600		1.5		P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L		30	U	30	U			P
Magnesium	ug/L	+/–20%	5240		5320		1.42		P
Manganese	ug/L		2	U	2	U			P
Potassium	ug/L	+/–20%	1960		2010		2.51		P
Silica	mg/L	+/–20%	47.8		48.1		.659		P
Sodium	ug/L	+/–20%	15000		15300		2.15		P
Strontium	ug/L	+/–20%	103		104		1.58		P
Tin	ug/L		12.5	U	12.5	U			P
Vanadium	ug/L	+/–5	5.8		5.67		2.18		P
Zinc	ug/L	+/–10	9.02	J	8.63	J	4.51		P

Metals
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Duplicate Sample Summary

SDG No.: 10-1021

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAPA-10-6821D

Sample ID: 243400001 **Duplicate ID:** 1202003860 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		0.5	U	0.5	U			MS
Arsenic	ug/L		1.5	U	1.5	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Chromium	ug/L		2.5	U	2.5	U			MS
Lead	ug/L		0.5	U	0.5	U			MS
Molybdenum	ug/L	+/-20%	3.03		3		1.06		MS
Nickel	ug/L	+/-2	1	J	0.989	J	1.51		MS
Selenium	ug/L		1	U	1.01	J	200		MS
Silver	ug/L		0.2	U	0.2	U			MS
Thallium	ug/L		0.3	U	0.3	U			MS
Uranium	ug/L	+/-20%	1.79		1.8		.67		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–1021

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAWA–10–6910D

Sample ID: 243461001 **Duplicate ID:** 1202005718 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1021

Contract: ESHL01000

Aqueous LCS Source: OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202003792								
	Aluminum	ug/L	5000	5500		110	80–120	P
	Barium	ug/L	500	545		109	80–120	P
	Beryllium	ug/L	500	540		108	80–120	P
	Boron	ug/L	500	520		104	80–120	P
	Calcium	ug/L	5000	5410		108	80–120	P
	Cobalt	ug/L	500	516		103	80–120	P
	Copper	ug/L	500	533		107	80–120	P
	Iron	ug/L	5000	5290		106	80–120	P
	Magnesium	ug/L	5000	5520		110	80–120	P
	Manganese	ug/L	500	537		107	80–120	P
	Potassium	ug/L	5000	5170		103	80–120	P
	Silica	mg/L	10.7	11		103	80–120	P
	Sodium	ug/L	5000	5510		110	80–120	P
	Strontium	ug/L	500	559		112	80–120	P
	Tin	ug/L	500	532		106	80–120	P
	Vanadium	ug/L	500	536		107	80–120	P
	Zinc	ug/L	500	515		103	80–120	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1021

Contract: ESHL01000

Aqueous LCS Source:O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202003859								
	Arsenic	ug/L	50	49.5		99.1	80–120	MS
	Cadmium	ug/L	50	50.9		102	80–120	MS
	Chromium	ug/L	50	49.4		98.7	80–120	MS
	Lead	ug/L	50	53.9		108	80–120	MS
	Molybdenum	ug/L	50	50.1		100	80–120	MS
	Nickel	ug/L	50	50.9		102	80–120	MS
	Selenium	ug/L	50	52.7		105	80–120	MS
	Silver	ug/L	50	52.9		106	80–120	MS
	Thallium	ug/L	50	44.2		88.4	80–120	MS
	Uranium	ug/L	50	59.8		120	80–120	MS
	Antimony	ug/L	50	55.1		110	80–120	MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–1021

Contract: ESHL01000

Aqueous LCS Source: GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202005717								
	Mercury	ug/L	2	2.08		104	85–115	AV

METALS
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Serial Dilution Sample Summary

SDG NO. 10-1021 **Client ID** CAPA-10-6821L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 243400001 **Serial Dilution ID:** 1202003795

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	68	U	340	U				P
Barium	18.4		19.3	J	4.62			P
Beryllium	1	U	5	U				P
Boron	27.6	J	75	U	100			P
Calcium	23200		23300		.431		10	P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	30	U	150	U				P
Magnesium	5240		5450		4.01		10	P
Manganese	2	U	10	U				P
Potassium	1960		2010		2.55			P
Silica	47800		48500		1.46		10	P
Sodium	15000		15400		2.67		10	P
Strontium	103		105		1.46		10	P
Tin	2.5	U	12.5	U				P
Vanadium	5.8		5.4	J	6.9			P
Zinc	9.02	J	16.5	U	100			P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–1021 **Client ID** CAPA–10–6821L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 243400001 **Serial Dilution ID:** 1202003862

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	.5	U	2.5	U				MS
Arsenic	1.5	U	7.5	U				MS
Cadmium	.11	U	.55	U				MS
Chromium	2.5	U	12.5	U				MS
Lead	.5	U	2.5	U				MS
Molybdenum	3.03		3.06		.99			MS
Nickel	1	J	2.5	U	100			MS
Selenium	1	U	5	U				MS
Silver	.2	U	1	U				MS
Thallium	.3	U	2.02	J				MS
Uranium	1.79		1.93		7.54			MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-1021 **Client ID** CAWA-10-6910L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 243461001 **Serial Dilution ID:** 1202005720

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10-1021 **Method Type:** P

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 936491							
1202003791	MB for batch 936491	MB	G	29-DEC-09	50mL	50mL	
1202003792	LCS for batch 936491	LCS	G	29-DEC-09	50mL	50mL	
1202003794	CAPA-10-6821S	MS	G	29-DEC-09	50mL	50mL	
1202003793	CAPA-10-6821D	DUP	G	29-DEC-09	50mL	50mL	
243400001	CAPA-10-6821	SAMPLE	G	29-DEC-09	50mL	50mL	
243400002	CAPA-10-6823	SAMPLE	G	29-DEC-09	50mL	50mL	
243400003	CAPA-10-6824	SAMPLE	G	29-DEC-09	50mL	50mL	
243400004	CAPA-10-6827	SAMPLE	G	29-DEC-09	50mL	50mL	

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10–1021 **Method Type:** MS

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	936523						
1202003858	MB for batch 936523	MB	G	29–DEC–09	50mL	50mL	
1202003859	LCS for batch 936523	LCS	G	29–DEC–09	50mL	50mL	
1202003861	CAPA–10–6821S	MS	G	29–DEC–09	50mL	50mL	
1202003860	CAPA–10–6821D	DUP	G	29–DEC–09	50mL	50mL	
243400001	CAPA–10–6821	SAMPLE	G	29–DEC–09	50mL	50mL	
243400002	CAPA–10–6823	SAMPLE	G	29–DEC–09	50mL	50mL	
243400003	CAPA–10–6824	SAMPLE	G	29–DEC–09	50mL	50mL	
243400004	CAPA–10–6827	SAMPLE	G	29–DEC–09	50mL	50mL	

METALS
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SAMPLE PREPARATION SUMMARY

SDG No: 10–1021 **Method Type:** AV

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	937311						
1202005716	MB for batch 937311	MB	G	29–DEC–09	20mL	20mL	
1202005717	LCS for batch 937311	LCS	G	29–DEC–09	20mL	20mL	
1202005719	CAWA–10–6910S	MS	G	29–DEC–09	20mL	20mL	
1202005718	CAWA–10–6910D	DUP	G	29–DEC–09	20mL	20mL	
243400001	CAPA–10–6821	SAMPLE	G	29–DEC–09	20mL	20mL	
243400002	CAPA–10–6823	SAMPLE	G	29–DEC–09	20mL	20mL	
243400003	CAPA–10–6824	SAMPLE	G	29–DEC–09	20mL	20mL	
243400004	CAPA–10–6827	SAMPLE	G	29–DEC–09	20mL	20mL	

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 04–JAN–10 **End Date:** 05–JAN–10

Client Sdg: 10–1021
Method MS
Data File: 100104–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	19:54		X	X				X		X					X				X	X		X		X							
S10	1	20:00		X	X				X		X					X				X	X		X		X							
S100	1	20:07		X	X				X		X					X				X	X		X		X							
ICV01	1	20:13		X	X				X		X					X				X	X		X		X							
ICB01	1	20:19		X	X				X		X					X				X	X		X		X							
CRDL01	1	20:25		X	X				X		X					X				X	X		X		X							
ICSA01	1	20:31		X	X				X		X					X				X	X		X		X							
ICSAB01	1	20:37		X	X				X		X					X				X	X		X		X							
CCV01	1	20:43		X	X				X		X					X				X	X		X		X							
CCB01	1	20:49		X	X				X		X					X				X	X		X		X							
LR01	1	20:55		X	X				X		X					X				X	X		X		X							
CCV02	1	21:01		X	X				X		X					X				X	X		X		X							
CCB02	1	21:08		X	X				X		X					X				X	X		X		X							
ZZZZZZ	1	21:14																														
ZZZZZZ	1	21:20																														
ZZZZZZ	1	21:26																														
ZZZZZZ	1	21:32																														
ZZZZZZ	1	21:38																														
ZZZZZZ	5	21:44																														
CCV03	1	21:50		X	X				X		X					X				X	X		X		X							
CCB03	1	21:57		X	X				X		X					X				X	X		X		X							
ZZZZZZ	1	22:03																														
ZZZZZZ	1	22:09																														
ZZZZZZ	1	22:15																														
ZZZZZZ	1	22:21																														
ZZZZZZ	1	22:27																														
ZZZZZZ	5	22:33																														
CCV04	1	22:39		X	X				X		X					X				X	X		X		X							
CCB04	1	22:46		X	X				X		X					X				X	X		X		X							
1202003858	1	22:52		X	X				X		X					X				X	X		X		X							
1202003859	1	22:58		X	X				X		X					X				X	X		X		X							
243400001	1	23:04		X	X				X		X					X				X	X		X		X							
1202003860	1	23:10		X	X				X		X					X				X	X		X		X							
1202003861	1	23:16		X	X				X		X					X				X	X		X		X							
1202003862	5	23:22		X	X				X		X					X				X	X		X		X							
CCV05	1	23:29		X	X				X		X					X				X	X		X		X							
CCB05	1	23:35		X	X				X		X					X				X	X		X		X							
243400002	1	23:41		X	X				X		X					X				X	X		X		X							
243400003	1	23:47		X	X				X		X					X				X	X		X		X							
243400004	1	23:53		X	X				X		X					X				X	X		X		X							

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																												
CCV06	1	23:59		X	X				X		X					X				X	X		X		X						
CCB06	1	00:05		X	X				X		X					X				X	X		X		X						

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 05–JAN–10 **End Date:** 05–JAN–10

Client Sdg: 10–1021
Method MS
Data File: 100105–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	10:01																										X				
S10	1	10:05																										X				
S100	1	10:10																										X				
ICV01	1	10:14																										X				
ICB01	1	10:19																										X				
CRDL01	1	10:23																										X				
ICSA01	1	10:28																										X				
ICSAB01	1	10:32																										X				
CCV01	1	10:37																										X				
CCB01	1	10:41																										X				
ZZZZZZ	1	10:46																														
ZZZZZZ	1	10:50																														
ZZZZZZ	1	10:55																														
ZZZZZZ	1	10:59																														
ZZZZZZ	1	11:04																														
ZZZZZZ	5	11:08																														
ZZZZZZ	1	11:13																														
CCV02	1	11:17																										X				
CCB02	1	11:22																										X				
ZZZZZZ	1	11:26																														
ZZZZZZ	1	11:31																														
ZZZZZZ	1	11:35																														
ZZZZZZ	1	11:40																														
ZZZZZZ	1	11:44																														
ZZZZZZ	5	11:49																														
CCV03	1	11:53																										X				
CCB03	1	11:58																										X				
1202003858	1	12:02																										X				
1202003859	1	12:07																										X				
243400001	1	12:11																										X				
1202003860	1	12:16																										X				
1202003861	1	12:20																										X				
1202003862	5	12:25																										X				
243400002	1	12:29																										X				
243400003	1	12:34																										X				
243400004	1	12:38																										X				
CCV04	1	12:43																										X				
CCB04	1	12:47																										X				

Metals
-14-
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 07-JAN-10 **End Date:** 07-JAN-10

Client Sdg: 10-1021
Method MS
Data File: 100107-5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Ti	Sn	U	V	Zn
S0.0	1	11:59																												X		
S10	1	12:02																												X		
S100	1	12:05																												X		
ICV01	1	12:08																												X		
ICB01	1	12:11																												X		
CRDL01	1	12:14																												X		
ICSA01	1	12:17																												X		
ICSAB01	1	12:20																												X		
CCV01	1	12:23																												X		
CCB01	1	12:26																												X		
ZZZZZZ	1	12:29																														
ZZZZZZ	1	12:32																														
1202003858	1	12:35																												X		
1202003859	1	12:38																												X		
243400001	1	12:41																												X		
1202003860	1	12:44																												X		
1202003861	1	12:47																												X		
1202003862	5	12:50																												X		
CCV02	1	12:53																												X		
CCB02	1	12:56																												X		
243400002	1	12:59																												X		
243400003	1	13:02																												X		
243400004	1	13:05																												X		
CCV03	1	13:08																												X		
CCB03	1	13:11																												X		

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 06–JAN–10 **End Date:** 06–JAN–10

Client Sdg: 10–1021
Method P
Data File: 010610A–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	10:05	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
S0.1	1	10:12				X	X	X				X	X					X				X		X			X		X		X	X
S0.5	1	10:18	X			X	X	X		X		X	X				X	X				X		X			X		X		X	X
SCAL	1	10:25	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
S10	1	10:32	X							X					X		X									X						
ICV01	1	10:37	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ICB01	1	10:44	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
PQL01	1	10:51	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ICSA01	1	10:58	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ICSAB01	1	11:04	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
LR01	1	11:09	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
LR02	1	11:15	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	11:22																														
ZZZZZZ	1	11:29																														
CCV01	1	11:40	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB01	1	11:47	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	11:56																														
ZZZZZZ	1	12:03																														
ZZZZZZ	1	12:11																														
ZZZZZZ	1	12:18																														
ZZZZZZ	1	12:25																														
ZZZZZZ	1	12:32																														
ZZZZZZ	1	12:39																														
ZZZZZZ	1	12:46																														
ZZZZZZ	1	12:53																														
CCV02	1	13:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB02	1	13:06	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	2	13:16																														
ZZZZZZ	2	13:23																														
ZZZZZZ	2	13:29																														
ZZZZZZ	2	13:36																														
ZZZZZZ	10	13:43																														
ZZZZZZ	2	13:50																														
ZZZZZZ	2	13:57																														
ZZZZZZ	2	14:03																														
ZZZZZZ	2	14:10																														
CCV03	1	14:17	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB03	1	14:24	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCV04	1	14:45	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB04	1	14:52	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																													
ZZZZZZ	1	14:59																													
ZZZZZZ	1	15:06																													
ZZZZZZ	1	15:13																													
ZZZZZZ	1	15:19																													
ZZZZZZ	1	15:26																													
ZZZZZZ	1	15:33																													
ZZZZZZ	1	15:40																													
ZZZZZZ	1	15:47																													
CCV05	1	15:54	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB05	1	16:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	16:07																													
ZZZZZZ	1	16:14																													
ZZZZZZ	1	16:21																													
ZZZZZZ	1	16:28																													
ZZZZZZ	1	16:35																													
ZZZZZZ	1	16:42																													
ZZZZZZ	1	16:48																													
CCV06	1	16:55	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB06	1	17:02	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	17:09																													
ZZZZZZ	1	17:16																													
ZZZZZZ	1	17:23																													
ZZZZZZ	5	17:30																													
ZZZZZZ	1	17:38																													
ZZZZZZ	1	17:45																													
ZZZZZZ	1	17:52																													
CCV07	1	17:59	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB07	1	18:06	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	18:13																													
ZZZZZZ	1	18:20																													
ZZZZZZ	1	18:26																													
ZZZZZZ	1	18:33																													
ZZZZZZ	1	18:40																													
ZZZZZZ	1	18:47																													
ZZZZZZ	5	18:54																													
ZZZZZZ	1	19:01																													
ZZZZZZ	1	19:08																													
CCV08	1	19:15	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB08	1	19:21	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	19:28																													

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
ZZZZZZ	1	19:35																														
ZZZZZZ	1	19:43																														
ZZZZZZ	1	19:50																														
ZZZZZZ	1	19:57																														
ZZZZZZ	1	20:04																														
ZZZZZZ	1	20:10																														
ZZZZZZ	1	20:18																														
ZZZZZZ	1	20:25																														
CCV09	1	20:32	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB09	1	20:38	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	20:45																														
ZZZZZZ	1	20:52																														
ZZZZZZ	1	20:59																														
ZZZZZZ	1	21:06																														
ZZZZZZ	1	21:13																														
ZZZZZZ	1	21:19																														
ZZZZZZ	1	21:26																														
ZZZZZZ	1	21:33																														
CCV10	1	21:40	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB10	1	21:47	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
1202003791	1	21:54	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
1202003792	1	22:01	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
243400001	1	22:08	X			X	X	X		X		X	X		X		X	X				X		X		X	X				X	X
1202003793	1	22:15	X			X	X	X		X		X	X		X		X	X				X		X		X	X				X	X
1202003794	1	22:21	X			X	X	X		X		X	X		X		X	X				X		X		X	X				X	X
1202003795	5	22:28	X			X	X	X		X		X	X		X		X	X				X		X		X	X				X	X
243400002	1	22:35	X			X	X	X		X		X	X		X		X	X				X				X	X				X	X
243400003	1	22:42	X			X	X	X		X		X	X		X		X	X				X				X	X				X	X
243400004	1	22:49	X			X	X	X		X		X	X		X		X	X				X		X		X	X				X	X
CCV11	1	22:56	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB11	1	23:02	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 07–JAN–10 **End Date:** 07–JAN–10

Client Sdg: 10–1021
Method P
Data File: 010710–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	10:57																											X			
S0.1	1	11:04																											X			
S0.5	1	11:10																											X			
SCAL	1	11:17																											X			
S10	1	11:24																														
ICV01	1	11:30																											X			
ICB01	1	11:36																											X			
PQL01	1	11:43																											X			
ICSA01	1	11:50																											X			
ICSAB01	1	11:56																											X			
LR01	1	12:01																											X			
LR02	1	12:07																											X			
CCV01	1	12:14																											X			
CCB01	1	12:21																											X			
ZZZZZZ	1	12:34																														
ZZZZZZ	1	12:41																														
ZZZZZZ	1	12:48																														
ZZZZZZ	1	12:55																														
ZZZZZZ	1	13:01																														
ZZZZZZ	1	13:08																														
ZZZZZZ	5	13:15																														
CCV02	1	13:22																											X			
CCB02	1	13:29																											X			
ZZZZZZ	1	13:39																														
ZZZZZZ	1	13:46																														
ZZZZZZ	1	13:53																														
ZZZZZZ	1	14:00																														
ZZZZZZ	1	14:07																														
ZZZZZZ	1	14:14																														
ZZZZZZ	5	14:21																														
CCV03	1	14:28																											X			
CCB03	1	14:35																											X			
CCV04	1	15:00																											X			
CCB04	1	15:07																											X			
ZZZZZZ	1	15:13																														
ZZZZZZ	1	15:20																														
ZZZZZZ	1	15:27																														
ZZZZZZ	1	15:34																														
ZZZZZZ	1	15:41																														
ZZZZZZ	1	15:48																														

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																														
ZZZZZZ	5	15:55																														
CCV05	1	16:02																										X				
CCB05	1	16:09																										X				
ZZZZZZ	1	16:16																														
ZZZZZZ	1	16:23																														
ZZZZZZ	1	16:30																														
ZZZZZZ	1	16:37																														
ZZZZZZ	1	16:44																														
ZZZZZZ	1	16:51																														
ZZZZZZ	1	16:58																														
ZZZZZZ	1	17:04																														
CCV06	1	17:11																										X				
CCB06	1	17:18																										X				
ZZZZZZ	5	17:25																														
ZZZZZZ	5	17:32																														
ZZZZZZ	5	17:39																														
ZZZZZZ	5	17:45																														
ZZZZZZ	5	17:52																														
ZZZZZZ	5	17:59																														
ZZZZZZ	5	18:06																														
ZZZZZZ	5	18:13																														
ZZZZZZ	5	18:19																														
CCV07	1	18:26																										X				
CCB07	1	18:33																										X				
ZZZZZZ	5	18:40																														
ZZZZZZ	5	18:46																														
ZZZZZZ	5	18:53																														
ZZZZZZ	10	19:00																														
ZZZZZZ	10	19:07																														
ZZZZZZ	10	19:14																														
ZZZZZZ	50	19:21																														
ZZZZZZ	10	19:27																														
ZZZZZZ	10	19:34																														
ZZZZZZ	10	19:41																														
CCV08	1	19:48																										X				
CCB08	1	19:54																										X				
243400001	5	20:01																										X				
1202003793	5	20:08																										X				
1202003794	5	20:15																										X				
1202003795	25	20:22																										X				

Metals
--14--
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
243400002	5	20:29																											X			
243400003	5	20:35																											X			
243400004	5	20:42																											X			
CCV09	1	20:49																											X			
CCB09	1	20:56																											X			

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: HG3
Start Date: 30–DEC–09 **End Date:** 30–DEC–09

Client Sdg: 10–1021
Method AV
Data File: 123009W1–6

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	09:00																	X													
S0.2	1	09:02																	X													
S0.5	1	09:04																	X													
S2.0	1	09:06																	X													
S5.0	1	09:08																	X													
S10.0	1	09:10																	X													
ICV01	1	09:12																	X													
ICB01	1	09:14																	X													
CRDL01	1	09:16																	X													
CCV01	1	09:18																	X													
CCB01	1	09:20																	X													
ZZZZZZ	1	09:22																														
ZZZZZZ	1	09:24																														
ZZZZZZ	1	09:25																														
ZZZZZZ	1	09:27																														
ZZZZZZ	1	09:29																														
ZZZZZZ	1	09:31																														
ZZZZZZ	1	09:33																														
ZZZZZZ	5	09:35																														
ZZZZZZ	1	09:37																														
1202005716	1	09:39																	X													
CCV02	1	09:41																	X													
CCB02	1	09:43																	X													
1202005717	1	09:45																	X													
243400001	1	09:47																	X													
243400002	1	09:49																	X													
243400003	1	09:50																	X													
243400004	1	09:52																	X													
ZZZZZZ	1	09:54																														
1202005718	1	09:56																	X													
1202005719	1	09:58																	X													
1202005720	5	10:00																	X													
ZZZZZZ	1	10:02																														
CCV03	1	10:04																	X													
CCB03	1	10:06																	X													

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1021

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01–FEB–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		10.0	30
	Antimony		0.5	3
	Arsenic		1.5	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.11	1
	Calcium		20.0	200
	Chromium		2.5	10
	Cobalt		0.1	1
	Copper		0.3	1
	Iron		10.0	100
	Lead		0.5	2
	Magnesium		5.0	15
	Manganese		1.0	5
	Molybdenum		0.1	.5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Strontium		2.0	10
	Thallium		0.3	1
	Tin		1.0	5
	Uranium		0.05	.2
	Vanadium		3.0	10
	Zinc		2.6	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1021

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
MERCURY				
LIQUID	Mercury		0.066	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–1021

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	15.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Molybdenum	202.031	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silica		53.0	213
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Strontium	421.552	1.0	5
	Thallium	190.801	5.0	20
	Tin	189.927	2.5	10
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-1021
Contract: ESHL01000
Instrument: OPTIMA3 **Effective Dates:** 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02738	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.44940	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.22121	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.33886	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.13648	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05571	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.19671	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02739	0.00000	0.00000	0.00000	0.00000
Tin	189.927	-0.00058	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1021
Effective Dates: 01-NOV-09

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	24.5549	0.00000	0.00000
Arsenic	188.979	0.52529	0.00000	-0.67113	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.54031	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.38952	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-31.5465	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.78023
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.63859	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	160.41
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.22870	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.35099	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.93161	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.39273	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.19810

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1021
Effective Dates: 01-NOV-09

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	42.8126
Antimony	206.836	-0.01635	0.00000	0.00000	0.00000	-22.2146
Arsenic	188.979	-0.21271	0.00000	0.00000	0.00000	1.34645
Barium	233.527	-0.03709	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.13266	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.09998	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01788	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01425	0.00000	0.00000	0.00000	-2.64232
Copper	324.752	-0.05101	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09069	0.00000	0.00000	0.00000	-2.44485
Magnesium	279.077	0.85543	0.00000	0.00000	0.00000	-20.2401
Manganese	257.61	-0.09972	0.00000	0.01862	0.00000	0.00000
Molybdenum	202.031	-0.07094	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80633	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.03176	0.00000	0.01823	12.4291	-3.60863
Selenium	196.026	-3.00009	0.00000	0.00000	0.00000	-3.17982
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.4444
Silver	328.068	-0.31825	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-5.85948	0.00000
Tin	189.927	-0.01337	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.12581	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.15211	0.00000	-0.02256	0.00000	-14.2921
Zinc	213.857	0.09548	0.00000	0.03423	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-1021
Effective Dates: 01-NOV-09

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silicon
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.64279	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.44040	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.33191	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.38465	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-1021
Contract: ESHL01000
Instrument: OPTIMA3 **Effective Dates:** 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Silver	Strontium	Sulfur	Thallium	Tin
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-17.4077
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	-13.8713
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	3.10491
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-1021
Contract: ESHL01000
Instrument: OPTIMA3 **Effective Dates:** 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	2.73145	0.00000	-2.31857	0.00000
Arsenic	188.979	-8.38419	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	-2.24883	0.00000
Beryllium	313.107	-1.96555	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.32181	-1.76281	0.00000
Cobalt	228.616	2.12623	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.85359	-3.92851	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-7.67419	0.00000	2.18873	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.44145	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	1.10141	-1.94183	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–1021

Contract: ESHL01000 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–NOV–09
Antimony	1000	250	ug/L	01–NOV–09
Arsenic	1000	1000	ug/L	01–NOV–09
Barium	1000	1000	ug/L	01–NOV–09
Beryllium	1000	1000	ug/L	01–NOV–09
Boron	1000	200	ug/L	01–NOV–09
Cadmium	1000	1000	ug/L	01–NOV–09
Calcium	500	50000	ug/L	01–NOV–09
Chromium	1000	1000	ug/L	01–NOV–09
Cobalt	1000	1000	ug/L	01–NOV–09
Copper	1000	1000	ug/L	01–NOV–09
Iron	500	50000	ug/L	01–NOV–09
Lead	1000	5000	ug/L	01–NOV–09
Magnesium	1	50000	ug/L	01–NOV–09
Manganese	1000	1000	ug/L	01–NOV–09
Molybdenum	1000	1000	ug/L	01–NOV–09
Nickel	1000	1000	ug/L	01–NOV–09
Potassium	1	50000	ug/L	01–NOV–09
Selenium	1000	500	ug/L	01–NOV–09
Silver	1000	250	ug/L	01–NOV–09
Sodium	1	50000	ug/L	01–NOV–09
Strontium	1000	1000	ug/L	01–NOV–09
Thallium	1000	500	ug/L	01–NOV–09
Tin	1000	1000	ug/L	01–NOV–09
Uranium	1000	5000	ug/L	01–NOV–09
Vanadium	1000	100	ug/L	01–NOV–09
Zinc	1000	2500	ug/L	01–NOV–09

METALS
–12–
Linear Ranges

SDG NO. 10–1021

Contract: ESHL01000 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–NOV–09
Antimony	20	10000	ug/L	01–NOV–09
Arsenic	20	10000	ug/L	01–NOV–09
Barium	20	15000	ug/L	01–NOV–09
Beryllium	20	3000	ug/L	01–NOV–09
Boron	20	5000	ug/L	01–NOV–09
Cadmium	20	10000	ug/L	01–NOV–09
Calcium	20	500000	ug/L	01–NOV–09
Chromium	20	25000	ug/L	01–NOV–09
Cobalt	20	10000	ug/L	01–NOV–09
Copper	20	20000	ug/L	01–NOV–09
Iron	20	500000	ug/L	01–NOV–09
Lead	20	25000	ug/L	01–NOV–09
Magnesium	20	500000	ug/L	01–NOV–09
Manganese	20	10000	ug/L	01–NOV–09
Molybdenum	20	10000	ug/L	01–NOV–09
Nickel	20	10000	ug/L	01–NOV–09
Potassium	20	300000	ug/L	01–NOV–09
Selenium	20	10000	ug/L	01–NOV–09
Silica	20	107000	ug/L	01–NOV–09
Silver	20	1000	ug/L	01–NOV–09
Sodium	20	500000	ug/L	01–NOV–09
Strontium	20	10000	ug/L	01–NOV–09
Thallium	20	10000	ug/L	01–NOV–09
Tin	20	10000	ug/L	01–NOV–09
Vanadium	20	10000	ug/L	01–NOV–09
Zinc	20	15000	ug/L	01–NOV–09
Uranium	20	15000	ug/L	01–NOV–09

Raw Data

Calculation Data Logbook

Report run on: January 20, 2010 10:17 AM

Batch Id: 943533 **Sop:** GL-GC-E-107
Employee: Octavia Doster
Instrument: No instrument-calculation method

Samp Id	Sample Type	Parmname	Run Date	Calcium mg/L	Magnesium mg/L	Result	Units
243400001	SAMPLE	Hardness as CaCO3	20-JAN-2010 09:49	23.2	5.24	79.6	mg/L
243400002	SAMPLE	Hardness as CaCO3	20-JAN-2010 09:49	24.0	5.39	82.3	mg/L
243400003	SAMPLE	Hardness as CaCO3	20-JAN-2010 09:49	21.4	4.77	73.0	mg/L
243400004	SAMPLE	Hardness as CaCO3	20-JAN-2010 09:49	20.4	4.67	70.1	mg/L

Calculation: (2.497 * Calcium) + (4.118 * Magnesium)

Method: Hg_ReAlign
Result: 011910

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

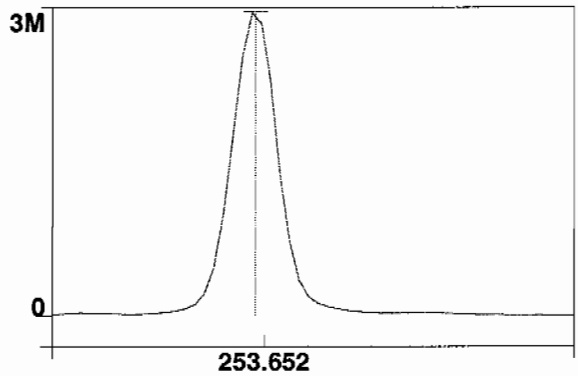

Intensity: 3355556.7 cps
Conc:

1

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Reprocessing Begun
Logged In Analyst: Optima3 **Technique: ICP Continuous**

Results Data Set (original): 010610
Results Library (original): C:\pe\Optima3\Results\Results.mdb
Results Data Set (reprocessed): 010610A
Results Library (reprocessed): C:\pe\Optima3\Results\Results.mdb

==========

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 1/6/2010 11:54:05**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 1/6/2010 10:05:16**
Analyst: **Data Type: Reprocessed on 1/6/2010 11:55:25**
Logged In Analyst (Original) : Optima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	884204.5	884204.5	99.729	%	10:08:26
1	Sc Radial	4647.0	4647.0	99.6	%	10:07:09
1	Y 371.029	760145.0	760145.0	99.788	%	10:08:26
1	Y RADIAL	4888.3	4888.3	99.10	%	10:07:09
1	Ag 328.068†	383.7	384.7	[0.00]	ug/L	10:08:31

1	Al 396.153Radial†	-35.8	-36.0	[0.00]	ug/L	10:07:09
1	As 188.979†	-40.4	-40.5	[0.00]	ug/L	10:08:51
1	B 249.677†	-622.0	-623.7	[0.00]	ug/L	10:08:31
1	Ba 233.527†	18.5	18.5	[0.00]	ug/L	10:08:51
1	Be 313.107†	-4379.0	-4390.9	[0.00]	ug/L	10:08:31
1	Ca 317.933Radial†	10.1	10.2	[0.00]	ug/L	10:07:29
1	Cd 226.502†	-233.2	-233.9	[0.00]	ug/L	10:08:51
1	Co 228.616†	-82.3	-82.5	[0.00]	ug/L	10:08:51
1	Cr 267.716†	129.2	129.6	[0.00]	ug/L	10:08:31
1	Cu 324.752†	8059.5	8081.4	[0.00]	ug/L	10:08:31
1	Fe 238.204 Radial†	13.7	13.7	[0.00]	ug/L	10:07:29
1	K 766.490 Radial†	3438.5	3453.7	[0.00]	ug/L	10:07:09
1	Mg 279.077 IEC†	2.0	2.0	[0.00]	ug/L	10:07:29
1	Mn 257.610†	555.5	557.0	[0.00]	ug/L	10:08:31
1	Mo 202.031†	22.3	22.3	[0.00]	ug/L	10:08:51
1	Na 589.592 Radial†	-1748.6	-1756.4	[0.00]	ug/L	10:07:09
1	Ni 231.604†	114.8	115.1	[0.00]	ug/L	10:08:51
1	P 214.914†	248.4	249.1	[0.00]	ug/L	10:08:51
1	Pb 220.353†	-93.7	-94.0	[0.00]	ug/L	10:08:51
1	S 181.975 Axial†	53.6	53.8	[0.00]	ug/L	10:08:51
1	Sb 206.836†	40.2	40.3	[0.00]	ug/L	10:08:51
1	Se 196.026†	-36.2	-36.3	[0.00]	ug/L	10:08:51
1	Si 251.611†	623.9	625.6	[0.00]	ug/L	10:08:51
1	Sn 189.927†	3.5	3.5	[0.00]	ug/L	10:08:51
1	Sr 421.552†	33.7	33.8	[0.00]	ug/L	10:07:09
1	Ti 334.940†	-1810.6	-1815.5	[0.00]	ug/L	10:08:31
1	Tl 190.801†	-47.9	-48.0	[0.00]	ug/L	10:08:51
1	U 409.014†	-2556.5	-2563.4	[0.00]	ug/L	10:08:26
1	V 292.402†	-1786.0	-1790.8	[0.00]	ug/L	10:08:31
1	Zn 213.857†	844.0	846.3	[0.00]	ug/L	10:08:51
1	SiO2†	616.3	618.0	[0.00]	ug/L	10:09:57
2	Sc 361.383	888077.5	888077.5	100.17	%	10:08:56
2	Sc Radial	4701.9	4701.9	101	%	10:07:34
2	Y 371.029	762915.3	762915.3	100.15	%	10:08:56
2	Y RADIAL	4987.9	4987.9	101.1	%	10:07:34
2	Ag 328.068†	601.4	600.4	[0.00]	ug/L	10:09:01
2	Al 396.153Radial†	-6.8	-6.8	[0.00]	ug/L	10:07:34
2	As 188.979†	-32.7	-32.6	[0.00]	ug/L	10:09:21
2	B 249.677†	-682.2	-681.0	[0.00]	ug/L	10:09:01
2	Ba 233.527†	-2.0	-1.9	[0.00]	ug/L	10:09:21
2	Be 313.107†	-4308.2	-4301.1	[0.00]	ug/L	10:09:01
2	Ca 317.933Radial†	14.5	14.4	[0.00]	ug/L	10:07:54
2	Cd 226.502†	-234.7	-234.3	[0.00]	ug/L	10:09:21
2	Co 228.616†	-75.6	-75.4	[0.00]	ug/L	10:09:21
2	Cr 267.716†	138.6	138.4	[0.00]	ug/L	10:09:01
2	Cu 324.752†	7960.6	7947.4	[0.00]	ug/L	10:09:01
2	Fe 238.204 Radial†	12.8	12.7	[0.00]	ug/L	10:07:54
2	K 766.490 Radial†	3279.2	3255.3	[0.00]	ug/L	10:07:34
2	Mg 279.077 IEC†	2.5	2.5	[0.00]	ug/L	10:07:54
2	Mn 257.610†	504.7	503.9	[0.00]	ug/L	10:09:01
2	Mo 202.031†	7.4	7.4	[0.00]	ug/L	10:09:21
2	Na 589.592 Radial†	-1789.0	-1775.9	[0.00]	ug/L	10:07:34
2	Ni 231.604†	139.5	139.3	[0.00]	ug/L	10:09:21
2	P 214.914†	244.1	243.7	[0.00]	ug/L	10:09:21
2	Pb 220.353†	-73.5	-73.4	[0.00]	ug/L	10:09:21
2	S 181.975 Axial†	64.8	64.7	[0.00]	ug/L	10:09:21
2	Sb 206.836†	33.6	33.5	[0.00]	ug/L	10:09:21
2	Se 196.026†	-33.5	-33.5	[0.00]	ug/L	10:09:21
2	Si 251.611†	597.2	596.2	[0.00]	ug/L	10:09:21
2	Sn 189.927†	6.0	6.0	[0.00]	ug/L	10:09:21
2	Sr 421.552†	25.1	24.9	[0.00]	ug/L	10:07:34
2	Ti 334.940†	-1812.8	-1809.8	[0.00]	ug/L	10:09:01
2	Tl 190.801†	-65.1	-65.0	[0.00]	ug/L	10:09:21
2	U 409.014†	-2701.8	-2697.3	[0.00]	ug/L	10:08:56
2	V 292.402†	-1773.9	-1771.0	[0.00]	ug/L	10:09:01
2	Zn 213.857†	830.2	828.8	[0.00]	ug/L	10:09:21
2	SiO2†	650.9	649.9	[0.00]	ug/L	10:10:02
3	Sc 361.383	887546.5	887546.5	100.11	%	10:09:27
3	Sc Radial	4653.8	4653.8	99.7	%	10:07:59
3	Y 371.029	762209.6	762209.6	100.06	%	10:09:27
3	Y RADIAL	4922.5	4922.5	99.79	%	10:07:59

3	Ag 328.068†	552.4	551.9	[0.00] ug/L	10:09:32
3	Al 396.153Radial†	-37.3	-37.4	[0.00] ug/L	10:07:59
3	As 188.979†	-27.2	-27.2	[0.00] ug/L	10:09:52
3	B 249.677†	-693.6	-692.8	[0.00] ug/L	10:09:32
3	Ba 233.527†	6.0	6.0	[0.00] ug/L	10:09:52
3	Be 313.107†	-4367.1	-4362.5	[0.00] ug/L	10:09:32
3	Ca 317.933Radial†	13.0	13.1	[0.00] ug/L	10:08:19
3	Cd 226.502†	-247.2	-247.0	[0.00] ug/L	10:09:52
3	Co 228.616†	-94.0	-93.9	[0.00] ug/L	10:09:52
3	Cr 267.716†	44.2	44.1	[0.00] ug/L	10:09:32
3	Cu 324.752†	7976.6	7968.2	[0.00] ug/L	10:09:32
3	Fe 238.204 Radial†	15.1	15.2	[0.00] ug/L	10:08:19
3	K 766.490 Radial†	3291.4	3301.2	[0.00] ug/L	10:07:59
3	Mg 279.077 IEC†	0.4	0.4	[0.00] ug/L	10:08:19
3	Mn 257.610†	488.9	488.4	[0.00] ug/L	10:09:32
3	Mo 202.031†	30.1	30.1	[0.00] ug/L	10:09:52
3	Na 589.592 Radial†	-1712.9	-1718.0	[0.00] ug/L	10:07:59
3	Ni 231.604†	121.0	120.8	[0.00] ug/L	10:09:52
3	P 214.914†	253.1	252.8	[0.00] ug/L	10:09:52
3	Pb 220.353†	-66.0	-65.9	[0.00] ug/L	10:09:52
3	S 181.975 Axial†	61.3	61.2	[0.00] ug/L	10:09:52
3	Sb 206.836†	37.5	37.5	[0.00] ug/L	10:09:52
3	Se 196.026†	-30.1	-30.0	[0.00] ug/L	10:09:52
3	Si 251.611†	628.5	627.8	[0.00] ug/L	10:09:52
3	Sn 189.927†	0.7	0.7	[0.00] ug/L	10:09:52
3	Sr 421.552†	-10.8	-10.8	[0.00] ug/L	10:07:59
3	Ti 334.940†	-1828.6	-1826.7	[0.00] ug/L	10:09:32
3	Tl 190.801†	-47.3	-47.2	[0.00] ug/L	10:09:52
3	U 409.014†	-2748.3	-2745.4	[0.00] ug/L	10:09:27
3	V 292.402†	-1845.7	-1843.7	[0.00] ug/L	10:09:32
3	Zn 213.857†	820.8	820.0	[0.00] ug/L	10:09:52
3	SiO2†	640.9	640.3	[0.00] ug/L	10:10:07

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	886609.5	2099.64	0.24%	100.00	%
Sc Radial	4667.6	29.96	0.64%	100	%
Y 371.029	761756.6	1439.64	0.19%	100.00	%
Y RADIAL	4932.9	50.59	1.03%	100.0	%
Ag 328.068†	512.3	113.13	22.08%	[0.00]	ug/L
Al 396.153Radial†	-26.7	17.27	64.64%	[0.00]	ug/L
As 188.979†	-33.4	6.69	20.02%	[0.00]	ug/L
B 249.677†	-665.8	37.00	5.56%	[0.00]	ug/L
Ba 233.527†	7.5	10.31	137.44%	[0.00]	ug/L
Be 313.107†	-4351.5	45.91	1.06%	[0.00]	ug/L
Ca 317.933Radial†	12.6	2.15	17.15%	[0.00]	ug/L
Cd 226.502†	-238.4	7.44	3.12%	[0.00]	ug/L
Co 228.616†	-84.0	9.33	11.12%	[0.00]	ug/L
Cr 267.716†	104.0	52.08	50.06%	[0.00]	ug/L
Cu 324.752†	7999.0	72.12	0.90%	[0.00]	ug/L
Fe 238.204 Radial†	13.9	1.22	8.80%	[0.00]	ug/L
K 766.490 Radial†	3336.7	103.88	3.11%	[0.00]	ug/L
Mg 279.077 IEC†	1.6	1.09	66.14%	[0.00]	ug/L
Mn 257.610†	516.4	35.95	6.96%	[0.00]	ug/L
Mo 202.031†	19.9	11.55	57.98%	[0.00]	ug/L
Na 589.592 Radial†	-1750.1	29.46	1.68%	[0.00]	ug/L
Ni 231.604†	125.1	12.63	10.10%	[0.00]	ug/L
P 214.914†	248.6	4.57	1.84%	[0.00]	ug/L
Pb 220.353†	-77.8	14.53	18.68%	[0.00]	ug/L
S 181.975 Axial†	59.9	5.58	9.32%	[0.00]	ug/L
Sb 206.836†	37.1	3.40	9.17%	[0.00]	ug/L
Se 196.026†	-33.3	3.12	9.39%	[0.00]	ug/L
Si 251.611†	616.6	17.63	2.86%	[0.00]	ug/L
Sn 189.927†	3.4	2.63	77.27%	[0.00]	ug/L
Sr 421.552†	16.0	23.64	147.88%	[0.00]	ug/L
Ti 334.940†	-1817.4	8.59	0.47%	[0.00]	ug/L
Tl 190.801†	-53.4	10.02	18.78%	[0.00]	ug/L
U 409.014†	-2668.7	94.31	3.53%	[0.00]	ug/L
V 292.402†	-1801.8	37.61	2.09%	[0.00]	ug/L

Zn 213.857†	831.7	13.39	1.61%	[0.00] ug/L
SiO2†	636.0	16.37	2.57%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 1/6/2010 10:12:18
Data Type: Reprocessed on 1/6/2010 11:55:26

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	858980.9	858980.9	96.884	%	10:14:42
1	Sc Radial	4680.0	4680.0	100	%	10:14:15
1	Y 371.029	737496.5	737496.5	96.815	%	10:14:42
1	Y RADIAL	4959.7	4959.7	100.5	%	10:14:15
1	Ag 328.068†	23297.9	23534.9	[100]	ug/L	10:14:42
1	As 188.979†	245.5	286.8	[100]	ug/L	10:15:02
1	B 249.677†	3857.1	4647.0	[100]	ug/L	10:14:42
1	Ba 233.527†	13535.2	13963.1	[100]	ug/L	10:14:42
1	Be 313.107†	285272.4	298799.6	[100]	ug/L	10:14:42
1	Cd 226.502†	9981.9	10541.4	[100]	ug/L	10:15:02
1	Co 228.616†	5125.3	5374.1	[100]	ug/L	10:15:02
1	Cr 267.716†	9927.5	10142.7	[100]	ug/L	10:14:42
1	Cu 324.752†	40691.6	34001.4	[100]	ug/L	10:14:42
1	K 766.490 Radial†	8407.9	5048.9	[1000]	ug/L	10:14:10
1	Mn 257.610†	95334.8	97884.8	[100]	ug/L	10:14:42
1	Mo 202.031†	1605.3	1637.0	[100]	ug/L	10:15:02
1	Ni 231.604†	4633.5	4657.5	[100]	ug/L	10:15:02
1	P 214.914†	1254.4	1046.2	[500]	ug/L	10:15:02
1	Pb 220.353†	853.5	958.8	[100]	ug/L	10:15:02
1	S 181.975 Axial†	233.2	180.8	[200]	ug/L	10:15:02
1	Sb 206.836†	367.3	342.0	[100]	ug/L	10:15:02
1	Se 196.026†	151.8	190.0	[100]	ug/L	10:15:02
1	Si 251.611†	17526.4	17473.5	[500]	ug/L	10:14:42
1	Sn 189.927†	662.1	680.0	[100]	ug/L	10:15:02
1	Sr 421.552†	13727.0	13674.7	[100]	ug/L	10:14:15
1	Ti 334.940†	60372.6	64131.8	[100]	ug/L	10:14:42
1	Tl 190.801†	306.6	369.9	[100]	ug/L	10:15:02
1	U 409.014†	488.3	3172.7	[100]	ug/L	10:14:42
1	V 292.402†	13700.9	15943.5	[100]	ug/L	10:14:42
1	Zn 213.857†	12421.0	11988.8	[100]	ug/L	10:15:02
1	SiO2†	17631.3	17562.4	[1069.5]	ug/L	10:15:58
2	Sc 361.383	855417.8	855417.8	96.482	%	10:15:07
2	Sc Radial	4654.0	4654.0	99.7	%	10:14:25
2	Y 371.029	735371.7	735371.7	96.536	%	10:15:07
2	Y RADIAL	4912.1	4912.1	99.58	%	10:14:25
2	Ag 328.068†	22993.6	23319.8	[100]	ug/L	10:15:07
2	As 188.979†	244.4	286.7	[100]	ug/L	10:15:27
2	B 249.677†	3820.7	4625.8	[100]	ug/L	10:15:07
2	Ba 233.527†	13432.1	13914.4	[100]	ug/L	10:15:07
2	Be 313.107†	283600.2	298292.9	[100]	ug/L	10:15:07
2	Cd 226.502†	9983.4	10585.8	[100]	ug/L	10:15:27
2	Co 228.616†	5125.5	5396.4	[100]	ug/L	10:15:27
2	Cr 267.716†	9891.3	10148.0	[100]	ug/L	10:15:07
2	Cu 324.752†	40378.4	33851.7	[100]	ug/L	10:15:07
2	K 766.490 Radial†	8231.9	4919.2	[1000]	ug/L	10:14:20
2	Mn 257.610†	94787.7	97727.6	[100]	ug/L	10:15:07
2	Mo 202.031†	1588.4	1626.4	[100]	ug/L	10:15:27
2	Ni 231.604†	4613.6	4656.7	[100]	ug/L	10:15:27
2	P 214.914†	1234.6	1031.1	[500]	ug/L	10:15:27
2	Pb 220.353†	854.4	963.3	[100]	ug/L	10:15:27
2	S 181.975 Axial†	222.7	170.9	[200]	ug/L	10:15:27
2	Sb 206.836†	368.9	345.2	[100]	ug/L	10:15:27
2	Se 196.026†	149.3	188.0	[100]	ug/L	10:15:27
2	Si 251.611†	17335.2	17350.7	[500]	ug/L	10:15:07
2	Sn 189.927†	671.0	692.0	[100]	ug/L	10:15:27
2	Sr 421.552†	13682.9	13706.8	[100]	ug/L	10:14:25
2	Ti 334.940†	60014.8	64020.5	[100]	ug/L	10:15:07
2	Tl 190.801†	307.2	371.8	[100]	ug/L	10:15:27

2	U 409.014†	295.8	2975.3	[100]	ug/L	10:15:07
2	V 292.402†	13528.2	15823.3	[100]	ug/L	10:15:07
2	Zn 213.857†	12466.1	12089.0	[100]	ug/L	10:15:27
2	SiO2†	17384.6	17382.5	[1069.5]	ug/L	10:16:03
3	Sc 361.383	859958.1	859958.1	96.994	%	10:15:33
3	Sc Radial	4766.0	4766.0	102	%	10:14:35
3	Y 371.029	739304.7	739304.7	97.053	%	10:15:33
3	Y RADIAL	5003.2	5003.2	101.4	%	10:14:35
3	Ag 328.068†	23212.3	23419.4	[100]	ug/L	10:15:33
3	As 188.979†	253.6	294.9	[100]	ug/L	10:15:53
3	B 249.677†	3961.8	4750.4	[100]	ug/L	10:15:33
3	Ba 233.527†	13535.7	13947.7	[100]	ug/L	10:15:33
3	Be 313.107†	285383.3	298579.3	[100]	ug/L	10:15:33
3	Cd 226.502†	9988.9	10536.8	[100]	ug/L	10:15:53
3	Co 228.616†	5127.3	5370.2	[100]	ug/L	10:15:53
3	Cr 267.716†	9938.8	10142.8	[100]	ug/L	10:15:33
3	Cu 324.752†	40815.8	34081.7	[100]	ug/L	10:15:33
3	K 766.490 Radial†	8372.8	4863.1	[1000]	ug/L	10:14:30
3	Mn 257.610†	95438.6	97880.0	[100]	ug/L	10:15:33
3	Mo 202.031†	1597.4	1627.0	[100]	ug/L	10:15:53
3	Ni 231.604†	4590.6	4607.8	[100]	ug/L	10:15:53
3	P 214.914†	1236.1	1025.8	[500]	ug/L	10:15:53
3	Pb 220.353†	853.0	957.2	[100]	ug/L	10:15:53
3	S 181.975 Axial†	215.4	162.1	[200]	ug/L	10:15:53
3	Sb 206.836†	363.9	338.1	[100]	ug/L	10:15:53
3	Se 196.026†	147.6	185.4	[100]	ug/L	10:15:53
3	Si 251.611†	17460.2	17384.8	[500]	ug/L	10:15:33
3	Sn 189.927†	668.8	686.1	[100]	ug/L	10:15:53
3	Sr 421.552†	13921.0	13617.4	[100]	ug/L	10:14:35
3	Ti 334.940†	60486.7	64178.6	[100]	ug/L	10:15:33
3	Tl 190.801†	311.4	374.4	[100]	ug/L	10:15:53
3	U 409.014†	310.2	2988.5	[100]	ug/L	10:15:33
3	V 292.402†	13652.1	15877.1	[100]	ug/L	10:15:33
3	Zn 213.857†	12472.9	12027.8	[100]	ug/L	10:15:53
3	SiO2†	17487.2	17393.2	[1069.5]	ug/L	10:16:08

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	858118.9	2389.74	0.28%	96.787	%
Sc Radial	4700.0	58.64	1.25%	101	%
Y 371.029	737391.0	1968.61	0.27%	96.801	%
Y RADIAL	4958.3	45.59	0.92%	100.5	%
Ag 328.068†	23424.7	107.68	0.46%	[100]	ug/L
As 188.979†	289.5	4.67	1.61%	[100]	ug/L
B 249.677†	4674.4	66.66	1.43%	[100]	ug/L
Ba 233.527†	13941.7	24.90	0.18%	[100]	ug/L
Be 313.107†	298557.2	254.08	0.09%	[100]	ug/L
Cd 226.502†	10554.7	27.08	0.26%	[100]	ug/L
Co 228.616†	5380.2	14.13	0.26%	[100]	ug/L
Cr 267.716†	10144.5	2.99	0.03%	[100]	ug/L
Cu 324.752†	33978.3	116.72	0.34%	[100]	ug/L
K 766.490 Radial†	4943.7	95.30	1.93%	[1000]	ug/L
Mn 257.610†	97830.8	89.39	0.09%	[100]	ug/L
Mo 202.031†	1630.1	5.97	0.37%	[100]	ug/L
Ni 231.604†	4640.7	28.47	0.61%	[100]	ug/L
P 214.914†	1034.4	10.58	1.02%	[500]	ug/L
Pb 220.353†	959.8	3.20	0.33%	[100]	ug/L
S 181.975 Axial†	171.3	9.35	5.46%	[200]	ug/L
Sb 206.836†	341.8	3.59	1.05%	[100]	ug/L
Se 196.026†	187.8	2.27	1.21%	[100]	ug/L
Si 251.611†	17403.0	63.40	0.36%	[500]	ug/L
Sn 189.927†	686.0	6.02	0.88%	[100]	ug/L
Sr 421.552†	13666.3	45.28	0.33%	[100]	ug/L
Ti 334.940†	64110.3	81.19	0.13%	[100]	ug/L
Tl 190.801†	372.0	2.28	0.61%	[100]	ug/L
U 409.014†	3045.5	110.39	3.62%	[100]	ug/L
V 292.402†	15881.3	60.18	0.38%	[100]	ug/L
Zn 213.857†	12035.2	50.50	0.42%	[100]	ug/L
SiO2†	17446.0	100.94	0.58%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 1/6/2010 10:18:19
Data Type: Reprocessed on 1/6/2010 11:55:28

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	883512.7	883512.7	99.651	%	10:21:31
1	Sc Radial	4601.8	4601.8	98.6	%	10:20:12
1	Y 371.029	752079.9	752079.9	98.730	%	10:21:31
1	Y RADIAL	4817.5	4817.5	97.66	%	10:20:12
1	Ag 328.068†	114385.8	114274.4	[500]	ug/L	10:21:31
1	Al 396.153Radial†	5563.1	5669.3	[5000]	ug/L	10:20:12
1	As 188.979†	1380.3	1418.6	[500]	ug/L	10:21:51
1	B 249.677†	22915.8	23661.9	[500]	ug/L	10:21:31
1	Ba 233.527†	67394.6	67623.3	[500]	ug/L	10:21:31
1	Be 313.107†	1463962.1	1473445.0	[500]	ug/L	10:21:31
1	Ca 317.933Radial†	3026.4	3057.1	[5000]	ug/L	10:20:32
1	Cd 226.502†	52091.1	52512.1	[500]	ug/L	10:21:31
1	Co 228.616†	25883.0	26057.7	[500]	ug/L	10:21:51
1	Cr 267.716†	49100.1	49168.1	[500]	ug/L	10:21:31
1	Cu 324.752†	173485.5	166094.6	[500]	ug/L	10:21:31
1	K 766.490 Radial†	28039.4	25103.4	[5000]	ug/L	10:20:12
1	Mg 279.077 IEC†	160.2	160.9	[5000]	ug/L	10:20:32
1	Mn 257.610†	471058.4	472193.1	[500]	ug/L	10:21:31
1	Mo 202.031†	7928.7	7936.5	[500]	ug/L	10:21:51
1	Ni 231.604†	22462.4	22416.0	[500]	ug/L	10:21:51
1	P 214.914†	5312.3	5082.3	[2500]	ug/L	10:21:51
1	Pb 220.353†	4719.2	4813.5	[500]	ug/L	10:21:51
1	S 181.975 Axial†	934.0	877.4	[1000]	ug/L	10:21:51
1	Sb 206.836†	1674.2	1643.0	[500]	ug/L	10:21:51
1	Se 196.026†	933.0	969.5	[500]	ug/L	10:21:51
1	Si 251.611†	86137.1	85822.4	[2500]	ug/L	10:21:31
1	Sn 189.927†	3339.3	3347.7	[500]	ug/L	10:21:51
1	Sr 421.552†	68394.0	69355.4	[500]	ug/L	10:20:12
1	Ti 334.940†	312108.2	315019.5	[500]	ug/L	10:21:31
1	Tl 190.801†	1747.5	1807.0	[500]	ug/L	10:21:51
1	U 409.014†	13304.8	16020.2	[500]	ug/L	10:21:31
1	V 292.402†	76303.3	78372.6	[500]	ug/L	10:21:31
1	Zn 213.857†	60967.6	60349.6	[500]	ug/L	10:21:31
1	SiO2†	86414.0	86080.9	[5347.5]	ug/L	10:22:51
2	Sc 361.383	887225.8	887225.8	100.07	%	10:21:58
2	Sc Radial	4740.4	4740.4	102	%	10:20:37
2	Y 371.029	754809.6	754809.6	99.088	%	10:21:58
2	Y RADIAL	4960.4	4960.4	100.6	%	10:20:37
2	Ag 328.068†	115157.8	114565.5	[500]	ug/L	10:21:58
2	Al 396.153Radial†	5682.9	5622.3	[5000]	ug/L	10:20:37
2	As 188.979†	1369.6	1402.0	[500]	ug/L	10:22:18
2	B 249.677†	23171.9	23821.6	[500]	ug/L	10:21:58
2	Ba 233.527†	67955.3	67900.6	[500]	ug/L	10:21:58
2	Be 313.107†	1474743.7	1478070.7	[500]	ug/L	10:21:58
2	Ca 317.933Radial†	3029.9	2970.9	[5000]	ug/L	10:20:57
2	Cd 226.502†	52500.4	52702.3	[500]	ug/L	10:21:58
2	Co 228.616†	25759.0	25825.1	[500]	ug/L	10:22:18
2	Cr 267.716†	49400.6	49262.3	[500]	ug/L	10:21:58
2	Cu 324.752†	174589.1	166468.8	[500]	ug/L	10:21:58
2	K 766.490 Radial†	28831.9	25052.4	[5000]	ug/L	10:20:37
2	Mg 279.077 IEC†	165.0	160.9	[5000]	ug/L	10:20:57
2	Mn 257.610†	474451.9	473605.9	[500]	ug/L	10:21:58
2	Mo 202.031†	7868.6	7843.2	[500]	ug/L	10:22:18
2	Ni 231.604†	22362.2	22221.6	[500]	ug/L	10:22:18
2	P 214.914†	5271.4	5019.2	[2500]	ug/L	10:22:18
2	Pb 220.353†	4679.9	4754.4	[500]	ug/L	10:22:18
2	S 181.975 Axial†	927.7	867.1	[1000]	ug/L	10:22:18
2	Sb 206.836†	1664.7	1626.5	[500]	ug/L	10:22:18

2	Se 196.026†	938.7	971.3	[500]	ug/L	10:22:18
2	Si 251.611†	86879.3	86202.4	[2500]	ug/L	10:21:58
2	Sn 189.927†	3327.1	3321.4	[500]	ug/L	10:22:18
2	Sr 421.552†	70252.9	69158.0	[500]	ug/L	10:20:37
2	Ti 334.940†	313954.4	315553.7	[500]	ug/L	10:21:58
2	Tl 190.801†	1748.5	1800.6	[500]	ug/L	10:22:18
2	U 409.014†	13260.1	15919.6	[500]	ug/L	10:21:58
2	V 292.402†	76752.0	78500.6	[500]	ug/L	10:21:58
2	Zn 213.857†	61417.5	60543.2	[500]	ug/L	10:21:58
2	SiO2†	85934.5	85238.8	[5347.5]	ug/L	10:22:56
3	Sc 361.383	884330.4	884330.4	99.743	%	10:22:26
3	Sc Radial	4562.7	4562.7	97.8	%	10:21:02
3	Y 371.029	752217.8	752217.8	98.748	%	10:22:26
3	Y RADIAL	4788.6	4788.6	97.07	%	10:21:02
3	Ag 328.068†	114779.6	114563.1	[500]	ug/L	10:22:26
3	Al 396.153Radial†	5525.6	5679.3	[5000]	ug/L	10:21:02
3	As 188.979†	1366.0	1403.0	[500]	ug/L	10:22:46
3	B 249.677†	22910.0	23634.9	[500]	ug/L	10:22:26
3	Ba 233.527†	67647.5	67814.4	[500]	ug/L	10:22:26
3	Be 313.107†	1467958.9	1476093.6	[500]	ug/L	10:22:26
3	Ca 317.933Radial†	3015.8	3072.5	[5000]	ug/L	10:21:22
3	Cd 226.502†	52364.8	52738.1	[500]	ug/L	10:22:26
3	Co 228.616†	25760.2	25910.5	[500]	ug/L	10:22:46
3	Cr 267.716†	49276.5	49299.5	[500]	ug/L	10:22:26
3	Cu 324.752†	173800.1	166249.0	[500]	ug/L	10:22:26
3	K 766.490 Radial†	28001.8	25308.7	[5000]	ug/L	10:21:02
3	Mg 279.077 IEC†	162.2	164.3	[5000]	ug/L	10:21:22
3	Mn 257.610†	472600.3	473301.9	[500]	ug/L	10:22:26
3	Mo 202.031†	7885.0	7885.4	[500]	ug/L	10:22:46
3	Ni 231.604†	22342.5	22275.0	[500]	ug/L	10:22:46
3	P 214.914†	5269.3	5034.3	[2500]	ug/L	10:22:46
3	Pb 220.353†	4660.7	4750.4	[500]	ug/L	10:22:46
3	S 181.975 Axial†	923.8	866.3	[1000]	ug/L	10:22:46
3	Sb 206.836†	1679.2	1646.4	[500]	ug/L	10:22:46
3	Se 196.026†	930.9	966.5	[500]	ug/L	10:22:46
3	Si 251.611†	86364.9	85970.9	[2500]	ug/L	10:22:26
3	Sn 189.927†	3331.4	3336.5	[500]	ug/L	10:22:46
3	Sr 421.552†	68237.4	69789.8	[500]	ug/L	10:21:02
3	Ti 334.940†	312680.8	315304.0	[500]	ug/L	10:22:26
3	Tl 190.801†	1748.9	1806.8	[500]	ug/L	10:22:46
3	U 409.014†	13013.2	15715.4	[500]	ug/L	10:22:26
3	V 292.402†	76468.7	78467.6	[500]	ug/L	10:22:26
3	Zn 213.857†	61087.2	60413.0	[500]	ug/L	10:22:26
3	SiO2†	86458.6	86045.4	[5347.5]	ug/L	10:23:02

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	885023.0	1951.07	0.22%	99.821	%
Sc Radial	4635.0	93.36	2.01%	99.3	%
Y 371.029	753035.8	1537.71	0.20%	98.855	%
Y RADIAL	4855.5	92.01	1.89%	98.43	%
Ag 328.068†	114467.6	167.37	0.15%	[500]	ug/L
Al 396.153Radial†	5657.0	30.41	0.54%	[5000]	ug/L
As 188.979†	1407.9	9.28	0.66%	[500]	ug/L
B 249.677†	23706.2	100.93	0.43%	[500]	ug/L
Ba 233.527†	67779.4	141.90	0.21%	[500]	ug/L
Be 313.107†	1475869.8	2320.96	0.16%	[500]	ug/L
Ca 317.933Radial†	3033.5	54.79	1.81%	[5000]	ug/L
Cd 226.502†	52650.8	121.47	0.23%	[500]	ug/L
Co 228.616†	25931.1	117.66	0.45%	[500]	ug/L
Cr 267.716†	49243.3	67.70	0.14%	[500]	ug/L
Cu 324.752†	166270.8	188.05	0.11%	[500]	ug/L
K 766.490 Radial†	25154.8	135.66	0.54%	[5000]	ug/L
Mg 279.077 IEC†	162.0	1.99	1.23%	[5000]	ug/L
Mn 257.610†	473033.6	743.59	0.16%	[500]	ug/L
Mo 202.031†	7888.4	46.74	0.59%	[500]	ug/L
Ni 231.604†	22304.2	100.46	0.45%	[500]	ug/L
P 214.914†	5045.3	32.96	0.65%	[2500]	ug/L
Pb 220.353†	4772.8	35.35	0.74%	[500]	ug/L

S 181.975 Axial†	870.3	6.18	0.71%	[1000]	ug/L
Sb 206.836†	1638.6	10.67	0.65%	[500]	ug/L
Se 196.026†	969.1	2.40	0.25%	[500]	ug/L
Si 251.611†	85998.6	191.49	0.22%	[2500]	ug/L
Sn 189.927†	3335.2	13.17	0.39%	[500]	ug/L
Sr 421.552†	69434.4	323.18	0.47%	[500]	ug/L
Ti 334.940†	315292.4	267.26	0.08%	[500]	ug/L
Tl 190.801†	1804.8	3.61	0.20%	[500]	ug/L
U 409.014†	15885.1	155.29	0.98%	[500]	ug/L
V 292.402†	78446.9	66.45	0.08%	[500]	ug/L
Zn 213.857†	60435.3	98.69	0.16%	[500]	ug/L
SiO2†	85788.4	476.26	0.56%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 1/6/2010 10:25:12
Data Type: Reprocessed on 1/6/2010 11:55:29

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	854575.1	854575.1	96.387	%	10:28:28
1	Sc Radial	4579.0	4579.0	98.1	%	10:27:25
1	Y 371.029	728537.8	728537.8	95.639	%	10:28:28
1	Y RADIAL	4758.3	4758.3	96.46	%	10:27:25
1	Ag 328.068†	225908.9	233865.0	[1000]	ug/L	10:28:28
1	Al 396.153Radial†	10920.1	11158.0	[10000]	ug/L	10:27:05
1	As 188.979†	2738.1	2874.1	[1000]	ug/L	10:28:49
1	B 249.677†	46350.1	48753.4	[1000]	ug/L	10:28:28
1	Ba 233.527†	132639.6	137604.2	[1000]	ug/L	10:28:28
1	Be 313.107†	2851071.1	2962297.1	[1000]	ug/L	10:28:23
1	Ca 317.933Radial†	5910.2	6011.9	[10000]	ug/L	10:27:25
1	Cd 226.502†	102524.3	106605.9	[1000]	ug/L	10:28:28
1	Co 228.616†	51547.3	53563.6	[1000]	ug/L	10:28:28
1	Cr 267.716†	96715.8	100237.2	[1000]	ug/L	10:28:28
1	Cu 324.752†	334819.6	339371.6	[1000]	ug/L	10:28:28
1	Fe 238.204 Radial†	1132.1	1140.1	[10000]	ug/L	10:27:25
1	K 766.490 Radial†	52192.2	49864.5	[10000]	ug/L	10:27:05
1	Mg 279.077 IEC†	320.5	325.0	[10000]	ug/L	10:27:25
1	Mn 257.610†	916466.8	950304.8	[1000]	ug/L	10:28:23
1	Mo 202.031†	15444.9	16003.9	[1000]	ug/L	10:28:49
1	Na 589.592 Radial†	30756.6	33101.3	[10000]	ug/L	10:27:05
1	Ni 231.604†	44283.7	45818.7	[1000]	ug/L	10:28:28
1	P 214.914†	10191.8	10325.2	[5000]	ug/L	10:28:49
1	Pb 220.353†	9273.6	9699.0	[1000]	ug/L	10:28:49
1	S 181.975 Axial†	1777.1	1783.8	[2000]	ug/L	10:28:49
1	Sb 206.836†	3289.2	3375.4	[1000]	ug/L	10:28:49
1	Se 196.026†	1867.2	1970.5	[1000]	ug/L	10:28:49
1	Si 251.611†	169164.9	174889.6	[5000]	ug/L	10:28:28
1	Sn 189.927†	6538.0	6779.7	[1000]	ug/L	10:28:49
1	Sr 421.552†	132173.6	134713.1	[1000]	ug/L	10:27:05
1	Ti 334.940†	605418.2	629930.1	[1000]	ug/L	10:28:28
1	Tl 190.801†	3494.5	3678.9	[1000]	ug/L	10:28:49
1	U 409.014†	30337.2	34143.1	[1000]	ug/L	10:28:28
1	V 292.402†	152445.1	159961.5	[1000]	ug/L	10:28:28
1	Zn 213.857†	118494.0	122104.1	[1000]	ug/L	10:28:28
1	SiO2†	169704.7	175430.1	[10695]	ug/L	10:29:57
2	Sc 361.383	858196.3	858196.3	96.795	%	10:29:00
2	Sc Radial	4524.0	4524.0	96.9	%	10:27:50
2	Y 371.029	732256.6	732256.6	96.127	%	10:29:00
2	Y RADIAL	4715.6	4715.6	95.59	%	10:27:50
2	Ag 328.068†	226859.1	233857.6	[1000]	ug/L	10:29:00
2	Al 396.153Radial†	10942.0	11316.0	[10000]	ug/L	10:27:30
2	As 188.979†	2707.6	2830.6	[1000]	ug/L	10:29:20
2	B 249.677†	46591.3	48799.7	[1000]	ug/L	10:29:00
2	Ba 233.527†	133100.4	137499.6	[1000]	ug/L	10:29:00
2	Be 313.107†	2844083.0	2942596.8	[1000]	ug/L	10:28:54
2	Ca 317.933Radial†	5868.1	6041.8	[10000]	ug/L	10:27:50
2	Cd 226.502†	102682.4	106320.4	[1000]	ug/L	10:29:00
2	Co 228.616†	51719.3	53515.6	[1000]	ug/L	10:29:00
2	Cr 267.716†	96914.5	100019.1	[1000]	ug/L	10:29:00
2	Cu 324.752†	336569.7	339713.9	[1000]	ug/L	10:29:00
2	Fe 238.204 Radial†	1122.1	1143.9	[10000]	ug/L	10:27:50
2	K 766.490 Radial†	52429.8	50757.1	[10000]	ug/L	10:27:30
2	Mg 279.077 IEC†	314.1	322.4	[10000]	ug/L	10:27:50
2	Mn 257.610†	914632.9	944398.2	[1000]	ug/L	10:28:54
2	Mo 202.031†	15333.9	15821.6	[1000]	ug/L	10:29:20
2	Na 589.592 Radial†	30925.2	33656.9	[10000]	ug/L	10:27:30
2	Ni 231.604†	44461.0	45808.0	[1000]	ug/L	10:29:00

2	P 214.914†	10085.9	10171.2	[5000]	ug/L	10:29:20
2	Pb 220.353†	9186.3	9568.2	[1000]	ug/L	10:29:20
2	S 181.975 Axial†	1757.9	1756.2	[2000]	ug/L	10:29:20
2	Sb 206.836†	3244.2	3314.5	[1000]	ug/L	10:29:20
2	Se 196.026†	1837.0	1931.0	[1000]	ug/L	10:29:20
2	Si 251.611†	170090.1	175104.9	[5000]	ug/L	10:29:00
2	Sn 189.927†	6497.8	6709.5	[1000]	ug/L	10:29:20
2	Sr 421.552†	132770.8	136968.8	[1000]	ug/L	10:27:30
2	Ti 334.940†	608846.1	630821.2	[1000]	ug/L	10:29:00
2	Tl 190.801†	3461.5	3629.5	[1000]	ug/L	10:29:20
2	U 409.014†	30543.7	34223.7	[1000]	ug/L	10:29:00
2	V 292.402†	152968.7	159835.0	[1000]	ug/L	10:29:00
2	Zn 213.857†	118722.7	121821.7	[1000]	ug/L	10:29:00
2	SiO2†	170248.2	175248.8	[10695]	ug/L	10:30:02
3	Sc 361.383	848819.7	848819.7	95.738	%	10:29:32
3	Sc Radial	4499.1	4499.1	96.4	%	10:28:16
3	Y 371.029	724197.9	724197.9	95.069	%	10:29:32
3	Y RADIAL	4687.7	4687.7	95.03	%	10:28:16
3	Ag 328.068†	224046.8	233509.2	[1000]	ug/L	10:29:32
3	Al 396.153Radial†	10912.2	11347.6	[10000]	ug/L	10:27:56
3	As 188.979†	2741.3	2896.8	[1000]	ug/L	10:29:52
3	B 249.677†	46090.8	48808.7	[1000]	ug/L	10:29:32
3	Ba 233.527†	131592.1	137443.1	[1000]	ug/L	10:29:32
3	Be 313.107†	2844415.3	2975401.5	[1000]	ug/L	10:29:26
3	Ca 317.933Radial†	5826.7	6032.3	[10000]	ug/L	10:28:16
3	Cd 226.502†	101521.4	106279.5	[1000]	ug/L	10:29:32
3	Co 228.616†	51116.9	53476.7	[1000]	ug/L	10:29:32
3	Cr 267.716†	95939.3	100106.5	[1000]	ug/L	10:29:32
3	Cu 324.752†	331317.2	338068.6	[1000]	ug/L	10:29:32
3	Fe 238.204 Radial†	1112.8	1140.6	[10000]	ug/L	10:28:16
3	K 766.490 Radial†	51979.0	50588.9	[10000]	ug/L	10:27:56
3	Mg 279.077 IEC†	309.4	319.3	[10000]	ug/L	10:28:16
3	Mn 257.610†	913765.8	953930.6	[1000]	ug/L	10:29:26
3	Mo 202.031†	15519.8	16190.8	[1000]	ug/L	10:29:52
3	Na 589.592 Radial†	30476.4	33367.8	[10000]	ug/L	10:27:56
3	Ni 231.604†	43886.2	45715.0	[1000]	ug/L	10:29:32
3	P 214.914†	10188.8	10393.9	[5000]	ug/L	10:29:52
3	Pb 220.353†	9282.8	9773.9	[1000]	ug/L	10:29:52
3	S 181.975 Axial†	1773.5	1792.6	[2000]	ug/L	10:29:52
3	Sb 206.836†	3297.2	3406.9	[1000]	ug/L	10:29:52
3	Se 196.026†	1859.1	1975.1	[1000]	ug/L	10:29:52
3	Si 251.611†	167775.3	174628.2	[5000]	ug/L	10:29:32
3	Sn 189.927†	6568.9	6858.0	[1000]	ug/L	10:29:52
3	Sr 421.552†	131436.1	136342.3	[1000]	ug/L	10:27:56
3	Ti 334.940†	600971.6	629544.5	[1000]	ug/L	10:29:32
3	Tl 190.801†	3500.4	3709.6	[1000]	ug/L	10:29:52
3	U 409.014†	30036.8	34042.8	[1000]	ug/L	10:29:32
3	V 292.402†	151366.7	159907.4	[1000]	ug/L	10:29:32
3	Zn 213.857†	117155.4	121539.5	[1000]	ug/L	10:29:32
3	SiO2†	167148.2	173953.7	[10695]	ug/L	10:30:08

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	853863.7	4728.60	0.55%	96.307	%
Sc Radial	4534.0	40.91	0.90%	97.1	%
Y 371.029	728330.8	4033.35	0.55%	95.612	%
Y RADIAL	4720.6	35.55	0.75%	95.70	%
Ag 328.068†	233743.9	203.34	0.09%	[1000]	ug/L
Al 396.153Radial†	11273.9	101.59	0.90%	[10000]	ug/L
As 188.979†	2867.2	33.62	1.17%	[1000]	ug/L
B 249.677†	48787.3	29.65	0.06%	[1000]	ug/L
Ba 233.527†	137515.6	81.75	0.06%	[1000]	ug/L
Be 313.107†	2960098.5	16512.52	0.56%	[1000]	ug/L
Ca 317.933Radial†	6028.6	15.28	0.25%	[10000]	ug/L
Cd 226.502†	106401.9	177.79	0.17%	[1000]	ug/L
Co 228.616†	53518.6	43.54	0.08%	[1000]	ug/L
Cr 267.716†	100120.9	109.77	0.11%	[1000]	ug/L
Cu 324.752†	339051.3	868.12	0.26%	[1000]	ug/L
Fe 238.204 Radial†	1141.5	2.02	0.18%	[10000]	ug/L

K 766.490 Radial†	50403.5	474.29	0.94%	[10000]	ug/L
Mg 279.077 IEC†	322.3	2.85	0.88%	[10000]	ug/L
Mn 257.610†	949544.6	4811.46	0.51%	[1000]	ug/L
Mo 202.031†	16005.4	184.60	1.15%	[1000]	ug/L
Na 589.592 Radial†	33375.3	277.85	0.83%	[10000]	ug/L
Ni 231.604†	45780.5	57.00	0.12%	[1000]	ug/L
P 214.914†	10296.8	114.02	1.11%	[5000]	ug/L
Pb 220.353†	9680.4	104.09	1.08%	[1000]	ug/L
S 181.975 Axial†	1777.5	19.00	1.07%	[2000]	ug/L
Sb 206.836†	3365.6	46.99	1.40%	[1000]	ug/L
Se 196.026†	1958.9	24.22	1.24%	[1000]	ug/L
Si 251.611†	174874.3	238.73	0.14%	[5000]	ug/L
Sn 189.927†	6782.4	74.28	1.10%	[1000]	ug/L
Sr 421.552†	136008.0	1164.39	0.86%	[1000]	ug/L
Ti 334.940†	630098.6	654.84	0.10%	[1000]	ug/L
Tl 190.801†	3672.7	40.46	1.10%	[1000]	ug/L
U 409.014†	34136.5	90.64	0.27%	[1000]	ug/L
V 292.402†	159901.3	63.47	0.04%	[1000]	ug/L
Zn 213.857†	121821.8	282.30	0.23%	[1000]	ug/L
SiO2†	174877.5	805.17	0.46%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 1/6/2010 10:32:18
Data Type: Reprocessed on 1/6/2010 11:55:30

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	861751.7	861751.7	97.196	%	10:35:29
1	Sc Radial	4571.4	4571.4	97.9	%	10:34:32
1	Y 371.029	729816.8	729816.8	95.807	%	10:35:29
1	Y RADIAL	4793.7	4793.7	97.18	%	10:34:32
1	Al 396.153Radial†	54896.5	56078.0	[50000]	ug/L	10:34:12
1	Ca 317.933Radial†	29031.6	29629.7	[50000]	ug/L	10:34:12
1	Fe 238.204 Radial†	2245.0	2278.4	[20000]	ug/L	10:34:32
1	Mg 279.077 IEC†	1543.0	1573.8	[50000]	ug/L	10:34:32
1	Na 589.592 Radial†	62736.0	65805.8	[20000]	ug/L	10:34:12
2	Sc 361.383	845745.1	845745.1	95.391	%	10:35:34
2	Sc Radial	4549.2	4549.2	97.5	%	10:34:57
2	Y 371.029	716040.3	716040.3	93.999	%	10:35:34
2	Y RADIAL	4774.2	4774.2	96.78	%	10:34:57
2	Al 396.153Radial†	54557.8	56003.9	[50000]	ug/L	10:34:37
2	Ca 317.933Radial†	28909.0	29648.5	[50000]	ug/L	10:34:37
2	Fe 238.204 Radial†	2233.3	2277.5	[20000]	ug/L	10:34:57
2	Mg 279.077 IEC†	1522.9	1560.9	[50000]	ug/L	10:34:57
2	Na 589.592 Radial†	62157.3	65524.6	[20000]	ug/L	10:34:37
3	Sc 361.383	859471.0	859471.0	96.939	%	10:35:40
3	Sc Radial	4549.1	4549.1	97.5	%	10:35:22
3	Y 371.029	728245.3	728245.3	95.601	%	10:35:40
3	Y RADIAL	4768.4	4768.4	96.66	%	10:35:22
3	Al 396.153Radial†	55563.5	57036.8	[50000]	ug/L	10:35:02
3	Ca 317.933Radial†	29433.3	30187.0	[50000]	ug/L	10:35:02
3	Fe 238.204 Radial†	2223.3	2267.3	[20000]	ug/L	10:35:22
3	Mg 279.077 IEC†	1511.5	1549.2	[50000]	ug/L	10:35:22
3	Na 589.592 Radial†	63482.8	66885.7	[20000]	ug/L	10:35:02

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	855655.9	8658.47	1.01%	96.509	%
Sc Radial	4556.6	12.84	0.28%	97.6	%
Y 371.029	724700.8	7541.27	1.04%	95.135	%
Y RADIAL	4778.7	13.24	0.28%	96.87	%
Al 396.153Radial†	56372.9	576.17	1.02%	[50000]	ug/L
Ca 317.933Radial†	29821.8	316.47	1.06%	[50000]	ug/L
Fe 238.204 Radial†	2274.4	6.14	0.27%	[20000]	ug/L
Mg 279.077 IEC†	1561.3	12.27	0.79%	[50000]	ug/L
Na 589.592 Radial†	66072.1	718.58	1.09%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	232.8	0.00000	0.999966	
Al 396.153Radial	3	Lin Thru 0	0.0	1.127	0.00000	1.000000	
As 188.979	3	Lin Thru 0	0.0	2.857	0.00000	0.999974	
B 249.677	3	Lin Thru 0	0.0	48.50	0.00000	0.999931	
Ba 233.527	3	Lin Thru 0	0.0	137.1	0.00000	0.999983	
Be 313.107	3	Lin Thru 0	0.0	2959	0.00000	0.999999	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5968	0.00000	0.999997	
Cd 226.502	3	Lin Thru 0	0.0	106.2	0.00000	0.999991	
Co 228.616	3	Lin Thru 0	0.0	53.19	0.00000	0.999923	
Cr 267.716	3	Lin Thru 0	0.0	99.81	0.00000	0.999978	
Cu 324.752	3	Lin Thru 0	0.0	337.8	0.00000	0.999970	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1138	0.00000	0.999999	

K 766.490 Radial	3	Lin Thru 0	0.0	5.038	0.00000	0.999998
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0313	0.00000	0.999975
Mn 257.610	3	Lin Thru 0	0.0	949.1	0.00000	0.999995
Mo 202.031	3	Lin Thru 0	0.0	15.96	0.00000	0.999982
Na 589.592 Radia	2	Lin Thru 0	0.0	3.310	0.00000	0.999992
Ni 231.604	3	Lin Thru 0	0.0	45.55	0.00000	0.999946
P 214.914	3	Lin Thru 0	0.0	2.051	0.00000	0.999968
Pb 220.353	3	Lin Thru 0	0.0	9.653	0.00000	0.999984
S 181.975 Axial	3	Lin Thru 0	0.0	0.8848	0.00000	0.999961
Sb 206.836	3	Lin Thru 0	0.0	3.348	0.00000	0.999943
Se 196.026	3	Lin Thru 0	0.0	1.954	0.00000	0.999985
Si 251.611	3	Lin Thru 0	0.0	34.86	0.00000	0.999978
Sn 189.927	3	Lin Thru 0	0.0	6.761	0.00000	0.999977
Sr 421.552	3	Lin Thru 0	0.0	136.6	0.00000	0.999965
Ti 334.940	3	Lin Thru 0	0.0	630.3	0.00000	0.999999
Tl 190.801	3	Lin Thru 0	0.0	3.661	0.00000	0.999975
U 409.014	3	Lin Thru 0	0.0	33.64	0.00000	0.999572
V 292.402	3	Lin Thru 0	0.0	159.3	0.00000	0.999972
Zn 213.857	3	Lin Thru 0	0.0	121.6	0.00000	0.999995
SiO2	3	Lin Thru 0	0.0	16.29	0.00000	0.999972

Sequence No.: 6
Sample ID: ICV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 1/6/2010 10:37:51
Data Type: Reprocessed on 1/6/2010 11:55:31

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	875249.9	875249.9	98.719	%			10:41:01
1	Sc Radial	4611.4	4611.4	98.8	%			10:39:44
1	Y 371.029	746029.3	746029.3	97.935	%			10:41:01
1	Y RADIAL	4861.5	4861.5	98.55	%			10:39:44
1	Ag 328.068†	58592.2	58840.3	255.97	ug/L	255.97	ppb	10:41:01
1	Al 396.153Radial†	5658.3	5754.0	5080.5	ug/L	5080.5	ppb	10:39:44
1	As 188.979†	1300.3	1350.6	477.00	ug/L	477.00	ppb	10:41:21
1	B 249.677†	23792.7	24767.3	508.73	ug/L	508.73	ppb	10:41:01
1	Ba 233.527†	68181.7	69059.1	504.81	ug/L	504.81	ppb	10:41:01
1	Be 313.107†	750258.5	764347.5	259.32	ug/L	259.32	ppb	10:41:01
1	Ca 317.933Radial†	2964.6	2988.2	5007.2	ug/L	5007.2	ppb	10:40:04
1	Cd 226.502†	51645.3	52554.0	494.77	ug/L	494.77	ppb	10:41:01
1	Co 228.616†	26107.0	26529.8	499.07	ug/L	499.07	ppb	10:41:21
1	Cr 267.716†	47678.5	48193.3	483.68	ug/L	483.68	ppb	10:41:01
1	Cu 324.752†	174605.9	168873.0	500.23	ug/L	500.23	ppb	10:41:01
1	Fe 238.204 Radial†	594.9	588.3	5184.9	ug/L	5184.9	ppb	10:40:04
1	K 766.490 Radial†	15727.6	12582.4	2492.3	ug/L	2492.3	ppb	10:39:44
1	Mg 279.077 IEC†	164.0	164.4	5262.6	ug/L	5262.6	ppb	10:40:04
1	Mn 257.610†	479368.3	485073.5	511.51	ug/L	511.51	ppb	10:41:01
1	Mo 202.031†	8416.8	8506.1	533.38	ug/L	533.38	ppb	10:41:21
1	Na 589.592 Radial†	6799.8	8632.7	2607.8	ug/L	2607.8	ppb	10:39:44
1	Ni 231.604†	22404.2	22569.9	495.15	ug/L	495.15	ppb	10:41:21
1	P 214.914†	5293.0	5113.1	2417.4	ug/L	2417.4	ppb	10:41:21
1	Pb 220.353†	4662.5	4800.8	498.97	ug/L	498.97	ppb	10:41:21
1	S 181.975 Axial†	2212.8	2181.6	2464.5	ug/L	2464.5	ppb	10:41:21
1	Sb 206.836†	1689.6	1674.4	509.06	ug/L	509.06	ppb	10:41:21
1	Se 196.026†	4904.6	5001.5	2577.8	ug/L	2577.8	ppb	10:41:21
1	Si 251.611†	164206.4	165721.0	4742.2	ug/L	4742.2	ppb	10:41:01
1	Sn 189.927†	3563.3	3606.1	533.98	ug/L	533.98	ppb	10:41:21
1	Sr 421.552†	72600.4	73468.6	537.87	ug/L	537.87	ppb	10:39:44
1	Ti 334.940†	306956.3	312757.6	496.10	ug/L	496.10	ppb	10:41:01
1	Tl 190.801†	1835.3	1912.5	525.70	ug/L	525.70	ppb	10:41:21
1	U 409.014†	13384.3	16226.8	480.81	ug/L	480.81	ppb	10:41:01
1	V 292.402†	76997.8	79799.0	508.10	ug/L	508.10	ppb	10:41:01
1	Zn 213.857†	61557.9	61525.2	501.66	ug/L	501.66	ppb	10:41:01
1	SiO2†	163209.8	164692.0	10085	ug/L	10085	ppb	10:42:19
2	Sc 361.383	875752.3	875752.3	98.775	%			10:41:27
2	Sc Radial	4643.7	4643.7	99.5	%			10:40:09
2	Y 371.029	745923.5	745923.5	97.922	%			10:41:27
2	Y RADIAL	4862.5	4862.5	98.57	%			10:40:09
2	Ag 328.068†	58994.0	59213.1	257.54	ug/L	257.54	ppb	10:41:27
2	Al 396.153Radial†	5570.1	5625.5	4966.6	ug/L	4966.6	ppb	10:40:09
2	As 188.979†	1303.5	1353.1	477.90	ug/L	477.90	ppb	10:41:47
2	B 249.677†	24003.0	24966.4	512.85	ug/L	512.85	ppb	10:41:27
2	Ba 233.527†	68768.7	69613.7	508.87	ug/L	508.87	ppb	10:41:27
2	Be 313.107†	757527.9	771271.0	261.67	ug/L	261.67	ppb	10:41:27
2	Ca 317.933Radial†	2967.9	2970.6	4977.8	ug/L	4977.8	ppb	10:40:29
2	Cd 226.502†	51932.9	52815.1	497.24	ug/L	497.24	ppb	10:41:27
2	Co 228.616†	26075.2	26482.4	498.17	ug/L	498.17	ppb	10:41:47
2	Cr 267.716†	48078.8	48570.9	487.47	ug/L	487.47	ppb	10:41:27
2	Cu 324.752†	176133.4	170318.0	504.51	ug/L	504.51	ppb	10:41:27
2	Fe 238.204 Radial†	587.9	577.0	5086.0	ug/L	5086.0	ppb	10:40:29
2	K 766.490 Radial†	15626.5	12370.1	2450.1	ug/L	2450.1	ppb	10:40:09
2	Mg 279.077 IEC†	163.2	162.4	5197.8	ug/L	5197.8	ppb	10:40:29
2	Mn 257.610†	483197.1	488671.2	515.30	ug/L	515.30	ppb	10:41:27
2	Mo 202.031†	8421.6	8506.1	533.37	ug/L	533.37	ppb	10:41:47
2	Na 589.592 Radial†	6730.1	8514.8	2572.2	ug/L	2572.2	ppb	10:40:09
2	Ni 231.604†	22358.8	22511.0	493.85	ug/L	493.85	ppb	10:41:47

2	P 214.914†	5291.5	5108.5	2414.5 ug/L	2414.5 ppb	10:41:47
2	Pb 220.353†	4645.7	4781.1	496.91 ug/L	496.91 ppb	10:41:47
2	S 181.975 Axial†	2208.4	2175.9	2458.1 ug/L	2458.1 ppb	10:41:47
2	Sb 206.836†	1662.2	1645.7	500.33 ug/L	500.33 ppb	10:41:47
2	Se 196.026†	4899.9	4993.9	2573.6 ug/L	2573.6 ppb	10:41:47
2	Si 251.611†	165602.3	167038.8	4780.0 ug/L	4780.0 ppb	10:41:27
2	Sn 189.927†	3536.1	3576.5	529.60 ug/L	529.60 ppb	10:41:47
2	Sr 421.552†	71798.5	72151.8	528.23 ug/L	528.23 ppb	10:40:09
2	Ti 334.940†	309702.6	315359.5	500.22 ug/L	500.22 ppb	10:41:27
2	Tl 190.801†	1842.0	1918.3	527.32 ug/L	527.32 ppb	10:41:47
2	U 409.014†	13830.5	16670.7	494.02 ug/L	494.02 ppb	10:41:27
2	V 292.402†	77815.0	80581.6	513.04 ug/L	513.04 ppb	10:41:27
2	Zn 213.857†	62091.2	62029.3	505.82 ug/L	505.82 ppb	10:41:27
2	SiO2†	164649.5	166054.7	10168 ug/L	10168 ppb	10:42:24
3	Sc 361.383	876292.2	876292.2	98.836 %		10:41:53
3	Sc Radial	4648.7	4648.7	99.6 %		10:40:34
3	Y 371.029	748097.3	748097.3	98.207 %		10:41:53
3	Y RADIAL	4889.0	4889.0	99.11 %		10:40:34
3	Ag 328.068†	58712.7	58891.7	256.18 ug/L	256.18 ppb	10:41:53
3	Al 396.153Radial†	5662.3	5712.0	5043.4 ug/L	5043.4 ppb	10:40:34
3	As 188.979†	1287.3	1335.9	471.85 ug/L	471.85 ppb	10:42:13
3	B 249.677†	23901.6	24848.9	510.43 ug/L	510.43 ppb	10:41:53
3	Ba 233.527†	68267.4	69063.7	504.85 ug/L	504.85 ppb	10:41:53
3	Be 313.107†	752113.5	765320.3	259.65 ug/L	259.65 ppb	10:41:53
3	Ca 317.933Radial†	2982.5	2982.1	4997.0 ug/L	4997.0 ppb	10:40:54
3	Cd 226.502†	51696.0	52543.0	494.66 ug/L	494.66 ppb	10:41:53
3	Co 228.616†	25907.2	26296.2	494.67 ug/L	494.67 ppb	10:42:13
3	Cr 267.716†	47758.4	48216.6	483.92 ug/L	483.92 ppb	10:41:53
3	Cu 324.752†	174915.4	168975.9	500.54 ug/L	500.54 ppb	10:41:53
3	Fe 238.204 Radial†	596.9	585.4	5159.8 ug/L	5159.8 ppb	10:40:54
3	K 766.490 Radial†	15874.5	12602.1	2496.2 ug/L	2496.2 ppb	10:40:34
3	Mg 279.077 IEC†	169.1	168.1	5381.8 ug/L	5381.8 ppb	10:40:54
3	Mn 257.610†	479775.8	484908.2	511.34 ug/L	511.34 ppb	10:41:53
3	Mo 202.031†	8365.9	8444.5	529.52 ug/L	529.52 ppb	10:42:13
3	Na 589.592 Radial†	6779.6	8557.2	2585.0 ug/L	2585.0 ppb	10:40:34
3	Ni 231.604†	22192.2	22328.4	489.85 ug/L	489.85 ppb	10:42:13
3	P 214.914†	5264.0	5077.4	2399.9 ug/L	2399.9 ppb	10:42:13
3	Pb 220.353†	4633.2	4765.5	495.30 ug/L	495.30 ppb	10:42:13
3	S 181.975 Axial†	2187.9	2153.8	2433.1 ug/L	2433.1 ppb	10:42:13
3	Sb 206.836†	1651.0	1633.3	496.56 ug/L	496.56 ppb	10:42:13
3	Se 196.026†	4863.7	4954.2	2553.5 ug/L	2553.5 ppb	10:42:13
3	Si 251.611†	164437.9	165757.4	4743.3 ug/L	4743.3 ppb	10:41:53
3	Sn 189.927†	3512.5	3550.4	525.74 ug/L	525.74 ppb	10:42:13
3	Sr 421.552†	72663.7	72942.4	534.01 ug/L	534.01 ppb	10:40:34
3	Ti 334.940†	307375.9	312812.2	496.18 ug/L	496.18 ppb	10:41:53
3	Tl 190.801†	1835.3	1910.3	525.13 ug/L	525.13 ppb	10:42:13
3	U 409.014†	13660.4	16490.0	488.64 ug/L	488.64 ppb	10:41:53
3	V 292.402†	77277.5	79989.2	509.26 ug/L	509.26 ppb	10:41:53
3	Zn 213.857†	61683.6	61578.2	502.13 ug/L	502.13 ppb	10:41:53
3	SiO2†	163090.9	164375.0	10065 ug/L	10065 ppb	10:42:30

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	875764.8	98.777	%	0.0588				0.06%
Sc Radial	4634.6	99.3	%	0.43				0.44%
Y 371.029	746683.4	98.021	%	0.1609				0.16%
Y RADIAL	4871.0	98.75	%	0.316				0.32%
Ag 328.068†	58981.7	256.56	ug/L	0.856	256.56	ppb	0.856	0.33%
QC value within limits for Ag 328.068 Recovery = 102.63%								
Al 396.153Radial†	5697.1	5030.2	ug/L	58.13	5030.2	ppb	58.13	1.16%
QC value within limits for Al 396.153Radial Recovery = 100.60%								
As 188.979†	1346.5	475.58	ug/L	3.265	475.58	ppb	3.265	0.69%
QC value within limits for As 188.979 Recovery = 95.12%								
B 249.677†	24860.9	510.67	ug/L	2.071	510.67	ppb	2.071	0.41%
QC value within limits for B 249.677 Recovery = 102.13%								
Ba 233.527†	69245.5	506.18	ug/L	2.330	506.18	ppb	2.330	0.46%
QC value within limits for Ba 233.527 Recovery = 101.24%								
Be 313.107†	766979.6	260.21	ug/L	1.271	260.21	ppb	1.271	0.49%
QC value within limits for Be 313.107 Recovery = 104.08%								

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Ca 317.933Radial†        2980.3      4994.0 ug/L        14.95      4994.0 ppb        14.95   0.30%
   QC value within limits for Ca 317.933Radial  Recovery = 99.88%
Cd 226.502†             52637.4      495.56 ug/L        1.456      495.56 ppb        1.456   0.29%
   QC value within limits for Cd 226.502  Recovery = 99.11%
Co 228.616†             26436.1      497.30 ug/L        2.326      497.30 ppb        2.326   0.47%
   QC value within limits for Co 228.616  Recovery = 99.46%
Cr 267.716†             48326.9      485.02 ug/L        2.122      485.02 ppb        2.122   0.44%
   QC value within limits for Cr 267.716  Recovery = 97.00%
Cu 324.752†            169389.0      501.76 ug/L        2.384      501.76 ppb        2.384   0.48%
   QC value within limits for Cu 324.752  Recovery = 100.35%
Fe 238.204 Radial†        583.6      5143.6 ug/L        51.43      5143.6 ppb        51.43   1.00%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.87%
K 766.490 Radial†       12518.2      2479.5 ug/L        25.56      2479.5 ppb        25.56   1.03%
   QC value within limits for K 766.490 Radial  Recovery = 99.18%
Mg 279.077 IEC†           165.0      5280.7 ug/L        93.33      5280.7 ppb        93.33   1.77%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.61%
Mn 257.610†            486217.6      512.72 ug/L        2.237      512.72 ppb        2.237   0.44%
   QC value within limits for Mn 257.610  Recovery = 102.54%
Mo 202.031†              8485.6      532.09 ug/L        2.226      532.09 ppb        2.226   0.42%
   QC value within limits for Mo 202.031  Recovery = 106.42%
Na 589.592 Radial†       8568.3      2588.3 ug/L        18.04      2588.3 ppb        18.04   0.70%
   QC value within limits for Na 589.592 Radial  Recovery = 103.53%
Ni 231.604†             22469.8      492.95 ug/L        2.762      492.95 ppb        2.762   0.56%
   QC value within limits for Ni 231.604  Recovery = 98.59%
P 214.914†               5099.7      2410.6 ug/L         9.41      2410.6 ppb         9.41   0.39%
   QC value within limits for P 214.914  Recovery = 96.42%
Pb 220.353†              4782.5      497.06 ug/L        1.840      497.06 ppb        1.840   0.37%
   QC value within limits for Pb 220.353  Recovery = 99.41%
S 181.975 Axial†         2170.4      2451.9 ug/L        16.61      2451.9 ppb        16.61   0.68%
   QC value within limits for S 181.975 Axial  Recovery = 98.08%
Sb 206.836†              1651.1      501.98 ug/L        6.414      501.98 ppb        6.414   1.28%
   QC value within limits for Sb 206.836  Recovery = 100.40%
Se 196.026†              4983.2      2568.3 ug/L        12.98      2568.3 ppb        12.98   0.51%
   QC value within limits for Se 196.026  Recovery = 102.73%
Si 251.611†            166172.4      4755.2 ug/L        21.52      4755.2 ppb        21.52   0.45%
   QC value within limits for Si 251.611  Recovery = 95.10%
Sn 189.927†              3577.7      529.77 ug/L        4.123      529.77 ppb        4.123   0.78%
   QC value within limits for Sn 189.927  Recovery = 105.95%
Sr 421.552†             72854.3      533.37 ug/L        4.852      533.37 ppb        4.852   0.91%
   QC value within limits for Sr 421.552  Recovery = 106.67%
Ti 334.940†            313643.1      497.50 ug/L        2.355      497.50 ppb        2.355   0.47%
   QC value within limits for Ti 334.940  Recovery = 99.50%
Tl 190.801†              1913.7      526.05 ug/L        1.138      526.05 ppb        1.138   0.22%
   QC value within limits for Tl 190.801  Recovery = 105.21%
U 409.014†              16462.5      487.82 ug/L        6.639      487.82 ppb        6.639   1.36%
   QC value within limits for U 409.014  Recovery = 97.56%
V 292.402†              80123.3      510.13 ug/L        2.587      510.13 ppb        2.587   0.51%
   QC value within limits for V 292.402  Recovery = 102.03%
Zn 213.857†             61710.9      503.21 ug/L        2.277      503.21 ppb        2.277   0.45%
   QC value within limits for Zn 213.857  Recovery = 100.64%
SiO2†                  165040.6       10106 ug/L         54.7       10106 ppb         54.7   0.54%
   QC value within limits for SiO2  Recovery = 94.49%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 1/6/2010 10:44:40
Data Type: Reprocessed on 1/6/2010 11:55:32

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	887280.4	887280.4	100.08	%			10:47:50
1	Sc Radial	4700.6	4700.6	101	%			10:46:33
1	Y 371.029	762353.6	762353.6	100.08	%			10:47:50
1	Y RADIAL	4975.1	4975.1	100.9	%			10:46:33
1	Ag 328.068†	578.7	66.0	0.2835	ug/L	0.2835	ppb	10:47:55
1	Al 396.153Radial†	6.3	33.0	29.215	ug/L	29.215	ppb	10:46:33
1	As 188.979†	-34.7	-1.2	-0.4330	ug/L	-0.4330	ppb	10:48:15
1	B 249.677†	-414.0	252.1	5.2003	ug/L	5.2003	ppb	10:47:55
1	Ba 233.527†	32.2	24.6	0.1800	ug/L	0.1800	ppb	10:48:15
1	Be 313.107†	-4259.0	95.7	0.0324	ug/L	0.0324	ppb	10:47:55
1	Ca 317.933Radial†	23.7	11.0	18.355	ug/L	18.355	ppb	10:46:53
1	Cd 226.502†	-236.8	1.8	0.0179	ug/L	0.0179	ppb	10:48:15
1	Co 228.616†	-93.5	-9.5	-0.1754	ug/L	-0.1754	ppb	10:48:15
1	Cr 267.716†	169.9	65.7	0.6597	ug/L	0.6597	ppb	10:47:55
1	Cu 324.752†	7947.1	-57.9	-0.1719	ug/L	-0.1719	ppb	10:47:55
1	Fe 238.204 Radial†	12.8	-1.1	-9.8464	ug/L	-9.8464	ppb	10:46:53
1	K 766.490 Radial†	3328.9	-31.3	-6.2120	ug/L	-6.2120	ppb	10:46:33
1	Mg 279.077 IEC†	5.2	3.5	111.29	ug/L	111.29	ppb	10:46:53
1	Mn 257.610†	576.1	59.3	0.0594	ug/L	0.0594	ppb	10:47:55
1	Mo 202.031†	34.6	14.6	0.9162	ug/L	0.9162	ppb	10:48:15
1	Na 589.592 Radial†	-1693.2	68.9	20.802	ug/L	20.802	ppb	10:46:33
1	Ni 231.604†	154.8	29.6	0.6495	ug/L	0.6495	ppb	10:48:15
1	P 214.914†	270.5	21.7	10.641	ug/L	10.641	ppb	10:48:15
1	Pb 220.353†	-87.1	-9.2	-0.9477	ug/L	-0.9477	ppb	10:48:15
1	S 181.975 Axial†	57.7	-2.3	-2.5814	ug/L	-2.5814	ppb	10:48:15
1	Sb 206.836†	46.0	8.9	2.6823	ug/L	2.6823	ppb	10:48:15
1	Se 196.026†	-28.9	4.4	2.2057	ug/L	2.2057	ppb	10:48:15
1	Si 251.611†	668.3	51.3	1.4538	ug/L	1.4538	ppb	10:48:15
1	Sn 189.927†	9.4	6.0	0.8890	ug/L	0.8890	ppb	10:48:15
1	Sr 421.552†	31.7	15.5	0.1132	ug/L	0.1132	ppb	10:46:33
1	Ti 334.940†	-1819.0	-0.3	0.0015	ug/L	0.0015	ppb	10:47:55
1	Tl 190.801†	-44.2	9.2	2.5136	ug/L	2.5136	ppb	10:48:15
1	U 409.014†	-2765.4	-94.6	-2.8110	ug/L	-2.8110	ppb	10:47:50
1	V 292.402†	-1751.4	51.8	0.3365	ug/L	0.3365	ppb	10:47:55
1	Zn 213.857†	904.4	72.0	0.5850	ug/L	0.5850	ppb	10:48:15
1	SiO2†	710.9	74.3	4.5260	ug/L	4.5260	ppb	10:49:21
2	Sc 361.383	883890.9	883890.9	99.693	%			10:48:20
2	Sc Radial	4679.7	4679.7	100	%			10:46:58
2	Y 371.029	758461.0	758461.0	99.567	%			10:48:20
2	Y RADIAL	4921.0	4921.0	99.76	%			10:46:58
2	Ag 328.068†	470.6	-40.3	-0.1638	ug/L	-0.1638	ppb	10:48:25
2	Al 396.153Radial†	-17.6	9.1	8.0671	ug/L	8.0671	ppb	10:46:58
2	As 188.979†	-29.7	3.6	1.2519	ug/L	1.2519	ppb	10:48:45
2	B 249.677†	-379.8	284.8	5.8698	ug/L	5.8698	ppb	10:48:25
2	Ba 233.527†	-1.7	-9.3	-0.0668	ug/L	-0.0668	ppb	10:48:45
2	Be 313.107†	-4371.6	-33.6	-0.0115	ug/L	-0.0115	ppb	10:48:25
2	Ca 317.933Radial†	27.7	15.1	25.290	ug/L	25.290	ppb	10:47:18
2	Cd 226.502†	-245.6	-8.0	-0.0772	ug/L	-0.0772	ppb	10:48:45
2	Co 228.616†	-81.3	2.5	0.0475	ug/L	0.0475	ppb	10:48:45
2	Cr 267.716†	72.3	-31.5	-0.3142	ug/L	-0.3142	ppb	10:48:25
2	Cu 324.752†	8005.0	30.6	0.0918	ug/L	0.0918	ppb	10:48:25
2	Fe 238.204 Radial†	16.5	2.5	22.405	ug/L	22.405	ppb	10:47:18
2	K 766.490 Radial†	3266.9	-78.2	-15.531	ug/L	-15.531	ppb	10:46:58
2	Mg 279.077 IEC†	6.2	4.6	146.57	ug/L	146.57	ppb	10:47:18
2	Mn 257.610†	547.8	33.1	0.0344	ug/L	0.0344	ppb	10:48:25
2	Mo 202.031†	28.2	8.4	0.5288	ug/L	0.5288	ppb	10:48:45
2	Na 589.592 Radial†	-1736.9	17.6	5.3292	ug/L	5.3292	ppb	10:46:58
2	Ni 231.604†	122.0	-2.7	-0.0600	ug/L	-0.0600	ppb	10:48:45

2	P 214.914†	252.5	4.7	2.2638 ug/L	2.2638 ppb	10:48:45
2	Pb 220.353†	-87.6	-10.1	-1.0474 ug/L	-1.0474 ppb	10:48:45
2	S 181.975 Axial†	60.1	0.4	0.4845 ug/L	0.4845 ppb	10:48:45
2	Sb 206.836†	44.0	7.0	2.1190 ug/L	2.1190 ppb	10:48:45
2	Se 196.026†	-31.9	1.3	0.7134 ug/L	0.7134 ppb	10:48:45
2	Si 251.611†	664.7	50.2	1.4339 ug/L	1.4339 ppb	10:48:45
2	Sn 189.927†	6.7	3.3	0.4945 ug/L	0.4945 ppb	10:48:45
2	Sr 421.552†	19.9	3.9	0.0283 ug/L	0.0283 ppb	10:46:58
2	Ti 334.940†	-1853.3	-41.7	-0.0638 ug/L	-0.0638 ppb	10:48:25
2	Tl 190.801†	-47.7	5.6	1.5221 ug/L	1.5221 ppb	10:48:45
2	U 409.014†	-2732.6	-72.2	-2.1498 ug/L	-2.1498 ppb	10:48:20
2	V 292.402†	-1788.5	7.8	0.0523 ug/L	0.0523 ppb	10:48:25
2	Zn 213.857†	890.3	61.4	0.4990 ug/L	0.4990 ppb	10:48:45
2	SiO2†	656.1	22.1	1.3473 ug/L	1.3473 ppb	10:49:26
3	Sc 361.383	881844.3	881844.3	99.463 %		10:48:51
3	Sc Radial	4730.7	4730.7	101 %		10:47:23
3	Y 371.029	757223.1	757223.1	99.405 %		10:48:51
3	Y RADIAL	4981.0	4981.0	101.0 %		10:47:23
3	Ag 328.068†	598.1	89.0	0.3682 ug/L	0.3682 ppb	10:48:56
3	Al 396.153Radial†	-39.0	-11.7	-10.402 ug/L	-10.402 ppb	10:47:23
3	As 188.979†	-23.7	9.6	3.3395 ug/L	3.3395 ppb	10:49:16
3	B 249.677†	-385.7	278.1	5.7395 ug/L	5.7395 ppb	10:48:56
3	Ba 233.527†	2.2	-5.2	-0.0390 ug/L	-0.0390 ppb	10:49:16
3	Be 313.107†	-4297.4	30.9	0.0105 ug/L	0.0105 ppb	10:48:56
3	Ca 317.933Radial†	17.4	4.6	7.6932 ug/L	7.6932 ppb	10:47:43
3	Cd 226.502†	-225.4	11.7	0.1141 ug/L	0.1141 ppb	10:49:16
3	Co 228.616†	-92.2	-8.7	-0.1625 ug/L	-0.1625 ppb	10:49:16
3	Cr 267.716†	121.8	18.4	0.1828 ug/L	0.1828 ppb	10:48:56
3	Cu 324.752†	8074.5	119.1	0.3507 ug/L	0.3507 ppb	10:48:56
3	Fe 238.204 Radial†	9.9	-4.1	-36.031 ug/L	-36.031 ppb	10:47:43
3	K 766.490 Radial†	3300.1	-80.7	-16.033 ug/L	-16.033 ppb	10:47:23
3	Mg 279.077 IEC†	5.0	3.3	106.65 ug/L	106.65 ppb	10:47:43
3	Mn 257.610†	527.8	14.3	0.0095 ug/L	0.0095 ppb	10:48:56
3	Mo 202.031†	25.2	5.4	0.3373 ug/L	0.3373 ppb	10:49:16
3	Na 589.592 Radial†	-1666.8	105.5	31.869 ug/L	31.869 ppb	10:47:23
3	Ni 231.604†	115.1	-9.3	-0.2042 ug/L	-0.2042 ppb	10:49:16
3	P 214.914†	245.4	-1.8	-0.9247 ug/L	-0.9247 ppb	10:49:16
3	Pb 220.353†	-100.2	-23.0	-2.3814 ug/L	-2.3814 ppb	10:49:16
3	S 181.975 Axial†	55.0	-4.6	-5.1525 ug/L	-5.1525 ppb	10:49:16
3	Sb 206.836†	58.9	22.1	6.6083 ug/L	6.6083 ppb	10:49:16
3	Se 196.026†	-24.7	8.4	4.1781 ug/L	4.1781 ppb	10:49:16
3	Si 251.611†	670.0	57.0	1.6361 ug/L	1.6361 ppb	10:49:16
3	Sn 189.927†	1.5	-1.9	-0.2812 ug/L	-0.2812 ppb	10:49:16
3	Sr 421.552†	-14.3	-30.1	-0.2203 ug/L	-0.2203 ppb	10:47:23
3	Ti 334.940†	-1775.1	32.6	0.0509 ug/L	0.0509 ppb	10:48:56
3	Tl 190.801†	-51.0	2.1	0.5852 ug/L	0.5852 ppb	10:49:16
3	U 409.014†	-2560.8	94.1	2.8018 ug/L	2.8018 ppb	10:48:51
3	V 292.402†	-1781.6	10.6	0.0843 ug/L	0.0843 ppb	10:48:56
3	Zn 213.857†	874.0	47.1	0.3862 ug/L	0.3862 ppb	10:49:16
3	SiO2†	736.2	104.1	6.3943 ug/L	6.3943 ppb	10:49:31

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	884338.5	99.744	%	0.3097				0.31%
Sc Radial	4703.7	101	%	0.5				0.55%
Y 371.029	759345.9	99.684	%	0.3515				0.35%
Y RADIAL	4959.1	100.5	%	0.67				0.67%
Ag 328.068†	38.2	0.1626	ug/L	0.28587	0.1626	ppb	0.28587	175.79%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.1	8.9600	ug/L	19.82374	8.9600	ppb	19.82374	221.25%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.0	1.3861	ug/L	1.88986	1.3861	ppb	1.88986	136.34%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	271.7	5.6032	ug/L	0.35498	5.6032	ppb	0.35498	6.34%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.4	0.0247	ug/L	0.13521	0.0247	ppb	0.13521	546.69%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	31.0	0.0105	ug/L	0.02191	0.0105	ppb	0.02191	209.31%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          10.2      17.113 ug/L        8.8641      17.113 ppb        8.8641  51.80%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 1.8       0.0183 ug/L       0.09567       0.0183 ppb      0.09567 523.59%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -5.2      -0.0968 ug/L       0.12513      -0.0968 ppb      0.12513 129.26%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                17.5       0.1761 ug/L       0.48700       0.1761 ppb      0.48700 276.53%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                30.6       0.0902 ug/L       0.26132       0.0902 ppb      0.26132 289.73%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.9      -7.8241 ug/L      29.27009      -7.8241 ppb     29.27009 374.10%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -63.4     -12.592 ug/L        5.5311     -12.592 ppb       5.5311  43.92%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.8      121.50 ug/L       21.831       121.50 ppb       21.831  17.97%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                35.5       0.0344 ug/L       0.02496       0.0344 ppb      0.02496  72.55%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.5       0.5941 ug/L       0.29489       0.5941 ppb      0.29489  49.64%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         64.0      19.333 ug/L       13.3307      19.333 ppb      13.3307  68.95%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 5.8       0.1284 ug/L       0.45698       0.1284 ppb      0.45698 355.80%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  8.2       3.9933 ug/L       5.97360       3.9933 ppb      5.97360 149.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -14.1      -1.4589 ug/L       0.80054      -1.4589 ppb      0.80054  54.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.1      -2.4165 ug/L       2.82211      -2.4165 ppb      2.82211 116.79%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                12.7       3.8032 ug/L       2.44553       3.8032 ppb      2.44553  64.30%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 4.7       2.3657 ug/L       1.73788       2.3657 ppb      1.73788  73.46%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                52.8       1.5080 ug/L       0.11146       1.5080 ppb      0.11146   7.39%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.5       0.3674 ug/L       0.59538       0.3674 ppb      0.59538 162.04%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -3.6      -0.0263 ug/L       0.17334      -0.0263 ppb      0.17334 659.55%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                -3.1      -0.0038 ug/L       0.05750      -0.0038 ppb      0.05750 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.6       1.5403 ug/L       0.96431       1.5403 ppb      0.96431  62.60%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -24.2      -0.7197 ug/L       3.06754      -0.7197 ppb      3.06754 426.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 23.4       0.1577 ug/L       0.15568       0.1577 ppb      0.15568  98.71%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                60.2       0.4901 ug/L       0.09967       0.4901 ppb      0.09967  20.34%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      66.9       4.0892 ug/L       2.55169       4.0892 ppb      2.55169  62.40%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 1/6/2010 10:51:42
Data Type: Reprocessed on 1/6/2010 11:55:33

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	864890.2	864890.2	97.550	%			10:54:52
1	Sc Radial	4615.5	4615.5	98.9	%			10:53:35
1	Y 371.029	744403.8	744403.8	97.722	%			10:54:52
1	Y RADIAL	4870.5	4870.5	98.73	%			10:53:35
1	Ag 328.068†	1666.1	1195.6	5.1487	ug/L	5.1487	ppb	10:54:52
1	Al 396.153Radial†	219.5	248.7	220.16	ug/L	220.16	ppb	10:53:35
1	As 188.979†	48.9	83.6	29.265	ug/L	29.265	ppb	10:55:12
1	B 249.677†	1786.7	2497.4	51.469	ug/L	51.469	ppb	10:55:12
1	Ba 233.527†	713.3	723.7	5.2911	ug/L	5.2911	ppb	10:55:12
1	Be 313.107†	10181.7	14788.9	5.0087	ug/L	5.0087	ppb	10:54:52
1	Ca 317.933Radial†	139.5	128.5	215.32	ug/L	215.32	ppb	10:53:55
1	Cd 226.502†	270.6	515.8	4.8513	ug/L	4.8513	ppb	10:55:12
1	Co 228.616†	165.6	253.7	4.7842	ug/L	4.7842	ppb	10:55:12
1	Cr 267.716†	602.9	514.0	5.1464	ug/L	5.1464	ppb	10:55:12
1	Cu 324.752†	11320.6	3605.9	10.681	ug/L	10.681	ppb	10:54:52
1	Fe 238.204 Radial†	24.7	11.1	97.487	ug/L	97.487	ppb	10:53:55
1	K 766.490 Radial†	4010.4	718.9	142.49	ug/L	142.49	ppb	10:53:35
1	Mg 279.077 IEC†	12.5	11.0	351.81	ug/L	351.81	ppb	10:53:55
1	Mn 257.610†	10207.6	9947.6	10.484	ug/L	10.484	ppb	10:54:52
1	Mo 202.031†	173.7	158.1	9.9167	ug/L	9.9167	ppb	10:55:12
1	Na 589.592 Radial†	-812.7	928.3	280.42	ug/L	280.42	ppb	10:53:35
1	Ni 231.604†	359.3	243.3	5.3375	ug/L	5.3375	ppb	10:55:12
1	P 214.914†	560.6	326.1	157.39	ug/L	157.39	ppb	10:55:12
1	Pb 220.353†	11.0	89.0	9.2802	ug/L	9.2802	ppb	10:55:12
1	S 181.975 Axial†	145.2	88.9	100.43	ug/L	100.43	ppb	10:55:12
1	Sb 206.836†	76.5	41.3	12.599	ug/L	12.599	ppb	10:55:12
1	Se 196.026†	34.9	69.1	35.713	ug/L	35.713	ppb	10:55:12
1	Si 251.611†	4048.3	3533.4	101.11	ug/L	101.11	ppb	10:55:12
1	Sn 189.927†	66.4	64.7	9.5959	ug/L	9.5959	ppb	10:55:12
1	Sr 421.552†	681.4	673.1	4.9260	ug/L	4.9260	ppb	10:53:35
1	Ti 334.940†	1405.7	3258.4	5.1599	ug/L	5.1599	ppb	10:54:52
1	Tl 190.801†	23.8	77.8	21.321	ug/L	21.321	ppb	10:55:12
1	U 409.014†	-1169.6	1469.8	43.672	ug/L	43.672	ppb	10:54:52
1	V 292.402†	-943.7	834.4	5.4501	ug/L	5.4501	ppb	10:55:12
1	Zn 213.857†	2094.7	1315.6	10.754	ug/L	10.754	ppb	10:55:12
1	SiO2†	4055.3	3521.1	215.61	ug/L	215.61	ppb	10:56:08
2	Sc 361.383	862681.9	862681.9	97.301	%			10:55:18
2	Sc Radial	4754.1	4754.1	102	%			10:54:00
2	Y 371.029	742521.1	742521.1	97.475	%			10:55:18
2	Y RADIAL	5002.0	5002.0	101.4	%			10:54:00
2	Ag 328.068†	1578.1	1109.5	4.7828	ug/L	4.7828	ppb	10:55:18
2	Al 396.153Radial†	210.6	233.5	206.60	ug/L	206.60	ppb	10:54:00
2	As 188.979†	48.6	83.4	29.197	ug/L	29.197	ppb	10:55:38
2	B 249.677†	1770.5	2485.5	51.222	ug/L	51.222	ppb	10:55:38
2	Ba 233.527†	700.4	712.3	5.2089	ug/L	5.2089	ppb	10:55:38
2	Be 313.107†	10220.4	14855.4	5.0311	ug/L	5.0311	ppb	10:55:18
2	Ca 317.933Radial†	134.8	119.8	200.76	ug/L	200.76	ppb	10:54:20
2	Cd 226.502†	289.3	535.7	5.0374	ug/L	5.0374	ppb	10:55:38
2	Co 228.616†	167.8	256.4	4.8384	ug/L	4.8384	ppb	10:55:38
2	Cr 267.716†	566.5	478.2	4.7880	ug/L	4.7880	ppb	10:55:38
2	Cu 324.752†	11291.1	3605.3	10.680	ug/L	10.680	ppb	10:55:18
2	Fe 238.204 Radial†	26.8	12.5	109.61	ug/L	109.61	ppb	10:54:20
2	K 766.490 Radial†	4121.7	710.0	140.70	ug/L	140.70	ppb	10:54:00
2	Mg 279.077 IEC†	14.7	12.8	410.58	ug/L	410.58	ppb	10:54:20
2	Mn 257.610†	10171.1	9936.8	10.473	ug/L	10.473	ppb	10:55:18
2	Mo 202.031†	193.2	178.6	11.199	ug/L	11.199	ppb	10:55:38
2	Na 589.592 Radial†	-664.3	1097.9	331.66	ug/L	331.66	ppb	10:54:00
2	Ni 231.604†	359.6	244.5	5.3646	ug/L	5.3646	ppb	10:55:38

2	P 214.914†	540.0	306.4	147.80 ug/L	147.80 ppb	10:55:38
2	Pb 220.353†	-4.4	73.3	7.6473 ug/L	7.6473 ppb	10:55:38
2	S 181.975 Axial†	153.9	98.2	110.96 ug/L	110.96 ppb	10:55:38
2	Sb 206.836†	82.6	47.8	14.571 ug/L	14.571 ppb	10:55:38
2	Se 196.026†	23.0	56.9	29.508 ug/L	29.508 ppb	10:55:38
2	Si 251.611†	4055.7	3551.6	101.61 ug/L	101.61 ppb	10:55:38
2	Sn 189.927†	69.5	68.0	10.077 ug/L	10.077 ppb	10:55:38
2	Sr 421.552†	680.6	652.3	4.7737 ug/L	4.7737 ppb	10:54:00
2	Ti 334.940†	1359.5	3214.5	5.0894 ug/L	5.0894 ppb	10:55:18
2	Tl 190.801†	32.2	86.5	23.700 ug/L	23.700 ppb	10:55:38
2	U 409.014†	-1144.5	1492.5	44.347 ug/L	44.347 ppb	10:55:18
2	V 292.402†	-926.4	849.7	5.5654 ug/L	5.5654 ppb	10:55:38
2	Zn 213.857†	2085.8	1312.0	10.721 ug/L	10.721 ppb	10:55:38
2	SiO2†	4086.4	3563.7	218.18 ug/L	218.18 ppb	10:56:13
3	Sc 361.383	872526.3	872526.3	98.412 %		10:55:43
3	Sc Radial	4661.1	4661.1	99.9 %		10:54:26
3	Y 371.029	750241.4	750241.4	98.488 %		10:55:43
3	Y RADIAL	4937.4	4937.4	100.1 %		10:54:26
3	Ag 328.068†	1623.4	1137.3	4.9014 ug/L	4.9014 ppb	10:55:43
3	Al 396.153Radial†	216.7	243.8	215.75 ug/L	215.75 ppb	10:54:26
3	As 188.979†	47.1	81.3	28.469 ug/L	28.469 ppb	10:56:03
3	B 249.677†	1751.4	2445.5	50.399 ug/L	50.399 ppb	10:56:03
3	Ba 233.527†	706.2	710.1	5.1916 ug/L	5.1916 ppb	10:56:03
3	Be 313.107†	10363.1	14881.9	5.0399 ug/L	5.0399 ppb	10:55:43
3	Ca 317.933Radial†	139.2	126.9	212.59 ug/L	212.59 ppb	10:54:46
3	Cd 226.502†	272.7	515.5	4.8480 ug/L	4.8480 ppb	10:56:03
3	Co 228.616†	158.4	245.0	4.6209 ug/L	4.6209 ppb	10:56:03
3	Cr 267.716†	576.9	482.2	4.8283 ug/L	4.8283 ppb	10:56:03
3	Cu 324.752†	11366.5	3551.0	10.518 ug/L	10.518 ppb	10:55:43
3	Fe 238.204 Radial†	25.7	11.8	104.23 ug/L	104.23 ppb	10:54:46
3	K 766.490 Radial†	4132.4	801.4	158.86 ug/L	158.86 ppb	10:54:26
3	Mg 279.077 IEC†	14.8	13.2	421.14 ug/L	421.14 ppb	10:54:46
3	Mn 257.610†	10368.6	10019.5	10.560 ug/L	10.560 ppb	10:55:43
3	Mo 202.031†	183.5	166.6	10.445 ug/L	10.445 ppb	10:56:03
3	Na 589.592 Radial†	-719.9	1029.2	310.91 ug/L	310.91 ppb	10:54:26
3	Ni 231.604†	357.1	237.8	5.2178 ug/L	5.2178 ppb	10:56:03
3	P 214.914†	529.6	289.5	139.61 ug/L	139.61 ppb	10:56:03
3	Pb 220.353†	1.8	79.6	8.3021 ug/L	8.3021 ppb	10:56:03
3	S 181.975 Axial†	142.6	85.0	96.017 ug/L	96.017 ppb	10:56:03
3	Sb 206.836†	69.5	33.5	10.312 ug/L	10.312 ppb	10:56:03
3	Se 196.026†	31.2	64.9	33.613 ug/L	33.613 ppb	10:56:03
3	Si 251.611†	4006.5	3454.6	98.832 ug/L	98.832 ppb	10:56:03
3	Sn 189.927†	76.4	74.3	11.010 ug/L	11.010 ppb	10:56:03
3	Sr 421.552†	673.2	658.2	4.8171 ug/L	4.8171 ppb	10:54:26
3	Ti 334.940†	1360.9	3200.2	5.0685 ug/L	5.0685 ppb	10:55:43
3	Tl 190.801†	31.5	85.3	23.387 ug/L	23.387 ppb	10:56:03
3	U 409.014†	-1259.2	1389.2	41.277 ug/L	41.277 ppb	10:55:43
3	V 292.402†	-985.6	800.3	5.2394 ug/L	5.2394 ppb	10:56:03
3	Zn 213.857†	2075.9	1277.8	10.440 ug/L	10.440 ppb	10:56:03
3	SiO2†	4122.9	3553.4	217.55 ug/L	217.55 ppb	10:56:18

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	866699.4	97.754	%	0.5826				0.60%
Sc Radial	4676.9	100	%	1.5				1.51%
Y 371.029	745722.1	97.895	%	0.5284				0.54%
Y RADIAL	4936.6	100.1	%	1.33				1.33%
Ag 328.068†	1147.5	4.9443	ug/L	0.18669	4.9443	ppb	0.18669	3.78%
QC value within limits for Ag 328.068 Recovery = 98.89%								
Al 396.153Radial†	242.0	214.17	ug/L	6.917	214.17	ppb	6.917	3.23%
QC value within limits for Al 396.153Radial Recovery = 107.09%								
As 188.979†	82.7	28.977	ug/L	0.4416	28.977	ppb	0.4416	1.52%
QC value within limits for As 188.979 Recovery = 96.59%								
B 249.677†	2476.1	51.030	ug/L	0.5600	51.030	ppb	0.5600	1.10%
QC value within limits for B 249.677 Recovery = 102.06%								
Ba 233.527†	715.4	5.2305	ug/L	0.05318	5.2305	ppb	0.05318	1.02%
QC value within limits for Ba 233.527 Recovery = 104.61%								
Be 313.107†	14842.1	5.0266	ug/L	0.01610	5.0266	ppb	0.01610	0.32%
QC value within limits for Be 313.107 Recovery = 100.53%								

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Ca 317.933Radial†        125.1      209.56 ug/L        7.740      209.56 ppb        7.740   3.69%
   QC value within limits for Ca 317.933Radial  Recovery = 104.78%
Cd 226.502†              522.3      4.9122 ug/L      0.10842      4.9122 ppb      0.10842   2.21%
   QC value within limits for Cd 226.502  Recovery = 98.24%
Co 228.616†              251.7      4.7478 ug/L      0.11318      4.7478 ppb      0.11318   2.38%
   QC value within limits for Co 228.616  Recovery = 94.96%
Cr 267.716†              491.4      4.9209 ug/L      0.19632      4.9209 ppb      0.19632   3.99%
   QC value within limits for Cr 267.716  Recovery = 98.42%
Cu 324.752†             3587.4      10.626 ug/L       0.0933      10.626 ppb       0.0933   0.88%
   QC value within limits for Cu 324.752  Recovery = 106.26%
Fe 238.204 Radial†        11.8      103.78 ug/L        6.074      103.78 ppb        6.074   5.85%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.78%
K 766.490 Radial†        743.5      147.35 ug/L       10.005      147.35 ppb       10.005   6.79%
   QC value within limits for K 766.490 Radial  Recovery = 98.23%
Mg 279.077 IEC†           12.3      394.51 ug/L       37.353      394.51 ppb       37.353   9.47%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 131.50%
Mn 257.610†             9968.0      10.506 ug/L       0.0470      10.506 ppb       0.0470   0.45%
   QC value within limits for Mn 257.610  Recovery = 105.06%
Mo 202.031†              167.8      10.520 ug/L       0.6446      10.520 ppb       0.6446   6.13%
   QC value within limits for Mo 202.031  Recovery = 105.20%
Na 589.592 Radial†      1018.5      307.66 ug/L       25.776      307.66 ppb       25.776   8.38%
   QC value within limits for Na 589.592 Radial  Recovery = 102.55%
Ni 231.604†              241.9      5.3066 ug/L      0.07809      5.3066 ppb      0.07809   1.47%
   QC value within limits for Ni 231.604  Recovery = 106.13%
P 214.914†               307.4      148.27 ug/L        8.897      148.27 ppb        8.897   6.00%
   QC value within limits for P 214.914  Recovery = 98.84%
Pb 220.353†               80.6      8.4099 ug/L      0.82175      8.4099 ppb      0.82175   9.77%
   QC value within limits for Pb 220.353  Recovery = 84.10%
S 181.975 Axial†          90.7      102.47 ug/L        7.681      102.47 ppb        7.681   7.50%
   QC value within limits for S 181.975 Axial  Recovery = 102.47%
Sb 206.836†               40.9      12.494 ug/L       2.1317      12.494 ppb       2.1317  17.06%
   QC value within limits for Sb 206.836  Recovery = 124.94%
Se 196.026†               63.6      32.945 ug/L       3.1563      32.945 ppb       3.1563   9.58%
   QC value within limits for Se 196.026  Recovery = 109.82%
Si 251.611†             3513.2      100.52 ug/L        1.482      100.52 ppb        1.482   1.47%
   QC value within limits for Si 251.611  Recovery = 100.52%
Sn 189.927†               69.0      10.228 ug/L       0.7190      10.228 ppb       0.7190   7.03%
   QC value within limits for Sn 189.927  Recovery = 102.28%
Sr 421.552†              661.2      4.8389 ug/L      0.07843      4.8389 ppb      0.07843   1.62%
   QC value within limits for Sr 421.552  Recovery = 96.78%
Ti 334.940†             3224.4      5.1059 ug/L      0.04787      5.1059 ppb      0.04787   0.94%
   QC value within limits for Ti 334.940  Recovery = 102.12%
Tl 190.801†               83.2      22.803 ug/L       1.2930      22.803 ppb       1.2930   5.67%
   QC value within limits for Tl 190.801  Recovery = 114.01%
U 409.014†              1450.5      43.099 ug/L       1.6133      43.099 ppb       1.6133   3.74%
   QC value within limits for U 409.014  Recovery = 86.20%
V 292.402†               828.1      5.4183 ug/L      0.16533      5.4183 ppb      0.16533   3.05%
   QC value within limits for V 292.402  Recovery = 108.37%
Zn 213.857†             1301.8      10.638 ug/L       0.1721      10.638 ppb       0.1721   1.62%
   QC value within limits for Zn 213.857  Recovery = 106.38%
SiO2†                   3546.1      217.11 ug/L        1.338      217.11 ppb        1.338   0.62%
   QC value within limits for SiO2  Recovery = 101.93%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 1/6/2010 10:58:30
Data Type: Reprocessed on 1/6/2010 11:55:34

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	753202.5	753202.5	84.953	%			11:00:55
1	Sc Radial	4258.7	4258.7	91.2	%			11:00:28
1	Y 371.029	636756.7	636756.7	83.591	%			11:00:55
1	Y RADIAL	4458.6	4458.6	90.39	%			11:00:28
1	Ag 328.068†	-10379.9	-12730.8	1.7815	ug/L	1.7815	ppb	11:00:55
1	Al 396.153Radial†	543336.5	595526.4	528190	ug/L	528190	ppb	11:00:23
1	As 188.979†	-110.8	-97.0	-4.7044	ug/L	-4.7044	ppb	11:01:15
1	B 249.677†	4.9	671.6	-11.419	ug/L	-11.419	ppb	11:00:55
1	Ba 233.527†	-722.9	-858.4	-1.4244	ug/L	-1.4244	ppb	11:01:15
1	Be 313.107†	-4139.1	-520.6	-0.2187	ug/L	-0.2187	ppb	11:00:55
1	Ca 317.933Radial†	268839.9	294637.4	493710	ug/L	493710	ppb	11:00:23
1	Cd 226.502†	1292.9	1760.3	-2.4583	ug/L	-2.4583	ppb	11:01:15
1	Co 228.616†	-10.0	72.2	-1.3635	ug/L	-1.3635	ppb	11:01:15
1	Cr 267.716†	-61.3	-176.2	1.6644	ug/L	1.6644	ppb	11:01:15
1	Cu 324.752†	4196.3	-3059.4	0.6567	ug/L	0.6567	ppb	11:00:55
1	Fe 238.204 Radial†	19787.2	21673.0	190440	ug/L	190440	ppb	11:00:28
1	K 766.490 Radial†	2915.0	-141.9	-12.209	ug/L	-12.209	ppb	11:00:23
1	Mg 279.077 IEC†	14063.0	15411.5	492600	ug/L	492600	ppb	11:00:28
1	Mn 257.610†	-569.1	-1186.3	8.5667	ug/L	8.5667	ppb	11:00:55
1	Mo 202.031†	-238.4	-300.6	-0.5758	ug/L	-0.5758	ppb	11:01:15
1	Na 589.592 Radial†	-1538.9	63.5	19.169	ug/L	19.169	ppb	11:00:28
1	Ni 231.604†	227.1	142.3	3.1234	ug/L	3.1234	ppb	11:01:15
1	P 214.914†	231.9	24.4	37.831	ug/L	37.831	ppb	11:01:15
1	Pb 220.353†	-995.9	-1094.5	-10.525	ug/L	-10.525	ppb	11:01:15
1	S 181.975 Axial†	83.4	38.2	-60.693	ug/L	-60.693	ppb	11:01:15
1	Sb 206.836†	61.5	35.3	-2.2838	ug/L	-2.2838	ppb	11:01:15
1	Se 196.026†	-1144.8	-1314.3	-4.4475	ug/L	-4.4475	ppb	11:01:15
1	Si 251.611†	537.0	15.6	0.9976	ug/L	0.9976	ppb	11:01:15
1	Sn 189.927†	-390.5	-463.1	-14.397	ug/L	-14.397	ppb	11:01:15
1	Sr 421.552†	470.2	499.4	-0.9197	ug/L	-0.9197	ppb	11:00:28
1	Ti 334.940†	-13182.1	-13699.6	4.0139	ug/L	4.0139	ppb	11:00:55
1	Tl 190.801†	-107.0	-72.6	-5.5819	ug/L	-5.5819	ppb	11:01:15
1	U 409.014†	-1998.0	316.8	-14.537	ug/L	-14.537	ppb	11:00:55
1	V 292.402†	565.4	2467.3	-2.5903	ug/L	-2.5903	ppb	11:01:15
1	Zn 213.857†	3443.4	3221.6	-0.2562	ug/L	-0.2562	ppb	11:01:15
1	SiO2†	550.4	11.8	1.9222	ug/L	1.9222	ppb	11:02:12
2	Sc 361.383	759275.0	759275.0	85.638	%			11:01:21
2	Sc Radial	4214.5	4214.5	90.3	%			11:00:38
2	Y 371.029	641859.3	641859.3	84.260	%			11:01:21
2	Y RADIAL	4476.8	4476.8	90.75	%			11:00:38
2	Ag 328.068†	-10380.1	-12633.2	2.5928	ug/L	2.5928	ppb	11:01:21
2	Al 396.153Radial†	526541.1	583169.3	517230	ug/L	517230	ppb	11:00:33
2	As 188.979†	-100.8	-84.3	-0.1464	ug/L	-0.1464	ppb	11:01:41
2	B 249.677†	87.7	768.3	-9.5295	ug/L	-9.5295	ppb	11:01:21
2	Ba 233.527†	-705.8	-831.7	-1.2098	ug/L	-1.2098	ppb	11:01:41
2	Be 313.107†	-4067.1	-397.7	-0.1780	ug/L	-0.1780	ppb	11:01:21
2	Ca 317.933Radial†	261146.2	289206.0	484610	ug/L	484610	ppb	11:00:33
2	Cd 226.502†	1288.6	1743.1	-2.7001	ug/L	-2.7001	ppb	11:01:41
2	Co 228.616†	-36.7	41.2	-1.9559	ug/L	-1.9559	ppb	11:01:41
2	Cr 267.716†	-60.1	-174.2	1.6951	ug/L	1.6951	ppb	11:01:41
2	Cu 324.752†	4267.8	-3015.4	0.8279	ug/L	0.8279	ppb	11:01:21
2	Fe 238.204 Radial†	19664.5	21764.5	191240	ug/L	191240	ppb	11:00:38
2	K 766.490 Radial†	2915.7	-107.6	-5.9274	ug/L	-5.9274	ppb	11:00:33
2	Mg 279.077 IEC†	13981.2	15482.5	494870	ug/L	494870	ppb	11:00:38
2	Mn 257.610†	-551.4	-1160.3	8.6320	ug/L	8.6320	ppb	11:01:21
2	Mo 202.031†	-236.8	-296.4	-0.2373	ug/L	-0.2373	ppb	11:01:41
2	Na 589.592 Radial†	-1549.5	34.1	10.299	ug/L	10.299	ppb	11:00:38
2	Ni 231.604†	257.1	175.1	3.8435	ug/L	3.8435	ppb	11:01:41

2	P 214.914†	255.3	49.5	45.646 ug/L	45.646 ppb	11:01:41
2	Pb 220.353†	-991.5	-1080.0	-11.551 ug/L	-11.551 ppb	11:01:41
2	S 181.975 Axial†	88.3	43.2	-52.950 ug/L	-52.950 ppb	11:01:41
2	Sb 206.836†	77.5	53.4	3.4112 ug/L	3.4112 ppb	11:01:41
2	Se 196.026†	-1139.5	-1297.3	5.0374 ug/L	5.0374 ppb	11:01:41
2	Si 251.611†	573.3	52.9	2.0679 ug/L	2.0679 ppb	11:01:41
2	Sn 189.927†	-407.9	-479.7	-17.799 ug/L	-17.799 ppb	11:01:41
2	Sr 421.552†	452.7	485.4	-0.9382 ug/L	-0.9382 ppb	11:00:38
2	Ti 334.940†	-13537.0	-13989.8	3.0739 ug/L	3.0739 ppb	11:01:21
2	Tl 190.801†	-114.3	-80.1	-7.9393 ug/L	-7.9393 ppb	11:01:41
2	U 409.014†	-1707.5	674.9	-3.9930 ug/L	-3.9930 ppb	11:01:21
2	V 292.402†	546.7	2440.3	-2.8065 ug/L	-2.8065 ppb	11:01:41
2	Zn 213.857†	3441.4	3186.9	-0.6655 ug/L	-0.6655 ppb	11:01:41
2	SiO2†	505.9	-45.3	-1.5806 ug/L	-1.5806 ppb	11:02:17
3	Sc 361.383	751186.8	751186.8	84.726 %		11:01:46
3	Sc Radial	4186.9	4186.9	89.7 %		11:00:49
3	Y 371.029	635002.1	635002.1	83.360 %		11:01:46
3	Y RADIAL	4447.4	4447.4	90.16 %		11:00:49
3	Ag 328.068†	-10460.2	-12858.3	1.7968 ug/L	1.7968 ppb	11:01:46
3	Al 396.153Radial†	532654.5	593833.3	526690 ug/L	526690 ppb	11:00:44
3	As 188.979†	-114.1	-101.3	-5.9524 ug/L	-5.9524 ppb	11:02:06
3	B 249.677†	113.1	799.4	-9.0024 ug/L	-9.0024 ppb	11:01:46
3	Ba 233.527†	-713.1	-849.2	-1.3160 ug/L	-1.3160 ppb	11:02:06
3	Be 313.107†	-4125.4	-517.6	-0.2177 ug/L	-0.2177 ppb	11:01:46
3	Ca 317.933Radial†	263738.1	294004.4	492650 ug/L	492650 ppb	11:00:44
3	Cd 226.502†	1283.9	1753.7	-2.6857 ug/L	-2.6857 ppb	11:02:06
3	Co 228.616†	-34.4	43.3	-1.9279 ug/L	-1.9279 ppb	11:02:06
3	Cr 267.716†	-93.5	-214.4	1.3088 ug/L	1.3088 ppb	11:02:06
3	Cu 324.752†	4225.0	-3012.4	0.8806 ug/L	0.8806 ppb	11:01:46
3	Fe 238.204 Radial†	19622.8	21861.8	192100 ug/L	192100 ppb	11:00:49
3	K 766.490 Radial†	2882.8	-123.0	-8.5384 ug/L	-8.5384 ppb	11:00:44
3	Mg 279.077 IEC†	13916.3	15512.4	495830 ug/L	495830 ppb	11:00:49
3	Mn 257.610†	-533.9	-1146.5	8.7140 ug/L	8.7140 ppb	11:01:46
3	Mo 202.031†	-233.8	-295.9	-0.1250 ug/L	-0.1250 ppb	11:02:06
3	Na 589.592 Radial†	-1593.1	-25.9	-7.8365 ug/L	-7.8365 ppb	11:00:49
3	Ni 231.604†	234.5	151.7	3.3293 ug/L	3.3293 ppb	11:02:06
3	P 214.914†	250.9	47.5	47.212 ug/L	47.212 ppb	11:02:06
3	Pb 220.353†	-1005.0	-1108.4	-12.435 ug/L	-12.435 ppb	11:02:06
3	S 181.975 Axial†	96.9	54.5	-42.024 ug/L	-42.024 ppb	11:02:06
3	Sb 206.836†	74.2	50.4	2.3042 ug/L	2.3042 ppb	11:02:06
3	Se 196.026†	-1143.4	-1316.3	-0.5904 ug/L	-0.5904 ppb	11:02:06
3	Si 251.611†	593.1	83.5	2.9418 ug/L	2.9418 ppb	11:02:06
3	Sn 189.927†	-395.6	-470.4	-15.565 ug/L	-15.565 ppb	11:02:06
3	Sr 421.552†	518.1	561.7	-0.4542 ug/L	-0.4542 ppb	11:00:49
3	Ti 334.940†	-13154.2	-13708.3	3.9422 ug/L	3.9422 ppb	11:01:46
3	Tl 190.801†	-98.0	-62.3	-2.8132 ug/L	-2.8132 ppb	11:02:06
3	U 409.014†	-1817.7	523.3	-8.6066 ug/L	-8.6066 ppb	11:01:46
3	V 292.402†	510.1	2403.8	-3.1522 ug/L	-3.1522 ppb	11:02:06
3	Zn 213.857†	3432.7	3219.8	-0.4685 ug/L	-0.4685 ppb	11:02:06
3	SiO2†	498.3	-47.9	-1.7492 ug/L	-1.7492 ppb	11:02:22

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	754554.8	85.106	%	0.4749				0.56%
Sc Radial	4220.0	90.4	%	0.78				0.86%
Y 371.029	637872.7	83.737	%	0.4676				0.56%
Y RADIAL	4461.0	90.43	%	0.300				0.33%
Ag 328.068†	-12740.8	2.0571	ug/L	0.46404	2.0571	ppb	0.46404	22.56%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	590843.0	524030	ug/L	5941.8	524030	ppb	5941.8	1.13%
QC value within limits for Al 396.153Radial Recovery = 104.81%								
As 188.979†	-94.2	-3.6010	ug/L	3.05620	-3.6010	ppb	3.05620	84.87%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	746.4	-9.9835	ug/L	1.27043	-9.9835	ppb	1.27043	12.73%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-846.4	-1.3167	ug/L	0.10732	-1.3167	ppb	0.10732	8.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-478.7	-0.2048	ug/L	0.02319	-0.2048	ppb	0.02319	11.32%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†     292615.9      490330 ug/L        4976.7      490330 ppb        4976.7   1.01%
   QC value within limits for Ca 317.933Radial  Recovery = 98.07%
Cd 226.502†             1752.4     -2.6147 ug/L       0.13567     -2.6147 ppb       0.13567   5.19%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               52.2     -1.7491 ug/L       0.33421     -1.7491 ppb       0.33421  19.11%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -188.3      1.5561 ug/L       0.21472      1.5561 ppb       0.21472  13.80%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -3029.1      0.7884 ug/L       0.11705      0.7884 ppb       0.11705  14.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     21766.4      191260 ug/L         829.5      191260 ppb         829.5   0.43%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.63%
K 766.490 Radial†       -124.2     -8.8918 ug/L       3.15589     -8.8918 ppb       3.15589  35.49%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        15468.8      494430 ug/L        1657.1      494430 ppb        1657.1   0.34%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.89%
Mn 257.610†            -1164.4      8.6375 ug/L       0.07379      8.6375 ppb       0.07379   0.85%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -297.6     -0.3127 ug/L       0.23467     -0.3127 ppb       0.23467  75.05%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        23.9      7.2102 ug/L      13.76491      7.2102 ppb      13.76491 190.91%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              156.4      3.4321 ug/L       0.37090      3.4321 ppb       0.37090  10.81%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                40.5      43.563 ug/L        5.0252      43.563 ppb        5.0252  11.54%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -1094.3     -11.504 ug/L        0.9561     -11.504 ppb        0.9561   8.31%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          45.3     -51.889 ug/L        9.3800     -51.889 ppb        9.3800  18.08%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               46.4      1.1439 ug/L       3.01962      1.1439 ppb       3.01962 263.98%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -1309.3     -0.0001 ug/L       4.76989     -0.0001 ppb       4.76989 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               50.6      2.0024 ug/L       0.97379      2.0024 ppb       0.97379  48.63%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -471.0     -15.920 ug/L        1.7286     -15.920 ppb        1.7286  10.86%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              515.5     -0.7707 ug/L       0.27428     -0.7707 ppb       0.27428  35.59%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           -13799.2      3.6767 ug/L       0.52321      3.6767 ppb       0.52321  14.23%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -71.7     -5.4448 ug/L       2.56579     -5.4448 ppb       2.56579  47.12%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               505.0     -9.0456 ug/L       5.28573     -9.0456 ppb       5.28573  58.43%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              2437.2     -2.8497 ug/L       0.28341     -2.8497 ppb       0.28341   9.95%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             3209.4     -0.4634 ug/L       0.20471     -0.4634 ppb       0.20471  44.18%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -27.1     -0.4692 ug/L       2.07277     -0.4692 ppb       2.07277 441.76%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 1/6/2010 11:04:33
Data Type: Reprocessed on 1/6/2010 11:55:35

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	779127.1	779127.1	87.877	%			11:06:59
1	Sc Radial	4454.4	4454.4	95.4	%			11:06:31
1	Y 371.029	656369.1	656369.1	86.165	%			11:06:59
1	Y RADIAL	4717.2	4717.2	95.63	%			11:06:31
1	Ag 328.068†	44700.6	50354.8	271.57	ug/L	271.57	ppb	11:06:59
1	Al 396.153Radial†	542854.2	568858.2	504510	ug/L	504510	ppb	11:06:26
1	As 188.979†	1186.0	1383.0	515.64	ug/L	515.64	ppb	11:07:04
1	B 249.677†	22144.7	25865.5	508.09	ug/L	508.09	ppb	11:06:59
1	Ba 233.527†	59785.3	68025.3	501.76	ug/L	501.76	ppb	11:06:59
1	Be 313.107†	638883.9	731370.9	248.18	ug/L	248.18	ppb	11:06:59
1	Ca 317.933Radial†	269440.5	282321.5	473080	ug/L	473080	ppb	11:06:26
1	Cd 226.502†	44934.9	51372.1	466.00	ug/L	466.00	ppb	11:07:04
1	Co 228.616†	21546.0	24602.3	460.14	ug/L	460.14	ppb	11:07:04
1	Cr 267.716†	41176.3	46752.7	472.42	ug/L	472.42	ppb	11:07:04
1	Cu 324.752†	172238.2	187999.8	565.85	ug/L	565.85	ppb	11:06:59
1	Fe 238.204 Radial†	19710.1	20639.4	181370	ug/L	181370	ppb	11:06:31
1	K 766.490 Radial†	28330.7	26349.7	5238.8	ug/L	5238.8	ppb	11:06:26
1	Mg 279.077 IEC†	14049.6	14720.3	470520	ug/L	470520	ppb	11:06:31
1	Mn 257.610†	413808.4	470377.9	504.94	ug/L	504.94	ppb	11:06:59
1	Mo 202.031†	6539.3	7421.5	482.32	ug/L	482.32	ppb	11:07:04
1	Na 589.592 Radial†	15160.6	17636.2	5327.5	ug/L	5327.5	ppb	11:06:31
1	Ni 231.604†	18561.1	20996.6	460.63	ug/L	460.63	ppb	11:07:04
1	P 214.914†	4828.3	5245.8	2498.8	ug/L	2498.8	ppb	11:07:04
1	Pb 220.353†	3022.4	3517.1	463.40	ug/L	463.40	ppb	11:07:04
1	S 181.975 Axial†	2097.2	2326.6	2530.2	ug/L	2530.2	ppb	11:07:04
1	Sb 206.836†	1597.3	1780.5	526.98	ug/L	526.98	ppb	11:07:04
1	Se 196.026†	3327.7	3820.0	2592.9	ug/L	2592.9	ppb	11:07:04
1	Si 251.611†	162299.0	184072.0	5269.3	ug/L	5269.3	ppb	11:06:59
1	Sn 189.927†	2534.0	2880.2	477.84	ug/L	477.84	ppb	11:07:04
1	Sr 421.552†	64399.4	67465.1	489.57	ug/L	489.57	ppb	11:06:26
1	Ti 334.940†	273893.2	313494.8	521.66	ug/L	521.66	ppb	11:06:59
1	Tl 190.801†	1424.0	1673.8	474.24	ug/L	474.24	ppb	11:07:04
1	U 409.014†	13388.8	17904.5	508.55	ug/L	508.55	ppb	11:06:59
1	V 292.402†	71020.6	82619.9	508.63	ug/L	508.63	ppb	11:06:59
1	Zn 213.857†	55652.9	62498.7	484.76	ug/L	484.76	ppb	11:07:04
1	SiO2†	160345.8	181829.9	11138	ug/L	11138	ppb	11:07:31
2	Sc 361.383	782551.7	782551.7	88.263	%			11:07:10
2	Sc Radial	4310.7	4310.7	92.4	%			11:06:41
2	Y 371.029	659175.2	659175.2	86.534	%			11:07:10
2	Y RADIAL	4569.4	4569.4	92.63	%			11:06:41
2	Ag 328.068†	44733.5	50169.5	271.97	ug/L	271.97	ppb	11:07:10
2	Al 396.153Radial†	524292.2	567719.1	503500	ug/L	503500	ppb	11:06:36
2	As 188.979†	1190.8	1382.6	516.02	ug/L	516.02	ppb	11:07:15
2	B 249.677†	22208.8	25827.8	506.84	ug/L	506.84	ppb	11:07:10
2	Ba 233.527†	59710.0	67642.3	499.05	ug/L	499.05	ppb	11:07:10
2	Be 313.107†	638538.1	727797.6	246.96	ug/L	246.96	ppb	11:07:10
2	Ca 317.933Radial†	260192.9	281718.8	472070	ug/L	472070	ppb	11:06:36
2	Cd 226.502†	45076.0	51308.3	465.04	ug/L	465.04	ppb	11:07:15
2	Co 228.616†	21732.6	24706.4	462.06	ug/L	462.06	ppb	11:07:15
2	Cr 267.716†	41362.7	46758.8	472.54	ug/L	472.54	ppb	11:07:15
2	Cu 324.752†	172268.0	187175.8	563.59	ug/L	563.59	ppb	11:07:10
2	Fe 238.204 Radial†	19447.4	21043.4	184920	ug/L	184920	ppb	11:06:41
2	K 766.490 Radial†	27448.6	26384.1	5245.5	ug/L	5245.5	ppb	11:06:36
2	Mg 279.077 IEC†	13853.6	14998.7	479420	ug/L	479420	ppb	11:06:41
2	Mn 257.610†	413221.7	467652.3	502.25	ug/L	502.25	ppb	11:07:10
2	Mo 202.031†	6615.2	7474.9	486.01	ug/L	486.01	ppb	11:07:15
2	Na 589.592 Radial†	14817.5	17794.2	5375.3	ug/L	5375.3	ppb	11:06:41
2	Ni 231.604†	18668.1	21025.4	461.26	ug/L	461.26	ppb	11:07:15

2	P 214.914†	4811.7	5202.9	2474.9 ug/L	2474.9 ppb	11:07:15
2	Pb 220.353†	3019.9	3499.2	461.03 ug/L	461.03 ppb	11:07:15
2	S 181.975 Axial†	2128.5	2351.6	2558.6 ug/L	2558.6 ppb	11:07:15
2	Sb 206.836†	1622.3	1800.9	533.15 ug/L	533.15 ppb	11:07:15
2	Se 196.026†	3297.2	3768.9	2577.5 ug/L	2577.5 ppb	11:07:15
2	Si 251.611†	162156.2	183101.9	5241.4 ug/L	5241.4 ppb	11:07:10
2	Sn 189.927†	2516.2	2847.4	472.92 ug/L	472.92 ppb	11:07:15
2	Sr 421.552†	62261.9	67399.9	489.10 ug/L	489.10 ppb	11:06:36
2	Ti 334.940†	273884.8	312121.3	519.44 ug/L	519.44 ppb	11:07:10
2	Tl 190.801†	1448.5	1694.4	479.82 ug/L	479.82 ppb	11:07:15
2	U 409.014†	13235.3	17663.9	500.95 ug/L	500.95 ppb	11:07:10
2	V 292.402†	70906.1	82136.5	505.30 ug/L	505.30 ppb	11:07:10
2	Zn 213.857†	56331.5	62990.4	488.31 ug/L	488.31 ppb	11:07:15
2	SiO2†	158587.0	179038.7	10966 ug/L	10966 ppb	11:07:36
3	Sc 361.383	775657.2	775657.2	87.486 %		11:07:21
3	Sc Radial	4197.2	4197.2	89.9 %		11:06:52
3	Y 371.029	654106.3	654106.3	85.868 %		11:07:21
3	Y RADIAL	4453.0	4453.0	90.27 %		11:06:52
3	Ag 328.068†	44493.8	50346.0	274.39 ug/L	274.39 ppb	11:07:21
3	Al 396.153Radial†	539688.6	600202.2	532310 ug/L	532310 ppb	11:06:47
3	As 188.979†	1204.7	1410.4	526.71 ug/L	526.71 ppb	11:07:26
3	B 249.677†	22061.1	25882.7	507.15 ug/L	507.15 ppb	11:07:21
3	Ba 233.527†	59567.4	68080.6	502.41 ug/L	502.41 ppb	11:07:21
3	Be 313.107†	635782.5	731078.2	248.08 ug/L	248.08 ppb	11:07:21
3	Ca 317.933Radial†	267429.2	297389.5	498320 ug/L	498320 ppb	11:06:47
3	Cd 226.502†	45046.1	51728.0	468.39 ug/L	468.39 ppb	11:07:26
3	Co 228.616†	21698.9	24886.7	465.37 ug/L	465.37 ppb	11:07:26
3	Cr 267.716†	41445.2	47269.6	477.77 ug/L	477.77 ppb	11:07:26
3	Cu 324.752†	171054.1	187523.2	564.93 ug/L	564.93 ppb	11:07:21
3	Fe 238.204 Radial†	19560.0	21738.4	191030 ug/L	191030 ppb	11:06:52
3	K 766.490 Radial†	28206.6	28031.2	5573.4 ug/L	5573.4 ppb	11:06:47
3	Mg 279.077 IEC†	13930.5	15490.2	495130 ug/L	495130 ppb	11:06:52
3	Mn 257.610†	411428.3	469763.8	504.79 ug/L	504.79 ppb	11:07:21
3	Mo 202.031†	6618.5	7545.3	491.00 ug/L	491.00 ppb	11:07:26
3	Na 589.592 Radial†	15048.5	18485.2	5584.0 ug/L	5584.0 ppb	11:06:52
3	Ni 231.604†	18707.8	21258.7	466.38 ug/L	466.38 ppb	11:07:26
3	P 214.914†	4808.0	5247.2	2501.4 ug/L	2501.4 ppb	11:07:26
3	Pb 220.353†	2979.3	3483.2	465.35 ug/L	465.35 ppb	11:07:26
3	S 181.975 Axial†	2148.9	2396.4	2603.6 ug/L	2603.6 ppb	11:07:26
3	Sb 206.836†	1590.7	1781.1	526.70 ug/L	526.70 ppb	11:07:26
3	Se 196.026†	3309.9	3816.6	2625.3 ug/L	2625.3 ppb	11:07:26
3	Si 251.611†	161445.6	183922.7	5264.7 ug/L	5264.7 ppb	11:07:21
3	Sn 189.927†	2557.6	2920.1	486.49 ug/L	486.49 ppb	11:07:26
3	Sr 421.552†	64130.0	71301.5	517.43 ug/L	517.43 ppb	11:06:47
3	Ti 334.940†	272561.7	313367.1	522.78 ug/L	522.78 ppb	11:07:21
3	Tl 190.801†	1491.8	1758.5	498.12 ug/L	498.12 ppb	11:07:26
3	U 409.014†	13359.2	17938.9	508.35 ug/L	508.35 ppb	11:07:21
3	V 292.402†	70827.0	82760.2	508.71 ug/L	508.71 ppb	11:07:21
3	Zn 213.857†	56121.4	63317.5	490.12 ug/L	490.12 ppb	11:07:26
3	SiO2†	161991.9	184527.6	11303 ug/L	11303 ppb	11:07:42

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	779112.0	87.875	%	0.3888				0.44%
Sc Radial	4320.8	92.6	%	2.76				2.98%
Y 371.029	656550.2	86.189	%	0.3333				0.39%
Y RADIAL	4579.9	92.84	%	2.683				2.89%
Ag 328.068†	50290.1	272.65	ug/L	1.527	272.65	ppb	1.527	0.56%
QC value within limits for Ag 328.068 Recovery = 109.06%								
Al 396.153Radial†	578926.5	513440	ug/L	16349.5	513440	ppb	16349.5	3.18%
QC value within limits for Al 396.153Radial Recovery = 102.69%								
As 188.979†	1392.0	519.46	ug/L	6.281	519.46	ppb	6.281	1.21%
QC value within limits for As 188.979 Recovery = 103.89%								
B 249.677†	25858.6	507.36	ug/L	0.652	507.36	ppb	0.652	0.13%
QC value within limits for B 249.677 Recovery = 101.47%								
Ba 233.527†	67916.1	501.07	ug/L	1.782	501.07	ppb	1.782	0.36%
QC value within limits for Ba 233.527 Recovery = 100.21%								
Be 313.107†	730082.2	247.74	ug/L	0.673	247.74	ppb	0.673	0.27%
QC value within limits for Be 313.107 Recovery = 99.10%								

Ca 317.933Radial†	287143.3	481160 ug/L	14877.5	481160 ppb	14877.5	3.09%
QC value within limits for Ca 317.933Radial Recovery = 96.23%						
Cd 226.502†	51469.4	466.48 ug/L	1.723	466.48 ppb	1.723	0.37%
QC value within limits for Cd 226.502 Recovery = 93.30%						
Co 228.616†	24731.8	462.53 ug/L	2.645	462.53 ppb	2.645	0.57%
QC value within limits for Co 228.616 Recovery = 92.51%						
Cr 267.716†	46927.0	474.24 ug/L	3.056	474.24 ppb	3.056	0.64%
QC value within limits for Cr 267.716 Recovery = 94.85%						
Cu 324.752†	187566.3	564.79 ug/L	1.136	564.79 ppb	1.136	0.20%
QC value within limits for Cu 324.752 Recovery = 112.96%						
Fe 238.204 Radial†	21140.4	185770 ug/L	4884.4	185770 ppb	4884.4	2.63%
QC value within limits for Fe 238.204 Radial Recovery = 92.89%						
K 766.490 Radial†	26921.7	5352.6 ug/L	191.29	5352.6 ppb	191.29	3.57%
QC value within limits for K 766.490 Radial Recovery = 107.05%						
Mg 279.077 IEC†	15069.7	481690 ug/L	12459.7	481690 ppb	12459.7	2.59%
QC value within limits for Mg 279.077 IEC Recovery = 96.34%						
Mn 257.610†	469264.6	503.99 ug/L	1.510	503.99 ppb	1.510	0.30%
QC value within limits for Mn 257.610 Recovery = 100.80%						
Mo 202.031†	7480.6	486.44 ug/L	4.356	486.44 ppb	4.356	0.90%
QC value within limits for Mo 202.031 Recovery = 97.29%						
Na 589.592 Radial†	17971.9	5428.9 ug/L	136.40	5428.9 ppb	136.40	2.51%
QC value within limits for Na 589.592 Radial Recovery = 108.58%						
Ni 231.604†	21093.6	462.76 ug/L	3.154	462.76 ppb	3.154	0.68%
QC value within limits for Ni 231.604 Recovery = 92.55%						
P 214.914†	5232.0	2491.7 ug/L	14.56	2491.7 ppb	14.56	0.58%
QC value within limits for P 214.914 Recovery = 99.67%						
Pb 220.353†	3499.9	463.26 ug/L	2.165	463.26 ppb	2.165	0.47%
QC value within limits for Pb 220.353 Recovery = 92.65%						
S 181.975 Axial†	2358.2	2564.1 ug/L	37.04	2564.1 ppb	37.04	1.44%
QC value within limits for S 181.975 Axial Recovery = 102.57%						
Sb 206.836†	1787.5	528.94 ug/L	3.648	528.94 ppb	3.648	0.69%
QC value within limits for Sb 206.836 Recovery = 105.79%						
Se 196.026†	3801.8	2598.5 ug/L	24.38	2598.5 ppb	24.38	0.94%
QC value within limits for Se 196.026 Recovery = 103.94%						
Si 251.611†	183698.9	5258.4 ug/L	14.95	5258.4 ppb	14.95	0.28%
QC value within limits for Si 251.611 Recovery = 105.17%						
Sn 189.927†	2882.5	479.08 ug/L	6.874	479.08 ppb	6.874	1.43%
QC value within limits for Sn 189.927 Recovery = 95.82%						
Sr 421.552†	68722.2	498.70 ug/L	16.219	498.70 ppb	16.219	3.25%
QC value within limits for Sr 421.552 Recovery = 99.74%						
Ti 334.940†	312994.4	521.29 ug/L	1.701	521.29 ppb	1.701	0.33%
QC value within limits for Ti 334.940 Recovery = 104.26%						
Tl 190.801†	1708.9	484.06 ug/L	12.491	484.06 ppb	12.491	2.58%
QC value within limits for Tl 190.801 Recovery = 96.81%						
U 409.014†	17835.8	505.95 ug/L	4.330	505.95 ppb	4.330	0.86%
QC value within limits for U 409.014 Recovery = 101.19%						
V 292.402†	82505.5	507.55 ug/L	1.950	507.55 ppb	1.950	0.38%
QC value within limits for V 292.402 Recovery = 101.51%						
Zn 213.857†	62935.5	487.73 ug/L	2.725	487.73 ppb	2.725	0.56%
QC value within limits for Zn 213.857 Recovery = 97.55%						
SiO2†	181798.7	11136 ug/L	168.2	11136 ppb	168.2	1.51%
QC value within limits for SiO2 Recovery = 104.12%						

All analyte(s) passed QC.

Sequence No.: 11
Sample ID: LR1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 1/6/2010 11:09:52
Data Type: Reprocessed on 1/6/2010 11:55:36

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	757190.3	757190.3	85.403	%			11:12:18
1	Sc Radial	4069.5	4069.5	87.2	%			11:11:50
1	Y 371.029	639627.2	639627.2	83.967	%			11:12:18
1	Y RADIAL	4307.8	4307.8	87.33	%			11:11:50
1	Ag 328.068†	-25114.7	-29919.6	3.2743	ug/L	3.2743	ppb	11:12:18
1	Al 396.153Radial†	510246.3	585257.6	519080	ug/L	519080	ppb	11:11:45
1	As 188.979†	-226.9	-232.3	-11.379	ug/L	-11.379	ppb	11:12:38
1	B 249.677†	930.6	1755.6	-23.986	ug/L	-23.986	ppb	11:12:18
1	Ba 233.527†	-1963.0	-2306.0	-5.3258	ug/L	-5.3258	ppb	11:12:38
1	Be 313.107†	-10999.8	-8528.4	-2.9251	ug/L	-2.9251	ppb	11:12:18
1	Ca 317.933Radial†	255686.9	293249.5	491390	ug/L	491390	ppb	11:11:45
1	Cd 226.502†	3401.1	4220.8	-5.5906	ug/L	-5.5906	ppb	11:12:38
1	Co 228.616†	183.2	298.5	-0.9238	ug/L	-0.9238	ppb	11:12:38
1	Cr 267.716†	44.1	-52.4	2.8440	ug/L	2.8440	ppb	11:12:38
1	Cu 324.752†	557.6	-7346.1	1.3885	ug/L	1.3885	ppb	11:12:18
1	Fe 238.204 Radial†	45017.9	51619.7	453570	ug/L	453570	ppb	11:11:50
1	K 766.490 Radial†	3444.5	613.9	-90.690	ug/L	-90.690	ppb	11:11:45
1	Mg 279.077 IEC†	13372.4	15335.9	489960	ug/L	489960	ppb	11:11:50
1	Mn 257.610†	-26979.7	-32107.5	2.2724	ug/L	2.2724	ppb	11:12:18
1	Mo 202.031†	-544.9	-658.0	2.2543	ug/L	2.2543	ppb	11:12:18
1	Na 589.592 Radial†	1546860.8	1775933.7	536470	ug/L	536470	ppb	11:11:45
1	Ni 231.604†	305.8	233.0	5.1111	ug/L	5.1111	ppb	11:12:38
1	P 214.914†	643.8	505.2	58.913	ug/L	58.913	ppb	11:12:38
1	Pb 220.353†	-720.0	-765.3	-0.1074	ug/L	-0.1074	ppb	11:12:38
1	S 181.975 Axial†	91.6	47.4	-48.518	ug/L	-48.518	ppb	11:12:38
1	Sb 206.836†	64.7	38.7	2.6602	ug/L	2.6602	ppb	11:12:38
1	Se 196.026†	-2673.6	-3097.3	-109.20	ug/L	-109.20	ppb	11:12:38
1	Si 251.611†	-394.3	-1078.3	-30.022	ug/L	-30.022	ppb	11:12:38
1	Sn 189.927†	-428.8	-505.5	-17.410	ug/L	-17.410	ppb	11:12:38
1	Sr 421.552†	654.3	734.5	0.8228	ug/L	0.8228	ppb	11:11:50
1	Ti 334.940†	-13218.6	-13660.6	-2.6075	ug/L	-2.6075	ppb	11:12:18
1	Tl 190.801†	-112.2	-78.0	-7.5455	ug/L	-7.5455	ppb	11:12:38
1	U 409.014†	424989.0	500297.0	14816	ug/L	14816	ppb	11:12:18
1	V 292.402†	1846.6	3964.0	-4.7330	ug/L	-4.7330	ppb	11:12:18
1	Zn 213.857†	6309.6	6556.3	13.614	ug/L	13.614	ppb	11:12:38
1	SiO2†	-467.6	-1183.5	-70.679	ug/L	-70.679	ppb	11:13:35
2	Sc 361.383	747932.4	747932.4	84.359	%			11:12:44
2	Sc Radial	4162.5	4162.5	89.2	%			11:12:00
2	Y 371.029	631266.1	631266.1	82.870	%			11:12:44
2	Y RADIAL	4406.2	4406.2	89.32	%			11:12:00
2	Ag 328.068†	-24896.5	-30025.0	2.7957	ug/L	2.7957	ppb	11:12:44
2	Al 396.153Radial†	513742.4	576099.8	510960	ug/L	510960	ppb	11:11:55
2	As 188.979†	-230.4	-239.8	-14.056	ug/L	-14.056	ppb	11:13:04
2	B 249.677†	877.2	1705.6	-24.970	ug/L	-24.970	ppb	11:12:44
2	Ba 233.527†	-1965.8	-2337.8	-5.5667	ug/L	-5.5667	ppb	11:13:04
2	Be 313.107†	-10971.6	-8654.3	-2.9684	ug/L	-2.9684	ppb	11:12:44
2	Ca 317.933Radial†	256858.8	288010.2	482610	ug/L	482610	ppb	11:11:55
2	Cd 226.502†	3363.5	4225.5	-5.5103	ug/L	-5.5103	ppb	11:13:04
2	Co 228.616†	225.5	351.3	0.0756	ug/L	0.0756	ppb	11:13:04
2	Cr 267.716†	11.6	-90.3	2.4440	ug/L	2.4440	ppb	11:13:04
2	Cu 324.752†	691.5	-7179.3	1.8641	ug/L	1.8641	ppb	11:12:44
2	Fe 238.204 Radial†	46010.4	51578.8	453210	ug/L	453210	ppb	11:12:00
2	K 766.490 Radial†	3371.7	444.0	-120.26	ug/L	-120.26	ppb	11:11:55
2	Mg 279.077 IEC†	13639.9	15293.2	488600	ug/L	488600	ppb	11:12:00
2	Mn 257.610†	-26627.6	-32081.1	2.2899	ug/L	2.2899	ppb	11:12:44
2	Mo 202.031†	-533.2	-652.0	2.5949	ug/L	2.5949	ppb	11:12:44
2	Na 589.592 Radial†	1553333.5	1743544.6	526690	ug/L	526690	ppb	11:11:55
2	Ni 231.604†	303.3	234.4	5.1418	ug/L	5.1418	ppb	11:13:04

2	P 214.914†	620.8	487.3	47.656	ug/L	47.656 ppb	11:13:04
2	Pb 220.353†	-807.2	-879.1	-13.693	ug/L	-13.693 ppb	11:13:04
2	S 181.975 Axial†	115.8	77.4	-13.020	ug/L	-13.020 ppb	11:13:04
2	Sb 206.836†	71.1	47.2	5.4744	ug/L	5.4744 ppb	11:13:04
2	Se 196.026†	-2683.9	-3148.3	-137.67	ug/L	-137.67 ppb	11:13:04
2	Si 251.611†	-403.6	-1095.0	-30.500	ug/L	-30.500 ppb	11:13:04
2	Sn 189.927†	-418.3	-499.2	-17.395	ug/L	-17.395 ppb	11:13:04
2	Sr 421.552†	692.7	760.8	1.0971	ug/L	1.0971 ppb	11:12:00
2	Ti 334.940†	-13250.4	-13889.9	-3.4473	ug/L	-3.4473 ppb	11:12:44
2	Tl 190.801†	-129.1	-99.7	-13.698	ug/L	-13.698 ppb	11:13:04
2	U 409.014†	420957.2	501677.2	14857	ug/L	14857 ppb	11:12:44
2	V 292.402†	1835.9	3978.1	-4.5353	ug/L	-4.5353 ppb	11:12:44
2	Zn 213.857†	6334.6	6677.4	14.674	ug/L	14.674 ppb	11:13:04
2	SiO2†	-393.1	-1102.1	-65.675	ug/L	-65.675 ppb	11:13:40
3	Sc 361.383	755624.4	755624.4	85.226	%		11:13:10
3	Sc Radial	4203.6	4203.6	90.1	%		11:12:11
3	Y 371.029	637710.9	637710.9	83.716	%		11:13:10
3	Y RADIAL	4489.0	4489.0	91.00	%		11:12:11
3	Ag 328.068†	-24986.3	-29829.9	2.9540	ug/L	2.9540 ppb	11:13:10
3	Al 396.153Radial†	523842.6	581687.2	515910	ug/L	515910 ppb	11:12:06
3	As 188.979†	-238.1	-245.9	-16.509	ug/L	-16.509 ppb	11:13:30
3	B 249.677†	950.0	1780.5	-23.167	ug/L	-23.167 ppb	11:13:10
3	Ba 233.527†	-1897.4	-2233.8	-4.8555	ug/L	-4.8555 ppb	11:13:30
3	Be 313.107†	-10926.8	-8469.5	-2.9039	ug/L	-2.9039 ppb	11:13:10
3	Ca 317.933Radial†	261514.2	290365.6	486560	ug/L	486560 ppb	11:12:06
3	Cd 226.502†	3385.8	4211.0	-5.4515	ug/L	-5.4515 ppb	11:13:30
3	Co 228.616†	222.9	345.5	-0.0118	ug/L	-0.0118 ppb	11:13:30
3	Cr 267.716†	23.1	-76.9	2.5547	ug/L	2.5547 ppb	11:13:30
3	Cu 324.752†	722.6	-7151.2	1.8478	ug/L	1.8478 ppb	11:13:10
3	Fe 238.204 Radial†	46264.7	51357.2	451270	ug/L	451270 ppb	11:12:11
3	K 766.490 Radial†	3543.4	597.7	-92.508	ug/L	-92.508 ppb	11:12:06
3	Mg 279.077 IEC†	13726.0	15239.3	486870	ug/L	486870 ppb	11:12:11
3	Mn 257.610†	-26793.1	-31954.0	2.2617	ug/L	2.2617 ppb	11:13:10
3	Mo 202.031†	-566.7	-684.9	0.3482	ug/L	0.3482 ppb	11:13:10
3	Na 589.592 Radial†	1588770.3	1765877.1	533430	ug/L	533430 ppb	11:12:06
3	Ni 231.604†	321.7	252.4	5.5371	ug/L	5.5371 ppb	11:13:30
3	P 214.914†	641.1	503.6	58.829	ug/L	58.829 ppb	11:13:30
3	Pb 220.353†	-758.3	-811.9	-5.4667	ug/L	-5.4667 ppb	11:13:30
3	S 181.975 Axial†	105.2	63.5	-29.686	ug/L	-29.686 ppb	11:13:30
3	Sb 206.836†	58.4	31.4	0.5209	ug/L	0.5209 ppb	11:13:30
3	Se 196.026†	-2673.4	-3103.6	-119.97	ug/L	-119.97 ppb	11:13:30
3	Si 251.611†	-378.8	-1061.0	-29.495	ug/L	-29.495 ppb	11:13:30
3	Sn 189.927†	-428.5	-506.2	-18.044	ug/L	-18.044 ppb	11:13:30
3	Sr 421.552†	720.4	783.9	1.2299	ug/L	1.2299 ppb	11:12:11
3	Ti 334.940†	-12836.6	-13244.5	-2.2045	ug/L	-2.2045 ppb	11:13:10
3	Tl 190.801†	-138.0	-108.6	-15.974	ug/L	-15.974 ppb	11:13:30
3	U 409.014†	424448.1	500693.5	14828	ug/L	14828 ppb	11:13:10
3	V 292.402†	1986.5	4132.7	-3.3948	ug/L	-3.3948 ppb	11:13:10
3	Zn 213.857†	6330.3	6595.9	14.161	ug/L	14.161 ppb	11:13:30
3	SiO2†	-463.9	-1180.3	-70.415	ug/L	-70.415 ppb	11:13:45

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	753582.4	84.996	%	0.5589				0.66%
Sc Radial	4145.2	88.8	%	1.47				1.66%
Y 371.029	636201.4	83.518	%	0.5750				0.69%
Y RADIAL	4401.0	89.22	%	1.839				2.06%
Ag 328.068†	-29924.8	3.0080	ug/L	0.24381	3.0080	ppb	0.24381	8.11%
Al 396.153Radial†	581014.9	515320	ug/L	4093.8	515320	ppb	4093.8	0.79%
QC value within limits for Al 396.153Radial Recovery = 103.06%								
As 188.979†	-239.3	-13.981	ug/L	2.5661	-13.981	ppb	2.5661	18.35%
B 249.677†	1747.2	-24.041	ug/L	0.9025	-24.041	ppb	0.9025	3.75%
Ba 233.527†	-2292.5	-5.2493	ug/L	0.36169	-5.2493	ppb	0.36169	6.89%
Be 313.107†	-8550.7	-2.9325	ug/L	0.03287	-2.9325	ppb	0.03287	1.12%
Ca 317.933Radial†	290541.7	486850	ug/L	4397.1	486850	ppb	4397.1	0.90%
QC value within limits for Ca 317.933Radial Recovery = 97.37%								
Cd 226.502†	4219.1	-5.5175	ug/L	0.06982	-5.5175	ppb	0.06982	1.27%
Co 228.616†	331.8	-0.2866	ug/L	0.55349	-0.2866	ppb	0.55349	193.09%
Cr 267.716†	-73.2	2.6142	ug/L	0.20654	2.6142	ppb	0.20654	7.90%

Cu 324.752†	-7225.5	1.7001	ug/L	0.26998	1.7001	ppb	0.26998	15.88%
Fe 238.204 Radial†	51518.6	452680	ug/L	1240.8	452680	ppb	1240.8	0.27%
QC value within limits for Fe 238.204 Radial Recovery = 90.54%								
K 766.490 Radial†	551.9	-101.15	ug/L	16.572	-101.15	ppb	16.572	16.38%
Mg 279.077 IEC†	15289.5	488480	ug/L	1547.1	488480	ppb	1547.1	0.32%
QC value within limits for Mg 279.077 IEC Recovery = 97.70%								
Mn 257.610†	-32047.5	2.2747	ug/L	0.01421	2.2747	ppb	0.01421	0.62%
Mo 202.031†	-665.0	1.7325	ug/L	1.21083	1.7325	ppb	1.21083	69.89%
Na 589.592 Radial†	1761785.1	532200	ug/L	5007.8	532200	ppb	5007.8	0.94%
QC value within limits for Na 589.592 Radial Recovery = 106.44%								
Ni 231.604†	239.9	5.2633	ug/L	0.23757	5.2633	ppb	0.23757	4.51%
P 214.914†	498.7	55.133	ug/L	6.4747	55.133	ppb	6.4747	11.74%
Pb 220.353†	-818.8	-6.4224	ug/L	6.84309	-6.4224	ppb	6.84309	106.55%
S 181.975 Axial†	62.8	-30.408	ug/L	17.7598	-30.408	ppb	17.7598	58.40%
Sb 206.836†	39.1	2.8852	ug/L	2.48438	2.8852	ppb	2.48438	86.11%
Se 196.026†	-3116.4	-122.28	ug/L	14.375	-122.28	ppb	14.375	11.76%
Si 251.611†	-1078.1	-30.006	ug/L	0.5029	-30.006	ppb	0.5029	1.68%
Sn 189.927†	-503.7	-17.617	ug/L	0.3704	-17.617	ppb	0.3704	2.10%
Sr 421.552†	759.7	1.0499	ug/L	0.20764	1.0499	ppb	0.20764	19.78%
Ti 334.940†	-13598.3	-2.7531	ug/L	0.63406	-2.7531	ppb	0.63406	23.03%
Tl 190.801†	-95.4	-12.406	ug/L	4.3601	-12.406	ppb	4.3601	35.15%
U 409.014†	500889.3	14834	ug/L	21.1	14834	ppb	21.1	0.14%
QC value within limits for U 409.014 Recovery = 98.89%								
V 292.402†	4024.9	-4.2210	ug/L	0.72230	-4.2210	ppb	0.72230	17.11%
Zn 213.857†	6609.9	14.150	ug/L	0.5302	14.150	ppb	0.5302	3.75%
SiO2†	-1155.3	-68.923	ug/L	2.8164	-68.923	ppb	2.8164	4.09%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 1/6/2010 11:15:55
Data Type: Reprocessed on 1/6/2010 11:55:37

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	855143.5	855143.5	96.451	%			11:19:29
1	Sc Radial	4532.6	4532.6	97.1	%			11:17:52
1	Y 371.029	719027.8	719027.8	94.391	%			11:19:29
1	Y RADIAL	4745.9	4745.9	96.21	%			11:17:52
1	Ag 328.068†	-7632.1	-8425.2	3.0535	ug/L	3.0535	ppb	11:19:35
1	Al 396.153Radial†	509.7	551.6	74.517	ug/L	74.517	ppb	11:17:52
1	As 188.979†	27888.2	28947.8	10215	ug/L	10215	ppb	11:19:35
1	B 249.677†	235236.7	244558.4	5018.7	ug/L	5018.7	ppb	11:19:29
1	Ba 233.527†	1893929.7	1963611.5	14341	ug/L	14341	ppb	11:19:29
1	Be 313.107†	8254992.6	8563096.1	2913.7	ug/L	2913.7	ppb	11:19:23
1	Ca 317.933Radial†	29.4	17.7	29.623	ug/L	29.623	ppb	11:18:12
1	Cd 226.502†	994256.1	1031079.3	9717.3	ug/L	9717.3	ppb	11:19:29
1	Co 228.616†	483605.0	501483.8	9429.4	ug/L	9429.4	ppb	11:19:35
1	Cr 267.716†	2313418.7	2398439.6	24048	ug/L	24048	ppb	11:19:29
1	Cu 324.752†	6593986.3	6828620.7	20217	ug/L	20217	ppb	11:19:23
1	Fe 238.204 Radial†	-18.7	-33.1	6.3256	ug/L	6.3256	ppb	11:18:12
1	K 766.490 Radial†	1422221.0	1461231.3	289970	ug/L	289970	ppb	11:17:47
1	Mg 279.077 IEC†	0.5	-1.2	158.74	ug/L	158.74	ppb	11:18:12
1	Mn 257.610†	8734405.4	9055281.5	9541.1	ug/L	9541.1	ppb	11:19:23
1	Mo 202.031†	149158.2	154626.7	9686.9	ug/L	9686.9	ppb	11:19:35
1	Na 589.592 Radial†	-946.1	775.9	234.37	ug/L	234.37	ppb	11:17:52
1	Ni 231.604†	433885.0	449725.2	9866.6	ug/L	9866.6	ppb	11:19:29
1	P 214.914†	35103.9	36147.0	14522	ug/L	14522	ppb	11:19:35
1	Pb 220.353†	225385.4	233756.5	24224	ug/L	24224	ppb	11:19:35
1	S 181.975 Axial†	43781.0	45332.1	51232	ug/L	51232	ppb	11:19:35
1	Sb 206.836†	33207.8	34392.6	10072	ug/L	10072	ppb	11:19:35
1	Se 196.026†	19445.2	20194.0	10364	ug/L	10364	ppb	11:19:35
1	Si 251.611†	1634255.5	1693773.3	48292	ug/L	48292	ppb	11:19:29
1	Sn 189.927†	67140.8	69607.9	10296	ug/L	10296	ppb	11:19:35
1	Sr 421.552†	1283469.1	1321668.7	9676.8	ug/L	9676.8	ppb	11:17:47
1	Ti 334.940†	6020668.2	6244023.1	9898.3	ug/L	9898.3	ppb	11:19:23
1	Tl 190.801†	34515.2	35838.6	9851.2	ug/L	9851.2	ppb	11:19:35
1	U 409.014†	-1575.9	1034.8	-15.619	ug/L	-15.619	ppb	11:19:35
1	V 292.402†	1537981.1	1596374.8	10140	ug/L	10140	ppb	11:19:29
1	Zn 213.857†	1663348.7	1723721.9	14086	ug/L	14086	ppb	11:19:29
1	SiO2†	1661507.8	1722008.9	105060	ug/L	105060	ppb	11:20:22
2	Sc 361.383	852719.5	852719.5	96.178	%			11:19:49
2	Sc Radial	4559.9	4559.9	97.7	%			11:18:22
2	Y 371.029	717455.3	717455.3	94.184	%			11:19:49
2	Y RADIAL	4799.5	4799.5	97.30	%			11:18:22
2	Ag 328.068†	-7539.2	-8351.2	3.3458	ug/L	3.3458	ppb	11:19:54
2	Al 396.153Radial†	529.3	568.5	92.510	ug/L	92.510	ppb	11:18:22
2	As 188.979†	27510.7	28637.5	10106	ug/L	10106	ppb	11:19:54
2	B 249.677†	234879.8	244880.5	5025.5	ug/L	5025.5	ppb	11:19:49
2	Ba 233.527†	1886474.8	1961442.2	14325	ug/L	14325	ppb	11:19:49
2	Be 313.107†	8221762.2	8552874.5	2910.2	ug/L	2910.2	ppb	11:19:43
2	Ca 317.933Radial†	27.6	15.7	26.326	ug/L	26.326	ppb	11:18:43
2	Cd 226.502†	990836.2	1030453.7	9711.4	ug/L	9711.4	ppb	11:19:49
2	Co 228.616†	479786.7	498939.0	9381.4	ug/L	9381.4	ppb	11:19:54
2	Cr 267.716†	2306239.8	2397793.6	24042	ug/L	24042	ppb	11:19:49
2	Cu 324.752†	6556528.0	6809107.7	20159	ug/L	20159	ppb	11:19:43
2	Fe 238.204 Radial†	-21.7	-36.1	-20.921	ug/L	-20.921	ppb	11:18:43
2	K 766.490 Radial†	1435740.8	1466307.3	290980	ug/L	290980	ppb	11:18:17
2	Mg 279.077 IEC†	-6.1	-7.8	-55.841	ug/L	-55.841	ppb	11:18:43
2	Mn 257.610†	8690389.9	9035259.1	9520.0	ug/L	9520.0	ppb	11:19:43
2	Mo 202.031†	147648.8	153497.0	9616.1	ug/L	9616.1	ppb	11:19:54
2	Na 589.592 Radial†	-1022.3	703.7	212.57	ug/L	212.57	ppb	11:18:22
2	Ni 231.604†	432587.9	449655.4	9865.1	ug/L	9865.1	ppb	11:19:49

2	P 214.914†	34621.3	35748.7	14337	ug/L	14337 ppb	11:19:54
2	Pb 220.353†	223665.0	232632.0	24107	ug/L	24107 ppb	11:19:54
2	S 181.975 Axial†	43159.2	44814.6	50647	ug/L	50647 ppb	11:19:54
2	Sb 206.836†	32939.0	34211.0	10015	ug/L	10015 ppb	11:19:54
2	Se 196.026†	19215.5	20012.5	10271	ug/L	10271 ppb	11:19:54
2	Si 251.611†	1630656.6	1694847.8	48323	ug/L	48323 ppb	11:19:49
2	Sn 189.927†	66660.2	69306.1	10251	ug/L	10251 ppb	11:19:54
2	Sr 421.552†	1293913.8	1324452.0	9697.2	ug/L	9697.2 ppb	11:18:17
2	Ti 334.940†	5988704.5	6228533.4	9873.7	ug/L	9873.7 ppb	11:19:43
2	Tl 190.801†	34232.4	35646.3	9798.7	ug/L	9798.7 ppb	11:19:54
2	U 409.014†	-1574.4	1031.7	-15.694	ug/L	-15.694 ppb	11:19:54
2	V 292.402†	1532941.9	1595668.1	10134	ug/L	10134 ppb	11:19:49
2	Zn 213.857†	1658548.0	1723632.6	14085	ug/L	14085 ppb	11:19:49
2	SiO2†	1655031.2	1720171.7	104950	ug/L	104950 ppb	11:20:29
3	Sc 361.383	857798.8	857798.8	96.750	%		11:20:09
3	Sc Radial	4449.0	4449.0	95.3	%		11:18:53
3	Y 371.029	721549.0	721549.0	94.722	%		11:20:09
3	Y RADIAL	4659.1	4659.1	94.45	%		11:18:53
3	Ag 328.068†	-7591.1	-8358.3	3.2878	ug/L	3.2878 ppb	11:20:14
3	Al 396.153Radial†	549.6	603.3	121.01	ug/L	121.01 ppb	11:18:53
3	As 188.979†	27884.6	28854.6	10183	ug/L	10183 ppb	11:20:14
3	B 249.677†	236512.7	245122.2	5030.4	ug/L	5030.4 ppb	11:20:09
3	Ba 233.527†	1897433.0	1961154.3	14323	ug/L	14323 ppb	11:20:09
3	Be 313.107†	8335052.1	8619351.9	2932.9	ug/L	2932.9 ppb	11:20:02
3	Ca 317.933Radial†	32.4	21.4	35.884	ug/L	35.884 ppb	11:19:13
3	Cd 226.502†	994033.2	1027658.0	9685.1	ug/L	9685.1 ppb	11:20:09
3	Co 228.616†	484126.0	500470.3	9410.2	ug/L	9410.2 ppb	11:20:14
3	Cr 267.716†	2315895.2	2393574.8	24000	ug/L	24000 ppb	11:20:09
3	Cu 324.752†	6658558.7	6874199.8	20352	ug/L	20352 ppb	11:20:02
3	Fe 238.204 Radial†	-19.0	-33.8	0.0691	ug/L	0.0691 ppb	11:19:13
3	K 766.490 Radial†	1453148.7	1521214.6	301880	ug/L	301880 ppb	11:18:48
3	Mg 279.077 IEC†	-5.4	-7.3	-36.118	ug/L	-36.118 ppb	11:19:13
3	Mn 257.610†	8805381.2	9100610.0	9588.8	ug/L	9588.8 ppb	11:20:02
3	Mo 202.031†	149382.4	154379.7	9671.4	ug/L	9671.4 ppb	11:20:14
3	Na 589.592 Radial†	-1048.5	650.1	196.38	ug/L	196.38 ppb	11:18:53
3	Ni 231.604†	434754.6	449231.6	9855.7	ug/L	9855.7 ppb	11:20:09
3	P 214.914†	35004.0	35931.1	14395	ug/L	14395 ppb	11:20:14
3	Pb 220.353†	225554.5	233207.9	24167	ug/L	24167 ppb	11:20:14
3	S 181.975 Axial†	43866.1	45279.5	51173	ug/L	51173 ppb	11:20:14
3	Sb 206.836†	33327.1	34409.3	10077	ug/L	10077 ppb	11:20:14
3	Se 196.026†	19458.9	20145.7	10339	ug/L	10339 ppb	11:20:14
3	Si 251.611†	1642305.9	1696849.3	48376	ug/L	48376 ppb	11:20:09
3	Sn 189.927†	67120.8	69371.7	10261	ug/L	10261 ppb	11:20:14
3	Sr 421.552†	1310935.2	1375334.0	10070	ug/L	10070 ppb	11:18:48
3	Ti 334.940†	6074754.7	6280604.0	9956.3	ug/L	9956.3 ppb	11:20:02
3	Tl 190.801†	34481.6	35693.1	9812.4	ug/L	9812.4 ppb	11:20:14
3	U 409.014†	-1695.1	916.7	-19.035	ug/L	-19.035 ppb	11:20:14
3	V 292.402†	1540635.9	1594182.9	10126	ug/L	10126 ppb	11:20:09
3	Zn 213.857†	1666183.8	1721314.0	14066	ug/L	14066 ppb	11:20:09
3	SiO2†	1649310.9	1704070.0	103950	ug/L	103950 ppb	11:20:36

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	855220.6	96.460	%	0.2865				0.30%
Sc Radial	4513.8	96.7	%	1.24				1.28%
Y 371.029	719344.0	94.432	%	0.2711				0.29%
Y RADIAL	4734.8	95.98	%	1.437				1.50%
Ag 328.068†	-8378.2	3.2290	ug/L	0.15473	3.2290	ppb	0.15473	4.79%
Al 396.153Radial†	574.5	96.012	ug/L	23.4424	96.012	ppb	23.4424	24.42%
As 188.979†	28813.3	10168	ug/L	55.9	10168	ppb	55.9	0.55%
QC value within limits for As 188.979 Recovery = 101.68%								
B 249.677†	244853.7	5024.9	ug/L	5.86	5024.9	ppb	5.86	0.12%
QC value within limits for B 249.677 Recovery = 100.50%								
Ba 233.527†	1962069.3	14329	ug/L	9.8	14329	ppb	9.8	0.07%
QC value within limits for Ba 233.527 Recovery = 95.53%								
Be 313.107†	8578440.8	2918.9	ug/L	12.18	2918.9	ppb	12.18	0.42%
QC value within limits for Be 313.107 Recovery = 97.30%								
Ca 317.933Radial†	18.3	30.611	ug/L	4.8545	30.611	ppb	4.8545	15.86%
Cd 226.502†	1029730.3	9704.6	ug/L	17.16	9704.6	ppb	17.16	0.18%

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   QC value within limits for Cd 226.502  Recovery = 97.05%
Co 228.616†          500297.7      9407.0 ug/L        24.15      9407.0 ppb         24.15   0.26%
   QC value within limits for Co 228.616  Recovery = 94.07%
Cr 267.716†         2396602.7       24030 ug/L         26.5       24030 ppb          26.5   0.11%
   QC value within limits for Cr 267.716  Recovery = 96.12%
Cu 324.752†         6837309.4       20243 ug/L         98.9       20243 ppb          98.9   0.49%
   QC value within limits for Cu 324.752  Recovery = 101.21%
Fe 238.204 Radial†      -34.3     -4.8420 ug/L      14.27150     -4.8420 ppb      14.27150 294.75%
K 766.490 Radial†   1482917.8      294280 ug/L       6602.4      294280 ppb        6602.4   2.24%
   QC value within limits for K 766.490 Radial  Recovery = 98.09%
Mg 279.077 IEC†         -5.4      22.261 ug/L      118.6075      22.261 ppb      118.6075 532.79%
Mn 257.610†         9063716.9      9549.9 ug/L        35.28      9549.9 ppb         35.28   0.37%
   QC value within limits for Mn 257.610  Recovery = 95.50%
Mo 202.031†          154167.8      9658.1 ug/L        37.21      9658.1 ppb         37.21   0.39%
   QC value within limits for Mo 202.031  Recovery = 96.58%
Na 589.592 Radial†      709.9      214.44 ug/L       19.065      214.44 ppb        19.065   8.89%
Ni 231.604†          449537.4      9862.5 ug/L         5.86      9862.5 ppb          5.86   0.06%
   QC value within limits for Ni 231.604  Recovery = 98.62%
P 214.914†            35942.3       14418 ug/L         94.9       14418 ppb          94.9   0.66%
   QC value within limits for P 214.914  Recovery = 96.12%
Pb 220.353†          233198.8       24166 ug/L         58.3       24166 ppb          58.3   0.24%
   QC value within limits for Pb 220.353  Recovery = 96.66%
S 181.975 Axial†      45142.1       51017 ug/L        321.9       51017 ppb         321.9   0.63%
   QC value within limits for S 181.975 Axial  Recovery = 102.03%
Sb 206.836†           34337.6       10055 ug/L         34.1       10055 ppb          34.1   0.34%
   QC value within limits for Sb 206.836  Recovery = 100.55%
Se 196.026†           20117.4       10325 ug/L         48.3       10325 ppb          48.3   0.47%
   QC value within limits for Se 196.026  Recovery = 103.25%
Si 251.611†         1695156.8       48330 ug/L         42.8       48330 ppb          42.8   0.09%
   QC value within limits for Si 251.611  Recovery = 96.66%
Sn 189.927†           69428.6       10269 ug/L         23.5       10269 ppb          23.5   0.23%
   QC value within limits for Sn 189.927  Recovery = 102.69%
Sr 421.552†         1340484.9      9814.6 ug/L       221.20      9814.6 ppb        221.20   2.25%
   QC value within limits for Sr 421.552  Recovery = 98.15%
Ti 334.940†         6251053.5      9909.4 ug/L        42.43      9909.4 ppb         42.43   0.43%
   QC value within limits for Ti 334.940  Recovery = 99.09%
Tl 190.801†           35726.0      9820.7 ug/L        27.28      9820.7 ppb         27.28   0.28%
   QC value within limits for Tl 190.801  Recovery = 98.21%
U 409.014†              994.4    -16.782 ug/L       1.9508     -16.782 ppb        1.9508  11.62%
V 292.402†          1595408.6       10133 ug/L          7.1       10133 ppb           7.1   0.07%
   QC value within limits for V 292.402  Recovery = 101.33%
Zn 213.857†         1722889.5       14079 ug/L         11.3       14079 ppb          11.3   0.08%
   QC value within limits for Zn 213.857  Recovery = 93.86%
SiO2†               1715416.9      104650 ug/L        611.0      104650 ppb         611.0   0.58%
   QC value within limits for SiO2  Recovery = 97.81%
All analyte(s) passed QC.
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Sequence No.: 15
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/6/2010 11:40:15
Data Type: Reprocessed on 1/6/2010 11:55:41

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	880607.9	880607.9	99.323	%			11:43:26
1	Sc Radial	4577.3	4577.3	98.1	%			11:42:07
1	Y 371.029	748816.6	748816.6	98.301	%			11:43:26
1	Y RADIAL	4817.1	4817.1	97.65	%			11:42:07
1	Ag 328.068†	113728.4	113991.1	492.76	ug/L	492.76	ppb	11:43:26
1	Al 396.153Radial†	5558.8	5695.1	5030.1	ug/L	5030.1	ppb	11:42:07
1	As 188.979†	1375.6	1418.4	500.79	ug/L	500.79	ppb	11:43:46
1	B 249.677†	23608.4	24435.1	501.95	ug/L	501.95	ppb	11:43:26
1	Ba 233.527†	66877.5	67325.8	492.14	ug/L	492.14	ppb	11:43:26
1	Be 313.107†	1452961.5	1467215.3	496.89	ug/L	496.89	ppb	11:43:26
1	Ca 317.933Radial†	2960.6	3006.4	5037.8	ug/L	5037.8	ppb	11:42:27
1	Cd 226.502†	51692.2	52282.8	492.23	ug/L	492.23	ppb	11:43:26
1	Co 228.616†	25597.3	25855.7	486.28	ug/L	486.28	ppb	11:43:46
1	Cr 267.716†	48593.4	48820.6	489.95	ug/L	489.95	ppb	11:43:26
1	Cu 324.752†	172560.6	165737.6	490.94	ug/L	490.94	ppb	11:43:26
1	Fe 238.204 Radial†	564.9	562.2	4955.2	ug/L	4955.2	ppb	11:42:27
1	K 766.490 Radial†	28441.4	25665.3	5086.2	ug/L	5086.2	ppb	11:42:07
1	Mg 279.077 IEC†	156.3	157.8	5049.8	ug/L	5049.8	ppb	11:42:27
1	Mn 257.610†	467681.0	470352.0	495.98	ug/L	495.98	ppb	11:43:26
1	Mo 202.031†	7795.0	7828.2	490.89	ug/L	490.89	ppb	11:43:46
1	Na 589.592 Radial†	29691.6	32027.0	9674.7	ug/L	9674.7	ppb	11:42:07
1	Ni 231.604†	22169.3	22195.3	486.93	ug/L	486.93	ppb	11:43:46
1	P 214.914†	5231.3	5018.4	2372.3	ug/L	2372.3	ppb	11:43:46
1	Pb 220.353†	4637.7	4747.1	493.32	ug/L	493.32	ppb	11:43:46
1	S 181.975 Axial†	914.5	860.8	971.85	ug/L	971.85	ppb	11:43:46
1	Sb 206.836†	1672.4	1646.7	498.92	ug/L	498.92	ppb	11:43:46
1	Se 196.026†	933.3	972.9	515.40	ug/L	515.40	ppb	11:43:46
1	Si 251.611†	85554.9	85521.4	2441.6	ug/L	2441.6	ppb	11:43:26
1	Sn 189.927†	3296.8	3315.9	491.05	ug/L	491.05	ppb	11:43:46
1	Sr 421.552†	65973.1	67257.6	492.39	ug/L	492.39	ppb	11:42:07
1	Ti 334.940†	309958.2	313888.0	497.89	ug/L	497.89	ppb	11:43:26
1	Tl 190.801†	1738.9	1804.1	496.11	ug/L	496.11	ppb	11:43:46
1	U 409.014†	13104.2	15862.3	469.99	ug/L	469.99	ppb	11:43:26
1	V 292.402†	75644.0	77961.4	495.96	ug/L	495.96	ppb	11:43:26
1	Zn 213.857†	60403.7	59983.7	489.07	ug/L	489.07	ppb	11:43:26
1	SiO2†	84375.4	84314.4	5150.3	ug/L	5150.3	ppb	11:44:46
2	Sc 361.383	881660.6	881660.6	99.442	%			11:43:54
2	Sc Radial	4591.0	4591.0	98.4	%			11:42:32
2	Y 371.029	749459.3	749459.3	98.386	%			11:43:54
2	Y RADIAL	4873.5	4873.5	98.80	%			11:42:32
2	Ag 328.068†	113707.1	113833.1	492.09	ug/L	492.09	ppb	11:43:54
2	Al 396.153Radial†	5586.7	5706.6	5040.2	ug/L	5040.2	ppb	11:42:32
2	As 188.979†	1370.8	1411.9	498.49	ug/L	498.49	ppb	11:44:14
2	B 249.677†	23565.3	24363.4	500.46	ug/L	500.46	ppb	11:43:54
2	Ba 233.527†	67254.5	67624.5	494.32	ug/L	494.32	ppb	11:43:54
2	Be 313.107†	1456068.8	1468593.5	497.35	ug/L	497.35	ppb	11:43:54
2	Ca 317.933Radial†	2992.2	3029.6	5076.6	ug/L	5076.6	ppb	11:42:52
2	Cd 226.502†	52002.1	52532.3	494.58	ug/L	494.58	ppb	11:43:54
2	Co 228.616†	25716.5	25944.8	487.96	ug/L	487.96	ppb	11:44:14
2	Cr 267.716†	48785.1	48954.9	491.30	ug/L	491.30	ppb	11:43:54
2	Cu 324.752†	172808.2	165779.2	491.06	ug/L	491.06	ppb	11:43:54
2	Fe 238.204 Radial†	569.0	564.6	4976.5	ug/L	4976.5	ppb	11:42:52
2	K 766.490 Radial†	28423.4	25560.6	5065.4	ug/L	5065.4	ppb	11:42:32
2	Mg 279.077 IEC†	156.7	157.7	5047.7	ug/L	5047.7	ppb	11:42:52
2	Mn 257.610†	469471.6	471590.5	497.29	ug/L	497.29	ppb	11:43:54
2	Mo 202.031†	7836.0	7860.0	492.88	ug/L	492.88	ppb	11:44:14
2	Na 589.592 Radial†	29774.4	32020.9	9672.9	ug/L	9672.9	ppb	11:42:32
2	Ni 231.604†	22217.9	22217.6	487.42	ug/L	487.42	ppb	11:44:14

2	P 214.914†	5265.1	5046.1	2385.8 ug/L	2385.8 ppb	11:44:14
2	Pb 220.353†	4670.1	4774.1	496.12 ug/L	496.12 ppb	11:44:14
2	S 181.975 Axial†	924.2	869.5	981.68 ug/L	981.68 ppb	11:44:14
2	Sb 206.836†	1678.1	1650.4	500.03 ug/L	500.03 ppb	11:44:14
2	Se 196.026†	922.1	960.5	509.14 ug/L	509.14 ppb	11:44:14
2	Si 251.611†	85834.1	85699.4	2446.6 ug/L	2446.6 ppb	11:43:54
2	Sn 189.927†	3300.3	3315.5	490.99 ug/L	490.99 ppb	11:44:14
2	Sr 421.552†	66332.7	67422.8	493.60 ug/L	493.60 ppb	11:42:32
2	Ti 334.940†	310595.5	314156.3	498.32 ug/L	498.32 ppb	11:43:54
2	Tl 190.801†	1745.4	1808.6	497.34 ug/L	497.34 ppb	11:44:14
2	U 409.014†	12971.1	15712.6	465.54 ug/L	465.54 ppb	11:43:54
2	V 292.402†	75758.6	77985.7	496.13 ug/L	496.13 ppb	11:43:54
2	Zn 213.857†	60678.4	60187.3	490.74 ug/L	490.74 ppb	11:43:54
2	SiO2†	85279.4	85122.1	5199.8 ug/L	5199.8 ppb	11:44:52
3	Sc 361.383	875525.0	875525.0	98.750 %		11:44:21
3	Sc Radial	4595.9	4595.9	98.5 %		11:42:57
3	Y 371.029	743592.4	743592.4	97.615 %		11:44:21
3	Y RADIAL	4837.2	4837.2	98.06 %		11:42:57
3	Ag 328.068†	113388.1	114311.3	494.11 ug/L	494.11 ppb	11:44:21
3	Al 396.153Radial†	5602.4	5716.4	5048.8 ug/L	5048.8 ppb	11:42:57
3	As 188.979†	1373.1	1423.9	502.68 ug/L	502.68 ppb	11:44:41
3	B 249.677†	23651.1	24616.4	505.68 ug/L	505.68 ppb	11:44:21
3	Ba 233.527†	66854.7	67693.6	494.82 ug/L	494.82 ppb	11:44:21
3	Be 313.107†	1447710.5	1470390.7	497.96 ug/L	497.96 ppb	11:44:21
3	Ca 317.933Radial†	2982.6	3016.6	5054.7 ug/L	5054.7 ppb	11:43:17
3	Cd 226.502†	51693.2	52586.0	495.10 ug/L	495.10 ppb	11:44:21
3	Co 228.616†	25676.6	26085.7	490.61 ug/L	490.61 ppb	11:44:41
3	Cr 267.716†	48536.4	49046.9	492.21 ug/L	492.21 ppb	11:44:21
3	Cu 324.752†	171989.4	166167.9	492.21 ug/L	492.21 ppb	11:44:21
3	Fe 238.204 Radial†	558.0	552.8	4873.3 ug/L	4873.3 ppb	11:43:17
3	K 766.490 Radial†	28341.4	25446.5	5042.8 ug/L	5042.8 ppb	11:42:57
3	Mg 279.077 IEC†	160.4	161.3	5161.7 ug/L	5161.7 ppb	11:43:17
3	Mn 257.610†	467425.0	472826.5	498.58 ug/L	498.58 ppb	11:44:21
3	Mo 202.031†	7819.0	7898.1	495.26 ug/L	495.26 ppb	11:44:41
3	Na 589.592 Radial†	29641.6	31853.8	9622.4 ug/L	9622.4 ppb	11:42:57
3	Ni 231.604†	22160.8	22316.3	489.58 ug/L	489.58 ppb	11:44:41
3	P 214.914†	5238.5	5056.3	2390.7 ug/L	2390.7 ppb	11:44:41
3	Pb 220.353†	4658.3	4795.0	498.31 ug/L	498.31 ppb	11:44:41
3	S 181.975 Axial†	919.0	870.7	983.04 ug/L	983.04 ppb	11:44:41
3	Sb 206.836†	1680.5	1664.7	504.38 ug/L	504.38 ppb	11:44:41
3	Se 196.026†	919.7	964.6	510.91 ug/L	510.91 ppb	11:44:41
3	Si 251.611†	85447.2	85912.4	2452.7 ug/L	2452.7 ppb	11:44:21
3	Sn 189.927†	3298.3	3336.7	494.12 ug/L	494.12 ppb	11:44:41
3	Sr 421.552†	66374.7	67393.4	493.39 ug/L	493.39 ppb	11:42:57
3	Ti 334.940†	309182.0	314913.7	499.52 ug/L	499.52 ppb	11:44:21
3	Tl 190.801†	1756.6	1832.2	503.78 ug/L	503.78 ppb	11:44:41
3	U 409.014†	13124.0	15958.8	472.87 ug/L	472.87 ppb	11:44:21
3	V 292.402†	75255.1	78009.7	496.34 ug/L	496.34 ppb	11:44:21
3	Zn 213.857†	60325.0	60257.1	491.30 ug/L	491.30 ppb	11:44:21
3	SiO2†	84657.8	85093.6	5198.0 ug/L	5198.0 ppb	11:44:57

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	879264.5	99.172	%	0.3701				0.37%
Sc Radial	4588.1	98.3	%	0.21				0.21%
Y 371.029	747289.4	98.101	%	0.4224				0.43%
Y RADIAL	4842.6	98.17	%	0.580				0.59%
Ag 328.068†	114045.2	492.99	ug/L	1.026	492.99	ppb	1.026	0.21%
QC value within limits for Ag 328.068 Recovery = 98.60%								
Al 396.153Radial†	5706.0	5039.7	ug/L	9.37	5039.7	ppb	9.37	0.19%
QC value within limits for Al 396.153Radial Recovery = 100.79%								
As 188.979†	1418.1	500.65	ug/L	2.096	500.65	ppb	2.096	0.42%
QC value within limits for As 188.979 Recovery = 100.13%								
B 249.677†	24471.6	502.70	ug/L	2.691	502.70	ppb	2.691	0.54%
QC value within limits for B 249.677 Recovery = 100.54%								
Ba 233.527†	67548.0	493.76	ug/L	1.425	493.76	ppb	1.425	0.29%
QC value within limits for Ba 233.527 Recovery = 98.75%								
Be 313.107†	1468733.2	497.40	ug/L	0.540	497.40	ppb	0.540	0.11%
QC value within limits for Be 313.107 Recovery = 99.48%								

Ca 317.933Radial†	3017.5	5056.4 ug/L	19.44	5056.4 ppb	19.44	0.38%
QC value within limits for Ca 317.933Radial Recovery = 101.13%						
Cd 226.502†	52467.1	493.97 ug/L	1.527	493.97 ppb	1.527	0.31%
QC value within limits for Cd 226.502 Recovery = 98.79%						
Co 228.616†	25962.1	488.28 ug/L	2.184	488.28 ppb	2.184	0.45%
QC value within limits for Co 228.616 Recovery = 97.66%						
Cr 267.716†	48940.8	491.15 ug/L	1.140	491.15 ppb	1.140	0.23%
QC value within limits for Cr 267.716 Recovery = 98.23%						
Cu 324.752†	165894.9	491.40 ug/L	0.700	491.40 ppb	0.700	0.14%
QC value within limits for Cu 324.752 Recovery = 98.28%						
Fe 238.204 Radial†	559.9	4935.0 ug/L	54.52	4935.0 ppb	54.52	1.10%
QC value within limits for Fe 238.204 Radial Recovery = 98.70%						
K 766.490 Radial†	25557.5	5064.8 ug/L	21.73	5064.8 ppb	21.73	0.43%
QC value within limits for K 766.490 Radial Recovery = 101.30%						
Mg 279.077 IEC†	158.9	5086.4 ug/L	65.22	5086.4 ppb	65.22	1.28%
QC value within limits for Mg 279.077 IEC Recovery = 101.73%						
Mn 257.610†	471589.6	497.29 ug/L	1.298	497.29 ppb	1.298	0.26%
QC value within limits for Mn 257.610 Recovery = 99.46%						
Mo 202.031†	7862.1	493.01 ug/L	2.187	493.01 ppb	2.187	0.44%
QC value within limits for Mo 202.031 Recovery = 98.60%						
Na 589.592 Radial†	31967.3	9656.6 ug/L	29.69	9656.6 ppb	29.69	0.31%
QC value within limits for Na 589.592 Radial Recovery = 96.57%						
Ni 231.604†	22243.0	487.98 ug/L	1.412	487.98 ppb	1.412	0.29%
QC value within limits for Ni 231.604 Recovery = 97.60%						
P 214.914†	5040.3	2383.0 ug/L	9.52	2383.0 ppb	9.52	0.40%
QC value within limits for P 214.914 Recovery = 95.32%						
Pb 220.353†	4772.1	495.91 ug/L	2.500	495.91 ppb	2.500	0.50%
QC value within limits for Pb 220.353 Recovery = 99.18%						
S 181.975 Axial†	867.0	978.86 ug/L	6.106	978.86 ppb	6.106	0.62%
QC value within limits for S 181.975 Axial Recovery = 97.89%						
Sb 206.836†	1653.9	501.11 ug/L	2.885	501.11 ppb	2.885	0.58%
QC value within limits for Sb 206.836 Recovery = 100.22%						
Se 196.026†	966.0	511.82 ug/L	3.226	511.82 ppb	3.226	0.63%
QC value within limits for Se 196.026 Recovery = 102.36%						
Si 251.611†	85711.1	2447.0 ug/L	5.58	2447.0 ppb	5.58	0.23%
QC value within limits for Si 251.611 Recovery = 97.88%						
Sn 189.927†	3322.7	492.06 ug/L	1.792	492.06 ppb	1.792	0.36%
QC value within limits for Sn 189.927 Recovery = 98.41%						
Sr 421.552†	67357.9	493.13 ug/L	0.645	493.13 ppb	0.645	0.13%
QC value within limits for Sr 421.552 Recovery = 98.63%						
Ti 334.940†	314319.4	498.58 ug/L	0.843	498.58 ppb	0.843	0.17%
QC value within limits for Ti 334.940 Recovery = 99.72%						
Tl 190.801†	1815.0	499.07 ug/L	4.120	499.07 ppb	4.120	0.83%
QC value within limits for Tl 190.801 Recovery = 99.81%						
U 409.014†	15844.6	469.47 ug/L	3.694	469.47 ppb	3.694	0.79%
QC value within limits for U 409.014 Recovery = 93.89%						
V 292.402†	77985.6	496.14 ug/L	0.192	496.14 ppb	0.192	0.04%
QC value within limits for V 292.402 Recovery = 99.23%						
Zn 213.857†	60142.7	490.37 ug/L	1.160	490.37 ppb	1.160	0.24%
QC value within limits for Zn 213.857 Recovery = 98.07%						
SiO2†	84843.4	5182.7 ug/L	28.07	5182.7 ppb	28.07	0.54%
QC value within limits for SiO2 Recovery = 96.92%						

All analyte(s) passed QC.

Sequence No.: 16
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/6/2010 11:47:06
Data Type: Reprocessed on 1/6/2010 11:55:42

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	853425.9	853425.9	96.257	%			11:50:16
1	Sc Radial	4639.9	4639.9	99.4	%			11:48:59
1	Y 371.029	734376.1	734376.1	96.406	%			11:50:16
1	Y RADIAL	4904.2	4904.2	99.42	%			11:48:59
1	Ag 328.068†	487.6	-5.7	-0.0153	ug/L	-0.0153	ppb	11:50:16
1	Al 396.153Radial†	0.7	27.4	24.328	ug/L	24.328	ppb	11:48:59
1	As 188.979†	-20.0	12.6	4.4098	ug/L	4.4098	ppb	11:50:36
1	B 249.677†	138.9	810.2	16.706	ug/L	16.706	ppb	11:50:16
1	Ba 233.527†	2.4	-5.0	-0.0370	ug/L	-0.0370	ppb	11:50:36
1	Be 313.107†	-4320.5	-137.0	-0.0464	ug/L	-0.0464	ppb	11:50:16
1	Ca 317.933Radial†	11.6	-0.9	-1.5441	ug/L	-1.5441	ppb	11:49:19
1	Cd 226.502†	-209.8	20.4	0.1926	ug/L	0.1926	ppb	11:50:36
1	Co 228.616†	-98.8	-18.6	-0.3493	ug/L	-0.3493	ppb	11:50:36
1	Cr 267.716†	104.7	4.7	0.0501	ug/L	0.0501	ppb	11:50:16
1	Cu 324.752†	8033.0	346.3	1.0255	ug/L	1.0255	ppb	11:50:16
1	Fe 238.204 Radial†	14.2	0.4	3.1714	ug/L	3.1714	ppb	11:49:19
1	K 766.490 Radial†	3805.5	491.5	97.544	ug/L	97.544	ppb	11:48:59
1	Mg 279.077 IEC†	0.6	-1.0	-33.016	ug/L	-33.016	ppb	11:49:19
1	Mn 257.610†	560.9	66.3	0.0707	ug/L	0.0707	ppb	11:50:16
1	Mo 202.031†	24.3	5.3	0.3311	ug/L	0.3311	ppb	11:50:36
1	Na 589.592 Radial†	-1577.7	163.0	49.249	ug/L	49.249	ppb	11:48:59
1	Ni 231.604†	151.8	32.7	0.7176	ug/L	0.7176	ppb	11:50:36
1	P 214.914†	245.6	6.6	3.0816	ug/L	3.0816	ppb	11:50:36
1	Pb 220.353†	-75.7	-0.9	-0.0843	ug/L	-0.0843	ppb	11:50:36
1	S 181.975 Axial†	57.4	-0.3	-0.3460	ug/L	-0.3460	ppb	11:50:36
1	Sb 206.836†	59.7	24.9	7.4621	ug/L	7.4621	ppb	11:50:36
1	Se 196.026†	-38.5	-6.7	-3.4348	ug/L	-3.4348	ppb	11:50:36
1	Si 251.611†	660.5	69.6	1.9575	ug/L	1.9575	ppb	11:50:36
1	Sn 189.927†	6.2	3.0	0.4452	ug/L	0.4452	ppb	11:50:36
1	Sr 421.552†	31.8	16.0	0.1172	ug/L	0.1172	ppb	11:48:59
1	Ti 334.940†	-1772.5	-24.1	-0.0337	ug/L	-0.0337	ppb	11:50:16
1	Tl 190.801†	-44.0	7.7	2.1129	ug/L	2.1129	ppb	11:50:36
1	U 409.014†	-2905.4	-349.7	-10.395	ug/L	-10.395	ppb	11:50:16
1	V 292.402†	-1761.0	-27.7	-0.1902	ug/L	-0.1902	ppb	11:50:16
1	Zn 213.857†	885.4	88.2	0.7201	ug/L	0.7201	ppb	11:50:36
1	SiO2†	691.8	82.7	4.9899	ug/L	4.9899	ppb	11:51:32
2	Sc 361.383	869080.1	869080.1	98.023	%			11:50:41
2	Sc Radial	4769.4	4769.4	102	%			11:49:24
2	Y 371.029	747962.0	747962.0	98.189	%			11:50:41
2	Y RADIAL	5060.7	5060.7	102.6	%			11:49:24
2	Ag 328.068†	532.8	31.3	0.1537	ug/L	0.1537	ppb	11:50:41
2	Al 396.153Radial†	-14.9	12.1	10.712	ug/L	10.712	ppb	11:49:24
2	As 188.979†	-17.2	15.8	5.5311	ug/L	5.5311	ppb	11:51:01
2	B 249.677†	127.0	795.4	16.399	ug/L	16.399	ppb	11:50:41
2	Ba 233.527†	23.8	16.8	0.1239	ug/L	0.1239	ppb	11:51:01
2	Be 313.107†	-4341.0	-77.1	-0.0263	ug/L	-0.0263	ppb	11:50:41
2	Ca 317.933Radial†	15.1	2.2	3.7179	ug/L	3.7179	ppb	11:49:44
2	Cd 226.502†	-221.8	12.1	0.1116	ug/L	0.1116	ppb	11:51:01
2	Co 228.616†	-104.7	-22.9	-0.4282	ug/L	-0.4282	ppb	11:51:01
2	Cr 267.716†	85.2	-17.2	-0.1670	ug/L	-0.1670	ppb	11:50:41
2	Cu 324.752†	8191.6	357.8	1.0606	ug/L	1.0606	ppb	11:50:41
2	Fe 238.204 Radial†	17.0	2.8	24.255	ug/L	24.255	ppb	11:49:44
2	K 766.490 Radial†	3825.8	407.3	80.820	ug/L	80.820	ppb	11:49:24
2	Mg 279.077 IEC†	4.7	3.0	94.742	ug/L	94.742	ppb	11:49:44
2	Mn 257.610†	530.5	24.7	0.0267	ug/L	0.0267	ppb	11:50:41
2	Mo 202.031†	29.1	9.8	0.6168	ug/L	0.6168	ppb	11:51:01
2	Na 589.592 Radial†	-1515.3	267.2	80.710	ug/L	80.710	ppb	11:49:24
2	Ni 231.604†	126.0	3.5	0.0763	ug/L	0.0763	ppb	11:51:01

2	P 214.914†	258.5	15.2	7.2242 ug/L	7.2242 ppb	11:51:01
2	Pb 220.353†	-78.5	-2.3	-0.2359 ug/L	-0.2359 ppb	11:51:01
2	S 181.975 Axial†	57.2	-1.5	-1.6884 ug/L	-1.6884 ppb	11:51:01
2	Sb 206.836†	66.5	30.8	9.2191 ug/L	9.2191 ppb	11:51:01
2	Se 196.026†	-40.1	-7.6	-3.8284 ug/L	-3.8284 ppb	11:51:01
2	Si 251.611†	656.8	53.5	1.4953 ug/L	1.4953 ppb	11:51:01
2	Sn 189.927†	6.6	3.3	0.4884 ug/L	0.4884 ppb	11:51:01
2	Sr 421.552†	30.0	13.3	0.0976 ug/L	0.0976 ppb	11:49:24
2	Ti 334.940†	-1843.9	-63.8	-0.0958 ug/L	-0.0958 ppb	11:50:41
2	Tl 190.801†	-38.8	13.8	3.7753 ug/L	3.7753 ppb	11:51:01
2	U 409.014†	-2996.6	-388.3	-11.548 ug/L	-11.548 ppb	11:50:41
2	V 292.402†	-1708.0	59.3	0.3575 ug/L	0.3575 ppb	11:50:41
2	Zn 213.857†	895.7	82.1	0.6691 ug/L	0.6691 ppb	11:51:01
2	SiO2†	718.4	96.9	5.8610 ug/L	5.8610 ppb	11:51:37
3	Sc 361.383	855687.9	855687.9	96.512 %		11:51:07
3	Sc Radial	4706.5	4706.5	101 %		11:49:49
3	Y 371.029	736491.2	736491.2	96.683 %		11:51:07
3	Y RADIAL	4963.4	4963.4	100.6 %		11:49:49
3	Ag 328.068†	448.2	-47.9	-0.2025 ug/L	-0.2025 ppb	11:51:07
3	Al 396.153Radial†	-29.2	-2.2	-2.0198 ug/L	-2.0198 ppb	11:49:49
3	As 188.979†	-17.7	15.1	5.2772 ug/L	5.2772 ppb	11:51:27
3	B 249.677†	117.7	787.8	16.244 ug/L	16.244 ppb	11:51:07
3	Ba 233.527†	7.8	0.5	0.0028 ug/L	0.0028 ppb	11:51:27
3	Be 313.107†	-4264.9	-67.5	-0.0227 ug/L	-0.0227 ppb	11:51:07
3	Ca 317.933Radial†	14.7	2.0	3.3743 ug/L	3.3743 ppb	11:50:09
3	Cd 226.502†	-208.0	22.8	0.2144 ug/L	0.2144 ppb	11:51:27
3	Co 228.616†	-108.7	-28.6	-0.5356 ug/L	-0.5356 ppb	11:51:27
3	Cr 267.716†	93.3	-7.4	-0.0731 ug/L	-0.0731 ppb	11:51:07
3	Cu 324.752†	8026.2	317.2	0.9391 ug/L	0.9391 ppb	11:51:07
3	Fe 238.204 Radial†	14.2	0.2	1.8112 ug/L	1.8112 ppb	11:50:09
3	K 766.490 Radial†	3800.7	432.5	85.837 ug/L	85.837 ppb	11:49:49
3	Mg 279.077 IEC†	3.1	1.4	45.216 ug/L	45.216 ppb	11:50:09
3	Mn 257.610†	551.8	55.3	0.0576 ug/L	0.0576 ppb	11:51:07
3	Mo 202.031†	35.1	16.4	1.0303 ug/L	1.0303 ppb	11:51:27
3	Na 589.592 Radial†	-1580.0	183.2	55.348 ug/L	55.348 ppb	11:49:49
3	Ni 231.604†	110.5	-10.5	-0.2312 ug/L	-0.2312 ppb	11:51:27
3	P 214.914†	242.8	3.0	1.3094 ug/L	1.3094 ppb	11:51:27
3	Pb 220.353†	-101.4	-27.3	-2.8273 ug/L	-2.8273 ppb	11:51:27
3	S 181.975 Axial†	56.1	-1.7	-1.9684 ug/L	-1.9684 ppb	11:51:27
3	Sb 206.836†	52.3	17.1	5.1370 ug/L	5.1370 ppb	11:51:27
3	Se 196.026†	-37.0	-5.1	-2.5822 ug/L	-2.5822 ppb	11:51:27
3	Si 251.611†	671.7	79.4	2.2299 ug/L	2.2299 ppb	11:51:27
3	Sn 189.927†	4.4	1.2	0.1772 ug/L	0.1772 ppb	11:51:27
3	Sr 421.552†	3.4	-12.6	-0.0920 ug/L	-0.0920 ppb	11:49:49
3	Ti 334.940†	-1711.2	44.3	0.0730 ug/L	0.0730 ppb	11:51:07
3	Tl 190.801†	-46.9	4.8	1.3094 ug/L	1.3094 ppb	11:51:27
3	U 409.014†	-2756.2	-187.0	-5.5607 ug/L	-5.5607 ppb	11:51:07
3	V 292.402†	-1813.5	-77.2	-0.4800 ug/L	-0.4800 ppb	11:51:07
3	Zn 213.857†	870.5	70.2	0.5763 ug/L	0.5763 ppb	11:51:27
3	SiO2†	683.0	71.6	4.2941 ug/L	4.2941 ppb	11:51:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	859398.0	96.931	%	0.9543				0.98%
Sc Radial	4705.3	101	%	1.4				1.38%
Y 371.029	739609.8	97.093	%	0.9596				0.99%
Y RADIAL	4976.1	100.9	%	1.60				1.59%
Ag 328.068†	-7.5	-0.0214	ug/L	0.17817	-0.0214	ppb	0.17817	833.12%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.4	11.007	ug/L	13.1764	11.007	ppb	13.1764	119.71%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	14.5	5.0727	ug/L	0.58799	5.0727	ppb	0.58799	11.59%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	797.8	16.450	ug/L	0.2350	16.450	ppb	0.2350	1.43%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.1	0.0299	ug/L	0.08381	0.0299	ppb	0.08381	280.45%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-93.9	-0.0318	ug/L	0.01279	-0.0318	ppb	0.01279	40.26%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          1.1      1.8494 ug/L       2.94383      1.8494 ppb        2.94383 159.18%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†               18.4      0.1729 ug/L       0.05420      0.1729 ppb        0.05420  31.35%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -23.4     -0.4377 ug/L       0.09355     -0.4377 ppb        0.09355  21.37%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -6.6     -0.0634 ug/L       0.10892     -0.0634 ppb        0.10892 171.93%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              340.4      1.0084 ug/L       0.06251      1.0084 ppb        0.06251   6.20%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.1      9.7460 ug/L      12.58394      9.7460 ppb       12.58394 129.12%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        443.8     88.067 ug/L        8.5823     88.067 ppb         8.5823   9.75%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.1     35.647 ug/L       64.4140     35.647 ppb        64.4140 180.70%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               48.8      0.0517 ug/L       0.02260      0.0517 ppb        0.02260  43.71%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               10.5      0.6594 ug/L       0.35156      0.6594 ppb        0.35156  53.31%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       204.5     61.769 ug/L       16.6847     61.769 ppb        16.6847  27.01%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                8.5      0.1876 ug/L       0.48411      0.1876 ppb        0.48411 258.07%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 8.3      3.8717 ug/L       3.03553      3.8717 ppb        3.03553  78.40%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -10.2     -1.0492 ug/L       1.54178     -1.0492 ppb        1.54178 146.95%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.2     -1.3343 ug/L       0.86725     -1.3343 ppb        0.86725  65.00%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               24.3      7.2727 ug/L       2.04763      7.2727 ppb        2.04763  28.16%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -6.5     -3.2818 ug/L       0.63701     -3.2818 ppb        0.63701  19.41%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               67.5      1.8942 ug/L       0.37137      1.8942 ppb        0.37137  19.60%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.5      0.3703 ug/L       0.16858      0.3703 ppb        0.16858  45.53%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                5.6      0.0409 ug/L       0.11554      0.0409 ppb        0.11554 282.26%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -14.5     -0.0189 ug/L       0.08539     -0.0189 ppb        0.08539 452.74%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                8.8      2.3992 ug/L       1.25764      2.3992 ppb        1.25764  52.42%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -308.3     -9.1679 ug/L       3.17654     -9.1679 ppb        3.17654  34.65%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -15.2     -0.1042 ug/L       0.42535     -0.1042 ppb        0.42535 408.06%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               80.2      0.6552 ug/L       0.07293      0.6552 ppb        0.07293  11.13%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     83.7      5.0483 ug/L       0.78506      5.0483 ppb        0.78506  15.55%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/6/2010 13:00:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4856.0	4856.0	104	%			13:01:59
1	Y RADIAL	5121.0	5121.0	103.8	%			13:01:59
1	Al 396.153Radial†	5697.4	5503.1	4858.6	ug/L	4858.6	ppb	13:01:59
1	Ca 317.933Radial†	3059.6	2928.3	4906.9	ug/L	4906.9	ppb	13:02:19
1	Fe 238.204 Radial†	578.8	542.4	4782.6	ug/L	4782.6	ppb	13:02:19
1	K 766.490 Radial†	28302.2	23867.6	4729.0	ug/L	4729.0	ppb	13:01:59
1	Mg 279.077 IEC†	164.4	156.4	5006.5	ug/L	5006.5	ppb	13:02:19
1	Na 589.592 Radial†	31958.0	32468.4	9808.0	ug/L	9808.0	ppb	13:01:59
1	Sr 421.552†	69958.6	67228.8	492.18	ug/L	492.18	ppb	13:01:59
1	Sc 361.383	842039.2	842039.2	94.973	%			13:03:18
1	Y 371.029	715710.2	715710.2	93.955	%			13:03:18
1	Ag 328.068†	114518.0	120067.2	518.88	ug/L	518.88	ppb	13:03:18
1	As 188.979†	1365.3	1471.0	519.37	ug/L	519.37	ppb	13:03:38
1	B 249.677†	22939.8	24819.9	509.82	ug/L	509.82	ppb	13:03:18
1	Ba 233.527†	67506.8	71072.5	519.52	ug/L	519.52	ppb	13:03:18
1	Be 313.107†	1460375.3	1542026.6	522.23	ug/L	522.23	ppb	13:03:18
1	Cd 226.502†	51942.2	54929.9	517.20	ug/L	517.20	ppb	13:03:18
1	Co 228.616†	25997.5	27457.5	516.41	ug/L	516.41	ppb	13:03:38
1	Cr 267.716†	48970.5	51458.5	516.41	ug/L	516.41	ppb	13:03:18
1	Cu 324.752†	173918.9	175125.7	518.73	ug/L	518.73	ppb	13:03:18
1	Mn 257.610†	471957.9	496422.9	523.44	ug/L	523.44	ppb	13:03:18
1	Mo 202.031†	7903.7	8302.2	520.56	ug/L	520.56	ppb	13:03:38
1	Ni 231.604†	22421.0	23482.7	515.17	ug/L	515.17	ppb	13:03:38
1	P 214.914†	5291.9	5323.4	2517.0	ug/L	2517.0	ppb	13:03:38
1	Pb 220.353†	4699.1	5025.6	522.20	ug/L	522.20	ppb	13:03:38
1	S 181.975 Axial†	932.7	922.2	1041.3	ug/L	1041.3	ppb	13:03:38
1	Sb 206.836†	1677.4	1729.1	523.96	ug/L	523.96	ppb	13:03:38
1	Se 196.026†	933.1	1015.8	536.88	ug/L	536.88	ppb	13:03:38
1	Si 251.611†	86436.0	90394.6	2580.9	ug/L	2580.9	ppb	13:03:18
1	Sn 189.927†	3316.2	3488.3	516.54	ug/L	516.54	ppb	13:03:38
1	Ti 334.940†	313158.3	331551.6	525.89	ug/L	525.89	ppb	13:03:18
1	Tl 190.801†	1738.2	1883.6	517.98	ug/L	517.98	ppb	13:03:38
1	U 409.014†	13404.7	16783.0	497.34	ug/L	497.34	ppb	13:03:18
1	V 292.402†	76181.2	82015.4	521.87	ug/L	521.87	ppb	13:03:18
1	Zn 213.857†	60758.2	63142.5	514.84	ug/L	514.84	ppb	13:03:18
1	SiO2†	86463.8	90404.4	5523.1	ug/L	5523.1	ppb	13:04:39
2	Sc Radial	4805.7	4805.7	103	%			13:02:24
2	Y RADIAL	5062.2	5062.2	102.6	%			13:02:24
2	Al 396.153Radial†	5749.5	5611.0	4955.1	ug/L	4955.1	ppb	13:02:24
2	Ca 317.933Radial†	3033.6	2933.9	4916.2	ug/L	4916.2	ppb	13:02:44
2	Fe 238.204 Radial†	577.5	547.0	4822.3	ug/L	4822.3	ppb	13:02:44
2	K 766.490 Radial†	28602.5	24443.8	4843.6	ug/L	4843.6	ppb	13:02:24
2	Mg 279.077 IEC†	163.4	157.0	5027.1	ug/L	5027.1	ppb	13:02:44
2	Na 589.592 Radial†	32358.7	33178.9	10023	ug/L	10023	ppb	13:02:24
2	Sr 421.552†	70895.8	68842.4	504.00	ug/L	504.00	ppb	13:02:24
2	Sc 361.383	874072.2	874072.2	98.586	%			13:03:46
2	Y 371.029	742675.6	742675.6	97.495	%			13:03:46
2	Ag 328.068†	112980.0	114088.2	493.13	ug/L	493.13	ppb	13:03:46
2	As 188.979†	1374.2	1427.3	503.90	ug/L	503.90	ppb	13:04:06
2	B 249.677†	22603.2	23593.2	484.58	ug/L	484.58	ppb	13:03:46
2	Ba 233.527†	66392.4	67337.2	492.22	ug/L	492.22	ppb	13:03:46
2	Be 313.107†	1437065.2	1462029.4	495.14	ug/L	495.14	ppb	13:03:46
2	Cd 226.502†	50968.4	51937.9	489.00	ug/L	489.00	ppb	13:03:46
2	Co 228.616†	25908.2	26363.8	495.85	ug/L	495.85	ppb	13:04:06
2	Cr 267.716†	48182.3	48769.4	489.43	ug/L	489.43	ppb	13:03:46
2	Cu 324.752†	171662.5	166125.8	492.08	ug/L	492.08	ppb	13:03:46
2	Mn 257.610†	464646.5	470794.8	496.44	ug/L	496.44	ppb	13:03:46
2	Mo 202.031†	7877.6	7970.6	499.80	ug/L	499.80	ppb	13:04:06
2	Ni 231.604†	22351.7	22547.2	494.65	ug/L	494.65	ppb	13:04:06

2	P 214.914†	5282.5	5109.7	2416.9 ug/L	2416.9 ppb	13:04:06
2	Pb 220.353†	4655.9	4800.4	498.86 ug/L	498.86 ppb	13:04:06
2	S 181.975 Axial†	925.7	879.1	992.57 ug/L	992.57 ppb	13:04:06
2	Sb 206.836†	1683.0	1670.0	506.21 ug/L	506.21 ppb	13:04:06
2	Se 196.026†	942.5	989.3	523.42 ug/L	523.42 ppb	13:04:06
2	Si 251.611†	85091.3	85695.2	2446.4 ug/L	2446.4 ppb	13:03:46
2	Sn 189.927†	3322.8	3367.1	498.60 ug/L	498.60 ppb	13:04:06
2	Ti 334.940†	308868.6	315116.3	499.84 ug/L	499.84 ppb	13:03:46
2	Tl 190.801†	1762.5	1841.2	506.21 ug/L	506.21 ppb	13:04:06
2	U 409.014†	13158.3	16015.7	474.57 ug/L	474.57 ppb	13:03:46
2	V 292.402†	75003.8	77881.4	495.61 ug/L	495.61 ppb	13:03:46
2	Zn 213.857†	59690.5	59715.0	486.82 ug/L	486.82 ppb	13:03:46
2	SiO2†	87595.3	88215.7	5389.6 ug/L	5389.6 ppb	13:04:44
3	Sc Radial	4717.8	4717.8	101 %		13:02:50
3	Y RADIAL	4979.5	4979.5	100.9 %		13:02:50
3	Al 396.153Radial†	5700.2	5666.2	5004.1 ug/L	5004.1 ppb	13:02:50
3	Ca 317.933Radial†	3031.7	2986.8	5005.0 ug/L	5005.0 ppb	13:03:10
3	Fe 238.204 Radial†	577.5	557.4	4913.7 ug/L	4913.7 ppb	13:03:10
3	K 766.490 Radial†	28171.1	24534.3	4861.4 ug/L	4861.4 ppb	13:02:50
3	Mg 279.077 IEC†	161.3	157.9	5056.0 ug/L	5056.0 ppb	13:03:10
3	Na 589.592 Radial†	31937.2	33347.1	10073 ug/L	10073 ppb	13:02:50
3	Sr 421.552†	69652.2	68894.3	504.37 ug/L	504.37 ppb	13:02:50
3	Sc 361.383	873987.6	873987.6	98.576 %		13:04:13
3	Y 371.029	742146.3	742146.3	97.426 %		13:04:13
3	Ag 328.068†	114711.1	115855.4	500.78 ug/L	500.78 ppb	13:04:13
3	As 188.979†	1371.9	1425.1	503.21 ug/L	503.21 ppb	13:04:33
3	B 249.677†	23028.3	24026.7	493.50 ug/L	493.50 ppb	13:04:13
3	Ba 233.527†	67698.4	68668.6	501.95 ug/L	501.95 ppb	13:04:13
3	Be 313.107†	1463549.1	1489036.8	504.28 ug/L	504.28 ppb	13:04:13
3	Cd 226.502†	52057.4	53047.6	499.44 ug/L	499.44 ppb	13:04:13
3	Co 228.616†	25979.4	26438.6	497.24 ug/L	497.24 ppb	13:04:33
3	Cr 267.716†	48922.0	49524.5	497.01 ug/L	497.01 ppb	13:04:13
3	Cu 324.752†	174448.1	168968.4	500.50 ug/L	500.50 ppb	13:04:13
3	Mn 257.610†	472896.4	479209.5	505.31 ug/L	505.31 ppb	13:04:13
3	Mo 202.031†	7888.3	7982.3	500.54 ug/L	500.54 ppb	13:04:33
3	Ni 231.604†	22358.9	22556.8	494.86 ug/L	494.86 ppb	13:04:33
3	P 214.914†	5279.2	5106.9	2414.0 ug/L	2414.0 ppb	13:04:33
3	Pb 220.353†	4680.4	4825.8	501.48 ug/L	501.48 ppb	13:04:33
3	S 181.975 Axial†	927.0	880.5	994.10 ug/L	994.10 ppb	13:04:33
3	Sb 206.836†	1676.1	1663.2	503.95 ug/L	503.95 ppb	13:04:33
3	Se 196.026†	926.0	972.6	515.15 ug/L	515.15 ppb	13:04:33
3	Si 251.611†	86441.6	87073.4	2486.0 ug/L	2486.0 ppb	13:04:13
3	Sn 189.927†	3297.2	3341.5	494.83 ug/L	494.83 ppb	13:04:33
3	Ti 334.940†	313960.0	320311.5	508.08 ug/L	508.08 ppb	13:04:13
3	Tl 190.801†	1765.9	1844.8	507.28 ug/L	507.28 ppb	13:04:33
3	U 409.014†	13331.1	16192.3	479.80 ug/L	479.80 ppb	13:04:13
3	V 292.402†	76340.9	79245.2	504.17 ug/L	504.17 ppb	13:04:13
3	Zn 213.857†	60884.5	60932.1	496.81 ug/L	496.81 ppb	13:04:13
3	SiO2†	86336.1	86946.9	5311.7 ug/L	5311.7 ppb	13:04:49

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	863366.3	97.378	%	2.0832				2.14%
Sc Radial	4793.2	103	%	1.5				1.46%
Y 371.029	733510.7	96.292	%	2.0240				2.10%
Y RADIAL	5054.2	102.5	%	1.44				1.41%
Ag 328.068†	116670.3	504.27	ug/L	13.225	504.27	ppb	13.225	2.62%
QC value within limits for Ag 328.068 Recovery = 100.85%								
Al 396.153Radial†	5593.4	4939.3	ug/L	74.04	4939.3	ppb	74.04	1.50%
QC value within limits for Al 396.153Radial Recovery = 98.79%								
As 188.979†	1441.2	508.83	ug/L	9.142	508.83	ppb	9.142	1.80%
QC value within limits for As 188.979 Recovery = 101.77%								
B 249.677†	24146.6	495.97	ug/L	12.802	495.97	ppb	12.802	2.58%
QC value within limits for B 249.677 Recovery = 99.19%								
Ba 233.527†	69026.1	504.56	ug/L	13.833	504.56	ppb	13.833	2.74%
QC value within limits for Ba 233.527 Recovery = 100.91%								
Be 313.107†	1497697.6	507.22	ug/L	13.781	507.22	ppb	13.781	2.72%
QC value within limits for Be 313.107 Recovery = 101.44%								
Ca 317.933Radial†	2949.7	4942.7	ug/L	54.14	4942.7	ppb	54.14	1.10%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.85%
Cd 226.502†            53305.1      501.88 ug/L        14.256      501.88 ppb        14.256   2.84%
   QC value within limits for Cd 226.502  Recovery = 100.38%
Co 228.616†            26753.3      503.17 ug/L        11.492      503.17 ppb        11.492   2.28%
   QC value within limits for Co 228.616  Recovery = 100.63%
Cr 267.716†            49917.5      500.95 ug/L        13.915      500.95 ppb        13.915   2.78%
   QC value within limits for Cr 267.716  Recovery = 100.19%
Cu 324.752†           170073.3      503.77 ug/L        13.619      503.77 ppb        13.619   2.70%
   QC value within limits for Cu 324.752  Recovery = 100.75%
Fe 238.204 Radial†       549.0      4839.5 ug/L         67.25      4839.5 ppb         67.25   1.39%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.79%
K 766.490 Radial†      24281.9      4811.3 ug/L         71.85      4811.3 ppb         71.85   1.49%
   QC value within limits for K 766.490 Radial  Recovery = 96.23%
Mg 279.077 IEC†          157.1      5029.8 ug/L         24.85      5029.8 ppb         24.85   0.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.60%
Mn 257.610†           482142.4      508.40 ug/L        13.761      508.40 ppb        13.761   2.71%
   QC value within limits for Mn 257.610  Recovery = 101.68%
Mo 202.031†             8085.0      506.97 ug/L        11.782      506.97 ppb        11.782   2.32%
   QC value within limits for Mo 202.031  Recovery = 101.39%
Na 589.592 Radial†     32998.1      9968.1 ug/L        140.90      9968.1 ppb        140.90   1.41%
   QC value within limits for Na 589.592 Radial  Recovery = 99.68%
Ni 231.604†            22862.2      501.56 ug/L        11.789      501.56 ppb        11.789   2.35%
   QC value within limits for Ni 231.604  Recovery = 100.31%
P 214.914†              5180.0      2449.3 ug/L         58.67      2449.3 ppb         58.67   2.40%
   QC value within limits for P 214.914  Recovery = 97.97%
Pb 220.353†             4883.9      507.51 ug/L        12.786      507.51 ppb        12.786   2.52%
   QC value within limits for Pb 220.353  Recovery = 101.50%
S 181.975 Axial†         893.9      1009.3 ug/L         27.69      1009.3 ppb         27.69   2.74%
   QC value within limits for S 181.975 Axial  Recovery = 100.93%
Sb 206.836†             1687.5      511.38 ug/L        10.959      511.38 ppb        10.959   2.14%
   QC value within limits for Sb 206.836  Recovery = 102.28%
Se 196.026†              992.6      525.15 ug/L        10.969      525.15 ppb        10.969   2.09%
   QC value within limits for Se 196.026  Recovery = 105.03%
Si 251.611†            87721.1      2504.4 ug/L         69.09      2504.4 ppb         69.09   2.76%
   QC value within limits for Si 251.611  Recovery = 100.18%
Sn 189.927†             3399.0      503.33 ug/L        11.602      503.33 ppb        11.602   2.31%
   QC value within limits for Sn 189.927  Recovery = 100.67%
Sr 421.552†            68321.8      500.18 ug/L         6.933      500.18 ppb         6.933   1.39%
   QC value within limits for Sr 421.552  Recovery = 100.04%
Ti 334.940†           322326.5      511.27 ug/L        13.318      511.27 ppb        13.318   2.60%
   QC value within limits for Ti 334.940  Recovery = 102.25%
Tl 190.801†             1856.5      510.49 ug/L         6.510      510.49 ppb         6.510   1.28%
   QC value within limits for Tl 190.801  Recovery = 102.10%
U 409.014†             16330.3      483.90 ug/L        11.923      483.90 ppb        11.923   2.46%
   QC value within limits for U 409.014  Recovery = 96.78%
V 292.402†             79714.0      507.22 ug/L        13.392      507.22 ppb        13.392   2.64%
   QC value within limits for V 292.402  Recovery = 101.44%
Zn 213.857†            61263.2      499.49 ug/L        14.202      499.49 ppb        14.202   2.84%
   QC value within limits for Zn 213.857  Recovery = 99.90%
SiO2†                  88522.3      5408.1 ug/L        106.94      5408.1 ppb        106.94   1.98%
   QC value within limits for SiO2  Recovery = 101.13%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/6/2010 13:06:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4723.3	4723.3	101	%			13:08:51
1	Y RADIAL	4994.7	4994.7	101.3	%			13:08:51
1	Al 396.153Radial†	-28.6	-1.5	-1.3680	ug/L	-1.3680	ppb	13:08:51
1	Ca 317.933Radial†	13.3	0.6	1.0280	ug/L	1.0280	ppb	13:09:11
1	Fe 238.204 Radial†	10.5	-3.5	-30.742	ug/L	-30.742	ppb	13:09:11
1	K 766.490 Radial†	3481.9	104.1	20.621	ug/L	20.621	ppb	13:08:51
1	Mg 279.077 IEC†	1.9	0.2	7.1369	ug/L	7.1369	ppb	13:09:11
1	Na 589.592 Radial†	-1480.5	287.1	86.728	ug/L	86.728	ppb	13:08:51
1	Sr 421.552†	-36.2	-51.8	-0.3789	ug/L	-0.3789	ppb	13:08:51
1	Sc 361.383	861858.8	861858.8	97.208	%			13:10:08
1	Y 371.029	740906.7	740906.7	97.263	%			13:10:08
1	Ag 328.068†	518.8	21.3	0.0925	ug/L	0.0925	ppb	13:10:08
1	As 188.979†	-30.5	2.0	0.6959	ug/L	0.6959	ppb	13:10:28
1	B 249.677†	-522.9	127.9	2.6417	ug/L	2.6417	ppb	13:10:08
1	Ba 233.527†	-0.1	-7.6	-0.0555	ug/L	-0.0555	ppb	13:10:28
1	Be 313.107†	-4357.5	-131.2	-0.0441	ug/L	-0.0441	ppb	13:10:08
1	Cd 226.502†	-245.3	-14.0	-0.1287	ug/L	-0.1287	ppb	13:10:28
1	Co 228.616†	-86.0	-4.5	-0.0828	ug/L	-0.0828	ppb	13:10:28
1	Cr 267.716†	103.7	2.7	0.0306	ug/L	0.0306	ppb	13:10:08
1	Cu 324.752†	8041.2	273.1	0.8070	ug/L	0.8070	ppb	13:10:08
1	Mn 257.610†	590.9	91.4	0.0931	ug/L	0.0931	ppb	13:10:08
1	Mo 202.031†	33.1	14.1	0.8822	ug/L	0.8822	ppb	13:10:28
1	Ni 231.604†	114.2	-7.6	-0.1660	ug/L	-0.1660	ppb	13:10:28
1	P 214.914†	245.4	3.8	1.7810	ug/L	1.7810	ppb	13:10:28
1	Pb 220.353†	-73.6	2.0	0.2157	ug/L	0.2157	ppb	13:10:28
1	S 181.975 Axial†	59.9	1.7	1.9633	ug/L	1.9633	ppb	13:10:28
1	Sb 206.836†	49.1	13.5	4.0644	ug/L	4.0644	ppb	13:10:28
1	Se 196.026†	-39.0	-6.8	-3.5885	ug/L	-3.5885	ppb	13:10:28
1	Si 251.611†	654.5	56.7	1.5997	ug/L	1.5997	ppb	13:10:28
1	Sn 189.927†	12.2	9.1	1.3525	ug/L	1.3525	ppb	13:10:28
1	Ti 334.940†	-1683.9	85.1	0.1401	ug/L	0.1401	ppb	13:10:08
1	Tl 190.801†	-40.6	11.7	3.1853	ug/L	3.1853	ppb	13:10:28
1	U 409.014†	-2971.5	-388.1	-11.533	ug/L	-11.533	ppb	13:10:08
1	V 292.402†	-1701.2	51.8	0.3202	ug/L	0.3202	ppb	13:10:08
1	Zn 213.857†	814.7	6.4	0.0545	ug/L	0.0545	ppb	13:10:28
1	SiO2†	659.4	42.3	2.5374	ug/L	2.5374	ppb	13:11:24
2	Sc Radial	4629.7	4629.7	99.2	%			13:09:16
2	Y RADIAL	4889.1	4889.1	99.11	%			13:09:16
2	Al 396.153Radial†	-12.2	14.4	12.777	ug/L	12.777	ppb	13:09:16
2	Ca 317.933Radial†	18.1	5.7	9.5745	ug/L	9.5745	ppb	13:09:36
2	Fe 238.204 Radial†	12.8	-1.0	-8.4932	ug/L	-8.4932	ppb	13:09:36
2	K 766.490 Radial†	3521.1	213.2	42.283	ug/L	42.283	ppb	13:09:16
2	Mg 279.077 IEC†	2.8	1.2	39.321	ug/L	39.321	ppb	13:09:36
2	Na 589.592 Radial†	-1484.5	253.5	76.571	ug/L	76.571	ppb	13:09:16
2	Sr 421.552†	13.6	-2.2	-0.0164	ug/L	-0.0164	ppb	13:09:16
2	Sc 361.383	857375.9	857375.9	96.703	%			13:10:33
2	Y 371.029	736432.9	736432.9	96.676	%			13:10:33
2	Ag 328.068†	421.8	-76.1	-0.3214	ug/L	-0.3214	ppb	13:10:33
2	As 188.979†	-38.3	-6.2	-2.1704	ug/L	-2.1704	ppb	13:10:53
2	B 249.677†	-592.2	53.5	1.1047	ug/L	1.1047	ppb	13:10:33
2	Ba 233.527†	13.0	6.0	0.0447	ug/L	0.0447	ppb	13:10:53
2	Be 313.107†	-4316.0	-111.6	-0.0375	ug/L	-0.0375	ppb	13:10:33
2	Cd 226.502†	-226.8	3.9	0.0377	ug/L	0.0377	ppb	13:10:53
2	Co 228.616†	-93.4	-12.6	-0.2350	ug/L	-0.2350	ppb	13:10:53
2	Cr 267.716†	115.9	15.8	0.1616	ug/L	0.1616	ppb	13:10:33
2	Cu 324.752†	7932.6	204.0	0.6036	ug/L	0.6036	ppb	13:10:33
2	Mn 257.610†	576.2	79.5	0.0822	ug/L	0.0822	ppb	13:10:33
2	Mo 202.031†	28.0	9.0	0.5658	ug/L	0.5658	ppb	13:10:53
2	Ni 231.604†	140.4	20.1	0.4414	ug/L	0.4414	ppb	13:10:53

2	P 214.914†	256.3	16.5	7.9317 ug/L	7.9317 ppb	13:10:53
2	Pb 220.353†	-74.4	0.8	0.0874 ug/L	0.0874 ppb	13:10:53
2	S 181.975 Axial†	63.5	5.8	6.5329 ug/L	6.5329 ppb	13:10:53
2	Sb 206.836†	36.8	1.0	0.2943 ug/L	0.2943 ppb	13:10:53
2	Se 196.026†	-31.0	1.2	0.5889 ug/L	0.5889 ppb	13:10:53
2	Si 251.611†	653.3	59.1	1.6711 ug/L	1.6711 ppb	13:10:53
2	Sn 189.927†	1.1	-2.3	-0.3399 ug/L	-0.3399 ppb	13:10:53
2	Ti 334.940†	-1676.8	83.4	0.1358 ug/L	0.1358 ppb	13:10:33
2	Tl 190.801†	-43.1	8.8	2.4144 ug/L	2.4144 ppb	13:10:53
2	U 409.014†	-2807.1	-234.1	-6.9582 ug/L	-6.9582 ppb	13:10:33
2	V 292.402†	-1642.6	103.3	0.6448 ug/L	0.6448 ppb	13:10:33
2	Zn 213.857†	830.1	26.7	0.2152 ug/L	0.2152 ppb	13:10:53
2	SiO2†	675.5	62.5	3.7868 ug/L	3.7868 ppb	13:11:29
3	Sc Radial	4641.1	4641.1	99.4 %		13:09:41
3	Y RADIAL	4899.8	4899.8	99.33 %		13:09:41
3	Al 396.153Radial†	-37.6	-11.0	-9.8208 ug/L	-9.8208 ppb	13:09:41
3	Ca 317.933Radial†	17.1	4.6	7.7157 ug/L	7.7157 ppb	13:10:01
3	Fe 238.204 Radial†	8.5	-5.3	-46.933 ug/L	-46.933 ppb	13:10:01
3	K 766.490 Radial†	3545.5	229.0	45.418 ug/L	45.418 ppb	13:09:41
3	Mg 279.077 IEC†	0.1	-1.5	-48.406 ug/L	-48.406 ppb	13:10:01
3	Na 589.592 Radial†	-1461.4	280.3	84.676 ug/L	84.676 ppb	13:09:41
3	Sr 421.552†	-10.5	-26.5	-0.1943 ug/L	-0.1943 ppb	13:09:41
3	Sc 361.383	852049.0	852049.0	96.102 %		13:10:59
3	Y 371.029	732328.1	732328.1	96.137 %		13:10:59
3	Ag 328.068†	417.5	-77.9	-0.3474 ug/L	-0.3474 ppb	13:10:59
3	As 188.979†	-30.8	1.4	0.4873 ug/L	0.4873 ppb	13:11:19
3	B 249.677†	-557.3	85.9	1.7791 ug/L	1.7791 ppb	13:10:59
3	Ba 233.527†	-8.4	-16.2	-0.1204 ug/L	-0.1204 ppb	13:11:19
3	Be 313.107†	-4302.7	-125.7	-0.0424 ug/L	-0.0424 ppb	13:10:59
3	Cd 226.502†	-241.3	-12.7	-0.1148 ug/L	-0.1148 ppb	13:11:19
3	Co 228.616†	-96.6	-16.5	-0.3092 ug/L	-0.3092 ppb	13:11:19
3	Cr 267.716†	96.2	-3.9	-0.0387 ug/L	-0.0387 ppb	13:10:59
3	Cu 324.752†	8069.9	398.2	1.1765 ug/L	1.1765 ppb	13:10:59
3	Mn 257.610†	541.9	47.5	0.0462 ug/L	0.0462 ppb	13:10:59
3	Mo 202.031†	26.7	7.9	0.4875 ug/L	0.4875 ppb	13:11:19
3	Ni 231.604†	125.1	5.1	0.1124 ug/L	0.1124 ppb	13:11:19
3	P 214.914†	242.2	3.5	1.5427 ug/L	1.5427 ppb	13:11:19
3	Pb 220.353†	-74.8	-0.0	-0.0013 ug/L	-0.0013 ppb	13:11:19
3	S 181.975 Axial†	57.9	0.3	0.3542 ug/L	0.3542 ppb	13:11:19
3	Sb 206.836†	37.5	1.9	0.5855 ug/L	0.5855 ppb	13:11:19
3	Se 196.026†	-45.3	-13.9	-7.2614 ug/L	-7.2614 ppb	13:11:19
3	Si 251.611†	670.6	81.2	2.3048 ug/L	2.3048 ppb	13:11:19
3	Sn 189.927†	5.0	1.8	0.2708 ug/L	0.2708 ppb	13:11:19
3	Ti 334.940†	-1707.3	40.8	0.0676 ug/L	0.0676 ppb	13:10:59
3	Tl 190.801†	-36.7	15.2	4.1554 ug/L	4.1554 ppb	13:11:19
3	U 409.014†	-2740.6	-183.0	-5.4354 ug/L	-5.4354 ppb	13:10:59
3	V 292.402†	-1786.4	-57.1	-0.3558 ug/L	-0.3558 ppb	13:10:59
3	Zn 213.857†	831.9	33.9	0.2811 ug/L	0.2811 ppb	13:11:19
3	SiO2†	702.8	95.3	5.7935 ug/L	5.7935 ppb	13:11:34

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	857094.6	96.671	%	0.5539				0.57%
Sc Radial	4664.7	99.9	%	1.09				1.09%
Y 371.029	736555.9	96.692	%	0.5633				0.58%
Y RADIAL	4927.9	99.90	%	1.178				1.18%
Ag 328.068†	-44.2	-0.1921	ug/L	0.24681	-0.1921	ppb	0.24681	128.49%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.6	0.5294	ug/L	11.41775	0.5294	ppb	11.41775	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.9	-0.3291	ug/L	1.59804	-0.3291	ppb	1.59804	485.61%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	89.1	1.8418	ug/L	0.77039	1.8418	ppb	0.77039	41.83%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.0	-0.0437	ug/L	0.08313	-0.0437	ppb	0.08313	190.09%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-122.8	-0.0413	ug/L	0.00343	-0.0413	ppb	0.00343	8.29%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.6	6.1061	ug/L	4.49484	6.1061	ppb	4.49484	73.61%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -7.6     -0.0686 ug/L       0.09233     -0.0686 ppb        0.09233 134.52%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†             -11.2     -0.2090 ug/L       0.11545     -0.2090 ppb        0.11545  55.24%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               4.9      0.0511 ug/L       0.10175      0.0511 ppb        0.10175 198.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             291.8      0.8624 ug/L       0.29040      0.8624 ppb        0.29040  33.67%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -3.3     -28.723 ug/L      19.2994     -28.723 ppb       19.2994  67.19%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       182.1      36.107 ug/L      13.5031      36.107 ppb       13.5031  37.40%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.0      -0.6497 ug/L     44.37884     -0.6497 ppb       44.37884 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              72.8       0.0738 ug/L      0.02453      0.0738 ppb        0.02453  33.22%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              10.3       0.6451 ug/L      0.20898      0.6451 ppb        0.20898  32.39%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      273.6      82.658 ug/L       5.3706      82.658 ppb         5.3706   6.50%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               5.9       0.1293 ug/L      0.30403      0.1293 ppb        0.30403 235.19%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                7.9       3.7518 ug/L      3.62188      3.7518 ppb        3.62188  96.54%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.9       0.1006 ug/L      0.10913      0.1006 ppb        0.10913 108.46%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.6       2.9501 ug/L      3.20539      2.9501 ppb        3.20539 108.65%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               5.5       1.6481 ug/L      2.09765      1.6481 ppb        2.09765 127.28%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -6.5      -3.4203 ug/L      3.92786     -3.4203 ppb        3.92786 114.84%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              65.6       1.8586 ug/L      0.38813      1.8586 ppb        0.38813  20.88%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.9       0.4278 ug/L      0.85708      0.4278 ppb        0.85708 200.34%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -26.8      -0.1965 ug/L      0.18125     -0.1965 ppb        0.18125  92.22%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              69.8       0.1145 ug/L      0.04068      0.1145 ppb        0.04068  35.53%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              11.9       3.2517 ug/L      0.87238      3.2517 ppb        0.87238  26.83%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -268.4      -7.9756 ug/L      3.17367     -7.9756 ppb        3.17367  39.79%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               32.7       0.2030 ug/L      0.51048      0.2030 ppb        0.51048 251.43%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              22.4       0.1836 ug/L      0.11656      0.1836 ppb        0.11656  63.50%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    66.7       4.0392 ug/L      1.64266      4.0392 ppb        1.64266  40.67%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/6/2010 14:17:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4592.5	4592.5	98.4	%			14:19:36
1	Y RADIAL	4852.6	4852.6	98.37	%			14:19:36
1	Al 396.153Radial†	5729.8	5850.3	5167.5	ug/L	5167.5	ppb	14:19:36
1	Ca 317.933Radial†	3052.6	3090.0	5177.8	ug/L	5177.8	ppb	14:19:56
1	Fe 238.204 Radial†	574.3	569.8	5022.3	ug/L	5022.3	ppb	14:19:56
1	K 766.490 Radial†	28029.9	25151.6	4984.0	ug/L	4984.0	ppb	14:19:36
1	Mg 279.077 IEC†	164.0	165.0	5282.6	ug/L	5282.6	ppb	14:19:56
1	Na 589.592 Radial†	30800.6	33054.4	9985.0	ug/L	9985.0	ppb	14:19:36
1	Sr 421.552†	69088.6	70202.4	513.95	ug/L	513.95	ppb	14:19:36
1	Sc 361.383	885650.2	885650.2	99.892	%			14:20:55
1	Y 371.029	752424.8	752424.8	98.775	%			14:20:55
1	Ag 328.068†	116247.1	115860.7	500.83	ug/L	500.83	ppb	14:20:55
1	As 188.979†	1379.3	1414.2	499.40	ug/L	499.40	ppb	14:21:15
1	B 249.677†	23245.0	23936.0	491.63	ug/L	491.63	ppb	14:20:55
1	Ba 233.527†	68409.4	68475.9	500.55	ug/L	500.55	ppb	14:20:55
1	Be 313.107†	1479870.7	1485825.2	503.20	ug/L	503.20	ppb	14:20:55
1	Cd 226.502†	52556.5	52851.8	497.59	ug/L	497.59	ppb	14:20:55
1	Co 228.616†	26140.4	26252.7	493.74	ug/L	493.74	ppb	14:21:15
1	Cr 267.716†	49405.5	49354.9	495.31	ug/L	495.31	ppb	14:20:55
1	Cu 324.752†	177080.3	169273.1	501.41	ug/L	501.41	ppb	14:20:55
1	Mn 257.610†	478357.6	478359.3	504.42	ug/L	504.42	ppb	14:20:55
1	Mo 202.031†	7931.5	7920.2	496.66	ug/L	496.66	ppb	14:21:15
1	Ni 231.604†	22494.4	22393.7	491.28	ug/L	491.28	ppb	14:21:15
1	P 214.914†	5320.3	5077.5	2399.5	ug/L	2399.5	ppb	14:21:15
1	Pb 220.353†	4684.6	4767.4	495.46	ug/L	495.46	ppb	14:21:15
1	S 181.975 Axial†	934.2	875.3	988.18	ug/L	988.18	ppb	14:21:15
1	Sb 206.836†	1689.0	1653.7	501.05	ug/L	501.05	ppb	14:21:15
1	Se 196.026†	940.8	975.1	516.77	ug/L	516.77	ppb	14:21:15
1	Si 251.611†	87812.4	87291.0	2492.2	ug/L	2492.2	ppb	14:20:55
1	Sn 189.927†	3340.8	3341.0	494.79	ug/L	494.79	ppb	14:21:15
1	Ti 334.940†	317990.4	320152.2	507.83	ug/L	507.83	ppb	14:20:55
1	Tl 190.801†	1767.5	1822.8	501.28	ug/L	501.28	ppb	14:21:15
1	U 409.014†	13653.6	16337.1	484.09	ug/L	484.09	ppb	14:20:55
1	V 292.402†	77148.4	79033.8	502.78	ug/L	502.78	ppb	14:20:55
1	Zn 213.857†	61487.9	60722.9	495.10	ug/L	495.10	ppb	14:20:55
1	SiO2†	86806.3	86264.3	5269.8	ug/L	5269.8	ppb	14:22:15
2	Sc Radial	4715.5	4715.5	101	%			14:20:01
2	Y RADIAL	4946.8	4946.8	100.3	%			14:20:01
2	Al 396.153Radial†	5764.9	5733.1	5063.3	ug/L	5063.3	ppb	14:20:01
2	Ca 317.933Radial†	3087.8	3043.9	5100.6	ug/L	5100.6	ppb	14:20:21
2	Fe 238.204 Radial†	579.6	559.8	4934.6	ug/L	4934.6	ppb	14:20:21
2	K 766.490 Radial†	28482.0	24856.0	4925.4	ug/L	4925.4	ppb	14:20:01
2	Mg 279.077 IEC†	163.1	159.8	5115.5	ug/L	5115.5	ppb	14:20:21
2	Na 589.592 Radial†	31145.2	32578.9	9841.4	ug/L	9841.4	ppb	14:20:01
2	Sr 421.552†	69861.8	69136.3	506.15	ug/L	506.15	ppb	14:20:01
2	Sc 361.383	880318.0	880318.0	99.290	%			14:21:22
2	Y 371.029	747710.7	747710.7	98.156	%			14:21:22
2	Ag 328.068†	115510.3	115823.5	500.65	ug/L	500.65	ppb	14:21:22
2	As 188.979†	1389.6	1432.9	505.94	ug/L	505.94	ppb	14:21:42
2	B 249.677†	23035.9	23866.4	490.19	ug/L	490.19	ppb	14:21:22
2	Ba 233.527†	68015.6	68494.2	500.68	ug/L	500.68	ppb	14:21:22
2	Be 313.107†	1472331.7	1487205.9	503.66	ug/L	503.66	ppb	14:21:22
2	Cd 226.502†	52450.5	53063.8	499.60	ug/L	499.60	ppb	14:21:22
2	Co 228.616†	26315.5	26587.6	500.05	ug/L	500.05	ppb	14:21:42
2	Cr 267.716†	49356.1	49604.8	497.82	ug/L	497.82	ppb	14:21:22
2	Cu 324.752†	175642.7	168899.0	500.30	ug/L	500.30	ppb	14:21:22
2	Mn 257.610†	476045.3	478931.2	505.02	ug/L	505.02	ppb	14:21:22
2	Mo 202.031†	7994.2	8031.4	503.62	ug/L	503.62	ppb	14:21:42
2	Ni 231.604†	22605.3	22641.8	496.72	ug/L	496.72	ppb	14:21:42

2	P 214.914†	5351.2	5140.8	2430.7 ug/L	2430.7 ppb	14:21:42
2	Pb 220.353†	4713.5	4824.9	501.42 ug/L	501.42 ppb	14:21:42
2	S 181.975 Axial†	941.9	888.7	1003.3 ug/L	1003.3 ppb	14:21:42
2	Sb 206.836†	1703.9	1679.0	508.79 ug/L	508.79 ppb	14:21:42
2	Se 196.026†	944.2	984.2	521.17 ug/L	521.17 ppb	14:21:42
2	Si 251.611†	87094.2	87100.1	2486.7 ug/L	2486.7 ppb	14:21:22
2	Sn 189.927†	3353.9	3374.5	499.72 ug/L	499.72 ppb	14:21:42
2	Ti 334.940†	316021.8	320097.7	507.74 ug/L	507.74 ppb	14:21:22
2	Tl 190.801†	1776.8	1842.8	506.73 ug/L	506.73 ppb	14:21:42
2	U 409.014†	13442.9	16207.7	480.25 ug/L	480.25 ppb	14:21:22
2	V 292.402†	76778.3	79128.8	503.48 ug/L	503.48 ppb	14:21:22
2	Zn 213.857†	61323.0	60929.6	496.78 ug/L	496.78 ppb	14:21:22
2	SiO2†	87671.6	87662.2	5355.4 ug/L	5355.4 ppb	14:22:20
3	Sc Radial	4757.6	4757.6	102 %		14:20:26
3	Y RADIAL	5031.5	5031.5	102.0 %		14:20:26
3	Al 396.153Radial†	5867.2	5782.9	5107.6 ug/L	5107.6 ppb	14:20:26
3	Ca 317.933Radial†	3043.8	2973.7	4982.9 ug/L	4982.9 ppb	14:20:46
3	Fe 238.204 Radial†	567.4	542.8	4785.3 ug/L	4785.3 ppb	14:20:46
3	K 766.490 Radial†	28726.1	24845.7	4923.4 ug/L	4923.4 ppb	14:20:26
3	Mg 279.077 IEC†	164.8	160.1	5124.6 ug/L	5124.6 ppb	14:20:46
3	Na 589.592 Radial†	31346.5	32503.4	9818.6 ug/L	9818.6 ppb	14:20:26
3	Sr 421.552†	70530.9	69180.1	506.47 ug/L	506.47 ppb	14:20:26
3	Sc 361.383	878142.6	878142.6	99.045 %		14:21:50
3	Y 371.029	745386.1	745386.1	97.851 %		14:21:50
3	Ag 328.068†	115438.8	116039.5	501.52 ug/L	501.52 ppb	14:21:50
3	As 188.979†	1368.9	1415.5	499.84 ug/L	499.84 ppb	14:22:10
3	B 249.677†	23054.6	23942.7	491.79 ug/L	491.79 ppb	14:21:50
3	Ba 233.527†	68095.0	68744.0	502.50 ug/L	502.50 ppb	14:21:50
3	Be 313.107†	1469882.8	1488406.7	504.07 ug/L	504.07 ppb	14:21:50
3	Cd 226.502†	52261.3	53003.6	499.04 ug/L	499.04 ppb	14:21:50
3	Co 228.616†	26129.8	26465.7	497.75 ug/L	497.75 ppb	14:22:10
3	Cr 267.716†	49223.9	49594.4	497.71 ug/L	497.71 ppb	14:21:50
3	Cu 324.752†	175650.8	169345.4	501.61 ug/L	501.61 ppb	14:21:50
3	Mn 257.610†	475845.0	479916.6	506.04 ug/L	506.04 ppb	14:21:50
3	Mo 202.031†	7924.1	7980.6	500.42 ug/L	500.42 ppb	14:22:10
3	Ni 231.604†	22536.5	22628.7	496.44 ug/L	496.44 ppb	14:22:10
3	P 214.914†	5322.2	5124.9	2422.8 ug/L	2422.8 ppb	14:22:10
3	Pb 220.353†	4710.1	4833.3	502.30 ug/L	502.30 ppb	14:22:10
3	S 181.975 Axial†	939.2	888.3	1002.9 ug/L	1002.9 ppb	14:22:10
3	Sb 206.836†	1699.8	1679.1	508.70 ug/L	508.70 ppb	14:22:10
3	Se 196.026†	929.6	971.9	514.40 ug/L	514.40 ppb	14:22:10
3	Si 251.611†	87007.8	87230.2	2490.4 ug/L	2490.4 ppb	14:21:50
3	Sn 189.927†	3330.7	3359.4	497.48 ug/L	497.48 ppb	14:22:10
3	Ti 334.940†	315828.6	320691.1	508.68 ug/L	508.68 ppb	14:21:50
3	Tl 190.801†	1771.1	1841.6	506.41 ug/L	506.41 ppb	14:22:10
3	U 409.014†	13590.6	16390.4	485.70 ug/L	485.70 ppb	14:21:50
3	V 292.402†	76580.9	79121.1	503.42 ug/L	503.42 ppb	14:21:50
3	Zn 213.857†	61222.0	60980.6	497.20 ug/L	497.20 ppb	14:21:50
3	SiO2†	86439.4	86636.8	5292.6 ug/L	5292.6 ppb	14:22:25

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	881370.2	99.409	%	0.4357				0.44%
Sc Radial	4688.5	100	%	1.8				1.83%
Y 371.029	748507.2	98.261	%	0.4708				0.48%
Y RADIAL	4943.6	100.2	%	1.81				1.81%
Ag 328.068†	115907.9	501.00	ug/L	0.462	501.00	ppb	0.462	0.09%
QC value within limits for Ag 328.068 Recovery = 100.20%								
Al 396.153Radial†	5788.7	5112.8	ug/L	52.31	5112.8	ppb	52.31	1.02%
QC value within limits for Al 396.153Radial Recovery = 102.26%								
As 188.979†	1420.9	501.73	ug/L	3.653	501.73	ppb	3.653	0.73%
QC value within limits for As 188.979 Recovery = 100.35%								
B 249.677†	23915.0	491.20	ug/L	0.881	491.20	ppb	0.881	0.18%
QC value within limits for B 249.677 Recovery = 98.24%								
Ba 233.527†	68571.4	501.24	ug/L	1.090	501.24	ppb	1.090	0.22%
QC value within limits for Ba 233.527 Recovery = 100.25%								
Be 313.107†	1487145.9	503.64	ug/L	0.437	503.64	ppb	0.437	0.09%
QC value within limits for Be 313.107 Recovery = 100.73%								
Ca 317.933Radial†	3035.9	5087.1	ug/L	98.14	5087.1	ppb	98.14	1.93%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.74%
Cd 226.502†            52973.1      498.74 ug/L         1.038      498.74 ppb          1.038   0.21%
   QC value within limits for Cd 226.502  Recovery = 99.75%
Co 228.616†            26435.3      497.18 ug/L         3.196      497.18 ppb          3.196   0.64%
   QC value within limits for Co 228.616  Recovery = 99.44%
Cr 267.716†            49518.1      496.94 ug/L         1.416      496.94 ppb          1.416   0.28%
   QC value within limits for Cr 267.716  Recovery = 99.39%
Cu 324.752†           169172.5      501.11 ug/L         0.708      501.11 ppb          0.708   0.14%
   QC value within limits for Cu 324.752  Recovery = 100.22%
Fe 238.204 Radial†       557.5      4914.1 ug/L        119.83      4914.1 ppb         119.83   2.44%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.28%
K 766.490 Radial†      24951.1      4944.2 ug/L         34.43      4944.2 ppb          34.43   0.70%
   QC value within limits for K 766.490 Radial  Recovery = 98.88%
Mg 279.077 IEC†          161.6      5174.2 ug/L         93.94      5174.2 ppb          93.94   1.82%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.48%
Mn 257.610†           479069.0      505.16 ug/L         0.819      505.16 ppb          0.819   0.16%
   QC value within limits for Mn 257.610  Recovery = 101.03%
Mo 202.031†             7977.4      500.23 ug/L         3.485      500.23 ppb          3.485   0.70%
   QC value within limits for Mo 202.031  Recovery = 100.05%
Na 589.592 Radial†     32712.2      9881.7 ug/L         90.23      9881.7 ppb          90.23   0.91%
   QC value within limits for Na 589.592 Radial  Recovery = 98.82%
Ni 231.604†            22554.8      494.82 ug/L         3.063      494.82 ppb          3.063   0.62%
   QC value within limits for Ni 231.604  Recovery = 98.96%
P 214.914†              5114.4      2417.7 ug/L         16.21      2417.7 ppb          16.21   0.67%
   QC value within limits for P 214.914  Recovery = 96.71%
Pb 220.353†             4808.6      499.72 ug/L         3.721      499.72 ppb          3.721   0.74%
   QC value within limits for Pb 220.353  Recovery = 99.94%
S 181.975 Axial†         884.1      998.15 ug/L         8.636      998.15 ppb          8.636   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 99.81%
Sb 206.836†             1670.6      506.18 ug/L         4.439      506.18 ppb          4.439   0.88%
   QC value within limits for Sb 206.836  Recovery = 101.24%
Se 196.026†              977.0      517.45 ug/L         3.437      517.45 ppb          3.437   0.66%
   QC value within limits for Se 196.026  Recovery = 103.49%
Si 251.611†            87207.1      2489.8 ug/L          2.85      2489.8 ppb           2.85   0.11%
   QC value within limits for Si 251.611  Recovery = 99.59%
Sn 189.927†             3358.3      497.33 ug/L         2.470      497.33 ppb          2.470   0.50%
   QC value within limits for Sn 189.927  Recovery = 99.47%
Sr 421.552†            69506.3      508.85 ug/L         4.416      508.85 ppb          4.416   0.87%
   QC value within limits for Sr 421.552  Recovery = 101.77%
Ti 334.940†           320313.7      508.08 ug/L         0.515      508.08 ppb          0.515   0.10%
   QC value within limits for Ti 334.940  Recovery = 101.62%
Tl 190.801†             1835.7      504.81 ug/L         3.057      504.81 ppb          3.057   0.61%
   QC value within limits for Tl 190.801  Recovery = 100.96%
U 409.014†             16311.7      483.35 ug/L         2.800      483.35 ppb          2.800   0.58%
   QC value within limits for U 409.014  Recovery = 96.67%
V 292.402†             79094.6      503.23 ug/L         0.386      503.23 ppb          0.386   0.08%
   QC value within limits for V 292.402  Recovery = 100.65%
Zn 213.857†            60877.7      496.36 ug/L         1.112      496.36 ppb          1.112   0.22%
   QC value within limits for Zn 213.857  Recovery = 99.27%
SiO2†                  86854.4      5305.9 ug/L         44.32      5305.9 ppb          44.32   0.84%
   QC value within limits for SiO2  Recovery = 99.22%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/6/2010 14:24:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4727.8	4727.8	101	%			14:26:29
1	Y RADIAL	4998.0	4998.0	101.3	%			14:26:29
1	Al 396.153Radial†	-12.7	14.2	12.590	ug/L	12.590	ppb	14:26:29
1	Ca 317.933Radial†	15.3	2.5	4.2105	ug/L	4.2105	ppb	14:26:49
1	Fe 238.204 Radial†	13.6	-0.4	-3.7059	ug/L	-3.7059	ppb	14:26:49
1	K 766.490 Radial†	3317.7	-61.3	-12.198	ug/L	-12.198	ppb	14:26:29
1	Mg 279.077 IEC†	4.3	2.6	84.467	ug/L	84.467	ppb	14:26:49
1	Na 589.592 Radial†	-1563.1	206.9	62.509	ug/L	62.509	ppb	14:26:29
1	Sr 421.552†	7.9	-8.2	-0.0597	ug/L	-0.0597	ppb	14:26:29
1	Sc 361.383	857544.5	857544.5	96.722	%			14:27:46
1	Y 371.029	736530.3	736530.3	96.688	%			14:27:46
1	Ag 328.068†	545.4	51.6	0.2217	ug/L	0.2217	ppb	14:27:46
1	As 188.979†	-28.2	4.3	1.4983	ug/L	1.4983	ppb	14:28:06
1	B 249.677†	-600.7	44.8	0.9257	ug/L	0.9257	ppb	14:27:46
1	Ba 233.527†	-8.1	-15.8	-0.1159	ug/L	-0.1159	ppb	14:28:06
1	Be 313.107†	-4328.8	-124.1	-0.0418	ug/L	-0.0418	ppb	14:27:46
1	Cd 226.502†	-226.8	3.9	0.0371	ug/L	0.0371	ppb	14:28:06
1	Co 228.616†	-99.9	-19.4	-0.3627	ug/L	-0.3627	ppb	14:28:06
1	Cr 267.716†	93.9	-6.9	-0.0689	ug/L	-0.0689	ppb	14:27:46
1	Cu 324.752†	8037.3	310.7	0.9197	ug/L	0.9197	ppb	14:27:46
1	Mn 257.610†	497.2	-2.3	-0.0044	ug/L	-0.0044	ppb	14:27:46
1	Mo 202.031†	27.3	8.3	0.5181	ug/L	0.5181	ppb	14:28:06
1	Ni 231.604†	119.0	-2.0	-0.0439	ug/L	-0.0439	ppb	14:28:06
1	P 214.914†	263.9	24.3	11.674	ug/L	11.674	ppb	14:28:06
1	Pb 220.353†	-95.4	-20.8	-2.1542	ug/L	-2.1542	ppb	14:28:06
1	S 181.975 Axial†	63.8	6.1	6.8789	ug/L	6.8789	ppb	14:28:06
1	Sb 206.836†	63.5	28.6	8.5365	ug/L	8.5365	ppb	14:28:06
1	Se 196.026†	-30.8	1.4	0.7324	ug/L	0.7324	ppb	14:28:06
1	Si 251.611†	670.9	77.1	2.2085	ug/L	2.2085	ppb	14:27:46
1	Sn 189.927†	-2.1	-5.6	-0.8234	ug/L	-0.8234	ppb	14:28:06
1	Ti 334.940†	-1712.2	47.2	0.0761	ug/L	0.0761	ppb	14:27:46
1	Tl 190.801†	-47.5	4.3	1.1835	ug/L	1.1835	ppb	14:28:06
1	U 409.014†	-2659.5	-80.9	-2.4057	ug/L	-2.4057	ppb	14:27:46
1	V 292.402†	-1763.3	-21.2	-0.1279	ug/L	-0.1279	ppb	14:27:46
1	Zn 213.857†	811.9	7.7	0.0602	ug/L	0.0602	ppb	14:28:06
1	SiO2†	717.6	105.9	6.4981	ug/L	6.4981	ppb	14:29:02
2	Sc Radial	4670.3	4670.3	100	%			14:26:54
2	Y RADIAL	4958.9	4958.9	100.5	%			14:26:54
2	Al 396.153Radial†	-5.7	21.0	18.641	ug/L	18.641	ppb	14:26:54
2	Ca 317.933Radial†	17.9	5.3	8.8644	ug/L	8.8644	ppb	14:27:14
2	Fe 238.204 Radial†	12.6	-1.3	-11.025	ug/L	-11.025	ppb	14:27:14
2	K 766.490 Radial†	3352.0	13.3	2.6138	ug/L	2.6138	ppb	14:26:54
2	Mg 279.077 IEC†	2.4	0.8	24.302	ug/L	24.302	ppb	14:27:14
2	Na 589.592 Radial†	-1527.7	223.3	67.441	ug/L	67.441	ppb	14:26:54
2	Sr 421.552†	59.8	43.8	0.3207	ug/L	0.3207	ppb	14:26:54
2	Sc 361.383	853085.6	853085.6	96.219	%			14:28:11
2	Y 371.029	733488.7	733488.7	96.289	%			14:28:11
2	Ag 328.068†	363.1	-135.0	-0.5779	ug/L	-0.5779	ppb	14:28:11
2	As 188.979†	-40.7	-8.9	-3.1054	ug/L	-3.1054	ppb	14:28:31
2	B 249.677†	-585.0	57.9	1.1953	ug/L	1.1953	ppb	14:28:11
2	Ba 233.527†	8.4	1.2	0.0082	ug/L	0.0082	ppb	14:28:31
2	Be 313.107†	-4328.3	-146.9	-0.0500	ug/L	-0.0500	ppb	14:28:11
2	Cd 226.502†	-237.4	-8.3	-0.0774	ug/L	-0.0774	ppb	14:28:31
2	Co 228.616†	-91.3	-10.9	-0.2043	ug/L	-0.2043	ppb	14:28:31
2	Cr 267.716†	118.6	19.2	0.1942	ug/L	0.1942	ppb	14:28:11
2	Cu 324.752†	7858.7	168.5	0.4983	ug/L	0.4983	ppb	14:28:11
2	Mn 257.610†	507.4	10.9	0.0099	ug/L	0.0099	ppb	14:28:11
2	Mo 202.031†	20.9	1.8	0.1094	ug/L	0.1094	ppb	14:28:31
2	Ni 231.604†	114.8	-5.8	-0.1266	ug/L	-0.1266	ppb	14:28:31

2	P 214.914†	254.2	15.6	7.5464 ug/L	7.5464 ppb	14:28:31
2	Pb 220.353†	-70.8	4.2	0.4400 ug/L	0.4400 ppb	14:28:31
2	S 181.975 Axial†	54.8	-2.9	-3.2738 ug/L	-3.2738 ppb	14:28:31
2	Sb 206.836†	37.6	2.0	0.6052 ug/L	0.6052 ppb	14:28:31
2	Se 196.026†	-41.6	-9.9	-5.1201 ug/L	-5.1201 ppb	14:28:31
2	Si 251.611†	690.0	100.5	2.8790 ug/L	2.8790 ppb	14:28:11
2	Sn 189.927†	6.0	2.8	0.4188 ug/L	0.4188 ppb	14:28:31
2	Ti 334.940†	-1841.8	-96.9	-0.1498 ug/L	-0.1498 ppb	14:28:11
2	Tl 190.801†	-51.8	-0.5	-0.1335 ug/L	-0.1335 ppb	14:28:31
2	U 409.014†	-2823.8	-266.0	-7.9072 ug/L	-7.9072 ppb	14:28:11
2	V 292.402†	-1770.1	-37.8	-0.2487 ug/L	-0.2487 ppb	14:28:11
2	Zn 213.857†	824.7	25.5	0.2094 ug/L	0.2094 ppb	14:28:31
2	SiO2†	703.8	95.4	5.8467 ug/L	5.8467 ppb	14:29:07
3	Sc Radial	4835.9	4835.9	104 %		14:27:19
3	Y RADIAL	5152.0	5152.0	104.4 %		14:27:19
3	Al 396.153Radial†	-3.8	23.0	20.400 ug/L	20.400 ppb	14:27:19
3	Ca 317.933Radial†	21.9	8.6	14.379 ug/L	14.379 ppb	14:27:39
3	Fe 238.204 Radial†	12.6	-1.7	-14.736 ug/L	-14.736 ppb	14:27:39
3	K 766.490 Radial†	3441.7	-14.7	-2.9570 ug/L	-2.9570 ppb	14:27:19
3	Mg 279.077 IEC†	4.8	3.0	94.870 ug/L	94.870 ppb	14:27:39
3	Na 589.592 Radial†	-1584.9	220.3	66.562 ug/L	66.562 ppb	14:27:19
3	Sr 421.552†	23.7	6.9	0.0506 ug/L	0.0506 ppb	14:27:19
3	Sc 361.383	859018.9	859018.9	96.888 %		14:28:36
3	Y 371.029	738418.3	738418.3	96.936 %		14:28:36
3	Ag 328.068†	431.9	-66.5	-0.2880 ug/L	-0.2880 ppb	14:28:36
3	As 188.979†	-36.0	-3.8	-1.3286 ug/L	-1.3286 ppb	14:28:57
3	B 249.677†	-600.6	45.9	0.9490 ug/L	0.9490 ppb	14:28:36
3	Ba 233.527†	-3.8	-11.4	-0.0846 ug/L	-0.0846 ppb	14:28:57
3	Be 313.107†	-4383.5	-172.8	-0.0583 ug/L	-0.0583 ppb	14:28:36
3	Cd 226.502†	-248.7	-18.3	-0.1713 ug/L	-0.1713 ppb	14:28:57
3	Co 228.616†	-92.9	-11.9	-0.2228 ug/L	-0.2228 ppb	14:28:57
3	Cr 267.716†	100.6	-0.2	-0.0014 ug/L	-0.0014 ppb	14:28:36
3	Cu 324.752†	7878.8	132.8	0.3926 ug/L	0.3926 ppb	14:28:36
3	Mn 257.610†	513.3	13.3	0.0108 ug/L	0.0108 ppb	14:28:36
3	Mo 202.031†	24.8	5.7	0.3554 ug/L	0.3554 ppb	14:28:57
3	Ni 231.604†	92.1	-30.0	-0.6589 ug/L	-0.6589 ppb	14:28:57
3	P 214.914†	251.7	11.3	5.4331 ug/L	5.4331 ppb	14:28:57
3	Pb 220.353†	-97.8	-23.2	-2.3983 ug/L	-2.3983 ppb	14:28:57
3	S 181.975 Axial†	59.6	1.6	1.7976 ug/L	1.7976 ppb	14:28:57
3	Sb 206.836†	44.7	9.1	2.7018 ug/L	2.7018 ppb	14:28:57
3	Se 196.026†	-24.0	8.5	4.2973 ug/L	4.2973 ppb	14:28:57
3	Si 251.611†	630.8	34.5	0.9880 ug/L	0.9880 ppb	14:28:36
3	Sn 189.927†	-2.0	-5.4	-0.8006 ug/L	-0.8006 ppb	14:28:57
3	Ti 334.940†	-1728.1	33.8	0.0565 ug/L	0.0565 ppb	14:28:36
3	Tl 190.801†	-65.3	-14.0	-3.8321 ug/L	-3.8321 ppb	14:28:57
3	U 409.014†	-2748.9	-168.5	-5.0077 ug/L	-5.0077 ppb	14:28:36
3	V 292.402†	-1798.1	-54.0	-0.3394 ug/L	-0.3394 ppb	14:28:36
3	Zn 213.857†	826.3	21.2	0.1755 ug/L	0.1755 ppb	14:28:57
3	SiO2†	675.6	61.3	3.7578 ug/L	3.7578 ppb	14:29:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	856549.7	96.610	%	0.3484				0.36%
Sc Radial	4744.6	102	%	1.8				1.77%
Y 371.029	736145.7	96.638	%	0.3265				0.34%
Y RADIAL	5036.3	102.1	%	2.07				2.03%
Ag 328.068†	-50.0	-0.2147	ug/L	0.40481	-0.2147	ppb	0.40481	188.54%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	19.4	17.210	ug/L	4.0970	17.210	ppb	4.0970	23.81%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.8	-0.9786	ug/L	2.32173	-0.9786	ppb	2.32173	237.25%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	49.5	1.0233	ug/L	0.14939	1.0233	ppb	0.14939	14.60%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-8.7	-0.0641	ug/L	0.06453	-0.0641	ppb	0.06453	100.69%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-147.9	-0.0500	ug/L	0.00825	-0.0500	ppb	0.00825	16.50%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.5	9.1514	ug/L	5.09049	9.1514	ppb	5.09049	55.63%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -7.6     -0.0705 ug/L       0.10436     -0.0705 ppb        0.10436 147.99%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†             -14.1     -0.2632 ug/L       0.08659     -0.2632 ppb        0.08659  32.89%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               4.0      0.0413 ug/L       0.13667      0.0413 ppb        0.13667 331.04%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             204.0      0.6035 ug/L       0.27890      0.6035 ppb        0.27890  46.21%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -1.1     -9.8222 ug/L       5.61255     -9.8222 ppb        5.61255  57.14%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -20.9     -4.1805 ug/L       7.48155     -4.1805 ppb        7.48155 178.96%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.1      67.880 ug/L      38.0964      67.880 ppb       38.0964  56.12%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               7.3      0.0054 ug/L       0.00854      0.0054 ppb        0.00854 156.73%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               5.2      0.3276 ug/L       0.20579      0.3276 ppb        0.20579  62.81%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      216.8      65.504 ug/L        2.6308      65.504 ppb         2.6308   4.02%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -12.6     -0.2765 ug/L       0.33378     -0.2765 ppb        0.33378 120.73%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               17.0      8.2178 ug/L       3.17405      8.2178 ppb        3.17405  38.62%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -13.3     -1.3708 ug/L       1.57300     -1.3708 ppb        1.57300 114.75%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.6      1.8009 ug/L       5.07638      1.8009 ppb        5.07638 281.88%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              13.2      3.9479 ug/L       4.10984      3.9479 ppb        4.10984 104.10%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -0.0     -0.0301 ug/L       4.75477     -0.0301 ppb        4.75477 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              70.7      2.0252 ug/L       0.95875      2.0252 ppb        0.95875  47.34%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -2.7     -0.4017 ug/L       0.71068     -0.4017 ppb        0.71068 176.90%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              14.2      0.1039 ug/L       0.19573      0.1039 ppb        0.19573 188.45%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -5.3     -0.0057 ug/L       0.12517     -0.0057 ppb        0.12517 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -3.4     -0.9274 ug/L       2.60033     -0.9274 ppb        2.60033 280.40%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†            -171.8     -5.1069 ug/L       2.75210     -5.1069 ppb        2.75210  53.89%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -37.7     -0.2387 ug/L       0.10613     -0.2387 ppb        0.10613  44.47%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              18.1      0.1484 ug/L       0.07822      0.1484 ppb        0.07822  52.72%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    87.5      5.3675 ug/L       1.43162      5.3675 ppb        1.43162  26.67%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 1/6/2010 14:45:21
Logged In Analyst: Optima3
Spectrometer Model: Optima 5300 DV, S/N 077C7090601
Plasma On Time: 1/4/2010 06:33:21
Technique: ICP Continuous
Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\010610A.sif
Batch ID:
Results Data Set: 010610A
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 7
Date Collected: 1/6/2010 14:45:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4631.7	4631.7	99.2	%			14:47:14
1	Y RADIAL	4827.6	4827.6	97.87	%			14:47:14
1	Al 396.153Radial†	5764.3	5835.7	5153.6	ug/L	5153.6	ppb	14:47:14
1	Ca 317.933Radial†	3059.5	3070.6	5145.3	ug/L	5145.3	ppb	14:47:34
1	Fe 238.204 Radial†	578.5	569.1	5016.8	ug/L	5016.8	ppb	14:47:34
1	K 766.490 Radial†	28220.7	25102.3	4974.1	ug/L	4974.1	ppb	14:47:14
1	Mg 279.077 IEC†	165.8	165.4	5295.0	ug/L	5295.0	ppb	14:47:34
1	Na 589.592 Radial†	31223.4	33215.1	10034	ug/L	10034	ppb	14:47:14
1	Sr 421.552†	69786.8	70310.8	514.75	ug/L	514.75	ppb	14:47:14
1	Sc 361.383	852867.4	852867.4	96.194	%			14:48:33
1	Y 371.029	724458.9	724458.9	95.104	%			14:48:33
1	Ag 328.068†	115532.9	119591.4	516.91	ug/L	516.91	ppb	14:48:33
1	As 188.979†	1384.1	1472.3	519.83	ug/L	519.83	ppb	14:48:53
1	B 249.677†	23216.3	24800.7	509.40	ug/L	509.40	ppb	14:48:33
1	Ba 233.527†	68094.1	70780.6	517.39	ug/L	517.39	ppb	14:48:33
1	Be 313.107†	1473090.9	1535722.5	520.09	ug/L	520.09	ppb	14:48:33
1	Cd 226.502†	52381.1	54691.8	514.93	ug/L	514.93	ppb	14:48:33
1	Co 228.616†	26229.5	27351.2	514.41	ug/L	514.41	ppb	14:48:53
1	Cr 267.716†	49382.6	51232.3	514.15	ug/L	514.15	ppb	14:48:33
1	Cu 324.752†	175601.5	174549.9	517.03	ug/L	517.03	ppb	14:48:33
1	Mn 257.610†	476449.4	494782.8	521.73	ug/L	521.73	ppb	14:48:33
1	Mo 202.031†	7962.7	8257.8	517.81	ug/L	517.81	ppb	14:48:53
1	Ni 231.604†	22587.4	23356.0	512.39	ug/L	512.39	ppb	14:48:53
1	P 214.914†	5347.0	5310.0	2510.7	ug/L	2510.7	ppb	14:48:53
1	Pb 220.353†	4744.7	5010.2	520.64	ug/L	520.64	ppb	14:48:53
1	S 181.975 Axial†	937.4	914.6	1032.6	ug/L	1032.6	ppb	14:48:53
1	Sb 206.836†	1708.9	1739.4	527.04	ug/L	527.04	ppb	14:48:53
1	Se 196.026†	938.0	1008.4	533.85	ug/L	533.85	ppb	14:48:53
1	Si 251.611†	86985.0	89809.8	2564.1	ug/L	2564.1	ppb	14:48:33
1	Sn 189.927†	3358.9	3488.4	516.57	ug/L	516.57	ppb	14:48:53
1	Ti 334.940†	316344.6	330677.6	524.52	ug/L	524.52	ppb	14:48:33
1	Tl 190.801†	1771.2	1894.6	520.99	ug/L	520.99	ppb	14:48:53
1	U 409.014†	13595.8	16802.4	497.89	ug/L	497.89	ppb	14:48:33
1	V 292.402†	76932.1	81777.6	520.31	ug/L	520.31	ppb	14:48:33
1	Zn 213.857†	61321.7	62916.1	512.98	ug/L	512.98	ppb	14:48:33
1	SiO2†	87277.5	90094.4	5504.0	ug/L	5504.0	ppb	14:49:53
2	Sc Radial	4588.5	4588.5	98.3	%			14:47:39
2	Y RADIAL	4834.4	4834.4	98.00	%			14:47:39
2	Al 396.153Radial†	5697.7	5822.6	5142.9	ug/L	5142.9	ppb	14:47:39
2	Ca 317.933Radial†	3058.3	3098.5	5192.0	ug/L	5192.0	ppb	14:47:59
2	Fe 238.204 Radial†	576.2	572.3	5043.9	ug/L	5043.9	ppb	14:47:59
2	K 766.490 Radial†	28150.6	25299.1	5013.3	ug/L	5013.3	ppb	14:47:39
2	Mg 279.077 IEC†	163.8	165.0	5282.0	ug/L	5282.0	ppb	14:47:59
2	Na 589.592 Radial†	30769.2	33049.6	9983.6	ug/L	9983.6	ppb	14:47:39
2	Sr 421.552†	68620.8	69787.6	510.91	ug/L	510.91	ppb	14:47:39
2	Sc 361.383	881754.7	881754.7	99.452	%			14:49:00
2	Y 371.029	749059.9	749059.9	98.333	%			14:49:00

2	Ag 328.068†	115775.5	115900.6	501.01 ug/L	501.01 ppb	14:49:00
2	As 188.979†	1382.0	1423.0	502.47 ug/L	502.47 ppb	14:49:20
2	B 249.677†	23161.7	23955.0	492.02 ug/L	492.02 ppb	14:49:00
2	Ba 233.527†	68039.7	68406.8	500.04 ug/L	500.04 ppb	14:49:00
2	Be 313.107†	1470557.3	1483005.6	502.24 ug/L	502.24 ppb	14:49:00
2	Cd 226.502†	52216.8	52742.7	496.56 ug/L	496.56 ppb	14:49:00
2	Co 228.616†	26025.3	26252.5	493.74 ug/L	493.74 ppb	14:49:20
2	Cr 267.716†	49295.5	49462.9	496.39 ug/L	496.39 ppb	14:49:00
2	Cu 324.752†	175708.6	168677.0	499.65 ug/L	499.65 ppb	14:49:00
2	Mn 257.610†	475829.3	477932.7	503.98 ug/L	503.98 ppb	14:49:00
2	Mo 202.031†	7921.7	7945.3	498.24 ug/L	498.24 ppb	14:49:20
2	Ni 231.604†	22418.7	22417.1	491.80 ug/L	491.80 ppb	14:49:20
2	P 214.914†	5304.9	5085.6	2403.7 ug/L	2403.7 ppb	14:49:20
2	Pb 220.353†	4664.0	4767.5	495.46 ug/L	495.46 ppb	14:49:20
2	S 181.975 Axial†	930.0	875.2	988.13 ug/L	988.13 ppb	14:49:20
2	Sb 206.836†	1691.7	1664.0	504.11 ug/L	504.11 ppb	14:49:20
2	Se 196.026†	948.2	986.7	522.80 ug/L	522.80 ppb	14:49:20
2	Si 251.611†	86963.1	86825.3	2478.9 ug/L	2478.9 ppb	14:49:00
2	Sn 189.927†	3319.5	3334.4	493.80 ug/L	493.80 ppb	14:49:20
2	Ti 334.940†	316088.2	319645.9	507.03 ug/L	507.03 ppb	14:49:00
2	Tl 190.801†	1751.8	1814.8	499.09 ug/L	499.09 ppb	14:49:20
2	U 409.014†	13521.7	16264.9	481.94 ug/L	481.94 ppb	14:49:00
2	V 292.402†	76774.6	78999.1	502.58 ug/L	502.58 ppb	14:49:00
2	Zn 213.857†	61183.5	60688.7	494.82 ug/L	494.82 ppb	14:49:00
2	SiO2†	86679.9	86521.1	5285.5 ug/L	5285.5 ppb	14:49:58
3	Sc Radial	4618.4	4618.4	98.9 %		14:48:04
3	Y RADIAL	4874.8	4874.8	98.82 %		14:48:04
3	Al 396.153Radial†	5816.5	5905.2	5216.1 ug/L	5216.1 ppb	14:48:04
3	Ca 317.933Radial†	3068.9	3089.1	5176.2 ug/L	5176.2 ppb	14:48:24
3	Fe 238.204 Radial†	575.8	568.1	5007.1 ug/L	5007.1 ppb	14:48:24
3	K 766.490 Radial†	28566.3	25533.9	5059.9 ug/L	5059.9 ppb	14:48:04
3	Mg 279.077 IEC†	162.4	162.5	5200.9 ug/L	5200.9 ppb	14:48:24
3	Na 589.592 Radial†	31558.3	33644.7	10163 ug/L	10163 ppb	14:48:04
3	Sr 421.552†	70538.0	71273.7	521.79 ug/L	521.79 ppb	14:48:04
3	Sc 361.383	885196.0	885196.0	99.841 %		14:49:28
3	Y 371.029	751922.4	751922.4	98.709 %		14:49:28
3	Ag 328.068†	115568.4	115240.6	498.15 ug/L	498.15 ppb	14:49:28
3	As 188.979†	1373.4	1409.0	497.54 ug/L	497.54 ppb	14:49:48
3	B 249.677†	23145.2	23848.0	489.81 ug/L	489.81 ppb	14:49:28
3	Ba 233.527†	68027.1	68128.2	498.00 ug/L	498.00 ppb	14:49:28
3	Be 313.107†	1472124.0	1478826.2	500.82 ug/L	500.82 ppb	14:49:28
3	Cd 226.502†	52405.8	52727.9	496.42 ug/L	496.42 ppb	14:49:28
3	Co 228.616†	26210.0	26335.9	495.31 ug/L	495.31 ppb	14:49:48
3	Cr 267.716†	49262.6	49237.2	494.13 ug/L	494.13 ppb	14:49:28
3	Cu 324.752†	175315.5	167596.4	496.45 ug/L	496.45 ppb	14:49:28
3	Mn 257.610†	475877.2	476120.7	502.06 ug/L	502.06 ppb	14:49:28
3	Mo 202.031†	7959.3	7952.1	498.65 ug/L	498.65 ppb	14:49:48
3	Ni 231.604†	22564.4	22475.3	493.07 ug/L	493.07 ppb	14:49:48
3	P 214.914†	5344.4	5104.4	2413.4 ug/L	2413.4 ppb	14:49:48
3	Pb 220.353†	4701.2	4786.5	497.45 ug/L	497.45 ppb	14:49:48
3	S 181.975 Axial†	932.8	874.4	987.15 ug/L	987.15 ppb	14:49:48
3	Sb 206.836†	1706.8	1672.4	506.69 ug/L	506.69 ppb	14:49:48
3	Se 196.026†	942.4	977.2	517.80 ug/L	517.80 ppb	14:49:48
3	Si 251.611†	86836.5	86358.6	2465.4 ug/L	2465.4 ppb	14:49:28
3	Sn 189.927†	3331.1	3333.0	493.59 ug/L	493.59 ppb	14:49:48
3	Ti 334.940†	315842.5	318164.2	504.68 ug/L	504.68 ppb	14:49:28
3	Tl 190.801†	1766.3	1822.5	501.16 ug/L	501.16 ppb	14:49:48
3	U 409.014†	13483.6	16173.8	479.24 ug/L	479.24 ppb	14:49:28
3	V 292.402†	76631.4	78555.6	499.80 ug/L	499.80 ppb	14:49:28
3	Zn 213.857†	61215.3	60481.4	493.11 ug/L	493.11 ppb	14:49:28
3	SiO2†	87913.0	87417.4	5340.5 ug/L	5340.5 ppb	14:50:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	873272.7	98.496	%	2.0026				2.03%
Sc Radial	4612.9	98.8	%	0.47				0.48%
Y 371.029	741813.8	97.382	%	1.9820				2.04%
Y RADIAL	4845.6	98.23	%	0.517				0.53%
Ag 328.068†	116910.9	505.36	ug/L	10.106	505.36	ppb	10.106	2.00%

```
   QC value within limits for Ag 328.068  Recovery = 101.07%
Al 396.153Radial†       5854.5      5170.9 ug/L        39.54      5170.9 ppb        39.54   0.76%
   QC value within limits for Al 396.153Radial  Recovery = 103.42%
As 188.979†             1434.7      506.61 ug/L       11.709      506.61 ppb       11.709   2.31%
   QC value within limits for As 188.979  Recovery = 101.32%
B 249.677†             24201.2      497.08 ug/L       10.732      497.08 ppb       10.732   2.16%
   QC value within limits for B 249.677  Recovery = 99.42%
Ba 233.527†            69105.2      505.15 ug/L       10.653      505.15 ppb       10.653   2.11%
   QC value within limits for Ba 233.527  Recovery = 101.03%
Be 313.107†          1499184.8      507.72 ug/L       10.740      507.72 ppb       10.740   2.12%
   QC value within limits for Be 313.107  Recovery = 101.54%
Ca 317.933Radial†       3086.0      5171.2 ug/L        23.74      5171.2 ppb        23.74   0.46%
   QC value within limits for Ca 317.933Radial  Recovery = 103.42%
Cd 226.502†            53387.5      502.64 ug/L       10.647      502.64 ppb       10.647   2.12%
   QC value within limits for Cd 226.502  Recovery = 100.53%
Co 228.616†            26646.5      501.15 ug/L       11.507      501.15 ppb       11.507   2.30%
   QC value within limits for Co 228.616  Recovery = 100.23%
Cr 267.716†            49977.5      501.56 ug/L       10.962      501.56 ppb       10.962   2.19%
   QC value within limits for Cr 267.716  Recovery = 100.31%
Cu 324.752†           170274.4      504.38 ug/L       11.078      504.38 ppb       11.078   2.20%
   QC value within limits for Cu 324.752  Recovery = 100.88%
Fe 238.204 Radial†       569.8      5022.6 ug/L        19.03      5022.6 ppb        19.03   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.45%
K 766.490 Radial†      25311.8      5015.7 ug/L        42.95      5015.7 ppb        42.95   0.86%
   QC value within limits for K 766.490 Radial  Recovery = 100.31%
Mg 279.077 IEC†          164.3      5259.3 ug/L        50.98      5259.3 ppb        50.98   0.97%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.19%
Mn 257.610†           482945.4      509.26 ug/L       10.843      509.26 ppb       10.843   2.13%
   QC value within limits for Mn 257.610  Recovery = 101.85%
Mo 202.031†            8051.7      504.90 ug/L       11.180      504.90 ppb       11.180   2.21%
   QC value within limits for Mo 202.031  Recovery = 100.98%
Na 589.592 Radial†     33303.1       10060 ug/L         92.8       10060 ppb         92.8   0.92%
   QC value within limits for Na 589.592 Radial  Recovery = 100.60%
Ni 231.604†            22749.5      499.09 ug/L       11.541      499.09 ppb       11.541   2.31%
   QC value within limits for Ni 231.604  Recovery = 99.82%
P 214.914†              5166.7      2442.6 ug/L        59.15      2442.6 ppb        59.15   2.42%
   QC value within limits for P 214.914  Recovery = 97.70%
Pb 220.353†             4854.7      504.52 ug/L       13.999      504.52 ppb       13.999   2.77%
   QC value within limits for Pb 220.353  Recovery = 100.90%
S 181.975 Axial†         888.1      1002.6 ug/L        25.98      1002.6 ppb        25.98   2.59%
   QC value within limits for S 181.975 Axial  Recovery = 100.26%
Sb 206.836†             1691.9      512.61 ug/L       12.561      512.61 ppb       12.561   2.45%
   QC value within limits for Sb 206.836  Recovery = 102.52%
Se 196.026†              990.7      524.81 ug/L        8.210      524.81 ppb        8.210   1.56%
   QC value within limits for Se 196.026  Recovery = 104.96%
Si 251.611†            87664.6      2502.8 ug/L        53.49      2502.8 ppb        53.49   2.14%
   QC value within limits for Si 251.611  Recovery = 100.11%
Sn 189.927†             3385.2      501.32 ug/L       13.207      501.32 ppb       13.207   2.63%
   QC value within limits for Sn 189.927  Recovery = 100.26%
Sr 421.552†            70457.4      515.82 ug/L        5.519      515.82 ppb        5.519   1.07%
   QC value within limits for Sr 421.552  Recovery = 103.16%
Ti 334.940†           322829.2      512.08 ug/L       10.838      512.08 ppb       10.838   2.12%
   QC value within limits for Ti 334.940  Recovery = 102.42%
Tl 190.801†             1844.0      507.08 ug/L       12.094      507.08 ppb       12.094   2.39%
   QC value within limits for Tl 190.801  Recovery = 101.42%
U 409.014†             16413.7      486.36 ug/L       10.078      486.36 ppb       10.078   2.07%
   QC value within limits for U 409.014  Recovery = 97.27%
V 292.402†             79777.4      507.57 ug/L       11.126      507.57 ppb       11.126   2.19%
   QC value within limits for V 292.402  Recovery = 101.51%
Zn 213.857†            61362.1      500.30 ug/L       11.011      500.30 ppb       11.011   2.20%
   QC value within limits for Zn 213.857  Recovery = 100.06%
SiO2†                  88011.0      5376.7 ug/L       113.65      5376.7 ppb       113.65   2.11%
   QC value within limits for SiO2  Recovery = 100.55%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/6/2010 14:52:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4699.0	4699.0	101	%			14:54:06
1	Y RADIAL	4994.2	4994.2	101.2	%			14:54:06
1	Al 396.153Radial†	12.0	38.7	34.261	ug/L	34.261	ppb	14:54:06
1	Ca 317.933Radial†	9.8	-2.8	-4.7727	ug/L	-4.7727	ppb	14:54:26
1	Fe 238.204 Radial†	15.3	1.3	11.641	ug/L	11.641	ppb	14:54:26
1	K 766.490 Radial†	3303.6	-55.3	-10.995	ug/L	-10.995	ppb	14:54:06
1	Mg 279.077 IEC†	2.8	1.1	36.529	ug/L	36.529	ppb	14:54:26
1	Na 589.592 Radial†	-1496.5	263.6	79.638	ug/L	79.638	ppb	14:54:06
1	Sr 421.552†	-3.3	-19.3	-0.1410	ug/L	-0.1410	ppb	14:54:06
1	Sc 361.383	873450.3	873450.3	98.516	%			14:55:23
1	Y 371.029	749517.9	749517.9	98.393	%			14:55:23
1	Ag 328.068†	552.9	48.9	0.2189	ug/L	0.2189	ppb	14:55:28
1	As 188.979†	-37.3	-4.4	-1.5408	ug/L	-1.5408	ppb	14:55:48
1	B 249.677†	-609.9	46.7	0.9619	ug/L	0.9619	ppb	14:55:28
1	Ba 233.527†	4.1	-3.3	-0.0240	ug/L	-0.0240	ppb	14:55:48
1	Be 313.107†	-4356.1	-70.2	-0.0234	ug/L	-0.0234	ppb	14:55:28
1	Cd 226.502†	-218.7	16.3	0.1528	ug/L	0.1528	ppb	14:55:48
1	Co 228.616†	-83.9	-1.2	-0.0198	ug/L	-0.0198	ppb	14:55:48
1	Cr 267.716†	123.3	21.1	0.2136	ug/L	0.2136	ppb	14:55:28
1	Cu 324.752†	7938.3	58.9	0.1750	ug/L	0.1750	ppb	14:55:28
1	Mn 257.610†	575.2	67.4	0.0715	ug/L	0.0715	ppb	14:55:28
1	Mo 202.031†	36.1	16.8	1.0506	ug/L	1.0506	ppb	14:55:48
1	Ni 231.604†	119.4	-3.9	-0.0854	ug/L	-0.0854	ppb	14:55:48
1	P 214.914†	256.5	11.8	5.7007	ug/L	5.7007	ppb	14:55:48
1	Pb 220.353†	-89.5	-13.1	-1.3475	ug/L	-1.3475	ppb	14:55:48
1	S 181.975 Axial†	61.4	2.4	2.7237	ug/L	2.7237	ppb	14:55:48
1	Sb 206.836†	43.2	6.8	2.0386	ug/L	2.0386	ppb	14:55:48
1	Se 196.026†	-37.6	-4.9	-2.4450	ug/L	-2.4450	ppb	14:55:48
1	Si 251.611†	655.2	48.5	1.3772	ug/L	1.3772	ppb	14:55:48
1	Sn 189.927†	1.5	-1.9	-0.2765	ug/L	-0.2765	ppb	14:55:48
1	Ti 334.940†	-1674.7	117.4	0.1883	ug/L	0.1883	ppb	14:55:28
1	Tl 190.801†	-46.3	6.4	1.7545	ug/L	1.7545	ppb	14:55:48
1	U 409.014†	-2809.2	-182.8	-5.4370	ug/L	-5.4370	ppb	14:55:23
1	V 292.402†	-1767.3	7.9	0.0530	ug/L	0.0530	ppb	14:55:28
1	Zn 213.857†	823.0	3.7	0.0289	ug/L	0.0289	ppb	14:55:48
1	SiO2†	599.5	-27.5	-1.7151	ug/L	-1.7151	ppb	14:56:54
2	Sc Radial	4763.0	4763.0	102	%			14:54:31
2	Y RADIAL	5079.6	5079.6	103.0	%			14:54:31
2	Al 396.153Radial†	-29.2	-1.9	-1.6765	ug/L	-1.6765	ppb	14:54:31
2	Ca 317.933Radial†	19.3	6.4	10.715	ug/L	10.715	ppb	14:54:51
2	Fe 238.204 Radial†	12.0	-2.1	-18.328	ug/L	-18.328	ppb	14:54:51
2	K 766.490 Radial†	3351.4	-52.5	-10.453	ug/L	-10.453	ppb	14:54:31
2	Mg 279.077 IEC†	3.6	1.9	59.456	ug/L	59.456	ppb	14:54:51
2	Na 589.592 Radial†	-1499.0	281.1	84.926	ug/L	84.926	ppb	14:54:31
2	Sr 421.552†	-24.3	-39.8	-0.2912	ug/L	-0.2912	ppb	14:54:31
2	Sc 361.383	882928.9	882928.9	99.585	%			14:55:53
2	Y 371.029	756625.8	756625.8	99.326	%			14:55:53
2	Ag 328.068†	407.8	-102.8	-0.4499	ug/L	-0.4499	ppb	14:55:58
2	As 188.979†	-32.6	0.6	0.2208	ug/L	0.2208	ppb	14:56:18
2	B 249.677†	-558.6	104.9	2.1653	ug/L	2.1653	ppb	14:55:58
2	Ba 233.527†	6.5	-1.0	-0.0074	ug/L	-0.0074	ppb	14:56:18
2	Be 313.107†	-4349.1	-15.7	-0.0050	ug/L	-0.0050	ppb	14:55:58
2	Cd 226.502†	-228.8	8.6	0.0831	ug/L	0.0831	ppb	14:56:18
2	Co 228.616†	-93.0	-9.5	-0.1767	ug/L	-0.1767	ppb	14:56:18
2	Cr 267.716†	63.9	-39.8	-0.4002	ug/L	-0.4002	ppb	14:55:58
2	Cu 324.752†	8110.3	145.1	0.4288	ug/L	0.4288	ppb	14:55:58
2	Mn 257.610†	553.7	39.6	0.0388	ug/L	0.0388	ppb	14:55:58
2	Mo 202.031†	25.0	5.2	0.3247	ug/L	0.3247	ppb	14:56:18
2	Ni 231.604†	144.0	19.6	0.4299	ug/L	0.4299	ppb	14:56:18

2	P 214.914†	247.7	0.2	0.0416 ug/L	0.0416 ppb	14:56:18
2	Pb 220.353†	-72.1	5.4	0.5571 ug/L	0.5571 ppb	14:56:18
2	S 181.975 Axial†	64.3	4.6	5.2272 ug/L	5.2272 ppb	14:56:18
2	Sb 206.836†	41.7	4.7	1.4361 ug/L	1.4361 ppb	14:56:18
2	Se 196.026†	-36.3	-3.1	-1.6645 ug/L	-1.6645 ppb	14:56:18
2	Si 251.611†	640.5	26.6	0.7611 ug/L	0.7611 ppb	14:56:18
2	Sn 189.927†	4.1	0.7	0.1054 ug/L	0.1054 ppb	14:56:18
2	Ti 334.940†	-1717.0	93.2	0.1470 ug/L	0.1470 ppb	14:55:58
2	Tl 190.801†	-37.0	16.2	4.4240 ug/L	4.4240 ppb	14:56:18
2	U 409.014†	-2538.6	119.5	3.5556 ug/L	3.5556 ppb	14:55:53
2	V 292.402†	-1754.1	40.4	0.2694 ug/L	0.2694 ppb	14:55:58
2	Zn 213.857†	847.2	19.1	0.1526 ug/L	0.1526 ppb	14:56:18
2	SiO2†	663.7	30.4	1.8632 ug/L	1.8632 ppb	14:56:59
3	Sc Radial	4767.2	4767.2	102 %		14:54:56
3	Y RADIAL	5044.2	5044.2	102.3 %		14:54:56
3	Al 396.153Radial†	-32.4	-5.0	-4.5001 ug/L	-4.5001 ppb	14:54:56
3	Ca 317.933Radial†	20.2	7.3	12.151 ug/L	12.151 ppb	14:55:16
3	Fe 238.204 Radial†	11.2	-3.0	-25.930 ug/L	-25.930 ppb	14:55:16
3	K 766.490 Radial†	3252.3	-152.4	-30.293 ug/L	-30.293 ppb	14:54:56
3	Mg 279.077 IEC†	-0.3	-1.9	-61.489 ug/L	-61.489 ppb	14:55:16
3	Na 589.592 Radial†	-1508.3	273.4	82.577 ug/L	82.577 ppb	14:54:56
3	Sr 421.552†	-20.6	-36.1	-0.2646 ug/L	-0.2646 ppb	14:54:56
3	Sc 361.383	876040.7	876040.7	98.808 %		14:56:23
3	Y 371.029	751385.5	751385.5	98.639 %		14:56:23
3	Ag 328.068†	529.1	23.1	0.0905 ug/L	0.0905 ppb	14:56:28
3	As 188.979†	-33.0	-0.0	-0.0166 ug/L	-0.0166 ppb	14:56:49
3	B 249.677†	-556.9	102.2	2.1112 ug/L	2.1112 ppb	14:56:28
3	Ba 233.527†	2.6	-4.9	-0.0355 ug/L	-0.0355 ppb	14:56:49
3	Be 313.107†	-4400.1	-101.6	-0.0343 ug/L	-0.0343 ppb	14:56:28
3	Cd 226.502†	-248.1	-12.7	-0.1173 ug/L	-0.1173 ppb	14:56:49
3	Co 228.616†	-96.7	-13.9	-0.2588 ug/L	-0.2588 ppb	14:56:49
3	Cr 267.716†	85.3	-17.8	-0.1782 ug/L	-0.1782 ppb	14:56:28
3	Cu 324.752†	8040.9	138.9	0.4099 ug/L	0.4099 ppb	14:56:28
3	Mn 257.610†	526.6	16.5	0.0159 ug/L	0.0159 ppb	14:56:28
3	Mo 202.031†	29.4	9.9	0.6166 ug/L	0.6166 ppb	14:56:49
3	Ni 231.604†	119.1	-4.5	-0.0993 ug/L	-0.0993 ppb	14:56:49
3	P 214.914†	249.4	3.9	1.8566 ug/L	1.8566 ppb	14:56:49
3	Pb 220.353†	-75.9	1.0	0.1027 ug/L	0.1027 ppb	14:56:49
3	S 181.975 Axial†	58.1	-1.1	-1.2274 ug/L	-1.2274 ppb	14:56:49
3	Sb 206.836†	62.8	26.4	7.9282 ug/L	7.9282 ppb	14:56:49
3	Se 196.026†	-46.7	-14.0	-7.2285 ug/L	-7.2285 ppb	14:56:49
3	Si 251.611†	653.0	44.4	1.2684 ug/L	1.2684 ppb	14:56:49
3	Sn 189.927†	10.8	7.5	1.1112 ug/L	1.1112 ppb	14:56:49
3	Ti 334.940†	-1783.1	12.7	0.0202 ug/L	0.0202 ppb	14:56:28
3	Tl 190.801†	-39.5	13.4	3.6613 ug/L	3.6613 ppb	14:56:49
3	U 409.014†	-2579.5	58.1	1.7305 ug/L	1.7305 ppb	14:56:23
3	V 292.402†	-1721.1	60.0	0.3912 ug/L	0.3912 ppb	14:56:28
3	Zn 213.857†	835.2	13.6	0.1157 ug/L	0.1157 ppb	14:56:49
3	SiO2†	680.9	53.1	3.2490 ug/L	3.2490 ppb	14:57:04

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	877473.3	98.970	%	0.5526				0.56%
Sc Radial	4743.1	102	%	0.8				0.81%
Y 371.029	752509.7	98.786	%	0.4837				0.49%
Y RADIAL	5039.4	102.2	%	0.87				0.85%
Ag 328.068†	-10.2	-0.0468	ug/L	0.35496	-0.0468	ppb	0.35496	758.28%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.6	9.3613	ug/L	21.60954	9.3613	ppb	21.60954	230.84%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.3	-0.4455	ug/L	0.95591	-0.4455	ppb	0.95591	214.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	84.6	1.7461	ug/L	0.67970	1.7461	ppb	0.67970	38.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.1	-0.0223	ug/L	0.01416	-0.0223	ppb	0.01416	63.51%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-62.5	-0.0209	ug/L	0.01480	-0.0209	ppb	0.01480	70.82%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.6	6.0310	ug/L	9.38382	6.0310	ppb	9.38382	155.59%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 4.1      0.0395 ug/L       0.14019      0.0395 ppb        0.14019 354.87%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -8.2     -0.1518 ug/L       0.12142     -0.1518 ppb        0.12142  79.99%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -12.2     -0.1216 ug/L       0.31079     -0.1216 ppb        0.31079 255.60%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               114.3      0.3379 ug/L       0.14138      0.3379 ppb        0.14138  41.84%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.2     -10.872 ug/L       19.8644     -10.872 ppb        19.8644 182.71%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -86.7     -17.247 ug/L       11.3017     -17.247 ppb        11.3017  65.53%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.4      11.499 ug/L       64.2404      11.499 ppb        64.2404 558.68%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                41.2      0.0421 ug/L       0.02792      0.0421 ppb        0.02792  66.34%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                10.6      0.6640 ug/L       0.36524      0.6640 ppb        0.36524  55.01%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        272.7      82.380 ug/L        2.6498      82.380 ppb         2.6498   3.22%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 3.7      0.0817 ug/L       0.30159      0.0817 ppb        0.30159 369.01%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  5.3      2.5330 ug/L       2.88953      2.5330 ppb        2.88953 114.08%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.3     -0.2292 ug/L       0.99477     -0.2292 ppb        0.99477 433.93%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.0      2.2412 ug/L       3.25423      2.2412 ppb        3.25423 145.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                12.7      3.8010 ug/L       3.58697      3.8010 ppb        3.58697  94.37%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -7.3     -3.7793 ug/L       3.01246     -3.7793 ppb        3.01246  79.71%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                39.8      1.1356 ug/L       0.32884      1.1356 ppb        0.32884  28.96%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.1      0.3133 ug/L       0.71685      0.3133 ppb        0.71685 228.78%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -31.7     -0.2323 ug/L       0.08015     -0.2323 ppb        0.08015  34.51%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                74.4      0.1185 ug/L       0.08763      0.1185 ppb        0.08763  73.96%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                12.0      3.2799 ug/L       1.37498      3.2799 ppb        1.37498  41.92%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -1.7     -0.0503 ug/L       4.75343     -0.0503 ppb        4.75343 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 36.1      0.2379 ug/L       0.17128      0.2379 ppb        0.17128  72.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                12.1      0.0991 ug/L       0.06351      0.0991 ppb        0.06351  64.12%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      18.7      1.1324 ug/L       2.56147      1.1324 ppb        2.56147 226.21%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/6/2010 15:54:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4610.7	4610.7	98.8	%			15:55:56
1	Y RADIAL	4870.6	4870.6	98.74	%			15:55:56
1	Al 396.153Radial†	5819.9	5918.4	5227.5	ug/L	5227.5	ppb	15:55:56
1	Ca 317.933Radial†	3067.3	3092.6	5182.2	ug/L	5182.2	ppb	15:56:16
1	Fe 238.204 Radial†	569.7	562.9	4961.7	ug/L	4961.7	ppb	15:56:16
1	K 766.490 Radial†	28492.3	25507.1	5054.7	ug/L	5054.7	ppb	15:55:56
1	Mg 279.077 IEC†	162.8	163.1	5222.0	ug/L	5222.0	ppb	15:56:16
1	Na 589.592 Radial†	29865.7	31984.3	9661.8	ug/L	9661.8	ppb	15:55:56
1	Sr 421.552†	68509.5	69338.7	507.63	ug/L	507.63	ppb	15:55:56
1	Sc 361.383	871692.2	871692.2	98.317	%			15:57:15
1	Y 371.029	739460.9	739460.9	97.073	%			15:57:15
1	Ag 328.068†	115237.2	116696.9	504.41	ug/L	504.41	ppb	15:57:15
1	As 188.979†	1375.1	1432.0	505.65	ug/L	505.65	ppb	15:57:35
1	B 249.677†	22960.3	24019.1	493.32	ug/L	493.32	ppb	15:57:15
1	Ba 233.527†	67903.3	69057.8	504.80	ug/L	504.80	ppb	15:57:15
1	Be 313.107†	1466976.1	1496432.2	506.79	ug/L	506.79	ppb	15:57:15
1	Cd 226.502†	52206.4	53338.1	502.18	ug/L	502.18	ppb	15:57:15
1	Co 228.616†	26201.3	26733.7	502.80	ug/L	502.80	ppb	15:57:35
1	Cr 267.716†	49145.9	49882.9	500.60	ug/L	500.60	ppb	15:57:15
1	Cu 324.752†	175299.0	170299.9	504.45	ug/L	504.45	ppb	15:57:15
1	Mn 257.610†	474924.7	482535.7	508.82	ug/L	508.82	ppb	15:57:15
1	Mo 202.031†	7973.8	8090.3	507.31	ug/L	507.31	ppb	15:57:35
1	Ni 231.604†	22584.3	22845.7	501.20	ug/L	501.20	ppb	15:57:35
1	P 214.914†	5345.1	5188.0	2453.1	ug/L	2453.1	ppb	15:57:35
1	Pb 220.353†	4710.4	4868.8	506.00	ug/L	506.00	ppb	15:57:35
1	S 181.975 Axial†	934.8	890.9	1005.8	ug/L	1005.8	ppb	15:57:35
1	Sb 206.836†	1708.0	1700.2	515.17	ug/L	515.17	ppb	15:57:35
1	Se 196.026†	946.2	995.7	527.16	ug/L	527.16	ppb	15:57:35
1	Si 251.611†	86888.1	87758.5	2505.4	ug/L	2505.4	ppb	15:57:15
1	Sn 189.927†	3343.6	3397.4	503.12	ug/L	503.12	ppb	15:57:35
1	Ti 334.940†	315337.5	322551.2	511.64	ug/L	511.64	ppb	15:57:15
1	Tl 190.801†	1776.1	1859.9	511.41	ug/L	511.41	ppb	15:57:35
1	U 409.014†	13585.4	16486.6	488.53	ug/L	488.53	ppb	15:57:15
1	V 292.402†	76496.7	79607.6	506.55	ug/L	506.55	ppb	15:57:15
1	Zn 213.857†	61213.1	61429.0	500.84	ug/L	500.84	ppb	15:57:15
1	SiO2†	88513.0	89391.7	5461.3	ug/L	5461.3	ppb	15:58:35
2	Sc Radial	4658.7	4658.7	99.8	%			15:56:21
2	Y RADIAL	4940.4	4940.4	100.2	%			15:56:21
2	Al 396.153Radial†	5876.7	5914.7	5224.4	ug/L	5224.4	ppb	15:56:21
2	Ca 317.933Radial†	3039.5	3032.7	5081.8	ug/L	5081.8	ppb	15:56:41
2	Fe 238.204 Radial†	562.1	549.3	4842.0	ug/L	4842.0	ppb	15:56:41
2	K 766.490 Radial†	28726.0	25443.9	5042.2	ug/L	5042.2	ppb	15:56:21
2	Mg 279.077 IEC†	160.8	159.5	5105.2	ug/L	5105.2	ppb	15:56:41
2	Na 589.592 Radial†	29943.3	31750.4	9591.1	ug/L	9591.1	ppb	15:56:21
2	Sr 421.552†	68755.8	68870.7	504.20	ug/L	504.20	ppb	15:56:21
2	Sc 361.383	882734.5	882734.5	99.563	%			15:57:42
2	Y 371.029	748832.0	748832.0	98.303	%			15:57:42
2	Ag 328.068†	116732.5	116732.6	504.53	ug/L	504.53	ppb	15:57:42
2	As 188.979†	1368.2	1407.6	497.09	ug/L	497.09	ppb	15:58:02
2	B 249.677†	23390.7	24159.2	496.24	ug/L	496.24	ppb	15:57:42
2	Ba 233.527†	68796.2	69090.7	505.03	ug/L	505.03	ppb	15:57:42
2	Be 313.107†	1489275.4	1500164.5	508.05	ug/L	508.05	ppb	15:57:42
2	Cd 226.502†	53023.9	53495.0	503.67	ug/L	503.67	ppb	15:57:42
2	Co 228.616†	26234.5	26433.6	497.14	ug/L	497.14	ppb	15:58:02
2	Cr 267.716†	49848.0	49962.8	501.40	ug/L	501.40	ppb	15:57:42
2	Cu 324.752†	177814.3	170595.8	505.32	ug/L	505.32	ppb	15:57:42
2	Mn 257.610†	481552.2	483149.7	509.46	ug/L	509.46	ppb	15:57:42
2	Mo 202.031†	7973.8	7988.8	500.94	ug/L	500.94	ppb	15:58:02
2	Ni 231.604†	22612.4	22586.6	495.52	ug/L	495.52	ppb	15:58:02

2	P 214.914†	5343.8	5118.7	2419.2 ug/L	2419.2 ppb	15:58:02
2	Pb 220.353†	4724.9	4823.4	501.29 ug/L	501.29 ppb	15:58:02
2	S 181.975 Axial†	946.1	890.3	1005.2 ug/L	1005.2 ppb	15:58:02
2	Sb 206.836†	1706.3	1676.7	507.89 ug/L	507.89 ppb	15:58:02
2	Se 196.026†	941.4	978.8	518.12 ug/L	518.12 ppb	15:58:02
2	Si 251.611†	88021.2	87791.0	2506.5 ug/L	2506.5 ppb	15:57:42
2	Sn 189.927†	3344.6	3355.9	496.97 ug/L	496.97 ppb	15:58:02
2	Ti 334.940†	319711.3	322932.1	512.24 ug/L	512.24 ppb	15:57:42
2	Tl 190.801†	1774.8	1835.9	504.91 ug/L	504.91 ppb	15:58:02
2	U 409.014†	13601.1	16329.6	483.88 ug/L	483.88 ppb	15:57:42
2	V 292.402†	77456.4	79598.2	506.40 ug/L	506.40 ppb	15:57:42
2	Zn 213.857†	61933.9	61374.1	500.44 ug/L	500.44 ppb	15:57:42
2	SiO2†	87490.1	87238.1	5329.4 ug/L	5329.4 ppb	15:58:40
3	Sc Radial	4682.1	4682.1	100 %		15:56:46
3	Y RADIAL	4927.4	4927.4	99.89 %		15:56:46
3	Al 396.153Radial†	5863.9	5872.5	5186.9 ug/L	5186.9 ppb	15:56:46
3	Ca 317.933Radial†	3029.4	3007.5	5039.6 ug/L	5039.6 ppb	15:57:06
3	Fe 238.204 Radial†	559.5	543.9	4794.8 ug/L	4794.8 ppb	15:57:06
3	K 766.490 Radial†	28786.4	25360.5	5025.6 ug/L	5025.6 ppb	15:56:46
3	Mg 279.077 IEC†	160.4	158.2	5064.8 ug/L	5064.8 ppb	15:57:06
3	Na 589.592 Radial†	30032.5	31689.5	9572.8 ug/L	9572.8 ppb	15:56:46
3	Sr 421.552†	68944.6	68715.0	503.06 ug/L	503.06 ppb	15:56:46
3	Sc 361.383	879347.8	879347.8	99.181 %		15:58:10
3	Y 371.029	745662.1	745662.1	97.887 %		15:58:10
3	Ag 328.068†	116194.7	116641.9	504.12 ug/L	504.12 ppb	15:58:10
3	As 188.979†	1378.7	1423.5	502.65 ug/L	502.65 ppb	15:58:30
3	B 249.677†	23325.2	24183.7	496.75 ug/L	496.75 ppb	15:58:10
3	Ba 233.527†	68467.3	69025.2	504.55 ug/L	504.55 ppb	15:58:10
3	Be 313.107†	1478139.4	1494697.4	506.20 ug/L	506.20 ppb	15:58:10
3	Cd 226.502†	52658.2	53331.4	502.13 ug/L	502.13 ppb	15:58:10
3	Co 228.616†	26293.9	26595.0	500.18 ug/L	500.18 ppb	15:58:30
3	Cr 267.716†	49557.0	49862.2	500.39 ug/L	500.39 ppb	15:58:10
3	Cu 324.752†	176820.5	170281.7	504.39 ug/L	504.39 ppb	15:58:10
3	Mn 257.610†	478645.0	482081.2	508.33 ug/L	508.33 ppb	15:58:10
3	Mo 202.031†	7984.1	8030.1	503.52 ug/L	503.52 ppb	15:58:30
3	Ni 231.604†	22632.2	22694.0	497.87 ug/L	497.87 ppb	15:58:30
3	P 214.914†	5378.1	5174.0	2446.3 ug/L	2446.3 ppb	15:58:30
3	Pb 220.353†	4745.2	4862.2	505.31 ug/L	505.31 ppb	15:58:30
3	S 181.975 Axial†	943.5	891.4	1006.4 ug/L	1006.4 ppb	15:58:30
3	Sb 206.836†	1704.7	1681.7	509.53 ug/L	509.53 ppb	15:58:30
3	Se 196.026†	943.4	984.4	520.86 ug/L	520.86 ppb	15:58:30
3	Si 251.611†	87498.9	87604.9	2501.1 ug/L	2501.1 ppb	15:58:10
3	Sn 189.927†	3350.0	3374.3	499.69 ug/L	499.69 ppb	15:58:30
3	Ti 334.940†	318120.6	322565.0	511.65 ug/L	511.65 ppb	15:58:10
3	Tl 190.801†	1764.5	1832.4	503.93 ug/L	503.93 ppb	15:58:30
3	U 409.014†	13682.2	16463.9	487.88 ug/L	487.88 ppb	15:58:10
3	V 292.402†	77016.9	79454.7	505.55 ug/L	505.55 ppb	15:58:10
3	Zn 213.857†	61569.7	61246.4	499.38 ug/L	499.38 ppb	15:58:10
3	SiO2†	87953.1	88043.4	5378.7 ug/L	5378.7 ppb	15:58:45

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	877924.8	99.020	%	0.6381				0.64%
Sc Radial	4650.5	99.6	%	0.78				0.78%
Y 371.029	744651.7	97.755	%	0.6257				0.64%
Y RADIAL	4912.8	99.59	%	0.753				0.76%
Ag 328.068†	116690.5	504.35	ug/L	0.212	504.35	ppb	0.212	0.04%
QC value within limits for Ag 328.068 Recovery = 100.87%								
Al 396.153Radial†	5901.9	5212.9	ug/L	22.59	5212.9	ppb	22.59	0.43%
QC value within limits for Al 396.153Radial Recovery = 104.26%								
As 188.979†	1421.0	501.80	ug/L	4.342	501.80	ppb	4.342	0.87%
QC value within limits for As 188.979 Recovery = 100.36%								
B 249.677†	24120.7	495.44	ug/L	1.848	495.44	ppb	1.848	0.37%
QC value within limits for B 249.677 Recovery = 99.09%								
Ba 233.527†	69057.9	504.79	ug/L	0.240	504.79	ppb	0.240	0.05%
QC value within limits for Ba 233.527 Recovery = 100.96%								
Be 313.107†	1497098.0	507.01	ug/L	0.945	507.01	ppb	0.945	0.19%
QC value within limits for Be 313.107 Recovery = 101.40%								
Ca 317.933Radial†	3044.3	5101.2	ug/L	73.28	5101.2	ppb	73.28	1.44%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.02%
Cd 226.502†            53388.2      502.66 ug/L         0.872      502.66 ppb          0.872   0.17%
   QC value within limits for Cd 226.502  Recovery = 100.53%
Co 228.616†            26587.4      500.04 ug/L         2.832      500.04 ppb          2.832   0.57%
   QC value within limits for Co 228.616  Recovery = 100.01%
Cr 267.716†            49902.6      500.80 ug/L         0.533      500.80 ppb          0.533   0.11%
   QC value within limits for Cr 267.716  Recovery = 100.16%
Cu 324.752†           170392.5      504.72 ug/L         0.521      504.72 ppb          0.521   0.10%
   QC value within limits for Cu 324.752  Recovery = 100.94%
Fe 238.204 Radial†       552.0      4866.2 ug/L        86.00      4866.2 ppb          86.00   1.77%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.32%
K 766.490 Radial†      25437.1      5040.8 ug/L        14.58      5040.8 ppb          14.58   0.29%
   QC value within limits for K 766.490 Radial  Recovery = 100.82%
Mg 279.077 IEC†          160.3      5130.7 ug/L        81.61      5130.7 ppb          81.61   1.59%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.61%
Mn 257.610†           482588.9      508.87 ug/L         0.566      508.87 ppb          0.566   0.11%
   QC value within limits for Mn 257.610  Recovery = 101.77%
Mo 202.031†             8036.4      503.92 ug/L         3.202      503.92 ppb          3.202   0.64%
   QC value within limits for Mo 202.031  Recovery = 100.78%
Na 589.592 Radial†     31808.1      9608.6 ug/L        47.00      9608.6 ppb          47.00   0.49%
   QC value within limits for Na 589.592 Radial  Recovery = 96.09%
Ni 231.604†            22708.8      498.19 ug/L         2.856      498.19 ppb          2.856   0.57%
   QC value within limits for Ni 231.604  Recovery = 99.64%
P 214.914†              5160.2      2439.5 ug/L        17.94      2439.5 ppb          17.94   0.74%
   QC value within limits for P 214.914  Recovery = 97.58%
Pb 220.353†             4851.5      504.20 ug/L         2.543      504.20 ppb          2.543   0.50%
   QC value within limits for Pb 220.353  Recovery = 100.84%
S 181.975 Axial†         890.9      1005.8 ug/L         0.61      1005.8 ppb           0.61   0.06%
   QC value within limits for S 181.975 Axial  Recovery = 100.58%
Sb 206.836†             1686.2      510.86 ug/L         3.821      510.86 ppb          3.821   0.75%
   QC value within limits for Sb 206.836  Recovery = 102.17%
Se 196.026†              986.3      522.05 ug/L         4.636      522.05 ppb          4.636   0.89%
   QC value within limits for Se 196.026  Recovery = 104.41%
Si 251.611†            87718.1      2504.3 ug/L         2.85      2504.3 ppb           2.85   0.11%
   QC value within limits for Si 251.611  Recovery = 100.17%
Sn 189.927†             3375.9      499.93 ug/L         3.081      499.93 ppb          3.081   0.62%
   QC value within limits for Sn 189.927  Recovery = 99.99%
Sr 421.552†            68974.8      504.96 ug/L         2.376      504.96 ppb          2.376   0.47%
   QC value within limits for Sr 421.552  Recovery = 100.99%
Ti 334.940†           322682.8      511.84 ug/L         0.343      511.84 ppb          0.343   0.07%
   QC value within limits for Ti 334.940  Recovery = 102.37%
Tl 190.801†             1842.7      506.75 ug/L         4.067      506.75 ppb          4.067   0.80%
   QC value within limits for Tl 190.801  Recovery = 101.35%
U 409.014†             16426.7      486.76 ug/L         2.520      486.76 ppb          2.520   0.52%
   QC value within limits for U 409.014  Recovery = 97.35%
V 292.402†             79553.5      506.17 ug/L         0.537      506.17 ppb          0.537   0.11%
   QC value within limits for V 292.402  Recovery = 101.23%
Zn 213.857†            61349.8      500.22 ug/L         0.757      500.22 ppb          0.757   0.15%
   QC value within limits for Zn 213.857  Recovery = 100.04%
SiO2†                  88224.4      5389.8 ug/L        66.65      5389.8 ppb          66.65   1.24%
   QC value within limits for SiO2  Recovery = 100.79%
All analyte(s) passed QC.
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Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/6/2010 16:00:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4715.1	4715.1	101	%			16:02:50
1	Y RADIAL	5003.8	5003.8	101.4	%			16:02:50
1	Al 396.153Radial†	-15.7	11.2	9.8883	ug/L	9.8883	ppb	16:02:50
1	Ca 317.933Radial†	15.8	3.1	5.2356	ug/L	5.2356	ppb	16:03:10
1	Fe 238.204 Radial†	12.6	-1.4	-12.456	ug/L	-12.456	ppb	16:03:10
1	K 766.490 Radial†	3502.3	130.3	25.820	ug/L	25.820	ppb	16:02:50
1	Mg 279.077 IEC†	6.2	4.5	144.87	ug/L	144.87	ppb	16:03:10
1	Na 589.592 Radial†	-1444.3	320.3	96.767	ug/L	96.767	ppb	16:02:50
1	Sr 421.552†	38.3	21.9	0.1603	ug/L	0.1603	ppb	16:02:50
1	Sc 361.383	863596.1	863596.1	97.404	%			16:04:07
1	Y 371.029	741696.3	741696.3	97.367	%			16:04:07
1	Ag 328.068†	539.1	41.2	0.1824	ug/L	0.1824	ppb	16:04:07
1	As 188.979†	-19.8	13.1	4.5942	ug/L	4.5942	ppb	16:04:27
1	B 249.677†	-631.3	17.7	0.3674	ug/L	0.3674	ppb	16:04:07
1	Ba 233.527†	-0.3	-7.8	-0.0563	ug/L	-0.0563	ppb	16:04:27
1	Be 313.107†	-4376.2	-141.3	-0.0477	ug/L	-0.0477	ppb	16:04:07
1	Cd 226.502†	-240.3	-8.3	-0.0771	ug/L	-0.0771	ppb	16:04:27
1	Co 228.616†	-89.1	-7.5	-0.1412	ug/L	-0.1412	ppb	16:04:27
1	Cr 267.716†	71.2	-31.0	-0.3065	ug/L	-0.3065	ppb	16:04:07
1	Cu 324.752†	8123.6	341.1	1.0092	ug/L	1.0092	ppb	16:04:07
1	Mn 257.610†	551.5	49.7	0.0485	ug/L	0.0485	ppb	16:04:07
1	Mo 202.031†	21.2	1.8	0.1131	ug/L	0.1131	ppb	16:04:27
1	Ni 231.604†	118.8	-3.1	-0.0686	ug/L	-0.0686	ppb	16:04:27
1	P 214.914†	259.6	17.9	8.6069	ug/L	8.6069	ppb	16:04:27
1	Pb 220.353†	-77.5	-1.8	-0.1873	ug/L	-0.1873	ppb	16:04:27
1	S 181.975 Axial†	58.0	-0.4	-0.4488	ug/L	-0.4488	ppb	16:04:27
1	Sb 206.836†	50.1	14.4	4.3200	ug/L	4.3200	ppb	16:04:27
1	Se 196.026†	-42.0	-9.8	-5.0618	ug/L	-5.0618	ppb	16:04:27
1	Si 251.611†	656.9	57.9	1.6457	ug/L	1.6457	ppb	16:04:27
1	Sn 189.927†	10.6	7.4	1.0995	ug/L	1.0995	ppb	16:04:27
1	Ti 334.940†	-1754.9	15.7	0.0295	ug/L	0.0295	ppb	16:04:07
1	Tl 190.801†	-43.7	8.5	2.3191	ug/L	2.3191	ppb	16:04:27
1	U 409.014†	-2911.1	-320.0	-9.5103	ug/L	-9.5103	ppb	16:04:07
1	V 292.402†	-1687.0	69.8	0.4269	ug/L	0.4269	ppb	16:04:07
1	Zn 213.857†	834.5	25.0	0.2006	ug/L	0.2006	ppb	16:04:27
1	SiO2†	684.1	66.3	4.0362	ug/L	4.0362	ppb	16:05:23
2	Sc Radial	4652.0	4652.0	99.7	%			16:03:15
2	Y RADIAL	4959.3	4959.3	100.5	%			16:03:15
2	Al 396.153Radial†	1.1	27.8	24.619	ug/L	24.619	ppb	16:03:15
2	Ca 317.933Radial†	20.2	7.8	13.006	ug/L	13.006	ppb	16:03:35
2	Fe 238.204 Radial†	14.4	0.5	4.6528	ug/L	4.6528	ppb	16:03:35
2	K 766.490 Radial†	3343.8	18.3	3.5918	ug/L	3.5918	ppb	16:03:15
2	Mg 279.077 IEC†	3.5	1.9	61.332	ug/L	61.332	ppb	16:03:35
2	Na 589.592 Radial†	-1462.4	282.8	85.440	ug/L	85.440	ppb	16:03:15
2	Sr 421.552†	6.9	-9.0	-0.0663	ug/L	-0.0663	ppb	16:03:15
2	Sc 361.383	860872.1	860872.1	97.097	%			16:04:32
2	Y 371.029	738933.4	738933.4	97.004	%			16:04:32
2	Ag 328.068†	437.2	-62.0	-0.2565	ug/L	-0.2565	ppb	16:04:32
2	As 188.979†	-27.8	4.7	1.6627	ug/L	1.6627	ppb	16:04:52
2	B 249.677†	-684.5	-39.1	-0.8045	ug/L	-0.8045	ppb	16:04:32
2	Ba 233.527†	-3.7	-11.3	-0.0821	ug/L	-0.0821	ppb	16:04:52
2	Be 313.107†	-4387.5	-167.1	-0.0562	ug/L	-0.0562	ppb	16:04:32
2	Cd 226.502†	-234.4	-3.0	-0.0287	ug/L	-0.0287	ppb	16:04:52
2	Co 228.616†	-124.3	-44.1	-0.8279	ug/L	-0.8279	ppb	16:04:52
2	Cr 267.716†	133.9	33.9	0.3432	ug/L	0.3432	ppb	16:04:32
2	Cu 324.752†	8102.1	345.3	1.0227	ug/L	1.0227	ppb	16:04:32
2	Mn 257.610†	554.1	54.2	0.0564	ug/L	0.0564	ppb	16:04:32
2	Mo 202.031†	24.7	5.5	0.3462	ug/L	0.3462	ppb	16:04:52
2	Ni 231.604†	125.8	4.5	0.0997	ug/L	0.0997	ppb	16:04:52

2	P 214.914†	255.7	14.8	7.0644	ug/L	7.0644 ppb	16:04:52
2	Pb 220.353†	-90.3	-15.2	-1.5683	ug/L	-1.5683 ppb	16:04:52
2	S 181.975 Axial†	63.3	5.2	5.9237	ug/L	5.9237 ppb	16:04:52
2	Sb 206.836†	40.9	5.0	1.5161	ug/L	1.5161 ppb	16:04:52
2	Se 196.026†	-45.0	-13.1	-6.6924	ug/L	-6.6924 ppb	16:04:52
2	Si 251.611†	681.7	85.5	2.4431	ug/L	2.4431 ppb	16:04:52
2	Sn 189.927†	7.4	4.3	0.6319	ug/L	0.6319 ppb	16:04:52
2	Ti 334.940†	-1680.5	86.7	0.1421	ug/L	0.1421 ppb	16:04:32
2	Tl 190.801†	-45.3	6.8	1.8576	ug/L	1.8576 ppb	16:04:52
2	U 409.014†	-2889.2	-306.9	-9.1246	ug/L	-9.1246 ppb	16:04:32
2	V 292.402†	-1721.2	29.1	0.1705	ug/L	0.1705 ppb	16:04:32
2	Zn 213.857†	839.3	32.7	0.2648	ug/L	0.2648 ppb	16:04:52
2	SiO2†	684.9	69.4	4.2385	ug/L	4.2385 ppb	16:05:28
3	Sc Radial	4651.2	4651.2	99.6	%		16:03:40
3	Y RADIAL	4941.9	4941.9	100.2	%		16:03:40
3	Al 396.153Radial†	-45.6	-19.1	-16.940	ug/L	-16.940 ppb	16:03:40
3	Ca 317.933Radial†	21.0	8.5	14.323	ug/L	14.323 ppb	16:04:00
3	Fe 238.204 Radial†	13.0	-0.8	-7.4234	ug/L	-7.4234 ppb	16:04:00
3	K 766.490 Radial†	3406.8	82.0	16.256	ug/L	16.256 ppb	16:03:40
3	Mg 279.077 IEC†	-0.2	-1.9	-60.201	ug/L	-60.201 ppb	16:04:00
3	Na 589.592 Radial†	-1533.2	211.5	63.903	ug/L	63.903 ppb	16:03:40
3	Sr 421.552†	-6.2	-22.2	-0.1628	ug/L	-0.1628 ppb	16:03:40
3	Sc 361.383	865258.0	865258.0	97.592	%		16:04:58
3	Y 371.029	743166.3	743166.3	97.560	%		16:04:58
3	Ag 328.068†	430.2	-71.5	-0.3062	ug/L	-0.3062 ppb	16:04:58
3	As 188.979†	-22.4	10.5	3.6605	ug/L	3.6605 ppb	16:05:18
3	B 249.677†	-647.9	2.0	0.0433	ug/L	0.0433 ppb	16:04:58
3	Ba 233.527†	2.8	-4.6	-0.0336	ug/L	-0.0336 ppb	16:05:18
3	Be 313.107†	-4335.5	-90.9	-0.0305	ug/L	-0.0305 ppb	16:04:58
3	Cd 226.502†	-255.4	-23.4	-0.2195	ug/L	-0.2195 ppb	16:05:18
3	Co 228.616†	-109.7	-28.4	-0.5316	ug/L	-0.5316 ppb	16:05:18
3	Cr 267.716†	117.1	15.9	0.1607	ug/L	0.1607 ppb	16:04:58
3	Cu 324.752†	8024.4	223.4	0.6612	ug/L	0.6612 ppb	16:04:58
3	Mn 257.610†	565.7	63.3	0.0670	ug/L	0.0670 ppb	16:04:58
3	Mo 202.031†	32.5	13.4	0.8398	ug/L	0.8398 ppb	16:05:18
3	Ni 231.604†	117.9	-4.2	-0.0923	ug/L	-0.0923 ppb	16:05:18
3	P 214.914†	245.7	3.2	1.4791	ug/L	1.4791 ppb	16:05:18
3	Pb 220.353†	-93.2	-17.7	-1.8348	ug/L	-1.8348 ppb	16:05:18
3	S 181.975 Axial†	68.3	10.1	11.416	ug/L	11.416 ppb	16:05:18
3	Sb 206.836†	52.9	17.1	5.1747	ug/L	5.1747 ppb	16:05:18
3	Se 196.026†	-29.8	2.7	1.3526	ug/L	1.3526 ppb	16:05:18
3	Si 251.611†	655.1	54.7	1.5406	ug/L	1.5406 ppb	16:05:18
3	Sn 189.927†	18.6	15.7	2.3215	ug/L	2.3215 ppb	16:05:18
3	Ti 334.940†	-1697.8	77.7	0.1256	ug/L	0.1256 ppb	16:04:58
3	Tl 190.801†	-46.7	5.5	1.5073	ug/L	1.5073 ppb	16:05:18
3	U 409.014†	-2731.4	-130.1	-3.8677	ug/L	-3.8677 ppb	16:04:58
3	V 292.402†	-1737.3	21.6	0.1397	ug/L	0.1397 ppb	16:04:58
3	Zn 213.857†	831.4	20.3	0.1690	ug/L	0.1690 ppb	16:05:18
3	SiO2†	676.5	57.2	3.4497	ug/L	3.4497 ppb	16:05:33

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	863242.1	97.364	%	0.2497				0.26%
Sc Radial	4672.8	100	%	0.8				0.78%
Y 371.029	741265.4	97.310	%	0.2821				0.29%
Y RADIAL	4968.3	100.7	%	0.65				0.64%
Ag 328.068†	-30.8	-0.1268	ug/L	0.26892	-0.1268	ppb	0.26892	212.13%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.6	5.8557	ug/L	21.07064	5.8557	ppb	21.07064	359.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	9.4	3.3058	ug/L	1.49760	3.3058	ppb	1.49760	45.30%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-6.5	-0.1312	ug/L	0.60515	-0.1312	ppb	0.60515	461.14%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-7.9	-0.0573	ug/L	0.02425	-0.0573	ppb	0.02425	42.31%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-133.1	-0.0448	ug/L	0.01310	-0.0448	ppb	0.01310	29.25%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.5	10.855	ug/L	4.9108	10.855	ppb	4.9108	45.24%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -11.6     -0.1084 ug/L       0.09918     -0.1084 ppb        0.09918  91.47%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -26.7     -0.5002 ug/L       0.34442     -0.5002 ppb        0.34442  68.85%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                6.3      0.0658 ug/L       0.33509      0.0658 ppb        0.33509 509.25%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              303.3      0.8977 ug/L       0.20495      0.8977 ppb        0.20495  22.83%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.6     -5.0755 ug/L       8.79264     -5.0755 ppb        8.79264 173.24%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         76.9      15.223 ug/L      11.1502      15.223 ppb        11.1502  73.25%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.5      48.666 ug/L     103.1194      48.666 ppb       103.1194 211.89%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               55.7      0.0573 ug/L       0.00931      0.0573 ppb        0.00931  16.25%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                6.9      0.4330 ug/L       0.37102      0.4330 ppb        0.37102  85.68%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       271.6      82.037 ug/L      16.6944      82.037 ppb        16.6944  20.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -0.9     -0.0204 ug/L       0.10470     -0.0204 ppb        0.10470 513.57%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                12.0      5.7168 ug/L       3.75011      5.7168 ppb        3.75011  65.60%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -11.6     -1.1968 ug/L       0.88433     -1.1968 ppb        0.88433  73.89%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           5.0      5.6303 ug/L       5.93777      5.6303 ppb        5.93777 105.46%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               12.2      3.6703 ug/L       1.91389      3.6703 ppb        1.91389  52.15%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -6.7     -3.4672 ug/L       4.25296     -3.4672 ppb        4.25296 122.66%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               66.0      1.8765 ug/L       0.49350      1.8765 ppb        0.49350  26.30%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                9.1      1.3509 ug/L       0.87244      1.3509 ppb        0.87244  64.58%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -3.1     -0.0229 ug/L       0.16583     -0.0229 ppb        0.16583 723.07%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               60.0      0.0991 ug/L       0.06079      0.0991 ppb        0.06079  61.35%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                6.9      1.8947 ug/L       0.40716      1.8947 ppb        0.40716  21.49%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -252.3     -7.5008 ug/L       3.15234     -7.5008 ppb        3.15234  42.03%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                40.2      0.2457 ug/L       0.15766      0.2457 ppb        0.15766  64.16%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               26.0      0.2115 ug/L       0.04880      0.2115 ppb        0.04880  23.08%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     64.3      3.9081 ug/L       0.40971      3.9081 ppb        0.40971  10.48%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 20
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/6/2010 16:55:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4685.0	4685.0	100	%			16:57:33
1	Y RADIAL	4955.4	4955.4	100.5	%			16:57:33
1	Al 396.153Radial†	5814.4	5819.6	5139.1	ug/L	5139.1	ppb	16:57:33
1	Ca 317.933Radial†	3117.0	3092.8	5182.6	ug/L	5182.6	ppb	16:57:53
1	Fe 238.204 Radial†	593.1	577.0	5086.2	ug/L	5086.2	ppb	16:57:53
1	K 766.490 Radial†	28822.6	25378.9	5028.8	ug/L	5028.8	ppb	16:57:33
1	Mg 279.077 IEC†	164.1	161.9	5181.3	ug/L	5181.3	ppb	16:57:53
1	Na 589.592 Radial†	33244.0	34870.8	10534	ug/L	10534	ppb	16:57:33
1	Sr 421.552†	72111.5	71828.0	525.85	ug/L	525.85	ppb	16:57:33
1	Sc 361.383	857176.8	857176.8	96.680	%			16:58:52
1	Y 371.029	728322.0	728322.0	95.611	%			16:58:52
1	Ag 328.068†	115653.5	119112.3	514.87	ug/L	514.87	ppb	16:58:52
1	As 188.979†	1405.8	1487.4	525.14	ug/L	525.14	ppb	16:59:12
1	B 249.677†	22967.5	24421.9	501.57	ug/L	501.57	ppb	16:58:52
1	Ba 233.527†	68336.5	70675.5	516.62	ug/L	516.62	ppb	16:58:52
1	Be 313.107†	1479643.0	1534800.8	519.78	ug/L	519.78	ppb	16:58:52
1	Cd 226.502†	52746.4	54795.9	515.91	ug/L	515.91	ppb	16:58:52
1	Co 228.616†	26578.7	27575.3	518.64	ug/L	518.64	ppb	16:59:12
1	Cr 267.716†	49613.5	51213.0	513.95	ug/L	513.95	ppb	16:58:52
1	Cu 324.752†	175417.8	173442.0	513.76	ug/L	513.76	ppb	16:58:52
1	Mn 257.610†	478024.5	493921.9	520.83	ug/L	520.83	ppb	16:58:52
1	Mo 202.031†	8075.9	8333.3	522.54	ug/L	522.54	ppb	16:59:12
1	Ni 231.604†	22919.8	23581.7	517.35	ug/L	517.35	ppb	16:59:12
1	P 214.914†	5429.4	5367.3	2539.1	ug/L	2539.1	ppb	16:59:12
1	Pb 220.353†	4811.9	5054.9	525.28	ug/L	525.28	ppb	16:59:12
1	S 181.975 Axial†	957.0	929.9	1049.9	ug/L	1049.9	ppb	16:59:12
1	Sb 206.836†	1731.6	1754.0	531.57	ug/L	531.57	ppb	16:59:12
1	Se 196.026†	965.2	1031.6	545.97	ug/L	545.97	ppb	16:59:12
1	Si 251.611†	87126.8	89501.9	2555.1	ug/L	2555.1	ppb	16:58:52
1	Sn 189.927†	3402.0	3515.4	520.57	ug/L	520.57	ppb	16:59:12
1	Ti 334.940†	316863.5	329560.9	522.75	ug/L	522.75	ppb	16:58:52
1	Tl 190.801†	1795.1	1910.1	525.18	ug/L	525.18	ppb	16:59:12
1	U 409.014†	13418.0	16547.4	490.30	ug/L	490.30	ppb	16:58:52
1	V 292.402†	76945.0	81388.9	517.91	ug/L	517.91	ppb	16:58:52
1	Zn 213.857†	61564.8	62847.1	512.38	ug/L	512.38	ppb	16:58:52
1	SiO2†	88135.8	90526.1	5530.2	ug/L	5530.2	ppb	17:00:12
2	Sc Radial	4610.4	4610.4	98.8	%			16:57:58
2	Y RADIAL	4911.2	4911.2	99.56	%			16:57:58
2	Al 396.153Radial†	5771.4	5869.8	5184.1	ug/L	5184.1	ppb	16:57:58
2	Ca 317.933Radial†	3107.7	3133.7	5251.0	ug/L	5251.0	ppb	16:58:18
2	Fe 238.204 Radial†	590.3	583.7	5145.0	ug/L	5145.0	ppb	16:58:18
2	K 766.490 Radial†	28366.4	25381.8	5029.4	ug/L	5029.4	ppb	16:57:58
2	Mg 279.077 IEC†	166.4	166.9	5341.2	ug/L	5341.2	ppb	16:58:18
2	Na 589.592 Radial†	32735.8	34892.2	10540	ug/L	10540	ppb	16:57:58
2	Sr 421.552†	71284.3	72153.0	528.23	ug/L	528.23	ppb	16:57:58
2	Sc 361.383	872076.0	872076.0	98.361	%			16:59:20
2	Y 371.029	740502.4	740502.4	97.210	%			16:59:20
2	Ag 328.068†	116471.3	117900.1	509.66	ug/L	509.66	ppb	16:59:20
2	As 188.979†	1394.1	1450.7	512.26	ug/L	512.26	ppb	16:59:40
2	B 249.677†	23265.8	24319.3	499.48	ug/L	499.48	ppb	16:59:20
2	Ba 233.527†	68743.0	69881.2	510.82	ug/L	510.82	ppb	16:59:20
2	Be 313.107†	1488841.1	1518004.9	514.09	ug/L	514.09	ppb	16:59:20
2	Cd 226.502†	52993.7	54115.3	509.48	ug/L	509.48	ppb	16:59:20
2	Co 228.616†	26444.5	26969.2	507.22	ug/L	507.22	ppb	16:59:40
2	Cr 267.716†	49825.3	50551.6	507.32	ug/L	507.32	ppb	16:59:20
2	Cu 324.752†	177131.3	172084.3	509.74	ug/L	509.74	ppb	16:59:20
2	Mn 257.610†	481075.7	488576.6	515.20	ug/L	515.20	ppb	16:59:20
2	Mo 202.031†	8053.4	8167.7	512.17	ug/L	512.17	ppb	16:59:40
2	Ni 231.604†	22808.2	23063.3	505.97	ug/L	505.97	ppb	16:59:40

2	P 214.914†	5394.5	5235.9	2475.5 ug/L	2475.5 ppb	16:59:40
2	Pb 220.353†	4806.7	4964.6	515.91 ug/L	515.91 ppb	16:59:40
2	S 181.975 Axial†	945.6	901.5	1017.8 ug/L	1017.8 ppb	16:59:40
2	Sb 206.836†	1728.2	1719.9	521.11 ug/L	521.11 ppb	16:59:40
2	Se 196.026†	956.6	1005.8	532.93 ug/L	532.93 ppb	16:59:40
2	Si 251.611†	87867.7	88715.5	2532.8 ug/L	2532.8 ppb	16:59:20
2	Sn 189.927†	3383.9	3436.9	508.97 ug/L	508.97 ppb	16:59:40
2	Ti 334.940†	319168.4	326304.8	517.59 ug/L	517.59 ppb	16:59:20
2	Tl 190.801†	1783.9	1867.0	513.41 ug/L	513.41 ppb	16:59:40
2	U 409.014†	13563.6	16458.3	487.66 ug/L	487.66 ppb	16:59:20
2	V 292.402†	77499.4	80592.8	512.77 ug/L	512.77 ppb	16:59:20
2	Zn 213.857†	62029.5	62231.6	507.39 ug/L	507.39 ppb	16:59:20
2	SiO2†	87821.2	88648.8	5415.5 ug/L	5415.5 ppb	17:00:18
3	Sc Radial	4676.5	4676.5	100 %		16:58:23
3	Y RADIAL	4937.4	4937.4	100.1 %		16:58:23
3	Al 396.153Radial†	5908.0	5923.5	5231.9 ug/L	5231.9 ppb	16:58:23
3	Ca 317.933Radial†	3119.4	3101.0	5196.2 ug/L	5196.2 ppb	16:58:43
3	Fe 238.204 Radial†	591.5	576.5	5081.9 ug/L	5081.9 ppb	16:58:43
3	K 766.490 Radial†	28875.7	25484.1	5049.7 ug/L	5049.7 ppb	16:58:23
3	Mg 279.077 IEC†	163.9	161.9	5184.0 ug/L	5184.0 ppb	16:58:43
3	Na 589.592 Radial†	33359.1	35045.9	10587 ug/L	10587 ppb	16:58:23
3	Sr 421.552†	72459.8	72306.3	529.35 ug/L	529.35 ppb	16:58:23
3	Sc 361.383	867285.2	867285.2	97.820 %		16:59:47
3	Y 371.029	736080.6	736080.6	96.629 %		16:59:47
3	Ag 328.068†	115988.3	118060.4	510.33 ug/L	510.33 ppb	16:59:47
3	As 188.979†	1378.7	1442.8	509.49 ug/L	509.49 ppb	17:00:07
3	B 249.677†	23195.5	24378.2	500.70 ug/L	500.70 ppb	16:59:47
3	Ba 233.527†	68328.6	69843.6	510.54 ug/L	510.54 ppb	16:59:47
3	Be 313.107†	1480737.9	1518082.3	514.12 ug/L	514.12 ppb	16:59:47
3	Cd 226.502†	52612.7	54023.4	508.62 ug/L	508.62 ppb	16:59:47
3	Co 228.616†	26248.1	26916.9	506.24 ug/L	506.24 ppb	17:00:07
3	Cr 267.716†	49577.7	50578.3	507.59 ug/L	507.59 ppb	16:59:47
3	Cu 324.752†	176226.0	172153.5	509.94 ug/L	509.94 ppb	16:59:47
3	Mn 257.610†	478107.7	488244.2	514.85 ug/L	514.85 ppb	16:59:47
3	Mo 202.031†	7975.5	8133.3	510.02 ug/L	510.02 ppb	17:00:07
3	Ni 231.604†	22675.8	23056.0	505.81 ug/L	505.81 ppb	17:00:07
3	P 214.914†	5348.0	5218.6	2467.1 ug/L	2467.1 ppb	17:00:07
3	Pb 220.353†	4759.1	4942.9	513.67 ug/L	513.67 ppb	17:00:07
3	S 181.975 Axial†	942.5	903.6	1020.2 ug/L	1020.2 ppb	17:00:07
3	Sb 206.836†	1697.2	1698.0	514.49 ug/L	514.49 ppb	17:00:07
3	Se 196.026†	945.8	1000.1	529.82 ug/L	529.82 ppb	17:00:07
3	Si 251.611†	87458.4	88790.5	2535.0 ug/L	2535.0 ppb	16:59:47
3	Sn 189.927†	3357.4	3428.8	507.77 ug/L	507.77 ppb	17:00:07
3	Ti 334.940†	317274.1	326160.8	517.36 ug/L	517.36 ppb	16:59:47
3	Tl 190.801†	1752.8	1845.3	507.48 ug/L	507.48 ppb	17:00:07
3	U 409.014†	13499.4	16468.9	487.98 ug/L	487.98 ppb	16:59:47
3	V 292.402†	77117.7	80637.8	513.02 ug/L	513.02 ppb	16:59:47
3	Zn 213.857†	61578.1	62118.5	506.47 ug/L	506.47 ppb	16:59:47
3	SiO2†	88484.3	89819.8	5487.4 ug/L	5487.4 ppb	17:00:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	865512.7	97.621	%	0.8579				0.88%
Sc Radial	4657.3	99.8	%	0.87				0.88%
Y 371.029	734968.4	96.483	%	0.8094				0.84%
Y RADIAL	4934.7	100.0	%	0.45				0.45%
Ag 328.068†	118357.6	511.62	ug/L	2.832	511.62	ppb	2.832	0.55%
QC value within limits for Ag 328.068 Recovery = 102.32%								
Al 396.153Radial†	5871.0	5185.1	ug/L	46.39	5185.1	ppb	46.39	0.89%
QC value within limits for Al 396.153Radial Recovery = 103.70%								
As 188.979†	1460.3	515.63	ug/L	8.351	515.63	ppb	8.351	1.62%
QC value within limits for As 188.979 Recovery = 103.13%								
B 249.677†	24373.2	500.59	ug/L	1.052	500.59	ppb	1.052	0.21%
QC value within limits for B 249.677 Recovery = 100.12%								
Ba 233.527†	70133.4	512.66	ug/L	3.432	512.66	ppb	3.432	0.67%
QC value within limits for Ba 233.527 Recovery = 102.53%								
Be 313.107†	1523629.3	516.00	ug/L	3.276	516.00	ppb	3.276	0.63%
QC value within limits for Be 313.107 Recovery = 103.20%								
Ca 317.933Radial†	3109.2	5209.9	ug/L	36.22	5209.9	ppb	36.22	0.70%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.20%
Cd 226.502†            54311.5      511.34 ug/L         3.980      511.34 ppb          3.980   0.78%
   QC value within limits for Cd 226.502  Recovery = 102.27%
Co 228.616†            27153.8      510.70 ug/L         6.891      510.70 ppb          6.891   1.35%
   QC value within limits for Co 228.616  Recovery = 102.14%
Cr 267.716†            50781.0      509.62 ug/L         3.755      509.62 ppb          3.755   0.74%
   QC value within limits for Cr 267.716  Recovery = 101.92%
Cu 324.752†           172559.9      511.15 ug/L         2.263      511.15 ppb          2.263   0.44%
   QC value within limits for Cu 324.752  Recovery = 102.23%
Fe 238.204 Radial†       579.1      5104.4 ug/L         35.24      5104.4 ppb          35.24   0.69%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.09%
K 766.490 Radial†      25414.9      5035.9 ug/L         11.90      5035.9 ppb          11.90   0.24%
   QC value within limits for K 766.490 Radial  Recovery = 100.72%
Mg 279.077 IEC†          163.6      5235.5 ug/L         91.55      5235.5 ppb          91.55   1.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.71%
Mn 257.610†           490247.6      516.96 ug/L         3.357      516.96 ppb          3.357   0.65%
   QC value within limits for Mn 257.610  Recovery = 103.39%
Mo 202.031†             8211.4      514.91 ug/L         6.696      514.91 ppb          6.696   1.30%
   QC value within limits for Mo 202.031  Recovery = 102.98%
Na 589.592 Radial†     34936.3       10554 ug/L          28.9       10554 ppb           28.9   0.27%
   QC value within limits for Na 589.592 Radial  Recovery = 105.54%
Ni 231.604†            23233.6      509.71 ug/L         6.613      509.71 ppb          6.613   1.30%
   QC value within limits for Ni 231.604  Recovery = 101.94%
P 214.914†              5273.9      2493.9 ug/L         39.37      2493.9 ppb          39.37   1.58%
   QC value within limits for P 214.914  Recovery = 99.76%
Pb 220.353†             4987.4      518.28 ug/L         6.159      518.28 ppb          6.159   1.19%
   QC value within limits for Pb 220.353  Recovery = 103.66%
S 181.975 Axial†         911.7      1029.3 ug/L         17.91      1029.3 ppb          17.91   1.74%
   QC value within limits for S 181.975 Axial  Recovery = 102.93%
Sb 206.836†             1724.0      522.39 ug/L         8.613      522.39 ppb          8.613   1.65%
   QC value within limits for Sb 206.836  Recovery = 104.48%
Se 196.026†             1012.5      536.24 ug/L         8.568      536.24 ppb          8.568   1.60%
   QC value within limits for Se 196.026  Recovery = 107.25%
Si 251.611†            89002.7      2541.0 ug/L         12.32      2541.0 ppb          12.32   0.48%
   QC value within limits for Si 251.611  Recovery = 101.64%
Sn 189.927†             3460.4      512.44 ug/L         7.070      512.44 ppb          7.070   1.38%
   QC value within limits for Sn 189.927  Recovery = 102.49%
Sr 421.552†            72095.8      527.81 ug/L         1.788      527.81 ppb          1.788   0.34%
   QC value within limits for Sr 421.552  Recovery = 105.56%
Ti 334.940†           327342.2      519.23 ug/L         3.048      519.23 ppb          3.048   0.59%
   QC value within limits for Ti 334.940  Recovery = 103.85%
Tl 190.801†             1874.1      515.36 ug/L         9.012      515.36 ppb          9.012   1.75%
   QC value within limits for Tl 190.801  Recovery = 103.07%
U 409.014†             16491.6      488.65 ug/L         1.442      488.65 ppb          1.442   0.30%
   QC value within limits for U 409.014  Recovery = 97.73%
V 292.402†             80873.1      514.57 ug/L         2.900      514.57 ppb          2.900   0.56%
   QC value within limits for V 292.402  Recovery = 102.91%
Zn 213.857†            62399.1      508.75 ug/L         3.181      508.75 ppb          3.181   0.63%
   QC value within limits for Zn 213.857  Recovery = 101.75%
SiO2†                  89664.9      5477.7 ug/L         58.00      5477.7 ppb          58.00   1.06%
   QC value within limits for SiO2  Recovery = 102.44%
All analyte(s) passed QC.
```

Sequence No.: 21
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/6/2010 17:02:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4706.9	4706.9	101	%			17:04:25
1	Y RADIAL	4979.2	4979.2	100.9	%			17:04:25
1	Al 396.153Radial†	-2.9	23.9	21.147	ug/L	21.147	ppb	17:04:25
1	Ca 317.933Radial†	16.4	3.7	6.2530	ug/L	6.2530	ppb	17:04:45
1	Fe 238.204 Radial†	13.5	-0.5	-3.9863	ug/L	-3.9863	ppb	17:04:45
1	K 766.490 Radial†	3334.7	-29.9	-5.9609	ug/L	-5.9609	ppb	17:04:25
1	Mg 279.077 IEC†	-1.0	-2.6	-82.826	ug/L	-82.826	ppb	17:04:45
1	Na 589.592 Radial†	-1520.3	242.5	73.254	ug/L	73.254	ppb	17:04:25
1	Sr 421.552†	9.7	-6.3	-0.0464	ug/L	-0.0464	ppb	17:04:25
1	Sc 361.383	886072.0	886072.0	99.939	%			17:05:42
1	Y 371.029	759683.3	759683.3	99.728	%			17:05:42
1	Ag 328.068†	540.0	28.0	0.1129	ug/L	0.1129	ppb	17:05:47
1	As 188.979†	-29.8	3.6	1.2429	ug/L	1.2429	ppb	17:06:07
1	B 249.677†	-607.3	58.2	1.2002	ug/L	1.2002	ppb	17:05:47
1	Ba 233.527†	2.1	-5.4	-0.0396	ug/L	-0.0396	ppb	17:06:07
1	Be 313.107†	-4281.0	67.9	0.0232	ug/L	0.0232	ppb	17:05:47
1	Cd 226.502†	-241.6	-3.4	-0.0318	ug/L	-0.0318	ppb	17:06:07
1	Co 228.616†	-87.2	-3.3	-0.0602	ug/L	-0.0602	ppb	17:06:07
1	Cr 267.716†	50.5	-53.5	-0.5382	ug/L	-0.5382	ppb	17:05:47
1	Cu 324.752†	8143.5	149.4	0.4422	ug/L	0.4422	ppb	17:05:47
1	Mn 257.610†	520.1	4.0	0.0054	ug/L	0.0054	ppb	17:05:47
1	Mo 202.031†	32.0	12.1	0.7581	ug/L	0.7581	ppb	17:06:07
1	Ni 231.604†	97.3	-27.7	-0.6087	ug/L	-0.6087	ppb	17:06:07
1	P 214.914†	259.2	10.8	5.1901	ug/L	5.1901	ppb	17:06:07
1	Pb 220.353†	-97.4	-19.7	-2.0349	ug/L	-2.0349	ppb	17:06:07
1	S 181.975 Axial†	65.4	5.5	6.2130	ug/L	6.2130	ppb	17:06:07
1	Sb 206.836†	38.3	1.3	0.4209	ug/L	0.4209	ppb	17:06:07
1	Se 196.026†	-38.4	-5.2	-2.6718	ug/L	-2.6718	ppb	17:06:07
1	Si 251.611†	675.6	59.4	1.6909	ug/L	1.6909	ppb	17:06:07
1	Sn 189.927†	7.7	4.3	0.6391	ug/L	0.6391	ppb	17:06:07
1	Ti 334.940†	-1724.0	92.3	0.1438	ug/L	0.1438	ppb	17:05:47
1	Tl 190.801†	-39.7	13.7	3.7364	ug/L	3.7364	ppb	17:06:07
1	U 409.014†	-2424.8	242.5	7.2094	ug/L	7.2094	ppb	17:05:42
1	V 292.402†	-1792.6	8.1	0.0745	ug/L	0.0745	ppb	17:05:47
1	Zn 213.857†	833.9	2.8	0.0292	ug/L	0.0292	ppb	17:06:07
1	SiO2†	704.4	68.8	4.1969	ug/L	4.1969	ppb	17:07:13
2	Sc Radial	4402.0	4402.0	94.3	%			17:04:50
2	Y RADIAL	4656.6	4656.6	94.40	%			17:04:50
2	Al 396.153Radial†	-12.6	13.3	11.791	ug/L	11.791	ppb	17:04:50
2	Ca 317.933Radial†	18.3	6.8	11.402	ug/L	11.402	ppb	17:05:10
2	Fe 238.204 Radial†	13.1	0.1	0.5926	ug/L	0.5926	ppb	17:05:10
2	K 766.490 Radial†	3385.7	253.2	50.250	ug/L	50.250	ppb	17:04:50
2	Mg 279.077 IEC†	1.2	-0.3	-10.798	ug/L	-10.798	ppb	17:05:10
2	Na 589.592 Radial†	-1515.0	143.7	43.422	ug/L	43.422	ppb	17:04:50
2	Sr 421.552†	18.4	3.5	0.0258	ug/L	0.0258	ppb	17:04:50
2	Sc 361.383	876925.8	876925.8	98.908	%			17:06:12
2	Y 371.029	752304.2	752304.2	98.759	%			17:06:12
2	Ag 328.068†	562.4	56.3	0.2414	ug/L	0.2414	ppb	17:06:17
2	As 188.979†	-27.2	6.0	2.0842	ug/L	2.0842	ppb	17:06:37
2	B 249.677†	-672.6	-14.2	-0.2933	ug/L	-0.2933	ppb	17:06:17
2	Ba 233.527†	-4.6	-12.2	-0.0883	ug/L	-0.0883	ppb	17:06:37
2	Be 313.107†	-4363.8	-60.5	-0.0205	ug/L	-0.0205	ppb	17:06:17
2	Cd 226.502†	-244.2	-8.5	-0.0805	ug/L	-0.0805	ppb	17:06:37
2	Co 228.616†	-83.0	0.1	0.0030	ug/L	0.0030	ppb	17:06:37
2	Cr 267.716†	83.6	-19.5	-0.1953	ug/L	-0.1953	ppb	17:06:17
2	Cu 324.752†	8037.2	127.0	0.3759	ug/L	0.3759	ppb	17:06:17
2	Mn 257.610†	475.7	-35.5	-0.0371	ug/L	-0.0371	ppb	17:06:17
2	Mo 202.031†	27.8	8.2	0.5141	ug/L	0.5141	ppb	17:06:37
2	Ni 231.604†	117.3	-6.5	-0.1426	ug/L	-0.1426	ppb	17:06:37

2	P 214.914†	242.8	-3.1	-1.5662 ug/L	-1.5662 ppb	17:06:37
2	Pb 220.353†	-93.9	-17.1	-1.7709 ug/L	-1.7709 ppb	17:06:37
2	S 181.975 Axial†	61.1	1.9	2.1724 ug/L	2.1724 ppb	17:06:37
2	Sb 206.836†	33.9	-2.8	-0.8123 ug/L	-0.8123 ppb	17:06:37
2	Se 196.026†	-37.0	-4.1	-2.1082 ug/L	-2.1082 ppb	17:06:37
2	Si 251.611†	652.6	43.2	1.2151 ug/L	1.2151 ppb	17:06:37
2	Sn 189.927†	2.9	-0.5	-0.0727 ug/L	-0.0727 ppb	17:06:37
2	Ti 334.940†	-1806.2	-8.8	-0.0142 ug/L	-0.0142 ppb	17:06:17
2	Tl 190.801†	-49.8	3.1	0.8415 ug/L	0.8415 ppb	17:06:37
2	U 409.014†	-2573.7	66.6	1.9804 ug/L	1.9804 ppb	17:06:12
2	V 292.402†	-1734.5	48.2	0.3134 ug/L	0.3134 ppb	17:06:17
2	Zn 213.857†	846.5	24.2	0.1994 ug/L	0.1994 ppb	17:06:37
2	SiO2†	699.4	71.1	4.3074 ug/L	4.3074 ppb	17:07:18
3	Sc Radial	4626.0	4626.0	99.1 %		17:05:15
3	Y RADIAL	4914.5	4914.5	99.63 %		17:05:15
3	Al 396.153Radial†	-16.5	10.0	8.8864 ug/L	8.8864 ppb	17:05:15
3	Ca 317.933Radial†	21.1	8.7	14.579 ug/L	14.579 ppb	17:05:35
3	Fe 238.204 Radial†	10.7	-3.0	-26.696 ug/L	-26.696 ppb	17:05:35
3	K 766.490 Radial†	3443.7	138.0	27.358 ug/L	27.358 ppb	17:05:15
3	Mg 279.077 IEC†	0.0	-1.6	-51.916 ug/L	-51.916 ppb	17:05:35
3	Na 589.592 Radial†	-1483.7	253.0	76.436 ug/L	76.436 ppb	17:05:15
3	Sr 421.552†	-22.5	-38.7	-0.2832 ug/L	-0.2832 ppb	17:05:15
3	Sc 361.383	886977.7	886977.7	100.04 %		17:06:42
3	Y 371.029	760417.0	760417.0	99.824 %		17:06:42
3	Ag 328.068†	480.1	-32.5	-0.1464 ug/L	-0.1464 ppb	17:06:47
3	As 188.979†	-22.7	10.7	3.7513 ug/L	3.7513 ppb	17:07:07
3	B 249.677†	-697.4	-31.2	-0.6403 ug/L	-0.6403 ppb	17:06:47
3	Ba 233.527†	-8.8	-16.3	-0.1181 ug/L	-0.1181 ppb	17:07:07
3	Be 313.107†	-4350.2	3.1	0.0011 ug/L	0.0011 ppb	17:06:47
3	Cd 226.502†	-258.9	-20.4	-0.1898 ug/L	-0.1898 ppb	17:07:07
3	Co 228.616†	-92.3	-8.3	-0.1551 ug/L	-0.1551 ppb	17:07:07
3	Cr 267.716†	77.6	-26.5	-0.2651 ug/L	-0.2651 ppb	17:06:47
3	Cu 324.752†	7905.5	-96.8	-0.2880 ug/L	-0.2880 ppb	17:06:47
3	Mn 257.610†	527.2	10.5	0.0094 ug/L	0.0094 ppb	17:06:47
3	Mo 202.031†	25.0	5.0	0.3129 ug/L	0.3129 ppb	17:07:07
3	Ni 231.604†	116.3	-8.8	-0.1923 ug/L	-0.1923 ppb	17:07:07
3	P 214.914†	256.2	7.6	3.7652 ug/L	3.7652 ppb	17:07:07
3	Pb 220.353†	-69.9	7.9	0.8237 ug/L	0.8237 ppb	17:07:07
3	S 181.975 Axial†	70.1	10.2	11.501 ug/L	11.501 ppb	17:07:07
3	Sb 206.836†	54.5	17.4	5.2316 ug/L	5.2316 ppb	17:07:07
3	Se 196.026†	-33.0	0.2	0.0453 ug/L	0.0453 ppb	17:07:07
3	Si 251.611†	658.4	41.6	1.1755 ug/L	1.1755 ppb	17:07:07
3	Sn 189.927†	9.6	6.2	0.9136 ug/L	0.9136 ppb	17:07:07
3	Ti 334.940†	-1814.0	4.1	0.0072 ug/L	0.0072 ppb	17:06:47
3	Tl 190.801†	-46.2	7.2	1.9728 ug/L	1.9728 ppb	17:07:07
3	U 409.014†	-2654.3	15.5	0.4659 ug/L	0.4659 ppb	17:06:42
3	V 292.402†	-1699.4	103.1	0.6558 ug/L	0.6558 ppb	17:06:47
3	Zn 213.857†	848.8	16.7	0.1422 ug/L	0.1422 ppb	17:07:07
3	SiO2†	634.3	-2.0	-0.1608 ug/L	-0.1608 ppb	17:07:23

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	883325.2	99.630	%	0.6272				0.63%
Sc Radial	4578.3	98.1	%	3.38				3.45%
Y 371.029	757468.2	99.437	%	0.5891				0.59%
Y RADIAL	4850.1	98.32	%	3.459				3.52%
Ag 328.068†	17.3	0.0693	ug/L	0.19754	0.0693	ppb	0.19754	285.15%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	15.7	13.941	ug/L	6.4067	13.941	ppb	6.4067	45.96%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.7	2.3594	ug/L	1.27665	2.3594	ppb	1.27665	54.11%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	4.2	0.0889	ug/L	0.97798	0.0889	ppb	0.97798	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-11.3	-0.0820	ug/L	0.03958	-0.0820	ppb	0.03958	48.28%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	3.5	0.0013	ug/L	0.02186	0.0013	ppb	0.02186	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.4	10.745	ug/L	4.2019	10.745	ppb	4.2019	39.11%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -10.8     -0.1007 ug/L       0.08093     -0.1007 ppb        0.08093  80.36%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -3.8     -0.0708 ug/L       0.07956     -0.0708 ppb        0.07956 112.39%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -33.2     -0.3329 ug/L       0.18120     -0.3329 ppb        0.18120  54.44%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               59.9      0.1767 ug/L       0.40378      0.1767 ppb        0.40378 228.49%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -1.1     -10.030 ug/L       14.6139     -10.030 ppb        14.6139 145.70%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        120.4      23.882 ug/L       28.2660      23.882 ppb        28.2660 118.36%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.5     -48.514 ug/L       36.1343     -48.514 ppb        36.1343  74.48%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -7.0     -0.0074 ug/L       0.02577     -0.0074 ppb        0.02577 345.87%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                8.4      0.5284 ug/L       0.22294      0.5284 ppb        0.22294  42.19%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       213.1      64.371 ug/L       18.2116      64.371 ppb        18.2116  28.29%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -14.3     -0.3145 ug/L       0.25592     -0.3145 ppb        0.25592  81.36%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 5.1      2.4631 ug/L       3.56139      2.4631 ppb        3.56139 144.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -9.6     -0.9940 ug/L       1.57975     -0.9940 ppb        1.57975 158.92%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           5.9      6.6289 ug/L       4.67831      6.6289 ppb        4.67831  70.57%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.3      1.6134 ug/L       3.19355      1.6134 ppb        3.19355 197.94%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.0     -1.5782 ug/L       1.43398     -1.5782 ppb        1.43398  90.86%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               48.1      1.3605 ug/L       0.28681      1.3605 ppb        0.28681  21.08%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.3      0.4933 ug/L       0.50904      0.4933 ppb        0.50904 103.18%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -13.8     -0.1013 ug/L       0.16166     -0.1013 ppb        0.16166 159.62%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               29.2      0.0456 ug/L       0.08571      0.0456 ppb        0.08571 187.98%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                8.0      2.1836 ug/L       1.45894      2.1836 ppb        1.45894  66.81%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               108.2      3.2186 ug/L       3.53814      3.2186 ppb        3.53814 109.93%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                53.1      0.3479 ug/L       0.29219      0.3479 ppb        0.29219  83.99%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               14.6      0.1236 ug/L       0.08660      0.1236 ppb        0.08660  70.05%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     46.0      2.7812 ug/L       2.54842      2.7812 ppb        2.54842  91.63%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 29
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/6/2010 17:59:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4799.3	4799.3	103	%			18:01:19
1	Y RADIAL	5073.0	5073.0	102.8	%			18:01:19
1	Al 396.153Radial†	5861.1	5726.9	5058.0	ug/L	5058.0	ppb	18:01:19
1	Ca 317.933Radial†	3105.1	3007.4	5039.4	ug/L	5039.4	ppb	18:01:39
1	Fe 238.204 Radial†	588.8	558.7	4925.2	ug/L	4925.2	ppb	18:01:39
1	K 766.490 Radial†	28792.3	24665.5	4887.3	ug/L	4887.3	ppb	18:01:19
1	Mg 279.077 IEC†	164.2	158.1	5060.2	ug/L	5060.2	ppb	18:01:39
1	Na 589.592 Radial†	33099.6	33941.4	10253	ug/L	10253	ppb	18:01:19
1	Sr 421.552†	72304.5	70304.3	514.70	ug/L	514.70	ppb	18:01:19
1	Sc 361.383	886340.9	886340.9	99.970	%			18:02:38
1	Y 371.029	752822.2	752822.2	98.827	%			18:02:38
1	Ag 328.068†	117838.2	117361.5	507.27	ug/L	507.27	ppb	18:02:38
1	As 188.979†	1389.3	1423.2	502.58	ug/L	502.58	ppb	18:02:58
1	B 249.677†	23516.1	24189.1	496.85	ug/L	496.85	ppb	18:02:38
1	Ba 233.527†	69415.8	69429.4	507.51	ug/L	507.51	ppb	18:02:38
1	Be 313.107†	1505478.4	1510286.1	511.48	ug/L	511.48	ppb	18:02:38
1	Cd 226.502†	53419.8	53674.4	505.35	ug/L	505.35	ppb	18:02:38
1	Co 228.616†	26285.1	26377.0	496.07	ug/L	496.07	ppb	18:02:58
1	Cr 267.716†	50319.5	50230.7	504.09	ug/L	504.09	ppb	18:02:38
1	Cu 324.752†	179261.6	171316.9	507.46	ug/L	507.46	ppb	18:02:38
1	Mn 257.610†	485811.0	485441.7	511.88	ug/L	511.88	ppb	18:02:38
1	Mo 202.031†	7985.6	7968.1	499.65	ug/L	499.65	ppb	18:02:58
1	Ni 231.604†	22668.5	22550.3	494.72	ug/L	494.72	ppb	18:02:58
1	P 214.914†	5364.3	5117.4	2418.1	ug/L	2418.1	ppb	18:02:58
1	Pb 220.353†	4730.4	4809.6	499.81	ug/L	499.81	ppb	18:02:58
1	S 181.975 Axial†	943.4	883.8	997.81	ug/L	997.81	ppb	18:02:58
1	Sb 206.836†	1714.4	1677.8	508.19	ug/L	508.19	ppb	18:02:58
1	Se 196.026†	947.6	981.1	519.55	ug/L	519.55	ppb	18:02:58
1	Si 251.611†	88711.7	88122.0	2516.0	ug/L	2516.0	ppb	18:02:38
1	Sn 189.927†	3376.2	3373.8	499.62	ug/L	499.62	ppb	18:02:58
1	Ti 334.940†	322428.6	324343.7	514.47	ug/L	514.47	ppb	18:02:38
1	Tl 190.801†	1774.2	1828.1	502.80	ug/L	502.80	ppb	18:02:58
1	U 409.014†	13816.7	16489.6	488.62	ug/L	488.62	ppb	18:02:38
1	V 292.402†	78337.4	80163.0	509.92	ug/L	509.92	ppb	18:02:38
1	Zn 213.857†	62533.2	61720.5	503.29	ug/L	503.29	ppb	18:02:38
1	SiO2†	88196.5	87587.2	5350.9	ug/L	5350.9	ppb	18:03:59
2	Sc Radial	4622.8	4622.8	99.0	%			18:01:44
2	Y RADIAL	4877.6	4877.6	98.88	%			18:01:44
2	Al 396.153Radial†	5784.0	5866.8	5181.7	ug/L	5181.7	ppb	18:01:44
2	Ca 317.933Radial†	3105.7	3123.3	5233.6	ug/L	5233.6	ppb	18:02:04
2	Fe 238.204 Radial†	587.4	579.2	5105.4	ug/L	5105.4	ppb	18:02:04
2	K 766.490 Radial†	28645.8	25586.7	5070.1	ug/L	5070.1	ppb	18:01:44
2	Mg 279.077 IEC†	166.4	166.3	5324.7	ug/L	5324.7	ppb	18:02:04
2	Na 589.592 Radial†	32647.2	34713.7	10486	ug/L	10486	ppb	18:01:44
2	Sr 421.552†	71351.6	72027.0	527.31	ug/L	527.31	ppb	18:01:44
2	Sc 361.383	876653.7	876653.7	98.877	%			18:03:06
2	Y 371.029	745175.8	745175.8	97.823	%			18:03:06
2	Ag 328.068†	116367.2	117176.4	506.53	ug/L	506.53	ppb	18:03:06
2	As 188.979†	1403.7	1453.0	513.04	ug/L	513.04	ppb	18:03:26
2	B 249.677†	23245.2	24175.0	496.52	ug/L	496.52	ppb	18:03:06
2	Ba 233.527†	68746.0	69519.2	508.17	ug/L	508.17	ppb	18:03:06
2	Be 313.107†	1484837.8	1506052.1	510.04	ug/L	510.04	ppb	18:03:06
2	Cd 226.502†	52836.4	53674.8	505.34	ug/L	505.34	ppb	18:03:06
2	Co 228.616†	26373.7	26757.2	503.24	ug/L	503.24	ppb	18:03:26
2	Cr 267.716†	49744.4	50205.3	503.84	ug/L	503.84	ppb	18:03:06
2	Cu 324.752†	176976.9	170987.8	506.49	ug/L	506.49	ppb	18:03:06
2	Mn 257.610†	479927.8	484861.8	511.28	ug/L	511.28	ppb	18:03:06
2	Mo 202.031†	8030.6	8101.8	508.04	ug/L	508.04	ppb	18:03:26
2	Ni 231.604†	22788.2	22921.9	502.87	ug/L	502.87	ppb	18:03:26

2	P 214.914†	5378.6	5191.1	2454.1 ug/L	2454.1 ppb	18:03:26
2	Pb 220.353†	4761.0	4892.8	508.47 ug/L	508.47 ppb	18:03:26
2	S 181.975 Axial†	948.4	899.3	1015.3 ug/L	1015.3 ppb	18:03:26
2	Sb 206.836†	1709.3	1691.6	512.58 ug/L	512.58 ppb	18:03:26
2	Se 196.026†	947.3	991.3	525.38 ug/L	525.38 ppb	18:03:26
2	Si 251.611†	87763.7	88143.8	2516.5 ug/L	2516.5 ppb	18:03:06
2	Sn 189.927†	3371.5	3406.4	504.46 ug/L	504.46 ppb	18:03:26
2	Ti 334.940†	318447.9	323881.7	513.75 ug/L	513.75 ppb	18:03:06
2	Tl 190.801†	1784.4	1858.1	510.94 ug/L	510.94 ppb	18:03:26
2	U 409.014†	13696.1	16520.4	489.51 ug/L	489.51 ppb	18:03:06
2	V 292.402†	77480.6	80162.3	510.02 ug/L	510.02 ppb	18:03:06
2	Zn 213.857†	61783.9	61653.8	502.67 ug/L	502.67 ppb	18:03:06
2	SiO2†	87710.1	88070.2	5380.1 ug/L	5380.1 ppb	18:04:04
3	Sc Radial	4655.4	4655.4	99.7 %		18:02:09
3	Y RADIAL	4936.1	4936.1	100.1 %		18:02:09
3	Al 396.153Radial†	5839.5	5881.5	5194.7 ug/L	5194.7 ppb	18:02:09
3	Ca 317.933Radial†	3111.5	3107.1	5206.5 ug/L	5206.5 ppb	18:02:30
3	Fe 238.204 Radial†	587.1	574.7	5066.0 ug/L	5066.0 ppb	18:02:30
3	K 766.490 Radial†	28586.5	25324.6	5018.1 ug/L	5018.1 ppb	18:02:09
3	Mg 279.077 IEC†	164.1	162.9	5214.8 ug/L	5214.8 ppb	18:02:30
3	Na 589.592 Radial†	32791.2	34627.1	10460 ug/L	10460 ppb	18:02:09
3	Sr 421.552†	71844.1	72016.1	527.23 ug/L	527.23 ppb	18:02:09
3	Sc 361.383	878593.1	878593.1	99.096 %		18:03:33
3	Y 371.029	746219.3	746219.3	97.960 %		18:03:33
3	Ag 328.068†	116532.8	117083.7	506.12 ug/L	506.12 ppb	18:03:33
3	As 188.979†	1397.1	1443.3	509.63 ug/L	509.63 ppb	18:03:53
3	B 249.677†	23376.3	24255.4	498.18 ug/L	498.18 ppb	18:03:33
3	Ba 233.527†	68831.6	69452.1	507.68 ug/L	507.68 ppb	18:03:33
3	Be 313.107†	1490600.0	1508552.0	510.89 ug/L	510.89 ppb	18:03:33
3	Cd 226.502†	53080.8	53803.5	506.55 ug/L	506.55 ppb	18:03:33
3	Co 228.616†	26397.0	26721.8	502.57 ug/L	502.57 ppb	18:03:53
3	Cr 267.716†	49890.7	50241.8	504.21 ug/L	504.21 ppb	18:03:33
3	Cu 324.752†	176862.0	170476.7	504.98 ug/L	504.98 ppb	18:03:33
3	Mn 257.610†	481678.3	485556.8	512.01 ug/L	512.01 ppb	18:03:33
3	Mo 202.031†	8040.0	8093.5	507.52 ug/L	507.52 ppb	18:03:53
3	Ni 231.604†	22805.5	22888.5	502.14 ug/L	502.14 ppb	18:03:53
3	P 214.914†	5381.3	5181.8	2449.9 ug/L	2449.9 ppb	18:03:53
3	Pb 220.353†	4766.8	4888.0	507.98 ug/L	507.98 ppb	18:03:53
3	S 181.975 Axial†	938.4	887.0	1001.4 ug/L	1001.4 ppb	18:03:53
3	Sb 206.836†	1713.3	1691.9	512.62 ug/L	512.62 ppb	18:03:53
3	Se 196.026†	960.3	1002.3	530.86 ug/L	530.86 ppb	18:03:53
3	Si 251.611†	87908.3	88093.9	2515.0 ug/L	2515.0 ppb	18:03:33
3	Sn 189.927†	3370.4	3397.7	503.17 ug/L	503.17 ppb	18:03:53
3	Ti 334.940†	319041.2	323769.6	513.57 ug/L	513.57 ppb	18:03:33
3	Tl 190.801†	1768.8	1838.3	505.54 ug/L	505.54 ppb	18:03:53
3	U 409.014†	13626.6	16419.6	486.52 ug/L	486.52 ppb	18:03:33
3	V 292.402†	77656.5	80166.8	510.04 ug/L	510.04 ppb	18:03:33
3	Zn 213.857†	61955.7	61689.3	502.97 ug/L	502.97 ppb	18:03:33
3	SiO2†	86645.9	86800.4	5302.2 ug/L	5302.2 ppb	18:04:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	880529.2	99.314	%	0.5781				0.58%
Sc Radial	4692.5	101	%	2.0				2.00%
Y 371.029	748072.4	98.204	%	0.5443				0.55%
Y RADIAL	4962.2	100.6	%	2.03				2.02%
Ag 328.068†	117207.2	506.64	ug/L	0.581	506.64	ppb	0.581	0.11%
QC value within limits for Ag 328.068 Recovery = 101.33%								
Al 396.153Radial†	5825.1	5144.8	ug/L	75.45	5144.8	ppb	75.45	1.47%
QC value within limits for Al 396.153Radial Recovery = 102.90%								
As 188.979†	1439.8	508.42	ug/L	5.335	508.42	ppb	5.335	1.05%
QC value within limits for As 188.979 Recovery = 101.68%								
B 249.677†	24206.5	497.18	ug/L	0.882	497.18	ppb	0.882	0.18%
QC value within limits for B 249.677 Recovery = 99.44%								
Ba 233.527†	69466.9	507.79	ug/L	0.343	507.79	ppb	0.343	0.07%
QC value within limits for Ba 233.527 Recovery = 101.56%								
Be 313.107†	1508296.7	510.80	ug/L	0.720	510.80	ppb	0.720	0.14%
QC value within limits for Be 313.107 Recovery = 102.16%								
Ca 317.933Radial†	3079.3	5159.8	ug/L	105.19	5159.8	ppb	105.19	2.04%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.20%
Cd 226.502†            53717.6      505.75 ug/L         0.699      505.75 ppb          0.699   0.14%
   QC value within limits for Cd 226.502  Recovery = 101.15%
Co 228.616†            26618.7      500.62 ug/L         3.961      500.62 ppb          3.961   0.79%
   QC value within limits for Co 228.616  Recovery = 100.12%
Cr 267.716†            50225.9      504.05 ug/L         0.188      504.05 ppb          0.188   0.04%
   QC value within limits for Cr 267.716  Recovery = 100.81%
Cu 324.752†           170927.1      506.31 ug/L         1.250      506.31 ppb          1.250   0.25%
   QC value within limits for Cu 324.752  Recovery = 101.26%
Fe 238.204 Radial†       570.9      5032.2 ug/L        94.72      5032.2 ppb         94.72   1.88%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.64%
K 766.490 Radial†      25192.2      4991.8 ug/L        94.18      4991.8 ppb         94.18   1.89%
   QC value within limits for K 766.490 Radial  Recovery = 99.84%
Mg 279.077 IEC†          162.4      5199.9 ug/L       132.91      5199.9 ppb        132.91   2.56%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.00%
Mn 257.610†           485286.8      511.73 ug/L         0.389      511.73 ppb          0.389   0.08%
   QC value within limits for Mn 257.610  Recovery = 102.35%
Mo 202.031†             8054.5      505.07 ug/L         4.701      505.07 ppb          4.701   0.93%
   QC value within limits for Mo 202.031  Recovery = 101.01%
Na 589.592 Radial†     34427.4       10400 ug/L       127.8         10400 ppb        127.8   1.23%
   QC value within limits for Na 589.592 Radial  Recovery = 104.00%
Ni 231.604†            22786.9      499.91 ug/L         4.511      499.91 ppb          4.511   0.90%
   QC value within limits for Ni 231.604  Recovery = 99.98%
P 214.914†              5163.4      2440.7 ug/L        19.69      2440.7 ppb         19.69   0.81%
   QC value within limits for P 214.914  Recovery = 97.63%
Pb 220.353†             4863.5      505.42 ug/L         4.863      505.42 ppb          4.863   0.96%
   QC value within limits for Pb 220.353  Recovery = 101.08%
S 181.975 Axial†         890.0      1004.8 ug/L         9.23      1004.8 ppb          9.23   0.92%
   QC value within limits for S 181.975 Axial  Recovery = 100.48%
Sb 206.836†             1687.1      511.13 ug/L         2.546      511.13 ppb          2.546   0.50%
   QC value within limits for Sb 206.836  Recovery = 102.23%
Se 196.026†              991.6      525.26 ug/L         5.658      525.26 ppb          5.658   1.08%
   QC value within limits for Se 196.026  Recovery = 105.05%
Si 251.611†            88119.9      2515.9 ug/L         0.72      2515.9 ppb          0.72   0.03%
   QC value within limits for Si 251.611  Recovery = 100.63%
Sn 189.927†             3392.6      502.42 ug/L         2.508      502.42 ppb          2.508   0.50%
   QC value within limits for Sn 189.927  Recovery = 100.48%
Sr 421.552†            71449.1      523.08 ug/L         7.258      523.08 ppb          7.258   1.39%
   QC value within limits for Sr 421.552  Recovery = 104.62%
Ti 334.940†           323998.3      513.93 ug/L         0.477      513.93 ppb          0.477   0.09%
   QC value within limits for Ti 334.940  Recovery = 102.79%
Tl 190.801†             1841.5      506.43 ug/L         4.142      506.43 ppb          4.142   0.82%
   QC value within limits for Tl 190.801  Recovery = 101.29%
U 409.014†             16476.5      488.22 ug/L         1.535      488.22 ppb          1.535   0.31%
   QC value within limits for U 409.014  Recovery = 97.64%
V 292.402†             80164.1      509.99 ug/L         0.062      509.99 ppb          0.062   0.01%
   QC value within limits for V 292.402  Recovery = 102.00%
Zn 213.857†            61687.9      502.97 ug/L         0.309      502.97 ppb          0.309   0.06%
   QC value within limits for Zn 213.857  Recovery = 100.59%
SiO2†                  87485.9      5344.4 ug/L        39.35      5344.4 ppb         39.35   0.74%
   QC value within limits for SiO2  Recovery = 99.94%
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/6/2010 18:06:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4627.9	4627.9	99.1	%			18:08:11
1	Y RADIAL	4901.2	4901.2	99.36	%			18:08:11
1	Al 396.153Radial†	13.5	40.4	35.767	ug/L	35.767	ppb	18:08:11
1	Ca 317.933Radial†	20.5	8.1	13.579	ug/L	13.579	ppb	18:08:31
1	Fe 238.204 Radial†	12.1	-1.7	-14.998	ug/L	-14.998	ppb	18:08:31
1	K 766.490 Radial†	3482.3	175.4	34.792	ug/L	34.792	ppb	18:08:11
1	Mg 279.077 IEC†	-1.0	-2.7	-84.902	ug/L	-84.902	ppb	18:08:31
1	Na 589.592 Radial†	-1508.7	228.5	69.030	ug/L	69.030	ppb	18:08:11
1	Sr 421.552†	40.8	25.2	0.1841	ug/L	0.1841	ppb	18:08:11
1	Sc 361.383	857563.6	857563.6	96.724	%			18:09:28
1	Y 371.029	736898.6	736898.6	96.737	%			18:09:28
1	Ag 328.068†	502.2	6.9	0.0332	ug/L	0.0332	ppb	18:09:28
1	As 188.979†	-37.7	-5.6	-1.9582	ug/L	-1.9582	ppb	18:09:48
1	B 249.677†	-643.5	0.5	0.0125	ug/L	0.0125	ppb	18:09:28
1	Ba 233.527†	12.3	5.2	0.0373	ug/L	0.0373	ppb	18:09:48
1	Be 313.107†	-4321.5	-116.3	-0.0395	ug/L	-0.0395	ppb	18:09:28
1	Cd 226.502†	-226.6	4.1	0.0403	ug/L	0.0403	ppb	18:09:48
1	Co 228.616†	-79.1	2.2	0.0443	ug/L	0.0443	ppb	18:09:48
1	Cr 267.716†	111.6	11.3	0.1163	ug/L	0.1163	ppb	18:09:28
1	Cu 324.752†	8083.6	358.3	1.0602	ug/L	1.0602	ppb	18:09:28
1	Mn 257.610†	559.4	61.9	0.0653	ug/L	0.0653	ppb	18:09:28
1	Mo 202.031†	30.8	11.9	0.7443	ug/L	0.7443	ppb	18:09:48
1	Ni 231.604†	119.6	-1.4	-0.0318	ug/L	-0.0318	ppb	18:09:48
1	P 214.914†	238.7	-1.8	-1.0226	ug/L	-1.0226	ppb	18:09:48
1	Pb 220.353†	-83.9	-9.0	-0.9243	ug/L	-0.9243	ppb	18:09:48
1	S 181.975 Axial†	65.9	8.2	9.2691	ug/L	9.2691	ppb	18:09:48
1	Sb 206.836†	53.6	18.3	5.4663	ug/L	5.4663	ppb	18:09:48
1	Se 196.026†	-31.8	0.4	0.1519	ug/L	0.1519	ppb	18:09:48
1	Si 251.611†	680.5	87.0	2.4721	ug/L	2.4721	ppb	18:09:48
1	Sn 189.927†	1.2	-2.2	-0.3255	ug/L	-0.3255	ppb	18:09:48
1	Ti 334.940†	-1806.1	-49.9	-0.0735	ug/L	-0.0735	ppb	18:09:28
1	Tl 190.801†	-48.2	3.6	0.9717	ug/L	0.9717	ppb	18:09:48
1	U 409.014†	-2950.6	-381.8	-11.348	ug/L	-11.348	ppb	18:09:28
1	V 292.402†	-1776.9	-35.2	-0.2320	ug/L	-0.2320	ppb	18:09:28
1	Zn 213.857†	843.2	40.1	0.3324	ug/L	0.3324	ppb	18:09:48
1	SiO2†	650.5	36.5	2.1879	ug/L	2.1879	ppb	18:10:44
2	Sc Radial	4743.7	4743.7	102	%			18:08:36
2	Y RADIAL	5010.2	5010.2	101.6	%			18:08:36
2	Al 396.153Radial†	-26.9	0.3	0.2372	ug/L	0.2372	ppb	18:08:36
2	Ca 317.933Radial†	20.0	7.1	11.869	ug/L	11.869	ppb	18:08:56
2	Fe 238.204 Radial†	12.2	-1.9	-16.636	ug/L	-16.636	ppb	18:08:56
2	K 766.490 Radial†	3422.6	31.0	6.1060	ug/L	6.1060	ppb	18:08:36
2	Mg 279.077 IEC†	0.7	-0.9	-30.337	ug/L	-30.337	ppb	18:08:56
2	Na 589.592 Radial†	-1491.8	282.2	85.248	ug/L	85.248	ppb	18:08:36
2	Sr 421.552†	-21.0	-36.7	-0.2687	ug/L	-0.2687	ppb	18:08:36
2	Sc 361.383	868954.8	868954.8	98.009	%			18:09:53
2	Y 371.029	746739.3	746739.3	98.029	%			18:09:53
2	Ag 328.068†	408.2	-95.8	-0.4105	ug/L	-0.4105	ppb	18:09:53
2	As 188.979†	-26.3	6.6	2.3055	ug/L	2.3055	ppb	18:10:13
2	B 249.677†	-665.7	-13.4	-0.2729	ug/L	-0.2729	ppb	18:09:53
2	Ba 233.527†	23.2	16.1	0.1191	ug/L	0.1191	ppb	18:10:13
2	Be 313.107†	-4328.4	-64.8	-0.0220	ug/L	-0.0220	ppb	18:09:53
2	Cd 226.502†	-216.4	17.6	0.1670	ug/L	0.1670	ppb	18:10:13
2	Co 228.616†	-88.0	-5.8	-0.1092	ug/L	-0.1092	ppb	18:10:13
2	Cr 267.716†	74.6	-27.9	-0.2770	ug/L	-0.2770	ppb	18:09:53
2	Cu 324.752†	8200.1	367.7	1.0878	ug/L	1.0878	ppb	18:09:53
2	Mn 257.610†	599.8	95.5	0.0996	ug/L	0.0996	ppb	18:09:53
2	Mo 202.031†	19.5	-0.0	-0.0036	ug/L	-0.0036	ppb	18:10:13
2	Ni 231.604†	119.7	-2.9	-0.0636	ug/L	-0.0636	ppb	18:10:13

2	P 214.914†	255.1	11.7	5.5564	ug/L	5.5564 ppb	18:10:13
2	Pb 220.353†	-90.7	-14.8	-1.5344	ug/L	-1.5344 ppb	18:10:13
2	S 181.975 Axial†	66.5	7.9	8.9678	ug/L	8.9678 ppb	18:10:13
2	Sb 206.836†	48.4	12.2	3.6766	ug/L	3.6766 ppb	18:10:13
2	Se 196.026†	-42.7	-10.3	-5.3063	ug/L	-5.3063 ppb	18:10:13
2	Si 251.611†	636.9	33.3	0.9506	ug/L	0.9506 ppb	18:10:13
2	Sn 189.927†	7.6	4.4	0.6494	ug/L	0.6494 ppb	18:10:13
2	Ti 334.940†	-1801.9	-21.1	-0.0308	ug/L	-0.0308 ppb	18:09:53
2	Tl 190.801†	-38.1	14.5	3.9700	ug/L	3.9700 ppb	18:10:13
2	U 409.014†	-2765.9	-153.4	-4.5580	ug/L	-4.5580 ppb	18:09:53
2	V 292.402†	-1644.8	123.6	0.7688	ug/L	0.7688 ppb	18:09:53
2	Zn 213.857†	837.7	23.0	0.1902	ug/L	0.1902 ppb	18:10:13
2	SiO2†	654.3	31.6	1.9284	ug/L	1.9284 ppb	18:10:49
3	Sc Radial	4996.5	4996.5	107	%		18:09:01
3	Y RADIAL	5294.0	5294.0	107.3	%		18:09:01
3	Al 396.153Radial†	-0.5	26.2	23.242	ug/L	23.242 ppb	18:09:01
3	Ca 317.933Radial†	17.4	3.7	6.2637	ug/L	6.2637 ppb	18:09:21
3	Fe 238.204 Radial†	13.2	-1.5	-13.248	ug/L	-13.248 ppb	18:09:21
3	K 766.490 Radial†	3465.2	-99.6	-19.819	ug/L	-19.819 ppb	18:09:01
3	Mg 279.077 IEC†	3.8	2.0	62.468	ug/L	62.468 ppb	18:09:21
3	Na 589.592 Radial†	-1521.2	329.1	99.400	ug/L	99.400 ppb	18:09:01
3	Sr 421.552†	11.2	-5.5	-0.0402	ug/L	-0.0402 ppb	18:09:01
3	Sc 361.383	860563.0	860563.0	97.062	%		18:10:19
3	Y 371.029	739491.7	739491.7	97.077	%		18:10:19
3	Ag 328.068†	409.5	-90.5	-0.3878	ug/L	-0.3878 ppb	18:10:19
3	As 188.979†	-33.8	-1.4	-0.4963	ug/L	-0.4963 ppb	18:10:39
3	B 249.677†	-640.7	5.7	0.1208	ug/L	0.1208 ppb	18:10:19
3	Ba 233.527†	8.7	1.4	0.0096	ug/L	0.0096 ppb	18:10:39
3	Be 313.107†	-4300.2	-78.8	-0.0264	ug/L	-0.0264 ppb	18:10:19
3	Cd 226.502†	-233.0	-1.7	-0.0148	ug/L	-0.0148 ppb	18:10:39
3	Co 228.616†	-96.1	-15.1	-0.2808	ug/L	-0.2808 ppb	18:10:39
3	Cr 267.716†	141.0	41.2	0.4145	ug/L	0.4145 ppb	18:10:19
3	Cu 324.752†	8020.2	264.0	0.7808	ug/L	0.7808 ppb	18:10:19
3	Mn 257.610†	663.0	166.7	0.1731	ug/L	0.1731 ppb	18:10:19
3	Mo 202.031†	33.6	14.7	0.9198	ug/L	0.9198 ppb	18:10:39
3	Ni 231.604†	116.5	-5.1	-0.1109	ug/L	-0.1109 ppb	18:10:39
3	P 214.914†	258.7	18.0	8.6659	ug/L	8.6659 ppb	18:10:39
3	Pb 220.353†	-89.9	-14.9	-1.5350	ug/L	-1.5350 ppb	18:10:39
3	S 181.975 Axial†	58.5	0.4	0.4326	ug/L	0.4326 ppb	18:10:39
3	Sb 206.836†	52.0	16.5	4.9479	ug/L	4.9479 ppb	18:10:39
3	Se 196.026†	-41.0	-9.0	-4.6236	ug/L	-4.6236 ppb	18:10:39
3	Si 251.611†	655.7	59.0	1.6807	ug/L	1.6807 ppb	18:10:39
3	Sn 189.927†	7.0	3.8	0.5579	ug/L	0.5579 ppb	18:10:39
3	Ti 334.940†	-1702.8	63.0	0.1034	ug/L	0.1034 ppb	18:10:19
3	Tl 190.801†	-49.9	2.0	0.5561	ug/L	0.5561 ppb	18:10:39
3	U 409.014†	-2834.8	-251.9	-7.4873	ug/L	-7.4873 ppb	18:10:19
3	V 292.402†	-1792.0	-44.5	-0.2773	ug/L	-0.2773 ppb	18:10:19
3	Zn 213.857†	858.1	52.4	0.4289	ug/L	0.4289 ppb	18:10:39
3	SiO2†	707.2	92.6	5.6596	ug/L	5.6596 ppb	18:10:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	862360.5	97.265	%	0.6660				0.68%
Sc Radial	4789.4	103	%	4.0				3.94%
Y 371.029	741043.2	97.281	%	0.6696				0.69%
Y RADIAL	5068.5	102.7	%	4.11				4.00%
Ag 328.068†	-59.8	-0.2550	ug/L	0.24991	-0.2550	ppb	0.24991	97.99%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	22.3	19.749	ug/L	18.0206	19.749	ppb	18.0206	91.25%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.0496	ug/L	2.16666	-0.0496	ppb	2.16666	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-2.4	-0.0465	ug/L	0.20338	-0.0465	ppb	0.20338	437.09%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.6	0.0553	ug/L	0.05692	0.0553	ppb	0.05692	102.86%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-86.6	-0.0293	ug/L	0.00909	-0.0293	ppb	0.00909	31.04%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.3	10.570	ug/L	3.8266	10.570	ppb	3.8266	36.20%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                6.7      0.0642 ug/L       0.09324      0.0642 ppb        0.09324 145.29%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -6.2     -0.1152 ug/L       0.16259     -0.1152 ppb        0.16259 141.11%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                8.2      0.0846 ug/L       0.34683      0.0846 ppb        0.34683 409.92%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              330.0      0.9763 ug/L       0.16984      0.9763 ppb        0.16984  17.40%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -1.7     -14.961 ug/L        1.6942     -14.961 ppb         1.6942  11.32%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         35.6      7.0266 ug/L      27.31713      7.0266 ppb       27.31713 388.77%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.6     -17.590 ug/L       74.5072     -17.590 ppb        74.5072 423.57%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              108.0      0.1127 ug/L       0.05511      0.1127 ppb        0.05511  48.92%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                8.9      0.5535 ug/L       0.49036      0.5535 ppb        0.49036  88.59%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       279.9      84.559 ug/L       15.1967      84.559 ppb        15.1967  17.97%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -3.1     -0.0687 ug/L       0.03979     -0.0687 ppb        0.03979  57.88%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 9.3      4.3999 ug/L       4.94675      4.3999 ppb        4.94675 112.43%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -12.9     -1.3312 ug/L       0.35246     -1.3312 ppb        0.35246  26.48%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           5.5      6.2232 ug/L       5.01703      6.2232 ppb        5.01703  80.62%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               15.7      4.6969 ug/L       0.92084      4.6969 ppb        0.92084  19.61%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -6.3     -3.2594 ug/L       2.97385     -3.2594 ppb        2.97385  91.24%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               59.8      1.7011 ug/L       0.76097      1.7011 ppb        0.76097  44.73%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.0      0.2939 ug/L       0.53840      0.2939 ppb        0.53840 183.17%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -5.7     -0.0416 ug/L       0.22642     -0.0416 ppb        0.22642 543.80%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -2.7     -0.0003 ug/L       0.09233     -0.0003 ppb        0.09233 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                6.7      1.8326 ug/L       1.86270      1.8326 ppb        1.86270 101.64%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -262.4     -7.7979 ug/L       3.40575     -7.7979 ppb        3.40575  43.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                14.6      0.0865 ug/L       0.59132      0.0865 ppb        0.59132 683.68%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               38.5      0.3171 ug/L       0.12009      0.3171 ppb        0.12009  37.87%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     53.5      3.2586 ug/L       2.08333      3.2586 ppb        2.08333  63.93%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 40
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/6/2010 19:15:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4675.6	4675.6	100	%			19:16:57
1	Y RADIAL	4918.2	4918.2	99.70	%			19:16:57
1	Al 396.153Radial†	5849.2	5865.9	5179.1	ug/L	5179.1	ppb	19:16:57
1	Ca 317.933Radial†	3089.0	3071.1	5146.2	ug/L	5146.2	ppb	19:17:18
1	Fe 238.204 Radial†	570.3	555.4	4897.6	ug/L	4897.6	ppb	19:17:18
1	K 766.490 Radial†	28367.7	24982.4	4950.0	ug/L	4950.0	ppb	19:16:57
1	Mg 279.077 IEC†	164.3	162.4	5199.1	ug/L	5199.1	ppb	19:17:18
1	Na 589.592 Radial†	31409.9	33106.3	10001	ug/L	10001	ppb	19:16:57
1	Sr 421.552†	70917.2	70779.8	518.18	ug/L	518.18	ppb	19:16:57
1	Sc 361.383	819845.5	819845.5	92.470	%			19:18:16
1	Y 371.029	696920.3	696920.3	91.489	%			19:18:16
1	Ag 328.068†	118026.4	127125.5	549.34	ug/L	549.34	ppb	19:18:16
1	As 188.979†	1424.0	1573.3	555.44	ug/L	555.44	ppb	19:18:37
1	B 249.677†	23671.3	26264.8	539.53	ug/L	539.53	ppb	19:18:16
1	Ba 233.527†	69733.6	75404.8	551.18	ug/L	551.18	ppb	19:18:16
1	Be 313.107†	1514568.3	1642258.4	556.17	ug/L	556.17	ppb	19:18:16
1	Cd 226.502†	53661.0	58269.2	548.66	ug/L	548.66	ppb	19:18:16
1	Co 228.616†	26705.4	28964.1	544.75	ug/L	544.75	ppb	19:18:37
1	Cr 267.716†	50695.5	54719.9	549.14	ug/L	549.14	ppb	19:18:16
1	Cu 324.752†	179560.3	186183.8	551.47	ug/L	551.47	ppb	19:18:16
1	Mn 257.610†	487694.2	526893.1	555.55	ug/L	555.55	ppb	19:18:16
1	Mo 202.031†	8138.8	8781.7	550.61	ug/L	550.61	ppb	19:18:37
1	Ni 231.604†	23041.2	24792.4	543.91	ug/L	543.91	ppb	19:18:37
1	P 214.914†	5460.9	5657.0	2674.9	ug/L	2674.9	ppb	19:18:37
1	Pb 220.353†	4860.0	5333.5	554.21	ug/L	554.21	ppb	19:18:37
1	S 181.975 Axial†	952.2	969.8	1095.0	ug/L	1095.0	ppb	19:18:37
1	Sb 206.836†	1746.8	1852.0	561.08	ug/L	561.08	ppb	19:18:37
1	Se 196.026†	984.4	1097.8	579.36	ug/L	579.36	ppb	19:18:37
1	Si 251.611†	89228.0	95877.7	2737.5	ug/L	2737.5	ppb	19:18:16
1	Sn 189.927†	3434.3	3710.6	549.44	ug/L	549.44	ppb	19:18:37
1	Ti 334.940†	323761.7	351944.5	558.24	ug/L	558.24	ppb	19:18:16
1	Tl 190.801†	1816.1	2017.4	554.76	ug/L	554.76	ppb	19:18:37
1	U 409.014†	13748.7	17537.0	519.68	ug/L	519.68	ppb	19:18:16
1	V 292.402†	78775.2	86992.1	553.52	ug/L	553.52	ppb	19:18:16
1	Zn 213.857†	62957.9	67253.1	548.41	ug/L	548.41	ppb	19:18:16
1	SiO2†	89372.0	96014.0	5865.9	ug/L	5865.9	ppb	19:19:37
2	Sc Radial	4997.8	4997.8	107	%			19:17:23
2	Y RADIAL	5302.9	5302.9	107.5	%			19:17:23
2	Al 396.153Radial†	5845.8	5486.2	4844.2	ug/L	4844.2	ppb	19:17:23
2	Ca 317.933Radial†	3099.9	2882.5	4830.1	ug/L	4830.1	ppb	19:17:43
2	Fe 238.204 Radial†	576.5	524.6	4624.9	ug/L	4624.9	ppb	19:17:43
2	K 766.490 Radial†	28607.6	23380.4	4632.6	ug/L	4632.6	ppb	19:17:23
2	Mg 279.077 IEC†	169.8	156.9	5023.3	ug/L	5023.3	ppb	19:17:43
2	Na 589.592 Radial†	31318.3	30998.8	9364.1	ug/L	9364.1	ppb	19:17:23
2	Sr 421.552†	70458.6	65786.5	481.62	ug/L	481.62	ppb	19:17:23
2	Sc 361.383	884831.2	884831.2	99.799	%			19:18:44
2	Y 371.029	751838.8	751838.8	98.698	%			19:18:44
2	Ag 328.068†	117670.1	117394.2	507.31	ug/L	507.31	ppb	19:18:44
2	As 188.979†	1399.8	1436.0	507.02	ug/L	507.02	ppb	19:19:04
2	B 249.677†	23650.3	24363.6	500.48	ug/L	500.48	ppb	19:18:44
2	Ba 233.527†	69294.7	69426.5	507.48	ug/L	507.48	ppb	19:18:44
2	Be 313.107†	1503697.6	1511071.2	511.74	ug/L	511.74	ppb	19:18:44
2	Cd 226.502†	53327.8	53673.3	505.37	ug/L	505.37	ppb	19:18:44
2	Co 228.616†	26419.1	26556.2	499.45	ug/L	499.45	ppb	19:19:04
2	Cr 267.716†	50252.3	50249.2	504.27	ug/L	504.27	ppb	19:18:44
2	Cu 324.752†	179054.3	171415.2	507.73	ug/L	507.73	ppb	19:18:44
2	Mn 257.610†	484410.6	484867.8	511.25	ug/L	511.25	ppb	19:18:44
2	Mo 202.031†	8049.8	8046.1	504.50	ug/L	504.50	ppb	19:19:04
2	Ni 231.604†	22830.4	22751.2	499.13	ug/L	499.13	ppb	19:19:04

2	P 214.914†	5398.3	5160.6	2439.3 ug/L	2439.3 ppb	19:19:04
2	Pb 220.353†	4768.3	4855.6	504.57 ug/L	504.57 ppb	19:19:04
2	S 181.975 Axial†	947.4	889.4	1004.2 ug/L	1004.2 ppb	19:19:04
2	Sb 206.836†	1705.8	1672.1	506.60 ug/L	506.60 ppb	19:19:04
2	Se 196.026†	954.3	989.5	522.89 ug/L	522.89 ppb	19:19:04
2	Si 251.611†	88924.7	88486.8	2526.5 ug/L	2526.5 ppb	19:18:44
2	Sn 189.927†	3376.0	3379.4	500.42 ug/L	500.42 ppb	19:19:04
2	Ti 334.940†	321529.0	323992.6	513.90 ug/L	513.90 ppb	19:18:44
2	Tl 190.801†	1776.8	1833.7	504.30 ug/L	504.30 ppb	19:19:04
2	U 409.014†	13850.6	16547.1	490.37 ug/L	490.37 ppb	19:18:44
2	V 292.402†	78253.2	80212.3	510.35 ug/L	510.35 ppb	19:18:44
2	Zn 213.857†	62552.7	61846.7	504.31 ug/L	504.31 ppb	19:18:44
2	SiO2†	87738.2	87278.6	5332.0 ug/L	5332.0 ppb	19:19:42
3	Sc Radial	4666.1	4666.1	100.0 %		19:17:48
3	Y RADIAL	4915.6	4915.6	99.65 %		19:17:48
3	Al 396.153Radial†	5979.7	6008.3	5306.3 ug/L	5306.3 ppb	19:17:48
3	Ca 317.933Radial†	3132.6	3121.0	5229.8 ug/L	5229.8 ppb	19:18:08
3	Fe 238.204 Radial†	583.6	570.0	5024.6 ug/L	5024.6 ppb	19:18:08
3	K 766.490 Radial†	28919.5	25592.2	5071.1 ug/L	5071.1 ppb	19:17:48
3	Mg 279.077 IEC†	165.7	164.2	5255.0 ug/L	5255.0 ppb	19:18:08
3	Na 589.592 Radial†	31871.9	33632.4	10160 ug/L	10160 ppb	19:17:48
3	Sr 421.552†	72175.7	72183.2	528.45 ug/L	528.45 ppb	19:17:48
3	Sc 361.383	849001.5	849001.5	95.758 %		19:19:11
3	Y 371.029	721131.4	721131.4	94.667 %		19:19:11
3	Ag 328.068†	118835.7	123587.4	534.13 ug/L	534.13 ppb	19:19:11
3	As 188.979†	1406.2	1502.0	530.36 ug/L	530.36 ppb	19:19:31
3	B 249.677†	23855.7	25578.3	525.41 ug/L	525.41 ppb	19:19:11
3	Ba 233.527†	70042.6	73137.8	534.62 ug/L	534.62 ppb	19:19:11
3	Be 313.107†	1522637.2	1594436.7	539.97 ug/L	539.97 ppb	19:19:11
3	Cd 226.502†	53882.7	56508.0	532.04 ug/L	532.04 ppb	19:19:11
3	Co 228.616†	26545.5	27805.3	522.94 ug/L	522.94 ppb	19:19:31
3	Cr 267.716†	50835.1	52982.9	531.71 ug/L	531.71 ppb	19:19:11
3	Cu 324.752†	180614.7	180616.4	534.99 ug/L	534.99 ppb	19:19:11
3	Mn 257.610†	490109.9	511303.8	539.14 ug/L	539.14 ppb	19:19:11
3	Mo 202.031†	8099.8	8438.7	529.14 ug/L	529.14 ppb	19:19:31
3	Ni 231.604†	22918.3	23808.4	522.32 ug/L	522.32 ppb	19:19:31
3	P 214.914†	5433.1	5425.2	2564.1 ug/L	2564.1 ppb	19:19:31
3	Pb 220.353†	4805.7	5096.3	529.61 ug/L	529.61 ppb	19:19:31
3	S 181.975 Axial†	950.1	932.3	1052.5 ug/L	1052.5 ppb	19:19:31
3	Sb 206.836†	1709.1	1747.7	529.49 ug/L	529.49 ppb	19:19:31
3	Se 196.026†	952.2	1027.6	543.77 ug/L	543.77 ppb	19:19:31
3	Si 251.611†	89743.0	93101.7	2658.2 ug/L	2658.2 ppb	19:19:11
3	Sn 189.927†	3406.7	3554.2	526.32 ug/L	526.32 ppb	19:19:31
3	Ti 334.940†	325207.4	341430.4	541.57 ug/L	541.57 ppb	19:19:11
3	Tl 190.801†	1797.8	1930.8	531.04 ug/L	531.04 ppb	19:19:31
3	U 409.014†	13988.2	17276.5	511.95 ug/L	511.95 ppb	19:19:11
3	V 292.402†	79059.5	84363.4	536.71 ug/L	536.71 ppb	19:19:11
3	Zn 213.857†	63161.1	65127.2	531.07 ug/L	531.07 ppb	19:19:11
3	SiO2†	88438.6	91720.1	5603.2 ug/L	5603.2 ppb	19:19:47

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	851226.1	96.009	%	3.6713				3.82%
Sc Radial	4779.8	102	%	4.0				3.95%
Y 371.029	723296.8	94.951	%	3.6131				3.81%
Y RADIAL	5045.6	102.3	%	4.52				4.42%
Ag 328.068†	122702.4	530.26	ug/L	21.280	530.26	ppb	21.280	4.01%
QC value within limits for Ag 328.068 Recovery = 106.05%								
Al 396.153Radial†	5786.8	5109.9	ug/L	238.68	5109.9	ppb	238.68	4.67%
QC value within limits for Al 396.153Radial Recovery = 102.20%								
As 188.979†	1503.8	530.94	ug/L	24.215	530.94	ppb	24.215	4.56%
QC value within limits for As 188.979 Recovery = 106.19%								
B 249.677†	25402.2	521.81	ug/L	19.773	521.81	ppb	19.773	3.79%
QC value within limits for B 249.677 Recovery = 104.36%								
Ba 233.527†	72656.4	531.09	ug/L	22.059	531.09	ppb	22.059	4.15%
QC value within limits for Ba 233.527 Recovery = 106.22%								
Be 313.107†	1582588.8	535.96	ug/L	22.484	535.96	ppb	22.484	4.20%
QC value within limits for Be 313.107 Recovery = 107.19%								
Ca 317.933Radial†	3024.9	5068.7	ug/L	210.82	5068.7	ppb	210.82	4.16%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.37%
Cd 226.502†            56150.2      528.69 ug/L        21.837      528.69 ppb        21.837   4.13%
   QC value within limits for Cd 226.502  Recovery = 105.74%
Co 228.616†            27775.2      522.38 ug/L        22.652      522.38 ppb        22.652   4.34%
   QC value within limits for Co 228.616  Recovery = 104.48%
Cr 267.716†            52650.7      528.37 ug/L        22.617      528.37 ppb        22.617   4.28%
   QC value within limits for Cr 267.716  Recovery = 105.67%
Cu 324.752†           179405.1      531.40 ug/L        22.090      531.40 ppb        22.090   4.16%
   QC value within limits for Cu 324.752  Recovery = 106.28%
Fe 238.204 Radial†       550.0      4849.0 ug/L       204.24      4849.0 ppb       204.24   4.21%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.98%
K 766.490 Radial†      24651.7      4884.6 ug/L       226.43      4884.6 ppb       226.43   4.64%
   QC value within limits for K 766.490 Radial  Recovery = 97.69%
Mg 279.077 IEC†          161.1      5159.1 ug/L       120.90      5159.1 ppb       120.90   2.34%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.18%
Mn 257.610†           507688.2      535.31 ug/L        22.398      535.31 ppb        22.398   4.18%
   QC value within limits for Mn 257.610  Recovery = 107.06%
Mo 202.031†             8422.1      528.09 ug/L        23.073      528.09 ppb        23.073   4.37%
   QC value within limits for Mo 202.031  Recovery = 105.62%
Na 589.592 Radial†     32579.1      9841.5 ug/L       421.01      9841.5 ppb       421.01   4.28%
   QC value within limits for Na 589.592 Radial  Recovery = 98.41%
Ni 231.604†            23784.0      521.79 ug/L        22.395      521.79 ppb        22.395   4.29%
   QC value within limits for Ni 231.604  Recovery = 104.36%
P 214.914†              5414.3      2559.4 ug/L       117.86      2559.4 ppb       117.86   4.60%
   QC value within limits for P 214.914  Recovery = 102.38%
Pb 220.353†             5095.1      529.46 ug/L        24.819      529.46 ppb        24.819   4.69%
   QC value within limits for Pb 220.353  Recovery = 105.89%
S 181.975 Axial†         930.5      1050.6 ug/L        45.45      1050.6 ppb        45.45   4.33%
   QC value within limits for S 181.975 Axial  Recovery = 105.06%
Sb 206.836†             1757.3      532.39 ug/L        27.355      532.39 ppb        27.355   5.14%
   QC value within limits for Sb 206.836  Recovery = 106.48%
Se 196.026†             1038.3      548.67 ug/L        28.553      548.67 ppb        28.553   5.20%
   QC value within limits for Se 196.026  Recovery = 109.73%
Si 251.611†            92488.7      2640.7 ug/L       106.56      2640.7 ppb       106.56   4.04%
   QC value within limits for Si 251.611  Recovery = 105.63%
Sn 189.927†             3548.1      525.39 ug/L        24.521      525.39 ppb        24.521   4.67%
   QC value within limits for Sn 189.927  Recovery = 105.08%
Sr 421.552†            69583.2      509.42 ug/L        24.614      509.42 ppb        24.614   4.83%
   QC value within limits for Sr 421.552  Recovery = 101.88%
Ti 334.940†           339122.5      537.90 ug/L        22.394      537.90 ppb        22.394   4.16%
   QC value within limits for Ti 334.940  Recovery = 107.58%
Tl 190.801†             1927.3      530.03 ug/L        25.243      530.03 ppb        25.243   4.76%
   QC value within limits for Tl 190.801  Recovery = 106.01%
U 409.014†             17120.2      507.33 ug/L        15.190      507.33 ppb        15.190   2.99%
   QC value within limits for U 409.014  Recovery = 101.47%
V 292.402†             83856.0      533.53 ug/L        21.761      533.53 ppb        21.761   4.08%
   QC value within limits for V 292.402  Recovery = 106.71%
Zn 213.857†            64742.4      527.93 ug/L        22.215      527.93 ppb        22.215   4.21%
   QC value within limits for Zn 213.857  Recovery = 105.59%
SiO2†                  91670.9      5600.4 ug/L       266.98      5600.4 ppb       266.98   4.77%
   QC value within limits for SiO2  Recovery = 104.73%
All analyte(s) passed QC.
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Sequence No.: 41
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/6/2010 19:21:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4766.5	4766.5	102	%			19:23:49
1	Y RADIAL	5056.9	5056.9	102.5	%			19:23:49
1	Al 396.153Radial†	-2.2	24.6	21.757	ug/L	21.757	ppb	19:23:49
1	Ca 317.933Radial†	20.7	7.7	12.874	ug/L	12.874	ppb	19:24:09
1	Fe 238.204 Radial†	13.3	-0.9	-7.6472	ug/L	-7.6472	ppb	19:24:09
1	K 766.490 Radial†	3327.6	-78.2	-15.534	ug/L	-15.534	ppb	19:23:49
1	Mg 279.077 IEC†	5.4	3.7	117.46	ug/L	117.46	ppb	19:24:09
1	Na 589.592 Radial†	-1671.1	113.6	34.327	ug/L	34.327	ppb	19:23:49
1	Sr 421.552†	24.8	8.3	0.0603	ug/L	0.0603	ppb	19:23:49
1	Sc 361.383	855484.7	855484.7	96.489	%			19:25:06
1	Y 371.029	736044.4	736044.4	96.625	%			19:25:06
1	Ag 328.068†	530.3	37.3	0.1661	ug/L	0.1661	ppb	19:25:06
1	As 188.979†	-26.6	5.9	2.0528	ug/L	2.0528	ppb	19:25:26
1	B 249.677†	-534.8	111.6	2.3023	ug/L	2.3023	ppb	19:25:06
1	Ba 233.527†	-12.1	-20.1	-0.1477	ug/L	-0.1477	ppb	19:25:26
1	Be 313.107†	-4423.2	-232.6	-0.0787	ug/L	-0.0787	ppb	19:25:06
1	Cd 226.502†	-220.7	9.6	0.0914	ug/L	0.0914	ppb	19:25:26
1	Co 228.616†	-83.8	-2.9	-0.0532	ug/L	-0.0532	ppb	19:25:26
1	Cr 267.716†	182.8	85.4	0.8585	ug/L	0.8585	ppb	19:25:06
1	Cu 324.752†	7972.5	263.6	0.7800	ug/L	0.7800	ppb	19:25:06
1	Mn 257.610†	539.4	42.6	0.0419	ug/L	0.0419	ppb	19:25:06
1	Mo 202.031†	30.0	11.1	0.6972	ug/L	0.6972	ppb	19:25:26
1	Ni 231.604†	118.4	-2.4	-0.0527	ug/L	-0.0527	ppb	19:25:26
1	P 214.914†	249.8	10.3	4.9094	ug/L	4.9094	ppb	19:25:26
1	Pb 220.353†	-99.2	-25.0	-2.5862	ug/L	-2.5862	ppb	19:25:26
1	S 181.975 Axial†	68.3	10.9	12.351	ug/L	12.351	ppb	19:25:26
1	Sb 206.836†	53.1	18.0	5.3617	ug/L	5.3617	ppb	19:25:26
1	Se 196.026†	-34.1	-2.0	-1.0564	ug/L	-1.0564	ppb	19:25:26
1	Si 251.611†	796.2	208.6	5.9762	ug/L	5.9762	ppb	19:25:26
1	Sn 189.927†	2.5	-0.8	-0.1126	ug/L	-0.1126	ppb	19:25:26
1	Ti 334.940†	-1786.4	-34.0	-0.0480	ug/L	-0.0480	ppb	19:25:06
1	Tl 190.801†	-39.1	12.8	3.5068	ug/L	3.5068	ppb	19:25:26
1	U 409.014†	-2986.1	-426.1	-12.667	ug/L	-12.667	ppb	19:25:06
1	V 292.402†	-1820.5	-84.9	-0.5439	ug/L	-0.5439	ppb	19:25:06
1	Zn 213.857†	846.4	45.5	0.3697	ug/L	0.3697	ppb	19:25:26
1	SiO2†	792.5	185.3	11.360	ug/L	11.360	ppb	19:26:22
2	Sc Radial	4645.6	4645.6	99.5	%			19:24:14
2	Y RADIAL	4902.9	4902.9	99.39	%			19:24:14
2	Al 396.153Radial†	-11.2	15.5	13.694	ug/L	13.694	ppb	19:24:14
2	Ca 317.933Radial†	22.0	9.5	15.990	ug/L	15.990	ppb	19:24:34
2	Fe 238.204 Radial†	11.4	-2.4	-21.176	ug/L	-21.176	ppb	19:24:34
2	K 766.490 Radial†	3540.1	220.1	43.673	ug/L	43.673	ppb	19:24:14
2	Mg 279.077 IEC†	0.8	-0.9	-27.255	ug/L	-27.255	ppb	19:24:34
2	Na 589.592 Radial†	-1632.6	109.8	33.168	ug/L	33.168	ppb	19:24:14
2	Sr 421.552†	-32.1	-48.3	-0.3536	ug/L	-0.3536	ppb	19:24:14
2	Sc 361.383	856570.6	856570.6	96.612	%			19:25:32
2	Y 371.029	737780.4	737780.4	96.853	%			19:25:32
2	Ag 328.068†	567.5	75.1	0.3225	ug/L	0.3225	ppb	19:25:32
2	As 188.979†	-24.8	7.8	2.7213	ug/L	2.7213	ppb	19:25:52
2	B 249.677†	-502.5	145.7	3.0074	ug/L	3.0074	ppb	19:25:32
2	Ba 233.527†	7.3	0.1	0.0009	ug/L	0.0009	ppb	19:25:52
2	Be 313.107†	-4353.7	-154.9	-0.0525	ug/L	-0.0525	ppb	19:25:32
2	Cd 226.502†	-245.6	-15.8	-0.1472	ug/L	-0.1472	ppb	19:25:52
2	Co 228.616†	-92.8	-12.1	-0.2247	ug/L	-0.2247	ppb	19:25:52
2	Cr 267.716†	89.7	-11.2	-0.1096	ug/L	-0.1096	ppb	19:25:32
2	Cu 324.752†	8156.8	443.9	1.3131	ug/L	1.3131	ppb	19:25:32
2	Mn 257.610†	500.5	1.6	0.0001	ug/L	0.0001	ppb	19:25:32
2	Mo 202.031†	27.4	8.5	0.5284	ug/L	0.5284	ppb	19:25:52
2	Ni 231.604†	117.1	-3.8	-0.0842	ug/L	-0.0842	ppb	19:25:52

2	P 214.914†	260.2	20.8	9.9679 ug/L	9.9679 ppb	19:25:52
2	Pb 220.353†	-106.1	-32.0	-3.3141 ug/L	-3.3141 ppb	19:25:52
2	S 181.975 Axial†	59.4	1.6	1.8456 ug/L	1.8456 ppb	19:25:52
2	Sb 206.836†	41.3	5.7	1.7253 ug/L	1.7253 ppb	19:25:52
2	Se 196.026†	-33.5	-1.4	-0.7769 ug/L	-0.7769 ppb	19:25:52
2	Si 251.611†	767.5	177.9	5.0750 ug/L	5.0750 ppb	19:25:52
2	Sn 189.927†	10.2	7.1	1.0588 ug/L	1.0588 ppb	19:25:52
2	Ti 334.940†	-1804.2	-50.1	-0.0757 ug/L	-0.0757 ppb	19:25:32
2	Tl 190.801†	-58.7	-7.4	-2.0123 ug/L	-2.0123 ppb	19:25:52
2	U 409.014†	-2796.1	-225.5	-6.7005 ug/L	-6.7005 ppb	19:25:32
2	V 292.402†	-1675.4	67.6	0.4219 ug/L	0.4219 ppb	19:25:32
2	Zn 213.857†	870.2	69.1	0.5689 ug/L	0.5689 ppb	19:25:52
2	SiO2†	846.1	239.7	14.657 ug/L	14.657 ppb	19:26:27
3	Sc Radial	4652.3	4652.3	99.7 %		19:24:39
3	Y RADIAL	4971.8	4971.8	100.8 %		19:24:39
3	Al 396.153Radial†	-21.6	5.1	4.4894 ug/L	4.4894 ppb	19:24:39
3	Ca 317.933Radial†	24.2	11.7	19.639 ug/L	19.639 ppb	19:24:59
3	Fe 238.204 Radial†	14.0	0.2	1.3217 ug/L	1.3217 ppb	19:24:59
3	K 766.490 Radial†	3453.4	128.1	25.410 ug/L	25.410 ppb	19:24:39
3	Mg 279.077 IEC†	4.4	2.8	88.484 ug/L	88.484 ppb	19:24:59
3	Na 589.592 Radial†	-1685.2	59.4	17.939 ug/L	17.939 ppb	19:24:39
3	Sr 421.552†	-0.2	-16.2	-0.1186 ug/L	-0.1186 ppb	19:24:39
3	Sc 361.383	866846.9	866846.9	97.771 %		19:25:57
3	Y 371.029	746228.9	746228.9	97.962 %		19:25:57
3	Ag 328.068†	419.4	-83.4	-0.3544 ug/L	-0.3544 ppb	19:25:57
3	As 188.979†	-34.2	-1.5	-0.5355 ug/L	-0.5355 ppb	19:26:17
3	B 249.677†	-565.2	87.8	1.8105 ug/L	1.8105 ppb	19:25:57
3	Ba 233.527†	17.7	10.6	0.0772 ug/L	0.0772 ppb	19:26:17
3	Be 313.107†	-4326.9	-74.0	-0.0251 ug/L	-0.0251 ppb	19:25:57
3	Cd 226.502†	-234.6	-1.6	-0.0148 ug/L	-0.0148 ppb	19:26:17
3	Co 228.616†	-86.3	-4.3	-0.0802 ug/L	-0.0802 ppb	19:26:17
3	Cr 267.716†	70.2	-32.2	-0.3213 ug/L	-0.3213 ppb	19:25:57
3	Cu 324.752†	8062.1	246.9	0.7309 ug/L	0.7309 ppb	19:25:57
3	Mn 257.610†	596.5	93.7	0.0972 ug/L	0.0972 ppb	19:25:57
3	Mo 202.031†	17.9	-1.6	-0.1026 ug/L	-0.1026 ppb	19:26:17
3	Ni 231.604†	138.4	16.5	0.3625 ug/L	0.3625 ppb	19:26:17
3	P 214.914†	268.7	26.2	12.638 ug/L	12.638 ppb	19:26:17
3	Pb 220.353†	-89.3	-13.6	-1.4108 ug/L	-1.4108 ppb	19:26:17
3	S 181.975 Axial†	59.7	1.1	1.2884 ug/L	1.2884 ppb	19:26:17
3	Sb 206.836†	40.9	4.8	1.3961 ug/L	1.3961 ppb	19:26:17
3	Se 196.026†	-30.9	1.6	0.8385 ug/L	0.8385 ppb	19:26:17
3	Si 251.611†	765.1	166.0	4.7594 ug/L	4.7594 ppb	19:26:17
3	Sn 189.927†	-8.1	-11.7	-1.7339 ug/L	-1.7339 ppb	19:26:17
3	Ti 334.940†	-1804.6	-28.4	-0.0418 ug/L	-0.0418 ppb	19:25:57
3	Tl 190.801†	-40.0	12.5	3.4073 ug/L	3.4073 ppb	19:26:17
3	U 409.014†	-2763.3	-157.6	-4.6847 ug/L	-4.6847 ppb	19:25:57
3	V 292.402†	-1773.4	-12.0	-0.0841 ug/L	-0.0841 ppb	19:25:57
3	Zn 213.857†	854.8	42.6	0.3442 ug/L	0.3442 ppb	19:26:17
3	SiO2†	834.4	217.4	13.343 ug/L	13.343 ppb	19:26:33

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	859634.1	96.957	%	0.7072				0.73%
Sc Radial	4688.1	100	%	1.5				1.45%
Y 371.029	740017.9	97.146	%	0.7153				0.74%
Y RADIAL	4977.2	100.9	%	1.56				1.55%
Ag 328.068†	9.6	0.0447	ug/L	0.35443	0.0447	ppb	0.35443	792.04%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	15.0	13.313	ug/L	8.6401	13.313	ppb	8.6401	64.90%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.0	1.4128	ug/L	1.72011	1.4128	ppb	1.72011	121.75%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	115.0	2.3734	ug/L	0.60162	2.3734	ppb	0.60162	25.35%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.1	-0.0232	ug/L	0.11438	-0.0232	ppb	0.11438	493.22%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-153.8	-0.0521	ug/L	0.02681	-0.0521	ppb	0.02681	51.46%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.6	16.168	ug/L	3.3864	16.168	ppb	3.3864	20.95%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -2.6     -0.0235 ug/L       0.11954     -0.0235 ppb        0.11954 508.39%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -6.4     -0.1193 ug/L       0.09225     -0.1193 ppb        0.09225  77.29%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.0      0.1426 ug/L       0.62900      0.1426 ppb        0.62900 441.22%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             318.1      0.9413 ug/L       0.32289      0.9413 ppb        0.32289  34.30%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -1.0     -9.1672 ug/L      11.32564     -9.1672 ppb       11.32564 123.55%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        90.0      17.850 ug/L       30.3189      17.850 ppb        30.3189 169.86%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.9      59.562 ug/L       76.5689      59.562 ppb        76.5689 128.55%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              46.0      0.0464 ug/L       0.04873      0.0464 ppb        0.04873 105.00%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               6.0      0.3743 ug/L       0.42155      0.3743 ppb        0.42155 112.62%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       94.3      28.478 ug/L        9.1453      28.478 ppb         9.1453  32.11%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               3.4      0.0752 ug/L       0.24930      0.0752 ppb        0.24930 331.57%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               19.1      9.1716 ug/L       3.92510      9.1716 ppb        3.92510  42.80%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -23.6     -2.4370 ug/L       0.96037     -2.4370 ppb        0.96037  39.41%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          4.6      5.1618 ug/L       6.23261      5.1618 ppb        6.23261 120.74%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               9.5      2.8277 ug/L       2.20070      2.8277 ppb        2.20070  77.83%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -0.6     -0.3316 ug/L       1.02292     -0.3316 ppb        1.02292 308.48%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             184.1      5.2702 ug/L       0.63142      5.2702 ppb        0.63142  11.98%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -1.8     -0.2626 ug/L       1.40237     -0.2626 ppb        1.40237 534.09%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -18.7     -0.1373 ug/L       0.20757     -0.1373 ppb        0.20757 151.19%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -37.5     -0.0552 ug/L       0.01804     -0.0552 ppb        0.01804  32.70%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               6.0      1.6340 ug/L       3.15812      1.6340 ppb        3.15812 193.28%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -269.7     -8.0174 ug/L       4.15080     -8.0174 ppb        4.15080  51.77%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -9.8     -0.0687 ug/L       0.48306     -0.0687 ppb        0.48306 703.32%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              52.4      0.4276 ug/L       0.12303      0.4276 ppb        0.12303  28.77%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   214.1      13.120 ug/L        1.6602      13.120 ppb         1.6602  12.65%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 51
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/6/2010 20:32:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4618.4	4618.4	98.9	%			20:33:52
1	Y RADIAL	4886.4	4886.4	99.06	%			20:33:52
1	Al 396.153Radial†	6176.9	6269.4	5537.7	ug/L	5537.7	ppb	20:33:52
1	Ca 317.933Radial†	3122.9	3143.5	5267.5	ug/L	5267.5	ppb	20:34:12
1	Fe 238.204 Radial†	583.1	575.5	5073.2	ug/L	5073.2	ppb	20:34:12
1	K 766.490 Radial†	29422.5	26398.9	5231.2	ug/L	5231.2	ppb	20:33:52
1	Mg 279.077 IEC†	166.7	166.8	5339.1	ug/L	5339.1	ppb	20:34:12
1	Na 589.592 Radial†	32584.7	34681.6	10477	ug/L	10477	ppb	20:33:52
1	Sr 421.552†	74136.7	74909.8	548.42	ug/L	548.42	ppb	20:33:52
1	Sc 361.383	871675.1	871675.1	98.316	%			20:35:11
1	Y 371.029	740714.7	740714.7	97.238	%			20:35:11
1	Ag 328.068†	121133.7	122696.8	530.31	ug/L	530.31	ppb	20:35:11
1	As 188.979†	1449.7	1508.0	532.44	ug/L	532.44	ppb	20:35:31
1	B 249.677†	24135.4	25214.8	517.91	ug/L	517.91	ppb	20:35:11
1	Ba 233.527†	71365.2	72580.4	530.55	ug/L	530.55	ppb	20:35:11
1	Be 313.107†	1553985.1	1584961.1	536.76	ug/L	536.76	ppb	20:35:11
1	Cd 226.502†	54893.8	56072.7	527.94	ug/L	527.94	ppb	20:35:11
1	Co 228.616†	27388.0	27941.2	525.51	ug/L	525.51	ppb	20:35:31
1	Cr 267.716†	51865.7	52650.3	528.37	ug/L	528.37	ppb	20:35:11
1	Cu 324.752†	184158.6	179314.8	531.14	ug/L	531.14	ppb	20:35:11
1	Mn 257.610†	499224.4	507261.2	534.88	ug/L	534.88	ppb	20:35:11
1	Mo 202.031†	8360.8	8484.1	531.99	ug/L	531.99	ppb	20:35:31
1	Ni 231.604†	23660.3	23940.6	525.22	ug/L	525.22	ppb	20:35:31
1	P 214.914†	5590.0	5437.2	2570.7	ug/L	2570.7	ppb	20:35:31
1	Pb 220.353†	4954.0	5116.7	531.78	ug/L	531.78	ppb	20:35:31
1	S 181.975 Axial†	990.0	947.1	1069.3	ug/L	1069.3	ppb	20:35:31
1	Sb 206.836†	1778.3	1771.7	536.85	ug/L	536.85	ppb	20:35:31
1	Se 196.026†	995.1	1045.4	553.06	ug/L	553.06	ppb	20:35:31
1	Si 251.611†	91444.0	92394.1	2637.8	ug/L	2637.8	ppb	20:35:11
1	Sn 189.927†	3523.3	3580.3	530.18	ug/L	530.18	ppb	20:35:31
1	Ti 334.940†	331576.5	339074.8	537.84	ug/L	537.84	ppb	20:35:11
1	Tl 190.801†	1846.2	1931.2	531.08	ug/L	531.08	ppb	20:35:31
1	U 409.014†	14279.4	17192.8	509.46	ug/L	509.46	ppb	20:35:11
1	V 292.402†	80716.8	83901.6	533.84	ug/L	533.84	ppb	20:35:11
1	Zn 213.857†	64206.2	64474.6	525.69	ug/L	525.69	ppb	20:35:11
1	SiO2†	91630.9	92564.8	5654.8	ug/L	5654.8	ppb	20:36:32
2	Sc Radial	4647.1	4647.1	99.6	%			20:34:17
2	Y RADIAL	4908.4	4908.4	99.50	%			20:34:17
2	Al 396.153Radial†	6099.2	6152.9	5434.2	ug/L	5434.2	ppb	20:34:17
2	Ca 317.933Radial†	3206.0	3207.6	5374.8	ug/L	5374.8	ppb	20:34:37
2	Fe 238.204 Radial†	596.9	585.6	5162.5	ug/L	5162.5	ppb	20:34:37
2	K 766.490 Radial†	29184.8	25976.9	5147.5	ug/L	5147.5	ppb	20:34:17
2	Mg 279.077 IEC†	167.0	166.1	5317.8	ug/L	5317.8	ppb	20:34:37
2	Na 589.592 Radial†	32175.6	34067.8	10291	ug/L	10291	ppb	20:34:17
2	Sr 421.552†	73285.4	73593.1	538.77	ug/L	538.77	ppb	20:34:17
2	Sc 361.383	860786.9	860786.9	97.087	%			20:35:39
2	Y 371.029	731308.2	731308.2	96.003	%			20:35:39
2	Ag 328.068†	119668.9	122746.5	530.55	ug/L	530.55	ppb	20:35:39
2	As 188.979†	1443.3	1520.0	536.66	ug/L	536.66	ppb	20:35:59
2	B 249.677†	23923.0	25306.5	519.77	ug/L	519.77	ppb	20:35:39
2	Ba 233.527†	70917.0	73036.9	533.88	ug/L	533.88	ppb	20:35:39
2	Be 313.107†	1535003.2	1585403.1	536.91	ug/L	536.91	ppb	20:35:39
2	Cd 226.502†	54399.3	56269.6	529.79	ug/L	529.79	ppb	20:35:39
2	Co 228.616†	27355.7	28260.4	531.52	ug/L	531.52	ppb	20:35:59
2	Cr 267.716†	51332.0	52767.9	529.56	ug/L	529.56	ppb	20:35:39
2	Cu 324.752†	181716.0	179168.3	530.71	ug/L	530.71	ppb	20:35:39
2	Mn 257.610†	494718.0	509042.5	536.77	ug/L	536.77	ppb	20:35:39
2	Mo 202.031†	8334.5	8564.6	537.04	ug/L	537.04	ppb	20:35:59
2	Ni 231.604†	23623.6	24207.2	531.07	ug/L	531.07	ppb	20:35:59

2	P 214.914†	5568.1	5486.6	2594.8 ug/L	2594.8 ppb	20:35:59
2	Pb 220.353†	4955.2	5181.6	538.48 ug/L	538.48 ppb	20:35:59
2	S 181.975 Axial†	980.8	950.3	1072.9 ug/L	1072.9 ppb	20:35:59
2	Sb 206.836†	1780.2	1796.5	544.43 ug/L	544.43 ppb	20:35:59
2	Se 196.026†	987.5	1050.4	555.90 ug/L	555.90 ppb	20:35:59
2	Si 251.611†	90476.4	92574.0	2642.9 ug/L	2642.9 ppb	20:35:39
2	Sn 189.927†	3508.6	3610.4	534.66 ug/L	534.66 ppb	20:35:59
2	Ti 334.940†	327782.2	339432.7	538.41 ug/L	538.41 ppb	20:35:39
2	Tl 190.801†	1850.2	1959.1	538.69 ug/L	538.69 ppb	20:35:59
2	U 409.014†	14000.8	17089.6	506.38 ug/L	506.38 ppb	20:35:39
2	V 292.402†	79760.9	83955.4	534.23 ug/L	534.23 ppb	20:35:39
2	Zn 213.857†	63660.7	64738.8	527.82 ug/L	527.82 ppb	20:35:39
2	SiO2†	90818.5	92906.9	5675.7 ug/L	5675.7 ppb	20:36:37
3	Sc Radial	4510.3	4510.3	96.6 %		20:34:42
3	Y RADIAL	4773.3	4773.3	96.76 %		20:34:42
3	Al 396.153Radial†	6016.1	6252.5	5522.7 ug/L	5522.7 ppb	20:34:42
3	Ca 317.933Radial†	3168.2	3266.1	5472.9 ug/L	5472.9 ppb	20:35:02
3	Fe 238.204 Radial†	583.7	590.2	5202.2 ug/L	5202.2 ppb	20:35:02
3	K 766.490 Radial†	28927.3	26599.1	5270.9 ug/L	5270.9 ppb	20:34:42
3	Mg 279.077 IEC†	170.8	175.2	5606.9 ug/L	5606.9 ppb	20:35:02
3	Na 589.592 Radial†	31771.9	34629.6	10461 ug/L	10461 ppb	20:34:42
3	Sr 421.552†	72310.3	74815.3	547.72 ug/L	547.72 ppb	20:34:42
3	Sc 361.383	865670.8	865670.8	97.638 %		20:36:06
3	Y 371.029	735892.0	735892.0	96.605 %		20:36:06
3	Ag 328.068†	120265.5	122662.1	530.20 ug/L	530.20 ppb	20:36:06
3	As 188.979†	1437.3	1505.5	531.60 ug/L	531.60 ppb	20:36:26
3	B 249.677†	24068.9	25316.9	519.99 ug/L	519.99 ppb	20:36:06
3	Ba 233.527†	71072.3	72783.9	532.03 ug/L	532.03 ppb	20:36:06
3	Be 313.107†	1543516.7	1585202.5	536.85 ug/L	536.85 ppb	20:36:06
3	Cd 226.502†	54625.5	56185.1	528.99 ug/L	528.99 ppb	20:36:06
3	Co 228.616†	27248.7	27991.8	526.46 ug/L	526.46 ppb	20:36:26
3	Cr 267.716†	51566.2	52709.4	528.97 ug/L	528.97 ppb	20:36:06
3	Cu 324.752†	182980.3	179407.2	531.42 ug/L	531.42 ppb	20:36:06
3	Mn 257.610†	496879.4	508381.4	536.07 ug/L	536.07 ppb	20:36:06
3	Mo 202.031†	8329.4	8510.9	533.68 ug/L	533.68 ppb	20:36:26
3	Ni 231.604†	23538.9	23983.2	526.15 ug/L	526.15 ppb	20:36:26
3	P 214.914†	5556.9	5442.8	2573.2 ug/L	2573.2 ppb	20:36:26
3	Pb 220.353†	4927.3	5124.3	532.56 ug/L	532.56 ppb	20:36:26
3	S 181.975 Axial†	965.0	928.4	1048.2 ug/L	1048.2 ppb	20:36:26
3	Sb 206.836†	1762.5	1768.1	535.73 ug/L	535.73 ppb	20:36:26
3	Se 196.026†	992.5	1049.7	555.70 ug/L	555.70 ppb	20:36:26
3	Si 251.611†	90837.0	92417.6	2638.5 ug/L	2638.5 ppb	20:36:06
3	Sn 189.927†	3475.6	3556.3	526.66 ug/L	526.66 ppb	20:36:26
3	Ti 334.940†	329839.8	339635.2	538.74 ug/L	538.74 ppb	20:36:06
3	Tl 190.801†	1847.7	1945.7	535.06 ug/L	535.06 ppb	20:36:26
3	U 409.014†	14224.5	17237.3	510.77 ug/L	510.77 ppb	20:36:06
3	V 292.402†	80235.7	83978.2	534.34 ug/L	534.34 ppb	20:36:06
3	Zn 213.857†	63987.5	64703.6	527.55 ug/L	527.55 ppb	20:36:06
3	SiO2†	90910.8	92473.8	5649.2 ug/L	5649.2 ppb	20:36:42

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	866044.3	97.680	%	0.6151				0.63%
Sc Radial	4591.9	98.4	%	1.54				1.57%
Y 371.029	735971.6	96.615	%	0.6175				0.64%
Y RADIAL	4856.0	98.44	%	1.469				1.49%
Ag 328.068†	122701.8	530.35	ug/L	0.181	530.35	ppb	0.181	0.03%
QC value within limits for Ag 328.068 Recovery = 106.07%								
Al 396.153Radial†	6224.9	5498.2	ug/L	55.94	5498.2	ppb	55.94	1.02%
QC value within limits for Al 396.153Radial Recovery = 109.96%								
As 188.979†	1511.2	533.57	ug/L	2.714	533.57	ppb	2.714	0.51%
QC value within limits for As 188.979 Recovery = 106.71%								
B 249.677†	25279.4	519.22	ug/L	1.146	519.22	ppb	1.146	0.22%
QC value within limits for B 249.677 Recovery = 103.84%								
Ba 233.527†	72800.4	532.15	ug/L	1.669	532.15	ppb	1.669	0.31%
QC value within limits for Ba 233.527 Recovery = 106.43%								
Be 313.107†	1585188.9	536.84	ug/L	0.075	536.84	ppb	0.075	0.01%
QC value within limits for Be 313.107 Recovery = 107.37%								
Ca 317.933Radial†	3205.7	5371.7	ug/L	102.73	5371.7	ppb	102.73	1.91%

```
   QC value within limits for Ca 317.933Radial  Recovery = 107.43%
Cd 226.502†            56175.8      528.90 ug/L        0.927      528.90 ppb          0.927   0.18%
   QC value within limits for Cd 226.502  Recovery = 105.78%
Co 228.616†            28064.4      527.83 ug/L        3.232      527.83 ppb          3.232   0.61%
   QC value within limits for Co 228.616  Recovery = 105.57%
Cr 267.716†            52709.2      528.97 ug/L        0.591      528.97 ppb          0.591   0.11%
   QC value within limits for Cr 267.716  Recovery = 105.79%
Cu 324.752†           179296.8      531.09 ug/L        0.357      531.09 ppb          0.357   0.07%
   QC value within limits for Cu 324.752  Recovery = 106.22%
Fe 238.204 Radial†       583.8      5146.0 ug/L       66.05      5146.0 ppb          66.05   1.28%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.92%
K 766.490 Radial†      26325.0      5216.5 ug/L       63.00      5216.5 ppb          63.00   1.21%
   QC value within limits for K 766.490 Radial  Recovery = 104.33%
Mg 279.077 IEC†          169.4      5421.3 ug/L      161.13      5421.3 ppb         161.13   2.97%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.43%
Mn 257.610†           508228.4      535.90 ug/L        0.954      535.90 ppb          0.954   0.18%
   QC value within limits for Mn 257.610  Recovery = 107.18%
Mo 202.031†             8519.9      534.24 ug/L        2.571      534.24 ppb          2.571   0.48%
   QC value within limits for Mo 202.031  Recovery = 106.85%
Na 589.592 Radial†     34459.7       10410 ug/L      102.8        10410 ppb          102.8   0.99%
   QC value within limits for Na 589.592 Radial  Recovery = 104.10%
Ni 231.604†            24043.7      527.48 ug/L        3.142      527.48 ppb          3.142   0.60%
   QC value within limits for Ni 231.604  Recovery = 105.50%
P 214.914†              5455.5      2579.5 ug/L       13.25      2579.5 ppb          13.25   0.51%
   QC value within limits for P 214.914  Recovery = 103.18%
Pb 220.353†             5140.8      534.27 ug/L        3.668      534.27 ppb          3.668   0.69%
   QC value within limits for Pb 220.353  Recovery = 106.85%
S 181.975 Axial†         942.0      1063.5 ug/L       13.35      1063.5 ppb          13.35   1.26%
   QC value within limits for S 181.975 Axial  Recovery = 106.35%
Sb 206.836†             1778.7      539.01 ug/L        4.732      539.01 ppb          4.732   0.88%
   QC value within limits for Sb 206.836  Recovery = 107.80%
Se 196.026†             1048.5      554.89 ug/L        1.583      554.89 ppb          1.583   0.29%
   QC value greater than the upper limit for Se 196.026  Recovery = 110.98%
Si 251.611†            92461.9      2639.7 ug/L        2.77      2639.7 ppb           2.77   0.10%
   QC value within limits for Si 251.611  Recovery = 105.59%
Sn 189.927†             3582.3      530.50 ug/L        4.009      530.50 ppb          4.009   0.76%
   QC value within limits for Sn 189.927  Recovery = 106.10%
Sr 421.552†            74439.4      544.97 ug/L        5.377      544.97 ppb          5.377   0.99%
   QC value within limits for Sr 421.552  Recovery = 108.99%
Ti 334.940†           339380.9      538.33 ug/L        0.455      538.33 ppb          0.455   0.08%
   QC value within limits for Ti 334.940  Recovery = 107.67%
Tl 190.801†             1945.3      534.94 ug/L        3.804      534.94 ppb          3.804   0.71%
   QC value within limits for Tl 190.801  Recovery = 106.99%
U 409.014†             17173.2      508.87 ug/L        2.253      508.87 ppb          2.253   0.44%
   QC value within limits for U 409.014  Recovery = 101.77%
V 292.402†             83945.1      534.14 ug/L        0.260      534.14 ppb          0.260   0.05%
   QC value within limits for V 292.402  Recovery = 106.83%
Zn 213.857†            64639.0      527.02 ug/L        1.160      527.02 ppb          1.160   0.22%
   QC value within limits for Zn 213.857  Recovery = 105.40%
SiO2†                  92648.5      5659.9 ug/L       13.96      5659.9 ppb          13.96   0.25%
   QC value within limits for SiO2  Recovery = 105.84%
QC Failed.  Continue with analysis.
```

Sequence No.: 52
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/6/2010 20:38:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4649.4	4649.4	99.6	%			20:40:43
1	Y RADIAL	4936.6	4936.6	100.1	%			20:40:43
1	Al 396.153Radial†	-8.6	18.1	15.946	ug/L	15.946	ppb	20:40:43
1	Ca 317.933Radial†	18.9	6.4	10.742	ug/L	10.742	ppb	20:41:03
1	Fe 238.204 Radial†	12.7	-1.1	-9.5819	ug/L	-9.5819	ppb	20:41:03
1	K 766.490 Radial†	3387.3	63.8	12.657	ug/L	12.657	ppb	20:40:43
1	Mg 279.077 IEC†	3.4	1.7	55.238	ug/L	55.238	ppb	20:41:03
1	Na 589.592 Radial†	-1630.8	112.9	34.102	ug/L	34.102	ppb	20:40:43
1	Sr 421.552†	7.5	-8.5	-0.0620	ug/L	-0.0620	ppb	20:40:43
1	Sc 361.383	855400.3	855400.3	96.480	%			20:42:00
1	Y 371.029	736838.1	736838.1	96.729	%			20:42:00
1	Ag 328.068†	363.1	-135.9	-0.5755	ug/L	-0.5755	ppb	20:42:00
1	As 188.979†	-20.8	11.8	4.1338	ug/L	4.1338	ppb	20:42:20
1	B 249.677†	-678.2	-37.1	-0.7642	ug/L	-0.7642	ppb	20:42:00
1	Ba 233.527†	21.2	14.5	0.1064	ug/L	0.1064	ppb	20:42:20
1	Be 313.107†	-4308.5	-114.2	-0.0387	ug/L	-0.0387	ppb	20:42:00
1	Cd 226.502†	-239.6	-9.9	-0.0925	ug/L	-0.0925	ppb	20:42:20
1	Co 228.616†	-79.0	2.1	0.0437	ug/L	0.0437	ppb	20:42:20
1	Cr 267.716†	95.8	-4.8	-0.0435	ug/L	-0.0435	ppb	20:42:00
1	Cu 324.752†	7972.2	264.0	0.7811	ug/L	0.7811	ppb	20:42:00
1	Mn 257.610†	490.8	-7.7	-0.0101	ug/L	-0.0101	ppb	20:42:00
1	Mo 202.031†	42.1	23.7	1.4848	ug/L	1.4848	ppb	20:42:20
1	Ni 231.604†	127.9	7.5	0.1638	ug/L	0.1638	ppb	20:42:20
1	P 214.914†	242.5	2.8	1.2309	ug/L	1.2309	ppb	20:42:20
1	Pb 220.353†	-110.6	-36.8	-3.8099	ug/L	-3.8099	ppb	20:42:20
1	S 181.975 Axial†	63.1	5.5	6.2582	ug/L	6.2582	ppb	20:42:20
1	Sb 206.836†	44.5	9.0	2.7102	ug/L	2.7102	ppb	20:42:20
1	Se 196.026†	-28.1	4.1	2.0702	ug/L	2.0702	ppb	20:42:20
1	Si 251.611†	696.2	105.0	2.9861	ug/L	2.9861	ppb	20:42:20
1	Sn 189.927†	-5.3	-8.9	-1.3137	ug/L	-1.3137	ppb	20:42:20
1	Ti 334.940†	-1790.2	-38.2	-0.0549	ug/L	-0.0549	ppb	20:42:00
1	Tl 190.801†	-51.8	-0.3	-0.0832	ug/L	-0.0832	ppb	20:42:20
1	U 409.014†	-2953.1	-392.1	-11.657	ug/L	-11.657	ppb	20:42:00
1	V 292.402†	-1667.8	73.2	0.4607	ug/L	0.4607	ppb	20:42:00
1	Zn 213.857†	817.6	15.8	0.1265	ug/L	0.1265	ppb	20:42:20
1	SiO2†	723.1	113.5	6.9101	ug/L	6.9101	ppb	20:43:16
2	Sc Radial	4676.4	4676.4	100	%			20:41:08
2	Y RADIAL	4942.8	4942.8	100.2	%			20:41:08
2	Al 396.153Radial†	-1.4	25.4	22.462	ug/L	22.462	ppb	20:41:08
2	Ca 317.933Radial†	17.5	4.9	8.1780	ug/L	8.1780	ppb	20:41:28
2	Fe 238.204 Radial†	12.3	-1.6	-14.099	ug/L	-14.099	ppb	20:41:28
2	K 766.490 Radial†	3264.1	-78.8	-15.637	ug/L	-15.637	ppb	20:41:08
2	Mg 279.077 IEC†	2.3	0.6	20.592	ug/L	20.592	ppb	20:41:28
2	Na 589.592 Radial†	-1770.7	-17.3	-5.2204	ug/L	-5.2204	ppb	20:41:08
2	Sr 421.552†	12.7	-3.3	-0.0245	ug/L	-0.0245	ppb	20:41:08
2	Sc 361.383	863802.9	863802.9	97.428	%			20:42:26
2	Y 371.029	744334.2	744334.2	97.713	%			20:42:26
2	Ag 328.068†	402.2	-99.6	-0.4235	ug/L	-0.4235	ppb	20:42:26
2	As 188.979†	-31.7	0.8	0.2895	ug/L	0.2895	ppb	20:42:46
2	B 249.677†	-650.4	-1.7	-0.0327	ug/L	-0.0327	ppb	20:42:26
2	Ba 233.527†	10.6	3.4	0.0253	ug/L	0.0253	ppb	20:42:46
2	Be 313.107†	-4405.5	-170.3	-0.0574	ug/L	-0.0574	ppb	20:42:26
2	Cd 226.502†	-238.7	-6.6	-0.0609	ug/L	-0.0609	ppb	20:42:46
2	Co 228.616†	-90.4	-8.8	-0.1641	ug/L	-0.1641	ppb	20:42:46
2	Cr 267.716†	98.8	-2.7	-0.0235	ug/L	-0.0235	ppb	20:42:26
2	Cu 324.752†	7944.0	154.7	0.4574	ug/L	0.4574	ppb	20:42:26
2	Mn 257.610†	497.9	-5.4	-0.0075	ug/L	-0.0075	ppb	20:42:26
2	Mo 202.031†	30.8	11.7	0.7314	ug/L	0.7314	ppb	20:42:46
2	Ni 231.604†	124.9	3.1	0.0687	ug/L	0.0687	ppb	20:42:46

2	P 214.914†	265.0	23.4	11.348 ug/L	11.348 ppb	20:42:46
2	Pb 220.353†	-105.0	-30.0	-3.1037 ug/L	-3.1037 ppb	20:42:46
2	S 181.975 Axial†	64.0	5.8	6.5380 ug/L	6.5380 ppb	20:42:46
2	Sb 206.836†	41.7	5.7	1.7053 ug/L	1.7053 ppb	20:42:46
2	Se 196.026†	-45.5	-13.5	-6.9405 ug/L	-6.9405 ppb	20:42:46
2	Si 251.611†	696.3	98.1	2.8084 ug/L	2.8084 ppb	20:42:46
2	Sn 189.927†	-0.9	-4.3	-0.6355 ug/L	-0.6355 ppb	20:42:46
2	Ti 334.940†	-1713.2	58.9	0.0976 ug/L	0.0976 ppb	20:42:26
2	Tl 190.801†	-46.7	5.5	1.5042 ug/L	1.5042 ppb	20:42:46
2	U 409.014†	-2879.0	-286.3	-8.5094 ug/L	-8.5094 ppb	20:42:26
2	V 292.402†	-1688.3	69.0	0.4294 ug/L	0.4294 ppb	20:42:26
2	Zn 213.857†	837.1	27.5	0.2250 ug/L	0.2250 ppb	20:42:46
2	SiO2†	696.7	79.1	4.8429 ug/L	4.8429 ppb	20:43:21
3	Sc Radial	4662.7	4662.7	99.9 %		20:41:33
3	Y RADIAL	4955.0	4955.0	100.4 %		20:41:33
3	Al 396.153Radial†	-0.3	26.5	23.458 ug/L	23.458 ppb	20:41:33
3	Ca 317.933Radial†	16.0	3.5	5.7991 ug/L	5.7991 ppb	20:41:53
3	Fe 238.204 Radial†	11.6	-2.3	-19.908 ug/L	-19.908 ppb	20:41:53
3	K 766.490 Radial†	3377.9	44.7	8.8731 ug/L	8.8731 ppb	20:41:33
3	Mg 279.077 IEC†	5.6	4.0	127.07 ug/L	127.07 ppb	20:41:53
3	Na 589.592 Radial†	-1720.0	28.3	8.5380 ug/L	8.5380 ppb	20:41:33
3	Sr 421.552†	44.8	28.8	0.2112 ug/L	0.2112 ppb	20:41:33
3	Sc 361.383	869942.8	869942.8	98.120 %		20:42:51
3	Y 371.029	749879.8	749879.8	98.441 %		20:42:51
3	Ag 328.068†	532.2	30.0	0.1332 ug/L	0.1332 ppb	20:42:51
3	As 188.979†	-28.0	4.9	1.7163 ug/L	1.7163 ppb	20:43:11
3	B 249.677†	-696.5	-44.0	-0.9043 ug/L	-0.9043 ppb	20:42:51
3	Ba 233.527†	-3.5	-11.1	-0.0823 ug/L	-0.0823 ppb	20:43:11
3	Be 313.107†	-4310.3	-41.4	-0.0141 ug/L	-0.0141 ppb	20:42:51
3	Cd 226.502†	-236.9	-3.0	-0.0266 ug/L	-0.0266 ppb	20:43:11
3	Co 228.616†	-93.6	-11.4	-0.2128 ug/L	-0.2128 ppb	20:43:11
3	Cr 267.716†	88.9	-13.4	-0.1306 ug/L	-0.1306 ppb	20:42:51
3	Cu 324.752†	8143.5	300.5	0.8886 ug/L	0.8886 ppb	20:42:51
3	Mn 257.610†	490.6	-16.4	-0.0217 ug/L	-0.0217 ppb	20:42:51
3	Mo 202.031†	24.0	4.5	0.2823 ug/L	0.2823 ppb	20:43:11
3	Ni 231.604†	115.7	-7.1	-0.1563 ug/L	-0.1563 ppb	20:43:11
3	P 214.914†	242.8	-1.1	-0.6452 ug/L	-0.6452 ppb	20:43:11
3	Pb 220.353†	-107.6	-31.9	-3.2975 ug/L	-3.2975 ppb	20:43:11
3	S 181.975 Axial†	57.6	-1.2	-1.3388 ug/L	-1.3388 ppb	20:43:11
3	Sb 206.836†	47.1	10.9	3.2595 ug/L	3.2595 ppb	20:43:11
3	Se 196.026†	-43.1	-10.6	-5.5011 ug/L	-5.5011 ppb	20:43:11
3	Si 251.611†	688.3	85.0	2.4302 ug/L	2.4302 ppb	20:43:11
3	Sn 189.927†	1.2	-2.2	-0.3237 ug/L	-0.3237 ppb	20:43:11
3	Ti 334.940†	-1830.3	-48.0	-0.0694 ug/L	-0.0694 ppb	20:42:51
3	Tl 190.801†	-39.2	13.4	3.6752 ug/L	3.6752 ppb	20:43:11
3	U 409.014†	-3092.2	-482.7	-14.347 ug/L	-14.347 ppb	20:42:51
3	V 292.402†	-1824.0	-57.1	-0.3763 ug/L	-0.3763 ppb	20:42:51
3	Zn 213.857†	835.1	19.4	0.1565 ug/L	0.1565 ppb	20:43:11
3	SiO2†	707.9	85.4	5.2277 ug/L	5.2277 ppb	20:43:26

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	863048.7	97.343	%	0.8234				0.85%
Sc Radial	4662.8	99.9	%	0.29				0.29%
Y 371.029	743684.0	97.628	%	0.8592				0.88%
Y RADIAL	4944.8	100.2	%	0.19				0.19%
Ag 328.068†	-68.5	-0.2886	ug/L	0.37312	-0.2886	ppb	0.37312	129.27%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	23.3	20.622	ug/L	4.0804	20.622	ppb	4.0804	19.79%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.9	2.0465	ug/L	1.94329	2.0465	ppb	1.94329	94.96%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-27.6	-0.5671	ug/L	0.46800	-0.5671	ppb	0.46800	82.53%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.3	0.0164	ug/L	0.09466	0.0164	ppb	0.09466	575.54%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-108.6	-0.0367	ug/L	0.02168	-0.0367	ppb	0.02168	59.00%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.9	8.2395	ug/L	2.47181	8.2395	ppb	2.47181	30.00%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -6.5     -0.0600 ug/L       0.03297     -0.0600 ppb        0.03297  54.93%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -6.0     -0.1111 ug/L       0.13620     -0.1111 ppb        0.13620 122.62%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -6.9     -0.0659 ug/L       0.05692     -0.0659 ppb        0.05692  86.42%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               239.7      0.7091 ug/L       0.22446      0.7091 ppb        0.22446  31.66%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.7     -14.530 ug/L        5.1764     -14.530 ppb         5.1764  35.63%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           9.9      1.9645 ug/L      15.36015      1.9645 ppb       15.36015 781.88%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             2.1      67.632 ug/L       54.3088      67.632 ppb        54.3088  80.30%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -9.9     -0.0131 ug/L       0.00755     -0.0131 ppb        0.00755  57.66%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                13.3      0.8328 ug/L       0.60764      0.8328 ppb        0.60764  72.96%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         41.3      12.473 ug/L       19.9543      12.473 ppb        19.9543 159.98%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 1.2      0.0254 ug/L       0.16437      0.0254 ppb        0.16437 646.44%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  8.4      3.9779 ug/L       6.45129      3.9779 ppb        6.45129 162.18%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -32.9     -3.4037 ug/L       0.36489     -3.4037 ppb        0.36489  10.72%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            3.4      3.8191 ug/L       4.46911      3.8191 ppb        4.46911 117.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 8.5      2.5584 ug/L       0.78817      2.5584 ppb        0.78817  30.81%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -6.7     -3.4571 ug/L       4.84061     -3.4571 ppb        4.84061 140.02%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                96.0      2.7416 ug/L       0.28390      2.7416 ppb        0.28390  10.36%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -5.1     -0.7576 ug/L       0.50618     -0.7576 ppb        0.50618  66.81%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 5.7      0.0416 ug/L       0.14808      0.0416 ppb        0.14808 356.34%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                -9.1     -0.0089 ug/L       0.09253     -0.0089 ppb        0.09253 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 6.2      1.6987 ug/L       1.88675      1.6987 ppb        1.88675 111.07%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -387.0     -11.504 ug/L        2.9215     -11.504 ppb         2.9215  25.40%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 28.3      0.1713 ug/L       0.47445      0.1713 ppb        0.47445 276.98%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                20.9      0.1694 ug/L       0.05049      0.1694 ppb        0.05049  29.81%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      92.7      5.6602 ug/L       1.09935      5.6602 ppb        1.09935  19.42%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 61
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/6/2010 21:40:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4642.0	4642.0	99.5	%			21:42:33
1	Y RADIAL	4931.3	4931.3	99.97	%			21:42:33
1	Al 396.153Radial†	6133.4	6193.8	5470.8	ug/L	5470.8	ppb	21:42:33
1	Ca 317.933Radial†	3127.4	3132.1	5248.3	ug/L	5248.3	ppb	21:42:53
1	Fe 238.204 Radial†	583.4	572.7	5048.9	ug/L	5048.9	ppb	21:42:53
1	K 766.490 Radial†	29121.8	25945.3	5141.3	ug/L	5141.3	ppb	21:42:33
1	Mg 279.077 IEC†	165.3	164.6	5268.3	ug/L	5268.3	ppb	21:42:53
1	Na 589.592 Radial†	31762.5	33687.3	10176	ug/L	10176	ppb	21:42:33
1	Sr 421.552†	73132.8	73519.2	538.23	ug/L	538.23	ppb	21:42:33
1	Sc 361.383	867560.4	867560.4	97.851	%			21:43:52
1	Y 371.029	738058.5	738058.5	96.889	%			21:43:52
1	Ag 328.068†	119511.0	121622.8	525.68	ug/L	525.68	ppb	21:43:52
1	As 188.979†	1436.5	1501.5	530.11	ug/L	530.11	ppb	21:44:12
1	B 249.677†	23708.7	24895.1	511.32	ug/L	511.32	ppb	21:43:52
1	Ba 233.527†	70365.2	71902.7	525.59	ug/L	525.59	ppb	21:43:52
1	Be 313.107†	1529142.5	1567069.6	530.70	ug/L	530.70	ppb	21:43:52
1	Cd 226.502†	54114.7	55541.3	522.94	ug/L	522.94	ppb	21:43:52
1	Co 228.616†	27134.0	27813.8	523.12	ug/L	523.12	ppb	21:44:12
1	Cr 267.716†	51058.4	52075.5	522.61	ug/L	522.61	ppb	21:43:52
1	Cu 324.752†	181004.2	176979.5	524.23	ug/L	524.23	ppb	21:43:52
1	Mn 257.610†	491743.6	502024.5	529.36	ug/L	529.36	ppb	21:43:52
1	Mo 202.031†	8279.8	8441.6	529.33	ug/L	529.33	ppb	21:44:12
1	Ni 231.604†	23487.1	23877.7	523.84	ug/L	523.84	ppb	21:44:12
1	P 214.914†	5531.3	5404.2	2555.7	ug/L	2555.7	ppb	21:44:12
1	Pb 220.353†	4928.8	5114.8	531.57	ug/L	531.57	ppb	21:44:12
1	S 181.975 Axial†	974.4	935.9	1056.7	ug/L	1056.7	ppb	21:44:12
1	Sb 206.836†	1764.6	1766.3	535.28	ug/L	535.28	ppb	21:44:12
1	Se 196.026†	984.2	1039.1	549.75	ug/L	549.75	ppb	21:44:12
1	Si 251.611†	90074.4	91435.6	2610.4	ug/L	2610.4	ppb	21:43:52
1	Sn 189.927†	3485.8	3558.9	527.02	ug/L	527.02	ppb	21:44:12
1	Ti 334.940†	326510.1	335496.7	532.17	ug/L	532.17	ppb	21:43:52
1	Tl 190.801†	1832.3	1925.9	529.58	ug/L	529.58	ppb	21:44:12
1	U 409.014†	13828.0	16800.4	497.81	ug/L	497.81	ppb	21:43:52
1	V 292.402†	79537.0	83085.2	528.67	ug/L	528.67	ppb	21:43:52
1	Zn 213.857†	63211.3	63767.6	519.90	ug/L	519.90	ppb	21:43:52
1	SiO2†	90813.5	92171.5	5630.9	ug/L	5630.9	ppb	21:45:13
2	Sc Radial	4571.4	4571.4	97.9	%			21:42:58
2	Y RADIAL	4867.8	4867.8	98.68	%			21:42:58
2	Al 396.153Radial†	6072.8	6227.4	5500.5	ug/L	5500.5	ppb	21:42:58
2	Ca 317.933Radial†	3148.0	3201.7	5365.0	ug/L	5365.0	ppb	21:43:18
2	Fe 238.204 Radial†	582.5	580.9	5120.5	ug/L	5120.5	ppb	21:43:18
2	K 766.490 Radial†	28958.0	26230.7	5197.9	ug/L	5197.9	ppb	21:42:58
2	Mg 279.077 IEC†	167.7	169.6	5430.1	ug/L	5430.1	ppb	21:43:18
2	Na 589.592 Radial†	31636.4	34052.4	10287	ug/L	10287	ppb	21:42:58
2	Sr 421.552†	72722.9	74237.5	543.49	ug/L	543.49	ppb	21:42:58
2	Sc 361.383	875299.5	875299.5	98.724	%			21:44:20
2	Y 371.029	744347.5	744347.5	97.715	%			21:44:20
2	Ag 328.068†	120600.8	121646.8	525.81	ug/L	525.81	ppb	21:44:20
2	As 188.979†	1464.2	1516.5	535.41	ug/L	535.41	ppb	21:44:40
2	B 249.677†	24027.1	25003.4	513.55	ug/L	513.55	ppb	21:44:20
2	Ba 233.527†	71143.4	72055.2	526.71	ug/L	526.71	ppb	21:44:20
2	Be 313.107†	1544064.4	1568367.3	531.15	ug/L	531.15	ppb	21:44:20
2	Cd 226.502†	54662.6	55607.3	523.55	ug/L	523.55	ppb	21:44:20
2	Co 228.616†	27372.3	27809.9	523.05	ug/L	523.05	ppb	21:44:40
2	Cr 267.716†	51514.2	52075.8	522.62	ug/L	522.62	ppb	21:44:20
2	Cu 324.752†	183018.9	177384.7	525.43	ug/L	525.43	ppb	21:44:20
2	Mn 257.610†	496925.0	502829.5	530.21	ug/L	530.21	ppb	21:44:20
2	Mo 202.031†	8362.4	8450.5	529.89	ug/L	529.89	ppb	21:44:40
2	Ni 231.604†	23666.8	23847.5	523.18	ug/L	523.18	ppb	21:44:40

2	P 214.914†	5585.0	5408.6	2557.6 ug/L	2557.6 ppb	21:44:40
2	Pb 220.353†	4955.5	5097.3	529.76 ug/L	529.76 ppb	21:44:40
2	S 181.975 Axial†	985.7	938.5	1059.6 ug/L	1059.6 ppb	21:44:40
2	Sb 206.836†	1781.1	1767.0	535.48 ug/L	535.48 ppb	21:44:40
2	Se 196.026†	992.7	1038.8	549.85 ug/L	549.85 ppb	21:44:40
2	Si 251.611†	90881.6	91439.4	2610.5 ug/L	2610.5 ppb	21:44:20
2	Sn 189.927†	3510.2	3552.2	526.04 ug/L	526.04 ppb	21:44:40
2	Ti 334.940†	330019.0	336100.7	533.13 ug/L	533.13 ppb	21:44:20
2	Tl 190.801†	1866.1	1943.6	534.42 ug/L	534.42 ppb	21:44:40
2	U 409.014†	13962.4	16811.5	498.13 ug/L	498.13 ppb	21:44:20
2	V 292.402†	80486.6	83328.4	530.20 ug/L	530.20 ppb	21:44:20
2	Zn 213.857†	64009.2	64004.6	521.84 ug/L	521.84 ppb	21:44:20
2	SiO2†	90535.5	91069.4	5563.2 ug/L	5563.2 ppb	21:45:18
3	Sc Radial	4639.7	4639.7	99.4 %		21:43:23
3	Y RADIAL	4927.9	4927.9	99.90 %		21:43:23
3	Al 396.153Radial†	6148.4	6212.0	5487.3 ug/L	5487.3 ppb	21:43:23
3	Ca 317.933Radial†	3193.8	3200.4	5362.8 ug/L	5362.8 ppb	21:43:43
3	Fe 238.204 Radial†	592.1	581.8	5128.5 ug/L	5128.5 ppb	21:43:43
3	K 766.490 Radial†	29061.6	25899.5	5132.1 ug/L	5132.1 ppb	21:43:23
3	Mg 279.077 IEC†	168.1	167.4	5360.2 ug/L	5360.2 ppb	21:43:43
3	Na 589.592 Radial†	32032.8	33975.3	10263 ug/L	10263 ppb	21:43:23
3	Sr 421.552†	73569.6	73995.6	541.72 ug/L	541.72 ppb	21:43:23
3	Sc 361.383	883254.8	883254.8	99.622 %		21:44:47
3	Y 371.029	750580.3	750580.3	98.533 %		21:44:47
3	Ag 328.068†	121819.2	121769.5	526.33 ug/L	526.33 ppb	21:44:47
3	As 188.979†	1442.3	1481.2	523.03 ug/L	523.03 ppb	21:45:07
3	B 249.677†	24402.5	25161.0	516.82 ug/L	516.82 ppb	21:44:47
3	Ba 233.527†	71811.0	72076.3	526.86 ug/L	526.86 ppb	21:44:47
3	Be 313.107†	1560416.6	1570694.8	531.93 ug/L	531.93 ppb	21:44:47
3	Cd 226.502†	55282.3	55730.7	524.70 ug/L	524.70 ppb	21:44:47
3	Co 228.616†	27150.1	27337.2	514.13 ug/L	514.13 ppb	21:45:07
3	Cr 267.716†	52096.1	52190.0	523.76 ug/L	523.76 ppb	21:44:47
3	Cu 324.752†	184912.3	177615.6	526.12 ug/L	526.12 ppb	21:44:47
3	Mn 257.610†	501513.3	502901.7	530.29 ug/L	530.29 ppb	21:44:47
3	Mo 202.031†	8291.4	8303.0	520.65 ug/L	520.65 ppb	21:45:07
3	Ni 231.604†	23429.5	23393.4	513.22 ug/L	513.22 ppb	21:45:07
3	P 214.914†	5534.4	5306.8	2507.7 ug/L	2507.7 ppb	21:45:07
3	Pb 220.353†	4905.3	5001.7	519.83 ug/L	519.83 ppb	21:45:07
3	S 181.975 Axial†	973.1	916.9	1035.1 ug/L	1035.1 ppb	21:45:07
3	Sb 206.836†	1754.0	1723.6	522.12 ug/L	522.12 ppb	21:45:07
3	Se 196.026†	979.0	1016.0	538.16 ug/L	538.16 ppb	21:45:07
3	Si 251.611†	91863.9	91596.3	2615.2 ug/L	2615.2 ppb	21:44:47
3	Sn 189.927†	3474.8	3484.6	516.05 ug/L	516.05 ppb	21:45:07
3	Ti 334.940†	332899.9	335981.7	532.94 ug/L	532.94 ppb	21:44:47
3	Tl 190.801†	1854.2	1914.7	526.57 ug/L	526.57 ppb	21:45:07
3	U 409.014†	14291.2	17014.2	504.15 ug/L	504.15 ppb	21:44:47
3	V 292.402†	80965.0	83074.3	528.48 ug/L	528.48 ppb	21:44:47
3	Zn 213.857†	64601.8	64015.5	521.99 ug/L	521.99 ppb	21:44:47
3	SiO2†	89951.9	89657.5	5477.0 ug/L	5477.0 ppb	21:45:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	875371.6	98.732	%	0.8851				0.90%
Sc Radial	4617.7	98.9	%	0.86				0.87%
Y 371.029	744328.8	97.712	%	0.8219				0.84%
Y RADIAL	4909.0	99.51	%	0.724				0.73%
Ag 328.068†	121679.7	525.94	ug/L	0.343	525.94	ppb	0.343	0.07%
QC value within limits for Ag 328.068 Recovery = 105.19%								
Al 396.153Radial†	6211.1	5486.2	ug/L	14.89	5486.2	ppb	14.89	0.27%
QC value within limits for Al 396.153Radial Recovery = 109.72%								
As 188.979†	1499.7	529.52	ug/L	6.207	529.52	ppb	6.207	1.17%
QC value within limits for As 188.979 Recovery = 105.90%								
B 249.677†	25019.8	513.90	ug/L	2.764	513.90	ppb	2.764	0.54%
QC value within limits for B 249.677 Recovery = 102.78%								
Ba 233.527†	72011.4	526.39	ug/L	0.692	526.39	ppb	0.692	0.13%
QC value within limits for Ba 233.527 Recovery = 105.28%								
Be 313.107†	1568710.5	531.26	ug/L	0.621	531.26	ppb	0.621	0.12%
QC value within limits for Be 313.107 Recovery = 106.25%								
Ca 317.933Radial†	3178.1	5325.4	ug/L	66.77	5325.4	ppb	66.77	1.25%

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   QC value within limits for Ca 317.933Radial  Recovery = 106.51%
Cd 226.502†            55626.4      523.73 ug/L         0.898      523.73 ppb          0.898   0.17%
   QC value within limits for Cd 226.502  Recovery = 104.75%
Co 228.616†            27653.6      520.10 ug/L         5.167      520.10 ppb          5.167   0.99%
   QC value within limits for Co 228.616  Recovery = 104.02%
Cr 267.716†            52113.8      522.99 ug/L         0.660      522.99 ppb          0.660   0.13%
   QC value within limits for Cr 267.716  Recovery = 104.60%
Cu 324.752†           177326.6      525.26 ug/L         0.955      525.26 ppb          0.955   0.18%
   QC value within limits for Cu 324.752  Recovery = 105.05%
Fe 238.204 Radial†       578.5      5099.3 ug/L        43.83      5099.3 ppb         43.83   0.86%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.99%
K 766.490 Radial†      26025.2      5157.1 ug/L        35.62      5157.1 ppb         35.62   0.69%
   QC value within limits for K 766.490 Radial  Recovery = 103.14%
Mg 279.077 IEC†          167.2      5352.8 ug/L        81.15      5352.8 ppb         81.15   1.52%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.06%
Mn 257.610†           502585.2      529.96 ug/L         0.516      529.96 ppb          0.516   0.10%
   QC value within limits for Mn 257.610  Recovery = 105.99%
Mo 202.031†             8398.4      526.62 ug/L         5.181      526.62 ppb          5.181   0.98%
   QC value within limits for Mo 202.031  Recovery = 105.32%
Na 589.592 Radial†     33905.0       10242 ug/L        58.1       10242 ppb          58.1   0.57%
   QC value within limits for Na 589.592 Radial  Recovery = 102.42%
Ni 231.604†            23706.2      520.08 ug/L         5.953      520.08 ppb          5.953   1.14%
   QC value within limits for Ni 231.604  Recovery = 104.02%
P 214.914†              5373.2      2540.3 ug/L        28.27      2540.3 ppb         28.27   1.11%
   QC value within limits for P 214.914  Recovery = 101.61%
Pb 220.353†             5071.3      527.05 ug/L         6.321      527.05 ppb          6.321   1.20%
   QC value within limits for Pb 220.353  Recovery = 105.41%
S 181.975 Axial†         930.4      1050.4 ug/L        13.36      1050.4 ppb         13.36   1.27%
   QC value within limits for S 181.975 Axial  Recovery = 105.04%
Sb 206.836†             1752.3      530.96 ug/L         7.660      530.96 ppb          7.660   1.44%
   QC value within limits for Sb 206.836  Recovery = 106.19%
Se 196.026†             1031.3      545.92 ug/L         6.719      545.92 ppb          6.719   1.23%
   QC value within limits for Se 196.026  Recovery = 109.18%
Si 251.611†            91490.4      2612.0 ug/L         2.75      2612.0 ppb          2.75   0.11%
   QC value within limits for Si 251.611  Recovery = 104.48%
Sn 189.927†             3531.9      523.04 ug/L         6.072      523.04 ppb          6.072   1.16%
   QC value within limits for Sn 189.927  Recovery = 104.61%
Sr 421.552†            73917.4      541.15 ug/L         2.675      541.15 ppb          2.675   0.49%
   QC value within limits for Sr 421.552  Recovery = 108.23%
Ti 334.940†           335859.7      532.74 ug/L         0.510      532.74 ppb          0.510   0.10%
   QC value within limits for Ti 334.940  Recovery = 106.55%
Tl 190.801†             1928.0      530.19 ug/L         3.958      530.19 ppb          3.958   0.75%
   QC value within limits for Tl 190.801  Recovery = 106.04%
U 409.014†             16875.4      500.03 ug/L         3.575      500.03 ppb          3.575   0.71%
   QC value within limits for U 409.014  Recovery = 100.01%
V 292.402†             83162.7      529.11 ug/L         0.942      529.11 ppb          0.942   0.18%
   QC value within limits for V 292.402  Recovery = 105.82%
Zn 213.857†            63929.2      521.24 ug/L         1.169      521.24 ppb          1.169   0.22%
   QC value within limits for Zn 213.857  Recovery = 104.25%
SiO2†                  90966.1      5557.0 ug/L        77.14      5557.0 ppb         77.14   1.39%
   QC value within limits for SiO2  Recovery = 103.92%
All analyte(s) passed QC.
```

Sequence No.: 62
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/6/2010 21:47:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4811.4	4811.4	103	%			21:49:24
1	Y RADIAL	5122.7	5122.7	103.8	%			21:49:24
1	Al 396.153Radial†	-14.8	12.4	10.956	ug/L	10.956	ppb	21:49:24
1	Ca 317.933Radial†	20.1	7.0	11.653	ug/L	11.653	ppb	21:49:44
1	Fe 238.204 Radial†	12.2	-2.1	-18.107	ug/L	-18.107	ppb	21:49:44
1	K 766.490 Radial†	3435.6	-3.8	-0.7571	ug/L	-0.7571	ppb	21:49:24
1	Mg 279.077 IEC†	1.2	-0.5	-15.998	ug/L	-15.998	ppb	21:49:44
1	Na 589.592 Radial†	-1698.9	102.0	30.797	ug/L	30.797	ppb	21:49:24
1	Sr 421.552†	34.2	17.2	0.1258	ug/L	0.1258	ppb	21:49:24
1	Sc 361.383	904641.5	904641.5	102.03	%			21:50:41
1	Y 371.029	776170.7	776170.7	101.89	%			21:50:41
1	Ag 328.068†	476.6	-45.2	-0.1940	ug/L	-0.1940	ppb	21:50:46
1	As 188.979†	-38.8	-4.6	-1.6145	ug/L	-1.6145	ppb	21:51:06
1	B 249.677†	-606.6	71.4	1.4744	ug/L	1.4744	ppb	21:50:46
1	Ba 233.527†	-11.4	-18.7	-0.1333	ug/L	-0.1333	ppb	21:51:06
1	Be 313.107†	-4331.4	106.4	0.0363	ug/L	0.0363	ppb	21:50:46
1	Cd 226.502†	-249.9	-6.5	-0.0594	ug/L	-0.0594	ppb	21:51:06
1	Co 228.616†	-90.6	-4.8	-0.0891	ug/L	-0.0891	ppb	21:51:06
1	Cr 267.716†	114.4	8.1	0.0832	ug/L	0.0832	ppb	21:50:46
1	Cu 324.752†	7985.9	-172.3	-0.5111	ug/L	-0.5111	ppb	21:50:46
1	Mn 257.610†	552.9	25.4	0.0253	ug/L	0.0253	ppb	21:50:46
1	Mo 202.031†	29.7	9.1	0.5709	ug/L	0.5709	ppb	21:51:06
1	Ni 231.604†	132.1	4.4	0.0959	ug/L	0.0959	ppb	21:51:06
1	P 214.914†	236.4	-16.9	-8.1487	ug/L	-8.1487	ppb	21:51:06
1	Pb 220.353†	-105.4	-25.6	-2.6443	ug/L	-2.6443	ppb	21:51:06
1	S 181.975 Axial†	65.8	4.6	5.1800	ug/L	5.1800	ppb	21:51:06
1	Sb 206.836†	45.2	7.2	2.1520	ug/L	2.1520	ppb	21:51:06
1	Se 196.026†	-31.1	2.8	1.3907	ug/L	1.3907	ppb	21:51:06
1	Si 251.611†	672.1	42.1	1.1979	ug/L	1.1979	ppb	21:51:06
1	Sn 189.927†	3.9	0.4	0.0563	ug/L	0.0563	ppb	21:51:06
1	Ti 334.940†	-1747.5	104.7	0.1670	ug/L	0.1670	ppb	21:50:46
1	Tl 190.801†	-52.3	2.2	0.5915	ug/L	0.5915	ppb	21:51:06
1	U 409.014†	-2749.9	-26.4	-0.7823	ug/L	-0.7823	ppb	21:50:41
1	V 292.402†	-1599.4	234.3	1.4799	ug/L	1.4799	ppb	21:50:46
1	Zn 213.857†	826.6	-21.5	-0.1756	ug/L	-0.1756	ppb	21:51:06
1	SiO2†	665.9	16.6	0.9986	ug/L	0.9986	ppb	21:52:12
2	Sc Radial	4797.1	4797.1	103	%			21:49:49
2	Y RADIAL	5129.9	5129.9	104.0	%			21:49:49
2	Al 396.153Radial†	-45.7	-17.8	-15.780	ug/L	-15.780	ppb	21:49:49
2	Ca 317.933Radial†	22.3	9.1	15.320	ug/L	15.320	ppb	21:50:09
2	Fe 238.204 Radial†	13.0	-1.2	-10.570	ug/L	-10.570	ppb	21:50:09
2	K 766.490 Radial†	3382.4	-45.6	-9.0728	ug/L	-9.0728	ppb	21:49:49
2	Mg 279.077 IEC†	-0.4	-2.0	-65.174	ug/L	-65.174	ppb	21:50:09
2	Na 589.592 Radial†	-1703.6	92.5	27.942	ug/L	27.942	ppb	21:49:49
2	Sr 421.552†	22.9	6.3	0.0456	ug/L	0.0456	ppb	21:49:49
2	Sc 361.383	898123.1	898123.1	101.30	%			21:51:11
2	Y 371.029	771793.2	771793.2	101.32	%			21:51:11
2	Ag 328.068†	570.9	51.3	0.2142	ug/L	0.2142	ppb	21:51:16
2	As 188.979†	-32.3	1.6	0.5465	ug/L	0.5465	ppb	21:51:36
2	B 249.677†	-682.0	-7.4	-0.1510	ug/L	-0.1510	ppb	21:51:16
2	Ba 233.527†	26.3	18.5	0.1341	ug/L	0.1341	ppb	21:51:36
2	Be 313.107†	-4223.8	181.9	0.0618	ug/L	0.0618	ppb	21:51:16
2	Cd 226.502†	-237.9	3.5	0.0340	ug/L	0.0340	ppb	21:51:36
2	Co 228.616†	-91.5	-6.3	-0.1180	ug/L	-0.1180	ppb	21:51:36
2	Cr 267.716†	72.7	-32.3	-0.3246	ug/L	-0.3246	ppb	21:51:16
2	Cu 324.752†	7934.6	-166.2	-0.4925	ug/L	-0.4925	ppb	21:51:16
2	Mn 257.610†	486.4	-36.2	-0.0380	ug/L	-0.0380	ppb	21:51:16
2	Mo 202.031†	25.2	5.0	0.3100	ug/L	0.3100	ppb	21:51:36
2	Ni 231.604†	114.3	-12.2	-0.2674	ug/L	-0.2674	ppb	21:51:36

2	P 214.914†	227.8	-23.7	-11.449 ug/L	-11.449 ppb	21:51:36
2	Pb 220.353†	-81.5	-2.7	-0.2818 ug/L	-0.2818 ppb	21:51:36
2	S 181.975 Axial†	53.4	-7.2	-8.1341 ug/L	-8.1341 ppb	21:51:36
2	Sb 206.836†	37.5	-0.1	0.0000 ug/L	0.0000 ppb	21:51:36
2	Se 196.026†	-33.6	0.1	0.0263 ug/L	0.0263 ppb	21:51:36
2	Si 251.611†	648.4	23.6	0.6717 ug/L	0.6717 ppb	21:51:36
2	Sn 189.927†	7.6	4.1	0.6029 ug/L	0.6029 ppb	21:51:36
2	Ti 334.940†	-1721.2	118.2	0.1875 ug/L	0.1875 ppb	21:51:16
2	Tl 190.801†	-43.0	10.9	2.9875 ug/L	2.9875 ppb	21:51:36
2	U 409.014†	-2628.2	74.2	2.2078 ug/L	2.2078 ppb	21:51:11
2	V 292.402†	-1847.1	-21.6	-0.1268 ug/L	-0.1268 ppb	21:51:16
2	Zn 213.857†	826.6	-15.7	-0.1240 ug/L	-0.1240 ppb	21:51:36
2	SiO2†	673.9	29.2	1.7854 ug/L	1.7854 ppb	21:52:17
3	Sc Radial	4827.6	4827.6	103 %		21:50:14
3	Y RADIAL	5118.2	5118.2	103.8 %		21:50:14
3	Al 396.153Radial†	-31.4	-3.6	-3.2357 ug/L	-3.2357 ppb	21:50:14
3	Ca 317.933Radial†	17.6	4.5	7.5075 ug/L	7.5075 ppb	21:50:34
3	Fe 238.204 Radial†	13.5	-0.8	-6.9491 ug/L	-6.9491 ppb	21:50:34
3	K 766.490 Radial†	3230.4	-213.4	-42.367 ug/L	-42.367 ppb	21:50:14
3	Mg 279.077 IEC†	0.2	-1.5	-46.364 ug/L	-46.364 ppb	21:50:34
3	Na 589.592 Radial†	-1697.3	109.1	32.956 ug/L	32.956 ppb	21:50:14
3	Sr 421.552†	-14.9	-30.4	-0.2224 ug/L	-0.2224 ppb	21:50:14
3	Sc 361.383	897251.7	897251.7	101.20 %		21:51:41
3	Y 371.029	770620.8	770620.8	101.16 %		21:51:41
3	Ag 328.068†	464.6	-53.2	-0.2303 ug/L	-0.2303 ppb	21:51:46
3	As 188.979†	-28.3	5.4	1.8963 ug/L	1.8963 ppb	21:52:06
3	B 249.677†	-717.2	-42.9	-0.8837 ug/L	-0.8837 ppb	21:51:46
3	Ba 233.527†	13.7	6.1	0.0447 ug/L	0.0447 ppb	21:52:06
3	Be 313.107†	-4294.8	107.6	0.0368 ug/L	0.0368 ppb	21:51:46
3	Cd 226.502†	-202.6	38.2	0.3606 ug/L	0.3606 ppb	21:52:06
3	Co 228.616†	-82.6	2.3	0.0455 ug/L	0.0455 ppb	21:52:06
3	Cr 267.716†	111.9	6.6	0.0661 ug/L	0.0661 ppb	21:51:46
3	Cu 324.752†	8055.1	-39.5	-0.1173 ug/L	-0.1173 ppb	21:51:46
3	Mn 257.610†	566.3	43.2	0.0457 ug/L	0.0457 ppb	21:51:46
3	Mo 202.031†	33.0	12.7	0.7932 ug/L	0.7932 ppb	21:52:06
3	Ni 231.604†	131.1	4.5	0.0986 ug/L	0.0986 ppb	21:52:06
3	P 214.914†	235.1	-16.3	-7.9252 ug/L	-7.9252 ppb	21:52:06
3	Pb 220.353†	-85.3	-6.5	-0.6736 ug/L	-0.6736 ppb	21:52:06
3	S 181.975 Axial†	55.9	-4.6	-5.2136 ug/L	-5.2136 ppb	21:52:06
3	Sb 206.836†	44.0	6.4	1.9215 ug/L	1.9215 ppb	21:52:06
3	Se 196.026†	-28.8	4.8	2.4186 ug/L	2.4186 ppb	21:52:06
3	Si 251.611†	679.6	55.0	1.5809 ug/L	1.5809 ppb	21:52:06
3	Sn 189.927†	-2.9	-6.2	-0.9234 ug/L	-0.9234 ppb	21:52:06
3	Ti 334.940†	-1716.4	121.3	0.1926 ug/L	0.1926 ppb	21:51:46
3	Tl 190.801†	-54.1	-0.0	-0.0086 ug/L	-0.0086 ppb	21:52:06
3	U 409.014†	-2683.2	17.3	0.5154 ug/L	0.5154 ppb	21:51:41
3	V 292.402†	-1774.5	48.4	0.3159 ug/L	0.3159 ppb	21:51:46
3	Zn 213.857†	841.8	0.1	0.0022 ug/L	0.0022 ppb	21:52:06
3	SiO2†	722.9	78.3	4.8127 ug/L	4.8127 ppb	21:52:22

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	900005.4	101.51	%	0.456				0.45%
Sc Radial	4812.0	103	%	0.3				0.32%
Y 371.029	772861.6	101.46	%	0.384				0.38%
Y RADIAL	5123.6	103.9	%	0.12				0.12%
Ag 328.068†	-15.7	-0.0700	ug/L	0.24678	-0.0700	ppb	0.24678	352.48%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.0	-2.6867	ug/L	13.37644	-2.6867	ppb	13.37644	497.87%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.8	0.2761	ug/L	1.77095	0.2761	ppb	1.77095	641.32%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	7.0	0.1466	ug/L	1.20686	0.1466	ppb	1.20686	823.50%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.0	0.0152	ug/L	0.13615	0.0152	ppb	0.13615	897.02%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	132.0	0.0450	ug/L	0.01462	0.0450	ppb	0.01462	32.51%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.9	11.493	ug/L	3.9086	11.493	ppb	3.9086	34.01%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              11.7      0.1118 ug/L       0.22053      0.1118 ppb        0.22053 197.34%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -2.9     -0.0539 ug/L       0.08730     -0.0539 ppb        0.08730 162.07%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -5.9     -0.0584 ug/L       0.23069     -0.0584 ppb        0.23069 394.94%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -126.0     -0.3736 ug/L       0.22222     -0.3736 ppb        0.22222  59.47%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -1.4     -11.876 ug/L        5.6924     -11.876 ppb         5.6924  47.93%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -87.6     -17.399 ug/L       22.0190     -17.399 ppb        22.0190 126.55%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.3     -42.512 ug/L       24.8135     -42.512 ppb        24.8135  58.37%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              10.8      0.0110 ug/L       0.04363      0.0110 ppb        0.04363 397.16%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               8.9      0.5580 ug/L       0.24188      0.5580 ppb        0.24188  43.35%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      101.2      30.565 ug/L        2.5149      30.565 ppb         2.5149   8.23%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -1.1     -0.0243 ug/L       0.21050     -0.0243 ppb        0.21050 866.68%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -19.0     -9.1744 ug/L       1.97324     -9.1744 ppb        1.97324  21.51%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -11.6     -1.1999 ug/L       1.26613     -1.1999 ppb        1.26613 105.52%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.4     -2.7225 ug/L       6.99788     -2.7225 ppb        6.99788 257.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               4.5      1.3578 ug/L       1.18154      1.3578 ppb        1.18154  87.02%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.6      1.2785 ug/L       1.20009      1.2785 ppb        1.20009  93.87%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              40.2      1.1502 ug/L       0.45646      1.1502 ppb        0.45646  39.69%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.6     -0.0880 ug/L       0.77333     -0.0880 ppb        0.77333 878.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -2.3     -0.0170 ug/L       0.18233     -0.0170 ppb        0.18233 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             114.8      0.1824 ug/L       0.01354      0.1824 ppb        0.01354   7.42%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               4.4      1.1902 ug/L       1.58521      1.1902 ppb        1.58521 133.19%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               21.7      0.6469 ug/L       1.49936      0.6469 ppb        1.49936 231.76%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               87.0      0.5563 ug/L       0.82987      0.5563 ppb        0.82987 149.17%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -12.4     -0.0991 ug/L       0.09147     -0.0991 ppb        0.09147  92.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    41.4      2.5323 ug/L       2.01370      2.5323 ppb        2.01370  79.52%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 63
Sample ID: 1202003791|936492|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 65
Date Collected: 1/6/2010 21:54:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202003791|936492|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4710.6	4710.6	101	%			21:56:24
1	Y RADIAL	5021.5	5021.5	101.8	%			21:56:24
1	Al 396.153Radial†	-28.4	-1.5	-1.3207	ug/L	-1.3207	ppb	21:56:24
1	Ca 317.933Radial†	23.5	10.7	17.968	ug/L	17.968	ppb	21:56:44
1	Fe 238.204 Radial†	14.0	0.0	0.1650	ug/L	0.1650	ppb	21:56:44
1	K 766.490 Radial†	3330.8	-36.4	-7.2385	ug/L	-7.2385	ppb	21:56:24
1	Mg 279.077 IEC†	1.4	-0.3	-9.0132	ug/L	-9.0132	ppb	21:56:44
1	Na 589.592 Radial†	-1669.5	95.8	28.951	ug/L	28.951	ppb	21:56:24
1	Sr 421.552†	-22.0	-37.7	-0.2765	ug/L	-0.2765	ppb	21:56:24
1	Sc 361.383	847019.1	847019.1	95.535	%			21:57:41
1	Y 371.029	745037.0	745037.0	97.805	%			21:57:41
1	Ag 328.068†	430.2	-62.0	-0.2617	ug/L	-0.2617	ppb	21:57:41
1	As 188.979†	-29.3	2.7	0.9543	ug/L	0.9543	ppb	21:58:01
1	B 249.677†	-719.1	-86.9	-1.7905	ug/L	-1.7905	ppb	21:57:41
1	Ba 233.527†	29.0	22.9	0.1661	ug/L	0.1661	ppb	21:58:01
1	Be 313.107†	-4357.9	-210.1	-0.0701	ug/L	-0.0701	ppb	21:57:41
1	Cd 226.502†	-243.5	-16.5	-0.1551	ug/L	-0.1551	ppb	21:58:01
1	Co 228.616†	-91.3	-11.6	-0.2179	ug/L	-0.2179	ppb	21:58:01
1	Cr 267.716†	222.2	128.5	1.2894	ug/L	1.2894	ppb	21:57:41
1	Cu 324.752†	8110.7	490.8	1.4531	ug/L	1.4531	ppb	21:57:41
1	Mn 257.610†	620.6	133.2	0.1405	ug/L	0.1405	ppb	21:57:41
1	Mo 202.031†	25.5	6.8	0.4240	ug/L	0.4240	ppb	21:58:01
1	Ni 231.604†	136.6	17.9	0.3932	ug/L	0.3932	ppb	21:58:01
1	P 214.914†	266.5	30.4	14.592	ug/L	14.592	ppb	21:58:01
1	Pb 220.353†	-96.9	-23.7	-2.4552	ug/L	-2.4552	ppb	21:58:01
1	S 181.975 Axial†	61.4	4.3	4.8874	ug/L	4.8874	ppb	21:58:01
1	Sb 206.836†	34.3	-1.2	-0.3905	ug/L	-0.3905	ppb	21:58:01
1	Se 196.026†	-31.3	0.5	0.2401	ug/L	0.2401	ppb	21:58:01
1	Si 251.611†	1107.6	542.8	15.567	ug/L	15.567	ppb	21:58:01
1	Sn 189.927†	-0.7	-4.2	-0.6134	ug/L	-0.6134	ppb	21:58:01
1	Ti 334.940†	-1459.3	289.8	0.4633	ug/L	0.4633	ppb	21:57:41
1	Tl 190.801†	-49.9	1.2	0.3215	ug/L	0.3215	ppb	21:58:01
1	U 409.014†	-2771.2	-232.0	-6.8992	ug/L	-6.8992	ppb	21:57:41
1	V 292.402†	-1761.2	-41.7	-0.2702	ug/L	-0.2702	ppb	21:57:41
1	Zn 213.857†	953.5	166.4	1.3639	ug/L	1.3639	ppb	21:58:01
1	SiO2†	1164.8	583.2	35.795	ug/L	35.795	ppb	21:58:57
2	Sc Radial	4889.1	4889.1	105	%			21:56:49
2	Y RADIAL	5201.3	5201.3	105.4	%			21:56:49
2	Al 396.153Radial†	-30.2	-2.1	-1.9180	ug/L	-1.9180	ppb	21:56:49
2	Ca 317.933Radial†	25.7	12.0	20.036	ug/L	20.036	ppb	21:57:09
2	Fe 238.204 Radial†	14.4	-0.2	-1.4068	ug/L	-1.4068	ppb	21:57:09
2	K 766.490 Radial†	3387.9	-102.4	-20.348	ug/L	-20.348	ppb	21:56:49
2	Mg 279.077 IEC†	3.4	1.6	50.526	ug/L	50.526	ppb	21:57:09
2	Na 589.592 Radial†	-1632.9	191.2	57.766	ug/L	57.766	ppb	21:56:49
2	Sr 421.552†	6.6	-9.7	-0.0711	ug/L	-0.0711	ppb	21:56:49
2	Sc 361.383	840655.9	840655.9	94.817	%			21:58:06
2	Y 371.029	737100.2	737100.2	96.763	%			21:58:06
2	Ag 328.068†	393.1	-97.8	-0.4145	ug/L	-0.4145	ppb	21:58:06
2	As 188.979†	-43.4	-12.4	-4.3337	ug/L	-4.3337	ppb	21:58:26
2	B 249.677†	-779.3	-156.1	-3.2178	ug/L	-3.2178	ppb	21:58:06
2	Ba 233.527†	37.2	31.7	0.2315	ug/L	0.2315	ppb	21:58:26
2	Be 313.107†	-4331.4	-216.7	-0.0727	ug/L	-0.0727	ppb	21:58:06
2	Cd 226.502†	-257.7	-33.4	-0.3141	ug/L	-0.3141	ppb	21:58:26
2	Co 228.616†	-92.1	-13.2	-0.2461	ug/L	-0.2461	ppb	21:58:26
2	Cr 267.716†	112.8	14.9	0.1521	ug/L	0.1521	ppb	21:58:06
2	Cu 324.752†	7956.6	392.5	1.1620	ug/L	1.1620	ppb	21:58:06
2	Mn 257.610†	610.7	127.7	0.1334	ug/L	0.1334	ppb	21:58:06
2	Mo 202.031†	34.5	16.5	1.0332	ug/L	1.0332	ppb	21:58:26
2	Ni 231.604†	136.2	18.6	0.4089	ug/L	0.4089	ppb	21:58:26

2	P 214.914†	270.0	36.2	17.478 ug/L	17.478 ppb	21:58:26
2	Pb 220.353†	-104.9	-32.9	-3.4088 ug/L	-3.4088 ppb	21:58:26
2	S 181.975 Axial†	59.1	2.4	2.7226 ug/L	2.7226 ppb	21:58:26
2	Sb 206.836†	39.1	4.2	1.2661 ug/L	1.2661 ppb	21:58:26
2	Se 196.026†	-35.0	-3.6	-1.8498 ug/L	-1.8498 ppb	21:58:26
2	Si 251.611†	1111.7	555.9	15.935 ug/L	15.935 ppb	21:58:26
2	Sn 189.927†	5.2	2.1	0.3074 ug/L	0.3074 ppb	21:58:26
2	Ti 334.940†	-1555.9	176.4	0.2839 ug/L	0.2839 ppb	21:58:06
2	Tl 190.801†	-50.0	0.6	0.1804 ug/L	0.1804 ppb	21:58:26
2	U 409.014†	-2746.7	-228.1	-6.7805 ug/L	-6.7805 ppb	21:58:06
2	V 292.402†	-1693.5	15.7	0.1013 ug/L	0.1013 ppb	21:58:06
2	Zn 213.857†	939.5	159.2	1.3031 ug/L	1.3031 ppb	21:58:26
2	SiO2†	1116.8	541.8	33.233 ug/L	33.233 ppb	21:59:02
3	Sc Radial	4437.8	4437.8	95.1 %		21:57:14
3	Y RADIAL	4747.8	4747.8	96.25 %		21:57:14
3	Al 396.153Radial†	-22.9	2.6	2.2551 ug/L	2.2551 ppb	21:57:14
3	Ca 317.933Radial†	25.6	14.4	24.062 ug/L	24.062 ppb	21:57:34
3	Fe 238.204 Radial†	14.4	1.3	11.279 ug/L	11.279 ppb	21:57:34
3	K 766.490 Radial†	3389.3	228.0	45.265 ug/L	45.265 ppb	21:57:14
3	Mg 279.077 IEC†	-0.1	-1.7	-55.506 ug/L	-55.506 ppb	21:57:34
3	Na 589.592 Radial†	-1643.5	21.5	6.4883 ug/L	6.4883 ppb	21:57:14
3	Sr 421.552†	25.1	10.4	0.0757 ug/L	0.0757 ppb	21:57:14
3	Sc 361.383	853058.7	853058.7	96.216 %		21:58:32
3	Y 371.029	751580.2	751580.2	98.664 %		21:58:32
3	Ag 328.068†	408.6	-87.7	-0.3685 ug/L	-0.3685 ppb	21:58:32
3	As 188.979†	-38.3	-6.4	-2.2221 ug/L	-2.2221 ppb	21:58:52
3	B 249.677†	-726.0	-88.7	-1.8304 ug/L	-1.8304 ppb	21:58:32
3	Ba 233.527†	14.2	7.2	0.0518 ug/L	0.0518 ppb	21:58:52
3	Be 313.107†	-4328.9	-147.6	-0.0490 ug/L	-0.0490 ppb	21:58:32
3	Cd 226.502†	-240.0	-11.0	-0.1050 ug/L	-0.1050 ppb	21:58:52
3	Co 228.616†	-82.6	-1.9	-0.0349 ug/L	-0.0349 ppb	21:58:52
3	Cr 267.716†	142.9	44.5	0.4473 ug/L	0.4473 ppb	21:58:32
3	Cu 324.752†	7978.1	292.9	0.8677 ug/L	0.8677 ppb	21:58:32
3	Mn 257.610†	642.4	151.2	0.1615 ug/L	0.1615 ppb	21:58:32
3	Mo 202.031†	32.4	13.7	0.8600 ug/L	0.8600 ppb	21:58:52
3	Ni 231.604†	121.8	1.5	0.0331 ug/L	0.0331 ppb	21:58:52
3	P 214.914†	249.9	11.1	5.2730 ug/L	5.2730 ppb	21:58:52
3	Pb 220.353†	-94.7	-20.7	-2.1427 ug/L	-2.1427 ppb	21:58:52
3	S 181.975 Axial†	55.7	-2.0	-2.2350 ug/L	-2.2350 ppb	21:58:52
3	Sb 206.836†	48.8	13.6	4.0525 ug/L	4.0525 ppb	21:58:52
3	Se 196.026†	-36.4	-4.5	-2.2764 ug/L	-2.2764 ppb	21:58:52
3	Si 251.611†	1108.5	535.5	15.333 ug/L	15.333 ppb	21:58:52
3	Sn 189.927†	-0.6	-4.0	-0.5927 ug/L	-0.5927 ppb	21:58:52
3	Ti 334.940†	-1473.3	286.1	0.4587 ug/L	0.4587 ppb	21:58:32
3	Tl 190.801†	-45.5	6.1	1.6598 ug/L	1.6598 ppb	21:58:52
3	U 409.014†	-2835.5	-278.3	-8.2762 ug/L	-8.2762 ppb	21:58:32
3	V 292.402†	-1821.7	-91.5	-0.5819 ug/L	-0.5819 ppb	21:58:32
3	Zn 213.857†	944.0	149.5	1.2292 ug/L	1.2292 ppb	21:58:52
3	SiO2†	1106.3	513.8	31.478 ug/L	31.478 ppb	21:59:07

Mean Data: 1202003791|936492|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	846911.2	95.522	%	0.6995				0.73%
Sc Radial	4679.2	100	%	4.9				4.86%
Y 371.029	744572.5	97.744	%	0.9519				0.97%
Y RADIAL	4990.2	101.2	%	4.63				4.58%
Ag 328.068†	-82.5	-0.3483	ug/L	0.07840	-0.3483	ppb	0.07840	22.51%
Al 396.153Radial†	-0.3	-0.3279	ug/L	2.25678	-0.3279	ppb	2.25678	688.35%
As 188.979†	-5.3	-1.8671	ug/L	2.66181	-1.8671	ppb	2.66181	142.56%
B 249.677†	-110.6	-2.2796	ug/L	0.81275	-2.2796	ppb	0.81275	35.65%
Ba 233.527†	20.6	0.1498	ug/L	0.09094	0.1498	ppb	0.09094	60.70%
Be 313.107†	-191.5	-0.0639	ug/L	0.01299	-0.0639	ppb	0.01299	20.32%
Ca 317.933Radial†	12.3	20.689	ug/L	3.0988	20.689	ppb	3.0988	14.98%
Cd 226.502†	-20.3	-0.1914	ug/L	0.10919	-0.1914	ppb	0.10919	57.05%
Co 228.616†	-8.9	-0.1663	ug/L	0.11466	-0.1663	ppb	0.11466	68.95%
Cr 267.716†	62.6	0.6296	ug/L	0.59018	0.6296	ppb	0.59018	93.74%
Cu 324.752†	392.1	1.1609	ug/L	0.29267	1.1609	ppb	0.29267	25.21%
Fe 238.204 Radial†	0.4	3.3456	ug/L	6.91505	3.3456	ppb	6.91505	206.69%
K 766.490 Radial†	29.8	5.8927	ug/L	34.72150	5.8927	ppb	34.72150	589.23%

Mg 279.077 IEC†	-0.1	-4.6645	ug/L	53.14986	-4.6645	ppb	53.14986 >999.9%
Mn 257.610†	137.3	0.1451	ug/L	0.01458	0.1451	ppb	0.01458 10.05%
Mo 202.031†	12.3	0.7724	ug/L	0.31390	0.7724	ppb	0.31390 40.64%
Na 589.592 Radial†	102.8	31.068	ug/L	25.7043	31.068	ppb	25.7043 82.73%
Ni 231.604†	12.7	0.2784	ug/L	0.21255	0.2784	ppb	0.21255 76.35%
P 214.914†	25.9	12.448	ug/L	6.3791	12.448	ppb	6.3791 51.25%
Pb 220.353†	-25.8	-2.6689	ug/L	0.65954	-2.6689	ppb	0.65954 24.71%
S 181.975 Axial†	1.6	1.7917	ug/L	3.65134	1.7917	ppb	3.65134 203.79%
Sb 206.836†	5.5	1.6427	ug/L	2.24532	1.6427	ppb	2.24532 136.69%
Se 196.026†	-2.6	-1.2954	ug/L	1.34676	-1.2954	ppb	1.34676 103.97%
Si 251.611†	544.7	15.612	ug/L	0.3033	15.612	ppb	0.3033 1.94%
Sn 189.927†	-2.0	-0.2996	ug/L	0.52577	-0.2996	ppb	0.52577 175.51%
Sr 421.552†	-12.4	-0.0907	ug/L	0.17691	-0.0907	ppb	0.17691 195.14%
Ti 334.940†	250.8	0.4020	ug/L	0.10229	0.4020	ppb	0.10229 25.44%
Tl 190.801†	2.6	0.7206	ug/L	0.81648	0.7206	ppb	0.81648 113.31%
U 409.014†	-246.1	-7.3187	ug/L	0.83141	-7.3187	ppb	0.83141 11.36%
V 292.402†	-39.2	-0.2503	ug/L	0.34207	-0.2503	ppb	0.34207 136.68%
Zn 213.857†	158.3	1.2987	ug/L	0.06746	1.2987	ppb	0.06746 5.19%
SiO2†	546.3	33.502	ug/L	2.1706	33.502	ppb	2.1706 6.48%

Sequence No.: 64
Sample ID: 1202003792|936492|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 66
Date Collected: 1/6/2010 22:01:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202003792|936492|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4676.2	4676.2	100	%			22:03:11
1	Y RADIAL	4995.9	4995.9	101.3	%			22:03:11
1	Al 396.153Radial†	6207.6	6222.9	5497.5	ug/L	5497.5	ppb	22:03:11
1	Ca 317.933Radial†	3188.0	3169.6	5311.2	ug/L	5311.2	ppb	22:03:31
1	Fe 238.204 Radial†	604.2	589.2	5193.4	ug/L	5193.4	ppb	22:03:31
1	K 766.490 Radial†	29432.0	26041.3	5162.3	ug/L	5162.3	ppb	22:03:11
1	Mg 279.077 IEC†	170.6	168.6	5397.3	ug/L	5397.3	ppb	22:03:31
1	Na 589.592 Radial†	16614.1	18333.8	5538.3	ug/L	5538.3	ppb	22:03:11
1	Sr 421.552†	76838.8	76681.9	561.39	ug/L	561.39	ppb	22:03:11
1	Sc 361.383	884743.8	884743.8	99.790	%			22:04:30
1	Y 371.029	752730.0	752730.0	98.815	%			22:04:30
1	Ag 328.068†	120822.0	120564.5	521.16	ug/L	521.16	ppb	22:04:30
1	As 188.979†	1441.1	1477.6	521.78	ug/L	521.78	ppb	22:04:50
1	B 249.677†	24335.2	25052.3	514.58	ug/L	514.58	ppb	22:04:30
1	Ba 233.527†	73522.2	73669.7	538.48	ug/L	538.48	ppb	22:04:30
1	Be 313.107†	1569731.4	1577393.2	534.19	ug/L	534.19	ppb	22:04:30
1	Cd 226.502†	55148.0	55502.7	522.55	ug/L	522.55	ppb	22:04:30
1	Co 228.616†	26872.3	27012.9	508.02	ug/L	508.02	ppb	22:04:50
1	Cr 267.716†	51725.8	51730.9	519.15	ug/L	519.15	ppb	22:04:30
1	Cu 324.752†	185510.0	177902.2	526.97	ug/L	526.97	ppb	22:04:30
1	Mn 257.610†	503050.0	503594.4	531.03	ug/L	531.03	ppb	22:04:30
1	Mo 202.031†	8115.8	8113.0	508.75	ug/L	508.75	ppb	22:04:50
1	Ni 231.604†	23375.3	23299.6	511.16	ug/L	511.16	ppb	22:04:50
1	P 214.914†	1437.3	1191.8	501.47	ug/L	501.47	ppb	22:04:50
1	Pb 220.353†	4900.3	4988.4	518.42	ug/L	518.42	ppb	22:04:50
1	S 181.975 Axial†	4567.8	4517.5	5104.4	ug/L	5104.4	ppb	22:04:50
1	Sb 206.836†	1735.9	1702.5	515.80	ug/L	515.80	ppb	22:04:50
1	Se 196.026†	947.1	982.4	521.13	ug/L	521.13	ppb	22:04:50
1	Si 251.611†	179162.6	178923.8	5120.5	ug/L	5120.5	ppb	22:04:30
1	Sn 189.927†	3532.1	3536.1	523.66	ug/L	523.66	ppb	22:04:50
1	Ti 334.940†	331913.2	334430.5	530.47	ug/L	530.47	ppb	22:04:30
1	Tl 190.801†	1827.0	1884.3	518.29	ug/L	518.29	ppb	22:04:50
1	U 409.014†	15022.5	17722.9	525.22	ug/L	525.22	ppb	22:04:30
1	V 292.402†	81306.4	83279.7	529.63	ug/L	529.63	ppb	22:04:30
1	Zn 213.857†	63189.4	62490.9	509.47	ug/L	509.47	ppb	22:04:30
1	SiO2†	177341.4	177079.3	10844	ug/L	10844	ppb	22:05:51
2	Sc Radial	4626.2	4626.2	99.1	%			22:03:36
2	Y RADIAL	4906.3	4906.3	99.46	%			22:03:36
2	Al 396.153Radial†	6176.9	6258.8	5528.9	ug/L	5528.9	ppb	22:03:36
2	Ca 317.933Radial†	3247.6	3264.0	5469.4	ug/L	5469.4	ppb	22:03:56
2	Fe 238.204 Radial†	614.4	606.0	5341.4	ug/L	5341.4	ppb	22:03:56
2	K 766.490 Radial†	29192.8	26116.8	5177.2	ug/L	5177.2	ppb	22:03:36
2	Mg 279.077 IEC†	175.0	174.9	5599.2	ug/L	5599.2	ppb	22:03:56
2	Na 589.592 Radial†	16290.9	18186.5	5493.8	ug/L	5493.8	ppb	22:03:36
2	Sr 421.552†	75637.2	76296.9	558.57	ug/L	558.57	ppb	22:03:36
2	Sc 361.383	870304.1	870304.1	98.161	%			22:04:58
2	Y 371.029	740433.4	740433.4	97.201	%			22:04:58
2	Ag 328.068†	120927.3	122680.6	530.32	ug/L	530.32	ppb	22:04:58
2	As 188.979†	1444.6	1505.0	531,48	ug/L	531.48	ppb	22:05:18
2	B 249.677†	24385.9	25508.6	523.94	ug/L	523.94	ppb	22:04:58
2	Ba 233.527†	73563.4	74934.2	547.73	ug/L	547.73	ppb	22:04:58
2	Be 313.107†	1569752.4	1603513.7	543.04	ug/L	543.04	ppb	22:04:58
2	Cd 226.502†	55134.5	56405.9	531.05	ug/L	531.05	ppb	22:04:58
2	Co 228.616†	27015.7	27605.8	519.17	ug/L	519.17	ppb	22:05:18
2	Cr 267.716†	51747.1	52612.6	528.00	ug/L	528.00	ppb	22:04:58
2	Cu 324.752†	185713.4	181193.7	536.72	ug/L	536.72	ppb	22:04:58
2	Mn 257.610†	503184.1	512095.0	540.00	ug/L	540.00	ppb	22:04:58
2	Mo 202.031†	8138.4	8270.9	518.66	ug/L	518.66	ppb	22:05:18
2	Ni 231.604†	23487.4	23802.3	522.19	ug/L	522.19	ppb	22:05:18

2	P 214.914†	1445.9	1224.4	515.84 ug/L	515.84 ppb	22:05:18
2	Pb 220.353†	4969.3	5140.1	534.15 ug/L	534.15 ppb	22:05:18
2	S 181.975 Axial†	4613.5	4640.1	5242.9 ug/L	5242.9 ppb	22:05:18
2	Sb 206.836†	1745.0	1740.6	527.39 ug/L	527.39 ppb	22:05:18
2	Se 196.026†	958.9	1010.1	535.81 ug/L	535.81 ppb	22:05:18
2	Si 251.611†	179082.6	181821.2	5203.4 ug/L	5203.4 ppb	22:04:58
2	Sn 189.927†	3547.7	3610.8	534.72 ug/L	534.72 ppb	22:05:18
2	Ti 334.940†	332236.3	340278.2	539.75 ug/L	539.75 ppb	22:04:58
2	Tl 190.801†	1822.2	1909.7	525.28 ug/L	525.28 ppb	22:05:18
2	U 409.014†	14966.4	17915.5	530.91 ug/L	530.91 ppb	22:04:58
2	V 292.402†	81279.5	84604.1	538.07 ug/L	538.07 ppb	22:04:58
2	Zn 213.857†	63152.3	63503.8	517.70 ug/L	517.70 ppb	22:04:58
2	SiO2†	178531.7	181240.5	11099 ug/L	11099 ppb	22:05:56
3	Sc Radial	4621.9	4621.9	99.0 %		22:04:01
3	Y RADIAL	4914.7	4914.7	99.63 %		22:04:01
3	Al 396.153Radial†	6116.9	6204.1	5480.4 ug/L	5480.4 ppb	22:04:01
3	Ca 317.933Radial†	3230.9	3250.4	5446.5 ug/L	5446.5 ppb	22:04:21
3	Fe 238.204 Radial†	613.5	605.7	5338.9 ug/L	5338.9 ppb	22:04:21
3	K 766.490 Radial†	29160.7	26112.4	5176.4 ug/L	5176.4 ppb	22:04:01
3	Mg 279.077 IEC†	173.5	173.6	5557.5 ug/L	5557.5 ppb	22:04:21
3	Na 589.592 Radial†	16260.0	18171.0	5489.1 ug/L	5489.1 ppb	22:04:01
3	Sr 421.552†	75488.5	76219.2	558.00 ug/L	558.00 ppb	22:04:01
3	Sc 361.383	864203.9	864203.9	97.473 %		22:05:25
3	Y 371.029	735236.1	735236.1	96.519 %		22:05:25
3	Ag 328.068†	120048.4	122648.5	530.20 ug/L	530.20 ppb	22:05:25
3	As 188.979†	1428.7	1499.1	529.41 ug/L	529.41 ppb	22:05:45
3	B 249.677†	24159.3	25451.5	522.77 ug/L	522.77 ppb	22:05:25
3	Ba 233.527†	73105.0	74992.9	548.16 ug/L	548.16 ppb	22:05:25
3	Be 313.107†	1560348.0	1605153.5	543.59 ug/L	543.59 ppb	22:05:25
3	Cd 226.502†	54794.9	56453.9	531.50 ug/L	531.50 ppb	22:05:25
3	Co 228.616†	26838.3	27618.0	519.40 ug/L	519.40 ppb	22:05:45
3	Cr 267.716†	51507.7	52739.0	529.27 ug/L	529.27 ppb	22:05:25
3	Cu 324.752†	183948.0	180718.0	535.31 ug/L	535.31 ppb	22:05:25
3	Mn 257.610†	499616.4	512053.1	539.95 ug/L	539.95 ppb	22:05:25
3	Mo 202.031†	8105.0	8295.2	520.18 ug/L	520.18 ppb	22:05:45
3	Ni 231.604†	23318.7	23798.2	522.10 ug/L	522.10 ppb	22:05:45
3	P 214.914†	1436.1	1224.7	516.26 ug/L	516.26 ppb	22:05:45
3	Pb 220.353†	4925.9	5131.3	533.23 ug/L	533.23 ppb	22:05:45
3	S 181.975 Axial†	4554.4	4612.6	5211.8 ug/L	5211.8 ppb	22:05:45
3	Sb 206.836†	1727.2	1734.9	525.71 ug/L	525.71 ppb	22:05:45
3	Se 196.026†	940.5	998.1	529.64 ug/L	529.64 ppb	22:05:45
3	Si 251.611†	177775.6	181768.1	5201.9 ug/L	5201.9 ppb	22:05:25
3	Sn 189.927†	3535.6	3623.8	536.65 ug/L	536.65 ppb	22:05:45
3	Ti 334.940†	329530.7	339891.5	539.14 ug/L	539.14 ppb	22:05:25
3	Tl 190.801†	1832.1	1932.9	531.62 ug/L	531.62 ppb	22:05:45
3	U 409.014†	14597.9	17645.1	522.87 ug/L	522.87 ppb	22:05:25
3	V 292.402†	80965.9	84866.9	539.72 ug/L	539.72 ppb	22:05:25
3	Zn 213.857†	62863.8	63662.0	519.00 ug/L	519.00 ppb	22:05:25
3	SiO2†	176745.7	180692.0	11065 ug/L	11065 ppb	22:06:01

Mean Data: 1202003792|936492|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	873084.0	98.474	%	1.1897				1.21%
Sc Radial	4641.4	99.4	%	0.65				0.65%
Y 371.029	742799.9	97.511	%	1.1794				1.21%
Y RADIAL	4938.9	100.1	%	1.00				1.00%
Ag 328.068†	121964.5	527.23	ug/L	5.256	527.23	ppb	5.256	1.00%
Al 396.153Radial†	6228.6	5502.2	ug/L	24.62	5502.2	ppb	24.62	0.45%
As 188.979†	1493.9	527.56	ug/L	5.109	527.56	ppb	5.109	0.97%
B 249.677†	25337.4	520.43	ug/L	5.098	520.43	ppb	5.098	0.98%
Ba 233.527†	74532.3	544.79	ug/L	5.465	544.79	ppb	5.465	1.00%
Be 313.107†	1595353.5	540.27	ug/L	5.275	540.27	ppb	5.275	0.98%
Ca 317.933Radial†	3228.0	5409.0	ug/L	85.50	5409.0	ppb	85.50	1.58%
Cd 226.502†	56120.8	528.37	ug/L	5.042	528.37	ppb	5.042	0.95%
Co 228.616†	27412.3	515.53	ug/L	6.507	515.53	ppb	6.507	1.26%
Cr 267.716†	52360.8	525.48	ug/L	5.514	525.48	ppb	5.514	1.05%
Cu 324.752†	179938.0	533.00	ug/L	5.271	533.00	ppb	5.271	0.99%
Fe 238.204 Radial†	600.3	5291.2	ug/L	84.75	5291.2	ppb	84.75	1.60%
K 766.490 Radial†	26090.2	5172.0	ug/L	8.38	5172.0	ppb	8.38	0.16%

Mg 279.077 IEC†	172.4	5518.0	ug/L	106.56	5518.0	ppb	106.56	1.93%
Mn 257.610†	509247.5	536.99	ug/L	5.165	536.99	ppb	5.165	0.96%
Mo 202.031†	8226.4	515.86	ug/L	6.207	515.86	ppb	6.207	1.20%
Na 589.592 Radial†	18230.4	5507.0	ug/L	27.14	5507.0	ppb	27.14	0.49%
Ni 231.604†	23633.4	518.48	ug/L	6.342	518.48	ppb	6.342	1.22%
P 214.914†	1213.6	511.19	ug/L	8.419	511.19	ppb	8.419	1.65%
Pb 220.353†	5086.6	528.60	ug/L	8.829	528.60	ppb	8.829	1.67%
S 181.975 Axial†	4590.1	5186.4	ug/L	72.69	5186.4	ppb	72.69	1.40%
Sb 206.836†	1726.0	522.97	ug/L	6.265	522.97	ppb	6.265	1.20%
Se 196.026†	996.9	528.86	ug/L	7.375	528.86	ppb	7.375	1.39%
Si 251.611†	180837.7	5175.3	ug/L	47.42	5175.3	ppb	47.42	0.92%
Sn 189.927†	3590.2	531.67	ug/L	7.009	531.67	ppb	7.009	1.32%
Sr 421.552†	76399.3	559.32	ug/L	1.815	559.32	ppb	1.815	0.32%
Ti 334.940†	338200.1	536.45	ug/L	5.191	536.45	ppb	5.191	0.97%
Tl 190.801†	1909.0	525.06	ug/L	6.669	525.06	ppb	6.669	1.27%
U 409.014†	17761.2	526.34	ug/L	4.134	526.34	ppb	4.134	0.79%
V 292.402†	84250.2	535.81	ug/L	5.411	535.81	ppb	5.411	1.01%
Zn 213.857†	63218.9	515.39	ug/L	5.170	515.39	ppb	5.170	1.00%
SiO2†	179670.6	11003	ug/L	138.5	11003	ppb	138.5	1.26%

Sequence No.: 65
Sample ID: 243400001|936492|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 67
Date Collected: 1/6/2010 22:08:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243400001|936492|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4700.0	4700.0	101	%			22:10:05
1	Y RADIAL	5008.8	5008.8	101.5	%			22:10:05
1	Al 396.153Radial†	-25.7	1.2	1.0057	ug/L	1.0057	ppb	22:10:05
1	Ca 317.933Radial†	14045.4	13936.1	23352	ug/L	23352	ppb	22:10:05
1	Fe 238.204 Radial†	11.7	-2.2	-19.737	ug/L	-19.737	ppb	22:10:25
1	K 766.490 Radial†	13337.8	9909.2	1957.7	ug/L	1957.7	ppb	22:10:05
1	Mg 279.077 IEC†	166.1	163.3	5221.6	ug/L	5221.6	ppb	22:10:25
1	Na 589.592 Radial†	48445.8	49862.2	15062	ug/L	15062	ppb	22:10:05
1	Sr 421.552†	14229.7	14115.7	103.13	ug/L	103.13	ppb	22:10:05
1	Sc 361.383	874301.9	874301.9	98.612	%			22:11:22
1	Y 371.029	744400.4	744400.4	97.722	%			22:11:22
1	Ag 328.068†	440.7	-65.4	-0.6040	ug/L	-0.6040	ppb	22:11:22
1	As 188.979†	-33.7	-0.8	-0.3210	ug/L	-0.3210	ppb	22:11:42
1	B 249.677†	708.8	1384.7	28.553	ug/L	28.553	ppb	22:11:42
1	Ba 233.527†	2506.7	2534.5	18.493	ug/L	18.493	ppb	22:11:42
1	Be 313.107†	-4246.1	45.6	0.0107	ug/L	0.0107	ppb	22:11:22
1	Cd 226.502†	-222.4	12.8	0.1226	ug/L	0.1226	ppb	22:11:42
1	Co 228.616†	-78.3	4.6	0.1034	ug/L	0.1034	ppb	22:11:42
1	Cr 267.716†	394.1	295.6	2.9724	ug/L	2.9724	ppb	22:11:42
1	Cu 324.752†	8874.8	1000.7	2.9617	ug/L	2.9617	ppb	22:11:22
1	Mn 257.610†	1564.4	1070.0	1.0283	ug/L	1.0283	ppb	22:11:42
1	Mo 202.031†	51.2	32.0	2.0026	ug/L	2.0026	ppb	22:11:42
1	Ni 231.604†	131.1	7.9	0.1739	ug/L	0.1739	ppb	22:11:42
1	P 214.914†	285.8	41.3	19.306	ug/L	19.306	ppb	22:11:42
1	Pb 220.353†	-98.4	-22.0	-2.2759	ug/L	-2.2759	ppb	22:11:42
1	S 181.975 Axial†	2780.6	2759.9	3119.1	ug/L	3119.1	ppb	22:11:42
1	Sb 206.836†	42.2	5.7	1.2339	ug/L	1.2339	ppb	22:11:42
1	Se 196.026†	-23.8	9.1	4.6156	ug/L	4.6156	ppb	22:11:42
1	Si 251.611†	762500.5	772617.7	22163	ug/L	22163	ppb	22:11:22
1	Sn 189.927†	-169.0	-174.7	-23.423	ug/L	-23.423	ppb	22:11:42
1	Ti 334.940†	-3295.2	-1524.2	-1.1994	ug/L	-1.1994	ppb	22:11:22
1	Tl 190.801†	-46.5	6.2	1.6775	ug/L	1.6775	ppb	22:11:42
1	U 409.014†	-2770.8	-141.1	-4.1977	ug/L	-4.1977	ppb	22:11:22
1	V 292.402†	-898.8	890.3	5.7319	ug/L	5.7319	ppb	22:11:42
1	Zn 213.857†	1929.0	1124.5	9.0634	ug/L	9.0634	ppb	22:11:42
1	SiO2†	769914.9	780117.1	47889	ug/L	47889	ppb	22:12:39
2	Sc Radial	4660.1	4660.1	99.8	%			22:10:30
2	Y RADIAL	4934.8	4934.8	100.0	%			22:10:30
2	Al 396.153Radial†	-3.5	23.2	20.507	ug/L	20.507	ppb	22:10:30
2	Ca 317.933Radial†	13829.1	13838.7	23189	ug/L	23189	ppb	22:10:30
2	Fe 238.204 Radial†	14.5	0.7	5.9034	ug/L	5.9034	ppb	22:10:50
2	K 766.490 Radial†	13179.1	9863.4	1948.8	ug/L	1948.8	ppb	22:10:30
2	Mg 279.077 IEC†	166.0	164.7	5264.8	ug/L	5264.8	ppb	22:10:50
2	Na 589.592 Radial†	47539.2	49365.3	14912	ug/L	14912	ppb	22:10:30
2	Sr 421.552†	14055.0	14061.5	102.74	ug/L	102.74	ppb	22:10:30
2	Sc 361.383	878229.6	878229.6	99.055	%			22:11:48
2	Y 371.029	747117.2	747117.2	98.078	%			22:11:48
2	Ag 328.068†	518.5	11.2	-0.2609	ug/L	-0.2609	ppb	22:11:48
2	As 188.979†	-22.7	10.5	3.6511	ug/L	3.6511	ppb	22:12:08
2	B 249.677†	642.4	1314.4	27.102	ug/L	27.102	ppb	22:12:08
2	Ba 233.527†	2504.1	2520.5	18.392	ug/L	18.392	ppb	22:12:08
2	Be 313.107†	-4301.7	8.7	-0.0019	ug/L	-0.0019	ppb	22:11:48
2	Cd 226.502†	-236.0	0.1	0.0007	ug/L	0.0007	ppb	22:12:08
2	Co 228.616†	-94.3	-11.2	-0.1927	ug/L	-0.1927	ppb	22:12:08
2	Cr 267.716†	399.9	299.6	3.0147	ug/L	3.0147	ppb	22:12:08
2	Cu 324.752†	8826.0	911.2	2.6982	ug/L	2.6982	ppb	22:11:48
2	Mn 257.610†	1569.3	1067.8	1.0277	ug/L	1.0277	ppb	22:12:08
2	Mo 202.031†	57.6	38.2	2.3964	ug/L	2.3964	ppb	22:12:08
2	Ni 231.604†	135.9	12.1	0.2654	ug/L	0.2654	ppb	22:12:08

2	P 214.914†	282.5	36.6	17.060	ug/L	17.060 ppb	22:12:08
2	Pb 220.353†	-102.3	-25.5	-2.6385	ug/L	-2.6385 ppb	22:12:08
2	S 181.975 Axial†	2768.4	2735.0	3090.9	ug/L	3090.9 ppb	22:12:08
2	Sb 206.836†	44.4	7.7	1.8536	ug/L	1.8536 ppb	22:12:08
2	Se 196.026†	-25.7	7.3	3.7867	ug/L	3.7867 ppb	22:12:08
2	Si 251.611†	765373.7	772060.2	22147	ug/L	22147 ppb	22:11:48
2	Sn 189.927†	-172.1	-177.1	-23.792	ug/L	-23.792 ppb	22:12:08
2	Ti 334.940†	-3344.2	-1558.8	-1.2612	ug/L	-1.2612 ppb	22:11:48
2	Tl 190.801†	-59.8	-7.0	-1.9257	ug/L	-1.9257 ppb	22:12:08
2	U 409.014†	-2899.0	-258.0	-7.6761	ug/L	-7.6761 ppb	22:11:48
2	V 292.402†	-884.6	908.8	5.8439	ug/L	5.8439 ppb	22:12:08
2	Zn 213.857†	1938.6	1125.4	9.0683	ug/L	9.0683 ppb	22:12:08
2	SiO2†	777207.0	783986.9	48126	ug/L	48126 ppb	22:12:45
3	Sc Radial	4725.6	4725.6	101	%		22:10:55
3	Y RADIAL	5011.8	5011.8	101.6	%		22:10:55
3	Al 396.153Radial†	47.4	73.5	65.109	ug/L	65.109 ppb	22:10:55
3	Ca 317.933Radial†	14027.6	13842.9	23196	ug/L	23196 ppb	22:10:55
3	Fe 238.204 Radial†	14.3	0.2	1.9096	ug/L	1.9096 ppb	22:11:15
3	K 766.490 Radial†	13520.3	10017.6	1979.4	ug/L	1979.4 ppb	22:10:55
3	Mg 279.077 IEC†	167.6	163.9	5241.4	ug/L	5241.4 ppb	22:11:15
3	Na 589.592 Radial†	48105.4	49265.2	14882	ug/L	14882 ppb	22:10:55
3	Sr 421.552†	14207.4	14017.1	102.41	ug/L	102.41 ppb	22:10:55
3	Sc 361.383	879760.1	879760.1	99.227	%		22:12:13
3	Y 371.029	748435.0	748435.0	98.251	%		22:12:13
3	Ag 328.068†	351.9	-157.7	-0.9920	ug/L	-0.9920 ppb	22:12:13
3	As 188.979†	-21.5	11.7	4.0771	ug/L	4.0771 ppb	22:12:33
3	B 249.677†	646.7	1317.6	27.167	ug/L	27.167 ppb	22:12:33
3	Ba 233.527†	2509.6	2521.6	18.400	ug/L	18.400 ppb	22:12:33
3	Be 313.107†	-4320.2	-2.3	-0.0054	ug/L	-0.0054 ppb	22:12:13
3	Cd 226.502†	-240.3	-3.8	-0.0361	ug/L	-0.0361 ppb	22:12:33
3	Co 228.616†	-89.8	-6.5	-0.1053	ug/L	-0.1053 ppb	22:12:33
3	Cr 267.716†	384.2	283.2	2.8482	ug/L	2.8482 ppb	22:12:33
3	Cu 324.752†	8881.5	951.6	2.8175	ug/L	2.8175 ppb	22:12:13
3	Mn 257.610†	1548.4	1044.1	1.0027	ug/L	1.0027 ppb	22:12:33
3	Mo 202.031†	46.6	27.0	1.6946	ug/L	1.6946 ppb	22:12:33
3	Ni 231.604†	134.7	10.7	0.2344	ug/L	0.2344 ppb	22:12:33
3	P 214.914†	279.1	32.7	15.183	ug/L	15.183 ppb	22:12:33
3	Pb 220.353†	-94.6	-17.6	-1.8062	ug/L	-1.8062 ppb	22:12:33
3	S 181.975 Axial†	2750.7	2712.3	3065.2	ug/L	3065.2 ppb	22:12:33
3	Sb 206.836†	46.3	9.6	2.4028	ug/L	2.4028 ppb	22:12:33
3	Se 196.026†	-31.1	1.9	1.0009	ug/L	1.0009 ppb	22:12:33
3	Si 251.611†	767852.4	773214.0	22180	ug/L	22180 ppb	22:12:13
3	Sn 189.927†	-165.3	-170.0	-22.741	ug/L	-22.741 ppb	22:12:33
3	Ti 334.940†	-3267.7	-1475.8	-1.1314	ug/L	-1.1314 ppb	22:12:13
3	Tl 190.801†	-54.9	-1.9	-0.5417	ug/L	-0.5417 ppb	22:12:33
3	U 409.014†	-2740.4	-93.0	-2.7718	ug/L	-2.7718 ppb	22:12:13
3	V 292.402†	-889.7	905.2	5.8207	ug/L	5.8207 ppb	22:12:33
3	Zn 213.857†	1926.6	1109.9	8.9414	ug/L	8.9414 ppb	22:12:33
3	SiO2†	765398.5	770721.5	47312	ug/L	47312 ppb	22:12:50

Mean Data: 243400001|936492|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	877430.5	98.965	%	0.3176				0.32%
Sc Radial	4695.2	101	%	0.7				0.70%
Y 371.029	746650.9	98.017	%	0.2701				0.28%
Y RADIAL	4985.1	101.1	%	0.88				0.87%
Ag 328.068†	-70.6	-0.6190	ug/L	0.36582	-0.6190	ppb	0.36582	59.10%
Al 396.153Radial†	32.7	28.874	ug/L	32.8605	28.874	ppb	32.8605	113.81%
As 188.979†	7.2	2.4690	ug/L	2.42561	2.4690	ppb	2.42561	98.24%
B 249.677†	1338.9	27.607	ug/L	0.8198	27.607	ppb	0.8198	2.97%
Ba 233.527†	2525.5	18.428	ug/L	0.0560	18.428	ppb	0.0560	0.30%
Be 313.107†	17.3	0.0011	ug/L	0.00845	0.0011	ppb	0.00845	751.23%
Ca 317.933Radial†	13872.6	23246	ug/L	92.3	23246	ppb	92.3	0.40%
Cd 226.502†	3.0	0.0291	ug/L	0.08308	0.0291	ppb	0.08308	285.51%
Co 228.616†	-4.4	-0.0649	ug/L	0.15214	-0.0649	ppb	0.15214	234.56%
Cr 267.716†	292.8	2.9451	ug/L	0.08656	2.9451	ppb	0.08656	2.94%
Cu 324.752†	954.5	2.8258	ug/L	0.13194	2.8258	ppb	0.13194	4.67%
Fe 238.204 Radial†	-0.5	-3.9747	ug/L	13.79596	-3.9747	ppb	13.79596	347.09%
K 766.490 Radial†	9930.1	1962.0	ug/L	15.74	1962.0	ppb	15.74	0.80%

Mg 279.077 IEC†	164.0	5242.6	ug/L	21.64	5242.6	ppb	21.64	0.41%
Mn 257.610†	1060.6	1.0195	ug/L	0.01462	1.0195	ppb	0.01462	1.43%
Mo 202.031†	32.4	2.0312	ug/L	0.35180	2.0312	ppb	0.35180	17.32%
Na 589.592 Radial†	49497.6	14952	ug/L	96.6	14952	ppb	96.6	0.65%
Ni 231.604†	10.2	0.2246	ug/L	0.04655	0.2246	ppb	0.04655	20.73%
P 214.914†	36.9	17.183	ug/L	2.0645	17.183	ppb	2.0645	12.01%
Pb 220.353†	-21.7	-2.2402	ug/L	0.41728	-2.2402	ppb	0.41728	18.63%
S 181.975 Axial†	2735.7	3091.7	ug/L	26.92	3091.7	ppb	26.92	0.87%
Sb 206.836†	7.7	1.8301	ug/L	0.58480	1.8301	ppb	0.58480	31.95%
Se 196.026†	6.1	3.1344	ug/L	1.89360	3.1344	ppb	1.89360	60.41%
Si 251.611†	772630.6	22164	ug/L	16.6	22164	ppb	16.6	0.07%
Sn 189.927†	-174.0	-23.319	ug/L	0.5332	-23.319	ppb	0.5332	2.29%
Sr 421.552†	14064.8	102.76	ug/L	0.361	102.76	ppb	0.361	0.35%
Ti 334.940†	-1519.6	-1.1973	ug/L	0.06496	-1.1973	ppb	0.06496	5.43%
Tl 190.801†	-0.9	-0.2633	ug/L	1.81767	-0.2633	ppb	1.81767	690.32%
U 409.014†	-164.0	-4.8819	ug/L	2.52268	-4.8819	ppb	2.52268	51.67%
V 292.402†	901.4	5.7988	ug/L	0.05911	5.7988	ppb	0.05911	1.02%
Zn 213.857†	1119.9	9.0244	ug/L	0.07186	9.0244	ppb	0.07186	0.80%
SiO2†	778275.2	47776	ug/L	418.8	47776	ppb	418.8	0.88%

Sequence No.: 66
Sample ID: 1202003793|936492|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 68
Date Collected: 1/6/2010 22:15:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202003793|936492|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4614.6	4614.6	98.9	%			22:16:53
1	Y RADIAL	4908.5	4908.5	99.50	%			22:16:53
1	Al 396.153Radial†	-28.6	-2.2	-2.0405	ug/L	-2.0405	ppb	22:16:53
1	Ca 317.933Radial†	14034.9	14183.5	23767	ug/L	23767	ppb	22:16:53
1	Fe 238.204 Radial†	15.2	1.5	13.549	ug/L	13.549	ppb	22:17:13
1	K 766.490 Radial†	13468.4	10286.3	2032.4	ug/L	2032.4	ppb	22:16:53
1	Mg 279.077 IEC†	171.4	171.8	5492.0	ug/L	5492.0	ppb	22:17:13
1	Na 589.592 Radial†	48541.4	50848.6	15360	ug/L	15360	ppb	22:16:53
1	Sr 421.552†	14233.7	14381.0	105.07	ug/L	105.07	ppb	22:16:53
1	Sc 361.383	873273.1	873273.1	98.496	%			22:18:10
1	Y 371.029	743133.2	743133.2	97.555	%			22:18:10
1	Ag 328.068†	472.7	-32.4	-0.4580	ug/L	-0.4580	ppb	22:18:10
1	As 188.979†	-22.6	10.5	3.6336	ug/L	3.6336	ppb	22:18:30
1	B 249.677†	581.3	1256.0	25.897	ug/L	25.897	ppb	22:18:30
1	Ba 233.527†	2517.7	2548.6	18.597	ug/L	18.597	ppb	22:18:30
1	Be 313.107†	-4321.4	-35.9	-0.0170	ug/L	-0.0170	ppb	22:18:10
1	Cd 226.502†	-224.0	10.9	0.1017	ug/L	0.1017	ppb	22:18:30
1	Co 228.616†	-104.3	-21.9	-0.3925	ug/L	-0.3925	ppb	22:18:30
1	Cr 267.716†	347.9	249.2	2.5079	ug/L	2.5079	ppb	22:18:30
1	Cu 324.752†	8308.4	436.3	1.2924	ug/L	1.2924	ppb	22:18:10
1	Mn 257.610†	1461.0	966.9	0.9179	ug/L	0.9179	ppb	22:18:30
1	Mo 202.031†	63.1	44.2	2.7685	ug/L	2.7685	ppb	22:18:30
1	Ni 231.604†	134.6	11.6	0.2539	ug/L	0.2539	ppb	22:18:30
1	P 214.914†	284.5	40.3	19.070	ug/L	19.070	ppb	22:18:30
1	Pb 220.353†	-79.7	-3.2	-0.3266	ug/L	-0.3266	ppb	22:18:30
1	S 181.975 Axial†	2771.4	2753.8	3112.2	ug/L	3112.2	ppb	22:18:30
1	Sb 206.836†	45.7	9.4	2.3609	ug/L	2.3609	ppb	22:18:30
1	Se 196.026†	-26.4	6.5	3.3579	ug/L	3.3579	ppb	22:18:30
1	Si 251.611†	772863.2	784049.7	22491	ug/L	22491	ppb	22:18:10
1	Sn 189.927†	-169.5	-175.5	-23.485	ug/L	-23.485	ppb	22:18:30
1	Ti 334.940†	-3333.9	-1567.4	-1.2463	ug/L	-1.2463	ppb	22:18:10
1	Tl 190.801†	-51.8	0.8	0.2009	ug/L	0.2009	ppb	22:18:30
1	U 409.014†	-2757.1	-130.4	-3.8844	ug/L	-3.8844	ppb	22:18:10
1	V 292.402†	-906.7	881.3	5.6880	ug/L	5.6880	ppb	22:18:30
1	Zn 213.857†	1866.9	1063.7	8.5544	ug/L	8.5544	ppb	22:18:30
1	SiO2†	773242.2	784415.0	48152	ug/L	48152	ppb	22:19:28
2	Sc Radial	4627.4	4627.4	99.1	%			22:17:18
2	Y RADIAL	4924.1	4924.1	99.82	%			22:17:18
2	Al 396.153Radial†	-26.5	-0.0	-0.1176	ug/L	-0.1176	ppb	22:17:18
2	Ca 317.933Radial†	13897.2	14005.3	23468	ug/L	23468	ppb	22:17:18
2	Fe 238.204 Radial†	17.0	3.2	28.529	ug/L	28.529	ppb	22:17:38
2	K 766.490 Radial†	13417.2	10197.0	2014.8	ug/L	2014.8	ppb	22:17:18
2	Mg 279.077 IEC†	166.2	166.0	5309.0	ug/L	5309.0	ppb	22:17:38
2	Na 589.592 Radial†	48219.1	50387.9	15221	ug/L	15221	ppb	22:17:18
2	Sr 421.552†	14154.7	14261.6	104.20	ug/L	104.20	ppb	22:17:18
2	Sc 361.383	878014.7	878014.7	99.031	%			22:18:36
2	Y 371.029	747135.2	747135.2	98.081	%			22:18:36
2	Ag 328.068†	582.7	76.1	0.0189	ug/L	0.0189	ppb	22:18:36
2	As 188.979†	-32.3	0.8	0.2644	ug/L	0.2644	ppb	22:18:56
2	B 249.677†	609.1	1280.9	26.407	ug/L	26.407	ppb	22:18:56
2	Ba 233.527†	2509.3	2526.4	18.435	ug/L	18.435	ppb	22:18:56
2	Be 313.107†	-4373.4	-64.6	-0.0264	ug/L	-0.0264	ppb	22:18:36
2	Cd 226.502†	-235.8	0.3	-0.0005	ug/L	-0.0005	ppb	22:18:56
2	Co 228.616†	-91.6	-8.5	-0.1412	ug/L	-0.1412	ppb	22:18:56
2	Cr 267.716†	328.0	227.2	2.2879	ug/L	2.2879	ppb	22:18:56
2	Cu 324.752†	8408.1	491.4	1.4563	ug/L	1.4563	ppb	22:18:36
2	Mn 257.610†	1470.8	968.8	0.9247	ug/L	0.9247	ppb	22:18:56
2	Mo 202.031†	58.3	39.0	2.4460	ug/L	2.4460	ppb	22:18:56
2	Ni 231.604†	97.4	-26.7	-0.5864	ug/L	-0.5864	ppb	22:18:56

2	P 214.914†	276.8	30.9	14.445 ug/L	14.445 ppb	22:18:56
2	Pb 220.353†	-97.1	-20.3	-2.0992 ug/L	-2.0992 ppb	22:18:56
2	S 181.975 Axial†	2796.2	2763.6	3123.3 ug/L	3123.3 ppb	22:18:56
2	Sb 206.836†	41.5	4.9	1.0017 ug/L	1.0017 ppb	22:18:56
2	Se 196.026†	-33.3	-0.3	-0.0691 ug/L	-0.0691 ppb	22:18:56
2	Si 251.611†	776538.1	783523.0	22476 ug/L	22476 ppb	22:18:36
2	Sn 189.927†	-176.2	-181.3	-24.378 ug/L	-24.378 ppb	22:18:56
2	Ti 334.940†	-3241.6	-1456.0	-1.0845 ug/L	-1.0845 ppb	22:18:36
2	Tl 190.801†	-60.4	-7.6	-2.0885 ug/L	-2.0885 ppb	22:18:56
2	U 409.014†	-2809.4	-168.2	-5.0084 ug/L	-5.0084 ppb	22:18:36
2	V 292.402†	-898.7	894.3	5.7563 ug/L	5.7563 ppb	22:18:56
2	Zn 213.857†	1882.9	1069.7	8.6139 ug/L	8.6139 ppb	22:18:56
2	SiO2†	773922.0	780861.8	47934 ug/L	47934 ppb	22:19:34
3	Sc Radial	4674.2	4674.2	100 %		22:17:43
3	Y RADIAL	4951.1	4951.1	100.4 %		22:17:43
3	Al 396.153Radial†	14.2	40.9	36.173 ug/L	36.173 ppb	22:17:43
3	Ca 317.933Radial†	14090.4	14057.8	23556 ug/L	23556 ppb	22:17:43
3	Fe 238.204 Radial†	14.4	0.5	4.2576 ug/L	4.2576 ppb	22:18:03
3	K 766.490 Radial†	13419.6	10063.8	1988.4 ug/L	1988.4 ppb	22:17:43
3	Mg 279.077 IEC†	163.0	161.1	5151.5 ug/L	5151.5 ppb	22:18:03
3	Na 589.592 Radial†	48801.7	50482.4	15250 ug/L	15250 ppb	22:17:43
3	Sr 421.552†	14258.4	14222.1	103.91 ug/L	103.91 ppb	22:17:43
3	Sc 361.383	870221.7	870221.7	98.152 %		22:19:01
3	Y 371.029	740756.1	740756.1	97.243 %		22:19:01
3	Ag 328.068†	528.6	26.3	-0.2098 ug/L	-0.2098 ppb	22:19:01
3	As 188.979†	-23.0	9.9	3.4418 ug/L	3.4418 ppb	22:19:22
3	B 249.677†	605.0	1282.2	26.438 ug/L	26.438 ppb	22:19:22
3	Ba 233.527†	2512.0	2551.8	18.620 ug/L	18.620 ppb	22:19:22
3	Be 313.107†	-4317.3	-47.1	-0.0210 ug/L	-0.0210 ppb	22:19:01
3	Cd 226.502†	-227.0	7.1	0.0663 ug/L	0.0663 ppb	22:19:22
3	Co 228.616†	-92.9	-10.6	-0.1787 ug/L	-0.1787 ppb	22:19:22
3	Cr 267.716†	314.7	216.6	2.1801 ug/L	2.1801 ppb	22:19:22
3	Cu 324.752†	8227.5	383.4	1.1354 ug/L	1.1354 ppb	22:19:01
3	Mn 257.610†	1447.6	958.5	0.9144 ug/L	0.9144 ppb	22:19:22
3	Mo 202.031†	68.7	50.1	3.1387 ug/L	3.1387 ppb	22:19:22
3	Ni 231.604†	135.0	12.5	0.2746 ug/L	0.2746 ppb	22:19:22
3	P 214.914†	280.3	37.1	17.553 ug/L	17.553 ppb	22:19:22
3	Pb 220.353†	-104.4	-28.6	-2.9465 ug/L	-2.9465 ppb	22:19:22
3	S 181.975 Axial†	2778.3	2770.7	3131.3 ug/L	3131.3 ppb	22:19:22
3	Sb 206.836†	39.6	3.2	0.5698 ug/L	0.5698 ppb	22:19:22
3	Se 196.026†	-27.4	5.4	2.7833 ug/L	2.7833 ppb	22:19:22
3	Si 251.611†	768508.0	782363.8	22443 ug/L	22443 ppb	22:19:01
3	Sn 189.927†	-157.6	-163.9	-21.804 ug/L	-21.804 ppb	22:19:22
3	Ti 334.940†	-3400.9	-1647.6	-1.3863 ug/L	-1.3863 ppb	22:19:01
3	Tl 190.801†	-65.7	-13.6	-3.7398 ug/L	-3.7398 ppb	22:19:22
3	U 409.014†	-2608.9	10.7	0.3128 ug/L	0.3128 ppb	22:19:01
3	V 292.402†	-922.0	862.4	5.5771 ug/L	5.5771 ppb	22:19:22
3	Zn 213.857†	1877.6	1081.3	8.7109 ug/L	8.7109 ppb	22:19:22
3	SiO2†	771153.1	785039.3	48191 ug/L	48191 ppb	22:19:40

Mean Data: 1202003793|936492|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	873836.5	98.559	%	0.4429				0.45%
Sc Radial	4638.7	99.4	%	0.67				0.68%
Y 371.029	743674.9	97.626	%	0.4232				0.43%
Y RADIAL	4927.9	99.90	%	0.437				0.44%
Ag 328.068†	23.3	-0.2163	ug/L	0.23851	-0.2163	ppb	0.23851	110.27%
Al 396.153Radial†	12.9	11.338	ug/L	21.5291	11.338	ppb	21.5291	189.88%
As 188.979†	7.1	2.4466	ug/L	1.89229	2.4466	ppb	1.89229	77.34%
B 249.677†	1273.0	26.247	ug/L	0.3039	26.247	ppb	0.3039	1.16%
Ba 233.527†	2542.3	18.550	ug/L	0.1007	18.550	ppb	0.1007	0.54%
Be 313.107†	-49.2	-0.0215	ug/L	0.00471	-0.0215	ppb	0.00471	21.91%
Ca 317.933Radial†	14082.2	23597	ug/L	153.4	23597	ppb	153.4	0.65%
Cd 226.502†	6.1	0.0558	ug/L	0.05186	0.0558	ppb	0.05186	92.93%
Co 228.616†	-13.7	-0.2374	ug/L	0.13554	-0.2374	ppb	0.13554	57.08%
Cr 267.716†	231.0	2.3253	ug/L	0.16707	2.3253	ppb	0.16707	7.18%
Cu 324.752†	437.0	1.2947	ug/L	0.16049	1.2947	ppb	0.16049	12.40%
Fe 238.204 Radial†	1.8	15.445	ug/L	12.2463	15.445	ppb	12.2463	79.29%
K 766.490 Radial†	10182.4	2011.9	ug/L	22.19	2011.9	ppb	22.19	1.10%

Mg 279.077 IEC†	166.3	5317.5	ug/L	170.44	5317.5	ppb	170.44	3.21%
Mn 257.610†	964.7	0.9190	ug/L	0.00526	0.9190	ppb	0.00526	0.57%
Mo 202.031†	44.4	2.7844	ug/L	0.34661	2.7844	ppb	0.34661	12.45%
Na 589.592 Radial†	50573.0	15277	ug/L	73.5	15277	ppb	73.5	0.48%
Ni 231.604†	-0.9	-0.0193	ug/L	0.49120	-0.0193	ppb	0.49120	>999.9%
P 214.914†	36.1	17.023	ug/L	2.3576	17.023	ppb	2.3576	13.85%
Pb 220.353†	-17.4	-1.7907	ug/L	1.33691	-1.7907	ppb	1.33691	74.66%
S 181.975 Axial†	2762.7	3122.3	ug/L	9.60	3122.3	ppb	9.60	0.31%
Sb 206.836†	5.8	1.3108	ug/L	0.93466	1.3108	ppb	0.93466	71.30%
Se 196.026†	3.8	2.0241	ug/L	1.83533	2.0241	ppb	1.83533	90.68%
Si 251.611†	783312.2	22470	ug/L	24.7	22470	ppb	24.7	0.11%
Sn 189.927†	-173.6	-23.223	ug/L	1.3067	-23.223	ppb	1.3067	5.63%
Sr 421.552†	14288.2	104.40	ug/L	0.605	104.40	ppb	0.605	0.58%
Ti 334.940†	-1557.0	-1.2390	ug/L	0.15103	-1.2390	ppb	0.15103	12.19%
Tl 190.801†	-6.8	-1.8758	ug/L	1.97895	-1.8758	ppb	1.97895	105.50%
U 409.014†	-96.0	-2.8600	ug/L	2.80463	-2.8600	ppb	2.80463	98.06%
V 292.402†	879.3	5.6738	ug/L	0.09046	5.6738	ppb	0.09046	1.59%
Zn 213.857†	1071.6	8.6264	ug/L	0.07898	8.6264	ppb	0.07898	0.92%
SiO2†	783438.7	48092	ug/L	138.3	48092	ppb	138.3	0.29%

Sequence No.: 67
Sample ID: 1202003794|936492|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 69
Date Collected: 1/6/2010 22:21:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202003794|936492|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4566.0	4566.0	97.8	%			22:24:03
1	Y RADIAL	4822.4	4822.4	97.76	%			22:24:03
1	Al 396.153Radial†	6007.9	6168.3	5449.1	ug/L	5449.1	ppb	22:23:43
1	Ca 317.933Radial†	17281.4	17653.2	29581	ug/L	29581	ppb	22:23:43
1	Fe 238.204 Radial†	570.6	569.4	5018.9	ug/L	5018.9	ppb	22:24:03
1	K 766.490 Radial†	38755.3	36280.4	7185.6	ug/L	7185.6	ppb	22:23:43
1	Mg 279.077 IEC†	328.1	333.7	10677	ug/L	10677	ppb	22:24:03
1	Na 589.592 Radial†	65347.9	68551.3	20708	ug/L	20708	ppb	22:23:43
1	Sr 421.552†	85577.6	87464.7	640.11	ug/L	640.11	ppb	22:23:43
1	Sc 361.383	880485.2	880485.2	99.309	%			22:25:03
1	Y 371.029	746440.5	746440.5	97.989	%			22:25:03
1	Ag 328.068†	117713.9	118020.4	509.82	ug/L	509.82	ppb	22:25:03
1	As 188.979†	1415.3	1458.5	514.97	ug/L	514.97	ppb	22:25:23
1	B 249.677†	25065.6	25905.8	532.24	ug/L	532.24	ppb	22:25:03
1	Ba 233.527†	73169.3	73670.7	538.48	ug/L	538.48	ppb	22:25:03
1	Be 313.107†	1528100.4	1543080.8	522.57	ug/L	522.57	ppb	22:25:03
1	Cd 226.502†	52964.1	53570.9	504.36	ug/L	504.36	ppb	22:25:03
1	Co 228.616†	26050.5	26315.7	494.94	ug/L	494.94	ppb	22:25:23
1	Cr 267.716†	50255.1	50500.7	506.82	ug/L	506.82	ppb	22:25:03
1	Cu 324.752†	183888.0	177168.0	524.78	ug/L	524.78	ppb	22:25:03
1	Mn 257.610†	486229.0	489094.6	515.63	ug/L	515.63	ppb	22:25:03
1	Mo 202.031†	8037.1	8073.1	506.23	ug/L	506.23	ppb	22:25:23
1	Ni 231.604†	22623.5	22655.8	497.03	ug/L	497.03	ppb	22:25:23
1	P 214.914†	1438.3	1199.7	505.49	ug/L	505.49	ppb	22:25:23
1	Pb 220.353†	4754.7	4865.6	505.69	ug/L	505.69	ppb	22:25:23
1	S 181.975 Axial†	7335.6	7326.7	8279.2	ug/L	8279.2	ppb	22:25:23
1	Sb 206.836†	1723.7	1698.6	514.52	ug/L	514.52	ppb	22:25:23
1	Se 196.026†	936.5	976.3	517.46	ug/L	517.46	ppb	22:25:23
1	Si 251.611†	968003.8	974120.3	27932	ug/L	27932	ppb	22:25:03
1	Sn 189.927†	3361.1	3381.1	503.24	ug/L	503.24	ppb	22:25:23
1	Ti 334.940†	322414.2	326474.1	519.13	ug/L	519.13	ppb	22:25:03
1	Tl 190.801†	1777.2	1843.0	506.89	ug/L	506.89	ppb	22:25:23
1	U 409.014†	14076.9	16843.5	499.12	ug/L	499.12	ppb	22:25:03
1	V 292.402†	80238.3	82598.2	525.43	ug/L	525.43	ppb	22:25:03
1	Zn 213.857†	62372.6	61974.8	505.14	ug/L	505.14	ppb	22:25:03
1	SiO2†	972619.8	978749.0	60056	ug/L	60056	ppb	22:26:24
2	Sc Radial	4592.7	4592.7	98.4	%			22:24:29
2	Y RADIAL	4844.5	4844.5	98.21	%			22:24:29
2	Al 396.153Radial†	6145.8	6272.8	5541.6	ug/L	5541.6	ppb	22:24:09
2	Ca 317.933Radial†	17498.1	17771.0	29778	ug/L	29778	ppb	22:24:09
2	Fe 238.204 Radial†	580.9	576.5	5080.9	ug/L	5080.9	ppb	22:24:29
2	K 766.490 Radial†	39130.7	36432.3	7215.7	ug/L	7215.7	ppb	22:24:09
2	Mg 279.077 IEC†	329.0	332.7	10645	ug/L	10645	ppb	22:24:29
2	Na 589.592 Radial†	66089.9	68918.2	20819	ug/L	20819	ppb	22:24:09
2	Sr 421.552†	86986.4	88389.5	646.88	ug/L	646.88	ppb	22:24:09
2	Sc 361.383	871363.6	871363.6	98.280	%			22:25:30
2	Y 371.029	738816.5	738816.5	96.989	%			22:25:30
2	Ag 328.068†	116363.1	117886.8	509.26	ug/L	509.26	ppb	22:25:30
2	As 188.979†	1417.9	1476.1	521.13	ug/L	521.13	ppb	22:25:50
2	B 249.677†	24745.3	25844.1	530.95	ug/L	530.95	ppb	22:25:30
2	Ba 233.527†	72253.1	73509.8	537.30	ug/L	537.30	ppb	22:25:30
2	Be 313.107†	1508141.3	1538880.3	521.15	ug/L	521.15	ppb	22:25:30
2	Cd 226.502†	52283.0	53436.2	503.09	ug/L	503.09	ppb	22:25:30
2	Co 228.616†	25972.4	26510.8	498.62	ug/L	498.62	ppb	22:25:50
2	Cr 267.716†	49640.0	50404.5	505.86	ug/L	505.86	ppb	22:25:30
2	Cu 324.752†	181424.0	176599.3	523.10	ug/L	523.10	ppb	22:25:30
2	Mn 257.610†	480041.0	487923.7	514.41	ug/L	514.41	ppb	22:25:30
2	Mo 202.031†	8023.6	8144.0	510.69	ug/L	510.69	ppb	22:25:50
2	Ni 231.604†	22571.6	22841.5	501.11	ug/L	501.11	ppb	22:25:50

2	P 214.914†	1421.5	1197.8	504.86 ug/L	504.86 ppb	22:25:50
2	Pb 220.353†	4738.5	4899.2	509.21 ug/L	509.21 ppb	22:25:50
2	S 181.975 Axial†	7318.1	7386.2	8346.5 ug/L	8346.5 ppb	22:25:50
2	Sb 206.836†	1700.4	1693.1	513.05 ug/L	513.05 ppb	22:25:50
2	Se 196.026†	934.3	983.9	521.55 ug/L	521.55 ppb	22:25:50
2	Si 251.611†	955797.7	971904.4	27868 ug/L	27868 ppb	22:25:30
2	Sn 189.927†	3347.5	3402.7	506.45 ug/L	506.45 ppb	22:25:50
2	Ti 334.940†	318207.4	325592.3	517.74 ug/L	517.74 ppb	22:25:30
2	Tl 190.801†	1768.7	1853.0	509.60 ug/L	509.60 ppb	22:25:50
2	U 409.014†	13988.6	16902.1	500.86 ug/L	500.86 ppb	22:25:30
2	V 292.402†	79273.9	82462.8	524.64 ug/L	524.64 ppb	22:25:30
2	Zn 213.857†	61537.2	61782.3	503.53 ug/L	503.53 ppb	22:25:30
2	SiO2†	967807.9	984105.2	60384 ug/L	60384 ppb	22:26:30
3	Sc Radial	4589.5	4589.5	98.3 %		22:24:54
3	Y RADIAL	4836.1	4836.1	98.04 %		22:24:54
3	Al 396.153Radial†	5969.4	6097.6	5386.1 ug/L	5386.1 ppb	22:24:34
3	Ca 317.933Radial†	17137.7	17416.5	29184 ug/L	29184 ppb	22:24:34
3	Fe 238.204 Radial†	575.0	570.9	5031.9 ug/L	5031.9 ppb	22:24:54
3	K 766.490 Radial†	38646.4	35966.7	7123.5 ug/L	7123.5 ppb	22:24:34
3	Mg 279.077 IEC†	331.6	335.6	10737 ug/L	10737 ppb	22:24:54
3	Na 589.592 Radial†	64869.9	67723.0	20458 ug/L	20458 ppb	22:24:34
3	Sr 421.552†	85059.8	86490.2	632.98 ug/L	632.98 ppb	22:24:34
3	Sc 361.383	870622.7	870622.7	98.197 %		22:25:58
3	Y 371.029	738206.6	738206.6	96.908 %		22:25:58
3	Ag 328.068†	116406.1	118031.3	509.88 ug/L	509.88 ppb	22:25:58
3	As 188.979†	1424.2	1483.8	523.79 ug/L	523.79 ppb	22:26:18
3	B 249.677†	24852.3	25974.5	533.64 ug/L	533.64 ppb	22:25:58
3	Ba 233.527†	72401.8	73723.8	538.86 ug/L	538.86 ppb	22:25:58
3	Be 313.107†	1511920.2	1544034.4	522.89 ug/L	522.89 ppb	22:25:58
3	Cd 226.502†	52497.9	53700.2	505.58 ug/L	505.58 ppb	22:25:58
3	Co 228.616†	26046.8	26609.1	500.47 ug/L	500.47 ppb	22:26:18
3	Cr 267.716†	49822.7	50633.6	508.16 ug/L	508.16 ppb	22:25:58
3	Cu 324.752†	181460.8	176793.9	523.68 ug/L	523.68 ppb	22:25:58
3	Mn 257.610†	480974.8	489290.2	515.84 ug/L	515.84 ppb	22:25:58
3	Mo 202.031†	8061.2	8189.3	513.52 ug/L	513.52 ppb	22:26:18
3	Ni 231.604†	22609.5	22899.6	502.38 ug/L	502.38 ppb	22:26:18
3	P 214.914†	1434.0	1211.8	511.62 ug/L	511.62 ppb	22:26:18
3	Pb 220.353†	4778.1	4943.6	513.78 ug/L	513.78 ppb	22:26:18
3	S 181.975 Axial†	7336.6	7411.4	8375.0 ug/L	8375.0 ppb	22:26:18
3	Sb 206.836†	1732.8	1727.5	523.39 ug/L	523.39 ppb	22:26:18
3	Se 196.026†	938.5	989.0	523.99 ug/L	523.99 ppb	22:26:18
3	Si 251.611†	957391.1	974354.6	27938 ug/L	27938 ppb	22:25:58
3	Sn 189.927†	3367.1	3425.5	509.78 ug/L	509.78 ppb	22:26:18
3	Ti 334.940†	318215.7	325876.3	518.15 ug/L	518.15 ppb	22:25:58
3	Tl 190.801†	1784.7	1870.9	514.48 ug/L	514.48 ppb	22:26:18
3	U 409.014†	13982.3	16907.7	501.03 ug/L	501.03 ppb	22:25:58
3	V 292.402†	79268.5	82525.9	525.09 ug/L	525.09 ppb	22:25:58
3	Zn 213.857†	61791.4	62094.4	506.09 ug/L	506.09 ppb	22:25:58
3	SiO2†	953902.3	970782.3	59566 ug/L	59566 ppb	22:26:36

Mean Data: 1202003794|936492|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	874157.2	98.596	%	0.6195				0.63%
Sc Radial	4582.7	98.2	%	0.31				0.32%
Y 371.029	741154.5	97.295	%	0.6023				0.62%
Y RADIAL	4834.4	98.00	%	0.226				0.23%
Ag 328.068†	117979.5	509.65	ug/L	0.340	509.65	ppb	0.340	0.07%
Al 396.153Radial†	6179.5	5459.0	ug/L	78.22	5459.0	ppb	78.22	1.43%
As 188.979†	1472.8	519.96	ug/L	4.522	519.96	ppb	4.522	0.87%
B 249.677†	25908.1	532.28	ug/L	1.345	532.28	ppb	1.345	0.25%
Ba 233.527†	73634.8	538.21	ug/L	0.812	538.21	ppb	0.812	0.15%
Be 313.107†	1541998.5	522.20	ug/L	0.928	522.20	ppb	0.928	0.18%
Ca 317.933Radial†	17613.6	29514	ug/L	302.5	29514	ppb	302.5	1.02%
Cd 226.502†	53569.1	504.35	ug/L	1.247	504.35	ppb	1.247	0.25%
Co 228.616†	26478.5	498.01	ug/L	2.818	498.01	ppb	2.818	0.57%
Cr 267.716†	50512.9	506.95	ug/L	1.152	506.95	ppb	1.152	0.23%
Cu 324.752†	176853.7	523.86	ug/L	0.854	523.86	ppb	0.854	0.16%
Fe 238.204 Radial†	572.2	5043.9	ug/L	32.71	5043.9	ppb	32.71	0.65%
K 766.490 Radial†	36226.5	7174.9	ug/L	47.03	7174.9	ppb	47.03	0.66%

Mg 279.077 IEC†	334.0	10686	ug/L	46.8	10686	ppb	46.8	0.44%
Mn 257.610†	488769.5	515.29	ug/L	0.775	515.29	ppb	0.775	0.15%
Mo 202.031†	8135.5	510.15	ug/L	3.671	510.15	ppb	3.671	0.72%
Na 589.592 Radial†	68397.5	20661	ug/L	184.9	20661	ppb	184.9	0.90%
Ni 231.604†	22798.9	500.18	ug/L	2.794	500.18	ppb	2.794	0.56%
P 214.914†	1203.1	507.32	ug/L	3.736	507.32	ppb	3.736	0.74%
Pb 220.353†	4902.8	509.56	ug/L	4.055	509.56	ppb	4.055	0.80%
S 181.975 Axial†	7374.8	8333.5	ug/L	49.18	8333.5	ppb	49.18	0.59%
Sb 206.836†	1706.4	516.98	ug/L	5.592	516.98	ppb	5.592	1.08%
Se 196.026†	983.0	521.00	ug/L	3.301	521.00	ppb	3.301	0.63%
Si 251.611†	973459.8	27913	ug/L	38.8	27913	ppb	38.8	0.14%
Sn 189.927†	3403.1	506.49	ug/L	3.268	506.49	ppb	3.268	0.65%
Sr 421.552†	87448.1	639.99	ug/L	6.951	639.99	ppb	6.951	1.09%
Ti 334.940†	325980.9	518.34	ug/L	0.713	518.34	ppb	0.713	0.14%
Tl 190.801†	1855.6	510.32	ug/L	3.846	510.32	ppb	3.846	0.75%
U 409.014†	16884.4	500.34	ug/L	1.055	500.34	ppb	1.055	0.21%
V 292.402†	82529.0	525.05	ug/L	0.397	525.05	ppb	0.397	0.08%
Zn 213.857†	61950.5	504.92	ug/L	1.293	504.92	ppb	1.293	0.26%
SiO2†	977878.9	60002	ug/L	411.6	60002	ppb	411.6	0.69%

Sequence No.: 68
Sample ID: 1202003795|936492|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 70
Date Collected: 1/6/2010 22:28:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202003795|936492|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4734.1	4734.1	101	%			22:30:39
1	Y RADIAL	5003.9	5003.9	101.4	%			22:30:39
1	Al 396.153Radial†	-16.9	10.1	8.8687	ug/L	8.8687	ppb	22:30:39
1	Ca 317.933Radial†	2801.0	2749.0	4606.4	ug/L	4606.4	ppb	22:30:59
1	Fe 238.204 Radial†	10.9	-3.1	-27.094	ug/L	-27.094	ppb	22:30:59
1	K 766.490 Radial†	5335.5	1923.8	380.00	ug/L	380.00	ppb	22:30:39
1	Mg 279.077 IEC†	36.1	34.0	1086.5	ug/L	1086.5	ppb	22:30:59
1	Na 589.592 Radial†	8619.7	10248.6	3095.9	ug/L	3095.9	ppb	22:30:39
1	Sr 421.552†	2927.4	2870.3	20.973	ug/L	20.973	ppb	22:30:39
1	Sc 361.383	863272.1	863272.1	97.368	%			22:31:56
1	Y 371.029	738261.9	738261.9	96.916	%			22:31:56
1	Ag 328.068†	600.0	103.8	0.3742	ug/L	0.3742	ppb	22:31:56
1	As 188.979†	-28.2	4.5	1.5555	ug/L	1.5555	ppb	22:32:16
1	B 249.677†	-327.2	329.8	6.8042	ug/L	6.8042	ppb	22:32:16
1	Ba 233.527†	536.8	543.8	3.9655	ug/L	3.9655	ppb	22:32:16
1	Be 313.107†	-4203.8	34.0	0.0104	ug/L	0.0104	ppb	22:31:56
1	Cd 226.502†	-238.4	-6.5	-0.0584	ug/L	-0.0584	ppb	22:32:16
1	Co 228.616†	-91.6	-10.1	-0.1836	ug/L	-0.1836	ppb	22:32:16
1	Cr 267.716†	174.7	75.4	0.7568	ug/L	0.7568	ppb	22:32:16
1	Cu 324.752†	8006.4	223.8	0.6613	ug/L	0.6613	ppb	22:31:56
1	Mn 257.610†	789.3	294.2	0.2871	ug/L	0.2871	ppb	22:32:16
1	Mo 202.031†	42.8	24.0	1.5010	ug/L	1.5010	ppb	22:32:16
1	Ni 231.604†	127.4	5.8	0.1276	ug/L	0.1276	ppb	22:32:16
1	P 214.914†	263.8	22.3	10.672	ug/L	10.672	ppb	22:32:16
1	Pb 220.353†	-99.7	-24.7	-2.5470	ug/L	-2.5470	ppb	22:32:16
1	S 181.975 Axial†	603.1	559.5	632.29	ug/L	632.29	ppb	22:32:16
1	Sb 206.836†	33.4	-2.8	-0.9718	ug/L	-0.9718	ppb	22:32:16
1	Se 196.026†	-27.6	4.9	2.4133	ug/L	2.4133	ppb	22:32:16
1	Si 251.611†	151940.9	155431.9	4458.7	ug/L	4458.7	ppb	22:31:56
1	Sn 189.927†	-56.3	-61.2	-8.5748	ug/L	-8.5748	ppb	22:32:16
1	Ti 334.940†	-2105.2	-344.7	-0.3056	ug/L	-0.3056	ppb	22:31:56
1	Tl 190.801†	-41.0	11.3	3.0820	ug/L	3.0820	ppb	22:32:16
1	U 409.014†	-2695.9	-100.1	-2.9729	ug/L	-2.9729	ppb	22:31:56
1	V 292.402†	-1670.6	86.1	0.5851	ug/L	0.5851	ppb	22:31:56
1	Zn 213.857†	1081.9	279.5	2.2608	ug/L	2.2608	ppb	22:32:16
1	SiO2†	156959.7	160566.8	9856.6	ug/L	9856.6	ppb	22:33:13
2	Sc Radial	4599.9	4599.9	98.5	%			22:31:04
2	Y RADIAL	4910.5	4910.5	99.55	%			22:31:04
2	Al 396.153Radial†	-40.3	-14.2	-12.627	ug/L	-12.627	ppb	22:31:04
2	Ca 317.933Radial†	2779.8	2808.1	4705.4	ug/L	4705.4	ppb	22:31:24
2	Fe 238.204 Radial†	13.5	-0.2	-1.7887	ug/L	-1.7887	ppb	22:31:24
2	K 766.490 Radial†	5447.9	2191.3	433.10	ug/L	433.10	ppb	22:31:04
2	Mg 279.077 IEC†	34.5	33.4	1066.7	ug/L	1066.7	ppb	22:31:24
2	Na 589.592 Radial†	8307.5	10179.9	3075.1	ug/L	3075.1	ppb	22:31:04
2	Sr 421.552†	2843.9	2869.7	20.968	ug/L	20.968	ppb	22:31:04
2	Sc 361.383	878016.9	878016.9	99.031	%			22:32:22
2	Y 371.029	751097.2	751097.2	98.601	%			22:32:22
2	Ag 328.068†	511.5	4.2	-0.0437	ug/L	-0.0437	ppb	22:32:22
2	As 188.979†	-23.0	10.1	3.5423	ug/L	3.5423	ppb	22:32:42
2	B 249.677†	-333.9	328.7	6.7774	ug/L	6.7774	ppb	22:32:42
2	Ba 233.527†	523.7	521.3	3.8037	ug/L	3.8037	ppb	22:32:42
2	Be 313.107†	-4296.7	12.8	0.0034	ug/L	0.0034	ppb	22:32:22
2	Cd 226.502†	-229.4	6.8	0.0642	ug/L	0.0642	ppb	22:32:42
2	Co 228.616†	-89.4	-6.3	-0.1133	ug/L	-0.1133	ppb	22:32:42
2	Cr 267.716†	149.7	47.1	0.4754	ug/L	0.4754	ppb	22:32:42
2	Cu 324.752†	8158.7	239.5	0.7091	ug/L	0.7091	ppb	22:32:22
2	Mn 257.610†	773.9	265.0	0.2592	ug/L	0.2592	ppb	22:32:42
2	Mo 202.031†	39.6	20.1	1.2590	ug/L	1.2590	ppb	22:32:42
2	Ni 231.604†	140.0	16.3	0.3589	ug/L	0.3589	ppb	22:32:42

2	P 214.914†	261.3	15.3	7.2610 ug/L	7.2610 ppb	22:32:42
2	Pb 220.353†	-107.1	-30.4	-3.1524 ug/L	-3.1524 ppb	22:32:42
2	S 181.975 Axial†	598.3	544.3	615.09 ug/L	615.09 ppb	22:32:42
2	Sb 206.836†	35.5	-1.2	-0.4634 ug/L	-0.4634 ppb	22:32:42
2	Se 196.026†	-40.3	-7.4	-3.7882 ug/L	-3.7882 ppb	22:32:42
2	Si 251.611†	153939.3	154829.3	4441.4 ug/L	4441.4 ppb	22:32:22
2	Sn 189.927†	-42.2	-46.0	-6.3157 ug/L	-6.3157 ppb	22:32:42
2	Ti 334.940†	-2094.4	-297.6	-0.2252 ug/L	-0.2252 ppb	22:32:22
2	Tl 190.801†	-48.3	4.6	1.2456 ug/L	1.2456 ppb	22:32:42
2	U 409.014†	-2768.7	-127.1	-3.7792 ug/L	-3.7792 ppb	22:32:22
2	V 292.402†	-1601.5	184.7	1.1945 ug/L	1.1945 ppb	22:32:22
2	Zn 213.857†	1078.6	257.5	2.0779 ug/L	2.0779 ppb	22:32:42
2	SiO2†	155688.5	156576.1	9611.6 ug/L	9611.6 ppb	22:33:18
3	Sc Radial	4623.2	4623.2	99.0 %		22:31:29
3	Y RADIAL	4934.2	4934.2	100.0 %		22:31:29
3	Al 396.153Radial†	-9.9	16.8	14.807 ug/L	14.807 ppb	22:31:29
3	Ca 317.933Radial†	2769.6	2783.6	4664.4 ug/L	4664.4 ppb	22:31:49
3	Fe 238.204 Radial†	11.5	-2.3	-19.930 ug/L	-19.930 ppb	22:31:49
3	K 766.490 Radial†	5274.6	1988.5	392.85 ug/L	392.85 ppb	22:31:29
3	Mg 279.077 IEC†	36.1	34.8	1113.4 ug/L	1113.4 ppb	22:31:49
3	Na 589.592 Radial†	8356.1	10186.4	3077.1 ug/L	3077.1 ppb	22:31:29
3	Sr 421.552†	2844.8	2856.2	20.869 ug/L	20.869 ppb	22:31:29
3	Sc 361.383	879513.2	879513.2	99.200 %		22:32:47
3	Y 371.029	752343.3	752343.3	98.764 %		22:32:47
3	Ag 328.068†	579.3	71.7	0.2390 ug/L	0.2390 ppb	22:32:47
3	As 188.979†	-33.7	-0.6	-0.2164 ug/L	-0.2164 ppb	22:33:08
3	B 249.677†	-332.3	330.8	6.8243 ug/L	6.8243 ppb	22:33:08
3	Ba 233.527†	519.8	516.5	3.7689 ug/L	3.7689 ppb	22:33:08
3	Be 313.107†	-4215.5	102.0	0.0336 ug/L	0.0336 ppb	22:32:47
3	Cd 226.502†	-256.6	-20.3	-0.1888 ug/L	-0.1888 ppb	22:33:08
3	Co 228.616†	-88.0	-4.7	-0.0832 ug/L	-0.0832 ppb	22:33:08
3	Cr 267.716†	151.0	48.1	0.4848 ug/L	0.4848 ppb	22:33:08
3	Cu 324.752†	8184.7	251.7	0.7442 ug/L	0.7442 ppb	22:32:47
3	Mn 257.610†	763.8	253.6	0.2445 ug/L	0.2445 ppb	22:33:08
3	Mo 202.031†	38.9	19.3	1.2096 ug/L	1.2096 ppb	22:33:08
3	Ni 231.604†	129.8	5.7	0.1263 ug/L	0.1263 ppb	22:33:08
3	P 214.914†	271.3	25.0	11.990 ug/L	11.990 ppb	22:33:08
3	Pb 220.353†	-97.6	-20.7	-2.1323 ug/L	-2.1323 ppb	22:33:08
3	S 181.975 Axial†	607.4	552.4	624.27 ug/L	624.27 ppb	22:33:08
3	Sb 206.836†	41.8	5.0	1.4169 ug/L	1.4169 ppb	22:33:08
3	Se 196.026†	-34.7	-1.7	-0.9133 ug/L	-0.9133 ppb	22:33:08
3	Si 251.611†	154745.2	155377.2	4457.1 ug/L	4457.1 ppb	22:32:47
3	Sn 189.927†	-38.4	-42.1	-5.7411 ug/L	-5.7411 ppb	22:33:08
3	Ti 334.940†	-2088.3	-287.8	-0.2131 ug/L	-0.2131 ppb	22:32:47
3	Tl 190.801†	-45.5	7.5	2.0456 ug/L	2.0456 ppb	22:33:08
3	U 409.014†	-2671.1	-23.9	-0.7090 ug/L	-0.7090 ppb	22:32:47
3	V 292.402†	-1563.6	225.6	1.4604 ug/L	1.4604 ppb	22:32:47
3	Zn 213.857†	1078.7	255.7	2.0639 ug/L	2.0639 ppb	22:33:08
3	SiO2†	156190.3	156814.5	9626.3 ug/L	9626.3 ppb	22:33:23

Mean Data: 1202003795|936492|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	873600.7	98.533	%	1.0124				1.03%
Sc Radial	4652.4	99.7	%	1.54				1.54%
Y 371.029	747234.1	98.094	%	1.0233				1.04%
Y RADIAL	4949.5	100.3	%	0.98				0.98%
Ag 328.068†	59.9	0.1898	ug/L	0.21324	0.1898	ppb	0.21324	112.32%
Al 396.153Radial†	4.2	3.6826	ug/L	14.43363	3.6826	ppb	14.43363	391.94%
As 188.979†	4.7	1.6271	ug/L	1.88034	1.6271	ppb	1.88034	115.56%
B 249.677†	329.8	6.8020	ug/L	0.02352	6.8020	ppb	0.02352	0.35%
Ba 233.527†	527.2	3.8461	ug/L	0.10492	3.8461	ppb	0.10492	2.73%
Be 313.107†	49.6	0.0158	ug/L	0.01578	0.0158	ppb	0.01578	99.92%
Ca 317.933Radial†	2780.3	4658.8	ug/L	49.75	4658.8	ppb	49.75	1.07%
Cd 226.502†	-6.7	-0.0610	ug/L	0.12650	-0.0610	ppb	0.12650	207.35%
Co 228.616†	-7.1	-0.1267	ug/L	0.05152	-0.1267	ppb	0.05152	40.66%
Cr 267.716†	56.9	0.5724	ug/L	0.15985	0.5724	ppb	0.15985	27.93%
Cu 324.752†	238.4	0.7049	ug/L	0.04160	0.7049	ppb	0.04160	5.90%
Fe 238.204 Radial†	-1.9	-16.271	ug/L	13.0433	-16.271	ppb	13.0433	80.16%
K 766.490 Radial†	2034.5	401.99	ug/L	27.706	401.99	ppb	27.706	6.89%

Mg 279.077 IEC†	34.1	1088.9	ug/L	23.42	1088.9	ppb	23.42	2.15%
Mn 257.610†	270.9	0.2636	ug/L	0.02164	0.2636	ppb	0.02164	8.21%
Mo 202.031†	21.1	1.3232	ug/L	0.15595	1.3232	ppb	0.15595	11.79%
Na 589.592 Radial†	10204.9	3082.7	ug/L	11.46	3082.7	ppb	11.46	0.37%
Ni 231.604†	9.3	0.2042	ug/L	0.13395	0.2042	ppb	0.13395	65.58%
P 214.914†	20.9	9.9743	ug/L	2.44035	9.9743	ppb	2.44035	24.47%
Pb 220.353†	-25.2	-2.6106	ug/L	0.51299	-2.6106	ppb	0.51299	19.65%
S 181.975 Axial†	552.0	623.88	ug/L	8.604	623.88	ppb	8.604	1.38%
Sb 206.836†	0.3	-0.0061	ug/L	1.25830	-0.0061	ppb	1.25830	>999.9%
Se 196.026†	-1.4	-0.7628	ug/L	3.10352	-0.7628	ppb	3.10352	406.89%
Si 251.611†	155212.8	4452.4	ug/L	9.57	4452.4	ppb	9.57	0.21%
Sn 189.927†	-49.8	-6.8772	ug/L	1.49797	-6.8772	ppb	1.49797	21.78%
Sr 421.552†	2865.4	20.936	ug/L	0.0587	20.936	ppb	0.0587	0.28%
Ti 334.940†	-310.0	-0.2480	ug/L	0.05030	-0.2480	ppb	0.05030	20.28%
Tl 190.801†	7.8	2.1244	ug/L	0.92072	2.1244	ppb	0.92072	43.34%
U 409.014†	-83.7	-2.4870	ug/L	1.59172	-2.4870	ppb	1.59172	64.00%
V 292.402†	165.4	1.0800	ug/L	0.44874	1.0800	ppb	0.44874	41.55%
Zn 213.857†	264.3	2.1342	ug/L	0.10986	2.1342	ppb	0.10986	5.15%
SiO2†	157985.8	9698.2	ug/L	137.43	9698.2	ppb	137.43	1.42%

Sequence No.: 69
Sample ID: 243400002|936492|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 71
Date Collected: 1/6/2010 22:35:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243400002|936492|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4586.5	4586.5	98.3	%			22:37:27
1	Y RADIAL	4835.7	4835.7	98.03	%			22:37:27
1	Al 396.153Radial†	4.6	31.4	27.736	ug/L	27.736	ppb	22:37:27
1	Ca 317.933Radial†	14139.2	14376.4	24090	ug/L	24090	ppb	22:37:27
1	Fe 238.204 Radial†	12.3	-1.4	-12.167	ug/L	-12.167	ppb	22:37:48
1	K 766.490 Radial†	13389.9	10289.7	2033.1	ug/L	2033.1	ppb	22:37:27
1	Mg 279.077 IEC†	167.6	168.9	5400.7	ug/L	5400.7	ppb	22:37:48
1	Na 589.592 Radial†	47988.3	50586.2	15281	ug/L	15281	ppb	22:37:27
1	Sr 421.552†	14205.7	14440.7	105.51	ug/L	105.51	ppb	22:37:27
1	Sc 361.383	871627.5	871627.5	98.310	%			22:38:45
1	Y 371.029	741033.7	741033.7	97.280	%			22:38:45
1	Ag 328.068†	479.0	-25.1	-0.4439	ug/L	-0.4439	ppb	22:38:45
1	As 188.979†	-32.3	0.6	0.1645	ug/L	0.1645	ppb	22:39:05
1	B 249.677†	652.4	1329.4	27.414	ug/L	27.414	ppb	22:39:05
1	Ba 233.527†	2469.8	2504.7	18.275	ug/L	18.275	ppb	22:39:05
1	Be 313.107†	-4365.9	-89.4	-0.0347	ug/L	-0.0347	ppb	22:38:45
1	Cd 226.502†	-230.4	4.0	0.0391	ug/L	0.0391	ppb	22:39:05
1	Co 228.616†	-85.4	-2.8	-0.0347	ug/L	-0.0347	ppb	22:39:05
1	Cr 267.716†	296.7	197.7	1.9904	ug/L	1.9904	ppb	22:39:05
1	Cu 324.752†	8365.8	510.6	1.5110	ug/L	1.5110	ppb	22:38:45
1	Mn 257.610†	1169.2	672.9	0.6072	ug/L	0.6072	ppb	22:39:05
1	Mo 202.031†	57.5	38.6	2.4173	ug/L	2.4173	ppb	22:39:05
1	Ni 231.604†	146.7	24.1	0.5294	ug/L	0.5294	ppb	22:39:05
1	P 214.914†	277.2	33.4	15.687	ug/L	15.687	ppb	22:39:05
1	Pb 220.353†	-119.4	-43.7	-4.5126	ug/L	-4.5126	ppb	22:39:05
1	S 181.975 Axial†	2844.0	2833.0	3201.7	ug/L	3201.7	ppb	22:39:05
1	Sb 206.836†	37.2	0.7	-0.2194	ug/L	-0.2194	ppb	22:39:05
1	Se 196.026†	-32.8	-0.1	-0.0804	ug/L	-0.0804	ppb	22:39:05
1	Si 251.611†	784705.1	797576.5	22879	ug/L	22879	ppb	22:38:45
1	Sn 189.927†	-173.3	-179.7	-24.083	ug/L	-24.083	ppb	22:39:05
1	Ti 334.940†	-3199.3	-1436.9	-1.0240	ug/L	-1.0240	ppb	22:38:45
1	Tl 190.801†	-53.2	-0.7	-0.2274	ug/L	-0.2274	ppb	22:39:05
1	U 409.014†	-2617.2	6.5	0.1912	ug/L	0.1912	ppb	22:38:45
1	V 292.402†	-936.3	849.4	5.4924	ug/L	5.4924	ppb	22:38:45
1	Zn 213.857†	2288.7	1496.3	12.114	ug/L	12.114	ppb	22:39:05
1	SiO2†	792143.8	805123.6	49424	ug/L	49424	ppb	22:40:02
2	Sc Radial	4622.8	4622.8	99.0	%			22:37:53
2	Y RADIAL	4890.4	4890.4	99.14	%			22:37:53
2	Al 396.153Radial†	18.9	45.8	40.504	ug/L	40.504	ppb	22:37:53
2	Ca 317.933Radial†	14286.2	14412.1	24150	ug/L	24150	ppb	22:37:53
2	Fe 238.204 Radial†	12.3	-1.4	-12.415	ug/L	-12.415	ppb	22:38:13
2	K 766.490 Radial†	13502.2	10296.3	2034.4	ug/L	2034.4	ppb	22:37:53
2	Mg 279.077 IEC†	169.0	169.0	5402.9	ug/L	5402.9	ppb	22:38:13
2	Na 589.592 Radial†	48308.1	50526.1	15263	ug/L	15263	ppb	22:37:53
2	Sr 421.552†	14348.1	14471.1	105.73	ug/L	105.73	ppb	22:37:53
2	Sc 361.383	862008.9	862008.9	97.225	%			22:39:10
2	Y 371.029	733898.2	733898.2	96.343	%			22:39:10
2	Ag 328.068†	541.0	44.1	-0.1462	ug/L	-0.1462	ppb	22:39:10
2	As 188.979†	-23.0	9.7	3.3703	ug/L	3.3703	ppb	22:39:30
2	B 249.677†	645.7	1330.0	27.426	ug/L	27.426	ppb	22:39:30
2	Ba 233.527†	2480.8	2544.1	18.562	ug/L	18.562	ppb	22:39:30
2	Be 313.107†	-4276.0	-46.5	-0.0205	ug/L	-0.0205	ppb	22:39:10
2	Cd 226.502†	-220.3	11.8	0.1124	ug/L	0.1124	ppb	22:39:30
2	Co 228.616†	-93.7	-12.4	-0.2136	ug/L	-0.2136	ppb	22:39:30
2	Cr 267.716†	319.3	224.4	2.2581	ug/L	2.2581	ppb	22:39:30
2	Cu 324.752†	8261.6	498.4	1.4749	ug/L	1.4749	ppb	22:39:10
2	Mn 257.610†	1161.9	678.6	0.6132	ug/L	0.6132	ppb	22:39:30
2	Mo 202.031†	62.4	44.3	2.7737	ug/L	2.7737	ppb	22:39:30
2	Ni 231.604†	114.6	-7.2	-0.1571	ug/L	-0.1571	ppb	22:39:30

2	P 214.914†	297.8	57.8	27.593 ug/L	27.593 ppb	22:39:30
2	Pb 220.353†	-107.1	-32.4	-3.3428 ug/L	-3.3428 ppb	22:39:30
2	S 181.975 Axial†	2844.2	2865.5	3238.4 ug/L	3238.4 ppb	22:39:30
2	Sb 206.836†	42.8	6.9	1.6376 ug/L	1.6376 ppb	22:39:30
2	Se 196.026†	-29.1	3.4	1.7058 ug/L	1.7058 ppb	22:39:30
2	Si 251.611†	773906.0	795375.7	22816 ug/L	22816 ppb	22:39:10
2	Sn 189.927†	-167.9	-176.0	-23.533 ug/L	-23.533 ppb	22:39:30
2	Ti 334.940†	-3254.9	-1530.5	-1.1683 ug/L	-1.1683 ppb	22:39:10
2	Tl 190.801†	-54.3	-2.4	-0.6884 ug/L	-0.6884 ppb	22:39:30
2	U 409.014†	-2673.1	-80.6	-2.4001 ug/L	-2.4001 ppb	22:39:10
2	V 292.402†	-951.9	822.8	5.3255 ug/L	5.3255 ppb	22:39:10
2	Zn 213.857†	2288.0	1521.6	12.326 ug/L	12.326 ppb	22:39:30
2	SiO2†	787674.7	809517.9	49693 ug/L	49693 ppb	22:40:07
3	Sc Radial	4684.6	4684.6	100 %		22:38:18
3	Y RADIAL	4938.4	4938.4	100.1 %		22:38:18
3	Al 396.153Radial†	-2.3	24.4	21.538 ug/L	21.538 ppb	22:38:18
3	Ca 317.933Radial†	14331.3	14266.7	23906 ug/L	23906 ppb	22:38:18
3	Fe 238.204 Radial†	14.9	0.9	8.2086 ug/L	8.2086 ppb	22:38:38
3	K 766.490 Radial†	13554.6	10168.6	2009.1 ug/L	2009.1 ppb	22:38:18
3	Mg 279.077 IEC†	170.3	168.0	5372.1 ug/L	5372.1 ppb	22:38:38
3	Na 589.592 Radial†	48656.1	50229.5	15173 ug/L	15173 ppb	22:38:18
3	Sr 421.552†	14449.3	14380.8	105.07 ug/L	105.07 ppb	22:38:18
3	Sc 361.383	879294.5	879294.5	99.175 %		22:39:36
3	Y 371.029	747181.8	747181.8	98.087 %		22:39:36
3	Ag 328.068†	564.0	56.3	-0.0851 ug/L	-0.0851 ppb	22:39:36
3	As 188.979†	-24.8	8.4	2.9038 ug/L	2.9038 ppb	22:39:56
3	B 249.677†	630.4	1301.5	26.835 ug/L	26.835 ppb	22:39:56
3	Ba 233.527†	2484.1	2497.2	18.221 ug/L	18.221 ppb	22:39:56
3	Be 313.107†	-4350.5	-35.2	-0.0167 ug/L	-0.0167 ppb	22:39:36
3	Cd 226.502†	-231.7	4.8	0.0439 ug/L	0.0439 ppb	22:39:56
3	Co 228.616†	-100.3	-17.2	-0.3051 ug/L	-0.3051 ppb	22:39:56
3	Cr 267.716†	293.2	191.7	1.9295 ug/L	1.9295 ppb	22:39:56
3	Cu 324.752†	8471.5	543.0	1.6081 ug/L	1.6081 ppb	22:39:36
3	Mn 257.610†	1150.2	643.3	0.5786 ug/L	0.5786 ppb	22:39:56
3	Mo 202.031†	54.2	34.7	2.1753 ug/L	2.1753 ppb	22:39:56
3	Ni 231.604†	116.1	-8.0	-0.1764 ug/L	-0.1764 ppb	22:39:56
3	P 214.914†	280.3	34.0	15.956 ug/L	15.956 ppb	22:39:56
3	Pb 220.353†	-101.8	-24.9	-2.5723 ug/L	-2.5723 ppb	22:39:56
3	S 181.975 Axial†	2847.3	2811.1	3177.0 ug/L	3177.0 ppb	22:39:56
3	Sb 206.836†	35.4	-1.4	-0.8604 ug/L	-0.8604 ppb	22:39:56
3	Se 196.026†	-30.9	2.1	1.1063 ug/L	1.1063 ppb	22:39:56
3	Si 251.611†	791144.9	797110.1	22866 ug/L	22866 ppb	22:39:36
3	Sn 189.927†	-179.3	-184.2	-24.757 ug/L	-24.757 ppb	22:39:56
3	Ti 334.940†	-3328.6	-1538.9	-1.1956 ug/L	-1.1956 ppb	22:39:36
3	Tl 190.801†	-49.4	3.5	0.9391 ug/L	0.9391 ppb	22:39:56
3	U 409.014†	-2628.1	18.8	0.5540 ug/L	0.5540 ppb	22:39:36
3	V 292.402†	-948.6	845.3	5.4605 ug/L	5.4605 ppb	22:39:36
3	Zn 213.857†	2294.1	1481.5	11.996 ug/L	11.996 ppb	22:39:56
3	SiO2†	788305.6	794227.7	48755 ug/L	48755 ppb	22:40:13

Mean Data: 243400002|936492|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	870976.9	98.237	%	0.9769				0.99%
Sc Radial	4631.3	99.2	%	1.06				1.07%
Y 371.029	740704.6	97.236	%	0.8727				0.90%
Y RADIAL	4888.2	99.09	%	1.042				1.05%
Ag 328.068†	25.1	-0.2250	ug/L	0.19195	-0.2250	ppb	0.19195	85.29%
Al 396.153Radial†	33.9	29.926	ug/L	9.6708	29.926	ppb	9.6708	32.32%
As 188.979†	6.2	2.1462	ug/L	1.73198	2.1462	ppb	1.73198	80.70%
B 249.677†	1320.3	27.225	ug/L	0.3377	27.225	ppb	0.3377	1.24%
Ba 233.527†	2515.3	18.353	ug/L	0.1831	18.353	ppb	0.1831	1.00%
Be 313.107†	-57.0	-0.0240	ug/L	0.00948	-0.0240	ppb	0.00948	39.57%
Ca 317.933Radial†	14351.7	24049	ug/L	126.9	24049	ppb	126.9	0.53%
Cd 226.502†	6.9	0.0651	ug/L	0.04103	0.0651	ppb	0.04103	62.99%
Co 228.616†	-10.8	-0.1845	ug/L	0.13751	-0.1845	ppb	0.13751	74.55%
Cr 267.716†	204.6	2.0594	ug/L	0.17478	2.0594	ppb	0.17478	8.49%
Cu 324.752†	517.3	1.5313	ug/L	0.06888	1.5313	ppb	0.06888	4.50%
Fe 238.204 Radial†	-0.6	-5.4578	ug/L	11.83608	-5.4578	ppb	11.83608	216.86%
K 766.490 Radial†	10251.6	2025.6	ug/L	14.24	2025.6	ppb	14.24	0.70%

Mg 279.077 IEC†	168.6	5391.9	ug/L	17.18	5391.9	ppb	17.18	0.32%
Mn 257.610†	664.9	0.5997	ug/L	0.01847	0.5997	ppb	0.01847	3.08%
Mo 202.031†	39.2	2.4554	ug/L	0.30104	2.4554	ppb	0.30104	12.26%
Na 589.592 Radial†	50447.3	15239	ug/L	57.7	15239	ppb	57.7	0.38%
Ni 231.604†	3.0	0.0653	ug/L	0.40205	0.0653	ppb	0.40205	615.53%
P 214.914†	41.7	19.745	ug/L	6.7973	19.745	ppb	6.7973	34.42%
Pb 220.353†	-33.7	-3.4759	ug/L	0.97699	-3.4759	ppb	0.97699	28.11%
S 181.975 Axial†	2836.5	3205.7	ug/L	30.90	3205.7	ppb	30.90	0.96%
Sb 206.836†	2.1	0.1859	ug/L	1.29738	0.1859	ppb	1.29738	697.87%
Se 196.026†	1.8	0.9106	ug/L	0.90903	0.9106	ppb	0.90903	99.83%
Si 251.611†	796687.5	22854	ug/L	33.3	22854	ppb	33.3	0.15%
Sn 189.927†	-180.0	-24.124	ug/L	0.6131	-24.124	ppb	0.6131	2.54%
Sr 421.552†	14430.9	105.44	ug/L	0.335	105.44	ppb	0.335	0.32%
Ti 334.940†	-1502.1	-1.1293	ug/L	0.09218	-1.1293	ppb	0.09218	8.16%
Tl 190.801†	0.1	0.0078	ug/L	0.83887	0.0078	ppb	0.83887	>999.9%
U 409.014†	-18.4	-0.5516	ug/L	1.61108	-0.5516	ppb	1.61108	292.05%
V 292.402†	839.1	5.4262	ug/L	0.08859	5.4262	ppb	0.08859	1.63%
Zn 213.857†	1499.8	12.145	ug/L	0.1670	12.145	ppb	0.1670	1.37%
SiO2†	802956.4	49291	ug/L	483.2	49291	ppb	483.2	0.98%

Sequence No.: 70
Sample ID: 243400003|936492|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 72
Date Collected: 1/6/2010 22:42:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243400003|936492|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4730.6	4730.6	101	%			22:44:17
1	Y RADIAL	5020.7	5020.7	101.8	%			22:44:17
1	Al 396.153Radial†	125.2	150.2	133.12	ug/L	133.12	ppb	22:44:17
1	Ca 317.933Radial†	12936.5	12751.5	21367	ug/L	21367	ppb	22:44:17
1	Fe 238.204 Radial†	27.6	13.3	117.15	ug/L	117.15	ppb	22:44:37
1	K 766.490 Radial†	14378.6	10850.2	2144.3	ug/L	2144.3	ppb	22:44:17
1	Mg 279.077 IEC†	153.8	150.1	4799.5	ug/L	4799.5	ppb	22:44:37
1	Na 589.592 Radial†	52824.7	53870.6	16273	ug/L	16273	ppb	22:44:17
1	Sr 421.552†	13799.7	13599.8	99.375	ug/L	99.375	ppb	22:44:17
1	Sc 361.383	857683.3	857683.3	96.737	%			22:45:34
1	Y 371.029	729685.0	729685.0	95.790	%			22:45:34
1	Ag 328.068†	471.2	-25.3	-0.3578	ug/L	-0.3578	ppb	22:45:34
1	As 188.979†	-31.5	0.8	0.2934	ug/L	0.2934	ppb	22:45:54
1	B 249.677†	403.3	1082.7	22.311	ug/L	22.311	ppb	22:45:54
1	Ba 233.527†	4314.2	4452.2	32.478	ug/L	32.478	ppb	22:45:54
1	Be 313.107†	-4288.7	-81.9	-0.0289	ug/L	-0.0289	ppb	22:45:34
1	Cd 226.502†	-232.2	-1.7	-0.0276	ug/L	-0.0276	ppb	22:45:54
1	Co 228.616†	-109.4	-29.1	-0.5265	ug/L	-0.5265	ppb	22:45:54
1	Cr 267.716†	353.7	261.6	2.6340	ug/L	2.6340	ppb	22:45:54
1	Cu 324.752†	8087.8	361.5	1.0763	ug/L	1.0763	ppb	22:45:34
1	Mn 257.610†	1750.0	1292.6	1.2843	ug/L	1.2843	ppb	22:45:54
1	Mo 202.031†	63.5	45.7	2.8768	ug/L	2.8768	ppb	22:45:54
1	Ni 231.604†	117.9	-3.2	-0.0703	ug/L	-0.0703	ppb	22:45:54
1	P 214.914†	300.4	62.0	29.652	ug/L	29.652	ppb	22:45:54
1	Pb 220.353†	-105.4	-31.1	-3.1998	ug/L	-3.1998	ppb	22:45:54
1	S 181.975 Axial†	2504.6	2529.1	2858.3	ug/L	2858.3	ppb	22:45:54
1	Sb 206.836†	32.5	-3.5	-1.4901	ug/L	-1.4901	ppb	22:45:54
1	Se 196.026†	-29.6	2.7	1.7661	ug/L	1.7661	ppb	22:45:54
1	Si 251.611†	882997.2	912160.6	26166	ug/L	26166	ppb	22:45:34
1	Sn 189.927†	-166.6	-175.7	-23.761	ug/L	-23.761	ppb	22:45:54
1	Ti 334.940†	-2128.6	-383.0	0.5082	ug/L	0.5082	ppb	22:45:34
1	Tl 190.801†	-59.1	-7.7	-2.0999	ug/L	-2.0999	ppb	22:45:54
1	U 409.014†	-2742.4	-166.2	-4.9597	ug/L	-4.9597	ppb	22:45:34
1	V 292.402†	-941.9	828.2	5.3204	ug/L	5.3204	ppb	22:45:34
1	Zn 213.857†	1915.2	1148.1	9.2691	ug/L	9.2691	ppb	22:45:54
1	SiO2†	904385.7	934251.0	57350	ug/L	57350	ppb	22:46:52
2	Sc Radial	4676.9	4676.9	100	%			22:44:42
2	Y RADIAL	4937.5	4937.5	100.1	%			22:44:42
2	Al 396.153Radial†	122.7	149.2	132.19	ug/L	132.19	ppb	22:44:42
2	Ca 317.933Radial†	12803.6	12765.4	21391	ug/L	21391	ppb	22:44:42
2	Fe 238.204 Radial†	24.8	10.9	95.848	ug/L	95.848	ppb	22:45:02
2	K 766.490 Radial†	14272.4	10907.2	2155.6	ug/L	2155.6	ppb	22:44:42
2	Mg 279.077 IEC†	149.7	147.8	4724.6	ug/L	4724.6	ppb	22:45:02
2	Na 589.592 Radial†	52107.1	53753.0	16238	ug/L	16238	ppb	22:44:42
2	Sr 421.552†	13622.0	13578.8	99.222	ug/L	99.222	ppb	22:44:42
2	Sc 361.383	886522.9	886522.9	99.990	%			22:46:00
2	Y 371.029	753435.5	753435.5	98.908	%			22:46:00
2	Ag 328.068†	421.2	-91.0	-0.6503	ug/L	-0.6503	ppb	22:46:00
2	As 188.979†	-31.8	1.6	0.5690	ug/L	0.5690	ppb	22:46:20
2	B 249.677†	456.1	1122.0	23.122	ug/L	23.122	ppb	22:46:20
2	Ba 233.527†	4370.6	4363.5	31.833	ug/L	31.833	ppb	22:46:20
2	Be 313.107†	-4381.3	-30.3	-0.0112	ug/L	-0.0112	ppb	22:46:00
2	Cd 226.502†	-217.7	20.6	0.1843	ug/L	0.1843	ppb	22:46:20
2	Co 228.616†	-99.4	-15.5	-0.2692	ug/L	-0.2692	ppb	22:46:20
2	Cr 267.716†	364.0	260.0	2.6167	ug/L	2.6167	ppb	22:46:20
2	Cu 324.752†	8318.4	320.2	0.9528	ug/L	0.9528	ppb	22:46:00
2	Mn 257.610†	1793.1	1276.8	1.2669	ug/L	1.2669	ppb	22:46:20
2	Mo 202.031†	71.7	51.8	3.2557	ug/L	3.2557	ppb	22:46:20
2	Ni 231.604†	108.5	-16.6	-0.3638	ug/L	-0.3638	ppb	22:46:20

2	P 214.914†	309.9	61.4	29.420	ug/L	29.420 ppb	22:46:20
2	Pb 220.353†	-93.9	-16.1	-1.6408	ug/L	-1.6408 ppb	22:46:20
2	S 181.975 Axial†	2496.7	2437.1	2754.2	ug/L	2754.2 ppb	22:46:20
2	Sb 206.836†	45.1	8.0	2.0114	ug/L	2.0114 ppb	22:46:20
2	Se 196.026†	-37.6	-4.4	-1.9156	ug/L	-1.9156 ppb	22:46:20
2	Si 251.611†	914009.4	913482.2	26204	ug/L	26204 ppb	22:46:00
2	Sn 189.927†	-157.2	-160.6	-21.535	ug/L	-21.535 ppb	22:46:20
2	Ti 334.940†	-2114.5	-297.3	0.6427	ug/L	0.6427 ppb	22:46:00
2	Tl 190.801†	-58.8	-5.5	-1.4925	ug/L	-1.4925 ppb	22:46:20
2	U 409.014†	-2636.0	32.4	0.9468	ug/L	0.9468 ppb	22:46:00
2	V 292.402†	-871.9	929.8	5.9770	ug/L	5.9770 ppb	22:46:00
2	Zn 213.857†	1918.8	1087.3	8.7744	ug/L	8.7744 ppb	22:46:20
2	SiO2†	898621.1	898072.9	55129	ug/L	55129 ppb	22:46:58
3	Sc Radial	4687.5	4687.5	100	%		22:45:07
3	Y RADIAL	4965.3	4965.3	100.7	%		22:45:07
3	Al 396.153Radial†	127.9	154.1	136.49	ug/L	136.49 ppb	22:45:07
3	Ca 317.933Radial†	12787.2	12720.4	21315	ug/L	21315 ppb	22:45:07
3	Fe 238.204 Radial†	27.0	13.0	114.30	ug/L	114.30 ppb	22:45:27
3	K 766.490 Radial†	14166.8	10770.0	2128.4	ug/L	2128.4 ppb	22:45:07
3	Mg 279.077 IEC†	151.9	149.6	4784.5	ug/L	4784.5 ppb	22:45:27
3	Na 589.592 Radial†	52013.5	53543.0	16174	ug/L	16174 ppb	22:45:07
3	Sr 421.552†	13564.8	13491.3	98.581	ug/L	98.581 ppb	22:45:07
3	Sc 361.383	877874.7	877874.7	99.015	%		22:46:26
3	Y 371.029	746519.6	746519.6	98.000	%		22:46:26
3	Ag 328.068†	592.5	86.1	0.1175	ug/L	0.1175 ppb	22:46:26
3	As 188.979†	-22.0	11.2	3.9053	ug/L	3.9053 ppb	22:46:46
3	B 249.677†	426.4	1096.4	22.594	ug/L	22.594 ppb	22:46:46
3	Ba 233.527†	4343.7	4379.5	31.949	ug/L	31.949 ppb	22:46:46
3	Be 313.107†	-4258.9	50.2	0.0162	ug/L	0.0162 ppb	22:46:26
3	Cd 226.502†	-227.6	8.5	0.0684	ug/L	0.0684 ppb	22:46:46
3	Co 228.616†	-116.6	-33.7	-0.6127	ug/L	-0.6127 ppb	22:46:46
3	Cr 267.716†	353.3	252.8	2.5447	ug/L	2.5447 ppb	22:46:46
3	Cu 324.752†	8074.1	155.4	0.4659	ug/L	0.4659 ppb	22:46:26
3	Mn 257.610†	1783.8	1285.2	1.2764	ug/L	1.2764 ppb	22:46:46
3	Mo 202.031†	74.8	55.6	3.4934	ug/L	3.4934 ppb	22:46:46
3	Ni 231.604†	113.3	-10.6	-0.2322	ug/L	-0.2322 ppb	22:46:46
3	P 214.914†	295.3	49.7	23.753	ug/L	23.753 ppb	22:46:46
3	Pb 220.353†	-97.2	-20.5	-2.0896	ug/L	-2.0896 ppb	22:46:46
3	S 181.975 Axial†	2496.6	2461.5	2781.9	ug/L	2781.9 ppb	22:46:46
3	Sb 206.836†	21.0	-15.9	-5.1342	ug/L	-5.1342 ppb	22:46:46
3	Se 196.026†	-34.6	-1.7	-0.5020	ug/L	-0.5020 ppb	22:46:46
3	Si 251.611†	902904.9	911272.3	26141	ug/L	26141 ppb	22:46:26
3	Sn 189.927†	-159.7	-164.7	-22.149	ug/L	-22.149 ppb	22:46:46
3	Ti 334.940†	-2051.6	-254.6	0.7068	ug/L	0.7068 ppb	22:46:26
3	Tl 190.801†	-44.5	8.4	2.2967	ug/L	2.2967 ppb	22:46:46
3	U 409.014†	-2632.0	10.6	0.2951	ug/L	0.2951 ppb	22:46:26
3	V 292.402†	-903.3	889.6	5.7247	ug/L	5.7247 ppb	22:46:26
3	Zn 213.857†	1917.6	1105.0	8.9167	ug/L	8.9167 ppb	22:46:46
3	SiO2†	915000.4	923468.7	56688	ug/L	56688 ppb	22:47:04

Mean Data: 243400003|936492|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	874027.0	98.581	%	1.6693				1.69%
Sc Radial	4698.3	101	%	0.6				0.61%
Y 371.029	743213.4	97.566	%	1.6036				1.64%
Y RADIAL	4974.5	100.8	%	0.86				0.85%
Ag 328.068†	-10.1	-0.2969	ug/L	0.38755	-0.2969	ppb	0.38755	130.54%
Al 396.153Radial†	151.2	133.93	ug/L	2.262	133.93	ppb	2.262	1.69%
As 188.979†	4.5	1.5892	ug/L	2.01048	1.5892	ppb	2.01048	126.51%
B 249.677†	1100.4	22.676	ug/L	0.4118	22.676	ppb	0.4118	1.82%
Ba 233.527†	4398.4	32.087	ug/L	0.3441	32.087	ppb	0.3441	1.07%
Be 313.107†	-20.6	-0.0079	ug/L	0.02270	-0.0079	ppb	0.02270	285.75%
Ca 317.933Radial†	12745.8	21358	ug/L	38.7	21358	ppb	38.7	0.18%
Cd 226.502†	9.1	0.0750	ug/L	0.10611	0.0750	ppb	0.10611	141.47%
Co 228.616†	-26.1	-0.4695	ug/L	0.17869	-0.4695	ppb	0.17869	38.06%
Cr 267.716†	258.1	2.5985	ug/L	0.04733	2.5985	ppb	0.04733	1.82%
Cu 324.752†	279.0	0.8317	ug/L	0.32271	0.8317	ppb	0.32271	38.80%
Fe 238.204 Radial†	12.4	109.10	ug/L	11.565	109.10	ppb	11.565	10.60%
K 766.490 Radial†	10842.5	2142.7	ug/L	13.66	2142.7	ppb	13.66	0.64%

Mg 279.077 IEC†	149.2	4769.5	ug/L	39.66	4769.5	ppb	39.66	0.83%
Mn 257.610†	1284.9	1.2759	ug/L	0.00868	1.2759	ppb	0.00868	0.68%
Mo 202.031†	51.1	3.2086	ug/L	0.31100	3.2086	ppb	0.31100	9.69%
Na 589.592 Radial†	53722.2	16228	ug/L	50.1	16228	ppb	50.1	0.31%
Ni 231.604†	-10.1	-0.2221	ug/L	0.14703	-0.2221	ppb	0.14703	66.21%
P 214.914†	57.7	27.609	ug/L	3.3411	27.609	ppb	3.3411	12.10%
Pb 220.353†	-22.6	-2.3101	ug/L	0.80253	-2.3101	ppb	0.80253	34.74%
S 181.975 Axial†	2475.9	2798.1	ug/L	53.91	2798.1	ppb	53.91	1.93%
Sb 206.836†	-3.8	-1.5376	ug/L	3.57302	-1.5376	ppb	3.57302	232.38%
Se 196.026†	-1.1	-0.2172	ug/L	1.85735	-0.2172	ppb	1.85735	855.24%
Si 251.611†	912305.0	26170	ug/L	31.9	26170	ppb	31.9	0.12%
Sn 189.927†	-167.0	-22.482	ug/L	1.1500	-22.482	ppb	1.1500	5.12%
Sr 421.552†	13556.6	99.059	ug/L	0.4209	99.059	ppb	0.4209	0.42%
Ti 334.940†	-311.6	0.6192	ug/L	0.10140	0.6192	ppb	0.10140	16.37%
Tl 190.801†	-1.6	-0.4319	ug/L	2.38243	-0.4319	ppb	2.38243	551.62%
U 409.014†	-41.1	-1.2393	ug/L	3.23845	-1.2393	ppb	3.23845	261.32%
V 292.402†	882.5	5.6740	ug/L	0.33122	5.6740	ppb	0.33122	5.84%
Zn 213.857†	1113.5	8.9867	ug/L	0.25470	8.9867	ppb	0.25470	2.83%
SiO2†	918597.5	56389	ug/L	1140.3	56389	ppb	1140.3	2.02%

Sequence No.: 71
Sample ID: 243400004|936492|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 73
Date Collected: 1/6/2010 22:49:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243400004|936492|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4735.6	4735.6	101	%			22:51:08
1	Y RADIAL	5036.1	5036.1	102.1	%			22:51:08
1	Al 396.153Radial†	-9.0	17.9	15.745	ug/L	15.745	ppb	22:51:08
1	Ca 317.933Radial†	12190.6	12003.1	20113	ug/L	20113	ppb	22:51:08
1	Fe 238.204 Radial†	12.5	-1.5	-13.569	ug/L	-13.569	ppb	22:51:28
1	K 766.490 Radial†	13625.2	10092.9	1994.4	ug/L	1994.4	ppb	22:51:08
1	Mg 279.077 IEC†	148.4	144.7	4625.6	ug/L	4625.6	ppb	22:51:28
1	Na 589.592 Radial†	50327.5	51355.1	15513	ug/L	15513	ppb	22:51:08
1	Sr 421.552†	12957.5	12755.5	93.205	ug/L	93.205	ppb	22:51:08
1	Sc 361.383	872815.5	872815.5	98.444	%			22:52:25
1	Y 371.029	742528.9	742528.9	97.476	%			22:52:25
1	Ag 328.068†	521.0	16.9	-0.2005	ug/L	-0.2005	ppb	22:52:25
1	As 188.979†	-27.9	5.1	1.7526	ug/L	1.7526	ppb	22:52:45
1	B 249.677†	340.9	1012.1	20.872	ug/L	20.872	ppb	22:52:45
1	Ba 233.527†	4207.3	4266.3	31.120	ug/L	31.120	ppb	22:52:45
1	Be 313.107†	-4279.3	4.6	-0.0024	ug/L	-0.0024	ppb	22:52:25
1	Cd 226.502†	-226.9	7.9	0.0755	ug/L	0.0755	ppb	22:52:45
1	Co 228.616†	-106.5	-24.2	-0.4314	ug/L	-0.4314	ppb	22:52:45
1	Cr 267.716†	298.2	198.9	2.0043	ug/L	2.0043	ppb	22:52:45
1	Cu 324.752†	8018.8	146.5	0.4330	ug/L	0.4330	ppb	22:52:25
1	Mn 257.610†	822.4	319.0	0.2486	ug/L	0.2486	ppb	22:52:45
1	Mo 202.031†	57.2	38.2	2.3907	ug/L	2.3907	ppb	22:52:45
1	Ni 231.604†	98.9	-24.6	-0.5406	ug/L	-0.5406	ppb	22:52:45
1	P 214.914†	296.5	52.6	25.285	ug/L	25.285	ppb	22:52:45
1	Pb 220.353†	-95.2	-19.0	-1.9554	ug/L	-1.9554	ppb	22:52:45
1	S 181.975 Axial†	2416.3	2394.6	2706.2	ug/L	2706.2	ppb	22:52:45
1	Sb 206.836†	45.2	8.8	2.2491	ug/L	2.2491	ppb	22:52:45
1	Se 196.026†	-32.5	0.3	0.1171	ug/L	0.1171	ppb	22:52:45
1	Si 251.611†	883350.6	896694.5	25723	ug/L	25723	ppb	22:52:25
1	Sn 189.927†	-149.4	-155.2	-20.861	ug/L	-20.861	ppb	22:52:45
1	Ti 334.940†	-3044.1	-1274.8	-0.9714	ug/L	-0.9714	ppb	22:52:25
1	Tl 190.801†	-55.7	-3.2	-0.8953	ug/L	-0.8953	ppb	22:52:45
1	U 409.014†	-2833.6	-209.7	-6.2356	ug/L	-6.2356	ppb	22:52:25
1	V 292.402†	-939.0	848.0	5.4533	ug/L	5.4533	ppb	22:52:45
1	Zn 213.857†	1539.1	731.7	5.8617	ug/L	5.8617	ppb	22:52:45
1	SiO2†	894543.7	908045.0	55742	ug/L	55742	ppb	22:53:43
2	Sc Radial	4766.8	4766.8	102	%			22:51:33
2	Y RADIAL	5057.2	5057.2	102.5	%			22:51:33
2	Al 396.153Radial†	3.2	29.9	26.376	ug/L	26.376	ppb	22:51:33
2	Ca 317.933Radial†	12451.9	12180.1	20410	ug/L	20410	ppb	22:51:33
2	Fe 238.204 Radial†	14.8	0.6	5.5162	ug/L	5.5162	ppb	22:51:53
2	K 766.490 Radial†	13907.6	10281.3	2031.7	ug/L	2031.7	ppb	22:51:33
2	Mg 279.077 IEC†	151.0	146.3	4676.3	ug/L	4676.3	ppb	22:51:53
2	Na 589.592 Radial†	51488.9	52167.1	15759	ug/L	15759	ppb	22:51:33
2	Sr 421.552†	13327.2	13033.8	95.240	ug/L	95.240	ppb	22:51:33
2	Sc 361.383	884009.8	884009.8	99.707	%			22:52:51
2	Y 371.029	751986.7	751986.7	98.717	%			22:52:51
2	Ag 328.068†	543.7	32.9	-0.1300	ug/L	-0.1300	ppb	22:52:51
2	As 188.979†	-27.6	5.8	1.9901	ug/L	1.9901	ppb	22:53:11
2	B 249.677†	415.5	1082.6	22.322	ug/L	22.322	ppb	22:53:11
2	Ba 233.527†	4193.3	4198.1	30.624	ug/L	30.624	ppb	22:53:11
2	Be 313.107†	-4223.6	115.5	0.0348	ug/L	0.0348	ppb	22:52:51
2	Cd 226.502†	-216.3	21.5	0.2013	ug/L	0.2013	ppb	22:53:11
2	Co 228.616†	-102.6	-18.9	-0.3322	ug/L	-0.3322	ppb	22:53:11
2	Cr 267.716†	329.8	226.7	2.2830	ug/L	2.2830	ppb	22:53:11
2	Cu 324.752†	8118.6	143.4	0.4250	ug/L	0.4250	ppb	22:52:51
2	Mn 257.610†	834.2	320.2	0.2508	ug/L	0.2508	ppb	22:53:11
2	Mo 202.031†	57.4	37.6	2.3582	ug/L	2.3582	ppb	22:53:11
2	Ni 231.604†	101.0	-23.7	-0.5204	ug/L	-0.5204	ppb	22:53:11

2	P 214.914†	304.8	57.1	27.464	ug/L	27.464 ppb	22:53:11
2	Pb 220.353†	-95.3	-17.8	-1.8364	ug/L	-1.8364 ppb	22:53:11
2	S 181.975 Axial†	2418.4	2365.7	2673.5	ug/L	2673.5 ppb	22:53:11
2	Sb 206.836†	43.1	6.2	1.4429	ug/L	1.4429 ppb	22:53:11
2	Se 196.026†	-37.6	-4.5	-2.2615	ug/L	-2.2615 ppb	22:53:11
2	Si 251.611†	890819.0	892822.2	25611	ug/L	25611 ppb	22:52:51
2	Sn 189.927†	-156.6	-160.5	-21.615	ug/L	-21.615 ppb	22:53:11
2	Ti 334.940†	-3166.3	-1358.2	-1.0893	ug/L	-1.0893 ppb	22:52:51
2	Tl 190.801†	-58.0	-4.8	-1.3350	ug/L	-1.3350 ppb	22:53:11
2	U 409.014†	-2798.8	-138.3	-4.1163	ug/L	-4.1163 ppb	22:52:51
2	V 292.402†	-898.3	900.9	5.7871	ug/L	5.7871 ppb	22:53:11
2	Zn 213.857†	1539.5	712.3	5.6993	ug/L	5.6993 ppb	22:53:11
2	SiO2†	900284.9	902296.4	55389	ug/L	55389 ppb	22:53:49
3	Sc Radial	4640.1	4640.1	99.4	%		22:51:58
3	Y RADIAL	4931.3	4931.3	99.97	%		22:51:58
3	Al 396.153Radial†	-8.7	17.9	15.815	ug/L	15.815 ppb	22:51:58
3	Ca 317.933Radial†	12242.5	12302.5	20615	ug/L	20615 ppb	22:51:58
3	Fe 238.204 Radial†	14.6	0.8	7.0287	ug/L	7.0287 ppb	22:52:18
3	K 766.490 Radial†	13629.2	10373.3	2049.9	ug/L	2049.9 ppb	22:51:58
3	Mg 279.077 IEC†	148.2	147.4	4714.3	ug/L	4714.3 ppb	22:52:18
3	Na 589.592 Radial†	50281.7	52329.9	15808	ug/L	15808 ppb	22:51:58
3	Sr 421.552†	12999.1	13060.2	95.431	ug/L	95.431 ppb	22:51:58
3	Sc 361.383	883395.2	883395.2	99.637	%		22:53:17
3	Y 371.029	751649.1	751649.1	98.673	%		22:53:17
3	Ag 328.068†	536.7	26.3	-0.1600	ug/L	-0.1600 ppb	22:53:17
3	As 188.979†	-21.1	12.2	4.2403	ug/L	4.2403 ppb	22:53:37
3	B 249.677†	384.9	1052.2	21.694	ug/L	21.694 ppb	22:53:37
3	Ba 233.527†	4236.4	4244.3	30.962	ug/L	30.962 ppb	22:53:37
3	Be 313.107†	-4360.9	-25.3	-0.0127	ug/L	-0.0127 ppb	22:53:17
3	Cd 226.502†	-231.7	5.9	0.0547	ug/L	0.0547 ppb	22:53:37
3	Co 228.616†	-91.9	-8.2	-0.1314	ug/L	-0.1314 ppb	22:53:37
3	Cr 267.716†	309.8	206.9	2.0850	ug/L	2.0850 ppb	22:53:37
3	Cu 324.752†	8026.9	57.1	0.1693	ug/L	0.1693 ppb	22:53:17
3	Mn 257.610†	835.0	321.6	0.2518	ug/L	0.2518 ppb	22:53:37
3	Mo 202.031†	55.9	36.2	2.2691	ug/L	2.2691 ppb	22:53:37
3	Ni 231.604†	128.8	4.2	0.0929	ug/L	0.0929 ppb	22:53:37
3	P 214.914†	306.7	59.2	28.489	ug/L	28.489 ppb	22:53:37
3	Pb 220.353†	-97.5	-20.1	-2.0759	ug/L	-2.0759 ppb	22:53:37
3	S 181.975 Axial†	2443.5	2392.5	2703.8	ug/L	2703.8 ppb	22:53:37
3	Sb 206.836†	33.2	-3.8	-1.5566	ug/L	-1.5566 ppb	22:53:37
3	Se 196.026†	-38.9	-5.7	-2.9070	ug/L	-2.9070 ppb	22:53:37
3	Si 251.611†	888223.4	890838.7	25555	ug/L	25555 ppb	22:53:17
3	Sn 189.927†	-168.1	-172.1	-23.314	ug/L	-23.314 ppb	22:53:37
3	Ti 334.940†	-3141.4	-1335.5	-1.0423	ug/L	-1.0423 ppb	22:53:17
3	Tl 190.801†	-51.6	1.6	0.4237	ug/L	0.4237 ppb	22:53:37
3	U 409.014†	-2806.1	-147.6	-4.3928	ug/L	-4.3928 ppb	22:53:17
3	V 292.402†	-867.8	930.8	5.9742	ug/L	5.9742 ppb	22:53:37
3	Zn 213.857†	1529.7	703.6	5.6225	ug/L	5.6225 ppb	22:53:37
3	SiO2†	907718.2	910385.0	55885	ug/L	55885 ppb	22:53:55

Mean Data: 243400004|936492|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	880073.5	99.263	%	0.7098				0.72%
Sc Radial	4714.1	101	%	1.4				1.40%
Y 371.029	748721.6	98.289	%	0.7044				0.72%
Y RADIAL	5008.2	101.5	%	1.37				1.35%
Ag 328.068†	25.4	-0.1635	ug/L	0.03540	-0.1635	ppb	0.03540	21.65%
Al 396.153Radial†	21.9	19.312	ug/L	6.1178	19.312	ppb	6.1178	31.68%
As 188.979†	7.7	2.6610	ug/L	1.37287	2.6610	ppb	1.37287	51.59%
B 249.677†	1048.9	21.629	ug/L	0.7272	21.629	ppb	0.7272	3.36%
Ba 233.527†	4236.2	30.902	ug/L	0.2533	30.902	ppb	0.2533	0.82%
Be 313.107†	31.6	0.0066	ug/L	0.02499	0.0066	ppb	0.02499	381.07%
Ca 317.933Radial†	12161.9	20379	ug/L	252.3	20379	ppb	252.3	1.24%
Cd 226.502†	11.8	0.1105	ug/L	0.07933	0.1105	ppb	0.07933	71.78%
Co 228.616†	-17.1	-0.2983	ug/L	0.15283	-0.2983	ppb	0.15283	51.23%
Cr 267.716†	210.9	2.1241	ug/L	0.14344	2.1241	ppb	0.14344	6.75%
Cu 324.752†	115.7	0.3424	ug/L	0.14996	0.3424	ppb	0.14996	43.79%
Fe 238.204 Radial†	-0.0	-0.3412	ug/L	11.48012	-0.3412	ppb	11.48012	>999.9%
K 766.490 Radial†	10249.2	2025.3	ug/L	28.28	2025.3	ppb	28.28	1.40%

Mg 279.077 IEC†	146.1	4672.1	ug/L	44.49	4672.1	ppb	44.49	0.95%
Mn 257.610†	320.2	0.2504	ug/L	0.00164	0.2504	ppb	0.00164	0.66%
Mo 202.031†	37.3	2.3393	ug/L	0.06291	2.3393	ppb	0.06291	2.69%
Na 589.592 Radial†	51950.7	15693	ug/L	157.7	15693	ppb	157.7	1.01%
Ni 231.604†	-14.7	-0.3227	ug/L	0.36008	-0.3227	ppb	0.36008	111.58%
P 214.914†	56.3	27.080	ug/L	1.6363	27.080	ppb	1.6363	6.04%
Pb 220.353†	-19.0	-1.9559	ug/L	0.11976	-1.9559	ppb	0.11976	6.12%
S 181.975 Axial†	2384.2	2694.5	ug/L	18.23	2694.5	ppb	18.23	0.68%
Sb 206.836†	3.7	0.7118	ug/L	2.00541	0.7118	ppb	2.00541	281.73%
Se 196.026†	-3.3	-1.6838	ug/L	1.59269	-1.6838	ppb	1.59269	94.59%
Si 251.611†	893451.8	25630	ug/L	85.4	25630	ppb	85.4	0.33%
Sn 189.927†	-162.6	-21.930	ug/L	1.2563	-21.930	ppb	1.2563	5.73%
Sr 421.552†	12949.8	94.625	ug/L	1.2338	94.625	ppb	1.2338	1.30%
Ti 334.940†	-1322.8	-1.0344	ug/L	0.05934	-1.0344	ppb	0.05934	5.74%
Tl 190.801†	-2.1	-0.6022	ug/L	0.91527	-0.6022	ppb	0.91527	151.98%
U 409.014†	-165.2	-4.9149	ug/L	1.15210	-4.9149	ppb	1.15210	23.44%
V 292.402†	893.2	5.7382	ug/L	0.26385	5.7382	ppb	0.26385	4.60%
Zn 213.857†	715.9	5.7278	ug/L	0.12212	5.7278	ppb	0.12212	2.13%
SiO2†	906908.8	55672	ug/L	255.5	55672	ppb	255.5	0.46%

Sequence No.: 72
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/6/2010 22:56:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4690.9	4690.9	100	%			22:57:58
1	Y RADIAL	4958.2	4958.2	100.5	%			22:57:58
1	Al 396.153Radial†	5993.7	5990.6	5291.1	ug/L	5291.1	ppb	22:57:58
1	Ca 317.933Radial†	3120.1	3092.0	5181.2	ug/L	5181.2	ppb	22:58:18
1	Fe 238.204 Radial†	574.9	558.1	4920.2	ug/L	4920.2	ppb	22:58:18
1	K 766.490 Radial†	28502.6	25024.2	4958.6	ug/L	4958.6	ppb	22:57:58
1	Mg 279.077 IEC†	166.7	164.3	5258.5	ug/L	5258.5	ppb	22:58:18
1	Na 589.592 Radial†	31134.2	32729.5	9886.9	ug/L	9886.9	ppb	22:57:58
1	Sr 421.552†	71471.2	71099.9	520.52	ug/L	520.52	ppb	22:57:58
1	Sc 361.383	887139.7	887139.7	100.06	%			22:59:17
1	Y 371.029	754106.0	754106.0	98.996	%			22:59:17
1	Ag 328.068†	119967.3	119383.3	515.99	ug/L	515.99	ppb	22:59:17
1	As 188.979†	1437.3	1469.8	518.95	ug/L	518.95	ppb	22:59:37
1	B 249.677†	23852.0	24503.6	503.30	ug/L	503.30	ppb	22:59:17
1	Ba 233.527†	70803.4	70753.6	517.19	ug/L	517.19	ppb	22:59:17
1	Be 313.107†	1538482.3	1541914.4	522.18	ug/L	522.18	ppb	22:59:17
1	Cd 226.502†	54607.9	54813.7	516.09	ug/L	516.09	ppb	22:59:17
1	Co 228.616†	27051.5	27119.3	510.05	ug/L	510.05	ppb	22:59:37
1	Cr 267.716†	51403.9	51269.2	514.52	ug/L	514.52	ppb	22:59:17
1	Cu 324.752†	181780.4	173672.8	514.43	ug/L	514.43	ppb	22:59:17
1	Mn 257.610†	494883.6	494071.5	520.97	ug/L	520.97	ppb	22:59:17
1	Mo 202.031†	8271.5	8246.6	517.10	ug/L	517.10	ppb	22:59:37
1	Ni 231.604†	23399.3	23260.2	510.29	ug/L	510.29	ppb	22:59:37
1	P 214.914†	5520.8	5268.9	2491.1	ug/L	2491.1	ppb	22:59:37
1	Pb 220.353†	4902.4	4977.2	517.26	ug/L	517.26	ppb	22:59:37
1	S 181.975 Axial†	984.5	924.0	1043.2	ug/L	1043.2	ppb	22:59:37
1	Sb 206.836†	1756.3	1718.2	520.61	ug/L	520.61	ppb	22:59:37
1	Se 196.026†	971.3	1004.0	531.32	ug/L	531.32	ppb	22:59:37
1	Si 251.611†	90575.0	89904.4	2566.8	ug/L	2566.8	ppb	22:59:17
1	Sn 189.927†	3469.6	3464.1	512.99	ug/L	512.99	ppb	22:59:37
1	Ti 334.940†	327843.1	329464.5	522.60	ug/L	522.60	ppb	22:59:17
1	Tl 190.801†	1838.5	1890.8	519.95	ug/L	519.95	ppb	22:59:37
1	U 409.014†	13968.0	16628.4	492.73	ug/L	492.73	ppb	22:59:17
1	V 292.402†	80081.4	81835.4	520.67	ug/L	520.67	ppb	22:59:17
1	Zn 213.857†	63750.4	62880.6	512.71	ug/L	512.71	ppb	22:59:17
1	SiO2†	90968.4	90278.0	5515.3	ug/L	5515.3	ppb	23:00:37
2	Sc Radial	4708.0	4708.0	101	%			22:58:23
2	Y RADIAL	4972.4	4972.4	100.8	%			22:58:23
2	Al 396.153Radial†	5989.5	5964.8	5268.5	ug/L	5268.5	ppb	22:58:23
2	Ca 317.933Radial†	3148.6	3109.0	5209.7	ug/L	5209.7	ppb	22:58:43
2	Fe 238.204 Radial†	581.6	562.7	4960.4	ug/L	4960.4	ppb	22:58:43
2	K 766.490 Radial†	28702.1	25119.1	4977.4	ug/L	4977.4	ppb	22:58:23
2	Mg 279.077 IEC†	166.2	163.1	5221.3	ug/L	5221.3	ppb	22:58:43
2	Na 589.592 Radial†	31491.0	32971.0	9959.9	ug/L	9959.9	ppb	22:58:23
2	Sr 421.552†	72030.9	71397.1	522.70	ug/L	522.70	ppb	22:58:23
2	Sc 361.383	890370.4	890370.4	100.42	%			22:59:44
2	Y 371.029	757325.5	757325.5	99.418	%			22:59:44
2	Ag 328.068†	120683.9	119661.8	517.20	ug/L	517.20	ppb	22:59:44
2	As 188.979†	1418.8	1446.2	510.72	ug/L	510.72	ppb	23:00:04
2	B 249.677†	24277.2	24840.5	510.26	ug/L	510.26	ppb	22:59:44
2	Ba 233.527†	71015.7	70708.2	516.86	ug/L	516.86	ppb	22:59:44
2	Be 313.107†	1544439.5	1542267.4	522.30	ug/L	522.30	ppb	22:59:44
2	Cd 226.502†	54687.6	54694.9	514.96	ug/L	514.96	ppb	22:59:44
2	Co 228.616†	26785.4	26756.2	503.20	ug/L	503.20	ppb	23:00:04
2	Cr 267.716†	51629.2	51307.1	514.90	ug/L	514.90	ppb	22:59:44
2	Cu 324.752†	183114.2	174341.7	516.41	ug/L	516.41	ppb	22:59:44
2	Mn 257.610†	496458.3	493844.9	520.74	ug/L	520.74	ppb	22:59:44
2	Mo 202.031†	8188.3	8133.8	510.03	ug/L	510.03	ppb	23:00:04
2	Ni 231.604†	23163.3	22940.4	503.28	ug/L	503.28	ppb	23:00:04

2	P 214.914†	5474.7	5203.0	2458.5 ug/L	2458.5 ppb	23:00:04
2	Pb 220.353†	4853.6	4910.9	510.37 ug/L	510.37 ppb	23:00:04
2	S 181.975 Axial†	954.9	890.9	1005.9 ug/L	1005.9 ppb	23:00:04
2	Sb 206.836†	1734.7	1690.3	511.98 ug/L	511.98 ppb	23:00:04
2	Se 196.026†	967.1	996.2	527.47 ug/L	527.47 ppb	23:00:04
2	Si 251.611†	91092.6	90091.3	2572.3 ug/L	2572.3 ppb	22:59:44
2	Sn 189.927†	3433.9	3416.0	505.88 ug/L	505.88 ppb	23:00:04
2	Ti 334.940†	329605.9	330031.1	523.50 ug/L	523.50 ppb	22:59:44
2	Tl 190.801†	1823.5	1869.2	514.09 ug/L	514.09 ppb	23:00:04
2	U 409.014†	13981.9	16591.6	491.63 ug/L	491.63 ppb	22:59:44
2	V 292.402†	80384.6	81846.9	520.63 ug/L	520.63 ppb	22:59:44
2	Zn 213.857†	63944.9	62843.2	512.44 ug/L	512.44 ppb	22:59:44
2	SiO2†	90320.5	89303.0	5455.8 ug/L	5455.8 ppb	23:00:42
3	Sc Radial	4692.4	4692.4	101 %		22:58:48
3	Y RADIAL	5004.4	5004.4	101.4 %		22:58:48
3	Al 396.153Radial†	6162.0	6156.1	5438.2 ug/L	5438.2 ppb	22:58:48
3	Ca 317.933Radial†	3137.7	3108.5	5208.9 ug/L	5208.9 ppb	22:59:08
3	Fe 238.204 Radial†	580.3	563.4	4966.0 ug/L	4966.0 ppb	22:59:08
3	K 766.490 Radial†	29320.8	25828.8	5118.3 ug/L	5118.3 ppb	22:58:48
3	Mg 279.077 IEC†	161.3	158.8	5083.3 ug/L	5083.3 ppb	22:59:08
3	Na 589.592 Radial†	32148.4	33728.3	10189 ug/L	10189 ppb	22:58:48
3	Sr 421.552†	73597.6	73191.9	535.84 ug/L	535.84 ppb	22:58:48
3	Sc 361.383	895699.4	895699.4	101.03 %		23:00:12
3	Y 371.029	762086.2	762086.2	100.04 %		23:00:12
3	Ag 328.068†	119369.2	117645.5	508.51 ug/L	508.51 ppb	23:00:12
3	As 188.979†	1416.2	1435.3	506.79 ug/L	506.79 ppb	23:00:32
3	B 249.677†	23867.9	24291.5	498.95 ug/L	498.95 ppb	23:00:12
3	Ba 233.527†	70105.6	69386.7	507.21 ug/L	507.21 ppb	23:00:12
3	Be 313.107†	1523981.9	1512867.5	512.35 ug/L	512.35 ppb	23:00:12
3	Cd 226.502†	54024.6	53714.7	505.73 ug/L	505.73 ppb	23:00:12
3	Co 228.616†	26750.7	26563.2	499.59 ug/L	499.59 ppb	23:00:32
3	Cr 267.716†	51036.9	50414.9	505.95 ug/L	505.95 ppb	23:00:12
3	Cu 324.752†	180366.0	170536.5	505.15 ug/L	505.15 ppb	23:00:12
3	Mn 257.610†	490105.4	484615.2	511.01 ug/L	511.01 ppb	23:00:12
3	Mo 202.031†	8196.5	8093.4	507.50 ug/L	507.50 ppb	23:00:32
3	Ni 231.604†	23166.4	22806.3	500.34 ug/L	500.34 ppb	23:00:32
3	P 214.914†	5471.3	5167.2	2442.9 ug/L	2442.9 ppb	23:00:32
3	Pb 220.353†	4855.8	4884.3	507.65 ug/L	507.65 ppb	23:00:32
3	S 181.975 Axial†	958.2	888.6	1003.2 ug/L	1003.2 ppb	23:00:32
3	Sb 206.836†	1742.6	1687.8	511.37 ug/L	511.37 ppb	23:00:32
3	Se 196.026†	974.5	997.9	528.33 ug/L	528.33 ppb	23:00:32
3	Si 251.611†	89754.5	88227.0	2518.8 ug/L	2518.8 ppb	23:00:12
3	Sn 189.927†	3438.2	3399.9	503.49 ug/L	503.49 ppb	23:00:32
3	Ti 334.940†	325043.4	323562.1	513.24 ug/L	513.24 ppb	23:00:12
3	Tl 190.801†	1825.9	1860.8	511.70 ug/L	511.70 ppb	23:00:32
3	U 409.014†	13766.7	16295.8	482.85 ug/L	482.85 ppb	23:00:12
3	V 292.402†	79391.9	80388.0	511.43 ug/L	511.43 ppb	23:00:12
3	Zn 213.857†	63222.7	61749.4	503.49 ug/L	503.49 ppb	23:00:12
3	SiO2†	89795.3	88248.0	5391.0 ug/L	5391.0 ppb	23:00:47

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	891069.8	100.50	%	0.488				0.49%
Sc Radial	4697.1	101	%	0.2				0.20%
Y 371.029	757839.2	99.486	%	0.5271				0.53%
Y RADIAL	4978.3	100.9	%	0.48				0.48%
Ag 328.068†	118896.8	513.90	ug/L	4.706	513.90	ppb	4.706	0.92%
QC value within limits for Ag 328.068 Recovery = 102.78%								
Al 396.153Radial†	6037.2	5332.6	ug/L	92.17	5332.6	ppb	92.17	1.73%
QC value within limits for Al 396.153Radial Recovery = 106.65%								
As 188.979†	1450.4	512.16	ug/L	6.206	512.16	ppb	6.206	1.21%
QC value within limits for As 188.979 Recovery = 102.43%								
B 249.677†	24545.2	504.17	ug/L	5.705	504.17	ppb	5.705	1.13%
QC value within limits for B 249.677 Recovery = 100.83%								
Ba 233.527†	70282.8	513.75	ug/L	5.673	513.75	ppb	5.673	1.10%
QC value within limits for Ba 233.527 Recovery = 102.75%								
Be 313.107†	1532349.8	518.95	ug/L	5.714	518.95	ppb	5.714	1.10%
QC value within limits for Be 313.107 Recovery = 103.79%								
Ca 317.933Radial†	3103.2	5199.9	ug/L	16.21	5199.9	ppb	16.21	0.31%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.00%
Cd 226.502†            54407.8      512.26 ug/L         5.685      512.26 ppb          5.685   1.11%
   QC value within limits for Cd 226.502  Recovery = 102.45%
Co 228.616†            26812.9      504.28 ug/L         5.314      504.28 ppb          5.314   1.05%
   QC value within limits for Co 228.616  Recovery = 100.86%
Cr 267.716†            50997.1      511.79 ug/L         5.062      511.79 ppb          5.062   0.99%
   QC value within limits for Cr 267.716  Recovery = 102.36%
Cu 324.752†           172850.3      512.00 ug/L         6.014      512.00 ppb          6.014   1.17%
   QC value within limits for Cu 324.752  Recovery = 102.40%
Fe 238.204 Radial†       561.4      4948.8 ug/L         24.98      4948.8 ppb          24.98   0.50%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.98%
K 766.490 Radial†      25324.0      5018.1 ug/L         87.28      5018.1 ppb          87.28   1.74%
   QC value within limits for K 766.490 Radial  Recovery = 100.36%
Mg 279.077 IEC†          162.1      5187.7 ug/L         92.32      5187.7 ppb          92.32   1.78%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.75%
Mn 257.610†           490843.8      517.57 ug/L         5.682      517.57 ppb          5.682   1.10%
   QC value within limits for Mn 257.610  Recovery = 103.51%
Mo 202.031†             8157.9      511.54 ug/L         4.975      511.54 ppb          4.975   0.97%
   QC value within limits for Mo 202.031  Recovery = 102.31%
Na 589.592 Radial†     33142.9       10012 ug/L         157.4       10012 ppb          157.4   1.57%
   QC value within limits for Na 589.592 Radial  Recovery = 100.12%
Ni 231.604†            23002.3      504.64 ug/L         5.116      504.64 ppb          5.116   1.01%
   QC value within limits for Ni 231.604  Recovery = 100.93%
P 214.914†              5213.0      2464.2 ug/L         24.60      2464.2 ppb          24.60   1.00%
   QC value within limits for P 214.914  Recovery = 98.57%
Pb 220.353†             4924.1      511.76 ug/L         4.955      511.76 ppb          4.955   0.97%
   QC value within limits for Pb 220.353  Recovery = 102.35%
S 181.975 Axial†         901.2      1017.4 ug/L         22.36      1017.4 ppb          22.36   2.20%
   QC value within limits for S 181.975 Axial  Recovery = 101.74%
Sb 206.836†             1698.8      514.66 ug/L         5.166      514.66 ppb          5.166   1.00%
   QC value within limits for Sb 206.836  Recovery = 102.93%
Se 196.026†              999.4      529.04 ug/L         2.020      529.04 ppb          2.020   0.38%
   QC value within limits for Se 196.026  Recovery = 105.81%
Si 251.611†            89407.6      2552.7 ug/L         29.41      2552.7 ppb          29.41   1.15%
   QC value within limits for Si 251.611  Recovery = 102.11%
Sn 189.927†             3426.7      507.45 ug/L         4.939      507.45 ppb          4.939   0.97%
   QC value within limits for Sn 189.927  Recovery = 101.49%
Sr 421.552†            71896.3      526.35 ug/L         8.287      526.35 ppb          8.287   1.57%
   QC value within limits for Sr 421.552  Recovery = 105.27%
Ti 334.940†           327685.9      519.78 ug/L         5.680      519.78 ppb          5.680   1.09%
   QC value within limits for Ti 334.940  Recovery = 103.96%
Tl 190.801†             1873.6      515.25 ug/L         4.246      515.25 ppb          4.246   0.82%
   QC value within limits for Tl 190.801  Recovery = 103.05%
U 409.014†             16505.2      489.07 ug/L         5.414      489.07 ppb          5.414   1.11%
   QC value within limits for U 409.014  Recovery = 97.81%
V 292.402†             81356.8      517.58 ug/L         5.323      517.58 ppb          5.323   1.03%
   QC value within limits for V 292.402  Recovery = 103.52%
Zn 213.857†            62491.1      509.55 ug/L         5.249      509.55 ppb          5.249   1.03%
   QC value within limits for Zn 213.857  Recovery = 101.91%
SiO2†                  89276.3      5454.0 ug/L         62.18      5454.0 ppb          62.18   1.14%
   QC value within limits for SiO2  Recovery = 101.99%
All analyte(s) passed QC.
```

Sequence No.: 73
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/6/2010 23:02:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4465.2	4465.2	95.7	%			23:04:50
1	Y RADIAL	4791.4	4791.4	97.13	%			23:04:50
1	Al 396.153Radial†	12.5	39.8	35.256	ug/L	35.256	ppb	23:04:50
1	Ca 317.933Radial†	10.5	-1.6	-2.6551	ug/L	-2.6551	ppb	23:05:10
1	Fe 238.204 Radial†	12.4	-0.9	-7.5857	ug/L	-7.5857	ppb	23:05:10
1	K 766.490 Radial†	3391.7	208.6	41.418	ug/L	41.418	ppb	23:04:50
1	Mg 279.077 IEC†	0.8	-0.9	-27.292	ug/L	-27.292	ppb	23:05:10
1	Na 589.592 Radial†	-1647.1	28.4	8.5705	ug/L	8.5705	ppb	23:04:50
1	Sr 421.552†	-2.8	-18.9	-0.1385	ug/L	-0.1385	ppb	23:04:50
1	Sc 361.383	889700.7	889700.7	100.35	%			23:06:06
1	Y 371.029	763581.0	763581.0	100.24	%			23:06:06
1	Ag 328.068†	539.2	25.0	0.1063	ug/L	0.1063	ppb	23:06:12
1	As 188.979†	-25.7	7.8	2.7226	ug/L	2.7226	ppb	23:06:32
1	B 249.677†	-575.7	92.1	1.9009	ug/L	1.9009	ppb	23:06:12
1	Ba 233.527†	6.1	-1.4	-0.0097	ug/L	-0.0097	ppb	23:06:32
1	Be 313.107†	-4317.5	49.0	0.0166	ug/L	0.0166	ppb	23:06:12
1	Cd 226.502†	-252.3	-13.1	-0.1227	ug/L	-0.1227	ppb	23:06:32
1	Co 228.616†	-86.6	-2.3	-0.0421	ug/L	-0.0421	ppb	23:06:32
1	Cr 267.716†	106.2	1.8	0.0184	ug/L	0.0184	ppb	23:06:12
1	Cu 324.752†	8199.2	171.7	0.5080	ug/L	0.5080	ppb	23:06:12
1	Mn 257.610†	520.2	2.0	0.0018	ug/L	0.0018	ppb	23:06:12
1	Mo 202.031†	29.1	9.1	0.5708	ug/L	0.5708	ppb	23:06:32
1	Ni 231.604†	117.6	-7.9	-0.1732	ug/L	-0.1732	ppb	23:06:32
1	P 214.914†	247.2	-2.3	-1.1599	ug/L	-1.1599	ppb	23:06:32
1	Pb 220.353†	-75.3	2.7	0.2938	ug/L	0.2938	ppb	23:06:32
1	S 181.975 Axial†	56.8	-3.3	-3.7773	ug/L	-3.7773	ppb	23:06:32
1	Sb 206.836†	43.9	6.7	2.0181	ug/L	2.0181	ppb	23:06:32
1	Se 196.026†	-39.0	-5.6	-2.8935	ug/L	-2.8935	ppb	23:06:32
1	Si 251.611†	636.8	18.1	0.4918	ug/L	0.4918	ppb	23:06:32
1	Sn 189.927†	9.0	5.6	0.8221	ug/L	0.8221	ppb	23:06:32
1	Ti 334.940†	-1818.0	5.7	0.0088	ug/L	0.0088	ppb	23:06:12
1	Tl 190.801†	-43.4	10.1	2.7660	ug/L	2.7660	ppb	23:06:32
1	U 409.014†	-2673.7	4.3	0.1296	ug/L	0.1296	ppb	23:06:06
1	V 292.402†	-1743.2	64.6	0.4147	ug/L	0.4147	ppb	23:06:12
1	Zn 213.857†	823.2	-11.3	-0.0912	ug/L	-0.0912	ppb	23:06:32
1	SiO2†	681.9	43.5	2.6095	ug/L	2.6095	ppb	23:07:38
2	Sc Radial	5147.4	5147.4	110	%			23:05:15
2	Y RADIAL	5469.3	5469.3	110.9	%			23:05:15
2	Al 396.153Radial†	-6.7	20.7	18.318	ug/L	18.318	ppb	23:05:15
2	Ca 317.933Radial†	16.5	2.4	4.0122	ug/L	4.0122	ppb	23:05:35
2	Fe 238.204 Radial†	15.2	-0.1	-1.1586	ug/L	-1.1586	ppb	23:05:35
2	K 766.490 Radial†	3304.8	-340.0	-67.519	ug/L	-67.519	ppb	23:05:15
2	Mg 279.077 IEC†	3.7	1.7	54.062	ug/L	54.062	ppb	23:05:35
2	Na 589.592 Radial†	-1672.8	233.2	70.449	ug/L	70.449	ppb	23:05:15
2	Sr 421.552†	17.3	-0.3	-0.0024	ug/L	-0.0024	ppb	23:05:15
2	Sc 361.383	873212.7	873212.7	98.489	%			23:06:37
2	Y 371.029	750304.8	750304.8	98.497	%			23:06:37
2	Ag 328.068†	494.6	-10.2	-0.0418	ug/L	-0.0418	ppb	23:06:42
2	As 188.979†	-29.8	3.2	1.1085	ug/L	1.1085	ppb	23:07:02
2	B 249.677†	-624.4	31.9	0.6588	ug/L	0.6588	ppb	23:06:42
2	Ba 233.527†	13.3	6.0	0.0442	ug/L	0.0442	ppb	23:07:02
2	Be 313.107†	-4363.3	-78.8	-0.0269	ug/L	-0.0269	ppb	23:06:42
2	Cd 226.502†	-242.5	-7.8	-0.0731	ug/L	-0.0731	ppb	23:07:02
2	Co 228.616†	-109.1	-26.8	-0.5031	ug/L	-0.5031	ppb	23:07:02
2	Cr 267.716†	144.4	42.6	0.4277	ug/L	0.4277	ppb	23:06:42
2	Cu 324.752†	8002.9	126.7	0.3750	ug/L	0.3750	ppb	23:06:42
2	Mn 257.610†	479.6	-29.5	-0.0322	ug/L	-0.0322	ppb	23:06:42
2	Mo 202.031†	27.6	8.1	0.5083	ug/L	0.5083	ppb	23:07:02
2	Ni 231.604†	146.8	24.0	0.5267	ug/L	0.5267	ppb	23:07:02

2	P 214.914†	239.4	-5.5	-2.7470 ug/L	-2.7470 ppb	23:07:02
2	Pb 220.353†	-81.5	-5.0	-0.5133 ug/L	-0.5133 ppb	23:07:02
2	S 181.975 Axial†	62.5	3.6	4.0666 ug/L	4.0666 ppb	23:07:02
2	Sb 206.836†	42.6	6.2	1.8557 ug/L	1.8557 ppb	23:07:02
2	Se 196.026†	-38.4	-5.8	-2.9539 ug/L	-2.9539 ppb	23:07:02
2	Si 251.611†	649.7	43.1	1.2500 ug/L	1.2500 ppb	23:07:02
2	Sn 189.927†	4.9	1.6	0.2356 ug/L	0.2356 ppb	23:07:02
2	Ti 334.940†	-1866.6	-77.9	-0.1228 ug/L	-0.1228 ppb	23:06:42
2	Tl 190.801†	-34.7	18.1	4.9545 ug/L	4.9545 ppb	23:07:02
2	U 409.014†	-2683.2	-55.7	-1.6551 ug/L	-1.6551 ppb	23:06:37
2	V 292.402†	-1740.0	35.1	0.2257 ug/L	0.2257 ppb	23:06:42
2	Zn 213.857†	829.1	10.1	0.0777 ug/L	0.0777 ppb	23:07:02
2	SiO2†	687.4	61.9	3.8315 ug/L	3.8315 ppb	23:07:43
3	Sc Radial	4693.3	4693.3	101 %		23:05:40
3	Y RADIAL	5004.9	5004.9	101.5 %		23:05:40
3	Al 396.153Radial†	0.7	27.5	24.306 ug/L	24.306 ppb	23:05:40
3	Ca 317.933Radial†	13.0	0.4	0.6301 ug/L	0.6301 ppb	23:06:00
3	Fe 238.204 Radial†	10.8	-3.1	-27.493 ug/L	-27.493 ppb	23:06:00
3	K 766.490 Radial†	3347.8	-7.2	-1.4407 ug/L	-1.4407 ppb	23:05:40
3	Mg 279.077 IEC†	2.5	0.8	26.663 ug/L	26.663 ppb	23:06:00
3	Na 589.592 Radial†	-1685.7	73.7	22.260 ug/L	22.260 ppb	23:05:40
3	Sr 421.552†	13.1	-2.9	-0.0215 ug/L	-0.0215 ppb	23:05:40
3	Sc 361.383	890247.6	890247.6	100.41 %		23:07:07
3	Y 371.029	764334.1	764334.1	100.34 %		23:07:07
3	Ag 328.068†	546.5	32.0	0.1269 ug/L	0.1269 ppb	23:07:12
3	As 188.979†	-34.2	-0.6	-0.2215 ug/L	-0.2215 ppb	23:07:32
3	B 249.677†	-630.0	38.4	0.7965 ug/L	0.7965 ppb	23:07:12
3	Ba 233.527†	10.9	3.4	0.0249 ug/L	0.0249 ppb	23:07:32
3	Be 313.107†	-4280.6	88.4	0.0302 ug/L	0.0302 ppb	23:07:12
3	Cd 226.502†	-235.2	4.1	0.0417 ug/L	0.0417 ppb	23:07:32
3	Co 228.616†	-111.8	-27.4	-0.5123 ug/L	-0.5123 ppb	23:07:32
3	Cr 267.716†	120.9	16.4	0.1631 ug/L	0.1631 ppb	23:07:12
3	Cu 324.752†	7933.2	-98.2	-0.2923 ug/L	-0.2923 ppb	23:07:12
3	Mn 257.610†	616.1	97.1	0.0991 ug/L	0.0991 ppb	23:07:12
3	Mo 202.031†	35.8	15.8	0.9844 ug/L	0.9844 ppb	23:07:32
3	Ni 231.604†	125.7	0.2	0.0041 ug/L	0.0041 ppb	23:07:32
3	P 214.914†	253.8	4.2	2.1469 ug/L	2.1469 ppb	23:07:32
3	Pb 220.353†	-108.9	-30.7	-3.1737 ug/L	-3.1737 ppb	23:07:32
3	S 181.975 Axial†	54.4	-5.7	-6.4663 ug/L	-6.4663 ppb	23:07:32
3	Sb 206.836†	42.8	5.5	1.6720 ug/L	1.6720 ppb	23:07:32
3	Se 196.026†	-39.1	-5.7	-2.9704 ug/L	-2.9704 ppb	23:07:32
3	Si 251.611†	629.0	9.8	0.2654 ug/L	0.2654 ppb	23:07:32
3	Sn 189.927†	3.7	0.3	0.0477 ug/L	0.0477 ppb	23:07:32
3	Ti 334.940†	-1737.1	87.3	0.1369 ug/L	0.1369 ppb	23:07:12
3	Tl 190.801†	-50.1	3.5	0.9471 ug/L	0.9471 ppb	23:07:32
3	U 409.014†	-2550.7	128.5	3.8219 ug/L	3.8219 ppb	23:07:07
3	V 292.402†	-1728.6	80.3	0.5301 ug/L	0.5301 ppb	23:07:12
3	Zn 213.857†	812.2	-22.8	-0.1864 ug/L	-0.1864 ppb	23:07:32
3	SiO2†	695.8	56.9	3.4588 ug/L	3.4588 ppb	23:07:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	884387.0	99.749	%	1.0919				1.09%
Sc Radial	4768.6	102	%	7.4				7.28%
Y 371.029	759406.6	99.692	%	1.0359				1.04%
Y RADIAL	5088.5	103.2	%	7.03				6.81%
Ag 328.068†	15.6	0.0638	ug/L	0.09200	0.0638	ppb	0.09200	144.27%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	29.3	25.960	ug/L	8.5894	25.960	ppb	8.5894	33.09%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.4	1.2032	ug/L	1.47436	1.2032	ppb	1.47436	122.54%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	54.1	1.1187	ug/L	0.68088	1.1187	ppb	0.68088	60.86%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.6	0.0198	ug/L	0.02728	0.0198	ppb	0.02728	137.83%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	19.6	0.0066	ug/L	0.02979	0.0066	ppb	0.02979	449.42%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.4	0.6624	ug/L	3.33379	0.6624	ppb	3.33379	503.29%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -5.6     -0.0513 ug/L       0.08433     -0.0513 ppb        0.08433 164.25%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†             -18.9     -0.3525 ug/L       0.26884     -0.3525 ppb        0.26884  76.27%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              20.2      0.2031 ug/L       0.20755      0.2031 ppb        0.20755 102.21%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              66.7      0.1969 ug/L       0.42880      0.1969 ppb        0.42880 217.79%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -1.4     -12.079 ug/L      13.7303     -12.079 ppb       13.7303 113.67%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -46.2     -9.1805 ug/L      54.87909     -9.1805 ppb       54.87909 597.78%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.6      17.811 ug/L      41.3935      17.811 ppb       41.3935 232.40%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              23.2      0.0229 ug/L       0.06815      0.0229 ppb        0.06815 297.54%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              11.0      0.6878 ug/L       0.25872      0.6878 ppb        0.25872  37.61%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      111.8      33.760 ug/L      32.5024      33.760 ppb       32.5024  96.28%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               5.4      0.1192 ug/L       0.36387      0.1192 ppb        0.36387 305.22%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -1.2     -0.5867 ug/L       2.49678     -0.5867 ppb        2.49678 425.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -11.0     -1.1311 ug/L       1.81439     -1.1311 ppb        1.81439 160.42%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.8     -2.0590 ug/L       5.47265     -2.0590 ppb        5.47265 265.79%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               6.1      1.8486 ug/L       0.17320      1.8486 ppb        0.17320   9.37%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -5.7     -2.9393 ug/L       0.04047     -2.9393 ppb        0.04047   1.38%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              23.7      0.6691 ug/L       0.51568      0.6691 ppb        0.51568  77.08%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.5      0.3685 ug/L       0.40390      0.3685 ppb        0.40390 109.61%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -7.4     -0.0541 ug/L       0.07365     -0.0541 ppb        0.07365 136.04%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               5.0      0.0076 ug/L       0.12983      0.0076 ppb        0.12983 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              10.6      2.8892 ug/L       2.00651      2.8892 ppb        2.00651  69.45%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               25.7      0.7654 ug/L       2.79331      0.7654 ppb        2.79331 364.93%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               60.0      0.3902 ug/L       0.15365      0.3902 ppb        0.15365  39.38%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -8.0     -0.0666 ug/L       0.13374     -0.0666 ppb        0.13374 200.70%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    54.1      3.2999 ug/L       0.62630      3.2999 ppb        0.62630  18.98%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

1/7/2010 10:55:17 Hg ReAlign... Actual peak offset (nm): -0.009
Drift (nm): 0.000 Slit adjustment: -2

Analysis Begun

Start Time: 1/7/2010 10:57:45 **Plasma On Time: 1/4/2010 06:33:21**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\010710.sif
Batch ID:
Results Data Set: 010710
Results Library: C:\pe\Optima3\Results\Results.mdb

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 1/6/2010 11:54:05**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 1/7/2010 10:57:47**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

	Net	Corrected	Calib.	Analysis

Repl#	Analyte	Intensity	Intensity	Conc.	Units	Time
1	Sc Radial	4621.2	4621.2	99.9	%	10:59:40
1	Y RADIAL	4884.3	4884.3	99.78	%	10:59:40
1	Al 396.153Radial†	-13.0	-13.0	[0.00]	ug/L	10:59:40
1	Ca 317.933Radial†	13.9	14.0	[0.00]	ug/L	11:00:00
1	Fe 238.204 Radial†	11.6	11.7	[0.00]	ug/L	11:00:00
1	K 766.490 Radial†	3182.9	3187.5	[0.00]	ug/L	10:59:40
1	Mg 279.077 IEC†	0.4	0.4	[0.00]	ug/L	11:00:00
1	Na 589.592 Radial†	-1745.3	-1747.9	[0.00]	ug/L	10:59:40
1	Sr 421.552†	2.9	2.9	[0.00]	ug/L	10:59:40
1	Sc 361.383	868411.4	868411.4	99.435	%	11:00:57
1	Y 371.029	745122.7	745122.7	99.439	%	11:00:57
1	Ag 328.068†	455.1	457.7	[0.00]	ug/L	11:00:57
1	As 188.979†	-34.1	-34.3	[0.00]	ug/L	11:01:17
1	B 249.677†	-786.4	-790.9	[0.00]	ug/L	11:00:57
1	Ba 233.527†	16.1	16.2	[0.00]	ug/L	11:01:17
1	Be 313.107†	-4371.2	-4396.1	[0.00]	ug/L	11:00:57
1	Cd 226.502†	-247.3	-248.7	[0.00]	ug/L	11:01:17
1	Co 228.616†	-102.7	-103.3	[0.00]	ug/L	11:01:17
1	Cr 267.716†	55.8	56.1	[0.00]	ug/L	11:00:57
1	Cu 324.752†	8094.2	8140.2	[0.00]	ug/L	11:00:57
1	Mn 257.610†	1290.8	1298.2	[0.00]	ug/L	11:00:57
1	Mo 202.031†	29.4	29.6	[0.00]	ug/L	11:01:17
1	Ni 231.604†	109.7	110.3	[0.00]	ug/L	11:01:17
1	P 214.914†	236.0	237.4	[0.00]	ug/L	11:01:17
1	Pb 220.353†	-102.5	-103.1	[0.00]	ug/L	11:01:17
1	S 181.975 Axial†	59.0	59.4	[0.00]	ug/L	11:01:17
1	Sb 206.836†	41.3	41.5	[0.00]	ug/L	11:01:17
1	Se 196.026†	-43.7	-43.9	[0.00]	ug/L	11:01:17
1	Si 251.611†	624.5	628.0	[0.00]	ug/L	11:01:17
1	Sn 189.927†	6.1	6.1	[0.00]	ug/L	11:01:17
1	Ti 334.940†	-1670.1	-1679.6	[0.00]	ug/L	11:00:57
1	Tl 190.801†	-49.7	-50.0	[0.00]	ug/L	11:01:17
1	U 409.014†	-2860.9	-2877.1	[0.00]	ug/L	11:00:57
1	V 292.402†	-1871.5	-1882.2	[0.00]	ug/L	11:00:57
1	Zn 213.857†	843.0	847.8	[0.00]	ug/L	11:01:17
1	SiO2†	659.9	663.6	[0.00]	ug/L	11:02:13
2	Sc Radial	4679.3	4679.3	101	%	11:00:05
2	Y RADIAL	4949.1	4949.1	101.1	%	11:00:05
2	Al 396.153Radial†	-29.4	-29.1	[0.00]	ug/L	11:00:05
2	Ca 317.933Radial†	15.2	15.0	[0.00]	ug/L	11:00:25
2	Fe 238.204 Radial†	12.8	12.7	[0.00]	ug/L	11:00:25
2	K 766.490 Radial†	3248.1	3212.5	[0.00]	ug/L	11:00:05
2	Mg 279.077 IEC†	2.6	2.6	[0.00]	ug/L	11:00:25
2	Na 589.592 Radial†	-1718.4	-1699.5	[0.00]	ug/L	11:00:05
2	Sr 421.552†	-3.8	-3.8	[0.00]	ug/L	11:00:05
2	Sc 361.383	873621.9	873621.9	100.03	%	11:01:22
2	Y 371.029	749911.3	749911.3	100.08	%	11:01:22
2	Ag 328.068†	482.2	482.0	[0.00]	ug/L	11:01:22
2	As 188.979†	-32.1	-32.0	[0.00]	ug/L	11:01:42
2	B 249.677†	-756.6	-756.3	[0.00]	ug/L	11:01:22
2	Ba 233.527†	11.1	11.1	[0.00]	ug/L	11:01:42
2	Be 313.107†	-4351.2	-4349.8	[0.00]	ug/L	11:01:22
2	Cd 226.502†	-253.1	-253.0	[0.00]	ug/L	11:01:42
2	Co 228.616†	-102.4	-102.4	[0.00]	ug/L	11:01:42
2	Cr 267.716†	105.1	105.0	[0.00]	ug/L	11:01:22
2	Cu 324.752†	8072.1	8069.5	[0.00]	ug/L	11:01:22
2	Mn 257.610†	1330.3	1329.9	[0.00]	ug/L	11:01:22
2	Mo 202.031†	22.3	22.3	[0.00]	ug/L	11:01:42
2	Ni 231.604†	118.4	118.4	[0.00]	ug/L	11:01:42
2	P 214.914†	278.7	278.6	[0.00]	ug/L	11:01:42
2	Pb 220.353†	-117.9	-117.9	[0.00]	ug/L	11:01:42
2	S 181.975 Axial†	51.9	51.9	[0.00]	ug/L	11:01:42
2	Sb 206.836†	51.8	51.8	[0.00]	ug/L	11:01:42
2	Se 196.026†	-35.1	-35.1	[0.00]	ug/L	11:01:42
2	Si 251.611†	633.5	633.3	[0.00]	ug/L	11:01:42
2	Sn 189.927†	2.8	2.8	[0.00]	ug/L	11:01:42
2	Ti 334.940†	-1736.4	-1735.9	[0.00]	ug/L	11:01:22
2	Tl 190.801†	-37.9	-37.9	[0.00]	ug/L	11:01:42
2	U 409.014†	-2928.2	-2927.2	[0.00]	ug/L	11:01:22
2	V 292.402†	-1781.9	-1781.3	[0.00]	ug/L	11:01:22

2	Zn 213.857†	861.3	861.0	[0.00]	ug/L	11:01:42
2	SiO2†	640.3	640.1	[0.00]	ug/L	11:02:18
3	Sc Radial	4583.5	4583.5	99.0	%	11:00:30
3	Y RADIAL	4851.3	4851.3	99.11	%	11:00:30
3	Al 396.153Radial†	-20.3	-20.5	[0.00]	ug/L	11:00:30
3	Ca 317.933Radial†	12.9	13.0	[0.00]	ug/L	11:00:50
3	Fe 238.204 Radial†	13.7	13.8	[0.00]	ug/L	11:00:50
3	K 766.490 Radial†	3256.2	3287.8	[0.00]	ug/L	11:00:30
3	Mg 279.077 IEC†	1.6	1.6	[0.00]	ug/L	11:00:50
3	Na 589.592 Radial†	-1844.8	-1862.7	[0.00]	ug/L	11:00:30
3	Sr 421.552†	34.4	34.8	[0.00]	ug/L	11:00:30
3	Sc 361.383	877993.9	877993.9	100.53	%	11:01:47
3	Y 371.029	752947.1	752947.1	100.48	%	11:01:47
3	Ag 328.068†	535.9	533.0	[0.00]	ug/L	11:01:47
3	As 188.979†	-28.3	-28.2	[0.00]	ug/L	11:02:08
3	B 249.677†	-753.2	-749.2	[0.00]	ug/L	11:01:47
3	Ba 233.527†	28.6	28.4	[0.00]	ug/L	11:02:08
3	Be 313.107†	-4417.9	-4394.5	[0.00]	ug/L	11:01:47
3	Cd 226.502†	-258.6	-257.2	[0.00]	ug/L	11:02:08
3	Co 228.616†	-92.3	-91.8	[0.00]	ug/L	11:02:08
3	Cr 267.716†	110.3	109.7	[0.00]	ug/L	11:01:47
3	Cu 324.752†	8144.4	8101.3	[0.00]	ug/L	11:01:47
3	Mn 257.610†	1297.8	1290.9	[0.00]	ug/L	11:01:47
3	Mo 202.031†	28.4	28.2	[0.00]	ug/L	11:02:08
3	Ni 231.604†	120.4	119.8	[0.00]	ug/L	11:02:08
3	P 214.914†	243.2	241.9	[0.00]	ug/L	11:02:08
3	Pb 220.353†	-83.4	-83.0	[0.00]	ug/L	11:02:08
3	S 181.975 Axial†	62.1	61.8	[0.00]	ug/L	11:02:08
3	Sb 206.836†	45.5	45.3	[0.00]	ug/L	11:02:08
3	Se 196.026†	-37.4	-37.2	[0.00]	ug/L	11:02:08
3	Si 251.611†	632.2	628.8	[0.00]	ug/L	11:02:08
3	Sn 189.927†	5.3	5.3	[0.00]	ug/L	11:02:08
3	Ti 334.940†	-1854.7	-1844.9	[0.00]	ug/L	11:01:47
3	Tl 190.801†	-49.4	-49.1	[0.00]	ug/L	11:02:08
3	U 409.014†	-2936.9	-2921.3	[0.00]	ug/L	11:01:47
3	V 292.402†	-1765.1	-1755.7	[0.00]	ug/L	11:01:47
3	Zn 213.857†	855.0	850.4	[0.00]	ug/L	11:02:08
3	SiO2†	645.8	642.4	[0.00]	ug/L	11:02:23

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	873342.4	4797.36	0.55%	100.00	%
Sc Radial	4628.0	48.26	1.04%	100	%
Y 371.029	749327.0	3944.80	0.53%	100.00	%
Y RADIAL	4894.9	49.75	1.02%	100.00	%
Ag 328.068†	490.9	38.44	7.83%	[0.00]	ug/L
Al 396.153Radial†	-20.9	8.06	38.66%	[0.00]	ug/L
As 188.979†	-31.5	3.09	9.82%	[0.00]	ug/L
B 249.677†	-765.5	22.30	2.91%	[0.00]	ug/L
Ba 233.527†	18.6	8.91	48.03%	[0.00]	ug/L
Be 313.107†	-4380.1	26.28	0.60%	[0.00]	ug/L
Ca 317.933Radial†	14.0	1.02	7.26%	[0.00]	ug/L
Cd 226.502†	-253.0	4.26	1.68%	[0.00]	ug/L
Co 228.616†	-99.2	6.39	6.44%	[0.00]	ug/L
Cr 267.716†	90.3	29.69	32.89%	[0.00]	ug/L
Cu 324.752†	8103.7	35.40	0.44%	[0.00]	ug/L
Fe 238.204 Radial†	12.7	1.08	8.48%	[0.00]	ug/L
K 766.490 Radial†	3229.3	52.22	1.62%	[0.00]	ug/L
Mg 279.077 IEC†	1.5	1.11	73.03%	[0.00]	ug/L
Mn 257.610†	1306.3	20.71	1.59%	[0.00]	ug/L
Mo 202.031†	26.7	3.85	14.42%	[0.00]	ug/L
Na 589.592 Radial†	-1770.0	83.80	4.73%	[0.00]	ug/L
Ni 231.604†	116.1	5.12	4.41%	[0.00]	ug/L
P 214.914†	252.6	22.64	8.96%	[0.00]	ug/L
Pb 220.353†	-101.3	17.51	17.29%	[0.00]	ug/L
S 181.975 Axial†	57.7	5.18	8.98%	[0.00]	ug/L
Sb 206.836†	46.2	5.19	11.24%	[0.00]	ug/L
Se 196.026†	-38.8	4.58	11.82%	[0.00]	ug/L
Si 251.611†	630.0	2.84	0.45%	[0.00]	ug/L

Sn 189.927†	4.7	1.73	36.63%	[0.00]	ug/L
Sr 421.552†	11.3	20.60	182.33%	[0.00]	ug/L
Ti 334.940†	-1753.4	84.03	4.79%	[0.00]	ug/L
Tl 190.801†	-45.7	6.73	14.74%	[0.00]	ug/L
U 409.014†	-2908.6	27.38	0.94%	[0.00]	ug/L
V 292.402†	-1806.4	66.85	3.70%	[0.00]	ug/L
Zn 213.857†	853.1	6.97	0.82%	[0.00]	ug/L
SiO2†	648.7	12.96	2.00%	[0.00]	ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 1/7/2010 11:04:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4805.9	4805.9	104	%	11:06:31
1	Y RADIAL	5039.6	5039.6	103.0	%	11:06:31
1	K 766.490 Radial†	8190.2	4657.8	[1000]	ug/L	11:06:26
1	Sr 421.552†	13647.5	13131.1	[100]	ug/L	11:06:31
1	Sc 361.383	894270.4	894270.4	102.40	%	11:06:58
1	Y 371.029	762962.4	762962.4	101.82	%	11:06:58
1	Ag 328.068†	23423.9	22384.8	[100]	ug/L	11:06:58
1	As 188.979†	254.9	280.4	[100]	ug/L	11:07:18
1	B 249.677†	3899.1	4573.4	[100]	ug/L	11:06:58
1	Ba 233.527†	13666.9	13328.5	[100]	ug/L	11:06:58
1	Be 313.107†	290199.3	287788.1	[100]	ug/L	11:06:58
1	Cd 226.502†	10066.0	10083.4	[100]	ug/L	11:07:18
1	Co 228.616†	5165.4	5143.8	[100]	ug/L	11:07:18
1	Cr 267.716†	9993.0	9668.9	[100]	ug/L	11:06:58
1	Cu 324.752†	41012.6	31949.1	[100]	ug/L	11:06:58
1	Mn 257.610†	97132.3	93552.9	[100]	ug/L	11:06:58
1	Mo 202.031†	1600.4	1536.2	[100]	ug/L	11:07:18
1	Ni 231.604†	4618.0	4393.8	[100]	ug/L	11:07:18
1	P 214.914†	1259.7	977.6	[500]	ug/L	11:07:18
1	Pb 220.353†	867.9	948.9	[100]	ug/L	11:07:18
1	S 181.975 Axial†	218.9	156.1	[200]	ug/L	11:07:18
1	Sb 206.836†	361.0	306.4	[100]	ug/L	11:07:18
1	Se 196.026†	158.9	193.9	[100]	ug/L	11:07:18
1	Si 251.611†	17667.4	16623.9	[500]	ug/L	11:06:58
1	Sn 189.927†	670.5	650.1	[100]	ug/L	11:07:18
1	Ti 334.940†	61039.3	61364.3	[100]	ug/L	11:06:58
1	Tl 190.801†	318.1	356.4	[100]	ug/L	11:07:18
1	U 409.014†	572.7	3467.9	[100]	ug/L	11:06:58
1	V 292.402†	13754.4	15238.9	[100]	ug/L	11:06:58
1	Zn 213.857†	12917.5	11762.2	[100]	ug/L	11:06:58
1	SiO2†	17625.1	16563.9	[1069.5]	ug/L	11:08:15
2	Sc Radial	4709.5	4709.5	102	%	11:06:41
2	Y RADIAL	5002.0	5002.0	102.2	%	11:06:41
2	K 766.490 Radial†	7991.9	4624.2	[1000]	ug/L	11:06:36
2	Sr 421.552†	13619.0	13371.9	[100]	ug/L	11:06:41
2	Sc 361.383	888071.4	888071.4	101.69	%	11:07:24
2	Y 371.029	757165.4	757165.4	101.05	%	11:07:24
2	Ag 328.068†	23314.3	22436.7	[100]	ug/L	11:07:24
2	As 188.979†	255.0	282.2	[100]	ug/L	11:07:44
2	B 249.677†	3931.4	4631.7	[100]	ug/L	11:07:24
2	Ba 233.527†	13612.5	13368.2	[100]	ug/L	11:07:24
2	Be 313.107†	289232.8	288815.9	[100]	ug/L	11:07:24
2	Cd 226.502†	10082.9	10168.6	[100]	ug/L	11:07:44
2	Co 228.616†	5187.4	5200.6	[100]	ug/L	11:07:44
2	Cr 267.716†	9871.4	9617.4	[100]	ug/L	11:07:24
2	Cu 324.752†	41010.2	32226.4	[100]	ug/L	11:07:24
2	Mn 257.610†	97936.0	95005.4	[100]	ug/L	11:07:24
2	Mo 202.031†	1604.8	1551.5	[100]	ug/L	11:07:44
2	Ni 231.604†	4620.8	4428.0	[100]	ug/L	11:07:44
2	P 214.914†	1273.9	1000.1	[500]	ug/L	11:07:44
2	Pb 220.353†	877.4	964.2	[100]	ug/L	11:07:44
2	S 181.975 Axial†	233.5	171.9	[200]	ug/L	11:07:44
2	Sb 206.836†	362.0	309.8	[100]	ug/L	11:07:44
2	Se 196.026†	153.4	189.7	[100]	ug/L	11:07:44
2	Si 251.611†	17621.0	16698.7	[500]	ug/L	11:07:24
2	Sn 189.927†	666.2	650.4	[100]	ug/L	11:07:44
2	Ti 334.940†	61006.5	61748.1	[100]	ug/L	11:07:24
2	Tl 190.801†	319.2	359.6	[100]	ug/L	11:07:44
2	U 409.014†	583.0	3481.9	[100]	ug/L	11:07:24

2	V 292.402†	13703.1	15282.2	[100]	ug/L	11:07:24
2	Zn 213.857†	12899.0	11832.0	[100]	ug/L	11:07:24
2	SiO2†	17887.7	16942.3	[1069.5]	ug/L	11:08:21
3	Sc Radial	4622.3	4622.3	99.9	%	11:06:51
3	Y RADIAL	4894.1	4894.1	99.98	%	11:06:51
3	K 766.490 Radial†	8065.0	4845.6	[1000]	ug/L	11:06:46
3	Sr 421.552†	13400.9	13406.1	[100]	ug/L	11:06:51
3	Sc 361.383	891029.5	891029.5	102.03	%	11:07:50
3	Y 371.029	760209.7	760209.7	101.45	%	11:07:50
3	Ag 328.068†	23530.2	22572.2	[100]	ug/L	11:07:50
3	As 188.979†	248.9	275.4	[100]	ug/L	11:08:10
3	B 249.677†	3922.0	4609.6	[100]	ug/L	11:07:50
3	Ba 233.527†	13671.7	13381.8	[100]	ug/L	11:07:50
3	Be 313.107†	291403.0	289998.7	[100]	ug/L	11:07:50
3	Cd 226.502†	10107.8	10160.1	[100]	ug/L	11:08:10
3	Co 228.616†	5214.1	5209.8	[100]	ug/L	11:08:10
3	Cr 267.716†	10027.3	9738.0	[100]	ug/L	11:07:50
3	Cu 324.752†	41204.4	32282.8	[100]	ug/L	11:07:50
3	Mn 257.610†	97563.2	94320.3	[100]	ug/L	11:07:50
3	Mo 202.031†	1616.6	1557.8	[100]	ug/L	11:08:10
3	Ni 231.604†	4644.7	4436.4	[100]	ug/L	11:08:10
3	P 214.914†	1270.7	992.9	[500]	ug/L	11:08:10
3	Pb 220.353†	865.6	949.7	[100]	ug/L	11:08:10
3	S 181.975 Axial†	227.8	165.6	[200]	ug/L	11:08:10
3	Sb 206.836†	358.6	305.3	[100]	ug/L	11:08:10
3	Se 196.026†	155.6	191.3	[100]	ug/L	11:08:10
3	Si 251.611†	17708.6	16727.0	[500]	ug/L	11:07:50
3	Sn 189.927†	687.1	668.8	[100]	ug/L	11:08:10
3	Ti 334.940†	61349.7	61885.3	[100]	ug/L	11:07:50
3	Tl 190.801†	311.1	350.6	[100]	ug/L	11:08:10
3	U 409.014†	833.0	3725.0	[100]	ug/L	11:07:50
3	V 292.402†	13772.6	15305.6	[100]	ug/L	11:07:50
3	Zn 213.857†	12967.7	11857.2	[100]	ug/L	11:07:50
3	SiO2†	17823.5	16821.0	[1069.5]	ug/L	11:08:26

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	891123.8	3100.60	0.35%	102.04	%
Sc Radial	4712.6	91.81	1.95%	102	%
Y 371.029	760112.5	2899.74	0.38%	101.44	%
Y RADIAL	4978.6	75.54	1.52%	101.7	%
Ag 328.068†	22464.6	96.77	0.43%	[100]	ug/L
As 188.979†	279.4	3.50	1.25%	[100]	ug/L
B 249.677†	4604.9	29.46	0.64%	[100]	ug/L
Ba 233.527†	13359.5	27.68	0.21%	[100]	ug/L
Be 313.107†	288867.6	1106.19	0.38%	[100]	ug/L
Cd 226.502†	10137.4	46.95	0.46%	[100]	ug/L
Co 228.616†	5184.7	35.78	0.69%	[100]	ug/L
Cr 267.716†	9674.7	60.50	0.63%	[100]	ug/L
Cu 324.752†	32152.8	178.62	0.56%	[100]	ug/L
K 766.490 Radial†	4709.2	119.32	2.53%	[1000]	ug/L
Mn 257.610†	94292.8	726.65	0.77%	[100]	ug/L
Mo 202.031†	1548.5	11.11	0.72%	[100]	ug/L
Ni 231.604†	4419.4	22.58	0.51%	[100]	ug/L
P 214.914†	990.2	11.51	1.16%	[500]	ug/L
Pb 220.353†	954.2	8.61	0.90%	[100]	ug/L
S 181.975 Axial†	164.6	7.95	4.83%	[200]	ug/L
Sb 206.836†	307.2	2.35	0.76%	[100]	ug/L
Se 196.026†	191.6	2.17	1.13%	[100]	ug/L
Si 251.611†	16683.2	53.30	0.32%	[500]	ug/L
Sn 189.927†	656.4	10.69	1.63%	[100]	ug/L
Sr 421.552†	13303.0	149.89	1.13%	[100]	ug/L
Ti 334.940†	61665.9	270.05	0.44%	[100]	ug/L
Tl 190.801†	355.5	4.54	1.28%	[100]	ug/L
U 409.014†	3558.3	144.59	4.06%	[100]	ug/L
V 292.402†	15275.6	33.84	0.22%	[100]	ug/L
Zn 213.857†	11817.1	49.23	0.42%	[100]	ug/L
SiO2†	16775.7	193.25	1.15%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 1/7/2010 11:10:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4514.9	4514.9	97.6	%	11:12:28
1	Y RADIAL	4740.2	4740.2	96.84	%	11:12:28
1	Al 396.153Radial†	5854.8	6022.3	[5000]	ug/L	11:12:28
1	Ca 317.933Radial†	2958.8	3018.9	[5000]	ug/L	11:12:48
1	K 766.490 Radial†	27581.7	25043.1	[5000]	ug/L	11:12:28
1	Mg 279.077 IEC†	157.3	159.8	[5000]	ug/L	11:12:48
1	Sr 421.552†	67765.7	69451.5	[500]	ug/L	11:12:28
1	Sc 361.383	890716.5	890716.5	101.99	%	11:13:47
1	Y 371.029	753305.7	753305.7	100.53	%	11:13:47
1	Ag 328.068†	116030.7	113276.6	[500]	ug/L	11:13:47
1	As 188.979†	1409.1	1413.1	[500]	ug/L	11:14:07
1	B 249.677†	23521.4	23828.1	[500]	ug/L	11:13:47
1	Ba 233.527†	68940.5	67577.2	[500]	ug/L	11:13:47
1	Be 313.107†	1504233.5	1479272.5	[500]	ug/L	11:13:47
1	Cd 226.502†	53326.0	52538.8	[500]	ug/L	11:13:47
1	Co 228.616†	26364.3	25949.2	[500]	ug/L	11:14:07
1	Cr 267.716†	49990.5	48925.1	[500]	ug/L	11:13:47
1	Cu 324.752†	177870.5	166297.3	[500]	ug/L	11:13:47
1	Mn 257.610†	483981.8	473235.1	[500]	ug/L	11:13:47
1	Mo 202.031†	7937.4	7755.9	[500]	ug/L	11:14:07
1	Ni 231.604†	22769.7	22209.4	[500]	ug/L	11:14:07
1	P 214.914†	5433.0	5074.4	[2500]	ug/L	11:14:07
1	Pb 220.353†	4790.9	4798.7	[500]	ug/L	11:14:07
1	S 181.975 Axial†	948.7	872.5	[1000]	ug/L	11:14:07
1	Sb 206.836†	1692.6	1613.4	[500]	ug/L	11:14:07
1	Se 196.026†	970.4	990.3	[500]	ug/L	11:14:07
1	Si 251.611†	87967.6	85621.7	[2500]	ug/L	11:13:47
1	Sn 189.927†	3361.4	3291.1	[500]	ug/L	11:14:07
1	Ti 334.940†	316255.4	311840.1	[500]	ug/L	11:13:47
1	Tl 190.801†	1783.1	1794.0	[500]	ug/L	11:14:07
1	U 409.014†	13481.4	16127.0	[500]	ug/L	11:13:47
1	V 292.402†	77632.6	77924.7	[500]	ug/L	11:13:47
1	Zn 213.857†	62728.5	60651.9	[500]	ug/L	11:13:47
1	SiO2†	86520.9	84184.6	[5347.5]	ug/L	11:15:08
2	Sc Radial	4539.5	4539.5	98.1	%	11:12:53
2	Y RADIAL	4783.3	4783.3	97.72	%	11:12:53
2	Al 396.153Radial†	5744.3	5877.1	[5000]	ug/L	11:12:53
2	Ca 317.933Radial†	2950.2	2993.7	[5000]	ug/L	11:13:13
2	K 766.490 Radial†	27350.5	24654.0	[5000]	ug/L	11:12:53
2	Mg 279.077 IEC†	152.7	154.1	[5000]	ug/L	11:13:13
2	Sr 421.552†	66796.4	68086.4	[500]	ug/L	11:12:53
2	Sc 361.383	883776.7	883776.7	101.19	%	11:14:15
2	Y 371.029	748804.6	748804.6	99.930	%	11:14:15
2	Ag 328.068†	115127.3	113277.2	[500]	ug/L	11:14:15
2	As 188.979†	1407.6	1422.5	[500]	ug/L	11:14:35
2	B 249.677†	23397.3	23886.5	[500]	ug/L	11:14:15
2	Ba 233.527†	68283.0	67458.3	[500]	ug/L	11:14:15
2	Be 313.107†	1490220.1	1477006.0	[500]	ug/L	11:14:15
2	Cd 226.502†	52771.6	52401.5	[500]	ug/L	11:14:15
2	Co 228.616†	26457.2	26244.0	[500]	ug/L	11:14:35
2	Cr 267.716†	49571.3	48895.8	[500]	ug/L	11:14:15
2	Cu 324.752†	176118.4	165935.4	[500]	ug/L	11:14:15
2	Mn 257.610†	479325.9	472360.5	[500]	ug/L	11:14:15
2	Mo 202.031†	7967.8	7847.1	[500]	ug/L	11:14:35
2	Ni 231.604†	22859.3	22473.2	[500]	ug/L	11:14:35
2	P 214.914†	5438.8	5122.0	[2500]	ug/L	11:14:35
2	Pb 220.353†	4803.9	4848.4	[500]	ug/L	11:14:35
2	S 181.975 Axial†	952.7	883.8	[1000]	ug/L	11:14:35
2	Sb 206.836†	1698.9	1632.6	[500]	ug/L	11:14:35

2	Se 196.026†	970.9	998.2	[500]	ug/L	11:14:35
2	Si 251.611†	87193.6	85534.1	[2500]	ug/L	11:14:15
2	Sn 189.927†	3370.3	3325.8	[500]	ug/L	11:14:35
2	Ti 334.940†	313853.3	311901.2	[500]	ug/L	11:14:15
2	Tl 190.801†	1810.9	1835.2	[500]	ug/L	11:14:35
2	U 409.014†	13364.5	16115.3	[500]	ug/L	11:14:15
2	V 292.402†	77087.3	77983.5	[500]	ug/L	11:14:15
2	Zn 213.857†	62104.1	60517.8	[500]	ug/L	11:14:15
2	SiO2†	86448.9	84779.5	[5347.5]	ug/L	11:15:13
3	Sc Radial	4540.0	4540.0	98.1	%	11:13:18
3	Y RADIAL	4799.3	4799.3	98.05	%	11:13:18
3	Al 396.153Radial†	5775.4	5908.2	[5000]	ug/L	11:13:18
3	Ca 317.933Radial†	2945.3	2988.4	[5000]	ug/L	11:13:38
3	K 766.490 Radial†	27294.5	24594.4	[5000]	ug/L	11:13:18
3	Mg 279.077 IEC†	153.5	154.9	[5000]	ug/L	11:13:38
3	Sr 421.552†	66815.6	68099.9	[500]	ug/L	11:13:18
3	Sc 361.383	910281.2	910281.2	104.23	%	11:14:42
3	Y 371.029	770360.4	770360.4	102.81	%	11:14:42
3	Ag 328.068†	115198.7	110033.1	[500]	ug/L	11:14:42
3	As 188.979†	1401.4	1376.1	[500]	ug/L	11:15:02
3	B 249.677†	23445.1	23259.2	[500]	ug/L	11:14:42
3	Ba 233.527†	68372.5	65579.4	[500]	ug/L	11:14:42
3	Be 313.107†	1491712.4	1435559.5	[500]	ug/L	11:14:42
3	Cd 226.502†	52894.8	51001.3	[500]	ug/L	11:14:42
3	Co 228.616†	26223.7	25258.8	[500]	ug/L	11:15:02
3	Cr 267.716†	49460.7	47363.4	[500]	ug/L	11:14:42
3	Cu 324.752†	176364.1	161103.6	[500]	ug/L	11:14:42
3	Mn 257.610†	479902.8	459122.2	[500]	ug/L	11:14:42
3	Mo 202.031†	7906.6	7559.1	[500]	ug/L	11:15:02
3	Ni 231.604†	22673.2	21637.0	[500]	ug/L	11:15:02
3	P 214.914†	5400.5	4928.7	[2500]	ug/L	11:15:02
3	Pb 220.353†	4767.9	4675.7	[500]	ug/L	11:15:02
3	S 181.975 Axial†	925.8	830.5	[1000]	ug/L	11:15:02
3	Sb 206.836†	1679.8	1565.5	[500]	ug/L	11:15:02
3	Se 196.026†	958.0	957.9	[500]	ug/L	11:15:02
3	Si 251.611†	87364.3	83189.0	[2500]	ug/L	11:14:42
3	Sn 189.927†	3329.9	3190.0	[500]	ug/L	11:15:02
3	Ti 334.940†	313754.1	302775.5	[500]	ug/L	11:14:42
3	Tl 190.801†	1787.4	1760.5	[500]	ug/L	11:15:02
3	U 409.014†	13400.3	15765.1	[500]	ug/L	11:14:42
3	V 292.402†	76981.8	75664.3	[500]	ug/L	11:14:42
3	Zn 213.857†	62087.2	58714.6	[500]	ug/L	11:14:42
3	SiO2†	89030.6	84769.1	[5347.5]	ug/L	11:15:18

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	894924.8	13744.28	1.54%	102.47	%
Sc Radial	4531.5	14.34	0.32%	97.9	%
Y 371.029	757490.3	11370.84	1.50%	101.09	%
Y RADIAL	4774.3	30.52	0.64%	97.54	%
Ag 328.068†	112195.6	1872.82	1.67%	[500]	ug/L
Al 396.153Radial†	5935.9	76.46	1.29%	[5000]	ug/L
As 188.979†	1403.9	24.55	1.75%	[500]	ug/L
B 249.677†	23657.9	346.56	1.46%	[500]	ug/L
Ba 233.527†	66871.6	1120.67	1.68%	[500]	ug/L
Be 313.107†	1463946.0	24609.51	1.68%	[500]	ug/L
Ca 317.933Radial†	3000.3	16.32	0.54%	[5000]	ug/L
Cd 226.502†	51980.6	850.79	1.64%	[500]	ug/L
Co 228.616†	25817.3	505.71	1.96%	[500]	ug/L
Cr 267.716†	48394.8	893.35	1.85%	[500]	ug/L
Cu 324.752†	164445.4	2899.74	1.76%	[500]	ug/L
K 766.490 Radial†	24763.9	243.68	0.98%	[5000]	ug/L
Mg 279.077 IEC†	156.3	3.04	1.94%	[5000]	ug/L
Mn 257.610†	468239.3	7907.68	1.69%	[500]	ug/L
Mo 202.031†	7720.7	147.20	1.91%	[500]	ug/L
Ni 231.604†	22106.5	427.50	1.93%	[500]	ug/L
P 214.914†	5041.7	100.71	2.00%	[2500]	ug/L
Pb 220.353†	4774.3	88.90	1.86%	[500]	ug/L
S 181.975 Axial†	862.3	28.07	3.26%	[1000]	ug/L

Sb 206.836†	1603.8	34.59	2.16%	[500]	ug/L
Se 196.026†	982.1	21.35	2.17%	[500]	ug/L
Si 251.611†	84781.6	1379.93	1.63%	[2500]	ug/L
Sn 189.927†	3269.0	70.52	2.16%	[500]	ug/L
Sr 421.552†	68545.9	784.26	1.14%	[500]	ug/L
Ti 334.940†	308838.9	5251.15	1.70%	[500]	ug/L
Tl 190.801†	1796.6	37.42	2.08%	[500]	ug/L
U 409.014†	16002.5	205.65	1.29%	[500]	ug/L
V 292.402†	77190.9	1322.35	1.71%	[500]	ug/L
Zn 213.857†	59961.4	1081.84	1.80%	[500]	ug/L
SiO2†	84577.7	340.50	0.40%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 1/7/2010 11:17:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4502.5	4502.5	97.3	%	11:19:41
1	Y RADIAL	4714.2	4714.2	96.31	%	11:19:41
1	Al 396.153Radial†	11488.8	11830.0	[10000]	ug/L	11:19:21
1	Ca 317.933Radial†	5746.2	5892.4	[10000]	ug/L	11:19:41
1	Fe 238.204 Radial†	1051.8	1068.4	[10000]	ug/L	11:19:41
1	K 766.490 Radial†	51674.7	49885.9	[10000]	ug/L	11:19:21
1	Mg 279.077 IEC†	298.4	305.2	[10000]	ug/L	11:19:41
1	Na 589.592 Radial†	28497.5	31062.0	[10000]	ug/L	11:19:21
1	Sr 421.552†	133154.3	136855.0	[1000]	ug/L	11:19:21
1	Sc 361.383	860939.3	860939.3	98.580	%	11:20:44
1	Y 371.029	732914.2	732914.2	97.810	%	11:20:44
1	Ag 328.068†	228827.0	231632.7	[1000]	ug/L	11:20:44
1	As 188.979†	2782.4	2854.0	[1000]	ug/L	11:21:04
1	B 249.677†	47016.0	48458.8	[1000]	ug/L	11:20:44
1	Ba 233.527†	134387.8	136305.3	[1000]	ug/L	11:20:44
1	Be 313.107†	2877210.5	2923041.1	[1000]	ug/L	11:20:39
1	Cd 226.502†	103532.6	105277.1	[1000]	ug/L	11:20:44
1	Co 228.616†	52265.0	53117.2	[1000]	ug/L	11:20:44
1	Cr 267.716†	97534.1	98849.0	[1000]	ug/L	11:20:44
1	Cu 324.752†	340721.5	337526.4	[1000]	ug/L	11:20:44
1	Mn 257.610†	924111.3	936118.1	[1000]	ug/L	11:20:39
1	Mo 202.031†	15587.5	15785.4	[1000]	ug/L	11:21:04
1	Ni 231.604†	44843.8	45373.7	[1000]	ug/L	11:20:44
1	P 214.914†	10289.0	10184.6	[5000]	ug/L	11:21:04
1	Pb 220.353†	9329.3	9565.0	[1000]	ug/L	11:21:04
1	S 181.975 Axial†	1799.0	1767.2	[2000]	ug/L	11:21:04
1	Sb 206.836†	3320.3	3322.0	[1000]	ug/L	11:21:04
1	Se 196.026†	1890.7	1956.7	[1000]	ug/L	11:21:04
1	Si 251.611†	171875.4	173721.5	[5000]	ug/L	11:20:44
1	Sn 189.927†	6601.7	6692.1	[1000]	ug/L	11:21:04
1	Ti 334.940†	615414.3	626033.7	[1000]	ug/L	11:20:44
1	Tl 190.801†	3519.4	3615.8	[1000]	ug/L	11:21:04
1	U 409.014†	30541.0	33889.6	[1000]	ug/L	11:20:44
1	V 292.402†	154361.2	158391.4	[1000]	ug/L	11:20:44
1	Zn 213.857†	120274.7	121154.4	[1000]	ug/L	11:20:44
1	SiO2†	170151.6	171954.1	[10695]	ug/L	11:22:13
2	Sc Radial	4515.3	4515.3	97.6	%	11:20:06
2	Y RADIAL	4734.3	4734.3	96.72	%	11:20:06
2	Al 396.153Radial†	11454.5	11761.1	[10000]	ug/L	11:19:46
2	Ca 317.933Radial†	5751.6	5881.1	[10000]	ug/L	11:20:06
2	Fe 238.204 Radial†	1059.4	1073.1	[10000]	ug/L	11:20:06
2	K 766.490 Radial†	51379.1	49431.5	[10000]	ug/L	11:19:46
2	Mg 279.077 IEC†	298.3	304.2	[10000]	ug/L	11:20:06
2	Na 589.592 Radial†	28177.2	30650.2	[10000]	ug/L	11:19:46
2	Sr 421.552†	132208.5	135495.3	[1000]	ug/L	11:19:46
2	Sc 361.383	854441.2	854441.2	97.836	%	11:21:16
2	Y 371.029	726048.1	726048.1	96.893	%	11:21:16
2	Ag 328.068†	227553.5	232096.4	[1000]	ug/L	11:21:16
2	As 188.979†	2774.2	2867.1	[1000]	ug/L	11:21:36
2	B 249.677†	46735.6	48534.9	[1000]	ug/L	11:21:16
2	Ba 233.527†	133778.7	136719.5	[1000]	ug/L	11:21:16
2	Be 313.107†	2923939.4	2993000.4	[1000]	ug/L	11:21:10
2	Cd 226.502†	102949.4	105479.7	[1000]	ug/L	11:21:16
2	Co 228.616†	52127.5	53379.8	[1000]	ug/L	11:21:16
2	Cr 267.716†	97096.3	99153.9	[1000]	ug/L	11:21:16
2	Cu 324.752†	338393.6	337775.6	[1000]	ug/L	11:21:16
2	Mn 257.610†	938666.3	958124.4	[1000]	ug/L	11:21:10
2	Mo 202.031†	15655.3	15974.9	[1000]	ug/L	11:21:36
2	Ni 231.604†	44582.5	45452.6	[1000]	ug/L	11:21:16

2	P 214.914†	10310.3	10285.7	[5000]	ug/L	11:21:36
2	Pb 220.353†	9366.8	9675.3	[1000]	ug/L	11:21:36
2	S 181.975 Axial†	1810.5	1792.9	[2000]	ug/L	11:21:36
2	Sb 206.836†	3320.3	3347.6	[1000]	ug/L	11:21:36
2	Se 196.026†	1903.0	1983.9	[1000]	ug/L	11:21:36
2	Si 251.611†	170992.6	174145.1	[5000]	ug/L	11:21:16
2	Sn 189.927†	6628.6	6770.5	[1000]	ug/L	11:21:36
2	Ti 334.940†	611788.9	627075.9	[1000]	ug/L	11:21:16
2	Tl 190.801†	3553.6	3677.9	[1000]	ug/L	11:21:36
2	U 409.014†	30621.0	34206.9	[1000]	ug/L	11:21:16
2	V 292.402†	153540.2	158743.0	[1000]	ug/L	11:21:16
2	Zn 213.857†	119432.1	121221.0	[1000]	ug/L	11:21:16
2	SiO2†	171871.0	175024.3	[10695]	ug/L	11:22:18
3	Sc Radial	4514.5	4514.5	97.5	%	11:20:31
3	Y RADIAL	4731.8	4731.8	96.67	%	11:20:31
3	Al 396.153Radial†	11296.6	11601.3	[10000]	ug/L	11:20:11
3	Ca 317.933Radial†	5732.5	5862.6	[10000]	ug/L	11:20:31
3	Fe 238.204 Radial†	1054.5	1068.2	[10000]	ug/L	11:20:31
3	K 766.490 Radial†	50697.9	48742.5	[10000]	ug/L	11:20:11
3	Mg 279.077 IEC†	296.1	302.0	[10000]	ug/L	11:20:31
3	Na 589.592 Radial†	27716.3	30182.7	[10000]	ug/L	11:20:11
3	Sr 421.552†	130630.1	133901.2	[1000]	ug/L	11:20:11
3	Sc 361.383	849037.4	849037.4	97.217	%	11:21:47
3	Y 371.029	722399.3	722399.3	96.406	%	11:21:47
3	Ag 328.068†	225126.2	231079.8	[1000]	ug/L	11:21:47
3	As 188.979†	2757.0	2867.4	[1000]	ug/L	11:22:07
3	B 249.677†	46236.2	48325.2	[1000]	ug/L	11:21:47
3	Ba 233.527†	132295.6	136064.3	[1000]	ug/L	11:21:47
3	Be 313.107†	2929465.7	3017706.2	[1000]	ug/L	11:21:42
3	Cd 226.502†	101889.3	105059.0	[1000]	ug/L	11:21:47
3	Co 228.616†	51581.4	53157.1	[1000]	ug/L	11:21:47
3	Cr 267.716†	96112.1	98773.2	[1000]	ug/L	11:21:47
3	Cu 324.752†	334449.4	335919.8	[1000]	ug/L	11:21:47
3	Mn 257.610†	940008.1	965610.9	[1000]	ug/L	11:21:42
3	Mo 202.031†	15525.0	15942.7	[1000]	ug/L	11:22:07
3	Ni 231.604†	44123.4	45270.3	[1000]	ug/L	11:21:47
3	P 214.914†	10226.7	10266.8	[5000]	ug/L	11:22:07
3	Pb 220.353†	9278.0	9644.9	[1000]	ug/L	11:22:07
3	S 181.975 Axial†	1786.0	1779.4	[2000]	ug/L	11:22:07
3	Sb 206.836†	3297.0	3345.2	[1000]	ug/L	11:22:07
3	Se 196.026†	1868.8	1961.0	[1000]	ug/L	11:22:07
3	Si 251.611†	169025.8	173234.4	[5000]	ug/L	11:21:47
3	Sn 189.927†	6564.6	6747.8	[1000]	ug/L	11:22:07
3	Ti 334.940†	605876.6	624974.1	[1000]	ug/L	11:21:47
3	Tl 190.801†	3522.2	3668.7	[1000]	ug/L	11:22:07
3	U 409.014†	29915.1	33680.0	[1000]	ug/L	11:21:47
3	V 292.402†	152183.3	158346.1	[1000]	ug/L	11:21:47
3	Zn 213.857†	118232.5	120764.0	[1000]	ug/L	11:21:47
3	SiO2†	171445.5	175704.7	[10695]	ug/L	11:22:23

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	854806.0	5959.31	0.70%	97.878	%
Sc Radial	4510.8	7.21	0.16%	97.5	%
Y 371.029	727120.5	5338.84	0.73%	97.036	%
Y RADIAL	4726.8	10.95	0.23%	96.57	%
Ag 328.068†	231603.0	508.92	0.22%	[1000]	ug/L
Al 396.153Radial†	11730.8	117.30	1.00%	[10000]	ug/L
As 188.979†	2862.8	7.68	0.27%	[1000]	ug/L
B 249.677†	48439.6	106.13	0.22%	[1000]	ug/L
Ba 233.527†	136363.0	331.39	0.24%	[1000]	ug/L
Be 313.107†	2977915.9	49102.19	1.65%	[1000]	ug/L
Ca 317.933Radial†	5878.7	15.06	0.26%	[10000]	ug/L
Cd 226.502†	105271.9	210.39	0.20%	[1000]	ug/L
Co 228.616†	53218.0	141.50	0.27%	[1000]	ug/L
Cr 267.716†	98925.4	201.55	0.20%	[1000]	ug/L
Cu 324.752†	337073.9	1007.23	0.30%	[1000]	ug/L
Fe 238.204 Radial†	1069.9	2.76	0.26%	[10000]	ug/L
K 766.490 Radial†	49353.3	575.72	1.17%	[10000]	ug/L

Mg 279.077 IEC†	303.8	1.66	0.55%	[10000]	ug/L
Mn 257.610†	953284.5	15330.51	1.61%	[1000]	ug/L
Mo 202.031†	15901.0	101.40	0.64%	[1000]	ug/L
Na 589.592 Radial†	30631.6	439.91	1.44%	[10000]	ug/L
Ni 231.604†	45365.5	91.41	0.20%	[1000]	ug/L
P 214.914†	10245.7	53.76	0.52%	[5000]	ug/L
Pb 220.353†	9628.4	56.93	0.59%	[1000]	ug/L
S 181.975 Axial†	1779.8	12.83	0.72%	[2000]	ug/L
Sb 206.836†	3338.2	14.16	0.42%	[1000]	ug/L
Se 196.026†	1967.2	14.60	0.74%	[1000]	ug/L
Si 251.611†	173700.3	455.72	0.26%	[5000]	ug/L
Sn 189.927†	6736.8	40.35	0.60%	[1000]	ug/L
Sr 421.552†	135417.2	1478.47	1.09%	[1000]	ug/L
Ti 334.940†	626027.9	1050.88	0.17%	[1000]	ug/L
Tl 190.801†	3654.1	33.50	0.92%	[1000]	ug/L
U 409.014†	33925.5	265.28	0.78%	[1000]	ug/L
V 292.402†	158493.5	217.25	0.14%	[1000]	ug/L
Zn 213.857†	121046.5	246.84	0.20%	[1000]	ug/L
SiO2†	174227.7	1998.14	1.15%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 1/7/2010 11:24:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4554.3	4554.3	98.4	%	11:26:48
1	Y RADIAL	4800.1	4800.1	98.06	%	11:26:48
1	Al 396.153Radial†	56625.5	57563.0	[50000]	ug/L	11:26:28
1	Ca 317.933Radial†	28268.1	28711.7	[50000]	ug/L	11:26:28
1	Fe 238.204 Radial†	2042.4	2062.7	[20000]	ug/L	11:26:48
1	Mg 279.077 IEC†	1440.4	1462.2	[50000]	ug/L	11:26:48
1	Na 589.592 Radial†	54968.5	57628.3	[20000]	ug/L	11:26:28
1	Sc 361.383	883070.5	883070.5	101.11	%	11:27:45
1	Y 371.029	745063.9	745063.9	99.431	%	11:27:45
2	Sc Radial	4487.7	4487.7	97.0	%	11:27:13
2	Y RADIAL	4733.3	4733.3	96.70	%	11:27:13
2	Al 396.153Radial†	56753.2	58548.7	[50000]	ug/L	11:26:53
2	Ca 317.933Radial†	28292.1	29162.8	[50000]	ug/L	11:26:53
2	Fe 238.204 Radial†	2030.0	2080.7	[20000]	ug/L	11:27:13
2	Mg 279.077 IEC†	1422.8	1465.8	[50000]	ug/L	11:27:13
2	Na 589.592 Radial†	54803.6	58287.3	[20000]	ug/L	11:26:53
2	Sc 361.383	861070.7	861070.7	98.595	%	11:27:51
2	Y 371.029	726473.7	726473.7	96.950	%	11:27:51
3	Sc Radial	4532.6	4532.6	97.9	%	11:27:38
3	Y RADIAL	4777.3	4777.3	97.60	%	11:27:38
3	Al 396.153Radial†	56875.9	58093.8	[50000]	ug/L	11:27:18
3	Ca 317.933Radial†	28315.9	28897.9	[50000]	ug/L	11:27:18
3	Fe 238.204 Radial†	2041.5	2071.8	[20000]	ug/L	11:27:38
3	Mg 279.077 IEC†	1436.4	1465.1	[50000]	ug/L	11:27:38
3	Na 589.592 Radial†	54885.5	57810.6	[20000]	ug/L	11:27:18
3	Sc 361.383	864117.6	864117.6	98.944	%	11:27:56
3	Y 371.029	729013.9	729013.9	97.289	%	11:27:56

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	869419.6	11919.78	1.37%	99.551	%
Sc Radial	4524.8	33.97	0.75%	97.8	%
Y 371.029	733517.2	10080.12	1.37%	97.890	%
Y RADIAL	4770.2	33.94	0.71%	97.45	%
Al 396.153Radial†	58068.5	493.33	0.85%	[50000]	ug/L
Ca 317.933Radial†	28924.1	226.69	0.78%	[50000]	ug/L
Fe 238.204 Radial†	2071.8	9.00	0.43%	[20000]	ug/L
Mg 279.077 IEC†	1464.4	1.90	0.13%	[50000]	ug/L
Na 589.592 Radial†	57908.7	340.25	0.59%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	230.1	0.00000	0.999920	
Al 396.153Radial	3	Lin Thru 0	0.0	1.162	0.00000	0.999996	
As 188.979	3	Lin Thru 0	0.0	2.851	0.00000	0.999969	
B 249.677	3	Lin Thru 0	0.0	48.20	0.00000	0.999949	
Ba 233.527	3	Lin Thru 0	0.0	135.8	0.00000	0.999969	
Be 313.107	3	Lin Thru 0	0.0	2967	0.00000	0.999975	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5790	0.00000	0.999989	
Cd 226.502	3	Lin Thru 0	0.0	105.0	0.00000	0.999983	
Co 228.616	3	Lin Thru 0	0.0	52.89	0.00000	0.999927	
Cr 267.716	3	Lin Thru 0	0.0	98.48	0.00000	0.999961	
Cu 324.752	3	Lin Thru 0	0.0	335.3	0.00000	0.999946	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1043	0.00000	0.999915	
K 766.490 Radial	3	Lin Thru 0	0.0	4.937	0.00000	0.999990	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0293	0.00000	0.999954
Mn 257.610	3	Lin Thru 0	0.0	949.9	0.00000	0.999975
Mo 202.031	3	Lin Thru 0	0.0	15.81	0.00000	0.999931
Na 589.592 Radia	2	Lin Thru 0	0.0	2.929	0.00000	0.999738
Ni 231.604	3	Lin Thru 0	0.0	45.13	0.00000	0.999947
P 214.914	3	Lin Thru 0	0.0	2.042	0.00000	0.999976
Pb 220.353	3	Lin Thru 0	0.0	9.612	0.00000	0.999994
S 181.975 Axial	3	Lin Thru 0	0.0	0.8839	0.00000	0.999903
Sb 206.836	3	Lin Thru 0	0.0	3.310	0.00000	0.999856
Se 196.026	3	Lin Thru 0	0.0	1.966	0.00000	0.999997
Si 251.611	3	Lin Thru 0	0.0	34.56	0.00000	0.999950
Sn 189.927	3	Lin Thru 0	0.0	6.696	0.00000	0.999928
Sr 421.552	3	Lin Thru 0	0.0	135.7	0.00000	0.999986
Ti 334.940	3	Lin Thru 0	0.0	624.3	0.00000	0.999985
Tl 190.801	3	Lin Thru 0	0.0	3.641	0.00000	0.999976
U 409.014	3	Lin Thru 0	0.0	33.56	0.00000	0.999726
V 292.402	3	Lin Thru 0	0.0	157.6	0.00000	0.999942
Zn 213.857	3	Lin Thru 0	0.0	120.8	0.00000	0.999991
SiO2	3	Lin Thru 0	0.0	16.19	0.00000	0.999928

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 1/7/2010 11:30:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4721.0	4721.0	102	%			11:32:00
1	Y RADIAL	4975.1	4975.1	101.6	%			11:32:00
1	Al 396.153Radial†	5968.8	5872.1	5030.3	ug/L	5030.3	ppb	11:32:00
1	Ca 317.933Radial†	2877.9	2807.3	4848.1	ug/L	4848.1	ppb	11:32:20
1	Fe 238.204 Radial†	528.9	505.7	4865.8	ug/L	4865.8	ppb	11:32:20
1	K 766.490 Radial†	15428.4	11895.2	2404.2	ug/L	2404.2	ppb	11:32:00
1	Mg 279.077 IEC†	156.5	151.9	5183.3	ug/L	5183.3	ppb	11:32:20
1	Na 589.592 Radial†	5567.0	7227.4	2467.5	ug/L	2467.5	ppb	11:32:00
1	Sr 421.552†	69303.1	67926.7	500.41	ug/L	500.41	ppb	11:32:00
1	Sc 361.383	888226.6	888226.6	101.70	%			11:33:18
1	Y 371.029	754365.4	754365.4	100.67	%			11:33:18
1	Ag 328.068†	59850.7	58356.8	256.69	ug/L	256.69	ppb	11:33:18
1	As 188.979†	1341.6	1350.6	477.93	ug/L	477.93	ppb	11:33:38
1	B 249.677†	24239.4	24598.7	508.46	ug/L	508.46	ppb	11:33:18
1	Ba 233.527†	69568.0	68383.7	504.73	ug/L	504.73	ppb	11:33:18
1	Be 313.107†	769791.7	761272.3	257.53	ug/L	257.53	ppb	11:33:18
1	Cd 226.502†	52552.2	51924.5	494.44	ug/L	494.44	ppb	11:33:18
1	Co 228.616†	26718.3	26369.7	498.87	ug/L	498.87	ppb	11:33:38
1	Cr 267.716†	48427.0	47525.3	483.38	ug/L	483.38	ppb	11:33:18
1	Cu 324.752†	178572.5	167476.5	499.69	ug/L	499.69	ppb	11:33:18
1	Mn 257.610†	490228.1	480707.0	506.47	ug/L	506.47	ppb	11:33:18
1	Mo 202.031†	8612.1	8441.0	534.49	ug/L	534.49	ppb	11:33:38
1	Ni 231.604†	22820.5	22322.0	494.32	ug/L	494.32	ppb	11:33:38
1	P 214.914†	5438.9	5095.2	2420.1	ug/L	2420.1	ppb	11:33:38
1	Pb 220.353†	4758.2	4779.8	498.93	ug/L	498.93	ppb	11:33:38
1	S 181.975 Axial†	2270.7	2175.0	2459.6	ug/L	2459.6	ppb	11:33:38
1	Sb 206.836†	1713.0	1638.1	503.88	ug/L	503.88	ppb	11:33:38
1	Se 196.026†	5034.7	4989.1	2554.8	ug/L	2554.8	ppb	11:33:38
1	Si 251.611†	167991.8	164546.7	4748.7	ug/L	4748.7	ppb	11:33:18
1	Sn 189.927†	3623.0	3557.6	531.87	ug/L	531.87	ppb	11:33:38
1	Ti 334.940†	313777.8	310273.2	496.86	ug/L	496.86	ppb	11:33:18
1	Tl 190.801†	1895.2	1909.1	527.51	ug/L	527.51	ppb	11:33:38
1	U 409.014†	13995.2	16669.2	495.19	ug/L	495.19	ppb	11:33:18
1	V 292.402†	78527.9	79018.4	508.52	ug/L	508.52	ppb	11:33:18
1	Zn 213.857†	62907.9	61000.7	500.78	ug/L	500.78	ppb	11:33:18
1	SiO2†	166743.5	163300.6	10060	ug/L	10060	ppb	11:34:36
2	Sc Radial	4631.9	4631.9	100	%			11:32:25
2	Y RADIAL	4861.7	4861.7	99.32	%			11:32:25
2	Al 396.153Radial†	5848.8	5864.7	5024.2	ug/L	5024.2	ppb	11:32:25
2	Ca 317.933Radial†	2896.9	2880.4	4974.5	ug/L	4974.5	ppb	11:32:45
2	Fe 238.204 Radial†	528.1	515.0	4954.5	ug/L	4954.5	ppb	11:32:45
2	K 766.490 Radial†	15152.8	11910.8	2407.3	ug/L	2407.3	ppb	11:32:25
2	Mg 279.077 IEC†	155.8	154.2	5259.4	ug/L	5259.4	ppb	11:32:45
2	Na 589.592 Radial†	5254.6	7020.2	2396.8	ug/L	2396.8	ppb	11:32:25
2	Sr 421.552†	67756.1	67687.8	498.65	ug/L	498.65	ppb	11:32:25
2	Sc 361.383	896827.3	896827.3	102.69	%			11:33:44
2	Y 371.029	761131.6	761131.6	101.58	%			11:33:44
2	Ag 328.068†	60261.3	58192.3	256.01	ug/L	256.01	ppb	11:33:44
2	As 188.979†	1329.2	1325.9	469.27	ug/L	469.27	ppb	11:34:04
2	B 249.677†	24580.7	24702.5	510.61	ug/L	510.61	ppb	11:33:44
2	Ba 233.527†	70219.1	68361.7	504.57	ug/L	504.57	ppb	11:33:44
2	Be 313.107†	776063.6	760121.2	257.14	ug/L	257.14	ppb	11:33:44
2	Cd 226.502†	53003.5	51868.5	493.90	ug/L	493.90	ppb	11:33:44
2	Co 228.616†	26730.8	26130.0	494.33	ug/L	494.33	ppb	11:34:04
2	Cr 267.716†	48834.5	47465.4	482.77	ug/L	482.77	ppb	11:33:44
2	Cu 324.752†	180522.9	167692.0	500.34	ug/L	500.34	ppb	11:33:44
2	Mn 257.610†	494903.8	480637.6	506.40	ug/L	506.40	ppb	11:33:44
2	Mo 202.031†	8612.0	8359.8	529.36	ug/L	529.36	ppb	11:34:04
2	Ni 231.604†	22793.5	22080.4	488.97	ug/L	488.97	ppb	11:34:04

2	P 214.914†	5446.2	5051.0	2398.1 ug/L	2398.1 ppb	11:34:04
2	Pb 220.353†	4767.1	4743.6	495.14 ug/L	495.14 ppb	11:34:04
2	S 181.975 Axial†	2275.4	2158.1	2440.6 ug/L	2440.6 ppb	11:34:04
2	Sb 206.836†	1708.8	1617.9	497.55 ug/L	497.55 ppb	11:34:04
2	Se 196.026†	5045.6	4952.2	2536.3 ug/L	2536.3 ppb	11:34:04
2	Si 251.611†	169657.0	164584.2	4749.9 ug/L	4749.9 ppb	11:33:44
2	Sn 189.927†	3606.5	3507.3	524.38 ug/L	524.38 ppb	11:34:04
2	Ti 334.940†	316915.0	310369.5	497.02 ug/L	497.02 ppb	11:33:44
2	Tl 190.801†	1903.0	1898.8	524.71 ug/L	524.71 ppb	11:34:04
2	U 409.014†	13937.3	16480.9	489.57 ug/L	489.57 ppb	11:33:44
2	V 292.402†	79374.0	79101.9	508.96 ug/L	508.96 ppb	11:33:44
2	Zn 213.857†	63492.5	60976.8	500.61 ug/L	500.61 ppb	11:33:44
2	SiO2†	170964.9	165839.2	10217 ug/L	10217 ppb	11:34:41
3	Sc Radial	4586.9	4586.9	99.1 %		11:32:51
3	Y RADIAL	4847.7	4847.7	99.04 %		11:32:51
3	Al 396.153Radial†	5835.1	5908.2	5061.1 ug/L	5061.1 ppb	11:32:51
3	Ca 317.933Radial†	2926.7	2939.0	5075.5 ug/L	5075.5 ppb	11:33:11
3	Fe 238.204 Radial†	533.7	525.8	5058.7 ug/L	5058.7 ppb	11:33:11
3	K 766.490 Radial†	15216.2	12123.2	2450.4 ug/L	2450.4 ppb	11:32:51
3	Mg 279.077 IEC†	160.7	160.6	5479.4 ug/L	5479.4 ppb	11:33:11
3	Na 589.592 Radial†	5276.0	7093.3	2421.8 ug/L	2421.8 ppb	11:32:51
3	Sr 421.552†	67792.8	68388.8	503.81 ug/L	503.81 ppb	11:32:51
3	Sc 361.383	876511.8	876511.8	100.36 %		11:34:10
3	Y 371.029	744788.1	744788.1	99.394 %		11:34:10
3	Ag 328.068†	58968.7	58264.6	256.36 ug/L	256.36 ppb	11:34:10
3	As 188.979†	1336.2	1362.9	482.26 ug/L	482.26 ppb	11:34:30
3	B 249.677†	24004.7	24683.4	510.18 ug/L	510.18 ppb	11:34:10
3	Ba 233.527†	68744.6	68477.4	505.43 ug/L	505.43 ppb	11:34:10
3	Be 313.107†	760542.2	762172.3	257.84 ug/L	257.84 ppb	11:34:10
3	Cd 226.502†	51985.6	52050.6	495.63 ug/L	495.63 ppb	11:34:10
3	Co 228.616†	26675.6	26678.3	504.72 ug/L	504.72 ppb	11:34:30
3	Cr 267.716†	47929.7	47666.1	484.82 ug/L	484.82 ppb	11:34:10
3	Cu 324.752†	176145.4	167404.8	499.49 ug/L	499.49 ppb	11:34:10
3	Mn 257.610†	484502.9	481444.6	507.26 ug/L	507.26 ppb	11:34:10
3	Mo 202.031†	8598.2	8540.4	540.79 ug/L	540.79 ppb	11:34:30
3	Ni 231.604†	22796.0	22597.4	500.42 ug/L	500.42 ppb	11:34:30
3	P 214.914†	5432.9	5160.6	2452.1 ug/L	2452.1 ppb	11:34:30
3	Pb 220.353†	4748.6	4832.7	504.44 ug/L	504.44 ppb	11:34:30
3	S 181.975 Axial†	2272.2	2206.3	2495.1 ug/L	2495.1 ppb	11:34:30
3	Sb 206.836†	1699.0	1646.7	506.64 ug/L	506.64 ppb	11:34:30
3	Se 196.026†	5052.6	5073.0	2598.2 ug/L	2598.2 ppb	11:34:30
3	Si 251.611†	166043.9	164813.4	4756.3 ug/L	4756.3 ppb	11:34:10
3	Sn 189.927†	3600.6	3582.9	535.67 ug/L	535.67 ppb	11:34:30
3	Ti 334.940†	310127.7	310759.8	497.65 ug/L	497.65 ppb	11:34:10
3	Tl 190.801†	1888.8	1927.7	532.59 ug/L	532.59 ppb	11:34:30
3	U 409.014†	13657.6	16516.8	490.62 ug/L	490.62 ppb	11:34:10
3	V 292.402†	77755.0	79280.2	510.24 ug/L	510.24 ppb	11:34:10
3	Zn 213.857†	62222.1	61144.0	501.91 ug/L	501.91 ppb	11:34:10
3	SiO2†	168340.4	167083.0	10293 ug/L	10293 ppb	11:34:46

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	887188.6	101.59	%	1.168				1.15%
Sc Radial	4646.6	100	%	1.5				1.47%
Y 371.029	753428.4	100.55	%	1.096				1.09%
Y RADIAL	4894.8	100.00	%	1.428				1.43%
Ag 328.068†	58271.2	256.36	ug/L	0.340	256.36	ppb	0.340	0.13%
QC value within limits for Ag 328.068 Recovery = 102.54%								
Al 396.153Radial†	5881.7	5038.5	ug/L	19.80	5038.5	ppb	19.80	0.39%
QC value within limits for Al 396.153Radial Recovery = 100.77%								
As 188.979†	1346.5	476.49	ug/L	6.614	476.49	ppb	6.614	1.39%
QC value within limits for As 188.979 Recovery = 95.30%								
B 249.677†	24661.5	509.75	ug/L	1.138	509.75	ppb	1.138	0.22%
QC value within limits for B 249.677 Recovery = 101.95%								
Ba 233.527†	68407.6	504.91	ug/L	0.456	504.91	ppb	0.456	0.09%
QC value within limits for Ba 233.527 Recovery = 100.98%								
Be 313.107†	761188.6	257.50	ug/L	0.347	257.50	ppb	0.347	0.13%
QC value within limits for Be 313.107 Recovery = 103.00%								
Ca 317.933Radial†	2875.6	4966.0	ug/L	113.96	4966.0	ppb	113.96	2.29%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.32%
Cd 226.502†            51947.9      494.66 ug/L         0.885      494.66 ppb          0.885   0.18%
   QC value within limits for Cd 226.502  Recovery = 98.93%
Co 228.616†            26392.7      499.31 ug/L         5.210      499.31 ppb          5.210   1.04%
   QC value within limits for Co 228.616  Recovery = 99.86%
Cr 267.716†            47552.3      483.66 ug/L         1.049      483.66 ppb          1.049   0.22%
   QC value within limits for Cr 267.716  Recovery = 96.73%
Cu 324.752†           167524.4      499.84 ug/L         0.444      499.84 ppb          0.444   0.09%
   QC value within limits for Cu 324.752  Recovery = 99.97%
Fe 238.204 Radial†       515.5      4959.7 ug/L        96.53      4959.7 ppb         96.53   1.95%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.19%
K 766.490 Radial†      11976.4      2420.6 ug/L        25.81      2420.6 ppb         25.81   1.07%
   QC value within limits for K 766.490 Radial  Recovery = 96.82%
Mg 279.077 IEC†          155.6      5307.4 ug/L       153.75      5307.4 ppb        153.75   2.90%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.15%
Mn 257.610†           480929.7      506.71 ug/L         0.476      506.71 ppb          0.476   0.09%
   QC value within limits for Mn 257.610  Recovery = 101.34%
Mo 202.031†             8447.1      534.88 ug/L         5.729      534.88 ppb          5.729   1.07%
   QC value within limits for Mo 202.031  Recovery = 106.98%
Na 589.592 Radial†      7113.6      2428.7 ug/L        35.87      2428.7 ppb         35.87   1.48%
   QC value within limits for Na 589.592 Radial  Recovery = 97.15%
Ni 231.604†            22333.3      494.57 ug/L         5.728      494.57 ppb          5.728   1.16%
   QC value within limits for Ni 231.604  Recovery = 98.91%
P 214.914†              5102.3      2423.4 ug/L        27.12      2423.4 ppb         27.12   1.12%
   QC value within limits for P 214.914  Recovery = 96.94%
Pb 220.353†             4785.4      499.51 ug/L         4.677      499.51 ppb          4.677   0.94%
   QC value within limits for Pb 220.353  Recovery = 99.90%
S 181.975 Axial†        2179.8      2465.1 ug/L        27.64      2465.1 ppb         27.64   1.12%
   QC value within limits for S 181.975 Axial  Recovery = 98.60%
Sb 206.836†             1634.3      502.69 ug/L         4.664      502.69 ppb          4.664   0.93%
   QC value within limits for Sb 206.836  Recovery = 100.54%
Se 196.026†             5004.8      2563.1 ug/L        31.73      2563.1 ppb         31.73   1.24%
   QC value within limits for Se 196.026  Recovery = 102.52%
Si 251.611†           164648.1      4751.7 ug/L         4.07      4751.7 ppb          4.07   0.09%
   QC value within limits for Si 251.611  Recovery = 95.03%
Sn 189.927†             3549.2      530.64 ug/L         5.748      530.64 ppb          5.748   1.08%
   QC value within limits for Sn 189.927  Recovery = 106.13%
Sr 421.552†            68001.1      500.95 ug/L         2.625      500.95 ppb          2.625   0.52%
   QC value within limits for Sr 421.552  Recovery = 100.19%
Ti 334.940†           310467.5      497.18 ug/L         0.419      497.18 ppb          0.419   0.08%
   QC value within limits for Ti 334.940  Recovery = 99.44%
Tl 190.801†             1911.9      528.27 ug/L         3.994      528.27 ppb          3.994   0.76%
   QC value within limits for Tl 190.801  Recovery = 105.65%
U 409.014†             16555.6      491.80 ug/L         2.988      491.80 ppb          2.988   0.61%
   QC value within limits for U 409.014  Recovery = 98.36%
V 292.402†             79133.5      509.24 ug/L         0.894      509.24 ppb          0.894   0.18%
   QC value within limits for V 292.402  Recovery = 101.85%
Zn 213.857†            61040.5      501.10 ug/L         0.706      501.10 ppb          0.706   0.14%
   QC value within limits for Zn 213.857  Recovery = 100.22%
SiO2†                 165407.6       10190 ug/L       119.0       10190 ppb        119.0   1.17%
   QC value within limits for SiO2  Recovery = 95.28%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 1/7/2010 11:36:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4566.0	4566.0	98.7	%			11:38:50
1	Y RADIAL	4848.9	4848.9	99.06	%			11:38:50
1	Al 396.153Radial†	4.1	25.0	21.481	ug/L	21.481	ppb	11:38:50
1	Ca 317.933Radial†	8.5	-5.4	-9.2794	ug/L	-9.2794	ppb	11:39:10
1	Fe 238.204 Radial†	13.0	0.5	4.3310	ug/L	4.3310	ppb	11:39:10
1	K 766.490 Radial†	3206.2	20.4	4.1462	ug/L	4.1462	ppb	11:38:50
1	Mg 279.077 IEC†	1.8	0.3	9.9254	ug/L	9.9254	ppb	11:39:10
1	Na 589.592 Radial†	-1754.8	-8.6	-2.9235	ug/L	-2.9235	ppb	11:38:50
1	Sr 421.552†	0.7	-10.6	-0.0780	ug/L	-0.0780	ppb	11:38:50
1	Sc 361.383	842859.9	842859.9	96.510	%			11:40:07
1	Y 371.029	735953.7	735953.7	98.215	%			11:40:07
1	Ag 328.068†	504.5	31.8	0.1405	ug/L	0.1405	ppb	11:40:07
1	As 188.979†	-30.9	-0.5	-0.1795	ug/L	-0.1795	ppb	11:40:27
1	B 249.677†	-494.0	253.6	5.2619	ug/L	5.2619	ppb	11:40:07
1	Ba 233.527†	7.5	-10.8	-0.0810	ug/L	-0.0810	ppb	11:40:27
1	Be 313.107†	-4308.3	-84.0	-0.0288	ug/L	-0.0288	ppb	11:40:07
1	Cd 226.502†	-237.2	7.2	0.0681	ug/L	0.0681	ppb	11:40:27
1	Co 228.616†	-94.3	1.5	0.0294	ug/L	0.0294	ppb	11:40:27
1	Cr 267.716†	90.8	3.9	0.0393	ug/L	0.0393	ppb	11:40:07
1	Cu 324.752†	8099.7	289.0	0.8620	ug/L	0.8620	ppb	11:40:07
1	Mn 257.610†	1170.6	-93.4	-0.0980	ug/L	-0.0980	ppb	11:40:07
1	Mo 202.031†	28.2	2.5	0.1591	ug/L	0.1591	ppb	11:40:27
1	Ni 231.604†	129.8	18.3	0.4055	ug/L	0.4055	ppb	11:40:27
1	P 214.914†	232.7	-11.5	-5.7811	ug/L	-5.7811	ppb	11:40:27
1	Pb 220.353†	-89.7	8.4	0.8761	ug/L	0.8761	ppb	11:40:27
1	S 181.975 Axial†	66.4	11.1	12.543	ug/L	12.543	ppb	11:40:27
1	Sb 206.836†	41.3	-3.4	-1.0322	ug/L	-1.0322	ppb	11:40:27
1	Se 196.026†	-43.1	-5.9	-2.9690	ug/L	-2.9690	ppb	11:40:27
1	Si 251.611†	679.8	74.3	2.1485	ug/L	2.1485	ppb	11:40:27
1	Sn 189.927†	-0.1	-4.8	-0.7237	ug/L	-0.7237	ppb	11:40:27
1	Ti 334.940†	-1836.7	-149.7	-0.2387	ug/L	-0.2387	ppb	11:40:07
1	Tl 190.801†	-46.1	-2.1	-0.5875	ug/L	-0.5875	ppb	11:40:27
1	U 409.014†	-2916.3	-113.2	-3.3754	ug/L	-3.3754	ppb	11:40:07
1	V 292.402†	-1834.7	-94.7	-0.6051	ug/L	-0.6051	ppb	11:40:07
1	Zn 213.857†	860.1	38.2	0.3117	ug/L	0.3117	ppb	11:40:27
1	SiO2†	708.1	85.0	5.2474	ug/L	5.2474	ppb	11:41:23
2	Sc Radial	4783.5	4783.5	103	%			11:39:15
2	Y RADIAL	5055.9	5055.9	103.3	%			11:39:15
2	Al 396.153Radial†	41.6	61.1	52.581	ug/L	52.581	ppb	11:39:15
2	Ca 317.933Radial†	9.1	-5.2	-8.9326	ug/L	-8.9326	ppb	11:39:35
2	Fe 238.204 Radial†	11.5	-1.6	-15.279	ug/L	-15.279	ppb	11:39:35
2	K 766.490 Radial†	3298.5	-38.0	-7.7177	ug/L	-7.7177	ppb	11:39:15
2	Mg 279.077 IEC†	-0.3	-1.8	-61.842	ug/L	-61.842	ppb	11:39:35
2	Na 589.592 Radial†	-1648.2	175.4	59.876	ug/L	59.876	ppb	11:39:15
2	Sr 421.552†	12.0	0.3	0.0025	ug/L	0.0025	ppb	11:39:15
2	Sc 361.383	849394.9	849394.9	97.258	%			11:40:32
2	Y 371.029	744334.1	744334.1	99.334	%			11:40:32
2	Ag 328.068†	491.6	14.6	0.0586	ug/L	0.0586	ppb	11:40:32
2	As 188.979†	-27.8	2.9	0.9974	ug/L	0.9974	ppb	11:40:52
2	B 249.677†	-430.6	322.7	6.6975	ug/L	6.6975	ppb	11:40:32
2	Ba 233.527†	5.9	-12.5	-0.0916	ug/L	-0.0916	ppb	11:40:52
2	Be 313.107†	-4412.2	-156.5	-0.0531	ug/L	-0.0531	ppb	11:40:32
2	Cd 226.502†	-240.6	5.6	0.0550	ug/L	0.0550	ppb	11:40:52
2	Co 228.616†	-88.8	7.9	0.1507	ug/L	0.1507	ppb	11:40:52
2	Cr 267.716†	89.3	1.5	0.0156	ug/L	0.0156	ppb	11:40:32
2	Cu 324.752†	8203.4	331.0	0.9863	ug/L	0.9863	ppb	11:40:32
2	Mn 257.610†	1518.8	255.3	0.2684	ug/L	0.2684	ppb	11:40:32
2	Mo 202.031†	35.6	9.9	0.6250	ug/L	0.6250	ppb	11:40:52
2	Ni 231.604†	121.6	8.9	0.1971	ug/L	0.1971	ppb	11:40:52

2	P 214.914†	250.1	4.6	2.0947 ug/L	2.0947 ppb	11:40:52
2	Pb 220.353†	-111.4	-13.2	-1.3630 ug/L	-1.3630 ppb	11:40:52
2	S 181.975 Axial†	59.8	3.8	4.3442 ug/L	4.3442 ppb	11:40:52
2	Sb 206.836†	37.5	-7.6	-2.2894 ug/L	-2.2894 ppb	11:40:52
2	Se 196.026†	-29.7	8.3	4.1652 ug/L	4.1652 ppb	11:40:52
2	Si 251.611†	674.1	63.0	1.8173 ug/L	1.8173 ppb	11:40:52
2	Sn 189.927†	1.3	-3.4	-0.5080 ug/L	-0.5080 ppb	11:40:52
2	Ti 334.940†	-1817.7	-115.5	-0.1859 ug/L	-0.1859 ppb	11:40:32
2	Tl 190.801†	-52.6	-8.4	-2.3037 ug/L	-2.3037 ppb	11:40:52
2	U 409.014†	-2804.6	24.9	0.7431 ug/L	0.7431 ppb	11:40:32
2	V 292.402†	-1719.6	38.3	0.2543 ug/L	0.2543 ppb	11:40:32
2	Zn 213.857†	834.0	4.4	0.0367 ug/L	0.0367 ppb	11:40:52
2	SiO2†	683.8	54.4	3.3456 ug/L	3.3456 ppb	11:41:28
3	Sc Radial	4507.0	4507.0	97.4 %		11:39:40
3	Y RADIAL	4794.4	4794.4	97.95 %		11:39:40
3	Al 396.153Radial†	-24.2	-4.0	-3.4559 ug/L	-3.4559 ppb	11:39:40
3	Ca 317.933Radial†	10.2	-3.5	-6.0539 ug/L	-6.0539 ppb	11:40:00
3	Fe 238.204 Radial†	13.4	1.0	9.7076 ug/L	9.7076 ppb	11:40:00
3	K 766.490 Radial†	3320.0	179.8	36.439 ug/L	36.439 ppb	11:39:40
3	Mg 279.077 IEC†	1.1	-0.4	-12.670 ug/L	-12.670 ppb	11:40:00
3	Na 589.592 Radial†	-1765.8	-43.2	-14.732 ug/L	-14.732 ppb	11:39:40
3	Sr 421.552†	-22.7	-34.6	-0.2548 ug/L	-0.2548 ppb	11:39:40
3	Sc 361.383	853130.5	853130.5	97.686 %		11:40:58
3	Y 371.029	748510.4	748510.4	99.891 %		11:40:58
3	Ag 328.068†	473.0	-6.7	-0.0277 ug/L	-0.0277 ppb	11:40:58
3	As 188.979†	-34.4	-3.7	-1.3092 ug/L	-1.3092 ppb	11:41:18
3	B 249.677†	-463.5	291.0	6.0352 ug/L	6.0352 ppb	11:40:58
3	Ba 233.527†	15.4	-2.8	-0.0207 ug/L	-0.0207 ppb	11:41:18
3	Be 313.107†	-4342.4	-65.2	-0.0223 ug/L	-0.0223 ppb	11:40:58
3	Cd 226.502†	-236.5	10.8	0.1022 ug/L	0.1022 ppb	11:41:18
3	Co 228.616†	-94.0	2.9	0.0566 ug/L	0.0566 ppb	11:41:18
3	Cr 267.716†	97.5	9.6	0.0966 ug/L	0.0966 ppb	11:40:58
3	Cu 324.752†	8143.9	233.1	0.6958 ug/L	0.6958 ppb	11:40:58
3	Mn 257.610†	1118.8	-161.0	-0.1683 ug/L	-0.1683 ppb	11:40:58
3	Mo 202.031†	31.4	5.4	0.3440 ug/L	0.3440 ppb	11:41:18
3	Ni 231.604†	116.9	3.5	0.0772 ug/L	0.0772 ppb	11:41:18
3	P 214.914†	238.1	-8.8	-4.4627 ug/L	-4.4627 ppb	11:41:18
3	Pb 220.353†	-115.6	-17.0	-1.7708 ug/L	-1.7708 ppb	11:41:18
3	S 181.975 Axial†	58.9	2.6	2.9451 ug/L	2.9451 ppb	11:41:18
3	Sb 206.836†	44.9	-0.2	-0.0712 ug/L	-0.0712 ppb	11:41:18
3	Se 196.026†	-31.5	6.5	3.3180 ug/L	3.3180 ppb	11:41:18
3	Si 251.611†	627.4	12.2	0.3384 ug/L	0.3384 ppb	11:41:18
3	Sn 189.927†	-1.3	-6.0	-0.9032 ug/L	-0.9032 ppb	11:41:18
3	Ti 334.940†	-1817.9	-107.5	-0.1731 ug/L	-0.1731 ppb	11:40:58
3	Tl 190.801†	-55.8	-11.4	-3.1400 ug/L	-3.1400 ppb	11:41:18
3	U 409.014†	-2799.6	42.6	1.2678 ug/L	1.2678 ppb	11:40:58
3	V 292.402†	-1797.7	-33.9	-0.2091 ug/L	-0.2091 ppb	11:40:58
3	Zn 213.857†	827.1	-6.4	-0.0543 ug/L	-0.0543 ppb	11:41:18
3	SiO2†	663.3	30.3	1.8374 ug/L	1.8374 ppb	11:41:33

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	848461.8	97.151	%	0.5952				0.61%
Sc Radial	4618.8	99.8	%	3.15				3.15%
Y 371.029	742932.7	99.147	%	0.8534				0.86%
Y RADIAL	4899.7	100.1	%	2.82				2.82%
Ag 328.068†	13.2	0.0571	ug/L	0.08413	0.0571	ppb	0.08413	147.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	27.4	23.535	ug/L	28.0746	23.535	ppb	28.0746	119.29%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.5	-0.1638	ug/L	1.15335	-0.1638	ppb	1.15335	704.31%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	289.1	5.9982	ug/L	0.71850	5.9982	ppb	0.71850	11.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-8.7	-0.0644	ug/L	0.03821	-0.0644	ppb	0.03821	59.33%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-101.9	-0.0347	ug/L	0.01624	-0.0347	ppb	0.01624	46.76%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-4.7	-8.0887	ug/L	1.77064	-8.0887	ppb	1.77064	21.89%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                7.9      0.0751 ug/L       0.02437      0.0751 ppb        0.02437  32.44%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                4.1      0.0789 ug/L       0.06367      0.0789 ppb        0.06367  80.70%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                5.0      0.0505 ug/L       0.04161      0.0505 ppb        0.04161  82.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              284.4      0.8480 ug/L       0.14574      0.8480 ppb        0.14574  17.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.0     -0.4133 ug/L      13.15137     -0.4133 ppb       13.15137 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         54.1      10.956 ug/L       22.8526      10.956 ppb        22.8526 208.59%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.6     -21.529 ug/L       36.6949     -21.529 ppb        36.6949 170.44%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                0.3      0.0007 ug/L       0.23451      0.0007 ppb        0.23451 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                5.9      0.3760 ug/L       0.23463      0.3760 ppb        0.23463  62.39%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        41.2      14.073 ug/L       40.1032      14.073 ppb        40.1032 284.96%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               10.2      0.2266 ug/L       0.16610      0.2266 ppb        0.16610  73.30%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -5.3     -2.7164 ug/L       4.21835     -2.7164 ppb        4.21835 155.29%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -7.3     -0.7526 ug/L       1.42513     -0.7526 ppb        1.42513 189.37%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           5.8      6.6108 ug/L       5.18496      6.6108 ppb        5.18496  78.43%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -3.7     -1.1309 ug/L       1.11241     -1.1309 ppb        1.11241  98.36%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.0      1.5047 ug/L       3.89745      1.5047 ppb        3.89745 259.01%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               49.9      1.4347 ug/L       0.96381      1.4347 ppb        0.96381  67.18%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -4.8     -0.7116 ug/L       0.19789     -0.7116 ppb        0.19789  27.81%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -15.0     -0.1101 ug/L       0.13164     -0.1101 ppb        0.13164 119.57%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -124.2     -0.1992 ug/L       0.03478     -0.1992 ppb        0.03478  17.46%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -7.3     -2.0104 ug/L       1.30125     -2.0104 ppb        1.30125  64.73%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -15.3     -0.4548 ug/L       2.54285     -0.4548 ppb        2.54285 559.06%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -30.1     -0.1866 ug/L       0.43009     -0.1866 ppb        0.43009 230.43%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               12.0      0.0980 ug/L       0.19054      0.0980 ppb        0.19054 194.37%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     56.6      3.4768 ug/L       1.70877      3.4768 ppb        1.70877  49.15%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 1/7/2010 11:43:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4642.7	4642.7	100	%			11:45:38
1	Y RADIAL	4943.5	4943.5	101.0	%			11:45:38
1	Al 396.153Radial†	226.9	247.1	212.18	ug/L	212.18	ppb	11:45:38
1	Ca 317.933Radial†	137.7	123.3	212.95	ug/L	212.95	ppb	11:45:58
1	Fe 238.204 Radial†	20.7	7.9	76.008	ug/L	76.008	ppb	11:45:58
1	K 766.490 Radial†	4005.8	763.8	154.47	ug/L	154.47	ppb	11:45:38
1	Mg 279.077 IEC†	11.1	9.6	326.69	ug/L	326.69	ppb	11:45:58
1	Na 589.592 Radial†	-790.7	981.8	335.20	ug/L	335.20	ppb	11:45:38
1	Sr 421.552†	686.6	673.2	4.9575	ug/L	4.9575	ppb	11:45:38
1	Sc 361.383	877705.4	877705.4	100.50	%			11:46:55
1	Y 371.029	750151.2	750151.2	100.11	%			11:46:55
1	Ag 328.068†	1634.6	1135.6	4.9277	ug/L	4.9277	ppb	11:46:55
1	As 188.979†	57.5	88.7	31.129	ug/L	31.129	ppb	11:47:15
1	B 249.677†	1781.2	2537.9	52.632	ug/L	52.632	ppb	11:47:15
1	Ba 233.527†	696.6	674.6	4.9801	ug/L	4.9801	ppb	11:47:15
1	Be 313.107†	10550.7	14878.4	5.0241	ug/L	5.0241	ppb	11:46:55
1	Cd 226.502†	259.6	511.3	4.8666	ug/L	4.8666	ppb	11:47:15
1	Co 228.616†	174.7	273.0	5.1764	ug/L	5.1764	ppb	11:47:15
1	Cr 267.716†	579.4	486.3	4.9297	ug/L	4.9297	ppb	11:47:15
1	Cu 324.752†	11547.9	3386.9	10.104	ug/L	10.104	ppb	11:46:55
1	Mn 257.610†	11047.7	9686.5	10.199	ug/L	10.199	ppb	11:46:55
1	Mo 202.031†	187.7	160.1	10.134	ug/L	10.134	ppb	11:47:15
1	Ni 231.604†	373.7	255.7	5.6619	ug/L	5.6619	ppb	11:47:15
1	P 214.914†	554.5	299.1	144.97	ug/L	144.97	ppb	11:47:15
1	Pb 220.353†	-2.9	98.4	10.296	ug/L	10.296	ppb	11:47:15
1	S 181.975 Axial†	137.9	79.5	89.894	ug/L	89.894	ppb	11:47:15
1	Sb 206.836†	91.0	44.3	13.653	ug/L	13.653	ppb	11:47:15
1	Se 196.026†	20.4	59.1	30.361	ug/L	30.361	ppb	11:47:15
1	Si 251.611†	4085.9	3435.6	99.138	ug/L	99.138	ppb	11:47:15
1	Sn 189.927†	67.9	62.9	9.4121	ug/L	9.4121	ppb	11:47:15
1	Ti 334.940†	1421.6	3168.0	5.0584	ug/L	5.0584	ppb	11:46:55
1	Tl 190.801†	19.9	65.5	18.055	ug/L	18.055	ppb	11:47:15
1	U 409.014†	-982.9	1930.5	57.509	ug/L	57.509	ppb	11:46:55
1	V 292.402†	-1011.9	799.5	5.3166	ug/L	5.3166	ppb	11:47:15
1	Zn 213.857†	2065.8	1202.4	9.8902	ug/L	9.8902	ppb	11:47:15
1	SiO2†	4093.5	3424.5	210.93	ug/L	210.93	ppb	11:48:12
2	Sc Radial	4742.5	4742.5	102	%			11:46:03
2	Y RADIAL	5000.0	5000.0	102.1	%			11:46:03
2	Al 396.153Radial†	205.0	220.9	189.67	ug/L	189.67	ppb	11:46:03
2	Ca 317.933Radial†	135.7	118.4	204.49	ug/L	204.49	ppb	11:46:23
2	Fe 238.204 Radial†	19.5	6.3	60.630	ug/L	60.630	ppb	11:46:23
2	K 766.490 Radial†	4021.4	695.0	140.54	ug/L	140.54	ppb	11:46:03
2	Mg 279.077 IEC†	8.7	7.0	237.08	ug/L	237.08	ppb	11:46:23
2	Na 589.592 Radial†	-804.8	984.7	336.20	ug/L	336.20	ppb	11:46:03
2	Sr 421.552†	668.2	640.7	4.7187	ug/L	4.7187	ppb	11:46:03
2	Sc 361.383	882838.6	882838.6	101.09	%			11:47:20
2	Y 371.029	754284.8	754284.8	100.66	%			11:47:20
2	Ag 328.068†	1707.8	1198.5	5.1960	ug/L	5.1960	ppb	11:47:20
2	As 188.979†	49.2	80.1	28.113	ug/L	28.113	ppb	11:47:41
2	B 249.677†	1772.0	2518.4	52.230	ug/L	52.230	ppb	11:47:41
2	Ba 233.527†	710.7	684.5	5.0535	ug/L	5.0535	ppb	11:47:41
2	Be 313.107†	10437.9	14705.7	4.9662	ug/L	4.9662	ppb	11:47:20
2	Cd 226.502†	262.1	512.2	4.8765	ug/L	4.8765	ppb	11:47:41
2	Co 228.616†	174.0	271.4	5.1448	ug/L	5.1448	ppb	11:47:41
2	Cr 267.716†	598.5	501.8	5.0868	ug/L	5.0868	ppb	11:47:41
2	Cu 324.752†	11383.3	3157.2	9.4184	ug/L	9.4184	ppb	11:47:20
2	Mn 257.610†	10827.2	9404.4	9.9024	ug/L	9.9024	ppb	11:47:20
2	Mo 202.031†	183.6	154.9	9.8082	ug/L	9.8082	ppb	11:47:41
2	Ni 231.604†	350.8	230.9	5.1125	ug/L	5.1125	ppb	11:47:41

2	P 214.914†	561.2	302.5	146.79 ug/L	146.79 ppb	11:47:41
2	Pb 220.353†	5.2	106.5	11.132 ug/L	11.132 ppb	11:47:41
2	S 181.975 Axial†	147.4	88.1	99.669 ug/L	99.669 ppb	11:47:41
2	Sb 206.836†	79.9	32.9	10.203 ug/L	10.203 ppb	11:47:41
2	Se 196.026†	22.2	60.7	31.122 ug/L	31.122 ppb	11:47:41
2	Si 251.611†	4081.5	3407.5	98.335 ug/L	98.335 ppb	11:47:41
2	Sn 189.927†	72.1	66.6	9.9654 ug/L	9.9654 ppb	11:47:41
2	Ti 334.940†	1502.7	3240.0	5.1722 ug/L	5.1722 ppb	11:47:20
2	Tl 190.801†	31.5	76.8	21.164 ug/L	21.164 ppb	11:47:41
2	U 409.014†	-909.2	2009.1	59.853 ug/L	59.853 ppb	11:47:20
2	V 292.402†	-956.4	860.3	5.7022 ug/L	5.7022 ppb	11:47:41
2	Zn 213.857†	2088.3	1212.7	9.9838 ug/L	9.9838 ppb	11:47:41
2	SiO2†	4179.8	3486.1	214.76 ug/L	214.76 ppb	11:48:17
3	Sc Radial	4540.4	4540.4	98.1 %		11:46:28
3	Y RADIAL	4811.0	4811.0	98.29 %		11:46:28
3	Al 396.153Radial†	236.1	261.5	224.62 ug/L	224.62 ppb	11:46:28
3	Ca 317.933Radial†	131.6	120.1	207.47 ug/L	207.47 ppb	11:46:48
3	Fe 238.204 Radial†	24.3	12.0	115.51 ug/L	115.51 ppb	11:46:48
3	K 766.490 Radial†	4069.5	918.7	185.85 ug/L	185.85 ppb	11:46:28
3	Mg 279.077 IEC†	13.6	12.3	420.48 ug/L	420.48 ppb	11:46:48
3	Na 589.592 Radial†	-828.7	925.3	315.93 ug/L	315.93 ppb	11:46:28
3	Sr 421.552†	639.7	640.7	4.7185 ug/L	4.7185 ppb	11:46:28
3	Sc 361.383	876850.8	876850.8	100.40 %		11:47:46
3	Y 371.029	749753.1	749753.1	100.06 %		11:47:46
3	Ag 328.068†	1636.5	1139.0	4.9500 ug/L	4.9500 ppb	11:47:46
3	As 188.979†	55.6	86.9	30.485 ug/L	30.485 ppb	11:48:06
3	B 249.677†	1790.2	2548.5	52.847 ug/L	52.847 ppb	11:48:06
3	Ba 233.527†	703.6	682.2	5.0373 ug/L	5.0373 ppb	11:48:06
3	Be 313.107†	10620.7	14958.4	5.0511 ug/L	5.0511 ppb	11:47:46
3	Cd 226.502†	278.0	529.9	5.0395 ug/L	5.0395 ppb	11:48:06
3	Co 228.616†	177.1	275.6	5.2235 ug/L	5.2235 ppb	11:48:06
3	Cr 267.716†	604.8	512.1	5.1904 ug/L	5.1904 ppb	11:48:06
3	Cu 324.752†	11580.7	3430.7	10.237 ug/L	10.237 ppb	11:47:46
3	Mn 257.610†	10987.3	9637.0	10.149 ug/L	10.149 ppb	11:47:46
3	Mo 202.031†	180.8	153.4	9.7170 ug/L	9.7170 ppb	11:48:06
3	Ni 231.604†	364.5	246.9	5.4684 ug/L	5.4684 ppb	11:48:06
3	P 214.914†	552.2	297.3	144.08 ug/L	144.08 ppb	11:48:06
3	Pb 220.353†	-2.6	98.7	10.323 ug/L	10.323 ppb	11:48:06
3	S 181.975 Axial†	143.4	85.2	96.308 ug/L	96.308 ppb	11:48:06
3	Sb 206.836†	62.5	16.1	5.1241 ug/L	5.1241 ppb	11:48:06
3	Se 196.026†	19.4	58.1	29.985 ug/L	29.985 ppb	11:48:06
3	Si 251.611†	4117.7	3471.2	100.16 ug/L	100.16 ppb	11:48:06
3	Sn 189.927†	74.4	69.4	10.385 ug/L	10.385 ppb	11:48:06
3	Ti 334.940†	1431.9	3179.6	5.0735 ug/L	5.0735 ppb	11:47:46
3	Tl 190.801†	31.3	76.9	21.178 ug/L	21.178 ppb	11:48:06
3	U 409.014†	-735.9	2175.6	64.809 ug/L	64.809 ppb	11:47:46
3	V 292.402†	-1002.8	807.6	5.3723 ug/L	5.3723 ppb	11:48:06
3	Zn 213.857†	2076.1	1214.7	9.9882 ug/L	9.9882 ppb	11:48:06
3	SiO2†	4200.4	3534.9	217.74 ug/L	217.74 ppb	11:48:22

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	879131.6	100.66	%	0.371				0.37%
Sc Radial	4641.9	100	%	2.2				2.18%
Y 371.029	751396.4	100.28	%	0.335				0.33%
Y RADIAL	4918.2	100.5	%	1.98				1.97%
Ag 328.068†	1157.7	5.0246	ug/L	0.14885	5.0246	ppb	0.14885	2.96%
QC value within limits for Ag 328.068 Recovery = 100.49%								
Al 396.153Radial†	243.2	208.82	ug/L	17.716	208.82	ppb	17.716	8.48%
QC value within limits for Al 396.153Radial Recovery = 104.41%								
As 188.979†	85.2	29.909	ug/L	1.5883	29.909	ppb	1.5883	5.31%
QC value within limits for As 188.979 Recovery = 99.70%								
B 249.677†	2534.9	52.570	ug/L	0.3129	52.570	ppb	0.3129	0.60%
QC value within limits for B 249.677 Recovery = 105.14%								
Ba 233.527†	680.4	5.0236	ug/L	0.03856	5.0236	ppb	0.03856	0.77%
QC value within limits for Ba 233.527 Recovery = 100.47%								
Be 313.107†	14847.5	5.0138	ug/L	0.04341	5.0138	ppb	0.04341	0.87%
QC value within limits for Be 313.107 Recovery = 100.28%								
Ca 317.933Radial†	120.6	208.30	ug/L	4.292	208.30	ppb	4.292	2.06%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.15%
Cd 226.502†              517.8      4.9275 ug/L       0.09709      4.9275 ppb        0.09709   1.97%
   QC value within limits for Cd 226.502  Recovery = 98.55%
Co 228.616†              273.3      5.1816 ug/L       0.03961      5.1816 ppb        0.03961   0.76%
   QC value within limits for Co 228.616  Recovery = 103.63%
Cr 267.716†              500.1      5.0690 ug/L       0.13123      5.0690 ppb        0.13123   2.59%
   QC value within limits for Cr 267.716  Recovery = 101.38%
Cu 324.752†             3324.9      9.9197 ug/L       0.43916      9.9197 ppb        0.43916   4.43%
   QC value within limits for Cu 324.752  Recovery = 99.20%
Fe 238.204 Radial†        8.7      84.050 ug/L       28.3113      84.050 ppb        28.3113  33.68%
   QC value within limits for Fe 238.204 Radial  Recovery = 84.05%
K 766.490 Radial†        792.5      160.29 ug/L        23.210      160.29 ppb         23.210  14.48%
   QC value within limits for K 766.490 Radial  Recovery = 106.86%
Mg 279.077 IEC†            9.6      328.08 ug/L        91.709      328.08 ppb         91.709  27.95%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.36%
Mn 257.610†             9576.0      10.084 ug/L        0.1589      10.084 ppb         0.1589   1.58%
   QC value within limits for Mn 257.610  Recovery = 100.84%
Mo 202.031†              156.1      9.8863 ug/L       0.21911      9.8863 ppb        0.21911   2.22%
   QC value within limits for Mo 202.031  Recovery = 98.86%
Na 589.592 Radial†       963.9      329.11 ug/L        11.426      329.11 ppb         11.426   3.47%
   QC value within limits for Na 589.592 Radial  Recovery = 109.70%
Ni 231.604†              244.5      5.4142 ug/L       0.27867      5.4142 ppb        0.27867   5.15%
   QC value within limits for Ni 231.604  Recovery = 108.28%
P 214.914†               299.6      145.28 ug/L         1.382      145.28 ppb          1.382   0.95%
   QC value within limits for P 214.914  Recovery = 96.85%
Pb 220.353†              101.2      10.584 ug/L        0.4753      10.584 ppb         0.4753   4.49%
   QC value within limits for Pb 220.353  Recovery = 105.84%
S 181.975 Axial†          84.3      95.291 ug/L        4.9663      95.291 ppb         4.9663   5.21%
   QC value within limits for S 181.975 Axial  Recovery = 95.29%
Sb 206.836†               31.1      9.6602 ug/L       4.29049      9.6602 ppb        4.29049  44.41%
   QC value within limits for Sb 206.836  Recovery = 96.60%
Se 196.026†               59.3      30.490 ug/L        0.5795      30.490 ppb         0.5795   1.90%
   QC value within limits for Se 196.026  Recovery = 101.63%
Si 251.611†             3438.1      99.211 ug/L        0.9151      99.211 ppb         0.9151   0.92%
   QC value within limits for Si 251.611  Recovery = 99.21%
Sn 189.927†               66.3      9.9209 ug/L       0.48815      9.9209 ppb        0.48815   4.92%
   QC value within limits for Sn 189.927  Recovery = 99.21%
Sr 421.552†              651.5      4.7982 ug/L       0.13792      4.7982 ppb        0.13792   2.87%
   QC value within limits for Sr 421.552  Recovery = 95.96%
Ti 334.940†             3195.8      5.1014 ug/L       0.06183      5.1014 ppb        0.06183   1.21%
   QC value within limits for Ti 334.940  Recovery = 102.03%
Tl 190.801†               73.1      20.132 ug/L        1.7990      20.132 ppb         1.7990   8.94%
   QC value within limits for Tl 190.801  Recovery = 100.66%
U 409.014†              2038.4      60.724 ug/L        3.7269      60.724 ppb         3.7269   6.14%
   QC value within limits for U 409.014  Recovery = 121.45%
V 292.402†               822.5      5.4637 ug/L       0.20839      5.4637 ppb        0.20839   3.81%
   QC value within limits for V 292.402  Recovery = 109.27%
Zn 213.857†             1210.0      9.9541 ug/L       0.05533      9.9541 ppb        0.05533   0.56%
   QC value within limits for Zn 213.857  Recovery = 99.54%
SiO2†                   3481.8      214.48 ug/L         3.411      214.48 ppb          3.411   1.59%
   QC value within limits for SiO2  Recovery = 100.69%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 1/7/2010 11:50:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4137.4	4137.4	89.4	%			11:52:31
1	Y RADIAL	4389.0	4389.0	89.67	%			11:52:31
1	Al 396.153Radial†	537443.7	601186.2	517350	ug/L	517350	ppb	11:52:26
1	Ca 317.933Radial†	253484.2	283524.4	489640	ug/L	489640	ppb	11:52:26
1	Fe 238.204 Radial†	17746.6	19838.0	190260	ug/L	190260	ppb	11:52:31
1	K 766.490 Radial†	2725.9	-180.2	-21.542	ug/L	-21.542	ppb	11:52:26
1	Mg 279.077 IEC†	12843.5	14364.8	489310	ug/L	489310	ppb	11:52:31
1	Na 589.592 Radial†	-1479.1	115.5	39.442	ug/L	39.442	ppb	11:52:31
1	Sr 421.552†	468.8	513.1	-0.7581	ug/L	-0.7581	ppb	11:52:31
1	Sc 361.383	771134.2	771134.2	88.297	%			11:52:58
1	Y 371.029	648217.7	648217.7	86.507	%			11:52:58
1	Ag 328.068†	-10261.0	-12111.9	3.8200	ug/L	3.8200	ppb	11:52:58
1	As 188.979†	-88.7	-68.9	5.0464	ug/L	5.0464	ppb	11:53:18
1	B 249.677†	83.1	859.6	-7.4085	ug/L	-7.4085	ppb	11:52:58
1	Ba 233.527†	-707.5	-819.8	-1.2083	ug/L	-1.2083	ppb	11:53:18
1	Be 313.107†	-4187.9	-362.9	-0.1645	ug/L	-0.1645	ppb	11:52:58
1	Cd 226.502†	1316.1	1743.5	-2.4108	ug/L	-2.4108	ppb	11:53:18
1	Co 228.616†	-26.5	69.2	-1.4148	ug/L	-1.4148	ppb	11:53:18
1	Cr 267.716†	-30.1	-124.3	2.1584	ug/L	2.1584	ppb	11:53:18
1	Cu 324.752†	4149.2	-3404.6	-0.4475	ug/L	-0.4475	ppb	11:52:58
1	Mn 257.610†	-419.6	-1781.5	7.9848	ug/L	7.9848	ppb	11:52:58
1	Mo 202.031†	-260.9	-322.2	-2.1492	ug/L	-2.1492	ppb	11:53:18
1	Ni 231.604†	260.0	178.3	3.9500	ug/L	3.9500	ppb	11:53:18
1	P 214.914†	216.1	-7.9	18.739	ug/L	18.739	ppb	11:53:18
1	Pb 220.353†	-1012.2	-1045.0	-8.2825	ug/L	-8.2825	ppb	11:53:18
1	S 181.975 Axial†	84.0	37.5	-59.336	ug/L	-59.336	ppb	11:53:18
1	Sb 206.836†	81.7	46.3	1.4527	ug/L	1.4527	ppb	11:53:18
1	Se 196.026†	-1159.0	-1273.8	18.050	ug/L	18.050	ppb	11:53:18
1	Si 251.611†	538.0	-20.7	-0.0264	ug/L	-0.0264	ppb	11:53:18
1	Sn 189.927†	-387.4	-443.5	-12.569	ug/L	-12.569	ppb	11:53:18
1	Ti 334.940†	-13398.5	-13420.9	4.0340	ug/L	4.0340	ppb	11:52:58
1	Tl 190.801†	-96.3	-63.4	-3.4471	ug/L	-3.4471	ppb	11:53:18
1	U 409.014†	-1932.6	719.8	-2.4850	ug/L	-2.4850	ppb	11:52:58
1	V 292.402†	390.0	2248.1	-3.8644	ug/L	-3.8644	ppb	11:53:18
1	Zn 213.857†	3446.4	3050.1	-1.3780	ug/L	-1.3780	ppb	11:53:18
1	SiO2†	630.9	65.8	5.3138	ug/L	5.3138	ppb	11:54:15
2	Sc Radial	4066.0	4066.0	87.9	%			11:52:41
2	Y RADIAL	4326.6	4326.6	88.39	%			11:52:41
2	Al 396.153Radial†	543889.4	619086.9	532750	ug/L	532750	ppb	11:52:36
2	Ca 317.933Radial†	256049.4	291426.6	503290	ug/L	503290	ppb	11:52:36
2	Fe 238.204 Radial†	17543.5	19955.7	191390	ug/L	191390	ppb	11:52:41
2	K 766.490 Radial†	2850.4	15.1	18.653	ug/L	18.653	ppb	11:52:36
2	Mg 279.077 IEC†	12671.2	14421.2	491230	ug/L	491230	ppb	11:52:41
2	Na 589.592 Radial†	-1461.0	107.1	36.550	ug/L	36.550	ppb	11:52:41
2	Sr 421.552†	448.4	499.1	-0.9880	ug/L	-0.9880	ppb	11:52:41
2	Sc 361.383	775426.4	775426.4	88.788	%			11:53:24
2	Y 371.029	652272.5	652272.5	87.048	%			11:53:24
2	Ag 328.068†	-10612.3	-12443.3	2.5530	ug/L	2.5530	ppb	11:53:24
2	As 188.979†	-98.2	-79.1	1.6504	ug/L	1.6504	ppb	11:53:44
2	B 249.677†	6.8	773.2	-9.3506	ug/L	-9.3506	ppb	11:53:24
2	Ba 233.527†	-666.1	-768.8	-0.8048	ug/L	-0.8048	ppb	11:53:44
2	Be 313.107†	-4139.4	-282.0	-0.1377	ug/L	-0.1377	ppb	11:53:24
2	Cd 226.502†	1266.0	1678.9	-3.1395	ug/L	-3.1395	ppb	11:53:44
2	Co 228.616†	-25.2	70.8	-1.3981	ug/L	-1.3981	ppb	11:53:44
2	Cr 267.716†	-56.0	-153.3	1.8827	ug/L	1.8827	ppb	11:53:44
2	Cu 324.752†	4301.9	-3258.6	0.0455	ug/L	0.0455	ppb	11:53:24
2	Mn 257.610†	-441.0	-1803.0	8.0389	ug/L	8.0389	ppb	11:53:24
2	Mo 202.031†	-260.2	-319.7	-1.8811	ug/L	-1.8811	ppb	11:53:44
2	Ni 231.604†	266.5	184.0	4.0763	ug/L	4.0763	ppb	11:53:44

2	P 214.914†	242.2	20.2	36.676 ug/L	36.676 ppb	11:53:44
2	Pb 220.353†	-992.3	-1016.3	-1.9333 ug/L	-1.9333 ppb	11:53:44
2	S 181.975 Axial†	84.3	37.3	-62.595 ug/L	-62.595 ppb	11:53:44
2	Sb 206.836†	54.4	15.1	-8.4184 ug/L	-8.4184 ppb	11:53:44
2	Se 196.026†	-1142.2	-1247.7	37.229 ug/L	37.229 ppb	11:53:44
2	Si 251.611†	603.9	50.1	2.0156 ug/L	2.0156 ppb	11:53:44
2	Sn 189.927†	-404.5	-460.3	-13.644 ug/L	-13.644 ppb	11:53:44
2	Ti 334.940†	-13588.3	-13550.7	4.5362 ug/L	4.5362 ppb	11:53:24
2	Tl 190.801†	-92.6	-58.7	-1.7314 ug/L	-1.7314 ppb	11:53:44
2	U 409.014†	-1825.4	852.7	1.3345 ug/L	1.3345 ppb	11:53:24
2	V 292.402†	364.9	2217.3	-4.1776 ug/L	-4.1776 ppb	11:53:44
2	Zn 213.857†	3459.6	3043.4	-1.5592 ug/L	-1.5592 ppb	11:53:44
2	SiO2†	585.5	10.7	1.8900 ug/L	1.8900 ppb	11:54:20
3	Sc Radial	4298.7	4298.7	92.9 %		11:52:52
3	Y RADIAL	4535.0	4535.0	92.65 %		11:52:52
3	Al 396.153Radial†	540215.2	581621.4	500510 ug/L	500510 ppb	11:52:47
3	Ca 317.933Radial†	254682.4	274179.4	473500 ug/L	473500 ppb	11:52:47
3	Fe 238.204 Radial†	18327.8	19719.2	189120 ug/L	189120 ppb	11:52:52
3	K 766.490 Radial†	2656.6	-369.2	-60.342 ug/L	-60.342 ppb	11:52:47
3	Mg 279.077 IEC†	13233.7	14246.1	485270 ug/L	485270 ppb	11:52:52
3	Na 589.592 Radial†	-1481.8	174.7	59.630 ug/L	59.630 ppb	11:52:52
3	Sr 421.552†	486.1	512.0	-0.6165 ug/L	-0.6165 ppb	11:52:52
3	Sc 361.383	769777.4	769777.4	88.142 %		11:53:49
3	Y 371.029	647388.0	647388.0	86.396 %		11:53:49
3	Ag 328.068†	-10483.5	-12384.9	2.4812 ug/L	2.4812 ppb	11:53:49
3	As 188.979†	-106.4	-89.2	-2.2267 ug/L	-2.2267 ppb	11:54:09
3	B 249.677†	-9.4	754.8	-9.4310 ug/L	-9.4310 ppb	11:53:49
3	Ba 233.527†	-713.5	-828.0	-1.2972 ug/L	-1.2972 ppb	11:54:09
3	Be 313.107†	-4106.8	-279.2	-0.1365 ug/L	-0.1365 ppb	11:53:49
3	Cd 226.502†	1287.3	1713.4	-2.5841 ug/L	-2.5841 ppb	11:54:09
3	Co 228.616†	-20.4	76.0	-1.2643 ug/L	-1.2643 ppb	11:54:09
3	Cr 267.716†	-31.7	-126.2	2.1154 ug/L	2.1154 ppb	11:54:09
3	Cu 324.752†	4176.7	-3365.0	-0.3876 ug/L	-0.3876 ppb	11:53:49
3	Mn 257.610†	-507.9	-1882.5	7.8401 ug/L	7.8401 ppb	11:53:49
3	Mo 202.031†	-236.9	-295.4	-0.5635 ug/L	-0.5635 ppb	11:54:09
3	Ni 231.604†	235.2	150.6	3.3373 ug/L	3.3373 ppb	11:54:09
3	P 214.914†	220.6	-2.4	16.568 ug/L	16.568 ppb	11:54:09
3	Pb 220.353†	-975.2	-1005.1	-7.8098 ug/L	-7.8098 ppb	11:54:09
3	S 181.975 Axial†	87.3	41.4	-51.611 ug/L	-51.611 ppb	11:54:09
3	Sb 206.836†	75.9	40.0	-0.0547 ug/L	-0.0547 ppb	11:54:09
3	Se 196.026†	-1136.0	-1250.1	24.005 ug/L	24.005 ppb	11:54:09
3	Si 251.611†	566.6	12.8	0.9401 ug/L	0.9401 ppb	11:54:09
3	Sn 189.927†	-413.7	-474.1	-18.841 ug/L	-18.841 ppb	11:54:09
3	Ti 334.940†	-13430.5	-13484.0	3.0867 ug/L	3.0867 ppb	11:53:49
3	Tl 190.801†	-102.4	-70.5	-5.8572 ug/L	-5.8572 ppb	11:54:09
3	U 409.014†	-1630.9	1058.2	7.7434 ug/L	7.7434 ppb	11:53:49
3	V 292.402†	403.5	2264.2	-3.6364 ug/L	-3.6364 ppb	11:54:09
3	Zn 213.857†	3480.9	3096.1	-0.7961 ug/L	-0.7961 ppb	11:54:09
3	SiO2†	614.5	48.4	4.2325 ug/L	4.2325 ppb	11:54:25

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	772112.7	88.409	%	0.3376				0.38%
Sc Radial	4167.4	90.0	%	2.58				2.86%
Y 371.029	649292.7	86.650	%	0.3488				0.40%
Y RADIAL	4416.9	90.23	%	2.185				2.42%
Ag 328.068†	-12313.4	2.9514	ug/L	0.75312	2.9514	ppb	0.75312	25.52%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	600631.5	516870	ug/L	16125.6	516870	ppb	16125.6	3.12%
QC value within limits for Al 396.153Radial Recovery = 103.37%								
As 188.979†	-79.1	1.4900	ug/L	3.63921	1.4900	ppb	3.63921	244.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	795.9	-8.7301	ug/L	1.14518	-8.7301	ppb	1.14518	13.12%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-805.6	-1.1034	ug/L	0.26246	-1.1034	ppb	0.26246	23.79%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-308.0	-0.1463	ug/L	0.01584	-0.1463	ppb	0.01584	10.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	283043.5	488810	ug/L	14910.2	488810	ppb	14910.2	3.05%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.76%
Cd 226.502†            1711.9     -2.7115 ug/L       0.38069     -2.7115 ppb        0.38069  14.04%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              72.0     -1.3591 ug/L       0.08252     -1.3591 ppb        0.08252   6.07%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -134.6      2.0521 ug/L       0.14833      2.0521 ppb        0.14833   7.23%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -3342.7     -0.2632 ug/L       0.26900     -0.2632 ppb        0.26900 102.20%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    19837.6      190260 ug/L        1134.0      190260 ppb         1134.0   0.60%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.13%
K 766.490 Radial†       -178.1     -21.077 ug/L       39.4996     -21.077 ppb        39.4996 187.41%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       14344.0      488600 ug/L        3044.5      488600 ppb         3044.5   0.62%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.72%
Mn 257.610†           -1822.3      7.9546 ug/L       0.10275      7.9546 ppb        0.10275   1.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -312.5     -1.5313 ug/L       0.84874     -1.5313 ppb        0.84874  55.43%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       132.4      45.208 ug/L       12.5740      45.208 ppb        12.5740  27.81%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              171.0      3.7879 ug/L       0.39530      3.7879 ppb        0.39530  10.44%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 3.3      23.994 ug/L       11.0361      23.994 ppb        11.0361  45.99%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†           -1022.1     -6.0085 ug/L       3.53713     -6.0085 ppb        3.53713  58.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         38.7     -57.847 ug/L        5.6414     -57.847 ppb         5.6414   9.75%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              33.8     -2.3401 ug/L       5.31764     -2.3401 ppb        5.31764 227.24%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†           -1257.2      26.428 ug/L        9.8166      26.428 ppb         9.8166  37.14%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              14.1      0.9764 ug/L       1.02148      0.9764 ppb        1.02148 104.61%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -459.3     -15.018 ug/L        3.3538     -15.018 ppb         3.3538  22.33%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             508.1     -0.7875 ug/L       0.18751     -0.7875 ppb        0.18751  23.81%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -13485.2      3.8856 ug/L       0.73609      3.8856 ppb        0.73609  18.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -64.2     -3.6786 ug/L       2.07262     -3.6786 ppb        2.07262  56.34%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              876.9      2.1976 ug/L       5.16854      2.1976 ppb        5.16854 235.19%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             2243.2     -3.8928 ug/L       0.27170     -3.8928 ppb        0.27170   6.98%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            3063.2     -1.2444 ug/L       0.39869     -1.2444 ppb        0.39869  32.04%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    41.7      3.8121 ug/L       1.75022      3.8121 ppb        1.75022  45.91%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 1/7/2010 11:56:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4175.1	4175.1	90.2	%			11:58:34
1	Y RADIAL	4423.5	4423.5	90.37	%			11:58:34
1	Al 396.153Radial†	530261.5	587806.0	505810	ug/L	505810	ppb	11:58:29
1	Ca 317.933Radial†	249233.4	276256.7	477090	ug/L	477090	ppb	11:58:29
1	Fe 238.204 Radial†	17493.4	19378.3	185870	ug/L	185870	ppb	11:58:34
1	K 766.490 Radial†	26339.8	25967.9	5268.1	ug/L	5268.1	ppb	11:58:29
1	Mg 279.077 IEC†	12680.5	14054.6	478750	ug/L	478750	ppb	11:58:34
1	Na 589.592 Radial†	12374.7	15487.1	5287.6	ug/L	5287.6	ppb	11:58:34
1	Sr 421.552†	58713.0	65071.0	474.99	ug/L	474.99	ppb	11:58:29
1	Sc 361.383	771439.1	771439.1	88.332	%			11:59:02
1	Y 371.029	647937.9	647937.9	86.469	%			11:59:02
1	Ag 328.068†	44162.7	49505.4	271.82	ug/L	271.82	ppb	11:59:02
1	As 188.979†	1202.9	1393.3	520.87	ug/L	520.87	ppb	11:59:07
1	B 249.677†	21742.0	25390.9	500.97	ug/L	500.97	ppb	11:59:02
1	Ba 233.527†	58696.3	66431.3	494.94	ug/L	494.94	ppb	11:59:02
1	Be 313.107†	631337.7	719114.5	243.31	ug/L	243.31	ppb	11:59:02
1	Cd 226.502†	44973.3	51167.0	469.11	ug/L	469.11	ppb	11:59:07
1	Co 228.616†	21722.1	24690.7	464.39	ug/L	464.39	ppb	11:59:07
1	Cr 267.716†	41237.4	46594.4	477.17	ug/L	477.17	ppb	11:59:07
1	Cu 324.752†	169880.7	184217.5	558.85	ug/L	558.85	ppb	11:59:02
1	Mn 257.610†	407146.0	459621.7	493.50	ug/L	493.50	ppb	11:59:02
1	Mo 202.031†	6621.1	7469.0	490.34	ug/L	490.34	ppb	11:59:07
1	Ni 231.604†	18676.7	21027.6	465.66	ug/L	465.66	ppb	11:59:07
1	P 214.914†	4801.5	5183.1	2477.3	ug/L	2477.3	ppb	11:59:07
1	Pb 220.353†	3022.4	3523.0	465.51	ug/L	465.51	ppb	11:59:07
1	S 181.975 Axial†	2133.8	2358.0	2568.2	ug/L	2568.2	ppb	11:59:07
1	Sb 206.836†	1540.6	1698.0	508.14	ug/L	508.14	ppb	11:59:07
1	Se 196.026†	3283.8	3756.3	2562.6	ug/L	2562.6	ppb	11:59:07
1	Si 251.611†	159646.1	180104.6	5199.3	ug/L	5199.3	ppb	11:59:02
1	Sn 189.927†	2477.8	2800.4	470.52	ug/L	470.52	ppb	11:59:07
1	Ti 334.940†	269659.9	307034.1	516.30	ug/L	516.30	ppb	11:59:02
1	Tl 190.801†	1475.0	1715.6	488.05	ug/L	488.05	ppb	11:59:07
1	U 409.014†	12916.4	17531.2	498.12	ug/L	498.12	ppb	11:59:02
1	V 292.402†	69736.0	80754.2	501.87	ug/L	501.87	ppb	11:59:02
1	Zn 213.857†	56122.3	62682.7	489.24	ug/L	489.24	ppb	11:59:07
1	SiO2†	161400.9	182072.5	11220	ug/L	11220	ppb	11:59:34
2	Sc Radial	4174.4	4174.4	90.2	%			11:58:44
2	Y RADIAL	4457.7	4457.7	91.07	%			11:58:44
2	Al 396.153Radial†	540235.5	598964.4	515410	ug/L	515410	ppb	11:58:39
2	Ca 317.933Radial†	254206.3	281817.2	486690	ug/L	486690	ppb	11:58:39
2	Fe 238.204 Radial†	17724.7	19638.1	188360	ug/L	188360	ppb	11:58:44
2	K 766.490 Radial†	26806.6	26490.5	5374.1	ug/L	5374.1	ppb	11:58:39
2	Mg 279.077 IEC†	12896.6	14296.5	487000	ug/L	487000	ppb	11:58:44
2	Na 589.592 Radial†	12674.6	15822.0	5401.9	ug/L	5401.9	ppb	11:58:44
2	Sr 421.552†	59735.1	66215.3	483.33	ug/L	483.33	ppb	11:58:39
2	Sc 361.383	783747.4	783747.4	89.741	%			11:59:13
2	Y 371.029	658116.8	658116.8	87.828	%			11:59:13
2	Ag 328.068†	44487.9	49082.6	270.66	ug/L	270.66	ppb	11:59:13
2	As 188.979†	1160.2	1324.3	497.07	ug/L	497.07	ppb	11:59:18
2	B 249.677†	21957.7	25233.2	497.40	ug/L	497.40	ppb	11:59:13
2	Ba 233.527†	59198.8	65947.7	491.44	ug/L	491.44	ppb	11:59:13
2	Be 313.107†	637753.5	715039.2	241.93	ug/L	241.93	ppb	11:59:13
2	Cd 226.502†	44507.6	49848.6	456.30	ug/L	456.30	ppb	11:59:18
2	Co 228.616†	21402.2	23948.0	450.28	ug/L	450.28	ppb	11:59:18
2	Cr 267.716†	40694.5	45256.3	463.62	ug/L	463.62	ppb	11:59:18
2	Cu 324.752†	171213.8	182682.7	554.40	ug/L	554.40	ppb	11:59:13
2	Mn 257.610†	411212.8	456914.8	490.74	ug/L	490.74	ppb	11:59:13
2	Mo 202.031†	6462.7	7174.7	471.96	ug/L	471.96	ppb	11:59:18
2	Ni 231.604†	18452.8	20446.1	452.78	ug/L	452.78	ppb	11:59:18

2	P 214.914†	4825.7	5124.7	2450.6 ug/L	2450.6 ppb	11:59:18
2	Pb 220.353†	2905.9	3339.4	448.32 ug/L	448.32 ppb	11:59:18
2	S 181.975 Axial†	2135.0	2321.4	2524.9 ug/L	2524.9 ppb	11:59:18
2	Sb 206.836†	1587.5	1722.9	515.21 ug/L	515.21 ppb	11:59:18
2	Se 196.026†	3247.4	3657.4	2521.4 ug/L	2521.4 ppb	11:59:18
2	Si 251.611†	160944.9	178713.5	5159.4 ug/L	5159.4 ppb	11:59:13
2	Sn 189.927†	2465.4	2742.5	462.90 ug/L	462.90 ppb	11:59:18
2	Ti 334.940†	271910.2	304747.4	513.14 ug/L	513.14 ppb	11:59:13
2	Tl 190.801†	1426.0	1634.7	466.15 ug/L	466.15 ppb	11:59:18
2	U 409.014†	13220.3	17640.2	501.09 ug/L	501.09 ppb	11:59:13
2	V 292.402†	70320.3	80165.4	497.69 ug/L	497.69 ppb	11:59:13
2	Zn 213.857†	55437.9	60922.3	474.34 ug/L	474.34 ppb	11:59:18
2	SiO2†	161350.0	179146.2	11040 ug/L	11040 ppb	11:59:39
3	Sc Radial	4162.1	4162.1	89.9 %		11:58:55
3	Y RADIAL	4407.2	4407.2	90.04 %		11:58:55
3	Al 396.153Radial†	542645.0	603412.9	519240 ug/L	519240 ppb	11:58:50
3	Ca 317.933Radial†	254530.7	283010.4	488750 ug/L	488750 ppb	11:58:50
3	Fe 238.204 Radial†	17985.2	19985.9	191690 ug/L	191690 ppb	11:58:55
3	K 766.490 Radial†	26834.6	26609.3	5398.4 ug/L	5398.4 ppb	11:58:50
3	Mg 279.077 IEC†	13050.3	14509.7	494260 ug/L	494260 ppb	11:58:55
3	Na 589.592 Radial†	12870.8	16081.7	5490.5 ug/L	5490.5 ppb	11:58:55
3	Sr 421.552†	60170.2	66894.7	488.32 ug/L	488.32 ppb	11:58:50
3	Sc 361.383	789060.3	789060.3	90.349 %		11:59:24
3	Y 371.029	662562.6	662562.6	88.421 %		11:59:24
3	Ag 328.068†	44954.6	49265.4	272.55 ug/L	272.55 ppb	11:59:24
3	As 188.979†	1150.2	1304.6	490.63 ug/L	490.63 ppb	11:59:29
3	B 249.677†	22149.6	25281.0	497.94 ug/L	497.94 ppb	11:59:24
3	Ba 233.527†	59507.6	65845.2	490.77 ug/L	490.77 ppb	11:59:24
3	Be 313.107†	641170.3	714035.9	241.60 ug/L	241.60 ppb	11:59:24
3	Cd 226.502†	45319.4	50413.1	461.34 ug/L	461.34 ppb	11:59:29
3	Co 228.616†	21792.3	24219.1	455.38 ug/L	455.38 ppb	11:59:29
3	Cr 267.716†	41404.9	45737.2	468.57 ug/L	468.57 ppb	11:59:29
3	Cu 324.752†	172817.7	183173.2	556.03 ug/L	556.03 ppb	11:59:24
3	Mn 257.610†	413643.9	456520.2	490.52 ug/L	490.52 ppb	11:59:24
3	Mo 202.031†	6654.5	7338.6	482.65 ug/L	482.65 ppb	11:59:29
3	Ni 231.604†	18779.5	20669.3	457.73 ug/L	457.73 ppb	11:59:29
3	P 214.914†	4865.9	5133.0	2453.1 ug/L	2453.1 ppb	11:59:29
3	Pb 220.353†	3056.3	3484.0	463.97 ug/L	463.97 ppb	11:59:29
3	S 181.975 Axial†	2171.3	2345.5	2551.4 ug/L	2551.4 ppb	11:59:29
3	Sb 206.836†	1562.4	1683.1	503.48 ug/L	503.48 ppb	11:59:29
3	Se 196.026†	3324.1	3717.9	2563.0 ug/L	2563.0 ppb	11:59:29
3	Si 251.611†	162170.3	178862.2	5163.5 ug/L	5163.5 ppb	11:59:24
3	Sn 189.927†	2562.8	2831.8	476.50 ug/L	476.50 ppb	11:59:29
3	Ti 334.940†	273579.0	304554.3	512.94 ug/L	512.94 ppb	11:59:24
3	Tl 190.801†	1483.3	1687.4	480.69 ug/L	480.69 ppb	11:59:29
3	U 409.014†	13085.8	17392.1	493.27 ug/L	493.27 ppb	11:59:24
3	V 292.402†	70753.0	80116.8	497.17 ug/L	497.17 ppb	11:59:24
3	Zn 213.857†	56493.1	61674.3	480.11 ug/L	480.11 ppb	11:59:29
3	SiO2†	158464.7	174742.1	10768 ug/L	10768 ppb	11:59:45

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	781415.6	89.474	%	1.0350				1.16%
Sc Radial	4170.5	90.1	%	0.16				0.18%
Y 371.029	656205.8	87.573	%	1.0005				1.14%
Y RADIAL	4429.5	90.49	%	0.527				0.58%
Ag 328.068†	49284.5	271.68	ug/L	0.951	271.68	ppb	0.951	0.35%
QC value within limits for Ag 328.068 Recovery = 108.67%								
Al 396.153Radial†	596727.8	513490	ug/L	6919.2	513490	ppb	6919.2	1.35%
QC value within limits for Al 396.153Radial Recovery = 102.70%								
As 188.979†	1340.7	502.86	ug/L	15.930	502.86	ppb	15.930	3.17%
QC value within limits for As 188.979 Recovery = 100.57%								
B 249.677†	25301.7	498.77	ug/L	1.922	498.77	ppb	1.922	0.39%
QC value within limits for B 249.677 Recovery = 99.75%								
Ba 233.527†	66074.7	492.38	ug/L	2.243	492.38	ppb	2.243	0.46%
QC value within limits for Ba 233.527 Recovery = 98.48%								
Be 313.107†	716063.2	242.28	ug/L	0.911	242.28	ppb	0.911	0.38%
QC value within limits for Be 313.107 Recovery = 96.91%								
Ca 317.933Radial†	280361.4	484180	ug/L	6225.0	484180	ppb	6225.0	1.29%

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   QC value within limits for Ca 317.933Radial  Recovery = 96.84%
Cd 226.502†          50476.2      462.25 ug/L        6.456      462.25 ppb        6.456   1.40%
   QC value within limits for Cd 226.502  Recovery = 92.45%
Co 228.616†          24286.0      456.69 ug/L        7.147      456.69 ppb        7.147   1.56%
   QC value within limits for Co 228.616  Recovery = 91.34%
Cr 267.716†          45862.6      469.79 ug/L        6.857      469.79 ppb        6.857   1.46%
   QC value within limits for Cr 267.716  Recovery = 93.96%
Cu 324.752†         183357.8      556.43 ug/L        2.251      556.43 ppb        2.251   0.40%
   QC value within limits for Cu 324.752  Recovery = 111.29%
Fe 238.204 Radial†   19667.5      188640 ug/L       2923.4      188640 ppb       2923.4   1.55%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.32%
K 766.490 Radial†    26355.9      5346.8 ug/L        69.29      5346.8 ppb        69.29   1.30%
   QC value within limits for K 766.490 Radial  Recovery = 106.94%
Mg 279.077 IEC†      14286.9      486670 ug/L       7757.4      486670 ppb       7757.4   1.59%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.33%
Mn 257.610†         457685.6      491.59 ug/L        1.657      491.59 ppb        1.657   0.34%
   QC value within limits for Mn 257.610  Recovery = 98.32%
Mo 202.031†           7327.4      481.65 ug/L        9.228      481.65 ppb        9.228   1.92%
   QC value within limits for Mo 202.031  Recovery = 96.33%
Na 589.592 Radial†   15796.9      5393.3 ug/L       101.76      5393.3 ppb       101.76   1.89%
   QC value within limits for Na 589.592 Radial  Recovery = 107.87%
Ni 231.604†          20714.3      458.72 ug/L        6.496      458.72 ppb        6.496   1.42%
   QC value within limits for Ni 231.604  Recovery = 91.74%
P 214.914†            5146.9      2460.3 ug/L        14.73      2460.3 ppb        14.73   0.60%
   QC value within limits for P 214.914  Recovery = 98.41%
Pb 220.353†           3448.8      459.27 ug/L        9.511      459.27 ppb        9.511   2.07%
   QC value within limits for Pb 220.353  Recovery = 91.85%
S 181.975 Axial†      2341.6      2548.2 ug/L        21.83      2548.2 ppb        21.83   0.86%
   QC value within limits for S 181.975 Axial  Recovery = 101.93%
Sb 206.836†           1701.3      508.94 ug/L        5.906      508.94 ppb        5.906   1.16%
   QC value within limits for Sb 206.836  Recovery = 101.79%
Se 196.026†           3710.6      2549.0 ug/L        23.93      2549.0 ppb        23.93   0.94%
   QC value within limits for Se 196.026  Recovery = 101.96%
Si 251.611†         179226.7      5174.1 ug/L        21.97      5174.1 ppb        21.97   0.42%
   QC value within limits for Si 251.611  Recovery = 103.48%
Sn 189.927†           2791.6      469.97 ug/L        6.816      469.97 ppb        6.816   1.45%
   QC value within limits for Sn 189.927  Recovery = 93.99%
Sr 421.552†          66060.4      482.21 ug/L        6.734      482.21 ppb        6.734   1.40%
   QC value within limits for Sr 421.552  Recovery = 96.44%
Ti 334.940†         305445.3      514.12 ug/L        1.884      514.12 ppb        1.884   0.37%
   QC value within limits for Ti 334.940  Recovery = 102.82%
Tl 190.801†           1679.2      478.30 ug/L       11.142      478.30 ppb       11.142   2.33%
   QC value within limits for Tl 190.801  Recovery = 95.66%
U 409.014†           17521.2      497.49 ug/L        3.948      497.49 ppb        3.948   0.79%
   QC value within limits for U 409.014  Recovery = 99.50%
V 292.402†           80345.5      498.91 ug/L        2.576      498.91 ppb        2.576   0.52%
   QC value within limits for V 292.402  Recovery = 99.78%
Zn 213.857†          61759.7      481.23 ug/L        7.511      481.23 ppb        7.511   1.56%
   QC value within limits for Zn 213.857  Recovery = 96.25%
SiO2†               178653.6       11009 ug/L        227.8       11009 ppb        227.8   2.07%
   QC value within limits for SiO2  Recovery = 102.94%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 1/7/2010 12:01:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4045.2	4045.2	87.4	%			12:03:52
1	Y RADIAL	4293.6	4293.6	87.72	%			12:03:52
1	Al 396.153Radial†	521147.4	596249.8	513100	ug/L	513100	ppb	12:03:47
1	Ca 317.933Radial†	247139.4	282730.7	488270	ug/L	488270	ppb	12:03:47
1	Fe 238.204 Radial†	40995.6	46889.1	449700	ug/L	449700	ppb	12:03:52
1	K 766.490 Radial†	2955.3	151.8	-176.30	ug/L	-176.30	ppb	12:03:47
1	Mg 279.077 IEC†	12371.7	14152.6	481860	ug/L	481860	ppb	12:03:52
1	Na 589.592 Radial†	1337214.6	1531636.7	522920	ug/L	522920	ppb	12:03:47
1	Sr 421.552†	639.1	719.8	0.7776	ug/L	0.7776	ppb	12:03:52
1	Sc 361.383	757679.3	757679.3	86.756	%			12:04:20
1	Y 371.029	638146.7	638146.7	85.163	%			12:04:20
1	Ag 328.068†	-25181.3	-29516.2	2.4670	ug/L	2.4670	ppb	12:04:20
1	As 188.979†	-228.2	-231.5	-11.885	ug/L	-11.885	ppb	12:04:40
1	B 249.677†	941.1	1850.3	-21.284	ug/L	-21.284	ppb	12:04:20
1	Ba 233.527†	-1937.1	-2251.3	-5.1872	ug/L	-5.1872	ppb	12:04:40
1	Be 313.107†	-10869.5	-8148.7	-2.7880	ug/L	-2.7880	ppb	12:04:20
1	Cd 226.502†	3385.1	4154.8	-5.3790	ug/L	-5.3790	ppb	12:04:40
1	Co 228.616†	213.3	345.1	0.0429	ug/L	0.0429	ppb	12:04:40
1	Cr 267.716†	50.2	-32.4	3.0398	ug/L	3.0398	ppb	12:04:40
1	Cu 324.752†	678.0	-7322.2	1.1038	ug/L	1.1038	ppb	12:04:20
1	Mn 257.610†	-27348.8	-32830.1	1.3042	ug/L	1.3042	ppb	12:04:20
1	Mo 202.031†	-545.4	-655.4	1.6438	ug/L	1.6438	ppb	12:04:40
1	Ni 231.604†	292.9	221.4	4.9025	ug/L	4.9025	ppb	12:04:40
1	P 214.914†	625.6	468.4	43.092	ug/L	43.092	ppb	12:04:40
1	Pb 220.353†	-756.2	-770.3	-1.9974	ug/L	-1.9974	ppb	12:04:40
1	S 181.975 Axial†	109.9	69.0	-22.876	ug/L	-22.876	ppb	12:04:40
1	Sb 206.836†	68.2	32.5	0.9893	ug/L	0.9893	ppb	12:04:40
1	Se 196.026†	-2691.3	-3063.4	-95.073	ug/L	-95.073	ppb	12:04:40
1	Si 251.611†	-385.1	-1074.0	-30.121	ug/L	-30.121	ppb	12:04:40
1	Sn 189.927†	-438.9	-510.7	-19.283	ug/L	-19.283	ppb	12:04:40
1	Ti 334.940†	-13054.5	-13293.9	-2.2930	ug/L	-2.2930	ppb	12:04:20
1	Tl 190.801†	-119.0	-91.5	-11.517	ug/L	-11.517	ppb	12:04:40
1	U 409.014†	424047.0	491688.2	14595	ug/L	14595	ppb	12:04:20
1	V 292.402†	1676.4	3738.7	-5.9260	ug/L	-5.9260	ppb	12:04:20
1	Zn 213.857†	6363.2	6481.5	13.840	ug/L	13.840	ppb	12:04:40
1	SiO2†	-448.6	-1165.8	-69.936	ug/L	-69.936	ppb	12:05:37
2	Sc Radial	4119.8	4119.8	89.0	%			12:04:03
2	Y RADIAL	4368.0	4368.0	89.24	%			12:04:03
2	Al 396.153Radial†	519615.6	583734.4	502330	ug/L	502330	ppb	12:03:58
2	Ca 317.933Radial†	246656.6	277069.3	478490	ug/L	478490	ppb	12:03:58
2	Fe 238.204 Radial†	41705.6	46837.5	449200	ug/L	449200	ppb	12:04:03
2	K 766.490 Radial†	3093.1	245.4	-153.21	ug/L	-153.21	ppb	12:03:58
2	Mg 279.077 IEC†	12569.0	14117.9	480680	ug/L	480680	ppb	12:04:03
2	Na 589.592 Radial†	1335018.7	1501472.0	512630	ug/L	512630	ppb	12:03:58
2	Sr 421.552†	635.3	702.4	0.7395	ug/L	0.7395	ppb	12:04:03
2	Sc 361.383	758254.9	758254.9	86.822	%			12:04:46
2	Y 371.029	638234.4	638234.4	85.174	%			12:04:46
2	Ag 328.068†	-25079.9	-29377.5	3.0337	ug/L	3.0337	ppb	12:04:46
2	As 188.979†	-223.1	-225.5	-9.8474	ug/L	-9.8474	ppb	12:05:06
2	B 249.677†	801.5	1688.7	-24.570	ug/L	-24.570	ppb	12:04:46
2	Ba 233.527†	-1946.4	-2260.4	-5.2673	ug/L	-5.2673	ppb	12:05:06
2	Be 313.107†	-11042.3	-8338.2	-2.8533	ug/L	-2.8533	ppb	12:04:46
2	Cd 226.502†	3422.4	4194.8	-4.9476	ug/L	-4.9476	ppb	12:05:06
2	Co 228.616†	205.4	335.8	-0.1219	ug/L	-0.1219	ppb	12:05:06
2	Cr 267.716†	52.1	-30.3	3.0467	ug/L	3.0467	ppb	12:05:06
2	Cu 324.752†	787.6	-7196.5	1.4536	ug/L	1.4536	ppb	12:04:46
2	Mn 257.610†	-27459.9	-32934.0	1.1674	ug/L	1.1674	ppb	12:04:46
2	Mo 202.031†	-533.3	-641.0	2.5076	ug/L	2.5076	ppb	12:05:06
2	Ni 231.604†	326.1	259.4	5.7439	ug/L	5.7439	ppb	12:05:06

2	P 214.914†	613.3	453.8	32.651	ug/L	32.651 ppb	12:05:06
2	Pb 220.353†	-709.9	-716.4	1.2425	ug/L	1.2425 ppb	12:05:06
2	S 181.975 Axial†	103.2	61.2	-29.541	ug/L	-29.541 ppb	12:05:06
2	Sb 206.836†	59.2	22.0	-1.8037	ug/L	-1.8037 ppb	12:05:06
2	Se 196.026†	-2721.4	-3095.6	-114.66	ug/L	-114.66 ppb	12:05:06
2	Si 251.611†	-450.2	-1148.6	-32.312	ug/L	-32.312 ppb	12:05:06
2	Sn 189.927†	-419.9	-488.4	-16.976	ug/L	-16.976 ppb	12:05:06
2	Ti 334.940†	-13457.5	-13746.6	-3.5348	ug/L	-3.5348 ppb	12:04:46
2	Tl 190.801†	-138.3	-113.6	-17.908	ug/L	-17.908 ppb	12:05:06
2	U 409.014†	424800.3	492184.8	14610	ug/L	14610 ppb	12:04:46
2	V 292.402†	1630.2	3684.0	-6.1821	ug/L	-6.1821 ppb	12:04:46
2	Zn 213.857†	6370.2	6483.9	13.920	ug/L	13.920 ppb	12:05:06
2	SiO2†	-265.7	-954.8	-56.978	ug/L	-56.978 ppb	12:05:42
3	Sc Radial	4192.9	4192.9	90.6	%		12:04:13
3	Y RADIAL	4420.4	4420.4	90.31	%		12:04:13
3	Al 396.153Radial†	523634.4	577990.5	497390	ug/L	497390 ppb	12:04:08
3	Ca 317.933Radial†	248512.1	274285.1	473690	ug/L	473690 ppb	12:04:08
3	Fe 238.204 Radial†	42367.5	46751.0	448370	ug/L	448370 ppb	12:04:13
3	K 766.490 Radial†	3015.4	99.0	-179.99	ug/L	-179.99 ppb	12:04:08
3	Mg 279.077 IEC†	12789.4	14115.0	480580	ug/L	480580 ppb	12:04:13
3	Na 589.592 Radial†	1340360.4	1481213.7	505710	ug/L	505710 ppb	12:04:08
3	Sr 421.552†	667.2	725.1	0.9520	ug/L	0.9520 ppb	12:04:13
3	Sc 361.383	760474.2	760474.2	87.076	%		12:05:12
3	Y 371.029	639482.7	639482.7	85.341	%		12:05:12
3	Ag 328.068†	-25175.1	-29402.5	2.7246	ug/L	2.7246 ppb	12:05:12
3	As 188.979†	-211.2	-211.1	-4.9251	ug/L	-4.9251 ppb	12:05:32
3	B 249.677†	932.1	1835.9	-21.405	ug/L	-21.405 ppb	12:05:12
3	Ba 233.527†	-1966.1	-2276.5	-5.4073	ug/L	-5.4073 ppb	12:05:32
3	Be 313.107†	-11075.4	-8339.1	-2.8537	ug/L	-2.8537 ppb	12:05:12
3	Cd 226.502†	3401.9	4159.8	-5.1987	ug/L	-5.1987 ppb	12:05:32
3	Co 228.616†	200.3	329.2	-0.2347	ug/L	-0.2347 ppb	12:05:32
3	Cr 267.716†	34.2	-51.0	2.8234	ug/L	2.8234 ppb	12:05:32
3	Cu 324.752†	674.0	-7329.7	1.0140	ug/L	1.0140 ppb	12:05:12
3	Mn 257.610†	-27538.6	-32932.2	1.0886	ug/L	1.0886 ppb	12:05:12
3	Mo 202.031†	-536.0	-642.3	2.3444	ug/L	2.3444 ppb	12:05:32
3	Ni 231.604†	312.7	243.0	5.3801	ug/L	5.3801 ppb	12:05:32
3	P 214.914†	619.4	458.7	34.102	ug/L	34.102 ppb	12:05:32
3	Pb 220.353†	-740.6	-749.2	-3.2127	ug/L	-3.2127 ppb	12:05:32
3	S 181.975 Axial†	102.3	59.9	-30.113	ug/L	-30.113 ppb	12:05:32
3	Sb 206.836†	67.5	31.3	1.1175	ug/L	1.1175 ppb	12:05:32
3	Se 196.026†	-2701.6	-3063.8	-101.78	ug/L	-101.78 ppb	12:05:32
3	Si 251.611†	-376.0	-1061.8	-29.791	ug/L	-29.791 ppb	12:05:32
3	Sn 189.927†	-422.4	-489.9	-17.711	ug/L	-17.711 ppb	12:05:32
3	Ti 334.940†	-13507.9	-13759.3	-3.8017	ug/L	-3.8017 ppb	12:05:12
3	Tl 190.801†	-100.8	-70.0	-6.0673	ug/L	-6.0673 ppb	12:05:32
3	U 409.014†	425775.8	491877.3	14601	ug/L	14601 ppb	12:05:12
3	V 292.402†	1580.2	3621.2	-6.4758	ug/L	-6.4758 ppb	12:05:12
3	Zn 213.857†	6330.1	6416.5	13.411	ug/L	13.411 ppb	12:05:32
3	SiO2†	-503.7	-1227.2	-73.773	ug/L	-73.773 ppb	12:05:47

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	758802.8	86.885	%	0.1690				0.19%
Sc Radial	4119.3	89.0	%	1.60				1.79%
Y 371.029	638621.3	85.226	%	0.0997				0.12%
Y RADIAL	4360.7	89.09	%	1.302				1.46%
Ag 328.068†	-29432.0	2.7418	ug/L	0.28378	2.7418	ppb	0.28378	10.35%
Al 396.153Radial†	585991.6	504270	ug/L	8034.5	504270	ppb	8034.5	1.59%
QC value within limits for Al 396.153Radial Recovery = 100.85%								
As 188.979†	-222.7	-8.8858	ug/L	3.57822	-8.8858	ppb	3.57822	40.27%
B 249.677†	1791.6	-22.419	ug/L	1.8635	-22.419	ppb	1.8635	8.31%
Ba 233.527†	-2262.7	-5.2872	ug/L	0.11140	-5.2872	ppb	0.11140	2.11%
Be 313.107†	-8275.3	-2.8317	ug/L	0.03779	-2.8317	ppb	0.03779	1.33%
Ca 317.933Radial†	278028.4	480150	ug/L	7432.4	480150	ppb	7432.4	1.55%
QC value within limits for Ca 317.933Radial Recovery = 96.03%								
Cd 226.502†	4169.8	-5.1751	ug/L	0.21667	-5.1751	ppb	0.21667	4.19%
Co 228.616†	336.7	-0.1046	ug/L	0.13964	-0.1046	ppb	0.13964	133.52%
Cr 267.716†	-37.9	2.9700	ug/L	0.12696	2.9700	ppb	0.12696	4.27%
Cu 324.752†	-7282.8	1.1905	ug/L	0.23224	1.1905	ppb	0.23224	19.51%

Fe 238.204 Radial†	46825.9	449090	ug/L	669.2	449090	ppb	669.2	0.15%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 89.82%								
K 766.490 Radial†	165.4	-169.84	ug/L	14.512	-169.84	ppb	14.512	8.54%
Mg 279.077 IEC†	14128.5	481040	ug/L	712.1	481040	ppb	712.1	0.15%
QC value within limits for Mg 279.077 IEC Recovery = 96.21%								
Mn 257.610†	-32898.8	1.1867	ug/L	0.10913	1.1867	ppb	0.10913	9.20%
Mo 202.031†	-646.2	2.1653	ug/L	0.45891	2.1653	ppb	0.45891	21.19%
Na 589.592 Radial†	1504774.1	513750	ug/L	8662.8	513750	ppb	8662.8	1.69%
QC value within limits for Na 589.592 Radial Recovery = 102.75%								
Ni 231.604†	241.3	5.3422	ug/L	0.42199	5.3422	ppb	0.42199	7.90%
P 214.914†	460.3	36.615	ug/L	5.6562	36.615	ppb	5.6562	15.45%
Pb 220.353†	-745.3	-1.3226	ug/L	2.30302	-1.3226	ppb	2.30302	174.13%
S 181.975 Axial†	63.4	-27.510	ug/L	4.0233	-27.510	ppb	4.0233	14.62%
Sb 206.836†	28.6	0.1010	ug/L	1.65080	0.1010	ppb	1.65080	>999.9%
Se 196.026†	-3074.3	-103.84	ug/L	9.957	-103.84	ppb	9.957	9.59%
Si 251.611†	-1094.8	-30.741	ug/L	1.3701	-30.741	ppb	1.3701	4.46%
Sn 189.927†	-496.3	-17.990	ug/L	1.1782	-17.990	ppb	1.1782	6.55%
Sr 421.552†	715.8	0.8230	ug/L	0.11329	0.8230	ppb	0.11329	13.76%
Ti 334.940†	-13599.9	-3.2098	ug/L	0.80511	-3.2098	ppb	0.80511	25.08%
Tl 190.801†	-91.7	-11.831	ug/L	5.9267	-11.831	ppb	5.9267	50.10%
U 409.014†	491916.8	14602	ug/L	7.5	14602	ppb	7.5	0.05%
QC value within limits for U 409.014 Recovery = 97.35%								
V 292.402†	3681.3	-6.1946	ug/L	0.27507	-6.1946	ppb	0.27507	4.44%
Zn 213.857†	6460.6	13.724	ug/L	0.2736	13.724	ppb	0.2736	1.99%
SiO2†	-1115.9	-66.896	ug/L	8.8010	-66.896	ppb	8.8010	13.16%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 1/7/2010 12:07:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4190.9	4190.9	90.6	%			12:10:16
1	Y RADIAL	4618.3	4618.3	94.35	%			12:09:56
1	Al 396.153Radial†	551.4	629.8	93.135	ug/L	93.135	ppb	12:09:56
1	Ca 317.933Radial†	28.5	17.5	30.215	ug/L	30.215	ppb	12:10:16
1	Fe 238.204 Radial†	-20.0	-34.8	-13.217	ug/L	-13.217	ppb	12:10:16
1	K 766.490 Radial†	1368972.6	1508531.2	305470	ug/L	305470	ppb	12:09:50
1	Mg 279.077 IEC†	-5.8	-7.9	-56.157	ug/L	-56.157	ppb	12:10:16
1	Na 589.592 Radial†	-1055.3	604.7	206.45	ug/L	206.45	ppb	12:09:56
1	Sr 421.552†	1205877.8	1331643.1	9810.9	ug/L	9810.9	ppb	12:09:50
1	Sc 361.383	789179.4	789179.4	90.363	%			12:11:33
1	Y 371.029	660812.0	660812.0	88.187	%			12:11:33
1	Ag 328.068†	-7479.3	-8767.8	4.4450	ug/L	4.4450	ppb	12:11:38
1	As 188.979†	27901.7	30908.8	10929	ug/L	10929	ppb	12:11:38
1	B 249.677†	236301.1	262267.2	5415.7	ug/L	5415.7	ppb	12:11:33
1	Ba 233.527†	1895685.4	2097834.5	15470	ug/L	15470	ppb	12:11:33
1	Be 313.107†	8206687.1	9086279.1	3083.0	ug/L	3083.0	ppb	12:11:26
1	Cd 226.502†	993382.8	1099576.2	10481	ug/L	10481	ppb	12:11:33
1	Co 228.616†	485748.9	537651.3	10167	ug/L	10167	ppb	12:11:38
1	Cr 267.716†	2321650.1	2569154.9	26106	ug/L	26106	ppb	12:11:33
1	Cu 324.752†	6546042.5	7236049.3	21579	ug/L	21579	ppb	12:11:26
1	Mn 257.610†	8645747.7	9566477.4	10071	ug/L	10071	ppb	12:11:26
1	Mo 202.031†	149753.5	165697.4	10483	ug/L	10483	ppb	12:11:38
1	Ni 231.604†	435659.9	482005.2	10674	ug/L	10674	ppb	12:11:33
1	P 214.914†	34998.1	38477.8	15535	ug/L	15535	ppb	12:11:38
1	Pb 220.353†	225359.1	249494.1	25966	ug/L	25966	ppb	12:11:38
1	S 181.975 Axial†	44105.5	48751.5	55155	ug/L	55155	ppb	12:11:38
1	Sb 206.836†	33381.9	36895.8	10929	ug/L	10929	ppb	12:11:38
1	Se 196.026†	19630.6	21762.9	11101	ug/L	11101	ppb	12:11:38
1	Si 251.611†	1644585.8	1819344.6	52317	ug/L	52317	ppb	12:11:33
1	Sn 189.927†	67403.1	74586.6	11139	ug/L	11139	ppb	12:11:38
1	Ti 334.940†	5967191.8	6605323.6	10571	ug/L	10571	ppb	12:11:26
1	Tl 190.801†	34584.7	38318.7	10587	ug/L	10587	ppb	12:11:38
1	U 409.014†	-1242.2	1533.9	-4.6383	ug/L	-4.6383	ppb	12:11:38
1	V 292.402†	1546514.6	1713250.9	10997	ug/L	10997	ppb	12:11:33
1	Zn 213.857†	1670041.6	1847292.1	15198	ug/L	15198	ppb	12:11:33
1	SiO2†	1640195.9	1814467.8	111360	ug/L	111360	ppb	12:12:25
2	Sc Radial	4174.8	4174.8	90.2	%			12:10:46
2	Y RADIAL	4587.3	4587.3	93.72	%			12:10:26
2	Al 396.153Radial†	537.4	616.6	113.35	ug/L	113.35	ppb	12:10:26
2	Ca 317.933Radial†	24.5	13.2	22.774	ug/L	22.774	ppb	12:10:46
2	Fe 238.204 Radial†	-16.4	-30.9	2.8401	ug/L	2.8401	ppb	12:10:46
2	K 766.490 Radial†	1378393.9	1524806.8	308770	ug/L	308770	ppb	12:10:21
2	Mg 279.077 IEC†	-8.0	-10.4	-155.96	ug/L	-155.96	ppb	12:10:46
2	Na 589.592 Radial†	-1177.8	464.3	158.53	ug/L	158.53	ppb	12:10:26
2	Sr 421.552†	1218000.6	1350218.8	9947.8	ug/L	9947.8	ppb	12:10:21
2	Sc 361.383	837765.8	837765.8	95.926	%			12:11:53
2	Y 371.029	702693.4	702693.4	93.777	%			12:11:53
2	Ag 328.068†	-7363.7	-8167.3	3.4658	ug/L	3.4658	ppb	12:11:58
2	As 188.979†	27620.2	28824.6	10193	ug/L	10193	ppb	12:11:58
2	B 249.677†	229614.0	240130.3	4958.2	ug/L	4958.2	ppb	12:11:53
2	Ba 233.527†	1845376.3	1923723.7	14186	ug/L	14186	ppb	12:11:53
2	Be 313.107†	8211470.3	8564559.6	2905.9	ug/L	2905.9	ppb	12:11:46
2	Cd 226.502†	967606.6	1008950.0	9617.1	ug/L	9617.1	ppb	12:11:53
2	Co 228.616†	480581.1	501088.7	9475.2	ug/L	9475.2	ppb	12:11:58
2	Cr 267.716†	2257509.9	2353287.3	23913	ug/L	23913	ppb	12:11:53
2	Cu 324.752†	6548764.9	6818761.7	20335	ug/L	20335	ppb	12:11:46
2	Mn 257.610†	8663634.9	9030239.3	9506.8	ug/L	9506.8	ppb	12:11:46
2	Mo 202.031†	147801.8	154051.6	9746.1	ug/L	9746.1	ppb	12:11:58
2	Ni 231.604†	423334.5	441195.7	9770.6	ug/L	9770.6	ppb	12:11:53

2	P 214.914†	34616.2	35833.6	14429	ug/L	14429 ppb	12:11:58
2	Pb 220.353†	223012.0	232583.7	24206	ug/L	24206 ppb	12:11:58
2	S 181.975 Axial†	43464.9	45253.0	51197	ug/L	51197 ppb	12:11:58
2	Sb 206.836†	32995.9	34350.9	10183	ug/L	10183 ppb	12:11:58
2	Se 196.026†	19290.1	20148.0	10277	ug/L	10277 ppb	12:11:58
2	Si 251.611†	1598241.2	1665482.2	47879	ug/L	47879 ppb	12:11:53
2	Sn 189.927†	66492.5	69311.5	10351	ug/L	10351 ppb	12:11:58
2	Ti 334.940†	5971232.7	6226561.1	9965.3	ug/L	9965.3 ppb	12:11:46
2	Tl 190.801†	34266.5	35767.3	9883.8	ug/L	9883.8 ppb	12:11:58
2	U 409.014†	-1611.3	1228.8	-9.5003	ug/L	-9.5003 ppb	12:11:58
2	V 292.402†	1502804.0	1568428.6	10069	ug/L	10069 ppb	12:11:53
2	Zn 213.857†	1627295.6	1695547.5	13949	ug/L	13949 ppb	12:11:53
2	SiO2†	1623327.2	1691614.8	103810	ug/L	103810 ppb	12:12:33
3	Sc Radial	4185.1	4185.1	90.4	%		12:11:17
3	Y RADIAL	4579.8	4579.8	93.56	%		12:10:56
3	Al 396.153Radial†	492.3	565.2	74.996	ug/L	74.996 ppb	12:10:56
3	Ca 317.933Radial†	23.6	12.1	20.882	ug/L	20.882 ppb	12:11:17
3	Fe 238.204 Radial†	-19.5	-34.2	-33.779	ug/L	-33.779 ppb	12:11:17
3	K 766.490 Radial†	1387747.5	1531371.2	310100	ug/L	310100 ppb	12:10:51
3	Mg 279.077 IEC†	-5.1	-7.2	-50.445	ug/L	-50.445 ppb	12:11:17
3	Na 589.592 Radial†	-1158.4	489.1	166.98	ug/L	166.98 ppb	12:10:56
3	Sr 421.552†	1223766.3	1353255.3	9970.2	ug/L	9970.2 ppb	12:10:51
3	Sc 361.383	851474.1	851474.1	97.496	%		12:12:13
3	Y 371.029	713161.6	713161.6	95.174	%		12:12:13
3	Ag 328.068†	-7333.1	-8012.4	4.0058	ug/L	4.0058 ppb	12:12:18
3	As 188.979†	27749.1	28493.2	10076	ug/L	10076 ppb	12:12:18
3	B 249.677†	233652.0	240418.3	4964.5	ug/L	4964.5 ppb	12:12:13
3	Ba 233.527†	1870648.9	1918674.1	14149	ug/L	14149 ppb	12:12:13
3	Be 313.107†	8219798.2	8435286.7	2862.1	ug/L	2862.1 ppb	12:12:06
3	Cd 226.502†	980672.4	1006111.9	9590.1	ug/L	9590.1 ppb	12:12:13
3	Co 228.616†	481411.3	493874.5	9338.8	ug/L	9338.8 ppb	12:12:18
3	Cr 267.716†	2286175.2	2344800.6	23826	ug/L	23826 ppb	12:12:13
3	Cu 324.752†	6569087.2	6729696.8	20069	ug/L	20069 ppb	12:12:06
3	Mn 257.610†	8666608.4	8887885.8	9356.9	ug/L	9356.9 ppb	12:12:06
3	Mo 202.031†	148117.2	151894.6	9609.6	ug/L	9609.6 ppb	12:12:18
3	Ni 231.604†	429446.8	440360.1	9752.2	ug/L	9752.2 ppb	12:12:13
3	P 214.914†	34571.6	35206.9	14163	ug/L	14163 ppb	12:12:18
3	Pb 220.353†	223632.3	229477.2	23882	ug/L	23882 ppb	12:12:18
3	S 181.975 Axial†	43560.9	44622.0	50483	ug/L	50483 ppb	12:12:18
3	Sb 206.836†	32970.9	33771.6	10005	ug/L	10005 ppb	12:12:18
3	Se 196.026†	19398.6	19935.6	10169	ug/L	10169 ppb	12:12:18
3	Si 251.611†	1622891.0	1663941.6	47837	ug/L	47837 ppb	12:12:13
3	Sn 189.927†	66584.4	68289.7	10199	ug/L	10199 ppb	12:12:18
3	Ti 334.940†	5983532.5	6138960.4	9825.0	ug/L	9825.0 ppb	12:12:06
3	Tl 190.801†	34356.2	35284.2	9749.9	ug/L	9749.9 ppb	12:12:18
3	U 409.014†	-1525.9	1343.5	-5.9139	ug/L	-5.9139 ppb	12:12:18
3	V 292.402†	1522709.2	1563623.2	10037	ug/L	10037 ppb	12:12:13
3	Zn 213.857†	1647815.6	1689283.2	13898	ug/L	13898 ppb	12:12:13
3	SiO2†	1626637.3	1667765.4	102340	ug/L	102340 ppb	12:12:40

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	826139.8	94.595	%	3.7482				3.96%
Sc Radial	4183.6	90.4	%	0.18				0.20%
Y 371.029	692222.4	92.379	%	3.6968				4.00%
Y RADIAL	4595.1	93.88	%	0.417				0.44%
Ag 328.068†	-8315.8	3.9722	ug/L	0.49045	3.9722	ppb	0.49045	12.35%
Al 396.153Radial†	603.9	93.827	ug/L	19.1867	93.827	ppb	19.1867	20.45%
As 188.979†	29408.9	10399	ug/L	462.7	10399	ppb	462.7	4.45%
QC value within limits for As 188.979 Recovery = 103.99%								
B 249.677†	247605.3	5112.8	ug/L	262.36	5112.8	ppb	262.36	5.13%
QC value within limits for B 249.677 Recovery = 102.26%								
Ba 233.527†	1980077.4	14602	ug/L	752.3	14602	ppb	752.3	5.15%
QC value within limits for Ba 233.527 Recovery = 97.34%								
Be 313.107†	8695375.1	2950.3	ug/L	116.93	2950.3	ppb	116.93	3.96%
QC value within limits for Be 313.107 Recovery = 98.34%								
Ca 317.933Radial†	14.3	24.624	ug/L	4.9337	24.624	ppb	4.9337	20.04%
Cd 226.502†	1038212.7	9896.0	ug/L	506.73	9896.0	ppb	506.73	5.12%
QC value within limits for Cd 226.502 Recovery = 98.96%								

```
Co 228.616†          510871.5      9660.3 ug/L        443.97      9660.3 ppb        443.97   4.60%
   QC value within limits for Co 228.616  Recovery = 96.60%
Cr 267.716†         2422414.3       24615 ug/L        1292.0       24615 ppb        1292.0   5.25%
   QC value within limits for Cr 267.716  Recovery = 98.46%
Cu 324.752†         6928169.3       20661 ug/L         806.2       20661 ppb         806.2   3.90%
   QC value within limits for Cu 324.752  Recovery = 103.30%
Fe 238.204 Radial†       -33.3     -14.719 ug/L       18.3558     -14.719 ppb       18.3558 124.71%
K 766.490 Radial†   1521569.8      308110 ug/L        2384.8      308110 ppb        2384.8   0.77%
   QC value within limits for K 766.490 Radial  Recovery = 102.70%
Mg 279.077 IEC†          -8.5     -87.521 ug/L       59.3397     -87.521 ppb       59.3397  67.80%
Mn 257.610†         9161534.2      9645.0 ug/L        376.73      9645.0 ppb        376.73   3.91%
   QC value within limits for Mn 257.610  Recovery = 96.45%
Mo 202.031†          157214.5      9946.2 ug/L        469.75      9946.2 ppb        469.75   4.72%
   QC value within limits for Mo 202.031  Recovery = 99.46%
Na 589.592 Radial†       519.4      177.32 ug/L        25.576      177.32 ppb        25.576  14.42%
Ni 231.604†          454520.3       10066 ug/L         527.3       10066 ppb         527.3   5.24%
   QC value within limits for Ni 231.604  Recovery = 100.66%
P 214.914†            36506.1       14709 ug/L         727.8       14709 ppb         727.8   4.95%
   QC value within limits for P 214.914  Recovery = 98.06%
Pb 220.353†          237185.0       24685 ug/L        1121.3       24685 ppb        1121.3   4.54%
   QC value within limits for Pb 220.353  Recovery = 98.74%
S 181.975 Axial†      46208.9       52278 ug/L        2516.6       52278 ppb        2516.6   4.81%
   QC value within limits for S 181.975 Axial  Recovery = 104.56%
Sb 206.836†           35006.1       10372 ug/L         490.1       10372 ppb         490.1   4.72%
   QC value within limits for Sb 206.836  Recovery = 103.72%
Se 196.026†           20615.5       10516 ug/L         509.7       10516 ppb         509.7   4.85%
   QC value within limits for Se 196.026  Recovery = 105.16%
Si 251.611†         1716256.1       49344 ug/L        2574.1       49344 ppb        2574.1   5.22%
   QC value within limits for Si 251.611  Recovery = 98.69%
Sn 189.927†           70729.3       10563 ug/L         504.7       10563 ppb         504.7   4.78%
   QC value within limits for Sn 189.927  Recovery = 105.63%
Sr 421.552†         1345039.1      9909.6 ug/L         86.20      9909.6 ppb         86.20   0.87%
   QC value within limits for Sr 421.552  Recovery = 99.10%
Ti 334.940†         6323615.0       10121 ug/L         396.6       10121 ppb         396.6   3.92%
   QC value within limits for Ti 334.940  Recovery = 101.21%
Tl 190.801†           36456.8       10074 ug/L         449.5       10074 ppb         449.5   4.46%
   QC value within limits for Tl 190.801  Recovery = 100.74%
U 409.014†             1368.7     -6.6842 ug/L       2.52086     -6.6842 ppb       2.52086  37.71%
V 292.402†          1615100.9       10367 ug/L         545.2       10367 ppb         545.2   5.26%
   QC value within limits for V 292.402  Recovery = 103.67%
Zn 213.857†         1744040.9       14348 ug/L         736.3       14348 ppb         736.3   5.13%
   QC value within limits for Zn 213.857  Recovery = 95.66%
SiO2†               1724616.0      105840 ug/L        4842.5      105840 ppb        4842.5   4.58%
   QC value within limits for SiO2  Recovery = 98.91%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/7/2010 12:14:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4561.5	4561.5	98.6	%			12:16:41
1	Y RADIAL	4818.4	4818.4	98.44	%			12:16:41
1	Al 396.153Radial†	5634.6	5737.6	4916.6	ug/L	4916.6	ppb	12:16:41
1	Ca 317.933Radial†	2903.6	2931.9	5063.4	ug/L	5063.4	ppb	12:17:01
1	Fe 238.204 Radial†	538.8	533.9	5135.5	ug/L	5135.5	ppb	12:17:01
1	K 766.490 Radial†	28292.5	25475.3	5151.4	ug/L	5151.4	ppb	12:16:41
1	Mg 279.077 IEC†	153.9	154.6	5274.1	ug/L	5274.1	ppb	12:17:01
1	Na 589.592 Radial†	27740.9	29915.0	10213	ug/L	10213	ppb	12:16:41
1	Sr 421.552†	64713.8	65645.1	483.60	ug/L	483.60	ppb	12:16:41
1	Sc 361.383	893556.6	893556.6	102.31	%			12:18:00
1	Y 371.029	755927.1	755927.1	100.88	%			12:18:00
1	Ag 328.068†	114709.5	111623.6	488.22	ug/L	488.22	ppb	12:18:00
1	As 188.979†	1454.6	1453.1	513.96	ug/L	513.96	ppb	12:18:20
1	B 249.677†	24780.2	24985.1	516.48	ug/L	516.48	ppb	12:18:00
1	Ba 233.527†	68035.4	66477.8	490.67	ug/L	490.67	ppb	12:18:00
1	Be 313.107†	1487079.8	1457819.1	492.27	ug/L	492.27	ppb	12:18:00
1	Cd 226.502†	52735.9	51795.8	493.18	ug/L	493.18	ppb	12:18:00
1	Co 228.616†	26141.7	25649.5	485.12	ug/L	485.12	ppb	12:18:20
1	Cr 267.716†	49263.9	48059.2	488.78	ug/L	488.78	ppb	12:18:00
1	Cu 324.752†	176315.9	164223.6	490.00	ug/L	490.00	ppb	12:18:00
1	Mn 257.610†	477728.6	465615.1	490.60	ug/L	490.60	ppb	12:18:00
1	Mo 202.031†	7878.0	7673.1	485.93	ug/L	485.93	ppb	12:18:20
1	Ni 231.604†	22522.3	21896.7	484.91	ug/L	484.91	ppb	12:18:20
1	P 214.914†	5356.3	4982.5	2365.5	ug/L	2365.5	ppb	12:18:20
1	Pb 220.353†	4724.2	4718.6	492.41	ug/L	492.41	ppb	12:18:20
1	S 181.975 Axial†	945.7	866.6	979.51	ug/L	979.51	ppb	12:18:20
1	Sb 206.836†	1700.5	1615.9	495.15	ug/L	495.15	ppb	12:18:20
1	Se 196.026†	968.0	984.9	518.96	ug/L	518.96	ppb	12:18:20
1	Si 251.611†	87144.7	84543.3	2434.2	ug/L	2434.2	ppb	12:18:00
1	Sn 189.927†	3335.2	3255.0	486.71	ug/L	486.71	ppb	12:18:20
1	Ti 334.940†	312950.0	307623.8	492.64	ug/L	492.64	ppb	12:18:00
1	Tl 190.801†	1775.3	1780.8	492.27	ug/L	492.27	ppb	12:18:20
1	U 409.014†	13368.0	15974.1	474.43	ug/L	474.43	ppb	12:18:00
1	V 292.402†	76625.8	76698.8	493.04	ug/L	493.04	ppb	12:18:00
1	Zn 213.857†	62068.1	59810.9	490.99	ug/L	490.99	ppb	12:18:00
1	SiO2†	86510.1	83904.3	5156.5	ug/L	5156.5	ppb	12:19:21
2	Sc Radial	4636.6	4636.6	100	%			12:17:06
2	Y RADIAL	4843.6	4843.6	98.95	%			12:17:06
2	Al 396.153Radial†	5631.5	5641.9	4834.2	ug/L	4834.2	ppb	12:17:06
2	Ca 317.933Radial†	2924.4	2904.9	5016.7	ug/L	5016.7	ppb	12:17:26
2	Fe 238.204 Radial†	544.5	530.8	5105.7	ug/L	5105.7	ppb	12:17:26
2	K 766.490 Radial†	28426.4	25144.3	5084.4	ug/L	5084.4	ppb	12:17:06
2	Mg 279.077 IEC†	156.4	154.6	5274.6	ug/L	5274.6	ppb	12:17:26
2	Na 589.592 Radial†	28036.7	29754.6	10159	ug/L	10159	ppb	12:17:06
2	Sr 421.552†	65002.5	64870.3	477.89	ug/L	477.89	ppb	12:17:06
2	Sc 361.383	895585.4	895585.4	102.55	%			12:18:28
2	Y 371.029	758020.0	758020.0	101.16	%			12:18:28
2	Ag 328.068†	115177.8	111826.3	489.10	ug/L	489.10	ppb	12:18:28
2	As 188.979†	1454.0	1449.3	512.62	ug/L	512.62	ppb	12:18:48
2	B 249.677†	25007.9	25152.3	519.95	ug/L	519.95	ppb	12:18:28
2	Ba 233.527†	68499.4	66779.6	492.90	ug/L	492.90	ppb	12:18:28
2	Be 313.107†	1493159.3	1460455.0	493.16	ug/L	493.16	ppb	12:18:28
2	Cd 226.502†	52967.5	51905.0	494.23	ug/L	494.23	ppb	12:18:28
2	Co 228.616†	26259.9	25706.9	486.21	ug/L	486.21	ppb	12:18:48
2	Cr 267.716†	49464.8	48146.0	489.67	ug/L	489.67	ppb	12:18:28
2	Cu 324.752†	176822.4	164327.2	490.31	ug/L	490.31	ppb	12:18:28
2	Mn 257.610†	480131.7	466900.7	491.95	ug/L	491.95	ppb	12:18:28
2	Mo 202.031†	7922.3	7698.8	487.56	ug/L	487.56	ppb	12:18:48
2	Ni 231.604†	22623.2	21945.1	485.98	ug/L	485.98	ppb	12:18:48

2	P 214.914†	5373.8	4987.7	2368.0 ug/L	2368.0 ppb	12:18:48
2	Pb 220.353†	4746.2	4729.6	493.54 ug/L	493.54 ppb	12:18:48
2	S 181.975 Axial†	954.5	873.1	986.81 ug/L	986.81 ppb	12:18:48
2	Sb 206.836†	1727.0	1638.0	501.83 ug/L	501.83 ppb	12:18:48
2	Se 196.026†	966.2	981.0	516.87 ug/L	516.87 ppb	12:18:48
2	Si 251.611†	87534.9	84730.8	2439.7 ug/L	2439.7 ppb	12:18:28
2	Sn 189.927†	3341.3	3253.6	486.49 ug/L	486.49 ppb	12:18:48
2	Ti 334.940†	314057.0	308010.4	493.25 ug/L	493.25 ppb	12:18:28
2	Tl 190.801†	1787.6	1788.8	494.46 ug/L	494.46 ppb	12:18:48
2	U 409.014†	13148.3	15730.3	467.17 ug/L	467.17 ppb	12:18:28
2	V 292.402†	76921.7	76817.6	493.80 ug/L	493.80 ppb	12:18:28
2	Zn 213.857†	62259.9	59860.5	491.40 ug/L	491.40 ppb	12:18:28
2	SiO2†	86302.1	83510.0	5132.1 ug/L	5132.1 ppb	12:19:26
3	Sc Radial	4635.1	4635.1	100 %		12:17:32
3	Y RADIAL	4864.0	4864.0	99.37 %		12:17:32
3	Al 396.153Radial†	5668.7	5680.8	4867.9 ug/L	4867.9 ppb	12:17:32
3	Ca 317.933Radial†	2900.8	2882.3	4977.7 ug/L	4977.7 ppb	12:17:52
3	Fe 238.204 Radial†	541.1	527.5	5074.5 ug/L	5074.5 ppb	12:17:52
3	K 766.490 Radial†	28588.7	25315.5	5119.1 ug/L	5119.1 ppb	12:17:32
3	Mg 279.077 IEC†	153.0	151.2	5158.4 ug/L	5158.4 ppb	12:17:52
3	Na 589.592 Radial†	27996.5	29723.5	10148 ug/L	10148 ppb	12:17:32
3	Sr 421.552†	65049.4	64938.1	478.39 ug/L	478.39 ppb	12:17:32
3	Sc 361.383	901048.9	901048.9	103.17 %		12:18:55
3	Y 371.029	762848.3	762848.3	101.80 %		12:18:55
3	Ag 328.068†	115223.6	111189.7	486.31 ug/L	486.31 ppb	12:18:55
3	As 188.979†	1458.2	1444.8	511.03 ug/L	511.03 ppb	12:19:15
3	B 249.677†	24908.3	24907.9	514.89 ug/L	514.89 ppb	12:18:55
3	Ba 233.527†	68625.4	66496.7	490.81 ug/L	490.81 ppb	12:18:55
3	Be 313.107†	1495543.2	1453936.6	490.96 ug/L	490.96 ppb	12:18:55
3	Cd 226.502†	52990.3	51613.8	491.45 ug/L	491.45 ppb	12:18:55
3	Co 228.616†	26180.9	25475.0	481.82 ug/L	481.82 ppb	12:19:15
3	Cr 267.716†	49535.2	47921.7	487.39 ug/L	487.39 ppb	12:18:55
3	Cu 324.752†	177432.1	163872.5	488.95 ug/L	488.95 ppb	12:18:55
3	Mn 257.610†	481978.4	465851.6	490.85 ug/L	490.85 ppb	12:18:55
3	Mo 202.031†	7909.7	7639.8	483.82 ug/L	483.82 ppb	12:19:15
3	Ni 231.604†	22581.1	21770.6	482.12 ug/L	482.12 ppb	12:19:15
3	P 214.914†	5370.0	4952.2	2350.9 ug/L	2350.9 ppb	12:19:15
3	Pb 220.353†	4726.8	4682.8	488.67 ug/L	488.67 ppb	12:19:15
3	S 181.975 Axial†	944.2	857.5	969.13 ug/L	969.13 ppb	12:19:15
3	Sb 206.836†	1702.5	1604.0	491.46 ug/L	491.46 ppb	12:19:15
3	Se 196.026†	959.6	968.9	510.63 ug/L	510.63 ppb	12:19:15
3	Si 251.611†	87684.7	84358.4	2428.9 ug/L	2428.9 ppb	12:18:55
3	Sn 189.927†	3329.6	3222.5	481.84 ug/L	481.84 ppb	12:19:15
3	Ti 334.940†	314992.5	307060.2	491.73 ug/L	491.73 ppb	12:18:55
3	Tl 190.801†	1795.8	1786.3	493.76 ug/L	493.76 ppb	12:19:15
3	U 409.014†	13435.6	15931.0	473.16 ug/L	473.16 ppb	12:18:55
3	V 292.402†	77070.0	76506.6	491.79 ug/L	491.79 ppb	12:18:55
3	Zn 213.857†	62324.8	59555.3	488.90 ug/L	488.90 ppb	12:18:55
3	SiO2†	86160.5	82862.4	5092.3 ug/L	5092.3 ppb	12:19:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	896730.3	102.68	%	0.444				0.43%
Sc Radial	4611.1	99.6	%	0.93				0.93%
Y 371.029	758931.8	101.28	%	0.474				0.47%
Y RADIAL	4842.0	98.92	%	0.466				0.47%
Ag 328.068†	111546.5	487.87	ug/L	1.426	487.87	ppb	1.426	0.29%
QC value within limits for Ag 328.068 Recovery = 97.57%								
Al 396.153Radial†	5686.7	4872.9	ug/L	41.43	4872.9	ppb	41.43	0.85%
QC value within limits for Al 396.153Radial Recovery = 97.46%								
As 188.979†	1449.1	512.54	ug/L	1.468	512.54	ppb	1.468	0.29%
QC value within limits for As 188.979 Recovery = 102.51%								
B 249.677†	25015.1	517.10	ug/L	2.586	517.10	ppb	2.586	0.50%
QC value within limits for B 249.677 Recovery = 103.42%								
Ba 233.527†	66584.7	491.46	ug/L	1.246	491.46	ppb	1.246	0.25%
QC value within limits for Ba 233.527 Recovery = 98.29%								
Be 313.107†	1457403.5	492.13	ug/L	1.107	492.13	ppb	1.107	0.22%
QC value within limits for Be 313.107 Recovery = 98.43%								
Ca 317.933Radial†	2906.4	5019.3	ug/L	42.91	5019.3	ppb	42.91	0.85%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.39%
Cd 226.502†            51771.5      492.95 ug/L         1.400      492.95 ppb          1.400   0.28%
   QC value within limits for Cd 226.502  Recovery = 98.59%
Co 228.616†            25610.5      484.39 ug/L         2.286      484.39 ppb          2.286   0.47%
   QC value within limits for Co 228.616  Recovery = 96.88%
Cr 267.716†            48042.3      488.61 ug/L         1.151      488.61 ppb          1.151   0.24%
   QC value within limits for Cr 267.716  Recovery = 97.72%
Cu 324.752†           164141.1      489.76 ug/L         0.712      489.76 ppb          0.712   0.15%
   QC value within limits for Cu 324.752  Recovery = 97.95%
Fe 238.204 Radial†       530.7      5105.2 ug/L         30.52      5105.2 ppb          30.52   0.60%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.10%
K 766.490 Radial†      25311.7      5118.3 ug/L         33.53      5118.3 ppb          33.53   0.66%
   QC value within limits for K 766.490 Radial  Recovery = 102.37%
Mg 279.077 IEC†          153.5      5235.7 ug/L         66.94      5235.7 ppb          66.94   1.28%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.71%
Mn 257.610†           466122.5      491.13 ug/L         0.719      491.13 ppb          0.719   0.15%
   QC value within limits for Mn 257.610  Recovery = 98.23%
Mo 202.031†             7670.6      485.77 ug/L         1.875      485.77 ppb          1.875   0.39%
   QC value within limits for Mo 202.031  Recovery = 97.15%
Na 589.592 Radial†     29797.7       10173 ug/L          35.1       10173 ppb           35.1   0.35%
   QC value within limits for Na 589.592 Radial  Recovery = 101.73%
Ni 231.604†            21870.8      484.33 ug/L         1.995      484.33 ppb          1.995   0.41%
   QC value within limits for Ni 231.604  Recovery = 96.87%
P 214.914†              4974.1      2361.5 ug/L          9.28      2361.5 ppb           9.28   0.39%
   QC value within limits for P 214.914  Recovery = 94.46%
Pb 220.353†             4710.3      491.54 ug/L         2.548      491.54 ppb          2.548   0.52%
   QC value within limits for Pb 220.353  Recovery = 98.31%
S 181.975 Axial†         865.7      978.48 ug/L         8.883      978.48 ppb          8.883   0.91%
   QC value within limits for S 181.975 Axial  Recovery = 97.85%
Sb 206.836†             1619.3      496.15 ug/L         5.257      496.15 ppb          5.257   1.06%
   QC value within limits for Sb 206.836  Recovery = 99.23%
Se 196.026†              978.2      515.49 ug/L         4.333      515.49 ppb          4.333   0.84%
   QC value within limits for Se 196.026  Recovery = 103.10%
Si 251.611†            84544.2      2434.3 ug/L          5.35      2434.3 ppb           5.35   0.22%
   QC value within limits for Si 251.611  Recovery = 97.37%
Sn 189.927†             3243.7      485.02 ug/L         2.750      485.02 ppb          2.750   0.57%
   QC value within limits for Sn 189.927  Recovery = 97.00%
Sr 421.552†            65151.2      479.96 ug/L         3.161      479.96 ppb          3.161   0.66%
   QC value within limits for Sr 421.552  Recovery = 95.99%
Ti 334.940†           307564.8      492.54 ug/L         0.767      492.54 ppb          0.767   0.16%
   QC value within limits for Ti 334.940  Recovery = 98.51%
Tl 190.801†             1785.3      493.50 ug/L         1.123      493.50 ppb          1.123   0.23%
   QC value within limits for Tl 190.801  Recovery = 98.70%
U 409.014†             15878.5      471.59 ug/L         3.878      471.59 ppb          3.878   0.82%
   QC value within limits for U 409.014  Recovery = 94.32%
V 292.402†             76674.3      492.88 ug/L         1.015      492.88 ppb          1.015   0.21%
   QC value within limits for V 292.402  Recovery = 98.58%
Zn 213.857†            59742.2      490.43 ug/L         1.339      490.43 ppb          1.339   0.27%
   QC value within limits for Zn 213.857  Recovery = 98.09%
SiO2†                  83425.6      5127.0 ug/L         32.41      5127.0 ppb          32.41   0.63%
   QC value within limits for SiO2  Recovery = 95.88%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/7/2010 12:21:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4551.7	4551.7	98.4	%			12:23:33
1	Y RADIAL	4774.4	4774.4	97.54	%			12:23:33
1	Al 396.153Radial†	7.9	28.9	24.852	ug/L	24.852	ppb	12:23:33
1	Ca 317.933Radial†	14.5	0.8	1.3319	ug/L	1.3319	ppb	12:23:53
1	Fe 238.204 Radial†	14.8	2.3	22.197	ug/L	22.197	ppb	12:23:53
1	K 766.490 Radial†	3834.1	669.1	135.49	ug/L	135.49	ppb	12:23:33
1	Mg 279.077 IEC†	2.9	1.4	48.508	ug/L	48.508	ppb	12:23:53
1	Na 589.592 Radial†	-1454.6	291.1	99.376	ug/L	99.376	ppb	12:23:33
1	Sr 421.552†	10.3	-0.8	-0.0062	ug/L	-0.0062	ppb	12:23:33
1	Sc 361.383	903216.3	903216.3	103.42	%			12:24:50
1	Y 371.029	771331.8	771331.8	102.94	%			12:24:50
1	Ag 328.068†	631.7	119.9	0.5223	ug/L	0.5223	ppb	12:24:55
1	As 188.979†	0.5	31.9	11.189	ug/L	11.189	ppb	12:25:15
1	B 249.677†	288.5	1044.4	21.666	ug/L	21.666	ppb	12:24:55
1	Ba 233.527†	-6.8	-25.1	-0.1820	ug/L	-0.1820	ppb	12:25:15
1	Be 313.107†	-4343.3	180.4	0.0612	ug/L	0.0612	ppb	12:24:55
1	Cd 226.502†	-202.9	56.8	0.5388	ug/L	0.5388	ppb	12:25:15
1	Co 228.616†	-76.7	25.0	0.4732	ug/L	0.4732	ppb	12:25:15
1	Cr 267.716†	121.1	26.8	0.2706	ug/L	0.2706	ppb	12:24:55
1	Cu 324.752†	8268.4	-108.7	-0.3232	ug/L	-0.3232	ppb	12:24:55
1	Mn 257.610†	1120.7	-222.7	-0.2332	ug/L	-0.2332	ppb	12:24:55
1	Mo 202.031†	37.6	9.6	0.6109	ug/L	0.6109	ppb	12:25:15
1	Ni 231.604†	146.0	25.0	0.5537	ug/L	0.5537	ppb	12:25:15
1	P 214.914†	238.1	-22.4	-10.898	ug/L	-10.898	ppb	12:25:15
1	Pb 220.353†	-89.6	14.7	1.5332	ug/L	1.5332	ppb	12:25:15
1	S 181.975 Axial†	62.7	2.9	3.3140	ug/L	3.3140	ppb	12:25:15
1	Sb 206.836†	44.8	-2.9	-0.8464	ug/L	-0.8464	ppb	12:25:15
1	Se 196.026†	-33.6	6.3	3.2646	ug/L	3.2646	ppb	12:25:15
1	Si 251.611†	755.0	100.0	2.8355	ug/L	2.8355	ppb	12:25:15
1	Sn 189.927†	9.8	4.7	0.7023	ug/L	0.7023	ppb	12:25:15
1	Ti 334.940†	-1694.5	115.0	0.1790	ug/L	0.1790	ppb	12:24:55
1	Tl 190.801†	-49.7	-2.3	-0.6455	ug/L	-0.6455	ppb	12:25:15
1	U 409.014†	-2600.0	394.6	11.755	ug/L	11.755	ppb	12:24:50
1	V 292.402†	-1705.7	157.1	1.0257	ug/L	1.0257	ppb	12:24:55
1	Zn 213.857†	900.0	17.1	0.1360	ug/L	0.1360	ppb	12:25:15
1	SiO2†	738.2	65.1	3.8911	ug/L	3.8911	ppb	12:26:21
2	Sc Radial	4695.6	4695.6	101	%			12:23:58
2	Y RADIAL	4935.0	4935.0	100.8	%			12:23:58
2	Al 396.153Radial†	-25.9	-4.7	-4.0840	ug/L	-4.0840	ppb	12:23:58
2	Ca 317.933Radial†	17.4	3.1	5.3760	ug/L	5.3760	ppb	12:24:18
2	Fe 238.204 Radial†	10.2	-2.7	-25.566	ug/L	-25.566	ppb	12:24:18
2	K 766.490 Radial†	3826.8	542.4	109.83	ug/L	109.83	ppb	12:23:58
2	Mg 279.077 IEC†	2.6	1.0	34.653	ug/L	34.653	ppb	12:24:18
2	Na 589.592 Radial†	-1519.2	272.7	93.095	ug/L	93.095	ppb	12:23:58
2	Sr 421.552†	16.3	4.8	0.0351	ug/L	0.0351	ppb	12:23:58
2	Sc 361.383	897774.1	897774.1	102.80	%			12:25:20
2	Y 371.029	765862.1	765862.1	102.21	%			12:25:20
2	Ag 328.068†	556.8	50.8	0.2010	ug/L	0.2010	ppb	12:25:25
2	As 188.979†	16.1	47.1	16.518	ug/L	16.518	ppb	12:25:46
2	B 249.677†	232.3	991.5	20.574	ug/L	20.574	ppb	12:25:25
2	Ba 233.527†	16.5	-2.5	-0.0191	ug/L	-0.0191	ppb	12:25:46
2	Be 313.107†	-4489.1	13.2	0.0047	ug/L	0.0047	ppb	12:25:25
2	Cd 226.502†	-209.1	49.5	0.4743	ug/L	0.4743	ppb	12:25:46
2	Co 228.616†	-83.3	18.2	0.3472	ug/L	0.3472	ppb	12:25:46
2	Cr 267.716†	137.6	43.6	0.4380	ug/L	0.4380	ppb	12:25:25
2	Cu 324.752†	8364.0	32.8	0.0964	ug/L	0.0964	ppb	12:25:25
2	Mn 257.610†	1058.6	-276.6	-0.2944	ug/L	-0.2944	ppb	12:25:25
2	Mo 202.031†	47.8	19.7	1.2468	ug/L	1.2468	ppb	12:25:46
2	Ni 231.604†	129.0	9.4	0.2077	ug/L	0.2077	ppb	12:25:46

2	P 214.914†	248.3	-11.1	-5.3975 ug/L	-5.3975 ppb	12:25:46
2	Pb 220.353†	-75.3	28.0	2.9176 ug/L	2.9176 ppb	12:25:46
2	S 181.975 Axial†	62.1	2.7	3.0502 ug/L	3.0502 ppb	12:25:46
2	Sb 206.836†	69.8	21.8	6.6100 ug/L	6.6100 ppb	12:25:46
2	Se 196.026†	-34.8	4.9	2.3987 ug/L	2.3987 ppb	12:25:46
2	Si 251.611†	778.8	127.6	3.6299 ug/L	3.6299 ppb	12:25:46
2	Sn 189.927†	12.0	7.0	1.0417 ug/L	1.0417 ppb	12:25:46
2	Ti 334.940†	-1722.4	78.0	0.1192 ug/L	0.1192 ppb	12:25:25
2	Tl 190.801†	-37.3	9.4	2.5670 ug/L	2.5670 ppb	12:25:46
2	U 409.014†	-2540.2	437.5	13.039 ug/L	13.039 ppb	12:25:20
2	V 292.402†	-1850.7	6.1	0.0859 ug/L	0.0859 ppb	12:25:25
2	Zn 213.857†	916.0	38.0	0.3131 ug/L	0.3131 ppb	12:25:46
2	SiO2†	783.0	113.0	6.8411 ug/L	6.8411 ppb	12:26:26
3	Sc Radial	4529.2	4529.2	97.9 %		12:24:23
3	Y RADIAL	4770.5	4770.5	97.46 %		12:24:23
3	Al 396.153Radial†	-8.4	12.2	10.513 ug/L	10.513 ppb	12:24:23
3	Ca 317.933Radial†	18.4	4.8	8.3327 ug/L	8.3327 ppb	12:24:44
3	Fe 238.204 Radial†	11.4	-1.0	-9.8412 ug/L	-9.8412 ppb	12:24:44
3	K 766.490 Radial†	3930.2	786.6	159.31 ug/L	159.31 ppb	12:24:23
3	Mg 279.077 IEC†	3.1	1.6	55.631 ug/L	55.631 ppb	12:24:44
3	Na 589.592 Radial†	-1564.3	171.6	58.601 ug/L	58.601 ppb	12:24:23
3	Sr 421.552†	4.8	-6.4	-0.0474 ug/L	-0.0474 ppb	12:24:23
3	Sc 361.383	885034.6	885034.6	101.34 %		12:25:51
3	Y 371.029	755287.8	755287.8	100.80 %		12:25:51
3	Ag 328.068†	502.3	4.8	0.0115 ug/L	0.0115 ppb	12:25:56
3	As 188.979†	7.0	38.4	13.458 ug/L	13.458 ppb	12:26:16
3	B 249.677†	243.2	1005.4	20.863 ug/L	20.863 ppb	12:25:56
3	Ba 233.527†	-1.2	-19.8	-0.1447 ug/L	-0.1447 ppb	12:26:16
3	Be 313.107†	-4425.1	13.5	0.0047 ug/L	0.0047 ppb	12:25:56
3	Cd 226.502†	-204.8	50.9	0.4857 ug/L	0.4857 ppb	12:26:16
3	Co 228.616†	-119.8	-19.0	-0.3588 ug/L	-0.3588 ppb	12:26:16
3	Cr 267.716†	146.5	54.3	0.5489 ug/L	0.5489 ppb	12:25:56
3	Cu 324.752†	8254.5	41.8	0.1240 ug/L	0.1240 ppb	12:25:56
3	Mn 257.610†	1122.0	-199.2	-0.2117 ug/L	-0.2117 ppb	12:25:56
3	Mo 202.031†	36.1	8.9	0.5604 ug/L	0.5604 ppb	12:26:16
3	Ni 231.604†	108.9	-8.6	-0.1914 ug/L	-0.1914 ppb	12:26:16
3	P 214.914†	260.3	4.2	2.0892 ug/L	2.0892 ppb	12:26:16
3	Pb 220.353†	-95.0	7.6	0.7937 ug/L	0.7937 ppb	12:26:16
3	S 181.975 Axial†	72.2	13.6	15.383 ug/L	15.383 ppb	12:26:16
3	Sb 206.836†	55.7	8.8	2.6840 ug/L	2.6840 ppb	12:26:16
3	Se 196.026†	-40.4	-1.1	-0.5750 ug/L	-0.5750 ppb	12:26:16
3	Si 251.611†	737.3	97.5	2.7537 ug/L	2.7537 ppb	12:26:16
3	Sn 189.927†	14.3	9.4	1.4053 ug/L	1.4053 ppb	12:26:16
3	Ti 334.940†	-1741.0	35.4	0.0530 ug/L	0.0530 ppb	12:25:56
3	Tl 190.801†	-27.3	18.7	5.1398 ug/L	5.1398 ppb	12:26:16
3	U 409.014†	-2636.5	306.9	9.1447 ug/L	9.1447 ppb	12:25:51
3	V 292.402†	-1750.3	79.2	0.5307 ug/L	0.5307 ppb	12:25:56
3	Zn 213.857†	915.3	50.2	0.4149 ug/L	0.4149 ppb	12:26:16
3	SiO2†	795.1	135.9	8.2443 ug/L	8.2443 ppb	12:26:31

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	895341.7	102.52	%	1.069				1.04%
Sc Radial	4592.1	99.2	%	1.95				1.97%
Y 371.029	764160.6	101.98	%	1.088				1.07%
Y RADIAL	4826.6	98.61	%	1.917				1.94%
Ag 328.068†	58.5	0.2450	ug/L	0.25823	0.2450	ppb	0.25823	105.42%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.2	10.427	ug/L	14.4684	10.427	ppb	14.4684	138.76%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	39.2	13.722	ug/L	2.6747	13.722	ppb	2.6747	19.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1013.8	21.034	ug/L	0.5657	21.034	ppb	0.5657	2.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-15.8	-0.1153	ug/L	0.08533	-0.1153	ppb	0.08533	74.02%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	69.0	0.0235	ug/L	0.03262	0.0235	ppb	0.03262	138.75%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.9	5.0135	ug/L	3.51448	5.0135	ppb	3.51448	70.10%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                52.4      0.4996 ug/L       0.03441      0.4996 ppb        0.03441   6.89%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 8.0      0.1538 ug/L       0.44844      0.1538 ppb        0.44844 291.53%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                41.6      0.4192 ug/L       0.14006      0.4192 ppb        0.14006  33.41%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -11.4     -0.0342 ug/L       0.25060     -0.0342 ppb        0.25060 732.07%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.5     -4.4032 ug/L      24.34159     -4.4032 ppb       24.34159 552.82%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         666.0      134.87 ug/L        24.746      134.87 ppb         24.746  18.35%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.4      46.264 ug/L       10.6677      46.264 ppb        10.6677  23.06%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -232.8     -0.2464 ug/L       0.04289     -0.2464 ppb        0.04289  17.41%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                12.7      0.8060 ug/L       0.38258      0.8060 ppb        0.38258  47.46%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        245.1      83.691 ug/L       21.9545      83.691 ppb        21.9545  26.23%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 8.6      0.1900 ug/L       0.37288      0.1900 ppb        0.37288 196.27%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -9.7     -4.7353 ug/L       6.51862     -4.7353 ppb        6.51862 137.66%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                16.8      1.7482 ug/L       1.07814      1.7482 ppb        1.07814  61.67%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            6.4      7.2492 ug/L       7.04565      7.2492 ppb        7.04565  97.19%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 9.2      2.8159 ug/L       3.72994      2.8159 ppb        3.72994 132.46%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.4      1.6961 ug/L       2.01392      1.6961 ppb        2.01392 118.74%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               108.4      3.0730 ug/L       0.48401      3.0730 ppb        0.48401  15.75%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.0      1.0498 ug/L       0.35155      1.0498 ppb        0.35155  33.49%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -0.8     -0.0062 ug/L       0.04126     -0.0062 ppb        0.04126 670.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                76.1      0.1171 ug/L       0.06304      0.1171 ppb        0.06304  53.85%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 8.6      2.3537 ug/L       2.89853      2.3537 ppb        2.89853 123.15%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                379.6      11.313 ug/L        1.9843      11.313 ppb         1.9843  17.54%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 80.8      0.5474 ug/L       0.47011      0.5474 ppb        0.47011  85.87%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                35.1      0.2880 ug/L       0.14114      0.2880 ppb        0.14114  49.01%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     104.7      6.3255 ug/L       2.22193      6.3255 ppb        2.22193  35.13%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/7/2010 13:22:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4294.4	4294.4	92.8	%			13:24:09
1	Y RADIAL	4527.0	4527.0	92.48	%			13:24:09
1	Al 396.153Radial†	5472.2	5918.2	5072.0	ug/L	5072.0	ppb	13:24:09
1	Ca 317.933Radial†	2829.3	3035.0	5241.5	ug/L	5241.5	ppb	13:24:29
1	Fe 238.204 Radial†	528.3	556.7	5354.2	ug/L	5354.2	ppb	13:24:29
1	K 766.490 Radial†	26854.9	25711.7	5199.2	ug/L	5199.2	ppb	13:24:09
1	Mg 279.077 IEC†	149.6	159.7	5446.8	ug/L	5446.8	ppb	13:24:29
1	Na 589.592 Radial†	26374.7	30193.6	10309	ug/L	10309	ppb	13:24:09
1	Sr 421.552†	62089.6	66901.6	492.85	ug/L	492.85	ppb	13:24:09
1	Sc 361.383	875760.1	875760.1	100.28	%			13:25:28
1	Y 371.029	741764.8	741764.8	98.991	%			13:25:28
1	Ag 328.068†	113537.1	112732.7	493.12	ug/L	493.12	ppb	13:25:28
1	As 188.979†	1356.7	1384.4	489.94	ug/L	489.94	ppb	13:25:48
1	B 249.677†	23713.6	24413.6	504.58	ug/L	504.58	ppb	13:25:28
1	Ba 233.527†	67356.8	67152.3	495.66	ug/L	495.66	ppb	13:25:28
1	Be 313.107†	1467012.6	1467342.7	495.49	ug/L	495.49	ppb	13:25:28
1	Cd 226.502†	51870.8	51980.6	494.92	ug/L	494.92	ppb	13:25:28
1	Co 228.616†	25748.5	25776.6	487.52	ug/L	487.52	ppb	13:25:48
1	Cr 267.716†	48768.8	48543.9	493.72	ug/L	493.72	ppb	13:25:28
1	Cu 324.752†	174353.1	165768.1	494.62	ug/L	494.62	ppb	13:25:28
1	Mn 257.610†	472803.0	470191.4	495.44	ug/L	495.44	ppb	13:25:28
1	Mo 202.031†	7746.2	7698.1	487.53	ug/L	487.53	ppb	13:25:48
1	Ni 231.604†	22231.8	22054.3	488.40	ug/L	488.40	ppb	13:25:48
1	P 214.914†	5257.8	4990.6	2368.6	ug/L	2368.6	ppb	13:25:48
1	Pb 220.353†	4636.7	4725.2	493.11	ug/L	493.11	ppb	13:25:48
1	S 181.975 Axial†	935.4	875.1	989.06	ug/L	989.06	ppb	13:25:48
1	Sb 206.836†	1632.9	1582.3	484.84	ug/L	484.84	ppb	13:25:48
1	Se 196.026†	931.3	967.5	510.81	ug/L	510.81	ppb	13:25:48
1	Si 251.611†	85919.5	85052.2	2448.9	ug/L	2448.9	ppb	13:25:28
1	Sn 189.927†	3248.9	3235.2	483.77	ug/L	483.77	ppb	13:25:48
1	Ti 334.940†	310275.9	311172.7	498.32	ug/L	498.32	ppb	13:25:28
1	Tl 190.801†	1739.5	1780.4	492.20	ug/L	492.20	ppb	13:25:48
1	U 409.014†	13349.5	16221.2	481.76	ug/L	481.76	ppb	13:25:28
1	V 292.402†	75992.7	77589.3	498.68	ug/L	498.68	ppb	13:25:28
1	Zn 213.857†	61128.9	60107.1	493.40	ug/L	493.40	ppb	13:25:28
1	SiO2†	86113.7	85227.2	5238.1	ug/L	5238.1	ppb	13:26:48
2	Sc Radial	4431.2	4431.2	95.7	%			13:24:34
2	Y RADIAL	4666.4	4666.4	95.33	%			13:24:34
2	Al 396.153Radial†	5545.7	5812.9	4981.0	ug/L	4981.0	ppb	13:24:34
2	Ca 317.933Radial†	2822.0	2933.3	5065.8	ug/L	5065.8	ppb	13:24:54
2	Fe 238.204 Radial†	525.2	535.8	5154.6	ug/L	5154.6	ppb	13:24:54
2	K 766.490 Radial†	27097.6	25071.7	5069.7	ug/L	5069.7	ppb	13:24:34
2	Mg 279.077 IEC†	151.9	157.1	5358.6	ug/L	5358.6	ppb	13:24:54
2	Na 589.592 Radial†	26812.6	29773.3	10165	ug/L	10165	ppb	13:24:34
2	Sr 421.552†	62944.3	65728.1	484.21	ug/L	484.21	ppb	13:24:34
2	Sc 361.383	859269.8	859269.8	98.389	%			13:25:55
2	Y 371.029	728312.9	728312.9	97.196	%			13:25:55
2	Ag 328.068†	112063.2	113407.6	496.00	ug/L	496.00	ppb	13:25:55
2	As 188.979†	1364.0	1417.8	501.63	ug/L	501.63	ppb	13:26:15
2	B 249.677†	23271.7	24418.3	504.69	ug/L	504.69	ppb	13:25:55
2	Ba 233.527†	66403.3	67472.2	498.01	ug/L	498.01	ppb	13:25:55
2	Be 313.107†	1448461.0	1476563.3	498.60	ug/L	498.60	ppb	13:25:55
2	Cd 226.502†	51281.0	52373.8	498.69	ug/L	498.69	ppb	13:25:55
2	Co 228.616†	25728.9	26249.5	496.48	ug/L	496.48	ppb	13:26:15
2	Cr 267.716†	48196.0	48895.1	497.29	ug/L	497.29	ppb	13:25:55
2	Cu 324.752†	171388.3	166091.5	495.57	ug/L	495.57	ppb	13:25:55
2	Mn 257.610†	466542.5	472876.9	498.25	ug/L	498.25	ppb	13:25:55
2	Mo 202.031†	7743.0	7843.1	496.69	ug/L	496.69	ppb	13:26:15
2	Ni 231.604†	22183.0	22430.2	496.72	ug/L	496.72	ppb	13:26:15

2	P 214.914†	5264.7	5098.3	2421.5 ug/L	2421.5 ppb	13:26:15
2	Pb 220.353†	4616.7	4793.6	500.24 ug/L	500.24 ppb	13:26:15
2	S 181.975 Axial†	929.7	887.2	1002.8 ug/L	1002.8 ppb	13:26:15
2	Sb 206.836†	1643.4	1624.2	497.81 ug/L	497.81 ppb	13:26:15
2	Se 196.026†	936.1	990.2	521.79 ug/L	521.79 ppb	13:26:15
2	Si 251.611†	84773.9	85532.2	2462.7 ug/L	2462.7 ppb	13:25:55
2	Sn 189.927†	3260.7	3309.4	494.83 ug/L	494.83 ppb	13:26:15
2	Ti 334.940†	305996.4	312761.3	500.86 ug/L	500.86 ppb	13:25:55
2	Tl 190.801†	1735.5	1809.6	500.19 ug/L	500.19 ppb	13:26:15
2	U 409.014†	12969.1	16090.0	477.87 ug/L	477.87 ppb	13:25:55
2	V 292.402†	74893.8	77926.7	500.97 ug/L	500.97 ppb	13:25:55
2	Zn 213.857†	60240.2	60373.7	495.56 ug/L	495.56 ppb	13:25:55
2	SiO2†	85356.4	86105.6	5292.0 ug/L	5292.0 ppb	13:26:53
3	Sc Radial	4445.0	4445.0	96.0 %		13:24:59
3	Y RADIAL	4631.7	4631.7	94.62 %		13:24:59
3	Al 396.153Radial†	5486.2	5732.9	4912.5 ug/L	4912.5 ppb	13:24:59
3	Ca 317.933Radial†	2828.6	2931.1	5061.9 ug/L	5061.9 ppb	13:25:19
3	Fe 238.204 Radial†	526.8	535.7	5153.5 ug/L	5153.5 ppb	13:25:19
3	K 766.490 Radial†	27002.9	24885.1	5031.9 ug/L	5031.9 ppb	13:24:59
3	Mg 279.077 IEC†	152.3	157.1	5356.9 ug/L	5356.9 ppb	13:25:19
3	Na 589.592 Radial†	26613.1	29478.5	10064 ug/L	10064 ppb	13:24:59
3	Sr 421.552†	62350.8	64905.9	478.15 ug/L	478.15 ppb	13:24:59
3	Sc 361.383	876996.0	876996.0	100.42 %		13:26:23
3	Y 371.029	742334.7	742334.7	99.067 %		13:26:23
3	Ag 328.068†	113873.2	112907.9	493.82 ug/L	493.82 ppb	13:26:23
3	As 188.979†	1364.9	1390.7	492.12 ug/L	492.12 ppb	13:26:43
3	B 249.677†	23695.9	24362.6	503.55 ug/L	503.55 ppb	13:26:23
3	Ba 233.527†	67481.5	67181.8	495.87 ug/L	495.87 ppb	13:26:23
3	Be 313.107†	1469158.5	1467418.1	495.51 ug/L	495.51 ppb	13:26:23
3	Cd 226.502†	51836.2	51873.3	493.92 ug/L	493.92 ppb	13:26:23
3	Co 228.616†	25784.7	25776.5	487.52 ug/L	487.52 ppb	13:26:43
3	Cr 267.716†	48742.4	48449.1	492.75 ug/L	492.75 ppb	13:26:23
3	Cu 324.752†	174746.7	165915.1	495.05 ug/L	495.05 ppb	13:26:23
3	Mn 257.610†	473590.8	470311.5	495.55 ug/L	495.55 ppb	13:26:23
3	Mo 202.031†	7774.3	7715.2	488.59 ug/L	488.59 ppb	13:26:43
3	Ni 231.604†	22222.6	22013.9	487.50 ug/L	487.50 ppb	13:26:43
3	P 214.914†	5260.5	4986.0	2366.4 ug/L	2366.4 ppb	13:26:43
3	Pb 220.353†	4657.5	4739.4	494.57 ug/L	494.57 ppb	13:26:43
3	S 181.975 Axial†	930.5	868.9	982.09 ug/L	982.09 ppb	13:26:43
3	Sb 206.836†	1655.4	1602.3	490.95 ug/L	490.95 ppb	13:26:43
3	Se 196.026†	953.1	987.9	520.56 ug/L	520.56 ppb	13:26:43
3	Si 251.611†	86150.4	85161.4	2452.1 ug/L	2452.1 ppb	13:26:23
3	Sn 189.927†	3255.7	3237.5	484.09 ug/L	484.09 ppb	13:26:43
3	Ti 334.940†	311343.1	311799.5	499.32 ug/L	499.32 ppb	13:26:23
3	Tl 190.801†	1743.1	1781.5	492.50 ug/L	492.50 ppb	13:26:43
3	U 409.014†	13297.0	16150.2	479.67 ug/L	479.67 ppb	13:26:23
3	V 292.402†	76048.5	77538.1	498.40 ug/L	498.40 ppb	13:26:23
3	Zn 213.857†	61110.1	60002.4	492.55 ug/L	492.55 ppb	13:26:23
3	SiO2†	85751.9	84745.9	5208.5 ug/L	5208.5 ppb	13:26:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	870675.3	99.695	%	1.1332				1.14%
Sc Radial	4390.2	94.9	%	1.80				1.90%
Y 371.029	737470.8	98.418	%	1.0591				1.08%
Y RADIAL	4608.4	94.15	%	1.482				1.57%
Ag 328.068†	113016.1	494.31	ug/L	1.503	494.31	ppb	1.503	0.30%
QC value within limits for Ag 328.068 Recovery = 98.86%								
Al 396.153Radial†	5821.3	4988.5	ug/L	80.00	4988.5	ppb	80.00	1.60%
QC value within limits for Al 396.153Radial Recovery = 99.77%								
As 188.979†	1397.6	494.56	ug/L	6.212	494.56	ppb	6.212	1.26%
QC value within limits for As 188.979 Recovery = 98.91%								
B 249.677†	24398.2	504.27	ug/L	0.627	504.27	ppb	0.627	0.12%
QC value within limits for B 249.677 Recovery = 100.85%								
Ba 233.527†	67268.8	496.51	ug/L	1.303	496.51	ppb	1.303	0.26%
QC value within limits for Ba 233.527 Recovery = 99.30%								
Be 313.107†	1470441.4	496.53	ug/L	1.789	496.53	ppb	1.789	0.36%
QC value within limits for Be 313.107 Recovery = 99.31%								
Ca 317.933Radial†	2966.5	5123.1	ug/L	102.55	5123.1	ppb	102.55	2.00%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.46%
Cd 226.502†            52075.9      495.85 ug/L         2.517      495.85 ppb          2.517   0.51%
   QC value within limits for Cd 226.502  Recovery = 99.17%
Co 228.616†            25934.2      490.50 ug/L         5.173      490.50 ppb          5.173   1.05%
   QC value within limits for Co 228.616  Recovery = 98.10%
Cr 267.716†            48629.4      494.58 ug/L         2.388      494.58 ppb          2.388   0.48%
   QC value within limits for Cr 267.716  Recovery = 98.92%
Cu 324.752†           165924.9      495.08 ug/L         0.478      495.08 ppb          0.478   0.10%
   QC value within limits for Cu 324.752  Recovery = 99.02%
Fe 238.204 Radial†       542.7      5220.8 ug/L        115.54      5220.8 ppb         115.54   2.21%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.42%
K 766.490 Radial†      25222.8      5100.3 ug/L         87.77      5100.3 ppb          87.77   1.72%
   QC value within limits for K 766.490 Radial  Recovery = 102.01%
Mg 279.077 IEC†          157.9      5387.4 ug/L         51.44      5387.4 ppb          51.44   0.95%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.75%
Mn 257.610†           471126.6      496.41 ug/L         1.591      496.41 ppb          1.591   0.32%
   QC value within limits for Mn 257.610  Recovery = 99.28%
Mo 202.031†             7752.2      490.94 ug/L         5.008      490.94 ppb          5.008   1.02%
   QC value within limits for Mo 202.031  Recovery = 98.19%
Na 589.592 Radial†     29815.1       10179 ug/L         122.7       10179 ppb          122.7   1.21%
   QC value within limits for Na 589.592 Radial  Recovery = 101.79%
Ni 231.604†            22166.1      490.87 ug/L         5.084      490.87 ppb          5.084   1.04%
   QC value within limits for Ni 231.604  Recovery = 98.17%
P 214.914†              5025.0      2385.5 ug/L         31.17      2385.5 ppb          31.17   1.31%
   QC value within limits for P 214.914  Recovery = 95.42%
Pb 220.353†             4752.7      495.97 ug/L         3.766      495.97 ppb          3.766   0.76%
   QC value within limits for Pb 220.353  Recovery = 99.19%
S 181.975 Axial†         877.1      991.30 ug/L        10.513      991.30 ppb         10.513   1.06%
   QC value within limits for S 181.975 Axial  Recovery = 99.13%
Sb 206.836†             1602.9      491.20 ug/L         6.487      491.20 ppb          6.487   1.32%
   QC value within limits for Sb 206.836  Recovery = 98.24%
Se 196.026†              981.9      517.72 ug/L         6.014      517.72 ppb          6.014   1.16%
   QC value within limits for Se 196.026  Recovery = 103.54%
Si 251.611†            85248.6      2454.6 ug/L          7.19      2454.6 ppb           7.19   0.29%
   QC value within limits for Si 251.611  Recovery = 98.18%
Sn 189.927†             3260.7      487.56 ug/L         6.298      487.56 ppb          6.298   1.29%
   QC value within limits for Sn 189.927  Recovery = 97.51%
Sr 421.552†            65845.2      485.07 ug/L         7.388      485.07 ppb          7.388   1.52%
   QC value within limits for Sr 421.552  Recovery = 97.01%
Ti 334.940†           311911.1      499.50 ug/L         1.278      499.50 ppb          1.278   0.26%
   QC value within limits for Ti 334.940  Recovery = 99.90%
Tl 190.801†             1790.5      494.96 ug/L         4.531      494.96 ppb          4.531   0.92%
   QC value within limits for Tl 190.801  Recovery = 98.99%
U 409.014†             16153.8      479.77 ug/L         1.947      479.77 ppb          1.947   0.41%
   QC value within limits for U 409.014  Recovery = 95.95%
V 292.402†             77684.7      499.35 ug/L         1.411      499.35 ppb          1.411   0.28%
   QC value within limits for V 292.402  Recovery = 99.87%
Zn 213.857†            60161.1      493.84 ug/L         1.554      493.84 ppb          1.554   0.31%
   QC value within limits for Zn 213.857  Recovery = 98.77%
SiO2†                  85359.6      5246.2 ug/L         42.37      5246.2 ppb          42.37   0.81%
   QC value within limits for SiO2  Recovery = 98.11%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/7/2010 13:29:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4241.1	4241.1	91.6	%			13:31:21
1	Y RADIAL	4687.0	4687.0	95.75	%			13:31:01
1	Al 396.153Radial†	-20.8	-1.8	-1.5770	ug/L	-1.5770	ppb	13:31:01
1	Ca 317.933Radial†	18.9	6.6	11.349	ug/L	11.349	ppb	13:31:21
1	Fe 238.204 Radial†	13.1	1.5	14.817	ug/L	14.817	ppb	13:31:21
1	K 766.490 Radial†	3253.7	321.3	65.058	ug/L	65.058	ppb	13:31:01
1	Mg 279.077 IEC†	0.8	-0.7	-22.976	ug/L	-22.976	ppb	13:31:21
1	Na 589.592 Radial†	-1489.6	144.5	49.349	ug/L	49.349	ppb	13:31:01
1	Sr 421.552†	0.7	-10.5	-0.0774	ug/L	-0.0774	ppb	13:31:01
1	Sc 361.383	889003.4	889003.4	101.79	%			13:32:18
1	Y 371.029	760775.6	760775.6	101.53	%			13:32:18
1	Ag 328.068†	595.9	94.5	0.4037	ug/L	0.4037	ppb	13:32:23
1	As 188.979†	-38.6	-6.4	-2.2617	ug/L	-2.2617	ppb	13:32:43
1	B 249.677†	-34.3	731.8	15.180	ug/L	15.180	ppb	13:32:23
1	Ba 233.527†	19.3	0.4	0.0038	ug/L	0.0038	ppb	13:32:43
1	Be 313.107†	-4368.4	88.7	0.0304	ug/L	0.0304	ppb	13:32:23
1	Cd 226.502†	-226.7	30.3	0.2874	ug/L	0.2874	ppb	13:32:43
1	Co 228.616†	-91.3	9.5	0.1796	ug/L	0.1796	ppb	13:32:43
1	Cr 267.716†	141.1	48.4	0.4873	ug/L	0.4873	ppb	13:32:23
1	Cu 324.752†	8082.5	-163.5	-0.4868	ug/L	-0.4868	ppb	13:32:23
1	Mn 257.610†	1208.9	-118.7	-0.1231	ug/L	-0.1231	ppb	13:32:23
1	Mo 202.031†	29.4	2.2	0.1407	ug/L	0.1407	ppb	13:32:43
1	Ni 231.604†	138.5	19.9	0.4414	ug/L	0.4414	ppb	13:32:43
1	P 214.914†	251.4	-5.7	-2.6907	ug/L	-2.6907	ppb	13:32:43
1	Pb 220.353†	-82.5	20.2	2.1012	ug/L	2.1012	ppb	13:32:43
1	S 181.975 Axial†	64.4	5.5	6.2781	ug/L	6.2781	ppb	13:32:43
1	Sb 206.836†	44.2	-2.7	-0.8198	ug/L	-0.8198	ppb	13:32:43
1	Se 196.026†	-30.5	8.8	4.5180	ug/L	4.5180	ppb	13:32:43
1	Si 251.611†	639.1	-2.2	-0.0903	ug/L	-0.0903	ppb	13:32:43
1	Sn 189.927†	11.1	6.1	0.9167	ug/L	0.9167	ppb	13:32:43
1	Ti 334.940†	-1633.7	148.5	0.2318	ug/L	0.2318	ppb	13:32:23
1	Tl 190.801†	-52.7	-6.1	-1.6779	ug/L	-1.6779	ppb	13:32:43
1	U 409.014†	-2453.7	498.1	14.839	ug/L	14.839	ppb	13:32:18
1	V 292.402†	-1801.7	36.5	0.2589	ug/L	0.2589	ppb	13:32:23
1	Zn 213.857†	846.0	-22.0	-0.1844	ug/L	-0.1844	ppb	13:32:43
1	SiO2†	673.1	12.5	0.7108	ug/L	0.7108	ppb	13:33:49
2	Sc Radial	4209.6	4209.6	91.0	%			13:31:46
2	Y RADIAL	4681.8	4681.8	95.65	%			13:31:26
2	Al 396.153Radial†	-10.7	9.1	7.8124	ug/L	7.8124	ppb	13:31:26
2	Ca 317.933Radial†	10.0	-3.1	-5.2721	ug/L	-5.2721	ppb	13:31:46
2	Fe 238.204 Radial†	13.7	2.4	22.652	ug/L	22.652	ppb	13:31:46
2	K 766.490 Radial†	3381.7	488.5	98.923	ug/L	98.923	ppb	13:31:26
2	Mg 279.077 IEC†	-0.6	-2.1	-72.585	ug/L	-72.585	ppb	13:31:46
2	Na 589.592 Radial†	-1450.2	175.7	59.983	ug/L	59.983	ppb	13:31:26
2	Sr 421.552†	4.7	-6.1	-0.0450	ug/L	-0.0450	ppb	13:31:26
2	Sc 361.383	885685.2	885685.2	101.41	%			13:32:48
2	Y 371.029	757488.3	757488.3	101.09	%			13:32:48
2	Ag 328.068†	535.6	37.2	0.1608	ug/L	0.1608	ppb	13:32:53
2	As 188.979†	-34.1	-2.1	-0.7534	ug/L	-0.7534	ppb	13:33:13
2	B 249.677†	-91.9	674.9	13.999	ug/L	13.999	ppb	13:32:53
2	Ba 233.527†	4.1	-14.5	-0.1061	ug/L	-0.1061	ppb	13:33:13
2	Be 313.107†	-4426.4	15.4	0.0055	ug/L	0.0055	ppb	13:32:53
2	Cd 226.502†	-248.9	7.5	0.0694	ug/L	0.0694	ppb	13:33:13
2	Co 228.616†	-86.5	13.9	0.2633	ug/L	0.2633	ppb	13:33:13
2	Cr 267.716†	117.4	25.5	0.2561	ug/L	0.2561	ppb	13:32:53
2	Cu 324.752†	8139.8	-77.3	-0.2293	ug/L	-0.2293	ppb	13:32:53
2	Mn 257.610†	1258.9	-65.0	-0.0648	ug/L	-0.0648	ppb	13:32:53
2	Mo 202.031†	32.3	5.1	0.3250	ug/L	0.3250	ppb	13:33:13
2	Ni 231.604†	118.1	0.3	0.0076	ug/L	0.0076	ppb	13:33:13

2	P 214.914†	261.4	5.1	2.5031	ug/L	2.5031 ppb	13:33:13
2	Pb 220.353†	-71.3	31.0	3.2230	ug/L	3.2230 ppb	13:33:13
2	S 181.975 Axial†	72.3	13.6	15.402	ug/L	15.402 ppb	13:33:13
2	Sb 206.836†	49.0	2.2	0.6549	ug/L	0.6549 ppb	13:33:13
2	Se 196.026†	-34.1	5.2	2.7042	ug/L	2.7042 ppb	13:33:13
2	Si 251.611†	644.1	5.0	0.1085	ug/L	0.1085 ppb	13:33:13
2	Sn 189.927†	2.9	-1.9	-0.2786	ug/L	-0.2786 ppb	13:33:13
2	Ti 334.940†	-1675.1	101.7	0.1577	ug/L	0.1577 ppb	13:32:53
2	Tl 190.801†	-45.6	0.7	0.1999	ug/L	0.1999 ppb	13:33:13
2	U 409.014†	-2578.6	365.9	10.899	ug/L	10.899 ppb	13:32:48
2	V 292.402†	-1807.2	24.4	0.1754	ug/L	0.1754 ppb	13:32:53
2	Zn 213.857†	843.4	-21.4	-0.1760	ug/L	-0.1760 ppb	13:33:13
2	SiO2†	697.3	38.9	2.3182	ug/L	2.3182 ppb	13:33:54
3	Sc Radial	4220.3	4220.3	91.2	%		13:32:11
3	Y RADIAL	4668.7	4668.7	95.38	%		13:31:51
3	Al 396.153Radial†	-21.3	-2.5	-2.1863	ug/L	-2.1863 ppb	13:31:51
3	Ca 317.933Radial†	20.9	8.9	15.383	ug/L	15.383 ppb	13:32:11
3	Fe 238.204 Radial†	11.6	0.0	0.0330	ug/L	0.0330 ppb	13:32:11
3	K 766.490 Radial†	3370.7	467.0	94.574	ug/L	94.574 ppb	13:31:51
3	Mg 279.077 IEC†	0.7	-0.8	-25.682	ug/L	-25.682 ppb	13:32:11
3	Na 589.592 Radial†	-1472.3	155.5	53.097	ug/L	53.097 ppb	13:31:51
3	Sr 421.552†	-6.9	-18.8	-0.1389	ug/L	-0.1389 ppb	13:31:51
3	Sc 361.383	880088.6	880088.6	100.77	%		13:33:19
3	Y 371.029	753711.0	753711.0	100.59	%		13:33:19
3	Ag 328.068†	484.0	-10.6	-0.0540	ug/L	-0.0540 ppb	13:33:24
3	As 188.979†	-37.8	-6.0	-2.1173	ug/L	-2.1173 ppb	13:33:44
3	B 249.677†	-41.5	724.3	15.027	ug/L	15.027 ppb	13:33:24
3	Ba 233.527†	15.9	-2.7	-0.0187	ug/L	-0.0187 ppb	13:33:44
3	Be 313.107†	-4285.7	127.3	0.0433	ug/L	0.0433 ppb	13:33:24
3	Cd 226.502†	-243.1	11.8	0.1125	ug/L	0.1125 ppb	13:33:44
3	Co 228.616†	-94.3	5.6	0.1079	ug/L	0.1079 ppb	13:33:44
3	Cr 267.716†	109.9	18.8	0.1884	ug/L	0.1884 ppb	13:33:24
3	Cu 324.752†	8091.0	-74.7	-0.2228	ug/L	-0.2228 ppb	13:33:24
3	Mn 257.610†	1246.1	-69.8	-0.0730	ug/L	-0.0730 ppb	13:33:24
3	Mo 202.031†	38.8	11.8	0.7463	ug/L	0.7463 ppb	13:33:44
3	Ni 231.604†	141.5	24.3	0.5380	ug/L	0.5380 ppb	13:33:44
3	P 214.914†	247.6	-6.9	-3.3487	ug/L	-3.3487 ppb	13:33:44
3	Pb 220.353†	-109.3	-7.2	-0.7478	ug/L	-0.7478 ppb	13:33:44
3	S 181.975 Axial†	69.6	11.4	12.923	ug/L	12.923 ppb	13:33:44
3	Sb 206.836†	54.3	7.7	2.3287	ug/L	2.3287 ppb	13:33:44
3	Se 196.026†	-37.4	1.6	0.8339	ug/L	0.8339 ppb	13:33:44
3	Si 251.611†	643.1	8.2	0.1945	ug/L	0.1945 ppb	13:33:44
3	Sn 189.927†	-1.0	-5.7	-0.8522	ug/L	-0.8522 ppb	13:33:44
3	Ti 334.940†	-1649.1	117.0	0.1828	ug/L	0.1828 ppb	13:33:24
3	Tl 190.801†	-49.4	-3.4	-0.9314	ug/L	-0.9314 ppb	13:33:44
3	U 409.014†	-2523.8	404.1	12.043	ug/L	12.043 ppb	13:33:19
3	V 292.402†	-1714.5	105.0	0.6993	ug/L	0.6993 ppb	13:33:24
3	Zn 213.857†	845.9	-13.7	-0.1154	ug/L	-0.1154 ppb	13:33:44
3	SiO2†	654.7	1.0	-0.0322	ug/L	-0.0322 ppb	13:33:59

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	884925.7	101.33	%	0.516				0.51%
Sc Radial	4223.6	91.3	%	0.35				0.38%
Y 371.029	757325.0	101.07	%	0.472				0.47%
Y RADIAL	4679.1	95.59	%	0.193				0.20%
Ag 328.068†	40.4	0.1702	ug/L	0.22898	0.1702	ppb	0.22898	134.56%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.6	1.3497	ug/L	5.60516	1.3497	ppb	5.60516	415.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.9	-1.7108	ug/L	0.83231	-1.7108	ppb	0.83231	48.65%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	710.3	14.735	ug/L	0.6425	14.735	ppb	0.6425	4.36%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.6	-0.0404	ug/L	0.05803	-0.0404	ppb	0.05803	143.78%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	77.2	0.0264	ug/L	0.01919	0.0264	ppb	0.01919	72.71%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.1	7.1535	ug/L	10.94828	7.1535	ppb	10.94828	153.05%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                16.5      0.1564 ug/L       0.11545      0.1564 ppb        0.11545  73.80%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 9.7      0.1836 ug/L       0.07777      0.1836 ppb        0.07777  42.36%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                30.9      0.3106 ug/L       0.15671      0.3106 ppb        0.15671  50.45%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -105.2     -0.3130 ug/L       0.15059     -0.3130 ppb        0.15059  48.12%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.3      12.501 ug/L       11.4860      12.501 ppb        11.4860  91.88%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         425.6      86.185 ug/L       18.4254      86.185 ppb        18.4254  21.38%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -1.2     -40.414 ug/L       27.8932     -40.414 ppb        27.8932  69.02%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -84.5     -0.0870 ug/L       0.03155     -0.0870 ppb        0.03155  36.28%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 6.4      0.4040 ug/L       0.31043      0.4040 ppb        0.31043  76.84%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        158.6      54.143 ug/L        5.3939      54.143 ppb         5.3939   9.96%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                14.9      0.3290 ug/L       0.28250      0.3290 ppb        0.28250  85.87%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -2.5     -1.1788 ug/L       3.20555     -1.1788 ppb        3.20555 271.94%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                14.7      1.5255 ug/L       2.04702      1.5255 ppb        2.04702 134.19%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           10.2      11.534 ug/L        4.7176      11.534 ppb         4.7176  40.90%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 2.4      0.7212 ug/L       1.57526      0.7212 ppb        1.57526 218.41%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 5.2      2.6853 ug/L       1.84210      2.6853 ppb        1.84210  68.60%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 3.7      0.0709 ug/L       0.14605      0.0709 ppb        0.14605 205.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.5     -0.0714 ug/L       0.90247     -0.0714 ppb        0.90247 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -11.8     -0.0871 ug/L       0.04770     -0.0871 ppb        0.04770  54.76%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               122.4      0.1908 ug/L       0.03770      0.1908 ppb        0.03770  19.76%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -2.9     -0.8032 ug/L       0.94546     -0.8032 ppb        0.94546 117.72%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                422.7      12.594 ug/L        2.0271      12.594 ppb         2.0271  16.10%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 55.3      0.3778 ug/L       0.28149      0.3778 ppb        0.28149  74.50%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -19.0     -0.1586 ug/L       0.03763     -0.1586 ppb        0.03763  23.73%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      17.4      0.9990 ug/L       1.20140      0.9990 ppb        1.20140 120.27%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/7/2010 14:28:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4379.6	4379.6	94.6	%			14:30:05
1	Y RADIAL	4616.1	4616.1	94.30	%			14:30:05
1	Al 396.153Radial†	5432.0	5760.9	4936.4	ug/L	4936.4	ppb	14:30:05
1	Ca 317.933Radial†	2852.9	3000.8	5182.3	ug/L	5182.3	ppb	14:30:25
1	Fe 238.204 Radial†	534.9	552.5	5314.7	ug/L	5314.7	ppb	14:30:25
1	K 766.490 Radial†	27107.3	25415.5	5139.1	ug/L	5139.1	ppb	14:30:05
1	Mg 279.077 IEC†	150.6	157.6	5375.9	ug/L	5375.9	ppb	14:30:25
1	Na 589.592 Radial†	27459.4	30787.0	10511	ug/L	10511	ppb	14:30:05
1	Sr 421.552†	62631.4	66172.7	487.48	ug/L	487.48	ppb	14:30:05
1	Sc 361.383	872056.7	872056.7	99.853	%			14:31:24
1	Y 371.029	738575.2	738575.2	98.565	%			14:31:24
1	Ag 328.068†	113309.2	112985.3	494.21	ug/L	494.21	ppb	14:31:24
1	As 188.979†	1385.3	1418.8	502.00	ug/L	502.00	ppb	14:31:44
1	B 249.677†	23115.2	23914.8	494.22	ug/L	494.22	ppb	14:31:24
1	Ba 233.527†	67250.3	67330.9	496.97	ug/L	496.97	ppb	14:31:24
1	Be 313.107†	1466409.2	1472951.4	497.38	ug/L	497.38	ppb	14:31:24
1	Cd 226.502†	52036.1	52365.8	498.60	ug/L	498.60	ppb	14:31:24
1	Co 228.616†	26090.6	26228.2	496.07	ug/L	496.07	ppb	14:31:44
1	Cr 267.716†	48781.2	48762.8	495.94	ug/L	495.94	ppb	14:31:24
1	Cu 324.752†	173648.6	165801.0	494.72	ug/L	494.72	ppb	14:31:24
1	Mn 257.610†	471962.8	471352.3	496.66	ug/L	496.66	ppb	14:31:24
1	Mo 202.031†	7828.7	7813.6	494.83	ug/L	494.83	ppb	14:31:44
1	Ni 231.604†	22494.7	22411.7	496.31	ug/L	496.31	ppb	14:31:44
1	P 214.914†	5361.8	5117.0	2430.6	ug/L	2430.6	ppb	14:31:44
1	Pb 220.353†	4703.6	4811.8	502.11	ug/L	502.11	ppb	14:31:44
1	S 181.975 Axial†	928.3	872.0	985.54	ug/L	985.54	ppb	14;31:44
1	Sb 206.836†	1662.3	1618.5	496.07	ug/L	496.07	ppb	14:31:44
1	Se 196.026†	956.3	996.4	525.43	ug/L	525.43	ppb	14:31:44
1	Si 251.611†	85829.0	85325.5	2456.7	ug/L	2456.7	ppb	14:31:24
1	Sn 189.927†	3295.2	3295.4	492.75	ug/L	492.75	ppb	14:31:44
1	Ti 334.940†	309342.3	311551.8	498.93	ug/L	498.93	ppb	14:31:24
1	Tl 190.801†	1757.3	1805.6	499.06	ug/L	499.06	ppb	14:31:44
1	U 409.014†	13305.1	16233.3	482.12	ug/L	482.12	ppb	14:31:24
1	V 292.402†	75772.3	77690.4	499.43	ug/L	499.43	ppb	14:31:24
1	Zn 213.857†	61117.4	60354.4	495.40	ug/L	495.40	ppb	14:31:24
1	SiO2†	87585.6	87066.0	5351.4	ug/L	5351.4	ppb	14:32:44
2	Sc Radial	4389.8	4389.8	94.9	%			14:30:30
2	Y RADIAL	4607.4	4607.4	94.13	%			14:30:30
2	Al 396.153Radial†	5535.7	5856.9	5019.3	ug/L	5019.3	ppb	14:30:30
2	Ca 317.933Radial†	2819.7	2958.7	5109.6	ug/L	5109.6	ppb	14:30:50
2	Fe 238.204 Radial†	526.5	542.3	5216.4	ug/L	5216.4	ppb	14:30:50
2	K 766.490 Radial†	27311.0	25563.4	5169.1	ug/L	5169.1	ppb	14:30:30
2	Mg 279.077 IEC†	150.4	157.1	5357.7	ug/L	5357.7	ppb	14:30:50
2	Na 589.592 Radial†	27749.7	31025.3	10593	ug/L	10593	ppb	14:30:30
2	Sr 421.552†	63449.4	66880.5	492.70	ug/L	492.70	ppb	14:30:30
2	Sc 361.383	888194.7	888194.7	101.70	%			14:31:51
2	Y 371.029	752363.6	752363.6	100.41	%			14:31:51
2	Ag 328.068†	114574.9	112168.1	490.62	ug/L	490.62	ppb	14:31:51
2	As 188.979†	1384.2	1392.5	492.74	ug/L	492.74	ppb	14:32:11
2	B 249.677†	23495.6	23868.1	493.28	ug/L	493.28	ppb	14:31:51
2	Ba 233.527†	68113.6	66956.0	494.21	ug/L	494.21	ppb	14:31:51
2	Be 313.107†	1484636.8	1464191.0	494.42	ug/L	494.42	ppb	14:31:51
2	Cd 226.502†	52565.5	51939.5	494.54	ug/L	494.54	ppb	14:31:51
2	Co 228.616†	26138.5	25800.6	487.97	ug/L	487.97	ppb	14:32:11
2	Cr 267.716†	49260.1	48346.1	491.70	ug/L	491.70	ppb	14:31:51
2	Cu 324.752†	175598.8	164558.8	491.01	ug/L	491.01	ppb	14:31:51
2	Mn 257.610†	477829.7	468533.2	493.68	ug/L	493.68	ppb	14:31:51
2	Mo 202.031†	7844.7	7686.8	486.80	ug/L	486.80	ppb	14:32:11
2	Ni 231.604†	22497.5	22005.1	487.31	ug/L	487.31	ppb	14:32:11

2	P 214.914†	5372.4	5030.0	2388.6 ug/L	2388.6 ppb	14:32:11
2	Pb 220.353†	4709.9	4732.5	493.87 ug/L	493.87 ppb	14:32:11
2	S 181.975 Axial†	943.0	869.5	982.77 ug/L	982.77 ppb	14:32:11
2	Sb 206.836†	1684.1	1609.8	493.21 ug/L	493.21 ppb	14:32:11
2	Se 196.026†	945.1	968.1	510.69 ug/L	510.69 ppb	14:32:11
2	Si 251.611†	86833.6	84751.5	2440.2 ug/L	2440.2 ppb	14:31:51
2	Sn 189.927†	3298.1	3238.2	484.21 ug/L	484.21 ppb	14:32:11
2	Ti 334.940†	313291.1	309805.7	496.13 ug/L	496.13 ppb	14:31:51
2	Tl 190.801†	1763.7	1779.9	492.02 ug/L	492.02 ppb	14:32:11
2	U 409.014†	13475.7	16159.0	479.93 ug/L	479.93 ppb	14:31:51
2	V 292.402†	76810.7	77332.7	497.07 ug/L	497.07 ppb	14:31:51
2	Zn 213.857†	61712.5	59827.5	491.10 ug/L	491.10 ppb	14:31:51
2	SiO2†	88103.2	85981.2	5284.7 ug/L	5284.7 ppb	14:32:49
3	Sc Radial	4345.4	4345.4	93.9 %		14:30:55
3	Y RADIAL	4574.2	4574.2	93.45 %		14:30:55
3	Al 396.153Radial†	5461.0	5837.0	5002.0 ug/L	5002.0 ppb	14:30:55
3	Ca 317.933Radial†	2825.8	2995.6	5173.3 ug/L	5173.3 ppb	14:31:15
3	Fe 238.204 Radial†	528.2	549.8	5288.6 ug/L	5288.6 ppb	14:31:15
3	K 766.490 Radial†	27103.7	25637.1	5184.1 ug/L	5184.1 ppb	14:30:55
3	Mg 279.077 IEC†	152.2	160.6	5478.7 ug/L	5478.7 ppb	14:31:15
3	Na 589.592 Radial†	27220.1	30760.3	10502 ug/L	10502 ppb	14:30:55
3	Sr 421.552†	62758.3	66828.4	492.31 ug/L	492.31 ppb	14:30:55
3	Sc 361.383	892664.1	892664.1	102.21 %		14:32:19
3	Y 371.029	755775.3	755775.3	100.86 %		14:32:19
3	Ag 328.068†	114422.1	111454.5	487.53 ug/L	487.53 ppb	14:32:19
3	As 188.979†	1401.3	1402.4	496.20 ug/L	496.20 ppb	14:32:39
3	B 249.677†	23526.3	23782.6	491.50 ug/L	491.50 ppb	14:32:19
3	Ba 233.527†	68160.3	66666.4	492.07 ug/L	492.07 ppb	14:32:19
3	Be 313.107†	1480986.7	1453310.9	490.75 ug/L	490.75 ppb	14:32:19
3	Cd 226.502†	52466.4	51583.7	491.15 ug/L	491.15 ppb	14:32:19
3	Co 228.616†	26317.8	25847.3	488.87 ug/L	488.87 ppb	14:32:39
3	Cr 267.716†	49199.7	48044.6	488.64 ug/L	488.64 ppb	14:32:19
3	Cu 324.752†	175823.9	163914.5	489.09 ug/L	489.09 ppb	14:32:19
3	Mn 257.610†	476982.1	465351.5	490.34 ug/L	490.34 ppb	14:32:19
3	Mo 202.031†	7922.3	7724.1	489.17 ug/L	489.17 ppb	14:32:39
3	Ni 231.604†	22703.6	22096.0	489.32 ug/L	489.32 ppb	14:32:39
3	P 214.914†	5388.0	5018.8	2383.4 ug/L	2383.4 ppb	14:32:39
3	Pb 220.353†	4763.1	4761.3	496.86 ug/L	496.86 ppb	14:32:39
3	S 181.975 Axial†	953.9	875.5	989.56 ug/L	989.56 ppb	14:32:39
3	Sb 206.836†	1693.8	1611.0	493.71 ug/L	493.71 ppb	14:32:39
3	Se 196.026†	974.7	992.4	523.26 ug/L	523.26 ppb	14:32:39
3	Si 251.611†	86783.9	84275.4	2426.4 ug/L	2426.4 ppb	14:32:19
3	Sn 189.927†	3318.8	3242.2	484.82 ug/L	484.82 ppb	14:32:39
3	Ti 334.940†	312938.0	307917.9	493.11 ug/L	493.11 ppb	14:32:19
3	Tl 190.801†	1783.1	1790.2	494.82 ug/L	494.82 ppb	14:32:39
3	U 409.014†	13536.4	16151.9	479.71 ug/L	479.71 ppb	14:32:19
3	V 292.402†	76650.5	76797.8	493.70 ug/L	493.70 ppb	14:32:19
3	Zn 213.857†	61605.5	59419.0	487.70 ug/L	487.70 ppb	14:32:19
3	SiO2†	86885.5	84356.1	5184.3 ug/L	5184.3 ppb	14:32:54

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	884305.2	101.26	%	1.241				1.23%
Sc Radial	4371.6	94.5	%	0.50				0.53%
Y 371.029	748904.7	99.944	%	1.2153				1.22%
Y RADIAL	4599.2	93.96	%	0.451				0.48%
Ag 328.068†	112202.6	490.79	ug/L	3.344	490.79	ppb	3.344	0.68%
QC value within limits for Ag 328.068 Recovery = 98.16%								
Al 396.153Radial†	5818.3	4985.9	ug/L	43.75	4985.9	ppb	43.75	0.88%
QC value within limits for Al 396.153Radial Recovery = 99.72%								
As 188.979†	1404.6	496.98	ug/L	4.677	496.98	ppb	4.677	0.94%
QC value within limits for As 188.979 Recovery = 99.40%								
B 249.677†	23855.2	493.00	ug/L	1.383	493.00	ppb	1.383	0.28%
QC value within limits for B 249.677 Recovery = 98.60%								
Ba 233.527†	66984.5	494.42	ug/L	2.460	494.42	ppb	2.460	0.50%
QC value within limits for Ba 233.527 Recovery = 98.88%								
Be 313.107†	1463484.4	494.18	ug/L	3.322	494.18	ppb	3.322	0.67%
QC value within limits for Be 313.107 Recovery = 98.84%								
Ca 317.933Radial†	2985.0	5155.0	ug/L	39.63	5155.0	ppb	39.63	0.77%

```
   QC value within limits for Ca 317.933Radial  Recovery = 103.10%
Cd 226.502†            51963.0      494.77 ug/L         3.731      494.77 ppb          3.731   0.75%
   QC value within limits for Cd 226.502  Recovery = 98.95%
Co 228.616†            25958.7      490.97 ug/L         4.440      490.97 ppb          4.440   0.90%
   QC value within limits for Co 228.616  Recovery = 98.19%
Cr 267.716†            48384.5      492.09 ug/L         3.667      492.09 ppb          3.667   0.75%
   QC value within limits for Cr 267.716  Recovery = 98.42%
Cu 324.752†           164758.1      491.60 ug/L         2.861      491.60 ppb          2.861   0.58%
   QC value within limits for Cu 324.752  Recovery = 98.32%
Fe 238.204 Radial†       548.2      5273.2 ug/L        50.89      5273.2 ppb          50.89   0.96%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.46%
K 766.490 Radial†      25538.7      5164.1 ug/L        22.88      5164.1 ppb          22.88   0.44%
   QC value within limits for K 766.490 Radial  Recovery = 103.28%
Mg 279.077 IEC†          158.4      5404.1 ug/L        65.28      5404.1 ppb          65.28   1.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.08%
Mn 257.610†           468412.3      493.56 ug/L         3.163      493.56 ppb          3.163   0.64%
   QC value within limits for Mn 257.610  Recovery = 98.71%
Mo 202.031†             7741.5      490.27 ug/L         4.127      490.27 ppb          4.127   0.84%
   QC value within limits for Mo 202.031  Recovery = 98.05%
Na 589.592 Radial†     30857.5       10535 ug/L          49.8       10535 ppb           49.8   0.47%
   QC value within limits for Na 589.592 Radial  Recovery = 105.35%
Ni 231.604†            22170.9      490.98 ug/L         4.726      490.98 ppb          4.726   0.96%
   QC value within limits for Ni 231.604  Recovery = 98.20%
P 214.914†              5055.3      2400.9 ug/L        25.92      2400.9 ppb          25.92   1.08%
   QC value within limits for P 214.914  Recovery = 96.03%
Pb 220.353†             4768.5      497.61 ug/L         4.174      497.61 ppb          4.174   0.84%
   QC value within limits for Pb 220.353  Recovery = 99.52%
S 181.975 Axial†         872.4      985.96 ug/L         3.414      985.96 ppb          3.414   0.35%
   QC value within limits for S 181.975 Axial  Recovery = 98.60%
Sb 206.836†             1613.1      494.33 ug/L         1.528      494.33 ppb          1.528   0.31%
   QC value within limits for Sb 206.836  Recovery = 98.87%
Se 196.026†              985.6      519.79 ug/L         7.959      519.79 ppb          7.959   1.53%
   QC value within limits for Se 196.026  Recovery = 103.96%
Si 251.611†            84784.1      2441.1 ug/L        15.15      2441.1 ppb          15.15   0.62%
   QC value within limits for Si 251.611  Recovery = 97.64%
Sn 189.927†             3258.6      487.26 ug/L         4.766      487.26 ppb          4.766   0.98%
   QC value within limits for Sn 189.927  Recovery = 97.45%
Sr 421.552†            66627.2      490.83 ug/L         2.907      490.83 ppb          2.907   0.59%
   QC value within limits for Sr 421.552  Recovery = 98.17%
Ti 334.940†           309758.5      496.06 ug/L         2.910      496.06 ppb          2.910   0.59%
   QC value within limits for Ti 334.940  Recovery = 99.21%
Tl 190.801†             1791.9      495.30 ug/L         3.546      495.30 ppb          3.546   0.72%
   QC value within limits for Tl 190.801  Recovery = 99.06%
U 409.014†             16181.4      480.59 ug/L         1.333      480.59 ppb          1.333   0.28%
   QC value within limits for U 409.014  Recovery = 96.12%
V 292.402†             77273.6      496.73 ug/L         2.881      496.73 ppb          2.881   0.58%
   QC value within limits for V 292.402  Recovery = 99.35%
Zn 213.857†            59866.9      491.40 ug/L         3.856      491.40 ppb          3.856   0.78%
   QC value within limits for Zn 213.857  Recovery = 98.28%
SiO2†                  85801.1      5273.5 ug/L        84.13      5273.5 ppb          84.13   1.60%
   QC value within limits for SiO2  Recovery = 98.62%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/7/2010 14:35:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4534.9	4534.9	98.0	%			14:36:57
1	Y RADIAL	4824.6	4824.6	98.56	%			14:36:57
1	Al 396.153Radial†	-19.7	0.8	0.6736	ug/L	0.6736	ppb	14:36:57
1	Ca 317.933Radial†	16.5	2.9	4.9587	ug/L	4.9587	ppb	14:37:17
1	Fe 238.204 Radial†	11.3	-1.2	-11.582	ug/L	-11.582	ppb	14:37:17
1	K 766.490 Radial†	3296.8	135.2	27.341	ug/L	27.341	ppb	14:36:57
1	Mg 279.077 IEC†	2.2	0.8	26.559	ug/L	26.559	ppb	14:37:17
1	Na 589.592 Radial†	-1397.4	343.9	117.41	ug/L	117.41	ppb	14:36:57
1	Sr 421.552†	20.5	9.6	0.0710	ug/L	0.0710	ppb	14:36:57
1	Sc 361.383	899157.9	899157.9	102.96	%			14:38:14
1	Y 371.029	768477.8	768477.8	102.56	%			14:38:14
1	Ag 328.068†	496.5	-8.7	-0.0543	ug/L	-0.0543	ppb	14:38:19
1	As 188.979†	-21.7	10.5	3.6613	ug/L	3.6613	ppb	14:38:39
1	B 249.677†	-462.9	315.8	6.5537	ug/L	6.5537	ppb	14:38:19
1	Ba 233.527†	-8.4	-26.7	-0.1946	ug/L	-0.1946	ppb	14:38:39
1	Be 313.107†	-4369.5	136.0	0.0460	ug/L	0.0460	ppb	14:38:19
1	Cd 226.502†	-231.7	27.9	0.2671	ug/L	0.2671	ppb	14:38:39
1	Co 228.616†	-94.5	7.4	0.1396	ug/L	0.1396	ppb	14:38:39
1	Cr 267.716†	132.2	38.1	0.3822	ug/L	0.3822	ppb	14:38:19
1	Cu 324.752†	8147.3	-190.3	-0.5680	ug/L	-0.5680	ppb	14:38:19
1	Mn 257.610†	1215.7	-125.6	-0.1339	ug/L	-0.1339	ppb	14:38:19
1	Mo 202.031†	22.4	-4.9	-0.3114	ug/L	-0.3114	ppb	14:38:39
1	Ni 231.604†	114.7	-4.7	-0.1051	ug/L	-0.1051	ppb	14:38:39
1	P 214.914†	259.0	-1.0	-0.4076	ug/L	-0.4076	ppb	14:38:39
1	Pb 220.353†	-87.6	16.2	1.6896	ug/L	1.6896	ppb	14:38:39
1	S 181.975 Axial†	62.5	3.1	3.4656	ug/L	3.4656	ppb	14:38:39
1	Sb 206.836†	42.7	-4.7	-1.4266	ug/L	-1.4266	ppb	14:38:39
1	Se 196.026†	-43.6	-3.6	-1.8594	ug/L	-1.8594	ppb	14:38:39
1	Si 251.611†	682.5	32.9	0.9479	ug/L	0.9479	ppb	14:38:39
1	Sn 189.927†	5.6	0.7	0.1088	ug/L	0.1088	ppb	14:38:39
1	Ti 334.940†	-1756.0	47.9	0.0684	ug/L	0.0684	ppb	14:38:19
1	Tl 190.801†	-52.8	-5.6	-1.5369	ug/L	-1.5369	ppb	14:38:39
1	U 409.014†	-2333.0	642.5	19.148	ug/L	19.148	ppb	14:38:14
1	V 292.402†	-1702.5	152.7	1.0038	ug/L	1.0038	ppb	14:38:19
1	Zn 213.857†	870.2	-7.9	-0.0641	ug/L	-0.0641	ppb	14:38:39
1	SiO2†	711.8	42.7	2.6262	ug/L	2.6262	ppb	14:39:45
2	Sc Radial	4527.1	4527.1	97.8	%			14:37:22
2	Y RADIAL	4779.7	4779.7	97.65	%			14:37:22
2	Al 396.153Radial†	-23.4	-3.1	-2.6755	ug/L	-2.6755	ppb	14:37:22
2	Ca 317.933Radial†	13.1	-0.6	-1.1006	ug/L	-1.1006	ppb	14:37:42
2	Fe 238.204 Radial†	8.2	-4.3	-41.392	ug/L	-41.392	ppb	14:37:42
2	K 766.490 Radial†	3380.5	226.6	45.831	ug/L	45.831	ppb	14:37:22
2	Mg 279.077 IEC†	3.7	2.3	78.915	ug/L	78.915	ppb	14:37:42
2	Na 589.592 Radial†	-1334.9	405.4	138.41	ug/L	138.41	ppb	14:37:22
2	Sr 421.552†	37.4	26.9	0.1985	ug/L	0.1985	ppb	14:37:22
2	Sc 361.383	899713.6	899713.6	103.02	%			14:38:44
2	Y 371.029	768998.7	768998.7	102.63	%			14:38:44
2	Ag 328.068†	519.2	13.0	0.0331	ug/L	0.0331	ppb	14:38:49
2	As 188.979†	-36.7	-4.2	-1.4646	ug/L	-1.4646	ppb	14:39:09
2	B 249.677†	-381.9	394.8	8.1962	ug/L	8.1962	ppb	14:38:49
2	Ba 233.527†	4.6	-14.1	-0.1045	ug/L	-0.1045	ppb	14:39:09
2	Be 313.107†	-4487.7	24.0	0.0085	ug/L	0.0085	ppb	14:38:49
2	Cd 226.502†	-237.8	22.1	0.2153	ug/L	0.2153	ppb	14:39:09
2	Co 228.616†	-110.8	-8.3	-0.1575	ug/L	-0.1575	ppb	14:39:09
2	Cr 267.716†	99.8	6.6	0.0630	ug/L	0.0630	ppb	14:38:49
2	Cu 324.752†	8077.7	-262.7	-0.7855	ug/L	-0.7855	ppb	14:38:49
2	Mn 257.610†	1200.5	-141.0	-0.1540	ug/L	-0.1540	ppb	14:38:49
2	Mo 202.031†	27.9	0.4	0.0206	ug/L	0.0206	ppb	14:39:09
2	Ni 231.604†	136.2	16.1	0.3563	ug/L	0.3563	ppb	14:39:09

2	P 214.914†	262.4	2.1	1.1733 ug/L	1.1733 ppb	14:39:09
2	Pb 220.353†	-73.4	30.0	3.1272 ug/L	3.1272 ppb	14:39:09
2	S 181.975 Axial†	67.0	7.4	8.3363 ug/L	8.3363 ppb	14:39:09
2	Sb 206.836†	40.8	-6.6	-2.0104 ug/L	-2.0104 ppb	14:39:09
2	Se 196.026†	-35.4	4.4	2.0900 ug/L	2.0900 ppb	14:39:09
2	Si 251.611†	660.3	10.9	0.3021 ug/L	0.3021 ppb	14:39:09
2	Sn 189.927†	-0.0	-4.8	-0.7109 ug/L	-0.7109 ppb	14:39:09
2	Ti 334.940†	-1668.0	134.4	0.2096 ug/L	0.2096 ppb	14:38:49
2	Tl 190.801†	-55.0	-7.7	-2.1211 ug/L	-2.1211 ppb	14:39:09
2	U 409.014†	-2561.5	422.1	12.585 ug/L	12.585 ppb	14:38:44
2	V 292.402†	-1820.4	39.3	0.2821 ug/L	0.2821 ppb	14:38:49
2	Zn 213.857†	853.7	-24.4	-0.2042 ug/L	-0.2042 ppb	14:39:09
2	SiO2†	666.6	-1.7	-0.1349 ug/L	-0.1349 ppb	14:39:50
3	Sc Radial	4629.8	4629.8	100 %		14:37:47
3	Y RADIAL	4838.7	4838.7	98.85 %		14:37:47
3	Al 396.153Radial†	7.1	27.9	23.977 ug/L	23.977 ppb	14:37:47
3	Ca 317.933Radial†	21.0	7.0	12.040 ug/L	12.040 ppb	14:38:07
3	Fe 238.204 Radial†	11.8	-0.9	-8.9852 ug/L	-8.9852 ppb	14:38:07
3	K 766.490 Radial†	3337.1	106.5	21.515 ug/L	21.515 ppb	14:37:47
3	Mg 279.077 IEC†	2.5	1.0	32.667 ug/L	32.667 ppb	14:38:07
3	Na 589.592 Radial†	-1338.6	432.0	147.48 ug/L	147.48 ppb	14:37:47
3	Sr 421.552†	8.6	-2.7	-0.0201 ug/L	-0.0201 ppb	14:37:47
3	Sc 361.383	888038.3	888038.3	101.68 %		14:39:14
3	Y 371.029	758681.6	758681.6	101.25 %		14:39:14
3	Ag 328.068†	420.6	-77.3	-0.3479 ug/L	-0.3479 ppb	14:39:19
3	As 188.979†	-30.6	1.4	0.4756 ug/L	0.4756 ppb	14:39:39
3	B 249.677†	-440.7	332.1	6.8909 ug/L	6.8909 ppb	14:39:19
3	Ba 233.527†	18.1	-0.8	-0.0057 ug/L	-0.0057 ppb	14:39:39
3	Be 313.107†	-4386.7	66.0	0.0222 ug/L	0.0222 ppb	14:39:19
3	Cd 226.502†	-226.2	30.5	0.2919 ug/L	0.2919 ppb	14:39:39
3	Co 228.616†	-100.7	0.1	0.0047 ug/L	0.0047 ppb	14:39:39
3	Cr 267.716†	59.2	-32.1	-0.3292 ug/L	-0.3292 ppb	14:39:19
3	Cu 324.752†	8134.0	-104.2	-0.3113 ug/L	-0.3113 ppb	14:39:19
3	Mn 257.610†	1221.1	-105.4	-0.1125 ug/L	-0.1125 ppb	14:39:19
3	Mo 202.031†	41.5	14.1	0.8917 ug/L	0.8917 ppb	14:39:39
3	Ni 231.604†	123.8	5.6	0.1238 ug/L	0.1238 ppb	14:39:39
3	P 214.914†	253.9	-2.9	-1.3677 ug/L	-1.3677 ppb	14:39:39
3	Pb 220.353†	-90.9	11.9	1.2506 ug/L	1.2506 ppb	14:39:39
3	S 181.975 Axial†	59.8	1.1	1.2314 ug/L	1.2314 ppb	14:39:39
3	Sb 206.836†	28.5	-18.2	-5.4581 ug/L	-5.4581 ppb	14:39:39
3	Se 196.026†	-33.2	6.1	3.0941 ug/L	3.0941 ppb	14:39:39
3	Si 251.611†	670.4	29.3	0.8244 ug/L	0.8244 ppb	14:39:39
3	Sn 189.927†	5.3	0.5	0.0758 ug/L	0.0758 ppb	14:39:39
3	Ti 334.940†	-1790.8	-7.7	-0.0165 ug/L	-0.0165 ppb	14:39:19
3	Tl 190.801†	-37.1	9.2	2.5157 ug/L	2.5157 ppb	14:39:39
3	U 409.014†	-2584.2	367.1	10.941 ug/L	10.941 ppb	14:39:14
3	V 292.402†	-1821.2	15.3	0.1336 ug/L	0.1336 ppb	14:39:19
3	Zn 213.857†	867.7	0.2	0.0010 ug/L	0.0010 ppb	14:39:39
3	SiO2†	683.3	23.2	1.3843 ug/L	1.3843 ppb	14:39:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	895636.6	102.55	%	0.754				0.74%
Sc Radial	4563.9	98.6	%	1.24				1.25%
Y 371.029	765386.0	102.14	%	0.776				0.76%
Y RADIAL	4814.3	98.35	%	0.629				0.64%
Ag 328.068†	-24.3	-0.1230	ug/L	0.19960	-0.1230	ppb	0.19960	162.22%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	8.5	7.3251	ug/L	14.51810	7.3251	ppb	14.51810	198.20%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.6	0.8908	ug/L	2.58804	0.8908	ppb	2.58804	290.54%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	347.5	7.2136	ug/L	0.86751	7.2136	ppb	0.86751	12.03%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-13.9	-0.1016	ug/L	0.09448	-0.1016	ppb	0.09448	92.98%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	75.3	0.0256	ug/L	0.01897	0.0256	ppb	0.01897	74.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.1	5.2992	ug/L	6.57671	5.2992	ppb	6.57671	124.11%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              26.9      0.2581 ug/L       0.03912      0.2581 ppb        0.03912  15.16%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -0.3     -0.0044 ug/L       0.14877     -0.0044 ppb        0.14877 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               4.2      0.0387 ug/L       0.35635      0.0387 ppb        0.35635 921.79%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -185.7     -0.5549 ug/L       0.23737     -0.5549 ppb        0.23737  42.77%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -2.2     -20.653 ug/L       18.0076     -20.653 ppb        18.0076  87.19%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       156.1      31.562 ug/L       12.6958      31.562 ppb        12.6958  40.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.4      46.047 ug/L       28.6281      46.047 ppb        28.6281  62.17%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†            -124.0     -0.1334 ug/L       0.02079     -0.1334 ppb        0.02079  15.58%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               3.2      0.2003 ug/L       0.62133      0.2003 ppb        0.62133 310.20%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      393.7      134.43 ug/L        15.424      134.43 ppb         15.424  11.47%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               5.6      0.1250 ug/L       0.23067      0.1250 ppb        0.23067 184.54%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -0.6     -0.2007 ug/L       1.28307     -0.2007 ppb        1.28307 639.45%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              19.4      2.0225 ug/L       0.98158      2.0225 ppb        0.98158  48.53%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          3.8      4.3444 ug/L       3.63308      4.3444 ppb        3.63308  83.63%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -9.8     -2.9650 ug/L       2.17872     -2.9650 ppb        2.17872  73.48%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.3      1.1082 ug/L       2.61863      1.1082 ppb        2.61863 236.29%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              24.4      0.6914 ug/L       0.34280      0.6914 ppb        0.34280  49.58%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -1.2     -0.1754 ug/L       0.46404     -0.1754 ppb        0.46404 264.51%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              11.3      0.0831 ug/L       0.10983      0.0831 ppb        0.10983 132.13%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              58.2      0.0872 ug/L       0.11419      0.0872 ppb        0.11419 130.99%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -1.4     -0.3807 ug/L       2.52539     -0.3807 ppb        2.52539 663.27%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              477.3      14.224 ug/L        4.3422      14.224 ppb         4.3422  30.53%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              69.1      0.4732 ug/L       0.46551      0.4732 ppb        0.46551  98.38%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            -10.7     -0.0891 ug/L       0.10486     -0.0891 ppb        0.10486 117.67%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    21.4      1.2918 ug/L       1.38286      1.2918 ppb        1.38286 107.05%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 1/7/2010 15:00:17
Logged In Analyst: Optima3
Spectrometer Model: Optima 5300 DV, S/N 077C7090601
Plasma On Time: 1/4/2010 06:33:21
Technique: ICP Continuous
Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\010710A.sif
Batch ID:
Results Data Set: 010710
Results Library: C:\pe\Optima3\Results\Results.mdb

Sequence No.: 1
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 7
Date Collected: 1/7/2010 15:00:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4415.3	4415.3	95.4	%			15:02:10
1	Y RADIAL	4633.1	4633.1	94.65	%			15:02:10
1	Al 396.153Radial†	5462.0	5746.0	4923.5	ug/L	4923.5	ppb	15:02:10
1	Ca 317.933Radial†	2826.1	2948.3	5091.6	ug/L	5091.6	ppb	15:02:30
1	Fe 238.204 Radial†	529.1	541.8	5212.0	ug/L	5212.0	ppb	15:02:30
1	K 766.490 Radial†	27184.3	25264.7	5108.5	ug/L	5108.5	ppb	15:02:10
1	Mg 279.077 IEC†	150.1	155.9	5316.5	ug/L	5316.5	ppb	15:02:30
1	Na 589.592 Radial†	27710.2	30815.3	10521	ug/L	10521	ppb	15:02:10
1	Sr 421.552†	63400.8	66444.1	489.48	ug/L	489.48	ppb	15:02:10
1	Sc 361.383	879377.8	879377.8	100.69	%			15:03:29
1	Y 371.029	744698.6	744698.6	99.382	%			15:03:29
1	Ag 328.068†	115117.4	113836.4	497.89	ug/L	497.89	ppb	15:03:29
1	As 188.979†	1387.2	1409.1	498.64	ug/L	498.64	ppb	15:03:49
1	B 249.677†	23510.2	24114.3	498.37	ug/L	498.37	ppb	15:03:29
1	Ba 233.527†	68523.1	68034.2	502.16	ug/L	502.16	ppb	15:03:29
1	Be 313.107†	1493710.3	1487838.7	502.41	ug/L	502.41	ppb	15:03:29
1	Cd 226.502†	52825.9	52716.3	501.95	ug/L	501.95	ppb	15:03:29
1	Co 228.616†	26276.1	26194.9	495.43	ug/L	495.43	ppb	15:03:49
1	Cr 267.716†	49596.2	49165.6	500.04	ug/L	500.04	ppb	15:03:29
1	Cu 324.752†	176578.4	167262.8	499.07	ug/L	499.07	ppb	15:03:29
1	Mn 257.610†	480773.2	476167.2	501.72	ug/L	501.72	ppb	15:03:29
1	Mo 202.031†	7890.6	7809.7	494.58	ug/L	494.58	ppb	15:03:49
1	Ni 231.604†	22621.2	22349.8	494.94	ug/L	494.94	ppb	15:03:49
1	P 214.914†	5391.7	5102.1	2422.7	ug/L	2422.7	ppb	15:03:49
1	Pb 220.353†	4706.5	4775.5	498.33	ug/L	498.33	ppb	15:03:49
1	S 181.975 Axial†	945.2	881.1	995.80	ug/L	995.80	ppb	15:03:49
1	Sb 206.836†	1667.9	1610.3	493.46	ug/L	493.46	ppb	15:03:49
1	Se 196.026†	969.0	1001.1	527.48	ug/L	527.48	ppb	15:03:49
1	Si 251.611†	87261.7	86032.8	2477.2	ug/L	2477.2	ppb	15:03:29
1	Sn 189.927†	3324.5	3296.9	492.97	ug/L	492.97	ppb	15:03:49
1	Ti 334.940†	315169.2	314759.5	504.06	ug/L	504.06	ppb	15:03:29
1	Tl 190.801†	1760.1	1793.7	495.87	ug/L	495.87	ppb	15:03:49
1	U 409.014†	13392.2	16208.9	481.40	ug/L	481.40	ppb	15:03:29
1	V 292.402†	77133.3	78410.3	504.00	ug/L	504.00	ppb	15:03:29
1	Zn 213.857†	62091.7	60812.5	499.20	ug/L	499.20	ppb	15:03:29
1	SiO2†	88451.4	87195.6	5359.4	ug/L	5359.4	ppb	15:04:50
2	Sc Radial	4407.9	4407.9	95.2	%			15:02:35
2	Y RADIAL	4651.0	4651.0	95.02	%			15:02:35
2	Al 396.153Radial†	5452.0	5745.0	4922.5	ug/L	4922.5	ppb	15:02:35
2	Ca 317.933Radial†	2898.9	3029.7	5232.2	ug/L	5232.2	ppb	15:02:56
2	Fe 238.204 Radial†	542.1	556.4	5352.0	ug/L	5352.0	ppb	15:02:56
2	K 766.490 Radial†	27215.1	25344.5	5124.7	ug/L	5124.7	ppb	15:02:35
2	Mg 279.077 IEC†	153.9	160.1	5460.3	ug/L	5460.3	ppb	15:02:56
2	Na 589.592 Radial†	27562.2	30708.3	10484	ug/L	10484	ppb	15:02:35
2	Sr 421.552†	63049.6	66186.1	487.58	ug/L	487.58	ppb	15:02:35
2	Sc 361.383	873023.6	873023.6	99.963	%			15:03:57
2	Y 371.029	739049.8	739049.8	98.628	%			15:03:57

2	Ag 328.068†	114333.5	113884.4	498.14 ug/L	498.14 ppb	15:03:57
2	As 188.979†	1391.3	1423.3	503.60 ug/L	503.60 ppb	15:04:17
2	B 249.677†	23483.3	24257.4	501.31 ug/L	501.31 ppb	15:03:57
2	Ba 233.527†	68030.7	68037.0	502.18 ug/L	502.18 ppb	15:03:57
2	Be 313.107†	1481817.6	1486739.0	502.03 ug/L	502.03 ppb	15:03:57
2	Cd 226.502†	52604.7	52876.9	503.47 ug/L	503.47 ppb	15:03:57
2	Co 228.616†	26316.7	26425.5	499.80 ug/L	499.80 ppb	15:04:17
2	Cr 267.716†	49265.1	49192.9	500.32 ug/L	500.32 ppb	15:03:57
2	Cu 324.752†	175161.9	167122.2	498.66 ug/L	498.66 ppb	15:03:57
2	Mn 257.610†	477378.3	476246.3	501.81 ug/L	501.81 ppb	15:03:57
2	Mo 202.031†	7910.1	7886.3	499.44 ug/L	499.44 ppb	15:04:17
2	Ni 231.604†	22697.8	22589.9	500.26 ug/L	500.26 ppb	15:04:17
2	P 214.914†	5378.9	5128.2	2435.5 ug/L	2435.5 ppb	15:04:17
2	Pb 220.353†	4734.4	4837.4	504.77 ug/L	504.77 ppb	15:04:17
2	S 181.975 Axial†	942.1	884.8	1000.0 ug/L	1000.0 ppb	15:04:17
2	Sb 206.836†	1693.0	1647.4	504.89 ug/L	504.89 ppb	15:04:17
2	Se 196.026†	969.3	1008.5	531.67 ug/L	531.67 ppb	15:04:17
2	Si 251.611†	86684.0	86085.6	2478.6 ug/L	2478.6 ppb	15:03:57
2	Sn 189.927†	3333.8	3330.3	497.98 ug/L	497.98 ppb	15:04:17
2	Ti 334.940†	312886.5	314754.2	504.06 ug/L	504.06 ppb	15:03:57
2	Tl 190.801†	1774.2	1820.5	503.21 ug/L	503.21 ppb	15:04:17
2	U 409.014†	13476.0	16389.5	486.76 ug/L	486.76 ppb	15:03:57
2	V 292.402†	76606.6	78441.0	504.26 ug/L	504.26 ppb	15:03:57
2	Zn 213.857†	61672.2	60841.7	499.40 ug/L	499.40 ppb	15:03:57
2	SiO2†	86472.7	85855.6	5276.4 ug/L	5276.4 ppb	15:04:55
3	Sc Radial	4475.4	4475.4	96.7 %		15:03:01
3	Y RADIAL	4723.9	4723.9	96.51 %		15:03:01
3	Al 396.153Radial†	5527.7	5737.1	4915.8 ug/L	4915.8 ppb	15:03:01
3	Ca 317.933Radial†	2869.2	2953.0	5099.8 ug/L	5099.8 ppb	15:03:21
3	Fe 238.204 Radial†	534.5	540.0	5194.5 ug/L	5194.5 ppb	15:03:21
3	K 766.490 Radial†	27503.4	25211.8	5097.8 ug/L	5097.8 ppb	15:03:01
3	Mg 279.077 IEC†	149.8	153.4	5233.2 ug/L	5233.2 ppb	15:03:21
3	Na 589.592 Radial†	28196.1	30927.4	10559 ug/L	10559 ppb	15:03:01
3	Sr 421.552†	64389.8	66573.8	490.44 ug/L	490.44 ppb	15:03:01
3	Sc 361.383	888113.7	888113.7	101.69 %		15:04:24
3	Y 371.029	751582.9	751582.9	100.30 %		15:04:24
3	Ag 328.068†	116285.7	113860.7	497.99 ug/L	497.99 ppb	15:04:24
3	As 188.979†	1409.3	1417.4	501.51 ug/L	501.51 ppb	15:04:44
3	B 249.677†	23845.8	24214.7	500.46 ug/L	500.46 ppb	15:04:24
3	Ba 233.527†	69024.1	67857.6	500.86 ug/L	500.86 ppb	15:04:24
3	Be 313.107†	1507852.3	1487153.5	502.17 ug/L	502.17 ppb	15:04:24
3	Cd 226.502†	53376.8	52742.0	502.20 ug/L	502.20 ppb	15:04:24
3	Co 228.616†	26528.4	26186.4	495.27 ug/L	495.27 ppb	15:04:44
3	Cr 267.716†	50039.8	49117.3	499.55 ug/L	499.55 ppb	15:04:24
3	Cu 324.752†	178488.9	167416.6	499.53 ug/L	499.53 ppb	15:04:24
3	Mn 257.610†	484901.2	475529.9	501.05 ug/L	501.05 ppb	15:04:24
3	Mo 202.031†	7968.1	7808.8	494.52 ug/L	494.52 ppb	15:04:44
3	Ni 231.604†	22808.6	22313.1	494.13 ug/L	494.13 ppb	15:04:44
3	P 214.914†	5443.3	5100.1	2421.7 ug/L	2421.7 ppb	15:04:44
3	Pb 220.353†	4778.8	4800.6	500.95 ug/L	500.95 ppb	15:04:44
3	S 181.975 Axial†	945.9	872.5	986.08 ug/L	986.08 ppb	15:04:44
3	Sb 206.836†	1697.0	1622.6	497.20 ug/L	497.20 ppb	15:04:44
3	Se 196.026†	975.6	998.1	525.92 ug/L	525.92 ppb	15:04:44
3	Si 251.611†	88192.0	86095.1	2479.0 ug/L	2479.0 ppb	15:04:24
3	Sn 189.927†	3351.9	3291.4	492.15 ug/L	492.15 ppb	15:04:44
3	Ti 334.940†	317852.2	314319.0	503.35 ug/L	503.35 ppb	15:04:24
3	Tl 190.801†	1800.4	1816.1	502.01 ug/L	502.01 ppb	15:04:44
3	U 409.014†	13499.6	16183.6	480.65 ug/L	480.65 ppb	15:04:24
3	V 292.402†	77885.1	78396.1	503.91 ug/L	503.91 ppb	15:04:24
3	Zn 213.857†	62731.3	60834.8	499.39 ug/L	499.39 ppb	15:04:24
3	SiO2†	87408.6	85306.1	5242.7 ug/L	5242.7 ppb	15:05:00

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	880171.7	100.78	%	0.868				0.86%
Sc Radial	4432.9	95.8	%	0.80				0.84%
Y 371.029	745110.4	99.437	%	0.8376				0.84%
Y RADIAL	4669.3	95.39	%	0.983				1.03%
Ag 328.068†	113860.5	498.01	ug/L	0.125	498.01	ppb	0.125	0.03%

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   QC value within limits for Ag 328.068  Recovery = 99.60%
Al 396.153Radial†       5742.7      4920.6 ug/L          4.18      4920.6 ppb          4.18   0.08%
   QC value within limits for Al 396.153Radial  Recovery = 98.41%
As 188.979†             1416.6      501.25 ug/L         2.494      501.25 ppb         2.494   0.50%
   QC value within limits for As 188.979  Recovery = 100.25%
B 249.677†             24195.4      500.05 ug/L         1.512      500.05 ppb         1.512   0.30%
   QC value within limits for B 249.677  Recovery = 100.01%
Ba 233.527†            67976.3      501.73 ug/L         0.759      501.73 ppb         0.759   0.15%
   QC value within limits for Ba 233.527  Recovery = 100.35%
Be 313.107†          1487243.7      502.20 ug/L         0.187      502.20 ppb         0.187   0.04%
   QC value within limits for Be 313.107  Recovery = 100.44%
Ca 317.933Radial†       2977.0      5141.2 ug/L         78.91      5141.2 ppb         78.91   1.53%
   QC value within limits for Ca 317.933Radial  Recovery = 102.82%
Cd 226.502†            52778.4      502.54 ug/L         0.815      502.54 ppb         0.815   0.16%
   QC value within limits for Cd 226.502  Recovery = 100.51%
Co 228.616†            26268.9      496.84 ug/L         2.571      496.84 ppb         2.571   0.52%
   QC value within limits for Co 228.616  Recovery = 99.37%
Cr 267.716†            49158.6      499.97 ug/L         0.390      499.97 ppb         0.390   0.08%
   QC value within limits for Cr 267.716  Recovery = 99.99%
Cu 324.752†           167267.2      499.09 ug/L         0.435      499.09 ppb         0.435   0.09%
   QC value within limits for Cu 324.752  Recovery = 99.82%
Fe 238.204 Radial†       546.1      5252.9 ug/L         86.35      5252.9 ppb         86.35   1.64%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.06%
K 766.490 Radial†      25273.7      5110.4 ug/L         13.55      5110.4 ppb         13.55   0.27%
   QC value within limits for K 766.490 Radial  Recovery = 102.21%
Mg 279.077 IEC†          156.5      5336.7 ug/L        114.89      5336.7 ppb        114.89   2.15%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.73%
Mn 257.610†           475981.1      501.53 ug/L         0.417      501.53 ppb         0.417   0.08%
   QC value within limits for Mn 257.610  Recovery = 100.31%
Mo 202.031†             7835.0      496.18 ug/L         2.820      496.18 ppb         2.820   0.57%
   QC value within limits for Mo 202.031  Recovery = 99.24%
Na 589.592 Radial†     30817.0       10521 ug/L          37.4       10521 ppb          37.4   0.36%
   QC value within limits for Na 589.592 Radial  Recovery = 105.21%
Ni 231.604†            22417.6      496.44 ug/L         3.330      496.44 ppb         3.330   0.67%
   QC value within limits for Ni 231.604  Recovery = 99.29%
P 214.914†              5110.1      2426.6 ug/L          7.72      2426.6 ppb          7.72   0.32%
   QC value within limits for P 214.914  Recovery = 97.06%
Pb 220.353†             4804.5      501.35 ug/L         3.240      501.35 ppb         3.240   0.65%
   QC value within limits for Pb 220.353  Recovery = 100.27%
S 181.975 Axial†         879.4      993.97 ug/L         7.157      993.97 ppb         7.157   0.72%
   QC value within limits for S 181.975 Axial  Recovery = 99.40%
Sb 206.836†             1626.8      498.52 ug/L         5.826      498.52 ppb         5.826   1.17%
   QC value within limits for Sb 206.836  Recovery = 99.70%
Se 196.026†             1002.6      528.35 ug/L         2.974      528.35 ppb         2.974   0.56%
   QC value within limits for Se 196.026  Recovery = 105.67%
Si 251.611†            86071.1      2478.2 ug/L          0.95      2478.2 ppb          0.95   0.04%
   QC value within limits for Si 251.611  Recovery = 99.13%
Sn 189.927†             3306.2      494.37 ug/L         3.155      494.37 ppb         3.155   0.64%
   QC value within limits for Sn 189.927  Recovery = 98.87%
Sr 421.552†            66401.3      489.17 ug/L         1.455      489.17 ppb         1.455   0.30%
   QC value within limits for Sr 421.552  Recovery = 97.83%
Ti 334.940†           314610.9      503.82 ug/L         0.406      503.82 ppb         0.406   0.08%
   QC value within limits for Ti 334.940  Recovery = 100.76%
Tl 190.801†             1810.1      500.37 ug/L         3.937      500.37 ppb         3.937   0.79%
   QC value within limits for Tl 190.801  Recovery = 100.07%
U 409.014†             16260.7      482.94 ug/L         3.334      482.94 ppb         3.334   0.69%
   QC value within limits for U 409.014  Recovery = 96.59%
V 292.402†             78415.8      504.06 ug/L         0.180      504.06 ppb         0.180   0.04%
   QC value within limits for V 292.402  Recovery = 100.81%
Zn 213.857†            60829.7      499.33 ug/L         0.112      499.33 ppb         0.112   0.02%
   QC value within limits for Zn 213.857  Recovery = 99.87%
SiO2†                  86119.1      5292.9 ug/L         60.05      5292.9 ppb         60.05   1.13%
   QC value within limits for SiO2  Recovery = 98.98%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/7/2010 15:07:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4349.7	4349.7	94.0	%			15:09:02
1	Y RADIAL	4618.2	4618.2	94.35	%			15:09:02
1	Al 396.153Radial†	-21.9	-2.5	-2.1396	ug/L	-2.1396	ppb	15:09:02
1	Ca 317.933Radial†	18.1	5.3	9.0791	ug/L	9.0791	ppb	15:09:22
1	Fe 238.204 Radial†	13.7	1.8	17.374	ug/L	17.374	ppb	15:09:22
1	K 766.490 Radial†	3266.7	246.5	49.883	ug/L	49.883	ppb	15:09:02
1	Mg 279.077 IEC†	1.4	-0.0	-1.3918	ug/L	-1.3918	ppb	15:09:22
1	Na 589.592 Radial†	-1403.0	277.3	94.664	ug/L	94.664	ppb	15:09:02
1	Sr 421.552†	20.6	10.7	0.0785	ug/L	0.0785	ppb	15:09:02
1	Sc 361.383	844984.7	844984.7	96.753	%			15:10:19
1	Y 371.029	724308.8	724308.8	96.661	%			15:10:19
1	Ag 328.068†	400.5	-77.0	-0.3260	ug/L	-0.3260	ppb	15:10:19
1	As 188.979†	-29.0	1.5	0.5355	ug/L	0.5355	ppb	15:10:39
1	B 249.677†	-495.6	253.2	5.2522	ug/L	5.2522	ppb	15:10:19
1	Ba 233.527†	16.8	-1.2	-0.0087	ug/L	-0.0087	ppb	15:10:39
1	Be 313.107†	-4279.0	-42.5	-0.0144	ug/L	-0.0144	ppb	15:10:19
1	Cd 226.502†	-227.0	18.3	0.1734	ug/L	0.1734	ppb	15:10:39
1	Co 228.616†	-98.3	-2.5	-0.0459	ug/L	-0.0459	ppb	15:10:39
1	Cr 267.716†	90.4	3.2	0.0340	ug/L	0.0340	ppb	15:10:19
1	Cu 324.752†	7967.0	130.8	0.3908	ug/L	0.3908	ppb	15:10:19
1	Mn 257.610†	1085.7	-184.2	-0.1922	ug/L	-0.1922	ppb	15:10:19
1	Mo 202.031†	29.5	3.8	0.2411	ug/L	0.2411	ppb	15:10:39
1	Ni 231.604†	135.6	24.0	0.5313	ug/L	0.5313	ppb	15:10:39
1	P 214.914†	242.7	-1.8	-0.9769	ug/L	-0.9769	ppb	15:10:39
1	Pb 220.353†	-82.9	15.6	1.6210	ug/L	1.6210	ppb	15:10:39
1	S 181.975 Axial†	57.4	1.7	1.8913	ug/L	1.8913	ppb	15:10:39
1	Sb 206.836†	44.4	-0.3	-0.0901	ug/L	-0.0901	ppb	15:10:39
1	Se 196.026†	-27.8	10.0	5.1382	ug/L	5.1382	ppb	15:10:39
1	Si 251.611†	651.3	43.1	1.2262	ug/L	1.2262	ppb	15:10:39
1	Sn 189.927†	2.8	-1.9	-0.2791	ug/L	-0.2791	ppb	15:10:39
1	Ti 334.940†	-1724.4	-28.8	-0.0438	ug/L	-0.0438	ppb	15:10:19
1	Tl 190.801†	-44.6	-0.5	-0.1265	ug/L	-0.1265	ppb	15:10:39
1	U 409.014†	-2956.7	-147.4	-4.3939	ug/L	-4.3939	ppb	15:10:19
1	V 292.402†	-1776.1	-29.3	-0.1936	ug/L	-0.1936	ppb	15:10:19
1	Zn 213.857†	856.3	31.9	0.2597	ug/L	0.2597	ppb	15:10:39
1	SiO2†	664.1	37.7	2.2831	ug/L	2.2831	ppb	15:11:35
2	Sc Radial	4506.8	4506.8	97.4	%			15:09:27
2	Y RADIAL	4747.1	4747.1	96.98	%			15:09:27
2	Al 396.153Radial†	-14.9	5.6	4.7555	ug/L	4.7555	ppb	15:09:27
2	Ca 317.933Radial†	22.9	9.5	16.455	ug/L	16.455	ppb	15:09:47
2	Fe 238.204 Radial†	8.8	-3.7	-35.156	ug/L	-35.156	ppb	15:09:47
2	K 766.490 Radial†	3282.3	141.3	28.570	ug/L	28.570	ppb	15:09:27
2	Mg 279.077 IEC†	2.9	1.5	51.141	ug/L	51.141	ppb	15:09:47
2	Na 589.592 Radial†	-1413.5	318.5	108.75	ug/L	108.75	ppb	15:09:27
2	Sr 421.552†	-4.1	-15.5	-0.1147	ug/L	-0.1147	ppb	15:09:27
2	Sc 361.383	855649.7	855649.7	97.974	%			15:10:44
2	Y 371.029	733359.9	733359.9	97.869	%			15:10:44
2	Ag 328.068†	506.7	26.3	0.1022	ug/L	0.1022	ppb	15:10:44
2	As 188.979†	-32.8	-2.0	-0.7136	ug/L	-0.7136	ppb	15:11:04
2	B 249.677†	-471.5	284.3	5.9025	ug/L	5.9025	ppb	15:10:44
2	Ba 233.527†	-10.2	-29.0	-0.2132	ug/L	-0.2132	ppb	15:11:04
2	Be 313.107†	-4326.9	-36.3	-0.0120	ug/L	-0.0120	ppb	15:10:44
2	Cd 226.502†	-240.0	8.0	0.0796	ug/L	0.0796	ppb	15:11:04
2	Co 228.616†	-94.6	2.6	0.0501	ug/L	0.0501	ppb	15:11:04
2	Cr 267.716†	152.5	65.4	0.6638	ug/L	0.6638	ppb	15:10:44
2	Cu 324.752†	8085.5	149.0	0.4425	ug/L	0.4425	ppb	15:10:44
2	Mn 257.610†	1209.1	-72.2	-0.0805	ug/L	-0.0805	ppb	15:10:44
2	Mo 202.031†	33.6	7.6	0.4777	ug/L	0.4777	ppb	15:11:04
2	Ni 231.604†	132.1	18.6	0.4132	ug/L	0.4132	ppb	15:11:04

2	P 214.914†	267.9	20.8	10.153 ug/L	10.153 ppb	15:11:04
2	Pb 220.353†	-113.9	-14.9	-1.5493 ug/L	-1.5493 ppb	15:11:04
2	S 181.975 Axial†	68.1	11.8	13.403 ug/L	13.403 ppb	15:11:04
2	Sb 206.836†	46.5	1.3	0.4025 ug/L	0.4025 ppb	15:11:04
2	Se 196.026†	-38.4	-0.4	-0.3284 ug/L	-0.3284 ppb	15:11:04
2	Si 251.611†	628.5	11.4	0.3109 ug/L	0.3109 ppb	15:11:04
2	Sn 189.927†	8.5	3.9	0.5892 ug/L	0.5892 ppb	15:11:04
2	Ti 334.940†	-1646.3	73.1	0.1167 ug/L	0.1167 ppb	15:10:44
2	Tl 190.801†	-43.0	1.8	0.5037 ug/L	0.5037 ppb	15:11:04
2	U 409.014†	-2781.8	69.2	2.0665 ug/L	2.0665 ppb	15:10:44
2	V 292.402†	-1701.3	69.9	0.4603 ug/L	0.4603 ppb	15:10:44
2	Zn 213.857†	855.7	20.4	0.1654 ug/L	0.1654 ppb	15:11:04
2	SiO2†	655.2	20.1	1.1951 ug/L	1.1951 ppb	15:11:40
3	Sc Radial	4475.5	4475.5	96.7 %		15:09:52
3	Y RADIAL	4714.7	4714.7	96.32 %		15:09:52
3	Al 396.153Radial†	-3.0	17.7	15.252 ug/L	15.252 ppb	15:09:52
3	Ca 317.933Radial†	10.6	-3.0	-5.1907 ug/L	-5.1907 ppb	15:10:12
3	Fe 238.204 Radial†	13.6	1.3	12.839 ug/L	12.839 ppb	15:10:12
3	K 766.490 Radial†	3255.3	136.9	27.693 ug/L	27.693 ppb	15:09:52
3	Mg 279.077 IEC†	0.7	-0.8	-27.159 ug/L	-27.159 ppb	15:10:12
3	Na 589.592 Radial†	-1402.1	320.2	109.32 ug/L	109.32 ppb	15:09:52
3	Sr 421.552†	-17.8	-29.7	-0.2190 ug/L	-0.2190 ppb	15:09:52
3	Sc 361.383	860260.2	860260.2	98.502 %		15:11:10
3	Y 371.029	736775.4	736775.4	98.325 %		15:11:10
3	Ag 328.068†	426.1	-58.3	-0.2538 ug/L	-0.2538 ppb	15:11:10
3	As 188.979†	-33.8	-2.8	-0.9833 ug/L	-0.9833 ppb	15:11:30
3	B 249.677†	-496.3	261.7	5.4259 ug/L	5.4259 ppb	15:11:10
3	Ba 233.527†	9.1	-9.3	-0.0684 ug/L	-0.0684 ppb	15:11:30
3	Be 313.107†	-4374.8	-61.2	-0.0207 ug/L	-0.0207 ppb	15:11:10
3	Cd 226.502†	-253.2	-4.1	-0.0400 ug/L	-0.0400 ppb	15:11:30
3	Co 228.616†	-74.6	23.5	0.4446 ug/L	0.4446 ppb	15:11:30
3	Cr 267.716†	112.2	23.6	0.2382 ug/L	0.2382 ppb	15:11:10
3	Cu 324.752†	8034.2	52.7	0.1579 ug/L	0.1579 ppb	15:11:10
3	Mn 257.610†	1155.0	-133.7	-0.1390 ug/L	-0.1390 ppb	15:11:10
3	Mo 202.031†	31.7	5.5	0.3491 ug/L	0.3491 ppb	15:11:30
3	Ni 231.604†	131.7	17.6	0.3896 ug/L	0.3896 ppb	15:11:30
3	P 214.914†	261.1	12.4	6.0253 ug/L	6.0253 ppb	15:11:30
3	Pb 220.353†	-108.6	-8.9	-0.9274 ug/L	-0.9274 ppb	15:11:30
3	S 181.975 Axial†	67.5	10.9	12.325 ug/L	12.325 ppb	15:11:30
3	Sb 206.836†	42.1	-3.4	-1.0580 ug/L	-1.0580 ppb	15:11:30
3	Se 196.026†	-32.3	6.0	3.0810 ug/L	3.0810 ppb	15:11:30
3	Si 251.611†	634.3	13.9	0.3906 ug/L	0.3906 ppb	15:11:30
3	Sn 189.927†	-4.2	-9.0	-1.3444 ug/L	-1.3444 ppb	15:11:30
3	Ti 334.940†	-1764.4	-37.8	-0.0632 ug/L	-0.0632 ppb	15:11:10
3	Tl 190.801†	-60.2	-15.4	-4.2440 ug/L	-4.2440 ppb	15:11:30
3	U 409.014†	-2693.6	174.0	5.1821 ug/L	5.1821 ppb	15:11:10
3	V 292.402†	-1786.3	-7.1	-0.0325 ug/L	-0.0325 ppb	15:11:10
3	Zn 213.857†	867.6	27.7	0.2271 ug/L	0.2271 ppb	15:11:30
3	SiO2†	681.1	42.7	2.6156 ug/L	2.6156 ppb	15:11:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	853631.5	97.743	%	0.8972				0.92%
Sc Radial	4444.0	96.0	%	1.80				1.87%
Y 371.029	731481.4	97.618	%	0.8597				0.88%
Y RADIAL	4693.3	95.88	%	1.370				1.43%
Ag 328.068†	-36.4	-0.1592	ug/L	0.22921	-0.1592	ppb	0.22921	143.97%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.9	5.9561	ug/L	8.75797	5.9561	ppb	8.75797	147.04%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.1	-0.3872	ug/L	0.81030	-0.3872	ppb	0.81030	209.30%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	266.4	5.5269	ug/L	0.33671	5.5269	ppb	0.33671	6.09%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-13.2	-0.0968	ug/L	0.10515	-0.0968	ppb	0.10515	108.65%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-46.6	-0.0157	ug/L	0.00451	-0.0157	ppb	0.00451	28.73%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.9	6.7812	ug/L	11.00439	6.7812	ppb	11.00439	162.28%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 7.4      0.0710 ug/L       0.10693      0.0710 ppb        0.10693 150.60%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 7.9      0.1496 ug/L       0.25996      0.1496 ppb        0.25996 173.76%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                30.7      0.3120 ug/L       0.32129      0.3120 ppb        0.32129 102.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               110.8      0.3304 ug/L       0.15162      0.3304 ppb        0.15162  45.89%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.2     -1.6474 ug/L      29.10747     -1.6474 ppb       29.10747 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         174.9      35.382 ug/L       12.5659      35.382 ppb        12.5659  35.52%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.2      7.5301 ug/L      39.90493      7.5301 ppb       39.90493 529.94%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -130.1     -0.1372 ug/L       0.05588     -0.1372 ppb        0.05588  40.73%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.6      0.3560 ug/L       0.11843      0.3560 ppb        0.11843  33.27%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        305.3      104.25 ug/L         8.303      104.25 ppb          8.303   7.97%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                20.1      0.4447 ug/L       0.07592      0.4447 ppb        0.07592  17.07%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 10.5      5.0671 ug/L       5.62646      5.0671 ppb        5.62646 111.04%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.8     -0.2852 ug/L       1.67988     -0.2852 ppb        1.67988 588.94%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            8.1      9.2064 ug/L       6.35798      9.2064 ppb        6.35798  69.06%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.8     -0.2486 ug/L       0.74303     -0.2486 ppb        0.74303 298.94%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 5.2      2.6303 ug/L       2.76101      2.6303 ppb        2.76101 104.97%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                22.8      0.6426 ug/L       0.50702      0.6426 ppb        0.50702  78.90%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -2.3     -0.3448 ug/L       0.96850     -0.3448 ppb        0.96850 280.93%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -11.5     -0.0851 ug/L       0.15094     -0.0851 ppb        0.15094 177.46%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 2.2      0.0033 ug/L       0.09875      0.0033 ppb        0.09875 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -4.7     -1.2889 ug/L       2.57851     -1.2889 ppb        2.57851 200.05%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 31.9      0.9516 ug/L       4.88442      0.9516 ppb        4.88442 513.30%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 11.2      0.0781 ug/L       0.34068      0.0781 ppb        0.34068 436.36%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                26.7      0.2174 ug/L       0.04791      0.2174 ppb        0.04791  22.04%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      33.5      2.0313 ug/L       0.74296      2.0313 ppb        0.74296  36.58%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/7/2010 16:02:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4420.4	4420.4	95.5	%			16:04:39
1	Y RADIAL	4638.9	4638.9	94.77	%			16:04:39
1	Al 396.153Radial†	5484.3	5762.7	4937.7	ug/L	4937.7	ppb	16:04:39
1	Ca 317.933Radial†	2927.0	3050.5	5268.1	ug/L	5268.1	ppb	16:04:59
1	Fe 238.204 Radial†	542.8	555.5	5343.7	ug/L	5343.7	ppb	16:04:59
1	K 766.490 Radial†	27102.9	25146.6	5084.6	ug/L	5084.6	ppb	16:04:39
1	Mg 279.077 IEC†	153.2	158.9	5419.5	ug/L	5419.5	ppb	16:04:59
1	Na 589.592 Radial†	27472.2	30532.6	10424	ug/L	10424	ppb	16:04:39
1	Sr 421.552†	63064.1	66014.8	486.32	ug/L	486.32	ppb	16:04:39
1	Sc 361.383	881486.8	881486.8	100.93	%			16:05:58
1	Y 371.029	745806.0	745806.0	99.530	%			16:05:58
1	Ag 328.068†	116695.9	115126.8	503.56	ug/L	503.56	ppb	16:05:58
1	As 188.979†	1418.4	1436.8	508.38	ug/L	508.38	ppb	16:06:18
1	B 249.677†	23999.4	24543.2	507.24	ug/L	507.24	ppb	16:05:58
1	Ba 233.527†	69300.7	68641.8	506.65	ug/L	506.65	ppb	16:05:58
1	Be 313.107†	1515380.7	1505759.6	508.45	ug/L	508.45	ppb	16:05:58
1	Cd 226.502†	53619.8	53377.3	508.24	ug/L	508.24	ppb	16:05:58
1	Co 228.616†	26608.5	26461.9	500.48	ug/L	500.48	ppb	16:06:18
1	Cr 267.716†	50130.5	49577.0	504.23	ug/L	504.23	ppb	16:05:58
1	Cu 324.752†	178923.6	169166.8	504.75	ug/L	504.75	ppb	16:05:58
1	Mn 257.610†	486430.9	480630.3	506.43	ug/L	506.43	ppb	16:05:58
1	Mo 202.031†	7996.4	7895.8	500.04	ug/L	500.04	ppb	16:06:18
1	Ni 231.604†	22963.0	22634.7	501.25	ug/L	501.25	ppb	16:06:18
1	P 214.914†	5467.2	5164.0	2452.1	ug/L	2452.1	ppb	16:06:18
1	Pb 220.353†	4832.5	4889.1	510.16	ug/L	510.16	ppb	16:06:18
1	S 181.975 Axial†	950.3	883.8	998.92	ug/L	998.92	ppb	16:06:18
1	Sb 206.836†	1710.6	1648.6	505.15	ug/L	505.15	ppb	16:06:18
1	Se 196.026†	985.6	1015.3	535.12	ug/L	535.12	ppb	16:06:18
1	Si 251.611†	88985.8	87533.5	2520.5	ug/L	2520.5	ppb	16:05:58
1	Sn 189.927†	3365.3	3329.4	497.85	ug/L	497.85	ppb	16:06:18
1	Ti 334.940†	318947.9	317754.4	508.86	ug/L	508.86	ppb	16:05:58
1	Tl 190.801†	1800.4	1829.5	505.72	ug/L	505.72	ppb	16:06:18
1	U 409.014†	13602.1	16384.9	486.62	ug/L	486.62	ppb	16:05:58
1	V 292.402†	78204.4	79288.2	509.64	ug/L	509.64	ppb	16:05:58
1	Zn 213.857†	62918.3	61483.9	504.70	ug/L	504.70	ppb	16:05:58
1	SiO2†	87159.5	85705.5	5267.2	ug/L	5267.2	ppb	16:07:18
2	Sc Radial	4551.5	4551.5	98.3	%			16:05:04
2	Y RADIAL	4807.2	4807.2	98.21	%			16:05:04
2	Al 396.153Radial†	5574.8	5689.3	4874.6	ug/L	4874.6	ppb	16:05:04
2	Ca 317.933Radial†	2911.8	2946.8	5089.0	ug/L	5089.0	ppb	16:05:24
2	Fe 238.204 Radial†	545.4	541.8	5211.9	ug/L	5211.9	ppb	16:05:24
2	K 766.490 Radial†	27625.0	24860.0	5026.6	ug/L	5026.6	ppb	16:05:04
2	Mg 279.077 IEC†	156.5	157.6	5375.4	ug/L	5375.4	ppb	16:05:24
2	Na 589.592 Radial†	28017.6	30258.5	10331	ug/L	10331	ppb	16:05:04
2	Sr 421.552†	64332.8	65402.6	481.81	ug/L	481.81	ppb	16:05:04
2	Sc 361.383	881361.6	881361.6	100.92	%			16:06:26
2	Y 371.029	746491.0	746491.0	99.622	%			16:06:26
2	Ag 328.068†	116430.0	114879.7	502.44	ug/L	502.44	ppb	16:06:26
2	As 188.979†	1402.1	1420.8	502.76	ug/L	502.76	ppb	16:06:46
2	B 249.677†	24016.9	24563.8	507.69	ug/L	507.69	ppb	16:06:26
2	Ba 233.527†	69148.2	68500.5	505.60	ug/L	505.60	ppb	16:06:26
2	Be 313.107†	1513648.4	1504256.3	507.95	ug/L	507.95	ppb	16:06:26
2	Cd 226.502†	53584.1	53349.5	507.98	ug/L	507.98	ppb	16:06:26
2	Co 228.616†	26532.3	26390.1	499.13	ug/L	499.13	ppb	16:06:46
2	Cr 267.716†	50091.9	49545.9	503.90	ug/L	503.90	ppb	16:06:26
2	Cu 324.752†	178558.3	168830.0	503.74	ug/L	503.74	ppb	16:06:26
2	Mn 257.610†	485207.0	479486.0	505.21	ug/L	505.21	ppb	16:06:26
2	Mo 202.031†	7968.1	7868.9	498.33	ug/L	498.33	ppb	16:06:46
2	Ni 231.604†	22887.5	22563.1	499.67	ug/L	499.67	ppb	16:06:46

2	P 214.914†	5449.0	5146.8	2443.9 ug/L	2443.9 ppb	16:06:46
2	Pb 220.353†	4785.9	4843.7	505.42 ug/L	505.42 ppb	16:06:46
2	S 181.975 Axial†	946.6	880.4	995.03 ug/L	995.03 ppb	16:06:46
2	Sb 206.836†	1701.9	1640.3	502.62 ug/L	502.62 ppb	16:06:46
2	Se 196.026†	963.5	993.5	523.64 ug/L	523.64 ppb	16:06:46
2	Si 251.611†	88553.9	87118.2	2508.5 ug/L	2508.5 ppb	16:06:26
2	Sn 189.927†	3369.7	3334.3	498.56 ug/L	498.56 ppb	16:06:46
2	Ti 334.940†	318245.1	317103.0	507.81 ug/L	507.81 ppb	16:06:26
2	Tl 190.801†	1786.7	1816.2	502.06 ug/L	502.06 ppb	16:06:46
2	U 409.014†	13587.2	16372.2	486.26 ug/L	486.26 ppb	16:06:26
2	V 292.402†	77998.7	79095.4	508.41 ug/L	508.41 ppb	16:06:26
2	Zn 213.857†	63041.6	61614.9	505.81 ug/L	505.81 ppb	16:06:26
2	SiO2†	88138.3	86687.6	5327.9 ug/L	5327.9 ppb	16:07:24
3	Sc Radial	4354.3	4354.3	94.1 %		16:05:29
3	Y RADIAL	4584.0	4584.0	93.65 %		16:05:29
3	Al 396.153Radial†	5475.2	5840.1	5004.5 ug/L	5004.5 ppb	16:05:29
3	Ca 317.933Radial†	2894.2	3062.1	5288.2 ug/L	5288.2 ppb	16:05:49
3	Fe 238.204 Radial†	536.1	557.0	5357.8 ug/L	5357.8 ppb	16:05:49
3	K 766.490 Radial†	27039.5	25509.4	5158.0 ug/L	5158.0 ppb	16:05:29
3	Mg 279.077 IEC†	153.9	162.1	5528.4 ug/L	5528.4 ppb	16:05:49
3	Na 589.592 Radial†	27496.8	30994.8	10582 ug/L	10582 ppb	16:05:29
3	Sr 421.552†	62896.5	66837.8	492.38 ug/L	492.38 ppb	16:05:29
3	Sc 361.383	884362.3	884362.3	101.26 %		16:06:53
3	Y 371.029	747468.3	747468.3	99.752 %		16:06:53
3	Ag 328.068†	116858.0	114911.0	502.62 ug/L	502.62 ppb	16:06:53
3	As 188.979†	1413.0	1426.9	504.92 ug/L	504.92 ppb	16:07:13
3	B 249.677†	24146.7	24611.2	508.66 ug/L	508.66 ppb	16:06:53
3	Ba 233.527†	69490.1	68605.7	506.38 ug/L	506.38 ppb	16:06:53
3	Be 313.107†	1517013.2	1502490.1	507.35 ug/L	507.35 ppb	16:06:53
3	Cd 226.502†	53824.6	53406.9	508.51 ug/L	508.51 ppb	16:06:53
3	Co 228.616†	26475.1	26244.3	496.36 ug/L	496.36 ppb	16:07:13
3	Cr 267.716†	50243.4	49527.1	503.72 ug/L	503.72 ppb	16:06:53
3	Cu 324.752†	179624.7	169282.7	505.10 ug/L	505.10 ppb	16:06:53
3	Mn 257.610†	488010.6	480623.3	506.42 ug/L	506.42 ppb	16:06:53
3	Mo 202.031†	7941.5	7815.9	494.98 ug/L	494.98 ppb	16:07:13
3	Ni 231.604†	22805.3	22405.0	496.16 ug/L	496.16 ppb	16:07:13
3	P 214.914†	5416.7	5096.6	2419.0 ug/L	2419.0 ppb	16:07:13
3	Pb 220.353†	4778.6	4820.4	503.00 ug/L	503.00 ppb	16:07:13
3	S 181.975 Axial†	946.7	877.3	991.51 ug/L	991.51 ppb	16:07:13
3	Sb 206.836†	1681.1	1613.9	494.53 ug/L	494.53 ppb	16:07:13
3	Se 196.026†	976.3	1002.9	528.85 ug/L	528.85 ppb	16:07:13
3	Si 251.611†	89090.4	87350.2	2515.3 ug/L	2515.3 ppb	16:06:53
3	Sn 189.927†	3356.5	3309.9	494.94 ug/L	494.94 ppb	16:07:13
3	Ti 334.940†	320226.4	317989.6	509.24 ug/L	509.24 ppb	16:06:53
3	Tl 190.801†	1787.1	1810.5	500.53 ug/L	500.53 ppb	16:07:13
3	U 409.014†	13752.9	16490.1	489.75 ug/L	489.75 ppb	16:06:53
3	V 292.402†	78466.3	79295.0	509.61 ug/L	509.61 ppb	16:06:53
3	Zn 213.857†	63009.8	61371.6	503.80 ug/L	503.80 ppb	16:06:53
3	SiO2†	88029.2	86283.5	5303.0 ug/L	5303.0 ppb	16:07:29

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	882403.6	101.04	%	0.194				0.19%
Sc Radial	4442.1	96.0	%	2.17				2.26%
Y 371.029	746588.4	99.635	%	0.1115				0.11%
Y RADIAL	4676.7	95.54	%	2.376				2.49%
Ag 328.068†	114972.5	502.87	ug/L	0.600	502.87	ppb	0.600	0.12%
QC value within limits for Ag 328.068 Recovery = 100.57%								
Al 396.153Radial†	5764.1	4938.9	ug/L	64.94	4938.9	ppb	64.94	1.31%
QC value within limits for Al 396.153Radial Recovery = 98.78%								
As 188.979†	1428.1	505.35	ug/L	2.835	505.35	ppb	2.835	0.56%
QC value within limits for As 188.979 Recovery = 101.07%								
B 249.677†	24572.7	507.86	ug/L	0.726	507.86	ppb	0.726	0.14%
QC value within limits for B 249.677 Recovery = 101.57%								
Ba 233.527†	68582.7	506.21	ug/L	0.544	506.21	ppb	0.544	0.11%
QC value within limits for Ba 233.527 Recovery = 101.24%								
Be 313.107†	1504168.7	507.92	ug/L	0.551	507.92	ppb	0.551	0.11%
QC value within limits for Be 313.107 Recovery = 101.58%								
Ca 317.933Radial†	3019.8	5215.1	ug/L	109.66	5215.1	ppb	109.66	2.10%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.30%
Cd 226.502†            53377.9      508.25 ug/L         0.265      508.25 ppb          0.265   0.05%
   QC value within limits for Cd 226.502  Recovery = 101.65%
Co 228.616†            26365.4      498.66 ug/L         2.103      498.66 ppb          2.103   0.42%
   QC value within limits for Co 228.616  Recovery = 99.73%
Cr 267.716†            49550.0      503.95 ug/L         0.257      503.95 ppb          0.257   0.05%
   QC value within limits for Cr 267.716  Recovery = 100.79%
Cu 324.752†           169093.2      504.53 ug/L         0.705      504.53 ppb          0.705   0.14%
   QC value within limits for Cu 324.752  Recovery = 100.91%
Fe 238.204 Radial†       551.4      5304.5 ug/L         80.46      5304.5 ppb          80.46   1.52%
   QC value within limits for Fe 238.204 Radial  Recovery = 106.09%
K 766.490 Radial†      25172.0      5089.7 ug/L         65.85      5089.7 ppb          65.85   1.29%
   QC value within limits for K 766.490 Radial  Recovery = 101.79%
Mg 279.077 IEC†          159.5      5441.1 ug/L         78.70      5441.1 ppb          78.70   1.45%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.82%
Mn 257.610†           480246.5      506.02 ug/L         0.700      506.02 ppb          0.700   0.14%
   QC value within limits for Mn 257.610  Recovery = 101.20%
Mo 202.031†             7860.2      497.78 ug/L         2.573      497.78 ppb          2.573   0.52%
   QC value within limits for Mo 202.031  Recovery = 99.56%
Na 589.592 Radial†     30595.3       10446 ug/L         127.0       10446 ppb          127.0   1.22%
   QC value within limits for Na 589.592 Radial  Recovery = 104.46%
Ni 231.604†            22534.2      499.03 ug/L         2.603      499.03 ppb          2.603   0.52%
   QC value within limits for Ni 231.604  Recovery = 99.81%
P 214.914†              5135.8      2438.3 ug/L         17.24      2438.3 ppb          17.24   0.71%
   QC value within limits for P 214.914  Recovery = 97.53%
Pb 220.353†             4851.0      506.19 ug/L         3.638      506.19 ppb          3.638   0.72%
   QC value within limits for Pb 220.353  Recovery = 101.24%
S 181.975 Axial†         880.5      995.15 ug/L         3.708      995.15 ppb          3.708   0.37%
   QC value within limits for S 181.975 Axial  Recovery = 99.52%
Sb 206.836†             1634.3      500.77 ug/L         5.547      500.77 ppb          5.547   1.11%
   QC value within limits for Sb 206.836  Recovery = 100.15%
Se 196.026†             1003.9      529.20 ug/L         5.750      529.20 ppb          5.750   1.09%
   QC value within limits for Se 196.026  Recovery = 105.84%
Si 251.611†            87334.0      2514.8 ug/L          6.00      2514.8 ppb           6.00   0.24%
   QC value within limits for Si 251.611  Recovery = 100.59%
Sn 189.927†             3324.6      497.12 ug/L         1.922      497.12 ppb          1.922   0.39%
   QC value within limits for Sn 189.927  Recovery = 99.42%
Sr 421.552†            66085.1      486.84 ug/L         5.305      486.84 ppb          5.305   1.09%
   QC value within limits for Sr 421.552  Recovery = 97.37%
Ti 334.940†           317615.7      508.64 ug/L         0.741      508.64 ppb          0.741   0.15%
   QC value within limits for Ti 334.940  Recovery = 101.73%
Tl 190.801†             1818.7      502.77 ug/L         2.666      502.77 ppb          2.666   0.53%
   QC value within limits for Tl 190.801  Recovery = 100.55%
U 409.014†             16415.8      487.54 ug/L         1.923      487.54 ppb          1.923   0.39%
   QC value within limits for U 409.014  Recovery = 97.51%
V 292.402†             79226.2      509.22 ug/L         0.702      509.22 ppb          0.702   0.14%
   QC value within limits for V 292.402  Recovery = 101.84%
Zn 213.857†            61490.2      504.77 ug/L         1.005      504.77 ppb          1.005   0.20%
   QC value within limits for Zn 213.857  Recovery = 100.95%
SiO2†                  86225.5      5299.4 ug/L         30.54      5299.4 ppb          30.54   0.58%
   QC value within limits for SiO2  Recovery = 99.10%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/7/2010 16:09:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4643.3	4643.3	100	%			16:11:31
1	Y RADIAL	4907.4	4907.4	100.3	%			16:11:31
1	Al 396.153Radial†	3.8	24.7	21.201	ug/L	21.201	ppb	16:11:31
1	Ca 317.933Radial†	14.2	0.2	0.2701	ug/L	0.2701	ppb	16:11:51
1	Fe 238.204 Radial†	10.9	-1.8	-17.377	ug/L	-17.377	ppb	16:11:51
1	K 766.490 Radial†	3215.9	-24.0	-4.9024	ug/L	-4.9024	ppb	16:11:31
1	Mg 279.077 IEC†	1.0	-0.5	-17.998	ug/L	-17.998	ppb	16:11:51
1	Na 589.592 Radial†	-1404.3	370.3	126.43	ug/L	126.43	ppb	16:11:31
1	Sr 421.552†	17.0	5.7	0.0419	ug/L	0.0419	ppb	16:11:31
1	Sc 361.383	907588.9	907588.9	103.92	%			16:12:48
1	Y 371.029	775096.1	775096.1	103.44	%			16:12:48
1	Ag 328.068†	483.4	-25.7	-0.1276	ug/L	-0.1276	ppb	16:12:53
1	As 188.979†	-25.8	6.7	2.3379	ug/L	2.3379	ppb	16:13:13
1	B 249.677†	-373.0	406.5	8.4368	ug/L	8.4368	ppb	16:12:53
1	Ba 233.527†	14.9	-4.2	-0.0303	ug/L	-0.0303	ppb	16:13:13
1	Be 313.107†	-4415.5	131.3	0.0447	ug/L	0.0447	ppb	16:12:53
1	Cd 226.502†	-235.0	26.8	0.2570	ug/L	0.2570	ppb	16:13:13
1	Co 228.616†	-102.1	1.0	0.0201	ug/L	0.0201	ppb	16:13:13
1	Cr 267.716†	66.5	-26.2	-0.2704	ug/L	-0.2704	ppb	16:12:53
1	Cu 324.752†	8104.7	-304.7	-0.9097	ug/L	-0.9097	ppb	16:12:53
1	Mn 257.610†	887.6	-452.2	-0.4775	ug/L	-0.4775	ppb	16:12:53
1	Mo 202.031†	39.9	11.7	0.7371	ug/L	0.7371	ppb	16:13:13
1	Ni 231.604†	115.2	-5.3	-0.1172	ug/L	-0.1172	ppb	16:13:13
1	P 214.914†	261.3	-1.2	-0.4315	ug/L	-0.4315	ppb	16:13:13
1	Pb 220.353†	-105.2	0.1	0.0163	ug/L	0.0163	ppb	16:13:13
1	S 181.975 Axial†	56.0	-3.8	-4.2539	ug/L	-4.2539	ppb	16:13:13
1	Sb 206.836†	50.8	2.7	0.8334	ug/L	0.8334	ppb	16:13:13
1	Se 196.026†	-45.8	-5.4	-2.7697	ug/L	-2.7697	ppb	16:13:13
1	Si 251.611†	846.4	184.4	5.3230	ug/L	5.3230	ppb	16:13:13
1	Sn 189.927†	6.5	1.5	0.2289	ug/L	0.2289	ppb	16:13:13
1	Ti 334.940†	-1661.9	154.3	0.2411	ug/L	0.2411	ppb	16:12:53
1	Tl 190.801†	-47.3	0.2	0.0414	ug/L	0.0414	ppb	16:13:13
1	U 409.014†	-2535.0	469.2	13.986	ug/L	13.986	ppb	16:12:48
1	V 292.402†	-1794.2	79.9	0.5469	ug/L	0.5469	ppb	16:12:53
1	Zn 213.857†	890.9	4.2	0.0382	ug/L	0.0382	ppb	16:13:13
1	SiO2†	902.3	219.5	13.531	ug/L	13.531	ppb	16:14:19
2	Sc Radial	4168.5	4168.5	90.1	%			16:11:56
2	Y RADIAL	4412.3	4412.3	90.14	%			16:11:56
2	Al 396.153Radial†	-17.9	1.0	0.8382	ug/L	0.8382	ppb	16:11:56
2	Ca 317.933Radial†	16.1	3.8	6.6187	ug/L	6.6187	ppb	16:12:16
2	Fe 238.204 Radial†	10.8	-0.7	-6.7233	ug/L	-6.7233	ppb	16:12:16
2	K 766.490 Radial†	3353.1	493.4	99.914	ug/L	99.914	ppb	16:11:56
2	Mg 279.077 IEC†	4.7	3.7	124.96	ug/L	124.96	ppb	16:12:16
2	Na 589.592 Radial†	-1402.9	212.5	72.558	ug/L	72.558	ppb	16:11:56
2	Sr 421.552†	15.9	6.4	0.0470	ug/L	0.0470	ppb	16:11:56
2	Sc 361.383	888012.4	888012.4	101.68	%			16:13:18
2	Y 371.029	758844.2	758844.2	101.27	%			16:13:18
2	Ag 328.068†	506.6	7.3	0.0187	ug/L	0.0187	ppb	16:13:23
2	As 188.979†	-39.2	-7.1	-2.4897	ug/L	-2.4897	ppb	16:13:43
2	B 249.677†	-308.9	461.7	9.5812	ug/L	9.5812	ppb	16:13:23
2	Ba 233.527†	16.0	-2.8	-0.0198	ug/L	-0.0198	ppb	16:13:43
2	Be 313.107†	-4412.3	40.8	0.0139	ug/L	0.0139	ppb	16:13:23
2	Cd 226.502†	-243.3	13.7	0.1315	ug/L	0.1315	ppb	16:13:43
2	Co 228.616†	-113.7	-12.6	-0.2380	ug/L	-0.2380	ppb	16:13:43
2	Cr 267.716†	85.4	-6.3	-0.0680	ug/L	-0.0680	ppb	16:13:23
2	Cu 324.752†	8188.5	-50.5	-0.1508	ug/L	-0.1508	ppb	16:13:23
2	Mn 257.610†	923.7	-397.9	-0.4219	ug/L	-0.4219	ppb	16:13:23
2	Mo 202.031†	32.4	5.1	0.3251	ug/L	0.3251	ppb	16:13:43
2	Ni 231.604†	133.1	14.7	0.3270	ug/L	0.3270	ppb	16:13:43

2	P 214.914†	262.6	5.6	2.7882	ug/L	2.7882 ppb	16:13:43
2	Pb 220.353†	-91.1	11.7	1.2162	ug/L	1.2162 ppb	16:13:43
2	S 181.975 Axial†	62.6	3.9	4.3799	ug/L	4.3799 ppb	16:13:43
2	Sb 206.836†	35.9	-10.8	-3.2750	ug/L	-3.2750 ppb	16:13:43
2	Se 196.026†	-32.0	7.3	3.7122	ug/L	3.7122 ppb	16:13:43
2	Si 251.611†	819.5	175.9	5.0524	ug/L	5.0524 ppb	16:13:43
2	Sn 189.927†	0.9	-3.9	-0.5815	ug/L	-0.5815 ppb	16:13:43
2	Ti 334.940†	-1717.4	64.4	0.0970	ug/L	0.0970 ppb	16:13:23
2	Tl 190.801†	-47.2	-0.8	-0.2179	ug/L	-0.2179 ppb	16:13:43
2	U 409.014†	-2450.9	498.1	14.845	ug/L	14.845 ppb	16:13:18
2	V 292.402†	-1756.9	78.6	0.5356	ug/L	0.5356 ppb	16:13:23
2	Zn 213.857†	870.5	3.0	0.0189	ug/L	0.0189 ppb	16:13:43
2	SiO2†	911.6	247.8	15.222	ug/L	15.222 ppb	16:14:24
3	Sc Radial	4420.8	4420.8	95.5	%		16:12:21
3	Y RADIAL	4690.7	4690.7	95.83	%		16:12:21
3	Al 396.153Radial†	23.7	45.7	39.299	ug/L	39.299 ppb	16:12:21
3	Ca 317.933Radial†	17.2	4.0	6.9571	ug/L	6.9571 ppb	16:12:41
3	Fe 238.204 Radial†	10.7	-1.6	-15.000	ug/L	-15.000 ppb	16:12:41
3	K 766.490 Radial†	3277.3	201.7	40.811	ug/L	40.811 ppb	16:12:21
3	Mg 279.077 IEC†	-0.6	-2.1	-71.659	ug/L	-71.659 ppb	16:12:41
3	Na 589.592 Radial†	-1394.0	310.7	106.07	ug/L	106.07 ppb	16:12:21
3	Sr 421.552†	9.1	-1.8	-0.0133	ug/L	-0.0133 ppb	16:12:21
3	Sc 361.383	902477.0	902477.0	103.34	%		16:13:48
3	Y 371.029	771067.0	771067.0	102.90	%		16:13:48
3	Ag 328.068†	548.4	39.8	0.1574	ug/L	0.1574 ppb	16:13:53
3	As 188.979†	-35.3	-2.7	-0.9537	ug/L	-0.9537 ppb	16:14:13
3	B 249.677†	-285.7	489.0	10.148	ug/L	10.148 ppb	16:13:53
3	Ba 233.527†	-14.8	-32.9	-0.2403	ug/L	-0.2403 ppb	16:14:13
3	Be 313.107†	-4351.2	169.4	0.0579	ug/L	0.0579 ppb	16:13:53
3	Cd 226.502†	-229.8	30.5	0.2925	ug/L	0.2925 ppb	16:14:13
3	Co 228.616†	-107.5	-4.9	-0.0922	ug/L	-0.0922 ppb	16:14:13
3	Cr 267.716†	114.8	20.9	0.2080	ug/L	0.2080 ppb	16:13:53
3	Cu 324.752†	8281.7	-89.3	-0.2671	ug/L	-0.2671 ppb	16:13:53
3	Mn 257.610†	845.0	-488.6	-0.5146	ug/L	-0.5146 ppb	16:13:53
3	Mo 202.031†	29.9	2.2	0.1366	ug/L	0.1366 ppb	16:14:13
3	Ni 231.604†	129.6	9.3	0.2060	ug/L	0.2060 ppb	16:14:13
3	P 214.914†	251.8	-8.9	-4.3354	ug/L	-4.3354 ppb	16:14:13
3	Pb 220.353†	-97.2	7.2	0.7619	ug/L	0.7619 ppb	16:14:13
3	S 181.975 Axial†	64.1	4.4	4.9408	ug/L	4.9408 ppb	16:14:13
3	Sb 206.836†	62.6	14.4	4.2996	ug/L	4.2996 ppb	16:14:13
3	Se 196.026†	-45.4	-5.1	-2.6530	ug/L	-2.6530 ppb	16:14:13
3	Si 251.611†	833.0	176.0	5.0848	ug/L	5.0848 ppb	16:14:13
3	Sn 189.927†	-12.2	-16.5	-2.4696	ug/L	-2.4696 ppb	16:14:13
3	Ti 334.940†	-1561.1	242.8	0.3819	ug/L	0.3819 ppb	16:13:53
3	Tl 190.801†	-41.8	5.3	1.4471	ug/L	1.4471 ppb	16:14:13
3	U 409.014†	-2433.7	553.4	16.494	ug/L	16.494 ppb	16:13:48
3	V 292.402†	-1708.9	152.6	1.0024	ug/L	1.0024 ppb	16:13:53
3	Zn 213.857†	888.7	6.9	0.0592	ug/L	0.0592 ppb	16:14:13
3	SiO2†	839.4	163.6	10.084	ug/L	10.084 ppb	16:14:29

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899359.4	102.98	%	1.163				1.13%
Sc Radial	4410.9	95.3	%	5.13				5.39%
Y 371.029	768335.8	102.54	%	1.129				1.10%
Y RADIAL	4670.1	95.41	%	5.071				5.31%
Ag 328.068†	7.1	0.0162	ug/L	0.14249	0.0162	ppb	0.14249	880.37%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	23.8	20.446	ug/L	19.2414	20.446	ppb	19.2414	94.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.0	-0.3685	ug/L	2.46642	-0.3685	ppb	2.46642	669.26%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	452.4	9.3886	ug/L	0.87156	9.3886	ppb	0.87156	9.28%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-13.3	-0.0968	ug/L	0.12439	-0.0968	ppb	0.12439	128.53%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	113.8	0.0388	ug/L	0.02254	0.0388	ppb	0.02254	58.04%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.7	4.6153	ug/L	3.76685	4.6153	ppb	3.76685	81.62%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              23.7      0.2270 ug/L       0.08461      0.2270 ppb        0.08461  37.27%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -5.5     -0.1034 ug/L       0.12941     -0.1034 ppb        0.12941 125.19%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -3.9     -0.0435 ug/L       0.24016     -0.0435 ppb        0.24016 552.33%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -148.2     -0.4425 ug/L       0.40870     -0.4425 ppb        0.40870  92.35%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -1.4     -13.033 ug/L        5.5924     -13.033 ppb         5.5924  42.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       223.7      45.274 ug/L       52.5506      45.274 ppb        52.5506 116.07%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.3      11.767 ug/L      101.6326      11.767 ppb       101.6326 863.69%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†            -446.3     -0.4713 ug/L       0.04665     -0.4713 ppb        0.04665   9.90%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               6.3      0.3996 ug/L       0.30708      0.3996 ppb        0.30708  76.85%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      297.8      101.69 ug/L        27.202      101.69 ppb         27.202  26.75%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               6.3      0.1386 ug/L       0.22965      0.1386 ppb        0.22965 165.68%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -1.5     -0.6596 ug/L       3.56728     -0.6596 ppb        3.56728 540.84%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               6.3      0.6648 ug/L       0.60581      0.6648 ppb        0.60581  91.13%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.5      1.6889 ug/L       5.15430      1.6889 ppb        5.15430 305.18%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               2.1      0.6193 ug/L       3.79180      0.6193 ppb        3.79180 612.24%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.1     -0.5701 ug/L       3.70910     -0.5701 ppb        3.70910 650.57%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             178.8      5.1534 ug/L       0.14775      5.1534 ppb        0.14775   2.87%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -6.3     -0.9407 ug/L       1.38465     -0.9407 ppb        1.38465 147.19%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               3.4      0.0252 ug/L       0.03342      0.0252 ppb        0.03342 132.48%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             153.8      0.2400 ug/L       0.14241      0.2400 ppb        0.14241  59.34%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.5      0.4235 ug/L       0.89588      0.4235 ppb        0.89588 211.52%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              506.9      15.108 ug/L        1.2743      15.108 ppb         1.2743   8.43%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              103.7      0.6950 ug/L       0.26629      0.6950 ppb        0.26629  38.32%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               4.7      0.0388 ug/L       0.02014      0.0388 ppb        0.02014  51.95%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   210.3      12.946 ug/L        2.6185      12.946 ppb         2.6185  20.23%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 20
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/7/2010 17:11:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4555.8	4555.8	98.4	%			17:13:40
1	Y RADIAL	4765.6	4765.6	97.36	%			17:13:40
1	Al 396.153Radial†	5696.2	5807.3	4976.2	ug/L	4976.2	ppb	17:13:40
1	Ca 317.933Radial†	2940.1	2972.7	5133.8	ug/L	5133.8	ppb	17:14:00
1	Fe 238.204 Radial†	540.0	535.9	5155.0	ug/L	5155.0	ppb	17:14:00
1	K 766.490 Radial†	27637.2	24845.7	5023.8	ug/L	5023.8	ppb	17:13:40
1	Mg 279.077 IEC†	156.6	157.5	5373.6	ug/L	5373.6	ppb	17:14:00
1	Na 589.592 Radial†	27560.3	29766.9	10163	ug/L	10163	ppb	17:13:40
1	Sr 421.552†	64343.9	65351.8	481.43	ug/L	481.43	ppb	17:13:40
1	Sc 361.383	894809.6	894809.6	102.46	%			17:14:59
1	Y 371.029	757386.1	757386.1	101.08	%			17:14:59
1	Ag 328.068†	117306.3	114001.1	498.59	ug/L	498.59	ppb	17:14:59
1	As 188.979†	1418.4	1415.9	500.99	ug/L	500.99	ppb	17:15:19
1	B 249.677†	23842.6	24036.1	496.76	ug/L	496.76	ppb	17:14:59
1	Ba 233.527†	69506.8	67820.7	500.59	ug/L	500.59	ppb	17:14:59
1	Be 313.107†	1522298.5	1490157.5	503.19	ug/L	503.19	ppb	17:14:59
1	Cd 226.502†	53722.3	52686.4	501.67	ug/L	501.67	ppb	17:14:59
1	Co 228.616†	26783.9	26240.6	496.30	ug/L	496.30	ppb	17:15:19
1	Cr 267.716†	50363.1	49064.6	499.01	ug/L	499.01	ppb	17:14:59
1	Cu 324.752†	180467.4	168034.2	501.37	ug/L	501.37	ppb	17:14:59
1	Mn 257.610†	488246.3	475226.6	500.72	ug/L	500.72	ppb	17:14:59
1	Mo 202.031†	8042.7	7823.1	495.42	ug/L	495.42	ppb	17:15:19
1	Ni 231.604†	23059.9	22390.5	495.84	ug/L	495.84	ppb	17:15:19
1	P 214.914†	5507.6	5122.8	2432.5	ug/L	2432.5	ppb	17:15:19
1	Pb 220.353†	4832.3	4817.7	502.74	ug/L	502.74	ppb	17:15:19
1	S 181.975 Axial†	943.0	862.7	975.08	ug/L	975.08	ppb	17:15:19
1	Sb 206.836†	1712.2	1625.0	497.94	ug/L	497.94	ppb	17:15:19
1	Se 196.026†	991.2	1006.2	529.91	ug/L	529.91	ppb	17:15:19
1	Si 251.611†	88976.0	86211.3	2482.4	ug/L	2482.4	ppb	17:14:59
1	Sn 189.927†	3375.0	3289.3	491.84	ug/L	491.84	ppb	17:15:19
1	Ti 334.940†	320808.9	314865.9	504.23	ug/L	504.23	ppb	17:14:59
1	Tl 190.801†	1818.6	1820.6	503.26	ug/L	503.26	ppb	17:15:19
1	U 409.014†	13807.2	16384.5	486.64	ug/L	486.64	ppb	17:14:59
1	V 292.402†	78590.4	78511.3	504.68	ug/L	504.68	ppb	17:14:59
1	Zn 213.857†	63172.1	60803.4	499.12	ug/L	499.12	ppb	17:14:59
1	SiO2†	89086.4	86300.5	5304.2	ug/L	5304.2	ppb	17:16:19
2	Sc Radial	4416.8	4416.8	95.4	%			17:14:05
2	Y RADIAL	4674.2	4674.2	95.49	%			17:14:05
2	Al 396.153Radial†	5579.8	5867.5	5028.0	ug/L	5028.0	ppb	17:14:05
2	Ca 317.933Radial†	2923.9	3049.7	5266.8	ug/L	5266.8	ppb	17:14:25
2	Fe 238.204 Radial†	538.6	551.6	5306.1	ug/L	5306.1	ppb	17:14:25
2	K 766.490 Radial†	27270.9	25345.8	5125.1	ug/L	5125.1	ppb	17:14:05
2	Mg 279.077 IEC†	155.7	161.7	5514.6	ug/L	5514.6	ppb	17:14:25
2	Na 589.592 Radial†	26936.9	29995.1	10241	ug/L	10241	ppb	17:14:05
2	Sr 421.552†	63108.2	66114.7	487.05	ug/L	487.05	ppb	17:14:05
2	Sc 361.383	891194.5	891194.5	102.04	%			17:15:26
2	Y 371.029	754269.3	754269.3	100.66	%			17:15:26
2	Ag 328.068†	116754.6	113924.9	498.31	ug/L	498.31	ppb	17:15:26
2	As 188.979†	1413.9	1417.1	501.44	ug/L	501.44	ppb	17:15:46
2	B 249.677†	23800.7	24089.4	497.84	ug/L	497.84	ppb	17:15:26
2	Ba 233.527†	69235.7	67830.2	500.66	ug/L	500.66	ppb	17:15:26
2	Be 313.107†	1515425.0	1489448.7	502.95	ug/L	502.95	ppb	17:15:26
2	Cd 226.502†	53387.1	52570.6	500.55	ug/L	500.55	ppb	17:15:26
2	Co 228.616†	26756.1	26319.3	497.79	ug/L	497.79	ppb	17:15:46
2	Cr 267.716†	50084.6	48991.1	498.27	ug/L	498.27	ppb	17:15:26
2	Cu 324.752†	179531.7	167831.8	500.77	ug/L	500.77	ppb	17:15:26
2	Mn 257.610†	486238.1	475191.6	500.70	ug/L	500.70	ppb	17:15:26
2	Mo 202.031†	8033.9	7846.2	496.90	ug/L	496.90	ppb	17:15:46
2	Ni 231.604†	23041.2	22463.5	497.46	ug/L	497.46	ppb	17:15:46

2	P 214.914†	5478.7	5116.3	2429.4 ug/L	2429.4 ppb	17:15:46
2	Pb 220.353†	4839.0	4843.3	505.41 ug/L	505.41 ppb	17:15:46
2	S 181.975 Axial†	958.4	881.6	996.35 ug/L	996.35 ppb	17:15:46
2	Sb 206.836†	1705.9	1625.6	498.22 ug/L	498.22 ppb	17:15:46
2	Se 196.026†	982.2	1001.3	527.91 ug/L	527.91 ppb	17:15:46
2	Si 251.611†	88584.2	86179.7	2481.4 ug/L	2481.4 ppb	17:15:26
2	Sn 189.927†	3381.6	3309.2	494.82 ug/L	494.82 ppb	17:15:46
2	Ti 334.940†	319248.6	314607.0	503.82 ug/L	503.82 ppb	17:15:26
2	Tl 190.801†	1808.7	1818.1	502.56 ug/L	502.56 ppb	17:15:46
2	U 409.014†	13677.5	16312.1	484.47 ug/L	484.47 ppb	17:15:26
2	V 292.402†	78231.7	78470.9	504.42 ug/L	504.42 ppb	17:15:26
2	Zn 213.857†	62884.0	60771.3	498.83 ug/L	498.83 ppb	17:15:26
2	SiO2†	89606.9	87163.2	5357.3 ug/L	5357.3 ppb	17:16:24
3	Sc Radial	4548.2	4548.2	98.3 %		17:14:30
3	Y RADIAL	4806.6	4806.6	98.20 %		17:14:30
3	Al 396.153Radial†	5656.5	5776.6	4949.5 ug/L	4949.5 ppb	17:14:30
3	Ca 317.933Radial†	2948.3	2986.0	5156.7 ug/L	5156.7 ppb	17:14:50
3	Fe 238.204 Radial†	540.0	536.7	5163.3 ug/L	5163.3 ppb	17:14:50
3	K 766.490 Radial†	27482.5	24735.3	5001.5 ug/L	5001.5 ppb	17:14:30
3	Mg 279.077 IEC†	156.0	157.3	5364.2 ug/L	5364.2 ppb	17:14:50
3	Na 589.592 Radial†	27060.9	29305.6	10005 ug/L	10005 ppb	17:14:30
3	Sr 421.552†	63872.9	64982.0	478.71 ug/L	478.71 ppb	17:14:30
3	Sc 361.383	885045.6	885045.6	101.34 %		17:15:54
3	Y 371.029	748474.3	748474.3	99.886 %		17:15:54
3	Ag 328.068†	116086.9	114061.0	498.85 ug/L	498.85 ppb	17:15:54
3	As 188.979†	1424.7	1437.4	508.54 ug/L	508.54 ppb	17:16:14
3	B 249.677†	23679.5	24131.9	498.73 ug/L	498.73 ppb	17:15:54
3	Ba 233.527†	68977.6	68047.0	502.25 ug/L	502.25 ppb	17:15:54
3	Be 313.107†	1509079.1	1493504.3	504.32 ug/L	504.32 ppb	17:15:54
3	Cd 226.502†	53308.1	52856.2	503.29 ug/L	503.29 ppb	17:15:54
3	Co 228.616†	26803.7	26548.4	502.13 ug/L	502.13 ppb	17:16:14
3	Cr 267.716†	49906.2	49156.0	499.94 ug/L	499.94 ppb	17:15:54
3	Cu 324.752†	178470.8	168007.2	501.29 ug/L	501.29 ppb	17:15:54
3	Mn 257.610†	484719.0	477003.2	502.59 ug/L	502.59 ppb	17:15:54
3	Mo 202.031†	8052.0	7918.8	501.48 ug/L	501.48 ppb	17:16:14
3	Ni 231.604†	23073.8	22652.5	501.65 ug/L	501.65 ppb	17:16:14
3	P 214.914†	5478.5	5153.4	2447.6 ug/L	2447.6 ppb	17:16:14
3	Pb 220.353†	4861.5	4898.6	511.16 ug/L	511.16 ppb	17:16:14
3	S 181.975 Axial†	951.1	880.8	995.54 ug/L	995.54 ppb	17:16:14
3	Sb 206.836†	1721.8	1652.9	506.58 ug/L	506.58 ppb	17:16:14
3	Se 196.026†	995.3	1020.9	537.41 ug/L	537.41 ppb	17:16:14
3	Si 251.611†	88212.4	86415.9	2488.2 ug/L	2488.2 ppb	17:15:54
3	Sn 189.927†	3379.5	3330.1	497.93 ug/L	497.93 ppb	17:16:14
3	Ti 334.940†	317989.4	315538.0	505.31 ug/L	505.31 ppb	17:15:54
3	Tl 190.801†	1817.4	1839.1	508.31 ug/L	508.31 ppb	17:16:14
3	U 409.014†	13554.0	16283.3	483.62 ug/L	483.62 ppb	17:15:54
3	V 292.402†	77734.7	78513.2	504.77 ug/L	504.77 ppb	17:15:54
3	Zn 213.857†	62743.5	61060.8	501.21 ug/L	501.21 ppb	17:15:54
3	SiO2†	87312.5	85509.2	5255.0 ug/L	5255.0 ppb	17:16:30

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	890349.9	101.95	%	0.565				0.55%
Sc Radial	4506.9	97.4	%	1.69				1.73%
Y 371.029	753376.6	100.54	%	0.604				0.60%
Y RADIAL	4748.8	97.02	%	1.385				1.43%
Ag 328.068†	113995.6	498.58	ug/L	0.273	498.58	ppb	0.273	0.05%
QC value within limits for Ag 328.068 Recovery = 99.72%								
Al 396.153Radial†	5817.1	4984.6	ug/L	39.90	4984.6	ppb	39.90	0.80%
QC value within limits for Al 396.153Radial Recovery = 99.69%								
As 188.979†	1423.5	503.66	ug/L	4.233	503.66	ppb	4.233	0.84%
QC value within limits for As 188.979 Recovery = 100.73%								
B 249.677†	24085.8	497.77	ug/L	0.987	497.77	ppb	0.987	0.20%
QC value within limits for B 249.677 Recovery = 99.55%								
Ba 233.527†	67899.3	501.17	ug/L	0.942	501.17	ppb	0.942	0.19%
QC value within limits for Ba 233.527 Recovery = 100.23%								
Be 313.107†	1491036.8	503.48	ug/L	0.731	503.48	ppb	0.731	0.15%
QC value within limits for Be 313.107 Recovery = 100.70%								
Ca 317.933Radial†	3002.8	5185.8	ug/L	71.11	5185.8	ppb	71.11	1.37%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.72%
Cd 226.502†            52704.4      501.84 ug/L         1.376      501.84 ppb          1.376   0.27%
   QC value within limits for Cd 226.502  Recovery = 100.37%
Co 228.616†            26369.4      498.74 ug/L         3.031      498.74 ppb          3.031   0.61%
   QC value within limits for Co 228.616  Recovery = 99.75%
Cr 267.716†            49070.5      499.07 ug/L         0.838      499.07 ppb          0.838   0.17%
   QC value within limits for Cr 267.716  Recovery = 99.81%
Cu 324.752†           167957.7      501.14 ug/L         0.323      501.14 ppb          0.323   0.06%
   QC value within limits for Cu 324.752  Recovery = 100.23%
Fe 238.204 Radial†       541.4      5208.2 ug/L        84.95      5208.2 ppb          84.95   1.63%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.16%
K 766.490 Radial†      24975.6      5050.2 ug/L        65.85      5050.2 ppb          65.85   1.30%
   QC value within limits for K 766.490 Radial  Recovery = 101.00%
Mg 279.077 IEC†          158.8      5417.5 ug/L        84.27      5417.5 ppb          84.27   1.56%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.35%
Mn 257.610†           475807.1      501.34 ug/L         1.088      501.34 ppb          1.088   0.22%
   QC value within limits for Mn 257.610  Recovery = 100.27%
Mo 202.031†             7862.7      497.93 ug/L         3.158      497.93 ppb          3.158   0.63%
   QC value within limits for Mo 202.031  Recovery = 99.59%
Na 589.592 Radial†     29689.2       10136 ug/L        119.9       10136 ppb          119.9   1.18%
   QC value within limits for Na 589.592 Radial  Recovery = 101.36%
Ni 231.604†            22502.2      498.32 ug/L         2.994      498.32 ppb          2.994   0.60%
   QC value within limits for Ni 231.604  Recovery = 99.66%
P 214.914†              5130.9      2436.5 ug/L         9.74      2436.5 ppb           9.74   0.40%
   QC value within limits for P 214.914  Recovery = 97.46%
Pb 220.353†             4853.2      506.44 ug/L         4.303      506.44 ppb          4.303   0.85%
   QC value within limits for Pb 220.353  Recovery = 101.29%
S 181.975 Axial†         875.0      988.99 ug/L        12.055      988.99 ppb         12.055   1.22%
   QC value within limits for S 181.975 Axial  Recovery = 98.90%
Sb 206.836†             1634.5      500.91 ug/L         4.910      500.91 ppb          4.910   0.98%
   QC value within limits for Sb 206.836  Recovery = 100.18%
Se 196.026†             1009.5      531.74 ug/L         5.009      531.74 ppb          5.009   0.94%
   QC value within limits for Se 196.026  Recovery = 106.35%
Si 251.611†            86269.0      2484.0 ug/L          3.67      2484.0 ppb           3.67   0.15%
   QC value within limits for Si 251.611  Recovery = 99.36%
Sn 189.927†             3309.5      494.86 ug/L         3.049      494.86 ppb          3.049   0.62%
   QC value within limits for Sn 189.927  Recovery = 98.97%
Sr 421.552†            65482.8      482.40 ug/L         4.255      482.40 ppb          4.255   0.88%
   QC value within limits for Sr 421.552  Recovery = 96.48%
Ti 334.940†           315003.6      504.45 ug/L         0.768      504.45 ppb          0.768   0.15%
   QC value within limits for Ti 334.940  Recovery = 100.89%
Tl 190.801†             1825.9      504.71 ug/L         3.140      504.71 ppb          3.140   0.62%
   QC value within limits for Tl 190.801  Recovery = 100.94%
U 409.014†             16326.7      484.91 ug/L         1.558      484.91 ppb          1.558   0.32%
   QC value within limits for U 409.014  Recovery = 96.98%
V 292.402†             78498.5      504.62 ug/L         0.181      504.62 ppb          0.181   0.04%
   QC value within limits for V 292.402  Recovery = 100.92%
Zn 213.857†            60878.5      499.72 ug/L         1.300      499.72 ppb          1.300   0.26%
   QC value within limits for Zn 213.857  Recovery = 99.94%
SiO2†                  86324.3      5305.5 ug/L        51.14      5305.5 ppb          51.14   0.96%
   QC value within limits for SiO2  Recovery = 99.21%
All analyte(s) passed QC.
```

Sequence No.: 21
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/7/2010 17:18:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4583.0	4583.0	99.0	%			17:20:32
1	Y RADIAL	4841.4	4841.4	98.91	%			17:20:32
1	Al 396.153Radial†	-36.4	-15.9	-13.739	ug/L	-13.739	ppb	17:20:32
1	Ca 317.933Radial†	13.2	-0.6	-1.1171	ug/L	-1.1171	ppb	17:20:52
1	Fe 238.204 Radial†	11.2	-1.4	-13.710	ug/L	-13.710	ppb	17:20:52
1	K 766.490 Radial†	3361.1	164.9	33.346	ug/L	33.346	ppb	17:20:32
1	Mg 279.077 IEC†	0.8	-0.7	-24.350	ug/L	-24.350	ppb	17:20:52
1	Na 589.592 Radial†	-1415.1	341.0	116.43	ug/L	116.43	ppb	17:20:32
1	Sr 421.552†	25.7	14.6	0.1079	ug/L	0.1079	ppb	17:20:32
1	Sc 361.383	854861.9	854861.9	97.884	%			17:21:49
1	Y 371.029	731844.2	731844.2	97.667	%			17:21:49
1	Ag 328.068†	392.6	-89.9	-0.3998	ug/L	-0.3998	ppb	17:21:49
1	As 188.979†	-33.2	-2.5	-0.8653	ug/L	-0.8653	ppb	17:22:09
1	B 249.677†	-608.5	143.8	2.9860	ug/L	2.9860	ppb	17:21:49
1	Ba 233.527†	-1.6	-20.2	-0.1491	ug/L	-0.1491	ppb	17:22:09
1	Be 313.107†	-4361.3	-75.4	-0.0252	ug/L	-0.0252	ppb	17:21:49
1	Cd 226.502†	-246.0	1.6	0.0170	ug/L	0.0170	ppb	17:22:09
1	Co 228.616†	-99.0	-2.0	-0.0360	ug/L	-0.0360	ppb	17:22:09
1	Cr 267.716†	146.3	59.2	0.5993	ug/L	0.5993	ppb	17:21:49
1	Cu 324.752†	8187.8	261.2	0.7781	ug/L	0.7781	ppb	17:21:49
1	Mn 257.610†	853.3	-434.6	-0.4584	ug/L	-0.4584	ppb	17:21:49
1	Mo 202.031†	35.8	9.9	0.6249	ug/L	0.6249	ppb	17:22:09
1	Ni 231.604†	129.8	16.5	0.3659	ug/L	0.3659	ppb	17:22:09
1	P 214.914†	241.9	-5.5	-2.8246	ug/L	-2.8246	ppb	17:22:09
1	Pb 220.353†	-80.9	18.7	1.9398	ug/L	1.9398	ppb	17:22:09
1	S 181.975 Axial†	64.4	8.1	9.2106	ug/L	9.2106	ppb	17:22:09
1	Sb 206.836†	46.3	1.1	0.3069	ug/L	0.3069	ppb	17:22:09
1	Se 196.026†	-46.0	-8.2	-4.2239	ug/L	-4.2239	ppb	17:22:09
1	Si 251.611†	698.9	84.0	2.4128	ug/L	2.4128	ppb	17:22:09
1	Sn 189.927†	-5.3	-10.1	-1.5095	ug/L	-1.5095	ppb	17:22:09
1	Ti 334.940†	-1659.7	57.8	0.0901	ug/L	0.0901	ppb	17:21:49
1	Tl 190.801†	-56.1	-11.6	-3.1899	ug/L	-3.1899	ppb	17:22:09
1	U 409.014†	-2681.8	168.8	5.0300	ug/L	5.0300	ppb	17:21:49
1	V 292.402†	-1784.3	-16.4	-0.0843	ug/L	-0.0843	ppb	17:21:49
1	Zn 213.857†	872.5	38.3	0.3150	ug/L	0.3150	ppb	17:22:09
1	SiO2†	734.0	101.1	6.2081	ug/L	6.2081	ppb	17:23:05
2	Sc Radial	4529.8	4529.8	97.9	%			17:20:57
2	Y RADIAL	4820.8	4820.8	98.49	%			17:20:57
2	Al 396.153Radial†	1.7	22.6	19.454	ug/L	19.454	ppb	17:20:57
2	Ca 317.933Radial†	19.6	6.0	10.428	ug/L	10.428	ppb	17:21:17
2	Fe 238.204 Radial†	10.3	-2.2	-21.096	ug/L	-21.096	ppb	17:21:17
2	K 766.490 Radial†	3246.4	87.5	17.687	ug/L	17.687	ppb	17:20:57
2	Mg 279.077 IEC†	2.5	1.0	34.136	ug/L	34.136	ppb	17:21:17
2	Na 589.592 Radial†	-1492.8	244.8	83.595	ug/L	83.595	ppb	17:20:57
2	Sr 421.552†	-17.8	-29.4	-0.2170	ug/L	-0.2170	ppb	17:20:57
2	Sc 361.383	885365.2	885365.2	101.38	%			17:22:14
2	Y 371.029	759799.5	759799.5	101.40	%			17:22:14
2	Ag 328.068†	472.5	-24.9	-0.1149	ug/L	-0.1149	ppb	17:22:14
2	As 188.979†	-26.5	5.4	1.8793	ug/L	1.8793	ppb	17:22:34
2	B 249.677†	-581.1	192.2	3.9906	ug/L	3.9906	ppb	17:22:14
2	Ba 233.527†	5.1	-13.5	-0.0982	ug/L	-0.0982	ppb	17:22:34
2	Be 313.107†	-4422.2	17.9	0.0067	ug/L	0.0067	ppb	17:22:14
2	Cd 226.502†	-248.8	7.6	0.0744	ug/L	0.0744	ppb	17:22:34
2	Co 228.616†	-91.7	8.8	0.1667	ug/L	0.1667	ppb	17:22:34
2	Cr 267.716†	147.0	54.7	0.5557	ug/L	0.5557	ppb	17:22:14
2	Cu 324.752†	8246.3	30.7	0.0904	ug/L	0.0904	ppb	17:22:14
2	Mn 257.610†	788.7	-528.4	-0.5590	ug/L	-0.5590	ppb	17:22:14
2	Mo 202.031†	36.6	9.4	0.5916	ug/L	0.5916	ppb	17:22:34
2	Ni 231.604†	134.2	16.2	0.3593	ug/L	0.3593	ppb	17:22:34

2	P 214.914†	255.2	-0.9	-0.4094 ug/L	-0.4094 ppb	17:22:34
2	Pb 220.353†	-92.6	10.0	1.0456 ug/L	1.0456 ppb	17:22:34
2	S 181.975 Axial†	62.8	4.3	4.8156 ug/L	4.8156 ppb	17:22:34
2	Sb 206.836†	36.7	-9.9	-2.9923 ug/L	-2.9923 ppb	17:22:34
2	Se 196.026†	-41.3	-2.0	-1.0854 ug/L	-1.0854 ppb	17:22:34
2	Si 251.611†	692.4	53.0	1.5147 ug/L	1.5147 ppb	17:22:34
2	Sn 189.927†	7.4	2.6	0.3872 ug/L	0.3872 ppb	17:22:34
2	Ti 334.940†	-1569.3	205.4	0.3280 ug/L	0.3280 ppb	17:22:14
2	Tl 190.801†	-41.9	4.3	1.1898 ug/L	1.1898 ppb	17:22:34
2	U 409.014†	-2838.8	108.3	3.2287 ug/L	3.2287 ppb	17:22:14
2	V 292.402†	-1706.3	123.3	0.8004 ug/L	0.8004 ppb	17:22:14
2	Zn 213.857†	871.8	6.9	0.0543 ug/L	0.0543 ppb	17:22:34
2	SiO2†	676.5	18.6	1.1078 ug/L	1.1078 ppb	17:23:10
3	Sc Radial	4489.2	4489.2	97.0 %		17:21:22
3	Y RADIAL	4758.1	4758.1	97.21 %		17:21:22
3	Al 396.153Radial†	9.2	30.3	26.058 ug/L	26.058 ppb	17:21:22
3	Ca 317.933Radial†	19.6	6.2	10.673 ug/L	10.673 ppb	17:21:42
3	Fe 238.204 Radial†	8.2	-4.3	-41.436 ug/L	-41.436 ppb	17:21:42
3	K 766.490 Radial†	3190.3	59.6	12.031 ug/L	12.031 ppb	17:21:22
3	Mg 279.077 IEC†	6.3	5.0	170.26 ug/L	170.26 ppb	17:21:42
3	Na 589.592 Radial†	-1383.8	343.5	117.27 ug/L	117.27 ppb	17:21:22
3	Sr 421.552†	-18.0	-29.9	-0.2204 ug/L	-0.2204 ppb	17:21:22
3	Sc 361.383	871091.3	871091.3	99.742 %		17:22:40
3	Y 371.029	747429.8	747429.8	99.747 %		17:22:40
3	Ag 328.068†	610.8	121.4	0.5116 ug/L	0.5116 ppb	17:22:40
3	As 188.979†	-38.9	-7.5	-2.6283 ug/L	-2.6283 ppb	17:23:00
3	B 249.677†	-509.3	254.9	5.2931 ug/L	5.2931 ppb	17:22:40
3	Ba 233.527†	17.0	-1.5	-0.0125 ug/L	-0.0125 ppb	17:23:00
3	Be 313.107†	-4323.2	45.7	0.0156 ug/L	0.0156 ppb	17:22:40
3	Cd 226.502†	-237.1	15.3	0.1501 ug/L	0.1501 ppb	17:23:00
3	Co 228.616†	-95.5	3.5	0.0672 ug/L	0.0672 ppb	17:23:00
3	Cr 267.716†	152.4	62.6	0.6337 ug/L	0.6337 ppb	17:22:40
3	Cu 324.752†	8170.9	88.4	0.2615 ug/L	0.2615 ppb	17:22:40
3	Mn 257.610†	793.6	-510.6	-0.5449 ug/L	-0.5449 ppb	17:22:40
3	Mo 202.031†	37.1	10.5	0.6621 ug/L	0.6621 ppb	17:23:00
3	Ni 231.604†	138.5	22.8	0.5042 ug/L	0.5042 ppb	17:23:00
3	P 214.914†	247.4	-4.6	-2.2231 ug/L	-2.2231 ppb	17:23:00
3	Pb 220.353†	-102.0	-1.0	-0.0906 ug/L	-0.0906 ppb	17:23:00
3	S 181.975 Axial†	54.1	-3.4	-3.8792 ug/L	-3.8792 ppb	17:23:00
3	Sb 206.836†	43.9	-2.2	-0.6468 ug/L	-0.6468 ppb	17:23:00
3	Se 196.026†	-39.6	-0.9	-0.5865 ug/L	-0.5865 ppb	17:23:00
3	Si 251.611†	694.0	65.8	1.8854 ug/L	1.8854 ppb	17:23:00
3	Sn 189.927†	9.0	4.3	0.6480 ug/L	0.6480 ppb	17:23:00
3	Ti 334.940†	-1688.5	60.6	0.0969 ug/L	0.0969 ppb	17:22:40
3	Tl 190.801†	-52.1	-6.6	-1.8035 ug/L	-1.8035 ppb	17:23:00
3	U 409.014†	-2859.4	41.8	1.2491 ug/L	1.2491 ppb	17:22:40
3	V 292.402†	-1840.5	-38.9	-0.2249 ug/L	-0.2249 ppb	17:22:40
3	Zn 213.857†	877.9	27.0	0.2167 ug/L	0.2167 ppb	17:23:00
3	SiO2†	684.7	37.7	2.2910 ug/L	2.2910 ppb	17:23:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	870439.5	99.668	%	1.7475				1.75%
Sc Radial	4534.0	98.0	%	1.02				1.04%
Y 371.029	746357.8	99.604	%	1.8695				1.88%
Y RADIAL	4806.8	98.20	%	0.886				0.90%
Ag 328.068†	2.2	-0.0010	ug/L	0.46627	-0.0010	ppb	0.46627	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.3	10.591	ug/L	21.3275	10.591	ppb	21.3275	201.38%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.5	-0.5381	ug/L	2.27152	-0.5381	ppb	2.27152	422.14%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	197.0	4.0899	ug/L	1.15675	4.0899	ppb	1.15675	28.28%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-11.7	-0.0866	ug/L	0.06902	-0.0866	ppb	0.06902	79.69%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-3.9	-0.0010	ug/L	0.02148	-0.0010	ppb	0.02148	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.9	6.6613	ug/L	6.73746	6.6613	ppb	6.73746	101.14%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 8.2      0.0805 ug/L       0.06675      0.0805 ppb        0.06675  82.89%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.4      0.0660 ug/L       0.10137      0.0660 ppb        0.10137 153.65%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                58.8      0.5962 ug/L       0.03912      0.5962 ppb        0.03912   6.56%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               126.7      0.3767 ug/L       0.35801      0.3767 ppb        0.35801  95.04%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.7     -25.414 ug/L       14.3584     -25.414 ppb        14.3584  56.50%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         104.0      21.021 ug/L       11.0421      21.021 ppb        11.0421  52.53%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.8      60.016 ug/L       99.8534      60.016 ppb        99.8534 166.38%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -491.2      -0.5208 ug/L      0.05446      -0.5208 ppb        0.05446  10.46%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.9       0.6262 ug/L      0.03528       0.6262 ppb        0.03528   5.63%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        309.8      105.76 ug/L        19.204      105.76 ppb         19.204  18.16%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                18.5       0.4098 ug/L      0.08182       0.4098 ppb        0.08182  19.97%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -3.6      -1.8190 ug/L      1.25727      -1.8190 ppb        1.25727  69.12%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 9.2       0.9649 ug/L      1.01763       0.9649 ppb        1.01763 105.46%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            3.0       3.3823 ug/L      6.66155       3.3823 ppb        6.66155 196.95%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -3.7      -1.1107 ug/L      1.69784      -1.1107 ppb        1.69784 152.86%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.7      -1.9653 ug/L      1.97188      -1.9653 ppb        1.97188 100.34%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                67.6       1.9376 ug/L      0.45132       1.9376 ppb        0.45132  23.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -1.1      -0.1581 ug/L      1.17756      -0.1581 ppb        1.17756 744.83%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -14.9      -0.1098 ug/L      0.18857      -0.1098 ppb        0.18857 171.73%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               108.0       0.1717 ug/L      0.13542       0.1717 ppb        0.13542  78.89%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -4.6      -1.2679 ug/L      2.23845      -1.2679 ppb        2.23845 176.55%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                106.3       3.1692 ug/L      1.89113       3.1692 ppb        1.89113  59.67%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 22.7       0.1637 ug/L      0.55583       0.1637 ppb        0.55583 339.50%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                24.1       0.1953 ug/L      0.13166       0.1953 ppb        0.13166  67.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      52.5       3.2023 ug/L      2.66951       3.2023 ppb        2.66951  83.36%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 31
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/7/2010 18:26:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4546.0	4546.0	98.2	%			18:28:26
1	Y RADIAL	4803.9	4803.9	98.14	%			18:28:26
1	Al 396.153Radial†	5605.5	5727.4	4907.5	ug/L	4907.5	ppb	18:28:26
1	Ca 317.933Radial†	2849.5	2886.8	4985.5	ug/L	4985.5	ppb	18:28:46
1	Fe 238.204 Radial†	521.6	518.2	4986.0	ug/L	4986.0	ppb	18:28:46
1	K 766.490 Radial†	27290.7	24553.4	4964.7	ug/L	4964.7	ppb	18:28:26
1	Mg 279.077 IEC†	150.1	151.3	5161.0	ug/L	5161.0	ppb	18:28:46
1	Na 589.592 Radial†	27229.6	29490.6	10069	ug/L	10069	ppb	18:28:26
1	Sr 421.552†	63356.2	64487.2	475.07	ug/L	475.07	ppb	18:28:26
1	Sc 361.383	888605.5	888605.5	101.75	%			18:29:45
1	Y 371.029	752134.0	752134.0	100.37	%			18:29:45
1	Ag 328.068†	116555.6	114062.7	498.81	ug/L	498.81	ppb	18:29:45
1	As 188.979†	1406.4	1413.7	500.20	ug/L	500.20	ppb	18:30:05
1	B 249.677†	23598.4	23958.6	495.17	ug/L	495.17	ppb	18:29:45
1	Ba 233.527†	69243.7	68035.8	502.17	ug/L	502.17	ppb	18:29:45
1	Be 313.107†	1514116.4	1492489.5	503.97	ug/L	503.97	ppb	18:29:45
1	Cd 226.502†	53489.0	52823.2	502.99	ug/L	502.99	ppb	18:29:45
1	Co 228.616†	26591.6	26234.0	496.18	ug/L	496.18	ppb	18:30:05
1	Cr 267.716†	50043.2	49093.3	499.30	ug/L	499.30	ppb	18:29:45
1	Cu 324.752†	178987.5	167809.4	500.69	ug/L	500.69	ppb	18:29:45
1	Mn 257.610†	485929.1	476276.2	501.81	ug/L	501.81	ppb	18:29:45
1	Mo 202.031†	7974.3	7810.6	494.62	ug/L	494.62	ppb	18:30:05
1	Ni 231.604†	22946.7	22436.4	496.86	ug/L	496.86	ppb	18:30:05
1	P 214.914†	5449.4	5103.1	2423.1	ug/L	2423.1	ppb	18:30:05
1	Pb 220.353†	4815.9	4834.5	504.49	ug/L	504.49	ppb	18:30:05
1	S 181.975 Axial†	949.6	875.6	989.61	ug/L	989.61	ppb	18:30:05
1	Sb 206.836†	1699.7	1624.4	497.77	ug/L	497.77	ppb	18:30:05
1	Se 196.026†	981.0	1002.9	527.72	ug/L	527.72	ppb	18:30:05
1	Si 251.611†	88367.3	86219.4	2482.6	ug/L	2482.6	ppb	18:29:45
1	Sn 189.927†	3367.4	3304.9	494.15	ug/L	494.15	ppb	18:30:05
1	Ti 334.940†	318705.9	314985.1	504.42	ug/L	504.42	ppb	18:29:45
1	Tl 190.801†	1800.3	1815.1	501.74	ug/L	501.74	ppb	18:30:05
1	U 409.014†	13550.8	16226.6	481.96	ug/L	481.96	ppb	18:29:45
1	V 292.402†	78114.7	78579.4	505.11	ug/L	505.11	ppb	18:29:45
1	Zn 213.857†	62831.3	60899.0	499.92	ug/L	499.92	ppb	18:29:45
1	SiO2†	87507.9	85356.1	5245.9	ug/L	5245.9	ppb	18:31:05
2	Sc Radial	4615.6	4615.6	99.7	%			18:28:51
2	Y RADIAL	4855.9	4855.9	99.20	%			18:28:51
2	Al 396.153Radial†	5466.6	5502.2	4713.6	ug/L	4713.6	ppb	18:28:51
2	Ca 317.933Radial†	2939.6	2933.5	5066.1	ug/L	5066.1	ppb	18:29:11
2	Fe 238.204 Radial†	536.9	525.6	5057.0	ug/L	5057.0	ppb	18:29:11
2	K 766.490 Radial†	27003.9	23847.2	4821.8	ug/L	4821.8	ppb	18:28:51
2	Mg 279.077 IEC†	157.4	156.3	5331.5	ug/L	5331.5	ppb	18:29:11
2	Na 589.592 Radial†	26657.2	28498.9	9730.0	ug/L	9730.0	ppb	18:28:51
2	Sr 421.552†	62199.9	62355.9	459.36	ug/L	459.36	ppb	18:28:51
2	Sc 361.383	888518.1	888518.1	101.74	%			18:30:12
2	Y 371.029	753187.6	753187.6	100.52	%			18:30:12
2	Ag 328.068†	116459.9	113979.8	498.46	ug/L	498.46	ppb	18:30:12
2	As 188.979†	1419.8	1427.0	504.87	ug/L	504.87	ppb	18:30:32
2	B 249.677†	23583.9	23946.6	494.91	ug/L	494.91	ppb	18:30:12
2	Ba 233.527†	68942.6	67746.5	500.04	ug/L	500.04	ppb	18:30:12
2	Be 313.107†	1510381.4	1488964.6	502.78	ug/L	502.78	ppb	18:30:12
2	Cd 226.502†	53296.2	52638.9	501.23	ug/L	501.23	ppb	18:30:12
2	Co 228.616†	26654.3	26298.3	497.40	ug/L	497.40	ppb	18:30:32
2	Cr 267.716†	49819.2	48878.0	497.11	ug/L	497.11	ppb	18:30:12
2	Cu 324.752†	178778.4	167621.3	500.13	ug/L	500.13	ppb	18:30:12
2	Mn 257.610†	484257.9	474680.5	500.14	ug/L	500.14	ppb	18:30:12
2	Mo 202.031†	8001.2	7837.9	496.35	ug/L	496.35	ppb	18:30:32
2	Ni 231.604†	22980.6	22471.9	497.65	ug/L	497.65	ppb	18:30:32

2	P 214.914†	5467.9	5121.8	2432.3 ug/L	2432.3 ppb	18:30:32
2	Pb 220.353†	4810.5	4829.6	503.93 ug/L	503.93 ppb	18:30:32
2	S 181.975 Axial†	947.0	873.1	986.86 ug/L	986.86 ppb	18:30:32
2	Sb 206.836†	1713.2	1637.7	501.95 ug/L	501.95 ppb	18:30:32
2	Se 196.026†	990.3	1012.1	532.57 ug/L	532.57 ppb	18:30:32
2	Si 251.611†	88106.6	85971.7	2475.5 ug/L	2475.5 ppb	18:30:12
2	Sn 189.927†	3384.6	3322.1	496.72 ug/L	496.72 ppb	18:30:32
2	Ti 334.940†	317873.8	314198.0	503.16 ug/L	503.16 ppb	18:30:12
2	Tl 190.801†	1790.2	1805.3	499.03 ug/L	499.03 ppb	18:30:32
2	U 409.014†	13576.0	16252.7	482.73 ug/L	482.73 ppb	18:30:12
2	V 292.402†	77904.2	78380.0	503.86 ug/L	503.86 ppb	18:30:12
2	Zn 213.857†	62575.1	60653.2	497.87 ug/L	497.87 ppb	18:30:12
2	SiO2†	87211.7	85073.5	5228.5 ug/L	5228.5 ppb	18:31:10
3	Sc Radial	4474.4	4474.4	96.7 %		18:29:16
3	Y RADIAL	4726.2	4726.2	96.55 %		18:29:16
3	Al 396.153Radial†	5573.9	5786.1	4957.9 ug/L	4957.9 ppb	18:29:16
3	Ca 317.933Radial†	2913.3	2999.3	5179.8 ug/L	5179.8 ppb	18:29:36
3	Fe 238.204 Radial†	527.5	532.8	5126.0 ug/L	5126.0 ppb	18:29:36
3	K 766.490 Radial†	27197.8	24902.4	5035.3 ug/L	5035.3 ppb	18:29:16
3	Mg 279.077 IEC†	155.9	159.8	5449.8 ug/L	5449.8 ppb	18:29:36
3	Na 589.592 Radial†	26902.6	29596.4	10105 ug/L	10105 ppb	18:29:16
3	Sr 421.552†	62856.4	65003.3	478.87 ug/L	478.87 ppb	18:29:16
3	Sc 361.383	886861.0	886861.0	101.55 %		18:30:40
3	Y 371.029	750947.6	750947.6	100.22 %		18:30:40
3	Ag 328.068†	116467.5	114201.2	499.46 ug/L	499.46 ppb	18:30:40
3	As 188.979†	1416.9	1426.8	504.83 ug/L	504.83 ppb	18:31:00
3	B 249.677†	23585.1	23991.1	495.82 ug/L	495.82 ppb	18:30:40
3	Ba 233.527†	69158.8	68086.0	502.54 ug/L	502.54 ppb	18:30:40
3	Be 313.107†	1511540.8	1492880.3	504.11 ug/L	504.11 ppb	18:30:40
3	Cd 226.502†	53369.0	52808.4	502.84 ug/L	502.84 ppb	18:30:40
3	Co 228.616†	26624.2	26317.6	497.76 ug/L	497.76 ppb	18:31:00
3	Cr 267.716†	49945.9	49094.3	499.31 ug/L	499.31 ppb	18:30:40
3	Cu 324.752†	178867.4	168037.3	501.38 ug/L	501.38 ppb	18:30:40
3	Mn 257.610†	484964.1	476265.4	501.81 ug/L	501.81 ppb	18:30:40
3	Mo 202.031†	8001.0	7852.3	497.27 ug/L	497.27 ppb	18:31:00
3	Ni 231.604†	22963.1	22496.9	498.20 ug/L	498.20 ppb	18:31:00
3	P 214.914†	5469.0	5133.0	2437.6 ug/L	2437.6 ppb	18:31:00
3	Pb 220.353†	4796.9	4825.1	503.51 ug/L	503.51 ppb	18:31:00
3	S 181.975 Axial†	959.0	886.7	1002.2 ug/L	1002.2 ppb	18:31:00
3	Sb 206.836†	1711.7	1639.5	502.42 ug/L	502.42 ppb	18:31:00
3	Se 196.026†	975.6	999.5	526.39 ug/L	526.39 ppb	18:31:00
3	Si 251.611†	88258.5	86283.1	2484.4 ug/L	2484.4 ppb	18:30:40
3	Sn 189.927†	3372.4	3316.2	495.86 ug/L	495.86 ppb	18:31:00
3	Ti 334.940†	318281.9	315183.7	504.75 ug/L	504.75 ppb	18:30:40
3	Tl 190.801†	1805.6	1823.8	504.12 ug/L	504.12 ppb	18:31:00
3	U 409.014†	13356.0	16061.0	477.00 ug/L	477.00 ppb	18:30:40
3	V 292.402†	77920.1	78538.8	504.86 ug/L	504.86 ppb	18:30:40
3	Zn 213.857†	62838.3	61027.3	500.96 ug/L	500.96 ppb	18:30:40
3	SiO2†	87683.1	85697.8	5266.8 ug/L	5266.8 ppb	18:31:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	887994.9	101.68	%	0.113				0.11%
Sc Radial	4545.3	98.2	%	1.53				1.55%
Y 371.029	752089.7	100.37	%	0.150				0.15%
Y RADIAL	4795.4	97.97	%	1.334				1.36%
Ag 328.068†	114081.3	498.91	ug/L	0.504	498.91	ppb	0.504	0.10%
QC value within limits for Ag 328.068 Recovery = 99.78%								
Al 396.153Radial†	5671.9	4859.7	ug/L	128.97	4859.7	ppb	128.97	2.65%
QC value within limits for Al 396.153Radial Recovery = 97.19%								
As 188.979†	1422.5	503.30	ug/L	2.682	503.30	ppb	2.682	0.53%
QC value within limits for As 188.979 Recovery = 100.66%								
B 249.677†	23965.4	495.30	ug/L	0.471	495.30	ppb	0.471	0.10%
QC value within limits for B 249.677 Recovery = 99.06%								
Ba 233.527†	67956.1	501.58	ug/L	1.351	501.58	ppb	1.351	0.27%
QC value within limits for Ba 233.527 Recovery = 100.32%								
Be 313.107†	1491444.8	503.62	ug/L	0.728	503.62	ppb	0.728	0.14%
QC value within limits for Be 313.107 Recovery = 100.72%								
Ca 317.933Radial†	2939.9	5077.1	ug/L	97.61	5077.1	ppb	97.61	1.92%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.54%
Cd 226.502†            52756.8      502.35 ug/L         0.976      502.35 ppb          0.976   0.19%
   QC value within limits for Cd 226.502  Recovery = 100.47%
Co 228.616†            26283.3      497.11 ug/L         0.830      497.11 ppb          0.830   0.17%
   QC value within limits for Co 228.616  Recovery = 99.42%
Cr 267.716†            49021.9      498.58 ug/L         1.267      498.58 ppb          1.267   0.25%
   QC value within limits for Cr 267.716  Recovery = 99.72%
Cu 324.752†           167822.7      500.73 ug/L         0.623      500.73 ppb          0.623   0.12%
   QC value within limits for Cu 324.752  Recovery = 100.15%
Fe 238.204 Radial†       525.6      5056.3 ug/L        70.01      5056.3 ppb         70.01   1.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.13%
K 766.490 Radial†      24434.3      4940.6 ug/L       108.80      4940.6 ppb        108.80   2.20%
   QC value within limits for K 766.490 Radial  Recovery = 98.81%
Mg 279.077 IEC†          155.8      5314.1 ug/L       145.23      5314.1 ppb        145.23   2.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.28%
Mn 257.610†           475740.7      501.25 ug/L         0.967      501.25 ppb          0.967   0.19%
   QC value within limits for Mn 257.610  Recovery = 100.25%
Mo 202.031†             7833.6      496.08 ug/L         1.347      496.08 ppb          1.347   0.27%
   QC value within limits for Mo 202.031  Recovery = 99.22%
Na 589.592 Radial†     29195.3      9967.7 ug/L       206.69      9967.7 ppb        206.69   2.07%
   QC value within limits for Na 589.592 Radial  Recovery = 99.68%
Ni 231.604†            22468.4      497.57 ug/L         0.674      497.57 ppb          0.674   0.14%
   QC value within limits for Ni 231.604  Recovery = 99.51%
P 214.914†              5119.3      2431.0 ug/L         7.30      2431.0 ppb          7.30   0.30%
   QC value within limits for P 214.914  Recovery = 97.24%
Pb 220.353†             4829.7      503.98 ug/L         0.490      503.98 ppb          0.490   0.10%
   QC value within limits for Pb 220.353  Recovery = 100.80%
S 181.975 Axial†         878.5      992.88 ug/L         8.171      992.88 ppb          8.171   0.82%
   QC value within limits for S 181.975 Axial  Recovery = 99.29%
Sb 206.836†             1633.9      500.71 ug/L         2.560      500.71 ppb          2.560   0.51%
   QC value within limits for Sb 206.836  Recovery = 100.14%
Se 196.026†             1004.8      528.89 ug/L         3.255      528.89 ppb          3.255   0.62%
   QC value within limits for Se 196.026  Recovery = 105.78%
Si 251.611†            86158.1      2480.8 ug/L         4.73      2480.8 ppb          4.73   0.19%
   QC value within limits for Si 251.611  Recovery = 99.23%
Sn 189.927†             3314.4      495.58 ug/L         1.312      495.58 ppb          1.312   0.26%
   QC value within limits for Sn 189.927  Recovery = 99.12%
Sr 421.552†            63948.8      471.10 ug/L        10.340      471.10 ppb         10.340   2.19%
   QC value within limits for Sr 421.552  Recovery = 94.22%
Ti 334.940†           314788.9      504.11 ug/L         0.837      504.11 ppb          0.837   0.17%
   QC value within limits for Ti 334.940  Recovery = 100.82%
Tl 190.801†             1814.7      501.63 ug/L         2.547      501.63 ppb          2.547   0.51%
   QC value within limits for Tl 190.801  Recovery = 100.33%
U 409.014†             16180.1      480.56 ug/L         3.107      480.56 ppb          3.107   0.65%
   QC value within limits for U 409.014  Recovery = 96.11%
V 292.402†             78499.4      504.61 ug/L         0.659      504.61 ppb          0.659   0.13%
   QC value within limits for V 292.402  Recovery = 100.92%
Zn 213.857†            60859.9      499.58 ug/L         1.569      499.58 ppb          1.569   0.31%
   QC value within limits for Zn 213.857  Recovery = 99.92%
SiO2†                  85375.8      5247.1 ug/L        19.21      5247.1 ppb         19.21   0.37%
   QC value within limits for SiO2  Recovery = 98.12%
All analyte(s) passed QC.
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Sequence No.: 32
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/7/2010 18:33:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4398.4	4398.4	95.0	%			18:35:17
1	Y RADIAL	4654.2	4654.2	95.08	%			18:35:17
1	Al 396.153Radial†	-32.3	-13.1	-11.268	ug/L	-11.268	ppb	18:35:17
1	Ca 317.933Radial†	14.2	0.9	1.5863	ug/L	1.5863	ppb	18:35:37
1	Fe 238.204 Radial†	11.4	-0.7	-6.8188	ug/L	-6.8188	ppb	18:35:37
1	K 766.490 Radial†	3159.1	94.7	19.138	ug/L	19.138	ppb	18:35:17
1	Mg 279.077 IEC†	0.8	-0.7	-23.673	ug/L	-23.673	ppb	18:35:37
1	Na 589.592 Radial†	-1360.7	338.3	115.50	ug/L	115.50	ppb	18:35:17
1	Sr 421.552†	25.1	15.1	0.1112	ug/L	0.1112	ppb	18:35:17
1	Sc 361.383	871417.0	871417.0	99.780	%			18:36:34
1	Y 371.029	748070.9	748070.9	99.832	%			18:36:34
1	Ag 328.068†	453.3	-36.6	-0.1593	ug/L	-0.1593	ppb	18:36:34
1	As 188.979†	-28.0	3.5	1.2161	ug/L	1.2161	ppb	18:36:54
1	B 249.677†	-699.2	64.7	1.3438	ug/L	1.3438	ppb	18:36:34
1	Ba 233.527†	7.8	-10.7	-0.0783	ug/L	-0.0783	ppb	18:36:54
1	Be 313.107†	-4347.1	23.4	0.0081	ug/L	0.0081	ppb	18:36:34
1	Cd 226.502†	-252.7	-0.3	-0.0023	ug/L	-0.0023	ppb	18:36:54
1	Co 228.616†	-95.4	3.5	0.0676	ug/L	0.0676	ppb	18:36:54
1	Cr 267.716†	98.8	8.8	0.0900	ug/L	0.0900	ppb	18:36:34
1	Cu 324.752†	8252.9	167.5	0.4991	ug/L	0.4991	ppb	18:36:34
1	Mn 257.610†	813.1	-491.4	-0.5176	ug/L	-0.5176	ppb	18:36:34
1	Mo 202.031†	32.6	5.9	0.3743	ug/L	0.3743	ppb	18:36:54
1	Ni 231.604†	135.3	19.5	0.4316	ug/L	0.4316	ppb	18:36:54
1	P 214.914†	262.7	10.7	5.1408	ug/L	5.1408	ppb	18:36:54
1	Pb 220.353†	-92.9	8.2	0.8552	ug/L	0.8552	ppb	18:36:54
1	S 181.975 Axial†	57.6	0.1	0.1090	ug/L	0.1090	ppb	18:36:54
1	Sb 206.836†	53.9	7.8	2.3791	ug/L	2.3791	ppb	18:36:54
1	Se 196.026†	-26.3	12.4	6.3042	ug/L	6.3042	ppb	18:36:54
1	Si 251.611†	653.0	24.4	0.6940	ug/L	0.6940	ppb	18:36:54
1	Sn 189.927†	5.5	0.8	0.1137	ug/L	0.1137	ppb	18:36:54
1	Ti 334.940†	-1691.8	57.9	0.0928	ug/L	0.0928	ppb	18:36:34
1	Tl 190.801†	-54.2	-8.7	-2.3913	ug/L	-2.3913	ppb	18:36:54
1	U 409.014†	-2911.2	-9.1	-0.2700	ug/L	-0.2700	ppb	18:36:34
1	V 292.402†	-1730.0	72.6	0.4658	ug/L	0.4658	ppb	18:36:34
1	Zn 213.857†	836.2	-15.0	-0.1265	ug/L	-0.1265	ppb	18:36:54
1	SiO2†	686.8	39.5	2.4134	ug/L	2.4134	ppb	18:37:50
2	Sc Radial	4443.1	4443.1	96.0	%			18:35:42
2	Y RADIAL	4714.4	4714.4	96.31	%			18:35:42
2	Al 396.153Radial†	1.8	22.8	19.612	ug/L	19.612	ppb	18:35:42
2	Ca 317.933Radial†	18.0	4.8	8.2508	ug/L	8.2508	ppb	18:36:02
2	Fe 238.204 Radial†	8.8	-3.6	-34.049	ug/L	-34.049	ppb	18:36:02
2	K 766.490 Radial†	3063.8	-38.0	-7.7303	ug/L	-7.7303	ppb	18:35:42
2	Mg 279.077 IEC†	2.4	1.0	34.722	ug/L	34.722	ppb	18:36:02
2	Na 589.592 Radial†	-1464.1	245.0	83.641	ug/L	83.641	ppb	18:35:42
2	Sr 421.552†	23.9	13.6	0.1003	ug/L	0.1003	ppb	18:35:42
2	Sc 361.383	867427.4	867427.4	99.323	%			18:36:59
2	Y 371.029	744887.6	744887.6	99.408	%			18:36:59
2	Ag 328.068†	552.4	65.2	0.2686	ug/L	0.2686	ppb	18:36:59
2	As 188.979†	-38.3	-7.0	-2.4720	ug/L	-2.4720	ppb	18:37:19
2	B 249.677†	-723.5	37.0	0.7725	ug/L	0.7725	ppb	18:36:59
2	Ba 233.527†	21.8	3.4	0.0254	ug/L	0.0254	ppb	18:37:19
2	Be 313.107†	-4385.2	-35.0	-0.0116	ug/L	-0.0116	ppb	18:36:59
2	Cd 226.502†	-246.7	4.6	0.0474	ug/L	0.0474	ppb	18:37:19
2	Co 228.616†	-89.1	9.4	0.1784	ug/L	0.1784	ppb	18:37:19
2	Cr 267.716†	92.8	3.2	0.0309	ug/L	0.0309	ppb	18:36:59
2	Cu 324.752†	8263.1	215.8	0.6418	ug/L	0.6418	ppb	18:36:59
2	Mn 257.610†	785.9	-515.0	-0.5463	ug/L	-0.5463	ppb	18:36:59
2	Mo 202.031†	23.8	-2.7	-0.1752	ug/L	-0.1752	ppb	18:37:19
2	Ni 231.604†	116.9	1.5	0.0333	ug/L	0.0333	ppb	18:37:19

2	P 214.914†	242.8	-8.2	-4.0702 ug/L	-4.0702 ppb	18:37:19
2	Pb 220.353†	-87.6	13.1	1.3707 ug/L	1.3707 ppb	18:37:19
2	S 181.975 Axial†	58.0	0.7	0.8161 ug/L	0.8161 ppb	18:37:19
2	Sb 206.836†	45.0	-0.8	-0.2571 ug/L	-0.2571 ppb	18:37:19
2	Se 196.026†	-32.1	6.5	3.1864 ug/L	3.1864 ppb	18:37:19
2	Si 251.611†	621.1	-4.7	-0.1313 ug/L	-0.1313 ppb	18:37:19
2	Sn 189.927†	4.1	-0.6	-0.0837 ug/L	-0.0837 ppb	18:37:19
2	Ti 334.940†	-1674.4	67.7	0.1060 ug/L	0.1060 ppb	18:36:59
2	Tl 190.801†	-50.9	-5.6	-1.5410 ug/L	-1.5410 ppb	18:37:19
2	U 409.014†	-2675.0	215.4	6.4221 ug/L	6.4221 ppb	18:36:59
2	V 292.402†	-1708.8	85.9	0.5610 ug/L	0.5610 ppb	18:36:59
2	Zn 213.857†	822.1	-25.3	-0.2102 ug/L	-0.2102 ppb	18:37:19
2	SiO2†	618.1	-26.4	-1.6189 ug/L	-1.6189 ppb	18:37:55
3	Sc Radial	4563.9	4563.9	98.6 %		18:36:07
3	Y RADIAL	4832.1	4832.1	98.72 %		18:36:07
3	Al 396.153Radial†	7.8	28.7	24.740 ug/L	24.740 ppb	18:36:07
3	Ca 317.933Radial†	8.6	-5.3	-9.0786 ug/L	-9.0786 ppb	18:36:27
3	Fe 238.204 Radial†	10.2	-2.4	-23.110 ug/L	-23.110 ppb	18:36:27
3	K 766.490 Radial†	3164.9	-19.9	-4.0861 ug/L	-4.0861 ppb	18:36:07
3	Mg 279.077 IEC†	2.9	1.4	47.990 ug/L	47.990 ppb	18:36:27
3	Na 589.592 Radial†	-1351.1	400.0	136.57 ug/L	136.57 ppb	18:36:07
3	Sr 421.552†	-14.7	-26.2	-0.1931 ug/L	-0.1931 ppb	18:36:07
3	Sc 361.383	867536.6	867536.6	99.335 %		18:37:25
3	Y 371.029	745653.8	745653.8	99.510 %		18:37:25
3	Ag 328.068†	561.3	74.1	0.3084 ug/L	0.3084 ppb	18:37:25
3	As 188.979†	-25.2	6.1	2.1385 ug/L	2.1385 ppb	18:37:45
3	B 249.677†	-646.3	114.9	2.3875 ug/L	2.3875 ppb	18:37:25
3	Ba 233.527†	23.2	4.8	0.0356 ug/L	0.0356 ppb	18:37:45
3	Be 313.107†	-4385.5	-34.8	-0.0115 ug/L	-0.0115 ppb	18:37:25
3	Cd 226.502†	-234.0	17.4	0.1681 ug/L	0.1681 ppb	18:37:45
3	Co 228.616†	-113.5	-15.0	-0.2849 ug/L	-0.2849 ppb	18:37:45
3	Cr 267.716†	136.4	47.0	0.4747 ug/L	0.4747 ppb	18:37:25
3	Cu 324.752†	8163.5	114.5	0.3402 ug/L	0.3402 ppb	18:37:25
3	Mn 257.610†	847.0	-453.6	-0.4808 ug/L	-0.4808 ppb	18:37:25
3	Mo 202.031†	23.3	-3.2	-0.2075 ug/L	-0.2075 ppb	18:37:45
3	Ni 231.604†	115.7	0.3	0.0070 ug/L	0.0070 ppb	18:37:45
3	P 214.914†	278.9	28.1	13.757 ug/L	13.757 ppb	18:37:45
3	Pb 220.353†	-97.1	3.6	0.3805 ug/L	0.3805 ppb	18:37:45
3	S 181.975 Axial†	65.6	8.4	9.4976 ug/L	9.4976 ppb	18:37:45
3	Sb 206.836†	41.2	-4.7	-1.4415 ug/L	-1.4415 ppb	18:37:45
3	Se 196.026†	-32.6	5.9	2.9533 ug/L	2.9533 ppb	18:37:45
3	Si 251.611†	652.9	27.3	0.7932 ug/L	0.7932 ppb	18:37:45
3	Sn 189.927†	5.9	1.2	0.1733 ug/L	0.1733 ppb	18:37:45
3	Ti 334.940†	-1688.6	53.5	0.0809 ug/L	0.0809 ppb	18:37:25
3	Tl 190.801†	-47.3	-2.0	-0.5379 ug/L	-0.5379 ppb	18:37:45
3	U 409.014†	-2573.0	318.4	9.4894 ug/L	9.4894 ppb	18:37:25
3	V 292.402†	-1719.6	75.3	0.4973 ug/L	0.4973 ppb	18:37:25
3	Zn 213.857†	824.8	-22.8	-0.1897 ug/L	-0.1897 ppb	18:37:45
3	SiO2†	650.9	6.6	0.4158 ug/L	0.4158 ppb	18:38:00

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	868793.6	99.479	%	0.2602				0.26%
Sc Radial	4468.5	96.6	%	1.85				1.92%
Y 371.029	746204.1	99.583	%	0.2217				0.22%
Y RADIAL	4733.6	96.70	%	1.848				1.91%
Ag 328.068†	34.3	0.1392	ug/L	0.25932	0.1392	ppb	0.25932	186.28%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.8	11.028	ug/L	19.4785	11.028	ppb	19.4785	176.63%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.8	0.2942	ug/L	2.43959	0.2942	ppb	2.43959	829.15%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	72.2	1.5013	ug/L	0.81896	1.5013	ppb	0.81896	54.55%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.9	-0.0058	ug/L	0.06300	-0.0058	ppb	0.06300	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-15.4	-0.0050	ug/L	0.01134	-0.0050	ppb	0.01134	226.14%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.1	0.2528	ug/L	8.74134	0.2528	ppb	8.74134	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                7.2      0.0711 ug/L       0.08763      0.0711 ppb        0.08763 123.29%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -0.7     -0.0130 ug/L       0.24194     -0.0130 ppb        0.24194 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               19.7      0.1985 ug/L       0.24095      0.1985 ppb        0.24095 121.36%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              165.9      0.4937 ug/L       0.15087      0.4937 ppb        0.15087  30.56%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -2.2    -21.326 ug/L       13.7027    -21.326 ppb        13.7027  64.25%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         12.3      2.4404 ug/L      14.57461      2.4404 ppb       14.57461 597.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.6     19.680 ug/L       38.1263     19.680 ppb        38.1263 193.73%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -486.7     -0.5149 ug/L       0.03283     -0.5149 ppb        0.03283   6.38%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -0.0     -0.0028 ug/L       0.32694     -0.0028 ppb        0.32694 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       327.8     111.90 ug/L        26.647     111.90 ppb         26.647  23.81%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                7.1      0.1573 ug/L       0.23792      0.1573 ppb        0.23792 151.25%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                10.2      4.9425 ug/L       8.91524      4.9425 ppb        8.91524 180.38%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                8.3      0.8688 ug/L       0.49522      0.8688 ppb        0.49522  57.00%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           3.1      3.4743 ug/L       5.22836      3.4743 ppb        5.22836 150.49%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                0.8      0.2268 ug/L       1.95574      0.2268 ppb        1.95574 862.20%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                8.3      4.1479 ug/L       1.87101      4.1479 ppb        1.87101  45.11%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               15.7      0.4519 ug/L       0.50755      0.4519 ppb        0.50755 112.31%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                0.5      0.0678 ug/L       0.13452      0.0678 ppb        0.13452 198.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                0.8      0.0061 ug/L       0.17265      0.0061 ppb        0.17265 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               59.7      0.0932 ug/L       0.01255      0.0932 ppb        0.01255  13.46%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -5.4     -1.4901 ug/L       0.92776     -1.4901 ppb        0.92776  62.26%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               174.9      5.2138 ug/L       4.99067      5.2138 ppb        4.99067  95.72%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                77.9      0.5080 ug/L       0.04854      0.5080 ppb        0.04854   9.56%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -21.1     -0.1755 ug/L       0.04365     -0.1755 ppb        0.04365  24.88%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      6.6      0.4034 ug/L       2.01620      0.4034 ppb        2.01620 499.78%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 43
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/7/2010 19:48:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4557.2	4557.2	98.5	%			19:50:00
1	Y RADIAL	4811.2	4811.2	98.29	%			19:50:00
1	Al 396.153Radial†	5624.8	5733.0	4912.0	ug/L	4912.0	ppb	19:50:00
1	Ca 317.933Radial†	2958.9	2990.9	5165.2	ug/L	5165.2	ppb	19:50:20
1	Fe 238.204 Radial†	551.3	547.2	5263.8	ug/L	5263.8	ppb	19:50:20
1	K 766.490 Radial†	27610.4	24809.9	5016.4	ug/L	5016.4	ppb	19:50:00
1	Mg 279.077 IEC†	160.0	161.0	5491.2	ug/L	5491.2	ppb	19:50:20
1	Na 589.592 Radial†	28566.3	30779.9	10509	ug/L	10509	ppb	19:50:00
1	Sr 421.552†	64963.6	65961.2	485.92	ug/L	485.92	ppb	19:50:00
1	Sc 361.383	884301.1	884301.1	101.25	%			19:51:19
1	Y 371.029	749330.9	749330.9	100.00	%			19:51:19
1	Ag 328.068†	117165.4	115222.5	503.95	ug/L	503.95	ppb	19:51:19
1	As 188.979†	1437.7	1451.4	513.48	ug/L	513.48	ppb	19:51:39
1	B 249.677†	23726.1	24197.5	500.07	ug/L	500.07	ppb	19:51:19
1	Ba 233.527†	69507.6	68627.7	506.54	ug/L	506.54	ppb	19:51:19
1	Be 313.107†	1519837.8	1505383.4	508.33	ug/L	508.33	ppb	19:51:19
1	Cd 226.502†	53795.6	53381.9	508.29	ug/L	508.29	ppb	19:51:19
1	Co 228.616†	26876.0	26642.1	503.90	ug/L	503.90	ppb	19:51:39
1	Cr 267.716†	50144.9	49433.3	502.76	ug/L	502.76	ppb	19:51:19
1	Cu 324.752†	179548.2	169219.5	504.91	ug/L	504.91	ppb	19:51:19
1	Mn 257.610†	487302.0	479956.8	505.71	ug/L	505.71	ppb	19:51:19
1	Mo 202.031†	8051.0	7924.5	501.85	ug/L	501.85	ppb	19:51:39
1	Ni 231.604†	23140.3	22737.4	503.53	ug/L	503.53	ppb	19:51:39
1	P 214.914†	5501.8	5181.0	2460.5	ug/L	2460.5	ppb	19:51:39
1	Pb 220.353†	4840.0	4881.3	509.35	ug/L	509.35	ppb	19:51:39
1	S 181.975 Axial†	952.5	883.0	998.03	ug/L	998.03	ppb	19:51:39
1	Sb 206.836†	1728.1	1660.5	508.88	ug/L	508.88	ppb	19:51:39
1	Se 196.026†	978.7	1005.3	529.81	ug/L	529.81	ppb	19:51:39
1	Si 251.611†	88696.5	86967.3	2504.1	ug/L	2504.1	ppb	19:51:19
1	Sn 189.927†	3392.8	3346.0	500.31	ug/L	500.31	ppb	19:51:39
1	Ti 334.940†	319493.3	317287.5	508.11	ug/L	508.11	ppb	19:51:19
1	Tl 190.801†	1820.6	1843.7	509.61	ug/L	509.61	ppb	19:51:39
1	U 409.014†	13800.4	16538.0	491.19	ug/L	491.19	ppb	19:51:19
1	V 292.402†	78448.9	79283.1	509.65	ug/L	509.65	ppb	19:51:19
1	Zn 213.857†	63097.8	61462.8	504.51	ug/L	504.51	ppb	19:51:19
1	SiO2†	88925.0	87174.3	5357.8	ug/L	5357.8	ppb	19:52:40
2	Sc Radial	4561.7	4561.7	98.6	%			19:50:25
2	Y RADIAL	4824.2	4824.2	98.56	%			19:50:25
2	Al 396.153Radial†	5643.6	5746.4	4923.2	ug/L	4923.2	ppb	19:50:25
2	Ca 317.933Radial†	2938.7	2967.4	5124.7	ug/L	5124.7	ppb	19:50:45
2	Fe 238.204 Radial†	541.2	536.3	5159.5	ug/L	5159.5	ppb	19:50:45
2	K 766.490 Radial†	27707.9	24881.0	5030.8	ug/L	5030.8	ppb	19:50:25
2	Mg 279.077 IEC†	156.9	157.6	5377.4	ug/L	5377.4	ppb	19:50:45
2	Na 589.592 Radial†	28819.4	31007.9	10587	ug/L	10587	ppb	19:50:25
2	Sr 421.552†	65344.0	66281.6	488.28	ug/L	488.28	ppb	19:50:25
2	Sc 361.383	877349.3	877349.3	100.46	%			19:51:47
2	Y 371.029	743525.0	743525.0	99.226	%			19:51:47
2	Ag 328.068†	115781.0	114761.3	501.91	ug/L	501.91	ppb	19:51:47
2	As 188.979†	1424.1	1449.0	512.63	ug/L	512.63	ppb	19:52:07
2	B 249.677†	23387.1	24045.8	496.93	ug/L	496.93	ppb	19:51:47
2	Ba 233.527†	68689.9	68357.6	504.55	ug/L	504.55	ppb	19:51:47
2	Be 313.107†	1504894.3	1502401.5	507.32	ug/L	507.32	ppb	19:51:47
2	Cd 226.502†	53180.7	53190.8	506.48	ug/L	506.48	ppb	19:51:47
2	Co 228.616†	26884.3	26860.7	508.05	ug/L	508.05	ppb	19:52:07
2	Cr 267.716†	49717.9	49400.6	502.43	ug/L	502.43	ppb	19:51:47
2	Cu 324.752†	177314.3	168400.8	502.46	ug/L	502.46	ppb	19:51:47
2	Mn 257.610†	482091.3	478583.2	504.25	ug/L	504.25	ppb	19:51:47
2	Mo 202.031†	8100.5	8036.8	508.94	ug/L	508.94	ppb	19:52:07
2	Ni 231.604†	23232.3	23010.0	509.56	ug/L	509.56	ppb	19:52:07

2	P 214.914†	5524.5	5246.6	2493.1 ug/L	2493.1 ppb	19:52:07
2	Pb 220.353†	4858.7	4937.8	515.26 ug/L	515.26 ppb	19:52:07
2	S 181.975 Axial†	957.5	895.4	1012.1 ug/L	1012.1 ppb	19:52:07
2	Sb 206.836†	1726.0	1671.9	512.58 ug/L	512.58 ppb	19:52:07
2	Se 196.026†	978.0	1012.3	533.06 ug/L	533.06 ppb	19:52:07
2	Si 251.611†	87642.1	86611.8	2493.7 ug/L	2493.7 ppb	19:51:47
2	Sn 189.927†	3400.1	3379.9	505.36 ug/L	505.36 ppb	19:52:07
2	Ti 334.940†	316355.9	316664.5	507.11 ug/L	507.11 ppb	19:51:47
2	Tl 190.801†	1804.3	1841.8	509.03 ug/L	509.03 ppb	19:52:07
2	U 409.014†	13463.0	16310.1	484.42 ug/L	484.42 ppb	19:51:47
2	V 292.402†	77704.0	79155.5	508.95 ug/L	508.95 ppb	19:51:47
2	Zn 213.857†	62325.2	61187.5	502.21 ug/L	502.21 ppb	19:51:47
2	SiO2†	88289.3	87237.4	5361.4 ug/L	5361.4 ppb	19:52:45
3	Sc Radial	4535.3	4535.3	98.0 %		19:50:50
3	Y RADIAL	4758.5	4758.5	97.21 %		19:50:50
3	Al 396.153Radial†	5627.8	5763.6	4938.5 ug/L	4938.5 ppb	19:50:50
3	Ca 317.933Radial†	2955.7	3002.1	5184.6 ug/L	5184.6 ppb	19:51:10
3	Fe 238.204 Radial†	552.7	551.3	5302.7 ug/L	5302.7 ppb	19:51:10
3	K 766.490 Radial†	27631.4	24966.6	5048.1 ug/L	5048.1 ppb	19:50:50
3	Mg 279.077 IEC†	159.4	161.2	5497.0 ug/L	5497.0 ppb	19:51:10
3	Na 589.592 Radial†	28567.9	30921.6	10557 ug/L	10557 ppb	19:50:50
3	Sr 421.552†	65005.2	66322.1	488.58 ug/L	488.58 ppb	19:50:50
3	Sc 361.383	890675.0	890675.0	101.98 %		19:52:14
3	Y 371.029	754782.9	754782.9	100.73 %		19:52:14
3	Ag 328.068†	117590.6	114811.3	502.17 ug/L	502.17 ppb	19:52:14
3	As 188.979†	1425.1	1428.8	505.58 ug/L	505.58 ppb	19:52:34
3	B 249.677†	23826.3	24128.2	498.64 ug/L	498.64 ppb	19:52:14
3	Ba 233.527†	69757.0	68380.9	504.72 ug/L	504.72 ppb	19:52:14
3	Be 313.107†	1528343.0	1502981.5	507.52 ug/L	507.52 ppb	19:52:14
3	Cd 226.502†	53946.8	53150.0	506.08 ug/L	506.08 ppb	19:52:14
3	Co 228.616†	26796.8	26374.6	498.83 ug/L	498.83 ppb	19:52:34
3	Cr 267.716†	50399.8	49328.7	501.70 ug/L	501.70 ppb	19:52:14
3	Cu 324.752†	180555.6	168938.4	504.07 ug/L	504.07 ppb	19:52:14
3	Mn 257.610†	489791.0	478953.3	504.66 ug/L	504.66 ppb	19:52:14
3	Mo 202.031†	8057.6	7874.1	498.66 ug/L	498.66 ppb	19:52:34
3	Ni 231.604†	23122.5	22556.4	499.52 ug/L	499.52 ppb	19:52:34
3	P 214.914†	5494.3	5134.7	2437.9 ug/L	2437.9 ppb	19:52:34
3	Pb 220.353†	4850.4	4857.3	506.85 ug/L	506.85 ppb	19:52:34
3	S 181.975 Axial†	953.3	877.0	991.25 ug/L	991.25 ppb	19:52:34
3	Sb 206.836†	1717.3	1637.7	501.85 ug/L	501.85 ppb	19:52:34
3	Se 196.026†	982.3	1001.9	528.19 ug/L	528.19 ppb	19:52:34
3	Si 251.611†	89031.3	86668.7	2495.5 ug/L	2495.5 ppb	19:52:14
3	Sn 189.927†	3389.8	3319.1	496.29 ug/L	496.29 ppb	19:52:34
3	Ti 334.940†	321547.4	317043.6	507.72 ug/L	507.72 ppb	19:52:14
3	Tl 190.801†	1813.3	1823.7	504.13 ug/L	504.13 ppb	19:52:34
3	U 409.014†	13777.1	16417.6	487.60 ug/L	487.60 ppb	19:52:14
3	V 292.402†	78708.2	78982.9	507.69 ug/L	507.69 ppb	19:52:14
3	Zn 213.857†	63289.8	61205.1	502.41 ug/L	502.41 ppb	19:52:14
3	SiO2†	88567.9	86195.7	5297.5 ug/L	5297.5 ppb	19:52:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	884108.5	101.23	%	0.763				0.75%
Sc Radial	4551.4	98.3	%	0.31				0.31%
Y 371.029	749212.9	99.985	%	0.7513				0.75%
Y RADIAL	4798.0	98.02	%	0.711				0.73%
Ag 328.068†	114931.7	502.68	ug/L	1.109	502.68	ppb	1.109	0.22%
QC value within limits for Ag 328.068 Recovery = 100.54%								
Al 396.153Radial†	5747.7	4924.6	ug/L	13.28	4924.6	ppb	13.28	0.27%
QC value within limits for Al 396.153Radial Recovery = 98.49%								
As 188.979†	1443.1	510.57	ug/L	4.339	510.57	ppb	4.339	0.85%
QC value within limits for As 188.979 Recovery = 102.11%								
B 249.677†	24123.8	498.55	ug/L	1.575	498.55	ppb	1.575	0.32%
QC value within limits for B 249.677 Recovery = 99.71%								
Ba 233.527†	68455.4	505.27	ug/L	1.104	505.27	ppb	1.104	0.22%
QC value within limits for Ba 233.527 Recovery = 101.05%								
Be 313.107†	1503588.8	507.72	ug/L	0.534	507.72	ppb	0.534	0.11%
QC value within limits for Be 313.107 Recovery = 101.54%								
Ca 317.933Radial†	2986.8	5158.1	ug/L	30.56	5158.1	ppb	30.56	0.59%

```
   QC value within limits for Ca 317.933Radial  Recovery = 103.16%
Cd 226.502†            53240.9      506.95 ug/L        1.179      506.95 ppb        1.179   0.23%
   QC value within limits for Cd 226.502  Recovery = 101.39%
Co 228.616†            26625.8      503.59 ug/L        4.618      503.59 ppb        4.618   0.92%
   QC value within limits for Co 228.616  Recovery = 100.72%
Cr 267.716†            49387.5      502.30 ug/L        0.544      502.30 ppb        0.544   0.11%
   QC value within limits for Cr 267.716  Recovery = 100.46%
Cu 324.752†           168852.9      503.81 ug/L        1.244      503.81 ppb        1.244   0.25%
   QC value within limits for Cu 324.752  Recovery = 100.76%
Fe 238.204 Radial†       544.9      5242.0 ug/L        74.04      5242.0 ppb        74.04   1.41%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.84%
K 766.490 Radial†      24885.8      5031.8 ug/L        15.89      5031.8 ppb        15.89   0.32%
   QC value within limits for K 766.490 Radial  Recovery = 100.64%
Mg 279.077 IEC†          159.9      5455.2 ug/L        67.42      5455.2 ppb        67.42   1.24%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.10%
Mn 257.610†           479164.4      504.87 ug/L        0.751      504.87 ppb        0.751   0.15%
   QC value within limits for Mn 257.610  Recovery = 100.97%
Mo 202.031†            7945.1       503.15 ug/L        5.262      503.15 ppb        5.262   1.05%
   QC value within limits for Mo 202.031  Recovery = 100.63%
Na 589.592 Radial†     30903.1       10551 ug/L         39.3       10551 ppb         39.3   0.37%
   QC value within limits for Na 589.592 Radial  Recovery = 105.51%
Ni 231.604†            22768.0      504.20 ug/L        5.058      504.20 ppb        5.058   1.00%
   QC value within limits for Ni 231.604  Recovery = 100.84%
P 214.914†             5187.5      2463.8 ug/L        27.80      2463.8 ppb        27.80   1.13%
   QC value within limits for P 214.914  Recovery = 98.55%
Pb 220.353†            4892.2      510.49 ug/L        4.321      510.49 ppb        4.321   0.85%
   QC value within limits for Pb 220.353  Recovery = 102.10%
S 181.975 Axial†        885.2      1000.5 ug/L        10.63      1000.5 ppb        10.63   1.06%
   QC value within limits for S 181.975 Axial  Recovery = 100.05%
Sb 206.836†            1656.7      507.77 ug/L        5.447      507.77 ppb        5.447   1.07%
   QC value within limits for Sb 206.836  Recovery = 101.55%
Se 196.026†            1006.5      530.35 ug/L        2.481      530.35 ppb        2.481   0.47%
   QC value within limits for Se 196.026  Recovery = 106.07%
Si 251.611†           86749.3      2497.7 ug/L         5.56      2497.7 ppb         5.56   0.22%
   QC value within limits for Si 251.611  Recovery = 99.91%
Sn 189.927†            3348.3      500.66 ug/L        4.544      500.66 ppb        4.544   0.91%
   QC value within limits for Sn 189.927  Recovery = 100.13%
Sr 421.552†           66188.3      487.60 ug/L        1.457      487.60 ppb        1.457   0.30%
   QC value within limits for Sr 421.552  Recovery = 97.52%
Ti 334.940†          316998.5      507.65 ug/L        0.503      507.65 ppb        0.503   0.10%
   QC value within limits for Ti 334.940  Recovery = 101.53%
Tl 190.801†            1836.4      507.59 ug/L        3.013      507.59 ppb        3.013   0.59%
   QC value within limits for Tl 190.801  Recovery = 101.52%
U 409.014†            16421.9      487.74 ug/L        3.391      487.74 ppb        3.391   0.70%
   QC value within limits for U 409.014  Recovery = 97.55%
V 292.402†            79140.5      508.76 ug/L        0.994      508.76 ppb        0.994   0.20%
   QC value within limits for V 292.402  Recovery = 101.75%
Zn 213.857†           61285.1      503.04 ug/L        1.278      503.04 ppb        1.278   0.25%
   QC value within limits for Zn 213.857  Recovery = 100.61%
SiO2†                 86869.1      5338.9 ug/L        35.90      5338.9 ppb        35.90   0.67%
   QC value within limits for SiO2  Recovery = 99.84%
All analyte(s) passed QC.
```

Sequence No.: 44
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/7/2010 19:54:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4555.9	4555.9	98.4	%			19:56:51
1	Y RADIAL	4812.7	4812.7	98.32	%			19:56:51
1	Al 396.153Radial†	23.2	44.5	38.239	ug/L	38.239	ppb	19:56:51
1	Ca 317.933Radial†	14.1	0.3	0.5789	ug/L	0.5789	ppb	19:57:11
1	Fe 238.204 Radial†	10.1	-2.5	-23.702	ug/L	-23.702	ppb	19:57:11
1	K 766.490 Radial†	3203.9	25.3	5.0816	ug/L	5.0816	ppb	19:56:51
1	Mg 279.077 IEC†	3.0	1.5	51.925	ug/L	51.925	ppb	19:57:11
1	Na 589.592 Radial†	-1387.5	360.6	123.11	ug/L	123.11	ppb	19:56:51
1	Sr 421.552†	-22.2	-33.8	-0.2490	ug/L	-0.2490	ppb	19:56:51
1	Sc 361.383	892151.6	892151.6	102.15	%			19:58:08
1	Y 371.029	761981.7	761981.7	101.69	%			19:58:08
1	Ag 328.068†	497.0	-4.4	-0.0367	ug/L	-0.0367	ppb	19:58:13
1	As 188.979†	-32.0	0.2	0.0605	ug/L	0.0605	ppb	19:58:33
1	B 249.677†	-633.7	145.1	3.0136	ug/L	3.0136	ppb	19:58:13
1	Ba 233.527†	-4.5	-22.9	-0.1677	ug/L	-0.1677	ppb	19:58:33
1	Be 313.107†	-4407.4	65.6	0.0224	ug/L	0.0224	ppb	19:58:13
1	Cd 226.502†	-252.6	5.7	0.0565	ug/L	0.0565	ppb	19:58:33
1	Co 228.616†	-99.2	2.1	0.0406	ug/L	0.0406	ppb	19:58:33
1	Cr 267.716†	84.3	-7.7	-0.0821	ug/L	-0.0821	ppb	19:58:13
1	Cu 324.752†	8182.2	-94.0	-0.2814	ug/L	-0.2814	ppb	19:58:13
1	Mn 257.610†	808.4	-515.0	-0.5455	ug/L	-0.5455	ppb	19:58:13
1	Mo 202.031†	32.6	5.3	0.3303	ug/L	0.3303	ppb	19:58:33
1	Ni 231.604†	92.5	-25.6	-0.5664	ug/L	-0.5664	ppb	19:58:33
1	P 214.914†	262.1	4.0	2.0346	ug/L	2.0346	ppb	19:58:33
1	Pb 220.353†	-83.6	19.4	2.0338	ug/L	2.0338	ppb	19:58:33
1	S 181.975 Axial†	58.8	-0.1	-0.1536	ug/L	-0.1536	ppb	19:58:33
1	Sb 206.836†	58.6	11.1	3.3944	ug/L	3.3944	ppb	19:58:33
1	Se 196.026†	-44.9	-5.2	-2.7175	ug/L	-2.7175	ppb	19:58:33
1	Si 251.611†	627.1	-16.1	-0.4778	ug/L	-0.4778	ppb	19:58:33
1	Sn 189.927†	11.9	6.9	1.0360	ug/L	1.0360	ppb	19:58:33
1	Ti 334.940†	-1701.7	87.6	0.1339	ug/L	0.1339	ppb	19:58:13
1	Tl 190.801†	-39.5	7.0	1.9103	ug/L	1.9103	ppb	19:58:33
1	U 409.014†	-2469.2	491.5	14.648	ug/L	14.648	ppb	19:58:08
1	V 292.402†	-1719.4	123.2	0.8195	ug/L	0.8195	ppb	19:58:13
1	Zn 213.857†	823.6	-46.8	-0.3844	ug/L	-0.3844	ppb	19:58:33
1	SiO2†	671.4	8.5	0.5003	ug/L	0.5003	ppb	19:59:39
2	Sc Radial	4481.7	4481.7	96.8	%			19:57:16
2	Y RADIAL	4754.0	4754.0	97.12	%			19:57:16
2	Al 396.153Radial†	-0.7	20.1	17.327	ug/L	17.327	ppb	19:57:16
2	Ca 317.933Radial†	12.0	-1.6	-2.7712	ug/L	-2.7712	ppb	19:57:36
2	Fe 238.204 Radial†	10.9	-1.5	-14.321	ug/L	-14.321	ppb	19:57:36
2	K 766.490 Radial†	3122.2	-5.2	-1.0939	ug/L	-1.0939	ppb	19:57:16
2	Mg 279.077 IEC†	7.7	6.4	219.65	ug/L	219.65	ppb	19:57:36
2	Na 589.592 Radial†	-1441.8	281.2	95.995	ug/L	95.995	ppb	19:57:16
2	Sr 421.552†	-19.7	-31.6	-0.2331	ug/L	-0.2331	ppb	19:57:16
2	Sc 361.383	885306.8	885306.8	101.37	%			19:58:38
2	Y 371.029	757445.6	757445.6	101.08	%			19:58:38
2	Ag 328.068†	460.0	-37.2	-0.1759	ug/L	-0.1759	ppb	19:58:43
2	As 188.979†	-34.8	-2.9	-1.0024	ug/L	-1.0024	ppb	19:59:03
2	B 249.677†	-681.7	93.0	1.9309	ug/L	1.9309	ppb	19:58:43
2	Ba 233.527†	4.3	-14.3	-0.1044	ug/L	-0.1044	ppb	19:59:03
2	Be 313.107†	-4305.0	133.3	0.0451	ug/L	0.0451	ppb	19:58:43
2	Cd 226.502†	-255.8	0.6	0.0070	ug/L	0.0070	ppb	19:59:03
2	Co 228.616†	-103.4	-2.8	-0.0534	ug/L	-0.0534	ppb	19:59:03
2	Cr 267.716†	99.3	7.7	0.0741	ug/L	0.0741	ppb	19:58:43
2	Cu 324.752†	8109.8	-103.5	-0.3093	ug/L	-0.3093	ppb	19:58:43
2	Mn 257.610†	843.6	-474.2	-0.5047	ug/L	-0.5047	ppb	19:58:43
2	Mo 202.031†	24.6	-2.5	-0.1573	ug/L	-0.1573	ppb	19:59:03
2	Ni 231.604†	113.2	-4.4	-0.0983	ug/L	-0.0983	ppb	19:59:03

2	P 214.914†	262.1	5.9	2.9683 ug/L	2.9683 ppb	19:59:03
2	Pb 220.353†	-105.2	-2.4	-0.2486 ug/L	-0.2486 ppb	19:59:03
2	S 181.975 Axial†	61.0	2.5	2.8558 ug/L	2.8558 ppb	19:59:03
2	Sb 206.836†	47.8	1.0	0.3254 ug/L	0.3254 ppb	19:59:03
2	Se 196.026†	-34.9	4.3	2.1638 ug/L	2.1638 ppb	19:59:03
2	Si 251.611†	633.2	-5.4	-0.1573 ug/L	-0.1573 ppb	19:59:03
2	Sn 189.927†	15.6	10.6	1.5868 ug/L	1.5868 ppb	19:59:03
2	Ti 334.940†	-1727.0	49.8	0.0736 ug/L	0.0736 ppb	19:58:43
2	Tl 190.801†	-49.0	-2.6	-0.7289 ug/L	-0.7289 ppb	19:59:03
2	U 409.014†	-2483.3	458.9	13.676 ug/L	13.676 ppb	19:58:38
2	V 292.402†	-1744.5	85.4	0.5733 ug/L	0.5733 ppb	19:58:43
2	Zn 213.857†	811.1	-53.0	-0.4443 ug/L	-0.4443 ppb	19:59:03
2	SiO2†	621.2	-35.9	-2.2219 ug/L	-2.2219 ppb	19:59:44
3	Sc Radial	4459.4	4459.4	96.4 %		19:57:41
3	Y RADIAL	4720.2	4720.2	96.43 %		19:57:41
3	Al 396.153Radial†	-4.0	16.8	14.408 ug/L	14.408 ppb	19:57:41
3	Ca 317.933Radial†	12.0	-1.6	-2.7231 ug/L	-2.7231 ppb	19:58:01
3	Fe 238.204 Radial†	13.4	1.1	11.024 ug/L	11.024 ppb	19:58:01
3	K 766.490 Radial†	3224.7	117.3	23.733 ug/L	23.733 ppb	19:57:41
3	Mg 279.077 IEC†	3.4	2.0	69.239 ug/L	69.239 ppb	19:58:01
3	Na 589.592 Radial†	-1446.1	269.3	91.945 ug/L	91.945 ppb	19:57:41
3	Sr 421.552†	18.1	7.5	0.0553 ug/L	0.0553 ppb	19:57:41
3	Sc 361.383	888469.9	888469.9	101.73 %		19:59:08
3	Y 371.029	759553.9	759553.9	101.36 %		19:59:08
3	Ag 328.068†	440.0	-58.4	-0.2559 ug/L	-0.2559 ppb	19:59:13
3	As 188.979†	-31.3	0.7	0.2441 ug/L	0.2441 ppb	19:59:34
3	B 249.677†	-719.3	58.5	1.2117 ug/L	1.2117 ppb	19:59:13
3	Ba 233.527†	-3.4	-21.9	-0.1605 ug/L	-0.1605 ppb	19:59:34
3	Be 313.107†	-4350.9	103.3	0.0350 ug/L	0.0350 ppb	19:59:13
3	Cd 226.502†	-263.9	-6.5	-0.0624 ug/L	-0.0624 ppb	19:59:34
3	Co 228.616†	-105.2	-4.2	-0.0789 ug/L	-0.0789 ppb	19:59:34
3	Cr 267.716†	73.2	-18.3	-0.1874 ug/L	-0.1874 ppb	19:59:13
3	Cu 324.752†	8196.7	-46.5	-0.1382 ug/L	-0.1382 ppb	19:59:13
3	Mn 257.610†	824.8	-495.5	-0.5219 ug/L	-0.5219 ppb	19:59:13
3	Mo 202.031†	32.4	5.1	0.3266 ug/L	0.3266 ppb	19:59:34
3	Ni 231.604†	132.3	13.9	0.3076 ug/L	0.3076 ppb	19:59:34
3	P 214.914†	265.0	7.9	3.8746 ug/L	3.8746 ppb	19:59:34
3	Pb 220.353†	-91.0	11.8	1.2359 ug/L	1.2359 ppb	19:59:34
3	S 181.975 Axial†	50.2	-8.3	-9.4281 ug/L	-9.4281 ppb	19:59:34
3	Sb 206.836†	52.1	5.0	1.5143 ug/L	1.5143 ppb	19:59:34
3	Se 196.026†	-37.6	1.8	0.9513 ug/L	0.9513 ppb	19:59:34
3	Si 251.611†	624.3	-16.4	-0.4855 ug/L	-0.4855 ppb	19:59:34
3	Sn 189.927†	1.0	-3.7	-0.5544 ug/L	-0.5544 ppb	19:59:34
3	Ti 334.940†	-1713.2	69.4	0.1077 ug/L	0.1077 ppb	19:59:13
3	Tl 190.801†	-49.2	-2.7	-0.7405 ug/L	-0.7405 ppb	19:59:34
3	U 409.014†	-2687.9	266.4	7.9377 ug/L	7.9377 ppb	19:59:08
3	V 292.402†	-1801.8	35.3	0.2437 ug/L	0.2437 ppb	19:59:13
3	Zn 213.857†	805.3	-61.5	-0.5134 ug/L	-0.5134 ppb	19:59:34
3	SiO2†	621.7	-37.6	-2.3474 ug/L	-2.3474 ppb	19:59:49

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	888642.8	101.75	%	0.392				0.39%
Sc Radial	4499.0	97.2	%	1.09				1.12%
Y 371.029	759660.4	101.38	%	0.303				0.30%
Y RADIAL	4762.3	97.29	%	0.957				0.98%
Ag 328.068†	-33.3	-0.1561	ug/L	0.11093	-0.1561	ppb	0.11093	71.04%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	27.1	23.325	ug/L	12.9985	23.325	ppb	12.9985	55.73%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.7	-0.2326	ug/L	0.67297	-0.2326	ppb	0.67297	289.29%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	98.8	2.0521	ug/L	0.90703	2.0521	ppb	0.90703	44.20%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-19.7	-0.1442	ug/L	0.03465	-0.1442	ppb	0.03465	24.03%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	100.8	0.0342	ug/L	0.01137	0.0342	ppb	0.01137	33.27%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.9	-1.6384	ug/L	1.92044	-1.6384	ppb	1.92044	117.21%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -0.1      0.0003 ug/L       0.05971      0.0003 ppb        0.05971 >999.9%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -1.6     -0.0306 ug/L       0.06294     -0.0306 ppb        0.06294 205.70%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -6.1     -0.0651 ug/L       0.13159     -0.0651 ppb        0.13159 202.02%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -81.3     -0.2430 ug/L       0.09179     -0.2430 ppb        0.09179  37.78%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.9     -8.9997 ug/L      17.96425     -8.9997 ppb       17.96425 199.61%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        45.8      9.2403 ug/L      12.92546      9.2403 ppb       12.92546 139.88%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           3.3      113.61 ug/L        92.247      113.61 ppb         92.247  81.20%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†            -494.9     -0.5240 ug/L       0.02048     -0.5240 ppb        0.02048   3.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               2.6      0.1665 ug/L       0.28045      0.1665 ppb        0.28045 168.44%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       303.7      103.68 ug/L        16.946      103.68 ppb         16.946  16.34%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -5.4     -0.1191 ug/L       0.43736     -0.1191 ppb        0.43736 367.32%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                5.9      2.9591 ug/L       0.92003      2.9591 ppb        0.92003  31.09%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               9.6      1.0070 ug/L       1.15826      1.0070 ppb        1.15826 115.02%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.0     -2.2420 ug/L       6.40270     -2.2420 ppb        6.40270 285.58%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               5.7      1.7447 ug/L       1.54746      1.7447 ppb        1.54746  88.70%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.3      0.1325 ug/L       2.54154      0.1325 ppb        2.54154 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -12.6     -0.3735 ug/L       0.18731     -0.3735 ppb        0.18731  50.14%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.6      0.6895 ug/L       1.11189      0.6895 ppb        1.11189 161.26%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -19.3     -0.1423 ug/L       0.17126     -0.1423 ppb        0.17126 120.36%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              68.9      0.1050 ug/L       0.03024      0.1050 ppb        0.03024  28.79%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.5      0.1470 ug/L       1.52715      0.1470 ppb        1.52715 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              405.6      12.087 ug/L        3.6263      12.087 ppb         3.6263  30.00%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               81.3      0.5455 ug/L       0.28888      0.5455 ppb        0.28888  52.96%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -53.8     -0.4474 ug/L       0.06458     -0.4474 ppb        0.06458  14.43%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -21.7     -1.3563 ug/L       1.60912     -1.3563 ppb        1.60912 118.64%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 45
Sample ID: 243400001|936492|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 54
Date Collected: 1/7/2010 20:01:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243400001|936492|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4487.8	4487.8	97.0	%			20:03:51
1	Y RADIAL	4777.9	4777.9	97.61	%			20:03:51
1	Al 396.153Radial†	16.6	38.0	32.715	ug/L	32.715	ppb	20:03:51
1	Ca 317.933Radial†	2642.2	2710.7	4681.4	ug/L	4681.4	ppb	20:04:11
1	Fe 238.204 Radial†	11.5	-0.8	-8.0109	ug/L	-8.0109	ppb	20:04:11
1	K 766.490 Radial†	5039.9	1968.0	396.68	ug/L	396.68	ppb	20:03:51
1	Mg 279.077 IEC†	34.3	33.9	1154.1	ug/L	1154.1	ppb	20:04:11
1	Na 589.592 Radial†	7424.0	9425.9	3218.1	ug/L	3218.1	ppb	20:03:51
1	Sr 421.552†	2527.9	2595.6	19.080	ug/L	19.080	ppb	20:03:51
1	Sc 361.383	862974.8	862974.8	98.813	%			20:05:08
1	Y 371.029	760158.0	760158.0	101.45	%			20:05:08
1	Ag 328.068†	565.4	81.2	0.2839	ug/L	0.2839	ppb	20:05:08
1	As 188.979†	-30.7	0.4	0.1275	ug/L	0.1275	ppb	20:05:28
1	B 249.677†	-442.7	317.4	6.5862	ug/L	6.5862	ppb	20:05:28
1	Ba 233.527†	509.7	497.2	3.6652	ug/L	3.6652	ppb	20:05:28
1	Be 313.107†	-4384.7	-57.2	-0.0198	ug/L	-0.0198	ppb	20:05:08
1	Cd 226.502†	-228.8	21.4	0.2048	ug/L	0.2048	ppb	20:05:28
1	Co 228.616†	-89.5	8.6	0.1651	ug/L	0.1651	ppb	20:05:28
1	Cr 267.716†	157.6	69.2	0.7040	ug/L	0.7040	ppb	20:05:28
1	Cu 324.752†	8596.9	596.5	1.7784	ug/L	1.7784	ppb	20:05:08
1	Mn 257.610†	1134.4	-158.3	-0.1890	ug/L	-0.1890	ppb	20:05:28
1	Mo 202.031†	29.3	2.9	0.1857	ug/L	0.1857	ppb	20:05:28
1	Ni 231.604†	134.4	19.8	0.4397	ug/L	0.4397	ppb	20:05:28
1	P 214.914†	266.3	16.9	7.8920	ug/L	7.8920	ppb	20:05:28
1	Pb 220.353†	-93.4	6.8	0.7098	ug/L	0.7098	ppb	20:05:28
1	S 181.975 Axial†	608.0	557.6	630.88	ug/L	630.88	ppb	20:05:28
1	Sb 206.836†	41.4	-4.3	-1.4250	ug/L	-1.4250	ppb	20:05:28
1	Se 196.026†	-32.8	5.6	2.8351	ug/L	2.8351	ppb	20:05:28
1	Si 251.611†	157999.7	159267.8	4607.7	ug/L	4607.7	ppb	20:05:08
1	Sn 189.927†	-40.2	-45.4	-6.2941	ug/L	-6.2941	ppb	20:05:28
1	Ti 334.940†	-1901.8	-171.2	-0.0333	ug/L	-0.0333	ppb	20:05:08
1	Tl 190.801†	-64.9	-20.0	-5.4904	ug/L	-5.4904	ppb	20:05:28
1	U 409.014†	-2648.2	228.5	6.8099	ug/L	6.8099	ppb	20:05:08
1	V 292.402†	-1469.0	319.7	2.0714	ug/L	2.0714	ppb	20:05:28
1	Zn 213.857†	1180.7	341.8	2.7856	ug/L	2.7856	ppb	20:05:28
1	SiO2†	156040.1	157266.0	9712.5	ug/L	9712.5	ppb	20:06:24
2	Sc Radial	4535.9	4535.9	98.0	%			20:04:16
2	Y RADIAL	4796.1	4796.1	97.98	%			20:04:16
2	Al 396.153Radial†	7.9	29.0	24.913	ug/L	24.913	ppb	20:04:16
2	Ca 317.933Radial†	2618.6	2657.8	4589.9	ug/L	4589.9	ppb	20:04:36
2	Fe 238.204 Radial†	11.5	-1.0	-9.1388	ug/L	-9.1388	ppb	20:04:36
2	K 766.490 Radial†	5165.2	2040.7	411.45	ug/L	411.45	ppb	20:04:16
2	Mg 279.077 IEC†	33.1	32.2	1098.3	ug/L	1098.3	ppb	20:04:36
2	Na 589.592 Radial†	7344.6	9263.7	3162.8	ug/L	3162.8	ppb	20:04:16
2	Sr 421.552†	2537.6	2577.8	18.949	ug/L	18.949	ppb	20:04:16
2	Sc 361.383	859608.0	859608.0	98.427	%			20:05:33
2	Y 371.029	753851.2	753851.2	100.60	%			20:05:33
2	Ag 328.068†	462.6	-20.9	-0.1579	ug/L	-0.1579	ppb	20:05:33
2	As 188.979†	-30.6	0.4	0.1180	ug/L	0.1180	ppb	20:05:53
2	B 249.677†	-460.7	297.4	6.1727	ug/L	6.1727	ppb	20:05:53
2	Ba 233.527†	515.3	505.0	3.7215	ug/L	3.7215	ppb	20:05:53
2	Be 313.107†	-4281.8	29.9	0.0094	ug/L	0.0094	ppb	20:05:33
2	Cd 226.502†	-254.2	-5.3	-0.0495	ug/L	-0.0495	ppb	20:05:53
2	Co 228.616†	-102.0	-4.4	-0.0807	ug/L	-0.0807	ppb	20:05:53
2	Cr 267.716†	152.6	64.8	0.6592	ug/L	0.6592	ppb	20:05:53
2	Cu 324.752†	8551.0	584.0	1.7411	ug/L	1.7411	ppb	20:05:33
2	Mn 257.610†	1111.9	-176.6	-0.2073	ug/L	-0.2073	ppb	20:05:53
2	Mo 202.031†	31.0	4.8	0.3037	ug/L	0.3037	ppb	20:05:53
2	Ni 231.604†	145.4	31.5	0.6989	ug/L	0.6989	ppb	20:05:53

2	P 214.914†	266.3	17.9	8.3906 ug/L	8.3906 ppb	20:05:53
2	Pb 220.353†	-87.7	12.2	1.2781 ug/L	1.2781 ppb	20:05:53
2	S 181.975 Axial†	605.6	557.6	630.87 ug/L	630.87 ppb	20:05:53
2	Sb 206.836†	45.6	0.2	-0.0825 ug/L	-0.0825 ppb	20:05:53
2	Se 196.026†	-32.2	6.1	3.0570 ug/L	3.0570 ppb	20:05:53
2	Si 251.611†	155955.2	157816.9	4565.7 ug/L	4565.7 ppb	20:05:33
2	Sn 189.927†	-44.3	-49.8	-6.9563 ug/L	-6.9563 ppb	20:05:53
2	Ti 334.940†	-1935.9	-213.4	-0.1044 ug/L	-0.1044 ppb	20:05:33
2	Tl 190.801†	-49.2	-4.3	-1.1782 ug/L	-1.1782 ppb	20:05:53
2	U 409.014†	-2733.9	131.0	3.9030 ug/L	3.9030 ppb	20:05:33
2	V 292.402†	-1522.9	259.2	1.6823 ug/L	1.6823 ppb	20:05:53
2	Zn 213.857†	1146.6	311.9	2.5381 ug/L	2.5381 ppb	20:05:53
2	SiO2†	156492.5	158344.1	9779.1 ug/L	9779.1 ppb	20:06:29
3	Sc Radial	4556.5	4556.5	98.5 %		20:04:41
3	Y RADIAL	4801.0	4801.0	98.08 %		20:04:41
3	Al 396.153Radial†	29.3	50.7	43.596 ug/L	43.596 ppb	20:04:41
3	Ca 317.933Radial†	2673.5	2701.5	4665.4 ug/L	4665.4 ppb	20:05:01
3	Fe 238.204 Radial†	10.1	-2.5	-23.514 ug/L	-23.514 ppb	20:05:01
3	K 766.490 Radial†	5048.4	1898.4	382.59 ug/L	382.59 ppb	20:04:41
3	Mg 279.077 IEC†	31.6	30.6	1042.0 ug/L	1042.0 ppb	20:05:01
3	Na 589.592 Radial†	7471.9	9359.2	3195.4 ug/L	3195.4 ppb	20:04:41
3	Sr 421.552†	2552.2	2580.9	18.972 ug/L	18.972 ppb	20:04:41
3	Sc 361.383	852984.5	852984.5	97.669 %		20:05:58
3	Y 371.029	746390.5	746390.5	99.608 %		20:05:58
3	Ag 328.068†	536.7	58.6	0.1848 ug/L	0.1848 ppb	20:05:58
3	As 188.979†	-32.8	-2.1	-0.7619 ug/L	-0.7619 ppb	20:06:18
3	B 249.677†	-490.0	263.8	5.4754 ug/L	5.4754 ppb	20:06:18
3	Ba 233.527†	531.8	525.9	3.8746 ug/L	3.8746 ppb	20:06:18
3	Be 313.107†	-4324.2	-47.3	-0.0168 ug/L	-0.0168 ppb	20:05:58
3	Cd 226.502†	-254.2	-7.3	-0.0669 ug/L	-0.0669 ppb	20:06:18
3	Co 228.616†	-93.3	3.6	0.0715 ug/L	0.0715 ppb	20:06:18
3	Cr 267.716†	145.5	58.8	0.5990 ug/L	0.5990 ppb	20:06:18
3	Cu 324.752†	8363.5	459.4	1.3688 ug/L	1.3688 ppb	20:05:58
3	Mn 257.610†	1104.6	-175.4	-0.2064 ug/L	-0.2064 ppb	20:06:18
3	Mo 202.031†	25.0	-1.1	-0.0711 ug/L	-0.0711 ppb	20:06:18
3	Ni 231.604†	136.4	23.5	0.5198 ug/L	0.5198 ppb	20:06:18
3	P 214.914†	274.5	28.4	13.604 ug/L	13.604 ppb	20:06:18
3	Pb 220.353†	-85.4	13.9	1.4520 ug/L	1.4520 ppb	20:06:18
3	S 181.975 Axial†	607.1	563.9	637.99 ug/L	637.99 ppb	20:06:18
3	Sb 206.836†	34.5	-10.8	-3.4147 ug/L	-3.4147 ppb	20:06:18
3	Se 196.026†	-33.3	4.7	2.3312 ug/L	2.3312 ppb	20:06:18
3	Si 251.611†	154729.7	157792.5	4565.0 ug/L	4565.0 ppb	20:05:58
3	Sn 189.927†	-47.5	-53.4	-7.4844 ug/L	-7.4844 ppb	20:06:18
3	Ti 334.940†	-1969.8	-263.4	-0.1780 ug/L	-0.1780 ppb	20:05:58
3	Tl 190.801†	-50.3	-5.8	-1.5952 ug/L	-1.5952 ppb	20:06:18
3	U 409.014†	-2897.3	-57.9	-1.7241 ug/L	-1.7241 ppb	20:05:58
3	V 292.402†	-1564.8	204.3	1.3189 ug/L	1.3189 ppb	20:06:18
3	Zn 213.857†	1160.9	335.5	2.7381 ug/L	2.7381 ppb	20:06:18
3	SiO2†	153199.3	156206.9	9647.1 ug/L	9647.1 ppb	20:06:34

Mean Data: 243400001|936492|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	858522.4	98.303	%	0.5820				0.59%
Sc Radial	4526.7	97.8	%	0.76				0.78%
Y 371.029	753466.6	100.55	%	0.920				0.91%
Y RADIAL	4791.7	97.89	%	0.249				0.25%
Ag 328.068†	39.6	0.1036	ug/L	0.23186	0.1036	ppb	0.23186	223.78%
Al 396.153Radial†	39.2	33.742	ug/L	9.3837	33.742	ppb	9.3837	27.81%
As 188.979†	-0.5	-0.1721	ug/L	0.51076	-0.1721	ppb	0.51076	296.74%
B 249.677†	292.9	6.0781	ug/L	0.56141	6.0781	ppb	0.56141	9.24%
Ba 233.527†	509.4	3.7538	ug/L	0.10837	3.7538	ppb	0.10837	2.89%
Be 313.107†	-24.9	-0.0091	ug/L	0.01607	-0.0091	ppb	0.01607	177.17%
Ca 317.933Radial†	2690.0	4645.6	ug/L	48.85	4645.6	ppb	48.85	1.05%
Cd 226.502†	2.9	0.0295	ug/L	0.15206	0.0295	ppb	0.15206	515.89%
Co 228.616†	2.6	0.0519	ug/L	0.12406	0.0519	ppb	0.12406	238.87%
Cr 267.716†	64.2	0.6541	ug/L	0.05267	0.6541	ppb	0.05267	8.05%
Cu 324.752†	546.6	1.6294	ug/L	0.22648	1.6294	ppb	0.22648	13.90%
Fe 238.204 Radial†	-1.4	-13.554	ug/L	8.6433	-13.554	ppb	8.6433	63.77%
K 766.490 Radial†	1969.0	396.91	ug/L	14.430	396.91	ppb	14.430	3.64%

Mg 279.077 IEC†	32.2	1098.1	ug/L	56.05	1098.1	ppb	56.05	5.10%
Mn 257.610†	-170.1	-0.2009	ug/L	0.01033	-0.2009	ppb	0.01033	5.14%
Mo 202.031†	2.2	0.1394	ug/L	0.19160	0.1394	ppb	0.19160	137.42%
Na 589.592 Radial†	9349.6	3192.1	ug/L	27.84	3192.1	ppb	27.84	0.87%
Ni 231.604†	24.9	0.5528	ug/L	0.13273	0.5528	ppb	0.13273	24.01%
P 214.914†	21.0	9.9623	ug/L	3.16396	9.9623	ppb	3.16396	31.76%
Pb 220.353†	10.9	1.1466	ug/L	0.38813	1.1466	ppb	0.38813	33.85%
S 181.975 Axial†	559.7	633.25	ug/L	4.109	633.25	ppb	4.109	0.65%
Sb 206.836†	-5.0	-1.6407	ug/L	1.67653	-1.6407	ppb	1.67653	102.18%
Se 196.026†	5.5	2.7411	ug/L	0.37191	2.7411	ppb	0.37191	13.57%
Si 251.611†	158292.4	4579.4	ug/L	24.44	4579.4	ppb	24.44	0.53%
Sn 189.927†	-49.5	-6.9116	ug/L	0.59640	-6.9116	ppb	0.59640	8.63%
Sr 421.552†	2584.8	19.000	ug/L	0.0697	19.000	ppb	0.0697	0.37%
Ti 334.940†	-216.0	-0.1052	ug/L	0.07238	-0.1052	ppb	0.07238	68.79%
Tl 190.801†	-10.0	-2.7546	ug/L	2.37845	-2.7546	ppb	2.37845	86.34%
U 409.014†	100.5	2.9963	ug/L	4.33862	2.9963	ppb	4.33862	144.80%
V 292.402†	261.1	1.6909	ug/L	0.37633	1.6909	ppb	0.37633	22.26%
Zn 213.857†	329.7	2.6873	ug/L	0.13136	2.6873	ppb	0.13136	4.89%
SiO2†	157272.4	9712.9	ug/L	65.98	9712.9	ppb	65.98	0.68%

Sequence No.: 46
Sample ID: 1202003793|936492|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 55
Date Collected: 1/7/2010 20:08:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202003793|936492|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4570.2	4570.2	98.8	%			20:10:38
1	Y RADIAL	4835.5	4835.5	98.79	%			20:10:38
1	Al 396.153Radial†	-10.4	10.4	8.9178	ug/L	8.9178	ppb	20:10:38
1	Ca 317.933Radial†	2665.8	2685.5	4637.8	ug/L	4637.8	ppb	20:10:58
1	Fe 238.204 Radial†	11.9	-0.7	-6.6220	ug/L	-6.6220	ppb	20:10:58
1	K 766.490 Radial†	5177.8	2013.9	405.97	ug/L	405.97	ppb	20:10:38
1	Mg 279.077 IEC†	38.7	37.7	1284.1	ug/L	1284.1	ppb	20:10:58
1	Na 589.592 Radial†	7682.4	9549.5	3260.3	ug/L	3260.3	ppb	20:10:38
1	Sr 421.552†	2577.1	2598.4	19.101	ug/L	19.101	ppb	20:10:38
1	Sc 361.383	852893.8	852893.8	97.659	%			20:11:55
1	Y 371.029	746437.7	746437.7	99.614	%			20:11:55
1	Ag 328.068†	524.0	45.6	0.1357	ug/L	0.1357	ppb	20:11:55
1	As 188.979†	-30.1	0.6	0.2090	ug/L	0.2090	ppb	20:12:15
1	B 249.677†	-480.6	273.4	5.6722	ug/L	5.6722	ppb	20:12:15
1	Ba 233.527†	541.9	536.4	3.9520	ug/L	3.9520	ppb	20:12:15
1	Be 313.107†	-4370.1	-94.7	-0.0330	ug/L	-0.0330	ppb	20:11:55
1	Cd 226.502†	-240.8	6.4	0.0623	ug/L	0.0623	ppb	20:12:15
1	Co 228.616†	-88.3	8.8	0.1699	ug/L	0.1699	ppb	20:12:15
1	Cr 267.716†	143.7	56.9	0.5810	ug/L	0.5810	ppb	20:12:15
1	Cu 324.752†	8378.1	475.3	1.4172	ug/L	1.4172	ppb	20:11:55
1	Mn 257.610†	1024.3	-257.5	-0.2956	ug/L	-0.2956	ppb	20:12:15
1	Mo 202.031†	29.4	3.4	0.2169	ug/L	0.2169	ppb	20:12:15
1	Ni 231.604†	137.5	24.6	0.5459	ug/L	0.5459	ppb	20:12:15
1	P 214.914†	259.0	12.6	5.8288	ug/L	5.8288	ppb	20:12:15
1	Pb 220.353†	-89.3	9.9	1.0278	ug/L	1.0278	ppb	20:12:15
1	S 181.975 Axial†	599.9	556.7	629.76	ug/L	629.76	ppb	20:12:15
1	Sb 206.836†	34.2	-11.1	-3.4890	ug/L	-3.4890	ppb	20:12:15
1	Se 196.026†	-31.9	6.1	3.0692	ug/L	3.0692	ppb	20:12:15
1	Si 251.611†	154562.6	157638.2	4560.5	ug/L	4560.5	ppb	20:11:55
1	Sn 189.927†	-43.8	-49.6	-6.9270	ug/L	-6.9270	ppb	20:12:15
1	Ti 334.940†	-2046.0	-341.6	-0.3045	ug/L	-0.3045	ppb	20:11:55
1	Tl 190.801†	-46.2	-1.6	-0.4476	ug/L	-0.4476	ppb	20:12:15
1	U 409.014†	-2916.0	-77.3	-2.3039	ug/L	-2.3039	ppb	20:11:55
1	V 292.402†	-1546.4	222.9	1.4429	ug/L	1.4429	ppb	20:11:55
1	Zn 213.857†	1059.4	231.7	1.8692	ug/L	1.8692	ppb	20:12:15
1	SiO2†	155180.9	158252.7	9773.4	ug/L	9773.4	ppb	20:13:11
2	Sc Radial	4557.4	4557.4	98.5	%			20:11:03
2	Y RADIAL	4816.6	4816.6	98.40	%			20:11:03
2	Al 396.153Radial†	-15.8	4.8	4.1632	ug/L	4.1632	ppb	20:11:03
2	Ca 317.933Radial†	2678.9	2706.4	4673.9	ug/L	4673.9	ppb	20:11:23
2	Fe 238.204 Radial†	8.7	-3.9	-37.782	ug/L	-37.782	ppb	20:11:23
2	K 766.490 Radial†	4958.3	1805.7	363.80	ug/L	363.80	ppb	20:11:03
2	Mg 279.077 IEC†	36.2	35.3	1202.2	ug/L	1202.2	ppb	20:11:23
2	Na 589.592 Radial†	7651.7	9540.2	3257.2	ug/L	3257.2	ppb	20:11:03
2	Sr 421.552†	2545.4	2573.5	18.917	ug/L	18.917	ppb	20:11:03
2	Sc 361.383	852520.6	852520.6	97.616	%			20:12:20
2	Y 371.029	745184.6	745184.6	99.447	%			20:12:20
2	Ag 328.068†	528.5	50.5	0.1403	ug/L	0.1403	ppb	20:12:20
2	As 188.979†	-30.2	0.5	0.1801	ug/L	0.1801	ppb	20:12:40
2	B 249.677†	-505.1	248.1	5.1517	ug/L	5.1517	ppb	20:12:40
2	Ba 233.527†	516.3	510.4	3.7593	ug/L	3.7593	ppb	20:12:40
2	Be 313.107†	-4266.1	9.8	0.0022	ug/L	0.0022	ppb	20:12:20
2	Cd 226.502†	-264.9	-18.4	-0.1714	ug/L	-0.1714	ppb	20:12:40
2	Co 228.616†	-99.0	-2.3	-0.0402	ug/L	-0.0402	ppb	20:12:40
2	Cr 267.716†	156.8	70.4	0.7154	ug/L	0.7154	ppb	20:12:40
2	Cu 324.752†	8369.8	470.5	1.4013	ug/L	1.4013	ppb	20:12:20
2	Mn 257.610†	1069.3	-210.9	-0.2482	ug/L	-0.2482	ppb	20:12:40
2	Mo 202.031†	22.2	-3.9	-0.2523	ug/L	-0.2523	ppb	20:12:40
2	Ni 231.604†	128.8	15.8	0.3497	ug/L	0.3497	ppb	20:12:40

2	P 214.914†	272.8	26.8	12.829 ug/L	12.829 ppb	20:12:40
2	Pb 220.353†	-95.1	3.8	0.4013 ug/L	0.4013 ppb	20:12:40
2	S 181.975 Axial†	598.9	555.9	628.91 ug/L	628.91 ppb	20:12:40
2	Sb 206.836†	39.0	-6.2	-2.0397 ug/L	-2.0397 ppb	20:12:40
2	Se 196.026†	-51.7	-14.2	-7.3558 ug/L	-7.3558 ppb	20:12:40
2	Si 251.611†	154537.6	157681.9	4561.8 ug/L	4561.8 ppb	20:12:20
2	Sn 189.927†	-46.9	-52.8	-7.3963 ug/L	-7.3963 ppb	20:12:40
2	Ti 334.940†	-2049.3	-345.9	-0.3117 ug/L	-0.3117 ppb	20:12:20
2	Tl 190.801†	-45.7	-1.2	-0.3302 ug/L	-0.3302 ppb	20:12:40
2	U 409.014†	-2751.7	89.6	2.6736 ug/L	2.6736 ppb	20:12:20
2	V 292.402†	-1589.9	177.7	1.1620 ug/L	1.1620 ppb	20:12:20
2	Zn 213.857†	1074.2	247.3	2.0042 ug/L	2.0042 ppb	20:12:40
2	SiO2†	154137.9	157253.8	9711.8 ug/L	9711.8 ppb	20:13:16
3	Sc Radial	4571.8	4571.8	98.8 %		20:11:28
3	Y RADIAL	4831.5	4831.5	98.70 %		20:11:28
3	Al 396.153Radial†	20.7	41.8	35.992 ug/L	35.992 ppb	20:11:28
3	Ca 317.933Radial†	2665.8	2684.6	4636.2 ug/L	4636.2 ppb	20:11:48
3	Fe 238.204 Radial†	11.1	-1.5	-14.042 ug/L	-14.042 ppb	20:11:48
3	K 766.490 Radial†	4972.5	1804.3	363.52 ug/L	363.52 ppb	20:11:28
3	Mg 279.077 IEC†	33.5	32.4	1105.2 ug/L	1105.2 ppb	20:11:48
3	Na 589.592 Radial†	7751.7	9617.0	3283.4 ug/L	3283.4 ppb	20:11:28
3	Sr 421.552†	2566.1	2586.3	19.012 ug/L	19.012 ppb	20:11:28
3	Sc 361.383	859673.9	859673.9	98.435 %		20:12:45
3	Y 371.029	755002.8	755002.8	100.76 %		20:12:45
3	Ag 328.068†	621.1	140.1	0.5411 ug/L	0.5411 ppb	20:12:45
3	As 188.979†	-30.0	1.0	0.3545 ug/L	0.3545 ppb	20:13:05
3	B 249.677†	-497.3	260.2	5.4000 ug/L	5.4000 ppb	20:13:05
3	Ba 233.527†	520.1	509.8	3.7558 ug/L	3.7558 ppb	20:13:05
3	Be 313.107†	-4421.6	-111.7	-0.0385 ug/L	-0.0385 ppb	20:12:45
3	Cd 226.502†	-248.4	0.6	0.0074 ug/L	0.0074 ppb	20:13:05
3	Co 228.616†	-70.7	27.3	0.5186 ug/L	0.5186 ppb	20:13:05
3	Cr 267.716†	173.1	85.6	0.8714 ug/L	0.8714 ppb	20:13:05
3	Cu 324.752†	8373.6	403.1	1.2014 ug/L	1.2014 ppb	20:12:45
3	Mn 257.610†	1056.6	-233.0	-0.2672 ug/L	-0.2672 ppb	20:13:05
3	Mo 202.031†	22.7	-3.6	-0.2309 ug/L	-0.2309 ppb	20:13:05
3	Ni 231.604†	127.2	13.1	0.2889 ug/L	0.2889 ppb	20:13:05
3	P 214.914†	267.1	18.8	8.9093 ug/L	8.9093 ppb	20:13:05
3	Pb 220.353†	-87.5	12.4	1.2939 ug/L	1.2939 ppb	20:13:05
3	S 181.975 Axial†	600.0	551.8	624.32 ug/L	624.32 ppb	20:13:05
3	Sb 206.836†	29.7	-16.0	-4.9865 ug/L	-4.9865 ppb	20:13:05
3	Se 196.026†	-36.0	2.1	1.0517 ug/L	1.0517 ppb	20:13:05
3	Si 251.611†	156461.8	158319.5	4580.2 ug/L	4580.2 ppb	20:12:45
3	Sn 189.927†	-44.6	-50.1	-6.9986 ug/L	-6.9986 ppb	20:13:05
3	Ti 334.940†	-1998.1	-276.5	-0.2009 ug/L	-0.2009 ppb	20:12:45
3	Tl 190.801†	-47.7	-2.8	-0.7723 ug/L	-0.7723 ppb	20:13:05
3	U 409.014†	-2894.6	-32.0	-0.9539 ug/L	-0.9539 ppb	20:12:45
3	V 292.402†	-1611.1	169.7	1.0985 ug/L	1.0985 ppb	20:12:45
3	Zn 213.857†	1074.7	238.7	1.9356 ug/L	1.9356 ppb	20:13:05
3	SiO2†	154394.3	156200.4	9646.7 ug/L	9646.7 ppb	20:13:21

Mean Data: 1202003793|936492|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	855029.4	97.903	%	0.4611				0.47%
Sc Radial	4566.5	98.7	%	0.17				0.17%
Y 371.029	748875.0	99.940	%	0.7131				0.71%
Y RADIAL	4827.8	98.63	%	0.204				0.21%
Ag 328.068†	78.7	0.2724	ug/L	0.23274	0.2724	ppb	0.23274	85.44%
Al 396.153Radial†	19.0	16.358	ug/L	17.1692	16.358	ppb	17.1692	104.96%
As 188.979†	0.7	0.2479	ug/L	0.09347	0.2479	ppb	0.09347	37.71%
B 249.677†	260.6	5.4079	ug/L	0.26036	5.4079	ppb	0.26036	4.81%
Ba 233.527†	518.9	3.8224	ug/L	0.11232	3.8224	ppb	0.11232	2.94%
Be 313.107†	-65.5	-0.0231	ug/L	0.02210	-0.0231	ppb	0.02210	95.69%
Ca 317.933Radial†	2692.2	4649.3	ug/L	21.34	4649.3	ppb	21.34	0.46%
Cd 226.502†	-3.8	-0.0339	ug/L	0.12219	-0.0339	ppb	0.12219	360.33%
Co 228.616†	11.3	0.2161	ug/L	0.28226	0.2161	ppb	0.28226	130.62%
Cr 267.716†	71.0	0.7226	ug/L	0.14536	0.7226	ppb	0.14536	20.12%
Cu 324.752†	449.7	1.3400	ug/L	0.12027	1.3400	ppb	0.12027	8.98%
Fe 238.204 Radial†	-2.0	-19.482	ug/L	16.2767	-19.482	ppb	16.2767	83.55%
K 766.490 Radial†	1874.7	377.76	ug/L	24.427	377.76	ppb	24.427	6.47%

Mg 279.077 IEC†	35.1	1197.2	ug/L	89.55	1197.2	ppb	89.55	7.48%
Mn 257.610†	-233.8	-0.2703	ug/L	0.02388	-0.2703	ppb	0.02388	8.83%
Mo 202.031†	-1.4	-0.0888	ug/L	0.26493	-0.0888	ppb	0.26493	298.48%
Na 589.592 Radial†	9568.9	3267.0	ug/L	14.32	3267.0	ppb	14.32	0.44%
Ni 231.604†	17.8	0.3948	ug/L	0.13430	0.3948	ppb	0.13430	34.01%
P 214.914†	19.4	9.1891	ug/L	3.50863	9.1891	ppb	3.50863	38.18%
Pb 220.353†	8.7	0.9077	ug/L	0.45829	0.9077	ppb	0.45829	50.49%
S 181.975 Axial†	554.8	627.67	ug/L	2.927	627.67	ppb	2.927	0.47%
Sb 206.836†	-11.1	-3.5050	ug/L	1.47345	-3.5050	ppb	1.47345	42.04%
Se 196.026†	-2.0	-1.0783	ug/L	5.52924	-1.0783	ppb	5.52924	512.77%
Si 251.611†	157879.9	4567.5	ug/L	11.04	4567.5	ppb	11.04	0.24%
Sn 189.927†	-50.8	-7.1073	ug/L	0.25282	-7.1073	ppb	0.25282	3.56%
Sr 421.552†	2586.1	19.010	ug/L	0.0920	19.010	ppb	0.0920	0.48%
Ti 334.940†	-321.3	-0.2724	ug/L	0.06199	-0.2724	ppb	0.06199	22.76%
Tl 190.801†	-1.8	-0.5167	ug/L	0.22900	-0.5167	ppb	0.22900	44.32%
U 409.014†	-6.6	-0.1947	ug/L	2.57411	-0.1947	ppb	2.57411	>999.9%
V 292.402†	190.1	1.2345	ug/L	0.18328	1.2345	ppb	0.18328	14.85%
Zn 213.857†	239.2	1.9363	ug/L	0.06749	1.9363	ppb	0.06749	3.49%
SiO2†	157235.6	9710.7	ug/L	63.36	9710.7	ppb	63.36	0.65%

Sequence No.: 47
Sample ID: 1202003794|936492|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 56
Date Collected: 1/7/2010 20:15:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202003794|936492|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4389.6	4389.6	94.8	%			20:17:24
1	Y RADIAL	4629.8	4629.8	94.58	%			20:17:24
1	Al 396.153Radial†	1153.6	1237.1	1060.1	ug/L	1060.1	ppb	20:17:24
1	Ca 317.933Radial†	3334.2	3501.3	6046.6	ug/L	6046.6	ppb	20:17:44
1	Fe 238.204 Radial†	121.5	115.4	1109.7	ug/L	1109.7	ppb	20:17:44
1	K 766.490 Radial†	10054.2	7370.9	1489.5	ug/L	1489.5	ppb	20:17:24
1	Mg 279.077 IEC†	69.4	71.6	2441.0	ug/L	2441.0	ppb	20:17:44
1	Na 589.592 Radial†	10841.1	13199.8	4506.6	ug/L	4506.6	ppb	20:17:24
1	Sr 421.552†	15455.4	16283.2	119.91	ug/L	119.91	ppb	20:17:24
1	Sc 361.383	867868.5	867868.5	99.373	%			20:18:41
1	Y 371.029	740659.3	740659.3	98.843	%			20:18:41
1	Ag 328.068†	24607.3	24271.6	106.08	ug/L	106.08	ppb	20:18:41
1	As 188.979†	265.9	299.1	105.82	ug/L	105.82	ppb	20:19:01
1	B 249.677†	4499.3	5293.2	109.41	ug/L	109.41	ppb	20:18:41
1	Ba 233.527†	15141.7	15218.6	112.32	ug/L	112.32	ppb	20:18:41
1	Be 313.107†	311347.1	317691.0	107.27	ug/L	107.27	ppb	20:18:41
1	Cd 226.502†	10494.0	10813.1	102.96	ug/L	102.96	ppb	20:19:01
1	Co 228.616†	5327.1	5459.9	103.26	ug/L	103.26	ppb	20:19:01
1	Cr 267.716†	10419.2	10394.7	105.72	ug/L	105.72	ppb	20:18:41
1	Cu 324.752†	44141.1	36315.9	108.36	ug/L	108.36	ppb	20:18:41
1	Mn 257.610†	102184.6	101522.8	106.95	ug/L	106.95	ppb	20:18:41
1	Mo 202.031†	1641.5	1625.1	102.92	ug/L	102.92	ppb	20:19:01
1	Ni 231.604†	4801.0	4715.1	104.42	ug/L	104.42	ppb	20:19:01
1	P 214.914†	506.3	256.8	109.25	ug/L	109.25	ppb	20:19:01
1	Pb 220.353†	904.2	1011.2	105.52	ug/L	105.52	ppb	20:19:01
1	S 181.975 Axial†	1525.6	1477.5	1671.3	ug/L	1671.3	ppb	20:19:01
1	Sb 206.836†	364.2	320.3	98.141	ug/L	98.141	ppb	20:19:01
1	Se 196.026†	157.9	197.6	104.41	ug/L	104.41	ppb	20:19:01
1	Si 251.611†	199579.4	200208.1	5789.6	ug/L	5789.6	ppb	20:18:41
1	Sn 189.927†	668.9	668.4	100.46	ug/L	100.46	ppb	20:19:01
1	Ti 334.940†	64611.2	66772.1	107.18	ug/L	107.18	ppb	20:18:41
1	Tl 190.801†	323.0	370.7	102.50	ug/L	102.50	ppb	20:19:01
1	U 409.014†	911.0	3825.3	113.65	ug/L	113.65	ppb	20:18:41
1	V 292.402†	14902.8	16803.2	108.02	ug/L	108.02	ppb	20:18:41
1	Zn 213.857†	13728.7	12962.2	106.37	ug/L	106.37	ppb	20:18:41
1	SiO2†	197664.1	198262.1	12239	ug/L	12239	ppb	20:19:58
2	Sc Radial	4495.1	4495.1	97.1	%			20:17:49
2	Y RADIAL	4728.2	4728.2	96.60	%			20:17:49
2	Al 396.153Radial†	1170.2	1225.7	1050.3	ug/L	1050.3	ppb	20:17:49
2	Ca 317.933Radial†	3334.0	3418.5	5903.7	ug/L	5903.7	ppb	20:18:09
2	Fe 238.204 Radial†	121.8	112.6	1083.7	ug/L	1083.7	ppb	20:18:09
2	K 766.490 Radial†	10085.6	7154.5	1445.7	ug/L	1445.7	ppb	20:17:49
2	Mg 279.077 IEC†	70.1	70.7	2408.6	ug/L	2408.6	ppb	20:18:09
2	Na 589.592 Radial†	11051.4	13148.1	4489.0	ug/L	4489.0	ppb	20:17:49
2	Sr 421.552†	15801.7	16257.5	119.72	ug/L	119.72	ppb	20:17:49
2	Sc 361.383	867529.2	867529.2	99.334	%			20:19:07
2	Y 371.029	740277.5	740277.5	98.792	%			20:19:07
2	Ag 328.068†	24570.5	24244.3	105.96	ug/L	105.96	ppb	20:19:07
2	As 188.979†	266.0	299.3	105.89	ug/L	105.89	ppb	20:19:27
2	B 249.677†	4485.5	5281.0	109.16	ug/L	109.16	ppb	20:19:07
2	Ba 233.527†	15113.6	15196.3	112.15	ug/L	112.15	ppb	20:19:07
2	Be 313.107†	310670.7	317132.7	107.09	ug/L	107.09	ppb	20:19:07
2	Cd 226.502†	10555.7	10879.4	103.59	ug/L	103.59	ppb	20:19:27
2	Co 228.616†	5362.2	5497.3	103.97	ug/L	103.97	ppb	20:19:27
2	Cr 267.716†	10422.0	10401.6	105.79	ug/L	105.79	ppb	20:19:07
2	Cu 324.752†	43870.0	36060.3	107.59	ug/L	107.59	ppb	20:19:07
2	Mn 257.610†	102154.8	101533.0	106.95	ug/L	106.95	ppb	20:19:07
2	Mo 202.031†	1643.2	1627.5	103.07	ug/L	103.07	ppb	20:19:27
2	Ni 231.604†	4809.3	4725.3	104.64	ug/L	104.64	ppb	20:19:27

2	P 214.914†	513.2	264.0	112.90 ug/L	112.90 ppb	20:19:27
2	Pb 220.353†	928.6	1036.1	108.11 ug/L	108.11 ppb	20:19:27
2	S 181.975 Axial†	1537.4	1490.1	1685.6 ug/L	1685.6 ppb	20:19:27
2	Sb 206.836†	386.1	342.5	104.84 ug/L	104.84 ppb	20:19:27
2	Se 196.026†	164.8	204.6	107.89 ug/L	107.89 ppb	20:19:27
2	Si 251.611†	198839.7	199542.1	5770.4 ug/L	5770.4 ppb	20:19:07
2	Sn 189.927†	668.4	668.2	100.41 ug/L	100.41 ppb	20:19:27
2	Ti 334.940†	64278.7	66462.9	106.68 ug/L	106.68 ppb	20:19:07
2	Tl 190.801†	337.1	385.1	106.45 ug/L	106.45 ppb	20:19:27
2	U 409.014†	682.1	3595.3	106.80 ug/L	106.80 ppb	20:19:07
2	V 292.402†	14826.9	16732.7	107.56 ug/L	107.56 ppb	20:19:07
2	Zn 213.857†	13724.8	12963.7	106.38 ug/L	106.38 ppb	20:19:07
2	SiO2†	197862.3	198539.4	12256 ug/L	12256 ppb	20:20:03
3	Sc Radial	4540.7	4540.7	98.1 %		20:18:14
3	Y RADIAL	4775.2	4775.2	97.56 %		20:18:14
3	Al 396.153Radial†	1166.0	1209.3	1036.1 ug/L	1036.1 ppb	20:18:14
3	Ca 317.933Radial†	3351.2	3401.7	5874.6 ug/L	5874.6 ppb	20:18:34
3	Fe 238.204 Radial†	119.4	109.0	1048.2 ug/L	1048.2 ppb	20:18:34
3	K 766.490 Radial†	10109.3	7074.4	1429.5 ug/L	1429.5 ppb	20:18:14
3	Mg 279.077 IEC†	68.6	68.5	2333.7 ug/L	2333.7 ppb	20:18:34
3	Na 589.592 Radial†	11087.3	13070.6	4462.5 ug/L	4462.5 ppb	20:18:14
3	Sr 421.552†	15880.2	16174.3	119.11 ug/L	119.11 ppb	20:18:14
3	Sc 361.383	865961.1	865961.1	99.155 %		20:19:32
3	Y 371.029	739679.6	739679.6	98.713 %		20:19:32
3	Ag 328.068†	24513.2	24231.3	105.89 ug/L	105.89 ppb	20:19:32
3	As 188.979†	272.0	305.8	108.19 ug/L	108.19 ppb	20:19:52
3	B 249.677†	4447.3	5250.6	108.54 ug/L	108.54 ppb	20:19:32
3	Ba 233.527†	15065.1	15175.0	111.99 ug/L	111.99 ppb	20:19:32
3	Be 313.107†	309817.1	316838.0	106.99 ug/L	106.99 ppb	20:19:32
3	Cd 226.502†	10637.4	10981.0	104.56 ug/L	104.56 ppb	20:19:52
3	Co 228.616†	5381.4	5526.4	104.53 ug/L	104.53 ppb	20:19:52
3	Cr 267.716†	10461.6	10460.5	106.39 ug/L	106.39 ppb	20:19:32
3	Cu 324.752†	43742.1	36011.3	107.44 ug/L	107.44 ppb	20:19:32
3	Mn 257.610†	101656.5	101216.7	106.62 ug/L	106.62 ppb	20:19:32
3	Mo 202.031†	1670.8	1658.4	105.02 ug/L	105.02 ppb	20:19:52
3	Ni 231.604†	4855.2	4780.4	105.86 ug/L	105.86 ppb	20:19:52
3	P 214.914†	495.2	246.8	104.57 ug/L	104.57 ppb	20:19:52
3	Pb 220.353†	907.9	1016.9	106.12 ug/L	106.12 ppb	20:19:52
3	S 181.975 Axial†	1553.5	1509.0	1707.0 ug/L	1707.0 ppb	20:19:52
3	Sb 206.836†	392.2	349.4	106.98 ug/L	106.98 ppb	20:19:52
3	Se 196.026†	173.4	213.6	112.35 ug/L	112.35 ppb	20:19:52
3	Si 251.611†	198147.7	199206.7	5760.6 ug/L	5760.6 ppb	20:19:32
3	Sn 189.927†	681.5	682.6	102.56 ug/L	102.56 ppb	20:19:52
3	Ti 334.940†	64274.7	66576.0	106.86 ug/L	106.86 ppb	20:19:32
3	Tl 190.801†	324.1	372.6	103.01 ug/L	103.01 ppb	20:19:52
3	U 409.014†	892.1	3808.2	113.15 ug/L	113.15 ppb	20:19:32
3	V 292.402†	14887.8	16821.0	108.17 ug/L	108.17 ppb	20:19:32
3	Zn 213.857†	13645.7	12908.9	105.92 ug/L	105.92 ppb	20:19:32
3	SiO2†	198177.2	199217.7	12298 ug/L	12298 ppb	20:20:08

Mean Data: 1202003794|936492|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	867119.6	99.287	%	0.1165				0.12%
Sc Radial	4475.1	96.7	%	1.67				1.73%
Y 371.029	740205.5	98.783	%	0.0659				0.07%
Y RADIAL	4711.1	96.24	%	1.516				1.58%
Ag 328.068†	24249.0	105.97	ug/L	0.097	105.97	ppb	0.097	0.09%
Al 396.153Radial†	1224.0	1048.9	ug/L	12.06	1048.9	ppb	12.06	1.15%
As 188.979†	301.4	106.63	ug/L	1.346	106.63	ppb	1.346	1.26%
B 249.677†	5275.0	109.04	ug/L	0.452	109.04	ppb	0.452	0.41%
Ba 233.527†	15196.6	112.15	ug/L	0.161	112.15	ppb	0.161	0.14%
Be 313.107†	317220.6	107.12	ug/L	0.146	107.12	ppb	0.146	0.14%
Ca 317.933Radial†	3440.5	5941.6	ug/L	92.08	5941.6	ppb	92.08	1.55%
Cd 226.502†	10891.2	103.70	ug/L	0.809	103.70	ppb	0.809	0.78%
Co 228.616†	5494.5	103.92	ug/L	0.634	103.92	ppb	0.634	0.61%
Cr 267.716†	10418.9	105.96	ug/L	0.367	105.96	ppb	0.367	0.35%
Cu 324.752†	36129.2	107.80	ug/L	0.489	107.80	ppb	0.489	0.45%
Fe 238.204 Radial†	112.3	1080.5	ug/L	30.86	1080.5	ppb	30.86	2.86%
K 766.490 Radial†	7199.9	1454.9	ug/L	31.04	1454.9	ppb	31.04	2.13%

Mg 279.077 IEC†	70.2	2394.5 ug/L	55.02	2394.5 ppb	55.02	2.30%
Mn 257.610†	101424.2	106.84 ug/L	0.191	106.84 ppb	0.191	0.18%
Mo 202.031†	1637.0	103.67 ug/L	1.170	103.67 ppb	1.170	1.13%
Na 589.592 Radial†	13139.5	4486.0 ug/L	22.21	4486.0 ppb	22.21	0.50%
Ni 231.604†	4740.3	104.98 ug/L	0.778	104.98 ppb	0.778	0.74%
P 214.914†	255.9	108.91 ug/L	4.175	108.91 ppb	4.175	3.83%
Pb 220.353†	1021.4	106.58 ug/L	1.356	106.58 ppb	1.356	1.27%
S 181.975 Axial†	1492.2	1688.0 ug/L	17.97	1688.0 ppb	17.97	1.06%
Sb 206.836†	337.4	103.32 ug/L	4.611	103.32 ppb	4.611	4.46%
Se 196.026†	205.3	108.22 ug/L	3.981	108.22 ppb	3.981	3.68%
Si 251.611†	199652.3	5773.5 ug/L	14.76	5773.5 ppb	14.76	0.26%
Sn 189.927†	673.0	101.15 ug/L	1.228	101.15 ppb	1.228	1.21%
Sr 421.552†	16238.3	119.58 ug/L	0.419	119.58 ppb	0.419	0.35%
Ti 334.940†	66603.7	106.91 ug/L	0.253	106.91 ppb	0.253	0.24%
Tl 190.801†	376.1	103.99 ug/L	2.148	103.99 ppb	2.148	2.07%
U 409.014†	3742.9	111.20 ug/L	3.820	111.20 ppb	3.820	3.44%
V 292.402†	16785.6	107.91 ug/L	0.315	107.91 ppb	0.315	0.29%
Zn 213.857†	12945.0	106.22 ug/L	0.260	106.22 ppb	0.260	0.24%
SiO2†	198673.1	12264 ug/L	30.3	12264 ppb	30.3	0.25%

Sequence No.: 48
Sample ID: 1202003795|936492|25
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 57
Date Collected: 1/7/2010 20:22:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202003795|936492|25

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4577.5	4577.5	98.9	%			20:24:11
1	Y RADIAL	4871.3	4871.3	99.52	%			20:24:11
1	Al 396.153Radial†	-28.7	-8.1	-7.0067	ug/L	-7.0067	ppb	20:24:11
1	Ca 317.933Radial†	551.9	544.0	939.45	ug/L	939.45	ppb	20:24:31
1	Fe 238.204 Radial†	11.0	-1.6	-14.913	ug/L	-14.913	ppb	20:24:31
1	K 766.490 Radial†	3686.2	497.6	100.36	ug/L	100.36	ppb	20:24:11
1	Mg 279.077 IEC†	6.1	4.6	157.16	ug/L	157.16	ppb	20:24:31
1	Na 589.592 Radial†	412.4	2187.0	746.68	ug/L	746.68	ppb	20:24:11
1	Sr 421.552†	543.5	538.2	3.9562	ug/L	3.9562	ppb	20:24:11
1	Sc 361.383	891219.3	891219.3	102.05	%			20:25:28
1	Y 371.029	760402.7	760402.7	101.48	%			20:25:28
1	Ag 328.068†	447.0	-52.9	-0.2553	ug/L	-0.2553	ppb	20:25:28
1	As 188.979†	-35.8	-3.6	-1.2798	ug/L	-1.2798	ppb	20:25:48
1	B 249.677†	-679.4	99.7	2.0691	ug/L	2.0691	ppb	20:25:48
1	Ba 233.527†	108.1	87.4	0.6457	ug/L	0.6457	ppb	20:25:48
1	Be 313.107†	-4416.4	52.4	0.0178	ug/L	0.0178	ppb	20:25:28
1	Cd 226.502†	-248.3	9.6	0.0931	ug/L	0.0931	ppb	20:25:48
1	Co 228.616†	-84.3	16.6	0.3161	ug/L	0.3161	ppb	20:25:48
1	Cr 267.716†	91.4	-0.7	-0.0094	ug/L	-0.0094	ppb	20:25:48
1	Cu 324.752†	8450.6	177.5	0.5285	ug/L	0.5285	ppb	20:25:28
1	Mn 257.610†	849.4	-473.9	-0.5034	ug/L	-0.5034	ppb	20:25:48
1	Mo 202.031†	36.7	9.2	0.5827	ug/L	0.5827	ppb	20:25:48
1	Ni 231.604†	110.5	-7.9	-0.1752	ug/L	-0.1752	ppb	20:25:48
1	P 214.914†	270.8	12.7	6.1278	ug/L	6.1278	ppb	20:25:48
1	Pb 220.353†	-98.5	4.7	0.4932	ug/L	0.4932	ppb	20:25:48
1	S 181.975 Axial†	163.6	102.6	116.11	ug/L	116.11	ppb	20:25:48
1	Sb 206.836†	33.6	-13.2	-4.0168	ug/L	-4.0168	ppb	20:25:48
1	Se 196.026†	-33.9	5.5	2.7546	ug/L	2.7546	ppb	20:25:48
1	Si 251.611†	31461.2	30200.0	873.68	ug/L	873.68	ppb	20:25:28
1	Sn 189.927†	-8.4	-13.0	-1.8443	ug/L	-1.8443	ppb	20:25:48
1	Ti 334.940†	-1737.0	51.3	0.1250	ug/L	0.1250	ppb	20:25:28
1	Tl 190.801†	-43.8	2.8	0.7557	ug/L	0.7557	ppb	20:25:48
1	U 409.014†	-2496.9	461.8	13.762	ug/L	13.762	ppb	20:25:28
1	V 292.402†	-1635.9	203.3	1.3306	ug/L	1.3306	ppb	20:25:48
1	Zn 213.857†	910.5	39.1	0.3196	ug/L	0.3196	ppb	20:25:48
1	SiO2†	31462.0	30182.2	1864.0	ug/L	1864.0	ppb	20:26:45
2	Sc Radial	4515.5	4515.5	97.6	%			20:24:36
2	Y RADIAL	4762.9	4762.9	97.30	%			20:24:36
2	Al 396.153Radial†	16.2	37.5	32.230	ug/L	32.230	ppb	20:24:36
2	Ca 317.933Radial†	553.3	553.0	955.08	ug/L	955.08	ppb	20:24:56
2	Fe 238.204 Radial†	9.5	-2.9	-28.181	ug/L	-28.181	ppb	20:24:56
2	K 766.490 Radial†	3570.2	429.8	86.651	ug/L	86.651	ppb	20:24:36
2	Mg 279.077 IEC†	7.4	6.1	206.25	ug/L	206.25	ppb	20:24:56
2	Na 589.592 Radial†	324.0	2102.1	717.70	ug/L	717.70	ppb	20:24:36
2	Sr 421.552†	486.2	487.0	3.5790	ug/L	3.5790	ppb	20:24:36
2	Sc 361.383	891628.4	891628.4	102.09	%			20:25:54
2	Y 371.029	760854.4	760854.4	101.54	%			20:25:54
2	Ag 328.068†	406.7	-92.6	-0.4412	ug/L	-0.4412	ppb	20:25:54
2	As 188.979†	-31.2	0.9	0.3258	ug/L	0.3258	ppb	20:26:14
2	B 249.677†	-719.2	61.0	1.2696	ug/L	1.2696	ppb	20:26:14
2	Ba 233.527†	102.8	82.1	0.6058	ug/L	0.6058	ppb	20:26:14
2	Be 313.107†	-4386.3	83.7	0.0282	ug/L	0.0282	ppb	20:25:54
2	Cd 226.502†	-245.1	12.9	0.1264	ug/L	0.1264	ppb	20:26:14
2	Co 228.616†	-92.9	8.2	0.1580	ug/L	0.1580	ppb	20:26:14
2	Cr 267.716†	123.0	30.2	0.3009	ug/L	0.3009	ppb	20:26:14
2	Cu 324.752†	8250.4	-22.5	-0.0685	ug/L	-0.0685	ppb	20:25:54
2	Mn 257.610†	857.5	-466.5	-0.4977	ug/L	-0.4977	ppb	20:26:14
2	Mo 202.031†	38.0	10.5	0.6627	ug/L	0.6627	ppb	20:26:14
2	Ni 231.604†	146.7	27.6	0.6105	ug/L	0.6105	ppb	20:26:14

2	P 214.914†	265.6	7.5	3.7018 ug/L	3.7018 ppb	20:26:14
2	Pb 220.353†	-92.3	10.9	1.1437 ug/L	1.1437 ppb	20:26:14
2	S 181.975 Axial†	164.8	103.8	117.40 ug/L	117.40 ppb	20:26:14
2	Sb 206.836†	36.1	-10.8	-3.2859 ug/L	-3.2859 ppb	20:26:14
2	Se 196.026†	-32.0	7.4	3.7040 ug/L	3.7040 ppb	20:26:14
2	Si 251.611†	31470.4	30195.0	873.53 ug/L	873.53 ppb	20:25:54
2	Sn 189.927†	-4.2	-8.9	-1.2239 ug/L	-1.2239 ppb	20:26:14
2	Ti 334.940†	-1787.4	2.7	0.0444 ug/L	0.0444 ppb	20:25:54
2	Tl 190.801†	-47.8	-1.1	-0.3167 ug/L	-0.3167 ppb	20:26:14
2	U 409.014†	-2226.8	727.4	21.680 ug/L	21.680 ppb	20:25:54
2	V 292.402†	-1719.8	121.9	0.8335 ug/L	0.8335 ppb	20:26:14
2	Zn 213.857†	916.4	44.5	0.3592 ug/L	0.3592 ppb	20:26:14
2	SiO2†	31717.1	30417.9	1878.5 ug/L	1878.5 ppb	20:26:50
3	Sc Radial	4586.9	4586.9	99.1 %		20:25:01
3	Y RADIAL	4846.8	4846.8	99.02 %		20:25:01
3	Al 396.153Radial†	8.8	29.7	25.563 ug/L	25.563 ppb	20:25:01
3	Ca 317.933Radial†	556.3	547.3	945.22 ug/L	945.22 ppb	20:25:21
3	Fe 238.204 Radial†	10.2	-2.5	-23.550 ug/L	-23.550 ppb	20:25:21
3	K 766.490 Radial†	3538.4	340.9	68.614 ug/L	68.614 ppb	20:25:01
3	Mg 279.077 IEC†	7.6	6.2	210.18 ug/L	210.18 ppb	20:25:21
3	Na 589.592 Radial†	438.0	2211.9	755.19 ug/L	755.19 ppb	20:25:01
3	Sr 421.552†	528.3	521.8	3.8354 ug/L	3.8354 ppb	20:25:01
3	Sc 361.383	893535.0	893535.0	102.31 %		20:26:19
3	Y 371.029	762285.1	762285.1	101.73 %		20:26:19
3	Ag 328.068†	432.7	-68.0	-0.3246 ug/L	-0.3246 ppb	20:26:19
3	As 188.979†	-35.4	-3.1	-1.0932 ug/L	-1.0932 ppb	20:26:40
3	B 249.677†	-707.8	73.7	1.5313 ug/L	1.5313 ppb	20:26:40
3	Ba 233.527†	97.4	76.6	0.5663 ug/L	0.5663 ppb	20:26:40
3	Be 313.107†	-4348.4	129.9	0.0438 ug/L	0.0438 ppb	20:26:19
3	Cd 226.502†	-234.7	23.5	0.2266 ug/L	0.2266 ppb	20:26:40
3	Co 228.616†	-91.6	9.7	0.1851 ug/L	0.1851 ppb	20:26:40
3	Cr 267.716†	142.1	48.7	0.4912 ug/L	0.4912 ppb	20:26:40
3	Cu 324.752†	8288.9	-2.1	-0.0074 ug/L	-0.0074 ppb	20:26:19
3	Mn 257.610†	876.6	-449.5	-0.4795 ug/L	-0.4795 ppb	20:26:40
3	Mo 202.031†	34.8	7.3	0.4572 ug/L	0.4572 ppb	20:26:40
3	Ni 231.604†	132.3	13.2	0.2920 ug/L	0.2920 ppb	20:26:40
3	P 214.914†	259.9	1.4	0.6729 ug/L	0.6729 ppb	20:26:40
3	Pb 220.353†	-91.5	11.8	1.2412 ug/L	1.2412 ppb	20:26:40
3	S 181.975 Axial†	164.7	103.3	116.87 ug/L	116.87 ppb	20:26:40
3	Sb 206.836†	47.9	0.7	0.1479 ug/L	0.1479 ppb	20:26:40
3	Se 196.026†	-35.5	4.0	1.9850 ug/L	1.9850 ppb	20:26:40
3	Si 251.611†	31506.7	30164.7	872.67 ug/L	872.67 ppb	20:26:19
3	Sn 189.927†	-16.5	-20.8	-3.0149 ug/L	-3.0149 ppb	20:26:40
3	Ti 334.940†	-1803.7	-9.5	0.0275 ug/L	0.0275 ppb	20:26:19
3	Tl 190.801†	-43.8	2.8	0.7697 ug/L	0.7697 ppb	20:26:40
3	U 409.014†	-2473.7	490.8	14.626 ug/L	14.626 ppb	20:26:19
3	V 292.402†	-1645.1	198.5	1.3024 ug/L	1.3024 ppb	20:26:40
3	Zn 213.857†	907.3	33.7	0.2712 ug/L	0.2712 ppb	20:26:40
3	SiO2†	32032.7	30660.1	1893.5 ug/L	1893.5 ppb	20:26:55

Mean Data: 1202003795|936492|25

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	892127.6	102.15	%	0.142				0.14%
Sc Radial	4559.9	98.5	%	0.84				0.85%
Y 371.029	761180.7	101.58	%	0.131				0.13%
Y RADIAL	4827.0	98.61	%	1.161				1.18%
Ag 328.068†	-71.1	-0.3404	ug/L	0.09392	-0.3404	ppb	0.09392	27.59%
Al 396.153Radial†	19.7	16.929	ug/L	20.9949	16.929	ppb	20.9949	124.02%
As 188.979†	-1.9	-0.6824	ug/L	0.87813	-0.6824	ppb	0.87813	128.68%
B 249.677†	78.1	1.6233	ug/L	0.40765	1.6233	ppb	0.40765	25.11%
Ba 233.527†	82.0	0.6059	ug/L	0.03970	0.6059	ppb	0.03970	6.55%
Be 313.107†	88.7	0.0299	ug/L	0.01306	0.0299	ppb	0.01306	43.64%
Ca 317.933Radial†	548.1	946.58	ug/L	7.902	946.58	ppb	7.902	0.83%
Cd 226.502†	15.4	0.1487	ug/L	0.06949	0.1487	ppb	0.06949	46.72%
Co 228.616†	11.5	0.2197	ug/L	0.08457	0.2197	ppb	0.08457	38.49%
Cr 267.716†	26.1	0.2609	ug/L	0.25270	0.2609	ppb	0.25270	96.86%
Cu 324.752†	51.0	0.1509	ug/L	0.32845	0.1509	ppb	0.32845	217.72%
Fe 238.204 Radial†	-2.3	-22.215	ug/L	6.7339	-22.215	ppb	6.7339	30.31%
K 766.490 Radial†	422.8	85.209	ug/L	15.9228	85.209	ppb	15.9228	18.69%

Mg 279.077 IEC†	5.6	191.20	ug/L	29.542	191.20	ppb	29.542	15.45%
Mn 257.610†	-463.3	-0.4935	ug/L	0.01249	-0.4935	ppb	0.01249	2.53%
Mo 202.031†	9.0	0.5675	ug/L	0.10357	0.5675	ppb	0.10357	18.25%
Na 589.592 Radial†	2167.0	739.86	ug/L	19.653	739.86	ppb	19.653	2.66%
Ni 231.604†	10.9	0.2424	ug/L	0.39518	0.2424	ppb	0.39518	163.00%
P 214.914†	7.2	3.5009	ug/L	2.73299	3.5009	ppb	2.73299	78.07%
Pb 220.353†	9.2	0.9593	ug/L	0.40663	0.9593	ppb	0.40663	42.39%
S 181.975 Axial†	103.2	116.79	ug/L	0.647	116.79	ppb	0.647	0.55%
Sb 206.836†	-7.8	-2.3849	ug/L	2.22371	-2.3849	ppb	2.22371	93.24%
Se 196.026†	5.7	2.8145	ug/L	0.86105	2.8145	ppb	0.86105	30.59%
Si 251.611†	30186.6	873.30	ug/L	0.544	873.30	ppb	0.544	0.06%
Sn 189.927†	-14.2	-2.0277	ug/L	0.90950	-2.0277	ppb	0.90950	44.85%
Sr 421.552†	515.6	3.7902	ug/L	0.19262	3.7902	ppb	0.19262	5.08%
Ti 334.940†	14.8	0.0657	ug/L	0.05211	0.0657	ppb	0.05211	79.36%
Tl 190.801†	1.5	0.4029	ug/L	0.62323	0.4029	ppb	0.62323	154.69%
U 409.014†	560.0	16.690	ug/L	4.3436	16.690	ppb	4.3436	26.03%
V 292.402†	174.6	1.1555	ug/L	0.27920	1.1555	ppb	0.27920	24.16%
Zn 213.857†	39.1	0.3167	ug/L	0.04406	0.3167	ppb	0.04406	13.91%
SiO2†	30420.1	1878.7	ug/L	14.78	1878.7	ppb	14.78	0.79%

Sequence No.: 49
Sample ID: 243400002|936492|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 58
Date Collected: 1/7/2010 20:29:05
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243400002|936492|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4566.3	4566.3	98.7	%			20:30:58
1	Y RADIAL	4847.5	4847.5	99.03	%			20:30:58
1	Al 396.153Radial†	-2.1	18.8	16.173	ug/L	16.173	ppb	20:30:58
1	Ca 317.933Radial†	2744.5	2767.5	4779.5	ug/L	4779.5	ppb	20:31:18
1	Fe 238.204 Radial†	11.4	-1.2	-11.649	ug/L	-11.649	ppb	20:31:18
1	K 766.490 Radial†	5236.4	2077.9	418.84	ug/L	418.84	ppb	20:30:58
1	Mg 279.077 IEC†	35.7	34.6	1180.2	ug/L	1180.2	ppb	20:31:18
1	Na 589.592 Radial†	8155.0	10035.2	3426.2	ug/L	3426.2	ppb	20:30:58
1	Sr 421.552†	2653.7	2678.2	19.688	ug/L	19.688	ppb	20:30:58
1	Sc 361.383	872691.9	872691.9	99.926	%			20:32:15
1	Y 371.029	746246.5	746246.5	99.589	%			20:32:15
1	Ag 328.068†	460.8	-29.8	-0.2025	ug/L	-0.2025	ppb	20:32:15
1	As 188.979†	-29.5	1.9	0.6665	ug/L	0.6665	ppb	20:32:35
1	B 249.677†	-481.7	283.4	5.8826	ug/L	5.8826	ppb	20:32:35
1	Ba 233.527†	525.0	506.9	3.7356	ug/L	3.7356	ppb	20:32:35
1	Be 313.107†	-4341.1	35.8	0.0114	ug/L	0.0114	ppb	20:32:15
1	Cd 226.502†	-226.4	26.4	0.2529	ug/L	0.2529	ppb	20:32:35
1	Co 228.616†	-109.5	-10.4	-0.1943	ug/L	-0.1943	ppb	20:32:35
1	Cr 267.716†	168.4	78.2	0.7948	ug/L	0.7948	ppb	20:32:35
1	Cu 324.752†	8442.1	344.7	1.0274	ug/L	1.0274	ppb	20:32:15
1	Mn 257.610†	1010.0	-295.6	-0.3343	ug/L	-0.3343	ppb	20:32:35
1	Mo 202.031†	22.2	-4.5	-0.2865	ug/L	-0.2865	ppb	20:32:35
1	Ni 231.604†	128.3	12.2	0.2710	ug/L	0.2710	ppb	20:32:35
1	P 214.914†	265.3	12.9	6.0391	ug/L	6.0391	ppb	20:32:35
1	Pb 220.353†	-89.8	11.4	1.1912	ug/L	1.1912	ppb	20:32:35
1	S 181.975 Axial†	627.2	570.0	644.82	ug/L	644.82	ppb	20:32:35
1	Sb 206.836†	37.5	-8.7	-2.7851	ug/L	-2.7851	ppb	20:32:35
1	Se 196.026†	-40.7	-2.0	-1.0591	ug/L	-1.0591	ppb	20:32:35
1	Si 251.611†	161800.7	161291.2	4666.2	ug/L	4666.2	ppb	20:32:15
1	Sn 189.927†	-48.2	-52.9	-7.4082	ug/L	-7.4082	ppb	20:32:35
1	Ti 334.940†	-1964.7	-212.8	-0.0950	ug/L	-0.0950	ppb	20:32:15
1	Tl 190.801†	-45.0	0.6	0.1640	ug/L	0.1640	ppb	20:32:35
1	U 409.014†	-2662.3	244.3	7.2789	ug/L	7.2789	ppb	20:32:15
1	V 292.402†	-1526.6	278.6	1.8061	ug/L	1.8061	ppb	20:32:35
1	Zn 213.857†	1248.5	396.4	3.2384	ug/L	3.2384	ppb	20:32:35
1	SiO2†	163465.1	162938.3	10063	ug/L	10063	ppb	20:33:31
2	Sc Radial	4470.5	4470.5	96.6	%			20:31:23
2	Y RADIAL	4726.0	4726.0	96.55	%			20:31:23
2	Al 396.153Radial†	19.5	41.1	35.354	ug/L	35.354	ppb	20:31:23
2	Ca 317.933Radial†	2719.1	2800.9	4837.2	ug/L	4837.2	ppb	20:31:43
2	Fe 238.204 Radial†	8.6	-3.9	-37.105	ug/L	-37.105	ppb	20:31:43
2	K 766.490 Radial†	5157.1	2109.5	425.26	ug/L	425.26	ppb	20:31:23
2	Mg 279.077 IEC†	35.5	35.2	1199.5	ug/L	1199.5	ppb	20:31:43
2	Na 589.592 Radial†	7847.6	9894.1	3378.0	ug/L	3378.0	ppb	20:31:23
2	Sr 421.552†	2630.0	2711.4	19.931	ug/L	19.931	ppb	20:31:23
2	Sc 361.383	864723.6	864723.6	99.013	%			20:32:40
2	Y 371.029	738263.3	738263.3	98.524	%			20:32:40
2	Ag 328.068†	502.6	16.7	-0.0031	ug/L	-0.0031	ppb	20:32:40
2	As 188.979†	-37.8	-6.7	-2.3533	ug/L	-2.3533	ppb	20:33:00
2	B 249.677†	-511.1	249.3	5.1773	ug/L	5.1773	ppb	20:33:00
2	Ba 233.527†	529.5	516.3	3.8041	ug/L	3.8041	ppb	20:33:00
2	Be 313.107†	-4356.6	-19.9	-0.0074	ug/L	-0.0074	ppb	20:32:40
2	Cd 226.502†	-258.9	-8.6	-0.0777	ug/L	-0.0777	ppb	20:33:00
2	Co 228.616†	-85.6	12.8	0.2450	ug/L	0.2450	ppb	20:33:00
2	Cr 267.716†	132.1	43.1	0.4404	ug/L	0.4404	ppb	20:33:00
2	Cu 324.752†	8361.2	340.8	1.0146	ug/L	1.0146	ppb	20:32:40
2	Mn 257.610†	1028.3	-267.8	-0.3080	ug/L	-0.3080	ppb	20:33:00
2	Mo 202.031†	28.7	2.3	0.1393	ug/L	0.1393	ppb	20:33:00
2	Ni 231.604†	122.9	8.0	0.1775	ug/L	0.1775	ppb	20:33:00

2	P 214.914†	279.9	30.0	14.484 ug/L	14.484 ppb	20:33:00
2	Pb 220.353†	-99.3	1.0	0.1119 ug/L	0.1119 ppb	20:33:00
2	S 181.975 Axial†	644.9	593.6	671.57 ug/L	671.57 ppb	20:33:00
2	Sb 206.836†	33.7	-12.1	-3.7830 ug/L	-3.7830 ppb	20:33:00
2	Se 196.026†	-33.8	4.6	2.2359 ug/L	2.2359 ppb	20:33:00
2	Si 251.611†	160092.0	161057.6	4659.4 ug/L	4659.4 ppb	20:32:40
2	Sn 189.927†	-43.5	-48.6	-6.7639 ug/L	-6.7639 ppb	20:33:00
2	Ti 334.940†	-1970.2	-236.4	-0.1263 ug/L	-0.1263 ppb	20:32:40
2	Tl 190.801†	-51.0	-5.9	-1.6161 ug/L	-1.6161 ppb	20:33:00
2	U 409.014†	-2903.8	-24.1	-0.7153 ug/L	-0.7153 ppb	20:32:40
2	V 292.402†	-1514.3	277.0	1.7906 ug/L	1.7906 ppb	20:33:00
2	Zn 213.857†	1275.6	435.2	3.5613 ug/L	3.5613 ppb	20:33:00
2	SiO2†	162085.5	163052.3	10070 ug/L	10070 ppb	20:33:37
3	Sc Radial	4549.7	4549.7	98.3 %		20:31:48
3	Y RADIAL	4796.7	4796.7	98.00 %		20:31:48
3	Al 396.153Radial†	-24.6	-4.2	-3.6411 ug/L	-3.6411 ppb	20:31:48
3	Ca 317.933Radial†	2780.2	2814.1	4859.9 ug/L	4859.9 ppb	20:32:08
3	Fe 238.204 Radial†	9.7	-2.9	-27.577 ug/L	-27.577 ppb	20:32:08
3	K 766.490 Radial†	5076.7	1934.8	389.86 ug/L	389.86 ppb	20:31:48
3	Mg 279.077 IEC†	34.6	33.7	1148.0 ug/L	1148.0 ppb	20:32:08
3	Na 589.592 Radial†	8023.8	9931.9	3390.9 ug/L	3390.9 ppb	20:31:48
3	Sr 421.552†	2706.4	2741.7	20.154 ug/L	20.154 ppb	20:31:48
3	Sc 361.383	871032.1	871032.1	99.735 %		20:33:06
3	Y 371.029	745176.3	745176.3	99.446 %		20:33:06
3	Ag 328.068†	515.6	26.0	0.0392 ug/L	0.0392 ppb	20:33:06
3	As 188.979†	-32.5	-1.1	-0.3986 ug/L	-0.3986 ppb	20:33:26
3	B 249.677†	-499.5	264.7	5.4944 ug/L	5.4944 ppb	20:33:26
3	Ba 233.527†	533.1	516.0	3.8024 ug/L	3.8024 ppb	20:33:26
3	Be 313.107†	-4380.9	-12.4	-0.0048 ug/L	-0.0048 ppb	20:33:06
3	Cd 226.502†	-236.9	15.4	0.1497 ug/L	0.1497 ppb	20:33:26
3	Co 228.616†	-92.3	6.7	0.1307 ug/L	0.1307 ppb	20:33:26
3	Cr 267.716†	144.1	54.2	0.5526 ug/L	0.5526 ppb	20:33:26
3	Cu 324.752†	8456.3	375.1	1.1171 ug/L	1.1171 ppb	20:33:06
3	Mn 257.610†	991.1	-312.6	-0.3532 ug/L	-0.3532 ppb	20:33:26
3	Mo 202.031†	37.5	10.9	0.6857 ug/L	0.6857 ppb	20:33:26
3	Ni 231.604†	117.9	2.0	0.0448 ug/L	0.0448 ppb	20:33:26
3	P 214.914†	278.1	26.2	12.551 ug/L	12.551 ppb	20:33:26
3	Pb 220.353†	-91.9	9.1	0.9514 ug/L	0.9514 ppb	20:33:26
3	S 181.975 Axial†	622.1	566.1	640.41 ug/L	640.41 ppb	20:33:26
3	Sb 206.836†	38.7	-7.4	-2.3582 ug/L	-2.3582 ppb	20:33:26
3	Se 196.026†	-40.8	-2.2	-1.1776 ug/L	-1.1776 ppb	20:33:26
3	Si 251.611†	161095.1	160892.3	4654.7 ug/L	4654.7 ppb	20:33:06
3	Sn 189.927†	-42.8	-47.7	-6.6175 ug/L	-6.6175 ppb	20:33:26
3	Ti 334.940†	-1946.0	-197.8	-0.0639 ug/L	-0.0639 ppb	20:33:06
3	Tl 190.801†	-47.1	-1.6	-0.4453 ug/L	-0.4453 ppb	20:33:26
3	U 409.014†	-2870.4	30.6	0.9138 ug/L	0.9138 ppb	20:33:06
3	V 292.402†	-1512.3	290.0	1.8818 ug/L	1.8818 ppb	20:33:26
3	Zn 213.857†	1241.6	391.8	3.2042 ug/L	3.2042 ppb	20:33:26
3	SiO2†	161723.4	161503.6	9974.2 ug/L	9974.2 ppb	20:33:42

Mean Data: 243400002|936492|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	869482.6	99.558	%	0.4814				0.48%
Sc Radial	4528.8	97.9	%	1.11				1.13%
Y 371.029	743228.7	99.186	%	0.5783				0.58%
Y RADIAL	4790.1	97.86	%	1.247				1.27%
Ag 328.068†	4.3	-0.0555	ug/L	0.12908	-0.0555	ppb	0.12908	232.75%
Al 396.153Radial†	18.6	15.962	ug/L	19.4983	15.962	ppb	19.4983	122.16%
As 188.979†	-2.0	-0.6952	ug/L	1.53159	-0.6952	ppb	1.53159	220.32%
B 249.677†	265.8	5.5181	ug/L	0.35328	5.5181	ppb	0.35328	6.40%
Ba 233.527†	513.0	3.7807	ug/L	0.03905	3.7807	ppb	0.03905	1.03%
Be 313.107†	1.2	-0.0003	ug/L	0.01020	-0.0003	ppb	0.01020	>999.9%
Ca 317.933Radial†	2794.2	4825.5	ug/L	41.42	4825.5	ppb	41.42	0.86%
Cd 226.502†	11.1	0.1083	ug/L	0.16919	0.1083	ppb	0.16919	156.20%
Co 228.616†	3.0	0.0605	ug/L	0.22787	0.0605	ppb	0.22787	376.95%
Cr 267.716†	58.5	0.5960	ug/L	0.18113	0.5960	ppb	0.18113	30.39%
Cu 324.752†	353.5	1.0530	ug/L	0.05583	1.0530	ppb	0.05583	5.30%
Fe 238.204 Radial†	-2.7	-25.444	ug/L	12.8614	-25.444	ppb	12.8614	50.55%
K 766.490 Radial†	2040.7	411.32	ug/L	18.864	411.32	ppb	18.864	4.59%

Mg 279.077 IEC†	34.5	1175.9	ug/L	26.00	1175.9	ppb	26.00	2.21%
Mn 257.610†	-292.0	-0.3318	ug/L	0.02274	-0.3318	ppb	0.02274	6.85%
Mo 202.031†	2.9	0.1795	ug/L	0.48735	0.1795	ppb	0.48735	271.50%
Na 589.592 Radial†	9953.8	3398.4	ug/L	24.94	3398.4	ppb	24.94	0.73%
Ni 231.604†	7.4	0.1644	ug/L	0.11369	0.1644	ppb	0.11369	69.14%
P 214.914†	23.0	11.025	ug/L	4.4243	11.025	ppb	4.4243	40.13%
Pb 220.353†	7.2	0.7515	ug/L	0.56674	0.7515	ppb	0.56674	75.41%
S 181.975 Axial†	576.5	652.26	ug/L	16.863	652.26	ppb	16.863	2.59%
Sb 206.836†	-9.4	-2.9754	ug/L	0.73121	-2.9754	ppb	0.73121	24.58%
Se 196.026†	0.1	-0.0003	ug/L	1.93751	-0.0003	ppb	1.93751	>999.9%
Si 251.611†	161080.4	4660.1	ug/L	5.80	4660.1	ppb	5.80	0.12%
Sn 189.927†	-49.8	-6.9299	ug/L	0.42069	-6.9299	ppb	0.42069	6.07%
Sr 421.552†	2710.4	19.924	ug/L	0.2333	19.924	ppb	0.2333	1.17%
Ti 334.940†	-215.7	-0.0950	ug/L	0.03120	-0.0950	ppb	0.03120	32.83%
Tl 190.801†	-2.3	-0.6325	ug/L	0.90466	-0.6325	ppb	0.90466	143.04%
U 409.014†	83.6	2.4925	ug/L	4.22443	2.4925	ppb	4.22443	169.49%
V 292.402†	281.9	1.8262	ug/L	0.04877	1.8262	ppb	0.04877	2.67%
Zn 213.857†	407.8	3.3346	ug/L	0.19706	3.3346	ppb	0.19706	5.91%
SiO2†	162498.0	10036	ug/L	53.3	10036	ppb	53.3	0.53%

Sequence No.: 50
Sample ID: 243400003|936492|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 59
Date Collected: 1/7/2010 20:35:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243400003|936492|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4496.9	4496.9	97.2	%			20:37:46
1	Y RADIAL	4765.3	4765.3	97.35	%			20:37:46
1	Al 396.153Radial†	14.2	35.5	30.535	ug/L	30.535	ppb	20:37:46
1	Ca 317.933Radial†	2394.2	2450.0	4231.0	ug/L	4231.0	ppb	20:38:06
1	Fe 238.204 Radial†	13.9	1.6	15.336	ug/L	15.336	ppb	20:38:06
1	K 766.490 Radial†	5268.3	2192.5	442.18	ug/L	442.18	ppb	20:37:46
1	Mg 279.077 IEC†	31.2	30.6	1043.9	ug/L	1043.9	ppb	20:38:06
1	Na 589.592 Radial†	7733.7	9729.1	3321.7	ug/L	3321.7	ppb	20:37:46
1	Sr 421.552†	2375.0	2433.0	17.886	ug/L	17.886	ppb	20:37:46
1	Sc 361.383	901969.5	901969.5	103.28	%			20:39:03
1	Y 371.029	767995.6	767995.6	102.49	%			20:39:03
1	Ag 328.068†	435.5	-69.3	-0.3607	ug/L	-0.3607	ppb	20:39:03
1	As 188.979†	-27.3	5.0	1.7589	ug/L	1.7589	ppb	20:39:23
1	B 249.677†	-553.7	229.3	4.7557	ug/L	4.7557	ppb	20:39:23
1	Ba 233.527†	872.3	826.0	6.0869	ug/L	6.0869	ppb	20:39:23
1	Be 313.107†	-4356.4	162.0	0.0547	ug/L	0.0547	ppb	20:39:03
1	Cd 226.502†	-250.7	10.2	0.0962	ug/L	0.0962	ppb	20:39:23
1	Co 228.616†	-95.0	7.2	0.1400	ug/L	0.1400	ppb	20:39:23
1	Cr 267.716†	142.8	48.0	0.4873	ug/L	0.4873	ppb	20:39:23
1	Cu 324.752†	8415.7	44.9	0.1347	ug/L	0.1347	ppb	20:39:03
1	Mn 257.610†	1074.0	-266.5	-0.2984	ug/L	-0.2984	ppb	20:39:23
1	Mo 202.031†	37.2	9.3	0.5901	ug/L	0.5901	ppb	20:39:23
1	Ni 231.604†	140.0	19.4	0.4295	ug/L	0.4295	ppb	20:39:23
1	P 214.914†	274.2	12.9	6.2047	ug/L	6.2047	ppb	20:39:23
1	Pb 220.353†	-110.7	-5.9	-0.6086	ug/L	-0.6086	ppb	20:39:23
1	S 181.975 Axial†	540.6	465.8	526.95	ug/L	526.95	ppb	20:39:23
1	Sb 206.836†	41.0	-6.5	-2.0737	ug/L	-2.0737	ppb	20:39:23
1	Se 196.026†	-28.4	11.2	5.7596	ug/L	5.7596	ppb	20:39:23
1	Si 251.611†	182866.5	176432.6	5104.2	ug/L	5104.2	ppb	20:39:03
1	Sn 189.927†	-40.1	-43.5	-6.0596	ug/L	-6.0596	ppb	20:39:23
1	Ti 334.940†	-1759.3	50.0	0.2947	ug/L	0.2947	ppb	20:39:03
1	Tl 190.801†	-49.2	-2.0	-0.5551	ug/L	-0.5551	ppb	20:39:23
1	U 409.014†	-2542.4	446.9	13.313	ug/L	13.313	ppb	20:39:03
1	V 292.402†	-1509.9	344.4	2.2400	ug/L	2.2400	ppb	20:39:23
1	Zn 213.857†	1101.0	213.0	1.7238	ug/L	1.7238	ppb	20:39:23
1	SiO2†	183755.2	177274.4	10948	ug/L	10948	ppb	20:40:20
2	Sc Radial	4576.4	4576.4	98.9	%			20:38:11
2	Y RADIAL	4859.4	4859.4	99.27	%			20:38:11
2	Al 396.153Radial†	9.4	30.4	26.129	ug/L	26.129	ppb	20:38:11
2	Ca 317.933Radial†	2404.4	2417.4	4174.9	ug/L	4174.9	ppb	20:38:31
2	Fe 238.204 Radial†	10.6	-2.0	-18.824	ug/L	-18.824	ppb	20:38:31
2	K 766.490 Radial†	5231.4	2061.1	415.55	ug/L	415.55	ppb	20:38:11
2	Mg 279.077 IEC†	29.5	28.4	966.04	ug/L	966.04	ppb	20:38:31
2	Na 589.592 Radial†	7910.7	9769.8	3335.6	ug/L	3335.6	ppb	20:38:11
2	Sr 421.552†	2372.7	2388.1	17.556	ug/L	17.556	ppb	20:38:11
2	Sc 361.383	893129.0	893129.0	102.27	%			20:39:29
2	Y 371.029	760059.1	760059.1	101.43	%			20:39:29
2	Ag 328.068†	474.1	-27.3	-0.1886	ug/L	-0.1886	ppb	20:39:29
2	As 188.979†	-29.5	2.6	0.9214	ug/L	0.9214	ppb	20:39:49
2	B 249.677†	-527.0	250.1	5.1921	ug/L	5.1921	ppb	20:39:49
2	Ba 233.527†	899.4	860.9	6.3425	ug/L	6.3425	ppb	20:39:49
2	Be 313.107†	-4455.3	23.6	0.0080	ug/L	0.0080	ppb	20:39:29
2	Cd 226.502†	-254.8	3.8	0.0386	ug/L	0.0386	ppb	20:39:49
2	Co 228.616†	-102.8	-1.3	-0.0210	ug/L	-0.0210	ppb	20:39:49
2	Cr 267.716†	159.9	66.1	0.6700	ug/L	0.6700	ppb	20:39:49
2	Cu 324.752†	8400.5	110.7	0.3292	ug/L	0.3292	ppb	20:39:29
2	Mn 257.610†	1068.4	-261.6	-0.2953	ug/L	-0.2953	ppb	20:39:49
2	Mo 202.031†	31.1	3.7	0.2346	ug/L	0.2346	ppb	20:39:49
2	Ni 231.604†	127.9	9.0	0.1984	ug/L	0.1984	ppb	20:39:49

2	P 214.914†	272.1	13.5	6.4871	ug/L	6.4871 ppb	20:39:49
2	Pb 220.353†	-102.3	1.3	0.1402	ug/L	0.1402 ppb	20:39:49
2	S 181.975 Axial†	535.7	466.2	527.43	ug/L	527.43 ppb	20:39:49
2	Sb 206.836†	39.7	-7.4	-2.3501	ug/L	-2.3501 ppb	20:39:49
2	Se 196.026†	-36.7	2.9	1.4299	ug/L	1.4299 ppb	20:39:49
2	Si 251.611†	181249.7	176604.2	5109.2	ug/L	5109.2 ppb	20:39:29
2	Sn 189.927†	-38.4	-42.3	-5.8769	ug/L	-5.8769 ppb	20:39:49
2	Ti 334.940†	-1780.2	12.6	0.2324	ug/L	0.2324 ppb	20:39:29
2	Tl 190.801†	-54.3	-7.4	-2.0311	ug/L	-2.0311 ppb	20:39:49
2	U 409.014†	-2559.3	406.0	12.099	ug/L	12.099 ppb	20:39:29
2	V 292.402†	-1531.0	309.3	2.0132	ug/L	2.0132 ppb	20:39:49
2	Zn 213.857†	1082.4	205.3	1.6657	ug/L	1.6657 ppb	20:39:49
2	SiO2†	183706.8	178988.2	11054	ug/L	11054 ppb	20:40:25
3	Sc Radial	4567.9	4567.9	98.7	%		20:38:36
3	Y RADIAL	4817.3	4817.3	98.41	%		20:38:36
3	Al 396.153Radial†	21.4	42.5	36.585	ug/L	36.585 ppb	20:38:36
3	Ca 317.933Radial†	2424.8	2442.8	4218.6	ug/L	4218.6 ppb	20:38:56
3	Fe 238.204 Radial†	12.2	-0.4	-3.7142	ug/L	-3.7142 ppb	20:38:56
3	K 766.490 Radial†	5159.8	1998.4	402.86	ug/L	402.86 ppb	20:38:36
3	Mg 279.077 IEC†	30.1	29.0	987.57	ug/L	987.57 ppb	20:38:56
3	Na 589.592 Radial†	7874.1	9747.7	3328.0	ug/L	3328.0 ppb	20:38:36
3	Sr 421.552†	2396.8	2417.0	17.768	ug/L	17.768 ppb	20:38:36
3	Sc 361.383	902702.3	902702.3	103.36	%		20:39:54
3	Y 371.029	769217.0	769217.0	102.65	%		20:39:54
3	Ag 328.068†	428.3	-76.6	-0.3967	ug/L	-0.3967 ppb	20:39:54
3	As 188.979†	-46.5	-13.5	-4.7262	ug/L	-4.7262 ppb	20:40:14
3	B 249.677†	-574.1	210.0	4.3569	ug/L	4.3569 ppb	20:40:14
3	Ba 233.527†	878.6	831.5	6.1270	ug/L	6.1270 ppb	20:40:14
3	Be 313.107†	-4406.9	116.5	0.0392	ug/L	0.0392 ppb	20:39:54
3	Cd 226.502†	-251.1	10.0	0.0962	ug/L	0.0962 ppb	20:40:14
3	Co 228.616†	-86.9	15.1	0.2877	ug/L	0.2877 ppb	20:40:14
3	Cr 267.716†	154.8	59.5	0.6046	ug/L	0.6046 ppb	20:40:14
3	Cu 324.752†	8419.7	42.2	0.1257	ug/L	0.1257 ppb	20:39:54
3	Mn 257.610†	1054.3	-286.3	-0.3202	ug/L	-0.3202 ppb	20:40:14
3	Mo 202.031†	20.8	-6.6	-0.4188	ug/L	-0.4188 ppb	20:40:14
3	Ni 231.604†	140.2	19.5	0.4328	ug/L	0.4328 ppb	20:40:14
3	P 214.914†	265.9	4.6	2.1757	ug/L	2.1757 ppb	20:40:14
3	Pb 220.353†	-92.2	12.1	1.2621	ug/L	1.2621 ppb	20:40:14
3	S 181.975 Axial†	544.4	469.1	530.65	ug/L	530.65 ppb	20:40:14
3	Sb 206.836†	28.1	-19.0	-5.8670	ug/L	-5.8670 ppb	20:40:14
3	Se 196.026†	-40.5	-0.4	-0.2026	ug/L	-0.2026 ppb	20:40:14
3	Si 251.611†	182850.9	176273.7	5099.7	ug/L	5099.7 ppb	20:39:54
3	Sn 189.927†	-42.1	-45.4	-6.3488	ug/L	-6.3488 ppb	20:40:14
3	Ti 334.940†	-1819.8	-7.2	0.2031	ug/L	0.2031 ppb	20:39:54
3	Tl 190.801†	-57.5	-10.0	-2.7478	ug/L	-2.7478 ppb	20:40:14
3	U 409.014†	-2594.3	398.7	11.879	ug/L	11.879 ppb	20:39:54
3	V 292.402†	-1487.1	367.7	2.3721	ug/L	2.3721 ppb	20:40:14
3	Zn 213.857†	1099.4	210.5	1.7063	ug/L	1.7063 ppb	20:40:14
3	SiO2†	180506.1	173986.5	10745	ug/L	10745 ppb	20:40:30

Mean Data: 243400003|936492|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899266.9	102.97	%	0.610				0.59%
Sc Radial	4547.1	98.3	%	0.94				0.96%
Y 371.029	765757.2	102.19	%	0.664				0.65%
Y RADIAL	4814.0	98.35	%	0.963				0.98%
Ag 328.068†	-57.7	-0.3154	ug/L	0.11121	-0.3154	ppb	0.11121	35.26%
Al 396.153Radial†	36.1	31.083	ug/L	5.2497	31.083	ppb	5.2497	16.89%
As 188.979†	-1.9	-0.6820	ug/L	3.52740	-0.6820	ppb	3.52740	517.24%
B 249.677†	229.8	4.7682	ug/L	0.41772	4.7682	ppb	0.41772	8.76%
Ba 233.527†	839.5	6.1855	ug/L	0.13745	6.1855	ppb	0.13745	2.22%
Be 313.107†	100.7	0.0340	ug/L	0.02382	0.0340	ppb	0.02382	70.07%
Ca 317.933Radial†	2436.7	4208.2	ug/L	29.51	4208.2	ppb	29.51	0.70%
Cd 226.502†	8.0	0.0770	ug/L	0.03324	0.0770	ppb	0.03324	43.16%
Co 228.616†	7.0	0.1356	ug/L	0.15436	0.1356	ppb	0.15436	113.86%
Cr 267.716†	57.9	0.5873	ug/L	0.09258	0.5873	ppb	0.09258	15.76%
Cu 324.752†	65.9	0.1965	ug/L	0.11498	0.1965	ppb	0.11498	58.52%
Fe 238.204 Radial†	-0.3	-2.4010	ug/L	17.11782	-2.4010	ppb	17.11782	712.95%
K 766.490 Radial†	2084.0	420.19	ug/L	20.068	420.19	ppb	20.068	4.78%

Mg 279.077 IEC†	29.3	999.17	ug/L	40.201	999.17	ppb	40.201	4.02%
Mn 257.610†	-271.4	-0.3046	ug/L	0.01355	-0.3046	ppb	0.01355	4.45%
Mo 202.031†	2.1	0.1353	ug/L	0.51169	0.1353	ppb	0.51169	378.20%
Na 589.592 Radial†	9748.9	3328.4	ug/L	6.95	3328.4	ppb	6.95	0.21%
Ni 231.604†	16.0	0.3536	ug/L	0.13438	0.3536	ppb	0.13438	38.00%
P 214.914†	10.3	4.9558	ug/L	2.41179	4.9558	ppb	2.41179	48.67%
Pb 220.353†	2.5	0.2645	ug/L	0.94153	0.2645	ppb	0.94153	355.90%
S 181.975 Axial†	467.0	528.34	ug/L	2.014	528.34	ppb	2.014	0.38%
Sb 206.836†	-11.0	-3.4302	ug/L	2.11479	-3.4302	ppb	2.11479	61.65%
Se 196.026†	4.6	2.3290	ug/L	3.08114	2.3290	ppb	3.08114	132.30%
Si 251.611†	176436.8	5104.4	ug/L	4.77	5104.4	ppb	4.77	0.09%
Sn 189.927†	-43.7	-6.0951	ug/L	0.23794	-6.0951	ppb	0.23794	3.90%
Sr 421.552†	2412.7	17.737	ug/L	0.1671	17.737	ppb	0.1671	0.94%
Ti 334.940†	18.5	0.2434	ug/L	0.04679	0.2434	ppb	0.04679	19.22%
Tl 190.801†	-6.5	-1.7780	ug/L	1.11802	-1.7780	ppb	1.11802	62.88%
U 409.014†	417.2	12.430	ug/L	0.7726	12.430	ppb	0.7726	6.22%
V 292.402†	340.4	2.2084	ug/L	0.18151	2.2084	ppb	0.18151	8.22%
Zn 213.857†	209.6	1.6986	ug/L	0.02982	1.6986	ppb	0.02982	1.76%
SiO2†	176749.7	10916	ug/L	157.0	10916	ppb	157.0	1.44%

Sequence No.: 51
Sample ID: 243400004|936492|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 60
Date Collected: 1/7/2010 20:42:42
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243400004|936492|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4493.5	4493.5	97.1	%			20:44:35
1	Y RADIAL	4768.3	4768.3	97.41	%			20:44:35
1	Al 396.153Radial†	24.1	45.7	39.286	ug/L	39.286	ppb	20:44:35
1	Ca 317.933Radial†	2339.5	2395.5	4137.0	ug/L	4137.0	ppb	20:44:56
1	Fe 238.204 Radial†	9.9	-2.6	-24.589	ug/L	-24.589	ppb	20:44:56
1	K 766.490 Radial†	5258.8	2186.8	441.11	ug/L	441.11	ppb	20:44:35
1	Mg 279.077 IEC†	27.6	26.9	917.29	ug/L	917.29	ppb	20:44:56
1	Na 589.592 Radial†	7264.2	9251.6	3158.7	ug/L	3158.7	ppb	20:44:35
1	Sr 421.552†	2317.3	2375.3	17.462	ug/L	17.462	ppb	20:44:35
1	Sc 361.383	894285.8	894285.8	102.40	%			20:45:53
1	Y 371.029	761224.7	761224.7	101.59	%			20:45:53
1	Ag 328.068†	455.7	-45.9	-0.2725	ug/L	-0.2725	ppb	20:45:53
1	As 188.979†	-23.6	8.4	2.9449	ug/L	2.9449	ppb	20:46:13
1	B 249.677†	-560.0	218.6	4.5392	ug/L	4.5392	ppb	20:46:13
1	Ba 233.527†	851.4	812.9	5.9888	ug/L	5.9888	ppb	20:46:13
1	Be 313.107†	-4399.4	83.8	0.0275	ug/L	0.0275	ppb	20:45:53
1	Cd 226.502†	-229.4	28.9	0.2781	ug/L	0.2781	ppb	20:46:13
1	Co 228.616†	-100.5	1.0	0.0239	ug/L	0.0239	ppb	20:46:13
1	Cr 267.716†	149.2	55.4	0.5614	ug/L	0.5614	ppb	20:46:13
1	Cu 324.752†	8342.9	43.8	0.1295	ug/L	0.1295	ppb	20:45:53
1	Mn 257.610†	868.7	-457.9	-0.5016	ug/L	-0.5016	ppb	20:46:13
1	Mo 202.031†	35.5	8.0	0.5015	ug/L	0.5015	ppb	20:46:13
1	Ni 231.604†	137.6	18.2	0.4030	ug/L	0.4030	ppb	20:46:13
1	P 214.914†	268.7	9.7	4.6763	ug/L	4.6763	ppb	20:46:13
1	Pb 220.353†	-104.2	-0.5	-0.0408	ug/L	-0.0408	ppb	20:46:13
1	S 181.975 Axial†	528.6	458.5	518.75	ug/L	518.75	ppb	20:46:13
1	Sb 206.836†	46.5	-0.8	-0.3548	ug/L	-0.3548	ppb	20:46:13
1	Se 196.026†	-33.0	6.5	3.2517	ug/L	3.2517	ppb	20:46:13
1	Si 251.611†	178674.7	173860.3	5029.8	ug/L	5029.8	ppb	20:45:53
1	Sn 189.927†	-45.1	-48.8	-6.8561	ug/L	-6.8561	ppb	20:46:13
1	Ti 334.940†	-2043.8	-242.5	-0.1788	ug/L	-0.1788	ppb	20:45:53
1	Tl 190.801†	-59.5	-12.4	-3.4202	ug/L	-3.4202	ppb	20:46:13
1	U 409.014†	-2511.2	456.2	13.597	ug/L	13.597	ppb	20:45:53
1	V 292.402†	-1551.7	291.0	1.9043	ug/L	1.9043	ppb	20:46:13
1	Zn 213.857†	993.2	116.8	0.9344	ug/L	0.9344	ppb	20:46:13
1	SiO2†	177535.8	172729.4	10667	ug/L	10667	ppb	20:47:09
2	Sc Radial	4466.5	4466.5	96.5	%			20:45:01
2	Y RADIAL	4716.0	4716.0	96.35	%			20:45:01
2	Al 396.153Radial†	10.7	31.9	27.446	ug/L	27.446	ppb	20:45:01
2	Ca 317.933Radial†	2311.7	2381.3	4112.4	ug/L	4112.4	ppb	20:45:21
2	Fe 238.204 Radial†	10.4	-2.0	-19.138	ug/L	-19.138	ppb	20:45:21
2	K 766.490 Radial†	5139.8	2096.3	422.80	ug/L	422.80	ppb	20:45:01
2	Mg 279.077 IEC†	32.1	31.7	1080.9	ug/L	1080.9	ppb	20:45:21
2	Na 589.592 Radial†	7036.8	9061.2	3093.6	ug/L	3093.6	ppb	20:45:01
2	Sr 421.552†	2234.1	2303.5	16.933	ug/L	16.933	ppb	20:45:01
2	Sc 361.383	906863.9	906863.9	103.84	%			20:46:18
2	Y 371.029	771791.7	771791.7	103.00	%			20:46:18
2	Ag 328.068†	365.3	-139.1	-0.6742	ug/L	-0.6742	ppb	20:46:18
2	As 188.979†	-33.6	-0.9	-0.3129	ug/L	-0.3129	ppb	20:46:38
2	B 249.677†	-568.4	218.1	4.5277	ug/L	4.5277	ppb	20:46:38
2	Ba 233.527†	867.1	816.5	6.0154	ug/L	6.0154	ppb	20:46:38
2	Be 313.107†	-4546.0	2.1	0.0003	ug/L	0.0003	ppb	20:46:18
2	Cd 226.502†	-248.9	13.3	0.1284	ug/L	0.1284	ppb	20:46:38
2	Co 228.616†	-91.6	11.0	0.2107	ug/L	0.2107	ppb	20:46:38
2	Cr 267.716†	151.4	55.5	0.5631	ug/L	0.5631	ppb	20:46:38
2	Cu 324.752†	8412.0	-2.6	-0.0088	ug/L	-0.0088	ppb	20:46:18
2	Mn 257.610†	913.8	-426.3	-0.4708	ug/L	-0.4708	ppb	20:46:38
2	Mo 202.031†	29.4	1.6	0.1025	ug/L	0.1025	ppb	20:46:38
2	Ni 231.604†	101.1	-18.7	-0.4155	ug/L	-0.4155	ppb	20:46:38

2	P 214.914†	280.1	17.1	8.3264	ug/L	8.3264 ppb	20:46:38
2	Pb 220.353†	-83.5	20.9	2.1797	ug/L	2.1797 ppb	20:46:38
2	S 181.975 Axial†	536.9	459.4	519.70	ug/L	519.70 ppb	20:46:38
2	Sb 206.836†	44.3	-3.5	-1.1634	ug/L	-1.1634 ppb	20:46:38
2	Se 196.026†	-30.4	9.5	4.7717	ug/L	4.7717 ppb	20:46:38
2	Si 251.611†	181369.6	174035.3	5034.9	ug/L	5034.9 ppb	20:46:18
2	Sn 189.927†	-35.1	-38.5	-5.3272	ug/L	-5.3272 ppb	20:46:38
2	Ti 334.940†	-1973.8	-147.4	-0.0276	ug/L	-0.0276 ppb	20:46:18
2	Tl 190.801†	-58.5	-10.7	-2.9482	ug/L	-2.9482 ppb	20:46:38
2	U 409.014†	-2568.6	434.9	12.961	ug/L	12.961 ppb	20:46:18
2	V 292.402†	-1542.6	320.8	2.0893	ug/L	2.0893 ppb	20:46:38
2	Zn 213.857†	1014.3	123.7	0.9910	ug/L	0.9910 ppb	20:46:38
2	SiO2†	177840.0	170617.6	10537	ug/L	10537 ppb	20:47:15
3	Sc Radial	4454.7	4454.7	96.3	%		20:45:26
3	Y RADIAL	4732.2	4732.2	96.68	%		20:45:26
3	Al 396.153Radial†	38.5	60.9	52.384	ug/L	52.384 ppb	20:45:26
3	Ca 317.933Radial†	2322.0	2398.3	4141.9	ug/L	4141.9 ppb	20:45:46
3	Fe 238.204 Radial†	10.8	-1.5	-14.499	ug/L	-14.499 ppb	20:45:46
3	K 766.490 Radial†	5074.8	2043.0	412.00	ug/L	412.00 ppb	20:45:26
3	Mg 279.077 IEC†	31.7	31.4	1071.2	ug/L	1071.2 ppb	20:45:46
3	Na 589.592 Radial†	6997.6	9039.9	3086.4	ug/L	3086.4 ppb	20:45:26
3	Sr 421.552†	2258.7	2335.3	17.167	ug/L	17.167 ppb	20:45:26
3	Sc 361.383	903824.7	903824.7	103.49	%		20:46:44
3	Y 371.029	769110.2	769110.2	102.64	%		20:46:44
3	Ag 328.068†	528.0	19.3	0.0084	ug/L	0.0084 ppb	20:46:44
3	As 188.979†	-32.9	-0.3	-0.1136	ug/L	-0.1136 ppb	20:47:04
3	B 249.677†	-541.7	242.0	5.0226	ug/L	5.0226 ppb	20:47:04
3	Ba 233.527†	867.3	819.5	6.0377	ug/L	6.0377 ppb	20:47:04
3	Be 313.107†	-4479.9	51.3	0.0166	ug/L	0.0166 ppb	20:46:44
3	Cd 226.502†	-260.3	1.4	0.0154	ug/L	0.0154 ppb	20:47:04
3	Co 228.616†	-87.4	14.7	0.2817	ug/L	0.2817 ppb	20:47:04
3	Cr 267.716†	150.3	55.0	0.5549	ug/L	0.5549 ppb	20:47:04
3	Cu 324.752†	8288.0	-95.2	-0.2847	ug/L	-0.2847 ppb	20:46:44
3	Mn 257.610†	876.1	-459.8	-0.5055	ug/L	-0.5055 ppb	20:47:04
3	Mo 202.031†	26.0	-1.6	-0.1018	ug/L	-0.1018 ppb	20:47:04
3	Ni 231.604†	147.0	25.9	0.5739	ug/L	0.5739 ppb	20:47:04
3	P 214.914†	269.4	7.7	3.7555	ug/L	3.7555 ppb	20:47:04
3	Pb 220.353†	-98.4	6.2	0.6564	ug/L	0.6564 ppb	20:47:04
3	S 181.975 Axial†	537.9	462.1	522.75	ug/L	522.75 ppb	20:47:04
3	Sb 206.836†	51.9	4.0	1.0865	ug/L	1.0865 ppb	20:47:04
3	Se 196.026†	-31.5	8.3	4.1931	ug/L	4.1931 ppb	20:47:04
3	Si 251.611†	180868.4	174138.4	5037.9	ug/L	5037.9 ppb	20:46:44
3	Sn 189.927†	-36.7	-40.2	-5.5730	ug/L	-5.5730 ppb	20:47:04
3	Ti 334.940†	-2055.7	-232.9	-0.1661	ug/L	-0.1661 ppb	20:46:44
3	Tl 190.801†	-53.6	-6.1	-1.6885	ug/L	-1.6885 ppb	20:47:04
3	U 409.014†	-2309.4	677.0	20.175	ug/L	20.175 ppb	20:46:44
3	V 292.402†	-1565.6	293.6	1.9268	ug/L	1.9268 ppb	20:47:04
3	Zn 213.857†	999.5	112.7	0.8938	ug/L	0.8938 ppb	20:47:04
3	SiO2†	179228.5	172535.2	10656	ug/L	10656 ppb	20:47:20

Mean Data: 243400004|936492|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	901658.1	103.24	%	0.751				0.73%
Sc Radial	4471.6	96.6	%	0.43				0.45%
Y 371.029	767375.5	102.41	%	0.733				0.72%
Y RADIAL	4738.8	96.81	%	0.547				0.57%
Ag 328.068†	-55.2	-0.3128	ug/L	0.34311	-0.3128	ppb	0.34311	109.70%
Al 396.153Radial†	46.1	39.705	ug/L	12.4743	39.705	ppb	12.4743	31.42%
As 188.979†	2.4	0.8395	ug/L	1.82608	0.8395	ppb	1.82608	217.53%
B 249.677†	226.3	4.6965	ug/L	0.28245	4.6965	ppb	0.28245	6.01%
Ba 233.527†	816.3	6.0139	ug/L	0.02447	6.0139	ppb	0.02447	0.41%
Be 313.107†	45.7	0.0148	ug/L	0.01370	0.0148	ppb	0.01370	92.79%
Ca 317.933Radial†	2391.7	4130.4	ug/L	15.80	4130.4	ppb	15.80	0.38%
Cd 226.502†	14.5	0.1406	ug/L	0.13177	0.1406	ppb	0.13177	93.70%
Co 228.616†	8.9	0.1721	ug/L	0.13313	0.1721	ppb	0.13313	77.35%
Cr 267.716†	55.3	0.5598	ug/L	0.00432	0.5598	ppb	0.00432	0.77%
Cu 324.752†	-18.0	-0.0546	ug/L	0.21084	-0.0546	ppb	0.21084	385.81%
Fe 238.204 Radial†	-2.0	-19.409	ug/L	5.0503	-19.409	ppb	5.0503	26.02%
K 766.490 Radial†	2108.7	425.30	ug/L	14.712	425.30	ppb	14.712	3.46%

Mg 279.077 IEC†	30.0	1023.1	ug/L	91.80	1023.1	ppb	91.80	8.97%
Mn 257.610†	-448.0	-0.4926	ug/L	0.01899	-0.4926	ppb	0.01899	3.85%
Mo 202.031†	2.7	0.1674	ug/L	0.30683	0.1674	ppb	0.30683	183.27%
Na 589.592 Radial†	9117.6	3112.9	ug/L	39.80	3112.9	ppb	39.80	1.28%
Ni 231.604†	8.5	0.1871	ug/L	0.52881	0.1871	ppb	0.52881	282.58%
P 214.914†	11.5	5.5860	ug/L	2.41744	5.5860	ppb	2.41744	43.28%
Pb 220.353†	8.9	0.9318	ug/L	1.13554	0.9318	ppb	1.13554	121.87%
S 181.975 Axial†	460.0	520.40	ug/L	2.087	520.40	ppb	2.087	0.40%
Sb 206.836†	-0.1	-0.1439	ug/L	1.13970	-0.1439	ppb	1.13970	791.95%
Se 196.026†	8.1	4.0722	ug/L	0.76717	4.0722	ppb	0.76717	18.84%
Si 251.611†	174011.3	5034.2	ug/L	4.08	5034.2	ppb	4.08	0.08%
Sn 189.927†	-42.5	-5.9188	ug/L	0.82100	-5.9188	ppb	0.82100	13.87%
Sr 421.552†	2338.0	17.187	ug/L	0.2649	17.187	ppb	0.2649	1.54%
Ti 334.940†	-207.6	-0.1242	ug/L	0.08390	-0.1242	ppb	0.08390	67.57%
Tl 190.801†	-9.7	-2.6856	ug/L	0.89519	-2.6856	ppb	0.89519	33.33%
U 409.014†	522.7	15.577	ug/L	3.9945	15.577	ppb	3.9945	25.64%
V 292.402†	301.8	1.9735	ug/L	0.10096	1.9735	ppb	0.10096	5.12%
Zn 213.857†	117.8	0.9397	ug/L	0.04877	0.9397	ppb	0.04877	5.19%
SiO2†	171960.7	10620	ug/L	72.1	10620	ppb	72.1	0.68%

Sequence No.: 52
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/7/2010 20:49:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4439.1	4439.1	95.9	%			20:51:23
1	Y RADIAL	4679.6	4679.6	95.60	%			20:51:23
1	Al 396.153Radial†	5539.1	5795.6	4965.9	ug/L	4965.9	ppb	20:51:23
1	Ca 317.933Radial†	2902.5	3012.0	5201.6	ug/L	5201.6	ppb	20:51:43
1	Fe 238.204 Radial†	526.8	536.5	5161.3	ug/L	5161.3	ppb	20:51:43
1	K 766.490 Radial†	27198.6	25126.7	5080.8	ug/L	5080.8	ppb	20:51:23
1	Mg 279.077 IEC†	151.2	156.1	5326.0	ug/L	5326.0	ppb	20:51:43
1	Na 589.592 Radial†	26403.0	29296.6	10002	ug/L	10002	ppb	20:51:23
1	Sr 421.552†	62207.2	64842.9	477.68	ug/L	477.68	ppb	20:51:23
1	Sc 361.383	887179.9	887179.9	101.58	%			20:52:42
1	Y 371.029	751014.8	751014.8	100.23	%			20:52:42
1	Ag 328.068†	117427.6	115105.2	503.40	ug/L	503.40	ppb	20:52:42
1	As 188.979†	1421.6	1430.9	506.29	ug/L	506.29	ppb	20:53:02
1	B 249.677†	23732.3	24127.6	498.64	ug/L	498.64	ppb	20:52:42
1	Ba 233.527†	69588.4	68484.5	505.48	ug/L	505.48	ppb	20:52:42
1	Be 313.107†	1524293.7	1504899.2	508.16	ug/L	508.16	ppb	20:52:42
1	Cd 226.502†	53839.9	53253.1	507.07	ug/L	507.07	ppb	20:52:42
1	Co 228.616†	26872.0	26552.0	502.20	ug/L	502.20	ppb	20:53:02
1	Cr 267.716†	50347.2	49471.7	503.15	ug/L	503.15	ppb	20:52:42
1	Cu 324.752†	180303.9	169388.0	505.41	ug/L	505.41	ppb	20:52:42
1	Mn 257.610†	488257.1	479335.3	505.05	ug/L	505.05	ppb	20:52:42
1	Mo 202.031†	8087.2	7934.4	502.46	ug/L	502.46	ppb	20:53:02
1	Ni 231.604†	23158.7	22681.3	502.28	ug/L	502.28	ppb	20:53:02
1	P 214.914†	5514.7	5176.0	2458.0	ug/L	2458.0	ppb	20:53:02
1	Pb 220.353†	4870.3	4895.7	510.87	ug/L	510.87	ppb	20:53:02
1	S 181.975 Axial†	951.1	878.6	993.05	ug/L	993.05	ppb	20:53:02
1	Sb 206.836†	1713.5	1640.6	502.82	ug/L	502.82	ppb	20:53:02
1	Se 196.026†	984.1	1007.5	530.60	ug/L	530.60	ppb	20:53:02
1	Si 251.611†	88981.5	86963.6	2504.0	ug/L	2504.0	ppb	20:52:42
1	Sn 189.927†	3394.6	3336.9	498.96	ug/L	498.96	ppb	20:53:02
1	Ti 334.940†	320903.6	317651.9	508.69	ug/L	508.69	ppb	20:52:42
1	Tl 190.801†	1816.6	1833.9	506.93	ug/L	506.93	ppb	20:53:02
1	U 409.014†	13730.8	16425.2	487.84	ug/L	487.84	ppb	20:52:42
1	V 292.402†	78644.2	79224.0	509.29	ug/L	509.29	ppb	20:52:42
1	Zn 213.857†	63200.3	61361.5	503.69	ug/L	503.69	ppb	20:52:42
1	SiO2†	89417.1	87373.7	5370.1	ug/L	5370.1	ppb	20:54:02
2	Sc Radial	4450.2	4450.2	96.2	%			20:51:48
2	Y RADIAL	4691.1	4691.1	95.84	%			20:51:48
2	Al 396.153Radial†	5576.0	5819.6	4986.6	ug/L	4986.6	ppb	20:51:48
2	Ca 317.933Radial†	2902.1	3004.0	5187.9	ug/L	5187.9	ppb	20:52:08
2	Fe 238.204 Radial†	524.7	532.9	5126.9	ug/L	5126.9	ppb	20:52:08
2	K 766.490 Radial†	27349.5	25212.9	5098.2	ug/L	5098.2	ppb	20:51:48
2	Mg 279.077 IEC†	153.7	158.3	5399.0	ug/L	5399.0	ppb	20:52:08
2	Na 589.592 Radial†	26601.5	29434.3	10049	ug/L	10049	ppb	20:51:48
2	Sr 421.552†	62539.0	65026.2	479.04	ug/L	479.04	ppb	20:51:48
2	Sc 361.383	883223.1	883223.1	101.13	%			20:53:09
2	Y 371.029	749322.1	749322.1	99.999	%			20:53:09
2	Ag 328.068†	116703.1	114906.6	502.53	ug/L	502.53	ppb	20:53:09
2	As 188.979†	1405.4	1421.2	502.87	ug/L	502.87	ppb	20:53:29
2	B 249.677†	23634.7	24135.8	498.82	ug/L	498.82	ppb	20:53:09
2	Ba 233.527†	69141.3	68349.3	504.49	ug/L	504.49	ppb	20:53:09
2	Be 313.107†	1516847.5	1504258.5	507.95	ug/L	507.95	ppb	20:53:09
2	Cd 226.502†	53508.0	53162.4	506.21	ug/L	506.21	ppb	20:53:09
2	Co 228.616†	26659.8	26460.7	500.47	ug/L	500.47	ppb	20:53:29
2	Cr 267.716†	50086.0	49435.5	502.78	ug/L	502.78	ppb	20:53:09
2	Cu 324.752†	179006.7	168900.5	503.95	ug/L	503.95	ppb	20:53:09
2	Mn 257.610†	485174.1	478440.1	504.10	ug/L	504.10	ppb	20:53:09
2	Mo 202.031†	8026.1	7909.6	500.89	ug/L	500.89	ppb	20:53:29
2	Ni 231.604†	23005.9	22632.3	501.20	ug/L	501.20	ppb	20:53:29

2	P 214.914†	5471.1	5157.2	2449.0	ug/L	2449.0 ppb	20:53:29
2	Pb 220.353†	4784.5	4832.3	504.28	ug/L	504.28 ppb	20:53:29
2	S 181.975 Axial†	947.0	878.8	993.20	ug/L	993.20 ppb	20:53:29
2	Sb 206.836†	1703.8	1638.5	502.12	ug/L	502.12 ppb	20:53:29
2	Se 196.026†	976.1	1004.0	528.71	ug/L	528.71 ppb	20:53:29
2	Si 251.611†	88278.8	86661.2	2495.2	ug/L	2495.2 ppb	20:53:09
2	Sn 189.927†	3355.1	3312.8	495.35	ug/L	495.35 ppb	20:53:29
2	Ti 334.940†	318512.8	316703.0	507.18	ug/L	507.18 ppb	20:53:09
2	Tl 190.801†	1808.0	1833.4	506.79	ug/L	506.79 ppb	20:53:29
2	U 409.014†	13537.1	16294.2	483.95	ug/L	483.95 ppb	20:53:09
2	V 292.402†	78207.1	79138.6	508.73	ug/L	508.73 ppb	20:53:09
2	Zn 213.857†	62768.6	61213.3	502.47	ug/L	502.47 ppb	20:53:09
2	SiO2†	88331.2	86694.4	5328.2	ug/L	5328.2 ppb	20:54:07
3	Sc Radial	4427.3	4427.3	95.7	%		20:52:13
3	Y RADIAL	4685.2	4685.2	95.72	%		20:52:13
3	Al 396.153Radial†	5530.3	5802.0	4971.3	ug/L	4971.3 ppb	20:52:13
3	Ca 317.933Radial†	2945.4	3064.9	5293.1	ug/L	5293.1 ppb	20:52:33
3	Fe 238.204 Radial†	535.9	547.4	5266.1	ug/L	5266.1 ppb	20:52:33
3	K 766.490 Radial†	27097.1	25096.4	5074.6	ug/L	5074.6 ppb	20:52:13
3	Mg 279.077 IEC†	155.5	161.0	5492.1	ug/L	5492.1 ppb	20:52:33
3	Na 589.592 Radial†	26417.7	29385.5	10033	ug/L	10033 ppb	20:52:13
3	Sr 421.552†	62073.2	64876.3	477.93	ug/L	477.93 ppb	20:52:13
3	Sc 361.383	881256.1	881256.1	100.91	%		20:53:37
3	Y 371.029	746397.9	746397.9	99.609	%		20:53:37
3	Ag 328.068†	116441.3	114904.7	502.57	ug/L	502.57 ppb	20:53:37
3	As 188.979†	1416.5	1435.2	507.82	ug/L	507.82 ppb	20:53:57
3	B 249.677†	23568.7	24122.5	498.52	ug/L	498.52 ppb	20:53:37
3	Ba 233.527†	69006.4	68368.2	504.63	ug/L	504.63 ppb	20:53:37
3	Be 313.107†	1511626.4	1502432.1	507.33	ug/L	507.33 ppb	20:53:37
3	Cd 226.502†	53290.8	53065.2	505.27	ug/L	505.27 ppb	20:53:37
3	Co 228.616†	26691.7	26551.2	502.18	ug/L	502.18 ppb	20:53:57
3	Cr 267.716†	49929.5	49390.9	502.33	ug/L	502.33 ppb	20:53:37
3	Cu 324.752†	178819.7	169110.2	504.58	ug/L	504.58 ppb	20:53:37
3	Mn 257.610†	484605.9	478947.8	504.65	ug/L	504.65 ppb	20:53:37
3	Mo 202.031†	8029.3	7930.5	502.22	ug/L	502.22 ppb	20:53:57
3	Ni 231.604†	22992.6	22670.0	502.03	ug/L	502.03 ppb	20:53:57
3	P 214.914†	5458.5	5156.9	2448.7	ug/L	2448.7 ppb	20:53:57
3	Pb 220.353†	4833.2	4891.1	510.38	ug/L	510.38 ppb	20:53:57
3	S 181.975 Axial†	936.6	870.5	983.89	ug/L	983.89 ppb	20:53:57
3	Sb 206.836†	1707.6	1646.1	504.51	ug/L	504.51 ppb	20:53:57
3	Se 196.026†	981.1	1011.0	532.72	ug/L	532.72 ppb	20:53:57
3	Si 251.611†	88182.3	86760.4	2498.1	ug/L	2498.1 ppb	20:53:37
3	Sn 189.927†	3369.5	3334.5	498.60	ug/L	498.60 ppb	20:53:57
3	Ti 334.940†	318203.6	317099.6	507.82	ug/L	507.82 ppb	20:53:37
3	Tl 190.801†	1813.9	1843.3	509.48	ug/L	509.48 ppb	20:53:57
3	U 409.014†	13483.7	16271.2	483.24	ug/L	483.24 ppb	20:53:37
3	V 292.402†	78123.6	79228.4	509.30	ug/L	509.30 ppb	20:53:37
3	Zn 213.857†	62615.0	61199.6	502.35	ug/L	502.35 ppb	20:53:37
3	SiO2†	88689.8	87244.7	5362.1	ug/L	5362.1 ppb	20:54:12

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	883886.4	101.21	%	0.345				0.34%
Sc Radial	4438.8	95.9	%	0.25				0.26%
Y 371.029	748911.6	99.945	%	0.3117				0.31%
Y RADIAL	4685.3	95.72	%	0.117				0.12%
Ag 328.068†	114972.2	502.83	ug/L	0.493	502.83	ppb	0.493	0.10%
QC value within limits for Ag 328.068 Recovery = 100.57%								
Al 396.153Radial†	5805.7	4974.6	ug/L	10.73	4974.6	ppb	10.73	0.22%
QC value within limits for Al 396.153Radial Recovery = 99.49%								
As 188.979†	1429.1	505.66	ug/L	2.531	505.66	ppb	2.531	0.50%
QC value within limits for As 188.979 Recovery = 101.13%								
B 249.677†	24128.7	498.66	ug/L	0.150	498.66	ppb	0.150	0.03%
QC value within limits for B 249.677 Recovery = 99.73%								
Ba 233.527†	68400.6	504.87	ug/L	0.539	504.87	ppb	0.539	0.11%
QC value within limits for Ba 233.527 Recovery = 100.97%								
Be 313.107†	1503863.3	507.81	ug/L	0.432	507.81	ppb	0.432	0.09%
QC value within limits for Be 313.107 Recovery = 101.56%								
Ca 317.933Radial†	3027.0	5227.5	ug/L	57.15	5227.5	ppb	57.15	1.09%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.55%
Cd 226.502†            53160.2      506.19 ug/L         0.900      506.19 ppb          0.900   0.18%
   QC value within limits for Cd 226.502  Recovery = 101.24%
Co 228.616†            26521.3      501.62 ug/L         0.993      501.62 ppb          0.993   0.20%
   QC value within limits for Co 228.616  Recovery = 100.32%
Cr 267.716†            49432.7      502.76 ug/L         0.409      502.76 ppb          0.409   0.08%
   QC value within limits for Cr 267.716  Recovery = 100.55%
Cu 324.752†           169132.9      504.65 ug/L         0.730      504.65 ppb          0.730   0.14%
   QC value within limits for Cu 324.752  Recovery = 100.93%
Fe 238.204 Radial†       539.0      5184.8 ug/L        72.48      5184.8 ppb         72.48   1.40%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.70%
K 766.490 Radial†      25145.3      5084.6 ug/L        12.25      5084.6 ppb         12.25   0.24%
   QC value within limits for K 766.490 Radial  Recovery = 101.69%
Mg 279.077 IEC†          158.5      5405.7 ug/L        83.25      5405.7 ppb         83.25   1.54%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.11%
Mn 257.610†           478907.7      504.60 ug/L         0.476      504.60 ppb          0.476   0.09%
   QC value within limits for Mn 257.610  Recovery = 100.92%
Mo 202.031†             7924.8      501.86 ug/L         0.847      501.86 ppb          0.847   0.17%
   QC value within limits for Mo 202.031  Recovery = 100.37%
Na 589.592 Radial†     29372.1       10028 ug/L         23.8       10028 ppb          23.8   0.24%
   QC value within limits for Na 589.592 Radial  Recovery = 100.28%
Ni 231.604†            22661.2      501.84 ug/L         0.568      501.84 ppb          0.568   0.11%
   QC value within limits for Ni 231.604  Recovery = 100.37%
P 214.914†              5163.4      2451.9 ug/L         5.29      2451.9 ppb          5.29   0.22%
   QC value within limits for P 214.914  Recovery = 98.08%
Pb 220.353†             4873.0      508.51 ug/L         3.674      508.51 ppb          3.674   0.72%
   QC value within limits for Pb 220.353  Recovery = 101.70%
S 181.975 Axial†         876.0      990.05 ug/L         5.331      990.05 ppb          5.331   0.54%
   QC value within limits for S 181.975 Axial  Recovery = 99.00%
Sb 206.836†             1641.7      503.15 ug/L         1.227      503.15 ppb          1.227   0.24%
   QC value within limits for Sb 206.836  Recovery = 100.63%
Se 196.026†             1007.5      530.68 ug/L         2.005      530.68 ppb          2.005   0.38%
   QC value within limits for Se 196.026  Recovery = 106.14%
Si 251.611†            86795.0      2499.1 ug/L         4.44      2499.1 ppb          4.44   0.18%
   QC value within limits for Si 251.611  Recovery = 99.96%
Sn 189.927†             3328.1      497.64 ug/L         1.987      497.64 ppb          1.987   0.40%
   QC value within limits for Sn 189.927  Recovery = 99.53%
Sr 421.552†            64915.2      478.22 ug/L         0.719      478.22 ppb          0.719   0.15%
   QC value within limits for Sr 421.552  Recovery = 95.64%
Ti 334.940†           317151.5      507.90 ug/L         0.762      507.90 ppb          0.762   0.15%
   QC value within limits for Ti 334.940  Recovery = 101.58%
Tl 190.801†             1836.9      507.73 ug/L         1.515      507.73 ppb          1.515   0.30%
   QC value within limits for Tl 190.801  Recovery = 101.55%
U 409.014†             16330.2      485.01 ug/L         2.479      485.01 ppb          2.479   0.51%
   QC value within limits for U 409.014  Recovery = 97.00%
V 292.402†             79197.0      509.11 ug/L         0.326      509.11 ppb          0.326   0.06%
   QC value within limits for V 292.402  Recovery = 101.82%
Zn 213.857†            61258.1      502.84 ug/L         0.744      502.84 ppb          0.744   0.15%
   QC value within limits for Zn 213.857  Recovery = 100.57%
SiO2†                  87104.3      5353.5 ug/L        22.25      5353.5 ppb         22.25   0.42%
   QC value within limits for SiO2  Recovery = 100.11%
All analyte(s) passed QC.
```

Sequence No.: 53
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/7/2010 20:56:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4396.2	4396.2	95.0	%			20:58:14
1	Y RADIAL	4681.7	4681.7	95.64	%			20:58:14
1	Al 396.153Radial†	-15.6	4.4	3.8216	ug/L	3.8216	ppb	20:58:14
1	Ca 317.933Radial†	11.9	-1.4	-2.4909	ug/L	-2.4909	ppb	20:58:34
1	Fe 238.204 Radial†	10.1	-2.1	-19.916	ug/L	-19.916	ppb	20:58:34
1	K 766.490 Radial†	3118.5	53.6	10.828	ug/L	10.828	ppb	20:58:14
1	Mg 279.077 IEC†	-1.2	-2.8	-94.737	ug/L	-94.737	ppb	20:58:34
1	Na 589.592 Radial†	-1454.1	239.3	81.698	ug/L	81.698	ppb	20:58:14
1	Sr 421.552†	13.4	2.8	0.0210	ug/L	0.0210	ppb	20:58:14
1	Sc 361.383	863943.5	863943.5	98.924	%			20:59:31
1	Y 371.029	741634.3	741634.3	98.973	%			20:59:31
1	Ag 328.068†	342.7	-144.5	-0.6397	ug/L	-0.6397	ppb	20:59:31
1	As 188.979†	-35.5	-4.4	-1.5577	ug/L	-1.5577	ppb	20:59:51
1	B 249.677†	-671.5	86.7	1.8012	ug/L	1.8012	ppb	20:59:31
1	Ba 233.527†	5.1	-13.4	-0.1003	ug/L	-0.1003	ppb	20:59:51
1	Be 313.107†	-4343.1	-10.2	-0.0037	ug/L	-0.0037	ppb	20:59:31
1	Cd 226.502†	-244.8	5.5	0.0543	ug/L	0.0543	ppb	20:59:51
1	Co 228.616†	-92.9	5.3	0.1004	ug/L	0.1004	ppb	20:59:51
1	Cr 267.716†	114.9	25.9	0.2606	ug/L	0.2606	ppb	20:59:31
1	Cu 324.752†	8081.4	65.7	0.1948	ug/L	0.1948	ppb	20:59:31
1	Mn 257.610†	774.4	-523.5	-0.5514	ug/L	-0.5514	ppb	20:59:31
1	Mo 202.031†	28.0	1.6	0.0979	ug/L	0.0979	ppb	20:59:51
1	Ni 231.604†	134.9	20.3	0.4491	ug/L	0.4491	ppb	20:59:51
1	P 214.914†	252.2	2.3	1.0969	ug/L	1.0969	ppb	20:59:51
1	Pb 220.353†	-94.4	5.9	0.6148	ug/L	0.6148	ppb	20:59:51
1	S 181.975 Axial†	56.9	-0.1	-0.1286	ug/L	-0.1286	ppb	20:59:51
1	Sb 206.836†	41.9	-3.8	-1.1781	ug/L	-1.1781	ppb	20:59:51
1	Se 196.026†	-45.1	-6.8	-3.5226	ug/L	-3.5226	ppb	20:59:51
1	Si 251.611†	629.8	6.6	0.1889	ug/L	0.1889	ppb	20:59:51
1	Sn 189.927†	-1.4	-6.1	-0.9187	ug/L	-0.9187	ppb	20:59:51
1	Ti 334.940†	-1816.8	-83.2	-0.1354	ug/L	-0.1354	ppb	20:59:31
1	Tl 190.801†	-44.6	0.6	0.1485	ug/L	0.1485	ppb	20:59:51
1	U 409.014†	-2728.2	150.7	4.4931	ug/L	4.4931	ppb	20:59:31
1	V 292.402†	-1839.7	-53.3	-0.3271	ug/L	-0.3271	ppb	20:59:31
1	Zn 213.857†	824.8	-19.3	-0.1588	ug/L	-0.1588	ppb	20:59:51
1	SiO2†	628.2	-13.6	-0.8482	ug/L	-0.8482	ppb	21:00:47
2	Sc Radial	4502.6	4502.6	97.3	%			20:58:39
2	Y RADIAL	4770.3	4770.3	97.45	%			20:58:39
2	Al 396.153Radial†	-13.6	6.8	5.8689	ug/L	5.8689	ppb	20:58:39
2	Ca 317.933Radial†	15.5	1.9	3.3146	ug/L	3.3146	ppb	20:58:59
2	Fe 238.204 Radial†	7.8	-4.7	-45.359	ug/L	-45.359	ppb	20:58:59
2	K 766.490 Radial†	3221.4	81.8	16.520	ug/L	16.520	ppb	20:58:39
2	Mg 279.077 IEC†	3.1	1.7	58.149	ug/L	58.149	ppb	20:58:59
2	Na 589.592 Radial†	-1401.2	329.8	112.60	ug/L	112.60	ppb	20:58:39
2	Sr 421.552†	37.0	26.7	0.1967	ug/L	0.1967	ppb	20:58:39
2	Sc 361.383	867723.3	867723.3	99.357	%			20:59:56
2	Y 371.029	745972.5	745972.5	99.552	%			20:59:56
2	Ag 328.068†	485.5	-2.3	-0.0271	ug/L	-0.0271	ppb	20:59:56
2	As 188.979†	-26.9	4.4	1.5293	ug/L	1.5293	ppb	21:00:16
2	B 249.677†	-691.8	69.1	1.4406	ug/L	1.4406	ppb	20:59:56
2	Ba 233.527†	6.0	-12.5	-0.0935	ug/L	-0.0935	ppb	21:00:16
2	Be 313.107†	-4319.6	32.5	0.0108	ug/L	0.0108	ppb	20:59:56
2	Cd 226.502†	-245.5	5.9	0.0610	ug/L	0.0610	ppb	21:00:16
2	Co 228.616†	-96.2	2.4	0.0470	ug/L	0.0470	ppb	21:00:16
2	Cr 267.716†	108.9	19.4	0.1954	ug/L	0.1954	ppb	20:59:56
2	Cu 324.752†	8144.9	94.0	0.2781	ug/L	0.2781	ppb	20:59:56
2	Mn 257.610†	756.8	-544.6	-0.5790	ug/L	-0.5790	ppb	20:59:56
2	Mo 202.031†	32.1	5.6	0.3490	ug/L	0.3490	ppb	21:00:16
2	Ni 231.604†	135.0	19.8	0.4381	ug/L	0.4381	ppb	21:00:16

2	P 214.914†	259.7	8.8	4.2741 ug/L	4.2741 ppb	21:00:16
2	Pb 220.353†	-87.3	13.4	1.4032 ug/L	1.4032 ppb	21:00:16
2	S 181.975 Axial†	53.6	-3.7	-4.2093 ug/L	-4.2093 ppb	21:00:16
2	Sb 206.836†	45.3	-0.6	-0.1736 ug/L	-0.1736 ppb	21:00:16
2	Se 196.026†	-27.4	11.2	5.5386 ug/L	5.5386 ppb	21:00:16
2	Si 251.611†	631.4	5.5	0.1470 ug/L	0.1470 ppb	21:00:16
2	Sn 189.927†	2.6	-2.1	-0.3106 ug/L	-0.3106 ppb	21:00:16
2	Ti 334.940†	-1798.5	-56.7	-0.0914 ug/L	-0.0914 ppb	20:59:56
2	Tl 190.801†	-40.0	5.4	1.4904 ug/L	1.4904 ppb	21:00:16
2	U 409.014†	-2838.8	51.4	1.5375 ug/L	1.5375 ppb	20:59:56
2	V 292.402†	-1818.1	-23.5	-0.1329 ug/L	-0.1329 ppb	20:59:56
2	Zn 213.857†	808.7	-39.1	-0.3265 ug/L	-0.3265 ppb	21:00:16
2	SiO2†	668.9	24.5	1.4918 ug/L	1.4918 ppb	21:00:52
3	Sc Radial	4455.9	4455.9	96.3 %		20:59:04
3	Y RADIAL	4730.0	4730.0	96.63 %		20:59:04
3	Al 396.153Radial†	21.3	43.0	36.980 ug/L	36.980 ppb	20:59:04
3	Ca 317.933Radial†	15.7	2.3	4.0158 ug/L	4.0158 ppb	20:59:24
3	Fe 238.204 Radial†	9.9	-2.4	-23.071 ug/L	-23.071 ppb	20:59:24
3	K 766.490 Radial†	3010.7	-102.3	-20.760 ug/L	-20.760 ppb	20:59:04
3	Mg 279.077 IEC†	2.5	1.1	36.563 ug/L	36.563 ppb	20:59:24
3	Na 589.592 Radial†	-1444.4	269.8	92.128 ug/L	92.128 ppb	20:59:04
3	Sr 421.552†	26.1	15.8	0.1161 ug/L	0.1161 ppb	20:59:04
3	Sc 361.383	866003.8	866003.8	99.160 %		21:00:22
3	Y 371.029	743398.7	743398.7	99.209 %		21:00:22
3	Ag 328.068†	423.5	-63.9	-0.2844 ug/L	-0.2844 ppb	21:00:22
3	As 188.979†	-28.3	3.0	1.0389 ug/L	1.0389 ppb	21:00:42
3	B 249.677†	-733.5	25.7	0.5359 ug/L	0.5359 ppb	21:00:22
3	Ba 233.527†	9.0	-9.5	-0.0699 ug/L	-0.0699 ppb	21:00:42
3	Be 313.107†	-4371.0	-27.9	-0.0094 ug/L	-0.0094 ppb	21:00:22
3	Cd 226.502†	-247.5	3.4	0.0346 ug/L	0.0346 ppb	21:00:42
3	Co 228.616†	-70.6	28.0	0.5301 ug/L	0.5301 ppb	21:00:42
3	Cr 267.716†	140.9	51.9	0.5265 ug/L	0.5265 ppb	21:00:22
3	Cu 324.752†	8096.9	61.8	0.1832 ug/L	0.1832 ppb	21:00:22
3	Mn 257.610†	786.2	-513.5	-0.5436 ug/L	-0.5436 ppb	21:00:22
3	Mo 202.031†	26.7	0.2	0.0089 ug/L	0.0089 ppb	21:00:42
3	Ni 231.604†	136.6	21.6	0.4781 ug/L	0.4781 ppb	21:00:42
3	P 214.914†	248.5	-2.0	-0.9779 ug/L	-0.9779 ppb	21:00:42
3	Pb 220.353†	-88.9	11.6	1.2204 ug/L	1.2204 ppb	21:00:42
3	S 181.975 Axial†	50.9	-6.3	-7.1516 ug/L	-7.1516 ppb	21:00:42
3	Sb 206.836†	49.3	3.5	1.0506 ug/L	1.0506 ppb	21:00:42
3	Se 196.026†	-37.2	1.2	0.5484 ug/L	0.5484 ppb	21:00:42
3	Si 251.611†	623.4	-1.4	-0.0347 ug/L	-0.0347 ppb	21:00:42
3	Sn 189.927†	6.3	1.7	0.2485 ug/L	0.2485 ppb	21:00:42
3	Ti 334.940†	-1735.6	3.1	0.0049 ug/L	0.0049 ppb	21:00:22
3	Tl 190.801†	-48.5	-3.3	-0.9054 ug/L	-0.9054 ppb	21:00:42
3	U 409.014†	-2868.8	15.4	0.4611 ug/L	0.4611 ppb	21:00:22
3	V 292.402†	-1738.4	53.3	0.3432 ug/L	0.3432 ppb	21:00:22
3	Zn 213.857†	807.6	-38.6	-0.3230 ug/L	-0.3230 ppb	21:00:42
3	SiO2†	710.9	68.2	4.2255 ug/L	4.2255 ppb	21:00:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	865890.2	99.147	%	0.2167				0.22%
Sc Radial	4451.6	96.2	%	1.15				1.20%
Y 371.029	743668.5	99.245	%	0.2912				0.29%
Y RADIAL	4727.3	96.58	%	0.906				0.94%
Ag 328.068†	-70.2	-0.3170	ug/L	0.30761	-0.3170	ppb	0.30761	97.03%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	18.1	15.557	ug/L	18.5813	15.557	ppb	18.5813	119.44%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.0	0.3368	ug/L	1.65893	0.3368	ppb	1.65893	492.50%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	60.5	1.2592	ug/L	0.65187	1.2592	ppb	0.65187	51.77%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-11.8	-0.0879	ug/L	0.01590	-0.0879	ppb	0.01590	18.09%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1.9	-0.0008	ug/L	0.01040	-0.0008	ppb	0.01040	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.9	1.6132	ug/L	3.57147	1.6132	ppb	3.57147	221.40%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 4.9      0.0500 ug/L       0.01372      0.0500 ppb        0.01372  27.44%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                11.9      0.2258 ug/L       0.26488      0.2258 ppb        0.26488 117.29%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                32.4      0.3275 ug/L       0.17544      0.3275 ppb        0.17544  53.57%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                73.8      0.2187 ug/L       0.05174      0.2187 ppb        0.05174  23.65%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -3.1     -29.449 ug/L      13.8689     -29.449 ppb       13.8689  47.10%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          11.0      2.1959 ug/L      20.08303      2.1959 ppb       20.08303 914.57%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.0     -0.0082 ug/L      82.74435     -0.0082 ppb       82.74435 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -527.2     -0.5580 ug/L       0.01861     -0.5580 ppb        0.01861   3.34%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.4      0.1520 ug/L       0.17638      0.1520 ppb        0.17638 116.06%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        279.6     95.475 ug/L       15.7204     95.475 ppb        15.7204  16.47%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                20.5      0.4551 ug/L       0.02064      0.4551 ppb        0.02064   4.54%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  3.0      1.4644 ug/L       2.64522      1.4644 ppb        2.64522 180.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                10.3      1.0795 ug/L       0.41264      1.0795 ppb        0.41264  38.23%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.4     -3.8298 ug/L       3.52688     -3.8298 ppb        3.52688  92.09%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.3     -0.1004 ug/L       1.11611     -0.1004 ppb        1.11611 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.9      0.8548 ug/L       4.53839      0.8548 ppb        4.53839 530.92%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 3.6      0.1004 ug/L       0.11887      0.1004 ppb        0.11887 118.41%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -2.2     -0.3270 ug/L       0.58377     -0.3270 ppb        0.58377 178.55%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                15.1      0.1113 ug/L       0.08797      0.1113 ppb        0.08797  79.04%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -45.6     -0.0740 ug/L       0.07172     -0.0740 ppb        0.07172  96.96%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.9      0.2445 ug/L       1.20080      0.2445 ppb        1.20080 491.14%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 72.5      2.1639 ug/L       2.08773      2.1639 ppb        2.08773  96.48%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -7.8     -0.0389 ug/L       0.34488     -0.0389 ppb        0.34488 886.68%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -32.4     -0.2694 ug/L       0.09582     -0.2694 ppb        0.09582  35.56%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      26.4      1.6230 ug/L       2.53938      1.6230 ppb        2.53938 156.46%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, January 04, 2010 10:41:22
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1649
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35
Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	3512.2	3512.232	128.283	3.7
	Mg	24.0	47233.8	47233.766	549.550	1.2
	Co	58.9	91025.3	91025.285	607.526	0.7
	Rh	102.9	159862.9	159862.908	854.487	0.5
	In	114.9	235956.6	235956.608	2146.407	0.9
	Pb	208.0	253887.3	253887.313	2157.230	0.8
⌈>	Ba	137.9	224624.4	224624.356	2155.436	1.0
⌊	Ba++	69.0	4388.7	0.020	0.000	1.4
⌈>	Ce	139.9	272378.1	272378.061	2256.038	0.8
⌊	CeO	155.9	6598.6	0.024	0.000	0.5
	Bkgd	220.0	17.5	17.500	4.373	25.0

Current Optimization File Data

Current Value	Description
0.85	Nebulizer Gas Flow
7.00	Lens Voltage
1450.00	ICP RF Power
-1687.50	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	7.3	4566.4
Co	59	17	8.3	89391.5
In	115	17	9.5	240006.3

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	599	2065	0.576
Be	9.0	9.0	2054	2070	0.606
Mg	24.0	24.0	5691	2070	0.612
Mg	25.0	25.0	5943	2070	0.610
Mg	26.0	25.9	6158	2070	0.637
Co	58.9	58.9	14184	2105	0.603
Rh	102.9	102.9	24870	2165	0.605
In	114.9	114.9	27796	2185	0.592
Ce	139.9	139.9	33868	2200	0.621
Pb	206.0	206.0	49948	2270	0.640
Pb	207.0	207.0	50171	2235	0.676
Pb	208.0	208.0	50439	2260	0.704
U	238.1	238.0	57722	2275	0.705

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Monday, January 04, 2010 19:54:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\Blank.168

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		33	
	Be	9		ug/L		16	
	B	11		ug/L		311	
	Na	23		ug/L		14341	
	Mg	24		ug/L		1000	
	Al	27		ug/L		1667	
	P	31		ug/L		6102	
	K	39		ug/L		614263	
	Ca	43		ug/L		240	
>	Sc	45		ug/L		979790	
	Ti	47		ug/L		351	
	V	51		ug/L		2233	
	Cr	52		ug/L		-1873	
	Cr	53		ug/L		124943	
	Mn	55		ug/L		915	
	Fe	57		ug/L		4838	
	Co	59		ug/L		78	
	Ni	60		ug/L		74	
	Cu	63		ug/L		302	
	Cu	65		ug/L		127	
	Zn	66		ug/L		191	
	Zn	67		ug/L		12193	
	Zn	68		ug/L		1422	
>	Ge	74		ug/L		427512	
	As	75		ug/L		-50	
	Se	77		ug/L		7733	
	Se	82		ug/L		-18	
	Kr	83		ug/L		108	
	Sr	88		ug/L		136	
	Y	89		ug/L		53	
	Mo	98		ug/L		43	
	Ag	107		ug/L		34	
	Cd	111		ug/L		12	
	Cd	114		ug/L		26	
>	In	115		ug/L		286777	
	Sn	120		ug/L		320	
	Sb	121		ug/L		253	
	Sb	123		ug/L		202	
	Ba	135		ug/L		32	
	Ba	137		ug/L		34	
	Ho	165		ug/L		29	
>	Lu	175		ug/L		582077	
	Tl	205		ug/L		2914	
	Pb	208		ug/L		204	
	Bi	209		ug/L		118	
	Th	232		ug/L		524	
	U	238		ug/L		89	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Be	9	Simple Linear	
B	11	Simple Linear	
Na	23	Simple Linear	
Mg	24	Simple Linear	
Al	27	Simple Linear	
P	31	Simple Linear	
K	39	Simple Linear	
Ca	43	Simple Linear	
Sc	45	Simple Linear	
Ti	47	Simple Linear	
V	51	Simple Linear	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Mn	55	Simple Linear	
Fe	57	Simple Linear	
Co	59	Simple Linear	
Ni	60	Simple Linear	
Cu	63	Simple Linear	
Cu	65	Simple Linear	
Zn	66	Simple Linear	
Zn	67	Simple Linear	
Zn	68	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Sr	88	Simple Linear	
Y	89	Simple Linear	
Mo	98	Simple Linear	
Ag	107	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sn	120	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Ba	135	Simple Linear	
Ba	137	Simple Linear	
Ho	165	Simple Linear	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Simple Linear	
Bi	209	Simple Linear	
Th	232	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Monday, January 04, 2010 20:00:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\Standard 1.169

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	2.196	16543	0.017
	Be	9	10.000	ug/L	3.584	4527	0.005
	B	11	20.000	ug/L	4.868	8701	0.009
	Na	23	1000.000	ug/L	7.814	4468251	4.542
	Mg	24	1000.000	ug/L	6.891	2913538	2.973
	Al	27	1000.000	ug/L	9.406	4009819	4.093
	P	31	1000.000	ug/L	3.647	252167	0.251
	K	39	1000.000	ug/L	2.020	6002993	5.495
	Ca	43	1000.000	ug/L	1.696	13305	0.013
>	Sc	45		ug/L		980467	980466.543
	Ti	47	10.000	ug/L	2.011	6475	0.006
	V	51	10.000	ug/L	3.757	75495	0.075
	Cr	52	10.000	ug/L	1.159	53760	0.057
	Cr	53		ug/L		123566	-0.002
	Mn	55	10.000	ug/L	2.532	94985	0.096
	Fe	57	1000.000	ug/L	2.822	193011	0.192
	Co	59	10.000	ug/L	2.220	71945	0.073
	Ni	60	10.000	ug/L	3.148	15441	0.016
	Cu	63		ug/L		37472	0.038
	Cu	65	10.000	ug/L	3.230	18227	0.018
	Zn	66	10.000	ug/L	1.899	12519	0.029
	Zn	67		ug/L		13972	0.004
	Zn	68		ug/L		9966	0.020
>	Ge	74		ug/L		426518	426517.954
	As	75	10.000	ug/L	5.673	11671	0.027
	Se	77		ug/L		7911	0.000
	Se	82	10.000	ug/L	1.804	1156	0.003
	Kr	83		ug/L		108	0.000
	Sr	88	10.000	ug/L	2.547	140678	0.495
	Y	89		ug/L		69	0.000
	Mo	98	10.000	ug/L	1.076	32852	0.116
	Ag	107	10.000	ug/L	0.834	60171	0.212
	Cd	111	10.000	ug/L	2.661	15369	0.054
	Cd	114		ug/L		37317	0.131
>	In	115		ug/L		284064	284064.479
	Sn	120	10.000	ug/L	0.486	67706	0.237
	Sb	121	10.000	ug/L	7.182	54197	0.190
	Sb	123		ug/L		42287	0.148
	Ba	135		ug/L		16831	0.029
	Ba	137	10.000	ug/L	1.223	29407	0.050
	Ho	165		ug/L		28	-0.000
>	Lu	175		ug/L		586296	586296.323
	Tl	205	10.000	ug/L	1.245	277655	0.469
	Pb	208	10.000	ug/L	2.025	420169	0.716
	Bi	209		ug/L		220	0.000
	Th	232	10.000	ug/L	2.066	517824	0.882
	U	238	10.000	ug/L	1.539	540279	0.921

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Monday, January 04, 2010 20:07:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\Standard 2.170

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.972**	**ug/L**	0.137	158098	0.164
	Be	9	**99.983**	**ug/L**	0.518	43656	0.045
	B	11	**199.991**	**ug/L**	1.518	82545	0.085
	Na	23	**9996.191**	**ug/L**	5.968	42222347	43.734
	Mg	24	**10009.304**	**ug/L**	7.575	31667624	32.813
	Al	27	**10008.401**	**ug/L**	3.076	43160228	44.725
	P	31	**10004.585**	**ug/L**	3.210	2546057	2.633
	K	39	**9999.681**	**ug/L**	0.523	53457845	54.776
	Ca	43	**9998.415**	**ug/L**	1.625	126798	0.131
>	Sc	45		**ug/L**		964880	964880.406
	Ti	47	**100.025**	**ug/L**	1.472	62183	0.064
	V	51	**99.926**	**ug/L**	0.321	672957	0.695
	Cr	52	**99.966**	**ug/L**	0.508	527449	0.549
	Cr	53		**ug/L**		161092	0.039
	Mn	55	**99.944**	**ug/L**	0.451	877065	0.908
	Fe	57	**9989.199**	**ug/L**	1.068	1674908	1.731
	Co	59	**99.955**	**ug/L**	0.743	676546	0.701
	Ni	60	**99.982**	**ug/L**	3.240	148726	0.154
	Cu	63		**ug/L**		352564	0.365
	Cu	65	**99.969**	**ug/L**	0.975	172837	0.179
	Zn	66	**99.970**	**ug/L**	1.401	119289	0.281
	Zn	67		**ug/L**		29998	0.042
	Zn	68		**ug/L**		85543	0.198
>	Ge	74		**ug/L**		424636	424636.336
	As	75	**99.998**	**ug/L**	1.194	116504	0.274
	Se	77		**ug/L**		13981	0.015
	Se	82	**99.975**	**ug/L**	2.141	11382	0.027
	Kr	83		**ug/L**		123	0.000
	Sr	88	**99.900**	**ug/L**	0.353	1274586	4.494
	Y	89		**ug/L**		166	0.000
	Mo	98	**99.990**	**ug/L**	1.249	324183	1.143
	Ag	107	**99.929**	**ug/L**	0.480	560329	1.976
	Cd	111	**99.968**	**ug/L**	1.095	148492	0.524
	Cd	114		**ug/L**		364474	1.285
>	In	115		**ug/L**		283584	283583.936
	Sn	120	**99.939**	**ug/L**	2.270	633722	2.234
	Sb	121	**100.010**	**ug/L**	2.068	544537	1.919
	Sb	123		**ug/L**		430623	1.518
	Ba	135		**ug/L**		163349	0.288
	Ba	137	**100.000**	**ug/L**	2.265	284014	0.501
	Ho	165		**ug/L**		41	0.000
>	Lu	175		**ug/L**		567064	567064.325
	Tl	205	**99.819**	**ug/L**	4.049	2247079	3.959
	Pb	208	**99.868**	**ug/L**	1.045	3583686	6.320
	Bi	209		**ug/L**		524	0.001
	Th	232	**99.803**	**ug/L**	3.048	4169992	7.355
	U	238	**99.862**	**ug/L**	1.496	4586706	8.089

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
Sc	45					
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
Ge	74					
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
In	115					
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
Lu	175					
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Monday, January 04, 2010 20:13:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 1.171

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.226**	**ug/L**	0.738	80551	0.082
	Be	9	**50.585**	**ug/L**	3.874	22398	0.023
	B	11	**103.595**	**ug/L**	1.543	43496	0.044
	Na	23	**4962.484**	**ug/L**	13.222	21237336	21.711
	Mg	24	**4828.163**	**ug/L**	4.660	15496179	15.828
	Al	27	**4853.870**	**ug/L**	9.259	21209510	21.691
	P	31	**4504.553**	**ug/L**	2.296	1165466	1.185
	K	39	**5071.657**	**ug/L**	3.364	27805912	27.781
	Ca	43	**5072.229**	**ug/L**	0.540	65343	0.067
>	Sc	45		ug/L		978370	978369.775
	Ti	47	**49.904**	**ug/L**	2.765	31624	0.032
	V	51	**51.964**	**ug/L**	2.808	355789	0.362
	Cr	52	**51.912**	**ug/L**	1.571	276783	0.285
	Cr	53		ug/L		133039	0.009
	Mn	55	**52.808**	**ug/L**	2.453	470237	0.480
	Fe	57	**5279.072**	**ug/L**	1.330	899649	0.915
	Co	59	**51.102**	**ug/L**	2.539	350665	0.358
	Ni	60	**52.080**	**ug/L**	2.135	78574	0.080
	Cu	63		ug/L		186430	0.190
	Cu	65	**51.069**	**ug/L**	2.044	89566	0.091
	Zn	66	**52.834**	**ug/L**	2.505	63827	0.148
	Zn	67		ug/L		21525	0.022
	Zn	68		ug/L		46070	0.104
>	Ge	74		ug/L		429344	429344.201
	As	75	**48.986**	**ug/L**	1.637	57674	0.134
	Se	77		ug/L		9575	0.004
	Se	82	**51.045**	**ug/L**	2.435	5867	0.014
	Kr	83		ug/L		110	0.000
	Sr	88	**53.610**	**ug/L**	2.370	692451	2.412
	Y	89		ug/L		92	0.000
	Mo	98	**49.675**	**ug/L**	2.047	163076	0.568
	Ag	107	**51.294**	**ug/L**	2.104	291194	1.014
	Cd	111	**51.074**	**ug/L**	2.277	76808	0.268
	Cd	114		ug/L		188925	0.658
>	In	115		ug/L		287103	287102.985
	Sn	120	**51.438**	**ug/L**	1.284	330453	1.150
	Sb	121	**52.154**	**ug/L**	3.032	287594	1.001
	Sb	123		ug/L		225531	0.785
	Ba	135		ug/L		84534	0.146
	Ba	137	**50.666**	**ug/L**	1.810	147140	0.254
	Ho	165		ug/L		67	0.000
>	Lu	175		ug/L		579826	579826.280
	Tl	205	**51.469**	**ug/L**	1.778	1186217	2.041
	Pb	208	**53.703**	**ug/L**	2.884	1969723	3.398
	Bi	209		ug/L		584	0.001
	Th	232	**51.009**	**ug/L**	2.384	2179265	3.759
	U	238	**52.270**	**ug/L**	2.059	2454414	4.234

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovr	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	100.451				
	Be	9	101.171				
	B	11	103.595				
	Na	23	99.250				
	Mg	24	96.563				
	Al	27	96.116				
	P	31	90.091				
	K	39	101.433				
	Ca	43	101.445				
>	Sc	45		99.9			
	Ti	47	99.807				
	V	51	103.927				
	Cr	52	103.823				
	Cr	53					
	Mn	55	105.616				
	Fe	57	105.581				
	Co	59	102.204				
	Ni	60	104.160				
	Cu	63					
	Cu	65	102.137				
	Zn	66	105.667				
	Zn	67					
	Zn	68					
>	Ge	74		100.4			
	As	75	97.973				
	Se	77					
	Se	82	102.091				
	Kr	83					
	Sr	88	107.221				
	Y	89					
	Mo	98	99.351				
	Ag	107	102.588				
	Cd	111	102.149				
	Cd	114					
>	In	115		100.1			
	Sn	120	102.876				
	Sb	121	104.309				
	Sb	123					
	Ba	135					
	Ba	137	101.333				
	Ho	165					
>	Lu	175		99.6			
	Tl	205	102.939				
	Pb	208	107.405				
	Bi	209					
	Th	232	102.019				
	U	238	104.541				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Monday, January 04, 2010 20:19:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 2.172

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.008**	**ug/L**	30.462	46	0.000
	Be	9	**0.006**	**ug/L**	139.350	19	0.000
	B	11	**2.475**	**ug/L**	27.759	1360	0.001
	Na	23	**-0.440**	**ug/L**	133.222	12672	-0.002
	Mg	24	**-0.112**	**ug/L**	307.140	667	-0.000
	Al	27	**0.662**	**ug/L**	99.492	4668	0.003
	P	31	**-1.590**	**ug/L**	60.922	5770	-0.000
	K	39	**-2.240**	**ug/L**	39.282	610788	-0.012
	Ca	43	**-1.743**	**ug/L**	8.250	221	-0.000
>	Sc	45		**ug/L**		993743	993743.028
	Ti	47	**-0.054**	**ug/L**	68.806	321	-0.000
	V	51	**0.260**	**ug/L**	132.427	4026	0.002
	Cr	52	**0.012**	**ug/L**	317.404	-1834	0.000
	Cr	53		**ug/L**		105232	-0.022
	Mn	55	**-0.009**	**ug/L**	60.533	845	-0.000
	Fe	57	**-1.625**	**ug/L**	47.872	4625	-0.000
	Co	59	**0.004**	**ug/L**	28.639	104	0.000
	Ni	60	**-0.000**	**ug/L**	4585.713	75	-0.000
	Cu	63		**ug/L**		326	0.000
	Cu	65	**0.015**	**ug/L**	54.615	154	0.000
	Zn	66	**0.011**	**ug/L**	98.304	208	0.000
	Zn	67		**ug/L**		11461	-0.002
	Zn	68		**ug/L**		1305	-0.000
>	Ge	74		**ug/L**		434219	434218.799
	As	75	**-0.130**	**ug/L**	272.758	-203	-0.000
	Se	77		**ug/L**		5317	-0.006
	Se	82	**0.057**	**ug/L**	242.072	-12	0.000
	Kr	83		**ug/L**		112	0.000
	Sr	88	**0.002**	**ug/L**	68.463	163	0.000
	Y	89		**ug/L**		46	-0.000
	Mo	98	**0.062**	**ug/L**	14.399	250	0.001
	Ag	107	**0.005**	**ug/L**	64.114	66	0.000
	Cd	111	**0.004**	**ug/L**	173.157	18	0.000
	Cd	114		**ug/L**		44	0.000
>	In	115		**ug/L**		291907	291906.925
	Sn	120	**0.154**	**ug/L**	14.178	1333	0.003
	Sb	121	**0.668**	**ug/L**	19.809	3997	0.013
	Sb	123		**ug/L**		3138	0.010
	Ba	135		**ug/L**		35	0.000
	Ba	137	**0.005**	**ug/L**	15.174	48	0.000
	Ho	165		**ug/L**		32	0.000
>	Lu	175		**ug/L**		579983	579982.612
	Tl	205	**0.404**	**ug/L**	21.834	12200	0.016
	Pb	208	**0.004**	**ug/L**	41.074	349	0.000
	Bi	209		**ug/L**		103	-0.000
	Th	232	**0.070**	**ug/L**	17.387	3488	0.005
	U	238	**0.009**	**ug/L**	22.767	509	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Monday, January 04, 2010 20:25:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 3.173

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.391**	ug/L	3.394	16932	0.017
	Be	9	**0.495**	ug/L	2.852	238	0.000
	B	11	**16.146**	ug/L	2.559	7141	0.007
	Na	23	**284.573**	ug/L	4.071	1250145	1.245
	Mg	24	**19.281**	ug/L	13.246	63811	0.063
	Al	27	**35.204**	ug/L	7.975	157872	0.157
	P	31	**52.728**	ug/L	3.702	19944	0.014
	K	39	**294.112**	ug/L	6.103	2221291	1.611
	Ca	43	**213.875**	ug/L	1.689	3028	0.003
>	Sc	45		ug/L		992333	992333.343
	Ti	47	**8.695**	ug/L	3.090	5882	0.006
	V	51	**11.476**	ug/L	4.858	81451	0.080
	Cr	52	**10.977**	ug/L	3.898	57857	0.060
	Cr	53		ug/L		115886	-0.011
	Mn	55	**5.850**	ug/L	3.071	53657	0.053
	Fe	57	**119.331**	ug/L	5.004	25410	0.021
	Co	59	**1.119**	ug/L	3.489	7866	0.008
	Ni	60	**2.252**	ug/L	1.006	3518	0.003
	Cu	63		ug/L		4504	0.004
	Cu	65	**1.172**	ug/L	3.016	2211	0.002
	Zn	66	**11.308**	ug/L	2.222	13861	0.032
	Zn	67		ug/L		14267	0.005
	Zn	68		ug/L		10568	0.021
>	Ge	74		ug/L		430802	430802.012
	As	75	**5.551**	ug/L	4.482	6512	0.015
	Se	77		ug/L		6092	-0.004
	Se	82	**5.704**	ug/L	3.691	642	0.002
	Kr	83		ug/L		98	-0.000
	Sr	88	**11.719**	ug/L	0.374	153848	0.527
	Y	89		ug/L		52	-0.000
	Mo	98	**0.557**	ug/L	2.343	1900	0.006
	Ag	107	**1.077**	ug/L	1.633	6245	0.021
	Cd	111	**1.108**	ug/L	4.614	1704	0.006
	Cd	114		ug/L		4146	0.014
>	In	115		ug/L		291569	291569.371
	Sn	120	**5.593**	ug/L	1.861	36774	0.125
	Sb	121	**3.243**	ug/L	3.485	18407	0.062
	Sb	123		ug/L		14344	0.048
	Ba	135		ug/L		3584	0.006
	Ba	137	**2.105**	ug/L	3.984	6203	0.011
	Ho	165		ug/L		27	-0.000
>	Lu	175		ug/L		585411	585411.098
	Tl	205	**1.341**	ug/L	1.655	34075	0.053
	Pb	208	**2.430**	ug/L	1.308	90227	0.154
	Bi	209		ug/L		225	0.000
	Th	232	**1.351**	ug/L	0.694	58801	0.100
	U	238	**0.276**	ug/L	2.435	13165	0.022

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovi	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	103.914				
	Be	9	98.953				
	B	11	107.637				
	Na	23	113.829				
	Mg	24	128.541				
	Al	27	117.347				
	P	31	105.456				
	K	39	98.037				
	Ca	43	106.938				
>	Sc	45		101.3			
	Ti	47	86.950				
	V	51	114.765				
	Cr	52	109.771				
	Cr	53					
	Mn	55	117.006				
	Fe	57	119.331				
	Co	59	111.907				
	Ni	60	112.606				
	Cu	63					
	Cu	65	117.222				
	Zn	66	113.080				
	Zn	67					
	Zn	68					
>	Ge	74		100.8			
	As	75	111.011				
	Se	77					
	Se	82	114.082				
	Kr	83					
	Sr	88	117.195				
	Y	89					
	Mo	98	111.420				
	Ag	107	107.718				
	Cd	111	110.808				
	Cd	114					
>	In	115		101.7			
	Sn	120	111.863				
	Sb	121	108.110				
	Sb	123					
	Ba	135					
	Ba	137	105.228				
	Ho	165					
>	Lu	175		100.6			
	Tl	205	134.145				
	Pb	208	121.513				
	Bi	209					
	Th	232	135.082				
	U	238	137.886				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Tl	205	CRDL is out of limits
QC Std 3	Th	232	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Monday, January 04, 2010 20:31:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 4.174

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.177**	ug/L	3.899	308	0.000
	Be	9	**0.059**	ug/L	21.218	40	0.000
	B	11	**1.153**	ug/L	14.924	767	0.000
	Na	23	**100457.667**	ug/L	8.047	417176972	439.510
	Mg	24	**100484.079**	ug/L	7.524	312950635	329.416
	Al	27	**95464.047**	ug/L	7.834	405356198	426.605
	P	31	**97714.600**	ug/L	2.033	24443861	25.713
	K	39	**101004.083**	ug/L	5.873	526549980	553.274
	Ca	43	**93025.792**	ug/L	1.229	1159859	1.220
>	Sc	45		ug/L		950329	950329.094
	Ti	47	**1398.015**	ug/L	1.439	851411	0.896
	V	51	**0.516**	ug/L	17.582	5584	0.004
	Cr	52	**2.673**	ug/L	2.043	12126	0.015
	Cr	53		ug/L		81652	-0.042
	Mn	55	**6.043**	ug/L	1.505	53062	0.055
	Fe	57	**93667.897**	ug/L	1.103	15426347	16.231
	Co	59	**0.313**	ug/L	3.755	2160	0.002
	Ni	60	**2.925**	ug/L	3.435	4354	0.005
	Cu	63		ug/L		7232	0.007
	Cu	65	**2.894**	ug/L	2.248	5046	0.005
	Zn	66	**3.801**	ug/L	3.001	4594	0.011
	Zn	67		ug/L		10475	-0.003
	Zn	68		ug/L		1946	0.001
>	Ge	74		ug/L		413517	413516.968
	As	75	**-0.252**	ug/L	209.059	-334	-0.001
	Se	77		ug/L		6032	-0.003
	Se	82	**-0.625**	ug/L	23.426	-87	-0.000
	Kr	83		ug/L		255	0.000
	Sr	88	**1.305**	ug/L	2.250	15778	0.059
	Y	89		ug/L		464	0.002
	Mo	98	**1989.496**	ug/L	2.499	6065411	22.745
	Ag	107	**0.079**	ug/L	14.177	446	0.002
	Cd	111	**0.478**	ug/L	24.170	681	0.003
	Cd	114		ug/L		10374	0.039
>	In	115		ug/L		266719	266718.923
	Sn	120	**0.175**	ug/L	8.215	1341	0.004
	Sb	121	**0.252**	ug/L	21.013	1524	0.005
	Sb	123		ug/L		1193	0.004
	Ba	135		ug/L		1118	0.002
	Ba	137	**0.715**	ug/L	1.871	1922	0.004
	Ho	165		ug/L		1200	0.002
>	Lu	175		ug/L		528121	528120.950
	Tl	205	**0.047**	ug/L	7.261	3621	0.002
	Pb	208	**0.199**	ug/L	0.953	6838	0.013
	Bi	209		ug/L		1504	0.003
	Th	232	**0.076**	ug/L	26.025	3417	0.006
	U	238	**0.005**	ug/L	9.495	278	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	100.458				
	Mg	24	100.484				
	Al	27	95.464				
	P	31	97.715				
	K	39	101.004				
	Ca	43	93.026				
>	Sc	45		97.0			
	Ti	47	69.901				
	V	51					
	Cr	52	72.249				
	Cr	53					
	Mn	55	104.185				
	Fe	57	93.668				
	Co	59	125.128				
	Ni	60	108.343				
	Cu	63					
	Cu	65	99.781				
	Zn	66	105.590				
	Zn	67					
	Zn	68					
>	Ge	74		96.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	108.744				
	Y	89					
	Mo	98	99.475				
	Ag	107					
	Cd	111	119.571				
	Cd	114					
>	In	115		93.0			
	Sn	120					
	Sb	121	252.088				
	Sb	123					
	Ba	135					
	Ba	137	106.707				
	Ho	165					
>	Lu	175		90.7			
	Tl	205					
	Pb	208	99.533				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Ti	47	ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Monday, January 04, 2010 20:37:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 5.175

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**19.258**	ug/L	3.029	30276	0.032
	Be	9	**18.368**	ug/L	1.544	7978	0.008
	B	11	**18.583**	ug/L	1.888	7894	0.008
	Na	23	**101257.654**	ug/L	0.424	424578499	443.010
	Mg	24	**94865.147**	ug/L	3.292	298048224	310.995
	Al	27	**98190.693**	ug/L	1.118	420520602	438.789
	P	31	**100448.832**	ug/L	1.408	25338178	26.433
	K	39	**100224.869**	ug/L	2.052	526745797	549.005
	Ca	43	**94875.242**	ug/L	2.294	1193149	1.245
>	Sc	45		ug/L		958363	958363.095
	Ti	47	**1423.998**	ug/L	1.118	874752	0.912
	V	51	**22.300**	ug/L	2.141	150859	0.155
	Cr	52	**23.398**	ug/L	0.452	121219	0.128
	Cr	53		ug/L		95069	-0.028
	Mn	55	**26.884**	ug/L	1.823	234987	0.244
	Fe	57	**96032.247**	ug/L	1.733	15952207	16.640
	Co	59	**20.467**	ug/L	0.864	137658	0.144
	Ni	60	**22.357**	ug/L	1.975	33091	0.034
	Cu	63		ug/L		73873	0.077
	Cu	65	**21.426**	ug/L	0.645	36891	0.038
	Zn	66	**22.248**	ug/L	1.980	26156	0.062
	Zn	67		ug/L		13914	0.005
	Zn	68		ug/L		17392	0.038
>	Ge	74		ug/L		416065	416065.425
	As	75	**20.536**	ug/L	4.020	23398	0.056
	Se	77		ug/L		7937	0.001
	Se	82	**19.303**	ug/L	5.641	2139	0.005
	Kr	83		ug/L		291	0.000
	Sr	88	**24.514**	ug/L	3.280	288726	1.103
	Y	89		ug/L		483	0.002
	Mo	98	**2073.800**	ug/L	3.090	6205018	23.709
	Ag	107	**20.744**	ug/L	4.170	107362	0.410
	Cd	111	**20.716**	ug/L	1.118	28420	0.109
	Cd	114		ug/L		77409	0.296
>	In	115		ug/L		261877	261876.951
	Sn	120	**21.559**	ug/L	3.338	126416	0.482
	Sb	121	**22.922**	ug/L	3.490	115329	0.440
	Sb	123		ug/L		89152	0.340
	Ba	135		ug/L		32016	0.063
	Ba	137	**22.363**	ug/L	4.799	56728	0.112
	Ho	165		ug/L		1206	0.002
>	Lu	175		ug/L		506855	506855.283
	Tl	205	**21.754**	ug/L	5.280	439224	0.863
	Pb	208	**22.286**	ug/L	4.609	714086	1.410
	Bi	209		ug/L		2023	0.004
	Th	232	**24.682**	ug/L	4.682	921182	1.819
	U	238	**24.101**	ug/L	5.346	988142	1.952

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	96.291				
	Be	9	91.840				
	B	11	92.914				
	Na	23	101.258				
	Mg	24	94.865				
	Al	27	98.191				
	P	31	100.449				
	K	39	100.225				
	Ca	43	94.875				
>	Sc	45		97.8			
	Ti	47	71.200				
	V	51	111.498				
	Cr	52	98.726				
	Cr	53					
	Mn	55	104.202				
	Fe	57	96.032				
	Co	59	101.071				
	Ni	60	98.488				
	Cu	63					
	Cu	65	93.563				
	Zn	66	94.273				
	Zn	67					
	Zn	68					
>	Ge	74		97.3			
	As	75	102.679				
	Se	77					
	Se	82	96.513				
	Kr	83					
	Sr	88	115.631				
	Y	89					
	Mo	98	103.690				
	Ag	107	103.721				
	Cd	111	101.548				
	Cd	114					
>	In	115		91.3			
	Sn	120	107.797				
	Sb	121	114.039				
	Sb	123					
	Ba	135					
	Ba	137	108.189				
	Ho	165					
>	Lu	175		87.1			
	Tl	205	108.768				
	Pb	208	110.328				
	Bi	209					
	Th	232	123.411				
	U	238	120.503				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Ti	47	ICSAB is out of limits
QC Std 5	Th	232	ICSAB is out of limits
QC Std 5	U	238	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, January 04, 2010 20:43:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 6.176

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**47.123**	**ug/L**	2.541	80128	0.077
	Be	9	**47.875**	**ug/L**	3.363	22476	0.022
	B	11	**94.171**	**ug/L**	2.258	41956	0.040
	Na	23	**4777.168**	**ug/L**	1.162	21699931	20.900
	Mg	24	**4858.503**	**ug/L**	2.927	16523631	15.928
	Al	27	**4739.460**	**ug/L**	5.208	21975020	21.179
	P	31	**4480.024**	**ug/L**	3.501	1229077	1.179
	K	39	**5264.044**	**ug/L**	13.018	30547340	28.835
	Ca	43	**4876.293**	**ug/L**	2.150	66612	0.064
>	Sc	45		**ug/L**		1037509	1037508.624
	Ti	47	**50.163**	**ug/L**	1.779	33715	0.032
	V	51	**51.864**	**ug/L**	2.743	376585	0.361
	Cr	52	**51.820**	**ug/L**	2.333	292961	0.284
	Cr	53		**ug/L**		134519	0.002
	Mn	55	**52.152**	**ug/L**	1.073	492544	0.474
	Fe	57	**5253.947**	**ug/L**	1.906	949484	0.910
	Co	59	**51.132**	**ug/L**	2.783	372058	0.359
	Ni	60	**52.199**	**ug/L**	3.575	83503	0.080
	Cu	63		**ug/L**		194840	0.188
	Cu	65	**51.204**	**ug/L**	1.254	95248	0.092
	Zn	66	**52.067**	**ug/L**	1.526	66970	0.146
	Zn	67		**ug/L**		21774	0.019
	Zn	68		**ug/L**		47744	0.101
>	Ge	74		**ug/L**		457027	457026.974
	As	75	**48.965**	**ug/L**	0.951	61370	0.134
	Se	77		**ug/L**		9470	0.003
	Se	82	**50.236**	**ug/L**	3.064	6146	0.013
	Kr	83		**ug/L**		111	-0.000
	Sr	88	**54.431**	**ug/L**	1.208	721713	2.449
	Y	89		**ug/L**		90	0.000
	Mo	98	**51.716**	**ug/L**	3.397	174235	0.591
	Ag	107	**52.146**	**ug/L**	1.360	303870	1.031
	Cd	111	**51.155**	**ug/L**	2.199	78958	0.268
	Cd	114		**ug/L**		193887	0.658
>	In	115		**ug/L**		294729	294729.049
	Sn	120	**51.881**	**ug/L**	1.927	342091	1.160
	Sb	121	**50.488**	**ug/L**	3.810	285714	0.969
	Sb	123		**ug/L**		224817	0.762
	Ba	135		**ug/L**		85934	0.148
	Ba	137	**52.412**	**ug/L**	2.168	152188	0.263
	Ho	165		**ug/L**		59	0.000
>	Lu	175		**ug/L**		579559	579558.542
	Tl	205	**52.531**	**ug/L**	1.054	1210389	2.084
	Pb	208	**53.584**	**ug/L**	0.706	1965392	3.391
	Bi	209		**ug/L**		602	0.001
	Th	232	**51.493**	**ug/L**	1.583	2199670	3.795
	U	238	**52.575**	**ug/L**	2.203	2468242	4.259

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	94.246				
	Be	9	95.751				
	B	11	94.171				
	Na	23	95.543				
	Mg	24	97.170				
	Al	27	93.851				
	P	31	89.600				
	K	39	105.281				
	Ca	43	97.526				
>	Sc	45		105.9			
	Ti	47	100.327				
	V	51	103.729				
	Cr	52	103.640				
	Cr	53					
	Mn	55	104.303				
	Fe	57	105.079				
	Co	59	102.265				
	Ni	60	104.398				
	Cu	63					
	Cu	65	102.408				
	Zn	66	104.134				
	Zn	67					
	Zn	68					
>	Ge	74		106.9			
	As	75	97.930				
	Se	77					
	Se	82	100.473				
	Kr	83					
	Sr	88	108.862				
	Y	89					
	Mo	98	103.432				
	Ag	107	104.292				
	Cd	111	102.310				
	Cd	114					
>	In	115		102.8			
	Sn	120	103.763				
	Sb	121	100.977				
	Sb	123					
	Ba	135					
	Ba	137	104.824				
	Ho	165					
>	Lu	175		99.6			
	Tl	205	105.062				
	Pb	208	107.167				
	Bi	209					
	Th	232	102.985				
	U	238	105.150				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	P	31	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Monday, January 04, 2010 20:49:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 7.177

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.015**	**ug/L**	18.012	60	0.000
	Be	9	**0.007**	**ug/L**	104.977	20	0.000
	B	11	**1.721**	**ug/L**	30.518	1083	0.001
	Na	23	**3.408**	**ug/L**	61.392	30367	0.015
	Mg	24	**0.975**	**ug/L**	63.595	4334	0.003
	Al	27	**1.144**	**ug/L**	51.517	7002	0.005
	P	31	**-2.113**	**ug/L**	76.058	5840	-0.001
	K	39	**-3.038**	**ug/L**	117.187	628893	-0.017
	Ca	43	**2.927**	**ug/L**	22.031	292	0.000
>	Sc	45		**ug/L**		1030340	1030339.738
	Ti	47	**0.121**	**ug/L**	65.905	448	0.000
	V	51	**0.244**	**ug/L**	158.756	4070	0.002
	Cr	52	**-0.091**	**ug/L**	34.751	-2485	-0.000
	Cr	53		**ug/L**		104064	-0.027
	Mn	55	**-0.010**	**ug/L**	97.053	865	-0.000
	Fe	57	**0.445**	**ug/L**	41.043	5167	0.000
	Co	59	**0.002**	**ug/L**	82.124	99	0.000
	Ni	60	**0.005**	**ug/L**	91.686	86	0.000
	Cu	63		**ug/L**		349	0.000
	Cu	65	**0.041**	**ug/L**	26.107	209	0.000
	Zn	66	**0.009**	**ug/L**	131.607	214	0.000
	Zn	67		**ug/L**		11530	-0.003
	Zn	68		**ug/L**		1187	-0.001
>	Ge	74		**ug/L**		452139	452138.691
	As	75	**0.073**	**ug/L**	115.236	38	0.000
	Se	77		**ug/L**		5170	-0.007
	Se	82	**0.134**	**ug/L**	71.894	-3	0.000
	Kr	83		**ug/L**		117	0.000
	Sr	88	**0.002**	**ug/L**	76.825	162	0.000
	Y	89		**ug/L**		47	-0.000
	Mo	98	**0.118**	**ug/L**	15.570	443	0.001
	Ag	107	**0.005**	**ug/L**	12.770	63	0.000
	Cd	111	**0.008**	**ug/L**	71.654	25	0.000
	Cd	114		**ug/L**		48	0.000
>	In	115		**ug/L**		295602	295602.068
	Sn	120	**0.130**	**ug/L**	24.244	1186	0.003
	Sb	121	**0.455**	**ug/L**	22.895	2842	0.009
	Sb	123		**ug/L**		2226	0.007
	Ba	135		**ug/L**		41	0.000
	Ba	137	**0.006**	**ug/L**	29.643	50	0.000
	Ho	165		**ug/L**		27	-0.000
>	Lu	175		**ug/L**		578500	578500.188
	Tl	205	**0.347**	**ug/L**	23.942	10832	0.014
	Pb	208	**0.004**	**ug/L**	26.205	332	0.000
	Bi	209		**ug/L**		119	0.000
	Th	232	**0.075**	**ug/L**	20.855	3715	0.006
	U	238	**0.007**	**ug/L**	29.095	413	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		105.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		105.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Monday, January 04, 2010 20:55:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 10.178

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**868.775**	**ug/L**	1.963	1367545	1.424
	Be	9	**920.145**	**ug/L**	1.839	399813	0.416
	B	11	**1.002**	**ug/L**	9.357	715	0.000
	Na	23	**52256.348**	**ug/L**	5.399	219690776	228.626
	Mg	24	**48693.152**	**ug/L**	4.833	153308555	159.630
	Al	27	**52639.346**	**ug/L**	4.416	225910744	235.232
	P	31	**25355.353**	**ug/L**	2.186	6414630	6.672
	K	39	**53007.447**	**ug/L**	4.892	279429833	290.361
	Ca	43	**48627.073**	**ug/L**	2.190	613068	0.638
>	Sc	45		**ug/L**		960642	960642.218
	Ti	47	**41.802**	**ug/L**	1.283	26071	0.027
	V	51	**928.017**	**ug/L**	3.045	6203024	6.456
	Cr	52	**920.367**	**ug/L**	1.811	4849361	5.051
	Cr	53		**ug/L**		710161	0.612
	Mn	55	**911.718**	**ug/L**	3.004	7957866	8.284
	Fe	57	**48857.796**	**ug/L**	2.678	8136576	8.466
	Co	59	**862.510**	**ug/L**	0.919	5811458	6.050
	Ni	60	**876.888**	**ug/L**	0.621	1298167	1.351
	Cu	63		**ug/L**		3090440	3.217
	Cu	65	**838.634**	**ug/L**	1.317	1442518	1.502
	Zn	66	**2365.353**	**ug/L**	2.753	2813358	6.637
	Zn	67		**ug/L**		434997	0.998
	Zn	68		**ug/L**		1739032	4.099
>	Ge	74		**ug/L**		423908	423907.989
	As	75	**872.295**	**ug/L**	2.075	1014820	2.394
	Se	77		**ug/L**		45061	0.088
	Se	82	**470.903**	**ug/L**	1.299	53595	0.126
	Kr	83		**ug/L**		180	0.000
	Sr	88	**1027.110**	**ug/L**	2.618	12162816	46.204
	Y	89		**ug/L**		508	0.002
	Mo	98	**1050.587**	**ug/L**	0.681	3161965	12.011
	Ag	107	**235.647**	**ug/L**	1.927	1226570	4.659
	Cd	111	**908.923**	**ug/L**	0.188	1253309	4.761
	Cd	114		**ug/L**		3257177	12.373
>	In	115		**ug/L**		263261	263261.126
	Sn	120	**963.823**	**ug/L**	2.041	5671996	21.545
	Sb	121	**237.728**	**ug/L**	2.650	1200980	4.561
	Sb	123		**ug/L**		961007	3.650
	Ba	135		**ug/L**		1410940	2.600
	Ba	137	**986.641**	**ug/L**	1.421	2682518	4.942
	Ho	165		**ug/L**		419	0.001
>	Lu	175		**ug/L**		542810	542809.514
	Tl	205	**492.615**	**ug/L**	2.008	10607854	19.539
	Pb	208	**4836.277**	**ug/L**	1.755	166116898	306.053
	Bi	209		**ug/L**		4796	0.009
	Th	232	**2607.358**	**ug/L**	2.342	104293770	192.148
	U	238	**5299.722**	**ug/L**	2.683	233008629	429.307

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	86.877				
	Be	9	92.014				
	B	11					
	Na	23	104.513				
	Mg	24	97.386				
	Al	27	105.279				
	P	31	101.421				
	K	39	106.015				
	Ca	43	97.254				
>	Sc	45		98.0			
	Ti	47					
	V	51	92.802				
	Cr	52	92.037				
	Cr	53					
	Mn	55	91.172				
	Fe	57	97.716				
	Co	59	86.251				
	Ni	60	87.689				
	Cu	63					
	Cu	65	83.863				
	Zn	66	94.614				
	Zn	67					
	Zn	68					
>	Ge	74		99.2			
	As	75	87.229				
	Se	77					
	Se	82	94.181				
	Kr	83					
	Sr	88	102.711				
	Y	89					
	Mo	98	105.059				
	Ag	107	94.259				
	Cd	111	90.892				
	Cd	114					
>	In	115		91.8			
	Sn	120	96.382				
	Sb	121	95.091				
	Sb	123					
	Ba	135					
	Ba	137	98.664				
	Ho	165					
>	Lu	175		93.3			
	Tl	205	98.523				
	Pb	208	96.726				
	Bi	209					
	Th	232	104.294				
	U	238	105.994				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Li	7	LRS is out of limits (+/- 10%)
QC Std 10	Co	59	LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	Cu	65	LRS is out of limits (+/- 10%)
QC Std 10	As	75	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Monday, January 04, 2010 21:01:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 11.179

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**44.593**	**ug/L**	4.601	75644	0.073
	Be	9	**47.090**	**ug/L**	3.249	22060	0.021
	B	11	**97.358**	**ug/L**	1.811	43272	0.041
	Na	23	**5980.574**	**ug/L**	11.375	27082860	26.165
	Mg	24	**4904.438**	**ug/L**	4.587	16640056	16.078
	Al	27	**4843.860**	**ug/L**	1.979	22412455	21.646
	P	31	**4592.602**	**ug/L**	3.394	1257074	1.209
	K	39	**5136.826**	**ug/L**	5.123	29764075	28.138
	Ca	43	**5010.136**	**ug/L**	1.655	68281	0.066
>	Sc	45		**ug/L**		1035105	1035105.424
	Ti	47	**49.601**	**ug/L**	1.257	33262	0.032
	V	51	**52.401**	**ug/L**	2.707	379599	0.365
	Cr	52	**52.508**	**ug/L**	2.104	296208	0.288
	Cr	53		**ug/L**		135530	0.003
	Mn	55	**52.554**	**ug/L**	1.382	495147	0.477
	Fe	57	**5265.051**	**ug/L**	1.656	949286	0.912
	Co	59	**49.673**	**ug/L**	9.654	360331	0.348
	Ni	60	**52.309**	**ug/L**	2.314	83496	0.081
	Cu	63		**ug/L**		196344	0.189
	Cu	65	**51.843**	**ug/L**	1.758	96202	0.093
	Zn	66	**53.354**	**ug/L**	1.874	67823	0.150
	Zn	67		**ug/L**		22716	0.022
	Zn	68		**ug/L**		48095	0.103
>	Ge	74		**ug/L**		451728	451728.024
	As	75	**49.245**	**ug/L**	1.634	61003	0.135
	Se	77		**ug/L**		9196	0.002
	Se	82	**50.350**	**ug/L**	0.964	6089	0.014
	Kr	83		**ug/L**		123	0.000
	Sr	88	**54.276**	**ug/L**	1.768	726248	2.442
	Y	89		**ug/L**		95	0.000
	Mo	98	**50.789**	**ug/L**	1.810	172725	0.581
	Ag	107	**51.609**	**ug/L**	2.080	303497	1.020
	Cd	111	**50.904**	**ug/L**	1.345	79306	0.267
	Cd	114		**ug/L**		194569	0.654
>	In	115		**ug/L**		297440	297439.965
	Sn	120	**53.690**	**ug/L**	2.280	357243	1.200
	Sb	121	**53.855**	**ug/L**	0.875	307638	1.033
	Sb	123		**ug/L**		240445	0.808
	Ba	135		**ug/L**		87116	0.151
	Ba	137	**52.833**	**ug/L**	2.991	152454	0.265
	Ho	165		**ug/L**		55	0.000
>	Lu	175		**ug/L**		576117	576117.404
	Tl	205	**53.382**	**ug/L**	2.396	1222470	2.117
	Pb	208	**54.823**	**ug/L**	2.110	1998478	3.469
	Bi	209		**ug/L**		608	0.001
	Th	232	**54.542**	**ug/L**	2.207	2315612	4.019
	U	238	**55.103**	**ug/L**	1.495	2571394	4.464

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	89.185				
	Be	9	94.180				
	B	11	97.358				
	Na	23	119.611				
	Mg	24	98.089				
	Al	27	95.918				
	P	31	91.852				
	K	39	102.737				
	Ca	43	100.203				
>	Sc	45		105.6			
	Ti	47	99.201				
	V	51	104.802				
	Cr	52	105.016				
	Cr	53					
	Mn	55	105.109				
	Fe	57	105.301				
	Co	59	99.346				
	Ni	60	104.617				
	Cu	63					
	Cu	65	103.685				
	Zn	66	106.708				
	Zn	67					
	Zn	68					
>	Ge	74		105.7			
	As	75	98.489				
	Se	77					
	Se	82	100.700				
	Kr	83					
	Sr	88	108.551				
	Y	89					
	Mo	98	101.578				
	Ag	107	103.217				
	Cd	111	101.807				
	Cd	114					
>	In	115		103.7			
	Sn	120	107.380				
	Sb	121	107.711				
	Sb	123					
	Ba	135					
	Ba	137	105.665				
	Ho	165					
>	Lu	175		99.0			
	Tl	205	106.765				
	Pb	208	109.645				
	Bi	209					
	Th	232	109.084				
	U	238	110.206				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Li	7	CCV is out of limits (+/- 10%)
QC Std 11	Na	23	CCV is out of limits (+/- 10%)
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Monday, January 04, 2010 21:08:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 12.180

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.064**	ug/L	20.310	145	0.000
	Be	9	**0.012**	ug/L	62.755	23	0.000
	B	11	**1.784**	ug/L	30.448	1130	0.001
	Na	23	**2.615**	ug/L	55.652	27361	0.011
	Mg	24	**0.368**	ug/L	164.301	2334	0.001
	Al	27	**0.900**	ug/L	40.712	6001	0.004
	P	31	**-2.167**	ug/L	79.263	5930	-0.001
	K	39	**-9.673**	ug/L	25.044	601751	-0.053
	Ca	43	**2.757**	ug/L	40.289	295	0.000
>	Sc	45		ug/L		1048406	1048406.220
	Ti	47	**-0.037**	ug/L	154.998	350	-0.000
	V	51	**0.229**	ug/L	121.037	4052	0.002
	Cr	52	**-0.037**	ug/L	121.288	-2216	-0.000
	Cr	53		ug/L		103622	-0.029
	Mn	55	**-0.005**	ug/L	98.214	935	-0.000
	Fe	57	**-0.693**	ug/L	52.265	5051	-0.000
	Co	59	**0.014**	ug/L	11.264	184	0.000
	Ni	60	**0.012**	ug/L	15.461	98	0.000
	Cu	63		ug/L		542	0.000
	Cu	65	**0.076**	ug/L	9.599	277	0.000
	Zn	66	**0.044**	ug/L	57.522	260	0.000
	Zn	67		ug/L		11954	-0.002
	Zn	68		ug/L		1302	-0.000
>	Ge	74		ug/L		455722	455721.901
	As	75	**0.022**	ug/L	533.824	-25	0.000
	Se	77		ug/L		4887	-0.007
	Se	82	**0.072**	ug/L	26.850	-10	0.000
	Kr	83		ug/L		111	-0.000
	Sr	88	**0.008**	ug/L	41.086	250	0.000
	Y	89		ug/L		52	-0.000
	Mo	98	**0.163**	ug/L	15.587	601	0.002
	Ag	107	**0.008**	ug/L	49.195	81	0.000
	Cd	111	**0.016**	ug/L	47.517	37	0.000
	Cd	114		ug/L		65	0.000
>	In	115		ug/L		299171	299170.747
	Sn	120	**0.641**	ug/L	8.504	4622	0.014
	Sb	121	**1.072**	ug/L	14.675	6414	0.021
	Sb	123		ug/L		5071	0.016
	Ba	135		ug/L		44	0.000
	Ba	137	**0.010**	ug/L	58.330	62	0.000
	Ho	165		ug/L		25	-0.000
>	Lu	175		ug/L		584680	584679.682
	Tl	205	**0.549**	ug/L	19.557	15623	0.022
	Pb	208	**0.040**	ug/L	24.333	1687	0.003
	Bi	209		ug/L		99	-0.000
	Th	232	**0.142**	ug/L	14.790	6617	0.010
	U	238	**0.069**	ug/L	14.180	3329	0.006

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		107.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		106.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Monday, January 04, 2010 21:50:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 8.187

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**45.589**	ug/L	3.816	76442	0.075
	Be	9	**48.247**	ug/L	2.109	22333	0.022
	B	11	**96.359**	ug/L	3.909	42307	0.041
	Na	23	**5337.063**	ug/L	8.976	23886746	23.350
	Mg	24	**5046.118**	ug/L	2.544	16916565	16.543
	Al	27	**4822.633**	ug/L	2.408	22047926	21.551
	P	31	**4488.609**	ug/L	2.480	1214125	1.181
	K	39	**4991.316**	ug/L	9.230	28589177	27.341
	Ca	43	**4874.279**	ug/L	1.137	65649	0.064
>	Sc	45		ug/L		1022727	1022726.502
	Ti	47	**50.111**	ug/L	1.691	33200	0.032
	V	51	**51.169**	ug/L	4.243	366245	0.356
	Cr	52	**51.180**	ug/L	2.349	285226	0.281
	Cr	53		ug/L		142523	0.012
	Mn	55	**51.961**	ug/L	1.751	483706	0.472
	Fe	57	**5225.155**	ug/L	2.253	930824	0.905
	Co	59	**50.500**	ug/L	1.794	362282	0.354
	Ni	60	**52.174**	ug/L	2.444	82295	0.080
	Cu	63		ug/L		191092	0.187
	Cu	65	**50.777**	ug/L	1.666	93113	0.091
	Zn	66	**52.609**	ug/L	1.406	65120	0.148
	Zn	67		ug/L		23164	0.024
	Zn	68		ug/L		46876	0.103
>	Ge	74		ug/L		439841	439840.782
	As	75	**49.177**	ug/L	0.396	59319	0.135
	Se	77		ug/L		9605	0.004
	Se	82	**50.240**	ug/L	1.339	5916	0.013
	Kr	83		ug/L		112	0.000
	Sr	88	**54.020**	ug/L	1.048	702761	2.430
	Y	89		ug/L		98	0.000
	Mo	98	**50.157**	ug/L	2.849	165804	0.573
	Ag	107	**51.932**	ug/L	2.388	296875	1.027
	Cd	111	**51.869**	ug/L	2.526	78550	0.272
	Cd	114		ug/L		189310	0.655
>	In	115		ug/L		289159	289159.267
	Sn	120	**51.787**	ug/L	2.280	334984	1.158
	Sb	121	**50.617**	ug/L	5.320	280936	0.971
	Sb	123		ug/L		221106	0.764
	Ba	135		ug/L		84765	0.146
	Ba	137	**50.799**	ug/L	1.032	147754	0.254
	Ho	165		ug/L		62	0.000
>	Lu	175		ug/L		580603	580603.115
	Tl	205	**52.214**	ug/L	2.165	1205031	2.071
	Pb	208	**53.751**	ug/L	1.819	1974742	3.401
	Bi	209		ug/L		584	0.001
	Th	232	**52.473**	ug/L	1.977	2245301	3.867
	U	238	**52.748**	ug/L	3.317	2480080	4.273

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	91.178				
	Be	9	96.493				
	B	11	96.359				
	Na	23	106.741				
	Mg	24	100.922				
	Al	27	95.498				
	P	31	89.772				
	K	39	99.826				
	Ca	43	97.486				
>	Sc	45		104.4			
	Ti	47	100.223				
	V	51	102.339				
	Cr	52	102.360				
	Cr	53					
	Mn	55	103.921				
	Fe	57	104.503				
	Co	59	100.999				
	Ni	60	104.349				
	Cu	63					
	Cu	65	101.553				
	Zn	66	105.218				
	Zn	67					
	Zn	68					
>	Ge	74		102.9			
	As	75	98.353				
	Se	77					
	Se	82	100.480				
	Kr	83					
	Sr	88	108.040				
	Y	89					
	Mo	98	100.315				
	Ag	107	103.864				
	Cd	111	103.738				
	Cd	114					
>	In	115		100.8			
	Sn	120	103.573				
	Sb	121	101.235				
	Sb	123					
	Ba	135					
	Ba	137	101.598				
	Ho	165					
>	Lu	175		99.7			
	Tl	205	104.427				
	Pb	208	107.501				
	Bi	209					
	Th	232	104.946				
	U	238	105.497				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	P	31	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Monday, January 04, 2010 21:57:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 9.188

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.015**	ug/L	55.171	59	0.000
	Be	9	**0.004**	ug/L	149.029	18	0.000
	B	11	**1.888**	ug/L	22.665	1142	0.001
	Na	23	**-0.064**	ug/L	2492.066	14675	-0.000
	Mg	24	**0.386**	ug/L	42.923	2334	0.001
	Al	27	**0.644**	ug/L	103.226	4668	0.003
	P	31	**-1.694**	ug/L	100.827	5892	-0.000
	K	39	**-5.592**	ug/L	101.520	607320	-0.031
	Ca	43	**1.587**	ug/L	75.765	271	0.000
>	Sc	45		ug/L		1018924	1018924.278
	Ti	47	**-0.061**	ug/L	71.590	324	-0.000
	V	51	**0.528**	ug/L	102.360	6065	0.004
	Cr	52	**-0.145**	ug/L	34.564	-2758	-0.001
	Cr	53		ug/L		108193	-0.021
	Mn	55	**-0.006**	ug/L	75.732	896	-0.000
	Fe	57	**-0.727**	ug/L	214.407	4900	-0.000
	Co	59	**0.006**	ug/L	37.962	123	0.000
	Ni	60	**0.000**	ug/L	596.037	77	0.000
	Cu	63		ug/L		346	0.000
	Cu	65	**0.030**	ug/L	19.166	186	0.000
	Zn	66	**0.009**	ug/L	61.198	212	0.000
	Zn	67		ug/L		12259	-0.001
	Zn	68		ug/L		1351	-0.000
>	Ge	74		ug/L		448007	448006.723
	As	75	**0.077**	ug/L	209.763	41	0.000
	Se	77		ug/L		5223	-0.006
	Se	82	**-0.016**	ug/L	313.323	-21	-0.000
	Kr	83		ug/L		117	0.000
	Sr	88	**0.002**	ug/L	66.703	165	0.000
	Y	89		ug/L		49	-0.000
	Mo	98	**0.049**	ug/L	24.225	210	0.001
	Ag	107	**0.006**	ug/L	41.679	69	0.000
	Cd	111	**0.008**	ug/L	56.636	25	0.000
	Cd	114		ug/L		52	0.000
>	In	115		ug/L		293584	293583.781
	Sn	120	**0.119**	ug/L	11.250	1106	0.003
	Sb	121	**0.535**	ug/L	17.900	3275	0.010
	Sb	123		ug/L		2620	0.008
	Ba	135		ug/L		34	0.000
	Ba	137	**0.007**	ug/L	52.495	53	0.000
	Ho	165		ug/L		26	-0.000
>	Lu	175		ug/L		579374	579373.691
	Tl	205	**0.401**	ug/L	21.633	12110	0.016
	Pb	208	**0.006**	ug/L	12.423	425	0.000
	Bi	209		ug/L		101	-0.000
	Th	232	**0.063**	ug/L	19.518	3213	0.005
	U	238	**0.011**	ug/L	15.552	581	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		104.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		104.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.5			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Monday, January 04, 2010 22:39:57
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 8.195

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**46.459**	**ug/L**	3.445	77969	0.076
	Be	9	**47.524**	**ug/L**	2.368	22022	0.021
	B	11	**96.383**	**ug/L**	2.870	42372	0.041
	Na	23	**5152.091**	**ug/L**	8.597	23090346	22.541
	Mg	24	**4772.294**	**ug/L**	7.562	16011360	15.645
	Al	27	**4715.011**	**ug/L**	4.120	21567963	21.070
	P	31	**4488.685**	**ug/L**	0.253	1215544	1.181
	K	39	**4844.635**	**ug/L**	1.935	27805912	26.538
	Ca	43	**5087.833**	**ug/L**	0.773	68586	0.067
>	Sc	45		**ug/L**		1023695	1023695.126
	Ti	47	**51.065**	**ug/L**	1.868	33858	0.033
	V	51	**51.487**	**ug/L**	1.624	369003	0.358
	Cr	52	**51.673**	**ug/L**	1.915	288315	0.284
	Cr	53		**ug/L**		135529	0.005
	Mn	55	**52.293**	**ug/L**	1.104	487314	0.475
	Fe	57	**5263.092**	**ug/L**	0.799	938634	0.912
	Co	59	**51.325**	**ug/L**	0.606	368626	0.360
	Ni	60	**52.491**	**ug/L**	0.758	82886	0.081
	Cu	63		**ug/L**		194047	0.189
	Cu	65	**51.340**	**ug/L**	0.512	94238	0.092
	Zn	66	**52.449**	**ug/L**	1.647	65869	0.147
	Zn	67		**ug/L**		22427	0.022
	Zn	68		**ug/L**		47148	0.102
>	Ge	74		**ug/L**		446285	446284.705
	As	75	**48.807**	**ug/L**	2.433	59728	0.134
	Se	77		**ug/L**		9476	0.003
	Se	82	**50.503**	**ug/L**	1.934	6034	0.014
	Kr	83		**ug/L**		109	-0.000
	Sr	88	**53.441**	**ug/L**	0.427	714226	2.404
	Y	89		**ug/L**		83	0.000
	Mo	98	**50.570**	**ug/L**	2.961	171723	0.578
	Ag	107	**51.430**	**ug/L**	0.672	302078	1.017
	Cd	111	**50.396**	**ug/L**	1.785	78405	0.264
	Cd	114		**ug/L**		192407	0.648
>	In	115		**ug/L**		297042	297041.870
	Sn	120	**51.884**	**ug/L**	3.309	344728	1.160
	Sb	121	**50.618**	**ug/L**	5.029	288635	0.971
	Sb	123		**ug/L**		225046	0.757
	Ba	135		**ug/L**		87055	0.149
	Ba	137	**51.850**	**ug/L**	1.976	151984	0.260
	Ho	165		**ug/L**		56	0.000
>	Lu	175		**ug/L**		585223	585223.400
	Tl	205	**53.035**	**ug/L**	2.525	1233470	2.104
	Pb	208	**53.874**	**ug/L**	2.384	1994704	3.409
	Bi	209		**ug/L**		627	0.001
	Th	232	**52.637**	**ug/L**	3.804	2269397	3.879
	U	238	**53.393**	**ug/L**	3.487	2529867	4.325

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	92.918				
	Be	9	95.048				
	B	11	96.383				
	Na	23	103.042				
	Mg	24	95.446				
	Al	27	93.367				
	P	31	89.774				
	K	39	96.893				
	Ca	43	101.757				
>	Sc	45		104.5			
	Ti	47	102.131				
	V	51	102.974				
	Cr	52	103.347				
	Cr	53					
	Mn	55	104.586				
	Fe	57	105.262				
	Co	59	102.650				
	Ni	60	104.982				
	Cu	63					
	Cu	65	102.680				
	Zn	66	104.898				
	Zn	67					
	Zn	68					
>	Ge	74		104.4			
	As	75	97.614				
	Se	77					
	Se	82	101.006				
	Kr	83					
	Sr	88	106.882				
	Y	89					
	Mo	98	101.140				
	Ag	107	102.860				
	Cd	111	100.791				
	Cd	114					
>	In	115		103.6			
	Sn	120	103.768				
	Sb	121	101.236				
	Sb	123					
	Ba	135					
	Ba	137	103.701				
	Ho	165					
>	Lu	175		100.5			
	Tl	205	106.070				
	Pb	208	107.749				
	Bi	209					
	Th	232	105.273				
	U	238	106.786				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	P	31	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Monday, January 04, 2010 22:46:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 9.196

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.027**	ug/L	15.903	79	0.000
	Be	9	**0.000**	ug/L	117227.560	16	0.000
	B	11	**2.295**	ug/L	22.266	1326	0.001
	Na	23	**1.517**	ug/L	151.816	21685	0.007
	Mg	24	**0.285**	ug/L	181.151	2000	0.001
	Al	27	**0.424**	ug/L	80.694	3667	0.002
	P	31	**-1.007**	ug/L	120.644	6098	-0.000
	K	39	**-8.190**	ug/L	56.799	595511	-0.045
	Ca	43	**-1.513**	ug/L	185.144	230	-0.000
>	Sc	45		ug/L		1022966	1022965.881
	Ti	47	**-0.065**	ug/L	43.641	323	-0.000
	V	51	**0.087**	ug/L	287.670	2946	0.001
	Cr	52	**-0.196**	ug/L	13.586	-3054	-0.001
	Cr	53		ug/L		103013	-0.027
	Mn	55	**-0.010**	ug/L	20.054	860	-0.000
	Fe	57	**-1.934**	ug/L	31.003	4708	-0.000
	Co	59	**0.004**	ug/L	32.828	109	0.000
	Ni	60	**0.002**	ug/L	234.421	79	0.000
	Cu	63		ug/L		362	0.000
	Cu	65	**0.020**	ug/L	37.756	169	0.000
	Zn	66	**0.007**	ug/L	26.096	207	0.000
	Zn	67		ug/L		12012	-0.001
	Zn	68		ug/L		1340	-0.000
>	Ge	74		ug/L		444245	444244.508
	As	75	**0.053**	ug/L	256.852	15	0.000
	Se	77		ug/L		4746	-0.007
	Se	82	**0.116**	ug/L	110.579	-5	0.000
	Kr	83		ug/L		110	-0.000
	Sr	88	**0.002**	ug/L	86.645	174	0.000
	Y	89		ug/L		45	-0.000
	Mo	98	**0.056**	ug/L	19.255	236	0.001
	Ag	107	**0.006**	ug/L	52.847	71	0.000
	Cd	111	**0.012**	ug/L	85.338	31	0.000
	Cd	114		ug/L		48	0.000
>	In	115		ug/L		298406	298405.881
	Sn	120	**0.081**	ug/L	18.594	874	0.002
	Sb	121	**0.461**	ug/L	21.503	2906	0.009
	Sb	123		ug/L		2327	0.007
	Ba	135		ug/L		46	0.000
	Ba	137	**0.006**	ug/L	42.819	52	0.000
	Ho	165		ug/L		25	-0.000
>	Lu	175		ug/L		589079	589079.086
	Tl	205	**0.395**	ug/L	21.404	12189	0.016
	Pb	208	**0.006**	ug/L	33.121	432	0.000
	Bi	209		ug/L		116	-0.000
	Th	232	**0.066**	ug/L	20.662	3411	0.005
	U	238	**0.011**	ug/L	19.493	591	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		104.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		103.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202003858
Sample Date/Time: Monday, January 04, 2010 22:52:15
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 936524|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\1202003858.197

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.069**	**ug/L**	7.511	146	0.000
	Be	9	**0.011**	**ug/L**	127.552	21	0.000
	B	11	**1.156**	**ug/L**	5.815	803	0.000
	Na	23	**6.296**	**ug/L**	42.308	41730	0.028
	Mg	24	**0.611**	**ug/L**	101.710	3000	0.002
	Al	27	**1.280**	**ug/L**	72.792	7336	0.006
	P	31	**0.917**	**ug/L**	229.306	6415	0.000
	K	39	**1.731**	**ug/L**	302.603	630977	0.009
	Ca	43	**20.802**	**ug/L**	20.798	513	0.000
>	Sc	45		**ug/L**		991896	991896.195
	Ti	47	**0.264**	**ug/L**	25.265	522	0.000
	V	51	**-3.246**	**ug/L**	55.373	-20318	-0.023
	Cr	52	**-1.259**	**ug/L**	10.701	-8740	-0.007
	Cr	53		**ug/L**		249384	0.124
	Mn	55	**0.124**	**ug/L**	12.154	2042	0.001
	Fe	57	**-0.239**	**ug/L**	349.392	4855	-0.000
	Co	59	**0.004**	**ug/L**	61.829	109	0.000
	Ni	60	**0.021**	**ug/L**	45.856	106	0.000
	Cu	63		**ug/L**		799	0.000
	Cu	65	**0.157**	**ug/L**	5.353	407	0.000
	Zn	66	**0.868**	**ug/L**	6.589	1204	0.002
	Zn	67		**ug/L**		43583	0.076
	Zn	68		**ug/L**		3760	0.006
>	Ge	74		**ug/L**		417851	417851.446
	As	75	**-0.714**	**ug/L**	82.852	-865	-0.002
	Se	77		**ug/L**		13682	0.015
	Se	82	**0.080**	**ug/L**	122.422	-9	0.000
	Kr	83		**ug/L**		106	0.000
	Sr	88	**0.072**	**ug/L**	3.268	1051	0.003
	Y	89		**ug/L**		59	0.000
	Mo	98	**0.025**	**ug/L**	6.274	124	0.000
	Ag	107	**0.003**	**ug/L**	31.067	53	0.000
	Cd	111	**0.013**	**ug/L**	62.298	32	0.000
	Cd	114		**ug/L**		19	-0.000
>	In	115		**ug/L**		284789	284789.270
	Sn	120	**0.226**	**ug/L**	20.716	1764	0.005
	Sb	121	**0.210**	**ug/L**	23.147	1406	0.004
	Sb	123		**ug/L**		1091	0.003
	Ba	135		**ug/L**		104	0.000
	Ba	137	**0.048**	**ug/L**	13.599	173	0.000
	Ho	165		**ug/L**		19	-0.000
>	Lu	175		**ug/L**		580282	580281.542
	Tl	205	**0.114**	**ug/L**	10.187	5530	0.005
	Pb	208	**0.009**	**ug/L**	7.376	538	0.001
	Bi	209		**ug/L**		139	0.000
	Th	232	**0.055**	**ug/L**	17.261	2881	0.004
	U	238	**0.003**	**ug/L**	8.429	238	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202003859
Sample Date/Time: Monday, January 04, 2010 22:58:23
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 936524|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\1202003859.198

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.743**	**ug/L**	3.245	79997	0.082
	Be	9	**52.344**	**ug/L**	0.937	23242	0.024
	B	11	**111.296**	**ug/L**	2.362	46832	0.047
	Na	23	**2127.147**	**ug/L**	8.406	9146773	9.306
	Mg	24	**1910.569**	**ug/L**	4.163	6144334	6.263
	Al	27	**2069.067**	**ug/L**	3.192	9070695	9.246
	P	31	**1866.724**	**ug/L**	1.112	487946	0.491
	K	39	**2063.221**	**ug/L**	7.222	11703082	11.302
	Ca	43	**2077.534**	**ug/L**	2.039	26974	0.027
>	Sc	45		**ug/L**		980979	980979.126
	Ti	47	**44.499**	**ug/L**	0.931	28322	0.029
	V	51	**45.887**	**ug/L**	1.282	315362	0.319
	Cr	52	**49.367**	**ug/L**	2.556	263815	0.271
	Cr	53		**ug/L**		273324	0.151
	Mn	55	**51.581**	**ug/L**	1.934	460594	0.469
	Fe	57	**2168.647**	**ug/L**	1.496	373435	0.376
	Co	59	**51.192**	**ug/L**	2.195	352253	0.359
	Ni	60	**50.918**	**ug/L**	2.088	77036	0.078
	Cu	63		**ug/L**		183300	0.187
	Cu	65	**50.647**	**ug/L**	1.274	89084	0.091
	Zn	66	**53.066**	**ug/L**	1.718	61799	0.149
	Zn	67		**ug/L**		55142	0.105
	Zn	68		**ug/L**		44942	0.105
>	Ge	74		**ug/L**		413857	413856.796
	As	75	**49.549**	**ug/L**	4.618	56218	0.136
	Se	77		**ug/L**		17901	0.025
	Se	82	**52.695**	**ug/L**	0.627	5840	0.014
	Kr	83		**ug/L**		117	0.000
	Sr	88	**52.242**	**ug/L**	1.682	653652	2.350
	Y	89		**ug/L**		79	0.000
	Mo	98	**50.072**	**ug/L**	0.708	159234	0.572
	Ag	107	**52.916**	**ug/L**	1.289	290993	1.046
	Cd	111	**50.873**	**ug/L**	0.807	74110	0.266
	Cd	114		**ug/L**		184291	0.663
>	In	115		**ug/L**		278091	278090.691
	Sn	120	**53.355**	**ug/L**	0.575	331988	1.193
	Sb	121	**55.122**	**ug/L**	0.469	294371	1.058
	Sb	123		**ug/L**		231023	0.830
	Ba	135		**ug/L**		81842	0.139
	Ba	137	**49.044**	**ug/L**	3.005	144726	0.246
	Ho	165		**ug/L**		70	0.000
>	Lu	175		**ug/L**		589136	589136.349
	Tl	205	**49.930**	**ug/L**	4.006	1169257	1.980
	Pb	208	**53.936**	**ug/L**	1.971	2010727	3.413
	Bi	209		**ug/L**		1581560	2.684
	Th	232	**50.928**	**ug/L**	2.989	2211130	3.753
	U	238	**53.093**	**ug/L**	1.432	2533525	4.301

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243400001
Sample Date/Time: Monday, January 04, 2010 23:04:30
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936524|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\243400001.199

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**34.776**	ug/L	0.962	61175	0.057
	Be	9	**0.006**	ug/L	133.371	20	0.000
	B	11	**31.301**	ug/L	4.450	14648	0.013
	Na	23	**15339.668**	ug/L	9.127	71996671	67.112
	Mg	24	**4839.368**	ug/L	5.064	17027169	15.865
	Al	27	**2.955**	ug/L	20.037	16009	0.013
	P	31	**2.974**	ug/L	46.275	7518	0.001
	K	39	**1878.819**	ug/L	1.566	11712261	10.292
	Ca	43	**21077.255**	ug/L	1.560	296889	0.277
>	Sc	45		ug/L		1072822	1072821.753
	Ti	47	**3.986**	ug/L	4.091	3123	0.003
	V	51	**-0.618**	ug/L	244.351	-2265	-0.004
	Cr	52	**1.207**	ug/L	10.126	5048	0.007
	Cr	53		ug/L		335898	0.186
	Mn	55	**0.938**	ug/L	1.365	10141	0.009
	Fe	57	**72.651**	ug/L	2.818	18800	0.013
	Co	59	**0.329**	ug/L	2.963	2558	0.002
	Ni	60	**1.004**	ug/L	2.716	1741	0.002
	Cu	63		ug/L		7371	0.007
	Cu	65	**1.561**	ug/L	0.841	3138	0.003
	Zn	66	**7.560**	ug/L	3.532	9310	0.021
	Zn	67		ug/L		47181	0.081
	Zn	68		ug/L		9645	0.019
>	Ge	74		ug/L		429932	429931.794
	As	75	**-0.301**	ug/L	253.005	-398	-0.001
	Se	77		ug/L		26444	0.043
	Se	82	**0.758**	ug/L	15.218	70	0.000
	Kr	83		ug/L		127	0.000
	Sr	88	**102.691**	ug/L	3.185	1289210	4.620
	Y	89		ug/L		256	0.001
	Mo	98	**3.034**	ug/L	4.059	9719	0.035
	Ag	107	**0.007**	ug/L	32.955	74	0.000
	Cd	111	**0.011**	ug/L	25.901	27	0.000
	Cd	114		ug/L		55	0.000
>	In	115		ug/L		279200	279200.309
	Sn	120	**0.163**	ug/L	11.378	1329	0.004
	Sb	121	**0.487**	ug/L	6.188	2855	0.009
	Sb	123		ug/L		2378	0.008
	Ba	135		ug/L		30385	0.051
	Ba	137	**17.486**	ug/L	1.348	52052	0.088
	Ho	165		ug/L		42	0.000
>	Lu	175		ug/L		593975	593975.064
	Tl	205	**0.744**	ug/L	21.261	20457	0.030
	Pb	208	**0.057**	ug/L	6.041	2342	0.004
	Bi	209		ug/L		293	0.000
	Th	232	**0.074**	ug/L	39.842	3769	0.005
	U	238	**1.676**	ug/L	3.043	80704	0.136

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		109.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		100.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202003860
Sample Date/Time: Monday, January 04, 2010 23:10:37
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 936524|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\1202003860.200

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**36.197**	ug/L	1.319	62432	0.059
	Be	9	**0.007**	ug/L	228.346	20	0.000
	B	11	**30.670**	ug/L	0.617	14083	0.013
	Na	23	**15602.240**	ug/L	5.148	71828454	68.261
	Mg	24	**4792.067**	ug/L	1.383	16526541	15.710
	Al	27	**3.732**	ug/L	41.000	19348	0.017
	P	31	**2.357**	ug/L	20.968	7204	0.001
	K	39	**1895.765**	ug/L	1.410	11583757	10.385
	Ca	43	**21278.292**	ug/L	1.153	293926	0.279
>	Sc	45		ug/L		1051956	1051955.769
	Ti	47	**3.803**	ug/L	3.872	2940	0.002
	V	51	**-0.422**	ug/L	307.963	-687	-0.003
	Cr	52	**0.965**	ug/L	24.290	3562	0.005
	Cr	53		ug/L		348628	0.204
	Mn	55	**0.965**	ug/L	4.843	10207	0.009
	Fe	57	**74.037**	ug/L	2.770	18690	0.013
	Co	59	**0.320**	ug/L	4.784	2445	0.002
	Ni	60	**0.989**	ug/L	3.166	1682	0.002
	Cu	63		ug/L		7197	0.007
	Cu	65	**1.596**	ug/L	3.650	3142	0.003
	Zn	66	**7.417**	ug/L	0.911	8981	0.021
	Zn	67		ug/L		46989	0.083
	Zn	68		ug/L		9418	0.019
>	Ge	74		ug/L		422463	422463.050
	As	75	**-0.784**	ug/L	112.782	-957	-0.002
	Se	77		ug/L		28946	0.050
	Se	82	**1.008**	ug/L	12.489	97	0.000
	Kr	83		ug/L		103	-0.000
	Sr	88	**103.163**	ug/L	0.982	1286402	4.641
	Y	89		ug/L		264	0.001
	Mo	98	**3.002**	ug/L	3.666	9552	0.034
	Ag	107	**0.004**	ug/L	40.081	53	0.000
	Cd	111	**0.006**	ug/L	119.055	20	0.000
	Cd	114		ug/L		57	0.000
>	In	115		ug/L		277197	277197.178
	Sn	120	**0.157**	ug/L	5.392	1283	0.004
	Sb	121	**0.430**	ug/L	7.050	2529	0.008
	Sb	123		ug/L		2062	0.007
	Ba	135		ug/L		29969	0.051
	Ba	137	**17.811**	ug/L	3.348	52271	0.089
	Ho	165		ug/L		39	0.000
>	Lu	175		ug/L		585644	585643.967
	Tl	205	**0.242**	ug/L	2.548	8542	0.010
	Pb	208	**0.054**	ug/L	3.406	2192	0.003
	Bi	209		ug/L		94	-0.000
	Th	232	**0.024**	ug/L	19.803	1555	0.002
	U	238	**1.679**	ug/L	2.116	79737	0.136

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		107.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		98.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202003861
Sample Date/Time: Monday, January 04, 2010 23:16:45
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 936524|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\1202003861.201

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**82.691**	**ug/L**	4.765	140747	0.136
	Be	9	**50.093**	**ug/L**	2.918	23555	0.023
	B	11	**134.093**	**ug/L**	1.013	59700	0.057
	Na	23	**16828.999**	**ug/L**	2.747	76538517	73.628
	Mg	24	**6827.910**	**ug/L**	13.982	23238447	22.384
	Al	27	**1843.410**	**ug/L**	9.264	8554279	8.238
	P	31	**1745.492**	**ug/L**	4.357	483478	0.459
	K	39	**4085.431**	**ug/L**	13.094	23914063	22.379
	Ca	43	**22914.670**	**ug/L**	1.191	312578	0.301
>	Sc	45		**ug/L**		1039003	1039003.408
	Ti	47	**45.792**	**ug/L**	0.827	30858	0.029
	V	51	**45.302**	**ug/L**	5.104	329785	0.315
	Cr	52	**47.967**	**ug/L**	2.394	271430	0.263
	Cr	53		**ug/L**		331916	0.192
	Mn	55	**47.816**	**ug/L**	2.117	452249	0.434
	Fe	57	**2074.757**	**ug/L**	2.032	378629	0.360
	Co	59	**45.779**	**ug/L**	3.264	333631	0.321
	Ni	60	**46.750**	**ug/L**	2.170	74915	0.072
	Cu	63		**ug/L**		180104	0.173
	Cu	65	**46.234**	**ug/L**	0.963	86141	0.083
	Zn	66	**58.621**	**ug/L**	1.731	68570	0.164
	Zn	67		**ug/L**		52725	0.098
	Zn	68		**ug/L**		50952	0.119
>	Ge	74		**ug/L**		415785	415784.908
	As	75	**78.085**	**ug/L**	1.633	89062	0.214
	Se	77		**ug/L**		26592	0.046
	Se	82	**21.656**	**ug/L**	0.462	2401	0.006
	Kr	83		**ug/L**		129	0.000
	Sr	88	**146.272**	**ug/L**	3.016	1783820	6.580
	Y	89		**ug/L**		285	0.001
	Mo	98	**52.834**	**ug/L**	1.665	163796	0.604
	Ag	107	**50.831**	**ug/L**	3.207	272480	1.005
	Cd	111	**10.561**	**ug/L**	0.569	15009	0.055
	Cd	114		**ug/L**		35152	0.130
>	In	115		**ug/L**		271140	271140.393
	Sn	120	**53.015**	**ug/L**	1.114	321613	1.185
	Sb	121	**209.166**	**ug/L**	1.364	1088354	4.013
	Sb	123		**ug/L**		874745	3.226
	Ba	135		**ug/L**		115935	0.199
	Ba	137	**69.580**	**ug/L**	2.405	202586	0.349
	Ho	165		**ug/L**		311	0.000
>	Lu	175		**ug/L**		581333	581333.374
	Tl	205	**90.071**	**ug/L**	1.057	2079930	3.572
	Pb	208	**42.232**	**ug/L**	1.679	1553552	2.673
	Bi	209		**ug/L**		581	0.001
	Th	232	**49.766**	**ug/L**	1.516	2132201	3.668
	U	238	**52.049**	**ug/L**	2.057	2450756	4.216

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		106.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202003862
Sample Date/Time: Monday, January 04, 2010 23:22:53
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 936524|√|ba| 5 EAG 1/6/10
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\1202003862.202

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	7.762	ug/L	2.855	12845	0.013
	Be	9	0.006	ug/L	123.285	19	0.000
	B	11	8.397	ug/L	4.799	3924	0.004
	Na	23	3168.178	ug/L	6.202	13972485	13.861
	Mg	24	1002.561	ug/L	9.327	3309383	3.287
	Al	27	0.508	ug/L	75.632	4001	0.002
	P	31	1.313	ug/L	68.109	6620	0.000
	K	39	379.131	ug/L	6.748	2723070	2.077
	Ca	43	4567.745	ug/L	1.012	60598	0.060
>	Sc	45		ug/L		1007017	1007017.312
	Ti	47	0.807	ug/L	4.585	881	0.001
	V	51	0.187	ug/L	485.319	3577	0.001
	Cr	52	0.184	ug/L	22.131	-907	0.001
	Cr	53		ug/L		186670	0.058
	Mn	55	0.216	ug/L	2.340	2918	0.002
	Fe	57	11.644	ug/L	8.769	7004	0.002
	Co	59	0.067	ug/L	2.788	554	0.000
	Ni	60	0.200	ug/L	7.264	386	0.000
	Cu	63		ug/L		1421	0.001
	Cu	65	0.300	ug/L	1.103	671	0.001
	Zn	66	1.591	ug/L	1.850	2079	0.004
	Zn	67		ug/L		17769	0.013
	Zn	68		ug/L		3086	0.004
>	Ge	74		ug/L		423438	423438.163
	As	75	-0.318	ug/L	108.404	-419	-0.001
	Se	77		ug/L		14101	0.015
	Se	82	0.196	ug/L	64.853	4	0.000
	Kr	83		ug/L		100	-0.000
	Sr	88	21.439	ug/L	0.979	277978	0.964
	Y	89		ug/L		98	0.000
	Mo	98	0.612	ug/L	6.611	2057	0.007
	Ag	107	0.001	ug/L	41.302	43	0.000
	Cd	111	0.002	ug/L	489.523	15	0.000
	Cd	114		ug/L		25	-0.000
>	In	115		ug/L		288144	288144.407
	Sn	120	0.051	ug/L	14.019	646	0.001
	Sb	121	0.228	ug/L	17.610	1512	0.004
	Sb	123		ug/L		1238	0.004
	Ba	135		ug/L		6052	0.010
	Ba	137	3.533	ug/L	3.772	10703	0.018
	Ho	165		ug/L		20	-0.000
>	Lu	175		ug/L		603187	603186.503
	Tl	205	1.364	ug/L	18.957	35689	0.054
	Pb	208	0.015	ug/L	2.260	796	0.001
	Bi	209		ug/L		113	-0.000
	Th	232	0.033	ug/L	20.563	2018	0.002
	U	238	0.333	ug/L	3.356	16355	0.027

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9998
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9998
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		103.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Monday, January 04, 2010 23:29:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 8.203

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.030**	ug/L	4.015	80063	0.080
	Be	9	**49.900**	ug/L	1.995	22505	0.023
	B	11	**102.161**	ug/L	3.057	43705	0.044
	Na	23	**5685.855**	ug/L	4.769	24793538	24.876
	Mg	24	**5024.858**	ug/L	4.004	16413027	16.473
	Al	27	**4564.378**	ug/L	11.603	20307301	20.397
	P	31	**4444.991**	ug/L	1.949	1171534	1.170
	K	39	**5052.311**	ug/L	1.327	28197544	27.675
	Ca	43	**5022.871**	ug/L	0.619	65904	0.066
>	Sc	45		ug/L		996415	996414.918
	Ti	47	**49.126**	ug/L	0.314	31719	0.031
	V	51	**49.577**	ug/L	2.261	345894	0.345
	Cr	52	**49.894**	ug/L	2.051	270877	0.274
	Cr	53		ug/L		144568	0.018
	Mn	55	**51.213**	ug/L	1.829	464510	0.465
	Fe	57	**5116.597**	ug/L	2.068	888342	0.887
	Co	59	**49.363**	ug/L	1.250	345051	0.346
	Ni	60	**50.417**	ug/L	0.277	77490	0.078
	Cu	63		ug/L		183734	0.184
	Cu	65	**49.399**	ug/L	1.515	88254	0.088
	Zn	66	**51.465**	ug/L	2.019	61551	0.144
	Zn	67		ug/L		21428	0.022
	Zn	68		ug/L		45015	0.103
>	Ge	74		ug/L		424914	424914.353
	As	75	**48.043**	ug/L	2.476	55990	0.132
	Se	77		ug/L		11043	0.008
	Se	82	**50.913**	ug/L	1.752	5793	0.014
	Kr	83		ug/L		113	0.000
	Sr	88	**52.922**	ug/L	0.584	682857	2.381
	Y	89		ug/L		88	0.000
	Mo	98	**48.890**	ug/L	0.331	160333	0.559
	Ag	107	**50.357**	ug/L	0.514	285569	0.996
	Cd	111	**50.211**	ug/L	1.484	75432	0.263
	Cd	114		ug/L		185937	0.648
>	In	115		ug/L		286777	286777.149
	Sn	120	**51.418**	ug/L	1.871	329922	1.149
	Sb	121	**50.689**	ug/L	1.789	279163	0.973
	Sb	123		ug/L		220351	0.768
	Ba	135		ug/L		83811	0.139
	Ba	137	**48.386**	ug/L	1.961	145813	0.242
	Ho	165		ug/L		53	0.000
>	Lu	175		ug/L		601599	601598.830
	Tl	205	**50.981**	ug/L	0.552	1219464	2.022
	Pb	208	**52.312**	ug/L	2.246	1991296	3.310
	Bi	209		ug/L		575	0.001
	Th	232	**50.150**	ug/L	0.835	2223877	3.696
	U	238	**51.255**	ug/L	0.756	2497926	4.152

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	98.060				
	Be	9	99.799				
	B	11	102.161				
	Na	23	113.717				
	Mg	24	100.497				
	Al	27	90.384				
	P	31	88.900				
	K	39	101.046				
	Ca	43	100.457				
>	Sc	45		101.7			
	Ti	47	98.251				
	V	51	99.153				
	Cr	52	99.787				
	Cr	53					
	Mn	55	102.427				
	Fe	57	102.332				
	Co	59	98.726				
	Ni	60	100.833				
	Cu	63					
	Cu	65	98.798				
	Zn	66	102.929				
	Zn	67					
	Zn	68					
>	Ge	74		99.4			
	As	75	96.086				
	Se	77					
	Se	82	101.825				
	Kr	83					
	Sr	88	105.844				
	Y	89					
	Mo	98	97.781				
	Ag	107	100.713				
	Cd	111	100.421				
	Cd	114					
>	In	115		100.0			
	Sn	120	102.835				
	Sb	121	101.378				
	Sb	123					
	Ba	135					
	Ba	137	96.771				
	Ho	165					
>	Lu	175		103.4			
	Tl	205	101.962				
	Pb	208	104.623				
	Bi	209					
	Th	232	100.301				
	U	238	102.509				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Na	23	CCV is out of limits (+/- 10%)
QC Std 8	P	31	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Monday, January 04, 2010 23:35:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 9.204

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.021**	**ug/L**	14.088	67	0.000
	Be	9	**0.004**	**ug/L**	270.542	18	0.000
	B	11	**2.153**	**ug/L**	25.052	1222	0.001
	Na	23	**0.507**	**ug/L**	100.473	16676	0.002
	Mg	24	**0.410**	**ug/L**	116.244	2334	0.001
	Al	27	**0.524**	**ug/L**	43.870	4001	0.002
	P	31	**-1.329**	**ug/L**	80.348	5818	-0.000
	K	39	**-7.709**	**ug/L**	97.757	578865	-0.042
	Ca	43	**0.834**	**ug/L**	55.362	253	0.000
>	Sc	45		**ug/L**		990034	990034.403
	Ti	47	**-0.051**	**ug/L**	79.932	322	-0.000
	V	51	**0.125**	**ug/L**	239.525	3108	0.001
	Cr	52	**-0.004**	**ug/L**	1063.322	-1914	-0.000
	Cr	53		**ug/L**		112187	-0.014
	Mn	55	**-0.003**	**ug/L**	56.219	897	-0.000
	Fe	57	**-2.094**	**ug/L**	7.379	4529	-0.000
	Co	59	**0.004**	**ug/L**	17.787	107	0.000
	Ni	60	**0.002**	**ug/L**	425.382	77	0.000
	Cu	63		**ug/L**		303	-0.000
	Cu	65	**0.010**	**ug/L**	49.001	146	0.000
	Zn	66	**0.003**	**ug/L**	254.582	193	0.000
	Zn	67		**ug/L**		11841	-0.001
	Zn	68		**ug/L**		1344	-0.000
>	Ge	74		**ug/L**		425362	425361.542
	As	75	**-0.298**	**ug/L**	39.755	-398	-0.001
	Se	77		**ug/L**		6326	-0.003
	Se	82	**0.158**	**ug/L**	112.854	0	0.000
	Kr	83		**ug/L**		98	-0.000
	Sr	88	**0.001**	**ug/L**	107.597	154	0.000
	Y	89		**ug/L**		51	-0.000
	Mo	98	**0.042**	**ug/L**	22.912	181	0.000
	Ag	107	**0.004**	**ug/L**	41.752	56	0.000
	Cd	111	**0.005**	**ug/L**	173.450	20	0.000
	Cd	114		**ug/L**		47	0.000
>	In	115		**ug/L**		286957	286956.926
	Sn	120	**0.068**	**ug/L**	20.267	758	0.002
	Sb	121	**0.378**	**ug/L**	20.992	2335	0.007
	Sb	123		**ug/L**		1821	0.006
	Ba	135		**ug/L**		35	0.000
	Ba	137	**0.006**	**ug/L**	57.070	50	0.000
	Ho	165		**ug/L**		27	-0.000
>	Lu	175		**ug/L**		583184	583183.658
	Tl	205	**0.596**	**ug/L**	16.735	16709	0.024
	Pb	208	**0.005**	**ug/L**	19.105	387	0.000
	Bi	209		**ug/L**		86	-0.000
	Th	232	**0.066**	**ug/L**	20.836	3349	0.005
	U	238	**0.010**	**ug/L**	17.859	554	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243400002
Sample Date/Time: Monday, January 04, 2010 23:41:19
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936524|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\243400002.205

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**36.800**	ug/L	2.259	61897	0.060
	Be	9	**-0.004**	ug/L	72.578	14	-0.000
	B	11	**30.424**	ug/L	3.084	13626	0.013
	Na	23	**15625.618**	ug/L	6.895	70146289	68.363
	Mg	24	**4838.033**	ug/L	3.774	16270406	15.860
	Al	27	**10.546**	ug/L	10.801	50088	0.047
	P	31	**4.591**	ug/L	21.271	7628	0.001
	K	39	**1941.142**	ug/L	4.735	11550101	10.633
	Ca	43	**22033.200**	ug/L	1.114	296787	0.289
>	Sc	45		ug/L		1025841	1025841.372
	Ti	47	**3.952**	ug/L	4.116	2965	0.003
	V	51	**0.695**	ug/L	169.858	7285	0.005
	Cr	52	**1.715**	ug/L	2.504	7696	0.009
	Cr	53		ug/L		324134	0.188
	Mn	55	**0.704**	ug/L	2.381	7523	0.006
	Fe	57	**88.051**	ug/L	5.854	20717	0.015
	Co	59	**0.057**	ug/L	6.315	491	0.000
	Ni	60	**0.964**	ug/L	3.990	1602	0.001
	Cu	63		ug/L		8329	0.008
	Cu	65	**1.873**	ug/L	3.291	3574	0.003
	Zn	66	**8.698**	ug/L	0.769	10157	0.024
	Zn	67		ug/L		40430	0.070
	Zn	68		ug/L		9868	0.021
>	Ge	74		ug/L		408684	408683.822
	As	75	**-0.346**	ug/L	293.979	-433	-0.001
	Se	77		ug/L		28283	0.051
	Se	82	**0.839**	ug/L	31.686	75	0.000
	Kr	83		ug/L		107	0.000
	Sr	88	**105.621**	ug/L	1.124	1299356	4.751
	Y	89		ug/L		358	0.001
	Mo	98	**3.106**	ug/L	2.065	9750	0.036
	Ag	107	**0.010**	ug/L	5.994	85	0.000
	Cd	111	**0.011**	ug/L	138.524	28	0.000
	Cd	114		ug/L		46	0.000
>	In	115		ug/L		273449	273449.101
	Sn	120	**0.197**	ug/L	17.365	1511	0.004
	Sb	121	**0.541**	ug/L	9.591	3079	0.010
	Sb	123		ug/L		2415	0.008
	Ba	135		ug/L		29194	0.050
	Ba	137	**17.804**	ug/L	1.363	51544	0.089
	Ho	165		ug/L		48	0.000
>	Lu	175		ug/L		577653	577653.116
	Tl	205	**0.224**	ug/L	7.931	8010	0.009
	Pb	208	**0.206**	ug/L	0.271	7741	0.013
	Bi	209		ug/L		95	-0.000
	Th	232	**0.079**	ug/L	30.221	3886	0.006
	U	238	**1.706**	ug/L	0.590	79915	0.138

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		104.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		95.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243400003
Sample Date/Time: Monday, January 04, 2010 23:47:28
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936524|1|ba|
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\243400003.206

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**32.725**	**ug/L**	2.562	55433	0.054
	Be	9	**0.002**	**ug/L**	383.538	18	0.000
	B	11	**25.846**	**ug/L**	3.508	11706	0.011
	Na	23	**14245.609**	**ug/L**	2.686	64426927	62.326
	Mg	24	**4104.087**	**ug/L**	2.633	13904066	13.454
	Al	27	**76.460**	**ug/L**	8.221	354700	0.342
	P	31	**14.801**	**ug/L**	1.306	10459	0.004
	K	39	**2002.706**	**ug/L**	10.482	11969270	10.970
	Ca	43	**18997.521**	**ug/L**	1.411	257785	0.249
>	Sc	45		**ug/L**		1033186	1033185.730
	Ti	47	**5.283**	**ug/L**	3.443	3866	0.003
	V	51	**-0.202**	**ug/L**	931.991	805	-0.001
	Cr	52	**2.206**	**ug/L**	8.835	10522	0.012
	Cr	53		**ug/L**		351758	0.213
	Mn	55	**1.387**	**ug/L**	0.641	13989	0.013
	Fe	57	**161.629**	**ug/L**	1.326	34034	0.028
	Co	59	**0.082**	**ug/L**	8.331	676	0.001
	Ni	60	**1.038**	**ug/L**	3.554	1731	0.002
	Cu	63		**ug/L**		6530	0.006
	Cu	65	**1.408**	**ug/L**	1.649	2739	0.003
	Zn	66	**8.050**	**ug/L**	2.410	9530	0.023
	Zn	67		**ug/L**		44824	0.080
	Zn	68		**ug/L**		9603	0.020
>	Ge	74		**ug/L**		413813	413812.787
	As	75	**0.100**	**ug/L**	1046.617	74	0.000
	Se	77		**ug/L**		31486	0.058
	Se	82	**0.614**	**ug/L**	32.560	51	0.000
	Kr	83		**ug/L**		119	0.000
	Sr	88	**94.882**	**ug/L**	1.867	1172095	4.268
	Y	89		**ug/L**		1122	0.004
	Mo	98	**3.204**	**ug/L**	1.362	10099	0.037
	Ag	107	**0.002**	**ug/L**	29.391	46	0.000
	Cd	111	**0.006**	**ug/L**	77.357	21	0.000
	Cd	114		**ug/L**		51	0.000
>	In	115		**ug/L**		274596	274595.604
	Sn	120	**0.126**	**ug/L**	4.767	1080	0.003
	Sb	121	**0.298**	**ug/L**	1.571	1811	0.006
	Sb	123		**ug/L**		1522	0.005
	Ba	135		**ug/L**		50187	0.086
	Ba	137	**29.786**	**ug/L**	1.249	86559	0.149
	Ho	165		**ug/L**		106	0.000
>	Lu	175		**ug/L**		579919	579918.781
	Tl	205	**0.136**	**ug/L**	5.535	6023	0.005
	Pb	208	**0.171**	**ug/L**	1.635	6491	0.011
	Bi	209		**ug/L**		165	0.000
	Th	232	**0.069**	**ug/L**	6.048	3470	0.005
	U	238	**1.671**	**ug/L**	1.020	78575	0.135

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		105.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		96.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243400004
Sample Date/Time: Monday, January 04, 2010 23:53:37
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936524|1|ba|
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\243400004.207

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**32.542**	**ug/L**	4.011	56098	0.053
	Be	9	**0.005**	**ug/L**	57.091	19	0.000
	B	11	**25.801**	**ug/L**	1.213	11897	0.011
	Na	23	**15579.471**	**ug/L**	5.980	71660238	68.161
	Mg	24	**4129.213**	**ug/L**	8.759	14230056	13.537
	Al	27	**4.868**	**ug/L**	12.995	24688	0.022
	P	31	**13.964**	**ug/L**	1.289	10415	0.004
	K	39	**1942.028**	**ug/L**	7.501	11853004	10.638
	Ca	43	**18832.983**	**ug/L**	0.132	260113	0.247
>	Sc	45		**ug/L**		1051692	1051691.678
	Ti	47	**4.318**	**ug/L**	1.869	3286	0.003
	V	51	**-0.245**	**ug/L**	821.927	526	-0.002
	Cr	52	**1.596**	**ug/L**	21.276	7183	0.009
	Cr	53		**ug/L**		368687	0.223
	Mn	55	**0.399**	**ug/L**	0.678	4798	0.004
	Fe	57	**62.897**	**ug/L**	2.660	16652	0.011
	Co	59	**0.105**	**ug/L**	2.869	856	0.001
	Ni	60	**0.718**	**ug/L**	3.185	1242	0.001
	Cu	63		**ug/L**		5588	0.005
	Cu	65	**1.136**	**ug/L**	3.275	2274	0.002
	Zn	66	**4.933**	**ug/L**	0.833	6047	0.014
	Zn	67		**ug/L**		45597	0.079
	Zn	68		**ug/L**		7440	0.014
>	Ge	74		**ug/L**		423264	423264.105
	As	75	**0.007**	**ug/L**	12283.397	-39	0.000
	Se	77		**ug/L**		33099	0.060
	Se	82	**0.646**	**ug/L**	19.492	56	0.000
	Kr	83		**ug/L**		119	0.000
	Sr	88	**94.983**	**ug/L**	1.402	1187632	4.273
	Y	89		**ug/L**		211	0.001
	Mo	98	**3.170**	**ug/L**	2.864	10110	0.036
	Ag	107	**0.003**	**ug/L**	45.313	51	0.000
	Cd	111	**0.006**	**ug/L**	119.551	20	0.000
	Cd	114		**ug/L**		47	0.000
>	In	115		**ug/L**		277899	277899.007
	Sn	120	**0.123**	**ug/L**	3.400	1077	0.003
	Sb	121	**0.276**	**ug/L**	4.701	1717	0.005
	Sb	123		**ug/L**		1395	0.004
	Ba	135		**ug/L**		50334	0.086
	Ba	137	**30.195**	**ug/L**	2.829	88544	0.151
	Ho	165		**ug/L**		39	0.000
>	Lu	175		**ug/L**		585363	585362.607
	Tl	205	**0.091**	**ug/L**	3.015	5032	0.004
	Pb	208	**0.024**	**ug/L**	6.404	1092	0.002
	Bi	209		**ug/L**		86	-0.000
	Th	232	**0.013**	**ug/L**	8.797	1086	0.001
	U	238	**1.635**	**ug/L**	2.791	77593	0.132

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		107.3			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Monday, January 04, 2010 23:59:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 6.208

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**47.513**	**ug/L**	4.453	79332	0.078
	Be	9	**48.139**	**ug/L**	2.255	22193	0.022
	B	11	**99.628**	**ug/L**	0.679	43559	0.042
	Na	23	**4833.991**	**ug/L**	3.418	21552742	21.149
	Mg	24	**4857.553**	**ug/L**	4.791	16218015	15.924
	Al	27	**4743.589**	**ug/L**	7.499	21595303	21.198
	P	31	**4353.559**	**ug/L**	1.197	1172901	1.146
	K	39	**4624.429**	**ug/L**	4.353	26435198	25.331
	Ca	43	**4866.764**	**ug/L**	2.218	65265	0.064
>	Sc	45		**ug/L**		1018323	1018323.127
	Ti	47	**47.781**	**ug/L**	1.776	31540	0.031
	V	51	**49.098**	**ug/L**	3.111	350110	0.342
	Cr	52	**49.254**	**ug/L**	1.935	273268	0.270
	Cr	53		**ug/L**		159761	0.029
	Mn	55	**50.061**	**ug/L**	2.115	464114	0.455
	Fe	57	**5020.721**	**ug/L**	1.674	890920	0.870
	Co	59	**48.915**	**ug/L**	2.132	349436	0.343
	Ni	60	**49.327**	**ug/L**	1.495	77480	0.076
	Cu	63		**ug/L**		181976	0.178
	Cu	65	**48.123**	**ug/L**	1.022	87878	0.086
	Zn	66	**50.908**	**ug/L**	0.976	61973	0.143
	Zn	67		**ug/L**		22509	0.024
	Zn	68		**ug/L**		44651	0.100
>	Ge	74		**ug/L**		432528	432528.491
	As	75	**47.514**	**ug/L**	0.918	56361	0.130
	Se	77		**ug/L**		12615	0.011
	Se	82	**49.767**	**ug/L**	2.028	5762	0.013
	Kr	83		**ug/L**		100	-0.000
	Sr	88	**52.268**	**ug/L**	1.401	674435	2.351
	Y	89		**ug/L**		101	0.000
	Mo	98	**48.265**	**ug/L**	1.188	158293	0.552
	Ag	107	**50.019**	**ug/L**	0.687	283664	0.989
	Cd	111	**48.677**	**ug/L**	0.358	73133	0.255
	Cd	114		**ug/L**		182015	0.635
>	In	115		**ug/L**		286797	286797.049
	Sn	120	**51.196**	**ug/L**	0.402	328534	1.144
	Sb	121	**50.003**	**ug/L**	2.098	275448	0.959
	Sb	123		**ug/L**		216942	0.756
	Ba	135		**ug/L**		81776	0.139
	Ba	137	**49.557**	**ug/L**	2.497	145531	0.248
	Ho	165		**ug/L**		49	0.000
>	Lu	175		**ug/L**		586282	586281.545
	Tl	205	**51.198**	**ug/L**	2.973	1193135	2.031
	Pb	208	**52.435**	**ug/L**	1.165	1945384	3.318
	Bi	209		**ug/L**		598	0.001
	Th	232	**50.699**	**ug/L**	2.712	2190430	3.736
	U	238	**52.084**	**ug/L**	2.931	2472879	4.219

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	95.027				
	Be	9	96.277				
	B	11	99.628				
	Na	23	96.680				
	Mg	24	97.151				
	Al	27	93.932				
	P	31	87.071				
	K	39	92.489				
	Ca	43	97.335				
>	Sc	45		103.9			
	Ti	47	95.561				
	V	51	98.197				
	Cr	52	98.509				
	Cr	53					
	Mn	55	100.123				
	Fe	57	100.414				
	Co	59	97.830				
	Ni	60	98.654				
	Cu	63					
	Cu	65	96.246				
	Zn	66	101.816				
	Zn	67					
	Zn	68					
>	Ge	74		101.2			
	As	75	95.027				
	Se	77					
	Se	82	99.535				
	Kr	83					
	Sr	88	104.535				
	Y	89					
	Mo	98	96.531				
	Ag	107	100.037				
	Cd	111	97.353				
	Cd	114					
>	In	115		100.0			
	Sn	120	102.392				
	Sb	121	100.006				
	Sb	123					
	Ba	135					
	Ba	137	99.114				
	Ho	165					
>	Lu	175		100.7			
	Tl	205	102.395				
	Pb	208	104.870				
	Bi	209					
	Th	232	101.398				
	U	238	104.167				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	P	31	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, January 05, 2010 00:05:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: C:\elandata\Dataset\100104\QC Std 7.209

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	0.020	ug/L	43.421	68	0.000
	Be	9	0.006	ug/L	252.738	19	0.000
	B	11	2.045	ug/L	19.929	1208	0.001
	Na	23	2.000	ug/L	142.506	23690	0.009
	Mg	24	0.091	ug/L	503.883	1333	0.000
	Al	27	0.063	ug/L	702.706	2000	0.000
	P	31	-1.878	ug/L	68.202	5822	-0.000
	K	39	-3.268	ug/L	643.566	617300	-0.018
	Ca	43	-0.057	ug/L	2707.720	248	-0.000
>	Sc	45		ug/L		1015651	1015650.759
	Ti	47	-0.047	ug/L	64.247	333	-0.000
	V	51	0.177	ug/L	265.390	3529	0.001
	Cr	52	0.098	ug/L	48.782	-1400	0.001
	Cr	53		ug/L		119870	-0.009
	Mn	55	0.008	ug/L	82.377	1021	0.000
	Fe	57	-2.132	ug/L	20.369	4639	-0.000
	Co	59	0.004	ug/L	49.403	107	0.000
	Ni	60	0.007	ug/L	107.229	87	0.000
	Cu	63		ug/L		312	-0.000
	Cu	65	0.016	ug/L	9.672	160	0.000
	Zn	66	0.022	ug/L	98.704	220	0.000
	Zn	67		ug/L		11964	-0.001
	Zn	68		ug/L		1340	-0.000
>	Ge	74		ug/L		432791	432791.456
	As	75	-0.138	ug/L	143.797	-214	-0.000
	Se	77		ug/L		7463	-0.001
	Se	82	0.072	ug/L	151.392	-10	0.000
	Kr	83		ug/L		102	-0.000
	Sr	88	0.002	ug/L	53.866	169	0.000
	Y	89		ug/L		60	0.000
	Mo	98	0.048	ug/L	7.447	202	0.001
	Ag	107	0.005	ug/L	62.627	64	0.000
	Cd	111	0.008	ug/L	85.274	25	0.000
	Cd	114		ug/L		48	0.000
>	In	115		ug/L		291927	291927.120
	Sn	120	0.072	ug/L	12.791	792	0.002
	Sb	121	0.366	ug/L	22.890	2308	0.007
	Sb	123		ug/L		1740	0.005
	Ba	135		ug/L		39	0.000
	Ba	137	0.003	ug/L	48.430	44	0.000
	Ho	165		ug/L		21	-0.000
>	Lu	175		ug/L		603462	603461.825
	Tl	205	0.431	ug/L	20.463	13329	0.017
	Pb	208	0.005	ug/L	7.381	415	0.000
	Bi	209		ug/L		90	-0.000
	Th	232	0.064	ug/L	17.577	3393	0.005
	U	238	0.009	ug/L	11.828	550	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9998
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9998
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.7			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		103.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Tuesday, January 05, 2010 09:41:51
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1652
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	4996.3	4996.274	114.293	2.3
	Mg	24.0	61091.0	61090.957	646.835	1.1
	Co	58.9	109691.5	109691.457	2252.090	2.1
	Rh	102.9	196378.3	196378.310	2476.443	1.3
	In	114.9	274585.9	274585.907	3413.891	1.2
	Pb	208.0	318004.3	318004.302	2893.703	0.9
⌈>	Ba	137.9	283932.6	283932.597	4647.984	1.6
⌊	Ba++	69.0	5403.5	0.019	0.001	2.9
⌈>	Ce	139.9	344661.2	344661.234	3293.852	1.0
⌊	CeO	155.9	9646.3	0.028	0.001	2.5
	Bkgd	220.0	12.8	12.800	2.564	20.0

Current Optimization File Data

Current Value	Description
0.85	Nebulizer Gas Flow
7.00	Lens Voltage
1450.00	ICP RF Power
-1687.50	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	7.5	7468.6
Co	59	17	8.8	111317.4
In	115	17	10.0	300871.6

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	601	2065	0.571
Be	9.0	9.0	2049	2070	0.624
Mg	24.0	24.0	5687	2070	0.607
Mg	25.0	25.0	5951	2070	0.613
Mg	26.0	26.0	6179	2070	0.635
Co	58.9	59.0	14192	2105	0.601
Rh	102.9	102.9	24880	2165	0.595
In	114.9	114.9	27794	2185	0.599
Ce	139.9	139.9	33878	2200	0.614
Pb	206.0	206.0	49948	2270	0.653
Pb	207.0	207.0	50183	2235	0.675
Pb	208.0	208.0	50451	2260	0.697
U	238.1	238.1	57733	2275	0.711

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, January 05, 2010 10:01:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\Blank.004

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		760443	
⌊	Tl	205		**ug/L**		1653	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, January 05, 2010 10:05:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\Standard 1.005

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		743896	743896.123
	Tl	205	10.000	ug/L	2.067	381092	0.510

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, January 05, 2010 10:10:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\Standard 2.006

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		722061	722060.523
	Tl	205	99.843	ug/L	0.549	3180412	4.402

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, January 05, 2010 10:14:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\QC Std 1.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		735990	735990.086
	Tl	205	48.467	ug/L	1.691	1574087	2.137

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		96.8			
	Tl	205	96.934				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, January 05, 2010 10:19:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\QC Std 2.008

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		737715	737714.988
⌊	Tl	205	-0.006	ug/L	8.995	1423	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		97.0			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, January 05, 2010 10:23:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\QC Std 3.009

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		732989	732989.025
	Tl	205	**1.164**	**ug/L**	1.926	39229	0.051

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		96.4			
	Tl	205	116.437				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, January 05, 2010 10:28:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\QC Std 4.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		639890	639889.776
⌊	Tl	205	0.003	ug/L	34.531	1467	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		84.1			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, January 05, 2010 10:32:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\QC Std 5.011

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		611527	611526.914
⌊	Tl	205	21.774	ug/L	0.424	588442	0.960

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		80.4			
⌊	Tl	205	108.872				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, January 05, 2010 10:37:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\QC Std 6.012

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		727956	727956.333
⌊	Tl	205	49.189	ug/L	2.234	1580065	2.169

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		95.7			
⌊	Tl	205	98.378				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, January 05, 2010 10:41:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\QC Std 7.013

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		727631	727631.108
	Tl	205	-0.008	ug/L	14.241	1335	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		95.7			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, January 05, 2010 11:17:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\QC Std 6.021

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		702741	702740.658
	Tl	205	47.602	ug/L	0.902	1476464	2.099

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		92.4			
	Tl	205	95.204				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, January 05, 2010 11:22:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\QC Std 7.022

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		721649	721648.982
⌊	Tl	205	**0.038**	**ug/L**	4.203	2788	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		94.9			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, January 05, 2010 11:53:42
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\QC Std 6.029

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		704394	704394.146
	Tl	205	47.213	ug/L	1.166	1467806	2.082

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		92.6			
	Tl	205	94.426				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, January 05, 2010 11:58:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\QC Std 7.030

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		705780	705779.522
	Tl	205	0.036	ug/L	9.074	2663	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		92.8			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202003858
Sample Date/Time: Tuesday, January 05, 2010 12:02:45
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 936524|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\1202003858.031

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		677155	677155.279
⌊	Tl	205	**0.004**	ug/L	19.876	1587	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		89.0			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202003859
Sample Date/Time: Tuesday, January 05, 2010 12:07:16
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 936524|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\1202003859.032

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		671200	671200.091
	Tl	205	44.183	ug/L	0.929	1308889	1.948

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		88.3			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243400001
Sample Date/Time: Tuesday, January 05, 2010 12:11:45
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936524|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\243400001.033

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		636551	636550.684
⌊	Tl	205	0.242	ug/L	3.450	8180	0.011

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		83.7			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202003860
Sample Date/Time: Tuesday, January 05, 2010 12:16:15
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 936524|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\1202003860.034

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		641281	641280.953
⌊	Tl	205	0.070	ug/L	5.224	3365	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		84.3			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202003861
Sample Date/Time: Tuesday, January 05, 2010 12:20:46
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 936524|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\1202003861.035

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		630388	630388.070
	Tl	205	79.472	ug/L	1.306	2210194	3.504

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		82.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202003862
Sample Date/Time: Tuesday, January 05, 2010 12:25:17
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 936524[illegible]bs 5 EAQ 1/6/10
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\1202003862.036

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		679924	679924.348
	Tl	205	0.404	ug/L	1.173	13579	0.018

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		89.4			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243400002
Sample Date/Time: Tuesday, January 05, 2010 12:29:49
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936524|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\243400002.037

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		646138	646138.163
⌊	Tl	205	**0.124**	**ug/L**	3.259	4945	0.005

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		85.0			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243400003
Sample Date/Time: Tuesday, January 05, 2010 12:34:21
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936524|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\243400003.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		646741	646741.370
	Tl	205	0.059	ug/L	6.309	3086	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		85.0			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243400004
Sample Date/Time: Tuesday, January 05, 2010 12:38:52
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936524|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\243400004.039

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		655086	655086.465
	Tl	205	0.026	ug/L	9.814	2185	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		86.1			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, January 05, 2010 12:43:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\QC Std 6.040

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		731551	731550.723
⌊	Tl	205	46.570	ug/L	0.998	1503702	2.053

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		96.2			
⌊	Tl	205	93.139				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, January 05, 2010 12:47:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\QC Std 7.041

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		737641	737641.360
⌊	Tl	205	0.021	ug/L	12.741	2295	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		97.0			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, January 07, 2010 10:49:03
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1677
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse
Acq. Dead Time(ns): 35
Current Dead Time (ns): 35
Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	3824.1	3824.112	140.037	3.7
	Mg	24.0	44078.7	44078.712	707.224	1.6
	Co	58.9	100843.3	100843.308	1064.955	1.1
	Rh	102.9	210123.2	210123.173	2287.267	1.1
	In	114.9	255053.7	255053.671	2590.006	1.0
	Pb	208.0	280687.9	280687.860	2625.738	0.9
⌈>	Ba	137.9	265036.4	265036.426	3210.486	1.2
⌊	Ba++	69.0	5116.9	0.019	0.000	1.9
⌈>	Ce	139.9	324153.0	324153.032	3077.247	0.9
⌊	CeO	155.9	8830.6	0.027	0.001	2.6
	Bkgd	220.0	22.7	22.700	1.891	8.3

Current Optimization File Data

Current Value	Description
0.79	Nebulizer Gas Flow
8.75	Lens Voltage
1450.00	ICP RF Power
-1718.75	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	19	9.8	6131.6
Co	59	19	10.8	96776.7
In	115	19	12.5	250692.8

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	589	2065	0.625
Be	9.0	9.0	2051	2070	0.666
Mg	24.0	24.0	5693	2070	0.688
Mg	25.0	25.0	5933	2070	0.671
Mg	26.0	26.0	6182	2070	0.705
Co	58.9	58.9	14186	2105	0.668
Rh	102.9	102.9	24877	2165	0.645
In	114.9	114.9	27791	2185	0.637
Ce	139.9	139.9	33863	2200	0.657
Pb	206.0	206.0	49948	2270	0.697
Pb	207.0	207.0	50171	2235	0.713
Pb	208.0	208.0	50439	2260	0.758
U	238.1	238.1	57730	2275	0.782

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, January 07, 2010 11:59:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb and u.mth
Dataset File: C:\elandata\Dataset\100107\Blank.031

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	In	115		ug/L		300506	
	Sb	121		ug/L		1118	
	Sb	123		ug/L		866	
>	Lu	175		ug/L		575475	
	U	238		ug/L		260	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Lu	175	Linear Thru Zero	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, January 07, 2010 12:02:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb and u.mth
Dataset File: C:\elandata\Dataset\100107\Standard 1.032

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	In	115		ug/L		303037	303037.208
|	Sb	121	10.000	ug/L	2.457	56381	0.182
⌊	Sb	123		ug/L		44071	0.143
⌈>	Lu	175		ug/L		567717	567717.266
⌊	U	238	10.000	ug/L	1.791	518730	0.913

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	In	115					
|	Sb	121					
⌊	Sb	123					
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, January 07, 2010 12:05:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb and u.mth
Dataset File: C:\elandata\Dataset\100107\Standard 2.033

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	In	115		ug/L		295527	295527.405
	Sb	121	**100.057**	ug/L	2.160	572882	1.935
	Sb	123		ug/L		454020	1.533
>	Lu	175		ug/L		564178	564177.665
	U	238	**99.851**	ug/L	1.645	4476229	7.934

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, January 07, 2010 12:08:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb and u.mth
Dataset File: C:\elandata\Dataset\100107\QC Std 1.034

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	In	115		ug/L		297236	297236.422
|	Sb	121	49.545	ug/L	1.923	285891	0.958
⌊	Sb	123		ug/L		226595	0.759
⌈>	Lu	175		ug/L		573563	573563.268
⌊	U	238	52.865	ug/L	1.247	2409554	4.201

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	In	115		98.9			
|	Sb	121	99.089				
⌊	Sb	123					
⌈>	Lu	175		99.7			
⌊	U	238	105.730				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, January 07, 2010 12:11:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb and u.mth
Dataset File: C:\elandata\Dataset\100107\QC Std 2.035

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	In	115		ug/L		307184	307183.927
|	Sb	121	0.661	ug/L	3.534	5070	0.013
⌊	Sb	123		ug/L		3991	0.010
⌈>	Lu	175		ug/L		582076	582075.810
⌊	U	238	0.007	ug/L	6.417	591	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	In	115		102.2			
|	Sb	121					
⌊	Sb	123					
⌈>	Lu	175		101.1			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, January 07, 2010 12:14:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb and u.mth
Dataset File: C:\elandata\Dataset\100107\QC Std 3.036

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	In	115		ug/L		306054	306054.159
|	Sb	121	2.859	ug/L	5.385	18057	0.055
⌊	Sb	123		ug/L		14063	0.043
⌈>	Lu	175		ug/L		583380	583379.962
⌊	U	238	0.258	ug/L	0.547	12239	0.021

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	In	115		101.8			
|	Sb	121	95.303				
⌊	Sb	123					
⌈>	Lu	175		101.4			
⌊	U	238	129.171				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, January 07, 2010 12:17:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb and u.mth
Dataset File: C:\elandata\Dataset\100107\QC Std 4.037

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	In	115		ug/L		283239	283238.806
|	Sb	121	0.256	ug/L	4.786	2456	0.005
⌊	Sb	123		ug/L		1912	0.004
⌈>	Lu	175		ug/L		548842	548841.651
⌊	U	238	-0.001	ug/L	22.920	204	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	In	115		94.3			
|	Sb	121	256.003				
⌊	Sb	123					
⌈>	Lu	175		95.4			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, January 07, 2010 12:20:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb and u.mth
Dataset File: C:\elandata\Dataset\100107\QC Std 5.038

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	In	115		ug/L		285679	285679.280
|	Sb	121	22.742	ug/L	1.192	126700	0.440
⌊	Sb	123		ug/L		98340	0.341
⌈>	Lu	175		ug/L		543713	543712.744
⌊	U	238	22.696	ug/L	1.159	980646	1.803

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	In	115		95.1			
|	Sb	121	113.145				
⌊	Sb	123					
⌈>	Lu	175		94.5			
⌊	U	238	113.478				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, January 07, 2010 12:23:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb and u.mth
Dataset File: C:\elandata\Dataset\100107\QC Std 6.039

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	In	115		ug/L		307638	307638.216
	Sb	121	**46.946**	ug/L	3.033	280355	0.908
	Sb	123		ug/L		221380	0.717
>	Lu	175		ug/L		580133	580132.976
	U	238	**51.652**	ug/L	0.894	2381180	4.104

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	In	115		102.4			
	Sb	121	93.893				
	Sb	123					
>	Lu	175		100.8			
	U	238	103.305				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, January 07, 2010 12:26:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb and u.mth
Dataset File: C:\elandata\Dataset\100107\QC Std 7.040

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	In	115		ug/L		314719	314719.499
|	Sb	121	0.460	ug/L	2.454	3968	0.009
⌊	Sb	123		ug/L		3047	0.007
⌈>	Lu	175		ug/L		595007	595006.713
⌊	U	238	0.006	ug/L	13.195	555	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	In	115		104.7			
|	Sb	121					
⌊	Sb	123					
⌈>	Lu	175		103.4			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202003858
Sample Date/Time: Thursday, January 07, 2010 12:35:37
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 936524|1|ba|
Method File: c:\elandata\Method\sb and u.mth
Dataset File: C:\elandata\Dataset\100107\1202003858.043

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	In	115		ug/L		293319	293319.051
	Sb	121	0.086	ug/L	7.245	1578	0.002
	Sb	123		ug/L		1252	0.001
>	Lu	175		ug/L		571766	571765.940
	U	238	0.004	ug/L	8.581	447	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	In	115		97.6			
	Sb	121					
	Sb	123					
>	Lu	175		99.4			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202003859
Sample Date/Time: Thursday, January 07, 2010 12:38:35
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 936524|1|baj
Method File: c:\elandata\Method\sb and u.mth
Dataset File: C:\elandata\Dataset\100107\1202003859.044

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	In	115		ug/L		289701	289700.555
|	Sb	121	69.194	ug/L	0.381	388700	1.338
⌊	Sb	123		ug/L		305258	1.051
⌈>	Lu	175		ug/L		566998	566997.809
⌊	U	238	59.820	ug/L	1.965	2695332	4.753

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	In	115		96.4			
|	Sb	121					
⌊	Sb	123					
⌈>	Lu	175		98.5			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243400001
Sample Date/Time: Thursday, January 07, 2010 12:41:34
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936524|1|baj
Method File: c:\elandata\Method\sb and u.mth
Dataset File: C:\elandata\Dataset\100107\243400001.045

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	In	115		ug/L		282975	282975.010
|	Sb	121	0.508	ug/L	2.372	3832	0.010
⌊	Sb	123		ug/L		3016	0.008
⌈>	Lu	175		ug/L		541563	541562.827
⌊	U	238	1.786	ug/L	0.591	77090	0.142

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	In	115		94.2			
|	Sb	121					
⌊	Sb	123					
⌈>	Lu	175		94.1			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202003860
Sample Date/Time: Thursday, January 07, 2010 12:44:34
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 936524|1|ba|
Method File: c:\elandata\Method\sb and u.mth
Dataset File: C:\elandata\Dataset\100107\1202003860.046

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	In	115		ug/L		289016	289015.528
|	Sb	121	0.433	ug/L	2.113	3497	0.008
⌊	Sb	123		ug/L		2841	0.007
⌈>	Lu	175		ug/L		533923	533922.971
⌊	U	238	1.798	ug/L	1.289	76513	0.143

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	In	115		96.2			
|	Sb	121					
⌊	Sb	123					
⌈>	Lu	175		92.8			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202003861
Sample Date/Time: Thursday, January 07, 2010 12:47:34
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 936524|1|baj
Method File: c:\elandata\Method\sb and u.mth
Dataset File: C:\elandata\Dataset\100107\1202003861.047

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	In	115		ug/L		281857	281856.575
|	Sb	121	**255.407**	ug/L	1.705	1392890	4.939
⌊	Sb	123		ug/L		1103011	3.911
⌈>	Lu	175		ug/L		532038	532038.401
⌊	U	238	**58.777**	ug/L	2.371	2484608	4.670

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	In	115		93.8			
|	Sb	121					
⌊	Sb	123					
⌈>	Lu	175		92.5			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sb 121 Upper, S, EE	Sb	121	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: 1202003862
Sample Date/Time: Thursday, January 07, 2010 12:50:35
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 936524|5|baj
Method File: c:\elandata\Method\sb and u.mth
Dataset File: C:\elandata\Dataset\100107\1202003862.048

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	In	115		ug/L		294330	294329.573
|	Sb	121	0.171	ug/L	9.769	2069	0.003
⌊	Sb	123		ug/L		1587	0.003
⌈>	Lu	175		ug/L		560477	560477.115
⌊	U	238	0.385	ug/L	0.351	17391	0.031

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	In	115		97.9			
|	Sb	121					
⌊	Sb	123					
⌈>	Lu	175		97.4			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, January 07, 2010 12:53:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb and u.mth
Dataset File: C:\elandata\Dataset\100107\QC Std 6.049

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	In	115		ug/L		301291	301291.044
|	Sb	121	**46.164**	ug/L	4.807	269936	0.893
⌊	Sb	123		ug/L		209560	0.693
⌈>	Lu	175		ug/L		566093	566093.457
⌊	U	238	**52.964**	ug/L	3.264	2382400	4.209

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	In	115		100.3			
|	Sb	121	92.328				
⌊	Sb	123					
⌈>	Lu	175		98.4			
⌊	U	238	105.928				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, January 07, 2010 12:56:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb and u.mth
Dataset File: C:\elandata\Dataset\100107\QC Std 7.050

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	In	115		**ug/L**		307185	307184.891
|	Sb	121	**0.429**	**ug/L**	1.967	3693	0.008
⌊	Sb	123		**ug/L**		2893	0.007
⌈>	Lu	175		**ug/L**		581568	581568.473
⌊	U	238	**0.006**	**ug/L**	12.477	545	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	In	115		102.2			
|	Sb	121					
⌊	Sb	123					
⌈>	Lu	175		101.1			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243400002
Sample Date/Time: Thursday, January 07, 2010 12:59:29
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936524|1|baj
Method File: c:\elandata\Method\sb and u.mth
Dataset File: C:\elandata\Dataset\100107\243400002.051

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	In	115		**ug/L**		288510	288509.587
	Sb	121	**0.819**	**ug/L**	3.042	5641	0.016
	Sb	123		**ug/L**		4512	0.013
>	Lu	175		**ug/L**		534462	534461.977
	U	238	**1.872**	**ug/L**	1.086	79743	0.149

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	In	115		96.0			
	Sb	121					
	Sb	123					
>	Lu	175		92.9			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243400003
Sample Date/Time: Thursday, January 07, 2010 13:02:29
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936524|1|baj
Method File: c:\elandata\Method\sb and u.mth
Dataset File: C:\elandata\Dataset\100107\243400003.052

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	In	115		**ug/L**		296488	296487.704
|	Sb	121	**0.325**	**ug/L**	2.797	2965	0.006
⌊	Sb	123		**ug/L**		2452	0.005
⌈>	Lu	175		**ug/L**		526984	526983.648
⌊	U	238	**1.799**	**ug/L**	1.072	75553	0.143

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	In	115		98.7			
|	Sb	121					
⌊	Sb	123					
⌈>	Lu	175		91.6			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243400004
Sample Date/Time: Thursday, January 07, 2010 13:05:28
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 936524|1|baj
Method File: c:\elandata\Method\sb and u.mth
Dataset File: C:\elandata\Dataset\100107\243400004.053

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	In	115		ug/L		290409	290408.561
|	Sb	121	0.277	ug/L	2.440	2634	0.005
⌊	Sb	123		ug/L		2153	0.005
⌈>	Lu	175		ug/L		524343	524343.159
⌊	U	238	1.751	ug/L	1.373	73190	0.139

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	In	115		96.6			
|	Sb	121					
⌊	Sb	123					
⌈>	Lu	175		91.1			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, January 07, 2010 13:08:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb and u.mth
Dataset File: C:\elandata\Dataset\100107\QC Std 6.054

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	In	115		ug/L		294840	294840.085
|	Sb	121	45.956	ug/L	1.976	263122	0.889
⌊	Sb	123		ug/L		205099	0.693
⌈>	Lu	175		ug/L		563077	563077.382
⌊	U	238	51.559	ug/L	2.008	2307194	4.097

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	In	115		98.1			
|	Sb	121	91.911				
⌊	Sb	123					
⌈>	Lu	175		97.8			
⌊	U	238	103.118				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, January 07, 2010 13:11:22
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\sb and u.mth
Dataset File: C:\elandata\Dataset\100107\QC Std 7.055

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	In	115		ug/L		306872	306871.582
|	Sb	121	0.452	ug/L	5.762	3825	0.009
⌊	Sb	123		ug/L		2923	0.007
⌈>	Lu	175		ug/L		579352	579352.183
⌊	U	238	0.007	ug/L	11.650	589	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	In	115		102.1			
|	Sb	121					
⌊	Sb	123					
⌈>	Lu	175		100.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\123009W1.SIF
Batch ID:
Results Data Set: 123009W1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: WATER **Method Last Saved: 12/28/2009 15:47:50**
Method Description: 7470A, 245.2, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 12/30/2009 08:59:21**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0002	0.0002	0.0002	09:00:23	Yes
2		[0.00]	0.0002	0.0004	0.0002	09:00:57	Yes
Mean:		[0.00]	0.0002				
SD:		0.00	0.0000				
%RSD:		0.00	10.27				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 12/30/2009 09:01:16**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0020	0.0094	0.0022	09:02:17	Yes
2		[0.2]	0.0020	0.0097	0.0022	09:02:52	Yes
Mean:		[0.2]	0.0020				
SD:		0.0	0.0000				
%RSD:		0.0	0.40				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01001 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 12/30/2009 09:03:11**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0051	0.0243	0.0053	09:04:12	Yes
2		[0.5]	0.0050	0.0230	0.0051	09:04:46	Yes
Mean:		[0.5]	0.0050				
SD:		0.0	0.0001				
%RSD:		0.0	1.95				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999992 Slope: 0.01010 Intercept: -0.00001

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 12/30/2009 09:05:06**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0200	0.0958	0.0202	09:06:08	Yes
2		[2.0]	0.0198	0.0938	0.0199	09:06:42	Yes
Mean:		[2.0]	0.0199				
SD:		0.0	0.0002				
%RSD:		0.0	0.94				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999993 Slope: 0.00994 Intercept: 0.00003

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 12/30/2009 09:07:02**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0491	0.2355	0.0493	09:08:04	Yes
2		[5.0]	0.0487	0.2330	0.0489	09:08:39	Yes
Mean:		[5.0]	0.0489				
SD:		0.0	0.0003				
%RSD:		0.0	0.61				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999975 Slope: 0.00978 Intercept: 0.00011

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 12/30/2009 09:08:59**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.0974	0.4701	0.0976	09:09:59	Yes
2		[10.0]	0.0973	0.4658	0.0975	09:10:34	Yes
Mean:		[10.0]	0.0974				
SD:		0.0	0.0000				
%RSD:		0.0	0.04				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999991 Slope: 0.00973 Intercept: 0.00017

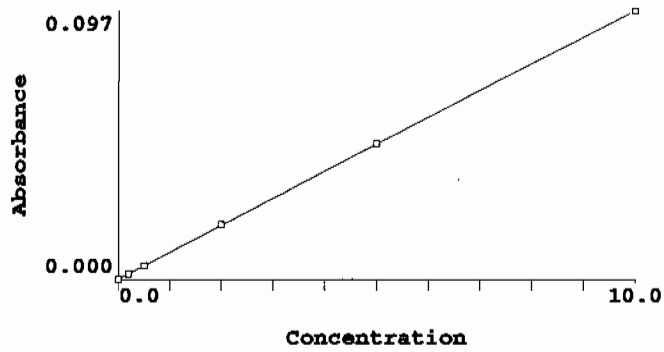

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.017	0.00	10.3
S0.2	0.0020	0.2	0.189	0.00	0.4
S0.5	0.0050	0.5	0.502	0.00	2.0
S2.0	0.0199	2.0	2.028	0.00	0.9

S5.0	0.0489	5.0	5.009	0.00	0.6
S10.0	0.0974	10.0	9.990	0.00	0.0

Correlation Coef.: 0.999991 Slope: 0.00973 Intercept: 0.00017

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 12/30/2009 09:10:53**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.132	5.132	0.0501	0.2407	0.0503	09:11:54	Yes
2	5.105	5.105	0.0498	0.2390	0.0500	09:12:29	Yes
Mean:	5.119	5.119	0.0500				
SD:	0.019	0.019	0.0002				
%RSD:	0.373	0.373	0.37				

QC value within limits for Hg 253.7 Recovery = 102.37%
All analyte(s) passed QC.

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 12/30/2009 09:12:48**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.022	-0.022	-0.0000	-0.0008	0.0001	09:13:50	Yes
2	-0.022	-0.022	-0.0001	-0.0007	0.0001	09:14:25	Yes
Mean:	-0.022	-0.022	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	1.575	1.575	6.92				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 12/30/2009 09:14:45**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.184	0.184	0.0020	0.0087	0.0021	09:15:46	Yes
2	0.187	0.187	0.0020	0.0090	0.0021	09:16:21	Yes
Mean:	0.185	0.185	0.0020				
SD:	0.002	0.002	0.0000				
%RSD:	1.155	1.155	1.06				

QC value within limits for Hg 253.7 Recovery = 92.52%
All analyte(s) passed QC.

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/30/2009 09:16:41**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.114	5.114	0.0499	0.2387	0.0501	09:17:42	Yes
2	5.062	5.062	0.0494	0.2367	0.0496	09:18:16	Yes
Mean:	5.088	5.088	0.0497				
SD:	0.036	0.036	0.0004				
%RSD:	0.714	0.714	0.71				

QC value within limits for Hg 253.7 Recovery = 101.76%
All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 12/30/2009 09:18:35
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.015	-0.015	0.0000	-0.0011	0.0002	09:19:36	Yes
2	-0.016	-0.016	0.0000	-0.0015	0.0002	09:20:11	Yes
Mean:	-0.016	-0.016	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	3.288	3.288	38.53				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12
Sample ID: 1202005730|937320|1
Analyst: JXL
Autosampler Location: 12
Date Collected: 12/30/2009 09:20:30
Data Type: Original

Replicate Data: 1202005730|937320|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.021	-0.021	-0.0000	-0.0011	0.0001	09:21:32	Yes
2	-0.016	-0.016	0.0000	-0.0007	0.0002	09:22:07	Yes
Mean:	-0.019	-0.019	-0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	20.00	20.00	235.16				

Sequence No.: 13
Sample ID: 1202005731|937320|1
Analyst: JXL
Autosampler Location: 13
Date Collected: 12/30/2009 09:22:27
Data Type: Original

Replicate Data: 1202005731|937320|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.068	2.068	0.0203	0.0977	0.0205	09:23:29	Yes
2	2.031	2.031	0.0199	0.0959	0.0201	09:24:04	Yes
Mean:	2.049	2.049	0.0201				
SD:	0.026	0.026	0.0003				
%RSD:	1.283	1.283	1.27				

Sequence No.: 14
Sample ID: 243459001|937320|1
Analyst: JXL
Autosampler Location: 14
Date Collected: 12/30/2009 09:24:24
Data Type: Original

Replicate Data: 243459001|937320|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.012	-0.012	0.0000	0.0008	0.0002	09:25:24	Yes
2	-0.025	-0.025	-0.0001	-0.0010	0.0001	09:25:59	Yes
Mean:	-0.019	-0.019	-0.0000				
SD:	0.009	0.009	0.0001				
%RSD:	48.28	48.28	508.61				

Sequence No.: 15
Sample ID: 243459002|937320|1
Analyst: JXL
Autosampler Location: 15
Date Collected: 12/30/2009 09:26:18
Data Type: Original

Replicate Data: 243459002|937320|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

Replicate Data: 243466002|937320|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.020	-0.020	-0.0000	-0.0000	0.0001	09:36:53	Yes
2	-0.021	-0.021	-0.0000	-0.0003	0.0001	09:37:28	Yes
Mean:	-0.021	-0.021	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	1.374	1.374	8.14				

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 1202005716|937315|1 **Date Collected: 12/30/2009 09:37:47**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202005716|937315|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.018	-0.018	-0.0000	0.0007	0.0002	09:38:48	Yes
2	-0.018	-0.018	-0.0000	0.0000	0.0002	09:39:23	Yes
Mean:	-0.018	-0.018	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	0.816	0.816	17.90				

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/30/2009 09:39:42**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.039	5.039	0.0492	0.2367	0.0494	09:40:43	Yes
2	5.031	5.031	0.0491	0.2344	0.0493	09:41:18	Yes
Mean:	5.035	5.035	0.0492				
SD:	0.006	0.006	0.0001				
%RSD:	0.111	0.111	0.11				

QC value within limits for Hg 253.7 Recovery = 100.70%
All analyte(s) passed QC.

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/30/2009 09:41:37**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.018	-0.018	-0.0000	0.0004	0.0002	09:42:37	Yes
2	-0.011	-0.011	0.0001	0.0013	0.0002	09:43:12	Yes
Mean:	-0.014	-0.014	0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	36.40	36.40	194.70				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 1202005717|937315|1 **Date Collected: 12/30/2009 09:43:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202005717|937315|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.080	2.080	0.0204	0.0997	0.0206	09:44:33	Yes
2	2.076	2.076	0.0204	0.0990	0.0205	09:45:08	Yes

Mean:	2.078	2.078	0.0204
SD:	0.003	0.003	0.0000
%RSD:	0.135	0.135	0.13

==========

Sequence No.: 25 **Autosampler Location: 23**
Sample ID: 243400001|937315|1 **Date Collected: 12/30/2009 09:45:28**
Analyst: JXL **Data Type: Original**

Replicate Data: 243400001|937315|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.014	-0.014	0.0000	0.0014	0.0002	09:46:29	Yes
2	0.000	0.000	0.0002	0.0029	0.0003	09:47:04	Yes
Mean:	-0.007	-0.007	0.0001				
SD:	0.010	0.010	0.0001				
%RSD:	133.3	133.3	95.79				

==========

Sequence No.: 26 **Autosampler Location: 24**
Sample ID: 243400002|937315|1 **Date Collected: 12/30/2009 09:47:24**
Analyst: JXL **Data Type: Original**

Replicate Data: 243400002|937315|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.006	-0.006	0.0001	0.0020	0.0003	09:48:26	Yes
2	-0.012	-0.012	0.0001	0.0006	0.0002	09:49:01	Yes
Mean:	-0.009	-0.009	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	49.44	49.44	50.50				

==========

Sequence No.: 27 **Autosampler Location: 25**
Sample ID: 243400003|937315|1 **Date Collected: 12/30/2009 09:49:21**
Analyst: JXL **Data Type: Original**

Replicate Data: 243400003|937315|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.019	-0.019	-0.0000	0.0001	0.0001	09:50:23	Yes
2	-0.018	-0.018	-0.0000	0.0006	0.0002	09:50:58	Yes
Mean:	-0.019	-0.019	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	3.295	3.295	38.55				

==========

Sequence No.: 28 **Autosampler Location: 26**
Sample ID: 243400004|937315|1 **Date Collected: 12/30/2009 09:51:19**
Analyst: JXL **Data Type: Original**

Replicate Data: 243400004|937315|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.020	-0.020	-0.0000	0.0004	0.0001	09:52:19	Yes
2	-0.019	-0.019	-0.0000	0.0003	0.0002	09:52:54	Yes
Mean:	-0.019	-0.019	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	3.769	3.769	37.39				

==========

Sequence No.: 29 **Autosampler Location: 27**
Sample ID: 243461001|937315|1 **Date Collected: 12/30/2009 09:53:13**
Analyst: JXL **Data Type: Original**

Replicate Data: 243461001|937315|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.025	-0.025	-0.0001	-0.0000	0.0001	09:54:14	Yes
2	-0.024	-0.024	-0.0001	-0.0001	0.0001	09:54:49	Yes
Mean:	-0.024	-0.024	-0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.911	0.911	3.05				

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 1202005718|937315|1 **Date Collected: 12/30/2009 09:55:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202005718|937315|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.014	-0.014	0.0000	0.0013	0.0002	09:56:09	Yes
2	-0.020	-0.020	-0.0000	0.0006	0.0001	09:56:44	Yes
Mean:	-0.017	-0.017	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	22.80	22.80	>999.9%				

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 1202005719|937315|1 **Date Collected: 12/30/2009 09:57:03**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202005719|937315|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.097	2.097	0.0206	0.0997	0.0207	09:58:04	Yes
2	2.098	2.098	0.0206	0.0989	0.0207	09:58:38	Yes
Mean:	2.098	2.098	0.0206				
SD:	0.001	0.001	0.0000				
%RSD:	0.029	0.029	0.03				

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 1202005720|937315|5 **Date Collected: 12/30/2009 09:58:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202005720|937315|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.006	-0.006	0.0001	0.0023	0.0003	09:59:58	Yes
2	0.008	0.008	0.0002	0.0034	0.0004	10:00:33	Yes
Mean:	0.001	0.001	0.0002				
SD:	0.010	0.010	0.0001				
%RSD:	>999.9%	>999.9%	55.44				

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 243461002|937315|1 **Date Collected: 12/30/2009 10:00:52**
Analyst: JXL **Data Type: Original**

Replicate Data: 243461002|937315|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.007	-0.007	0.0001	0.0023	0.0003	10:01:53	Yes
2	-0.001	-0.001	0.0002	0.0028	0.0003	10:02:28	Yes
Mean:	-0.004	-0.004	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	109.1	109.1	33.85				

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/30/2009 10:02:47**

Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.155	5.155	0.0503	0.2426	0.0505	10:03:48	Yes
2	5.158	5.158	0.0504	0.2402	0.0505	10:04:23	Yes
Mean:	5.157	5.157	0.0503				
SD:	0.002	0.002	0.0000				
%RSD:	0.039	0.039	0.04				

QC value within limits for Hg 253.7 Recovery = 103.13%
All analyte(s) passed QC.

Sequence No.: 35 Autosampler Location: 8
Sample ID: CCB Date Collected: 12/30/2009 10:04:42
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.019	-0.019	-0.0000	0.0005	0.0001	10:05:42	Yes
2	-0.017	-0.017	0.0000	0.0006	0.0002	10:06:17	Yes
Mean:	-0.018	-0.018	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	6.973	6.973	148.73				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 Autosampler Location: 32
Sample ID: 1202005700|937308|1 Date Collected: 12/30/2009 10:06:37
Analyst: JXL Data Type: Original

Replicate Data: 1202005700|937308|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.016	-0.016	0.0000	0.0011	0.0002	10:07:38	Yes
2	-0.014	-0.014	0.0000	0.0005	0.0002	10:08:12	Yes
Mean:	-0.015	-0.015	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	9.861	9.861	54.71				

Sequence No.: 37 Autosampler Location: 33
Sample ID: 1202005701|937308|1 Date Collected: 12/30/2009 10:08:32
Analyst: JXL Data Type: Original

Replicate Data: 1202005701|937308|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.150	2.150	0.0211	0.1010	0.0212	10:09:33	Yes
2	2.146	2.146	0.0210	0.1014	0.0212	10:10:08	Yes
Mean:	2.148	2.148	0.0211				
SD:	0.003	0.003	0.0000				
%RSD:	0.121	0.121	0.12				

Sequence No.: 38 Autosampler Location: 34
Sample ID: 243581001|937308|1 Date Collected: 12/30/2009 10:10:27
Analyst: JXL Data Type: Original

Replicate Data: 243581001|937308|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.004	-0.004	0.0001	0.0012	0.0003	10:11:29	Yes

Miscellaneous

Prep LogBook

Analyst: BXA1 Verified by:_____

Batch: 936491

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202003792	UI091124-01	.25	mL
LCS	1202003792	UI091124-06	.25	mL
MS	1202003794	UI091124-01	.25	mL
MS	1202003794	UI091124-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202003791		SW846 3005A	29-DEC-2009 17:49	<2	50 mL	50 mL	1	GROUND WATER
LCS	1202003792		SW846 3005A	29-DEC-2009 17:49	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243400001		SW846 3005A	29-DEC-2009 17:49	<2	50 mL	50 mL	1	GROUND WATER
DUP	1202003793	243400001	SW846 3005A	29-DEC-2009 17:49	<2	50 mL	50 mL	1	GROUND WATER
MS	1202003794	243400001	SW846 3005A	29-DEC-2009 17:49	<2	50 mL	50 mL	1	GROUND WATER
SDILT	1202003795	243400001	SW846 3005A	29-DEC-2009 17:49	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243400002		SW846 3005A	29-DEC-2009 17:49	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243400003		SW846 3005A	29-DEC-2009 17:49	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243400004		SW846 3005A	29-DEC-2009 17:49	<2	50 mL	50 mL	1	GROUND WATER

Reagent/Solvent Lot ID	Amount	Description
1244970	2.5 mL	HYDROCHLORIC ACID
1234886	1 mL	Nitric Acid CONC.

Comments.

Prep LogBook

Analyst: BXA1 Verified by:_____

Batch: 936523

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202003859	UI091124-A00	.5	mL
LCS	1202003859	UI091124-B	.5	mL
MS	1202003861	UI090828-A	.5	mL
MS	1202003861	UI090828-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202003858		SW846 3005A	29-DEC-2009 17:50	<2	50 mL	50 mL	1	GROUND WATER
LCS	1202003859		SW846 3005A	29-DEC-2009 17:50	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243400001		SW846 3005A	29-DEC-2009 17:50	<2	50 mL	50 mL	1	GROUND WATER
DUP	1202003860	243400001	SW846 3005A	29-DEC-2009 17:50	<2	50 mL	50 mL	1	GROUND WATER
MS	1202003861	243400001	SW846 3005A	29-DEC-2009 17:50	<2	50 mL	50 mL	1	GROUND WATER
SDILT	1202003862	243400001	SW846 3005A	29-DEC-2009 17:50	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243400002		SW846 3005A	29-DEC-2009 17:50	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243400003		SW846 3005A	29-DEC-2009 17:50	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243400004		SW846 3005A	29-DEC-2009 17:50	<2	50 mL	50 mL	1	GROUND WATER

Reagent/Solvent Lot ID	Amount	Description
1244970	2.5 mL	HYDROCHLORIC ACID
1234886	1 mL	Nitric Acid CONC.

Comments:

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 937311

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202005717	WHG1248082-13	.2	mL
MS	1202005719	WHG1248082-13	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202005716		EPA 245.1/245.2 Prep	29-DEC-2009 16:04	<2	20 mL	20 mL	1	GROUND WATER
LCS	1202005717		EPA 245.1/245.2 Prep	29-DEC-2009 16:04	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243400001		EPA 245.1/245.2 Prep	29-DEC-2009 16:04	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243400002		EPA 245.1/245.2 Prep	29-DEC-2009 16:04	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243400003		EPA 245.1/245.2 Prep	29-DEC-2009 16:04	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243400004		EPA 245.1/245.2 Prep	29-DEC-2009 16:04	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243461001		EPA 245.1/245.2 Prep	29-DEC-2009 16:04	<2	20 mL	20 mL	1	GROUND WATER
DUP	1202005718	243461001	EPA 245.1/245.2 Prep	29-DEC-2009 16:04	<2	20 mL	20 mL	1	GROUND WATER
MS	1202005719	243461001	EPA 245.1/245.2 Prep	29-DEC-2009 16:04	<2	20 mL	20 mL	1	GROUND WATER
SDILT	1202005720	243461001	EPA 245.1/245.2 Prep	29-DEC-2009 16:04	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243461002		EPA 245.1/245.2 Prep	29-DEC-2009 16:04	<2	20 mL	20 mL	1	GROUND WATER

Reagent/Solvent Lot ID	Amount	Description
1176183	1 mL	Sulfuric Acid, Concentrated
1240182-1	.5 mL	NITRIC ACID
1234385-C	1.5 mL	5% Potassium Persulfate
1244904-C	3 mL	5% KMnO4 solution
1206350-C	1 mL	Hg reducing agent
WHG1248086-06	500 uL	Mercury Working 2nd Source 5.0/ICV
WHG1248088-01	20 uL	Mercury Working 1st Source CAL 0.2/CRA
WHG1248090-02	50 mL	Mercury Working 1st Source CAL 0.5
WHG1248092-05	1 mL	Mercury Working 1st Source CAL 10.0
WHG1248094-03	200 uL	Mercury Working 1st Source CAL 2.0
WHG1248096-04	500 uL	Mercury Working 1st Source CAL 5.0/CCV

Comments:

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: O2SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090828-A **Opened:** 28-AUG-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 28-AUG-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE liquid Spike Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L

Analyte	Concentration	Analyte	Concentration
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI090828-B **Opened:** 28-AUG-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 28-AUG-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE

Standard Logbook

Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091124-01 **Opened:** 24-NOV-09 **Lot Number :** 1017642
Name: METALSPIKE-1 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Standard Logbook

Serial ID: UI091124-06 **Opened:** 24-NOV-09 **Lot Number :** 1017643
Name: METALSPIKE-2 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI091124-A00 **Opened:** 24-NOV-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 24-NOV-09 **Lot Number :** 1017644
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091124-B **Opened:** 24-NOV-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 24-NOV-09 **Lot Number :** 1017644
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091212-11 **Opened:** 12-DEC-09 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 12-DEC-09 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1015303
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091215-48 **Opened:** 04-JAN-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 18-DEC-09 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 04-JAN-11 **Lot Number :** 1018219
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: O2SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Standard Logbook

Serial ID:	UI091217-07	**Opened:**	17-DEC-09	**Amount :**	250 mL
Name:	ICP-MS ICV/CCV Master B	**Received:**	17-DEC-09	**Catalog Number :**	160054-02
Type:	Source Material	**Expires:**	17-DEC-10	**Lot Number :**	1018210
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% in 5% HNO3 100 cm2
Supplier:	02SI				
Description:	ICPMS ICV/CCV Soln B - 10ppm				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID:	UI091217-08	**Opened:**	17-DEC-09	**Amount :**	250 mL
Name:	ICP-MS ICV/CCV Master C	**Received:**	17-DEC-09	**Catalog Number :**	160054-03
Type:	Source Material	**Expires:**	17-DEC-10	**Lot Number :**	1018211
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% in 5% HNO3 100 cm2
Supplier:	02SI				
Description:	ICPMS ICV/CCV Soln C - 10ppm				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID:	UI091217-12	**Opened:**	17-DEC-09	**Amount :**	250 mL
Name:	ICP-MS ICSAB Master B	**Received:**	17-DEC-09	**Catalog Number :**	160033-02
Type:	Source Material	**Expires:**	17-DEC-10	**Lot Number :**	1018212
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% in 2% HNO3
Supplier:	02SI				
Description:	ICPMS ICSAB Master B				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI091228-40 **Opened:** 28-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 21-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-DEC-10 **Lot Number :** 1018160
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Standard Logbook

Serial ID: UI091228-41 **Opened:** 28-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 21-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-DEC-10 **Lot Number :** 1018160
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Standard Logbook

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100119-01 **Opened:** 19-JAN-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 19-JAN-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 20-JAN-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100119-02 **Opened:** 19-JAN-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 19-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 20-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG091229-01 **Opened:** 29-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 29-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 31-DEC-09
Employee: Bryan Davis
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100119-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Standard Logbook

Serial ID: WHG091229-02 **Opened:** 29-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 29-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 31-DEC-09
Employee: Bryan Davis
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100119-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG091229-03 **Opened:** 29-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 29-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 31-DEC-09
Employee: Bryan Davis **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100119-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG091229-04 **Opened:** 29-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 29-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 31-DEC-09
Employee: Bryan Davis **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100119-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG091229-05 **Opened:** 29-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 29-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 31-DEC-09
Employee: Bryan Davis **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100119-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Standard Logbook

Serial ID: WHG091229-06 **Opened:** 29-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 29-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 31-DEC-09
Employee: Bryan Davis
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100119-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG1248082-13 **Opened:** 29-DEC-09 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 29-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 30-DEC-09
Employee: Jason Loy **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG1248086-06 **Opened:** 29-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 29-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 05-JAN-10
Employee: Jason Loy
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	5 ug/L		

Serial ID: WHG1248088-01 **Opened:** 29-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 29-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 05-JAN-10
Employee: Jason Loy
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	.2 ug/L		

Standard Logbook

Serial ID: WHG1248090-02 **Opened:** 29-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 29-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 05-JAN-10
Employee: Jason Loy
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	.5 ug/L		

Serial ID: WHG1248092-05 **Opened:** 29-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 29-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 05-JAN-10
Employee: Jason Loy **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	10 ug/L		

Serial ID: WHG1248094-03 **Opened:** 29-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 29-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 05-JAN-10
Employee: Jason Loy **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	2 ug/L		

Serial ID: WHG1248096-04 **Opened:** 29-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 29-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 05-JAN-10
Employee: Jason Loy **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	5 ug/L		

Standard Logbook

Serial ID: WI100106-42 **Opened:** 06-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 07-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1249941
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100106-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100106-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100106-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100106-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100106-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100106-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100106-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100106-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100106-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100106-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100106-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Serial ID: WI100106-43 **Opened:** 06-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 07-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1249941
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100106-44 **Opened:** 06-JAN-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 07-JAN-10 **Solvent :** 3%HCL and 1 %HNO3-1249941
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100106-45 **Opened:** 06-JAN-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 07-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1249941
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100106-46 **Opened:** 06-JAN-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 07-JAN-10 **Solvent :** 3%HCL AND 1%HNO3-1249941
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100106-47 **Opened:** 06-JAN-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 07-JAN-10 **Solvent :** 3%HCL &1%HNO3-1249941
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100107-42 **Opened:** 07-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 08-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1249941
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100107-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100107-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100107-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100107-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100107-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100107-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100107-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100107-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100107-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100107-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100107-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100107-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100107-43 **Opened:** 07-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 08-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1249941
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100107-44 **Opened:** 07-JAN-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 08-JAN-10 **Solvent :** 3%HCL and 1 %HNO3-1249941
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100107-45 **Opened:** 07-JAN-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 08-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1249941
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100107-46 **Opened:** 07-JAN-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 08-JAN-10 **Solvent :** 3%HCL AND 1%HNO3-1249941
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100107-47 **Opened:** 07-JAN-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 08-JAN-10 **Solvent :** 3%HCL &1%HNO3-1249941
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100104-04 **Opened:** 04-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 04-JAN-10 **Balance Id :** 4025216
Type: Working **Expires:** 05-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1249336
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100104-04A **Opened:** 04-JAN-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 04-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 05-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100104-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100104-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100104-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100104-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100104-04B **Opened:** 04-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 04-JAN-10 **Solvent :** 2%HNO3/1%HCl- 1238829
Type: Working **Expires:** 05-JAN-10
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Serial ID: WMS100104-05 **Opened:** 04-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 04-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 05-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID:	WMS100104-06	**Opened:**	04-JAN-10	**Balance Id :**	40245216
Name:	ICPMS CRDL	**Received:**	04-JAN-10	**Pipet Id :**	3820544
Type:	Working	**Expires:**	05-JAN-10	**Solvent :**	2%HNO3/1%HCl - 1249336
Employee:	Paul Boyd				
Supplier:	GEL				
Description:	ICPMS CRDL				
Comments:	None				

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100104-07 **Opened:** 04-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 04-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 05-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1249336
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100104-08 **Opened:** 04-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 04-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 05-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS100104-70 **Opened:** 04-JAN-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 04-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 05-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100105-04 **Opened:** 05-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 05-JAN-10 **Balance Id :** 4025216
Type: Working **Expires:** 06-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1249336
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100105-04A **Opened:** 05-JAN-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 05-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 06-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100104-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100104-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100104-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100104-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100105-05 **Opened:** 05-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 05-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 06-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100105-06 **Opened:** 05-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 05-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 06-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100105-07 **Opened:** 05-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 05-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 06-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1249336
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100105-08 **Opened:** 05-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 05-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 06-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L

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Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS100107-04 **Opened:** 07-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 07-JAN-10 **Balance Id :** 4025216
Type: Working **Expires:** 08-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1249336
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100107-04A **Opened:** 07-JAN-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 07-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 08-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100107-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100107-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100107-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100107-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100107-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100107-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100107-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100107-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100107-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100107-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100107-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100107-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100107-05 **Opened:** 07-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 07-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 08-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100107-06 **Opened:** 07-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 07-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 08-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L

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Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100107-07 **Opened:** 07-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 07-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 08-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1249336
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID:	WMS100107-08	**Opened:**	07-JAN-10	**Balance Id :**	40245216
Name:	ICPMS ICSAB	**Received:**	07-JAN-10	**Pipet Id :**	1758088
Type:	Working	**Expires:**	08-JAN-10	**Solvent :**	2%HNO3/1%HCl - 1249336
Employee:	Paul Boyd				
Supplier:	GEL				
Description:	ICPMS ICSAB				
Comments:	None				

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1164796-A **Opened:** 06-AUG-09 **Lot Number :** 49149927
Name: B-NH2OH.HCl-MER **Received:** 06-AUG-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1206350-C **Opened:** 22-OCT-09 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 22-OCT-09
Type: Reagent/Solvent **Expires:** 15-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1164796-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Standard Logbook

Serial ID: 1234385-C **Opened:** 25-NOV-09 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 25-NOV-09
Type: Reagent/Solvent **Expires:** 25-MAY-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1234886 **Opened:** 27-NOV-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 27-NOV-09
Type: Reagent/Solvent **Expires:** 27-NOV-10
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1238345 **Opened:** 04-DEC-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 04-DEC-09
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1240182-1 **Opened:** 09-DEC-09 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 09-DEC-09 **Lot Number :** H34040
Type: Reagent/Solvent **Expires:** 09-DEC-10
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1244904-C **Opened:** 18-DEC-09 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 18-DEC-09
Type: Reagent/Solvent **Expires:** 18-JUN-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1244970 **Opened:** 18-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 18-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 18-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1249336 **Opened:** 04-JAN-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 11-JAN-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

Serial ID: 1249941 **Opened:** 04-JAN-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 15-DEC-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 10-JAN-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1021

Method/Analysis Information

Product: **Specific Conductivity**

Analytical Batch: 936302 **Method:** EPA 120.1

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 120.1:

Sample ID	Client ID
243400001	CAPA-10-6821
243400004	CAPA-10-6827
1202003381	Laboratory Control Sample (LCS)
1202003382	243400001(CAPA-10-6821) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-009 REV# 9.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Conductivity analysis was performed on a Orion 160 Conductivity Meter.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following sample was selected for QC analysis: 243400001 (CAPA-10-6821).

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **pH**

Analytical Batch: 936298 **Method:** EPA 150.1

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 150.1:

Sample ID	Client ID
243400001	CAPA-10-6821
243400004	CAPA-10-6827
1202003379	Laboratory Control Sample (LCS)
1202003380	243400001(CAPA-10-6821) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-008 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Electrode analysis was performed on a PerpHecT LogR pH/ISE.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following sample was selected for QC analysis: 243400001 (CAPA-10-6821).

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times

The following samples from this sample group were received by the lab outside of the method specified holding time: 243400001 (CAPA-10-6821) and 243400004 (CAPA-10-6827).

Sample Re-analysis

The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation

A DER was not required for this SDG.

Additional Comments

Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

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Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	936398	**Method:**	EPA 335.4
Prep Batch :	936396	**Method:**	EPA 335.4

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 335.4:

Sample ID	Client ID
243400002	CAPA-10-6823
243400003	CAPA-10-6824
1202003566	Method Blank (MB)
1202003567	243396001(RE16-10-2848) Sample Duplicate (DUP)
1202003568	243400002(CAPA-10-6823) Sample Duplicate (DUP)
1202003570	243396001(RE16-10-2848) Matrix Spike (MS)
1202003571	243400002(CAPA-10-6823) Matrix Spike (MS)
1202003573	243396001(RE16-10-2848) Matrix Spike Duplicate (MSD)
1202003574	243400002(CAPA-10-6823) Matrix Spike Duplicate (MSD)
1202003576	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 243396001 (RE16-10-2848) and 243400002 (CAPA-10-6823).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202003567 (RE16-10-2848).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Ion Chromatography**

Analytical Batch: 938391 **Method:** EPA 300.0

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
243400001	CAPA-10-6821
243400004	CAPA-10-6827
1202007949	Method Blank (MB)
1202007950	243400001(CAPA-10-6821) Sample Duplicate (DUP)
1202007951	243400001(CAPA-10-6821) Post Spike (PS)
1202007952	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-086 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Ion Chromatography analysis was performed on a Dionex ICS-3000 Ion Chromatograph.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 243400001 (CAPA-10-6821).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recovery for this sample set was within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Manual Integrations
Manual integrations were not required for the samples in this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
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electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Ammonia Nitrogen**		
Analytical Batch:	936556	**Method:**	EPA 350.1
Prep Batch :	936555	**Method:**	EPA 350.2 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 350.1:

Sample ID	Client ID
243400001	CAPA-10-6821
243400004	CAPA-10-6827
1202003921	Method Blank (MB)
1202003922	243400001(CAPA-10-6821) Sample Duplicate (DUP)
1202003923	243400001(CAPA-10-6821) Matrix Spike (MS)
1202003924	243400001(CAPA-10-6821) Matrix Spike Duplicate (MSD)
1202003925	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-106 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 243400001 (CAPA-10-6821).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recovery for this sample set was within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovery for this sample set was within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Nitrate Nitrite by Cadmium Reduction**

Analytical Batch: 936385 **Method:** EPA 353.2

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 353.2:

Sample ID	Client ID
243400001	CAPA-10-6821
243400004	CAPA-10-6827
1202003538	Method Blank (MB)
1202003539	243405001(RE16-10-2996) Sample Duplicate (DUP)
1202003540	243400001(CAPA-10-6821) Sample Duplicate (DUP)
1202003541	243405001(RE16-10-2996) Post Spike (PS)
1202003542	243400001(CAPA-10-6821) Post Spike (PS)
1202003543	Laboratory Control Sample (LCS)
1202004532	243475001(50FWC-09-2843) Sample Duplicate (DUP)
1202004533	243475001(50FWC-09-2843) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-128 REV# 5.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8500 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 243400001 (CAPA-10-6821), 243405001 (RE16-10-2996) and 243475001 (50FWC-09-2843).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1202004532 (50FWC-09-2843) and 1202004533 (50FWC-09-2843). The following samples in this sample group were diluted due to matrix interference: 1202003539 (RE16-10-2996), 1202003540 (CAPA-10-6821), 1202003541 (RE16-10-2996), 1202003542 (CAPA-10-6821), 243400001 (CAPA-10-6821) and 243400004 (CAPA-10-6827).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Total Phosphorus**		
Analytical Batch:	936389	**Method:**	EPA 365.4
Prep Batch :	936388	**Method:**	EPA 365.4 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 365.4:

Sample ID	Client ID
243400001	CAPA-10-6821
243400004	CAPA-10-6827
1202003549	Method Blank (MB)
1202003550	243400001(CAPA-10-6821) Sample Duplicate (DUP)
1202003551	243400001(CAPA-10-6821) Matrix Spike (MS)
1202003552	243400001(CAPA-10-6821) Matrix Spike Duplicate (MSD)
1202003553	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-103 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 243400001 (CAPA-10-6821).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recovery for this sample set was within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovery for this sample set was within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following sample was re-analyzed due to instrument failure: 1202003549 (MB). The following samples were re-analyzed due to original batch QC failure (MB): 1202003549 (MB), 1202003550 (CAPA-10-6821), 1202003551 (CAPA-10-6821), 1202003552 (CAPA-10-6821), 1202003553 (LCS), 243400001 (CAPA-10-6821) and 243400004 (CAPA-10-6827).

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments

Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Solids, Total Dissolved**

Analytical Batch: 936140 **Method:** EPA 160.1

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 160.1:

Sample ID	Client ID
243400001	CAPA-10-6821
243400004	CAPA-10-6827
1202003082	Method Blank (MB)
1202003084	Laboratory Control Sample (LCS)
1202003284	243400001(CAPA-10-6821) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-001 REV# 10.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Solids analysis was performed on a Sartorius Balance BAL216. Solids lab

Initial Calibration

All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following sample was selected for QC analysis: 243400001 (CAPA-10-6821).

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Sample Aliquot
A sufficient amount of sample was provided by the client for analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Alkalinity**

Analytical Batch: 936617 **Method:** EPA 310.1

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 310.1:

Sample ID	Client ID
243400001	CAPA-10-6821
243400004	CAPA-10-6827
1202004056	Laboratory Control Sample (LCS)
1202004057	243400001(CAPA-10-6821) Sample Duplicate (DUP)
1202004058	243400001(CAPA-10-6821) Matrix Spike (MS)
1202004113	Method Blank (MB)
1202004114	243466001(WST15-10-1894) Sample Duplicate (DUP)
1202004115	243466001(WST15-10-1894) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-033 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Titration analysis was performed on a manually operated buret.

Initial Standardization

The titrant was properly standardized

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 243400001 (CAPA-10-6821) and 243466001 (WST15-10-1894).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 20Jan10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1021 GEL Work Order: 243400

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Tom Lewis, Jr.

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 13, 2010

Client SDG: 10-1021

Client Sample ID:	CAPA-10-6821	Project:	ESHL01000
Sample ID:	243400001	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	18-DEC-09 12:00		
Receive Date:	22-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Conductivity Analysis										
EPA120.1 Specific Conductivity "As Received"										
Conductivity		231	1.00	1.00	umhos/cm	1	LXA1 12/23/09	1244	936302	1
Electrode Analysis										
EPA 150.1 pH Federal "As Received"										
pH at Temp 15.3C	H	8.00	0.010	0.100	SU	1	LXA1 12/23/09	1304	936298	2
Ion Chromatography										
EPA 300.0 Anions Liquid 28 day "As Received"										
Bromide	U	ND	0.066	0.200	mg/L	1	GXM 01/05/10 3	0148	938391	3
Chloride		4.18	0.066	0.200	mg/L	1				
Fluoride		0.713	0.033	0.100	mg/L	1				
Sulfate		9.15	0.100	0.400	mg/L	1				
Nutrient Analysis										
EPA 350.1 Nitrogen, Ammonia L "As Received"										
Nitrogen, Ammonia	J	0.022	0.016	0.050	mg/L	1	AXH3 12/24/09	1059	936556	4
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"										
Nitrogen, Nitrate/Nitrite		0.710	0.050	0.250	mg/L	5	AXH3 12/28/09	1028	936385	5
EPA 365.4 Phosphorus, Total in "As Received"										
Phosphorus, Total as P	J	0.037	0.015	0.050	mg/L	1	AXH3 12/31/09	0932	936389	6
Solids Analysis										
EPA 160.1 Solids, Dissolved-F "As Received"										
Total Dissolved Solids		156	2.38	10.0	mg/L		SDS 12/23/09	1045	936140	7
Titration Analysis										
EPA 310.1 Total Alkalinity Federal "As Received"										
Alkalinity, Total as CaCO3		92.3	0.725	1.00	mg/L		LXA1 12/24/09	1233	936617	8
Carbonate alkalinity (CaCO3)	U	ND	0.725	1.00	mg/L					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	SXJ1	12/24/09	1020	936555
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	SXJ1	12/28/09	1000	936388

The following Analytical Methods were performed

Method	Description	Analyst Comments

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 13, 2010

Client SDG: 10-1021

Client Sample ID: CAPA-10-6821
Sample ID: 243400001

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 120.1	
2	EPA 150.1	
3	EPA 300.0	
4	EPA 350.1	
5	EPA 353.2	
6	EPA 365.4	
7	EPA 160.1	
8	EPA 310.1	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 13, 2010

Client SDG: 10-1021

Client Sample ID:	CAPA-10-6823	Project:	ESHL01000
Sample ID:	243400002	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	18-DEC-09 12:00		
Receive Date:	22-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
EPA 335.4 Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/30/09	1018	936398	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	12/29/09	1423	936396

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 13, 2010

Client SDG: 10-1021

Client Sample ID:	CAPA-10-6824	Project:	ESHL01000
Sample ID:	243400003	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	18-DEC-09 12:00		
Receive Date:	22-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
EPA 335.4 Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/30/09	1025	936398	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	12/29/09	1423	936396

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 13, 2010

Client SDG: 10-1021

Client Sample ID: CAPA-10-6827
Sample ID: 243400004
Matrix: Ground Water
Collect Date: 18-DEC-09 12:00
Receive Date: 22-DEC-09
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Conductivity Analysis										
EPA120.1 Specific Conductivity "As Received"										
Conductivity		206	1.00	1.00	umhos/cm	1	LXA1 12/23/09	1244	936302	1
Electrode Analysis										
EPA 150.1 pH Federal "As Received"										
pH at Temp 15.8C	H	8.06	0.010	0.100	SU	1	LXA1 12/23/09	1309	936298	2
Ion Chromatography										
EPA 300.0 Anions Liquid 28 day "As Received"										
Bromide	U	ND	0.066	0.200	mg/L	1	GXM 01/05/10 3	0318	938391	3
Chloride		3.84	0.066	0.200	mg/L	1				
Fluoride		0.593	0.033	0.100	mg/L	1				
Sulfate		7.86	0.100	0.400	mg/L	1				
Nutrient Analysis										
EPA 350.1 Nitrogen, Ammonia L "As Received"										
Nitrogen, Ammonia	J	0.016	0.016	0.050	mg/L	1	AXH3 12/24/09	1102	936556	4
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"										
Nitrogen, Nitrate/Nitrite		0.605	0.050	0.250	mg/L	5	AXH3 12/28/09	1032	936385	5
EPA 365.4 Phosphorus, Total in "As Received"										
Phosphorus, Total as P	J	0.046	0.015	0.050	mg/L	1	AXH3 12/31/09	0936	936389	6
Solids Analysis										
EPA 160.1 Solids, Dissolved-F "As Received"										
Total Dissolved Solids		144	2.38	10.0	mg/L		SDS 12/23/09	1045	936140	7
Titration Analysis										
EPA 310.1 Total Alkalinity Federal "As Received"										
Alkalinity, Total as CaCO3		85.8	0.725	1.00	mg/L		LXA1 12/24/09	1247	936617	8
Carbonate alkalinity (CaCO3)	U	ND	0.725	1.00	mg/L					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	SXJ1	12/24/09	1020	936555
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	SXJ1	12/28/09	1000	936388

The following Analytical Methods were performed

Method	Description	Analyst Comments

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 13, 2010

Client SDG: 10-1021

Client Sample ID: CAPA-10-6827
Sample ID: 243400004

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 120.1	
2	EPA 150.1	
3	EPA 300.0	
4	EPA 350.1	
5	EPA 353.2	
6	EPA 365.4	
7	EPA 160.1	
8	EPA 310.1	

Quality Control Summary

GEL LABORATORIES LLC

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QC Summary

Report Date: January 13, 2010
Page 1 of 4

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 243400

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Conductivity Analysis											
Batch 936302											
QC1202003382 243400001 DUP											
Conductivity			231		235	umhos/cm	1.72		(0%-10%)	LXA1	12/23/09 12:44
QC1202003381 LCS											
Conductivity	1410				1440	umhos/cm		102	(95%-105%)		12/23/09 12:44
Electrode Analysis											
Batch 936298											
QC1202003380 243400001 DUP											
pH		H	8.00	H	8.03	SU	0.374		(0%-10%)	LXA1	12/23/09 13:09
QC1202003379 LCS											
pH	7.00				6.97	SU		99.6	(95%-105%)		12/23/09 13:03
Flow Injection Analysis											
Batch 936398											
QC1202003567 243396001 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A			AXC2	12/30/09 10:16
QC1202003568 243400002 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A				12/30/09 10:19
QC1202003576 LCS											
Cyanide, Total	50.0				49.9	ug/L		99.8	(90%-110%)		12/30/09 10:13
QC1202003566 MB											
Cyanide, Total				U	ND	ug/L					12/30/09 10:12
QC1202003570 243396001 MS											
Cyanide, Total	100	U	ND		104	ug/L		104	(60%-127%)		12/30/09 10:17
QC1202003571 243400002 MS											
Cyanide, Total	100	U	ND		105	ug/L		105	(60%-127%)		12/30/09 10:20
QC1202003573 243396001 MSD											
Cyanide, Total	100	U	ND		103	ug/L	0.966	103	(0%-20%)		12/30/09 10:17
QC1202003574 243400002 MSD											
Cyanide, Total	100	U	ND		107	ug/L	1.89	107	(0%-20%)		12/30/09 10:25
Ion Chromatography											
Batch 938391											
QC1202007950 243400001 DUP											
Bromide		U	ND	U	ND	mg/L	N/A			GXM3	01/05/10 02:18
Chloride			4.18		4.11	mg/L	1.86		(0%-20%)		
Fluoride			0.713		0.715	mg/L	0.280		(0%-20%)		
Sulfate			9.15		8.95	mg/L	2.16		(0%-20%)		
QC1202007952 LCS											
Bromide	2.50				2.57	mg/L		103	(90%-110%)		01/05/10 01:18
Chloride	10.0				9.87	mg/L		98.7	(90%-110%)		
Fluoride	5.00				5.06	mg/L		101	(90%-110%)		
Sulfate	20.0				20.0	mg/L		100	(90%-110%)		
QC1202007949 MB											

QC Summary

Workorder: 243400

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Ion Chromatography											
Batch 938391											
Bromide				U	ND	mg/L					01/05/10 00:49
Chloride				U	ND	mg/L				GXM3	
Fluoride				U	ND	mg/L					
Sulfate				U	ND	mg/L					
QC1202007951 243400001 PS											
Bromide	2.50	U	ND		2.63	mg/L		105	(90%-110%)		01/05/10 02:48
Chloride	10.0		4.18		14.9	mg/L		107	(90%-110%)		
Fluoride	5.00		0.713		5.75	mg/L		101	(90%-110%)		
Sulfate	20.0		9.15		30.1	mg/L		105	(90%-110%)		
Nutrient Analysis											
Batch 936385											
QC1202003539 243405001 DUP											
Nitrogen, Nitrate/Nitrite		U	ND	U	ND	mg/L	N/A			AXH3	12/28/09 10:34
QC1202003540 243400001 DUP											
Nitrogen, Nitrate/Nitrite			0.710		0.760	mg/L	6.80 ^		(+/-0.250)		12/28/09 10:29
QC1202004532 243475001 DUP											
Nitrogen, Nitrate/Nitrite			3.85		3.85	mg/L	0.00 ^		(+/-1.25)		12/28/09 10:46
QC1202003543 LCS											
Nitrogen, Nitrate/Nitrite	1.00				0.968	mg/L		96.8	(90%-110%)		12/28/09 10:26
QC1202003538 MB											
Nitrogen, Nitrate/Nitrite				U	ND	mg/L					12/28/09 10:25
QC1202003541 243405001 PS											
Nitrogen, Nitrate/Nitrite	1.00	U	ND		1.04	mg/L		103	(90%-110%)		12/28/09 10:36
QC1202003542 243400001 PS											
Nitrogen, Nitrate/Nitrite	1.00		0.142		1.21	mg/L		107	(90%-110%)		12/28/09 10:31
QC1202004533 243475001 PS											
Nitrogen, Nitrate/Nitrite	1.00		0.154		1.16	mg/L		101	(90%-110%)		12/28/09 10:47
Batch 936389											
QC1202003550 243400001 DUP											
Phosphorus, Total as P		J	0.037	J	0.029	mg/L	24.2 ^		(+/-0.050)	AXH3	12/31/09 09:34
QC1202003553 LCS											
Phosphorus, Total as P	1.00				0.969	mg/L		96.9	(90%-118%)		12/31/09 09:31
QC1202003549 MB											
Phosphorus, Total as P				J	0.022	mg/L					12/31/09 09:33
QC1202003551 243400001 MS											
Phosphorus, Total as P	1.00	J	0.037		0.964	mg/L		92.7	(71%-131%)		12/31/09 09:35
QC1202003552 243400001 MSD											
Phosphorus, Total as P	1.00	J	0.037		0.944	mg/L	2.10	90.7	(0%-18%)		12/31/09 09:35
Batch 936556											
QC1202003922 243400001 DUP											
Nitrogen, Ammonia		J	0.022	J	0.018	mg/L	20.0 ^		(+/-0.050)	AXH3	12/24/09 10:59
QC1202003925 LCS											
Nitrogen, Ammonia	1.00				0.962	mg/L		96.2	(90%-110%)		12/24/09 10:58
QC1202003921 MB											
Nitrogen, Ammonia				J	0.018	mg/L					12/24/09 10:57
QC1202003923 243400001 MS											
					0.967						

QC Summary

Workorder: 243400

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Nutrient Analysis											
Batch 936556											
Nitrogen, Ammonia	1.00	J	0.022			mg/L		94.5	(90%-110%)		12/24/09 11:00
QC1202003924 243400001 MSD											
Nitrogen, Ammonia	1.00	J	0.022		0.969	mg/L	0.207	94.7	(0%-15%)	AXH3	12/24/09 11:01
Solids Analysis											
Batch 936140											
QC1202003284 243400001 DUP											
Total Dissolved Solids			156		151	mg/L	3.26		(0%-10%)	SDS	12/23/09 10:45
QC1202003084 LCS											
Total Dissolved Solids	300				294	mg/L		98	(95%-105%)		12/23/09 10:09
QC1202003082 MB											
Total Dissolved Solids				U	ND	mg/L					12/23/09 10:09
Titration Analysis											
Batch 936617											
QC1202004057 243400001 DUP											
Alkalinity, Total as CaCO3			92.3		91.3	mg/L	1.09		(0%-20%)	LXA1	12/24/09 12:33
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1202004114 243466001 DUP											
Alkalinity, Total as CaCO3			188		187	mg/L	0.266		(0%-20%)		12/24/09 13:17
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1202004056 LCS											
Alkalinity, Total as CaCO3	50.0				49.9	mg/L		99.8	(90%-110%)		12/24/09 12:33
QC1202004113 MB											
Alkalinity, Total as CaCO3				J	0.998	mg/L					12/24/09 12:33
Carbonate alkalinity (CaCO3)				U	ND	mg/L					
QC1202004058 243400001 MS											
Alkalinity, Total as CaCO3	50.0		92.3		141	mg/L		96.8	(80%-120%)		12/24/09 12:36
QC1202004115 243466001 MS											
Alkalinity, Total as CaCO3	50.0		188		236	mg/L		95.8	(80%-120%)		12/24/09 13:18

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value

QC Summary

Workorder: 243400

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 13-JAN-2010 10:55

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-1021

Flow Injection Analysis

Method: EPA 335.4 Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**30-DEC-2009 10:07:08**	**OM_12-30-2009_09-56-39**	**149**	**150**	**99**	**(90%-110%)**	**Yes**
CCV	30-DEC-2009 10:21:26	OM_12-30-2009_09-56-39	104	100	104	(90%-110%)	Yes
CCV	30-DEC-2009 10:33:51	OM_12-30-2009_09-56-39	104	100	104	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**30-DEC-2009 10:08:58**	**OM_12-30-2009_09-56-39**	**-2.07**	**5**	**Yes**
CCB	30-DEC-2009 10:23:16	OM_12-30-2009_09-56-39	-1.51	5	Yes
CCB	30-DEC-2009 10:35:41	OM_12-30-2009_09-56-39	-2.04	5	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 13-JAN-2010 10:55

GEL Laboratories LLC
Contract: ESHL01000
SDG #: 10-1021

Ion Chromatography
Method: EPA 300.0 Concentration Units:mg/L
Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Bromide

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**04-JAN-2010 14:21:00**	**100104**	**2.4415**	**2.5**	**98**	**(90%-110%)**	**Yes**
CCV	04-JAN-2010 23:49:00	100104	2.5791	2.5	103	(90%-110%)	Yes
CCV	05-JAN-2010 03:48:00	100104	3.8278	3.75	102	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**04-JAN-2010 14:51:00**	**100104**	**0**	**0.2**	**Yes**
CCB	05-JAN-2010 00:19:00	100104	0	0.2	Yes
CCB	05-JAN-2010 04:18:00	100104	0	0.2	Yes

Parmname: Chloride

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**04-JAN-2010 14:21:00**	**100104**	**9.8332**	**10**	**98**	**(90%-110%)**	**Yes**
CCV	04-JAN-2010 23:49:00	100104	9.8711	10	99	(90%-110%)	Yes
CCV	05-JAN-2010 03:48:00	100104	15.4244	15	103	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**04-JAN-2010 14:51:00**	**100104**	**0**	**0.2**	**Yes**
CCB	05-JAN-2010 00:19:00	100104	0	0.2	Yes
CCB	05-JAN-2010 04:18:00	100104	0	0.2	Yes

Parmname: Fluoride

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**04-JAN-2010 14:21:00**	**100104**	**5.0339**	**5**	**101**	**(90%-110%)**	**Yes**
CCV	04-JAN-2010 23:49:00	100104	5.0632	5	101	(90%-110%)	Yes
CCV	05-JAN-2010 03:48:00	100104	7.7574	7.5	103	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**04-JAN-2010 14:51:00**	**100104**	**0**	**0.1**	**Yes**
CCB	05-JAN-2010 00:19:00	100104	0	0.1	Yes
CCB	05-JAN-2010 04:18:00	100104	0	0.1	Yes

Parmname: Sulfate

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**04-JAN-2010 14:21:00**	**100104**	**19.8378**	**20**	**99**	**(90%-110%)**	**Yes**
CCV	04-JAN-2010 23:49:00	100104	19.9012	20	100	(90%-110%)	Yes
CCV	05-JAN-2010 03:48:00	100104	30.7119	30	102	(90%-110%)	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 13-JAN-2010 10:55

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-1021

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Sulfate

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**04-JAN-2010 14:51:00**	**100104**	**0**	**0.4**	**Yes**
CCB	05-JAN-2010 00:19:00	100104	0	0.4	Yes
CCB	05-JAN-2010 04:18:00	100104	0	0.4	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 13-JAN-2010 10:55

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-1021

Nutrient Analysis

Method: EPA 350.1 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Nitrogen, Ammonia

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**24-DEC-2009 10:53:47**	**OM_12-24-2009_10-44-02**	**0.954**	**1**	**95**	**(90%-110%)**	**Yes**
CCV	24-DEC-2009 11:05:45	OM_12-24-2009_10-44-02	1.019	1	102	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**24-DEC-2009 10:55:37**	**OM_12-24-2009_10-44-02**	**0.004**	**0.05**	**Yes**
CCB	24-DEC-2009 11:07:36	OM_12-24-2009_10-44-02	0.007	0.05	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 13-JAN-2010 10:55

GEL Laboratories LLC

Contract: **ESHL01000**

SDG #: **10-1021**

Nutrient Analysis

Method: EPA 353.2 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8500 Series

Parmname: Nitrogen, Nitrate/Nitrite

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**28-DEC-2009 10:15:46**	**OM_12-28-2009_10-05-28**	**0.96**	**1**	**96**	**(90%-110%)**	**Yes**
CCV	28-DEC-2009 10:37:14	OM_12-28-2009_10-05-28	0.978	1	98	(90%-110%)	Yes
CCV	28-DEC-2009 10:53:59	OM_12-28-2009_10-05-28	0.993	1	99	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**28-DEC-2009 10:18:08**	**OM_12-28-2009_10-05-28**	**-0.00298**	**0.05**	**Yes**
CCB	28-DEC-2009 10:39:36	OM_12-28-2009_10-05-28	-0.00176	0.05	Yes
CCB	28-DEC-2009 10:56:21	OM_12-28-2009_10-05-28	0.00022	0.05	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 13-JAN-2010 10:55

GEL Laboratories LLC

Contract: **ESHL01000**

SDG #: **10-1021**

Nutrient Analysis

Method: EPA 365.4 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Phosphorus, Total as P

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**31-DEC-2009 09:01:53**	**OM_12-31-2009_08-52-17**	**0.926**	**1**	**93**	**(90%-110%)**	**Yes**
CCV	31-DEC-2009 09:26:43	OM_12-31-2009_08-52-17	0.973	1	97	(90%-110%)	Yes
CCV	31-DEC-2009 09:39:12	OM_12-31-2009_08-52-17	0.999	1	100	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**31-DEC-2009 09:03:58**	**OM_12-31-2009_08-52-17**	**-0.003**	**0.05**	**Yes**
CCB	31-DEC-2009 09:28:47	OM_12-31-2009_08-52-17	0.025	0.05	Yes
CCB	31-DEC-2009 09:41:16	OM_12-31-2009_08-52-17	0.025	0.05	Yes

Alkalinity

Alkalinity LogBook

Analyst: LXA1
Batch: 936617
Lab SOP: GL-GC-E-033 REV# 6
SOP Description: Alkalinity: Total, Bicarbonate, Carbonate, Hydroxide, and Phenolphthalein
Run Date: 24-DEC-2009

Type	Sample Id	Lot Id	Nc(mg/L)	Recovery(%)
LCS	1202004056	IMM090901-ALK	50	99.8
MS	1202004058	IMM090901-ALK	50	96.806
MS	1202004115	IMM090901-ALK	50	95.808

Type	Sample Id	Rpd(%)	Parmname
DUP	1202004057	1.087	Alkalinity, Total as CaCO3
DUP	1202004057	0	Carbonate alkalinity (CaCO3)
DUP	1202004114	.266	Alkalinity, Total as CaCO3
DUP	1202004114	0	Carbonate alkalinity (CaCO3)

Type	Sample id	Parent Sample Id	Time	Ph	Aliquot	Units	Normality H2SO4	H2SO4 Ph 8.3 (mL)	H2SO4 Ph 4.5(mL)	Alkalinity	Bicarbonate	CO2 Dissolved	CO2 Free	CO2 Total	Carbonate	Hydroxide	Phenol phthalein	Units
MB	1202004113		12:33	6.3	100	mL	0.01996	0	0.1	0.99800					0.0000			mg/L
LCS	1202004056		12:33	9.24	100	mL	0.01996	0	5	49.900								mg/L
SAMPLE	243400001		12:33	8.12	100	mL	0.01996	0	9.25	92.315					0.0000			mg/L
DUP	1202004057	243400001	12:33	8.15	100	mL	0.01996	0	9.15	91.317					0.0000			mg/L
MS	1202004058	243400001	12:36	9.08	100	mL	0.01996	0	14.1	140.72								mg/L
SAMPLE	243400004		12:47	8.15	100	mL	0.01996	0	8.6	85.828					0.0000			mg/L
SAMPLE	243459001		12:53	7.82	100	mL	0.01996	0	5.4	53.892					0.0000			mg/L
SAMPLE	243461002		13:01	7.58	100	mL	0.01996	0	7.1	70.858					0.0000			mg/L
SAMPLE	243466001		13:04	8.16	100	mL	0.01996	0	18.8	187.62					0.0000			mg/L
DUP	1202004114	243466001	13:17	8.14	100	mL	0.01996	0	18.75	187.13					0.0000			mg/L
MS	1202004115	243466001	13:18	8.37	100	mL	0.01996	0	23.6	235.53								mg/L
SAMPLE	243497019		13:21	4.89	100	mL	0.01996	0	0.2	1.9960								mg/L
SAMPLE	243497020		13:23	5.66	100	mL	0.01996	0	0.55	5.4890								mg/L
SAMPLE	243497021		13:25	6.12	100	mL	0.01996	0	0.85	8.4830								mg/L
SAMPLE	243497022		13:27	5.01	100	mL	0.01996	0	0.15	1.4970								mg/L
SAMPLE	243497023		13:31	5.34	100	mL	0.01996	0	0.5	4.9900								mg/L

Run Date: 24-DEC-09 10:05
Instrument: PHX370
Analyst: LXA1

Standard	Observed	Theoretical		%Recovery
UPH091224-a	10	10	SU	100
UPH091224-a	10.05	10	SU	100.5
091224-a	12.09	12	SU	100.75
UPH091224-02c-	2.05	2	SU	102.5
IMM091224-PH1	4.01	4	SU	100.25
IMM091224-01a	7	7	SU	100
IMM091224-PH-	7	7	SU	100

Comments:

Run Date: 11-DEC-2009 23:56
Instrument: TIT001 Na2CO3
Analyst: LXA1 Std. ID

GEL Laboratories LLC

Page#_____

Alkalinity LogBook

	Na2CO3, 0.05 N g Na2C03/L	H2SO4 N (approx.)	NA2CO3 titrated	H2SO4 to pH 3.7	Actual Normality	Normality Average
1071836	2.5035	.02	15	35.4	.01987	.01996
	2.5035	.02	15	35.45	.01999	
	2.5035	.02	15	35.65	.02002	

Normality of H2SO4 solution
A x B / 53.00 x C
where:
A = grams of Na2CO3
B = volume (mL) of the Na2CO3 solution
C = Total volume of the 0.02 N H2SO4 acid titrant used to reach a pH of 3.7

Total Alkalinity (mg/L)
Vt x N x 50000 / Vs
Where:
Vt = volume (mL) of H2SO4 used to reach the pH 4.5 endpoint
N = normality of the H2SO4 titrant
Vs = volume (mL) of sample used

Phenolphthalein alkalinity (mg/L)
Vt x N x 50000 / Vs
Where:
Vt = volume (mL) of H2SO4 used to reach the pH 8.3 endpoint
N = normality of the H2SO4 titrant
Vs = volume (mL) of sample used

Bicarbonate Alkalinity
Relationship Table SM2320B

Carbonate Alkalinity
Relationship Table SM2320B

Hydroxide Alkalinity
Relationship Table SM2320B

Free Carbon Dioxide
mg CO2/L = 2.0 x B x 10 (6-pH)
Where B = Bicarbonate Alkalinity

Total Carbon Dioxide
mg total CO2/L = A + 0.44(2B + C)
Where:
A = mg Free CO2/L
B = Bicarbonate Alkalinity
C = Carbonate Alkalinity

Relationship Table SM2320B

P = 0	then H = 0,	C = 0,	B = T
P < 1/2 T	then H = 0,	C = 2P,	B = T - 2P
P = 1/2 T	then H = 0,	C = 2P,	B = 0
P > 1/2 T	then H = 2P - T,	C = 2(T - P),	B = 0
P = T	then H = T,	C = 0,	B = 0

Ammonia Nitrogen

Prep LogBook

Analyst: SXJ1 Verified by:_____

Batch: 936555

Lab SOP: GL-GC-E-072 REV# 11

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202003925	UTR1169166-01	.25	mL
MS	1202003923	UTR1169166-01	.25	mL
MSD	1202003924	UTR1169166-01	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202003921		EPA 350.2 Prep	24-DEC-2009 10:20	9.5	25 mL	25 mL	1	WATER
LCS	1202003925		EPA 350.2 Prep	24-DEC-2009 10:20	9.5	25 mL	25 mL	1	WATER
SAMPLE	243400001		EPA 350.2 Prep	24-DEC-2009 10:20	9.5	25 mL	25 mL	1	GROUND WATER
DUP	1202003922	243400001	EPA 350.2 Prep	24-DEC-2009 10:20	9.5	25 mL	25 mL	1	GROUND WATER
MS	1202003923	243400001	EPA 350.2 Prep	24-DEC-2009 10:20	9.5	25 mL	25 mL	1	GROUND WATER
MSD	1202003924	243400001	EPA 350.2 Prep	24-DEC-2009 10:20	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	243400004		EPA 350.2 Prep	24-DEC-2009 10:20	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	243486001		EPA 350.2 Prep	24-DEC-2009 10:20	9.5	25 mL	25 mL	1	WASTE WATER
SAMPLE	243488001		EPA 350.2 Prep	24-DEC-2009 10:20	9.5	25 mL	25 mL	1	WATER
SAMPLE	243497019		EPA 350.2 Prep	24-DEC-2009 10:20	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	243497020		EPA 350.2 Prep	24-DEC-2009 10:20	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	243497021		EPA 350.2 Prep	24-DEC-2009 10:20	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	243497022		EPA 350.2 Prep	24-DEC-2009 10:20	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	243497023		EPA 350.2 Prep	24-DEC-2009 10:20	9.5	25 mL	25 mL	1	GROUND WATER

Reagent/Solvent Lot ID	Amount	Description
1246596-C	1 mL	50% NaOH Solution
1184214-C	1.25 mL	Borate Buffer

Comments:

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
2.0 ppm Std.		1	axh3	12/24/2009 10:47:41	OM_12-24-2009_10-44-02
1.0 ppm Std.		1	axh3	12/24/2009 10:48:30	OM_12-24-2009_10-44-02
0.5 ppm Std		1	axh3	12/24/2009 10:49:21	OM_12-24-2009_10-44-02
0.1 ppm Std		1	axh3	12/24/2009 10:50:11	OM_12-24-2009_10-44-02
0.05 ppm Std		1	axh3	12/24/2009 10:51:03	OM_12-24-2009_10-44-02
ICAL-00		1	axh3	12/24/2009 10:51:56	OM_12-24-2009_10-44-02
ICV		1	axh3	12/24/2009 10:53:47	OM_12-24-2009_10-44-02
ICB		1	axh3	12/24/2009 10:55:37	OM_12-24-2009_10-44-02
1202003921	936556	1	axh3	12/24/2009 10:57:27	OM_12-24-2009_10-44-02
1202003925	936556	1	axh3	12/24/2009 10:58:18	OM_12-24-2009_10-44-02
243400001	936556	1	axh3	12/24/2009 10:59:08	OM_12-24-2009_10-44-02
1202003922	936556	1	axh3	12/24/2009 10:59:59	OM_12-24-2009_10-44-02
1202003923	936556	1	axh3	12/24/2009 11:00:49	OM_12-24-2009_10-44-02
1202003924	936556	1	axh3	12/24/2009 11:01:39	OM_12-24-2009_10-44-02
243400004	936556	1	axh3	12/24/2009 11:02:29	OM_12-24-2009_10-44-02
243486001	936556	1	axh3	12/24/2009 11:03:19	OM_12-24-2009_10-44-02
243488001*	936556	1	axh3	12/24/2009 11:04:07	OM_12-24-2009_10-44-02
243497019	936556	1	axh3	12/24/2009 11:04:56	OM_12-24-2009_10-44-02
CCV		1	axh3	12/24/2009 11:05:45	OM_12-24-2009_10-44-02
CCB		1	axh3	12/24/2009 11:07:36	OM_12-24-2009_10-44-02
243497020	936556	1	axh3	12/24/2009 11:09:23	OM_12-24-2009_10-44-02
243497021	936556	1	axh3	12/24/2009 11:10:11	OM_12-24-2009_10-44-02
243497022	936556	1	axh3	12/24/2009 11:10:59	OM_12-24-2009_10-44-02
243497023	936556	1	axh3	12/24/2009 11:11:47	OM_12-24-2009_10-44-02
243486001*	936556	25	axh3	12/24/2009 11:12:35	OM_12-24-2009_10-44-02
243488001	936556	1	axh3	12/24/2009 11:13:24	OM_12-24-2009_10-44-02
1202003122	936160	1	axh3	12/24/2009 11:14:12	OM_12-24-2009_10-44-02
1202003126	936160	1	axh3	12/24/2009 11:15:01	OM_12-24-2009_10-44-02
243408001	936160	1	axh3	12/24/2009 11:15:53	OM_12-24-2009_10-44-02
1202003123	936160	1	axh3	12/24/2009 11:16:44	OM_12-24-2009_10-44-02
CCV		1	axh3	12/24/2009 11:17:34	OM_12-24-2009_10-44-02
CCB		1	axh3	12/24/2009 11:19:24	OM_12-24-2009_10-44-02
1202003124	936160	1	axh3	12/24/2009 11:21:13	OM_12-24-2009_10-44-02
1202003125	936160	1	axh3	12/24/2009 11:22:04	OM_12-24-2009_10-44-02
CCV		1	axh3	12/24/2009 11:23:52	OM_12-24-2009_10-44-02
CCB		1	axh3	12/24/2009 11:25:42	OM_12-24-2009_10-44-02

Author: axh3 Date : 12/24/2009

Original Run Filename: OM_12-24-2009_10-44-02.OMN created 12/24/2009 10:44:02
Original Run Author's Signature: [axh3]
Current Run Filename: OM_12-24-2009_10-44-02.OMN last modified 12/24/2009 11:26:46
Current Run Author's Signature: [axh3]
Description: Ammonia EPA Method 350.1 GEL SOP: GL-GC-E-106
Detection Wavelength: 630nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 NH3 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR091224-03	1	S10	2.000	16.456	12/24/2009@10:47:41			2.0 ppm Std.
WTR091224-04	1	S11	1.000	8.343	12/24/2009@10:48:30			1.0 ppm Std.
WTR091224-05	1	S12	0.500	4.387	12/24/2009@10:49:21			0.5 ppm Std
WTR091224-06	1	S13	0.100	0.962	12/24/2009@10:50:11			0.1 ppm Std
WTR091224-07	1	S14	0.050	0.522	12/24/2009@10:51:03			0.05 ppm Std
WTR091224-10 0.0 ppm	1	S15	0.000	0.218	12/24/2009@10:51:56			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99994 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR091224-08 ICV	1	S16	0.954	7.961	12/24/2009@10:53:47			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	0.954 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.954 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR091224-10 ICB	1	S15	0.004	0.228	12/24/2009@10:55:37			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	0.004 < 0.050					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.004 > -0.050					
		Message	ICB Passed					
		Action	Continue					
1202003921|936556|MB	1	1	0.018	0.340	12/24/2009@10:57:27			
1202003925||LCS	1	2	0.962	8.030	12/24/2009@10:58:18			
243400001	1	3	0.022	0.369	12/24/2009@10:59:08			
1202003922||DUP	1	4	0.018	0.341	12/24/2009@10:59:59			
1202003923||MS	1	5	0.967	8.071	12/24/2009@11:00:49			
1202003924||MSD	1	6	0.969	8.089	12/24/2009@11:01:39			
243400004	1	7	0.016	0.325	12/24/2009@11:02:29			
243486001	1	8	21.698	176.963	12/24/2009@11:03:19			
243488001	1	9	0.377	3.260	12/24/2009@11:04:07			
243497019	1	10	0.021	0.366	12/24/2009@11:04:56			
WTR091224-04 CCV	1	S11	1.019	8.495	12/24/2009@11:05:45			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.019 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.019 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091224-10 CCB	1	S15	0.007	0.245	12/24/2009@11:07:36			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	0.007 < 0.049					

		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.007 > -0.050					
		Message	CCB Passed					
		Action	Continue					
243497020	1	11	0.018	0.339	12/24/2009@11:09:23			
243497021	1	12	-6.415e-4	0.187	12/24/2009@11:10:11			
243497022	1	13	-0.015	0.069	12/24/2009@11:10:59			
243497023	1	14	0.008	0.254	12/24/2009@11:11:47			
243486001	1	8	4.491	36.783	12/24/2009@11:12:35		25.00	
243488001	1	9	0.151	1.422	12/24/2009@11:13:24			
1202003122|936160|MB	1	15	0.003	0.219	12/24/2009@11:14:12			
1202003126||LCS	1	16	0.971	8.105	12/24/2009@11:15:01			
243408001	1	17	-0.004	0.163	12/24/2009@11:15:53			
1202003123||DUP	1	18	-0.008	0.123	12/24/2009@11:16:44			
WTR091224-04 CCV	1	S11	1.011	8.426	12/24/2009@11:17:34			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.011 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.011 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091224-10 CCB	1	S15	0.006	0.239	12/24/2009@11:19:24			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	0.006 < 0.049					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.006 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1202003124||MS	1	19	-0.011	0.102	12/24/2009@11:21:13			
1202003125||MSD	1	20	0.008	0.256	12/24/2009@11:22:04			
WTR091224-04 CCV	1	S11	1.003	8.365	12/24/2009@11:23:52			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.003 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.003 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091224-10 CCB	1	S15	0.005	0.230	12/24/2009@11:25:42			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	0.005 < 0.049					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.005 > -0.050					
		Message	CCB Passed					
		Action	Continue					

Author: axh3 Date : 12/24/2009

Channel 1 (NH3) : Current View

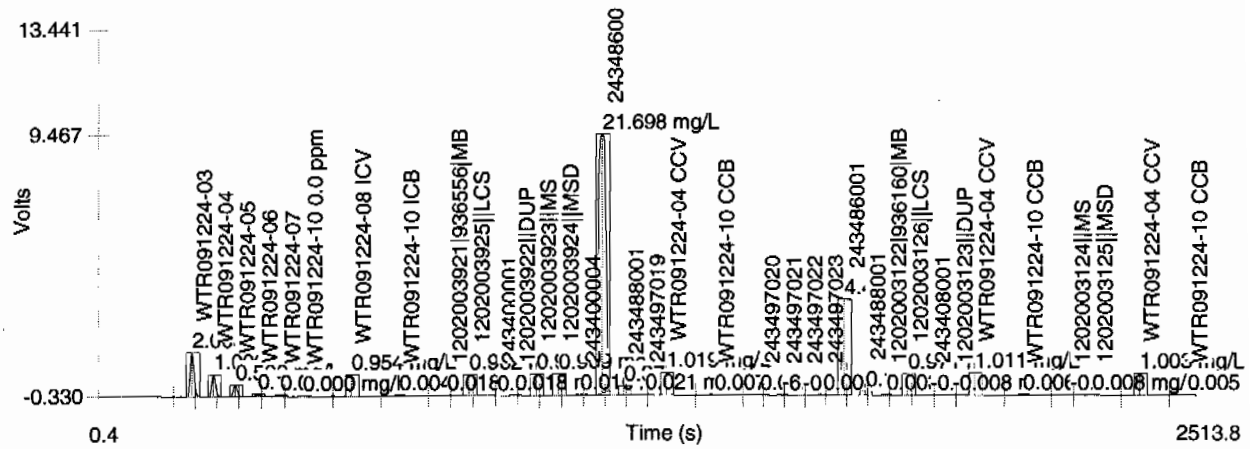

Table 1: NH3

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	2.000	1	16.456	1.617	0.2	12/24/2009	10:48:44
2	1.000	1	8.343	0.823	-0.1	12/24/2009	10:49:33
3	0.500	1	4.387	0.434	-2.8	12/24/2009	10:50:23
4	0.100	1	0.962	0.094	4.5	12/24/2009	10:51:14
5	0.050	1	0.522	0.051	13.1	12/24/2009	10:52:06
6	0.000	1	0.218	0.021		12/24/2009	10:52:59

Figure 1: NH3

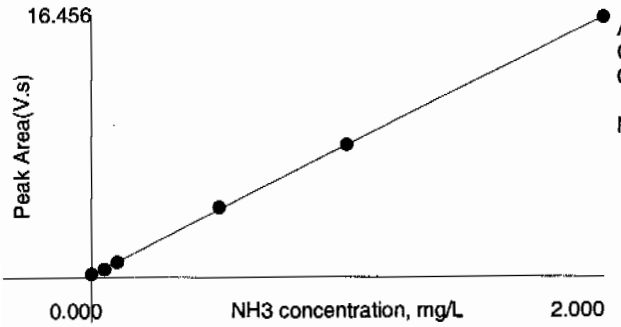

Area = 8.146 * Conc + 0.193
Conc = 0.123 * Area - 0.024
Correlation Coefficient (r) = 0.99994

No Weighting

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 936396

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202003576	URF1184831-02	.0125	mL
MS	1202003570	URF1184831-02	.025	mL
MS	1202003571	URF1184831-02	.025	mL
MS	1202003572	URF1184831-02	.025	mL
MSD	1202003573	URF1184831-02	.025	mL
MSD	1202003574	URF1184831-02	.025	mL
MSD	1202003575	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202003566		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
LCS	1202003576		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
SAMPLE	243386001		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
SAMPLE	243396001		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
DUP	1202003567	243396001	SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
MS	1202003570	243396001	SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
MSD	1202003573	243396001	SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
SAMPLE	243400002		EPA 335.4	29-DEC-2009 14:23	>12	25 mL	25 mL	1	GROUND WATER
DUP	1202003568	243400002	EPA 335.4	29-DEC-2009 14:23	>12	25 mL	25 mL	1	GROUND WATER
MS	1202003571	243400002	EPA 335.4	29-DEC-2009 14:23	>12	25 mL	25 mL	1	GROUND WATER
MSD	1202003574	243400002	EPA 335.4	29-DEC-2009 14:23	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243400003		EPA 335.4	29-DEC-2009 14:23	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243443003		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WASTE WATER
DUP	1202003569	243443003	SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WASTE WATER
MS	1202003572	243443003	SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WASTE WATER
MSD	1202003575	243443003	SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WASTE WATER
SAMPLE	243443014		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WASTE WATER
SAMPLE	243443025		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WASTE WATER
SAMPLE	243459001		EPA 335.4	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
SAMPLE	243459002		EPA 335.4	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
SAMPLE	243461001		EPA 335.4	29-DEC-2009 14:23	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243466001		EPA 335.4	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
SAMPLE	243466002		EPA 335.4	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
SAMPLE	243469007		EPA 335.4	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
SAMPLE	243493001		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
SAMPLE	243506001		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 936396

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202003576	URF1184831-02	.0125	mL
MS	1202003570	URF1184831-02	.025	mL
MS	1202003571	URF1184831-02	.025	mL
MS	1202003572	URF1184831-02	.025	mL
MSD	1202003573	URF1184831-02	.025	mL
MSD	1202003574	URF1184831-02	.025	mL
MSD	1202003575	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
SAMPLE	243554001		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
SAMPLE	243554002		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
SAMPLE	243554003		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER
SAMPLE	243554004		SW846 9010B Prep	29-DEC-2009 14:23	>12	25 mL	25 mL	1	WATER

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN091229-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1238146-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	12/30/2009 9:59:59	OM_12-30-2009_09-56-39
150 ppb		1	axc2	12/30/2009 10:00:51	OM_12-30-2009_09-56-39
100 ppb		1	axc2	12/30/2009 10:01:44	OM_12-30-2009_09-56-39
50 ppb		1	axc2	12/30/2009 10:02:37	OM_12-30-2009_09-56-39
10 ppb		1	axc2	12/30/2009 10:03:30	OM_12-30-2009_09-56-39
CRDL 5.0 ppb		1	axc2	12/30/2009 10:04:23	OM_12-30-2009_09-56-39
ICAL-00		1	axc2	12/30/2009 10:05:17	OM_12-30-2009_09-56-39
ICV		1	axc2	12/30/2009 10:07:08	OM_12-30-2009_09-56-39
ICB		1	axc2	12/30/2009 10:08:58	OM_12-30-2009_09-56-39
CRDL		1	axc2	12/30/2009 10:10:49	OM_12-30-2009_09-56-39
1202003566	936398	1	axc2	12/30/2009 10:12:38	OM_12-30-2009_09-56-39
1202003576	936398	1	axc2	12/30/2009 10:13:31	OM_12-30-2009_09-56-39
243386001	936398	1	axc2	12/30/2009 10:14:24	OM_12-30-2009_09-56-39
243396001	936398	1	axc2	12/30/2009 10:15:18	OM_12-30-2009_09-56-39
1202003567	936398	1	axc2	12/30/2009 10:16:11	OM_12-30-2009_09-56-39
1202003570	936398	1	axc2	12/30/2009 10:17:03	OM_12-30-2009_09-56-39
1202003573	936398	1	axc2	12/30/2009 10:17:56	OM_12-30-2009_09-56-39
243400002	936398	1	axc2	12/30/2009 10:18:48	OM_12-30-2009_09-56-39
1202003568	936398	1	axc2	12/30/2009 10:19:41	OM_12-30-2009_09-56-39
1202003571	936398	1	axc2	12/30/2009 10:20:33	OM_12-30-2009_09-56-39
CCV		1	axc2	12/30/2009 10:21:26	OM_12-30-2009_09-56-39
CCB		1	axc2	12/30/2009 10:23:16	OM_12-30-2009_09-56-39
1202003574	936398	1	axc2	12/30/2009 10:25:04	OM_12-30-2009_09-56-39
243400003	936398	1	axc2	12/30/2009 10:25:56	OM_12-30-2009_09-56-39
243443003	936398	1	axc2	12/30/2009 10:26:48	OM_12-30-2009_09-56-39
1202003569	936398	1	axc2	12/30/2009 10:27:40	OM_12-30-2009_09-56-39
1202003572	936398	1	axc2	12/30/2009 10:28:31	OM_12-30-2009_09-56-39
1202003575	936398	1	axc2	12/30/2009 10:29:24	OM_12-30-2009_09-56-39
243443014	936398	1	axc2	12/30/2009 10:30:19	OM_12-30-2009_09-56-39
243443025	936398	1	axc2	12/30/2009 10:31:12	OM_12-30-2009_09-56-39
243459001	936398	1	axc2	12/30/2009 10:32:05	OM_12-30-2009_09-56-39
243459002	936398	1	axc2	12/30/2009 10:32:58	OM_12-30-2009_09-56-39
CCV		1	axc2	12/30/2009 10:33:51	OM_12-30-2009_09-56-39
CCB		1	axc2	12/30/2009 10:35:41	OM_12-30-2009_09-56-39
243461001	936398	1	axc2	12/30/2009 10:37:31	OM_12-30-2009_09-56-39
243466001	936398	1	axc2	12/30/2009 10:38:24	OM_12-30-2009_09-56-39
243466002	936398	1	axc2	12/30/2009 10:39:17	OM_12-30-2009_09-56-39
243469007	936398	1	axc2	12/30/2009 10:40:10	OM_12-30-2009_09-56-39
243493001	936398	1	axc2	12/30/2009 10:41:03	OM_12-30-2009_09-56-39
243506001	936398	1	axc2	12/30/2009 10:41:55	OM_12-30-2009_09-56-39
243554001	936398	1	axc2	12/30/2009 10:42:47	OM_12-30-2009_09-56-39
243554002	936398	1	axc2	12/30/2009 10:43:39	OM_12-30-2009_09-56-39
243554003	936398	1	axc2	12/30/2009 10:44:30	OM_12-30-2009_09-56-39
243554004	936398	1	axc2	12/30/2009 10:45:23	OM_12-30-2009_09-56-39
CCV		1	axc2	12/30/2009 10:46:16	OM_12-30-2009_09-56-39
CCB		1	axc2	12/30/2009 10:48:05	OM_12-30-2009_09-56-39

Author: axc2 Date : 12/30/2009

Original Run Filename: OM_12-30-2009_09-56-39.OMN created 12/30/2009 09:56:39
Original Run Author's Signature: [axc2]
Current Run Filename: OM_12-30-2009_09-56-39.OMN last modified 12/30/2009 10:49:10
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN091230-01	1	S1	200	7.43	12/30/2009@09:59:59			200 ppb
WCN091230-02	1	S2	150	5.62	12/30/2009@10:00:51			150 ppb
WCN091230-03	1	S3	100	3.68	12/30/2009@10:01:44			100 ppb
WCN091230-04	1	S4	50.0	2.05	12/30/2009@10:02:37			50 ppb
WCN091230-05	1	S5	10.0	0.476	12/30/2009@10:03:30			10 ppb
WCN091230-06	1	S6	5.00	0.292	12/30/2009@10:04:23			CRDL 5.0 ppb
WCN091230-08	1	S7	0.00	0.0301	12/30/2009@10:05:17			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99974 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN091230-07	1	S8	149	5.57	12/30/2009@10:07:08			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-0.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.6 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN091230-08	1	S7	-2.07	0.0199	12/30/2009@10:08:58			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.07 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.07 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN091230-06	1	S6	5.28	0.290	12/30/2009@10:10:49			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.28 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.28 > 2.50					
		Message	Pass					
		Action	None					
1202003566|936398|MB	1	1	-2.01	0.0223	12/30/2009@10:12:38			
1202003576||LCS	1	2	49.9	1.93	12/30/2009@10:13:31			
243386001	1	3	-1.49	0.0413	12/30/2009@10:14:24			
243396001	1	4	-1.66	0.0352	12/30/2009@10:15:18			
1202003567||DUP	1	5	-2.07	0.0202	12/30/2009@10:16:11			
1202003570||MS	1	6	104	3.92	12/30/2009@10:17:03			
1202003573||MSD	1	7	103	3.89	12/30/2009@10:17:56			
243400002	1	8	-1.93	0.0251	12/30/2009@10:18:48			
1202003568||DUP	1	9	-1.78	0.0307	12/30/2009@10:19:41			
1202003571||MS	1	10	105	3.95	12/30/2009@10:20:33			
WCN091230-03	1	S3	104	3.91	12/30/2009@10:21:26			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.0 < 10.0					

		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	4.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091230-08	1	S7	-1.51	0.0405	12/30/2009@10:23:16			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.51 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.51 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202003574||MSD	1	11	107	4.03	12/30/2009@10:25:04			
243400003	1	12	-1.77	0.0311	12/30/2009@10:25:56			
243443003	1	13	-1.58	0.0380	12/30/2009@10:26:48			
1202003569||DUP	1	14	-1.62	0.0366	12/30/2009@10:27:40			
1202003572||MS	1	15	106	4.00	12/30/2009@10:28:31			
1202003575||MSD	1	16	100	3.77	12/30/2009@10:29:24			
243443014	1	17	-0.592	0.0743	12/30/2009@10:30:19			
243443025	1	18	-1.33	0.0471	12/30/2009@10:31:12			
243459001	1	19	-1.92	0.0256	12/30/2009@10:32:05			
243459002	1	20	-1.95	0.0243	12/30/2009@10:32:58			
WCN091230-03	1	S3	104	3.92	12/30/2009@10:33:51			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	4.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	4.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091230-08	1	S7	-2.04	0.0211	12/30/2009@10:35:41			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-2.04 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-2.04 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243461001	1	21	-1.77	0.0312	12/30/2009@10:37:31			
243466001	1	22	0.116	0.100	12/30/2009@10:38:24			
243466002	1	23	1.14	0.138	12/30/2009@10:39:17			
243469007	1	24	-2.42	0.00705	12/30/2009@10:40:10			
243493001	1	25	-2.82	-0.00760	12/30/2009@10:41:03			
243506001	1	26	-1.91	0.0261	12/30/2009@10:41:55			
243554001	1	27	-2.61	3.12e-4	12/30/2009@10:42:47			
243554002	1	28	-2.42	0.00720	12/30/2009@10:43:39			
243554003	1	29	-1.78	0.0307	12/30/2009@10:44:30			
243554004	1	30	-2.05	0.0207	12/30/2009@10:45:23			
WCN091230-03	1	S3	105	3.94	12/30/2009@10:46:16			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091230-08	1	S7	-2.04	0.0213	12/30/2009@10:48:05			CCB
		Known Conc:	0.00					

Author: axc2 Date : 12/30/2009

DQM Test: > + Concentration Limit						
Result:	-2.04 < 5.00					
Message	CCB Passed					
Action	Continue					
DQM Test: < - Concentration Limit						
Result:	-2.04 > -5.00					
Message	CCB Passed					
Action	Continue					

Analyte Properties Table for OM_12-30-2009_09-56-39.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

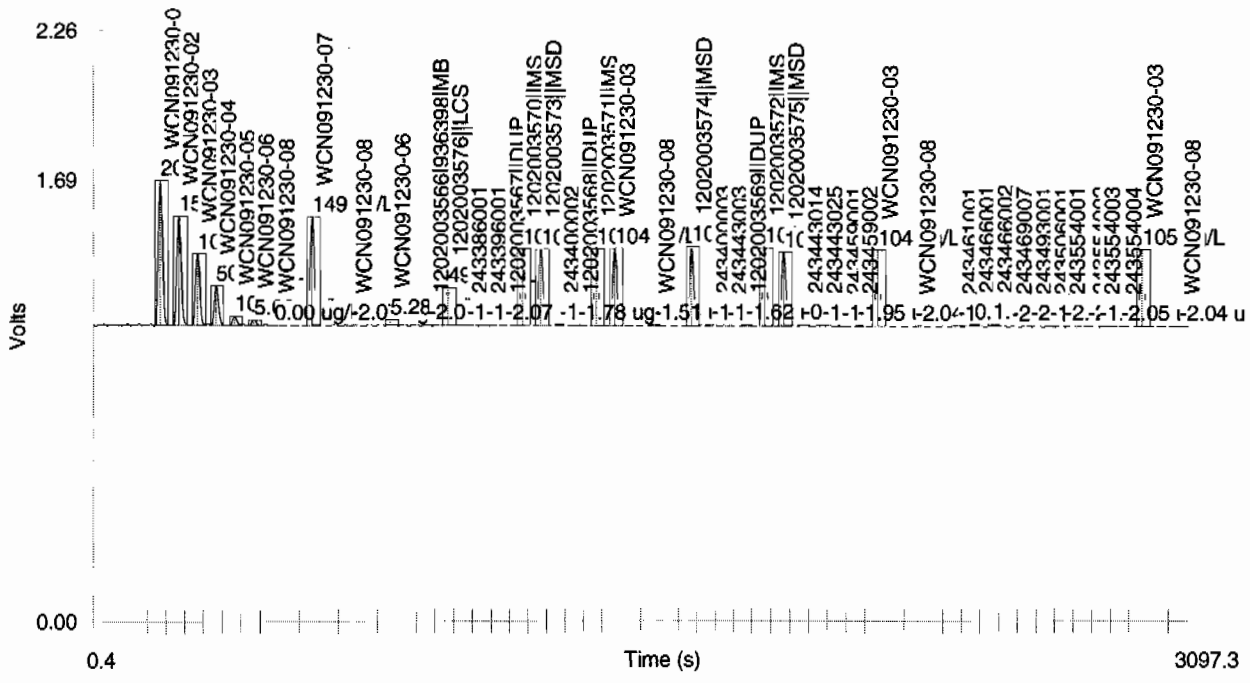

Author: axc2 Date : 12/30/2009

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	7.43	0.547	0.0	12/30/2009	10:01:02
2	150	1	5.62	0.411	-0.4	12/30/2009	10:01:54
3	100	1	3.68	0.269	2.4	12/30/2009	10:02:46
4	50.0	1	2.05	0.150	-5.9	12/30/2009	10:03:39
5	10.0	1	0.476	0.0340	-2.4	12/30/2009	10:04:33
6	5.00	1	0.292	0.0197	-3.8	12/30/2009	10:05:26
7	0.00	1	0.0301	0.00127		12/30/2009	10:06:21

Figure 1: TCYANIDE

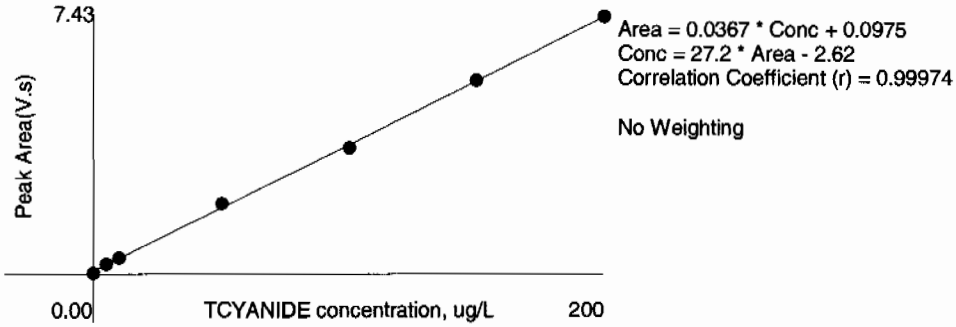

Ion Chromatography

This is runlog for Sequence 100108.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	12/02/09 18:35		1	100108	GXM3
ICAL-06	12/02/09 19:04		1	100108	GXM3
ICAL-05	12/02/09 19:34		1	100108	GXM3
ICAL-04	12/02/09 20:04		1	100108	GXM3
ICAL-03	12/02/09 20:34		1	100108	GXM3
ICAL-02	12/02/09 21:04		1	100108	GXM3
ICAL-01	12/02/09 21:33		1	100108	GXM3
ICAL-07	12/02/09 18:35		1	100108	GXM3
ICAL-06	12/02/09 19:04		1	100108	GXM3
ICAL-05	12/02/09 19:34		1	100108	GXM3
ICAL-04	12/02/09 20:04		1	100108	GXM3
ICAL-03	12/02/09 20:34		1	100108	GXM3
ICAL-02	12/02/09 21:04		1	100108	GXM3
ICAL-01	12/02/09 21:33		1	100108	GXM3

8 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

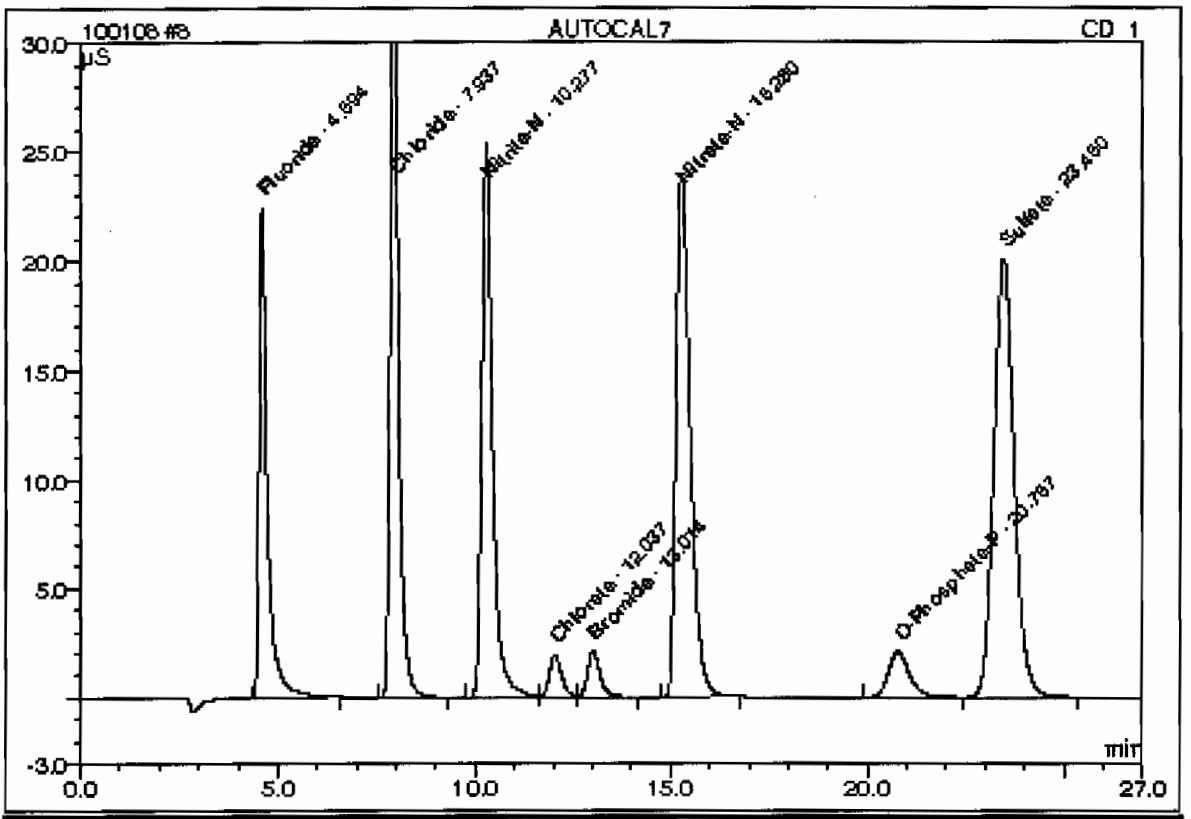

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	10.0000	10.1577		5.35634	11.49
2	7.94	Chloride	20.0000	20.4728		8.55118	18.34
3	10.28	Nitrite-N	10.0000	10.1488		7.97425	17.10
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromide	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2042		10.06854	21.59
7	20.76	O-Phosphate-P	5.0000	5.0829		1.26723	2.72
8	23.46	Sulfate	40.0000	40.7635		11.96232	25.65
Total:				106.9098	0.000	46.636	100.00

1 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

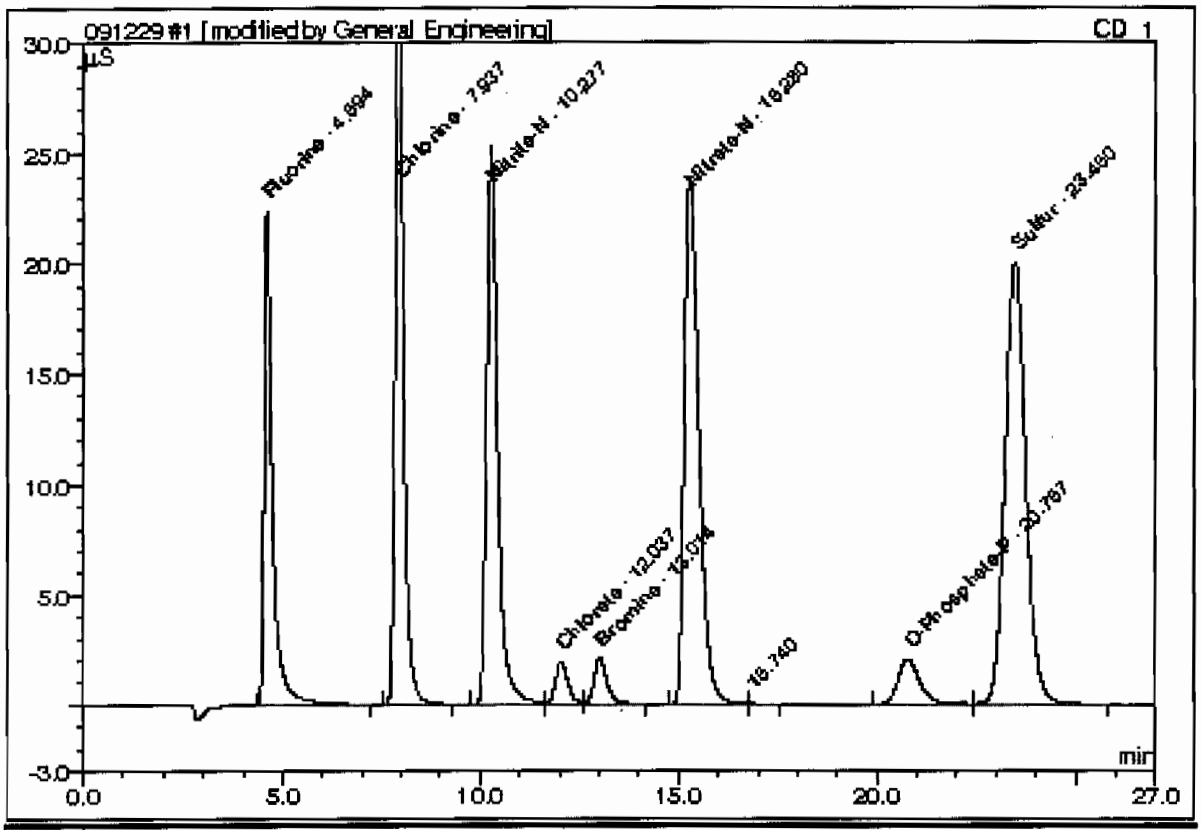

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluorine	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chlorine	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromine	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfur	13.3332	13.5815	*	11.96208	25.60
Total:				79.7299	0.000	46.723	99.98

1 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

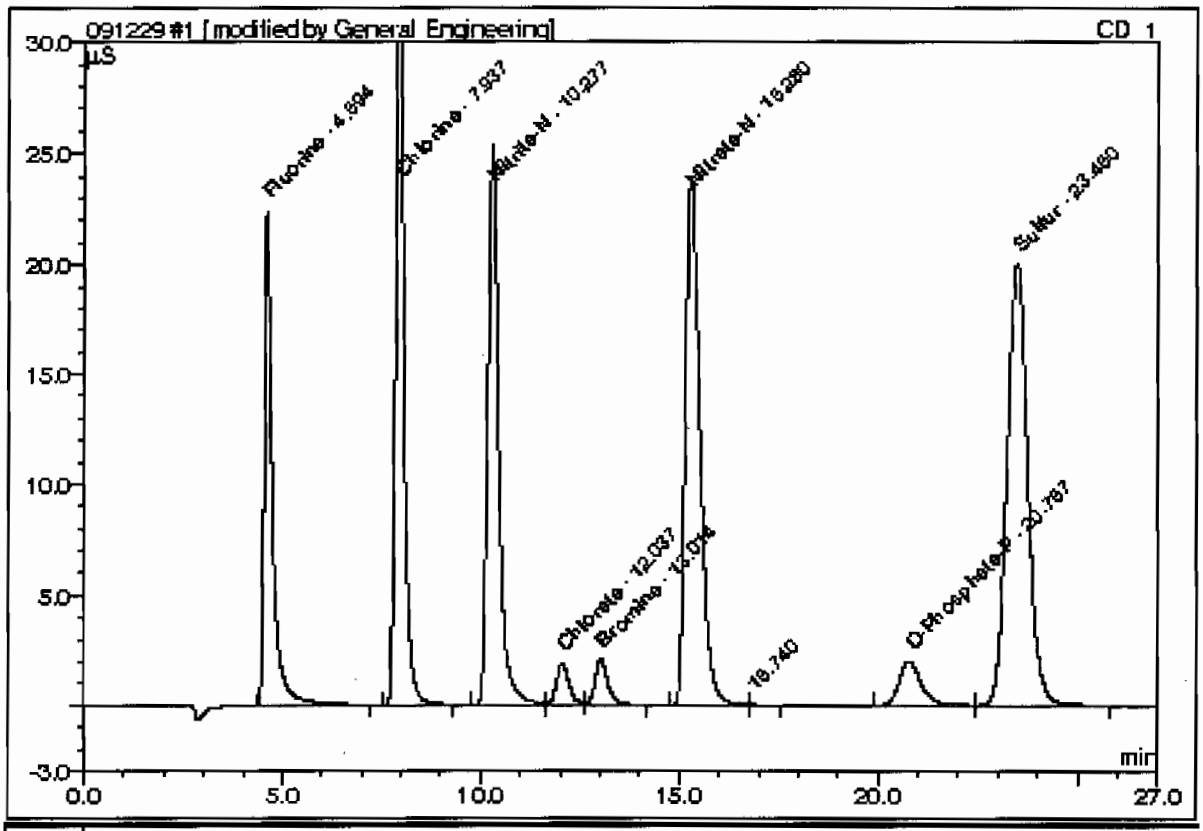

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluorine	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chlorine	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromine	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfur	13.3332	13.5815	*	11.96208	25.60
Total:				79.7299	0.000	46.723	99.98

1 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

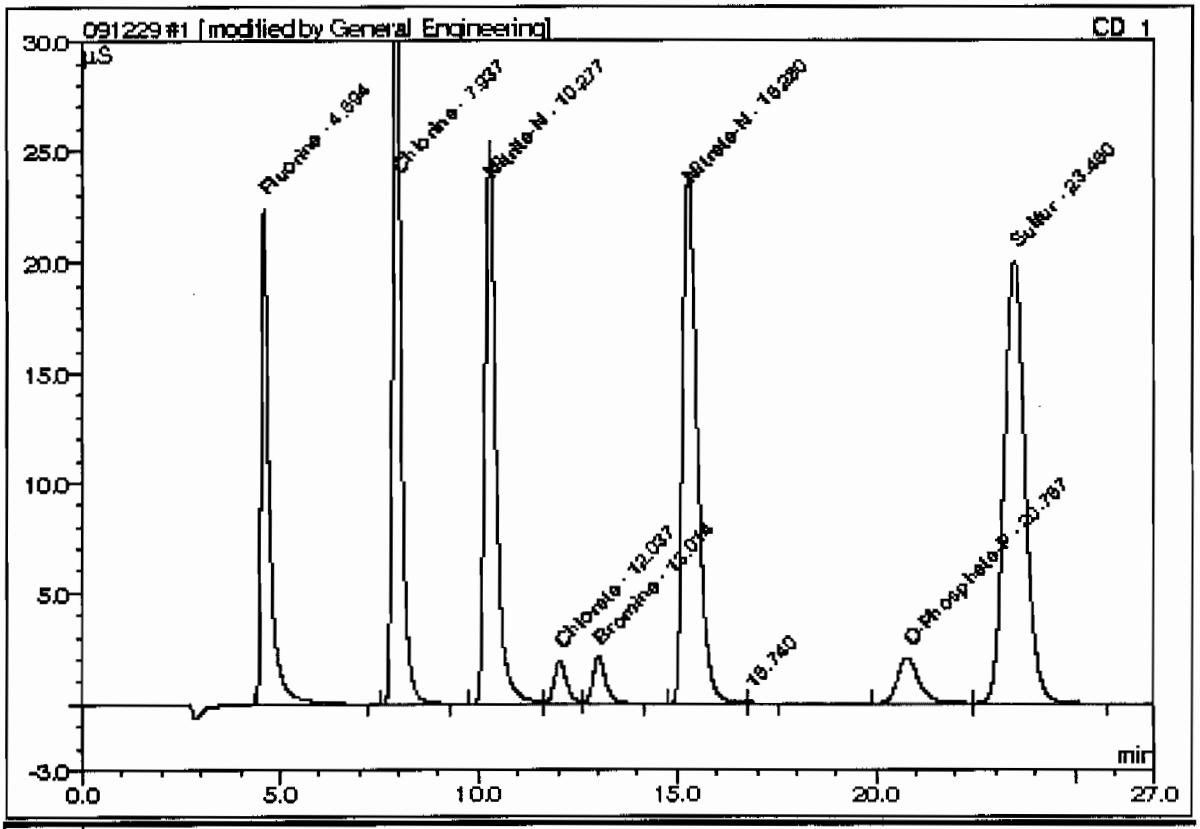

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluorine	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chlorine	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromine	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfur	13.3332	13.5815	*	11.96208	25.60
Total:				79.7299	0.000	46.723	99.98

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

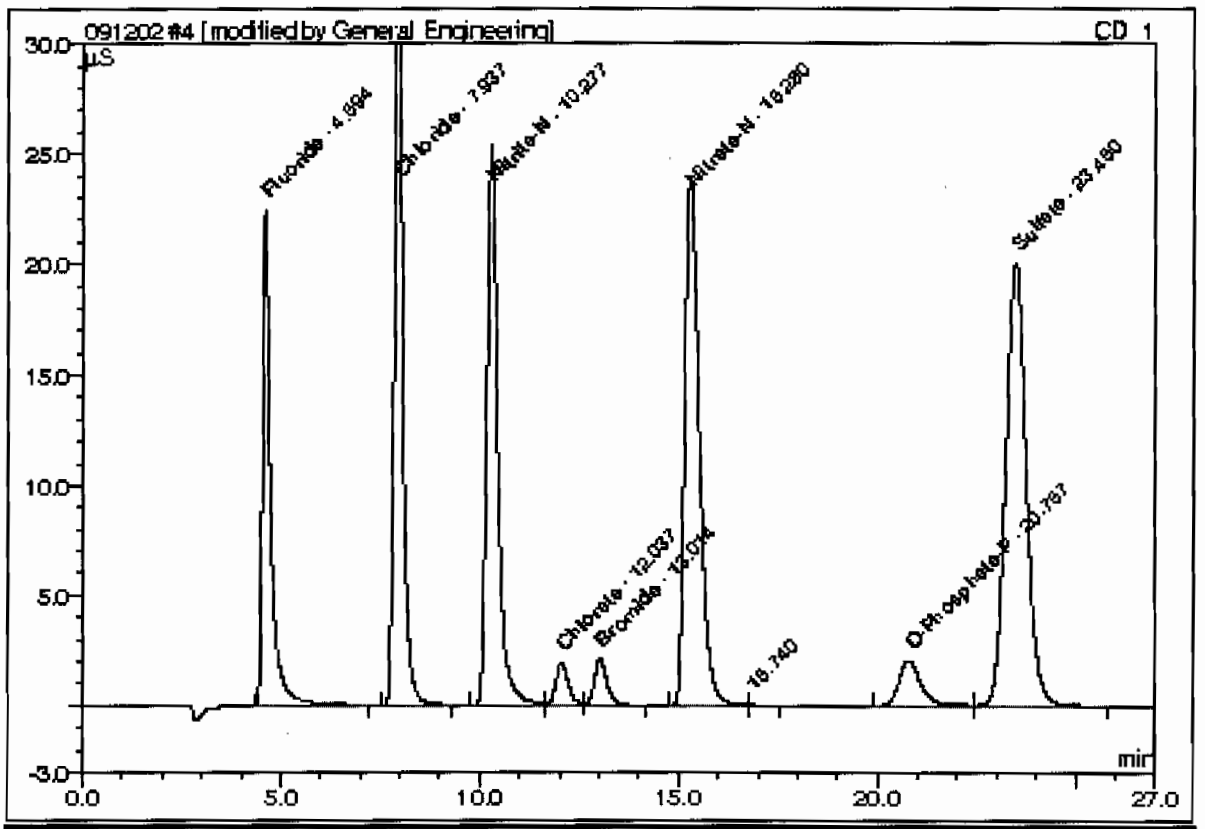

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chloride	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromide	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfate	40.0000	40.7450	*	11.96208	25.60
Total:				106.8933	0.000	46.723	99.98

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

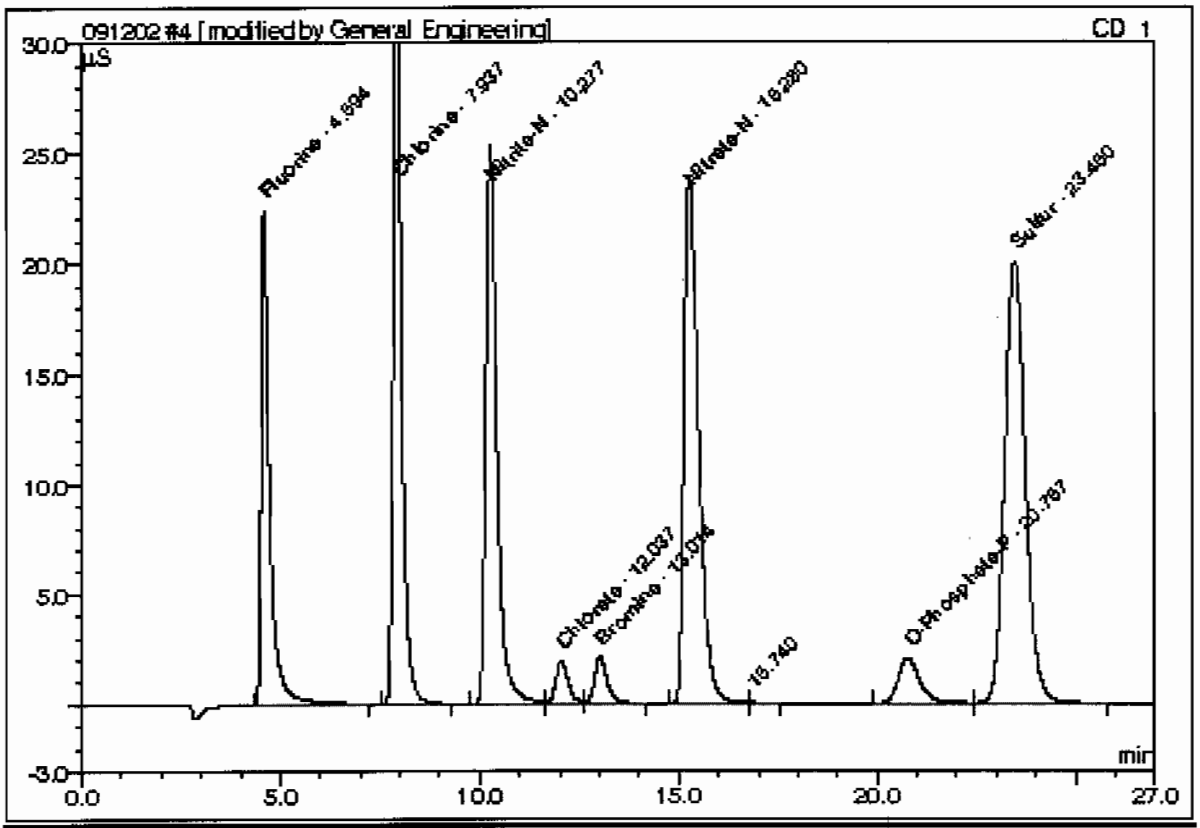

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluorine	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chlorine	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromine	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfur	13.3332	13.5815	*	11.96208	25.60
Total:				79.7299	0.000	46.723	99.98

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

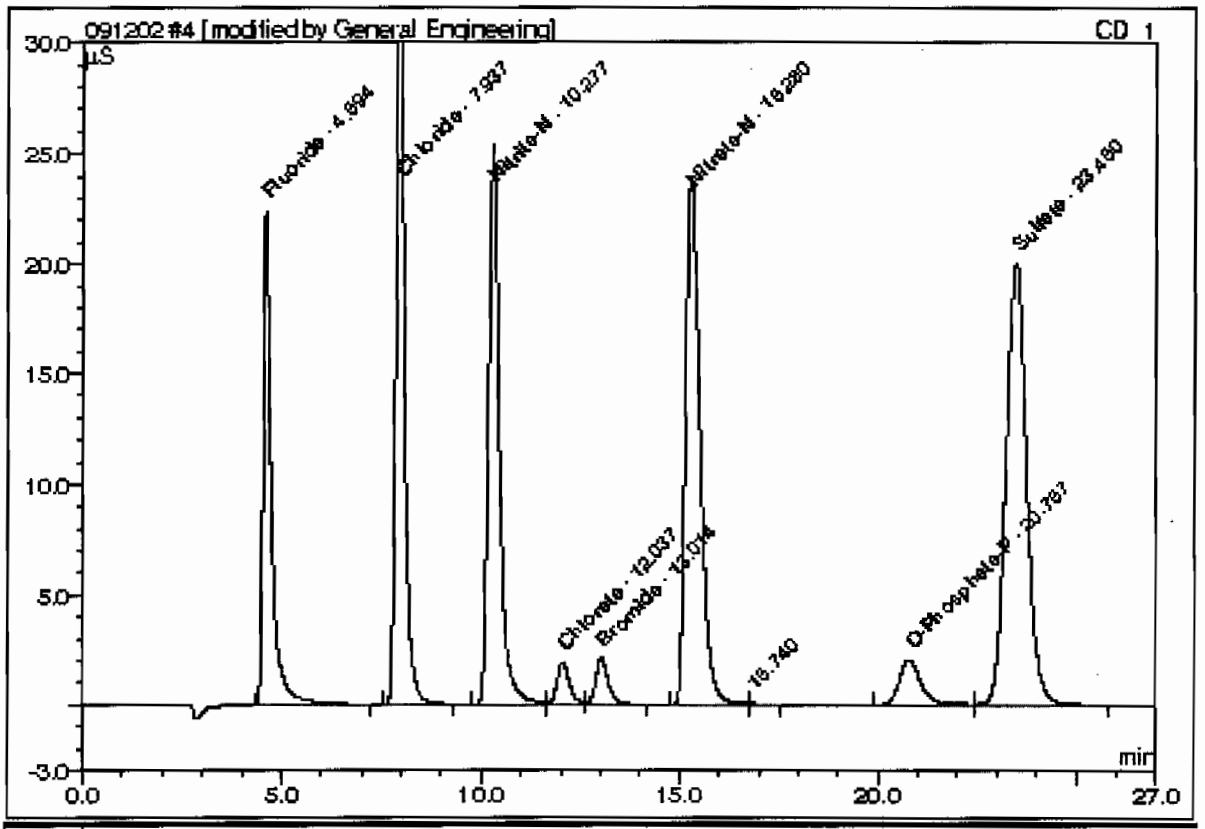

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chloride	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromide	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfate	40.0000	40.7450	*	11.96208	25.60
Total:				106.8933	0.000	46.723	99.98

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	*Analyst:*	GXM3
Run Time (min):	27.00	*Column:*	AS23-002407; GLGCB086;300;9056

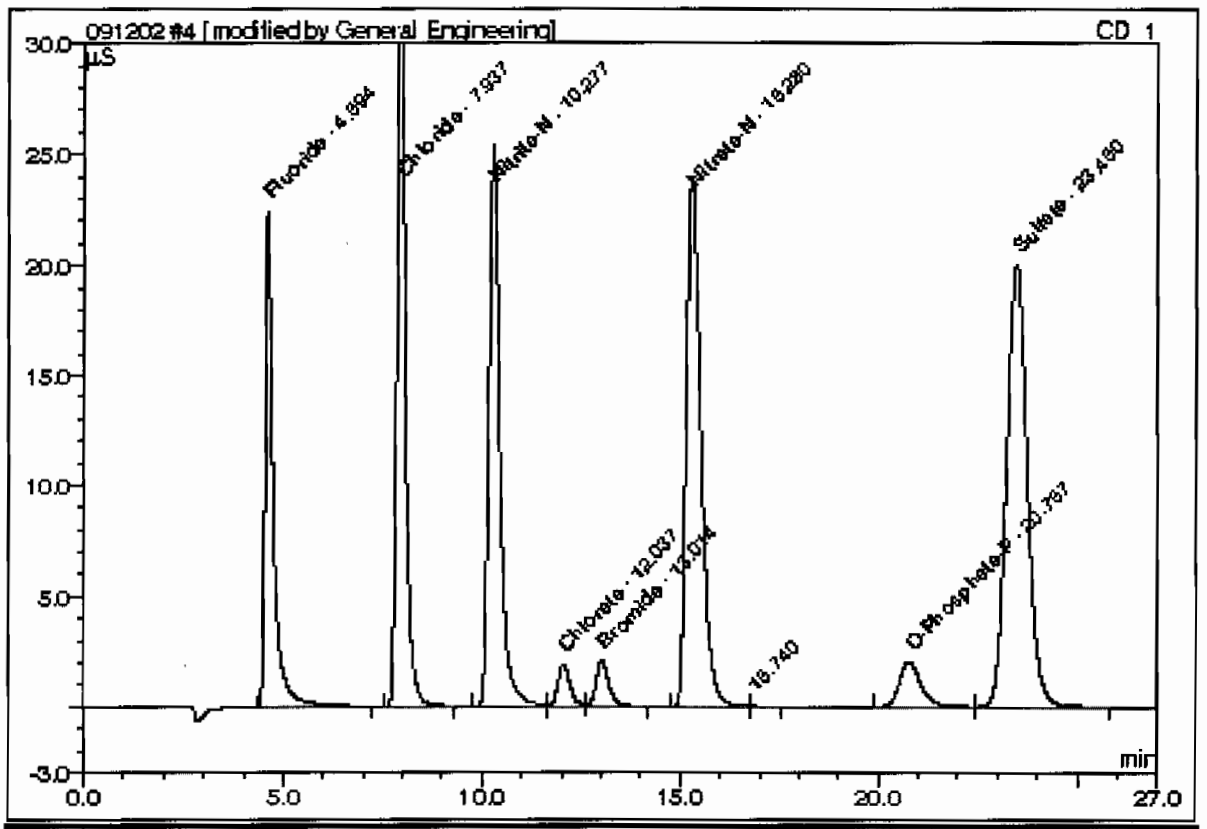

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chloride	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromide	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfate	40.0000	40.7450	*	11.96208	25.60
Total:				106.8933	0.000	46.723	99.98

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

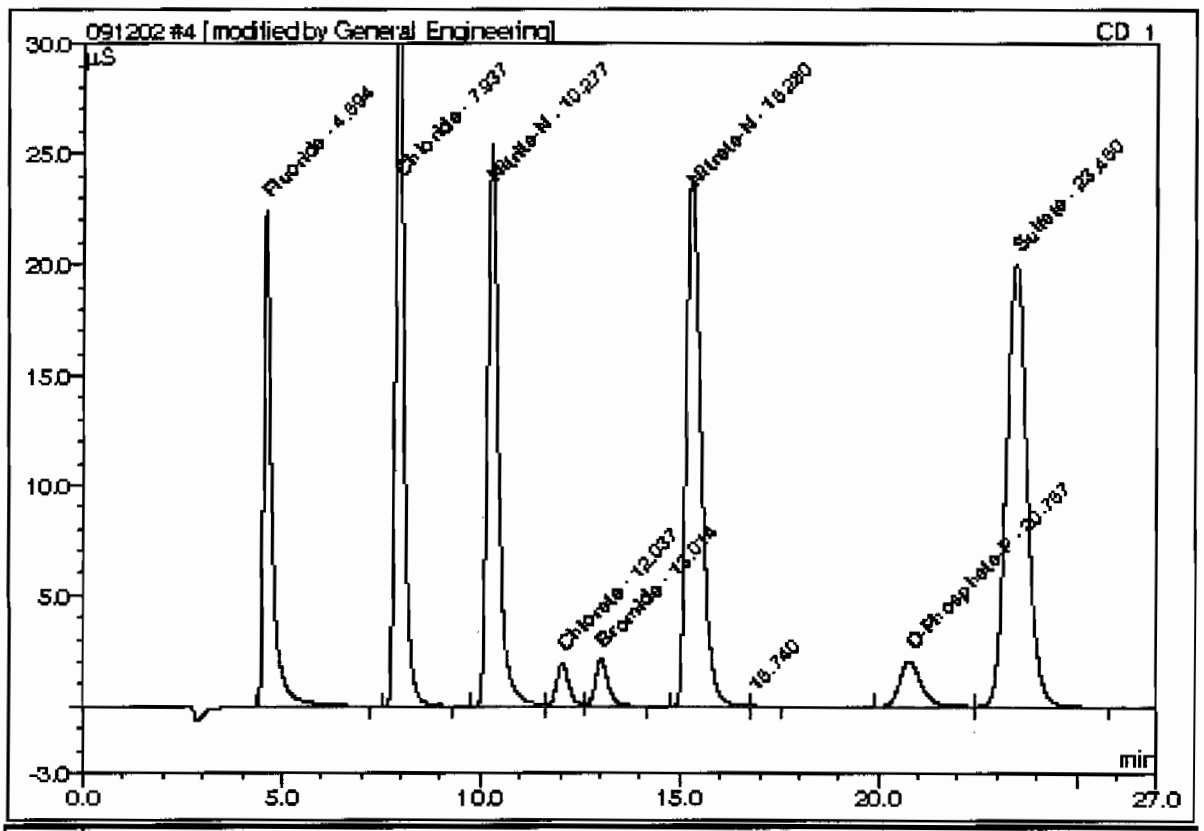

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chloride	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromide	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfate	40.0000	40.7450	*	11.96208	25.60
Total:				106.8933	0.000	46.723	99.98

9 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

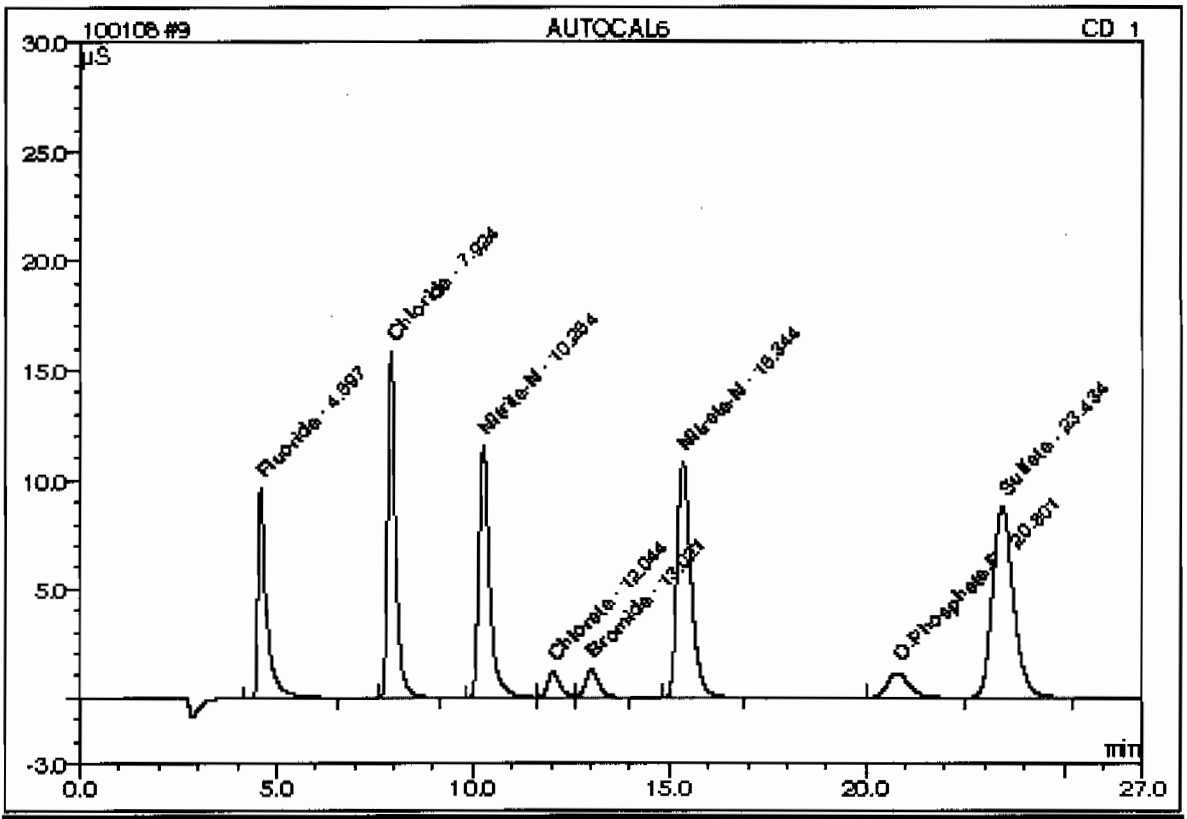

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	5.0000	4.6845		2.45967	11.55
2	7.92	Chloride	10.0000	9.0643		3.76891	17.70
3	10.26	Nitrite-N	5.0000	4.7100		3.66436	17.21
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromide	3.0000	2.9614		0.44868	2.11
6	15.34	Nitrate-N	5.0000	4.5981		4.48040	21.04
7	20.80	O-Phosphate-P	3.0000	2.8969		0.69988	3.29
8	23.43	Sulfate	20.0000	18.4844		5.36918	25.21
Total:				50.3622	0.000	21.294	100.00

2 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

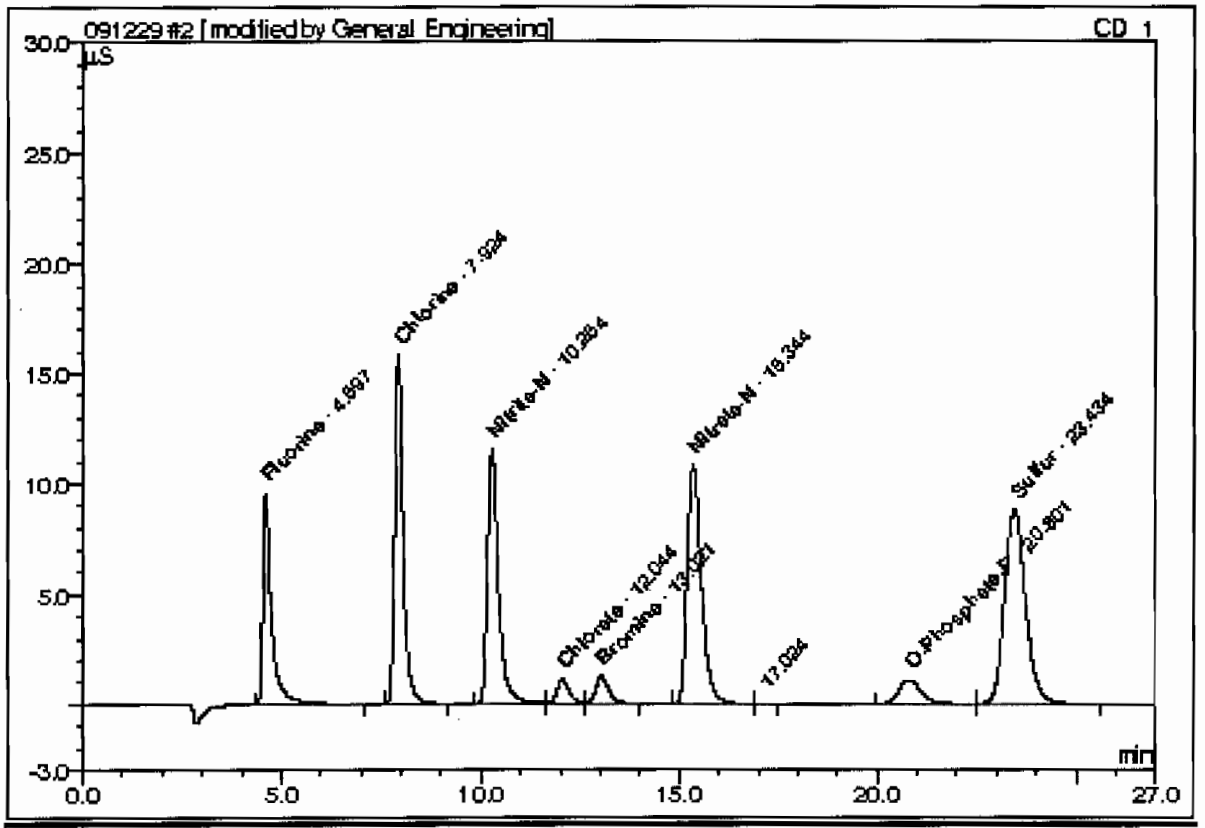

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluorine	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chlorine	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromine	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfur	6.6666	6.1723	*	5.38507	25.22
Total:				38.0531	0.000	21.349	99.99

2 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

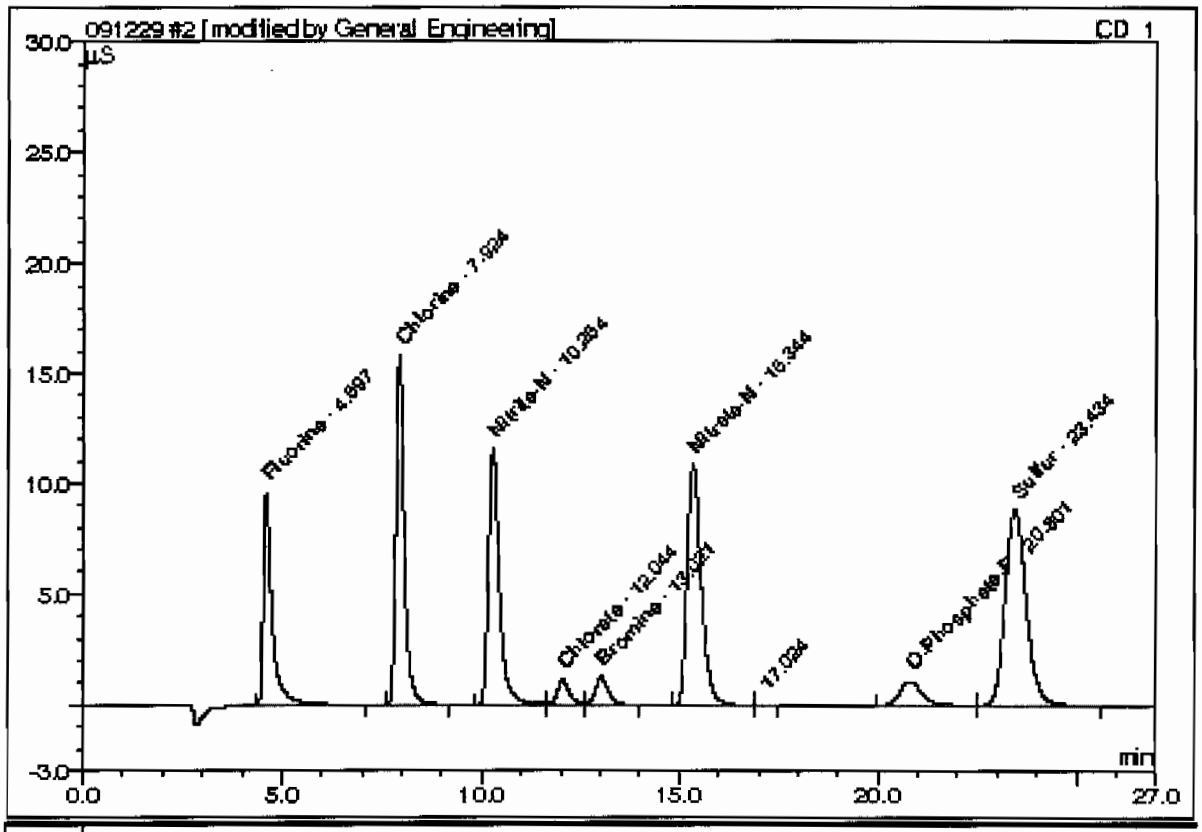

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluorine	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chlorine	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromine	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfur	6.6666	6.1723	*	5.38507	25.22
Total:				38.0531	0.000	21.349	99.99

2 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

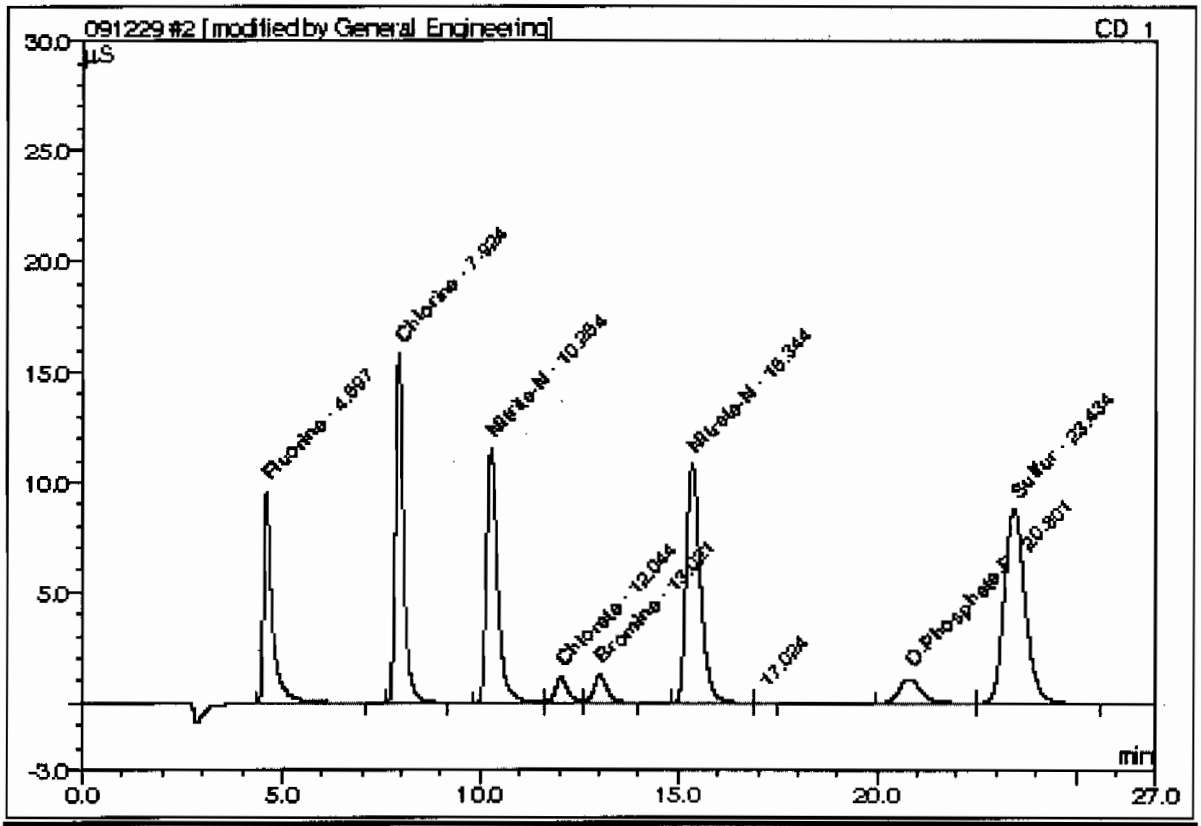

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluorine	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chlorine	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromine	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfur	6.6666	6.1723	*	5.38507	25.22
Total:				38.0531	0.000	21.349	99.99

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

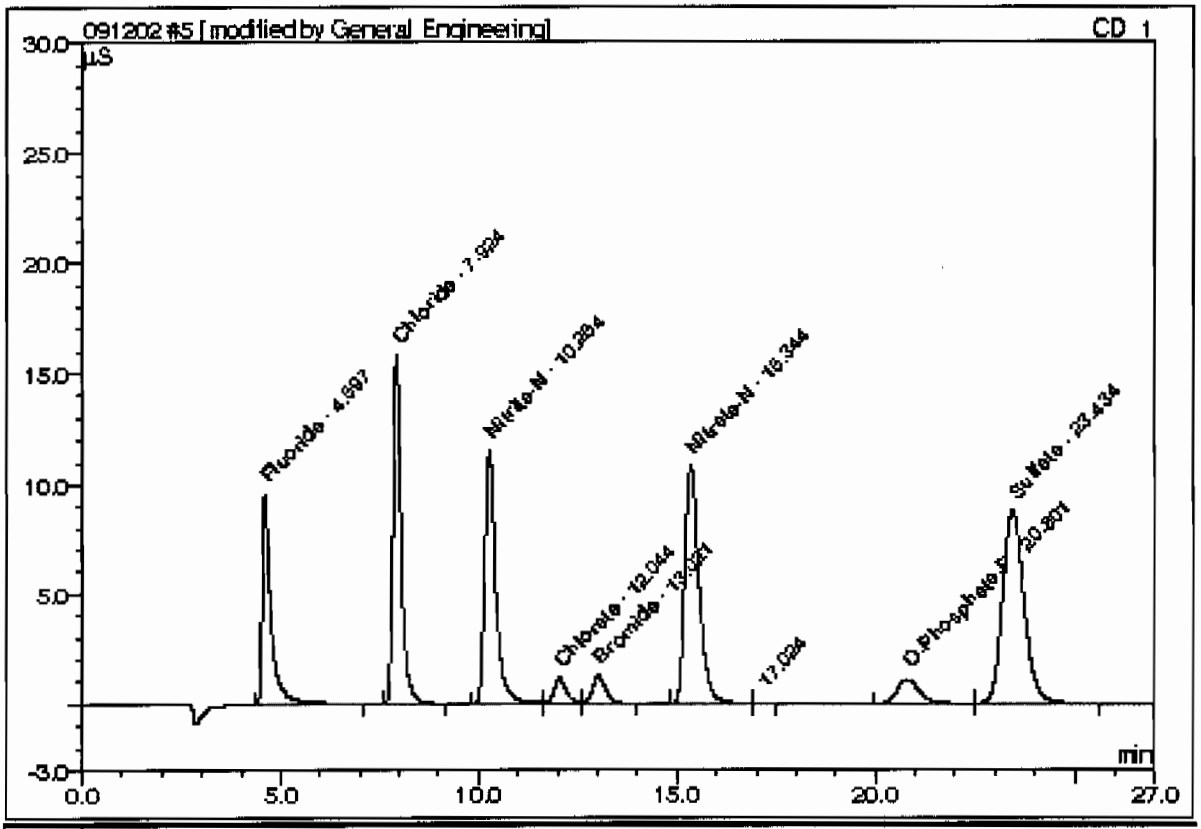

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chloride	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromide	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfate	20.0000	18.5172	*	5.38507	25.22
Total:				50.3979	0.000	21.349	99.99

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

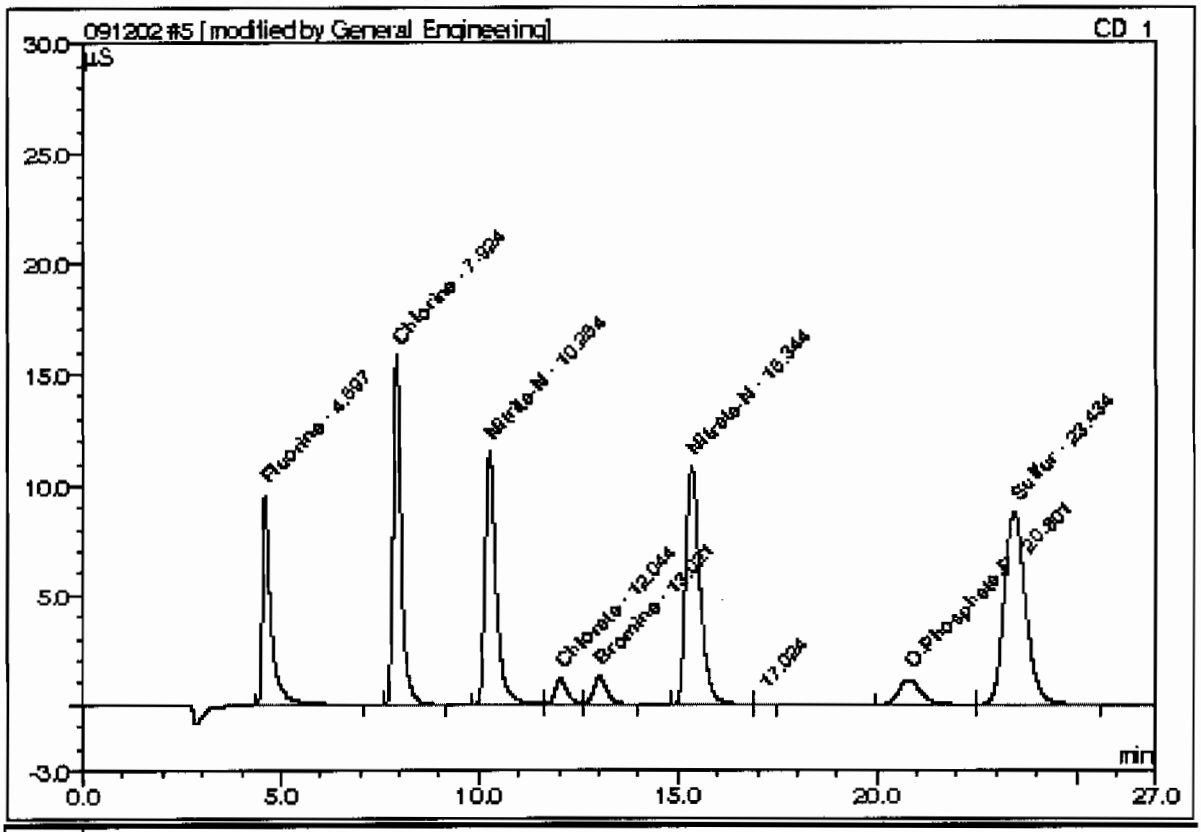

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluorine	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chlorine	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromine	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfur	6.6666	6.1723	*	5.38507	25.22
Total:				38.0531	0.000	21.349	99.99

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

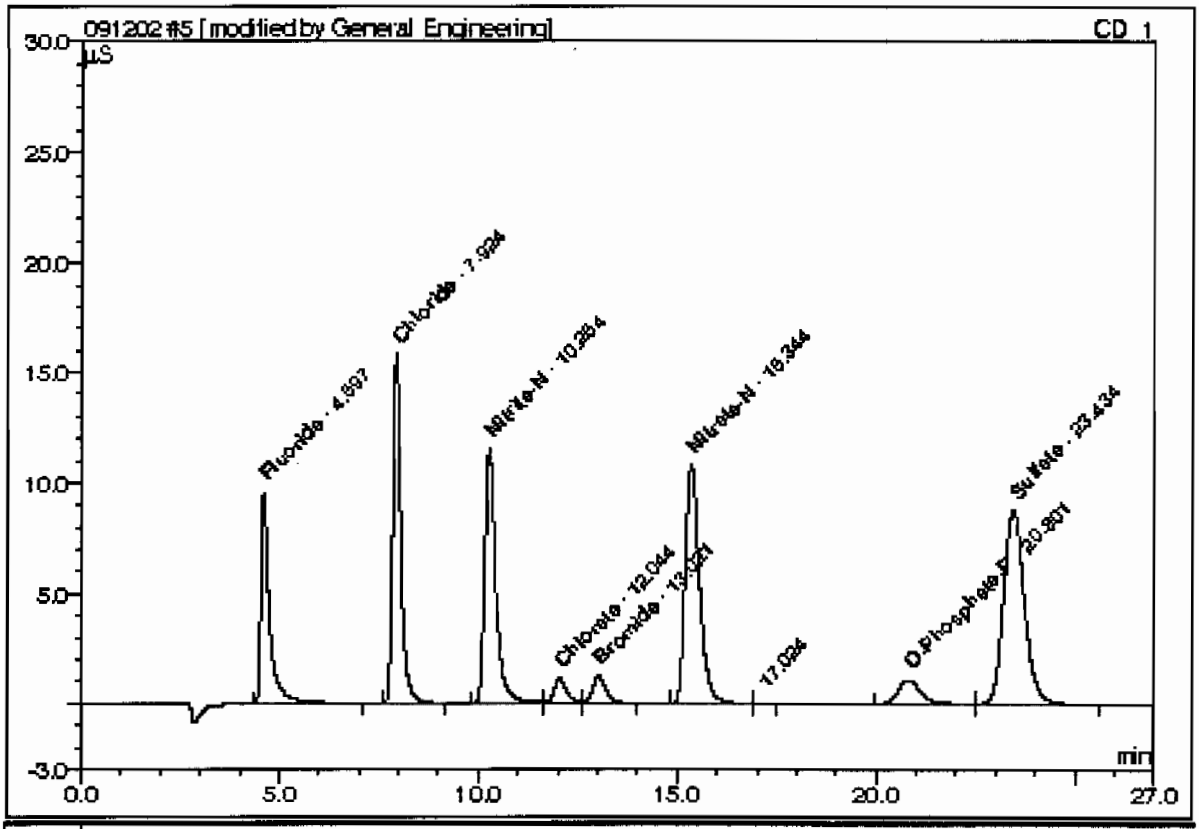

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chloride	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromide	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfate	20.0000	18.5172	*	5.38507	25.22
Total:				50.3979	0.000	21.349	99.99

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

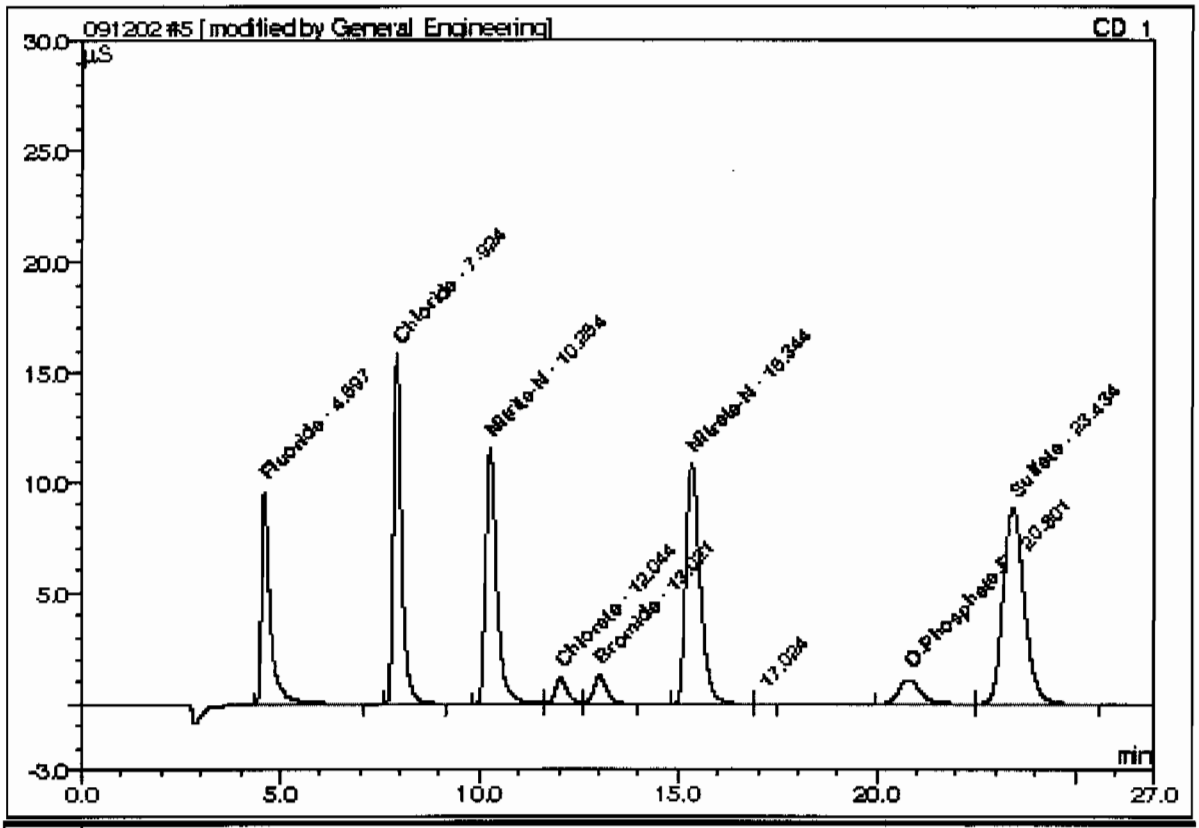

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chloride	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromide	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfate	20.0000	18.5172	*	5.38507	25.22
Total:				50.3979	0.000	21.349	99.99

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

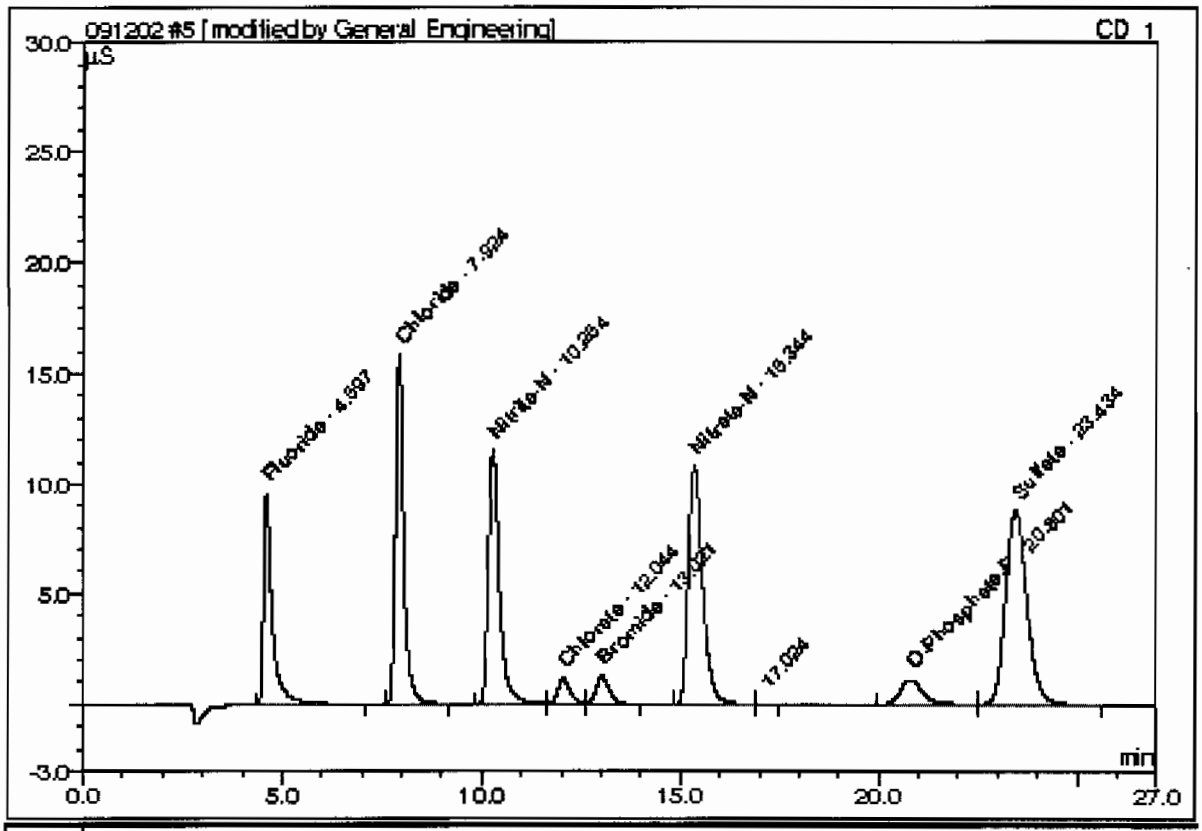

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chloride	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromide	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfate	20.0000	18.5172	*	5.38507	25.22
Total:				50.3979	0.000	21.349	99.99

10 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

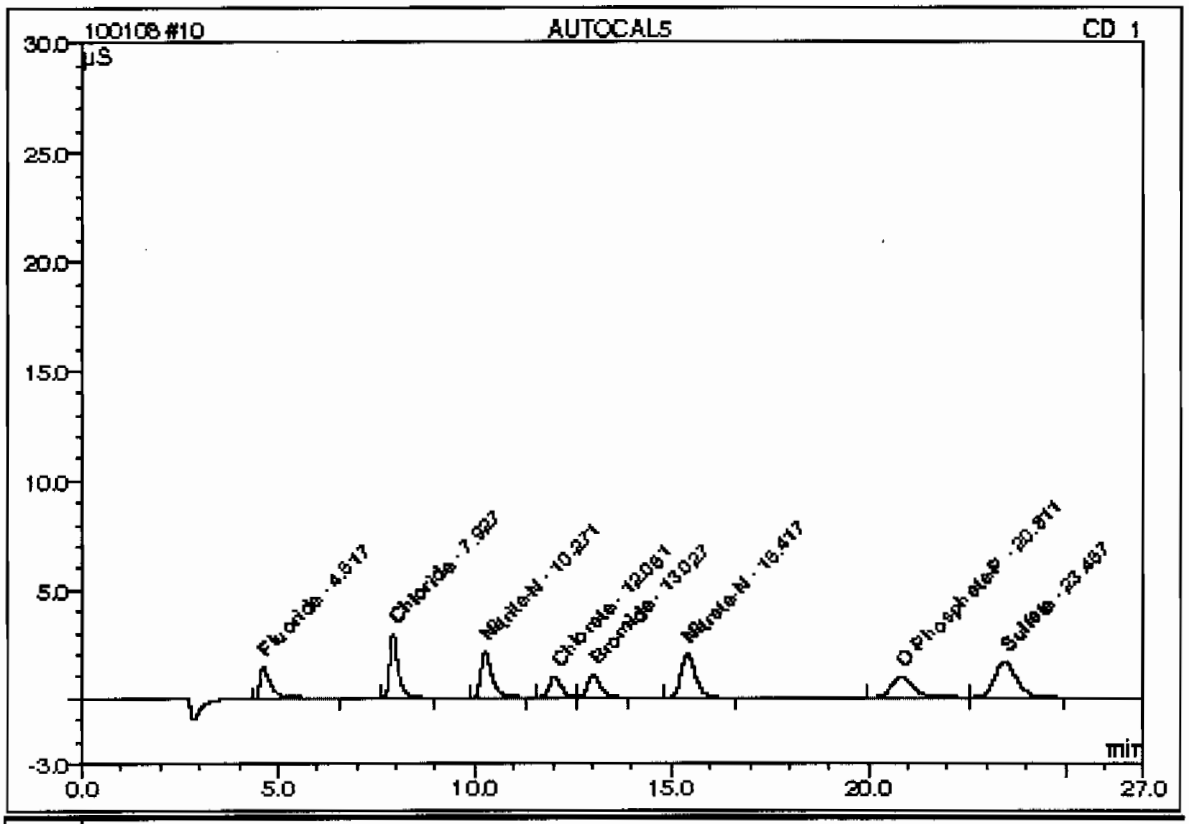

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	1.0000	0.9708		0.49415	9.72
2	7.93	Chloride	2.0000	1.8340		0.73808	14.51
3	10.27	Nitrite-N	1.0000	0.9410		0.67762	13.32
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.55
5	13.03	Bromide	2.5000	2.4949		0.37733	7.42
6	15.42	Nitrate-N	1.0000	0.9364		0.83040	16.33
7	20.81	O-Phosphate-P	2.5000	2.5263		0.60370	11.87
8	23.46	Sulfate	4.0000	3.8252		1.03106	20.27
Total:				15.9820	0.000	5.086	100.00

3 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

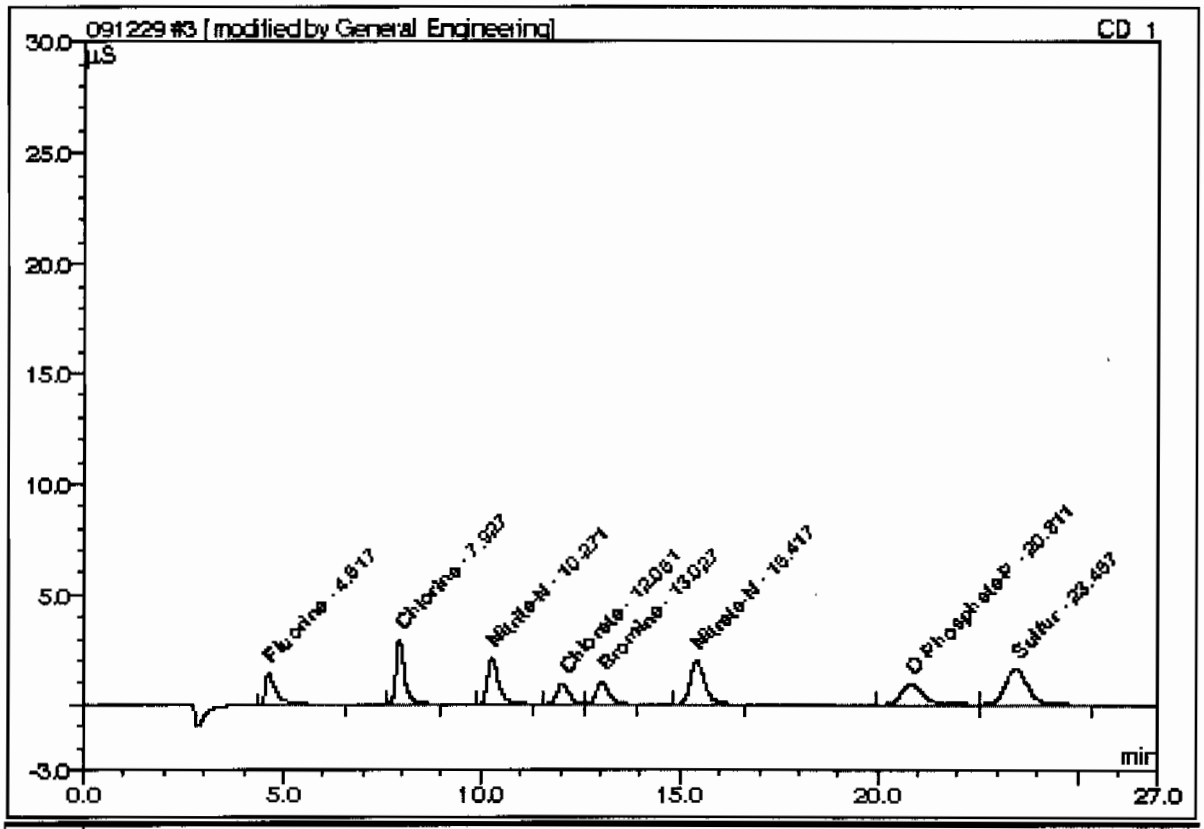

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluorine	1.0000	0.9675		0.49415	9.68
2	7.93	Chlorine	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromine	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129		0.60894	11.93
8	23.46	Sulfur	1.3332	1.2847		1.04645	20.49
Total:				13.4224	0.000	5.106	100.00

3 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

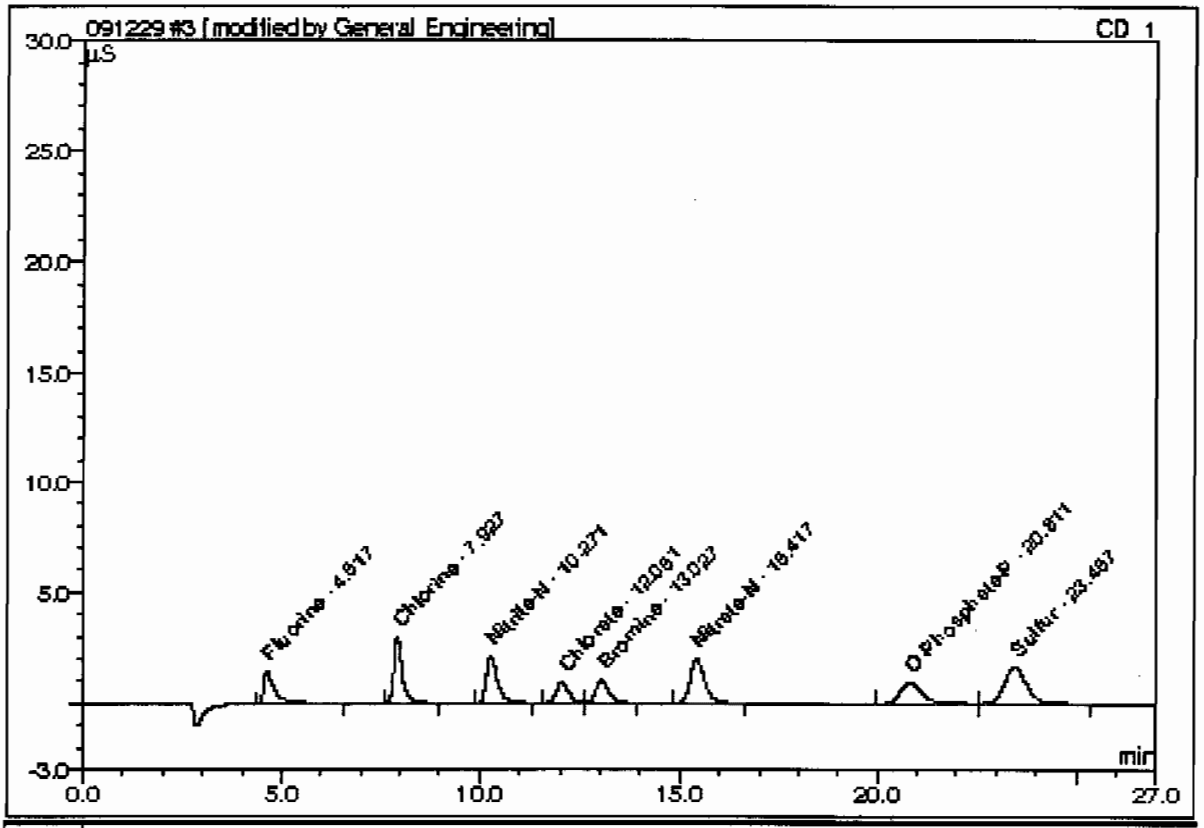

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluorine	1.0000	0.9675		0.49415	9.68
2	7.93	Chlorine	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromine	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129		0.60894	11.93
8	23.46	Sulfur	1.3332	1.2847		1.04645	20.49
Total:				13.4224	0.000	5.106	100.00

3 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

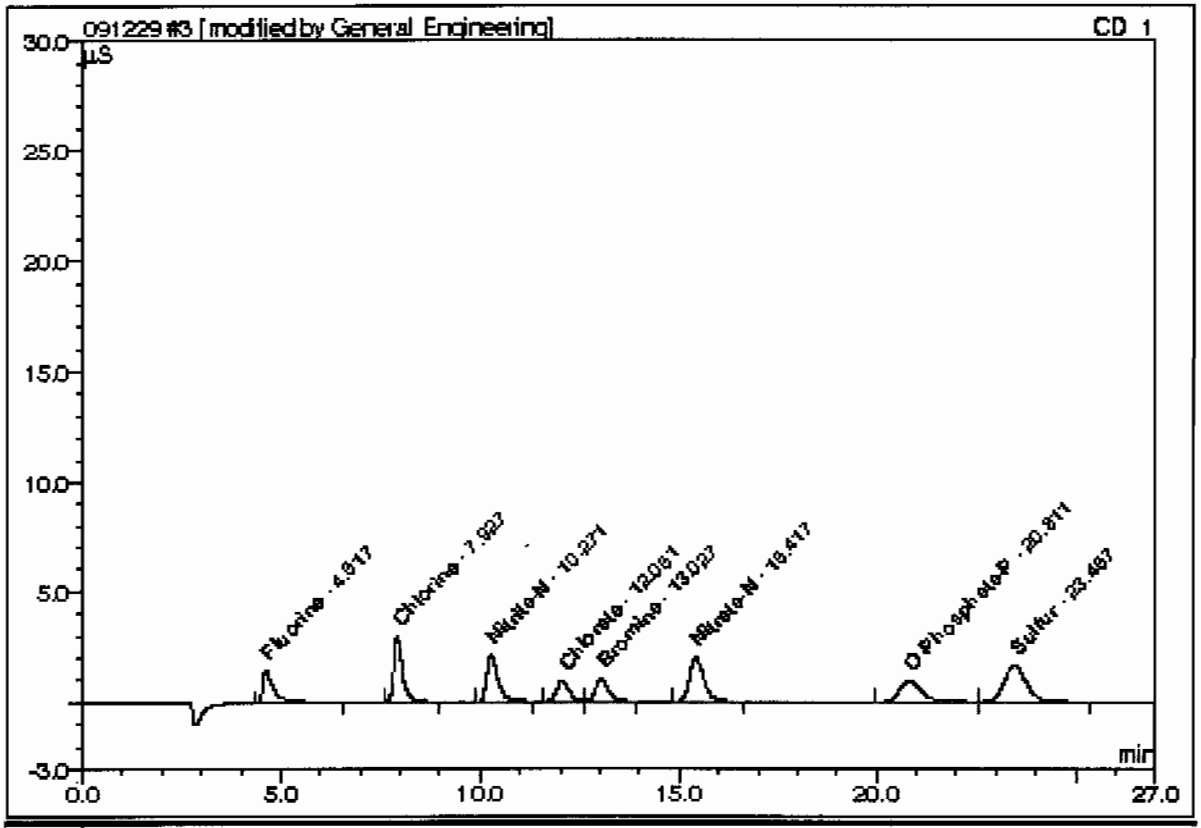

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluorine	1.0000	0.9675		0.49415	9.68
2	7.93	Chlorine	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromine	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	*	0.60894	11.93
8	23.46	Sulfur	1.3332	1.2847	*	1.04645	20.49
Total:				13.4224	0.000	5.106	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

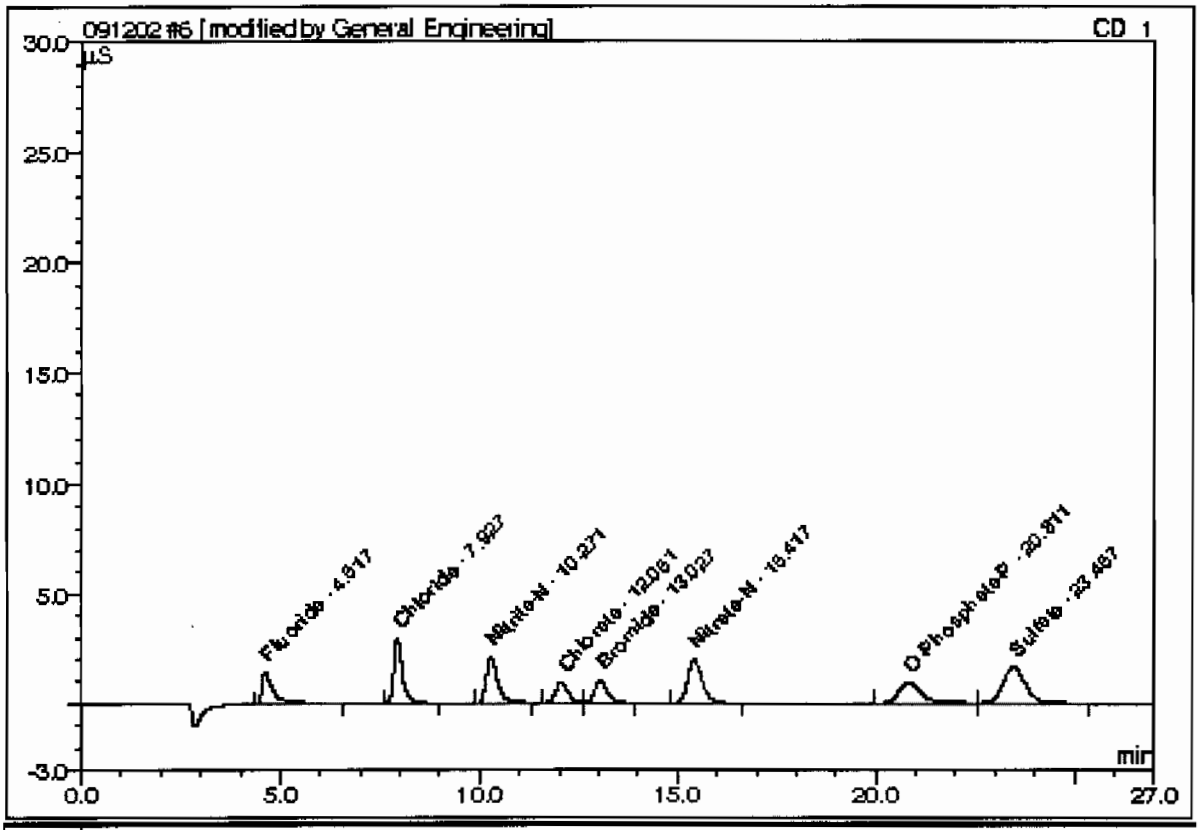

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	1.0000	0.9675		0.49415	9.68
2	7.93	Chloride	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromide	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129		0.60894	11.93
8	23.46	Sulfate	4.0000	3.8543		1.04645	20.49
Total:				15.9920	0.000	5.106	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

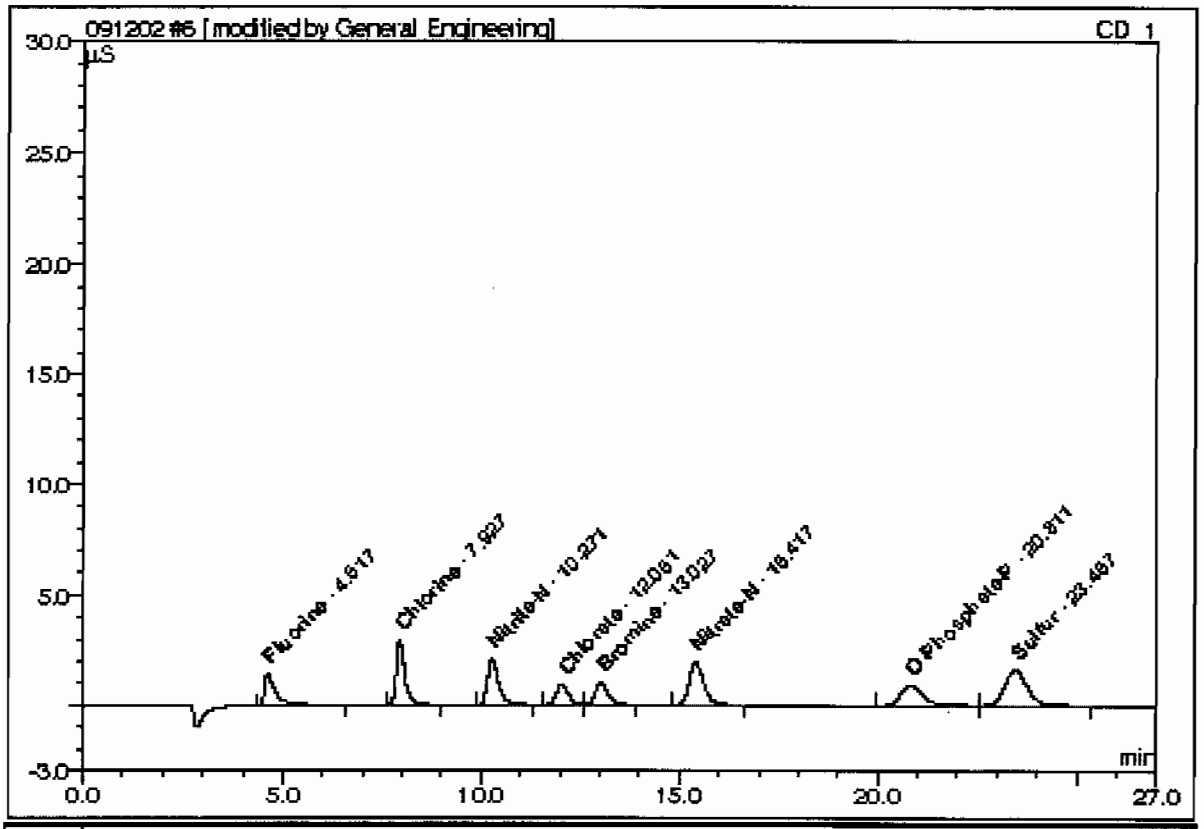

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluorine	1.0000	0.9675		0.49415	9.68
2	7.93	Chlorine	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromine	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129		0.60894	11.93
8	23.46	Sulfur	1.3332	1.2847		1.04645	20.49
Total:				13.4224	0.000	5.106	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

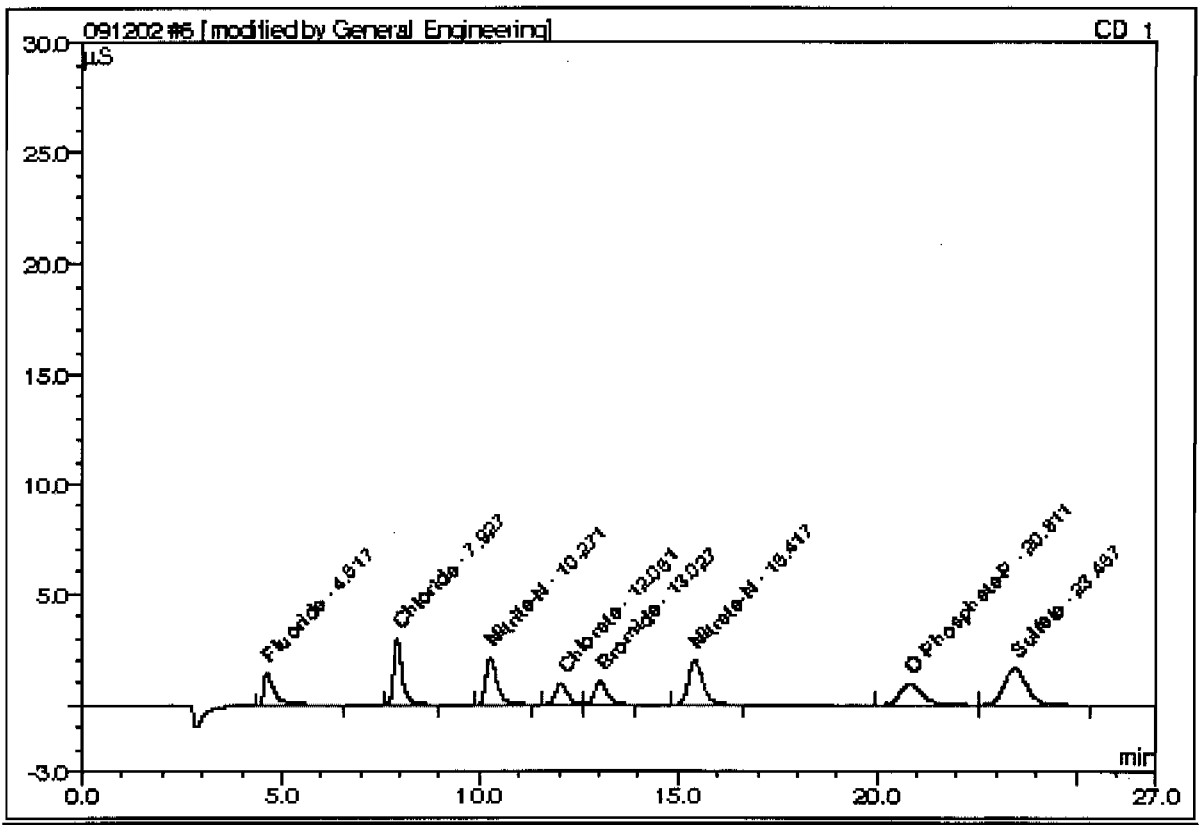

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	1.0000	0.9675		0.49415	9.68
2	7.93	Chloride	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromide	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	*	0.60894	11.93
8	23.46	Sulfate	4.0000	3.8543	*	1.04645	20.49
Total:				15.9920	0.000	5.106	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

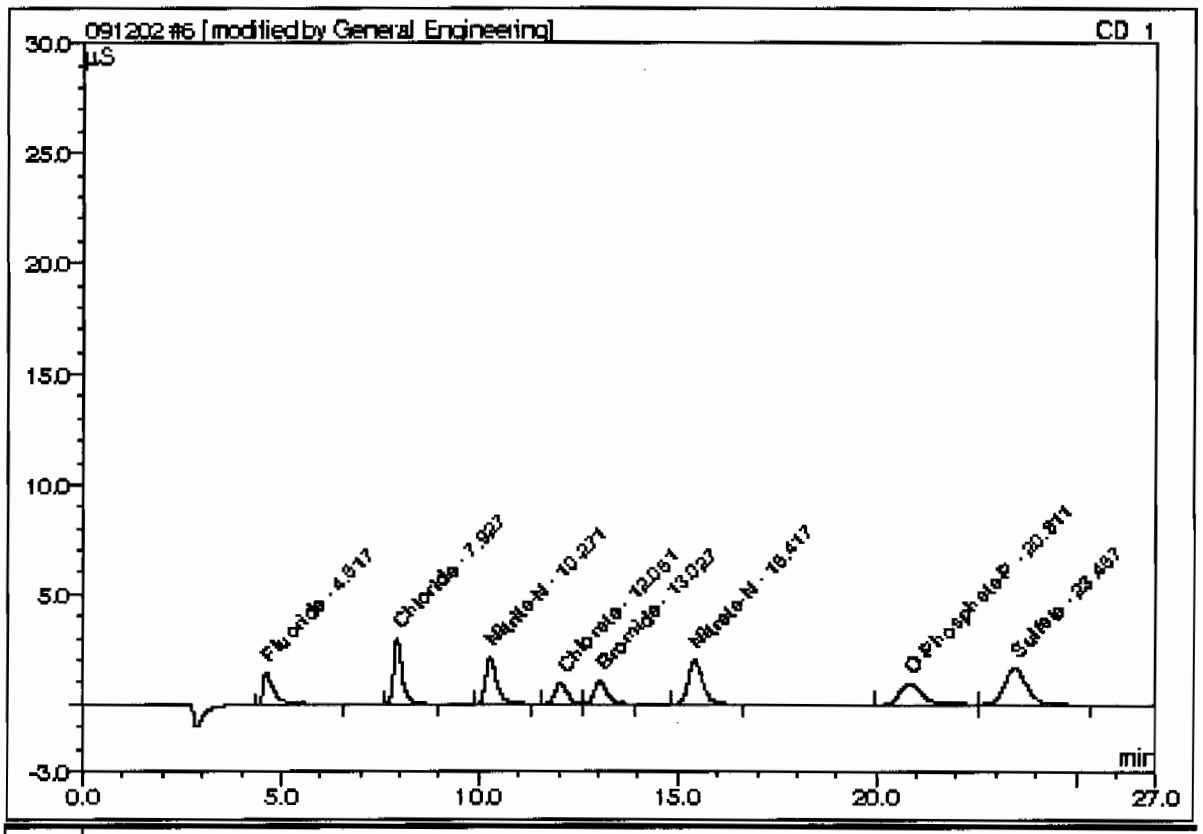

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	1.0000	0.9675		0.49415	9.68
2	7.93	Chloride	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromide	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	`	0.60894	11.93
8	23.46	Sulfate	4.0000	3.8543	`	1.04645	20.49
Total:				15.9920	0.000	5.106	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

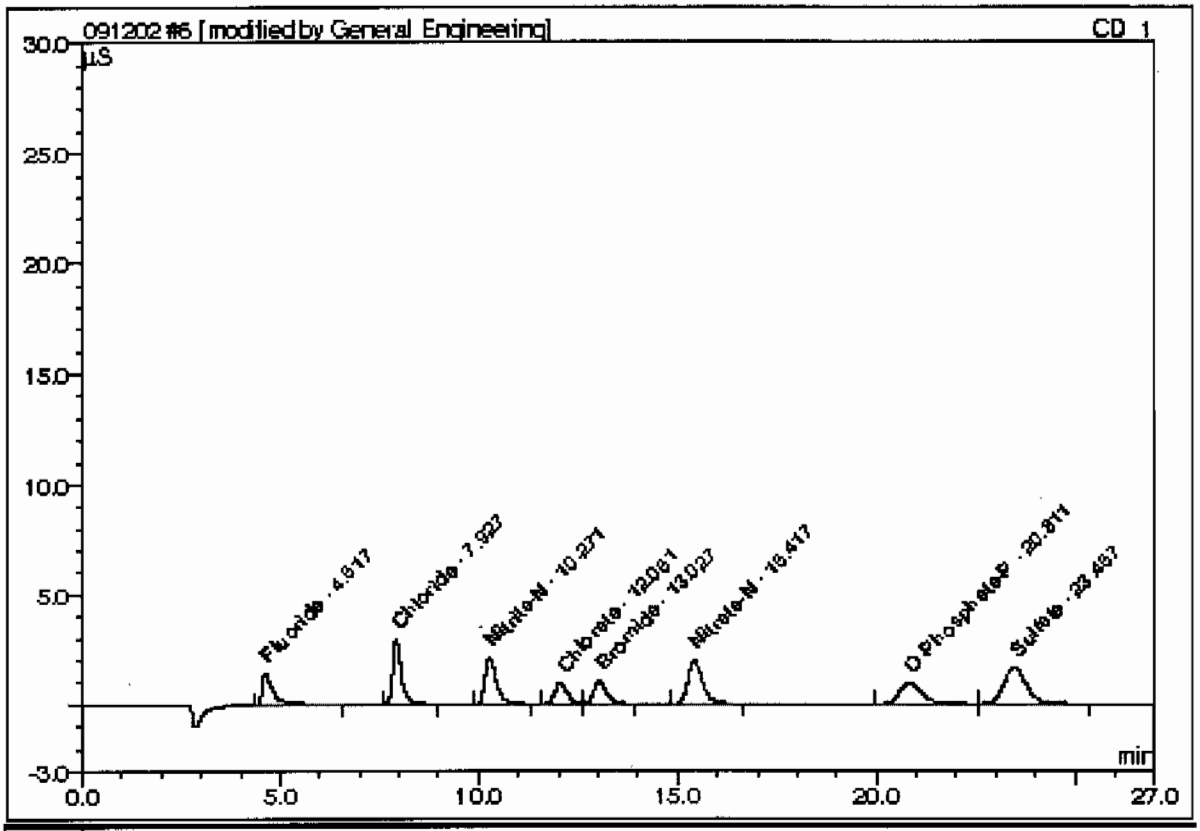

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	1.0000	0.9675		0.49415	9.68
2	7.93	Chloride	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromide	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	*	0.60894	11.93
8	23.46	Sulfate	4.0000	3.8543	*	1.04645	20.49
Total:				15.9920	0.000	5.106	100.00

11 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

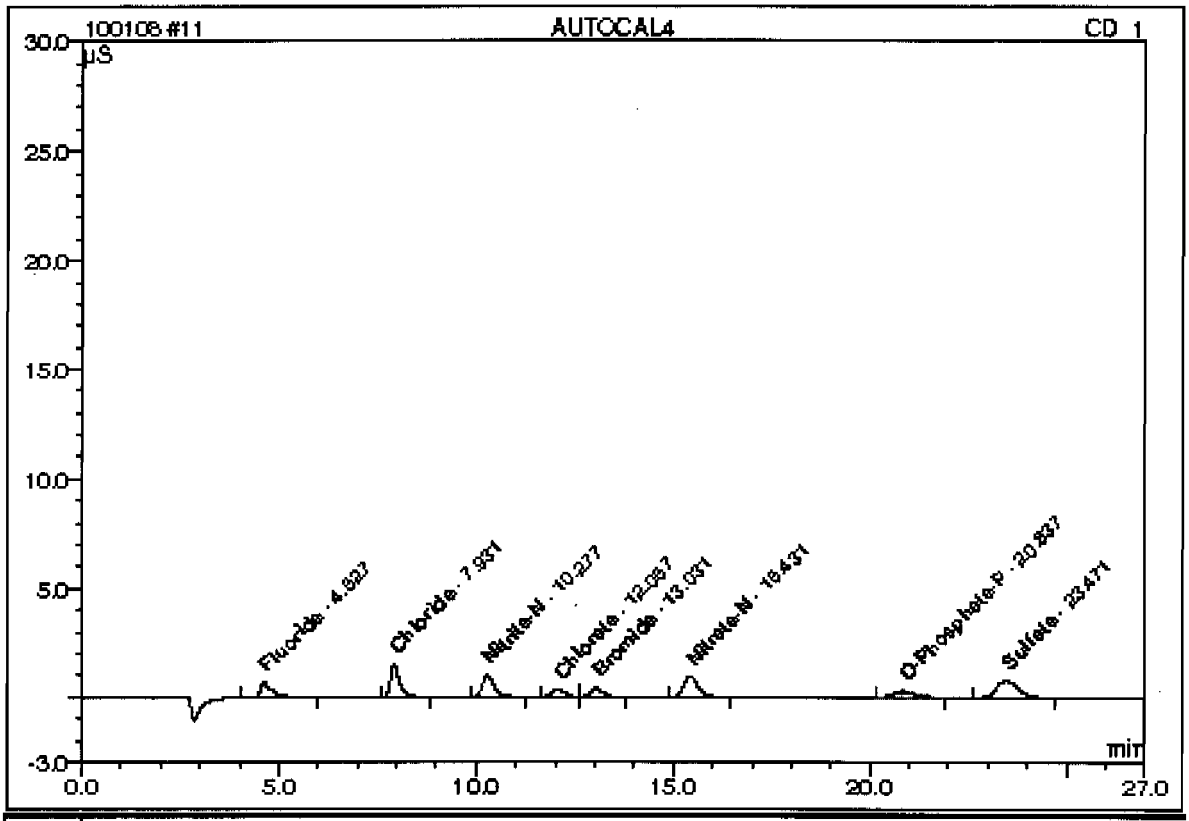

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	0.5000	0.4981		0.24398	10.42
2	7.93	Chloride	1.0000	1.0142		0.39444	16.84
3	10.28	Nitrite-N	0.5000	0.5083		0.33470	14.29
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.49
5	13.03	Bromide	1.0000	0.9854		0.14645	6.25
6	15.43	Nitrate-N	0.5000	0.5157		0.41101	17.55
7	20.84	O-Phosphate-P	1.0000	0.8683		0.17338	7.40
8	23.47	Sulfate	2.0000	2.0626		0.50944	21.75
Total:				7.4221	0.000	2.342	100.00

4 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

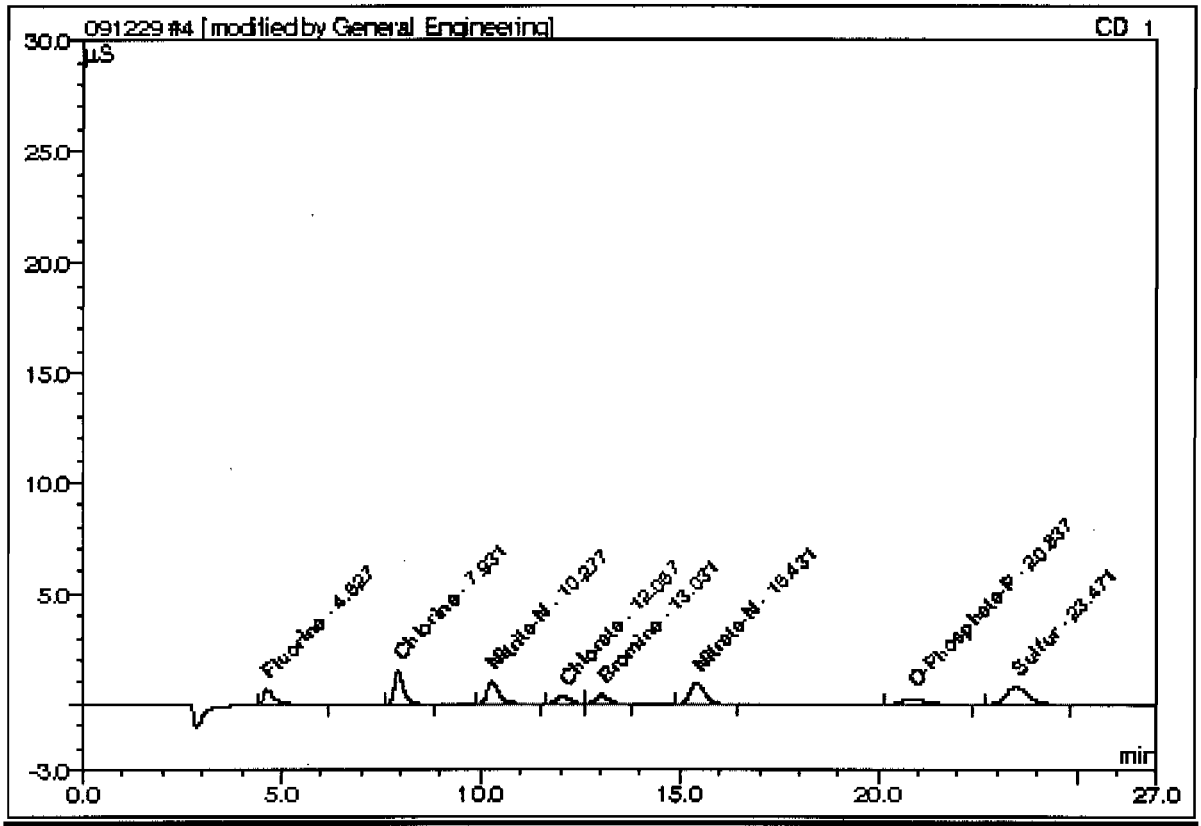

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluorine	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chlorine	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromine	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfur	0.6666	0.6819	*	0.51134	21.72
Total:				6.0576	0.000	2.355	100.00

4 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

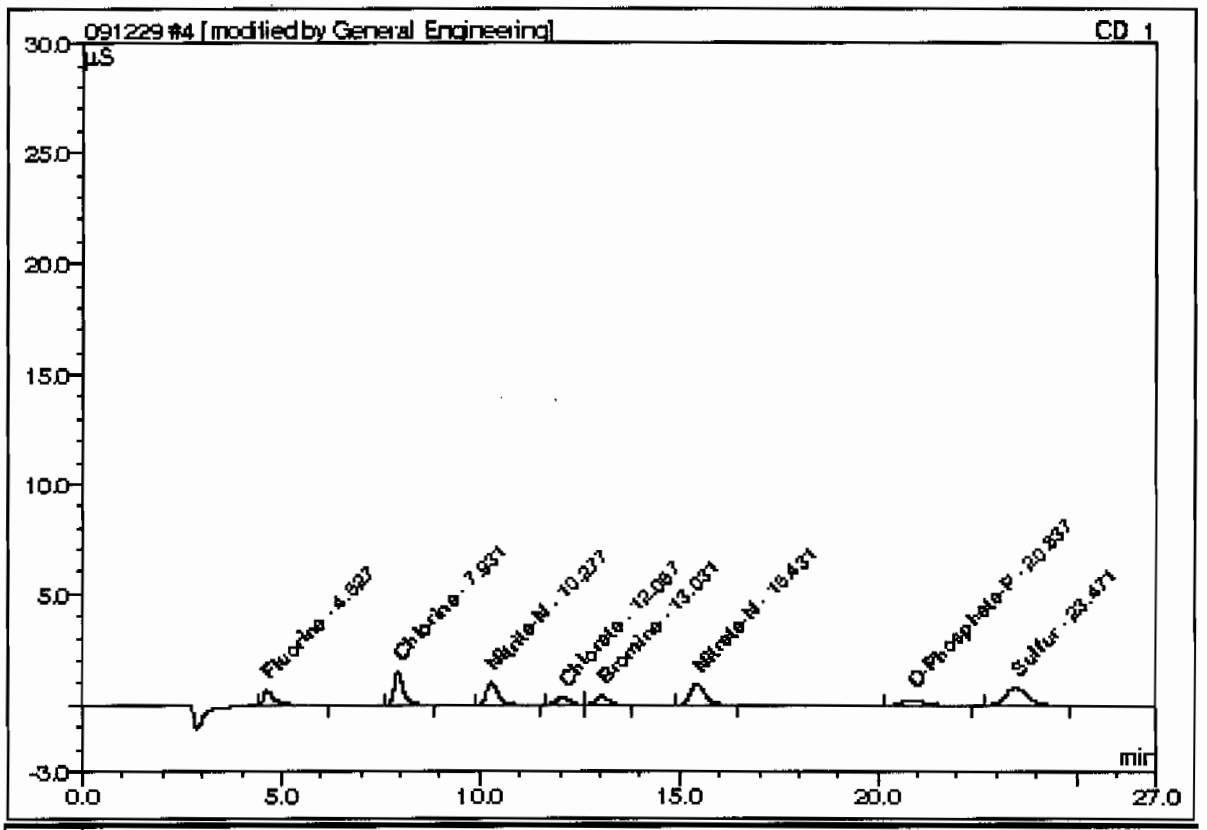

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluorine	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chlorine	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromine	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfur	0.6666	0.6819	*	0.51134	21.72
Total:				6.0576	0.000	2.355	100.00

4 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

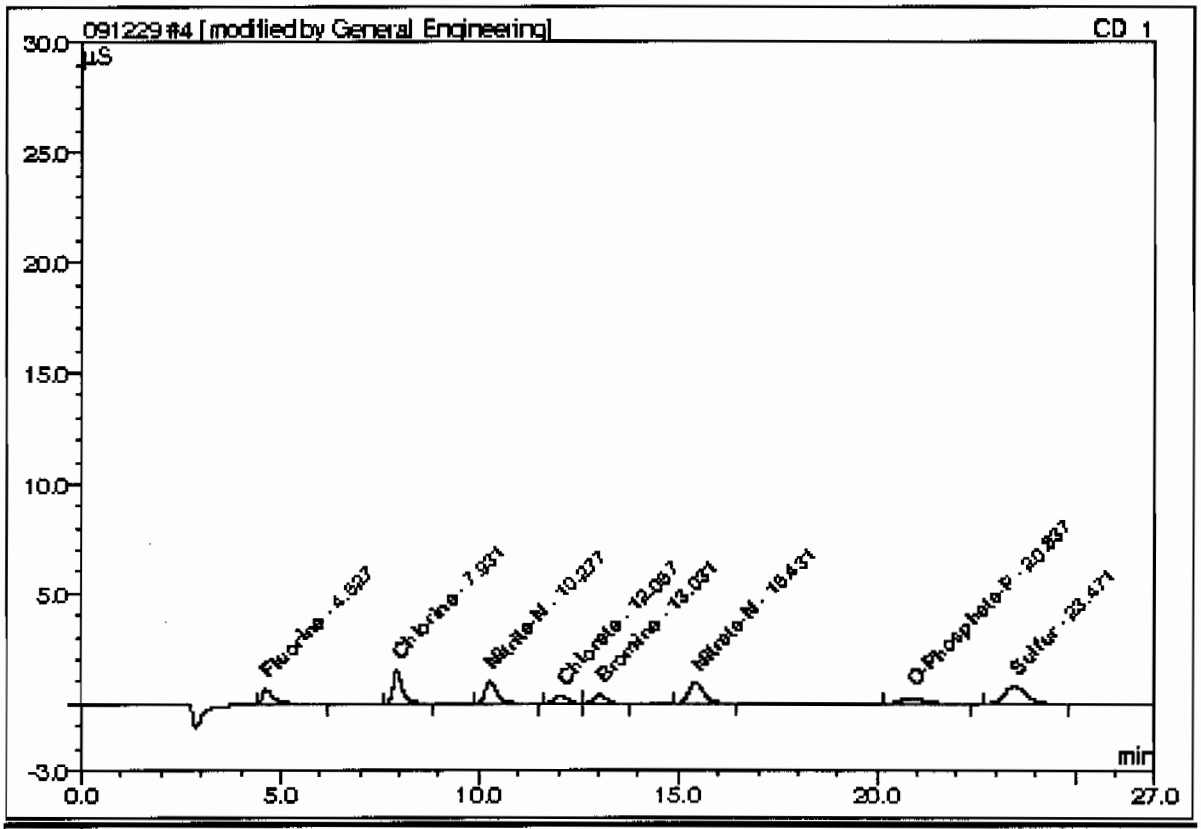

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluorine	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chlorine	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromine	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfur	0.6666	0.6819	*	0.51134	21.72
Total:				6.0576	0.000	2.355	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

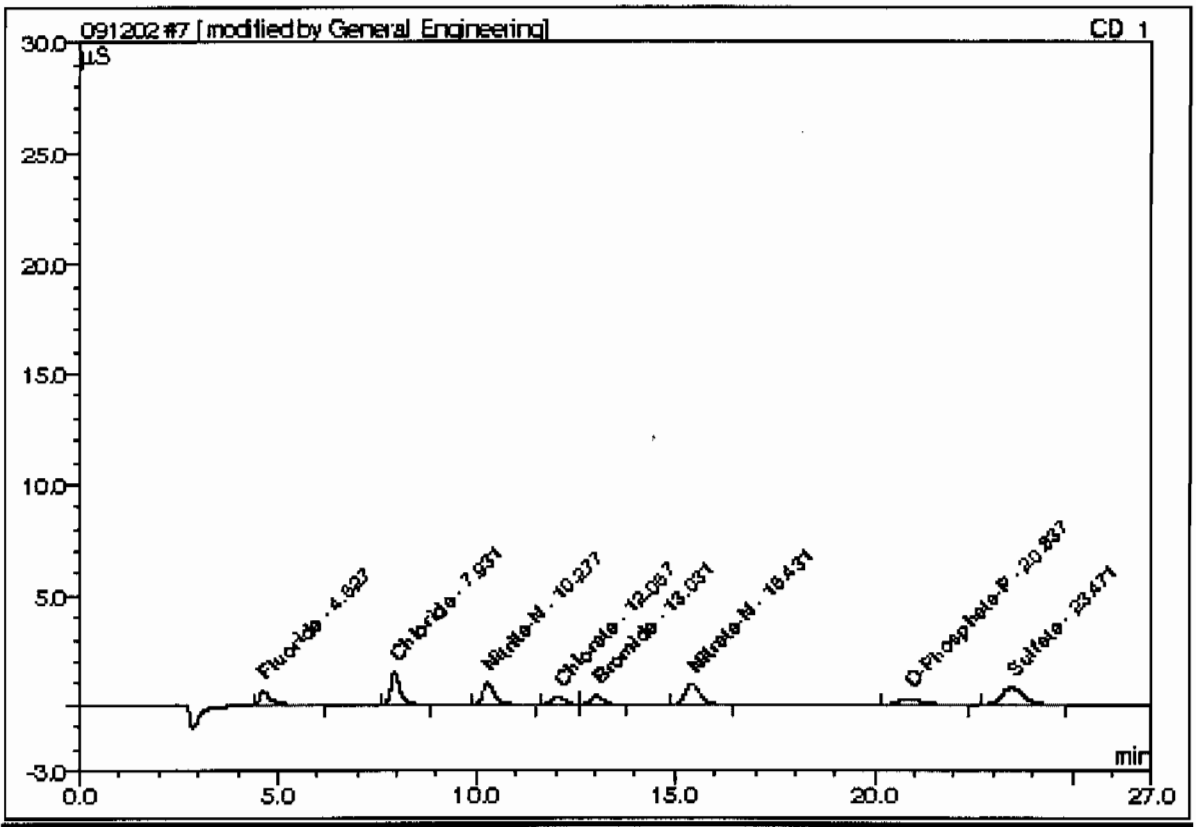

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chloride	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromide	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfate	2.0000	2.0458	*	0.51134	21.72
Total:				7.4215	0.000	2.355	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

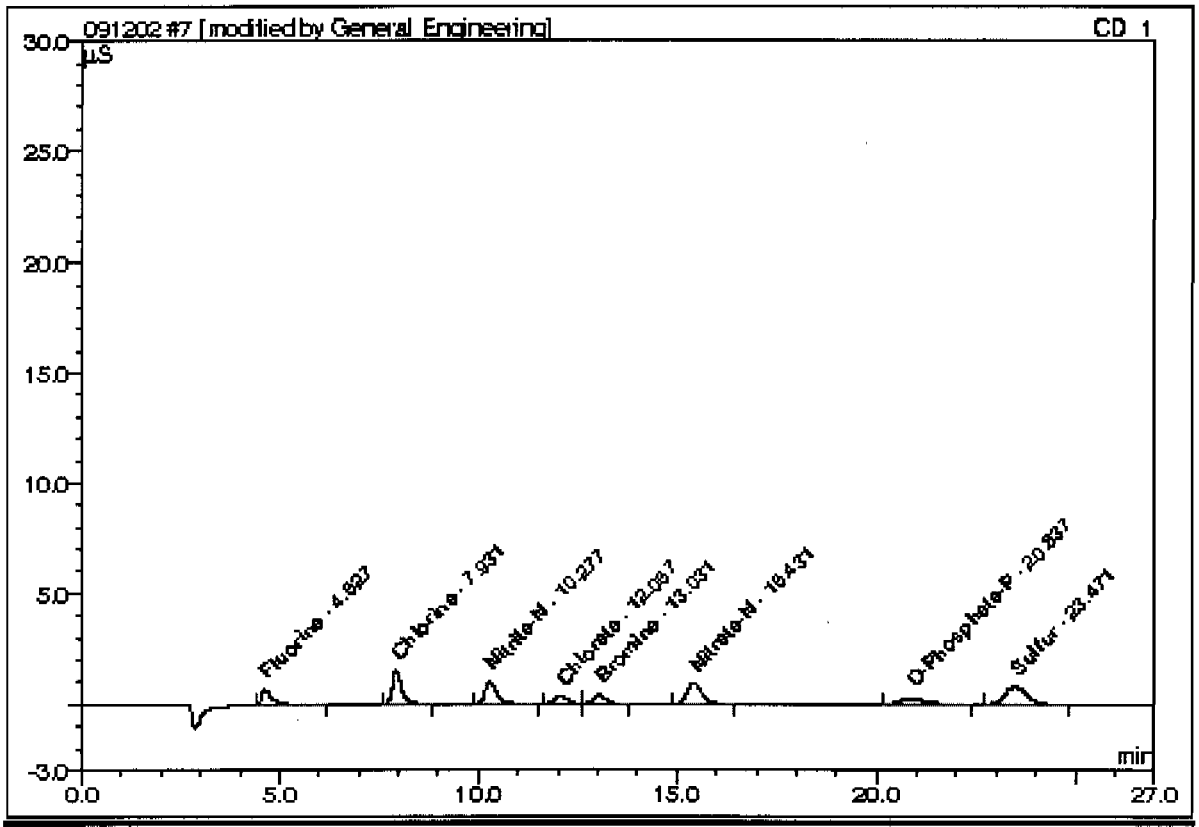

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluorine	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chlorine	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromine	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfur	0.6666	0.6819	*	0.51134	21.72
Total:				6.0576	0.000	2.355	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

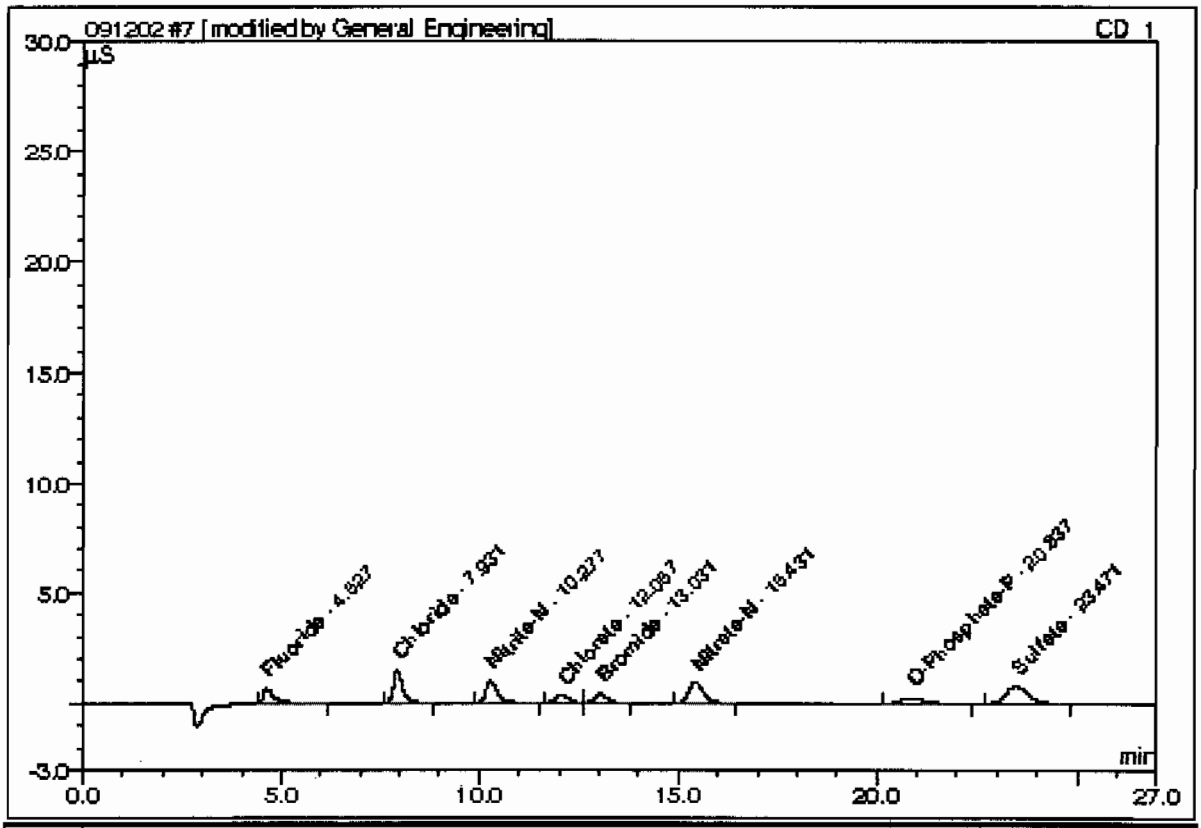

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chloride	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromide	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfate	2.0000	2.0458	*	0.51134	21.72
Total:				7.4215	0.000	2.355	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

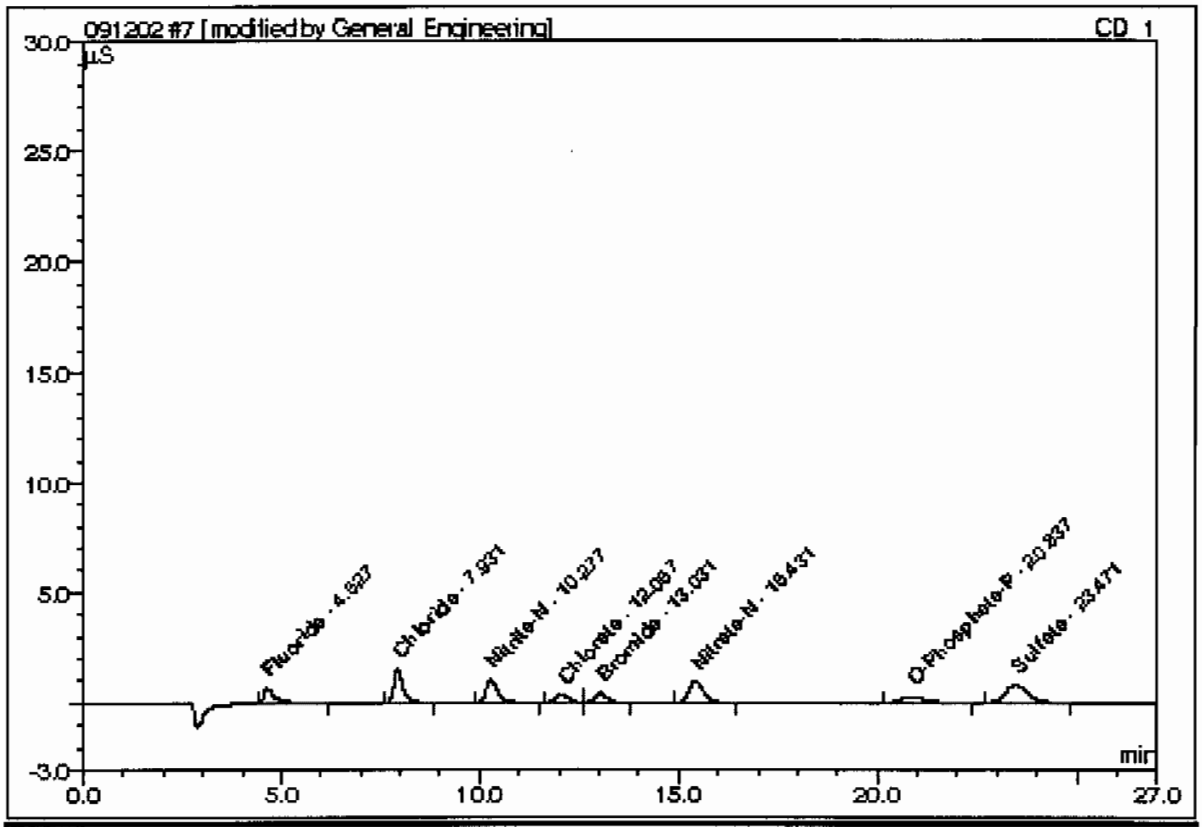

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chloride	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromide	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfate	2.0000	2.0458	*	0.51134	21.72
Total:				7.4215	0.000	2.355	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

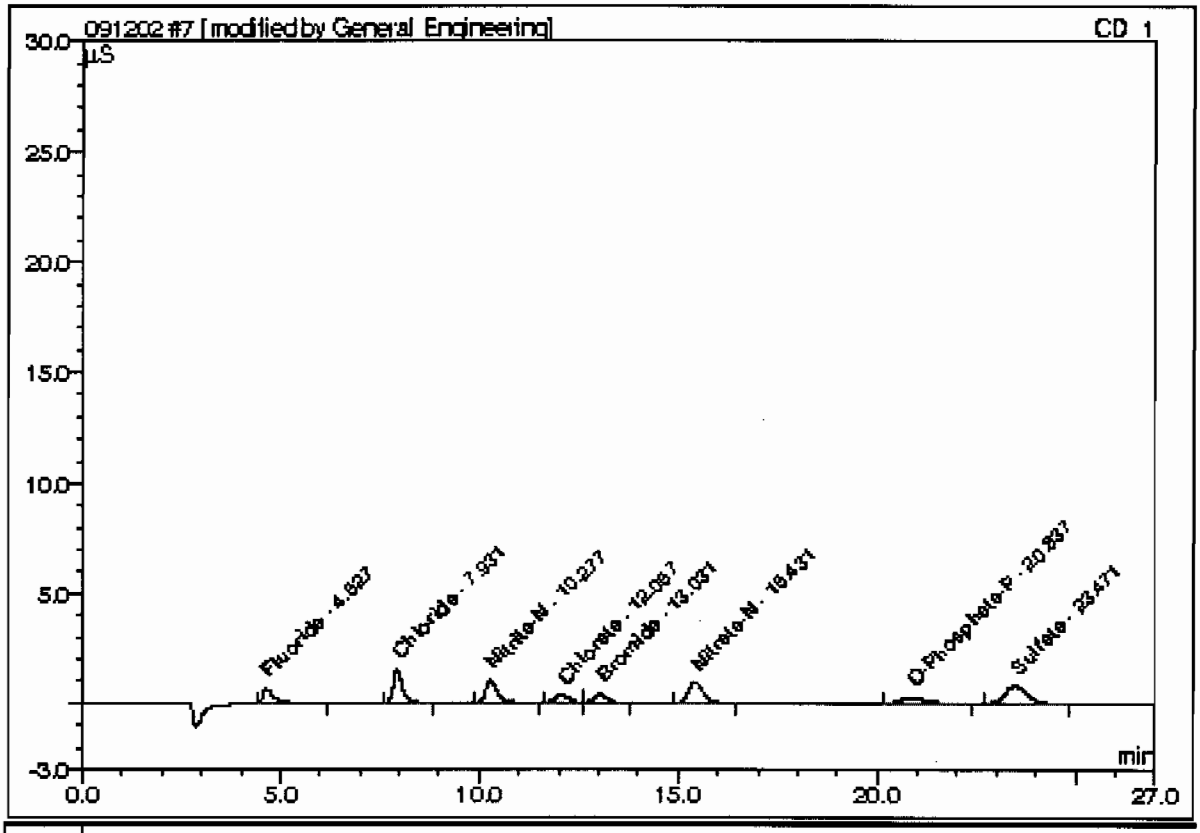

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chloride	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromide	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfate	2.0000	2.0458	*	0.51134	21.72
Total:				7.4215	0.000	2.355	100.00

12 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

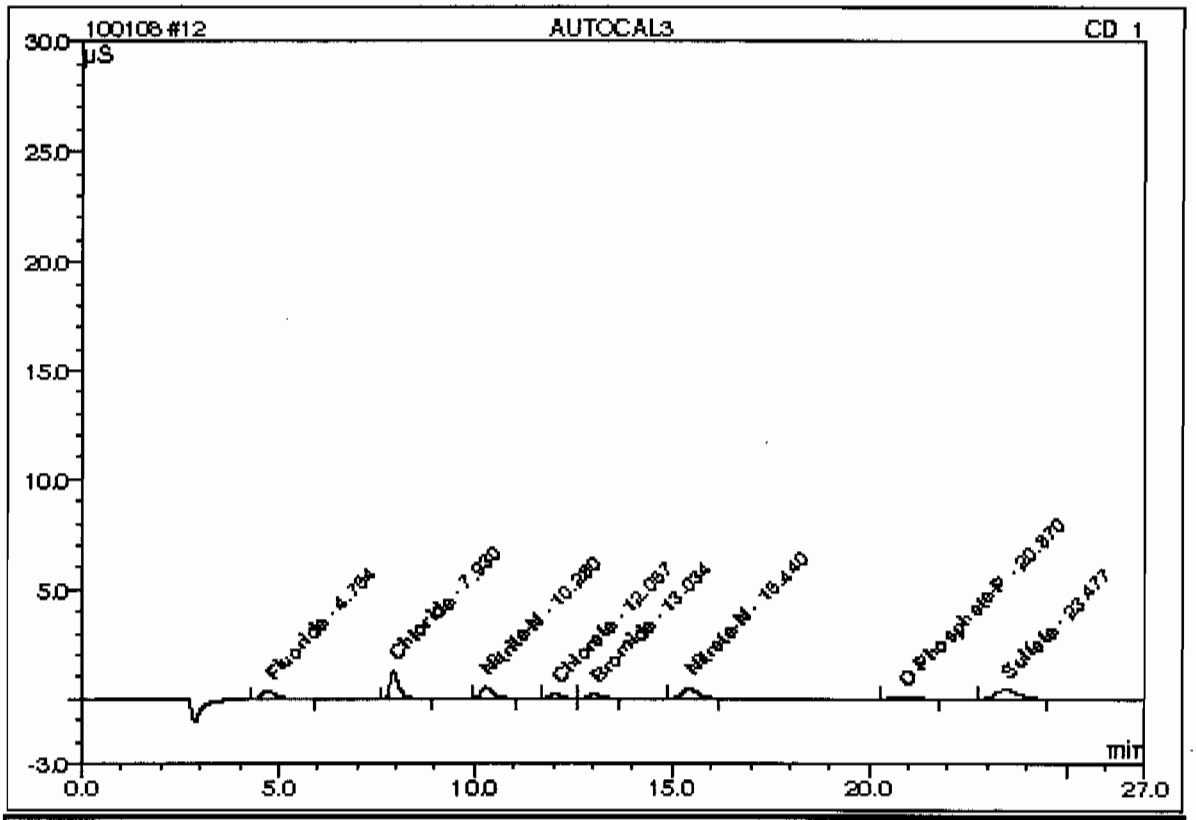

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluoride	0.2500	0.3529		0.16713	12.64
2	7.93	Chloride	0.5000	0.8672		0.33283	25.17
3	10.28	Nitrite-N	0.2500	0.2920		0.16336	12.35
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.79
5	13.03	Bromide	0.5000	0.4916		0.07093	5.36
6	15.44	Nitrate-N	0.2500	0.3094		0.20536	15.53
7	20.87	O-Phosphate-P	0.5000	0.4202		0.05708	4.32
8	23.48	Sulfate	1.0000	1.2280		0.26247	19.85
Total:				4.4590	0.000	1.322	100.00

5 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

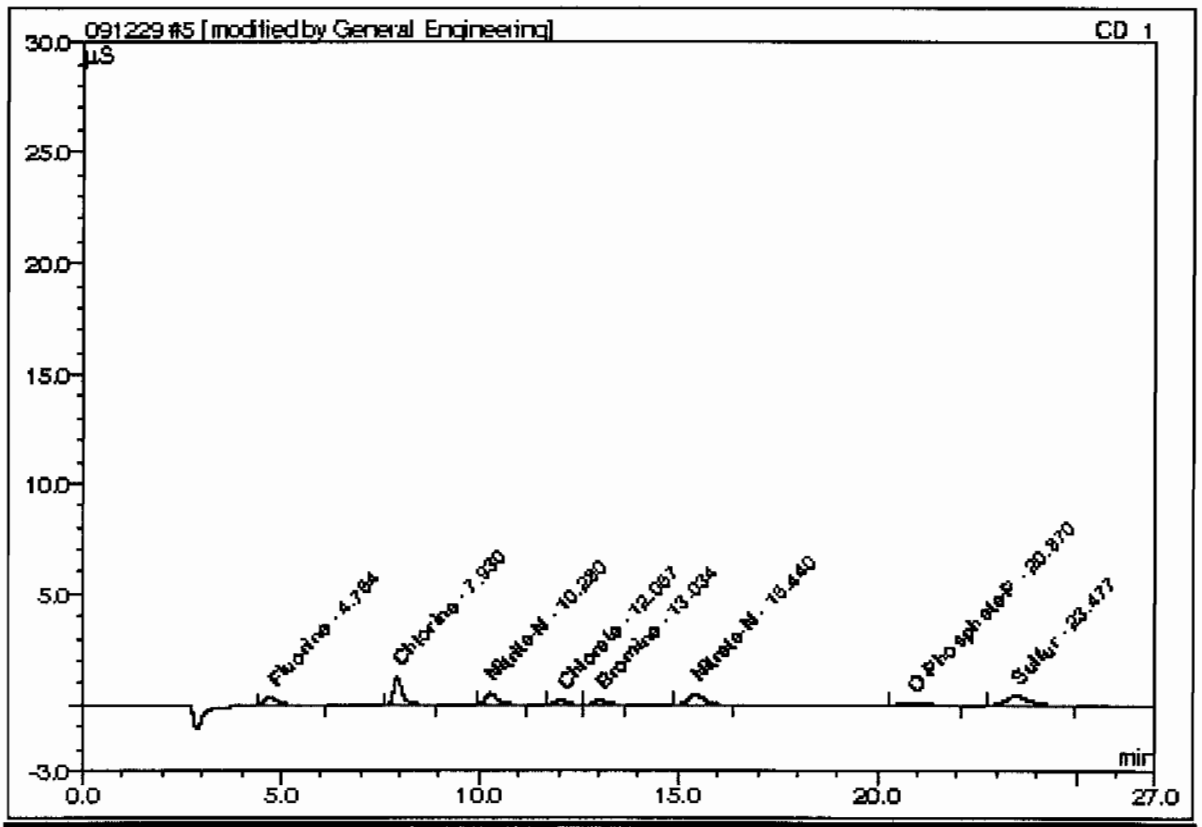

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluorine	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chlorine	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromine	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfur	0.3333	0.4118	*	0.27160	20.29
Total:				3.6484	0.000	1.338	100.00

5 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

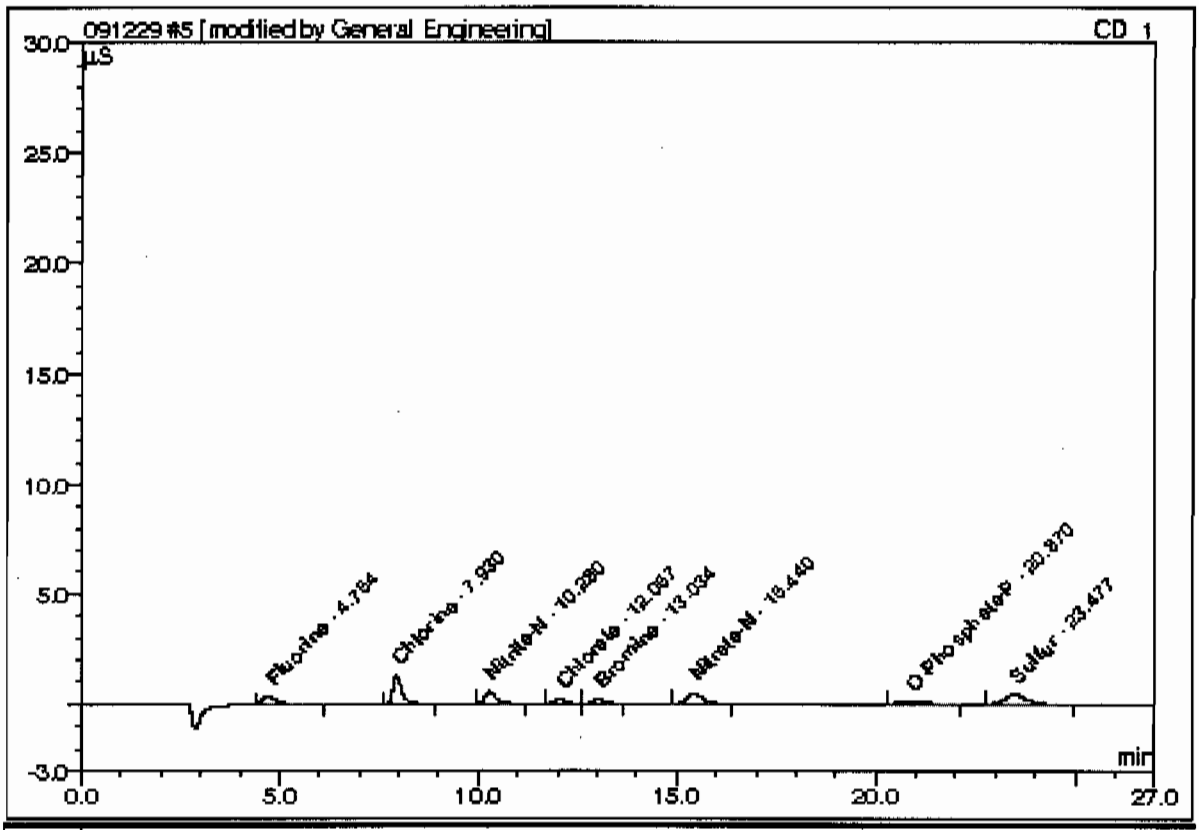

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluorine	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chlorine	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromine	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfur	0.3333	0.4118	*	0.27160	20.29
Total:				3.6484	0.000	1.338	100.00

5 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

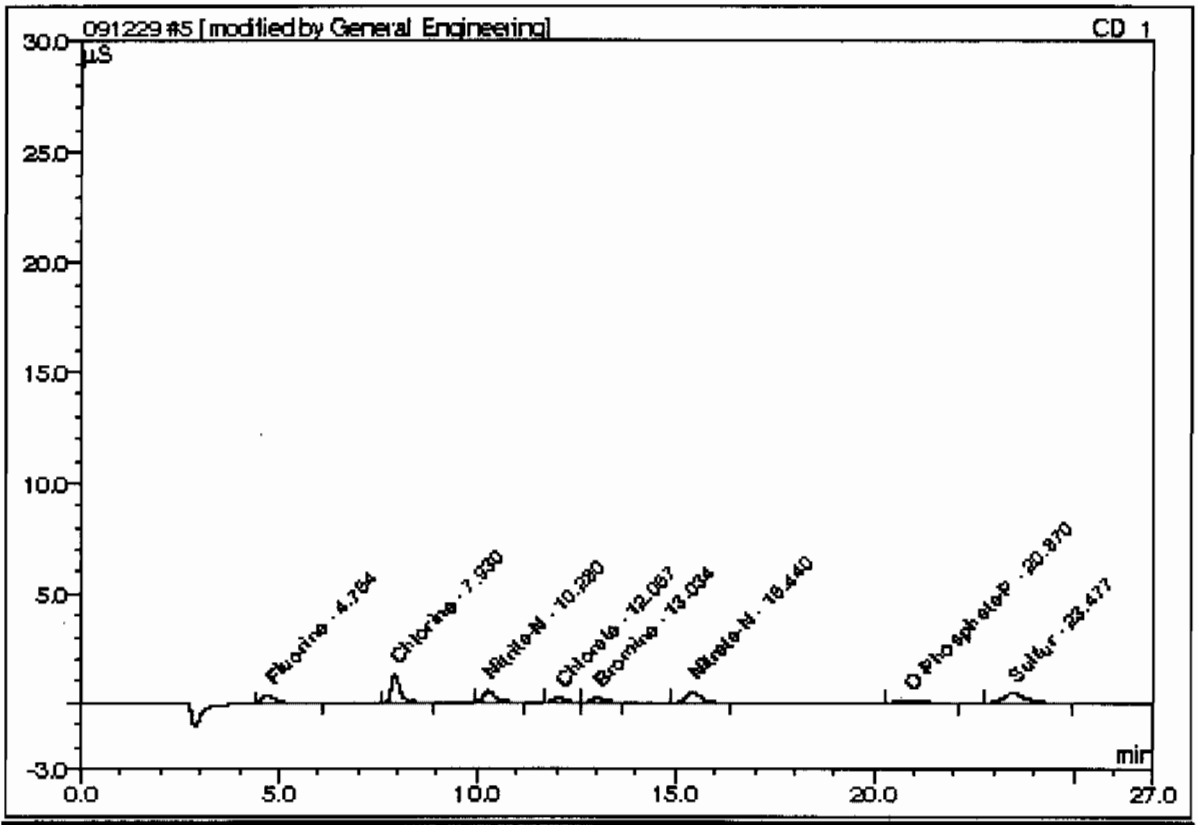

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluorine	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chlorine	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromine	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfur	0.3333	0.4118	*	0.27160	20.29
Total:				3.6484	0.000	1.338	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

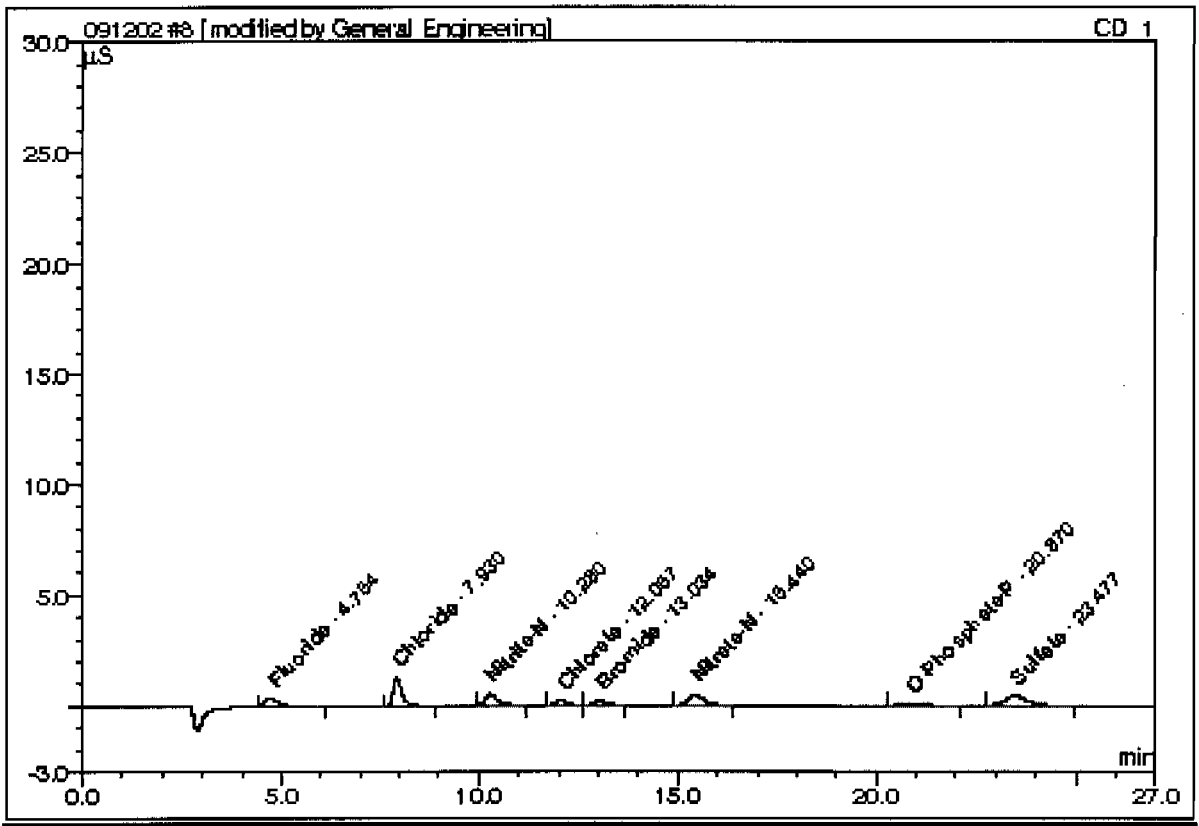

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluoride	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chloride	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromide	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfate	1.0000	1.2356	*	0.27160	20.29
Total:				4.4722	0.000	1.338	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

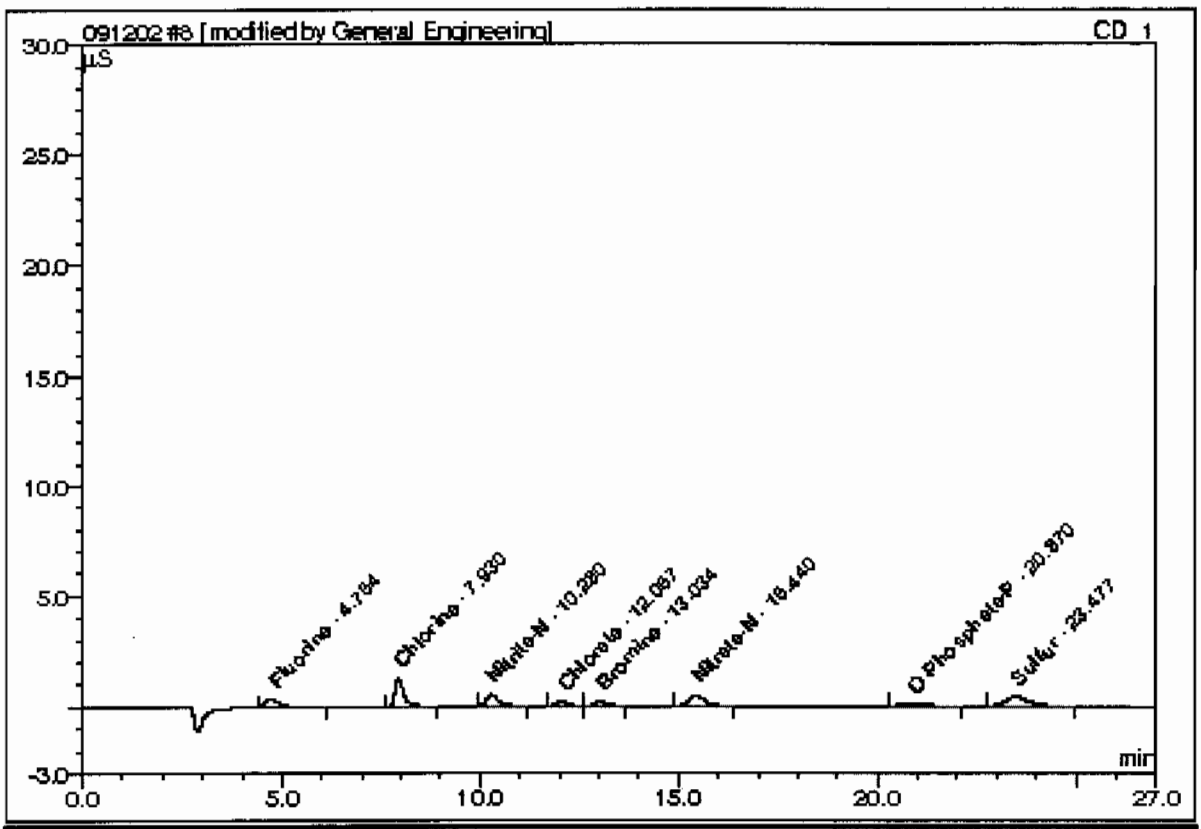

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluorine	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chlorine	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromine	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfur	0.3333	0.4118	*	0.27160	20.29
Total:				3.6484	0.000	1.338	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

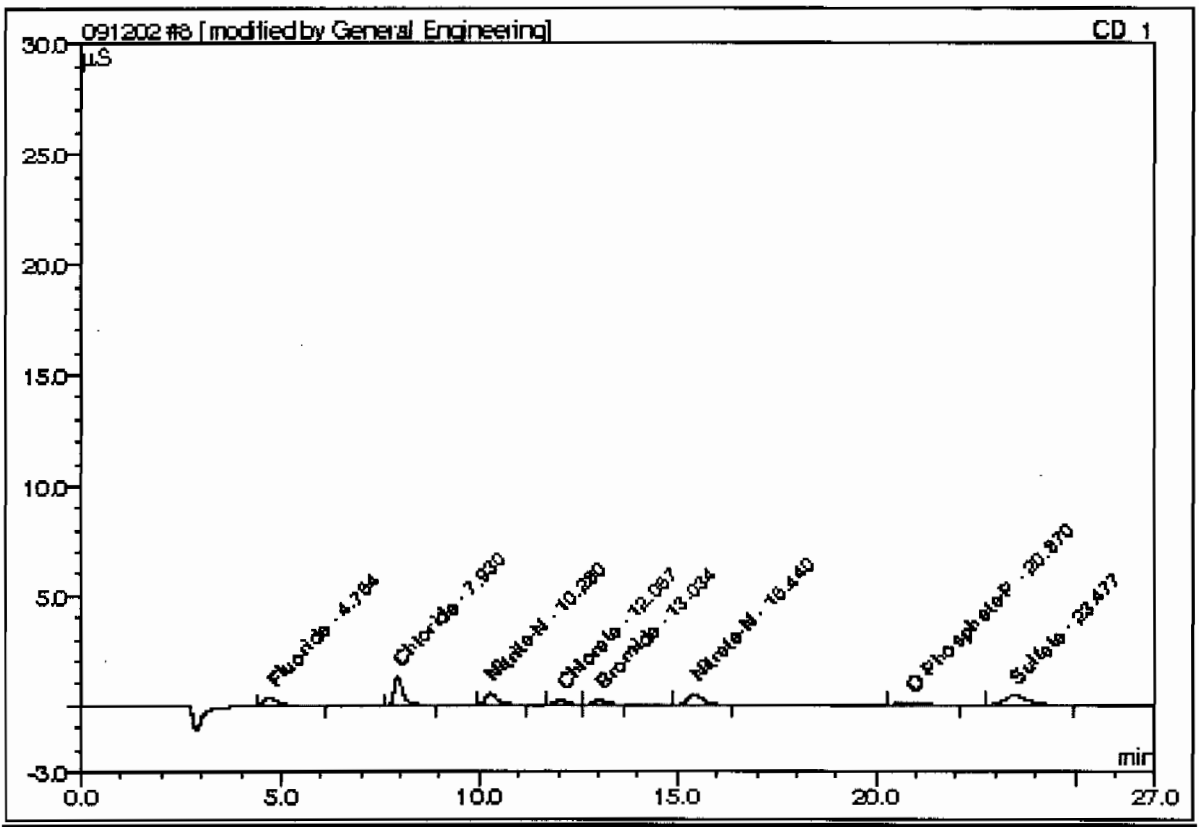

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluoride	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chloride	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromide	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfate	1.0000	1.2356	*	0.27160	20.29
Total:				4.4722	0.000	1.338	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

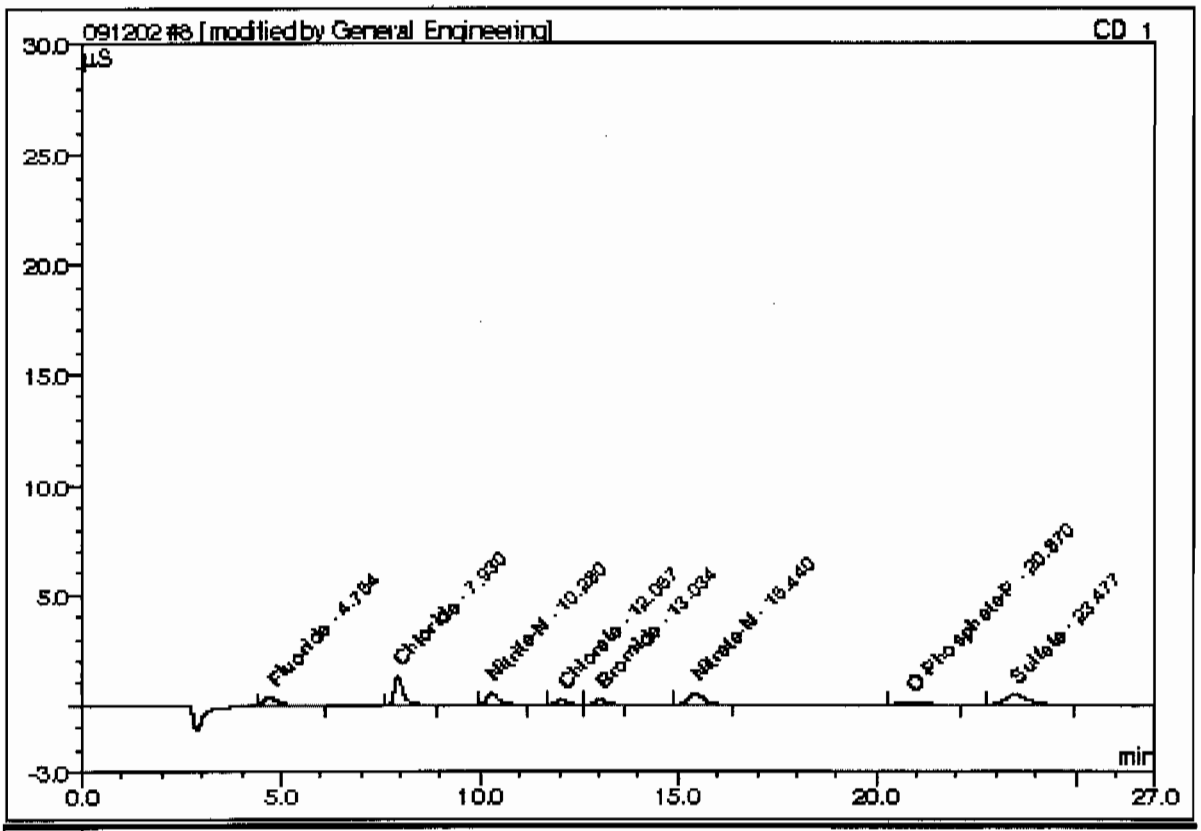

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluoride	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chloride	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromide	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfate	1.0000	1.2356	*	0.27160	20.29
Total:				4.4722	0.000	1.338	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

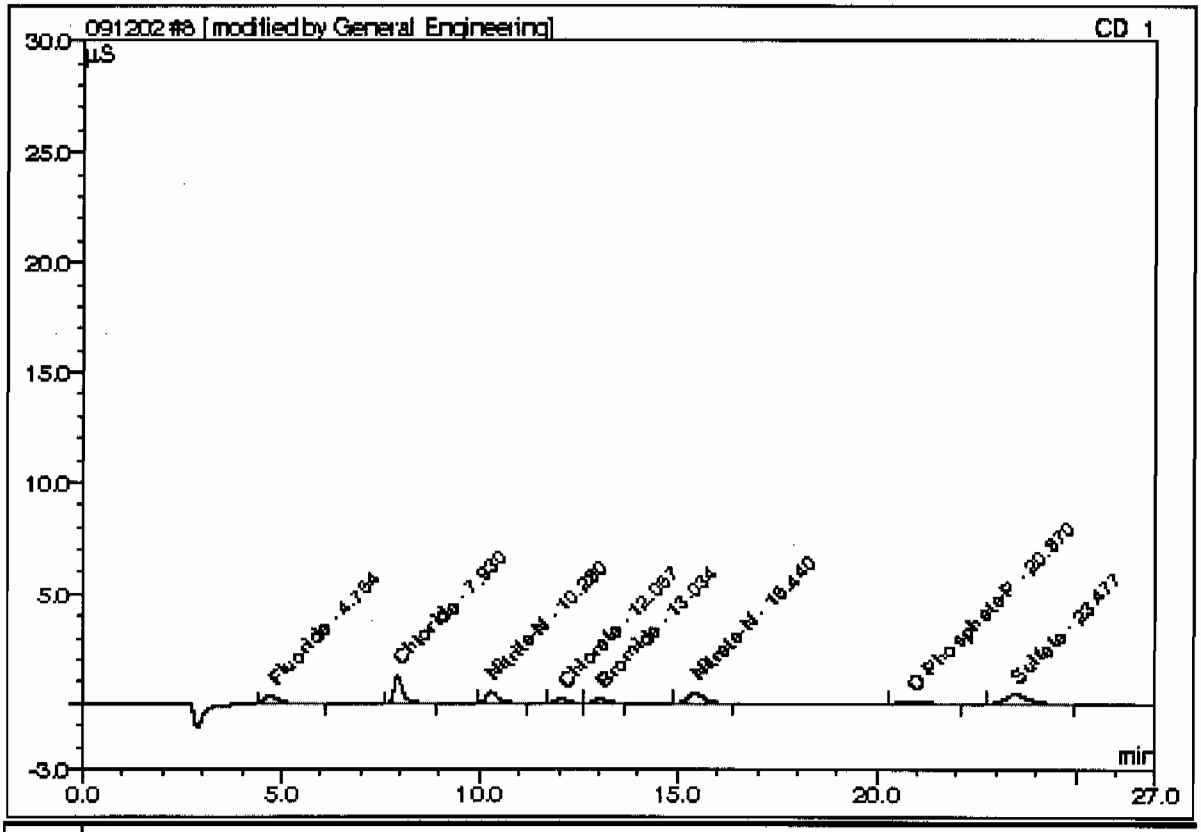

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluoride	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chloride	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromide	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfate	1.0000	1.2356	*	0.27160	20.29
Total:				4.4722	0.000	1.338	100.00

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

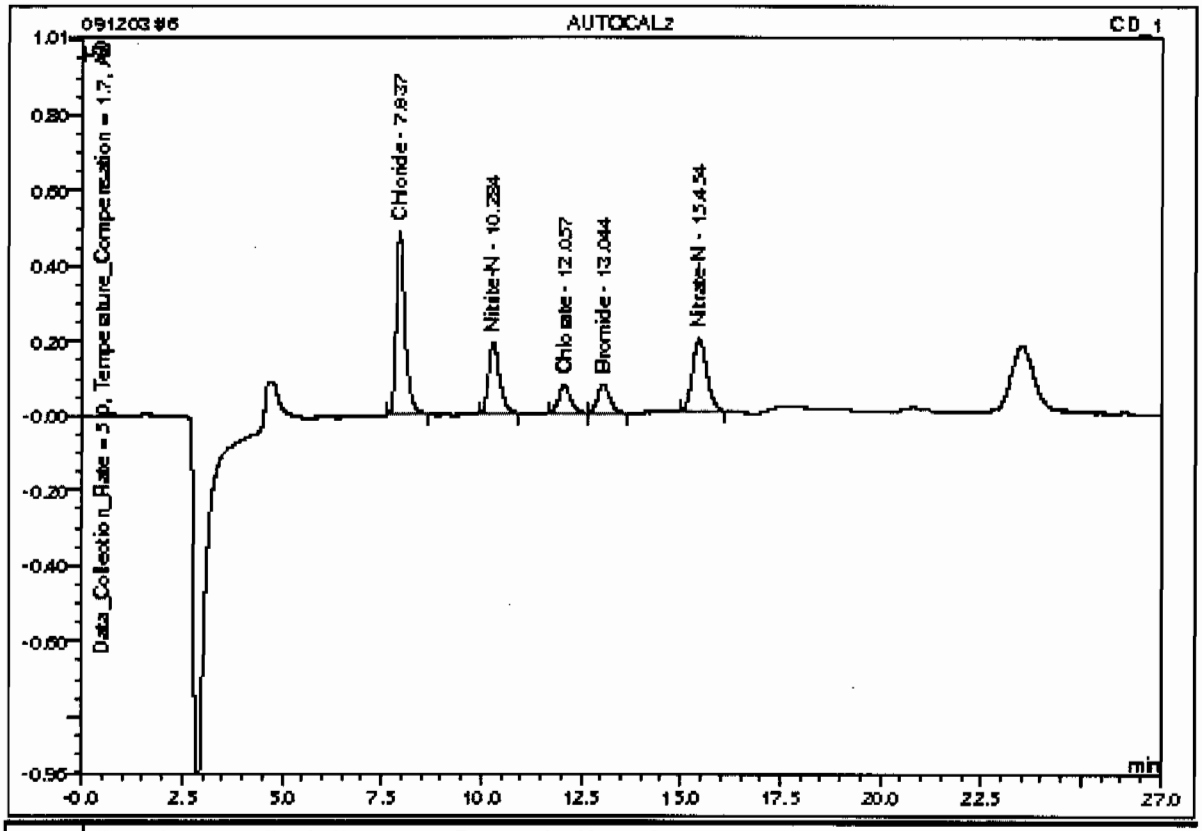

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	0.1000	n.a.	n.a.	n.a.	n.a.
1	7.94	Chloride	0.2000	0.3743		0.12619	39.29
2	10.28	Nitrite-N	0.1000	0.1640		0.06188	19.26
3	12.06	Chlorate	0.2000	0.2270		0.02599	8.09
4	13.04	Bromide	0.2000	0.2098		0.02783	8.66
5	15.45	Nitrate-N	0.1000	0.1829		0.07931	24.69
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.4000	n.a.	n.a.	n.a.	n.a.
Total:				1.1579	0.000	0.321	100.00

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

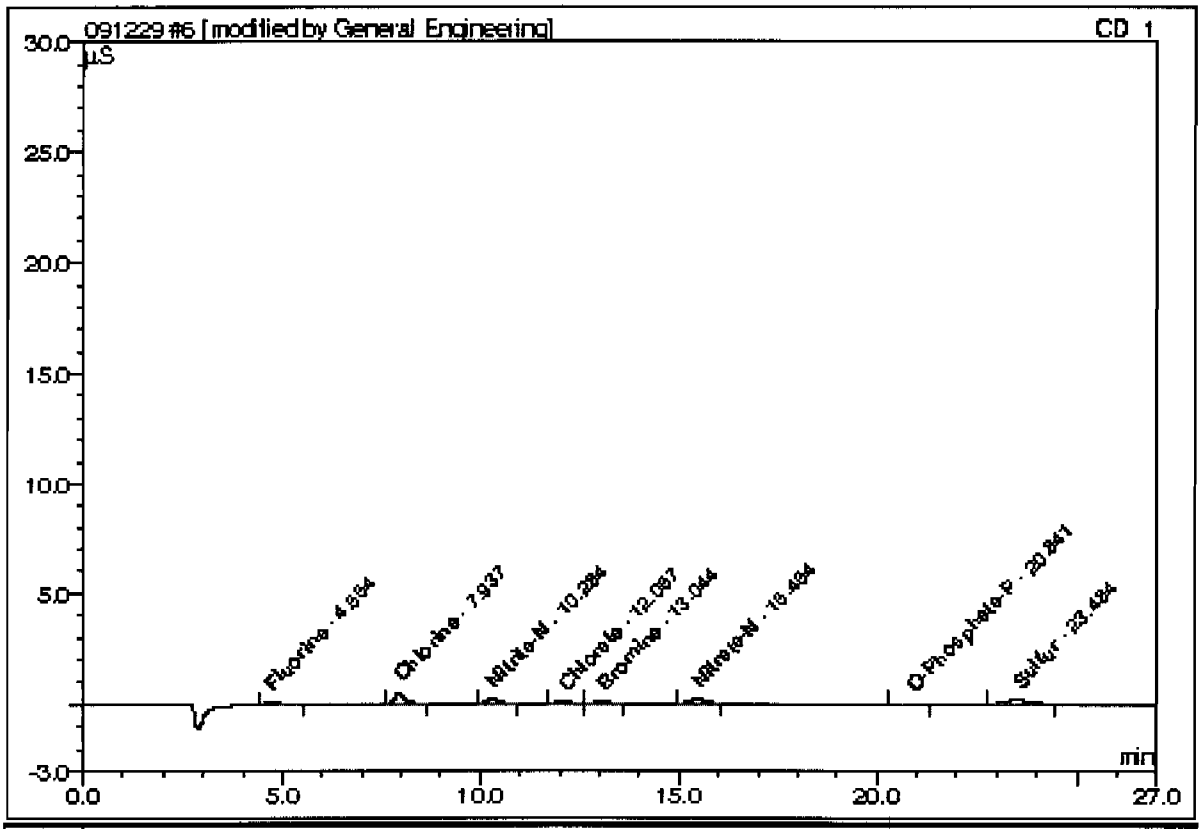

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chlorine	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromine	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfur	0.1333	0.2281	*	0.10850	22.16
Total:				1.7389	0.000	0.490	100.00

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

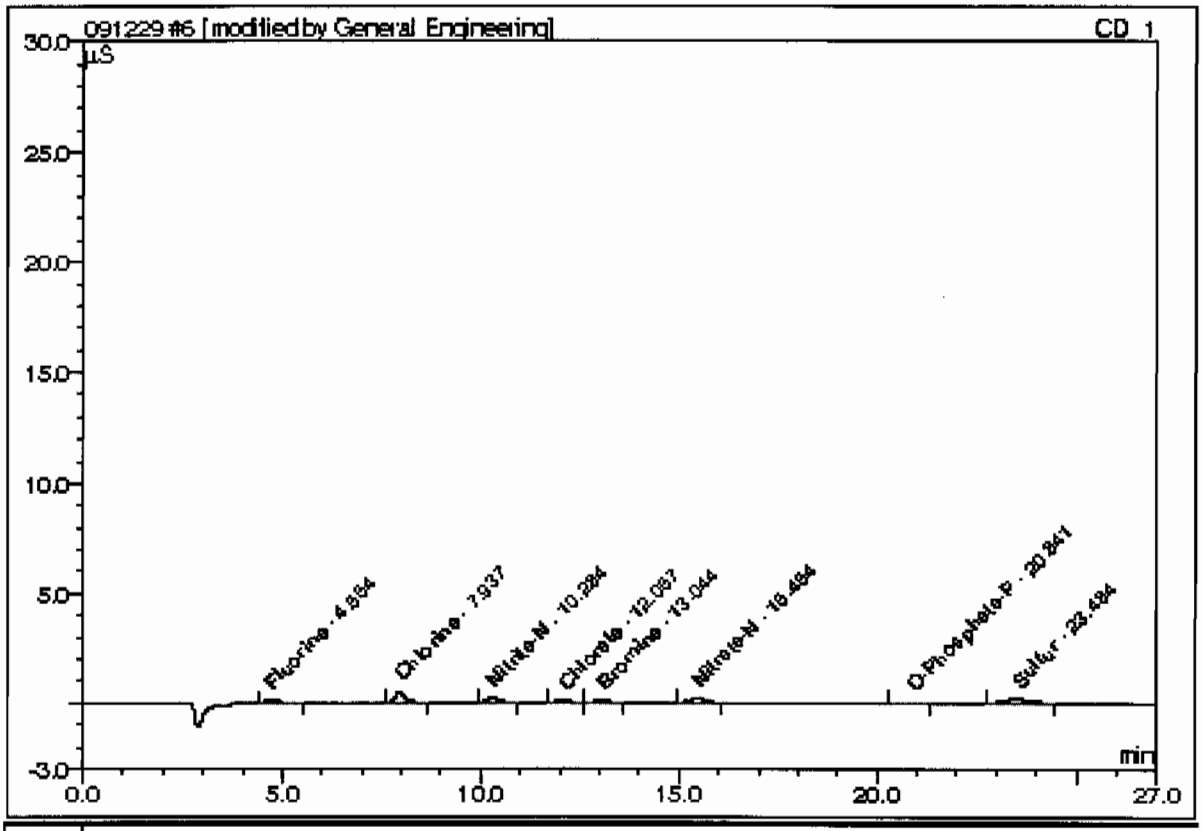

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chlorine	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromine	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfur	0.1333	0.2281	*	0.10850	22.16
Total:				1.7389	0.000	0.490	100.00

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

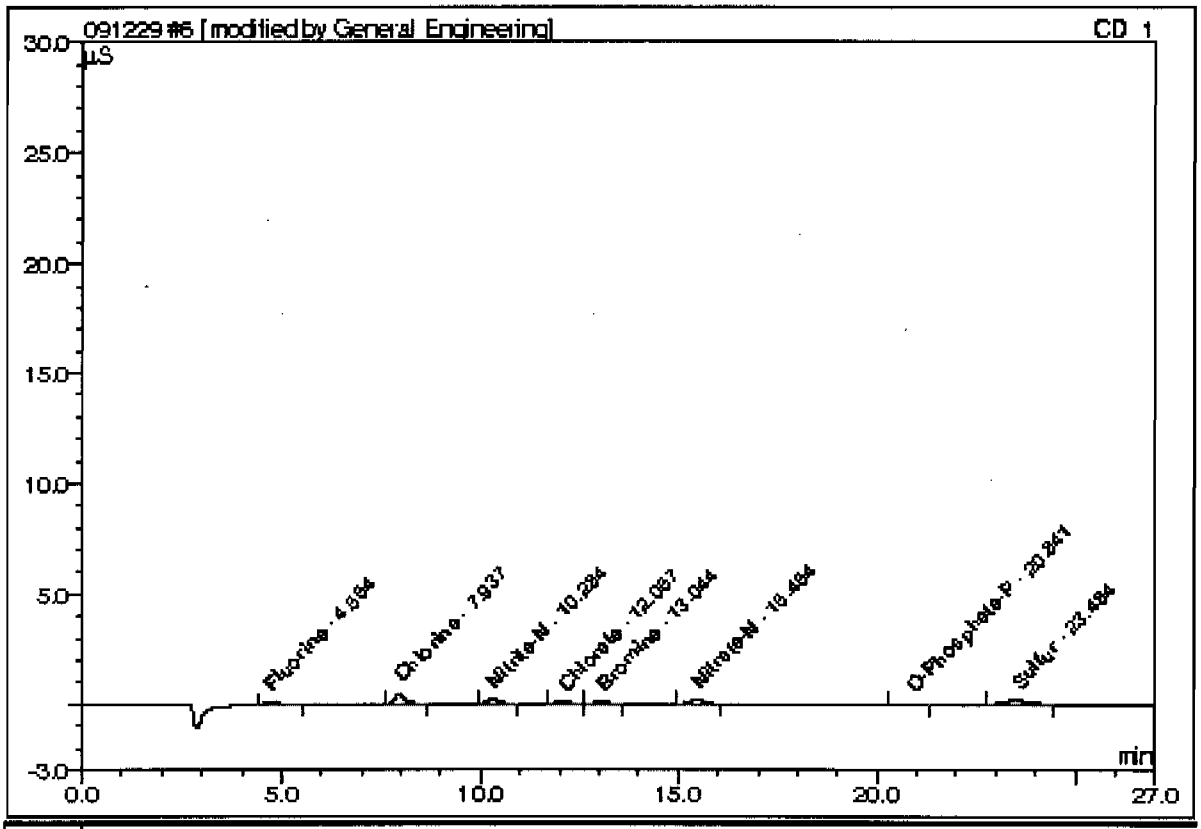

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chlorine	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromine	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfur	0.1333	0.2281	*	0.10850	22.16
Total:				1.7389	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

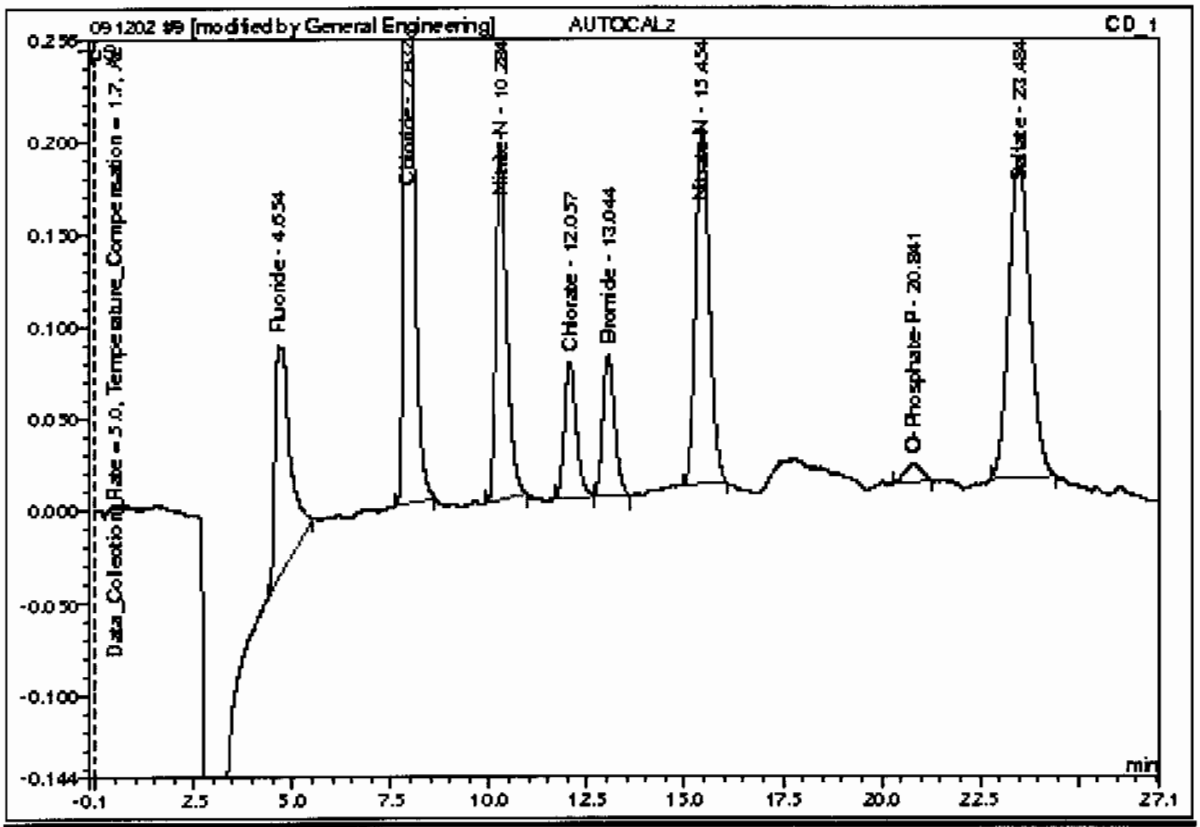

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

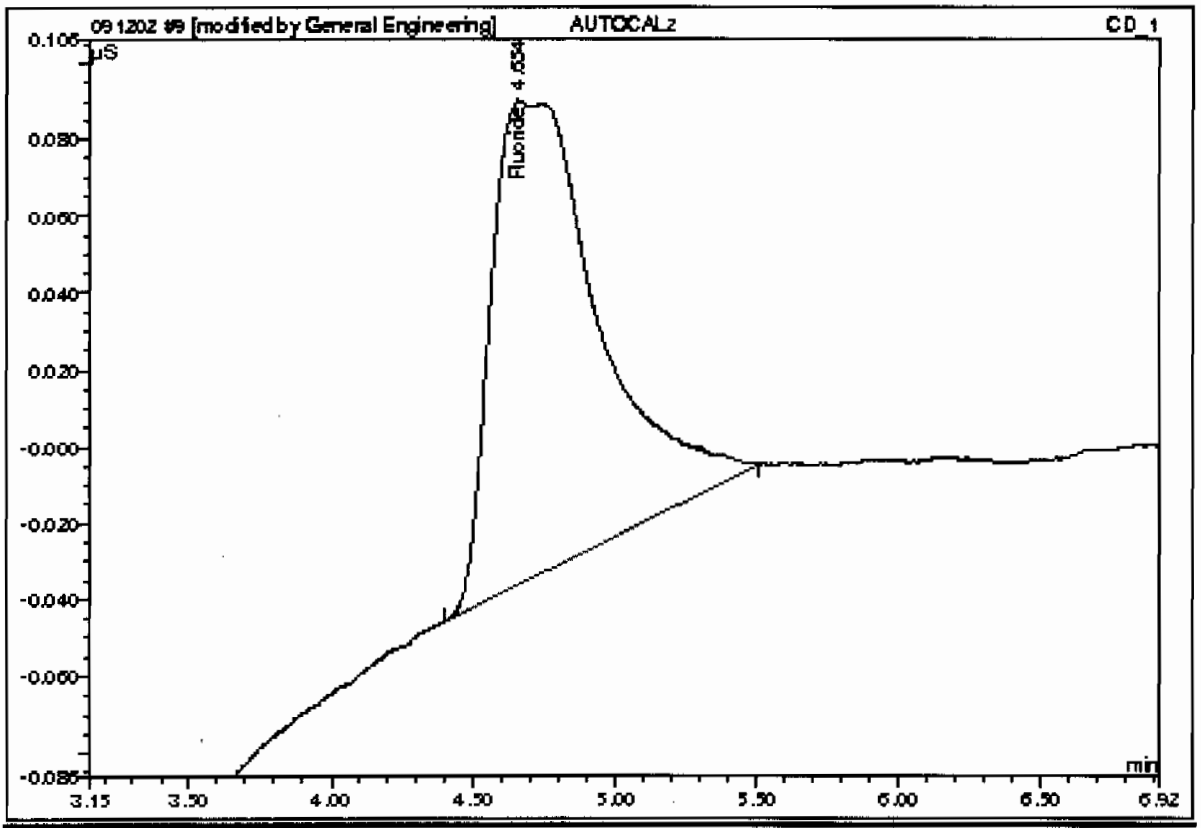

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

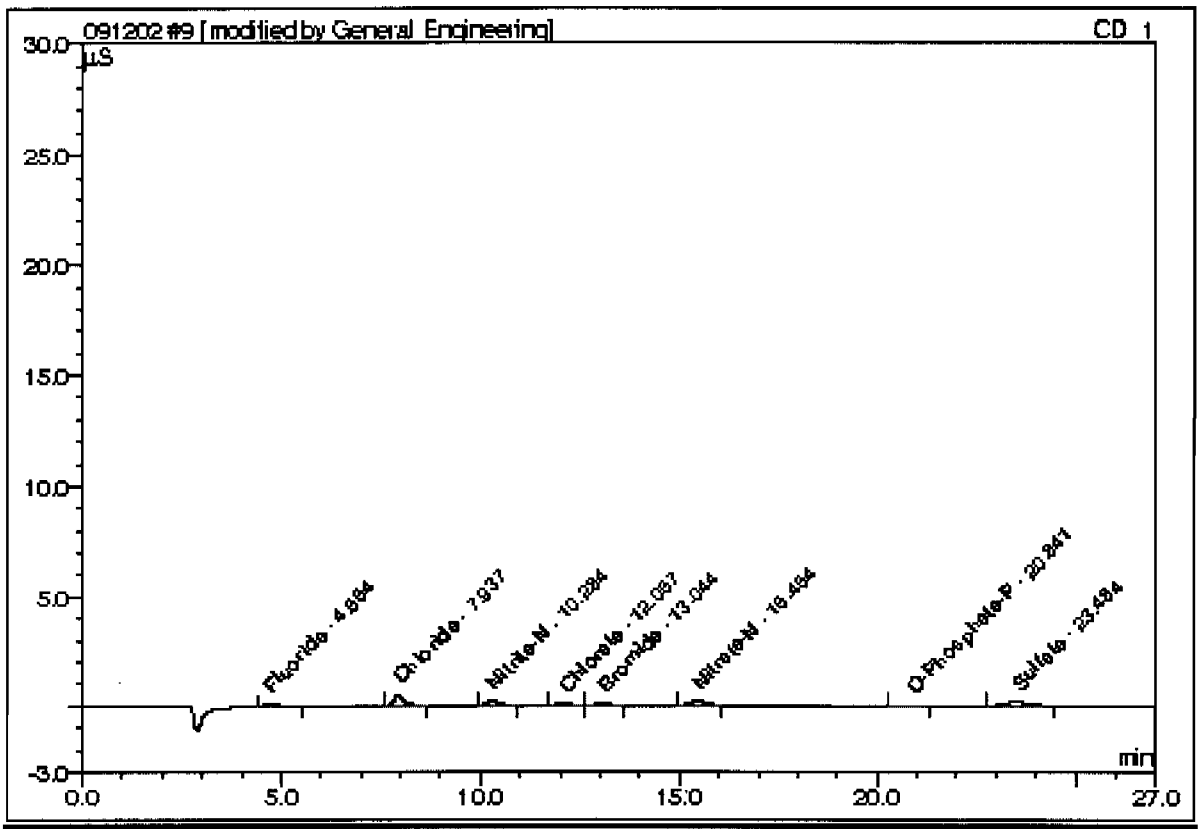

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

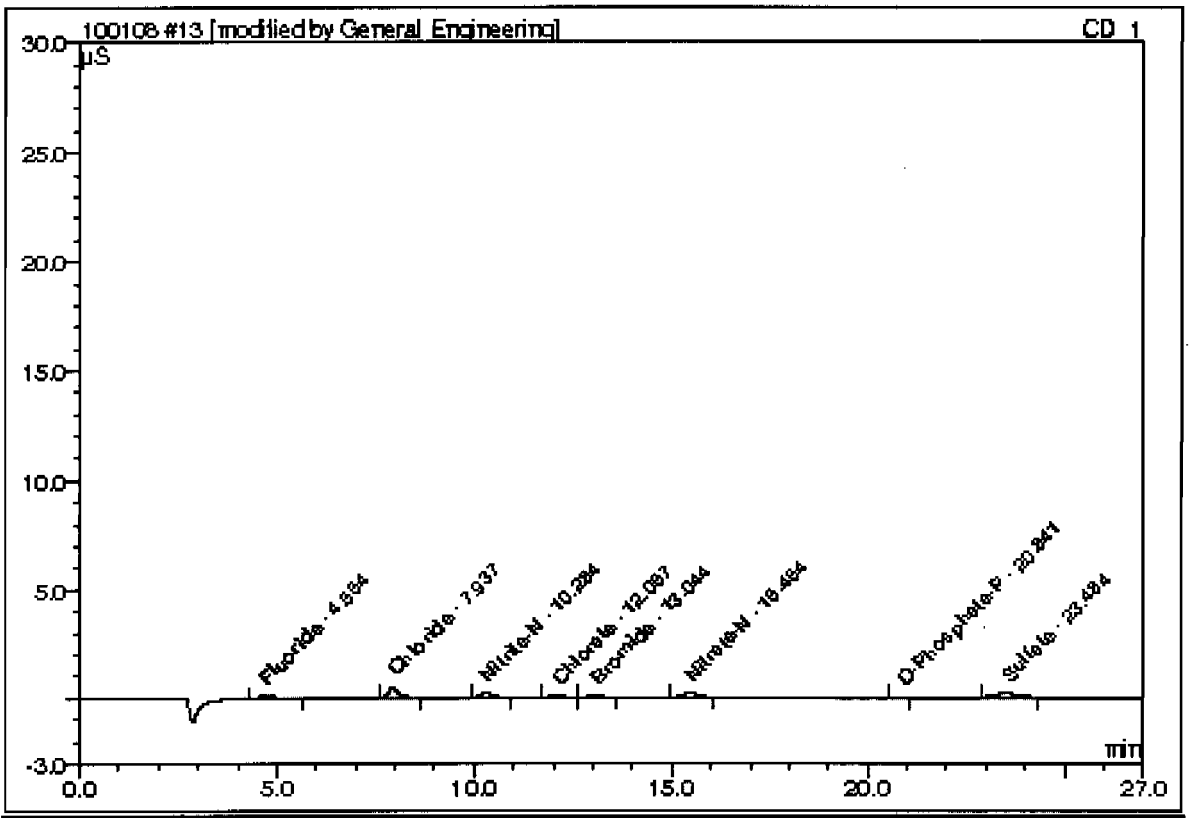

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1490	*	0.05925	12.18
2	7.94	Chloride	0.2000	0.3743		0.12619	25.93
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	12.72
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.34
5	13.04	Bromide	0.2000	0.2098		0.02783	5.72
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	16.30
7	20.84	O-Phosphate-P	0.2000	0.2053	*	0.00133	0.27
8	23.48	Sulfate	0.4000	0.6952	*	0.10479	21.54
Total:				2.2075	0.000	0.487	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

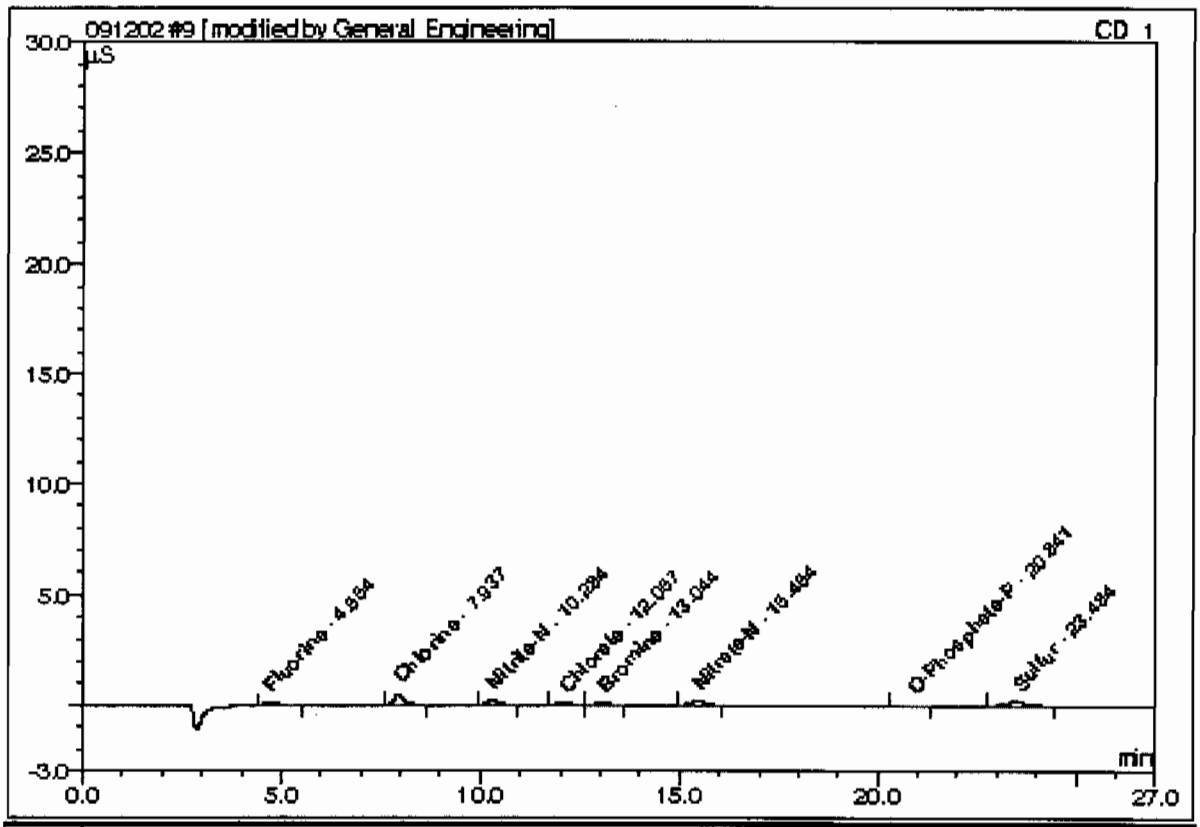

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chlorine	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromine	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfur	0.1333	0.2281	*	0.10850	22.16
Total:				1.7389	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

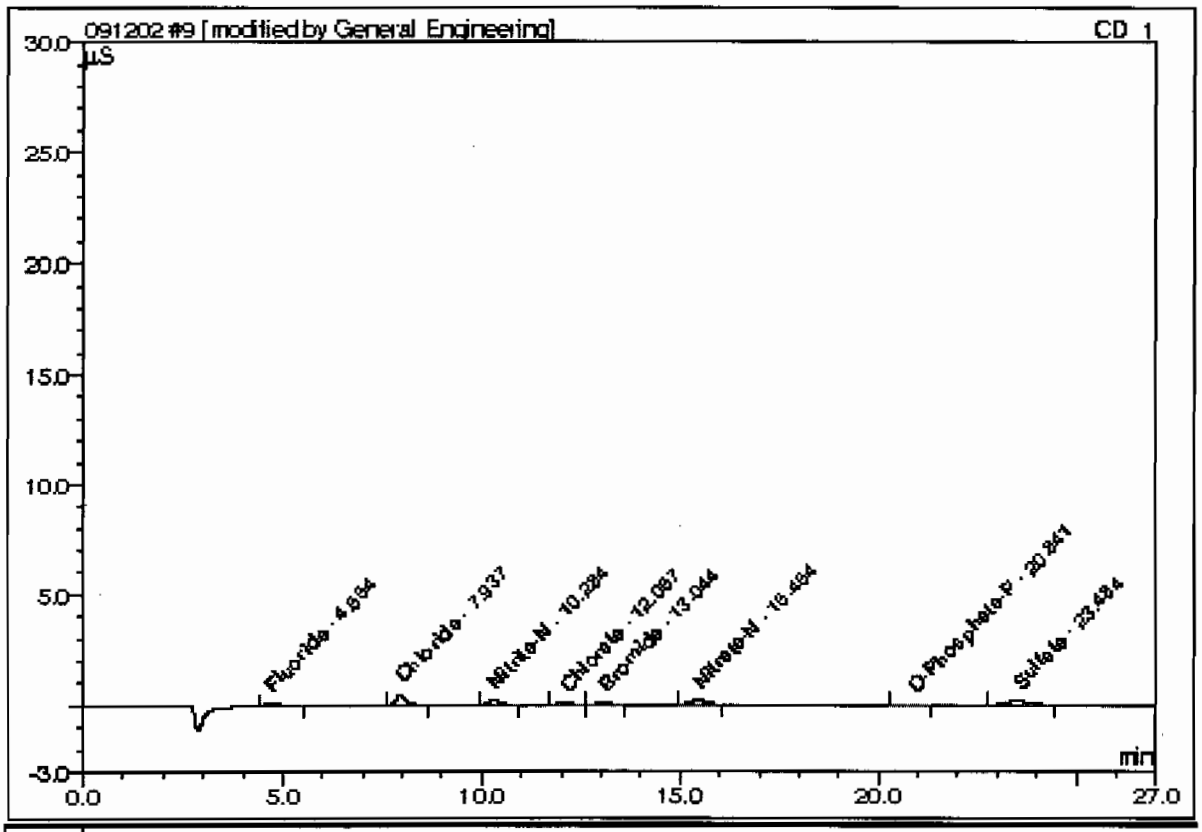

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

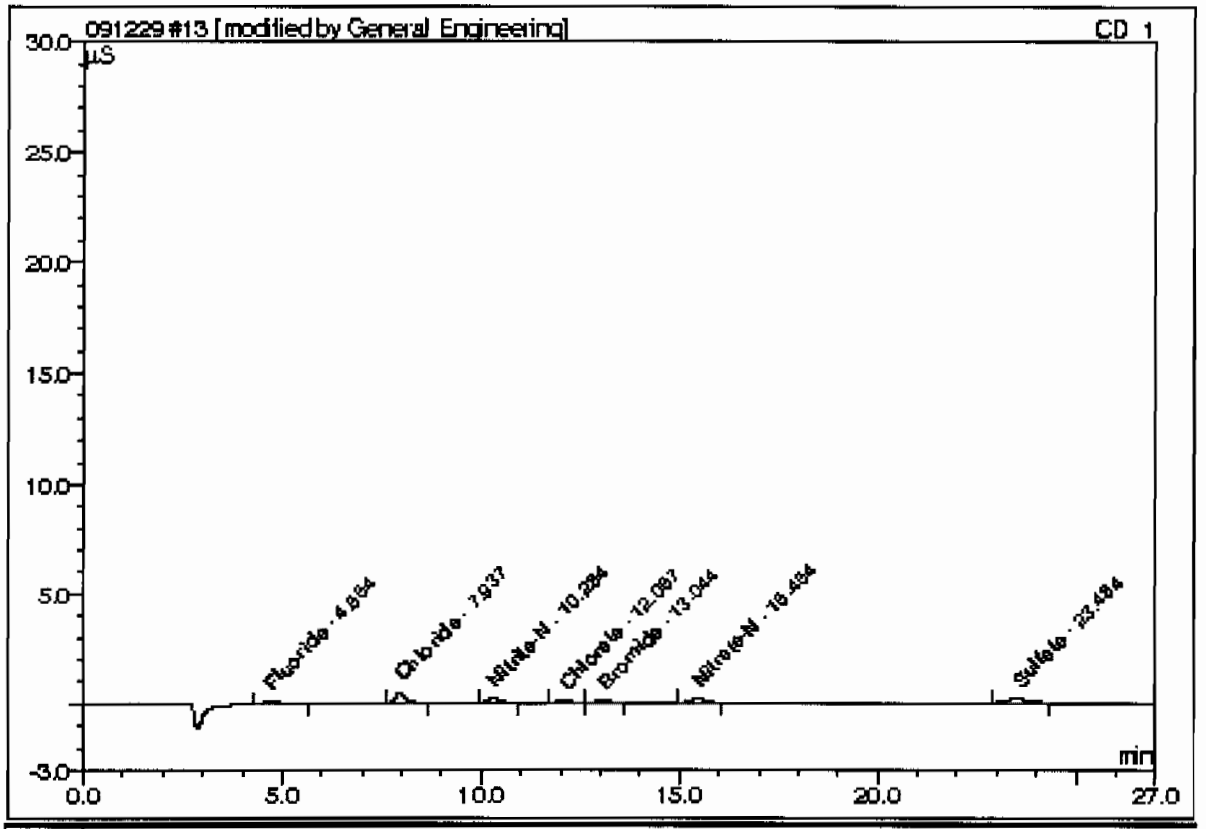

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1490	*	0.05925	12.21
2	7.94	Chloride	0.2000	0.3743		0.12619	26.01
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	12.75
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.36
5	13.04	Bromide	0.2000	0.2098		0.02783	5.73
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	16.34
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
7	23.48	Sulfate	0.4000	0.6952	*	0.10479	21.60
Total:				2.0022	0.000	0.485	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

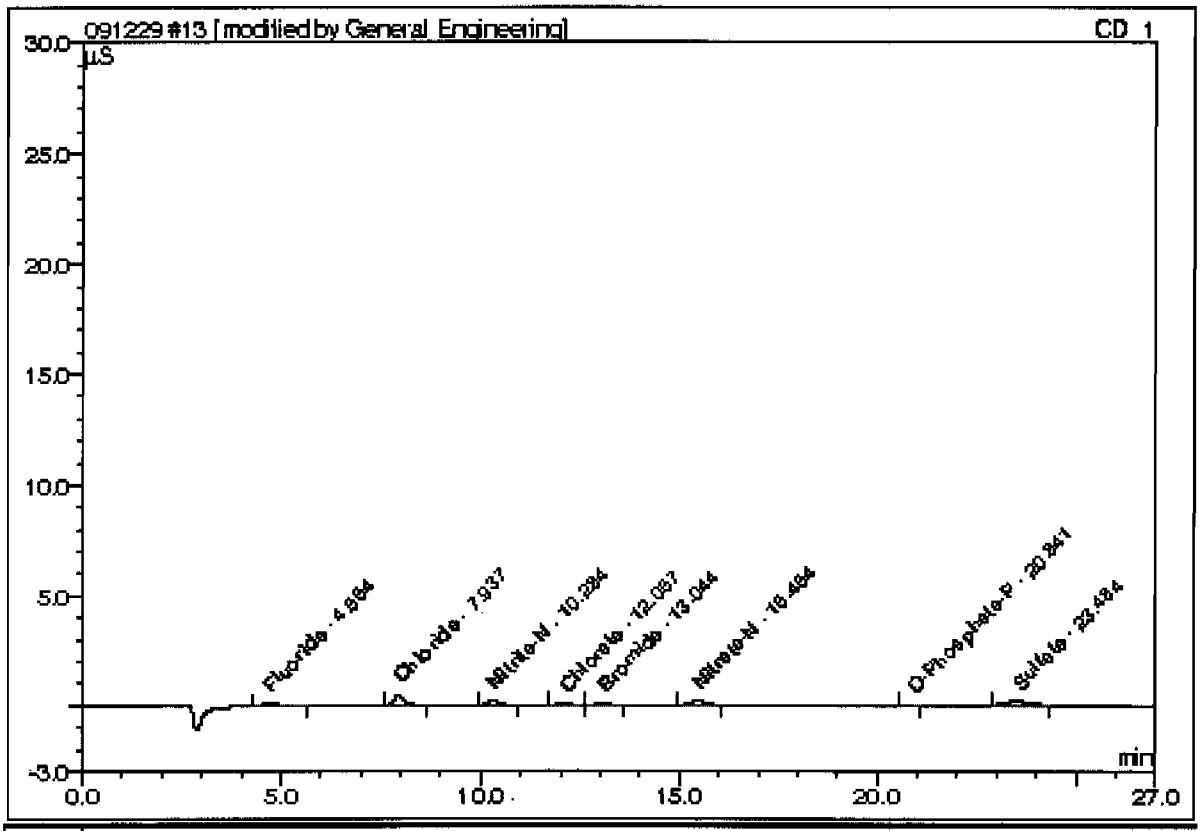

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1490	*	0.05925	12.18
2	7.94	Chloride	0.2000	0.3743		0.12619	25.93
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	12.72
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.34
5	13.04	Bromide	0.2000	0.2098		0.02783	5.72
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	16.30
7	20.84	O-Phosphate-P	0.2000	0.2053	*	0.00133	0.27
8	23.48	Sulfate	0.4000	0.6952	*	0.10479	21.54
Total:				2.2075	0.000	0.487	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091221b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

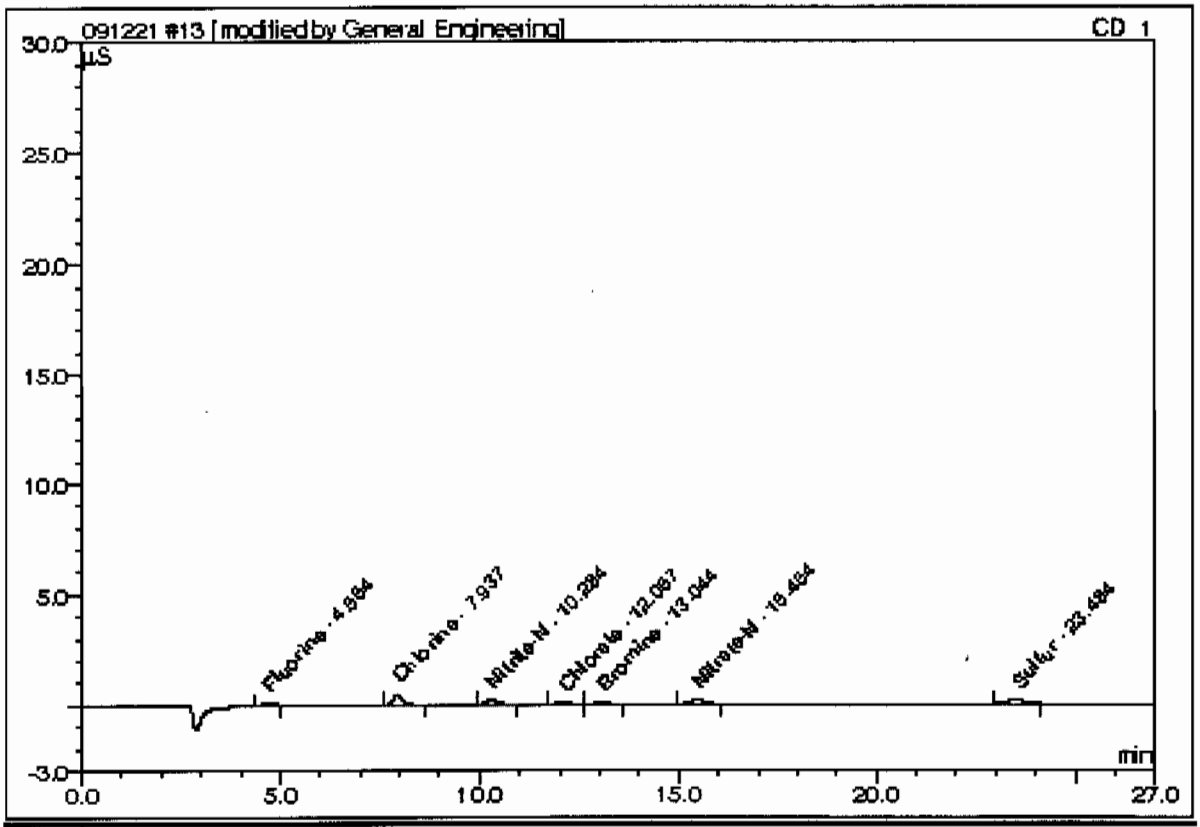

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1094	*	0.03286	7.37
2	7.94	Chlorine	0.2000	0.3743		0.12619	28.31
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.88
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.83
5	13.04	Bromine	0.2000	0.2098		0.02783	6.24
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.79
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
7	23.48	Sulfur	0.1333	0.5100	*	0.09173	20.58
Total:				1.7773	0.000	0.446	100.00

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

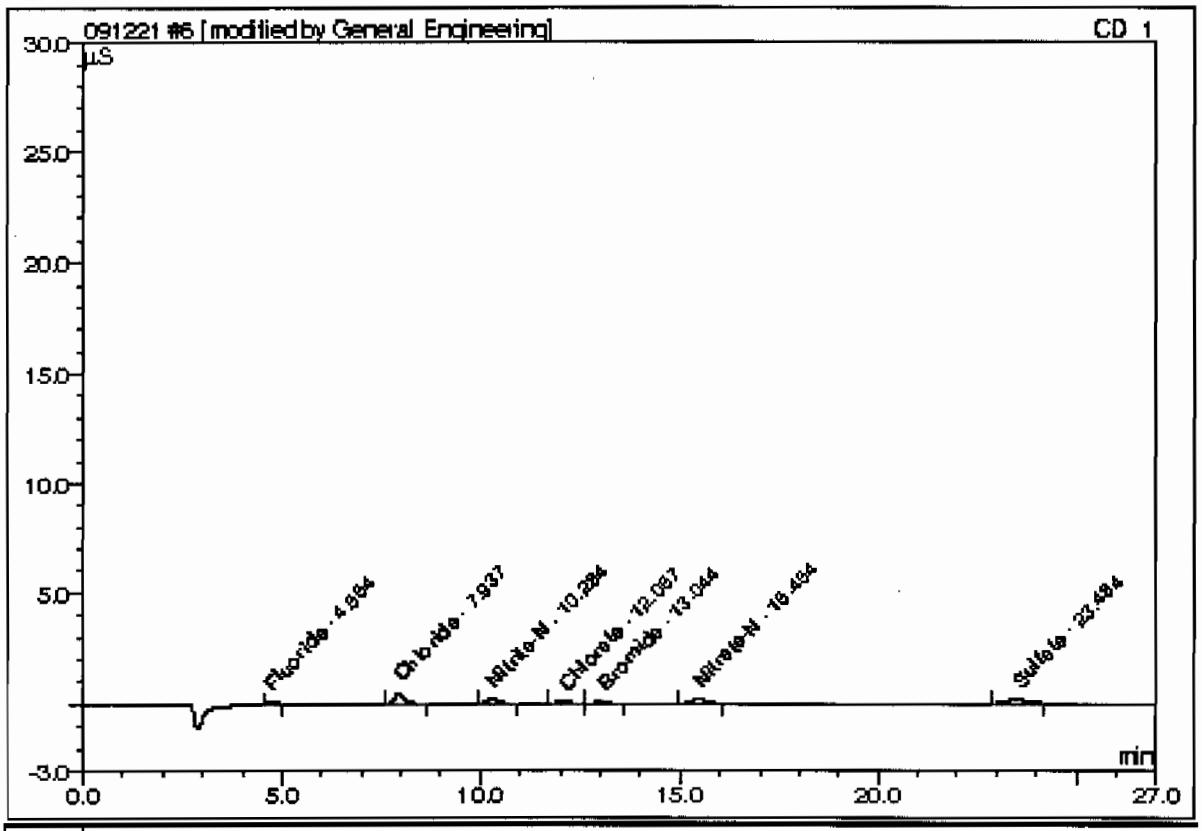

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.0989	*	0.02588	5.82
2	7.94	Chloride	0.2000	0.3743		0.12619	28.38
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.91
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.85
5	13.04	Bromide	0.2000	0.2098		0.02783	6.26
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.83
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
7	23.48	Sulfate	0.4000	0.6760	*	0.09764	21.96
Total:				1.9328	0.000	0.445	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

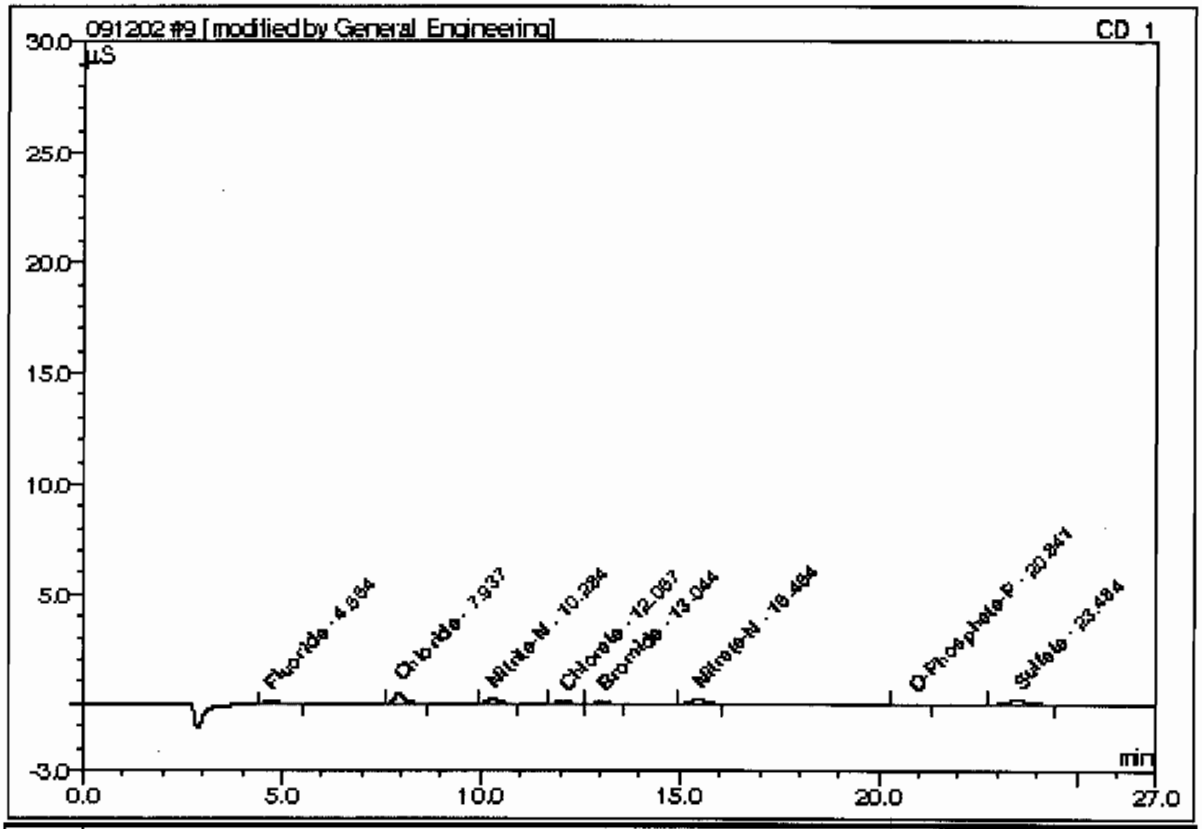

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

74 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

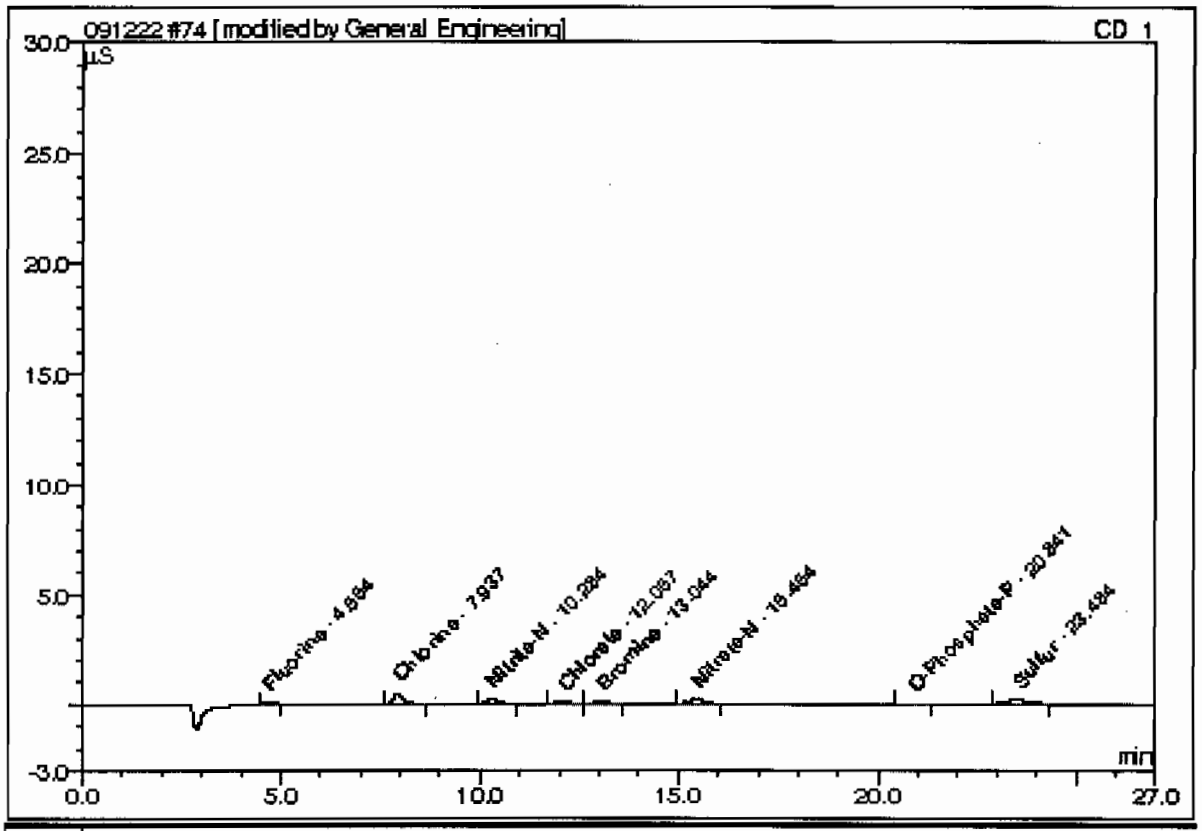

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1034	*	0.02890	6.30
2	7.94	Chlorine	0.2000	0.3743		0.12619	27.50
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.48
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.66
5	13.04	Bromine	0.2000	0.2098		0.02783	6.06
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.28
7	20.84	O-Phosphate-P	0.2000	0.2135	*	0.00418	0.91
8	23.48	Sulfur	0.1333	0.6513	*	0.10462	22.80
Total:				2.1262	0.000	0.459	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

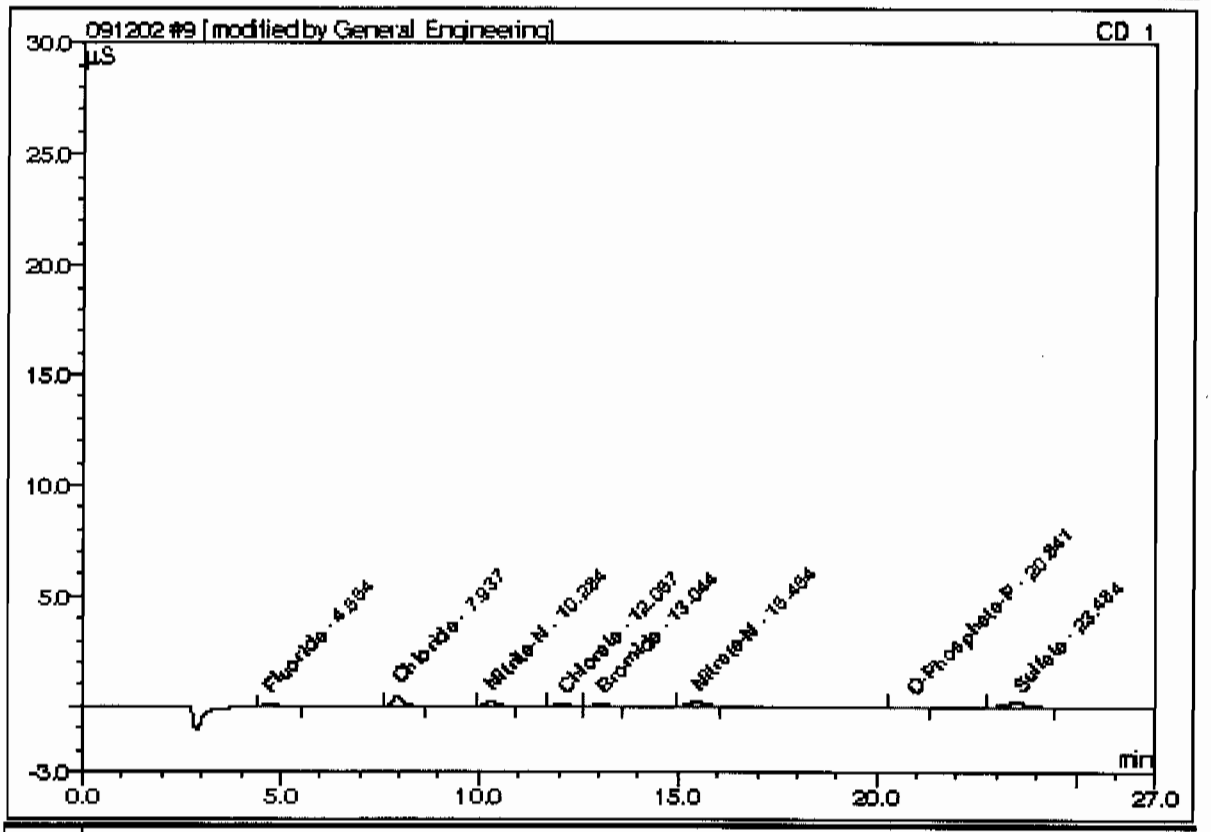

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

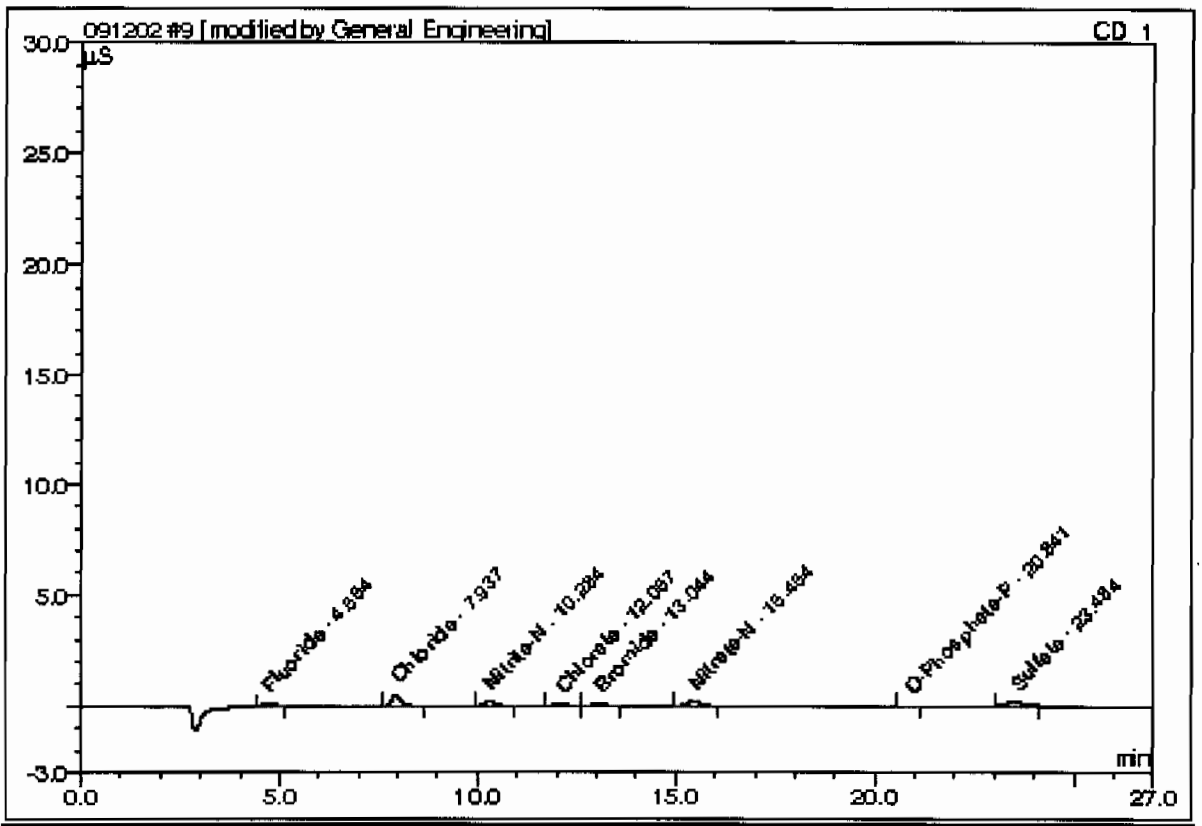

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1231	*	0.04201	9.23
2	7.94	Chloride	0.2000	0.3743		0.12619	27.73
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.60
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.71
5	13.04	Bromide	0.2000	0.2098		0.02783	6.12
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.43
7	20.84	O-Phosphate-P	0.2000	0.2070	*	0.00191	0.42
8	23.48	Sulfate	0.4000	0.6551	*	0.08988	19.75
Total:				2.1431	0.000	0.455	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

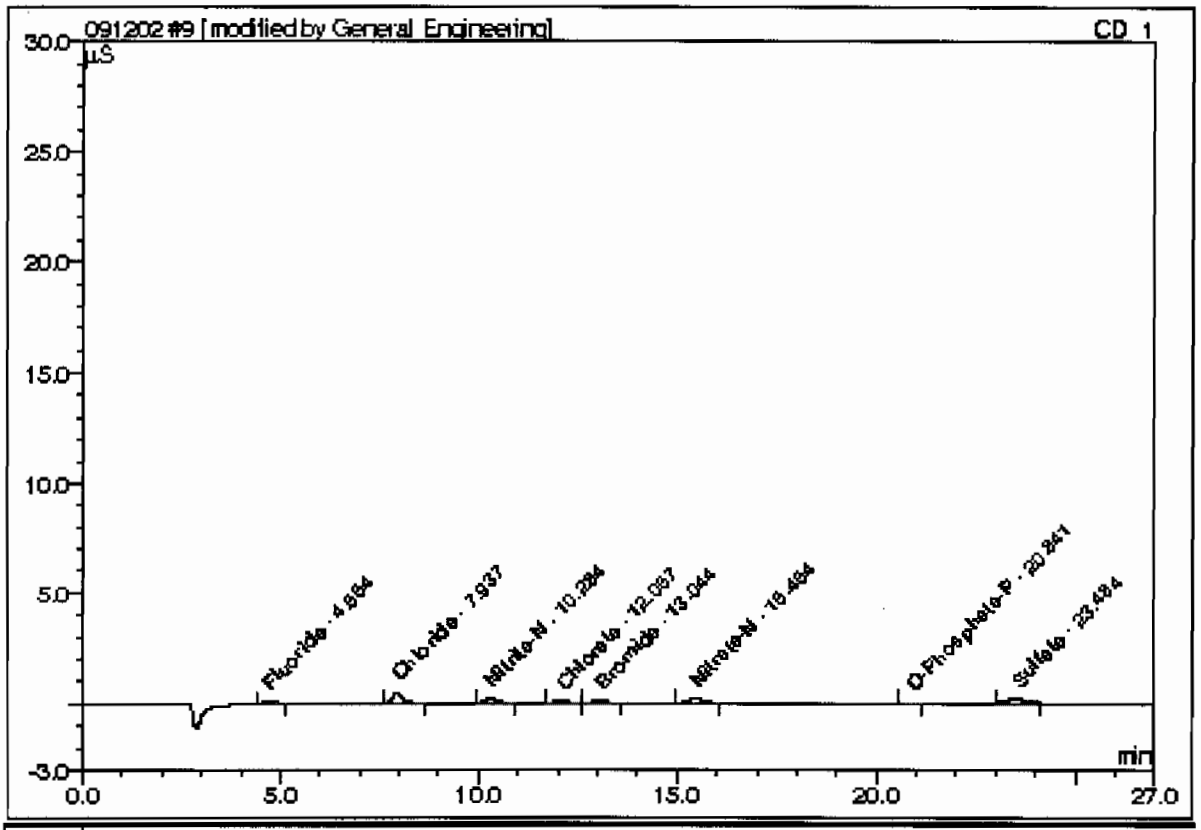

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1251	*	0.04330	9.49
2	7.94	Chloride	0.2000	0.3743		0.12619	27.66
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.56
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.70
5	13.04	Bromide	0.2000	0.2098		0.02783	6.10
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.38
7	20.84	O-Phosphate-P	0.2000	0.2070	*	0.00191	0.42
8	23.48	Sulfate	0.4000	0.6551	*	0.08988	19.70
Total:				2.1451	0.000	0.456	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

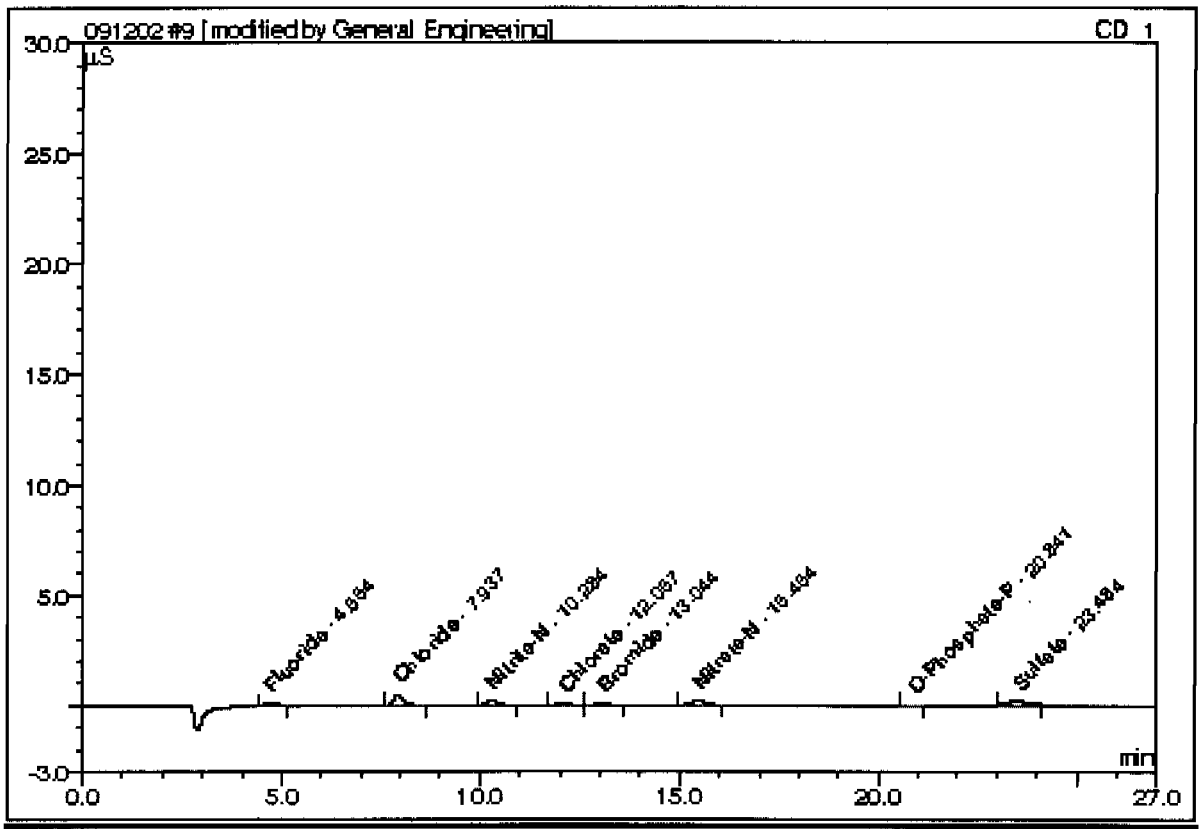

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1251	*	0.04330	9.49
2	7.94	Chloride	0.2000	0.3743		0.12619	27.66
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.56
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.70
5	13.04	Bromide	0.2000	0.2098		0.02783	6.10
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.38
7	20.84	O-Phosphate-P	0.2000	0.2070	*	0.00191	0.42
8	23.48	Sulfate	0.4000	0.6551	*	0.08988	19.70
Total:				2.1451	0.000	0.456	100.00

14 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:33	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

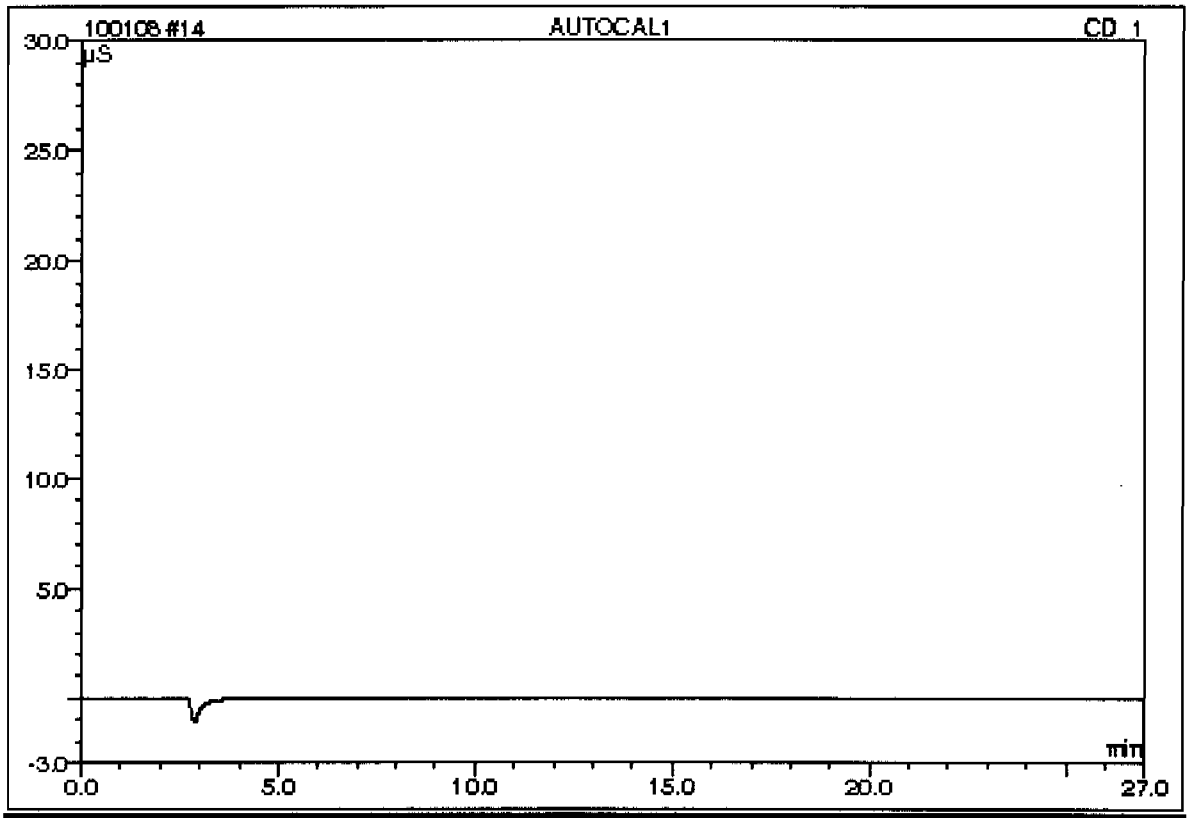

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

14 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:33	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002593;GLGCE086;300;9056

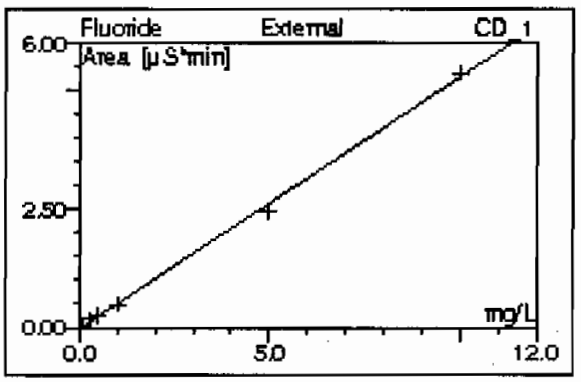

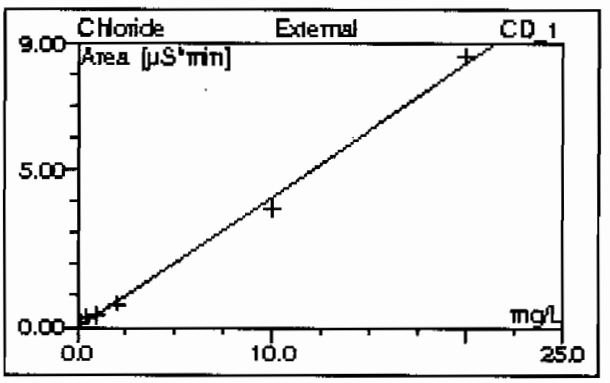

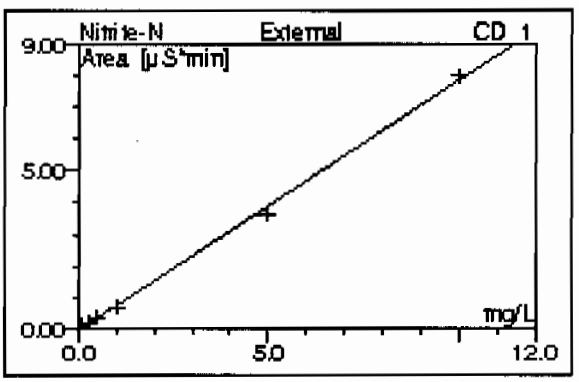

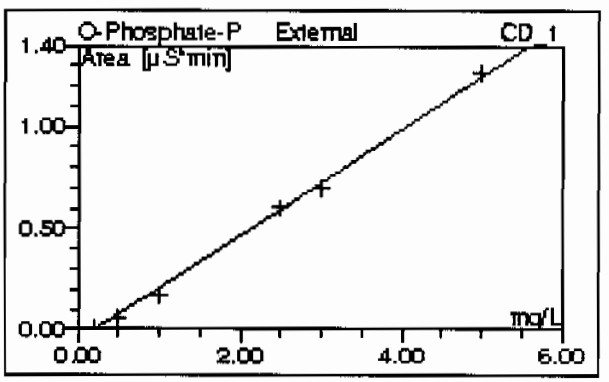

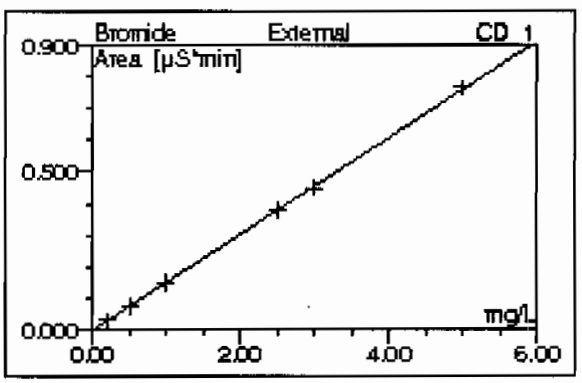

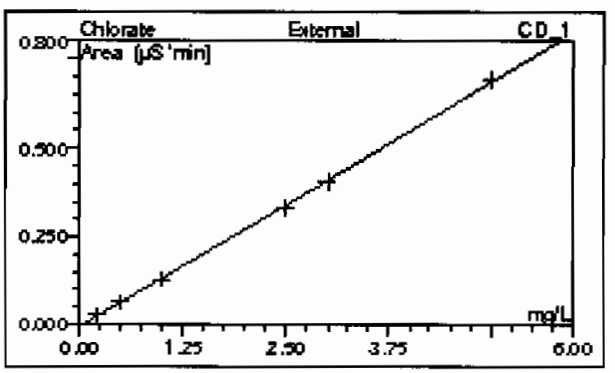

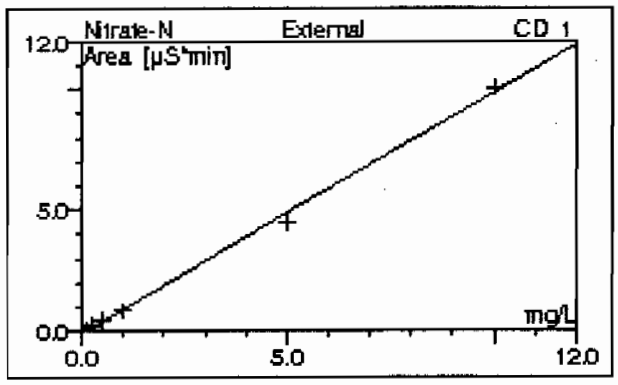

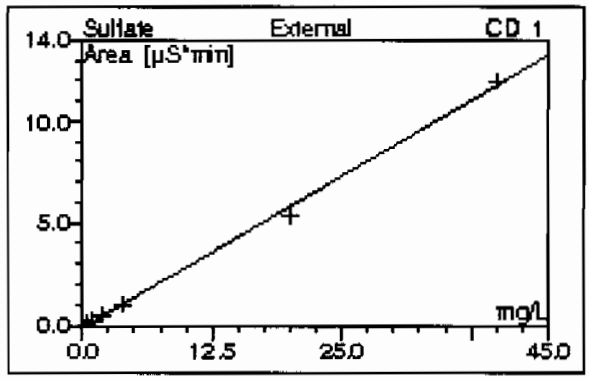

No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	OLOff	99.8258	-0.0196	0.5292	0.0000
n.a.	n.a.	Chloride	OLOff	99.5938	-0.0307	0.4192	0.0000
n.a.	n.a.	Nitrite-N	OLOff	99.8547	-0.0681	0.7924	0.0000
n.a.	n.a.	Chlorate	OLOff	99.9539	-0.0053	0.1380	0.0000
n.a.	n.a.	Bromide	OLOff	99.9837	-0.0043	0.1529	0.0000
n.a.	n.a.	Nitrate-N	OLOff	99.7270	-0.1030	0.9968	0.0000
n.a.	n.a.	O-Phosphate-P	OLOff	99.7614	-0.0520	0.2595	0.0000
n.a.	n.a.	Sulfate	OLOff	99.7604	-0.1009	0.2959	0.0000
Average:				99.8076	-0.0480	0.4480	0.0000

11 WIC091202-02ICV

Sample Name:	WIC091202-02ICV	*Injection Volume:*	50.0
Vial Number:	11	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 22:03	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

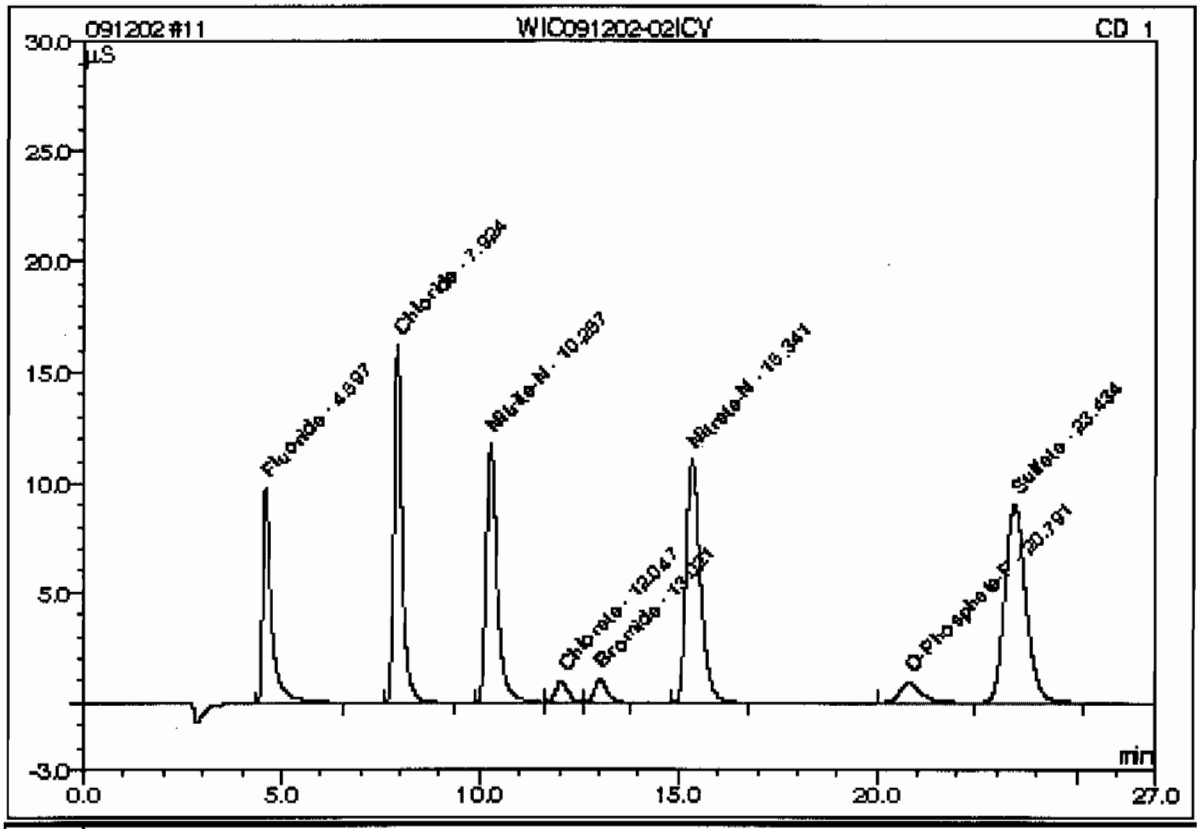

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	n.a.	4.7181		2.49838	11.68
2	7.92	Chloride	n.a.	9.2590		3.85054	18.00
3	10.27	Nitrite-N	n.a.	4.7805		3.72071	17.39
4	12.05	Chlorate	n.a.	2.4809		0.33694	1.57
5	13.02	Bromide	n.a.	2.4387		0.36874	1.72
6	15.34	Nitrate-N	n.a.	4.6791		4.57041	21.36
7	20.79	O-Phosphate-P	n.a.	2.4024		0.57999	2.71
8	23.43	Sulfate	n.a.	18.7982		5.46821	25.56
Total:				49.5569	0.000	21.394	100.00

12 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	12	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 22:33	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC E086;300;9056

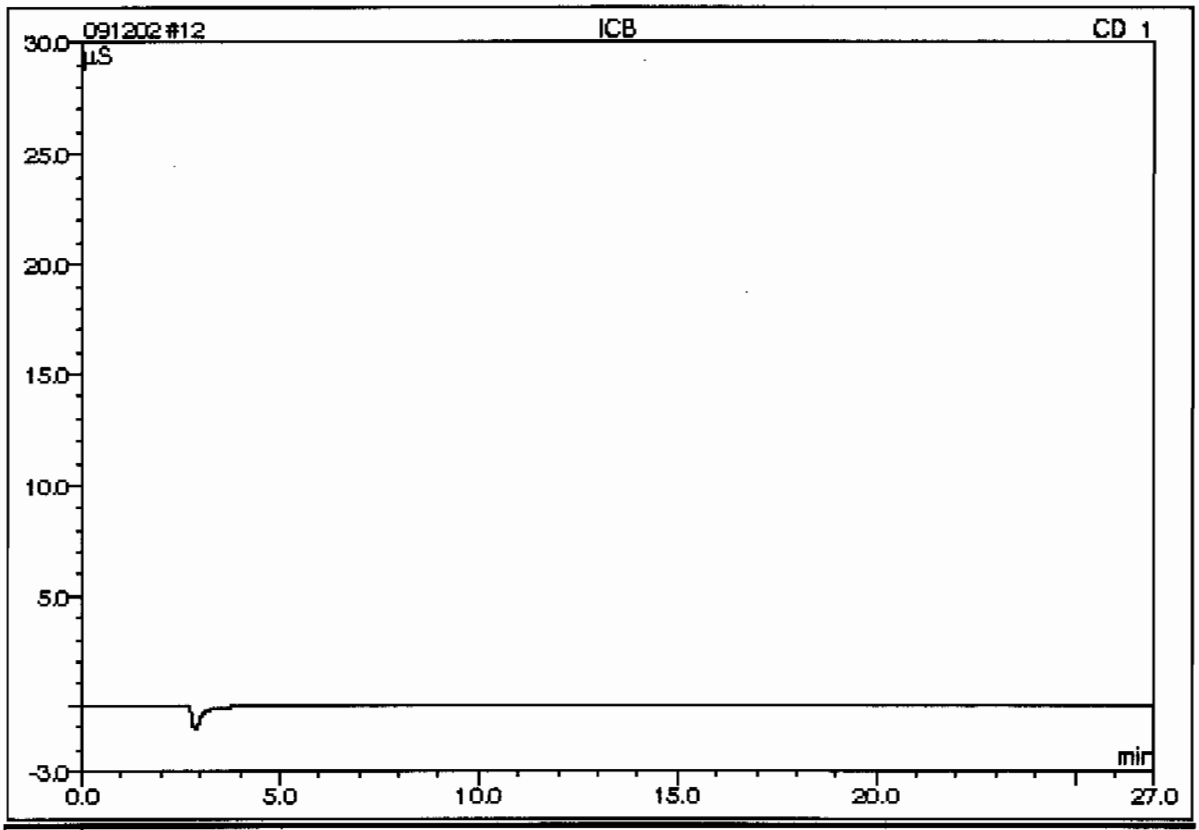

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100104.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	01/04/10 12:52		1	100104	GXM3
BLK	01/04/10 13:21		1	100104	GXM3
BLK	01/04/10 13:51		1	100104	GXM3
ICV	01/04/10 14:21		1	100104	GXM3
ICB	01/04/10 14:51		1	100104	GXM3
1202006660	01/04/10 15:20	937729	1	100104	GXM3
1202006663	01/04/10 15:50	937729	1	100104	GXM3
243381005	01/04/10 16:20	937729	1	100104	GXM3
1202006661	01/04/10 16:50	937729	1	100104	GXM3
1202006662	01/04/10 17:20	937729	1	100104	GXM3
CVH	01/04/10 17:50		1	100104	GXM3
CCB	01/04/10 18:20		1	100104	GXM3
1202006656	01/04/10 18:50	937728	1	100104	GXM3
1202006659	01/04/10 19:20	937728	1	100104	GXM3
243604001	01/04/10 19:50	937728	1	100104	GXM3
1202006657	01/04/10 20:19	937728	1	100104	GXM3
1202006658	01/04/10 20:49	937728	1	100104	GXM3
243604002	01/04/10 21:19	937728	1	100104	GXM3
243604003	01/04/10 21:49	937728	1	100104	GXM3
243604004	01/04/10 22:19	937728	1	100104	GXM3
243604005	01/04/10 22:49	937728	1	100104	GXM3
243604006	01/04/10 23:19	937728	1	100104	GXM3
CCV	01/04/10 23:49		1	100104	GXM3

18 WIC100104-02ICV

Sample Name:	WIC100104-02ICV	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/4/2010 14:21	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

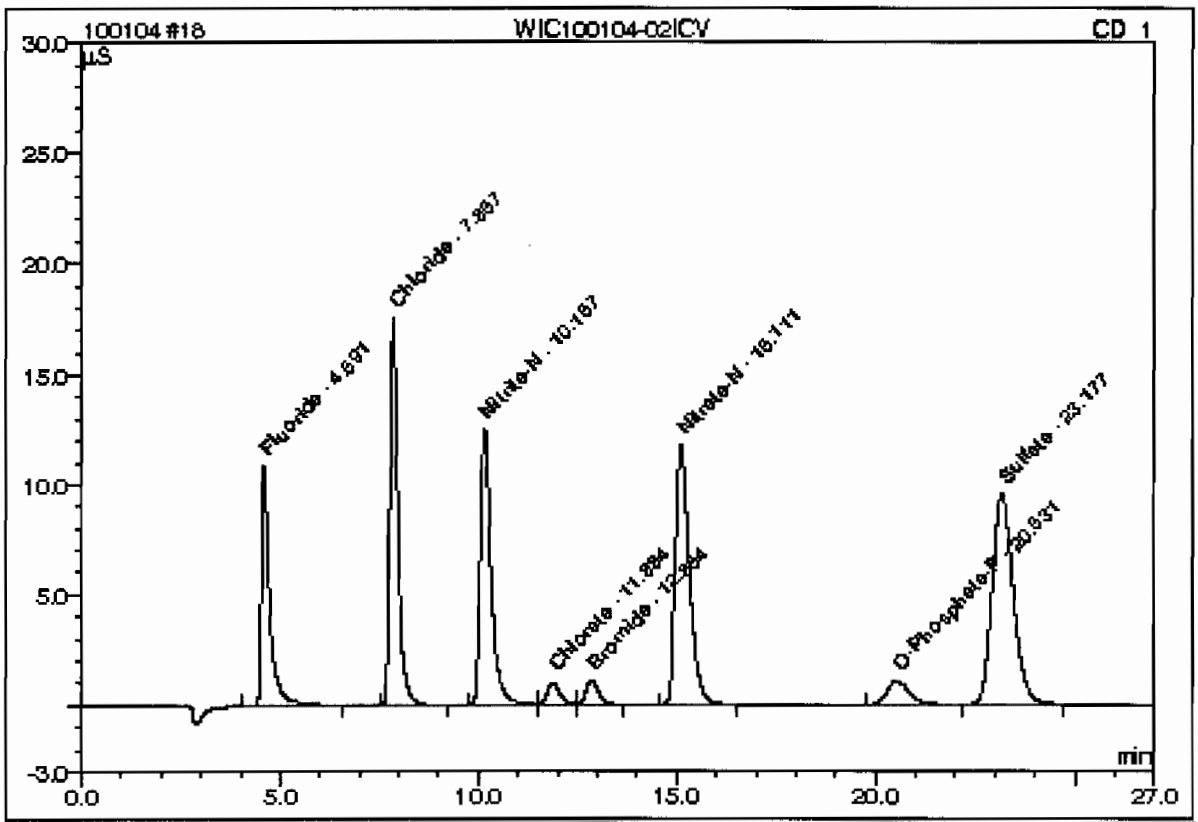

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	n.a.	5.0339		2.64458	11.68
2	7.86	Chloride	n.a.	9.8332		4.09122	18.08
3	10.16	Nitrite-N	n.a.	5.0030		3.89650	17.22
4	11.88	Chlorate	n.a.	2.4364		0.33080	1.46
5	12.85	Bromide	n.a.	2.4415		0.36916	1.63
6	15.11	Nitrate-N	n.a.	4.9572		4.83837	21.38
7	20.53	O-Phosphate-P	n.a.	2.8723		0.69350	3.06
8	23.18	Sulfate	n.a.	19.8378		5.76970	25.49
Total:				52.4153	0.000	22.634	100.00

19 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/4/2010 14:51	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

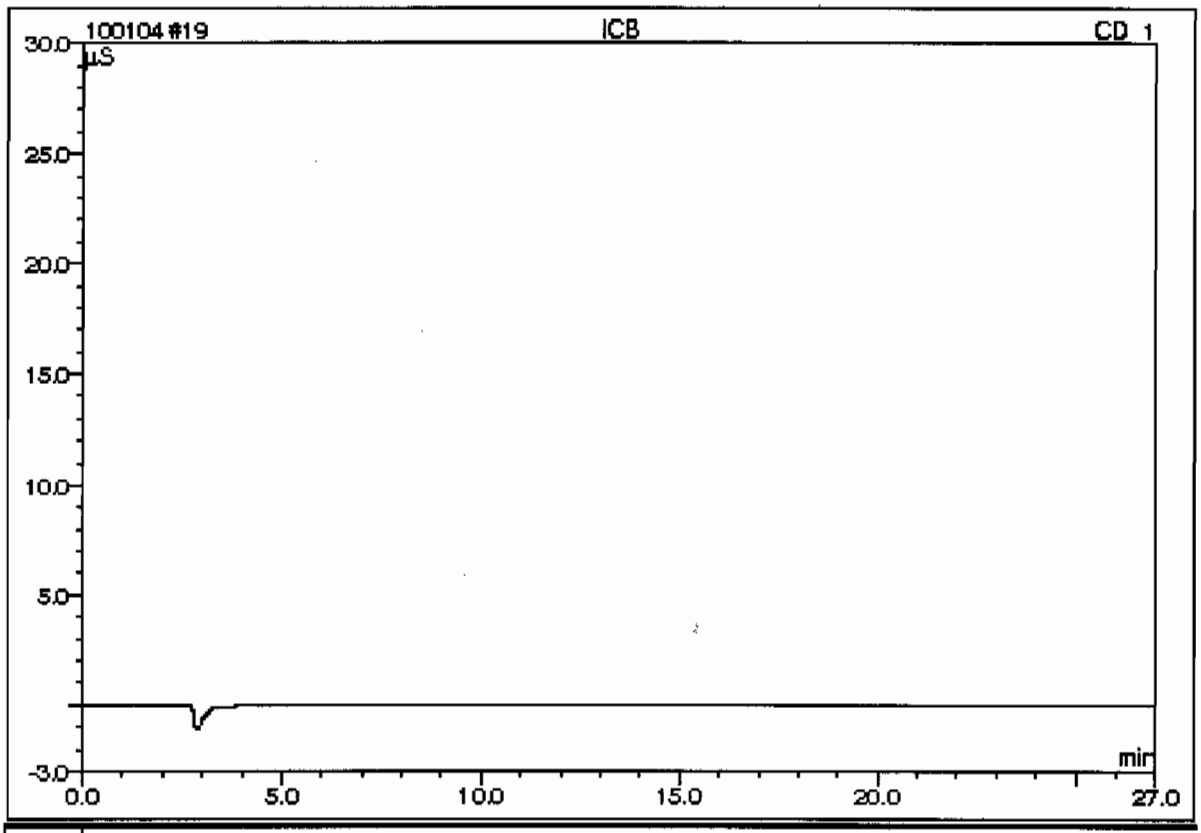

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

37 WIC100104-02CCV

Sample Name:	WIC100104-02CCV	*Injection Volume:*	50.0
Vial Number:	23	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/4/2010 23:49	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

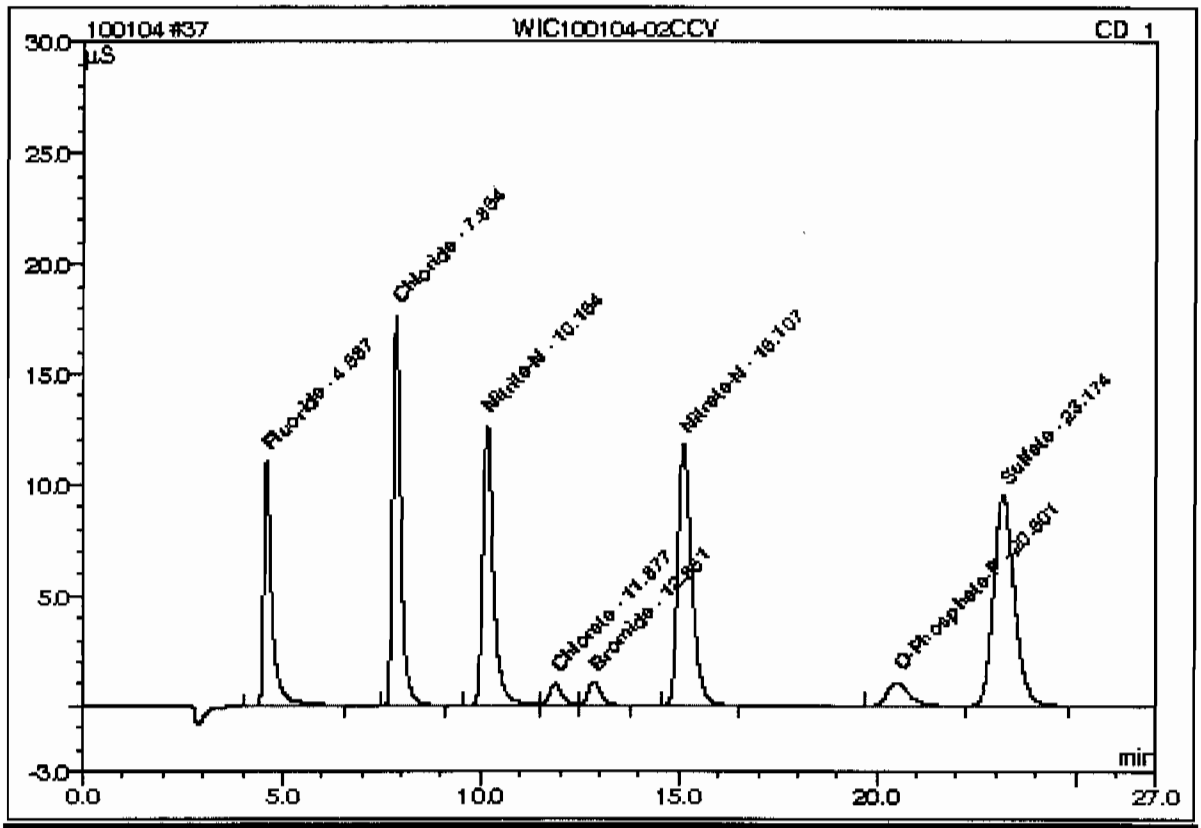

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	n.a.	5.0632		2.66005	11.67
2	7.85	Chloride	n.a.	9.8711		4.10713	18.02
3	10.15	Nitrite-N	n.a.	5.0672		3.94741	17.31
4	11.88	Chlorate	n.a.	2.6141		0.35532	1.56
5	12.85	Bromide	n.a.	2.5791		0.39022	1.71
6	15.11	Nitrate-N	n.a.	4.9769		4.85796	21.31
7	20.50	O-Phosphate-P	n.a.	2.8644		0.69146	3.03
8	23.17	Sulfate	n.a.	19.9012		5.78849	25.39
Total:				52.9373	0.000	22.798	100.00

This is runlog for Sequence 100104.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
CCB	01/05/10 00:19		1	100104	GXM3
1202007949	01/05/10 00:49	938391	1	100104	GXM3
1202007952	01/05/10 01:18	938391	1	100104	GXM3
243400001	01/05/10 01:48	938391	1	100104	GXM3
1202007950	01/05/10 02:18	938391	1	100104	GXM3
1202007951	01/05/10 02:48	938391	1	100104	GXM3
243400004	01/05/10 03:18	938391	1	100104	GXM3
CVH	01/05/10 03:48		1	100104	GXM3
CCB	01/05/10 04:18		1	100104	GXM3

38 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	24	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/5/2010 0:19	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

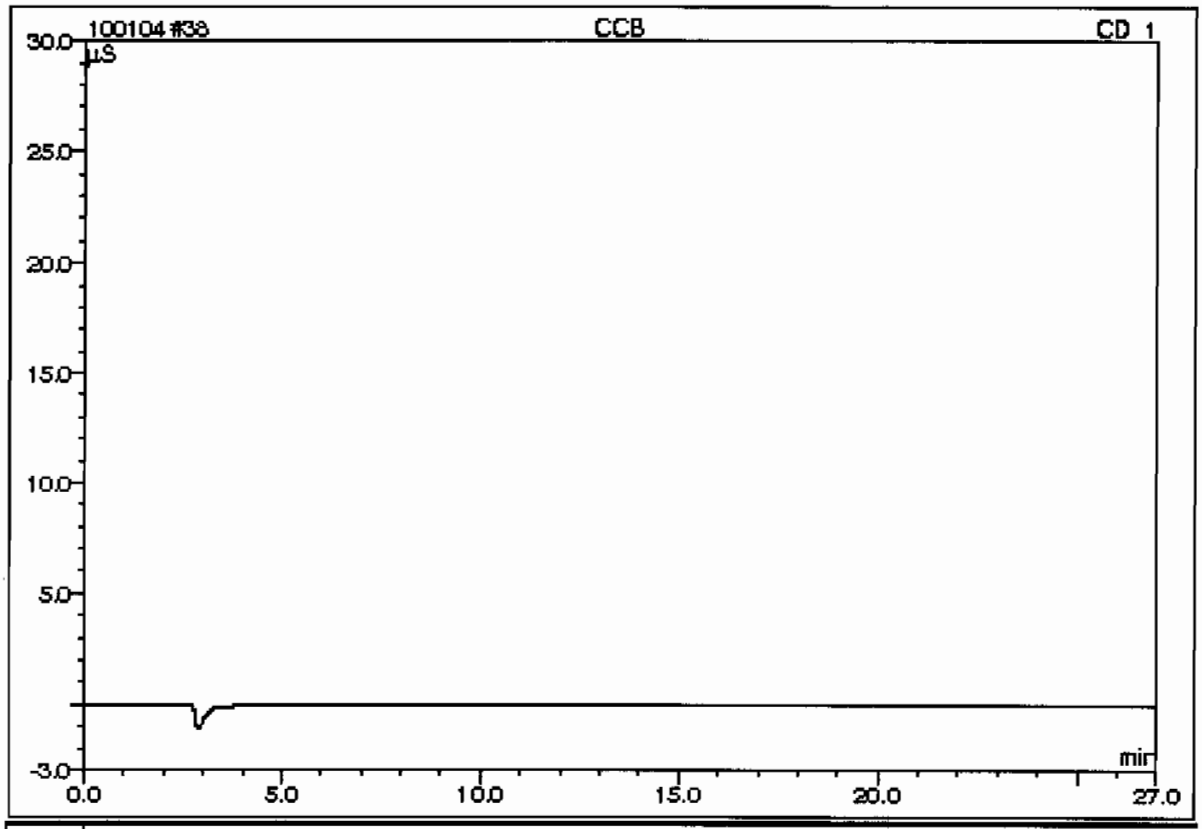

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

39 1202007949/938391/1/1/MB

Sample Name:	1202007949/938391/1/1/MB	*Injection Volume:*	50.0
Vial Number:	25	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/5/2010 0:49	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

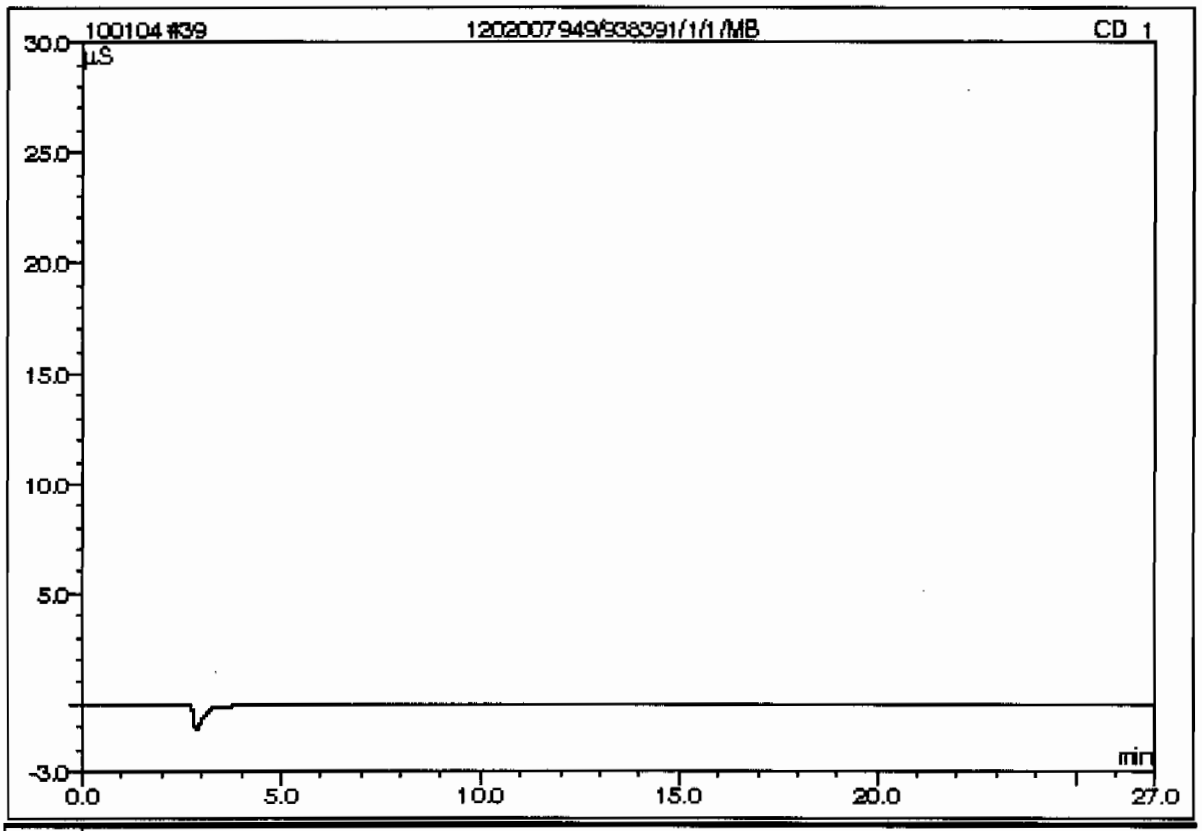

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

40 1202007952/938391/1/1/LCS

Sample Name:	1202007952/938391/1/1/LCS	*Injection Volume:*	50.0
Vial Number:	26	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/5/2010 1:18	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

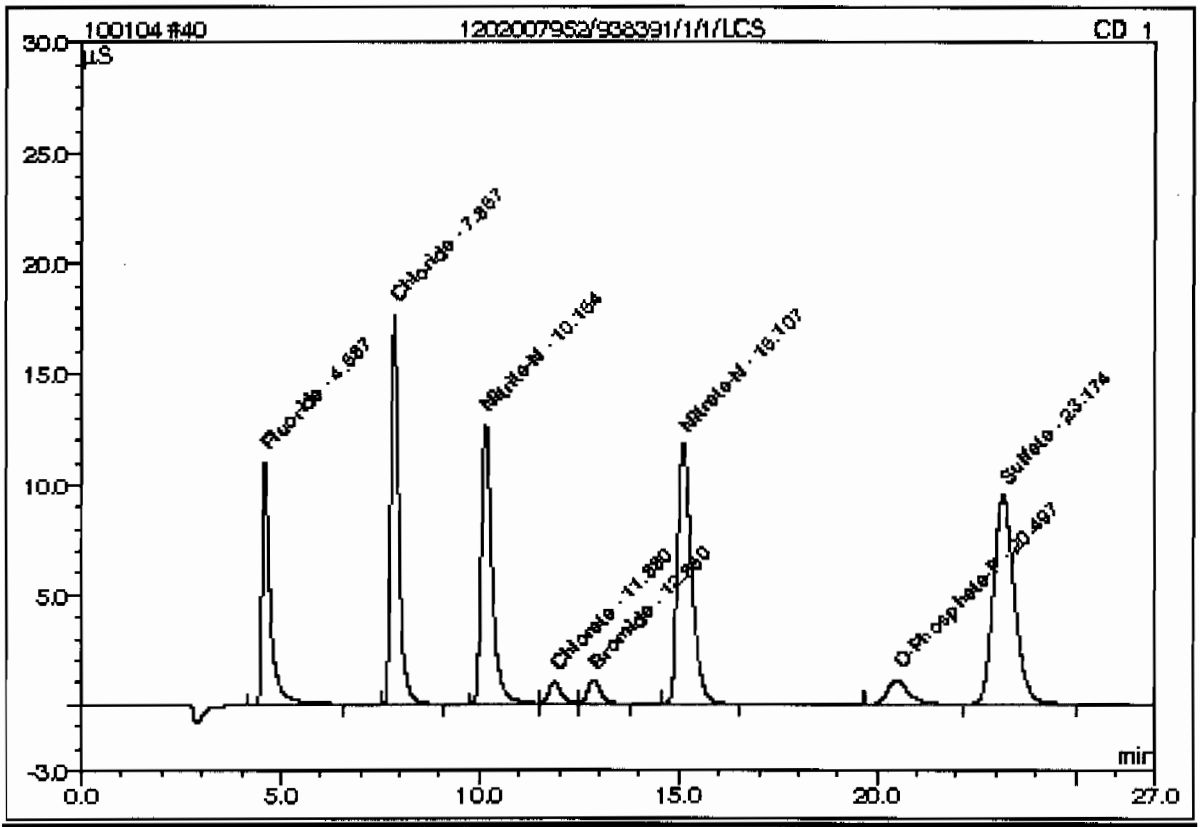

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	n.a.	5.0551		2.65577	11.64
2	7.86	Chloride	n.a.	9.8727		4.10776	18.00
3	10.15	Nitrite-N	n.a.	5.0653		3.94587	17.29
4	11.88	Chlorate	n.a.	2.6000		0.35338	1.55
5	12.85	Bromide	n.a.	2.5703		0.38886	1.70
6	15.11	Nitrate-N	n.a.	4.9753		4.85634	21.28
7	20.50	O-Phosphate-P	n.a.	2.8452		0.68647	3.01
8	23.17	Sulfate	n.a.	20.0189		5.82329	25.52
Total:				53.0026	0.000	22.818	100.00

41 243400001/938391/1/1/

Sample Name:	243400001/938391/1/1/	*Injection Volume:*	50.0
Vial Number:	27	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/5/2010 1:48	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

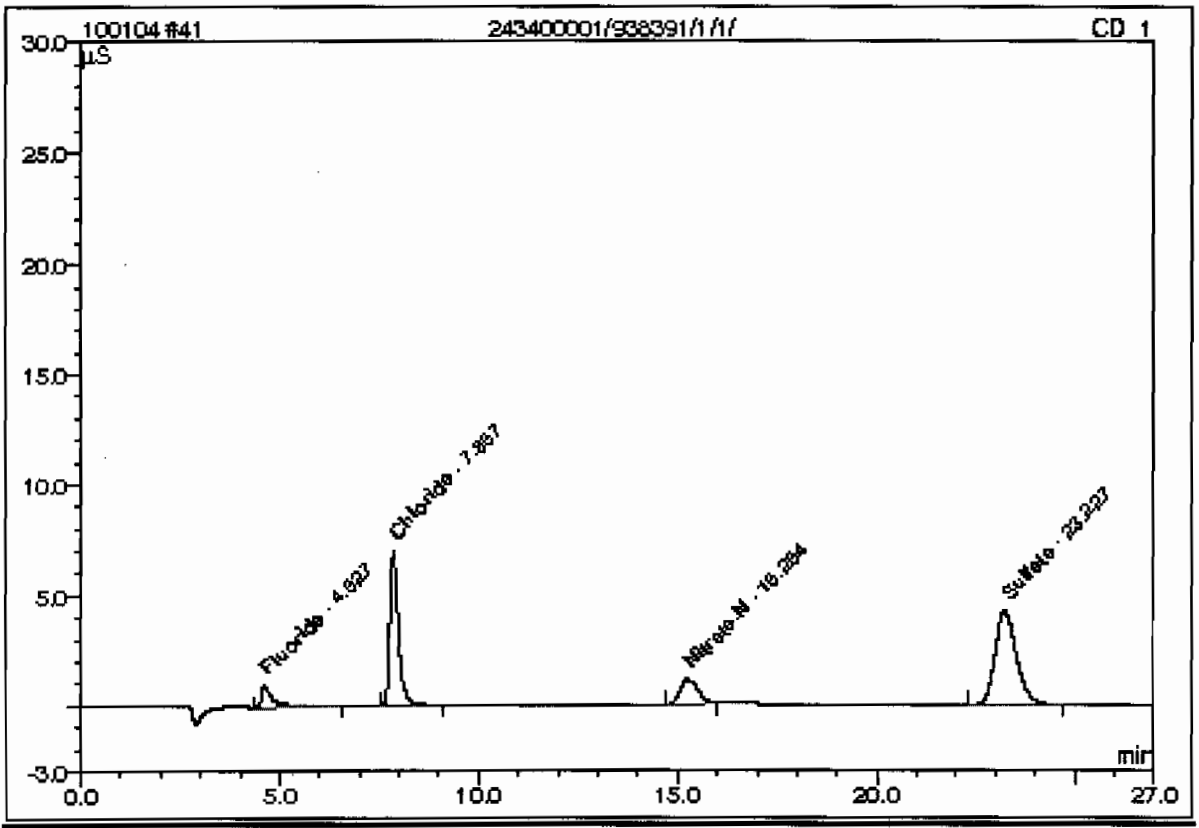

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	n.a.	0.7129		0.35767	6.81
2	7.86	Chloride	n.a.	4.1844		1.72335	32.79
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	15.26	Nitrate-N	n.a.	0.6732		0.56799	10.81
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.23	Sulfate	n.a.	9.1487		2.60645	49.60
Total:				14.7191	0.000	5.255	100.00

42 1202007950/938391/1/1/DUP

Sample Name:	1202007950/938391/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	28	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/5/2010 2:18	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

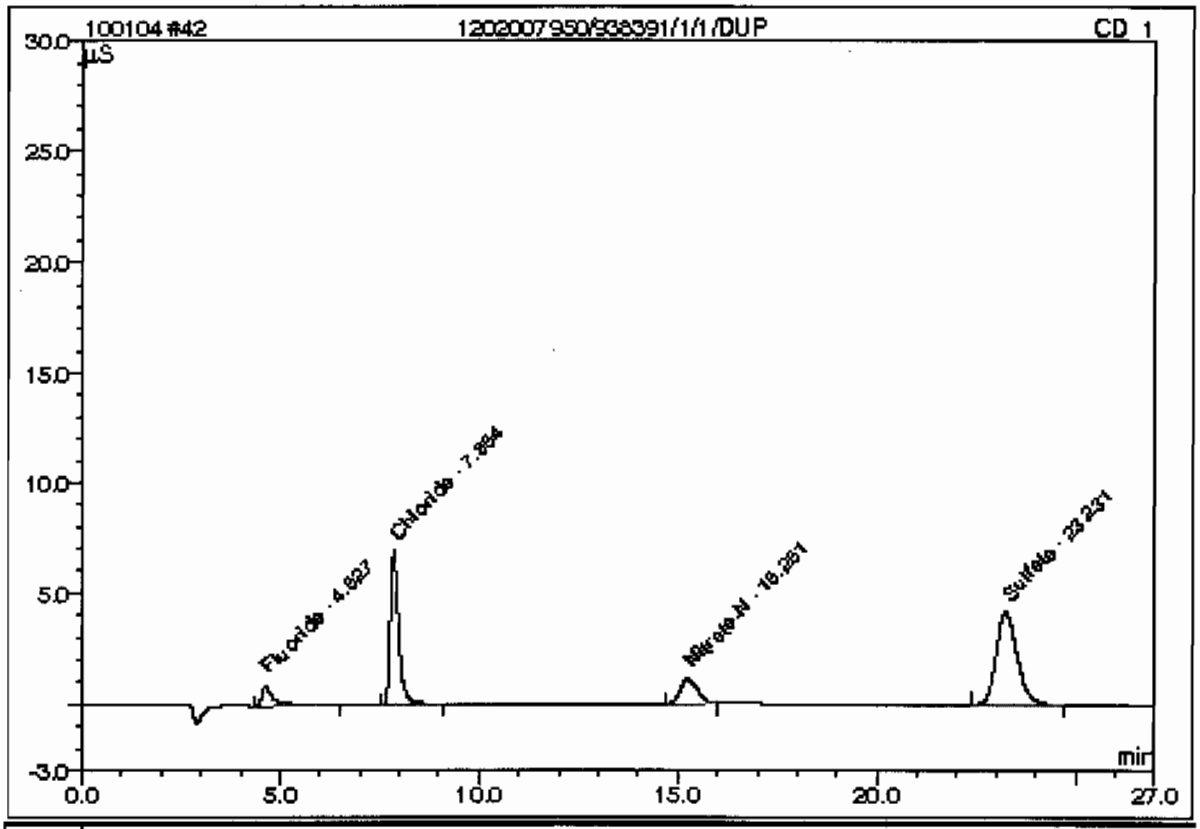

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	n.a.	0.7149		0.35873	6.95
2	7.85	Chloride	n.a.	4.1072		1.69096	32.77
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	15.26	Nitrate-N	n.a.	0.6667		0.56154	10.88
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.23	Sulfate	n.a.	8.9535		2.54868	49.39
Total:				14.4422	0.000	5.160	100.00

43 1202007951/938391/1/1/PS

Sample Name:	1202007951/938391/1/1/PS	*Injection Volume:*	50.0
Vial Number:	29	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/5/2010 2:48	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

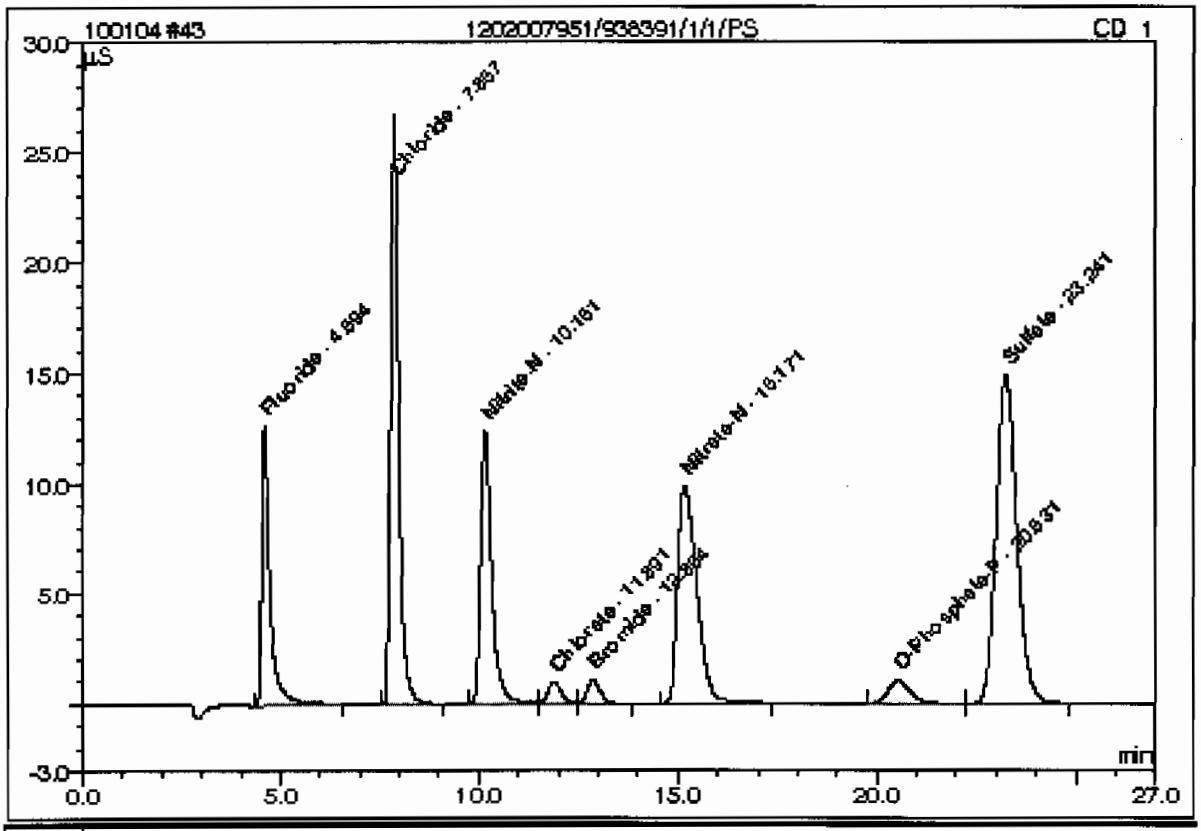

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	n.a.	5.7531		3.02521	10.49
2	7.87	Chloride	n.a.	14.8797		6.20661	21.52
3	10.16	Nitrite-N	n.a.	5.0244		3.91351	13.57
4	11.89	Chlorate	n.a.	2.5996		0.35333	1.23
5	12.86	Bromide	n.a.	2.6286		0.39777	1.38
6	15.17	Nitrate-N	n.a.	5.5992		5.47828	18.99
7	20.53	O-Phosphate-P	n.a.	2.7274		0.65589	2.27
8	23.24	Sulfate	n.a.	30.1173		8.81175	30.55
Total:				69.3293	0.000	28.842	100.00

44 243400004/938391/1/1/

Sample Name:	243400004/938391/1/1/	*Injection Volume:*	50.0
Vial Number:	30	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/5/2010 3:18	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

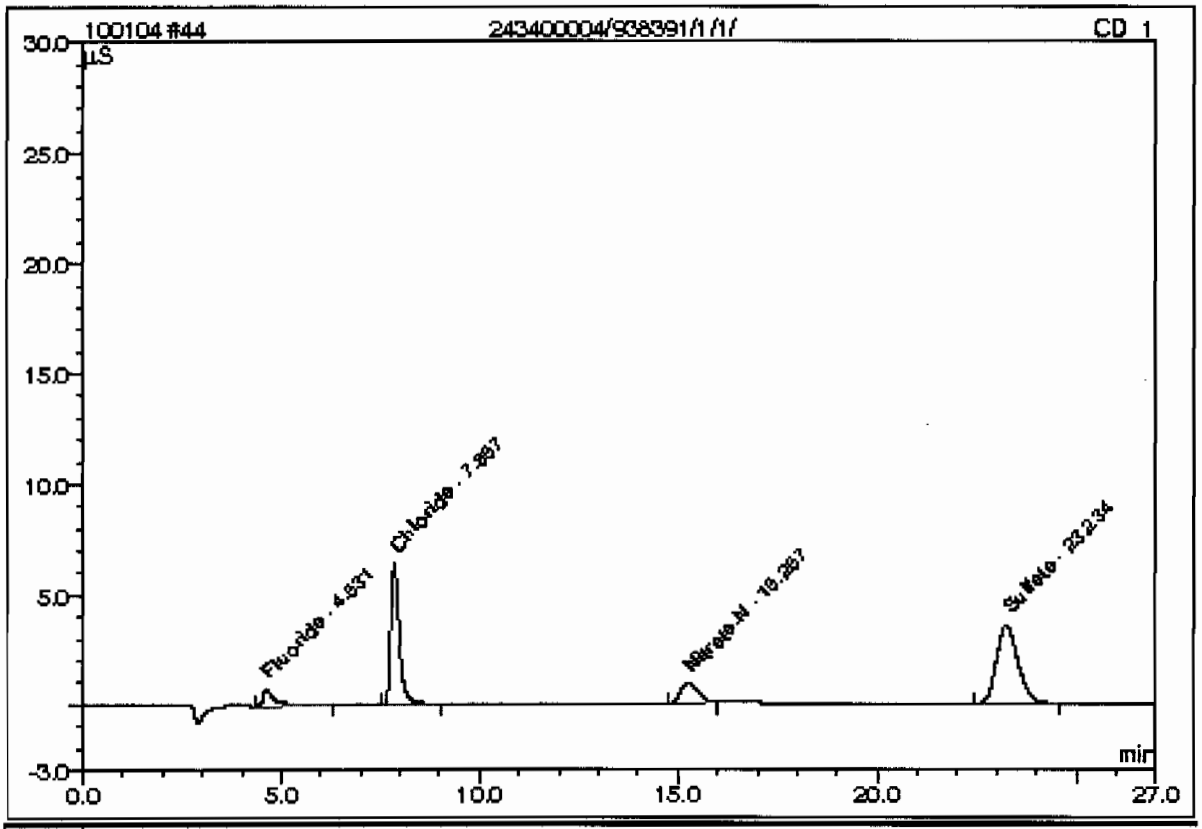

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	n.a.	0.5925		0.29395	6.47
2	7.86	Chloride	n.a.	3.8449		1.58104	34.78
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	15.27	Nitrate-N	n.a.	0.5506		0.44580	9.81
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.23	Sulfate	n.a.	7.8585		2.22465	48.94
Total:				12.8465	0.000	4.545	100.00

45 WIC100104-02CVH

Sample Name:	WIC100104-02CVH	*Injection Volume:*	50.0
Vial Number:	31	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/5/2010 3:48	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

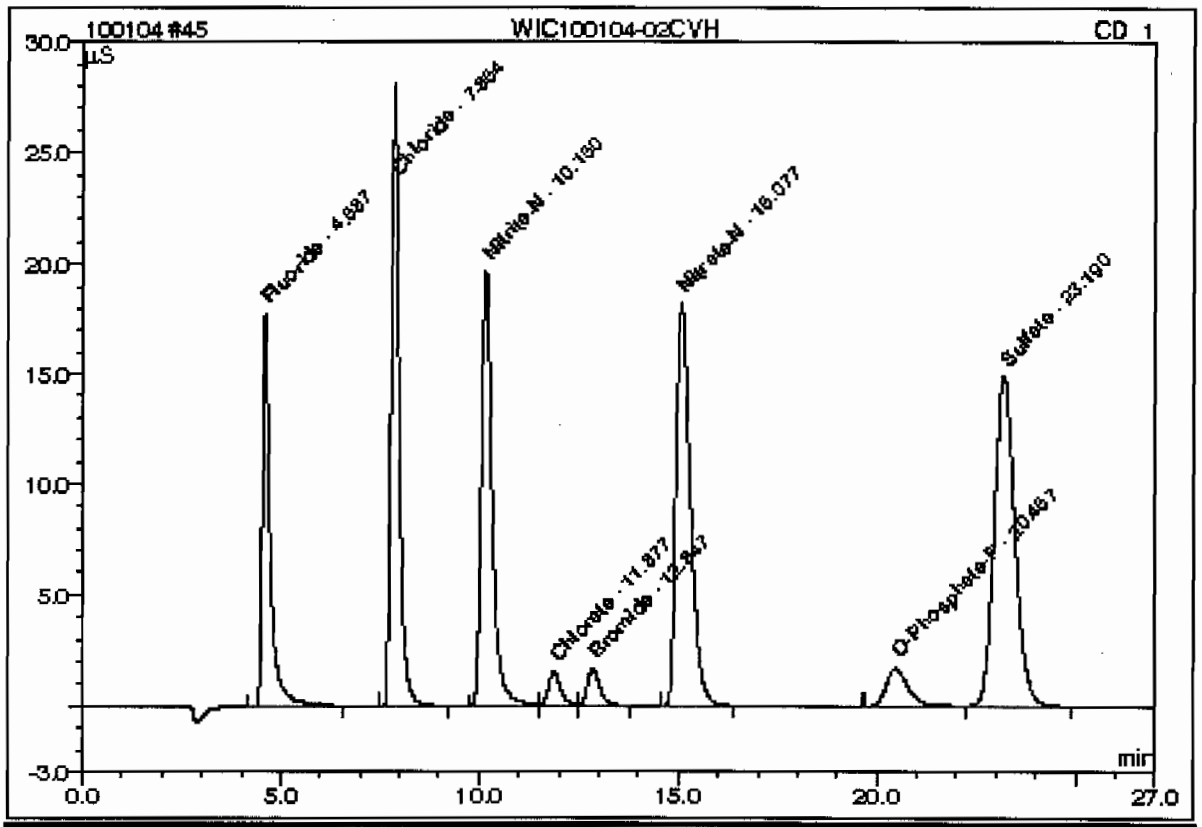

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	n.a.	7.7574		4.08599	11.57
2	7.86	Chloride	n.a.	15.4244		6.43494	18.22
3	10.16	Nitrite-N	n.a.	7.7443		6.06884	17.18
4	11.88	Chlorate	n.a.	3.8310		0.52320	1.48
5	12.85	Bromide	n.a.	3.8278		0.58120	1.65
6	15.08	Nitrate-N	n.a.	7.6917		7.56407	21.42
7	20.47	O-Phosphate-P	n.a.	4.3303		1.07192	3.04
8	23.19	Sulfate	n.a.	30.7119		8.98773	25.45
Total:				81.3188	0.000	35.318	100.00

46 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	32	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/5/2010 4:18	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

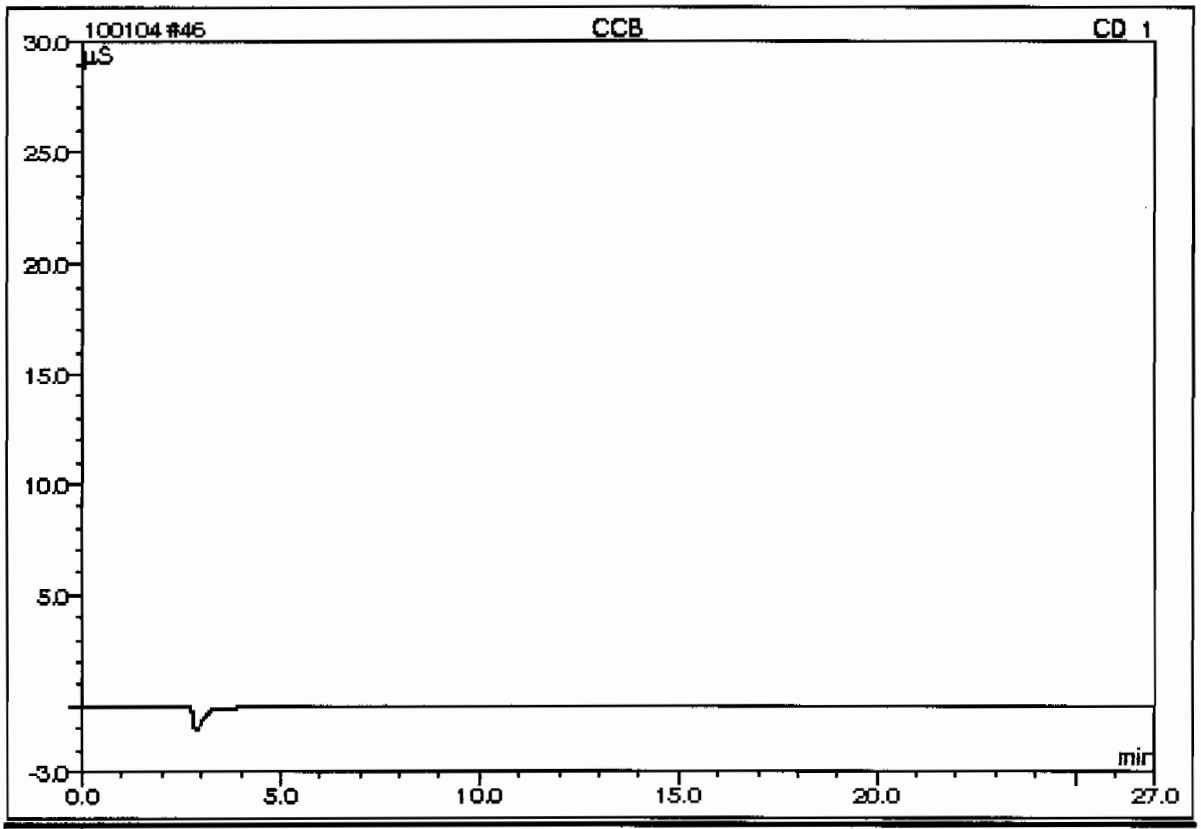

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

Nitrate Nitrite by Cadmium Reduction

This is runlog lachat3

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
1.5 PPM		1	axh3	12/28/2009 10:07:18	OM_12-28-2009_10-05-28
1.0 PPM		1	axh3	12/28/2009 10:08:30	OM_12-28-2009_10-05-28
0.5 ppm		1	axh3	12/28/2009 10:09:43	OM_12-28-2009_10-05-28
0.1 ppm		1	axh3	12/28/2009 10:10:56	OM_12-28-2009_10-05-28
0.05 ppm		1	axh3	12/28/2009 10:12:10	OM_12-28-2009_10-05-28
ICAL-00		1	axh3	12/28/2009 10:13:23	OM_12-28-2009_10-05-28
1.0 ppm ICV		1	axh3	12/28/2009 10:15:46	OM_12-28-2009_10-05-28
ICB		1	axh3	12/28/2009 10:18:08	OM_12-28-2009_10-05-28
Nitrate 1.0 ppm		1	axh3	12/28/2009 10:20:27	OM_12-28-2009_10-05-28
Nitrite 1.0 ppm		1	axh3	12/28/2009 10:22:47	OM_12-28-2009_10-05-28
1202003538	936385	1	axh3	12/28/2009 10:25:08	OM_12-28-2009_10-05-28
1202003543	936385	1	axh3	12/28/2009 10:26:21	OM_12-28-2009_10-05-28
243396001	936385	5	axh3	12/28/2009 10:27:34	OM_12-28-2009_10-05-28
243400001	936385	5	axh3	12/28/2009 10:28:47	OM_12-28-2009_10-05-28
1202003540	936385	5	axh3	12/28/2009 10:29:59	OM_12-28-2009_10-05-28
1202003542	936385	5	axh3	12/28/2009 10:31:12	OM_12-28-2009_10-05-28
243400004	936385	5	axh3	12/28/2009 10:32:25	OM_12-28-2009_10-05-28
243405001	936385	5	axh3	12/28/2009 10:33:38	OM_12-28-2009_10-05-28
1202003539	936385	5	axh3	12/28/2009 10:34:50	OM_12-28-2009_10-05-28
1202003541	936385	5	axh3	12/28/2009 10:36:02	OM_12-28-2009_10-05-28
1.0 ppm CCV		1	axh3	12/28/2009 10:37:14	OM_12-28-2009_10-05-28
CCB		1	axh3	12/28/2009 10:39:36	OM_12-28-2009_10-05-28
243459001	936385	5	axh3	12/28/2009 10:41:56	OM_12-28-2009_10-05-28
243461002	936385	5	axh3	12/28/2009 10:43:07	OM_12-28-2009_10-05-28
243466001	936385	5	axh3	12/28/2009 10:44:20	OM_12-28-2009_10-05-28
243475001*	936385	25	axh3	12/28/2009 10:45:31	OM_12-28-2009_10-05-28
1202004532	936385	25	axh3	12/28/2009 10:46:43	OM_12-28-2009_10-05-28
1202004533	936385	25	axh3	12/28/2009 10:47:56	OM_12-28-2009_10-05-28
243475001	936385	25	axh3	12/28/2009 10:49:07	OM_12-28-2009_10-05-28
243506001	936385	5	axh3	12/28/2009 10:50:21	OM_12-28-2009_10-05-28
243513001	936385	5	axh3	12/28/2009 10:51:34	OM_12-28-2009_10-05-28
243513002	936385	5	axh3	12/28/2009 10:52:46	OM_12-28-2009_10-05-28
1.0 ppm CCV		1	axh3	12/28/2009 10:53:59	OM_12-28-2009_10-05-28
CCB		1	axh3	12/28/2009 10:56:21	OM_12-28-2009_10-05-28
243539001	936385	5	axh3	12/28/2009 10:58:41	OM_12-28-2009_10-05-28
243539002	936385	5	axh3	12/28/2009 10:59:54	OM_12-28-2009_10-05-28
243554001	936385	5	axh3	12/28/2009 11:01:07	OM_12-28-2009_10-05-28
243554002	936385	5	axh3	12/28/2009 11:02:19	OM_12-28-2009_10-05-28
243554003	936385	5	axh3	12/28/2009 11:03:31	OM_12-28-2009_10-05-28
243554004	936385	5	axh3	12/28/2009 11:04:43	OM_12-28-2009_10-05-28
1.0 ppm CCV		1	axh3	12/28/2009 11:07:04	OM_12-28-2009_10-05-28
CCB		1	axh3	12/28/2009 11:09:26	OM_12-28-2009_10-05-28

Author: lachat

Date : 12/28/2009

Original Run Filename: OM_12-28-2009_10-05-28.OMN created 12/28/2009 10:05:28
Original Run Author's Signature: [lachat]
Current Run Filename: OM_12-28-2009_10-05-28.OMN last modified 12/28/2009 11:10:47
Current Run Author's Signature: [lachat]
Description: EPA 353.2
Cadmium Colum 9056CAJ
LCS nominal 1.0 mg/L

Sample	Rep.	Cup No.	Channel 1 NO3 + NO2 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR091228-26	1	S9	1.50	18.5	12/28/2009@10:07:18			1.5 PPM
WTR091228-25	1	S10	1.00	12.3	12/28/2009@10:08:30			1.0 PPM
WTR091228-24	1	S11	0.500	6.12	12/28/2009@10:09:43			0.5 ppm
WTR091228-23	1	S12	0.100	1.24	12/28/2009@10:10:56			0.1 ppm
WTR091228-21	1	S13	0.0500	0.652	12/28/2009@10:12:10			0.05 ppm
0.0ppm	1	S15	0.00	-0.00206	12/28/2009@10:13:23			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99999 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR091228-27 ICV	1	S16	0.960	11.8	12/28/2009@10:15:46			1.0 ppm ICV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.960 < 1.10					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.960 > 0.894					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
ICB	1	S15	-0.00298	-0.0321	12/28/2009@10:18:08			ICB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00298 < 0.0500					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00298 > -0.0500					
		Message	ICB Passed					
		Action	Continue					
WTR091228-22	1	S1	0.922	11.3	12/28/2009@10:20:27			Nitrate 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.922 < 1.10					
		Message	Nitrate Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.922 > 0.894					
		Message	Nitrate Standard Passed					
		Action	Continue					
WTR091228-28	1	S2	0.927	11.4	12/28/2009@10:22:47			Nitrite 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.927 < 1.10					
		Message	Nitrite Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.927 > 0.894					
		Message	Nitrite Standard Passed					
		Action	Continue					
1202003538|936385|MB	1	1	0.00575	0.0752	12/28/2009@10:25:08			
1202003543||LCS	1	2	0.968	11.9	12/28/2009@10:26:21			
243396001	1	3	0.0111	0.141	12/28/2009@10:27:34		5.00	
243400001	1	4	0.142	1.75	12/28/2009@10:28:47		5.00	
1202003540||DUP	1	5	0.152	1.87	12/28/2009@10:29:59		5.00	

1202003542||PS	1	6	1.21	14.9	12/28/2009@10:31:12		5.00	
243400004	1	7	0.121	1.49	12/28/2009@10:32:25		5.00	
243405001	1	8	0.00636	0.0827	12/28/2009@10:33:38		5.00	
1202003539||DUP	1	9	0.00738	0.0952	12/28/2009@10:34:50		5.00	
1202003541||PS	1	10	1.04	12.8	12/28/2009@10:36:02		5.00	
WTR091228-25 CCV	1	S10	0.978	12.0	12/28/2009@10:37:14			1.0 ppm CCV
		Known Conc:	1.00					
			DQM Test: > + Concentration Limit					
		Result:	0.978 < 1.10					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.978 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00176	-0.0172	12/28/2009@10:39:36			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.00176 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.00176 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
243459001	1	11	0.0225	0.281	12/28/2009@10:41:56		5.00	
243461002	1	12	0.0977	1.21	12/28/2009@10:43:07		5.00	
243466001	1	13	0.220	2.71	12/28/2009@10:44:20		5.00	
243475001	1	14	0.233	2.87	12/28/2009@10:45:31		25.00	
1202004532||DUP	1	15	0.154	1.89	12/28/2009@10:46:43		25.00	
1202004533||PS	1	16	1.16	14.2	12/28/2009@10:47:56		25.00	
243475001	1	14	0.154	1.90	12/28/2009@10:49:07		25.00	
243506001	1	17	0.00449	0.0596	12/28/2009@10:50:21		5.00	
243513001	1	18	0.00417	0.0558	12/28/2009@10:51:34		5.00	
243513002	1	19	0.00583	0.0761	12/28/2009@10:52:46		5.00	
WTR091228-25 CCV	1	S10	0.993	12.2	12/28/2009@10:53:59			1.0 ppm CCV
		Known Conc:	1.00					
			DQM Test: > + Concentration Limit					
		Result:	0.993 < 1.10					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.993 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	2.18e-4	0.00716	12/28/2009@10:56:21			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	2.18e-4 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	2.18e-4 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
243539001	1	20	0.00549	0.0720	12/28/2009@10:58:41		5.00	
243539002	1	21	0.00589	0.0769	12/28/2009@10:59:54		5.00	
243554001	1	22	0.00359	0.0486	12/28/2009@11:01:07		5.00	
243554002	1	23	0.00408	0.0546	12/28/2009@11:02:19		5.00	
243554003	1	24	0.00602	0.0785	12/28/2009@11:03:31		5.00	
243554004	1	25	0.00478	0.0633	12/28/2009@11:04:43		5.00	
WTR091228-25 CCV	1	S10	0.968	11.9	12/28/2009@11:07:04			1.0 ppm CCV
		Known Conc:	1.00					
			DQM Test: > + Concentration Limit					
		Result:	0.968 < 1.10					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					

Author: lachat

Date : 12/28/2009

			Result:	0.968 > 0.894				
			Message	CCV Passed				
			Action	Continue				
CCB	1	S15	6.80e-4	0.0128	12/28/2009@11:09:26			CCB
			Known Conc:	0.00				
			DQM Test: > + Concentration Limit					
			Result:	6.80e-4 < 0.0500				
			Message	CCB Passed				
			Action	Continue				
			DQM Test: < - Concentration Limit					
			Result:	6.80e-4 > -0.0500				
			Message	CCB Passed				
			Action	Continue				

Channel 1 (NO3 + NO2) : Current View

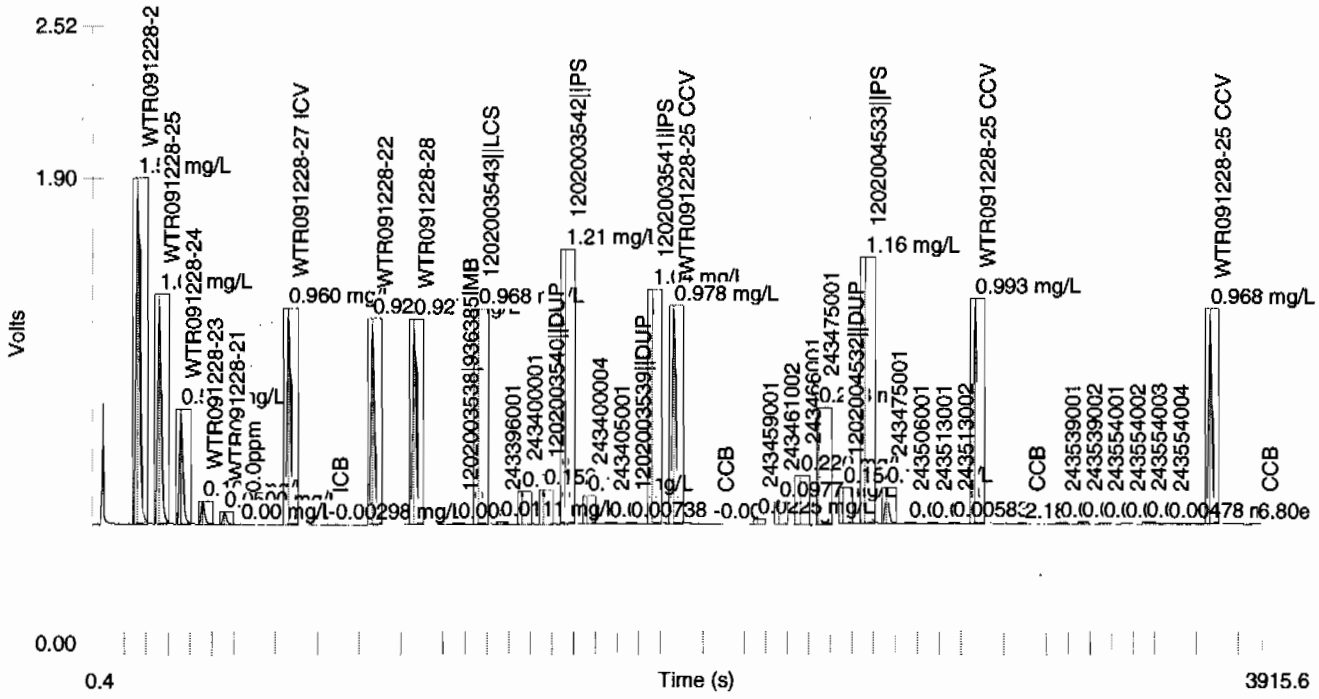

Table 1: NO3 + NO2

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	1.50	1	18.5	1.41	-0.1	12/28/2009	10:08:38
2	1.00	1	12.3	0.937	0.1	12/28/2009	10:09:50
3	0.500	1	6.12	0.463	0.5	12/28/2009	10:11:03
4	0.100	1	1.24	0.0936	-0.3	12/28/2009	10:12:16
5	0.0500	1	0.652	0.0485	-5.3	12/28/2009	10:13:29
6	0.00	1	-0.00206	-0.00167		12/28/2009	10:14:43

Author: lachat

Date : 12/28/2009

Figure 1: NO3 + NO2

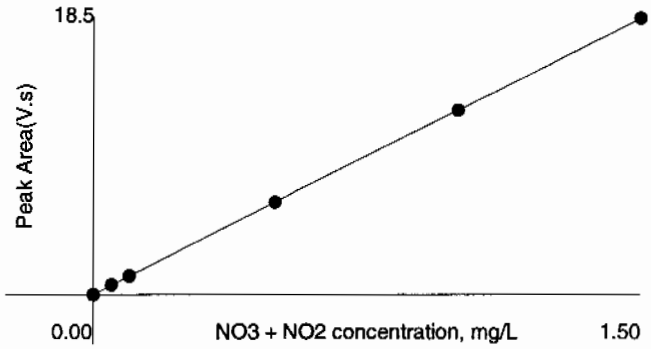

Area = 12.3 * Conc + 0.00454
Conc = 0.0813 * Area - 3.64e-4
Correlation Coefficient (r) = 0.99999

No Weighting

Solids, Total Dissolved

Batch: 936140.0
Analyst:SDS

TDS/TS/VS LogBook

Procedure Code BALDSEP_L
Procedure Description EPA 160.1 Solids, Dissolved
Lab Sop GL-GC-E-001

Sample Type	Sample Id	Lot Id	Nc(mg/L)	Recovery(%)
LCS	1202003084	WTD1230904-01	300	98

Sample Type	Sample Id	Rpd(%)
DUP	1202003284	3.2573289902280

Sample Id	Sample Type	Original Hsn	Instrument	Run Date	Crucible ID	Aliquot (L)	Crucible Wt(g)	Final Wt Event 1	Final Wt Event 2	Final Wt Event 3	Final Wt Event 4	Result	Units
1202003082	MB		BAL216	23-DEC-2009 10:09	B7	0.1	54.7923	54.7921	54.7921			-2	mg/L
1202003084	LCS		BAL216	23-DEC-2009 10:09	SUN	0.1	46.4097	46.4391	46.4391			294	mg/L
243330001	SAMPLE		BAL216	23-DEC-2009 10:09	YOU	0.02	53.3284	53.3471	53.3468			920	mg/L
243400001	SAMPLE		BAL216	23-DEC-2009 10:45	MNY	0.1	54.046	54.0617	54.0616			156	mg/L
1202003284	DUP	243400001	BAL216	23-DEC-2009 10:45	DUK	0.1	55.727	55.7424	55.7421			151	mg/L
243400004	SAMPLE		BAL216	23-DEC-2009 10:45	18	0.1	56.1773	56.1922	56.1917			144	mg/L

Comments: **All Weights are in Grams**
A) Result = (Final - Crucible)/Aliquot * 1000
B) Prep Factor = 0.5 / Aliquot

Date: 23-DEC-09 11:44:10
Date: 28-DEC-09 07:44:10
Temperature: 104 C
Temperature: 180 C

Note: Aliquot is used for the determination of the effective MDL and PQL in LIMS

Specific Conductivity

Analytical Logbook

Conductivity and Salinity

Batch ID: 936302.0
Analyst: Lindsey Allen
Method: EPA 120.1
Lab SOP: GL-GC-E-009 REV# 9
Instrument: Orion 160 Conductivity Meter

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
CCV	240	Conductivity LCS	WCO091117-06	25	mL
LCS	1202003381	Conductivity LCS	WCO091117-06	25	mL

Sample ID	Run Date	Dilution	Temperature (C)	Conductivity Result (umhos/cm)
1202003381 LCS	23-DEC-2009 12:44:03	1	24.2	1437
243400001	23-DEC-2009 12:44:04	1	24.3	231
1202003382 DUP (243400001)	23-DEC-2009 12:44:05	1	25	235
243400004	23-DEC-2009 12:44:06	1	24.2	206
CCV	23-DEC-2009 12:44:07	1	24.2	1422

Calibration Information:

Run Date: 23-DEC-09 10:17
Instrument: CON160
Analyst: LXA1

Standard	Observed	Theoretical		%Recovery
WCO091223-07	15.16	14.5	umhos/cm	104.55
WD091223-01	1333	1413	umhos/cm	94.338
WCO091223-04	1745	1900	umhos/cm	91.842
WCO091223-08	22400	24800	umhos/cm	90.323
WCO091223-01	238	250	umhos/cm	95.2
WCO091223-02	694	750	umhos/cm	92.533

Comments:

Total Phosphorus

Prep LogBook

Analyst: SXJ1 Verified by:_____

Batch: 936388

Lab SOP: GL-GC-E-071 REV# 10

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202003553	UTR1169166-01	.2	mL
MS	1202003551	UTR1169166-01	.2	mL
MSD	1202003552	UTR1169166-01	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202003549		EPA 365.4 Prep	28-DEC-2009 10:00	< 2	20 mL	20 mL	1	GROUND WATER
LCS	1202003553		EPA 365.4 Prep	28-DEC-2009 10:00	< 2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243400001		EPA 365.4 Prep	28-DEC-2009 10:00	< 2	20 mL	20 mL	1	GROUND WATER
DUP	1202003550	243400001	EPA 365.4 Prep	28-DEC-2009 10:00	< 2	20 mL	20 mL	1	GROUND WATER
MS	1202003551	243400001	EPA 365.4 Prep	28-DEC-2009 10:00	< 2	20 mL	20 mL	1	GROUND WATER
MSD	1202003552	243400001	EPA 365.4 Prep	28-DEC-2009 10:00	< 2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243400004		EPA 365.4 Prep	28-DEC-2009 10:00	< 2	20 mL	20 mL	1	GROUND WATER

Reagent/Solvent Lot ID	Amount	Description
1246594-C	4 mL	TKN/PO4 Digestion Solution

Comments:

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
3.0 ppm Std.		1	axh3	12/31/2009 8:55:37	OM_12-31-2009_08-52-17
1.0 ppm Std.		1	axh3	12/31/2009 8:56:26	OM_12-31-2009_08-52-17
0.5 ppm Std		1	axh3	12/31/2009 8:57:15	OM_12-31-2009_08-52-17
0.1 ppm Std		1	axh3	12/31/2009 8:58:05	OM_12-31-2009_08-52-17
0.05 ppm Std		1	axh3	12/31/2009 8:58:57	OM_12-31-2009_08-52-17
ICAL-00		1	axh3	12/31/2009 8:59:48	OM_12-31-2009_08-52-17
ICV		1	axh3	12/31/2009 9:01:53	OM_12-31-2009_08-52-17
ICB		1	axh3	12/31/2009 9:03:58	OM_12-31-2009_08-52-17
1202003549*	936389	1	axh3	12/31/2009 9:06:02	OM_12-31-2009_08-52-17
1202003553*	936389	1	axh3	12/31/2009 9:06:53	OM_12-31-2009_08-52-17
243400001*	936389	1	axh3	12/31/2009 9:07:44	OM_12-31-2009_08-52-17
1202003550*	936389	1	axh3	12/31/2009 9:08:35	OM_12-31-2009_08-52-17
1202003551*	936389	1	axh3	12/31/2009 9:09:25	OM_12-31-2009_08-52-17
1202003552*	936389	1	axh3	12/31/2009 9:10:15	OM_12-31-2009_08-52-17
243400004*	936389	1	axh3	12/31/2009 9:11:05	OM_12-31-2009_08-52-17
1202005525*	937232	1	axh3	12/31/2009 9:11:54	OM_12-31-2009_08-52-17
1202005532*	937232	1	axh3	12/31/2009 9:12:43	OM_12-31-2009_08-52-17
243459001*	937232	1	axh3	12/31/2009 9:13:32	OM_12-31-2009_08-52-17
CCV		1	axh3	12/31/2009 9:14:20	OM_12-31-2009_08-52-17
CCB		1	axh3	12/31/2009 9:16:25	OM_12-31-2009_08-52-17
1202005526*	937232	1	axh3	12/31/2009 9:18:28	OM_12-31-2009_08-52-17
1202005528*	937232	1	axh3	12/31/2009 9:19:15	OM_12-31-2009_08-52-17
1202005530*	937232	1	axh3	12/31/2009 9:20:04	OM_12-31-2009_08-52-17
243461002*	937232	1	axh3	12/31/2009 9:20:51	OM_12-31-2009_08-52-17
1202005527*	937232	1	axh3	12/31/2009 9:21:39	OM_12-31-2009_08-52-17
1202005529*	937232	1	axh3	12/31/2009 9:22:28	OM_12-31-2009_08-52-17
1202005531*	937232	1	axh3	12/31/2009 9:23:19	OM_12-31-2009_08-52-17
243466001*	937232	1	axh3	12/31/2009 9:24:10	OM_12-31-2009_08-52-17
243581001*	937232	1	axh3	12/31/2009 9:25:01	OM_12-31-2009_08-52-17
243581003*	937232	1	axh3	12/31/2009 9:25:52	OM_12-31-2009_08-52-17
CCV		1	axh3	12/31/2009 9:26:43	OM_12-31-2009_08-52-17
CCB		1	axh3	12/31/2009 9:28:47	OM_12-31-2009_08-52-17
1202003549*	936389	1	axh3	12/31/2009 9:30:51	OM_12-31-2009_08-52-17
1202003553	936389	1	axh3	12/31/2009 9:31:41	OM_12-31-2009_08-52-17
243400001	936389	1	axh3	12/31/2009 9:32:32	OM_12-31-2009_08-52-17
1202003549	936389	1	axh3	12/31/2009 9:33:23	OM_12-31-2009_08-52-17
1202003550	936389	1	axh3	12/31/2009 9:34:14	OM_12-31-2009_08-52-17
1202003551	936389	1	axh3	12/31/2009 9:35:05	OM_12-31-2009_08-52-17
1202003552	936389	1	axh3	12/31/2009 9:35:55	OM_12-31-2009_08-52-17
243400004	936389	1	axh3	12/31/2009 9:36:44	OM_12-31-2009_08-52-17
1202005525	937232	1	axh3	12/31/2009 9:37:33	OM_12-31-2009_08-52-17
1202005532	937232	1	axh3	12/31/2009 9:38:23	OM_12-31-2009_08-52-17
CCV		1	axh3	12/31/2009 9:39:12	OM_12-31-2009_08-52-17
CCB		1	axh3	12/31/2009 9:41:16	OM_12-31-2009_08-52-17
243459001*	937232	1	axh3	12/31/2009 9:43:19	OM_12-31-2009_08-52-17
1202005526	937232	1	axh3	12/31/2009 9:44:08	OM_12-31-2009_08-52-17
1202005528	937232	1	axh3	12/31/2009 9:44:56	OM_12-31-2009_08-52-17
1202005530	937232	1	axh3	12/31/2009 9:45:44	OM_12-31-2009_08-52-17
243459001	937232	1	axh3	12/31/2009 9:46:32	OM_12-31-2009_08-52-17
243461002	937232	1	axh3	12/31/2009 9:47:20	OM_12-31-2009_08-52-17
1202005527	937232	1	axh3	12/31/2009 9:48:07	OM_12-31-2009_08-52-17
1202005529	937232	1	axh3	12/31/2009 9:48:57	OM_12-31-2009_08-52-17
1202005531	937232	1	axh3	12/31/2009 9:49:49	OM_12-31-2009_08-52-17
243466001	937232	50	axh3	12/31/2009 9:50:40	OM_12-31-2009_08-52-17
CCV		1	axh3	12/31/2009 9:51:30	OM_12-31-2009_08-52-17
CCB		1	axh3	12/31/2009 9:53:35	OM_12-31-2009_08-52-17
243581001	937232	1	axh3	12/31/2009 9:55:38	OM_12-31-2009_08-52-17
243581003	937232	1	axh3	12/31/2009 9:56:30	OM_12-31-2009_08-52-17

243581005	937232	1	axh3	12/31/2009	9:57:20 OM_12-31-2009_08-52-17
CCV		1	axh3	12/31/2009	9:59:23 OM_12-31-2009_08-52-17
CCB		1	axh3	12/31/2009	10:01:28 OM_12-31-2009_08-52-17

Author: axh3 Date : 12/31/2009

Original Run Filename: OM_12-31-2009_08-52-17.OMN created 12/31/2009 8:52:17
Original Run Author's Signature: [axh3]
Current Run Filename: OM_12-31-2009_08-52-17.OMN last modified 12/31/2009 10:02:50
Current Run Author's Signature: [axh3]
Description: Total Phosphorous EPA Method 365.4 GEL SOP: GL-GC-E-103
Detection Wavelength: 880nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TLPOS Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR091231-13	1	S2	3.000	15.292	12/31/2009@8:55:37			3.0 ppm Std.
WTR091231-14	1	S3	1.000	5.078	12/31/2009@8:56:26			1.0 ppm Std.
WTR091231-15	1	S4	0.500	2.391	12/31/2009@8:57:15			0.5 ppm Std
WTR091231-16	1	S5	0.100	0.363	12/31/2009@8:58:05			0.1 ppm Std
WTR091231-17	1	S6	0.050	0.204	12/31/2009@8:58:57			0.05 ppm Std
WTR091231-19 0.0	1	S7	0.000	0.041	12/31/2009@8:59:48			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99992 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR091231-18 ICV	1	S8	0.926	4.668	12/31/2009@9:01:53			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	0.926 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.926 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR091231-19 ICB	1	S7	-0.003	-0.086	12/31/2009@9:03:58			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.003 < 0.050					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.003 > -0.050					
		Message	ICB Passed					
		Action	Continue					
1202003549|936389|MB	1	1	1.739	8.829	12/31/2009@9:06:02			
1202003553||LCS	1	2	0.967	4.876	12/31/2009@9:06:53			
243400001	1	3	0.036	0.111	12/31/2009@9:07:44			
1202003550||DUP	1	4	0.032	0.091	12/31/2009@9:08:35			
1202003551||MS	1	5	0.945	4.766	12/31/2009@9:09:25			
1202003552||MSD	1	6	0.938	4.729	12/31/2009@9:10:15			
243400004	1	7	0.044	0.150	12/31/2009@9:11:05			
1202005525|937232|MB	1	8	0.052	0.191	12/31/2009@9:11:54			
1202005532||LCS	1	9	0.470	2.331	12/31/2009@9:12:43			
243459001	1	10	0.065	0.259	12/31/2009@9:13:32			
WTR091231-14 CCV	1	S3	1.002	5.055	12/31/2009@9:14:20			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.002 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.002 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091231-19 CCB	1	S7	0.023	0.046	12/31/2009@9:16:25			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								

		Result:	0.023 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.023 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1202005526||DUP	1	11	0.070	0.284	12/31/2009@9:18:28			
1202005528||MS	1	12	0.774	3.890	12/31/2009@9:19:15			
1202005530||MSD	1	13	0.920	4.638	12/31/2009@9:20:04			
243461002	1	14	0.049	0.180	12/31/2009@9:20:51			
1202005527||DUP	1	15	0.057	0.218	12/31/2009@9:21:39			
1202005529||MS	1	16	0.981	4.952	12/31/2009@9:22:28			
1202005531||MSD	1	17	0.857	4.315	12/31/2009@9:23:19			
243466001	1	18	30.444	155.792	12/31/2009@9:24:10			
243581001	1	19	0.257	1.241	12/31/2009@9:25:01			
243581003	1	20	0.143	0.660	12/31/2009@9:25:52			
WTR091231-14 CCV	1	S3	0.973	4.908	12/31/2009@9:26:43			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.973 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.973 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091231-19 CCB	1	S7	0.025	0.053	12/31/2009@9:28:47			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.025 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.025 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1202003549|936389|MB	1	1	0.192	0.912	12/31/2009@9:30:51			
1202003553||LCS	1	2	0.969	4.889	12/31/2009@9:31:41			
243400001	1	3	0.037	0.117	12/31/2009@9:32:32			
1202003549|936389|MB	1	1	0.022	0.038	12/31/2009@9:33:23			
1202003550||DUP	1	4	0.029	0.074	12/31/2009@9:34:14			
1202003551||MS	1	5	0.964	4.865	12/31/2009@9:35:05			
1202003552||MSD	1	6	0.944	4.760	12/31/2009@9:35:55			
243400004	1	7	0.046	0.164	12/31/2009@9:36:44			
1202005525|937232|MB	1	8	0.023	0.043	12/31/2009@9:37:33			
1202005532||LCS	1	9	1.008	5.090	12/31/2009@9:38:23			
WTR091231-14 CCV	1	S3	0.999	5.041	12/31/2009@9:39:12			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.999 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.999 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091231-19 CCB	1	S7	0.025	0.056	12/31/2009@9:41:16			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.025 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.025 > -0.050					
		Message	CCB Passed					
		Action	Continue					
243459001	1	10	0.142	0.652	12/31/2009@9:43:19			

1202005526||DUP	1	11	0.067	0.269	12/31/2009@9:44:08			
1202005528||MS	1	12	0.773	3.887	12/31/2009@9:44:56			
1202005530||MSD	1	13	0.914	4.606	12/31/2009@9:45:44			
243459001	1	10	0.068	0.274	12/31/2009@9:46:32			
243461002	1	14	0.050	0.182	12/31/2009@9:47:20			
1202005527||DUP	1	15	0.055	0.211	12/31/2009@9:48:07			
1202005529||MS	1	16	0.993	5.009	12/31/2009@9:48:57			
1202005531||MSD	1	17	0.862	4.338	12/31/2009@9:49:49			
243466001	1	18	0.677	3.395	12/31/2009@9:50:40		50.00	
WTR091231-14 CCV	1	S3	0.981	4.950	12/31/2009@9:51:30			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.981 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.981 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091231-19 CCB	1	S7	0.025	0.053	12/31/2009@9:53:35			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.025 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.025 > -0.050					
		Message	CCB Passed					
		Action	Continue					
243581001	1	19	0.171	0.803	12/31/2009@9:55:38			
243581003	1	20	0.134	0.615	12/31/2009@9:56:30			
243581005	1	21	0.056	0.214	12/31/2009@9:57:20			
WTR091231-14 CCV	1	S3	0.988	4.984	12/31/2009@9:59:23			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.988 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.988 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091231-19 CCB	1	S7	0.024	0.050	12/31/2009@10:01:28			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.024 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.024 > -0.050					
		Message	CCB Passed					
		Action	Continue					

Author: axh3 Date : 12/31/2009

Channel 1 (TLPOS) : Current View

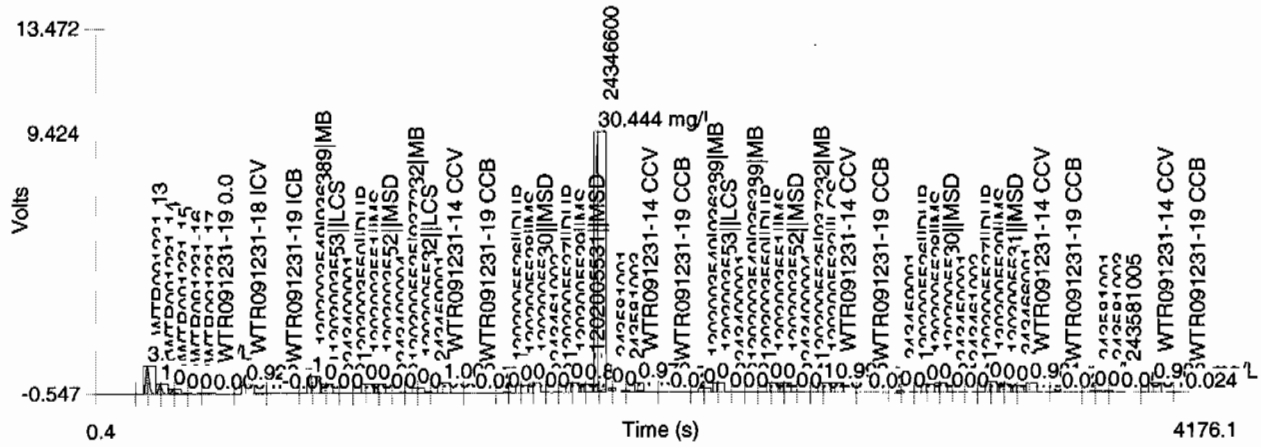

Table 1: TLPOS

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	3.000	1	15.292	1.089	-0.1	12/31/2009	8:56:57
2	1.000	1	5.078	0.373	-0.6	12/31/2009	8:57:46
3	0.500	1	2.391	0.179	3.9	12/31/2009	8:58:35
4	0.100	1	0.363	0.030	17.5	12/31/2009	8:59:25
5	0.050	1	0.204	0.016	-10.9	12/31/2009	9:00:17
6	0.000	1	0.041	0.004		12/31/2009	9:01:09

Figure 1: TLPOS

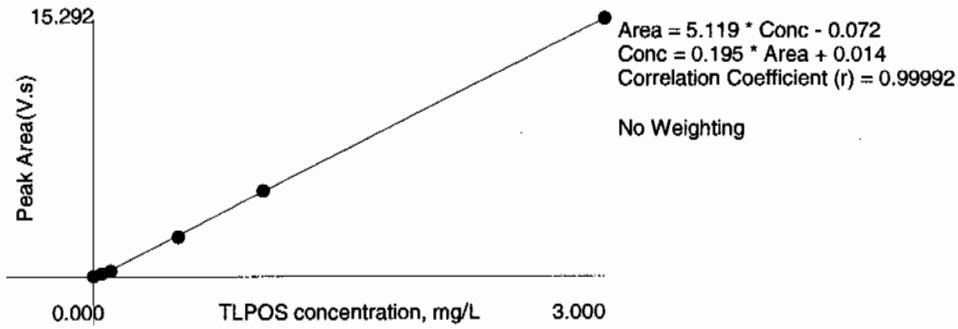

pH

pH / Corrosivity LogBook

Analyst: LXA1
Batch: 936298
Lab SOP: GL-GC-E-008 REV# 17
Description: pH
Method: SW846 9040C

Type	Sample Id	Serial Number	Description
CCV	240	IMM091029-PH	PH 7 BUFFER FOR PH
LCS	1202003379	IMM090728-01	LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parmname	Initial Wt()	Final Vol()	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
1202003379 LCS		Ground Water			23-DEC-09 13:03	pH			6.97	19.9'C	7	99.571	
1202003379 LCS		Ground Water			23-DEC-09 13:03	pH 2			6.96	19.9'C	7	99.429	
243400001		Ground Water			23-DEC-09 13:04	pH			8	15.3'C			
243400001		Ground Water			23-DEC-09 13:04	pH 2			8.03	15.6'C			
1202003380 DUP	243400001	Ground Water			23-DEC-09 13:09	pH			8.03	15.3'C			.374
1202003380 DUP	243400001	Ground Water			23-DEC-09 13:09	pH 2			8.02	15.3'C			.125
243400004		Ground Water			23-DEC-09 13:09	pH			8.06	15.8'C			
243400004		Ground Water			23-DEC-09 13:09	pH 2			8.06	15.8'C			
243443009		Waste Water			23-DEC-09 13:11	pH			8.83	13.4'C			
243443009		Waste Water			23-DEC-09 13:11	pH 2			8.84	13.5'C			
CCV					23-DEC-09 13:13	pH			7	18.7'C	7	100	
CCV					23-DEC-09 13:13	pH 2			7	18.8'C	7	100	
243443020		Waste Water			23-DEC-09 13:18	pH			8.4	15.2'C			
243443020		Waste Water			23-DEC-09 13:18	pH 2			8.42	15.2'C			
243443031		Waste Water			23-DEC-09 13:20	pH			8.79	15.0'C			
243443031		Waste Water			23-DEC-09 13:20	pH 2			8.79	15.4'C			
CCV					23-DEC-09 13:23	pH			7.01	18.5'C	7	100.143	
CCV					23-DEC-09 13:23	pH 2			7.01	18.5'C	7	100.143	

Calibration Information:
Run Date: 23-DEC-09 09:32
Instrument: PHX742
Analyst: LXA1

	Standard	Observed	Theoretical		C	%Recovery
09:32	IMM091223-PH1	4.01	4	SU	21.1	100.25
09:32	IMM091223-PH-	7	7	SU	21.1	100
09:32	UPH091223-b	10.01	10	SU	21.1	100.1
09:32	UPH091223-02c-	2.08	2	SU	21.1	104
09:32	091223-b	12.04	12	SU	21.1	100.33

Comments:

GEL Laboratories LLC

Page#_____

pH / Corrosivity LogBook

09:32	IMM091223-01b	7	7	SU	21.1	100

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1021

Method/Analysis Information

Product:	**Alphaspec Am241 Liquid**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Analytical Batch Number:	936901

Sample ID	Client ID
243400002	CAPA-10-6823
243400003	CAPA-10-6824
1202004657	Method Blank (MB)
1202004658	243400003(CAPA-10-6824) Sample Duplicate (DUP)
1202004659	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202004657 (MB) and 1202004659 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243400003 (CAPA-10-6824). The QC was from LANL work order 243400.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec Pu, Liquid**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	936902

Sample ID	Client ID
243400002	CAPA-10-6823
243400003	CAPA-10-6824
1202004660	Method Blank (MB)
1202004661	243400003(CAPA-10-6824) Sample Duplicate (DUP)
1202004662	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202004660 (MB) and 1202004662 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243400003 (CAPA-10-6824). The QC was from LANL work order 243400.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec U, Liquid**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Analytical Batch Number:	936904

Sample ID	Client ID
243400002	CAPA-10-6823
243400003	CAPA-10-6824
1202004667	Method Blank (MB)
1202004668	243400003(CAPA-10-6824) Sample Duplicate (DUP)
1202004669	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202004667 (MB) and 1202004669 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243400003 (CAPA-10-6824). The QC was from LANL work order 243400.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank, 1202004667 (MB), result for U-235/236 is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Gammaspec, Gamma, Liquid**
Analytical Method:	EPA 901.1
Analytical Batch Number:	936274

Sample ID	Client ID
243400002	CAPA-10-6823
243400003	CAPA-10-6824
1202003335	Method Blank (MB)
1202003336	243400002(CAPA-10-6823) Sample Duplicate (DUP)
1202003337	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in January 2009, March 2009, June 2009, August 2009 and November 2009.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volumes in this batch.

Designated QC
The following sample was used for QC: 243400002 (CAPA-10-6823). The QC was from LANL work order 243400.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 1202003335 (MB) was recounted due to a suspected Gross Gamma blank false positive.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Gross A/B, liquid**
Analytical Method:	EPA 900.0
Analytical Batch Number:	936958

Sample ID	Client ID
243400002	CAPA-10-6823
243400003	CAPA-10-6824
1202004856	Method Blank (MB)
1202004857	243400002(CAPA-10-6823) Sample Duplicate (DUP)
1202004858	243400002(CAPA-10-6823) Matrix Spike (MS)
1202004859	243400002(CAPA-10-6823) Matrix Spike Duplicate (MSD)
1202004860	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-001 REV# 12.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in July 2009. The discrimination settings are calibrated in beta discriminating mode to reduce beta to alpha crosstalk.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202004856 (MB) and 1202004860 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243400002 (CAPA-10-6823). The QC was from LANL work order 243400.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 1202004857 (CAPA-10-6823) was recounted due to high MDA.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Gross Alpha/Beta Preparation Information
High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample

heating, especially to a dull red heat. For this sample set, the prepared planchet was counted for beta activity before being flamed. After flaming, the planchet was counted for alpha activity.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Ra228, Liquid**
Analytical Method:	EPA 904.0/SW846 9320 Modified
Analytical Batch Number:	936954

Sample ID	Client ID
243400002	CAPA-10-6823
243400003	CAPA-10-6824
1202004842	Method Blank (MB)
1202004843	243400002(CAPA-10-6823) Sample Duplicate (DUP)
1202004844	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-009 REV# 15.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in July 2009.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202004842 (MB) and 1202004844 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243400002 (CAPA-10-6823). The QC was from LANL work order 243400.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 1202004842 (MB) was recounted due to a suspected blank false positive.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Sr90, liquid**
Analytical Method:	EPA 905.0 Modified
Analytical Batch Number:	936955

Sample ID	Client ID
243400002	CAPA-10-6823
243400003	CAPA-10-6824
1202004845	Method Blank (MB)
1202004846	243400003(CAPA-10-6824) Sample Duplicate (DUP)
1202004847	243400003(CAPA-10-6824) Matrix Spike (MS)
1202004848	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in January 2009.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202004845 (MB) and 1202004848 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243400003 (CAPA-10-6824). The QC was from LANL work order 243400.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 1202004846 (CAPA-10-6824) was recounted due to high MDA. Samples 1202004846 (CAPA-10-6824) and 243400003 (CAPA-10-6824) were recounted due to high relative percent difference/relative error ratio.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Lucas Cell, Ra226, liquid**
Analytical Method:	EPA 903.1 Modified
Analytical Batch Number:	936275

Sample ID	Client ID
243400002	CAPA-10-6823
243400003	CAPA-10-6824
1202003331	Method Blank (MB)
1202003332	243255006(CAPA-10-6767) Sample Duplicate (DUP)
1202003333	243255006(CAPA-10-6767) Matrix Spike (MS)
1202003334	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-008 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in December 2008, February 2009, March 2009, August 2009, September 2009 and December 2009.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202003331 (MB) and 1202003334 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243255006 (CAPA-10-6767). The QC was from LANL work order 243255.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank 1202003331 (MB) result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis

The method blank 1202003331 (MB) was recounted due to a result greater than the MDC. Recount is being reported.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank 1202003331 (MB) result is greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: 1/8/10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1021 GEL Work Order: 243400

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____ 1/8/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: January 8, 2010

Client Sample ID: CAPA-10-6823
Sample ID: 243400002
Matrix: Ground Water
Collect Date: 18-DEC-09
Receive Date: 22-DEC-09
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
Alphaspec Am241 Liquid "As Received"												
Americium-241	U	0.00816	0.0336	+/-0.0079	0.050	pCi/L		JXD2	12/29/09	1545	936901	1
Alphaspec Pu, Liquid "As Received"												
Plutonium-238	U	-0.00226	0.0332	+/-0.0032	0.050	pCi/L		JXD2	12/29/09	1242	936902	2
Plutonium-239/240	U	0.00226	0.0357	+/-0.00506	0.050	pCi/L						
Alphaspec U, Liquid "As Received"												
Uranium-234		1.03	0.0887	+/-0.0905	1.00	pCi/L		JXD2	12/29/09	1954	936904	3
Uranium-235/236	U	0.020	0.0464	+/-0.0083	1.00	pCi/L						
Uranium-238		0.470	0.0554	+/-0.0489	0.500	pCi/L						
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Liquid "As Received"												
Cesium-137	U	0.644	3.97	+/-1.17	8.00	pCi/L		KXG3	12/31/09	1618	936274	4
Cobalt-60	U	-0.309	3.76	+/-1.10	8.00	pCi/L						
Gross Gamma	U	42.0	55.2	+/-24.1	120	pCi/L						
Neptunium-237	U	0.605	28.5	+/-9.10	10.0	pCi/L						
Potassium-40	U	-32	52.7	+/-17.5	10.0	pCi/L						
Sodium-22	U	-0.568	3.97	+/-1.29	10.0	pCi/L						
Rad Gas Flow Proportional Counting												
GFPC, Gross A/B, liquid "As Received"												
Beta		4.41	2.27	+/-0.996	3.00	pCi/L		DXB5	12/29/09	1230	936958	5
Alpha	U	1.36	2.70	+/-0.848	3.00	pCi/L		DXB5	12/30/09	1549	936958	6
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	0.295	0.836	+/-0.247	1.00	pCi/L		MXS2	12/31/09	1251	936954	7
GFPC, Sr90, liquid "As Received"												
Strontium-90	U	-0.304	0.482	+/-0.111	0.500	pCi/L		MXB1	12/29/09	2058	936955	8
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226	U	0.207	0.279	+/-0.0942	1.00	pCi/L		KSD1	01/07/10	1250	936275	9

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: January 8, 2010

Client Sample ID: CAPA-10-6823 Project: ESHL01000
Sample ID: 243400002 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
2	DOE EML HASL-300, Pu-11-RC Modified											
3	DOE EML HASL-300, U-02-RC Modified											
4	EPA 901.1											
5	EPA 900.0											
6	EPA 900.0											
7	EPA 904.0/SW846 9320 Modified											
8	EPA 905.0 Modified											
9	EPA 903.1 Modified											

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	Alphaspec Am241 Liquid "As Rec	91.5	(50%-105%)
Plutonium-242 Tracer	Alphaspec Pu, Liquid "As Receive	84.8	(50%-105%)
Uranium-232 Tracer	Alphaspec U, Liquid "As Received	83.3	(50%-105%)
Barium-133 Tracer	GFPC, Ra228, Liquid "As Receive	63.1	(50%-105%)
Strontium Carrier	GFPC, Sr90, liquid "As Received"	82.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: January 8, 2010

Client Sample ID: CAPA-10-6823 Project: ESHL01000
Sample ID: 243400002 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: January 8, 2010

Client Sample ID:	CAPA-10-6824	Project:	ESHL01000
Sample ID:	243400003	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	18-DEC-09		
Receive Date:	22-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
Alphaspec Am241 Liquid "As Received"												
Americium-241	U	0.00121	0.0372	+/-0.00328	0.050	pCi/L		JXD2	12/29/09	1545	936901	1
Alphaspec Pu, Liquid "As Received"												
Plutonium-238	U	0.00215	0.0315	+/-0.00215	0.050	pCi/L		JXD2	12/29/09	1242	936902	2
Plutonium-239/240	U	0.00215	0.0339	+/-0.00215	0.050	pCi/L						
Alphaspec U, Liquid "As Received"												
Uranium-234		1.05	0.110	+/-0.0972	1.00	pCi/L		JXD2	12/29/09	1954	936904	3
Uranium-235/236	U	0.0496	0.0574	+/-0.0148	1.00	pCi/L						
Uranium-238		0.482	0.0686	+/-0.0534	0.500	pCi/L						
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Liquid "As Received"												
Cesium-137	U	3.33	5.34	+/-1.42	8.00	pCi/L		KXG3	12/31/09	1618	936274	4
Cobalt-60	U	0.234	4.78	+/-1.44	8.00	pCi/L						
Gross Gamma	U	21.8	38.7	+/-10.8	120	pCi/L						
Neptunium-237	U	-3.75	34.4	+/-11.0	10.0	pCi/L						
Potassium-40	U	4.12	58.3	+/-16.3	10.0	pCi/L						
Sodium-22	U	2.97	5.74	+/-1.49	10.0	pCi/L						
Rad Gas Flow Proportional Counting												
GFPC, Gross A/B, liquid "As Received"												
Beta		2.25	2.24	+/-0.799	3.00	pCi/L		DXB5	12/29/09	1231	936958	5
Alpha	U	2.59	2.93	+/-1.10	3.00	pCi/L		DXB5	12/30/09	1549	936958	6
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	-0.0863	0.816	+/-0.205	1.00	pCi/L		MXS2	12/31/09	1251	936954	7
GFPC, Sr90, liquid "As Received"												
Strontium-90	U	-0.117	0.486	+/-0.125	0.500	pCi/L		MXB1	12/31/09	0718	936955	8
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226	U	0.102	0.259	+/-0.0766	1.00	pCi/L		KSD1	01/07/10	1250	936275	9

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: January 8, 2010

Client Sample ID: CAPA-10-6824 Project: ESHL01000
Sample ID: 243400003 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
2	DOE EML HASL-300, Pu-11-RC Modified											
3	DOE EML HASL-300, U-02-RC Modified											
4	EPA 901.1											
5	EPA 900.0											
6	EPA 900.0											
7	EPA 904.0/SW846 9320 Modified											
8	EPA 905.0 Modified											
9	EPA 903.1 Modified											

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	Alphaspec Am241 Liquid "As Rec	81.8	(50%-105%)
Plutonium-242 Tracer	Alphaspec Pu, Liquid "As Receive	80.1	(50%-105%)
Uranium-232 Tracer	Alphaspec U, Liquid "As Received	68.2	(50%-105%)
Barium-133 Tracer	GFPC, Ra228, Liquid "As Receive	62.8	(50%-105%)
Strontium Carrier	GFPC, Sr90, liquid "As Received"	88.5	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: January 8, 2010

Client Sample ID: CAPA-10-6824 Project: ESHL01000
Sample ID: 243400003 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

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QC Summary

Report Date: January 8, 2010
Page 1 of 6

Client : **Los Alamos National Laboratory**
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: **Ms. Joylene Valdez**

Workorder: **243400**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 936901										
QC1202004658 243400003 DUP										
Americium-241	U	0.00121	U	-0.00697	pCi/L	0.553		(0-1)	JXD2	12/29/0915:45
	TPU:	+/-0.00328		+/-0.00412						
	Yield:	81.8		85.7						
QC1202004659 LCS										
Americium-241	2.84			2.87	pCi/L		101	(75%-125%)		
	TPU:			+/-0.186						
	Yield:			94.6						
QC1202004657 MB										
Americium-241			U	0.00394	pCi/L					
	TPU:			+/-0.00332						
	Yield:			98.1						
Batch 936902										
QC1202004661 243400003 DUP										
Plutonium-238	U	0.00215	U	0.00592	pCi/L	0.338		(0-1)	JXD2	12/29/0912:42
	TPU:	+/-0.00215		+/-0.00343						
	Yield:	80.1		91.5						
Plutonium-239/240	U	0.00215	U	-0.00395	pCi/L	0.547		(0-1)		
	TPU:	+/-0.00215		+/-0.00342						
	Yield:	80.1		91.5						
QC1202004662 LCS										
Plutonium-238			U	0.00841	pCi/L			(75%-125%)		
	TPU:			+/-0.00447						
	Yield:			84.7						
Plutonium-239/240	2.27			2.21	pCi/L		97.3	(75%-125%)		
	TPU:			+/-0.133						
	Yield:			84.7						
QC1202004660 MB										
Plutonium-238			U	0.00533	pCi/L					12/29/0912:42
	TPU:			+/-0.0047						
	Yield:			82.6						
Plutonium-239/240			U	0.00	pCi/L					
	TPU:			+/-0.00435						
	Yield:			82.6						

QC Summary

Workorder: 243400

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 936904										
QC1202004668 243400003 DUP										
Uranium-234		1.05		1.12	pCi/L	0.176		(0-1)	JXD2	12/29/0919:54
	TPU:	+/-0.0972		+/-0.101						
	Yield:	68.2		72.7						
Uranium-235/236	U	0.0496	U	0.0233	pCi/L	0.539		(0-1)		
	TPU:	+/-0.0148		+/-0.00965						
	Yield:	68.2		72.7						
Uranium-238		0.482		0.502	pCi/L	0.0953		(0-1)		
	TPU:	+/-0.0534		+/-0.0539						
	Yield:	68.2		72.7						
QC1202004669 LCS										
Uranium-234				2.35	pCi/L			(75%-125%)		12/29/0919:54
	TPU:			+/-0.184						
	Yield:			79.6						
Uranium-235/236				0.118	pCi/L			(75%-125%)		
	TPU:			+/-0.0204						
	Yield:			79.6						
Uranium-238	2.59			2.56	pCi/L		98.7	(75%-125%)		
	TPU:			+/-0.199						
	Yield:			79.6						
QC1202004667 MB										
Uranium-234			U	0.00446	pCi/L					12/29/0919:54
	TPU:			+/-0.00536						
	Yield:			78.7						
Uranium-235/236			U	0.0134	pCi/L					
	TPU:			+/-0.00608						
	Yield:			78.7						
Uranium-238			U	0.00652	pCi/L					
	TPU:			+/-0.00488						
	Yield:			78.7						
Rad Gamma Spec										
Batch 936274										
QC1202003336 243400002 DUP										
Cesium-137	U	0.644	U	2.15	pCi/L	0.389		(0-1)	KXG3	01/01/1017:18
	TPU:	+/-1.17		+/-0.765						
Cobalt-60	U	-0.309	U	-1.32	pCi/L	0.238		(0-1)		
	TPU:	+/-1.10		+/-1.03						

QC Summary

Workorder: 243400

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 936274										
Gross Gamma	U	42.0	U	50.8	pCi/L	0.0894		(0-1)		
	TPU:	+/-24.1		+/-24.9						
Neptunium-237	U	0.605	U	3.79	pCi/L	0.106		(0-1)		
	TPU:	+/-9.10		+/-5.95						
Potassium-40	U	-32	U	15.8	pCi/L	0.640		(0-1)		
	TPU:	+/-17.5		+/-19.8						
Sodium-22	U	-0.568	U	-0.652	pCi/L	0.0205		(0-1)		
	TPU:	+/-1.29		+/-0.755						
QC1202003337 LCS										
Americium-241	1240			1400	pCi/L		113	(75%-125%)		12/31/0916:41
	TPU:			+/-96.1						
Cesium-137	433			437	pCi/L		101	(75%-125%)		
	TPU:			+/-18.9						
Cobalt-60	506			546	pCi/L		108	(75%-125%)		
	TPU:			+/-28.7						
Gross Gamma	2180			2080	pCi/L		95.6	(75%-125%)		
	TPU:			+/-614						
Neptunium-237				496	pCi/L					
	TPU:			+/-73.7						
Potassium-40			U	12.7	pCi/L					
	TPU:			+/-31.4						
Sodium-22			U	-0.971	pCi/L					
	TPU:			+/-2.85						
QC1202003335 MB										
Cesium-137			U	-1.42	pCi/L					01/05/1013:10
	TPU:			+/-1.76						
Cobalt-60			U	-0.341	pCi/L					
	TPU:			+/-1.78						
Gross Gamma			U	8.47	pCi/L					
	TPU:			+/-15.1						
Neptunium-237			U	-16.9	pCi/L					
	TPU:			+/-13.4						
Potassium-40			U	-8.29	pCi/L					

QC Summary

Workorder: 243400

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 936274										
	TPU:			+/-18.6						
Sodium-22			U	-0.238	pCi/L					
	TPU:			+/-1.40						
Rad Gas Flow										
Batch 936954										
QC1202004843 243400002 DUP										
Radium-228	U	0.295		1.10	pCi/L	0.688		(0-1)	MXS2	12/31/0912:50
	TPU:	+/-0.247		+/-0.335						
	Yield:	63.1		63.4						
QC1202004844 LCS										
Radium-228	7.74			6.72	pCi/L		86.8	(75%-125%)		12/31/0913:10
	TPU:			+/-1.13						
	Yield:			65.4						
QC1202004842 MB										
Radium-228			U	0.0617	pCi/L					12/31/0914:28
	TPU:			+/-0.157						
	Yield:			72.5						
Batch 936955										
QC1202004846 243400003 DUP										
Strontium-90	U	-0.117	U	-0.113	pCi/L	0.00781		(0-1)	MXB1	12/31/0907:18
	TPU:	+/-0.125		+/-0.127						
	Yield:	88.5		87.4						
QC1202004848 LCS										
Strontium-90	19.3			20.8	pCi/L		108	(75%-125%)		12/29/0920:58
	TPU:			+/-1.78						
	Yield:			87.4						
QC1202004845 MB										
Strontium-90			U	-0.18	pCi/L					12/29/0920:58
	TPU:			+/-0.0946						
	Yield:			82.9						
QC1202004847 243400003 MS										
Strontium-90	129 U	-0.117		138	pCi/L		107	(75%-125%)		12/29/0920:58
	TPU:	+/-0.125		+/-11.9						
	Yield:	88.5		86.3						
Batch 936958										
QC1202004857 243400002 DUP										
Alpha	U	1.36	U	-0.0285	pCi/L	0.461		(0-1)	DXB5	12/30/0915:50
	TPU:	+/-0.848		+/-0.665						
Beta		4.41		2.63	pCi/L	0.492		(0-1)		12/29/0916:16

QC Summary

Workorder: 243400

Parmname	NOM		Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gas Flow											
Batch 936958											
		TPU:	+/-0.996		+/-0.812						
QC1202004860 LCS											
Alpha	12.6				13.4	pCi/L		106	(75%-125%)		12/30/0915:50
		TPU:			+/-1.60						
Beta	38.6				42.4	pCi/L		110	(75%-125%)		12/29/0912:31
		TPU:			+/-3.65						
QC1202004856 MB											
Alpha				U	-0.109	pCi/L					12/30/0915:50
		TPU:			+/-0.069						
Beta				U	-0.00248	pCi/L					12/29/0912:31
		TPU:			+/-0.0738						
QC1202004858 243400002 MS											
Alpha	252	U	1.36		283	pCi/L		112	(75%-125%)		12/30/0915:50
		TPU:	+/-0.848		+/-35.8						
Beta	772		4.41		816	pCi/L		105	(75%-125%)		12/29/0912:31
		TPU:	+/-0.996		+/-70.1						
QC1202004859 243400002 MSD											
Alpha	252	U	1.36		291	pCi/L	0.0628	116	(0-1)		12/30/0915:50
		TPU:	+/-0.848		+/-34.1						
Beta	772		4.41		852	pCi/L	0.125	110	(0-1)		12/29/0912:31
		TPU:	+/-0.996		+/-73.5						
Rad Ra-226											
Batch 936275											
QC1202003332 243255006 DUP											
Radium-226			0.365	U	0.227	pCi/L	0.327		(0-1)	KSD1	01/07/1013:30
		TPU:	+/-0.111		+/-0.101						
QC1202003334 LCS											
Radium-226	12.1				12.2	pCi/L		101	(80%-120%)		
		TPU:			+/-1.72						
QC1202003331 MB											
Radium-226				U	0.119	pCi/L					01/07/1019:15
		TPU:			+/-0.050						
QC1202003333 243255006 MS											
Radium-226	121		0.365		108	pCi/L		88.8	(75%-125%)		01/07/1013:30
		TPU:	+/-0.111		+/-12.3						

QC Summary

Workorder: 243400

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev 9

Batch# 936901 Product: AM Date: 12/30/09

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Denise Green 12/30/09

Secondary Review Performed By: JoLMI - 12/30/09

1/8

LANL

Am/Cm Que Sheet

28-DEC-09

Batch #: 936901 Analyst: JXD2 First Client Due Date: 08-JAN-10 Internal Due Date 29-DEC-09 Comments:

Tracer(s): Am243/Cm244 Tracer Code: 445-96-2-35 Expiration Date: 05/11/10 Vol: 0.1

LCS Isotope(s): Am241/Cm244 LCS Code(s): 0533-0 / — Expiration Date: 09/10/10 / — Vol(s): 0.1 / —

Spike Isotope(s): Am241/Cm244 Spike Code(s): — / — Expiration Date: — / — Vol(s): — / —

Prep Date: 12/28/09 Initials: JWP Pipet ID: 2971058 Balance ID: 16750207 Witness: 12/28/09

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Am/Cm Det #
243400002-1	CAPA-10-6823	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	18-DEC-09	1	1	0.800	83
243400003-1	CAPA-10-6824	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	18-DEC-09	2	2	0.800	84
243462001-1	CAWA-10-6910	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	21-DEC-09	3	3	0.800	85
1202004657-1	MB for batch 936901	MB		.05 pCi/L	GROUND WATER	QC ACCOUNT		4	4	1	86
1202004658-1	CAPA-10-6824(243400003DUP)	DUP		.05 pCi/L	GROUND WATER	QC ACCOUNT	18-DEC-09	5	5	0.800	87
1202004659-1	LCS for batch 936901	LCS		.05 pCi/L	GROUND WATER	QC ACCOUNT		6	6	1	88

Choose SOP Used: GL-RAD-A-011 / GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION (NA) (Circle One)

Data Reviewed By: 12/30/09

Blank Correction Report

Batch ID 936901

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202004658	DUP	Americium-241	0.800 L	-0.00697	0.00412	0.0377	.004925	pCi/L	YES
1202004659	LCS	Americium-241	1.00 L	2.87	0.186	0.0288	.00394	pCi/L	NO
1202004657	MB	Americium-241	1.00 L	0.00394	0.00332	0.0285	.00394	pCi/L	YES
243400002	CAPA-10-6823	Americium-241	0.800 L	0.00816	0.0079	0.0336	.004925	pCi/L	YES
243400003	CAPA-10-6824	Americium-241	0.800 L	0.00121	0.00328	0.0372	.004925	pCi/L	YES
243462001	CAWA-10-6910	Americium-241	0.800 L	0.00705	0.00376	0.0362	.004925	pCi/L	YES

12/30/09

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936901 SAMPLE DATE : 18-DEC-2009 00:00:00	SAMPLE ID : S0243400002_AM SAMPLE QTY: 0.800 L
DETECTOR NUMBER :64278 AVERAGE %EFFICIENCY :33.5347 % YIELD : 91.504	COUNT DATE:29-DEC-2009 15:45:03 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 0533-O ISOTOPE : AM-241 PCI/L : 3.553E+00	ID : 0533-O ISOTOPE : AM-241 PCI/L : 3.553E+00	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91660 dpm RESULTS : 2.66879 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B083.CNF;1005 BKG DATE : 27-DEC-2009 EFF FILE : W083.CNF;288 CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
CM-3/4	5795.020	8.000	2.000	6.000	4.7860	100.0000	3.67E-03	6.88E-03	2.04E-02	4.58E-02	6.87E-03
CM-5/6	5386.000	36.000	34.000	2.000	20.9467	86.09000	7.25E-02	1.38E-02	1.04E-01	2.14E-01	1.31E-02
AM-241	5479.150	13.000	4.446	7.000	3.3482	99.94000	8.16E-03	7.90E-03	1.43E-02	3.36E-02	7.89E-03
CM-242	6102.000	2.000	2.000	0.000	3.7246	100.0000	3.86E-03	2.74E-03	1.59E-02	3.68E-02	2.73E-03
AM243	5270.000	896.000	893.000	3.000	1.7321	99.78000	1.64E+00	1.12E-01	7.41E-03	1.98E-02	5.51E-02
CM-247	4946.000	14.000	12.000	2.000	31.0273	79.30000	2.78E-02	9.40E-03	1.67E-01	3.40E-01	9.26E-03
CM-248	5078.600	12.000	10.000	2.000	52.5527	91.00000	2.02E-02	7.64E-03	2.47E-01	4.99E-01	7.54E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

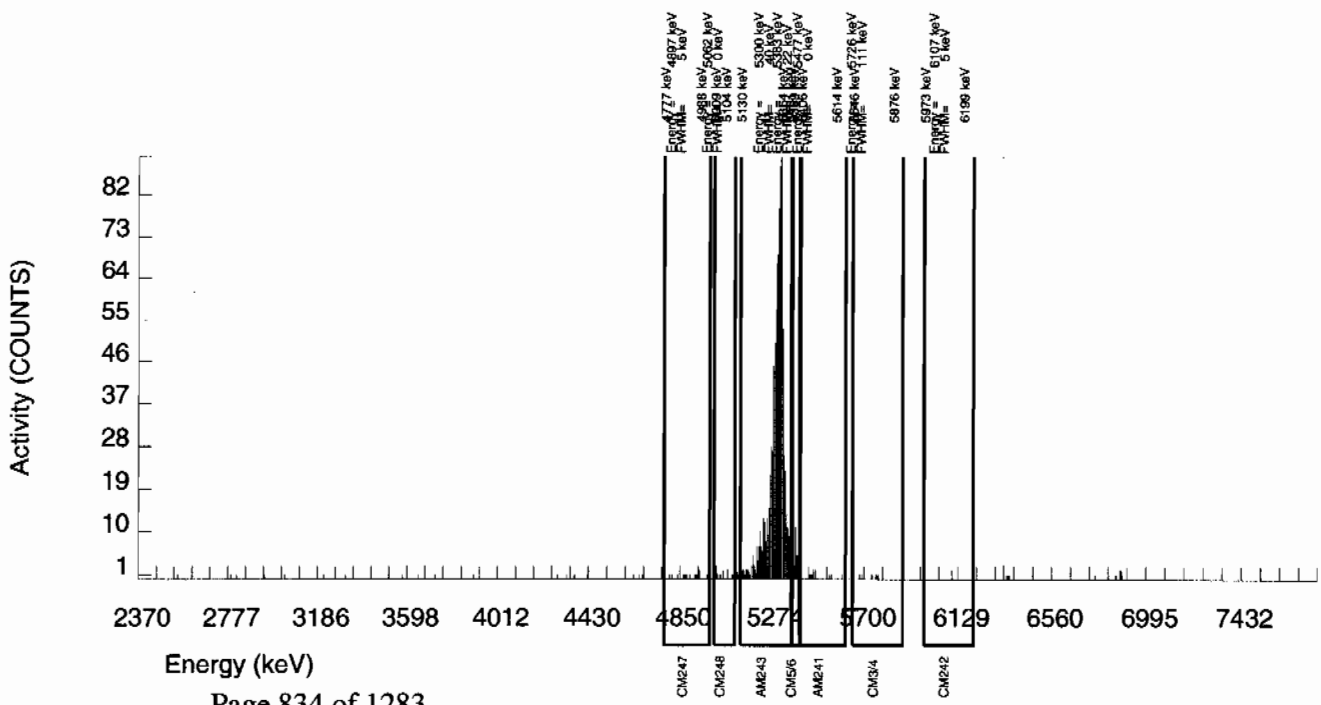

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936901 SAMPLE DATE : 18-DEC-2009 00:00:00	SAMPLE ID : S0243400003_AM SAMPLE QTY: 0.800 L
DETECTOR NUMBER :78265 AVERAGE %EFFICIENCY :33.9057 % YIELD : 81.786	COUNT DATE:29-DEC-2009 15:45:03 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 0533-O ISOTOPE : AM-241 PCI/L : 3.553E+00	ID : 0533-O ISOTOPE : AM-241 PCI/L : 3.553E+00	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91660 dpm RESULTS : 2.38538 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B084.CNF;1005 BKG DATE : 27-DEC-2009 EFF FILE : W084.CNF;291 CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
CM-3/4	5795.020	2.000	-1.000	3.000	4.7860	100.0000	-2.03E-03	4.55E-03	2.26E-02	5.07E-02	4.55E-03
CM-5/6	5386.000	10.000	10.000	0.000	20.9467	86.09000	2.36E-02	7.59E-03	1.15E-01	2.36E-01	7.46E-03
AM-241	5479.150	3.000	0.595	1.000	3.3482	99.94000	1.21E-03	3.28E-03	1.58E-02	3.72E-02	3.27E-03
CM-242	6102.000	1.000	0.000	1.000	3.7246	100.0000	0.00E+00	3.02E-03	1.76E-02	4.07E-02	3.02E-03
AM243	5270.000	809.000	807.000	2.000	1.4142	99.78000	1.64E+00	1.15E-01	6.70E-03	1.89E-02	5.80E-02
CM-247	4946.000	4.000	0.000	4.000	31.0273	79.30000	0.00E+00	7.24E-03	1.85E-01	3.77E-01	7.24E-03
CM-248	5078.600	3.000	2.000	1.000	52.5527	91.00000	4.46E-03	4.47E-03	2.73E-01	5.52E-01	4.46E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

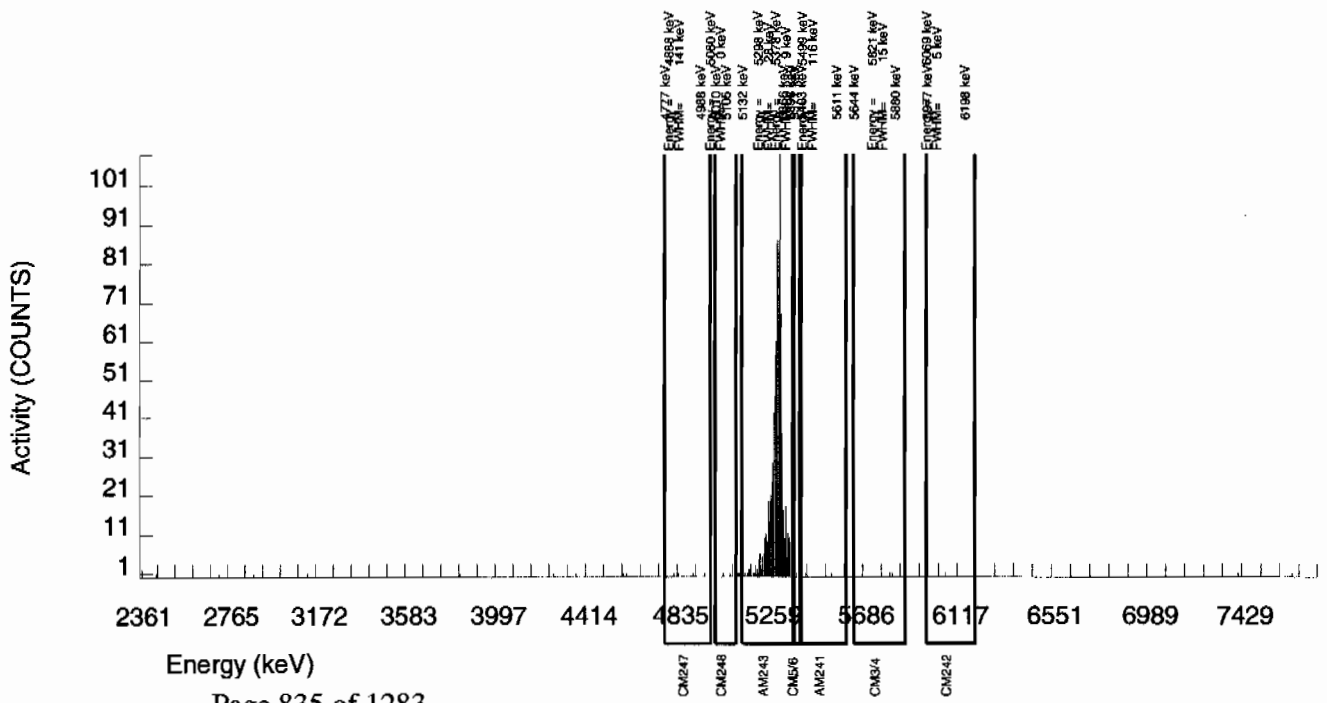

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936901 SAMPLE DATE : 28-DEC-2009 00:00:00	SAMPLE ID : S1202004657_AM SAMPLE QTY: 1.000 L
DETECTOR NUMBER :78198 AVERAGE %EFFICIENCY :29.5330 % YIELD : 98.084	COUNT DATE:29-DEC-2009 15:45:03 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 0533-O ISOTOPE : AM-241 PCI/L : 2.842E+00	ID : 0533-O ISOTOPE : AM-241 PCI/L : 2.842E+00	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91659 dpm RESULTS : 2.86072 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B086.CNF;1007 BKG DATE : 27-DEC-2009 EFF FILE : W086.CNF;279 CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
CM-3/4	5795.020	1.000	0.000	1.000	4.7860	100.0000	0.00E+00	2.20E-03	1.73E-02	3.88E-02	2.20E-03
CM-5/6	5386.000	10.000	10.000	0.000	20.9467	86.09000	1.81E-02	5.81E-03	8.80E-02	1.81E-01	5.71E-03
AM-241	5479.150	5.000	2.533	1.000	3.3482	99.94000	3.94E-03	3.32E-03	1.21E-02	2.85E-02	3.31E-03
CM-242	6102.000	2.000	2.000	0.000	3.7246	100.0000	3.14E-03	2.23E-03	1.35E-02	3.12E-02	2.22E-03
AM243	5270.000	846.000	843.000	3.000	1.7321	99.78000	1.31E+00	9.11E-02	6.28E-03	1.68E-02	4.54E-02
CM-247	4946.000	6.000	0.000	6.000	31.0273	79.30000	0.00E+00	6.79E-03	1.42E-01	2.88E-01	6.79E-03
CM-248	5078.600	7.000	4.000	3.000	52.5527	91.00000	6.84E-03	5.42E-03	2.09E-01	4.22E-01	5.40E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

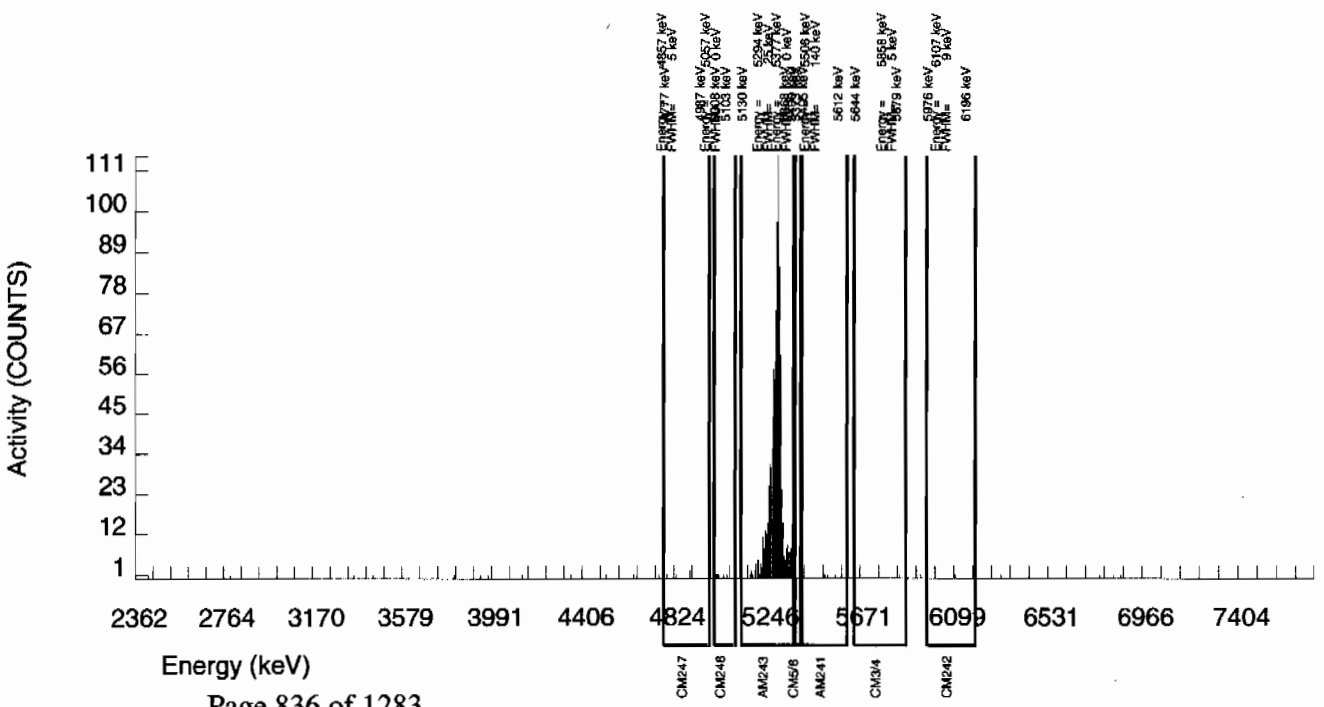

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936901 SAMPLE DATE : 18-DEC-2009 00:00:00	SAMPLE ID : S1202004658_AM SAMPLE QTY: 0.800 L
DETECTOR NUMBER :78199 AVERAGE %EFFICIENCY :31.9208 % YIELD : 85.688	COUNT DATE:29-DEC-2009 15:45:03 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 0533-O ISOTOPE : AM-241 PCI/L : 3.553E+00	ID : 0533-O ISOTOPE : AM-241 PCI/L : 3.553E+00	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91660 dpm RESULTS : 2.49918 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B087.CNF;1014 BKG DATE : 27-DEC-2009 EFF FILE : W087.CNF;272 CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
CM-3/4	5795.020	0.000	-1.000	1.000	4.7860	100.0000	-2.06E-03	2.92E-03	2.29E-02	5.14E-02	2.91E-03
CM-5/6	5386.000	8.000	6.000	2.000	20.9467	86.09000	1.43E-02	7.61E-03	1.17E-01	2.40E-01	7.56E-03
AM-241	5479.150	1.000	-3.385	3.000	3.3482	99.94000	-6.97E-03	4.12E-03	1.60E-02	3.77E-02	4.12E-03
CM-242	6102.000	2.000	2.000	0.000	3.7246	100.0000	4.33E-03	3.08E-03	1.78E-02	4.13E-02	3.06E-03
AM243	5270.000	801.000	796.000	5.000	2.2361	99.78000	1.64E+00	1.16E-01	1.07E-02	2.71E-02	5.86E-02
CM-247	4946.000	6.000	2.000	4.000	31.0273	79.30000	5.19E-03	8.22E-03	1.87E-01	3.82E-01	8.21E-03
CM-248	5078.600	4.000	0.000	4.000	52.5527	91.00000	0.00E+00	6.40E-03	2.77E-01	5.59E-01	6.40E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

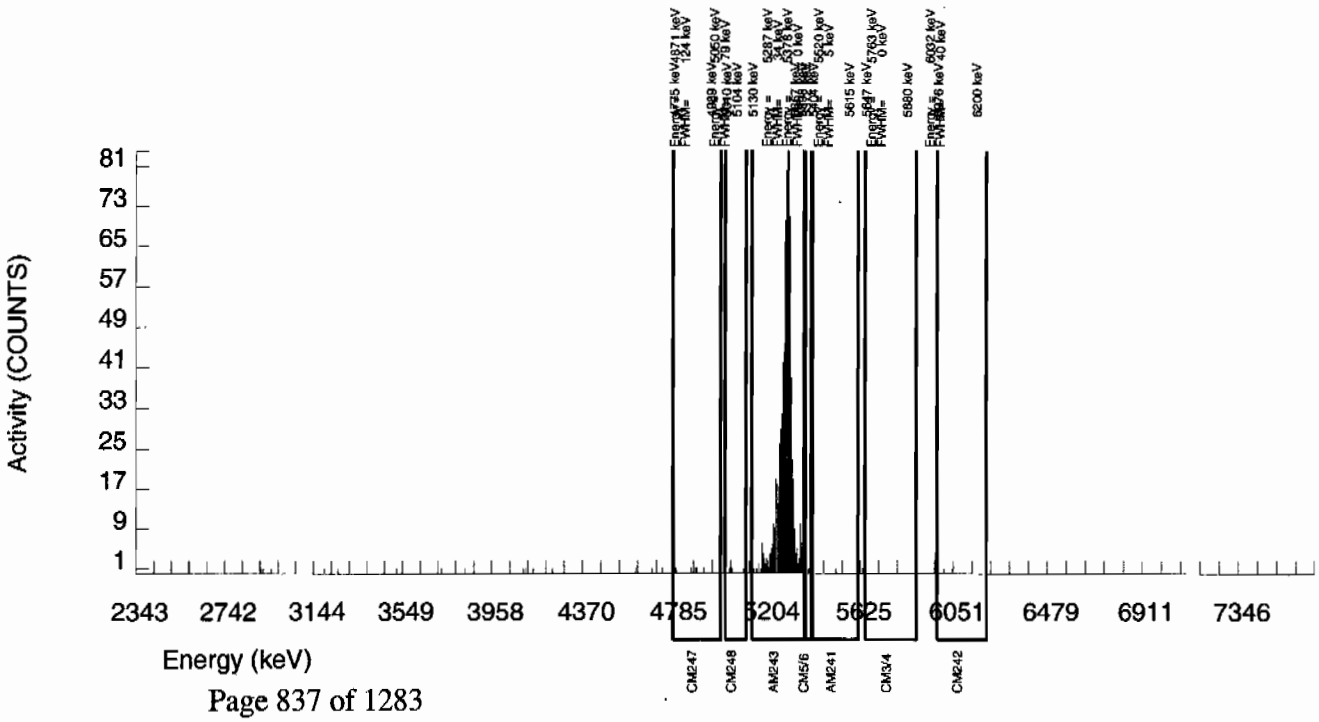

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936901
SAMPLE DATE : 28-DEC-2009 00:00:00

SAMPLE ID : S1202004659_AM
SAMPLE QTY: 1.000 L

DETECTOR NUMBER :33452
AVERAGE %EFFICIENCY :30.2890
% YIELD : 94.615

COUNT DATE:29-DEC-2009 15:45:03
ELAPSED LIVE TIME(SEC): 59999.99
ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 0533-O	ID : 0533-O	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B088.CNF;1002
PCI/L : 2.842E+00	PCI/L : 2.842E+00	NOMINAL : 2.91659 dpm	BKG DATE : 27-DEC-2009
		RESULTS : 2.75954 dpm	EFF FILE : W088.CNF;282
			CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
CM-3/4	5795.020	5.000	-4.000	9.000	4.7860	100.0000	-6.29E-03	5.88E-03	1.75E-02	3.93E-02	5.88E-03
CM-5/6	5386.000	38.000	36.000	2.000	20.9467	86.09000	6.57E-02	1.22E-02	8.90E-02	1.83E-01	1.15E-02
AM-241	5479.150	1837.000	1825.548	10.000	3.3482	99.94000	2.87E+00	1.86E-01	1.23E-02	2.88E-02	6.76E-02
CM-242	6102.000	5.000	3.000	2.000	3.7246	100.0000	4.76E-03	4.20E-03	1.36E-02	3.15E-02	4.19E-03
AM243	5270.000	835.000	834.000	1.000	1.0000	99.78000	1.31E+00	9.13E-02	3.66E-03	1.16E-02	4.55E-02
CM-247	4946.000	6.000	3.000	3.000	31.0273	79.30000	5.95E-03	5.96E-03	1.43E-01	2.92E-01	5.95E-03
CM-248	5078.600	5.000	4.000	1.000	52.5527	91.00000	6.91E-03	4.25E-03	2.11E-01	4.27E-01	4.23E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

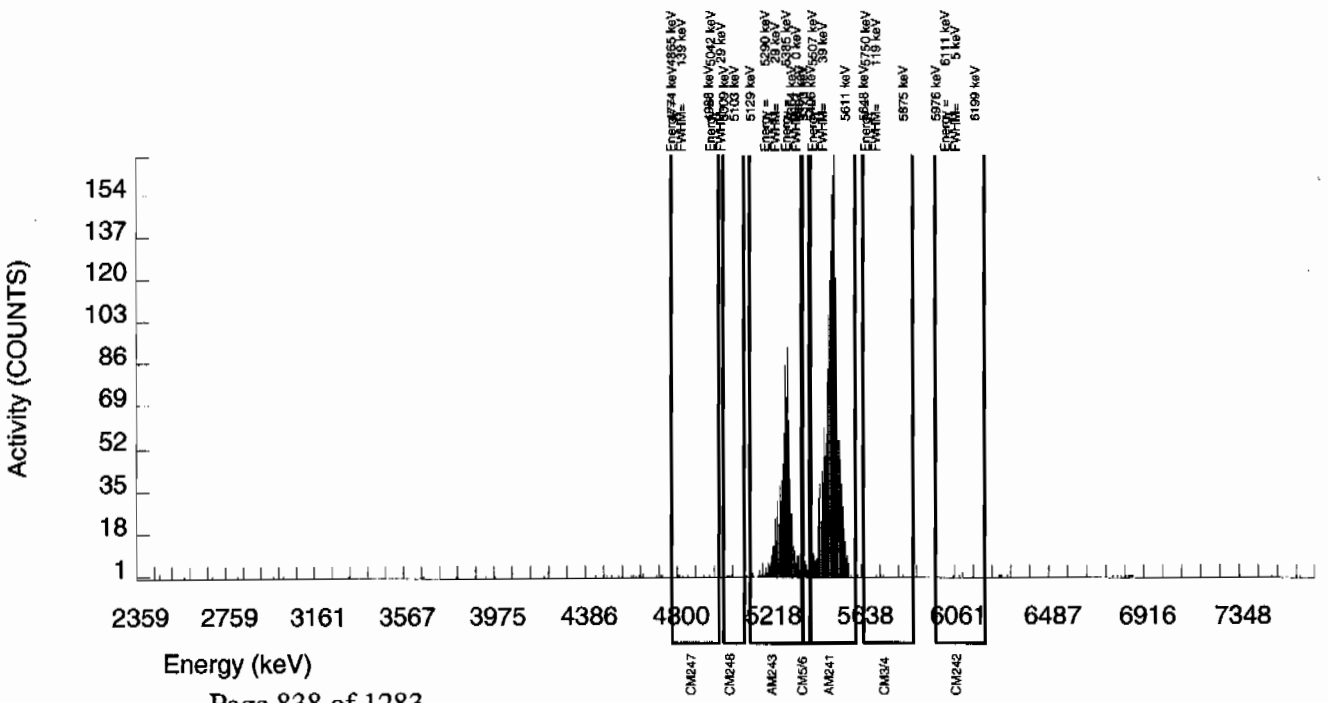

Radiochemistry Batch Checklist, Rev 9

Batch# 936902 Product: PU Date: 12/30/09

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated., No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed. If applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analyses.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Denise Green 12/30/09

Secondary Review Performed By: [illegible] 12/30/09

1/8

LANL

Plutonium Que Sheet

28-DEC-09

Batch #: 936902 **Analyst:** JXD2 **First Client Due Date:** 08-JAN-10 **Internal Due Date:** 29-DEC-09

Tracer Isotope(s): Pu-242/Pu-238 **Tracer Code:** 1374-A **Expiration Date:** 12/08/10 **Vol:** 0.1
LCS Isotope(s): Pu-239/Pu-238 **LCS Code:** 0338-BB **Expiration Date:** 06/23/10 **Vol:** 0.1
Spike Isotope(s): Pu-239/Pu-238 **Spike Code:** — **Expiration Date:** — **Vol:** —

Prep Date: 12/28/09 **Initials:** JXD2 **Pipet ID:** 2971058 **Balance ID:** 16750207 **Witness:** AMD 12/28/09

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/mL/l)	Pu Det #
243400002-1	CAPA-10-6823	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	18-DEC-09	1	1	0.800	89
243400003-1	CAPA-10-6824	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	18-DEC-09	2	2	0.800	90
243462001-1	CAWA-10-6910	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	21-DEC-09	3	3	0.800	91
1202004660-1	MB for batch 936902	MB		.05 pCi/L	GROUND WATE	QC ACCOUNT		4	4	1	96
1202004661-1	CAPA-10-6824(243400003DUP)	DUP		.05 pCi/L	GROUND WATE	QC ACCOUNT	18-DEC-09	5	5	0.800	92
1202004662-1	LCS for batch 936902	LCS		.05 pCi/L	GROUND WATE	QC ACCOUNT		6	6	1	93

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION (NA) Circle One

Data Reviewed By: 12/30/09

GEL Laboratories LLC, , Radiochemistry Division

12/30/09

Blank Correction Report

Batch ID 936902

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202004661	DUP	Plutonium-238	0.800 L	0.00592	0.00343	0.029	.0066625	pCi/L	YES
		Plutonium-239/240	0.800 L	-0.00395	0.00342	0.0311	0	pCi/L	YES
1202004662	LCS	Plutonium-238	1.00 L	0.00841	0.00447	0.0247	.00533	pCi/L	YES
		Plutonium-239/240	1.00 L	2.21	0.133	0.0265	0	pCi/L	NO
1202004660	MB	Plutonium-238	1.00 L	0.00533	0.0047	0.026	.00533	pCi/L	YES
		Plutonium-239/240	1.00 L	0.00	0.00435	0.028	0	pCi/L	NO
243400002	CAPA-10-6823	Plutonium-238	0.800 L	-0.00226	0.0032	0.0332	.0066625	pCi/L	YES
		Plutonium-239/240	0.800 L	0.00226	0.00506	0.0357	0	pCi/L	NO
243400003	CAPA-10-6824	Plutonium-238	0.800 L	0.00215	0.00215	0.0315	.0066625	pCi/L	YES
		Plutonium-239/240	0.800 L	0.00215	0.00215	0.0339	0	pCi/L	NO
243462001	CAWA-10-6910	Plutonium-238	0.800 L	0.0102	0.0046	0.0299	.0066625	pCi/L	YES
		Plutonium-239/240	0.800 L	0.0102	0.00543	0.0322	0	pCi/L	NO

JDW 12/30/09

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936902 SAMPLE DATE : 18-DEC-2009 00:00:00	SAMPLE ID : S0243400002_PU SAMPLE QTY: 0.800 L
DETECTOR NUMBER :78262 AVERAGE %EFFICIENCY :29.3731 % YIELD : 84.774	COUNT DATE:29-DEC-2009 12:42:04 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 0338-BB ISOTOPE : PU-9/0 PCI/L : 2.836E+00	ID : 0338-BB ISOTOPE : PU-9/0 PCI/L : 2.836E+00	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 2.86997 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B089.CNF;699 BKG DATE : 27-DEC-2009 EFF FILE : W089.CNF;191 CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-9/0	5155.000	3.000	1.000	2.000	2.8102	99.90000	2.26E-03	5.06E-03	1.48E-02	3.57E-02	5.06E-03
PU-236	5749.000	1.000	1.000	0.000	3.4259	100.0000	2.28E-03	2.28E-03	1.80E-02	4.22E-02	2.28E-03
PU-238	5499.000	0.000	-1.000	1.000	2.5715	99.90000	-2.26E-03	3.20E-03	1.35E-02	3.32E-02	3.20E-03
PU242	4890.000	847.000	843.000	4.000	2.0000	100.0000	1.91E+00	1.20E-01	1.05E-02	2.72E-02	6.60E-02
PU-244	4589.000	4.000	3.000	1.000	6.1055	99.90000	6.79E-03	5.07E-03	3.21E-02	7.04E-02	5.06E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

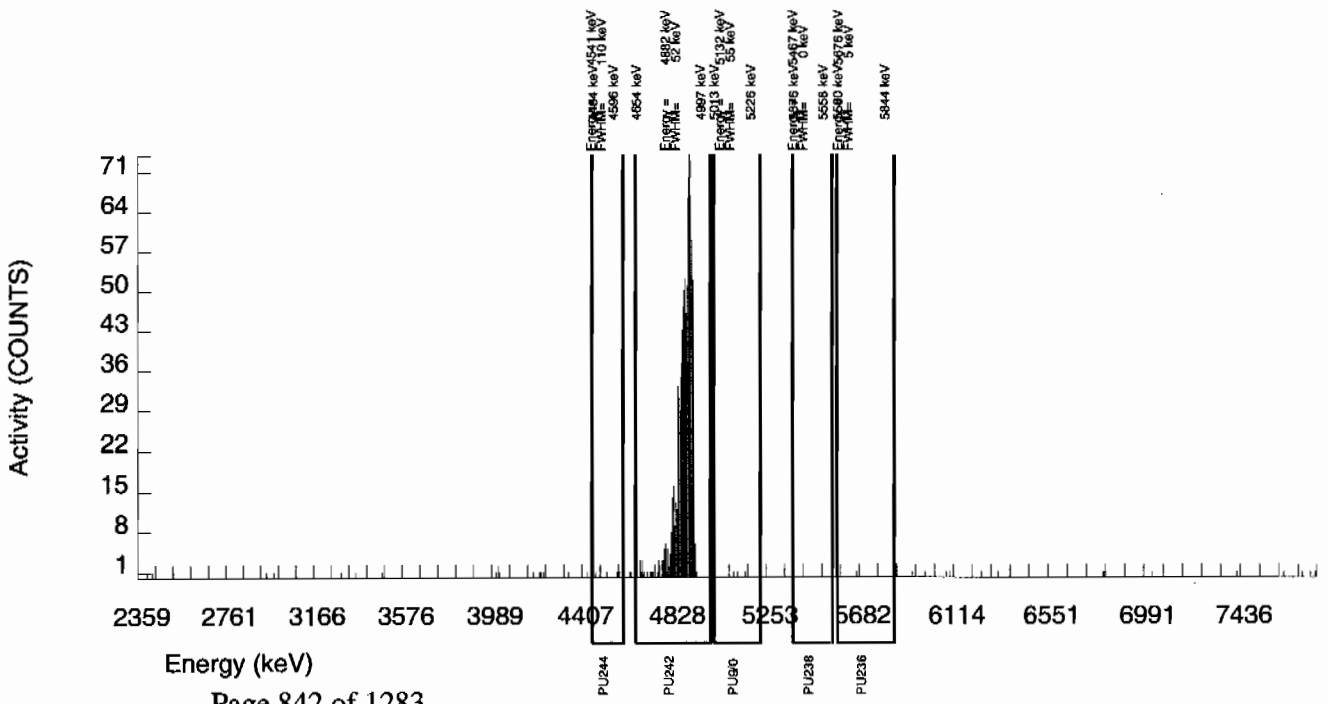

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936902 SAMPLE DATE : 18-DEC-2009 00:00:00	SAMPLE ID : S0243400003_PU SAMPLE QTY: 0.800 L
DETECTOR NUMBER :78263 AVERAGE %EFFICIENCY :32.7658 % YIELD : 80.143	COUNT DATE:29-DEC-2009 12:42:04 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 0338-BB	ID : 0338-BB	ID : 1374-A	LIB FILE : ENV_ALPHA_PU.N
ISOTOPE : PU-9/0	ISOTOPE : PU-9/0	ISOTOPE : PU242	BKG FILE : B090.CNF;709
PCI/L : 2.836E+00	PCI/L : 2.836E+00	NOMINAL : 3.38543 dpm	BKG DATE : 27-DEC-2009
		RESULTS : 2.71319 dpm	EFF FILE : W090.CNF;197
			CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-9/0	5155.000	1.000	1.000	0.000	2.8102	99.90000	2.15E-03	2.15E-03	1.40E-02	3.39E-02	2.15E-03
PU-236	5749.000	0.000	0.000	0.000	3.4259	100.0000	0.00E+00	2.16E-03	1.71E-02	4.00E-02	2.16E-03
PU-238	5499.000	1.000	1.000	0.000	2.5715	99.90000	2.15E-03	2.15E-03	1.28E-02	3.15E-02	2.15E-03
PU242	4890.000	893.000	889.000	4.000	2.0000	100.0000	1.91E+00	1.21E-01	9.98E-03	2.58E-02	6.42E-02
PU-244	4589.000	3.000	3.000	0.000	6.1055	99.90000	6.44E-03	3.73E-03	3.05E-02	6.68E-02	3.72E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

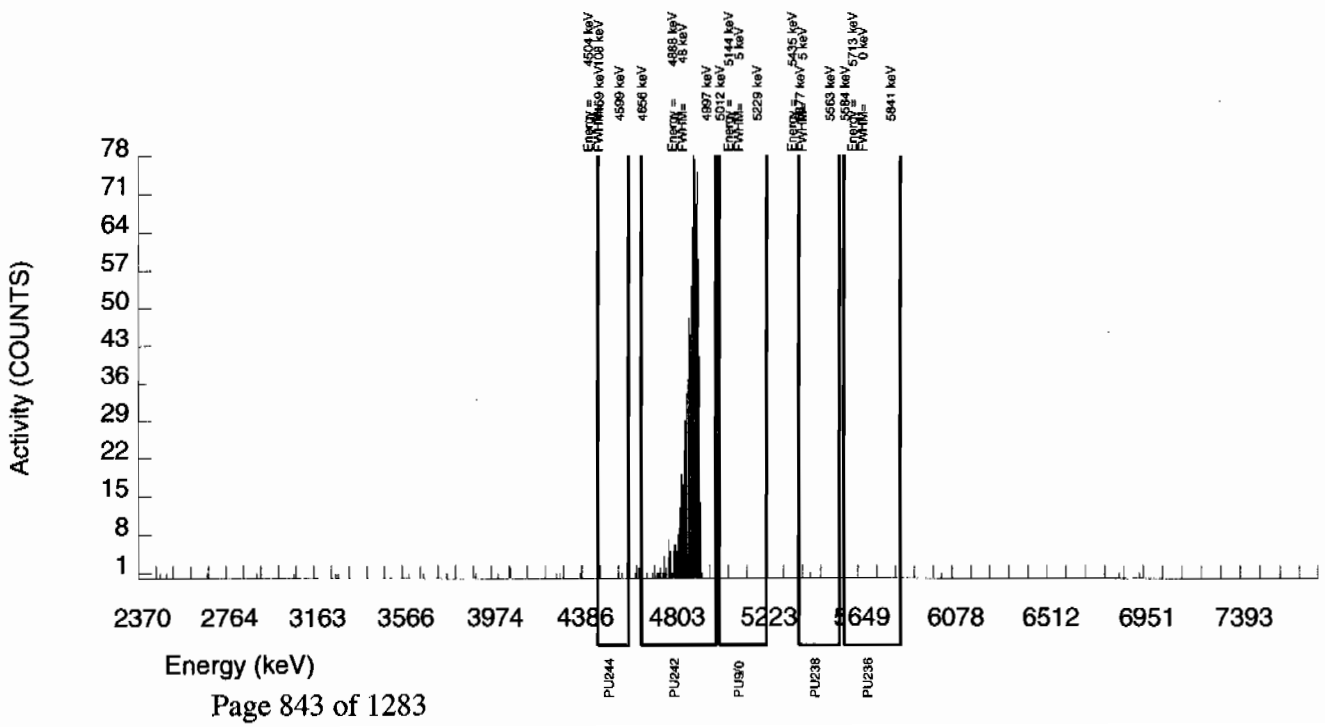

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936902 SAMPLE DATE : 28-DEC-2009 00:00:00	SAMPLE ID : S1202004660_PU SAMPLE QTY: 1.000 L
DETECTOR NUMBER :67605 AVERAGE %EFFICIENCY :30.7688 % YIELD : 82.561	COUNT DATE:29-DEC-2009 12:42:05 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 0338-BB ISOTOPE : PU-9/0 PCI/L : 2.269E+00	ID : 0338-BB ISOTOPE : PU-9/0 PCI/L : 2.269E+00	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 2.79504 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B096.CNF;662 BKG DATE : 27-DEC-2009 EFF FILE : W096.CNF;171 CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-9/0	5155.000	3.000	0.000	3.000	2.8102	99.90000	0.00E+00	4.35E-03	1.16E-02	2.80E-02	4.35E-03
PU-236	5749.000	6.000	1.000	5.000	3.4259	100.0000	1.78E-03	5.89E-03	1.41E-02	3.31E-02	5.89E-03
PU-238	5499.000	5.000	3.000	2.000	2.5715	99.90000	5.33E-03	4.70E-03	1.06E-02	2.60E-02	4.70E-03
PU242	4890.000	863.000	860.000	3.000	1.7321	100.0000	1.52E+00	9.55E-02	7.15E-03	1.91E-02	5.22E-02
PU-244	4589.000	4.000	4.000	0.000	6.1055	99.90000	7.10E-03	3.57E-03	2.52E-02	5.52E-02	3.55E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

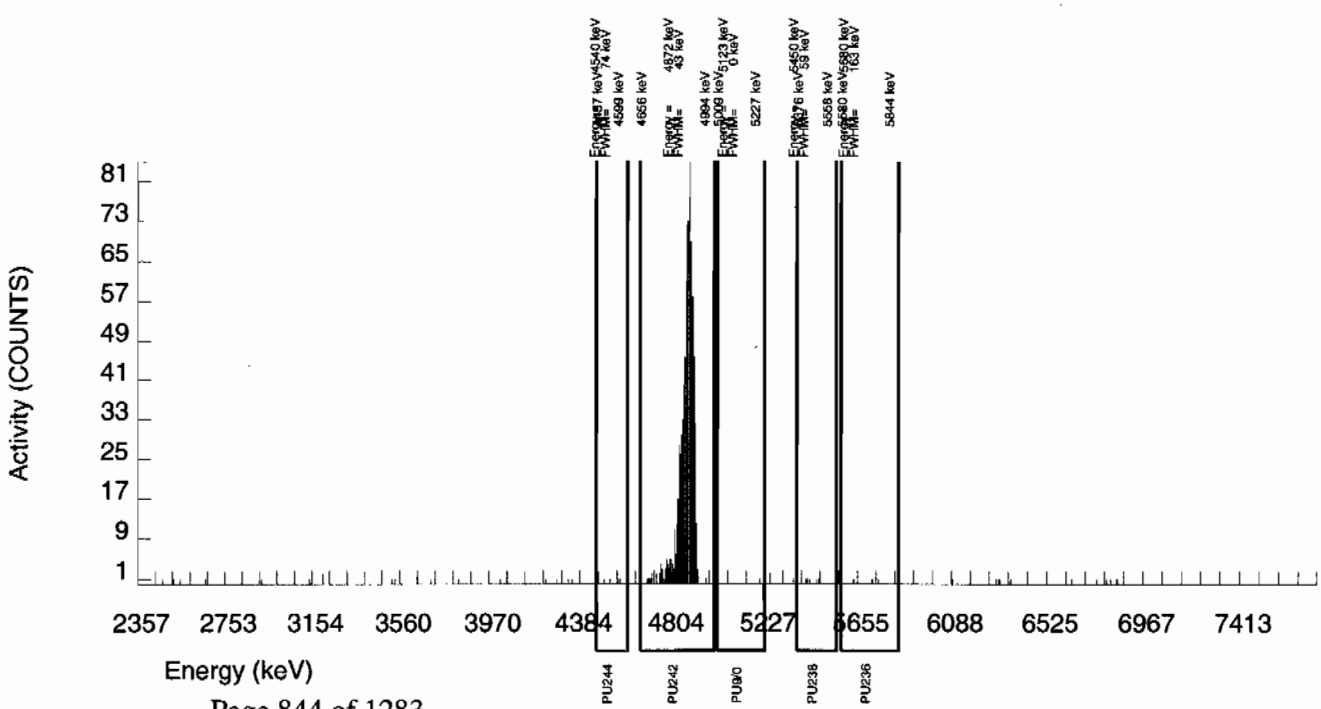

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936902 SAMPLE DATE : 18-DEC-2009 00:00:00	SAMPLE ID : S1202004661_PU SAMPLE QTY: 0.800 L
DETECTOR NUMBER :79457 AVERAGE %EFFICIENCY :31.2136 % YIELD : 91.510	COUNT DATE:29-DEC-2009 12:42:04 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 0338-BB ISOTOPE : PU-9/0 PCI/L : 2.836E+00	ID : 0338-BB ISOTOPE : PU-9/0 PCI/L : 2.836E+00	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.09800 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B092.CNF;710 BKG DATE : 27-DEC-2009 EFF FILE : W092.CNF;231 CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-9/0	5155.000	0.000	-2.000	2.000	2.8102	99.90000	-3.95E-03	3.42E-03	1.29E-02	3.11E-02	3.42E-03
PU-236	5749.000	0.000	0.000	0.000	3.4259	100.0000	0.00E+00	1.99E-03	1.57E-02	3.68E-02	1.99E-03
PU-238	5499.000	3.000	3.000	0.000	2.5715	99.90000	5.92E-03	3.43E-03	1.18E-02	2.90E-02	3.42E-03
PU242	4890.000	973.000	967.000	6.000	2.4495	100.0000	1.91E+00	1.19E-01	1.12E-02	2.78E-02	6.17E-02
PU-244	4589.000	2.000	1.000	1.000	6.1055	99.90000	1.97E-03	3.42E-03	2.80E-02	6.14E-02	3.42E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

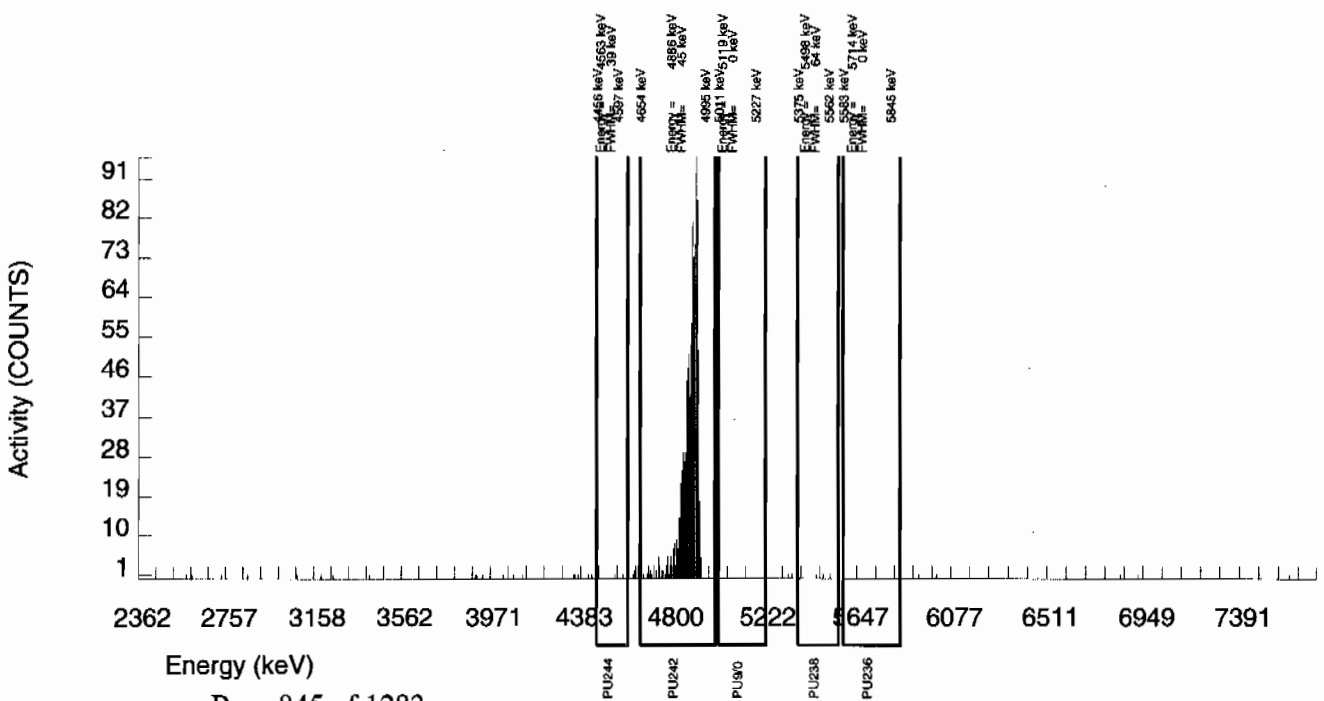

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936902 SAMPLE DATE : 28-DEC-2009 00:00:00	SAMPLE ID : S1202004662_PU SAMPLE QTY: 1.000 L
DETECTOR NUMBER :33206 AVERAGE %EFFICIENCY :31.6591 % YIELD : 84.717	COUNT DATE:29-DEC-2009 12:42:04 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 0338-BB	ID : 0338-BB	ID : 1374-A	LIB FILE : ENV_ALPHA_PU.N
ISOTOPE : PU-9/0	ISOTOPE : PU-9/0	ISOTOPE : PU242	BKG FILE : B093.CNF;698
PCI/L : 2.269E+00	PCI/L : 2.269E+00	NOMINAL : 3.38543 dpm	BKG DATE : 27-DEC-2009
		RESULTS : 2.86805 dpm	EFF FILE : W093.CNF;197
			CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-9/0	5155.000	1313.000	1313.000	0.000	2.8102	99.90000	2.21E+00	1.33E-01	1.10E-02	2.65E-02	6.09E-02
PU-236	5749.000	2.000	1.000	1.000	3.4259	100.0000	1.68E-03	2.91E-03	1.34E-02	3.13E-02	2.91E-03
PU-238	5499.000	6.000	5.000	1.000	2.5715	99.90000	8.41E-03	4.47E-03	1.01E-02	2.47E-02	4.45E-03
PU242	4890.000	911.000	908.000	3.000	1.7321	100.0000	1.52E+00	9.64E-02	6.77E-03	1.81E-02	5.08E-02
PU-244	4589.000	8.000	7.000	1.000	6.1055	99.90000	1.18E-02	5.08E-03	2.39E-02	5.23E-02	5.04E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

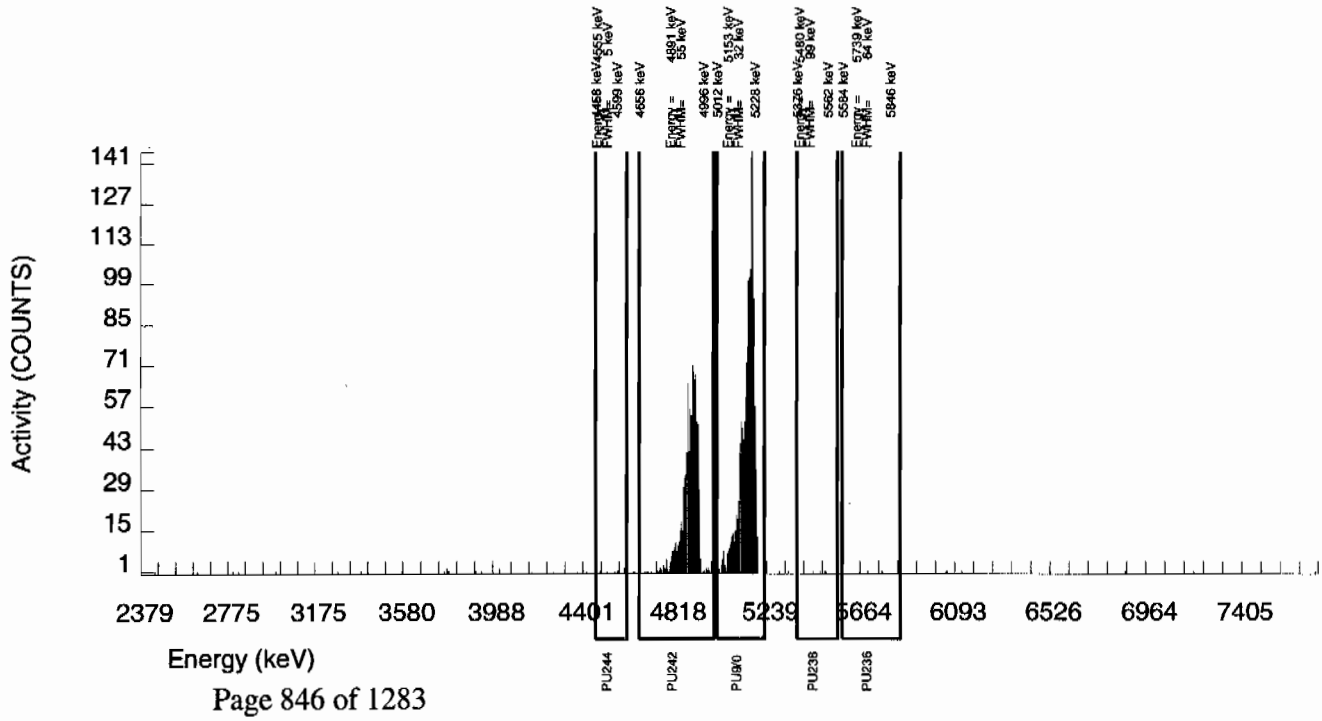

Radiochemistry Batch Checklist, Rev 9

Batch# 936904 Product: U Date: 12/30/09

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument blg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125%. Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples. < 5% of lowest activity)	✓		Case narrative
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed. if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Denise Green 12/30/09

Secondary Review Performed By: [illegible] 12/30/09

1/8
LANL

Uranium Que Sheet

28-DEC-09

Batch #: 936904 **Analyst:** JXD2 **First Client Due Date:** 08-JAN-10 **Internal Due Date** 29-DEC-09

Tracer Isotope: U-232 U-236 **Tracer Code:** 1283-H **Expiration Date:** 12/09/10 **Vol:** 0.1
LCS Isotope: U-238 **LCS Code:** 1163-H **Expiration Date:** 10/21/10 **Vol:** 0.1
Spike Isotope: U-238 **Spike Code:** — **Expiration Date:** — **Vol:** —
Prep Date: 12/28/09 **Initials:** JAO **Pipet ID:** 297/058 **Balance ID:** 16750207 **Witness:** [illegible] 12/28/09

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/ml)	U Det #
243400002-1	CAPA-10-6823	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	18-DEC-09	1	1	0.800	126
243400003-1	CAPA-10-6824	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	18-DEC-09	2	2	0.800	127
243462001-1	CAWA-10-6910	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	21-DEC-09	3	3	0.800	128
1202004667-1	MB for batch 936904	MB		.5 pCi/L	GROUND WATER	QC ACCOUNT		4	4	1.0	129
1202004668-1	CAPA-10-6824(243400003DUP)	DUP		.5 pCi/L	GROUND WATER	QC ACCOUNT	18-DEC-09	5	5	0.800	130
1202004669-1	LCS for batch 936904	LCS		.5 pCi/L	GROUND WATER	QC ACCOUNT		6	6	1.0	132

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: **LEACH** or **DIGESTION** NK
Circle One
[illegible] 12/30/09

Data Reviewed By: [illegible] 12/30/09

Blank Correction Report

Batch ID 936904

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202004668	DUP	Uranium-233/234	0.800 L	1.12	0.101	0.103	.005575	pCi/L	NO
		Uranium-235/236	0.800 L	0.0233	0.00965	0.0539	.01675	pCi/L	YES
		Uranium-238	0.800 L	0.502	0.0539	0.0644	.00815	pCi/L	NO
1202004669	LCS	Uranium-233/234	1.00 L	2.35	0.184	0.0744	.00446	pCi/L	NO
		Uranium-235/236	1.00 L	0.118	0.0204	0.0389	.0134	pCi/L	NO
		Uranium-238	1.00 L	2.56	0.199	0.0465	.00652	pCi/L	NO
1202004667	MB	Uranium-233/234	1.00 L	0.00446	0.00536	0.0713	.00446	pCi/L	YES
		Uranium-235/236	1.00 L	0.0134	0.00608	0.0373	.0134	pCi/L	YES
		Uranium-238	1.00 L	0.00652	0.00488	0.0446	.00652	pCi/L	YES
243400002	CAPA-10-6823	Uranium-233/234	0.800 L	1.03	0.0905	0.0887	.005575	pCi/L	NO
		Uranium-235/236	0.800 L	0.020	0.0083	0.0464	.01675	pCi/L	YES
		Uranium-238	0.800 L	0.470	0.0489	0.0554	.00815	pCi/L	NO
243400003	CAPA-10-6824	Uranium-233/234	0.800 L	1.05	0.0972	0.110	.005575	pCi/L	NO
		Uranium-235/236	0.800 L	0.0496	0.0148	0.0574	.01675	pCi/L	YES
		Uranium-238	0.800 L	0.482	0.0534	0.0686	.00815	pCi/L	NO
243462001	CAWA-10-6910	Uranium-233/234	0.800 L	0.628	0.0644	0.107	.005575	pCi/L	NO
		Uranium-235/236	0.800 L	0.0323	0.0117	0.0561	.01675	pCi/L	YES
		Uranium-238	0.800 L	0.291	0.0374	0.067	.00815	pCi/L	NO

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936904 SAMPLE DATE : 18-DEC-2009 00:00:00	SAMPLE ID : S0243400002_UU SAMPLE QTY: 0.800 L
DETECTOR NUMBER :75548 AVERAGE %EFFICIENCY :25.0198 % YIELD : 83.309	COUNT DATE:29-DEC-2009 19:54:38 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 1163-H	ID : 1163-H	ID : 1283-H	LIB FILE : ENV_ALPHA_UU.N
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG FILE : B126.CNF;430
PCI/L : 3.243E+00	PCI/L : 3.243E+00	NOMINAL : 4.51126 dpm	BKG DATE : 27-DEC-2009
		RESULTS : 3.75828 dpm	EFF FILE : W126.CNF;130
			CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U-3/4	4763.020	383.000	381.050	1.000	6.4732	100.0000	1.03E+00	9.05E-02	4.07E-02	8.87E-02	5.29E-02
U232	5302.100	943.000	940.000	3.000	1.7321	100.0000	2.54E+00	1.99E-01	1.09E-02	2.91E-02	8.31E-02
U-235	4391.000	6.000	6.000	0.000	2.4030	80.90000	2.00E-02	8.30E-03	1.87E-02	4.64E-02	8.18E-03
U-238	4184.730	174.000	174.000	0.000	3.8252	100.0000	4.70E-01	4.89E-02	2.40E-02	5.54E-02	3.56E-02

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

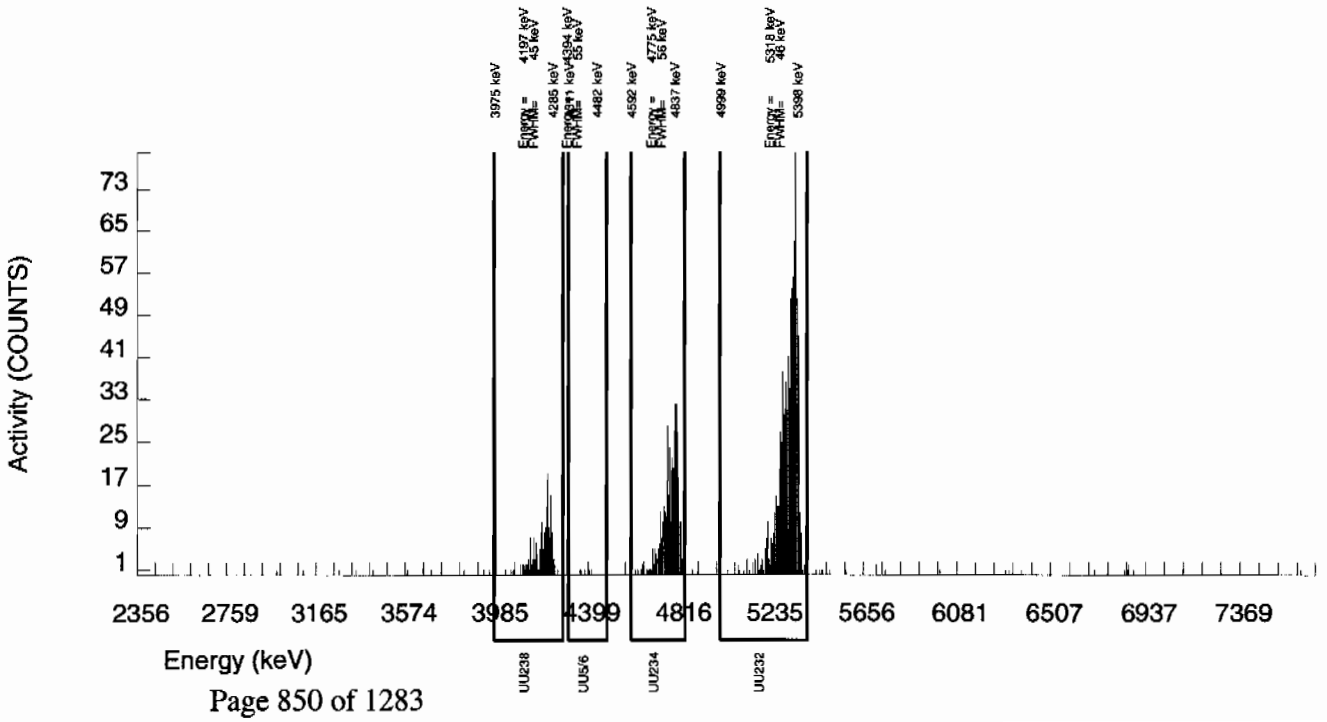

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936904 SAMPLE DATE : 18-DEC-2009 00:00:00	SAMPLE ID : S0243400003_UU SAMPLE QTY: 0.800 L
DETECTOR NUMBER :78770 AVERAGE %EFFICIENCY :24.6888 % YIELD : 68.169	COUNT DATE:29-DEC-2009 19:54:40 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 1163-H	ID : 1163-H	ID : 1283-H	LIB FILE : ENV_ALPHA_UU.N
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG FILE : B127.CNF;434
PCI/L : 3.243E+00	PCI/L : 3.243E+00	NOMINAL : 4.51126 dpm	BKG DATE : 27-DEC-2009
		RESULTS : 3.07530 dpm	EFF FILE : W127.CNF;121
			CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U-3/4	4763.020	316.000	314.233	1.000	6.4732	100.0000	1.05E+00	9.72E-02	5.04E-02	1.10E-01	5.95E-02
U232	5302.100	761.000	759.000	2.000	1.4142	100.0000	2.54E+00	2.07E-01	1.10E-02	3.11E-02	9.24E-02
U-235	4391.000	12.000	12.000	0.000	2.4030	80.90000	4.96E-02	1.48E-02	2.31E-02	5.74E-02	1.43E-02
U-238	4184.730	144.000	144.000	0.000	3.8252	100.0000	4.82E-01	5.34E-02	2.98E-02	6.86E-02	4.01E-02

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

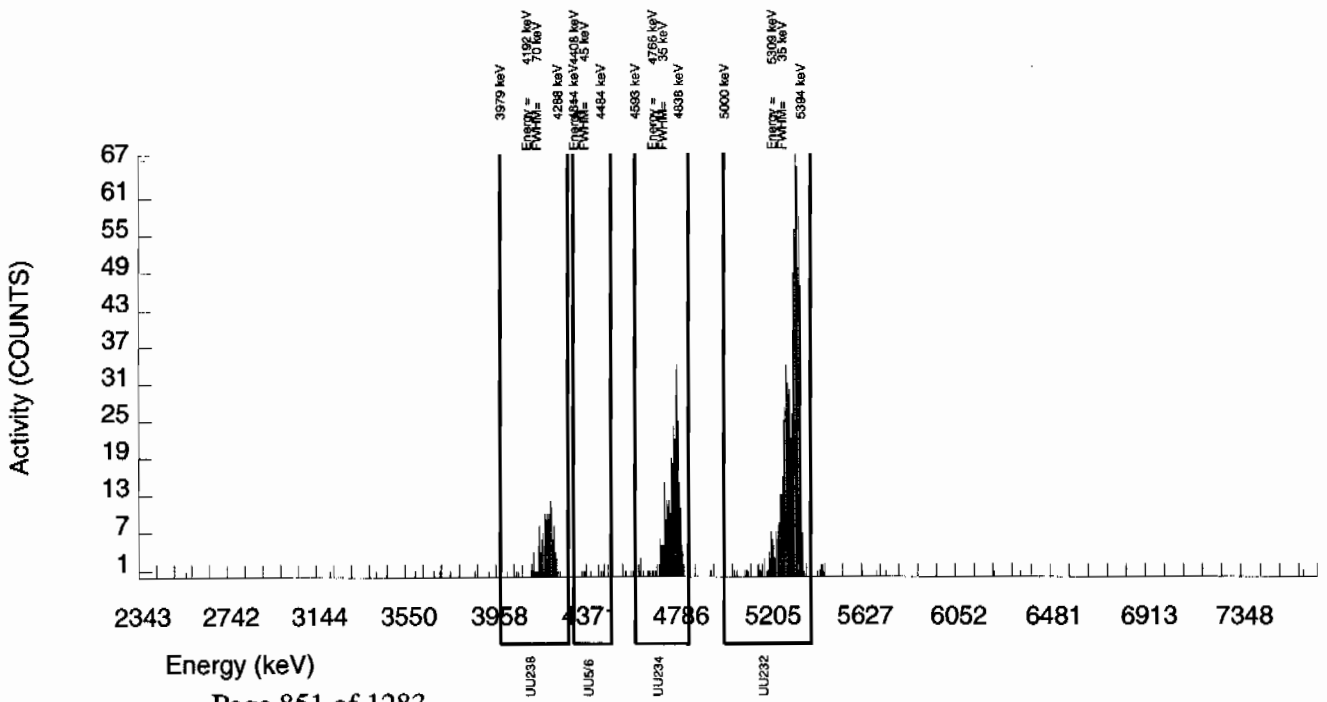

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936904 SAMPLE DATE : 28-DEC-2009 00:00:00	SAMPLE ID : S1202004667_UU SAMPLE QTY: 1.000 L
DETECTOR NUMBER :76227 AVERAGE %EFFICIENCY :26.3585 % YIELD : 78.657	COUNT DATE:29-DEC-2009 19:54:45 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 1163-H ISOTOPE : U-238 PCI/L : 2.594E+00	ID : 1163-H ISOTOPE : U-238 PCI/L : 2.594E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.51002 dpm RESULTS : 3.54745 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B129.CNF;429 BKG DATE : 27-DEC-2009 EFF FILE : W129.CNF;126 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U-3/4	4763.020	5.000	2.055	2.000	6.4732	100.0000	4.46E-03	5.36E-03	3.27E-02	7.13E-02	5.35E-03
U232	5302.100	936.000	935.000	1.000	1.0000	100.0000	2.03E+00	1.59E-01	5.05E-03	1.60E-02	6.65E-02
U-235	4391.000	5.000	5.000	0.000	2.4030	80.90000	1.34E-02	6.08E-03	1.50E-02	3.73E-02	6.01E-03
U-238	4184.730	4.000	3.000	1.000	3.8252	100.0000	6.52E-03	4.88E-03	1.93E-02	4.46E-02	4.86E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

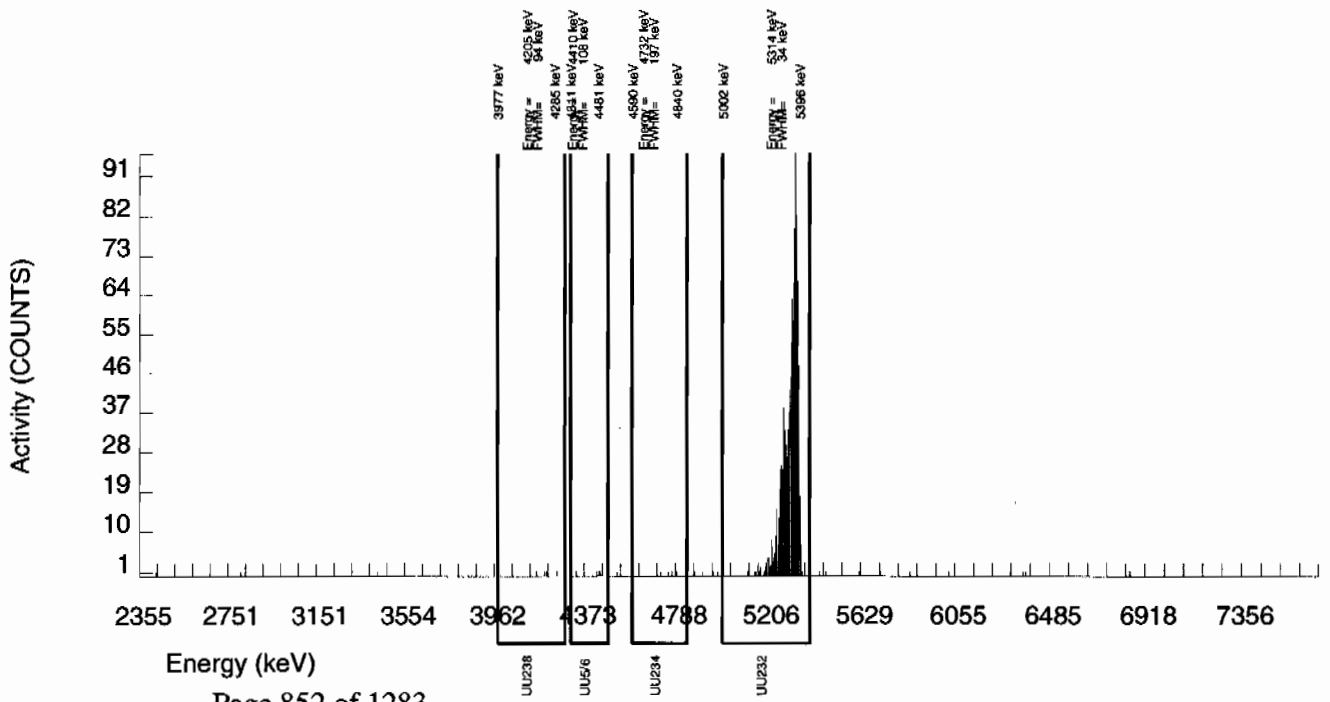

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936904 SAMPLE DATE : 18-DEC-2009 00:00:00	SAMPLE ID : S1202004668_UU SAMPLE QTY: 0.800 L
DETECTOR NUMBER :76228 AVERAGE %EFFICIENCY :24.6671 % YIELD : 72.724	COUNT DATE:29-DEC-2009 19:54:48 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 1163-H ISOTOPE : U-238 PCI/L : 3.243E+00	ID : 1163-H ISOTOPE : U-238 PCI/L : 3.243E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.51126 dpm RESULTS : 3.28078 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B130.CNF;429 BKG DATE : 27-DEC-2009 EFF FILE : W130.CNF;128 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U-3/4	4763.020	359.000	357.182	1.000	6.4732	100.0000	1.12E+00	1.01E-01	4.73E-02	1.03E-01	5.95E-02
U232	5302.100	812.000	809.000	3.000	1.7321	100.0000	2.54E+00	2.05E-01	1.26E-02	3.38E-02	8.96E-02
U-235	4391.000	6.000	6.000	0.000	2.4030	80.90000	2.33E-02	9.65E-03	2.17E-02	5.39E-02	9.50E-03
U-238	4184.730	160.000	160.000	0.000	3.8252	100.0000	5.02E-01	5.39E-02	2.79E-02	6.44E-02	3.97E-02

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

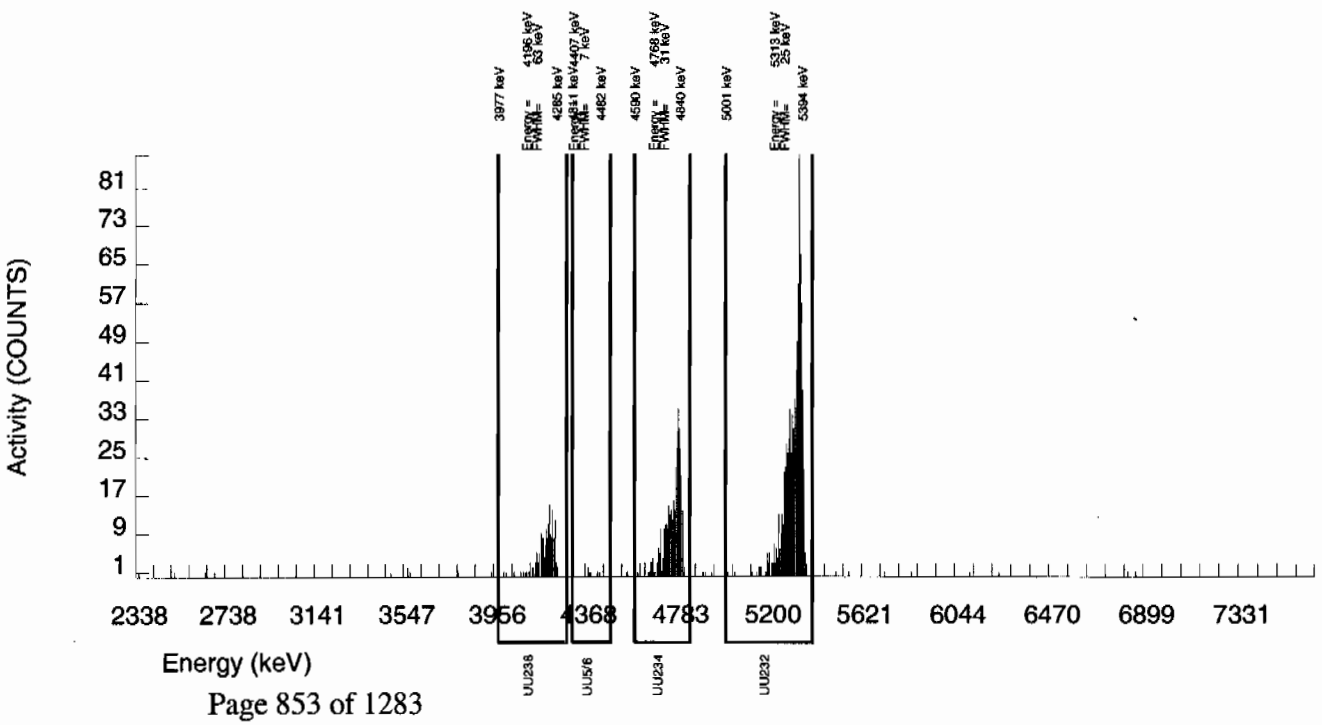

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 936904 SAMPLE DATE : 28-DEC-2009 00:00:00	SAMPLE ID : S1202004669_UU SAMPLE QTY: 1.000 L
DETECTOR NUMBER :67579 AVERAGE %EFFICIENCY :24.9541 % YIELD : 79.618	COUNT DATE:29-DEC-2009 19:54:52 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 1163-H	ID : 1163-H	ID : 1283-H	LIB FILE : ENV_ALPHA_UU.N
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG FILE : B132.CNF;421
PCI/L : 2.594E+00	PCI/L : 2.594E+00	NOMINAL : 4.51002 dpm	BKG DATE : 27-DEC-2009
		RESULTS : 3.59080 dpm	EFF FILE : W132.CNF;128
			CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U-3/4	4763.020	1038.000	1037.094	0.000	6.4732	100.0000	2.35E+00	1.84E-01	3.41E-02	7.44E-02	7.30E-02
U232	5302.100	899.000	896.000	3.000	1.7321	100.0000	2.03E+00	1.61E-01	9.14E-03	2.44E-02	6.81E-02
U-235	4391.000	43.000	42.000	1.000	2.4030	80.90000	1.18E-01	2.04E-02	1.57E-02	3.89E-02	1.86E-02
U-238	4184.730	1129.000	1129.000	0.000	3.8252	100.0000	2.56E+00	1.99E-01	2.02E-02	4.65E-02	7.62E-02

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

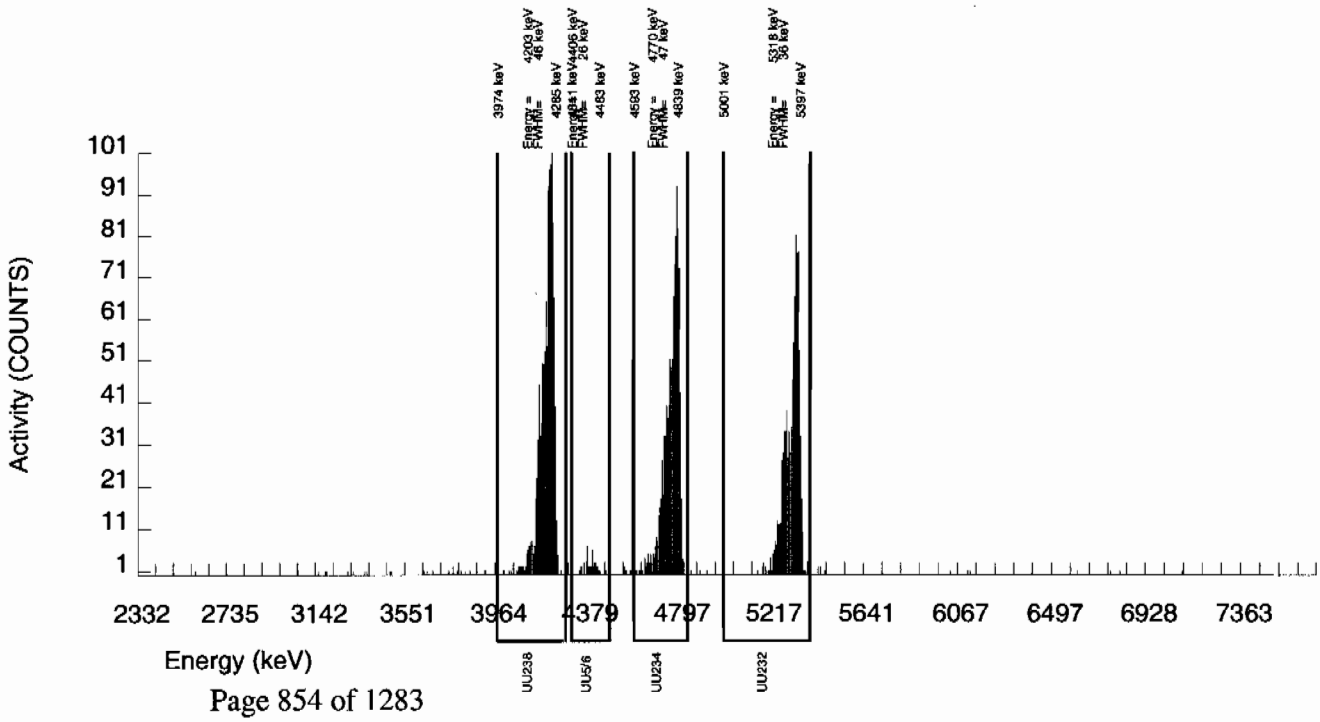

Radiochemistry Batch Checklist, Rev 9

Batch# 936274 Product: Gamma Liquid LANL Date: 01/06/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initiated and dated. No transcription errors are apparent.	✓		
Aux data is correct.	✓		
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: [illegible] 1/6/10

Secondary Review Performed By: [illegible] 1/6/10

1/21/10

Gamma Spec Que Sheet

12/23/2009

Batch #:936274 **Analyst:** KXG3 **First Client DueDate:**01/21/2010 **Internal Due Date:** 01/10/2010

Gamma Spike Isotope: Mixed Gamma **Spike Code:** na **Expiration Date:** na **Vol:** na **Nominal Concentration:** na

Gamma LCS Isotope: Mixed Gamma **LCS Code:** 1032-A **Expiration Date:** 12/2/10 **Vol:** 1.0 mL **Nominal Concentration:** Cs137-433.3 Co60-505.5

Initials: KKG **Prep Date:** 12/24/09 **Library:** Liquid **Witness:** Am241-1236 Gross β - 2177

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date		Geometry	Wet/Dry Aliquot (Wet/Dry g/F)	Detector	Sealing Date/Time (if Applicable)
243400002-1	CAPA-10-6823	SAMPLE		LANL010	GROUND WATER	18-DEC-09 12:00:00	1	1LMB	2	11	
243400003-1	CAPA-10-6824	SAMPLE		LANL010	GROUND WATER	18-DEC-09 12:00:00	2		2	14	
1202003335-1	MB	MB		QC ACCOUNT	GROUND WATER	12/24/09	3		2	3 19	1/6/10
1202003336-1	DUP CAPA-10-6823(243400002)	DUP		QC ACCOUNT	GROUND WATER	18-DEC-09 12:00:00			2	2	
1202003337-1	LCS	LCS		QC ACCOUNT	GROUND WATER	12/24/09			2	1	

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: 1/6/10

History ✓ dailies

J Eulaw 1/6/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
936274	243400002	SAMPLE	31-DEC-09		Neptunium-237	0.6051	28.48	10.0
					Potassium-40	-32.01	52.68	10.0
936274	243400003	SAMPLE	31-DEC-09		Neptunium-237	-3.751	34.44	10.0
					Potassium-40	4.123	58.33	10.0
936274	1202003335	MB	05-JAN-10		Neptunium-237	-16.92	42.56	10.0
					Potassium-40	-8.294	57.43	10.0
936274	1202003336	DUP	01-JAN-10		Neptunium-237	3.794	20.09	10.0
					Potassium-40	15.77	21.72	10.0
936274	1202003337	LCS	31-DEC-09		Potassium-40	12.73	122.6	10.0

Gamma Review Report based on Result > MDA for Batch:936274

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
243400002	18-DEC-09 12:00	31-DEC-09 16:18	13.2	SAMPLE	LOAD	1	LANL	ESHL01000|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Arsenic-74	HE	14.73	6.05	pCi/L	9.895	N	595.3	1	0.7278	IDENTIFIED	40.85		
Bismuth-211	int nr	55.64	12.95	pCi/L	23.72	N	351.7	4	0.9022	IDENTIFIED	22.72		
Bismuth-214	nr	23.87	5.132	pCi/L	7.956	N	608.7	1	0.9992	IDENTIFIED	20.89		
Cerium-143	HE	1939	2308	pCi/L	0	N	0	5	0	SHORT_HLIF	0		
Iodine-123	HE	2.00E+06	2.07E+07	pCi/L	0	N	0	5	0	SHORT_HLIF	0		
Iodine-133	HE	23390	42720	pCi/L	0	N	0	5	0	SHORT_HLIF	0		
Lead-214	nr	19.36	4.531	pCi/L	7.339	N	351.7	4	0.9022	IDENTIFIED	22.72		
Polonium-214	nr	19.36	4.531	pCi/L	7.339	N	351.7	4	0.9022	IDENTIFIED	22.72		
Polonium-218	nr	19.36	4.531	pCi/L	7.339	N	351.7	4	0.9022	IDENTIFIED	22.72		
Sodium-24	HE	4.60E+06	2.88E+06	pCi/L	0	N	0	5	0	SHORT_HLIF	0		
Thallium-200	HE	823.5	5474	pCi/L	0	N	0	5	0	SHORT_HLIF	0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
243400003	18-DEC-09 12:00	31-DEC-09 16:18	13.2	SAMPLE	LOAD	1	LANL	ESHL01000|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Cerium-143		10200	3826	pCi/L	0	N	0	8	0	SHORT_HLIF	0		
Iodine-133	HE	53780	47020	pCi/L	0	N	0	8	0	SHORT_HLIF	0		
Iodine-135	HE	1.98E+15	1.41E+15	pCi/L	0	N	0	8	0	SHORT_HLIF	0		
Niobium-97	HE	2.68E+05	5.48E+05	pCi/L	0	N	0	8	0	SHORT_HLIF	0		
Protactinium-227		1.00E+41	0	pCi/L	0	N	0	8	0	SHORT_HLIF	0		
Radium-224	HE	105	68.98	pCi/L	98.31	N	240.5	1	4.333	IDENTIFIED	65.65		
Sodium-24	HE	3.83E+05	3.96E+06	pCi/L	0	N	0	8	0	SHORT_HLIF	0		
Technetium-99m	HE	1.17E+16	9.16E+15	pCi/L	0	N	0	8	0	SHORT_HLIF	0		
Thallium-200		12190	5611	pCi/L	0	N	0	8	0	SHORT_HLIF	0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202003335		31-DEC-09 16:19	0	MB	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Gross Gamma		14.57	11.63	pCi/L	13.77	120			0				
Iodine-135	HE	4.84E+08	1.17E+09	pCi/L	0	N	0	7	0	SHORT_HLIF	0		
Niobium-97	HE	3159	2000	pCi/L	0	N	0	7	0	SHORT_HLIF	0		
Protactinium-227		1.00E+41	0	pCi/L	0	N	0	7	0	SHORT_HLIF	0		
Sodium-24	HE	4566	7932	pCi/L	0	N	0	7	0	SHORT_HLIF	0		
Technetium-99m	HE	7.95E+07	1.86E+09	pCi/L	0	N	0	7	0	SHORT_HLIF	0		
Tungsten-181	HE	84.76	27.38	pCi/L	55.31	N	0	7	0	FAIL_ABUND	0		
Zirconium-97		3.44E+05	59600	pCi/L	0	N	0	7	0	SHORT_HLIF	0		

ABE 1/6/10

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202003336	18-DEC-09 12:00	01-JAN-10 17:18	14.2	DUP	LOAD	1		ESHL01000 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Arsenic-73	HE	115.5	52.42	pCi/L	105.2	N	52.98	2	1.232	IDENTIFIED	45.21		
Bismuth-211	int nr	42.04	7.992	pCi/L	14.52	N	351.7	1	1.177	IDENTIFIED	18.72		
Bismuth-214	nr	11.33	2.989	pCi/L	4.732	N	609	1	1.092	IDENTIFIED	26.12		
Cerium-143	HE	2437	2958	pCi/L	0	N	0	11	0	SHORT_HLIF	0		
Iodine-123	HE	3.40E+07	5.54E+07	pCi/L	0	N	0	11	0	SHORT_HLIF	0		
Iodine-133	HE	1.08E+05	71820	pCi/L	0	N	0	11	0	SHORT_HLIF	0		
Lead-214	nr	14.63	2.806	pCi/L	7.353	N	0	11	0	FAIL_ABUND	0		
Polonium-214	nr	14.63	2.806	pCi/L	7.353	N	0	11	0	FAIL_ABUND	0		
Polonium-218	nr	14.63	2.806	pCi/L	7.353	N	0	11	0	FAIL_ABUND	0		
Protactinium-227		1.00E+41	0	pCi/L	0	N	0	11	0	SHORT_HLIF	0		
Rhodium-101	HE	4.243	1.502	pCi/L	2.951	N	0	11	0	FAIL_ABUND	0		
Sodium-24	HE	9.17E+06	7.08E+06	pCi/L	0	N	0	11	0	SHORT_HLIF	0		
Thulium-171	HE	3369	1011	pCi/L	2887	N	0	11	0	FAIL_ABUND	0		
Tungsten-181	HE	41.3	12.39	pCi/L	37.69	N	0	11	0	FAIL_ABUND	0		
Uranium-234	HE	8755	43960	pCi/L	8154	N	52.98	2	1.232	IDENTIFIED	45.21		

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Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202003337		31-DEC-09 16:41	0	LCS	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Americium-241		1397	96.07	pCi/L	109.2	N	59.49	3	1.183	IDENTIFIED	5.029		
Barium-137m		412.9	17.86	pCi/L	13.34	N	661.6	2	1.336	IDENTIFIED	3.54		
Cadmium-109		3194	262.7	pCi/L	361.9	N	88.01	2	1.314	IDENTIFIED	7.039		
Cesium-137		436.5	18.91	pCi/L	14.1	8.00	661.6	2	1.336	IDENTIFIED	3.54		
Cobalt-57	HE	23.22	6.589	pCi/L	11.15	N	122.1	1	1.092	IDENTIFIED	28.16		
Cobalt-60		545.7	28.7	pCi/L	9.51	8.00	1332	1	1.873	IDENTIFIED	3.659		
Gross Gamma		2082	613.9	pCi/L	260.9	120		0					
Iodine-133	HE	2456	1946	pCi/L	0	N	0	4	0	SHORT_HLIF	0		
Iodine-135	HE	1.75E+09	2.69E+09	pCi/L	0	N	0	4	0	SHORT_HLIF	0		
Neptunium-237		495.8	73.72	pCi/L	174.8	10.0	0	4	0	NOT_IDENTI	0		
Niobium-97		22180	9991	pCi/L	0	N	0	4	0	SHORT_HLIF	0		
Plutonium-237		17210	1148	pCi/L	1345	N	59.49	3	1.183	IDENTIFIED	5.029		
Radium-226	HE	322.4	182.5	pCi/L	273.6	N	185.2	1	1.841	IDENTIFIED	43.1		
Thorium-232	HE	2.64E+05	1.39E+06	pCi/L	21350	N	59.49	3	1.183	IDENTIFIED	5.029		
Tin-126		317.4	26.11	pCi/L	36.22	N	88.01	2	1.314	IDENTIFIED	7.039		

*** = Number of isotopes identified with a keyline at this energy.

Gamma Review Report based on Result > MDA for Batch:936274

JEE 1/6/10

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
243400002	18-DEC-09 12:00	31-DEC-09 16:18	13.2	SAMPLE	LOAD	1	LANL	ESHL01000|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Arsenic-74	HE	14.73	6.05	pCi/L	9.895	N	595.3	1	0.7278	IDENTIFIED	40.85	☐	
Bismuth-211	int nr	55.64	12.95	pCi/L	23.72	N	351.7	4	0.9022	IDENTIFIED	22.72	☐	
Bismuth-214	nr	23.87	5.132	pCi/L	7.956	N	608.7	1	0.9992	IDENTIFIED	20.89	☐	
Cerium-143	HE	1939	2308	pCi/L	0	N	0	5	0	SHORT_HLIF	0	☐	
Iodine-123	HE	2.00E+06	2.07E+07	pCi/L	0	N	0	5	0	SHORT_HLIF	0	☐	
Iodine-133	HE	23390	42720	pCi/L	0	N	0	5	0	SHORT_HLIF	0	☐	
Lead-214	nr	19.36	4.531	pCi/L	7.339	N	351.7	4	0.9022	IDENTIFIED	22.72	☐	
Polonium-214	nr	19.36	4.531	pCi/L	7.339	N	351.7	4	0.9022	IDENTIFIED	22.72	☐	
Polonium-218	nr	19.36	4.531	pCi/L	7.339	N	351.7	4	0.9022	IDENTIFIED	22.72	☐	
Sodium-24	HE	4.60E+06	2.88E+06	pCi/L	0	N	0	5	0	SHORT_HLIF	0	☐	
Thallium-200	HE	823.5	5474	pCi/L	0	N	0	5	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
243400003	18-DEC-09 12:00	31-DEC-09 16:18	13.2	SAMPLE	LOAD	1	LANL	ESHL01000|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Cerium-143		10200	3826	pCi/L	0	N	0	8	0	SHORT_HLIF	0	☐	
Iodine-133	HE	53780	47020	pCi/L	0	N	0	8	0	SHORT_HLIF	0	☐	
Iodine-135	HE	1.98E+15	1.41E+15	pCi/L	0	N	0	8	0	SHORT_HLIF	0	☐	
Niobium-97	HE	2.68E+05	5.48E+05	pCi/L	0	N	0	8	0	SHORT_HLIF	0	☐	
Protactinium-227		1.00E+41	0	pCi/L	0	N	0	8	0	SHORT_HLIF	0	☐	
Radium-224	HE	105	68.98	pCi/L	98.31	N	240.5	1	4.333	IDENTIFIED	65.65	☐	
Sodium-24	HE	3.83E+05	3.96E+06	pCi/L	0	N	0	8	0	SHORT_HLIF	0	☐	
Technetium-99m	HE	1.17E+16	9.16E+15	pCi/L	0	N	0	8	0	SHORT_HLIF	0	☐	
Thallium-200		12190	5611	pCi/L	0	N	0	8	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202003335		05-JAN-10 13:10	0	MB	LOAD	2		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Protactinium-227		1.00E+41	0	pCi/L	0	N	0	1	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202003336	18-DEC-09 12:00	01-JAN-10 17:18	14.2	DUP	LOAD	1		ESHL01000|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Arsenic-73	HE	115.5	52.42	pCi/L	105.2	N	52.98	2	1.232	IDENTIFIED	45.21	☐	
Bismuth-211	int nr	42.04	7.992	pCi/L	14.52	N	351.7	1	1.177	IDENTIFIED	18.72	☐	
Bismuth-214	nr	11.33	2.989	pCi/L	4.732	N	609	1	1.092	IDENTIFIED	26.12	☐	

JEE 1/6/10

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
936274	243400002	SAMPLE	31-DEC-09	Arsenic-74	14.73	6.05	pCi/L	4.95	N
				Bismuth-211	55.64	12.95	pCi/L	11.87	N
				Bismuth-214	23.87	5.132	pCi/L	3.98	N
				Cerium-143	1939	2308	pCi/L	0	N
				Gross Gamma	42.01	24.05	pCi/L	25.78	120
				Iodine-123	2.00E+06	2.07E+07	pCi/L	0	N
				Iodine-133	23390	42720	pCi/L	0	N
				Lead-214	19.36	4.531	pCi/L	3.672	N
				Polonium-214	19.36	4.531	pCi/L	3.672	N
				Polonium-218	19.36	4.531	pCi/L	3.672	N
				Sodium-24	4.60E+06	2.68E+06	pCi/L	0	N
				Thallium-200	823.5	5474	pCi/L	0	N
				Uranium-234	4469	22500	pCi/L	4463	N
				Uranium-235	17.13	9.381	pCi/L	15.74	N
936274	243400003	SAMPLE	31-DEC-09	Californium-251	11.79	6.545	pCi/L	11.18	N
				Cerium-143	10200	3826	pCi/L	0	N
				Cesium-137	3.333	1.422	pCi/L	2.673	8.00
				Gross Gamma	21.81	10.78	pCi/L	18.25	120
				Iodine-133	53780	47020	pCi/L	0	N
				Iodine-135	1.98E+15	1.41E+15	pCi/L	0	N
				Niobium-97	2.68E+05	5.48E+05	pCi/L	0	N
				Praseodymium-144	220.4	87.48	pCi/L	165.8	N
				Protactinium-227	1.00E+41	0	pCi/L	0	N
				Radium-224	105	68.98	pCi/L	49.19	N
				Rhenium-184	23.29	9.968	pCi/L	17.54	N
				Sodium-22	2.966	1.487	pCi/L	2.874	10.0
				Sodium-24	3.83E+05	3.96E+06	pCi/L	0	N
				Technetium-99m	1.17E+16	9.16E+15	pCi/L	0	N
				Thallium-200	12190	5611	pCi/L	0	N
				Thulium-171	2858	1380	pCi/L	2330	N
				Tungsten-181	40.23	17.37	pCi/L	29.5	N
936274	1202003335	MB	05-JAN-10	Iodine-124	42.11	23.49	pCi/L	39.13	N
				Polonium-209	695.8	374	pCi/L	692.9	N
				Praseodymium-144	243.5	108.5	pCi/L	199.9	N
				Protactinium-227	1.00E+41	0	pCi/L	0	N
				Radium-226	88.45	81.45	pCi/L	59.33	N
				Radon-220	2225	1171	pCi/L	2144	N

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
936274	1202003335	MB	05-JAN-10	Rhenium-183	14.02	5.382	pCi/L	9.676	N
				Tellurium-132	37.55	20.94	pCi/L	36.13	N
				Uranium-234	14730	74010	pCi/L	12240	N
936274	1202003336	DUP	01-JAN-10	Arsenic-73	115.5	52.42	pCi/L	52.63	N
				Bismuth-211	42.04	7.992	pCi/L	7.263	N
				Bismuth-214	11.33	2.989	pCi/L	2.367	N
				Cadmium-115	362	189.5	pCi/L	321.3	N
				Cerium-143	2437	2958	pCi/L	0	N
				Cesium-137	2.147	0.7646	pCi/L	1.378	8.00
				Gross Gamma	50.77	24.92	pCi/L	27.8	120
				Iodine-123	3.40E+07	5.54E+07	pCi/L	0	N
				Iodine-133	1.08E+05	71820	pCi/L	0	N
				Lead-214	14.63	2.806	pCi/L	3.679	N
				Polonium-214	14.63	2.806	pCi/L	3.679	N
				Polonium-218	14.63	2.806	pCi/L	3.679	N
				Potassium-40	15.77	19.79	pCi/L	10.87	10.0
				Protactinium-227	1.00E+41	0	pCi/L	0	N
				Rhenium-184	11.1	5.562	pCi/L	9.706	N
				Sodium-24	9.17E+06	7.08E+06	pCi/L	0	N
				Thorium-234	75.01	72.07	pCi/L	63.28	N
				Thulium-171	3369	1011	pCi/L	1444	N
				Tungsten-181	41.3	12.39	pCi/L	18.86	N
				Uranium-234	8755	43960	pCi/L	4080	N
				Uranium-238	75.01	72.07	pCi/L	63.28	N
936274	1202003337	LCS	31-DEC-09	Americium-241	1397	96.07	pCi/L	54.63	N
				Barium-137m	412.9	17.86	pCi/L	6.675	N
				Cadmium-109	3194	262.7	pCi/L	181.1	N
				Cesium-137	436.5	18.91	pCi/L	7.056	8.00
				Cobalt-57	23.22	6.589	pCi/L	5.576	N
				Cobalt-60	545.7	28.7	pCi/L	4.758	8.00
				Gross Gamma	2082	613.9	pCi/L	125.9	120
				Iodine-124	49.6	22.37	pCi/L	41.16	N
				Iodine-133	2456	1946	pCi/L	0	N
				Iodine-135	1.75E+09	2.69E+09	pCi/L	0	N
				Neptunium-237	495.8	73.72	pCi/L	87.48	10.0
				Niobium-97	22180	9991	pCi/L	0	N
				Plutonium-237	17210	1148	pCi/L	673	N

Gamma Spec Que Sheet

12/23/2009

Batch #:936274 Analyst: KXG3 First Client DueDate01/21/2010 Internal Due Date: 01/10/2010

Gamma Spike Isotope: Mixed Gamma Spike Code:_____ Expiration Date:_____ Vol:_____ Nominal Concentration:_____

Gamma LCS Isotope: Mixed Gamma LCS Code: 1032-A Expiration Date: 12/2/10 Vol: 1.0ml Nominal Concentration:_____

Initials: KKS Prep Date: 12/24/09 Library: Liquid Witness:_____

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date		Geometry	Wet/Dry Aliquot (W/g/F)	Detector	Sealing Date/Time (if Applicable)
243400002-1	CAPA-10-6823	SAMPLE		LANL010	GROUND WATER	18-DEC-09 12:00:00	1	2LMB	2	11	
243400003-1	CAPA-10-6824	SAMPLE		LANL010	GROUND WATER	18-DEC-09 12:00:00	2	1	2	14	
1202003335-1	MB	MB		QC ACCOUNT	GROUND WATER		3	1	2	19	
1202003336-1	DUP CAPA-10-6823(243400002)	DUP		QC ACCOUNT	GROUND WATER	18-DEC-09 12:00:00		1	2	2	
1202003337-1	LCS	LCS		QC ACCOUNT	GROUND WATER			1	2	1	

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By:_____

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 18:19:04.94

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243400002.CNF;1
Sample date       : 18-DEC-2009 12:00:00 Acquisition date : 31-DEC-2009 16:18:32
Sample ID         : G243400002           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM11                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.66  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 936274               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	77.34	36	123	1.02	153.58	150	7	5.03E-03	53.8	
2	0	92.59*	14	150	1.00	184.11	180	9	1.90E-03	189.3	
3	0	238.08*	20	76	1.38	475.30	472	8	2.78E-03	88.4	
4	0	294.88*	37	56	1.23	588.98	584	9	5.20E-03	42.3	
5	0	351.72*	67	33	0.90	702.74	699	10	9.30E-03	22.7	
6	0	595.31	34	37	0.73	1190.22	1185	14	4.73E-03	40.8	
7	0	608.74*	70	30	1.00	1217.09	1211	12	9.76E-03	20.9	
8	0	1118.82*	15	7	1.72	2237.72	2231	11	2.10E-03	48.8	
9	0	1763.74*	14	8	2.34	3527.86	3523	10	1.99E-03	48.4	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 31-DEC-2009 18:19:07

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243400002.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : KXG3
Sample date       : 18-DEC-2009 12:00:00 Acquisition date : 31-DEC-2009 16:18:32
Sample ID         : G243400002           Sample quantity  : 2.0000 LITER
Sample type       : LIQUID               Sample geometry  :
Detector name     : GAMMA11              Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.66   0.0%
Peak Width (FWHM):      3.00             Confidence level :      5.00 %
Energy tolerance :      1.50 keV         Half life ratio  :      8.00
Errors propagated: Yes                   Systematic Error :      0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :     75.00             WTM error limit  :      3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AS-74	+	595.88	*	1.473E+01	1.210E+01	9.895E+00	8.749E-01	1.488
		634.78		6.523E+00	2.320E+01	3.950E+01	3.455E+00	0.165
BI-211		72.87		-2.494E+02	2.373E+02	3.384E+02	2.843E+01	-0.737
	+	351.07	*	5.564E+01	2.589E+01	2.372E+01	2.373E+00	2.345
BI-214	+	609.31	*	2.387E+01	1.026E+01	7.956E+00	8.136E-01	3.000
	+	1120.29		2.495E+01	2.450E+01	1.979E+01	2.123E+00	1.261
	+	1764.49		3.122E+01	3.033E+01	3.181E+01	2.649E+00	0.981
PB-214		74.81		-1.505E+01	5.277E+01	7.243E+01	8.202E+00	-0.208
	+	77.11		3.290E+01	3.559E+01	4.243E+01	4.928E+00	0.775
		87.30		2.727E+01	4.860E+01	7.930E+01	9.868E+00	0.344
		241.98		3.010E+01	3.083E+01	4.964E+01	5.633E+00	0.606
	+	295.21		1.870E+01	1.597E+01	1.734E+01	2.146E+00	1.079
	+	351.92	*	1.936E+01	9.063E+00	7.339E+00	8.267E-01	2.637
PO-214		74.81		-1.505E+01	5.277E+01	7.243E+01	8.202E+00	-0.208
	+	77.11		3.290E+01	3.559E+01	4.243E+01	4.928E+00	0.775
		87.30		2.727E+01	4.860E+01	7.930E+01	9.868E+00	0.344
		241.98		3.010E+01	3.083E+01	4.964E+01	5.633E+00	0.606
	+	295.21		1.870E+01	1.597E+01	1.734E+01	2.146E+00	1.079
	+	351.92	*	1.936E+01	9.063E+00	7.339E+00	8.267E-01	2.637
PO-218		74.81		-1.505E+01	5.277E+01	7.243E+01	8.202E+00	-0.208
	+	77.11		3.290E+01	3.559E+01	4.243E+01	4.928E+00	0.775
		87.30		2.727E+01	4.860E+01	7.930E+01	9.868E+00	0.344
		241.98		3.010E+01	3.083E+01	4.964E+01	5.633E+00	0.606
	+	295.21		1.870E+01	1.597E+01	1.734E+01	2.146E+00	1.079
	+	351.92	*	1.936E+01	9.063E+00	7.339E+00	8.267E-01	2.637

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	2.018E+01	2.324E+01	4.259E+01	4.035E+00	0.474
NA-22		1274.54	*	-5.682E-01	2.574E+00	3.971E+00	3.306E-01	-0.143
NA-24		1368.53	*	4.602E+00	2.574E+00	Half-Life too short		
AL-26		1129.67		-1.004E+01	7.237E+01	1.143E+02	9.577E+00	-0.088

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1808.65	*	1.425E+00	2.800E+00	5.161E+00	4.261E-01	0.276
K-40		1460.81	*	-3.201E+01	3.503E+01	5.268E+01	4.615E+00	-0.608
TI-44		67.85		-3.057E+00	3.969E+00	5.878E+00	4.704E-01	-0.520
	+	78.38	*	3.542E+00	3.822E+00	4.177E+00	3.709E-01	0.848
SC-46		889.25	*	-4.453E-01	2.761E+00	4.514E+00	4.225E-01	-0.099
		1120.51		4.212E+00	3.642E+00	6.793E+00	5.732E-01	0.620
V-48		944.10		2.870E+01	5.080E+01	9.314E+01	8.620E+00	0.308
		983.50	*	6.460E-01	3.062E+00	5.354E+00	4.884E-01	0.121
		1312.09		-2.196E+00	4.533E+00	6.440E+00	5.401E-01	-0.341
CR-51		320.08	*	-7.258E+00	2.979E+01	4.635E+01	4.939E+00	-0.157
MN-52		744.21		5.310E+00	9.544E+00	1.726E+01	1.551E+00	0.308
		848.13		1.533E+02	3.054E+02	5.596E+02	5.192E+01	0.274
		935.52		3.207E+00	1.212E+01	2.120E+01	1.968E+00	0.151
		1246.25		-1.821E+02	3.247E+02	4.616E+02	3.811E+01	-0.394
		1333.61		1.545E+02	1.808E+02	3.674E+02	3.095E+01	0.421
		1434.06	*	4.335E+00	1.256E+01	2.198E+01	1.869E+00	0.197
MN-54		834.83	*	-1.597E+00	2.542E+00	3.868E+00	3.577E-01	-0.413
CO-56		846.75	*	8.710E-01	2.238E+00	4.027E+00	3.736E-01	0.216
		977.42		1.003E+02	1.938E+02	3.502E+02	3.202E+01	0.287
		1037.82		-8.524E+00	1.923E+01	2.901E+01	2.709E+00	-0.294
		1175.09		-7.430E+01	1.371E+02	2.001E+02	1.619E+01	-0.371
		1238.25		3.021E+00	4.575E+00	8.393E+00	7.133E-01	0.360
		1360.21		5.556E+01	6.507E+01	1.253E+02	1.059E+01	0.443
		1771.40		-3.237E+00	1.760E+01	2.753E+01	2.290E+00	-0.118
CO-57		122.06	*	7.086E-01	2.034E+00	3.538E+00	2.966E-01	0.200
		136.48		-1.708E+01	1.794E+01	2.819E+01	2.486E+00	-0.606
CO-58		810.76	*	1.300E+00	2.603E+00	4.537E+00	4.177E-01	0.287
FE-59		142.65		-1.682E+02	2.396E+02	3.645E+02	2.947E+01	-0.462
		192.34		1.846E+01	6.626E+01	1.122E+02	1.505E+01	0.164
		1099.22	*	1.554E-02	4.501E+00	7.424E+00	6.881E-01	0.002
		1291.56		-3.171E+00	6.194E+00	8.558E+00	8.170E-01	-0.370
CO-60		1173.22		-3.903E-02	2.561E+00	4.183E+00	3.381E-01	-0.009
		1332.49	*	-3.088E-01	2.194E+00	3.762E+00	3.169E-01	-0.082
ZN-65		1115.52	*	2.055E+00	5.619E+00	8.843E+00	7.496E-01	0.232
GE-68		1077.35	*	2.948E+01	8.212E+01	1.441E+02	1.252E+01	0.205
AS-73		53.44	*	2.927E+01	6.851E+01	1.134E+02	8.866E+00	0.258
SE-75		66.05		1.313E+02	4.459E+02	7.115E+02	6.985E+01	0.185
		96.73		-3.183E+01	7.197E+01	9.726E+01	1.356E+01	-0.327
		121.11		4.908E+00	1.131E+01	1.976E+01	2.181E+00	0.248
		136.00		-1.637E+00	3.217E+00	5.233E+00	4.295E-01	-0.313
		198.60		2.049E+01	1.582E+02	2.429E+02	2.349E+01	0.084
		264.65	*	-3.483E+00	3.568E+00	5.179E+00	5.449E-01	-0.673
		279.53		-3.177E+00	8.513E+00	1.321E+01	1.473E+00	-0.240
		303.91		-4.479E+01	1.490E+02	2.304E+02	2.992E+01	-0.194
		400.65		-2.780E+00	1.768E+01	2.936E+01	3.247E+00	-0.095
BR-77		87.88		6.226E+03	7.711E+03	1.281E+04	1.259E+03	0.486
		200.40		4.457E+02	7.214E+03	1.197E+04	1.052E+03	0.037
	+	239.00		3.455E+02	6.115E+02	8.660E+02	8.474E+01	0.399
		249.79		1.061E+03	2.912E+03	4.903E+03	4.941E+02	0.216

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		281.68		9.909E+02	3.787E+03	6.283E+03	6.826E+02	0.158
		297.23		1.337E+03	2.407E+03	3.716E+03	3.958E+02	0.360
		303.76		-1.740E+03	7.342E+03	1.145E+04	1.208E+03	-0.152
		439.47		1.748E+03	5.467E+03	9.543E+03	8.316E+02	0.183
		484.57		4.454E+03	9.206E+03	1.627E+04	1.438E+03	0.274
		520.65	*	-1.871E+02	4.456E+02	6.974E+02	6.196E+01	-0.268
		574.64		1.965E+03	9.199E+03	1.555E+04	1.380E+03	0.126
		578.91		1.537E+03	3.882E+03	6.688E+03	5.931E+02	0.230
		585.48		-5.531E+03	7.037E+03	1.027E+04	9.099E+02	-0.539
		755.35		2.683E+03	5.513E+03	9.710E+03	8.760E+02	0.276
		817.79		-7.724E+02	4.669E+03	7.225E+03	6.651E+02	-0.107
SR-82		698.33		2.063E+03	2.742E+03	4.845E+03	4.269E+02	0.426
		776.49	*	2.798E-01	1.936E+01	3.118E+01	2.834E+00	0.009
		1395.20		2.102E+02	6.660E+02	1.161E+03	9.849E+01	0.181
RB-83		520.41	*	5.965E-01	4.858E+00	8.188E+00	7.274E-01	0.073
		529.64		2.375E+00	6.989E+00	1.213E+01	1.078E+00	0.196
		552.65		7.483E+00	1.359E+01	2.412E+01	2.144E+00	0.310
RB-84		881.50	*	2.178E+00	4.562E+00	8.226E+00	7.688E-01	0.265
KR-85		513.99	*	-2.010E+03	7.755E+02	9.400E+02	8.345E+01	-2.139
SR-85		513.99	*	-1.010E+01	3.896E+00	4.722E+00	4.193E-01	-2.139
RB-86		1076.63	*	1.459E+01	4.646E+01	8.113E+01	7.054E+00	0.180
Y-88		898.02		6.408E-01	2.884E+00	5.000E+00	4.706E-01	0.128
		1836.01	*	-7.431E-01	2.683E+00	4.048E+00	3.326E-01	-0.184
ZR-88		392.90	*	-2.176E+00	2.159E+00	3.213E+00	2.734E-01	-0.677
Y-91		1204.90	*	-4.255E+02	1.107E+03	1.671E+03	1.364E+02	-0.255
NB-94		702.63	*	-1.200E+00	2.631E+00	3.973E+00	3.507E-01	-0.302
		871.10		-1.331E+00	2.566E+00	3.967E+00	3.700E-01	-0.335
NB-95		765.79	*	3.212E-01	2.893E+00	4.743E+00	4.295E-01	0.068
NB-95M		235.69	*	-3.894E-01	9.015E+00	1.308E+01	1.415E+00	-0.030
ZR-95		724.18		-3.494E+00	6.002E+00	8.490E+00	8.179E-01	-0.411
		756.15	*	2.083E-01	4.380E+00	7.109E+00	7.011E-01	0.029
NB-97		657.90	*	-1.508E-01	4.380E+00	Half-Life too short		
		1024.50		5.152E+01	4.380E+00	Half-Life too short		
ZR-97		254.15		3.861E+01	4.380E+00	Half-Life too short		
		355.39		-1.395E+01	4.380E+00	Half-Life too short		
		507.63	*	-5.541E+01	4.380E+00	Half-Life too short		
		602.52		-6.001E+01	4.380E+00	Half-Life too short		
		1021.30		-6.402E+01	4.380E+00	Half-Life too short		
		1147.95		2.003E+00	4.380E+00	Half-Life too short		
		1362.66		6.469E+01	4.380E+00	Half-Life too short		
		1750.46		-4.593E+01	4.380E+00	Half-Life too short		
MO-99		140.51		-4.159E+02	1.545E+03	2.425E+03	6.677E+02	-0.171
		181.06		-4.185E+02	7.717E+02	1.217E+03	2.209E+02	-0.344
		366.43		5.643E+02	3.975E+03	6.406E+03	5.908E+02	0.088
		739.58	*	1.685E+02	4.747E+02	8.116E+02	1.249E+02	0.208
		778.00		3.763E+02	1.148E+03	1.972E+03	1.793E+02	0.191
TC-99M		140.51	*	-4.659E+09	1.148E+03	Half-Life too short		
RH-101		127.23		7.582E-01	2.504E+00	4.334E+00	3.583E-01	0.175
		198.01	*	7.019E-01	2.922E+00	4.526E+00	3.950E-01	0.155

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		325.23		-1.215E+01	1.830E+01	2.701E+01	2.746E+00	-0.450
RH-102		418.52		-1.335E+01	2.184E+01	3.286E+01	2.837E+00	-0.406
		475.06	*	4.337E-01	2.257E+00	3.852E+00	3.397E-01	0.113
		631.29		5.181E+00	3.829E+00	7.421E+00	6.499E-01	0.698
		697.49		3.774E+00	6.272E+00	1.094E+01	9.635E-01	0.345
		766.84		1.892E+00	6.799E+00	1.145E+01	1.037E+00	0.165
		1046.59		2.272E+00	7.456E+00	1.301E+01	1.151E+00	0.175
		1112.84		-9.829E+00	1.776E+01	2.158E+01	1.831E+00	-0.455
RU-103		497.08	*	-1.743E+00	2.899E+00	4.423E+00	6.328E-01	-0.394
		610.33		1.622E+02	8.811E+01	1.480E+02	2.485E+01	1.096
RH-106		511.85		-6.145E+01	2.139E+01	3.526E+01	3.129E+00	-1.743
		621.84	*	-1.308E+00	2.332E+01	3.782E+01	5.093E+00	-0.035
		1050.47		3.934E+01	1.431E+02	2.488E+02	2.197E+01	0.158
RU-106		511.85		-6.145E+01	2.139E+01	3.526E+01	3.129E+00	-1.743
		621.84	*	-1.308E+00	2.332E+01	3.782E+01	3.323E+00	-0.035
		1050.47		3.934E+01	1.431E+02	2.488E+02	2.197E+01	0.158
AG-108M		433.93	*	7.541E-01	2.268E+00	3.963E+00	3.580E-01	0.190
		614.37		-3.600E-01	3.440E+00	4.839E+00	4.420E-01	-0.074
		722.95		8.424E-01	2.573E+00	4.392E+00	4.056E-01	0.192
CD-109		88.03	*	5.189E+01	6.263E+01	1.042E+02	1.025E+01	0.498
AG-110M		657.75	*	6.175E-01	2.169E+00	3.702E+00	3.304E-01	0.167
		677.61		-3.415E+00	1.941E+01	3.050E+01	2.734E+00	-0.112
		706.67		5.194E+00	1.590E+01	2.692E+01	2.443E+00	0.193
		763.93		-4.439E-01	1.134E+01	1.810E+01	1.680E+00	-0.025
		884.67		-1.549E-01	3.221E+00	5.362E+00	5.151E-01	-0.029
		937.48		-3.377E+00	6.923E+00	1.050E+01	1.004E+00	-0.322
		1384.27		5.358E-01	1.194E+01	1.946E+01	1.697E+00	0.028
IN-111		171.28		1.030E+01	5.081E+01	8.597E+01	6.987E+00	0.120
		245.39	*	-1.788E+01	5.212E+01	8.214E+01	8.180E+00	-0.218
IN-113M		391.69	*	-3.251E-01	3.032E+00	5.071E+00	4.449E-01	-0.064
SN-113		391.69	*	-3.251E-01	3.032E+00	5.071E+00	4.449E-01	-0.064
IN-114M		190.27	*	-5.279E+00	1.382E+01	2.217E+01	1.894E+00	-0.238
CD-115		260.90		-3.021E+03	5.547E+03	8.479E+03	8.805E+02	-0.356
		492.35		-1.068E+01	1.268E+03	2.109E+03	1.867E+02	-0.005
		527.90	*	-1.692E+02	4.213E+02	6.579E+02	5.847E+01	-0.257
SN-117M		156.02		6.392E+00	1.622E+02	2.727E+02	2.190E+01	0.023
		158.56	*	4.698E-01	4.016E+00	6.782E+00	5.443E-01	0.069
SB-122		563.90	*	-2.066E+01	8.141E+01	1.288E+02	1.144E+01	-0.160
		692.80		4.660E+02	1.949E+03	3.270E+03	2.874E+02	0.142
I-123		159.00	*	1.999E+00	1.949E+03	Half-Life too short		
		528.96		1.733E+03	1.949E+03	Half-Life too short		
TE-123M		159.00	*	1.137E-01	2.350E+00	3.948E+00	3.190E-01	0.029
I-124		602.71	*	-2.553E+01	4.717E+01	4.787E+01	4.226E+00	-0.533
		722.78		7.502E+01	1.968E+02	3.387E+02	3.016E+01	0.222
		1325.50		-2.564E+02	1.350E+03	2.065E+03	1.737E+02	-0.124
		1376.25		1.588E+03	1.700E+03	3.217E+03	2.724E+02	0.494
		1509.49		4.475E+02	8.732E+02	1.607E+03	1.369E+02	0.279
		1691.02		6.907E+01	2.207E+02	3.946E+02	3.325E+01	0.175
SB-124		602.71		-2.001E+00	3.697E+00	3.752E+00	3.313E-01	-0.533

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		645.85		-2.903E+00	3.853E+01	6.213E+01	5.731E+00	-0.047
		709.31		1.386E+02	2.027E+02	3.598E+02	3.186E+01	0.385
		713.82		-2.927E+00	1.055E+02	1.696E+02	2.073E+01	-0.017
		722.78		8.523E+00	2.236E+01	3.848E+01	3.496E+00	0.222
		968.20		1.022E+02	1.811E+02	3.026E+02	2.777E+01	0.338
		1045.16		1.856E+00	1.537E+02	2.550E+02	2.258E+01	0.007
		1325.50		-3.111E+01	1.638E+02	2.505E+02	2.107E+01	-0.124
		1368.21		1.053E+02	1.109E+02	2.178E+02	2.912E+01	0.483
		1436.60		5.655E+01	2.420E+02	4.135E+02	3.516E+01	0.137
		1691.02	*	1.851E+00	5.915E+00	1.058E+01	9.278E-01	0.175
SB-125		427.89	*	-2.604E+00	6.903E+00	1.111E+01	9.818E-01	-0.234
		463.38		-1.455E+00	2.016E+01	3.344E+01	3.161E+00	-0.044
		600.56		-7.932E+00	1.492E+01	1.912E+01	1.808E+00	-0.415
		635.90		-1.224E+01	1.961E+01	2.876E+01	2.712E+00	-0.426
TE-125M		109.28	*	6.854E+01	7.285E+02	1.252E+03	1.287E+02	0.055
I-126		388.63		-1.697E+00	1.306E+01	2.180E+01	1.874E+00	-0.078
		666.33	*	-9.823E+00	1.013E+01	1.332E+01	1.156E+00	-0.738
		753.82		-3.446E+01	8.249E+01	1.214E+02	1.095E+01	-0.284
SB-126		223.80		-1.408E+01	2.833E+02	4.624E+02	4.338E+01	-0.030
		278.60		-7.052E+01	1.737E+02	2.616E+02	2.846E+01	-0.270
		296.50		7.168E+01	1.099E+02	1.702E+02	1.815E+01	0.421
		414.70		8.787E-01	4.917E+00	8.453E+00	7.283E-01	0.104
		415.30		1.491E+01	4.082E+02	6.911E+02	5.956E+01	0.022
		555.20		3.015E+01	2.272E+02	3.826E+02	3.400E+01	0.079
		573.80		-7.616E+00	7.411E+01	1.204E+02	1.068E+01	-0.063
		593.00		6.017E+01	6.220E+01	1.068E+02	9.450E+00	0.563
		656.30		9.586E+01	1.955E+02	3.433E+02	2.978E+01	0.279
		666.33		-4.087E+00	4.215E+00	5.541E+00	4.807E-01	-0.738
		675.00		9.591E+00	1.141E+02	1.881E+02	1.639E+01	0.051
		695.00		-3.127E+00	5.702E+00	8.515E+00	7.491E-01	-0.367
		697.00		1.189E+01	2.009E+01	3.496E+01	3.078E+00	0.340
		720.50	*	3.094E-01	8.556E+00	1.391E+01	1.237E+00	0.022
		856.80		-2.548E+01	2.698E+01	3.760E+01	3.495E+00	-0.678
		989.30		-2.409E+01	6.071E+01	9.169E+01	8.344E+00	-0.263
		1034.80		1.533E+02	5.192E+02	9.052E+02	8.062E+01	0.169
		1213.00		3.313E+00	2.420E+02	3.963E+02	3.242E+01	0.008
SN-126		64.28		-2.848E+01	4.789E+01	7.453E+01	1.095E+01	-0.382
		86.94		3.610E+00	2.588E+01	4.081E+01	1.698E+01	0.088
		87.57	*	4.455E+00	6.148E+00	1.016E+01	9.953E-01	0.439
SB-127		61.10		-1.731E+03	3.231E+03	4.891E+03	4.730E+02	-0.354
		252.40		-2.740E+01	2.457E+02	3.949E+02	1.668E+02	-0.069
		290.80		4.421E+02	1.277E+03	1.920E+03	2.380E+02	0.230
		411.60		1.320E+02	6.153E+02	1.062E+03	1.628E+02	0.124
		444.90		-1.818E+02	4.857E+02	7.758E+02	9.405E+01	-0.234
		473.00		-9.946E+01	9.570E+01	1.386E+02	1.736E+01	-0.718
		543.00		6.313E+01	8.660E+02	1.445E+03	2.044E+02	0.044
		603.60		-1.421E+02	6.157E+02	8.405E+02	1.023E+02	-0.169
		685.20	*	1.486E+01	5.979E+01	1.013E+02	1.109E+01	0.147
		698.50		6.650E+02	9.107E+02	1.599E+03	2.485E+02	0.416

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		722.20		3.777E+01	1.319E+03	2.141E+03	2.321E+02	0.018
		783.80		1.913E+02	1.543E+02	3.000E+02	3.685E+01	0.638
XE-127		57.60		-2.690E+02	4.429E+02	6.639E+02	4.921E+01	-0.405
		145.22		-2.604E+01	5.554E+01	9.035E+01	7.291E+00	-0.288
		172.10		-2.318E+00	9.869E+00	1.616E+01	1.316E+00	-0.143
		202.84	*	-2.788E+00	3.489E+00	5.347E+00	4.730E-01	-0.522
		374.96		-1.638E+01	1.480E+01	1.957E+01	1.760E+00	-0.837
I-131		80.18		1.663E+02	3.079E+02	4.696E+02	4.266E+01	0.354
		284.30		-3.969E+01	8.998E+01	1.373E+02	1.535E+01	-0.289
		364.48	*	-2.255E+00	7.445E+00	1.130E+01	1.096E+00	-0.200
		636.97		-8.550E+01	9.548E+01	1.325E+02	1.220E+01	-0.645
		722.89		1.275E+02	3.679E+02	6.299E+02	5.636E+01	0.202
TE-132		49.72		1.055E+02	8.827E+02	1.433E+03	1.449E+02	0.074
		111.76		3.629E+02	1.580E+03	2.736E+03	2.811E+02	0.133
		116.30		6.607E+02	1.526E+03	2.670E+03	2.725E+02	0.247
		228.16	*	2.736E+01	3.584E+01	6.212E+01	9.869E+00	0.440
BA-133		53.15		2.451E+02	2.934E+02	5.014E+02	3.937E+01	0.489
		79.62		7.998E+01	9.830E+01	1.537E+02	2.372E+01	0.521
		81.00		1.235E+00	7.159E+00	1.139E+01	1.840E+00	0.108
		276.40		2.022E+01	2.717E+01	4.695E+01	7.444E+00	0.431
		302.84		2.496E+00	1.001E+01	1.654E+01	2.418E+00	0.151
		356.01	*	-6.584E-01	3.352E+00	4.545E+00	6.265E-01	-0.145
		383.85		3.921E+00	2.187E+01	3.776E+01	4.790E+00	0.104
I-133		510.53		-1.759E+01	2.187E+01	Half-Life too short		
		529.87	*	2.339E-02	2.187E+01	Half-Life too short		
		706.58		2.026E+00	2.187E+01	Half-Life too short		
		856.28		-4.107E+00	2.187E+01	Half-Life too short		
		875.33		-1.524E-01	2.187E+01	Half-Life too short		
		1236.41		1.341E+00	2.187E+01	Half-Life too short		
		1298.22		2.016E+00	2.187E+01	Half-Life too short		
CS-134		475.35		6.254E+01	1.456E+02	2.550E+02	2.248E+01	0.245
		563.23		9.257E-01	2.212E+01	3.670E+01	3.289E+00	0.025
		569.32		8.616E+00	1.396E+01	2.487E+01	2.236E+00	0.346
		604.70		2.222E+00	2.248E+00	3.895E+00	3.445E-01	0.571
		795.84	*	-4.973E-01	3.101E+00	4.819E+00	4.436E-01	-0.103
		801.93		-6.438E+00	3.318E+01	5.136E+01	4.730E+00	-0.125
		1038.57		-8.093E+01	2.303E+02	3.533E+02	3.140E+01	-0.229
		1167.94		-1.587E+02	1.414E+02	1.681E+02	1.365E+01	-0.944
		1365.15		-6.571E+01	1.034E+02	1.440E+02	1.275E+01	-0.456
CS-135		268.24	*	5.498E+00	1.313E+01	2.204E+01	2.581E+00	0.249
I-135		288.45		5.603E+09	1.313E+01	Half-Life too short		
		417.63		-3.121E+09	1.313E+01	Half-Life too short		
		546.56		-4.785E+09	1.313E+01	Half-Life too short		
		836.80		2.834E+09	1.313E+01	Half-Life too short		
		1038.76		-2.015E+09	1.313E+01	Half-Life too short		
		1124.00		-5.734E+09	1.313E+01	Half-Life too short		
		1131.51		-2.641E+09	1.313E+01	Half-Life too short		
		1260.41	*	-1.887E+08	1.313E+01	Half-Life too short		
		1457.56		5.230E+09	1.313E+01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1678.03		5.693E+09	1.313E+01	Half-Life too short		
		1706.46		-3.388E+09	1.313E+01	Half-Life too short		
		1791.20		1.930E+09	1.313E+01	Half-Life too short		
CS-136		66.91		-1.015E+01	6.519E+01	1.006E+02	1.516E+01	-0.101
		86.29		2.112E-01	7.301E+01	1.140E+02	1.547E+01	0.002
		153.22		2.552E+00	4.690E+01	7.899E+01	7.200E+00	0.032
		163.89		-3.910E+01	8.204E+01	1.275E+02	1.163E+01	-0.307
		176.55		-1.165E+01	2.698E+01	4.337E+01	3.796E+00	-0.269
		273.65		-1.650E+01	3.020E+01	4.592E+01	5.143E+00	-0.359
		340.57		-7.812E-01	8.276E+00	1.302E+01	1.311E+00	-0.060
		818.51		2.522E-01	4.312E+00	6.998E+00	6.448E-01	0.036
		1048.07	*	-1.251E-01	6.386E+00	1.053E+01	9.686E-01	-0.012
		1235.34		8.612E+00	2.805E+01	4.846E+01	5.606E+00	0.178
BA-137M		661.65	*	6.095E-01	2.205E+00	3.757E+00	3.251E-01	0.162
CS-137		661.65	*	6.443E-01	2.331E+00	3.971E+00	3.444E-01	0.162
CE-139		165.85	*	-8.508E-01	2.272E+00	3.680E+00	2.952E-01	-0.231
BA-140		162.64		2.188E+00	5.867E+01	9.515E+01	8.144E+00	0.023
		304.84		-5.416E+00	8.185E+01	1.303E+02	3.735E+01	-0.042
		423.70		-6.055E+00	1.257E+02	2.104E+02	6.824E+01	-0.029
		537.32	*	1.993E+00	1.787E+01	2.997E+01	9.953E+00	0.067
LA-140		328.77		-2.433E+00	1.905E+01	2.992E+01	3.145E+00	-0.081
		432.53		-4.664E+01	1.401E+02	2.264E+02	2.061E+01	-0.206
		487.03		3.589E+00	8.396E+00	1.477E+01	1.383E+00	0.243
		751.79		1.486E+01	8.828E+01	1.470E+02	1.455E+01	0.101
		815.85		-1.180E+01	1.895E+01	2.616E+01	2.652E+00	-0.451
		867.82		9.497E+01	9.937E+01	1.870E+02	1.822E+01	0.508
		919.63		8.330E+01	1.585E+02	2.886E+02	3.239E+01	0.289
		925.24		-1.215E+01	6.652E+01	1.076E+02	1.056E+01	-0.113
		1596.49	*	1.745E+00	6.060E+00	1.071E+01	9.106E-01	0.163
CE-141		145.44	*	-3.630E+00	5.074E+00	8.099E+00	6.671E-01	-0.448
CE-143		57.37		-1.245E-02	5.074E+00	Half-Life too short		
		231.56		-7.233E-03	5.074E+00	Half-Life too short		
		293.26	*	1.939E-03	5.074E+00	Half-Life too short		
	+	350.59		1.661E-01	5.074E+00	Half-Life too short		
		490.36		-6.855E-02	5.074E+00	Half-Life too short		
		664.57		-8.892E-03	5.074E+00	Half-Life too short		
		721.93		4.014E-03	5.074E+00	Half-Life too short		
CE-144		80.11		9.010E+01	1.667E+02	2.543E+02	2.299E+01	0.354
		133.54	*	2.308E+00	1.652E+01	2.819E+01	4.320E+00	0.082
PM-144		476.78		5.949E+00	4.972E+00	9.386E+00	9.020E-01	0.634
		618.01		5.063E-01	2.395E+00	4.032E+00	3.640E-01	0.126
		696.49	*	5.929E-01	2.871E+00	4.775E+00	4.205E-01	0.124
		778.57		7.645E+01	1.207E+02	2.201E+02	2.002E+01	0.347
PR-144		696.49	*	4.013E+01	1.943E+02	3.232E+02	2.846E+01	0.124
		1489.15		2.480E+02	9.076E+02	1.609E+03	1.371E+02	0.154
PM-146		453.90	*	-4.080E-01	3.087E+00	5.087E+00	5.513E-01	-0.080
		633.02		3.540E+01	1.037E+02	1.763E+02	6.594E+01	0.201
		735.90		6.389E+00	9.249E+00	1.652E+01	4.741E+00	0.387
		747.13		7.628E-01	5.224E+00	8.666E+00	1.237E+00	0.088

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
ND-147	+	91.11		8.704E+00	3.296E+01	3.463E+01	3.525E+00	0.251
		319.41		-6.062E+01	2.440E+02	3.795E+02	3.902E+01	-0.160
		439.89		2.147E+02	3.439E+02	6.211E+02	5.414E+01	0.346
		531.02	*	1.075E+01	3.490E+01	6.017E+01	9.089E+00	0.179
PM-149		285.90	*	7.732E+02	3.529E+03	5.831E+03	9.825E+02	0.133
EU-152		121.78		1.865E+00	6.042E+00	1.048E+01	1.018E+00	0.178
		244.69		-3.182E+01	2.657E+01	3.804E+01	3.781E+00	-0.836
		344.27	*	3.078E+00	7.527E+00	1.254E+01	1.282E+00	0.245
		443.98		-9.093E+00	6.515E+01	1.074E+02	9.373E+00	-0.085
		778.89		-1.463E+00	1.465E+01	2.298E+01	2.091E+00	-0.064
		867.32		7.249E+01	6.469E+01	1.240E+02	1.156E+01	0.584
		964.01		-1.907E+01	1.849E+01	2.513E+01	2.309E+00	-0.759
		1085.78		-1.154E+01	2.115E+01	3.020E+01	2.610E+00	-0.382
		1112.02		-1.383E+01	2.520E+01	3.067E+01	2.604E+00	-0.451
		1407.95		1.648E+01	1.306E+01	2.652E+01	2.252E+00	0.621
GD-153		69.67		7.376E+01	1.264E+02	2.091E+02	1.703E+01	0.353
		83.37		-3.503E+02	1.154E+03	1.671E+03	1.563E+02	-0.210
		97.43	*	-2.165E+00	6.773E+00	1.019E+01	9.231E-01	-0.212
		103.18		4.723E+00	8.444E+00	1.498E+01	1.314E+00	0.315
EU-154		123.07		-1.968E+00	4.318E+00	7.088E+00	7.911E-01	-0.278
		247.94		2.105E+01	2.808E+01	4.875E+01	6.127E+00	0.432
		591.81		-3.265E+01	5.346E+01	6.708E+01	7.942E+00	-0.487
		723.30		-1.424E+00	1.109E+01	1.717E+01	1.681E+00	-0.083
		756.87		-2.248E+01	5.115E+01	7.527E+01	9.238E+00	-0.299
		873.19		-1.191E+01	2.031E+01	3.062E+01	3.905E+00	-0.389
		996.32		1.620E+00	2.530E+01	4.249E+01	7.644E+00	0.038
		1004.76		-3.264E+00	1.348E+01	2.137E+01	2.554E+00	-0.153
		1274.45	*	-1.589E+00	7.198E+00	1.110E+01	1.230E+00	-0.143
EU-155		48.70		-2.320E+02	1.770E+02	2.445E+02	2.070E+01	-0.949
		60.01		3.538E+02	3.604E+02	6.226E+02	4.564E+01	0.568
		86.54		6.815E-01	7.432E+00	1.169E+01	1.142E+00	0.058
		105.31	*	-4.428E+00	8.778E+00	1.449E+01	1.274E+00	-0.306
TB-160		86.79		2.109E+00	1.961E+01	3.089E+01	3.001E+00	0.068
		197.04		1.060E+01	4.704E+01	7.231E+01	6.294E+00	0.147
		215.65		3.211E+01	5.075E+01	8.821E+01	8.088E+00	0.364
		298.57		4.923E+00	8.744E+00	1.352E+01	1.438E+00	0.364
		879.36	*	1.372E+00	9.504E+00	1.632E+01	1.525E+00	0.084
		962.29		4.981E+00	3.124E+01	5.345E+01	4.916E+00	0.093
		966.15		7.000E+00	1.191E+01	2.167E+01	1.990E+00	0.323
		1177.93		-1.067E+00	2.318E+01	3.765E+01	3.048E+00	-0.028
		1271.85		-1.770E+00	4.075E+01	6.562E+01	5.453E+00	-0.027
HO-166M		80.57		1.572E+01	2.086E+01	3.251E+01	2.953E+00	0.484
		184.41		-2.697E+00	3.193E+00	5.103E+00	4.291E-01	-0.529
		280.46		5.677E+00	6.236E+00	1.098E+01	1.194E+00	0.517
		410.95		5.097E+00	1.735E+01	3.020E+01	2.597E+00	0.169
		711.68	*	-2.730E+00	4.463E+00	6.481E+00	5.745E-01	-0.421
		752.31		-4.752E+00	1.625E+01	2.455E+01	2.212E+00	-0.194
		810.29		9.125E-01	4.079E+00	6.787E+00	6.235E-01	0.134
TM-171		51.35		-5.929E+02	2.377E+03	3.721E+03	3.007E+02	-0.159

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		52.39		5.401E+02	1.270E+03	2.106E+03	1.674E+02	0.256
		59.40		-6.379E+02	1.991E+03	3.072E+03	2.238E+02	-0.208
		66.72	*	-1.290E+02	2.637E+03	4.105E+03	3.248E+02	-0.031
HF-175		89.36		-1.201E+02	1.301E+02	1.683E+02	1.632E+01	-0.714
		343.40	*	1.631E+00	2.680E+00	4.561E+00	4.463E-01	0.358
		433.00		2.829E+01	1.523E+02	2.616E+02	2.274E+01	0.108
LU-176		88.36		5.904E+00	1.543E+01	2.300E+01	2.256E+00	0.257
		201.83		1.280E-01	2.181E+00	3.616E+00	3.190E-01	0.035
		306.84	*	3.149E-01	1.807E+00	2.957E+00	3.106E-01	0.106
		401.10		-4.324E+01	4.648E+02	7.774E+02	6.649E+01	-0.056
LU-177		112.95		-3.340E+01	1.123E+02	1.877E+02	1.592E+01	-0.178
		208.36	*	-1.404E+00	6.891E+01	1.133E+02	1.018E+01	-0.012
LU-177M		52.97		9.885E+01	1.307E+02	2.223E+02	1.750E+01	0.445
		54.07		3.552E+01	6.953E+01	1.159E+02	8.977E+00	0.307
		61.30		-1.554E+02	1.247E+02	1.765E+02	1.316E+01	-0.880
		121.62		1.106E+01	3.087E+01	5.370E+01	4.497E+00	0.206
		147.16		-1.547E+01	5.241E+01	8.625E+01	6.951E+00	-0.179
		171.86		-1.110E+01	4.081E+01	6.665E+01	5.424E+00	-0.167
		218.09		-1.838E+01	6.175E+01	9.855E+01	9.098E+00	-0.187
		268.79		1.546E+01	6.445E+01	1.066E+02	1.131E+01	0.145
		319.02		-1.210E+01	2.164E+01	3.241E+01	3.334E+00	-0.373
		367.43		1.726E+01	6.972E+01	1.138E+02	1.046E+01	0.152
		413.65	*	5.707E+00	1.271E+01	2.245E+01	1.933E+00	0.254
HF-181		56.28		4.562E+01	7.037E+01	1.187E+02	8.930E+00	0.384
		57.53		-1.959E+01	3.771E+01	5.709E+01	4.235E+00	-0.343
		65.20		-2.039E+01	8.854E+01	1.363E+02	1.062E+01	-0.150
		133.02		2.166E+00	5.092E+00	8.861E+00	7.248E-01	0.244
		136.25		-1.672E+01	3.672E+01	5.998E+01	4.883E+00	-0.279
		345.85		-6.783E+00	1.467E+01	2.197E+01	2.138E+00	-0.309
		482.03	*	-3.538E-01	2.811E+00	4.608E+00	4.070E-01	-0.077
W-181		56.28		1.817E+01	2.811E+01	4.741E+01	3.567E+00	0.383
		57.53		-7.797E+00	1.508E+01	2.284E+01	1.694E+00	-0.341
		65.20	*	-8.088E+00	3.512E+01	5.408E+01	4.214E+00	-0.150
TA-182		67.75		-7.028E+00	9.377E+00	1.392E+01	1.112E+00	-0.505
		100.10		5.850E-02	1.381E+01	2.369E+01	2.112E+00	0.002
		152.43		9.325E+00	2.663E+01	4.579E+01	3.681E+00	0.204
		222.10		-1.684E+01	2.637E+01	4.065E+01	3.795E+00	-0.414
		1001.68		-6.964E+01	1.414E+02	1.950E+02	1.765E+01	-0.357
		1121.28		5.500E+00	1.017E+01	1.718E+01	1.448E+00	0.320
		1189.05		2.455E+00	1.379E+01	2.357E+01	1.915E+00	0.104
		1221.42	*	4.305E-01	8.803E+00	1.454E+01	1.193E+00	0.030
		1230.97		-3.929E+00	2.223E+01	3.472E+01	2.855E+00	-0.113
RE-183		57.98		-1.943E+01	1.502E+01	2.078E+01	1.534E+00	-0.935
		59.32		-2.631E+00	8.043E+00	1.241E+01	9.044E-01	-0.212
		67.20		-1.285E+01	1.823E+01	2.692E+01	2.140E+00	-0.477
		162.32	*	-2.988E+00	9.467E+00	1.497E+01	1.201E+00	-0.200
		208.81		-4.662E+01	7.517E+01	1.173E+02	1.055E+01	-0.397
		291.72		-1.859E+01	7.994E+01	1.108E+02	1.189E+01	-0.168
RE-184		57.98		-7.240E+01	5.596E+01	7.743E+01	5.717E+00	-0.935

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		59.32		-9.796E+00	2.995E+01	4.619E+01	3.367E+00	-0.212
		67.20		-4.786E+01	6.790E+01	1.003E+02	7.974E+00	-0.477
		161.27		-9.676E+00	3.115E+01	4.930E+01	3.955E+00	-0.196
		216.55		-8.507E-01	1.909E+01	3.124E+01	2.871E+00	-0.027
		252.85	*	2.378E+00	1.839E+01	3.028E+01	3.077E+00	0.079
		318.01		-1.837E-01	3.536E+01	5.654E+01	5.826E+00	-0.003
		792.07		-4.812E+01	5.703E+01	7.333E+01	6.699E+00	-0.656
		903.28		1.631E+01	6.957E+01	1.178E+02	1.102E+01	0.138
		920.93		-4.648E+00	3.018E+01	4.917E+01	4.582E+00	-0.095
OS-185		59.72		1.178E+01	2.057E+01	3.446E+01	2.516E+00	0.342
		61.14		-7.109E+00	1.282E+01	1.937E+01	1.442E+00	-0.367
		69.30		8.942E+00	2.277E+01	3.712E+01	3.012E+00	0.241
		592.07		-1.049E+02	2.115E+02	2.730E+02	2.416E+01	-0.384
		646.12	*	1.117E-01	3.289E+00	5.387E+00	4.693E-01	0.021
		717.42		-3.222E+01	6.220E+01	9.140E+01	8.122E+00	-0.352
		874.81		-2.597E+00	3.855E+01	6.403E+01	5.977E+00	-0.041
		880.27		5.543E+00	5.285E+01	9.021E+01	8.429E+00	0.061
RE-188		155.03	*	8.141E-01	1.319E+01	2.221E+01	1.784E+00	0.037
		477.96		1.241E+02	2.177E+02	3.881E+02	3.424E+01	0.320
		633.10		6.788E+01	2.038E+02	3.486E+02	3.052E+01	0.195
W-188		63.58		-1.673E+03	4.711E+03	7.494E+03	5.739E+02	-0.223
		227.08		-3.763E+02	1.018E+03	1.613E+03	1.527E+02	-0.233
		290.67	*	7.934E+01	6.333E+02	9.241E+02	9.931E+01	0.086
IR-192	+	295.96		1.401E+01	1.193E+01	1.575E+01	1.689E+00	0.889
		308.46		3.199E-01	7.012E+00	1.130E+01	1.188E+00	0.028
		316.51	*	-6.631E-02	2.583E+00	4.121E+00	4.265E-01	-0.016
		468.07		-6.712E-01	4.583E+00	7.518E+00	7.073E-01	-0.089
		604.41		1.787E+01	3.208E+01	5.126E+01	6.744E+00	0.349
		612.46		-1.165E+00	5.342E+01	7.630E+01	7.678E+00	-0.015
AU-195		65.12		-8.776E+00	1.661E+01	2.504E+01	1.949E+00	-0.351
		66.83		-9.590E-01	8.635E+00	1.338E+01	1.060E+00	-0.072
		75.70		4.863E+00	1.634E+01	2.381E+01	2.057E+00	0.204
		98.88	*	5.896E+00	1.739E+01	3.051E+01	2.739E+00	0.193
		129.76		1.260E+01	2.179E+02	3.705E+02	3.047E+01	0.034
TL-200		367.94	*	8.235E-04	2.179E+02	Half-Life too short		
		579.30		-1.908E-03	2.179E+02	Half-Life too short		
		828.27		6.260E-02	2.179E+02	Half-Life too short		
		1205.75		-2.395E-02	2.179E+02	Half-Life too short		
TL-201		68.90		-4.871E+01	2.527E+02	3.930E+02	3.177E+01	-0.124
		70.82		-4.755E+01	1.313E+02	2.005E+02	1.652E+01	-0.237
		80.30		1.377E+02	2.550E+02	3.889E+02	3.522E+01	0.354
		135.34		-1.212E+02	1.323E+03	2.221E+03	1.811E+02	-0.055
		167.43	*	-1.225E+02	3.310E+02	5.351E+02	4.307E+01	-0.229
TL-202		68.90		-6.102E+00	3.166E+01	4.923E+01	3.980E+00	-0.124
		70.82		-5.940E+00	1.641E+01	2.505E+01	2.063E+00	-0.237
		80.30		1.721E+01	3.186E+01	4.859E+01	4.401E+00	0.354
		439.56	*	1.438E+00	4.187E+00	7.327E+00	6.385E-01	0.196
HG-203		70.83		-2.814E+01	7.714E+01	1.177E+02	1.573E+01	-0.239
		72.87		-4.820E+01	4.611E+01	6.539E+01	8.541E+00	-0.737

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		82.60		-5.435E+01	7.966E+01	1.161E+02	1.645E+01	-0.468
		279.20	*	-6.774E-01	3.072E+00	4.721E+00	5.235E-01	-0.144
BI-207		72.80		-1.470E+01	1.385E+01	1.972E+01	1.656E+00	-0.745
		74.97		-2.969E+00	8.854E+00	1.208E+01	1.037E+00	-0.246
		84.90		-1.282E+01	1.544E+01	2.125E+01	2.022E+00	-0.603
		569.67		1.331E+00	2.136E+00	3.812E+00	3.384E-01	0.349
		1063.62	*	-7.626E-01	3.733E+00	5.700E+00	4.995E-01	-0.134
		1770.23		-3.541E+01	4.103E+01	5.146E+01	4.281E+00	-0.688
TL-207		81.07		2.138E+00	1.575E+01	2.498E+01	2.281E+00	0.086
		83.78		3.366E+00	9.437E+00	1.448E+01	1.361E+00	0.232
		94.90		3.446E-01	2.031E+01	2.903E+01	2.679E+00	0.012
		122.32		1.967E+01	1.419E+02	2.434E+02	2.194E+01	0.081
		144.24		3.813E+01	6.053E+01	1.007E+02	9.227E+00	0.379
		154.21		-7.573E+00	3.200E+01	5.274E+01	4.720E+00	-0.144
		269.46		2.544E+00	1.489E+01	2.448E+01	2.637E+00	0.104
		323.87	*	1.256E+01	5.549E+01	9.067E+01	1.679E+01	0.138
		338.28		6.427E+00	7.790E+01	1.196E+02	1.583E+01	0.054
		445.03		-4.883E+01	1.618E+02	2.611E+02	3.178E+01	-0.187
TL-208		72.80		-1.598E+02	1.506E+02	2.145E+02	1.801E+01	-0.745
		74.97		-3.225E+01	9.622E+01	1.313E+02	1.608E+01	-0.246
		277.35		-1.758E+01	3.133E+01	4.656E+01	6.510E+00	-0.378
		510.84		-3.400E+01	2.034E+01	3.624E+01	4.412E+00	-0.938
		583.14	*	-1.468E+00	3.133E+00	4.649E+00	4.401E-01	-0.316
		763.13		7.695E+00	1.442E+02	2.340E+02	3.328E+01	0.033
		860.37		8.668E+00	1.963E+01	3.428E+01	3.393E+00	0.253
		1093.90		-2.492E+02	5.702E+02	8.337E+02	1.940E+02	-0.299
PO-209		260.50		-5.309E+02	7.570E+02	1.137E+03	1.179E+02	-0.467
		262.80		3.437E+02	2.019E+03	3.332E+03	3.477E+02	0.103
		896.60	*	-6.019E+01	4.941E+02	8.114E+02	7.604E+01	-0.074
BI-210		46.50	*	-1.736E+02	2.876E+02	4.399E+02	4.249E+01	-0.395
PB-210		46.50	*	-1.736E+02	2.876E+02	4.399E+02	4.249E+01	-0.395
PO-210		46.50	*	-1.736E+02	2.876E+02	4.399E+02	3.877E+01	-0.395
PB-211		404.84	*	2.826E+01	6.866E+01	1.172E+02	7.343E+01	0.241
		427.08		6.204E+01	1.575E+02	2.684E+02	1.668E+02	0.231
		831.96		-5.834E+01	1.060E+02	1.474E+02	9.251E+01	-0.396
BI-212		727.18	*	-2.790E-01	1.889E+01	3.041E+01	3.124E+00	-0.009
		785.46		4.874E+01	1.119E+02	1.937E+02	1.766E+01	0.252
		1620.62		5.057E+01	8.219E+01	1.584E+02	1.344E+01	0.319
PB-212		74.81		-8.849E+00	3.103E+01	4.259E+01	5.399E+00	-0.208
	+	77.11		1.945E+01	2.098E+01	2.784E+01	2.440E+00	0.699
		87.30		1.613E+01	2.876E+01	4.690E+01	6.557E+00	0.344
		115.19		-1.092E+02	3.110E+02	5.174E+02	4.369E+01	-0.211
	+	238.63	*	3.835E+00	6.791E+00	9.541E+00	1.026E+00	0.402
		300.09		-1.148E+00	5.580E+01	8.943E+01	1.084E+01	-0.013
PO-212		74.81		-8.849E+00	3.103E+01	4.259E+01	5.399E+00	-0.208
	+	77.11		1.945E+01	2.098E+01	2.784E+01	2.440E+00	0.699
		87.30		1.613E+01	2.876E+01	4.690E+01	6.557E+00	0.344
		115.19		-1.092E+02	3.110E+02	5.174E+02	4.369E+01	-0.211
	+	238.63	*	3.835E+00	6.791E+00	9.541E+00	1.026E+00	0.402

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		300.09		-1.148E+00	5.580E+01	8.943E+01	1.084E+01	-0.013
PO-215		81.07		2.138E+00	1.575E+01	2.498E+01	2.281E+00	0.086
		83.78		3.366E+00	9.437E+00	1.448E+01	1.361E+00	0.232
		94.90		3.446E-01	2.031E+01	2.903E+01	2.679E+00	0.012
		122.32		1.967E+01	1.419E+02	2.434E+02	2.194E+01	0.081
		144.24		3.813E+01	6.053E+01	1.007E+02	9.227E+00	0.379
		154.21		-7.573E+00	3.200E+01	5.274E+01	4.720E+00	-0.144
		269.46		2.544E+00	1.489E+01	2.448E+01	2.637E+00	0.104
		323.87	*	1.256E+01	5.549E+01	9.067E+01	1.679E+01	0.138
		338.28		6.427E+00	7.790E+01	1.196E+02	1.583E+01	0.054
		445.03		-4.883E+01	1.618E+02	2.611E+02	3.178E+01	-0.187
PO-216		74.81		-8.849E+00	3.103E+01	4.259E+01	5.399E+00	-0.208
	+	77.11		1.945E+01	2.098E+01	2.784E+01	2.440E+00	0.699
		87.30		1.613E+01	2.876E+01	4.690E+01	6.557E+00	0.344
		115.19		-1.092E+02	3.110E+02	5.174E+02	4.369E+01	-0.211
	+	238.63	*	3.835E+00	6.791E+00	9.541E+00	1.026E+00	0.402
		300.09		-1.148E+00	5.580E+01	8.943E+01	1.084E+01	-0.013
RN-219		271.23		-4.504E+00	1.867E+01	2.948E+01	3.561E+00	-0.153
		401.81	*	-5.452E+00	2.983E+01	4.939E+01	7.403E+00	-0.110
RN-220		549.76	*	2.893E+01	1.751E+03	2.898E+03	2.576E+02	0.010
RA-223		81.07		2.138E+00	1.575E+01	2.498E+01	2.281E+00	0.086
		83.78		3.366E+00	9.437E+00	1.448E+01	1.361E+00	0.232
		94.90		3.446E-01	2.031E+01	2.903E+01	2.679E+00	0.012
		122.32		1.967E+01	1.419E+02	2.434E+02	2.194E+01	0.081
		144.24		3.813E+01	6.053E+01	1.007E+02	9.227E+00	0.379
		154.21		-7.573E+00	3.200E+01	5.274E+01	4.720E+00	-0.144
		269.46		2.544E+00	1.489E+01	2.448E+01	2.637E+00	0.104
		323.87	*	1.256E+01	5.549E+01	9.067E+01	1.679E+01	0.138
		338.28		6.427E+00	7.790E+01	1.196E+02	1.583E+01	0.054
		445.03		-4.883E+01	1.618E+02	2.611E+02	3.178E+01	-0.187
RA-224		240.98	*	3.002E+01	6.292E+01	9.660E+01	9.504E+00	0.311
RA-226		186.21	*	-2.114E+01	7.488E+01	1.215E+02	8.951E+01	-0.174
AC-227		79.80		1.047E+02	1.260E+02	1.957E+02	4.239E+01	0.535
		236.00		4.704E+00	1.723E+01	2.601E+01	3.390E+00	0.181
		256.20	*	-4.670E+00	2.995E+01	4.789E+01	7.816E+00	-0.098
		286.10		2.679E+00	1.133E+02	1.831E+02	2.696E+01	0.015
		299.80		5.982E+00	1.028E+02	1.662E+02	3.084E+01	0.036
		304.40		-7.243E+01	1.377E+02	2.059E+02	3.997E+01	-0.352
		329.70		-3.257E+01	6.624E+01	9.891E+01	1.478E+01	-0.329
		334.20		4.154E+01	1.705E+02	2.793E+02	5.600E+01	0.149
PA-227		64.62	*	-1.000E+35	1.705E+02	Half-Life too short		
		110.05		-1.000E+35	1.705E+02	Half-Life too short		
TH-227		79.80		1.047E+02	1.260E+02	1.957E+02	4.293E+01	0.535
	+	94.00		7.556E+01	2.865E+02	2.598E+02	5.730E+01	0.291
		236.00		4.704E+01	1.723E+01	2.601E+01	3.106E+00	0.181
		256.20	*	-4.670E+00	2.995E+01	4.789E+01	9.050E+00	-0.098
		286.10		2.679E+00	1.133E+02	1.831E+02	1.841E+02	0.015
		299.80		5.982E+00	1.028E+02	1.662E+02	3.084E+01	0.036
		304.40		-7.243E+01	1.377E+02	2.059E+02	3.997E+01	-0.352

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		329.70		-3.257E+01	6.624E+01	9.891E+01	1.478E+01	-0.329
		334.20		4.154E+01	1.705E+02	2.793E+02	5.600E+01	0.149
AC-228		338.32		1.452E+00	1.874E+01	2.873E+01	1.193E+01	0.051
		911.07	*	6.390E+00	9.746E+00	1.804E+01	2.130E+00	0.354
		969.11		6.239E+00	1.863E+01	3.015E+01	7.099E+00	0.207
RA-228		338.32		1.452E+00	1.874E+01	2.873E+01	1.193E+01	0.051
		911.07	*	6.390E+00	9.746E+00	1.804E+01	2.130E+00	0.354
		969.11		6.239E+00	1.863E+01	3.015E+01	7.099E+00	0.207
TH-228		74.81		-8.849E+00	3.102E+01	4.259E+01	3.679E+00	-0.208
	+	77.11		1.945E+01	2.098E+01	2.784E+01	2.440E+00	0.699
		87.30		1.613E+01	2.872E+01	4.690E+01	4.582E+00	0.344
	+	238.63	*	3.835E+00	6.791E+00	9.541E+00	1.026E+00	0.402
		300.09		-1.148E+00	5.580E+01	8.943E+01	5.330E+01	-0.013
TH-229		85.43		-1.835E+01	1.527E+01	2.013E+01	1.926E+00	-0.912
		88.47		2.349E+00	8.798E+00	1.297E+01	1.270E+00	0.181
		100.00		8.405E+00	1.401E+01	2.500E+01	2.229E+00	0.336
		193.63	*	-1.110E+01	3.503E+01	5.623E+01	4.849E+00	-0.197
		210.97		-2.659E+00	5.687E+01	9.322E+01	8.436E+00	-0.029
TH-230		67.67	*	-1.180E+03	7.727E+03	1.476E+03	9.575E+03	-0.800
PA-231		283.67	*	-1.423E+02	1.162E+02	1.559E+02	2.580E+01	-0.912
		301.29		-1.153E+01	4.089E+01	6.349E+01	8.699E+00	-0.182
		330.00		-9.064E+01	1.525E+02	2.208E+02	7.148E+01	-0.411
TH-231		84.21	*	1.070E+01	3.661E+01	5.584E+01	1.019E+01	0.192
U-231		84.21		8.670E+01	2.964E+02	4.525E+02	4.273E+01	0.192
	+	92.29		5.420E+01	2.052E+02	2.580E+02	2.433E+01	0.210
		95.87	*	3.039E+01	6.862E+01	1.026E+02	9.402E+00	0.296
		108.00		-2.362E+01	1.196E+02	2.017E+02	1.735E+01	-0.117
TH-232		59.00	*	-6.184E+02	6.876E+03	3.436E+03	3.617E+04	-0.180
PA-233		75.28		-5.680E+01	2.645E+02	3.663E+02	5.619E+01	-0.155
		86.59		7.944E+00	1.215E+02	1.907E+02	5.183E+01	0.042
		300.12		-9.385E-01	2.842E+01	4.548E+01	7.326E+00	-0.021
		311.98	*	1.710E+00	4.715E+00	7.873E+00	8.359E-01	0.217
		340.50		-2.228E+00	4.465E+01	7.064E+01	1.717E+01	-0.032
		398.62		-9.244E+01	1.550E+02	2.415E+02	6.425E+01	-0.383
		415.76		-2.829E+01	1.228E+02	2.016E+02	4.344E+01	-0.140
PA-234		63.00		-1.747E+02	1.452E+02	2.129E+02	3.186E+01	-0.820
		94.67		6.908E-01	1.454E+01	2.085E+01	2.679E+00	0.033
		98.44		-2.767E+00	7.323E+00	1.196E+01	6.681E+00	-0.231
		99.86		2.421E+01	3.574E+01	6.405E+01	5.716E+00	0.378
		111.00		-6.343E-01	1.479E+01	2.516E+01	3.025E+00	-0.025
		131.20		-9.023E-01	8.315E+00	1.396E+01	1.145E+00	-0.065
		152.70		1.046E+01	2.581E+01	4.448E+01	7.454E+00	0.235
		186.00		-5.176E+01	1.205E+02	1.964E+02	6.122E+01	-0.264
		226.40		-2.148E+01	3.196E+01	4.897E+01	6.737E+00	-0.439
		227.20		-1.392E+00	3.450E+01	5.631E+01	5.332E+00	-0.025
		248.90		-6.178E+00	6.567E+01	1.059E+02	2.437E+01	-0.058
	+	293.70		8.978E+01	7.765E+01	1.009E+02	1.859E+01	0.890
		369.80		2.440E+01	7.031E+01	1.155E+02	2.540E+01	0.211
		568.70		2.951E+01	7.021E+01	1.222E+02	1.085E+01	0.241

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		569.50		1.320E+01	1.916E+01	3.443E+01	3.057E+00	0.383
		574.00		8.771E+00	1.155E+02	1.920E+02	1.703E+01	0.046
		699.00		5.428E+01	5.854E+01	1.046E+02	2.005E+01	0.519
		706.10		-2.018E+01	8.219E+01	1.274E+02	5.689E+01	-0.158
		733.00		-8.212E+00	2.396E+01	3.601E+01	8.039E+00	-0.228
		742.81		-6.031E+01	9.006E+01	1.079E+02	7.258E+01	-0.559
		796.30		-4.916E+00	5.931E+01	9.349E+01	2.545E+01	-0.053
		805.60		6.139E+00	6.860E+01	1.115E+02	3.435E+01	0.055
		819.60		-2.745E+01	8.249E+01	1.217E+02	4.644E+01	-0.226
		826.30		2.810E+01	6.150E+01	1.038E+02	4.657E+01	0.271
		831.60		-3.530E+01	5.191E+01	7.371E+01	2.213E+01	-0.479
		876.40		-2.406E+00	5.771E+01	9.621E+01	9.896E+01	-0.025
		880.51		4.470E+00	1.981E+01	3.441E+01	3.215E+00	0.130
		883.24		-1.564E+00	1.922E+01	3.177E+01	2.139E+01	-0.049
		899.00		-1.976E+01	5.849E+01	9.152E+01	4.015E+01	-0.216
		925.00		-3.083E+01	7.848E+01	1.220E+02	1.136E+01	-0.253
		926.50		1.572E+00	1.139E+01	1.949E+01	4.974E+00	0.081
		946.00	*	2.812E-01	1.912E+01	3.200E+01	6.099E+00	0.009
		949.00		-3.266E+00	2.445E+01	3.966E+01	3.664E+00	-0.082
		980.50		-4.429E+01	4.554E+01	6.000E+01	5.480E+00	-0.738
		1394.10		-2.152E+01	8.152E+01	1.203E+02	7.831E+01	-0.179
PA-234M		766.42		3.560E+02	6.987E+02	1.187E+03	6.033E+02	0.300
		1001.03	*	-1.293E+02	3.211E+02	4.506E+02	4.660E+01	-0.287
TH-234		63.29	*	-1.347E+02	1.265E+02	1.874E+02	3.286E+01	-0.719
	+	92.38		1.955E+01	7.411E+01	9.311E+01	1.721E+01	0.210
U-234		53.20	*	4.469E+03	4.499E+04	8.921E+03	8.921E+04	0.501
U-235		89.95		-2.716E+01	9.412E+01	1.301E+02	4.055E+01	-0.209
	+	93.35		2.351E+01	8.924E+01	1.030E+02	2.910E+01	0.228
		105.00		-1.474E+01	8.553E+01	1.445E+02	4.315E+01	-0.102
		143.76	*	1.713E+01	1.876E+01	3.147E+01	5.428E+00	0.544
		163.35		-9.366E+00	3.933E+01	6.218E+01	1.170E+01	-0.151
		185.71		-3.457E+00	4.430E+00	7.115E+00	6.004E-01	-0.486
		205.31		1.474E+01	3.888E+01	6.594E+01	1.267E+01	0.223
NP-236		94.67		5.313E-01	1.103E+01	1.582E+01	1.462E+00	0.034
		98.44		-2.091E+00	5.415E+00	9.043E+00	8.140E-01	-0.231
		111.00		-4.798E-01	1.119E+01	1.903E+01	1.623E+00	-0.025
		160.31	*	1.293E+00	6.663E+00	1.130E+01	9.067E-01	0.114
NP-237		86.50	*	6.051E-01	1.819E+01	2.848E+01	6.492E+00	0.021
		95.87		3.693E+01	8.381E+01	1.247E+02	3.096E+01	0.296
PU-237		59.54	*	-4.932E+01	1.565E+02	2.417E+02	1.760E+01	-0.204
U-238		63.29	*	-1.347E+02	1.265E+02	1.874E+02	3.286E+01	-0.719
	+	92.38		1.955E+01	7.405E+01	9.311E+01	8.773E+00	0.210
NP-239		99.55		1.025E+01	1.212E+01	2.192E+01	1.960E+00	0.467
		117.00	*	4.602E+00	1.566E+01	2.718E+01	2.288E+00	0.169
		209.75		6.525E-02	5.647E+01	9.297E+01	8.384E+00	0.001
		228.18		1.279E+01	1.769E+01	3.070E+01	2.915E+00	0.417
		277.60		-1.046E+01	1.524E+01	2.241E+01	2.431E+00	-0.467
		334.30		2.353E+01	9.653E+01	1.582E+02	1.580E+01	0.149
AM-241		59.54	*	-3.679E+00	1.168E+01	1.803E+01	1.445E+00	-0.204

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AM-243		74.67	*	-1.206E+00	4.991E+00	6.887E+00	5.890E-01	-0.175
		86.72		6.366E+01	6.836E+02	1.076E+03	1.044E+02	0.059
		117.66		-8.668E+01	3.201E+02	5.346E+02	4.496E+01	-0.162
		142.18		-2.748E+03	1.656E+03	2.325E+03	1.881E+02	-1.182
CM-243		99.55		1.054E+01	1.247E+01	2.255E+01	2.017E+00	0.467
		103.76	*	6.161E+00	7.795E+00	1.401E+01	1.226E+00	0.440
		117.00		4.734E+00	1.611E+01	2.796E+01	2.354E+00	0.169
		209.75		6.431E-02	5.566E+01	9.164E+01	8.264E+00	0.001
		228.18		1.292E+01	1.787E+01	3.101E+01	2.945E+00	0.417
		277.60		-1.054E+01	1.537E+01	2.259E+01	2.451E+00	-0.467
AM-246		798.80		-2.405E-01	1.057E+01	1.685E+01	1.543E+00	-0.014
		1036.00		-1.093E+00	1.890E+01	3.096E+01	2.756E+00	-0.035
		1062.04		-4.503E+00	1.658E+01	2.503E+01	2.196E+00	-0.180
		1078.86	*	-2.529E+00	9.274E+00	1.451E+01	1.260E+00	-0.174
CM-247		278.00		-2.144E+01	6.085E+01	9.261E+01	1.006E+01	-0.232
		287.40		-3.294E+01	9.502E+01	1.472E+02	1.588E+01	-0.224
		402.60	*	1.537E-01	2.585E+00	4.396E+00	3.763E-01	0.035
CF-249		252.85		8.995E+00	6.956E+01	1.145E+02	1.164E+01	0.079
		333.44		2.285E+00	1.303E+01	2.119E+01	2.120E+00	0.108
		387.95	*	-7.319E-01	2.926E+00	4.824E+00	4.157E-01	-0.152
CF-251		176.60	*	-4.944E+00	1.027E+01	1.643E+01	1.353E+00	-0.301
		227.00		-1.301E+01	3.103E+01	4.893E+01	4.631E+00	-0.266
		285.00		3.418E+01	1.211E+02	2.017E+02	2.183E+01	0.169
ANH-511		511.00	*	-8.220E+00	4.346E+00	7.695E+00	6.829E-01	-1.068

VAX/VMS Nuclide Identification Report Generated

```
*************************************************************************
*                          GEL Laboratories LLC                         *
*                              2040 Savage Road                         *
*                            Charleston, SC 29414                       *
*************************************************************************
*                                                                       *
*                              DETECTOR DATA                            *
*                                                                       *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243400002 *
* Acquisition date : 31-DEC-2009 16:18:32 Detector SN#     :           *
* Detector ID        : GAM11               Sensitivity      : 5.000    *
* Geometry           : 2LMB                Energy tolerance: 1.500     *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000    *
* Elapsed real time:     0 02:00:00.66     Half life ratio :  8.000    *
*************************************************************************
*                                                                       *
*                              SAMPLE DATA                              *
*                                                                       *
* Sample date        : 18-DEC-2009 12:00:00 Nuclide Library : LIQUI    *
* Sample ID          : G243400002           Analyst initials: KXG3     *
* Batch Number       : 936274               Sample Quantity : 2.0000E+00 LITER *
* Recovery           :    1.00000           Carrier Weight :    0.00000 *
*************************************************************************
*                                                                       *
*                                QC DATA                                *
* Standard Weight  :    0.00000                                         *
* CALIB. DATE/TIME : 18-NOV-2009 09:57:44 MS Isotope       :            *
* MSD DPM            :    0.000           MSD Isotope      :           *
* LCS DPM            :    0.000           LCS Isotope      :           *
* LCSD DPM           :    0.000           LCSD Isotope     :           *
*************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
AS-74	1.473E+01	1.186E+01	9.895E+00	0.000E+00
BI-211	5.564E+01	2.537E+01	2.372E+01	0.000E+00
BI-214	2.387E+01	1.006E+01	7.956E+00	0.000E+00
PB-214	1.936E+01	8.882E+00	7.339E+00	0.000E+00
PO-214	1.936E+01	8.882E+00	7.339E+00	0.000E+00
PO-218	1.936E+01	8.882E+00	7.339E+00	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER	K.L. Act error) Ided	MDA (pCi/LITER	)	
BE-7	2.018E+01	2.278E+01	4.259E+01	0.000E+00	NOT IDENT.
NA-22	-5.682E-01	2.523E+00	3.971E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00	5.636E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.425E+00	2.744E+00	5.161E+00	0.000E+00	NOT IDENT.
K-40	-3.201E+01	3.433E+01	5.268E+01	0.000E+00	NOT IDENT.
TI-44	3.542E+00	3.745E+00	4.177E+00	0.000E+00	FAIL ABUN
SC-46	-4.453E-01	2.706E+00	4.514E+00	0.000E+00	NOT IDENT.
V-48	6.460E-01	3.000E+00	5.354E+00	0.000E+00	NOT IDENT.
CR-51	-7.258E+00	2.919E+01	4.635E+01	0.000E+00	NOT IDENT.
MN-52	4.335E+00	1.231E+01	2.198E+01	0.000E+00	NOT IDENT.
MN-54	-1.597E+00	2.491E+00	3.868E+00	0.000E+00	NOT IDENT.
CO-56	8.710E-01	2.194E+00	4.027E+00	0.000E+00	NOT IDENT.
CO-57	7.086E-01	1.993E+00	3.538E+00	0.000E+00	NOT IDENT.
CO-58	1.300E+00	2.551E+00	4.537E+00	0.000E+00	NOT IDENT.
FE-59	1.554E-02	4.411E+00	7.424E+00	0.000E+00	NOT IDENT.
CO-60	-3.088E-01	2.150E+00	3.762E+00	0.000E+00	NOT IDENT.
ZN-65	2.055E+00	5.506E+00	8.843E+00	0.000E+00	NOT IDENT.
GE-68	2.948E+01	8.048E+01	1.441E+02	0.000E+00	NOT IDENT.
AS-73	2.927E+01	6.714E+01	1.134E+02	0.000E+00	NOT IDENT.
SE-75	-3.483E+00	3.497E+00	5.179E+00	0.000E+00	NOT IDENT.
BR-77	-1.871E+02	4.367E+02	6.974E+02	0.000E+00	FAIL ABUN

SR-82	2.798E-01	1.898E+01	3.118E+01	0.000E+00	NOT IDENT.
RB-83	5.965E-01	4.761E+00	8.188E+00	0.000E+00	NOT IDENT.
RB-84	2.178E+00	4.471E+00	8.226E+00	0.000E+00	NOT IDENT.
KR-85	-2.010E+03	7.599E+02	9.400E+02	0.000E+00	NOT IDENT.
SR-85	-1.010E+01	3.818E+00	4.722E+00	0.000E+00	NOT IDENT.
RB-86	1.459E+01	4.553E+01	8.113E+01	0.000E+00	NOT IDENT.
Y-88	-7.431E-01	2.630E+00	4.048E+00	0.000E+00	NOT IDENT.
ZR-88	-2.176E+00	2.116E+00	3.213E+00	0.000E+00	NOT IDENT.
Y-91	-4.255E+02	1.085E+03	1.671E+03	0.000E+00	NOT IDENT.
NB-94	-1.200E+00	2.579E+00	3.973E+00	0.000E+00	NOT IDENT.
NB-95	3.212E-01	2.836E+00	4.743E+00	0.000E+00	NOT IDENT.
NB-95M	-3.894E-01	8.835E+00	1.308E+01	0.000E+00	NOT IDENT.
ZR-95	2.083E-01	4.292E+00	7.109E+00	0.000E+00	NOT IDENT.
NB-97	0.000E+00	9.233E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.878E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.685E+02	4.652E+02	8.116E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.696E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	7.019E-01	2.863E+00	4.526E+00	0.000E+00	NOT IDENT.
RH-102	4.337E-01	2.212E+00	3.852E+00	0.000E+00	NOT IDENT.
RU-103	-1.743E+00	2.841E+00	4.423E+00	0.000E+00	NOT IDENT.
RH-106	-1.308E+00	2.286E+01	3.782E+01	0.000E+00	NOT IDENT.
RU-106	-1.308E+00	2.286E+01	3.782E+01	0.000E+00	NOT IDENT.
AG-108M	7.541E-01	2.223E+00	3.963E+00	0.000E+00	NOT IDENT.
CD-109	5.189E+01	6.138E+01	1.042E+02	0.000E+00	NOT IDENT.
AG-110M	6.175E-01	2.126E+00	3.702E+00	0.000E+00	NOT IDENT.
IN-111	-1.788E+01	5.108E+01	8.214E+01	0.000E+00	NOT IDENT.
IN-113M	-3.251E-01	2.971E+00	5.071E+00	0.000E+00	NOT IDENT.
SN-113	-3.251E-01	2.971E+00	5.071E+00	0.000E+00	NOT IDENT.
IN-114M	-5.279E+00	1.354E+01	2.217E+01	0.000E+00	NOT IDENT.
CD-115	-1.692E+02	4.129E+02	6.579E+02	0.000E+00	NOT IDENT.
SN-117M	4.698E-01	3.936E+00	6.782E+00	0.000E+00	NOT IDENT.
SB-122	-2.066E+01	7.978E+01	1.288E+02	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.049E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.137E-01	2.303E+00	3.948E+00	0.000E+00	NOT IDENT.
I-124	-2.553E+01	4.622E+01	4.787E+01	0.000E+00	NOT IDENT.
SB-124	1.851E+00	5.796E+00	1.058E+01	0.000E+00	NOT IDENT.
SB-125	-2.604E+00	6.765E+00	1.111E+01	0.000E+00	NOT IDENT.
TE-125M	6.854E+01	7.139E+02	1.252E+03	0.000E+00	NOT IDENT.
I-126	-9.823E+00	9.929E+00	1.332E+01	0.000E+00	NOT IDENT.
SB-126	3.094E-01	8.385E+00	1.391E+01	0.000E+00	NOT IDENT.
SN-126	4.455E+00	6.025E+00	1.016E+01	0.000E+00	NOT IDENT.
SB-127	1.486E+01	5.859E+01	1.013E+02	0.000E+00	NOT IDENT.
XE-127	-2.788E+00	3.419E+00	5.347E+00	0.000E+00	NOT IDENT.
I-131	-2.255E+00	7.296E+00	1.130E+01	0.000E+00	NOT IDENT.
TE-132	2.736E+01	3.513E+01	6.212E+01	0.000E+00	NOT IDENT.
BA-133	-6.584E-01	3.285E+00	4.545E+00	0.000E+00	NOT IDENT.
I-133	0.000E+00	8.373E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-4.973E-01	3.039E+00	4.819E+00	0.000E+00	NOT IDENT.
CS-135	5.498E+00	1.287E+01	2.204E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.387E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.251E-01	6.259E+00	1.053E+01	0.000E+00	NOT IDENT.
BA-137M	6.095E-01	2.161E+00	3.757E+00	0.000E+00	NOT IDENT.
CS-137	6.443E-01	2.284E+00	3.971E+00	0.000E+00	NOT IDENT.
CE-139	-8.508E-01	2.226E+00	3.680E+00	0.000E+00	NOT IDENT.
BA-140	1.993E+00	1.752E+01	2.997E+01	0.000E+00	NOT IDENT.
LA-140	1.745E+00	5.939E+00	1.071E+01	0.000E+00	NOT IDENT.
CE-141	-3.630E+00	4.973E+00	8.099E+00	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.524E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	2.308E+00	1.619E+01	2.819E+01	0.000E+00	NOT IDENT.
PM-144	5.929E-01	2.813E+00	4.775E+00	0.000E+00	NOT IDENT.
PR-144	4.013E+01	1.905E+02	3.232E+02	0.000E+00	NOT IDENT.
PM-146	-4.080E-01	3.025E+00	5.087E+00	0.000E+00	NOT IDENT.
ND-147	1.075E+01	3.420E+01	6.017E+01	0.000E+00	FAIL ABUN
PM-149	7.732E+02	3.459E+03	5.831E+03	0.000E+00	NOT IDENT.
EU-152	3.078E+00	7.376E+00	1.254E+01	0.000E+00	NOT IDENT.
GD-153	-2.165E+00	6.638E+00	1.019E+01	0.000E+00	NOT IDENT.
EU-154	-1.589E+00	7.055E+00	1.110E+01	0.000E+00	NOT IDENT.
EU-155	-4.428E+00	8.603E+00	1.449E+01	0.000E+00	NOT IDENT.
TB-160	1.372E+00	9.314E+00	1.632E+01	0.000E+00	NOT IDENT.
HO-166M	-2.730E+00	4.374E+00	6.481E+00	0.000E+00	NOT IDENT.
TM-171	-1.290E+02	2.584E+03	4.105E+03	0.000E+00	NOT IDENT.
HF-175	1.631E+00	2.626E+00	4.561E+00	0.000E+00	NOT IDENT.
LU-176	3.149E-01	1.771E+00	2.957E+00	0.000E+00	NOT IDENT.
LU-177	-1.404E+00	6.754E+01	1.133E+02	0.000E+00	NOT IDENT.
LU-177M	5.707E+00	1.245E+01	2.245E+01	0.000E+00	NOT IDENT.
HF-181	-3.538E-01	2.755E+00	4.608E+00	0.000E+00	NOT IDENT.
W-181	-8.088E+00	3.442E+01	5.408E+01	0.000E+00	NOT IDENT.
TA-182	4.305E-01	8.627E+00	1.454E+01	0.000E+00	NOT IDENT.

RE-183	-2.988E+00	9.278E+00	1.497E+01	0.000E+00	NOT IDENT.
RE-184	2.378E+00	1.802E+01	3.028E+01	0.000E+00	NOT IDENT.
OS-185	1.117E-01	3.223E+00	5.387E+00	0.000E+00	NOT IDENT.
RE-188	8.141E-01	1.292E+01	2.221E+01	0.000E+00	NOT IDENT.
W-188	7.934E+01	6.206E+02	9.241E+02	0.000E+00	NOT IDENT.
IR-192	-6.631E-02	2.531E+00	4.121E+00	0.000E+00	FAIL ABUN
AU-195	5.896E+00	1.704E+01	3.051E+01	0.000E+00	NOT IDENT.
TL-200	0.000E+00	1.073E+04	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.225E+02	3.243E+02	5.351E+02	0.000E+00	NOT IDENT.
TL-202	1.438E+00	4.103E+00	7.327E+00	0.000E+00	NOT IDENT.
HG-203	-6.774E-01	3.011E+00	4.721E+00	0.000E+00	NOT IDENT.
BI-207	-7.626E-01	3.659E+00	5.700E+00	0.000E+00	NOT IDENT.
TL-207	1.256E+01	5.438E+01	9.067E+01	0.000E+00	NOT IDENT.
TL-208	-1.468E+00	3.071E+00	4.649E+00	0.000E+00	NOT IDENT.
PO-209	-6.019E+01	4.842E+02	8.114E+02	0.000E+00	NOT IDENT.
BI-210	-1.736E+02	2.819E+02	4.399E+02	0.000E+00	NOT IDENT.
PB-210	-1.736E+02	2.819E+02	4.399E+02	0.000E+00	NOT IDENT.
PO-210	-1.736E+02	2.818E+02	4.399E+02	0.000E+00	NOT IDENT.
PB-211	2.826E+01	6.729E+01	1.172E+02	0.000E+00	NOT IDENT.
BI-212	-2.790E-01	1.851E+01	3.041E+01	0.000E+00	NOT IDENT.
PB-212	3.835E+00	6.655E+00	9.541E+00	0.000E+00	FAIL ABUN
PO-212	3.835E+00	6.655E+00	9.541E+00	0.000E+00	FAIL ABUN
PO-215	1.256E+01	5.438E+01	9.067E+01	0.000E+00	NOT IDENT.
PO-216	3.835E+00	6.655E+00	9.541E+00	0.000E+00	FAIL ABUN
RN-219	-5.452E+00	2.923E+01	4.939E+01	0.000E+00	NOT IDENT.
RN-220	2.893E+01	1.716E+03	2.898E+03	0.000E+00	NOT IDENT.
RA-223	1.256E+01	5.438E+01	9.067E+01	0.000E+00	NOT IDENT.
RA-224	3.002E+01	6.166E+01	9.660E+01	0.000E+00	NOT IDENT.
RA-226	-2.114E+01	7.338E+01	1.215E+02	0.000E+00	NOT IDENT.
AC-227	-4.670E+00	2.935E+01	4.789E+01	0.000E+00	NOT IDENT.
PA-227	0.000E+00	4.717E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-4.670E+00	2.935E+01	4.789E+01	0.000E+00	FAIL ABUN
AC-228	6.390E+00	9.551E+00	1.804E+01	0.000E+00	NOT IDENT.
RA-228	6.390E+00	9.551E+00	1.804E+01	0.000E+00	NOT IDENT.
TH-228	3.835E+00	6.655E+00	9.541E+00	0.000E+00	FAIL ABUN
TH-229	-1.110E+01	3.433E+01	5.623E+01	0.000E+00	NOT IDENT.
TH-230	-1.180E+03	7.573E+03	1.476E+03	0.000E+00	NOT IDENT.
PA-231	-1.423E+02	1.138E+02	1.559E+02	0.000E+00	NOT IDENT.
TH-231	1.070E+01	3.588E+01	5.584E+01	0.000E+00	NOT IDENT.
U-231	3.039E+01	6.725E+01	1.026E+02	0.000E+00	FAIL ABUN
TH-232	-6.184E+02	6.739E+03	3.436E+03	0.000E+00	NOT IDENT.
PA-233	1.710E+00	4.621E+00	7.873E+00	0.000E+00	NOT IDENT.
PA-234	2.812E-01	1.874E+01	3.200E+01	0.000E+00	FAIL ABUN
PA-234M	-1.293E+02	3.147E+02	4.506E+02	0.000E+00	NOT IDENT.
TH-234	-1.347E+02	1.239E+02	1.874E+02	0.000E+00	FAIL ABUN
U-234	4.469E+03	4.409E+04	8.921E+03	0.000E+00	NOT IDENT.
U-235	1.713E+01	1.839E+01	3.147E+01	0.000E+00	FAIL ABUN
NP-236	1.293E+00	6.529E+00	1.130E+01	0.000E+00	NOT IDENT.
NP-237	6.051E-01	1.783E+01	2.848E+01	0.000E+00	NOT IDENT.
PU-237	-4.932E+01	1.534E+02	2.417E+02	0.000E+00	NOT IDENT.
U-238	-1.347E+02	1.239E+02	1.874E+02	0.000E+00	FAIL ABUN
NP-239	4.602E+00	1.535E+01	2.718E+01	0.000E+00	NOT IDENT.
AM-241	-3.679E+00	1.144E+01	1.803E+01	0.000E+00	NOT IDENT.
AM-243	-1.206E+00	4.891E+00	6.887E+00	0.000E+00	NOT IDENT.
CM-243	6.161E+00	7.639E+00	1.401E+01	0.000E+00	NOT IDENT.
AM-246	-2.529E+00	9.088E+00	1.451E+01	0.000E+00	NOT IDENT.
CM-247	1.537E-01	2.533E+00	4.396E+00	0.000E+00	NOT IDENT.
CF-249	-7.319E-01	2.867E+00	4.824E+00	0.000E+00	NOT IDENT.
CF-251	-4.944E+00	1.006E+01	1.643E+01	0.000E+00	NOT IDENT.
ANH-511	-8.220E+00	4.259E+00	7.695E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 18:19:02.61

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243400002.CNF;1
Sample date       : 18-DEC-2009 12:00:00 Acquisition date : 31-DEC-2009 16:18:32
Sample ID         : G243400002           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM11                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.66  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 936274               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	77.34	36	123	1.02	153.58	150	7	5.03E-03	53.8	
2	0	92.59	110	150	1.00	184.11	180	9	1.53E-02	22.5	
3	0	185.64	50	110	0.77	370.34	368	8	6.91E-03	39.0	
4	0	238.08	56	76	1.38	475.30	472	8	7.82E-03	29.7	
5	0	294.88	49	56	1.23	588.98	584	9	6.81E-03	31.0	
6	0	351.72	91	33	0.90	702.74	699	10	1.26E-02	15.7	
7	0	510.72	138	58	2.48	1020.93	1013	18	1.92E-02	15.5	
8	0	595.31	34	37	0.73	1190.22	1185	14	4.73E-03	40.8	
9	0	608.74	79	30	1.00	1217.09	1211	12	1.10E-02	17.8	
10	0	1118.82	21	7	1.72	2237.72	2231	11	2.91E-03	34.0	
11	0	1763.74	18	8	2.34	3527.86	3523	10	2.54E-03	36.5	

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 18:19:06.02

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243400002.CNF;1
Sample date       : 18-DEC-2009 12:00:00 Acquisition date : 31-DEC-2009 16:18:32
Sample ID         : G243400002           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM11                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.66  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 936274               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
AS-74	595.88	34	59.90*	1.214E+00	8.793E+00	1.473E+01	82.17
	634.78	------	15.40	1.158E+00	------ Line Not Found		------
BI-211	72.87	------	1.27	1.783E+00	------ Line Not Found		------
	351.07	67	12.94*	1.745E+00	5.564E+01	5.564E+01	46.53
BI-214	609.31	70	46.30*	1.194E+00	2.387E+01	2.387E+01	43.01
	1120.29	15	15.10	7.538E-01	2.495E+01	2.495E+01	98.18
	1764.49	14	15.80	5.441E-01	3.121E+01	3.122E+01	97.16
PB-214	74.81	------	6.21	1.866E+00	------ Line Not Found		------
	77.11	36	10.50	1.968E+00	3.290E+01	3.290E+01	108.18
	87.30	------	4.67	2.296E+00	------ Line Not Found		------
	241.98	------	7.49	2.204E+00	------ Line Not Found		------
	295.21	37	19.20	1.955E+00	1.870E+01	1.870E+01	85.40
	351.92	67	37.20*	1.745E+00	1.936E+01	1.936E+01	46.82
PO-214	74.81	------	6.21	1.866E+00	------ Line Not Found		------
	77.11	36	10.50	1.968E+00	3.290E+01	3.290E+01	108.18
	87.30	------	4.67	2.296E+00	------ Line Not Found		------
	241.98	------	7.49	2.204E+00	------ Line Not Found		------
	295.21	37	19.20	1.955E+00	1.870E+01	1.870E+01	85.40
	351.92	67	37.20*	1.745E+00	1.936E+01	1.936E+01	46.82
PO-218	74.81	------	6.21	1.866E+00	------ Line Not Found		------
	77.11	36	10.50	1.968E+00	3.290E+01	3.290E+01	108.18
	87.30	------	4.67	2.296E+00	------ Line Not Found		------
	241.98	------	7.49	2.204E+00	------ Line Not Found		------
	295.21	37	19.20	1.955E+00	1.870E+01	1.870E+01	85.40
	351.92	67	37.20*	1.745E+00	1.936E+01	1.936E+01	46.82

Flag: "*" = Keyline

Sample ID : G243400002 Acquisition date : 31-DEC-2009 16:18:32

Total number of lines in spectrum	9	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	9	100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
AS-74	17.77D	1.67	8.793E+00	1.473E+01	1.210E+01	82.17	
BI-211	7.04E+08Y	1.00	5.564E+01	5.564E+01	2.589E+01	46.53	
BI-214	1600.00Y	1.00	2.387E+01	2.387E+01	1.026E+01	43.01	
PB-214	1600.00Y	1.00	1.936E+01	1.936E+01	0.906E+01	46.82	
PO-214	1600.00Y	1.00	1.936E+01	1.936E+01	0.906E+01	46.82	
PO-218	1600.00Y	1.00	1.936E+01	1.936E+01	0.906E+01	46.82	
	Total Activity :		1.464E+02	1.523E+02			
	Grand Total Activity :		1.464E+02	1.523E+02			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G243400002 Acquisition date : 31-DEC-2009 16:18:32

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.59	14	150	1.00	184.11	180	9	1.90E-03	****	2.43E+00	T
0	238.08	20	76	1.38	475.30	472	8	2.78E-03	****	2.22E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 18:19:13.04

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243400002.CNF;1 *
* Acquisition date  : 31-DEC-2009 16:18:32  Detector SN#     :             *
* Detector ID       : GAM11                 Sensitivity      : 5.00000     *
* Geometry          : 2LMB                  Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:00.66          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 18-DEC-2009 12:00:00  Nuclide Library : LIQUID       *
* Sample ID         : G243400002            Analyst initials: KXG3         *
* Batch Number      : 936274                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 18-NOV-2009 09:57:44.8MS Isotope      :                *
* MSD ID           :                      MSD Isotope     :                *
* LCS ID           : 1032-A               LCS Isotope     :                *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AS-74	1.473E+01	1.210E+01	9.895E+00	8.749E-01	1.488
BI-211	5.564E+01	2.589E+01	2.372E+01	2.373E+00	2.345
BI-214	2.387E+01	1.026E+01	7.956E+00	8.136E-01	3.000
PB-214	1.936E+01	9.063E+00	7.339E+00	8.267E-01	2.637
PO-214	1.936E+01	9.063E+00	7.339E+00	8.267E-01	2.637
PO-218	1.936E+01	9.063E+00	7.339E+00	8.267E-01	2.637

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	2.018E+01		2.324E+01	4.259E+01	4.035E+00	0.474
NA-22	-5.682E-01		2.574E+00	3.971E+00	3.306E-01	-0.143
NA-24	4.602E+00		2.875E+00	Half-Life too short		
AL-26	1.425E+00		2.800E+00	5.161E+00	4.261E-01	0.276
K-40	-3.201E+01		3.503E+01	5.268E+01	4.615E+00	-0.608
TI-44	3.542E+00	+	3.822E+00	4.177E+00	3.709E-01	0.848

Sample ID : G243400002 Acquisition date : 31-DEC-2009 16:18:32

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
SC-46	-4.453E-01		2.761E+00	4.514E+00	4.225E-01	-0.099
V-48	6.460E-01		3.062E+00	5.354E+00	4.884E-01	0.121
CR-51	-7.258E+00		2.979E+01	4.635E+01	4.939E+00	-0.157
MN-52	4.335E+00		1.256E+01	2.198E+01	1.869E+00	0.197
MN-54	-1.597E+00		2.542E+00	3.868E+00	3.577E-01	-0.413
CO-56	8.710E-01		2.238E+00	4.027E+00	3.736E-01	0.216
CO-57	7.086E-01		2.034E+00	3.538E+00	2.966E-01	0.200
CO-58	1.300E+00		2.603E+00	4.537E+00	4.177E-01	0.287
FE-59	1.554E-02		4.501E+00	7.424E+00	6.881E-01	0.002
CO-60	-3.088E-01		2.194E+00	3.762E+00	3.169E-01	-0.082
ZN-65	2.055E+00		5.619E+00	8.843E+00	7.496E-01	0.232
GE-68	2.948E+01		8.212E+01	1.441E+02	1.252E+01	0.205
AS-73	2.927E+01		6.851E+01	1.134E+02	8.866E+00	0.258
SE-75	-3.483E+00		3.568E+00	5.179E+00	5.449E-01	-0.673
BR-77	-1.871E+02		4.456E+02	6.974E+02	6.196E+01	-0.268
SR-82	2.798E-01		1.936E+01	3.118E+01	2.834E+00	0.009
RB-83	5.965E-01		4.858E+00	8.188E+00	7.274E-01	0.073
RB-84	2.178E+00		4.562E+00	8.226E+00	7.688E-01	0.265
KR-85	-2.010E+03		7.755E+02	9.400E+02	8.345E+01	-2.139
SR-85	-1.010E+01		3.896E+00	4.722E+00	4.193E-01	-2.139
RB-86	1.459E+01		4.646E+01	8.113E+01	7.054E+00	0.180
Y-88	-7.431E-01		2.683E+00	4.048E+00	3.326E-01	-0.184
ZR-88	-2.176E+00		2.159E+00	3.213E+00	2.734E-01	-0.677
Y-91	-4.255E+02		1.107E+03	1.671E+03	1.364E+02	-0.255
NB-94	-1.200E+00		2.631E+00	3.973E+00	3.507E-01	-0.302
NB-95	3.212E-01		2.893E+00	4.743E+00	4.295E-01	0.068
NB-95M	-3.894E-01		9.015E+00	1.308E+01	1.415E+00	-0.030
ZR-95	2.083E-01		4.380E+00	7.109E+00	7.011E-01	0.029
NB-97	-1.508E-01		4.711E-01	Half-Life too short		
ZR-97	-5.541E+01		1.468E+01	Half-Life too short		
MO-99	1.685E+02		4.747E+02	8.116E+02	1.249E+02	0.208
TC-99M	-4.659E+09		8.652E+09	Half-Life too short		
RH-101	7.019E-01		2.922E+00	4.526E+00	3.950E-01	0.155
RH-102	4.337E-01		2.257E+00	3.852E+00	3.397E-01	0.113
RU-103	-1.743E+00		2.899E+00	4.423E+00	6.328E-01	-0.394
RH-106	-1.308E+00		2.332E+01	3.782E+01	5.093E+00	-0.035
RU-106	-1.308E+00		2.332E+01	3.782E+01	3.323E+00	-0.035
AG-108M	7.541E-01		2.268E+00	3.963E+00	3.580E-01	0.190
CD-109	5.189E+01		6.263E+01	1.042E+02	1.025E+01	0.498
AG-110M	6.175E-01		2.169E+00	3.702E+00	3.304E-01	0.167
IN-111	-1.788E+01		5.212E+01	8.214E+01	8.180E+00	-0.218
IN-113M	-3.251E-01		3.032E+00	5.071E+00	4.449E-01	-0.064
SN-113	-3.251E-01		3.032E+00	5.071E+00	4.449E-01	-0.064
IN-114M	-5.279E+00		1.382E+01	2.217E+01	1.894E+00	-0.238
CD-115	-1.692E+02		4.213E+02	6.579E+02	5.847E+01	-0.257
SN-117M	4.698E-01		4.016E+00	6.782E+00	5.443E-01	0.069
SB-122	-2.066E+01		8.141E+01	1.288E+02	1.144E+01	-0.160
I-123	1.999E+00		2.066E+01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TE-123M	1.137E-01		2.350E+00	3.948E+00	3.190E-01	0.029
I-124	-2.553E+01		4.717E+01	4.787E+01	4.226E+00	-0.533
SB-124	1.851E+00		5.915E+00	1.058E+01	9.278E-01	0.175
SB-125	-2.604E+00		6.903E+00	1.111E+01	9.818E-01	-0.234
TE-125M	6.854E+01		7.285E+02	1.252E+03	1.287E+02	0.055
I-126	-9.823E+00		1.013E+01	1.332E+01	1.156E+00	-0.738
SB-126	3.094E-01		8.556E+00	1.391E+01	1.237E+00	0.022
SN-126	4.455E+00		6.148E+00	1.016E+01	9.953E-01	0.439
SB-127	1.486E+01		5.979E+01	1.013E+02	1.109E+01	0.147
XE-127	-2.788E+00		3.489E+00	5.347E+00	4.730E-01	-0.522
I-131	-2.255E+00		7.445E+00	1.130E+01	1.096E+00	-0.200
TE-132	2.736E+01		3.584E+01	6.212E+01	9.869E+00	0.440
BA-133	-6.584E-01		3.352E+00	4.545E+00	6.265E-01	-0.145
I-133	2.339E-02		4.272E-02	Half-Life too short		
CS-134	-4.973E-01		3.101E+00	4.819E+00	4.436E-01	-0.103
CS-135	5.498E+00		1.313E+01	2.204E+01	2.581E+00	0.249
I-135	-1.887E+08		1.218E+09	Half-Life too short		
CS-136	-1.251E-01		6.386E+00	1.053E+01	9.686E-01	-0.012
BA-137M	6.095E-01		2.205E+00	3.757E+00	3.251E-01	0.162
CS-137	6.443E-01		2.331E+00	3.971E+00	3.444E-01	0.162
CE-139	-8.508E-01		2.272E+00	3.680E+00	2.952E-01	-0.231
BA-140	1.993E+00		1.787E+01	2.997E+01	9.953E+00	0.067
LA-140	1.745E+00		6.060E+00	1.071E+01	9.106E-01	0.163
CE-141	-3.630E+00		5.074E+00	8.099E+00	6.671E-01	-0.448
CE-143	1.939E-03		2.308E-03	Half-Life too short		
CE-144	2.308E+00		1.652E+01	2.819E+01	4.320E+00	0.082
PM-144	5.929E-01		2.871E+00	4.775E+00	4.205E-01	0.124
PR-144	4.013E+01		1.943E+02	3.232E+02	2.846E+01	0.124
PM-146	-4.080E-01		3.087E+00	5.087E+00	5.513E-01	-0.080
ND-147	1.075E+01		3.490E+01	6.017E+01	9.089E+00	0.179
PM-149	7.732E+02		3.529E+03	5.831E+03	9.825E+02	0.133
EU-152	3.078E+00		7.527E+00	1.254E+01	1.282E+00	0.245
GD-153	-2.165E+00		6.773E+00	1.019E+01	9.231E-01	-0.212
EU-154	-1.589E+00		7.198E+00	1.110E+01	1.230E+00	-0.143
EU-155	-4.428E+00		8.778E+00	1.449E+01	1.274E+00	-0.306
TB-160	1.372E+00		9.504E+00	1.632E+01	1.525E+00	0.084
HO-166M	-2.730E+00		4.463E+00	6.481E+00	5.745E-01	-0.421
TM-171	-1.290E+02		2.637E+03	4.105E+03	3.248E+02	-0.031
HF-175	1.631E+00		2.680E+00	4.561E+00	4.463E-01	0.358
LU-176	3.149E-01		1.807E+00	2.957E+00	3.106E-01	0.106
LU-177	-1.404E+00		6.891E+01	1.133E+02	1.018E+01	-0.012
LU-177M	5.707E+00		1.271E+01	2.245E+01	1.933E+00	0.254
HF-181	-3.538E-01		2.811E+00	4.608E+00	4.070E-01	-0.077
W-181	-8.088E+00		3.512E+01	5.408E+01	4.214E+00	-0.150
TA-182	4.305E-01		8.803E+00	1.454E+01	1.193E+00	0.030
RE-183	-2.988E+00		9.467E+00	1.497E+01	1.201E+00	-0.200
RE-184	2.378E+00		1.839E+01	3.028E+01	3.077E+00	0.079
OS-185	1.117E-01		3.289E+00	5.387E+00	4.693E-01	0.021

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RE-188	8.141E-01		1.319E+01	2.221E+01	1.784E+00	0.037
W-188	7.934E+01		6.333E+02	9.241E+02	9.931E+01	0.086
IR-192	-6.631E-02		2.583E+00	4.121E+00	4.265E-01	-0.016
AU-195	5.896E+00		1.739E+01	3.051E+01	2.739E+00	0.193
TL-200	8.235E-04		5.474E-03	Half-Life too short		
TL-201	-1.225E+02		3.310E+02	5.351E+02	4.307E+01	-0.229
TL-202	1.438E+00		4.187E+00	7.327E+00	6.385E-01	0.196
HG-203	-6.774E-01		3.072E+00	4.721E+00	5.235E-01	-0.144
BI-207	-7.626E-01		3.733E+00	5.700E+00	4.995E-01	-0.134
TL-207	1.256E+01		5.549E+01	9.067E+01	1.679E+01	0.138
TL-208	-1.468E+00		3.133E+00	4.649E+00	4.401E-01	-0.316
PO-209	-6.019E+01		4.941E+02	8.114E+02	7.604E+01	-0.074
BI-210	-1.736E+02		2.876E+02	4.399E+02	4.249E+01	-0.395
PB-210	-1.736E+02		2.876E+02	4.399E+02	4.249E+01	-0.395
PO-210	-1.736E+02		2.876E+02	4.399E+02	3.877E+01	-0.395
PB-211	2.826E+01		6.866E+01	1.172E+02	7.343E+01	0.241
BI-212	-2.790E-01		1.889E+01	3.041E+01	3.124E+00	-0.009
PB-212	3.835E+00	+	6.791E+00	9.541E+00	1.026E+00	0.402
PO-212	3.835E+00	+	6.791E+00	9.541E+00	1.026E+00	0.402
PO-215	1.256E+01		5.549E+01	9.067E+01	1.679E+01	0.138
PO-216	3.835E+00	+	6.791E+00	9.541E+00	1.026E+00	0.402
RN-219	-5.452E+00		2.983E+01	4.939E+01	7.403E+00	-0.110
RN-220	2.893E+01		1.751E+03	2.898E+03	2.576E+02	0.010
RA-223	1.256E+01		5.549E+01	9.067E+01	1.679E+01	0.138
RA-224	3.002E+01		6.292E+01	9.660E+01	9.504E+00	0.311
RA-226	-2.114E+01		7.488E+01	1.215E+02	8.951E+01	-0.174
AC-227	-4.670E+00		2.995E+01	4.789E+01	7.816E+00	-0.098
PA-227	-1.000E+35		2.407E+35	Half-Life too short		
TH-227	-4.670E+00		2.995E+01	4.789E+01	9.050E+00	-0.098
AC-228	6.390E+00		9.746E+00	1.804E+01	2.130E+00	0.354
RA-228	6.390E+00		9.746E+00	1.804E+01	2.130E+00	0.354
TH-228	3.835E+00	+	6.791E+00	9.541E+00	1.026E+00	0.402
TH-229	-1.110E+01		3.503E+01	5.623E+01	4.849E+00	-0.197
TH-230	-1.180E+03		7.727E+03	1.476E+03	9.575E+03	-0.800
PA-231	-1.423E+02		1.162E+02	1.559E+02	2.580E+01	-0.912
TH-231	1.070E+01		3.661E+01	5.584E+01	1.019E+01	0.192
U-231	3.039E+01		6.862E+01	1.026E+02	9.402E+00	0.296
TH-232	-6.184E+02		6.876E+03	3.436E+03	3.617E+04	-0.180
PA-233	1.710E+00		4.715E+00	7.873E+00	8.359E-01	0.217
PA-234	2.812E-01		1.912E+01	3.200E+01	6.099E+00	0.009
PA-234M	-1.293E+02		3.211E+02	4.506E+02	4.660E+01	-0.287
TH-234	-1.347E+02		1.265E+02	1.874E+02	3.286E+01	-0.719
U-234	4.469E+03		4.499E+04	8.921E+03	8.921E+04	0.501
U-235	1.713E+01		1.876E+01	3.147E+01	5.428E+00	0.544
NP-236	1.293E+00		6.663E+00	1.130E+01	9.067E-01	0.114
NP-237	6.051E-01		1.819E+01	2.848E+01	6.492E+00	0.021
PU-237	-4.932E+01		1.565E+02	2.417E+02	1.760E+01	-0.204
U-238	-1.347E+02		1.265E+02	1.874E+02	3.286E+01	-0.719

Sample ID : G243400002 Acquisition date : 31-DEC-2009 16:18:32

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NP-239	4.602E+00		1.566E+01	2.718E+01	2.288E+00	0.169
AM-241	-3.679E+00		1.168E+01	1.803E+01	1.445E+00	-0.204
AM-243	-1.206E+00		4.991E+00	6.887E+00	5.890E-01	-0.175
CM-243	6.161E+00		7.795E+00	1.401E+01	1.226E+00	0.440
AM-246	-2.529E+00		9.274E+00	1.451E+01	1.260E+00	-0.174
CM-247	1.537E-01		2.585E+00	4.396E+00	3.763E-01	0.035
CF-249	-7.319E-01		2.926E+00	4.824E+00	4.157E-01	-0.152
CF-251	-4.944E+00		1.027E+01	1.643E+01	1.353E+00	-0.301
ANH-511	-8.220E+00		4.346E+00	7.695E+00	6.829E-01	-1.068

VAX/VMS Nuclide Identification Report Generated

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*************************************************************************
*                          GEL Laboratories LLC                         *
*                              2040 Savage Road                         *
*                            Charleston, SC 29414                       *
*************************************************************************
*                                                                       *
*                              DETECTOR DATA                            *
*                                                                       *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G243400002       *
* Acquisition date  : 31-DEC-2009 16:18:32 Detector SN#     :           *
* Detector ID       : GAM11                Sensitivity      : 5.000     *
* Geometry          : 2LMB                 Energy tolerance: 1.500      *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000     *
* Elapsed real time:    0 02:00:00.66      Half life ratio : 8.000      *
*************************************************************************
*                                                                       *
*                              SAMPLE DATA                              *
*                                                                       *
* Sample date       : 18-DEC-2009 12:00:00 Nuclide Library : LIQUI      *
* Sample ID         : G243400002           Analyst initials: KXG3       *
* Batch Number      : 936274               Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000  *
*************************************************************************
*                                                                       *
*                                QC DATA                                *
*                                                                       *
* CALIB. DATE/TIME : 18-NOV-2009 09:57:44 MS Isotope      :             *
* MSD DPM          :    0.000             MSD Isotope     :             *
* LCS DPM          :    0.000             LCS Isotope     :             *
* LCSD DPM         :    0.000             LCSD Isotope    :             *
*************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
AS-74	1.473E+01	1.186E+01	4.950E+00	6.050E+00
BI-211	5.564E+01	2.537E+01	1.187E+01	1.295E+01
BI-214	2.387E+01	1.006E+01	3.980E+00	5.132E+00
PB-214	1.936E+01	8.882E+00	3.672E+00	4.531E+00
PO-214	1.936E+01	8.882E+00	3.672E+00	4.531E+00
PO-218	1.936E+01	8.882E+00	3.672E+00	4.531E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU
BE-7	2.018E+01	2.278E+01	2.131E+01	1.162E+01 NOT IDENT.
NA-22	-5.682E-01	2.523E+00	1.987E+00	1.287E+00 NOT IDENT.
NA-24	4.602E+06	5.636E+06	0.000E+00	2.875E+06 SHORT HLIF
AL-26	1.425E+00	2.744E+00	2.582E+00	1.400E+00 NOT IDENT.
K-40	-3.201E+01	3.433E+01	2.636E+01	1.751E+01 NOT IDENT.
TI-44	3.542E+00	3.745E+00	2.090E+00	1.911E+00 FAIL ABUN
SC-46	-4.453E-01	2.706E+00	2.259E+00	1.380E+00 NOT IDENT.
V-48	6.460E-01	3.000E+00	2.679E+00	1.531E+00 NOT IDENT.
CR-51	-7.258E+00	2.919E+01	2.319E+01	1.489E+01 NOT IDENT.
MN-52	4.335E+00	1.231E+01	1.100E+01	6.278E+00 NOT IDENT.
MN-54	-1.597E+00	2.491E+00	1.935E+00	1.271E+00 NOT IDENT.
CO-56	8.710E-01	2.194E+00	2.015E+00	1.119E+00 NOT IDENT.
CO-57	7.086E-01	1.993E+00	1.770E+00	1.017E+00 NOT IDENT.
CO-58	1.300E+00	2.551E+00	2.270E+00	1.301E+00 NOT IDENT.
FE-59	1.554E-02	4.411E+00	3.714E+00	2.251E+00 NOT IDENT.
CO-60	-3.088E-01	2.150E+00	1.882E+00	1.097E+00 NOT IDENT.
ZN-65	2.055E+00	5.506E+00	4.424E+00	2.809E+00 NOT IDENT.
GE-68	2.948E+01	8.048E+01	7.208E+01	4.106E+01 NOT IDENT.
AS-73	2.927E+01	6.714E+01	5.674E+01	3.425E+01 NOT IDENT.
SE-75	-3.483E+00	3.497E+00	2.591E+00	1.784E+00 NOT IDENT.
BR-77	-1.871E+02	4.367E+02	3.489E+02	2.228E+02 FAIL ABUN

SR-82	2.798E-01	1.898E+01	1.560E+01	9.682E+00	NOT IDENT.
RB-83	5.965E-01	4.761E+00	4.097E+00	2.429E+00	NOT IDENT.
RB-84	2.178E+00	4.471E+00	4.116E+00	2.281E+00	NOT IDENT.
KR-85	-2.010E+03	7.599E+02	4.703E+02	3.877E+02	NOT IDENT.
SR-85	-1.010E+01	3.818E+00	2.363E+00	1.948E+00	NOT IDENT.
RB-86	1.459E+01	4.553E+01	4.059E+01	2.323E+01	NOT IDENT.
Y-88	-7.431E-01	2.630E+00	2.025E+00	1.342E+00	NOT IDENT.
ZR-88	-2.176E+00	2.116E+00	1.607E+00	1.080E+00	NOT IDENT.
Y-91	-4.255E+02	1.085E+03	8.362E+02	5.536E+02	NOT IDENT.
NB-94	-1.200E+00	2.579E+00	1.988E+00	1.316E+00	NOT IDENT.
NB-95	3.212E-01	2.836E+00	2.373E+00	1.447E+00	NOT IDENT.
NB-95M	-3.894E-01	8.835E+00	6.545E+00	4.508E+00	NOT IDENT.
ZR-95	2.083E-01	4.292E+00	3.556E+00	2.190E+00	NOT IDENT.
NB-97	-1.508E+05	9.233E+05	0.000E+00	4.711E+05	SHORT HLIF
ZR-97	-5.541E+07	2.878E+07	0.000E+00	1.468E+07	SHORT HLIF
MO-99	1.685E+02	4.652E+02	4.060E+02	2.374E+02	NOT IDENT.
TC-99M	-4.659E+15	1.696E+16	0.000E+00	8.652E+15	SHORT HLIF
RH-101	7.019E-01	2.863E+00	2.264E+00	1.461E+00	NOT IDENT.
RH-102	4.337E-01	2.212E+00	1.927E+00	1.129E+00	NOT IDENT.
RU-103	-1.743E+00	2.841E+00	2.213E+00	1.450E+00	NOT IDENT.
RH-106	-1.308E+00	2.286E+01	1.892E+01	1.166E+01	NOT IDENT.
RU-106	-1.308E+00	2.286E+01	1.892E+01	1.166E+01	NOT IDENT.
AG-108M	7.541E-01	2.223E+00	1.983E+00	1.134E+00	NOT IDENT.
CD-109	5.189E+01	6.138E+01	5.211E+01	3.132E+01	NOT IDENT.
AG-110M	6.175E-01	2.126E+00	1.852E+00	1.085E+00	NOT IDENT.
IN-111	-1.788E+01	5.108E+01	4.109E+01	2.606E+01	NOT IDENT.
IN-113M	-3.251E-01	2.971E+00	2.537E+00	1.516E+00	NOT IDENT.
SN-113	-3.251E-01	2.971E+00	2.537E+00	1.516E+00	NOT IDENT.
IN-114M	-5.279E+00	1.354E+01	1.109E+01	6.910E+00	NOT IDENT.
CD-115	-1.692E+02	4.129E+02	3.291E+02	2.107E+02	NOT IDENT.
SN-117M	4.698E-01	3.936E+00	3.393E+00	2.008E+00	NOT IDENT.
SB-122	-2.066E+01	7.978E+01	6.445E+01	4.070E+01	NOT IDENT.
I-123	1.999E+06	4.049E+07	0.000E+00	2.066E+07	SHORT HLIF
TE-123M	1.137E-01	2.303E+00	1.975E+00	1.175E+00	NOT IDENT.
I-124	-2.553E+01	4.622E+01	2.395E+01	2.358E+01	NOT IDENT.
SB-124	1.851E+00	5.796E+00	5.291E+00	2.957E+00	NOT IDENT.
SB-125	-2.604E+00	6.765E+00	5.558E+00	3.451E+00	NOT IDENT.
TE-125M	6.854E+01	7.139E+02	6.265E+02	3.643E+02	NOT IDENT.
I-126	-9.823E+00	9.929E+00	6.663E+00	5.066E+00	NOT IDENT.
SB-126	3.094E-01	8.385E+00	6.957E+00	4.278E+00	NOT IDENT.
SN-126	4.455E+00	6.025E+00	5.082E+00	3.074E+00	NOT IDENT.
SB-127	1.486E+01	5.859E+01	5.066E+01	2.989E+01	NOT IDENT.
XE-127	-2.788E+00	3.419E+00	2.675E+00	1.745E+00	NOT IDENT.
I-131	-2.255E+00	7.296E+00	5.654E+00	3.722E+00	NOT IDENT.
TE-132	2.736E+01	3.513E+01	3.108E+01	1.792E+01	NOT IDENT.
BA-133	-6.584E-01	3.285E+00	2.274E+00	1.676E+00	NOT IDENT.
I-133	2.339E+04	8.373E+04	0.000E+00	4.272E+04	SHORT HLIF
CS-134	-4.973E-01	3.039E+00	2.411E+00	1.550E+00	NOT IDENT.
CS-135	5.498E+00	1.287E+01	1.103E+01	6.566E+00	NOT IDENT.
I-135	-1.887E+14	2.387E+15	0.000E+00	1.218E+15	SHORT HLIF
CS-136	-1.251E-01	6.259E+00	5.268E+00	3.193E+00	NOT IDENT.
BA-137M	6.095E-01	2.161E+00	1.879E+00	1.102E+00	NOT IDENT.
CS-137	6.443E-01	2.284E+00	1.987E+00	1.165E+00	NOT IDENT.
CE-139	-8.508E-01	2.226E+00	1.841E+00	1.136E+00	NOT IDENT.
BA-140	1.993E+00	1.752E+01	1.499E+01	8.936E+00	NOT IDENT.
LA-140	1.745E+00	5.939E+00	5.358E+00	3.030E+00	NOT IDENT.
CE-141	-3.630E+00	4.973E+00	4.052E+00	2.537E+00	NOT IDENT.
CE-143	1.939E+03	4.524E+03	0.000E+00	2.308E+03	SHORT HLIF
CE-144	2.308E+00	1.619E+01	1.410E+01	8.259E+00	NOT IDENT.
PM-144	5.929E-01	2.813E+00	2.389E+00	1.435E+00	NOT IDENT.
PR-144	4.013E+01	1.905E+02	1.617E+02	9.717E+01	NOT IDENT.
PM-146	-4.080E-01	3.025E+00	2.545E+00	1.544E+00	NOT IDENT.
ND-147	1.075E+01	3.420E+01	3.010E+01	1.745E+01	FAIL ABUN
PM-149	7.732E+02	3.459E+03	2.917E+03	1.765E+03	NOT IDENT.
EU-152	3.078E+00	7.376E+00	6.273E+00	3.763E+00	NOT IDENT.
GD-153	-2.165E+00	6.638E+00	5.097E+00	3.387E+00	NOT IDENT.
EU-154	-1.589E+00	7.055E+00	5.555E+00	3.599E+00	NOT IDENT.
EU-155	-4.428E+00	8.603E+00	7.250E+00	4.389E+00	NOT IDENT.
TB-160	1.372E+00	9.314E+00	8.166E+00	4.752E+00	NOT IDENT.
HO-166M	-2.730E+00	4.374E+00	3.242E+00	2.231E+00	NOT IDENT.
TM-171	-1.290E+02	2.584E+03	2.054E+03	1.318E+03	NOT IDENT.
HF-175	1.631E+00	2.626E+00	2.282E+00	1.340E+00	NOT IDENT.
LU-176	3.149E-01	1.771E+00	1.480E+00	9.034E-01	NOT IDENT.
LU-177	-1.404E+00	6.754E+01	5.669E+01	3.446E+01	NOT IDENT.
LU-177M	5.707E+00	1.245E+01	1.123E+01	6.354E+00	NOT IDENT.
HF-181	-3.538E-01	2.755E+00	2.306E+00	1.405E+00	NOT IDENT.
W-181	-8.088E+00	3.442E+01	2.706E+01	1.756E+01	NOT IDENT.
TA-182	4.305E-01	8.627E+00	7.276E+00	4.401E+00	NOT IDENT.

RE-183	-2.988E+00	9.278E+00	7.488E+00	4.733E+00	NOT IDENT.
RE-184	2.378E+00	1.802E+01	1.515E+01	9.196E+00	NOT IDENT.
OS-185	1.117E-01	3.223E+00	2.695E+00	1.644E+00	NOT IDENT.
RE-188	8.141E-01	1.292E+01	1.111E+01	6.594E+00	NOT IDENT.
W-188	7.934E+01	6.206E+02	4.623E+02	3.166E+02	NOT IDENT.
IR-192	-6.631E-02	2.531E+00	2.062E+00	1.291E+00	FAIL ABUN
AU-195	5.896E+00	1.704E+01	1.526E+01	8.693E+00	NOT IDENT.
TL-200	8.235E+02	1.073E+04	0.000E+00	5.474E+03	SHORT HLIF
TL-201	-1.225E+02	3.243E+02	2.677E+02	1.655E+02	NOT IDENT.
TL-202	1.438E+00	4.103E+00	3.666E+00	2.093E+00	NOT IDENT.
HG-203	-6.774E-01	3.011E+00	2.362E+00	1.536E+00	NOT IDENT.
BI-207	-7.626E-01	3.659E+00	2.852E+00	1.867E+00	NOT IDENT.
TL-207	1.256E+01	5.438E+01	4.536E+01	2.774E+01	NOT IDENT.
TL-208	-1.468E+00	3.071E+00	2.326E+00	1.567E+00	NOT IDENT.
PO-209	-6.019E+01	4.842E+02	4.059E+02	2.470E+02	NOT IDENT.
BI-210	-1.736E+02	2.819E+02	2.201E+02	1.438E+02	NOT IDENT.
PB-210	-1.736E+02	2.819E+02	2.201E+02	1.438E+02	NOT IDENT.
PO-210	-1.736E+02	2.818E+02	2.201E+02	1.438E+02	NOT IDENT.
PB-211	2.826E+01	6.729E+01	5.863E+01	3.433E+01	NOT IDENT.
BI-212	-2.790E-01	1.851E+01	1.522E+01	9.446E+00	NOT IDENT.
PB-212	3.835E+00	6.655E+00	4.773E+00	3.395E+00	FAIL ABUN
PO-212	3.835E+00	6.655E+00	4.773E+00	3.395E+00	FAIL ABUN
PO-215	1.256E+01	5.438E+01	4.536E+01	2.774E+01	NOT IDENT.
PO-216	3.835E+00	6.655E+00	4.773E+00	3.395E+00	FAIL ABUN
RN-219	-5.452E+00	2.923E+01	2.471E+01	1.491E+01	NOT IDENT.
RN-220	2.893E+01	1.716E+03	1.450E+03	8.753E+02	NOT IDENT.
RA-223	1.256E+01	5.438E+01	4.536E+01	2.774E+01	NOT IDENT.
RA-224	3.002E+01	6.166E+01	4.833E+01	3.146E+01	NOT IDENT.
RA-226	-2.114E+01	7.338E+01	6.080E+01	3.744E+01	NOT IDENT.
AC-227	-4.670E+00	2.935E+01	2.396E+01	1.497E+01	NOT IDENT.
PA-227	-1.000E+41	4.717E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-4.670E+00	2.935E+01	2.396E+01	1.498E+01	FAIL ABUN
AC-228	6.390E+00	9.551E+00	9.026E+00	4.873E+00	NOT IDENT.
RA-228	6.390E+00	9.551E+00	9.026E+00	4.873E+00	NOT IDENT.
TH-228	3.835E+00	6.655E+00	4.773E+00	3.395E+00	FAIL ABUN
TH-229	-1.110E+01	3.433E+01	2.813E+01	1.752E+01	NOT IDENT.
TH-230	-1.180E+03	7.573E+03	7.385E+02	3.864E+03	NOT IDENT.
PA-231	-1.423E+02	1.138E+02	7.802E+01	5.808E+01	NOT IDENT.
TH-231	1.070E+01	3.588E+01	2.794E+01	1.831E+01	NOT IDENT.
U-231	3.039E+01	6.725E+01	5.135E+01	3.431E+01	FAIL ABUN
TH-232	-6.184E+02	6.739E+03	1.719E+03	3.438E+03	NOT IDENT.
PA-233	1.710E+00	4.621E+00	3.939E+00	2.358E+00	NOT IDENT.
PA-234	2.812E-01	1.874E+01	1.601E+01	9.559E+00	FAIL ABUN
PA-234M	-1.293E+02	3.147E+02	2.254E+02	1.605E+02	NOT IDENT.
TH-234	-1.347E+02	1.239E+02	9.375E+01	6.324E+01	FAIL ABUN
U-234	4.469E+03	4.409E+04	4.463E+03	2.250E+04	NOT IDENT.
U-235	1.713E+01	1.839E+01	1.574E+01	9.381E+00	FAIL ABUN
NP-236	1.293E+00	6.529E+00	5.654E+00	3.331E+00	NOT IDENT.
NP-237	6.051E-01	1.783E+01	1.425E+01	9.097E+00	NOT IDENT.
PU-237	-4.932E+01	1.534E+02	1.209E+02	7.825E+01	NOT IDENT.
U-238	-1.347E+02	1.239E+02	9.375E+01	6.324E+01	FAIL ABUN
NP-239	4.602E+00	1.535E+01	1.360E+01	7.830E+00	NOT IDENT.
AM-241	-3.679E+00	1.144E+01	9.021E+00	5.838E+00	NOT IDENT.
AM-243	-1.206E+00	4.891E+00	3.446E+00	2.495E+00	NOT IDENT.
CM-243	6.161E+00	7.639E+00	7.011E+00	3.898E+00	NOT IDENT.
AM-246	-2.529E+00	9.088E+00	7.260E+00	4.637E+00	NOT IDENT.
CM-247	1.537E-01	2.533E+00	2.200E+00	1.292E+00	NOT IDENT.
CF-249	-7.319E-01	2.867E+00	2.413E+00	1.463E+00	NOT IDENT.
CF-251	-4.944E+00	1.006E+01	8.219E+00	5.133E+00	NOT IDENT.
ANH-511	-8.220E+00	4.259E+00	3.850E+00	2.173E+00	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	57.6366
46.50	57.6366
46.50	57.6366
48.70	77.8082
49.72	54.9862
51.35	72.9808
52.39	69.9034
52.97	66.7012
53.15	66.7403
53.20	66.7511
53.44	75.7101
54.07	71.4016
56.28	61.7917
56.28	61.7923
57.37	0.0000
57.53	75.5669
57.53	75.5675
57.60	75.5833
57.98	85.8366
57.98	85.8366
59.00	72.5083
59.32	74.8467
59.32	74.8467
59.40	74.8648
59.54	76.0311
59.54	76.0311
59.72	57.9057
60.01	56.8198
61.10	92.3474
61.14	92.3582
61.30	112.9355
63.00	105.4734
63.29	110.1515
63.29	110.1515
63.58	91.8698
64.28	104.7121
64.62	0.0000
65.12	129.1847
65.20	119.9844
65.20	119.9844
66.05	102.9253
66.72	107.7519
66.83	107.7860
66.91	107.8094
67.20	117.1781
67.20	117.1781
67.67	115.0073
67.75	115.0322
67.85	115.0639
68.90	100.2426
68.90	100.2426
69.30	82.8483
69.67	78.2600
70.82	89.0468
70.82	89.0468
70.83	89.0492
72.80	107.1829
72.80	107.1829
72.87	107.2023
72.87	107.2023
74.67	93.1076
74.81	93.1412
74.81	93.1412
74.81	93.1412
74.81	93.1412
74.81	93.1412
74.81	93.1412

74.81	93.1412
74.97	93.1796
74.97	93.1796
75.28	97.9957
75.70	94.9365
77.11	100.0403
77.11	100.0403
77.11	100.0403
77.11	100.0403
77.11	100.0403
77.11	100.0403
77.11	100.0403
78.38	82.8364
79.62	62.3185
79.80	62.3463
79.80	62.3463
80.11	71.9930
80.18	72.0053
80.30	72.0264
80.30	72.0264
80.57	65.6674
81.00	76.9600
81.07	76.9731
81.07	76.9731
81.07	76.9731
82.60	88.1227
83.37	77.4004
83.78	61.7391
83.78	61.7391
83.78	61.7391
84.21	64.2258
84.21	64.2258
84.90	93.4619
85.43	99.6547
86.29	86.4603
86.50	86.5025
86.54	85.2922
86.59	86.5210
86.72	86.5470
86.79	86.5605
86.94	86.5908
87.30	79.3398
87.30	79.3398
87.30	79.3398
87.30	79.3398
87.30	79.3398
87.30	79.3398
87.30	79.3398
87.57	78.1675
87.88	78.2236
88.03	78.2505
88.36	79.9415
88.47	79.9615
89.36	122.6387
89.95	99.8802
91.11	93.5748
92.29	97.5253
92.38	97.5446
92.38	97.5446
93.35	97.7543
94.00	94.1766
94.67	84.3863
94.67	84.3873
94.90	84.4293
94.90	84.4293
94.90	84.4293
95.87	72.9950
95.87	72.9950
96.73	91.4138
97.43	87.3889
98.44	87.5769
98.44	87.5774
98.88	76.8061
99.55	68.5544
99.55	68.5544
99.86	68.5994
100.00	68.6194
100.10	82.0266

103.18	77.4977
103.76	73.3735
105.00	87.9325
105.31	93.9103
108.00	87.6135
109.28	83.5718
110.05	0.0000
111.00	84.7100
111.00	84.7100
111.76	82.2646
112.95	97.9142
115.19	100.9218
115.19	100.9218
115.19	100.9218
116.30	82.9819
117.00	81.3602
117.00	81.3602
117.66	92.7270
121.11	81.1106
121.62	79.4403
121.78	79.4635
122.06	76.0095
122.32	79.5417
122.32	79.5417
122.32	79.5417
123.07	92.7791
127.23	77.5993
129.76	79.7161
131.20	83.4673
133.02	77.4941
133.54	82.9123
135.34	85.8486
136.00	94.8969
136.25	94.0411
136.48	108.4131
140.51	104.6318
140.51	0.0000
142.18	119.3887
142.65	98.6626
143.76	67.1024
144.24	72.5993
144.24	72.5993
144.24	72.5993
145.22	99.0729
145.44	104.5627
147.16	91.1743
152.43	79.0608
152.70	77.2546
153.22	80.9988
154.21	88.4961
154.21	88.4961
154.21	88.4961
155.03	79.3779
156.02	80.4226
158.56	80.7324
159.00	0.0000
159.00	87.2854
160.31	85.5958
161.27	85.7184
162.32	84.9191
162.64	77.4900
163.35	73.8327
163.89	80.4387
165.85	78.7936
167.43	71.4526
171.28	77.5206
171.86	91.7762
172.10	91.8078
176.55	85.7153
176.60	85.7217
181.06	74.7492
184.41	77.0142
185.71	85.8285
186.00	80.0727
186.21	79.1305
190.27	79.5568
192.34	59.3432
193.63	60.4170

197.04	59.7043
198.01	66.6380
198.60	68.6492
200.40	71.7554
201.83	68.9305
202.84	80.8497
205.31	64.2859
208.36	76.4407
208.81	85.4226
209.75	67.6209
209.75	67.6209
210.97	69.7137
215.65	47.0722
216.55	59.1542
218.09	62.2762
222.10	71.6536
223.80	66.7399
226.40	75.0546
227.00	75.1066
227.08	75.1133
227.20	69.0328
228.16	55.8969
228.18	56.9143
228.18	56.9143
231.56	0.0000
235.69	53.8122
236.00	52.2928
236.00	52.2928
238.63	74.0413
238.63	74.0413
238.63	74.0413
238.63	74.0413
239.00	103.3912
240.98	64.9540
241.98	49.5435
241.98	49.5435
241.98	49.5435
244.69	78.6757
245.39	65.2674
247.94	47.7870
248.90	60.3152
249.79	51.0043
252.40	59.4968
252.85	56.3923
252.85	56.3923
254.15	0.0000
256.20	57.6397
256.20	57.6397
260.50	62.1089
260.90	58.9748
262.80	48.5390
264.65	68.7173
268.24	60.4802
268.79	60.5138
269.46	58.4308
269.46	58.4308
269.46	58.4308
271.23	59.5991
273.65	57.6090
276.40	41.7208
277.35	59.9626
277.60	64.2615
277.60	64.2615
278.00	55.7155
278.60	51.4600
279.20	47.1994
279.53	59.0183
280.46	37.5912
281.68	44.0880
283.67	57.1018
284.30	45.2778
285.00	36.6784
285.90	38.8696
286.10	44.2765
286.10	44.2765
287.40	51.9014
288.45	0.0000
290.67	50.4365

290.80	45.5615
291.72	53.7438
293.26	0.0000
293.70	48.9496
295.21	55.5551
295.21	55.5551
295.21	55.5551
295.96	55.5945
296.50	50.7146
297.23	40.9271
298.57	39.3391
299.80	44.8538
299.80	44.8538
300.09	44.8663
300.09	44.8663
300.09	44.8663
300.09	44.8663
300.12	44.8671
301.29	47.1065
302.84	37.3003
303.76	43.9201
303.91	43.9258
304.40	47.2421
304.40	47.2421
304.84	40.6667
306.84	38.5383
308.46	40.8007
311.98	36.5060
316.51	42.2080
318.01	45.6003
319.02	56.7732
319.41	52.3386
320.08	53.4834
323.87	50.3082
323.87	50.3082
323.87	50.3082
325.23	58.2027
328.77	41.5407
329.70	44.9455
329.70	44.9455
330.00	47.2047
333.44	42.8350
334.20	39.4790
334.20	39.4790
334.30	39.4825
338.28	33.9563
338.28	33.9563
338.28	33.9563
338.32	33.9575
338.32	33.9575
340.50	43.0917
340.57	43.0948
343.40	35.2395
344.27	37.5406
345.85	46.7022
350.59	0.0000
351.07	37.7521
351.92	29.7647
351.92	29.7647
351.92	29.7647
355.39	0.0000
356.01	32.7357
364.48	38.1630
366.43	34.7473
367.43	34.7748
367.94	0.0000
369.80	38.3241
374.96	45.4754
383.85	35.2222
387.95	39.7485
388.63	36.2341
391.69	33.6605
391.69	33.6605
392.90	43.4432
398.62	41.8486
400.65	34.7772
401.10	33.8971
401.81	37.4851

402.60	33.0418
404.84	31.3070
410.95	32.3448
411.60	33.2591
413.65	31.5078
414.70	33.3336
415.30	34.2491
415.76	37.8670
417.63	0.0000
418.52	35.2319
423.70	34.4549
427.08	30.9012
427.89	38.1939
432.53	37.4052
433.00	30.1167
433.93	26.4830
439.47	24.7514
439.56	24.7526
439.89	22.0074
443.98	28.5058
444.90	32.2042
445.03	32.2069
445.03	32.2069
445.03	32.2069
453.90	30.5488
463.38	33.5358
468.07	29.9014
473.00	44.9956
475.06	31.9144
475.35	29.1037
476.78	20.6733
477.59	23.5046
477.96	24.4508
482.03	26.4000
484.57	23.6095
487.03	21.7545
490.36	0.0000
492.35	21.8275
497.08	33.3140
507.63	0.0000
510.53	0.0000
510.84	38.3963
511.00	44.1600
511.85	51.8671
511.85	51.8671
513.99	101.9443
513.99	101.9443
520.41	25.1018
520.65	31.8650
527.90	28.1238
528.96	0.0000
529.64	20.3860
529.87	0.0000
531.02	22.3458
537.32	28.2796
543.00	26.4166
546.56	0.0000
549.76	21.6086
552.65	19.6765
555.20	18.7199
563.23	18.8046
563.90	22.7719
568.70	21.8409
569.32	20.8552
569.50	19.8639
569.67	19.8657
573.80	31.8584
574.00	28.8743
574.64	27.8889
578.91	28.9531
579.30	0.0000
583.14	28.0197
585.48	35.0684
591.81	30.5642
592.07	28.9600
593.00	14.4870
595.88	24.1824
600.56	30.7080

602.52	0.0000
602.71	29.6646
602.71	29.6646
603.60	24.2820
604.41	17.8148
604.70	12.9582
609.31	25.3708
610.33	25.9930
612.46	24.3962
614.37	30.9325
618.01	24.4666
621.84	24.5156
621.84	24.5156
631.29	12.3175
633.02	21.5749
633.10	21.5755
634.78	19.5375
635.90	26.7506
636.97	28.8237
645.85	26.8855
646.12	25.8545
656.30	15.5919
657.75	15.6029
657.90	0.0000
661.65	15.6331
661.65	15.6331
664.57	0.0000
666.33	22.9809
666.33	22.9809
675.00	16.7842
677.61	17.8555
685.20	14.7584
692.80	22.2177
695.00	33.8906
696.49	29.6748
696.49	29.6748
697.00	26.5022
697.49	25.4480
698.33	26.5190
698.50	26.5205
699.00	22.2824
702.63	30.8240
706.10	28.7444
706.58	0.0000
706.67	23.4274
709.31	19.1915
711.68	26.6846
713.82	18.1631
717.42	23.5449
720.50	18.2192
721.93	0.0000
722.20	17.1611
722.78	15.0198
722.78	15.0198
722.89	15.0207
722.95	15.0211
723.30	15.0233
724.18	19.3233
727.18	18.2747
733.00	18.3229
735.90	10.7925
739.58	15.1343
742.81	17.3218
744.21	7.5830
747.13	11.9315
751.79	11.9561
752.31	15.2206
753.82	17.4063
755.35	10.8862
756.15	15.2463
756.87	19.6084
763.13	18.5699
763.93	20.7621
765.79	16.4044
766.42	13.1272
766.84	16.4117
776.49	10.9869
778.00	9.8948

778.57	7.6979
778.89	12.0984
783.80	7.7152
785.46	13.2352
792.07	17.6968
795.84	18.8329
796.30	17.7285
798.80	22.1838
801.93	16.6599
805.60	16.6855
810.29	15.6035
810.76	13.3770
815.85	17.8735
817.79	8.9438
818.51	8.9465
819.60	16.7825
826.30	15.7068
828.27	0.0000
831.60	23.6109
831.96	23.6147
834.83	24.3178
836.80	0.0000
846.75	10.8598
848.13	9.9604
856.28	0.0000
856.80	21.8068
860.37	12.7388
867.32	14.5984
867.82	16.4263
871.10	23.7574
873.19	20.1190
874.81	16.4711
875.33	0.0000
876.40	17.3973
879.36	16.5006
880.27	16.5063
880.51	16.5078
881.50	13.7618
883.24	16.5252
884.67	15.6158
889.25	19.3240
896.60	16.6104
898.02	16.6192
899.00	19.3963
903.28	12.0269
911.07	8.3509
911.07	8.3509
919.63	11.1703
920.93	16.7634
925.00	17.7216
925.24	15.8578
926.50	13.9988
935.52	12.1726
937.48	16.8666
944.10	10.3324
946.00	14.0995
949.00	11.2919
962.29	15.1285
964.01	24.5991
966.15	13.2556
968.20	11.3704
969.11	14.2178
969.11	14.2178
977.42	12.3586
980.50	18.0820
983.50	6.6690
989.30	11.4557
996.32	16.2691
1001.03	13.4200
1001.68	14.3818
1004.76	15.3570
1021.30	0.0000
1024.50	0.0000
1034.80	12.6064
1036.00	13.5816
1037.82	15.5313
1038.57	13.5933
1038.76	0.0000

1045.16	13.6240
1046.59	12.6566
1048.07	14.6111
1050.47	11.6982
1050.47	11.6982
1062.04	14.6792
1063.62	13.7074
1076.63	11.7996
1077.35	12.7861
1078.86	15.7445
1085.78	11.8348
1093.90	10.8770
1099.22	8.9147
1112.02	19.8916
1112.84	19.8975
1115.52	9.9570
1120.29	6.6481
1120.51	6.6484
1121.28	9.9751
1124.00	0.0000
1129.67	7.0010
1131.51	0.0000
1147.95	0.0000
1167.94	17.2050
1173.22	12.1641
1175.09	17.2424
1177.93	16.2422
1189.05	7.1299
1204.90	16.3742
1205.75	0.0000
1213.00	13.3358
1221.42	8.2270
1230.97	10.3125
1235.34	11.3583
1236.41	0.0000
1238.25	9.3010
1246.25	14.5018
1260.41	0.0000
1271.85	10.4346
1274.45	11.4866
1274.54	11.4866
1291.56	9.4434
1298.22	0.0000
1312.09	11.6080
1325.50	7.4143
1325.50	7.4143
1332.49	4.2447
1333.61	2.1230
1360.21	5.3457
1362.66	0.0000
1365.15	17.1289
1368.21	4.2857
1368.53	0.0000
1376.25	8.5898
1384.27	10.7598
1394.10	9.7088
1395.20	6.4746
1407.95	4.3307
1434.06	6.5399
1436.60	6.5440
1457.56	0.0000
1460.81	15.3638
1489.15	8.2888
1509.49	8.3306
1596.49	8.5052
1620.62	3.8013
1678.03	0.0000
1691.02	5.7930
1691.02	5.7930
1706.46	0.0000
1750.46	0.0000
1764.49	9.8104
1770.23	11.7871
1771.40	6.8775
1791.20	0.0000
1808.65	5.9414
1836.01	6.9709

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G243400002

Total Uranium Activity	-3.9266E+02	ug/g
Total Uranium Counting Unc.	3.6884E+02	ug/g
Total Uranium Tpu	1.8818E-04	ug/g
Total Uranium Mda	2.7900E+02	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 936274                    SAMPLE ID  : G243400002       *
*   ANALYST       : KXG3                      DETECTOR   : GAM11            *
*   SAMPLE DATE   : 18-DEC-2009 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 31-DEC-2009 16:18:32.89    SAMPLE ALQT:    2.000 LITER   *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 4.201E+01
        GROSS GAMMA ERROR   (pCi/LITER )  : 2.405E+01
        GROSS GAMMA MDA     (pCi/LITER )  : 5.524E+01
        GROSS GAMMA DLC     (pCi/LITER )  : 2.578E+01
```

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 18:20:04.52

```
*************************************************************************
*                          GEL Laboratories LLC                         *
*                            2040 Savage Road                           *
*                          Charleston, SC 29414                         *
*************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243400003.CNF;1
Sample date       : 18-DEC-2009 12:00:00 Acquisition date : 31-DEC-2009 16:18:56
Sample ID         : G243400003           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM14                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.57  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 936274               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	240.48	49	175	4.33	480.39	470	18	6.80E-03	65.6	
2	0	294.35*	58	72	3.79	588.04	582	15	8.03E-03	35.9	
3	0	352.95	26	61	0.72	705.17	696	11	3.54E-03	63.2	
4	0	557.10*	37	21	1.07	1113.26	1107	12	5.15E-03	31.5	
5	0	1926.29	11	2	1.36	3852.82	3849	8	1.51E-03	37.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 31-DEC-2009 18:20:07

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243400003.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 18-DEC-2009 12:00:00 Acquisition date : 31-DEC-2009 16:18:56
Sample ID : G243400003 Sample quantity : 2.0000 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA14 Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.57 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RA-224	+	240.98	*	1.050E+02	1.380E+02	9.831E+01	5.588E+00	1.068

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	-5.951E-01	2.264E+01	3.716E+01	2.583E+00	-0.016
NA-22		1274.54	*	2.966E+00	2.975E+00	5.744E+00	3.804E-01	0.516
NA-24		1368.53	*	3.828E-01	2.975E+00	Half-Life too short		
AL-26		1129.67		1.088E+02	1.099E+02	2.120E+02	1.275E+01	0.513
		1808.65	*	-9.413E-01	2.323E+00	3.380E+00	1.982E-01	-0.278
K-40		1460.81	*	4.123E+00	3.265E+01	5.833E+01	4.281E+00	0.071
TI-44		67.85		1.160E+00	4.391E+00	7.114E+00	5.891E-01	0.163
		78.38	*	-4.874E-01	3.221E+00	5.188E+00	4.470E-01	-0.094
SC-46		889.25	*	4.107E-01	2.922E+00	4.992E+00	3.811E-01	0.082
		1120.51		-1.663E+00	3.741E+00	5.636E+00	3.440E-01	-0.295
V-48		944.10		-1.264E+01	6.151E+01	9.921E+01	7.441E+00	-0.127
		983.50	*	9.910E-02	4.637E+00	7.745E+00	5.615E-01	0.013
		1312.09		-1.975E+00	5.728E+00	8.747E+00	6.139E-01	-0.226
CR-51		320.08	*	-7.489E+00	3.100E+01	5.080E+01	3.386E+00	-0.147
MN-52		744.21		3.102E+00	1.390E+01	2.323E+01	1.355E+00	0.134
		848.13		-2.936E+02	4.311E+02	6.515E+02	4.626E+01	-0.451
		935.52		-1.033E+01	1.550E+01	2.316E+01	1.749E+00	-0.446
		1246.25		1.381E+02	4.242E+02	7.325E+02	4.620E+01	0.188
		1333.61		-1.289E+02	3.098E+02	4.630E+02	3.354E+01	-0.278
		1434.06	*	6.954E+00	1.406E+01	2.544E+01	1.805E+00	0.273
MN-54		834.83	*	-1.296E-01	2.394E+00	3.982E+00	2.761E-01	-0.033
CO-56		846.75	*	2.276E+00	3.044E+00	5.606E+00	3.971E-01	0.406
		977.42		1.216E+02	2.308E+02	4.133E+02	3.013E+01	0.294
		1037.82		-8.350E+00	2.306E+01	3.594E+01	2.665E+00	-0.232
		1175.09		7.151E+01	1.270E+02	2.321E+02	1.293E+01	0.308
		1238.25		3.238E+00	5.696E+00	1.019E+01	6.690E-01	0.318
		1360.21		5.006E+01	7.189E+01	1.344E+02	9.695E+00	0.372
		1771.40		-2.141E+01	2.370E+01	3.134E+01	1.890E+00	-0.683

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-57		122.06	*	-3.353E-02	2.462E+00	4.017E+00	2.427E-01	-0.008
		136.48		-1.228E+01	2.098E+01	3.279E+01	2.177E+00	-0.374
CO-58		810.76	*	-9.212E-01	2.934E+00	4.452E+00	2.965E-01	-0.207
FE-59		142.65		-6.084E+01	2.703E+02	4.331E+02	2.424E+01	-0.140
		192.34		6.412E+01	8.249E+01	1.401E+02	1.628E+01	0.458
		1099.22	*	-4.408E+00	6.287E+00	9.054E+00	6.551E-01	-0.487
		1291.56		1.756E+00	8.450E+00	1.440E+01	1.184E+00	0.122
CO-60		1173.22		1.099E+00	2.509E+00	4.502E+00	2.500E-01	0.244
		1332.49	*	2.339E-01	2.873E+00	4.780E+00	3.463E-01	0.049
ZN-65		1115.52	*	2.426E+00	6.093E+00	1.072E+01	6.612E-01	0.226
GE-68		1077.35	*	2.759E+01	9.648E+01	1.668E+02	1.086E+01	0.165
AS-73		53.44	*	-1.597E+01	6.596E+01	1.078E+02	8.720E+00	-0.148
AS-74		595.88	*	6.566E+00	8.371E+00	1.474E+01	8.042E-01	0.445
		634.78		-1.547E+01	2.482E+01	3.639E+01	1.876E+00	-0.425
SE-75		66.05		4.285E+02	4.655E+02	7.804E+02	7.920E+01	0.549
		96.73		-9.814E+01	7.752E+01	1.153E+02	1.530E+01	-0.851
		121.11		-1.756E+00	1.330E+01	2.152E+01	2.026E+00	-0.082
		136.00		-4.193E+00	3.933E+00	5.930E+00	3.441E-01	-0.707
		198.60		-2.603E+01	1.846E+02	2.847E+02	1.945E+01	-0.091
		264.65	*	-8.374E-01	3.770E+00	6.242E+00	3.663E-01	-0.134
		279.53		2.074E+00	9.595E+00	1.639E+01	1.040E+00	0.127
		303.91		3.532E+00	1.774E+02	2.979E+02	2.874E+01	0.012
		400.65		7.338E+00	2.131E+01	3.653E+01	3.403E+00	0.201
BR-77		87.88		-2.407E+03	8.642E+03	1.398E+04	1.290E+03	-0.172
		200.40		-7.873E+02	8.885E+03	1.420E+04	7.735E+02	-0.055
	+	239.00		8.375E+02	1.101E+03	9.160E+02	5.196E+01	0.914
		249.79		-2.660E+03	3.469E+03	5.147E+03	2.950E+02	-0.517
		281.68		-1.886E+03	4.658E+03	7.590E+03	4.468E+02	-0.248
		297.23		2.171E+03	2.736E+03	4.359E+03	2.594E+02	0.498
		303.76		-1.674E+03	8.766E+03	1.447E+04	8.642E+02	-0.116
		439.47		-7.935E+03	6.387E+03	8.885E+03	5.425E+02	-0.893
		484.57		6.480E+03	1.152E+04	2.008E+04	1.207E+03	0.323
		520.65	*	-1.830E+02	4.686E+02	7.294E+02	4.289E+01	-0.251
		574.64		3.569E+03	8.628E+03	1.490E+04	8.337E+02	0.240
		578.91		-4.568E+03	3.903E+03	5.321E+03	2.963E+02	-0.859
		585.48		-3.474E+03	7.353E+03	1.124E+04	6.212E+02	-0.309
		755.35		-5.698E+03	7.143E+03	9.919E+03	5.917E+02	-0.574
		817.79		-6.640E+02	5.893E+03	9.275E+03	6.232E+02	-0.072
SR-82		698.33		-3.187E+03	2.579E+03	3.367E+03	1.790E+02	-0.947
		776.49	*	-2.050E+01	2.725E+01	3.804E+01	2.364E+00	-0.539
		1395.20		9.439E+01	7.722E+02	1.295E+03	9.276E+01	0.073
RB-83		520.41	*	-2.096E+00	5.366E+00	8.353E+00	4.913E-01	-0.251
		529.64		4.799E+00	7.517E+00	1.338E+01	7.812E-01	0.359
		552.65		-1.278E+00	1.633E+01	2.274E+01	1.302E+00	-0.056
RB-84		881.50	*	2.643E-01	4.612E+00	7.792E+00	5.870E-01	0.034
KR-85		513.99	*	-1.503E+03	8.631E+02	1.210E+03	7.149E+01	-1.242
SR-85		513.99	*	-7.550E+00	4.336E+00	6.079E+00	3.592E-01	-1.242
RB-86		1076.63	*	1.910E+01	5.471E+01	9.565E+01	6.233E+00	0.200
Y-88		898.02		1.066E+00	2.642E+00	4.721E+00	3.681E-01	0.226

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1836.01	*	7.468E-01	3.439E+00	6.001E+00	3.450E-01	0.124
ZR-88		392.90	*	-1.583E+00	2.894E+00	4.405E+00	2.698E-01	-0.359
Y-91		1204.90	*	-6.043E+02	1.243E+03	1.867E+03	1.097E+02	-0.324
NB-94		702.63	*	-9.223E-01	2.378E+00	3.603E+00	1.932E-01	-0.256
		871.10		-1.302E+00	2.416E+00	3.674E+00	2.717E-01	-0.354
NB-95		765.79	*	-6.093E-01	3.298E+00	5.149E+00	3.136E-01	-0.118
NB-95M		235.69	*	7.327E+00	1.246E+01	1.844E+01	1.368E+00	0.397
ZR-95		724.18		-8.227E-02	6.506E+00	1.049E+01	7.022E-01	-0.008
		756.15	*	-2.754E+00	5.223E+00	7.660E+00	5.498E-01	-0.360
NB-97		657.90	*	2.676E-01	5.223E+00	Half-Life too short		
		1024.50		-1.493E+02	5.223E+00	Half-Life too short		
ZR-97		254.15		2.810E+01	5.223E+00	Half-Life too short		
		355.39		2.329E+00	5.223E+00	Half-Life too short		
		507.63	*	-1.391E+01	5.223E+00	Half-Life too short		
		602.52		8.090E+01	5.223E+00	Half-Life too short		
		1021.30		4.433E+01	5.223E+00	Half-Life too short		
		1147.95		-1.709E+01	5.223E+00	Half-Life too short		
		1362.66		7.032E+00	5.223E+00	Half-Life too short		
		1750.46		1.398E+00	5.223E+00	Half-Life too short		
MO-99		140.51		1.040E+03	1.638E+03	2.732E+03	7.352E+02	0.381
		181.06		-1.399E+03	1.051E+03	1.489E+03	2.530E+02	-0.940
		366.43		2.841E+03	4.248E+03	7.525E+03	4.600E+02	0.378
		739.58	*	-1.019E+02	4.787E+02	7.417E+02	1.021E+02	-0.137
		778.00		-5.820E+02	1.515E+03	2.272E+03	1.416E+02	-0.256
TC-99M		140.51	*	1.166E+10	1.515E+03	Half-Life too short		
RH-101		127.23		-1.097E+00	3.045E+00	4.843E+00	2.856E-01	-0.226
		198.01	*	4.509E-01	3.328E+00	5.227E+00	2.840E-01	0.086
		325.23		1.507E+01	2.039E+01	3.601E+01	2.174E+00	0.419
RH-102		418.52		1.658E+01	2.299E+01	4.092E+01	2.506E+00	0.405
		475.06	*	-1.444E+00	1.988E+00	2.922E+00	1.764E-01	-0.494
		631.29		2.315E-01	4.468E+00	7.317E+00	3.794E-01	0.032
		697.49		-3.798E+00	6.047E+00	8.867E+00	4.704E-01	-0.428
		766.84		-3.017E+00	7.477E+00	1.122E+01	6.844E-01	-0.269
		1046.59		2.717E+00	8.674E+00	1.509E+01	1.022E+00	0.180
		1112.84		3.754E+00	1.624E+01	2.784E+01	1.720E+00	0.135
RU-103		497.08	*	1.018E+00	3.293E+00	5.603E+00	7.129E-01	0.182
		610.33		1.331E+02	6.757E+01	1.274E+02	1.944E+01	1.044
RH-106		511.85		-5.816E+01	2.300E+01	3.867E+01	2.288E+00	-1.504
		621.84	*	-1.124E+01	2.849E+01	4.402E+01	5.054E+00	-0.255
		1050.47		3.464E+01	1.507E+02	2.603E+02	1.755E+01	0.133
RU-106		511.85		-5.816E+01	2.300E+01	3.867E+01	2.288E+00	-1.504
		621.84	*	-1.124E+01	2.847E+01	4.402E+01	2.316E+00	-0.255
		1050.47		3.464E+01	1.507E+02	2.603E+02	1.755E+01	0.133
AG-108M		433.93	*	2.021E+00	2.549E+00	4.580E+00	3.017E-01	0.441
		614.37		-2.945E+00	3.566E+00	5.190E+00	3.037E-01	-0.567
		722.95		-2.135E+00	3.051E+00	4.357E+00	2.658E-01	-0.490
CD-109		88.03	*	-5.377E+01	7.232E+01	1.134E+02	1.047E+01	-0.474
AG-110M		657.75	*	2.937E-01	2.636E+00	4.348E+00	2.342E-01	0.068
		677.61		1.301E+01	2.389E+01	4.169E+01	2.288E+00	0.312

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		706.67		-2.335E-01	1.666E+01	2.689E+01	1.554E+00	-0.009
		763.93		9.023E-01	1.222E+01	1.991E+01	1.276E+00	0.045
		884.67		6.425E-01	3.873E+00	6.391E+00	5.042E-01	0.101
		937.48		-3.750E+00	7.962E+00	1.223E+01	9.656E-01	-0.307
		1384.27		8.185E-01	1.370E+01	2.262E+01	1.689E+00	0.036
IN-111		171.28		-6.108E+01	6.513E+01	9.845E+01	5.211E+00	-0.620
		245.39	*	4.965E+01	6.593E+01	9.993E+01	5.705E+00	0.497
IN-113M		391.69	*	-1.905E+00	4.046E+00	6.424E+00	4.171E-01	-0.297
SN-113		391.69	*	-1.905E+00	4.046E+00	6.424E+00	4.171E-01	-0.297
IN-114M		190.27	*	-4.591E+00	1.659E+01	2.619E+01	1.411E+00	-0.175
CD-115		260.90		-1.695E+03	5.960E+03	9.817E+03	5.684E+02	-0.173
		492.35		-1.410E+03	1.637E+03	2.400E+03	1.437E+02	-0.588
		527.90	*	-1.195E+02	4.577E+02	7.242E+02	4.235E+01	-0.165
SN-117M		156.02		6.744E+00	1.892E+02	3.076E+02	1.661E+01	0.022
		158.56	*	8.440E-01	4.531E+00	7.442E+00	3.993E-01	0.113
SB-122		563.90	*	2.151E+01	1.054E+02	1.674E+02	9.474E+00	0.129
		692.80		-4.548E+01	2.235E+03	3.608E+03	1.895E+02	-0.013
I-123		159.00	*	-4.785E+00	2.235E+03	Half-Life too short		
		528.96		1.254E+03	2.235E+03	Half-Life too short		
TE-123M		159.00	*	-2.721E-01	2.606E+00	4.190E+00	2.281E-01	-0.065
I-124		602.71	*	2.762E+01	4.173E+01	7.308E+01	3.951E+00	0.378
		722.78		-1.261E+02	2.254E+02	3.301E+02	1.845E+01	-0.382
		1325.50		4.833E+02	1.889E+03	3.247E+03	2.327E+02	0.149
		1376.25		-6.905E+02	1.933E+03	2.949E+03	2.120E+02	-0.234
		1509.49		-5.396E+02	9.012E+02	1.242E+03	8.610E+01	-0.435
		1691.02		5.750E+01	3.189E+02	5.331E+02	3.391E+01	0.108
SB-124		602.71		2.165E+00	3.270E+00	5.728E+00	3.098E-01	0.378
		645.85		-2.338E+00	3.928E+01	6.327E+01	3.732E+00	-0.037
		709.31		9.716E-01	2.167E+02	3.507E+02	1.907E+01	0.003
		713.82		2.230E+01	1.196E+02	1.988E+02	1.996E+01	0.112
		722.78		-1.433E+01	2.561E+01	3.750E+01	2.202E+00	-0.382
		968.20		5.564E+01	1.694E+02	2.961E+02	2.176E+01	0.188
		1045.16		1.246E+02	1.938E+02	3.512E+02	2.383E+01	0.355
		1325.50		5.865E+01	2.291E+02	3.940E+02	2.823E+01	0.149
		1368.21		-1.515E+01	1.586E+02	2.545E+02	3.211E+01	-0.060
		1436.60		1.420E+02	2.644E+02	4.848E+02	3.438E+01	0.293
		1691.02	*	1.541E+00	8.545E+00	1.429E+01	9.736E-01	0.108
SB-125		427.89	*	-7.423E+00	7.151E+00	1.031E+01	6.548E-01	-0.720
		463.38		1.083E+00	2.372E+01	3.930E+01	2.748E+00	0.028
		600.56		-4.415E+00	1.677E+01	2.654E+01	1.695E+00	-0.166
		635.90		-1.241E+01	2.043E+01	3.003E+01	1.874E+00	-0.413
TE-125M		109.28	*	-4.548E+02	9.220E+02	1.461E+03	1.303E+02	-0.311
I-126		388.63		4.971E+00	1.604E+01	2.742E+01	1.679E+00	0.181
		666.33	*	3.637E+00	1.207E+01	2.044E+01	1.015E+00	0.178
		753.82		-6.588E+01	9.480E+01	1.334E+02	7.937E+00	-0.494
SB-126		223.80		2.200E+02	3.128E+02	5.301E+02	2.961E+01	0.415
		278.60		2.117E+02	1.910E+02	3.466E+02	2.036E+01	0.611
		296.50		1.137E+02	1.203E+02	1.933E+02	1.150E+01	0.588
		414.70		-5.745E+00	5.792E+00	8.572E+00	5.251E-01	-0.670

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		415.30		-3.677E+02	4.695E+02	7.113E+02	4.357E+01	-0.517
		555.20		4.165E+02	3.227E+02	5.575E+02	3.184E+01	0.747
		573.80		4.580E+01	6.756E+01	1.205E+02	6.752E+00	0.380
		593.00		-7.054E+00	8.029E+01	1.297E+02	7.101E+00	-0.054
		656.30		7.099E+00	2.312E+02	3.769E+02	1.872E+01	0.019
		666.33		1.513E+00	5.021E+00	8.502E+00	4.222E-01	0.178
		675.00		-1.053E+02	1.309E+02	1.834E+02	9.277E+00	-0.574
		695.00		7.708E+00	5.303E+00	1.024E+01	5.404E-01	0.753
		697.00		4.052E+00	1.893E+01	3.156E+01	1.673E+00	0.128
		720.50	*	-9.087E-01	8.954E+00	1.422E+01	7.910E-01	-0.064
		856.80		-3.241E+00	3.234E+01	5.343E+01	3.853E+00	-0.061
		989.30		7.144E+00	8.187E+01	1.382E+02	9.961E+00	0.052
		1034.80		-6.324E+01	5.441E+02	8.841E+02	6.073E+01	-0.072
		1213.00		5.842E+01	2.734E+02	4.663E+02	2.779E+01	0.125
SN-126		64.28		-9.475E+00	4.838E+01	8.032E+01	1.204E+01	-0.118
		86.94		-8.010E-01	2.871E+01	4.719E+01	1.957E+01	-0.017
		87.57	*	-1.933E+00	6.939E+00	1.122E+01	1.033E+00	-0.172
SB-127		61.10		-6.589E+02	3.438E+03	5.632E+03	5.841E+02	-0.117
		252.40		2.438E+02	2.900E+02	4.681E+02	1.938E+02	0.521
		290.80		-3.480E+01	1.482E+03	2.161E+03	1.851E+02	-0.016
		411.60		3.361E+02	7.055E+02	1.222E+03	1.722E+02	0.275
		444.90		2.089E+02	6.119E+02	1.023E+03	1.063E+02	0.204
		473.00		-3.627E+01	8.221E+01	1.269E+02	1.365E+01	-0.286
		543.00		2.804E+02	8.536E+02	1.460E+03	1.813E+02	0.192
		603.60		-5.791E+02	7.444E+02	1.100E+03	1.096E+02	-0.527
		685.20	*	-2.590E+01	7.387E+01	1.131E+02	9.462E+00	-0.229
		698.50		-1.171E+03	8.697E+02	1.086E+03	1.506E+02	-1.078
		722.20		-4.303E+02	1.494E+03	2.299E+03	1.915E+02	-0.187
		783.80		5.725E+00	1.918E+02	3.100E+02	3.216E+01	0.018
XE-127		57.60		1.672E+02	4.687E+02	7.975E+02	6.623E+01	0.210
		145.22		2.987E+01	6.622E+01	1.107E+02	6.149E+00	0.270
		172.10		-4.237E+00	1.234E+01	1.951E+01	1.033E+00	-0.217
		202.84	*	1.469E+00	4.297E+00	7.078E+00	3.866E-01	0.207
		374.96		-6.858E+00	1.443E+01	2.272E+01	1.390E+00	-0.302
I-131		80.18		-3.407E+02	3.469E+02	5.354E+02	4.687E+01	-0.636
		284.30		2.593E+01	1.102E+02	1.886E+02	1.230E+01	0.137
		364.48	*	-3.981E+00	7.971E+00	1.259E+01	8.482E-01	-0.316
		636.97		-1.050E+01	9.276E+01	1.480E+02	8.721E+00	-0.071
		722.89		-2.373E+02	4.241E+02	6.209E+02	3.511E+01	-0.382
TE-132		49.72		-1.512E+02	1.028E+03	1.694E+03	1.625E+02	-0.089
		111.76		4.447E+02	1.972E+03	3.272E+03	2.889E+02	0.136
		116.30		-2.221E+02	1.842E+03	2.988E+03	2.568E+02	-0.074
		228.16	*	-3.869E+01	4.374E+01	6.406E+01	8.916E+00	-0.604
BA-133		53.15		6.921E+01	2.832E+02	4.793E+02	3.868E+01	0.144
		79.62		-6.294E+01	1.138E+02	1.806E+02	2.756E+01	-0.349
		81.00		-6.231E+00	8.793E+00	1.378E+01	2.199E+00	-0.452
		276.40		1.178E+01	3.099E+01	5.358E+01	6.962E+00	0.220
		302.84		8.132E-01	1.296E+01	2.066E+01	2.426E+00	0.039
		356.01	*	3.695E+00	3.708E+00	6.100E+00	7.145E-01	0.606

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		383.85		9.447E+00	2.563E+01	4.407E+01	4.868E+00	0.214
I-133		510.53		-1.627E+01	2.563E+01	Half-Life too short		
		529.87	*	5.378E-02	2.563E+01	Half-Life too short		
		706.58		-3.253E-02	2.563E+01	Half-Life too short		
		856.28		4.071E+00	2.563E+01	Half-Life too short		
		875.33		3.877E-01	2.563E+01	Half-Life too short		
		1236.41		9.813E+00	2.563E+01	Half-Life too short		
		1298.22		-1.541E+00	2.563E+01	Half-Life too short		
CS-134		475.35		-8.158E+01	1.316E+02	1.974E+02	1.192E+01	-0.413
		563.23		-1.824E+01	3.518E+01	4.502E+01	2.606E+00	-0.405
		569.32		-2.113E+01	1.730E+01	2.303E+01	1.337E+00	-0.918
		604.70		-5.001E+00	3.199E+00	4.245E+00	2.304E-01	-1.178
		795.84	*	-1.199E+00	3.197E+00	4.787E+00	3.127E-01	-0.250
		801.93		3.663E-01	3.560E+01	5.417E+01	3.568E+00	0.007
		1038.57		-2.505E+01	2.816E+02	4.603E+02	3.148E+01	-0.054
		1167.94		-7.843E+01	1.591E+02	2.369E+02	1.329E+01	-0.331
		1365.15		-7.732E+00	1.066E+02	1.716E+02	1.317E+01	-0.045
CS-135		268.24	*	5.310E+00	1.307E+01	2.268E+01	1.741E+00	0.234
I-135		288.45		-5.760E+09	1.307E+01	Half-Life too short		
		417.63		1.581E+10	1.307E+01	Half-Life too short		
		546.56		3.827E+08	1.307E+01	Half-Life too short		
		836.80		-6.810E+09	1.307E+01	Half-Life too short		
		1038.76		6.070E+08	1.307E+01	Half-Life too short		
		1124.00		-9.352E+09	1.307E+01	Half-Life too short		
		1131.51		2.212E+09	1.307E+01	Half-Life too short		
		1260.41	*	1.978E+09	1.307E+01	Half-Life too short		
		1457.56		-2.009E+09	1.307E+01	Half-Life too short		
		1678.03		-5.874E+09	1.307E+01	Half-Life too short		
		1706.46		-3.143E+10	1.307E+01	Half-Life too short		
		1791.20		-3.239E+09	1.307E+01	Half-Life too short		
CS-136		66.91		7.119E+01	6.907E+01	1.155E+02	1.761E+01	0.616
		86.29		1.874E+01	8.738E+01	1.407E+02	1.855E+01	0.133
		153.22		1.138E+01	5.230E+01	8.619E+01	5.976E+00	0.132
		163.89		-3.881E+01	8.833E+01	1.383E+02	9.476E+00	-0.281
		176.55		3.171E+01	3.434E+01	5.869E+01	3.573E+00	0.540
		273.65		-3.484E+01	3.292E+01	5.041E+01	3.356E+00	-0.691
		340.57		7.367E-01	8.985E+00	1.511E+01	9.706E-01	0.049
		818.51		-2.657E+00	5.735E+00	8.518E+00	5.738E-01	-0.312
		1048.07	*	1.579E+00	7.256E+00	1.245E+01	8.993E-01	0.127
		1235.34		3.475E+01	3.341E+01	6.362E+01	6.501E+00	0.546
BA-137M		661.65	*	3.153E+00	2.690E+00	5.054E+00	2.485E-01	0.624
CS-137		661.65	*	3.333E+00	2.844E+00	5.342E+00	2.642E-01	0.624
CE-139		165.85	*	3.009E-02	2.753E+00	4.460E+00	2.352E-01	0.007
BA-140		162.64		-3.844E+01	6.235E+01	9.626E+01	5.866E+00	-0.399
		304.84		2.633E+01	9.925E+01	1.695E+02	4.633E+01	0.155
		423.70		-1.241E+00	1.319E+02	2.180E+02	6.944E+01	-0.006
		537.32	*	2.515E+00	1.580E+01	2.646E+01	8.606E+00	0.095
LA-140		328.77		6.489E+00	2.354E+01	4.021E+01	2.701E+00	0.161
		432.53		7.043E+01	1.429E+02	2.494E+02	1.669E+01	0.282

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		487.03		1.518E-01	1.073E+01	1.769E+01	1.193E+00	0.009
		751.79		-4.695E+01	1.150E+02	1.725E+02	1.242E+01	-0.272
		815.85		1.579E+01	2.293E+01	4.074E+01	3.232E+00	0.388
		867.82		8.180E+00	9.223E+01	1.565E+02	1.234E+01	0.052
		919.63		-1.846E+01	1.848E+02	3.038E+02	2.998E+01	-0.061
		925.24		-7.517E+00	7.747E+01	1.274E+02	1.047E+01	-0.059
		1596.49	*	1.546E+00	6.752E+00	1.148E+01	7.681E-01	0.135
CE-141		145.44	*	3.837E+00	5.906E+00	9.991E+00	5.788E-01	0.384
CE-143		57.37		1.712E-03	5.906E+00	Half-Life too short		
		231.56		-1.118E-01	5.906E+00	Half-Life too short		
	+	293.26	*	1.020E-02	5.906E+00	Half-Life too short		
		350.59		4.061E-02	5.906E+00	Half-Life too short		
		490.36		-1.213E-02	5.906E+00	Half-Life too short		
		664.57		-1.268E-02	5.906E+00	Half-Life too short		
		721.93		4.011E-04	5.906E+00	Half-Life too short		
CE-144		80.11		-1.821E+02	1.880E+02	2.904E+02	2.529E+01	-0.627
		133.54	*	8.938E+00	1.950E+01	3.267E+01	4.635E+00	0.274
PM-144		476.78		-9.828E-01	4.900E+00	7.858E+00	5.608E-01	-0.125
		618.01		-3.312E-01	2.823E+00	4.529E+00	2.568E-01	-0.073
		696.49	*	3.256E+00	2.585E+00	4.896E+00	2.594E-01	0.665
		778.57		-4.604E+00	1.510E+02	2.416E+02	1.508E+01	-0.019
PR-144		696.49	*	2.204E+02	1.750E+02	3.315E+02	1.755E+01	0.665
		1489.15		5.120E+02	1.127E+03	1.995E+03	1.393E+02	0.257
PM-146		453.90	*	1.897E+00	3.542E+00	6.184E+00	5.451E-01	0.307
		633.02		1.543E+01	1.064E+02	1.764E+02	6.480E+01	0.087
		735.90		3.782E+00	1.066E+01	1.812E+01	5.049E+00	0.209
		747.13		4.205E+00	7.201E+00	1.259E+01	1.578E+00	0.334
ND-147		91.11		2.179E+01	2.230E+01	3.849E+01	3.643E+00	0.566
		319.41		-5.914E+01	2.553E+02	4.186E+02	2.522E+01	-0.141
		439.89		-3.680E+02	4.041E+02	5.924E+02	3.618E+01	-0.621
		531.02	*	1.041E+01	3.647E+01	6.207E+01	8.402E+00	0.168
PM-149		285.90	*	7.737E+02	4.363E+03	7.431E+03	1.056E+03	0.104
EU-152		121.78		2.736E+00	7.077E+00	1.185E+01	9.246E-01	0.231
		244.69		2.126E+00	3.472E+01	4.867E+01	2.777E+00	0.044
		344.27	*	9.084E-01	9.396E+00	1.443E+01	9.794E-01	0.063
		443.98		4.110E+01	8.335E+01	1.415E+02	8.631E+00	0.290
		778.89		3.324E+00	1.814E+01	3.014E+01	1.882E+00	0.110
		867.32		6.124E+00	6.116E+01	1.040E+02	7.641E+00	0.059
		964.01		-9.982E+00	2.093E+01	3.237E+01	2.388E+00	-0.308
		1085.78		1.003E+01	3.200E+01	5.544E+01	3.567E+00	0.181
		1112.02		2.099E+00	2.183E+01	3.668E+01	2.269E+00	0.057
		1407.95		1.603E+00	1.645E+01	2.730E+01	1.950E+00	0.059
GD-153		69.67		-2.014E+02	1.451E+02	2.174E+02	1.806E+01	-0.926
		83.37		8.832E+01	1.310E+03	2.167E+03	1.931E+02	0.041
		97.43	*	-4.169E+00	7.417E+00	1.171E+01	9.329E-01	-0.356
		103.18		3.856E+00	9.820E+00	1.652E+01	1.221E+00	0.233
EU-154		123.07		-2.886E-01	5.025E+00	8.171E+00	7.789E-01	-0.035
		247.94		-3.916E+01	3.624E+01	4.965E+01	4.714E+00	-0.789
		591.81		-6.215E+01	5.883E+01	8.324E+01	7.982E+00	-0.747

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		723.30		-5.409E+00	1.266E+01	1.904E+01	1.316E+00	-0.284
		756.87		-7.985E+00	5.698E+01	8.968E+01	9.186E+00	-0.089
		873.19		-1.734E+00	2.049E+01	3.382E+01	3.867E+00	-0.051
		996.32		-8.399E+00	2.858E+01	4.528E+01	7.746E+00	-0.185
		1004.76		-5.959E+00	1.472E+01	2.269E+01	2.396E+00	-0.263
		1274.45	*	8.437E+00	8.369E+00	1.614E+01	1.592E+00	0.523
EU-155		48.70		-2.056E+02	1.926E+02	2.948E+02	2.203E+01	-0.697
		60.01		-2.085E+02	4.209E+02	6.750E+02	5.641E+01	-0.309
		86.54		-1.725E+00	8.957E+00	1.407E+01	1.296E+00	-0.123
		105.31	*	-3.765E+00	1.056E+01	1.689E+01	1.238E+00	-0.223
TB-160		86.79		1.182E-01	2.197E+01	3.620E+01	3.311E+00	0.003
		197.04		1.261E+01	5.578E+01	8.819E+01	4.786E+00	0.143
		215.65		-1.510E+01	6.089E+01	9.557E+01	5.292E+00	-0.158
		298.57		5.843E+00	9.556E+00	1.500E+01	8.934E-01	0.389
		879.36	*	-5.064E+00	9.204E+00	1.388E+01	1.041E+00	-0.365
		962.29		-1.640E+01	3.649E+01	5.655E+01	4.178E+00	-0.290
		966.15		1.459E+00	1.325E+01	2.244E+01	1.653E+00	0.065
		1177.93		-1.842E+01	2.491E+01	3.554E+01	1.991E+00	-0.518
		1271.85		-8.096E+00	4.765E+01	7.554E+01	4.971E+00	-0.107
HO-166M		80.57		-2.964E+01	2.469E+01	3.753E+01	3.278E+00	-0.790
		184.41		-1.844E+00	3.581E+00	5.702E+00	3.055E-01	-0.323
		280.46		-2.354E+00	7.588E+00	1.246E+01	7.326E-01	-0.189
		410.95		1.358E+01	1.994E+01	3.526E+01	2.160E+00	0.385
		711.68	*	-1.059E-01	4.579E+00	7.377E+00	4.030E-01	-0.014
		752.31		-1.520E+01	2.097E+01	2.963E+01	1.757E+00	-0.513
		810.29		-2.696E+00	4.672E+00	6.753E+00	4.475E-01	-0.399
TM-171		51.35		2.415E+03	2.439E+03	4.326E+03	3.417E+02	0.558
		52.39		1.359E+03	1.265E+03	2.253E+03	1.803E+02	0.603
		59.40		1.994E+02	2.234E+03	3.730E+03	3.122E+02	0.053
		66.72	*	2.858E+03	2.760E+03	4.657E+03	3.852E+02	0.614
HF-175		89.36		-3.029E+02	1.316E+02	1.810E+02	1.633E+01	-1.674
		343.40	*	-1.433E-01	3.117E+00	5.046E+00	3.068E-01	-0.028
		433.00		8.758E+01	1.635E+02	2.865E+02	1.752E+01	0.306
LU-176		88.36		-1.253E+01	1.685E+01	2.641E+01	2.425E+00	-0.475
		201.83		-3.305E+00	2.886E+00	4.249E+00	2.318E-01	-0.778
		306.84	*	9.655E-01	2.113E+00	3.675E+00	2.199E-01	0.263
		401.10		1.342E+02	5.624E+02	9.549E+02	5.850E+01	0.141
LU-177		112.95		-4.504E+01	1.361E+02	2.180E+02	1.441E+01	-0.207
		208.36	*	3.450E+00	7.713E+01	1.243E+02	6.832E+00	0.028
LU-177M		52.97		4.493E+01	1.281E+02	2.184E+02	1.759E+01	0.206
		54.07		-5.832E+01	7.012E+01	1.094E+02	8.896E+00	-0.533
		61.30		-1.236E+01	1.255E+02	2.069E+02	1.722E+01	-0.060
		121.62		1.392E+01	3.600E+01	6.031E+01	3.652E+00	0.231
		147.16		6.767E+00	6.136E+01	1.004E+02	5.548E+00	0.067
		171.86		-2.714E+01	5.063E+01	7.891E+01	4.179E+00	-0.344
		218.09		1.109E+01	7.096E+01	1.154E+02	6.404E+00	0.096
		268.79		2.618E+01	6.476E+01	1.124E+02	6.551E+00	0.233
		319.02		-1.361E+00	2.248E+01	3.743E+01	2.254E+00	-0.036
		367.43		7.790E+01	7.442E+01	1.359E+02	8.306E+00	0.573

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		413.65	*	-2.701E+00	1.455E+01	2.364E+01	1.448E+00	-0.114
HF-181		56.28		-3.286E+01	7.567E+01	1.218E+02	1.005E+01	-0.270
		57.53		1.334E+01	3.958E+01	6.727E+01	5.584E+00	0.198
		65.20		1.014E+02	8.758E+01	1.486E+02	1.229E+01	0.682
		133.02		3.733E+00	6.009E+00	1.019E+01	5.882E-01	0.366
		136.25		-3.657E+01	4.487E+01	6.897E+01	3.937E+00	-0.530
		345.85		1.263E+00	1.861E+01	2.724E+01	1.657E+00	0.046
		482.03	*	1.604E+00	3.587E+00	6.188E+00	3.724E-01	0.259
W-181		56.28		-1.310E+01	3.024E+01	4.867E+01	4.016E+00	-0.269
		57.53		5.326E+00	1.583E+01	2.690E+01	2.233E+00	0.198
		65.20	*	4.023E+01	3.475E+01	5.897E+01	4.877E+00	0.682
TA-182		67.75		6.178E+00	1.027E+01	1.694E+01	1.403E+00	0.365
		100.10		-3.094E+00	1.615E+01	2.615E+01	2.009E+00	-0.118
		152.43		-3.171E+00	2.975E+01	4.789E+01	2.609E+00	-0.066
		222.10		9.495E+00	2.999E+01	4.932E+01	2.750E+00	0.193
		1001.68		-6.299E+01	1.461E+02	2.255E+02	1.606E+01	-0.279
		1121.28		2.023E+00	9.241E+00	1.582E+01	9.648E-01	0.128
		1189.05		-1.538E+00	1.992E+01	3.236E+01	1.849E+00	-0.048
		1221.42	*	-1.211E+01	1.105E+01	1.357E+01	8.206E-01	-0.892
		1230.97		-2.615E+01	3.145E+01	4.388E+01	2.697E+00	-0.596
RE-183		57.98		8.873E+00	1.570E+01	2.706E+01	2.251E+00	0.328
		59.32		9.557E-01	9.043E+00	1.511E+01	1.265E+00	0.063
		67.20		1.802E+01	1.887E+01	3.172E+01	2.625E+00	0.568
		162.32	*	-4.771E+00	9.816E+00	1.531E+01	8.141E-01	-0.312
		208.81		1.826E+01	8.328E+01	1.360E+02	7.477E+00	0.134
		291.72		6.096E+01	8.480E+01	1.343E+02	7.962E+00	0.454
RE-184		57.98		3.306E+01	5.849E+01	1.008E+02	8.388E+00	0.328
		59.32		3.558E+00	3.367E+01	5.627E+01	4.709E+00	0.063
		67.20		6.714E+01	7.031E+01	1.182E+02	9.778E+00	0.568
		161.27		-6.270E+00	3.212E+01	5.127E+01	2.732E+00	-0.122
		216.55		-4.007E+00	2.190E+01	3.457E+01	1.916E+00	-0.116
		252.85	*	2.329E+01	1.994E+01	3.506E+01	2.015E+00	0.664
		318.01		-7.606E+00	3.943E+01	6.492E+01	3.907E+00	-0.117
		792.07		-3.809E+01	6.961E+01	1.009E+02	6.458E+00	-0.378
		903.28		-7.264E+01	7.425E+01	1.039E+02	8.022E+00	-0.699
		920.93		2.276E+01	3.241E+01	5.989E+01	4.571E+00	0.380
OS-185		59.72		-5.860E+00	2.462E+01	4.021E+01	3.364E+00	-0.146
		61.14		-2.365E+00	1.368E+01	2.244E+01	1.868E+00	-0.105
		69.30		-2.877E+01	2.561E+01	3.920E+01	3.253E+00	-0.734
		592.07		-2.165E+02	2.366E+02	3.435E+02	1.883E+01	-0.630
		646.12	*	2.069E-02	3.464E+00	5.631E+00	2.848E-01	0.004
		717.42		3.544E+01	5.649E+01	1.012E+02	5.595E+00	0.350
		874.81		1.300E+01	3.805E+01	6.735E+01	5.014E+00	0.193
		880.27		-3.651E+01	5.314E+01	7.809E+01	5.870E+00	-0.468
RE-188		155.03	*	2.416E+00	1.503E+01	2.466E+01	1.335E+00	0.098
		477.96		-1.180E+00	2.188E+02	3.601E+02	2.171E+01	-0.003
		633.10		3.297E+01	2.111E+02	3.510E+02	1.815E+01	0.094
W-188		63.58		-5.470E+03	4.874E+03	7.634E+03	6.322E+02	-0.716
		227.08		-7.372E+02	1.158E+03	1.756E+03	9.840E+01	-0.420

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		290.67	*	-5.797E+01	7.104E+02	1.029E+03	6.096E+01	-0.056
IR-192		295.96		9.881E+00	9.242E+00	1.666E+01	1.005E+00	0.593
		308.46		2.888E-01	8.317E+00	1.398E+01	8.461E-01	0.021
		316.51	*	3.572E-01	2.996E+00	5.066E+00	3.061E-01	0.071
		468.07		1.483E-01	5.393E+00	8.694E+00	6.006E-01	0.017
		604.41		-5.098E+01	4.156E+01	5.732E+01	6.390E+00	-0.889
		612.46		-9.437E+01	6.860E+01	9.348E+01	6.752E+00	-1.010
AU-195		65.12		1.849E+01	1.614E+01	2.738E+01	2.265E+00	0.675
		66.83		9.281E+00	9.065E+00	1.529E+01	1.265E+00	0.607
		75.70		5.875E+00	1.652E+01	2.689E+01	2.283E+00	0.218
		98.88	*	-1.665E+01	2.128E+01	3.302E+01	2.579E+00	-0.504
		129.76		6.300E+01	2.655E+02	4.397E+02	2.567E+01	0.143
TL-200		367.94	*	1.219E-02	2.655E+02	Half-Life too short		
		579.30		-5.466E-02	2.655E+02	Half-Life too short		
		828.27		-3.802E-02	2.655E+02	Half-Life too short		
		1205.75		-2.501E-02	2.655E+02	Half-Life too short		
TL-201		68.90		-1.925E+02	2.737E+02	4.328E+02	3.590E+01	-0.445
		70.82		-1.708E+02	1.469E+02	2.235E+02	1.862E+01	-0.764
		80.30		-2.884E+02	2.870E+02	4.421E+02	3.855E+01	-0.652
		135.34		-1.420E+03	1.623E+03	2.482E+03	1.421E+02	-0.572
		167.43	*	-3.841E+01	4.398E+02	7.072E+02	3.732E+01	-0.054
TL-202		68.90		-2.411E+01	3.429E+01	5.421E+01	4.496E+00	-0.445
		70.82		-2.133E+01	1.835E+01	2.792E+01	2.326E+00	-0.764
		80.30		-3.604E+01	3.586E+01	5.524E+01	4.817E+00	-0.652
		439.56	*	-6.004E+00	4.880E+00	6.803E+00	4.154E-01	-0.882
HG-203		70.83		-1.005E+02	8.686E+01	1.311E+02	1.760E+01	-0.767
		72.87		-6.323E+00	4.810E+01	7.884E+01	1.029E+01	-0.080
		82.60		4.402E+01	9.300E+01	1.574E+02	2.187E+01	0.280
		279.20	*	2.251E+00	3.464E+00	6.100E+00	3.801E-01	0.369
BI-207		72.80		-5.615E+00	1.471E+01	2.372E+01	1.989E+00	-0.237
		74.97		4.866E-01	9.115E+00	1.456E+01	1.232E+00	0.033
		84.90		2.884E+00	1.725E+01	2.772E+01	2.498E+00	0.104
		569.67		-3.513E+00	2.678E+00	3.498E+00	1.968E-01	-1.004
		1063.62	*	2.437E-01	3.797E+00	6.361E+00	4.218E-01	0.038
		1770.23		-2.079E+01	4.854E+01	7.371E+01	4.449E+00	-0.282
TL-207		81.07		-1.416E+01	1.930E+01	3.034E+01	2.659E+00	-0.467
		83.78		-1.638E+00	1.179E+01	1.863E+01	1.664E+00	-0.088
		94.90		9.152E-01	2.171E+01	3.576E+01	2.954E+00	0.026
		122.32		-2.284E+01	1.697E+02	2.745E+02	1.893E+01	-0.083
		144.24		4.836E+01	6.705E+01	1.138E+02	8.026E+00	0.425
		154.21		1.838E+01	3.550E+01	5.969E+01	4.003E+00	0.308
		269.46		3.585E+00	1.499E+01	2.571E+01	1.567E+00	0.139
		323.87	*	-2.031E+01	6.135E+01	9.977E+01	1.656E+01	-0.204
		338.28		1.149E+01	7.695E+01	1.303E+02	1.392E+01	0.088
		445.03		4.953E+01	1.999E+02	3.311E+02	3.457E+01	0.150
TL-208		72.80		-6.106E+01	1.599E+02	2.579E+02	2.162E+01	-0.237
		74.97		5.285E+00	9.901E+01	1.581E+02	1.925E+01	0.033
		277.35		1.690E+01	3.306E+01	5.762E+01	6.105E+00	0.293
		510.84		-3.847E+01	2.157E+01	3.763E+01	3.846E+00	-1.022

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		583.14	*	3.130E-01	3.251E+00	5.282E+00	3.414E-01	0.059
		763.13		5.774E+01	1.612E+02	2.736E+02	3.430E+01	0.211
		860.37		1.914E+01	2.136E+01	4.013E+01	3.212E+00	0.477
		1093.90		1.848E+02	8.011E+02	1.374E+03	3.097E+02	0.134
PO-209		260.50		-2.315E+02	8.222E+02	1.355E+03	7.845E+01	-0.171
		262.80		-5.136E+02	2.366E+03	3.921E+03	2.274E+02	-0.131
		896.60	*	2.450E+02	5.060E+02	9.120E+02	7.051E+01	0.269
BI-210		46.50	*	-2.927E+02	2.811E+02	4.435E+02	3.493E+01	-0.660
PB-210		46.50	*	-2.927E+02	2.811E+02	4.435E+02	3.493E+01	-0.660
PO-210		46.50	*	-2.927E+02	2.809E+02	4.435E+02	3.021E+01	-0.660
BI-211		72.87		-3.272E+01	2.489E+02	4.080E+02	3.422E+01	-0.080
		351.07	*	9.400E+00	2.007E+01	3.333E+01	2.233E+00	0.282
PB-211		404.84	*	-5.348E+01	8.393E+01	1.184E+02	7.386E+01	-0.452
		427.08		-7.166E+01	1.532E+02	2.275E+02	1.407E+02	-0.315
		831.96		6.008E+01	8.872E+01	1.501E+02	9.377E+01	0.400
BI-212		727.18	*	4.158E+00	2.237E+01	3.711E+01	2.818E+00	0.112
		785.46		-9.752E+00	1.324E+02	2.104E+02	1.330E+01	-0.046
		1620.62		6.564E+01	1.361E+02	2.399E+02	1.586E+01	0.274
PB-212		74.81		-7.926E+00	3.203E+01	5.021E+01	6.328E+00	-0.158
		77.11		7.468E-01	1.788E+01	2.913E+01	2.491E+00	0.026
		87.30		-1.637E+00	3.219E+01	5.283E+01	7.174E+00	-0.031
		115.19		1.478E+02	3.574E+02	5.999E+02	3.874E+01	0.246
		238.63	*	-2.175E+00	6.569E+00	1.008E+01	7.288E-01	-0.216
		300.09		-4.652E+01	7.516E+01	1.014E+02	8.479E+00	-0.459
PO-212		74.81		-7.926E+00	3.203E+01	5.021E+01	6.328E+00	-0.158
		77.11		7.468E-01	1.788E+01	2.913E+01	2.491E+00	0.026
		87.30		-1.637E+00	3.219E+01	5.283E+01	7.174E+00	-0.031
		115.19		1.478E+02	3.574E+02	5.999E+02	3.874E+01	0.246
		238.63	*	-2.175E+00	6.569E+00	1.008E+01	7.288E-01	-0.216
		300.09		-4.652E+01	7.516E+01	1.014E+02	8.479E+00	-0.459
BI-214		609.31	*	4.480E+00	7.000E+00	1.204E+01	8.976E-01	0.372
		1120.29		-9.701E+00	2.172E+01	3.261E+01	2.938E+00	-0.297
		1764.49		3.113E+01	2.335E+01	4.742E+01	2.874E+00	0.656
PB-214		74.81		-1.348E+01	5.446E+01	8.539E+01	9.599E+00	-0.158
		77.11		1.264E+00	3.025E+01	4.928E+01	5.645E+00	0.026
		87.30		-2.767E+00	5.443E+01	8.932E+01	1.071E+01	-0.031
	+	241.98		5.464E+01	7.187E+01	4.901E+01	3.915E+00	1.115
	+	295.21		2.845E+01	2.059E+01	2.246E+01	1.937E+00	1.267
	+	351.92	*	7.299E+00	9.251E+00	1.172E+01	9.953E-01	0.623
PO-214		74.81		-1.348E+01	5.446E+01	8.539E+01	9.599E+00	-0.158
		77.11		1.264E+00	3.025E+01	4.928E+01	5.645E+00	0.026
		87.30		-2.767E+00	5.443E+01	8.932E+01	1.071E+01	-0.031
	+	241.98		5.464E+01	7.187E+01	4.901E+01	3.915E+00	1.115
	+	295.21		2.845E+01	2.059E+01	2.246E+01	1.937E+00	1.267
	+	351.92	*	7.299E+00	9.251E+00	1.172E+01	9.953E-01	0.623
PO-215		81.07		-1.416E+01	1.930E+01	3.034E+01	2.659E+00	-0.467
		83.78		-1.638E+00	1.179E+01	1.863E+01	1.664E+00	-0.088
		94.90		9.152E-01	2.171E+01	3.576E+01	2.954E+00	0.026
		122.32		-2.284E+01	1.697E+02	2.745E+02	1.893E+01	-0.083

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		144.24		4.836E+01	6.705E+01	1.138E+02	8.026E+00	0.425
		154.21		1.838E+01	3.550E+01	5.969E+01	4.003E+00	0.308
		269.46		3.585E+00	1.499E+01	2.571E+01	1.567E+00	0.139
		323.87	*	-2.031E+01	6.135E+01	9.977E+01	1.656E+01	-0.204
		338.28		1.149E+01	7.695E+01	1.303E+02	1.392E+01	0.088
		445.03		4.953E+01	1.999E+02	3.311E+02	3.457E+01	0.150
PO-216		74.81		-7.926E+00	3.203E+01	5.021E+01	6.328E+00	-0.158
		77.11		7.468E-01	1.788E+01	2.913E+01	2.491E+00	0.026
		87.30		-1.637E+00	3.219E+01	5.283E+01	7.174E+00	-0.031
		115.19		1.478E+02	3.574E+02	5.999E+02	3.874E+01	0.246
		238.63	*	-2.175E+00	6.569E+00	1.008E+01	7.288E-01	-0.216
		300.09		-4.652E+01	7.516E+01	1.014E+02	8.479E+00	-0.459
PO-218		74.81		-1.348E+01	5.446E+01	8.539E+01	9.599E+00	-0.158
		77.11		1.264E+00	3.025E+01	4.928E+01	5.645E+00	0.026
		87.30		-2.767E+00	5.443E+01	8.932E+01	1.071E+01	-0.031
	+	241.98		5.464E+01	7.187E+01	4.901E+01	3.915E+00	1.115
	+	295.21		2.845E+01	2.059E+01	2.246E+01	1.937E+00	1.267
	+	351.92	*	7.299E+00	9.251E+00	1.172E+01	9.953E-01	0.623
RN-219		271.23		-3.051E+00	1.890E+01	3.139E+01	2.553E+00	-0.097
		401.81	*	5.154E+00	3.362E+01	5.664E+01	7.787E+00	0.091
RN-220		549.76	*	-7.421E+02	2.164E+03	3.007E+03	1.726E+02	-0.247
RA-223		81.07		-1.416E+01	1.930E+01	3.034E+01	2.659E+00	-0.467
		83.78		-1.638E+00	1.179E+01	1.863E+01	1.664E+00	-0.088
		94.90		9.152E-01	2.171E+01	3.576E+01	2.954E+00	0.026
		122.32		-2.284E+01	1.697E+02	2.745E+02	1.893E+01	-0.083
		144.24		4.836E+01	6.705E+01	1.138E+02	8.026E+00	0.425
		154.21		1.838E+01	3.550E+01	5.969E+01	4.003E+00	0.308
		269.46		3.585E+00	1.499E+01	2.571E+01	1.567E+00	0.139
		323.87	*	-2.031E+01	6.135E+01	9.977E+01	1.656E+01	-0.204
		338.28		1.149E+01	7.695E+01	1.303E+02	1.392E+01	0.088
		445.03		4.953E+01	1.999E+02	3.311E+02	3.457E+01	0.150
RA-226		186.21	*	1.344E+01	7.809E+01	1.287E+02	9.442E+01	0.104
AC-227		79.80		-8.460E+01	1.446E+02	2.280E+02	4.910E+01	-0.371
		236.00		2.950E+01	2.355E+01	3.679E+01	3.816E+00	0.802
		256.20	*	3.734E+00	3.273E+01	5.566E+01	7.763E+00	0.067
		286.10		5.240E+00	1.325E+02	2.234E+02	2.594E+01	0.023
		299.80		-8.202E+01	1.381E+02	1.863E+02	3.044E+01	-0.440
		304.40		1.256E+01	1.639E+02	2.765E+02	4.800E+01	0.045
		329.70		-1.257E+01	7.949E+01	1.311E+02	1.650E+01	-0.096
		334.20		-5.676E+01	1.777E+02	2.874E+02	5.293E+01	-0.198
PA-227		64.62	*	1.000E+35	1.777E+02	Half-Life too short		
		110.05		-1.000E+35	1.777E+02	Half-Life too short		
TH-227		79.80		-8.460E+01	1.446E+02	2.280E+02	4.973E+01	-0.371
		94.00		9.658E+00	2.039E+02	3.460E+02	7.502E+01	0.028
		236.00		2.950E+01	2.350E+01	3.679E+01	3.298E+00	0.802
		256.20	*	3.734E+00	3.273E+01	5.566E+01	9.400E+00	0.067
		286.10		5.240E+00	1.326E+02	2.234E+02	2.238E+02	0.023
		299.80		-8.202E+01	1.381E+02	1.863E+02	3.044E+01	-0.440
		304.40		1.256E+01	1.639E+02	2.765E+02	4.800E+01	0.045

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		329.70		-1.257E+01	7.949E+01	1.311E+02	1.650E+01	-0.096
		334.20		-5.676E+01	1.777E+02	2.874E+02	5.293E+01	-0.198
AC-228		338.32		2.982E+00	1.857E+01	3.140E+01	1.281E+01	0.095
		911.07	*	2.645E-01	1.202E+01	2.057E+01	2.169E+00	0.013
		969.11		3.265E+00	1.697E+01	2.906E+01	6.654E+00	0.112
RA-228		338.32		2.982E+00	1.857E+01	3.140E+01	1.281E+01	0.095
		911.07	*	2.645E-01	1.202E+01	2.057E+01	2.169E+00	0.013
		969.11		3.265E+00	1.697E+01	2.906E+01	6.654E+00	0.112
TH-228		74.81		-7.926E+00	3.202E+01	5.021E+01	4.283E+00	-0.158
		77.11		7.468E-01	1.788E+01	2.913E+01	2.491E+00	0.026
		87.30		-1.637E+00	3.219E+01	5.283E+01	4.854E+00	-0.031
		238.63	*	-2.175E+00	6.569E+00	1.008E+01	7.288E-01	-0.216
		300.09		-4.652E+01	7.992E+01	1.014E+02	5.978E+01	-0.459
TH-229		85.43		9.626E+00	1.682E+01	2.765E+01	2.502E+00	0.348
		88.47		-1.501E+01	1.018E+01	1.513E+01	1.386E+00	-0.992
		100.00		-3.731E+00	1.693E+01	2.735E+01	2.105E+00	-0.136
		193.63	*	-3.729E+00	4.738E+01	7.586E+01	4.102E+00	-0.049
		210.97		8.467E+00	6.322E+01	1.026E+02	5.655E+00	0.082
TH-230		67.67	*	7.235E+02	4.818E+03	1.806E+03	1.172E+04	0.401
PA-231		283.67	*	2.145E+01	1.349E+02	2.294E+02	3.171E+01	0.093
		301.29		-6.843E+00	5.281E+01	7.587E+01	8.000E+00	-0.090
		330.00		-4.491E+01	1.765E+02	2.878E+02	9.025E+01	-0.156
TH-231		84.21	*	-1.739E+00	4.492E+01	7.137E+01	1.286E+01	-0.024
U-231		84.21		-1.409E+01	3.640E+02	5.784E+02	5.185E+01	-0.024
		92.29		-7.492E+01	1.490E+02	2.457E+02	2.112E+01	-0.305
		95.87	*	-1.368E+02	8.198E+01	1.198E+02	9.756E+00	-1.142
		108.00		2.614E+01	1.429E+02	2.368E+02	1.653E+01	0.110
TH-232		59.00	*	4.333E+02	5.217E+03	4.253E+03	4.477E+04	0.102
PA-233		75.28		8.049E+01	2.684E+02	4.350E+02	6.640E+01	0.185
		86.59		1.588E+01	1.375E+02	2.280E+02	6.152E+01	0.070
		300.12		-2.381E+01	3.841E+01	5.169E+01	6.981E+00	-0.461
		311.98	*	-4.485E+00	5.693E+00	8.881E+00	5.638E-01	-0.505
		340.50		4.279E+00	4.830E+01	8.126E+01	1.872E+01	0.053
		398.62		-2.751E+01	1.833E+02	2.995E+02	7.767E+01	-0.092
		415.76		-7.272E+01	1.385E+02	2.153E+02	4.452E+01	-0.338
PA-234		63.00		-2.875E+02	1.535E+02	2.193E+02	3.359E+01	-1.311
		94.67		9.786E+00	1.610E+01	2.732E+01	3.326E+00	0.358
		98.44		-8.814E+00	9.866E+00	1.305E+01	7.263E+00	-0.676
		99.86		-1.354E+01	4.300E+01	6.901E+01	5.321E+00	-0.196
		111.00		9.383E+00	1.788E+01	3.022E+01	3.275E+00	0.310
		131.20		4.404E+00	1.008E+01	1.690E+01	9.817E-01	0.261
		152.70		5.043E+00	2.879E+01	4.730E+01	7.417E+00	0.107
		186.00		2.676E+01	1.275E+02	2.118E+02	6.456E+01	0.126
		226.40		-9.590E+00	3.607E+01	5.647E+01	6.473E+00	-0.170
		227.20		-2.641E+01	3.979E+01	6.020E+01	3.374E+00	-0.439
		248.90		-6.144E+01	7.761E+01	1.133E+02	2.433E+01	-0.542
	+	293.70		1.366E+02	1.005E+02	1.107E+02	1.786E+01	1.233
		369.80		3.153E+01	7.272E+01	1.255E+02	2.625E+01	0.251
		568.70		-5.207E+01	8.565E+01	1.256E+02	7.073E+00	-0.415

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		569.50		-3.028E+01	2.387E+01	3.147E+01	1.771E+00	-0.962
		574.00		6.725E+01	1.073E+02	1.903E+02	1.066E+01	0.353
		699.00		-7.410E+01	5.697E+01	7.036E+01	1.255E+01	-1.053
		706.10		1.513E+01	8.285E+01	1.370E+02	6.040E+01	0.110
		733.00		6.092E+00	2.993E+01	4.971E+01	1.056E+01	0.123
		742.81		2.069E+01	9.906E+01	1.638E+02	1.096E+02	0.126
		796.30		-1.370E+01	6.208E+01	9.564E+01	2.529E+01	-0.143
		805.60		-2.722E+01	8.442E+01	1.282E+02	3.863E+01	-0.212
		819.60		-3.193E+01	1.015E+02	1.532E+02	5.766E+01	-0.208
		826.30		1.478E+01	6.092E+01	1.053E+02	4.679E+01	0.140
		831.60		2.071E+01	4.024E+01	7.232E+01	2.126E+01	0.286
		876.40		1.755E+01	5.609E+01	9.406E+01	9.661E+01	0.187
		880.51		-1.422E+01	1.989E+01	2.915E+01	2.192E+00	-0.488
		883.24		-2.903E-01	2.241E+01	3.597E+01	2.414E+01	-0.008
		899.00		-1.263E+01	5.295E+01	8.413E+01	3.664E+01	-0.150
		925.00		-1.781E+00	8.833E+01	1.470E+02	1.119E+01	-0.012
		926.50		-1.631E+00	1.325E+01	2.168E+01	5.409E+00	-0.075
		946.00	*	-2.775E+00	2.219E+01	3.625E+01	6.624E+00	-0.077
		949.00		-3.166E+00	3.202E+01	5.252E+01	3.924E+00	-0.060
		980.50		-8.692E+00	5.627E+01	9.137E+01	6.643E+00	-0.095
		1394.10		2.186E+01	9.154E+01	1.554E+02	1.009E+02	0.141
PA-234M		766.42		-7.207E+01	8.044E+02	1.275E+03	6.424E+02	-0.057
		1001.03	*	7.311E+01	3.190E+02	5.502E+02	4.790E+01	0.133
TH-234		63.29	*	-2.231E+02	1.321E+02	1.903E+02	3.393E+01	-1.172
		92.38		-2.701E+01	5.387E+01	8.856E+01	1.600E+01	-0.305
U-234		53.20	*	1.075E+03	1.186E+04	8.462E+03	8.462E+04	0.127
U-235		89.95		-1.994E+02	1.160E+02	1.412E+02	4.371E+01	-1.412
		93.35		1.725E+01	6.449E+01	1.103E+02	3.085E+01	0.156
		105.00		-3.280E+01	1.043E+02	1.667E+02	4.914E+01	-0.197
		143.76	*	5.071E+00	2.133E+01	3.516E+01	5.705E+00	0.144
		163.35		-1.475E+01	4.369E+01	6.887E+01	1.228E+01	-0.214
		185.71		1.921E+00	4.658E+00	7.850E+00	4.211E-01	0.245
		205.31		-2.656E+01	5.174E+01	7.743E+01	1.384E+01	-0.343
NP-236		94.67		7.573E+00	1.220E+01	2.075E+01	1.720E+00	0.365
		98.44		-6.666E+00	6.491E+00	9.861E+00	7.749E-01	-0.676
		111.00		7.097E+00	1.351E+01	2.286E+01	1.544E+00	0.310
		160.31	*	-1.750E+00	7.273E+00	1.157E+01	6.182E-01	-0.151
NP-237		86.50	*	-3.751E+00	2.190E+01	3.444E+01	7.770E+00	-0.109
		95.87		-1.662E+02	1.067E+02	1.455E+02	3.561E+01	-1.142
PU-237		59.54	*	-3.553E+01	1.769E+02	2.898E+02	2.426E+01	-0.123
U-238		63.29	*	-2.231E+02	1.321E+02	1.903E+02	3.393E+01	-1.172
		92.38		-2.701E+01	5.370E+01	8.856E+01	7.604E+00	-0.305
NP-239		99.55		-5.738E+00	1.428E+01	2.276E+01	1.762E+00	-0.252
		117.00	*	-2.392E+00	1.932E+01	3.132E+01	1.986E+00	-0.076
		209.75		2.522E+01	6.473E+01	1.072E+02	5.897E+00	0.235
		228.18		-1.905E+01	2.147E+01	3.165E+01	1.776E+00	-0.602
		277.60		7.079E+00	1.565E+01	2.719E+01	1.596E+00	0.260
		334.30		-2.703E+01	1.001E+02	1.630E+02	9.878E+00	-0.166
AM-241		59.54	*	-2.650E+00	1.320E+01	2.162E+01	1.949E+00	-0.123

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AM-243		74.67	*	-1.727E+00	5.113E+00	7.967E+00	6.732E-01	-0.217
		86.72		3.334E+01	7.687E+02	1.269E+03	1.160E+02	0.026
		117.66		2.318E+02	3.725E+02	6.333E+02	3.988E+01	0.366
		142.18		-9.983E+02	1.839E+03	2.888E+03	1.618E+02	-0.346
CM-243		99.55		-5.904E+00	1.469E+01	2.342E+01	1.813E+00	-0.252
		103.76	*	4.841E+00	8.991E+00	1.527E+01	1.120E+00	0.317
		117.00		-2.460E+00	1.987E+01	3.222E+01	2.043E+00	-0.076
		209.75		2.486E+01	6.380E+01	1.056E+02	5.813E+00	0.235
		228.18		-1.924E+01	2.169E+01	3.198E+01	1.795E+00	-0.602
		277.60		7.135E+00	1.577E+01	2.741E+01	1.609E+00	0.260
AM-246		798.80		-3.174E+00	1.046E+01	1.595E+01	1.034E+00	-0.199
		1036.00		-1.047E+01	2.099E+01	3.163E+01	2.170E+00	-0.331
		1062.04		4.883E+00	1.678E+01	2.913E+01	1.935E+00	0.168
		1078.86	*	3.147E+00	1.079E+01	1.869E+01	1.214E+00	0.168
CM-247		278.00		5.270E+01	6.424E+01	1.145E+02	6.721E+00	0.460
		287.40		-5.262E+01	1.180E+02	1.720E+02	1.017E+01	-0.306
		402.60	*	-6.729E-01	2.958E+00	4.788E+00	2.934E-01	-0.141
CF-249		252.85		8.808E+01	7.540E+01	1.326E+02	7.623E+00	0.664
		333.44		-6.208E+00	1.377E+01	2.206E+01	1.336E+00	-0.281
		387.95	*	1.148E+00	3.516E+00	6.017E+00	3.684E-01	0.191
CF-251		176.60	*	1.179E+01	1.309E+01	2.235E+01	1.188E+00	0.527
		227.00		-2.192E+01	3.546E+01	5.388E+01	3.020E+00	-0.407
		285.00		1.700E+01	1.530E+02	2.593E+02	1.530E+01	0.066
ANH-511		511.00	*	-8.335E+00	4.540E+00	7.998E+00	4.735E-01	-1.042

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243400003      *
* Acquisition date : 31-DEC-2009 16:18:56 Detector SN#     :               *
* Detector ID        : GAM14               Sensitivity      : 5.000        *
* Geometry           : 2LMB                Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:00.57     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date        : 18-DEC-2009 12:00:00 Nuclide Library : LIQUI        *
* Sample ID          : G243400003          Analyst initials: KXG3          *
* Batch Number       : 936274              Sample Quantity : 2.0000E+00 LITER *
* Recovery           :    1.00000          Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  9-MAR-2009 15:03:15 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
RA-224	1.050E+02	1.352E+02	9.831E+01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)		
BE-7	-5.951E-01		2.219E+01	3.716E+01	0.000E+00	NOT IDENT.
NA-22	2.966E+00		2.915E+00	5.744E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00		7.761E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-9.413E-01		2.276E+00	3.380E+00	0.000E+00	NOT IDENT.
K-40	4.123E+00		3.200E+01	5.833E+01	0.000E+00	NOT IDENT.
TI-44	-4.874E-01		3.157E+00	5.188E+00	0.000E+00	NOT IDENT.
SC-46	4.107E-01		2.864E+00	4.992E+00	0.000E+00	NOT IDENT.
V-48	9.910E-02		4.545E+00	7.745E+00	0.000E+00	NOT IDENT.
CR-51	-7.489E+00		3.038E+01	5.080E+01	0.000E+00	NOT IDENT.
MN-52	6.954E+00		1.378E+01	2.544E+01	0.000E+00	NOT IDENT.
MN-54	-1.296E-01		2.346E+00	3.982E+00	0.000E+00	NOT IDENT.
CO-56	2.276E+00		2.983E+00	5.606E+00	0.000E+00	NOT IDENT.
CO-57	-3.353E-02		2.413E+00	4.017E+00	0.000E+00	NOT IDENT.
CO-58	-9.212E-01		2.875E+00	4.452E+00	0.000E+00	NOT IDENT.
FE-59	-4.408E+00		6.162E+00	9.054E+00	0.000E+00	NOT IDENT.
CO-60	2.339E-01		2.815E+00	4.780E+00	0.000E+00	NOT IDENT.
ZN-65	2.426E+00		5.971E+00	1.072E+01	0.000E+00	NOT IDENT.
GE-68	2.759E+01		9.456E+01	1.668E+02	0.000E+00	NOT IDENT.
AS-73	-1.597E+01		6.464E+01	1.078E+02	0.000E+00	NOT IDENT.
AS-74	6.566E+00		8.204E+00	1.474E+01	0.000E+00	NOT IDENT.
SE-75	-8.374E-01		3.695E+00	6.242E+00	0.000E+00	NOT IDENT.
BR-77	-1.830E+02		4.592E+02	7.294E+02	0.000E+00	FAIL ABUN
SR-82	-2.050E+01		2.670E+01	3.804E+01	0.000E+00	NOT IDENT.
RB-83	-2.096E+00		5.259E+00	8.353E+00	0.000E+00	NOT IDENT.
RB-84	2.643E-01		4.520E+00	7.792E+00	0.000E+00	NOT IDENT.
KR-85	-1.503E+03		8.459E+02	1.210E+03	0.000E+00	NOT IDENT.

SR-85	-7.550E+00	4.250E+00	6.079E+00	0.000E+00	NOT IDENT.
RB-86	1.910E+01	5.361E+01	9.565E+01	0.000E+00	NOT IDENT.
Y-88	7.468E-01	3.371E+00	6.001E+00	0.000E+00	NOT IDENT.
ZR-88	-1.583E+00	2.836E+00	4.405E+00	0.000E+00	NOT IDENT.
Y-91	-6.043E+02	1.218E+03	1.867E+03	0.000E+00	NOT IDENT.
NB-94	-9.223E-01	2.331E+00	3.603E+00	0.000E+00	NOT IDENT.
NB-95	-6.093E-01	3.232E+00	5.149E+00	0.000E+00	NOT IDENT.
NB-95M	7.327E+00	1.221E+01	1.844E+01	0.000E+00	NOT IDENT.
ZR-95	-2.754E+00	5.118E+00	7.660E+00	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.073E+06	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	3.075E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.019E+02	4.691E+02	7.417E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.796E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	4.509E-01	3.262E+00	5.227E+00	0.000E+00	NOT IDENT.
RH-102	-1.444E+00	1.948E+00	2.922E+00	0.000E+00	NOT IDENT.
RU-103	1.018E+00	3.227E+00	5.603E+00	0.000E+00	NOT IDENT.
RH-106	-1.124E+01	2.792E+01	4.402E+01	0.000E+00	NOT IDENT.
RU-106	-1.124E+01	2.790E+01	4.402E+01	0.000E+00	NOT IDENT.
AG-108M	2.021E+00	2.498E+00	4.580E+00	0.000E+00	NOT IDENT.
CD-109	-5.377E+01	7.088E+01	1.134E+02	0.000E+00	NOT IDENT.
AG-110M	2.937E-01	2.584E+00	4.348E+00	0.000E+00	NOT IDENT.
IN-111	4.965E+01	6.461E+01	9.993E+01	0.000E+00	NOT IDENT.
IN-113M	-1.905E+00	3.965E+00	6.424E+00	0.000E+00	NOT IDENT.
SN-113	-1.905E+00	3.965E+00	6.424E+00	0.000E+00	NOT IDENT.
IN-114M	-4.591E+00	1.626E+01	2.619E+01	0.000E+00	NOT IDENT.
CD-115	-1.195E+02	4.485E+02	7.242E+02	0.000E+00	NOT IDENT.
SN-117M	8.440E-01	4.440E+00	7.442E+00	0.000E+00	NOT IDENT.
SB-122	2.151E+01	1.033E+02	1.674E+02	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.491E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-2.721E-01	2.553E+00	4.190E+00	0.000E+00	NOT IDENT.
I-124	2.762E+01	4.089E+01	7.308E+01	0.000E+00	NOT IDENT.
SB-124	1.541E+00	8.374E+00	1.429E+01	0.000E+00	NOT IDENT.
SB-125	-7.423E+00	7.008E+00	1.031E+01	0.000E+00	NOT IDENT.
TE-125M	-4.548E+02	9.035E+02	1.461E+03	0.000E+00	NOT IDENT.
I-126	3.637E+00	1.183E+01	2.044E+01	0.000E+00	NOT IDENT.
SB-126	-9.087E-01	8.775E+00	1.422E+01	0.000E+00	NOT IDENT.
SN-126	-1.933E+00	6.801E+00	1.122E+01	0.000E+00	NOT IDENT.
SB-127	-2.590E+01	7.239E+01	1.131E+02	0.000E+00	NOT IDENT.
XE-127	1.469E+00	4.211E+00	7.078E+00	0.000E+00	NOT IDENT.
I-131	-3.981E+00	7.812E+00	1.259E+01	0.000E+00	NOT IDENT.
TE-132	-3.869E+01	4.286E+01	6.406E+01	0.000E+00	NOT IDENT.
BA-133	3.695E+00	3.634E+00	6.100E+00	0.000E+00	NOT IDENT.
I-133	0.000E+00	9.217E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-1.199E+00	3.133E+00	4.787E+00	0.000E+00	NOT IDENT.
CS-135	5.310E+00	1.281E+01	2.268E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.758E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.579E+00	7.111E+00	1.245E+01	0.000E+00	NOT IDENT.
BA-137M	3.153E+00	2.636E+00	5.054E+00	0.000E+00	NOT IDENT.
CS-137	3.333E+00	2.787E+00	5.342E+00	0.000E+00	NOT IDENT.
CE-139	3.009E-02	2.698E+00	4.460E+00	0.000E+00	NOT IDENT.
BA-140	2.515E+00	1.548E+01	2.646E+01	0.000E+00	NOT IDENT.
LA-140	1.546E+00	6.617E+00	1.148E+01	0.000E+00	NOT IDENT.
CE-141	3.837E+00	5.788E+00	9.991E+00	0.000E+00	NOT IDENT.
CE-143	0.000E+00	7.498E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	8.938E+00	1.911E+01	3.267E+01	0.000E+00	NOT IDENT.
PM-144	3.256E+00	2.533E+00	4.896E+00	0.000E+00	NOT IDENT.
PR-144	2.204E+02	1.715E+02	3.315E+02	0.000E+00	NOT IDENT.
PM-146	1.897E+00	3.471E+00	6.184E+00	0.000E+00	NOT IDENT.
ND-147	1.041E+01	3.574E+01	6.207E+01	0.000E+00	NOT IDENT.
PM-149	7.737E+02	4.275E+03	7.431E+03	0.000E+00	NOT IDENT.
EU-152	9.084E-01	9.208E+00	1.443E+01	0.000E+00	NOT IDENT.
GD-153	-4.169E+00	7.268E+00	1.171E+01	0.000E+00	NOT IDENT.
EU-154	8.437E+00	8.201E+00	1.614E+01	0.000E+00	NOT IDENT.
EU-155	-3.765E+00	1.035E+01	1.689E+01	0.000E+00	NOT IDENT.
TB-160	-5.064E+00	9.020E+00	1.388E+01	0.000E+00	NOT IDENT.
HO-166M	-1.059E-01	4.488E+00	7.377E+00	0.000E+00	NOT IDENT.
TM-171	2.858E+03	2.705E+03	4.657E+03	0.000E+00	NOT IDENT.
HF-175	-1.433E-01	3.055E+00	5.046E+00	0.000E+00	NOT IDENT.
LU-176	9.655E-01	2.071E+00	3.675E+00	0.000E+00	NOT IDENT.
LU-177	3.450E+00	7.559E+01	1.243E+02	0.000E+00	NOT IDENT.
LU-177M	-2.701E+00	1.426E+01	2.364E+01	0.000E+00	NOT IDENT.
HF-181	1.604E+00	3.516E+00	6.188E+00	0.000E+00	NOT IDENT.
W-181	4.023E+01	3.405E+01	5.897E+01	0.000E+00	NOT IDENT.
TA-182	-1.211E+01	1.082E+01	1.357E+01	0.000E+00	NOT IDENT.
RE-183	-4.771E+00	9.620E+00	1.531E+01	0.000E+00	NOT IDENT.
RE-184	2.329E+01	1.954E+01	3.506E+01	0.000E+00	NOT IDENT.
OS-185	2.069E-02	3.394E+00	5.631E+00	0.000E+00	NOT IDENT.
RE-188	2.416E+00	1.473E+01	2.466E+01	0.000E+00	NOT IDENT.

W-188	-5.797E+01	6.962E+02	1.029E+03	0.000E+00	NOT IDENT.
IR-192	3.572E-01	2.936E+00	5.066E+00	0.000E+00	NOT IDENT.
AU-195	-1.665E+01	2.086E+01	3.302E+01	0.000E+00	NOT IDENT.
TL-200	0.000E+00	1.100E+04	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-3.841E+01	4.310E+02	7.072E+02	0.000E+00	NOT IDENT.
TL-202	-6.004E+00	4.782E+00	6.803E+00	0.000E+00	NOT IDENT.
HG-203	2.251E+00	3.394E+00	6.100E+00	0.000E+00	NOT IDENT.
BI-207	2.437E-01	3.721E+00	6.361E+00	0.000E+00	NOT IDENT.
TL-207	-2.031E+01	6.013E+01	9.977E+01	0.000E+00	NOT IDENT.
TL-208	3.130E-01	3.186E+00	5.282E+00	0.000E+00	NOT IDENT.
PO-209	2.450E+02	4.959E+02	9.120E+02	0.000E+00	NOT IDENT.
BI-210	-2.927E+02	2.755E+02	4.435E+02	0.000E+00	NOT IDENT.
PB-210	-2.927E+02	2.755E+02	4.435E+02	0.000E+00	NOT IDENT.
PO-210	-2.927E+02	2.753E+02	4.435E+02	0.000E+00	NOT IDENT.
BI-211	9.400E+00	1.967E+01	3.333E+01	0.000E+00	NOT IDENT.
PB-211	-5.348E+01	8.225E+01	1.184E+02	0.000E+00	NOT IDENT.
BI-212	4.158E+00	2.192E+01	3.711E+01	0.000E+00	NOT IDENT.
PB-212	-2.175E+00	6.437E+00	1.008E+01	0.000E+00	NOT IDENT.
PO-212	-2.175E+00	6.437E+00	1.008E+01	0.000E+00	NOT IDENT.
BI-214	4.480E+00	6.860E+00	1.204E+01	0.000E+00	NOT IDENT.
PB-214	7.299E+00	9.066E+00	1.172E+01	0.000E+00	FAIL ABUN
PO-214	7.299E+00	9.066E+00	1.172E+01	0.000E+00	FAIL ABUN
PO-215	-2.031E+01	6.013E+01	9.977E+01	0.000E+00	NOT IDENT.
PO-216	-2.175E+00	6.437E+00	1.008E+01	0.000E+00	NOT IDENT.
PO-218	7.299E+00	9.066E+00	1.172E+01	0.000E+00	FAIL ABUN
RN-219	5.154E+00	3.295E+01	5.664E+01	0.000E+00	NOT IDENT.
RN-220	-7.421E+02	2.120E+03	3.007E+03	0.000E+00	NOT IDENT.
RA-223	-2.031E+01	6.013E+01	9.977E+01	0.000E+00	NOT IDENT.
RA-226	1.344E+01	7.653E+01	1.287E+02	0.000E+00	NOT IDENT.
AC-227	3.734E+00	3.207E+01	5.566E+01	0.000E+00	NOT IDENT.
PA-227	0.000E+00	6.595E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	3.734E+00	3.207E+01	5.566E+01	0.000E+00	NOT IDENT.
AC-228	2.645E-01	1.178E+01	2.057E+01	0.000E+00	NOT IDENT.
RA-228	2.645E-01	1.178E+01	2.057E+01	0.000E+00	NOT IDENT.
TH-228	-2.175E+00	6.437E+00	1.008E+01	0.000E+00	NOT IDENT.
TH-229	-3.729E+00	4.643E+01	7.586E+01	0.000E+00	NOT IDENT.
TH-230	7.235E+02	4.722E+03	1.806E+03	0.000E+00	NOT IDENT.
PA-231	2.145E+01	1.322E+02	2.294E+02	0.000E+00	NOT IDENT.
TH-231	-1.739E+00	4.402E+01	7.137E+01	0.000E+00	NOT IDENT.
U-231	-1.368E+02	8.034E+01	1.198E+02	0.000E+00	NOT IDENT.
TH-232	4.333E+02	5.113E+03	4.253E+03	0.000E+00	NOT IDENT.
PA-233	-4.485E+00	5.579E+00	8.881E+00	0.000E+00	NOT IDENT.
PA-234	-2.775E+00	2.175E+01	3.625E+01	0.000E+00	FAIL ABUN
PA-234M	7.311E+01	3.126E+02	5.502E+02	0.000E+00	NOT IDENT.
TH-234	-2.231E+02	1.294E+02	1.903E+02	0.000E+00	NOT IDENT.
U-234	1.075E+03	1.162E+04	8.462E+03	0.000E+00	NOT IDENT.
U-235	5.071E+00	2.090E+01	3.516E+01	0.000E+00	NOT IDENT.
NP-236	-1.750E+00	7.127E+00	1.157E+01	0.000E+00	NOT IDENT.
NP-237	-3.751E+00	2.147E+01	3.444E+01	0.000E+00	NOT IDENT.
PU-237	-3.553E+01	1.734E+02	2.898E+02	0.000E+00	NOT IDENT.
U-238	-2.231E+02	1.294E+02	1.903E+02	0.000E+00	NOT IDENT.
NP-239	-2.392E+00	1.893E+01	3.132E+01	0.000E+00	NOT IDENT.
AM-241	-2.650E+00	1.294E+01	2.162E+01	0.000E+00	NOT IDENT.
AM-243	-1.727E+00	5.010E+00	7.967E+00	0.000E+00	NOT IDENT.
CM-243	4.841E+00	8.811E+00	1.527E+01	0.000E+00	NOT IDENT.
AM-246	3.147E+00	1.057E+01	1.869E+01	0.000E+00	NOT IDENT.
CM-247	-6.729E-01	2.899E+00	4.788E+00	0.000E+00	NOT IDENT.
CF-249	1.148E+00	3.446E+00	6.017E+00	0.000E+00	NOT IDENT.
CF-251	1.179E+01	1.283E+01	2.235E+01	0.000E+00	NOT IDENT.
ANH-511	-8.335E+00	4.449E+00	7.998E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 18:20:02.25

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243400003.CNF;1
Sample date       : 18-DEC-2009 12:00:00 Acquisition date : 31-DEC-2009 16:18:56
Sample ID         : G243400003           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM14                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.57  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 936274               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	92.49	61	161	1.00	184.65	181	10	8.53E-03	40.4	
2	0	185.25	52	113	1.06	370.02	365	10	7.22E-03	40.6	
3	0	240.48	49	175	4.33	480.39	470	18	6.80E-03	65.6	
4	0	294.35	68	72	3.79	588.04	582	15	9.39E-03	29.8	
5	0	352.95	26	61	0.72	705.17	696	11	3.54E-03	63.2	
6	0	510.27	146	50	1.63	1019.63	1011	18	2.03E-02	14.0	
7	0	557.10	42	21	1.07	1113.26	1107	12	5.89E-03	26.5	
8	0	1926.29	11	2	1.36	3852.82	3849	8	1.51E-03	37.9	

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 18:20:05.40

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243400003.CNF;1
Sample date       : 18-DEC-2009 12:00:00 Acquisition date : 31-DEC-2009 16:18:56
Sample ID         : G243400003           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM14                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.57  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 936274                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
RA-224	240.98	49	3.95*	2.246E+00	1.036E+02	1.050E+02	131.42

Flag: "*" = Keyline

Sample ID : G243400003 Acquisition date : 31-DEC-2009 16:18:56

Total number of lines in spectrum	5	
Number of unidentified lines	2	
Number of lines tentatively identified by NID	3	60.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
RA-224	1.91Y	1.01	1.036E+02	1.050E+02	1.380E+02	131.42	
		Total Activity :	1.036E+02	1.050E+02			
		Grand Total Activity :	1.036E+02	1.050E+02			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G243400003 Acquisition date : 31-DEC-2009 16:18:56

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	294.35	58	72	3.79	588.04	582	15	8.03E-03	71.8	1.99E+00	T
0	352.95	26	61	0.72	705.17	696	11	3.54E-03	****	1.76E+00	T
0	557.10	37	21	1.07	1113.26	1107	12	5.15E-03	62.9	1.27E+00	
0	1926.29	11	2	1.36	3852.82	3849	8	1.51E-03	75.8	5.01E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 18:20:10.17

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243400003.CNF;1 *
* Acquisition date  : 31-DEC-2009 16:18:56  Detector SN#     :             *
* Detector ID       : GAM14                 Sensitivity      : 5.00000     *
* Geometry          : 2LMB                  Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:00.57          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 18-DEC-2009 12:00:00  Nuclide Library : LIQUID       *
* Sample ID         : G243400003            Analyst initials: KXG3         *
* Batch Number      : 936274                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 9-MAR-2009 15:03:15.29MS Isotope      :               *
* MSD ID           :                      MSD Isotope     :               *
* LCS ID           : 1032-A               LCS Isotope     :               *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RA-224	1.050E+02	1.380E+02	9.831E+01	5.588E+00	1.068

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	-5.951E-01		2.264E+01	3.716E+01	2.583E+00	-0.016
NA-22	2.966E+00		2.975E+00	5.744E+00	3.804E-01	0.516
NA-24	3.828E-01		3.960E+00	Half-Life too short		
AL-26	-9.413E-01		2.323E+00	3.380E+00	1.982E-01	-0.278
K-40	4.123E+00		3.265E+01	5.833E+01	4.281E+00	0.071
TI-44	-4.874E-01		3.221E+00	5.188E+00	4.470E-01	-0.094
SC-46	4.107E-01		2.922E+00	4.992E+00	3.811E-01	0.082
V-48	9.910E-02		4.637E+00	7.745E+00	5.615E-01	0.013
CR-51	-7.489E+00		3.100E+01	5.080E+01	3.386E+00	-0.147
MN-52	6.954E+00		1.406E+01	2.544E+01	1.805E+00	0.273
MN-54	-1.296E-01		2.394E+00	3.982E+00	2.761E-01	-0.033

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-56	2.276E+00		3.044E+00	5.606E+00	3.971E-01	0.406
CO-57	-3.353E-02		2.462E+00	4.017E+00	2.427E-01	-0.008
CO-58	-9.212E-01		2.934E+00	4.452E+00	2.965E-01	-0.207
FE-59	-4.408E+00		6.287E+00	9.054E+00	6.551E-01	-0.487
CO-60	2.339E-01		2.873E+00	4.780E+00	3.463E-01	0.049
ZN-65	2.426E+00		6.093E+00	1.072E+01	6.612E-01	0.226
GE-68	2.759E+01		9.648E+01	1.668E+02	1.086E+01	0.165
AS-73	-1.597E+01		6.596E+01	1.078E+02	8.720E+00	-0.148
AS-74	6.566E+00		8.371E+00	1.474E+01	8.042E-01	0.445
SE-75	-8.374E-01		3.770E+00	6.242E+00	3.663E-01	-0.134
BR-77	-1.830E+02		4.686E+02	7.294E+02	4.289E+01	-0.251
SR-82	-2.050E+01		2.725E+01	3.804E+01	2.364E+00	-0.539
RB-83	-2.096E+00		5.366E+00	8.353E+00	4.913E-01	-0.251
RB-84	2.643E-01		4.612E+00	7.792E+00	5.870E-01	0.034
KR-85	-1.503E+03		8.631E+02	1.210E+03	7.149E+01	-1.242
SR-85	-7.550E+00		4.336E+00	6.079E+00	3.592E-01	-1.242
RB-86	1.910E+01		5.471E+01	9.565E+01	6.233E+00	0.200
Y-88	7.468E-01		3.439E+00	6.001E+00	3.450E-01	0.124
ZR-88	-1.583E+00		2.894E+00	4.405E+00	2.698E-01	-0.359
Y-91	-6.043E+02		1.243E+03	1.867E+03	1.097E+02	-0.324
NB-94	-9.223E-01		2.378E+00	3.603E+00	1.932E-01	-0.256
NB-95	-6.093E-01		3.298E+00	5.149E+00	3.136E-01	-0.118
NB-95M	7.327E+00		1.246E+01	1.844E+01	1.368E+00	0.397
ZR-95	-2.754E+00		5.223E+00	7.660E+00	5.498E-01	-0.360
NB-97	2.676E-01		5.476E-01	Half-Life too short		
ZR-97	-1.391E+01		1.569E+01	Half-Life too short		
MO-99	-1.019E+02		4.787E+02	7.417E+02	1.021E+02	-0.137
TC-99M	1.166E+10		9.164E+09	Half-Life too short		
RH-101	4.509E-01		3.328E+00	5.227E+00	2.840E-01	0.086
RH-102	-1.444E+00		1.988E+00	2.922E+00	1.764E-01	-0.494
RU-103	1.018E+00		3.293E+00	5.603E+00	7.129E-01	0.182
RH-106	-1.124E+01		2.849E+01	4.402E+01	5.054E+00	-0.255
RU-106	-1.124E+01		2.847E+01	4.402E+01	2.316E+00	-0.255
AG-108M	2.021E+00		2.549E+00	4.580E+00	3.017E-01	0.441
CD-109	-5.377E+01		7.232E+01	1.134E+02	1.047E+01	-0.474
AG-110M	2.937E-01		2.636E+00	4.348E+00	2.342E-01	0.068
IN-111	4.965E+01		6.593E+01	9.993E+01	5.705E+00	0.497
IN-113M	-1.905E+00		4.046E+00	6.424E+00	4.171E-01	-0.297
SN-113	-1.905E+00		4.046E+00	6.424E+00	4.171E-01	-0.297
IN-114M	-4.591E+00		1.659E+01	2.619E+01	1.411E+00	-0.175
CD-115	-1.195E+02		4.577E+02	7.242E+02	4.235E+01	-0.165
SN-117M	8.440E-01		4.531E+00	7.442E+00	3.993E-01	0.113
SB-122	2.151E+01		1.054E+02	1.674E+02	9.474E+00	0.129
I-123	-4.785E+00		2.291E+01	Half-Life too short		
TE-123M	-2.721E-01		2.606E+00	4.190E+00	2.281E-01	-0.065
I-124	2.762E+01		4.173E+01	7.308E+01	3.951E+00	0.378
SB-124	1.541E+00		8.545E+00	1.429E+01	9.736E-01	0.108
SB-125	-7.423E+00		7.151E+00	1.031E+01	6.548E-01	-0.720

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TE-125M	-4.548E+02		9.220E+02	1.461E+03	1.303E+02	-0.311
I-126	3.637E+00		1.207E+01	2.044E+01	1.015E+00	0.178
SB-126	-9.087E-01		8.954E+00	1.422E+01	7.910E-01	-0.064
SN-126	-1.933E+00		6.939E+00	1.122E+01	1.033E+00	-0.172
SB-127	-2.590E+01		7.387E+01	1.131E+02	9.462E+00	-0.229
XE-127	1.469E+00		4.297E+00	7.078E+00	3.866E-01	0.207
I-131	-3.981E+00		7.971E+00	1.259E+01	8.482E-01	-0.316
TE-132	-3.869E+01		4.374E+01	6.406E+01	8.916E+00	-0.604
BA-133	3.695E+00		3.708E+00	6.100E+00	7.145E-01	0.606
I-133	5.378E-02		4.702E-02	Half-Life too short		
CS-134	-1.199E+00		3.197E+00	4.787E+00	3.127E-01	-0.250
CS-135	5.310E+00		1.307E+01	2.268E+01	1.741E+00	0.234
I-135	1.978E+09		1.407E+09	Half-Life too short		
CS-136	1.579E+00		7.256E+00	1.245E+01	8.993E-01	0.127
BA-137M	3.153E+00		2.690E+00	5.054E+00	2.485E-01	0.624
CS-137	3.333E+00		2.844E+00	5.342E+00	2.642E-01	0.624
CE-139	3.009E-02		2.753E+00	4.460E+00	2.352E-01	0.007
BA-140	2.515E+00		1.580E+01	2.646E+01	8.606E+00	0.095
LA-140	1.546E+00		6.752E+00	1.148E+01	7.681E-01	0.135
CE-141	3.837E+00		5.906E+00	9.991E+00	5.788E-01	0.384
CE-143	1.020E-02	+	3.826E-03	Half-Life too short		
CE-144	8.938E+00		1.950E+01	3.267E+01	4.635E+00	0.274
PM-144	3.256E+00		2.585E+00	4.896E+00	2.594E-01	0.665
PR-144	2.204E+02		1.750E+02	3.315E+02	1.755E+01	0.665
PM-146	1.897E+00		3.542E+00	6.184E+00	5.451E-01	0.307
ND-147	1.041E+01		3.647E+01	6.207E+01	8.402E+00	0.168
PM-149	7.737E+02		4.363E+03	7.431E+03	1.056E+03	0.104
EU-152	9.084E-01		9.396E+00	1.443E+01	9.794E-01	0.063
GD-153	-4.169E+00		7.417E+00	1.171E+01	9.329E-01	-0.356
EU-154	8.437E+00		8.369E+00	1.614E+01	1.592E+00	0.523
EU-155	-3.765E+00		1.056E+01	1.689E+01	1.238E+00	-0.223
TB-160	-5.064E+00		9.204E+00	1.388E+01	1.041E+00	-0.365
HO-166M	-1.059E-01		4.579E+00	7.377E+00	4.030E-01	-0.014
TM-171	2.858E+03		2.760E+03	4.657E+03	3.852E+02	0.614
HF-175	-1.433E-01		3.117E+00	5.046E+00	3.068E-01	-0.028
LU-176	9.655E-01		2.113E+00	3.675E+00	2.199E-01	0.263
LU-177	3.450E+00		7.713E+01	1.243E+02	6.832E+00	0.028
LU-177M	-2.701E+00		1.455E+01	2.364E+01	1.448E+00	-0.114
HF-181	1.604E+00		3.587E+00	6.188E+00	3.724E-01	0.259
W-181	4.023E+01		3.475E+01	5.897E+01	4.877E+00	0.682
TA-182	-1.211E+01		1.105E+01	1.357E+01	8.206E-01	-0.892
RE-183	-4.771E+00		9.816E+00	1.531E+01	8.141E-01	-0.312
RE-184	2.329E+01		1.994E+01	3.506E+01	2.015E+00	0.664
OS-185	2.069E-02		3.464E+00	5.631E+00	2.848E-01	0.004
RE-188	2.416E+00		1.503E+01	2.466E+01	1.335E+00	0.098
W-188	-5.797E+01		7.104E+02	1.029E+03	6.096E+01	-0.056
IR-192	3.572E-01		2.996E+00	5.066E+00	3.061E-01	0.071
AU-195	-1.665E+01		2.128E+01	3.302E+01	2.579E+00	-0.504

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TL-200	1.219E-02		5.611E-03	Half-Life too short		
TL-201	-3.841E+01		4.398E+02	7.072E+02	3.732E+01	-0.054
TL-202	-6.004E+00		4.880E+00	6.803E+00	4.154E-01	-0.882
HG-203	2.251E+00		3.464E+00	6.100E+00	3.801E-01	0.369
BI-207	2.437E-01		3.797E+00	6.361E+00	4.218E-01	0.038
TL-207	-2.031E+01		6.135E+01	9.977E+01	1.656E+01	-0.204
TL-208	3.130E-01		3.251E+00	5.282E+00	3.414E-01	0.059
PO-209	2.450E+02		5.060E+02	9.120E+02	7.051E+01	0.269
BI-210	-2.927E+02		2.811E+02	4.435E+02	3.493E+01	-0.660
PB-210	-2.927E+02		2.811E+02	4.435E+02	3.493E+01	-0.660
PO-210	-2.927E+02		2.809E+02	4.435E+02	3.021E+01	-0.660
BI-211	9.400E+00		2.007E+01	3.333E+01	2.233E+00	0.282
PB-211	-5.348E+01		8.393E+01	1.184E+02	7.386E+01	-0.452
BI-212	4.158E+00		2.237E+01	3.711E+01	2.818E+00	0.112
PB-212	-2.175E+00		6.569E+00	1.008E+01	7.288E-01	-0.216
PO-212	-2.175E+00		6.569E+00	1.008E+01	7.288E-01	-0.216
BI-214	4.480E+00		7.000E+00	1.204E+01	8.976E-01	0.372
PB-214	7.299E+00	+	9.251E+00	1.172E+01	9.953E-01	0.623
PO-214	7.299E+00	+	9.251E+00	1.172E+01	9.953E-01	0.623
PO-215	-2.031E+01		6.135E+01	9.977E+01	1.656E+01	-0.204
PO-216	-2.175E+00		6.569E+00	1.008E+01	7.288E-01	-0.216
PO-218	7.299E+00	+	9.251E+00	1.172E+01	9.953E-01	0.623
RN-219	5.154E+00		3.362E+01	5.664E+01	7.787E+00	0.091
RN-220	-7.421E+02		2.164E+03	3.007E+03	1.726E+02	-0.247
RA-223	-2.031E+01		6.135E+01	9.977E+01	1.656E+01	-0.204
RA-226	1.344E+01		7.809E+01	1.287E+02	9.442E+01	0.104
AC-227	3.734E+00		3.273E+01	5.566E+01	7.763E+00	0.067
PA-227	1.000E+35		3.365E+35	Half-Life too short		
TH-227	3.734E+00		3.273E+01	5.566E+01	9.400E+00	0.067
AC-228	2.645E-01		1.202E+01	2.057E+01	2.169E+00	0.013
RA-228	2.645E-01		1.202E+01	2.057E+01	2.169E+00	0.013
TH-228	-2.175E+00		6.569E+00	1.008E+01	7.288E-01	-0.216
TH-229	-3.729E+00		4.738E+01	7.586E+01	4.102E+00	-0.049
TH-230	7.235E+02		4.818E+03	1.806E+03	1.172E+04	0.401
PA-231	2.145E+01		1.349E+02	2.294E+02	3.171E+01	0.093
TH-231	-1.739E+00		4.492E+01	7.137E+01	1.286E+01	-0.024
U-231	-1.368E+02		8.198E+01	1.198E+02	9.756E+00	-1.142
TH-232	4.333E+02		5.217E+03	4.253E+03	4.477E+04	0.102
PA-233	-4.485E+00		5.693E+00	8.881E+00	5.638E-01	-0.505
PA-234	-2.775E+00		2.219E+01	3.625E+01	6.624E+00	-0.077
PA-234M	7.311E+01		3.190E+02	5.502E+02	4.790E+01	0.133
TH-234	-2.231E+02		1.321E+02	1.903E+02	3.393E+01	-1.172
U-234	1.075E+03		1.186E+04	8.462E+03	8.462E+04	0.127
U-235	5.071E+00		2.133E+01	3.516E+01	5.705E+00	0.144
NP-236	-1.750E+00		7.273E+00	1.157E+01	6.182E-01	-0.151
NP-237	-3.751E+00		2.190E+01	3.444E+01	7.770E+00	-0.109
PU-237	-3.553E+01		1.769E+02	2.898E+02	2.426E+01	-0.123
U-238	-2.231E+02		1.321E+02	1.903E+02	3.393E+01	-1.172

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NP-239	-2.392E+00		1.932E+01	3.132E+01	1.986E+00	-0.076
AM-241	-2.650E+00		1.320E+01	2.162E+01	1.949E+00	-0.123
AM-243	-1.727E+00		5.113E+00	7.967E+00	6.732E-01	-0.217
CM-243	4.841E+00		8.991E+00	1.527E+01	1.120E+00	0.317
AM-246	3.147E+00		1.079E+01	1.869E+01	1.214E+00	0.168
CM-247	-6.729E-01		2.958E+00	4.788E+00	2.934E-01	-0.141
CF-249	1.148E+00		3.516E+00	6.017E+00	3.684E-01	0.191
CF-251	1.179E+01		1.309E+01	2.235E+01	1.188E+00	0.527
ANH-511	-8.335E+00		4.540E+00	7.998E+00	4.735E-01	-1.042

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G243400003           *
* Acquisition date  : 31-DEC-2009 16:18:56 Detector SN#     :               *
* Detector ID       : GAM14                Sensitivity      : 5.000         *
* Geometry          : 2LMB                 Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:00.57      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 18-DEC-2009 12:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G243400003           Analyst initials: KXG3           *
* Batch Number      : 936274               Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  9-MAR-2009 15:03:15 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
RA-224	1.050E+02	1.352E+02	4.919E+01	6.898E+01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU
BE-7	-5.951E-01	2.219E+01	1.859E+01	1.132E+01 NOT IDENT.
NA-22	2.966E+00	2.915E+00	2.874E+00	1.487E+00 NOT IDENT.
NA-24	3.828E+05	7.761E+06	0.000E+00	3.960E+06 SHORT HLIF
AL-26	-9.413E-01	2.276E+00	1.691E+00	1.161E+00 NOT IDENT.
K-40	4.123E+00	3.200E+01	2.918E+01	1.633E+01 NOT IDENT.
TI-44	-4.874E-01	3.157E+00	2.596E+00	1.611E+00 NOT IDENT.
SC-46	4.107E-01	2.864E+00	2.497E+00	1.461E+00 NOT IDENT.
V-48	9.910E-02	4.545E+00	3.875E+00	2.319E+00 NOT IDENT.
CR-51	-7.489E+00	3.038E+01	2.542E+01	1.550E+01 NOT IDENT.
MN-52	6.954E+00	1.378E+01	1.273E+01	7.031E+00 NOT IDENT.
MN-54	-1.296E-01	2.346E+00	1.992E+00	1.197E+00 NOT IDENT.
CO-56	2.276E+00	2.983E+00	2.805E+00	1.522E+00 NOT IDENT.
CO-57	-3.353E-02	2.413E+00	2.010E+00	1.231E+00 NOT IDENT.
CO-58	-9.212E-01	2.875E+00	2.228E+00	1.467E+00 NOT IDENT.
FE-59	-4.408E+00	6.162E+00	4.530E+00	3.144E+00 NOT IDENT.
CO-60	2.339E-01	2.815E+00	2.391E+00	1.436E+00 NOT IDENT.
ZN-65	2.426E+00	5.971E+00	5.365E+00	3.047E+00 NOT IDENT.
GE-68	2.759E+01	9.456E+01	8.345E+01	4.824E+01 NOT IDENT.
AS-73	-1.597E+01	6.464E+01	5.392E+01	3.298E+01 NOT IDENT.
AS-74	6.566E+00	8.204E+00	7.375E+00	4.186E+00 NOT IDENT.
SE-75	-8.374E-01	3.695E+00	3.123E+00	1.885E+00 NOT IDENT.
BR-77	-1.830E+02	4.592E+02	3.649E+02	2.343E+02 FAIL ABUN
SR-82	-2.050E+01	2.670E+01	1.903E+01	1.362E+01 NOT IDENT.
RB-83	-2.096E+00	5.259E+00	4.179E+00	2.683E+00 NOT IDENT.
RB-84	2.643E-01	4.520E+00	3.899E+00	2.306E+00 NOT IDENT.
KR-85	-1.503E+03	8.459E+02	6.054E+02	4.316E+02 NOT IDENT.

SR-85	-7.550E+00	4.250E+00	3.041E+00	2.168E+00	NOT IDENT.
RB-86	1.910E+01	5.361E+01	4.785E+01	2.735E+01	NOT IDENT.
Y-88	7.468E-01	3.371E+00	3.002E+00	1.720E+00	NOT IDENT.
ZR-88	-1.583E+00	2.836E+00	2.204E+00	1.447E+00	NOT IDENT.
Y-91	-6.043E+02	1.218E+03	9.343E+02	6.215E+02	NOT IDENT.
NB-94	-9.223E-01	2.331E+00	1.803E+00	1.189E+00	NOT IDENT.
NB-95	-6.093E-01	3.232E+00	2.576E+00	1.649E+00	NOT IDENT.
NB-95M	7.327E+00	1.221E+01	9.226E+00	6.231E+00	NOT IDENT.
ZR-95	-2.754E+00	5.118E+00	3.832E+00	2.611E+00	NOT IDENT.
NB-97	2.676E+05	1.073E+06	0.000E+00	5.476E+05	SHORT HLIF
ZR-97	-1.391E+07	3.075E+07	0.000E+00	1.569E+07	SHORT HLIF
MO-99	-1.019E+02	4.691E+02	3.711E+02	2.393E+02	NOT IDENT.
TC-99M	1.166E+16	1.796E+16	0.000E+00	9.164E+15	SHORT HLIF
RH-101	4.509E-01	3.262E+00	2.615E+00	1.664E+00	NOT IDENT.
RH-102	-1.444E+00	1.948E+00	1.462E+00	9.939E-01	NOT IDENT.
RU-103	1.018E+00	3.227E+00	2.803E+00	1.647E+00	NOT IDENT.
RH-106	-1.124E+01	2.792E+01	2.202E+01	1.425E+01	NOT IDENT.
RU-106	-1.124E+01	2.790E+01	2.202E+01	1.423E+01	NOT IDENT.
AG-108M	2.021E+00	2.498E+00	2.291E+00	1.275E+00	NOT IDENT.
CD-109	-5.377E+01	7.088E+01	5.671E+01	3.616E+01	NOT IDENT.
AG-110M	2.937E-01	2.584E+00	2.175E+00	1.318E+00	NOT IDENT.
IN-111	4.965E+01	6.461E+01	4.999E+01	3.297E+01	NOT IDENT.
IN-113M	-1.905E+00	3.965E+00	3.214E+00	2.023E+00	NOT IDENT.
SN-113	-1.905E+00	3.965E+00	3.214E+00	2.023E+00	NOT IDENT.
IN-114M	-4.591E+00	1.626E+01	1.310E+01	8.297E+00	NOT IDENT.
CD-115	-1.195E+02	4.485E+02	3.623E+02	2.288E+02	NOT IDENT.
SN-117M	8.440E-01	4.440E+00	3.723E+00	2.265E+00	NOT IDENT.
SB-122	2.151E+01	1.033E+02	8.373E+01	5.271E+01	NOT IDENT.
I-123	-4.785E+06	4.491E+07	0.000E+00	2.291E+07	SHORT HLIF
TE-123M	-2.721E-01	2.553E+00	2.096E+00	1.303E+00	NOT IDENT.
I-124	2.762E+01	4.089E+01	3.656E+01	2.086E+01	NOT IDENT.
SB-124	1.541E+00	8.374E+00	7.147E+00	4.272E+00	NOT IDENT.
SB-125	-7.423E+00	7.008E+00	5.158E+00	3.576E+00	NOT IDENT.
TE-125M	-4.548E+02	9.035E+02	7.307E+02	4.610E+02	NOT IDENT.
I-126	3.637E+00	1.183E+01	1.022E+01	6.034E+00	NOT IDENT.
SB-126	-9.087E-01	8.775E+00	7.113E+00	4.477E+00	NOT IDENT.
SN-126	-1.933E+00	6.801E+00	5.615E+00	3.470E+00	NOT IDENT.
SB-127	-2.590E+01	7.239E+01	5.659E+01	3.693E+01	NOT IDENT.
XE-127	1.469E+00	4.211E+00	3.541E+00	2.148E+00	NOT IDENT.
I-131	-3.981E+00	7.812E+00	6.298E+00	3.986E+00	NOT IDENT.
TE-132	-3.869E+01	4.286E+01	3.205E+01	2.187E+01	NOT IDENT.
BA-133	3.695E+00	3.634E+00	3.052E+00	1.854E+00	NOT IDENT.
I-133	5.378E+04	9.217E+04	0.000E+00	4.702E+04	SHORT HLIF
CS-134	-1.199E+00	3.133E+00	2.395E+00	1.599E+00	NOT IDENT.
CS-135	5.310E+00	1.281E+01	1.134E+01	6.534E+00	NOT IDENT.
I-135	1.978E+15	2.758E+15	0.000E+00	1.407E+15	SHORT HLIF
CS-136	1.579E+00	7.111E+00	6.231E+00	3.628E+00	NOT IDENT.
BA-137M	3.153E+00	2.636E+00	2.528E+00	1.345E+00	NOT IDENT.
CS-137	3.333E+00	2.787E+00	2.673E+00	1.422E+00	NOT IDENT.
CE-139	3.009E-02	2.698E+00	2.231E+00	1.377E+00	NOT IDENT.
BA-140	2.515E+00	1.548E+01	1.324E+01	7.898E+00	NOT IDENT.
LA-140	1.546E+00	6.617E+00	5.743E+00	3.376E+00	NOT IDENT.
CE-141	3.837E+00	5.788E+00	4.999E+00	2.953E+00	NOT IDENT.
CE-143	1.020E+04	7.498E+03	0.000E+00	3.826E+03	SHORT HLIF
CE-144	8.938E+00	1.911E+01	1.635E+01	9.749E+00	NOT IDENT.
PM-144	3.256E+00	2.533E+00	2.450E+00	1.292E+00	NOT IDENT.
PR-144	2.204E+02	1.715E+02	1.658E+02	8.748E+01	NOT IDENT.
PM-146	1.897E+00	3.471E+00	3.094E+00	1.771E+00	NOT IDENT.
ND-147	1.041E+01	3.574E+01	3.105E+01	1.823E+01	NOT IDENT.
PM-149	7.737E+02	4.275E+03	3.717E+03	2.181E+03	NOT IDENT.
EU-152	9.084E-01	9.208E+00	7.217E+00	4.698E+00	NOT IDENT.
GD-153	-4.169E+00	7.268E+00	5.858E+00	3.708E+00	NOT IDENT.
EU-154	8.437E+00	8.201E+00	8.074E+00	4.184E+00	NOT IDENT.
EU-155	-3.765E+00	1.035E+01	8.449E+00	5.278E+00	NOT IDENT.
TB-160	-5.064E+00	9.020E+00	6.942E+00	4.602E+00	NOT IDENT.
HO-166M	-1.059E-01	4.488E+00	3.690E+00	2.290E+00	NOT IDENT.
TM-171	2.858E+03	2.705E+03	2.330E+03	1.380E+03	NOT IDENT.
HF-175	-1.433E-01	3.055E+00	2.525E+00	1.559E+00	NOT IDENT.
LU-176	9.655E-01	2.071E+00	1.839E+00	1.056E+00	NOT IDENT.
LU-177	3.450E+00	7.559E+01	6.221E+01	3.857E+01	NOT IDENT.
LU-177M	-2.701E+00	1.426E+01	1.183E+01	7.274E+00	NOT IDENT.
HF-181	1.604E+00	3.516E+00	3.096E+00	1.794E+00	NOT IDENT.
W-181	4.023E+01	3.405E+01	2.950E+01	1.737E+01	NOT IDENT.
TA-182	-1.211E+01	1.082E+01	6.789E+00	5.523E+00	NOT IDENT.
RE-183	-4.771E+00	9.620E+00	7.661E+00	4.908E+00	NOT IDENT.
RE-184	2.329E+01	1.954E+01	1.754E+01	9.968E+00	NOT IDENT.
OS-185	2.069E-02	3.394E+00	2.817E+00	1.732E+00	NOT IDENT.
RE-188	2.416E+00	1.473E+01	1.234E+01	7.516E+00	NOT IDENT.

W-188	-5.797E+01	6.962E+02	5.148E+02	3.552E+02	NOT IDENT.
IR-192	3.572E-01	2.936E+00	2.534E+00	1.498E+00	NOT IDENT.
AU-195	-1.665E+01	2.086E+01	1.652E+01	1.064E+01	NOT IDENT.
TL-200	1.219E+04	1.100E+04	0.000E+00	5.611E+03	SHORT HLIF
TL-201	-3.841E+01	4.310E+02	3.538E+02	2.199E+02	NOT IDENT.
TL-202	-6.004E+00	4.782E+00	3.404E+00	2.440E+00	NOT IDENT.
HG-203	2.251E+00	3.394E+00	3.052E+00	1.732E+00	NOT IDENT.
BI-207	2.437E-01	3.721E+00	3.182E+00	1.899E+00	NOT IDENT.
TL-207	-2.031E+01	6.013E+01	4.991E+01	3.068E+01	NOT IDENT.
TL-208	3.130E-01	3.186E+00	2.643E+00	1.625E+00	NOT IDENT.
PO-209	2.450E+02	4.959E+02	4.563E+02	2.530E+02	NOT IDENT.
BI-210	-2.927E+02	2.755E+02	2.219E+02	1.406E+02	NOT IDENT.
PB-210	-2.927E+02	2.755E+02	2.219E+02	1.406E+02	NOT IDENT.
PO-210	-2.927E+02	2.753E+02	2.219E+02	1.405E+02	NOT IDENT.
BI-211	9.400E+00	1.967E+01	1.668E+01	1.003E+01	NOT IDENT.
PB-211	-5.348E+01	8.225E+01	5.925E+01	4.196E+01	NOT IDENT.
BI-212	4.158E+00	2.192E+01	1.857E+01	1.118E+01	NOT IDENT.
PB-212	-2.175E+00	6.437E+00	5.043E+00	3.284E+00	NOT IDENT.
PO-212	-2.175E+00	6.437E+00	5.043E+00	3.284E+00	NOT IDENT.
BI-214	4.480E+00	6.860E+00	6.023E+00	3.500E+00	NOT IDENT.
PB-214	7.299E+00	9.066E+00	5.863E+00	4.625E+00	FAIL ABUN
PO-214	7.299E+00	9.066E+00	5.863E+00	4.625E+00	FAIL ABUN
PO-215	-2.031E+01	6.013E+01	4.991E+01	3.068E+01	NOT IDENT.
PO-216	-2.175E+00	6.437E+00	5.043E+00	3.284E+00	NOT IDENT.
PO-218	7.299E+00	9.066E+00	5.863E+00	4.625E+00	FAIL ABUN
RN-219	5.154E+00	3.295E+01	2.834E+01	1.681E+01	NOT IDENT.
RN-220	-7.421E+02	2.120E+03	1.504E+03	1.082E+03	NOT IDENT.
RA-223	-2.031E+01	6.013E+01	4.991E+01	3.068E+01	NOT IDENT.
RA-226	1.344E+01	7.653E+01	6.439E+01	3.904E+01	NOT IDENT.
AC-227	3.734E+00	3.207E+01	2.785E+01	1.636E+01	NOT IDENT.
PA-227	1.000E+41	6.595E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	3.734E+00	3.207E+01	2.785E+01	1.636E+01	NOT IDENT.
AC-228	2.645E-01	1.178E+01	1.029E+01	6.012E+00	NOT IDENT.
RA-228	2.645E-01	1.178E+01	1.029E+01	6.012E+00	NOT IDENT.
TH-228	-2.175E+00	6.437E+00	5.043E+00	3.284E+00	NOT IDENT.
TH-229	-3.729E+00	4.643E+01	3.795E+01	2.369E+01	NOT IDENT.
TH-230	7.235E+02	4.722E+03	9.036E+02	2.409E+03	NOT IDENT.
PA-231	2.145E+01	1.322E+02	1.148E+02	6.744E+01	NOT IDENT.
TH-231	-1.739E+00	4.402E+01	3.571E+01	2.246E+01	NOT IDENT.
U-231	-1.368E+02	8.034E+01	5.992E+01	4.099E+01	NOT IDENT.
TH-232	4.333E+02	5.113E+03	2.128E+03	2.609E+03	NOT IDENT.
PA-233	-4.485E+00	5.579E+00	4.443E+00	2.847E+00	NOT IDENT.
PA-234	-2.775E+00	2.175E+01	1.814E+01	1.109E+01	FAIL ABUN
PA-234M	7.311E+01	3.126E+02	2.753E+02	1.595E+02	NOT IDENT.
TH-234	-2.231E+02	1.294E+02	9.521E+01	6.604E+01	NOT IDENT.
U-234	1.075E+03	1.162E+04	4.233E+03	5.930E+03	NOT IDENT.
U-235	5.071E+00	2.090E+01	1.759E+01	1.066E+01	NOT IDENT.
NP-236	-1.750E+00	7.127E+00	5.789E+00	3.636E+00	NOT IDENT.
NP-237	-3.751E+00	2.147E+01	1.723E+01	1.095E+01	NOT IDENT.
PU-237	-3.553E+01	1.734E+02	1.450E+02	8.847E+01	NOT IDENT.
U-238	-2.231E+02	1.294E+02	9.521E+01	6.604E+01	NOT IDENT.
NP-239	-2.392E+00	1.893E+01	1.567E+01	9.658E+00	NOT IDENT.
AM-241	-2.650E+00	1.294E+01	1.082E+01	6.600E+00	NOT IDENT.
AM-243	-1.727E+00	5.010E+00	3.986E+00	2.556E+00	NOT IDENT.
CM-243	4.841E+00	8.811E+00	7.638E+00	4.495E+00	NOT IDENT.
AM-246	3.147E+00	1.057E+01	9.350E+00	5.395E+00	NOT IDENT.
CM-247	-6.729E-01	2.899E+00	2.396E+00	1.479E+00	NOT IDENT.
CF-249	1.148E+00	3.446E+00	3.010E+00	1.758E+00	NOT IDENT.
CF-251	1.179E+01	1.283E+01	1.118E+01	6.545E+00	NOT IDENT.
ANH-511	-8.335E+00	4.449E+00	4.002E+00	2.270E+00	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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ENERGY	MDA COUNTS
46.50	85.0170
46.50	85.0170
46.50	85.0170
48.70	108.9939
49.72	96.8188
51.35	77.0683
52.39	76.2305
52.97	84.8763
53.15	84.8981
53.20	84.9040
53.44	95.4302
54.07	107.9316
56.28	103.4716
56.28	103.4721
57.37	0.0000
57.53	88.2929
57.53	88.2932
57.60	88.3013
57.98	86.4260
57.98	86.4260
59.00	106.7377
59.32	106.7833
59.32	106.7833
59.40	106.7945
59.54	114.5127
59.54	114.5127
59.72	114.5400
60.01	119.3984
61.10	119.5692
61.14	119.5756
61.30	119.6004
63.00	156.5959
63.29	156.6542
63.29	156.6542
63.58	141.2345
64.28	130.7098
64.62	0.0000
65.12	113.4022
65.20	113.4135
65.20	113.4135
66.05	123.2381
66.72	121.3985
66.83	121.4151
66.91	120.4556
67.20	119.5272
67.20	119.5272
67.67	118.6240
67.75	118.6357
67.85	127.4035
68.90	147.0428
68.90	147.0428
69.30	149.0627
69.67	154.9784
70.82	142.5041
70.82	142.5041
70.83	142.5057
72.80	131.0996
72.80	131.0996
72.87	124.2613
72.87	124.2613
74.67	127.4644
74.81	127.4852
74.81	127.4852
74.81	127.4852
74.81	127.4852
74.81	127.4852
74.81	127.4852

74.81	127.4852
74.97	120.6432
74.97	120.6432
75.28	120.6863
75.70	123.6900
77.11	124.8732
77.11	124.8732
77.11	124.8732
77.11	124.8732
77.11	124.8732
77.11	124.8732
77.11	124.8732
78.38	131.9461
79.62	141.9901
79.80	142.0186
79.80	142.0186
80.11	152.9205
80.18	152.9323
80.30	152.9530
80.30	152.9530
80.57	162.8694
81.00	150.1092
81.07	150.1208
81.07	150.1208
81.07	150.1208
82.60	120.6946
83.37	136.6376
83.78	134.7180
83.78	134.7180
83.78	134.7180
84.21	130.8167
84.21	130.8167
84.90	122.9797
85.43	114.1191
86.29	120.1835
86.50	129.1515
86.54	129.1570
86.59	129.1639
86.72	129.1817
86.79	129.1912
86.94	128.2181
87.30	128.2673
87.30	128.2673
87.30	128.2673
87.30	128.2673
87.30	128.2673
87.30	128.2673
87.30	128.2673
87.57	135.2659
87.88	135.3105
88.03	151.2532
88.36	151.3059
88.47	177.2076
89.36	192.3197
89.95	181.4703
91.11	137.7636
92.29	119.9400
92.38	119.9515
92.38	119.9515
93.35	107.0625
94.00	108.1343
94.67	133.2552
94.67	133.2557
94.90	133.2867
94.90	133.2867
94.90	133.2867
95.87	180.5644
95.87	180.5644
96.73	156.6237
97.43	125.5870
98.44	127.7238
98.44	127.7238
98.88	127.7793
99.55	111.7546
99.55	111.7546
99.86	111.7884
100.00	109.7892
100.10	109.8004

103.18	104.0656
103.76	99.0688
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105.31	125.5373
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109.28	137.1830
110.05	0.0000
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111.00	108.9029
111.76	123.2377
112.95	136.6259
115.19	114.4259
115.19	114.4259
115.19	114.4259
116.30	125.7894
117.00	125.8678
117.00	125.8678
117.66	105.4632
121.11	117.0807
121.62	103.7752
121.78	103.7895
122.06	113.0657
122.32	113.0909
122.32	113.0909
122.32	113.0909
123.07	113.1643
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133.54	105.8622
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136.00	142.4728
136.25	138.3414
136.48	134.2059
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140.51	0.0000
142.18	150.4951
142.65	141.1417
143.76	129.7548
144.24	114.1011
144.24	114.1011
144.24	114.1011
145.22	119.4272
145.44	113.1606
147.16	113.3113
152.43	102.1818
152.70	96.9344
153.22	94.8642
154.21	93.8801
154.21	93.8801
154.21	93.8801
155.03	98.1597
156.02	105.6267
158.56	98.4180
159.00	0.0000
159.00	105.8601
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161.27	103.9156
162.32	108.2404
162.64	112.5110
163.35	109.3833
163.89	108.3641
165.85	105.3250
167.43	116.0952
171.28	142.0451
171.86	139.9661
172.10	139.9901
176.55	111.4815
176.60	111.4855
181.06	138.7081
184.41	109.9252
185.71	86.2909
186.00	92.7811
186.21	92.7942
190.27	109.2728
192.34	83.4204
193.63	103.0082

197.04	95.6296
198.01	96.7768
198.60	107.6914
200.40	108.9043
201.83	136.2543
202.84	101.4385
205.31	108.1513
208.36	93.0349
208.81	90.8712
209.75	82.1606
209.75	82.1606
210.97	82.2224
215.65	79.1603
216.55	78.1037
218.09	74.8736
222.10	78.3659
223.80	70.7114
226.40	88.5254
227.00	98.5198
227.08	98.5246
227.20	98.5313
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228.18	96.3723
228.18	96.3723
231.56	0.0000
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236.00	80.1205
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238.63	96.9584
238.63	96.9584
238.63	96.9584
239.00	96.9789
240.98	97.0884
241.98	101.8332
241.98	101.8332
241.98	101.8332
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245.39	66.2292
247.94	98.5898
248.90	89.6747
249.79	86.3548
252.40	60.6478
252.85	53.9227
252.85	53.9227
254.15	0.0000
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256.20	72.9294
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260.90	72.2129
262.80	79.5158
264.65	75.9773
268.24	67.0598
268.79	66.1732
269.46	65.2896
269.46	65.2896
269.46	65.2896
271.23	67.1664
273.65	81.7921
276.40	67.3480
277.35	71.0236
277.60	71.0331
277.60	71.0331
278.00	64.6714
278.60	61.0475
279.20	67.4464
279.53	75.6615
280.46	81.1701
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283.67	69.4289
284.30	66.7096
285.00	68.5611
285.90	67.6786
286.10	67.6849
286.10	67.6849
287.40	74.5292
288.45	0.0000
290.67	70.2868

290.80	70.2915
291.72	55.0364
293.26	0.0000
293.70	67.0269
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295.21	67.0777
295.21	67.0777
295.96	67.1026
296.50	62.8296
297.23	55.1880
298.57	50.6226
299.80	75.2127
299.80	75.2127
300.09	75.2237
300.09	75.2237
300.09	75.2237
300.09	75.2237
300.12	75.2247
301.29	64.5150
302.84	65.7175
303.76	69.2075
303.91	65.5207
304.40	67.3824
304.40	67.3824
304.84	62.7813
306.84	56.3729
308.46	64.7415
311.98	74.1162
316.51	62.2073
318.01	65.9679
319.02	63.2113
319.41	64.1526
320.08	65.1029
323.87	76.3995
323.87	76.3995
323.87	76.3995
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328.77	66.3025
329.70	68.1996
329.70	68.1996
330.00	68.2094
333.44	60.8304
334.20	54.2985
334.20	54.2985
334.30	53.3651
338.28	51.5867
338.28	51.5867
338.28	51.5867
338.32	51.5873
338.32	51.5873
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340.57	55.3960
343.40	59.5412
344.27	59.1166
345.85	58.0383
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351.07	59.4316
351.92	55.0499
351.92	55.0499
351.92	55.0499
355.39	0.0000
356.01	33.0902
364.48	51.2427
366.43	39.8892
367.43	37.0562
367.94	0.0000
369.80	45.6539
374.96	43.8488
383.85	45.9275
387.95	49.8405
388.63	48.8958
391.69	62.3975
391.69	62.3975
392.90	59.5471
398.62	52.9489
400.65	44.3210
401.10	45.2932
401.81	43.3784

402.60	45.3207
404.84	53.0832
410.95	38.7012
411.60	40.6470
413.65	47.4604
414.70	57.1699
415.30	52.3376
415.76	49.4392
417.63	0.0000
418.52	33.9661
423.70	36.9531
427.08	35.0543
427.89	45.7802
432.53	31.2258
433.00	31.2313
433.93	29.2899
439.47	46.9641
439.56	46.9658
439.89	44.0359
443.98	30.3836
444.90	33.3355
445.03	33.3372
445.03	33.3372
445.03	33.3372
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477.59	28.7809
477.96	28.7848
482.03	36.7791
484.57	36.8130
487.03	39.8330
490.36	0.0000
492.35	42.9018
497.08	33.9792
507.63	0.0000
510.53	0.0000
510.84	46.1940
511.00	46.1963
511.85	61.2789
511.85	61.2789
513.99	112.5954
513.99	112.5954
520.41	34.2565
520.65	34.2590
527.90	31.3133
528.96	0.0000
529.64	21.2246
529.87	0.0000
531.02	24.2684
537.32	21.2799
543.00	23.3510
546.56	0.0000
549.76	29.0723
552.65	25.4620
555.20	20.3867
563.23	39.1775
563.90	29.3894
568.70	32.7625
569.32	39.9369
569.50	39.9398
569.67	39.9417
573.80	20.5103
574.00	20.5117
574.64	22.5672
578.91	41.0879
579.30	0.0000
583.14	24.6855
585.48	34.9969
591.81	50.5372
592.07	49.5105
593.00	43.3340
595.88	38.2095
600.56	46.5392

602.52	0.0000
602.71	32.0815
602.71	32.0815
603.60	49.6887
604.41	55.9143
604.70	62.1313
609.31	30.0733
610.33	21.7839
612.46	57.0907
614.37	41.5449
618.01	36.3920
621.84	38.5167
621.84	38.5167
631.29	28.1865
633.02	24.0237
633.10	24.0242
634.78	28.2162
635.90	28.2254
636.97	21.9603
645.85	27.2606
646.12	28.3118
656.30	25.2410
657.75	24.1994
657.90	0.0000
661.65	16.8535
661.65	16.8535
664.57	0.0000
666.33	22.1505
666.33	22.1505
675.00	27.4930
677.61	21.1641
685.20	26.5125
692.80	30.8203
695.00	14.8880
696.49	15.9584
696.49	15.9584
697.00	25.5369
697.49	31.9255
698.33	37.2550
698.50	38.3212
699.00	36.1972
702.63	24.5111
706.10	25.6020
706.58	0.0000
706.67	27.7399
709.31	26.6925
711.68	23.5044
713.82	21.3804
717.42	12.8408
720.50	20.3485
721.93	0.0000
722.20	23.5727
722.78	25.7197
722.78	25.7197
722.89	25.7203
722.95	27.8643
723.30	25.7232
724.18	22.5135
727.18	23.6049
733.00	23.6419
735.90	17.2078
739.58	18.3011
742.81	18.3169
744.21	19.4019
747.13	19.4170
751.79	23.7612
752.31	27.0056
753.82	23.7741
755.35	27.0270
756.15	24.8704
756.87	21.6304
763.13	20.5827
763.93	22.7544
765.79	22.7652
766.42	22.7693
766.84	23.8563
776.49	26.0906
778.00	21.7505

778.57	16.3154
778.89	16.3165
783.80	21.7832
785.46	21.7925
792.07	22.9211
795.84	20.7581
796.30	19.6677
798.80	22.9605
801.93	20.7905
805.60	27.3810
810.29	25.2208
810.76	21.9336
815.85	16.4711
817.79	20.8736
818.51	27.4701
819.60	24.1807
826.30	18.3492
828.27	0.0000
831.60	12.8612
831.96	12.8624
834.83	17.4685
836.80	0.0000
846.75	17.5199
848.13	28.5945
856.28	0.0000
856.80	23.1089
860.37	14.8024
867.32	18.5343
867.82	18.5364
871.10	20.4061
873.19	16.7043
874.81	12.9971
875.33	0.0000
876.40	12.0735
879.36	18.5876
880.27	20.4509
880.51	21.3814
881.50	15.8075
883.24	17.6745
884.67	16.7501
889.25	18.6312
896.60	13.0646
898.02	12.1354
899.00	14.9391
903.28	26.1697
911.07	22.4722
911.07	22.4722
919.63	18.7638
920.93	13.1387
925.00	18.7870
925.24	19.7277
926.50	19.7332
935.52	25.4235
937.48	20.7248
944.10	19.8125
946.00	18.8770
949.00	17.9455
962.29	23.6832
964.01	25.5872
966.15	18.9628
968.20	17.0742
969.11	18.0263
969.11	18.0263
977.42	17.1090
980.50	19.9742
983.50	16.1803
989.30	16.2007
996.32	21.9523
1001.03	15.2868
1001.68	21.0225
1004.76	18.1677
1021.30	0.0000
1024.50	0.0000
1034.80	15.3978
1036.00	18.2895
1037.82	20.2224
1038.57	17.3364
1038.76	0.0000

1045.16	16.3961
1046.59	16.4010
1048.07	16.4065
1050.47	12.5525
1050.47	12.5525
1062.04	15.4863
1063.62	16.4598
1076.63	15.5332
1077.35	17.4771
1078.86	16.5116
1085.78	18.4805
1093.90	15.5879
1099.22	20.4813
1112.02	15.6452
1112.84	16.6258
1115.52	14.6777
1120.29	16.6507
1120.51	17.6309
1121.28	15.6745
1124.00	0.0000
1129.67	8.8315
1131.51	0.0000
1147.95	0.0000
1167.94	16.8077
1173.22	8.9073
1175.09	8.9106
1177.93	21.7932
1189.05	15.8841
1204.90	19.9146
1205.75	0.0000
1213.00	14.9591
1221.42	17.9795
1230.97	23.0150
1235.34	11.0161
1236.41	0.0000
1238.25	15.0299
1246.25	17.0595
1260.41	0.0000
1271.85	14.1151
1274.45	8.0697
1274.54	8.0697
1291.56	12.1421
1298.22	0.0000
1312.09	16.2493
1325.50	11.1978
1325.50	11.1978
1332.49	11.2117
1333.61	15.2917
1360.21	7.1695
1362.66	0.0000
1365.15	14.3515
1368.21	16.4102
1368.53	0.0000
1376.25	18.4871
1384.27	13.3703
1394.10	9.2717
1395.20	9.2736
1407.95	14.4569
1434.06	7.2603
1436.60	6.2256
1457.56	0.0000
1460.81	5.2089
1489.15	10.4663
1509.49	12.6011
1596.49	9.5812
1620.62	11.7537
1678.03	0.0000
1691.02	11.8786
1691.02	11.8786
1706.46	0.0000
1750.46	0.0000
1764.49	6.5488
1770.23	13.1084
1771.40	14.9833
1791.20	0.0000
1808.65	6.5898
1836.01	8.5050

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G243400003

Total Uranium Activity	-6.6142E+02	ug/g
Total Uranium Counting Unc.	3.8522E+02	ug/g
Total Uranium Tpu	1.9654E-04	ug/g
Total Uranium Mda	2.8336E+02	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 936274                    SAMPLE ID  : G243400003         *
*   ANALYST       : KXG3                      DETECTOR   : GAM14              *
*   SAMPLE DATE   : 18-DEC-2009 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE: 31-DEC-2009 16:18:56.47    SAMPLE ALQT:    2.000 LITER     *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 2.181E+01
        GROSS GAMMA ERROR  (pCi/LITER )   : 1.078E+01
        GROSS GAMMA MDA    (pCi/LITER )   : 3.867E+01
        GROSS GAMMA DLC    (pCi/LITER )   : 1.825E+01
```

VAX/VMS Nuclide Identification Report Generated 6-JAN-2010 14:27:42.59

```
*************************************************************************
*                          GEL Laboratories LLC                         *
*                            2040 Savage Road                           *
*                          Charleston, SC 29414                         *
*************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202003335.CNF;2
Sample date       : 24-DEC-2009 00:00:00 Acquisition date : 5-JAN-2010 13:10:46.
Sample ID         : G1202003335          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM03                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.44  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 936274                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.92*	7	119	1.34	126.39	122	10	9.67E-04	322.9	
2	0	185.54*	32	120	1.18	371.38	365	13	4.38E-03	84.4	
3	0	609.17*	19	20	0.90	1217.88	1213	11	2.57E-03	57.8	
4	0	1000.38*	1	5	0.93	1999.83	1994	9	7.67E-05	*****	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 6-JAN-2010 14:27:46

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202003335.CNF;2
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 24-DEC-2009 00:00:00 Acquisition date : 5-JAN-2010 13:10:46
Sample ID : G1202003335 Sample quantity : 2.0000 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA3 Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.44 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RA-226	+	186.21	*	8.845E+01	1.629E+02	1.186E+02	8.740E+01	0.746

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	8.375E+00	2.396E+01	4.145E+01	3.741E+00	0.202
NA-22		1274.54	*	-2.378E-01	2.790E+00	4.411E+00	4.359E-01	-0.054
NA-24		1368.53	*	-5.079E-01	2.790E+00	Half-Life too short		
AL-26		1129.67		-1.002E+02	1.411E+02	1.987E+02	1.745E+01	-0.504
		1808.65	*	-5.817E-01	2.183E+00	3.180E+00	2.753E-01	-0.183
K-40		1460.81	*	-8.294E+00	3.716E+01	5.743E+01	6.121E+00	-0.144
TI-44		67.85		-4.435E+00	6.827E+00	9.529E+00	1.249E+00	-0.465
		78.38	*	-2.294E+00	4.154E+00	6.748E+00	8.591E-01	-0.340
SC-46		889.25	*	-4.656E-01	3.559E+00	5.787E+00	5.679E-01	-0.080
		1120.51		-2.508E+00	4.163E+00	6.015E+00	5.321E-01	-0.417
V-48		944.10		-1.125E+01	6.048E+01	9.635E+01	9.368E+00	-0.117
		983.50	*	1.184E+00	5.121E+00	8.781E+00	8.418E-01	0.135
		1312.09		-8.874E-01	4.207E+00	6.325E+00	6.590E-01	-0.140
CR-51		320.08	*	-1.385E+01	3.147E+01	5.062E+01	4.931E+00	-0.274
MN-52		744.21		-6.880E-01	1.336E+01	2.224E+01	2.058E+00	-0.031
		848.13		1.280E+02	4.471E+02	7.742E+02	7.490E+01	0.165
		935.52		6.941E+00	1.394E+01	2.503E+01	2.440E+00	0.277
		1246.25		-1.836E+01	3.782E+02	6.064E+02	5.742E+01	-0.030
		1333.61		6.964E+01	3.245E+02	5.467E+02	5.859E+01	0.127
		1434.06	*	1.279E+01	1.505E+01	2.931E+01	3.087E+00	0.436
MN-54		834.83	*	1.361E+00	3.420E+00	5.990E+00	5.767E-01	0.227
CO-56		846.75	*	-1.558E-01	3.374E+00	5.576E+00	5.392E-01	-0.028
		977.42		-4.089E+01	2.445E+02	3.912E+02	3.760E+01	-0.105
		1037.82		-1.628E+01	2.432E+01	3.450E+01	3.370E+00	-0.472
		1175.09		-1.240E+02	1.635E+02	2.223E+02	1.884E+01	-0.558
		1238.25		6.724E+00	5.544E+00	1.098E+01	1.052E+00	0.613
		1360.21		3.130E+01	6.942E+01	1.283E+02	1.370E+01	0.244
		1771.40		2.078E+01	2.474E+01	4.806E+01	4.286E+00	0.432

Sample ID : G1202003335 Acquisition date : 5-JAN-2010 13:10:46

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-57		122.06	*	-7.645E-02	2.745E+00	4.559E+00	4.668E-01	-0.017
		136.48		8.640E+00	2.134E+01	3.640E+01	3.678E+00	0.237
CO-58		810.76	*	-4.135E-01	3.005E+00	4.902E+00	4.683E-01	-0.084
FE-59		142.65		-1.247E+02	3.085E+02	4.770E+02	4.431E+01	-0.261
		192.34		-8.559E+01	9.795E+01	1.410E+02	1.917E+01	-0.607
		1099.22	*	2.073E+00	6.516E+00	1.131E+01	1.092E+00	0.183
		1291.56		-7.846E-01	7.857E+00	1.236E+01	1.375E+00	-0.063
CO-60		1173.22		1.581E+00	3.099E+00	5.557E+00	4.695E-01	0.284
		1332.49	*	-3.409E-01	3.563E+00	5.624E+00	6.027E-01	-0.061
ZN-65		1115.52	*	-3.940E+00	6.121E+00	8.552E+00	7.602E-01	-0.461
GE-68		1077.35	*	-7.554E+01	9.287E+01	1.275E+02	1.163E+01	-0.592
AS-73		53.44	*	1.274E+02	1.791E+02	3.007E+02	4.713E+01	0.424
AS-74		595.88	*	4.554E+00	7.966E+00	1.387E+01	1.211E+00	0.328
		634.78		-8.711E+00	2.919E+01	4.516E+01	3.979E+00	-0.193
SE-75		66.05		-3.214E+02	8.167E+02	1.081E+03	1.570E+02	-0.297
		96.73		-2.000E+02	1.015E+02	1.360E+02	2.137E+01	-1.471
		121.11		5.512E+00	1.441E+01	2.463E+01	3.082E+00	0.224
		136.00		3.190E+00	3.970E+00	6.952E+00	6.666E-01	0.459
		198.60		-8.722E+01	1.938E+02	2.832E+02	2.793E+01	-0.308
		264.65	*	1.017E-01	4.090E+00	6.596E+00	6.417E-01	0.015
		279.53		3.675E-01	1.021E+01	1.644E+01	1.662E+00	0.022
		303.91		-4.784E+00	2.245E+02	3.578E+02	4.361E+01	-0.013
		400.65		-4.290E+00	2.222E+01	3.617E+01	3.835E+00	-0.119
BR-77		87.88		-2.054E+04	9.805E+03	1.354E+04	1.774E+03	-1.517
		200.40		4.815E+03	7.526E+03	1.290E+04	1.158E+03	0.373
		239.00		-4.085E+02	5.218E+02	7.961E+02	7.499E+01	-0.513
		249.79		-2.481E+02	3.255E+03	5.213E+03	4.972E+02	-0.048
		281.68		-1.337E+03	4.078E+03	6.305E+03	6.183E+02	-0.212
		297.23		-1.056E+03	2.591E+03	3.976E+03	3.829E+02	-0.266
		303.76		-4.338E+02	9.161E+03	1.456E+04	1.390E+03	-0.030
		439.47		4.581E+03	6.411E+03	1.143E+04	9.324E+02	0.401
		484.57		-7.008E+02	8.259E+03	1.343E+04	1.124E+03	-0.052
		520.65	*	3.362E+01	4.790E+02	7.924E+02	6.743E+01	0.042
		574.64		-2.920E+03	9.535E+03	1.492E+04	1.295E+03	-0.196
		578.91		-2.489E+03	4.234E+03	6.404E+03	5.565E+02	-0.389
		585.48		5.953E+03	7.551E+03	1.341E+04	1.168E+03	0.444
		755.35		3.311E+03	6.340E+03	1.141E+04	1.062E+03	0.290
		817.79		-9.248E+02	4.559E+03	7.319E+03	6.999E+02	-0.126
SR-82		698.33		-8.342E+02	3.244E+03	5.072E+03	4.584E+02	-0.164
		776.49	*	9.967E+00	2.676E+01	4.738E+01	4.451E+00	0.210
		1395.20		1.756E+02	8.088E+02	1.416E+03	1.504E+02	0.124
RB-83		520.41	*	3.952E-01	6.552E+00	1.083E+01	9.211E-01	0.037
		529.64		-3.638E+00	9.886E+00	1.543E+01	1.318E+00	-0.236
		552.65		3.831E+00	2.097E+01	3.189E+01	2.748E+00	0.120
RB-84		881.50	*	-4.737E+00	5.646E+00	7.967E+00	7.799E-01	-0.595
KR-85		513.99	*	-2.274E+03	1.120E+03	1.532E+03	1.300E+02	-1.484
SR-85		513.99	*	-1.135E+01	5.590E+00	7.645E+00	6.487E-01	-1.484
RB-86		1076.63	*	-2.668E+01	5.163E+01	7.476E+01	6.825E+00	-0.357
Y-88		898.02		2.592E+00	3.905E+00	7.053E+00	6.967E-01	0.368

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1836.01	*	-3.284E+00	2.813E+00	2.127E+00	1.801E-01	-1.544
ZR-88		392.90	*	-8.390E-01	2.642E+00	4.241E+00	3.350E-01	-0.198
Y-91		1204.90	*	-1.023E+03	1.324E+03	1.787E+03	1.588E+02	-0.573
NB-94		702.63	*	-1.888E+00	3.326E+00	4.920E+00	4.457E-01	-0.384
		871.10		1.543E-01	2.779E+00	4.660E+00	4.546E-01	0.033
NB-95		765.79	*	5.748E-02	3.850E+00	6.437E+00	6.018E-01	0.009
NB-95M		235.69	*	-1.701E+00	1.232E+01	1.970E+01	2.076E+00	-0.086
ZR-95		724.18		9.952E-01	7.959E+00	1.302E+01	1.285E+00	0.076
		756.15	*	6.108E-01	5.720E+00	9.736E+00	9.854E-01	0.063
NB-97		657.90	*	-8.839E-02	5.720E+00	Half-Life too short		
		1024.50		3.136E+01	5.720E+00	Half-Life too short		
ZR-97		254.15		-1.686E+01	5.720E+00	Half-Life too short		
		355.39		-2.269E+01	5.720E+00	Half-Life too short		
		507.63	*	-2.442E+01	5.720E+00	Half-Life too short		
		602.52		3.186E+01	5.720E+00	Half-Life too short		
		1021.30		-5.222E-02	5.720E+00	Half-Life too short		
		1147.95		7.210E+00	5.720E+00	Half-Life too short		
		1362.66		3.410E+01	5.720E+00	Half-Life too short		
		1750.46		-1.365E+01	5.720E+00	Half-Life too short		
MO-99		140.51		-1.154E+03	1.511E+03	2.305E+03	6.437E+02	-0.501
		181.06		-3.022E+02	1.034E+03	1.434E+03	2.632E+02	-0.211
		366.43		2.248E+02	4.192E+03	6.899E+03	5.841E+02	0.033
		739.58	*	-2.773E+02	3.978E+02	5.715E+02	8.881E+01	-0.485
		778.00		1.052E+03	1.265E+03	2.397E+03	2.254E+02	0.439
TC-99M		140.51	*	-2.655E+09	1.265E+03	Half-Life too short		
RH-101		127.23		2.267E+00	3.319E+00	5.774E+00	5.737E-01	0.393
		198.01	*	-2.096E+00	3.605E+00	5.203E+00	4.655E-01	-0.403
		325.23		-5.875E+00	1.998E+01	3.265E+01	3.014E+00	-0.180
RH-102		418.52		1.437E+01	2.836E+01	4.949E+01	3.983E+00	0.290
		475.06	*	-1.908E+00	2.371E+00	3.440E+00	2.865E-01	-0.554
		631.29		1.575E+00	4.938E+00	8.364E+00	7.366E-01	0.188
		697.49		2.779E+00	7.801E+00	1.318E+01	1.191E+00	0.211
		766.84		-5.672E-01	8.963E+00	1.483E+01	1.387E+00	-0.038
		1046.59		5.714E-02	9.619E+00	1.580E+01	1.469E+00	0.004
		1112.84		-2.040E+00	1.548E+01	2.458E+01	2.187E+00	-0.083
RU-103		497.08	*	-9.047E-01	3.705E+00	5.906E+00	8.293E-01	-0.153
	+	610.33		7.601E+01	8.883E+01	1.378E+02	2.310E+01	0.551
RH-106		511.85		-2.052E+01	2.683E+01	4.934E+01	4.183E+00	-0.416
		621.84	*	-4.753E+00	2.364E+01	3.697E+01	4.978E+00	-0.129
		1050.47		-6.060E+01	2.056E+02	3.202E+02	2.970E+01	-0.189
RU-106		511.85		-2.052E+01	2.683E+01	4.934E+01	4.183E+00	-0.416
		621.84	*	-4.753E+00	2.363E+01	3.697E+01	3.249E+00	-0.129
		1050.47		-6.060E+01	2.056E+02	3.202E+02	2.970E+01	-0.189
AG-108M		433.93	*	-9.189E-01	3.349E+00	5.388E+00	4.576E-01	-0.171
		614.37		1.077E+00	3.716E+00	5.519E+00	5.026E-01	0.195
		722.95		-1.407E+00	3.915E+00	5.953E+00	5.640E-01	-0.236
CD-109		88.03	*	-2.007E+02	9.532E+01	1.314E+02	1.722E+01	-1.527
AG-110M		657.75	*	-6.408E-01	3.618E+00	5.788E+00	5.266E-01	-0.111
		677.61		-1.844E+01	2.508E+01	3.508E+01	3.216E+00	-0.526

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		706.67		1.072E+01	1.956E+01	3.379E+01	3.144E+00	0.317
		763.93		-2.371E+00	1.205E+01	1.956E+01	1.871E+00	-0.121
		884.67		1.640E+00	3.929E+00	6.969E+00	7.000E-01	0.235
		937.48		-2.671E+00	7.639E+00	1.170E+01	1.172E+00	-0.228
		1384.27		-1.203E+01	1.412E+01	1.895E+01	2.054E+00	-0.634
IN-111		171.28		1.682E+01	5.311E+01	8.939E+01	7.755E+00	0.188
		245.39	*	1.590E+01	5.408E+01	8.974E+01	8.517E+00	0.177
IN-113M		391.69	*	-3.239E-01	4.089E+00	6.759E+00	5.529E-01	-0.048
SN-113		391.69	*	-3.239E-01	4.089E+00	6.759E+00	5.529E-01	-0.048
IN-114M		190.27	*	5.802E+00	1.985E+01	2.934E+01	2.599E+00	0.198
CD-115		260.90		-3.123E+03	6.141E+03	9.389E+03	9.065E+02	-0.333
		492.35		1.305E+03	1.507E+03	2.728E+03	2.292E+02	0.478
		527.90	*	-2.308E+02	4.367E+02	6.624E+02	5.654E+01	-0.348
SN-117M		156.02		1.805E+01	1.992E+02	3.307E+02	2.938E+01	0.055
		158.56	*	-1.276E+00	4.788E+00	7.715E+00	6.804E-01	-0.165
SB-122		563.90	*	7.696E+00	1.001E+02	1.650E+02	1.427E+01	0.047
		692.80		-1.392E+03	2.071E+03	2.985E+03	2.690E+02	-0.466
I-123		159.00	*	-3.759E+00	2.071E+03	Half-Life too short		
		528.96		-1.037E+03	2.071E+03	Half-Life too short		
TE-123M		159.00	*	-4.734E-01	2.755E+00	4.474E+00	3.964E-01	-0.106
I-124		602.71	*	4.211E+01	4.697E+01	7.821E+01	6.843E+00	0.538
		722.78		-1.201E+02	2.693E+02	4.039E+02	3.698E+01	-0.297
		1325.50		5.999E+02	2.014E+03	3.446E+03	3.658E+02	0.174
		1376.25		4.282E+02	1.677E+03	2.940E+03	3.133E+02	0.146
		1509.49		2.082E+02	1.124E+03	1.926E+03	1.983E+02	0.108
		1691.02		3.169E+01	2.663E+02	4.506E+02	4.250E+01	0.070
SB-124		602.71		3.638E+00	4.057E+00	6.756E+00	5.912E-01	0.538
		645.85		2.279E+00	4.478E+01	7.300E+01	6.816E+00	0.031
		709.31		1.312E+01	2.398E+02	3.888E+02	3.535E+01	0.034
		713.82		-1.166E+02	1.433E+02	1.982E+02	2.457E+01	-0.588
		722.78		-1.504E+01	3.372E+01	5.058E+01	4.719E+00	-0.297
		968.20		5.641E+01	2.071E+02	3.399E+02	3.278E+01	0.166
		1045.16		1.946E+02	1.852E+02	3.588E+02	3.339E+01	0.542
		1325.50		8.023E+01	2.693E+02	4.609E+02	4.892E+01	0.174
		1368.21		-9.717E+00	1.293E+02	2.123E+02	3.157E+01	-0.046
		1436.60		2.374E+01	3.258E+02	5.512E+02	5.800E+01	0.043
		1691.02	*	9.361E-01	7.865E+00	1.331E+01	1.297E+00	0.070
SB-125		427.89	*	-8.158E+00	8.898E+00	1.316E+01	1.089E+00	-0.620
		463.38		-2.241E+01	2.790E+01	3.752E+01	3.368E+00	-0.597
		600.56		2.101E+00	1.886E+01	3.106E+01	2.911E+00	0.068
		635.90		-1.279E+01	2.533E+01	3.794E+01	3.603E+00	-0.337
TE-125M		109.28	*	3.298E+02	1.033E+03	1.683E+03	2.026E+02	0.196
I-126		388.63		1.590E+01	1.657E+01	3.023E+01	2.408E+00	0.526
		666.33	*	-5.142E+00	1.270E+01	1.910E+01	1.696E+00	-0.269
		753.82		6.364E+01	1.119E+02	2.015E+02	1.873E+01	0.316
SB-126		223.80		-4.352E+02	3.463E+02	4.907E+02	4.537E+01	-0.887
		278.60		4.180E+01	2.043E+02	3.344E+02	3.287E+01	0.125
		296.50		-5.163E+01	1.238E+02	1.899E+02	1.830E+01	-0.272
		414.70		3.002E+00	6.416E+00	1.116E+01	8.956E-01	0.269

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		415.30		1.147E+01	5.439E+02	9.057E+02	7.273E+01	0.013
		555.20		-1.391E+02	3.356E+02	5.185E+02	4.471E+01	-0.268
		573.80		-3.009E+01	8.787E+01	1.369E+02	1.188E+01	-0.220
		593.00		-6.482E+01	7.772E+01	1.115E+02	9.727E+00	-0.581
		656.30		3.904E+01	2.925E+02	4.810E+02	4.255E+01	0.081
		666.33		-2.136E+00	5.277E+00	7.936E+00	7.045E-01	-0.269
		675.00		-6.766E+01	1.424E+02	2.109E+02	1.881E+01	-0.321
		695.00		6.501E+00	6.100E+00	1.121E+01	1.012E+00	0.580
		697.00		1.997E+01	2.235E+01	4.008E+01	3.619E+00	0.498
		720.50	*	1.103E+00	1.179E+01	1.920E+01	1.756E+00	0.057
		856.80		7.805E+00	3.577E+01	6.135E+01	5.955E+00	0.127
		989.30		8.662E+01	7.712E+01	1.532E+02	1.465E+01	0.565
		1034.80		3.614E+02	5.164E+02	9.690E+02	9.069E+01	0.373
		1213.00		1.636E+02	3.083E+02	5.471E+02	4.924E+01	0.299
SN-126	+	64.28		2.087E+01	1.348E+02	1.493E+02	2.744E+01	0.140
		86.94		-5.849E+01	4.500E+01	5.653E+01	2.403E+01	-1.035
		87.57	*	-1.657E+01	9.227E+00	1.321E+01	1.728E+00	-1.254
SB-127		61.10		3.260E+03	6.840E+03	1.010E+04	1.523E+03	0.323
		252.40		1.146E+02	2.848E+02	4.698E+02	1.975E+02	0.244
		290.80		-6.883E+02	1.292E+03	1.944E+03	2.208E+02	-0.354
		411.60		-3.593E+02	7.209E+02	1.130E+03	1.682E+02	-0.318
		444.90		2.819E+01	5.721E+02	9.524E+02	1.103E+02	0.030
		473.00		-4.216E+01	8.797E+01	1.352E+02	1.627E+01	-0.312
		543.00		-5.239E+02	9.108E+02	1.360E+03	1.880E+02	-0.385
		603.60		7.686E+02	7.741E+02	1.266E+03	1.515E+02	0.607
		685.20	*	-7.652E+01	7.284E+01	9.454E+01	1.036E+01	-0.809
		698.50		-4.952E+02	9.822E+02	1.478E+03	2.300E+02	-0.335
		722.20		-6.307E+02	1.736E+03	2.634E+03	2.867E+02	-0.239
		783.80		2.183E+00	1.476E+02	2.476E+02	3.064E+01	0.009
XE-127		57.60		2.105E+02	1.094E+03	1.682E+03	2.456E+02	0.125
		145.22		3.226E+01	7.084E+01	1.207E+02	1.111E+01	0.267
		172.10		3.753E+00	1.125E+01	1.896E+01	1.646E+00	0.198
		202.84	*	-1.980E+00	4.419E+00	6.920E+00	6.229E-01	-0.286
		374.96		-9.151E+00	1.691E+01	2.651E+01	2.195E+00	-0.345
I-131		80.18		-1.032E+02	4.303E+02	7.148E+02	9.136E+01	-0.144
		284.30		7.751E+01	1.107E+02	1.903E+02	1.935E+01	0.407
		364.48	*	-4.812E+00	8.520E+00	1.336E+01	1.198E+00	-0.360
		636.97		-5.684E+01	1.141E+02	1.708E+02	1.583E+01	-0.333
		722.89		-1.941E+02	5.279E+02	8.017E+02	7.368E+01	-0.242
TE-132		49.72		-2.491E+03	2.978E+03	4.339E+03	7.299E+02	-0.574
		111.76		1.144E+02	1.830E+03	3.068E+03	3.635E+02	0.037
		116.30		-6.504E+02	1.680E+03	2.716E+03	3.181E+02	-0.239
		228.16	*	3.755E+01	4.188E+01	7.221E+01	1.132E+01	0.520
BA-133		53.15		8.960E+02	8.094E+02	1.389E+03	2.186E+02	0.645
		79.62		2.287E+01	1.487E+02	2.535E+02	4.535E+01	0.090
		81.00		-8.956E+00	1.174E+01	1.864E+01	3.442E+00	-0.481
		276.40		-1.046E+01	3.552E+01	5.522E+01	8.386E+00	-0.189
		302.84		-2.739E+00	1.527E+01	2.395E+01	3.333E+00	-0.114
		356.01	*	-4.419E+00	4.175E+00	6.161E+00	8.158E-01	-0.717

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		383.85		8.796E+00	2.882E+01	4.955E+01	6.064E+00	0.178
I-133		510.53		-4.856E+00	2.882E+01	Half-Life too short		
		529.87	*	-2.097E-02	2.882E+01	Half-Life too short		
		706.58		2.678E+00	2.882E+01	Half-Life too short		
		856.28		-2.660E-01	2.882E+01	Half-Life too short		
		875.33		4.047E-01	2.882E+01	Half-Life too short		
		1236.41		1.760E+00	2.882E+01	Half-Life too short		
		1298.22		1.516E+00	2.882E+01	Half-Life too short		
CS-134		475.35		-9.710E+01	1.527E+02	2.279E+02	1.898E+01	-0.426
		563.23		-2.659E+00	3.298E+01	5.326E+01	4.649E+00	-0.050
		569.32		3.355E-01	1.991E+01	3.173E+01	2.786E+00	0.011
		604.70		-9.531E-01	3.808E+00	5.104E+00	4.479E-01	-0.187
		795.84	*	-4.118E-01	3.862E+00	6.353E+00	6.056E-01	-0.065
		801.93		-1.092E+01	3.645E+01	5.848E+01	5.582E+00	-0.187
		1038.57		-2.299E+02	3.051E+02	4.222E+02	3.943E+01	-0.545
		1167.94		2.638E+01	1.894E+02	3.165E+02	2.687E+01	0.083
		1365.15		-3.938E+01	9.586E+01	1.442E+02	1.585E+01	-0.273
CS-135		268.24	*	-7.629E+00	1.451E+01	2.198E+01	2.404E+00	-0.347
I-135		288.45		2.393E+09	1.451E+01	Half-Life too short		
		417.63		1.350E+09	1.451E+01	Half-Life too short		
		546.56		-2.073E+09	1.451E+01	Half-Life too short		
		836.80		1.912E+09	1.451E+01	Half-Life too short		
		1038.76		-8.115E+08	1.451E+01	Half-Life too short		
		1124.00		2.245E+09	1.451E+01	Half-Life too short		
		1131.51		-3.188E+07	1.451E+01	Half-Life too short		
		1260.41	*	-4.117E+08	1.451E+01	Half-Life too short		
		1457.56		1.565E+09	1.451E+01	Half-Life too short		
		1678.03		-7.240E+08	1.451E+01	Half-Life too short		
		1706.46		-1.248E+09	1.451E+01	Half-Life too short		
		1791.20		7.531E+08	1.451E+01	Half-Life too short		
CS-136		66.91		-5.899E+01	1.091E+02	1.514E+02	2.785E+01	-0.390
		86.29		-1.545E+01	1.033E+02	1.723E+02	2.777E+01	-0.090
		153.22		-4.317E+00	5.957E+01	9.772E+01	9.715E+00	-0.044
		163.89		7.931E+01	8.898E+01	1.563E+02	1.518E+01	0.507
		176.55		2.109E+01	3.214E+01	5.535E+01	5.099E+00	0.381
		273.65		-4.966E+00	3.737E+01	5.920E+01	6.087E+00	-0.084
		340.57		2.850E+00	1.036E+01	1.782E+01	1.641E+00	0.160
		818.51		-1.918E+00	4.673E+00	7.184E+00	6.875E-01	-0.267
		1048.07	*	-2.902E+00	8.383E+00	1.292E+01	1.244E+00	-0.225
		1235.34		-9.232E+00	3.520E+01	5.405E+01	6.681E+00	-0.171
BA-137M		661.65	*	-1.340E+00	3.323E+00	5.053E+00	4.474E-01	-0.265
CS-137		661.65	*	-1.416E+00	3.513E+00	5.342E+00	4.738E-01	-0.265
CE-139		165.85	*	-3.997E+00	2.926E+00	4.214E+00	3.640E-01	-0.949
BA-140		162.64		1.226E+02	6.386E+01	1.189E+02	1.095E+01	1.031
		304.84		2.328E+01	1.206E+02	1.959E+02	5.547E+01	0.119
		423.70		3.802E+01	1.486E+02	2.530E+02	8.167E+01	0.150
		537.32	*	-2.235E+01	2.251E+01	2.976E+01	9.859E+00	-0.751
LA-140		328.77		-2.827E+00	2.338E+01	3.888E+01	3.745E+00	-0.073
		432.53		1.412E+02	1.737E+02	3.119E+02	2.672E+01	0.453

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		487.03		-6.226E+00	1.015E+01	1.525E+01	1.361E+00	-0.408
		751.79		8.562E+00	1.331E+02	2.252E+02	2.285E+01	0.038
		815.85		3.549E-01	2.173E+01	3.635E+01	3.802E+00	0.010
		867.82		-1.175E+01	9.424E+01	1.532E+02	1.555E+01	-0.077
		919.63		1.569E+01	1.943E+02	3.299E+02	3.831E+01	0.048
		925.24		-1.529E+01	7.908E+01	1.263E+02	1.295E+01	-0.121
		1596.49	*	-2.544E+00	7.318E+00	1.113E+01	1.106E+00	-0.228
CE-141		145.44	*	2.401E+00	6.351E+00	1.077E+01	1.006E+00	0.223
CE-143		57.37		1.068E-02	6.351E+00	Half-Life too short		
		231.56		-1.636E-02	6.351E+00	Half-Life too short		
		293.26	*	-1.296E-04	6.351E+00	Half-Life too short		
		350.59		-1.522E-02	6.351E+00	Half-Life too short		
		490.36		3.125E-02	6.351E+00	Half-Life too short		
		664.57		-9.662E-03	6.351E+00	Half-Life too short		
		721.93		-1.153E-02	6.351E+00	Half-Life too short		
CE-144		80.11		-5.896E+01	2.458E+02	4.084E+02	5.209E+01	-0.144
		133.54	*	-1.302E+01	2.123E+01	3.338E+01	5.391E+00	-0.390
PM-144		476.78		-1.168E+00	5.276E+00	8.417E+00	7.715E-01	-0.139
		618.01		-3.812E-01	2.549E+00	4.036E+00	3.639E-01	-0.094
		696.49	*	3.598E+00	3.205E+00	5.903E+00	5.331E-01	0.610
		778.57		7.379E+01	1.653E+02	2.967E+02	2.790E+01	0.249
PR-144		696.49	*	2.435E+02	2.169E+02	3.995E+02	3.607E+01	0.610
		1489.15		-1.103E+02	1.152E+03	1.874E+03	1.943E+02	-0.059
PM-146		453.90	*	4.071E+00	3.814E+00	7.058E+00	7.349E-01	0.577
		633.02		7.023E+01	1.297E+02	2.216E+02	8.293E+01	0.317
		735.90		-5.577E+00	8.950E+00	1.275E+01	3.672E+00	-0.437
		747.13		-2.549E+00	7.732E+00	1.233E+01	1.782E+00	-0.207
ND-147		91.11		7.330E+01	3.207E+01	5.687E+01	7.386E+00	1.289
		319.41		-1.468E+02	2.510E+02	3.967E+02	3.700E+01	-0.370
		439.89		3.225E+02	4.618E+02	8.228E+02	6.716E+01	0.392
		531.02	*	1.834E+01	4.304E+01	7.427E+01	1.107E+01	0.247
PM-149		285.90	*	-1.072E+03	4.071E+03	6.336E+03	1.026E+03	-0.169
EU-152		121.78		-1.045E-01	7.985E+00	1.328E+01	1.508E+00	-0.008
		244.69		1.535E+01	3.052E+01	5.162E+01	4.895E+00	0.297
		344.27	*	3.572E+00	9.870E+00	1.708E+01	1.606E+00	0.209
		443.98		-2.607E+01	8.889E+01	1.420E+02	1.162E+01	-0.184
		778.89		3.864E+00	1.887E+01	3.267E+01	3.073E+00	0.118
		867.32		3.837E+00	6.061E+01	1.019E+02	9.927E+00	0.038
		964.01		-2.600E+01	2.506E+01	3.304E+01	3.191E+00	-0.787
		1085.78		1.525E+01	2.467E+01	4.598E+01	4.172E+00	0.332
		1112.02		2.316E+00	2.207E+01	3.683E+01	3.279E+00	0.063
		1407.95		-1.089E-01	1.793E+01	2.984E+01	3.161E+00	-0.004
GD-153		69.67		-7.651E+01	2.017E+02	3.324E+02	4.312E+01	-0.230
		83.37		5.903E+02	1.880E+03	3.029E+03	3.894E+02	0.195
		97.43	*	-3.503E+00	8.875E+00	1.405E+01	1.624E+00	-0.249
		103.18		4.241E+00	1.128E+01	1.939E+01	2.134E+00	0.219
EU-154		123.07		-2.455E+00	5.636E+00	9.060E+00	1.140E+00	-0.271
		247.94		-2.951E-01	3.718E+01	5.996E+01	7.294E+00	-0.005
		591.81		-1.720E+01	5.770E+01	8.997E+01	1.057E+01	-0.191

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		723.30		-5.134E+00	1.646E+01	2.522E+01	2.527E+00	-0.204
		756.87		1.705E+01	6.279E+01	1.093E+02	1.365E+01	0.156
		873.19		7.610E+00	2.539E+01	4.412E+01	5.768E+00	0.172
		996.32		-1.420E+01	3.205E+01	3.906E+01	7.119E+00	-0.364
		1004.76		-7.656E+00	1.871E+01	2.860E+01	3.520E+00	-0.268
		1274.45	*	-1.847E+00	8.025E+00	1.220E+01	1.499E+00	-0.151
EU-155		48.70		2.589E+01	6.663E+02	1.066E+03	1.659E+02	0.024
		60.01		-8.591E+01	9.468E+02	1.318E+03	1.851E+02	-0.065
		86.54		-7.482E+00	1.081E+01	1.729E+01	2.261E+00	-0.433
		105.31	*	-1.989E+00	1.157E+01	1.911E+01	2.089E+00	-0.104
TB-160		86.79		-3.489E+01	2.833E+01	4.311E+01	5.618E+00	-0.809
		197.04		-2.645E+01	5.991E+01	8.767E+01	7.833E+00	-0.302
		215.65		-1.591E+01	7.149E+01	1.138E+02	1.042E+01	-0.140
		298.57		-8.686E+00	1.152E+01	1.700E+01	1.634E+00	-0.511
		879.36	*	1.786E+00	1.131E+01	1.927E+01	1.885E+00	0.093
		962.29		-1.514E+01	4.176E+01	6.266E+01	6.055E+00	-0.242
		966.15		8.986E-02	1.513E+01	2.499E+01	2.412E+00	0.004
		1177.93		-1.029E+00	2.365E+01	3.811E+01	3.245E+00	-0.027
		1271.85		2.785E+01	4.353E+01	8.133E+01	7.998E+00	0.342
HO-166M		80.57		-1.109E+01	3.154E+01	5.196E+01	6.633E+00	-0.213
	+	184.41		4.029E+00	6.810E+00	8.153E+00	7.173E-01	0.494
		280.46		1.308E+00	8.094E+00	1.320E+01	1.296E+00	0.099
		410.95		-7.399E+00	2.163E+01	3.454E+01	2.765E+00	-0.214
		711.68	*	-7.301E+00	6.063E+00	7.675E+00	6.986E-01	-0.951
		752.31		2.065E+01	2.457E+01	4.550E+01	4.227E+00	0.454
		810.29		-1.381E-01	4.597E+00	7.635E+00	7.279E-01	-0.018
TM-171		51.35		-1.063E+03	7.533E+03	1.184E+04	1.894E+03	-0.090
		52.39		3.487E+03	3.609E+03	6.156E+03	9.771E+02	0.566
		59.40		2.870E+03	4.878E+03	7.331E+03	1.036E+03	0.392
		66.72	*	-2.775E+02	4.374E+03	6.394E+03	8.449E+02	-0.043
HF-175		89.36		-5.396E+02	1.956E+02	2.499E+02	3.204E+01	-2.159
		343.40	*	5.202E-01	3.644E+00	6.191E+00	5.523E-01	0.084
		433.00		1.426E+02	2.029E+02	3.610E+02	2.933E+01	0.395
LU-176		88.36		-6.264E+01	2.407E+01	3.128E+01	4.077E+00	-2.002
		201.83		1.230E+00	2.841E+00	4.792E+00	4.308E-01	0.257
		306.84	*	-2.121E-01	2.737E+00	4.335E+00	4.122E-01	-0.049
		401.10		6.984E+00	5.882E+02	9.804E+02	7.792E+01	0.007
LU-177		112.95		-6.627E+01	1.315E+02	2.109E+02	2.205E+01	-0.314
		208.36	*	-2.451E+01	8.519E+01	1.304E+02	1.183E+01	-0.188
LU-177M		52.97		4.145E+02	3.662E+02	6.291E+02	9.922E+01	0.659
		54.07		1.285E+02	1.774E+02	2.983E+02	4.633E+01	0.431
		61.30		2.143E+02	2.766E+02	4.193E+02	5.812E+01	0.511
		121.62		-8.179E-01	4.051E+01	6.732E+01	6.892E+00	-0.012
		147.16		-3.557E+01	7.107E+01	1.131E+02	1.034E+01	-0.314
		171.86		8.276E+00	4.835E+01	8.044E+01	6.982E+00	0.103
		218.09		5.653E+00	7.628E+01	1.248E+02	1.145E+01	0.045
		268.79		1.398E+01	7.184E+01	1.178E+02	1.146E+01	0.119
		319.02		-7.464E+00	2.337E+01	3.811E+01	3.556E+00	-0.196
		367.43		-1.514E+00	8.511E+01	1.390E+02	1.174E+01	-0.011

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		413.65	*	-9.423E+00	1.780E+01	2.653E+01	2.128E+00	-0.355
HF-181		56.28		-1.767E+02	1.866E+02	2.682E+02	4.011E+01	-0.659
		57.53		1.786E+01	9.292E+01	1.429E+02	2.089E+01	0.125
		65.20		2.884E+01	1.650E+02	2.333E+02	3.120E+01	0.124
		133.02		-5.148E-01	6.454E+00	1.064E+01	1.028E+00	-0.048
		136.25		2.234E+01	4.547E+01	7.801E+01	7.430E+00	0.286
		345.85		1.055E+00	1.862E+01	3.140E+01	2.787E+00	0.034
		482.03	*	-6.513E-01	3.181E+00	5.083E+00	4.248E-01	-0.128
W-181		56.28		-7.105E+01	7.507E+01	1.079E+02	1.613E+01	-0.658
		57.53		7.190E+00	3.741E+01	5.752E+01	8.409E+00	0.125
		65.20	*	1.152E+01	6.589E+01	9.319E+01	1.246E+01	0.124
TA-182		67.75		-9.549E+00	1.613E+01	2.268E+01	2.976E+00	-0.421
		100.10		-8.914E+00	1.874E+01	3.023E+01	3.409E+00	-0.295
		152.43		2.705E+01	3.323E+01	5.803E+01	5.214E+00	0.466
		222.10		-6.667E+00	3.059E+01	4.856E+01	4.481E+00	-0.137
	+	1001.68		7.803E+00	1.910E+02	3.092E+02	2.941E+01	0.025
		1121.28		2.351E+00	1.013E+01	1.725E+01	1.525E+00	0.136
		1189.05		9.648E+00	2.228E+01	3.916E+01	3.394E+00	0.246
		1221.42	*	3.834E-01	1.377E+01	2.246E+01	2.048E+00	0.017
		1230.97		-3.025E+01	3.067E+01	3.772E+01	3.490E+00	-0.802
RE-183		57.98		1.942E+01	3.832E+01	5.715E+01	8.286E+00	0.340
		59.32		1.236E+01	1.972E+01	2.975E+01	4.211E+00	0.415
		67.20		-2.027E+01	3.074E+01	4.213E+01	5.548E+00	-0.481
		162.32	*	1.402E+01	1.076E+01	1.934E+01	1.687E+00	0.725
		208.81		-2.130E+01	9.856E+01	1.520E+02	1.379E+01	-0.140
		291.72		-5.590E+01	9.093E+01	1.359E+02	1.318E+01	-0.411
RE-184		57.98		7.263E+01	1.433E+02	2.137E+02	3.099E+01	0.340
		59.32		4.619E+01	7.371E+01	1.112E+02	1.574E+01	0.415
		67.20		-7.578E+01	1.149E+02	1.575E+02	2.074E+01	-0.481
		161.27		3.278E-01	3.506E+01	5.775E+01	5.053E+00	0.006
		216.55		-8.337E+00	2.564E+01	4.042E+01	3.703E+00	-0.206
		252.85	*	-3.216E+00	2.411E+01	3.838E+01	3.673E+00	-0.084
		318.01		-1.704E+01	3.934E+01	6.329E+01	5.915E+00	-0.269
		792.07		3.898E+01	7.072E+01	1.285E+02	1.215E+01	0.303
		903.28		-5.400E+01	7.395E+01	1.047E+02	1.030E+01	-0.516
		920.93		2.718E+00	3.591E+01	6.089E+01	5.960E+00	0.045
OS-185		59.72		-9.355E+00	5.560E+01	7.668E+01	1.080E+01	-0.122
		61.14		1.553E+01	3.034E+01	4.495E+01	6.240E+00	0.345
		69.30		-1.472E+01	3.593E+01	5.906E+01	7.677E+00	-0.249
		592.07		-2.123E+02	2.459E+02	3.522E+02	3.073E+01	-0.603
		646.12	*	1.958E-01	3.851E+00	6.278E+00	5.544E-01	0.031
		717.42		4.730E+01	7.905E+01	1.382E+02	1.261E+01	0.342
		874.81		1.132E+01	4.966E+01	8.538E+01	8.340E+00	0.133
		880.27		-2.776E+01	6.406E+01	9.843E+01	9.631E+00	-0.282
RE-188		155.03	*	-8.844E+00	1.760E+01	2.789E+01	2.486E+00	-0.317
		477.96		1.398E+02	2.304E+02	4.117E+02	3.433E+01	0.340
		633.10		1.303E+02	2.496E+02	4.335E+02	3.819E+01	0.301
W-188	+	63.58		2.065E+03	1.334E+04	1.553E+04	2.106E+03	0.133
		227.08		-9.178E+01	1.287E+03	2.073E+03	1.924E+02	-0.044

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		290.67	*	-4.119E+02	6.882E+02	1.027E+03	9.975E+01	-0.401
IR-192		295.96		4.548E+00	1.016E+01	1.694E+01	1.643E+00	0.269
		308.46		-3.922E+00	1.005E+01	1.538E+01	1.465E+00	-0.255
		316.51	*	1.068E-01	2.947E+00	4.984E+00	4.678E-01	0.021
		468.07		2.414E+00	5.655E+00	9.815E+00	8.773E-01	0.246
		604.41		2.006E+01	4.633E+01	7.005E+01	9.181E+00	0.286
		612.46		2.633E+01	6.933E+01	1.041E+02	1.045E+01	0.253
AU-195		65.12		8.418E+00	3.093E+01	4.415E+01	5.908E+00	0.191
		66.83		-7.585E+00	1.488E+01	2.079E+01	2.745E+00	-0.365
		75.70		4.989E+00	2.239E+01	3.707E+01	4.722E+00	0.135
		98.88	*	-1.395E+01	2.528E+01	3.944E+01	4.496E+00	-0.354
		129.76		1.894E+01	2.916E+02	4.865E+02	4.772E+01	0.039
TL-200		367.94	*	-4.531E-04	2.916E+02	Half-Life too short		
		579.30		-5.477E-02	2.916E+02	Half-Life too short		
		828.27		3.227E-03	2.916E+02	Half-Life too short		
		1205.75		-1.966E-02	2.916E+02	Half-Life too short		
TL-201		68.90		-2.165E+02	3.430E+02	5.330E+02	6.943E+01	-0.406
		70.82		-4.694E+01	1.843E+02	3.067E+02	3.957E+01	-0.153
		80.30		-1.019E+02	3.268E+02	5.401E+02	6.891E+01	-0.189
		135.34		2.549E+02	1.442E+03	2.422E+03	2.315E+02	0.105
		167.43	*	-4.983E+02	3.870E+02	5.617E+02	4.856E+01	-0.887
TL-202		68.90		-3.020E+01	4.786E+01	7.436E+01	9.688E+00	-0.406
		70.82		-6.532E+00	2.565E+01	4.268E+01	5.506E+00	-0.153
		80.30		-1.419E+01	4.549E+01	7.518E+01	9.592E+00	-0.189
		439.56	*	3.935E+00	5.659E+00	1.007E+01	8.218E-01	0.391
HG-203		70.83		-3.180E+01	1.237E+02	2.058E+02	3.427E+01	-0.155
		72.87		5.882E+00	6.918E+01	1.178E+02	1.914E+01	0.050
		82.60		1.422E+01	1.246E+02	2.116E+02	3.535E+01	0.067
		279.20	*	1.059E+00	3.663E+00	6.050E+00	6.079E-01	0.175
BI-207		72.80		2.255E-01	2.100E+01	3.559E+01	4.558E+00	0.006
		74.97		4.531E+00	1.282E+01	2.139E+01	2.726E+00	0.212
		84.90		1.479E+01	2.332E+01	3.817E+01	4.934E+00	0.388
		569.67		7.101E-02	3.157E+00	5.038E+00	4.365E-01	0.014
		1063.62	*	-1.733E+00	3.621E+00	5.279E+00	4.860E-01	-0.328
		1770.23		2.114E+01	5.098E+01	9.148E+01	8.166E+00	0.231
TL-207		81.07		-1.976E+01	2.576E+01	4.112E+01	5.253E+00	-0.481
		83.78		6.017E+00	1.607E+01	2.600E+01	3.347E+00	0.231
		94.90		-5.319E+01	3.132E+01	4.630E+01	5.502E+00	-1.149
		122.32		-9.020E+01	1.950E+02	3.132E+02	3.369E+01	-0.288
		144.24		-6.458E+01	8.391E+01	1.265E+02	1.290E+01	-0.510
		154.21		-3.072E+01	4.143E+01	6.427E+01	6.277E+00	-0.478
		269.46		5.354E+00	1.633E+01	2.716E+01	2.688E+00	0.197
		323.87	*	-8.483E+00	5.994E+01	9.947E+01	1.793E+01	-0.085
		338.28		-4.667E+01	9.904E+01	1.550E+02	1.951E+01	-0.301
		445.03		6.059E+01	2.090E+02	3.574E+02	4.211E+01	0.170
TL-208		72.80		2.450E+00	2.282E+02	3.867E+02	4.953E+01	0.006
		74.97		4.919E+01	1.392E+02	2.322E+02	3.589E+01	0.212
		277.35		1.949E+01	3.541E+01	5.984E+01	7.898E+00	0.326
		510.84		-1.603E+01	2.548E+01	4.705E+01	5.592E+00	-0.341

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		583.14	*	-4.606E-01	4.135E+00	6.583E+00	6.133E-01	-0.070
		763.13		-9.549E+01	1.578E+02	2.366E+02	3.410E+01	-0.404
		860.37		4.268E+00	2.405E+01	4.107E+01	4.225E+00	0.104
		1093.90		3.907E+02	7.529E+02	1.356E+03	3.177E+02	0.288
PO-209		260.50		-2.461E+02	9.931E+02	1.560E+03	1.506E+02	-0.158
		262.80		1.574E+03	2.610E+03	4.443E+03	4.298E+02	0.354
		896.60	*	6.958E+02	7.480E+02	1.385E+03	1.362E+02	0.502
BI-210		46.50	*	2.338E+02	1.113E+03	1.807E+03	2.521E+02	0.129
PB-210		46.50	*	2.338E+02	1.113E+03	1.807E+03	2.521E+02	0.129
PO-210		46.50	*	2.338E+02	1.113E+03	1.807E+03	2.418E+02	0.129
BI-211		72.87		3.072E+01	3.614E+02	6.153E+02	7.880E+01	0.050
		351.07	*	-6.941E+00	2.237E+01	3.464E+01	3.190E+00	-0.200
PB-211		404.84	*	-3.456E-01	8.575E+01	1.426E+02	8.924E+01	-0.002
		427.08		-1.859E+02	2.289E+02	2.925E+02	1.815E+02	-0.636
		831.96		6.569E+01	1.160E+02	1.956E+02	1.228E+02	0.336
BI-212		727.18	*	-6.171E+00	2.792E+01	4.198E+01	4.404E+00	-0.147
		785.46		-2.650E+01	1.185E+02	1.899E+02	1.792E+01	-0.140
		1620.62		-9.830E+01	1.282E+02	1.664E+02	1.634E+01	-0.591
PB-212		74.81		1.782E+01	4.502E+01	7.526E+01	1.190E+01	0.237
		77.11		-9.513E+00	2.357E+01	3.875E+01	4.931E+00	-0.246
		87.30		-7.570E+01	4.398E+01	6.238E+01	1.026E+01	-1.214
		115.19		-8.025E+01	3.783E+02	6.207E+02	6.443E+01	-0.129
		238.63	*	-2.971E+00	6.859E+00	1.077E+01	1.124E+00	-0.276
		300.09		-2.596E+00	7.734E+01	1.232E+02	1.385E+01	-0.021
PO-212		74.81		1.782E+01	4.502E+01	7.526E+01	1.190E+01	0.237
		77.11		-9.513E+00	2.357E+01	3.875E+01	4.931E+00	-0.246
		87.30		-7.570E+01	4.398E+01	6.238E+01	1.026E+01	-1.214
		115.19		-8.025E+01	3.783E+02	6.207E+02	6.443E+01	-0.129
		238.63	*	-2.971E+00	6.859E+00	1.077E+01	1.124E+00	-0.276
		300.09		-2.596E+00	7.734E+01	1.232E+02	1.385E+01	-0.021
BI-214	+	609.31	*	7.365E+00	8.551E+00	1.295E+01	1.318E+00	0.569
		1120.29		-1.733E+01	2.449E+01	3.443E+01	3.805E+00	-0.503
		1764.49		-8.662E+00	2.406E+01	3.615E+01	3.241E+00	-0.240
PB-214		74.81		3.032E+01	7.659E+01	1.281E+02	1.889E+01	0.237
		77.11		-1.611E+01	3.992E+01	6.560E+01	9.730E+00	-0.246
		87.30		-1.281E+02	7.395E+01	1.055E+02	1.601E+01	-1.214
		241.98		-6.392E+01	3.551E+01	4.656E+01	5.117E+00	-1.373
		295.21		2.066E+01	1.319E+01	2.395E+01	2.755E+00	0.862
		351.92	*	-3.394E+00	7.769E+00	1.187E+01	1.254E+00	-0.286
PO-214		74.81		3.032E+01	7.659E+01	1.281E+02	1.889E+01	0.237
		77.11		-1.611E+01	3.992E+01	6.560E+01	9.730E+00	-0.246
		87.30		-1.281E+02	7.395E+01	1.055E+02	1.601E+01	-1.214
		241.98		-6.392E+01	3.551E+01	4.656E+01	5.117E+00	-1.373
		295.21		2.066E+01	1.319E+01	2.395E+01	2.755E+00	0.862
		351.92	*	-3.394E+00	7.769E+00	1.187E+01	1.254E+00	-0.286
PO-215		81.07		-1.976E+01	2.576E+01	4.112E+01	5.253E+00	-0.481
		83.78		6.017E+00	1.607E+01	2.600E+01	3.347E+00	0.231
		94.90		-5.319E+01	3.132E+01	4.630E+01	5.502E+00	-1.149
		122.32		-9.020E+01	1.950E+02	3.132E+02	3.369E+01	-0.288

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		144.24		-6.458E+01	8.391E+01	1.265E+02	1.290E+01	-0.510
		154.21		-3.072E+01	4.143E+01	6.427E+01	6.277E+00	-0.478
		269.46		5.354E+00	1.633E+01	2.716E+01	2.688E+00	0.197
		323.87	*	-8.483E+00	5.994E+01	9.947E+01	1.793E+01	-0.085
		338.28		-4.667E+01	9.904E+01	1.550E+02	1.951E+01	-0.301
		445.03		6.059E+01	2.090E+02	3.574E+02	4.211E+01	0.170
PO-216		74.81		1.782E+01	4.502E+01	7.526E+01	1.190E+01	0.237
		77.11		-9.513E+00	2.357E+01	3.875E+01	4.931E+00	-0.246
		87.30		-7.570E+01	4.398E+01	6.238E+01	1.026E+01	-1.214
		115.19		-8.025E+01	3.783E+02	6.207E+02	6.443E+01	-0.129
		238.63	*	-2.971E+00	6.859E+00	1.077E+01	1.124E+00	-0.276
		300.09		-2.596E+00	7.734E+01	1.232E+02	1.385E+01	-0.021
PO-218		74.81		3.032E+01	7.659E+01	1.281E+02	1.889E+01	0.237
		77.11		-1.611E+01	3.992E+01	6.560E+01	9.730E+00	-0.246
		87.30		-1.281E+02	7.395E+01	1.055E+02	1.601E+01	-1.214
		241.98		-6.392E+01	3.551E+01	4.656E+01	5.117E+00	-1.373
		295.21		2.066E+01	1.319E+01	2.395E+01	2.755E+00	0.862
		351.92	*	-3.394E+00	7.769E+00	1.187E+01	1.254E+00	-0.286
RN-219		271.23		-5.484E+00	2.307E+01	3.617E+01	4.080E+00	-0.152
		401.81	*	1.829E+01	3.703E+01	6.477E+01	9.491E+00	0.282
RN-220		549.76	*	2.225E+03	2.342E+03	4.286E+03	3.689E+02	0.519
RA-223		81.07		-1.976E+01	2.576E+01	4.112E+01	5.253E+00	-0.481
		83.78		6.017E+00	1.607E+01	2.600E+01	3.347E+00	0.231
		94.90		-5.319E+01	3.132E+01	4.630E+01	5.502E+00	-1.149
		122.32		-9.020E+01	1.950E+02	3.132E+02	3.369E+01	-0.288
		144.24		-6.458E+01	8.391E+01	1.265E+02	1.290E+01	-0.510
		154.21		-3.072E+01	4.143E+01	6.427E+01	6.277E+00	-0.478
		269.46		5.354E+00	1.633E+01	2.716E+01	2.688E+00	0.197
		323.87	*	-8.483E+00	5.994E+01	9.947E+01	1.793E+01	-0.085
		338.28		-4.667E+01	9.904E+01	1.550E+02	1.951E+01	-0.301
		445.03		6.059E+01	2.090E+02	3.574E+02	4.211E+01	0.170
RA-224		240.98	*	-1.915E+01	6.545E+01	1.030E+02	9.725E+00	-0.186
AC-227		79.80		-4.608E+01	1.925E+02	3.194E+02	7.495E+01	-0.144
		236.00		8.536E+00	2.370E+01	3.940E+01	5.041E+00	0.217
		256.20	*	1.630E+01	3.993E+01	6.659E+01	1.060E+01	0.245
		286.10		-4.418E+01	1.522E+02	2.361E+02	3.300E+01	-0.187
		299.80		-1.011E+02	1.513E+02	2.242E+02	4.034E+01	-0.451
		304.40		2.517E+01	2.052E+02	3.313E+02	6.256E+01	0.076
		329.70		1.945E+01	8.139E+01	1.399E+02	2.007E+01	0.139
		334.20		-1.449E+01	2.220E+02	3.709E+02	7.278E+01	-0.039
PA-227		64.62	*	1.000E+35	2.220E+02	Half-Life too short		
		110.05		1.000E+35	2.220E+02	Half-Life too short		
TH-227		79.80		-4.608E+01	1.925E+02	3.194E+02	7.576E+01	-0.144
		94.00		-7.927E+02	3.373E+02	4.716E+02	1.100E+02	-1.681
		236.00		8.536E+00	2.370E+01	3.940E+01	4.603E+00	0.217
		256.20	*	1.630E+01	3.996E+01	6.659E+01	1.235E+01	0.245
		286.10		-4.418E+01	1.584E+02	2.361E+02	2.372E+02	-0.187
		299.80		-1.011E+02	1.513E+02	2.242E+02	4.034E+01	-0.451
		304.40		2.517E+01	2.052E+02	3.313E+02	6.256E+01	0.076

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		329.70		1.945E+01	8.139E+01	1.399E+02	2.007E+01	0.139
		334.20		-1.449E+01	2.220E+02	3.709E+02	7.278E+01	-0.039
AC-228		338.32		-1.140E+01	2.422E+01	3.721E+01	1.538E+01	-0.306
		911.07	*	7.459E-01	9.759E+00	1.688E+01	2.056E+00	0.044
		969.11		-3.098E+00	2.143E+01	3.294E+01	7.816E+00	-0.094
RA-228		338.32		-1.140E+01	2.422E+01	3.721E+01	1.538E+01	-0.306
		911.07	*	7.459E-01	9.759E+00	1.688E+01	2.056E+00	0.044
		969.11		-3.098E+00	2.143E+01	3.294E+01	7.816E+00	-0.094
TH-228		74.81		1.782E+01	4.499E+01	7.526E+01	9.634E+00	0.237
		77.11		-9.513E+00	2.357E+01	3.875E+01	4.931E+00	-0.246
		87.30		-7.570E+01	4.332E+01	6.238E+01	8.149E+00	-1.214
		238.63	*	-2.971E+00	6.859E+00	1.077E+01	1.124E+00	-0.276
		300.09		-2.596E+00	7.735E+01	1.232E+02	7.320E+01	-0.021
TH-229		85.43		8.686E+00	2.277E+01	3.675E+01	4.761E+00	0.236
		88.47		-3.905E+01	1.443E+01	1.814E+01	2.360E+00	-2.153
		100.00		-9.893E+00	1.973E+01	3.175E+01	3.584E+00	-0.312
		193.63	*	-2.437E+01	5.107E+01	7.999E+01	7.117E+00	-0.305
		210.97		6.740E+01	7.238E+01	1.264E+02	1.150E+01	0.533
TH-230		67.67	*	-5.842E+02	4.159E+03	2.426E+03	1.574E+04	-0.241
PA-231		283.67	*	3.612E+01	1.478E+02	2.428E+02	3.855E+01	0.149
		301.29		3.811E+01	5.732E+01	9.716E+01	1.257E+01	0.392
		330.00		6.579E+01	1.851E+02	3.197E+02	1.026E+02	0.206
TH-231		84.21	*	3.490E+01	6.128E+01	9.971E+01	2.020E+01	0.350
U-231		84.21		2.549E+02	4.458E+02	7.282E+02	9.389E+01	0.350
		92.29		-9.591E+01	1.889E+02	3.484E+02	4.280E+01	-0.275
		95.87	*	-2.818E+02	9.886E+01	1.261E+02	1.482E+01	-2.235
		108.00		-1.285E+02	1.467E+02	2.283E+02	2.439E+01	-0.563
TH-232		59.00	*	1.891E+03	2.075E+04	8.556E+03	9.007E+04	0.221
PA-233		75.28		7.217E+01	3.704E+02	6.121E+02	1.101E+02	0.118
		86.59		-1.329E+02	1.783E+02	2.784E+02	7.944E+01	-0.477
		300.12		-5.762E-01	3.953E+01	6.308E+01	9.751E+00	-0.009
		311.98	*	-3.964E+00	6.101E+00	9.632E+00	9.304E-01	-0.411
		340.50		1.877E+01	5.749E+01	9.903E+01	2.373E+01	0.189
		398.62		-3.210E+01	1.829E+02	2.981E+02	7.874E+01	-0.108
		415.76		9.854E+01	1.618E+02	2.832E+02	6.040E+01	0.348
PA-234	+	63.00		6.145E+01	3.970E+02	4.806E+02	9.016E+01	0.128
		94.67		-1.484E+01	2.184E+01	3.506E+01	5.218E+00	-0.423
		98.44		-4.889E+00	1.068E+01	1.624E+01	9.141E+00	-0.301
		99.86		-3.044E+01	5.016E+01	8.001E+01	9.040E+00	-0.381
		111.00		-4.162E-01	2.111E+01	3.357E+01	4.539E+00	-0.012
		131.20		2.260E+00	1.060E+01	1.788E+01	1.742E+00	0.126
		152.70		1.868E+01	3.311E+01	5.667E+01	9.765E+00	0.330
	+	186.00		1.451E+02	2.490E+02	3.004E+02	9.392E+01	0.483
		226.40		2.445E+01	4.031E+01	6.853E+01	9.348E+00	0.357
		227.20		-2.757E+00	4.462E+01	7.194E+01	6.680E+00	-0.038
		248.90		-3.204E+01	8.712E+01	1.353E+02	3.082E+01	-0.237
		293.70		5.399E+01	6.433E+01	1.102E+02	1.967E+01	0.490
		369.80		3.462E+01	7.614E+01	1.329E+02	2.882E+01	0.261
		568.70		-6.739E+00	9.872E+01	1.554E+02	1.346E+01	-0.043

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		569.50		8.828E-02	2.796E+01	4.450E+01	3.856E+00	0.002
		574.00		-6.236E+01	1.487E+02	2.294E+02	1.991E+01	-0.272
		699.00		-7.337E+01	7.608E+01	1.050E+02	2.024E+01	-0.699
		706.10		5.877E+01	1.005E+02	1.691E+02	7.556E+01	0.348
		733.00		-8.379E+00	2.590E+01	3.861E+01	8.660E+00	-0.217
		742.81		3.850E+01	1.023E+02	1.764E+02	1.187E+02	0.218
		796.30		-4.151E+00	7.089E+01	1.174E+02	3.209E+01	-0.035
		805.60		-8.560E+01	8.330E+01	1.067E+02	3.297E+01	-0.802
		819.60		-6.723E+01	9.561E+01	1.324E+02	5.066E+01	-0.508
		826.30		7.409E+00	6.498E+01	1.102E+02	4.952E+01	0.067
		831.60		2.147E+01	5.694E+01	9.915E+01	2.989E+01	0.216
		876.40		1.916E+01	7.535E+01	1.257E+02	1.293E+02	0.152
		880.51		-1.121E+01	2.344E+01	3.568E+01	3.491E+00	-0.314
		883.24		-8.014E+00	2.450E+01	3.740E+01	2.520E+01	-0.214
		899.00		8.761E+00	7.846E+01	1.320E+02	5.806E+01	0.066
		925.00		-1.416E+01	9.516E+01	1.533E+02	1.499E+01	-0.092
		926.50		-1.174E+00	1.343E+01	2.185E+01	5.615E+00	-0.054
		946.00	*	1.886E+01	2.085E+01	3.987E+01	7.692E+00	0.473
		949.00		-1.817E+01	3.479E+01	5.167E+01	5.016E+00	-0.352
		980.50		1.333E+01	5.905E+01	1.012E+02	9.712E+00	0.132
		1394.10		-3.512E+00	9.311E+01	1.540E+02	1.007E+02	-0.023
PA-234M		766.42		-2.110E+02	9.097E+02	1.456E+03	7.407E+02	-0.145
	+	1001.03	*	1.799E+01	4.405E+02	7.303E+02	7.849E+01	0.025
TH-234	+	63.29	*	5.272E+01	3.406E+02	4.045E+02	8.430E+01	0.130
		92.38		-7.549E+01	7.819E+01	1.386E+02	2.784E+01	-0.545
U-234		53.20	*	1.473E+04	1.480E+05	2.446E+04	2.446E+05	0.602
U-235		89.95		-3.475E+02	1.821E+02	2.046E+02	6.594E+01	-1.699
		93.35		-1.567E+02	1.013E+02	1.583E+02	4.635E+01	-0.990
		105.00		1.936E+01	1.131E+02	1.914E+02	5.851E+01	0.101
		143.76	*	-1.941E+01	2.576E+01	3.858E+01	6.878E+00	-0.503
		163.35		6.045E+01	4.695E+01	8.262E+01	1.579E+01	0.732
	+	185.71		5.372E+00	9.080E+00	1.110E+01	9.781E-01	0.484
		205.31		-5.192E+01	5.530E+01	7.822E+01	1.507E+01	-0.664
NP-236		94.67		-1.109E+01	1.654E+01	2.662E+01	3.173E+00	-0.417
		98.44		-3.697E+00	7.815E+00	1.227E+01	1.405E+00	-0.301
		111.00		-3.148E-01	1.597E+01	2.539E+01	2.675E+00	-0.012
		160.31	*	-5.045E+00	8.146E+00	1.273E+01	1.117E+00	-0.396
NP-237		86.50	*	-1.692E+01	2.671E+01	4.256E+01	1.038E+01	-0.398
		95.87		-3.799E+02	1.595E+02	1.700E+02	4.403E+01	-2.235
PU-237		59.54	*	1.945E+02	3.732E+02	5.573E+02	7.860E+01	0.349
U-238	+	63.29	*	5.272E+01	3.406E+02	4.045E+02	8.430E+01	0.130
		92.38		-7.549E+01	7.726E+01	1.386E+02	1.701E+01	-0.545
NP-239		99.55		-9.600E+00	1.700E+01	2.723E+01	3.086E+00	-0.353
		117.00	*	-1.664E+00	2.013E+01	3.335E+01	3.445E+00	-0.050
		209.75		2.035E+01	7.750E+01	1.242E+02	1.128E+01	0.164
		228.18		2.102E+01	2.348E+01	4.074E+01	3.787E+00	0.516
		277.60		8.377E+00	1.711E+01	2.877E+01	2.825E+00	0.291
		334.30		-9.443E+00	1.257E+02	2.098E+02	1.906E+01	-0.045
AM-241		59.54	*	1.465E+01	2.812E+01	4.198E+01	6.085E+00	0.349

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AM-243		74.67	*	3.297E+00	7.214E+00	1.211E+01	1.544E+00	0.272
		86.72		-1.178E+03	9.975E+02	1.526E+03	1.988E+02	-0.772
		117.66		7.002E+01	4.017E+02	6.780E+02	6.992E+01	0.103
		142.18		-1.105E+03	2.056E+03	3.139E+03	2.921E+02	-0.352
CM-243		99.55		-9.877E+00	1.749E+01	2.802E+01	3.175E+00	-0.353
		103.76	*	8.229E+00	1.037E+01	1.829E+01	2.005E+00	0.450
		117.00		-1.711E+00	2.071E+01	3.430E+01	3.543E+00	-0.050
		209.75		2.006E+01	7.639E+01	1.224E+02	1.112E+01	0.164
		228.18		2.123E+01	2.373E+01	4.115E+01	3.826E+00	0.516
		277.60		8.444E+00	1.725E+01	2.900E+01	2.847E+00	0.291
AM-246		798.80		-1.188E-01	1.154E+01	1.924E+01	1.826E+00	-0.006
		1036.00		2.221E+00	2.230E+01	3.734E+01	3.492E+00	0.059
		1062.04		-1.709E+00	1.632E+01	2.615E+01	2.410E+00	-0.065
		1078.86	*	-6.317E+00	9.824E+00	1.399E+01	1.276E+00	-0.451
CM-247		278.00		1.292E+01	7.177E+01	1.172E+02	1.151E+01	0.110
		287.40		5.486E+00	1.143E+02	1.841E+02	1.794E+01	0.030
		402.60	*	1.476E+00	3.295E+00	5.748E+00	4.573E-01	0.257
CF-249		252.85		-1.220E+01	9.141E+01	1.455E+02	1.393E+01	-0.084
		333.44		5.023E-01	1.590E+01	2.680E+01	2.438E+00	0.019
		387.95	*	2.001E+00	3.789E+00	6.650E+00	5.307E-01	0.301
CF-251		176.60	*	8.630E+00	1.263E+01	2.180E+01	1.901E+00	0.396
		227.00		-9.837E-01	3.948E+01	6.386E+01	5.928E+00	-0.015
		285.00		8.837E+01	1.668E+02	2.818E+02	2.754E+01	0.314
ANH-511		511.00	*	-3.396E+00	5.431E+00	1.004E+01	8.510E-01	-0.338

VAX/VMS Nuclide Identification Report Generated

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*************************************************************************
*                          GEL Laboratories LLC                         *
*                              2040 Savage Road                         *
*                            Charleston, SC 29414                       *
*************************************************************************
*                                                                       *
*                              DETECTOR DATA                            *
*                                                                       *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202003335 *
* Acquisition date :  5-JAN-2010 13:10:46 Detector SN#     :            *
* Detector ID        : GAM03               Sensitivity     : 5.000     *
* Geometry           : 2LMB                Energy tolerance: 1.500     *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000    *
* Elapsed real time:    0 02:00:00.44      Half life ratio :  8.000    *
*************************************************************************
*                                                                       *
*                              SAMPLE DATA                              *
*                                                                       *
* Sample date        : 24-DEC-2009 00:00:00 Nuclide Library : LIQUI     *
* Sample ID          : G1202003335          Analyst initials: KXG3      *
* Batch Number       : 936274               Sample Quantity : 2.0000E+00 LITER *
* Recovery           :    1.00000           Carrier Weight :    0.00000 *
*************************************************************************
*                                                                       *
*                                QC DATA                                *
* Standard Weight  :    0.00000                                         *
* CALIB. DATE/TIME : 18-AUG-2009 08:11:21 MS Isotope      :             *
* MSD DPM            :    0.000           MSD Isotope     :             *
* LCS DPM            :    0.000           LCS Isotope     :             *
* LCSD DPM           :    0.000           LCSD Isotope    :             *
*************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
RA-226	8.845E+01	1.596E+02	1.186E+02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	8.375E+00	2.348E+01	4.145E+01	0.000E+00	NOT IDENT.
NA-22	-2.378E-01	2.735E+00	4.411E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00	3.125E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-5.817E-01	2.139E+00	3.180E+00	0.000E+00	NOT IDENT.
K-40	-8.294E+00	3.642E+01	5.743E+01	0.000E+00	NOT IDENT.
TI-44	-2.294E+00	4.071E+00	6.748E+00	0.000E+00	NOT IDENT.
SC-46	-4.656E-01	3.488E+00	5.787E+00	0.000E+00	NOT IDENT.
V-48	1.184E+00	5.019E+00	8.781E+00	0.000E+00	NOT IDENT.
CR-51	-1.385E+01	3.084E+01	5.062E+01	0.000E+00	NOT IDENT.
MN-52	1.279E+01	1.475E+01	2.931E+01	0.000E+00	NOT IDENT.
MN-54	1.361E+00	3.352E+00	5.990E+00	0.000E+00	NOT IDENT.
CO-56	-1.558E-01	3.306E+00	5.576E+00	0.000E+00	NOT IDENT.
CO-57	-7.645E-02	2.690E+00	4.559E+00	0.000E+00	NOT IDENT.
CO-58	-4.135E-01	2.945E+00	4.902E+00	0.000E+00	NOT IDENT.
FE-59	2.073E+00	6.385E+00	1.131E+01	0.000E+00	NOT IDENT.
CO-60	-3.409E-01	3.492E+00	5.624E+00	0.000E+00	NOT IDENT.
ZN-65	-3.940E+00	5.999E+00	8.552E+00	0.000E+00	NOT IDENT.
GE-68	-7.554E+01	9.101E+01	1.275E+02	0.000E+00	NOT IDENT.
AS-73	1.274E+02	1.756E+02	3.007E+02	0.000E+00	NOT IDENT.
AS-74	4.554E+00	7.807E+00	1.387E+01	0.000E+00	NOT IDENT.
SE-75	1.017E-01	4.008E+00	6.596E+00	0.000E+00	NOT IDENT.
BR-77	3.362E+01	4.694E+02	7.924E+02	0.000E+00	NOT IDENT.
SR-82	9.967E+00	2.622E+01	4.738E+01	0.000E+00	NOT IDENT.
RB-83	3.952E-01	6.421E+00	1.083E+01	0.000E+00	NOT IDENT.
RB-84	-4.737E+00	5.533E+00	7.967E+00	0.000E+00	NOT IDENT.
KR-85	-2.274E+03	1.098E+03	1.532E+03	0.000E+00	NOT IDENT.

SR-85	-1.135E+01	5.478E+00	7.645E+00	0.000E+00	NOT IDENT.
RB-86	-2.668E+01	5.060E+01	7.476E+01	0.000E+00	NOT IDENT.
Y-88	-3.284E+00	2.757E+00	2.127E+00	0.000E+00	NOT IDENT.
ZR-88	-8.390E-01	2.589E+00	4.241E+00	0.000E+00	NOT IDENT.
Y-91	-1.023E+03	1.297E+03	1.787E+03	0.000E+00	NOT IDENT.
NB-94	-1.888E+00	3.259E+00	4.920E+00	0.000E+00	NOT IDENT.
NB-95	5.748E-02	3.773E+00	6.437E+00	0.000E+00	NOT IDENT.
NB-95M	-1.701E+00	1.207E+01	1.970E+01	0.000E+00	NOT IDENT.
ZR-95	6.108E-01	5.605E+00	9.736E+00	0.000E+00	NOT IDENT.
NB-97	0.000E+00	7.891E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.102E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-2.773E+02	3.898E+02	5.715E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.391E+15	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.096E+00	3.533E+00	5.203E+00	0.000E+00	NOT IDENT.
RH-102	-1.908E+00	2.324E+00	3.440E+00	0.000E+00	NOT IDENT.
RU-103	-9.047E-01	3.631E+00	5.906E+00	0.000E+00	FAIL ABUN
RH-106	-4.753E+00	2.317E+01	3.697E+01	0.000E+00	NOT IDENT.
RU-106	-4.753E+00	2.316E+01	3.697E+01	0.000E+00	NOT IDENT.
AG-108M	-9.189E-01	3.282E+00	5.388E+00	0.000E+00	NOT IDENT.
CD-109	-2.007E+02	9.342E+01	1.314E+02	0.000E+00	NOT IDENT.
AG-110M	-6.408E-01	3.546E+00	5.788E+00	0.000E+00	NOT IDENT.
IN-111	1.590E+01	5.300E+01	8.974E+01	0.000E+00	NOT IDENT.
IN-113M	-3.239E-01	4.008E+00	6.759E+00	0.000E+00	NOT IDENT.
SN-113	-3.239E-01	4.008E+00	6.759E+00	0.000E+00	NOT IDENT.
IN-114M	5.802E+00	1.945E+01	2.934E+01	0.000E+00	NOT IDENT.
CD-115	-2.308E+02	4.280E+02	6.624E+02	0.000E+00	NOT IDENT.
SN-117M	-1.276E+00	4.692E+00	7.715E+00	0.000E+00	NOT IDENT.
SB-122	7.696E+00	9.811E+01	1.650E+02	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.144E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-4.734E-01	2.700E+00	4.474E+00	0.000E+00	NOT IDENT.
I-124	4.211E+01	4.603E+01	7.821E+01	0.000E+00	NOT IDENT.
SB-124	9.361E-01	7.707E+00	1.331E+01	0.000E+00	NOT IDENT.
SB-125	-8.158E+00	8.720E+00	1.316E+01	0.000E+00	NOT IDENT.
TE-125M	3.298E+02	1.012E+03	1.683E+03	0.000E+00	NOT IDENT.
I-126	-5.142E+00	1.245E+01	1.910E+01	0.000E+00	NOT IDENT.
SB-126	1.103E+00	1.156E+01	1.920E+01	0.000E+00	NOT IDENT.
SN-126	-1.657E+01	9.042E+00	1.321E+01	0.000E+00	FAIL ABUN
SB-127	-7.652E+01	7.138E+01	9.454E+01	0.000E+00	NOT IDENT.
XE-127	-1.980E+00	4.331E+00	6.920E+00	0.000E+00	NOT IDENT.
I-131	-4.812E+00	8.350E+00	1.336E+01	0.000E+00	NOT IDENT.
TE-132	3.755E+01	4.104E+01	7.221E+01	0.000E+00	NOT IDENT.
BA-133	-4.419E+00	4.091E+00	6.161E+00	0.000E+00	NOT IDENT.
I-133	0.000E+00	7.341E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-4.118E-01	3.785E+00	6.353E+00	0.000E+00	NOT IDENT.
CS-135	-7.629E+00	1.422E+01	2.198E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.607E+14	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.902E+00	8.215E+00	1.292E+01	0.000E+00	NOT IDENT.
BA-137M	-1.340E+00	3.257E+00	5.053E+00	0.000E+00	NOT IDENT.
CS-137	-1.416E+00	3.443E+00	5.342E+00	0.000E+00	NOT IDENT.
CE-139	-3.997E+00	2.868E+00	4.214E+00	0.000E+00	NOT IDENT.
BA-140	-2.235E+01	2.206E+01	2.976E+01	0.000E+00	NOT IDENT.
LA-140	-2.544E+00	7.171E+00	1.113E+01	0.000E+00	NOT IDENT.
CE-141	2.401E+00	6.224E+00	1.077E+01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	3.443E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-1.302E+01	2.080E+01	3.338E+01	0.000E+00	NOT IDENT.
PM-144	3.598E+00	3.141E+00	5.903E+00	0.000E+00	NOT IDENT.
PR-144	2.435E+02	2.126E+02	3.995E+02	0.000E+00	NOT IDENT.
PM-146	4.071E+00	3.738E+00	7.058E+00	0.000E+00	NOT IDENT.
ND-147	1.834E+01	4.218E+01	7.427E+01	0.000E+00	NOT IDENT.
PM-149	-1.072E+03	3.990E+03	6.336E+03	0.000E+00	NOT IDENT.
EU-152	3.572E+00	9.673E+00	1.708E+01	0.000E+00	NOT IDENT.
GD-153	-3.503E+00	8.698E+00	1.405E+01	0.000E+00	NOT IDENT.
EU-154	-1.847E+00	7.865E+00	1.220E+01	0.000E+00	NOT IDENT.
EU-155	-1.989E+00	1.134E+01	1.911E+01	0.000E+00	NOT IDENT.
TB-160	1.786E+00	1.109E+01	1.927E+01	0.000E+00	NOT IDENT.
HO-166M	-7.301E+00	5.941E+00	7.675E+00	0.000E+00	FAIL ABUN
TM-171	-2.775E+02	4.287E+03	6.394E+03	0.000E+00	NOT IDENT.
HF-175	5.202E-01	3.571E+00	6.191E+00	0.000E+00	NOT IDENT.
LU-176	-2.121E-01	2.683E+00	4.335E+00	0.000E+00	NOT IDENT.
LU-177	-2.451E+01	8.349E+01	1.304E+02	0.000E+00	NOT IDENT.
LU-177M	-9.423E+00	1.744E+01	2.653E+01	0.000E+00	NOT IDENT.
HF-181	-6.513E-01	3.118E+00	5.083E+00	0.000E+00	NOT IDENT.
W-181	1.152E+01	6.457E+01	9.319E+01	0.000E+00	NOT IDENT.
TA-182	3.834E-01	1.349E+01	2.246E+01	0.000E+00	FAIL ABUN
RE-183	1.402E+01	1.055E+01	1.934E+01	0.000E+00	NOT IDENT.
RE-184	-3.216E+00	2.362E+01	3.838E+01	0.000E+00	NOT IDENT.
OS-185	1.958E-01	3.774E+00	6.278E+00	0.000E+00	NOT IDENT.
RE-188	-8.844E+00	1.725E+01	2.789E+01	0.000E+00	NOT IDENT.

W-188	-4.119E+02	6.744E+02	1.027E+03	0.000E+00	FAIL ABUN
IR-192	1.068E-01	2.888E+00	4.984E+00	0.000E+00	NOT IDENT.
AU-195	-1.395E+01	2.477E+01	3.944E+01	0.000E+00	NOT IDENT.
TL-200	0.000E+00	8.272E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-4.983E+02	3.792E+02	5.617E+02	0.000E+00	NOT IDENT.
TL-202	3.935E+00	5.546E+00	1.007E+01	0.000E+00	NOT IDENT.
HG-203	1.059E+00	3.589E+00	6.050E+00	0.000E+00	NOT IDENT.
BI-207	-1.733E+00	3.549E+00	5.279E+00	0.000E+00	NOT IDENT.
TL-207	-8.483E+00	5.874E+01	9.947E+01	0.000E+00	NOT IDENT.
TL-208	-4.606E-01	4.052E+00	6.583E+00	0.000E+00	NOT IDENT.
PO-209	6.958E+02	7.330E+02	1.385E+03	0.000E+00	NOT IDENT.
BI-210	2.338E+02	1.091E+03	1.807E+03	0.000E+00	NOT IDENT.
PB-210	2.338E+02	1.091E+03	1.807E+03	0.000E+00	NOT IDENT.
PO-210	2.338E+02	1.091E+03	1.807E+03	0.000E+00	NOT IDENT.
BI-211	-6.941E+00	2.193E+01	3.464E+01	0.000E+00	NOT IDENT.
PB-211	-3.456E-01	8.403E+01	1.426E+02	0.000E+00	NOT IDENT.
BI-212	-6.171E+00	2.736E+01	4.198E+01	0.000E+00	NOT IDENT.
PB-212	-2.971E+00	6.722E+00	1.077E+01	0.000E+00	NOT IDENT.
PO-212	-2.971E+00	6.722E+00	1.077E+01	0.000E+00	NOT IDENT.
BI-214	7.365E+00	8.380E+00	1.295E+01	0.000E+00	FAIL ABUN
PB-214	-3.394E+00	7.614E+00	1.187E+01	0.000E+00	NOT IDENT.
PO-214	-3.394E+00	7.614E+00	1.187E+01	0.000E+00	NOT IDENT.
PO-215	-8.483E+00	5.874E+01	9.947E+01	0.000E+00	NOT IDENT.
PO-216	-2.971E+00	6.722E+00	1.077E+01	0.000E+00	NOT IDENT.
PO-218	-3.394E+00	7.614E+00	1.187E+01	0.000E+00	NOT IDENT.
RN-219	1.829E+01	3.629E+01	6.477E+01	0.000E+00	NOT IDENT.
RN-220	2.225E+03	2.295E+03	4.286E+03	0.000E+00	NOT IDENT.
RA-223	-8.483E+00	5.874E+01	9.947E+01	0.000E+00	NOT IDENT.
RA-224	-1.915E+01	6.414E+01	1.030E+02	0.000E+00	NOT IDENT.
AC-227	1.630E+01	3.913E+01	6.659E+01	0.000E+00	NOT IDENT.
PA-227	0.000E+00	6.581E+40	0.000E+00	0.000E+00	SHORT HLIF
TH-227	1.630E+01	3.916E+01	6.659E+01	0.000E+00	NOT IDENT.
AC-228	7.459E-01	9.563E+00	1.688E+01	0.000E+00	NOT IDENT.
RA-228	7.459E-01	9.563E+00	1.688E+01	0.000E+00	NOT IDENT.
TH-228	-2.971E+00	6.722E+00	1.077E+01	0.000E+00	NOT IDENT.
TH-229	-2.437E+01	5.005E+01	7.999E+01	0.000E+00	NOT IDENT.
TH-230	-5.842E+02	4.076E+03	2.426E+03	0.000E+00	NOT IDENT.
PA-231	3.612E+01	1.448E+02	2.428E+02	0.000E+00	NOT IDENT.
TH-231	3.490E+01	6.006E+01	9.971E+01	0.000E+00	NOT IDENT.
U-231	-2.818E+02	9.688E+01	1.261E+02	0.000E+00	NOT IDENT.
TH-232	1.891E+03	2.034E+04	8.556E+03	0.000E+00	NOT IDENT.
PA-233	-3.964E+00	5.979E+00	9.632E+00	0.000E+00	NOT IDENT.
PA-234	1.886E+01	2.043E+01	3.987E+01	0.000E+00	FAIL ABUN
PA-234M	1.799E+01	4.316E+02	7.303E+02	0.000E+00	FAIL ABUN
TH-234	5.272E+01	3.338E+02	4.045E+02	0.000E+00	FAIL ABUN
U-234	1.473E+04	1.451E+05	2.446E+04	0.000E+00	NOT IDENT.
U-235	-1.941E+01	2.525E+01	3.858E+01	0.000E+00	FAIL ABUN
NP-236	-5.045E+00	7.983E+00	1.273E+01	0.000E+00	NOT IDENT.
NP-237	-1.692E+01	2.617E+01	4.256E+01	0.000E+00	NOT IDENT.
PU-237	1.945E+02	3.657E+02	5.573E+02	0.000E+00	NOT IDENT.
U-238	5.272E+01	3.338E+02	4.045E+02	0.000E+00	FAIL ABUN
NP-239	-1.664E+00	1.973E+01	3.335E+01	0.000E+00	NOT IDENT.
AM-241	1.465E+01	2.755E+01	4.198E+01	0.000E+00	NOT IDENT.
AM-243	3.297E+00	7.070E+00	1.211E+01	0.000E+00	NOT IDENT.
CM-243	8.229E+00	1.016E+01	1.829E+01	0.000E+00	NOT IDENT.
AM-246	-6.317E+00	9.628E+00	1.399E+01	0.000E+00	NOT IDENT.
CM-247	1.476E+00	3.229E+00	5.748E+00	0.000E+00	NOT IDENT.
CF-249	2.001E+00	3.713E+00	6.650E+00	0.000E+00	NOT IDENT.
CF-251	8.630E+00	1.238E+01	2.180E+01	0.000E+00	NOT IDENT.
ANH-511	-3.396E+00	5.322E+00	1.004E+01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 6-JAN-2010 14:27:40.23

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202003335.CNF;2
Sample date       : 24-DEC-2009 00:00:00 Acquisition date : 5-JAN-2010 13:10:46.
Sample ID         : G1202003335          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM03                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.44  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 936274                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.92	48	119	1.34	126.39	122	10	6.71E-03	44.5	
2	0	92.12	142	146	1.32	184.73	180	12	1.97E-02	18.9	
3	0	185.54	131	120	1.18	371.38	365	13	1.82E-02	19.4	
4	0	511.16	129	80	2.18	1022.01	1014	17	1.79E-02	18.5	
5	0	609.17	29	20	0.90	1217.88	1213	11	4.01E-03	35.0	
6	0	1000.38	15	5	0.93	1999.83	1994	9	2.01E-03	37.2	

VAX/VMS Nuclide Identification Report Generated 6-JAN-2010 14:27:44.36

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202003335.CNF;2
Sample date       : 24-DEC-2009 00:00:0Q Acquisition date : 5-JAN-2010 13:10:46.
Sample ID         : G1202003335          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM03                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.44  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 936274               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
RA-226	186.21	32	3.28*	2.043E+00	8.845E+01	8.845E+01	184.18

Flag: "*" = Keyline

Sample ID : G1202003335 Acquisition date : 5-JAN-2010 13:10:46

Total number of lines in spectrum	4	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	4	100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
RA-226	1600.00Y	1.00	8.845E+01	8.845E+01	16.29E+01	184.18	
	Total Activity :		8.845E+01	8.845E+01			
	Grand Total Activity :		8.845E+01	8.845E+01			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202003335 Acquisition date : 5-JAN-2010 13:10:46

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	62.92	7	119	1.34	126.39	122	10	9.67E-04	****	6.52E-01	T
0	609.17	19	20	0.90	1217.88	1213	11	2.57E-03	****	1.02E+00	T
0	1000.38	1	5	0.93	1999.83	1994	9	7.67E-05	****	6.85E-01	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 6-JAN-2010 14:27:49.61

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202003335.CNF;2  *
* Acquisition date  : 5-JAN-2010 13:10:46.  Detector SN#     :             *
* Detector ID       : GAM03                 Sensitivity      : 5.00000    *
* Geometry          : 2LMB                  Energy tolerance: 1.50000     *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000    *
* Elapsed real time: 0 02:00:00.44          Half life ratio : 8.00000     *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 24-DEC-2009 00:00:00  Nuclide Library : LIQUID      *
* Sample ID         : G1202003335           Analyst initials: KXG3        *
* Batch Number      : 936274                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 18-AUG-2009 08:11:21.3MS Isotope      :               *
* MSD ID           :                      MSD Isotope     :               *
* LCS ID           : 1032-A               LCS Isotope     :               *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RA-226	8.845E+01	1.629E+02	1.186E+02	8.740E+01	0.746

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	8.375E+00		2.396E+01	4.145E+01	3.741E+00	0.202
NA-22	-2.378E-01		2.790E+00	4.411E+00	4.359E-01	-0.054
NA-24	-5.079E-01		1.594E+00	Half-Life too short		
AL-26	-5.817E-01		2.183E+00	3.180E+00	2.753E-01	-0.183
K-40	-8.294E+00		3.716E+01	5.743E+01	6.121E+00	-0.144
TI-44	-2.294E+00		4.154E+00	6.748E+00	8.591E-01	-0.340
SC-46	-4.656E-01		3.559E+00	5.787E+00	5.679E-01	-0.080
V-48	1.184E+00		5.121E+00	8.781E+00	8.418E-01	0.135
CR-51	-1.385E+01		3.147E+01	5.062E+01	4.931E+00	-0.274
MN-52	1.279E+01		1.505E+01	2.931E+01	3.087E+00	0.436
MN-54	1.361E+00		3.420E+00	5.990E+00	5.767E-01	0.227

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-56	-1.558E-01		3.374E+00	5.576E+00	5.392E-01	-0.028
CO-57	-7.645E-02		2.745E+00	4.559E+00	4.668E-01	-0.017
CO-58	-4.135E-01		3.005E+00	4.902E+00	4.683E-01	-0.084
FE-59	2.073E+00		6.516E+00	1.131E+01	1.092E+00	0.183
CO-60	-3.409E-01		3.563E+00	5.624E+00	6.027E-01	-0.061
ZN-65	-3.940E+00		6.121E+00	8.552E+00	7.602E-01	-0.461
GE-68	-7.554E+01		9.287E+01	1.275E+02	1.163E+01	-0.592
AS-73	1.274E+02		1.791E+02	3.007E+02	4.713E+01	0.424
AS-74	4.554E+00		7.966E+00	1.387E+01	1.211E+00	0.328
SE-75	1.017E-01		4.090E+00	6.596E+00	6.417E-01	0.015
BR-77	3.362E+01		4.790E+02	7.924E+02	6.743E+01	0.042
SR-82	9.967E+00		2.676E+01	4.738E+01	4.451E+00	0.210
RB-83	3.952E-01		6.552E+00	1.083E+01	9.211E-01	0.037
RB-84	-4.737E+00		5.646E+00	7.967E+00	7.799E-01	-0.595
KR-85	-2.274E+03		1.120E+03	1.532E+03	1.300E+02	-1.484
SR-85	-1.135E+01		5.590E+00	7.645E+00	6.487E-01	-1.484
RB-86	-2.668E+01		5.163E+01	7.476E+01	6.825E+00	-0.357
Y-88	-3.284E+00		2.813E+00	2.127E+00	1.801E-01	-1.544
ZR-88	-8.390E-01		2.642E+00	4.241E+00	3.350E-01	-0.198
Y-91	-1.023E+03		1.324E+03	1.787E+03	1.588E+02	-0.573
NB-94	-1.888E+00		3.326E+00	4.920E+00	4.457E-01	-0.384
NB-95	5.748E-02		3.850E+00	6.437E+00	6.018E-01	0.009
NB-95M	-1.701E+00		1.232E+01	1.970E+01	2.076E+00	-0.086
ZR-95	6.108E-01		5.720E+00	9.736E+00	9.854E-01	0.063
NB-97	-8.839E-02		4.026E-01	Half-Life too short		
ZR-97	-2.442E+01		1.072E+01	Half-Life too short		
MO-99	-2.773E+02		3.978E+02	5.715E+02	8.881E+01	-0.485
TC-99M	-2.655E+09		1.730E+09	Half-Life too short		
RH-101	-2.096E+00		3.605E+00	5.203E+00	4.655E-01	-0.403
RH-102	-1.908E+00		2.371E+00	3.440E+00	2.865E-01	-0.554
RU-103	-9.047E-01		3.705E+00	5.906E+00	8.293E-01	-0.153
RH-106	-4.753E+00		2.364E+01	3.697E+01	4.978E+00	-0.129
RU-106	-4.753E+00		2.363E+01	3.697E+01	3.249E+00	-0.129
AG-108M	-9.189E-01		3.349E+00	5.388E+00	4.576E-01	-0.171
CD-109	-2.007E+02		9.532E+01	1.314E+02	1.722E+01	-1.527
AG-110M	-6.408E-01		3.618E+00	5.788E+00	5.266E-01	-0.111
IN-111	1.590E+01		5.408E+01	8.974E+01	8.517E+00	0.177
IN-113M	-3.239E-01		4.089E+00	6.759E+00	5.529E-01	-0.048
SN-113	-3.239E-01		4.089E+00	6.759E+00	5.529E-01	-0.048
IN-114M	5.802E+00		1.985E+01	2.934E+01	2.599E+00	0.198
CD-115	-2.308E+02		4.367E+02	6.624E+02	5.654E+01	-0.348
SN-117M	-1.276E+00		4.788E+00	7.715E+00	6.804E-01	-0.165
SB-122	7.696E+00		1.001E+02	1.650E+02	1.427E+01	0.047
I-123	-3.759E+00		1.094E+01	Half-Life too short		
TE-123M	-4.734E-01		2.755E+00	4.474E+00	3.964E-01	-0.106
I-124	4.211E+01		4.697E+01	7.821E+01	6.843E+00	0.538
SB-124	9.361E-01		7.865E+00	1.331E+01	1.297E+00	0.070
SB-125	-8.158E+00		8.898E+00	1.316E+01	1.089E+00	-0.620

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TE-125M	3.298E+02		1.033E+03	1.683E+03	2.026E+02	0.196
I-126	-5.142E+00		1.270E+01	1.910E+01	1.696E+00	-0.269
SB-126	1.103E+00		1.179E+01	1.920E+01	1.756E+00	0.057
SN-126	-1.657E+01		9.227E+00	1.321E+01	1.728E+00	-1.254
SB-127	-7.652E+01		7.284E+01	9.454E+01	1.036E+01	-0.809
XE-127	-1.980E+00		4.419E+00	6.920E+00	6.229E-01	-0.286
I-131	-4.812E+00		8.520E+00	1.336E+01	1.198E+00	-0.360
TE-132	3.755E+01		4.188E+01	7.221E+01	1.132E+01	0.520
BA-133	-4.419E+00		4.175E+00	6.161E+00	8.158E-01	-0.717
I-133	-2.097E-02		3.745E-02	Half-Life too short		
CS-134	-4.118E-01		3.862E+00	6.353E+00	6.056E-01	-0.065
CS-135	-7.629E+00		1.451E+01	2.198E+01	2.404E+00	-0.347
I-135	-4.117E+08		2.861E+08	Half-Life too short		
CS-136	-2.902E+00		8.383E+00	1.292E+01	1.244E+00	-0.225
BA-137M	-1.340E+00		3.323E+00	5.053E+00	4.474E-01	-0.265
CS-137	-1.416E+00		3.513E+00	5.342E+00	4.738E-01	-0.265
CE-139	-3.997E+00		2.926E+00	4.214E+00	3.640E-01	-0.949
BA-140	-2.235E+01		2.251E+01	2.976E+01	9.859E+00	-0.751
LA-140	-2.544E+00		7.318E+00	1.113E+01	1.106E+00	-0.228
CE-141	2.401E+00		6.351E+00	1.077E+01	1.006E+00	0.223
CE-143	-1.296E-04		1.757E-03	Half-Life too short		
CE-144	-1.302E+01		2.123E+01	3.338E+01	5.391E+00	-0.390
PM-144	3.598E+00		3.205E+00	5.903E+00	5.331E-01	0.610
PR-144	2.435E+02		2.169E+02	3.995E+02	3.607E+01	0.610
PM-146	4.071E+00		3.814E+00	7.058E+00	7.349E-01	0.577
ND-147	1.834E+01		4.304E+01	7.427E+01	1.107E+01	0.247
PM-149	-1.072E+03		4.071E+03	6.336E+03	1.026E+03	-0.169
EU-152	3.572E+00		9.870E+00	1.708E+01	1.606E+00	0.209
GD-153	-3.503E+00		8.875E+00	1.405E+01	1.624E+00	-0.249
EU-154	-1.847E+00		8.025E+00	1.220E+01	1.499E+00	-0.151
EU-155	-1.989E+00		1.157E+01	1.911E+01	2.089E+00	-0.104
TB-160	1.786E+00		1.131E+01	1.927E+01	1.885E+00	0.093
HO-166M	-7.301E+00		6.063E+00	7.675E+00	6.986E-01	-0.951
TM-171	-2.775E+02		4.374E+03	6.394E+03	8.449E+02	-0.043
HF-175	5.202E-01		3.644E+00	6.191E+00	5.523E-01	0.084
LU-176	-2.121E-01		2.737E+00	4.335E+00	4.122E-01	-0.049
LU-177	-2.451E+01		8.519E+01	1.304E+02	1.183E+01	-0.188
LU-177M	-9.423E+00		1.780E+01	2.653E+01	2.128E+00	-0.355
HF-181	-6.513E-01		3.181E+00	5.083E+00	4.248E-01	-0.128
W-181	1.152E+01		6.589E+01	9.319E+01	1.246E+01	0.124
TA-182	3.834E-01		1.377E+01	2.246E+01	2.048E+00	0.017
RE-183	1.402E+01		1.076E+01	1.934E+01	1.687E+00	0.725
RE-184	-3.216E+00		2.411E+01	3.838E+01	3.673E+00	-0.084
OS-185	1.958E-01		3.851E+00	6.278E+00	5.544E-01	0.031
RE-188	-8.844E+00		1.760E+01	2.789E+01	2.486E+00	-0.317
W-188	-4.119E+02		6.882E+02	1.027E+03	9.975E+01	-0.401
IR-192	1.068E-01		2.947E+00	4.984E+00	4.678E-01	0.021
AU-195	-1.395E+01		2.528E+01	3.944E+01	4.496E+00	-0.354

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TL-200	-4.531E-04		4.220E-03	Half-Life too short		
TL-201	-4.983E+02		3.870E+02	5.617E+02	4.856E+01	-0.887
TL-202	3.935E+00		5.659E+00	1.007E+01	8.218E-01	0.391
HG-203	1.059E+00		3.663E+00	6.050E+00	6.079E-01	0.175
BI-207	-1.733E+00		3.621E+00	5.279E+00	4.860E-01	-0.328
TL-207	-8.483E+00		5.994E+01	9.947E+01	1.793E+01	-0.085
TL-208	-4.606E-01		4.135E+00	6.583E+00	6.133E-01	-0.070
PO-209	6.958E+02		7.480E+02	1.385E+03	1.362E+02	0.502
BI-210	2.338E+02		1.113E+03	1.807E+03	2.521E+02	0.129
PB-210	2.338E+02		1.113E+03	1.807E+03	2.521E+02	0.129
PO-210	2.338E+02		1.113E+03	1.807E+03	2.418E+02	0.129
BI-211	-6.941E+00		2.237E+01	3.464E+01	3.190E+00	-0.200
PB-211	-3.456E-01		8.575E+01	1.426E+02	8.924E+01	-0.002
BI-212	-6.171E+00		2.792E+01	4.198E+01	4.404E+00	-0.147
PB-212	-2.971E+00		6.859E+00	1.077E+01	1.124E+00	-0.276
PO-212	-2.971E+00		6.859E+00	1.077E+01	1.124E+00	-0.276
BI-214	7.365E+00	+	8.551E+00	1.295E+01	1.318E+00	0.569
PB-214	-3.394E+00		7.769E+00	1.187E+01	1.254E+00	-0.286
PO-214	-3.394E+00		7.769E+00	1.187E+01	1.254E+00	-0.286
PO-215	-8.483E+00		5.994E+01	9.947E+01	1.793E+01	-0.085
PO-216	-2.971E+00		6.859E+00	1.077E+01	1.124E+00	-0.276
PO-218	-3.394E+00		7.769E+00	1.187E+01	1.254E+00	-0.286
RN-219	1.829E+01		3.703E+01	6.477E+01	9.491E+00	0.282
RN-220	2.225E+03		2.342E+03	4.286E+03	3.689E+02	0.519
RA-223	-8.483E+00		5.994E+01	9.947E+01	1.793E+01	-0.085
RA-224	-1.915E+01		6.545E+01	1.030E+02	9.725E+00	-0.186
AC-227	1.630E+01		3.993E+01	6.659E+01	1.060E+01	0.245
PA-227	1.000E+35		3.358E+34	Half-Life too short		
TH-227	1.630E+01		3.996E+01	6.659E+01	1.235E+01	0.245
AC-228	7.459E-01		9.759E+00	1.688E+01	2.056E+00	0.044
RA-228	7.459E-01		9.759E+00	1.688E+01	2.056E+00	0.044
TH-228	-2.971E+00		6.859E+00	1.077E+01	1.124E+00	-0.276
TH-229	-2.437E+01		5.107E+01	7.999E+01	7.117E+00	-0.305
TH-230	-5.842E+02		4.159E+03	2.426E+03	1.574E+04	-0.241
PA-231	3.612E+01		1.478E+02	2.428E+02	3.855E+01	0.149
TH-231	3.490E+01		6.128E+01	9.971E+01	2.020E+01	0.350
U-231	-2.818E+02		9.886E+01	1.261E+02	1.482E+01	-2.235
TH-232	1.891E+03		2.075E+04	8.556E+03	9.007E+04	0.221
PA-233	-3.964E+00		6.101E+00	9.632E+00	9.304E-01	-0.411
PA-234	1.886E+01		2.085E+01	3.987E+01	7.692E+00	0.473
PA-234M	1.799E+01	+	4.405E+02	7.303E+02	7.849E+01	0.025
TH-234	5.272E+01	+	3.406E+02	4.045E+02	8.430E+01	0.130
U-234	1.473E+04		1.480E+05	2.446E+04	2.446E+05	0.602
U-235	-1.941E+01		2.576E+01	3.858E+01	6.878E+00	-0.503
NP-236	-5.045E+00		8.146E+00	1.273E+01	1.117E+00	-0.396
NP-237	-1.692E+01		2.671E+01	4.256E+01	1.038E+01	-0.398
PU-237	1.945E+02		3.732E+02	5.573E+02	7.860E+01	0.349
U-238	5.272E+01	+	3.406E+02	4.045E+02	8.430E+01	0.130

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NP-239	-1.664E+00		2.013E+01	3.335E+01	3.445E+00	-0.050
AM-241	1.465E+01		2.812E+01	4.198E+01	6.085E+00	0.349
AM-243	3.297E+00		7.214E+00	1.211E+01	1.544E+00	0.272
CM-243	8.229E+00		1.037E+01	1.829E+01	2.005E+00	0.450
AM-246	-6.317E+00		9.824E+00	1.399E+01	1.276E+00	-0.451
CM-247	1.476E+00		3.295E+00	5.748E+00	4.573E-01	0.257
CF-249	2.001E+00		3.789E+00	6.650E+00	5.307E-01	0.301
CF-251	8.630E+00		1.263E+01	2.180E+01	1.901E+00	0.396
ANH-511	-3.396E+00		5.431E+00	1.004E+01	8.510E-01	-0.338

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202003335          *
* Acquisition date  :  5-JAN-2010 13:10:46 Detector SN#     :               *
* Detector ID       : GAM03                Sensitivity      : 5.000         *
* Geometry          : 2LMB                 Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:00.44      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 24-DEC-2009 00:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G1202003335          Analyst initials: KXG3           *
* Batch Number      : 936274               Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 18-AUG-2009 08:11:21 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
RA-226	8.845E+01	1.596E+02	5.933E+01	8.145E+01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU
BE-7	8.375E+00	2.348E+01	2.074E+01	1.198E+01 NOT IDENT.
NA-22	-2.378E-01	2.735E+00	2.207E+00	1.395E+00 NOT IDENT.
NA-24	-5.079E+05	3.125E+06	0.000E+00	1.594E+06 SHORT HLIF
AL-26	-5.817E-01	2.139E+00	1.591E+00	1.092E+00 NOT IDENT.
K-40	-8.294E+00	3.642E+01	2.873E+01	1.858E+01 NOT IDENT.
TI-44	-2.294E+00	4.071E+00	3.376E+00	2.077E+00 NOT IDENT.
SC-46	-4.656E-01	3.488E+00	2.895E+00	1.779E+00 NOT IDENT.
V-48	1.184E+00	5.019E+00	4.393E+00	2.561E+00 NOT IDENT.
CR-51	-1.385E+01	3.084E+01	2.532E+01	1.574E+01 NOT IDENT.
MN-52	1.279E+01	1.475E+01	1.466E+01	7.527E+00 NOT IDENT.
MN-54	1.361E+00	3.352E+00	2.997E+00	1.710E+00 NOT IDENT.
CO-56	-1.558E-01	3.306E+00	2.790E+00	1.687E+00 NOT IDENT.
CO-57	-7.645E-02	2.690E+00	2.281E+00	1.372E+00 NOT IDENT.
CO-58	-4.135E-01	2.945E+00	2.452E+00	1.503E+00 NOT IDENT.
FE-59	2.073E+00	6.385E+00	5.657E+00	3.258E+00 NOT IDENT.
CO-60	-3.409E-01	3.492E+00	2.814E+00	1.781E+00 NOT IDENT.
ZN-65	-3.940E+00	5.999E+00	4.278E+00	3.061E+00 NOT IDENT.
GE-68	-7.554E+01	9.101E+01	6.379E+01	4.644E+01 NOT IDENT.
AS-73	1.274E+02	1.756E+02	1.504E+02	8.957E+01 NOT IDENT.
AS-74	4.554E+00	7.807E+00	6.939E+00	3.983E+00 NOT IDENT.
SE-75	1.017E-01	4.008E+00	3.300E+00	2.045E+00 NOT IDENT.
BR-77	3.362E+01	4.694E+02	3.964E+02	2.395E+02 NOT IDENT.
SR-82	9.967E+00	2.622E+01	2.370E+01	1.338E+01 NOT IDENT.
RB-83	3.952E-01	6.421E+00	5.416E+00	3.276E+00 NOT IDENT.
RB-84	-4.737E+00	5.533E+00	3.986E+00	2.823E+00 NOT IDENT.
KR-85	-2.274E+03	1.098E+03	7.664E+02	5.600E+02 NOT IDENT.

SR-85	-1.135E+01	5.478E+00	3.825E+00	2.795E+00	NOT IDENT.
RB-86	-2.668E+01	5.060E+01	3.740E+01	2.582E+01	NOT IDENT.
Y-88	-3.284E+00	2.757E+00	1.064E+00	1.407E+00	NOT IDENT.
ZR-88	-8.390E-01	2.589E+00	2.122E+00	1.321E+00	NOT IDENT.
Y-91	-1.023E+03	1.297E+03	8.941E+02	6.619E+02	NOT IDENT.
NB-94	-1.888E+00	3.259E+00	2.462E+00	1.663E+00	NOT IDENT.
NB-95	5.748E-02	3.773E+00	3.220E+00	1.925E+00	NOT IDENT.
NB-95M	-1.701E+00	1.207E+01	9.855E+00	6.158E+00	NOT IDENT.
ZR-95	6.108E-01	5.605E+00	4.871E+00	2.860E+00	NOT IDENT.
NB-97	-8.839E+04	7.891E+05	0.000E+00	4.026E+05	SHORT HLIF
ZR-97	-2.442E+07	2.102E+07	0.000E+00	1.072E+07	SHORT HLIF
MO-99	-2.773E+02	3.898E+02	2.859E+02	1.989E+02	NOT IDENT.
TC-99M	-2.655E+15	3.391E+15	0.000E+00	1.730E+15	SHORT HLIF
RH-101	-2.096E+00	3.533E+00	2.603E+00	1.802E+00	NOT IDENT.
RH-102	-1.908E+00	2.324E+00	1.721E+00	1.186E+00	NOT IDENT.
RU-103	-9.047E-01	3.631E+00	2.955E+00	1.852E+00	FAIL ABUN
RH-106	-4.753E+00	2.317E+01	1.849E+01	1.182E+01	NOT IDENT.
RU-106	-4.753E+00	2.316E+01	1.849E+01	1.182E+01	NOT IDENT.
AG-108M	-9.189E-01	3.282E+00	2.696E+00	1.674E+00	NOT IDENT.
CD-109	-2.007E+02	9.342E+01	6.573E+01	4.766E+01	NOT IDENT.
AG-110M	-6.408E-01	3.546E+00	2.896E+00	1.809E+00	NOT IDENT.
IN-111	1.590E+01	5.300E+01	4.490E+01	2.704E+01	NOT IDENT.
IN-113M	-3.239E-01	4.008E+00	3.381E+00	2.045E+00	NOT IDENT.
SN-113	-3.239E-01	4.008E+00	3.381E+00	2.045E+00	NOT IDENT.
IN-114M	5.802E+00	1.945E+01	1.468E+01	9.924E+00	NOT IDENT.
CD-115	-2.308E+02	4.280E+02	3.314E+02	2.184E+02	NOT IDENT.
SN-117M	-1.276E+00	4.692E+00	3.860E+00	2.394E+00	NOT IDENT.
SB-122	7.696E+00	9.811E+01	8.256E+01	5.006E+01	NOT IDENT.
I-123	-3.759E+06	2.144E+07	0.000E+00	1.094E+07	SHORT HLIF
TE-123M	-4.734E-01	2.700E+00	2.239E+00	1.378E+00	NOT IDENT.
I-124	4.211E+01	4.603E+01	3.913E+01	2.349E+01	NOT IDENT.
SB-124	9.361E-01	7.707E+00	6.658E+00	3.932E+00	NOT IDENT.
SB-125	-8.158E+00	8.720E+00	6.585E+00	4.449E+00	NOT IDENT.
TE-125M	3.298E+02	1.012E+03	8.421E+02	5.164E+02	NOT IDENT.
I-126	-5.142E+00	1.245E+01	9.557E+00	6.351E+00	NOT IDENT.
SB-126	1.103E+00	1.156E+01	9.606E+00	5.896E+00	NOT IDENT.
SN-126	-1.657E+01	9.042E+00	6.607E+00	4.613E+00	FAIL ABUN
SB-127	-7.652E+01	7.138E+01	4.730E+01	3.642E+01	NOT IDENT.
XE-127	-1.980E+00	4.331E+00	3.462E+00	2.210E+00	NOT IDENT.
I-131	-4.812E+00	8.350E+00	6.686E+00	4.260E+00	NOT IDENT.
TE-132	3.755E+01	4.104E+01	3.613E+01	2.094E+01	NOT IDENT.
BA-133	-4.419E+00	4.091E+00	3.082E+00	2.087E+00	NOT IDENT.
I-133	-2.097E+04	7.341E+04	0.000E+00	3.745E+04	SHORT HLIF
CS-134	-4.118E-01	3.785E+00	3.178E+00	1.931E+00	NOT IDENT.
CS-135	-7.629E+00	1.422E+01	1.100E+01	7.257E+00	NOT IDENT.
I-135	-4.117E+14	5.607E+14	0.000E+00	2.861E+14	SHORT HLIF
CS-136	-2.902E+00	8.215E+00	6.465E+00	4.191E+00	NOT IDENT.
BA-137M	-1.340E+00	3.257E+00	2.528E+00	1.662E+00	NOT IDENT.
CS-137	-1.416E+00	3.443E+00	2.672E+00	1.756E+00	NOT IDENT.
CE-139	-3.997E+00	2.868E+00	2.108E+00	1.463E+00	NOT IDENT.
BA-140	-2.235E+01	2.206E+01	1.489E+01	1.126E+01	NOT IDENT.
LA-140	-2.544E+00	7.171E+00	5.569E+00	3.659E+00	NOT IDENT.
CE-141	2.401E+00	6.224E+00	5.389E+00	3.175E+00	NOT IDENT.
CE-143	-1.296E+02	3.443E+03	0.000E+00	1.757E+03	SHORT HLIF
CE-144	-1.302E+01	2.080E+01	1.670E+01	1.061E+01	NOT IDENT.
PM-144	3.598E+00	3.141E+00	2.953E+00	1.603E+00	NOT IDENT.
PR-144	2.435E+02	2.126E+02	1.999E+02	1.085E+02	NOT IDENT.
PM-146	4.071E+00	3.738E+00	3.531E+00	1.907E+00	NOT IDENT.
ND-147	1.834E+01	4.218E+01	3.716E+01	2.152E+01	NOT IDENT.
PM-149	-1.072E+03	3.990E+03	3.170E+03	2.036E+03	NOT IDENT.
EU-152	3.572E+00	9.673E+00	8.547E+00	4.935E+00	NOT IDENT.
GD-153	-3.503E+00	8.698E+00	7.029E+00	4.438E+00	NOT IDENT.
EU-154	-1.847E+00	7.865E+00	6.101E+00	4.013E+00	NOT IDENT.
EU-155	-1.989E+00	1.134E+01	9.560E+00	5.785E+00	NOT IDENT.
TB-160	1.786E+00	1.109E+01	9.639E+00	5.657E+00	NOT IDENT.
HO-166M	-7.301E+00	5.941E+00	3.840E+00	3.031E+00	FAIL ABUN
TM-171	-2.775E+02	4.287E+03	3.199E+03	2.187E+03	NOT IDENT.
HF-175	5.202E-01	3.571E+00	3.097E+00	1.822E+00	NOT IDENT.
LU-176	-2.121E-01	2.683E+00	2.169E+00	1.369E+00	NOT IDENT.
LU-177	-2.451E+01	8.349E+01	6.526E+01	4.260E+01	NOT IDENT.
LU-177M	-9.423E+00	1.744E+01	1.327E+01	8.899E+00	NOT IDENT.
HF-181	-6.513E-01	3.118E+00	2.543E+00	1.591E+00	NOT IDENT.
W-181	1.152E+01	6.457E+01	4.662E+01	3.294E+01	NOT IDENT.
TA-182	3.834E-01	1.349E+01	1.124E+01	6.884E+00	FAIL ABUN
RE-183	1.402E+01	1.055E+01	9.676E+00	5.382E+00	NOT IDENT.
RE-184	-3.216E+00	2.362E+01	1.920E+01	1.205E+01	NOT IDENT.
OS-185	1.958E-01	3.774E+00	3.141E+00	1.925E+00	NOT IDENT.
RE-188	-8.844E+00	1.725E+01	1.395E+01	8.799E+00	NOT IDENT.

W-188	-4.119E+02	6.744E+02	5.140E+02	3.441E+02	FAIL ABUN
IR-192	1.068E-01	2.888E+00	2.494E+00	1.473E+00	NOT IDENT.
AU-195	-1.395E+01	2.477E+01	1.973E+01	1.264E+01	NOT IDENT.
TL-200	-4.531E+02	8.272E+03	0.000E+00	4.220E+03	SHORT HLIF
TL-201	-4.983E+02	3.792E+02	2.810E+02	1.935E+02	NOT IDENT.
TL-202	3.935E+00	5.546E+00	5.039E+00	2.830E+00	NOT IDENT.
HG-203	1.059E+00	3.589E+00	3.027E+00	1.831E+00	NOT IDENT.
BI-207	-1.733E+00	3.549E+00	2.641E+00	1.811E+00	NOT IDENT.
TL-207	-8.483E+00	5.874E+01	4.977E+01	2.997E+01	NOT IDENT.
TL-208	-4.606E-01	4.052E+00	3.294E+00	2.067E+00	NOT IDENT.
PO-209	6.958E+02	7.330E+02	6.929E+02	3.740E+02	NOT IDENT.
BI-210	2.338E+02	1.091E+03	9.042E+02	5.566E+02	NOT IDENT.
PB-210	2.338E+02	1.091E+03	9.042E+02	5.566E+02	NOT IDENT.
PO-210	2.338E+02	1.091E+03	9.042E+02	5.566E+02	NOT IDENT.
BI-211	-6.941E+00	2.193E+01	1.733E+01	1.119E+01	NOT IDENT.
PB-211	-3.456E-01	8.403E+01	7.135E+01	4.287E+01	NOT IDENT.
BI-212	-6.171E+00	2.736E+01	2.100E+01	1.396E+01	NOT IDENT.
PB-212	-2.971E+00	6.722E+00	5.390E+00	3.429E+00	NOT IDENT.
PO-212	-2.971E+00	6.722E+00	5.390E+00	3.429E+00	NOT IDENT.
BI-214	7.365E+00	8.380E+00	6.477E+00	4.275E+00	FAIL ABUN
PB-214	-3.394E+00	7.614E+00	5.936E+00	3.885E+00	NOT IDENT.
PO-214	-3.394E+00	7.614E+00	5.936E+00	3.885E+00	NOT IDENT.
PO-215	-8.483E+00	5.874E+01	4.977E+01	2.997E+01	NOT IDENT.
PO-216	-2.971E+00	6.722E+00	5.390E+00	3.429E+00	NOT IDENT.
PO-218	-3.394E+00	7.614E+00	5.936E+00	3.885E+00	NOT IDENT.
RN-219	1.829E+01	3.629E+01	3.240E+01	1.852E+01	NOT IDENT.
RN-220	2.225E+03	2.295E+03	2.144E+03	1.171E+03	NOT IDENT.
RA-223	-8.483E+00	5.874E+01	4.977E+01	2.997E+01	NOT IDENT.
RA-224	-1.915E+01	6.414E+01	5.153E+01	3.273E+01	NOT IDENT.
AC-227	1.630E+01	3.913E+01	3.332E+01	1.996E+01	NOT IDENT.
PA-227	1.000E+41	6.581E+40	0.000E+00	0.000E+00	SHORT HLIF
TH-227	1.630E+01	3.916E+01	3.332E+01	1.998E+01	NOT IDENT.
AC-228	7.459E-01	9.563E+00	8.445E+00	4.879E+00	NOT IDENT.
RA-228	7.459E-01	9.563E+00	8.445E+00	4.879E+00	NOT IDENT.
TH-228	-2.971E+00	6.722E+00	5.390E+00	3.429E+00	NOT IDENT.
TH-229	-2.437E+01	5.005E+01	4.002E+01	2.554E+01	NOT IDENT.
TH-230	-5.842E+02	4.076E+03	1.214E+03	2.080E+03	NOT IDENT.
PA-231	3.612E+01	1.448E+02	1.215E+02	7.390E+01	NOT IDENT.
TH-231	3.490E+01	6.006E+01	4.988E+01	3.064E+01	NOT IDENT.
U-231	-2.818E+02	9.688E+01	6.308E+01	4.943E+01	NOT IDENT.
TH-232	1.891E+03	2.034E+04	4.280E+03	1.038E+04	NOT IDENT.
PA-233	-3.964E+00	5.979E+00	4.819E+00	3.051E+00	NOT IDENT.
PA-234	1.886E+01	2.043E+01	1.995E+01	1.042E+01	FAIL ABUN
PA-234M	1.799E+01	4.316E+02	3.653E+02	2.202E+02	FAIL ABUN
TH-234	5.272E+01	3.338E+02	2.024E+02	1.703E+02	FAIL ABUN
U-234	1.473E+04	1.451E+05	1.224E+04	7.401E+04	NOT IDENT.
U-235	-1.941E+01	2.525E+01	1.930E+01	1.288E+01	FAIL ABUN
NP-236	-5.045E+00	7.983E+00	6.370E+00	4.073E+00	NOT IDENT.
NP-237	-1.692E+01	2.617E+01	2.129E+01	1.335E+01	NOT IDENT.
PU-237	1.945E+02	3.657E+02	2.788E+02	1.866E+02	NOT IDENT.
U-238	5.272E+01	3.338E+02	2.024E+02	1.703E+02	FAIL ABUN
NP-239	-1.664E+00	1.973E+01	1.668E+01	1.007E+01	NOT IDENT.
AM-241	1.465E+01	2.755E+01	2.100E+01	1.406E+01	NOT IDENT.
AM-243	3.297E+00	7.070E+00	6.057E+00	3.607E+00	NOT IDENT.
CM-243	8.229E+00	1.016E+01	9.150E+00	5.185E+00	NOT IDENT.
AM-246	-6.317E+00	9.628E+00	7.001E+00	4.912E+00	NOT IDENT.
CM-247	1.476E+00	3.229E+00	2.876E+00	1.647E+00	NOT IDENT.
CF-249	2.001E+00	3.713E+00	3.327E+00	1.894E+00	NOT IDENT.
CF-251	8.630E+00	1.238E+01	1.090E+01	6.315E+00	NOT IDENT.
ANH-511	-3.396E+00	5.322E+00	5.024E+00	2.715E+00	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	82.9092
46.50	82.9092
46.50	82.9092
48.70	77.6936
49.72	89.1551
51.35	81.5451
52.39	62.4309
52.97	62.5081
53.15	62.5320
53.20	63.6756
53.44	67.1209
54.07	63.7924
56.28	94.9825
56.28	94.9830
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57.98	65.4544
59.00	74.2179
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59.54	63.9302
59.54	63.9302
59.72	81.2375
60.01	81.2840
61.10	81.4574
61.14	81.4636
61.30	78.0213
63.00	96.2517
63.29	96.3047
63.29	96.3047
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65.20	90.8297
66.05	89.2239
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66.83	92.5059
66.91	92.5196
67.20	92.5688
67.20	92.5688
67.67	78.6109
67.75	94.0658
67.85	94.0830
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68.90	91.4483
69.30	88.8747
69.67	88.9341
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70.82	91.7629
70.83	91.7649
72.80	91.1977
72.80	91.1977
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72.87	91.2087
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74.81	92.4036
74.81	92.4036
74.81	92.4036

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74.97	92.4286
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77.11	108.8205
77.11	108.8205
77.11	108.8205
77.11	108.8205
77.11	108.8205
77.11	108.8205
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81.07	118.5142
81.07	118.5142
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84.21	87.5310
84.90	83.1100
85.43	87.7001
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86.54	112.3074
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87.30	133.2961
87.30	133.2961
87.30	133.2961
87.30	133.2961
87.30	133.2961
87.30	133.2961
87.30	133.2961
87.57	134.2594
87.88	143.3997
88.03	143.4328
88.36	168.9371
88.47	168.9662
89.36	194.6681
89.95	188.4703
91.11	105.8025
92.29	80.4066
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92.38	96.8664
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94.00	121.8341
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94.67	151.2974
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94.90	172.4454
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95.87	181.8772
96.73	139.7991
97.43	86.5422
98.44	85.7464
98.44	85.7464
98.88	87.6459
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99.55	90.5004
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100.10	86.8753

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111.00	78.8067
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112.95	90.2977
115.19	84.9027
115.19	84.9027
115.19	84.9027
116.30	86.9144
117.00	83.2107
117.00	83.2107
117.66	79.4957
121.11	78.8944
121.62	86.5542
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122.06	87.5534
122.32	97.1016
122.32	97.1016
122.32	97.1016
123.07	93.3812
127.23	76.6212
129.76	86.4638
131.20	77.9515
133.02	83.9076
133.54	92.6440
135.34	79.3011
136.00	71.6198
136.25	77.4493
136.48	77.4701
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140.51	0.0000
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143.76	97.6479
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144.24	100.6315
144.24	100.6315
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145.44	89.0269
147.16	106.8403
152.43	70.9816
152.70	76.9193
153.22	88.8032
154.21	98.7747
154.21	98.7747
154.21	98.7747
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159.00	78.4304
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161.27	78.6173
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162.64	49.8285
163.35	57.8436
163.89	60.8692
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167.43	92.1362
171.28	71.3819
171.86	76.4529
172.10	70.4342
176.55	68.7232
176.60	67.7161
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186.00	82.6105
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190.27	73.7265
192.34	92.6291
193.63	83.2012

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198.60	76.3565
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201.83	70.3699
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205.31	79.9309
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208.81	76.0125
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210.97	60.5072
215.65	72.2739
216.55	72.3297
218.09	57.7296
222.10	58.9788
223.80	82.2656
226.40	62.3616
227.00	74.0247
227.08	75.0876
227.20	75.0946
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228.18	63.5115
228.18	63.5115
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236.00	79.8964
238.63	64.0521
238.63	64.0521
238.63	64.0521
238.63	64.0521
239.00	71.5458
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241.98	97.4047
241.98	97.4047
244.69	51.4882
245.39	55.8094
247.94	64.5236
248.90	72.1050
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252.85	66.9279
254.15	0.0000
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256.20	60.6057
260.50	65.1462
260.90	69.5098
262.80	48.9441
264.65	51.1897
268.24	57.8782
268.79	50.2542
269.46	44.8137
269.46	44.8137
269.46	44.8137
271.23	60.1940
273.65	58.1070
276.40	59.3221
277.35	47.2701
277.60	49.4776
277.60	49.4776
278.00	53.8906
278.60	52.8135
279.20	48.4332
279.53	52.8486
280.46	50.6803
281.68	55.1353
283.67	48.5876
284.30	39.7716
285.00	44.2120
285.90	56.4061
286.10	56.4147
286.10	56.4147
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288.45	0.0000
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290.80	57.7097
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295.21	37.8490
295.21	37.8490
295.96	54.5747
296.50	70.1944
297.23	69.1143
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299.80	72.5854
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300.09	58.0803
300.09	58.0803
300.09	58.0803
300.12	58.0811
301.29	51.4208
302.84	63.7841
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303.91	63.8302
304.40	62.7308
304.40	62.7308
304.84	60.5086
306.84	62.8334
308.46	61.7785
311.98	56.7438
316.51	41.5561
318.01	47.0228
319.02	48.8637
319.41	48.8755
320.08	48.8966
323.87	48.1095
323.87	48.1095
323.87	48.1095
325.23	49.9686
328.77	50.9927
329.70	44.6449
329.70	44.6449
330.00	44.6539
333.44	50.2311
334.20	54.8232
334.20	54.8232
334.30	54.8269
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338.28	51.2996
338.28	51.2996
338.32	51.3010
338.32	51.3010
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340.57	51.3734
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344.27	50.5715
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351.92	52.6568
351.92	52.6568
351.92	52.6568
355.39	0.0000
356.01	57.4181
364.48	45.6091
366.43	34.4793
367.43	35.4320
367.94	0.0000
369.80	33.6138
374.96	43.0806
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387.95	37.7417
388.63	32.0929
391.69	41.6040
391.69	41.6040
392.90	38.7933
398.62	37.0191
400.65	38.0112
401.10	36.1195
401.81	33.2812

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415.30	45.0224
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427.89	48.2190
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439.56	31.0492
439.89	30.0838
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445.03	32.1097
445.03	32.1097
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476.78	25.7039
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511.00	52.2510
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511.85	52.2717
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513.99	135.8405
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520.65	33.3070
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529.87	0.0000
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543.00	30.5852
546.56	0.0000
549.76	20.4512
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555.20	35.8750
563.23	30.8577
563.90	30.8665
568.70	30.9302
569.32	31.9695
569.50	33.0031
569.67	33.0055
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574.00	38.2330
574.64	35.1430
578.91	44.5264
579.30	0.0000
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591.81	31.2334
592.07	39.5660
593.00	37.4985
595.88	27.1146
600.56	39.7052

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602.71	28.3860
603.60	24.4111
604.41	27.9076
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609.31	28.3131
610.33	27.9753
612.46	26.2494
614.37	22.7669
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621.84	18.9712
621.84	18.9712
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633.10	22.2325
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635.90	30.7360
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661.65	31.0447
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666.33	23.5931
675.00	23.6709
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685.20	28.0820
692.80	31.4101
695.00	18.4277
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696.49	19.5227
697.00	22.7806
697.49	22.7847
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698.50	30.3912
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702.63	35.8722
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711.68	27.2656
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717.42	19.6721
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722.20	29.5583
722.78	31.7549
722.78	31.7549
722.89	30.6605
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723.30	30.6653
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733.00	15.3856
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742.81	13.7848
744.21	18.3887
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751.79	23.9688
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755.35	16.6143
756.15	20.3117
756.87	18.4701
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765.79	15.7476
766.42	15.7511
766.84	16.6798
776.49	14.8753
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785.46	14.9206
792.07	13.0843
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796.30	19.6542
798.80	20.6071
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883.24	19.2452
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920.93	11.6794
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969.11	16.7797
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996.32	15.3460
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1038.76	0.0000

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1189.05	11.5049
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1271.85	5.3330
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1298.22	0.0000
1312.09	6.4587
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1325.50	10.7967
1332.49	12.9766
1333.61	10.8162
1360.21	5.5955
1362.66	0.0000
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1368.53	0.0000
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1384.27	14.9994
1394.10	8.4551
1395.20	7.5173
1407.95	9.4224
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1436.60	9.4793
1457.56	0.0000
1460.81	7.6219
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1596.49	11.7464
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1791.20	0.0000
1808.65	4.0702
1836.01	8.1791

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202003335

Total Uranium Activity	1.4785E+02	ug/g
Total Uranium Counting Unc.	9.9308E+02	ug/g
Total Uranium Tpu	5.0667E-04	ug/g
Total Uranium Mda	6.0217E+02	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 936274                    SAMPLE ID  : G1202003335      *
*   ANALYST       : KXG3                      DETECTOR   : GAM03            *
*   SAMPLE DATE   : 24-DEC-2009 00:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  5-JAN-2010 13:10:46.69    SAMPLE ALQT:    2.000 LITER   *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/LITER ) : 8.465E+00
GROSS GAMMA ERROR   (pCi/LITER )  : 1.513E+01
GROSS GAMMA MDA     (pCi/LITER )  : 3.737E+01
GROSS GAMMA DLC     (pCi/LITER )  : 1.756E+01
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VAX/VMS Nuclide Identification Report Generated 2-JAN-2010 01:39:03.45

```
*************************************************************************
*                          GEL Laboratories LLC                         *
*                            2040 Savage Road                           *
*                          Charleston, SC 29414                         *
*************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202003336.CNF;1
Sample date       : 18-DEC-2009 12:00:00 Acquisition date : 1-JAN-2010 17:18:27.
Sample ID         : G1202003336          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM02                Detector geometry: 2LMB
Elapsed live time: 0 08:20:00.00         Elapsed real time: 0 08:20:06.80  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 936274               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	52.98	96	601	1.23	105.16	102	8	3.21E-03	45.2	
2	1	62.98*	55	442	0.95	125.16	121	14	1.83E-03	95.7	1.35E+00
3	1	65.99	119	447	0.96	131.18	121	14	3.96E-03	29.8	
4	0	92.29*	149	927	1.15	183.81	179	11	4.98E-03	52.1	
5	0	198.53*	160	652	1.09	396.39	391	11	5.34E-03	35.3	
6	0	295.05*	92	381	0.85	589.54	585	10	3.08E-03	48.3	
7	0	351.71*	199	250	1.18	702.92	698	10	6.64E-03	18.7	
8	0	595.92	54	139	1.03	1191.62	1187	10	1.80E-03	43.1	
9	0	609.01*	130	171	1.09	1217.82	1213	11	4.32E-03	26.1	
10	0	1000.32*	11	76	2.16	2000.95	1991	16	3.65E-04	234.5	
11	0	1461.77*	21	66	2.01	2924.55	2917	18	6.91E-04	125.4	
12	0	1764.84	91	19	2.69	3531.19	3521	21	3.05E-03	16.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 2-JAN-2010 01:39:08

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202003336.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 18-DEC-2009 12:00:00 Acquisition date : 1-JAN-2010 17:18:27
Sample ID : G1202003336 Sample quantity : 2.0000 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA2 Detector geometry: 2LMB
Elapsed live time: 0 08:20:00.00 Elapsed real time: 0 08:20:06.80 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
K-40	+	1460.81	*	1.577E+01	3.958E+01	2.172E+01	1.547E+00	0.726
AS-73	+	53.44	*	1.155E+02	1.048E+02	1.052E+02	8.381E+00	1.098
AS-74	+	595.88	*	6.302E+00	5.437E+00	6.432E+00	3.468E-01	0.980
		634.78		-6.432E+00	1.468E+01	2.382E+01	1.218E+00	-0.270
BI-211		72.87		-5.522E+01	1.575E+02	2.634E+02	2.004E+01	-0.210
	+	351.07	*	4.204E+01	1.598E+01	1.452E+01	9.534E-01	2.896
BI-214	+	609.31	*	1.133E+01	5.978E+00	4.732E+00	3.508E-01	2.395
		1120.29		1.233E+01	1.682E+01	2.106E+01	1.918E+00	0.585
	+	1764.49		5.354E+01	1.769E+01	1.311E+01	7.902E-01	4.083
TH-234	+	63.29	*	7.501E+01	1.441E+02	1.265E+02	2.217E+01	0.593
	+	92.38		5.956E+01	6.299E+01	4.166E+01	7.337E+00	1.430
U-234	+	53.20	*	8.755E+03	8.791E+04	8.154E+03	8.155E+04	1.074
U-238	+	63.29	*	7.501E+01	1.441E+02	1.265E+02	2.217E+01	0.593
	+	92.38		5.956E+01	6.227E+01	4.166E+01	3.159E+00	1.430

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	4.007E+00	1.406E+01	2.308E+01	1.582E+00	0.174
NA-22		1274.54	*	-6.519E-01	1.509E+00	2.375E+00	1.534E-01	-0.275
NA-24		1368.53	*	9.169E+00	1.509E+00	Half-Life too short		
AL-26		1129.67		8.327E+00	5.899E+01	9.924E+01	6.096E+00	0.084
		1808.65	*	3.296E-01	1.427E+00	2.430E+00	1.424E-01	0.136
TI-44		67.85		-5.413E-01	2.850E+00	4.315E+00	3.273E-01	-0.125
		78.38	*	-9.718E-01	1.766E+00	2.924E+00	2.257E-01	-0.332
SC-46		889.25	*	4.941E-01	1.608E+00	2.672E+00	2.161E-01	0.185
		1120.51		2.077E+00	2.871E+00	3.610E+00	2.256E-01	0.575
V-48		944.10		2.208E+01	3.562E+01	6.029E+01	4.775E+00	0.366
		983.50	*	-4.383E-01	2.729E+00	4.325E+00	3.293E-01	-0.101
		1312.09		-2.091E+00	3.041E+00	4.647E+00	3.146E-01	-0.450
CR-51		320.08	*	5.959E+00	1.687E+01	2.847E+01	1.858E+00	0.209
MN-52		744.21		7.530E+00	8.794E+00	1.532E+01	9.127E-01	0.492
		848.13		-1.301E+02	2.721E+02	4.275E+02	3.186E+01	-0.304

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		935.52		-1.323E+00	9.296E+00	1.483E+01	1.184E+00	-0.089
		1246.25		2.520E+02	2.107E+02	3.838E+02	2.382E+01	0.656
		1333.61		4.450E+01	1.803E+02	3.025E+02	2.102E+01	0.147
		1434.06	*	8.098E-01	9.609E+00	1.577E+01	1.081E+00	0.051
MN-54		834.83	*	-8.971E-01	1.399E+00	2.161E+00	1.568E-01	-0.415
CO-56		846.75	*	-1.215E-02	1.696E+00	2.762E+00	2.052E-01	-0.004
		977.42		-9.041E+01	1.084E+02	1.598E+02	1.224E+01	-0.566
		1037.82		-1.137E+01	1.174E+01	1.805E+01	1.385E+00	-0.630
		1175.09		4.545E+00	7.890E+01	1.313E+02	7.378E+00	0.035
		1238.25		-1.046E+00	2.653E+00	4.215E+00	2.734E-01	-0.248
		1360.21		1.371E+01	4.262E+01	7.182E+01	4.978E+00	0.191
		1771.40		-7.325E+00	1.147E+01	1.400E+01	8.403E-01	-0.523
CO-57		122.06	*	-1.707E-01	1.431E+00	2.347E+00	1.430E-01	-0.073
		136.48		-1.658E+01	1.138E+01	1.769E+01	1.165E+00	-0.938
CO-58		810.76	*	9.875E-01	1.587E+00	2.711E+00	1.877E-01	0.364
FE-59		142.65		-1.852E+02	1.843E+02	2.484E+02	1.367E+01	-0.746
		192.34		-3.851E+00	4.661E+01	7.440E+01	8.581E+00	-0.052
		1099.22	*	3.799E+00	3.447E+00	6.205E+00	4.589E-01	0.612
		1291.56		5.030E+00	4.152E+00	7.595E+00	6.119E-01	0.662
CO-60		1173.22		6.013E-01	1.578E+00	2.697E+00	1.511E-01	0.223
		1332.49	*	-1.321E+00	2.065E+00	2.467E+00	1.715E-01	-0.535
ZN-65		1115.52	*	-7.915E+00	3.432E+00	4.553E+00	2.878E-01	-1.738
GE-68		1077.35	*	1.900E+01	4.394E+01	7.598E+01	5.113E+00	0.250
SE-75	+	66.05		5.592E+02	3.372E+02	4.949E+02	4.753E+01	1.130
		96.73		6.614E+01	4.550E+01	7.082E+01	9.038E+00	0.934
		121.11		-9.897E-01	7.638E+00	1.253E+01	1.181E+00	-0.079
		136.00		-1.418E+00	2.078E+00	3.323E+00	1.909E-01	-0.427
	+	198.60		2.303E+02	1.633E+02	1.613E+02	1.078E+01	1.427
		264.65	*	7.360E-01	1.988E+00	3.394E+00	1.935E-01	0.217
		279.53		9.768E-01	5.004E+00	8.460E+00	5.237E-01	0.115
		303.91		1.862E+01	9.656E+01	1.624E+02	1.551E+01	0.115
		400.65		-7.963E+00	1.139E+01	1.792E+01	1.653E+00	-0.444
BR-77		87.88		2.643E+03	7.653E+03	1.166E+04	9.462E+02	0.227
		200.40		3.491E+03	7.095E+03	1.032E+04	5.425E+02	0.338
		239.00		-4.716E+02	4.771E+02	6.038E+02	3.317E+01	-0.781
		249.79		-7.689E+02	2.526E+03	4.226E+03	2.349E+02	-0.182
		281.68		-6.614E+02	3.300E+03	5.493E+03	3.144E+02	-0.120
		297.23		1.995E+03	2.142E+03	3.304E+03	1.913E+02	0.604
		303.76		1.947E+03	6.552E+03	1.106E+04	6.437E+02	0.176
		439.47		1.120E+03	4.992E+03	8.212E+03	4.913E+02	0.136
		484.57		7.570E+02	8.226E+03	1.333E+04	7.869E+02	0.057
		520.65	*	6.266E+01	3.491E+02	5.663E+02	3.275E+01	0.111
		574.64		-1.356E+03	6.941E+03	1.154E+04	6.372E+02	-0.117
		578.91		-3.073E+03	2.978E+03	4.711E+03	2.589E+02	-0.652
		585.48		-1.002E+03	5.434E+03	9.028E+03	4.927E+02	-0.111
		755.35		-1.721E+02	5.484E+03	9.002E+03	5.501E+02	-0.019
		817.79		1.482E+03	4.425E+03	7.408E+03	5.185E+02	0.200
SR-82		698.33		9.265E+02	1.391E+03	2.395E+03	1.282E+02	0.387
		776.49	*	8.675E+00	1.507E+01	2.572E+01	1.648E+00	0.337

---- Non-Identified Nuclides ----

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		1395.20		-1.069E+02	4.579E+02	7.286E+02	5.027E+01	-0.147
RB-83		520.41	*	-1.521E-01	2.914E+00	4.654E+00	2.692E-01	-0.033
		529.64		3.245E+00	4.634E+00	7.740E+00	4.448E-01	0.419
		552.65		2.186E+00	8.253E+00	1.412E+01	7.966E-01	0.155
RB-84		881.50	*	3.087E-01	2.804E+00	4.592E+00	3.658E-01	0.067
KR-85		513.99	*	-2.363E+03	4.935E+02	5.981E+02	3.474E+01	-3.951
SR-85		513.99	*	-1.202E+01	2.510E+00	3.042E+00	1.767E-01	-3.951
RB-86		1076.63	*	1.797E+01	2.689E+01	4.737E+01	3.191E+00	0.379
Y-88		898.02		8.554E-01	1.603E+00	2.711E+00	2.242E-01	0.316
		1836.01	*	-6.678E-01	1.670E+00	2.619E+00	1.510E-01	-0.255
ZR-88		392.90	*	1.194E-01	1.419E+00	2.334E+00	1.397E-01	0.051
Y-91		1204.90	*	-2.020E+02	5.741E+02	9.170E+02	5.375E+01	-0.220
NB-94		702.63	*	-1.166E-01	1.326E+00	2.182E+00	1.180E-01	-0.053
		871.10		-2.491E-01	1.614E+00	2.400E+00	1.873E-01	-0.104
NB-95		765.79	*	-4.332E-01	2.579E+00	3.448E+00	2.158E-01	-0.126
NB-95M		235.69	*	-2.405E+00	5.520E+00	9.234E+00	6.723E-01	-0.261
ZR-95		724.18		-6.362E-02	3.494E+00	5.760E+00	3.898E-01	-0.011
		756.15	*	3.690E-01	2.860E+00	4.747E+00	3.466E-01	0.078
NB-97		657.90	*	-9.825E-01	2.860E+00	Half-Life too short		
		1024.50		6.766E+01	2.860E+00	Half-Life too short		
ZR-97		254.15		6.090E+01	2.860E+00	Half-Life too short		
		355.39		2.408E+01	2.860E+00	Half-Life too short		
		507.63	*	-2.779E+02	2.860E+00	Half-Life too short		
		602.52		-2.163E+01	2.860E+00	Half-Life too short		
		1021.30		-4.703E+01	2.860E+00	Half-Life too short		
		1147.95		-4.631E+01	2.860E+00	Half-Life too short		
		1362.66		-5.142E+01	2.860E+00	Half-Life too short		
		1750.46		-9.000E+01	2.860E+00	Half-Life too short		
MO-99		140.51		-1.819E+02	1.530E+03	2.027E+03	5.451E+02	-0.090
		181.06		-3.510E+02	6.956E+02	1.094E+03	1.852E+02	-0.321
		366.43		1.381E+03	3.135E+03	5.271E+03	3.148E+02	0.262
		739.58	*	-4.197E+02	3.922E+02	5.886E+02	8.135E+01	-0.713
		778.00		-6.732E+01	1.149E+03	1.878E+03	1.207E+02	-0.036
TC-99M		140.51	*	-3.747E+10	1.149E+03	Half-Life too short		
RH-101		127.23		-1.213E-01	1.712E+00	2.806E+00	1.656E-01	-0.043
	+	198.01	*	4.243E+00	3.004E+00	2.951E+00	1.547E-01	1.438
		325.23		-2.354E-01	1.013E+01	1.681E+01	9.902E-01	-0.014
RH-102		418.52		-1.705E+01	1.381E+01	2.104E+01	1.261E+00	-0.810
		475.06	*	-5.244E-01	1.324E+00	2.088E+00	1.237E-01	-0.251
		631.29		-3.271E-01	2.284E+00	3.780E+00	1.943E-01	-0.087
		697.49		1.414E+00	3.172E+00	5.397E+00	2.883E-01	0.262
		766.84		2.818E+00	5.804E+00	8.156E+00	5.114E-01	0.346
		1046.59		-2.353E+00	4.274E+00	6.823E+00	4.806E-01	-0.345
		1112.84		5.595E-01	7.364E+00	1.234E+01	7.823E-01	0.045
RU-103		497.08	*	2.412E+00	1.906E+00	3.245E+00	4.113E-01	0.743
	+	610.33		1.207E+02	6.569E+01	7.692E+01	1.172E+01	1.569
RH-106		511.85		-4.531E+01	1.694E+01	2.076E+01	1.208E+00	-2.182
		621.84	*	-4.434E+00	1.324E+01	2.165E+01	2.481E+00	-0.205
		1050.47		-7.874E+01	8.667E+01	1.338E+02	9.373E+00	-0.588

---- Non-Identified Nuclides ----

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RU-106		511.85		-4.531E+01	1.694E+01	2.076E+01	1.208E+00	-2.182
		621.84	*	-4.434E+00	1.323E+01	2.165E+01	1.128E+00	-0.205
		1050.47		-7.874E+01	8.667E+01	1.338E+02	9.373E+00	-0.588
AG-108M		433.93	*	2.161E-01	1.492E+00	2.446E+00	1.583E-01	0.088
		614.37		7.493E-01	1.744E+00	2.632E+00	1.528E-01	0.285
		722.95		-1.042E+00	1.619E+00	2.551E+00	1.575E-01	-0.408
CD-109		88.03	*	7.553E+00	4.432E+01	6.709E+01	5.444E+00	0.113
AG-110M		657.75	*	-7.492E-01	1.438E+00	2.313E+00	1.240E-01	-0.324
		677.61		-9.716E+00	1.243E+01	1.952E+01	1.072E+00	-0.498
		706.67		-9.545E-01	8.273E+00	1.358E+01	7.914E-01	-0.070
		763.93		-7.783E+00	7.066E+00	1.074E+01	7.046E-01	-0.725
		884.67		-9.314E-01	2.071E+00	3.236E+00	2.691E-01	-0.288
		937.48		-2.680E+00	4.344E+00	6.625E+00	5.501E-01	-0.405
		1384.27		-1.251E+00	6.696E+00	1.072E+01	7.729E-01	-0.117
IN-111		171.28		1.635E+01	4.264E+01	6.967E+01	3.562E+00	0.235
		245.39	*	-7.540E-01	4.064E+01	6.875E+01	3.803E+00	-0.011
IN-113M		391.69	*	1.485E-01	2.007E+00	3.302E+00	2.101E-01	0.045
SN-113		391.69	*	1.485E-01	2.007E+00	3.302E+00	2.101E-01	0.045
IN-114M		190.27	*	8.349E-01	8.786E+00	1.412E+01	7.345E-01	0.059
CD-115		260.90		-1.371E+03	4.792E+03	7.995E+03	4.493E+02	-0.171
		492.35		-1.350E+03	1.295E+03	1.945E+03	1.143E+02	-0.694
		527.90	*	3.620E+02	3.790E+02	6.422E+02	3.695E+01	0.564
SN-117M		156.02		2.918E+01	1.092E+02	1.787E+02	9.387E+00	0.163
		158.56	*	9.636E-01	2.727E+00	4.471E+00	2.329E-01	0.216
SB-122		563.90	*	4.424E+00	6.800E+01	1.149E+02	6.415E+00	0.038
		692.80		-1.238E+03	1.436E+03	2.239E+03	1.182E+02	-0.553
I-123		159.00	*	3.399E+01	1.436E+03	Half-Life too short		
		528.96		8.984E+03	1.436E+03	Half-Life too short		
TE-123M		159.00	*	4.433E-01	1.446E+00	2.367E+00	1.252E-01	0.187
I-124		602.71	*	-5.482E+00	2.903E+01	4.170E+01	2.229E+00	-0.131
		722.78		-7.883E+01	1.480E+02	2.352E+02	1.334E+01	-0.335
		1325.50		-4.680E+02	1.030E+03	1.596E+03	1.099E+02	-0.293
		1376.25		1.216E+03	1.067E+03	1.926E+03	1.332E+02	0.631
		1509.49		5.009E+02	6.471E+02	1.126E+03	7.582E+01	0.445
		1691.02		-8.395E+00	1.702E+02	2.818E+02	1.769E+01	-0.030
SB-124		602.71		-3.585E-01	1.899E+00	2.727E+00	1.458E-01	-0.131
		645.85		-4.195E+00	1.936E+01	3.179E+01	1.865E+00	-0.132
		709.31		8.830E+01	1.097E+02	1.907E+02	1.048E+01	0.463
		713.82		-2.137E+01	6.399E+01	1.032E+02	1.040E+01	-0.207
		722.78		-7.474E+00	1.403E+01	2.230E+01	1.327E+00	-0.335
		968.20		1.237E+01	1.301E+02	1.707E+02	1.320E+01	0.072
		1045.16		2.661E+01	9.169E+01	1.569E+02	1.108E+01	0.170
		1325.50		-4.739E+01	1.043E+02	1.616E+02	1.113E+01	-0.293
		1368.21		6.713E+01	7.713E+01	1.355E+02	1.688E+01	0.495
		1436.60		3.697E+01	1.661E+02	2.763E+02	1.893E+01	0.134
		1691.02	*	-1.877E-01	3.805E+00	6.302E+00	4.245E-01	-0.030
SB-125		427.89	*	-1.778E+00	3.998E+00	6.342E+00	3.950E-01	-0.280
		463.38		-2.581E+00	1.236E+01	1.977E+01	1.362E+00	-0.131
		600.56		3.086E+00	8.690E+00	1.303E+01	8.250E-01	0.237

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		635.90		-5.633E+00	1.144E+01	1.850E+01	1.148E+00	-0.305
TE-125M		109.28	*	-1.603E+02	5.078E+02	8.330E+02	7.153E+01	-0.192
I-126		388.63		-7.605E+00	9.218E+00	1.449E+01	8.672E-01	-0.525
		666.33	*	-5.232E+00	6.750E+00	1.062E+01	5.255E-01	-0.493
		753.82		-1.743E-01	5.838E+01	9.603E+01	5.849E+00	-0.002
SB-126		223.80		4.123E+01	1.874E+02	2.995E+02	1.618E+01	0.138
		278.60		1.341E+02	1.071E+02	1.875E+02	1.071E+01	0.715
	+	296.50		1.112E+02	1.076E+02	1.122E+02	6.496E+00	0.991
		414.70		2.161E+00	3.308E+00	5.572E+00	3.340E-01	0.388
		415.30		2.566E+02	2.757E+02	4.701E+02	2.818E+01	0.546
		555.20		6.604E+00	1.601E+02	2.705E+02	1.522E+01	0.024
		573.80		-2.760E+00	4.170E+01	6.986E+01	3.861E+00	-0.040
		593.00		2.548E+01	4.289E+01	6.567E+01	3.552E+00	0.388
		656.30		-3.976E+01	1.294E+02	2.111E+02	1.042E+01	-0.188
		666.33		-2.183E+00	2.816E+00	4.430E+00	2.192E-01	-0.493
		675.00		-3.613E+01	9.438E+01	1.236E+02	6.247E+00	-0.292
		695.00		3.310E-01	3.061E+00	5.105E+00	2.711E-01	0.065
		697.00		1.737E+00	1.050E+01	1.756E+01	9.371E-01	0.099
		720.50	*	-1.833E+00	5.305E+00	8.543E+00	4.820E-01	-0.215
		856.80		-1.278E+01	1.813E+01	2.781E+01	2.110E+00	-0.459
		989.30		2.660E+01	4.865E+01	8.175E+01	6.184E+00	0.325
		1034.80		-9.840E+01	3.115E+02	5.081E+02	3.637E+01	-0.194
		1213.00		3.685E+01	1.365E+02	2.311E+02	1.370E+01	0.159
SN-126	+	64.28		2.969E+01	5.698E+01	5.755E+01	8.419E+00	0.516
		86.94		8.276E+00	1.763E+01	2.813E+01	1.160E+01	0.294
		87.57	*	2.655E+00	4.325E+00	6.658E+00	5.390E-01	0.399
SB-127		61.10		2.106E+02	3.353E+03	5.160E+03	5.242E+02	0.041
		252.40		1.397E+02	1.897E+02	3.133E+02	1.299E+02	0.446
		290.80		-6.451E+01	9.360E+02	1.375E+03	1.218E+02	-0.047
		411.60		-3.955E+02	4.846E+02	7.525E+02	1.075E+02	-0.526
		444.90		-2.178E+02	3.882E+02	6.090E+02	6.488E+01	-0.358
		473.00		2.859E+01	6.776E+01	1.119E+02	1.233E+01	0.255
		543.00		-6.087E+01	6.221E+02	9.869E+02	1.249E+02	-0.062
		603.60		-1.063E+02	4.998E+02	7.162E+02	7.363E+01	-0.148
		685.20	*	3.759E+01	5.322E+01	9.176E+01	8.062E+00	0.410
		698.50		2.572E+02	5.580E+02	9.479E+02	1.339E+02	0.271
		722.20		1.832E+02	9.839E+02	1.645E+03	1.447E+02	0.111
		783.80		7.872E+01	1.246E+02	2.130E+02	2.306E+01	0.370
XE-127		57.60		1.893E+02	4.284E+02	7.104E+02	5.494E+01	0.267
		145.22		-3.473E+01	3.677E+01	5.811E+01	3.166E+00	-0.598
		172.10		-3.622E+00	6.125E+00	9.673E+00	4.948E-01	-0.374
		202.84	*	-1.810E+00	2.604E+00	3.564E+00	1.879E-01	-0.508
		374.96		3.771E+00	8.854E+00	1.485E+01	8.880E-01	0.254
I-131		80.18		3.466E+00	2.161E+02	3.637E+02	2.848E+01	0.010
		284.30		-5.972E+00	6.384E+01	1.066E+02	6.808E+00	-0.056
		364.48	*	-1.416E+00	4.932E+00	8.013E+00	5.305E-01	-0.177
		636.97		6.929E+00	6.051E+01	1.017E+02	5.964E+00	0.068
		722.89		-1.643E+02	2.553E+02	4.023E+02	2.312E+01	-0.408
TE-132		49.72		-8.847E+02	1.626E+03	2.246E+03	2.246E+02	-0.394

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		111.76		-1.696E+02	1.827E+03	2.357E+03	2.101E+02	-0.072
		116.30		-2.450E+02	1.260E+03	2.067E+03	1.823E+02	-0.119
		228.16	*	-1.788E+01	2.894E+01	4.446E+01	6.254E+00	-0.402
BA-133	+	53.15		4.922E+02	4.468E+02	5.106E+02	4.071E+01	0.964
		79.62		-3.803E+01	6.656E+01	1.097E+02	1.619E+01	-0.347
		81.00		1.134E+00	4.976E+00	8.419E+00	1.301E+00	0.135
		276.40		1.472E+00	1.653E+01	2.786E+01	3.599E+00	0.053
		302.84		-4.001E+00	6.698E+00	1.089E+01	1.270E+00	-0.367
		356.01	*	-8.732E-01	2.204E+00	3.106E+00	3.616E-01	-0.281
		383.85		-4.711E+00	1.374E+01	2.215E+01	2.430E+00	-0.213
I-133		510.53		-3.149E+01	1.374E+01	Half-Life too short		
		529.87	*	1.075E-01	1.374E+01	Half-Life too short		
		706.58		-1.350E+00	1.374E+01	Half-Life too short		
		856.28		-1.219E+01	1.374E+01	Half-Life too short		
		875.33		7.672E-01	1.374E+01	Half-Life too short		
		1236.41		3.932E+00	1.374E+01	Half-Life too short		
		1298.22		-7.390E-02	1.374E+01	Half-Life too short		
CS-134		475.35		-5.607E+01	8.765E+01	1.361E+02	8.064E+00	-0.412
		563.23		-4.231E+00	1.428E+01	2.363E+01	1.349E+00	-0.179
		569.32		1.997E-01	8.162E+00	1.375E+01	7.883E-01	0.015
		604.70		-6.088E-01	1.659E+00	2.347E+00	1.260E-01	-0.259
		795.84	*	1.175E+00	1.816E+00	3.110E+00	2.103E-01	0.378
		801.93		-4.639E+00	1.561E+01	2.497E+01	1.705E+00	-0.186
		1038.57		-9.796E+01	1.450E+02	2.291E+02	1.632E+01	-0.428
		1167.94		-2.973E+00	8.602E+01	1.422E+02	8.060E+00	-0.021
		1365.15		-1.395E+01	5.642E+01	9.006E+01	6.673E+00	-0.155
CS-135		268.24	*	1.135E+00	6.822E+00	1.155E+01	8.723E-01	0.098
I-135		288.45		6.234E+10	6.822E+00	Half-Life too short		
		417.63		-7.045E+10	6.822E+00	Half-Life too short		
		546.56		3.457E+10	6.822E+00	Half-Life too short		
		836.80		-1.827E+10	6.822E+00	Half-Life too short		
		1038.76		-5.953E+10	6.822E+00	Half-Life too short		
		1124.00		-5.058E+11	6.822E+00	Half-Life too short		
		1131.51		2.000E+10	6.822E+00	Half-Life too short		
		1260.41	*	-9.034E+09	6.822E+00	Half-Life too short		
		1457.56		2.148E+11	6.822E+00	Half-Life too short		
		1678.03		-5.410E+08	6.822E+00	Half-Life too short		
		1706.46		-1.425E+11	6.822E+00	Half-Life too short		
		1791.20		9.811E+10	6.822E+00	Half-Life too short		
CS-136	+	66.91		8.960E+01	5.499E+01	7.596E+01	1.130E+01	1.180
		86.29		5.461E+00	5.051E+01	8.496E+01	1.059E+01	0.064
		153.22		5.464E+00	3.168E+01	5.175E+01	3.533E+00	0.106
		163.89		3.118E+00	6.971E+01	9.040E+01	6.079E+00	0.034
		176.55		5.427E+00	1.795E+01	2.919E+01	1.731E+00	0.186
		273.65		-6.430E+00	1.860E+01	3.084E+01	2.009E+00	-0.208
		340.57		1.006E+00	5.086E+00	8.496E+00	5.340E-01	0.118
		818.51		1.053E+00	2.985E+00	5.003E+00	3.511E-01	0.211
		1048.07	*	-3.125E+00	3.835E+00	5.967E+00	4.459E-01	-0.524
		1235.34		6.296E+00	1.617E+01	2.761E+01	2.808E+00	0.228

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BA-137M		661.65	*	2.031E+00	1.447E+00	2.605E+00	1.274E-01	0.779
CS-137		661.65	*	2.147E+00	1.529E+00	2.754E+00	1.355E-01	0.779
CE-139		165.85	*	-2.961E-01	1.553E+00	2.494E+00	1.272E-01	-0.119
BA-140		162.64		-1.087E+01	4.900E+01	6.296E+01	3.745E+00	-0.173
		304.84		3.035E+01	5.740E+01	9.677E+01	2.641E+01	0.314
		423.70		3.948E+01	8.441E+01	1.393E+02	4.434E+01	0.283
		537.32	*	-4.984E+00	1.097E+01	1.680E+01	5.461E+00	-0.297
LA-140		328.77		8.454E-01	1.233E+01	2.052E+01	1.352E+00	0.041
		432.53		7.771E+01	8.779E+01	1.494E+02	9.829E+00	0.520
		487.03		-1.507E+00	6.008E+00	9.535E+00	6.340E-01	-0.158
		751.79		5.906E+01	6.543E+01	1.142E+02	8.354E+00	0.517
		815.85		-1.289E+01	1.323E+01	1.995E+01	1.629E+00	-0.646
		867.82		-3.370E+01	6.702E+01	9.112E+01	7.525E+00	-0.370
		919.63		7.895E+01	1.027E+02	1.764E+02	1.803E+01	0.448
		925.24		-2.648E+01	4.271E+01	6.514E+01	5.621E+00	-0.407
		1596.49	*	-1.915E+00	3.808E+00	6.052E+00	3.961E-01	-0.316
CE-141		145.44	*	-4.435E+00	3.298E+00	5.132E+00	2.920E-01	-0.864
CE-143		57.37		5.102E-02	3.298E+00	Half-Life too short		
		231.56		2.025E-02	3.298E+00	Half-Life too short		
		293.26	*	2.437E-03	3.298E+00	Half-Life too short		
	+	350.59		2.265E-01	3.298E+00	Half-Life too short		
		490.36		3.118E-02	3.298E+00	Half-Life too short		
		664.57		-6.197E-02	3.298E+00	Half-Life too short		
		721.93		7.353E-03	3.298E+00	Half-Life too short		
CE-144		80.11		3.909E+00	1.062E+02	1.789E+02	1.390E+01	0.022
		133.54	*	-8.041E-01	1.100E+01	1.797E+01	2.547E+00	-0.045
PM-144		476.78		-2.815E+00	3.118E+00	4.757E+00	3.350E-01	-0.592
		618.01		-4.421E-01	1.327E+00	2.174E+00	1.222E-01	-0.203
		696.49	*	3.809E-02	1.404E+00	2.330E+00	1.242E-01	0.016
		778.57		-5.062E+01	9.578E+01	1.511E+02	9.731E+00	-0.335
PR-144		696.49	*	2.580E+00	9.512E+01	1.578E+02	8.409E+00	0.016
		1489.15		1.354E+02	4.970E+02	8.317E+02	5.630E+01	0.163
PM-146		453.90	*	4.302E-01	1.858E+00	3.052E+00	2.665E-01	0.141
		633.02		3.613E+01	5.838E+01	9.860E+01	3.621E+01	0.366
		735.90		-3.486E+00	5.752E+00	8.908E+00	2.485E+00	-0.391
		747.13		-2.629E+00	3.737E+00	5.817E+00	7.329E-01	-0.452
ND-147	+	91.11		2.855E+01	2.987E+01	3.097E+01	2.635E+00	0.922
		319.41		-7.210E+01	1.469E+02	2.391E+02	1.404E+01	-0.302
		439.89		1.198E+02	2.404E+02	4.015E+02	2.402E+01	0.298
		531.02	*	2.417E+00	2.366E+01	3.810E+01	5.143E+00	0.063
PM-149		285.90	*	-9.079E+02	3.281E+03	5.435E+03	7.690E+02	-0.167
EU-152		121.78		-7.754E-01	4.153E+00	6.799E+00	5.325E-01	-0.114
		244.69		7.421E-01	1.496E+01	2.537E+01	1.402E+00	0.029
		344.27	*	-2.779E+00	4.374E+00	7.019E+00	4.674E-01	-0.396
		443.98		1.795E+01	4.180E+01	6.949E+01	4.154E+00	0.258
		778.89		-4.519E+00	1.111E+01	1.769E+01	1.139E+00	-0.255
		867.32		-2.201E+01	4.140E+01	5.601E+01	4.339E+00	-0.393
		964.01		-1.108E+01	1.147E+01	1.700E+01	1.320E+00	-0.652
		1085.78		8.220E+00	1.451E+01	2.531E+01	1.680E+00	0.325

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1112.02		-9.676E-01	1.035E+01	1.709E+01	1.085E+00	-0.057
		1407.95		1.759E+00	7.611E+00	1.270E+01	8.742E-01	0.139
GD-153		69.67		-2.623E+00	9.945E+01	1.514E+02	1.149E+01	-0.017
		83.37		-1.075E+03	1.049E+03	1.260E+03	9.948E+01	-0.853
		97.43	*	1.707E+00	5.817E+00	7.345E+00	5.227E-01	0.232
		103.18		-6.900E+00	7.122E+00	9.217E+00	6.202E-01	-0.749
EU-154		123.07		2.232E-01	2.927E+00	4.828E+00	4.615E-01	0.046
		247.94		-5.250E+00	1.684E+01	2.816E+01	2.644E+00	-0.186
		591.81		-9.778E+00	3.058E+01	4.345E+01	4.151E+00	-0.225
		723.30		-4.558E+00	6.789E+00	1.067E+01	7.451E-01	-0.427
		756.87		-4.972E+00	3.153E+01	5.127E+01	5.297E+00	-0.097
		873.19		5.917E+00	1.291E+01	2.167E+01	2.536E+00	0.273
		996.32		1.411E+01	1.595E+01	2.428E+01	4.189E+00	0.581
		1004.76		-2.706E+00	8.338E+00	1.157E+01	1.249E+00	-0.234
		1274.45	*	-1.710E+00	4.230E+00	6.673E+00	6.510E-01	-0.256
EU-155		48.70		-1.217E+02	2.263E+02	3.430E+02	2.598E+01	-0.355
		60.01		-4.818E+02	3.485E+02	5.005E+02	3.806E+01	-0.963
		86.54		3.753E+00	4.819E+00	8.245E+00	6.708E-01	0.455
		105.31	*	-6.966E+00	7.355E+00	9.594E+00	6.478E-01	-0.726
TB-160		86.79		7.916E+00	1.338E+01	2.182E+01	1.757E+00	0.363
	+	197.04		7.197E+01	5.095E+01	4.918E+01	2.577E+00	1.463
		215.65		-1.483E+01	3.638E+01	5.686E+01	3.043E+00	-0.261
		298.57		2.152E+00	5.571E+00	8.369E+00	4.852E-01	0.257
		879.36	*	5.801E-01	5.699E+00	9.329E+00	7.401E-01	0.062
		962.29		6.045E+00	1.905E+01	3.148E+01	2.450E+00	0.192
		966.15		4.030E+00	7.626E+00	1.277E+01	9.898E-01	0.316
		1177.93		-3.272E+00	1.213E+01	1.962E+01	1.107E+00	-0.167
		1271.85		3.371E+00	2.461E+01	4.102E+01	2.635E+00	0.082
HO-166M		80.57		4.051E+00	1.353E+01	2.296E+01	1.788E+00	0.176
		184.41		-1.981E+00	2.739E+00	3.824E+00	1.977E-01	-0.518
		280.46		-2.452E+00	3.943E+00	6.458E+00	3.693E-01	-0.380
		410.95		-7.995E+00	1.128E+01	1.775E+01	1.064E+00	-0.450
		711.68	*	-8.120E-03	2.432E+00	4.019E+00	2.221E-01	-0.002
		752.31		1.105E+01	1.105E+01	1.940E+01	1.178E+00	0.570
		810.29		9.019E-01	2.415E+00	4.057E+00	2.795E-01	0.222
TM-171		51.35		9.747E+02	2.608E+03	4.101E+03	3.263E+02	0.238
	+	52.39		2.049E+03	1.860E+03	2.239E+03	1.787E+02	0.915
		59.40		-1.194E+03	1.903E+03	2.844E+03	2.163E+02	-0.420
	+	66.72	*	3.369E+03	2.022E+03	2.887E+03	2.190E+02	1.167
HF-175		89.36		-2.187E+01	7.435E+01	1.104E+02	8.758E+00	-0.198
		343.40	*	-1.491E+00	1.579E+00	2.495E+00	1.480E-01	-0.598
		433.00		9.668E+01	9.409E+01	1.613E+02	9.660E+00	0.599
LU-176		88.36		2.066E+00	1.011E+01	1.532E+01	1.236E+00	0.135
		201.83		-8.990E-01	1.582E+00	2.180E+00	1.148E-01	-0.412
		306.84	*	1.080E-01	1.185E+00	1.984E+00	1.156E-01	0.054
		401.10		-1.124E+02	2.956E+02	4.738E+02	2.839E+01	-0.237
LU-177		112.95		-2.346E+01	1.079E+02	1.378E+02	8.687E+00	-0.170
		208.36	*	-2.029E+01	4.710E+01	7.373E+01	3.912E+00	-0.275
LU-177M	+	52.97		2.193E+02	1.990E+02	2.319E+02	1.850E+01	0.945

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
	+	54.07		1.242E+02	1.128E+02	1.168E+02	9.282E+00	1.064
		61.30		4.731E+01	1.001E+02	1.565E+02	1.191E+01	0.302
		121.62		-9.192E+00	2.135E+01	3.469E+01	2.112E+00	-0.265
		147.16		-1.030E+01	3.407E+01	5.495E+01	2.973E+00	-0.187
		171.86		-5.118E+00	2.484E+01	3.978E+01	2.035E+00	-0.129
		218.09		1.538E+01	4.113E+01	6.624E+01	3.554E+00	0.232
		268.79		4.427E+00	3.375E+01	5.708E+01	3.231E+00	0.078
		319.02		-9.190E+00	1.207E+01	1.942E+01	1.140E+00	-0.473
		367.43		1.165E+01	4.050E+01	6.762E+01	4.038E+00	0.172
		413.65	*	-1.621E+00	8.025E+00	1.296E+01	7.770E-01	-0.125
HF-181		56.28		4.504E+00	7.378E+01	1.140E+02	8.920E+00	0.040
		57.53		1.718E+01	3.621E+01	6.012E+01	4.652E+00	0.286
	+	65.20		1.054E+02	6.326E+01	9.620E+01	7.306E+00	1.096
		133.02		1.400E+00	3.488E+00	5.782E+00	3.314E-01	0.242
		136.25		-3.545E+01	2.467E+01	3.841E+01	2.169E+00	-0.923
		345.85		9.084E+00	8.929E+00	1.444E+01	8.579E-01	0.629
		482.03	*	-1.437E-01	1.875E+00	3.011E+00	1.779E-01	-0.048
W-181		56.28		1.846E+00	2.912E+01	4.499E+01	3.520E+00	0.041
		57.53		6.800E+00	1.430E+01	2.375E+01	1.838E+00	0.286
	+	65.20	*	4.130E+01	2.478E+01	3.769E+01	2.863E+00	1.096
TA-182		67.75		-9.949E-03	6.779E+00	1.035E+01	7.849E-01	-0.001
		100.10		-8.076E+00	9.527E+00	1.541E+01	1.066E+00	-0.524
		152.43		-9.047E+00	1.682E+01	2.683E+01	1.426E+00	-0.337
		222.10		-2.317E+01	1.699E+01	2.537E+01	1.368E+00	-0.913
	+	1001.68		3.415E+01	1.602E+02	1.502E+02	1.120E+01	0.227
		1121.28		4.563E+00	8.020E+00	1.003E+01	6.261E-01	0.455
		1189.05		-4.792E+00	9.091E+00	1.424E+01	8.158E-01	-0.337
		1221.42	*	-2.784E+00	6.379E+00	1.012E+01	6.069E-01	-0.275
		1230.97		-4.521E+00	1.499E+01	2.406E+01	1.463E+00	-0.188
RE-183		57.98		4.268E+00	1.393E+01	2.299E+01	1.772E+00	0.186
		59.32		-8.419E-01	7.618E+00	1.165E+01	8.870E-01	-0.072
	+	67.20		2.392E+01	1.436E+01	1.965E+01	1.491E+00	1.217
		162.32	*	-2.967E+00	7.439E+00	9.510E+00	4.898E-01	-0.312
		208.81		4.896E-01	4.534E+01	7.221E+01	3.834E+00	0.007
		291.72		-2.412E+01	4.700E+01	6.726E+01	3.880E+00	-0.359
RE-184		57.98		1.580E+01	5.154E+01	8.509E+01	6.557E+00	0.186
		59.32		-3.113E+00	2.817E+01	4.310E+01	3.280E+00	-0.072
	+	67.20		8.850E+01	5.312E+01	7.270E+01	5.515E+00	1.217
		161.27		-1.575E+01	2.405E+01	3.030E+01	1.565E+00	-0.520
		216.55		-5.406E+00	1.299E+01	2.029E+01	1.087E+00	-0.266
		252.85	*	1.110E+01	1.112E+01	1.940E+01	1.082E+00	0.572
		318.01		-4.978E+00	2.096E+01	3.453E+01	2.026E+00	-0.144
		792.07		3.749E+01	3.991E+01	6.948E+01	4.604E+00	0.539
		903.28		-1.404E+01	3.718E+01	5.819E+01	4.768E+00	-0.241
		920.93		3.322E+00	1.776E+01	2.918E+01	2.358E+00	0.114
OS-185		59.72		-2.093E+01	2.064E+01	3.024E+01	2.299E+00	-0.692
		61.14		1.589E+00	1.091E+01	1.684E+01	1.281E+00	0.094
		69.30		2.260E+00	1.766E+01	2.706E+01	2.052E+00	0.084
		592.07		-3.294E+01	1.245E+02	1.778E+02	9.628E+00	-0.185

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		646.12	*	-2.795E-01	1.666E+00	2.745E+00	1.378E-01	-0.102
		717.42		6.178E+00	3.420E+01	5.723E+01	3.206E+00	0.108
		874.81		4.058E+00	2.436E+01	4.008E+01	3.151E+00	0.101
		880.27		-8.409E+00	3.175E+01	5.043E+01	4.008E+00	-0.167
RE-188		155.03	*	-3.038E-01	8.633E+00	1.400E+01	7.374E-01	-0.022
		477.96		9.438E+01	1.345E+02	2.259E+02	1.337E+01	0.418
		633.10		7.311E+01	1.142E+02	1.980E+02	1.015E+01	0.369
W-188	+	63.58		2.992E+03	5.730E+03	6.765E+03	5.144E+02	0.442
		227.08		1.375E+02	6.259E+02	9.992E+02	5.417E+01	0.138
		290.67	*	-1.816E+01	3.694E+02	5.432E+02	3.132E+01	-0.033
IR-192	+	295.96		8.825E+00	8.542E+00	9.174E+00	5.393E-01	0.962
		308.46		-3.090E+00	4.587E+00	7.436E+00	4.388E-01	-0.416
		316.51	*	9.267E-01	1.596E+00	2.719E+00	1.602E-01	0.341
		468.07		8.282E-01	3.010E+00	4.940E+00	3.363E-01	0.168
		604.41		-3.310E+00	2.208E+01	3.180E+01	3.536E+00	-0.104
		612.46		7.338E+00	3.195E+01	4.739E+01	3.403E+00	0.155
AU-195	+	65.12		1.911E+01	1.147E+01	1.743E+01	1.324E+00	1.096
	+	66.83		1.115E+01	6.692E+00	9.485E+00	7.197E-01	1.175
		75.70		1.416E+01	9.296E+00	1.625E+01	1.244E+00	0.871
		98.88	*	-1.175E+01	1.570E+01	2.031E+01	1.423E+00	-0.579
		129.76		-2.115E+01	1.495E+02	2.441E+02	1.422E+01	-0.087
TL-200		367.94	*	-7.390E-04	1.495E+02	Half-Life too short		
		579.30		-7.442E-02	1.495E+02	Half-Life too short		
		828.27		6.943E-02	1.495E+02	Half-Life too short		
		1205.75		-2.109E-02	1.495E+02	Half-Life too short		
TL-201		68.90		-4.917E+01	2.422E+02	3.662E+02	2.777E+01	-0.134
		70.82		5.706E+01	1.197E+02	2.054E+02	1.559E+01	0.278
		80.30		-2.348E+01	2.116E+02	3.548E+02	2.759E+01	-0.066
		135.34		-4.049E+02	1.128E+03	1.824E+03	1.034E+02	-0.222
		167.43	*	-1.646E+02	3.023E+02	4.791E+02	2.443E+01	-0.343
TL-202		68.90		-5.041E+00	2.482E+01	3.754E+01	2.847E+00	-0.134
		70.82		5.833E+00	1.224E+01	2.100E+01	1.594E+00	0.278
		80.30		-2.401E+00	2.163E+01	3.628E+01	2.822E+00	-0.066
		439.56	*	1.425E+00	2.862E+00	4.779E+00	2.859E-01	0.298
HG-203		70.83		2.623E+01	5.484E+01	9.397E+01	1.219E+01	0.279
		72.87		-1.086E+01	3.100E+01	5.179E+01	6.508E+00	-0.210
		82.60		-9.610E+01	7.941E+01	9.391E+01	1.247E+01	-1.023
		279.20	*	1.178E+00	1.846E+00	3.170E+00	1.926E-01	0.372
BI-207		72.80		-5.529E+00	9.247E+00	1.533E+01	1.167E+00	-0.361
		74.97		4.880E-01	5.294E+00	8.959E+00	6.844E-01	0.054
		84.90		-1.905E+01	1.333E+01	1.579E+01	1.258E+00	-1.206
		569.67		-2.407E-01	1.282E+00	2.135E+00	1.185E-01	-0.113
		1063.62	*	-3.359E-01	1.928E+00	3.177E+00	2.183E-01	-0.106
		1770.23		-1.277E+01	2.239E+01	2.775E+01	1.667E+00	-0.460
TL-207		81.07		2.186E+00	1.096E+01	1.854E+01	1.447E+00	0.118
		83.78		-1.124E+01	8.905E+00	1.058E+01	8.370E-01	-1.062
		94.90		-1.061E+00	1.339E+01	1.999E+01	1.465E+00	-0.053
		122.32		-7.453E-01	9.886E+01	1.627E+02	1.129E+01	-0.005
		144.24		-2.328E+01	4.551E+01	6.162E+01	4.295E+00	-0.378

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		154.21		3.176E+00	1.982E+01	3.235E+01	2.132E+00	0.098
		269.46		-1.123E+00	7.940E+00	1.329E+01	7.882E-01	-0.085
		323.87	*	-1.033E+01	3.045E+01	4.980E+01	8.240E+00	-0.207
		338.28		1.629E+01	4.282E+01	7.206E+01	7.639E+00	0.226
		445.03		-5.966E+01	1.037E+02	1.625E+02	1.686E+01	-0.367
TL-208		72.80		-6.018E+01	1.007E+02	1.669E+02	1.270E+01	-0.361
		74.97		5.306E+00	5.757E+01	9.742E+01	1.131E+01	0.054
		277.35		1.127E+01	1.731E+01	2.969E+01	3.119E+00	0.380
		510.84		-2.534E+01	1.596E+01	2.039E+01	2.072E+00	-1.243
		583.14	*	-2.994E+00	2.233E+00	2.762E+00	1.768E-01	-1.084
		763.13		-1.138E+02	9.249E+01	1.375E+02	1.734E+01	-0.828
		860.37		9.761E+00	1.138E+01	1.968E+01	1.644E+00	0.496
		1093.90		-9.917E+01	4.253E+02	6.951E+02	1.570E+02	-0.143
PO-209		260.50		-1.196E+02	4.491E+02	7.500E+02	4.213E+01	-0.159
		262.80		-2.058E+02	1.224E+03	2.050E+03	1.154E+02	-0.100
		896.60	*	-7.955E+01	2.970E+02	4.705E+02	3.861E+01	-0.169
BI-210		46.50	*	2.765E+01	4.499E+02	5.599E+02	4.293E+01	0.049
PB-210		46.50	*	2.765E+01	4.499E+02	5.599E+02	4.293E+01	0.049
PO-210		46.50	*	2.765E+01	4.499E+02	5.599E+02	3.679E+01	0.049
PB-211		404.84	*	-1.485E+01	4.143E+01	6.474E+01	4.037E+01	-0.229
		427.08		-8.058E+01	1.033E+02	1.399E+02	8.649E+01	-0.576
		831.96		-1.523E+01	4.827E+01	7.526E+01	4.703E+01	-0.202
BI-212		727.18	*	-1.341E+01	1.478E+01	1.831E+01	1.403E+00	-0.733
		785.46		-1.286E+01	7.165E+01	1.160E+02	7.575E+00	-0.111
		1620.62		-7.241E+00	5.474E+01	9.015E+01	5.842E+00	-0.080
PB-212		74.81		-1.704E+00	1.843E+01	3.103E+01	3.745E+00	-0.055
		77.11		5.540E+00	1.038E+01	1.774E+01	1.363E+00	0.312
		87.30		1.161E+01	2.038E+01	3.128E+01	4.022E+00	0.371
		115.19		-1.121E+02	1.963E+02	3.184E+02	1.986E+01	-0.352
		238.63	*	-2.734E+00	3.747E+00	4.778E+00	3.387E-01	-0.572
		300.09		1.114E+01	3.915E+01	5.847E+01	4.825E+00	0.191
PO-212		74.81		-1.704E+00	1.843E+01	3.103E+01	3.745E+00	-0.055
		77.11		5.540E+00	1.038E+01	1.774E+01	1.363E+00	0.312
		87.30		1.161E+01	2.038E+01	3.128E+01	4.022E+00	0.371
		115.19		-1.121E+02	1.963E+02	3.184E+02	1.986E+01	-0.352
		238.63	*	-2.734E+00	3.747E+00	4.778E+00	3.387E-01	-0.572
		300.09		1.114E+01	3.915E+01	5.847E+01	4.825E+00	0.191
PB-214		74.81		-2.894E+00	3.131E+01	5.271E+01	5.607E+00	-0.055
		77.11		9.362E+00	1.755E+01	2.998E+01	3.245E+00	0.312
		87.30		1.961E+01	3.439E+01	5.282E+01	5.900E+00	0.371
		241.98		-1.124E+01	1.562E+01	2.580E+01	2.029E+00	-0.436
	+	295.21		1.166E+01	1.131E+01	1.208E+01	1.028E+00	0.965
	+	351.92	*	1.463E+01	5.613E+00	7.353E+00	6.169E-01	1.989
PO-214		74.81		-2.894E+00	3.131E+01	5.271E+01	5.607E+00	-0.055
		77.11		9.362E+00	1.755E+01	2.998E+01	3.245E+00	0.312
		87.30		1.961E+01	3.439E+01	5.282E+01	5.900E+00	0.371
		241.98		-1.124E+01	1.562E+01	2.580E+01	2.029E+00	-0.436
	+	295.21		1.166E+01	1.131E+01	1.208E+01	1.028E+00	0.965
	+	351.92	*	1.463E+01	5.613E+00	7.353E+00	6.169E-01	1.989

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PO-215		81.07		2.186E+00	1.096E+01	1.854E+01	1.447E+00	0.118
		83.78		-1.124E+01	8.905E+00	1.058E+01	8.370E-01	-1.062
		94.90		-1.061E+00	1.339E+01	1.999E+01	1.465E+00	-0.053
		122.32		-7.453E-01	9.886E+01	1.627E+02	1.129E+01	-0.005
		144.24		-2.328E+01	4.551E+01	6.162E+01	4.295E+00	-0.378
		154.21		3.176E+00	1.982E+01	3.235E+01	2.132E+00	0.098
		269.46		-1.123E+00	7.940E+00	1.329E+01	7.882E-01	-0.085
		323.87	*	-1.033E+01	3.045E+01	4.980E+01	8.240E+00	-0.207
		338.28		1.629E+01	4.282E+01	7.206E+01	7.639E+00	0.226
		445.03		-5.966E+01	1.037E+02	1.625E+02	1.686E+01	-0.367
PO-216		74.81		-1.704E+00	1.843E+01	3.103E+01	3.745E+00	-0.055
		77.11		5.540E+00	1.038E+01	1.774E+01	1.363E+00	0.312
		87.30		1.161E+01	2.038E+01	3.128E+01	4.022E+00	0.371
		115.19		-1.121E+02	1.963E+02	3.184E+02	1.986E+01	-0.352
		238.63	*	-2.734E+00	3.747E+00	4.778E+00	3.387E-01	-0.572
		300.09		1.114E+01	3.915E+01	5.847E+01	4.825E+00	0.191
PO-218		74.81		-2.894E+00	3.131E+01	5.271E+01	5.607E+00	-0.055
		77.11		9.362E+00	1.755E+01	2.998E+01	3.245E+00	0.312
		87.30		1.961E+01	3.439E+01	5.282E+01	5.900E+00	0.371
		241.98		-1.124E+01	1.562E+01	2.580E+01	2.029E+00	-0.436
	+	295.21		1.166E+01	1.131E+01	1.208E+01	1.028E+00	0.965
	+	351.92	*	1.463E+01	5.613E+00	7.353E+00	6.169E-01	1.989
RN-219		271.23		-2.458E+00	1.011E+01	1.683E+01	1.349E+00	-0.146
		401.81	*	-2.164E-01	1.778E+01	2.907E+01	3.979E+00	-0.007
RN-220		549.76	*	-2.349E+02	1.150E+03	1.809E+03	1.023E+02	-0.130
RA-223		81.07		2.186E+00	1.096E+01	1.854E+01	1.447E+00	0.118
		83.78		-1.124E+01	8.905E+00	1.058E+01	8.370E-01	-1.062
		94.90		-1.061E+00	1.339E+01	1.999E+01	1.465E+00	-0.053
		122.32		-7.453E-01	9.886E+01	1.627E+02	1.129E+01	-0.005
		144.24		-2.328E+01	4.551E+01	6.162E+01	4.295E+00	-0.378
		154.21		3.176E+00	1.982E+01	3.235E+01	2.132E+00	0.098
		269.46		-1.123E+00	7.940E+00	1.329E+01	7.882E-01	-0.085
		323.87	*	-1.033E+01	3.045E+01	4.980E+01	8.240E+00	-0.207
		338.28		1.629E+01	4.282E+01	7.206E+01	7.639E+00	0.226
		445.03		-5.966E+01	1.037E+02	1.625E+02	1.686E+01	-0.367
RA-224		240.98	*	-3.303E+01	3.039E+01	4.960E+01	2.731E+00	-0.666
RA-226		186.21	*	-5.793E+01	7.399E+01	8.416E+01	6.173E+01	-0.688
AC-227		79.80		-4.626E+01	8.478E+01	1.394E+02	2.952E+01	-0.332
		236.00		2.306E+00	1.017E+01	1.738E+01	1.786E+00	0.133
		256.20	*	-9.979E+00	1.826E+01	3.015E+01	4.184E+00	-0.331
		286.10		-2.052E+01	6.983E+01	1.156E+02	1.333E+01	-0.177
		299.80		2.386E+01	7.168E+01	1.072E+02	1.746E+01	0.223
		304.40		3.521E+01	8.726E+01	1.476E+02	2.554E+01	0.239
		329.70		-2.403E+01	3.987E+01	6.422E+01	8.036E+00	-0.374
		334.20		1.968E+01	1.009E+02	1.686E+02	3.097E+01	0.117
PA-227	+	64.62	*	1.000E+35	1.009E+02	Half-Life too short		
		110.05		-1.000E+35	1.009E+02	Half-Life too short		
TH-227		79.80		-4.626E+01	8.479E+01	1.394E+02	2.991E+01	-0.332
		94.00		3.266E+02	1.372E+02	1.938E+02	4.133E+01	1.686

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		236.00		2.306E+00	1.017E+01	1.738E+01	1.539E+00	0.133
		256.20	*	-9.979E+00	1.829E+01	3.015E+01	5.075E+00	-0.331
		286.10		-2.052E+01	7.276E+01	1.156E+02	1.158E+02	-0.177
		299.80		2.386E+01	7.168E+01	1.072E+02	1.746E+01	0.223
		304.40		3.521E+01	8.726E+01	1.476E+02	2.554E+01	0.239
		329.70		-2.403E+01	3.987E+01	6.422E+01	8.036E+00	-0.374
		334.20		1.968E+01	1.009E+02	1.686E+02	3.097E+01	0.117
AC-228		338.32		4.184E+00	1.045E+01	1.738E+01	7.088E+00	0.241
		911.07	*	4.411E+00	7.800E+00	9.877E+00	1.075E+00	0.447
		969.11		-3.328E+00	1.294E+01	1.648E+01	3.794E+00	-0.202
RA-228		338.32		4.184E+00	1.045E+01	1.738E+01	7.088E+00	0.241
		911.07	*	4.411E+00	7.800E+00	9.877E+00	1.075E+00	0.447
		969.11		-3.328E+00	1.294E+01	1.648E+01	3.794E+00	-0.202
TH-228		74.81		-1.704E+00	1.843E+01	3.103E+01	2.395E+00	-0.055
		77.11		5.540E+00	1.038E+01	1.774E+01	1.363E+00	0.312
		87.30		1.161E+01	2.035E+01	3.128E+01	2.528E+00	0.371
		238.63	*	-2.734E+00	3.747E+00	4.778E+00	3.387E-01	-0.572
		300.09		1.114E+01	3.969E+01	5.847E+01	3.446E+01	0.191
TH-229		85.43		-1.333E+00	9.085E+00	1.517E+01	1.212E+00	-0.088
		88.47		8.734E-01	5.799E+00	8.771E+00	7.064E-01	0.100
		100.00		-6.855E+00	9.888E+00	1.608E+01	1.114E+00	-0.426
		193.63	*	1.360E+01	2.806E+01	4.088E+01	2.134E+00	0.333
		210.97		-8.754E+00	3.574E+01	5.631E+01	2.997E+00	-0.155
TH-230		67.67	*	6.169E+01	8.192E+02	1.095E+03	7.104E+03	0.056
PA-231		283.67	*	-3.388E+00	6.967E+01	1.166E+02	1.604E+01	-0.029
		301.29		-8.342E+00	2.634E+01	4.193E+01	4.384E+00	-0.199
		330.00		-7.006E+01	9.138E+01	1.420E+02	4.450E+01	-0.493
TH-231		84.21	*	-3.548E+01	3.457E+01	4.108E+01	7.199E+00	-0.864
U-231		84.21		-3.490E+02	3.356E+02	4.040E+02	3.205E+01	-0.864
	+	92.29		2.003E+02	2.095E+02	2.428E+02	1.843E+01	0.825
		95.87	*	-2.787E+01	5.736E+01	8.412E+01	6.094E+00	-0.331
		108.00		4.967E+01	9.819E+01	1.651E+02	1.072E+01	0.301
TH-232		59.00	*	-3.020E+02	3.816E+03	3.226E+03	3.396E+04	-0.094
PA-233		75.28		8.650E+01	1.534E+02	2.622E+02	3.886E+01	0.330
		86.59		6.198E+01	7.988E+01	1.341E+02	3.571E+01	0.462
		300.12		5.541E+00	1.995E+01	2.977E+01	4.000E+00	0.186
		311.98	*	3.168E-01	3.050E+00	5.103E+00	3.166E-01	0.062
		340.50		8.505E+00	2.570E+01	4.306E+01	9.904E+00	0.198
		398.62		-1.002E+01	9.574E+01	1.558E+02	4.036E+01	-0.064
		415.76		6.827E+01	7.742E+01	1.298E+02	2.679E+01	0.526
PA-234	+	63.00		8.743E+01	1.678E+02	2.068E+02	3.094E+01	0.423
		94.67		3.321E+00	9.558E+00	1.449E+01	1.675E+00	0.229
		98.44		-4.630E+00	6.913E+00	8.333E+00	4.630E+00	-0.556
		99.86		-1.636E+01	2.508E+01	4.085E+01	2.834E+00	-0.400
		111.00		-9.289E+00	1.343E+01	1.683E+01	1.785E+00	-0.552
		131.20		1.562E+00	5.715E+00	9.446E+00	5.461E-01	0.165
		152.70		-4.506E+00	1.619E+01	2.603E+01	4.069E+00	-0.173
		186.00		-8.635E+01	1.029E+02	1.386E+02	4.219E+01	-0.623
		226.40		1.291E+01	1.949E+01	3.160E+01	3.594E+00	0.409

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		227.20		4.417E+00	2.129E+01	3.398E+01	1.842E+00	0.130
		248.90		-1.819E+00	3.821E+01	6.451E+01	1.382E+01	-0.028
	+	293.70		5.595E+01	5.480E+01	5.552E+01	8.924E+00	1.008
		369.80		1.811E+00	3.763E+01	6.209E+01	1.296E+01	0.029
		568.70		6.054E+00	4.128E+01	7.004E+01	3.891E+00	0.086
		569.50		-1.016E-01	1.128E+01	1.897E+01	1.053E+00	-0.005
		574.00		-4.141E+00	6.250E+01	1.047E+02	5.785E+00	-0.040
		699.00		1.460E+01	2.933E+01	4.988E+01	8.901E+00	0.293
		706.10		-1.156E+01	4.125E+01	6.641E+01	2.928E+01	-0.174
		733.00		7.931E+00	1.406E+01	2.399E+01	5.100E+00	0.331
		742.81		3.235E+01	5.983E+01	9.552E+01	6.393E+01	0.339
		796.30		2.341E+01	3.552E+01	6.005E+01	1.591E+01	0.390
		805.60		1.998E+01	3.848E+01	6.472E+01	1.954E+01	0.309
		819.60		7.108E+01	5.734E+01	9.124E+01	3.439E+01	0.779
		826.30		9.325E+00	3.513E+01	5.806E+01	2.582E+01	0.161
		831.60		-4.089E+00	2.452E+01	3.944E+01	1.162E+01	-0.104
		876.40		-5.140E+00	3.582E+01	5.689E+01	5.845E+01	-0.090
		880.51		-5.078E+00	1.161E+01	1.817E+01	1.445E+00	-0.279
		883.24		1.347E+00	1.174E+01	1.918E+01	1.288E+01	0.070
		899.00		6.847E+00	3.290E+01	5.403E+01	2.358E+01	0.127
		925.00		-2.868E+01	4.625E+01	7.054E+01	5.681E+00	-0.407
		926.50		-1.923E+00	7.266E+00	1.146E+01	2.875E+00	-0.168
		946.00	*	7.513E+00	1.265E+01	2.125E+01	3.921E+00	0.353
		949.00		-1.232E+01	1.872E+01	2.849E+01	2.246E+00	-0.432
		980.50		1.044E+01	2.727E+01	4.538E+01	3.466E+00	0.230
		1394.10		-1.488E+01	5.163E+01	8.020E+01	5.204E+01	-0.185
PA-234M		766.42		3.129E+02	6.282E+02	8.555E+02	4.311E+02	0.366
	+	1001.03	*	7.790E+01	3.655E+02	3.485E+02	3.131E+01	0.224
U-235		89.95		-2.528E+01	5.909E+01	8.647E+01	2.651E+01	-0.292
	+	93.35		7.160E+01	7.726E+01	7.848E+01	2.174E+01	0.912
		105.00		-5.685E+01	7.331E+01	9.335E+01	2.738E+01	-0.609
		143.76	*	-6.314E+00	1.408E+01	1.907E+01	3.088E+00	-0.331
		163.35		-2.863E+00	3.192E+01	4.111E+01	7.308E+00	-0.070
		185.71		-2.084E+00	3.680E+00	5.168E+00	2.675E-01	-0.403
		205.31		-2.546E+01	3.394E+01	4.103E+01	7.313E+00	-0.621
NP-236		94.67		2.542E+00	7.247E+00	1.100E+01	8.085E-01	0.231
		98.44		-3.498E+00	4.857E+00	6.300E+00	4.434E-01	-0.555
		111.00		-7.026E+00	1.014E+01	1.273E+01	8.114E-01	-0.552
		160.31	*	-3.930E+00	4.224E+00	6.626E+00	3.433E-01	-0.593
NP-237		86.50	*	3.794E+00	1.190E+01	2.009E+01	4.449E+00	0.189
		95.87		-2.790E+01	5.779E+01	8.422E+01	2.037E+01	-0.331
PU-237		59.54	*	-1.257E+02	1.506E+02	2.228E+02	1.693E+01	-0.564
NP-239		99.55		-9.975E+00	1.085E+01	1.382E+01	9.617E-01	-0.722
		117.00	*	-3.379E+00	1.031E+01	1.683E+01	1.042E+00	-0.201
		209.75		-1.010E+00	3.531E+01	5.613E+01	2.983E+00	-0.018
		228.18		-6.867E+00	1.110E+01	1.711E+01	9.290E-01	-0.401
		277.60		6.254E+00	8.165E+00	1.408E+01	8.034E-01	0.444
		334.30		9.851E+00	5.707E+01	9.534E+01	5.638E+00	0.103
AM-241		59.54	*	-9.209E+00	1.104E+01	1.632E+01	1.355E+00	-0.564

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AM-243		74.67	*	-2.179E+00	3.002E+00	4.955E+00	3.783E-01	-0.440
		86.72		3.626E+02	4.402E+02	7.539E+02	6.070E+01	0.481
		117.66		-7.654E+01	2.085E+02	3.401E+02	2.099E+01	-0.225
		142.18		-1.743E+03	1.207E+03	1.592E+03	8.776E+01	-1.095
CM-243		99.55		-1.026E+01	1.116E+01	1.422E+01	9.895E-01	-0.722
		103.76	*	-5.015E+00	6.554E+00	8.545E+00	5.722E-01	-0.587
		117.00		-3.477E+00	1.060E+01	1.732E+01	1.072E+00	-0.201
		209.75		-9.954E-01	3.480E+01	5.533E+01	2.941E+00	-0.018
		228.18		-6.939E+00	1.122E+01	1.729E+01	9.387E-01	-0.401
		277.60		6.304E+00	8.231E+00	1.420E+01	8.099E-01	0.444
AM-246		798.80		-7.238E+00	5.612E+00	8.243E+00	5.542E-01	-0.878
		1036.00		-9.866E+00	1.135E+01	1.762E+01	1.259E+00	-0.560
		1062.04		-5.093E+00	8.289E+00	1.312E+01	9.037E-01	-0.388
		1078.86	*	-6.435E+00	5.135E+00	7.585E+00	5.092E-01	-0.848
CM-247		278.00		3.489E+01	3.375E+01	5.872E+01	3.351E+00	0.594
		287.40		4.803E+00	5.587E+01	9.393E+01	5.401E+00	0.051
		402.60	*	4.356E-01	1.583E+00	2.627E+00	1.574E-01	0.166
CF-249		252.85		4.179E+01	4.187E+01	7.302E+01	4.071E+00	0.572
		333.44		1.530E+00	7.381E+00	1.235E+01	7.301E-01	0.124
		387.95	*	1.562E-01	1.826E+00	3.008E+00	1.800E-01	0.052
CF-251		176.60	*	1.763E+00	6.436E+00	1.046E+01	5.369E-01	0.169
		227.00		4.320E+00	1.893E+01	3.023E+01	1.639E+00	0.143
		285.00		-3.677E+01	7.973E+01	1.312E+02	7.528E+00	-0.280
ANH-511		511.00	*	-5.487E+00	3.369E+00	4.334E+00	2.522E-01	-1.266

VAX/VMS Nuclide Identification Report Generated

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*************************************************************************
*                          GEL Laboratories LLC                         *
*                              2040 Savage Road                         *
*                            Charleston, SC 29414                       *
*************************************************************************
*                                                                       *
*                              DETECTOR DATA                            *
*                                                                       *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202003336 *
* Acquisition date :  1-JAN-2010 17:18:27 Detector SN#     :            *
* Detector ID        : GAM02              Sensitivity      : 5.000     *
* Geometry           : 2LMB               Energy tolerance: 1.500      *
* Elapsed live time:     0 08:20:00.00    Abundance limit : 75.000     *
* Elapsed real time:     0 08:20:06.80    Half life ratio :  8.000     *
*************************************************************************
*                                                                       *
*                               SAMPLE DATA                             *
*                                                                       *
* Sample date        : 18-DEC-2009 12:00:00 Nuclide Library : LIQUI    *
* Sample ID          : G1202003336        Analyst initials: KXG3       *
* Batch Number       : 936274             Sample Quantity : 2.0000E+00 LITER *
* Recovery           :    1.00000         Carrier Weight :    0.00000  *
*************************************************************************
*                                                                       *
*                                 QC DATA                               *
* Standard Weight  :    0.00000                                         *
* CALIB. DATE/TIME : 17-JUN-2009 08:42:38 MS Isotope      :             *
* MSD DPM          :    0.000            MSD Isotope     :             *
* LCS DPM          :    0.000            LCS Isotope     :             *
* LCSD DPM         :    0.000            LCSD Isotope    :             *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
K-40	1.577E+01	3.879E+01	2.172E+01	0.000E+00
AS-73	1.155E+02	1.027E+02	1.052E+02	0.000E+00
AS-74	6.302E+00	5.329E+00	6.432E+00	0.000E+00
BI-211	4.204E+01	1.567E+01	1.452E+01	0.000E+00
BI-214	1.133E+01	5.859E+00	4.732E+00	0.000E+00
TH-234	7.501E+01	1.413E+02	1.265E+02	0.000E+00
U-234	8.755E+03	8.615E+04	8.154E+03	0.000E+00
U-238	7.501E+01	1.413E+02	1.265E+02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	4.007E+00	1.378E+01	2.308E+01	0.000E+00	NOT IDENT.
NA-22	-6.519E-01	1.479E+00	2.375E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.388E+07	0.000E+00	0.000E+00	SHORT HLIF
AL-26	3.296E-01	1.398E+00	2.430E+00	0.000E+00	NOT IDENT.
TI-44	-9.718E-01	1.731E+00	2.924E+00	0.000E+00	NOT IDENT.
SC-46	4.941E-01	1.576E+00	2.672E+00	0.000E+00	NOT IDENT.
V-48	-4.383E-01	2.675E+00	4.325E+00	0.000E+00	NOT IDENT.
CR-51	5.959E+00	1.653E+01	2.847E+01	0.000E+00	NOT IDENT.
MN-52	8.098E-01	9.417E+00	1.577E+01	0.000E+00	NOT IDENT.
MN-54	-8.971E-01	1.371E+00	2.161E+00	0.000E+00	NOT IDENT.
CO-56	-1.215E-02	1.662E+00	2.762E+00	0.000E+00	NOT IDENT.
CO-57	-1.707E-01	1.402E+00	2.347E+00	0.000E+00	NOT IDENT.
CO-58	9.875E-01	1.555E+00	2.711E+00	0.000E+00	NOT IDENT.
FE-59	3.799E+00	3.379E+00	6.205E+00	0.000E+00	NOT IDENT.
CO-60	-1.321E+00	2.024E+00	2.467E+00	0.000E+00	NOT IDENT.
ZN-65	-7.915E+00	3.363E+00	4.553E+00	0.000E+00	NOT IDENT.
GE-68	1.900E+01	4.306E+01	7.598E+01	0.000E+00	NOT IDENT.
SE-75	7.360E-01	1.948E+00	3.394E+00	0.000E+00	FAIL ABUN
BR-77	6.266E+01	3.422E+02	5.663E+02	0.000E+00	NOT IDENT.

SR-82	8.675E+00	1.477E+01	2.572E+01	0.000E+00	NOT IDENT.
RB-83	-1.521E-01	2.855E+00	4.654E+00	0.000E+00	NOT IDENT.
RB-84	3.087E-01	2.748E+00	4.592E+00	0.000E+00	NOT IDENT.
KR-85	-2.363E+03	4.836E+02	5.981E+02	0.000E+00	NOT IDENT.
SR-85	-1.202E+01	2.460E+00	3.042E+00	0.000E+00	NOT IDENT.
RB-86	1.797E+01	2.635E+01	4.737E+01	0.000E+00	NOT IDENT.
Y-88	-6.678E-01	1.636E+00	2.619E+00	0.000E+00	NOT IDENT.
ZR-88	1.194E-01	1.390E+00	2.334E+00	0.000E+00	NOT IDENT.
Y-91	-2.020E+02	5.626E+02	9.170E+02	0.000E+00	NOT IDENT.
NB-94	-1.166E-01	1.300E+00	2.182E+00	0.000E+00	NOT IDENT.
NB-95	-4.332E-01	2.527E+00	3.448E+00	0.000E+00	NOT IDENT.
NB-95M	-2.405E+00	5.409E+00	9.234E+00	0.000E+00	NOT IDENT.
ZR-95	3.690E-01	2.803E+00	4.747E+00	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.848E+06	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	5.772E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-4.197E+02	3.844E+02	5.886E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.090E+17	0.000E+00	0.000E+00	SHORT HLIF
RH-101	0.000E+00	2.944E+00	2.951E+00	0.000E+00	FAIL ABUN
RH-102	-5.244E-01	1.298E+00	2.088E+00	0.000E+00	NOT IDENT.
RU-103	2.412E+00	1.868E+00	3.245E+00	0.000E+00	FAIL ABUN
RH-106	-4.434E+00	1.297E+01	2.165E+01	0.000E+00	NOT IDENT.
RU-106	-4.434E+00	1.296E+01	2.165E+01	0.000E+00	NOT IDENT.
AG-108M	2.161E-01	1.463E+00	2.446E+00	0.000E+00	NOT IDENT.
CD-109	7.553E+00	4.343E+01	6.709E+01	0.000E+00	NOT IDENT.
AG-110M	-7.492E-01	1.410E+00	2.313E+00	0.000E+00	NOT IDENT.
IN-111	-7.540E-01	3.983E+01	6.875E+01	0.000E+00	NOT IDENT.
IN-113M	1.485E-01	1.967E+00	3.302E+00	0.000E+00	NOT IDENT.
SN-113	1.485E-01	1.967E+00	3.302E+00	0.000E+00	NOT IDENT.
IN-114M	8.349E-01	8.610E+00	1.412E+01	0.000E+00	NOT IDENT.
CD-115	3.620E+02	3.715E+02	6.422E+02	0.000E+00	NOT IDENT.
SN-117M	9.636E-01	2.672E+00	4.471E+00	0.000E+00	NOT IDENT.
SB-122	4.424E+00	6.664E+01	1.149E+02	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.086E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	4.433E-01	1.417E+00	2.367E+00	0.000E+00	NOT IDENT.
I-124	-5.482E+00	2.845E+01	4.170E+01	0.000E+00	NOT IDENT.
SB-124	-1.877E-01	3.729E+00	6.302E+00	0.000E+00	NOT IDENT.
SB-125	-1.778E+00	3.918E+00	6.342E+00	0.000E+00	NOT IDENT.
TE-125M	-1.603E+02	4.977E+02	8.330E+02	0.000E+00	NOT IDENT.
I-126	-5.232E+00	6.615E+00	1.062E+01	0.000E+00	NOT IDENT.
SB-126	-1.833E+00	5.199E+00	8.543E+00	0.000E+00	FAIL ABUN
SN-126	2.655E+00	4.239E+00	6.658E+00	0.000E+00	FAIL ABUN
SB-127	3.759E+01	5.216E+01	9.176E+01	0.000E+00	NOT IDENT.
XE-127	-1.810E+00	2.552E+00	3.564E+00	0.000E+00	NOT IDENT.
I-131	-1.416E+00	4.834E+00	8.013E+00	0.000E+00	NOT IDENT.
TE-132	-1.788E+01	2.836E+01	4.446E+01	0.000E+00	NOT IDENT.
BA-133	-8.732E-01	2.160E+00	3.106E+00	0.000E+00	FAIL ABUN
I-133	0.000E+00	1.408E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	1.175E+00	1.780E+00	3.110E+00	0.000E+00	NOT IDENT.
CS-135	1.135E+00	6.685E+00	1.155E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.702E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.125E+00	3.759E+00	5.967E+00	0.000E+00	FAIL ABUN
BA-137M	2.031E+00	1.418E+00	2.605E+00	0.000E+00	NOT IDENT.
CS-137	2.147E+00	1.499E+00	2.754E+00	0.000E+00	NOT IDENT.
CE-139	-2.961E-01	1.522E+00	2.494E+00	0.000E+00	NOT IDENT.
BA-140	-4.984E+00	1.075E+01	1.680E+01	0.000E+00	NOT IDENT.
LA-140	-1.915E+00	3.732E+00	6.052E+00	0.000E+00	NOT IDENT.
CE-141	-4.435E+00	3.232E+00	5.132E+00	0.000E+00	NOT IDENT.
CE-143	0.000E+00	5.798E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-8.041E-01	1.078E+01	1.797E+01	0.000E+00	NOT IDENT.
PM-144	3.809E-02	1.376E+00	2.330E+00	0.000E+00	NOT IDENT.
PR-144	2.580E+00	9.322E+01	1.578E+02	0.000E+00	NOT IDENT.
PM-146	4.302E-01	1.821E+00	3.052E+00	0.000E+00	NOT IDENT.
ND-147	2.417E+00	2.319E+01	3.810E+01	0.000E+00	FAIL ABUN
PM-149	-9.079E+02	3.215E+03	5.435E+03	0.000E+00	NOT IDENT.
EU-152	-2.779E+00	4.287E+00	7.019E+00	0.000E+00	NOT IDENT.
GD-153	1.707E+00	5.700E+00	7.345E+00	0.000E+00	NOT IDENT.
EU-154	-1.710E+00	4.145E+00	6.673E+00	0.000E+00	NOT IDENT.
EU-155	-6.966E+00	7.208E+00	9.594E+00	0.000E+00	NOT IDENT.
TB-160	5.801E-01	5.585E+00	9.329E+00	0.000E+00	FAIL ABUN
HO-166M	-8.120E-03	2.383E+00	4.019E+00	0.000E+00	NOT IDENT.
TM-171	0.000E+00	1.981E+03	2.887E+03	0.000E+00	FAIL ABUN
HF-175	-1.491E+00	1.548E+00	2.495E+00	0.000E+00	NOT IDENT.
LU-176	1.080E-01	1.161E+00	1.984E+00	0.000E+00	NOT IDENT.
LU-177	-2.029E+01	4.615E+01	7.373E+01	0.000E+00	NOT IDENT.
LU-177M	-1.621E+00	7.864E+00	1.296E+01	0.000E+00	FAIL ABUN
HF-181	-1.437E-01	1.838E+00	3.011E+00	0.000E+00	FAIL ABUN
W-181	0.000E+00	2.429E+01	3.769E+01	0.000E+00	FAIL ABUN
TA-182	-2.784E+00	6.251E+00	1.012E+01	0.000E+00	FAIL ABUN

RE-183	-2.967E+00	7.290E+00	9.510E+00	0.000E+00	FAIL ABUN
RE-184	1.110E+01	1.090E+01	1.940E+01	0.000E+00	FAIL ABUN
OS-185	-2.795E-01	1.633E+00	2.745E+00	0.000E+00	NOT IDENT.
RE-188	-3.038E-01	8.460E+00	1.400E+01	0.000E+00	NOT IDENT.
W-188	-1.816E+01	3.620E+02	5.432E+02	0.000E+00	FAIL ABUN
IR-192	9.267E-01	1.564E+00	2.719E+00	0.000E+00	FAIL ABUN
AU-195	-1.175E+01	1.539E+01	2.031E+01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	1.242E+04	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.646E+02	2.962E+02	4.791E+02	0.000E+00	NOT IDENT.
TL-202	1.425E+00	2.805E+00	4.779E+00	0.000E+00	NOT IDENT.
HG-203	1.178E+00	1.810E+00	3.170E+00	0.000E+00	NOT IDENT.
BI-207	-3.359E-01	1.890E+00	3.177E+00	0.000E+00	NOT IDENT.
TL-207	-1.033E+01	2.984E+01	4.980E+01	0.000E+00	NOT IDENT.
TL-208	-2.994E+00	2.188E+00	2.762E+00	0.000E+00	NOT IDENT.
PO-209	-7.955E+01	2.911E+02	4.705E+02	0.000E+00	NOT IDENT.
BI-210	2.765E+01	4.409E+02	5.599E+02	0.000E+00	NOT IDENT.
PB-210	2.765E+01	4.409E+02	5.599E+02	0.000E+00	NOT IDENT.
PO-210	2.765E+01	4.409E+02	5.599E+02	0.000E+00	NOT IDENT.
PB-211	-1.485E+01	4.060E+01	6.474E+01	0.000E+00	NOT IDENT.
BI-212	-1.341E+01	1.449E+01	1.831E+01	0.000E+00	NOT IDENT.
PB-212	-2.734E+00	3.672E+00	4.778E+00	0.000E+00	NOT IDENT.
PO-212	-2.734E+00	3.672E+00	4.778E+00	0.000E+00	NOT IDENT.
PB-214	0.000E+00	5.500E+00	7.353E+00	0.000E+00	FAIL ABUN
PO-214	0.000E+00	5.500E+00	7.353E+00	0.000E+00	FAIL ABUN
PO-215	-1.033E+01	2.984E+01	4.980E+01	0.000E+00	NOT IDENT.
PO-216	-2.734E+00	3.672E+00	4.778E+00	0.000E+00	NOT IDENT.
PO-218	0.000E+00	5.500E+00	7.353E+00	0.000E+00	FAIL ABUN
RN-219	-2.164E-01	1.742E+01	2.907E+01	0.000E+00	NOT IDENT.
RN-220	-2.349E+02	1.127E+03	1.809E+03	0.000E+00	NOT IDENT.
RA-223	-1.033E+01	2.984E+01	4.980E+01	0.000E+00	NOT IDENT.
RA-224	-3.303E+01	2.979E+01	4.960E+01	0.000E+00	NOT IDENT.
RA-226	-5.793E+01	7.251E+01	8.416E+01	0.000E+00	NOT IDENT.
AC-227	-9.979E+00	1.790E+01	3.015E+01	0.000E+00	NOT IDENT.
PA-227	0.000E+00	5.882E+40	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-9.979E+00	1.792E+01	3.015E+01	0.000E+00	NOT IDENT.
AC-228	4.411E+00	7.644E+00	9.877E+00	0.000E+00	NOT IDENT.
RA-228	4.411E+00	7.644E+00	9.877E+00	0.000E+00	NOT IDENT.
TH-228	-2.734E+00	3.672E+00	4.778E+00	0.000E+00	NOT IDENT.
TH-229	1.360E+01	2.750E+01	4.088E+01	0.000E+00	NOT IDENT.
TH-230	6.169E+01	8.028E+02	1.095E+03	0.000E+00	NOT IDENT.
PA-231	-3.388E+00	6.828E+01	1.166E+02	0.000E+00	NOT IDENT.
TH-231	-3.548E+01	3.388E+01	4.108E+01	0.000E+00	NOT IDENT.
U-231	-2.787E+01	5.621E+01	8.412E+01	0.000E+00	FAIL ABUN
TH-232	-3.020E+02	3.739E+03	3.226E+03	0.000E+00	NOT IDENT.
PA-233	3.168E-01	2.989E+00	5.103E+00	0.000E+00	NOT IDENT.
PA-234	7.513E+00	1.240E+01	2.125E+01	0.000E+00	FAIL ABUN
PA-234M	7.790E+01	3.582E+02	3.485E+02	0.000E+00	FAIL ABUN
U-235	-6.314E+00	1.379E+01	1.907E+01	0.000E+00	FAIL ABUN
NP-236	-3.930E+00	4.139E+00	6.626E+00	0.000E+00	NOT IDENT.
NP-237	3.794E+00	1.166E+01	2.009E+01	0.000E+00	NOT IDENT.
PU-237	-1.257E+02	1.476E+02	2.228E+02	0.000E+00	NOT IDENT.
NP-239	-3.379E+00	1.010E+01	1.683E+01	0.000E+00	NOT IDENT.
AM-241	-9.209E+00	1.082E+01	1.632E+01	0.000E+00	NOT IDENT.
AM-243	-2.179E+00	2.942E+00	4.955E+00	0.000E+00	NOT IDENT.
CM-243	-5.015E+00	6.423E+00	8.545E+00	0.000E+00	NOT IDENT.
AM-246	-6.435E+00	5.032E+00	7.585E+00	0.000E+00	NOT IDENT.
CM-247	4.356E-01	1.551E+00	2.627E+00	0.000E+00	NOT IDENT.
CF-249	1.562E-01	1.790E+00	3.008E+00	0.000E+00	NOT IDENT.
CF-251	1.763E+00	6.307E+00	1.046E+01	0.000E+00	NOT IDENT.
ANH-511	-5.487E+00	3.301E+00	4.334E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 2-JAN-2010 01:38:58.88

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202003336.CNF;1
Sample date       : 18-DEC-2009 12:00:00 Acquisition date : 1-JAN-2010 17:18:27.
Sample ID         : G1202003336          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM02                Detector geometry: 2LMB
Elapsed live time: 0 08:20:00.00         Elapsed real time: 0 08:20:06.80  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 936274                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	52.98	96	601	1.23	105.16	102	8	3.21E-03	45.2	
2	1	62.98	401	442	0.95	125.16	121	14	1.34E-02	9.7	1.35E+00
3	1	65.99	119	447	0.96	131.18	121	14	3.96E-03	29.8	
4	0	92.29	1058	927	1.15	183.81	179	11	3.53E-02	6.4	
5	0	143.57	112	662	0.89	286.41	283	8	3.73E-03	41.2	
6	0	185.40	533	811	1.10	370.11	366	11	1.78E-02	11.3	
7	0	198.53	187	652	1.09	396.39	391	11	6.22E-03	27.6	
8	0	237.80	51	400	1.14	474.98	473	7	1.70E-03	66.5	
9	0	295.05	136	381	0.85	589.54	585	10	4.54E-03	28.1	
10	0	351.71	270	250	1.18	702.92	698	10	8.98E-03	12.6	
11	0	510.80	654	219	2.48	1021.28	1013	17	2.18E-02	6.5	
12	0	595.92	54	139	1.03	1191.62	1187	10	1.80E-03	43.1	
13	0	609.01	178	171	1.09	1217.82	1213	11	5.94E-03	16.1	
14	0	1000.32	74	76	2.16	2000.95	1991	16	2.47E-03	28.8	
15	0	1461.77	75	66	2.01	2924.55	2917	18	2.50E-03	28.8	
16	0	1764.84	91	19	2.69	3531.19	3521	21	3.05E-03	16.2	

VAX/VMS Nuclide Identification Report Generated 2-JAN-2010 01:39:04.67

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202003336.CNF;1
Sample date       : 18-DEC-2009 12:00:00 Acquisition date : 1-JAN-2010 17:18:27.
Sample ID         : G1202003336          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM02                Detector geometry: 2LMB
Elapsed live time: 0 08:20:00.00         Elapsed real time: 0 08:20:06.80  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 936274                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
K-40	1460.81	21	10.67*	5.552E-01	1.577E+01	1.577E+01	250.93
AS-73	53.44	96	10.30*	4.126E-01	1.020E+02	1.155E+02	90.78
AS-74	595.88	54	59.90*	1.132E+00	3.594E+00	6.302E+00	86.28
	634.78	------	15.40	1.080E+00	------ Line Not Found		------
BI-211	72.87	------	1.27	1.352E+00	------ Line Not Found		------
	351.07	199	12.94*	1.650E+00	4.204E+01	4.204E+01	38.02
BI-214	609.31	130	46.30*	1.114E+00	1.133E+01	1.133E+01	52.76
	1120.29	------	15.10	6.867E-01	------ Line Not Found		------
	1764.49	91	15.80	4.866E-01	5.354E+01	5.354E+01	33.04
TH-234	63.29	55	3.80*	8.700E-01	7.501E+01	7.501E+01	192.17
	92.38	149	5.41	2.089E+00	5.956E+01	5.956E+01	105.77
U-234	53.20	96	0.12*	4.126E-01	8.755E+03	8.755E+03	1004.11
U-238	63.29	55	3.80*	8.700E-01	7.501E+01	7.501E+01	192.17
	92.38	149	5.41	2.089E+00	5.956E+01	5.956E+01	104.57

Flag: "*" = Keyline

Sample ID : G1202003336 Acquisition date : 1-JAN-2010 17:18:27

Total number of lines in spectrum 12
Number of unidentified lines 0
Number of lines tentatively identified by NID 12 100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	1.577E+01	1.577E+01	3.958E+01	250.93	
AS-73	80.30D	1.13	1.020E+02	1.155E+02	1.048E+02	90.78	
AS-74	17.77D	1.75	3.594E+00	6.302E+00	5.437E+00	86.28	
BI-211	7.04E+08Y	1.00	4.204E+01	4.204E+01	1.598E+01	38.02	
BI-214	1600.00Y	1.00	1.133E+01	1.133E+01	0.598E+01	52.76	
TH-234	4.47E+09Y	1.00	7.501E+01	7.501E+01	14.41E+01	192.17	
U-234	2.45E+05Y	1.00	8.755E+03	8.755E+03	87.91E+03	1004.11	
U-238	4.47E+09Y	1.00	7.501E+01	7.501E+01	14.41E+01	192.17	
		Total Activity :	9.080E+03	9.096E+03			
		Grand Total Activity :	9.080E+03	9.096E+03			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202003336 Acquisition date : 1-JAN-2010 17:18:27

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
1	65.99	119	447	0.96	131.18	121	14	3.96E-03	59.5	1.02E+00	T
0	198.53	160	652	1.09	396.39	391	11	5.34E-03	70.6	2.35E+00	T
0	295.05	92	381	0.85	589.54	585	10	3.08E-03	96.6	1.86E+00	T
0	1000.32	11	76	2.16	2000.95	1991	16	3.65E-04	****	7.54E-01	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 2-JAN-2010 01:39:16.59

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202003336.CNF;1 *
* Acquisition date  : 1-JAN-2010 17:18:27.  Detector SN#     :             *
* Detector ID       : GAM02                 Sensitivity      : 5.00000    *
* Geometry          : 2LMB                  Energy tolerance: 1.50000     *
* Elapsed live time: 0 08:20:00.00          Abundance limit : 75.00000    *
* Elapsed real time: 0 08:20:06.80          Half life ratio : 8.00000     *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 18-DEC-2009 12:00:00  Nuclide Library : LIQUID       *
* Sample ID         : G1202003336           Analyst initials: KXG3         *
* Batch Number      : 936274                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 17-JUN-2009 08:42:38.1MS Isotope      :               *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
K-40	1.577E+01	3.958E+01	2.172E+01	1.547E+00	0.726
AS-73	1.155E+02	1.048E+02	1.052E+02	8.381E+00	1.098
AS-74	6.302E+00	5.437E+00	6.432E+00	3.468E-01	0.980
BI-211	4.204E+01	1.598E+01	1.452E+01	9.534E-01	2.896
BI-214	1.133E+01	5.978E+00	4.732E+00	3.508E-01	2.395
TH-234	7.501E+01	1.441E+02	1.265E+02	2.217E+01	0.593
U-234	8.755E+03	8.791E+04	8.154E+03	8.155E+04	1.074
U-238	7.501E+01	1.441E+02	1.265E+02	2.217E+01	0.593

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	4.007E+00		1.406E+01	2.308E+01	1.582E+00	0.174
NA-22	-6.519E-01		1.509E+00	2.375E+00	1.534E-01	-0.275
NA-24	9.169E+00		7.082E+00	Half-Life too short		
AL-26	3.296E-01		1.427E+00	2.430E+00	1.424E-01	0.136

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TI-44	-9.718E-01		1.766E+00	2.924E+00	2.257E-01	-0.332
SC-46	4.941E-01		1.608E+00	2.672E+00	2.161E-01	0.185
V-48	-4.383E-01		2.729E+00	4.325E+00	3.293E-01	-0.101
CR-51	5.959E+00		1.687E+01	2.847E+01	1.858E+00	0.209
MN-52	8.098E-01		9.609E+00	1.577E+01	1.081E+00	0.051
MN-54	-8.971E-01		1.399E+00	2.161E+00	1.568E-01	-0.415
CO-56	-1.215E-02		1.696E+00	2.762E+00	2.052E-01	-0.004
CO-57	-1.707E-01		1.431E+00	2.347E+00	1.430E-01	-0.073
CO-58	9.875E-01		1.587E+00	2.711E+00	1.877E-01	0.364
FE-59	3.799E+00		3.447E+00	6.205E+00	4.589E-01	0.612
CO-60	-1.321E+00		2.065E+00	2.467E+00	1.715E-01	-0.535
ZN-65	-7.915E+00		3.432E+00	4.553E+00	2.878E-01	-1.738
GE-68	1.900E+01		4.394E+01	7.598E+01	5.113E+00	0.250
SE-75	7.360E-01		1.988E+00	3.394E+00	1.935E-01	0.217
BR-77	6.266E+01		3.491E+02	5.663E+02	3.275E+01	0.111
SR-82	8.675E+00		1.507E+01	2.572E+01	1.648E+00	0.337
RB-83	-1.521E-01		2.914E+00	4.654E+00	2.692E-01	-0.033
RB-84	3.087E-01		2.804E+00	4.592E+00	3.658E-01	0.067
KR-85	-2.363E+03		4.935E+02	5.981E+02	3.474E+01	-3.951
SR-85	-1.202E+01		2.510E+00	3.042E+00	1.767E-01	-3.951
RB-86	1.797E+01		2.689E+01	4.737E+01	3.191E+00	0.379
Y-88	-6.678E-01		1.670E+00	2.619E+00	1.510E-01	-0.255
ZR-88	1.194E-01		1.419E+00	2.334E+00	1.397E-01	0.051
Y-91	-2.020E+02		5.741E+02	9.170E+02	5.375E+01	-0.220
NB-94	-1.166E-01		1.326E+00	2.182E+00	1.180E-01	-0.053
NB-95	-4.332E-01		2.579E+00	3.448E+00	2.158E-01	-0.126
NB-95M	-2.405E+00		5.520E+00	9.234E+00	6.723E-01	-0.261
ZR-95	3.690E-01		2.860E+00	4.747E+00	3.466E-01	0.078
NB-97	-9.825E-01		9.431E-01	Half-Life too short		
ZR-97	-2.779E+02		2.945E+01	Half-Life too short		
MO-99	-4.197E+02		3.922E+02	5.886E+02	8.135E+01	-0.713
TC-99M	-3.747E+10		1.576E+11	Half-Life too short		
RH-101	4.243E+00	+	3.004E+00	2.951E+00	1.547E-01	1.438
RH-102	-5.244E-01		1.324E+00	2.088E+00	1.237E-01	-0.251
RU-103	2.412E+00		1.906E+00	3.245E+00	4.113E-01	0.743
RH-106	-4.434E+00		1.324E+01	2.165E+01	2.481E+00	-0.205
RU-106	-4.434E+00		1.323E+01	2.165E+01	1.128E+00	-0.205
AG-108M	2.161E-01		1.492E+00	2.446E+00	1.583E-01	0.088
CD-109	7.553E+00		4.432E+01	6.709E+01	5.444E+00	0.113
AG-110M	-7.492E-01		1.438E+00	2.313E+00	1.240E-01	-0.324
IN-111	-7.540E-01		4.064E+01	6.875E+01	3.803E+00	-0.011
IN-113M	1.485E-01		2.007E+00	3.302E+00	2.101E-01	0.045
SN-113	1.485E-01		2.007E+00	3.302E+00	2.101E-01	0.045
IN-114M	8.349E-01		8.786E+00	1.412E+01	7.345E-01	0.059
CD-115	3.620E+02		3.790E+02	6.422E+02	3.695E+01	0.564
SN-117M	9.636E-01		2.727E+00	4.471E+00	2.329E-01	0.216
SB-122	4.424E+00		6.800E+01	1.149E+02	6.415E+00	0.038
I-123	3.399E+01		5.542E+01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TE-123M	4.433E-01		1.446E+00	2.367E+00	1.252E-01	0.187
I-124	-5.482E+00		2.903E+01	4.170E+01	2.229E+00	-0.131
SB-124	-1.877E-01		3.805E+00	6.302E+00	4.245E-01	-0.030
SB-125	-1.778E+00		3.998E+00	6.342E+00	3.950E-01	-0.280
TE-125M	-1.603E+02		5.078E+02	8.330E+02	7.153E+01	-0.192
I-126	-5.232E+00		6.750E+00	1.062E+01	5.255E-01	-0.493
SB-126	-1.833E+00		5.305E+00	8.543E+00	4.820E-01	-0.215
SN-126	2.655E+00		4.325E+00	6.658E+00	5.390E-01	0.399
SB-127	3.759E+01		5.322E+01	9.176E+01	8.062E+00	0.410
XE-127	-1.810E+00		2.604E+00	3.564E+00	1.879E-01	-0.508
I-131	-1.416E+00		4.932E+00	8.013E+00	5.305E-01	-0.177
TE-132	-1.788E+01		2.894E+01	4.446E+01	6.254E+00	-0.402
BA-133	-8.732E-01		2.204E+00	3.106E+00	3.616E-01	-0.281
I-133	1.075E-01		7.182E-02	Half-Life too short		
CS-134	1.175E+00		1.816E+00	3.110E+00	2.103E-01	0.378
CS-135	1.135E+00		6.822E+00	1.155E+01	8.723E-01	0.098
I-135	-9.034E+09		1.379E+10	Half-Life too short		
CS-136	-3.125E+00		3.835E+00	5.967E+00	4.459E-01	-0.524
BA-137M	2.031E+00		1.447E+00	2.605E+00	1.274E-01	0.779
CS-137	2.147E+00		1.529E+00	2.754E+00	1.355E-01	0.779
CE-139	-2.961E-01		1.553E+00	2.494E+00	1.272E-01	-0.119
BA-140	-4.984E+00		1.097E+01	1.680E+01	5.461E+00	-0.297
LA-140	-1.915E+00		3.808E+00	6.052E+00	3.961E-01	-0.316
CE-141	-4.435E+00		3.298E+00	5.132E+00	2.920E-01	-0.864
CE-143	2.437E-03		2.958E-03	Half-Life too short		
CE-144	-8.041E-01		1.100E+01	1.797E+01	2.547E+00	-0.045
PM-144	3.809E-02		1.404E+00	2.330E+00	1.242E-01	0.016
PR-144	2.580E+00		9.512E+01	1.578E+02	8.409E+00	0.016
PM-146	4.302E-01		1.858E+00	3.052E+00	2.665E-01	0.141
ND-147	2.417E+00		2.366E+01	3.810E+01	5.143E+00	0.063
PM-149	-9.079E+02		3.281E+03	5.435E+03	7.690E+02	-0.167
EU-152	-2.779E+00		4.374E+00	7.019E+00	4.674E-01	-0.396
GD-153	1.707E+00		5.817E+00	7.345E+00	5.227E-01	0.232
EU-154	-1.710E+00		4.230E+00	6.673E+00	6.510E-01	-0.256
EU-155	-6.966E+00		7.355E+00	9.594E+00	6.478E-01	-0.726
TB-160	5.801E-01		5.699E+00	9.329E+00	7.401E-01	0.062
HO-166M	-8.120E-03		2.432E+00	4.019E+00	2.221E-01	-0.002
TM-171	3.369E+03	+	2.022E+03	2.887E+03	2.190E+02	1.167
HF-175	-1.491E+00		1.579E+00	2.495E+00	1.480E-01	-0.598
LU-176	1.080E-01		1.185E+00	1.984E+00	1.156E-01	0.054
LU-177	-2.029E+01		4.710E+01	7.373E+01	3.912E+00	-0.275
LU-177M	-1.621E+00		8.025E+00	1.296E+01	7.770E-01	-0.125
HF-181	-1.437E-01		1.875E+00	3.011E+00	1.779E-01	-0.048
W-181	4.130E+01	+	2.478E+01	3.769E+01	2.863E+00	1.096
TA-182	-2.784E+00		6.379E+00	1.012E+01	6.069E-01	-0.275
RE-183	-2.967E+00		7.439E+00	9.510E+00	4.898E-01	-0.312
RE-184	1.110E+01		1.112E+01	1.940E+01	1.082E+00	0.572
OS-185	-2.795E-01		1.666E+00	2.745E+00	1.378E-01	-0.102

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RE-188	-3.038E-01		8.633E+00	1.400E+01	7.374E-01	-0.022
W-188	-1.816E+01		3.694E+02	5.432E+02	3.132E+01	-0.033
IR-192	9.267E-01		1.596E+00	2.719E+00	1.602E-01	0.341
AU-195	-1.175E+01		1.570E+01	2.031E+01	1.423E+00	-0.579
TL-200	-7.390E-04		6.334E-03	Half-Life too short		
TL-201	-1.646E+02		3.023E+02	4.791E+02	2.443E+01	-0.343
TL-202	1.425E+00		2.862E+00	4.779E+00	2.859E-01	0.298
HG-203	1.178E+00		1.846E+00	3.170E+00	1.926E-01	0.372
BI-207	-3.359E-01		1.928E+00	3.177E+00	2.183E-01	-0.106
TL-207	-1.033E+01		3.045E+01	4.980E+01	8.240E+00	-0.207
TL-208	-2.994E+00		2.233E+00	2.762E+00	1.768E-01	-1.084
PO-209	-7.955E+01		2.970E+02	4.705E+02	3.861E+01	-0.169
BI-210	2.765E+01		4.499E+02	5.599E+02	4.293E+01	0.049
PB-210	2.765E+01		4.499E+02	5.599E+02	4.293E+01	0.049
PO-210	2.765E+01		4.499E+02	5.599E+02	3.679E+01	0.049
PB-211	-1.485E+01		4.143E+01	6.474E+01	4.037E+01	-0.229
BI-212	-1.341E+01		1.478E+01	1.831E+01	1.403E+00	-0.733
PB-212	-2.734E+00		3.747E+00	4.778E+00	3.387E-01	-0.572
PO-212	-2.734E+00		3.747E+00	4.778E+00	3.387E-01	-0.572
PB-214	1.463E+01	+	5.613E+00	7.353E+00	6.169E-01	1.989
PO-214	1.463E+01	+	5.613E+00	7.353E+00	6.169E-01	1.989
PO-215	-1.033E+01		3.045E+01	4.980E+01	8.240E+00	-0.207
PO-216	-2.734E+00		3.747E+00	4.778E+00	3.387E-01	-0.572
PO-218	1.463E+01	+	5.613E+00	7.353E+00	6.169E-01	1.989
RN-219	-2.164E-01		1.778E+01	2.907E+01	3.979E+00	-0.007
RN-220	-2.349E+02		1.150E+03	1.809E+03	1.023E+02	-0.130
RA-223	-1.033E+01		3.045E+01	4.980E+01	8.240E+00	-0.207
RA-224	-3.303E+01		3.039E+01	4.960E+01	2.731E+00	-0.666
RA-226	-5.793E+01		7.399E+01	8.416E+01	6.173E+01	-0.688
AC-227	-9.979E+00		1.826E+01	3.015E+01	4.184E+00	-0.331
PA-227	1.000E+35	+	3.001E+34	Half-Life too short		
TH-227	-9.979E+00		1.829E+01	3.015E+01	5.075E+00	-0.331
AC-228	4.411E+00		7.800E+00	9.877E+00	1.075E+00	0.447
RA-228	4.411E+00		7.800E+00	9.877E+00	1.075E+00	0.447
TH-228	-2.734E+00		3.747E+00	4.778E+00	3.387E-01	-0.572
TH-229	1.360E+01		2.806E+01	4.088E+01	2.134E+00	0.333
TH-230	6.169E+01		8.192E+02	1.095E+03	7.104E+03	0.056
PA-231	-3.388E+00		6.967E+01	1.166E+02	1.604E+01	-0.029
TH-231	-3.548E+01		3.457E+01	4.108E+01	7.199E+00	-0.864
U-231	-2.787E+01		5.736E+01	8.412E+01	6.094E+00	-0.331
TH-232	-3.020E+02		3.816E+03	3.226E+03	3.396E+04	-0.094
PA-233	3.168E-01		3.050E+00	5.103E+00	3.166E-01	0.062
PA-234	7.513E+00		1.265E+01	2.125E+01	3.921E+00	0.353
PA-234M	7.790E+01	+	3.655E+02	3.485E+02	3.131E+01	0.224
U-235	-6.314E+00		1.408E+01	1.907E+01	3.088E+00	-0.331
NP-236	-3.930E+00		4.224E+00	6.626E+00	3.433E-01	-0.593
NP-237	3.794E+00		1.190E+01	2.009E+01	4.449E+00	0.189
PU-237	-1.257E+02		1.506E+02	2.228E+02	1.693E+01	-0.564

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NP-239	-3.379E+00		1.031E+01	1.683E+01	1.042E+00	-0.201
AM-241	-9.209E+00		1.104E+01	1.632E+01	1.355E+00	-0.564
AM-243	-2.179E+00		3.002E+00	4.955E+00	3.783E-01	-0.440
CM-243	-5.015E+00		6.554E+00	8.545E+00	5.722E-01	-0.587
AM-246	-6.435E+00		5.135E+00	7.585E+00	5.092E-01	-0.848
CM-247	4.356E-01		1.583E+00	2.627E+00	1.574E-01	0.166
CF-249	1.562E-01		1.826E+00	3.008E+00	1.800E-01	0.052
CF-251	1.763E+00		6.436E+00	1.046E+01	5.369E-01	0.169
ANH-511	-5.487E+00		3.369E+00	4.334E+00	2.522E-01	-1.266

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202003336          *
* Acquisition date  :  1-JAN-2010 17:18:27 Detector SN#     :               *
* Detector ID       : GAM02                Sensitivity      : 5.000         *
* Geometry          : 2LMB                 Energy tolerance: 1.500          *
* Elapsed live time:    0 08:20:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 08:20:06.80      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 18-DEC-2009 12:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G1202003336          Analyst initials: KXG3           *
* Batch Number      : 936274               Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 17-JUN-2009 08:42:38 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
K-40	1.577E+01	3.879E+01	1.087E+01	1.979E+01
AS-73	1.155E+02	1.027E+02	5.263E+01	5.242E+01
AS-74	6.302E+00	5.329E+00	3.218E+00	2.719E+00
BI-211	4.204E+01	1.567E+01	7.263E+00	7.992E+00
BI-214	1.133E+01	5.859E+00	2.367E+00	2.989E+00
TH-234	7.501E+01	1.413E+02	6.328E+01	7.207E+01
U-234	8.755E+03	8.615E+04	4.080E+03	4.396E+04
U-238	7.501E+01	1.413E+02	6.328E+01	7.207E+01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU	
BE-7	4.007E+00	1.378E+01	1.155E+01	7.032E+00	NOT IDENT.
NA-22	-6.519E-01	1.479E+00	1.188E+00	7.547E-01	NOT IDENT.
NA-24	9.169E+06	1.388E+07	0.000E+00	7.082E+06	SHORT HLIF
AL-26	3.296E-01	1.398E+00	1.216E+00	7.135E-01	NOT IDENT.
TI-44	-9.718E-01	1.731E+00	1.463E+00	8.832E-01	NOT IDENT.
SC-46	4.941E-01	1.576E+00	1.337E+00	8.042E-01	NOT IDENT.
V-48	-4.383E-01	2.675E+00	2.164E+00	1.365E+00	NOT IDENT.
CR-51	5.959E+00	1.653E+01	1.424E+01	8.436E+00	NOT IDENT.
MN-52	8.098E-01	9.417E+00	7.889E+00	4.804E+00	NOT IDENT.
MN-54	-8.971E-01	1.371E+00	1.081E+00	6.996E-01	NOT IDENT.
CO-56	-1.215E-02	1.662E+00	1.382E+00	8.480E-01	NOT IDENT.
CO-57	-1.707E-01	1.402E+00	1.174E+00	7.153E-01	NOT IDENT.
CO-58	9.875E-01	1.555E+00	1.356E+00	7.934E-01	NOT IDENT.
FE-59	3.799E+00	3.379E+00	3.104E+00	1.724E+00	NOT IDENT.
CO-60	-1.321E+00	2.024E+00	1.234E+00	1.032E+00	NOT IDENT.
ZN-65	-7.915E+00	3.363E+00	2.278E+00	1.716E+00	NOT IDENT.
GE-68	1.900E+01	4.306E+01	3.801E+01	2.197E+01	NOT IDENT.
SE-75	7.360E-01	1.948E+00	1.698E+00	9.938E-01	FAIL ABUN
BR-77	6.266E+01	3.422E+02	2.833E+02	1.746E+02	NOT IDENT.

SR-82	8.675E+00	1.477E+01	1.287E+01	7.536E+00	NOT IDENT.
RB-83	-1.521E-01	2.855E+00	2.328E+00	1.457E+00	NOT IDENT.
RB-84	3.087E-01	2.748E+00	2.297E+00	1.402E+00	NOT IDENT.
KR-85	-2.363E+03	4.836E+02	2.992E+02	2.468E+02	NOT IDENT.
SR-85	-1.202E+01	2.460E+00	1.522E+00	1.255E+00	NOT IDENT.
RB-86	1.797E+01	2.635E+01	2.370E+01	1.344E+01	NOT IDENT.
Y-88	-6.678E-01	1.636E+00	1.310E+00	8.349E-01	NOT IDENT.
ZR-88	1.194E-01	1.390E+00	1.168E+00	7.094E-01	NOT IDENT.
Y-91	-2.020E+02	5.626E+02	4.588E+02	2.871E+02	NOT IDENT.
NB-94	-1.166E-01	1.300E+00	1.092E+00	6.632E-01	NOT IDENT.
NB-95	-4.332E-01	2.527E+00	1.725E+00	1.289E+00	NOT IDENT.
NB-95M	-2.405E+00	5.409E+00	4.620E+00	2.760E+00	NOT IDENT.
ZR-95	3.690E-01	2.803E+00	2.375E+00	1.430E+00	NOT IDENT.
NB-97	-9.825E+05	1.848E+06	0.000E+00	9.431E+05	SHORT HLIF
ZR-97	-2.779E+08	5.772E+07	0.000E+00	2.945E+07	SHORT HLIF
MO-99	-4.197E+02	3.844E+02	2.945E+02	1.961E+02	NOT IDENT.
TC-99M	-3.747E+16	3.090E+17	0.000E+00	0.000E+00	SHORT HLIF
RH-101	4.243E+00	2.944E+00	1.476E+00	1.502E+00	FAIL ABUN
RH-102	-5.244E-01	1.298E+00	1.045E+00	6.621E-01	NOT IDENT.
RU-103	2.412E+00	1.868E+00	1.624E+00	9.530E-01	FAIL ABUN
RH-106	-4.434E+00	1.297E+01	1.083E+01	6.618E+00	NOT IDENT.
RU-106	-4.434E+00	1.296E+01	1.083E+01	6.614E+00	NOT IDENT.
AG-108M	2.161E-01	1.463E+00	1.224E+00	7.462E-01	NOT IDENT.
CD-109	7.553E+00	4.343E+01	3.356E+01	2.216E+01	NOT IDENT.
AG-110M	-7.492E-01	1.410E+00	1.157E+00	7.192E-01	NOT IDENT.
IN-111	-7.540E-01	3.983E+01	3.439E+01	2.032E+01	NOT IDENT.
IN-113M	1.485E-01	1.967E+00	1.652E+00	1.004E+00	NOT IDENT.
SN-113	1.485E-01	1.967E+00	1.652E+00	1.004E+00	NOT IDENT.
IN-114M	8.349E-01	8.610E+00	7.066E+00	4.393E+00	NOT IDENT.
CD-115	3.620E+02	3.715E+02	3.213E+02	1.895E+02	NOT IDENT.
SN-117M	9.636E-01	2.672E+00	2.237E+00	1.363E+00	NOT IDENT.
SB-122	4.424E+00	6.664E+01	5.750E+01	3.400E+01	NOT IDENT.
I-123	3.399E+07	1.086E+08	0.000E+00	5.542E+07	SHORT HLIF
TE-123M	4.433E-01	1.417E+00	1.184E+00	7.229E-01	NOT IDENT.
I-124	-5.482E+00	2.845E+01	2.086E+01	1.452E+01	NOT IDENT.
SB-124	-1.877E-01	3.729E+00	3.153E+00	1.903E+00	NOT IDENT.
SB-125	-1.778E+00	3.918E+00	3.173E+00	1.999E+00	NOT IDENT.
TE-125M	-1.603E+02	4.977E+02	4.167E+02	2.539E+02	NOT IDENT.
I-126	-5.232E+00	6.615E+00	5.313E+00	3.375E+00	NOT IDENT.
SB-126	-1.833E+00	5.199E+00	4.274E+00	2.652E+00	FAIL ABUN
SN-126	2.655E+00	4.239E+00	3.331E+00	2.163E+00	FAIL ABUN
SB-127	3.759E+01	5.216E+01	4.591E+01	2.661E+01	NOT IDENT.
XE-127	-1.810E+00	2.552E+00	1.783E+00	1.302E+00	NOT IDENT.
I-131	-1.416E+00	4.834E+00	4.009E+00	2.466E+00	NOT IDENT.
TE-132	-1.788E+01	2.836E+01	2.224E+01	1.447E+01	NOT IDENT.
BA-133	-8.732E-01	2.160E+00	1.554E+00	1.102E+00	FAIL ABUN
I-133	1.075E+05	1.408E+05	0.000E+00	7.182E+04	SHORT HLIF
CS-134	1.175E+00	1.780E+00	1.556E+00	9.082E-01	NOT IDENT.
CS-135	1.135E+00	6.685E+00	5.780E+00	3.411E+00	NOT IDENT.
I-135	-9.034E+15	2.702E+16	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-3.125E+00	3.759E+00	2.985E+00	1.918E+00	FAIL ABUN
BA-137M	2.031E+00	1.418E+00	1.303E+00	7.233E-01	NOT IDENT.
CS-137	2.147E+00	1.499E+00	1.378E+00	7.646E-01	NOT IDENT.
CE-139	-2.961E-01	1.522E+00	1.248E+00	7.765E-01	NOT IDENT.
BA-140	-4.984E+00	1.075E+01	8.405E+00	5.483E+00	NOT IDENT.
LA-140	-1.915E+00	3.732E+00	3.028E+00	1.904E+00	NOT IDENT.
CE-141	-4.435E+00	3.232E+00	2.567E+00	1.649E+00	NOT IDENT.
CE-143	2.437E+03	5.798E+03	0.000E+00	2.958E+03	SHORT HLIF
CE-144	-8.041E-01	1.078E+01	8.992E+00	5.500E+00	NOT IDENT.
PM-144	3.809E-02	1.376E+00	1.166E+00	7.021E-01	NOT IDENT.
PR-144	2.580E+00	9.322E+01	7.895E+01	4.756E+01	NOT IDENT.
PM-146	4.302E-01	1.821E+00	1.527E+00	9.291E-01	NOT IDENT.
ND-147	2.417E+00	2.319E+01	1.906E+01	1.183E+01	FAIL ABUN
PM-149	-9.079E+02	3.215E+03	2.719E+03	1.641E+03	NOT IDENT.
EU-152	-2.779E+00	4.287E+00	3.512E+00	2.187E+00	NOT IDENT.
GD-153	1.707E+00	5.700E+00	3.675E+00	2.908E+00	NOT IDENT.
EU-154	-1.710E+00	4.145E+00	3.338E+00	2.115E+00	NOT IDENT.
EU-155	-6.966E+00	7.208E+00	4.800E+00	3.678E+00	NOT IDENT.
TB-160	5.801E-01	5.585E+00	4.667E+00	2.850E+00	FAIL ABUN
HO-166M	-8.120E-03	2.383E+00	2.011E+00	1.216E+00	NOT IDENT.
TM-171	3.369E+03	1.981E+03	1.444E+03	1.011E+03	FAIL ABUN
HF-175	-1.491E+00	1.548E+00	1.248E+00	7.897E-01	NOT IDENT.
LU-176	1.080E-01	1.161E+00	9.924E-01	5.925E-01	NOT IDENT.
LU-177	-2.029E+01	4.615E+01	3.689E+01	2.355E+01	NOT IDENT.
LU-177M	-1.621E+00	7.864E+00	6.485E+00	4.012E+00	FAIL ABUN
HF-181	-1.437E-01	1.838E+00	1.506E+00	9.377E-01	FAIL ABUN
W-181	4.130E+01	2.429E+01	1.886E+01	1.239E+01	FAIL ABUN
TA-182	-2.784E+00	6.251E+00	5.063E+00	3.189E+00	FAIL ABUN

RE-183	-2.967E+00	7.290E+00	4.758E+00	3.720E+00	FAIL ABUN
RE-184	1.110E+01	1.090E+01	9.706E+00	5.562E+00	FAIL ABUN
OS-185	-2.795E-01	1.633E+00	1.373E+00	8.330E-01	NOT IDENT.
RE-188	-3.038E-01	8.460E+00	7.003E+00	4.316E+00	NOT IDENT.
W-188	-1.816E+01	3.620E+02	2.718E+02	1.847E+02	FAIL ABUN
IR-192	9.267E-01	1.564E+00	1.360E+00	7.980E-01	FAIL ABUN
AU-195	-1.175E+01	1.539E+01	1.016E+01	7.852E+00	FAIL ABUN
TL-200	-7.390E+02	1.242E+04	0.000E+00	6.334E+03	SHORT HLIF
TL-201	-1.646E+02	2.962E+02	2.397E+02	1.511E+02	NOT IDENT.
TL-202	1.425E+00	2.805E+00	2.391E+00	1.431E+00	NOT IDENT.
HG-203	1.178E+00	1.810E+00	1.586E+00	9.232E-01	NOT IDENT.
BI-207	-3.359E-01	1.890E+00	1.589E+00	9.642E-01	NOT IDENT.
TL-207	-1.033E+01	2.984E+01	2.492E+01	1.523E+01	NOT IDENT.
TL-208	-2.994E+00	2.188E+00	1.382E+00	1.116E+00	NOT IDENT.
PO-209	-7.955E+01	2.911E+02	2.354E+02	1.485E+02	NOT IDENT.
BI-210	2.765E+01	4.409E+02	2.801E+02	2.250E+02	NOT IDENT.
PB-210	2.765E+01	4.409E+02	2.801E+02	2.250E+02	NOT IDENT.
PO-210	2.765E+01	4.409E+02	2.801E+02	2.250E+02	NOT IDENT.
PB-211	-1.485E+01	4.060E+01	3.239E+01	2.072E+01	NOT IDENT.
BI-212	-1.341E+01	1.449E+01	9.160E+00	7.391E+00	NOT IDENT.
PB-212	-2.734E+00	3.672E+00	2.390E+00	1.873E+00	NOT IDENT.
PO-212	-2.734E+00	3.672E+00	2.390E+00	1.873E+00	NOT IDENT.
PB-214	1.463E+01	5.500E+00	3.679E+00	2.806E+00	FAIL ABUN
PO-214	1.463E+01	5.500E+00	3.679E+00	2.806E+00	FAIL ABUN
PO-215	-1.033E+01	2.984E+01	2.492E+01	1.523E+01	NOT IDENT.
PO-216	-2.734E+00	3.672E+00	2.390E+00	1.873E+00	NOT IDENT.
PO-218	1.463E+01	5.500E+00	3.679E+00	2.806E+00	FAIL ABUN
RN-219	-2.164E-01	1.742E+01	1.454E+01	8.890E+00	NOT IDENT.
RN-220	-2.349E+02	1.127E+03	9.049E+02	5.748E+02	NOT IDENT.
RA-223	-1.033E+01	2.984E+01	2.492E+01	1.523E+01	NOT IDENT.
RA-224	-3.303E+01	2.979E+01	2.482E+01	1.520E+01	NOT IDENT.
RA-226	-5.793E+01	7.251E+01	4.210E+01	3.700E+01	NOT IDENT.
AC-227	-9.979E+00	1.790E+01	1.509E+01	9.132E+00	NOT IDENT.
PA-227	1.000E+41	5.882E+40	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-9.979E+00	1.792E+01	1.509E+01	9.144E+00	NOT IDENT.
AC-228	4.411E+00	7.644E+00	4.941E+00	3.900E+00	NOT IDENT.
RA-228	4.411E+00	7.644E+00	4.941E+00	3.900E+00	NOT IDENT.
TH-228	-2.734E+00	3.672E+00	2.390E+00	1.873E+00	NOT IDENT.
TH-229	1.360E+01	2.750E+01	2.045E+01	1.403E+01	NOT IDENT.
TH-230	6.169E+01	8.028E+02	5.479E+02	4.096E+02	NOT IDENT.
PA-231	-3.388E+00	6.828E+01	5.834E+01	3.484E+01	NOT IDENT.
TH-231	-3.548E+01	3.388E+01	2.055E+01	1.729E+01	NOT IDENT.
U-231	-2.787E+01	5.621E+01	4.208E+01	2.868E+01	FAIL ABUN
TH-232	-3.020E+02	3.739E+03	1.614E+03	1.908E+03	NOT IDENT.
PA-233	3.168E-01	2.989E+00	2.553E+00	1.525E+00	NOT IDENT.
PA-234	7.513E+00	1.240E+01	1.063E+01	6.327E+00	FAIL ABUN
PA-234M	7.790E+01	3.582E+02	1.743E+02	1.827E+02	FAIL ABUN
U-235	-6.314E+00	1.379E+01	9.540E+00	7.038E+00	FAIL ABUN
NP-236	-3.930E+00	4.139E+00	3.315E+00	2.112E+00	NOT IDENT.
NP-237	3.794E+00	1.166E+01	1.005E+01	5.951E+00	NOT IDENT.
PU-237	-1.257E+02	1.476E+02	1.114E+02	7.529E+01	NOT IDENT.
NP-239	-3.379E+00	1.010E+01	8.422E+00	5.154E+00	NOT IDENT.
AM-241	-9.209E+00	1.082E+01	8.166E+00	5.519E+00	NOT IDENT.
AM-243	-2.179E+00	2.942E+00	2.479E+00	1.501E+00	NOT IDENT.
CM-243	-5.015E+00	6.423E+00	4.275E+00	3.277E+00	NOT IDENT.
AM-246	-6.435E+00	5.032E+00	3.795E+00	2.568E+00	NOT IDENT.
CM-247	4.356E-01	1.551E+00	1.314E+00	7.916E-01	NOT IDENT.
CF-249	1.562E-01	1.790E+00	1.505E+00	9.130E-01	NOT IDENT.
CF-251	1.763E+00	6.307E+00	5.233E+00	3.218E+00	NOT IDENT.
ANH-511	-5.487E+00	3.301E+00	2.168E+00	1.684E+00	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	366.4111
46.50	366.4111
46.50	366.4111
48.70	405.3573
49.72	402.6428
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52.97	386.9177
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53.20	387.2125
53.44	387.5202
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56.28	413.2105
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57.53	401.5332
57.60	401.6194
57.98	402.0967
57.98	402.0967
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59.32	401.7102
59.32	401.7102
59.40	432.7174
59.54	438.0569
59.54	438.0569
59.72	438.2981
60.01	451.5884
61.10	411.6590
61.14	411.7087
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63.00	412.2607
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63.29	412.6129
63.58	412.9644
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64.62	0.0000
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65.20	414.9141
65.20	414.9141
66.05	415.9270
66.72	439.5268
66.83	439.6670
66.91	430.5497
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67.20	430.9039
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68.90	454.1416
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72.87	487.1783
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74.81	513.0015
74.81	513.0015
74.81	513.0015
74.81	513.0015
74.81	513.0015

74.81	513.0015
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77.11	504.3419
77.11	504.3419
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79.80	520.5082
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80.18	482.8149
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81.07	494.8197
81.07	494.8197
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83.78	508.2053
83.78	508.2053
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84.21	504.1408
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86.59	484.8495
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86.94	496.8961
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87.30	480.1136
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87.30	480.1136
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87.30	480.1136
87.30	480.1136
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88.47	491.1680
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89.95	537.5319
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92.38	506.3565
92.38	506.3565
93.35	507.4626
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94.67	522.1248
94.67	522.1304
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94.90	537.9294
94.90	537.9294
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95.87	556.0624
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97.43	469.9373
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98.44	520.7665
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99.55	505.8475
99.86	512.8434
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100.10	522.6318

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105.31	520.6624
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111.00	531.5452
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115.19	546.7161
115.19	546.7161
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117.00	525.9632
117.66	539.4435
121.11	557.8438
121.62	578.2435
121.78	564.5014
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122.32	559.0958
122.32	559.0958
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131.20	549.9102
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144.24	527.0581
144.24	527.0581
144.24	527.0581
145.22	601.3962
145.44	601.6149
147.16	547.2214
152.43	503.6643
152.70	490.2612
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154.21	479.8676
154.21	479.8676
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158.56	488.3842
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162.32	515.6234
162.64	502.0425
163.35	488.7334
163.89	488.0647
165.85	516.2043
167.43	505.6196
171.28	462.1360
171.86	488.3998
172.10	504.7434
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176.60	459.1407
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184.41	460.8490
185.71	466.0575
186.00	482.7374
186.21	482.8759
190.27	434.6411
192.34	448.0355
193.63	419.9128

197.04	458.6122
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198.60	437.1743
200.40	405.1283
201.83	446.2858
202.84	467.0952
205.31	412.7366
208.36	427.8955
208.81	412.2808
209.75	394.6152
209.75	394.6152
210.97	413.3806
215.65	413.4697
216.55	411.6321
218.09	375.7399
222.10	428.1875
223.80	371.3790
226.40	355.1593
227.00	382.0358
227.08	382.0728
227.20	382.1231
228.16	398.7788
228.18	398.7893
228.18	398.7893
231.56	0.0000
235.69	431.4684
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236.00	403.5493
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238.63	392.4277
238.63	392.4277
238.63	392.4277
239.00	410.1925
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241.98	416.8568
241.98	416.8568
241.98	416.8568
244.69	356.0990
245.39	360.8076
247.94	352.9239
248.90	344.3943
249.79	364.3218
252.40	332.2973
252.85	328.8843
252.85	328.8843
254.15	0.0000
256.20	368.6307
256.20	368.6307
260.50	337.8697
260.90	336.2100
262.80	318.8128
264.65	297.7095
268.24	296.0891
268.79	288.9833
269.46	295.5479
269.46	295.5479
269.46	295.5479
271.23	290.6124
273.65	306.8533
276.40	310.4465
277.35	305.2415
277.60	297.9828
277.60	297.9828
278.00	288.0122
278.60	281.7602
279.20	299.3772
279.53	315.0936
280.46	332.8515
281.68	308.3987
283.67	290.5540
284.30	291.6597
285.00	299.2462
285.90	293.9617
286.10	294.0200
286.10	294.0200
287.40	283.2844
288.45	0.0000
290.67	285.2953

290.80	285.3328
291.72	300.4553
293.26	0.0000
293.70	283.1445
295.21	299.4093
295.21	299.4093
295.21	299.4093
295.96	298.6914
296.50	304.8196
297.23	281.1050
298.57	281.4630
299.80	281.7888
299.80	281.7888
300.09	281.8669
300.09	281.8669
300.09	281.8669
300.09	281.8669
300.12	281.8715
301.29	300.1953
302.84	312.8430
303.76	277.3817
303.91	284.9409
304.40	280.3663
304.40	280.3663
304.84	274.8327
306.84	289.4895
308.46	307.8635
311.98	278.5365
316.51	251.1456
318.01	273.3936
319.02	285.0802
319.41	274.6890
320.08	252.9016
323.87	274.8256
323.87	274.8256
323.87	274.8256
325.23	268.4430
328.77	250.0461
329.70	261.7983
329.70	261.7983
330.00	265.7157
333.44	235.6118
334.20	241.5619
334.20	241.5619
334.30	241.5848
338.28	236.5947
338.28	236.5947
338.28	236.5947
338.32	236.6021
338.32	236.6021
340.50	229.2696
340.57	233.1702
343.40	252.2341
344.27	247.5469
345.85	199.0818
350.59	0.0000
351.07	219.5532
351.92	219.7070
351.92	219.7070
351.92	219.7070
355.39	0.0000
356.01	229.8965
364.48	220.9822
366.43	198.5016
367.43	200.6469
367.94	0.0000
369.80	199.0356
374.96	201.8490
383.85	217.3414
387.95	209.9551
388.63	240.3624
391.69	203.4689
391.69	203.4689
392.90	212.7750
398.62	208.6066
400.65	210.9640
401.10	200.8386
401.81	184.6263

402.60	176.5690
404.84	194.2415
410.95	226.9536
411.60	219.8712
413.65	205.7922
414.70	186.3856
415.30	180.2845
415.76	181.3765
417.63	0.0000
418.52	238.5325
423.70	181.3793
427.08	190.1289
427.89	176.7236
432.53	155.4001
433.00	150.2358
433.93	178.5199
439.47	160.3470
439.56	151.9728
439.89	153.0554
443.98	154.5411
444.90	186.1962
445.03	186.2124
445.03	186.2124
445.03	186.2124
453.90	149.2381
463.38	181.0789
468.07	168.8201
473.00	164.0088
475.06	171.7432
475.35	180.3636
476.78	186.9804
477.59	150.5231
477.96	141.9560
482.03	157.4241
484.57	155.5225
487.03	164.4200
490.36	0.0000
492.35	173.6597
497.08	143.6982
507.63	0.0000
510.53	0.0000
510.84	167.9893
511.00	168.0044
511.85	214.2364
511.85	214.2364
513.99	530.2360
513.99	530.2360
520.41	131.4200
520.65	123.7100
527.90	124.2500
528.96	0.0000
529.64	127.7115
529.87	0.0000
531.02	136.7084
537.32	141.6813
543.00	130.9609
546.56	0.0000
549.76	135.9699
552.65	130.5708
555.20	134.3692
563.23	130.4543
563.90	126.8818
568.70	133.5848
569.32	136.3586
569.50	136.3733
569.67	141.8435
573.80	137.6142
574.00	137.6290
574.64	137.6769
578.91	169.0790
579.30	0.0000
583.14	142.9099
585.48	142.1754
591.81	141.1333
592.07	141.1558
593.00	121.2709
595.88	141.1403
600.56	138.7207

602.52	0.0000
602.71	154.3131
602.71	154.3131
603.60	157.4741
604.41	154.4556
604.70	160.6592
609.31	135.6560
610.33	154.9438
612.46	128.7486
614.37	114.9023
618.01	130.6809
621.84	127.2012
621.84	127.2012
631.29	122.1892
633.02	105.3637
633.10	105.3691
634.78	129.9410
635.90	129.0730
636.97	116.8918
645.85	105.1113
646.12	106.0719
656.30	117.0872
657.75	126.6974
657.90	0.0000
661.65	94.4923
661.65	94.4923
664.57	0.0000
666.33	118.6295
666.33	118.6295
675.00	100.8805
677.61	119.2864
685.20	119.7284
692.80	124.0406
695.00	116.4111
696.49	116.4932
696.49	116.4932
697.00	114.5804
697.49	113.6351
698.33	112.7092
698.50	118.5479
699.00	110.8021
702.63	110.9914
706.10	110.1971
706.58	0.0000
706.67	110.2274
709.31	94.7384
711.68	105.5980
713.82	105.7034
717.42	92.1549
720.50	102.1059
721.93	0.0000
722.20	96.2893
722.78	111.0578
722.78	111.0578
722.89	114.0119
722.95	114.0147
723.30	115.0176
724.18	101.2951
727.18	106.3600
733.00	79.9816
735.90	96.8970
739.58	114.8842
742.81	93.2335
744.21	87.3361
747.13	110.3090
751.79	83.6514
752.31	84.6659
753.82	104.6591
755.35	104.7283
756.15	98.7801
756.87	103.8019
763.13	137.1171
763.93	140.1709
765.79	95.1925
766.42	83.1925
766.84	85.2117
776.49	89.5997
778.00	99.7323

778.57	110.8406
778.89	109.8489
783.80	87.8645
785.46	102.0751
792.07	88.1767
795.84	86.2887
796.30	84.2746
798.80	113.8402
801.93	93.6352
805.60	75.4327
810.29	86.8158
810.76	82.7462
815.85	110.5655
817.79	87.0897
818.51	88.1395
819.60	70.7486
826.30	92.5378
828.27	0.0000
831.60	89.6487
831.96	91.7226
834.83	92.8630
836.80	0.0000
846.75	100.5712
848.13	109.9647
856.28	0.0000
856.80	98.8965
860.37	74.0178
867.32	86.7670
867.82	87.8288
871.10	87.9436
873.19	86.9676
874.81	84.9274
875.33	0.0000
876.40	91.2735
879.36	82.9770
880.27	87.2108
880.51	90.3714
881.50	80.9440
883.24	81.0004
884.67	92.6234
889.25	80.1340
896.60	82.4770
898.02	68.7689
899.00	74.0862
903.28	76.3277
911.07	69.1133
911.07	69.1133
919.63	61.8700
920.93	72.5721
925.00	81.2343
925.24	81.2417
926.50	85.5586
935.52	83.7015
937.48	83.7624
944.10	73.2013
946.00	76.4845
949.00	93.8245
962.29	75.8584
964.01	109.5194
966.15	84.6460
968.20	72.7627
969.11	81.4764
969.11	81.4764
977.42	73.0032
980.50	59.9938
983.50	75.3458
989.30	67.8413
996.32	56.6757
1001.03	54.9377
1001.68	58.6133
1004.76	62.8683
1021.30	0.0000
1024.50	0.0000
1034.80	70.4058
1036.00	81.5547
1037.82	83.4595
1038.57	77.9160
1038.76	0.0000

1045.16	66.9346
1046.59	76.2677
1048.07	78.1689
1050.47	81.9557
1050.47	81.9557
1062.04	72.9250
1063.62	70.1569
1076.63	53.5488
1077.35	57.3215
1078.86	78.9722
1085.78	59.3650
1093.90	77.4723
1099.22	60.5703
1112.02	57.9718
1112.84	57.0361
1115.52	112.2671
1120.29	54.3119
1120.51	56.2224
1121.28	62.9089
1124.00	0.0000
1129.67	62.1198
1131.51	0.0000
1147.95	0.0000
1167.94	64.7999
1173.22	62.9688
1175.09	67.8495
1177.93	65.9691
1189.05	54.5120
1204.90	58.6841
1205.75	0.0000
1213.00	51.9627
1221.42	68.8037
1230.97	66.0404
1235.34	51.3208
1236.41	0.0000
1238.25	65.1917
1246.25	41.5830
1260.41	0.0000
1271.85	51.8646
1274.45	56.8933
1274.54	56.8956
1291.56	35.1054
1298.22	0.0000
1312.09	63.5537
1325.50	42.5264
1325.50	42.5264
1332.49	54.7822
1333.61	48.7109
1360.21	51.1088
1362.66	0.0000
1365.15	62.4347
1368.21	46.0968
1368.53	0.0000
1376.25	40.0363
1384.27	51.4384
1394.10	52.6041
1395.20	51.5869
1407.95	46.5839
1434.06	48.9851
1436.60	46.9318
1457.56	0.0000
1460.81	37.7783
1489.15	34.8772
1509.49	44.6130
1596.49	52.9922
1620.62	38.3331
1678.03	0.0000
1691.02	39.9009
1691.02	39.9009
1706.46	0.0000
1750.46	0.0000
1764.49	23.1696
1770.23	28.7560
1771.40	30.4552
1791.20	0.0000
1808.65	27.2861
1836.01	35.2831

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202003336

Total Uranium Activity	2.2022E+02	ug/g
Total Uranium Counting Unc.	4.2028E+02	ug/g
Total Uranium Tpu	2.1443E-04	ug/g
Total Uranium Mda	1.8832E+02	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 936274                    SAMPLE ID   : G1202003336       *
*   ANALYST       : KXG3                      DETECTOR    : GAM02             *
*   SAMPLE DATE   : 18-DEC-2009 12:00:00.00   COUNT TIME :    0 08:20:00.00   *
*   ANALYSIS DATE:  1-JAN-2010 17:18:27.20    SAMPLE ALQT:    2.000 LITER     *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 5.077E+01
        GROSS GAMMA ERROR   (pCi/LITER )  : 2.492E+01
        GROSS GAMMA MDA     (pCi/LITER )  : 5.723E+01
        GROSS GAMMA DLC     (pCi/LITER )  : 2.780E+01
```

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 17:42:20.95

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202003337.CNF;1
Sample date       : 24-DEC-2009 00:00:00 Acquisition date : 31-DEC-2009 16:41:51
Sample ID         : G1202003337          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM01                Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:00.69  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 936274               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.49	932	364	1.18	119.75	114	10	2.59E-01	5.0	
2	0	88.01	572	280	1.31	176.79	171	11	1.59E-01	7.0	
3	0	92.30*	2	184	1.38	185.36	182	8	5.34E-04	*****	
4	0	122.08	121	260	1.09	244.92	239	12	3.36E-02	28.2	
5	0	185.19*	62	160	1.84	371.13	366	11	1.72E-02	43.1	
6	0	628.00	16	31	1.21	1256.56	1250	10	4.33E-03	72.7	
7	0	661.59	920	31	1.34	1323.71	1318	14	2.56E-01	3.5	
8	0	1172.79	793	25	1.86	2345.69	2339	14	2.20E-01	3.8	
9	0	1331.99	762	4	1.87	2663.91	2657	14	2.12E-01	3.7	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 31-DEC-2009 17:42:23

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202003337.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 24-DEC-2009 00:00:00 Acquisition date : 31-DEC-2009 16:41:51
Sample ID : G1202003337 Sample quantity : 2.0000 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA1 Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:00.69 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-57	+	122.06	*	2.322E+01	1.318E+01	1.115E+01	7.679E-01	2.083
		136.48		-1.134E+01	5.417E+01	9.068E+01	6.512E+00	-0.125
CO-60	+	1173.22		5.121E+02	4.795E+01	1.750E+01	9.622E-01	29.255
	+	1332.49	*	5.457E+02	5.741E+01	9.510E+00	7.193E-01	57.384
CD-109	+	88.03	*	3.194E+03	5.253E+02	3.619E+02	3.079E+01	8.824
SN-126		64.28		-2.169E+01	1.760E+02	2.764E+02	4.166E+01	-0.078
	+	86.94		1.320E+03	5.762E+02	1.520E+02	6.283E+01	8.679
	+	87.57	*	3.174E+02	5.221E+01	3.622E+01	3.075E+00	8.764
BA-137M	+	661.65	*	4.129E+02	3.571E+01	1.334E+01	6.625E-01	30.947
CS-137	+	661.65	*	4.365E+02	3.782E+01	1.410E+01	7.043E-01	30.947
RA-226	+	186.21	*	3.224E+02	3.650E+02	2.736E+02	2.007E+02	1.178
TH-232	+	59.00	*	2.639E+05	2.779E+06	2.135E+04	2.248E+05	12.361
PU-237	+	59.54	*	1.721E+04	2.296E+03	1.345E+03	1.179E+02	12.794
AM-241	+	59.54	*	1.397E+03	1.921E+02	1.092E+02	1.024E+01	12.794

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	5.574E+01	8.416E+01	1.424E+02	9.724E+00	0.391
NA-22		1274.54	*	-9.713E-01	5.690E+00	9.118E+00	6.195E-01	-0.107
NA-24		1368.53	*	-7.905E-03	5.690E+00	Half-Life too short		
AL-26		1129.67		2.243E+01	3.946E+02	6.395E+02	3.652E+01	0.035
		1808.65	*	1.597E+00	6.276E+00	1.095E+01	6.410E-01	0.146
K-40		1460.81	*	1.273E+01	6.273E+01	1.226E+02	9.299E+00	0.104
TI-44		67.85		4.947E+00	1.444E+01	2.379E+01	1.966E+00	0.208
		78.38	*	2.038E-01	1.037E+01	1.670E+01	1.366E+00	0.012
SC-46		889.25	*	1.089E+01	1.130E+01	2.013E+01	1.278E+00	0.541
		1120.51		-8.358E+00	1.150E+01	1.675E+01	9.633E-01	-0.499
V-48		944.10		8.717E+01	2.078E+02	3.517E+02	2.225E+01	0.248
		983.50	*	-1.215E+01	1.423E+01	2.068E+01	1.290E+00	-0.587
		1312.09		-4.163E+00	8.142E+00	1.181E+01	8.603E-01	-0.353
CR-51		320.08	*	2.807E+01	7.830E+01	1.317E+02	8.804E+00	0.213
MN-52		744.21		-5.374E+00	2.221E+01	3.570E+01	1.951E+00	-0.151

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		848.13		4.176E+02	7.890E+02	1.359E+03	8.290E+01	0.307
		935.52		9.842E+00	3.014E+01	5.111E+01	3.242E+00	0.193
		1246.25		5.138E+01	4.159E+02	7.113E+02	4.562E+01	0.072
		1333.61		2.613E+04	2.799E+03	4.574E+03	3.459E+02	5.714
		1434.06	*	4.156E+00	1.232E+01	2.242E+01	1.651E+00	0.185
MN-54		834.83	*	-3.685E+00	8.358E+00	1.297E+01	7.808E-01	-0.284
CO-56		846.75	*	-3.590E+00	1.120E+01	1.779E+01	1.084E+00	-0.202
		977.42		3.828E+02	7.570E+02	1.299E+03	8.119E+01	0.295
		1037.82		-4.983E+01	8.115E+01	1.214E+02	8.146E+00	-0.411
		1175.09		1.726E+04	1.794E+03	3.429E+03	1.893E+02	5.032
		1238.25		-5.808E+00	1.155E+01	1.754E+01	1.166E+00	-0.331
		1360.21		-9.819E+01	1.414E+02	1.903E+02	1.431E+01	-0.516
		1771.40		-2.208E+01	4.033E+01	5.335E+01	3.230E+00	-0.414
CO-58		810.76	*	9.290E-02	9.556E+00	1.573E+01	9.285E-01	0.006
FE-59		142.65		-3.488E+01	6.301E+02	1.064E+03	6.534E+01	-0.033
		192.34		8.497E+01	2.122E+02	3.630E+02	4.261E+01	0.234
		1099.22	*	-1.037E+01	2.201E+01	3.339E+01	2.281E+00	-0.311
		1291.56		-4.605E-01	1.695E+01	2.811E+01	2.362E+00	-0.016
ZN-65		1115.52	*	1.919E+01	2.213E+01	3.917E+01	2.267E+00	0.490
GE-68		1077.35	*	2.968E+01	3.321E+02	5.415E+02	3.213E+01	0.055
AS-73		53.44	*	1.422E+02	4.326E+02	6.819E+02	6.180E+01	0.208
AS-74		595.88	*	1.049E+01	1.588E+01	2.825E+01	1.533E+00	0.371
		634.78		-2.835E+01	6.321E+01	1.005E+02	5.197E+00	-0.282
SE-75		66.05		-1.188E+03	1.538E+03	2.376E+03	2.424E+02	-0.500
		96.73		1.720E+01	2.330E+02	3.334E+02	4.354E+01	0.052
	+	121.11		1.219E+02	6.973E+01	7.598E+01	7.561E+00	1.604
		136.00		-1.263E+00	9.777E+00	1.643E+01	1.055E+00	-0.077
		198.60		1.277E+02	4.382E+02	7.447E+02	5.231E+01	0.172
		264.65	*	-3.383E+00	1.113E+01	1.804E+01	1.085E+00	-0.188
		279.53		2.644E+00	2.484E+01	4.127E+01	2.663E+00	0.064
		303.91		1.273E+02	4.945E+02	8.272E+02	8.014E+01	0.154
		400.65		-1.331E+01	6.461E+01	1.028E+02	9.438E+00	-0.129
BR-77	+	87.88		7.963E+04	1.310E+04	1.743E+04	1.482E+03	4.568
		200.40		3.600E+03	4.779E+03	8.309E+03	4.724E+02	0.433
		239.00		-1.649E+02	2.719E+02	4.412E+02	2.586E+01	-0.374
		249.79		-1.493E+03	2.079E+03	3.291E+03	1.943E+02	-0.454
		281.68		-2.476E+03	2.584E+03	3.960E+03	2.377E+02	-0.625
		297.23		-6.722E+02	1.465E+03	2.329E+03	1.405E+02	-0.289
		303.76		-9.298E+02	5.152E+03	8.351E+03	5.044E+02	-0.111
		439.47		-1.050E+03	4.645E+03	7.339E+03	4.353E+02	-0.143
		484.57		-2.553E+03	6.872E+03	1.060E+04	6.227E+02	-0.241
		520.65	*	1.249E+02	3.429E+02	5.652E+02	3.265E+01	0.221
		574.64		1.909E+03	5.627E+03	9.739E+03	5.400E+02	0.196
		578.91		-7.435E+02	2.395E+03	3.903E+03	2.155E+02	-0.191
		585.48		2.694E+03	4.503E+03	7.946E+03	4.360E+02	0.339
		755.35		1.937E+03	4.603E+03	7.940E+03	4.394E+02	0.244
		817.79		-3.067E+03	4.193E+03	6.336E+03	3.748E+02	-0.484
SR-82		698.33		1.843E+03	7.079E+03	1.203E+04	6.241E+02	0.153
		776.49	*	4.561E+01	7.783E+01	1.360E+02	7.704E+00	0.335

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1395.20		-1.479E+02	1.058E+03	1.672E+03	1.246E+02	-0.088
RB-83		520.41	*	6.442E+00	1.868E+01	3.074E+01	1.776E+00	0.210
		529.64		1.909E+01	2.455E+01	4.409E+01	2.533E+00	0.433
		552.65		-8.847E+00	4.576E+01	7.558E+01	4.271E+00	-0.117
RB-84		881.50	*	1.205E+01	1.789E+01	3.115E+01	1.964E+00	0.387
KR-85		513.99	*	-9.951E+02	2.113E+03	3.240E+03	1.878E+02	-0.307
SR-85		513.99	*	-4.718E+00	1.002E+01	1.536E+01	8.906E-01	-0.307
RB-86		1076.63	*	9.161E+01	1.528E+02	2.646E+02	1.571E+01	0.346
Y-88		898.02		3.293E+00	1.095E+01	1.846E+01	1.193E+00	0.178
		1836.01	*	1.772E+00	5.459E+00	9.863E+00	5.634E-01	0.180
ZR-88		392.90	*	6.003E+00	7.203E+00	1.249E+01	7.385E-01	0.481
Y-91		1204.90	*	-1.201E+03	2.885E+03	4.511E+03	2.656E+02	-0.266
NB-94		702.63	*	-2.744E+00	7.866E+00	1.256E+01	6.550E-01	-0.218
		871.10		-3.206E-01	9.750E+00	1.590E+01	9.925E-01	-0.020
NB-95		765.79	*	1.796E+00	9.326E+00	1.572E+01	8.798E-01	0.114
NB-95M		235.69	*	-8.356E+00	2.754E+01	4.493E+01	3.399E+00	-0.186
ZR-95		724.18		-5.459E+00	1.825E+01	2.915E+01	1.888E+00	-0.187
		756.15	*	5.719E+00	1.657E+01	2.833E+01	1.932E+00	0.202
NB-97		657.90	*	2.218E-02	1.657E+01	Half-Life too short		
		1024.50		2.383E-01	1.657E+01	Half-Life too short		
ZR-97		254.15		7.567E-03	1.657E+01	Half-Life too short		
		355.39		-2.478E-01	1.657E+01	Half-Life too short		
		507.63	*	-4.225E-01	1.657E+01	Half-Life too short		
		602.52		1.381E+00	1.657E+01	Half-Life too short		
		1021.30		-3.723E-01	1.657E+01	Half-Life too short		
		1147.95		-1.397E-01	1.657E+01	Half-Life too short		
		1362.66		6.067E-01	1.657E+01	Half-Life too short		
		1750.46		-2.188E-01	1.657E+01	Half-Life too short		
MO-99		140.51		-2.242E+02	1.093E+03	1.832E+03	4.953E+02	-0.122
		181.06		4.344E+02	7.015E+02	1.083E+03	1.850E+02	0.401
		366.43		2.150E+03	3.588E+03	6.098E+03	3.655E+02	0.353
		739.58	*	2.996E+02	4.527E+02	7.956E+02	1.085E+02	0.377
		778.00		-4.944E+02	1.304E+03	2.059E+03	1.168E+02	-0.240
TC-99M		140.51	*	-2.494E+03	1.304E+03	Half-Life too short		
RH-101		127.23		4.957E+00	9.653E+00	1.414E+01	9.414E-01	0.351
		198.01	*	2.716E+00	8.586E+00	1.461E+01	8.287E-01	0.186
		325.23		1.357E+01	5.613E+01	9.349E+01	5.656E+00	0.145
RH-102		418.52		1.745E+01	7.770E+01	1.279E+02	7.587E+00	0.136
		475.06	*	-6.141E+00	8.760E+00	1.319E+01	7.772E-01	-0.466
		631.29		-6.091E-01	1.422E+01	2.050E+01	1.065E+00	-0.030
		697.49		4.039E-01	1.981E+01	3.294E+01	1.707E+00	0.012
		766.84		-1.092E+01	2.541E+01	4.000E+01	2.241E+00	-0.273
		1046.59		1.433E+01	3.327E+01	5.629E+01	3.403E+00	0.255
		1112.84		-6.520E+01	6.234E+01	8.740E+01	5.058E+00	-0.746
RU-103		497.08	*	1.855E+00	9.666E+00	1.574E+01	1.994E+00	0.118
		610.33		7.760E+01	1.669E+02	2.946E+02	4.494E+01	0.263
RH-106		511.85		-4.976E+01	4.693E+01	8.085E+01	4.693E+00	-0.615
		621.84	*	-1.278E+01	7.334E+01	1.033E+02	1.186E+01	-0.124
		1050.47		1.732E+02	6.260E+02	1.044E+03	6.298E+01	0.166

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RU-106		511.85		-4.976E+01	4.693E+01	8.085E+01	4.693E+00	-0.615
		621.84	*	-1.278E+01	7.332E+01	1.033E+02	5.437E+00	-0.124
		1050.47		1.732E+02	6.260E+02	1.044E+03	6.298E+01	0.166
AG-108M		433.93	*	-1.638E+00	9.334E+00	1.484E+01	9.527E-01	-0.110
		614.37		1.968E+00	8.506E+00	1.455E+01	8.506E-01	0.135
		722.95		-9.467E+00	9.433E+00	1.378E+01	8.085E-01	-0.687
AG-110M		657.75	*	5.481E+00	1.027E+01	1.588E+01	8.616E-01	0.345
		677.61		-1.604E+01	6.704E+01	1.084E+02	5.924E+00	-0.148
		706.67		3.838E+00	4.638E+01	7.759E+01	4.361E+00	0.049
		763.93		9.255E+00	3.681E+01	6.241E+01	3.717E+00	0.148
		884.67		-8.609E+00	1.505E+01	2.317E+01	1.552E+00	-0.372
		937.48		-1.196E+01	3.428E+01	5.390E+01	3.643E+00	-0.222
		1384.27		-2.633E+00	1.605E+01	2.496E+01	1.935E+00	-0.105
IN-111		171.28		-5.077E+01	3.984E+01	6.197E+01	3.454E+00	-0.819
		245.39	*	-3.080E+01	4.560E+01	7.239E+01	4.262E+00	-0.425
IN-113M		391.69	*	-7.991E-01	1.080E+01	1.740E+01	1.095E+00	-0.046
SN-113		391.69	*	-7.991E-01	1.080E+01	1.740E+01	1.095E+00	-0.046
IN-114M		190.27	*	-3.047E+01	4.648E+01	6.506E+01	3.669E+00	-0.468
CD-115		260.90		-2.531E+03	3.376E+03	5.303E+03	3.152E+02	-0.477
		492.35		4.113E+02	1.003E+03	1.664E+03	9.747E+01	0.247
		527.90	*	-1.240E+02	2.666E+02	4.306E+02	2.476E+01	-0.288
SN-117M		156.02		2.158E+01	3.926E+02	6.651E+02	3.853E+01	0.032
		158.56	*	1.247E+00	9.355E+00	1.590E+01	9.117E-01	0.078
SB-122		563.90	*	3.555E+00	6.970E+01	1.177E+02	6.587E+00	0.030
		692.80		2.406E+02	1.569E+03	2.645E+03	1.363E+02	0.091
I-123		159.00	*	-1.479E-03	1.569E+03	Half-Life too short		
		528.96		1.564E+00	1.569E+03	Half-Life too short		
TE-123M		159.00	*	-8.704E-02	6.729E+00	1.135E+01	6.585E-01	-0.008
I-124		602.71	*	4.960E+01	4.474E+01	8.227E+01	4.431E+00	0.603
		722.78		-2.308E+02	2.861E+02	4.297E+02	2.293E+01	-0.537
		1325.50		-2.696E+01	1.684E+03	2.401E+03	1.793E+02	-0.011
		1376.25		5.088E+02	1.039E+03	1.985E+03	1.487E+02	0.256
		1509.49		-1.721E+01	6.611E+02	1.082E+03	7.746E+01	-0.016
		1691.02		-1.559E+02	1.850E+02	1.993E+02	1.286E+01	-0.782
SB-124		602.71		9.089E+00	8.199E+00	1.508E+01	8.124E-01	0.603
		645.85		-6.819E+01	1.175E+02	1.846E+02	1.093E+01	-0.369
		709.31		2.417E+01	6.163E+02	1.026E+03	5.390E+01	0.024
		713.82		-6.204E+01	3.618E+02	5.886E+02	5.842E+01	-0.105
		722.78		-6.132E+01	7.602E+01	1.142E+02	6.429E+00	-0.537
		968.20		-1.152E+02	6.681E+02	1.072E+03	6.725E+01	-0.107
		1045.16		9.451E+01	6.483E+02	1.065E+03	6.445E+01	0.089
		1325.50		-7.650E+00	4.779E+02	6.813E+02	5.088E+01	-0.011
		1368.21		-1.107E+02	2.636E+02	3.924E+02	5.019E+01	-0.282
		1436.60		-3.929E+02	5.008E+02	6.172E+02	4.542E+01	-0.637
		1691.02	*	-9.766E+00	1.159E+01	1.249E+01	8.619E-01	-0.782
SB-125		427.89	*	-9.383E+00	2.613E+01	4.089E+01	2.525E+00	-0.229
		463.38		-1.136E+01	7.928E+01	1.258E+02	8.628E+00	-0.090
		600.56		1.522E+01	4.351E+01	7.508E+01	4.779E+00	0.203
		635.90		-8.519E+00	5.844E+01	9.590E+01	6.000E+00	-0.089

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TE-125M		109.28	*	-1.102E+03	2.476E+03	3.833E+03	3.480E+02	-0.287
I-126		388.63		-1.112E+01	3.485E+01	5.496E+01	3.255E+00	-0.202
		666.33	*	-9.381E+00	2.936E+01	4.013E+01	2.004E+00	-0.234
		753.82		1.086E+02	2.462E+02	4.250E+02	2.348E+01	0.256
SB-126		223.80		5.244E+02	7.222E+02	1.249E+03	7.234E+01	0.420
		278.60		3.694E+02	3.799E+02	6.679E+02	4.004E+01	0.553
		296.50		6.162E-01	2.261E+02	3.718E+02	2.242E+01	0.002
		414.70		-7.264E+00	1.362E+01	2.100E+01	1.246E+00	-0.346
		415.30		-3.150E+02	1.120E+03	1.767E+03	1.048E+02	-0.178
		555.20		-3.644E+02	6.153E+02	9.737E+02	5.491E+01	-0.374
		573.80		-2.612E+01	1.595E+02	2.635E+02	1.462E+01	-0.099
		593.00		-3.034E+01	1.376E+02	2.252E+02	1.226E+01	-0.135
		656.30		4.468E+02	6.126E+02	9.755E+02	4.886E+01	0.458
		666.33		-3.854E+00	1.206E+01	1.649E+01	8.231E-01	-0.234
		675.00		7.333E+00	2.957E+02	4.930E+02	2.487E+01	0.015
		695.00		3.508E+00	1.283E+01	2.185E+01	1.129E+00	0.160
		697.00		9.629E+00	4.562E+01	7.720E+01	3.998E+00	0.125
		720.50	*	1.184E+01	2.188E+01	3.832E+01	2.039E+00	0.309
		856.80		-2.124E+01	7.809E+01	1.239E+02	7.626E+00	-0.171
		989.30		2.663E+01	2.549E+02	4.182E+02	2.602E+01	0.064
		1034.80		-6.544E+02	1.627E+03	2.504E+03	1.524E+02	-0.261
		1213.00		-1.405E+02	4.856E+02	7.739E+02	4.635E+01	-0.182
SB-127		61.10		6.326E+04	1.056E+04	1.659E+04	1.554E+03	3.812
		252.40		1.041E+02	3.226E+02	5.397E+02	2.219E+02	0.193
		290.80		2.498E+02	1.384E+03	2.306E+03	1.619E+02	0.108
		411.60		3.703E+02	8.244E+02	1.381E+03	1.806E+02	0.268
		444.90		-1.310E+03	7.799E+02	1.058E+03	9.506E+01	-1.238
		473.00		3.198E+01	1.191E+02	1.957E+02	1.843E+01	0.163
		543.00		3.243E+02	1.025E+03	1.775E+03	2.009E+02	0.183
		603.60		3.069E+02	7.109E+02	1.236E+03	1.062E+02	0.248
		685.20	*	6.286E+01	8.503E+01	1.517E+02	1.008E+01	0.414
		698.50		4.533E+02	9.979E+02	1.724E+03	2.218E+02	0.263
		722.20		-7.904E+02	1.796E+03	2.829E+03	1.822E+02	-0.279
		783.80		8.976E+01	2.312E+02	3.965E+02	3.438E+01	0.226
XE-127		57.60		1.056E+04	3.494E+03	5.601E+03	4.974E+02	1.886
		145.22		-1.103E+02	1.519E+02	2.471E+02	1.500E+01	-0.446
		172.10		-2.375E+01	2.511E+01	3.989E+01	2.224E+00	-0.596
		202.84	*	-1.224E+01	1.027E+01	1.596E+01	9.093E-01	-0.766
		374.96		-1.325E+01	4.571E+01	7.251E+01	4.329E+00	-0.183
I-131		80.18		-1.510E+02	7.044E+02	1.120E+03	9.223E+01	-0.135
		284.30		1.025E+02	2.010E+02	3.425E+02	2.255E+01	0.299
		364.48	*	-1.179E+00	1.766E+01	2.861E+01	1.888E+00	-0.041
		636.97		9.646E+01	1.820E+02	3.205E+02	1.880E+01	0.301
		722.89		-7.245E+02	8.287E+02	1.232E+03	6.603E+01	-0.588
TE-132		49.72		1.588E+03	2.075E+03	3.498E+03	3.309E+02	0.454
		111.76		6.739E+02	1.766E+03	2.872E+03	2.238E+02	0.235
		116.30		-6.616E+02	1.869E+03	2.562E+03	1.976E+02	-0.258
		228.16	*	1.894E+00	3.867E+01	6.452E+01	8.516E+00	0.029
BA-133		53.15		-5.449E+02	1.932E+03	3.106E+03	2.816E+02	-0.175

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		79.62		-3.380E+01	3.741E+02	5.991E+02	8.984E+01	-0.056
		81.00		-1.453E+01	2.845E+01	4.432E+01	6.948E+00	-0.328
		276.40		-8.785E+00	9.171E+01	1.503E+02	1.962E+01	-0.058
		302.84		-1.718E+01	3.615E+01	5.724E+01	6.742E+00	-0.300
		356.01	*	-1.124E+00	1.152E+01	1.863E+01	2.174E+00	-0.060
		383.85		4.027E+01	8.052E+01	1.357E+02	1.485E+01	0.297
I-133		510.53		-4.689E-01	8.052E+01	Half-Life too short		
		529.87	*	2.456E-03	8.052E+01	Half-Life too short		
		706.58		1.431E-02	8.052E+01	Half-Life too short		
		856.28		-2.388E-01	8.052E+01	Half-Life too short		
		875.33		-7.774E-02	8.052E+01	Half-Life too short		
		1236.41		-4.720E-02	8.052E+01	Half-Life too short		
		1298.22		7.102E-02	8.052E+01	Half-Life too short		
CS-134		475.35		-1.186E+02	5.463E+02	8.593E+02	5.063E+01	-0.138
		563.23		2.114E+01	8.326E+01	1.432E+02	8.200E+00	0.148
		569.32		3.731E+00	4.914E+01	8.312E+01	4.781E+00	0.045
		604.70		-1.375E+01	8.383E+00	1.181E+01	6.389E-01	-1.164
		795.84	*	1.064E+00	1.207E+01	2.004E+01	1.177E+00	0.053
		801.93		7.893E+01	9.904E+01	1.772E+02	1.043E+01	0.446
		1038.57		-2.412E+02	1.075E+03	1.692E+03	1.028E+02	-0.143
		1167.94		5.629E+02	5.578E+02	9.585E+02	5.295E+01	0.587
		1365.15		1.618E+02	1.939E+02	3.803E+02	3.026E+01	0.425
CS-135		268.24	*	-3.319E+00	3.928E+01	6.453E+01	5.024E+00	-0.051
I-135		288.45		-1.781E+04	3.928E+01	Half-Life too short		
		417.63		9.624E+03	3.928E+01	Half-Life too short		
		546.56		-1.415E+04	3.928E+01	Half-Life too short		
		836.80		-5.374E+02	3.928E+01	Half-Life too short		
		1038.76		-7.476E+03	3.928E+01	Half-Life too short		
		1124.00		-3.611E+04	3.928E+01	Half-Life too short		
		1131.51		-8.648E+02	3.928E+01	Half-Life too short		
		1260.41	*	1.750E+03	3.928E+01	Half-Life too short		
		1457.56		6.351E+03	3.928E+01	Half-Life too short		
		1678.03		2.649E+02	3.928E+01	Half-Life too short		
		1706.46		-1.205E+04	3.928E+01	Half-Life too short		
		1791.20		2.877E+03	3.928E+01	Half-Life too short		
CS-136		66.91		-9.253E+01	1.714E+02	2.681E+02	4.091E+01	-0.345
		86.29		1.075E+03	3.109E+02	4.817E+02	6.127E+01	2.231
		153.22		-7.879E+01	1.093E+02	1.773E+02	1.288E+01	-0.444
		163.89		-1.132E+02	1.667E+02	2.695E+02	1.911E+01	-0.420
		176.55		7.744E+00	5.996E+01	1.016E+02	6.420E+00	0.076
		273.65		1.670E+01	7.563E+01	1.266E+02	8.569E+00	0.132
		340.57		-1.341E+00	2.086E+01	3.390E+01	2.165E+00	-0.040
		818.51		-1.438E+01	1.387E+01	2.013E+01	1.192E+00	-0.714
		1048.07	*	-8.961E-01	2.097E+01	3.373E+01	2.208E+00	-0.027
		1235.34		2.275E+01	5.408E+01	9.686E+01	9.942E+00	0.235
CE-139		165.85	*	9.154E-01	6.964E+00	1.182E+01	6.581E-01	0.077
BA-140		162.64		-1.516E+02	1.212E+02	1.892E+02	1.207E+01	-0.801
		304.84		5.660E+01	2.142E+02	3.575E+02	9.776E+01	0.158
		423.70		9.912E+01	3.494E+02	5.752E+02	1.830E+02	0.172

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		537.32	*	9.109E+00	3.916E+01	6.725E+01	2.186E+01	0.135
LA-140		328.77		-1.217E+01	4.916E+01	7.893E+01	5.304E+00	-0.154
		432.53		5.708E+01	3.948E+02	6.442E+02	4.205E+01	0.089
		487.03		-7.928E+00	2.524E+01	3.920E+01	2.598E+00	-0.202
		751.79		-6.489E+01	2.747E+02	4.417E+02	3.032E+01	-0.147
		815.85		4.145E+01	5.509E+01	9.775E+01	7.113E+00	0.424
		867.82		-1.619E+00	2.657E+02	4.346E+02	2.973E+01	-0.004
		919.63		1.622E+02	6.114E+02	1.021E+03	9.116E+01	0.159
		925.24		-7.611E+01	2.499E+02	3.956E+02	2.800E+01	-0.192
		1596.49	*	2.576E+00	1.043E+01	1.817E+01	1.246E+00	0.142
CE-141		145.44	*	-7.203E+00	1.334E+01	2.194E+01	1.379E+00	-0.328
CE-143		57.37		2.359E+04	1.527E+04	2.364E+04	2.379E+03	0.998
		231.56		-9.675E+03	1.637E+04	2.584E+04	7.991E+03	-0.374
		293.26	*	2.542E+02	7.571E+02	1.271E+03	2.609E+02	0.200
		350.59		6.351E+03	1.018E+04	1.707E+04	5.187E+03	0.372
		490.36		8.728E+03	1.923E+04	3.174E+04	9.818E+03	0.275
		664.57		5.769E+04	2.159E+04	2.397E+04	7.558E+03	2.407
		721.93		-8.477E+02	7.520E+03	1.230E+04	3.487E+03	-0.069
CE-144		80.11		-1.149E+02	6.059E+02	9.649E+02	7.929E+01	-0.119
		133.54	*	-3.467E+01	5.463E+01	8.238E+01	1.192E+01	-0.421
PM-144		476.78		1.183E+01	1.949E+01	3.282E+01	2.302E+00	0.361
		618.01		-5.573E+00	6.559E+00	9.845E+00	5.577E-01	-0.566
		696.49	*	4.830E-01	8.785E+00	1.466E+01	7.587E-01	0.033
		778.57		-2.816E+02	5.639E+02	8.775E+02	4.981E+01	-0.321
PR-144		696.49	*	3.260E+01	5.930E+02	9.892E+02	5.120E+01	0.033
		1489.15		6.583E+02	1.696E+03	3.115E+03	2.248E+02	0.211
PM-146		453.90	*	-1.769E+00	1.222E+01	1.940E+01	1.688E+00	-0.091
		633.02		-6.176E+01	3.399E+02	5.016E+02	1.842E+02	-0.123
		735.90		1.380E+01	3.811E+01	6.502E+01	1.808E+01	0.212
		747.13		5.319E+00	2.097E+01	3.564E+01	4.407E+00	0.149
ND-147	+	91.11		2.162E+00	5.626E+01	7.418E+01	6.608E+00	0.029
		319.41		-1.252E+02	5.383E+02	8.665E+02	5.242E+01	-0.144
		439.89		6.378E+02	1.005E+03	1.705E+03	1.012E+02	0.374
		531.02	*	-3.801E+00	8.713E+01	1.463E+02	1.974E+01	-0.026
PM-149		285.90	*	7.804E+02	2.315E+03	3.896E+03	5.549E+02	0.200
EU-152	+	121.78		6.863E+01	3.909E+01	4.293E+01	3.633E+00	1.599
		244.69		-5.012E+01	8.499E+01	1.358E+02	7.991E+00	-0.369
		344.27	*	5.183E+00	2.458E+01	4.079E+01	2.753E+00	0.127
		443.98		2.165E+01	2.678E+02	4.341E+02	2.574E+01	0.050
		778.89		-3.756E+01	6.546E+01	1.009E+02	5.726E+00	-0.372
		867.32		1.480E+02	2.268E+02	3.963E+02	2.464E+01	0.373
		964.01		-1.301E+01	8.203E+01	1.313E+02	8.250E+00	-0.099
		1085.78		3.664E+01	1.112E+02	1.861E+02	1.098E+01	0.197
		1112.02		-7.595E+01	8.923E+01	1.289E+02	7.464E+00	-0.589
		1407.95		-6.382E+00	2.240E+01	3.367E+01	2.500E+00	-0.190
GD-153		69.67		-5.868E+01	5.024E+02	8.068E+02	6.622E+01	-0.073
		83.37		-2.298E+02	4.705E+03	6.750E+03	5.611E+02	-0.034
		97.43	*	-5.852E+00	2.367E+01	3.538E+01	2.703E+00	-0.165
		103.18		-2.628E+01	2.799E+01	4.177E+01	3.058E+00	-0.629

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
EU-154	+	123.07		4.815E+01	2.756E+01	2.906E+01	2.928E+00	1.657
		247.94		3.099E+01	9.500E+01	1.604E+02	1.540E+01	0.193
		591.81		-6.799E+01	1.393E+02	2.212E+02	2.117E+01	-0.307
		723.30		-3.158E+01	3.836E+01	5.728E+01	3.843E+00	-0.551
		756.87		6.878E+00	1.930E+02	3.199E+02	3.197E+01	0.021
		873.19		-1.572E+01	8.381E+01	1.343E+02	1.439E+01	-0.117
		996.32		-7.835E+01	1.056E+02	1.554E+02	2.599E+01	-0.504
		1004.76		-3.823E+01	6.099E+01	9.161E+01	9.130E+00	-0.417
		1274.45	*	-2.723E+00	1.595E+01	2.557E+01	2.552E+00	-0.106
EU-155		48.70		3.779E+02	1.254E+03	2.077E+03	1.790E+02	0.182
	+	60.01		4.531E+04	6.046E+03	7.267E+03	6.340E+02	6.236
	+	86.54		3.812E+02	6.288E+01	7.261E+01	6.193E+00	5.251
		105.31	*	9.484E+00	2.909E+01	4.734E+01	3.482E+00	0.200
TB-160	+	86.79		9.509E+02	1.564E+02	1.957E+02	1.654E+01	4.859
		197.04		-1.584E+01	1.373E+02	2.284E+02	1.295E+01	-0.069
		215.65		1.730E+01	1.769E+02	2.966E+02	1.707E+01	0.058
		298.57		-1.366E+01	2.598E+01	4.110E+01	2.479E+00	-0.332
		879.36	*	1.370E+01	3.871E+01	6.552E+01	4.123E+00	0.209
		962.29		-8.637E+00	1.409E+02	2.277E+02	1.432E+01	-0.038
		966.15		7.007E+00	5.162E+01	8.502E+01	5.338E+00	0.082
		1177.93		2.095E+01	8.277E+01	1.253E+02	6.962E+00	0.167
		1271.85		-2.891E+01	8.330E+01	1.270E+02	8.569E+00	-0.228
HO-166M		80.57		-2.303E+01	7.809E+01	1.236E+02	1.017E+01	-0.186
	+	184.41		1.469E+01	1.269E+01	1.529E+01	8.588E-01	0.960
		280.46		-2.396E+01	2.122E+01	3.206E+01	1.923E+00	-0.747
		410.95		2.812E+01	6.408E+01	1.073E+02	6.365E+00	0.262
		711.68	*	3.535E+00	1.452E+01	2.468E+01	1.300E+00	0.143
		752.31		-9.462E+00	6.646E+01	1.081E+02	5.960E+00	-0.088
		810.29		1.708E+00	1.546E+01	2.572E+01	1.509E+00	0.066
TM-171		51.35		-8.061E+03	1.635E+04	2.602E+04	2.348E+03	-0.310
		52.39		-5.690E+03	8.493E+03	1.339E+04	1.214E+03	-0.425
	+	59.40		2.372E+05	3.165E+04	4.023E+04	3.529E+03	5.897
		66.72	*	-3.803E+03	9.103E+03	1.438E+04	1.195E+03	-0.264
HF-175	+	89.36		5.282E+03	8.689E+02	9.940E+02	8.298E+01	5.314
		343.40	*	6.224E+00	8.337E+00	1.438E+01	8.679E-01	0.433
		433.00		1.202E+02	5.609E+02	9.206E+02	5.463E+01	0.131
LU-176	+	88.36		7.529E+02	1.238E+02	1.622E+02	1.373E+01	4.641
		201.83		-1.085E+00	7.177E+00	1.190E+01	6.773E-01	-0.091
		306.84	*	-5.216E+00	6.540E+00	1.010E+01	6.102E-01	-0.516
		401.10		-3.165E+02	1.754E+03	2.797E+03	1.656E+02	-0.113
LU-177		112.95		9.775E+01	2.236E+02	3.631E+02	2.543E+01	0.269
		208.36	*	-1.710E+00	1.173E+02	1.957E+02	1.120E+01	-0.009
LU-177M		52.97		-3.174E+02	8.474E+02	1.356E+03	1.230E+02	-0.234
		54.07		5.769E+02	4.795E+02	7.417E+02	6.712E+01	0.778
		61.30		4.290E+03	8.410E+02	1.393E+03	1.201E+02	3.080
	+	121.62		3.412E+02	1.936E+02	2.139E+02	1.472E+01	1.595
		147.16		-6.629E+01	1.557E+02	2.575E+02	1.550E+01	-0.257
		171.86		-1.418E+02	1.139E+02	1.774E+02	9.887E+00	-0.800
		218.09		-8.501E+01	2.180E+02	3.554E+02	2.050E+01	-0.239

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		268.79		-7.559E+01	1.933E+02	3.111E+02	1.857E+01	-0.243
		319.02		-7.506E+00	6.449E+01	1.047E+02	6.336E+00	-0.072
		367.43		-1.522E+01	2.437E+02	3.945E+02	2.363E+01	-0.039
		413.65	*	-9.354E+00	4.599E+01	7.307E+01	4.334E+00	-0.128
HF-181		56.28		1.043E+02	4.857E+02	7.133E+02	6.388E+01	0.146
		57.53		7.585E+02	2.923E+02	4.655E+02	4.136E+01	1.629
		65.20		-8.600E-01	2.735E+02	4.428E+02	3.709E+01	-0.002
		133.02		-2.758E+00	1.530E+01	2.389E+01	1.539E+00	-0.115
		136.25		-2.798E+01	1.068E+02	1.784E+02	1.130E+01	-0.157
		345.85		-1.661E+01	4.271E+01	6.749E+01	4.073E+00	-0.246
		482.03	*	-2.468E+00	1.066E+01	1.672E+01	9.828E-01	-0.148
W-181		56.28		4.409E+01	2.057E+02	3.022E+02	2.706E+01	0.146
		57.53		3.197E+02	1.238E+02	1.972E+02	1.752E+01	1.622
		65.20	*	-3.617E-01	1.150E+02	1.862E+02	1.560E+01	-0.002
TA-182		67.75		4.393E+00	3.343E+01	5.446E+01	4.502E+00	0.081
		100.10		1.175E+01	4.702E+01	7.614E+01	5.692E+00	0.154
		152.43		-5.241E+01	7.989E+01	1.302E+02	7.660E+00	-0.402
		222.10		6.210E+01	8.953E+01	1.546E+02	8.945E+00	0.402
		1001.68		3.718E+02	5.113E+02	8.994E+02	5.565E+01	0.413
		1121.28		-2.610E+01	3.153E+01	4.503E+01	2.589E+00	-0.580
		1189.05		1.511E+01	5.348E+01	9.326E+01	5.308E+00	0.162
		1221.42	*	-1.066E+01	3.057E+01	4.829E+01	2.944E+00	-0.221
		1230.97		2.747E+00	6.796E+01	1.145E+02	7.117E+00	0.024
RE-183		57.98		8.987E+02	1.421E+02	2.351E+02	2.082E+01	3.823
	+	59.32		9.097E+02	1.214E+02	1.553E+02	1.363E+01	5.859
		67.20		-2.374E+01	5.938E+01	9.389E+01	7.781E+00	-0.253
		162.32	*	-2.241E+01	2.417E+01	3.853E+01	2.175E+00	-0.582
		208.81		-1.852E+02	2.168E+02	3.436E+02	1.967E+01	-0.539
		291.72		-2.689E+02	2.238E+02	3.361E+02	2.024E+01	-0.800
RE-184		57.98		3.458E+03	5.468E+02	9.045E+02	8.012E+01	3.823
	+	59.32		3.497E+03	4.666E+02	5.969E+02	5.240E+01	5.859
		67.20		-9.131E+01	2.284E+02	3.611E+02	2.993E+01	-0.253
		161.27		-2.804E+01	7.942E+01	1.312E+02	7.438E+00	-0.214
		216.55		-1.098E+01	6.597E+01	1.090E+02	6.277E+00	-0.101
		252.85	*	2.189E+01	6.415E+01	1.083E+02	6.408E+00	0.202
		318.01		3.790E+01	1.115E+02	1.873E+02	1.133E+01	0.202
		792.07		2.931E+01	2.567E+02	4.274E+02	2.461E+01	0.069
		903.28		-1.207E+02	2.885E+02	4.508E+02	2.884E+01	-0.268
		920.93		1.171E+01	1.469E+02	2.412E+02	1.537E+01	0.049
OS-185	+	59.72		2.528E+03	3.374E+02	4.167E+02	3.645E+01	6.068
		61.14		6.074E+02	1.028E+02	1.666E+02	1.439E+01	3.646
		69.30		-1.014E+01	8.900E+01	1.430E+02	1.175E+01	-0.071
		592.07		-2.476E+02	5.403E+02	8.615E+02	4.695E+01	-0.287
		646.12	*	-5.647E+00	1.044E+01	1.648E+01	8.385E-01	-0.343
		717.42		1.076E+01	2.126E+02	3.541E+02	1.878E+01	0.030
		874.81		-6.053E+00	1.584E+02	2.582E+02	1.617E+01	-0.023
		880.27		-3.973E+01	2.254E+02	3.621E+02	2.280E+01	-0.110
RE-188		155.03	*	1.870E+01	3.908E+01	6.767E+01	3.936E+00	0.276
		477.96		4.652E+02	8.418E+02	1.412E+03	8.310E+01	0.330

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		633.10		-1.269E+02	6.368E+02	9.395E+02	4.870E+01	-0.135
W-188		63.58		-9.364E+03	1.871E+04	2.687E+04	2.276E+03	-0.348
		227.08		-4.151E+03	3.267E+03	5.019E+03	2.916E+02	-0.827
		290.67	*	3.223E+02	1.700E+03	2.835E+03	1.707E+02	0.114
IR-192		295.96		7.873E+00	2.453E+01	4.120E+01	2.520E+00	0.191
		308.46		7.853E+00	2.351E+01	3.949E+01	2.412E+00	0.199
		316.51	*	-4.395E-01	8.135E+00	1.328E+01	8.069E-01	-0.033
		468.07		-3.549E+00	1.772E+01	2.796E+01	1.894E+00	-0.127
		604.41		-1.271E+02	1.073E+02	1.585E+02	1.765E+01	-0.802
		612.46		-1.151E+02	1.570E+02	2.448E+02	1.766E+01	-0.470
AU-195		65.12		2.067E+00	5.424E+01	8.801E+01	7.376E+00	0.023
		66.83		-1.577E+01	2.960E+01	4.645E+01	3.856E+00	-0.340
		75.70		-5.249E+00	5.291E+01	8.485E+01	6.918E+00	-0.062
		98.88	*	1.979E+01	6.129E+01	9.969E+01	7.524E+00	0.199
		129.76		6.120E+02	7.394E+02	1.228E+03	8.055E+01	0.498
TL-200		367.94	*	-5.201E+02	1.102E+03	1.725E+03	1.033E+02	-0.302
		579.30		4.122E+02	7.299E+03	1.231E+04	6.793E+02	0.033
		828.27		1.184E+04	1.009E+04	1.875E+04	1.121E+03	0.631
		1205.75		-8.246E+02	3.634E+03	5.872E+03	3.464E+02	-0.140
TL-201		68.90		1.071E+02	2.718E+02	4.487E+02	3.692E+01	0.239
		70.82		-6.843E+01	1.521E+02	2.395E+02	1.960E+01	-0.286
		80.30		-6.775E+01	2.670E+02	4.236E+02	3.483E+01	-0.160
		135.34		-6.518E+01	1.183E+03	2.002E+03	1.274E+02	-0.033
		167.43	*	5.371E+02	3.148E+02	5.757E+02	3.204E+01	0.933
TL-202		68.90		3.439E+01	8.728E+01	1.441E+02	1.186E+01	0.239
		70.82		-2.191E+01	4.872E+01	7.669E+01	6.276E+00	-0.286
		80.30		-2.170E+01	8.554E+01	1.357E+02	1.116E+01	-0.160
		439.56	*	-1.837E+00	1.300E+01	2.070E+01	1.228E+00	-0.089
HG-203		70.83		-1.296E+02	2.885E+02	4.535E+02	6.047E+01	-0.286
		72.87		6.508E+01	1.665E+02	2.739E+02	3.534E+01	0.238
		82.60		-9.858E+01	3.235E+02	4.524E+02	6.124E+01	-0.218
		279.20	*	5.224E+00	8.640E+00	1.484E+01	9.415E-01	0.352
BI-207		72.80		1.780E+01	5.439E+01	8.927E+01	7.282E+00	0.199
		74.97		-6.549E-01	3.042E+01	4.900E+01	3.994E+00	-0.013
		84.90		2.423E+01	6.170E+01	9.110E+01	7.626E+00	0.266
		569.67		3.420E-01	7.688E+00	1.297E+01	7.225E-01	0.026
		1063.62	*	-7.535E+00	1.454E+01	2.199E+01	1.316E+00	-0.343
		1770.23		-5.527E+01	9.815E+01	1.333E+02	8.079E+00	-0.415
TL-207		81.07		-1.933E+01	6.185E+01	9.774E+01	8.056E+00	-0.198
		83.78		-2.102E+00	4.068E+01	5.834E+01	4.858E+00	-0.036
		94.90		1.206E+01	7.007E+01	1.011E+02	7.910E+00	0.119
	+	122.32		1.636E+03	9.300E+02	1.010E+03	7.720E+01	1.620
		144.24		-8.069E+00	1.741E+02	2.940E+02	2.197E+01	-0.027
		154.21		9.458E+00	9.689E+01	1.646E+02	1.159E+01	0.057
		269.46		-2.445E+01	4.644E+01	7.397E+01	4.605E+00	-0.330
		323.87	*	8.420E+01	1.694E+02	2.864E+02	4.756E+01	0.294
		338.28		-5.127E+01	2.442E+02	3.925E+02	4.187E+01	-0.131
		445.03		-1.192E+03	6.949E+02	9.337E+02	9.657E+01	-1.277
TL-208		72.80		1.926E+02	5.884E+02	9.656E+02	7.877E+01	0.199

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		74.97		-7.077E+00	3.287E+02	5.295E+02	6.331E+01	-0.013
		277.35		-1.489E+01	9.135E+01	1.490E+02	1.589E+01	-0.100
		510.84		-7.456E+01	4.606E+01	7.497E+01	7.615E+00	-0.994
		583.14	*	-5.615E-01	9.473E+00	1.583E+01	1.017E+00	-0.035
		763.13		-9.862E+00	5.020E+02	8.267E+02	1.018E+02	-0.012
		860.37		6.203E+00	7.444E+01	1.230E+02	8.656E+00	0.050
		1093.90		-3.132E+02	2.682E+03	4.253E+03	9.528E+02	-0.074
PO-209		260.50		-2.403E+03	2.599E+03	4.039E+03	2.400E+02	-0.595
		262.80		-4.672E+02	6.821E+03	1.123E+04	6.681E+02	-0.042
		896.60	*	-5.871E+02	2.154E+03	3.416E+03	2.186E+02	-0.172
BI-210		46.50	*	-1.253E+03	1.766E+03	2.773E+03	2.382E+02	-0.452
PB-210		46.50	*	-1.253E+03	1.766E+03	2.773E+03	2.382E+02	-0.452
PO-210		46.50	*	-1.253E+03	1.766E+03	2.773E+03	2.115E+02	-0.452
BI-211		72.87		3.655E+02	9.343E+02	1.538E+03	1.255E+02	0.238
		351.07	*	1.966E+01	5.595E+01	9.378E+01	6.225E+00	0.210
PB-211		404.84	*	6.320E+01	2.505E+02	4.087E+02	2.549E+02	0.155
		427.08		-2.414E+02	5.981E+02	9.016E+02	5.574E+02	-0.268
		831.96		-7.730E+01	2.839E+02	4.437E+02	2.767E+02	-0.174
BI-212		727.18	*	1.939E+01	6.064E+01	1.041E+02	7.693E+00	0.186
		785.46		-1.145E+02	4.537E+02	7.277E+02	4.160E+01	-0.157
		1620.62		-2.108E+01	1.405E+02	2.150E+02	1.454E+01	-0.098
PB-212		74.81		1.419E+01	1.067E+02	1.732E+02	2.148E+01	0.082
		77.11		-7.630E+01	6.014E+01	8.970E+01	7.325E+00	-0.851
	+	87.30		1.479E+03	2.848E+02	3.272E+02	4.289E+01	4.521
		115.19		-6.450E+02	1.054E+03	1.612E+03	1.122E+02	-0.400
		238.63	*	-1.507E+01	1.520E+01	2.405E+01	1.774E+00	-0.626
		300.09		7.768E+01	1.887E+02	3.189E+02	2.684E+01	0.244
PO-212		74.81		1.419E+01	1.067E+02	1.732E+02	2.148E+01	0.082
		77.11		-7.630E+01	6.014E+01	8.970E+01	7.325E+00	-0.851
	+	87.30		1.479E+03	2.848E+02	3.272E+02	4.289E+01	4.521
		115.19		-6.450E+02	1.054E+03	1.612E+03	1.122E+02	-0.400
		238.63	*	-1.507E+01	1.520E+01	2.405E+01	1.774E+00	-0.626
		300.09		7.768E+01	1.887E+02	3.189E+02	2.684E+01	0.244
BI-214		609.31	*	8.613E+00	1.760E+01	3.119E+01	2.322E+00	0.276
		1120.29		-1.637E+01	6.787E+01	1.058E+02	9.283E+00	-0.155
		1764.49		1.503E+01	5.017E+01	9.286E+01	5.655E+00	0.162
PB-214		74.81		2.427E+01	1.824E+02	2.961E+02	3.261E+01	0.082
		77.11		-1.298E+02	1.028E+02	1.526E+02	1.704E+01	-0.851
	+	87.30		2.515E+03	4.569E+02	5.562E+02	6.373E+01	4.521
		241.98		-2.365E+01	8.848E+01	1.446E+02	1.174E+01	-0.164
		295.21		2.363E+01	3.374E+01	5.802E+01	5.038E+00	0.407
		351.92	*	7.030E+00	1.942E+01	3.257E+01	2.749E+00	0.216
PO-214		74.81		2.427E+01	1.824E+02	2.961E+02	3.261E+01	0.082
		77.11		-1.298E+02	1.028E+02	1.526E+02	1.704E+01	-0.851
	+	87.30		2.515E+03	4.569E+02	5.562E+02	6.373E+01	4.521
		241.98		-2.365E+01	8.848E+01	1.446E+02	1.174E+01	-0.164
		295.21		2.363E+01	3.374E+01	5.802E+01	5.038E+00	0.407
		351.92	*	7.030E+00	1.942E+01	3.257E+01	2.749E+00	0.216
PO-215		81.07		-1.933E+01	6.185E+01	9.774E+01	8.056E+00	-0.198

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		83.78		-2.102E+00	4.068E+01	5.834E+01	4.858E+00	-0.036
		94.90		1.206E+01	7.007E+01	1.011E+02	7.910E+00	0.119
	+	122.32		1.636E+03	9.300E+02	1.010E+03	7.720E+01	1.620
		144.24		-8.069E+00	1.741E+02	2.940E+02	2.197E+01	-0.027
		154.21		9.458E+00	9.689E+01	1.646E+02	1.159E+01	0.057
		269.46		-2.445E+01	4.644E+01	7.397E+01	4.605E+00	-0.330
		323.87	*	8.420E+01	1.694E+02	2.864E+02	4.756E+01	0.294
		338.28		-5.127E+01	2.442E+02	3.925E+02	4.187E+01	-0.131
		445.03		-1.192E+03	6.949E+02	9.337E+02	9.657E+01	-1.277
PO-216		74.81		1.419E+01	1.067E+02	1.732E+02	2.148E+01	0.082
		77.11		-7.630E+01	6.014E+01	8.970E+01	7.325E+00	-0.851
	+	87.30		1.479E+03	2.848E+02	3.272E+02	4.289E+01	4.521
		115.19		-6.450E+02	1.054E+03	1.612E+03	1.122E+02	-0.400
		238.63	*	-1.507E+01	1.520E+01	2.405E+01	1.774E+00	-0.626
		300.09		7.768E+01	1.887E+02	3.189E+02	2.684E+01	0.244
PO-218		74.81		2.427E+01	1.824E+02	2.961E+02	3.261E+01	0.082
		77.11		-1.298E+02	1.028E+02	1.526E+02	1.704E+01	-0.851
	+	87.30		2.515E+03	4.569E+02	5.562E+02	6.373E+01	4.521
		241.98		-2.365E+01	8.848E+01	1.446E+02	1.174E+01	-0.164
		295.21		2.363E+01	3.374E+01	5.802E+01	5.038E+00	0.407
		351.92	*	7.030E+00	1.942E+01	3.257E+01	2.749E+00	0.216
RN-219		271.23		2.436E+00	6.031E+01	9.985E+01	8.219E+00	0.024
		401.81	*	-1.630E+01	1.077E+02	1.720E+02	2.350E+01	-0.095
RN-220		549.76	*	6.933E+03	6.393E+03	1.175E+04	6.654E+02	0.590
RA-223		81.07		-1.933E+01	6.185E+01	9.774E+01	8.056E+00	-0.198
		83.78		-2.102E+00	4.068E+01	5.834E+01	4.858E+00	-0.036
		94.90		1.206E+01	7.007E+01	1.011E+02	7.910E+00	0.119
	+	122.32		1.636E+03	9.300E+02	1.010E+03	7.720E+01	1.620
		144.24		-8.069E+00	1.741E+02	2.940E+02	2.197E+01	-0.027
		154.21		9.458E+00	9.689E+01	1.646E+02	1.159E+01	0.057
		269.46		-2.445E+01	4.644E+01	7.397E+01	4.605E+00	-0.330
		323.87	*	8.420E+01	1.694E+02	2.864E+02	4.756E+01	0.294
		338.28		-5.127E+01	2.442E+02	3.925E+02	4.187E+01	-0.131
		445.03		-1.192E+03	6.949E+02	9.337E+02	9.657E+01	-1.277
RA-224		240.98	*	1.307E+02	1.627E+02	2.824E+02	1.657E+01	0.463
AC-227		79.80		-9.088E+01	4.792E+02	7.627E+02	1.628E+02	-0.119
		236.00		-1.568E+01	5.521E+01	9.015E+01	9.447E+00	-0.174
		256.20	*	4.210E+01	1.083E+02	1.831E+02	2.565E+01	0.230
		286.10		1.648E+02	3.962E+02	6.703E+02	7.821E+01	0.246
		299.80		1.036E+02	3.460E+02	5.800E+02	9.494E+01	0.179
		304.40		1.646E+01	4.653E+02	7.662E+02	1.332E+02	0.021
		329.70		-1.040E+01	2.264E+02	3.690E+02	4.644E+01	-0.028
		334.20		-2.244E+01	5.680E+02	9.256E+02	1.704E+02	-0.024
PA-227		64.62	*	-1.000E+35	5.680E+02	Half-Life too short		
		110.05		-1.000E+35	5.680E+02	Half-Life too short		
TH-227		79.80		-9.088E+01	4.793E+02	7.627E+02	1.649E+02	-0.119
		94.00		-4.097E+02	6.108E+02	8.915E+02	1.917E+02	-0.460
		236.00		-1.568E+01	5.520E+01	9.015E+01	8.193E+00	-0.174
		256.20	*	4.210E+01	1.084E+02	1.831E+02	3.102E+01	0.230

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		286.10		1.648E+02	4.288E+02	6.703E+02	6.715E+02	0.246
		299.80		1.036E+02	3.460E+02	5.800E+02	9.494E+01	0.179
		304.40		1.646E+01	4.653E+02	7.662E+02	1.332E+02	0.021
		329.70		-1.040E+01	2.264E+02	3.690E+02	4.644E+01	-0.028
		334.20		-2.244E+01	5.680E+02	9.256E+02	1.704E+02	-0.024
AC-228		338.32		-1.231E+01	5.885E+01	9.425E+01	3.845E+01	-0.131
		911.07	*	-2.642E+01	4.109E+01	6.385E+01	6.154E+00	-0.414
		969.11		-3.285E-01	7.007E+01	1.143E+02	2.580E+01	-0.003
RA-228		338.32		-1.231E+01	5.885E+01	9.425E+01	3.845E+01	-0.131
		911.07	*	-2.642E+01	4.109E+01	6.385E+01	6.154E+00	-0.414
		969.11		-3.285E-01	7.007E+01	1.143E+02	2.580E+01	-0.003
TH-228		74.81		1.419E+01	1.067E+02	1.732E+02	1.425E+01	0.082
		77.11		-7.630E+01	6.014E+01	8.970E+01	7.325E+00	-0.851
	+	87.30		1.479E+03	2.433E+02	3.272E+02	2.773E+01	4.521
		238.63	*	-1.507E+01	1.520E+01	2.405E+01	1.774E+00	-0.626
		300.09		7.768E+01	1.941E+02	3.189E+02	1.880E+02	0.244
TH-229		85.43		4.217E+01	6.243E+01	9.362E+01	7.857E+00	0.450
	+	88.47		4.334E+02	7.129E+01	9.303E+01	7.863E+00	4.659
		100.00		-1.813E+00	5.215E+01	8.299E+01	6.209E+00	-0.022
		193.63	*	3.254E+01	1.292E+02	2.194E+02	1.241E+01	0.148
		210.97		6.229E+01	1.760E+02	2.999E+02	1.720E+01	0.208
TH-230		67.67	*	3.753E+02	4.390E+03	5.944E+03	3.856E+04	0.063
PA-231		283.67	*	1.577E+02	3.895E+02	6.586E+02	9.134E+01	0.239
		301.29		9.007E+01	1.369E+02	2.349E+02	2.486E+01	0.383
		330.00		1.899E+01	5.000E+02	8.202E+02	2.572E+02	0.023
TH-231		84.21	*	3.126E+01	1.563E+02	2.280E+02	4.038E+01	0.137
U-231		84.21		1.021E+02	5.105E+02	7.449E+02	6.215E+01	0.137
	+	92.29		7.681E+00	1.999E+02	2.739E+02	2.204E+01	0.028
		95.87	*	2.208E+01	9.946E+01	1.440E+02	1.116E+01	0.153
		108.00		4.545E+01	1.674E+02	2.711E+02	1.935E+01	0.168
PA-233		75.28		-4.212E+02	9.025E+02	1.416E+03	2.137E+02	-0.297
	+	86.59		6.214E+03	1.880E+03	1.206E+03	3.227E+02	5.153
		300.12		4.066E+01	9.693E+01	1.637E+02	2.217E+01	0.248
		311.98	*	-1.440E+00	1.716E+01	2.798E+01	1.789E+00	-0.051
		340.50		-7.317E+00	1.499E+02	2.439E+02	5.616E+01	-0.030
		398.62		6.149E+01	5.202E+02	8.511E+02	2.203E+02	0.072
		415.76		-8.129E+01	4.534E+02	7.212E+02	1.488E+02	-0.113
PA-234		63.00		-7.816E+01	5.943E+02	8.774E+02	1.354E+02	-0.089
		94.67		-6.539E+00	5.188E+01	7.316E+01	8.687E+00	-0.089
		98.44		4.804E+00	2.613E+01	4.194E+01	2.333E+01	0.115
		99.86		-5.605E+00	1.321E+02	2.100E+02	1.573E+01	-0.027
		111.00		1.580E+01	5.425E+01	8.776E+01	9.674E+00	0.180
		131.20		-1.564E+01	2.860E+01	4.360E+01	2.837E+00	-0.359
		152.70		-3.930E+01	7.954E+01	1.305E+02	2.066E+01	-0.301
	+	186.00		5.287E+02	4.835E+02	5.500E+02	1.679E+02	0.961
		226.40		-1.162E+02	1.106E+02	1.713E+02	1.981E+01	-0.678
		227.20		-1.446E+02	1.192E+02	1.839E+02	1.068E+01	-0.786
		248.90		-1.060E+02	2.255E+02	3.613E+02	7.772E+01	-0.293
		293.70		1.539E+02	1.603E+02	2.778E+02	4.491E+01	0.554

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		369.80		-1.169E+02	2.292E+02	3.551E+02	7.413E+01	-0.329
		568.70		1.739E+02	2.496E+02	4.441E+02	2.476E+01	0.392
		569.50		4.011E+00	6.835E+01	1.154E+02	6.431E+00	0.035
		574.00		1.017E+00	3.532E+02	5.929E+02	3.290E+01	0.002
		699.00		1.796E+02	1.748E+02	3.138E+02	5.583E+01	0.572
		706.10		-9.514E+01	2.495E+02	3.911E+02	1.723E+02	-0.243
		733.00		-3.217E+01	8.929E+01	1.414E+02	2.991E+01	-0.228
		742.81		-3.353E+02	4.060E+02	4.969E+02	3.324E+02	-0.675
		796.30		-6.086E+01	2.381E+02	3.809E+02	1.001E+02	-0.160
		805.60		-2.877E+02	2.672E+02	3.605E+02	1.081E+02	-0.798
		819.60		3.910E+01	3.301E+02	5.488E+02	2.058E+02	0.071
		826.30		-8.043E+01	2.206E+02	3.429E+02	1.519E+02	-0.235
		831.60		-6.492E+01	1.431E+02	2.193E+02	6.402E+01	-0.296
		876.40		-2.272E+02	3.440E+02	3.750E+02	3.849E+02	-0.606
		880.51		1.515E+00	8.523E+01	1.396E+02	8.796E+00	0.011
		883.24		-3.819E+01	9.044E+01	1.355E+02	9.072E+01	-0.282
		899.00		3.988E+01	2.320E+02	3.849E+02	1.668E+02	0.104
		925.00		-2.277E+02	3.990E+02	6.152E+02	3.915E+01	-0.370
		926.50		3.456E+01	5.458E+01	9.337E+01	2.297E+01	0.370
		946.00	*	-3.391E+01	9.842E+01	1.546E+02	2.755E+01	-0.219
		949.00		-1.199E+02	1.490E+02	2.233E+02	1.411E+01	-0.537
		980.50		1.100E+02	1.917E+02	3.320E+02	2.073E+01	0.331
		1394.10		-1.961E+01	1.410E+02	2.220E+02	1.442E+02	-0.088
PA-234M		766.42		-4.966E+02	2.648E+03	4.262E+03	2.144E+03	-0.117
		1001.03	*	3.378E+02	1.249E+03	2.094E+03	1.666E+02	0.161
TH-234		63.29	*	-5.220E+01	4.944E+02	7.317E+02	1.312E+02	-0.071
	+	92.38		6.873E+00	1.789E+02	2.449E+02	4.363E+01	0.028
U-234		53.20	*	-8.795E+03	9.439E+04	5.519E+04	5.519E+05	-0.159
U-235		89.95		1.467E+03	6.146E+02	6.310E+02	1.941E+02	2.325
	+	93.35		8.263E+00	2.151E+02	2.904E+02	8.082E+01	0.028
		105.00		6.021E+01	2.850E+02	4.597E+02	1.355E+02	0.131
		143.76	*	8.121E+00	5.387E+01	9.184E+01	1.508E+01	0.088
		163.35		-1.244E+02	1.125E+02	1.737E+02	3.114E+01	-0.716
	+	185.71		1.958E+01	1.692E+01	2.072E+01	1.165E+00	0.945
		205.31		4.251E+01	1.242E+02	2.112E+02	3.792E+01	0.201
NP-236		94.67		-4.788E+00	3.936E+01	5.552E+01	4.354E+00	-0.086
		98.44		3.633E+00	1.965E+01	3.171E+01	2.402E+00	0.115
		111.00		1.195E+01	4.102E+01	6.638E+01	4.680E+00	0.180
		160.31	*	8.337E+00	1.910E+01	3.300E+01	1.878E+00	0.253
NP-237		86.50	*	4.958E+02	1.474E+02	1.748E+02	3.898E+01	2.835
		95.87		6.653E+01	3.002E+02	4.340E+02	1.057E+02	0.153
U-238		63.29	*	-5.220E+01	4.944E+02	7.317E+02	1.312E+02	-0.071
	+	92.38		6.873E+00	1.789E+02	2.449E+02	1.969E+01	0.028
NP-239		99.55		-8.739E+00	4.454E+01	7.018E+01	5.268E+00	-0.125
		117.00	*	-1.132E-01	6.131E+01	8.652E+01	5.997E+00	-0.001
		209.75		-1.283E+01	1.840E+02	3.060E+02	1.753E+01	-0.042
		228.18		3.728E+00	6.165E+01	1.029E+02	5.983E+00	0.036
		277.60		2.294E+01	4.228E+01	7.236E+01	4.336E+00	0.317
		334.30		-1.994E+01	3.213E+02	5.227E+02	3.160E+01	-0.038

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AM-243		74.67	*	4.290E+00	1.733E+01	2.829E+01	2.306E+00	0.152
	+	86.72		3.496E+04	5.750E+03	7.097E+03	5.996E+02	4.925
		117.66		5.873E+01	1.210E+03	1.714E+03	1.187E+02	0.034
		142.18		1.223E+03	4.562E+03	7.832E+03	4.820E+02	0.156
CM-243		99.55		-8.988E+00	4.581E+01	7.218E+01	5.419E+00	-0.125
		103.76	*	-5.819E+00	2.593E+01	4.075E+01	2.973E+00	-0.143
		117.00		-1.165E-01	6.305E+01	8.897E+01	6.167E+00	-0.001
		209.75		-1.264E+01	1.813E+02	3.015E+02	1.727E+01	-0.042
		228.18		3.765E+00	6.226E+01	1.039E+02	6.043E+00	0.036
		277.60		2.312E+01	4.261E+01	7.291E+01	4.369E+00	0.317
AM-246		798.80		-2.963E+01	3.663E+01	5.497E+01	3.188E+00	-0.539
		1036.00		5.000E+01	8.143E+01	1.410E+02	8.575E+00	0.355
		1062.04		-2.986E+01	6.552E+01	1.001E+02	6.000E+00	-0.298
		1078.86	*	-3.874E+00	3.835E+01	6.111E+01	3.622E+00	-0.063
CM-247		278.00		1.467E+02	1.758E+02	3.064E+02	1.836E+01	0.479
		287.40		2.076E+01	3.176E+02	5.253E+02	3.160E+01	0.040
		402.60	*	3.260E+00	9.762E+00	1.624E+01	9.617E-01	0.201
CF-249		252.85		8.468E+01	2.482E+02	4.191E+02	2.479E+01	0.202
		333.44		-1.560E+00	4.231E+01	6.898E+01	4.171E+00	-0.023
		387.95	*	-2.266E+00	1.015E+01	1.615E+01	9.569E-01	-0.140
CF-251		176.60	*	-3.433E+00	3.096E+01	5.173E+01	2.891E+00	-0.066
		227.00		-1.381E+02	1.054E+02	1.614E+02	9.377E+00	-0.856
		285.00		2.397E+02	4.505E+02	7.684E+02	4.618E+01	0.312
ANH-511		511.00	*	-1.524E+01	9.831E+00	1.624E+01	9.430E-01	-0.939

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202003337     *
* Acquisition date : 31-DEC-2009 16:41:51 Detector SN#     :                *
* Detector ID        : GAM01                Sensitivity      : 5.000       *
* Geometry           : 2LMB                 Energy tolerance: 1.500        *
* Elapsed live time:    0 01:00:00.00       Abundance limit : 75.000       *
* Elapsed real time:    0 01:00:00.69       Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 24-DEC-2009 00:00:00 Nuclide Library : LIQUI         *
* Sample ID          : G1202003337          Analyst initials: KXG3          *
* Batch Number       : 936274               Sample Quantity : 2.0000E+00 LITER *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME : 29-JAN-2009 14:58:37 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
CO-57	2.322E+01	1.291E+01	1.115E+01	0.000E+00
CO-60	5.457E+02	5.626E+01	9.510E+00	0.000E+00
CD-109	3.194E+03	5.148E+02	3.619E+02	0.000E+00
SN-126	3.174E+02	5.117E+01	3.622E+01	0.000E+00
BA-137M	4.129E+02	3.500E+01	1.334E+01	0.000E+00
CS-137	4.365E+02	3.706E+01	1.410E+01	0.000E+00
RA-226	3.224E+02	3.577E+02	2.736E+02	0.000E+00
TH-232	2.639E+05	2.723E+06	2.135E+04	0.000E+00
PU-237	1.721E+04	2.250E+03	1.345E+03	0.000E+00
AM-241	1.397E+03	1.883E+02	1.092E+02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	5.574E+01	8.248E+01	1.424E+02	0.000E+00	NOT IDENT.
NA-22	-9.713E-01	5.576E+00	9.118E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00	3.043E+04	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.597E+00	6.150E+00	1.095E+01	0.000E+00	NOT IDENT.
K-40	1.273E+01	6.147E+01	1.226E+02	0.000E+00	NOT IDENT.
TI-44	2.038E-01	1.016E+01	1.670E+01	0.000E+00	NOT IDENT.
SC-46	1.089E+01	1.108E+01	2.013E+01	0.000E+00	NOT IDENT.
V-48	-1.215E+01	1.395E+01	2.068E+01	0.000E+00	NOT IDENT.
CR-51	2.807E+01	7.673E+01	1.317E+02	0.000E+00	NOT IDENT.
MN-52	4.156E+00	1.207E+01	2.242E+01	0.000E+00	NOT IDENT.
MN-54	-3.685E+00	8.191E+00	1.297E+01	0.000E+00	NOT IDENT.
CO-56	-3.590E+00	1.097E+01	1.779E+01	0.000E+00	NOT IDENT.
CO-58	9.290E-02	9.365E+00	1.573E+01	0.000E+00	NOT IDENT.
FE-59	-1.037E+01	2.157E+01	3.339E+01	0.000E+00	NOT IDENT.
ZN-65	1.919E+01	2.169E+01	3.917E+01	0.000E+00	NOT IDENT.
GE-68	2.968E+01	3.254E+02	5.415E+02	0.000E+00	NOT IDENT.
AS-73	1.422E+02	4.240E+02	6.819E+02	0.000E+00	NOT IDENT.

AS-74	1.049E+01	1.557E+01	2.825E+01	0.000E+00	NOT IDENT.
SE-75	-3.383E+00	1.091E+01	1.804E+01	0.000E+00	FAIL ABUN
BR-77	1.249E+02	3.360E+02	5.652E+02	0.000E+00	FAIL ABUN
SR-82	4.561E+01	7.627E+01	1.360E+02	0.000E+00	NOT IDENT.
RB-83	6.442E+00	1.830E+01	3.074E+01	0.000E+00	NOT IDENT.
RB-84	1.205E+01	1.753E+01	3.115E+01	0.000E+00	NOT IDENT.
KR-85	-9.951E+02	2.070E+03	3.240E+03	0.000E+00	NOT IDENT.
SR-85	-4.718E+00	9.817E+00	1.536E+01	0.000E+00	NOT IDENT.
RB-86	9.161E+01	1.497E+02	2.646E+02	0.000E+00	NOT IDENT.
Y-88	1.772E+00	5.350E+00	9.863E+00	0.000E+00	NOT IDENT.
ZR-88	6.003E+00	7.059E+00	1.249E+01	0.000E+00	NOT IDENT.
Y-91	-1.201E+03	2.827E+03	4.511E+03	0.000E+00	NOT IDENT.
NB-94	-2.744E+00	7.709E+00	1.256E+01	0.000E+00	NOT IDENT.
NB-95	1.796E+00	9.140E+00	1.572E+01	0.000E+00	NOT IDENT.
NB-95M	-8.356E+00	2.699E+01	4.493E+01	0.000E+00	NOT IDENT.
ZR-95	5.719E+00	1.624E+01	2.833E+01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.958E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	3.380E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	2.996E+02	4.437E+02	7.956E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.190E+10	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.716E+00	8.414E+00	1.461E+01	0.000E+00	NOT IDENT.
RH-102	-6.141E+00	8.585E+00	1.319E+01	0.000E+00	NOT IDENT.
RU-103	1.855E+00	9.473E+00	1.574E+01	0.000E+00	NOT IDENT.
RH-106	-1.278E+01	7.187E+01	1.033E+02	0.000E+00	NOT IDENT.
RU-106	-1.278E+01	7.186E+01	1.033E+02	0.000E+00	NOT IDENT.
AG-108M	-1.638E+00	9.147E+00	1.484E+01	0.000E+00	NOT IDENT.
AG-110M	5.481E+00	1.006E+01	1.588E+01	0.000E+00	NOT IDENT.
IN-111	-3.080E+01	4.469E+01	7.239E+01	0.000E+00	NOT IDENT.
IN-113M	-7.991E-01	1.059E+01	1.740E+01	0.000E+00	NOT IDENT.
SN-113	-7.991E-01	1.059E+01	1.740E+01	0.000E+00	NOT IDENT.
IN-114M	-3.047E+01	4.555E+01	6.506E+01	0.000E+00	NOT IDENT.
CD-115	-1.240E+02	2.612E+02	4.306E+02	0.000E+00	NOT IDENT.
SN-117M	1.247E+00	9.168E+00	1.590E+01	0.000E+00	NOT IDENT.
SB-122	3.555E+00	6.830E+01	1.177E+02	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.120E+05	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-8.704E-02	6.595E+00	1.135E+01	0.000E+00	NOT IDENT.
I-124	4.960E+01	4.384E+01	8.227E+01	0.000E+00	NOT IDENT.
SB-124	-9.766E+00	1.136E+01	1.249E+01	0.000E+00	NOT IDENT.
SB-125	-9.383E+00	2.561E+01	4.089E+01	0.000E+00	NOT IDENT.
TE-125M	-1.102E+03	2.426E+03	3.833E+03	0.000E+00	NOT IDENT.
I-126	-9.381E+00	2.877E+01	4.013E+01	0.000E+00	NOT IDENT.
SB-126	1.184E+01	2.145E+01	3.832E+01	0.000E+00	NOT IDENT.
SB-127	6.286E+01	8.333E+01	1.517E+02	0.000E+00	NOT IDENT.
XE-127	-1.224E+01	1.007E+01	1.596E+01	0.000E+00	NOT IDENT.
I-131	-1.179E+00	1.731E+01	2.861E+01	0.000E+00	NOT IDENT.
TE-132	1.894E+00	3.790E+01	6.452E+01	0.000E+00	NOT IDENT.
BA-133	-1.124E+00	1.129E+01	1.863E+01	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.814E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	1.064E+00	1.182E+01	2.004E+01	0.000E+00	NOT IDENT.
CS-135	-3.319E+00	3.850E+01	6.453E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.277E+09	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-8.961E-01	2.055E+01	3.373E+01	0.000E+00	NOT IDENT.
CE-139	9.154E-01	6.825E+00	1.182E+01	0.000E+00	NOT IDENT.
BA-140	9.109E+00	3.838E+01	6.725E+01	0.000E+00	NOT IDENT.
LA-140	2.576E+00	1.023E+01	1.817E+01	0.000E+00	NOT IDENT.
CE-141	-7.203E+00	1.307E+01	2.194E+01	0.000E+00	NOT IDENT.
CE-143	2.542E+02	7.419E+02	1.271E+03	0.000E+00	NOT IDENT.
CE-144	-3.467E+01	5.354E+01	8.238E+01	0.000E+00	NOT IDENT.
PM-144	4.830E-01	8.610E+00	1.466E+01	0.000E+00	NOT IDENT.
PR-144	3.260E+01	5.811E+02	9.892E+02	0.000E+00	NOT IDENT.
PM-146	-1.769E+00	1.197E+01	1.940E+01	0.000E+00	NOT IDENT.
ND-147	-3.801E+00	8.538E+01	1.463E+02	0.000E+00	FAIL ABUN
PM-149	7.804E+02	2.269E+03	3.896E+03	0.000E+00	NOT IDENT.
EU-152	5.183E+00	2.409E+01	4.079E+01	0.000E+00	FAIL ABUN
GD-153	-5.852E+00	2.320E+01	3.538E+01	0.000E+00	NOT IDENT.
EU-154	-2.723E+00	1.564E+01	2.557E+01	0.000E+00	FAIL ABUN
EU-155	9.484E+00	2.851E+01	4.734E+01	0.000E+00	FAIL ABUN
TB-160	1.370E+01	3.794E+01	6.552E+01	0.000E+00	FAIL ABUN
HO-166M	3.535E+00	1.423E+01	2.468E+01	0.000E+00	FAIL ABUN
TM-171	-3.803E+03	8.921E+03	1.438E+04	0.000E+00	FAIL ABUN
HF-175	6.224E+00	8.170E+00	1.438E+01	0.000E+00	FAIL ABUN
LU-176	-5.216E+00	6.410E+00	1.010E+01	0.000E+00	FAIL ABUN
LU-177	-1.710E+00	1.149E+02	1.957E+02	0.000E+00	NOT IDENT.
LU-177M	-9.354E+00	4.507E+01	7.307E+01	0.000E+00	FAIL ABUN
HF-181	-2.468E+00	1.044E+01	1.672E+01	0.000E+00	NOT IDENT.
W-181	-3.617E-01	1.127E+02	1.862E+02	0.000E+00	NOT IDENT.
TA-182	-1.066E+01	2.996E+01	4.829E+01	0.000E+00	NOT IDENT.
RE-183	-2.241E+01	2.368E+01	3.853E+01	0.000E+00	FAIL ABUN

RE-184	2.189E+01	6.287E+01	1.083E+02	0.000E+00	FAIL ABUN
OS-185	-5.647E+00	1.023E+01	1.648E+01	0.000E+00	FAIL ABUN
RE-188	1.870E+01	3.830E+01	6.767E+01	0.000E+00	NOT IDENT.
W-188	3.223E+02	1.666E+03	2.835E+03	0.000E+00	NOT IDENT.
IR-192	-4.395E-01	7.972E+00	1.328E+01	0.000E+00	NOT IDENT.
AU-195	1.979E+01	6.006E+01	9.969E+01	0.000E+00	NOT IDENT.
TL-200	-5.201E+02	1.080E+03	1.725E+03	0.000E+00	NOT IDENT.
TL-201	5.371E+02	3.085E+02	5.757E+02	0.000E+00	NOT IDENT.
TL-202	-1.837E+00	1.274E+01	2.070E+01	0.000E+00	NOT IDENT.
HG-203	5.224E+00	8.467E+00	1.484E+01	0.000E+00	NOT IDENT.
BI-207	-7.535E+00	1.425E+01	2.199E+01	0.000E+00	NOT IDENT.
TL-207	8.420E+01	1.660E+02	2.864E+02	0.000E+00	FAIL ABUN
TL-208	-5.615E-01	9.284E+00	1.583E+01	0.000E+00	NOT IDENT.
PO-209	-5.871E+02	2.111E+03	3.416E+03	0.000E+00	NOT IDENT.
BI-210	-1.253E+03	1.731E+03	2.773E+03	0.000E+00	NOT IDENT.
PB-210	-1.253E+03	1.731E+03	2.773E+03	0.000E+00	NOT IDENT.
PO-210	-1.253E+03	1.730E+03	2.773E+03	0.000E+00	NOT IDENT.
BI-211	1.966E+01	5.483E+01	9.378E+01	0.000E+00	NOT IDENT.
PB-211	6.320E+01	2.455E+02	4.087E+02	0.000E+00	NOT IDENT.
BI-212	1.939E+01	5.942E+01	1.041E+02	0.000E+00	NOT IDENT.
PB-212	-1.507E+01	1.489E+01	2.405E+01	0.000E+00	FAIL ABUN
PO-212	-1.507E+01	1.489E+01	2.405E+01	0.000E+00	FAIL ABUN
BI-214	8.613E+00	1.725E+01	3.119E+01	0.000E+00	NOT IDENT.
PB-214	7.030E+00	1.903E+01	3.257E+01	0.000E+00	FAIL ABUN
PO-214	7.030E+00	1.903E+01	3.257E+01	0.000E+00	FAIL ABUN
PO-215	8.420E+01	1.660E+02	2.864E+02	0.000E+00	FAIL ABUN
PO-216	-1.507E+01	1.489E+01	2.405E+01	0.000E+00	FAIL ABUN
PO-218	7.030E+00	1.903E+01	3.257E+01	0.000E+00	FAIL ABUN
RN-219	-1.630E+01	1.055E+02	1.720E+02	0.000E+00	NOT IDENT.
RN-220	6.933E+03	6.265E+03	1.175E+04	0.000E+00	NOT IDENT.
RA-223	8.420E+01	1.660E+02	2.864E+02	0.000E+00	FAIL ABUN
RA-224	1.307E+02	1.594E+02	2.824E+02	0.000E+00	NOT IDENT.
AC-227	4.210E+01	1.061E+02	1.831E+02	0.000E+00	NOT IDENT.
PA-227	0.000E+00	3.542E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	4.210E+01	1.062E+02	1.831E+02	0.000E+00	NOT IDENT.
AC-228	-2.642E+01	4.026E+01	6.385E+01	0.000E+00	NOT IDENT.
RA-228	-2.642E+01	4.026E+01	6.385E+01	0.000E+00	NOT IDENT.
TH-228	-1.507E+01	1.489E+01	2.405E+01	0.000E+00	FAIL ABUN
TH-229	3.254E+01	1.266E+02	2.194E+02	0.000E+00	FAIL ABUN
TH-230	3.753E+02	4.303E+03	5.944E+03	0.000E+00	NOT IDENT.
PA-231	1.577E+02	3.817E+02	6.586E+02	0.000E+00	NOT IDENT.
TH-231	3.126E+01	1.532E+02	2.280E+02	0.000E+00	NOT IDENT.
U-231	2.208E+01	9.747E+01	1.440E+02	0.000E+00	FAIL ABUN
PA-233	-1.440E+00	1.682E+01	2.798E+01	0.000E+00	FAIL ABUN
PA-234	-3.391E+01	9.645E+01	1.546E+02	0.000E+00	FAIL ABUN
PA-234M	3.378E+02	1.224E+03	2.094E+03	0.000E+00	NOT IDENT.
TH-234	-5.220E+01	4.845E+02	7.317E+02	0.000E+00	FAIL ABUN
U-234	-8.795E+03	9.250E+04	5.519E+04	0.000E+00	NOT IDENT.
U-235	8.121E+00	5.279E+01	9.184E+01	0.000E+00	FAIL ABUN
NP-236	8.337E+00	1.872E+01	3.300E+01	0.000E+00	NOT IDENT.
NP-237	0.000E+00	1.445E+02	1.748E+02	0.000E+00	NOT IDENT.
U-238	-5.220E+01	4.845E+02	7.317E+02	0.000E+00	FAIL ABUN
NP-239	-1.132E-01	6.009E+01	8.652E+01	0.000E+00	NOT IDENT.
AM-243	4.290E+00	1.698E+01	2.829E+01	0.000E+00	FAIL ABUN
CM-243	-5.819E+00	2.541E+01	4.075E+01	0.000E+00	NOT IDENT.
AM-246	-3.874E+00	3.759E+01	6.111E+01	0.000E+00	NOT IDENT.
CM-247	3.260E+00	9.567E+00	1.624E+01	0.000E+00	NOT IDENT.
CF-249	-2.266E+00	9.949E+00	1.615E+01	0.000E+00	NOT IDENT.
CF-251	-3.433E+00	3.034E+01	5.173E+01	0.000E+00	NOT IDENT.
ANH-511	-1.524E+01	9.635E+00	1.624E+01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 17:42:18.85

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202003337.CNF;1
Sample date       : 24-DEC-2009 00:00:00 Acquisition date : 31-DEC-2009 16:41:51
Sample ID         : G1202003337          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM01                Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:00.69  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 936274                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.49	932	364	1.18	119.75	114	10	2.59E-01	5.0	
2	0	88.01	572	280	1.31	176.79	171	11	1.59E-01	7.0	
3	0	92.30	63	184	1.38	185.36	182	8	1.76E-02	39.0	
4	0	122.08	121	260	1.09	244.92	239	12	3.36E-02	28.2	
5	0	185.19	103	160	1.84	371.13	366	11	2.85E-02	25.8	
6	0	628.00	16	31	1.21	1256.56	1250	10	4.33E-03	72.7	
7	0	661.59	920	31	1.34	1323.71	1318	14	2.56E-01	3.5	
8	0	1172.79	793	25	1.86	2345.69	2339	14	2.20E-01	3.8	
9	0	1331.99	762	4	1.87	2663.91	2657	14	2.12E-01	3.7	

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 17:42:21.87

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202003337.CNF;1
Sample date       : 24-DEC-2009 00:00:00 Acquisition date : 31-DEC-2009 16:41:51
Sample ID         : G1202003337          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM01                Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:00.69  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 936274                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
CO-57	122.06	121	85.51*	2.336E+00	2.277E+01	2.322E+01	56.75
	136.48	------	10.60	2.365E+00	------ Line Not Found		------
CO-60	1173.22	793	100.00	5.832E-01	5.106E+02	5.121E+02	9.36
	1332.49	762	100.00*	5.259E-01	5.442E+02	5.457E+02	10.52
CD-109	88.03	572	3.72*	1.830E+00	3.157E+03	3.194E+03	16.45
SN-126	64.28	------	9.60	9.142E-01	------ Line Not Found		------
	86.94	572	8.90	1.830E+00	1.320E+03	1.320E+03	43.67
	87.57	572	37.00*	1.830E+00	3.174E+02	3.174E+02	16.45
BA-137M	661.65	920	89.98*	9.301E-01	4.127E+02	4.129E+02	8.65
CS-137	661.65	920	85.12*	9.301E-01	4.363E+02	4.365E+02	8.66
RA-226	186.21	62	3.28*	2.194E+00	3.224E+02	3.224E+02	113.21
TH-232	59.00	932	0.19*	6.975E-01	2.639E+05	2.639E+05	1052.72
PU-237	59.54	932	3.28*	6.975E-01	1.529E+04	1.721E+04	13.34
AM-241	59.54	932	35.90*	6.975E-01	1.397E+03	1.397E+03	13.75

Flag: "*" = Keyline

Sample ID : G1202003337 Acquisition date : 31-DEC-2009 16:41:51

Total number of lines in spectrum	9	
Number of unidentified lines	1	
Number of lines tentatively identified by NID	8	88.89%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	270.90D	1.02	2.277E+01	2.322E+01	1.318E+01	56.75	
CO-60	5.27Y	1.00	5.442E+02	5.457E+02	0.574E+02	10.52	
CD-109	464.00D	1.01	3.157E+03	3.194E+03	0.525E+03	16.45	
SN-126	1.00E+05Y	1.00	3.174E+02	3.174E+02	0.522E+02	16.45	
BA-137M	30.17Y	1.00	4.127E+02	4.129E+02	0.357E+02	8.65	
CS-137	30.17Y	1.00	4.363E+02	4.365E+02	0.378E+02	8.66	
RA-226	1600.00Y	1.00	3.224E+02	3.224E+02	3.650E+02	113.21	
TH-232	1.41E+10Y	1.00	2.639E+05	2.639E+05	27.79E+05	1052.72	
PU-237	45.20D	1.13	1.529E+04	1.721E+04	0.230E+04	13.34	
AM-241	432.20Y	1.00	1.397E+03	1.397E+03	0.192E+03	13.75	
	Total Activity :		2.858E+05	2.878E+05			

Grand Total Activity : 2.858E+05 2.878E+05

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202003337 Acquisition date : 31-DEC-2009 16:41:51

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.30	2	184	1.38	185.36	182	8	5.34E-04	****	1.94E+00	T
0	628.00	16	31	1.21	1256.56	1250	10	4.33E-03	****	9.69E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 17:42:26.64

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202003337.CNF;1  *
* Acquisition date  : 31-DEC-2009 16:41:51  Detector SN#     :             *
* Detector ID       : GAM01                 Sensitivity      : 5.00000     *
* Geometry          : 2LMB                  Energy tolerance: 1.50000      *
* Elapsed live time: 0 01:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 01:00:00.69          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 24-DEC-2009 00:00:00  Nuclide Library : LIQUID       *
* Sample ID         : G1202003337           Analyst initials: KXG3         *
* Batch Number      : 936274                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 29-JAN-2009 14:58:37.9MS Isotope      :               *
* MSD ID           :                      MSD Isotope     :               *
* LCS ID           : 1032-A               LCS Isotope     :               *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-57	2.322E+01	1.318E+01	1.115E+01	7.679E-01	2.083
CO-60	5.457E+02	5.741E+01	9.510E+00	7.193E-01	57.384
CD-109	3.194E+03	5.253E+02	3.619E+02	3.079E+01	8.824
SN-126	3.174E+02	5.221E+01	3.622E+01	3.075E+00	8.764
BA-137M	4.129E+02	3.571E+01	1.334E+01	6.625E-01	30.947
CS-137	4.365E+02	3.782E+01	1.410E+01	7.043E-01	30.947
RA-226	3.224E+02	3.650E+02	2.736E+02	2.007E+02	1.178
TH-232	2.639E+05	2.779E+06	2.135E+04	2.248E+05	12.361
PU-237	1.721E+04	2.296E+03	1.345E+03	1.179E+02	12.794
AM-241	1.397E+03	1.921E+02	1.092E+02	1.024E+01	12.794

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	5.574E+01		8.416E+01	1.424E+02	9.724E+00	0.391
NA-22	-9.713E-01		5.690E+00	9.118E+00	6.195E-01	-0.107

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NA-24	-7.905E-03		1.553E-02	Half-Life too short		
AL-26	1.597E+00		6.276E+00	1.095E+01	6.410E-01	0.146
K-40	1.273E+01		6.273E+01	1.226E+02	9.299E+00	0.104
TI-44	2.038E-01		1.037E+01	1.670E+01	1.366E+00	0.012
SC-46	1.089E+01		1.130E+01	2.013E+01	1.278E+00	0.541
V-48	-1.215E+01		1.423E+01	2.068E+01	1.290E+00	-0.587
CR-51	2.807E+01		7.830E+01	1.317E+02	8.804E+00	0.213
MN-52	4.156E+00		1.232E+01	2.242E+01	1.651E+00	0.185
MN-54	-3.685E+00		8.358E+00	1.297E+01	7.808E-01	-0.284
CO-56	-3.590E+00		1.120E+01	1.779E+01	1.084E+00	-0.202
CO-58	9.290E-02		9.556E+00	1.573E+01	9.285E-01	0.006
FE-59	-1.037E+01		2.201E+01	3.339E+01	2.281E+00	-0.311
ZN-65	1.919E+01		2.213E+01	3.917E+01	2.267E+00	0.490
GE-68	2.968E+01		3.321E+02	5.415E+02	3.213E+01	0.055
AS-73	1.422E+02		4.326E+02	6.819E+02	6.180E+01	0.208
AS-74	1.049E+01		1.588E+01	2.825E+01	1.533E+00	0.371
SE-75	-3.383E+00		1.113E+01	1.804E+01	1.085E+00	-0.188
BR-77	1.249E+02		3.429E+02	5.652E+02	3.265E+01	0.221
SR-82	4.561E+01		7.783E+01	1.360E+02	7.704E+00	0.335
RB-83	6.442E+00		1.868E+01	3.074E+01	1.776E+00	0.210
RB-84	1.205E+01		1.789E+01	3.115E+01	1.964E+00	0.387
KR-85	-9.951E+02		2.113E+03	3.240E+03	1.878E+02	-0.307
SR-85	-4.718E+00		1.002E+01	1.536E+01	8.906E-01	-0.307
RB-86	9.161E+01		1.528E+02	2.646E+02	1.571E+01	0.346
Y-88	1.772E+00		5.459E+00	9.863E+00	5.634E-01	0.180
ZR-88	6.003E+00		7.203E+00	1.249E+01	7.385E-01	0.481
Y-91	-1.201E+03		2.885E+03	4.511E+03	2.656E+02	-0.266
NB-94	-2.744E+00		7.866E+00	1.256E+01	6.550E-01	-0.218
NB-95	1.796E+00		9.326E+00	1.572E+01	8.798E-01	0.114
NB-95M	-8.356E+00		2.754E+01	4.493E+01	3.399E+00	-0.186
ZR-95	5.719E+00		1.657E+01	2.833E+01	1.932E+00	0.202
NB-97	2.218E-02		9.991E-03	Half-Life too short		
ZR-97	-4.225E-01		1.725E-01	Half-Life too short		
MO-99	2.996E+02		4.527E+02	7.956E+02	1.085E+02	0.377
TC-99M	-2.494E+03		6.070E+03	Half-Life too short		
RH-101	2.716E+00		8.586E+00	1.461E+01	8.287E-01	0.186
RH-102	-6.141E+00		8.760E+00	1.319E+01	7.772E-01	-0.466
RU-103	1.855E+00		9.666E+00	1.574E+01	1.994E+00	0.118
RH-106	-1.278E+01		7.334E+01	1.033E+02	1.186E+01	-0.124
RU-106	-1.278E+01		7.332E+01	1.033E+02	5.437E+00	-0.124
AG-108M	-1.638E+00		9.334E+00	1.484E+01	9.527E-01	-0.110
AG-110M	5.481E+00		1.027E+01	1.588E+01	8.616E-01	0.345
IN-111	-3.080E+01		4.560E+01	7.239E+01	4.262E+00	-0.425
IN-113M	-7.991E-01		1.080E+01	1.740E+01	1.095E+00	-0.046
SN-113	-7.991E-01		1.080E+01	1.740E+01	1.095E+00	-0.046
IN-114M	-3.047E+01		4.648E+01	6.506E+01	3.669E+00	-0.468
CD-115	-1.240E+02		2.666E+02	4.306E+02	2.476E+01	-0.288
SN-117M	1.247E+00		9.355E+00	1.590E+01	9.117E-01	0.078

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
SB-122	3.555E+00		6.970E+01	1.177E+02	6.587E+00	0.030
I-123	-1.479E-03		5.716E-02	Half-Life too short		
TE-123M	-8.704E-02		6.729E+00	1.135E+01	6.585E-01	-0.008
I-124	4.960E+01		4.474E+01	8.227E+01	4.431E+00	0.603
SB-124	-9.766E+00		1.159E+01	1.249E+01	8.619E-01	-0.782
SB-125	-9.383E+00		2.613E+01	4.089E+01	2.525E+00	-0.229
TE-125M	-1.102E+03		2.476E+03	3.833E+03	3.480E+02	-0.287
I-126	-9.381E+00		2.936E+01	4.013E+01	2.004E+00	-0.234
SB-126	1.184E+01		2.188E+01	3.832E+01	2.039E+00	0.309
SB-127	6.286E+01		8.503E+01	1.517E+02	1.008E+01	0.414
XE-127	-1.224E+01		1.027E+01	1.596E+01	9.093E-01	-0.766
I-131	-1.179E+00		1.766E+01	2.861E+01	1.888E+00	-0.041
TE-132	1.894E+00		3.867E+01	6.452E+01	8.516E+00	0.029
BA-133	-1.124E+00		1.152E+01	1.863E+01	2.174E+00	-0.060
I-133	2.456E-03		1.946E-03	Half-Life too short		
CS-134	1.064E+00		1.207E+01	2.004E+01	1.177E+00	0.053
CS-135	-3.319E+00		3.928E+01	6.453E+01	5.024E+00	-0.051
I-135	1.750E+03		2.692E+03	Half-Life too short		
CS-136	-8.961E-01		2.097E+01	3.373E+01	2.208E+00	-0.027
CE-139	9.154E-01		6.964E+00	1.182E+01	6.581E-01	0.077
BA-140	9.109E+00		3.916E+01	6.725E+01	2.186E+01	0.135
LA-140	2.576E+00		1.043E+01	1.817E+01	1.246E+00	0.142
CE-141	-7.203E+00		1.334E+01	2.194E+01	1.379E+00	-0.328
CE-143	2.542E+02		7.571E+02	1.271E+03	2.609E+02	0.200
CE-144	-3.467E+01		5.463E+01	8.238E+01	1.192E+01	-0.421
PM-144	4.830E-01		8.785E+00	1.466E+01	7.587E-01	0.033
PR-144	3.260E+01		5.930E+02	9.892E+02	5.120E+01	0.033
PM-146	-1.769E+00		1.222E+01	1.940E+01	1.688E+00	-0.091
ND-147	-3.801E+00		8.713E+01	1.463E+02	1.974E+01	-0.026
PM-149	7.804E+02		2.315E+03	3.896E+03	5.549E+02	0.200
EU-152	5.183E+00		2.458E+01	4.079E+01	2.753E+00	0.127
GD-153	-5.852E+00		2.367E+01	3.538E+01	2.703E+00	-0.165
EU-154	-2.723E+00		1.595E+01	2.557E+01	2.552E+00	-0.106
EU-155	9.484E+00		2.909E+01	4.734E+01	3.482E+00	0.200
TB-160	1.370E+01		3.871E+01	6.552E+01	4.123E+00	0.209
HO-166M	3.535E+00		1.452E+01	2.468E+01	1.300E+00	0.143
TM-171	-3.803E+03		9.103E+03	1.438E+04	1.195E+03	-0.264
HF-175	6.224E+00		8.337E+00	1.438E+01	8.679E-01	0.433
LU-176	-5.216E+00		6.540E+00	1.010E+01	6.102E-01	-0.516
LU-177	-1.710E+00		1.173E+02	1.957E+02	1.120E+01	-0.009
LU-177M	-9.354E+00		4.599E+01	7.307E+01	4.334E+00	-0.128
HF-181	-2.468E+00		1.066E+01	1.672E+01	9.828E-01	-0.148
W-181	-3.617E-01		1.150E+02	1.862E+02	1.560E+01	-0.002
TA-182	-1.066E+01		3.057E+01	4.829E+01	2.944E+00	-0.221
RE-183	-2.241E+01		2.417E+01	3.853E+01	2.175E+00	-0.582
RE-184	2.189E+01		6.415E+01	1.083E+02	6.408E+00	0.202
OS-185	-5.647E+00		1.044E+01	1.648E+01	8.385E-01	-0.343
RE-188	1.870E+01		3.908E+01	6.767E+01	3.936E+00	0.276

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
W-188	3.223E+02		1.700E+03	2.835E+03	1.707E+02	0.114
IR-192	-4.395E-01		8.135E+00	1.328E+01	8.069E-01	-0.033
AU-195	1.979E+01		6.129E+01	9.969E+01	7.524E+00	0.199
TL-200	-5.201E+02		1.102E+03	1.725E+03	1.033E+02	-0.302
TL-201	5.371E+02		3.148E+02	5.757E+02	3.204E+01	0.933
TL-202	-1.837E+00		1.300E+01	2.070E+01	1.228E+00	-0.089
HG-203	5.224E+00		8.640E+00	1.484E+01	9.415E-01	0.352
BI-207	-7.535E+00		1.454E+01	2.199E+01	1.316E+00	-0.343
TL-207	8.420E+01		1.694E+02	2.864E+02	4.756E+01	0.294
TL-208	-5.615E-01		9.473E+00	1.583E+01	1.017E+00	-0.035
PO-209	-5.871E+02		2.154E+03	3.416E+03	2.186E+02	-0.172
BI-210	-1.253E+03		1.766E+03	2.773E+03	2.382E+02	-0.452
PB-210	-1.253E+03		1.766E+03	2.773E+03	2.382E+02	-0.452
PO-210	-1.253E+03		1.766E+03	2.773E+03	2.115E+02	-0.452
BI-211	1.966E+01		5.595E+01	9.378E+01	6.225E+00	0.210
PB-211	6.320E+01		2.505E+02	4.087E+02	2.549E+02	0.155
BI-212	1.939E+01		6.064E+01	1.041E+02	7.693E+00	0.186
PB-212	-1.507E+01		1.520E+01	2.405E+01	1.774E+00	-0.626
PO-212	-1.507E+01		1.520E+01	2.405E+01	1.774E+00	-0.626
BI-214	8.613E+00		1.760E+01	3.119E+01	2.322E+00	0.276
PB-214	7.030E+00		1.942E+01	3.257E+01	2.749E+00	0.216
PO-214	7.030E+00		1.942E+01	3.257E+01	2.749E+00	0.216
PO-215	8.420E+01		1.694E+02	2.864E+02	4.756E+01	0.294
PO-216	-1.507E+01		1.520E+01	2.405E+01	1.774E+00	-0.626
PO-218	7.030E+00		1.942E+01	3.257E+01	2.749E+00	0.216
RN-219	-1.630E+01		1.077E+02	1.720E+02	2.350E+01	-0.095
RN-220	6.933E+03		6.393E+03	1.175E+04	6.654E+02	0.590
RA-223	8.420E+01		1.694E+02	2.864E+02	4.756E+01	0.294
RA-224	1.307E+02		1.627E+02	2.824E+02	1.657E+01	0.463
AC-227	4.210E+01		1.083E+02	1.831E+02	2.565E+01	0.230
PA-227	-1.000E+35		1.807E+35	Half-Life too short		
TH-227	4.210E+01		1.084E+02	1.831E+02	3.102E+01	0.230
AC-228	-2.642E+01		4.109E+01	6.385E+01	6.154E+00	-0.414
RA-228	-2.642E+01		4.109E+01	6.385E+01	6.154E+00	-0.414
TH-228	-1.507E+01		1.520E+01	2.405E+01	1.774E+00	-0.626
TH-229	3.254E+01		1.292E+02	2.194E+02	1.241E+01	0.148
TH-230	3.753E+02		4.390E+03	5.944E+03	3.856E+04	0.063
PA-231	1.577E+02		3.895E+02	6.586E+02	9.134E+01	0.239
TH-231	3.126E+01		1.563E+02	2.280E+02	4.038E+01	0.137
U-231	2.208E+01		9.946E+01	1.440E+02	1.116E+01	0.153
PA-233	-1.440E+00		1.716E+01	2.798E+01	1.789E+00	-0.051
PA-234	-3.391E+01		9.842E+01	1.546E+02	2.755E+01	-0.219
PA-234M	3.378E+02		1.249E+03	2.094E+03	1.666E+02	0.161
TH-234	-5.220E+01		4.944E+02	7.317E+02	1.312E+02	-0.071
U-234	-8.795E+03		9.439E+04	5.519E+04	5.519E+05	-0.159
U-235	8.121E+00		5.387E+01	9.184E+01	1.508E+01	0.088
NP-236	8.337E+00		1.910E+01	3.300E+01	1.878E+00	0.253
NP-237	4.958E+02		1.474E+02	1.748E+02	3.898E+01	2.835

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
U-238	-5.220E+01		4.944E+02	7.317E+02	1.312E+02	-0.071
NP-239	-1.132E-01		6.131E+01	8.652E+01	5.997E+00	-0.001
AM-243	4.290E+00		1.733E+01	2.829E+01	2.306E+00	0.152
CM-243	-5.819E+00		2.593E+01	4.075E+01	2.973E+00	-0.143
AM-246	-3.874E+00		3.835E+01	6.111E+01	3.622E+00	-0.063
CM-247	3.260E+00		9.762E+00	1.624E+01	9.617E-01	0.201
CF-249	-2.266E+00		1.015E+01	1.615E+01	9.569E-01	-0.140
CF-251	-3.433E+00		3.096E+01	5.173E+01	2.891E+00	-0.066
ANH-511	-1.524E+01		9.831E+00	1.624E+01	9.430E-01	-0.939

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202003337          *
* Acquisition date  : 31-DEC-2009 16:41:51 Detector SN#     :               *
* Detector ID       : GAM01                Sensitivity      : 5.000         *
* Geometry          : 2LMB                 Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:00.69      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 24-DEC-2009 00:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G1202003337          Analyst initials: KXG3           *
* Batch Number      : 936274               Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 29-JAN-2009 14:58:37 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
CO-57	2.322E+01	1.291E+01	5.576E+00	6.589E+00
CO-60	5.457E+02	5.626E+01	4.758E+00	2.870E+01
CD-109	3.194E+03	5.148E+02	1.811E+02	2.627E+02
SN-126	3.174E+02	5.117E+01	1.812E+01	2.611E+01
BA-137M	4.129E+02	3.500E+01	6.675E+00	1.786E+01
CS-137	4.365E+02	3.706E+01	7.056E+00	1.891E+01
RA-226	3.224E+02	3.577E+02	1.369E+02	1.825E+02
TH-232	2.639E+05	2.723E+06	1.068E+04	1.389E+06
PU-237	1.721E+04	2.250E+03	6.730E+02	1.148E+03
AM-241	1.397E+03	1.883E+02	5.463E+01	9.607E+01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU	
BE-7	5.574E+01	8.248E+01	7.126E+01	4.208E+01	NOT IDENT.
NA-22	-9.713E-01	5.576E+00	4.562E+00	2.845E+00	NOT IDENT.
NA-24	-7.905E+03	3.043E+04	0.000E+00	1.553E+04	SHORT HLIF
AL-26	1.597E+00	6.150E+00	5.479E+00	3.138E+00	NOT IDENT.
K-40	1.273E+01	6.147E+01	6.135E+01	3.136E+01	NOT IDENT.
TI-44	2.038E-01	1.016E+01	8.354E+00	5.183E+00	NOT IDENT.
SC-46	1.089E+01	1.108E+01	1.007E+01	5.652E+00	NOT IDENT.
V-48	-1.215E+01	1.395E+01	1.035E+01	7.116E+00	NOT IDENT.
CR-51	2.807E+01	7.673E+01	6.587E+01	3.915E+01	NOT IDENT.
MN-52	4.156E+00	1.207E+01	1.122E+01	6.158E+00	NOT IDENT.
MN-54	-3.685E+00	8.191E+00	6.490E+00	4.179E+00	NOT IDENT.
CO-56	-3.590E+00	1.097E+01	8.899E+00	5.598E+00	NOT IDENT.
CO-58	9.290E-02	9.365E+00	7.869E+00	4.778E+00	NOT IDENT.
FE-59	-1.037E+01	2.157E+01	1.670E+01	1.101E+01	NOT IDENT.
ZN-65	1.919E+01	2.169E+01	1.960E+01	1.107E+01	NOT IDENT.
GE-68	2.968E+01	3.254E+02	2.709E+02	1.660E+02	NOT IDENT.
AS-73	1.422E+02	4.240E+02	3.412E+02	2.163E+02	NOT IDENT.

AS-74	1.049E+01	1.557E+01	1.414E+01	7.942E+00	NOT IDENT.
SE-75	-3.383E+00	1.091E+01	9.026E+00	5.567E+00	FAIL ABUN
BR-77	1.249E+02	3.360E+02	2.828E+02	1.714E+02	FAIL ABUN
SR-82	4.561E+01	7.627E+01	6.806E+01	3.891E+01	NOT IDENT.
RB-83	6.442E+00	1.830E+01	1.538E+01	9.338E+00	NOT IDENT.
RB-84	1.205E+01	1.753E+01	1.559E+01	8.944E+00	NOT IDENT.
KR-85	-9.951E+02	2.070E+03	1.621E+03	1.056E+03	NOT IDENT.
SR-85	-4.718E+00	9.817E+00	7.685E+00	5.009E+00	NOT IDENT.
RB-86	9.161E+01	1.497E+02	1.324E+02	7.640E+01	NOT IDENT.
Y-88	1.772E+00	5.350E+00	4.934E+00	2.730E+00	NOT IDENT.
ZR-88	6.003E+00	7.059E+00	6.249E+00	3.602E+00	NOT IDENT.
Y-91	-1.201E+03	2.827E+03	2.257E+03	1.442E+03	NOT IDENT.
NB-94	-2.744E+00	7.709E+00	6.286E+00	3.933E+00	NOT IDENT.
NB-95	1.796E+00	9.140E+00	7.862E+00	4.663E+00	NOT IDENT.
NB-95M	-8.356E+00	2.699E+01	2.248E+01	1.377E+01	NOT IDENT.
ZR-95	5.719E+00	1.624E+01	1.417E+01	8.287E+00	NOT IDENT.
NB-97	2.218E+04	1.958E+04	0.000E+00	9.991E+03	SHORT HLIF
ZR-97	-4.225E+05	3.380E+05	0.000E+00	1.725E+05	SHORT HLIF
MO-99	2.996E+02	4.437E+02	3.980E+02	2.264E+02	NOT IDENT.
TC-99M	-2.494E+09	1.190E+10	0.000E+00	6.070E+09	SHORT HLIF
RH-101	2.716E+00	8.414E+00	7.308E+00	4.293E+00	NOT IDENT.
RH-102	-6.141E+00	8.585E+00	6.599E+00	4.380E+00	NOT IDENT.
RU-103	1.855E+00	9.473E+00	7.876E+00	4.833E+00	NOT IDENT.
RH-106	-1.278E+01	7.187E+01	5.169E+01	3.667E+01	NOT IDENT.
RU-106	-1.278E+01	7.186E+01	5.169E+01	3.666E+01	NOT IDENT.
AG-108M	-1.638E+00	9.147E+00	7.424E+00	4.667E+00	NOT IDENT.
AG-110M	5.481E+00	1.006E+01	7.942E+00	5.133E+00	NOT IDENT.
IN-111	-3.080E+01	4.469E+01	3.622E+01	2.280E+01	NOT IDENT.
IN-113M	-7.991E-01	1.059E+01	8.708E+00	5.402E+00	NOT IDENT.
SN-113	-7.991E-01	1.059E+01	8.708E+00	5.402E+00	NOT IDENT.
IN-114M	-3.047E+01	4.555E+01	3.255E+01	2.324E+01	NOT IDENT.
CD-115	-1.240E+02	2.612E+02	2.154E+02	1.333E+02	NOT IDENT.
SN-117M	1.247E+00	9.168E+00	7.957E+00	4.677E+00	NOT IDENT.
SB-122	3.555E+00	6.830E+01	5.886E+01	3.485E+01	NOT IDENT.
I-123	-1.479E+03	1.120E+05	0.000E+00	5.716E+04	SHORT HLIF
TE-123M	-8.704E-02	6.595E+00	5.680E+00	3.365E+00	NOT IDENT.
I-124	4.960E+01	4.384E+01	4.116E+01	2.237E+01	NOT IDENT.
SB-124	-9.766E+00	1.136E+01	6.248E+00	5.797E+00	NOT IDENT.
SB-125	-9.383E+00	2.561E+01	2.046E+01	1.307E+01	NOT IDENT.
TE-125M	-1.102E+03	2.426E+03	1.918E+03	1.238E+03	NOT IDENT.
I-126	-9.381E+00	2.877E+01	2.008E+01	1.468E+01	NOT IDENT.
SB-126	1.184E+01	2.145E+01	1.917E+01	1.094E+01	NOT IDENT.
SB-127	6.286E+01	8.333E+01	7.588E+01	4.251E+01	NOT IDENT.
XE-127	-1.224E+01	1.007E+01	7.987E+00	5.136E+00	NOT IDENT.
I-131	-1.179E+00	1.731E+01	1.431E+01	8.832E+00	NOT IDENT.
TE-132	1.894E+00	3.790E+01	3.228E+01	1.934E+01	NOT IDENT.
BA-133	-1.124E+00	1.129E+01	9.321E+00	5.760E+00	NOT IDENT.
I-133	2.456E+03	3.814E+03	0.000E+00	1.946E+03	SHORT HLIF
CS-134	1.064E+00	1.182E+01	1.002E+01	6.033E+00	NOT IDENT.
CS-135	-3.319E+00	3.850E+01	3.229E+01	1.964E+01	NOT IDENT.
I-135	1.750E+09	5.277E+09	0.000E+00	2.692E+09	SHORT HLIF
CS-136	-8.961E-01	2.055E+01	1.688E+01	1.049E+01	NOT IDENT.
CE-139	9.154E-01	6.825E+00	5.914E+00	3.482E+00	NOT IDENT.
BA-140	9.109E+00	3.838E+01	3.364E+01	1.958E+01	NOT IDENT.
LA-140	2.576E+00	1.023E+01	9.089E+00	5.217E+00	NOT IDENT.
CE-141	-7.203E+00	1.307E+01	1.098E+01	6.670E+00	NOT IDENT.
CE-143	2.542E+02	7.419E+02	6.358E+02	3.785E+02	NOT IDENT.
CE-144	-3.467E+01	5.354E+01	4.122E+01	2.732E+01	NOT IDENT.
PM-144	4.830E-01	8.610E+00	7.332E+00	4.393E+00	NOT IDENT.
PR-144	3.260E+01	5.811E+02	4.949E+02	2.965E+02	NOT IDENT.
PM-146	-1.769E+00	1.197E+01	9.703E+00	6.108E+00	NOT IDENT.
ND-147	-3.801E+00	8.538E+01	7.318E+01	4.356E+01	FAIL ABUN
PM-149	7.804E+02	2.269E+03	1.949E+03	1.158E+03	NOT IDENT.
EU-152	5.183E+00	2.409E+01	2.040E+01	1.229E+01	FAIL ABUN
GD-153	-5.852E+00	2.320E+01	1.770E+01	1.183E+01	NOT IDENT.
EU-154	-2.723E+00	1.564E+01	1.279E+01	7.977E+00	FAIL ABUN
EU-155	9.484E+00	2.851E+01	2.368E+01	1.455E+01	FAIL ABUN
TB-160	1.370E+01	3.794E+01	3.278E+01	1.935E+01	FAIL ABUN
HO-166M	3.535E+00	1.423E+01	1.235E+01	7.261E+00	FAIL ABUN
TM-171	-3.803E+03	8.921E+03	7.195E+03	4.551E+03	FAIL ABUN
HF-175	6.224E+00	8.170E+00	7.192E+00	4.168E+00	FAIL ABUN
LU-176	-5.216E+00	6.410E+00	5.052E+00	3.270E+00	FAIL ABUN
LU-177	-1.710E+00	1.149E+02	9.792E+01	5.863E+01	NOT IDENT.
LU-177M	-9.354E+00	4.507E+01	3.656E+01	2.299E+01	FAIL ABUN
HF-181	-2.468E+00	1.044E+01	8.364E+00	5.328E+00	NOT IDENT.
W-181	-3.617E-01	1.127E+02	9.317E+01	5.751E+01	NOT IDENT.
TA-182	-1.066E+01	2.996E+01	2.416E+01	1.529E+01	NOT IDENT.
RE-183	-2.241E+01	2.368E+01	1.928E+01	1.208E+01	FAIL ABUN

RE-184	2.189E+01	6.287E+01	5.420E+01	3.207E+01	FAIL ABUN
OS-185	-5.647E+00	1.023E+01	8.246E+00	5.221E+00	FAIL ABUN
RE-188	1.870E+01	3.830E+01	3.385E+01	1.954E+01	NOT IDENT.
W-188	3.223E+02	1.666E+03	1.418E+03	8.499E+02	NOT IDENT.
IR-192	-4.395E-01	7.972E+00	6.643E+00	4.067E+00	NOT IDENT.
AU-195	1.979E+01	6.006E+01	4.988E+01	3.064E+01	NOT IDENT.
TL-200	-5.201E+02	1.080E+03	8.629E+02	5.509E+02	NOT IDENT.
TL-201	5.371E+02	3.085E+02	2.880E+02	1.574E+02	NOT IDENT.
TL-202	-1.837E+00	1.274E+01	1.036E+01	6.502E+00	NOT IDENT.
HG-203	5.224E+00	8.467E+00	7.425E+00	4.320E+00	NOT IDENT.
BI-207	-7.535E+00	1.425E+01	1.100E+01	7.268E+00	NOT IDENT.
TL-207	8.420E+01	1.660E+02	1.433E+02	8.469E+01	FAIL ABUN
TL-208	-5.615E-01	9.284E+00	7.919E+00	4.737E+00	NOT IDENT.
PO-209	-5.871E+02	2.111E+03	1.709E+03	1.077E+03	NOT IDENT.
BI-210	-1.253E+03	1.731E+03	1.387E+03	8.832E+02	NOT IDENT.
PB-210	-1.253E+03	1.731E+03	1.387E+03	8.832E+02	NOT IDENT.
PO-210	-1.253E+03	1.730E+03	1.387E+03	8.829E+02	NOT IDENT.
BI-211	1.966E+01	5.483E+01	4.692E+01	2.798E+01	NOT IDENT.
PB-211	6.320E+01	2.455E+02	2.045E+02	1.252E+02	NOT IDENT.
BI-212	1.939E+01	5.942E+01	5.208E+01	3.032E+01	NOT IDENT.
PB-212	-1.507E+01	1.489E+01	1.203E+01	7.599E+00	FAIL ABUN
PO-212	-1.507E+01	1.489E+01	1.203E+01	7.599E+00	FAIL ABUN
BI-214	8.613E+00	1.725E+01	1.560E+01	8.801E+00	NOT IDENT.
PB-214	7.030E+00	1.903E+01	1.629E+01	9.709E+00	FAIL ABUN
PO-214	7.030E+00	1.903E+01	1.629E+01	9.709E+00	FAIL ABUN
PO-215	8.420E+01	1.660E+02	1.433E+02	8.469E+01	FAIL ABUN
PO-216	-1.507E+01	1.489E+01	1.203E+01	7.599E+00	FAIL ABUN
PO-218	7.030E+00	1.903E+01	1.629E+01	9.709E+00	FAIL ABUN
RN-219	-1.630E+01	1.055E+02	8.606E+01	5.383E+01	NOT IDENT.
RN-220	6.933E+03	6.265E+03	5.878E+03	3.197E+03	NOT IDENT.
RA-223	8.420E+01	1.660E+02	1.433E+02	8.469E+01	FAIL ABUN
RA-224	1.307E+02	1.594E+02	1.413E+02	8.134E+01	NOT IDENT.
AC-227	4.210E+01	1.061E+02	9.159E+01	5.415E+01	NOT IDENT.
PA-227	-1.000E+41	3.542E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	4.210E+01	1.062E+02	9.159E+01	5.419E+01	NOT IDENT.
AC-228	-2.642E+01	4.026E+01	3.194E+01	2.054E+01	NOT IDENT.
RA-228	-2.642E+01	4.026E+01	3.194E+01	2.054E+01	NOT IDENT.
TH-228	-1.507E+01	1.489E+01	1.203E+01	7.599E+00	FAIL ABUN
TH-229	3.254E+01	1.266E+02	1.098E+02	6.462E+01	FAIL ABUN
TH-230	3.753E+02	4.303E+03	2.974E+03	2.195E+03	NOT IDENT.
PA-231	1.577E+02	3.817E+02	3.295E+02	1.947E+02	NOT IDENT.
TH-231	3.126E+01	1.532E+02	1.141E+02	7.816E+01	NOT IDENT.
U-231	2.208E+01	9.747E+01	7.205E+01	4.973E+01	FAIL ABUN
PA-233	-1.440E+00	1.682E+01	1.400E+01	8.581E+00	FAIL ABUN
PA-234	-3.391E+01	9.645E+01	7.733E+01	4.921E+01	FAIL ABUN
PA-234M	3.378E+02	1.224E+03	1.047E+03	6.243E+02	NOT IDENT.
TH-234	-5.220E+01	4.845E+02	3.661E+02	2.472E+02	FAIL ABUN
U-234	-8.795E+03	9.250E+04	2.761E+04	4.720E+04	NOT IDENT.
U-235	8.121E+00	5.279E+01	4.595E+01	2.693E+01	FAIL ABUN
NP-236	8.337E+00	1.872E+01	1.651E+01	9.551E+00	NOT IDENT.
NP-237	4.958E+02	1.445E+02	8.748E+01	7.372E+01	NOT IDENT.
U-238	-5.220E+01	4.845E+02	3.661E+02	2.472E+02	FAIL ABUN
NP-239	-1.132E-01	6.009E+01	4.328E+01	3.066E+01	NOT IDENT.
AM-243	4.290E+00	1.698E+01	1.416E+01	8.663E+00	FAIL ABUN
CM-243	-5.819E+00	2.541E+01	2.039E+01	1.296E+01	NOT IDENT.
AM-246	-3.874E+00	3.759E+01	3.057E+01	1.918E+01	NOT IDENT.
CM-247	3.260E+00	9.567E+00	8.123E+00	4.881E+00	NOT IDENT.
CF-249	-2.266E+00	9.949E+00	8.079E+00	5.076E+00	NOT IDENT.
CF-251	-3.433E+00	3.034E+01	2.588E+01	1.548E+01	NOT IDENT.
ANH-511	-1.524E+01	9.635E+00	8.125E+00	4.916E+00	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	205.8505
46.50	205.8505
46.50	205.8505
48.70	208.8579
49.72	209.2952
51.35	264.8086
52.39	284.0147
52.97	281.2262
53.15	281.3254
53.20	281.3530
53.44	260.5031
54.07	235.5516
56.28	286.6782
56.28	286.6803
57.37	298.2565
57.53	301.4861
57.53	301.4875
57.60	301.5256
57.98	246.2105
57.98	246.2105
59.00	246.6754
59.32	246.8201
59.32	246.8201
59.40	246.8565
59.54	246.9193
59.54	246.9193
59.72	247.0005
60.01	197.1793
61.10	211.7934
61.14	211.8087
61.30	194.4772
63.00	176.0359
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63.29	169.7790
63.58	187.3286
64.28	171.6636
64.62	0.0000
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65.20	181.4901
65.20	181.4901
66.05	205.1401
66.72	191.5411
66.83	195.8341
66.91	195.8612
67.20	189.5677
67.20	189.5677
67.67	176.9289
67.75	176.9525
67.85	168.4536
68.90	170.8870
68.90	170.8870
69.30	191.3073
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70.82	193.9319
70.83	193.9346
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72.87	193.5059
74.67	203.7675
74.81	203.8127
74.81	203.8127
74.81	203.8127
74.81	203.8127
74.81	203.8127
74.81	203.8127

74.81	203.8127
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74.97	203.8646
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77.11	227.2800
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79.62	189.0496
79.80	194.5349
79.80	194.5349
80.11	194.6268
80.18	194.6478
80.30	194.6833
80.30	194.6833
80.57	193.6753
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81.07	192.7331
81.07	192.7331
81.07	192.7331
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83.78	190.2364
83.78	190.2364
83.78	190.2364
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84.21	187.0747
84.90	190.5506
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86.59	194.3149
86.72	194.3513
86.79	194.3707
86.94	194.4130
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87.30	194.5147
87.30	194.5147
87.57	194.5903
87.88	194.6768
88.03	194.7191
88.36	194.8109
88.47	194.8415
89.36	138.8770
89.95	138.9936
91.11	139.2211
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92.38	169.3546
92.38	169.3546
93.35	161.2705
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94.67	178.2196
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94.90	161.6146
94.90	161.6146
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95.87	161.8292
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97.43	172.5367
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98.44	148.4398
98.88	141.8266
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99.55	155.3661
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105.31	138.5201
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109.28	177.7022
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111.00	167.8745
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112.95	164.8677
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115.19	183.5604
115.19	183.5604
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117.00	161.1093
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121.62	156.2484
121.78	156.2774
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122.32	156.3756
122.32	156.3756
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143.76	156.2997
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144.24	159.0285
144.24	159.0285
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145.44	166.3044
147.16	160.3981
152.43	164.8291
152.70	157.7433
153.22	163.1770
154.21	147.2729
154.21	147.2729
154.21	147.2729
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156.02	157.3757
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159.00	147.0785
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161.27	133.9229
162.32	151.1541
162.64	162.0016
163.35	151.3054
163.89	139.6693
165.85	139.0303
167.43	112.1148
171.28	161.5244
171.86	158.8888
172.10	151.6585
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176.60	141.3486
181.06	125.9913
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185.71	138.8368
186.00	138.8725
186.21	126.5718
190.27	158.0418
192.34	139.6455
193.63	145.3572

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198.60	147.8349
200.40	138.7485
201.83	148.2388
202.84	167.9604
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208.36	133.1098
208.81	153.7888
209.75	139.8307
209.75	139.8307
210.97	122.1210
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216.55	144.3760
218.09	155.8910
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223.80	140.4618
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227.20	174.1398
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228.18	152.3694
228.18	152.3694
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235.69	140.7946
236.00	140.8271
236.00	140.8271
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238.63	155.5050
238.63	155.5050
238.63	155.5050
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241.98	148.1959
241.98	148.1959
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249.79	145.1775
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252.85	135.7991
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256.20	134.1808
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264.65	122.2687
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268.79	120.6577
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269.46	120.7140
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277.60	88.8203
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278.60	80.9790
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284.30	95.1680
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285.90	101.2234
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286.10	98.2583
287.40	103.3097
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290.67	97.5589

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293.70	86.7810
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295.21	93.8551
295.21	93.8551
295.96	103.8905
296.50	107.9225
297.23	107.9736
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299.80	94.1334
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300.09	93.1490
300.09	93.1490
300.09	93.1490
300.12	93.1504
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303.91	89.3599
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304.40	93.4044
304.84	91.4221
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318.01	86.0986
319.02	93.2480
319.41	96.3119
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323.87	86.4085
323.87	86.4085
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329.70	91.8141
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333.44	89.9739
334.20	88.9913
334.20	88.9913
334.30	88.9966
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338.28	93.3092
338.28	93.3092
338.32	93.3105
338.32	93.3105
340.50	92.4033
340.57	92.4074
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344.27	81.2891
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351.92	86.8160
351.92	86.8160
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366.43	81.2790
367.43	90.7077
367.94	94.9060
369.80	89.7832
374.96	85.8513
383.85	75.7463
387.95	76.9677
388.63	78.0514
391.69	73.9520
391.69	73.9520
392.90	60.2572
398.62	67.8613
400.65	80.6711
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413.65	82.2848
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415.30	82.3541
415.76	82.3729
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439.56	82.2750
439.89	67.1304
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445.03	109.6319
445.03	109.6319
445.03	109.6319
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475.35	78.1839
476.78	70.5215
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477.96	71.6631
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510.53	0.0000
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511.00	81.6889
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511.85	68.2857
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513.99	95.2411
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520.65	64.0537
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529.87	0.0000
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537.32	43.4613
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546.56	0.0000
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555.20	53.8217
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563.90	46.6906
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569.32	53.2167
569.50	53.2209
569.67	53.2252
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574.00	49.6415
574.64	45.9753
578.91	58.0289
579.30	52.5107
583.14	56.2820
585.48	47.0990
591.81	47.2173
592.07	47.2223
593.00	44.4609
595.88	39.8747
600.56	51.0966

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602.71	38.1222
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604.41	73.5032
604.70	78.1635
609.31	45.6767
610.33	45.6947
612.46	60.6661
614.37	41.0964
618.01	43.0239
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621.84	34.3446
631.29	40.7350
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633.10	40.3146
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646.12	56.7158
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661.65	40.8783
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666.33	38.0908
675.00	38.2100
677.61	39.2012
685.20	35.4725
692.80	45.1813
695.00	47.1398
696.49	52.9402
696.49	52.9402
697.00	51.0241
697.49	53.9219
698.33	50.0843
698.50	46.2340
699.00	36.6084
702.63	47.2654
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706.58	0.0000
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711.68	40.6403
713.82	44.5434
717.42	45.5680
720.50	34.9400
721.93	42.7260
722.20	45.6426
722.78	47.5944
722.78	47.5944
722.89	47.5968
722.95	49.5395
723.30	45.6598
724.18	38.8711
727.18	31.1289
733.00	43.8607
735.90	41.9523
739.58	38.0964
742.81	51.8290
744.21	40.1121
747.13	34.2754
751.79	42.1749
752.31	42.1822
753.82	39.2588
755.35	37.3153
756.15	41.2535
756.87	43.2287
763.13	41.3479
763.93	37.4202
765.79	37.4424
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766.84	49.2834
776.49	37.5732
778.00	45.5047

778.57	46.5031
778.89	46.5077
783.80	38.6525
785.46	48.5897
792.07	49.6851
795.84	47.7551
796.30	51.7423
798.80	54.7704
801.93	32.8953
805.60	51.8946
810.29	41.9764
810.76	42.9822
815.85	33.0387
817.79	53.0945
818.51	56.1121
819.60	42.0984
826.30	46.2033
828.27	24.1207
831.60	37.2240
831.96	37.2276
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836.80	0.0000
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848.13	46.5110
856.28	0.0000
856.80	42.5783
860.37	41.6086
867.32	37.6269
867.82	47.8032
871.10	46.8322
873.19	46.8614
874.81	46.8838
875.33	0.0000
876.40	61.1807
879.36	46.9467
880.27	55.1259
880.51	52.0671
881.50	43.9123
883.24	56.1951
884.67	60.3079
889.25	42.9885
896.60	50.2597
898.02	41.0449
899.00	42.0831
903.28	56.5227
911.07	60.7703
911.07	60.7703
919.63	56.7886
920.93	60.9403
925.00	69.2835
925.24	63.0835
926.50	45.5189
935.52	45.6350
937.48	60.1877
944.10	51.9824
946.00	62.4111
949.00	70.7924
962.29	57.4680
964.01	58.5402
966.15	53.3446
968.20	54.4210
969.11	51.2945
969.11	51.2945
977.42	35.6726
980.50	31.5022
983.50	48.3427
989.30	48.4179
996.32	51.6725
1001.03	36.9551
1001.68	30.6256
1004.76	50.7316
1021.30	0.0000
1024.50	0.0000
1034.80	43.6766
1036.00	33.0344
1037.82	45.8429
1038.57	42.6523
1038.76	0.0000

1045.16	41.6565
1046.59	40.6051
1048.07	43.8268
1050.47	37.4353
1050.47	37.4353
1062.04	47.2012
1063.62	45.0741
1076.63	29.0711
1077.35	37.6917
1078.86	38.7844
1085.78	37.7720
1093.90	32.4419
1099.22	43.3125
1112.02	52.1391
1112.84	53.2373
1115.52	30.4404
1120.29	32.6528
1120.51	40.2754
1121.28	39.1939
1124.00	0.0000
1129.67	29.4548
1131.51	0.0000
1147.95	0.0000
1167.94	17.3011
1173.22	33.9889
1175.09	23.6321
1177.93	26.8009
1189.05	19.3628
1204.90	21.2845
1205.75	20.3636
1213.00	18.5433
1221.42	20.4370
1230.97	15.8261
1235.34	12.1145
1236.41	0.0000
1238.25	17.7174
1246.25	12.1441
1260.41	0.0000
1271.85	9.3953
1274.45	9.4006
1274.54	9.4010
1291.56	11.3232
1298.22	0.0000
1312.09	10.4262
1325.50	8.1477
1325.50	8.1477
1332.49	8.1599
1333.61	6.5293
1360.21	10.5332
1362.66	0.0000
1365.15	4.7929
1368.21	10.5511
1368.53	0.0000
1376.25	2.8823
1384.27	3.8496
1394.10	4.8218
1395.20	4.8228
1407.95	5.8025
1434.06	3.8888
1436.60	8.7543
1457.56	0.0000
1460.81	3.9097
1489.15	3.9316
1509.49	5.9207
1596.49	7.0219
1620.62	3.0228
1678.03	0.0000
1691.02	7.1430
1691.02	7.1430
1706.46	0.0000
1750.46	0.0000
1764.49	6.2012
1770.23	9.3109
1771.40	7.2432
1791.20	0.0000
1808.65	5.2063
1836.01	3.1381

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202003337

Total Uranium Activity	-1.5155E+02	ug/g
Total Uranium Counting Unc.	1.4416E+03	ug/g
Total Uranium Tpu	7.3551E-04	ug/g
Total Uranium Mda	1.0893E+03	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 936274                    SAMPLE ID  : G1202003337      *
*   ANALYST       : KXG3                      DETECTOR   : GAM01            *
*   SAMPLE DATE   : 24-DEC-2009 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE: 31-DEC-2009 16:41:51.55    SAMPLE ALQT:    2.000 LITER   *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 2.082E+03
        GROSS GAMMA ERROR   (pCi/LITER )  : 6.139E+02
        GROSS GAMMA MDA     (pCi/LITER )  : 2.609E+02
        GROSS GAMMA DLC     (pCi/LITER )  : 1.259E+02
```

Radiochemistry Batch Checklist, Rev 9

Batch# 936954 Product: Ra-228 Date: 1/4/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: 1/4/10

Secondary Review Performed By: AH

LANL
1/8

Blank Correction Report

Batch ID 936954

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202004843	DUP	Radium-228	0.700 L	1.10	0.335	0.837	.088142857	pCi/L	NO
1202004844	LCS	Radium-228	1.00 L	6.72	1.13	1.38	.0617	pCi/L	NO
1202004842	MB	Radium-228	1.00 L	0.0617	0.157	0.579	.0617	pCi/L	YES
243255006	CAPA-10-6767	Radium-228	0.700 L	2.69	0.506	0.768	.088142857	pCi/L	NO
243400002	CAPA-10-6823	Radium-228	0.700 L	0.295	0.247	0.836	.088142857	pCi/L	YES
243400003	CAPA-10-6824	Radium-228	0.700 L	-0.0863	0.205	0.816	.088142857	pCi/L	YES
243462001	CAWA-10-6910	Radium-228	0.700 L	0.724	0.314	0.923	.088142857	pCi/L	NO

Radium-228 Que Sheet

12/28/2009

Batch #: 936954 Analyst:MXS2 First Client Due Date:01/08/2010 Internal Due Date12/29/2009

Spike Isotope: Radium-228 Spike Code: — Expiration Date: — Vol: — Ac-228 Ingrow: 1850 12/29/09

LCS Isotope: Radium-228 LCS Code: 0503-B Expiration Date: 9-11-10 Vol: 0.1 mL

Tracer Isotope: Barium-133 Tracer Code: 0112-J Expiration Date: 2-17-10 Vol: 0.1 mL Ac-228 Separation Date/Time: 12-31-09 / 1020

Prep Date: 12-28-09 Initials: MS Pipet ID: 1795419 Balance ID: 51204863 Witness: MCG 12-28-09

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collect Date & Time	Pos. #	Vol (mL)	Det #	Ba Yield (%)	Gamma Det. #
243255006-1	CAPA-10-6767	SAMPLE		1 pCi/L	GROUND WATI	LANL010	16-DEC-09 12:00 PM	1	700	4A	69.12	
243400002-1	CAPA-10-6823	SAMPLE		1 pCi/L	GROUND WATI	LANL010	18-DEC-09 12:00 PM	2	700	9C	63.10	9C
243400003-1	CAPA-10-6824	SAMPLE		1 pCi/L	GROUND WATI	LANL010	18-DEC-09 12:00 PM	3	700	7D	62.83	
243462001-1	CAWA-10-6910	SAMPLE		1 pCi/L	GROUND WATI	LANL010	21-DEC-09 12:00 PM	4	700	7B	55.40	7B
1202004842-1	MB for batch 936954	MB		1 pCi/L	GROUND WATI	QC ACCOUNT		5	1000 ~~700~~	5A	72.53	
1202004843-1	CAPA-10-6823(243400002DUP)	DUP		1 pCi/L	GROUND WATI	QC ACCOUNT	18-DEC-09 12:00 PM	6	700	11A	63.43	11A
1202004844-1	LCS for batch 936954	LCS		1 pCi/L	GROUND WATI	QC ACCOUNT		7	1000 ~~700~~	4D	65.41	

*2 4/10

1/4/10

Data Reviewed By: [signature]

Radium-228 Liquid

Filename : RA228.XLS
File type : Excel
Version # : 1.2.6

Batch : 936954
Analyst : MXS2
Prep Date : 12/28/2009

Ra-228 Abundance : 1
Ra-228 Method Uncertainty : 0.1268

Geometry: CeF on 25mm Filter

Spike S/N : N/A
Spike Exp Date : N/A
Spike Activity (dpm/ml): N/A
Spike Volume Added: N/A

LCS S/N : 0503-B
LCS Exp Date : 9/11/2010
LCS Activity (dpm/ml): 171.90
LCS Volume Added: 0.10

Tracer S/N : 0112-J
Tracer Exp Date : 2/17/2010
Tracer Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Procedure Code : GFC28RAL
Parmname : Radium-228
Required MDC : 1 pCi/L
Halflife of Ra-228 : 5.75 years
Halflife of Ac-228 : 6.15 hours

Sample Characteristics					Tracer Calculations					
Pos.	Sample ID	Sample Aliquot L	Sample Aliquot StDev. L	Sample Date/Time	Tracer Concentration (cpm) (Ba-133 Ref.)	Tracer Ref. Count Uncertainty (cpm)	Tracer Concentration (cpm) (Ba-133 Samp.)	Tracer Samp. Count Uncertainty (cpm)	Tracer Aliquot (mL)	Tracer Aliquot StDev. (mL)
1	243255006.1	0.7000	2.0772E-05	12/16/2009 12:00	298.9	3.55%	206.6	4.38%	0.1	0.000701
2	243400002.1	0.7000	2.0772E-05	12/18/2009 12:00	298.9	3.55%	188.6	4.62%	0.1	0.000701
3	243400003.1	0.7000	2.0772E-05	12/18/2009 12:00	298.9	3.55%	187.8	4.63%	0.1	0.000701
4	243462001.1	0.7000	2.0772E-05	12/21/2009 12:00	298.9	3.55%	165.6	4.99%	0.1	0.000701
5	1202004842.1	1.0000	2.0399E-05	12/28/2009 0:00	298.9	3.55%	216.8	4.26%	0.1	0.000701
6	1202004843.1	0.7000	2.0772E-05	12/18/2009 12:00	298.9	3.55%	189.6	4.61%	0.1	0.000701
7	1202004844.1	1.0000	2.0399E-05	12/28/2009 0:00	298.9	3.55%	195.5	4.53%	0.1	0.000701

Count raw Data													Calibration Data					Weekly Bkg	
Pos.	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Beta cpm	Count Start Date/Time	Separation Date/Time	Ra-228 Decay	Ac-228 Decay	Ac-228 Count Correction	Calculated Sample Recovery %	Sample Recovery Error %	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	cpm	Count Time (min.)
1	14A	60	11	110	1.833	12/31/2009 12:49	12/31/2009 10:20	0.995	0.755	1.057	69.12%	2.99%	PIC	7/2/2009	7/31/2010	0.6393	0.00816	0.522	500
2	9C	60	3	37	0.617	12/31/2009 12:51	12/31/2009 10:20	0.996	0.752	1.057	63.10%	3.08%	PIC	7/2/2009	7/31/2010	0.6273	0.00816	0.488	500
3	7D	60	6	25	0.417	12/31/2009 12:51	12/31/2009 10:20	0.996	0.752	1.057	62.83%	3.08%	PIC	7/2/2009	7/31/2010	0.6257	0.00816	0.454	500
4	7B	60	6	44	0.733	12/31/2009 12:52	12/31/2009 10:20	0.997	0.752	1.057	55.40%	3.22%	PIC	7/2/2009	7/31/2010	0.6280	0.00816	0.456	500
5	11D	60	2	29	0.483	12/31/2009 14:28	12/31/2009 10:20	0.999	0.627	1.057	72.53%	2.94%	PIC	7/2/2009	7/31/2010	0.6348	0.00816	0.446	500
6	11A	60	21	52	0.867	12/31/2009 12:50	12/31/2009 10:20	0.996	0.754	1.057	63.43%	3.07%	PIC	7/2/2009	7/31/2010	0.5825	0.00816	0.420	500
7	4D	30	25	163	5.433	12/31/2009 13:10	12/31/2009 10:20	0.999	0.726	1.028	65.41%	3.04%	PIC	7/2/2009	7/31/2010	0.5873	0.00816	1.392	500

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

Results Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	0.4716	0.3330	1	0.7684	**2.6889**	0.1391	1.3113	0.1778	0.3645	0.5060		SAMPLE				
2	0.5107	0.3605	1	0.8359	**0.2955**	0.8251	0.1287	0.1061	0.2436	0.2466		SAMPLE				
3	0.4960	0.3502	1	0.8160	**-0.0863**	2.3738	-0.0373	0.0886	0.2049	0.2050		SAMPLE				
4	0.5613	0.3963	1	0.9231	**0.7241**	0.4146	0.2773	0.1146	0.2992	0.3139		SAMPLE				
5	0.3514	0.2481	1	0.5787	**0.0617**	2.5339	0.0373	0.0946	0.1563	0.1565		MB				
6	0.5061	0.3573	1	0.8373	**1.0958**	0.2786	0.4467	0.1236	0.3033	0.3354	243400002.1	DUP	115.1%	0.6875		
7	0.8594	0.6067	1	1.3798	**6.7211**	0.1107	4.0413	0.4288	0.7132	1.1313		LCS			7.7431	86.8%

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
243255006	14A	60	11	110	12/31/09 12:49	12/31/2009 13:49	PIC
243400002	9C	60	3	37	12/31/09 12:51	12/31/2009 13:51	PIC
243400003	7D	60	6	25	12/31/09 12:51	12/31/2009 13:51	PIC
243462001	7B	60	6	44	12/31/09 12:52	12/31/2009 13:52	PIC
1202004842	11D	60	2	29	12/31/09 14:28	12/31/2009 15:28	PIC
1202004843	11A	60	21	52	12/31/09 12:50	12/31/2009 13:50	PIC
1202004844	4D	30	25	163	12/31/09 13:10	12/31/2009 13:40	PIC

ASSAY 30-Dec-09 12:17:20

Protocol	id	8	228_REC
Time	limit	180	
Count	limit	50000	
Isotope	Ba-133		
Protocol	date	9-Apr-07	10:03:07
Run	id.	8	

POS	RACK	BATCH	TIME	COUNTS	CPM	ERROR	% RECOVERY	COUNT TIME
1	61	1	180	988	298.9	3.55		12:17:28
2	61	2	180	711	206.6	4.38	69.12	12:20:39
3	61	3	180	657	188.6	4.62	63.10	12:23:50
4	61	4	180	655	187.8	4.63	62.83	12:27:02
5	61	5	180	588	165.6	4.99	55.40	12:30:13
6	99	6	180	742	216.8	4.26	72.53	12:33:40
7	99	7	180	660	189.6	4.61	63.43	12:36:52
8	99	8	180	678	195.5	4.53	65.41	12:40:03

END OF ASSAY

Radiochemistry Batch Checklist, Rev 9

Batch# 936955 Product: Sr-90 Date: 1.3.10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.	✓		BCR
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Ryan Brantley

Secondary Review Performed By: [illegible]

LANL
1.8

Blank Correction Report

Batch ID 936955

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202004846	DUP	Strontium-90	0.400 L	-0.113	0.127	0.482	-.45	pCi/L	NO
1202004848	LCS	Strontium-90	1.00 L	20.8	1.78	0.417	-.18	pCi/L	NO
1202004845	MB	Strontium-90	1.00 L	-0.18	0.0946	0.432	-.18	pCi/L	NO
1202004847	MS	Strontium-90	0.150 L	138	11.9	2.80	-1.2	pCi/L	NO
243400002	CAPA-10-6823	Strontium-90	0.500 L	-0.304	0.111	0.482	-.36	pCi/L	NO
243400003	CAPA-10-6824	Strontium-90	0.400 L	-0.117	0.125	0.486	-.45	pCi/L	NO
243462001	CAWA-10-6910	Strontium-90	0.500 L	-0.102	0.110	0.465	-.36	pCi/L	NO

Strontium 90 Que Sheet

12/28/09

Batch #: 936955 Analyst: MXB1 First Client Due Date: 01/08/2010 Internal Due Date: 12/29/2009 Comments

Sr-90 Spike Code: 1067-C Expiration Date: 6-17-10 Vol: 0.1 Sr Sep. Date/time: 1710 12/29/09

Sr-90 LCS Code: 1067-C Expiration Date: 6-17-10 Vol: 0.1

Sr Carrier Code: 1194590 Exp Date: 3-19-10 Vol: 0.5 Sdt Wt: 8.93

Prep Date: 12-28-09 Initials: MCB Pipet ID: 1795419 Balance #: 512041863 Analytical Scale #: 38110041 Witness: 12/28/09

Sample ID	Client Description	Type	RDL	Collection Date	Matrix	Client	Rad	Pos. #	Wet/Dry Aliquot mL or (g)	Det # 1 & 2	Initial Sr wt (g)	Final Sr wt (g)	Net Sr wt (mg)
243400002-1	CAPA-10-6823	SAMPLE	.5 pCi/L	DEC-18-09 12:00 PM	GROUND WATE	LANL010		1	500	7C	0.0249	0.0323	7.4
243400003-1	CAPA-10-6824	SAMPLE	.5 pCi/L	DEC-18-09 12:00 PM	GROUND WATE	LANL010		2	400	~~10C~~ 7A	0.0258	0.0337	7.9
243462001-1	CAWA-10-6910	SAMPLE	.5 pCi/L	DEC-21-09 12:00 PM	GROUND WATE	LANL010		3	500	~~10A~~ 7C	0.0250	0.0336	8.0
1202004845-1	MB for batch 936955	MB	.5 pCi/L		GROUND WATE	QC ACCOUNT		4	~~500~~ 1000	1A	0.0254	0.0328	7.4
1202004846-1	CAPA-10-6824(243400003DUP)	DUP	.5 pCi/L	DEC-18-09 12:00 PM	GROUND WATE	QC ACCOUNT		5	400	~~10C~~ 7D	0.0253	0.0331	7.8
1202004847-1	CAPA-10-6824(243400003MS)	MS	.5 pCi/L	DEC-18-09 12:00 PM	GROUND WATE	QC ACCOUNT		6	150	~~10A~~ 7D	0.0253	0.0330	7.7
1202004848-1	LCS for batch 936955	LCS	.5 pCi/L		GROUND WATE	QC ACCOUNT		7	~~500~~ 1000	7B	0.0254	0.0332	7.8

* SRA 12.29.09

Weights

Solid Sample Dissolution by: LEACH or DIGESTION Data Reviewed By: Rhyan Brantley

Circle One

Page 1 of 1

2350

Strontium-90 Liquid

Filename : SR90.XLS
File type : Excel
Version # : 1.2.9

Spike S/N : 1067-C
Spike Exp Date : 6/17/2010
Spike Activity (dpm/ml): 428.65
Spike Volume Added: 0.10

Batch : 936955
Analyst : MXB1
Prep Date : 12/28/2009

LCS S/N : 1067-C
LCS Exp Date : 6/17/2010
LCS Activity (dpm/ml): 428.65
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Sr-90 Abundance : 1
Method Uncertainty : 0.0784

Carrier S/N : 1194590
Carrier Exp Date : 3/19/2010
Carrier Volume Added: 0.50
Carrier Weight (mg/ml): 17.85
Carrier Weight StDev.: 0.06

Procedure Code : GFC90SRL
Parmname : Strontium-90
Required MDC : 0.5 pCi/L
Halflife of Sr-90 : 28.90 years
Halflife of Y-90 : 64.053 hours

Geometry: Tuffryn Filter

Sample Characteristics					Carrier Calculations				
Pos.	Sample ID	Sample Aliquot L	Sample Aliquot StDev. L	Sample Date/Time	Carrier Weight (mg) (Standard)	Net Weight (mg) (Sample)	Net Weight StDev. (mg)	Carrier Aliquot (mL)	Carrier Aliquot StDev. (mL)
1	243400002.1	0.5000	2.0256E-05	12/18/2009 12:00	17.85	7.40	0.039135	0.5	0.002564
2	243400003.1	0.4000	1.9669E-05	12/18/2009 12:00	17.85	7.90	0.041284	0.5	0.002564
3	243462001.1	0.5000	2.0256E-05	12/21/2009 12:00	17.85	8.00	0.041714	0.5	0.002564
4	1202004845.1	1.0000	2.0399E-05	12/28/2009 0:00	17.85	7.40	0.039135	0.5	0.002564
5	1202004846.1	0.4000	1.9669E-05	12/18/2009 12:00	17.85	7.80	0.040854	0.5	0.002564
6	1202004847.1	0.1500	1.4035E-05	12/18/2009 12:00	17.85	7.70	0.040425	0.5	0.002564
7	1202004848.1	1.0000	2.0399E-05	12/28/2009 0:00	17.85	7.80	0.040854	0.5	0.002564

Count Raw Data

Pos.	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Gross Beta CPM	Count Start Date/Time	Strontium Separation Date/Time	Yttrium Ingrowth	Sr-90 Decay	Calculated Sample Recovery %	Sample Recovery Error %
1	7C	150	5	31	0.205	12/29/2009 20:58	12/29/2009 17:10	0.053	0.999	82.91%	0.97%
2	7A	130	7	46	0.351	12/31/2009 7:18	12/29/2009 17:10	0.346	0.999	86.52%	0.96%
3	7C	70	8	19	0.266	12/31/2009 10:42	12/29/2009 17:10	0.366	0.999	89.64%	0.96%
4	1A	60	1	18	0.296	12/29/2009 20:58	12/29/2009 17:10	0.046	1.000	82.91%	0.97%
5	7D	150	19	61	0.401	12/31/2009 7:18	12/29/2009 17:10	0.347	0.999	87.39%	0.96%
6	7D	60	14	1073	17.872	12/29/2009 20:58	12/29/2009 17:10	0.046	0.999	86.27%	0.96%
7	7B	60	22	1087	18.101	12/29/2009 20:58	12/29/2009 17:10	0.046	1.000	87.39%	0.96%

Calibration Data

Pos.	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm) Sr-90	Detector Efficiency (cpm/dpm) Y-90	Detector Efficiency Error (cpm/dpm)	Alpha X-Talk	Weekly Bkg CPM	Weekly Bkg Count Time (min.)
1	PIC	1/1/2009	1/31/2010	0.4111	0.5557	0.00816	0.05078	0.328	500
2	PIC	1/1/2009	1/31/2010	0.4096	0.5546	0.00816	0.06148	0.406	500
3	PIC	1/1/2009	1/31/2010	0.4092	0.5557	0.00816	0.05075	0.328	500
4	PIC	1/1/2009	1/31/2010	0.4150	0.5413	0.00600	0.09918	0.444	500
5	PIC	1/1/2009	1/31/2010	0.4129	0.5551	0.00816	0.04681	0.454	500
6	PIC	1/1/2009	1/31/2010	0.4132	0.5551	0.00816	0.04674	0.454	500
7	PIC	1/1/2009	1/31/2010	0.4115	0.5564	0.00816	0.04267	0.456	500

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

* - RPD changed to 0% due to activity below MDC for 1202004846.1

Results Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	0.3065	0.2164	0.5	0.4821	**-0.3035**	0.3658	-0.1230	0.0450	0.1110	0.1110		SAMPLE				
2	0.3093	0.2184	0.5	0.4856	**-0.1174**	1.0680	-0.0555	0.0592	0.1254	0.1254		SAMPLE				
3	0.2795	0.1974	0.5	0.4851	**-0.1024**	1.0697	-0.0624	0.0667	0.1095	0.1095		SAMPLE				
4	0.2621	0.1851	0.5	0.4319	**-0.1800**	0.5257	-0.1457	0.0766	0.0946	0.0946		MB				
5	0.3113	0.2198	0.5	0.4821	**-0.1134**	1.1234	-0.0533	0.0598	0.1274	0.1274	243400003.1	DUP	0.0%	0.0078		
6	1.7039	1.2030	0.5	2.8032	**138.3705**	0.0338	17.4184	0.5466	4.3422	11.8886	243400003.1	MS			128.8039	107.4%
7	0.2536	0.1791	0.5	0.4171	**20.6188**	0.0336	17.6450	0.5501	0.6490	1.7841		LCS			19.3085	107.8%

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
243400002	7C	150	5	31	12/29/2009 20:58	12/29/2009 23:28	PIC
243400003	7A	130	7	46	12/31/2009 7:18	12/31/2009 9:28	PIC
243462001	7C	70	8	19	12/31/2009 10:42	12/31/2009 11:52	PIC
1202004845	1A	60	1	18	12/29/2009 20:58	12/29/2009 21:58	PIC
1202004846	7D	150	19	61	12/31/2009 7:18	12/31/2009 9:48	PIC
1202004847	7D	60	14	1073	12/29/2009 20:58	12/29/2009 21:58	PIC
1202004848	7B	60	22	1087	12/29/2009 20:58	12/29/2009 21:58	PIC

Radiochemistry Batch Checklist, Rev 9

Batch# 936958 Product: GAB Date: 12.30.09

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.	✓		
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.	✓		BLANK CORRECTION REPORT
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Bryan Brantley

Secondary Review Performed By: [illegible]

LANL

1.8

Blank Correction Report

Batch ID 936958

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202004857	DUP	ALPHA	0.150 L	-0.0285	0.665	2.92	-.72666667	pCi/L	NO
		BETA	0.150 L	2.63	0.812	2.12	-.01653333	pCi/L	NO
1202004860	LCS	ALPHA	1.00 L	13.4	1.60	0.362	-.109	pCi/L	NO
		BETA	1.00 L	42.4	3.65	0.352	-.00248	pCi/L	NO
1202004856	MB	ALPHA	1.00 L	-0.109	0.069	0.382	-.109	pCi/L	NO
		BETA	1.00 L	-0.00248	0.0738	0.288	-.00248	pCi/L	NO
1202004858	MS	ALPHA	0.050 L	283	35.8	10.6	-2.18	pCi/L	NO
		BETA	0.050 L	816	70.1	6.89	-.0496	pCi/L	NO
1202004859	MSD	ALPHA	0.050 L	291	34.1	8.57	-2.18	pCi/L	NO
		BETA	0.050 L	852	73.5	10.6	-.0496	pCi/L	NO
243400002	CAPA-10-6823	ALPHA	0.150 L	1.36	0.848	2.70	-.72666667	pCi/L	NO
		BETA	0.150 L	4.41	0.996	2.27	-.01653333	pCi/L	NO
243400003	CAPA-10-6824	ALPHA	0.150 L	2.59	1.10	2.93	-.72666667	pCi/L	NO
		BETA	0.150 L	2.25	0.799	2.24	-.01653333	pCi/L	NO
243462001	CAWA-10-6910	ALPHA	0.150 L	2.83	1.08	2.67	-.72666667	pCi/L	NO
		BETA	0.150 L	1.99	0.945	2.94	-.01653333	pCi/L	NO

Gross Alpha Beta Que Sheet

12/28/2009 09:51:30

Batch #:936958 Analyst:DXB5 First Client DueDate 01/08/2010 Internal Due Date12/29/2009

Alpha Spike Isotope: Th-230 Spike Code: 1242-B Vol: 0.1 Balance #: 17955160
Beta Spike Isotope: Sr-90 Spike Code: 1067-C Vol: 0.1 Pipette #: 4497063
Alpha LCS Isotope: Th-230 LCS Code: 1242-B Vol: 0.1 Prep Date: 12/29/09
Beta LCS Isotope: Sr-90 LCS Code: 1067-C Vol: 0.1 Initials: DB

Analytical Scale #: 631514
Witness: SLR 12-29-09
KR copy

10% HNO3: 1231701
Conc HNO3: 12457302
Conc HCl: NA
Conc HF: NA
Conc Boric: NA

Sample ID	Client Description	Type	Hazard Code	RDL Alpha/Beta	Client	Matrix	Bkr#	Wet/Dry Aliquot (mL or g)	Carrier or Det#	Initial Wt (g)	Final Wt (g)	Net Wt (mg)
243400002-1	CAPA-10-6823	SAMPLE		3 pCi/L	LANL010	GROUND WATER	1	150	9B	7.5234	7.5423	18.9
243400003-1*	CAPA-10-6824	SAMPLE		3 pCi/L	LANL010	GROUND WATER	2	150	14C	7.5711	7.5892	18.1
243462001-1	CAWA-10-6910	SAMPLE		3 pCi/L	LANL010	GROUND WATER	3	150	8B	7.5240	7.5472	23.2
1202004856-1	MB	MB		3 pCi/L	QC ACCOUNT	GROUND WATER	4	~~150~~ 150	5D	7.5566	7.5564	0.0
1202004857-1	DUP CAWA-10-6910(243462001)	DUP		3 pCi/L	QC ACCOUNT	GROUND WATER	5	150	8A	7.5003	7.5223	22.0
1202004858-1	MS CAWA-10-6910(243462001)	MS		3 pCi/L	QC ACCOUNT	GROUND WATER	6	50	4D	7.5515	7.5571	5.6
1202004859-1	MSD CAWA-10-6910(243462001)	MSD		3 pCi/L	QC ACCOUNT	GROUND WATER	7	50	6A	7.4732	7.4795	6.3
1202004860-1	LCS	LCS		3 pCi/L	QC ACCOUNT	GROUND WATER	8	~~150~~ 1000	6D	7.6112	7.6106	0.0

* - SEB 12.30.09

weights ✓

SAVED As 936958

Have the planchets been flamed? Yes / No

Data Reviewed By: Rhyan Brantley

Gross Alpha Liquid

Filename : ALPHA.XLS
File type : Excel
Version # : 1.2.6

Batch : 936958
Analyst : DXB5
Prep Date : 12/29/2009

Method Uncertainty : 0.0829
Geometry: 2 inch Planchett

Spike S/N : 1242-B
Spike Exp Date : 12/2/2010
Spike Activity (dpm/ml): 279.79
Spike Volume Added: 0.10

LCS S/N : 1242-B
LCS Exp Date : 12/2/2010
LCS Activity (dpm/ml): 279.79
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Procedure Code : GFCGANBL
Parmname : Alpha
Required MDC : 3 pCi/L

Sample Characteristics						Count Raw Data				
Pos.	Sample ID	Sample Aliquot L	Sample Residue Wt. (mg)	Sample Aliquot StDev. L	Sample Date/Time	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Count Start Date/Time
1	243400002.2	0.1500	18.9	1.4035E-05	12/18/2009 12:00	9B	60	9	112	12/30/2009 15:49
2	243400003.2	0.1500	18.1	1.4035E-05	12/18/2009 12:00	14C	60	14	75	12/30/2009 15:49
3	243462001.2	0.1500	23.2	1.4035E-05	12/21/2009 12:00	8B	60	15	98	12/30/2009 15:49
4	1202004856.2	1.0000	0.0	2.0399E-05	12/29/2009 0:00	5D	60	4	117	12/30/2009 15:50
5	1202004857.2	0.1500	22.0	1.4035E-05	12/18/2009 12:00	8A	60	6	83	12/30/2009 15:50
6	1202004858.2	0.0500	5.6	7.8337E-06	12/18/2009 12:00	4D	60	460	2439	12/30/2009 15:50
7	1202004859.2	0.0500	6.3	7.8337E-06	12/18/2009 12:00	6A	60	441	2480	12/30/2009 15:50
8	1202004860.2	1.0000	0.0	2.0399E-05	12/29/2009 0:00	6D	60	447	2641	12/30/2009 15:50

Calibration Data

Pos.	Counted on	Calibration Date	Calibration Due Date	Calibration Source Used	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Beta X-Talk	Weekly Bkg CPM	Weekly Bkg Count Time (min.)
1	PIC	7/31/2009	7/31/2010	Th230	0.1844	0.06392	0.00010	0.066	500
2	PIC	7/31/2009	7/31/2010	Th230	0.1798	0.06392	0.00009	0.078	500
3	PIC	7/31/2009	7/31/2010	Th230	0.1899	0.06392	0.00081	0.070	500
4	PIC	7/31/2009	7/31/2010	Th230	0.2397	0.06392	0.00445	0.116	500
5	PIC	7/31/2009	7/31/2010	Th230	0.1948	0.06392	0.00423	0.096	500
6	PIC	7/31/2009	7/31/2010	Th230	0.2162	0.06392	0.01663	0.208	500
7	PIC	7/31/2009	7/31/2010	Th230	0.2203	0.06392	0.00233	0.126	500
8	PIC	7/31/2009	7/31/2010	Th230	0.2376	0.06392	0.00663	0.098	500

Notes:
* - Reference date for Spike Activity (dpm/ml) is the batch Prep Date

* - RPD changed to 0% due to activity below MDC for 1202004857.2

Alpha Results Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	1.3320	0.9404	3	2.6952	**1.3650**	0.6141	0.0840	0.0513	0.8356	0.8478		SAMPLE				
2	1.4847	1.0482	3	2.9314	**2.5921**	0.4144	0.1553	0.0636	1.0621	1.0962		SAMPLE				
3	1.3317	0.9402	3	2.6710	**2.8252**	0.3701	0.1800	0.0656	1.0376	1.0796		SAMPLE				
4	0.2038	0.1439	3	0.3817	**-0.1090**	0.7456	-0.0493	0.0366	0.0689	0.0690		MB				
5	1.5207	1.0736	3	2.9181	**-0.0285**	10.7783	0.0040	0.0431	0.6647	0.6652	243400002.2	DUP	0.0%	0.4605		
6	6.0505	4.2717	3	10.6271	**282.6634**	0.0799	7.4587	0.3580	14.9211	35.7974	243400002.2	MS			252.0649	112.1%
7	4.6205	3.2621	3	8.5687	**291.4419**	0.0802	7.2240	0.3504	14.3260	34.0795	243400002.2	MSD	3.1%	0.0628	252.0649	115.6%
8	0.1889	0.1334	3	0.3615	**13.3841**	0.0799	7.3520	0.3527	0.6685	1.6049		LCS			12.6032	106.2%

936958a

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
243400002	9B	60	9	112	12/30/2009 15:49	12/30/2009 16:49	PIC
243400003	14C	60	14	75	12/30/2009 15:49	12/30/2009 16:49	PIC
243462001	8B	60	15	98	12/30/2009 15:49	12/30/2009 16:49	PIC
1202004856	5D	60	4	117	12/30/2009 15:50	12/30/2009 16:50	PIC
1202004857	8A	60	6	83	12/30/2009 15:50	12/30/2009 16:50	PIC
1202004858	4D	60	460	2439	12/30/2009 15:50	12/30/2009 16:50	PIC
1202004859	6A	60	441	2480	12/30/2009 15:50	12/30/2009 16:50	PIC
1202004860	6D	60	447	2641	12/30/2009 15:50	12/30/2009 16:50	PIC

Gross Alpha Beta Que Sheet

12/29/2009 05:44:52

Batch #:936958 Analyst:DXB5 First Client DueDate 01/08/2010 Internal Due Date12/29/2009

Alpha Spike Isotope: Th-230 Spike Code: 1242-B Vol: 0.1 Balance #: 17955160
Beta Spike Isotope: Sr-90 Spike Code: 1067-C Vol: 0.1 Pipette #: 4497063
Alpha LCS Isotope: Th-230 LCS Code: 1242-B Vol: 0.1 Prep Date: 12/29/09
Beta LCS Isotope: Sr-90 LCS Code: 1067-C Vol: 0.1 Initials: DB

Analytical Scale # C31514
Witness: JLR 12-29-09

10% HNO3: 123170
Conc HNO3: 1245730.2
Conc HCl: NA
Conc HF: NA
Conc Boric: NA

Sample ID	Client Description	Type	Hazard Code	RDL Alpha/Beta	Client	Matrix	Bkr#	Wet/Dry Aliquot (mL or g)	Carrier or Det#	Initial Wt (g)	Final Wt (g)	Net Wt (mg)
243400002-1	CAPA-10-6823	SAMPLE		3 pCi/L	LANL010	GROUND WATER	1	150	10B	7.5234	7.5593	35.9
243400003-1	CAPA-10-6824	SAMPLE		3 pCi/L	LANL010	GROUND WATER	2	150	10C	7.5711	7.6044	33.3
243462001-1	CAWA-10-6910	SAMPLE		3 pCi/L	LANL010	GROUND WATER	3	150	11B	7.5240	7.5617	37.7
1202004856-1	MB	MB		3 pCi/L	QC ACCOUNT	GROUND WATER	4	1000 150	11C	7.5566	7.5559	0.0
1202004857-1	DUP CAPA-10-6823(243400002)	DUP		3 pCi/L	QC ACCOUNT	GROUND WATER	5	150	11D	7.5063	7.5342	33.9
1202004858-1	MS CAPA-10-6823(243400002)	MS		3 pCi/L	QC ACCOUNT	GROUND WATER	6	50	11D	7.5515	7.5637	12.2
1202004859-1	MSD CAPA-10-6823(243400002)	MSD		3 pCi/L	QC ACCOUNT	GROUND WATER	7	50	12C	7.4732	7.4865	13.3
1202004860-1	LCS	LCS		3 pCi/L	QC ACCOUNT	GROUND WATER	8	150 1000	12D	7.6112	7.6109	0.0

weighter

~~DO NOT REPORT~~

Mistakenly Stamped -SRS 12.29.09

Have the planchets been flamed? Yes / No

Data Reviewed By: Rhyan Brantley

Page 1 of 1

Gross Beta Liquid

Filename : BETA.XLS
File type : Excel
Version # : 1.2.6

Batch : 936958
Analyst : DXB5
Prep Date : 12/29/2009

Method Uncertainty : 0.0821
Geometry: 2 inch Planchett

Spike S/N : 1067-C
Spike Exp Date : 6/17/2010
Spike Activity (dpm/ml): 428.62
Spike Volume Added: 0.10

LCS S/N : 1067-C
LCS Exp Date : 6/17/2010
LCS Activity (dpm/ml): 428.62
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Procedure Code : GFCGANBL
Parmname : Beta
Required MDC : 3 pCi/L

Sample Characteristics						Count Raw Data				
Pos.	Sample ID	Sample Aliquot L	Sample Residue Wt. (mg)	Sample Aliquot StDev. L	Sample Date/Time	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Count Start Date/Time
1	243400002.1	0.1500	35.9	1.4035E-05	12/18/2009 12:00	10B	60	6	62	12/29/2009 12:30
2	243400003.1	0.1500	33.3	1.4035E-05	12/18/2009 12:00	10C	60	8	43	12/29/2009 12:31
3	243462001.1	0.1500	37.7	1.4035E-05	12/21/2009 12:00	11B	60	11	63	12/29/2009 12:31
4	1202004856.1	1.0000	0	2.0399E-05	12/29/2009 0:00	11C	60	4	20	12/29/2009 12:31
5	1202004857.1	0.1500	33.9	1.4035E-05	12/18/2009 12:00	11C	60	12	44	12/29/2009 16:16
6	1202004858.1	0.0500	12.2	7.8337E-06	12/18/2009 12:00	11D	60	333	2543	12/29/2009 12:31
7	1202004859.1	0.0500	13.3	7.8337E-06	12/18/2009 12:00	12C	60	372	2654	12/29/2009 12:31
8	1202004860.1	1.0000	0	2.0399E-05	12/29/2009 0:00	12D	60	429	2754	12/29/2009 12:31

Calibration Data								Weekly Bkg	
Pos.	Counted on	Calibration Date	Calibration Due Date	Calibration Source Used	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Alpha X-Talk	CPM	Count Time (min.)
1	PIC	7/31/2009	7/31/2010	Sr90	0.4352	0.00816	0.08718	0.386	500
2	PIC	7/31/2009	7/31/2010	Sr90	0.4364	0.00816	0.10643	0.376	500
3	PIC	7/31/2009	7/31/2010	Sr90	0.4453	0.00816	0.10020	0.736	500
4	PIC	7/31/2009	7/31/2010	Sr90	0.4814	0.00816	0.08977	0.330	500
5	PIC	7/31/2009	7/31/2010	Sr90	0.4373	0.00816	0.10450	0.330	500
6	PIC	7/31/2009	7/31/2010	Sr90	0.4579	0.00816	0.08193	0.446	500
7	PIC	7/31/2009	7/31/2010	Sr90	0.4484	0.00816	0.11242	1.124	500
8	PIC	7/31/2009	7/31/2010	Sr90	0.4747	0.00816	0.10218	0.510	500

Notes:
* - Reference date for Spike Activity (dpm/ml) is the batch Prep Date

Beta Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	1.3648	0.9636	3	2.2722	**4.4069**	0.2074	0.6473	0.1341	0.9257	0.9963		SAMPLE				
2	1.3433	0.9484	3	2.2409	**2.2467**	0.3309	0.3407	0.1127	0.7754	0.7992		SAMPLE				
3	1.8418	1.3003	3	2.9378	**1.9937**	0.4387	0.3140	0.1377	0.9289	0.9452		SAMPLE				
4	0.1711	0.1208	3	0.2884	**-2.481E-03**	23.6516	0.0033	0.0788	0.0738	0.0738		MB				
5	1.2558	0.8866	3	2.1166	**2.6262**	0.2815	0.4033	0.1135	0.7794	0.8122	243400002.1	DUP	50.6%	0.4923		
6	4.1829	2.9532	3	6.8901	**816.1879**	0.0217	41.9373	0.8410	16.5470	70.0594	243400002.1	MS			772.2909	105.1%
7	6.7802	4.7869	3	10.5783	**852.0471**	0.0216	43.1093	0.8599	17.2756	73.5117	243400002.1	MSD	4.3%	0.1249	772.2909	109.8%
8	0.2157	0.1523	3	0.3520	**42.3758**	0.0209	45.3900	0.8752	0.8305	3.6491		LCS			38.6145	109.7%

936958r1.xls

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
243400002	10B	60	6	62	12/29/2009 12:30	12/29/2009 13:30	PIC
243400003	10C	60	8	43	12/29/2009 12:31	12/29/2009 13:31	PIC
243462001	11B	60	11	63	12/29/2009 12:31	12/29/2009 13:31	PIC
1202004856	11C	60	4	20	12/29/2009 12:31	12/29/2009 13:31	PIC
1202004857	11C	60	12	44	12/29/2009 16:16	12/29/2009 17:16	PIC
1202004858	12B	60	11	101	12/29/2009 12:31	12/29/2009 13:31	PIC
1202004859	12C	60	372	2654	12/29/2009 12:31	12/29/2009 13:31	PIC
1202004860	12D	60	429	2754	12/29/2009 12:31	12/29/2009 13:31	PIC

Radiochemistry Batch Checklist, Rev 9

Batch# 936275 Product: Ra-226 Date: 1/7/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			NA
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			NA
Batch non-conformances second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Kimberly Pace LANL 1/17/10

Secondary Review Performed By: Lafate 1/7/10

Radium-226 Que Sheet

23-DEC-09

GEL Laboratories, Radiochemistry Division

Batch #: 936275 **Analyst:** KSD1 **First Client Due Date:** 01/17/2010 **Internal Due Date:** 01/06/2010

Spike Isotope: Radium-226 **Spike Code:** DL238-I **Expiration Date:** 9/28/10 **Vol:** 0.1 **End Initial/Degas Date/Time:** 12/28/09 1600

LCS Isotope: Radium-226 **LCS Code:** DL238-I **Expiration Date:** 9/28/10 **Vol:** 0.1 **End LN De-em Date:** 1/7/10

Prep Date: 12/28/09 **Bkg Count Time:** 30 (Min) **Pipet ID:** 14253203 **Sample Count Time:** 30 (Min) **Balance ID:** 16750207 **Initials:** KD **Start Count Date:** 1/7/10 **Witness:** HS 12-28-09

Sample I	Client Description	Type	Hazard Code	Matrix	Min CRDL	Client	Position (Label)	Aliquot (mL or g)	End LN De-em Time	Start Count Time	Cell #	Det #	Bkg counts	Total Counts
243255006-1	CAPA-10-6767	SAMPLE		GROUND WA	1 pCi/L	LANL010	1	500	0940	1250	505	5	5	28
243400002-1	CAPA-10-6823	SAMPLE		GROUND WA	1 pCi/L	LANL010	2	500	0940	1250	605	6	8	20
243400003-1	CAPA-10-6824	SAMPLE		GROUND WA	1 pCi/L	LANL010	3	500	0940	1250	706	7	7	13
1202003331-1	MB for batch 936275	MB		GROUND WA	1 pCi/L	QC ACCOUNT	4	~~500~~ 1000	1015	1330	101	1	6	~~27~~ 18
1202003332-1	CAPA-10-6767(243255006DUP)	DUP		GROUND WA	1 pCi/L	QC ACCOUNT	5	500	1015	1330	207	2	8	21
1202003333-1	CAPA-10-6767(243255006MS)	MS		GROUND WA	1 pCi/L	QC ACCOUNT	6	100	1015	1330	305	3	5	1202
1202003334-1	LCS for batch 936275	LCS		GROUND WA	1 pCi/L	QC ACCOUNT	7	~~500~~ 1000	1015	1330	401	4	7	1432

1/7/10 1/7/10

Comments:

Data Reviewed By: Lynnbey Pace 1/7/10

Blank Correction Report

Batch ID 936275

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202003332	DUP	Radium-226	0.500 L	0.227	0.101	0.282	.238	pCi/L	YES
1202003334	LCS	Radium-226	1.00 L	12.2	1.72	0.131	.119	pCi/L	NO
1202003331	MB	Radium-226	1.00 L	0.119	0.050	0.142	.119	pCi/L	YES
1202003333	MS	Radium-226	0.100 L	108	12.3	1.21	1.19	pCi/L	NO
243255006	CAPA-10-6767	Radium-226	0.500 L	0.365	0.111	0.213	.238	pCi/L	YES
243400002	CAPA-10-6823	Radium-226	0.500 L	0.207	0.0942	0.279	.238	pCi/L	YES
243400003	CAPA-10-6824	Radium-226	0.500 L	0.102	0.0766	0.259	.238	pCi/L	YES

Radium-226 Liquid

Filename : RA226.XLS
File type : Excel
Version # : 1.2.5

Batch : 936275
Analyst : KSD1
Prep Date : 12/28/2009
Ra-226 Abundance : 1
Ra-226 Method Uncertainty : 0.0918

Spike S/N : 0638-I
Spike Exp Date : 9/28/2010
Spike Activity (dpm/ml): 268.42
Spike Volume Added: 0.10

LCS S/N : 0638-I
LCS Exp Date : 9/28/2010
LCS Activity (dpm/ml): 268.42
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Procedure Code : LUC26RAL
Parmname : Radium-226
Required MDC : 1 pCi/L
Halflife of Ra-226 : 1600 years
Halflife of Rn-222: 3.8235 days
Batch counted on : LUCAS CELL DETECTOR
BKG Count time : 30 min

Sample Characteristics					Count Raw Data				Weekly Background			
Pos.	Sample ID	Sample Aliquot L	Sample Aliquot StDev. L	Sample Date/Time	Cell Number	Counting Time (min.)	Gross Counts	Gross CPM	Counts	CPM	Count Time (min.)	Detector Efficiency (cpm/dpm)
1	243255006.1	0.5000	2.0256E-05	12/16/2009 12:00	505	30	28	0.933	5	0.167	30	2.3310
2	243400002.1	0.5000	2.0256E-05	12/18/2009 12:00	605	30	20	0.667	8	0.267	30	2.1490
3	243400003.1	0.5000	2.0256E-05	12/18/2009 12:00	708	30	13	0.433	7	0.233	30	2.1880
4	1202003331.1	1.0000	2.0399E-05	12/28/2009 0:00	101	30	18	0.600	6	0.200	30	1.9560
5	1202003332.1	0.5000	2.0256E-05	12/16/2009 12:00	207	30	21	0.700	8	0.267	30	2.1190
6	1202003333.1	0.1000	1.1370E-05	12/16/2009 12:00	305	30	1202	40.067	5	0.167	30	2.0570
7	1202003334.1	1.0000	2.0399E-05	12/28/2009 0:00	401	30	1432	47.733	7	0.233	30	2.1710

Detector Efficiency Error (cpm/dpm)	Cell Calibration Date	Cell Calibration Due Date	De-Gas Date/Time	Rn-222 Ingrow End Date/Time	Count Start Date/Time	Rn-222 Corrections De-Gas to Ingrowth	Ingrowth to Count	During Count	Ra-226 Decay
0.14377	3/25/2009	3/25/2010	12/28/2009 16:00	1/7/2010 9:40	1/7/2010 12:50	0.829	0.976	1.002	1.000
0.06605	8/4/2009	8/4/2010	12/28/2009 16:00	1/7/2010 9:40	1/7/2010 12:50	0.829	0.976	1.002	1.000
0.06519	9/30/2009	9/30/2010	12/28/2009 16:00	1/7/2010 9:40	1/7/2010 12:50	0.829	0.976	1.002	1.000
0.05303	8/31/2009	8/31/2010	12/28/2009 16:00	1/7/2010 10:15	1/7/2010 19:15	0.830	0.934	1.002	1.000
0.13069	12/21/2009	12/21/2010	12/28/2009 16:00	1/7/2010 10:15	1/7/2010 13:30	0.830	0.976	1.002	1.000
0.06082	2/4/2009	2/4/2010	12/28/2009 16:00	1/7/2010 10:15	1/7/2010 13:30	0.830	0.976	1.002	1.000
0.10392	12/10/2009	12/10/2010	12/28/2009 16:00	1/7/2010 10:15	1/7/2010 13:30	0.830	0.976	1.002	1.000

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	0.1171	0.0827	1	0.2130	**0.3655**	0.2882	0.7667	0.1915	0.0913	0.1105		SAMPLE				
2	0.1606	0.1134	1	0.2785	**0.2068**	0.4459	0.4000	0.1764	0.0912	0.0942		SAMPLE				
3	0.1476	0.1042	1	0.2592	**0.1016**	0.7482	0.2000	0.1491	0.0757	0.0766		SAMPLE				
4	0.0798	0.0563	1	0.1423	**0.1186**	0.4117	0.4000	0.1633	0.0484	0.0500		MB				
5	0.1629	0.1150	1	0.2824	**0.2272**	0.4344	0.4333	0.1795	0.0941	0.1009	243255006.1	DUP	46.7%	0.3271		
6	0.6632	0.4682	1	1.2065	**107.7410**	0.0674	39.9000	1.1581	3.1271	12.2695	243255006.1	MS			120.9127	88.8%
7	0.0743	0.0525	1	0.1306	**12.1526**	0.1073	47.5000	1.2645	0.3235	1.7158		LCS			12.0911	100.5%

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W083.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 12-JUN-2009 07:18:27 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

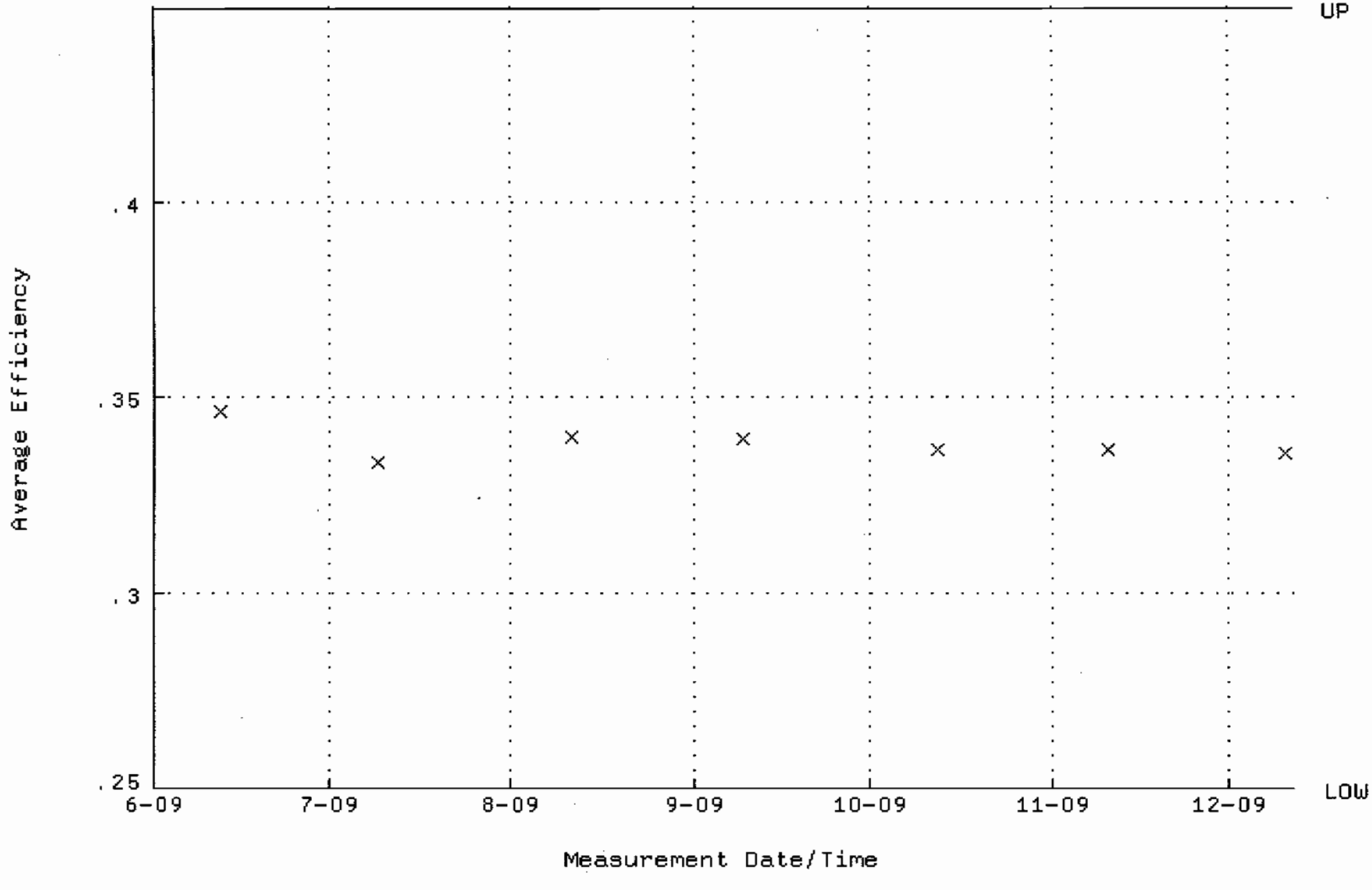

QA filename : DKA100:[ENV_ALPHA.QA.W]W083.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 12-JUN-2009 07:18:27 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

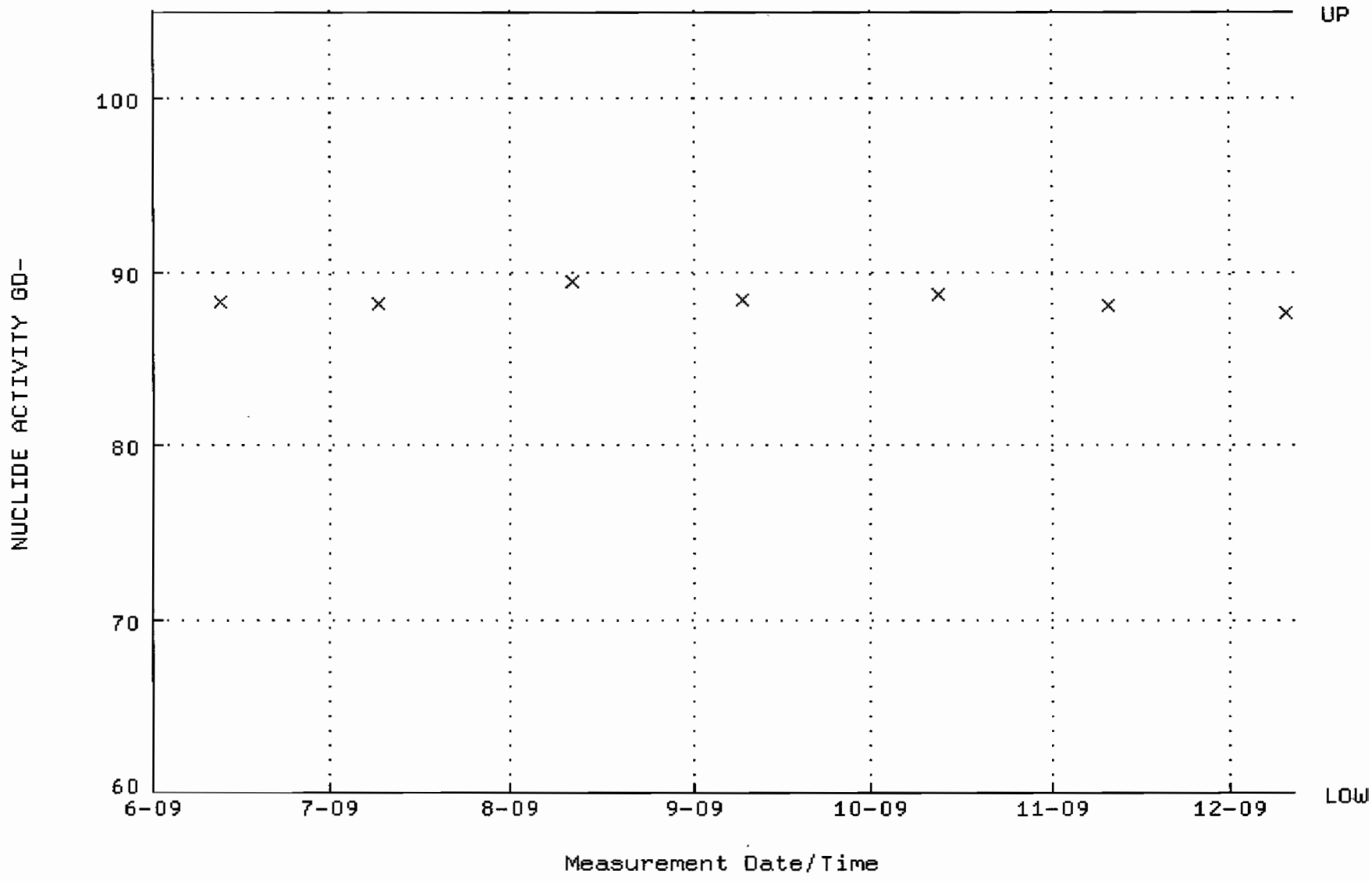

QA filename : DKA100:[ENV_ALPHA.QA.B]B083.QAF;3
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:40 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

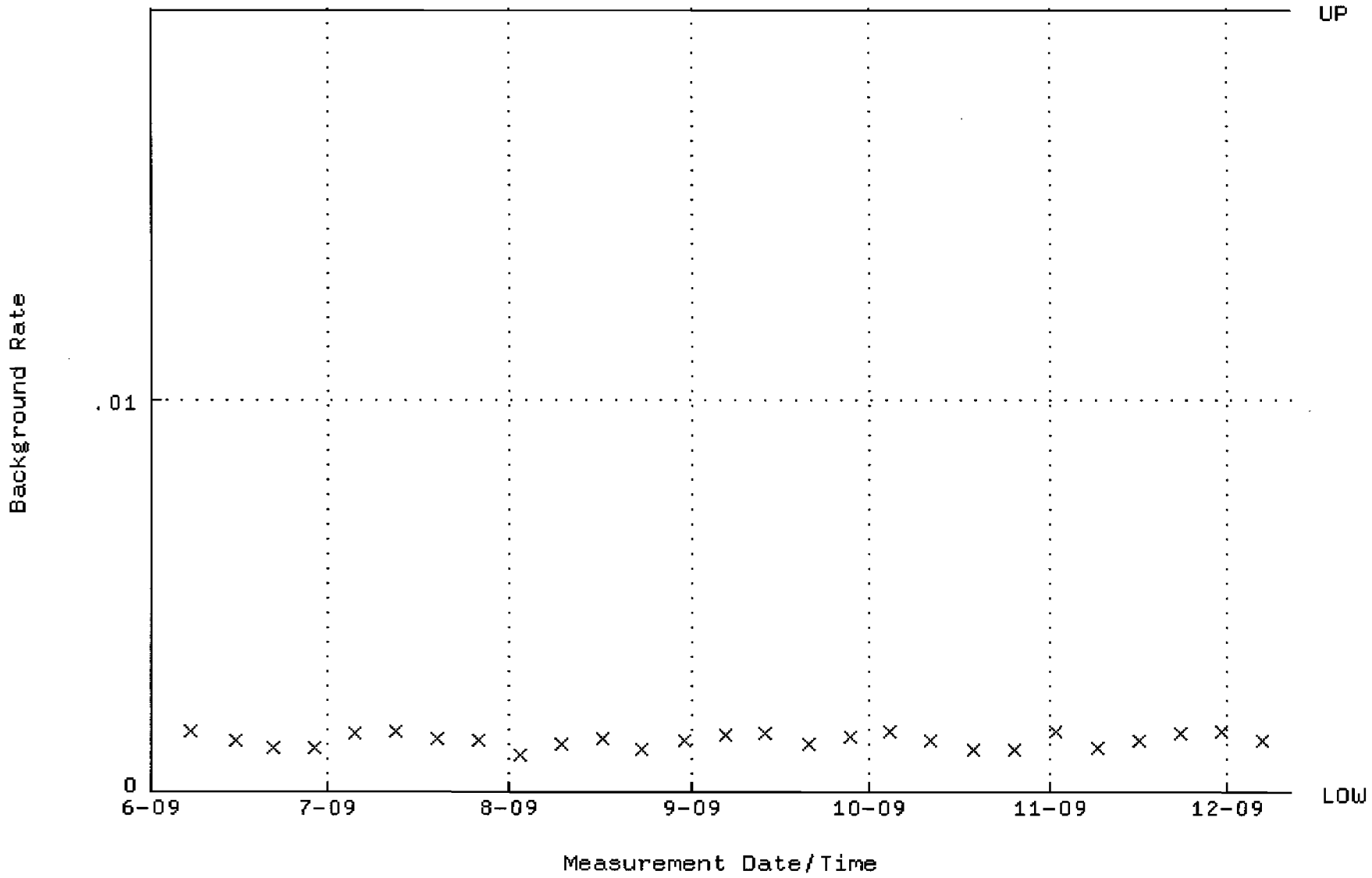

QA filename : DKA100:[ENV_ALPHA.QA.W]W084.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 12-JUN-2009 07:18:27 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.330740 through 0.350740

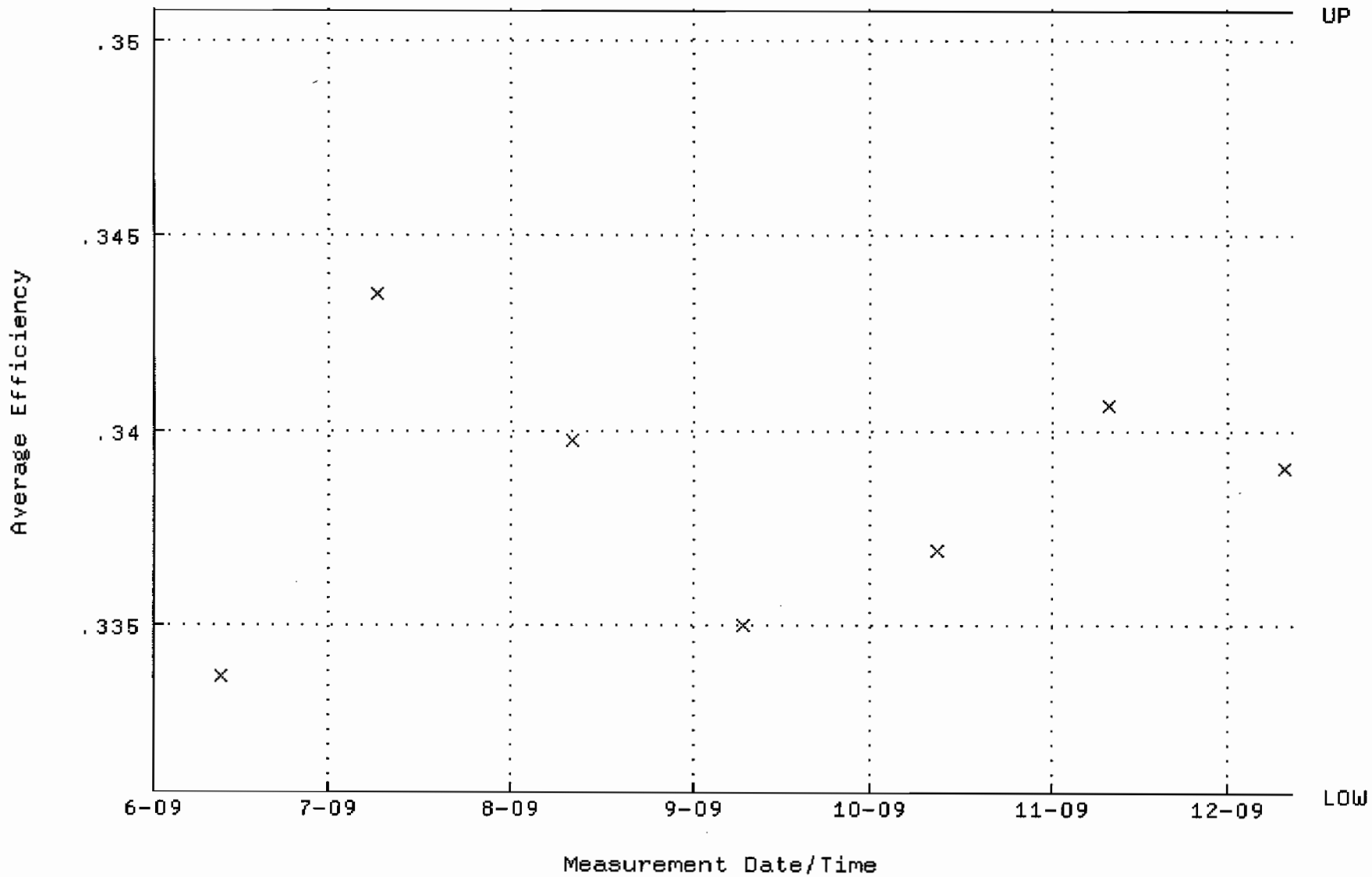

QA filename : DKA100:[ENV_ALPHA.QA.W]W084.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 12-JUN-2009 07:18:27 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 86.0569 through 95.1155

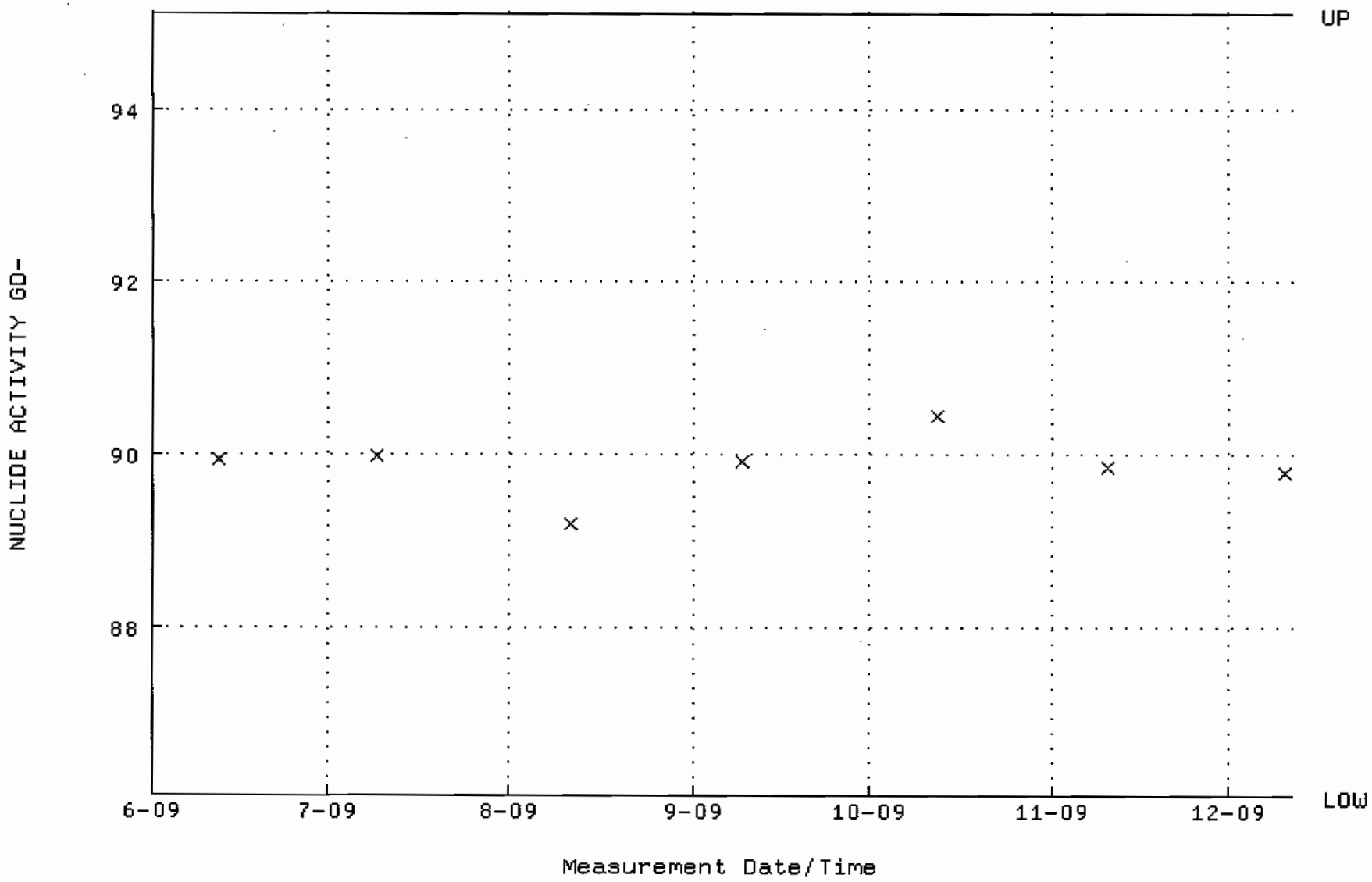

QA filename : DKA100:[ENV_ALPHA.QA.B]B084.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:40 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

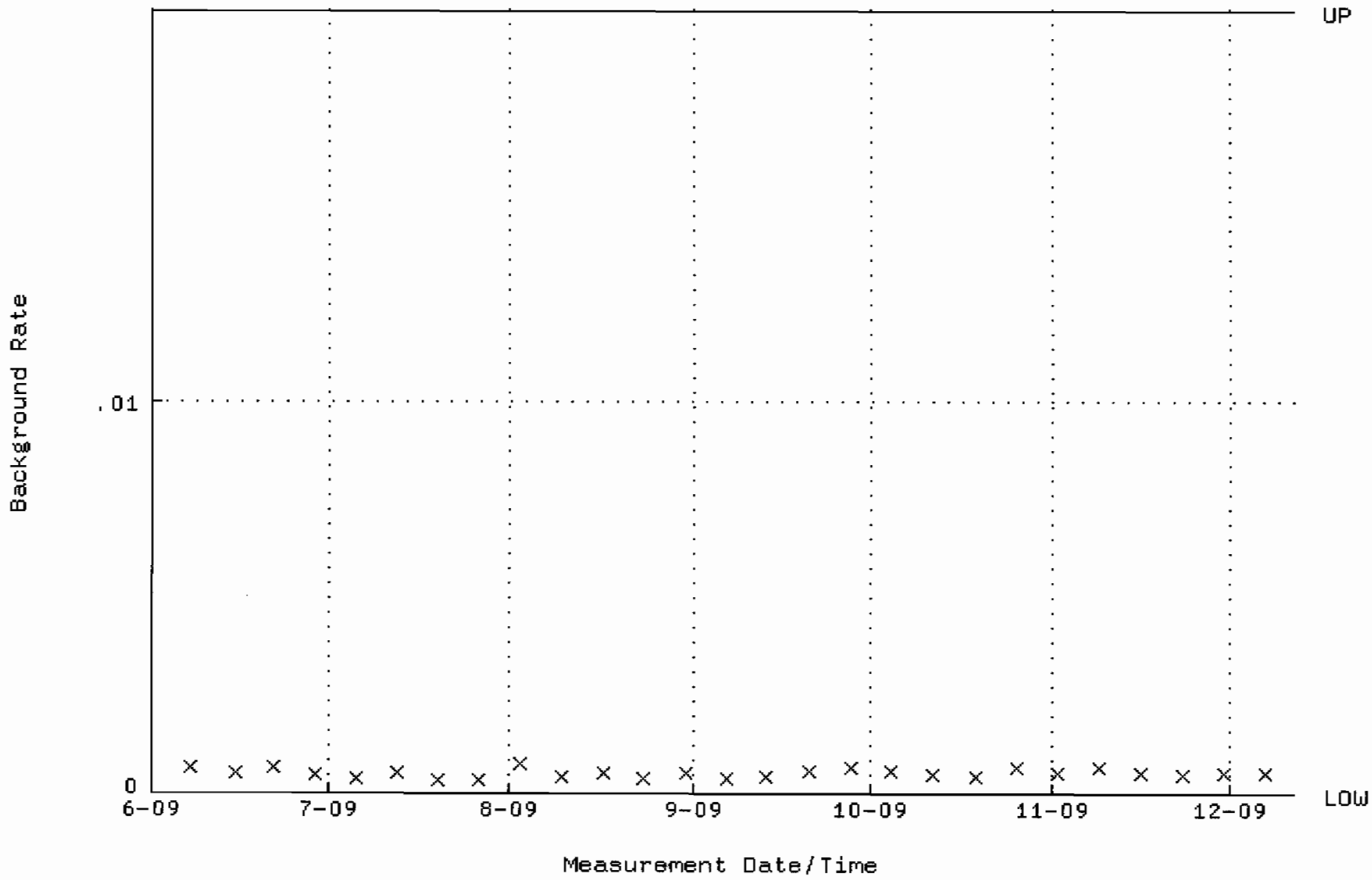

QA filename : DKA100:[ENV_ALPHA.QA.W]W086.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 12-JUN-2009 07:18:27 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.289508 through 0.309508

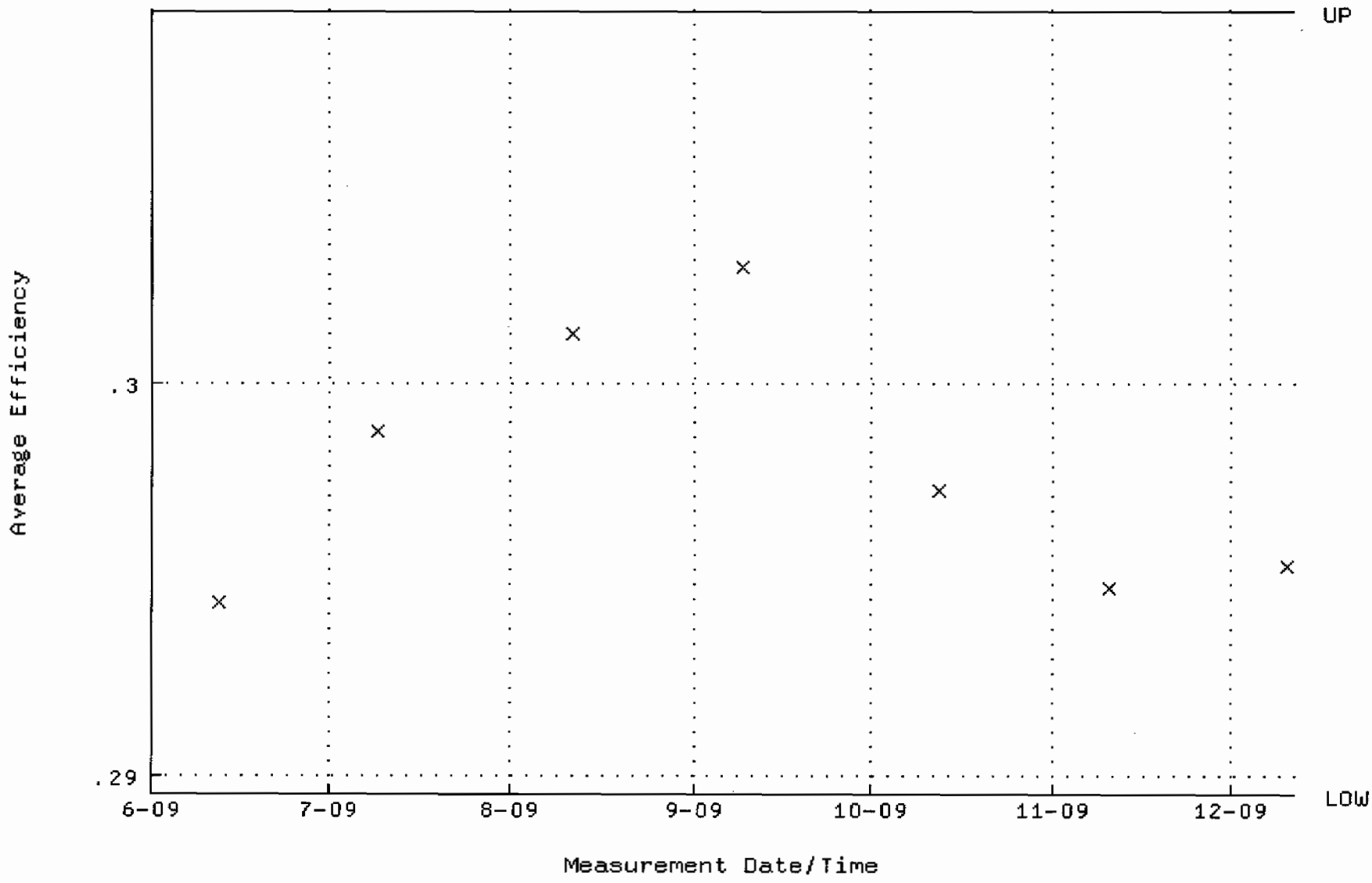

QA filename : DKA100:[ENV_ALPHA.QA.W]W086.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 12-JUN-2009 07:18:27 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 87.7898 through 97.0308

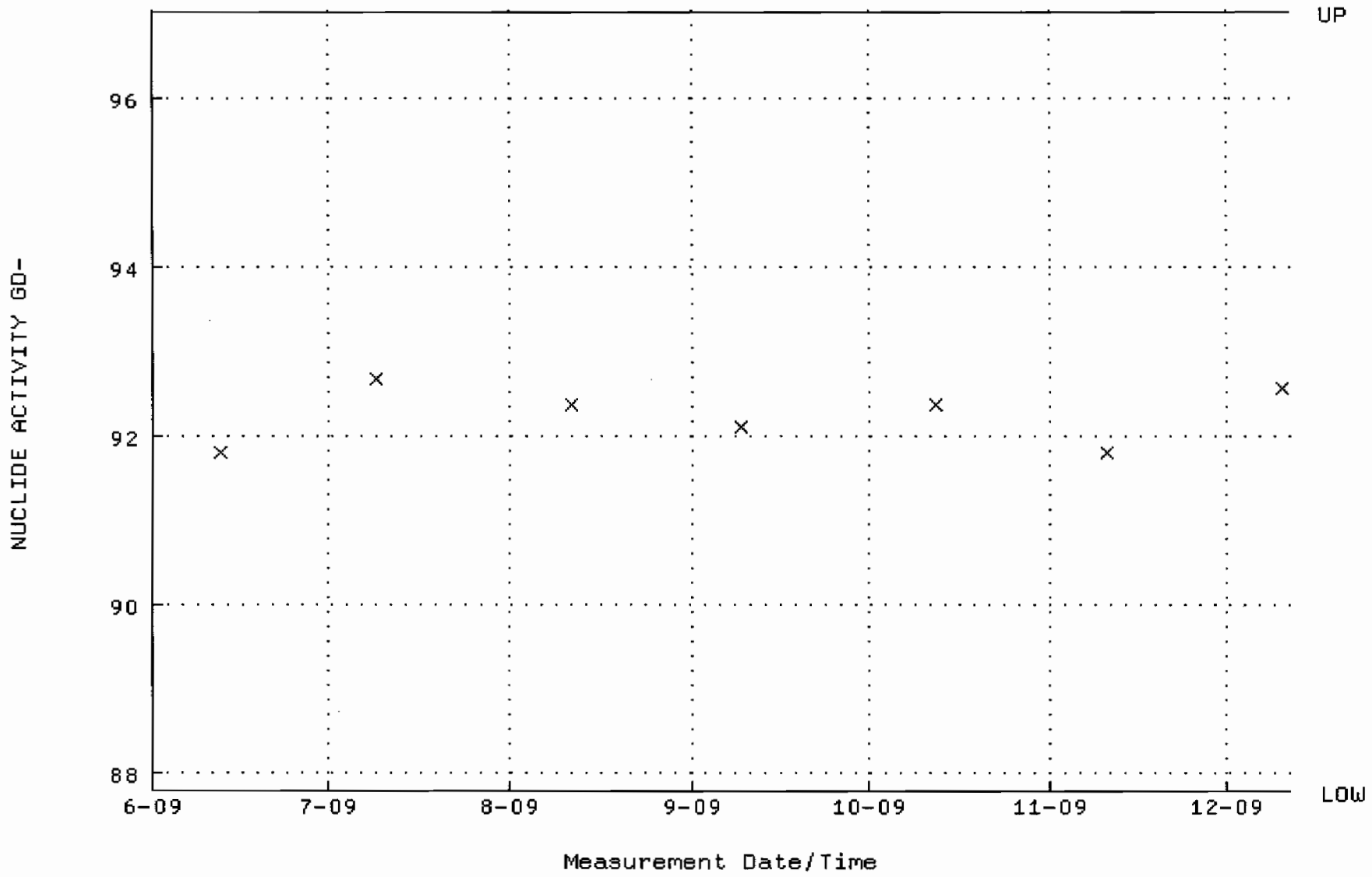

QA filename : DKA100:[ENV_ALPHA.QA.B]B086.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:40 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

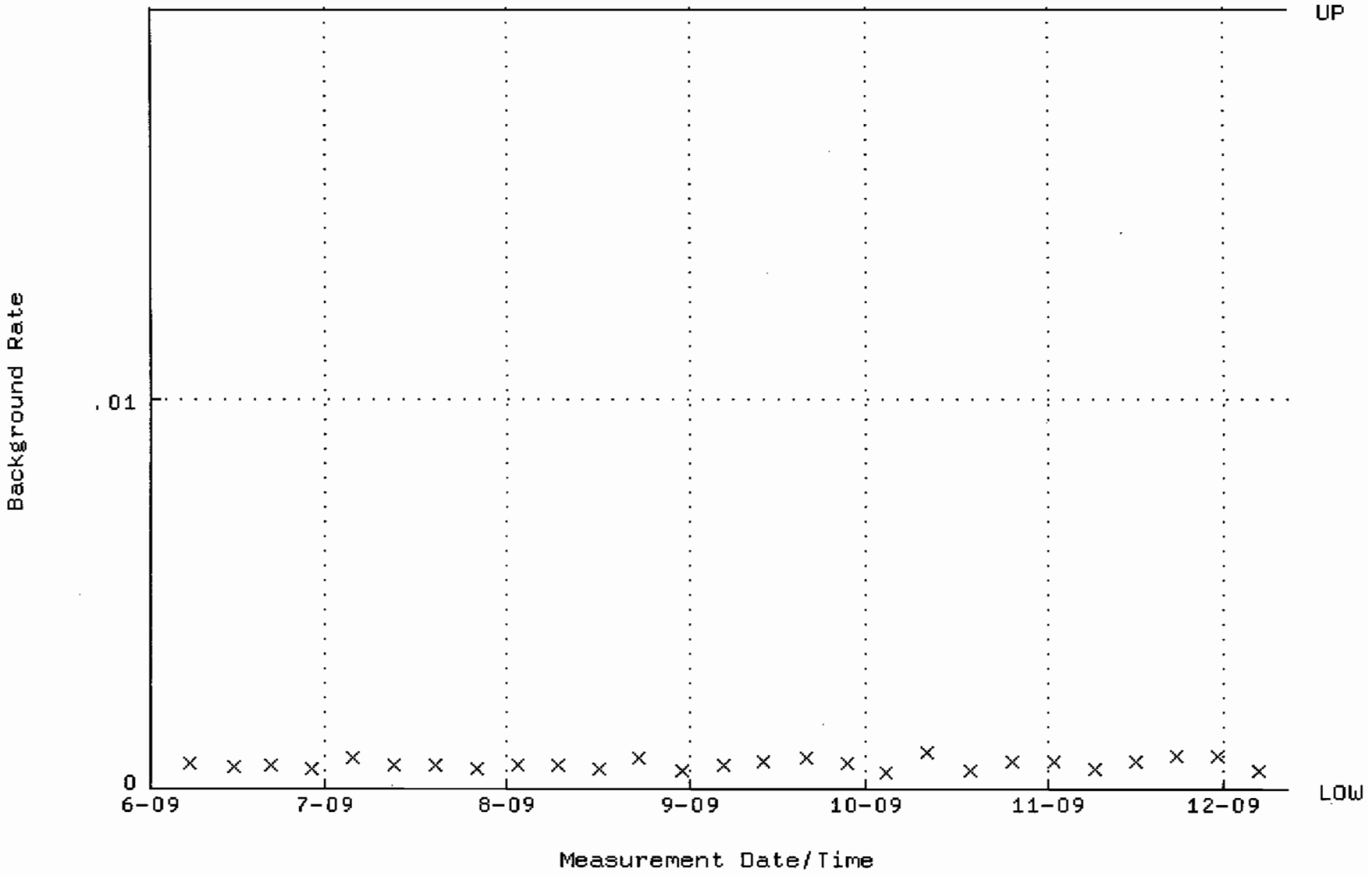

QA filename : DKA100:[ENV_ALPHA.QA.W]W087.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 12-JUN-2009 07:18:27 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.300530 through 0.320530

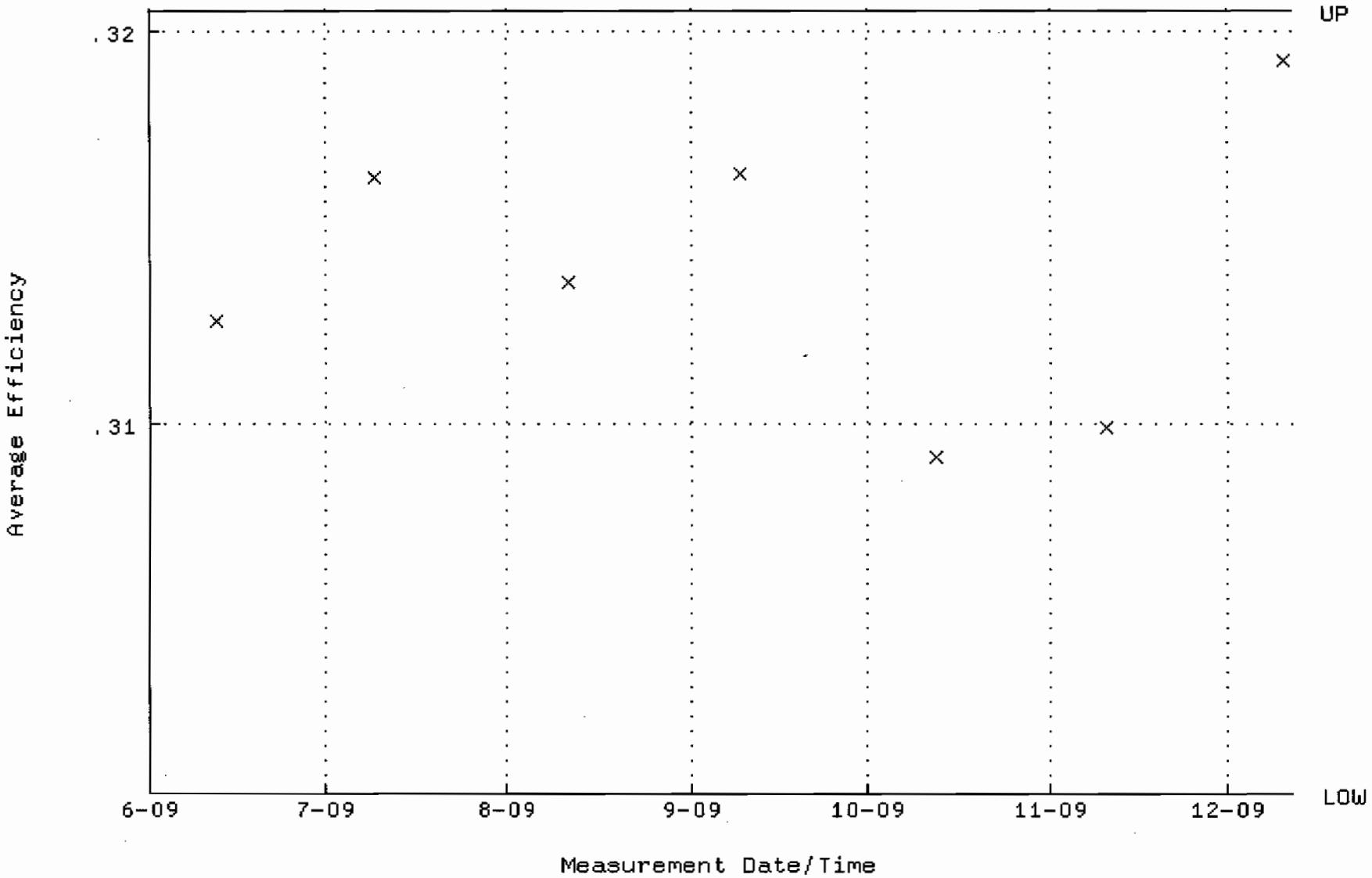

QA filename : DKA100:[ENV_ALPHA.QA.W]W087.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 12-JUN-2009 07:18:27 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 87.1845 through 96.3619

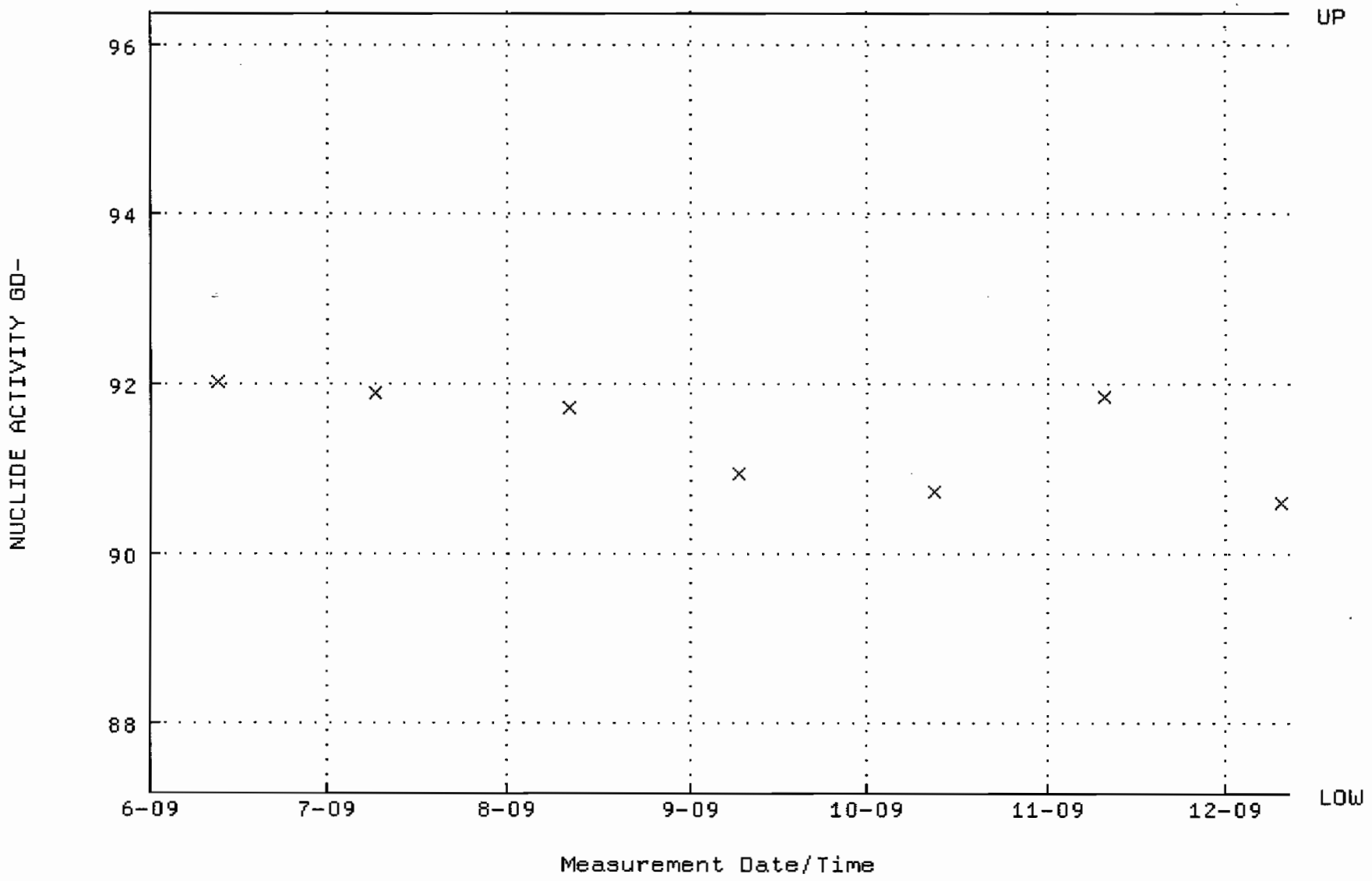

QA filename : DKA100:[ENV_ALPHA.QA.B]B087.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:40 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

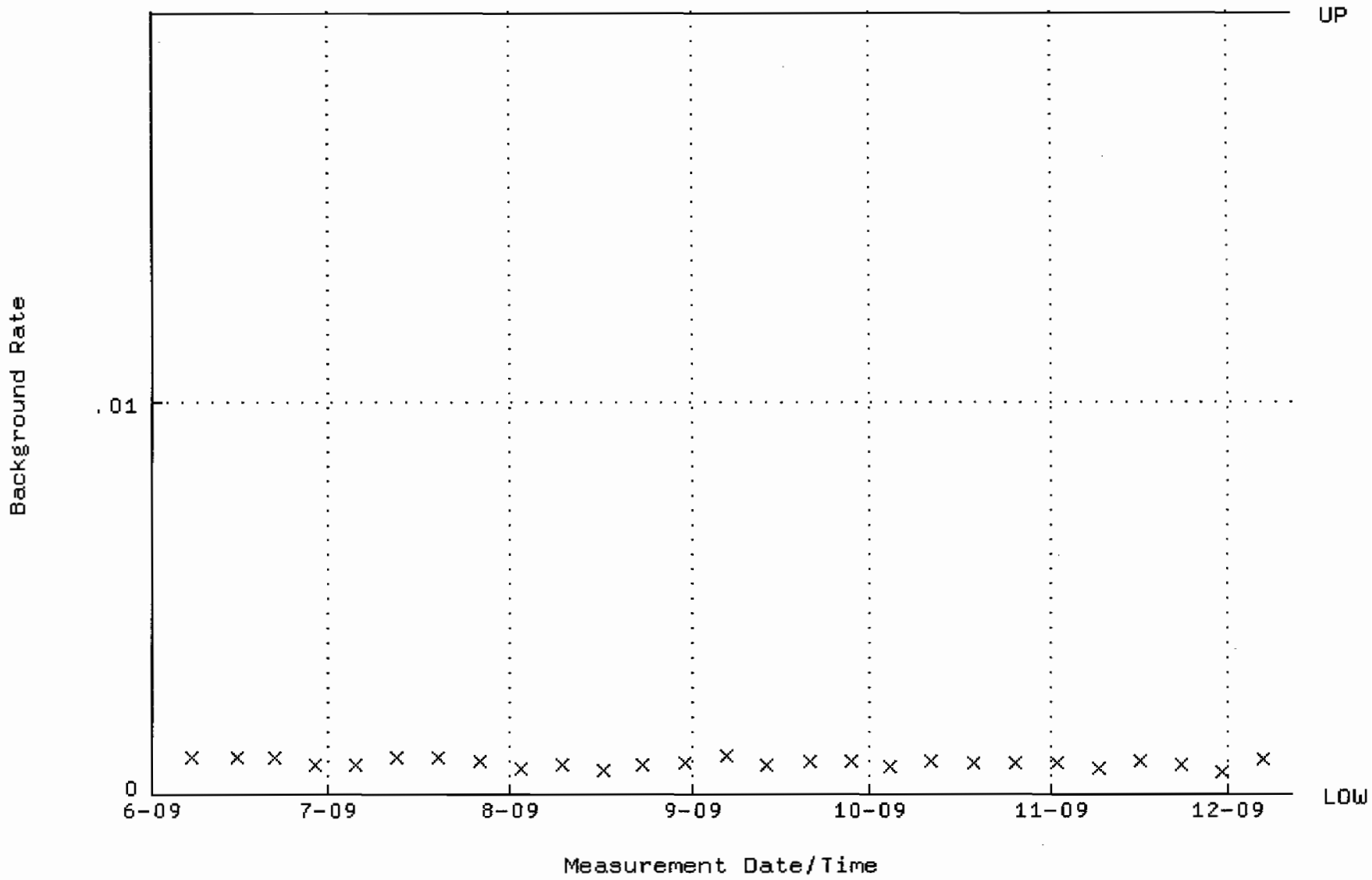

QA filename : DKA100:[ENV_ALPHA.QA.W]W088.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 12-JUN-2009 07:18:27 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

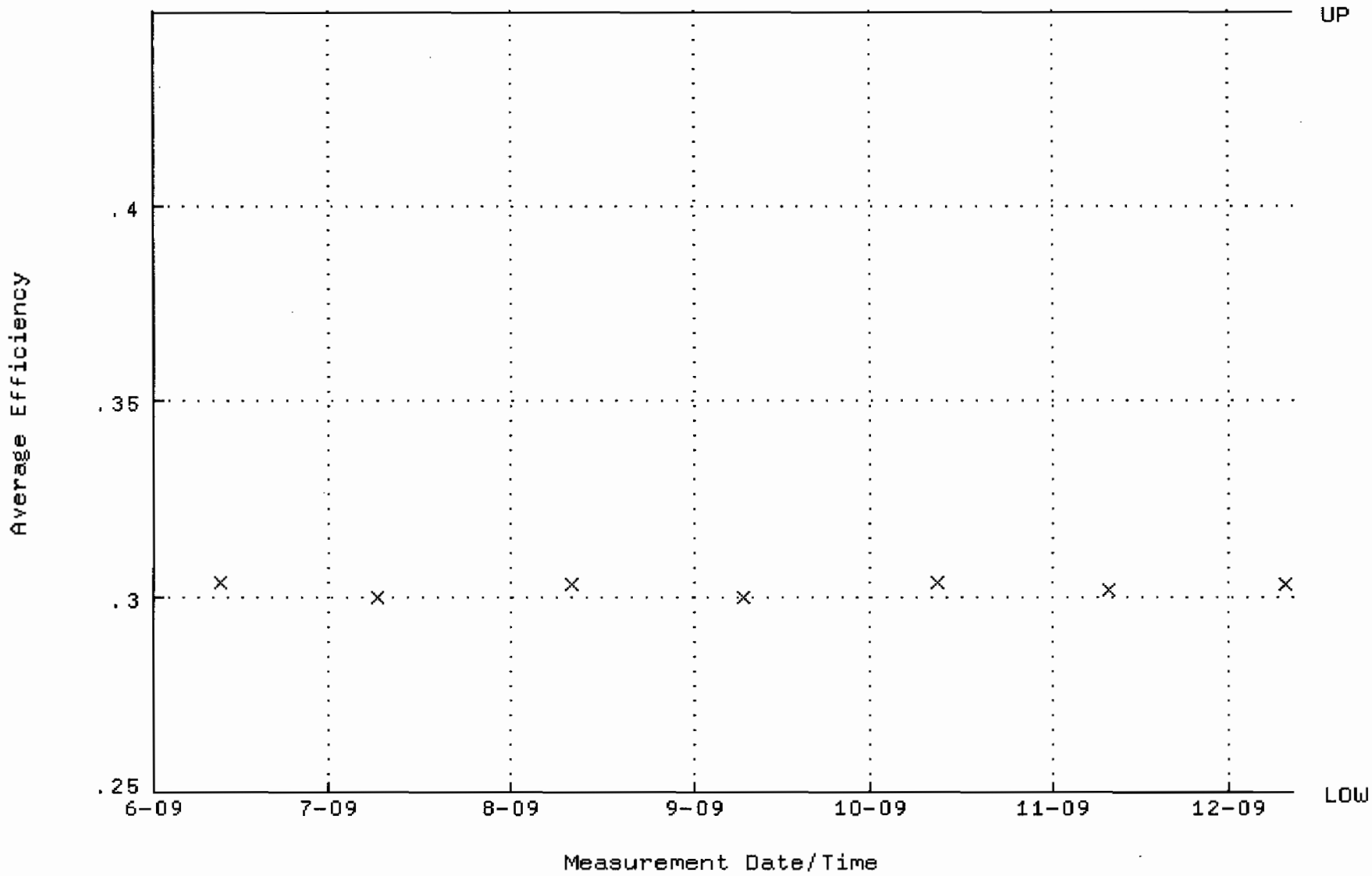

QA filename : DKA100:[ENV_ALPHA.QA.W]W088.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 12-JUN-2009 07:18:27 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

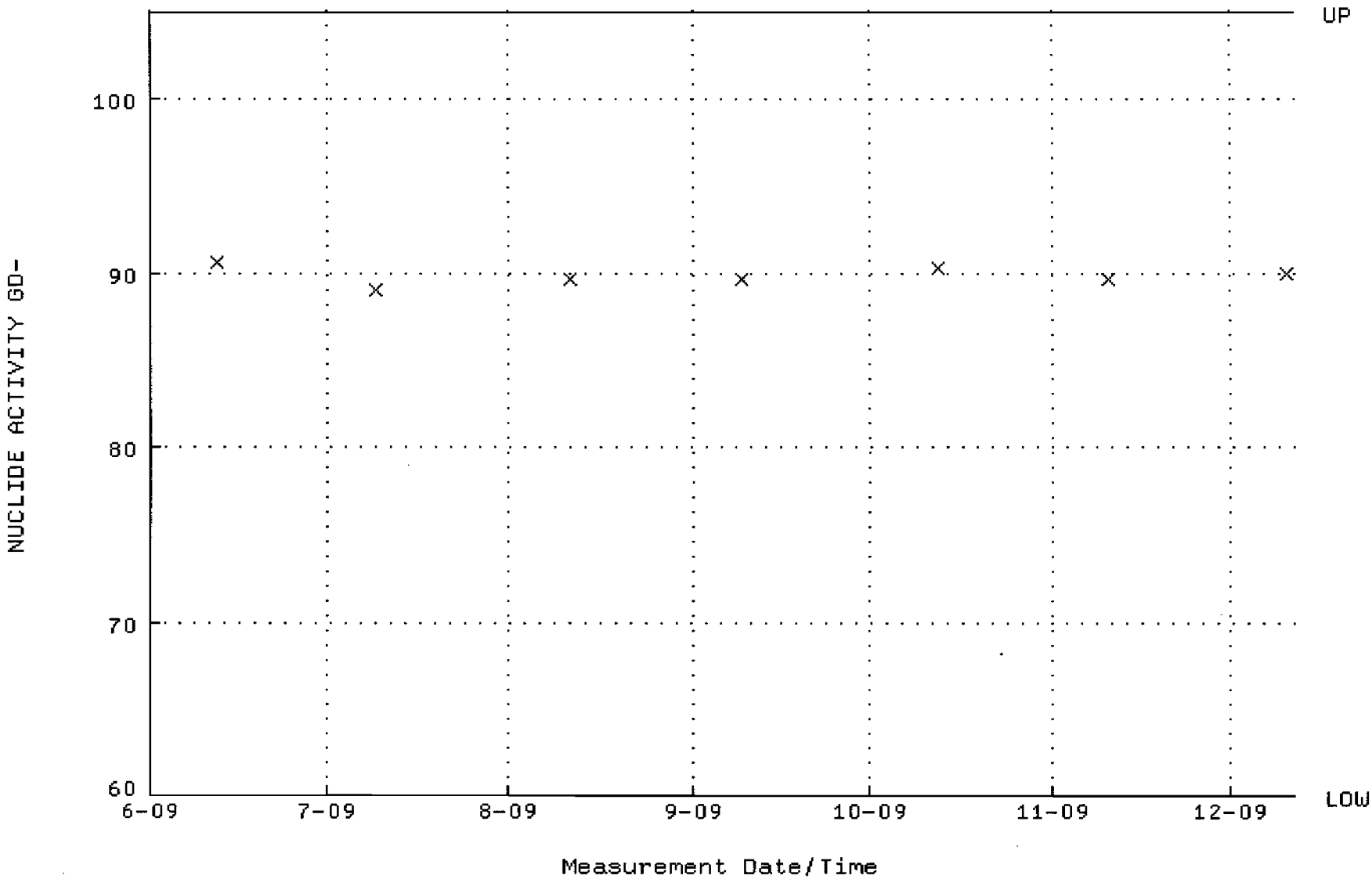

QA filename : DKA100:[ENV_ALPHA.QA.B]B088.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:40 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

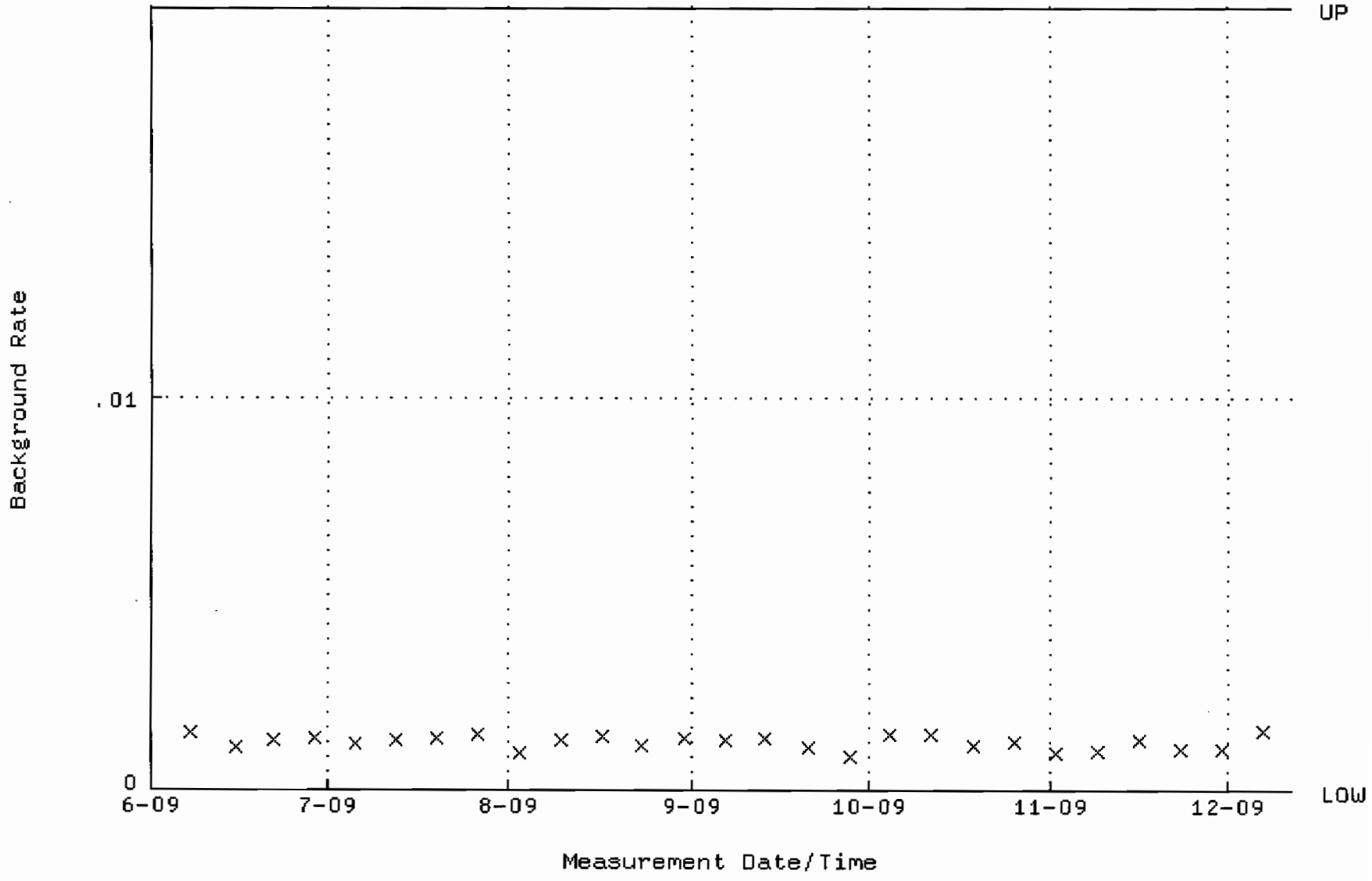

QA filename : DKA100:[ENV_ALPHA.QA.W]W089.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 12-JUN-2009 07:18:28 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.287888 through 0.307888

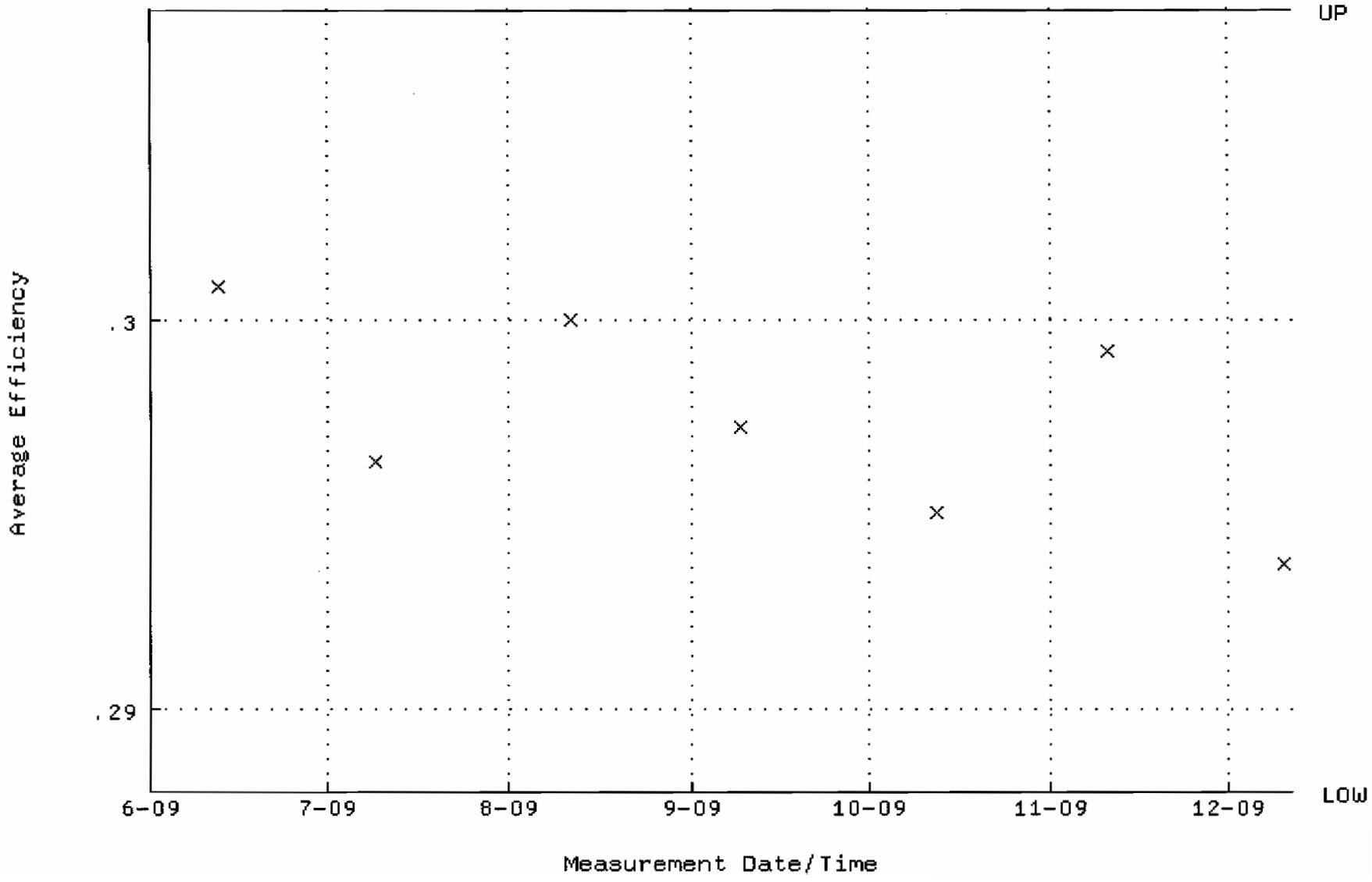

QA filename : DKA100:[ENV_ALPHA.QA.W]W089.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 12-JUN-2009 07:18:28 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 84.1413 through 92.9983

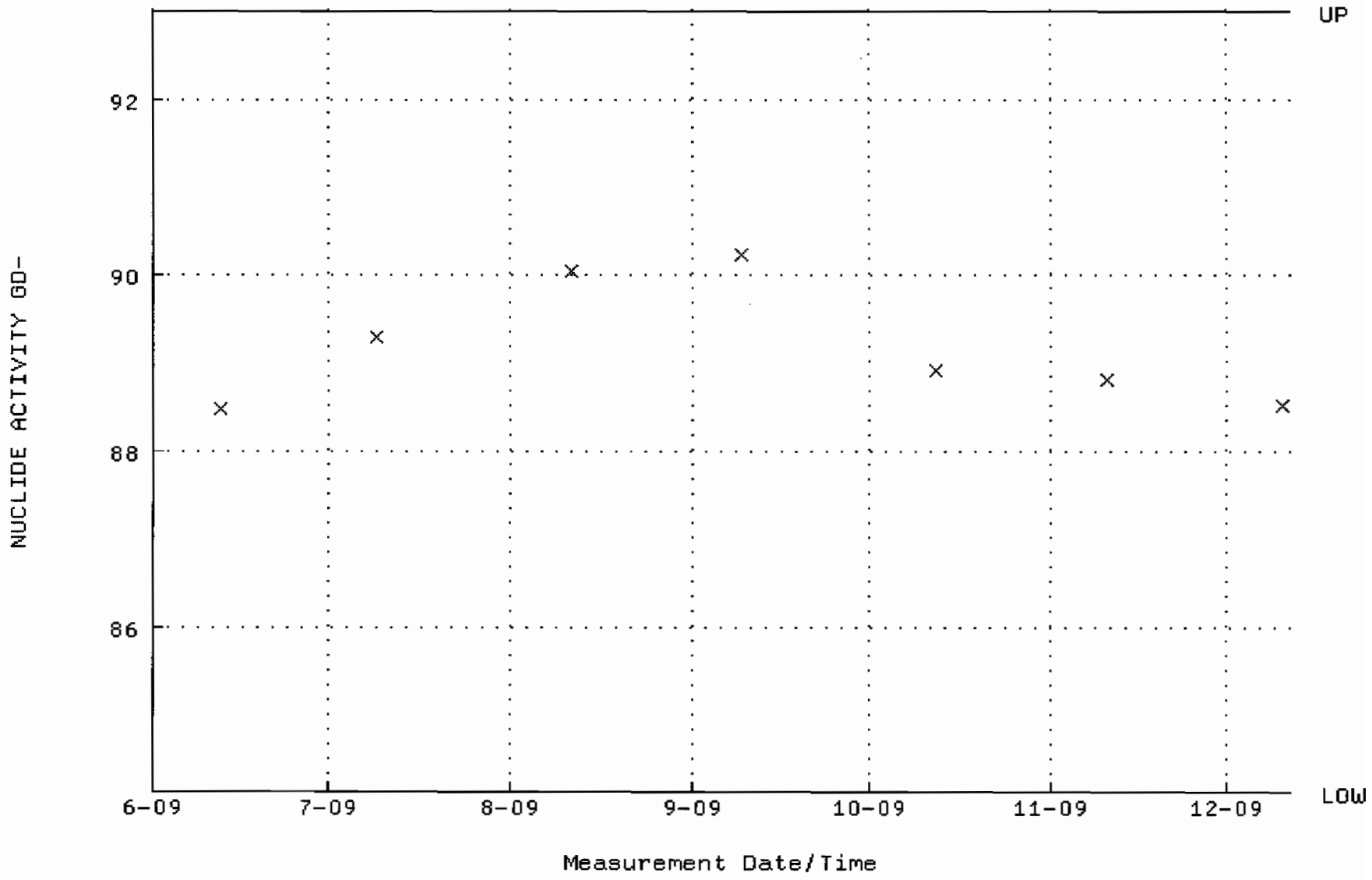

QA filename : DKA100:[ENV_ALPHA.QA.B]B089.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:41 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

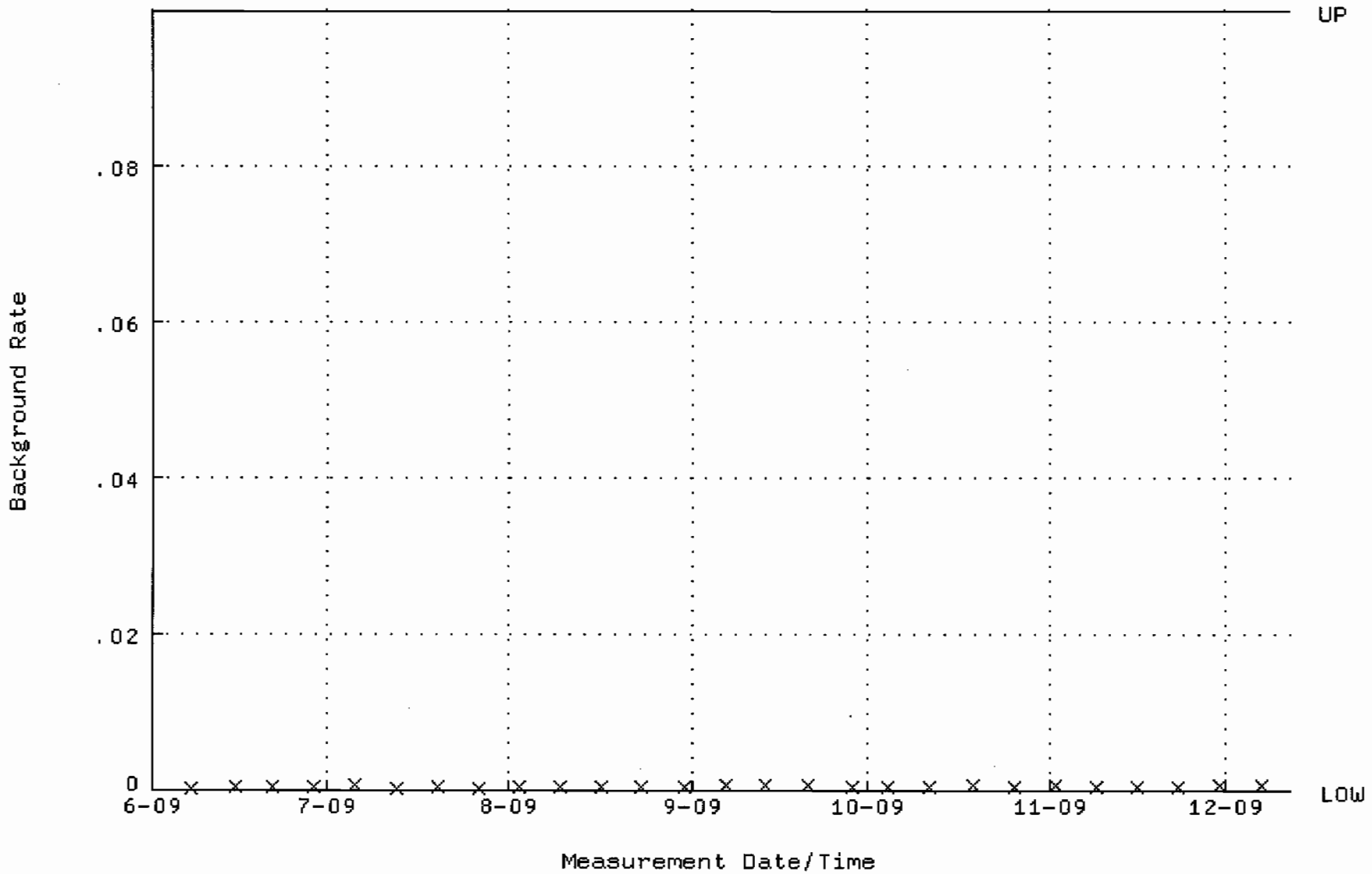

QA filename : DKA100:[ENV_ALPHA.QA.W]W090.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 12-JUN-2009 07:18:28 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.313529 through 0.333529

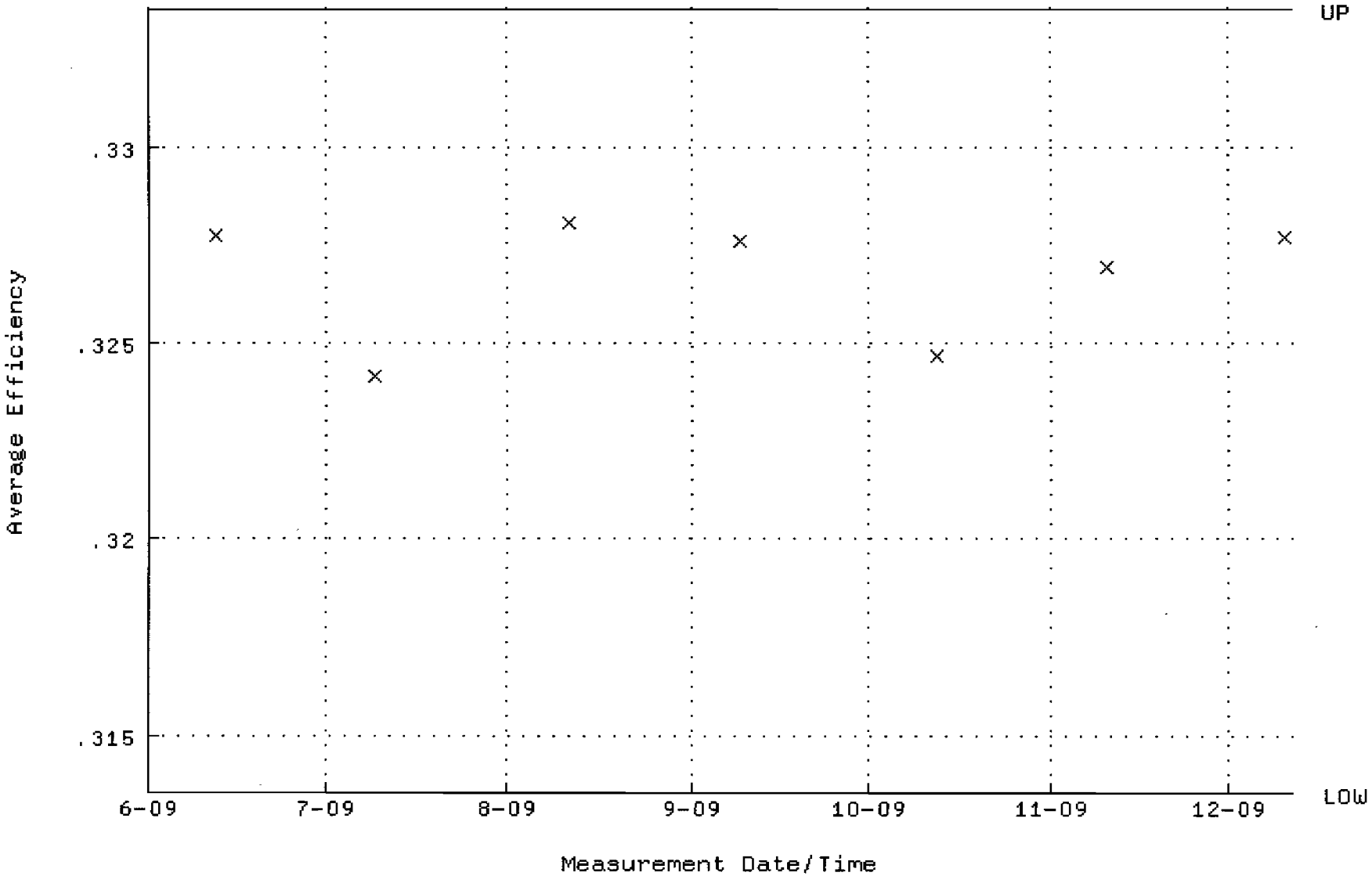

QA filename : DKA100:[ENV_ALPHA.QA.W]W090.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 12-JUN-2009 07:18:28 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 86.0139 through 95.0680

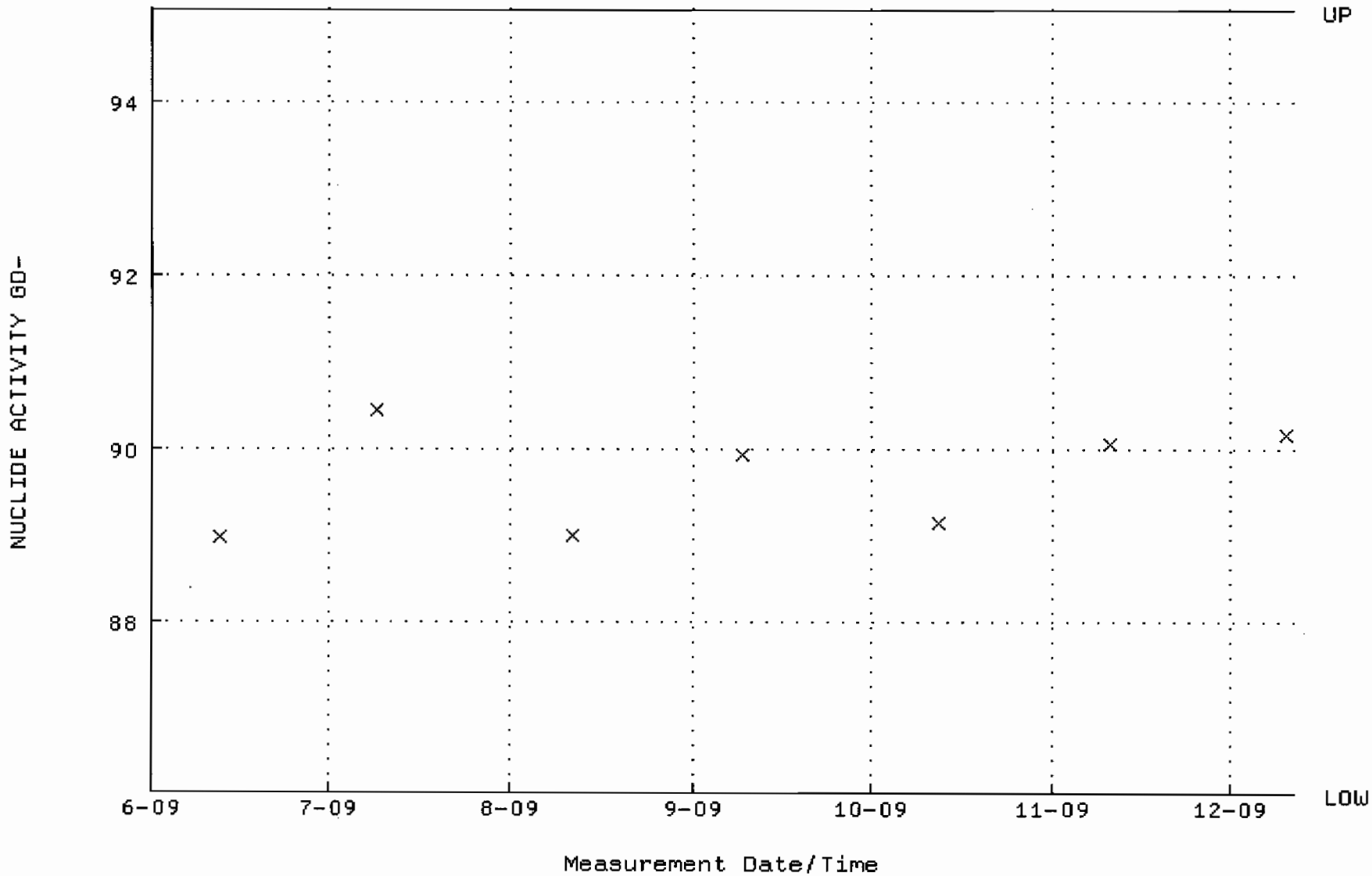

QA filename : DKA100:[ENV_ALPHA.QA.B]B090.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:41 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

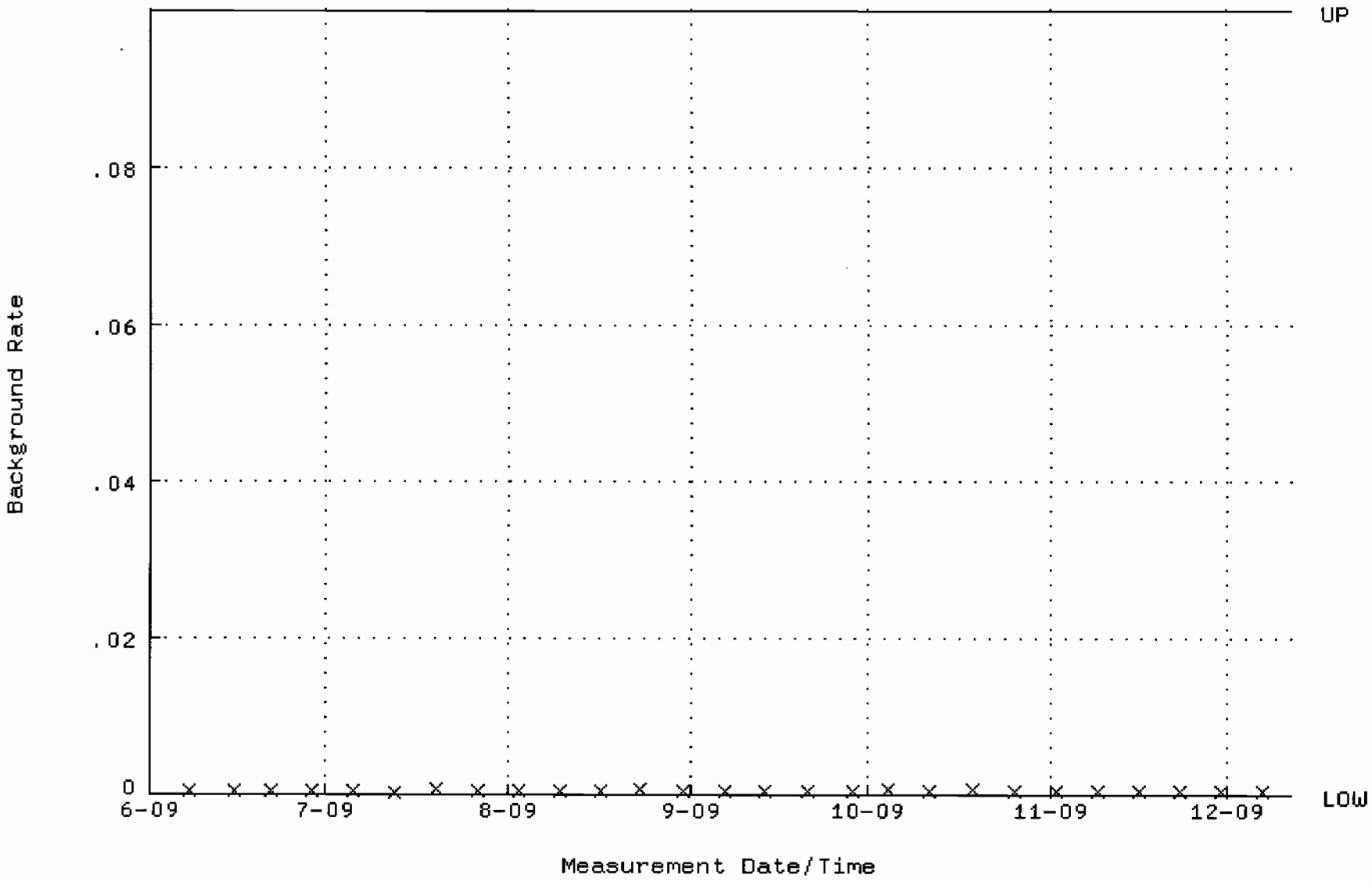

QA filename : DKA100:[ENV_ALPHA.QA.W]W092.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 12-JUN-2009 07:18:28 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.301529 through 0.329133

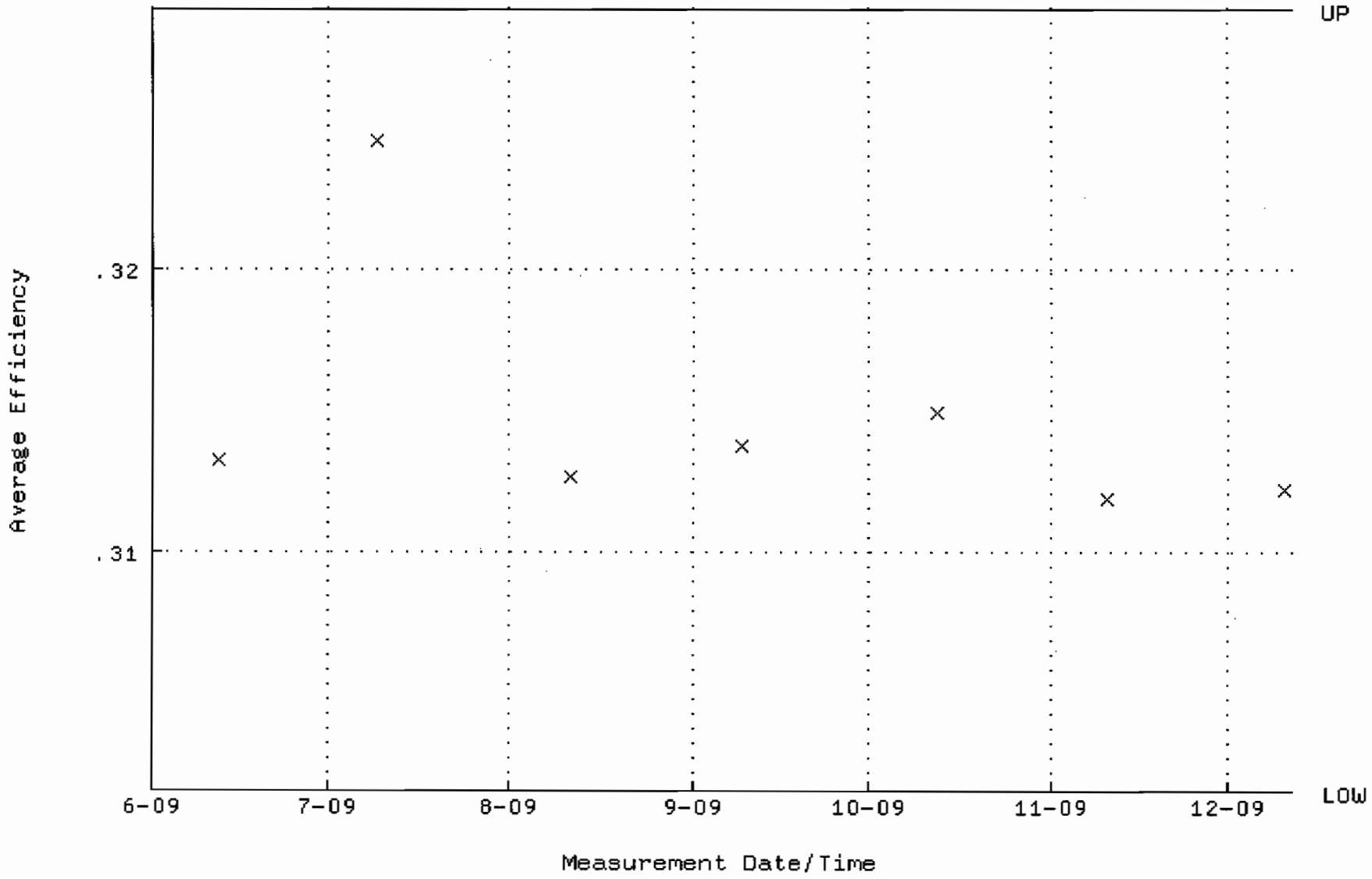

QA filename : DKA100:[ENV_ALPHA.QA.W]W092.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 12-JUN-2009 07:18:28 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 87.3140 through 91.8878

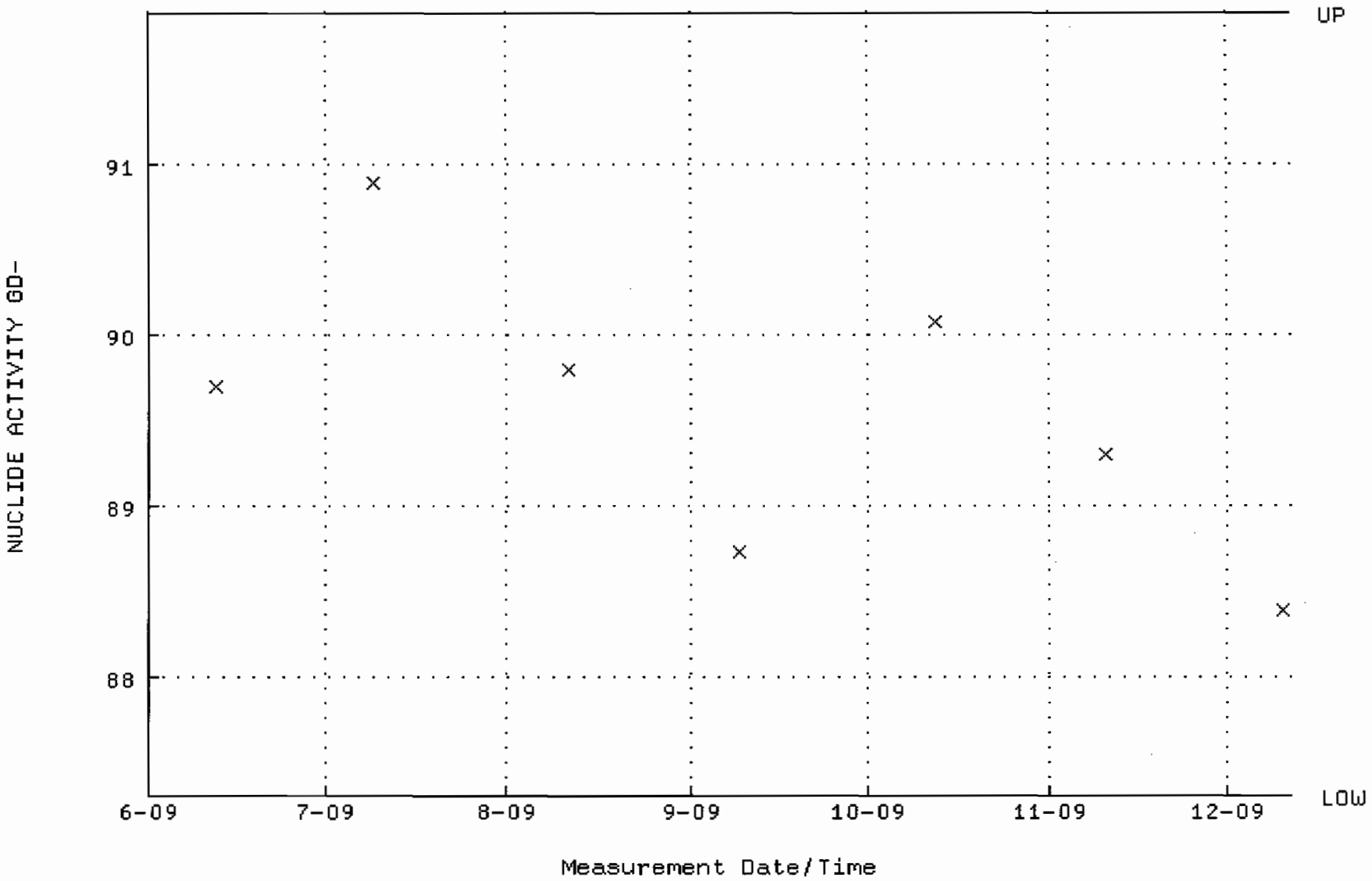

QA filename : DKA100:[ENV_ALPHA.QA.B]B092.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:41 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: -1.00000 through 0.100000

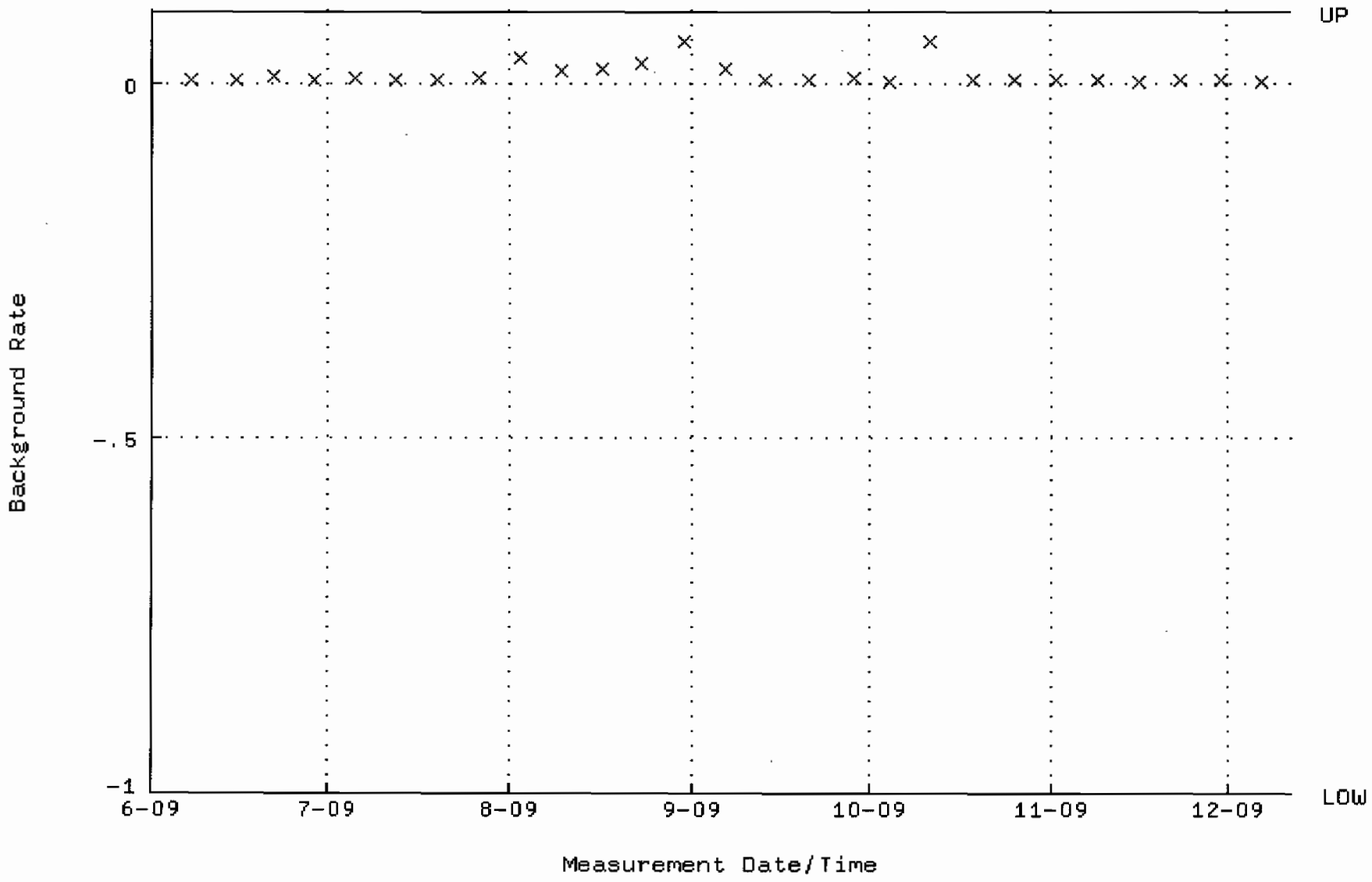

QA filename : DKA100:[ENV_ALPHA.QA.W]W093.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 12-JUN-2009 07:18:28 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

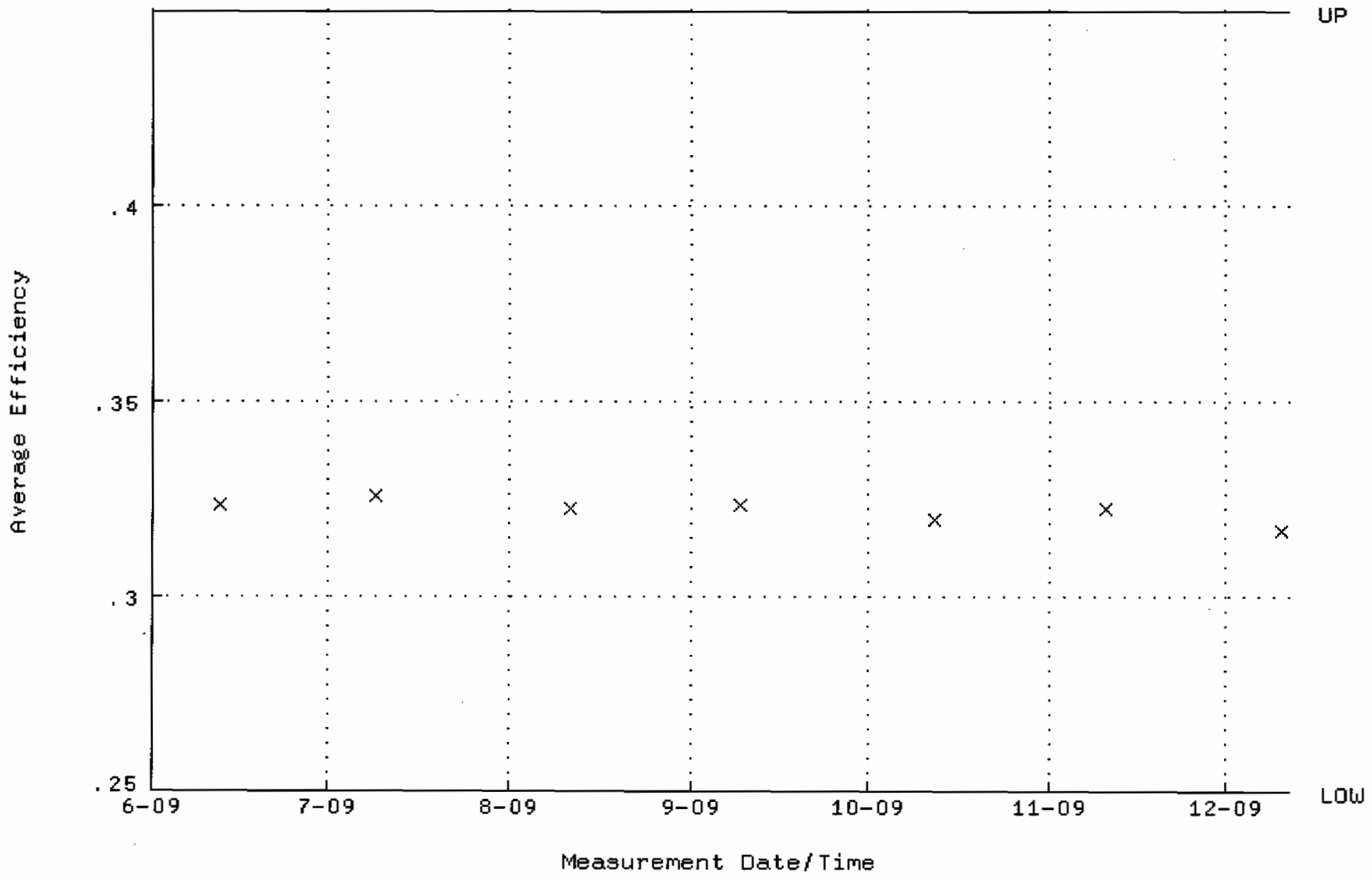

QA filename : DKA100:[ENV_ALPHA.QA.W]W093.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 12-JUN-2009 07:18:28 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

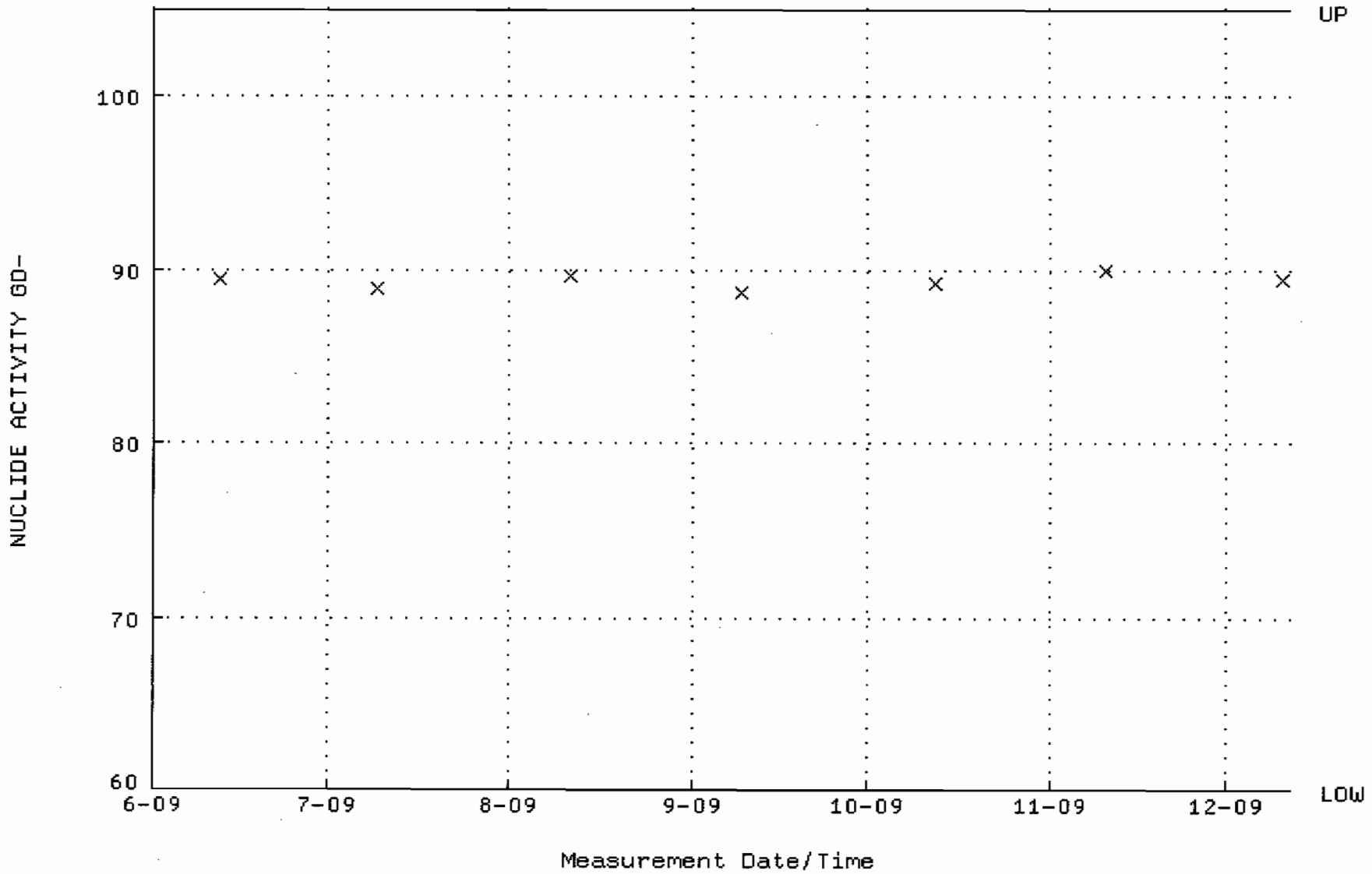

QA filename : DKA100:[ENV_ALPHA.QA.B]B093.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:41 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: -1.00000 through 0.100000

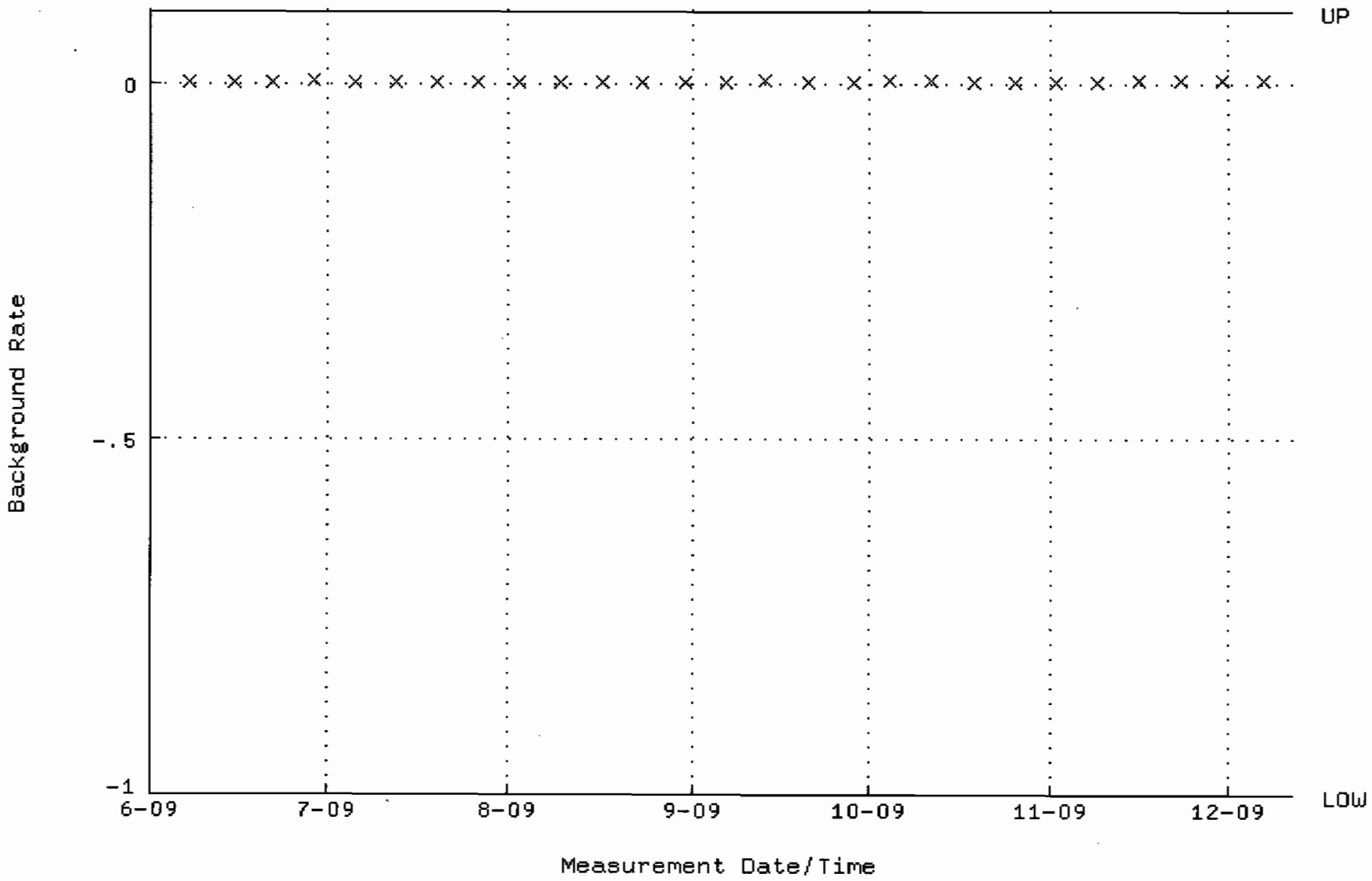

QA filename : DKA100:[ENV_ALPHA.QA.W]W096.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 12-JUN-2009 07:18:29 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.300551 through 0.320551

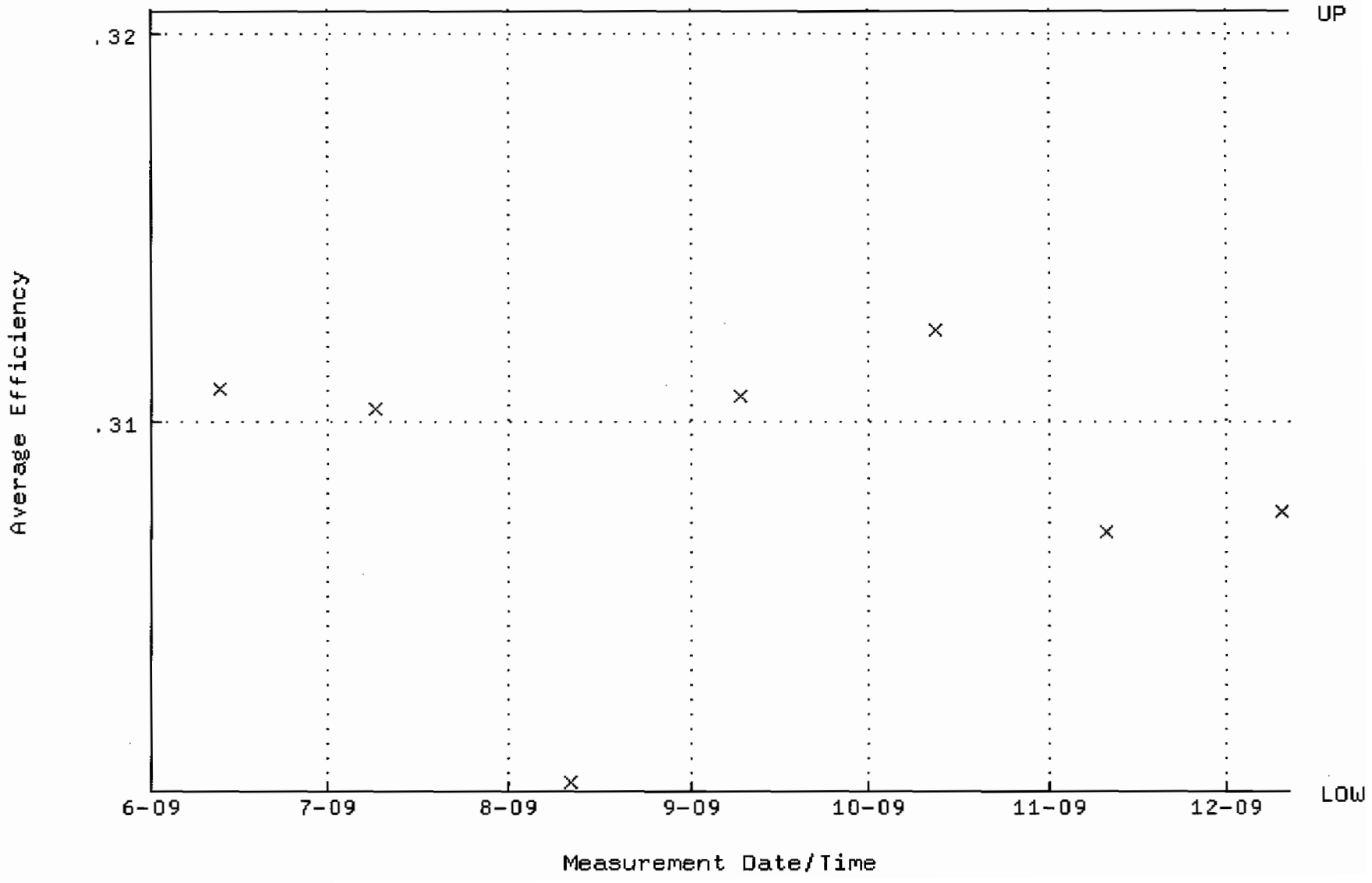

QA filename : DKA100:[ENV_ALPHA.QA.W]W096.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 12-JUN-2009 07:18:29 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 65.8889 through 72.8245

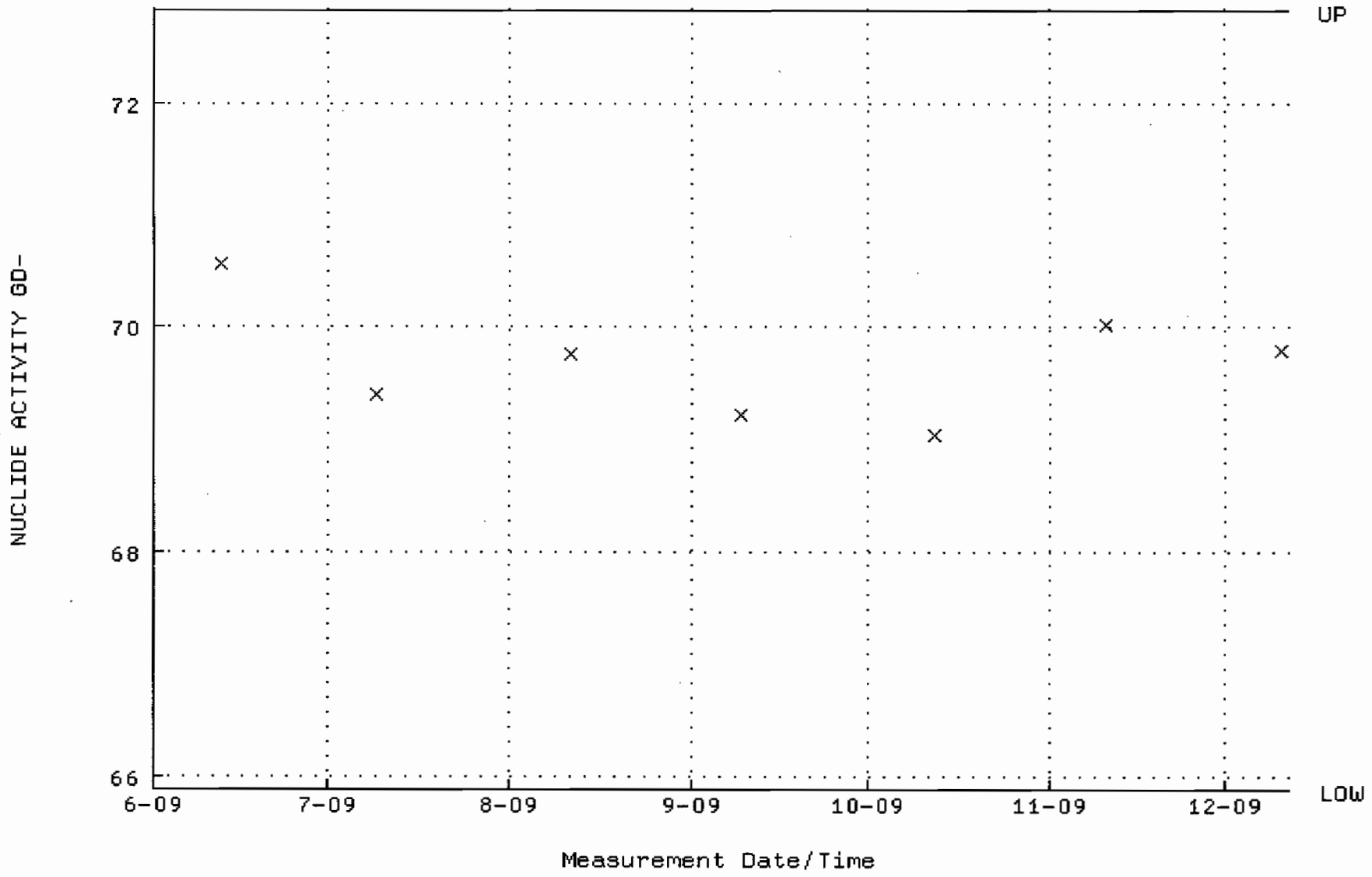

QA filename : DKA100:[ENV_ALPHA.QA.B]B096.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:42 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

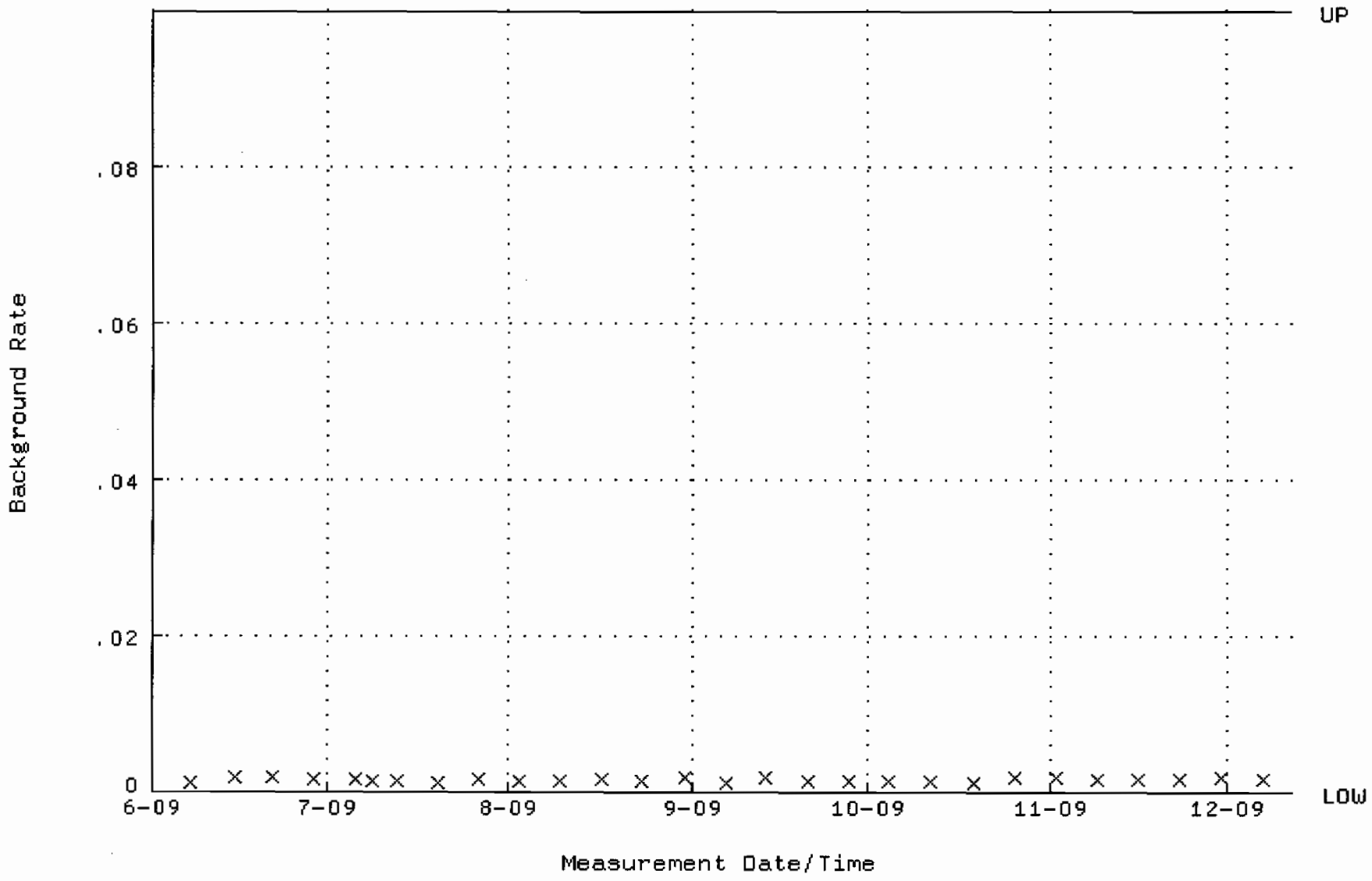

QA filename : DKA100:[ENV_ALPHA.QA.W]W126.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:35:19 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.243156 through 0.263156

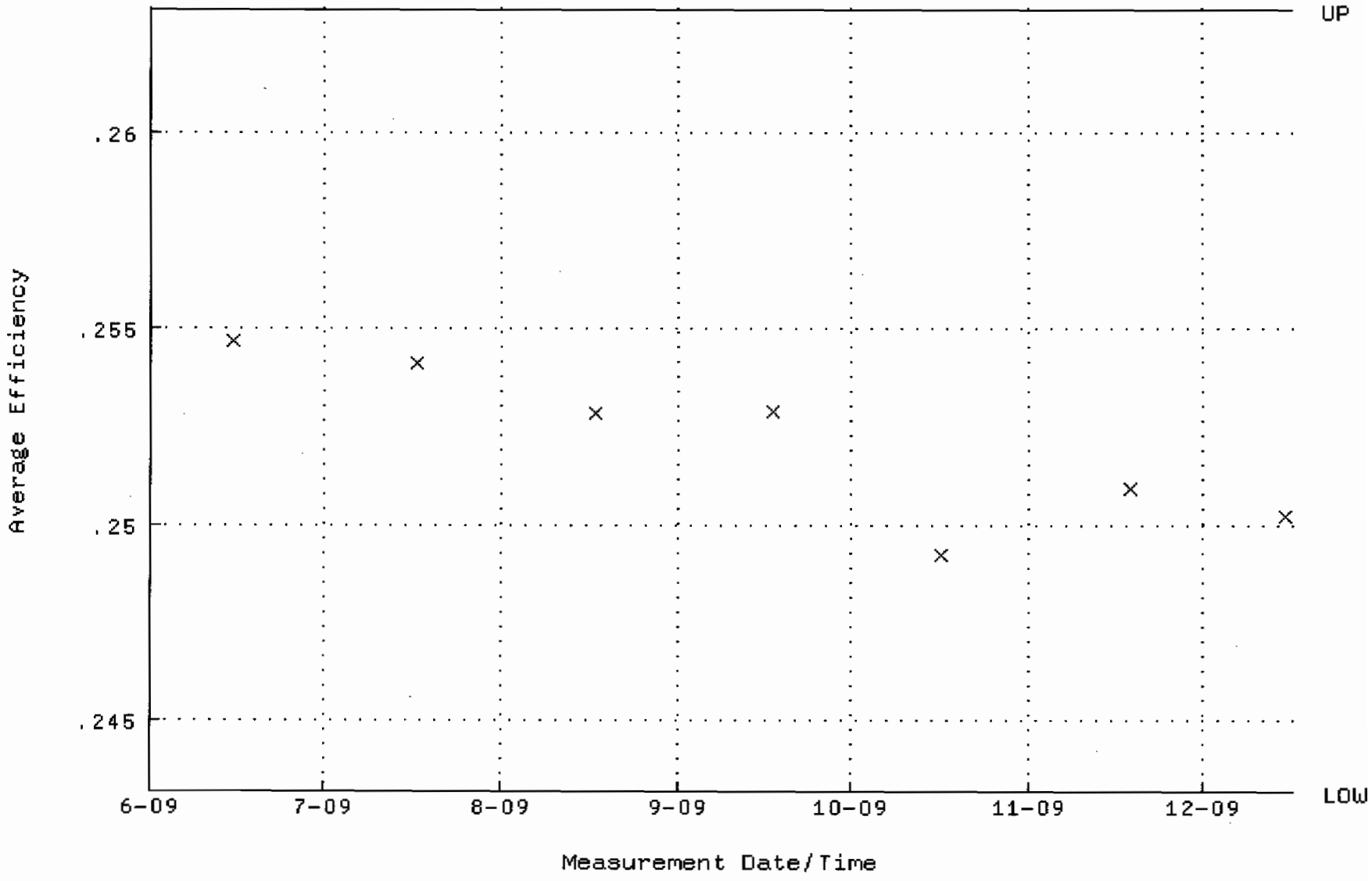

QA filename : DKA100:[ENV_ALPHA.QA.W]W126.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:35:19 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 85.7449 through 94.7707

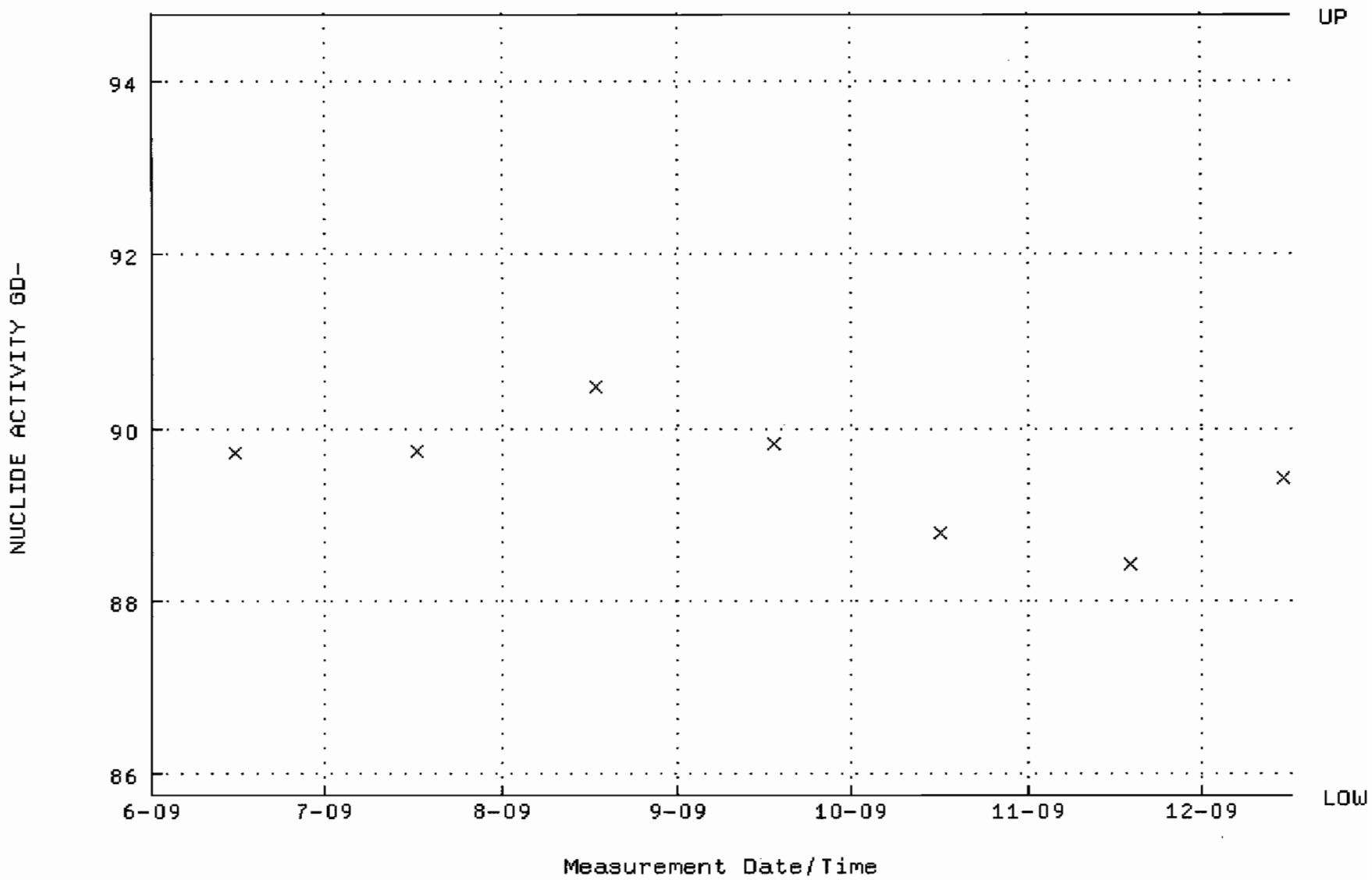

QA filename : DKA100:[ENV_ALPHA.QA.B]B126.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:09:35 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

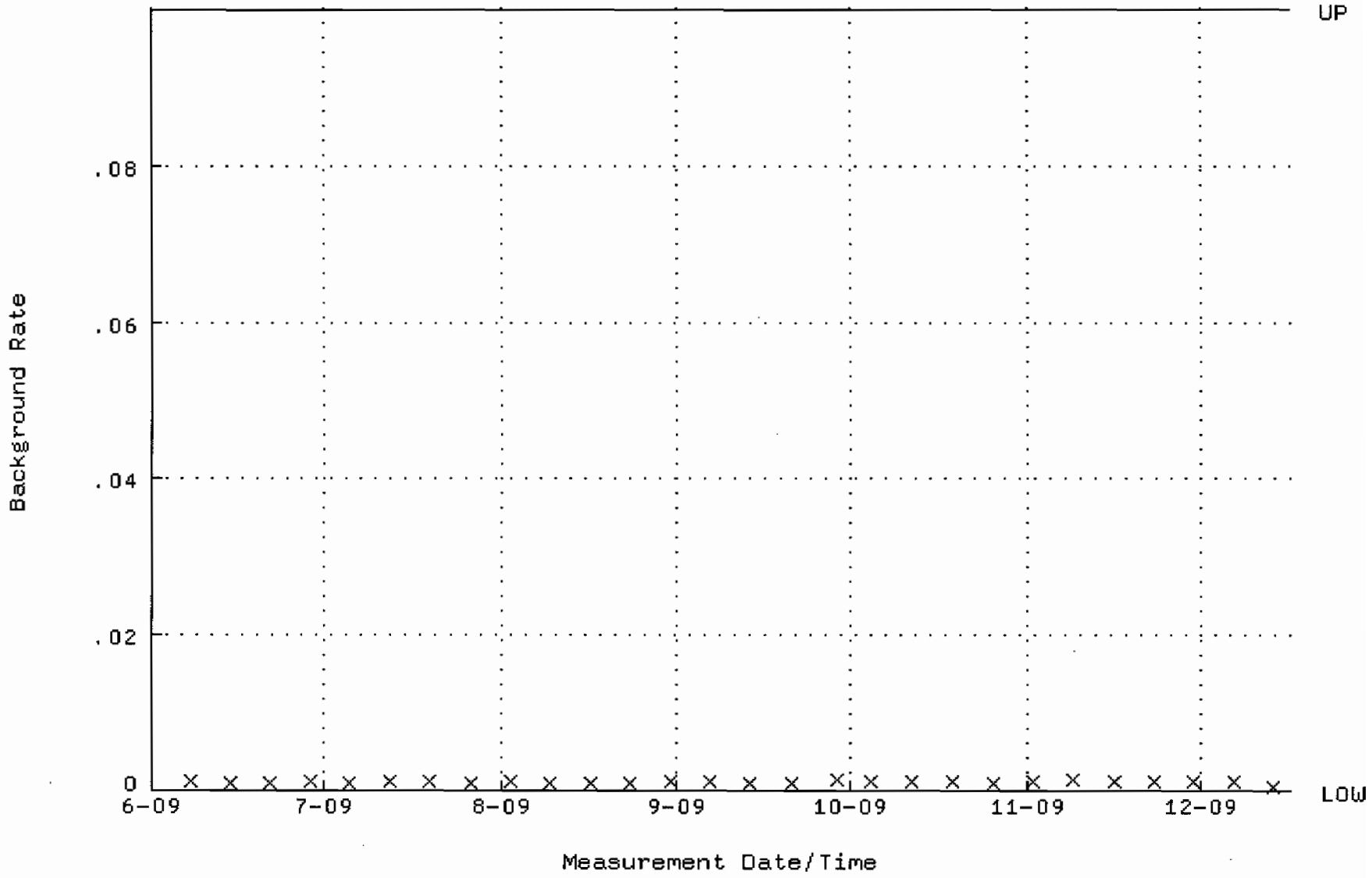

QA filename : DKA100:[ENV_ALPHA.QA.W]W127.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:35:25 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.237773 through 0.257773

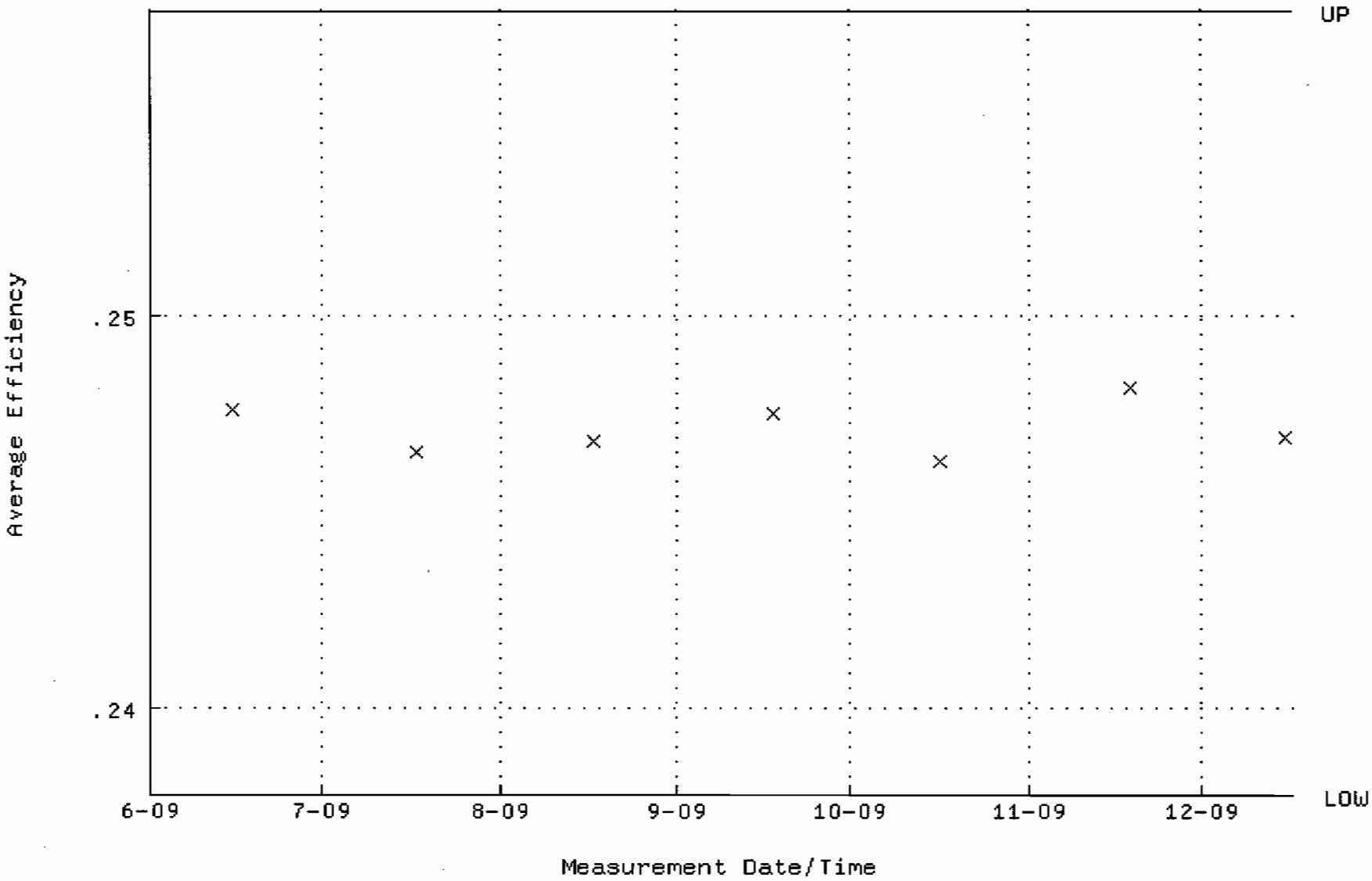

QA filename : DKA100:[ENV_ALPHA.QA.W]W127.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:35:25 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 90.4503 through 99.9713

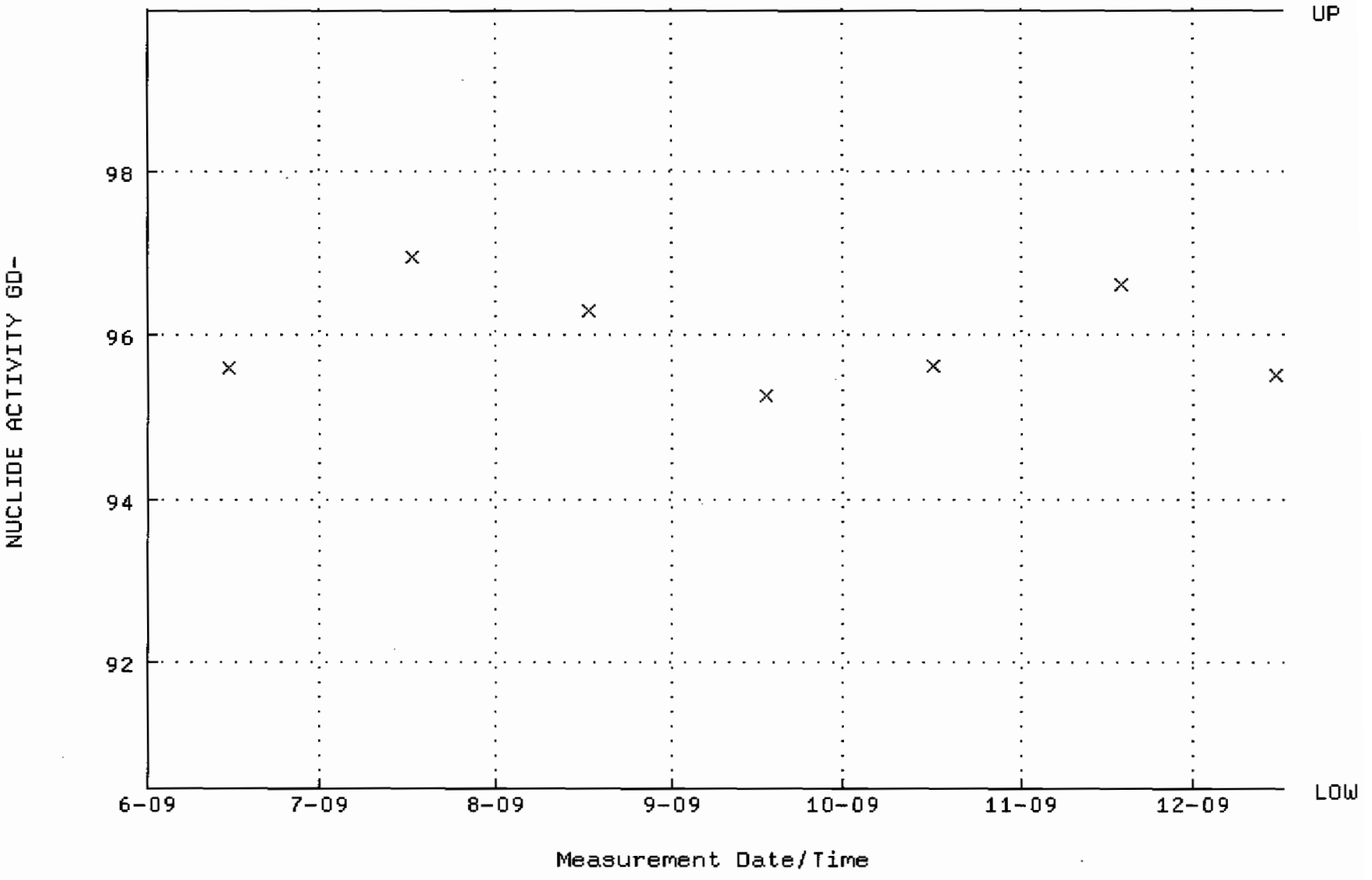

QA filename : DKA100:[ENV_ALPHA.QA.B]B127.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:09:40 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

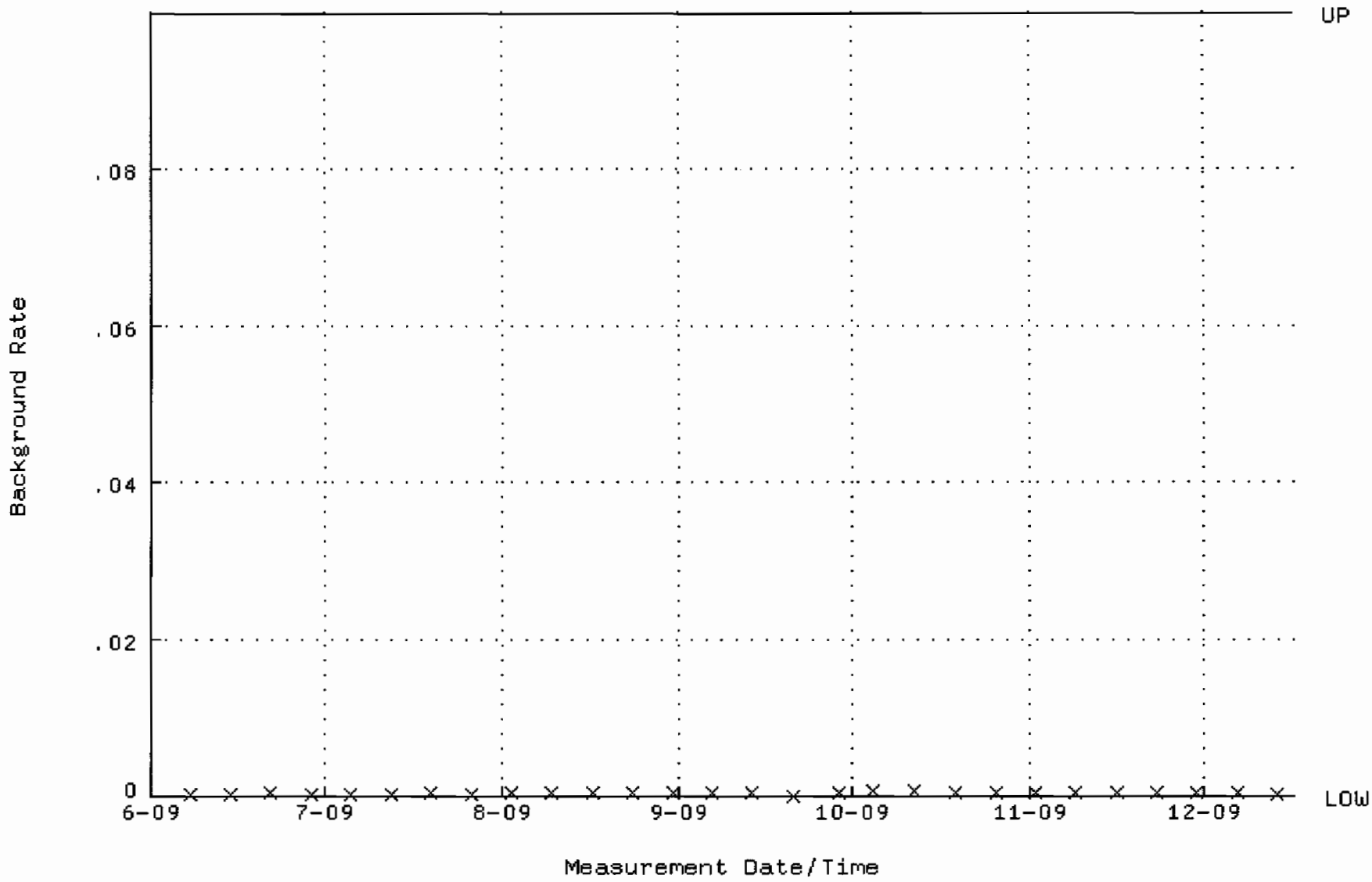

QA filename : DKA100:[ENV_ALPHA.QA.W]W129.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:35:37 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.256741 through 0.276741

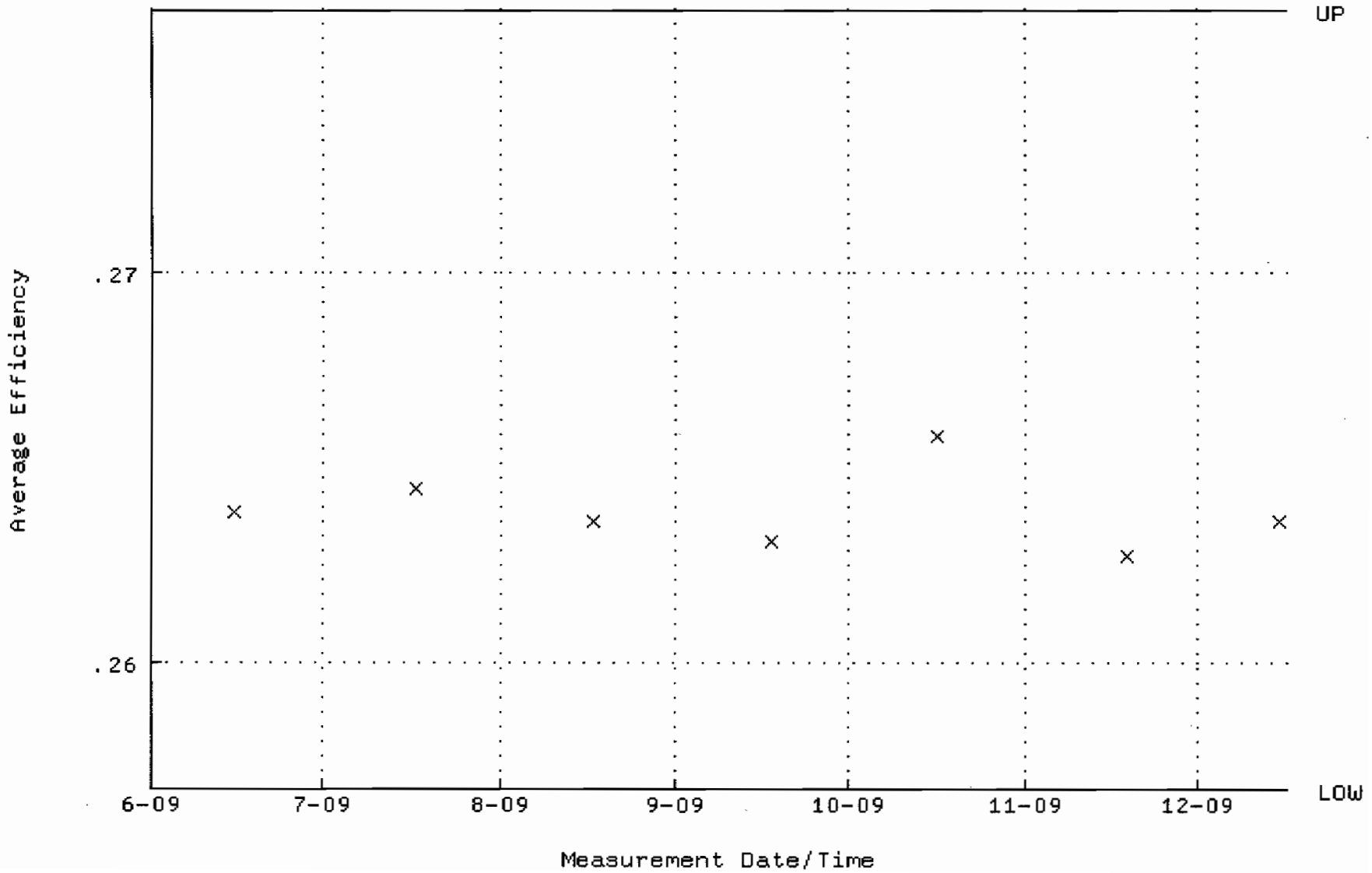

QA filename : DKA100:[ENV_ALPHA.QA.W]W129.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:35:37 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 86.3646 through 95.4556

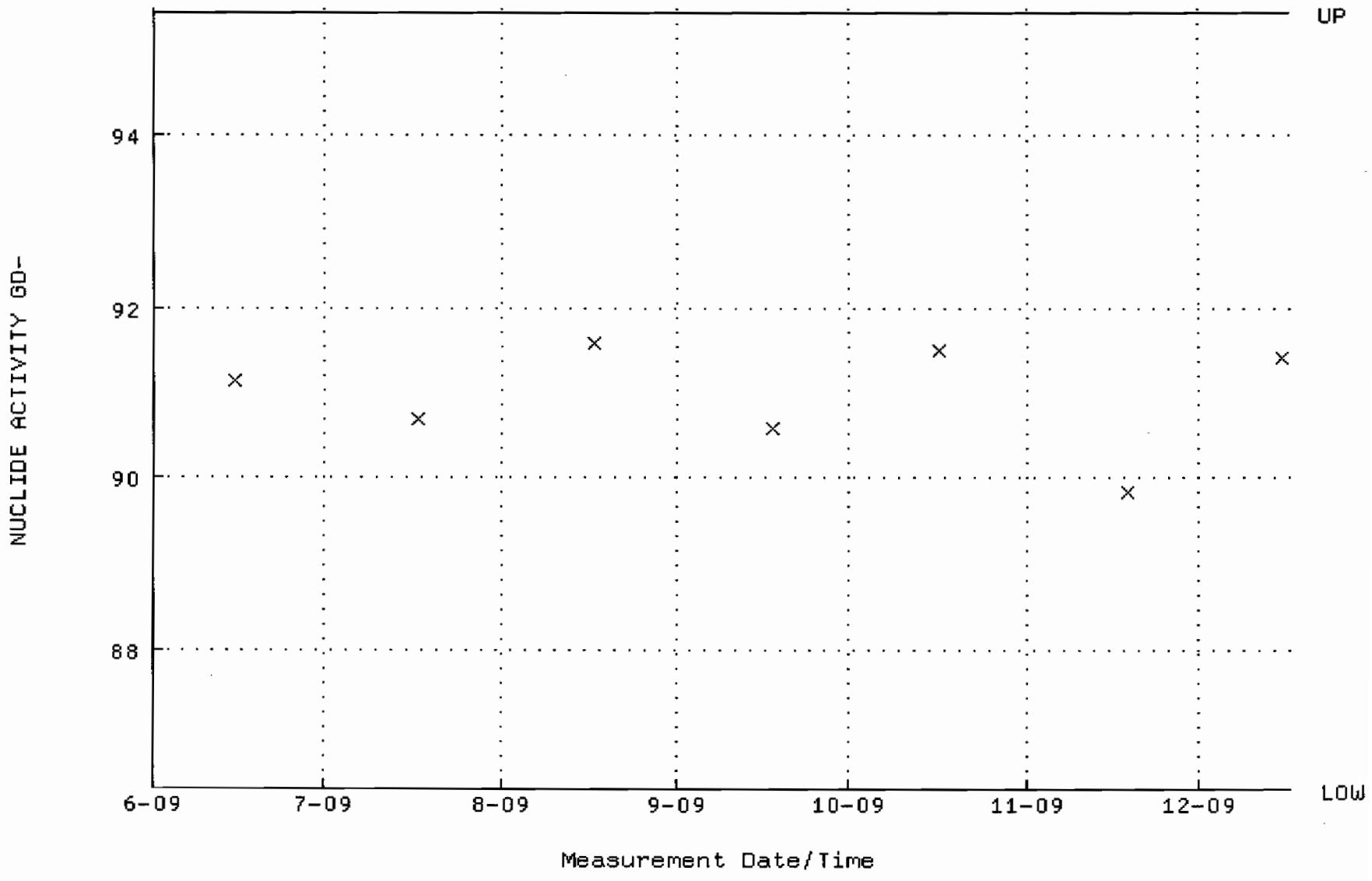

QA filename : DKA100:[ENV_ALPHA.QA.B]B129.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:09:48 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

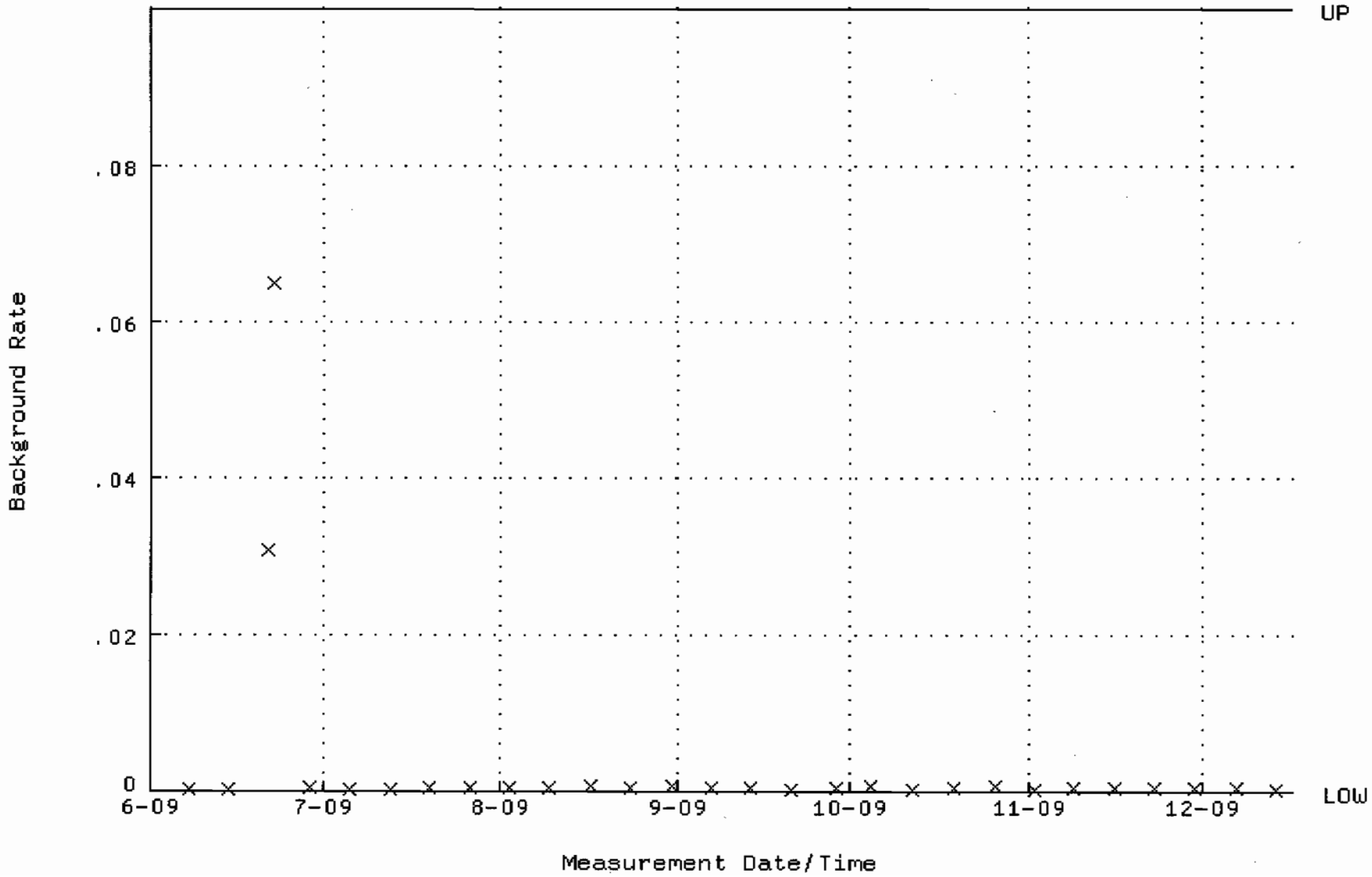

QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:35:42 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.239131 through 0.259131

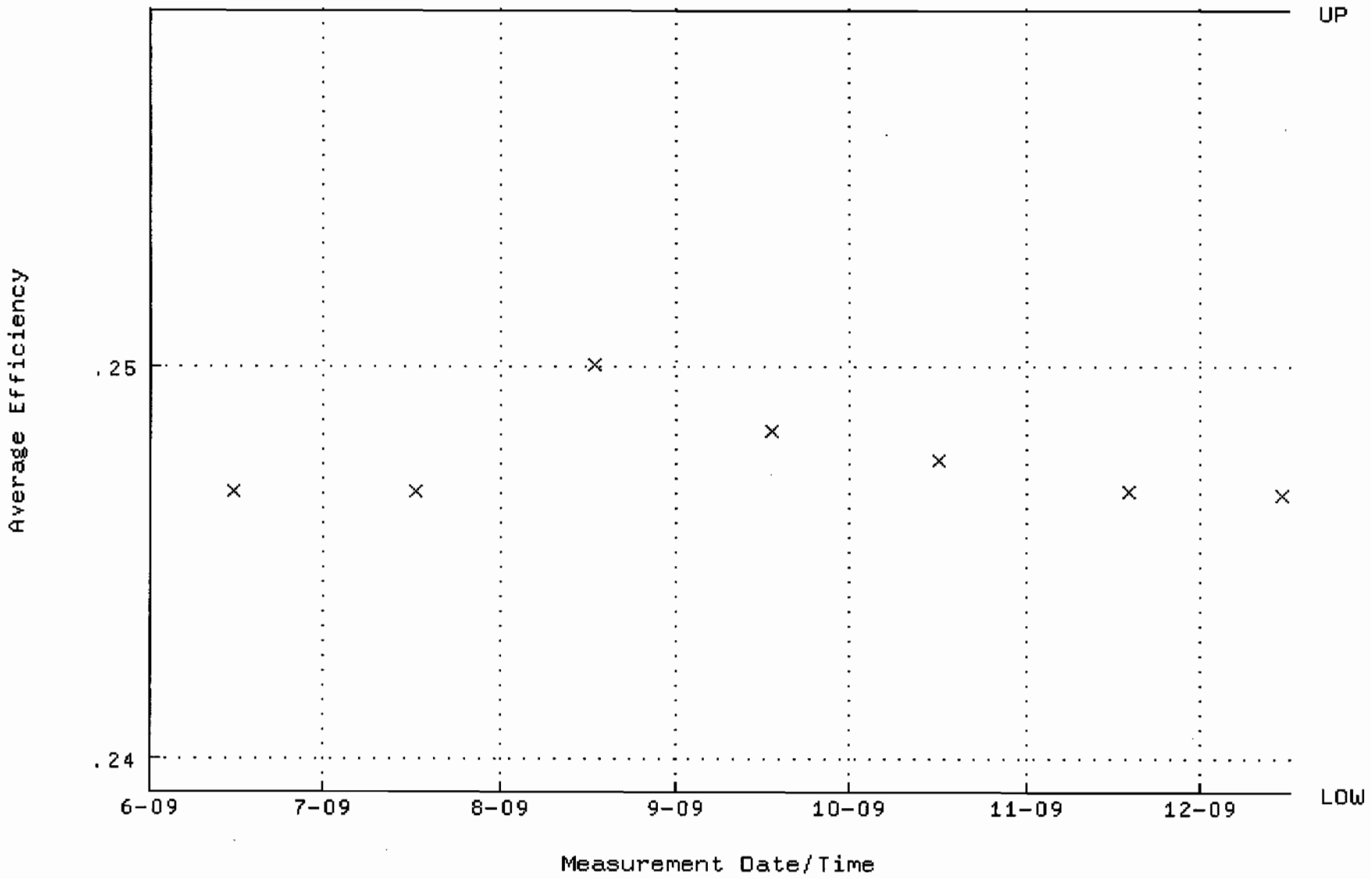

QA filename : DKA100:[ENV_ALPHA.QA.W]W130.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:35:42 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 88.1614 through 97.4416

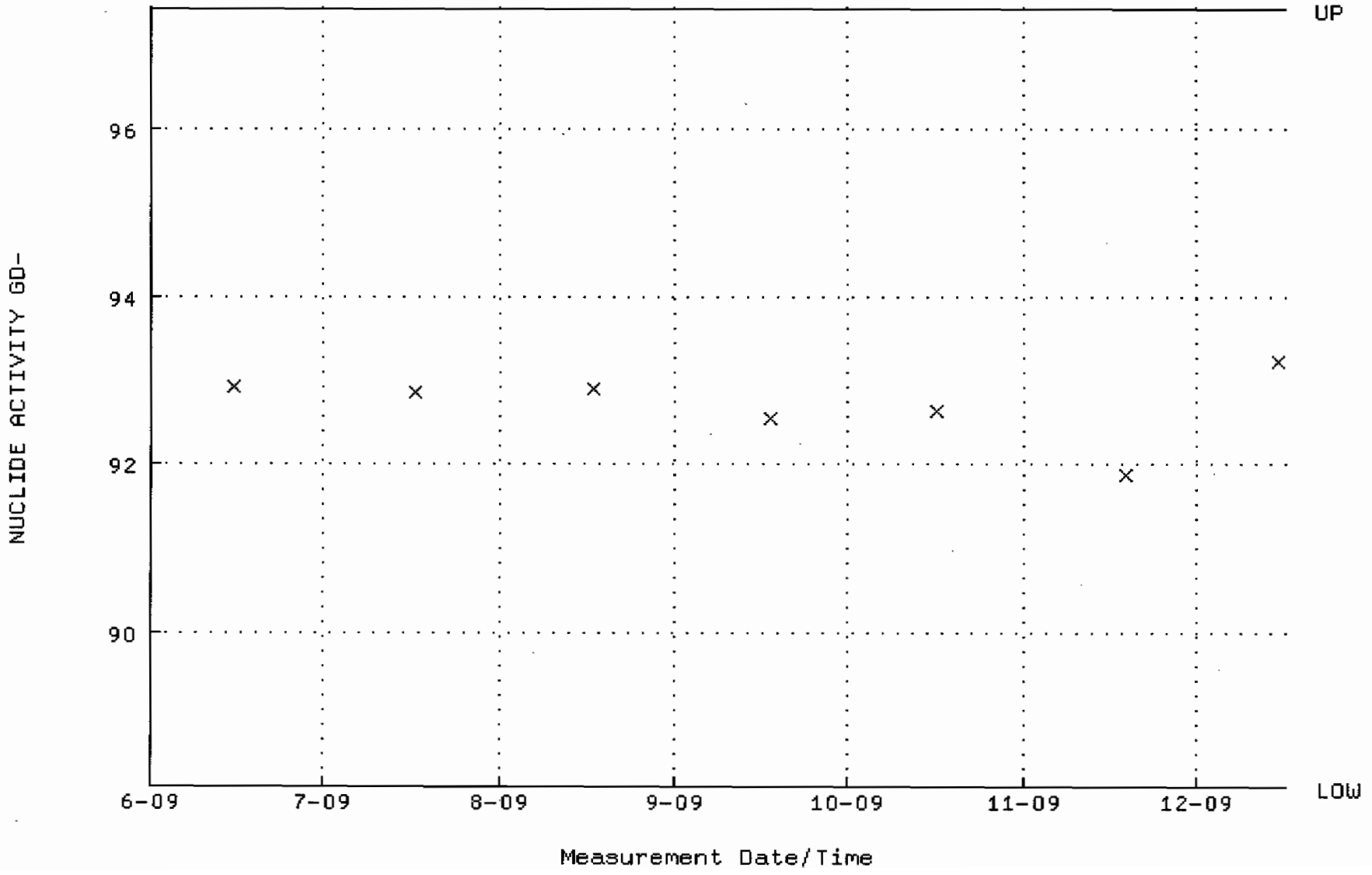

QA filename : DKA100:[ENV_ALPHA.QA.B]B130.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:09:52 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

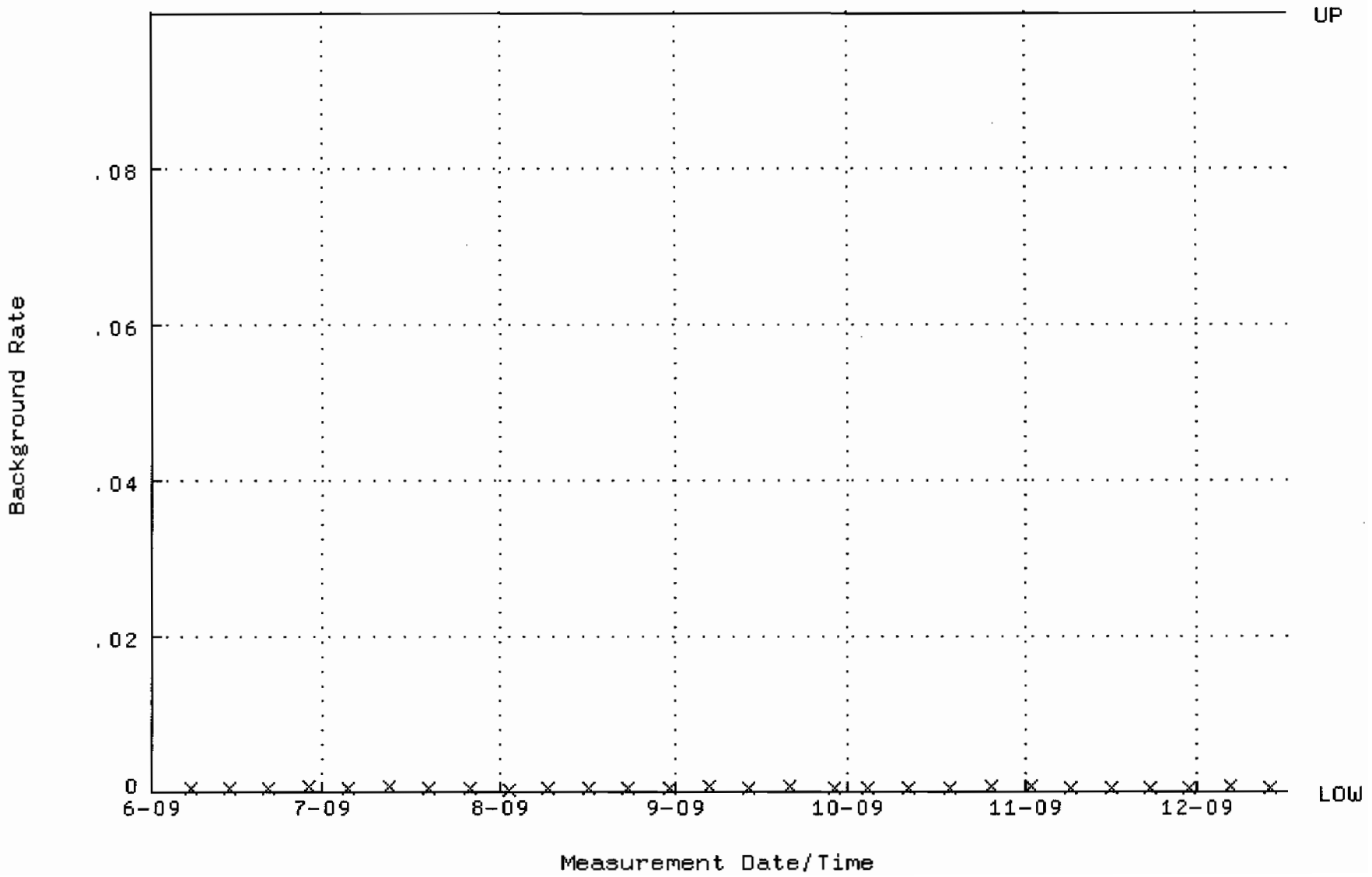

QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:35:54 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.240573 through 0.260573

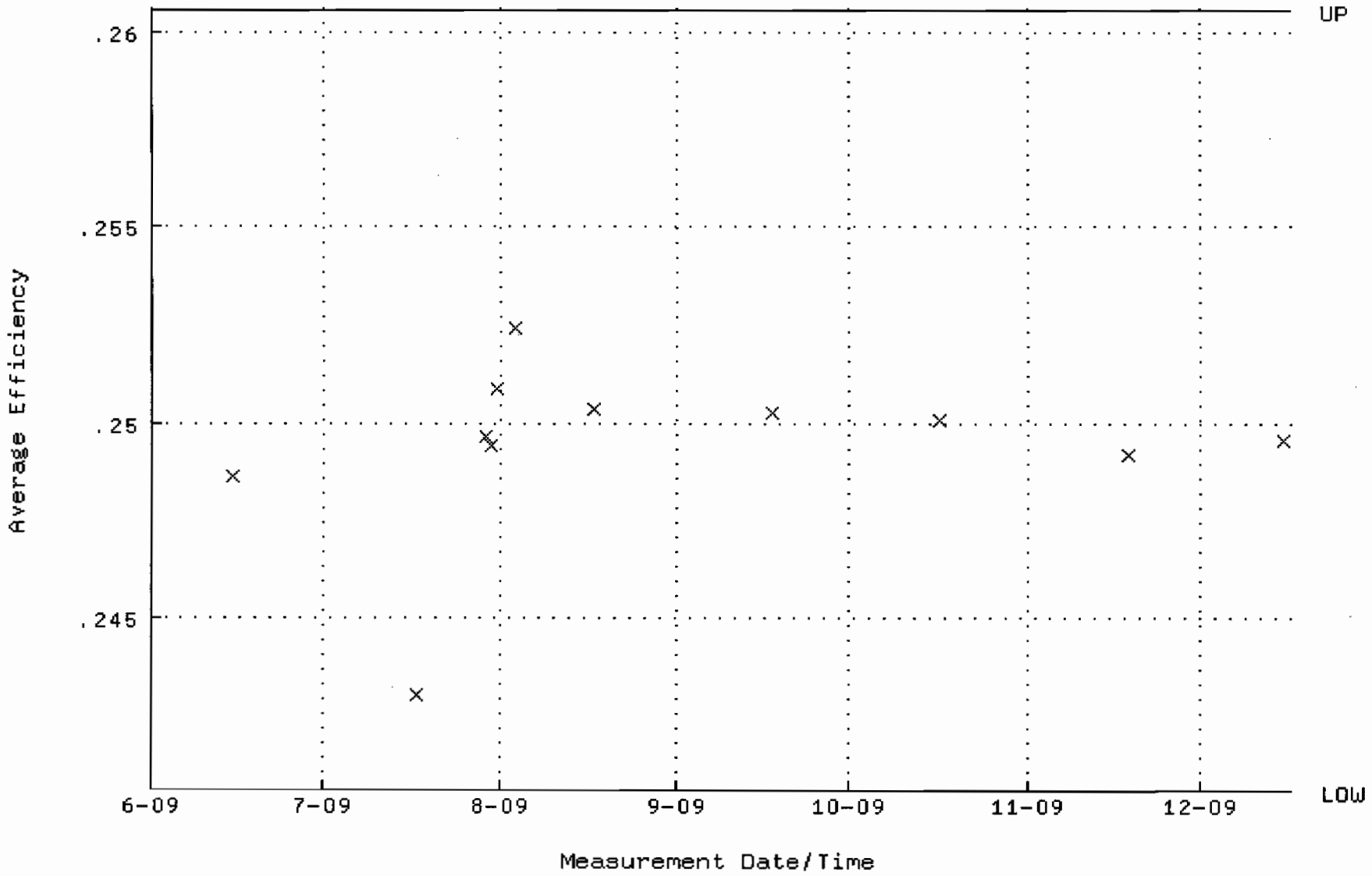

QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:35:54 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 87.9674 through 97.2272

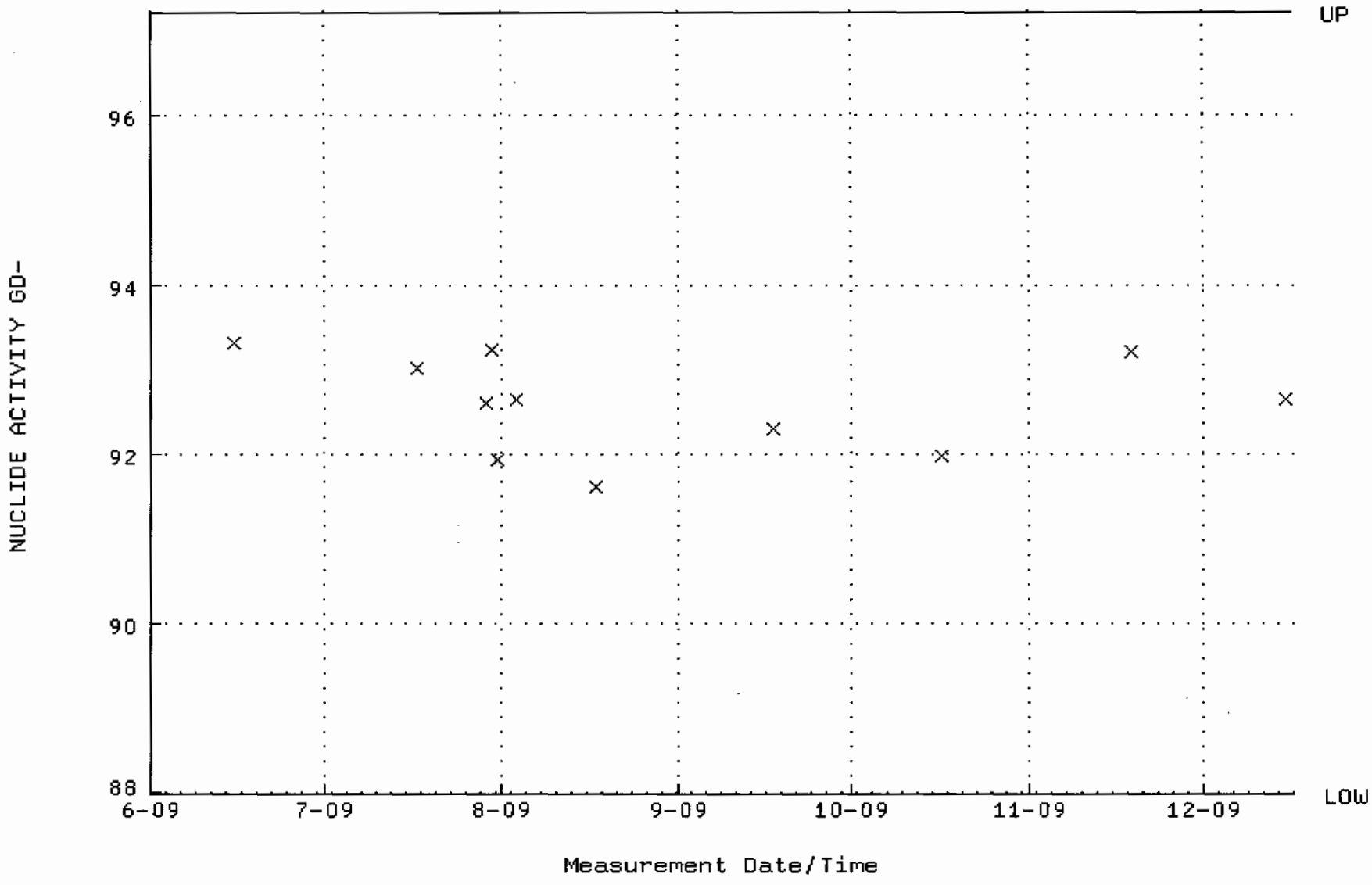

QA filename : DKA100:[ENV_ALPHA.QA.B]B132.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:10:01 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

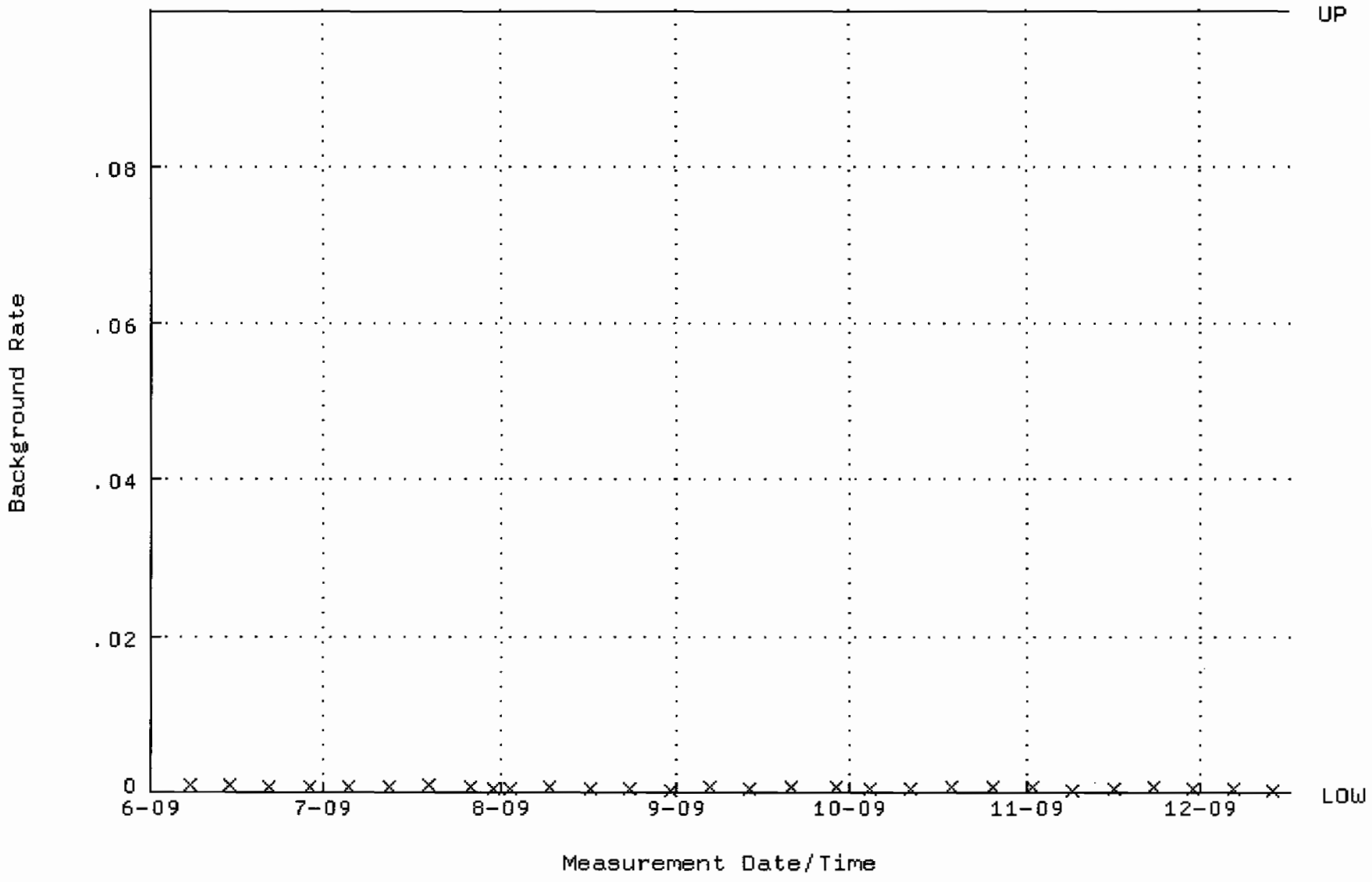

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM01_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-JUL-2009 04:58:53 through 1-JAN-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

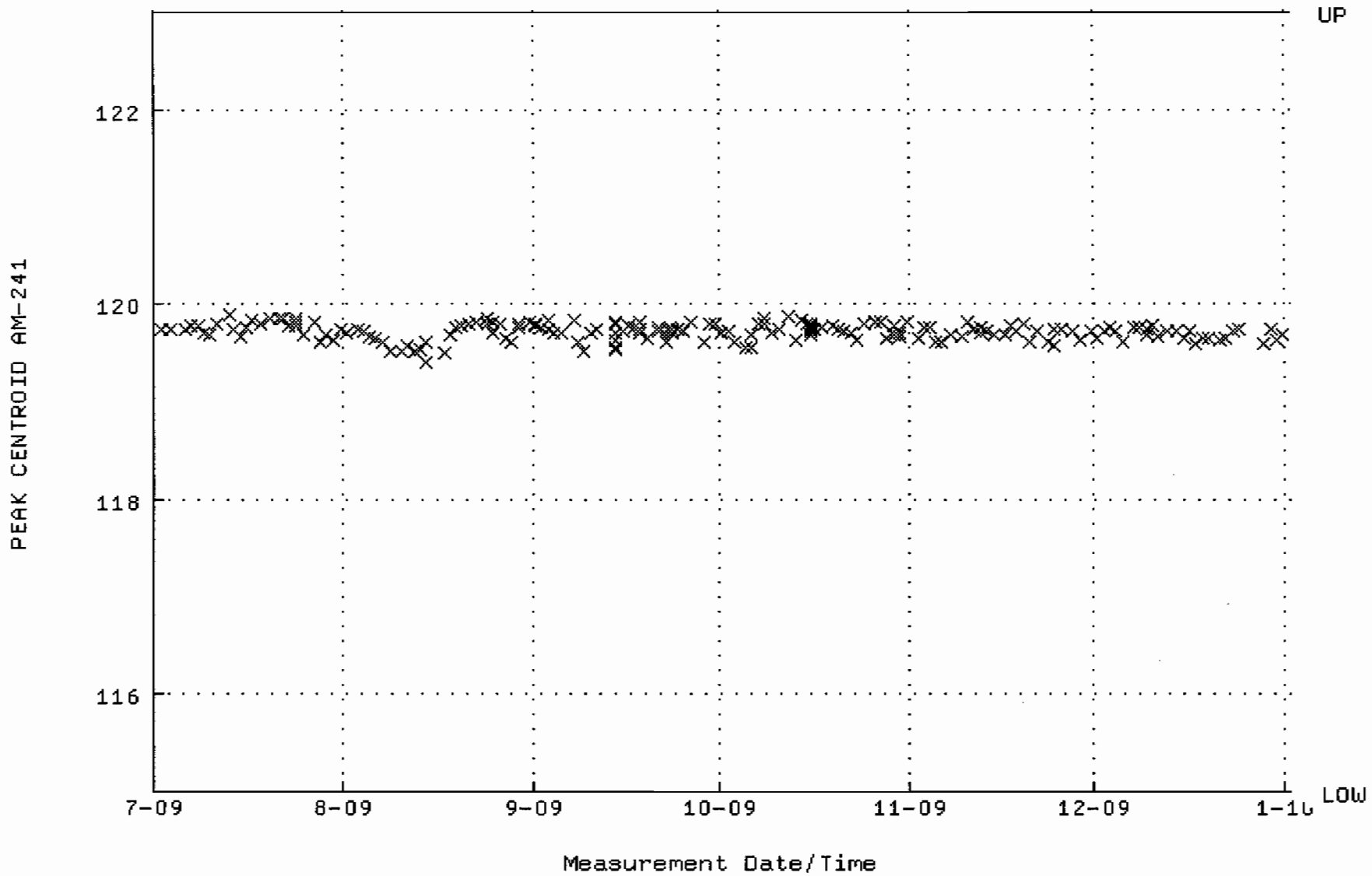

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM01.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-JUL-2009 13:49:24 through 1-JAN-2010 12:00:00
Mean +- Std Dev : 1.73723 +- 3.552524E-02 (2.04 %)

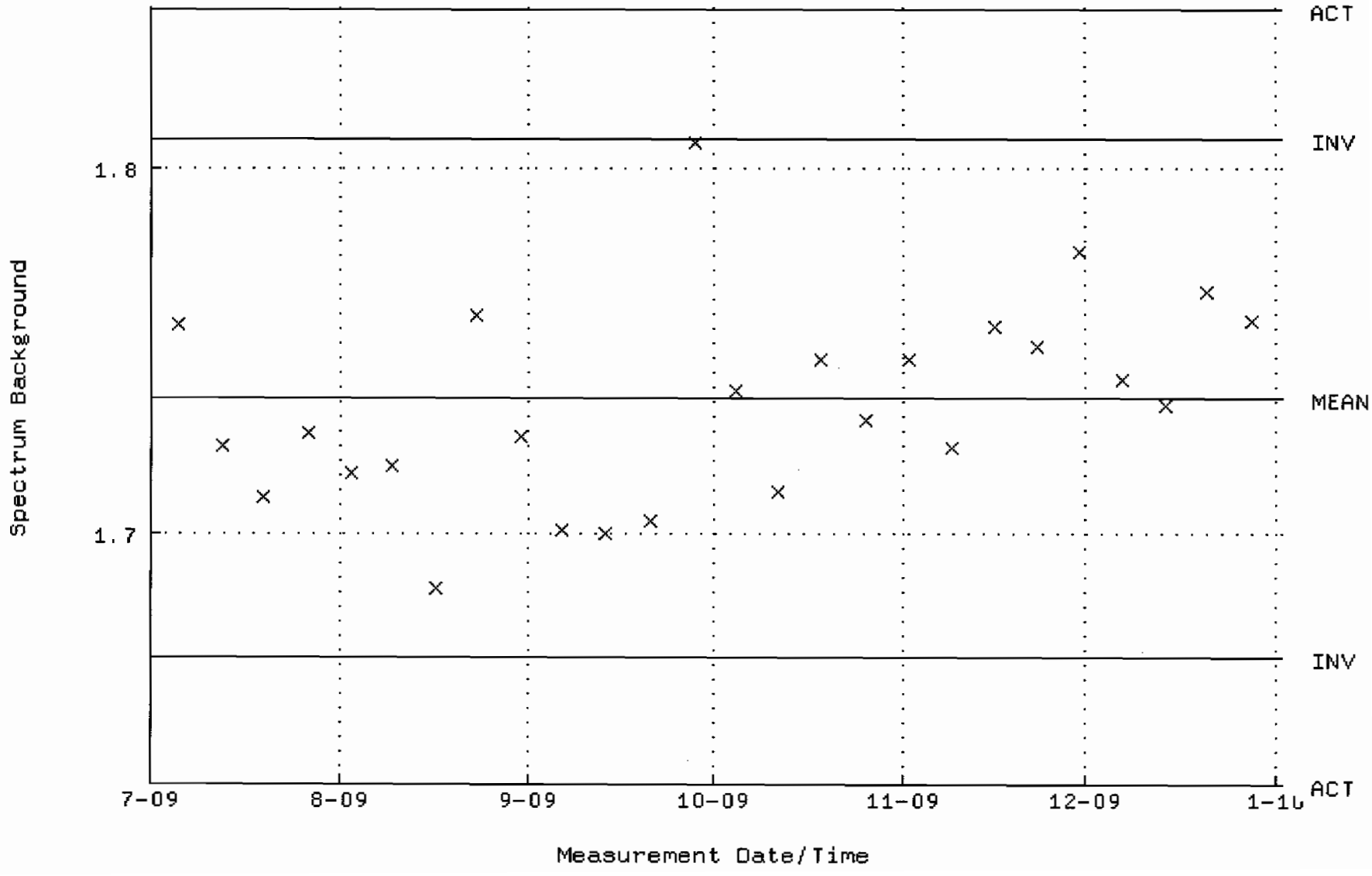

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM02_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-JUL-2009 04:58:43 through 1-JAN-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

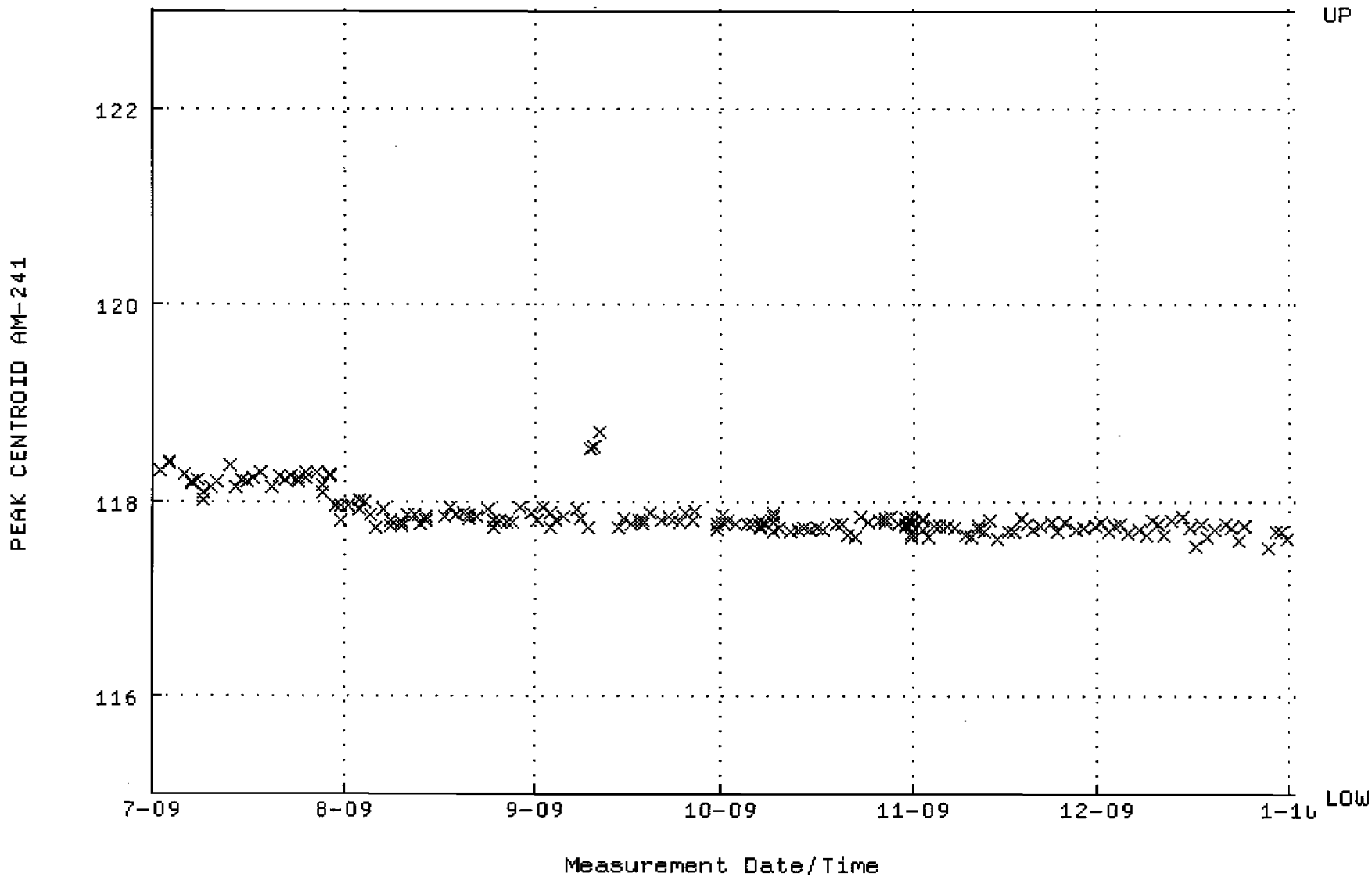

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM02.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-JUL-2009 13:49:39 through 1-JAN-2010 12:00:00
Mean +- Std Dev : 2.00226 +- 2.139827E-02 (1.07 %)

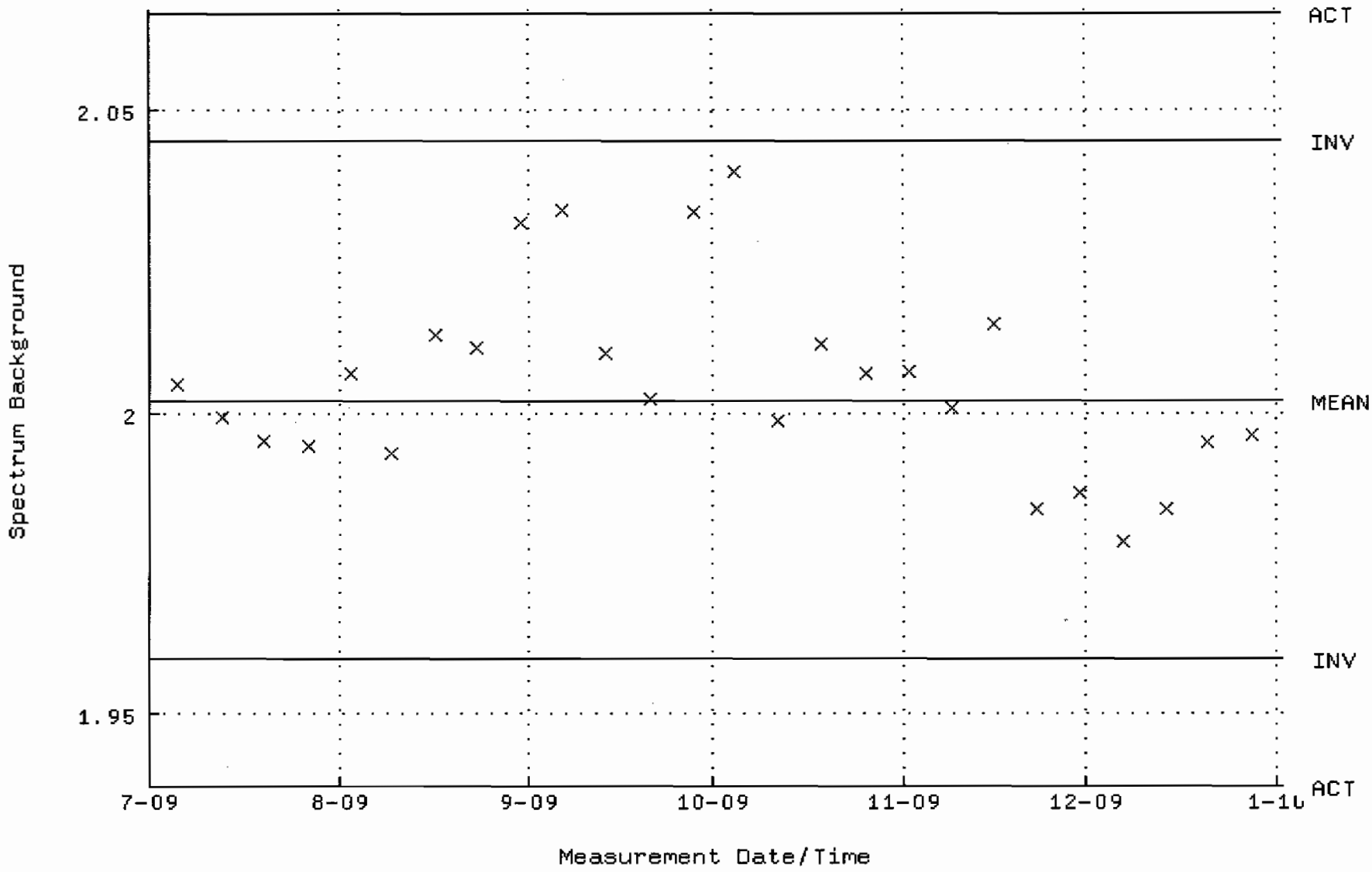

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM03_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 28-AUG-2009 08:41:21 through 1-JAN-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

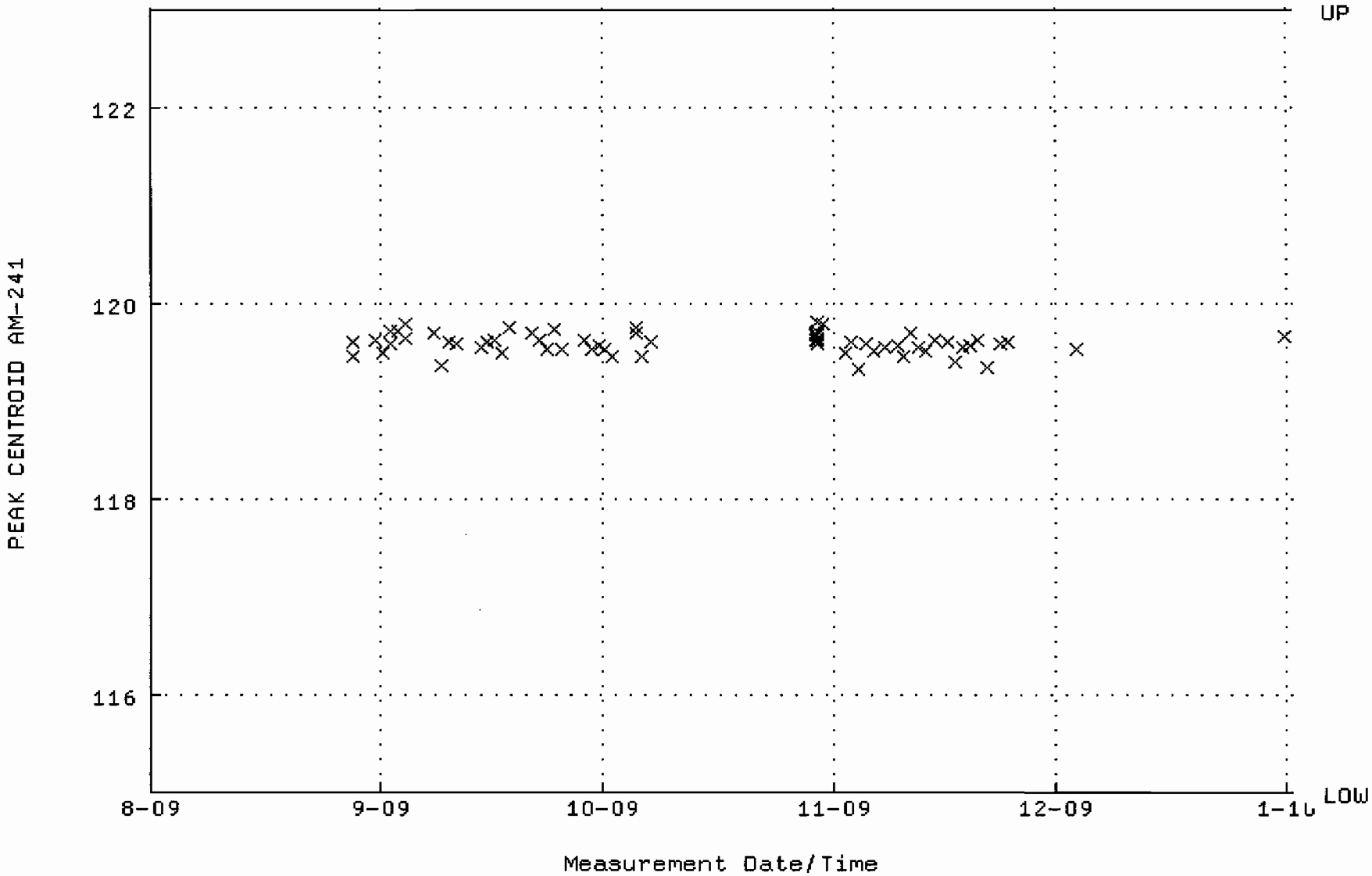

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM03.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 7-AUG-2009 12:27:25 through 1-JAN-2010 12:00:00
Mean +- Std Dev : 1.54812 +- 1.978897E-02 (1.28 %)

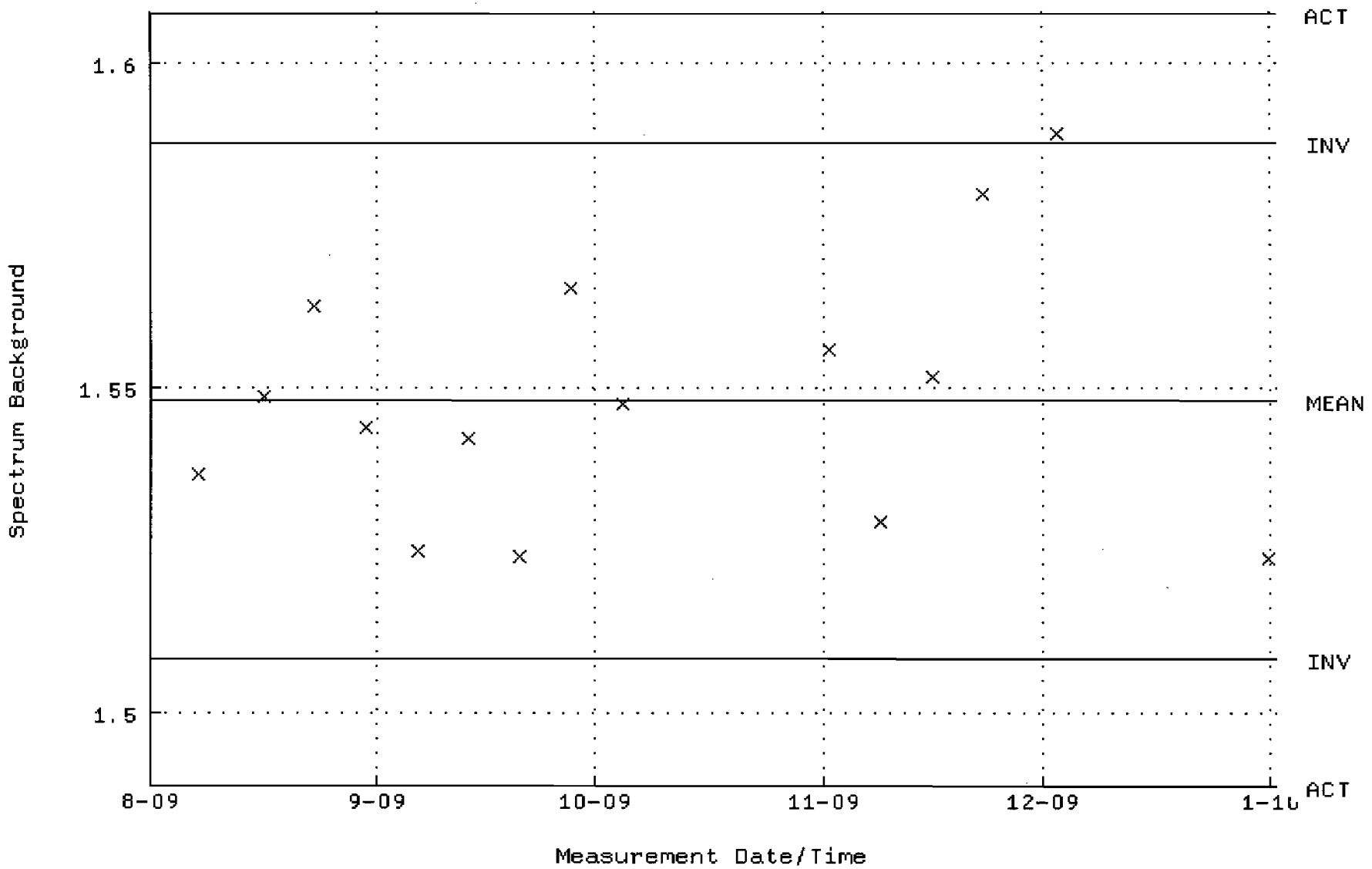

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM11_JAR.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-JUL-2009 05:29:04 through 1-JAN-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

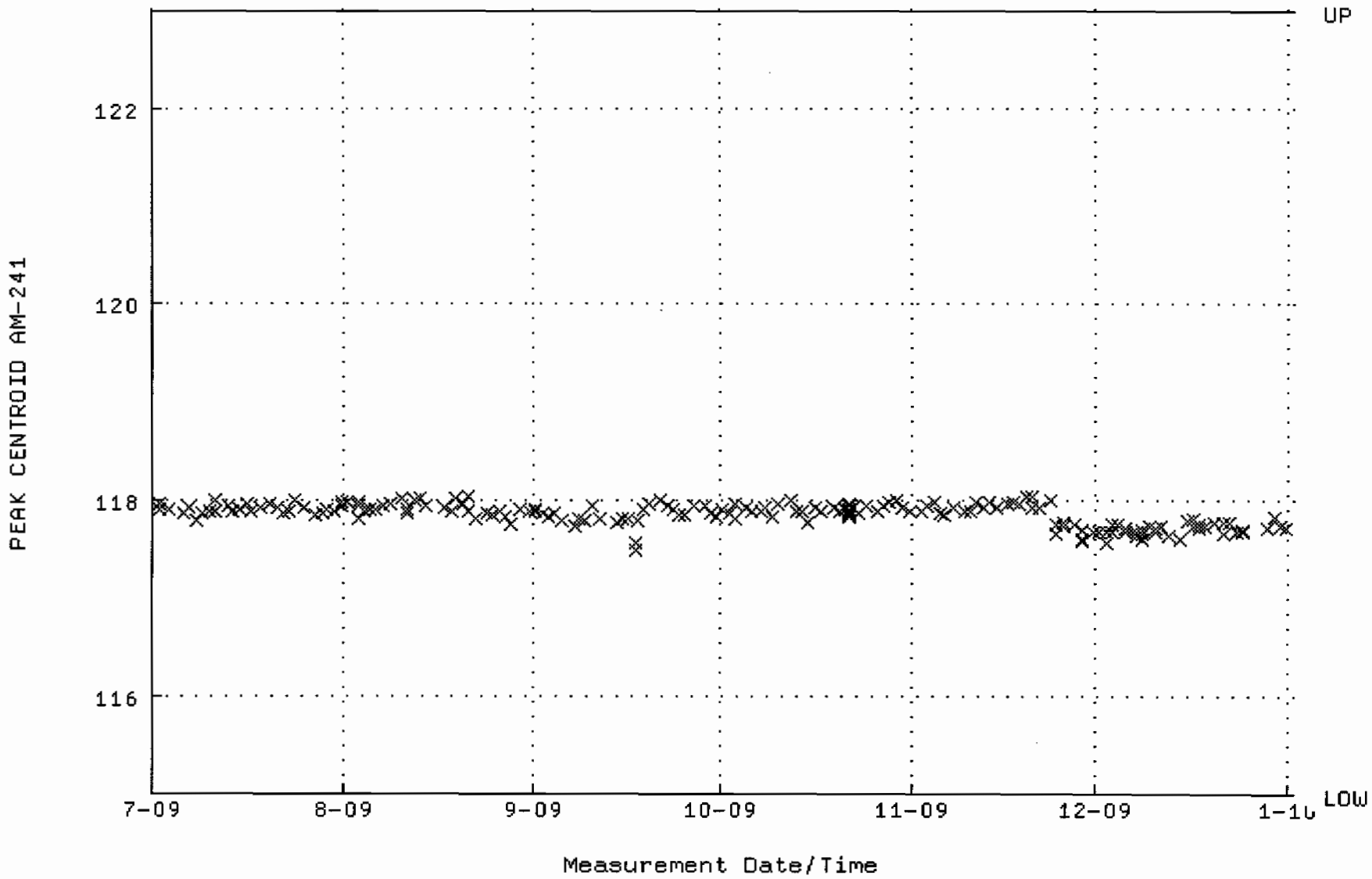

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM11.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-JUL-2009 13:51:39 through 1-JAN-2010 12:00:00
Mean +- Std Dev : 1.65552 +- 3.175806E-02 (1.92 %)

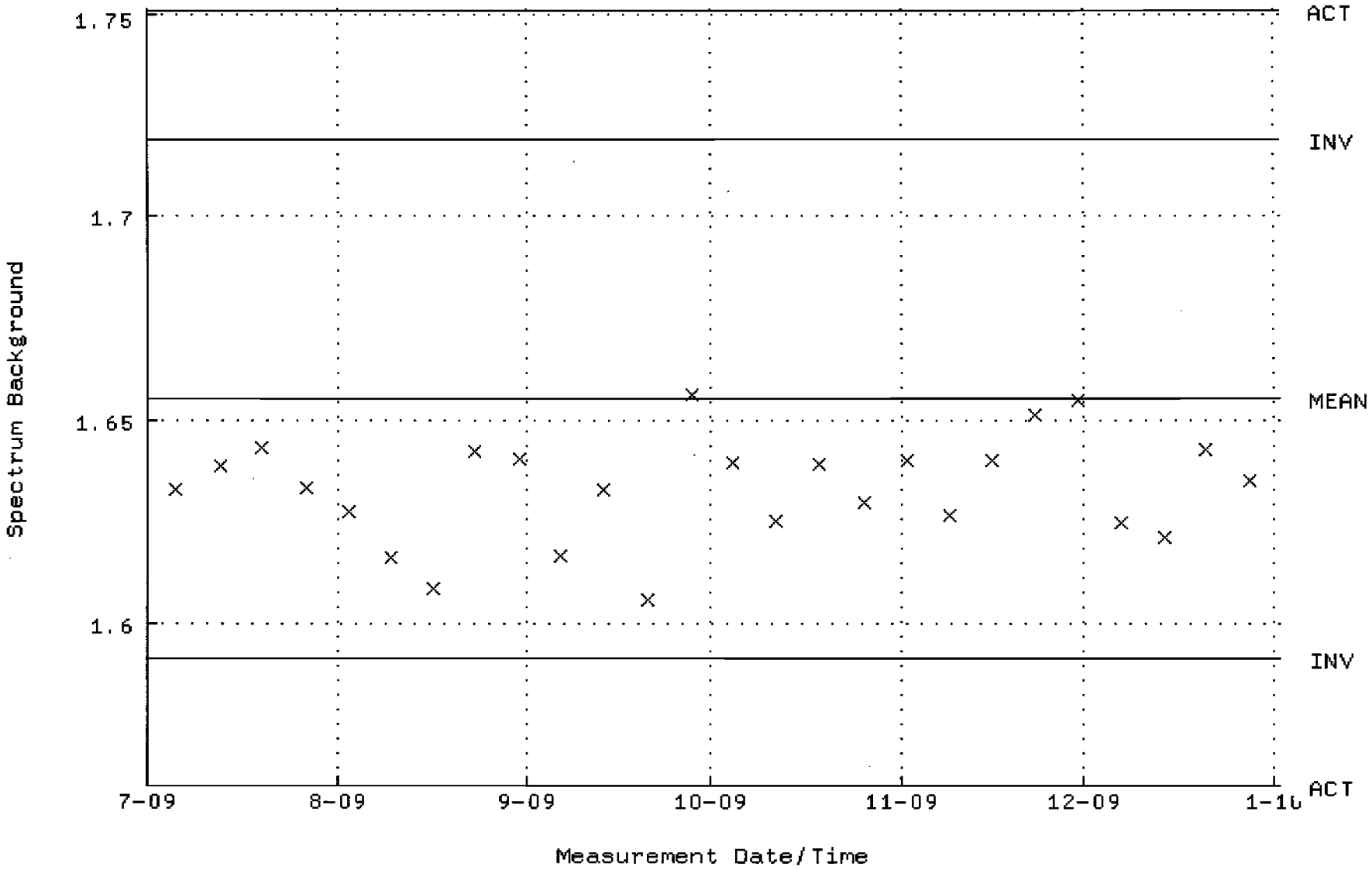

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM14_2LMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-JUL-2009 04:59:23 through 1-JAN-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

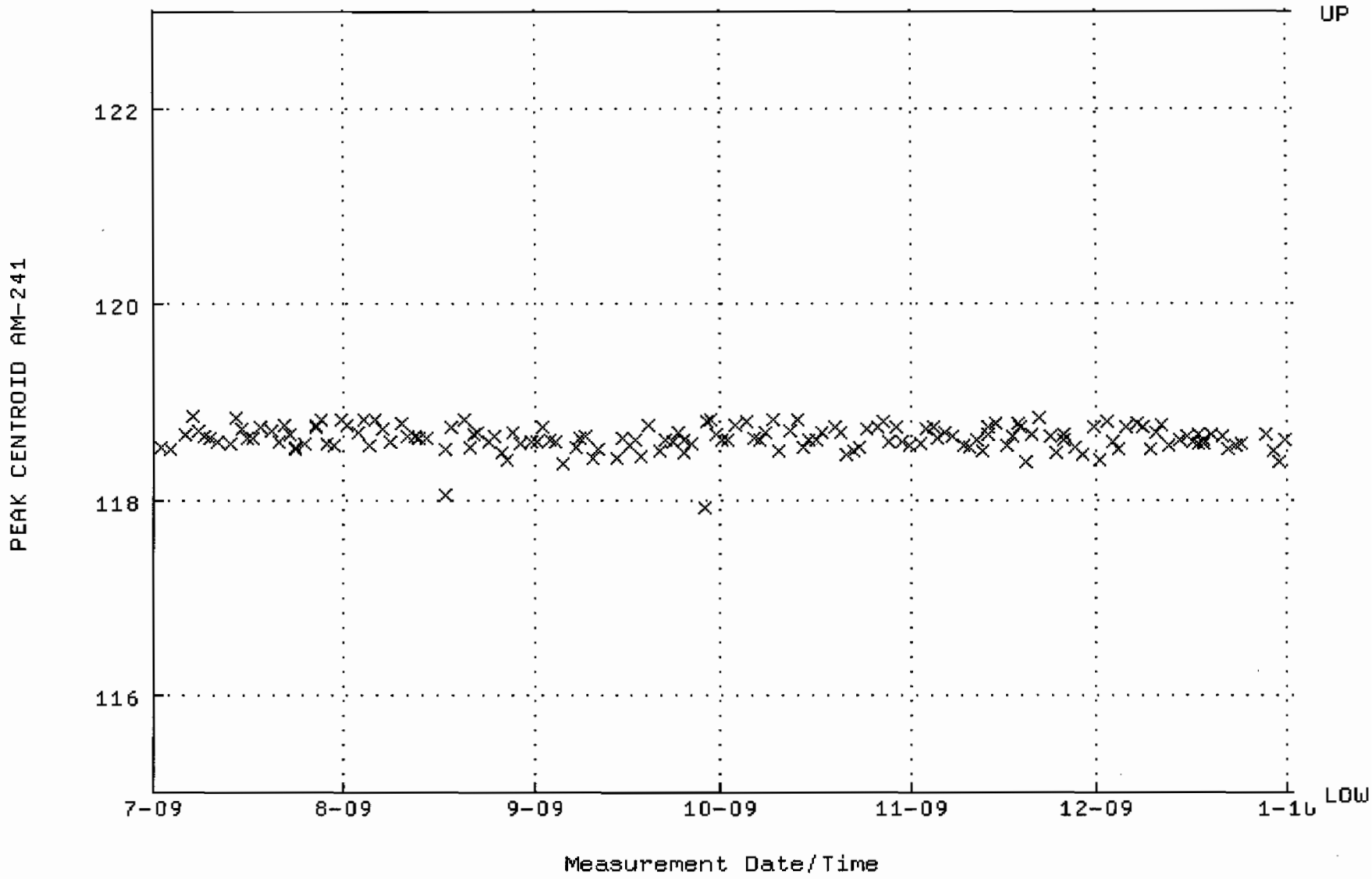

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM14.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-JUL-2009 13:52:31 through 1-JAN-2010 12:00:00
Mean +- Std Dev : 1.48240 +- 2.535500E-02 (1.71 %)

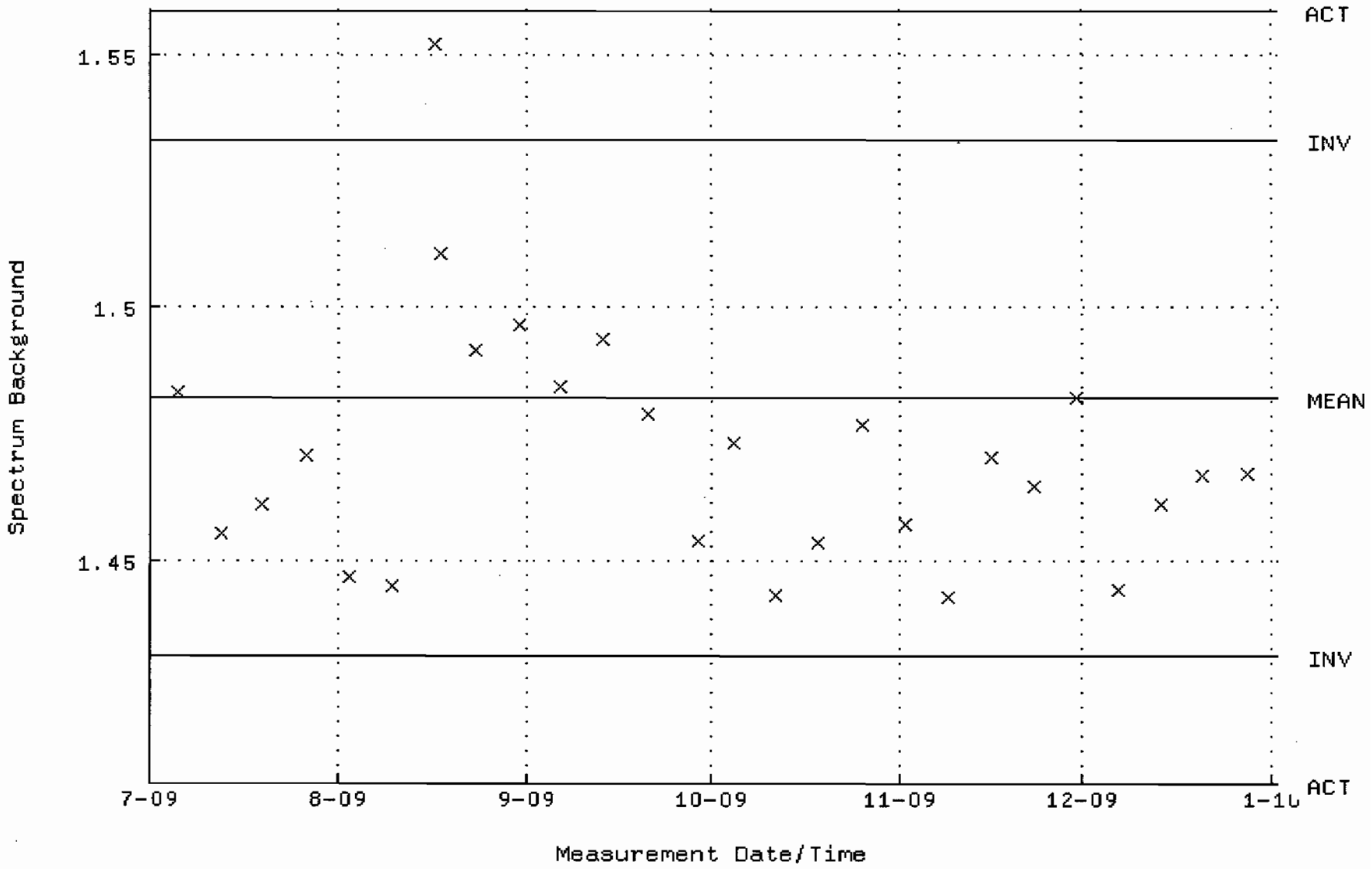

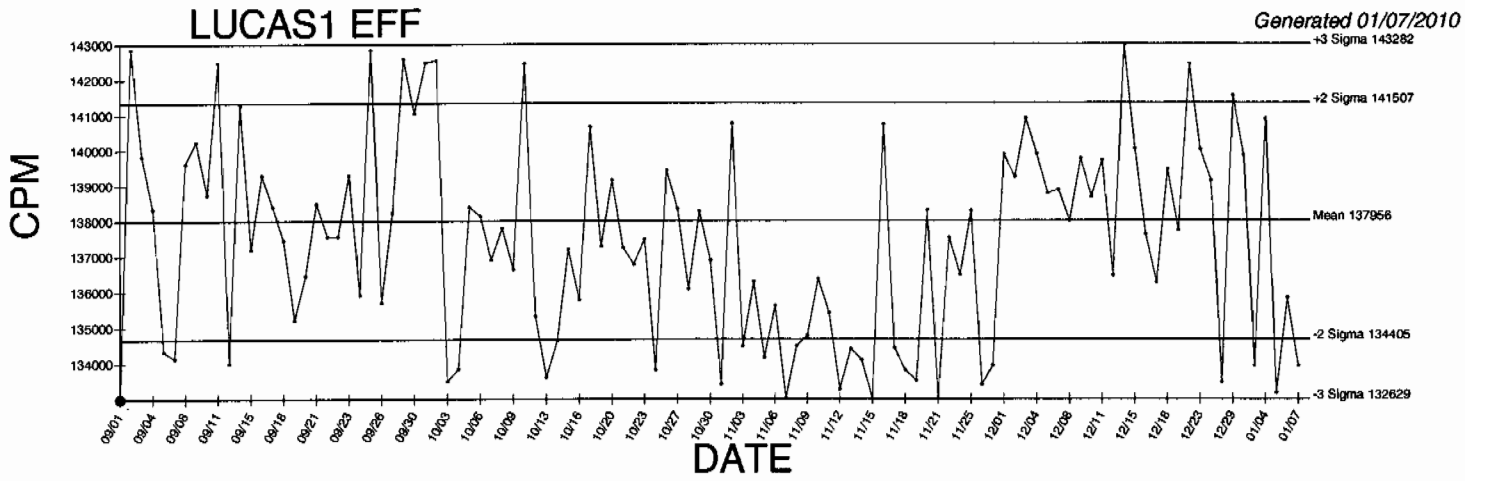

● Denotes Outlier

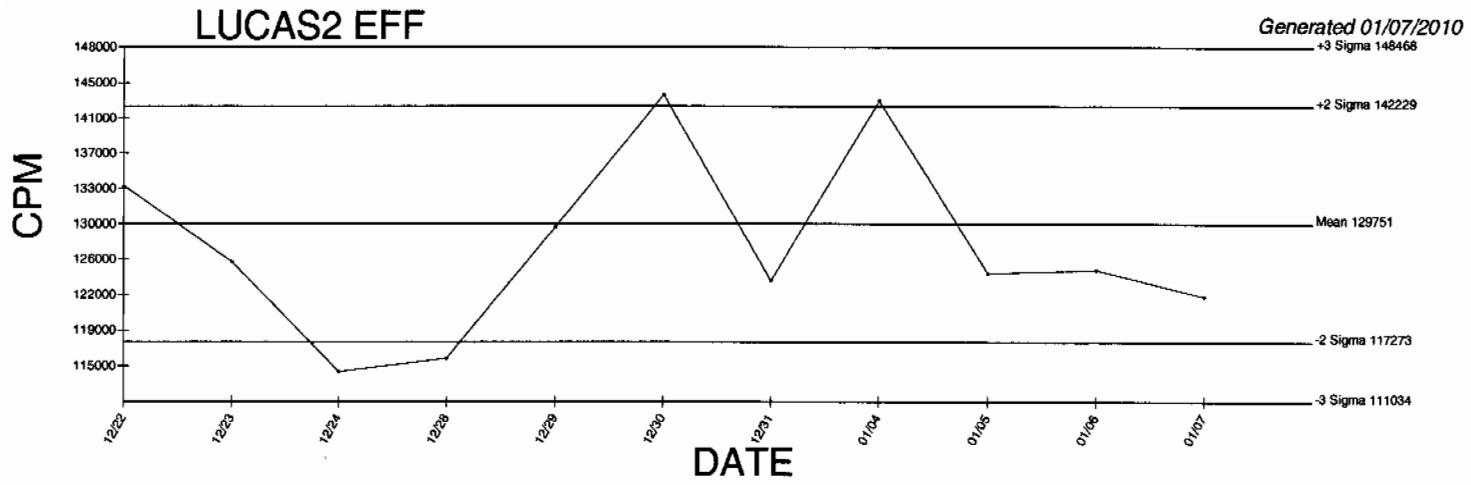

● Denotes Outlier

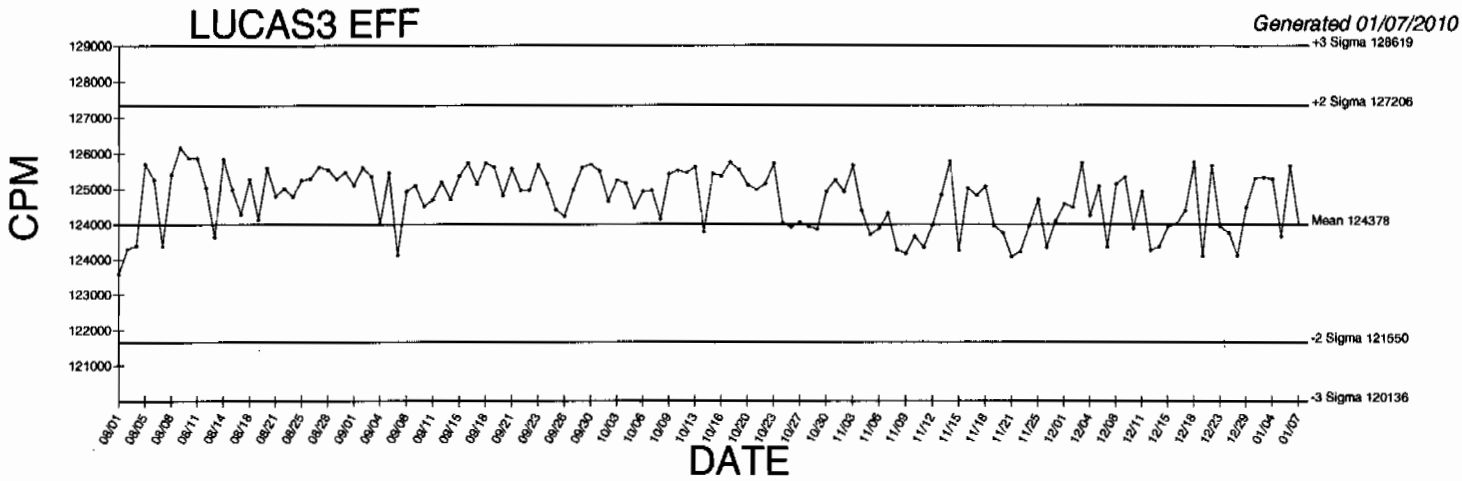

● Denotes Outlier

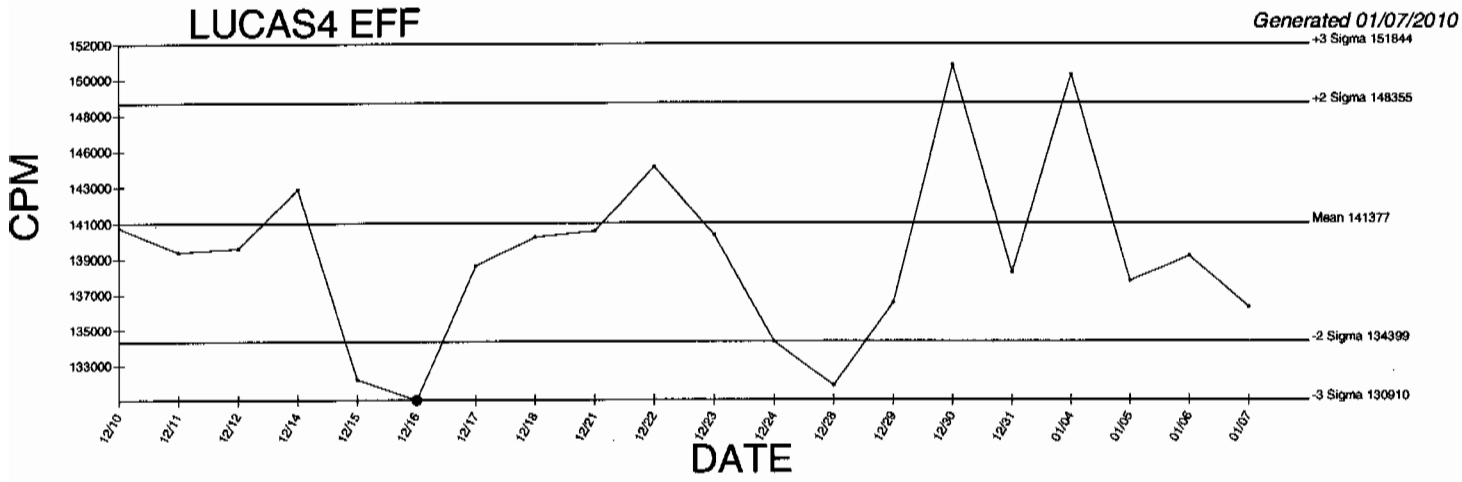

● Denotes Outlier

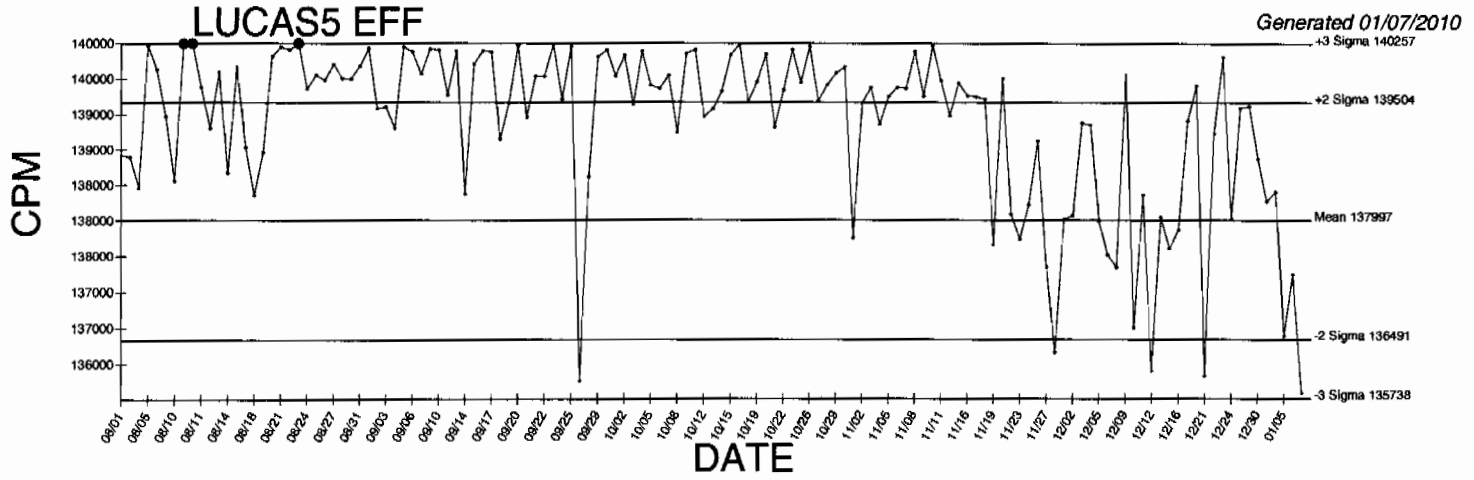

● Denotes Outlier

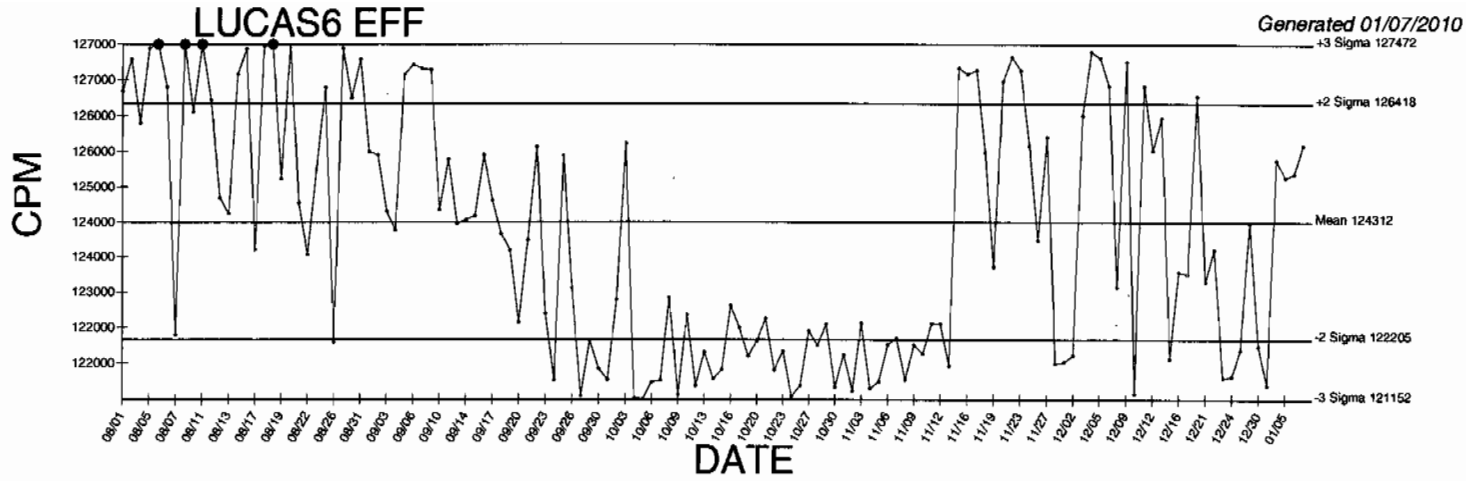

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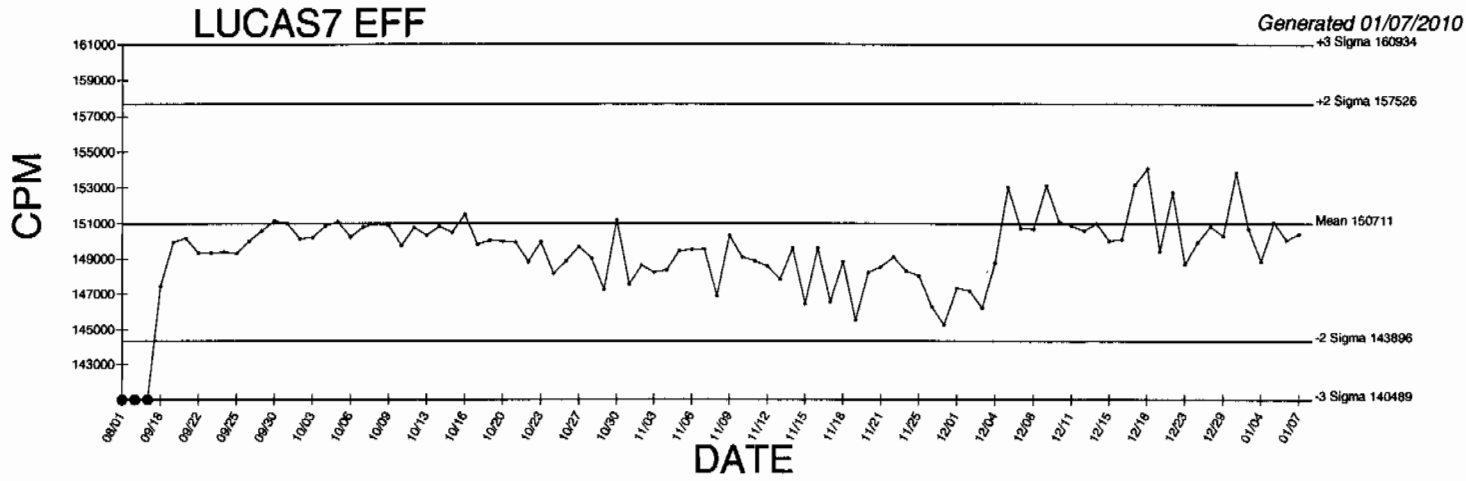

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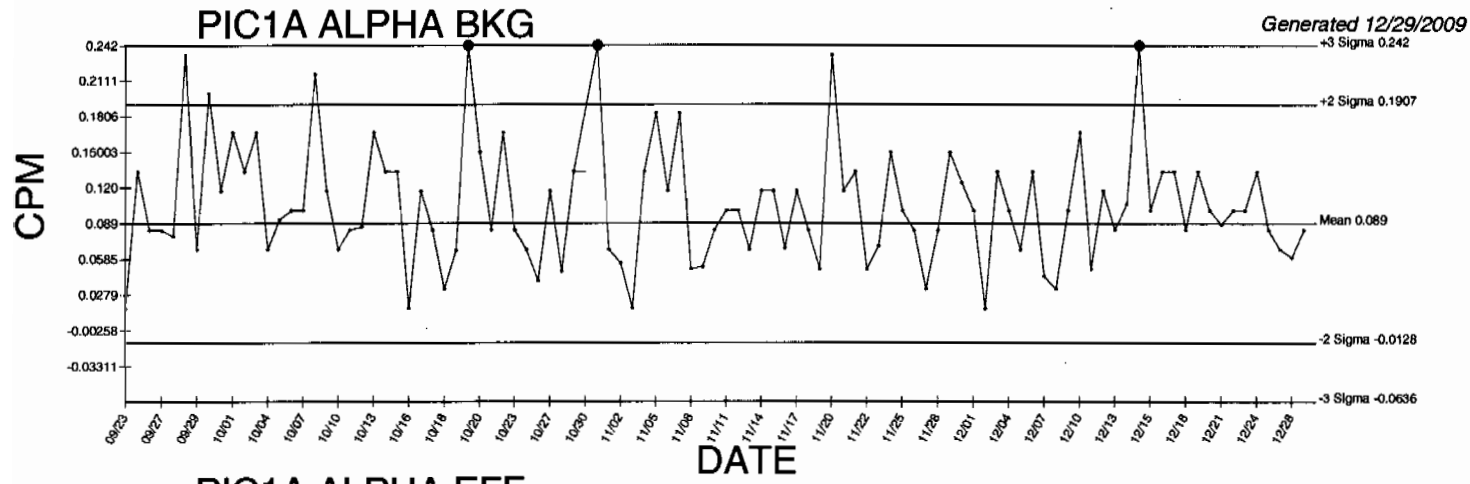

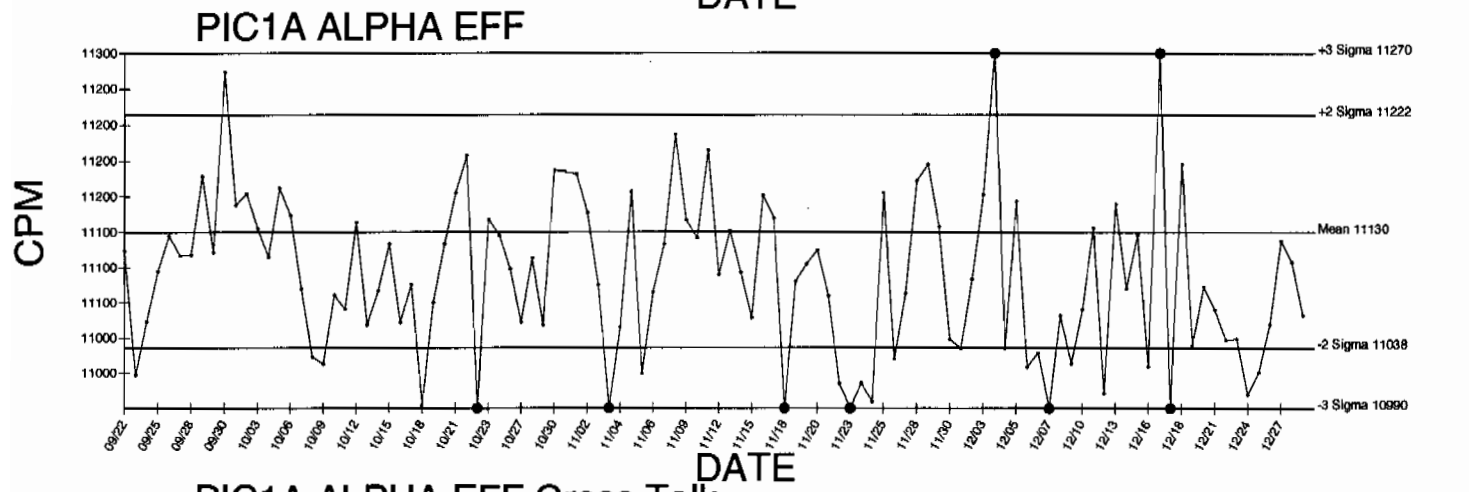

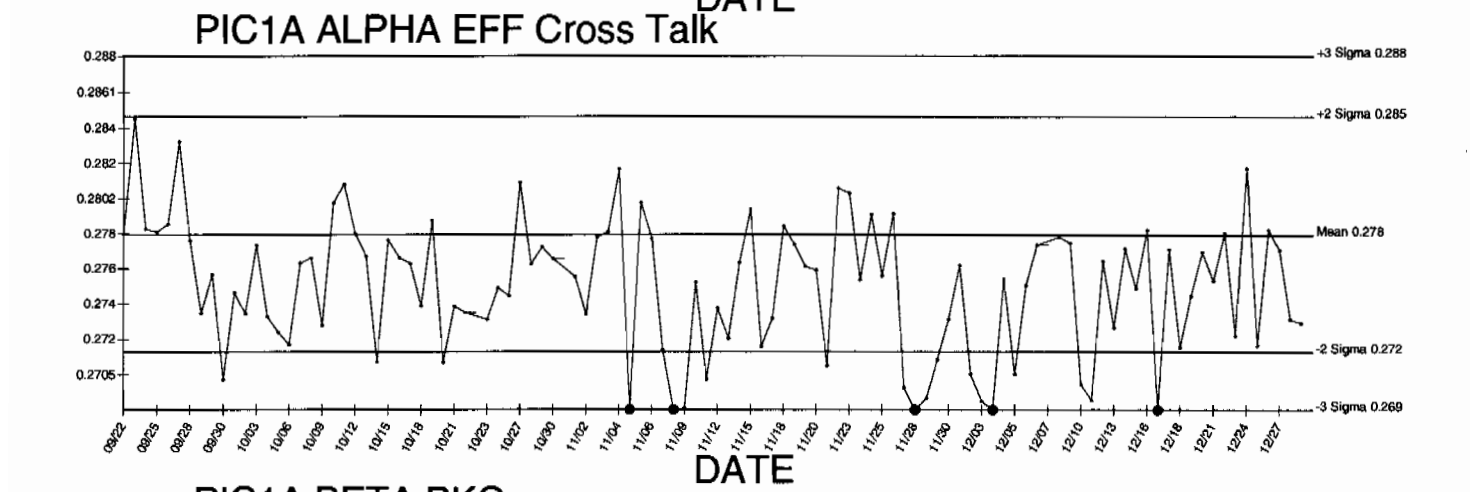

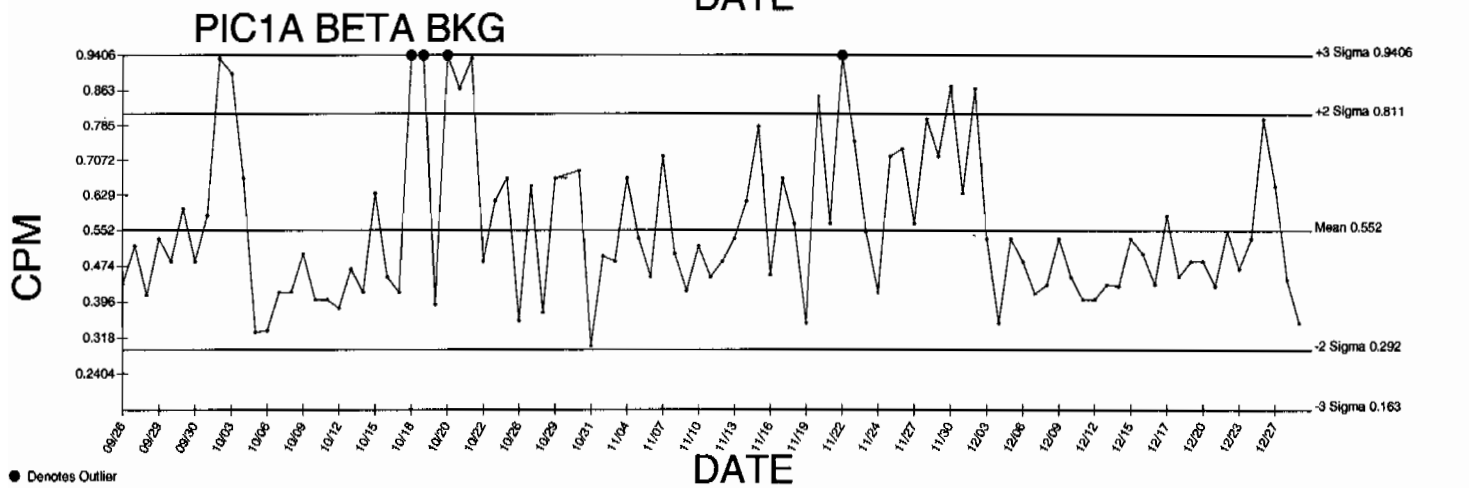

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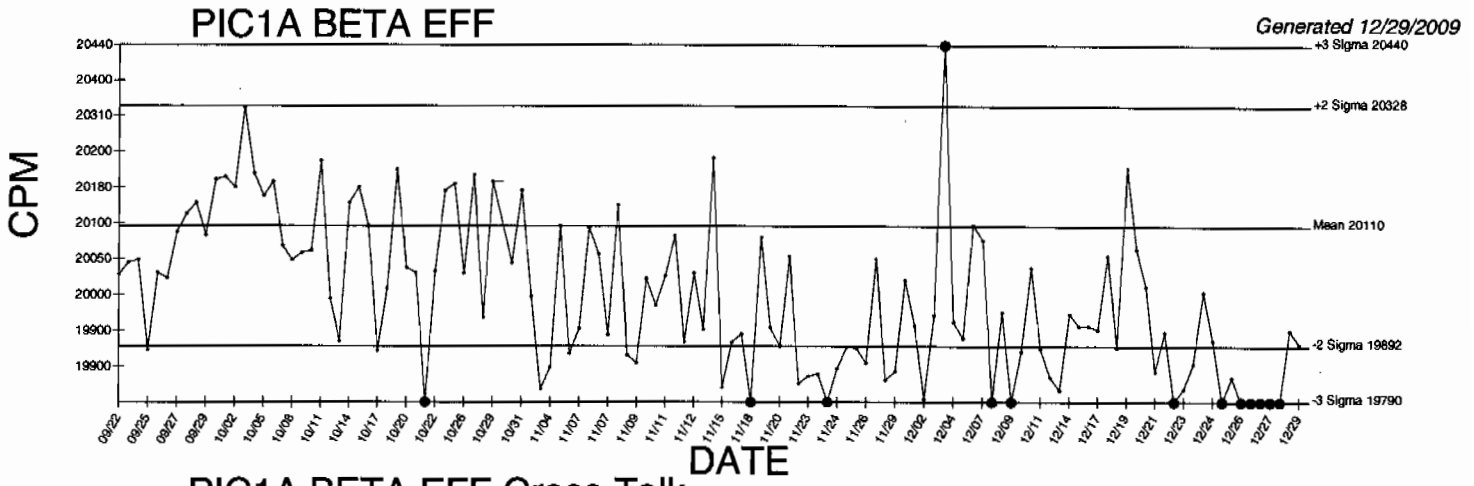

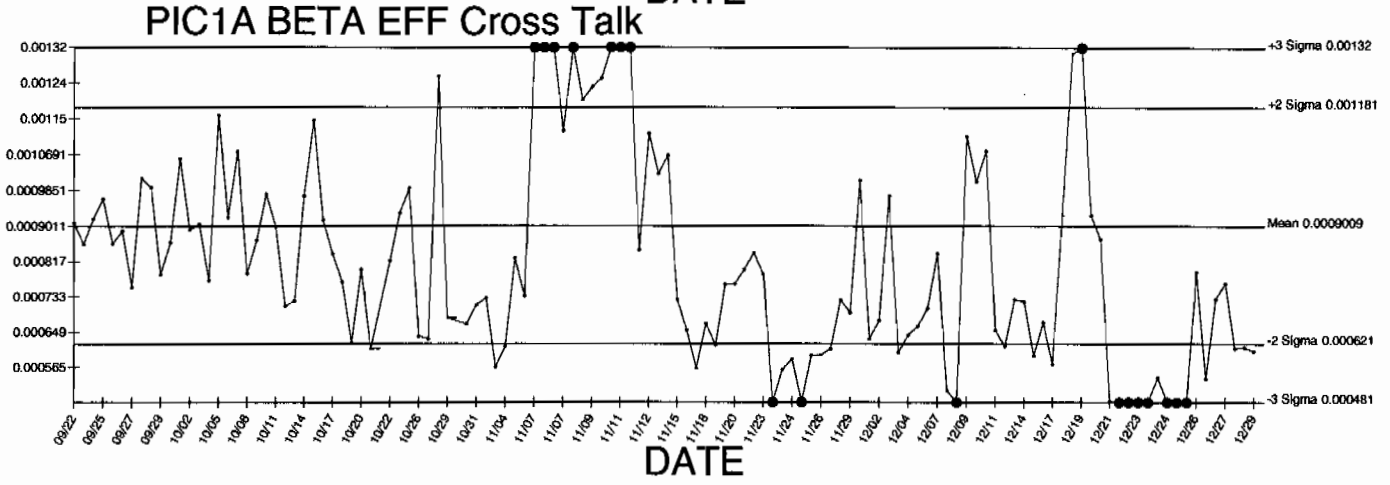

● Denotes Outlier

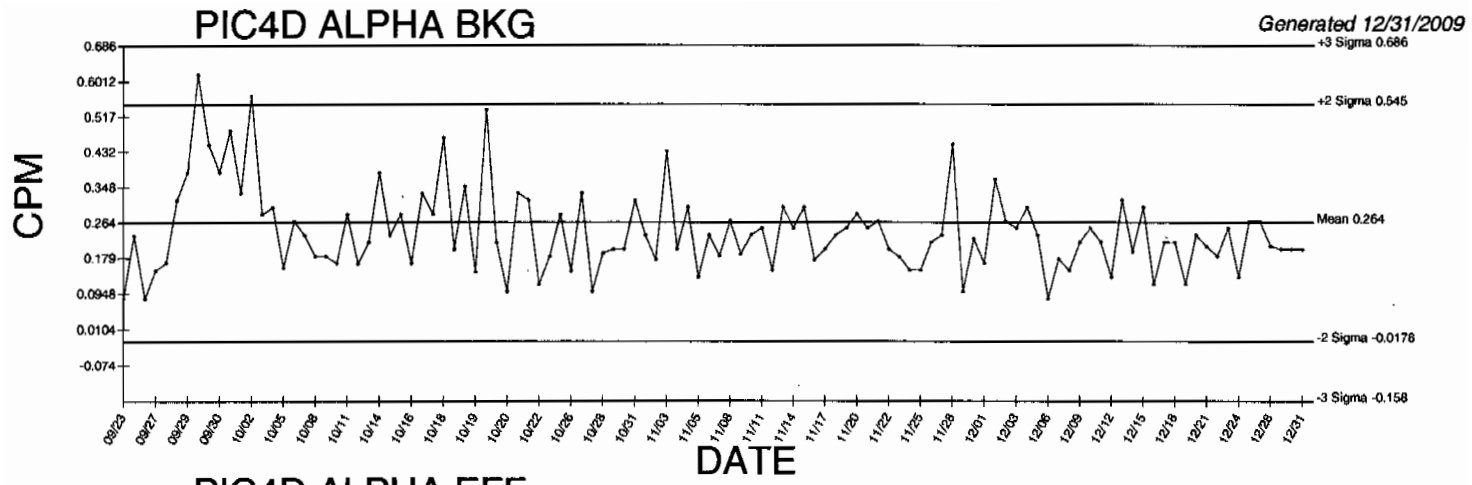
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Generated 12/31/2009
CPM
DATE
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+2 Sigma 0.545
Mean 0.264
-2 Sigma -0.0176
-3 Sigma -0.158

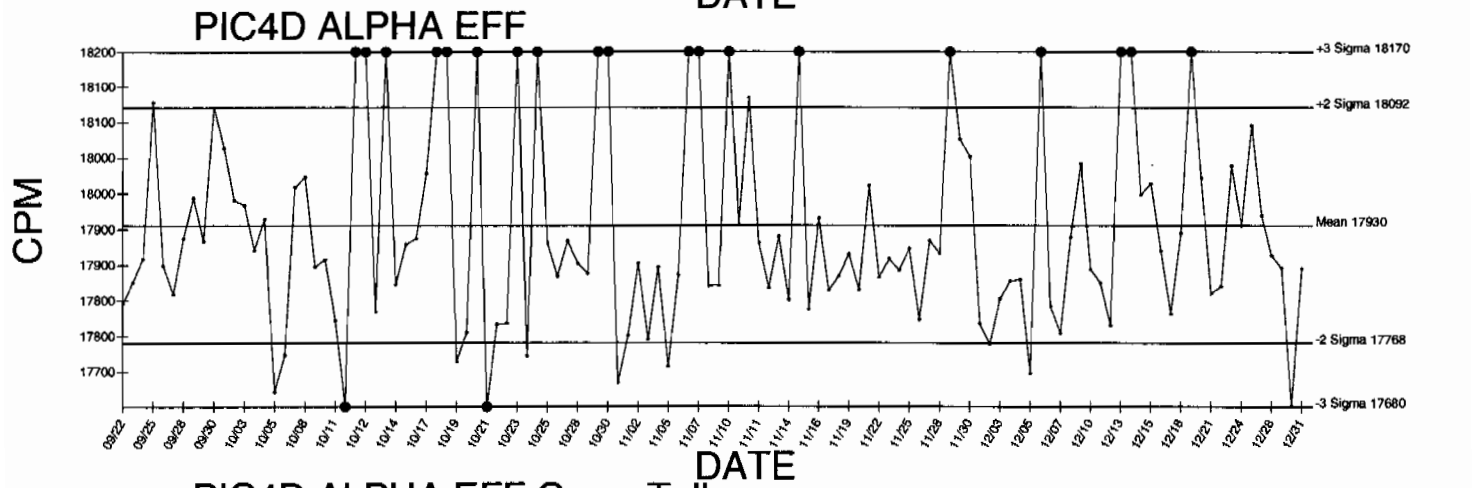
PIC4D ALPHA EFF
CPM
DATE
+3 Sigma 18170
+2 Sigma 18092
Mean 17930
-2 Sigma 17768
-3 Sigma 17680

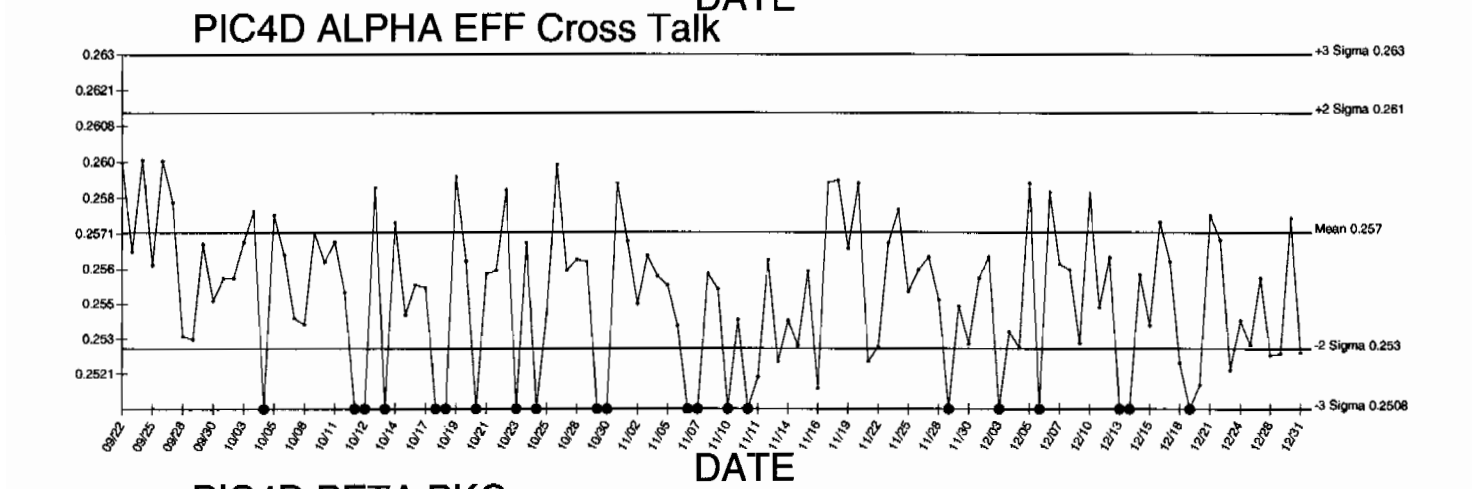
PIC4D ALPHA EFF Cross Talk
DATE
+3 Sigma 0.263
+2 Sigma 0.261
Mean 0.257
-2 Sigma 0.253
-3 Sigma 0.2508

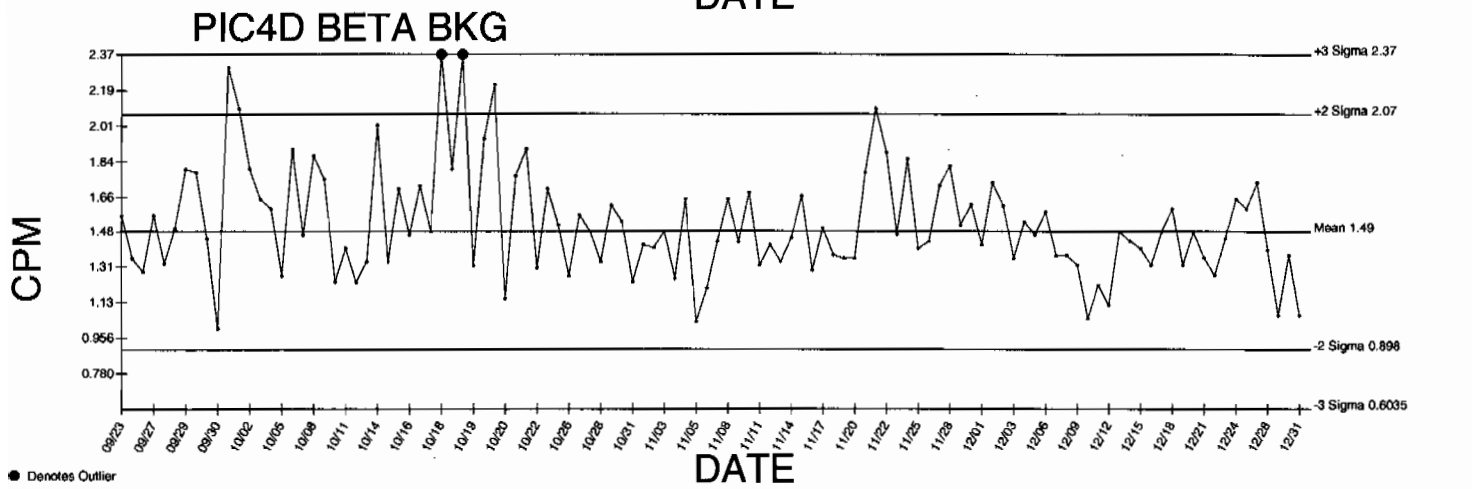
PIC4D BETA BKG
CPM
DATE
+3 Sigma 2.37
+2 Sigma 2.07
Mean 1.49
-2 Sigma 0.898
-3 Sigma 0.6035
Denotes Outlier

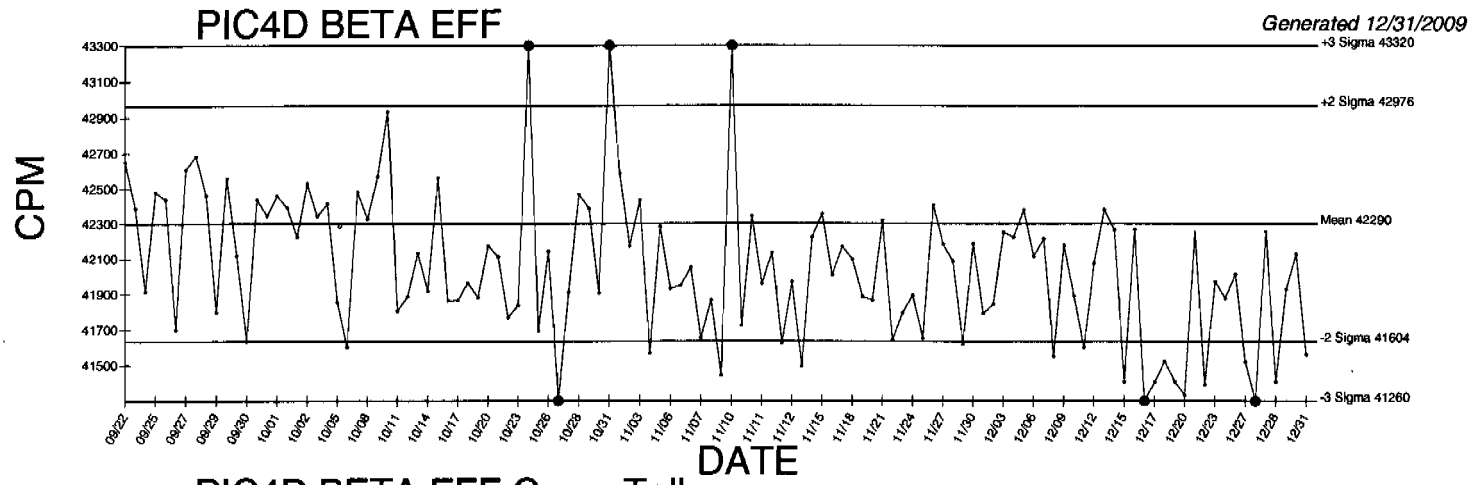

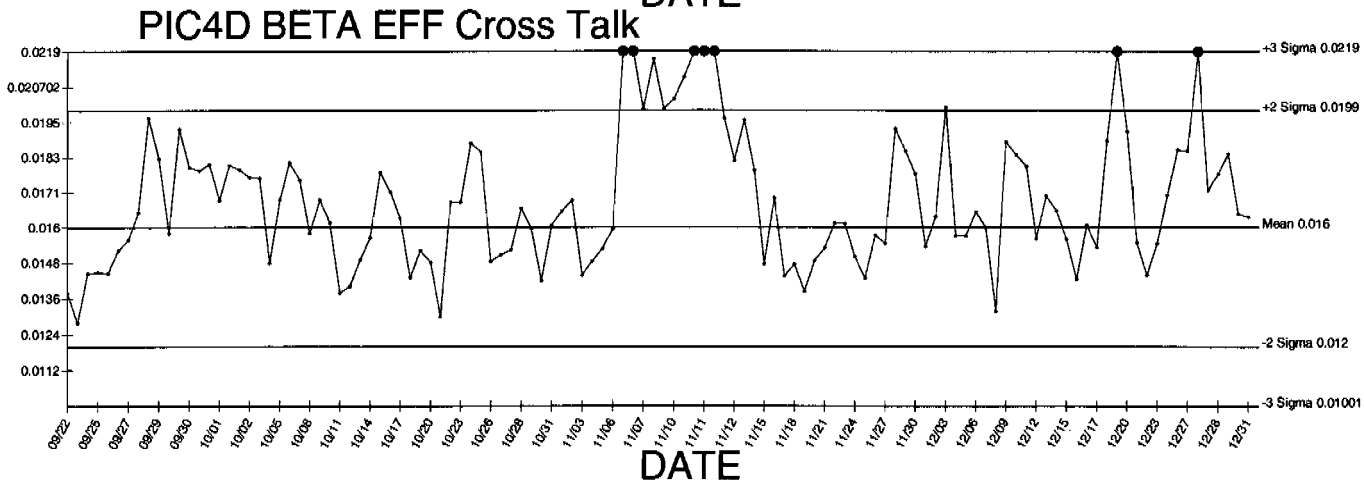

● Denotes Outlier

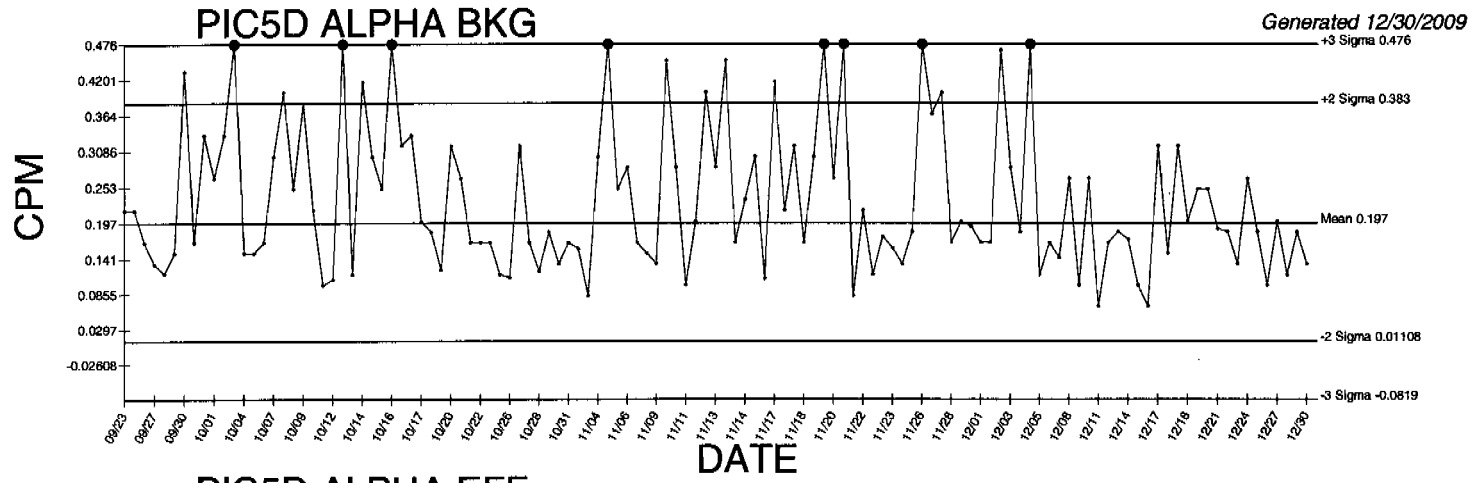

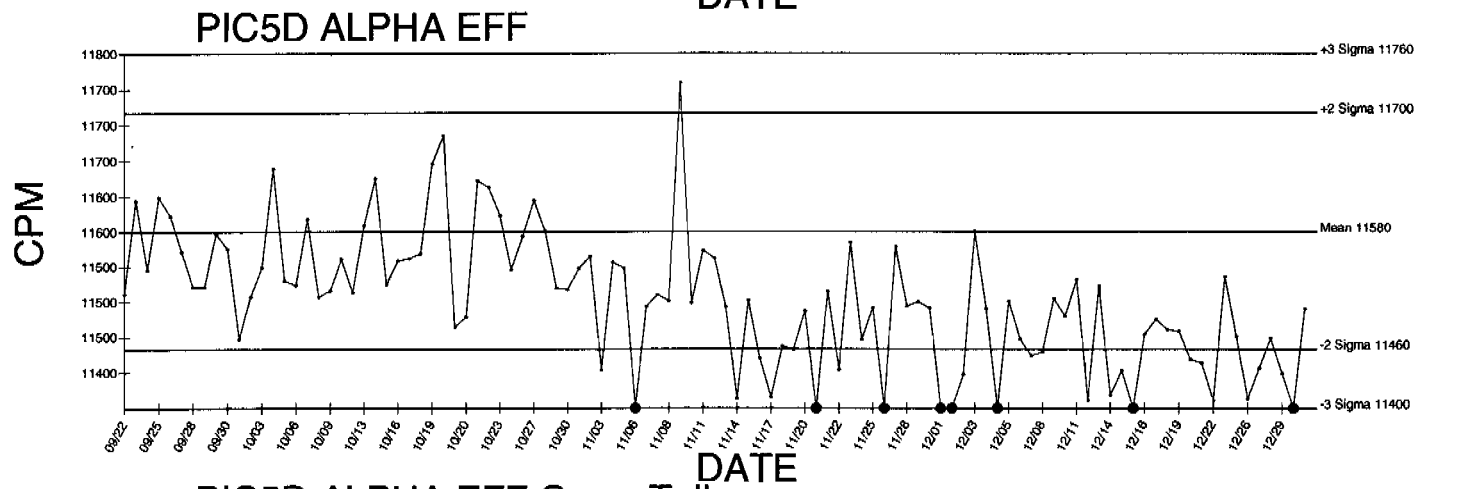

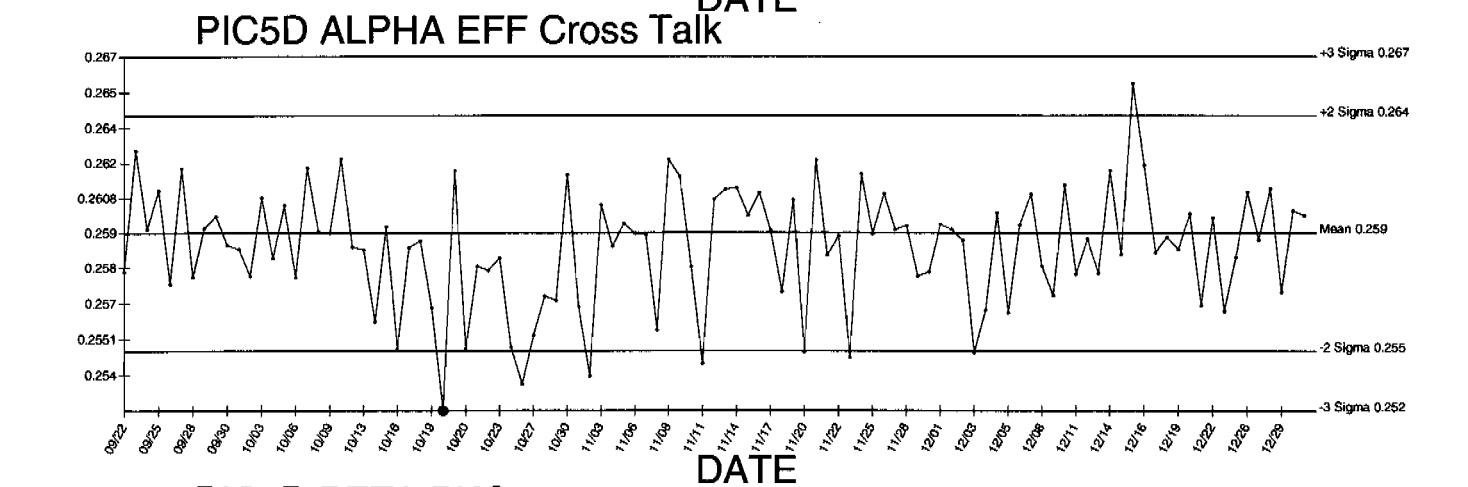

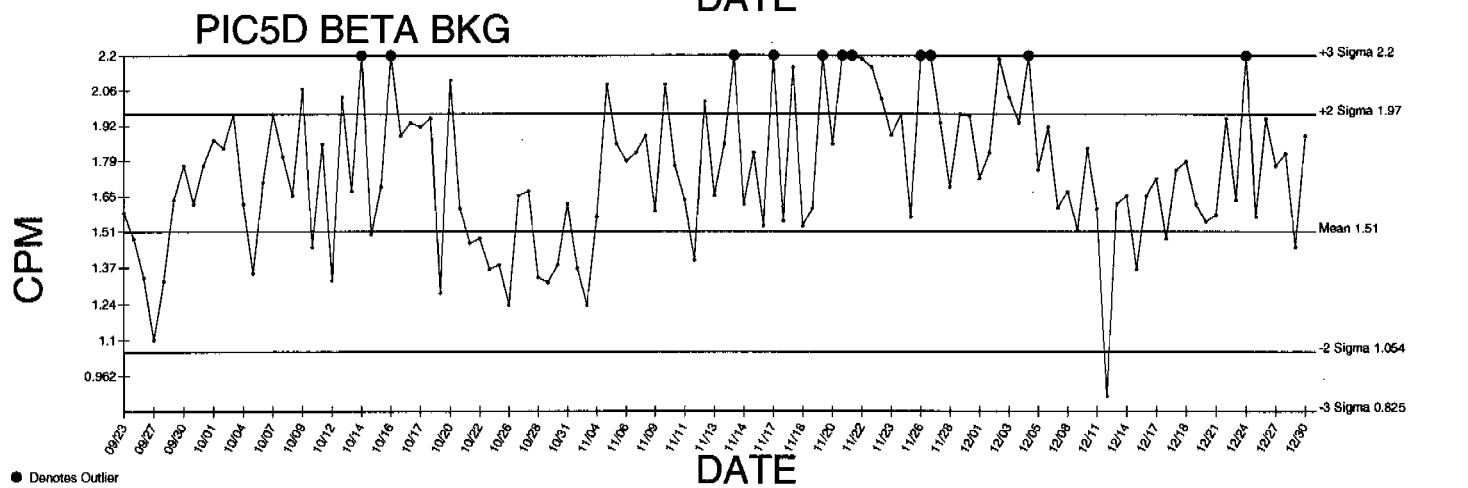

● Denotes Outlier

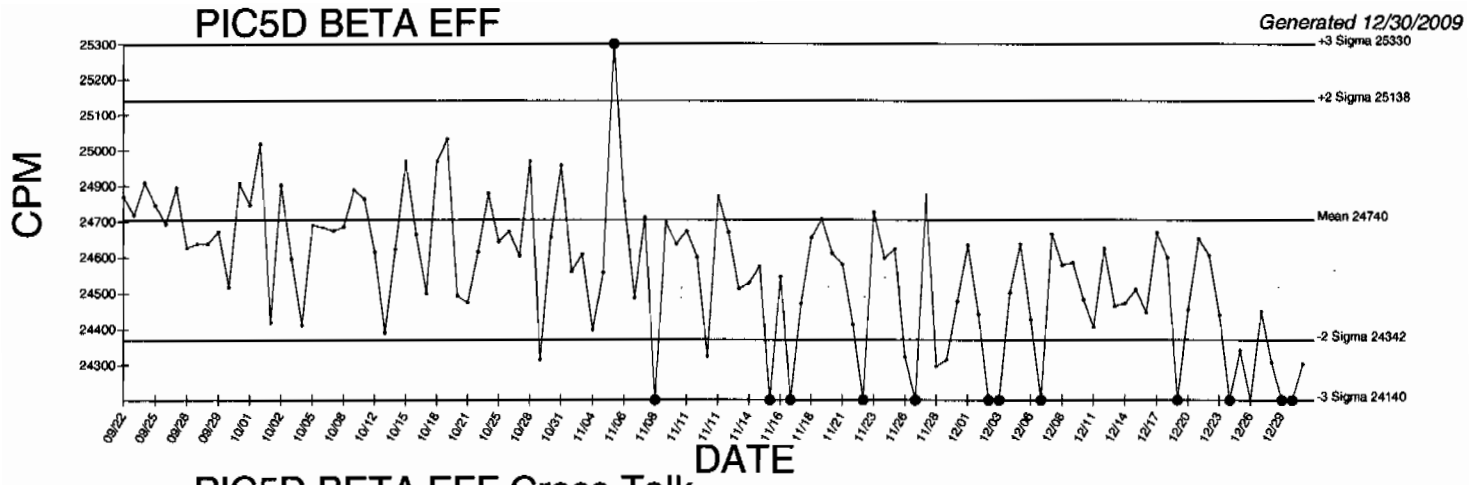

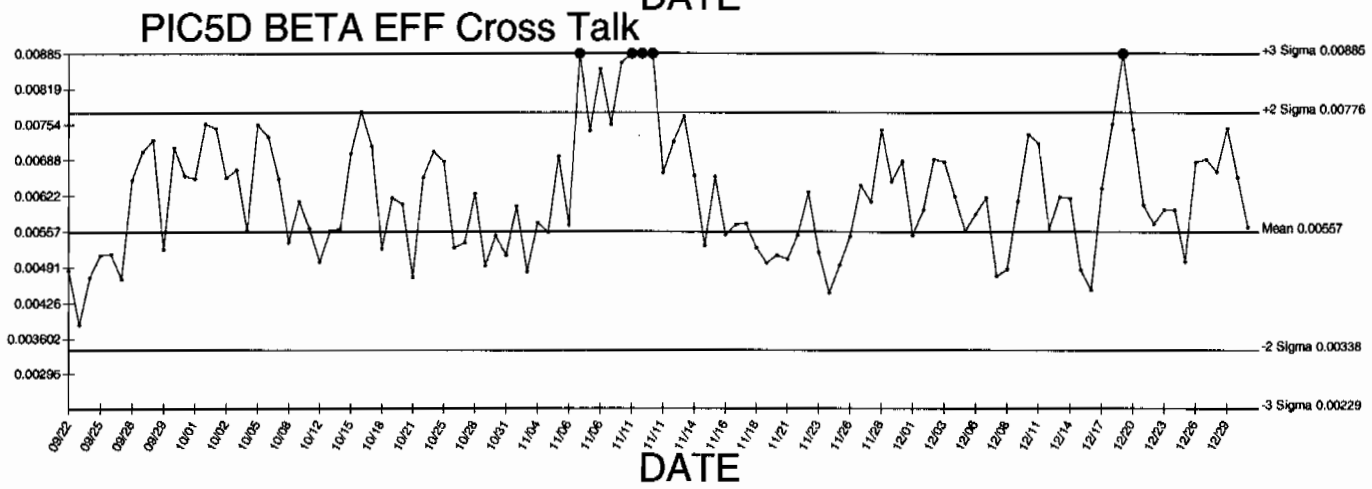

● Denotes Outlier

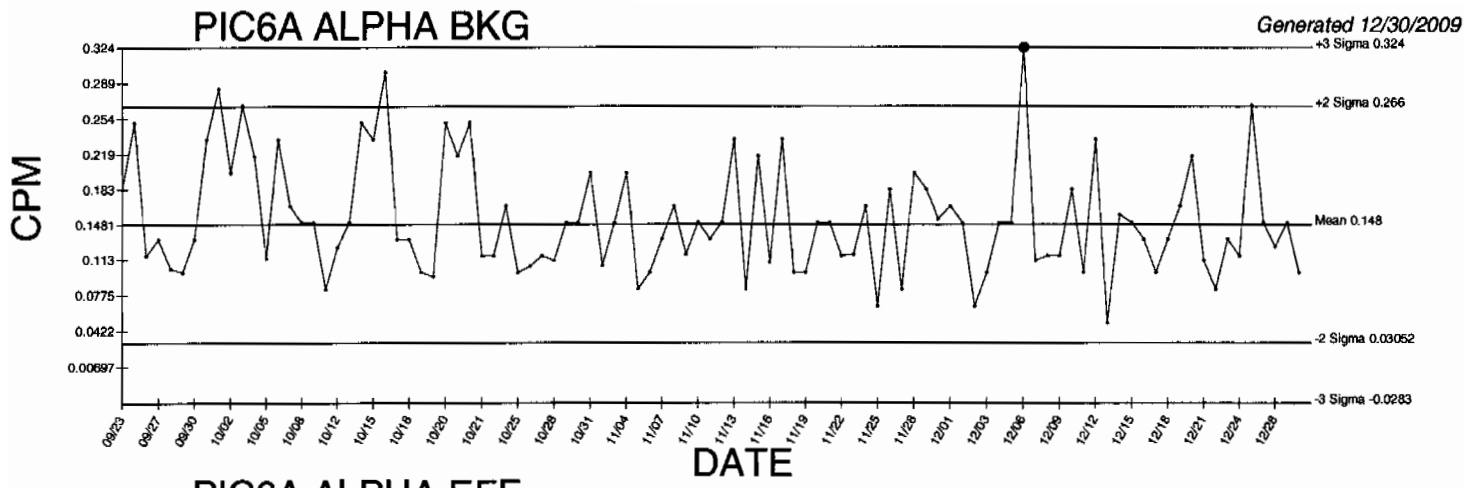

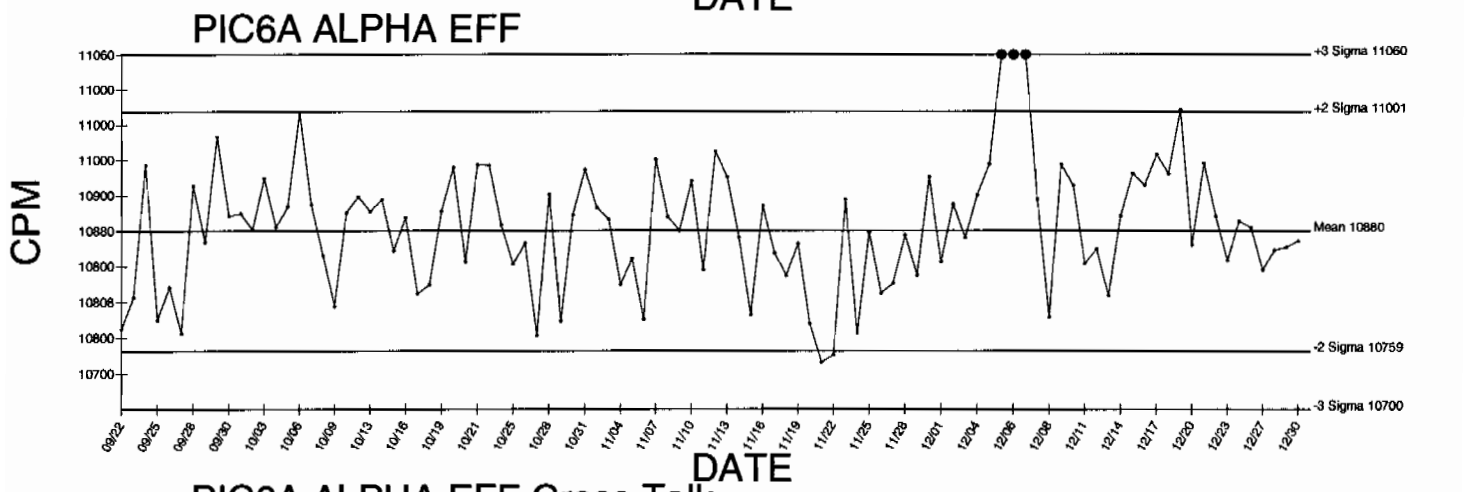

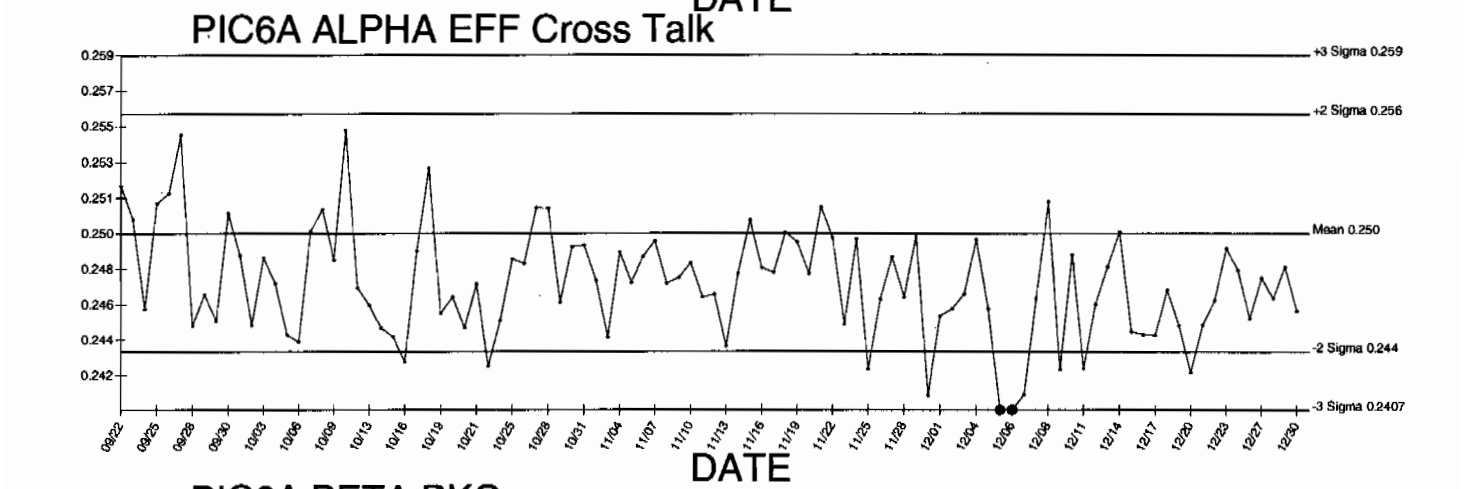

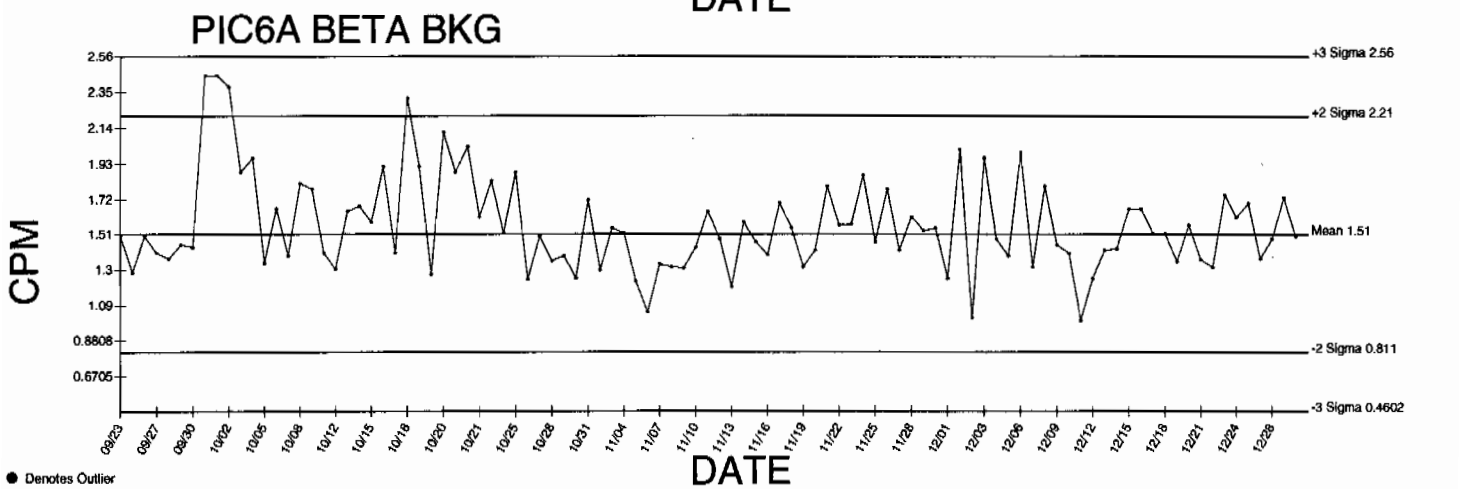

● Denotes Outlier

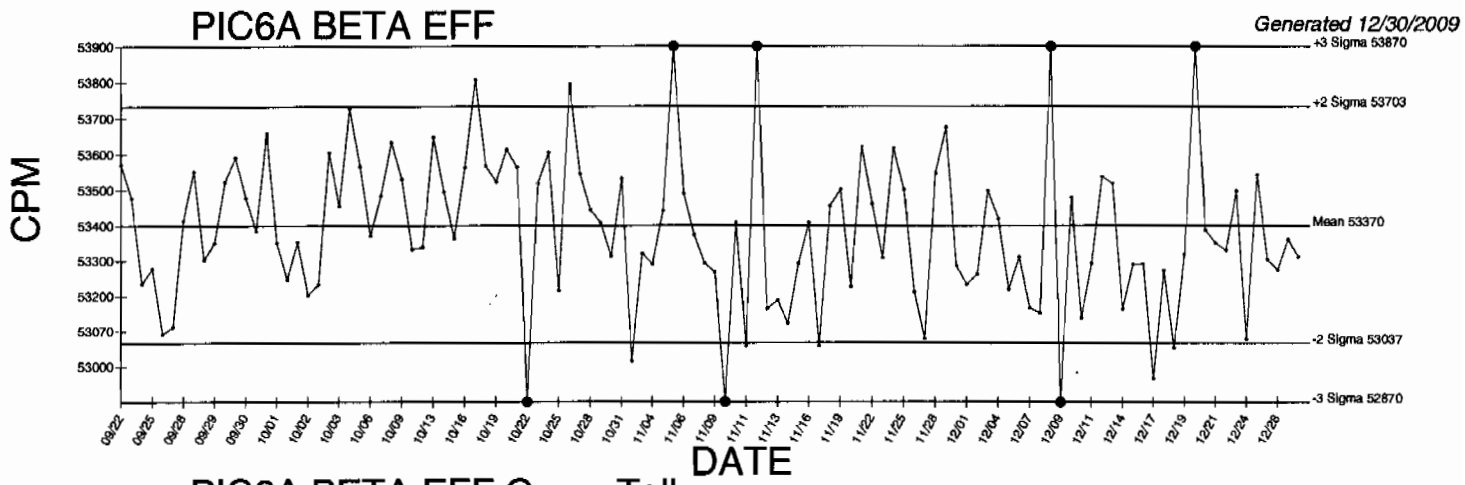

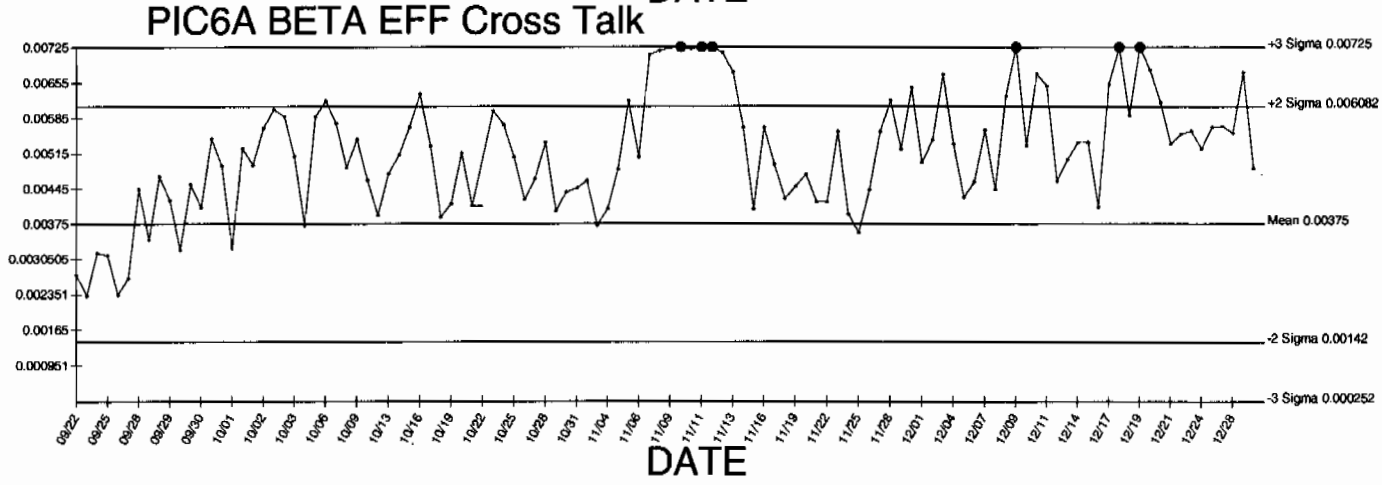

● Denotes Outlier

PIC6D ALPHA BKG

Generated 12/30/2009

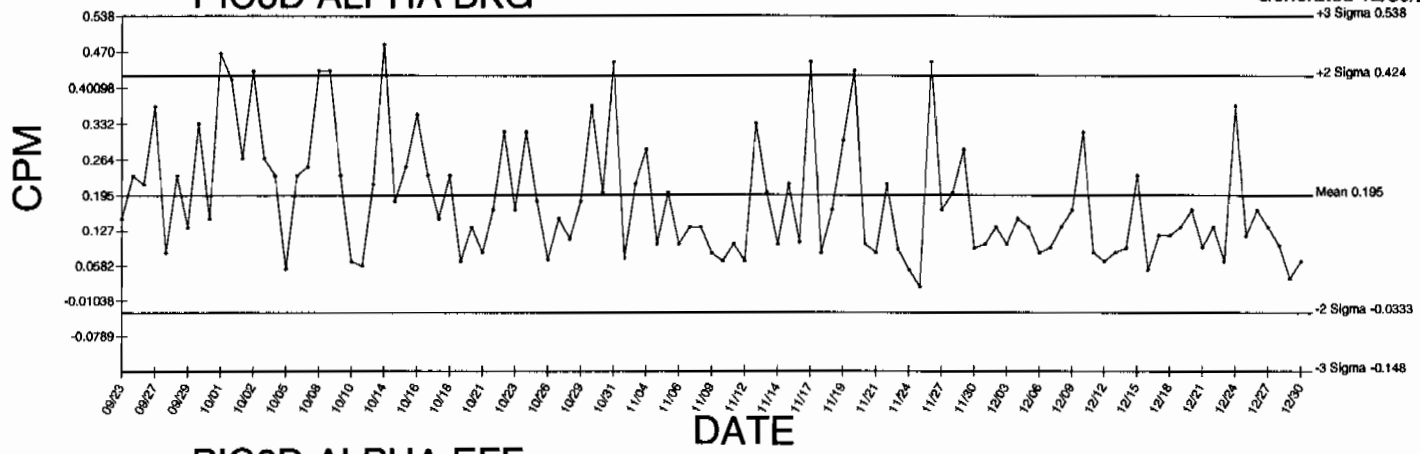

PIC6D ALPHA EFF

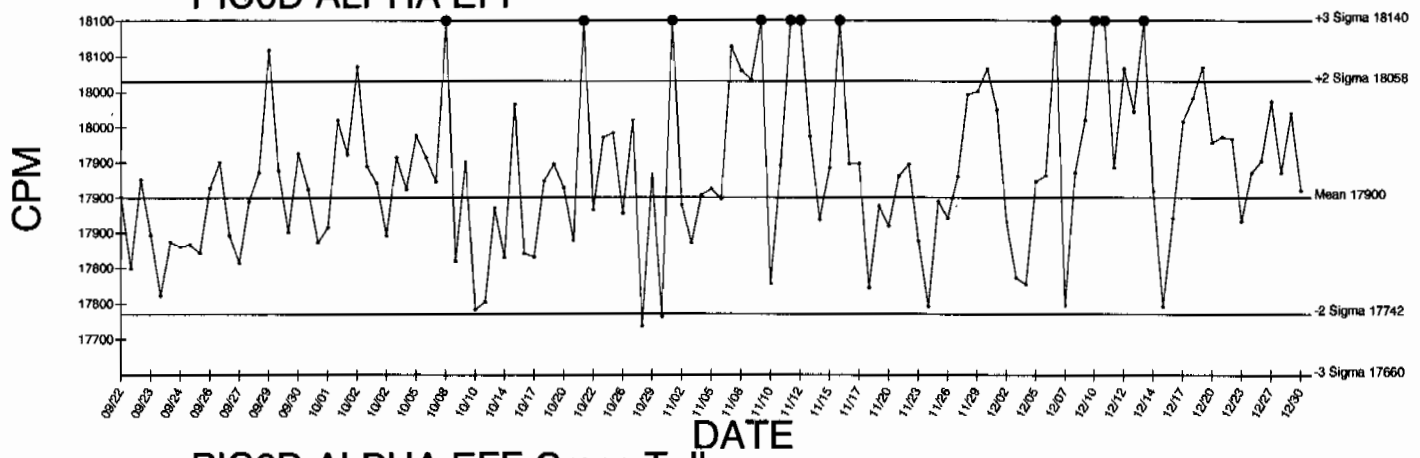

PIC6D ALPHA EFF Cross Talk

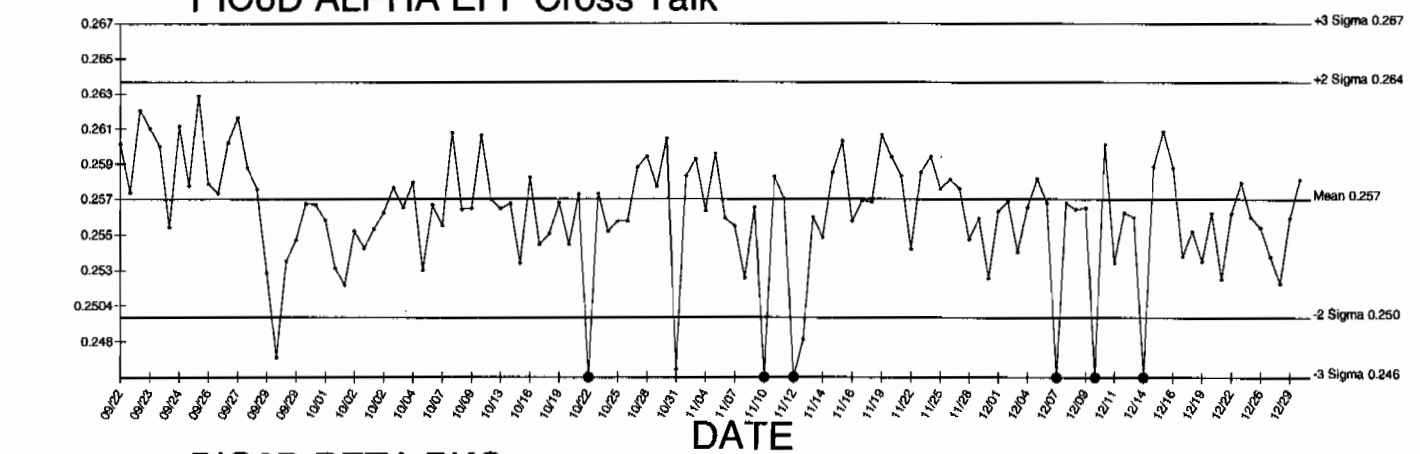

PIC6D BETA BKG

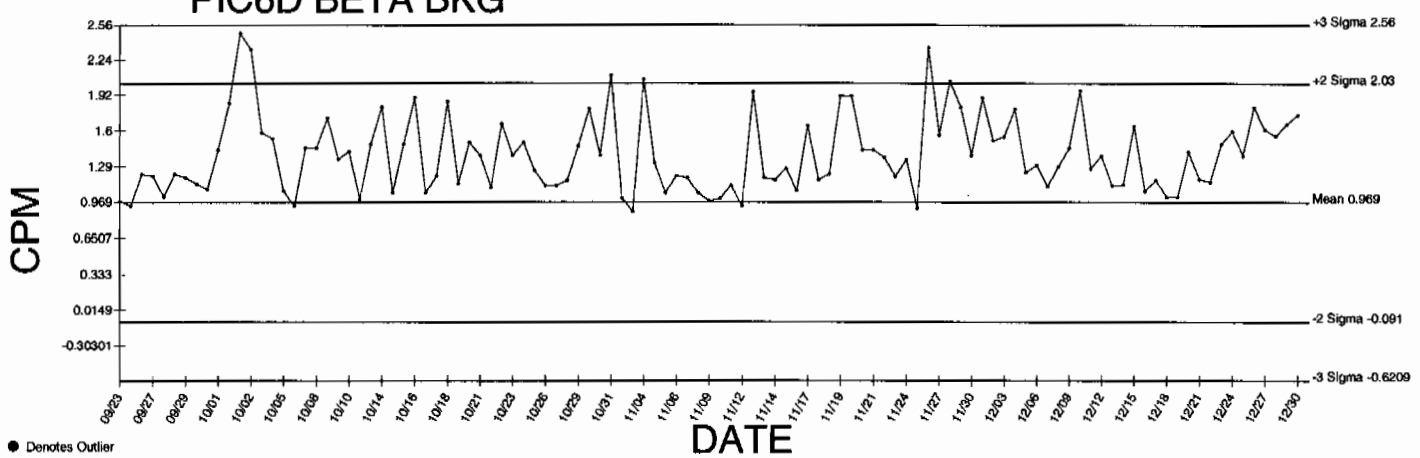

● Denotes Outlier

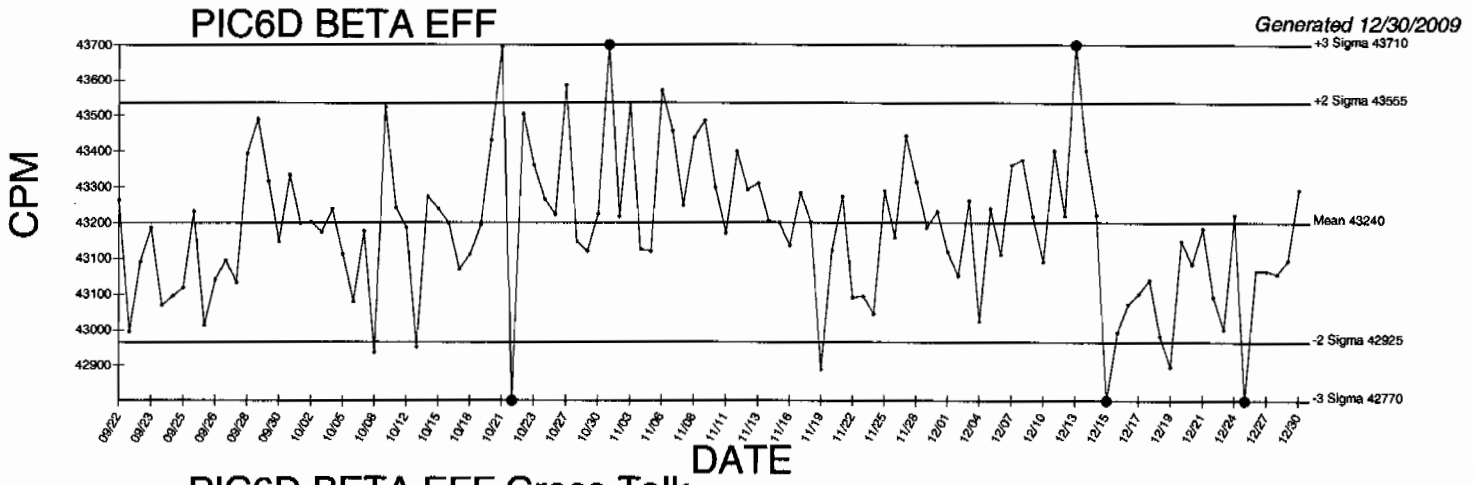

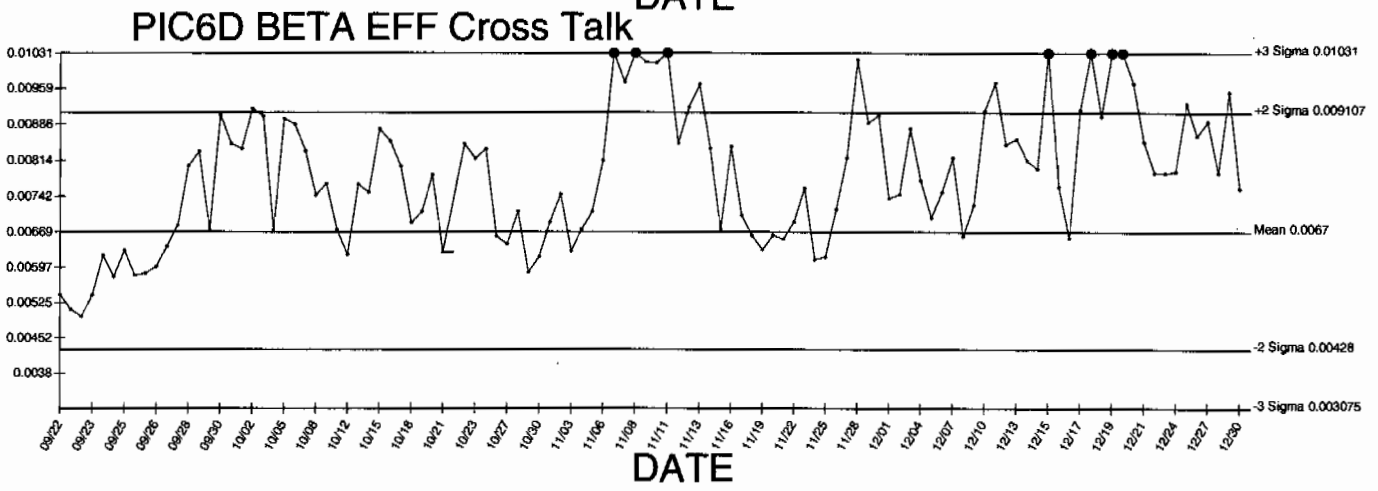

● Denotes Outlier

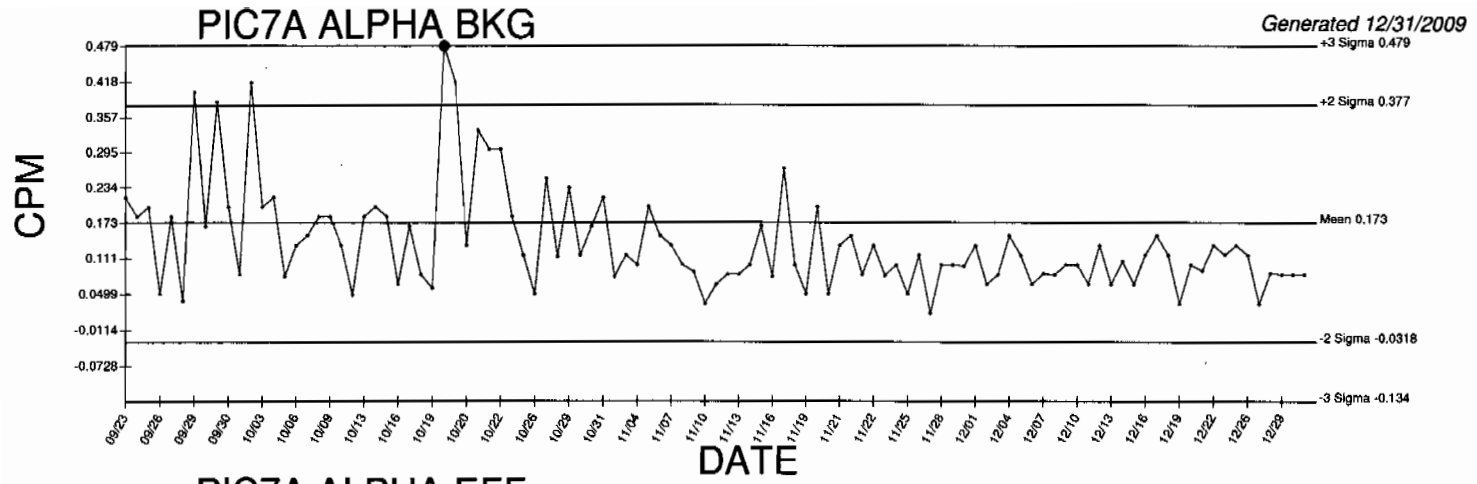
PIC7A ALPHA BKG
Generated 12/31/2009
CPM
DATE
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+2 Sigma 0.377
Mean 0.173
-2 Sigma -0.0318
-3 Sigma -0.134

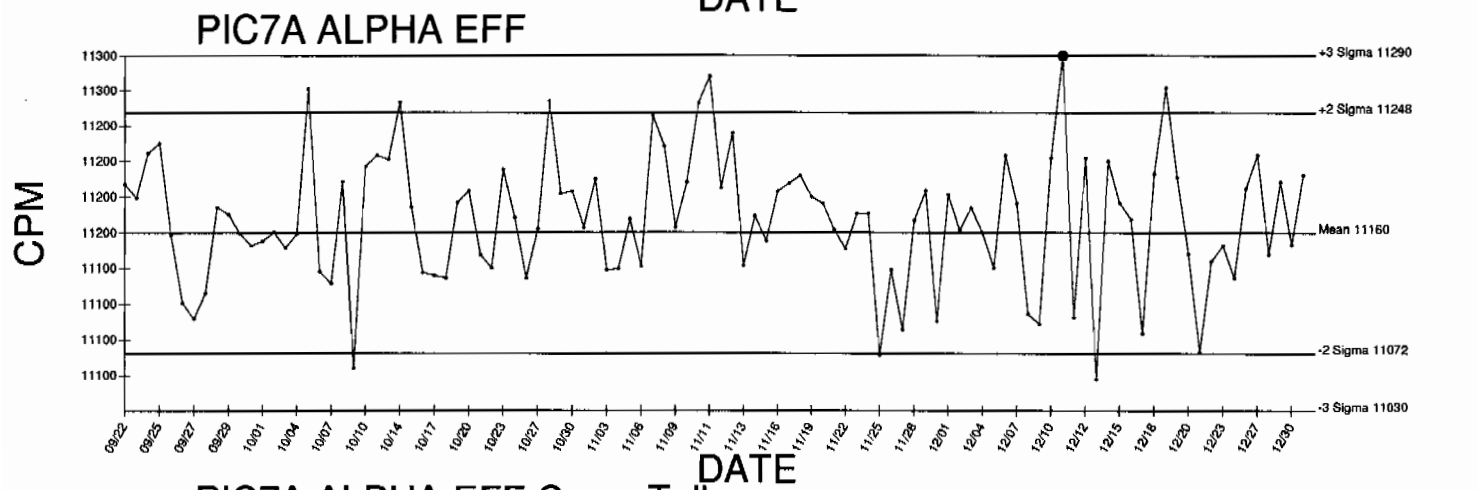
PIC7A ALPHA EFF
CPM
DATE
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+2 Sigma 11248
Mean 11160
-2 Sigma 11072
-3 Sigma 11030

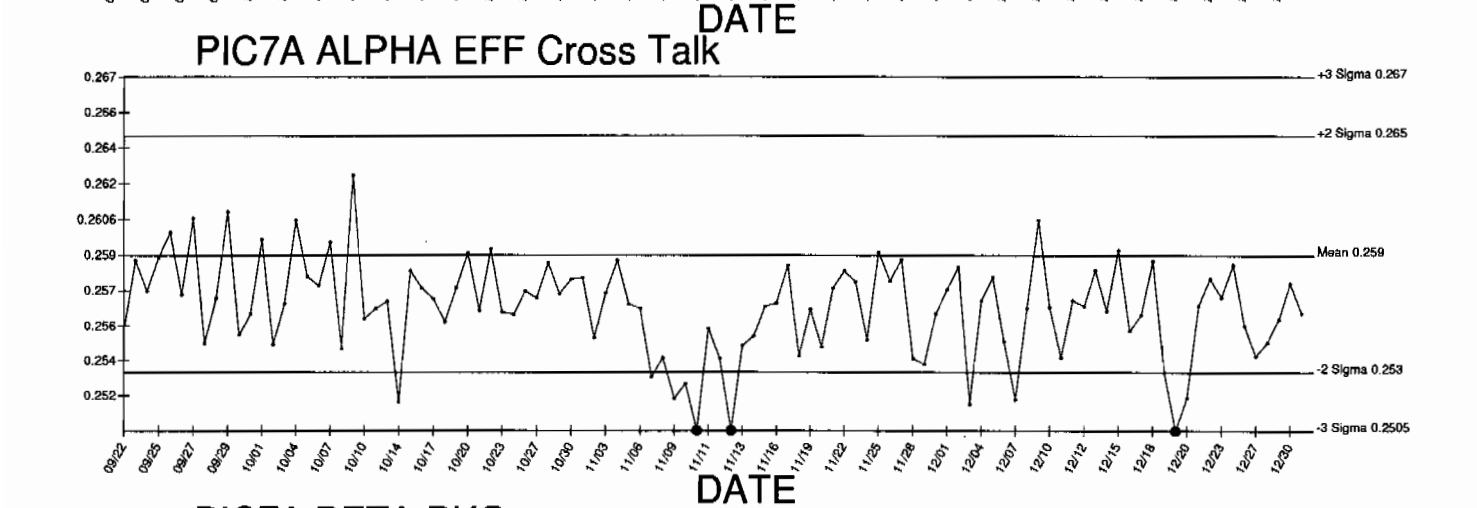
PIC7A ALPHA EFF Cross Talk
DATE
+3 Sigma 0.267
+2 Sigma 0.265
Mean 0.259
-2 Sigma 0.253
-3 Sigma 0.2505

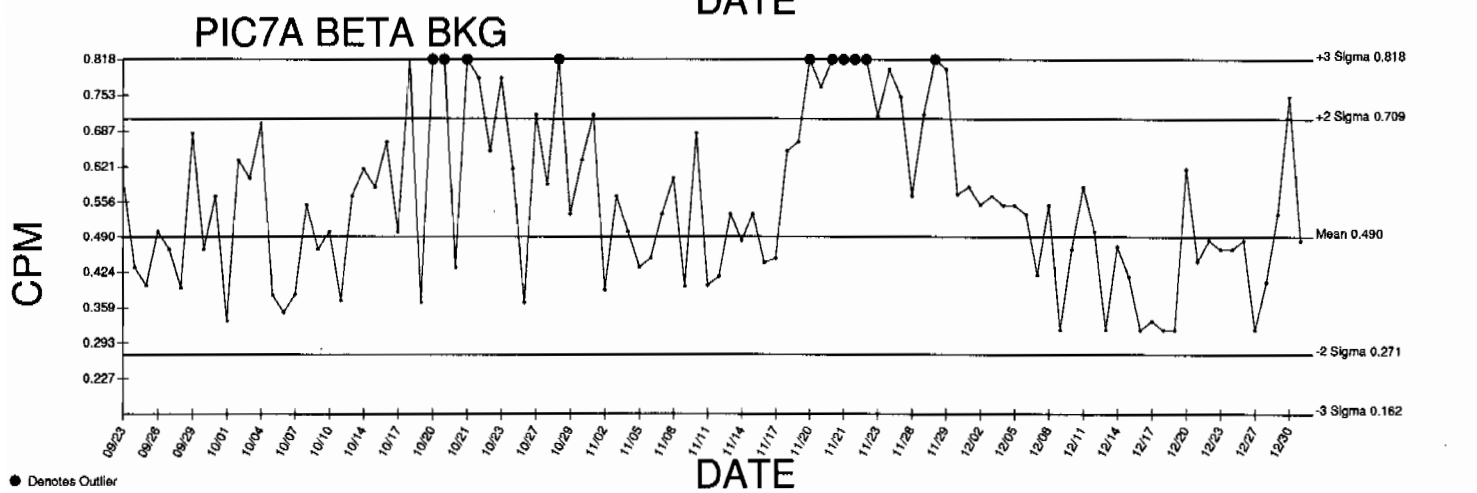
PIC7A BETA BKG
CPM
DATE
+3 Sigma 0.818
+2 Sigma 0.709
Mean 0.490
-2 Sigma 0.271
-3 Sigma 0.162
Denotes Outlier

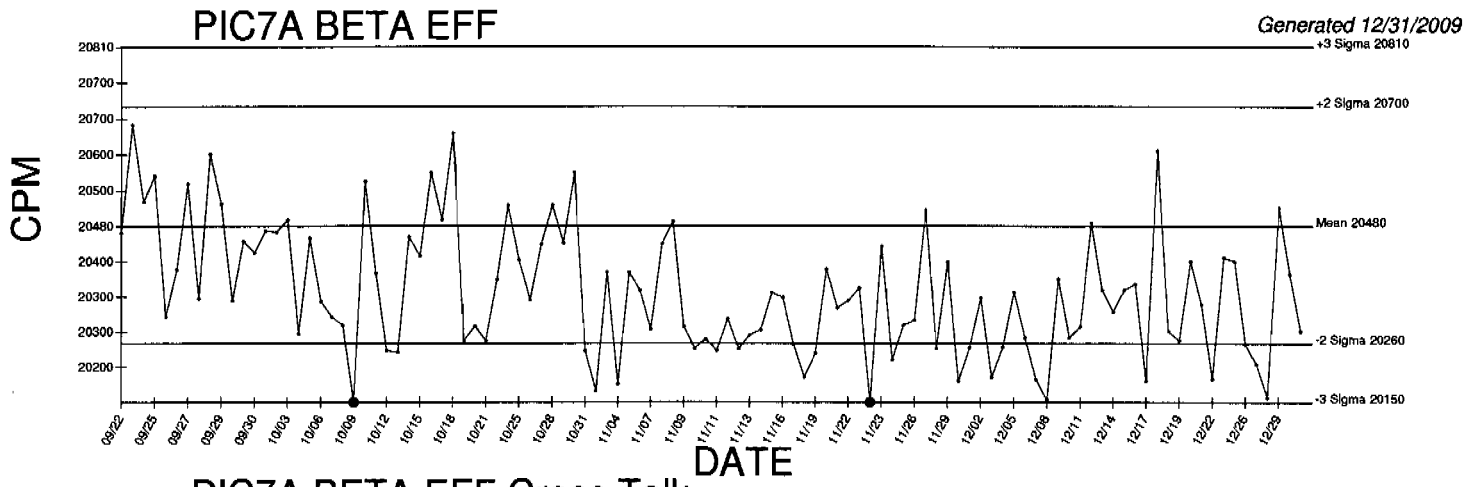

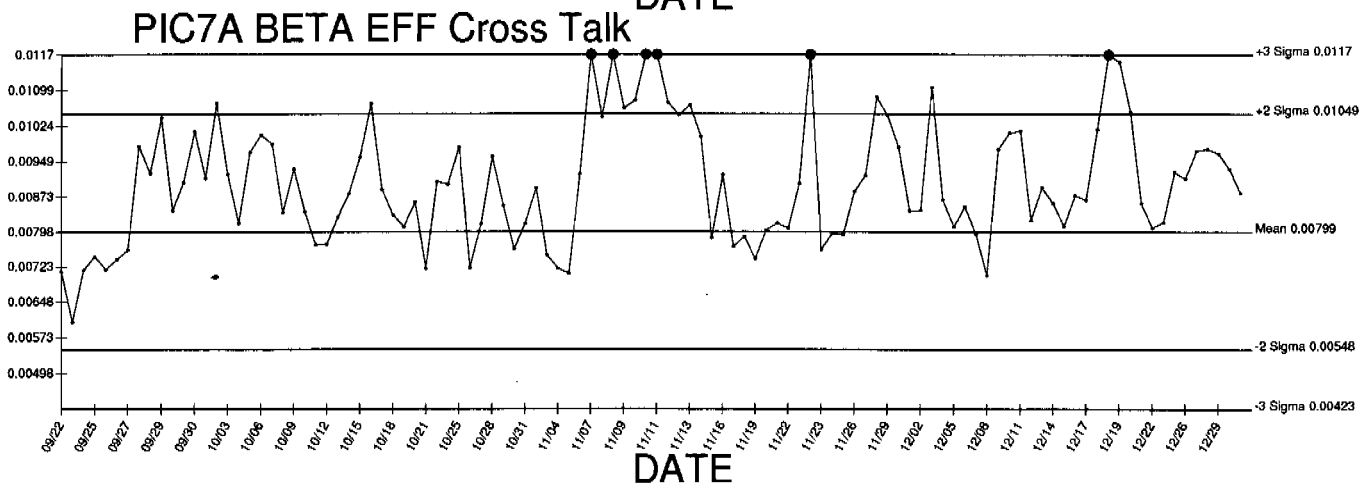

● Denotes Outlier

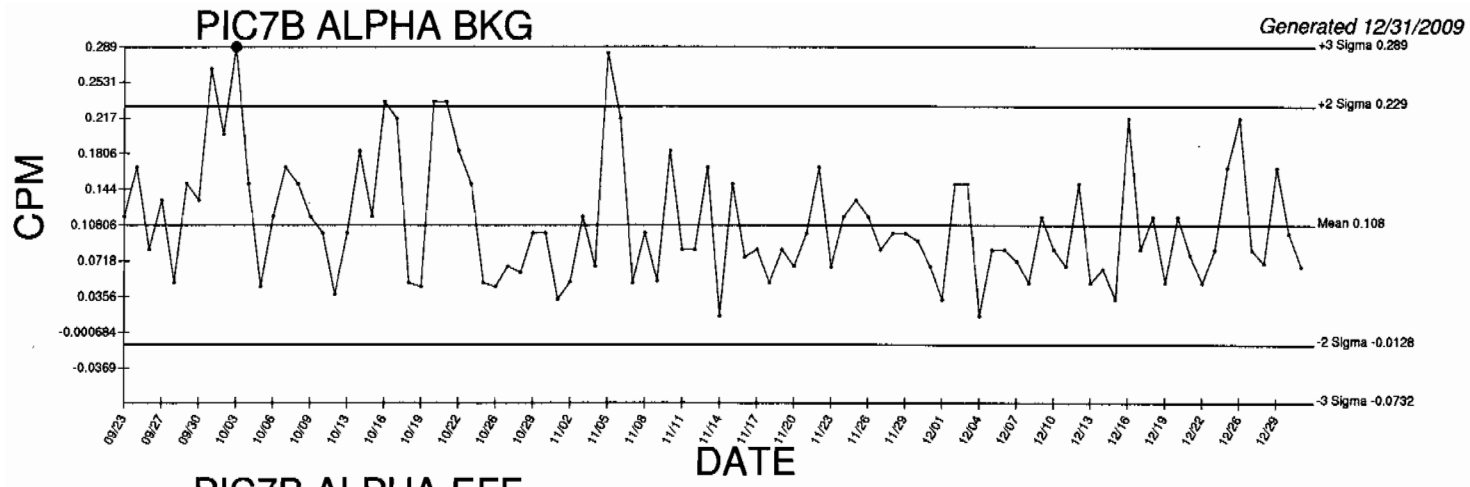
PIC7B ALPHA BKG
Generated 12/31/2009
CPM
DATE
+3 Sigma 0.289
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Mean 0.108
-2 Sigma -0.0128
-3 Sigma -0.0732

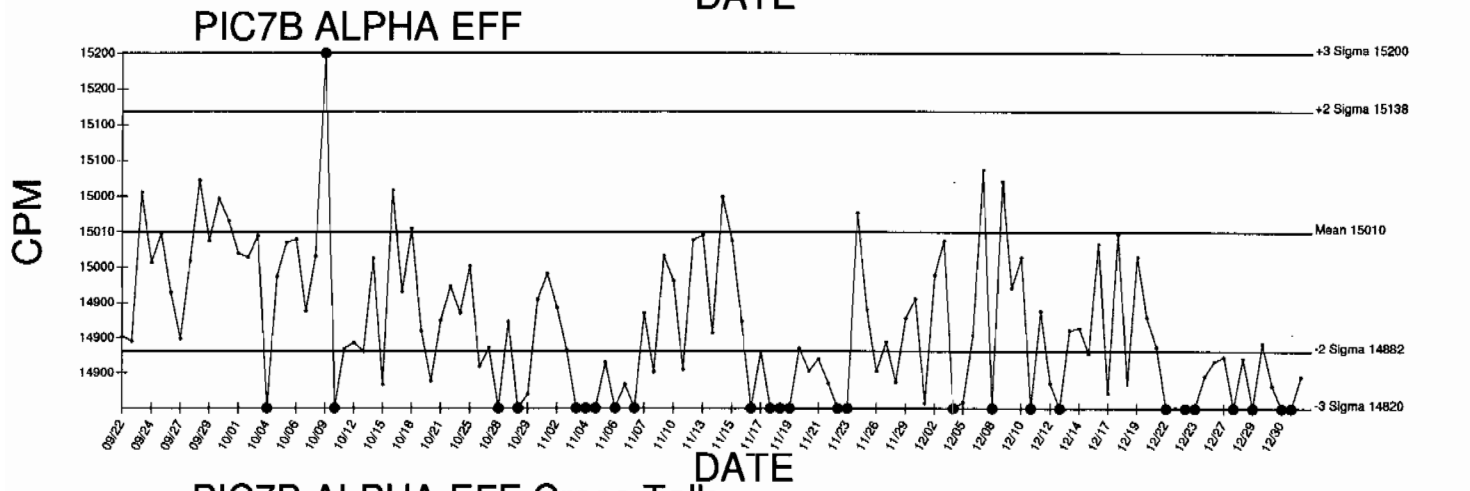
PIC7B ALPHA EFF
CPM
DATE
+3 Sigma 15200
+2 Sigma 15138
Mean 15010
-2 Sigma 14882
-3 Sigma 14820

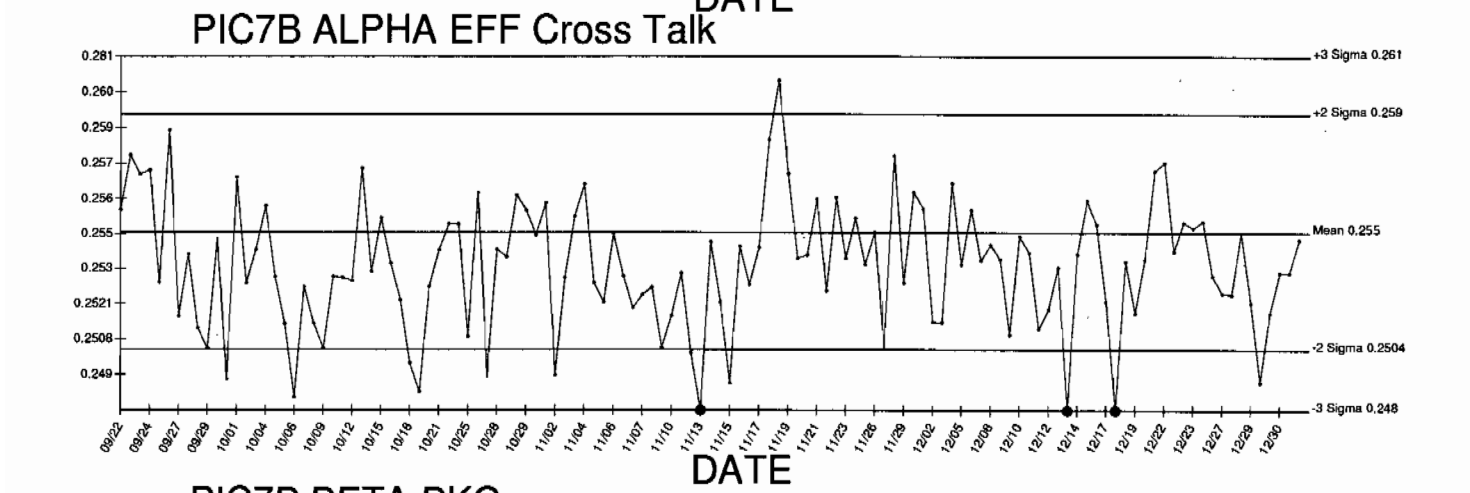
PIC7B ALPHA EFF Cross Talk
DATE
+3 Sigma 0.261
+2 Sigma 0.259
Mean 0.255
-2 Sigma 0.2504
-3 Sigma 0.248

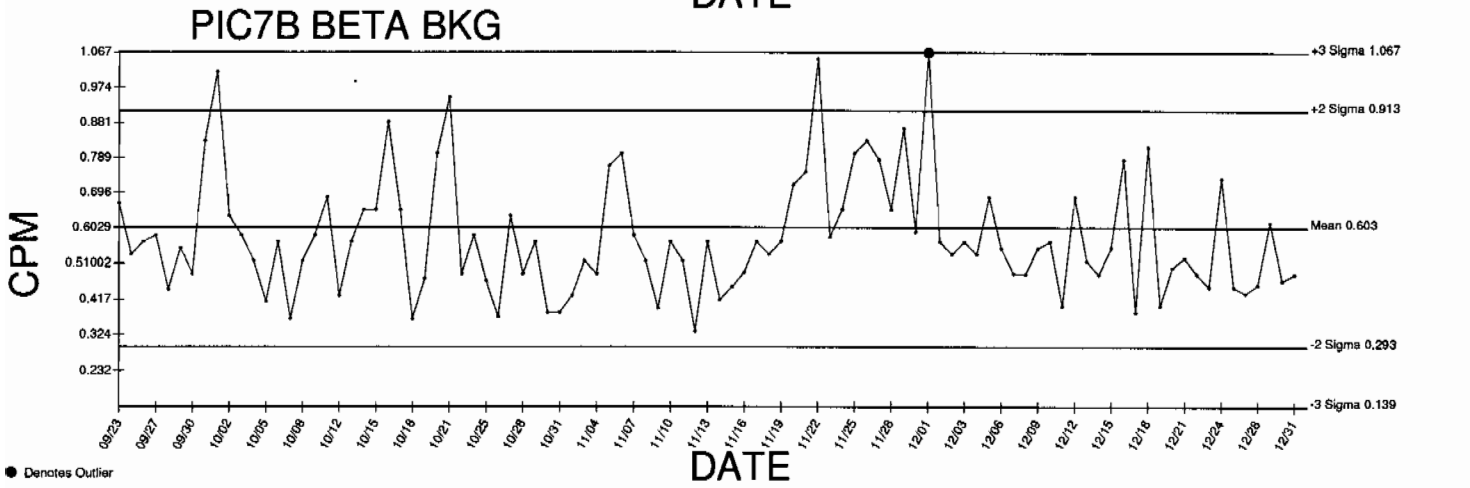
PIC7B BETA BKG
CPM
DATE
+3 Sigma 1.067
+2 Sigma 0.913
Mean 0.603
-2 Sigma 0.293
-3 Sigma 0.139
Denotes Outlier

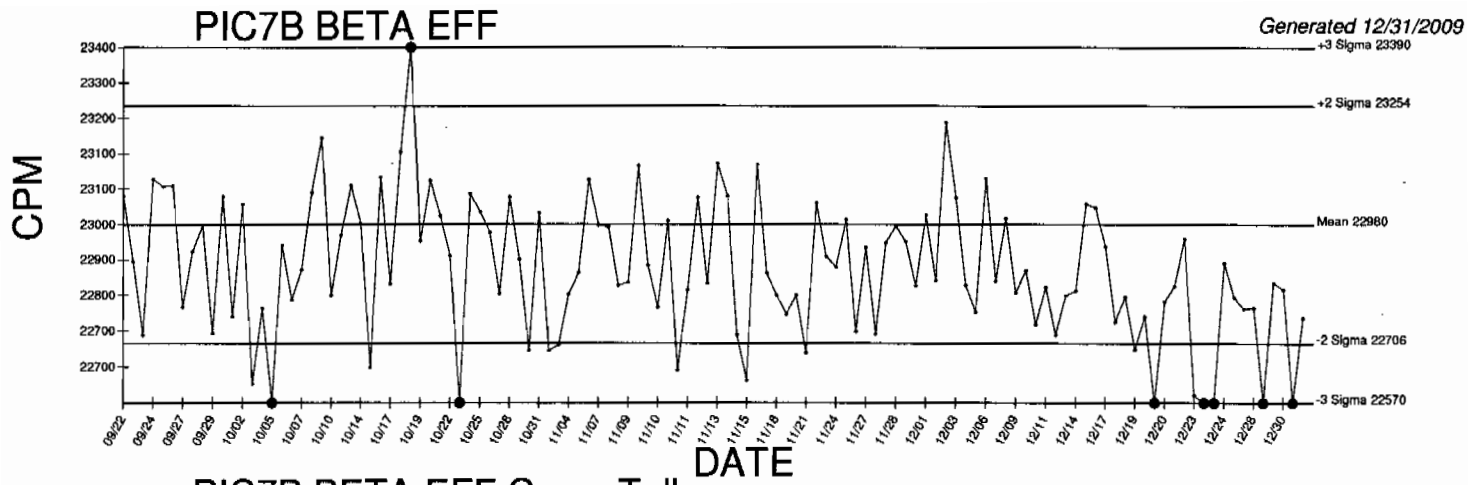

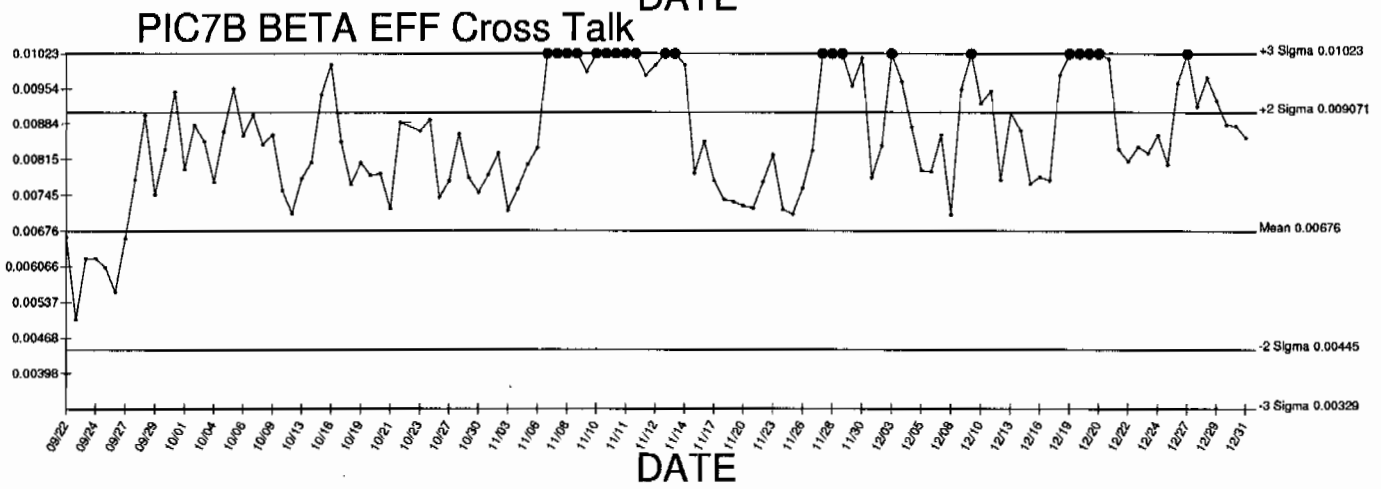

● Denotes Outlier

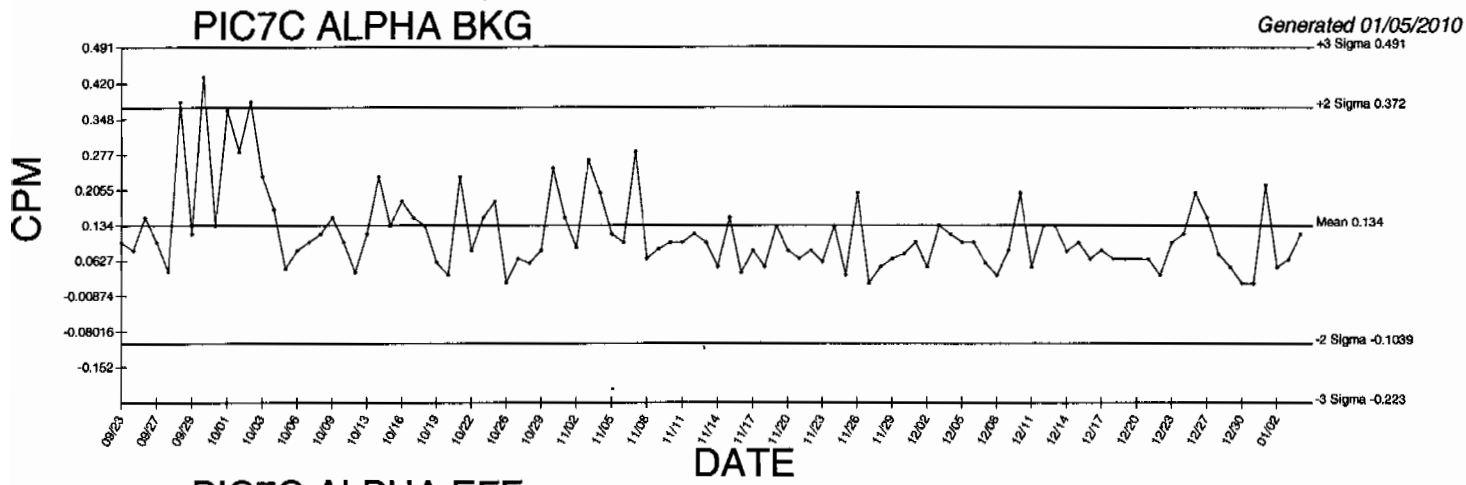
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Generated 01/05/2010
CPM
DATE
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+2 Sigma 0.372
Mean 0.134
-2 Sigma -0.1039
-3 Sigma -0.223

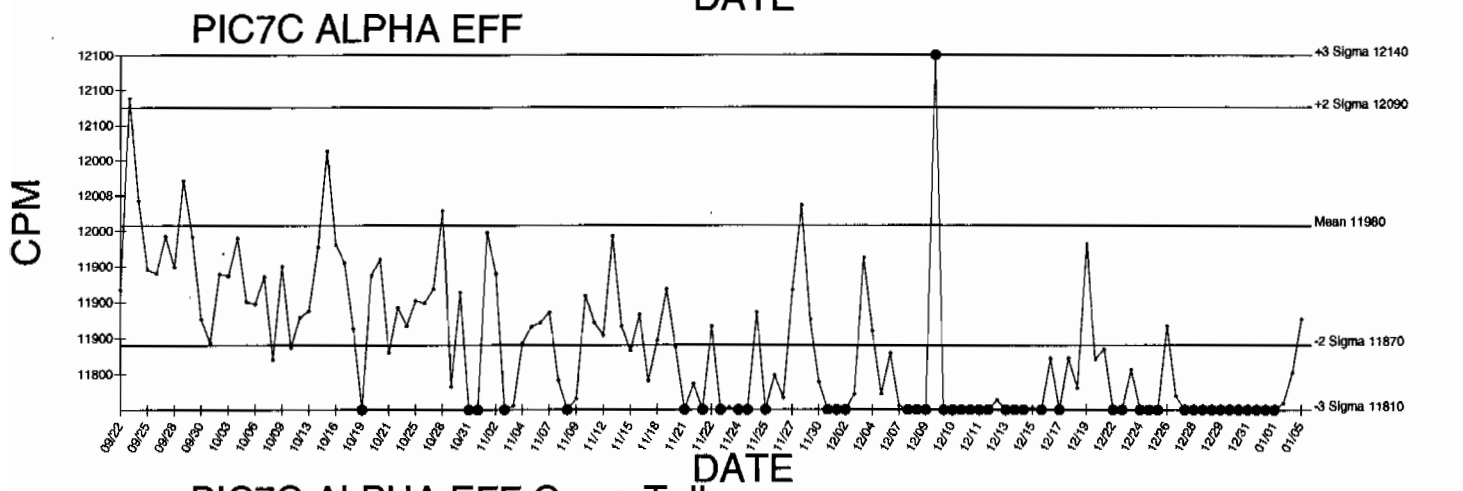
PIC7C ALPHA EFF
CPM
DATE
+3 Sigma 12140
+2 Sigma 12090
Mean 11960
-2 Sigma 11870
-3 Sigma 11810

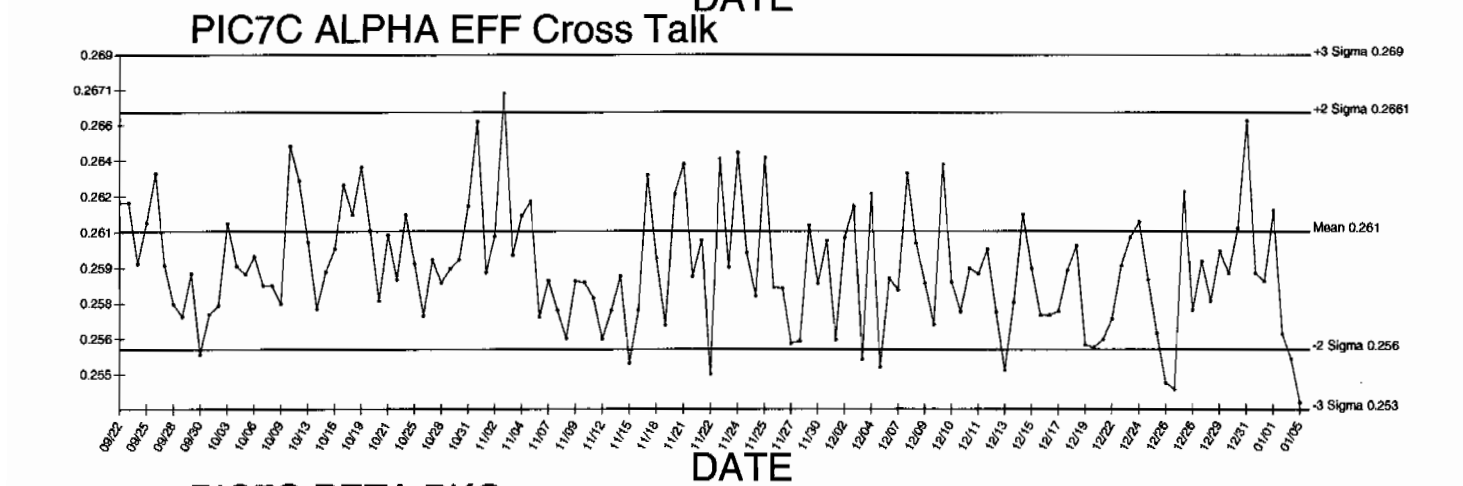
PIC7C ALPHA EFF Cross Talk
DATE
+3 Sigma 0.269
+2 Sigma 0.2661
Mean 0.261
-2 Sigma 0.256
-3 Sigma 0.253

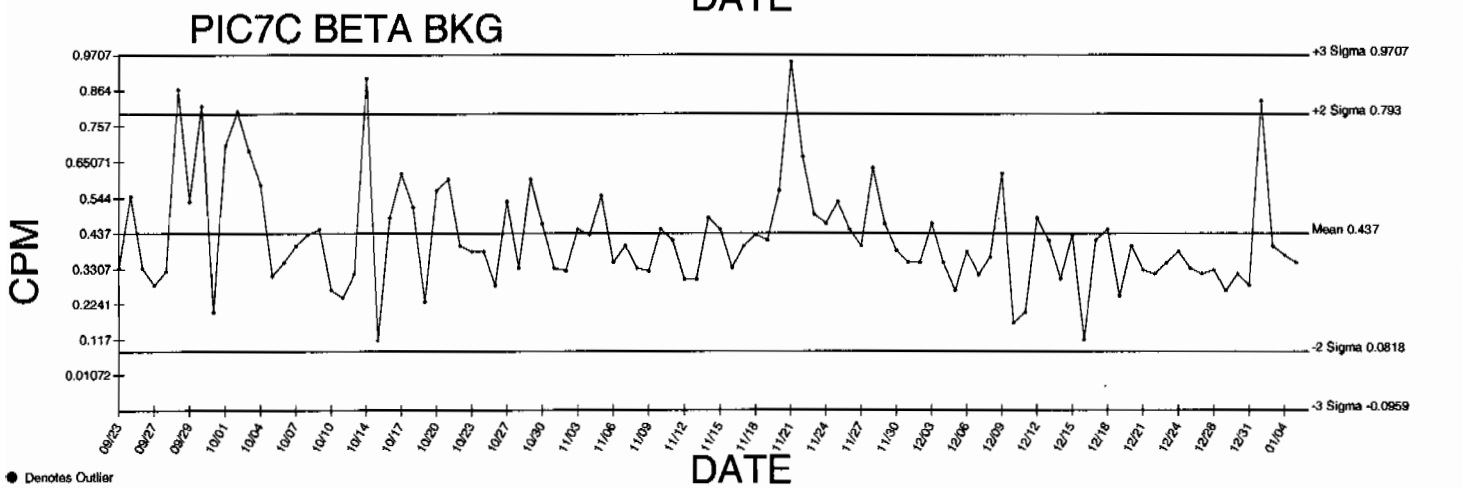
PIC7C BETA BKG
CPM
DATE
+3 Sigma 0.9707
+2 Sigma 0.793
Mean 0.437
-2 Sigma 0.0818
-3 Sigma -0.0959
● Denotes Outlier

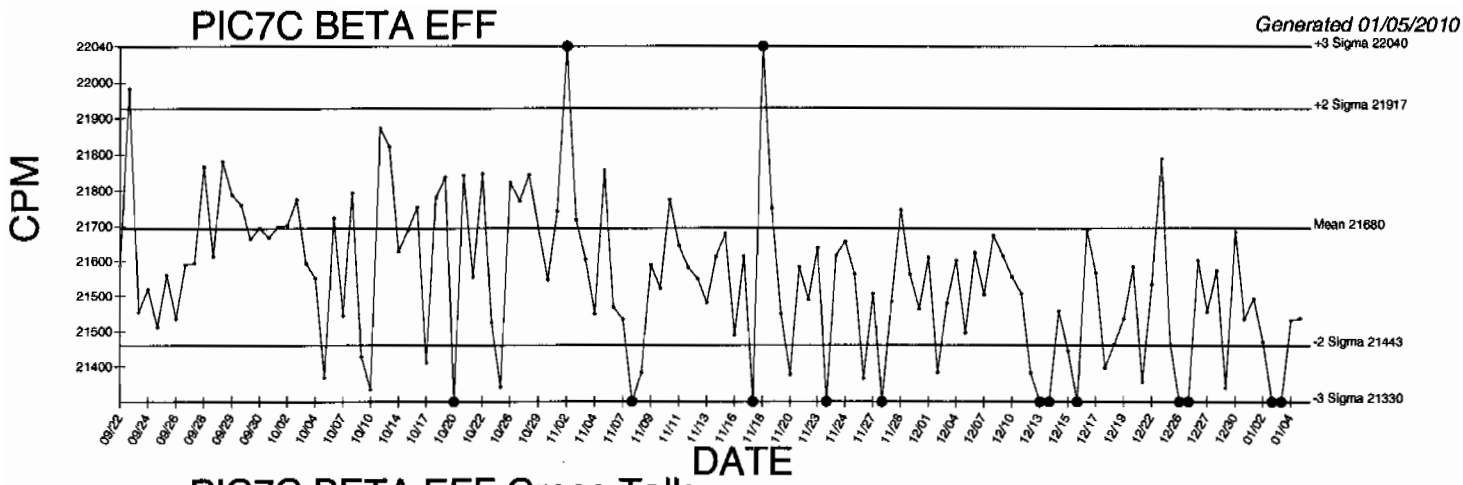

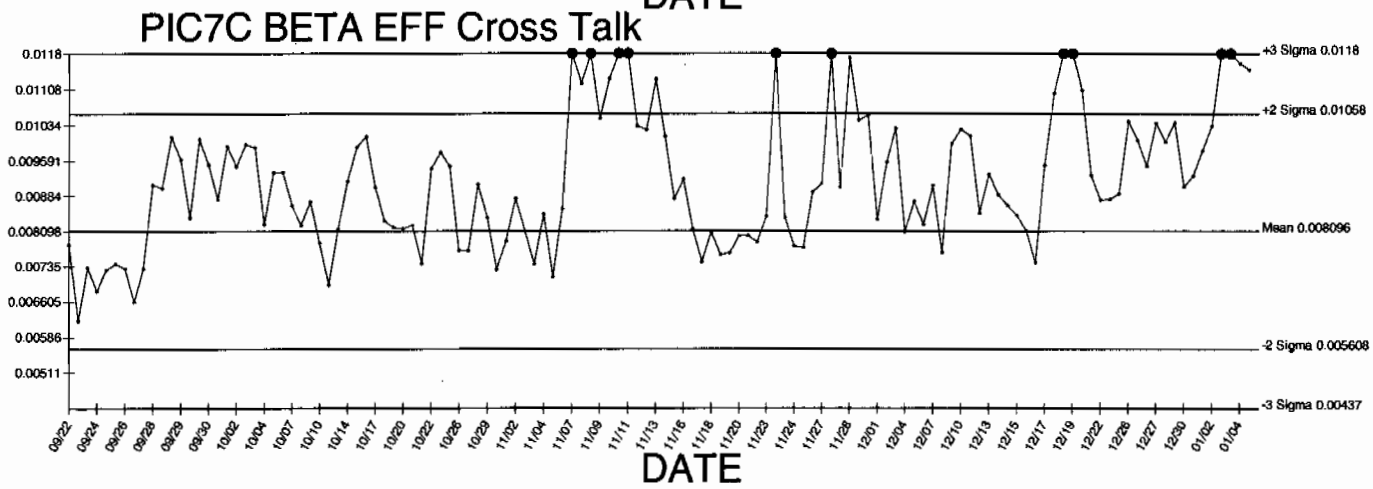

● Denotes Outlier

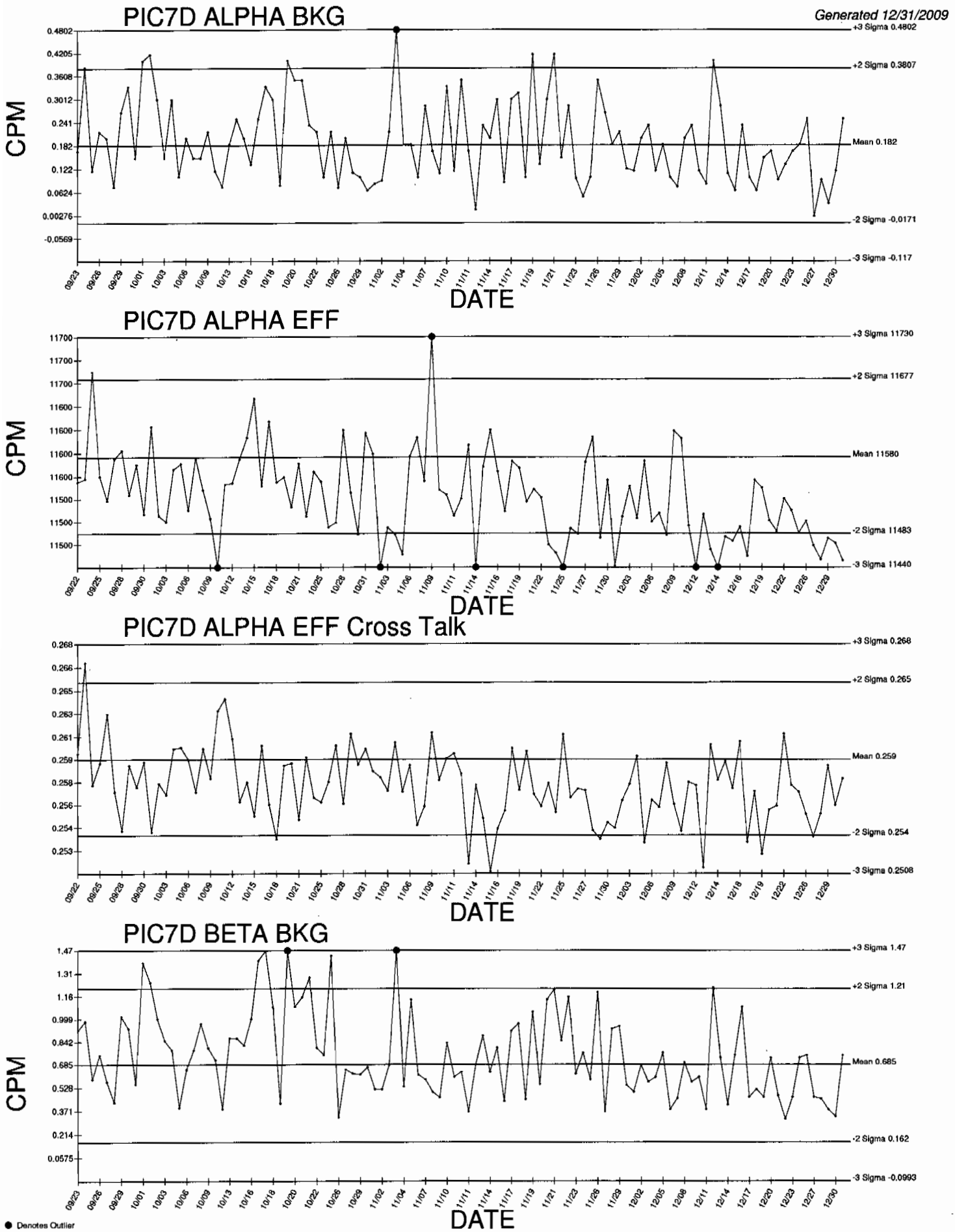
PIC7D ALPHA BKG
Generated 12/31/2009
CPM
DATE
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Mean 0.182
-2 Sigma -0.0171
-3 Sigma -0.117
PIC7D ALPHA EFF
+3 Sigma 11730
+2 Sigma 11677
Mean 11580
-2 Sigma 11483
-3 Sigma 11440
PIC7D ALPHA EFF Cross Talk
+3 Sigma 0.268
+2 Sigma 0.265
Mean 0.259
-2 Sigma 0.254
-3 Sigma 0.2508
PIC7D BETA BKG
+3 Sigma 1.47
+2 Sigma 1.21
Mean 0.685
-2 Sigma 0.162
-3 Sigma -0.0993
● Denotes Outlier

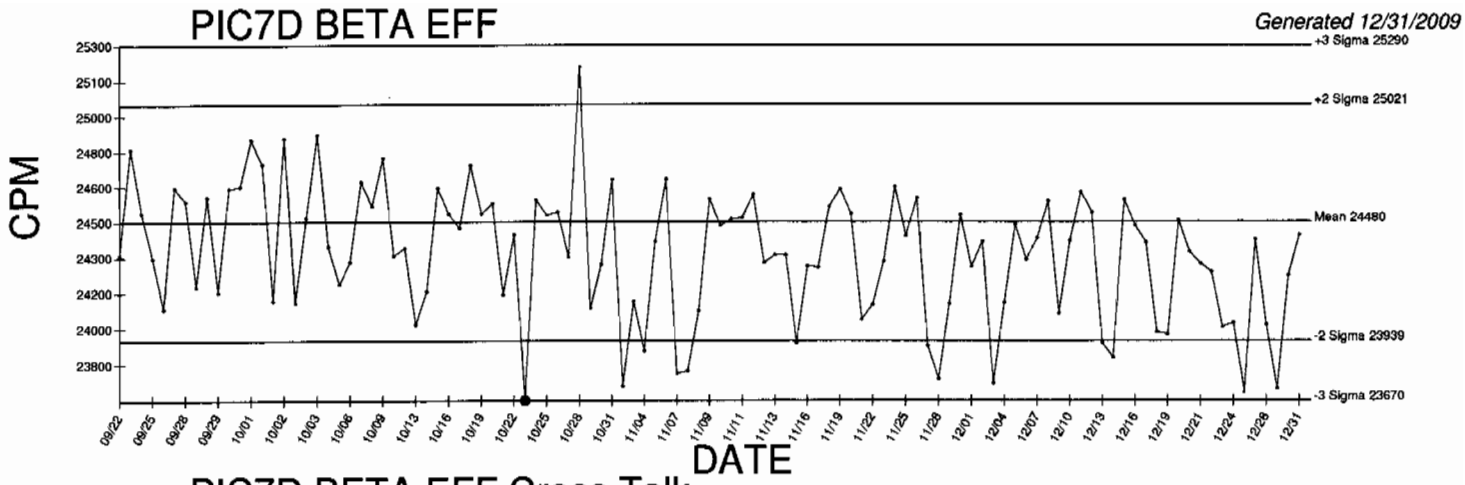

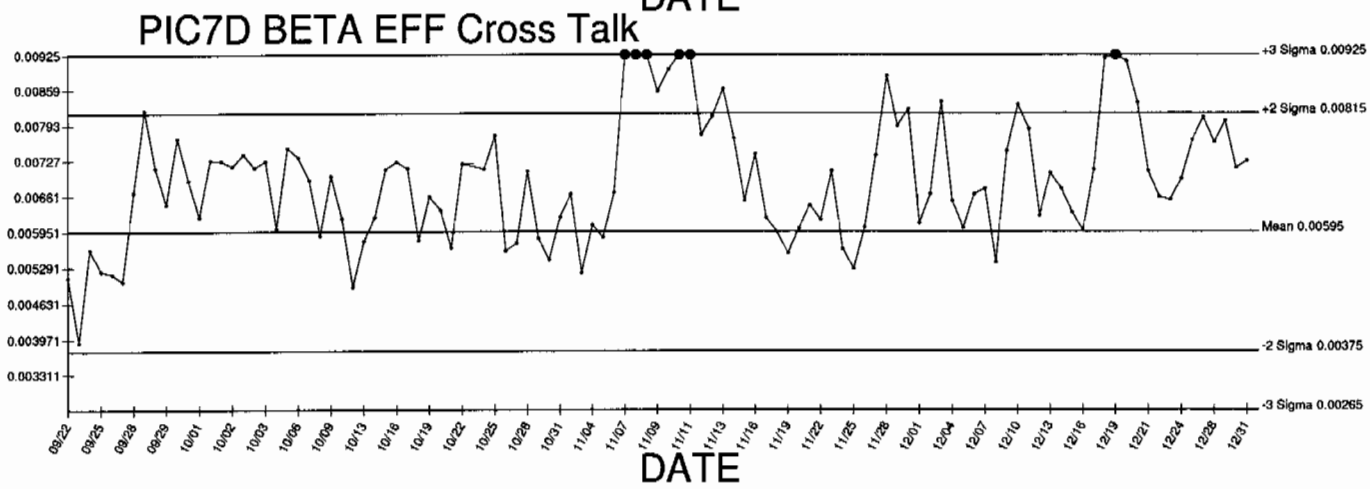

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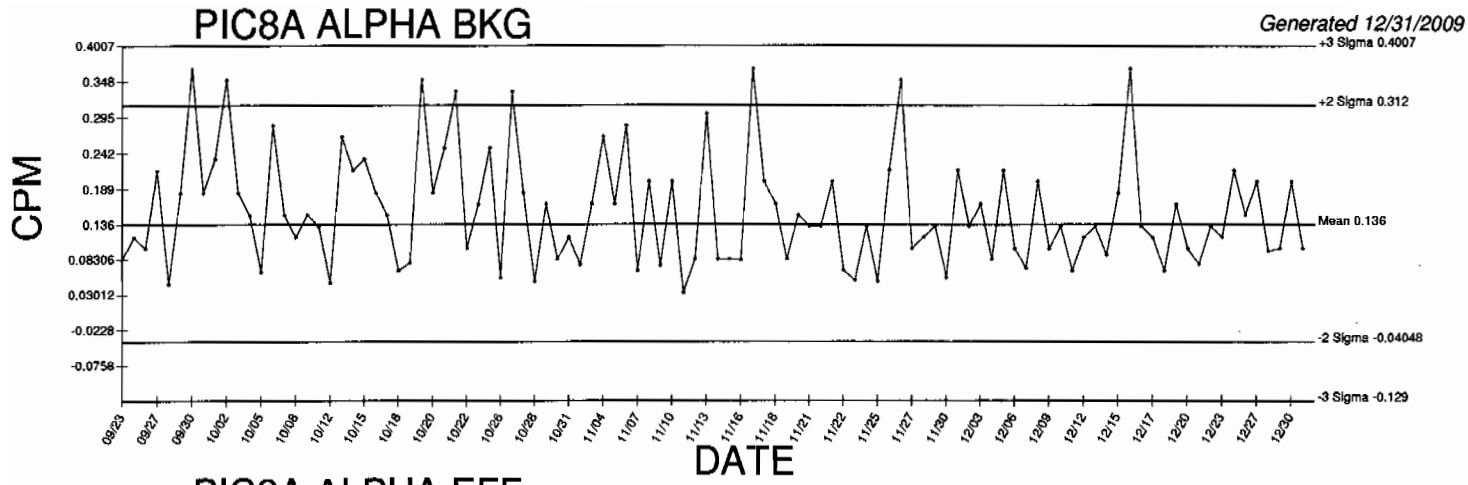

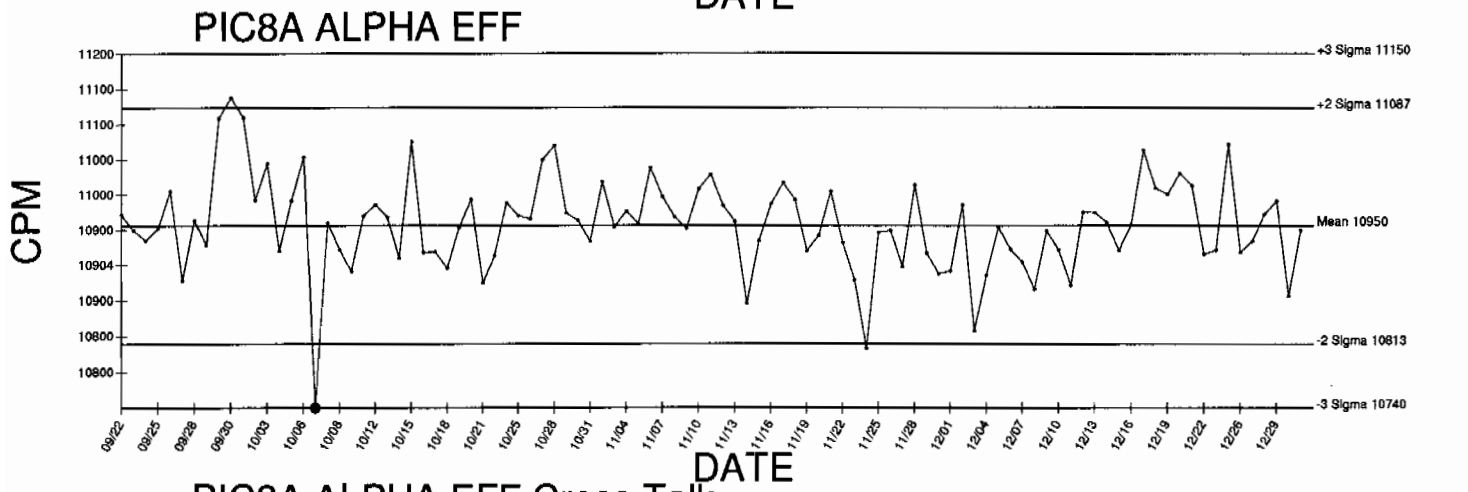

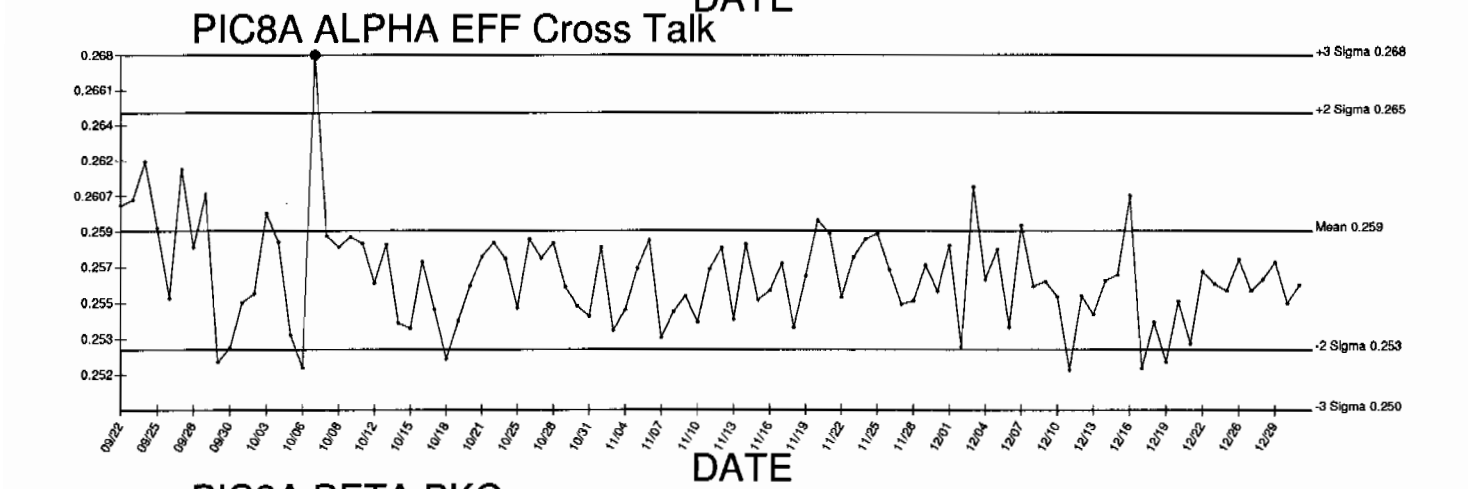

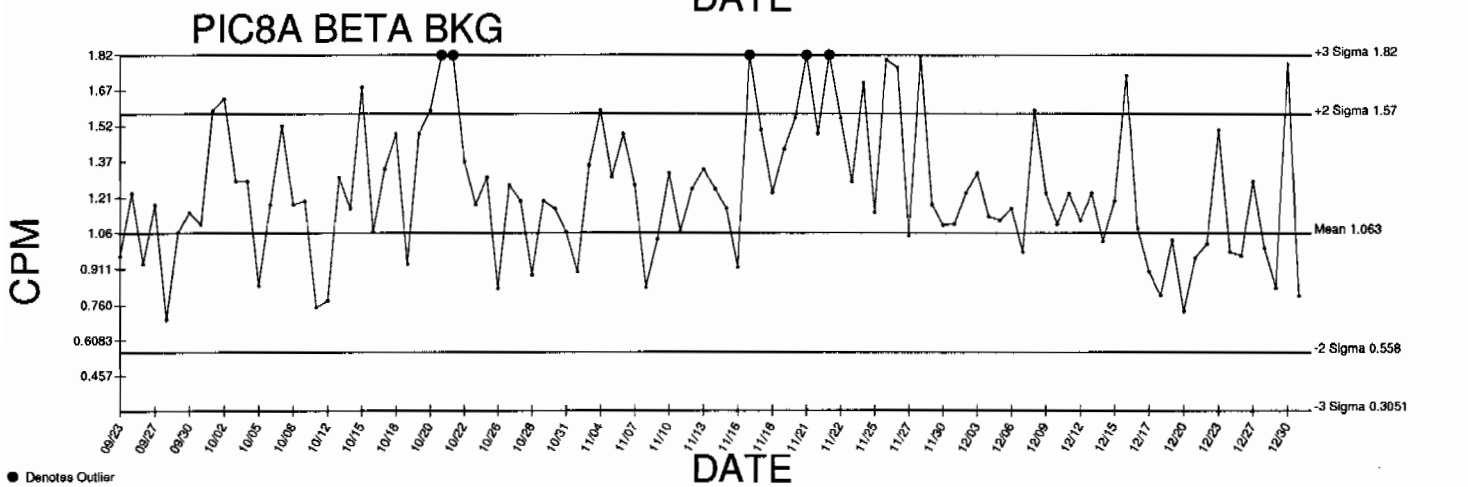

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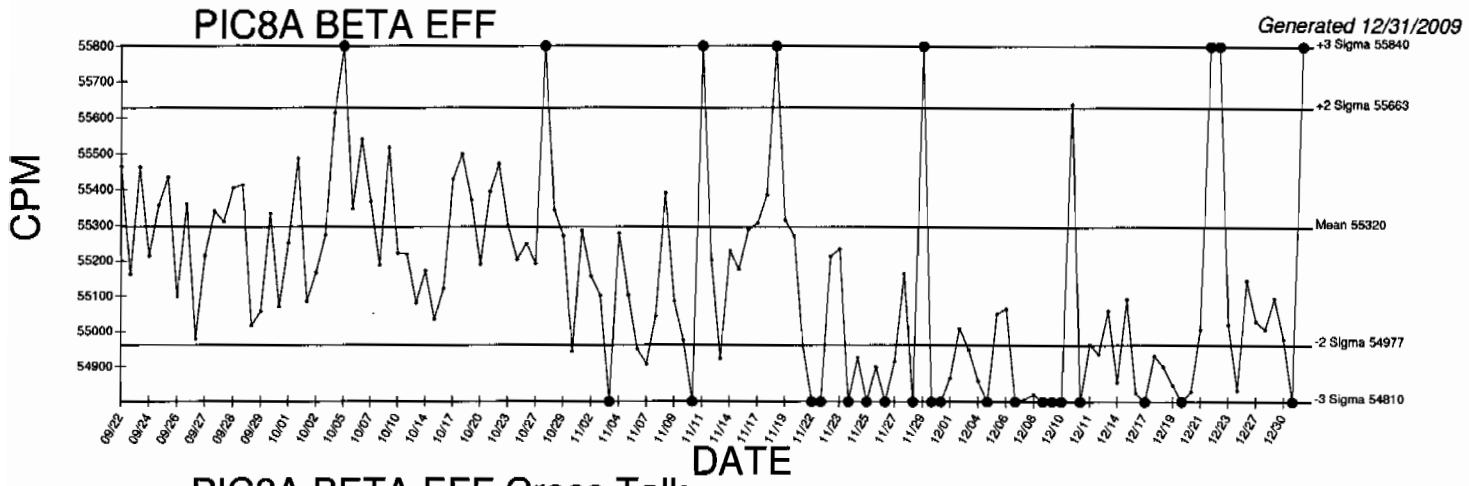

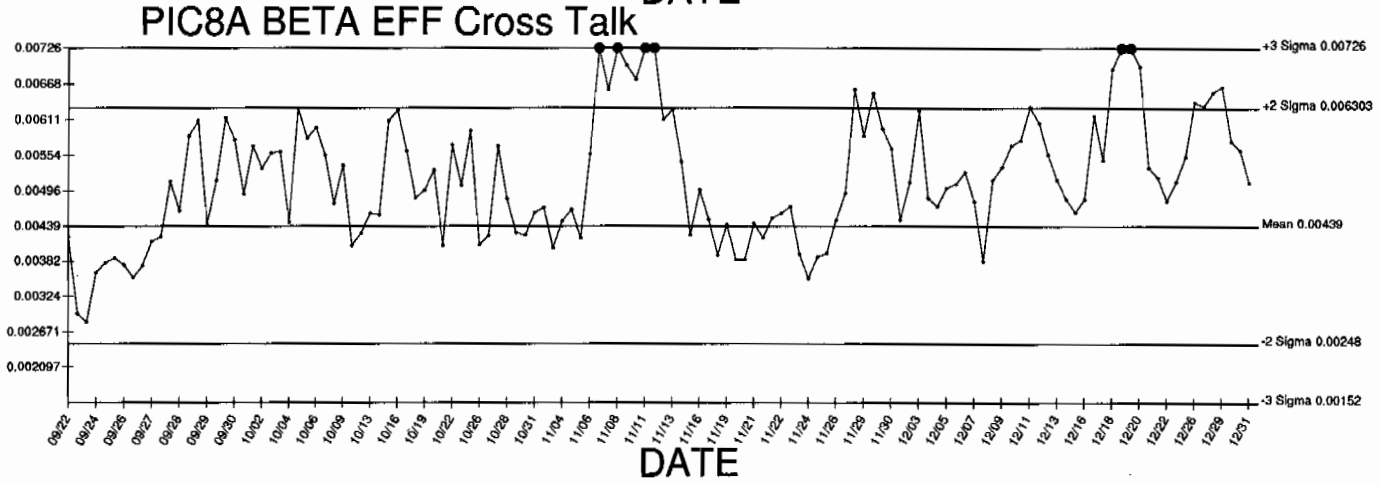

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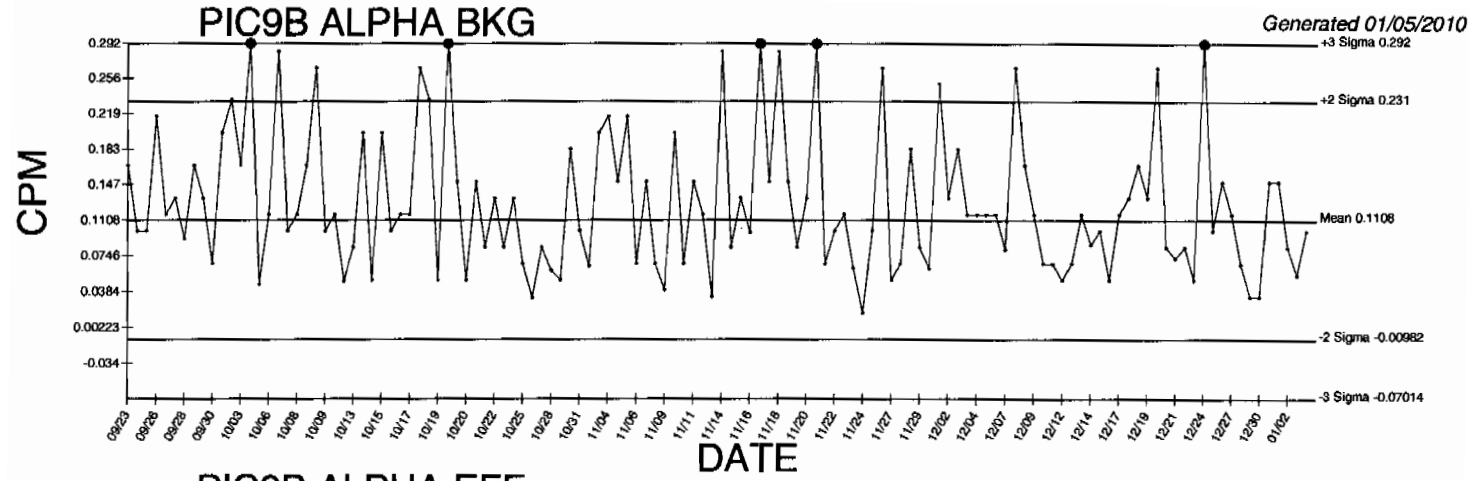
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Generated 01/05/2010
CPM
DATE
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-3 Sigma -0.07014

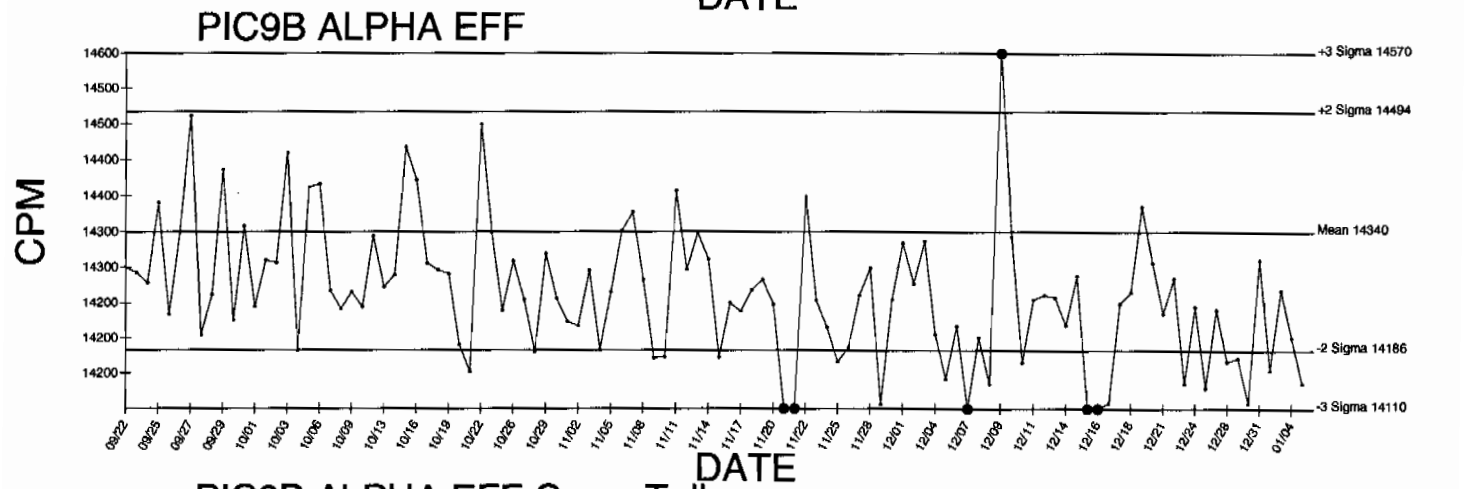
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CPM
DATE
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Mean 14340
-2 Sigma 14186
-3 Sigma 14110

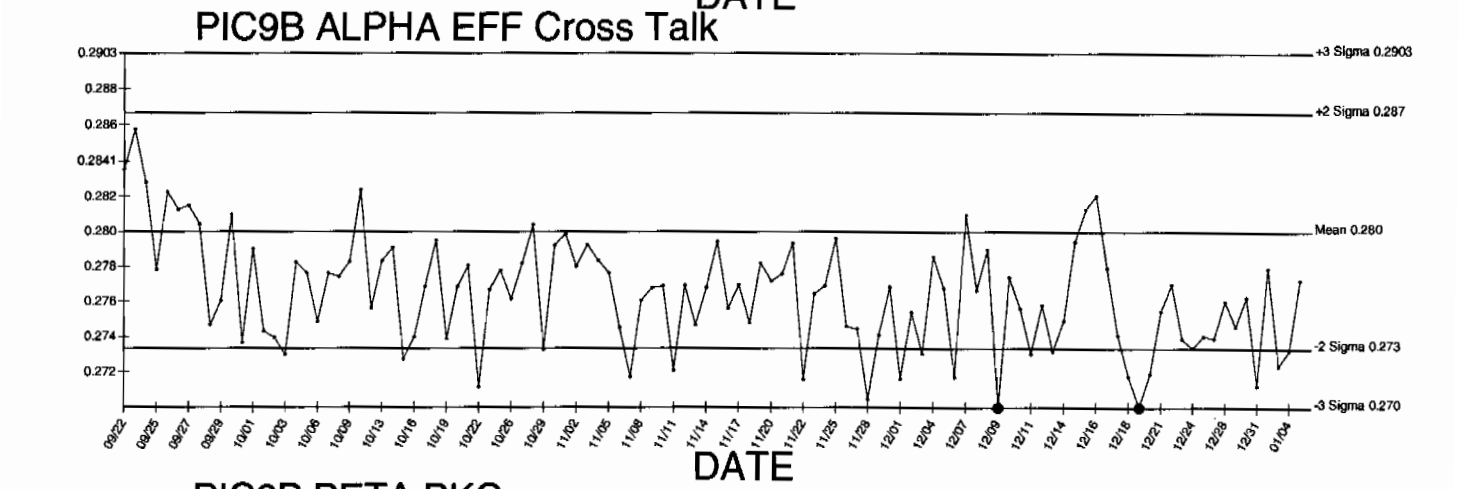
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+2 Sigma 0.287
Mean 0.280
-2 Sigma 0.273
-3 Sigma 0.270

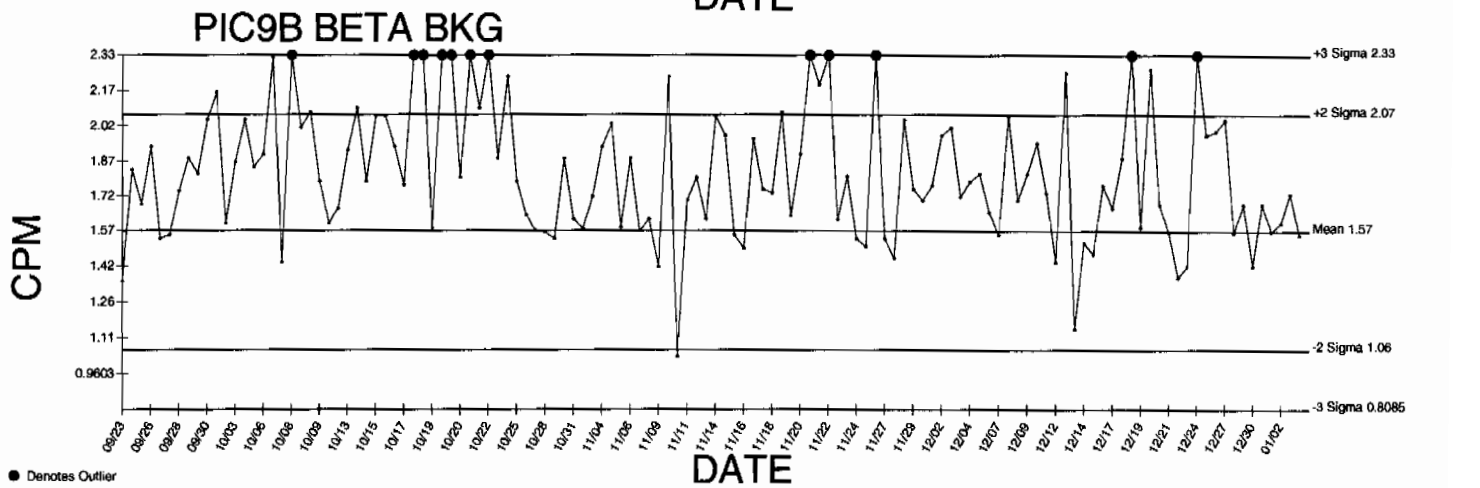
PIC9B BETA BKG
CPM
DATE
+3 Sigma 2.33
+2 Sigma 2.07
Mean 1.57
-2 Sigma 1.06
-3 Sigma 0.8085
● Denotes Outlier

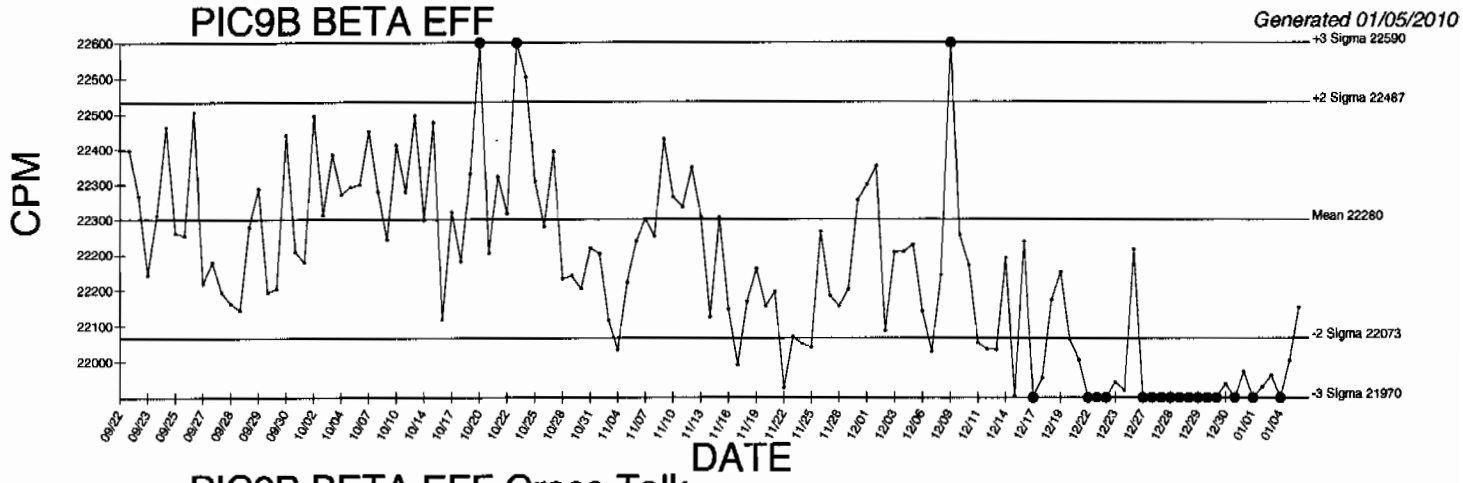

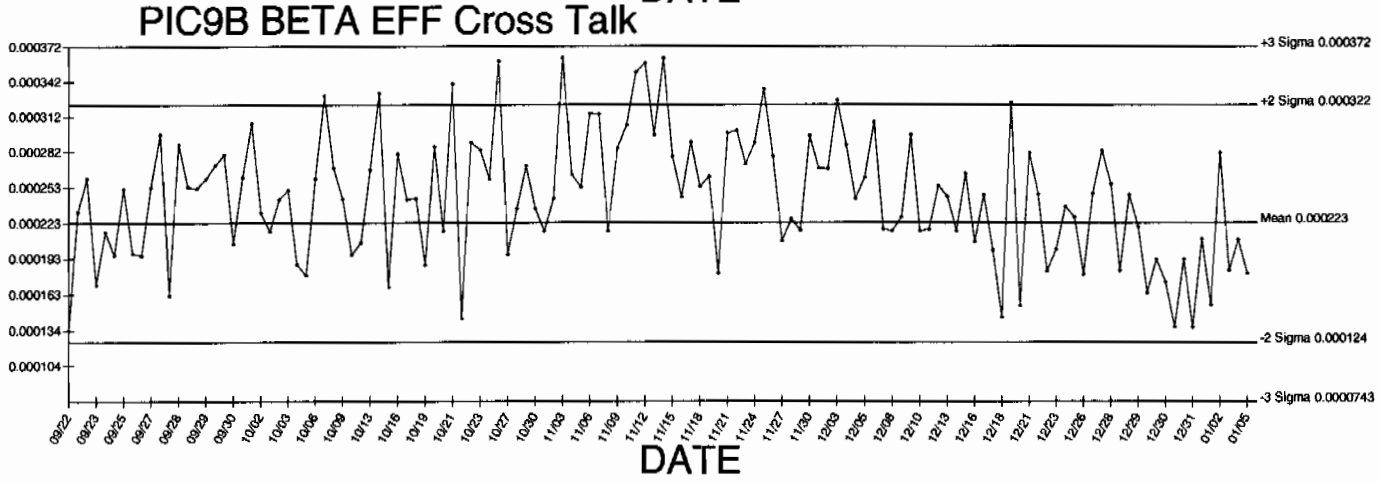

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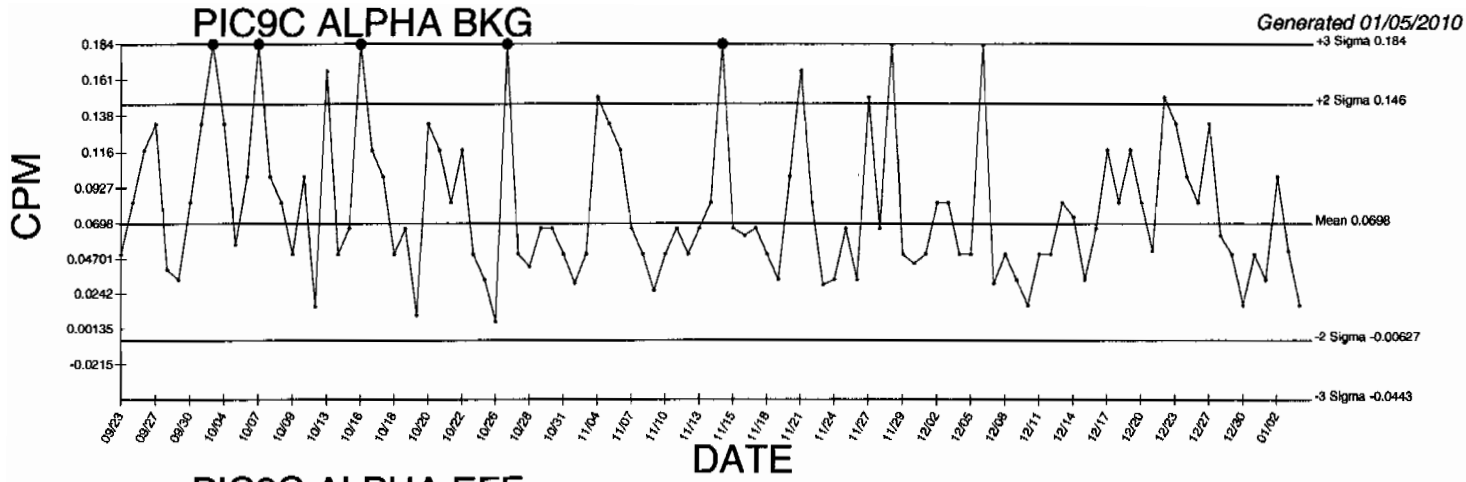
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Generated 01/05/2010
CPM
DATE
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Mean 0.0698
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-3 Sigma -0.0443

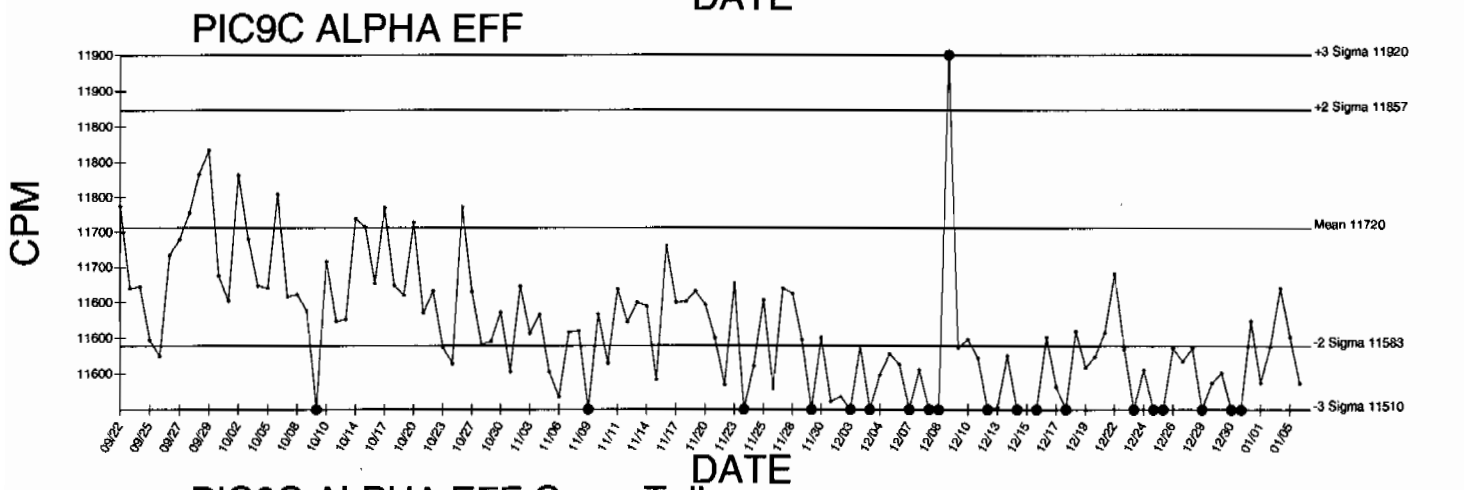
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CPM
DATE
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Mean 11720
-2 Sigma 11583
-3 Sigma 11510

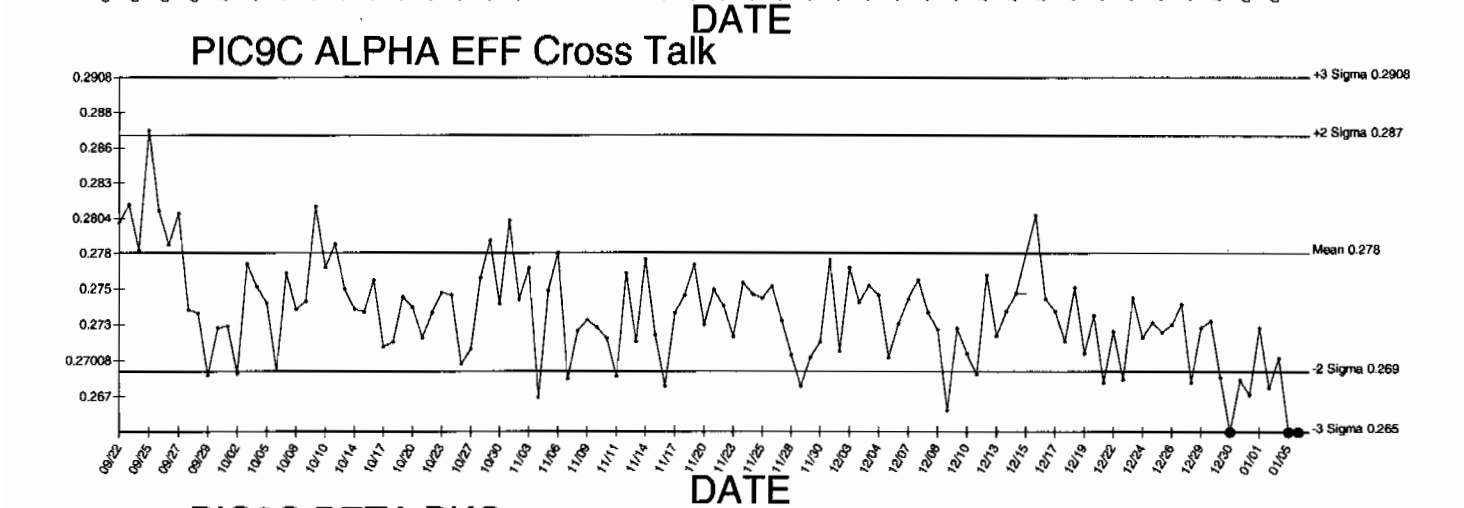
PIC9C ALPHA EFF Cross Talk
DATE
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Mean 0.278
-2 Sigma 0.269
-3 Sigma 0.265

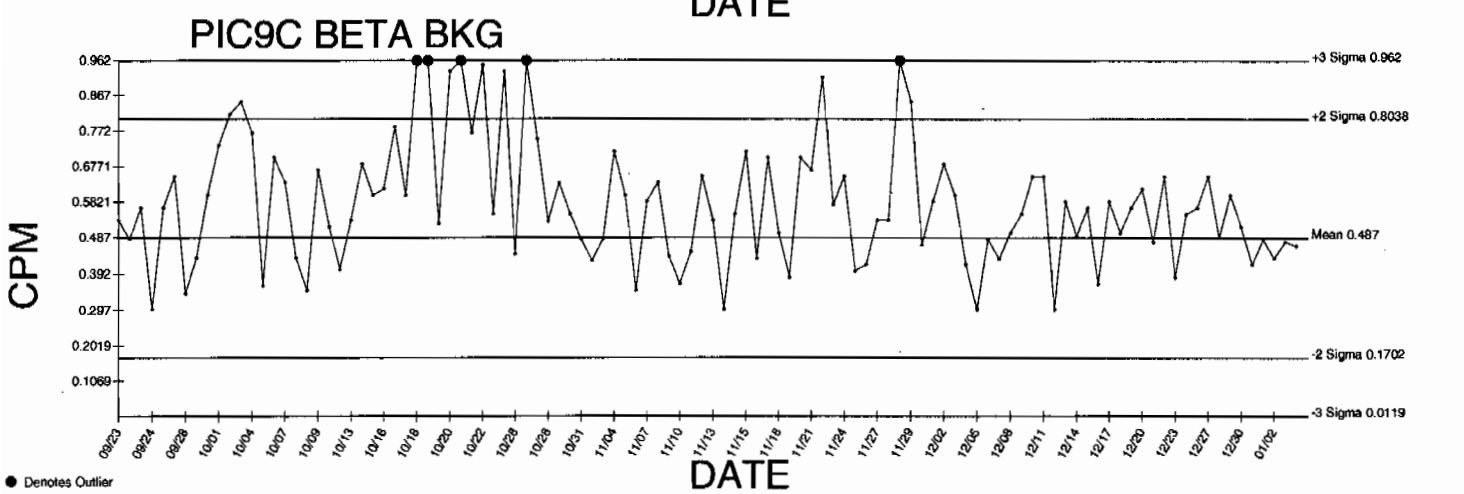
PIC9C BETA BKG
CPM
DATE
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+2 Sigma 0.8038
Mean 0.487
-2 Sigma 0.1702
-3 Sigma 0.0119
● Denotes Outlier

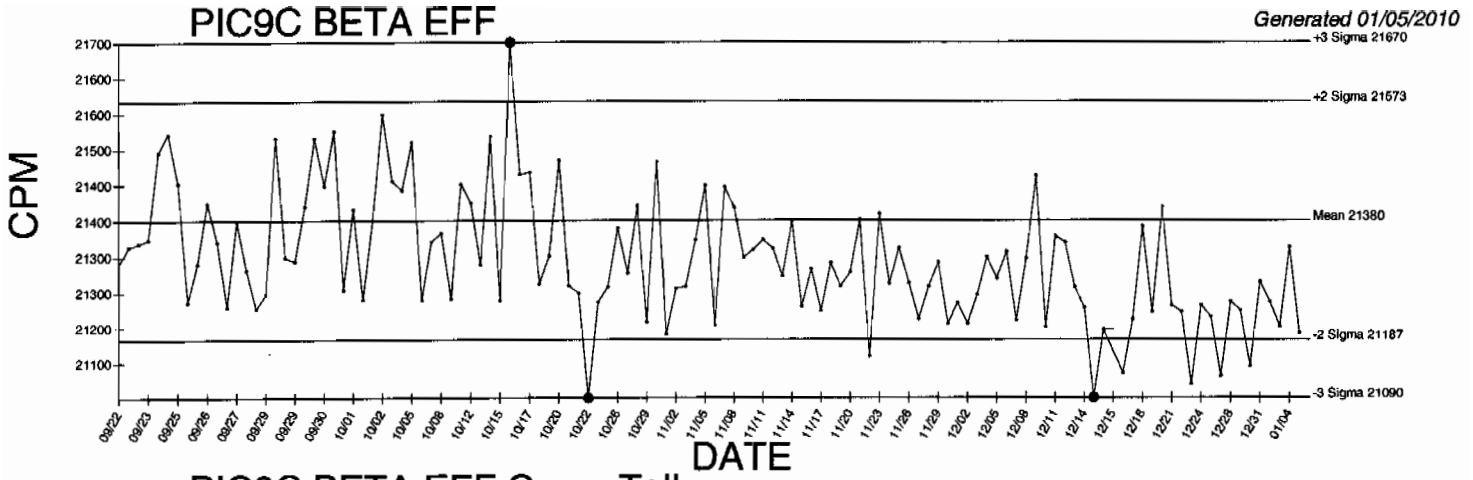

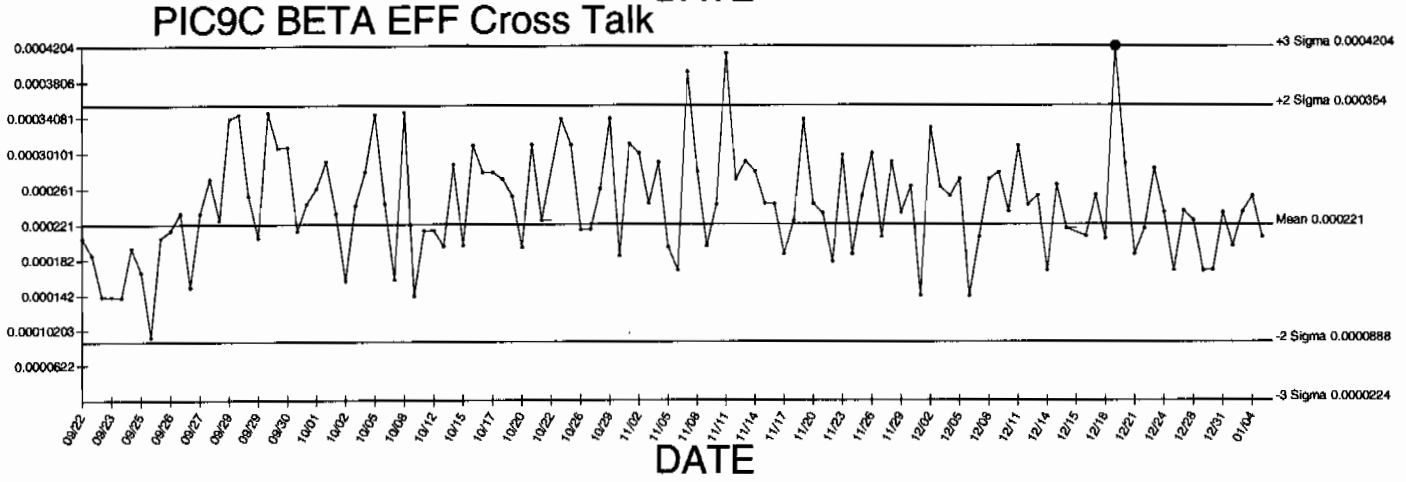

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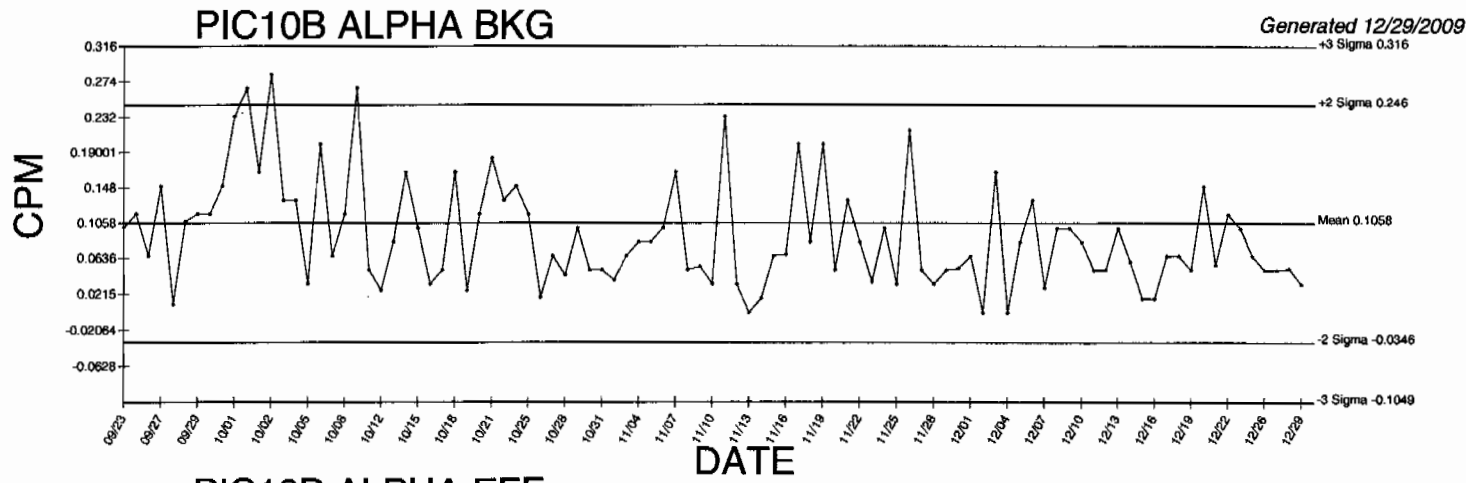

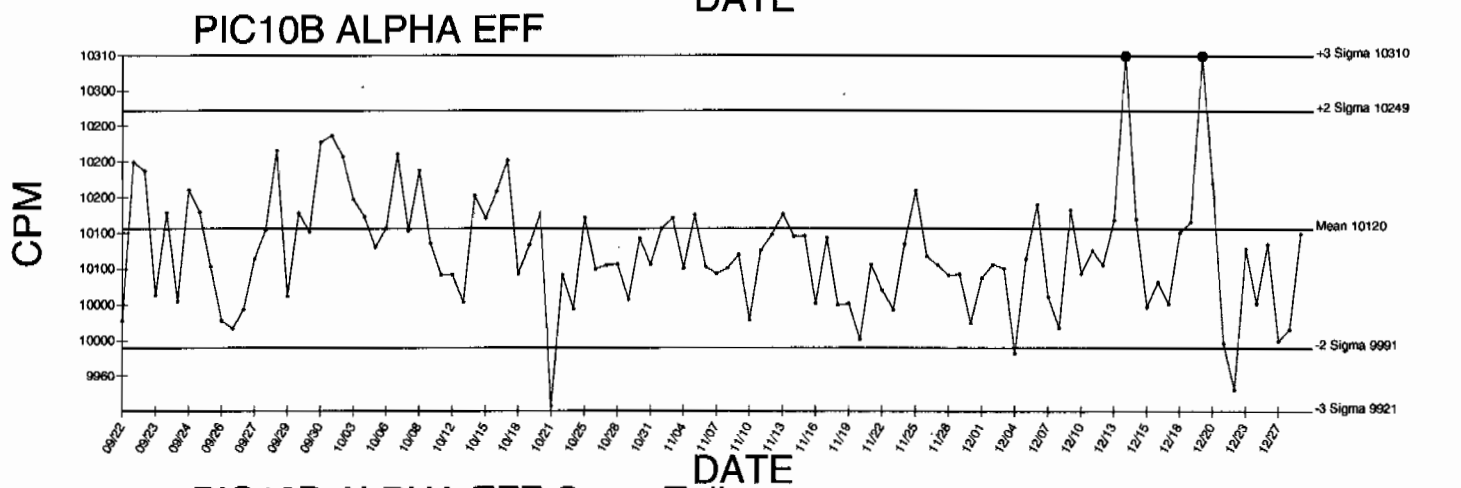

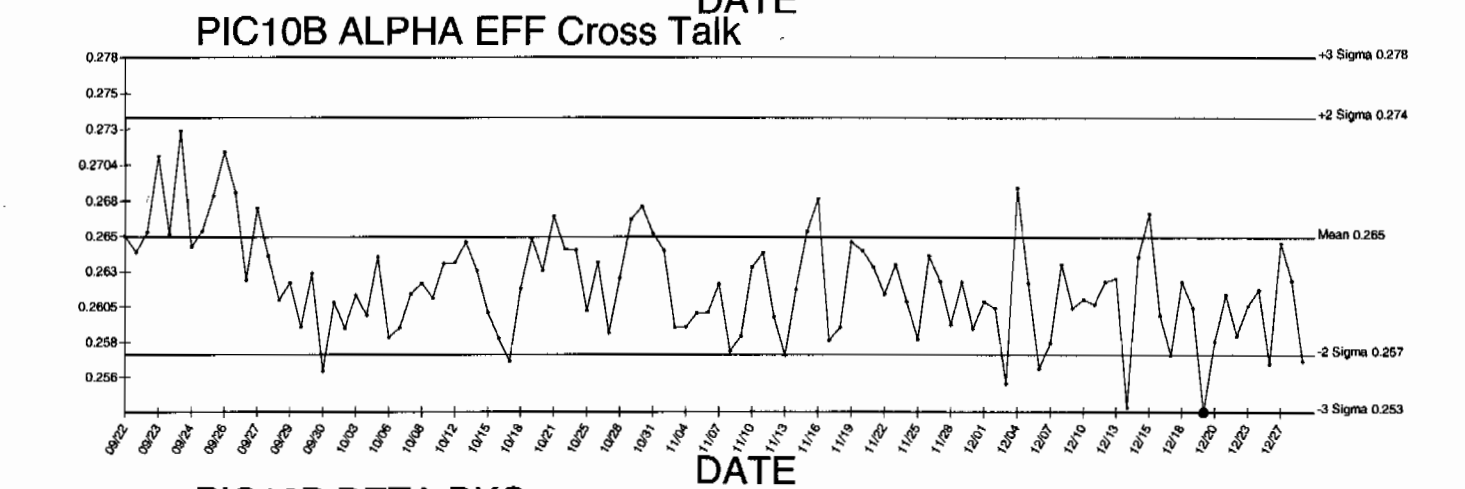

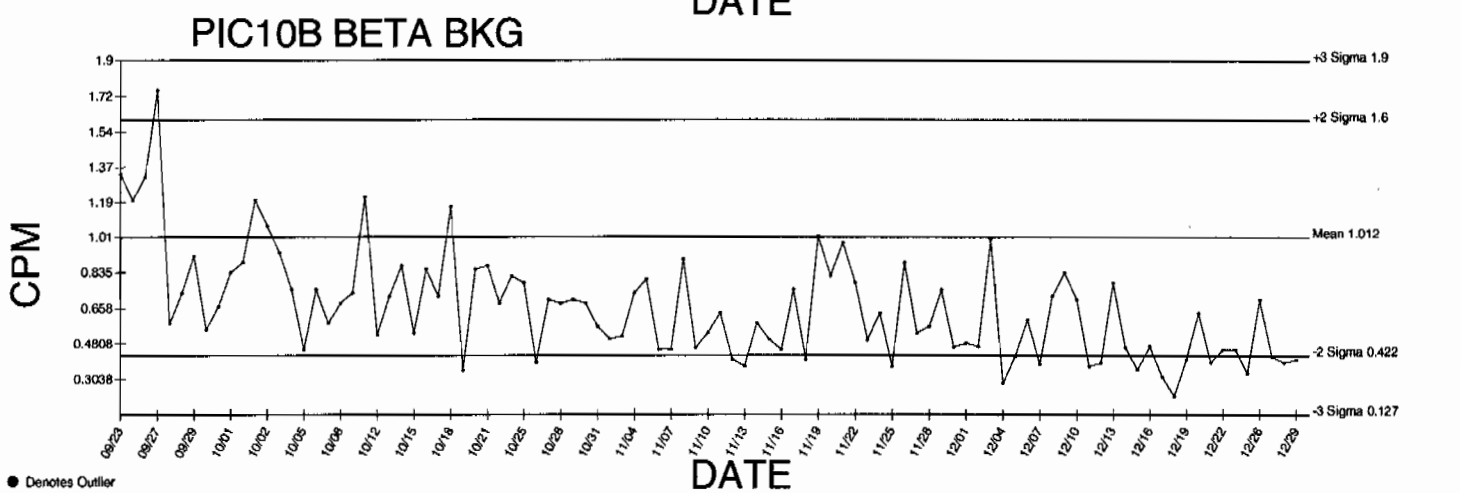

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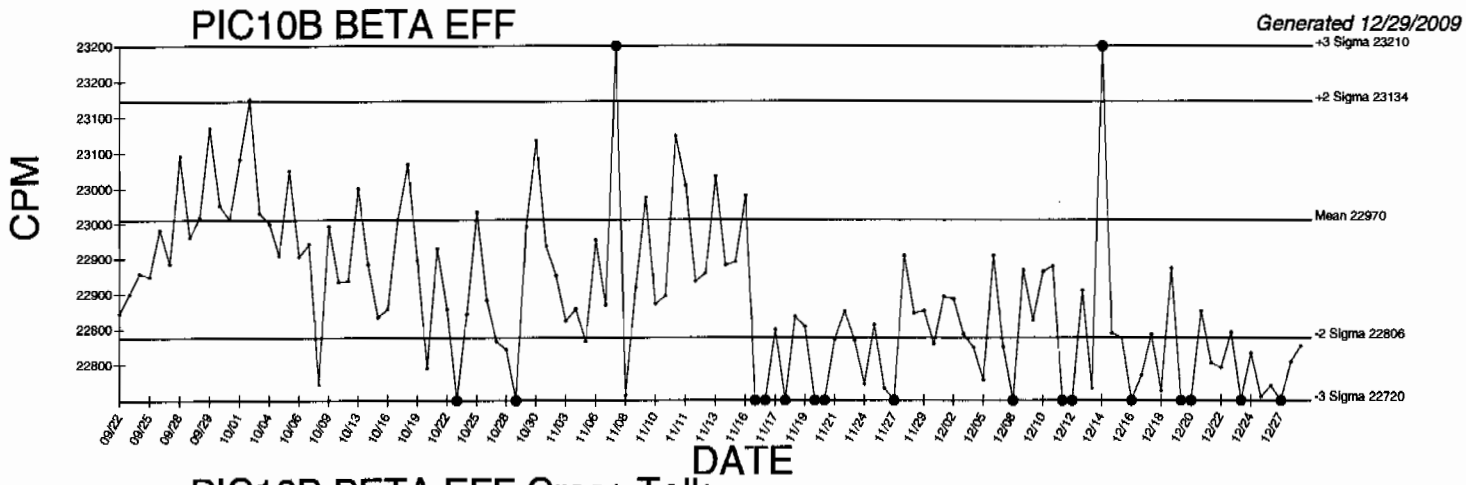

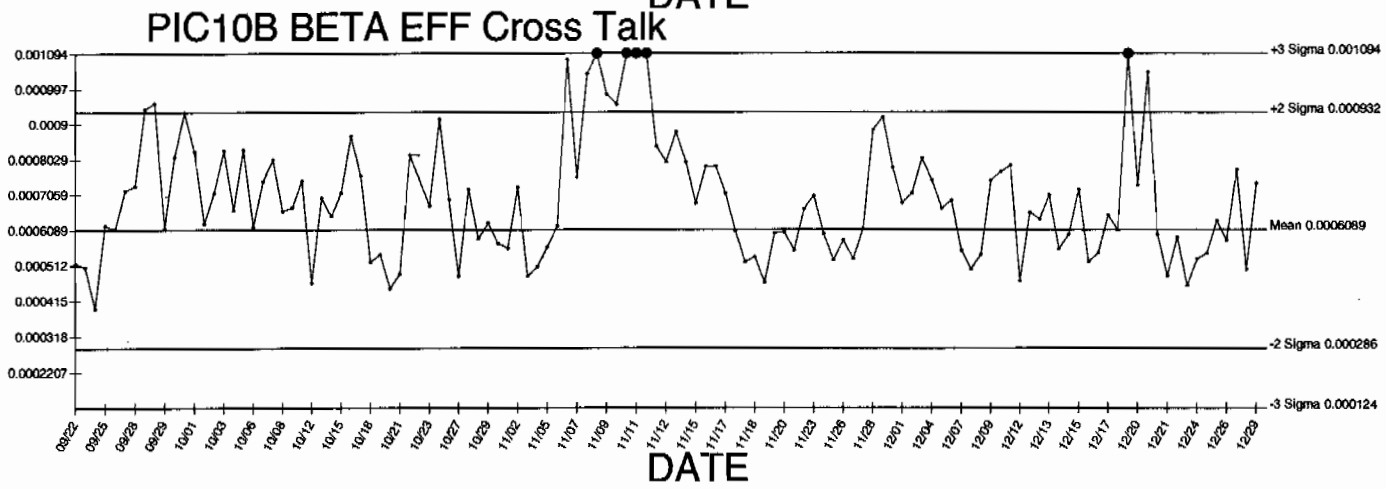

● Denotes Outlier

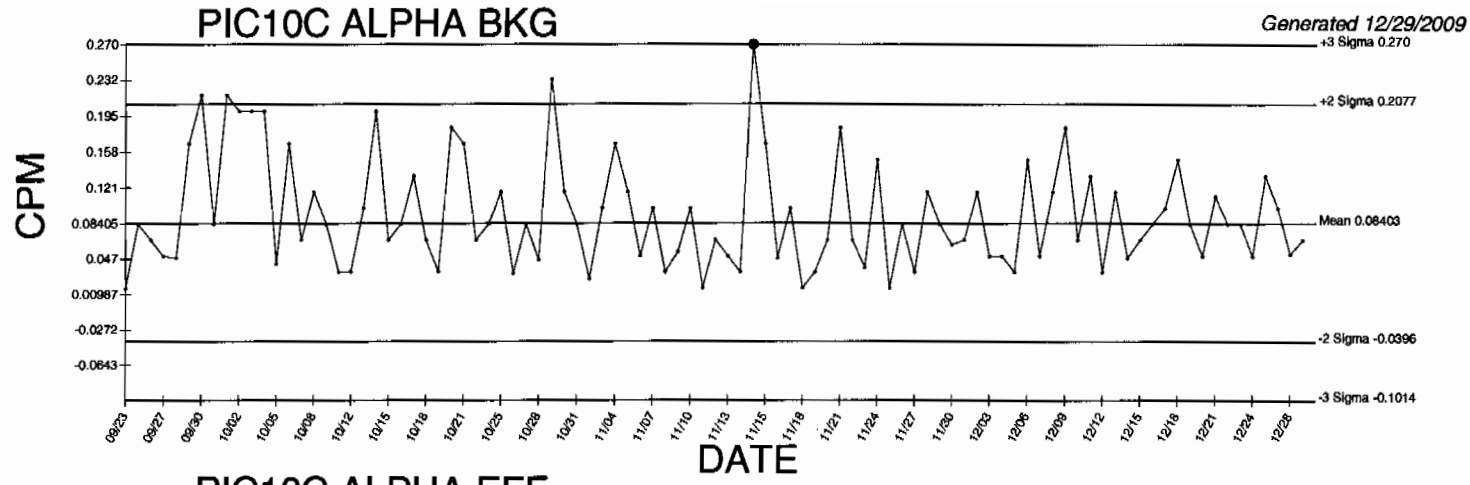
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Generated 12/29/2009
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DATE
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+2 Sigma 0.2077
Mean 0.08403
-2 Sigma -0.0396
-3 Sigma -0.1014

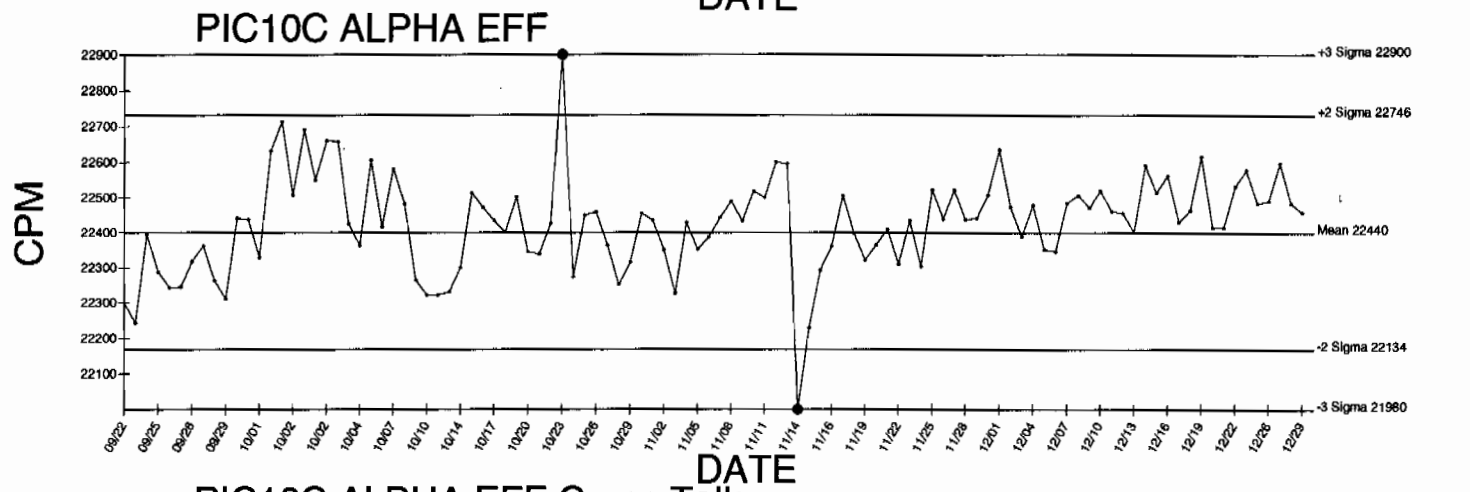
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CPM
DATE
+3 Sigma 22900
+2 Sigma 22746
Mean 22440
-2 Sigma 22134
-3 Sigma 21980

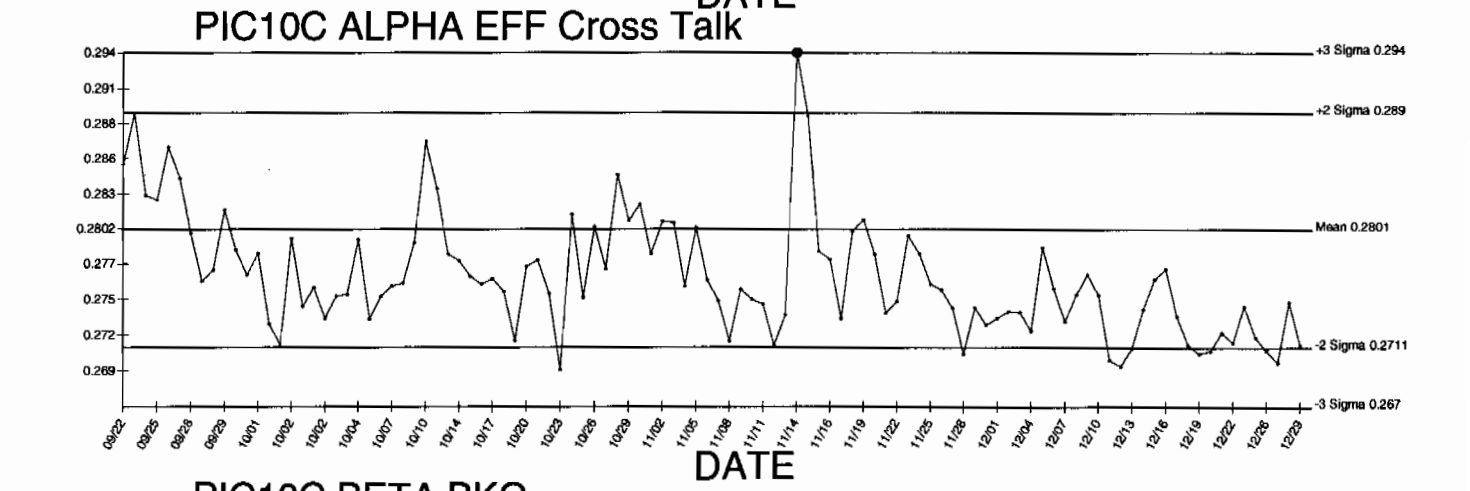
PIC10C ALPHA EFF Cross Talk
DATE
+3 Sigma 0.294
+2 Sigma 0.289
Mean 0.2801
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-3 Sigma 0.267

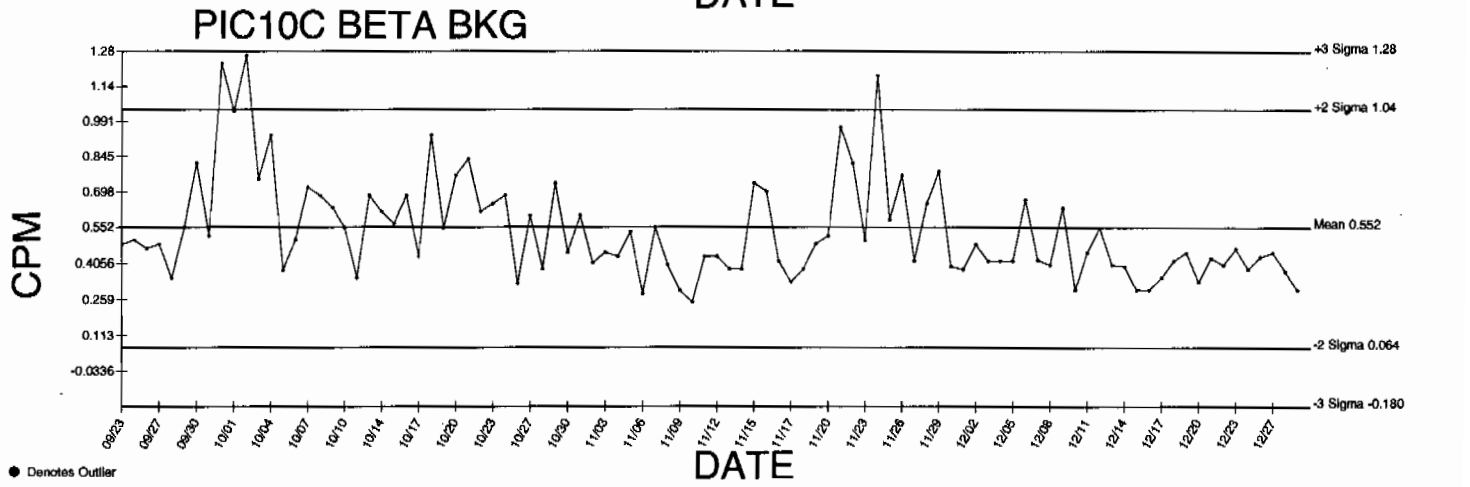
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Mean 0.552
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● Denotes Outlier

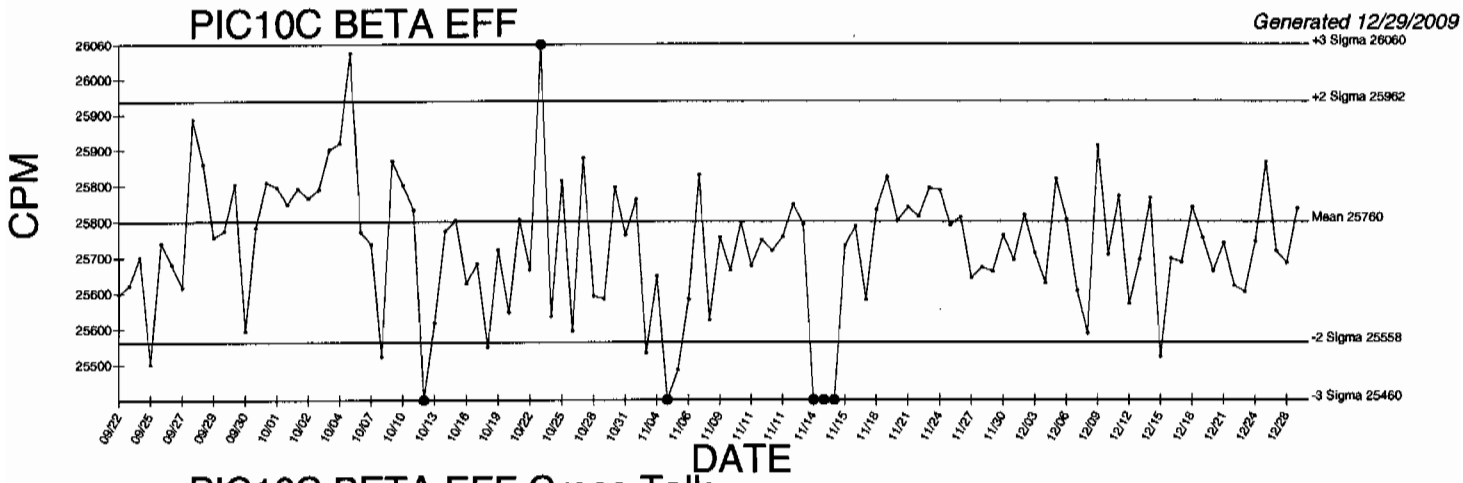

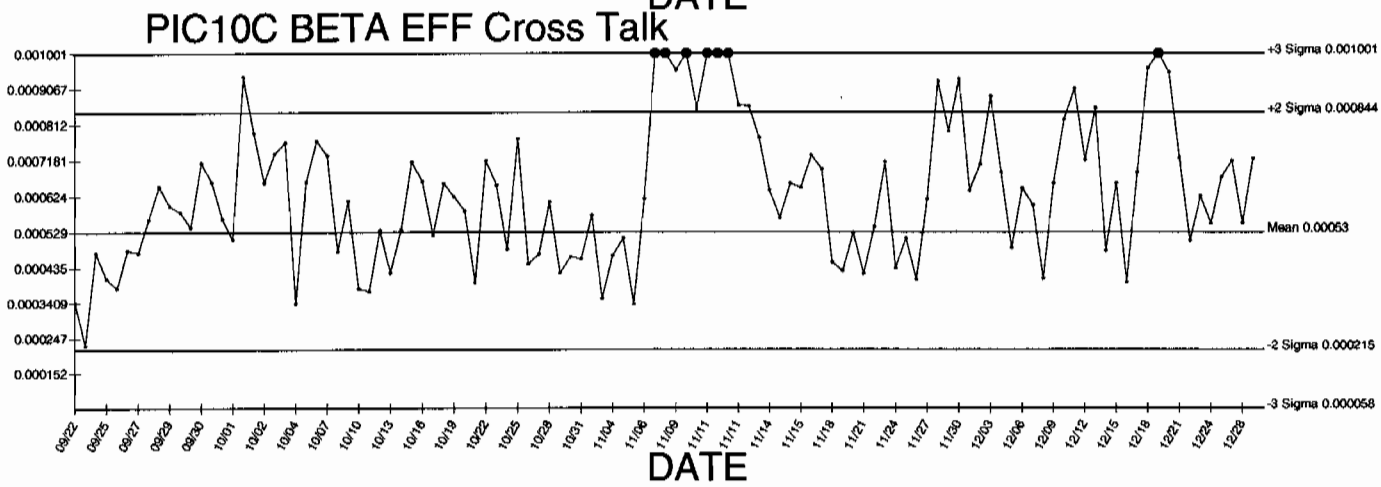

● Denotes Outlier

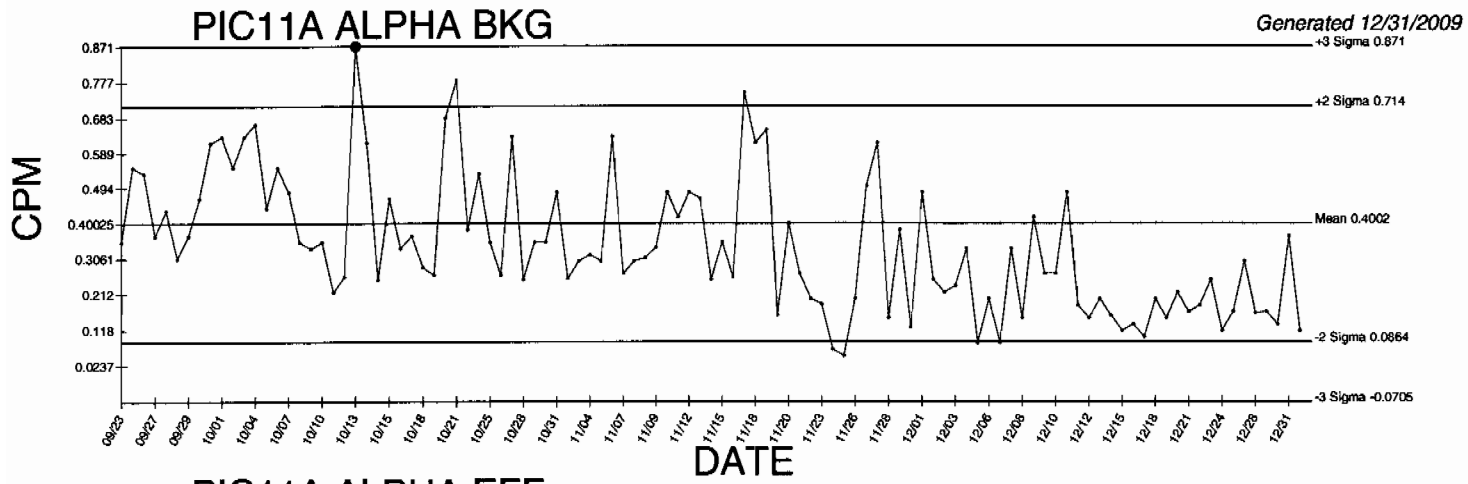
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Generated 12/31/2009
CPM
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-2 Sigma 0.0864
-3 Sigma -0.0705

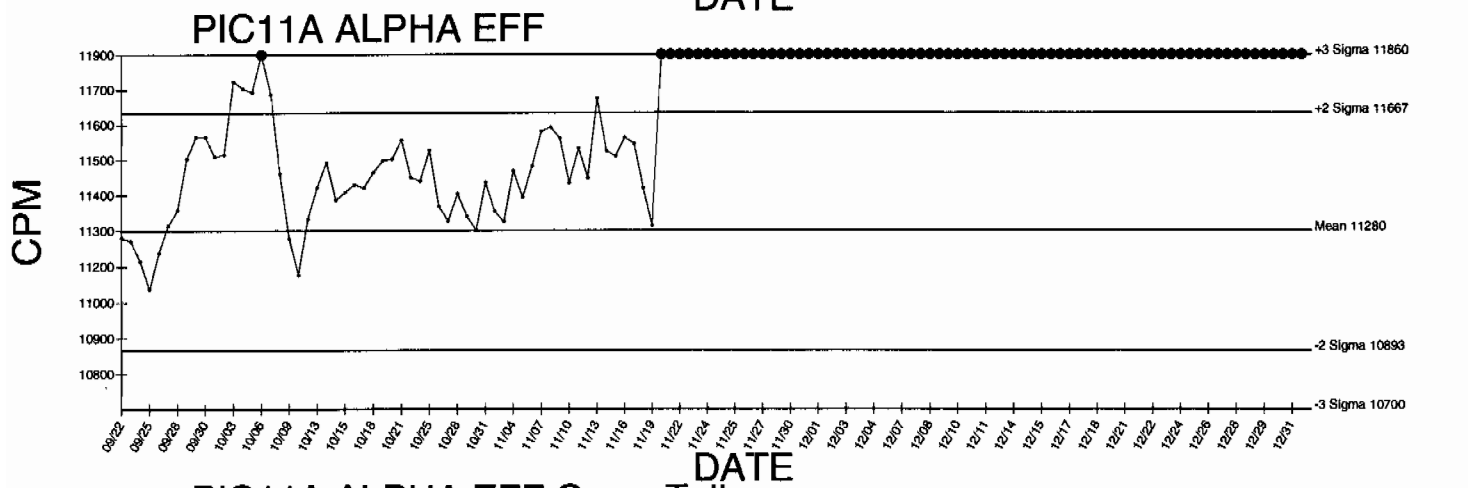
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+3 Sigma 11860
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Mean 11280
-2 Sigma 10893
-3 Sigma 10700

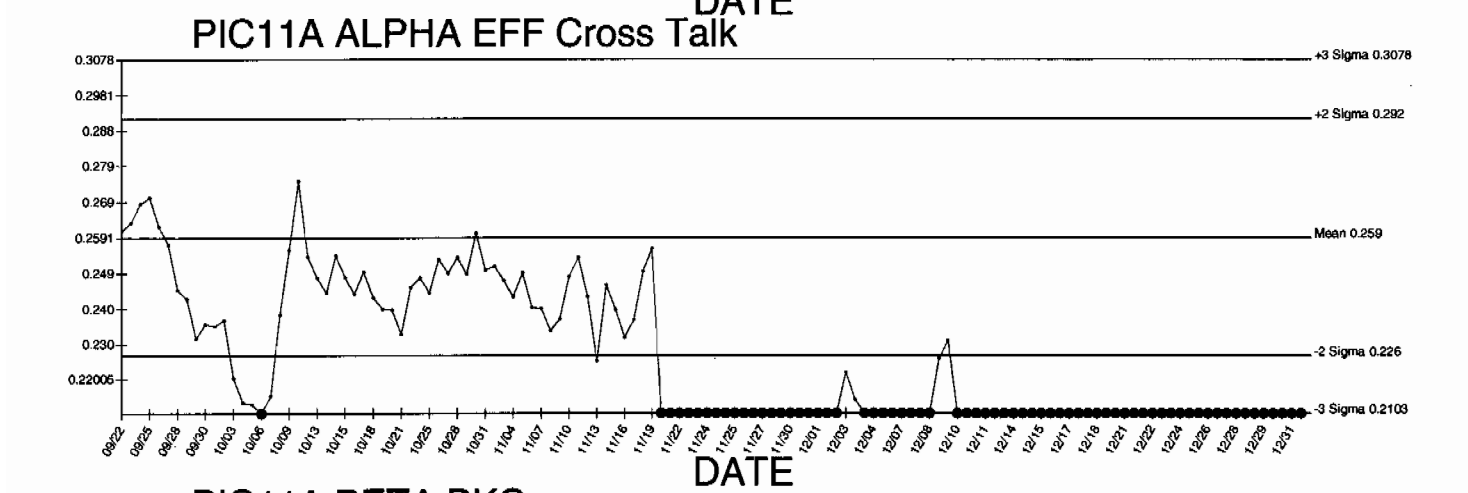
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-3 Sigma 0.2103

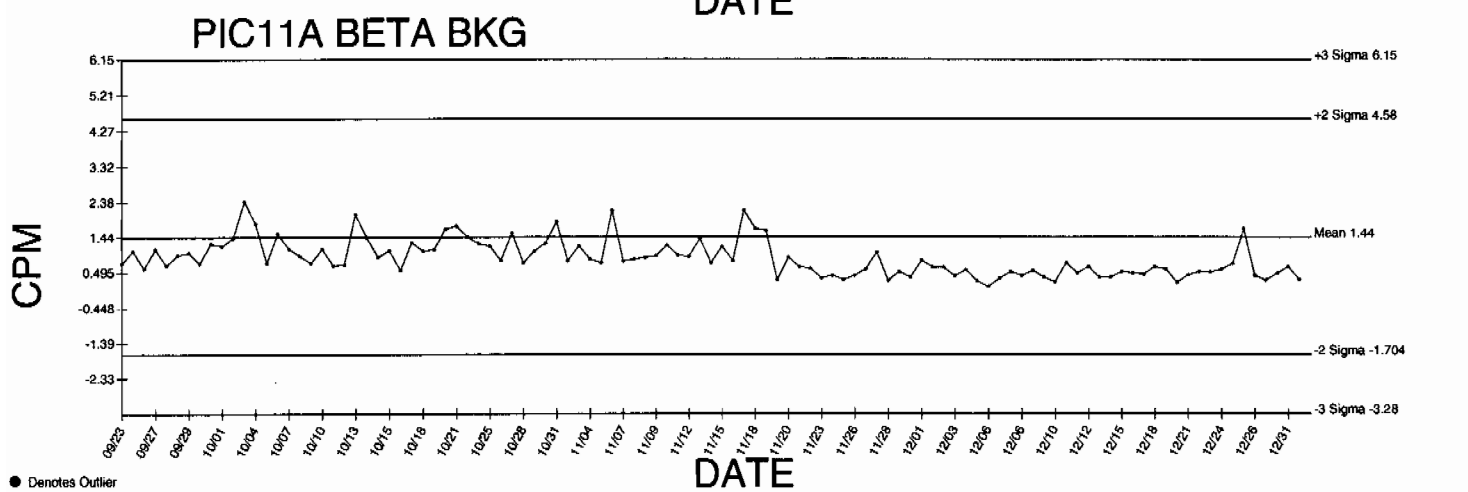
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● Denotes Outlier

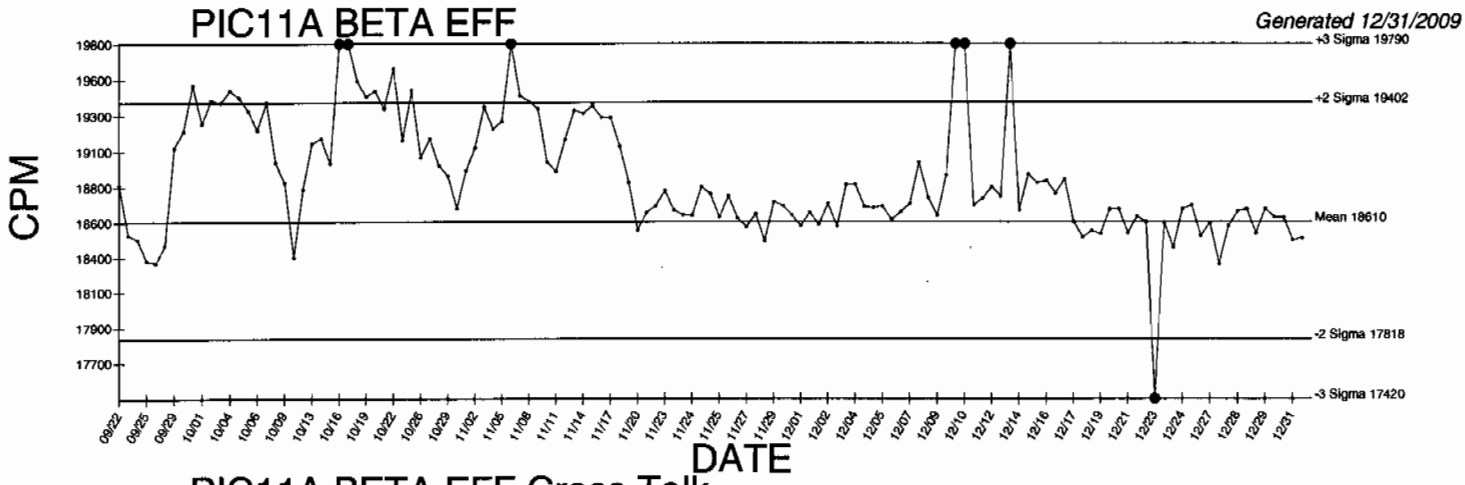

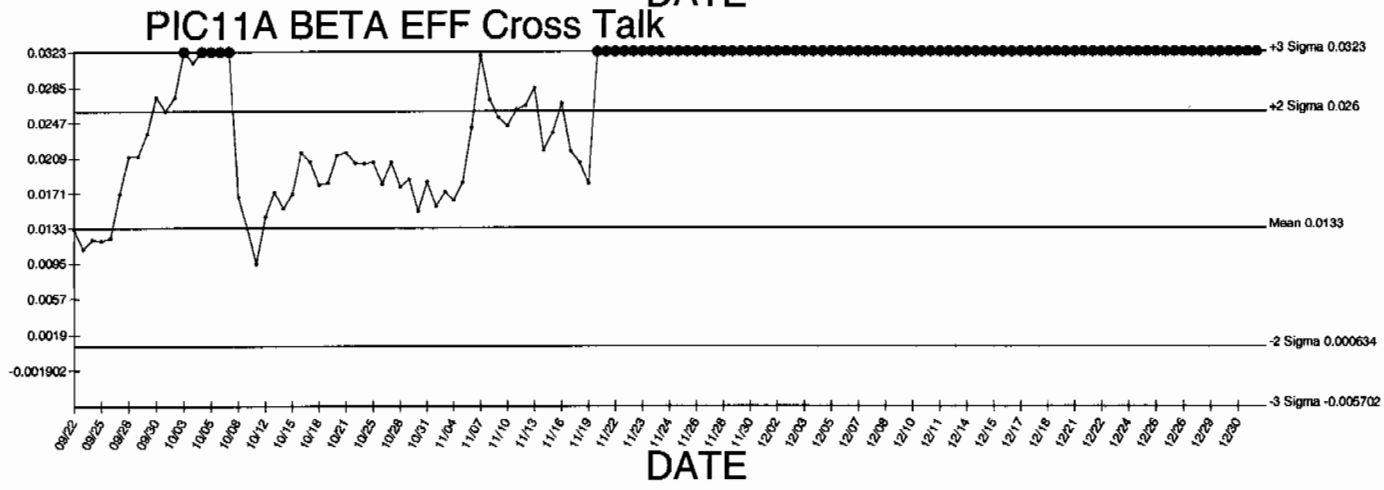

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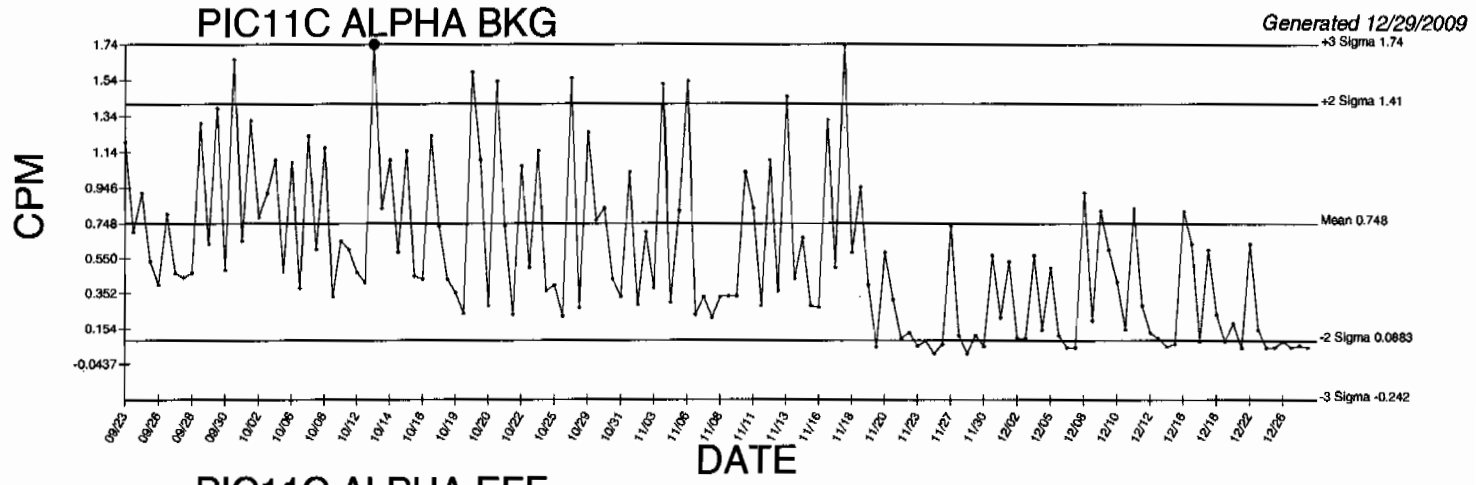
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Generated 12/29/2009
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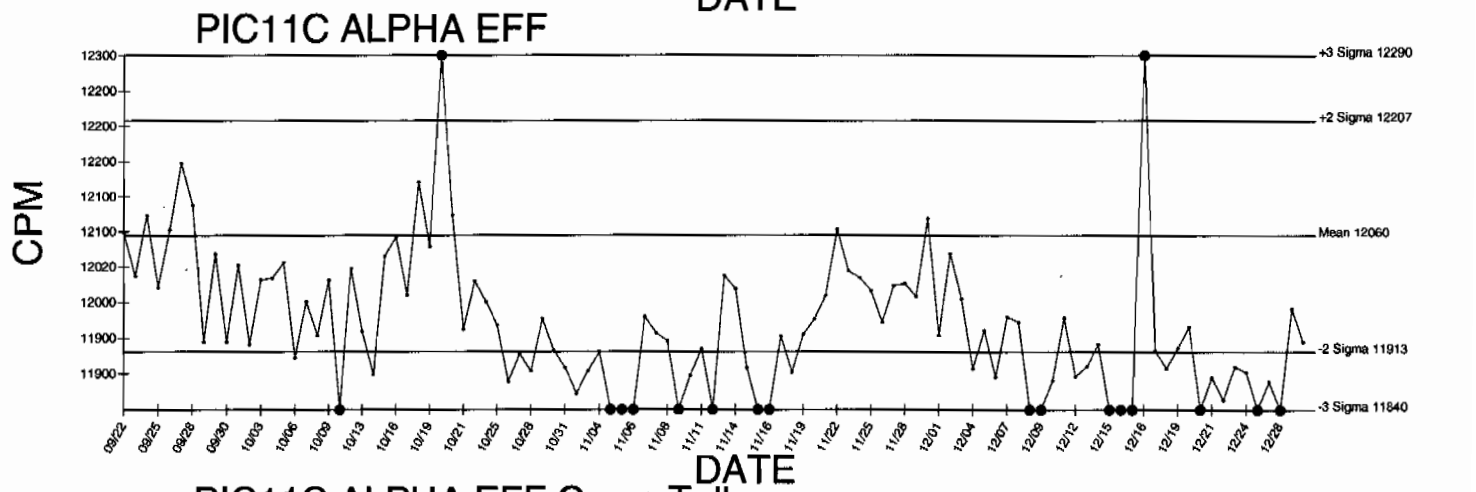
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+2 Sigma 12207
Mean 12060
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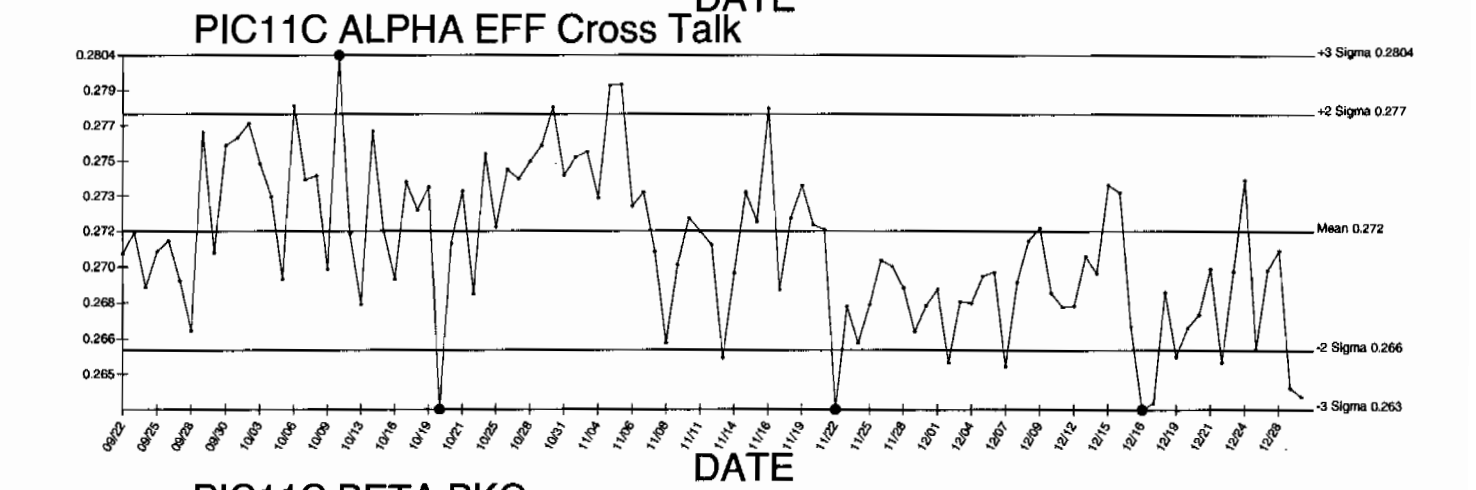
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DATE
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Mean 0.272
-2 Sigma 0.266
-3 Sigma 0.263

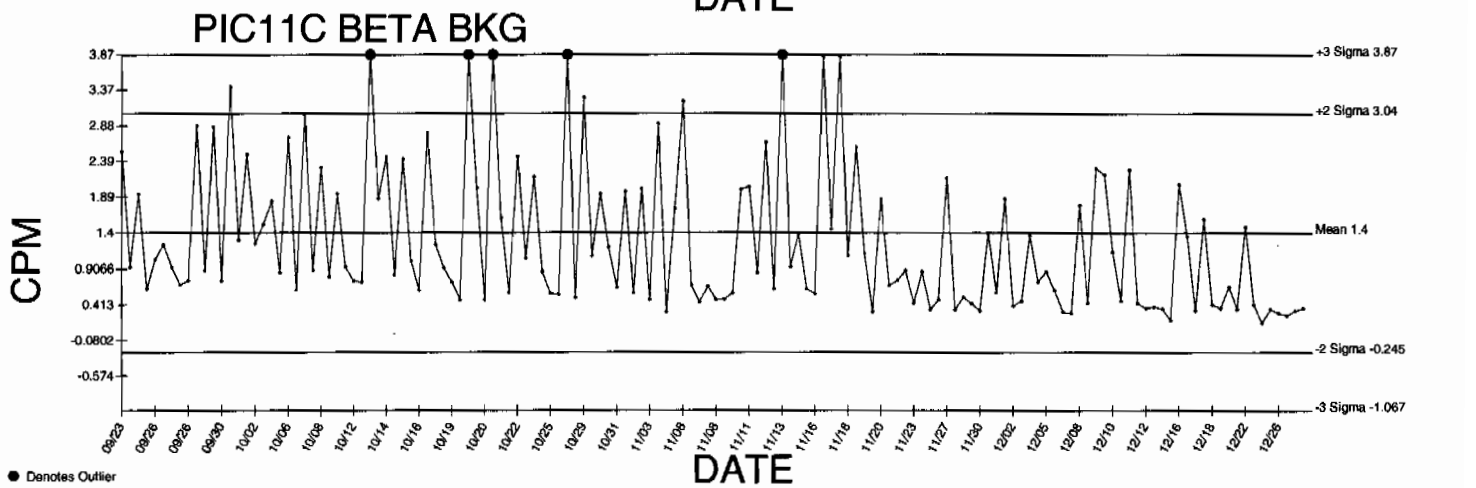
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DATE
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● Denotes Outlier

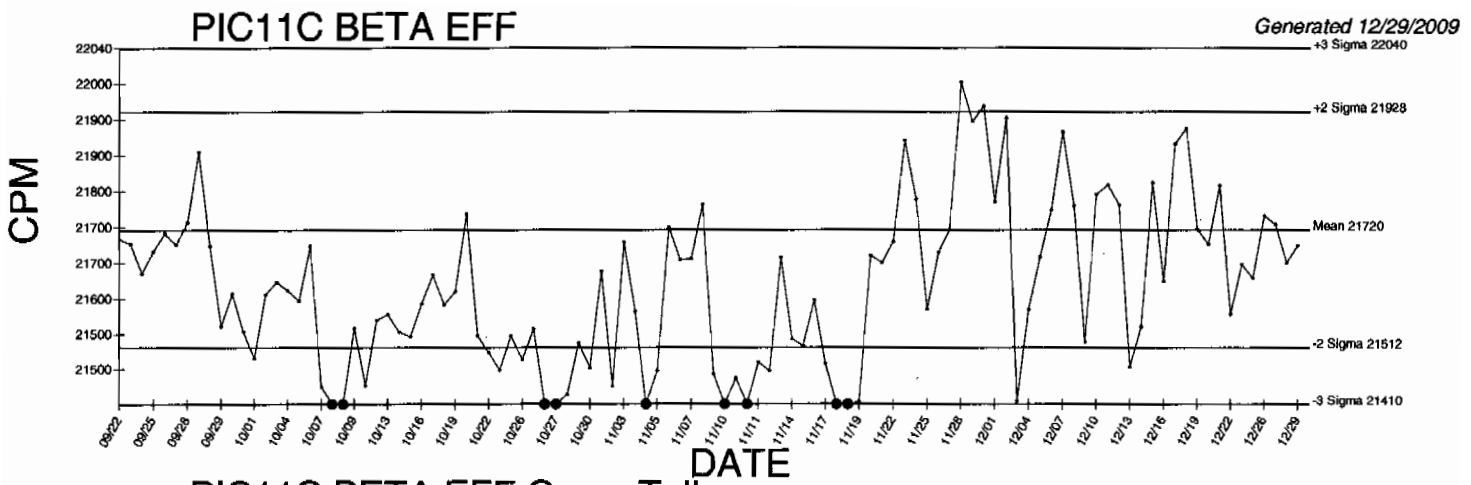

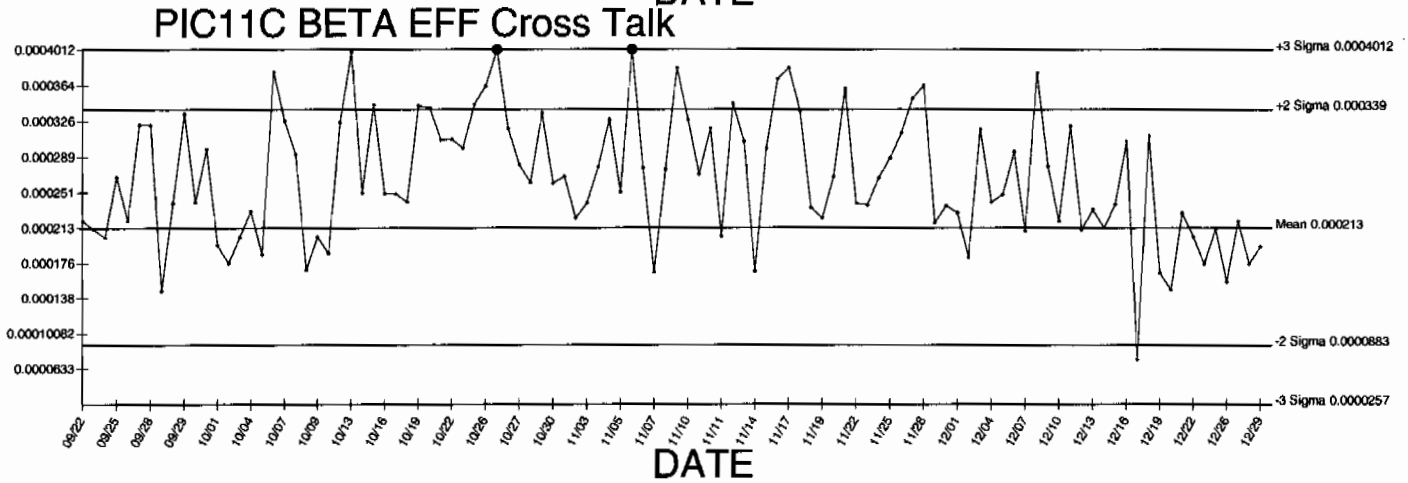

● Denotes Outlier

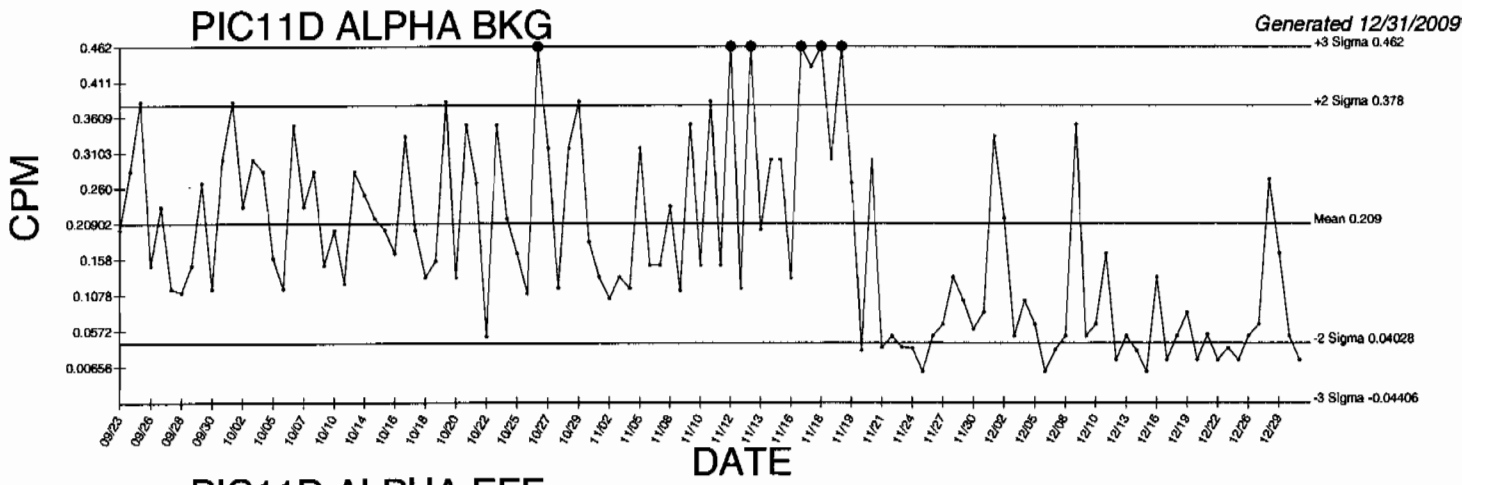

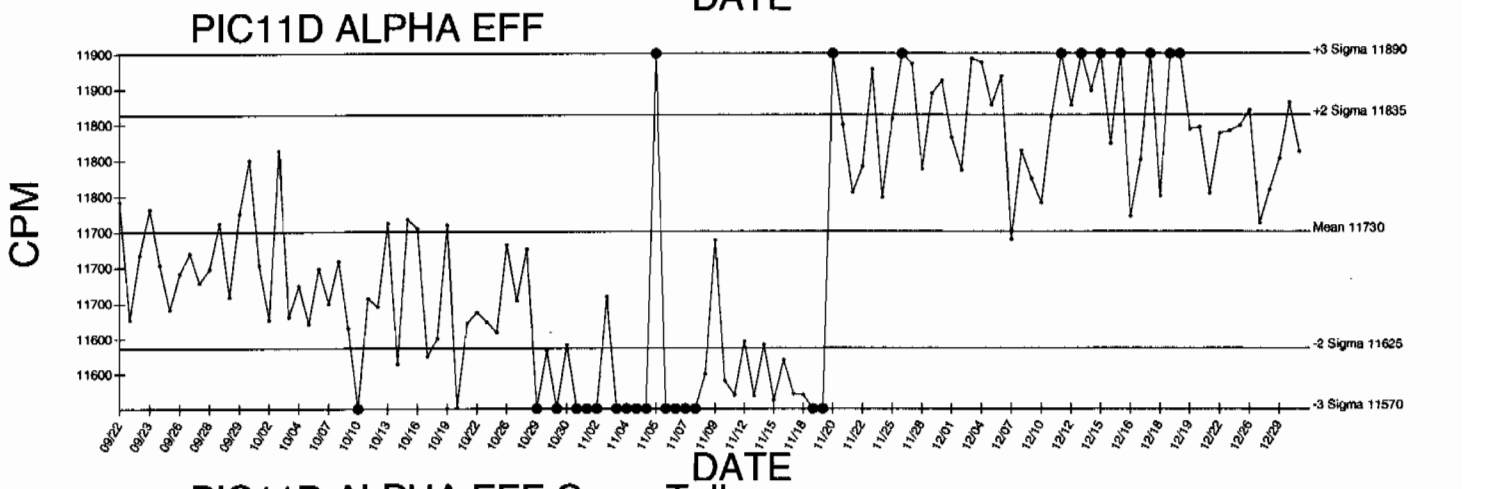

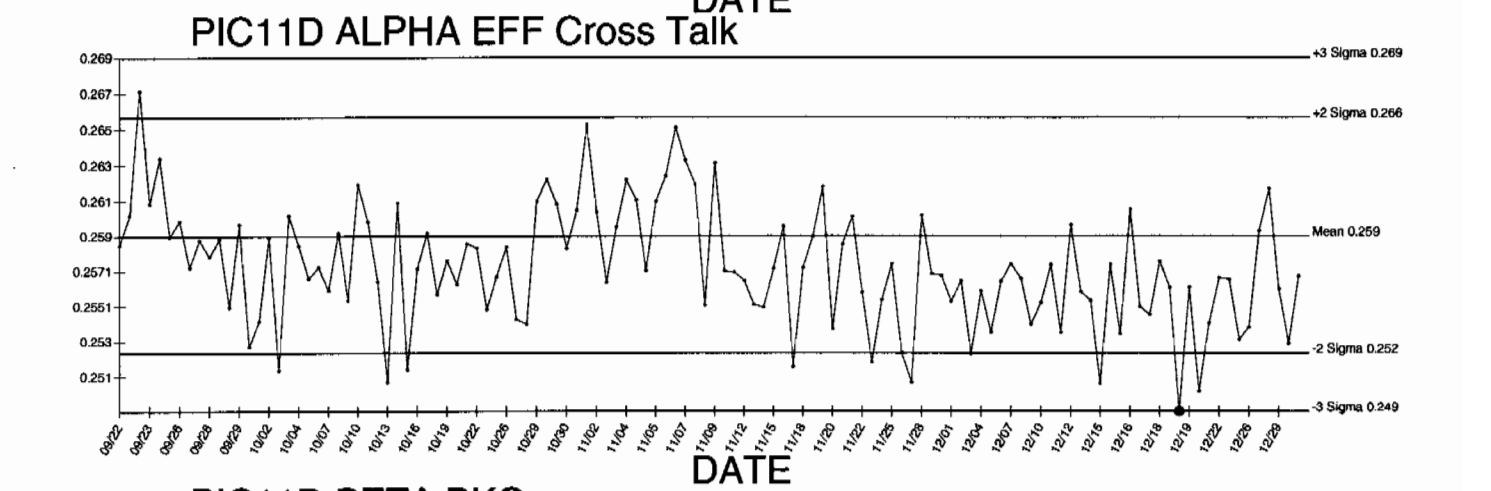

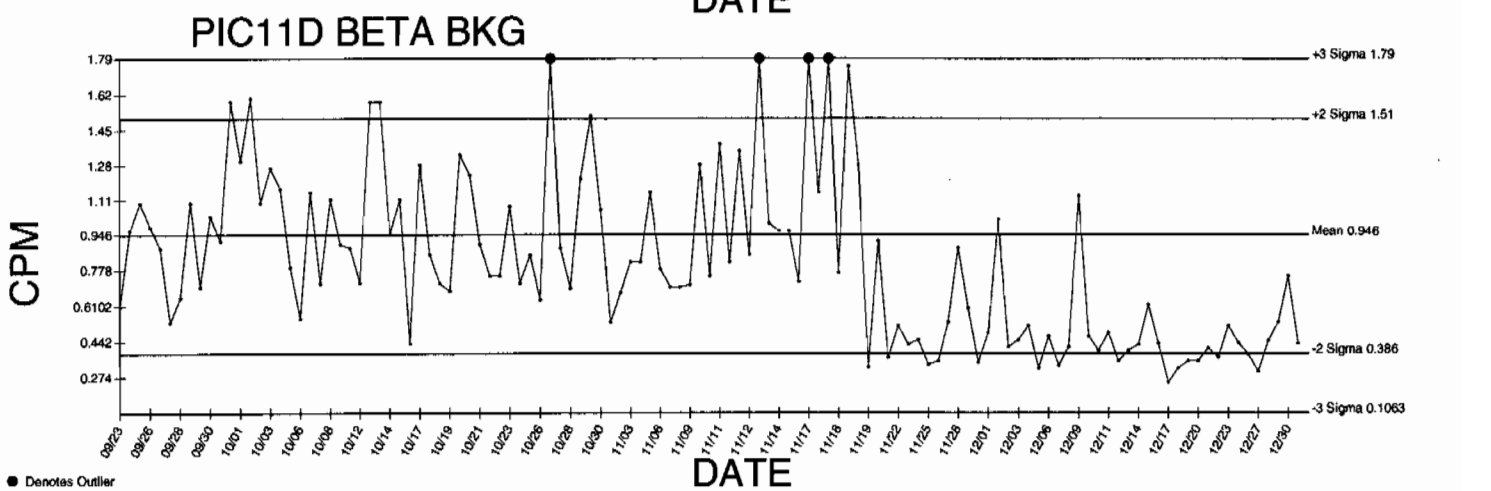

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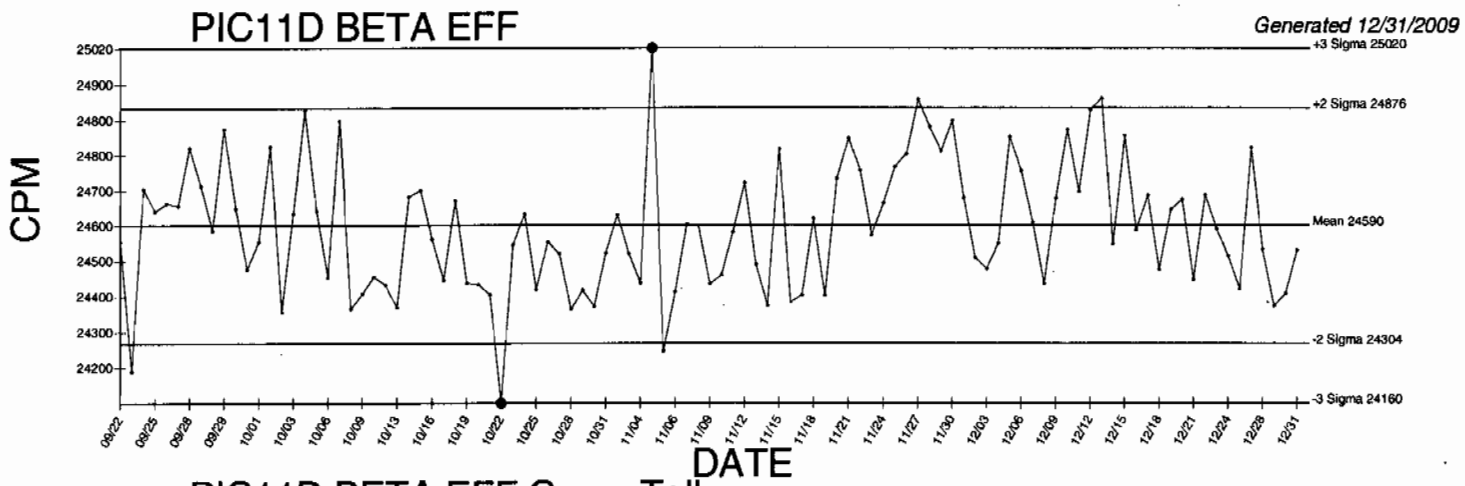

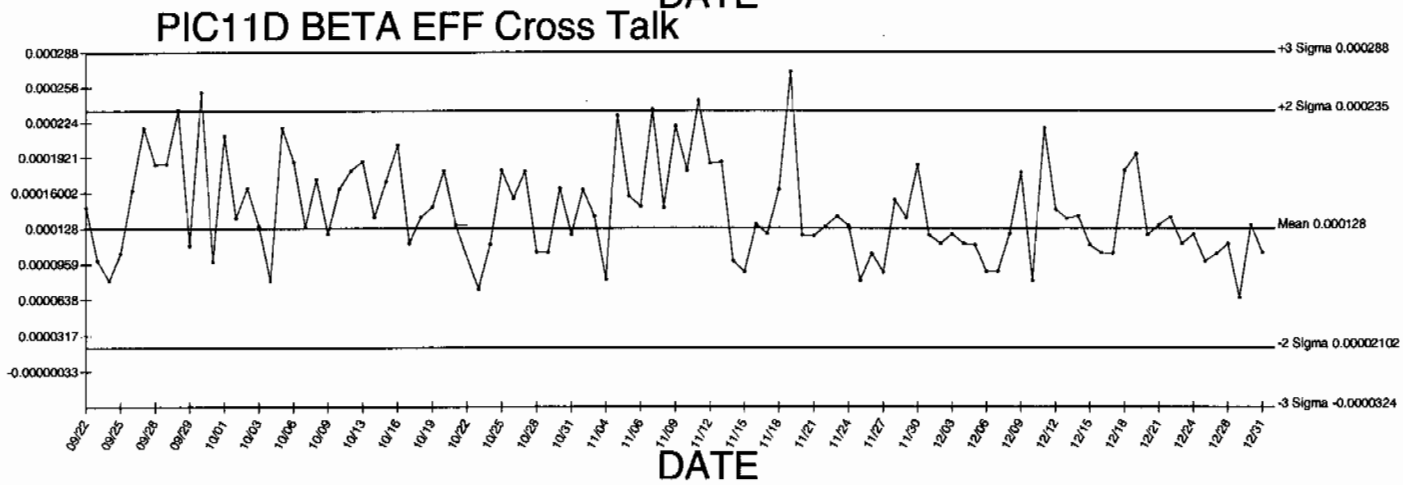

● Denotes Outlier

Generated 12/29/2009

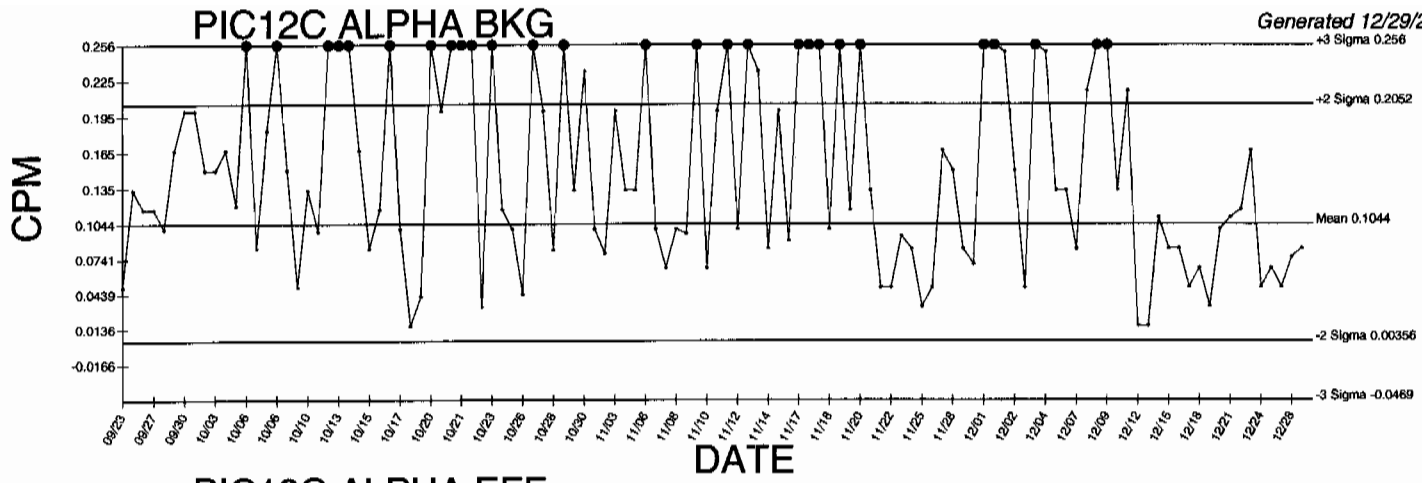

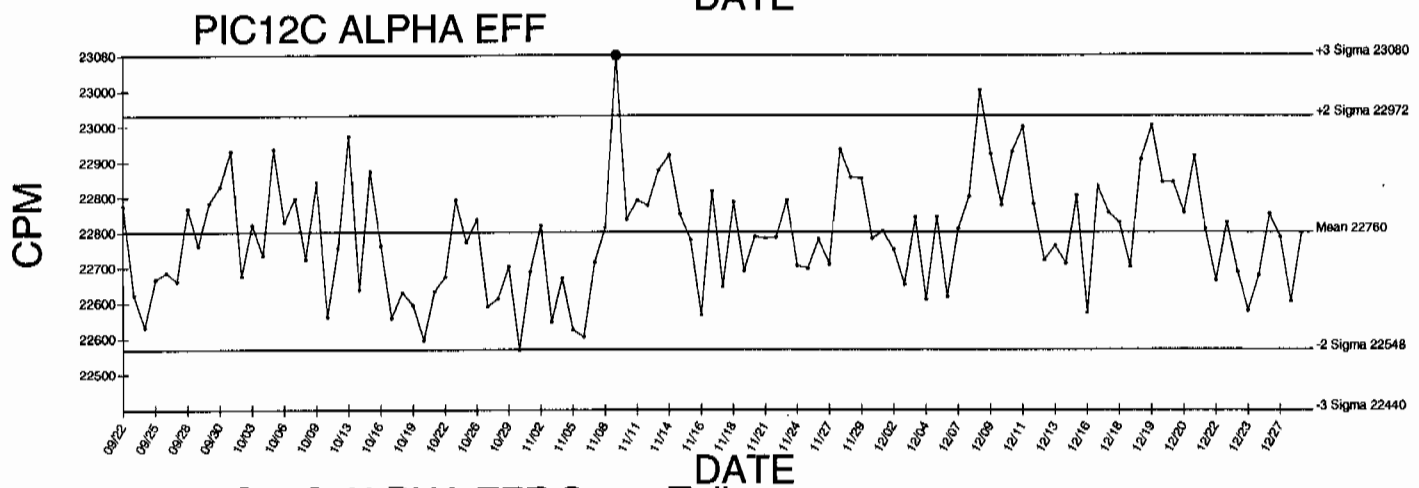

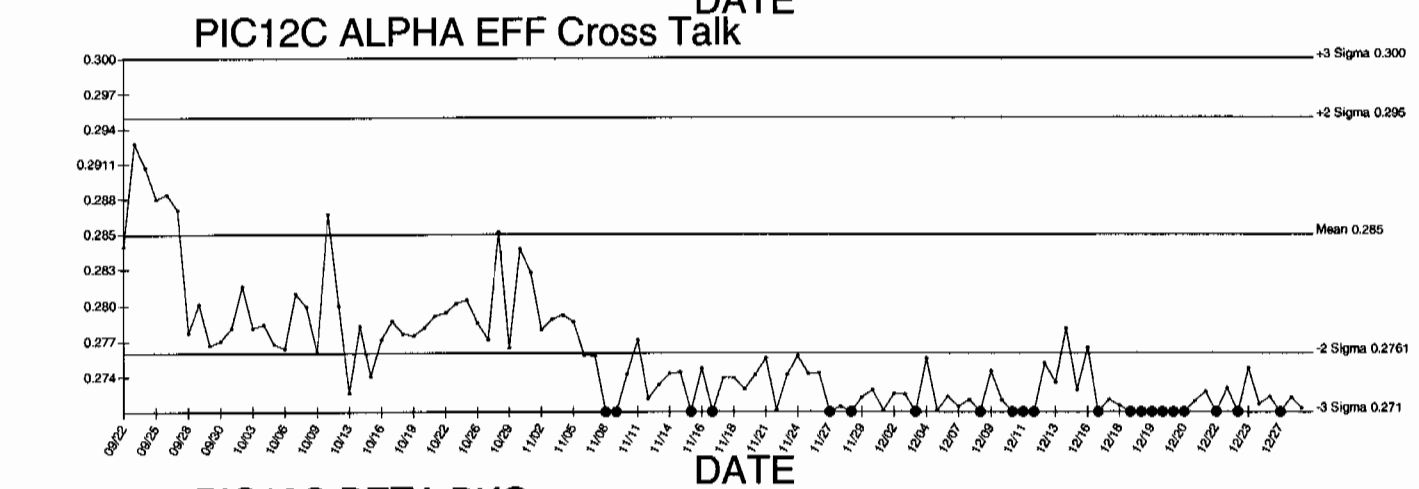

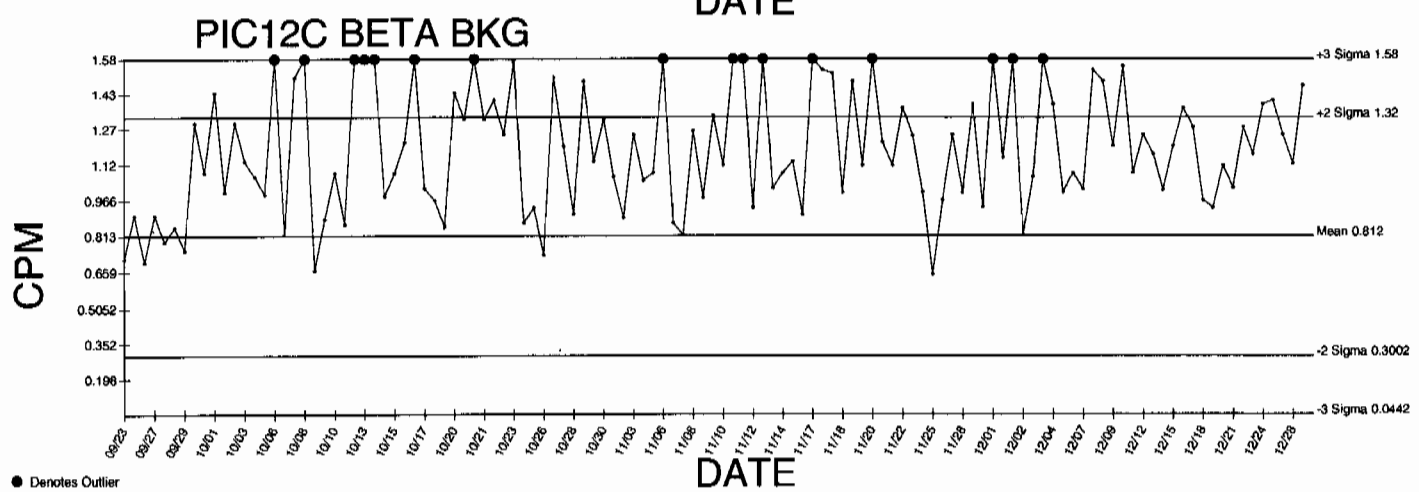

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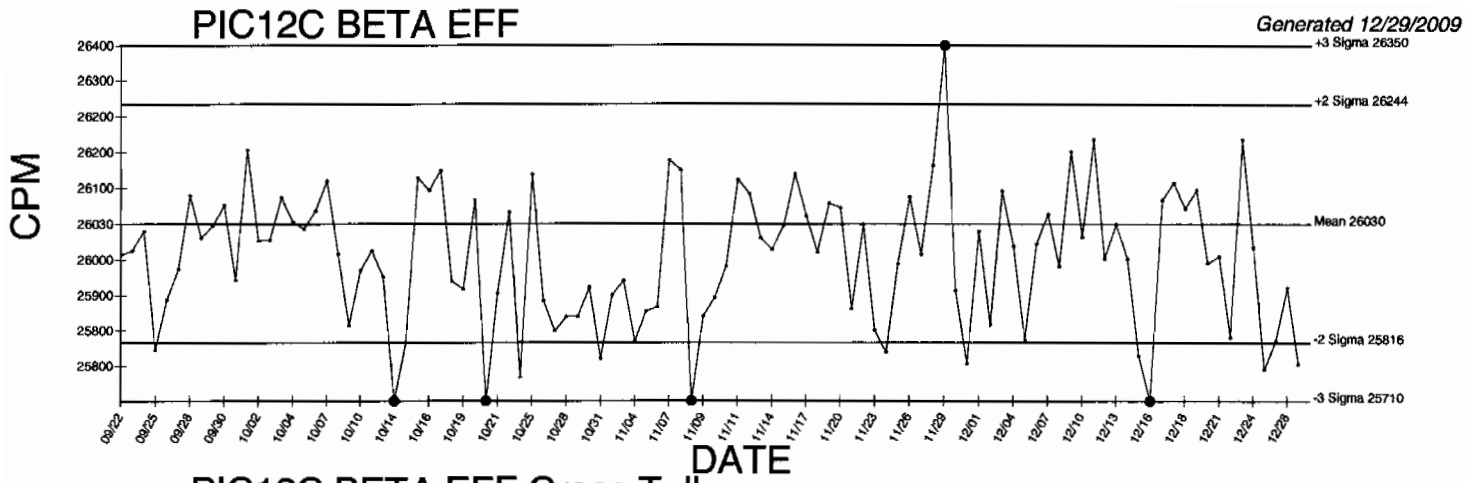

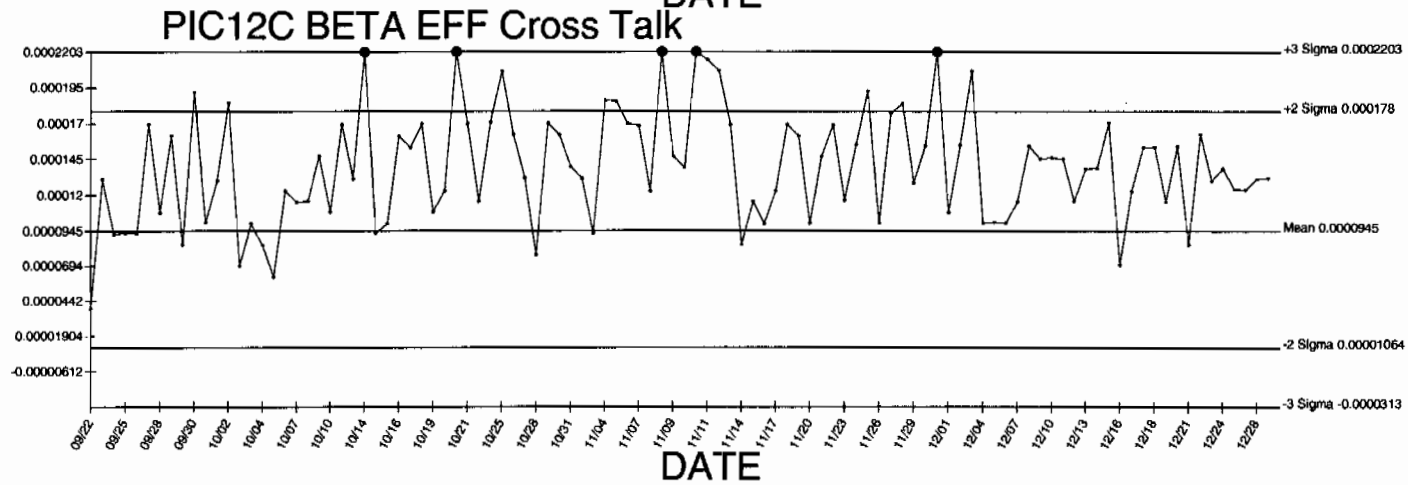

● Denotes Outlier

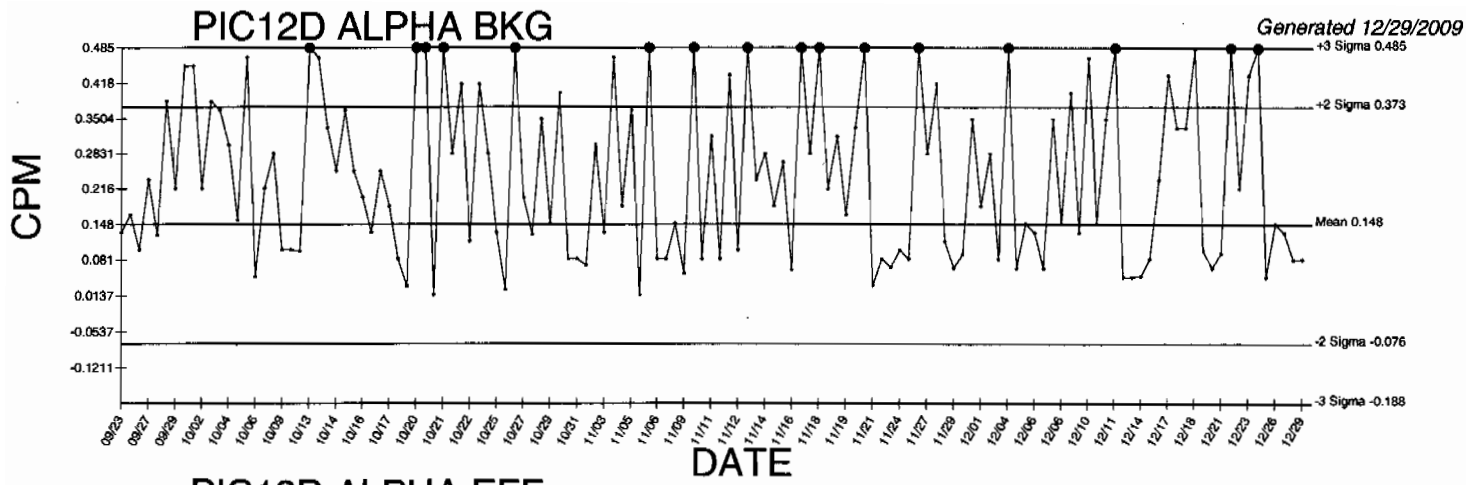

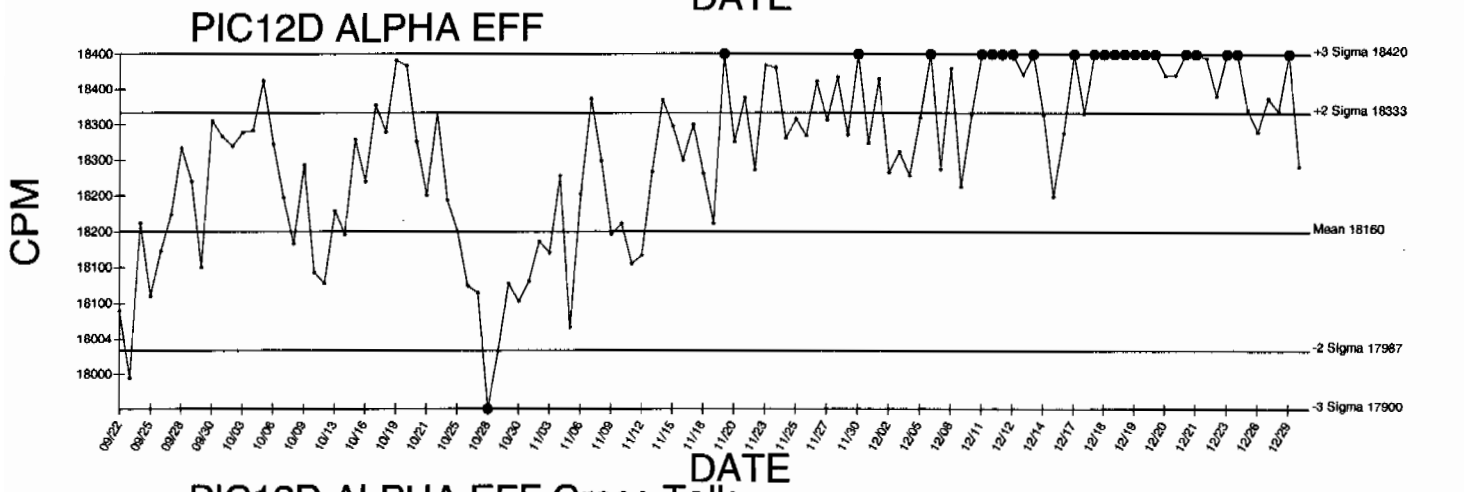

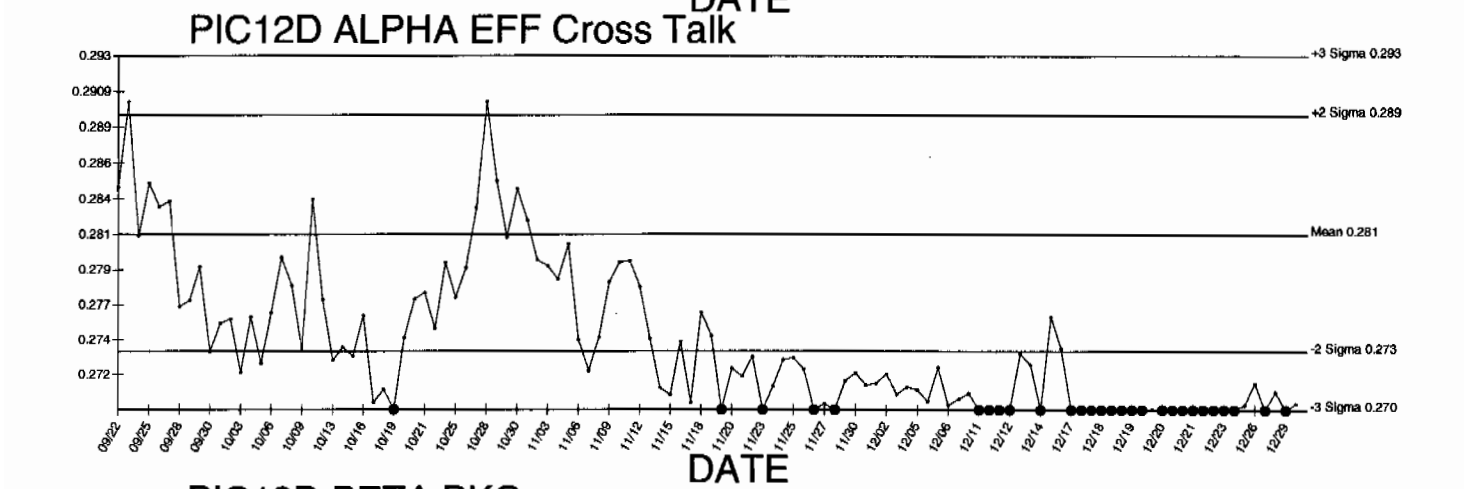

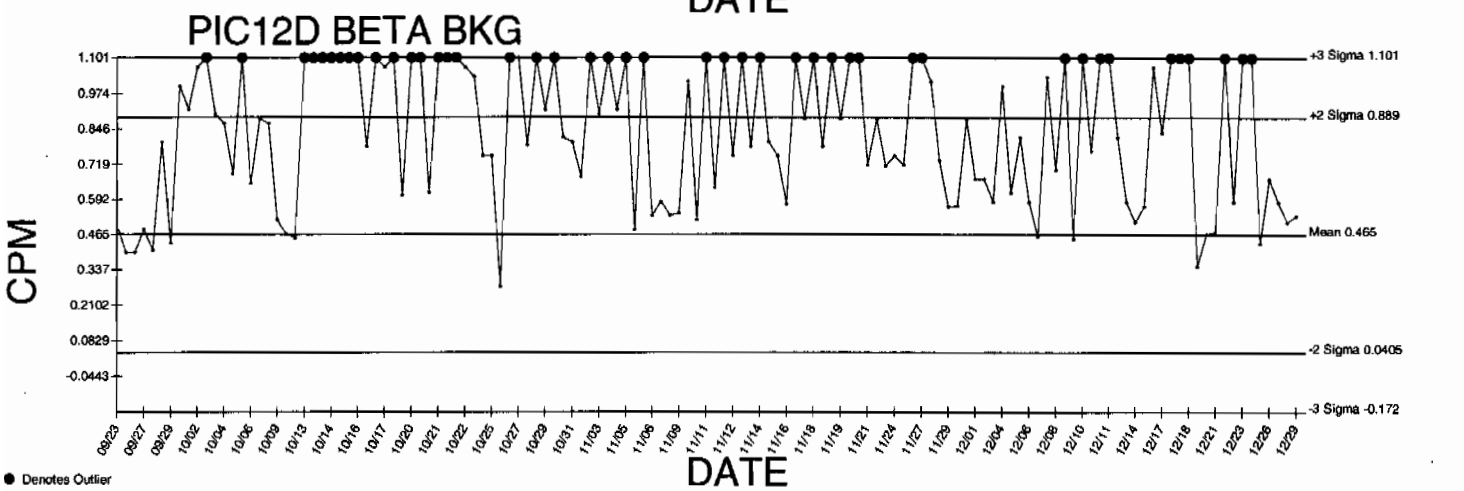

● Denotes Outlier

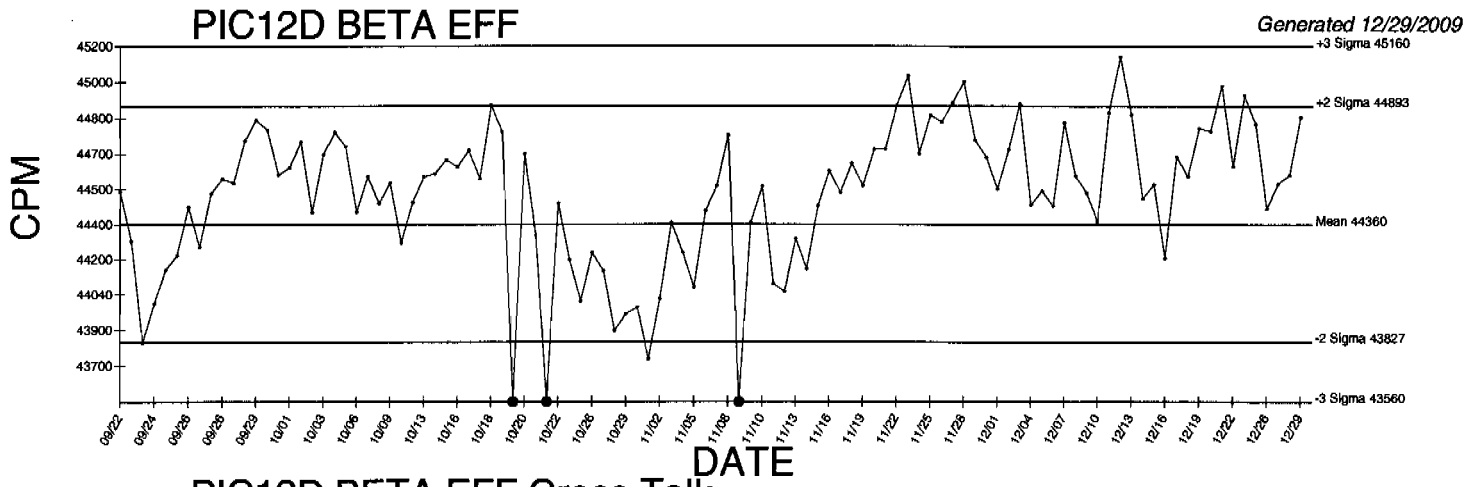

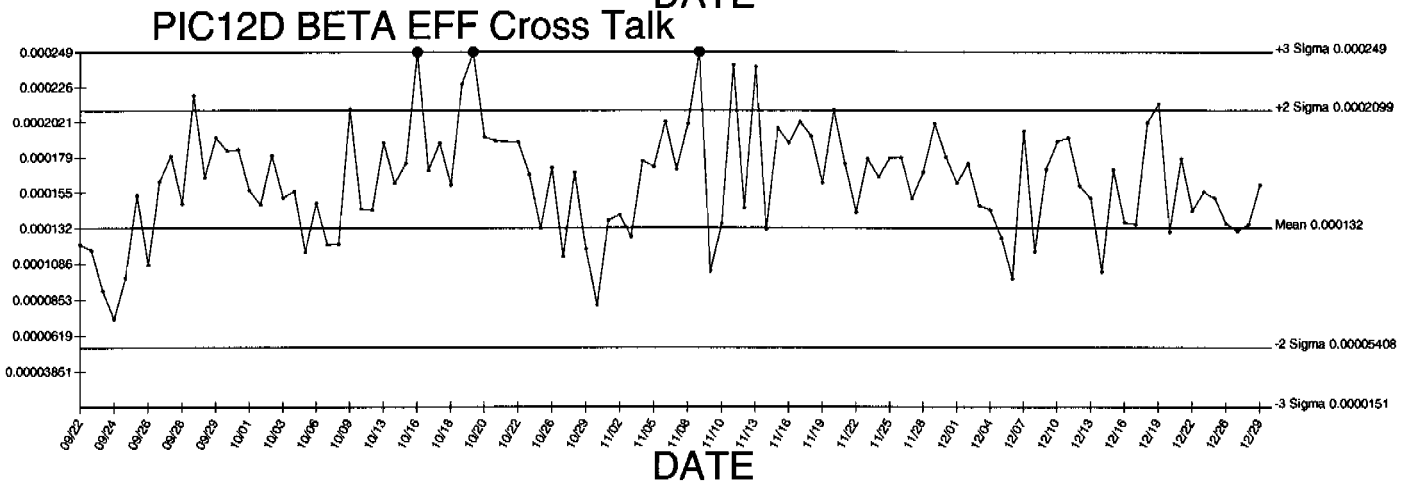

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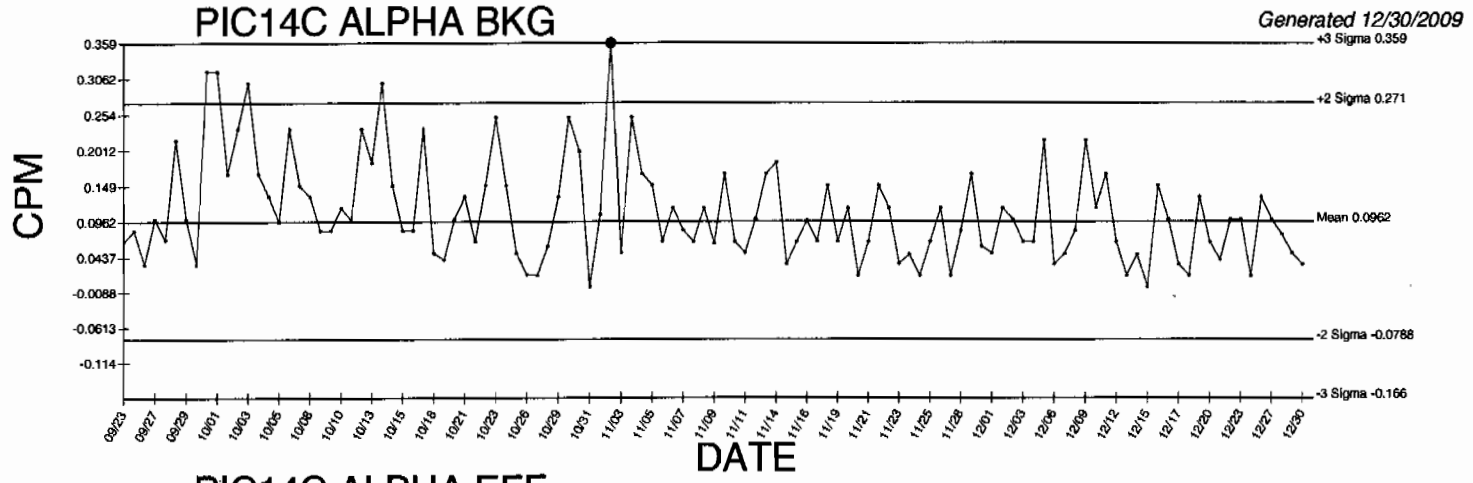
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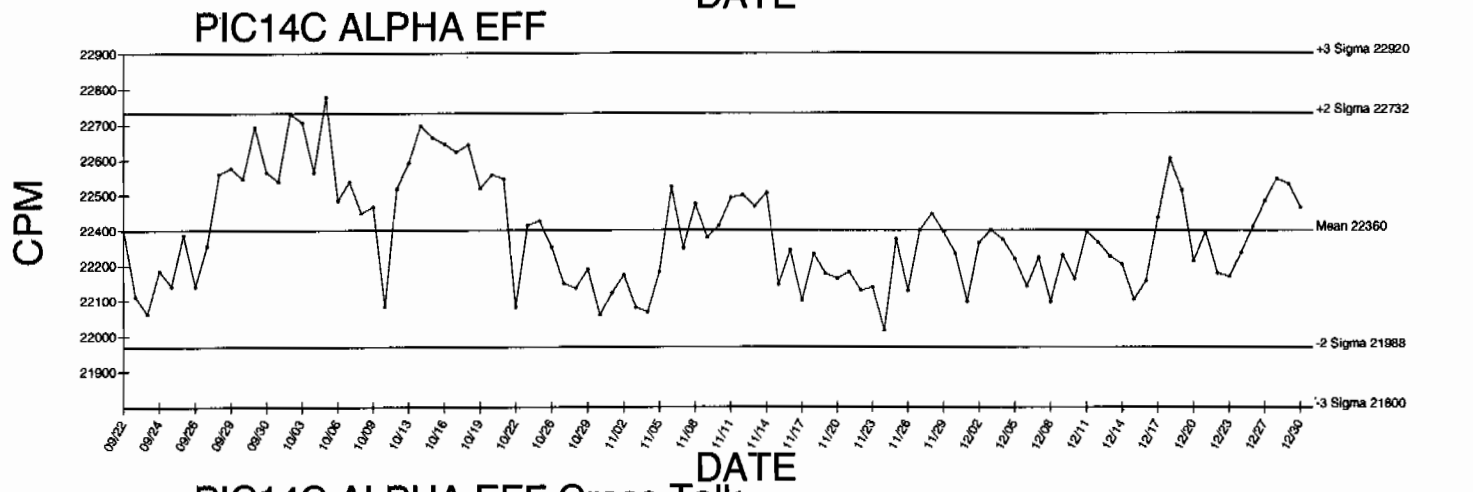
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Mean 22360
-2 Sigma 21988
-3 Sigma 21800

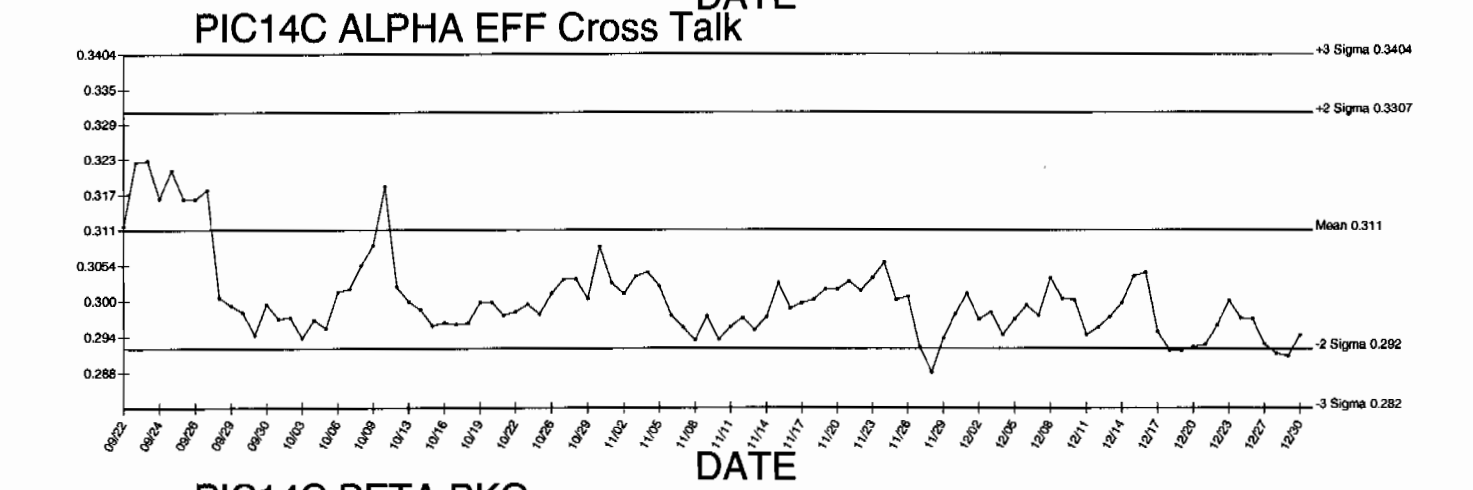
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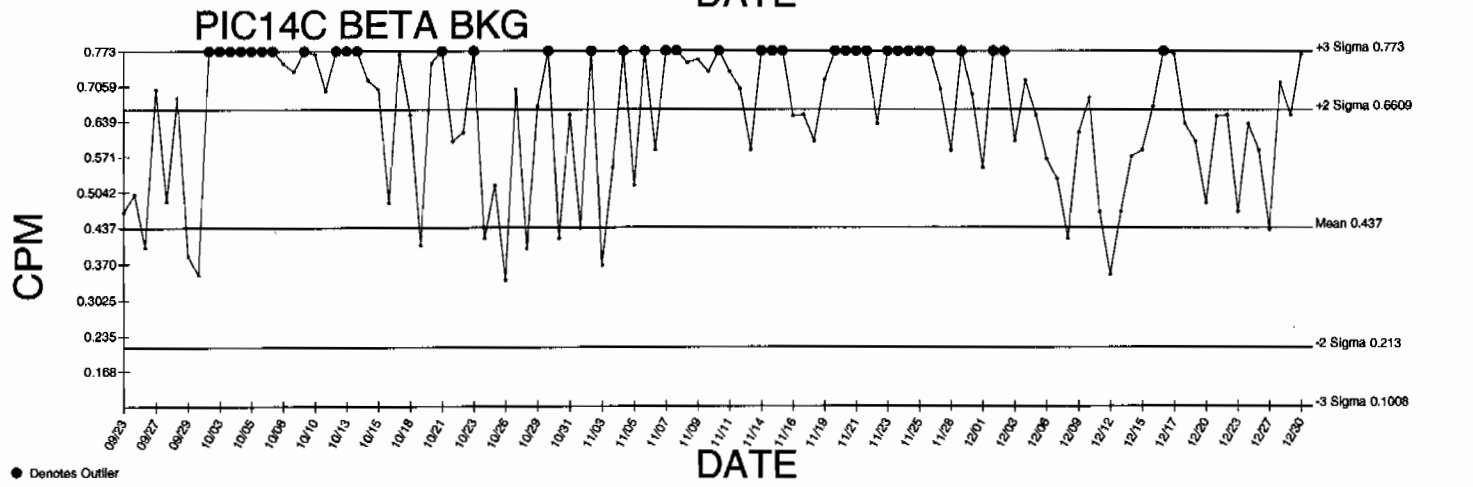
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● Denotes Outlier

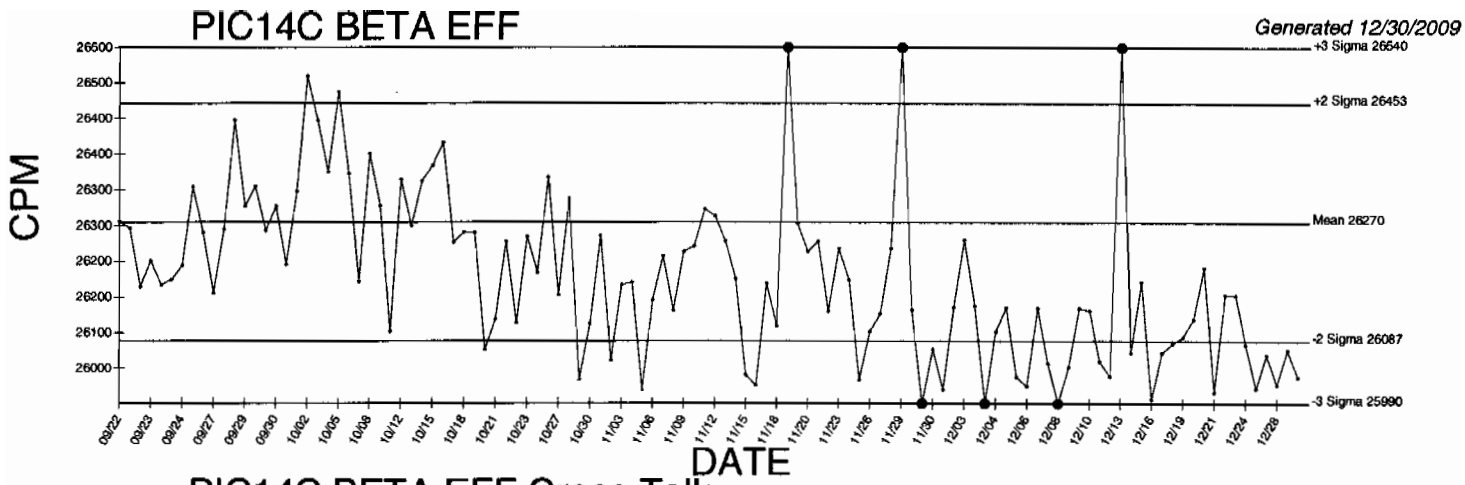

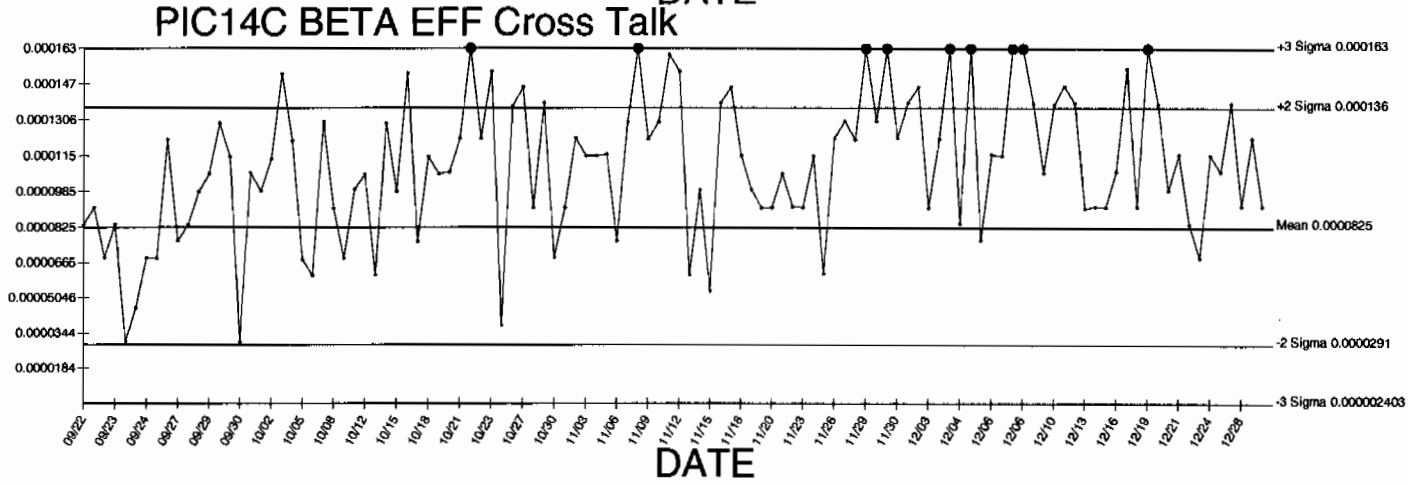

● Denotes Outlier

STANDARDS DATA

ANALYTICS
Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

Rec'd 11/30/06
RC-S-045-073-0

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24937 Avenue Tibbitts, Valencia, California 91355
Laboratory
1380 Seaboard Industrial Blvd. Atlanta, Georgia 30318

ANALYTICS
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1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318

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ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- VER. JAR-1
	Mixed Gamma N2	2510	pCi/L	- VER. JAR-3
	Mixed Gamma N3	2413	pCi/L	- VER. JAR-5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**	
Stdev =	64.065		**Rule 3 (Pass/Fail)**	
Certificate Value =	2485.68018	pCi/L		
Lower Limit =	2357.536524	pCi/L		
Upper Limit =	2613.796809	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	128.1301422			
10 % of Mean =	248.56666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2
Mean Value (Counting) =	886.90	**95.01**	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result	
	Mixed Gamma N1	1572	pCi/L - VER-JAE-5
	Mixed Gamma N2	1495	pCi/L - VER-JAE-2
	Mixed Gamma N3	1501	pCi/L - VER-JAE-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**
Stdev =	42.829	**Rule 3 (Pass/Fail)**	
Certificate Value =	1545.8378	pCi/L	
Lower Limit =	1437.008431	pCi/L	
Upper Limit =	1608.324902	pCi/L	
Rule 1 (Pass/Fail)	**Pass**		
Two sigma =	85.65823564		
10 % of Mean =	152.26666667		
Rule 2 (Pass/Fail)	**Pass**		

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0533

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 · U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

65338-278

Am-241 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Am-241
ACTIVITY (dps):	3.920 E4
HALF-LIFE:	4.322 E2 years
CALIBRATION DATE:	January 15, 2003 12:00 EST
TOTAL UNCERTAINTY*:	3.2%
SYSTEMATIC:	2.2%
RANDOM:	1.0%

*99% confidence level.

5.10649 grams 1M HCl solution.

Impurities: γ-impurities <0.1%
α-impurities <0.1%

P O NUMBER 3213 RD, Item 1

SOURCE PREPARED BY: M Taskaeva
M. Taskaeva, Radiochemist

Q A APPROVED: UM Mt 1-16-03

RC-S-035-048a

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0533
Prepared By:	Angela Johnson
Carrier Conc:	1 M HCL
Reference Date:	01/15/2003
Ampoule Mass (g):	5.10649 g
Uncertainty:	+/- 3.2 %
LogBook No:	RC S 035 048

A Solution Material Info	
Isotope:	Americium-241
Prepared By:	Angela Johnson
Prep Date:	02/05/2003
Verification Date:	09/29/2008
Expiration Date:	09/29/2009
Primary Code:	0533-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8225 g
Density(g/mL):	1.0139
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8225 g) * (39200 dps) * (60 dpm/dps) / (5.10649 g * 100 mL) = 22211.9695 dpm/mL
(4.8225 g) * (39200 dps) * (60 dpm/dps) / (1.0139 g/mL)/ (5.10649 g * 100 mL) = 21907.2185 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
02/20/2003	Angela Johnson	1.0151	100	0533-B	222.38 dpm/mL	03/01/2006	03/01/2007
02/20/2003	Angela Johnson	.6819	250	0533-C	59.754 dpm/mL	02/20/2004	02/20/2005
05/07/2003	Tim Chandler	.1245	100	0533-D	27.2745 dpm/mL	05/03/2004	05/03/2005
09/10/2004	Amanda Fehr	.6933	250	0533-E	60.753 dpm/mL	09/10/2005	09/10/2006
12/17/2004	Brenda Burke	.0093	100	0533-F	2.0374 dpm/mL	12/20/2004	12/20/2005
12/21/2004	Brenda Burke	.009273	100	0533-G	2.0315 dpm/mL	12/07/2005	12/07/2006
04/28/2005	Brenda Burke	.1347	100	0533-H	29.4598 dpm/mL	04/27/2006	04/27/2007
10/19/2005	Mary Aders	.6948	250	0533-I	60.7831 dpm/mL	10/18/2006	10/18/2007

05/08/2006	Julie Strock	.0711	100	0533-J	15.576 dpm/mL	05/10/2008	05/10/2009
05/11/2006	Brenda Burke	.00092601	100	0533-K	.20286 dpm/mL	08/02/2007	07/28/2007
11/15/2006	Tina Schoneman	.132	1000	0533-L	2.88586 dpm/mL	10/30/2008	10/30/2009
06/12/2007	Julie Strock	.000979	100	0533-M	.21448 dpm/mL	05/20/2009	05/20/2010
08/03/2007	Daniel Roy	.7042	250	0533-N	61.7083 dpm/ml	08/02/2008	08/02/2009
09/25/2008	Daniel Roy	1.4561	500	0533-O	63.7982 dpm/ml	09/10/2009	09/10/2010
09/29/2008	Tara Sides	.1004	100	0533-P	21.9948 dpm/mL	09/09/2009	09/09/2010
06/03/2009	Julie Strock	.0009751	100	0533-Q	.2136 dpm/mL	06/05/2009	06/03/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-241 Standard *0533-O*

M. Aders			
9/10/2009	**Isotope**	**Value**	**Uncertainty**
	0533-O #1	2.880	0.3960
	0533-O #2	2.820	0.3910
	0533-O #3	2.790	0.3840
Mean Value (Counting) =	2.830	0.9953264	
Stdev =	0.045825757		
Target =	2.84		
Lower Limit =	2.738348486		
Upper Limit =	2.921651514		
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**
Two sigma =	0.091651514		
10 % of Mean =	0.283		
Rule 2 (Pass/Fail)	**Pass**		

Rule 1 = The target value must lie within the average counting value concentration plus or minus two times the standard deviation of the three counting sources.
Rule 2 =The calculated value of two times the standard deviation of the concentration of the three counted sources must be less than 10% of the average concentration value.
Rule 3 = The determined mean value must be +/- 5% of the of the certificate value or within the uncertainty of the standards being verified.

The analyst prepared three standard verification sources for standard ***0533-O*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Am_243*** standard ***445-96-2-SS*** in a disposable centrifuge tube. 4 mL of 2M HCL was added and was diluted with 6 mL of DI water. 25 micrograms of neodymium carrier and two mL of 49% HF was added to precipitate neodymium (and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-241 were calculated by comparison to Am-243 certified values.

9/22/09

9/25/09

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna K. Pleu
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ **1. STANDARD WIPE TEST**

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **2. SOAK TEST**

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **3. SOAK TEST -- BERYLLIUM WINDOW**

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **4. GAS SOURCE TEST (Radioactive Gas)**

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ **5. OTHER LEAK TEST**

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **6. LEAK TEST NOT APPLICABLE**

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	05/11/2009
Expiration Date:	05/11/2010
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Julie Strock	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/30/2008	09/29/2009
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-SS*

M. Aders	Isotope	Value	Uncertainty
5/15/2009	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590

Mean Value (Counting) =	1.340	101.99	**Pass**
Stdev =	0.043588989		**Rule 3 (Pass/Fail)**

Target =	1.314
Lower Limit =	1.252822021
Upper Limit =	1.427177979
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.087177979
10 % of Mean =	0.134
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-SS*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Mary Fridsdean 5/15/09
Robert Bin 007509

0112

[redacted]

UKAS ACCREDITED CALIBRATION LABORATORY No. 0146

Methods of measurement The measurement techniques listed below are currently in use at Nycomed Amersham for the absolute standardisation of radioactive solutions. The methods used for this standardisation are indicated on page 2 of the certificate.

Using a gas flow proportional counter

A	4 pi beta counting
B	4 pi alpha counting
C	4 pi internal conversion electron counting
D	4 pi coincidence counting
E	4 pi anticoincidence counting
F	4 pi coincidence and anticoincidence counting

Using a liquid scintillation counter

G	4 pi coincidence counting
H	4 pi anticoincidence counting
J	4 pi coincidence and anticoincidence counting
K	4 pi efficiency tracing

SI unit of radioactivity The S.I. unit of radioactivity is the becquerel

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = 3.7×10^{10} becquerels exactly

Useful conversion factors are:

1 microcurie (μCi)	=	3.7×10^{4}	Bq	=	37 kilobecquerels (kBq)
1 millicurie (mCi)	=	3.7×10^{7}	Bq	=	37 megabecquerels (MBq)
1 kilobecquerel (kBq)	=	27.027 nanocuries (nCi)			
1 megabecquerel (MBq)	=	27.027 microcuries (μCi)			

RC-5-024-038B

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0112
Prepared By:	Richard Kinney
Carrier Conc:	0.1M HCL
Reference Date:	06/20/1997
Ampoule Mass (g):	5.129 g
Uncertainty:	+/- 1.8 %
LogBook No:	RC S 023 038A

A Solution Material Info	
Isotope:	Barium-133
Prepared By:	Angela Johnson
Prep Date:	04/09/1999
Verification Date:	02/17/2009
Expiration Date:	02/17/2010
Primary Code:	0112-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0881 g
Density(g/mL):	0.9935
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.0881 g) * (474 kBq/g) * (60000 dpm/kBq) / (100 mL) = 1447055.6400 dpm/mL
(5.0881 g) * (474 kBq/g) * (60000 dpm/kBq) / (0.9935 g/mL) / (100 mL) = 1456575.8226 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
10/31/2002	Angela Johnson	10.11	1000	0112-G	14725.049 dpm/mL	10/31/2003	10/31/2004
01/19/2005	Amanda Fehr	10.431	1000	0112-H	15193.542 dpm/mL	01/18/2006	01/18/2007
11/30/2006	Daniel Roy	10.0567	1000	0112-I	14648.35 dpm/mL	11/20/2008	11/20/2009
02/17/2009	Mary Aders	10.1141	1000	0112-J	14731.9535 dpm/ml	02/17/2009	02/17/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Ba-133 Standard 0112-J

M. Aders 2/24/2009	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (mL)	Source DPM/mL
	0112-J N1	567.0000	45.9300	521.0700	0.7701	0.1000	6766.49681
	0112-J N2	555.3300	45.9300	509.4000	0.7701	0.1000	6614.952838
	0112-J N3	569.3300	45.9300	523.4000	0.7701	0.1000	6796.753662
						Average =	6726.06777
Mean Value (Counting) =	6726.06777		**98.5182537**	**Pass**			
Stdev =	97.41029401		0.0144825	**Rule 3 (Pass/Fail)**			

Certificate Value =	6827.23
Lower Limit =	6531.247182
Upper Limit =	6920.888358
Rule 1 Pass/Fail	**Pass**
Two sigma =	194.820588
10 % of Mean =	672.606777
Rule 2 (Pass/Fail)	**Pass**

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for Ba-133 source 0112-J by transferring 0.1 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ready Gel liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ready Gel cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on LSC Silver. The Ba-133 efficiency calibration which was used for verification calculations was performed on 2/24/09 using source 0487-A (Ba-133). Calibration data is recorded in this logbook under Ba-133 0487-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.
RAD SOP M-001

Mary R. Adams 2/25/09
Amanda L. Lehr 2/25/09

0503

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 · U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

64673-278

Ra-228 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Ra-228
ACTIVITY (dps):	1.939 E4
HALF-LIFE:	5.75 years
CALIBRATION DATE:	October 1, 2002 12:00 EST
TOTAL UNCERTAINTY*:	3.6%
SYSTEMATIC:	3.4%
RANDOM:	1.1%

*99% Confidence Level

Impurities: γ-impurities <0.1%

5.02617 grams 0.1M HCl solution with 110 μg/g Ba carrier.

P O NUMBER 3208RD, Item 2

SOURCE PREPARED BY: M Taskaeva
M. Taskaeva, Radiochemist

Q A APPROVED: M. Mt 10-2-02

RC-5-035-018a

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0503
Prepared By:	Angela Johnson
Carrier Conc:	0.1 M HCL
Reference Date:	10/01/2002
Ampoule Mass (g):	5.02617 g
Uncertainty:	+/- 3.6 %
LogBook No:	RC S 035 018

A Solution Material Info	
Isotope:	Radium-228
Prepared By:	Angela Johnson
Prep Date:	02/20/2003
Verification Date:	04/09/2004
Expiration Date:	04/09/2005
Primary Code:	0503-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.4737 g
Density(g/mL):	0.9992
Balance ID:	

Calculations Converting parent activity to dpm/mL | dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)

(4.4737 g) * (19390 dps) * (60 dpm/dps) / (5.02617 g * 100 mL) = 10355.2060 dpm/mL

(4.4737 g) * (19390 dps) * (60 dpm/dps) / (0.9992 g/mL)/ (5.02617 g * 100 mL) = 10363.0820 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
04/02/2003	Lonnie Morris	39.71	1000	0503-B	411.518 dpm/mL	09/11/2009	09/11/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Ra-228 Standard 0503-B

M. Aders	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Mass. Used (mL)	Source DPM/mL
9/11/2009	0503-B	1797.3200	43.2000	1754.1200	9.263763	1.0000	189.352858
	0503-B	1773.9800	43.2000	1730.7800	9.263763	1.0000	186.8333635
	0503-B	1779.6500	43.2000	1736.4500	9.263763	1.0000	187.4454258
							187.8772158

Mean Value (Counting) =	187.8772158	dpm/mL	**105.60536**	**Pass**
Stdev =	1.314075752	dpm/mL	0.00699433	**Rule 3 (Pass/Fail)**
Certificate Value =	177.905	dpm/mL		
Lower Limit =	185.2490643	dpm/mL		
Upper Limit =	190.5053673	dpm/mL		
Rule 1 Pass/Fail	**Fail**	***exception taken due to full recovery of standard**		
Two sigma =	2.628151503			
10 % of Mean =	18.78772158			
Rule 2 (Pass/Fail)	**Pass**			

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for Ra-228 source Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 13 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on LSC Gold for Ra-228 source standard verification. The Ra-228 efficiency calibration which was used for verification calculations was performed on 9/13/08 using source 0683-A (Ra-228). Calibration data is recorded in this logbook under Ra-228 0683-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference RAD SOP M-001

9/15/09

9-15-09

0338

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 · U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

60513-278

Pu-239 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using an aliquot measured gravimetrically from a master radionuclide solution standard. The master radionuclide solution standard was calibrated by the Department Des Applications Et De La Metrologie Des Rayonnements Ionisants (DAMRI), Paris, France, as Number 24148.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Pu-239
ACTIVITY (dps):	3.674 E4
HALF-LIFE:	24131 years
CALIBRATION DATE:	October 30, 2000 12:00 EST
TOTAL UNCERTAINTY*:	5.0%

*99% confidence level.

5.45541 grams 3M HNO_3 solution.

Impurities detected (activity in dps/vial on Oct. 30, 2000):

Am-241 297.28
Pu-240 1208.8
Pu-241 2010.7
Pu-242 0.17

See reverse side for additional information.

P O NUMBER 2528RD, Item 1

PREPARED BY: M. Taskaeva
M. Taskaeva, Radiochemist

Q A APPROVED: RCW 11/13/00

RC-S-028-167

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0338
Prepared By:	Penet Melton
Carrier Conc:	3 M HNO3
Reference Date:	10/30/2000
Ampoule Mass (g):	5.45541 g
Uncertainty:	+/- 5 %
LogBook No:	RC S 027 167

A Solution Material Info	
Isotope:	Plutonium-239
Prepared By:	Penet Melton
Prep Date:	12/01/2000
Verification Date:	09/29/2008
Expiration Date:	09/29/2009
Primary Code:	0338-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.1674 g
Density(g/mL):	1.0121
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL | dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)

(5.1674 g) * (36740 dps) * (60 dpm/dps) / (5.45541 g * 100 mL) = 20880.2208 dpm/mL

(5.1674 g) * (36740 dps) * (60 dpm/dps) / (1.0121 g/mL)/ (5.45541 g * 100 mL) = 20630.6111 dpm/g

(5.1674 g) * (37948.8 dps) * (60 dpm/dps) / (5.45541 g * 100 mL) = 21567.2108 dpm/mL

(5.1674 g) * (37948.8 dps) * (60 dpm/dps) / (1.0121 g/mL)/ (5.45541 g * 100 mL) = 21309.3885 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
06/23/2009	Mary Aders	.591	250	0338-BB	50.3753 dpm/mL	06/23/2009	06/23/2010
10/29/2001	Tim Chandler	.3032	250	0338-E		10/16/2003	10/16/2004
12/30/2002	Tim Chandler	10.0252	100	0338-I		10/24/2003	10/24/2004
08/12/2003	Amanda Fehr	.2282	100	0338-K		08/12/2003	08/12/2004
12/09/2003	Amanda Fehr	.2409	100	0338-L		12/09/2003	12/09/2004

03/18/2004	Tim Chandler	10.0192	500	0338-M		03/18/2004	03/18/2005
04/26/2004	Amanda Fehr	.643	250	0338-N		04/26/2005	04/26/2006
05/26/2004	Eric Williamson	.355	250	0338-O	30.2619 dpm/mL	05/17/2007	05/17/2008
12/20/2004	Brenda Burke	.01957	100	0338-P	4.16992 dpm/mL	12/19/2006	12/19/2007
03/16/2005	Julie Strock	10.0395	100	0338-Q	2139.558 dpm/mL	06/12/2008	06/12/2009
07/19/2005	Amanda Fehr	.677	250	0338-R		07/10/2006	07/10/2007
05/11/2006	Brenda Burke	.0009935	100	0338-S	.21172 dpm/mL	07/30/2007	07/28/2007
01/04/2007	Julie Strock	.050286	250	0338-T	4.2887 dpm/mL	12/31/2007	12/31/2008
01/05/2007	Daniel Roy	.7285	250	0338-U		01/05/2008	01/05/2009
03/16/2005	Julie Strock	.010175	1000	0338-V	.216847 dpm/mL	04/23/2009	04/23/2010
05/15/2007	Eric Williamson	.253	250	0338-W	21.567 dpm/mL	05/21/2009	05/21/2010
07/31/2007	Julie Strock	.0010045	100	0338-X	.21379 dpm/mL	12/31/2007	12/31/2008
12/10/2008	Daniel Roy	.7715	250	0338-Y		12/10/2008	12/10/2009
09/29/2008	Julie Strock	.0504	250	0338-Z	4.29599 dpm/mL	09/30/2008	09/29/2009

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Plutonium-239 Standard *0338-BB*

Analyst: M. Aders	**Serial #**	**Value**	**Uncertainty**
Date: 6/25/09	0338-BB #1	2.350	0.2960
	0338-BB #2	2.190	0.2210
	0338-BB #3	2.300	0.2920
Mean Value (Counting) =	2.280	103.80917	**Pass**
Stdev =	0.081853528		
Target =	2.196		
Lower Limit =	2.116292945		
Upper Limit =	2.443707055		
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**
Two sigma =	0.163707055		
10 % of Mean =	0.228		
Rule 2 (Pass/Fail)	**Pass**		

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements.
Rule 2 = The two sigma value used for the 95% cinfidence interval shall not exceed 10% of the mean value of the three measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three Pu-239 standard verification sources for standard ***0338-BB*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Pu-242*** standard ***1262-A*** and was diluted in a disposable centrifuge tube with 4 mL of 2 M HCl, and 6 mL of DI water, 50 micrograms of Nd carrier and 5 drops of hydrazine dihydrochloride were added to the centrifuge tube and swirled. After waiting ten minutes, two mL of 49% HF was added to precipitate Nd(and ***plutonium***) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for ***Pu-239*** were calculated by comparison to ***Pu-242*** certified values.

Mary L. Adams 06/26/09

Robert R 06 26 09

1374

National Institute of Standards & Technology

Certificate

Standard Reference Material 4334H
Plutonium-242 Radioactivity Standard

This Standard Reference Material (SRM) consists of radioactive plutonium-242 nitrate and nitric acid dissolved in 5 mL of distilled water. The solution is contained in a flame-sealed NIST borosilicate-glass ampoule. The SRM is intended for the calibration of alpha-particle counting instruments and for the monitoring of radiochemical procedures.

Radiological Hazard: The SRM ampoule contains plutonium-242 with a total activity of approximately 150 Bq. Plutonium-242 decays by alpha-particle emission. None of the alpha particles escape from the SRM ampoule. During the decay process, X-rays and gamma rays with energies from 10 keV to 160 keV are also emitted. Most of these photons escape from the SRM ampoule but their intensities are so small that they do not represent a radiation hazard. Approximate unshielded dose rates at several distances (as of the reference time) are given in note [a]*. The SRM should be used only by persons qualified to handle radioactive material.

Chemical Hazard: The SRM ampoule contains nitric acid (HNO_3) with a concentration of 3 moles per liter of water. The solution is corrosive and represents a health hazard if it comes in contact with eyes or skin. If the ampoule is to be opened to transfer the solution, the recommended procedure is given on page 2. The ampoule should be opened only by persons qualified to handle both radioactive material and strong acid solution.

Storage and Handling: The SRM should be stored and used at a temperature between 5 °C and 65 °C. The solution in an unopened ampoule should remain stable and homogeneous until at least January 2015. The ampoule (or any subsequent container) should always be clearly marked as containing radioactive material. If the ampoule is transported it should be packed, marked, labeled, and shipped in accordance with the applicable national, international, and carrier regulations. The solution in the ampoule is a dangerous good (hazardous material) both because of the radioactivity and because of the strong acid.

Preparation: This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

RECEIVED 2/7/04

Lisa R. Karam, Acting Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
January 2005

Robert L. Watters, Jr., Chief
Measurement Services Division

*Notes and references are on pages 5 to 7.

DC-S-CST-C913

Recommended Procedure for Opening the SRM Ampoule

1) If the SRM solution is to be diluted, it is recommended that the diluting solution have a composition comparable to that of the SRM solution.

2) Wear eye protection, gloves, and protective clothing and work over a tray with absorbent paper in it. Work in a fume hood. In addition to the radioactive material, the solution contains strong acid and is corrosive.

3) Shake the ampoule to wet all of the inside surface of the ampoule. Return the ampoule to the upright position.

4) Check that all of the liquid has drained out of the neck of the ampoule. If necessary, gently tap the neck to speed the process.

5) Holding the ampoule upright, score the narrowest part of the neck with a scribe or diamond pencil.

6) Lightly wet the scored line. This reduces the crack propagation velocity and makes for a cleaner break.

7) Hold the ampoule upright with a paper towel, a wiper, or a support jig. Position the scored line away from you. Using a paper towel or wiper to avoid contamination, snap off the top of the ampoule by pressing the narrowest part of the neck away from you while pulling the tip of the ampoule towards you.

8) Transfer the solution from the ampoule using a pycnometer or a pipet with dispenser handle. NEVER PIPETTE BY MOUTH.

9) Seal any unused SRM solution in a flame-sealed glass ampoule, if possible, to minimize the evaporation loss.

See also reference [4]*.

*Notes and references are on pages 5 to 7.

PROPERTIES OF SRM 4334H

Certified values

Radionuclide	**Plutonium-242**
Reference time	**1200 EST, 07 June 1994 [b]***
Massic activity of the solution [c]	**26.31 $Bq \cdot g^{-1}$**
Relative expanded uncertainty (k=2)	**0.72% [d] [e]**
Solution density	**(1.105 ± 0.002) $g \cdot mL^{-1}$ at 20 °C [f]**

Uncertified values

Physical Properties:			
Source description	Liquid in flame-sealed NIST borosilicate-glass ampoule		
Ampoule specifications	Body outside diameter Wall thickness Barium content Lead-oxide content Other heavy elements	(16.5 ± 0.5) mm (0.60 ± 0.04) mm Less than 2.5% Less than 0.02% Trace quantities	
Solution mass	Approximately 5.5 g		
Chemical Properties:			
Solution composition	Chemical Formula	Concentration ($mol \cdot L^{-1}$)	Mass Fraction ($g \cdot g^{-1}$)
	H_2O HNO_3 $^{242}Pu^{+6}$	50 3.2 8×10^{-7}	0.81 0.19 2×10^{-7}
Radiological Properties:			
Alpha-particle-emitting impurities	None detected [g] [h]. See table on page 5.		
Beta-particle-emitting impurities	Plutonium-241: (0.092 ± 0.018) $Bq \cdot g^{-1}$ [f] [h]		
Photon-emitting impurities	None detected [i]		
Half lives used	Plutonium-242: (373 500 ± 1100) a [j] [5] Plutonium-241: (14.35 ± 0.10) a [j] [5] Americium-241: (432.2 ± 0.7) a [j] [5]		
Calibration method and measuring instrument(s)	Three $4\pi\alpha$ liquid-scintillation counters, a calibrated germanium detector system, and a silicon surface-barrier detector		

*Notes and references are on pages 5 to 7.

EVALUATION OF THE UNCERTAINTY OF THE MASSIC ACTIVITY [d] [e]*

Input Quantity x_i, the source of uncertainty (and individual uncertainty components where appropriate)	Method Used To Evaluate $u(x_i)$, the standard uncertainty of x_i (A) denotes evaluation by statistical methods (B) denotes evaluation by other methods	Relative Uncertainty Of Input Quantity, $u(x_i)/x_i$, (%) [k]	Relative Sensitivity Factor, $\lvert\partial y/\partial x_i\rvert \cdot (x_i/y)$ [m]	Relative Uncertainty Of Output Quantity, $u_i(y)/y$, (%) [n]
Massic alpha-particle emission rate, corrected for background and decay	Standard deviation of the mean for 80 sets of $4\pi\alpha$ liquid-scintillation measurements (A)	0.05	1.0	0.05
Half life of Pu-242	Standard uncertainty of the half life (A)	0.32 [p]	0.00001 [q]	0.000003
Decay-scheme data	Standard uncertainty of the probability of decay by alpha-particle emission (A)	0.001	1.0	0.001
Extrapolation of alpha-particle-count-rate-versus-energy to zero energy	Estimated (B)	0.25	1.0	0.25
Gravimetric measurements	Estimated (B)	0.10	1.0	0.10
Live time [r]	Estimated (B)	0.10	1.0	0.10
Alpha-particle detection efficiency of scintillators	Estimated (B)	0.15	1.0	0.15
Alpha-particle-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Photon-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Relative Combined Standard Uncertainty of the Output Quantity, $u_c(y)/y$, (%)				0.36
Coverage Factor, k				x 2
Relative Expanded Uncertainty of the Output Quantity, U/y, (%)				0.72

*Notes and references are on pages 5 to 7.

RELATIVE ACTIVITIES OF RADIONUCLIDIC IMPURITIES AT THE REFERENCE TIME [b]

Radionuclide	Half Life (years) [j] [5]	Relative Activity As Determined By	
		LLNL	NIST
Plutonium-242	373 500 ± 1100	1.000 000	1.000 000
Plutonium-241	14.35 ± 0.10	- -	0.0035 ± 0.0004 [t]
Plutonium-240	6 564 ± 11	^{239}Pu + ^{240}Pu <0.000 001 [u]	^{239}Pu + ^{240}Pu 0.000 020 ± 0.000 021 [v]
Plutonium-239	24 110 ± 30		
Plutonium-238	87.7 ± 0.1	^{238}Pu + ^{241}Am <0.000 016 [u]	0.000 009 ± 0.000 016 [v]
Americium-241	432.2 ± 0.7		0.000 000 assumed [t]

NOTES

[a] The Sievert is the SI unit for dose equivalent. See reference [1]. One μSv is equal to 0.1 mrem.

Distance from Ampoule (cm):	1	30	100
Approximate Dose Rate (μSv/h):	<0.1	-	-

[b] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994.

[c] **Massic activity** is the preferred name for the quantity activity divided by the total mass of the sample. See reference [1].

[d] The reported value, y, of massic activity (activity per unit mass) at the reference time was not measured directly but was derived from measurements and calculations of other quantities. This can be expressed as $y = f(x_1, x_2, x_3, \ldots x_n)$, where f is a mathematical function derived from the assumed model of the measurement process. The value, x_i, used for each input quantity i has a **standard uncertainty**, $u(x_i)$, that generates a corresponding uncertainty in y, $u_i(y) \equiv |\partial y/\partial x_i| \cdot u(x_i)$, called a **component of combined standard uncertainty** of y. The **combined standard uncertainty** of y, $u_c(y)$, is the positive square root of the sum of the squares of the components of combined standard uncertainty. The combined standard uncertainty is multiplied by a **coverage factor** of $k = 2$ to obtain U, the **expanded uncertainty** of y.

Since it can be assumed that the possible estimated values of the massic activity are approximately normally distributed with approximate standard deviation $u_c(y)$, the unknown value of the massic activity is believed to lie in the interval $y \pm U$ with a level of confidence of approximately 95 percent.

For further information on the expression of uncertainties, see references [2] and [3].

[e] The value of each component of combined standard uncertainty, and hence the value of the expanded uncertainty itself, is a best estimate based upon all available information, but is only approximately known. That is to say, the "uncertainty of the uncertainty" is large and not well known. This is true for uncertainties evaluated by statistical methods (e.g., the relative standard deviation of the standard deviation of the mean for the massic response is approximately 50%) and for uncertainties evaluated by other methods (which could easily be over estimated or under estimated by substantial amounts). The unknown value of the expanded uncertainty is believed to lie in the interval $U/2$ to $2U$ (i.e., within a factor of 2 of the estimated value).

[f] The stated uncertainty is two times the standard uncertainty.

[g] Estimated limits of detection for alpha-particle-emitting impurities, expressed as massic alpha-particle emission rates (numbers of alpha particles per second per gram), are:
0.003 $s^{-1} \cdot g^{-1}$ for energies less than 3.1 MeV,
0.03 $s^{-1} \cdot g^{-1}$ for energies between 3.1 and 4.4 MeV, and
0.003 $s^{-1} \cdot g^{-1}$ for energies greater than 5.0 MeV.

[h] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994. Americium-241, the daughter of plutonium-241, was removed but has been growing in since that time.

[i] Estimated limits of detection for photon-emitting impurities, expressed as massic photon emission rates (numbers of photons per second per gram), are:
5×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 19 and 39 keV,
7×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 49 and 92 keV,
2×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 106 and 507 keV,
1×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 515 and 1456 keV, and
5×10^{-6} $s^{-1} \cdot g^{-1}$ for energies between 1465 and 2750 keV,
provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of plutonium-242, plutonium-241, or americium-241.

[j] The stated uncertainty is the standard uncertainty.

[k] Relative standard uncertainty of the input quantity x_i.

[m] The relative change in the output quantity y divided by the relative change in the input quantity x_i. If $|\partial y/\partial x_i| \cdot (x_i/y) = 1.0$, then a 1% change in x_i results in a 1% change in y. If $|\partial y/\partial x_i| \cdot (x_i/y) = 0.05$, then a 1% change in x_i results in a 0.05% change in y.

[n] Relative component of combined standard uncertainty of output quantity y, rounded to two significant figures or less. The relative component of combined standard uncertainty of y is given by $u_i(y)/y \equiv |\partial y/\partial x_i| \cdot u(x_i)/y = |\partial y/\partial x_i| \cdot (x_i/y) \cdot u(x_i)/x_i$. The numerical values of $u(x_i)/x_i$, $|\partial y/\partial x_i| \cdot (x_i/y)$, and $u_i(y)/y$, all dimensionless quantities, are listed in columns 3, 4, and 5, respectively. Thus, the value in column 5 is equal to the value in column 4 multiplied by the value in column 3. The input quantities are independent, or very nearly so. Hence the covariances are zero or negligible.

[p] The relative standard uncertainty of $\lambda \cdot t$ is determined by the relative standard uncertainty of λ (i.e., of the half life). The relative standard uncertainty of t is negligible.

[q] $|\partial y/\partial x_i| \cdot (x_i/y) = |\lambda \cdot t|$

[r] The live time is determined by counting the pulses from a gated crystal-controlled oscillator.

[s] The standard uncertainty for each undetected impurity that might reasonably be expected to be present is estimated to be equal to the estimated limit of detection for that impurity, i.e. $u(x_i)/x_i$ = 100%. $|\partial y/\partial x_i| \cdot (x_i/y)$ = {(response per Bq of impurity)/(response per Bq of Pu-242)}•{(Bq of impurity)/(Bq of Pu-242)}. Thus $u_i(y)/y$ is the relative change in y if the impurity were present with a massic activity equal to the estimated limit of detection.

[t] The stated uncertainty is the standard uncertainty. The plutonium-241 activity was calculated from a gamma-ray measurement of the americium-241 ingrowth as of 25 November 1998, assuming that americium-241 was completely removed at the time of chemical purification.

[u] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The value shown is an estimated upper limit based upon background and counting statistics. Measurements were made at the Lawrence Livermore National Laboratory (LLNL) in July of 1994.

[v] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The stated uncertainty is the standard uncertainty. Measurements were made at the National Institute of Standards and Technology (NIST) in June and July of 1999.

REFERENCES

[1] International Organization for Standardization (ISO), *ISO Standards Handbook - Quantities and Units*, 1993. Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B.N. Taylor and C.E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

[4] National Council on Radiation Protection and Measurements Report No. 58, *A Handbook of Radioactivity Measurements Procedures*, Second Edition, 1985. Available from the National Council on Radiation Protection and Measurements, 7910 Woodmont Avenue, Bethesda, MD 20814 U.S.A.

[5] Evaluated Nuclear Structure Data File (ENSDF), January 2005.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1374
Prepared By:	Mary Aders
Carrier Conc:	0.5M HNO3
Reference Date:	06/07/1994
Ampoule Mass (g):	5.5 g
Uncertainty:	+/- .72 %
LogBook No:	RC-S-051-093

A Solution Material Info	
Isotope:	Plutonium-242
Prepared By:	Ashley Drochter
Prep Date:	12/02/2009
Verification Date:	12/08/2009
Expiration Date:	12/08/2010
Primary Code:	1374-A
Dilution(mL):	250 mL
Mass of Parent(g):	5.3616 g
Density(g/mL):	1.0136
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3616 g) * (26.31 Bq/g) * (60 dpm/Bq) / (250 mL) = 33.8553 dpm/mL
(5.3616 g) * (26.31 Bq/g) * (60 dpm/Bq) / (1.0136 g/mL) / (250 mL) = 33.4010 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Pu-242 Standard 1374-*A*

A.Drochter	Isotope	Value	Uncertainty
12/8/2009	1374-A	1.610	0.2480
	1374-A	1.580	0.2510
	1374-A	1.530	0.2440
Mean Value (Counting) =	1.573	103.17	**Pass**
Stdev =	0.040414519		**Rule 3 (Pass/Fail)**
Target =	1.52		
Lower Limit =	1.492504296		
Upper Limit =	1.654162371		
Rule 1 Pass/Fail	**Pass**		
Two sigma =	0.080829038		
10 % of Mean =	0.157333333		
Rule 2 (Pass/Fail)	**Pass**		

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for standard 1374-A using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. Two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-242 were calculated by comparison to Pu-239 certified values.

12/9/09 12/9/09

ANALYTICS

1380 Seaboard Industrial Blvd.
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Phone (404) 352-8677
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0638

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

67519-278

Ra-226 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

Analytics maintains traceability to the National Institute of Standards and Technology through participation in a Measurements Assurance Program as described in USNRC Reg. Guide 4.15, Revision 1, February 1979.

ISOTOPE:	Ra-226
ACTIVITY (dps):	2.353 E4
HALF-LIFE:	1.600 E3 years
CALIBRATION DATE:	January 23, 2004 12:00 EST
RELATIVE EXPANDED UNCERTAINTY (k=2):	3.3%

Impurities: γ-impurities (other than decay products) <0.1%

5.01065 grams 0.1M HCl solution with 50 μg/g Ba carrier.

P O NUMBER 3231RD, Item 5

SOURCE PREPARED BY: M. D. Currie
M. D. Currie, Radiochemist

Q A APPROVED: 1/26/04

RC-S-037-037a

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0638
Prepared By:	Amanda Fehr
Carrier Conc:	0.1M HCl
Reference Date:	01/23/2004
Ampoule Mass (g):	5.01065 g
Uncertainty:	+/- 3.3 %
LogBook No:	RC-S-037-037

A Solution Material Info	
Isotope:	Radium-226
Prepared By:	Amanda Fehr
Prep Date:	01/16/2006
Verification Date:	04/09/2009
Expiration Date:	04/09/2010
Primary Code:	0638-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8398 g
Density(g/mL):	1.0266
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8398 g) * (23530 dps) * (60 dpm/dps) / (5.01065 g * 100 mL) = 13636.6133 dpm/mL
(4.8398 g) * (23530 dps) * (60 dpm/dps) / (1.0266 g/mL)/ (5.01065 g * 100 mL) = 13282.9676 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/17/2006	Amanda Fehr	2.1041	100	0638-B	279.0211 dpm/mL	01/17/2007	01/17/2008
07/17/2006	Mary Aders	2.1313	100	0638-C	282.6281 dpm/mL	07/26/2006	07/26/2007
03/28/2007	Daniel Roy	2.1025	100	0638-D	279.2744 dpm/ml	04/08/2007	04/08/2008
03/28/2007	Daniel Roy	45.468	250	0638-E	2415.7999 dpm/ml	04/09/2009	04/09/2010
12/18/2007	Daniel Roy	2.014	100	0638-F	267.519 dpm/ml	02/02/2009	02/02/2010
02/12/2008	Daniel Roy	.5004	100	0638-G	66.468 dpm/ml	03/02/2009	03/02/2010
07/23/2008	Daniel Roy	5.0607	250	0638-H	268.8845 dpm/ml	07/17/2009	07/17/2010
09/28/2009	Angela Johnson	4.052	200	0638-I	269.113 dpm/mL	09/28/2009	09/28/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Ra-226 Standard 0638-I

DA 10/20/09

10/19/2009	Isotope	Value	Uncertainty
9/28/2009	0638-I #1	1131.408	246.9667
	0638-I #2	1348.961	287.9444
	0638-I #3	1314.198	281.2564
Mean Value (Counting) =	1264.855	1.0434201	
Stdev =	116.868701		
Target =	1212.22		
Lower Limit =	1031.118065		
Upper Limit =	1498.592869		
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**
Two sigma =	233.7374019		
10 % of Mean =	126.4855467		
Rule 2 (Pass/Fail)	**Fail**	*Exception taken to Rule 2 due to full recovery of standard	

The analyst prepared three standard verification sources for standard Ra-226 0638-I using 0.1 mL for each source which was degassed of Rn-222. Each standard was placed in a glass LSC vial with 10 mL of mineral oil scintillator and 10 mL of DI water. The standards were counted on LSC RED using the protocol for Rn-222 determination. The values were compared to NIST traceable standard Ra-226 0299-A via the Rn-222 calibration.

Angela A Q 10/23/09

Amanda L. Fehn 10/23/09

Eckert & Ziegler
Analytics

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CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1067

74463-278

Sr-90 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Sr-90
ACTIVITY (Bq):	3.835 E4
HALF-LIFE:	28.79 years
CALIBRATION DATE:	February 7, 2007 12:00 EST
RELATIVE EXPANDED UNCERTAINTY (k=2):	1.7%

Impurities: γ-impurities <0.1%

5.01066 grams 0.1M HCl solution with 30 μg/g Sr carrier.

NOTE: This source also contains Y-90 in secular equilibrium with Sr-90. The Y-90 activity is equal to the Sr-90 activity. Since Sr-90 and Y-90 both decay 100% by beta emission, the total beta emission rate for the source is twice the certified Sr-90 activity. The half-life for Y-90 is 64.08 hours.

P O NUMBER 2739 RD, Item 1

RECEIVED 2/8/07

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 2-7-07

RC-S-045-108-A

Corporate Office
24937 Avenue Rockefeller Valencia, California 91355

Laboratory
1380 Seaboard Industrial Blvd. Atlanta, Georgia, 30318

Standard Traceability Log Rad

Source Material Info

Parent Code:	1067
Prepared By:	Daniel Roy
Carrier Conc:	0.1M HCl
Reference Date:	02/07/2007
Ampoule Mass (g):	5.01066 g
Uncertainty:	+/- 1.7 %
LogBook No:	RC-S-045-108

A Solution Material Info

Isotope:	Strontium-90
Prepared By:	Julie Strock
Prep Date:	10/12/2007
Verification Date:	06/17/2009
Expiration Date:	06/23/2010
Primary Code:	1067-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.9657 g
Density(g/mL):	0.9962
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (bq)) * (conversion dpm to bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)

(Mass of parent(g)) * (Parm Activity (bq)) * (conversion dpm to bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)

(4.9657 g) * (38350 bq) * (60 dpm/bq) / (5.01066 g * 100 mL) = 22803.5343 dpm/mL

(4.9657 g) * (38350 bq) * (60 dpm/bq) / (0.9962 g/mL)/ (5.01066 g * 100 mL) = 22889.8293 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/23/2008	Daniel Roy	20.0611	1000	1067-B	459.1952 dpm/ml	07/23/2008	07/23/2009
06/16/2009	Mary Aders	20.0693	1000	1067-C	459.3829 dpm/mL	06/17/2009	06/17/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Sr-90 Standard 1067-C

6/18/2009	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (mL)	Source DPM/mL
M. Aders	1067-C N1	922.6000	45.1300	877.4700	2.030242	1.0000	432.1997082
	1067-C N2	905.2700	45.1300	860.1400	2.030242	1.0000	423.66378
	1067-C N3	918.2700	45.1300	873.1400	2.030242	1.0000	430.0669575
						Average =	428.6434819
Mean Value (Counting) =	428.6434819		98.7965109	% of known	Pass		
Stdev =	4.442435123		0.01036394				
Certificate Value =	433.865	dpm/mL					
Lower Limit =	419.7586117	dpm/mL					
Upper Limit =	437.5283522	dpm/mL					
Rule 1 Pass/Fail	Pass	Pass	Pass				
Two sigma =	8.884870247						
10 % of Mean =	42.86434819						
Rule 2 (Pass/Fail)	Pass						

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for Sr-90 source 1067-C by transferring 1 mL portions of the standard into glass liquid scintillation vials. Thirteen mL of Ecoscint Ultra liquid scintillation coctail was prepared in a similar fashion using 1 mL of DI water and 13 mL of Ecoscint Ultra liquid scintillation coctail. The standard verification vials and Background source were dark adapted for two hours and counted on LSC Green for Sr-90 source standard verification. The Sr-90 efficiency calibration which was used for verification calculations was performed on 6/17/09 using source 0133-A (Sr-90). Calibration data is recorded in this logbook under Sr-90 0133-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.
RAD SOP M-001

6/18/09
6/29/09

STANDARDIZATION OF STRONTIUM CARRIER

DATE: [redacted] EXP. DATE: [redacted]
LOT NUMBER [redacted]

STRONTIUM PRECIPITATES

	1	2	3	4
Weight of carrier added	[redacted]			
Aliquot (5.00 mL)				
Crucible + ppt.	[redacted]			
Crucible				
Wt. of ppt., g	0.0178	0.0179	0.0179	0.0178
mg Sr/mL	17.80	17.90	17.90	17.80
mg Sr/g	17.28	17.72	17.55	17.28

Must weigh carrier added

Jennifer L. Robb
9-24-09

Average	**Std. Dev.**	
17.85	± 0.06	0.00323446
17.46	± 0.22	0.0124023
mg Sr/ 0.5 mL		**8.93**
	mg Sr/g	17.46

0.5% of Mean Value = 0.08925 Pass

A satisfactory standardization is obtained when results give a standard deviation of less than 0.5% of the mean value.

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CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1242

78148-278

Th-230 5 mL Liquid in Flame Sealed Vial

Customer: General Engineerings Labs
P.O. No.: 7311RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	Th-230
Activity (Bq):	4.021 E4
Half-Life:	7.538 E4 years
Calibration Date:	August 25, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	2.0%

Comments:
Impurities: γ-impurities <0.1%, α-impurities <0.04%
5.07467 grams 0.5M HNO3 solution.

Source Prepared By: MITaskaeva
M. I. Taskaeva, Radiochemist

QA Approved: DM Montgomery
D. M. Montgomery, QA Manager

Date: 9-4-08

RECEIVED 9/17/08
RC-S-048-123

End of Certificate

Corporate Office

Laboratory

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1242
Prepared By:	Daniel Roy
Carrier Conc:	0.5M HNO3
Reference Date:	08/25/2008
Ampoule Mass (g):	5.07467 g
Uncertainty:	+/- 2 %
LogBook No:	RC-S-048-123

A Solution Material Info	
Isotope:	Thorium-230
Prepared By:	Ashley Drochter
Prep Date:	11/10/2009
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1242-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8836 g
Density(g/mL):	1.0597
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8836 g) * (40210 Bq) * (60 dpm/Bq) / (5.07467 g * 100 mL) = 23217.6149 dpm/mL
(4.8836 g) * (40210 Bq) * (60 dpm/Bq) / (1.0597 g/mL)/ (5.07467 g * 100 mL) = 21908.6601 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/01/2009	Bethany Fiem	6.3855	500	1242-B	279.79548 dpm/mL	12/02/2009	12/02/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Th-230 Standard 1242-B

Analyst: B. Fiem	Source ID	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (ml)	Source DPM/ml
Date: 12/1/09	1242-B #1	321.8000	39.8000	282.0000	1.069320	1.0000	263.719
	1242-B #2	325.2000	39.8000	285.4000	1.069320	1.0000	266.899
	1242-B #3	339.2000	39.8000	299.4000	1.069320	1.0000	279.991

Mean Value (Counting) =	270.2028704	96.5727649	**Pass**
Stdev =	8.62458049		**Rule 3 (Pass/Fail)**

Certificate Value =	279.792
Lower Limit =	252.9537094
Upper Limit =	287.4520313
Rule 1 Pass/Fail	**Pass**
Two sigma =	17.24916098
10 % of Mean =	27.02028704
Rule 2 (Pass/Fail)	**Pass**

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for **Th-230** source **1242-B** by transferring 1.0 mL portions of the standard to glass liquid scintillation vials. 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Background vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for one hour and counted on LSC Green for standard verification. The alpha efficiency calibration which was used for verification calculations was performed on 11/16/09 using NIST source 0905-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference: RAD SOP M - 001

12-10-09

12/2/09

National Institute of Standards & Technology

Certificate

1163

Standard Reference Material 4321C
Natural Uranium Radioactivity Standard

This Standard Reference Material (SRM) consists of a solution of a standardized and certified quantity of radioactive uranium-238, uranium-235, and uranium-234 in a suitably stable and homogeneous matrix. It is intended primarily for the calibration of instruments that are used to measure radioactivity and for the monitoring of radiochemical procedures. The solution, whose composition is specified in Table 1, is contained in a flame-sealed, 5 mL, NIST, borosilicate-glass ampoule (see Note 1)*.

The certified massic activities for the uranium isotopes at a **Reference Time of 1200 EST, 1 August 1997**, are:

Uranium-238: (242.0 ± 1.5) $Bq \cdot g^{-1}$

Uranium-235: (11.14 ± 0.07) $Bq \cdot g^{-1}$

Uranium-234: (233.1 ± 2.2) $Bq \cdot g^{-1}$

Additional physical, chemical, and radiological properties for the SRM, as well as details on the standardization method, are given in Table 1. Uncertainty intervals for certified quantities are expanded ($k = 2$) uncertainties calculated according to the ISO and NIST Guidelines (see Note 2). Table 2 contains a specification of the components that comprise the uncertainty analyses.

The certification of this SRM, within the measurement uncertainties specified, is valid for at least five (5) years after receipt. The solution matrix, in an unopened ampoule, is believed to be indefinitely homogeneous and stable, within its half-life-dependent, useful lifetime. NIST will monitor this material and will report any substantive changes in certification to the purchaser. Should any of the certified values change, purchasers of this SRM will be notified of the change by NIST.

This SRM may represent a radiological hazard and a chemical hazard. Consult the Material Safety Data Sheet (MSDS), enclosed with the SRM shipment, for details (see Note 1).

This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, Dr. M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by Dr. L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

Lisa R. Karam, Deputy Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
November 1997
Text revised and expiration date extended February 2007

Robert L. Watters, Jr., Chief
Measurement Services Division

RECEIVED 11/5/08

*Notes and references are on page 4

RC-5-048-044

Table 1. Properties of SRM 4321C

Certified values

Radionuclides	**Natural Uranium (Mixture of ^{238}U, ^{235}U, and ^{234}U)**
Reference time	**1200 EST, 1 August 1997**
Massic activities of the solution	**^{238}U : 242.0 $Bq \cdot g^{-1}$** **^{235}U : 11.14 $Bq \cdot g^{-1}$** **^{234}U : 233.1 $Bq \cdot g^{-1}$**
Relative expanded uncertainties ($k = 2$)	**^{238}U : 0.60% (see Note 2)*** **^{235}U : 0.60% (see Note 2)** **^{234}U : 0.96% (see Note 2)**

Uncertified information

Source description	Liquid in flame-sealed, 5 mL NIST borosilicate ampoule (see Note 1)
Solution composition	1.0 $mol \cdot L^{-1}$ HCl with 30 mg $UO_2(NO_3)_2$ per gram of solution
Solution density	(1.053 ± 0.001) $g \cdot mL^{-1}$ at 21.4 °C (see Note 3)
Solution mass	(5.258 ± 0.002) g (see Note 3)
Mass fraction of uranium	(0.01960 ± 0.00010) $g \cdot g^{-1}$ (see Note 3)
Photon-emitting impurities	None detected (see Note 4)
Half-lifes used [1]	^{238}U : $(4.468 \pm 0.003) \times 10^9$ a ‡ ^{235}U : $(7.038 \pm 0.005) \times 10^8$ a ‡ ^{234}U : $(2.455 \pm 0.006) \times 10^5$ a ‡
Calibration method (and instruments)	The certified massic activity for natural uranium was obtained by mass spectrometer, silicon surface-barrier detector, and $4\pi\alpha\beta$ liquid scintillation (LS) counting systems.

‡ See Note 5

*Notes and references are on page 4

Table 2. Uncertainty evaluation for the massic activity for SRM 4321C

	Uncertainty component	Assessment Type†	Relative standard uncertainty contribution on massic activity of Natural Uranium (%)
1	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{238}U	A	0.001
2	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{235}U	A	0.07
3	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{234}U	A	0.3
4	Half life of ^{238}U; standard uncertainty of the half-life	A	0.07
5	Half life of ^{235}U; standard uncertainty of the half-life	A	0.07
6	Half life of ^{234}U; standard uncertainty of the half-life	A	0.24
7	Uranium mass fraction in SRM 960; from SRM960 certificate	B	0.003
8	Quantitative dissolution	B	0.25
9	Gravimetric (mass) measurements	B	0.10
10	Limit for photon-emitting impurities	B	0.10
Relative combined standard uncertainty		^{238}U	**0.30**
		^{235}U	**0.30**
		^{234}U	**0.48**
Relative expanded uncertainty ($k = 2$)		^{238}U	**0.60**
		^{235}U	**0.60**
		^{234}U	**0.96**

† = (A) denotes evaluation by statistical methods; (B) denotes evaluation by other methods.

NOTES

Note 1. Refer to http://physics.nist.gov/Divisions/Div846/srm.html for the standardized ampoule dimensions and for assistance and instructions on how to properly open an ampoule. Information on additional storage and handling requirements is also included in the website.

Note 2. The uncertainties on certified values are expanded uncertainties, $U = ku_c$. The quantity u_c is the combined standard uncertainty calculated according to the ISO and NIST Guides (see references [2] and [3]). The combined standard uncertainty is multiplied by a coverage factor of $k = 2$ and was chosen to obtain an approximate 95 % level of confidence.

Note 3. The stated uncertainty is two times the standard uncertainty. See reference [3].

Note 4. The estimated lower limits of detection for photon-emitting impurities, expressed as massic photon emission rates are;

$1.4\ s^{-1} \cdot g^{-1}$ for 8 keV < E < 59 keV
$1.1\ s^{-1} \cdot g^{-1}$ for 67 keV < E < 88 keV
$0.5\ s^{-1} \cdot g^{-1}$ for 102 keV < E < 197 keV
$0.3\ s^{-1} \cdot g^{-1}$ for 205 keV < E < 762 keV
$0.2\ s^{-1} \cdot g^{-1}$ for 770 keV < E < 996 keV, and
$0.1\ s^{-1} \cdot g^{-1}$ for 1006 keV < E < 1900 keV

provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of ^{238}U, ^{235}U, ^{234}U, or their progeny

Note 5. The stated uncertainty is the standard uncertainty. See reference [3].

REFERENCES

[1] Evaluated Nuclear Structure Data File (ENSDF), online database, National Nuclear Data Center, Brookhaven Laboratory (Upton, NY), August 2007. Refer to http://www.nndc.bnl.gov/ensdf/

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B. N. Taylor and C. E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1163
Prepared By:	Daniel Roy
Carrier Conc:	1M HCL
Reference Date:	08/01/1997
Ampoule Mass (g):	5.258 g
Uncertainty:	+/- .6 %
LogBook No:	RC-S-048-044

A Solution Material Info	
Isotope:	Uranium-238
Prepared By:	Daniel Roy
Prep Date:	02/23/2008
Verification Date:	10/21/2009
Expiration Date:	10/21/2010
Primary Code:	1163-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.118 g
Density(g/mL):	1.0327
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.118 g) * (242 Bq/g) * (60 dpm/Bq) / (100 mL) = 743.1336 dpm/mL
(5.118 g) * (242 Bq/g) * (60 dpm/Bq) / (1.0327 g/mL) / (100 mL) = 719.5817 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/23/2009	Julie Strock	.1	100	1163-090723-1		07/30/2008	07/30/2009
07/23/2009	Julie Strock	1	100	1163-090723-2		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.25	50	1163-090723-3		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.02	20	1163-090723-4		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.2	20	1163-090723-5		07/30/2008	07/30/2009
07/23/2009	Julie Strock	2	20	1163-090723-6		07/30/2008	07/30/2009
07/31/2009	James Schoneman	.1	100	1163-090731-1		08/07/2008	08/07/2009
07/31/2009	James Schoneman	1	100	1163-090731-2		08/07/2008	08/07/2009
07/31/2009	James Schoneman	.02	20	1163-090731-3		08/07/2008	08/07/2009
07/31/2009	James Schoneman	.2	20	1163-090731-4		08/07/2008	08/07/2009
07/31/2009	James Schoneman	2	20	1163-090731-5		08/07/2008	08/07/2009

08/05/2009	James Schoneman	.1	20	1163-090805-1	08/07/2008	08/07/2009
08/06/2009	James Schoneman	.02	20	1163-090806-1	08/07/2008	08/07/2009
08/06/2009	James Schoneman	.2	20	1163-090806-2	08/07/2008	08/07/2009
08/06/2009	James Schoneman	2	20	1163-090806-3	08/07/2008	08/07/2009
08/14/2009	James Schoneman	.1	100	1163-090814-1	08/21/2008	08/21/2009
08/14/2009	James Schoneman	1	100	1163-090814-2	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.02	20	1163-090814-3	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.2	20	1163-090814-4	08/21/2008	08/21/2009
08/14/2009	James Schoneman	2	20	1163-090814-5	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.01	20	1163-090814-6	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.05	25	13451163-090814-1	08/21/2008	08/21/2009
08/18/2009	James Schoneman	.1	20	1163-090818-1	08/21/2008	08/21/2009
08/18/2009	James Schoneman	2.5	25	1163-090818-2	08/21/2008	08/21/2009
08/21/2009	James Schoneman	.1	100	1163-090821-1	08/28/2008	08/28/2009
08/21/2009	James Schoneman	1	100	1163-090821-2	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.02	20	1163-090821-3	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.2	20	1163-090821-4	08/28/2008	08/28/2009
08/21/2009	James Schoneman	2	20	1163-090821-5	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.01	20	1163-090821-6	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.05	25	13451163-090821-1	08/28/2008	08/28/2009
08/28/2009	James Schoneman	.1	100	1163-090828-1	09/04/2008	09/04/2009

08/28/2009	James Schoneman	1	100	1163-090828-2		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.02	20	1163-090828-3		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.2	20	1163-090828-4		09/04/2008	09/04/2009
08/28/2009	James Schoneman	2	20	1163-090828-5		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.01	20	1163-090828-6		09/04/2008	09/04/2009
09/01/2009	James Schoneman	.01	20	1163-090901-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.01	20	1163-090902-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.01	20	1163-090902-2		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.05	25	11631345-090828-1		09/04/2008	09/04/2009
09/01/2009	James Schoneman	.05	25	11631345-090901-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.05	25	11631345-090902		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.05	25	11631345-090902-1		09/04/2008	09/04/2009
09/11/2009	James Schoneman	.1	100	1163-090911-1	999645.956 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	1	100	1163-090911-2	999.646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.02	20	1163-090911-3	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.2	20	1163-090911-4	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	2	20	1163-090911-5	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.01	20	1163-090911-6	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.02	20	1163-090916-1	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.2	20	1163-090916-2	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	2	20	1163-090916-3	9.99646 ug/L	09/18/2008	09/18/2009

09/16/2009	James Schoneman	.01	20	1163-090916-4	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.05	25	11631332-090916-1	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.05	25	11631345-090911-1	9.99646 ug/L	09/18/2008	09/18/2009
09/18/2009	James Schoneman	.1	20	1163-090918-1	999.646 ug/L	09/18/2008	09/18/2009
09/19/2009	James Schoneman	.1	100	1163-090919-1		09/26/2008	09/26/2009
09/19/2009	James Schoneman	1	100	1163-090919-2		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.02	20	1163-090919-3		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.2	20	1163-090919-4		09/26/2008	09/26/2009
09/19/2009	James Schoneman	2	20	1163-090919-5		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.01	20	1163-090919-6		09/26/2008	09/26/2009
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09/28/2009	James Schoneman	.1	100	1163-090928-1		10/05/2008	10/05/2009
09/28/2009	James Schoneman	1	100	1163-090928-2		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.02	20	1163-090928-3		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.2	20	1163-090928-4		10/05/2008	10/05/2009
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09/28/2009	James Schoneman	.01	20	1163-090928-6		10/05/2008	10/05/2009
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10/05/2009	James Schoneman	.1	100	1163-091005-1		10/12/2008	10/12/2009
10/05/2009	James Schoneman	1	100	1163-091005-2		10/12/2008	10/12/2009
10/05/2009	James Schoneman	.02	20	1163-091005-3		10/12/2008	10/12/2009

10/05/2009	James Schoneman	.2	20	1163-091005-4	10/12/2008	10/12/2009
10/05/2009	James Schoneman	2	20	1163-091005-5	10/12/2008	10/12/2009
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10/08/2009	James Schoneman	.1	20	1163-091008-1	10/12/2008	10/12/2009
10/09/2009	James Schoneman	.1	100	1163-091009-1	10/16/2008	10/16/2009
10/09/2009	James Schoneman	1	100	1163-091009-2	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.02	20	1163-091009-3	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.2	20	1163-091009-4	10/16/2008	10/16/2009
10/09/2009	James Schoneman	2	20	1163-091009-5	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.01	20	1163-091009-6	10/16/2008	10/16/2009
10/12/2009	James Schoneman	.01	20	1163-091012-1	10/16/2008	10/16/2009
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10/15/2009	James Schoneman	.1	100	1163-091015-1	10/22/2008	10/22/2009
10/15/2009	James Schoneman	1	100	1163-091015-2	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.02	20	1163-091015-3	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.2	20	1163-091015-4	10/22/2008	10/22/2009
10/15/2009	James Schoneman	2	20	1163-091015-5	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.01	20	1163-091015-6	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.05	25	11631332-091015	10/22/2008	10/22/2009
10/22/2009	James Schoneman	.1	100	1163-091022-1	10/29/2008	10/29/2009

10/22/2009	James Schoneman	1	100	1163-091022-2	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.2	20	1163-091022-4	10/29/2008	10/29/2009
10/22/2009	James Schoneman	2	20	1163-091022-5	10/29/2008	10/29/2009
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10/22/2009	James Schoneman	.05	25	11631332-091022-1	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.02	20	1163-091022-3	10/29/2008	10/29/2009
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10/29/2009	James Schoneman	2	20	1163-091029-5	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.01	20	1163-091029-6	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.05	25	11631332-091029	11/05/2008	11/05/2009
11/05/2009	James Schoneman	.1	100	1163-091105-1	11/12/2008	11/12/2009
11/05/2009	James Schoneman	1	100	1163-091105-2	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.02	20	1163-091105-3	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.2	20	1163-091105-4	11/12/2008	11/12/2009
11/05/2009	James Schoneman	2	20	1163-091105-5	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.01	20	1163-091105-6	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.05	25	11631332-091105-1	11/12/2008	11/12/2009
11/10/2009	James Schoneman	.1	20	1163-091110-1	11/12/2008	11/12/2009

11/12/2009	James Schoneman	.1	100	1163-091112-1	11/19/2008	11/19/2009
11/12/2009	James Schoneman	1	100	1163-091112-2	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.02	20	1163-091112-3	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.2	20	1163-091112-4	11/19/2008	11/19/2009
11/12/2009	James Schoneman	2	20	1163-091112-5	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.01	20	1163-091112-6	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.05	25	11631332-091112-1	11/19/2008	11/19/2009
11/18/2009	James Schoneman	.1	100	1163-091118-1	11/25/2008	11/25/2009
11/18/2009	James Schoneman	1	100	1163-091118-2	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.02	20	1163-091118-3	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.2	20	1163-091118-4	11/25/2008	11/25/2009
11/18/2009	James Schoneman	2	20	1163-091118-5	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.01	20	1163-091118-6	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.05	25	11631332-091118-1	11/25/2008	11/25/2009
11/30/2009	James Schoneman	.1	100	1163-091130-1	12/06/2008	12/06/2009
11/30/2009	James Schoneman	1	100	1163-091130-2	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.02	20	1163-091130-3	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.2	20	1163-091130-4	12/06/2008	12/06/2009
11/30/2009	James Schoneman	2	20	1163-091130-5	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.01	20	1163-091130-6	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.05	25	11631332-091130-1	12/06/2008	12/06/2009

12/07/2009	James Schoneman	.1	100	1163-091207-1		12/14/2008	12/14/2009
12/07/2009	James Schoneman	1	100	1163-091207-2		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.02	20	1163-091207-3		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.2	20	1163-091207-4		12/14/2008	12/14/2009
12/07/2009	James Schoneman	2	20	1163-091207-5		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.01	20	1163-091207-6		12/14/2008	12/14/2009
12/09/2009	James Schoneman	.01	20	1163-091209-1		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.02	20	1163-091210-2		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.2	20	1163-091210-3		12/14/2008	12/14/2009
12/10/2009	James Schoneman	2	20	1163-091210-4		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.05	25	11631332-091207-1		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.1	20	1163-091210-1		12/14/2008	12/14/2009
12/11/2009	James Schoneman	.1	100	1163-091211-1		12/18/2008	12/18/2009
12/11/2009	James Schoneman	1	100	1163-091211-2		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.02	20	1163-091211-3		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.2	20	1163-091211-4		12/18/2008	12/18/2009
12/11/2009	James Schoneman	2	20	1163-091211-5		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.01	20	1163-091211-6		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.05	25	11631333-091211-1		12/18/2008	12/18/2009
02/27/2008	Daniel Roy	8.0851	100	1163-B	58.1789 dpm/ml	03/01/2008	03/01/2009
02/27/2008	Daniel Roy	8.1015	100	1163-C	58.2969 dpm/ml	03/01/2008	03/01/2009

04/16/2008	Julie Strock	.5619	100	1163-D	4.0433 dpm/mL	04/16/2008	04/16/2009
07/10/2008	Daniel Roy	20.0175	250	1163-E	57.6169 dpm/ml	07/13/2008	07/13/2009
01/05/2009	Tina Schoneman	.519	100	1163-F	3.7346 dpm/mL	01/05/2009	01/05/2010
04/16/2009	Mary Aders	19.4278	250	1163-G	55.9196 dpm/ml	04/16/2009	04/16/2010
10/21/2009	Mary Aders	20.008	250	1163-H	57.5896 dpm/mL	10/21/2009	10/21/2010
08/01/1997	Julie Strock	7.379	250	1163-I	21.2392 dpm/mL	12/07/2009	12/02/2010
08/01/1997	Julie Strock	.106	375	1163-J	.2034 dpm/mL	12/07/2009	12/02/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Uranium-238 Standard *1163-H*

Analyst: M. Aders	Serial #	Value	Uncertainty
Date: 10/21/2009	1163-H N1	2.660	0.510
	1163-H N2	2.460	0.469
	1163-H N3	2.530	0.409

Mean Value (Counting) =	2.550	98.298998	Pass
Stdev =	0.101488916		Rule 3 (Pass/Fail)

Target =	2.594
Lower Limit =	2.347022169
Upper Limit =	2.752977831
Rule 1 Pass/Fail	Pass
Two sigma =	0.202977831
10 % of Mean =	0.255
Rule 2 (Pass/Fail)	Pass

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1163-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-232** standard **1283-E** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

10/26/09
11/2/09

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
Fax 404-352-2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

End of Certificate

RECEIVED 12/15/08
RC-S-05

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/30/2008	12/30/2009
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/09/2009	12/30/2009
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	**Serial #**	**Value**		**Uncertainty**	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Drochter AMD 12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 936274**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243400002	SAMPLE	KXG3	GAM11	31-DEC-09 16:18	DONE	2LMB	18-NOV-09 00:00
243400003	SAMPLE	KXG3	GAM14	31-DEC-09 16:18	DONE	2LMB	09-MAR-09 00:00
1202003335	MB	KXG3	GAM19	31-DEC-09 16:19	DUSE	2LMB	11-MAR-09 00:00
1202003337	LCS	KXG3	GAM01	31-DEC-09 16:41	DONE	2LMB	30-JAN-09 00:00
1202003336	DUP	KXG3	GAM02	01-JAN-10 17:18	DONE	2LMB	17-JUN-09 00:00
1202003335	MB	KXG3	GAM03	05-JAN-10 13:10	DONE	2LMB	18-AUG-09 00:00

Instrument Run Log

Instrument Type: LUCAS CELL DETECTOR **Batch ID: 936275**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243255006	SAMPLE	KSD1	LUCAS5	07-JAN-10 12:50	DONE	Lucas Cell	25-MAR-09 00:00
243400002	SAMPLE	KSD1	LUCAS6	07-JAN-10 12:50	DONE	Lucas Cell	04-AUG-09 00:00
243400003	SAMPLE	KSD1	LUCAS7	07-JAN-10 12:50	DONE	Lucas Cell	30-SEP-09 00:00
1202003332	DUP	KSD1	LUCAS2	07-JAN-10 13:30	DONE	Lucas Cell	22-DEC-09 00:00
1202003333	MS	KSD1	LUCAS3	07-JAN-10 13:30	DONE	Lucas Cell	04-FEB-09 00:00
1202003334	LCS	KSD1	LUCAS4	07-JAN-10 13:30	DONE	Lucas Cell	10-DEC-09 00:00
1202003331	MB	KSD1	LUCAS1	07-JAN-10 19:15	DONE	Lucas Cell	31-AUG-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 936901**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243400002	SAMPLE	JXD2	1083	29-DEC-09 15:45	DONE		
243400003	SAMPLE	JXD2	1084	29-DEC-09 15:45	DONE		
243462001	SAMPLE	JXD2	1085	29-DEC-09 15:45	DONE		
1202004657	MB	JXD2	1086	29-DEC-09 15:45	DONE		
1202004658	DUP	JXD2	1087	29-DEC-09 15:45	DONE		
1202004659	LCS	JXD2	1088	29-DEC-09 15:45	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 936902**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243400002	SAMPLE	JXD2	1089	29-DEC-09 12:42	DONE		
243400003	SAMPLE	JXD2	1090	29-DEC-09 12:42	DONE		
243462001	SAMPLE	JXD2	1091	29-DEC-09 12:42	DONE		
1202004661	DUP	JXD2	1092	29-DEC-09 12:42	DONE		
1202004662	LCS	JXD2	1093	29-DEC-09 12:42	DONE		
1202004660	MB	JXD2	1096	29-DEC-09 12:42	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 936904**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243400002	SAMPLE	JXD2	1126	29-DEC-09 19:54	DONE		
243400003	SAMPLE	JXD2	1127	29-DEC-09 19:54	DONE		
243462001	SAMPLE	JXD2	1128	29-DEC-09 19:54	DONE		
1202004667	MB	JXD2	1129	29-DEC-09 19:54	DONE		
1202004668	DUP	JXD2	1130	29-DEC-09 19:54	DONE		
1202004669	LCS	JXD2	1132	29-DEC-09 19:54	DONE		

Instrument Run Log

Instrument Type: GFPC **Batch ID: 936954**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243255006	SAMPLE	MXS2	PIC14A	31-DEC-09 12:49	DONE	CeF on 25mm Filter	02-JUL-09 00:00
1202004843	DUP	MXS2	PIC11A	31-DEC-09 12:50	DONE	CeF on 25mm Filter	02-JUL-09 00:00
243400002	SAMPLE	MXS2	PIC9C	31-DEC-09 12:51	DONE	CeF on 25mm Filter	02-JUL-09 00:00
243400003	SAMPLE	MXS2	PIC7D	31-DEC-09 12:51	DONE	CeF on 25mm Filter	02-JUL-09 00:00
243462001	SAMPLE	MXS2	PIC7B	31-DEC-09 12:52	DONE	CeF on 25mm Filter	02-JUL-09 00:00
1202004844	LCS	MXS2	PIC4D	31-DEC-09 13:10	DONE	CeF on 25mm Filter	02-JUL-09 00:00
1202004842	MB	MXS2	PIC11D	31-DEC-09 14:28	DONE	CeF on 25mm Filter	02-JUL-09 00:00

Instrument Run Log

Instrument Type: GFPC **Batch ID: 936955**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202004845	MB	MXB1	PIC1A	29-DEC-09 20:58	DONE	Tuffryn Filter	01-JAN-09 00:00
1202004847	MS	MXB1	PIC7D	29-DEC-09 20:58	DONE	Tuffryn Filter	01-JAN-09 00:00
1202004848	LCS	MXB1	PIC7B	29-DEC-09 20:58	DONE	Tuffryn Filter	01-JAN-09 00:00
243400002	SAMPLE	MXB1	PIC7C	29-DEC-09 20:58	DONE	Tuffryn Filter	01-JAN-09 00:00
243400003	SAMPLE	MXB1	PIC7A	31-DEC-09 07:18	DONE	Tuffryn Filter	01-JAN-09 00:00
1202004846	DUP	MXB1	PIC7D	31-DEC-09 07:18	DONE	Tuffryn Filter	01-JAN-09 00:00
243462001	SAMPLE	MXB1	PIC7C	31-DEC-09 10:42	DONE	Tuffryn Filter	01-JAN-09 00:00

Instrument Run Log

Instrument Type: GFPC **Batch ID: 936958**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243400002	SAMPLE	DXB5	PIC10B	29-DEC-09 12:30	DONE	2 inch Planchett	31-JUL-09 00:00
243400003	SAMPLE	DXB5	PIC10C	29-DEC-09 12:31	DONE	2 inch Planchett	31-JUL-09 00:00
243462001	SAMPLE	DXB5	PIC11B	29-DEC-09 12:31	DONE	2 inch Planchett	31-JUL-09 00:00
1202004856	MB	DXB5	PIC11C	29-DEC-09 12:31	DONE	2 inch Planchett	31-JUL-09 00:00
1202004858	MS	DXB5	PIC11D	29-DEC-09 12:31	DONE	2 inch Planchett	31-JUL-09 00:00
1202004859	MSD	DXB5	PIC12C	29-DEC-09 12:31	DONE	2 inch Planchett	31-JUL-09 00:00
1202004860	LCS	DXB5	PIC12D	29-DEC-09 12:31	DONE	2 inch Planchett	31-JUL-09 00:00
1202004857	DUP	DXB5	PIC11C	29-DEC-09 16:16	DONE	2 inch Planchett	31-JUL-09 00:00
243400003	SAMPLE	DXB5	PIC14C	30-DEC-09 15:49	DONE	2 inch Planchett	31-JUL-09 00:00
243400002	SAMPLE	DXB5	PIC9B	30-DEC-09 15:49	DONE	2 inch Planchett	31-JUL-09 00:00
243462001	SAMPLE	DXB5	PIC8B	30-DEC-09 15:49	DONE	2 inch Planchett	31-JUL-09 00:00
1202004856	MB	DXB5	PIC5D	30-DEC-09 15:50	DONE	2 inch Planchett	31-JUL-09 00:00
1202004857	DUP	DXB5	PIC8A	30-DEC-09 15:50	DONE	2 inch Planchett	31-JUL-09 00:00
1202004858	MS	DXB5	PIC4D	30-DEC-09 15:50	DONE	2 inch Planchett	31-JUL-09 00:00
1202004859	MSD	DXB5	PIC6A	30-DEC-09 15:50	DONE	2 inch Planchett	31-JUL-09 00:00
1202004860	LCS	DXB5	PIC6D	30-DEC-09 15:50	DONE	2 inch Planchett	31-JUL-09 00:00

Monday, December 21, 2009

REQUEST NUMBER: 10-1020

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1020

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/21/2009

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:351.2	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	SW-846:8081A	1	CAPA-10-6823	WG	12/18/2009	
		2	CAPA-10-6823	WG	12/18/2009	
		3	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		2	CAPA-10-6824	WG	12/18/2009	
		3	CAPA-10-6824	WG	12/18/2009	
	SW-846:8082	1	CAPA-10-6823	WG	12/18/2009	

Monday, December 21, 2009

REQUEST NUMBER: 10-1020

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	2	CAPA-10-6823	WG	12/18/2009	
		3	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		2	CAPA-10-6824	WG	12/18/2009	
		3	CAPA-10-6824	WG	12/18/2009	
	SW-846:8260B	1	CAPA-10-6820	WG	12/18/2009	
		1	CAPA-10-6822	WG	12/18/2009	
		2	CAPA-10-6822	WG	12/18/2009	
		1	CAPA-10-6823	WG	12/18/2009	
		2	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		2	CAPA-10-6824	WG	12/18/2009	
		1	CAPA-10-6825	WG	12/18/2009	
		1	CAPA-10-6826	WG	12/18/2009	
		2	CAPA-10-6826	WG	12/18/2009	
	SW-846:8270C	1	CAPA-10-6822	WG	12/18/2009	
		2	CAPA-10-6822	WG	12/18/2009	
		3	CAPA-10-6822	WG	12/18/2009	
		1	CAPA-10-6823	WG	12/18/2009	
		2	CAPA-10-6823	WG	12/18/2009	
		3	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		2	CAPA-10-6824	WG	12/18/2009	
		3	CAPA-10-6824	WG	12/18/2009	
		1	CAPA-10-6826	WG	12/18/2009	
		2	CAPA-10-6826	WG	12/18/2009	
		3	CAPA-10-6826	WG	12/18/2009	
	SW-846:8321A_MOD	1	CAPA-10-6823	WG	12/18/2009	

Monday, December 21, 2009

REQUEST NUMBER: 10-1020

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	2	CAPA-10-6823	WG	12/18/2009	
		3	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		2	CAPA-10-6824	WG	12/18/2009	
		3	CAPA-10-6824	WG	12/18/2009	
	SW-846:9060	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	

Final Page of REQUEST NUMBER 10-1020

Monday, December 21, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1020

REQUEST NUMBER: 10-1020

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6820	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6822	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6822	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6822	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6822	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6822	3	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6823	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6823	2	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6823	3	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6823	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6823	2	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6823	3	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6823	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6823	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6823	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6823	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6823	3	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6823	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6823	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6823	3	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6823	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6824	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6824	2	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6824	3	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6824	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6824	2	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6824	3	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6824	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG

Monday, December 21, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1020

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6824	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6824	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6824	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6824	3	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6824	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6824	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6824	3	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6824	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6825	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6826	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6826	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6826	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6826	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6826	3	AMBER GLASS	WSP-8270C-SVOA	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6820 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OY
TIME COLLECTED (HH:MM)		1458	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	RSI	
LOCATION ID:	R-37		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P1A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2	1 pw 12/18/09	WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2

SAMPLE DESC: QC Sample of CAPA-10-6823

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D. Wooly, K Crawford, J Berryhill **REVIEWED BY (PRINT)** J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Wooly	12/18/09	(Printed Name) S. MARCI AN	12/18/09
(Signature) D. Wooly	1615	(Signature)	1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6821 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1458	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	RSI	
LOCATION ID:	R-37		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	P1A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH < 2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH < 2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

See CAPA-10-6823

COLLECTED BY (PRINT) J Berryhill, K Crawford, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09	(Printed Name) S. MARCZAK	12/18/09
(Signature) D. Woody	1615	(Signature)	1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6822 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1458	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:		
LOCATION ID:	R-37		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P1A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of CAPA-10-6823

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, D. Woody, K Crawford

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09 1615	(Printed Name) S. MARCZAK	12/18/09 1615
(Signature) D. Woody		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6823 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1458	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	RSI	
LOCATION ID:	R-37		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P1A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
3		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
3		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH <2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
3		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH >12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	pH <2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2
1		Ra226+228	1 GAL POLY	Nitric Acid	Y	pH <2

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH (STU)	T (°C)	SC (µS/cm)	DO (mg/L)	Turb (NTU)	ORP (mV)	Q (gpm)
7.50	17.10	229	3.43	0.97	171.4	.625

COLLECTED BY (PRINT) J Berryhill, K Crawford, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09	(Printed Name) S. MARCIAL	12/18/09
(Signature) D Woody	1615	(Signature)	1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6824 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0922	SUB-MEDIA:	UA	
PRS ID:	C-00-011		SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-37		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
3		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
3		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
3		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH>12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH<2
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	pH<2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH<2
1		Ra226+228	1 GAL POLY	Nitric Acid	Y	pH<2

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH (STU)	T (°C)	SC (µS/cm)	DO (mg/L)	Turb (NTU)	ORP (mV)	Q (gpm)
7.79	21.05	215	5.39	2.20	271.5	9.1

COLLECTED BY (PRINT) J Berryhill, D. Woody, K Crawford

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09	(Printed Name) S. MARTIN	12/18/09
(Signature) D. Woody	1615	(Signature)	1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6825 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0922	SUB-MEDIA:	UA	
PRS ID:	C-00-011		SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-37		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2	IW 12/18/09	WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2

SAMPLE DESC: QC Sample of CAPA-10-6824

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, K Crawford, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09	(Printed Name) S. MARCZAK	12/18/09
(Signature) D. Woody	1615	(Signature)	1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6826 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0922	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-37		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING: YES / NO / NA**

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of CAPA-10-6824

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, B Woody, K Crawford

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) B. Woody (Signature) B. Woody	12/18/09 1615	(Printed Name) S. MARIZAN (Signature)	12/18/09 1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6827 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0922	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-37		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

See CAPA-10-6824

COLLECTED BY (PRINT) J Berryhill, D. Woody, K Crawford

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09 1615	(Printed Name) S. MARCZAK	12/18/09 1615
(Signature) D. Woody		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1020 VALIDATION DATE: 2/12/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eyda Hergenreder ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): GC/MS VOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICAL and/or continuing calibration RRF values for acetonitrile, acrolein, propionitrile and isobutyl alcohol were <0.05. All associated sample results were NDs and, thus, were qualified R,V7b.
2. In FTB samples CAPA-10-6820 and -6825, chloromethane were detected. All associated sample results were NDs and, thus, data were not qualified.
3. The CCV %Ds for acrolein, trichlorotrifluoroethane, allyl chloride, acrylonitrile, 2-chloro-1,3-butadiene, methacrylonitrile, methyl methacrylate and ethyl methacrylate were >20%. All associated sample results were NDs and, thus, were qualified UJ,V7c.
4. The LCS %Rs for bromodichloromethane and cis-1,3-dichloropropylene were > the laboratory UAL. All associated sample results were NDs and, thus, data were not qualified.

Reviewed by: Allison Felix Level: 1 Date: 2/15/10

VALIDATOR'S SIGNATURE: Eyda Hergenreder (Eyda Hergenreder) DATE: 2/12/10

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☒	☐	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2 Volatile Organic Compound (VOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☒	☐	☐	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☒	☐	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	**Date Collected:**	12/18/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	243401001	**Date Received:**	12/22/2009 09:55		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-6820	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	937152	**Inst:**	VOA2.I	**Dilution:**	1
Run Date:	12/29/2009 01:45	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	12/29/2009 01:45				
Data File:	122809V2.b\2S140.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00	
74-87-3	Chloromethane	J	0.530	ug/L	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00	
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00	
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00	
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0	
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0	R,V7b
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00	
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0	
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00	
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00	
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0	
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00	
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00	
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00	
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00	

EH
2/12/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	Date Collected:	12/18/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243401001	Date Received:	12/22/2009 09:55		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6820	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	937152	Inst:	VOA2.I	Dilution:	1
Run Date:	12/29/2009 01:45	Analyst:	CDS1	Purge Vol:	5 mL
Prep Date:	12/29/2009 01:45				
Data File:	122809V2.b\2S140.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00	
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00	
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00	
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00	
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00	
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00	
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00	
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00	R,V7b
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00	UJ,V7c
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00	
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00	
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00	
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00	R,V7b
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00	UJ,V7c
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0	R,V7b
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00	UJ,V7c

EH
2/12/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401001**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6820**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 01:45**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 01:45**				
Data File:	**122809V2.b\2S140.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00	UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00	
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00	
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	54.7	50.0	ug/L	109	(59%-130%)
Bromofluorobenzene	51.4	50.0	ug/L	103	(71%-126%)
Toluene-d8	48.5	50.0	ug/L	96.9	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	4.33	15.9	ug/L	0	J

EH
2/12/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401002**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6822**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 02:14**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 02:14**				
Data File:	**122809V2.b\2S141.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00	
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00	
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00	
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00	
67-64-1	Acetone		21.5	ug/L	3.50	10.0	
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0	R,V7b
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00	
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0	
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00	
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00	
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0	
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00	
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00	
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00	
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00	

EH
2/12/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	Date Collected:	12/18/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243401002	Date Received:	12/22/2009 09:55		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6822	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	937152	Inst:	VOA2.I	Dilution:	1
Run Date:	12/29/2009 02:14	Analyst:	CDS1	Purge Vol:	5 mL
Prep Date:	12/29/2009 02:14				
Data File:	122809V2.b\2S141.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00	
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00	
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00	
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00	
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00	
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00	
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00	
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00	R,V7b
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00	UJ,V7c
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00	
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00	
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00	
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00	R,V7b
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00	UJ,V7c
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0	R,V7b
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00	UJ,V7c

EH
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	**Date Collected:**	12/18/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	243401002	**Date Received:**	12/22/2009 09:55		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-6822	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	937152	**Inst:**	VOA2.I	**Dilution:**	1
Run Date:	12/29/2009 02:14	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	12/29/2009 02:14				
Data File:	122809V2.b\2S141.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00 UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	55.4	50.0	ug/L	111	(59%-130%)
Bromofluorobenzene	51.1	50.0	ug/L	102	(71%-126%)
Toluene-d8	48.0	50.0	ug/L	96.0	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	4.35	23.5	ug/L	0	J

EH
2/12/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	Date Collected:	12/18/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243401005	Date Received:	12/22/2009 09:55		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6823	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	937152	Inst:	VOA2.I	Dilution:	1
Run Date:	12/29/2009 02:43	Analyst:	CDS1	Purge Vol:	5 mL
Prep Date:	12/29/2009 02:43				
Data File:	122809V2.b\2S142.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00	
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00	
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00	
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00	
67-64-1	Acetone		20.9	ug/L	3.50	10.0	
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0	R,V7b
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00	
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0	
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00	
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00	
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0	
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00	
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00	
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00	
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00	

EH
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401005**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHIL01000**
Client ID:	**CAPA-10-6823**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 02:43**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 02:43**				
Data File:	**122809V2.b\2S142.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00	
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00	
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00	
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00	
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00	
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00	
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00	
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00	R,V7b
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00	UJ,V7c
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00	
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00	
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00	
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00	R,V7b
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00	UJ,V7c
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0	R,V7b
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00	UJ,V7c

EH
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401005**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6823**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 02:43**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 02:43**				
Data File:	**122809V2.b\2S142.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00 UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	55.3	50.0	ug/L	111	(59%-130%)
Bromofluorobenzene	51.6	50.0	ug/L	103	(71%-126%)
Toluene-d8	47.8	50.0	ug/L	95.5	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	unknown	4.35	23.9	ug/L	0	J

EH
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401009**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6824**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 03:12**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 03:12**				
Data File:	**122809V2.b\2S143.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00	
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00	
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00	
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00	
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0	
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0	R,V7b
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00	
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0	
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00	
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00	
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0	
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00	
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00	
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00	
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00	

EH
2/12/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	Date Collected:	12/18/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243401009	Date Received:	12/22/2009 09:55		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6824	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	937152	Inst:	VOA2.I	Dilution:	1
Run Date:	12/29/2009 03:12	Analyst:	CDS1	Purge Vol:	5 mL
Prep Date:	12/29/2009 03:12				
Data File:	122809V2.b\2S143.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00	
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00	
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00	
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00	
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00	
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00	
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00	
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00	R,V7b
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00	UJ,V7c
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00	
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00	
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00	
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00	R,V7b
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00	UJ,V7c
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0	R,V7b
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00	UJ,V7c

EH
2/12/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401009**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6824**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 03:12**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 03:12**				
Data File:	**122809V2.b\2S143.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00 UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	54.1	50.0	ug/L	108	(59%-130%)
Bromofluorobenzene	50.7	50.0	ug/L	101	(71%-126%)
Toluene-d8	47.7	50.0	ug/L	95.3	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	4.35	22.6	ug/L	0	J

EH
2/12/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401011**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6826**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 03:41**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 03:41**				
Data File:	**122809V2.b\2S144.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00	
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00	
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00	
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00	
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0	
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0	R,V7b
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00	
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0	
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00	
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00	
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0	
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00	
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00	
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00	
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00	

EH
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	Date Collected:	12/18/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243401011	Date Received:	12/22/2009 09:55		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6826	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	937152	Inst:	VOA2.I	Dilution:	1
Run Date:	12/29/2009 03:41	Analyst:	CDS1	Purge Vol:	5 mL
Prep Date:	12/29/2009 03:41				
Data File:	122809V2.b\2S144.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00	
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00	
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00	
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00	
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00	
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00	
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00	
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00	R,V7b
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00	UJ,V7c
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00	
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00	
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00	
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00	R,V7b
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00	UJ,V7c
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0	R,V7b
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00	UJ,V7c

EH
2/12/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401011**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6826**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 03:41**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 03:41**				
Data File:	**122809V2.b\2S144.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00 UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	55.5	50.0	ug/L	111	(59%-130%)
Bromofluorobenzene	51.4	50.0	ug/L	103	(71%-126%)
Toluene-d8	48.2	50.0	ug/L	96.3	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	4.35	22.2	ug/L	0	J

EH
2/12/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	**Date Collected:**	12/18/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	243401012	**Date Received:**	12/22/2009 09:55		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-6825	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	937152	**Inst:**	VOA2.I	**Dilution:**	1
Run Date:	12/29/2009 04:10	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	12/29/2009 04:10				
Data File:	122809V2.b\2S145.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00	
74-87-3	Chloromethane	J	0.830	ug/L	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00	
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00	
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00	
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0	
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0	R,V7b
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00	
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0	
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00	
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00	
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0	
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00	
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00	
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00	
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00	

EH
2/12/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	Date Collected:	12/18/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243401012	Date Received:	12/22/2009 09:55		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6825	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	937152	Inst:	VOA2.I	Dilution:	1
Run Date:	12/29/2009 04:10	Analyst:	CDS1	Purge Vol:	5 mL
Prep Date:	12/29/2009 04:10				
Data File:	122809V2.b\2S145.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00	
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00	
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00	
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00	
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00	
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00	
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00	
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00	R,V7b
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00	UJ,V7c
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00	
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00	
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00	
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00	R,V7b
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00	UJ,V7c
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0	R,V7b
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00	UJ,V7c

EH
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401012**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6825**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 04:10**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 04:10**				
Data File:	**122809V2.b\2S145.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00 UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	54.2	50.0	ug/L	108	(59%-130%)
Bromofluorobenzene	50.9	50.0	ug/L	102	(71%-126%)
Toluene-d8	47.6	50.0	ug/L	95.2	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	4.33	16.1	ug/L	0	J

EH
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DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1020 VALIDATION DATE: 2/12/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eyda Hergenreder ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): GC/MS SVOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICAL and/or continuing calibration RRF values for atrazine were <0.05. All associated sample results were NDs and, thus, were qualified R,SV7b.
2. The CCV %Ds for hexachlorocyclopentadiene, benzidine and 1,4-dioxane were >20%. The 1,4-dioxane result for samples CAPA-10-6822, -6824 and -6826 were detects and, thus, were qualified J,SV7c. All other associated sample results were NDs and, thus, were qualified UJ,SV7c.
3. The LCS %R for n-methyl-n-nitrosomethylamine was < the laboratory LAL but ≥10%. All associated sample results were NDs and, thus, were qualified UJ,SV12a.
4. The MS and MSD %Rs for benzidine were < the laboratory LAL but ≥ 10%. In addition the MS/MSD RPD for hexachlorocyclopentadiene was > the laboratory acceptance limit. Since MS/MSD analyses are not required for this method, no data were qualified as a result.

Reviewed by: Allison Felix Level: 1 Date: 2/15/10

VALIDATOR'S SIGNATURE: Eyda Hergenreder (Eyda Hergenreder) DATE: 2/12/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☒	☐	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

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Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☒	☐	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☒	☐	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☒	☐	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	Date Collected:	12/18/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243401002	Date Received:	12/22/2009 09:55		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6822	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	936348	Inst:	MSD6.I	Dilution:	1
Run Date:	01/06/2010 16:02	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/24/2009 11:43	Aliquot:	860 mL	Final Volume:	1 mL
Data File:	s6a0616.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	11.6	ug/L	2.33	11.6	UJ,SV12a
108-95-2	Phenol	U	11.6	ug/L	1.16	11.6	
95-57-8	2-Chlorophenol	U	11.6	ug/L	2.33	11.6	
106-46-7	1,4-Dichlorobenzene	U	11.6	ug/L	2.33	11.6	
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	11.6	ug/L	2.33	11.6	
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	11.6	ug/L	2.33	11.6	
83-32-9	Acenaphthene	U	1.16	ug/L	0.360	1.16	
121-14-2	2,4-Dinitrotoluene	U	11.6	ug/L	2.33	11.6	
100-02-7	4-Nitrophenol	U	11.6	ug/L	2.33	11.6	
87-86-5	Pentachlorophenol	U	11.6	ug/L	2.33	11.6	
129-00-0	Pyrene	U	1.16	ug/L	0.349	1.16	
110-86-1	Pyridine	U	11.6	ug/L	3.49	11.6	
62-53-3	Aniline	U	11.6	ug/L	2.91	11.6	
111-44-4	bis(2-Chloroethyl) ether	U	11.6	ug/L	2.33	11.6	
541-73-1	1,3-Dichlorobenzene	U	11.6	ug/L	2.33	11.6	
100-51-6	Benzyl alcohol	U	11.6	ug/L	2.33	11.6	
95-50-1	1,2-Dichlorobenzene	U	11.6	ug/L	2.33	11.6	
108-60-1	bis(2-Chloroisopropyl)ether	U	11.6	ug/L	2.33	11.6	
95-48-7	o-Cresol	U	11.6	ug/L	2.33	11.6	
65794-96-9	m,p-Cresols	U	11.6	ug/L	3.49	11.6	
67-72-1	Hexachloroethane	U	11.6	ug/L	2.33	11.6	
98-95-3	Nitrobenzene	U	11.6	ug/L	3.49	11.6	
78-59-1	Isophorone	U	11.6	ug/L	3.49	11.6	
88-75-5	2-Nitrophenol	U	11.6	ug/L	2.33	11.6	
105-67-9	2,4-Dimethylphenol	U	11.6	ug/L	2.33	11.6	
111-91-1	bis(2-Chloroethoxy)methane	U	11.6	ug/L	3.49	11.6	
120-83-2	2,4-Dichlorophenol	U	11.6	ug/L	2.33	11.6	
65-85-0	Benzoic acid	U	23.3	ug/L	6.98	23.3	
91-20-3	Naphthalene	U	1.16	ug/L	0.349	1.16	
106-47-8	4-Chloroaniline	U	11.6	ug/L	2.33	11.6	
87-68-3	Hexachlorobutadiene	U	11.6	ug/L	2.33	11.6	
91-57-6	2-Methylnaphthalene	U	1.16	ug/L	0.349	1.16	
90-12-0	1-Methylnaphthalene	U	1.16	ug/L	0.349	1.16	
77-47-4	Hexachlorocyclopentadiene	U	11.6	ug/L	3.49	11.6	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	11.6	ug/L	2.33	11.6	
95-95-4	2,4,5-Trichlorophenol	U	11.6	ug/L	2.33	11.6	
91-58-7	2-Chloronaphthalene	U	1.16	ug/L	0.349	1.16	

EH
2/12/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401002**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6822**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 16:02**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**860 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0616.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	11.6	ug/L	2.33	11.6	
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	11.6	ug/L	2.33	11.6	
131-11-3	Dimethylphthalate	U	11.6	ug/L	2.33	11.6	
606-20-2	2,6-Dinitrotoluene	U	11.6	ug/L	2.33	11.6	
208-96-8	Acenaphthylene	U	1.16	ug/L	0.233	1.16	
51-28-5	2,4-Dinitrophenol	U	23.3	ug/L	5.81	23.3	
132-64-9	Dibenzofuran	U	11.6	ug/L	2.33	11.6	
84-66-2	Diethylphthalate	U	11.6	ug/L	2.33	11.6	
86-73-7	Fluorene	U	1.16	ug/L	0.233	1.16	
7005-72-3	4-Chlorophenylphenylether	U	11.6	ug/L	2.33	11.6	
534-52-1	2-Methyl-4,6-dinitrophenol	U	11.6	ug/L	3.49	11.6	
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	11.6	ug/L	3.49	11.6	
122-39-4	Diphenylamine *1,2-Diphenylhydrazine*	U	11.6	ug/L	3.49	11.6	
122-66-7	Azobenzene	U	11.6	ug/L	2.33	11.6	
101-55-3	4-Bromophenylphenylether	U	11.6	ug/L	2.33	11.6	
118-74-1	Hexachlorobenzene	U	11.6	ug/L	2.33	11.6	
1912-24-9	Atrazine	U	11.6	ug/L	3.49	11.6	R,SV7b
85-01-8	Phenanthrene	U	1.16	ug/L	0.233	1.16	
120-12-7	Anthracene	U	1.16	ug/L	0.233	1.16	
84-74-2	Di-n-butylphthalate	U	11.6	ug/L	2.33	11.6	
206-44-0	Fluoranthene	U	1.16	ug/L	0.233	1.16	
92-87-5	Benzidine	U	11.6	ug/L	3.49	11.6	UJ,SV7c
85-68-7	Butylbenzylphthalate	U	11.6	ug/L	2.33	11.6	
56-55-3	Benzo(a)anthracene	U	1.16	ug/L	0.233	1.16	
91-94-1	3,3'-Dichlorobenzidine	U	11.6	ug/L	2.33	11.6	
218-01-9	Chrysene	U	1.16	ug/L	0.233	1.16	
117-81-7	bis(2-Ethylhexyl)phthalate	U	11.6	ug/L	2.33	11.6	
117-84-0	Di-n-octylphthalate	U	11.6	ug/L	3.49	11.6	
205-99-2	Benzo(b)fluoranthene	U	1.16	ug/L	0.233	1.16	
207-08-9	Benzo(k)fluoranthene	U	1.16	ug/L	0.233	1.16	
50-32-8	Benzo(a)pyrene	U	1.16	ug/L	0.233	1.16	
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.16	ug/L	0.233	1.16	
53-70-3	Dibenzo(a,h)anthracene	U	1.16	ug/L	0.233	1.16	
191-24-2	Benzo(ghi)perylene	U	1.16	ug/L	0.233	1.16	
123-91-1	1,4-Dioxane	J	2.55	ug/L	2.33	11.6	J,SV7c
55-18-5	N-Nitrosodiethylamine	U	11.6	ug/L	2.33	11.6	

EH
2/12/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401002**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6822**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 16:02**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**860 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0616.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	11.6	ug/L	2.33	11.6
924-16-3	N-Nitrosodi-n-butylamine	U	11.6	ug/L	3.49	11.6
95-94-3	1,2,4,5-Tetrachlorobenzene	U	11.6	ug/L	3.49	11.6
608-93-5	Pentachlorobenzene	U	11.6	ug/L	3.49	11.6
58-90-2	2,3,4,6-Tetrachlorophenol	U	11.6	ug/L	2.33	11.6
88-85-7	Dinoseb	U	11.6	ug/L	2.33	11.6
120-82-1	1,2,4-Trichlorobenzene	U	11.6	ug/L	2.33	11.6

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	91.2	116	ug/L	78.5	(39%-115%)
2-Fluorobiphenyl	38.4	58.1	ug/L	66.1	(35%-100%)
2-Fluorophenol	49.6	116	ug/L	42.7	(25%-92%)
Nitrobenzene-d5	40.7	58.1	ug/L	70.0	(40%-112%)
Phenol-d5	32.7	116	ug/L	28.1	(15%-73%)
p-Terphenyl-d14	47.1	58.1	ug/L	81.1	(46%-130%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
563-80-4	2-Butanone, 3-methyl-	2.13	16.9	ug/L	72	NJ

EH
2/12/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	Date Collected:	12/18/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243401005	Date Received:	12/22/2009 09:55		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6823	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	936348	Inst:	MSD6.I	Dilution:	1
Run Date:	01/06/2010 17:26	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/24/2009 11:43	Aliquot:	925 mL	Final Volume:	1 mL
Data File:	s6a0619.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.8	ug/L	2.16	10.8	UJ,SV12a
108-95-2	Phenol	U	10.8	ug/L	1.08	10.8	
95-57-8	2-Chlorophenol	U	10.8	ug/L	2.16	10.8	
106-46-7	1,4-Dichlorobenzene	U	10.8	ug/L	2.16	10.8	
621-64-7	N-Nitrosodi--n-propylamine	U	10.8	ug/L	2.16	10.8	
59-50-7	*N-Nitrosodipropylamine* Parachlorometa cresol	U	10.8	ug/L	2.16	10.8	
83-32-9	*4-Chloro-3-methylphenol* Acenaphthene	U	1.08	ug/L	0.335	1.08	
121-14-2	2,4-Dinitrotoluene	U	10.8	ug/L	2.16	10.8	
100-02-7	4-Nitrophenol	U	10.8	ug/L	2.16	10.8	
87-86-5	Pentachlorophenol	U	10.8	ug/L	2.16	10.8	
129-00-0	Pyrene	U	1.08	ug/L	0.324	1.08	
110-86-1	Pyridine	U	10.8	ug/L	3.24	10.8	
62-53-3	Aniline	U	10.8	ug/L	2.70	10.8	
111-44-4	bis(2-Chloroethyl) ether	U	10.8	ug/L	2.16	10.8	
541-73-1	1,3-Dichlorobenzene	U	10.8	ug/L	2.16	10.8	
100-51-6	Benzyl alcohol	U	10.8	ug/L	2.16	10.8	
95-50-1	1,2-Dichlorobenzene	U	10.8	ug/L	2.16	10.8	
108-60-1	bis(2-Chloroisopropyl)ether	U	10.8	ug/L	2.16	10.8	
95-48-7	o-Cresol	U	10.8	ug/L	2.16	10.8	
65794-96-9	m,p-Cresols	U	10.8	ug/L	3.24	10.8	
67-72-1	Hexachloroethane	U	10.8	ug/L	2.16	10.8	
98-95-3	Nitrobenzene	U	10.8	ug/L	3.24	10.8	
78-59-1	Isophorone	U	10.8	ug/L	3.24	10.8	
88-75-5	2-Nitrophenol	U	10.8	ug/L	2.16	10.8	
105-67-9	2,4-Dimethylphenol	U	10.8	ug/L	2.16	10.8	
111-91-1	bis(2-Chloroethoxy)methane	U	10.8	ug/L	3.24	10.8	
120-83-2	2,4-Dichlorophenol	U	10.8	ug/L	2.16	10.8	
65-85-0	Benzoic acid	U	21.6	ug/L	6.49	21.6	
91-20-3	Naphthalene	U	1.08	ug/L	0.324	1.08	
106-47-8	4-Chloroaniline	U	10.8	ug/L	2.16	10.8	
87-68-3	Hexachlorobutadiene	U	10.8	ug/L	2.16	10.8	
91-57-6	2-Methylnaphthalene	U	1.08	ug/L	0.324	1.08	
90-12-0	1-Methylnaphthalene	U	1.08	ug/L	0.324	1.08	
77-47-4	Hexachlorocyclopentadiene	U	10.8	ug/L	3.24	10.8	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	10.8	ug/L	2.16	10.8	
95-95-4	2,4,5-Trichlorophenol	U	10.8	ug/L	2.16	10.8	
91-58-7	2-Chloronaphthalene	U	1.08	ug/L	0.324	1.08	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401005**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6823**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 17:26**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**925 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0619.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.8	ug/L	2.16	10.8	
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.8	ug/L	2.16	10.8	
131-11-3	Dimethylphthalate	U	10.8	ug/L	2.16	10.8	
606-20-2	2,6-Dinitrotoluene	U	10.8	ug/L	2.16	10.8	
208-96-8	Acenaphthylene	U	1.08	ug/L	0.216	1.08	
51-28-5	2,4-Dinitrophenol	U	21.6	ug/L	5.41	21.6	
132-64-9	Dibenzofuran	U	10.8	ug/L	2.16	10.8	
84-66-2	Diethylphthalate	U	10.8	ug/L	2.16	10.8	
86-73-7	Fluorene	U	1.08	ug/L	0.216	1.08	
7005-72-3	4-Chlorophenylphenylether	U	10.8	ug/L	2.16	10.8	
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.8	ug/L	3.24	10.8	
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.8	ug/L	3.24	10.8	
122-39-4	Diphenylamine	U	10.8	ug/L	3.24	10.8	
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	10.8	ug/L	2.16	10.8	
101-55-3	4-Bromophenylphenylether	U	10.8	ug/L	2.16	10.8	
118-74-1	Hexachlorobenzene	U	10.8	ug/L	2.16	10.8	
1912-24-9	Atrazine	U	10.8	ug/L	3.24	10.8	R,SV7b
85-01-8	Phenanthrene	U	1.08	ug/L	0.216	1.08	
120-12-7	Anthracene	U	1.08	ug/L	0.216	1.08	
84-74-2	Di-n-butylphthalate	U	10.8	ug/L	2.16	10.8	
206-44-0	Fluoranthene	U	1.08	ug/L	0.216	1.08	
92-87-5	Benzidine	U	10.8	ug/L	3.24	10.8	UJ,SV7c
85-68-7	Butylbenzylphthalate	U	10.8	ug/L	2.16	10.8	
56-55-3	Benzo(a)anthracene	U	1.08	ug/L	0.216	1.08	
91-94-1	3,3'-Dichlorobenzidine	U	10.8	ug/L	2.16	10.8	
218-01-9	Chrysene	U	1.08	ug/L	0.216	1.08	
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.8	ug/L	2.16	10.8	
117-84-0	Di-n-octylphthalate	U	10.8	ug/L	3.24	10.8	
205-99-2	Benzo(b)fluoranthene	U	1.08	ug/L	0.216	1.08	
207-08-9	Benzo(k)fluoranthene	U	1.08	ug/L	0.216	1.08	
50-32-8	Benzo(a)pyrene	U	1.08	ug/L	0.216	1.08	
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.08	ug/L	0.216	1.08	
53-70-3	Dibenzo(a,h)anthracene	U	1.08	ug/L	0.216	1.08	
191-24-2	Benzo(ghi)perylene	U	1.08	ug/L	0.216	1.08	
123-91-1	1,4-Dioxane	U	10.8	ug/L	2.16	10.8	UJ,SV7c
55-18-5	N-Nitrosodiethylamine	U	10.8	ug/L	2.16	10.8	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	Date Collected:	12/18/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243401005	Date Received:	12/22/2009 09:55		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6823	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	936348	Inst:	MSD6.I	Dilution:	1
Run Date:	01/06/2010 17:26	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/24/2009 11:43	Aliquot:	925 mL	Final Volume:	1 mL
Data File:	s6a0619.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.8	ug/L	2.16	10.8
924-16-3	N-Nitrosodi-n-butylamine	U	10.8	ug/L	3.24	10.8
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.8	ug/L	3.24	10.8
608-93-5	Pentachlorobenzene	U	10.8	ug/L	3.24	10.8
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.8	ug/L	2.16	10.8
88-85-7	Dinoseb	U	10.8	ug/L	2.16	10.8
120-82-1	1,2,4-Trichlorobenzene	U	10.8	ug/L	2.16	10.8

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	86.2	108	ug/L	79.7	(39%-115%)
2-Fluorobiphenyl	36.7	54.1	ug/L	67.8	(35%-100%)
2-Fluorophenol	45.1	108	ug/L	41.7	(25%-92%)
Nitrobenzene-d5	38.1	54.1	ug/L	70.6	(40%-112%)
Phenol-d5	29.2	108	ug/L	27.0	(15%-73%)
p-Terphenyl-d14	50.8	54.1	ug/L	94.0	(46%-130%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.12	15.1	ug/L		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401009**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6824**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 17:53**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**925 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0620.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.8	ug/L	2.16	10.8	UJ,SV12a
108-95-2	Phenol	U	10.8	ug/L	1.08	10.8	
95-57-8	2-Chlorophenol	U	10.8	ug/L	2.16	10.8	
106-46-7	1,4-Dichlorobenzene	U	10.8	ug/L	2.16	10.8	
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	10.8	ug/L	2.16	10.8	
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	10.8	ug/L	2.16	10.8	
83-32-9	Acenaphthene	U	1.08	ug/L	0.335	1.08	
121-14-2	2,4-Dinitrotoluene	U	10.8	ug/L	2.16	10.8	
100-02-7	4-Nitrophenol	U	10.8	ug/L	2.16	10.8	
87-86-5	Pentachlorophenol	U	10.8	ug/L	2.16	10.8	
129-00-0	Pyrene	U	1.08	ug/L	0.324	1.08	
110-86-1	Pyridine	U	10.8	ug/L	3.24	10.8	
62-53-3	Aniline	U	10.8	ug/L	2.70	10.8	
111-44-4	bis(2-Chloroethyl) ether	U	10.8	ug/L	2.16	10.8	
541-73-1	1,3-Dichlorobenzene	U	10.8	ug/L	2.16	10.8	
100-51-6	Benzyl alcohol	U	10.8	ug/L	2.16	10.8	
95-50-1	1,2-Dichlorobenzene	U	10.8	ug/L	2.16	10.8	
108-60-1	bis(2-Chloroisopropyl)ether	U	10.8	ug/L	2.16	10.8	
95-48-7	o-Cresol	U	10.8	ug/L	2.16	10.8	
65794-96-9	m,p-Cresols	U	10.8	ug/L	3.24	10.8	
67-72-1	Hexachloroethane	U	10.8	ug/L	2.16	10.8	
98-95-3	Nitrobenzene	U	10.8	ug/L	3.24	10.8	
78-59-1	Isophorone	U	10.8	ug/L	3.24	10.8	
88-75-5	2-Nitrophenol	U	10.8	ug/L	2.16	10.8	
105-67-9	2,4-Dimethylphenol	U	10.8	ug/L	2.16	10.8	
111-91-1	bis(2-Chloroethoxy)methane	U	10.8	ug/L	3.24	10.8	
120-83-2	2,4-Dichlorophenol	U	10.8	ug/L	2.16	10.8	
65-85-0	Benzoic acid	U	21.6	ug/L	6.49	21.6	
91-20-3	Naphthalene	U	1.08	ug/L	0.324	1.08	
106-47-8	4-Chloroaniline	U	10.8	ug/L	2.16	10.8	
87-68-3	Hexachlorobutadiene	U	10.8	ug/L	2.16	10.8	
91-57-6	2-Methylnaphthalene	U	1.08	ug/L	0.324	1.08	
90-12-0	1-Methylnaphthalene	U	1.08	ug/L	0.324	1.08	
77-47-4	Hexachlorocyclopentadiene	U	10.8	ug/L	3.24	10.8	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	10.8	ug/L	2.16	10.8	
95-95-4	2,4,5-Trichlorophenol	U	10.8	ug/L	2.16	10.8	
91-58-7	2-Chloronaphthalene	U	1.08	ug/L	0.324	1.08	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401009**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6824**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 17:53**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**925 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0620.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.8	ug/L	2.16	10.8	
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.8	ug/L	2.16	10.8	
131-11-3	Dimethylphthalate	U	10.8	ug/L	2.16	10.8	
606-20-2	2,6-Dinitrotoluene	U	10.8	ug/L	2.16	10.8	
208-96-8	Acenaphthylene	U	1.08	ug/L	0.216	1.08	
51-28-5	2,4-Dinitrophenol	U	21.6	ug/L	5.41	21.6	
132-64-9	Dibenzofuran	U	10.8	ug/L	2.16	10.8	
84-66-2	Diethylphthalate	U	10.8	ug/L	2.16	10.8	
86-73-7	Fluorene	U	1.08	ug/L	0.216	1.08	
7005-72-3	4-Chlorophenylphenylether	U	10.8	ug/L	2.16	10.8	
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.8	ug/L	3.24	10.8	
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.8	ug/L	3.24	10.8	
122-39-4	Diphenylamine *1,2-Diphenylhydrazine*	U	10.8	ug/L	3.24	10.8	
122-66-7	Azobenzene	U	10.8	ug/L	2.16	10.8	
101-55-3	4-Bromophenylphenylether	U	10.8	ug/L	2.16	10.8	
118-74-1	Hexachlorobenzene	U	10.8	ug/L	2.16	10.8	
1912-24-9	Atrazine	U	10.8	ug/L	3.24	10.8	R,SV7b
85-01-8	Phenanthrene	U	1.08	ug/L	0.216	1.08	
120-12-7	Anthracene	U	1.08	ug/L	0.216	1.08	
84-74-2	Di-n-butylphthalate	U	10.8	ug/L	2.16	10.8	
206-44-0	Fluoranthene	U	1.08	ug/L	0.216	1.08	
92-87-5	Benzidine	U	10.8	ug/L	3.24	10.8	UJ,SV7c
85-68-7	Butylbenzylphthalate	U	10.8	ug/L	2.16	10.8	
56-55-3	Benzo(a)anthracene	U	1.08	ug/L	0.216	1.08	
91-94-1	3,3'-Dichlorobenzidine	U	10.8	ug/L	2.16	10.8	
218-01-9	Chrysene	U	1.08	ug/L	0.216	1.08	
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.8	ug/L	2.16	10.8	
117-84-0	Di-n-octylphthalate	U	10.8	ug/L	3.24	10.8	
205-99-2	Benzo(b)fluoranthene	U	1.08	ug/L	0.216	1.08	
207-08-9	Benzo(k)fluoranthene	U	1.08	ug/L	0.216	1.08	
50-32-8	Benzo(a)pyrene	U	1.08	ug/L	0.216	1.08	
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.08	ug/L	0.216	1.08	
53-70-3	Dibenzo(a,h)anthracene	U	1.08	ug/L	0.216	1.08	
191-24-2	Benzo(ghi)perylene	U	1.08	ug/L	0.216	1.08	
123-91-1	1,4-Dioxane	J	2.29	ug/L	2.16	10.8	J,SV7c
55-18-5	N-Nitrosodiethylamine	U	10.8	ug/L	2.16	10.8	

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401009**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6824**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 17:53**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**925 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0620.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.8	ug/L	2.16	10.8
924-16-3	N-Nitrosodi-n-butylamine	U	10.8	ug/L	3.24	10.8
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.8	ug/L	3.24	10.8
608-93-5	Pentachlorobenzene	U	10.8	ug/L	3.24	10.8
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.8	ug/L	2.16	10.8
88-85-7	Dinoseb	U	10.8	ug/L	2.16	10.8
120-82-1	1,2,4-Trichlorobenzene	U	10.8	ug/L	2.16	10.8

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	95.2	108	ug/L	88.0	(39%-115%)
2-Fluorobiphenyl	44.2	54.1	ug/L	81.7	(35%-100%)
2-Fluorophenol	55.0	108	ug/L	50.9	(25%-92%)
Nitrobenzene-d5	45.9	54.1	ug/L	84.9	(40%-112%)
Phenol-d5	35.3	108	ug/L	32.7	(15%-73%)
p-Terphenyl-d14	57.1	54.1	ug/L	106	(46%-130%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.13	15.7	ug/L		J

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401011**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6826**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 18:21**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**920 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0621.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.9	ug/L	2.17	10.9	UJ,SV12a
108-95-2	Phenol	U	10.9	ug/L	1.09	10.9	
95-57-8	2-Chlorophenol	U	10.9	ug/L	2.17	10.9	
106-46-7	1,4-Dichlorobenzene	U	10.9	ug/L	2.17	10.9	
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	10.9	ug/L	2.17	10.9	
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	10.9	ug/L	2.17	10.9	
83-32-9	Acenaphthene	U	1.09	ug/L	0.337	1.09	
121-14-2	2,4-Dinitrotoluene	U	10.9	ug/L	2.17	10.9	
100-02-7	4-Nitrophenol	U	10.9	ug/L	2.17	10.9	
87-86-5	Pentachlorophenol	U	10.9	ug/L	2.17	10.9	
129-00-0	Pyrene	U	1.09	ug/L	0.326	1.09	
110-86-1	Pyridine	U	10.9	ug/L	3.26	10.9	
62-53-3	Aniline	U	10.9	ug/L	2.72	10.9	
111-44-4	bis(2-Chloroethyl) ether	U	10.9	ug/L	2.17	10.9	
541-73-1	1,3-Dichlorobenzene	U	10.9	ug/L	2.17	10.9	
100-51-6	Benzyl alcohol	U	10.9	ug/L	2.17	10.9	
95-50-1	1,2-Dichlorobenzene	U	10.9	ug/L	2.17	10.9	
108-60-1	bis(2-Chloroisopropyl)ether	U	10.9	ug/L	2.17	10.9	
95-48-7	o-Cresol	U	10.9	ug/L	2.17	10.9	
65794-96-9	m,p-Cresols	U	10.9	ug/L	3.26	10.9	
67-72-1	Hexachloroethane	U	10.9	ug/L	2.17	10.9	
98-95-3	Nitrobenzene	U	10.9	ug/L	3.26	10.9	
78-59-1	Isophorone	U	10.9	ug/L	3.26	10.9	
88-75-5	2-Nitrophenol	U	10.9	ug/L	2.17	10.9	
105-67-9	2,4-Dimethylphenol	U	10.9	ug/L	2.17	10.9	
111-91-1	bis(2-Chloroethoxy)methane	U	10.9	ug/L	3.26	10.9	
120-83-2	2,4-Dichlorophenol	U	10.9	ug/L	2.17	10.9	
65-85-0	Benzoic acid	U	21.7	ug/L	6.52	21.7	
91-20-3	Naphthalene	U	1.09	ug/L	0.326	1.09	
106-47-8	4-Chloroaniline	U	10.9	ug/L	2.17	10.9	
87-68-3	Hexachlorobutadiene	U	10.9	ug/L	2.17	10.9	
91-57-6	2-Methylnaphthalene	U	1.09	ug/L	0.326	1.09	
90-12-0	1-Methylnaphthalene	U	1.09	ug/L	0.326	1.09	
77-47-4	Hexachlorocyclopentadiene	U	10.9	ug/L	3.26	10.9	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	10.9	ug/L	2.17	10.9	
95-95-4	2,4,5-Trichlorophenol	U	10.9	ug/L	2.17	10.9	
91-58-7	2-Chloronaphthalene	U	1.09	ug/L	0.326	1.09	

EH
2/12/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	Date Collected:	12/18/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243401011	Date Received:	12/22/2009 09:55		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6826	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	936348	Inst:	MSD6.I	Dilution:	1
Run Date:	01/06/2010 18:21	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/24/2009 11:43	Aliquot:	920 mL	Final Volume:	1 mL
Data File:	s6a0621.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.9	ug/L	2.17	10.9	
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.9	ug/L	2.17	10.9	
131-11-3	Dimethylphthalate	U	10.9	ug/L	2.17	10.9	
606-20-2	2,6-Dinitrotoluene	U	10.9	ug/L	2.17	10.9	
208-96-8	Acenaphthylene	U	1.09	ug/L	0.217	1.09	
51-28-5	2,4-Dinitrophenol	U	21.7	ug/L	5.43	21.7	
132-64-9	Dibenzofuran	U	10.9	ug/L	2.17	10.9	
84-66-2	Diethylphthalate	U	10.9	ug/L	2.17	10.9	
86-73-7	Fluorene	U	1.09	ug/L	0.217	1.09	
7005-72-3	4-Chlorophenylphenylether	U	10.9	ug/L	2.17	10.9	
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.9	ug/L	3.26	10.9	
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.9	ug/L	3.26	10.9	
122-39-4	Diphenylamine	U	10.9	ug/L	3.26	10.9	
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	10.9	ug/L	2.17	10.9	
101-55-3	4-Bromophenylphenylether	U	10.9	ug/L	2.17	10.9	
118-74-1	Hexachlorobenzene	U	10.9	ug/L	2.17	10.9	
1912-24-9	Atrazine	U	10.9	ug/L	3.26	10.9	R,SV7b
85-01-8	Phenanthrene	U	1.09	ug/L	0.217	1.09	
120-12-7	Anthracene	U	1.09	ug/L	0.217	1.09	
84-74-2	Di-n-butylphthalate	U	10.9	ug/L	2.17	10.9	
206-44-0	Fluoranthene	U	1.09	ug/L	0.217	1.09	
92-87-5	Benzidine	U	10.9	ug/L	3.26	10.9	UJ,SV7c
85-68-7	Butylbenzylphthalate	U	10.9	ug/L	2.17	10.9	
56-55-3	Benzo(a)anthracene	U	1.09	ug/L	0.217	1.09	
91-94-1	3,3'-Dichlorobenzidine	U	10.9	ug/L	2.17	10.9	
218-01-9	Chrysene	U	1.09	ug/L	0.217	1.09	
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.9	ug/L	2.17	10.9	
117-84-0	Di-n-octylphthalate	U	10.9	ug/L	3.26	10.9	
205-99-2	Benzo(b)fluoranthene	U	1.09	ug/L	0.217	1.09	
207-08-9	Benzo(k)fluoranthene	U	1.09	ug/L	0.217	1.09	
50-32-8	Benzo(a)pyrene	U	1.09	ug/L	0.217	1.09	
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.09	ug/L	0.217	1.09	
53-70-3	Dibenzo(a,h)anthracene	U	1.09	ug/L	0.217	1.09	
191-24-2	Benzo(ghi)perylene	U	1.09	ug/L	0.217	1.09	
123-91-1	1,4-Dioxane	J	2.19	ug/L	2.17	10.9	J,SV7c
55-18-5	N-Nitrosodiethylamine	U	10.9	ug/L	2.17	10.9	

EH
2/12/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401011**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6826**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 18:21**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**920 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0621.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.9	ug/L	2.17	10.9
924-16-3	N-Nitrosodi-n-butylamine	U	10.9	ug/L	3.26	10.9
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.9	ug/L	3.26	10.9
608-93-5	Pentachlorobenzene	U	10.9	ug/L	3.26	10.9
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.9	ug/L	2.17	10.9
88-85-7	Dinoseb	U	10.9	ug/L	2.17	10.9
120-82-1	1,2,4-Trichlorobenzene	U	10.9	ug/L	2.17	10.9

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	93.4	109	ug/L	85.9	(39%-115%)
2-Fluorobiphenyl	38.7	54.3	ug/L	71.3	(35%-100%)
2-Fluorophenol	47.5	109	ug/L	43.7	(25%-92%)
Nitrobenzene-d5	40.0	54.3	ug/L	73.6	(40%-112%)
Phenol-d5	31.0	109	ug/L	28.5	(15%-73%)
p-Terphenyl-d14	50.2	54.3	ug/L	92.4	(46%-130%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.13	22	ug/L		J
50-84-0	Benzoic acid, 2,4-dichloro-	7.95	46.6	ug/L	99	NJ

EH
2/12/10

DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1020 VALIDATION DATE: 2/12/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eyda Hergenreder ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☒ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV %D for p-nitrotoluene was >20% with positive bias. All associated sample results were NDs and, thus data were not qualified. The CCV %D for 2,4-diamino-6-nitrotoluene was >20% but ≤40% with negative bias. All associated sample results were NDs and, thus, were qualified UJ,HE7c.
2. The MS and MSD %Rs for tetryl were <the laboratory LAL but ≥10%. All associated sample results were NDs and, thus, were qualified UJ,HE12e.

Reviewed by: Allison Felix Level: 1 Date: 2/15/10

VALIDATOR'S SIGNATURE: Eyda Hergenreder Eyda Hergenreder DATE: 2/12/10

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
☐	☐	☒	3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
☐	☐	☒	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
☐	☐	☒	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
☐	☒	☐	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
☐	☒	☐	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
☐	☒	☐	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
☐	☐	☒	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2 LC/MS/MS High Explosive Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	11. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE3d	R, HE3d
☐	☒	☐	12. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, HE4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, HE4a
☐	☐	☒	14. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, HE4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE4e	R, HE4e
☐	☒	☐	16. The absence of sample carry-over must be determined and verified.	N/A	R, N, HE4f
☐	☒	☐	17. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, HE7	J, HE7
☐	☒	☐	18. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less < 0.99.	UJ, R, HE7a	J, HE7a
☐	☒	☐	19. The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV.	UJ, R, HE7b	J, HE7b
☒	☐	☐	20. The ICV and/or CCV were recovered outside the method limits.	UJ, R, HE7c	J, HE7c
☐	☒	☐	21. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, HE7d	J, HE7d
☐	☒	☐	22. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, HE7f	R, HE7f

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
☐	☒	☐	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
☐	☒	☐	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
☐	☒	☐	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
☐	☒	☐	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
☐	☒	☐	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
☐	☒	☐	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
☐	☒	☐	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
☒	☐	☐	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
☐	☒	☐	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
☐	☒	☐	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
☐	☐	☒	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, HE15	R, HE15
☐	☐	☒	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2 LC/MS/MS High Explosive Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
☐	☐	☒	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6823

Lab Code: GEL

GEL Job No (SDG) 10-1020

Matrix: GROUND WATER

GEL Sample ID: 243401006

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 22-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 936335

Concentrated Extract Volume (mL) 5

Date Extracted: 24-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0118015a

Date Analyzed: 18-JAN-10 20:56

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	U
121-14-2	2,4-Dinitrotoluene	0.325	U
121-82-4	RDX	0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	U
2691-41-0	HMX	0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	U
479-45-8	Tetryl UJ,HE12e	0.649	U
606-20-2	2,6-Dinitrotoluene	0.325	U
78-11-5	PETN	1.3	U
88-72-2	o-Nitrotoluene	0.325	U
98-95-3	Nitrobenzene	0.325	U
99-08-1	m-Nitrotoluene	0.325	U
99-35-4	1,3,5-Trinitrobenzene	0.325	U
99-65-0	m-Dinitrobenzene	0.325	U
99-99-0	p-Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

EH
2/12/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6823

Lab Code: GEL

GEL Job No (SDG) 10-1020

Matrix: GROUND WATER

GEL Sample ID: 243401006

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 22-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 936335

Concentrated Extract Volume (mL) 5

Date Extracted: 24-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01100018.wiff

Date Analyzed: 11-JAN-10 15:43

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

EH
2/12/10

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6824

Lab Code: GEL

GEL Job No (SDG) 10-1020

Matrix: GROUND WATER

GEL Sample ID: 243401010

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 22-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 936335

Concentrated Extract Volume (mL) 5

Date Extracted: 24-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0118018a

Date Analyzed: 18-JAN-10 22:24

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	U
121-14-2	2,4-Dinitrotoluene	0.325	U
121-82-4	RDX	0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	U
2691-41-0	HMX	0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	U
479-45-8	Tetryl UJ,HE12e	0.649	U
606-20-2	2,6-Dinitrotoluene	0.325	U
78-11-5	PETN	1.3	U
88-72-2	o-Nitrotoluene	0.325	U
98-95-3	Nitrobenzene	0.325	U
99-08-1	m-Nitrotoluene	0.325	U
99-35-4	1,3,5-Trinitrobenzene	0.325	U
99-65-0	m-Dinitrobenzene	0.325	U
99-99-0	p-Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

EH
2/12/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6824

Lab Code: GEL

GEL Job No (SDG) 10-1020

Matrix: GROUND WATER

GEL Sample ID: 243401010

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 22-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 936335

Concentrated Extract Volume (mL) 5

Date Extracted: 24-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01100021.wiff

Date Analyzed: 11-JAN-10 16:31

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene UJ,HE7c	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

EH
2/12/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1020 VALIDATION DATE: 2/15/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eyda Hergenreder ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): Organochlorine Pesticides

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV and/or CCV %Ds for endrin on both columns, gamma-chlordane on the secondary column and gamma-BHC on the primary column were >15%. All associated sample results were NDs and, thus, endrin results were qualified UJ,P7c and the gamma-chlordane and gamma-BHC results were not qualified.
2. The 4-cmx surrogate %Rs on the primary column for the LCS and MS samples and the decachlorobiphenyl surrogate %R on the secondary column for the MS sample were > the laboratory UAL. Since these samples were QC samples, no data were qualified as a result.
3. The MS %Rs for gamma-BHC and endrin were > the laboratory UAL. Since MS/MSD analyses are not required for this method, no data were qualified as a result.

Reviewed by: Allison Felix Level: 1 Date: 2/15/10

VALIDATOR'S SIGNATURE: Eyda Hergenreder Eyda Hergenreder DATE: 2/15/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☒	☐	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☒	☐	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401003**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6823**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**936267**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 07:55**	**Analyst:**	**CXC2**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/24/2009 12:37**	**Aliquot:**	**800 mL**	**Final Volume:**	**5 mL**
Data File:	**064f6401.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	064b6401.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ		Column
319-84-6	alpha-BHC	U	0.025	ug/L	0.00625	0.025		1
58-89-9	gamma-BHC (Lindane)	U	0.025	ug/L	0.00625	0.025		1
319-85-7	beta-BHC	U	0.025	ug/L	0.0075	0.025		1
319-86-8	delta-BHC	U	0.025	ug/L	0.00625	0.025		1
76-44-8	Heptachlor	U	0.025	ug/L	0.00625	0.025		1
309-00-2	Aldrin	U	0.025	ug/L	0.00625	0.025		1
1024-57-3	Heptachlor epoxide	U	0.025	ug/L	0.00625	0.025		1
5103-74-2	gamma-Chlordane	U	0.025	ug/L	0.00625	0.025		1
5103-71-9	alpha-Chlordane	U	0.025	ug/L	0.00625	0.025		1
959-98-8	Endosulfan I	U	0.025	ug/L	0.00625	0.025		1
72-55-9	4,4'-DDE	U	0.050	ug/L	0.00625	0.050		1
60-57-1	Dieldrin	U	0.050	ug/L	0.0125	0.050		1
72-20-8	Endrin	U	0.050	ug/L	0.0125	0.050	UJ,P7c	1
72-54-8	4,4'-DDD	U	0.050	ug/L	0.0125	0.050		1
33213-65-9	Endosulfan II	U	0.050	ug/L	0.0125	0.050		1
7421-93-4	Endrin aldehyde	U	0.050	ug/L	0.00625	0.050		1
50-29-3	4,4'-DDT	U	0.050	ug/L	0.0125	0.050		1
1031-07-8	Endosulfan sulfate	U	0.050	ug/L	0.0125	0.050		1
72-43-5	Methoxychlor	U	0.250	ug/L	0.0625	0.250		1
53494-70-5	Endrin ketone	U	0.050	ug/L	0.0125	0.050		1
8001-35-2	Toxaphene	U	0.625	ug/L	0.188	0.625		1

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
Decachlorobiphenyl	1.23	1.25	ug/L	98.5	(34%-118%)
4cmx	1.06	1.25	ug/L	84.7	(29%-103%)

EH
2/15/10

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	**Date Collected:**	12/18/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	243401007	**Date Received:**	12/22/2009 09:55		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-6824	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	936267	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	12/30/2009 08:36	**Analyst:**	CXC2	**Inj. Vol:**	1 uL
Prep Date:	12/24/2009 12:37	**Allquot:**	940 mL	**Final Volume:**	5 mL
Data File:	067f6701.d	**Column:**	1 CLP-1	**Level:**	LOW
	067b6701.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ		Column
319-84-6	alpha-BHC	U	0.0213	ug/L	0.00532	0.0213		1
58-89-9	gamma-BHC (Lindane)	U	0.0213	ug/L	0.00532	0.0213		1
319-85-7	beta-BHC	U	0.0213	ug/L	0.00638	0.0213		1
319-86-8	delta-BHC	U	0.0213	ug/L	0.00532	0.0213		1
76-44-8	Heptachlor	U	0.0213	ug/L	0.00532	0.0213		1
309-00-2	Aldrin	U	0.0213	ug/L	0.00532	0.0213		1
1024-57-3	Heptachlor epoxide	U	0.0213	ug/L	0.00532	0.0213		1
5103-74-2	gamma-Chlordane	U	0.0213	ug/L	0.00532	0.0213		1
5103-71-9	alpha-Chlordane	U	0.0213	ug/L	0.00532	0.0213		1
959-98-8	Endosulfan I	U	0.0213	ug/L	0.00532	0.0213		1
72-55-9	4,4'-DDE	U	0.0426	ug/L	0.00532	0.0426		1
60-57-1	Dieldrin	U	0.0426	ug/L	0.0106	0.0426		1
72-20-8	Endrin	U	0.0426	ug/L	0.0106	0.0426	UJ.P7c	1
72-54-8	4,4'-DDD	U	0.0426	ug/L	0.0106	0.0426		1
33213-65-9	Endosulfan II	U	0.0426	ug/L	0.0106	0.0426		1
7421-93-4	Endrin aldehyde	U	0.0426	ug/L	0.00532	0.0426		1
50-29-3	4,4'-DDT	U	0.0426	ug/L	0.0106	0.0426		1
1031-07-8	Endosulfan sulfate	U	0.0426	ug/L	0.0106	0.0426		1
72-43-5	Methoxychlor	U	0.213	ug/L	0.0532	0.213		1
53494-70-5	Endrin ketone	U	0.0426	ug/L	0.0106	0.0426		1
8001-35-2	Toxaphene	U	0.532	ug/L	0.160	0.532		1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
Decachlorobiphenyl	0.911	1.06	ug/L	85.6	(34%-118%)
4cmx	0.833	1.06	ug/L	78.3	(29%-103%)

EH
2/15/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-1020 VALIDATION DATE: 2/15/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eyda Hergenreder ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD analyses were performed on a sample from another LANL RN. Since MS/MSD analyses are not required for this method, no data were qualified.

   Reviewed by: Allison Felix Level: 1 Date: 2/15/10

VALIDATOR'S SIGNATURE: Eyda Hergenreder Eyda Hergenreder DATE: 2/15/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401004**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6823**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**937373**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 09:57**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/30/2009 15:41**	**Aliquot:**	**935 mL**	**Final Volume:**	**1 mL**
Data File:	**014f1401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	014b1401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.107	ug/L	0.0356	0.107	1
11104-28-2	Aroclor-1221	U	0.107	ug/L	0.0356	0.107	1
11141-16-5	Aroclor-1232	U	0.107	ug/L	0.0356	0.107	1
53469-21-9	Aroclor-1242	U	0.107	ug/L	0.0356	0.107	1
12672-29-6	Aroclor-1248	U	0.107	ug/L	0.0356	0.107	1
11097-69-1	Aroclor-1254	U	0.107	ug/L	0.0356	0.107	1
11096-82-5	Aroclor-1260	U	0.107	ug/L	0.0356	0.107	1
37324-23-5	Aroclor-1262	U	0.107	ug/L	0.0356	0.107	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.129	0.214	ug/L	60.1	(29%-103%)
Decachlorobiphenyl	0.167	0.214	ug/L	78.0	(34%-118%)

EH
2/15/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401008**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6824**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**937373**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 10:08**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/30/2009 15:41**	**Aliquot:**	**950 mL**	**Final Volume:**	**1 mL**
Data File:	**015f1501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	015b1501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.105	ug/L	0.0351	0.105	1
11104-28-2	Aroclor-1221	U	0.105	ug/L	0.0351	0.105	1
11141-16-5	Aroclor-1232	U	0.105	ug/L	0.0351	0.105	1
53469-21-9	Aroclor-1242	U	0.105	ug/L	0.0351	0.105	1
12672-29-6	Aroclor-1248	U	0.105	ug/L	0.0351	0.105	1
11097-69-1	Aroclor-1254	U	0.105	ug/L	0.0351	0.105	1
11096-82-5	Aroclor-1260	U	0.105	ug/L	0.0351	0.105	1
37324-23-5	Aroclor-1262	U	0.105	ug/L	0.0351	0.105	1

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
4cmx	0.132	0.211	ug/L	62.8	(29%-103%)
Decachlorobiphenyl	0.162	0.211	ug/L	76.7	(34%-118%)

EH
2/15/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1020 VALIDATION DATE: 2/15/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Eyda Hergenreder ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the MB, TKN was detected. All associated sample results were NDs and, thus, were not qualified as a result.
2. The MS%R for TKN was < the laboratory LAL but ≥ 10%. All associated sample results were NDs and, thus were qualified UJ,I6a.

Reviewed by: Allison Felix Level: 1 Date: 2/15/10

VALIDATOR'S SIGNATURE: Eyda Hergenreder Eyda Hergenreder DATE: 2/15/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1942

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 4, 2010

Client SDG: 10-1020

Client Sample ID: CAPA-10-6824
Sample ID: 243401010
Matrix: Ground Water
Collect Date: 18-DEC-09 12:00
Receive Date: 22-DEC-09
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
SW 9060 Total Organic Carbon "As Received"												
Total Organic Carbon Average	U	ND		0.330	1.00	mg/L	1	TSM	12/23/09	1343	936193	1
Nutrient Analysis												
Nitrogen, Total Kjeldahl (TKN) "As Received"												
Nitrogen, Total Kjeldahl	U	ND	UJ,I6a	0.033	0.100	mg/L	1	AXH3	12/29/09	0610	936391	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 351.2 Prep	EPA 351.2 Total Kjeldahl Nitrogen Prep	SXJ1	12/28/09	1000	936390

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9060	
2	EPA 351.2	

EH
2/15/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 4, 2010

Client SDG: 10-1020

Client Sample ID:	CAPA-10-6823	Project:	ESHL01000
Sample ID:	243401006	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	18-DEC-09 12:00		
Receive Date:	22-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
SW 9060 Total Organic Carbon "As Received"												
Total Organic Carbon Average		1.16		0.330	1.00	mg/L	1	TSM	12/23/09	1310	936193	1
Nutrient Analysis												
Nitrogen, Total Kjeldahl (TKN) "As Received"												
Nitrogen, Total Kjeldahl	U	ND	UJ,I6a	0.033	0.100	mg/L	1	AXH3	12/29/09	0607	936391	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 351.2 Prep	EPA 351.2 Total Kjeldahl Nitrogen Prep	SXJ1	12/28/09	1000	936390

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9060	
2	EPA 351.2	

EH
2/15/10

Monday, December 21, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1020

REQUEST NUMBER: 10-1020

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 243401 °/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6820	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6822	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6822	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6822	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6822	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6822	3	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6823	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6823	2	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6823	3	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6823	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6823	2	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6823	3	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6823	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6823	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6823	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6823	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6823	3	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6823	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6823	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6823	3	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6823	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6824	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6824	2	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6824	3	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6824	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6824	2	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6824	3	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6824	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG

Monday, December 21, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1020

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6824	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6824	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6824	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6824	3	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6824	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6824	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6824	3	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6824	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6825	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6826	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6826	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6826	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6826	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6826	3	AMBER GLASS	WSP-8270C-SVOA	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/22/09	[illegible]	Patricia Dover-Dent	[illegible]	12-22-09	09:35
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Monday, December 21, 2009

REQUEST NUMBER: 10-1020

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1020

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/21/2009

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:351.2	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	SW-846:8081A	1	CAPA-10-6823	WG	12/18/2009	
		2	CAPA-10-6823	WG	12/18/2009	
		3	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		2	CAPA-10-6824	WG	12/18/2009	
		3	CAPA-10-6824	WG	12/18/2009	
	SW-846:8082	1	CAPA-10-6823	WG	12/18/2009	

Monday, December 21, 2009

REQUEST NUMBER: 10-1020

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8082	2	CAPA-10-6823	WG	12/18/2009	
		3	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		2	CAPA-10-6824	WG	12/18/2009	
		3	CAPA-10-6824	WG	12/18/2009	
	SW-846:8260B	1	CAPA-10-6820	WG	12/18/2009	
		1	CAPA-10-6822	WG	12/18/2009	
		2	CAPA-10-6822	WG	12/18/2009	
		1	CAPA-10-6823	WG	12/18/2009	
		2	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		2	CAPA-10-6824	WG	12/18/2009	
		1	CAPA-10-6825	WG	12/18/2009	
		1	CAPA-10-6826	WG	12/18/2009	
		2	CAPA-10-6826	WG	12/18/2009	
	SW-846:8270C	1	CAPA-10-6822	WG	12/18/2009	
		2	CAPA-10-6822	WG	12/18/2009	
		3	CAPA-10-6822	WG	12/18/2009	
		1	CAPA-10-6823	WG	12/18/2009	
		2	CAPA-10-6823	WG	12/18/2009	
		3	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		2	CAPA-10-6824	WG	12/18/2009	
		3	CAPA-10-6824	WG	12/18/2009	
		1	CAPA-10-6826	WG	12/18/2009	
		2	CAPA-10-6826	WG	12/18/2009	
		3	CAPA-10-6826	WG	12/18/2009	
	SW-846:8321A_MOD	1	CAPA-10-6823	WG	12/18/2009	

Monday, December 21, 2009

REQUEST NUMBER: 10-1020

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	2	CAPA-10-6823	WG	12/18/2009	
		3	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		2	CAPA-10-6824	WG	12/18/2009	
		3	CAPA-10-6824	WG	12/18/2009	
	SW-846:9060	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	

Final Page of REQUEST NUMBER 10-1020

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

January 04, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL-WQH Water Samples
Work Order: 243401
SDG: 10-1020

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 22, 2009, and analyzed for Explosives by LCMSMS, GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile, GC/MS Volatile and General Chemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-1020
Enclosures

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 243401
SDG # : 10-1020

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Sample Data Summary.....730
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Quality Control Summary.....1150
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Total Kjeldahl Nitrogen.....1164
Miscellaneous.....1170

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 243401
SDG # : 10-1020

January 04, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 22, 2009 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
243401001	CAPA-10-6820
243401002	CAPA-10-6822
243401003	CAPA-10-6823
243401004	CAPA-10-6823
243401005	CAPA-10-6823
243401006	CAPA-10-6823
243401007	CAPA-10-6824
243401008	CAPA-10-6824
243401009	CAPA-10-6824
243401010	CAPA-10-6824
243401011	CAPA-10-6826
243401012	CAPA-10-6825

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Explosives by LCMSMS, GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile, GC/MS Volatile and General Chemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 04 January 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Monday, December 21, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1020

REQUEST NUMBER: 10-1020

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 243401 °/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6820	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6822	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6822	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6822	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6822	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6822	3	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6823	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6823	2	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6823	3	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6823	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6823	2	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6823	3	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6823	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6823	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6823	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6823	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6823	3	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6823	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6823	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6823	3	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6823	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6824	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6824	2	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6824	3	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6824	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6824	2	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6824	3	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6824	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG

Monday, December 21, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1020

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6824	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6824	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6824	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6824	3	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6824	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6824	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6824	3	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6824	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6825	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6826	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6826	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6826	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6826	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6826	3	AMBER GLASS	WSP-8270C-SVOA	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/22/09	1800	Patricia Dover-Dent	P. Dover-Dent	12-22-09	09:55
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Monday, December 21, 2009

REQUEST NUMBER: 10-1020

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-1020

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/21/2009

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:351.2	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
	SW-846:8081A	1	CAPA-10-6823	WG	12/18/2009	
		2	CAPA-10-6823	WG	12/18/2009	
		3	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		2	CAPA-10-6824	WG	12/18/2009	
		3	CAPA-10-6824	WG	12/18/2009	
	SW-846:8082	1	CAPA-10-6823	WG	12/18/2009	

Monday, December 21, 2009

REQUEST NUMBER: 10-1020

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
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		3	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		2	CAPA-10-6824	WG	12/18/2009	
		3	CAPA-10-6824	WG	12/18/2009	
	SW-846:8260B	1	CAPA-10-6820	WG	12/18/2009	
		1	CAPA-10-6822	WG	12/18/2009	
		2	CAPA-10-6822	WG	12/18/2009	
		1	CAPA-10-6823	WG	12/18/2009	
		2	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		2	CAPA-10-6824	WG	12/18/2009	
		1	CAPA-10-6825	WG	12/18/2009	
		1	CAPA-10-6826	WG	12/18/2009	
		2	CAPA-10-6826	WG	12/18/2009	
	SW-846:8270C	1	CAPA-10-6822	WG	12/18/2009	
		2	CAPA-10-6822	WG	12/18/2009	
		3	CAPA-10-6822	WG	12/18/2009	
		1	CAPA-10-6823	WG	12/18/2009	
		2	CAPA-10-6823	WG	12/18/2009	
		3	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		2	CAPA-10-6824	WG	12/18/2009	
		3	CAPA-10-6824	WG	12/18/2009	
		1	CAPA-10-6826	WG	12/18/2009	
		2	CAPA-10-6826	WG	12/18/2009	
		3	CAPA-10-6826	WG	12/18/2009	
	SW-846:8321A_MOD	1	CAPA-10-6823	WG	12/18/2009	

Monday, December 21, 2009

REQUEST NUMBER: 10-1020

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8321A_MOD	2	CAPA-10-6823	WG	12/18/2009	
		3	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		2	CAPA-10-6824	WG	12/18/2009	
		3	CAPA-10-6824	WG	12/18/2009	
	SW-846:9060	1	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	

Final Page of REQUEST NUMBER 10-1020

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client:LANL	**SDG/ARCOC/Work Order:10-1020**
Received By:Patricia Dover-Dent	**Date Received:December 22, 2009**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further
COC/Samples marked as radioactive?		X	Maximum Counts Observed*:40CPM
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe
2	Samples requiring cold preservation within (0 < 6 deg. C?	X			Preservation Method: ice bags **BLUE ICE** dry ice **NONE** other (describe) **2,4,6,15,16**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH. If Preservative added, Lot#
6	VOA vials free of headspace (defined as < 6mm bubble)?	X			Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No Time on Chain of Custody**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:FED EX #'S

7209 7849 3160 2C
7209 7849 3218 2C
7209 7849 3230 2C
7209 7849 3240 2C
7209 7849 3229 4C
7209 7849 3251 4C
7209 7849 3207 6C
7209 7849 3012 15C
7209 7849 3023 16C
7209 7849 3159 16C

PM (or PMA) review: Initials GRT Date 12-23-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 21DEC09
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A[illegible]M10

2C

FedEx Express

2 of 2

TUE - 22DEC A1

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TRK# 0263 7209 7849 3160

TUE - 22 DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 21DEC09
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A032VA00

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2 of 2

TUE - 22DEC A1

TPS# 0263 7209 7849 3230

PRIORITY OVERNIGHT

MstrN 7209 7849 3229 0201

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 21DEC09
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AAREW0130SS00

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PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 21DEC09
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A032VA00

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1 of 2

TUE - 22DEC A1

TRK# 0201 7209 7849 3240

PRIORITY OVERNIGHT

MASTER

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 21DEC09
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A032VA00

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1 of 2
TRK# 0201 7209 7849 3229
MASTER

TUE - 22DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 21DEC09
ACTWGT: 69.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A032VA00

4c

FedEx Express

2 of 2
MPS# 0263 7209 7849 3251
Mstr# 7209 7849 3240 0201

TUE - 22DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 21DEC09
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A05529E00

6c

FedEx Express

TRK# 0201 7209 7849 3207

TUE - 22DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 21DEC09
ACTWGT: 69.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER.

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGM0

15c

FedEx Express

2 of 3
MPS# 0263 7209 7849 3012
Mstr# 7209 7849 3001 0201

TUE - 22DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 21DEC09
ACTWGT: 53.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGMO

16C

FedEx Express

3 of 3
MPS# 0263 7209 7849 3023
Mstr# 7209 7849 3001 0201

TUE - 22DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 150148-434 MPM V3.09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 21DEC09
ACTWGT: 39.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWMO

16C

FedEx Express

1 of 2
TRK# 0201 7209 7849 3159
MASTER

TUE - 22DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

DATA REVIEW QUALIFIER FLAG DEFINITION SHEET

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

Case Narrative

ChemStation Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1020

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B DOE-AL
Prep Method:	SW846 5030B
Analytical Batch Number:	937152

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
243401001	CAPA-10-6820
243401002	CAPA-10-6822
243401005	CAPA-10-6823
243401009	CAPA-10-6824
243401011	CAPA-10-6826
243401012	CAPA-10-6825
1202005361	Method Blank (MB)
1202005364	Laboratory Control Sample (LCS)
1202005365	Laboratory Control Sample (LCS)
1202005362	243401002(CAPA-10-6822) Post Spike (PS)
1202005363	243401002(CAPA-10-6822) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 13.

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a 'd' qualifier.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration

All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements

All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries

Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery

The LCS recoveries were not all within the acceptance limits. The unacceptable recoveries were less than 5% of the requested analyte list. This satisfies the client criteria. The results are reported. See NCR# 774821.

QC Sample Designation

Sample 243401002 (CAPA-10-6822) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement

The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement

The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement

The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance

The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-analyses were not required for samples in this SDG.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance Report (NCR) Documentation
NCR # 774821 was generated for samples in this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
The tentatively identified compounds included some silanols. These compounds were due to column or septum bleed and were not native to the affected samples. Tentatively identified compounds (TIC) were required for this sample delivery group/work order. Please note that non-requested target analytes that are reported on the quantitation reports will not be present on the Form I. These detected analytes are included in the calibrated method and as a result cannot be reported on the TIC quantitation report.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration

The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA2.I	Gas Chromatograph/Mass Spectrometer	HP7890N/HP5975C	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1020 GEL Work Order: 243401

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Stacy Calloway **Name: Stacy Calloway**

Date: 19 JAN 2010 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	Date Collected:	12/18/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243401001	Date Received:	12/22/2009 09:55		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6820	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	937152	Inst:	VOA2.I	Dilution:	1
Run Date:	12/29/2009 01:45	Analyst:	CDS1	Purge Vol:	5 mL
Prep Date:	12/29/2009 01:45				
Data File:	122809V2.b\2S140.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	J	0.530	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	Date Collected:	12/18/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243401001	Date Received:	12/22/2009 09:55		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6820	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	937152	Inst:	VOA2.I	Dilution:	1
Run Date:	12/29/2009 01:45	Analyst:	CDS1	Purge Vol:	5 mL
Prep Date:	12/29/2009 01:45				
Data File:	122809V2.b\2S140.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401001**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6820**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 01:45**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 01:45**				
Data File:	**122809V2.b\2S140.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	54.7	50.0	ug/L	109	(59%-130%)
Bromofluorobenzene	51.4	50.0	ug/L	103	(71%-126%)
Toluene-d8	48.5	50.0	ug/L	96.9	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	4.33	15.9	ug/L	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401002**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6822**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 02:14**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 02:14**				
Data File:	**122809V2.b\2S141.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone		21.5	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401002**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6822**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 02:14**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 02:14**				
Data File:	**122809V2.b\2S141.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401002**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6822**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 02:14**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 02:14**				
Data File:	**122809V2.b\2S141.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	55.4	50.0	ug/L	111	(59%-130%)
Bromofluorobenzene	51.1	50.0	ug/L	102	(71%-126%)
Toluene-d8	48.0	50.0	ug/L	96.0	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	4.35	23.5	ug/L	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	**Date Collected:**	12/18/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	243401005	**Date Received:**	12/22/2009 09:55		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-6823	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	937152	**Inst:**	VOA2.I	**Dilution:**	1
Run Date:	12/29/2009 02:43	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	12/29/2009 02:43				
Data File:	122809V2.b\2S142.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone		20.9	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401005**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6823**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 02:43**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 02:43**				
Data File:	**122809V2.b\2S142.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401005**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6823**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 02:43**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 02:43**				
Data File:	**122809V2.b\2S142.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	55.3	50.0	ug/L	111	(59%-130%)
Bromofluorobenzene	51.6	50.0	ug/L	103	(71%-126%)
Toluene-d8	47.8	50.0	ug/L	95.5	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	4.35	23.9	ug/L	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401009**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6824**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 03:12**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 03:12**				
Data File:	**122809V2.b\2S143.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401009**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6824**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 03:12**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 03:12**				
Data File:	**122809V2.b\2S143.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401009**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6824**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 03:12**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 03:12**				
Data File:	**122809V2.b\2S143.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	54.1	50.0	ug/L	108	(59%-130%)
Bromofluorobenzene	50.7	50.0	ug/L	101	(71%-126%)
Toluene-d8	47.7	50.0	ug/L	95.3	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	4.35	22.6	ug/L	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401011**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6826**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 03:41**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 03:41**				
Data File:	**122809V2.b\2S144.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	Date Collected:	12/18/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243401011	Date Received:	12/22/2009 09:55		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6826	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	937152	Inst:	VOA2.I	Dilution:	1
Run Date:	12/29/2009 03:41	Analyst:	CDS1	Purge Vol:	5 mL
Prep Date:	12/29/2009 03:41				
Data File:	122809V2.b\2S144.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401011**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6826**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 03:41**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 03:41**				
Data File:	**122809V2.b\2S144.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	55.5	50.0	ug/L	111	(59%-130%)
Bromofluorobenzene	51.4	50.0	ug/L	103	(71%-126%)
Toluene-d8	48.2	50.0	ug/L	96.3	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	4.35	22.2	ug/L	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401012**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6825**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 04:10**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 04:10**				
Data File:	**122809V2.b\2S145.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	J	0.830	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	Date Collected:	12/18/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243401012	Date Received:	12/22/2009 09:55		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6825	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	937152	Inst:	VOA2.I	Dilution:	1
Run Date:	12/29/2009 04:10	Analyst:	CDS1	Purge Vol:	5 mL
Prep Date:	12/29/2009 04:10				
Data File:	122809V2.b\2S145.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401012**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6825**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 04:10**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 04:10**				
Data File:	**122809V2.b\2S145.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	54.2	50.0	ug/L	108	(59%-130%)
Bromofluorobenzene	50.9	50.0	ug/L	102	(71%-126%)
Toluene-d8	47.6	50.0	ug/L	95.2	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	4.33	16.1	ug/L	0	J

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-1020

Matrix Type: LIQUID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202005364	LCS for batch 937152	106	97	101
1202005365	LCS for batch 937152	107	98	105
1202005361	MB for batch 937152	105	97	100
243401001	CAPA-10-6820	109	97	103
243401002	CAPA-10-6822	111	96	102
243401005	CAPA-10-6823	111	96	103
243401009	CAPA-10-6824	108	95	101
243401011	CAPA-10-6826	111	96	103
243401012	CAPA-10-6825	108	95	102
1202005362	CAPA-10-6822PS	111	97	101
1202005363	CAPA-10-6822PSD	109	97	101

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(59%-130%)
TOL	= Toluene-d8	(76%-129%)
BFB	= Bromofluorobenzene	(71%-126%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020
Client ID: CAPA-10-6822PS
Lab Sample ID: 1202005362
Instrument: VOA2.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: GROUND WATER
Analysis Date: 12/29/2009 04:39
Dilution: 1
Prep Batch ID: 937152
Batch ID: 937152

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	46.2	92	31-151
74-87-3	PS	Chloromethane	50.0	0.00	U	48.0	96	47-140
75-01-4	PS	Vinyl chloride	50.0	0.00	U	50.8	102	51-134
74-83-9	PS	Bromomethane	50.0	0.00	U	50.3	101	54-136
75-00-3	PS	Chloroethane	50.0	0.00	U	52.2	104	60-129
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	55.9	112	58-151
60-29-7	PS	Ethyl ether	50.0	0.00	U	50.6	101	63-125
67-64-1	PS	Acetone	250	21.5		144	49	14-150
75-05-8	PS	Acetonitrile	1250	0.00	U	1110	89	51-133
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	56.1	112	61-129
74-88-4	PS	Iodomethane	250	0.00	U	282	113	66-138
75-09-2	PS	Methylene chloride	50.0	0.00	U	51.4	103	68-134
75-15-0	PS	Carbon disulfide	250	0.00	U	287	115	57-129
1634-04-4	PS	tert-Butyl methyl ether	50.0	0.00	U	55.5	111	65-133
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	53.4	107	64-126
108-05-4	PS	Vinyl acetate	250	0.00	U	294	118	41-140
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	53.2	106	69-125
78-93-3	PS	2-Butanone	250	0.00	U	175	70	11-151
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	54.1	108	71-128
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	56.0	112	61-134
67-66-3	PS	Chloroform	50.0	0.00	U	55.4	111	70-126
74-97-5	PS	Bromochloromethane	50.0	0.00	U	54.9	110	71-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020 **Sample Type:** Post Spike

Client ID: CAPA-10-6822PS **Matrix:** GROUND WATER

Lab Sample ID: 1202005362

Instrument: VOA2.I **Analysis Date:** 12/29/2009 04:39 **Dilution:** 1

Analyst: CDS1 **Prep Batch ID:** 937152

Purge Vol: 5 mL **Batch ID:** 937152

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	59.6	119	66-132
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	55.3	111	68-128
71-36-3	PS	n-Butyl alcohol	5000	0.00	U	4410	88	58-146
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	63.2	126	66-138
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	56.2	112	65-129
71-43-2	PS	Benzene	50.0	0.00	U	51.0	102	66-121
79-01-6	PS	Trichloroethylene	50.0	0.00	U	53.6	107	66-127
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	53.2	106	71-125
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	62.4	125	72-134
74-95-3	PS	Dibromomethane	50.0	0.00	U	56.6	113	71-130
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	237	95	64-133
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	57.5	115	71-129
108-88-3	PS	Toluene	50.0	0.00	U	46.8	94	65-124
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	54.7	109	73-130
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	49.3	99	71-125
591-78-6	PS	2-Hexanone	250	0.00	U	166	66	28-143
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	48.4	97	69-124
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	45.9	92	63-126
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	49.6	99	76-135
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	52.5	105	73-126
108-90-7	PS	Chlorobenzene	50.0	0.00	U	47.9	96	69-120
100-41-4	PS	Ethylbenzene	50.0	0.00	U	48.7	97	65-123

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020
Client ID: CAPA-10-6822PS
Lab Sample ID: 1202005362
Instrument: VOA2.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: GROUND WATER
Analysis Date: 12/29/2009 04:39
Dilution: 1
Prep Batch ID: 937152
Batch ID: 937152

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	PS	m,p-Xylenes	100	0.00	U	96.3	96	64-125
95-47-6	PS	o-Xylene	50.0	0.00	U	49.1	98	66-126
100-42-5	PS	Styrene	50.0	0.00	U	54.9	110	66-131
75-25-2	PS	Bromoform	50.0	0.00	U	45.8	92	72-143
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	48.6	97	66-128
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	49.1	98	67-141
108-86-1	PS	Bromobenzene	50.0	0.00	U	46.5	93	67-124
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	47.2	94	60-127
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	47.5	95	62-126
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	48.7	97	60-132
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	48.2	96	62-130
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	46.0	92	64-124
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	49.2	98	64-129
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	48.7	97	62-130
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	48.3	97	61-131
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	49.6	99	61-135
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	45.9	92	65-123
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	44.9	90	64-120
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	48.3	97	58-135
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	43.7	87	62-146
87-68-3	PS	Hexachlorobutadiene	50.0	0.00	U	47.0	94	53-132
91-20-3	PS	Naphthalene	50.0	0.00	U	49.7	99	54-144

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020 **Sample Type:** Post Spike

Client ID: CAPA-10-6822PS **Matrix:** GROUND WATER

Lab Sample ID: 1202005362

Instrument: VOA2.I **Analysis Date:** 12/29/2009 04:39 **Dilution:** 1

Analyst: CDS1 **Prep Batch ID:** 937152

Purge Vol: 5 mL **Batch ID:** 937152

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
87-61-6	PS	1,2,3-Trichlorobenzene	50.0	0.00	U	47.6	95	59-136
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	54.9	110	73-127
120-82-1	PS	1,2,4-Trichlorobenzene	50.0	0.00	U	45.0	90	56-134
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	46.2	92	66-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020 **Sample Type:** Post Spike Duplicate
Client ID: CAPA-10-6822PSD **Matrix:** GROUND WATER
Lab Sample ID: 1202005363
Instrument: VOA2.I **Analysis Date:** 12/29/2009 05:08 **Dilution:** 1
Analyst: CDS1 **Prep Batch ID** 937152
Purge Vol: 5 mL **Batch ID:** 937152

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	48.7	97	31-151	5	0-20
74-87-3	PSD	Chloromethane	50.0	0.00	U	51.6	103	47-140	7	0-20
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	54.5	109	51-134	7	0-20
74-83-9	PSD	Bromomethane	50.0	0.00	U	52.9	106	54-136	5	0-20
75-00-3	PSD	Chloroethane	50.0	0.00	U	54.8	110	60-129	5	0-20
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	58.5	117	58-151	5	0-20
60-29-7	PSD	Ethyl ether	50.0	0.00	U	51.1	102	63-125	1	0-20
67-64-1	PSD	Acetone	250	21.5		137	46	14-150	5	0-20
75-05-8	PSD	Acetonitrile	1250	0.00	U	1060	84	51-133	5	0-20
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	58.1	116	61-129	4	0-20
74-88-4	PSD	Iodomethane	250	0.00	U	297	119	66-138	5	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	53.0	106	68-134	3	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	300	120	57-129	4	0-20
1634-04-4	PSD	tert-Butyl methyl ether	50.0	0.00	U	53.9	108	65-133	3	0-20
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	55.3	111	64-126	3	0-20
108-05-4	PSD	Vinyl acetate	250	0.00	U	294	118	41-140	0	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	55.3	111	69-125	4	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	170	68	11-151	3	0-20
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	56.2	112	71-128	4	0-20
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	59.0	118	61-134	5	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	56.9	114	70-126	3	0-20
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	57.1	114	71-129	4	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020
Client ID: CAPA-10-6822PSD
Lab Sample ID: 1202005363
Instrument: VOA2.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 12/29/2009 05:08
Dilution: 1
Prep Batch ID 937152
Batch ID: 937152

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	61.6	123	66-132	3	0-20
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	57.4	115	68-128	4	0-20
71-36-3	PSD	n-Butyl alcohol	5000	0.00	U	4130	83	58-146	6	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	65.1	130	66-138	3	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	57.1	114	65-129	2	0-20
71-43-2	PSD	Benzene	50.0	0.00	U	53.1	106	66-121	4	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	55.5	111	66-127	3	0-20
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	54.4	109	71-125	2	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	64.3	129	72-134	3	0-20
74-95-3	PSD	Dibromomethane	50.0	0.00	U	57.2	114	71-130	1	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	236	94	64-133	0	0-20
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	59.3	119	71-129	3	0-20
108-88-3	PSD	Toluene	50.0	0.00	U	48.4	97	65-124	3	0-20
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	56.6	113	73-130	3	0-20
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	49.6	99	71-125	1	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	163	65	28-143	2	0-20
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	49.6	99	69-124	2	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	48.2	96	63-126	5	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	51.3	103	76-135	3	0-20
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	53.7	107	73-126	2	0-20
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	50.1	100	69-120	5	0-20
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	50.6	101	65-123	4	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020 **Sample Type:** Post Spike Duplicate

Client ID: CAPA-10-6822PSD **Matrix:** GROUND WATER

Lab Sample ID: 1202005363

Instrument: VOA2.I **Analysis Date:** 12/29/2009 05:08 **Dilution:** 1

Analyst: CDS1 **Prep Batch ID:** 937152

Purge Vol: 5 mL **Batch ID:** 937152

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	99.7	100	64-125	3	0-20
95-47-6	PSD	o-Xylene	50.0	0.00	U	51.1	102	66-126	4	0-20
100-42-5	PSD	Styrene	50.0	0.00	U	56.9	114	66-131	4	0-20
75-25-2	PSD	Bromoform	50.0	0.00	U	46.6	93	72-143	2	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	47.8	96	66-128	2	0-20
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	48.5	97	67-141	1	0-20
108-86-1	PSD	Bromobenzene	50.0	0.00	U	48.5	97	67-124	4	0-20
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	48.6	97	60-127	3	0-20
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	49.5	99	62-126	4	0-20
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	50.1	100	60-132	3	0-20
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	49.6	99	62-130	3	0-20
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	47.8	96	64-124	4	0-20
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	51.0	102	64-129	3	0-20
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	49.8	100	62-130	2	0-20
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	50.1	100	61-131	4	0-20
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	51.1	102	61-135	3	0-20
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	47.5	95	65-123	3	0-20
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	46.1	92	64-120	3	0-20
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	49.4	99	58-135	2	0-20
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	44.0	88	62-146	1	0-20
87-68-3	PSD	Hexachlorobutadiene	50.0	0.00	U	48.1	96	53-132	2	0-20
91-20-3	PSD	Naphthalene	50.0	0.00	U	50.3	101	54-144	1	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020 **Sample Type:** Post Spike Duplicate

Client ID: CAPA-10-6822PSD **Matrix:** GROUND WATER

Lab Sample ID: 1202005363

Instrument: VOA2.I **Analysis Date:** 12/29/2009 05:08 **Dilution:** 1

Analyst: CDS1 **Prep Batch ID:** 937152

Purge Vol: 5 mL **Batch ID:** 937152

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
87-61-6	PSD	1,2,3-Trichlorobenzene	50.0	0.00	U	49.0	98	59-136	3	0-20
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	57.1	114	73-127	4	0-20
120-82-1	PSD	1,2,4-Trichlorobenzene	50.0	0.00	U	46.6	93	56-134	4	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	48.1	96	66-122	4	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020
Client ID: LCS for batch 937152
Lab Sample ID: 1202005364
Instrument: VOA2.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 12/28/2009 20:26
Dilution: 1
Prep Batch ID: 937152
Batch ID: 937152

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	48.9	98	35-156
74-87-3	LCS	Chloromethane	50.0	0.0	50.2	100	52-139
75-01-4	LCS	Vinyl chloride	50.0	0.0	53.5	107	61-131
74-83-9	LCS	Bromomethane	50.0	0.0	53.7	107	63-131
75-00-3	LCS	Chloroethane	50.0	0.0	51.9	104	67-126
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	57.3	115	66-153
60-29-7	LCS	Ethyl ether	50.0	0.0	54.2	108	68-120
67-64-1	LCS	Acetone	250	0.0	253	101	28-157
75-05-8	LCS	Acetonitrile	1250	0.0	1200	96	54-127
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	58.8	118	70-128
74-88-4	LCS	Iodomethane	250	0.0	302	121	63-141
75-09-2	LCS	Methylene chloride	50.0	0.0	54.3	109	72-131
75-15-0	LCS	Carbon disulfide	250	0.0	303	121	63-129
1634-04-4	LCS	tert-Butyl methyl ether	50.0	0.0	57.2	114	70-129
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	57.0	114	71-124
108-05-4	LCS	Vinyl acetate	250	0.0	306	123	61-134
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	57.5	115	75-121
78-93-3	LCS	2-Butanone	250	0.0	271	109	31-160
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	57.5	115	77-124
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	63.5	127	72-140
67-66-3	LCS	Chloroform	50.0	0.0	58.9	118	76-121
74-97-5	LCS	Bromochloromethane	50.0	0.0	60.1	120	76-123

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020
Client ID: LCS for batch 937152
Lab Sample ID: 1202005364
Instrument: VOA2.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 12/28/2009 20:26
Dilution: 1
Prep Batch ID: 937152
Batch ID: 937152

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	63.7	127	73-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	60.5	121	75-128
71-36-3	LCS	n-Butyl alcohol	5000	0.0	5190	104	61-143
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	67.0	134	75-139
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	57.9	116	70-123
71-43-2	LCS	Benzene	50.0	0.0	55.8	112	72-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	59.5	119	76-123
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	56.5	113	75-121
75-27-4	LCS	Bromodichloromethane	50.0	0.0	66.8	134 *	77-130
74-95-3	LCS	Dibromomethane	50.0	0.0	59.7	119	77-124
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	261	104	68-132
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	64.6	129 *	79-127
108-88-3	LCS	Toluene	50.0	0.0	51.7	103	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	61.3	123	81-127
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	52.6	105	76-120
591-78-6	LCS	2-Hexanone	250	0.0	228	91	34-162
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	52.3	105	73-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	53.2	106	72-126
124-48-1	LCS	Dibromochloromethane	50.0	0.0	53.8	108	82-131
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	56.7	113	66-132
108-90-7	LCS	Chlorobenzene	50.0	0.0	53.6	107	76-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	53.8	108	75-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020
Client ID: LCS for batch 937152
Lab Sample ID: 1202005364
Instrument: VOA2.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 12/28/2009 20:26
Dilution: 1
Prep Batch ID 937152
Batch ID: 937152

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	LCS	m,p-Xylenes	100	0.0	107	107	64-130
95-47-6	LCS	o-Xylene	50.0	0.0	54.3	109	75-121
100-42-5	LCS	Styrene	50.0	0.0	61.1	122	76-126
75-25-2	LCS	Bromoform	50.0	0.0	51.1	102	77-139
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	51.2	102	71-121
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	52.3	105	72-134
108-86-1	LCS	Bromobenzene	50.0	0.0	53.2	106	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	52.7	105	70-124
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	54.3	109	71-121
98-82-8	LCS	Isopropylbenzene	50.0	0.0	54.6	109	58-138
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	53.9	108	73-124
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	51.6	103	74-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	55.6	111	73-125
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	54.1	108	74-123
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	54.2	108	72-126
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	56.9	114	74-131
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	52.6	105	74-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	51.5	103	74-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	54.5	109	74-130
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	49.4	99	67-141
87-68-3	LCS	Hexachlorobutadiene	50.0	0.0	57.3	115	68-129
91-20-3	LCS	Naphthalene	50.0	0.0	56.8	114	59-138

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020
Client ID: LCS for batch 937152
Lab Sample ID: 1202005364
Instrument: VOA2.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 12/28/2009 20:26
Dilution: 1
Prep Batch ID: 937152
Batch ID: 937152

CAS No	Parmname		Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
87-61-6	LCS	1,2,3-Trichlorobenzene	50.0	0.0	56.1	112	67-133
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	60.7	121	79-124
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	55.1	110	66-135
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	52.9	106	76-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020
Client ID: LCS for batch 937152
Lab Sample ID: 1202005365
Instrument: VOA2.I
Analyst: CDS1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 12/28/2009 21:24
Dilution: 1
Prep Batch ID 937152
Batch ID: 937152

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
107-02-8	LCS	Acrolein	250	0.0	327	131	41-148
76-13-1	LCS	Trichlorotrifluoroethane	250	0.0	334	133	52-141
107-05-1	LCS	Allyl chloride	250	0.0	316	126	55-130
107-13-1	LCS	Acrylonitrile	250	0.0	314	126	58-131
126-99-8	LCS	2-Chloro-1,3-butadiene	50.0	0.0	67.2	134	42-150
107-12-0	LCS	Propionitrile	250	0.0	290	116	57-131
126-98-7	LCS	Methacrylonitrile	250	0.0	318	127	58-128
78-83-1	LCS	Isobutyl alcohol	2500	0.0	2780	111	53-142
80-62-6	LCS	Methyl methacrylate	250	0.0	332	133	63-133
97-63-2	LCS	Ethyl methacrylate	250	0.0	306	122	64-128

Method Blank Summary

SDG Number:	10-1020	Client:	LANL010	Matrix:	GROUND WATER
Client ID:	MB for batch 937152	Instrument ID:	VOA2.I	Data File:	122809V2.b\2S133.D
Lab Sample ID:	1202005361	Prep Date:	12/28/2009 22:22	Analyzed:	12/28/09 22:22
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 937152	1202005364	122809V2.b\2S129.D	12/28/09	2026
02	LCS for batch 937152	1202005365	122809V2.b\2S131SL.D	12/28/09	2124
03	CAPA-10-6820	243401001	122809V2.b\2S140.D	12/29/09	0145
04	CAPA-10-6822	243401002	122809V2.b\2S141.D	12/29/09	0214
05	CAPA-10-6823	243401005	122809V2.b\2S142.D	12/29/09	0243
06	CAPA-10-6824	243401009	122809V2.b\2S143.D	12/29/09	0312
07	CAPA-10-6826	243401011	122809V2.b\2S144.D	12/29/09	0341
08	CAPA-10-6825	243401012	122809V2.b\2S145.D	12/29/09	0410
09	CAPA-10-6822PS	1202005362	122809V2.b\2S146.D	12/29/09	0439
10	CAPA-10-6822PSD	1202005363	122809V2.b\2S147.D	12/29/09	0508

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-1020

Instrument ID: VOA2.I **Injection Date/Time:** 05-DEC-09 11:26

Column Description: DB-624 **Lab File ID** 120509V2.b\2O601.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	24.2
75	30.0 - 60.0% of mass 95	50.2
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	73.2
175	5.0 -9.0% of mass 174	7.4
176	95.0 - 101.0% of mass 174	95.6
177	5.0 - 9.0% of mass 176	6.8

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W2VM091205-01	120509V2.b\2O603.D	05-DEC-09 12:22
ICALMIX[A]	W2VM091205-02	120509V2.b\2O604.D	05-DEC-09 12:51
ICALMIX[A]	W2VM091205-03	120509V2.b\2O605.D	05-DEC-09 13:20
ICALMIX[A]	W2VM091205-04	120509V2.b\2O606.D	05-DEC-09 13:49
ICALMIX[A]	W2VM091205-05	120509V2.b\2O607.D	05-DEC-09 14:18
ICALMIX[A]	W2VM091205-06	120509V2.b\2O608.D	05-DEC-09 14:47
ICALMIX[A]	W2VM091205-07	120509V2.b\2O609.D	05-DEC-09 15:17
ICALMIX[A]	W2VM091205-08	120509V2.b\2O611.D	05-DEC-09 16:14
ICVMIX[A]02	W2VM091205-10	120509V2.b\2O613.D	05-DEC-09 17:13
ICALMIX[B]	W2VM091205-11	120509V2.b\2O615.D	05-DEC-09 18:11
ICALMIX[B]	W2VM091205-12	120509V2.b\2O616.D	05-DEC-09 18:41
ICALMIX[B]	W2VM091205-13	120509V2.b\2O617.D	05-DEC-09 19:10
ICALMIX[B]	W2VM091205-14	120509V2.b\2O618.D	05-DEC-09 19:39
ICALMIX[B]	W2VM091205-15	120509V2.b\2O619.D	05-DEC-09 20:08
ICALMIX[B]	W2VM091205-16	120509V2.b\2O620.D	05-DEC-09 20:38
ICALMIX[B]	W2VM091205-18	120509V2.b\2O622.D	05-DEC-09 21:36
ICVMIX[B]04	W2VM091205-19	120509V2.b\2O624.D	05-DEC-09 22:35

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-1020

Instrument ID: VOA2.I **Injection Date/Time:** 28-DEC-09 19:30

Column Description: DB-624 **Lab File ID** 122809V2.b\2S127.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	22
75	30.0 - 60.0% of mass 95	45.1
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	76.1
175	5.0 -9.0% of mass 174	7.5
176	95.0 - 101.0% of mass 174	99.8
177	5.0 - 9.0% of mass 176	6.6

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]03	W2VM091228-05	122809V2.b\2S128.D	28-DEC-09 19:57
BLK01LCS	1202005364	122809V2.b\2S129.D	28-DEC-09 20:26
CCVMIX[B]04	W2VM091228-08	122809V2.b\2S131.D	28-DEC-09 21:24
BLK01SLCS	1202005365	122809V2.b\2S131SL.D	28-DEC-09 21:24
BLK01	1202005361	122809V2.b\2S133.D	28-DEC-09 22:22
CAPA-10-6820	243401001	122809V2.b\2S140.D	29-DEC-09 01:45
CAPA-10-6822	243401002	122809V2.b\2S141.D	29-DEC-09 02:14
CAPA-10-6823	243401005	122809V2.b\2S142.D	29-DEC-09 02:43
CAPA-10-6824	243401009	122809V2.b\2S143.D	29-DEC-09 03:12
CAPA-10-6826	243401011	122809V2.b\2S144.D	29-DEC-09 03:41
CAPA-10-6825	243401012	122809V2.b\2S145.D	29-DEC-09 04:10
CAPA-10-6822MS	1202005362	122809V2.b\2S146.D	29-DEC-09 04:39
CAPA-10-6822MSD	1202005363	122809V2.b\2S147.D	29-DEC-09 05:08

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA2.I

GC Column: DB-624

Client SDG: 10-1020

STD Analysis Time: 28-DEC-09 19:57

Data File: C:\msdchem\1\DATA\122809V2.b\2S128.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1659573		12.4	1472762		16.0	932829		18.5
Upper Limit	3319146		12.9	2945524		16.5	1865658		19.0
Lower Limit	829787		11.9	736381		15.5	466415		18.0
Sample ID									
BLK01LCS	1643867		12.4	1447986		16.0	917807		18.5
BLK01SLCS	1607462		12.4	1407189		16.0	881552		18.5
BLK01	1588133		12.4	1380288		16.0	864546		18.5
CAPA-10-6820	1457124		12.4	1262098		16.0	779468		18.5
CAPA-10-6822	1440173		12.4	1256012		16.0	775196		18.5
CAPA-10-6823	1428074		12.4	1258361		16.0	771846		18.5
CAPA-10-6824	1434601		12.4	1245538		16.0	763476		18.5
CAPA-10-6826	1419352		12.4	1228573		16.0	756759		18.5
CAPA-10-6825	1418285		12.4	1226805		16.0	753928		18.5
CAPA-10-6822MS	1425375		12.4	1270787		16.0	809307		18.5
CAPA-10-6822MSD	1505743		12.4	1339861		16.0	861853		18.5

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401001**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6820**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 01:45**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 01:45**				
Data File:	**122809V2.b\2S140.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	J	0.530	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401001**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6820**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 01:45**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 01:45**				
Data File:	**122809V2.b\2S140.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401001**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6820**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 01:45**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 01:45**				
Data File:	**122809V2.b\2S140.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	54.7	50.0	ug/L	109	(59%-130%)
Bromofluorobenzene	51.4	50.0	ug/L	103	(71%-126%)
Toluene-d8	48.5	50.0	ug/L	96.9	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	4.33	15.9	ug/L	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S140.D
Acq On : 29 Dec 2009 1:45 am
Operator : CDS1
InstName : VOA2
Sample : |243401001|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Dec 29 07:50:14 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	12.401	96	1457124	50.00	ug/L	-0.01
41) Chlorobenzene-d5	15.959	117	1262098	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	779468	50.00	ug/L	0.00
82) B Fluorobenzene	12.401	96	1457124	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.959	117	1262098	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	779468	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	11.951	65	457559	54.68	ug/L	-0.01
Spiked Amount 50.000	Range 59 - 130		Recovery = 109.36%			
43) Toluene-d8	14.322	98	1462694	48.46	ug/L	-0.01
Spiked Amount 50.000	Range 76 - 129		Recovery = 96.92%			
61) Bromofluorobenzene	17.216	95	637725	51.38	ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 102.76%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	5.014	50	2423	0.53	ug/L	96
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
9) Acetone	7.978	43	1402	N.D.		
10) 1,1-Dichloroethylene	0.000		0	N.D.		
11) Iodomethane	0.000		0	N.D.		
12) Acetonitrile	0.000		0	N.D.		
13) Methyl acetate	0.000		0	N.D.		
14) Carbon disulfide	8.274	76	451	N.D.		
15) Methylene chloride	8.737	84	2961	N.D.		
16) tert-Butyl methyl ether	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000		0	N.D.		
18) Vinyl acetate	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000		0	N.D.		
20) 2-Butanone	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000		0	N.D.		
23) Bromochloromethane	0.000		0	N.D.		
24) Chloroform	11.263	83	173	N.D.		
25) 1,1,1-Trichloroethane	0.000		0	N.D.		
26) Cyclohexane	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000		0	N.D.		
28) Carbon tetrachloride	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000		0	N.D.		
31) Benzene	0.000		0	N.D.		
32) Cyclohexene	0.000		0	N.D.		
33) n-Butyl alcohol	0.000		0	N.D.		
34) Trichloroethylene	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000		0	N.D.		
36) Methylcyclohexane	0.000		0	N.D.		
37) Dibromomethane	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S140.D
Acq On : 29 Dec 2009 1:45 am
Operator : CDS1
InstName : VOA2
Sample : |243401001|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Dec 29 07:50:14 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000		0	N.D.	
44) Toluene	14.405	91	530	N.D.	
45) trans-1,3-Dichloroprop...	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000		0	N.D.	
47) 2-Hexanone	15.057	43	243	N.D.	
48) 1,3-Dichloropropane	0.000		0	N.D.	
49) Tetrachloroethylene	0.000		0	N.D.	
50) Dibromochloromethane	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000		0	N.D.	
52) Chlorobenzene	15.994	112	207	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54) Ethylbenzene	16.089	91	148	N.D.	
55) m,p-Xylenes	16.196	106	107	N.D.	
56) o-Xylene	0.000		0	N.D.	
57) Styrene	0.000		0	N.D.	
59) Bromoform	0.000		0	N.D.	
60) Isopropylbenzene	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000		0	N.D.	
64) Bromobenzene	17.417	156	125	N.D.	
65) n-Propylbenzene	17.465	91	125	N.D.	
66) 1,3,5-Trimethylbenzene	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000		0	N.D.	
68) 4-Chlorotoluene	17.702	91	619	N.D.	
69) tert-Butylbenzene	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000		0	N.D.	
71) sec-Butylbenzene	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	18.402	146	576	N.D.	
74) 1,4-Dichlorobenzene	18.485	146	932	N.D.	
75) n-Butylbenzene	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	18.900	146	410	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	20.690	180	618	N.D.	
79) Hexachlorobutadiene	0.000		0	N.D.	
80) Naphthalene	21.022	128	1375	N.D.	
81) 1,2,3-Trichlorobenzene	21.342	180	251	N.D.	
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000		0	N.D.	
87) Isopropyl Alcohol	8.049	45	220	N.D.	
88) Allyl chloride	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000		0	N.D.	
90) Acrylonitrile	0.000		0	N.D.	
91) Isopropyl ether	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S140.D
Acq On : 29 Dec 2009 1:45 am
Operator : CDS1
InstName : VOA2
Sample : |243401001|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 40 Sample Multiplier: 1

Quant Time: Dec 29 07:50:14 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units Dev(Min)
95) Propionitrile	0.000		0	N.D.
96) Methacrylonitrile	0.000		0	N.D.
97) Tetrahydrofuran	11.263	42	117	N.D.
98) Isobutyl alcohol	0.000		0	N.D.
99) Methyl tert-amyl ether	0.000		0	N.D.
100) Methyl methacrylate	0.000		0	N.D.
101) 1,4-Dioxane	0.000		0	N.D.
102) 2-Nitropropane	0.000		0	N.D.
104) Ethyl methacrylate	0.000		0	N.D.
106) 1-Chlorohexane	0.000		0m	N.D. d
107) cis-1,4-Dichloro-2-butene	0.000		0	N.D.
108) Cyclohexanone	0.000		0	N.D.
109) trans-1,4-Dichloro-2-b...	0.000		0	N.D.
110) Pentachloroethane	0.000		0	N.D.
111) Benzyl chloride	18.603	91	147	N.D.
112) bis(2-Chloroisopropyl)...	0.000		0	N.D.

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S140.D
Acq On    : 29 Dec 2009   1:45 am
Operator  : CDS1
InstName  : VOA2
Sample    : |243401001|937152|1|VOA|1|VOA8260BL|
Misc      : LANL 5ML PH2
ALS Vial  : 40   Sample Multiplier: 1

Quant Time: Dec 29 07:50:14 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE
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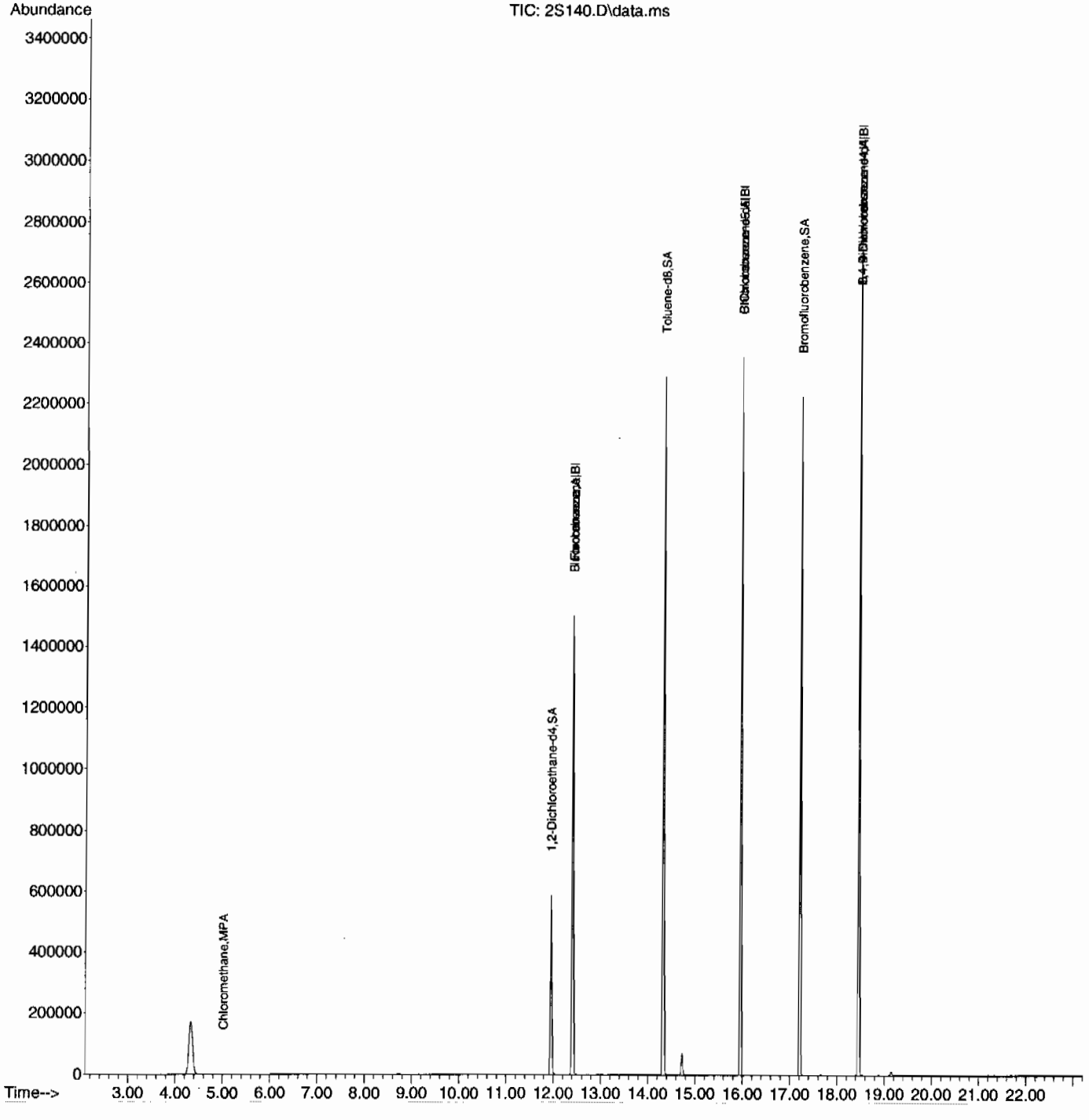

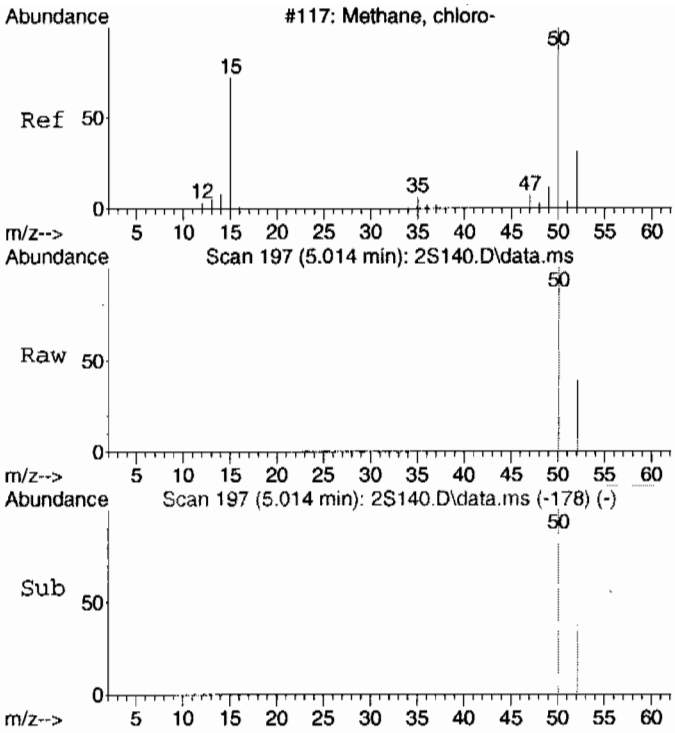

#3
Chloromethane
Concen: 0.53 ug/L
RT: 5.014 min Scan# 197
Delta R.T. -0.015 min
Lab File: 2S140.D
Acq: 29 Dec 2009 1:45 am

Tgt Ion: 50 Resp: 2423

Ion	Ratio	Lower	Upper
50	100		
52	30.0	2.2	62.2

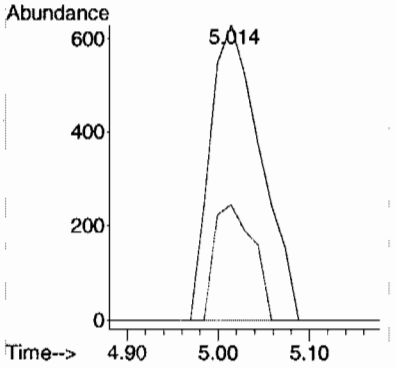

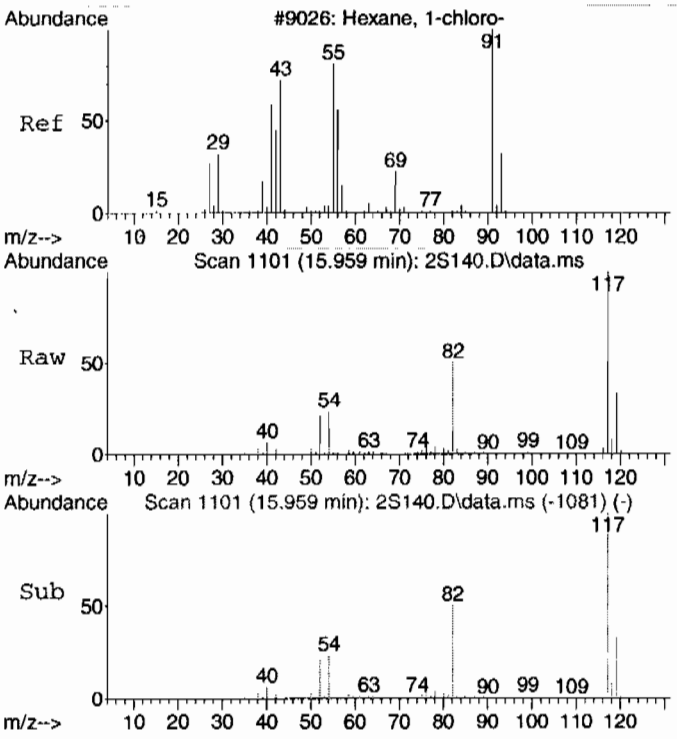

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 2.06 ug/L
RT: 15.959 min Scan# 1101
Delta R.T. 0.060 min
Lab File: 2S140.D
Acq: 29 Dec 2009 1:45 am

Tgt Ion: 55 Resp: 12663

Ion	Ratio	Lower	Upper
55	100		
91	19.0	112.5	172.5#
56	57.2	29.7	89.7

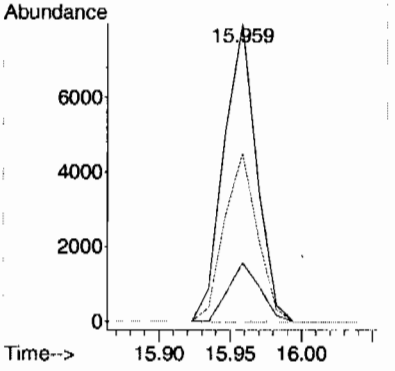

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S140.D
Acq On : 29 Dec 2009 1:45 am
Operator : CDS1
Sample : |243401001|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 40 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.330	15.91 ug/L	977308	Fluorobenzene	12.401

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	3

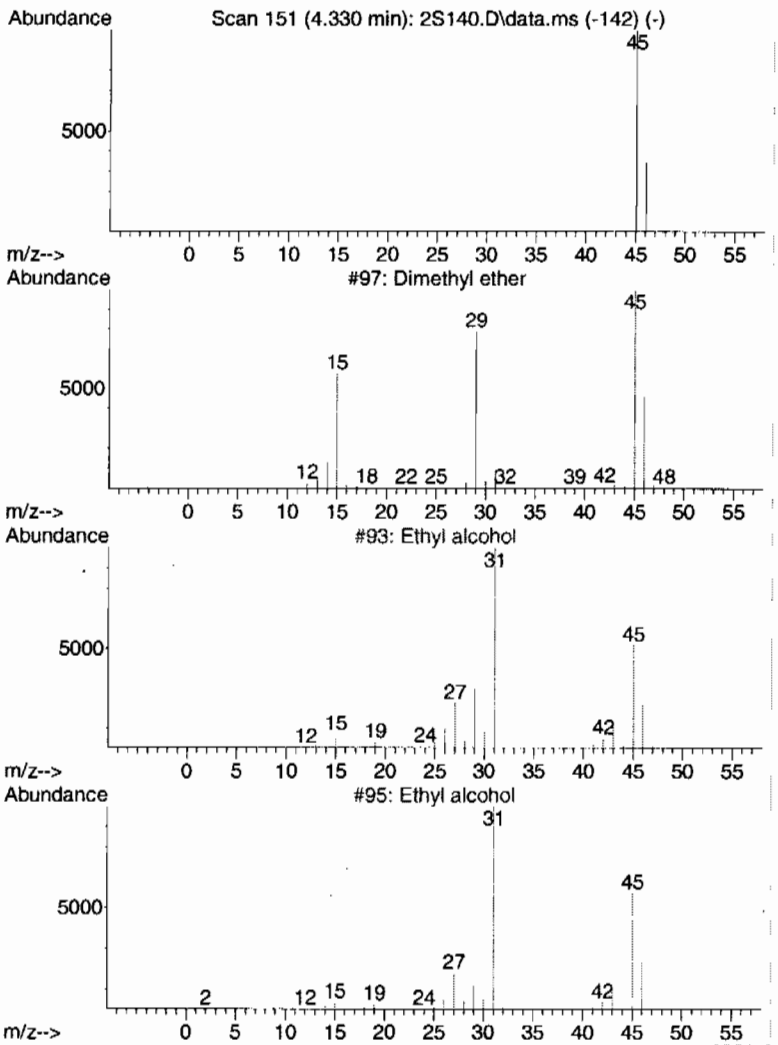

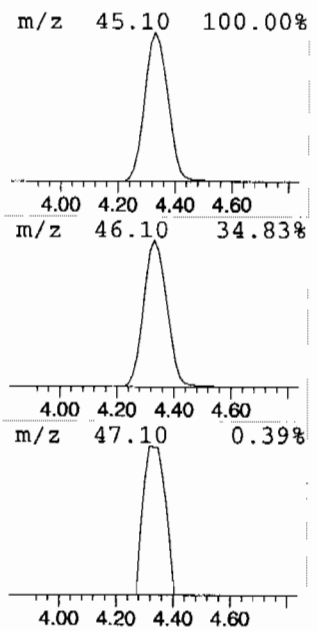

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S140.D
Acq On : 29 Dec 2009 1:45 am
Operator : CDS1
Sample : |243401001|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 40 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	4.330	15.9	ug/L	977308	1	12.401	3072180	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	**Date Collected:**	12/18/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	243401002	**Date Received:**	12/22/2009 09:55		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-6822	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	937152	**Inst:**	VOA2.I	**Dilution:**	1
Run Date:	12/29/2009 02:14	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	12/29/2009 02:14				
Data File:	122809V2.b\2S141.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone		21.5	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401002**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6822**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 02:14**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 02:14**				
Data File:	**122809V2.b\2S141.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401002**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6822**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 02:14**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 02:14**				
Data File:	**122809V2.b\2S141.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	55.4	50.0	ug/L	111	(59%-130%)
Bromofluorobenzene	51.1	50.0	ug/L	102	(71%-126%)
Toluene-d8	48.0	50.0	ug/L	96.0	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	4.35	23.5	ug/L	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S141.D
Acq On : 29 Dec 2009 2:14 am
Operator : CDS1
InstName : VOA2
Sample : |243401002|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Dec 29 07:50:36 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	12.401	96	1440173	50.00 ug/L	-0.01
41) Chlorobenzene-d5	15.958	117	1256012	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	775196	50.00 ug/L	0.00
82) B Fluorobenzene	12.401	96	1440173	50.00 ug/L	0.00
103) B Chlorobenzene-d5	15.958	117	1256012	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	775196	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	11.938	65	458343	55.42 ug/L	-0.02
Spiked Amount 50.000	Range 59 - 130		Recovery = 110.84%		
43) Toluene-d8	14.322	98	1441727	48.00 ug/L	-0.01
Spiked Amount 50.000	Range 76 - 129		Recovery = 96.00%		
61) Bromofluorobenzene	17.215	95	630538	51.08 ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 102.16%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	5.014	50	289	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	7.907	43	81922	21.47 ug/L	96
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	8.262	76	500	N.D.	
15) Methylene chloride	8.725	84	3794	N.D.	
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	10.812	43	1087	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	12.045	78	271	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S141.D
Acq On : 29 Dec 2009 2:14 am
Operator : CDS1
InstName : VOA2
Sample : |243401002|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Dec 29 07:50:36 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units Dev(Min)
38) Bromodichloromethane	0.000		0	N.D.
39) 2-Chloroethylvinyl ether	0.000		0	N.D.
40) cis-1,3-Dichloropropylene	0.000		0	N.D.
42) 4-Methyl-2-pentanone	0.000		0	N.D.
44) Toluene	14.405	91	2251	N.D.
45) trans-1,3-Dichloroprop...	0.000		0	N.D.
46) 1,1,2-Trichloroethane	0.000		0	N.D.
47) 2-Hexanone	0.000		0	N.D.
48) 1,3-Dichloropropane	0.000		0	N.D.
49) Tetrachloroethylene	0.000		0	N.D.
50) Dibromochloromethane	0.000		0	N.D.
51) 1,2-Dibromoethane	0.000		0	N.D.
52) Chlorobenzene	15.994	112	370	N.D.
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.
54) Ethylbenzene	16.077	91	237	N.D.
55) m,p-Xylenes	16.196	106	275	N.D.
56) o-Xylene	0.000		0	N.D.
57) Styrene	16.646	104	118	N.D.
59) Bromoform	0.000		0	N.D.
60) Isopropylbenzene	0.000		0	N.D.
62) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.
63) 1,2,3-Trichloropropane	0.000		0	N.D.
64) Bromobenzene	17.417	156	115	N.D.
65) n-Propylbenzene	17.464	91	122	N.D.
66) 1,3,5-Trimethylbenzene	0.000		0	N.D.
67) 2-Chlorotoluene	0.000		0	N.D.
68) 4-Chlorotoluene	17.702	91	424	N.D.
69) tert-Butylbenzene	0.000		0	N.D.
70) 1,2,4-Trimethylbenzene	0.000		0	N.D.
71) sec-Butylbenzene	0.000		0	N.D.
72) 4-Isopropyltoluene	0.000		0	N.D.
73) 1,3-Dichlorobenzene	18.401	146	756	N.D.
74) 1,4-Dichlorobenzene	18.484	146	920	N.D.
75) n-Butylbenzene	0.000		0	N.D.
76) 1,2-Dichlorobenzene	18.899	146	324	N.D.
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.
78) 1,2,4-Trichlorobenzene	20.690	180	406	N.D.
79) Hexachlorobutadiene	0.000		0	N.D.
80) Naphthalene	21.022	128	1051	N.D.
81) 1,2,3-Trichlorobenzene	21.342	180	155	N.D.
83) Chlorotrifluoroethylene	0.000		0	N.D.
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.
85) Acrolein	0.000		0	N.D.
86) Trichlorotrifluoroethane	0.000		0	N.D.
87) Isopropyl Alcohol	0.000		0	N.D.
88) Allyl chloride	0.000		0	N.D.
89) tert-Butyl Alcohol	0.000		0	N.D.
90) Acrylonitrile	0.000		0	N.D.
91) Isopropyl ether	0.000		0	N.D.
92) 2-Chloro-1,3-butadiene	0.000		0	N.D.
93) Ethyl tert-butyl ether	0.000		0	N.D.
94) Ethyl acetate	10.812	43	1087	N.D.

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S141.D
Acq On : 29 Dec 2009 2:14 am
Operator : CDS1
InstName : VOA2
Sample : |243401002|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Dec 29 07:50:36 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	18.603	91	149	N.D.	
112)	bis(2-Chloroisopropyl)...	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S141.D
Acq On : 29 Dec 2009 2:14 am
Operator : CDS1
InstName : VOA2
Sample : |243401002|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Dec 29 07:50:36 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

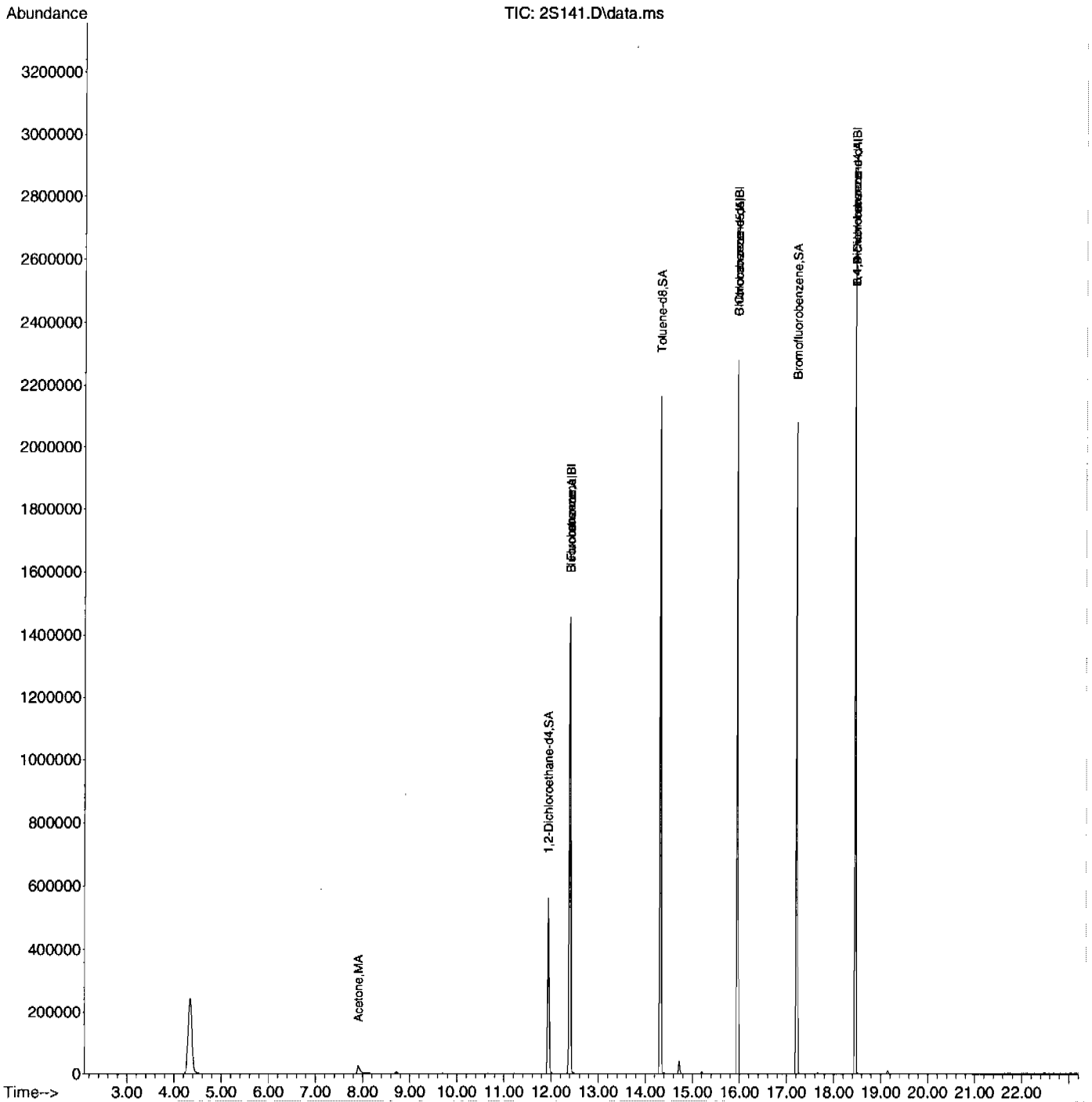

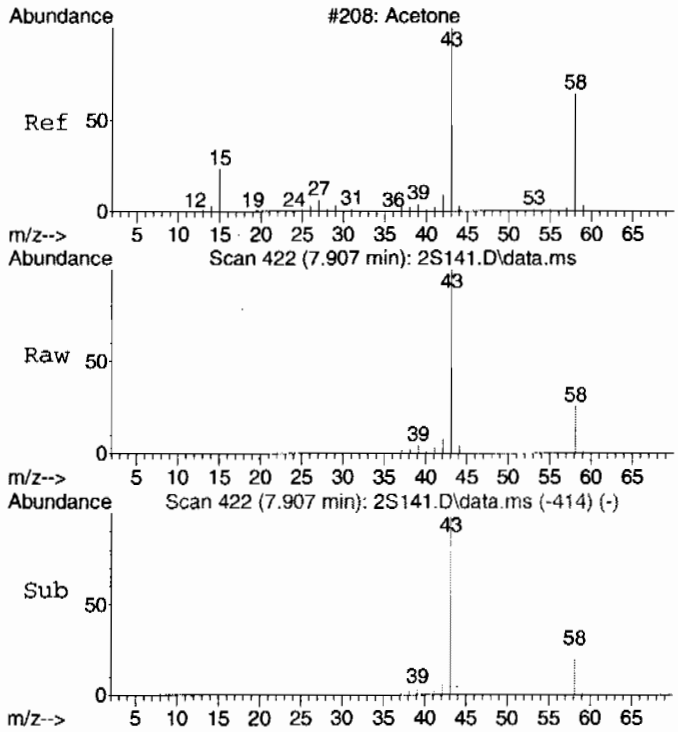

#9
Acetone
Concen: 21.47 ug/L
RT: 7.907 min Scan# 422
Delta R.T. -0.000 min
Lab File: 2S141.D
Acq: 29 Dec 2009 2:14 am

Tgt Ion: 43 Resp: 81922

Ion	Ratio	Lower	Upper
43	100		
58	25.8	0.0	57.8

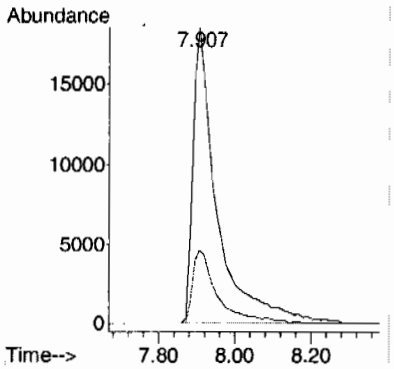

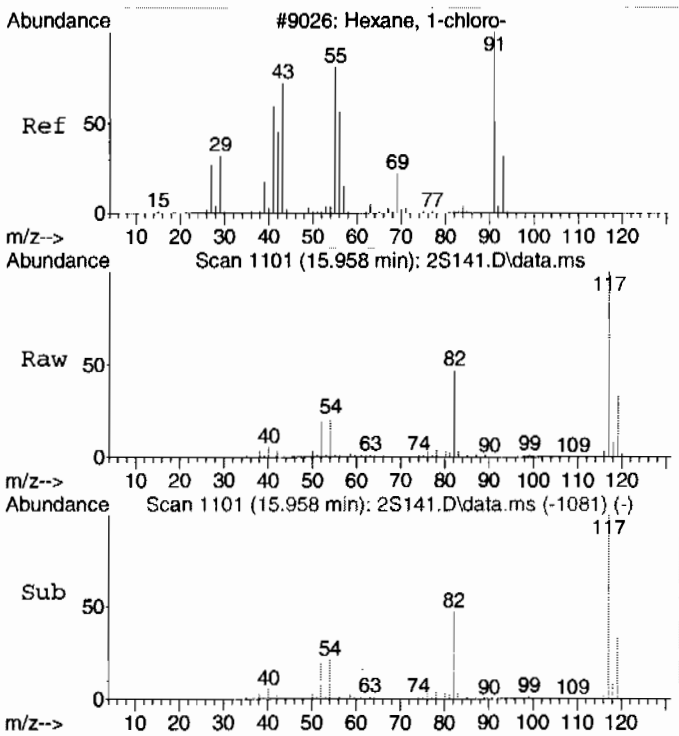

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 2.09 ug/L
RT: 15.958 min Scan# 1101
Delta R.T. 0.059 min
Lab File: 2S141.D
Acq: 29 Dec 2009 2:14 am

Tgt Ion: 55 Resp: 12749

Ion	Ratio	Lower	Upper
55	100		
91	18.8	112.5	172.5#
56	55.0	29.7	89.7

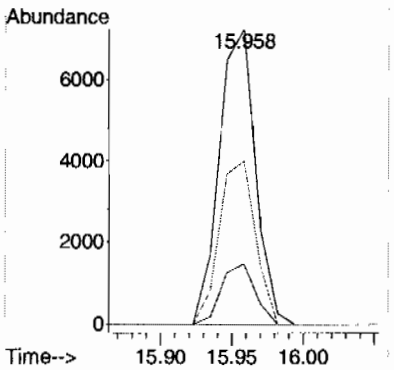

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S141.D
Acq On : 29 Dec 2009 2:14 am
Operator : CDS1
Sample : |243401002|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 41 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.345	23.49 ug/L	1430960	Fluorobenzene	12.401

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	3

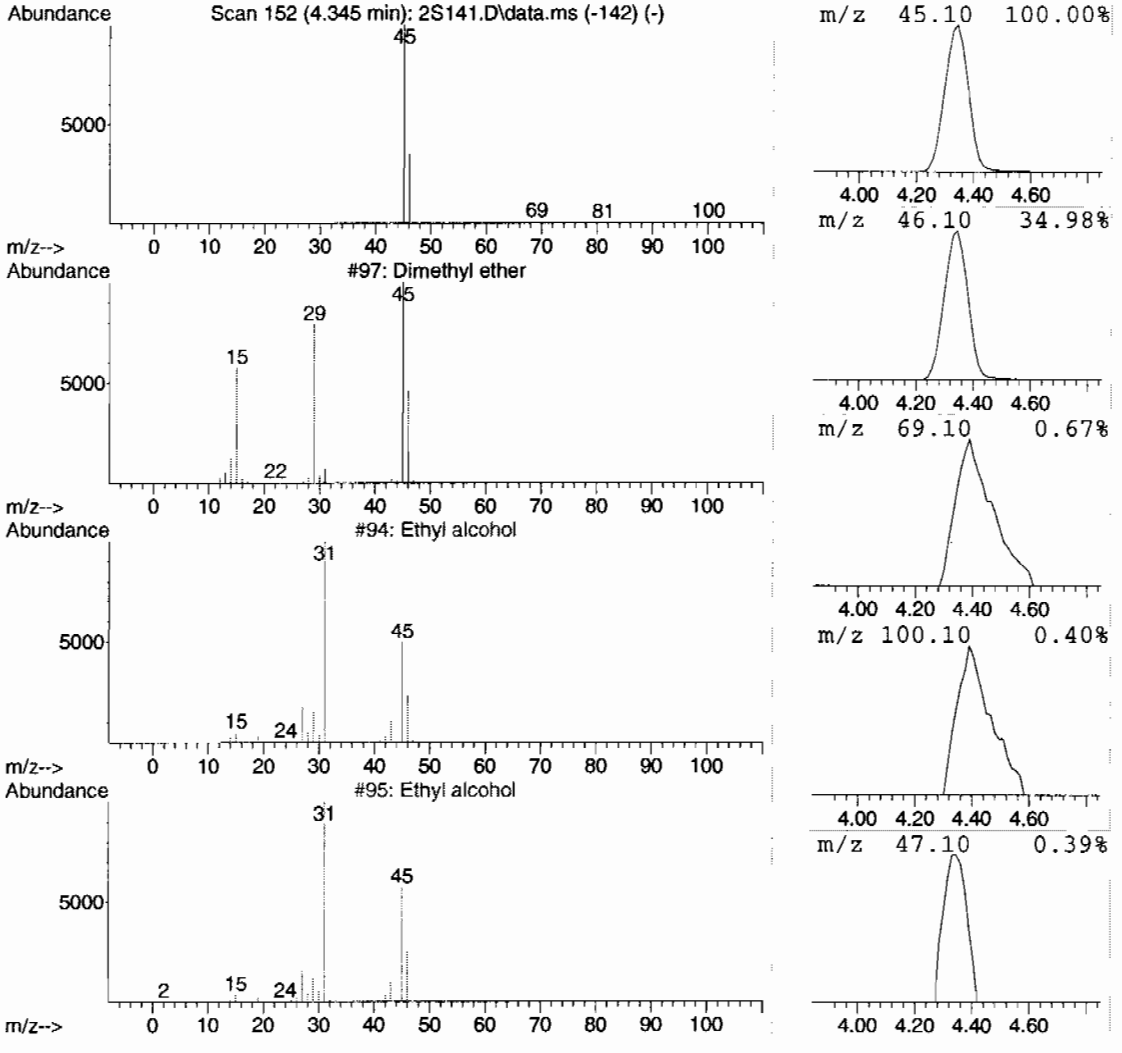

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S141.D
Acq On : 29 Dec 2009 2:14 am
Operator : CDS1
Sample : |243401002|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 41 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	4.345	23.5	ug/L	1430960	1	12.401	3045480	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401005**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6823**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 02:43**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 02:43**				
Data File:	**122809V2.b\2S142.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone		20.9	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	**Date Collected:**	12/18/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	243401005	**Date Received:**	12/22/2009 09:55		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-6823	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	937152	**Inst:**	VOA2.I	**Dilution:**	1
Run Date:	12/29/2009 02:43	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	12/29/2009 02:43				
Data File:	122809V2.b\2S142.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401005**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6823**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 02:43**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 02:43**				
Data File:	**122809V2.b\2S142.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	55.3	50.0	ug/L	111	(59%-130%)
Bromofluorobenzene	51.6	50.0	ug/L	103	(71%-126%)
Toluene-d8	47.8	50.0	ug/L	95.5	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	4.35	23.9	ug/L	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S142.D
Acq On : 29 Dec 2009 2:43 am
Operator : CDS1
InstName : VOA2
Sample : |243401005|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Dec 29 07:50:57 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	12.389	96	1428074	50.00 ug/L	-0.02
41) Chlorobenzene-d5	15.959	117	1258361	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	771846	50.00 ug/L	0.00
82) B Fluorobenzene	12.389	96	1428074	50.00 ug/L	-0.01
103) B Chlorobenzene-d5	15.959	117	1258361	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	771846	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	11.938	65	453303	55.28 ug/L	-0.02
Spiked Amount 50.000	Range 59 - 130		Recovery = 110.56%		
43) Toluene-d8	14.322	98	1436885	47.75 ug/L	-0.01
Spiked Amount 50.000	Range 76 - 129		Recovery = 95.50%		
61) Bromofluorobenzene	17.204	95	633751	51.56 ug/L	-0.01
Spiked Amount 50.000	Range 71 - 126		Recovery = 103.12%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	5.014	50	454	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	7.907	43	79153	20.92 ug/L	97
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	0.000		0	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	8.262	76	545	N.D.	
15) Methylene chloride	8.713	84	2691	N.D.	
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	0.000		0	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	10.800	43	915	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	0.000		0	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	12.045	78	272	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S142.D
Acq On : 29 Dec 2009 2:43 am
Operator : CDS1
InstName : VOA2
Sample : |243401005|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Dec 29 07:50:57 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000		0	N.D.	
44) Toluene	14.393	91	2159	N.D.	
45) trans-1,3-Dichloroprop...	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000		0	N.D.	
47) 2-Hexanone	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000		0	N.D.	
49) Tetrachloroethylene	0.000		0	N.D.	
50) Dibromochloromethane	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000		0	N.D.	
52) Chlorobenzene	15.982	112	299	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54) Ethylbenzene	16.077	91	127	N.D.	
55) m,p-Xylenes	16.196	106	107	N.D.	
56) o-Xylene	0.000		0	N.D.	
57) Styrene	0.000		0	N.D.	
59) Bromoform	0.000		0	N.D.	
60) Isopropylbenzene	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000		0	N.D.	
64) Bromobenzene	0.000		0	N.D.	
65) n-Propylbenzene	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000		0	N.D.	
68) 4-Chlorotoluene	17.702	91	520	N.D.	
69) tert-Butylbenzene	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000		0	N.D.	
71) sec-Butylbenzene	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	18.401	146	451	N.D.	
74) 1,4-Dichlorobenzene	18.484	146	803	N.D.	
75) n-Butylbenzene	18.805	91	137	N.D.	
76) 1,2-Dichlorobenzene	18.899	146	404	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	20.690	180	519	N.D.	
79) Hexachlorobutadiene	0.000		0	N.D.	
80) Naphthalene	21.022	128	1113	N.D.	
81) 1,2,3-Trichlorobenzene	21.330	180	242	N.D.	
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000		0	N.D.	
87) Isopropyl Alcohol	8.049	45	130	N.D.	
88) Allyl chloride	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000		0	N.D.	
90) Acrylonitrile	0.000		0	N.D.	
91) Isopropyl ether	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	10.800	43	915	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S142.D
Acq On : 29 Dec 2009 2:43 am
Operator : CDS1
InstName : VOA2
Sample : |243401005|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Dec 29 07:50:57 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	18.461	91	1604	N.D.	
112)	bis(2-Chloroisopropyl)...	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S142.D
Acq On : 29 Dec 2009 2:43 am
Operator : CDS1
InstName : VOA2
Sample : |243401005|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Dec 29 07:50:57 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

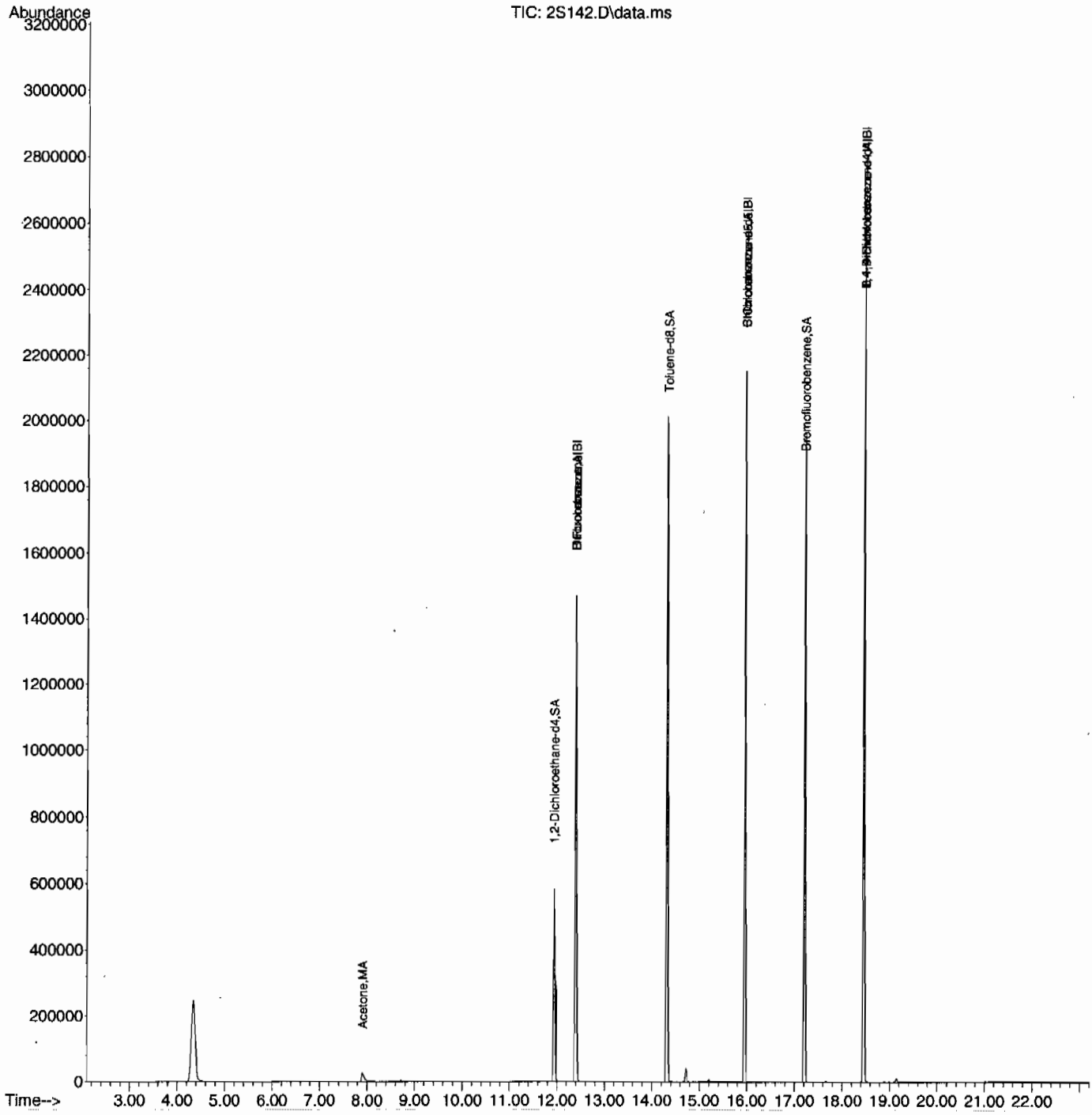

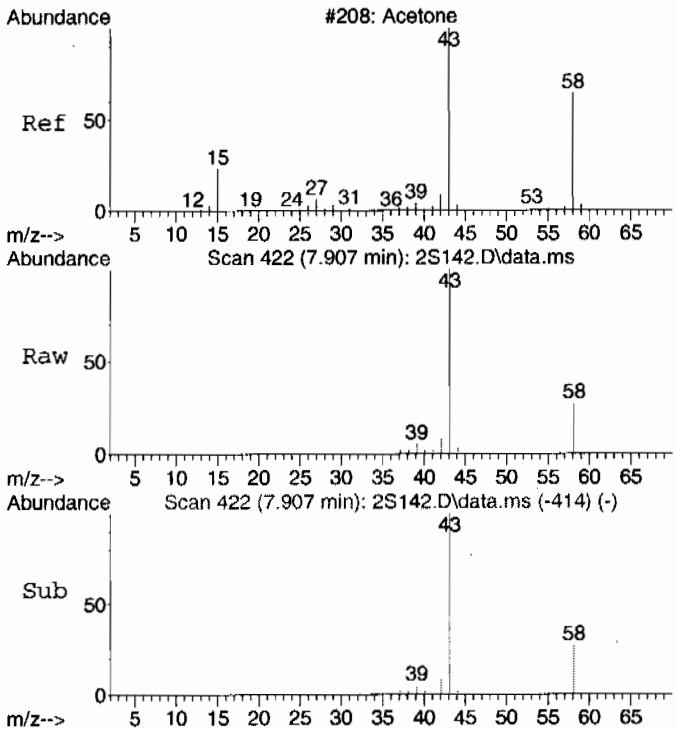

#9
Acetone
Concen: 20.92 ug/L
RT: 7.907 min Scan# 422
Delta R.T. -0.000 min
Lab File: 2S142.D
Acq: 29 Dec 2009 2:43 am

Tgt Ion: 43 Resp: 79153

Ion	Ratio	Lower	Upper
43	100		
58	26.1	0.0	57.8

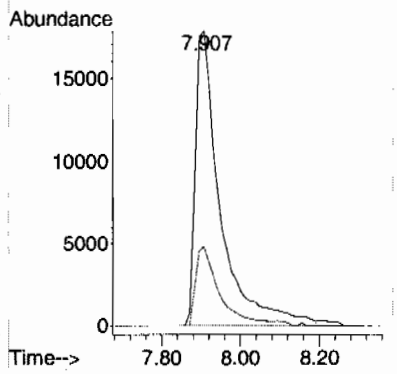

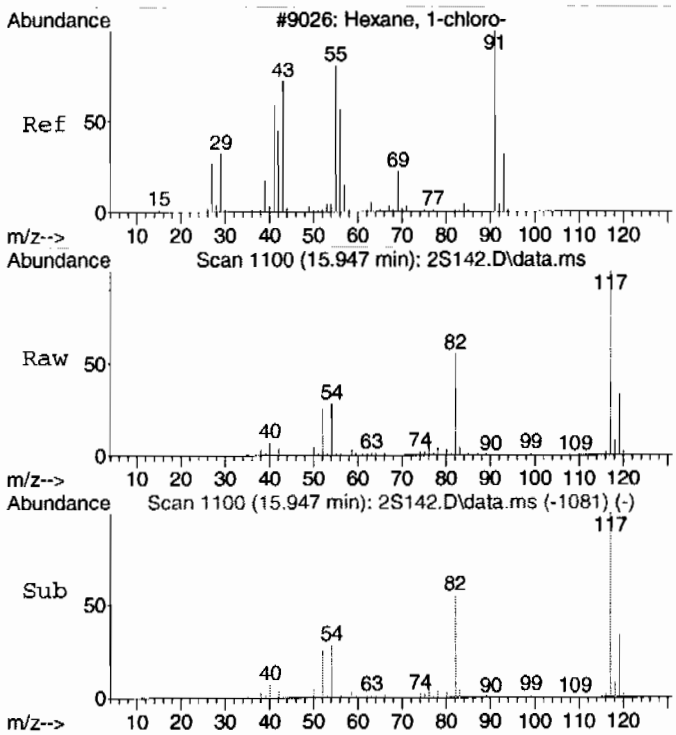

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 2.09 ug/L
RT: 15.947 min Scan# 1100
Delta R.T. 0.048 min
Lab File: 2S142.D
Acq: 29 Dec 2009 2:43 am

Tgt Ion: 55 Resp: 12688

Ion	Ratio	Lower	Upper
55	100		
91	19.4	112.5	172.5#
56	57.1	29.7	89.7

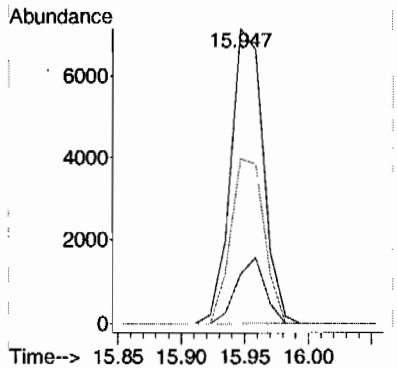

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S142.D
Acq On : 29 Dec 2009 2:43 am
Operator : CDS1
Sample : |243401005|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 42 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.345	23.93 ug/L	1444820	Fluorobenzene	12.389

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	3

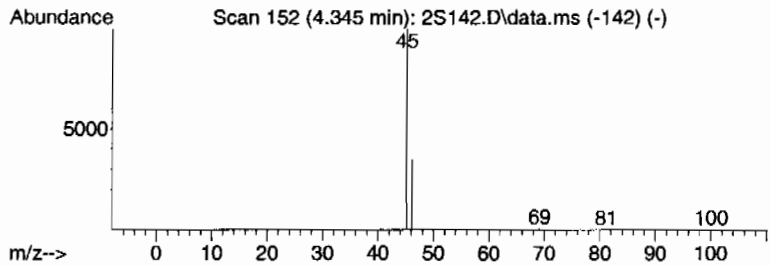

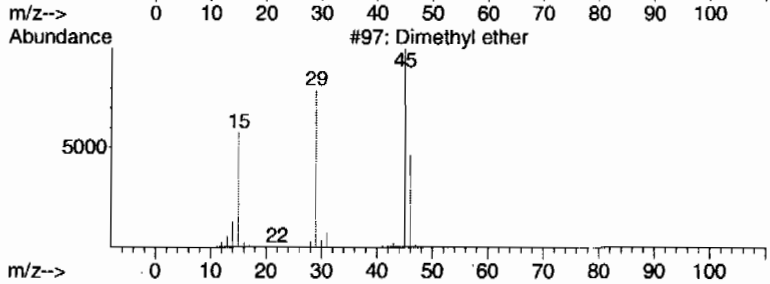

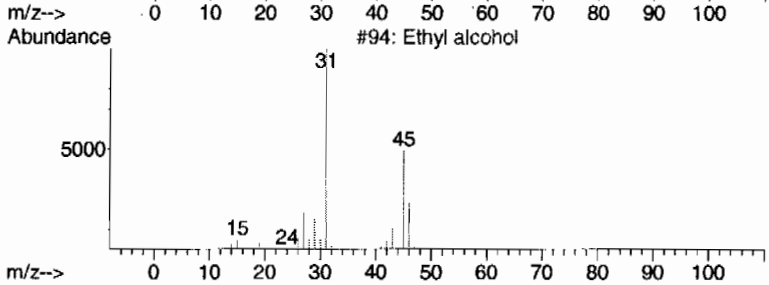

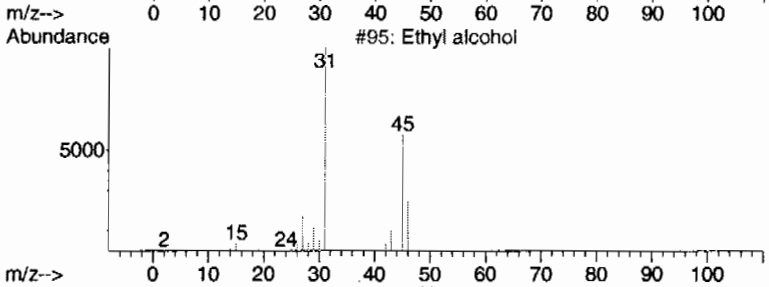

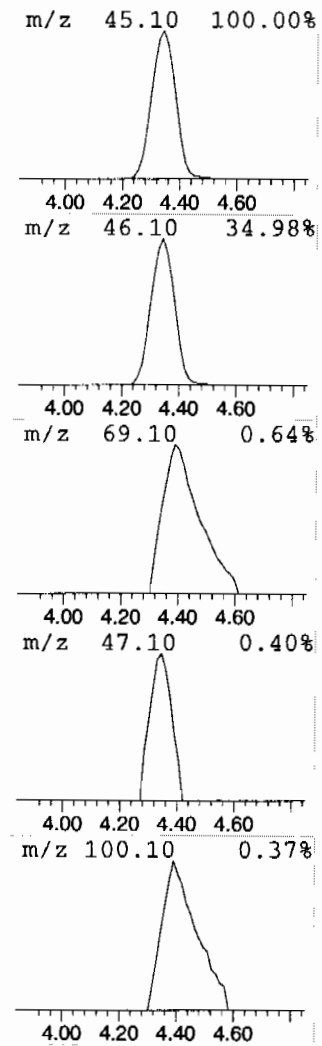

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S142.D
Acq On : 29 Dec 2009 2:43 am
Operator : CDS1
Sample : |243401005|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 42 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	4.345	23.9	ug/L	1444820	1	12.389	3018550	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401009**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6824**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 03:12**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 03:12**				
Data File:	**122809V2.b\2S143.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401009**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6824**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 03:12**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 03:12**				
Data File:	**122809V2.b\2S143.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401009**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6824**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 03:12**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 03:12**				
Data File:	**122809V2.b\2S143.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	54.1	50.0	ug/L	108	(59%-130%)
Bromofluorobenzene	50.7	50.0	ug/L	101	(71%-126%)
Toluene-d8	47.7	50.0	ug/L	95.3	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	4.35	22.6	ug/L	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S143.D
Acq On : 29 Dec 2009 3:12 am
Operator : CDS1
InstName : VOA2
Sample : |243401009|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Dec 29 07:51:17 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	12.401	96	1434601	50.00	ug/L	-0.01
41) Chlorobenzene-d5	15.959	117	1245538	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	763476	50.00	ug/L	0.00
82) B Fluorobenzene	12.401	96	1434601	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.959	117	1245538	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	763476	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	11.950	65	445852	54.12	ug/L	-0.01
Spiked Amount 50.000	Range 59 - 130		Recovery = 108.24%			
43) Toluene-d8	14.322	98	1419158	47.65	ug/L	-0.01
Spiked Amount 50.000	Range 76 - 129		Recovery = 95.30%			
61) Bromofluorobenzene	17.216	95	615937	50.66	ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 101.32%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	5.029	50	137	N.D.		
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
9) Acetone	7.978	43	3804	N.D.		
10) 1,1-Dichloroethylene	0.000		0	N.D.		
11) Iodomethane	0.000		0	N.D.		
12) Acetonitrile	0.000		0	N.D.		
13) Methyl acetate	0.000		0	N.D.		
14) Carbon disulfide	8.274	76	442	N.D.		
15) Methylene chloride	8.725	84	2809	N.D.		
16) tert-Butyl methyl ether	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000		0	N.D.		
18) Vinyl acetate	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000		0	N.D.		
20) 2-Butanone	10.824	43	116	N.D.		
21) cis-1,2-Dichloroethylene	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000		0	N.D.		
23) Bromochloromethane	0.000		0	N.D.		
24) Chloroform	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000		0	N.D.		
26) Cyclohexane	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000		0	N.D.		
28) Carbon tetrachloride	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000		0	N.D.		
31) Benzene	12.069	78	119	N.D.		
32) Cyclohexene	0.000		0	N.D.		
33) n-Butyl alcohol	0.000		0	N.D.		
34) Trichloroethylene	12.863	95	349	N.D.		
35) 1,2-Dichloropropane	0.000		0	N.D.		
36) Methylcyclohexane	0.000		0	N.D.		
37) Dibromomethane	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S143.D
Acq On : 29 Dec 2009 3:12 am
Operator : CDS1
InstName : VOA2
Sample : |243401009|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Dec 29 07:51:17 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000		0	N.D.	
44) Toluene	14.405	91	547	N.D.	
45) trans-1,3-Dichloroprop...	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000		0	N.D.	
47) 2-Hexanone	0.000		0	N.D.	
48) 1,3-Dichloropropane	0.000		0	N.D.	
49) Tetrachloroethylene	0.000		0	N.D.	
50) Dibromochloromethane	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000		0	N.D.	
52) Chlorobenzene	15.994	112	321	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54) Ethylbenzene	16.077	91	166	N.D.	
55) m,p-Xylenes	16.196	106	117	N.D.	
56) o-Xylene	0.000		0	N.D.	
57) Styrene	0.000		0	N.D.	
59) Bromoform	0.000		0	N.D.	
60) Isopropylbenzene	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000		0	N.D.	
64) Bromobenzene	0.000		0	N.D.	
65) n-Propylbenzene	0.000		0	N.D.	
66) 1,3,5-Trimethylbenzene	0.000		0	N.D.	
67) 2-Chlorotoluene	0.000		0	N.D.	
68) 4-Chlorotoluene	17.702	91	364	N.D.	
69) tert-Butylbenzene	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	0.000		0	N.D.	
71) sec-Butylbenzene	0.000		0	N.D.	
72) 4-Isopropyltoluene	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	18.401	146	408	N.D.	
74) 1,4-Dichlorobenzene	18.484	146	872	N.D.	
75) n-Butylbenzene	0.000		0	N.D.	
76) 1,2-Dichlorobenzene	18.899	146	203	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	20.690	180	373	N.D.	
79) Hexachlorobutadiene	0.000		0	N.D.	
80) Naphthalene	21.022	128	1196	N.D.	
81) 1,2,3-Trichlorobenzene	21.342	180	140	N.D.	
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000		0	N.D.	
87) Isopropyl Alcohol	8.203	45	1100	N.D.	
88) Allyl chloride	0.000		0	N.D.	
89) tert-Butyl Alcohol	0.000		0	N.D.	
90) Acrylonitrile	0.000		0	N.D.	
91) Isopropyl ether	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	10.824	43	116	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S143.D
Acq On : 29 Dec 2009 3:12 am
Operator : CDS1
InstName : VOA2
Sample : |243401009|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Dec 29 07:51:17 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	18.461	91	1750	N.D.	
112)	bis(2-Chloroisopropyl)...	19.137	45	412	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S143.D
Acq On    : 29 Dec 2009   3:12 am
Operator  : CDS1
InstName  : VOA2
Sample    : |243401009|937152|1|VOA|1|VOA8260BL|
Misc      : LANL 5ML PH2
ALS Vial  : 43   Sample Multiplier: 1

Quant Time: Dec 29 07:51:17 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE
```

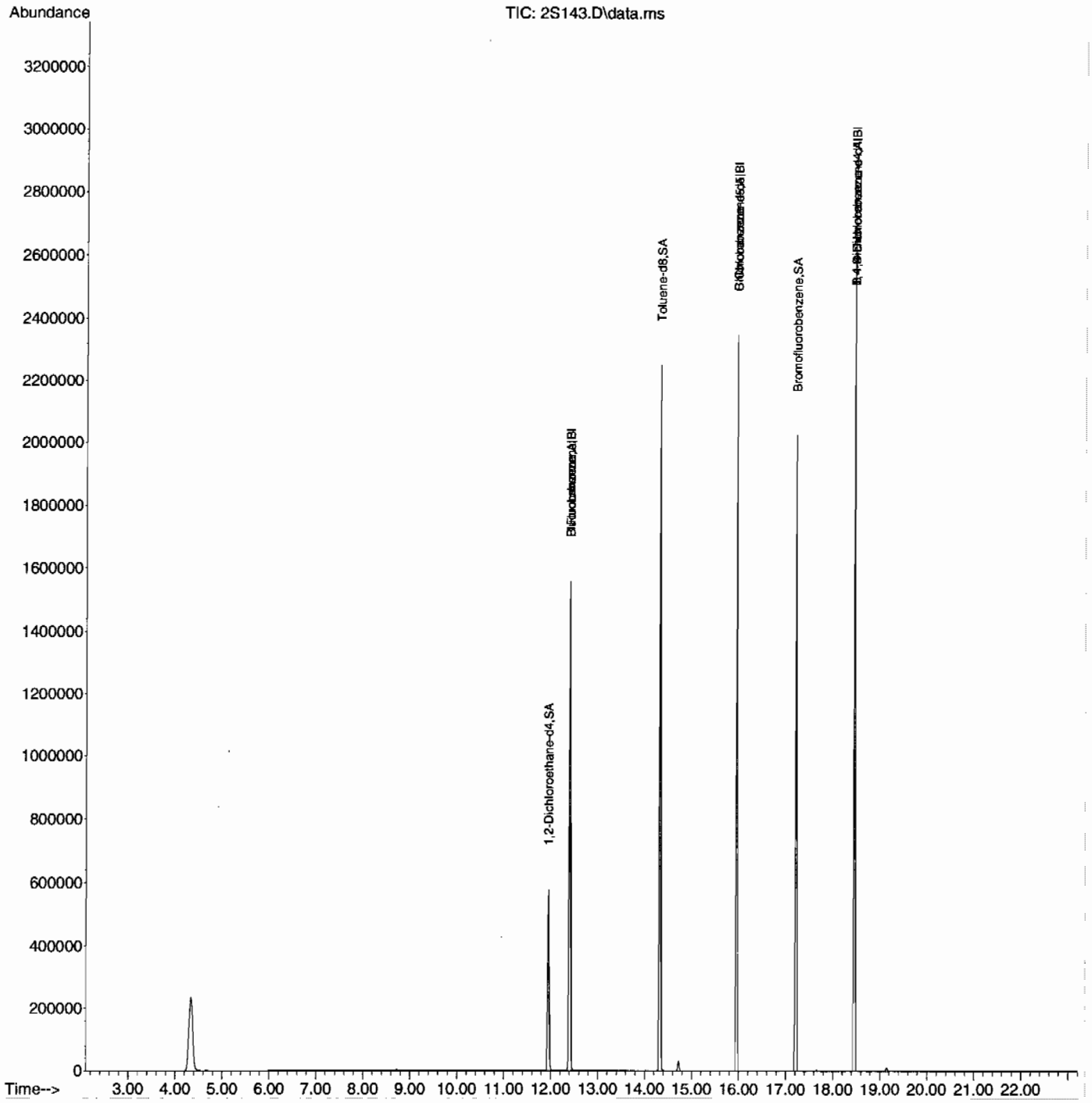

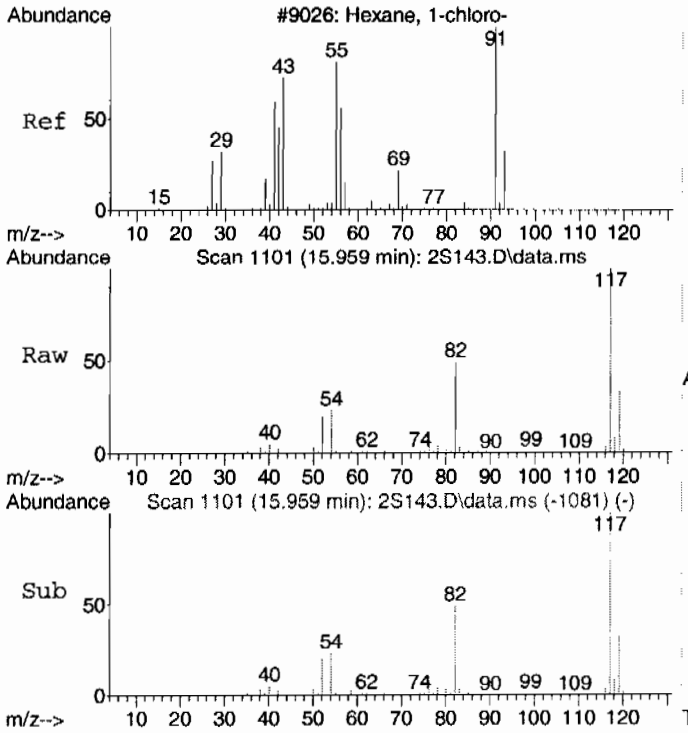

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 2.09 ug/L
RT: 15.959 min Scan# 1101
Delta R.T. 0.060 min
Lab File: 2S143.D
Acq: 29 Dec 2009 3:12 am

Tgt Ion: 55 Resp: 12581

Ion	Ratio	Lower	Upper
55	100		
91	18.7	112.5	172.5#
56	57.0	29.7	89.7

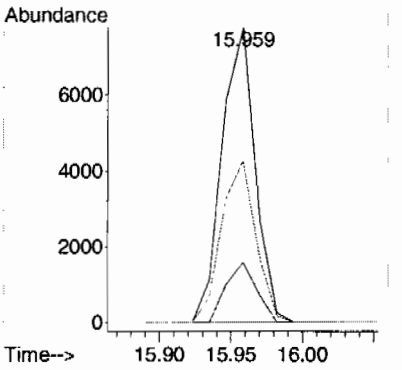

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S143.D
Acq On : 29 Dec 2009 3:12 am
Operator : CDS1
Sample : |243401009|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 43 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.345	22.58 ug/L	1373100	Fluorobenzene	12.401

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	3

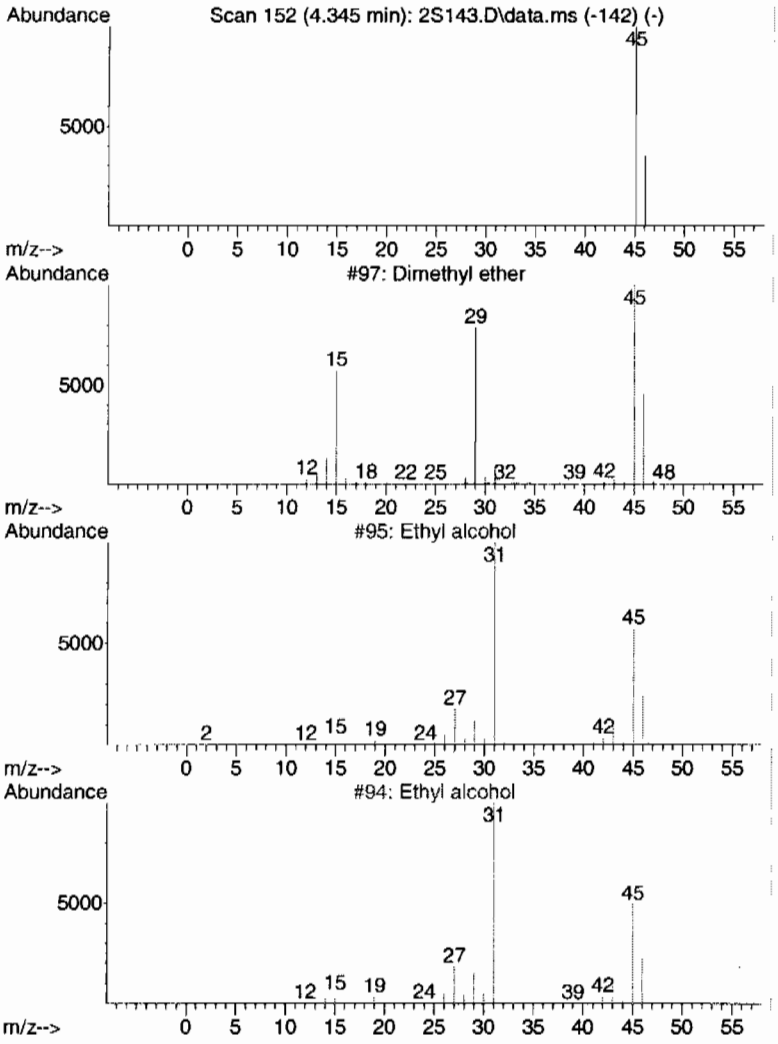

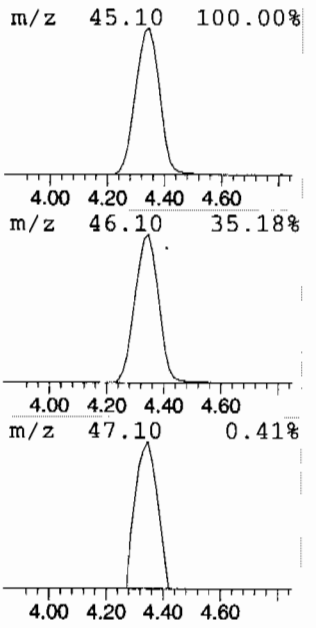

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S143.D
Acq On : 29 Dec 2009 3:12 am
Operator : CDS1
Sample : |243401009|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 43 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	4.345	22.6	ug/L	1373100	1	12.401	3040060	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401011**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6826**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 03:41**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 03:41**				
Data File:	**122809V2.b\2S144.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401011**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6826**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 03:41**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 03:41**				
Data File:	**122809V2.b\2S144.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401011**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6826**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 03:41**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 03:41**				
Data File:	**122809V2.b\2S144.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	55.5	50.0	ug/L	111	(59%-130%)
Bromofluorobenzene	51.4	50.0	ug/L	103	(71%-126%)
Toluene-d8	48.2	50.0	ug/L	96.3	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	4.35	22.2	ug/L	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S144.D
Acq On : 29 Dec 2009 3:41 am
Operator : CDS1
InstName : VOA2
Sample : |243401011|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Dec 29 07:51:35 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	12.401	96	1419352	50.00	ug/L	-0.01
41) Chlorobenzene-d5	15.959	117	1228573	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	756759	50.00	ug/L	0.00
82) B Fluorobenzene	12.401	96	1419352	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.959	117	1228573	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	756759	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	11.950	65	452285	55.49	ug/L	-0.01
Spiked Amount 50.000	Range 59 - 130		Recovery = 110.98%			
43) Toluene-d8	14.322	98	1415204	48.17	ug/L	-0.01
Spiked Amount 50.000	Range 76 - 129		Recovery = 96.34%			
61) Bromofluorobenzene	17.216	95	619458	51.40	ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 102.80%			

Target Compounds				Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.
3) Chloromethane	5.014	50	149	N.D.
4) Vinyl chloride	0.000		0	N.D.
5) Bromomethane	0.000		0	N.D.
6) Chloroethane	0.000		0	N.D.
7) Trichlorofluoromethane	0.000		0	N.D.
8) Ethyl ether	0.000		0	N.D.
9) Acetone	7.978	43	2341	N.D.
10) 1,1-Dichloroethylene	0.000		0	N.D.
11) Iodomethane	0.000		0	N.D.
12) Acetonitrile	0.000		0	N.D.
13) Methyl acetate	0.000		0	N.D.
14) Carbon disulfide	8.274	76	278	N.D.
15) Methylene chloride	8.725	84	2637	N.D.
16) tert-Butyl methyl ether	0.000		0	N.D.
17) trans-1,2-Dichloroethy...	0.000		0	N.D.
18) Vinyl acetate	0.000		0	N.D.
19) 1,1-Dichloroethane	0.000		0	N.D.
20) 2-Butanone	0.000		0	N.D.
21) cis-1,2-Dichloroethylene	0.000		0	N.D.
22) 2,2-Dichloropropane	0.000		0	N.D.
23) Bromochloromethane	0.000		0	N.D.
24) Chloroform	11.251	83	118	N.D.
25) 1,1,1-Trichloroethane	0.000		0	N.D.
26) Cyclohexane	0.000		0	N.D.
27) 1,1-Dichloropropene	0.000		0	N.D.
28) Carbon tetrachloride	0.000		0	N.D.
30) 1,2-Dichloroethane	0.000		0	N.D.
31) Benzene	12.057	78	231	N.D.
32) Cyclohexene	0.000		0	N.D.
33) n-Butyl alcohol	0.000		0	N.D.
34) Trichloroethylene	12.863	95	279	N.D.
35) 1,2-Dichloropropane	0.000		0	N.D.
36) Methylcyclohexane	0.000		0	N.D.
37) Dibromomethane	0.000		0	N.D.

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S144.D
Acq On : 29 Dec 2009 3:41 am
Operator : CDS1
InstName : VOA2
Sample : |243401011|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Dec 29 07:51:35 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	14.405	91	704	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	15.057	43	128	N.D.	
48)	1,3-Dichloropropane	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000		0	N.D.	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	15.994	112	244	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	16.077	91	118	N.D.	
55)	m,p-Xylenes	0.000		0	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	0.000		0	N.D.	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	0.000		0	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000		0	N.D.	
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	0.000		0	N.D.	
66)	1,3,5-Trimethylbenzene	17.631	105	134	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	17.702	91	395	N.D.	
69)	tert-Butylbenzene	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	0.000		0	N.D.	
71)	sec-Butylbenzene	0.000		0	N.D.	
72)	4-Isopropyltoluene	0.000		0	N.D.	
73)	1,3-Dichlorobenzene	18.401	146	687	N.D.	
74)	1,4-Dichlorobenzene	18.484	146	903	N.D.	
75)	n-Butylbenzene	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	18.899	146	254	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	20.690	180	347	N.D.	
79)	Hexachlorobutadiene	0.000		0	N.D.	
80)	Naphthalene	21.022	128	833	N.D.	
81)	1,2,3-Trichlorobenzene	21.330	180	255	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	8.049	45	235	N.D.	
88)	Allyl chloride	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	0.000		0	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S144.D
Acq On : 29 Dec 2009 3:41 am
Operator : CDS1
InstName : VOA2
Sample : |243401011|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Dec 29 07:51:35 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	18.461	91	1604	N.D.	
112)	bis(2-Chloroisopropyl)...	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S144.D
Acq On : 29 Dec 2009 3:41 am
Operator : CDS1
InstName : VOA2
Sample : |243401011|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Dec 29 07:51:35 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

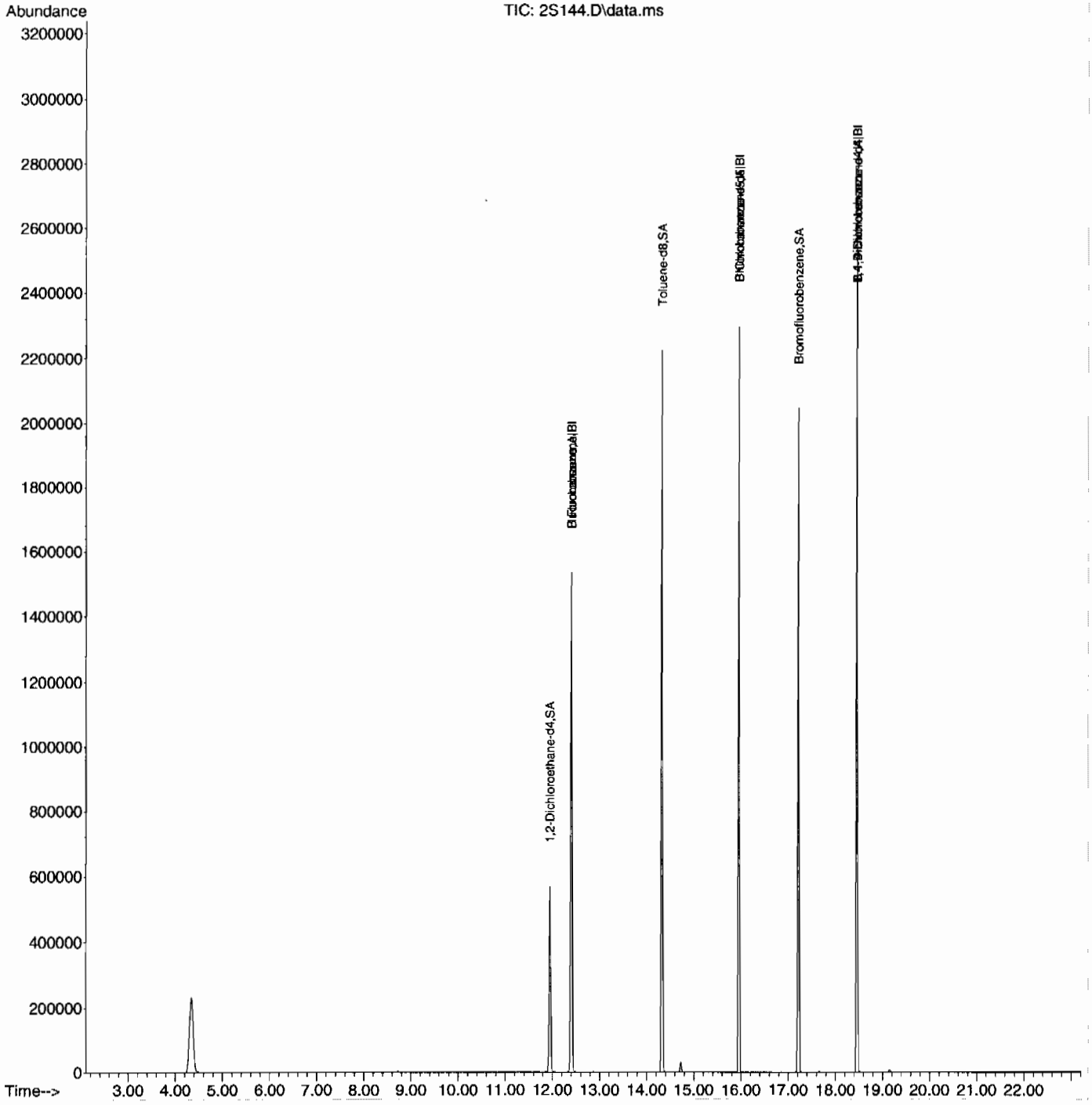

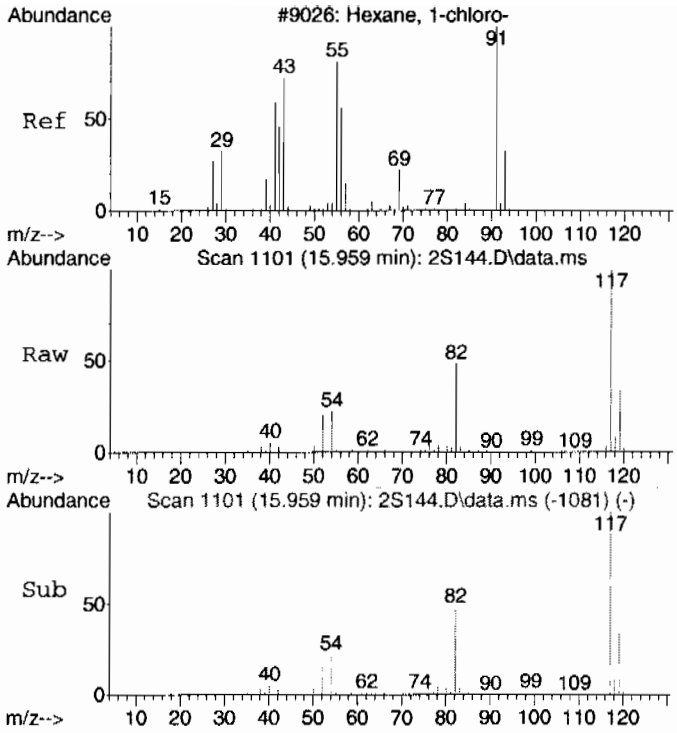

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 2.12 ug/L
RT: 15.959 min Scan# 1101
Delta R.T. 0.060 min
Lab File: 2S144.D
Acq: 29 Dec 2009 3:41 am

Tgt Ion: 55 Resp: 12613

Ion	Ratio	Lower	Upper
55	100		
91	18.6	112.5	172.5#
56	56.6	29.7	89.7

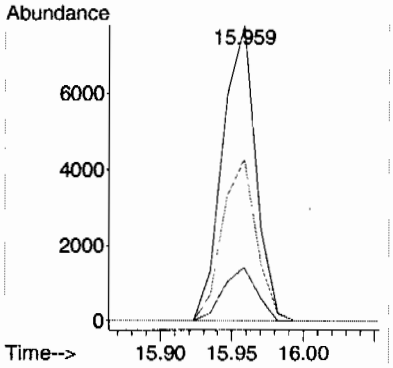

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S144.D
Acq On : 29 Dec 2009 3:41 am
Operator : CDS1
Sample : |243401011|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 44 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.345	22.15 ug/L	1333970	Fluorobenzene	12.401

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	3

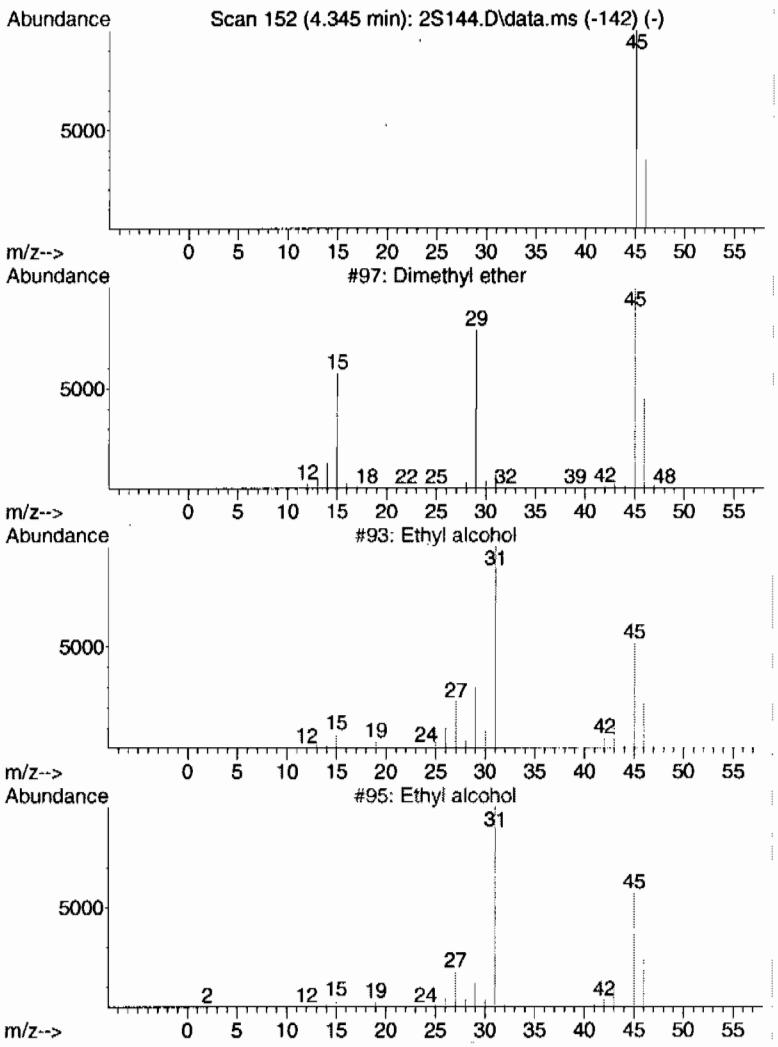

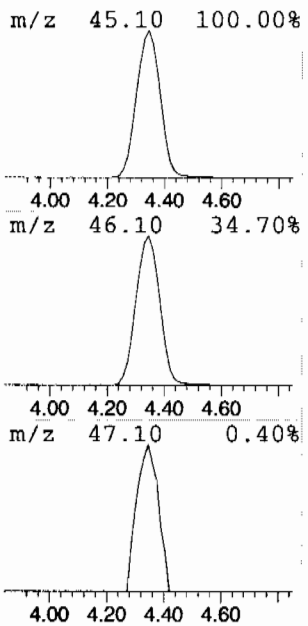

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S144.D
Acq On : 29 Dec 2009 3:41 am
Operator : CDS1
Sample : |243401011|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 44 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	4.345	22.1	ug/L	1333970	1	12.401	3011700	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401012**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6825**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 04:10**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 04:10**				
Data File:	**122809V2.b\2S145.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	J	0.830	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401012**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6825**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 04:10**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 04:10**				
Data File:	**122809V2.b\2S145.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401012**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6825**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 04:10**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 04:10**				
Data File:	**122809V2.b\2S145.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	54.2	50.0	ug/L	108	(59%-130%)
Bromofluorobenzene	50.9	50.0	ug/L	102	(71%-126%)
Toluene-d8	47.6	50.0	ug/L	95.2	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	4.33	16.1	ug/L	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S145.D
Acq On : 29 Dec 2009 4:10 am
Operator : CDS1
InstName : VOA2
Sample : |243401012|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 45 Sample Multiplier: 1

Quant Time: Dec 29 07:52:00 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	12.389	96	1418285	50.00	ug/L	-0.02
41) Chlorobenzene-d5	15.959	117	1226805	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	753928	50.00	ug/L	0.00
82) B Fluorobenzene	12.389	96	1418285	50.00	ug/L	-0.01
103) B Chlorobenzene-d5	15.959	117	1226805	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	753928	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	11.939	65	441588	54.22	ug/L	-0.02
Spiked Amount 50.000	Range 59 - 130		Recovery = 108.44%			
43) Toluene-d8	14.322	98	1396901	47.62	ug/L	-0.01
Spiked Amount 50.000	Range 76 - 129		Recovery = 95.24%			
61) Bromofluorobenzene	17.216	95	610957	50.89	ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 101.78%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	5.014	50	3705	0.83	ug/L	93
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
9) Acetone	7.954	43	1575	N.D.		
10) 1,1-Dichloroethylene	0.000		0	N.D.		
11) Iodomethane	0.000		0	N.D.		
12) Acetonitrile	0.000		0	N.D.		
13) Methyl acetate	0.000		0	N.D.		
14) Carbon disulfide	8.274	76	1886	N.D.		
15) Methylene chloride	8.713	84	2815	N.D.		
16) tert-Butyl methyl ether	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000		0	N.D.		
18) Vinyl acetate	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000		0	N.D.		
20) 2-Butanone	0.000		0	N.D.		
21) cis-1,2-Dichloroethylene	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000		0	N.D.		
23) Bromochloromethane	0.000		0	N.D.		
24) Chloroform	11.251	83	129	N.D.		
25) 1,1,1-Trichloroethane	0.000		0	N.D.		
26) Cyclohexane	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000		0	N.D.		
28) Carbon tetrachloride	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000		0	N.D.		
31) Benzene	12.045	78	226	N.D.		
32) Cyclohexene	0.000		0	N.D.		
33) n-Butyl alcohol	0.000		0	N.D.		
34) Trichloroethylene	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000		0	N.D.		
36) Methylcyclohexane	0.000		0	N.D.		
37) Dibromomethane	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S145.D
Acq On : 29 Dec 2009 4:10 am
Operator : CDS1
InstName : VOA2
Sample : |243401012|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 45 Sample Multiplier: 1

Quant Time: Dec 29 07:52:00 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38)	Bromodichloromethane	0.000		0	N.D.	
39)	2-Chloroethylvinyl ether	0.000		0	N.D.	
40)	cis-1,3-Dichloropropylene	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000		0	N.D.	
44)	Toluene	14.393	91	470	N.D.	
45)	trans-1,3-Dichloroprop...	0.000		0	N.D.	
46)	1,1,2-Trichloroethane	0.000		0	N.D.	
47)	2-Hexanone	15.057	43	114	N.D.	
48)	1,3-Dichloropropane	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000		0	N.D.	
50)	Dibromochloromethane	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000		0	N.D.	
52)	Chlorobenzene	15.982	112	270	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54)	Ethylbenzene	0.000		0	N.D.	
55)	m,p-Xylenes	0.000		0	N.D.	
56)	o-Xylene	0.000		0	N.D.	
57)	Styrene	0.000		0	N.D.	
59)	Bromoform	0.000		0	N.D.	
60)	Isopropylbenzene	0.000		0	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000		0	N.D.	
64)	Bromobenzene	0.000		0	N.D.	
65)	n-Propylbenzene	0.000		0	N.D.	
66)	1,3,5-Trimethylbenzene	17.631	105	129	N.D.	
67)	2-Chlorotoluene	0.000		0	N.D.	
68)	4-Chlorotoluene	17.702	91	366	N.D.	
69)	tert-Butylbenzene	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	0.000		0	N.D.	
71)	sec-Butylbenzene	0.000		0	N.D.	
72)	4-Isopropyltoluene	0.000		0	N.D.	
73)	1,3-Dichlorobenzene	18.401	146	369	N.D.	
74)	1,4-Dichlorobenzene	18.484	146	838	N.D.	
75)	n-Butylbenzene	0.000		0	N.D.	
76)	1,2-Dichlorobenzene	18.900	146	304	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	20.678	180	364	N.D.	
79)	Hexachlorobutadiene	0.000		0	N.D.	
80)	Naphthalene	21.022	128	907	N.D.	
81)	1,2,3-Trichlorobenzene	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	0.000		0	N.D.	
88)	Allyl chloride	0.000		0	N.D.	
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	0.000		0	N.D.	
91)	Isopropyl ether	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S145.D
Acq On : 29 Dec 2009 4:10 am
Operator : CDS1
InstName : VOA2
Sample : |243401012|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 45 Sample Multiplier: 1

Quant Time: Dec 29 07:52:00 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	0.000		0	N.D.	
98)	Isobutyl alcohol	0.000		0	N.D.	
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	0.000		0	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	0.000		0m	N.D. d	
107)	cis-1,4-Dichloro-2-butene	0.000		0	N.D.	
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	18.461	91	1858	N.D.	
112)	bis(2-Chloroisopropyl)...	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S145.D
Acq On : 29 Dec 2009 4:10 am
Operator : CDS1
InstName : VOA2
Sample : |243401012|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 45 Sample Multiplier: 1

Quant Time: Dec 29 07:52:00 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

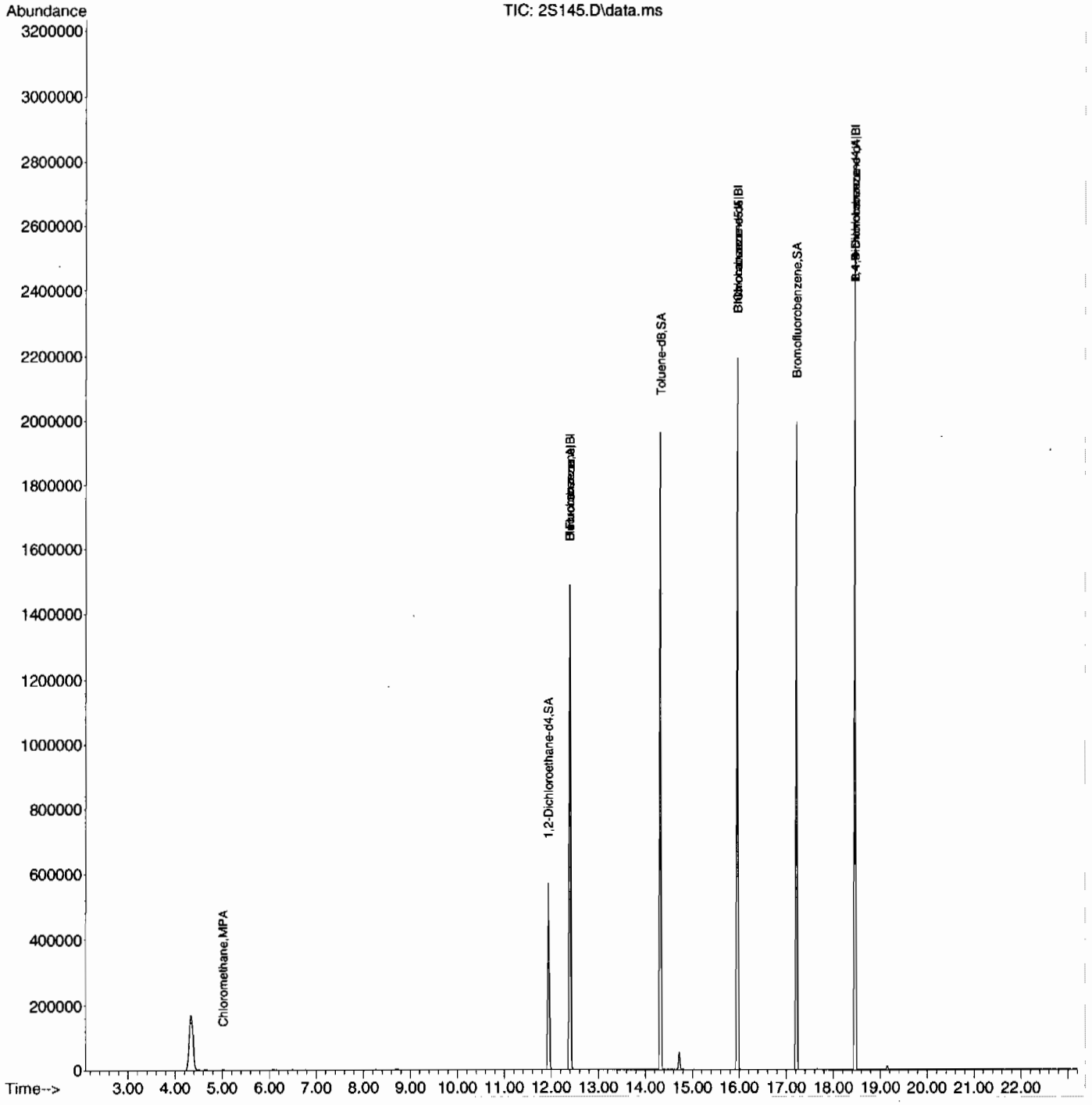

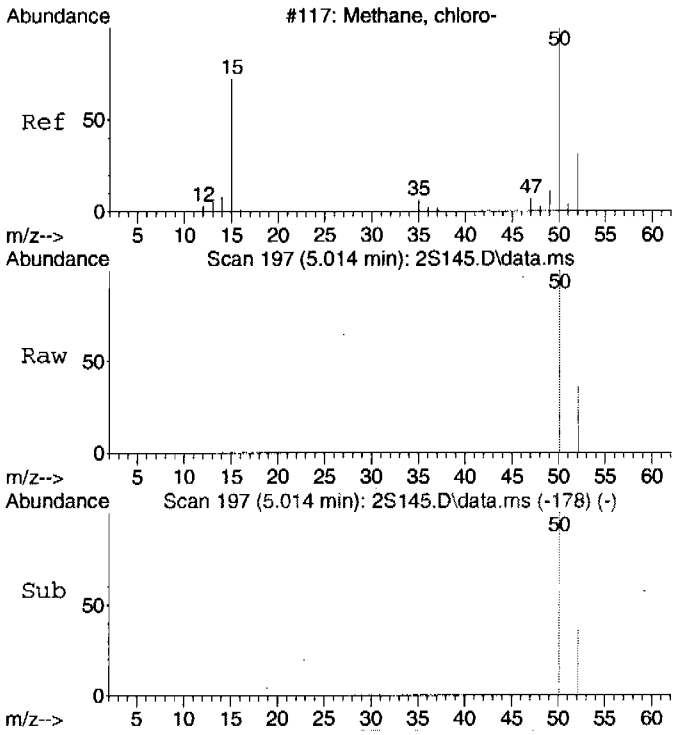

#3
Chloromethane
Concen: 0.83 ug/L
RT: 5.014 min Scan# 197
Delta R.T. -0.015 min
Lab File: 2S145.D
Acq: 29 Dec 2009 4:10 am

Tgt Ion: 50 Resp: 3705

Ion	Ratio	Lower	Upper
50	100		
52	28.5	2.2	62.2

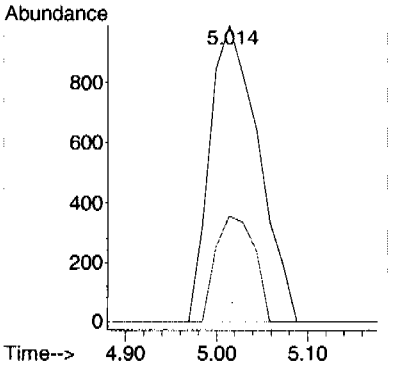

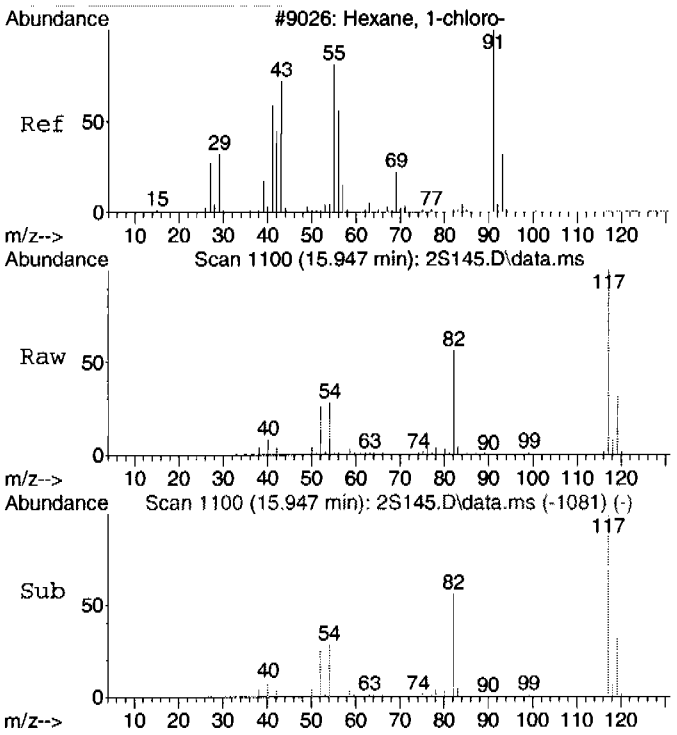

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 2.14 ug/L
RT: 15.947 min Scan# 1100
Delta R.T. 0.048 min
Lab File: 2S145.D
Acq: 29 Dec 2009 4:10 am

Tgt Ion: 55 Resp: 12730

Ion	Ratio	Lower	Upper
55	100		
91	19.5	112.5	172.5#
56	56.9	29.7	89.7

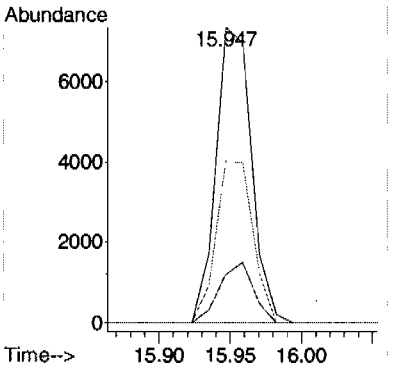

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S145.D
Acq On : 29 Dec 2009 4:10 am
Operator : CDS1
Sample : |243401012|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 45 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.330	16.08 ug/L	970971	Fluorobenzene	12.389

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Dimethyl ether	46	C2H6O	000115-10-6	2

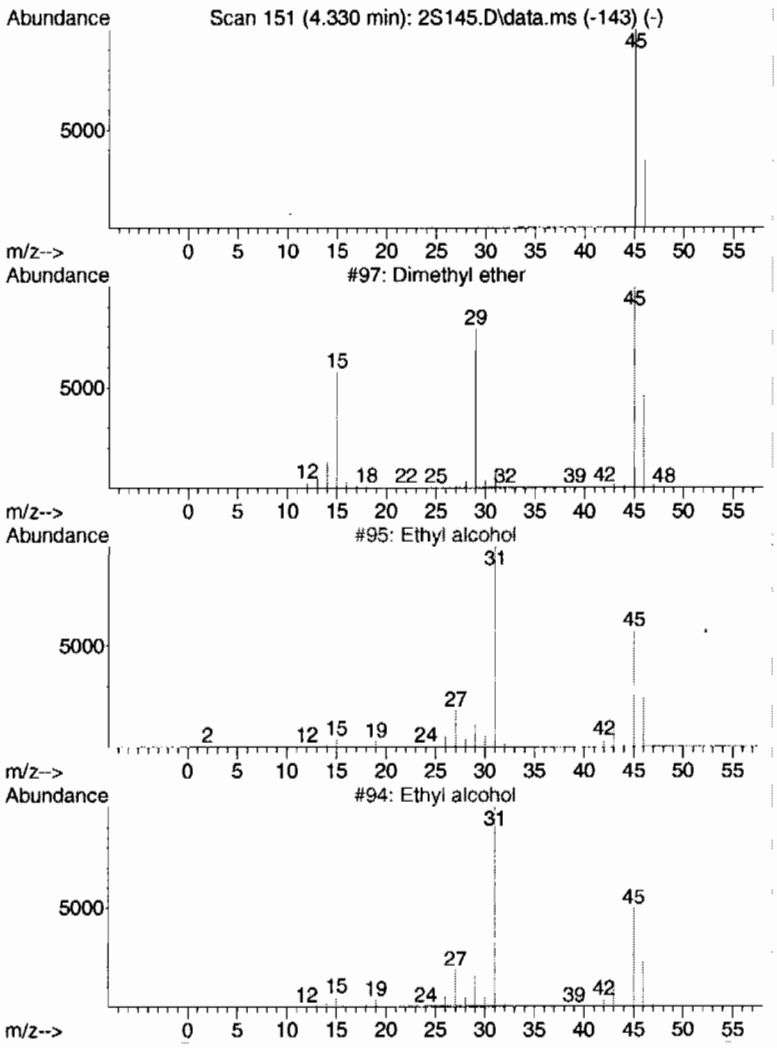

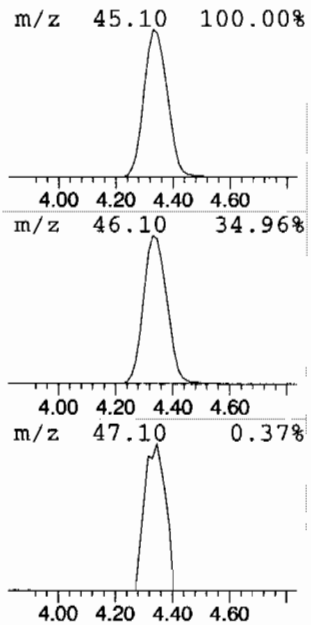

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S145.D
Acq On : 29 Dec 2009 4:10 am
Operator : CDS1
Sample : |243401012|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2
ALS Vial : 45 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	4.330	16.1	ug/L	970971	1	12.389	3019290	50.0

Standards

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOA2
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Last Update : Mon Dec 07 08:11:25 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\120509V2.b\20611.D

Injection Date	Mix	Calibration File
5 Dec 2009 4:14 pm	A	C:\msdchem\1\DATA\120509V2.b\20611.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\120509V2.b\20615.D

Injection Date	Mix	Calibration File
5 Dec 2009 12:22 pm	A	C:\msdchem\1\DATA\120509V2.b\20603.D
5 Dec 2009 6:11 pm	B	C:\msdchem\1\DATA\120509V2.b\20615.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\120509V2.b\20616.D

Injection Date	Mix	Calibration File
5 Dec 2009 12:51 pm	A	C:\msdchem\1\DATA\120509V2.b\20604.D
5 Dec 2009 6:41 pm	B	C:\msdchem\1\DATA\120509V2.b\20616.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\120509V2.b\20617.D

Injection Date	Mix	Calibration File
5 Dec 2009 1:20 pm	A	C:\msdchem\1\DATA\120509V2.b\20605.D
5 Dec 2009 7:10 pm	B	C:\msdchem\1\DATA\120509V2.b\20617.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\120509V2.b\20618.D

Injection Date	Mix	Calibration File
5 Dec 2009 1:49 pm	A	C:\msdchem\1\DATA\120509V2.b\20606.D
5 Dec 2009 7:39 pm	B	C:\msdchem\1\DATA\120509V2.b\20618.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\120509V2.b\20619.D

Injection Date	Mix	Calibration File
5 Dec 2009 2:18 pm	A	C:\msdchem\1\DATA\120509V2.b\20607.D
5 Dec 2009 8:08 pm	B	C:\msdchem\1\DATA\120509V2.b\20619.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\120509V2.b\20620.D

Injection Date	Mix	Calibration File
5 Dec 2009 2:47 pm	A	C:\msdchem\1\DATA\120509V2.b\20608.D
5 Dec 2009 8:38 pm	B	C:\msdchem\1\DATA\120509V2.b\20620.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\120509V2.b\20609.D

Injection Date	Mix	Calibration File
5 Dec 2009 3:17 pm	A	C:\msdchem\1\DATA\120509V2.b\20609.D
5 Dec 2009 9:36 pm	B	C:\msdchem\1\DATA\120509V2.b\20622.D

Response Factor Report VOA2
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Last Update : Mon Dec 07 08:11:25 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane		0.1784363	0.1732354	0.1830291	0.1570934	0.1521553				
	0.1470658	0.1662965					0.1653	AVRG		8.2766
3)MPA Chloromethane		0.1769429	0.1627622	0.1586573	0.1469744	0.1561198				
	0.1462330	0.1589104					0.1581	AVRG		6.5651
4)MCA Vinyl chloride		0.2043650	0.1792386	0.1664477	0.1695290	0.1719731				
	0.1646406	0.1789911					0.1765	AVRG		7.6766
5)MA Bromomethane		0.1219444	0.1342145	0.1393726	0.1399991	0.1391856				
	0.1291231	0.1426547					0.1352	AVRG		5.4474
6)MA Chloroethane		0.1070103	0.1136711	0.1222778	0.1297563	0.1272174				
	0.1159128	0.1196515					0.1194	AVRG		6.6252
7)MA Trichlorofluoromethane		0.2840305	0.2684810	0.2739201	0.2808098	0.2828609				
	0.2637378	0.2747216					0.2755	AVRG		2.7558
8)MA Ethyl ether		0.1644550	0.1580584	0.1649598	0.1626696	0.1762561				
	0.1659243	0.1755833					0.1668	AVRG		4.0183
9)MA Acetone		0.1499071	0.1360129	0.1255731	0.1246131	0.1305033				
	0.1274702	0.1332244					0.1325	AVRG		6.5761
10)MCA 1,1-Dichloroethylene		0.2361642	0.2607626	0.2483330	0.2581805	0.2526360				
	0.2529578	0.2518171					0.2516	AVRG		3.1601
11)MA Iodomethane		0.3174622	0.3457587	0.3273504	0.3444578	0.3375612				
	0.3382263	0.3320570					0.3347	AVRG		2.9785
12)MA Acetonitrile		0.0279288	0.0260284	0.0239229	0.0240294	0.0252959				
	0.0236232	0.0242057					0.0250	AVRG		6.1851
13)MA Methyl acetate		0.1672924	0.1578089	0.1487399	0.1480901	0.1578356				
	0.1512440	0.1576235					0.1555	AVRG		4.3379
14)MA Carbon disulfide		0.4973456	0.5699225	0.5401694	0.5701327	0.5387171				
	0.5272289	0.5162401					0.5371	AVRG		4.9804
15)MA Methylene chloride			0.2614513	0.2179364	0.2154240	0.2061985				
	0.1961314	0.1921024					0.2149	AVRG		11.6333
16)MA tert-Butyl methyl ether		0.4059491	0.4453287	0.3862072	0.4119241	0.4121389				
	0.3800730	0.3759241					0.4025	AVRG		6.0027

Response Factor Report VOA2
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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
17)MA trans-1,2-Dichloroethyle	0.2779375	0.2884335 0.2796812	0.2934944	0.2885841	0.2891379	0.2875226	0.2864	AVRG		1.9375
18)MA Vinyl acetate	0.4180651	0.3735267 0.4521743	0.3539319	0.3833719	0.4220612	0.4401108	0.4062	AVRG		8.9767
19)MPA 1,1-Dichloroethane	0.3532765	0.3635673 0.3617774	0.3680537	0.3617883	0.3605972	0.3621463	0.3616	AVRG		1.2169
20)MA 2-Butanone	0.1560596	0.1549435 0.1580878	0.1443706	0.1416883	0.1415085	0.1524773	0.1499	AVRG		4.7608
21)MA cis-1,2-Dichloroethylene	0.3078293	0.3277513 0.3069967	0.3212495	0.3212439	0.3196419	0.3232707	0.3183	AVRG		2.4692
22)MA 2,2-Dichloropropane	0.2312771	0.2088709 0.2274228	0.2256530	0.2190313	0.2238088	0.2314278	0.2239	AVRG		3.5359
23)MA Bromochloromethane	0.1183310	0.1181079 0.1217035	0.1154773	0.1154619	0.1202996	0.1187066	0.1183	AVRG		1.9463
24)MCA Chloroform	0.3740183	0.4108413 0.3830336	0.3907541	0.3812826	0.3748597	0.3815712	0.3852	AVRG		3.2727
25)MA 1,1,1-Trichloroethane	0.3088247	0.2969562 0.3125337	0.3052149	0.2980980	0.3015116	0.3096283	0.3047	AVRG		1.9722
26)MA Cyclohexane	0.2833555	0.2768982 0.2797361	0.2936893	0.2896685	0.2896301	0.2934349	0.2866	AVRG		2.3288
27)MA 1,1-Dichloropropene	0.2600689	0.2547546 0.2671612	0.2586316	0.2615771	0.2655552	0.2687974	0.2624	AVRG		1.9203
28)MA Carbon tetrachloride	0.2899622	0.2534671 0.3017080	0.2720024	0.2728042	0.2763958	0.2855249	0.2788	AVRG		5.5255
29)SA 1,2-Dichloroethane-d4	0.2836573	0.2894794 0.2791343	0.2893265	0.2903402	0.2887865	0.2891783	0.2871	AVRG		1.4470
30)MA 1,2-Dichloroethane	0.2854219	0.3283435 0.2870090	0.3049291	0.3030489	0.3024006	0.3045622	0.3022	AVRG		4.6976
31)MA Benzene	0.7615683	0.8371316 0.7617788	0.8250380	0.8138181	0.7922156	0.7973743	0.7984	AVRG		3.6817

Response Factor Report VOA2
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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene	0.3844030	0.3508218 0.3927015	0.3662475	0.3842531	0.3886274	0.3935934	0.3801	AVRG		4.1577
33)MA n-Butyl alcohol -0.0144 | 0.0059 | 0.00	8120 1072808	15797 2407298	30989	86454	192590	441025		LINR	#	0.9978
34)MA Trichloroethylene	0.2175323	0.2254272 0.2246460	0.2235350	0.2244170	0.2224844	0.2233882	0.2231	AVRG		1.1745
35)MCA 1,2-Dichloropropane	0.1996577	0.2105446 0.1948435	0.2102941	0.2058763	0.2074952	0.2093838	0.2054	AVRG		2.9158
36)MA Methylcyclohexane	0.3242541	0.3133322 0.3152544	0.3284481	0.3359916	0.3306164	0.3339255	0.3260	AVRG		2.7120
37)MA Dibromomethane	0.1299554	0.1336084 0.1340140	0.1244171	0.1259189	0.1288184	0.1319253	0.1298	AVRG		2.8445
38)MA Bromodichloromethane	0.2846958	0.2286972 0.2947901	0.2324358	0.2494698	0.2606929	0.2761232	0.2610	AVRG		9.7993
39)MA 2-Chloroethylvinyl ether	0.1226636	0.1030657 0.1228254	0.1070806	0.1464125	0.1246904	0.1356642	0.1232	AVRG		12.2295
40)MA cis-1,3-Dichloropropylen	0.3145981	0.2531839 0.3223962	0.2460275	0.2763825	0.2900192	0.3137534	0.2881	AVRG		10.6689
42)MA 4-Methyl-2-pentanone	0.1085752	0.0892844 0.1001369	0.0940641	0.0987981	0.1017513	0.1075131	0.1000	AVRG		6.8856
43)SA Toluene-d8	1.1968796	1.1867586 1.1917133	1.1981962	1.1955533	1.1967946	1.2037747	1.1957	AVRG		0.4450
44)MCA Toluene	1.0641853	1.1883217 1.0744084	1.1442965	1.1238685	1.1044387	1.0940765	1.1134	AVRG		3.8586
45)MA trans-1,3-Dichloropropyl	0.3668921	0.2818770 0.3775320	0.2766554	0.3138984	0.3330869	0.3577618	0.3297	AVRG		12.2718
46)MA 1,1,2-Trichloroethane	0.1896081	0.1886881 0.1918473	0.1863702	0.1952908	0.1904710	0.1938323	0.1909	AVRG		1.6011
47)MA 2-Hexanone	0.3258747	0.2691156 0.2825849	0.2712827	0.2836426	0.2885867	0.3124015	0.2905	AVRG		7.2630

Response Factor Report VOA2
GEL Laboratories, LLC

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane	0.3782070	0.4174305 0.3750293	0.3868871	0.3843576	0.3858606	0.3877397	0.3879	AVRG		3.5679
49)MA Tetrachloroethylene	0.2729657	0.3184498 0.2739398	0.2935459	0.2906594	0.2803682	0.2809621	0.2873	AVRG		5.4908
50)MA Dibromochloromethane -0.0093 | 0.3153 | 0.00	470031	6682 1017499	13049	35198	77667	174152		LINR		0.9990
51)MA 1,2-Dibromoethane	0.2477946	0.2200222 0.2559159	0.2176538	0.2283066	0.2367124	0.2479293	0.2363	AVRG		6.2971
52)MPA Chlorobenzene	0.7614660	0.8506745 0.7772298	0.8199601	0.7928292	0.7722462	0.7761421	0.7929	AVRG		3.9918
53)MA 1,1,1,2-Tetrachloroethan	0.2989216	0.2558791 0.3069588	0.2534721	0.2695349	0.2810097	0.2914695	0.2796	AVRG		7.4612
54)MCA Ethylbenzene	1.2403624	1.2901658 1.2516872	1.2490898	1.2867798	1.2667618	1.2729302	1.2654	AVRG		1.5167
55)MA m,p-Xylenes	0.4869983	0.4889654 0.4725498	0.4977842	0.5084236	0.5056944	0.5114776	0.4960	AVRG		2.8173
56)MA o-Xylene	0.4819868	0.4730380 0.4635517	0.4736068	0.4921809	0.4946193	0.4995315	0.4826	AVRG		2.7519
57)MA Styrene	0.8127444	0.5905003 0.7975685	0.6047709	0.6983621	0.7465478	0.8102767	0.7230	AVRG		13.1133
59)MPA Bromoform -0.0195 | 0.4108 | 0.00	354457	4203 806493	8604	22826	52835	122977		LINR		0.9965
60)MA Isopropylbenzene	2.0869325	1.8875456 2.1600009	1.9777709	2.0599787	2.1009427	2.1466552	2.0600	AVRG		4.7071
61)SA Bromofluorobenzene	0.7921497	0.7969258 0.7901500	0.8021451	0.7930004	0.8009657	0.7981972	0.7962	AVRG		0.5751
62)MPA 1,1,2,2-Tetrachloroethan	0.4990941	0.5125146 0.5220542	0.4635812	0.4836599	0.4961203	0.5205313	0.4997	AVRG		4.2242
63)MA 1,2,3-Trichloropropane	0.1400570	0.1410806 0.1482923	0.1478121	0.1447891	0.1445156	0.1482252	0.1450	AVRG		2.3429

Response Factor Report VOA2
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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA Bromobenzene	0.6158940	0.6733366 0.6329887	0.6442830	0.6109406	0.6182821	0.6273983	0.6319	AVRG		3.4021
65)MA n-Propylbenzene	2.4588347	2.3408358 2.5172456	2.4522331	2.5435504	2.5227121	2.5773944	2.4875	AVRG		3.1536
66)MA 1,3,5-Trimethylbenzene	1.7695509	1.6341242 1.8005616	1.7079652	1.7847757	1.7781626	1.8226237	1.7568	AVRG		3.6804
67)MA 2-Chlorotoluene	0.5503436	0.5540153 0.5611541	0.5589889	0.5532191	0.5618024	0.5696789	0.5585	AVRG		1.1735
68)MA 4-Chlorotoluene	1.5030051	1.5817711 1.5393419	1.5964964	1.5859942	1.5467695	1.5699670	1.5605	AVRG		2.0978
69)MA tert-Butylbenzene	0.4064276	0.3587820 0.4241004	0.3666112	0.3988319	0.3998897	0.4109131	0.3951	AVRG		6.0137
70)MA 1,2,4-Trimethylbenzene	1.8410320	1.6463399 1.8654621	1.7228205	1.8393971	1.8305046	1.8856785	1.8045	AVRG		4.8111
71)MA sec-Butylbenzene	2.3501227	2.1212257 2.4195520	2.2329406	2.3683229	2.3456813	2.4154185	2.3219	AVRG		4.6513
72)MA 4-Isopropyltoluene	1.9289520	1.6068569 2.0358456	1.7242183	1.9039807	1.8824748	1.9803468	1.8661	AVRG		8.0339
73)MA 1,3-Dichlorobenzene	1.1705797	1.3172246 1.1946283	1.2217724	1.2006769	1.1682799	1.1937795	1.2096	AVRG		4.2041
74)MA 1,4-Dichlorobenzene	1.1865987	1.4162591 1.2053062	1.3135074	1.2417836	1.1988608	1.2254594	1.2554	AVRG		6.5665
75)MA n-Butylbenzene	1.8342555	1.5973134 1.8813572	1.7003184	1.8291590	1.8341844	1.9009202	1.7968	AVRG		6.0517
76)MA 1,2-Dichlorobenzene	1.1295244	1.2379315 1.1536970	1.1566780	1.1398885	1.1189551	1.1510894	1.1554	AVRG		3.3656
77)MA 1,2-Dibromo-3-chloroprop -0.0081 | 0.1391 | 0.00	114098	1501 274049	2558	7159	16055	39464		LINR		0.9934
78)MA 1,2,4-Trichlorobenzene	0.8802153	0.9300847 0.9335463	0.8340021	0.8473978	0.8498207	0.8861412	0.8802	AVRG		4.5215

Response Factor Report VOA2
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Last Update : Mon Dec 07 08:11:25 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
79)MA Hexachlorobutadiene		0.4976812	0.5090787	0.4999658	0.4982269	0.5200458				
	0.5184218	0.5776638					0.5173	AVRG		5.4502
80)MA Naphthalene		1.6638454	1.5256189	1.6500151	1.7172594	1.8614430				
	1.8416811	1.9814889					1.7488	AVRG		8.8354
81)MA 1,2,3-Trichlorobenzene		0.8337769	0.7808029	0.7961744	0.7767144	0.8067304				
	0.8007217	0.8482181					0.8062	AVRG		3.2706
83)B Chlorotrifluoroethylene		0.1099594	0.1166904	0.1364668	0.1431661	0.1417345				
	0.1230369	0.1449677					0.1309	AVRG		10.8024
84)B 2-Chloro-1,1,1-trifluoro		0.1743024	0.1809757	0.2028320	0.2207583	0.2056438				
	0.1979197	0.2019009					0.1978	AVRG		7.9039
85)B Acrolein		0.0190739	0.0225507	0.0236659	0.0259784	0.0268511				
	0.0262636	0.0276380					0.0246	AVRG		12.2720
86)B Trichlorotrifluoroethane		0.0552590	0.0527540	0.0486986	0.0504816	0.0476591				
	0.0445396	0.0444209					0.0491	AVRG		8.2334
87)B Isopropyl Alcohol		0.0115163	0.0109736	0.0111409	0.0129538	0.0132089				
	0.0127100	0.0149653					0.0125	AVRG		11.3059
88)B Allyl chloride		0.3283984	0.3196846	0.3101751	0.3338176	0.3214111				
	0.3141818	0.2952213					0.3176	AVRG		3.9959
89)B tert-Butyl Alcohol		0.0170649	0.0168316	0.0169752	0.0195124	0.0200376				
	0.0183262	0.0214346					0.0186	AVRG		9.6020
90)B Acrylonitrile		0.0595670	0.0653753	0.0632579	0.0686407	0.0686442				
	0.0656948	0.0682905					0.0656	AVRG		5.1169
91)B Isopropyl ether		0.5991675	0.5969495	0.6547558	0.7084668	0.6983071				
	0.6652522	0.6955776					0.6598	AVRG		7.0040
92)B 2-Chloro-1,3-butadiene		0.2661289	0.2676538	0.2788597	0.3099907	0.3145545				
	0.3288157	0.3291374					0.2993	AVRG		9.2791
93)B Ethyl tert-butyl ether		0.4866364	0.4685215	0.5109921	0.5568327	0.5595438				
	0.5290157	0.5650447					0.5252	AVRG		7.2432
94)B Ethyl acetate		0.1958624	0.1948474	0.1891659	0.2017117	0.2028364				
	0.1913856	0.1961613					0.1960	AVRG		2.5403

Response Factor Report VOA2
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Last Update : Mon Dec 07 08:11:25 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile	0.0254188	0.0254453 0.0262477	0.0254819	0.0251343	0.0274440	0.0269780	0.0260	AVRG		3.4240
96)B Methacrylonitrile	0.1203760	0.1038698 0.1214799	0.1140037	0.1156735	0.1245388	0.1252910	0.1179	AVRG		6.3348
97)B Tetrahydrofuran	0.0576767	0.0575589 0.0606431	0.0594899	0.0579079	0.0615972	0.0616597	0.0595	AVRG		3.0679
98)B Isobutyl alcohol	0.0072771	0.0059522 0.0078498	0.0067769	0.0065556	0.0072955	0.0074916	0.0070	AVRG	#	9.1241
99)B Methyl tert-amyl ether	0.4680129	0.4258666 0.4938772	0.4105214	0.4432612	0.4861126	0.4918919	0.4599	AVRG		7.3218
100)B Methyl methacrylate	0.1200094	0.0911320 0.1164921	0.1018256	0.1087099	0.1203633	0.1251811	0.1120	AVRG		10.8036
101)B 1,4-Dioxane	0.0017812	0.0018249 0.0019240	0.0016681	0.0017673	0.0018434	0.0017872	0.0018	AVRG	#	4.3570
102)B 2-Nitropropane -0.0113 | 0.0667 | 0.00	626528	6763 1368530	15836	43355	102817	233256		LINR		0.9987
104)B Ethyl methacrylate	0.2908014	0.2090232 0.2679761	0.2392289	0.2707004	0.3001664	0.3058154	0.2691	AVRG		12.9525
106)B 1-Chlorohexane	0.4036126	0.3103400 0.4230769	0.3192450	0.4101483	0.4542328	0.4361487	0.3938	AVRG		14.3601
107)B cis-1,4-Dichloro-2-buten	0.1642989	0.1272899 0.1608054	0.1382958	0.1457305	0.1617525	0.1678199	0.1523	AVRG		10.0712
108)B Cyclohexanone	0.0319934	0.0231345	0.0258615	0.0287689	0.0322807	0.0330256	0.0292	AVRG		13.7133
109)B trans-1,4-Dichloro-2-but	0.1545959	0.1334701 0.1499186	0.1378734	0.1457539	0.1586585	0.1613132	0.1488	AVRG		7.0073
110)B Pentachloroethane	0.1788185	0.1513737 0.1477127	0.1796284	0.1524843	0.1696618	0.2028418	0.1689	AVRG		11.8185
111)B Benzyl chloride -0.0057 | 0.7640 | 0.00	3848351	48038 7528418	110783	309010	699641	1493218		LINR		0.9994

Response Factor Report VOA2
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Last Update : Mon Dec 07 08:11:25 2009
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
12)B bis(2-Chloroisopropyl)et		0.1974920	0.2276769	0.2297995	0.2582713	0.2681315				
	0.2565575	0.2683797					0.2438	AVRG		10.8135

(#) = Out of Range

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20603.D
Acq On : 5 Dec 2009 12:22 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-01|ICAL|1|VOAF|1|
Misc : VSTD001 5ML MIX[A]911-02C+1130-02A
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 07 08:18:33 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	12.413	96	1941869	50.00 ug/L	0.00
41) Chlorobenzene-d5	15.959	117	1536663	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	916852	50.00 ug/L	0.00
82) B Fluorobenzene	12.413	96	0m	50.00 ug/L	0.01
103) B Chlorobenzene-d5	15.959	117	0m	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	0m	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	11.962	65	563546	50.54 ug/L	0.00
43) Toluene-d8	14.322	98	1823718	49.63 ug/L	-0.01
61) Bromofluorobenzene	17.216	95	730663	50.04 ug/L	0.00
Target Compounds					Qvalue
2) Dichlorodifluoromethane	4.687	85	6930	1.08 ug/L	79
3) Chloromethane	5.014	50	6872	1.12 ug/L	99
4) Vinyl chloride	5.296	62	7937	1.16 ug/L	83
5) Bromomethane	5.980	94	4736	0.90 ug/L	90
6) Chloroethane	6.223	64	4156	0.90 ug/L	84
7) Trichlorofluoromethane	6.792	101	11031	1.03 ug/L	95
8) Ethyl ether	7.397	59	6387	0.99 ug/L	95
9) Acetone	7.942	43	29288	5.69 ug/L	94
10) 1,1-Dichloroethylene	7.859	61	9172	0.94 ug/L	99
11) Iodomethane	8.144	142	62130	4.78 ug/L	99
12) Acetonitrile	8.452	41	27117	27.92 ug/L	91
13) Methyl acetate	8.559	43	32839	5.44 ug/L	96
14) Carbon disulfide	8.286	76	97198	4.66 ug/L	100
15) Methylene chloride	8.737	84	13366	N.D.	
16) tert-Butyl methyl ether	9.247	73	15766	1.01 ug/L	97
17) trans-1,2-Dichloroethy...	9.235	61	11203	1.01 ug/L	98
18) Vinyl acetate	9.982	43	72670	4.61 ug/L	99
19) 1,1-Dichloroethane	9.923	63	14120	1.01 ug/L	97
20) 2-Butanone	10.812	43	30194	5.19 ug/L	97
21) cis-1,2-Dichloroethylene	10.824	61	12728	1.03 ug/L	98
22) 2,2-Dichloropropane	10.836	77	8112	0.93 ug/L	81
23) Bromochloromethane	11.168	128	4587	1.00 ug/L	92
24) Chloroform	11.263	83	15956	1.07 ug/L	97
25) 1,1,1-Trichloroethane	11.571	97	11533	0.97 ug/L	96
26) Cyclohexane	11.678	56	10753	0.97 ug/L	99
27) 1,1-Dichloropropene	11.785	75	9893	0.97 ug/L	99
28) Carbon tetrachloride	11.808	117	9844	0.91 ug/L	99
30) 1,2-Dichloroethane	12.057	62	12752	1.09 ug/L	100
31) Benzene	12.069	78	32512	1.05 ug/L	98
32) Cyclohexene	12.211	67	13624	0.92 ug/L	99
33) n-Butyl alcohol	12.674	56	15797	189.74 ug/L	86
34) Trichloroethylene	12.876	95	8755	1.01 ug/L	97
35) 1,2-Dichloropropane	13.148	63	8177	1.02 ug/L	100
36) Methylcyclohexane	13.160	83	12169	0.96 ug/L	96
37) Dibromomethane	13.302	93	5190	1.03 ug/L	95
38) Bromodichloromethane	13.468	83	8882	0.88 ug/L	94
39) 2-Chloroethylvinyl ether	13.777	63	20012	4.18 ug/L	98
40) cis-1,3-Dichloropropylene	13.990	75	9833	0.88 ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20603.D
Acq On : 5 Dec 2009 12:22 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-01|ICAL|1|VOAF|1|
Misc : VSTD001 5ML MIX[A]911-02C+1130-02A
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 07 08:18:33 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 4-Methyl-2-pentanone	14.133	58	13720	4.46 ug/L	91
44) Toluene	14.405	91	36524	1.07 ug/L	97
45) trans-1,3-Dichloroprop...	14.607	75	8663	0.86 ug/L	98
46) 1,1,2-Trichloroethane	14.832	83	5799	0.99 ug/L	94
47) 2-Hexanone	15.057	43	41354	4.63 ug/L	98
48) 1,3-Dichloropropane	15.022	76	12829	1.08 ug/L	92
49) Tetrachloroethylene	15.046	164	9787	1.11 ug/L	98
50) Dibromochloromethane	15.307	129	6682	2.17 ug/L	100
51) 1,2-Dibromoethane	15.461	107	6762	0.93 ug/L	95
52) Chlorobenzene	15.994	112	26144	1.07 ug/L #	55
53) 1,1,1,2-Tetrachloroethane	16.065	131	7864	0.92 ug/L	96
54) Ethylbenzene	16.089	91	39651	1.02 ug/L	98
55) m,p-Xylenes	16.208	106	30058	1.97 ug/L	98
56) o-Xylene	16.647	106	14538	0.98 ug/L	97
57) Styrene	16.658	104	18148	0.82 ug/L	94
59) Bromoform	16.896	173	4203	2.94 ug/L	100
60) Isopropylbenzene	17.026	105	34612	0.92 ug/L	100
62) 1,1,2,2-Tetrachloroethane	17.311	83	9398	1.03 ug/L	99
63) 1,2,3-Trichloropropane	17.382	110	2587	0.97 ug/L #	69
64) Bromobenzene	17.417	156	12347	1.07 ug/L	95
65) n-Propylbenzene	17.465	91	42924	0.94 ug/L	99
66) 1,3,5-Trimethylbenzene	17.631	105	29965	0.93 ug/L	98
67) 2-Chlorotoluene	17.607	126	10161	0.99 ug/L	97
68) 4-Chlorotoluene	17.702	91	28856	1.01 ug/L	99
69) tert-Butylbenzene	18.010	134	6579	0.91 ug/L	95
70) 1,2,4-Trimethylbenzene	18.046	105	30189	0.91 ug/L	100
71) sec-Butylbenzene	18.236	105	38897	0.91 ug/L	99
72) 4-Isopropyltoluene	18.366	119	29465	0.86 ug/L	97
73) 1,3-Dichlorobenzene	18.402	146	24154	1.09 ug/L	99
74) 1,4-Dichlorobenzene	18.485	146	25970	1.13 ug/L #	69
75) n-Butylbenzene	18.805	91	29290	0.89 ug/L	99
76) 1,2-Dichlorobenzene	18.900	146	22700	1.07 ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.718	157	1501	3.50 ug/L	79
78) 1,2,4-Trichlorobenzene	20.690	180	17055	1.06 ug/L	96
79) Hexachlorobutadiene	20.868	225	9126	0.96 ug/L	96
80) Naphthalene	21.022	128	30510	0.95 ug/L	99
81) 1,2,3-Trichlorobenzene	21.342	180	15289	1.03 ug/L	99
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000		0	N.D.	
88) Allyl chloride	8.452		0m	N.D. d	
89) tert-Butyl Alcohol	0.000		0	N.D.	
90) Acrylonitrile	0.000		0	N.D.	
91) Isopropyl ether	9.982		0m	N.D. d	
92) 2-Chloro-1,3-butadiene	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	10.812		0m	N.D. d	
95) Propionitrile	0.000		0	N.D.	
96) Methacrylonitrile	0.000		0	N.D.	
97) Tetrahydrofuran	11.263		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20603.D
Acq On : 5 Dec 2009 12:22 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-01|ICAL|1|VOAF|1|
Misc : VSTD001 5ML MIX[A]911-02C+1130-02A
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 07 08:18:33 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	Isobutyl alcohol	11.962		0m	N.D.	d
99)	Methyl tert-amyl ether	12.069		0m	N.D.	d
100)	Methyl methacrylate	13.160		0m	N.D.	d
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	13.777		0m	N.D.	d
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	15.959		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	17.026		0m	N.D.	d
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	17.465		0m	N.D.	d
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	18.461		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20603.D
Acq On    :  5 Dec 2009  12:22 pm
Operator  : CDS1
InstName  : VOA2
Sample    : |W2VM091205-01|ICAL|1|VOAF|1|
Misc      : VSTD001 5ML MIX[A]911-02C+1130-02A
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Dec 07 08:18:33 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE
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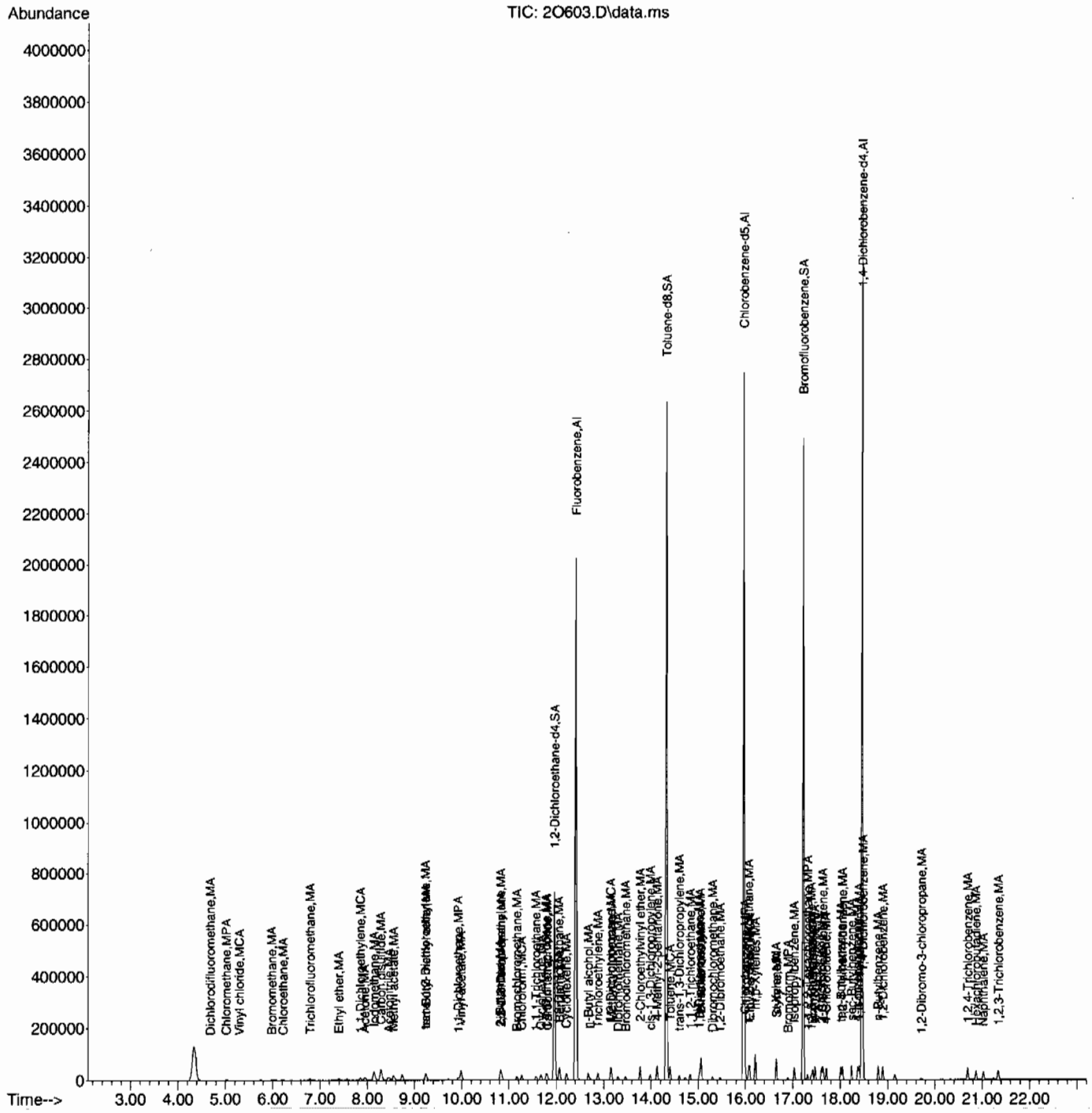

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20604.D
Acq On : 5 Dec 2009 12:51 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-02|ICAL|1|VOAF|1|
Misc : VSTD002 5ML MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 07 06:50:38 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	12.413	96	1923972	50.00 ug/L	0.02
41) Chlorobenzene-d5	15.959	117	1521568	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	912138	50.00 ug/L	0.00
82) B Fluorobenzene	12.413	96	0m	50.00 ug/L	0.02
103) B Chlorobenzene-d5	15.959	117	0m	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	0m	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	11.962	65	556656	48.48 ug/L	0.02
43) Toluene-d8	14.334	98	1823137	50.41 ug/L	0.01
61) Bromofluorobenzene	17.216	95	731667	50.30 ug/L	0.00
Target Compounds					Qvalue
2) Dichlorodifluoromethane	4.687	85	13332	2.38 ug/L	92
3) Chloromethane	5.014	50	12526	1.98 ug/L	99
4) Vinyl chloride	5.266	62	13794	2.23 ug/L	95
5) Bromomethane	5.980	94	10329	1.96 ug/L	96
6) Chloroethane	6.223	64	8748	1.67 ug/L	93
7) Trichlorofluoromethane	6.792	101	20662	1.80 ug/L	100
8) Ethyl ether	7.397	59	12164	1.81 ug/L	96
9) Acetone	7.930	43	52337	8.52 ug/L	98
10) 1,1-Dichloroethylene	7.859	61	20068	1.82 ug/L	99
11) Iodomethane	8.144	142	133046	8.72 ug/L	99
12) Acetonitrile	8.440	41	50078	59.19 ug/L	95
13) Methyl acetate	8.559	43	60724	9.53 ug/L	97
14) Carbon disulfide	8.286	76	219303	8.95 ug/L	99
15) Methylene chloride	8.737	84	20121	2.07 ug/L	95
16) tert-Butyl methyl ether	9.247	73	34272	2.08 ug/L	99
17) trans-1,2-Dichloroethy...	9.247	61	22587	1.95 ug/L	98
18) Vinyl acetate	9.982	43	136191	11.42 ug/L	99
19) 1,1-Dichloroethane	9.934	63	28325	1.95 ug/L	99
20) 2-Butanone	10.812	43	55553	7.93 ug/L	97
21) cis-1,2-Dichloroethylene	10.824	61	24723	1.94 ug/L	99
22) 2,2-Dichloropropane	10.848	77	17366	1.75 ug/L	86
23) Bromochloromethane	11.168	128	8887	1.81 ug/L	91
24) Chloroform	11.274	83	30072	1.94 ug/L	100
25) 1,1,1-Trichloroethane	11.571	97	23489	1.78 ug/L	97
26) Cyclohexane	11.678	56	22602	1.89 ug/L	100
27) 1,1-Dichloropropene	11.784	75	19904	1.88 ug/L	99
28) Carbon tetrachloride	11.820	117	20933	1.71 ug/L	95
30) 1,2-Dichloroethane	12.057	62	23467	1.92 ug/L	99
31) Benzene	12.069	78	63494	1.97 ug/L	98
32) Cyclohexene	12.211	67	28186	1.81 ug/L	100
33) n-Butyl alcohol	12.674	56	30989	272.71 ug/L	91
34) Trichloroethylene	12.875	95	17203	1.90 ug/L	96
35) 1,2-Dichloropropane	13.148	63	16184	1.97 ug/L	97
36) Methylcyclohexane	13.160	83	25277	1.83 ug/L	96
37) Dibromomethane	13.302	93	9575	1.82 ug/L	96
38) Bromodichloromethane	13.468	83	17888	1.62 ug/L	99
39) 2-Chloroethylvinyl ether	13.777	63	41204	5.93 ug/L	97
40) cis-1,3-Dichloropropylene	13.990	75	18934	1.58 ug/L	96

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20604.D
Acq On : 5 Dec 2009 12:51 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-02|ICAL|1|VOAF|1|
Misc : VSTD002 5ML MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 07 06:50:38 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42)	4-Methyl-2-pentanone	14.132	58	28625	9.35 ug/L	98
44)	Toluene	14.405	91	69645	2.03 ug/L	98
45)	trans-1,3-Dichloroprop...	14.607	75	16838	1.62 ug/L	93
46)	1,1,2-Trichloroethane	14.832	83	11343	1.96 ug/L	99
47)	2-Hexanone	15.057	43	82555	9.24 ug/L	97
48)	1,3-Dichloropropane	15.022	76	23547	2.02 ug/L #	50
49)	Tetrachloroethylene	15.057	164	17866	2.00 ug/L	95
50)	Dibromochloromethane	15.306	129	13049	2.16 ug/L	99
51)	1,2-Dibromoethane	15.461	107	13247	1.81 ug/L	98
52)	Chlorobenzene	15.994	112	49905	2.04 ug/L	77
53)	1,1,1,2-Tetrachloroethane	16.065	131	15427	1.72 ug/L	97
54)	Ethylbenzene	16.089	91	76023	1.95 ug/L	100
55)	m,p-Xylenes	16.208	106	60593	3.93 ug/L	97
56)	o-Xylene	16.646	106	28825	1.95 ug/L	96
57)	Styrene	16.658	104	36808	1.12 ug/L	92
59)	Bromoform	16.895	173	8604	2.83 ug/L	97
60)	Isopropylbenzene	17.038	105	72160	1.91 ug/L	99
62)	1,1,2,2-Tetrachloroethane	17.310	83	16914	1.91 ug/L	97
63)	1,2,3-Trichloropropane	17.393	110	5393	2.12 ug/L	95
64)	Bromobenzene	17.417	156	23507	2.01 ug/L	96
65)	n-Propylbenzene	17.465	91	89471	1.98 ug/L	99
66)	1,3,5-Trimethylbenzene	17.631	105	62316	1.95 ug/L	97
67)	2-Chlorotoluene	17.607	126	20395	2.00 ug/L	96
68)	4-Chlorotoluene	17.714	91	58249	2.06 ug/L	99
69)	tert-Butylbenzene	18.010	134	13376	1.82 ug/L	88
70)	1,2,4-Trimethylbenzene	18.046	105	62858	1.92 ug/L	99
71)	sec-Butylbenzene	18.235	105	81470	1.93 ug/L	98
72)	4-Isopropyltoluene	18.366	119	62909	1.83 ug/L	98
73)	1,3-Dichlorobenzene	18.401	146	44577	2.01 ug/L	98
74)	1,4-Dichlorobenzene	18.484	146	47924	2.11 ug/L	85
75)	n-Butylbenzene	18.805	91	62037	1.90 ug/L	98
76)	1,2-Dichlorobenzene	18.900	146	42202	2.01 ug/L	98
77)	1,2-Dibromo-3-chloropr...	19.706	157	2558	3.22 ug/L #	73
78)	1,2,4-Trichlorobenzene	20.690	180	30429	1.92 ug/L	99
79)	Hexachlorobutadiene	20.868	225	18574	1.95 ug/L	94
80)	Naphthalene	21.022	128	55663	1.84 ug/L	98
81)	1,2,3-Trichlorobenzene	21.342	180	28488	1.98 ug/L	99
83)	Chlorotrifluoroethylene	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85)	Acrolein	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000		0	N.D.	
87)	Isopropyl Alcohol	8.286		0m	N.D. d	
88)	Allyl chloride	8.440		0m	N.D. d	
89)	tert-Butyl Alcohol	0.000		0	N.D.	
90)	Acrylonitrile	9.247		0m	N.D. d	
91)	Isopropyl ether	9.982		0m	N.D. d	
92)	2-Chloro-1,3-butadiene	10.184		0m	N.D. d	
93)	Ethyl tert-butyl ether	0.000		0	N.D.	
94)	Ethyl acetate	10.812		0m	N.D. d	
95)	Propionitrile	0.000		0	N.D.	
96)	Methacrylonitrile	0.000		0	N.D.	
97)	Tetrahydrofuran	11.263		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20604.D
Acq On : 5 Dec 2009 12:51 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-02|ICAL|1|VOAF|1|
Misc : VSTD002 5ML MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 07 06:50:38 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	Isobutyl alcohol	0.000		0	N.D.	
99)	Methyl tert-amyl ether	12.069		0m	N.D.	d
100)	Methyl methacrylate	13.160		0m	N.D.	d
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	13.777		0m	N.D.	d
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	15.959		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	17.026		0m	N.D.	d
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	17.465		0m	N.D.	d
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	18.461		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	19.149		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 2O604.D
Acq On : 5 Dec 2009 12:51 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-02|ICAL|1|VOAF|1|
Misc : VSTD002 5ML MIX[A]
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 07 06:50:38 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

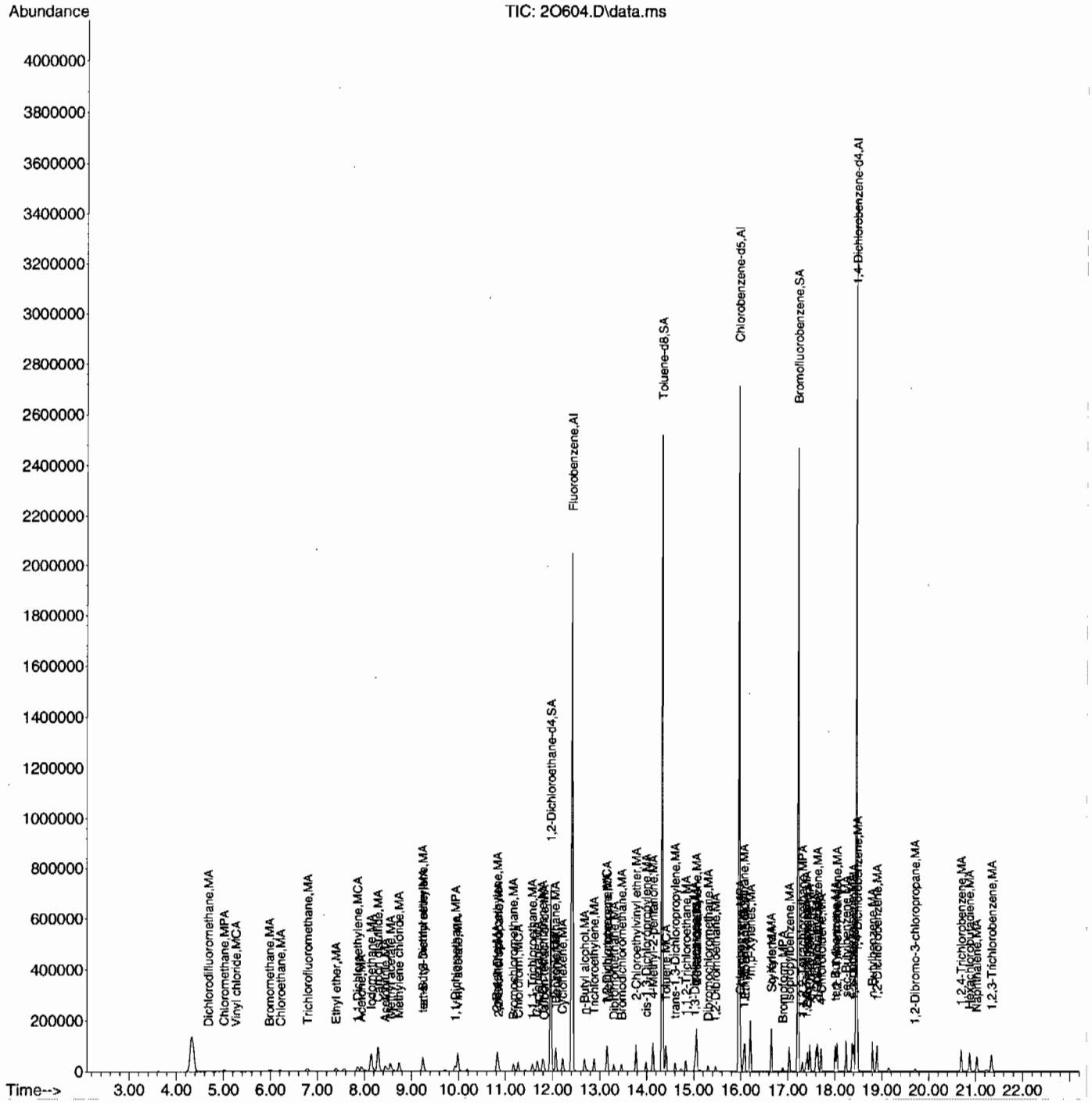

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20605.D
Acq On : 5 Dec 2009 1:20 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-03|ICAL|1|VOAF|1|
Misc : VSTD005 5ML MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 07 06:50:40 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	12.401	96	1908768	50.00	ug/L	0.01
41) Chlorobenzene-d5	15.959	117	1508673	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	906422	50.00	ug/L	0.00
82) B Fluorobenzene	12.401	96	0m	50.00	ug/L	0.01
103) B Chlorobenzene-d5	15.959	117	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	0m	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	11.951	65	554192	48.65	ug/L	0.01
43) Toluene-d8	14.322	98	1803699	50.30	ug/L	0.00
61) Bromofluorobenzene	17.216	95	718793	49.73	ug/L	0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.672	85	34936	6.37	ug/L	100
3) Chloromethane	5.014	50	30284	4.84	ug/L	99
4) Vinyl chloride	5.252	62	31771	5.17	ug/L	99
5) Bromomethane	5.980	94	26603	5.08	ug/L	99
6) Chloroethane	6.211	64	23340	4.48	ug/L	90
7) Trichlorofluoromethane	6.780	101	52285	4.60	ug/L	100
8) Ethyl ether	7.385	59	31487	4.72	ug/L	97
9) Acetone	7.919	43	119845	19.67	ug/L	99
10) 1,1-Dichloroethylene	7.847	61	47401	4.34	ug/L	99
11) Iodomethane	8.132	142	312418	20.63	ug/L	99
12) Acetonitrile	8.429	41	114158	136.01	ug/L	98
13) Methyl acetate	8.547	43	141955	22.46	ug/L	99
14) Carbon disulfide	8.286	76	515529	21.21	ug/L	99
15) Methylene chloride	8.737	84	41599	4.32	ug/L	97
16) tert-Butyl methyl ether	9.235	73	73718	4.51	ug/L	81
17) trans-1,2-Dichloroethy...	9.235	61	55084	4.80	ug/L	99
18) Vinyl acetate	9.982	43	365884	26.08	ug/L	100
19) 1,1-Dichloroethane	9.923	63	69057	4.78	ug/L	100
20) 2-Butanone	10.800	43	135225	19.44	ug/L	98
21) cis-1,2-Dichloroethylene	10.812	61	61318	4.85	ug/L	98
22) 2,2-Dichloropropane	10.836	77	41808	4.24	ug/L	85
23) Bromochloromethane	11.168	128	22039	4.52	ug/L	95
24) Chloroform	11.263	83	72778	4.74	ug/L	100
25) 1,1,1-Trichloroethane	11.571	97	56900	4.34	ug/L	98
26) Cyclohexane	11.678	56	55291	4.66	ug/L	98
27) 1,1-Dichloropropene	11.784	75	49929	4.75	ug/L	98
28) Carbon tetrachloride	11.808	117	52072	4.29	ug/L	100
30) 1,2-Dichloroethane	12.057	62	57845	4.78	ug/L	98
31) Benzene	12.069	78	155339	4.86	ug/L	99
32) Cyclohexene	12.211	67	73345	4.76	ug/L	100
33) n-Butyl alcohol	12.674	56	86454	556.72	ug/L	96
34) Trichloroethylene	12.875	95	42836	4.77	ug/L	96
35) 1,2-Dichloropropane	13.148	63	39297	4.83	ug/L	99
36) Methylcyclohexane	13.160	83	64133	4.68	ug/L	96
37) Dibromomethane	13.291	93	24035	4.60	ug/L	94
38) Bromodichloromethane	13.457	83	47618	4.36	ug/L	99
39) 2-Chloroethylvinyl ether	13.777	63	111787	23.22	ug/L	99
40) cis-1,3-Dichloropropylene	13.990	75	52755	4.44	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20605.D
Acq On : 5 Dec 2009 1:20 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-03|ICAL|1|VOAF|1|
Misc : VSTD005 5ML MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 07 06:50:40 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 4-Methyl-2-pentanone	14.132	58	74527	24.54 ug/L	98
44) Toluene	14.405	91	169555	4.98 ug/L	100
45) trans-1,3-Dichloroprop...	14.595	75	47357	4.60 ug/L	96
46) 1,1,2-Trichloroethane	14.820	83	29463	5.14 ug/L	96
47) 2-Hexanone	15.057	43	213962	24.14 ug/L	99
48) 1,3-Dichloropropane	15.022	76	57987	5.01 ug/L #	50
49) Tetrachloroethylene	15.046	164	43851	4.95 ug/L	97
50) Dibromochloromethane	15.306	129	35198	4.46 ug/L	99
51) 1,2-Dibromoethane	15.461	107	34444	4.76 ug/L	100
52) Chlorobenzene	15.994	112	119612	4.93 ug/L	89
53) 1,1,1,2-Tetrachloroethane	16.065	131	40664	4.57 ug/L	99
54) Ethylbenzene	16.089	91	194133	5.03 ug/L	99
55) m,p-Xylenes	16.208	106	153409	10.03 ug/L	99
56) o-Xylene	16.646	106	74254	5.06 ug/L	98
57) Styrene	16.646	104	105360	3.98 ug/L	94
59) Bromoform	16.895	173	22826	4.71 ug/L	98
60) Isopropylbenzene	17.026	105	186721	4.98 ug/L	100
62) 1,1,2,2-Tetrachloroethane	17.311	83	43840	4.98 ug/L	100
63) 1,2,3-Trichloropropane	17.382	110	13124	5.20 ug/L	99
64) Bromobenzene	17.417	156	55377	4.77 ug/L	92
65) n-Propylbenzene	17.465	91	230553	5.13 ug/L	98
66) 1,3,5-Trimethylbenzene	17.631	105	161776	5.10 ug/L	98
67) 2-Chlorotoluene	17.607	126	50145	4.95 ug/L	92
68) 4-Chlorotoluene	17.702	91	143758	5.10 ug/L	98
69) tert-Butylbenzene	18.010	134	36151	4.95 ug/L	94
70) 1,2,4-Trimethylbenzene	18.046	105	166727	5.12 ug/L	98
71) sec-Butylbenzene	18.236	105	214670	5.12 ug/L	98
72) 4-Isopropyltoluene	18.366	119	172581	5.06 ug/L	98
73) 1,3-Dichlorobenzene	18.402	146	108832	4.93 ug/L	98
74) 1,4-Dichlorobenzene	18.485	146	112558	4.99 ug/L	94
75) n-Butylbenzene	18.805	91	165799	5.12 ug/L	99
76) 1,2-Dichlorobenzene	18.900	146	103322	4.96 ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.706	157	7159	5.18 ug/L	91
78) 1,2,4-Trichlorobenzene	20.690	180	76810	4.88 ug/L	99
79) Hexachlorobutadiene	20.868	225	45318	4.78 ug/L	98
80) Naphthalene	21.022	128	149561	4.97 ug/L	100
81) 1,2,3-Trichlorobenzene	21.342	180	72167	5.04 ug/L	100
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000		0	N.D.	
87) Isopropyl Alcohol	8.274		0m	N.D. d	
88) Allyl chloride	8.429		0m	N.D. d	
89) tert-Butyl Alcohol	0.000		0	N.D.	
90) Acrylonitrile	9.247		0m	N.D. d	
91) Isopropyl ether	9.982		0m	N.D. d	
92) 2-Chloro-1,3-butadiene	10.172		0m	N.D. d	
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	10.800		0m	N.D. d	
95) Propionitrile	10.800		0m	N.D. d	
96) Methacrylonitrile	0.000		0	N.D.	
97) Tetrahydrofuran	11.263		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20605.D
Acq On : 5 Dec 2009 1:20 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-03|ICAL|1|VOAF|1|
Misc : VSTD005 5ML MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 07 06:50:40 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	Isobutyl alcohol	0.000		0	N.D.	
99)	Methyl tert-amyl ether	12.069		0m	N.D.	d
100)	Methyl methacrylate	13.160		0m	N.D.	d
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	13.765		0m	N.D.	d
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	15.959		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	17.026		0m	N.D.	d
108)	Cyclohexanone	17.026		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	17.465		0m	N.D.	d
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	18.461		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	19.149		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20605.D
Acq On : 5 Dec 2009 1:20 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-03|ICAL|1|VOAF|1|
Misc : VSTD005 5ML MIX[A]
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 07 06:50:40 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

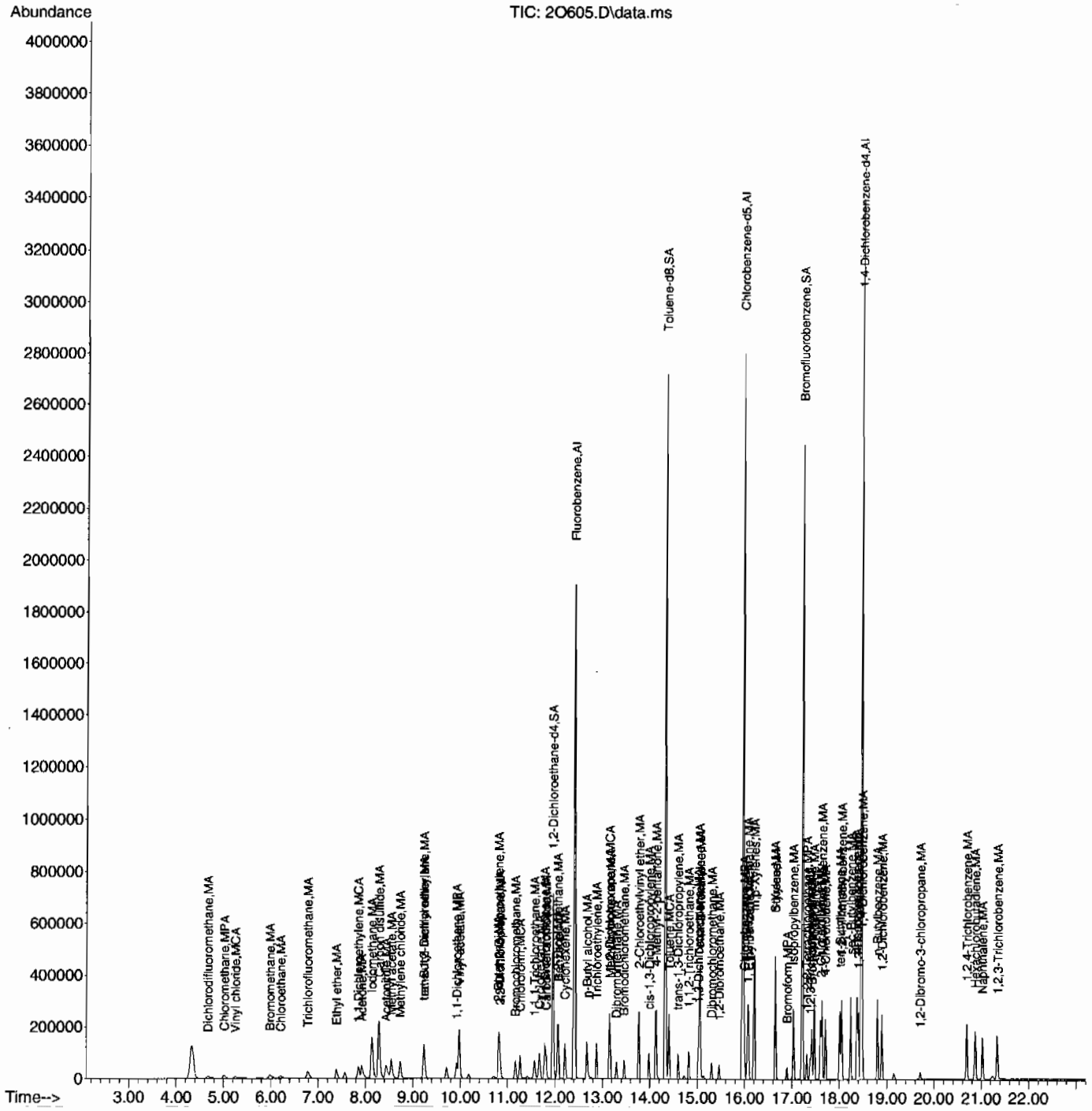

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20606.D
Acq On : 5 Dec 2009 1:49 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-04|ICAL|1|VOAF|1|
Misc : VSTD010 5ML MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 07 06:50:42 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	12.401	96	1940406	50.00	ug/L	0.01
41) Chlorobenzene-d5	15.959	117	1543096	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	928031	50.00	ug/L	0.00
82) B Fluorobenzene	12.401	96	0m	50.00	ug/L	0.01
103) B Chlorobenzene-d5	15.959	117	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	0m	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	11.951	65	560363	48.39	ug/L	0.01
43) Toluene-d8	14.322	98	1846769	50.35	ug/L	0.00
61) Bromofluorobenzene	17.216	95	743321	50.23	ug/L	0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.687	85	60965	10.97	ug/L	100
3) Chloromethane	5.014	50	57038	8.96	ug/L	99
4) Vinyl chloride	5.267	62	65791	10.53	ug/L	99
5) Bromomethane	5.980	94	54331	10.21	ug/L	99
6) Chloroethane	6.211	64	50356	9.51	ug/L	99
7) Trichlorofluoromethane	6.780	101	108977	9.44	ug/L	99
8) Ethyl ether	7.385	59	63129	9.32	ug/L	97
9) Acetone	7.907	43	241800	39.04	ug/L	100
10) 1,1-Dichloroethylene	7.848	61	100195	9.01	ug/L	98
11) Iodomethane	8.132	142	668388	43.42	ug/L	99
12) Acetonitrile	8.417	41	233134	273.24	ug/L	98
13) Methyl acetate	8.535	43	287355	44.73	ug/L	99
14) Carbon disulfide	8.274	76	1106289	44.77	ug/L	100
15) Methylene chloride	8.737	84	83602	8.54	ug/L	99
16) tert-Butyl methyl ether	9.235	73	159860	9.63	ug/L	100
17) trans-1,2-Dichloroethy...	9.235	61	112209	9.61	ug/L	99
18) Vinyl acetate	9.970	43	818970	54.03	ug/L	99
19) 1,1-Dichloroethane	9.923	63	139941	9.53	ug/L	100
20) 2-Butanone	10.800	43	274584	38.84	ug/L	99
21) cis-1,2-Dichloroethylene	10.812	61	124047	9.65	ug/L	99
22) 2,2-Dichloropropane	10.836	77	86856	8.66	ug/L	90
23) Bromochloromethane	11.156	128	46686	9.41	ug/L	96
24) Chloroform	11.263	83	145476	9.32	ug/L	99
25) 1,1,1-Trichloroethane	11.559	97	117011	8.78	ug/L	98
26) Cyclohexane	11.666	56	112400	9.31	ug/L	100
27) 1,1-Dichloropropene	11.773	75	103057	9.65	ug/L	98
28) Carbon tetrachloride	11.808	117	107264	8.69	ug/L	99
30) 1,2-Dichloroethane	12.057	62	117356	9.53	ug/L	99
31) Benzene	12.057	78	307444	9.46	ug/L	99
32) Cyclohexene	12.211	67	150819	9.63	ug/L	99
33) n-Butyl alcohol	12.662	56	192590	1081.81	ug/L	98
34) Trichloroethylene	12.876	95	86342	9.47	ug/L	97
35) 1,2-Dichloropropane	13.148	63	80525	9.73	ug/L	99
36) Methylcyclohexane	13.148	83	128306	9.21	ug/L	98
37) Dibromomethane	13.291	93	49992	9.41	ug/L	96
38) Bromodichloromethane	13.457	83	101170	9.11	ug/L	100
39) 2-Chloroethylvinyl ether	13.765	63	241950	53.99	ug/L	98
40) cis-1,3-Dichloropropylene	13.978	75	112551	9.31	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20606.D
Acq On : 5 Dec 2009 1:49 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-04|ICAL|1|VOAF|1|
Misc : VSTD010 5ML MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 07 06:50:42 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 4-Methyl-2-pentanone	14.121	58	157012	50.55 ug/L	98
44) Toluene	14.405	91	340851	9.78 ug/L	99
45) trans-1,3-Dichloroprop...	14.595	75	102797	9.76 ug/L	96
46) 1,1,2-Trichloroethane	14.820	83	58783	10.03 ug/L	97
47) 2-Hexanone	15.057	43	445317	49.13 ug/L	99
48) 1,3-Dichloropropane	15.022	76	119084	10.05 ug/L #	48
49) Tetrachloroethylene	15.046	164	86527	9.54 ug/L	97
50) Dibromochloromethane	15.295	129	77667	8.66 ug/L	99
51) 1,2-Dibromoethane	15.461	107	73054	9.87 ug/L	99
52) Chlorobenzene	15.994	112	238330	9.61 ug/L	94
53) 1,1,1,2-Tetrachloroethane	16.065	131	86725	9.54 ug/L	99
54) Ethylbenzene	16.077	91	390947	9.91 ug/L	100
55) m,p-Xylenes	16.196	106	312134	19.95 ug/L	99
56) o-Xylene	16.647	106	152649	10.17 ug/L	98
57) Styrene	16.647	104	230399	8.96 ug/L	96
59) Bromoform	16.896	173	52835	8.49 ug/L	99
60) Isopropylbenzene	17.026	105	389948	10.15 ug/L	99
62) 1,1,2,2-Tetrachloroethane	17.311	83	92083	10.22 ug/L	100
63) 1,2,3-Trichloropropane	17.382	110	26823	10.38 ug/L	99
64) Bromobenzene	17.417	156	114757	9.65 ug/L	94
65) n-Propylbenzene	17.465	91	468231	10.17 ug/L	98
66) 1,3,5-Trimethylbenzene	17.631	105	330038	10.17 ug/L	99
67) 2-Chlorotoluene	17.595	126	104274	10.05 ug/L	97
68) 4-Chlorotoluene	17.702	91	287090	9.96 ug/L	98
69) tert-Butylbenzene	18.010	134	74222	9.92 ug/L	95
70) 1,2,4-Trimethylbenzene	18.046	105	339753	10.19 ug/L	98
71) sec-Butylbenzene	18.236	105	435373	10.13 ug/L	98
72) 4-Isopropyltoluene	18.366	119	349399	10.00 ug/L	98
73) 1,3-Dichlorobenzene	18.402	146	216840	9.59 ug/L	99
74) 1,4-Dichlorobenzene	18.485	146	222516	9.63 ug/L	96
75) n-Butylbenzene	18.805	91	340436	10.26 ug/L	99
76) 1,2-Dichlorobenzene	18.900	146	207685	9.74 ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.706	157	16055	8.80 ug/L	94
78) 1,2,4-Trichlorobenzene	20.690	180	157732	9.79 ug/L	99
79) Hexachlorobutadiene	20.868	225	92474	9.53 ug/L	99
80) Naphthalene	21.022	128	318734	10.35 ug/L	100
81) 1,2,3-Trichlorobenzene	21.343	180	144163	9.83 ug/L	99
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000		0	N.D.	
87) Isopropyl Alcohol	8.274		0m	N.D. d	
88) Allyl chloride	8.417		0m	N.D. d	
89) tert-Butyl Alcohol	8.962		0m	N.D. d	
90) Acrylonitrile	9.235		0m	N.D. d	
91) Isopropyl ether	9.970		0m	N.D. d	
92) 2-Chloro-1,3-butadiene	10.184		0m	N.D. d	
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	10.800		0m	N.D. d	
95) Propionitrile	10.800		0m	N.D. d	
96) Methacrylonitrile	0.000		0	N.D.	
97) Tetrahydrofuran	11.275		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20606.D
Acq On : 5 Dec 2009 1:49 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-04|ICAL|1|VOAF|1|
Misc : VSTD010 5ML MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 07 06:50:42 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
98)	Isobutyl alcohol	11.951		0m	N.D.	d	
99)	Methyl tert-amyl ether	12.200		0m	N.D.	d	
100)	Methyl methacrylate	13.148		0m	N.D.	d	
101)	1,4-Dioxane	0.000		0	N.D.		
102)	2-Nitropropane	13.765		0m	N.D.	d	
104)	Ethyl methacrylate	0.000		0	N.D.		
106)	1-Chlorohexane	15.959		0m	N.D.	d	
107)	cis-1,4-Dichloro-2-butene	17.026		0m	N.D.	d	
108)	Cyclohexanone	17.026		0m	N.D.	d	
109)	trans-1,4-Dichloro-2-b...	17.465		0m	N.D.	d	
110)	Pentachloroethane	18.058		0m	N.D.	d	
111)	Benzyl chloride	18.461		0m	N.D.	d	
112)	bis(2-Chloroisopropyl)...	19.149		0m	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20606.D
Acq On : 5 Dec 2009 1:49 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-04|ICAL|1|VOAF|1|
Misc : VSTD010 5ML MIX[A]
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 07 06:50:42 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

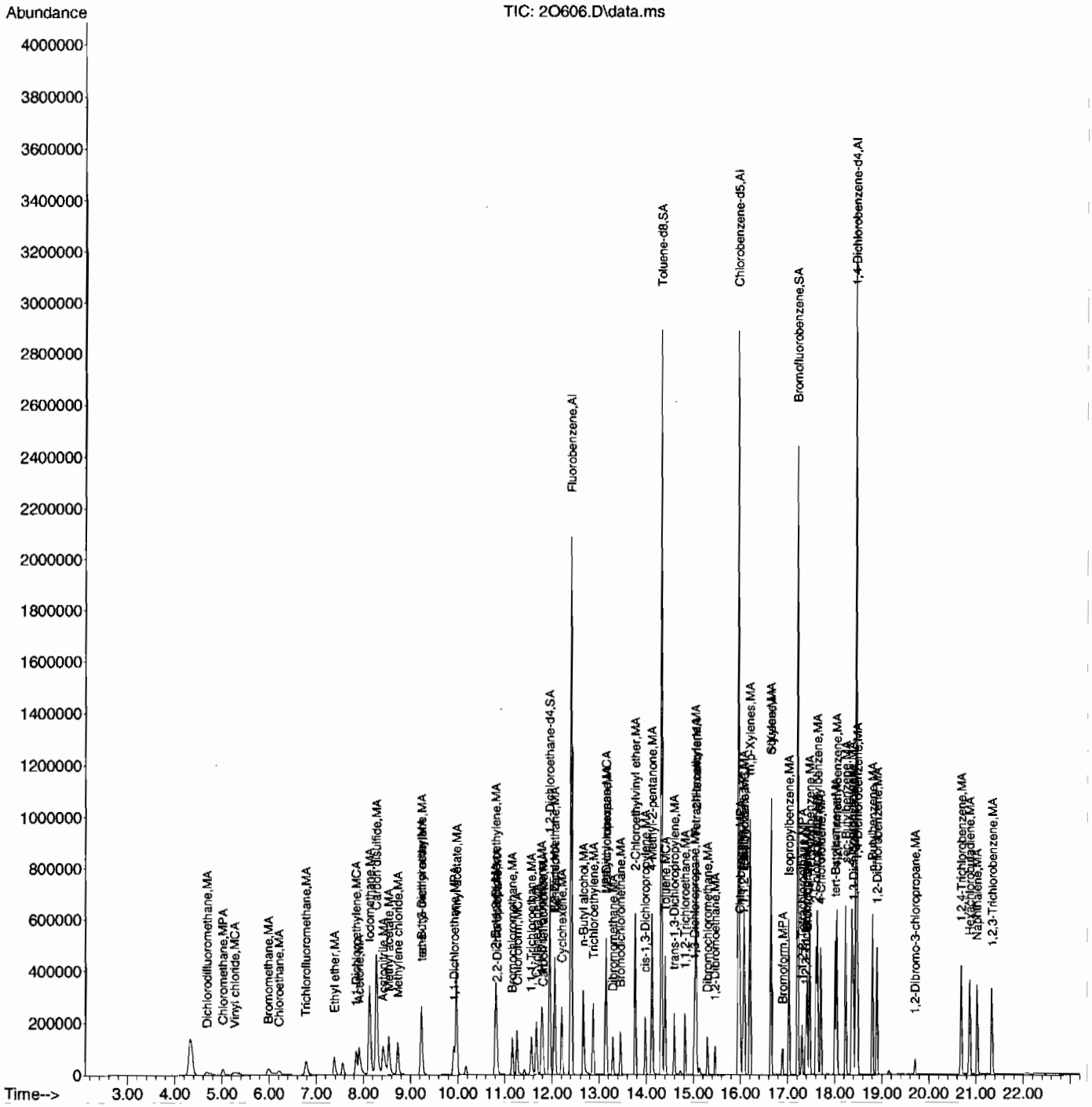

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20607.D
Acq On : 5 Dec 2009 2:18 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-05|ICAL|1|VOAF|1|
Misc : VSTD020 5ML MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 07 06:50:44 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	12.401	96	1947238	50.00 ug/L	0.01
41) Chlorobenzene-d5	15.959	117	1565567	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	942316	50.00 ug/L	0.00
82) B Fluorobenzene	12.401	96	0m	50.00 ug/L	0.01
103) B Chlorobenzene-d5	15.959	117	0m	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	0m	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	11.950	65	563099	48.46 ug/L	0.01
43) Toluene-d8	14.322	98	1884590	50.64 ug/L	0.00
61) Bromofluorobenzene	17.216	95	752154	50.05 ug/L	0.00
Target Compounds					Qvalue
2) Dichlorodifluoromethane	4.687	85	118513	21.31 ug/L	99
3) Chloromethane	5.014	50	121601	19.04 ug/L	99
4) Vinyl chloride	5.266	62	133949	21.36 ug/L	99
5) Bromomethane	5.980	94	108411	20.29 ug/L	99
6) Chloroethane	6.211	64	99089	18.66 ug/L	94
7) Trichlorofluoromethane	6.780	101	220319	19.01 ug/L	99
8) Ethyl ether	7.373	59	137285	20.19 ug/L	99
9) Acetone	7.907	43	508242	81.77 ug/L	100
10) 1,1-Dichloroethylene	7.847	61	196777	17.64 ug/L	98
11) Iodomethane	8.132	142	1314624	85.10 ug/L	99
12) Acetonitrile	8.417	41	492572	575.28 ug/L	99
13) Methyl acetate	8.535	43	614687	95.34 ug/L	99
14) Carbon disulfide	8.274	76	2098021	84.61 ug/L	100
15) Methylene chloride	8.737	84	160607	16.34 ug/L	98
16) tert-Butyl methyl ether	9.235	73	321013	19.27 ug/L	100
17) trans-1,2-Dichloroethy...	9.235	61	223950	19.11 ug/L	98
18) Vinyl acetate	9.970	43	1714001	109.61 ug/L	100
19) 1,1-Dichloroethane	9.923	63	282074	19.15 ug/L	100
20) 2-Butanone	10.800	43	593819	83.70 ug/L	99
21) cis-1,2-Dichloroethylene	10.812	61	251794	19.52 ug/L	99
22) 2,2-Dichloropropane	10.836	77	180258	17.92 ug/L	94
23) Bromochloromethane	11.156	128	92460	18.58 ug/L	95
24) Chloroform	11.263	83	297204	18.98 ug/L	100
25) 1,1,1-Trichloroethane	11.559	97	241168	18.03 ug/L	99
26) Cyclohexane	11.666	56	228555	18.87 ug/L	98
27) 1,1-Dichloropropene	11.784	75	209365	19.53 ug/L	99
28) Carbon tetrachloride	11.808	117	222394	17.95 ug/L	99
30) 1,2-Dichloroethane	12.057	62	237222	19.20 ug/L	100
31) Benzene	12.057	78	621071	19.04 ug/L	100
32) Cyclohexene	12.211	67	306568	19.50 ug/L	100
33) n-Butyl alcohol	12.662	56	441025	2319.95 ug/L	99
34) Trichloroethylene	12.875	95	173996	19.01 ug/L	97
35) 1,2-Dichloropropane	13.148	63	163088	19.63 ug/L	100
36) Methylcyclohexane	13.148	83	260093	18.60 ug/L	99
37) Dibromomethane	13.290	93	102756	19.27 ug/L	96
38) Bromodichloromethane	13.456	83	215071	19.30 ug/L	100
39) 2-Chloroethylvinyl ether	13.765	63	528341	122.24 ug/L	99
40) cis-1,3-Dichloropropylene	13.978	75	244381	20.14 ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20607.D
Acq On : 5 Dec 2009 2:18 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-05|ICAL|1|VOAF|1|
Misc : VSTD020 5ML MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 07 06:50:44 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 4-Methyl-2-pentanone	14.121	58	336638	106.82 ug/L	98
44) Toluene	14.405	91	685140	19.38 ug/L	100
45) trans-1,3-Dichloroprop...	14.595	75	224040	20.97 ug/L	96
46) 1,1,2-Trichloroethane	14.820	83	121383	20.41 ug/L	99
47) 2-Hexanone	15.057	43	978171	106.36 ug/L	99
48) 1,3-Dichloropropane	15.022	76	242813	20.20 ug/L #	46
49) Tetrachloroethylene	15.046	164	175946	19.12 ug/L	98
50) Dibromochloromethane	15.306	129	174152	18.15 ug/L	100
51) 1,2-Dibromoethane	15.461	107	155260	20.67 ug/L	99
52) Chlorobenzene	15.994	112	486041	19.32 ug/L	97
53) 1,1,1,2-Tetrachloroethane	16.065	131	182526	19.78 ug/L	99
54) Ethylbenzene	16.089	91	797143	19.91 ug/L	100
55) m,p-Xylenes	16.208	106	640602	40.37 ug/L	99
56) o-Xylene	16.646	106	312820	20.54 ug/L	98
57) Styrene	16.646	104	507417	19.92 ug/L	98
59) Bromoform	16.895	173	122977	17.24 ug/L	100
60) Isopropylbenzene	17.026	105	809131	20.74 ug/L	100
62) 1,1,2,2-Tetrachloroethane	17.311	83	196202	21.44 ug/L	100
63) 1,2,3-Trichloropropane	17.382	110	55870	21.28 ug/L	95
64) Bromobenzene	17.417	156	236483	19.58 ug/L	95
65) n-Propylbenzene	17.465	91	971488	20.78 ug/L	99
66) 1,3,5-Trimethylbenzene	17.631	105	686995	20.84 ug/L	98
67) 2-Chlorotoluene	17.607	126	214727	20.38 ug/L	97
68) 4-Chlorotoluene	17.702	91	591762	20.21 ug/L	100
69) tert-Butylbenzene	18.010	134	154884	20.39 ug/L	94
70) 1,2,4-Trimethylbenzene	18.046	105	710762	20.99 ug/L	98
71) sec-Butylbenzene	18.235	105	910435	20.87 ug/L	99
72) 4-Isopropyltoluene	18.366	119	746445	21.04 ug/L	99
73) 1,3-Dichlorobenzene	18.401	146	449967	19.59 ug/L	99
74) 1,4-Dichlorobenzene	18.484	146	461908	19.69 ug/L	99
75) n-Butylbenzene	18.805	91	716507	21.28 ug/L	99
76) 1,2-Dichlorobenzene	18.900	146	433876	20.04 ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.718	157	39464	18.26 ug/L	95
78) 1,2,4-Trichlorobenzene	20.690	180	334010	20.42 ug/L	100
79) Hexachlorobutadiene	20.868	225	196019	19.89 ug/L	100
80) Naphthalene	21.022	128	701627	22.43 ug/L	100
81) 1,2,3-Trichlorobenzene	21.342	180	304078	20.41 ug/L	99
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	7.563		0m	N.D. d	
86) Trichlorotrifluoroethane	0.000		0	N.D.	
87) Isopropyl Alcohol	8.286		0m	N.D. d	
88) Allyl chloride	8.417		0m	N.D. d	
89) tert-Butyl Alcohol	8.938		0m	N.D. d	
90) Acrylonitrile	9.223		0m	N.D. d	
91) Isopropyl ether	9.970		0m	N.D. d	
92) 2-Chloro-1,3-butadiene	9.970		0m	N.D. d	
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	10.800		0m	N.D. d	
95) Propionitrile	10.800		0m	N.D. d	
96) Methacrylonitrile	10.990		0m	N.D. d	
97) Tetrahydrofuran	11.251		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20607.D
Acq On : 5 Dec 2009 2:18 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-05|ICAL|1|VOAF|1|
Misc : VSTD020 5ML MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 07 06:50:44 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
98)	Isobutyl alcohol	11.962		0m	N.D.	d	
99)	Methyl tert-amyl ether	12.211		0m	N.D.	d	
100)	Methyl methacrylate	13.148		0m	N.D.	d	
101)	1,4-Dioxane	13.290		0m	N.D.	d	
102)	2-Nitropropane	13.658		0m	N.D.	d	
104)	Ethyl methacrylate	0.000		0	N.D.		
106)	1-Chlorohexane	15.959		0m	N.D.	d	
107)	cis-1,4-Dichloro-2-butene	17.026		0m	N.D.	d	
108)	Cyclohexanone	17.026		0m	N.D.	d	
109)	trans-1,4-Dichloro-2-b...	17.465		0m	N.D.	d	
110)	Pentachloroethane	18.058		0m	N.D.	d	
111)	Benzyl chloride	18.603		0m	N.D.	d	
112)	bis(2-Chloroisopropyl)...	19.149		0m	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20607.D
Acq On : 5 Dec 2009 2:18 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-05|ICAL|1|VOAF|1|
Misc : VSTD020 5ML MIX[A]
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 07 06:50:44 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

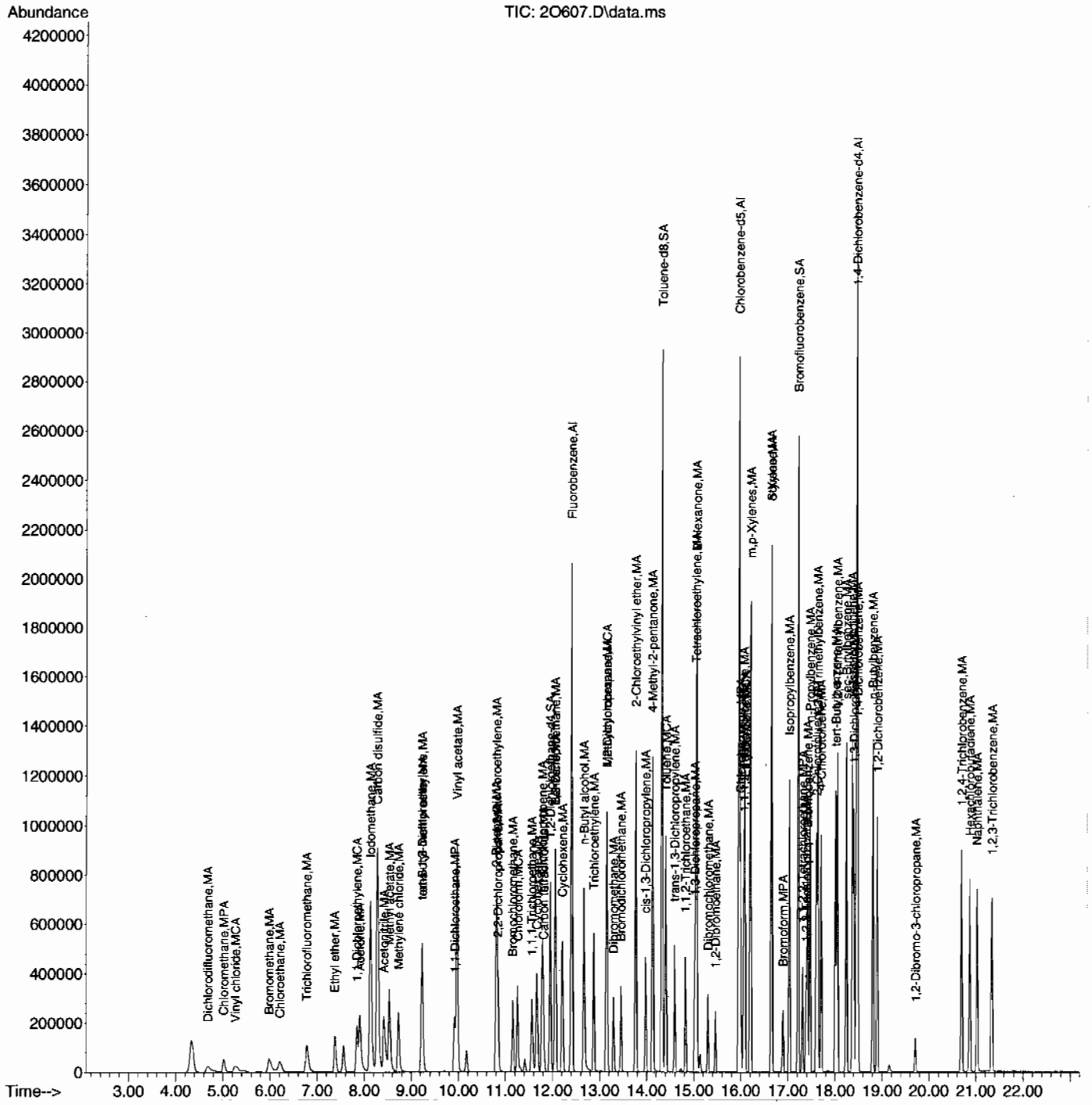

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20608.D
Acq On : 5 Dec 2009 2:47 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-06|ICAL|1|VOAF|1|
Misc : VSTD050 5ML MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 07 06:50:46 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	12.413	96	1998140	50.00	ug/L	0.02
41) Chlorobenzene-d5	15.958	117	1599135	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	981336	50.00	ug/L	0.00
82) B Fluorobenzene	12.413	96	0m	50.00	ug/L	0.02
103) B Chlorobenzene-d5	15.958	117	0m	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	0m	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	11.962	65	566787	47.53	ug/L	0.02
43) Toluene-d8	14.334	98	1913972	50.35	ug/L	0.01
61) Bromofluorobenzene	17.215	95	777365	49.67	ug/L	0.00
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.687	85	293858	51.58	ug/L	100
3) Chloromethane	5.029	50	292194	44.59	ug/L	100
4) Vinyl chloride	5.296	62	328975	51.13	ug/L	99
5) Bromomethane	5.979	94	258006	47.06	ug/L	100
6) Chloroethane	6.211	64	231610	42.50	ug/L	100
7) Trichlorofluoromethane	6.792	101	526985	44.31	ug/L	99
8) Ethyl ether	7.385	59	331540	47.51	ug/L	99
9) Acetone	7.907	43	1273517	199.66	ug/L	100
10) 1,1-Dichloroethylene	7.859	61	505445	44.16	ug/L	99
11) Iodomethane	8.144	142	3379117	213.18	ug/L	100
12) Acetonitrile	8.416	41	1180062	1343.10	ug/L	100
13) Methyl acetate	8.547	43	1511033	228.39	ug/L	99
14) Carbon disulfide	8.286	76	5267386	207.01	ug/L	100
15) Methylene chloride	8.749	84	391898	38.86	ug/L	97
16) tert-Butyl methyl ether	9.247	73	759439	44.43	ug/L	100
17) trans-1,2-Dichloroethy...	9.247	61	555358	46.19	ug/L	99
18) Vinyl acetate	9.982	43	4176763	256.42	ug/L	100
19) 1,1-Dichloroethane	9.934	63	705896	46.70	ug/L	100
20) 2-Butanone	10.812	43	1559145	214.17	ug/L	99
21) cis-1,2-Dichloroethylene	10.824	61	615086	46.48	ug/L	100
22) 2,2-Dichloropropane	10.847	77	462124	44.77	ug/L	98
23) Bromochloromethane	11.168	128	236442	46.29	ug/L	96
24) Chloroform	11.274	83	747341	46.51	ug/L	100
25) 1,1,1-Trichloroethane	11.571	97	617075	44.95	ug/L	99
26) Cyclohexane	11.678	56	566184	45.56	ug/L	100
27) 1,1-Dichloropropene	11.796	75	519654	47.25	ug/L	99
28) Carbon tetrachloride	11.820	117	579385	45.57	ug/L	99
30) 1,2-Dichloroethane	12.057	62	570313	44.99	ug/L	100
31) Benzene	12.069	78	1521720	45.47	ug/L	100
32) Cyclohexene	12.223	67	768091	47.60	ug/L	99
33) n-Butyl alcohol	12.674	56	1072808	5340.64	ug/L	99
34) Trichloroethylene	12.887	95	434660	46.28	ug/L	99
35) 1,2-Dichloropropane	13.160	63	398944	46.81	ug/L	99
36) Methylcyclohexane	13.160	83	647905	45.16	ug/L	99
37) Dibromomethane	13.302	93	259669	47.47	ug/L	97
38) Bromodichloromethane	13.468	83	568862	49.75	ug/L	99
39) 2-Chloroethylvinyl ether	13.777	63	1225495	281.41	ug/L	99
40) cis-1,3-Dichloropropylene	13.990	75	628611	50.48	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20608.D
Acq On : 5 Dec 2009 2:47 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-06|ICAL|1|VOAF|1|
Misc : VSTD050 5ML MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 07 06:50:46 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 4-Methyl-2-pentanone	14.132	58	868132	269.70 ug/L	97
44) Toluene	14.405	91	1701776	47.13 ug/L	100
45) trans-1,3-Dichloroprop...	14.607	75	586710	53.77 ug/L	97
46) 1,1,2-Trichloroethane	14.832	83	303209	49.91 ug/L	99
47) 2-Hexanone	15.057	43	2605588	277.37 ug/L	99
48) 1,3-Dichloropropane	15.034	76	604804	49.26 ug/L #	43
49) Tetrachloroethylene	15.057	164	436509	46.44 ug/L	98
50) Dibromochloromethane	15.306	129	470031	46.61 ug/L	100
51) 1,2-Dibromoethane	15.460	107	396257	51.64 ug/L	99
52) Chlorobenzene	15.994	112	1217687	47.40 ug/L	99
53) 1,1,1,2-Tetrachloroethane	16.065	131	478016	50.72 ug/L	100
54) Ethylbenzene	16.089	91	1983507	48.50 ug/L	100
55) m,p-Xylenes	16.208	106	1557552	96.09 ug/L	99
56) o-Xylene	16.646	106	770762	49.55 ug/L	99
57) Styrene	16.658	104	1299688	50.55 ug/L	99
59) Bromoform	16.895	173	354457	44.70 ug/L	99
60) Isopropylbenzene	17.038	105	2047982	50.41 ug/L	100
62) 1,1,2,2-Tetrachloroethane	17.310	83	489779	51.40 ug/L	100
63) 1,2,3-Trichloropropane	17.393	110	137443	50.27 ug/L	95
64) Bromobenzene	17.417	156	604399	48.06 ug/L	98
65) n-Propylbenzene	17.465	91	2412943	49.57 ug/L	99
66) 1,3,5-Trimethylbenzene	17.631	105	1736524	50.58 ug/L	99
67) 2-Chlorotoluene	17.607	126	540072	49.23 ug/L	99
68) 4-Chlorotoluene	17.714	91	1474953	48.37 ug/L	100
69) tert-Butylbenzene	18.010	134	398842	50.43 ug/L	97
70) 1,2,4-Trimethylbenzene	18.046	105	1806671	51.23 ug/L	99
71) sec-Butylbenzene	18.235	105	2306260	50.76 ug/L	100
72) 4-Isopropyltoluene	18.366	119	1892950	51.24 ug/L	100
73) 1,3-Dichlorobenzene	18.401	146	1148732	48.03 ug/L	100
74) 1,4-Dichlorobenzene	18.484	146	1164452	47.67 ug/L	99
75) n-Butylbenzene	18.805	91	1800021	51.32 ug/L	99
76) 1,2-Dichlorobenzene	18.899	146	1108443	49.16 ug/L	100
77) 1,2-Dibromo-3-chloropr...	19.718	157	114098	46.90 ug/L	98
78) 1,2,4-Trichlorobenzene	20.690	180	863787	50.70 ug/L	100
79) Hexachlorobutadiene	20.868	225	508746	49.56 ug/L	100
80) Naphthalene	21.022	128	1807308	55.48 ug/L	100
81) 1,2,3-Trichlorobenzene	21.342	180	785777	50.65 ug/L	100
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	7.575		0m	N.D. d	
86) Trichlorotrifluoroethane	0.000		0	N.D.	
87) Isopropyl Alcohol	8.286		0m	N.D. d	
88) Allyl chloride	8.416		0m	N.D. d	
89) tert-Butyl Alcohol	8.962		0m	N.D. d	
90) Acrylonitrile	9.247		0m	N.D. d	
91) Isopropyl ether	9.982		0m	N.D. d	
92) 2-Chloro-1,3-butadiene	9.982		0m	N.D. d	
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	10.812		0m	N.D. d	
95) Propionitrile	10.812		0m	N.D. d	
96) Methacrylonitrile	0.000		0	N.D.	
97) Tetrahydrofuran	11.274		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20608.D
Acq On : 5 Dec 2009 2:47 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-06|ICAL|1|VOAF|1|
Misc : VSTD050 5ML MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 07 06:50:46 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98) Isobutyl alcohol	11.962		0m	N.D. d	
99) Methyl tert-amyl ether	12.223		0m	N.D. d	
100) Methyl methacrylate	13.160		0m	N.D. d	
101) 1,4-Dioxane	13.302		0m	N.D. d	
102) 2-Nitropropane	13.777		0m	N.D. d	
104) Ethyl methacrylate	14.595		0m	N.D. d	
106) 1-Chlorohexane	15.958		0m	N.D. d	
107) cis-1,4-Dichloro-2-butene	17.026		0m	N.D. d	
108) Cyclohexanone	17.026		0m	N.D. d	
109) trans-1,4-Dichloro-2-b...	17.465		0m	N.D. d	
110) Pentachloroethane	18.057		0m	N.D. d	
111) Benzyl chloride	18.603		0m	N.D. d	
112) bis(2-Chloroisopropyl)...	18.982		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20608.D
Acq On : 5 Dec 2009 2:47 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-06|ICAL|1|VOAF|1|
Misc : VSTD050 5ML MIX[A]
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 07 06:50:46 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

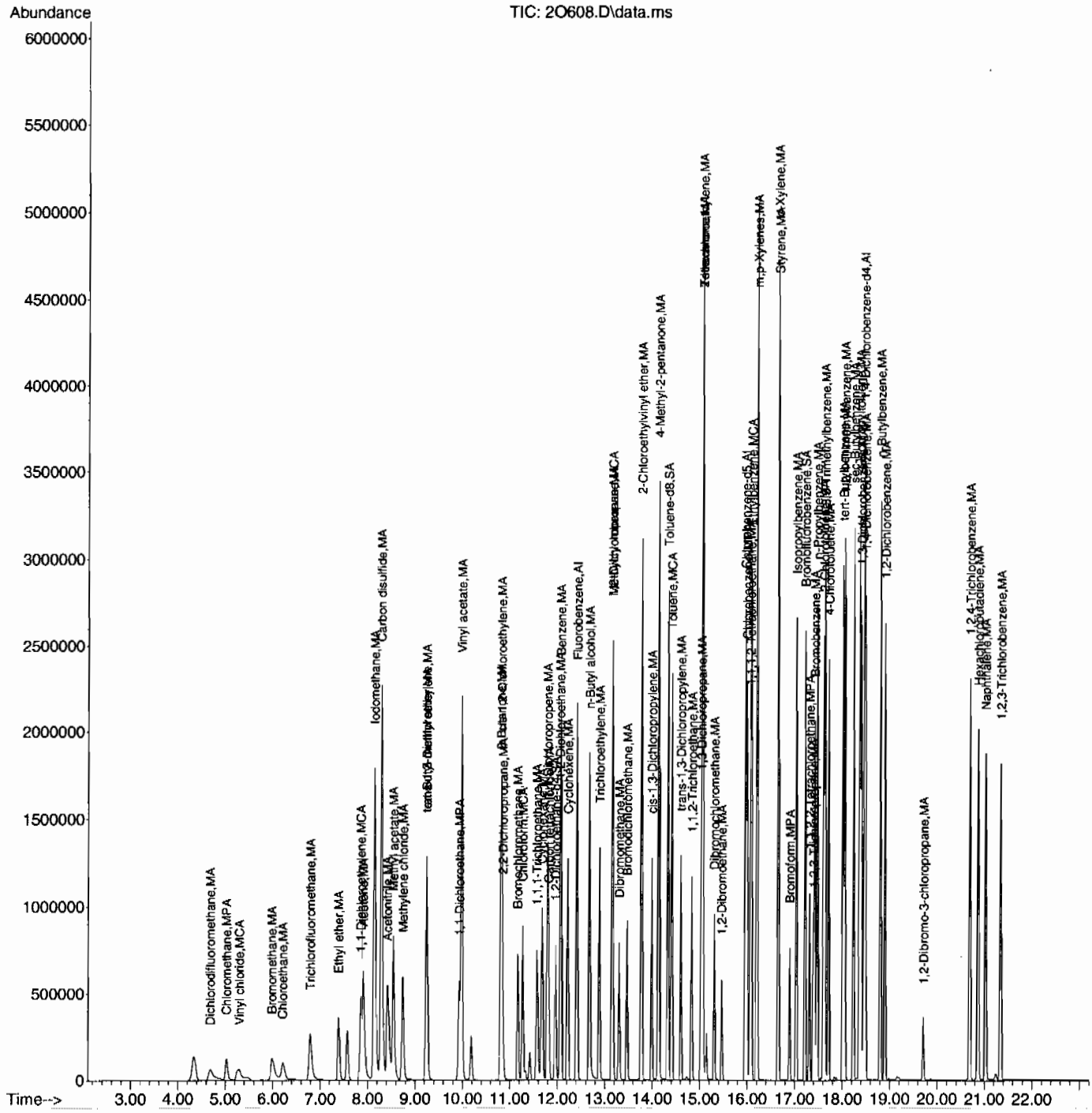

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20609.D
Acq On : 5 Dec 2009 3:17 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-07|ICAL|1|VOAF|1|
Misc : VSTD100 5ML MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 07 06:50:48 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	12.401	96	2011458	50.00	ug/L	0.01	
41) Chlorobenzene-d5	15.959	117	1618688	50.00	ug/L	0.00	
58) 1,4-Dichlorobenzene-d4	18.461	152	983760	50.00	ug/L	0.00	
82) B Fluorobenzene	12.401	96	0m	50.00	ug/L	0.01	
103) B Chlorobenzene-d5	15.959	117	0m	50.00	ug/L	0.00	
105) B 1,4-Dichlorobenzene-d4	18.461	152	0m	50.00	ug/L	0.00	
System Monitoring Compounds							
29) 1,2-Dichloroethane-d4	11.950	65	561467	46.78	ug/L	0.01	
43) Toluene-d8	14.322	98	1929012	50.13	ug/L	0.00	
61) Bromofluorobenzene	17.216	95	777318	49.55	ug/L	0.00	
Target Compounds						Qvalue	
2) Dichlorodifluoromethane	4.687	85	668997	116.73	ug/L	100	E
3) Chloromethane	5.014	50	639283	96.90	ug/L	99	
4) Vinyl chloride	5.281	62	720066	111.17	ug/L	100	E
5) Bromomethane	5.980	94	573888	103.99	ug/L	100	E
6) Chloroethane	6.211	64	481348	87.73	ug/L	98	
7) Trichlorofluoromethane	6.780	101	1105182	92.32	ug/L	100	
8) Ethyl ether	7.373	59	706357	100.56	ug/L	100	E
9) Acetone	7.895	43	2679753	417.36	ug/L	100	
10) 1,1-Dichloroethylene	7.847	61	1013039	87.92	ug/L	99	
11) Iodomethane	8.132	142	6679187	418.57	ug/L	100	
12) Acetonitrile	8.405	41	2434440	2752.43	ug/L	100	E
13) Methyl acetate	8.535	43	3170531	476.05	ug/L	99	
14) Carbon disulfide	8.274	76	10383953	405.38	ug/L	100	
15) Methylene chloride	8.725	84	772812	76.12	ug/L	98	
16) tert-Butyl methyl ether	9.235	73	1512311	87.89	ug/L	100	
17) trans-1,2-Dichloroethy...	9.223	61	1125134	92.96	ug/L	99	
18) Vinyl acetate	9.970	43	9095297	551.39	ug/L	99	E
19) 1,1-Dichloroethane	9.911	63	1455400	95.64	ug/L	100	
20) 2-Butanone	10.788	43	3179869	433.90	ug/L	99	
21) cis-1,2-Dichloroethylene	10.812	61	1235022	92.70	ug/L	100	
22) 2,2-Dichloropropane	10.836	77	914903	88.04	ug/L	100	
23) Bromochloromethane	11.156	128	489603	95.22	ug/L	98	
24) Chloroform	11.263	83	1540912	95.27	ug/L	100	
25) 1,1,1-Trichloroethane	11.559	97	1257297	90.97	ug/L	100	
26) Cyclohexane	11.666	56	1125355	89.96	ug/L	100	
27) 1,1-Dichloropropene	11.773	75	1074767	97.08	ug/L	99	
28) Carbon tetrachloride	11.808	117	1213746	94.82	ug/L	100	
30) 1,2-Dichloroethane	12.045	62	1154613	90.48	ug/L	100	
31) Benzene	12.057	78	3064572	90.97	ug/L	99	
32) Cyclohexene	12.199	67	1579805	97.26	ug/L	99	
33) n-Butyl alcohol	12.662	56	2407298	11762.09	ug/L	99	E
34) Trichloroethylene	12.875	95	903732	95.59	ug/L	99	
35) 1,2-Dichloropropane	13.148	63	783839	91.36	ug/L	99	
36) Methylcyclohexane	13.148	83	1268242	87.82	ug/L	99	
37) Dibromomethane	13.290	93	539127	97.90	ug/L	99	
38) Bromodichloromethane	13.456	83	1185916	103.02	ug/L	100	E
39) 2-Chloroethylvinyl ether	13.765	63	2470581	567.61	ug/L	100	E
40) cis-1,3-Dichloropropylene	13.978	75	1296973	103.47	ug/L	100	E

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20609.D
Acq On : 5 Dec 2009 3:17 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-07|ICAL|1|VOAF|1|
Misc : VSTD100 5ML MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 07 06:50:48 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
42) 4-Methyl-2-pentanone	14.121	58	1620904	497.47 ug/L	97	
44) Toluene	14.405	91	3478264	95.16 ug/L	100	
45) trans-1,3-Dichloroprop...	14.595	75	1222213	110.67 ug/L	98	E
46) 1,1,2-Trichloroethane	14.820	83	621082	101.00 ug/L	99	E
47) 2-Hexanone	15.057	43	4574168	481.05 ug/L	99	
48) 1,3-Dichloropropane	15.022	76	1214111	97.69 ug/L #	51	
49) Tetrachloroethylene	15.046	164	886846	93.22 ug/L	99	
50) Dibromochloromethane	15.295	129	1017499	98.74 ug/L	100	
51) 1,2-Dibromoethane	15.461	107	828496	106.67 ug/L	100	E
52) Chlorobenzene	15.994	112	2516185	96.76 ug/L	99	
53) 1,1,1,2-Tetrachloroethane	16.065	131	993741	104.18 ug/L	100	E
54) Ethylbenzene	16.077	91	4052182	97.88 ug/L	99	
55) m,p-Xylenes	16.208	106	3059643	186.47 ug/L	98	
56) o-Xylene	16.646	106	1500691	95.30 ug/L	99	
57) Styrene	16.646	104	2582029	99.59 ug/L	100	
59) Bromoform	16.895	173	806493	99.28 ug/L	100	
60) Isopropylbenzene	17.026	105	4249845	104.36 ug/L	99	E
62) 1,1,2,2-Tetrachloroethane	17.310	83	1027152	107.53 ug/L	100	E
63) 1,2,3-Trichloropropane	17.382	110	291768	106.46 ug/L #	90	E
64) Bromobenzene	17.417	156	1245418	98.79 ug/L	99	
65) n-Propylbenzene	17.465	91	4952731	101.49 ug/L	100	E
66) 1,3,5-Trimethylbenzene	17.631	105	3542641	102.93 ug/L	99	E
67) 2-Chlorotoluene	17.607	126	1104082	100.39 ug/L	99	E
68) 4-Chlorotoluene	17.702	91	3028686	99.09 ug/L	100	
69) tert-Butylbenzene	18.010	134	834426	105.24 ug/L	98	E
70) 1,2,4-Trimethylbenzene	18.046	105	3670334	103.82 ug/L	100	E
71) sec-Butylbenzene	18.235	105	4760517	104.52 ug/L	100	E
72) 4-Isopropyltoluene	18.366	119	4005567	108.16 ug/L	99	E
73) 1,3-Dichlorobenzene	18.401	146	2350455	98.02 ug/L	100	
74) 1,4-Dichlorobenzene	18.484	146	2371464	96.84 ug/L	100	
75) n-Butylbenzene	18.805	91	3701608	105.28 ug/L	100	E
76) 1,2-Dichlorobenzene	18.900	146	2269922	100.43 ug/L	99	E
77) 1,2-Dibromo-3-chloropr...	19.706	157	274049	109.38 ug/L	99	E
78) 1,2,4-Trichlorobenzene	20.690	180	1836771	107.55 ug/L	100	E
79) Hexachlorobutadiene	20.868	225	1136565	110.45 ug/L	100	E
80) Naphthalene	21.022	128	3898619	119.38 ug/L	100	E
81) 1,2,3-Trichlorobenzene	21.342	180	1668886	107.30 ug/L	100	E
83) Chlorotrifluoroethylene	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.		
85) Acrolein	7.563		0m	N.D. d		
86) Trichlorotrifluoroethane	7.847		0m	N.D. d		
87) Isopropyl Alcohol	8.274		0m	N.D. d		
88) Allyl chloride	8.405		0m	N.D. d		
89) tert-Butyl Alcohol	8.938		0m	N.D. d		
90) Acrylonitrile	9.223		0m	N.D. d		
91) Isopropyl ether	9.970		0m	N.D. d		
92) 2-Chloro-1,3-butadiene	9.970		0m	N.D. d		
93) Ethyl tert-butyl ether	0.000		0	N.D.		
94) Ethyl acetate	10.788		0m	N.D. d		
95) Propionitrile	10.788		0m	N.D. d		
96) Methacrylonitrile	0.000		0	N.D.		
97) Tetrahydrofuran	11.263		0m	N.D. d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20609.D
Acq On : 5 Dec 2009 3:17 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-07|ICAL|1|VOAF|1|
Misc : VSTD100 5ML MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 07 06:50:48 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98) Isobutyl alcohol	11.950		0m	N.D. d	
99) Methyl tert-amyl ether	12.211		0m	N.D. d	
100) Methyl methacrylate	13.148		0m	N.D. d	
101) 1,4-Dioxane	13.290		0m	N.D. d	
102) 2-Nitropropane	13.765		0m	N.D. d	
104) Ethyl methacrylate	14.583		0m	N.D. d	
106) 1-Chlorohexane	15.959		0m	N.D. d	
107) cis-1,4-Dichloro-2-butene	17.026		0m	N.D. d	
108) Cyclohexanone	17.133		0m	N.D. d	
109) trans-1,4-Dichloro-2-b...	17.465		0m	N.D. d	
110) Pentachloroethane	18.058		0m	N.D. d	
111) Benzyl chloride	18.603		0m	N.D. d	
112) bis(2-Chloroisopropyl)...	19.149		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20609.D
Acq On : 5 Dec 2009 3:17 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-07|ICAL|1|VOAF|1|
Misc : VSTD100 5ML MIX[A]
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 07 06:50:48 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

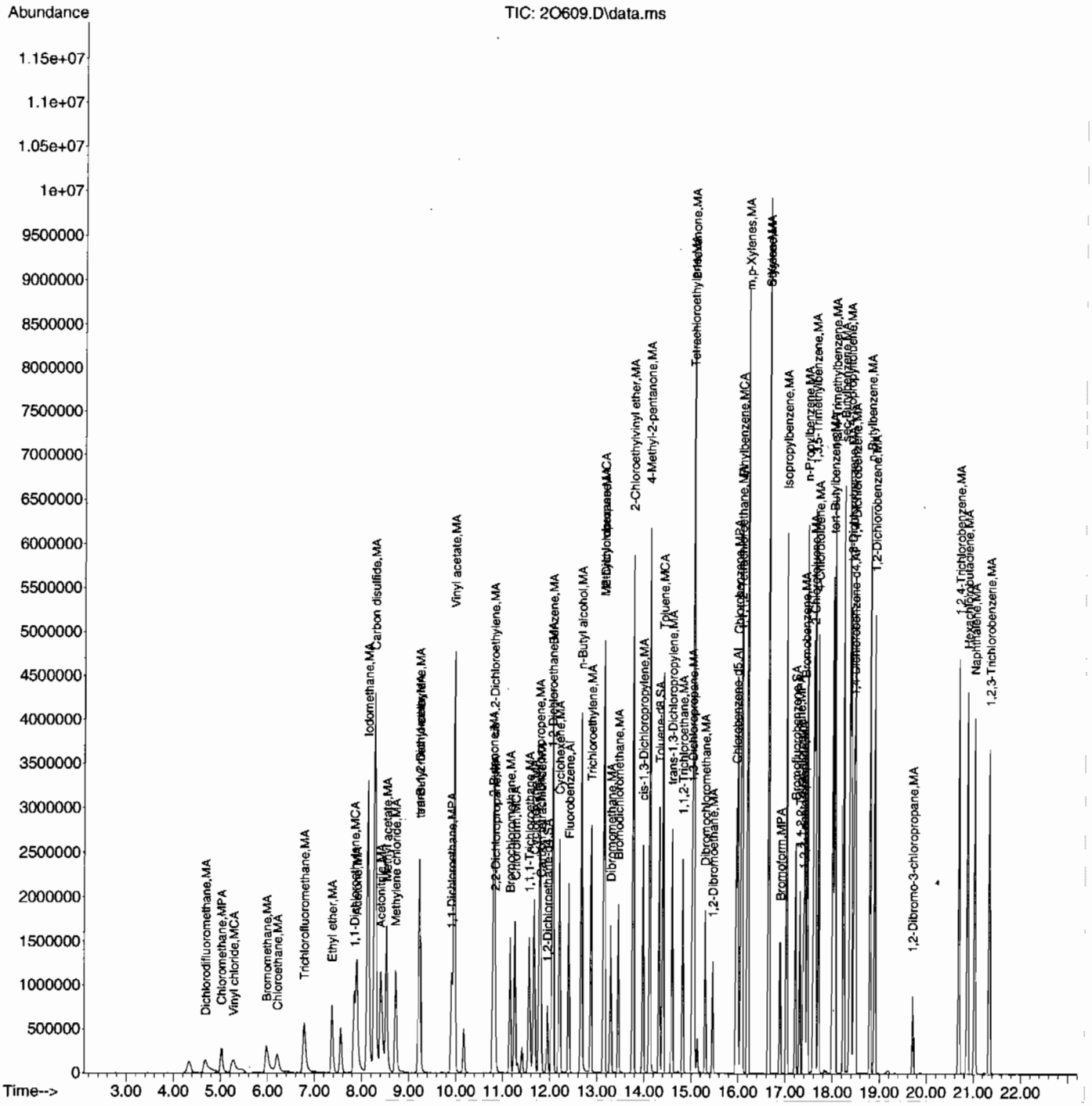

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20611.D
Acq On : 5 Dec 2009 4:14 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-08|ICAL|1|VOAF|1|
Misc : VSTD0005 5ML MIX[A]
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 07 08:20:45 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	12.401	96	1969222	50.00 ug/L	-0.01
41) Chlorobenzene-d5	15.958	117	1567968	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	939412	50.00 ug/L	0.00
82) B Fluorobenzene	12.401	96	0m	50.00 ug/L	0.00
103) B Chlorobenzene-d5	15.958	117	0m	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	0m	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	11.950	65	563542	49.83 ug/L	-0.01
43) Toluene-d8	14.322	98	1859696	49.60 ug/L	-0.01
61) Bromofluorobenzene	17.215	95	741166	49.54 ug/L	0.00
Target Compounds					Qvalue
2) Dichlorodifluoromethane	4.672	85	3166	0.49 ug/L	59
3) Chloromethane	5.014	50	3881	0.62 ug/L	97
4) Vinyl chloride	5.251	62	3928	0.57 ug/L	83
5) Bromomethane	5.979	94	2203	0.41 ug/L	93
6) Chloroethane	6.199	64	1880	0.40 ug/L	66
7) Trichlorofluoromethane	6.780	101	5407	0.50 ug/L	98
8) Ethyl ether	7.385	59	3317	0.50 ug/L	92
9) Acetone	7.942	43	16714	3.20 ug/L	94
10) 1,1-Dichloroethylene	7.835	61	4847	0.49 ug/L	99
11) Iodomethane	8.132	142	32234	2.45 ug/L	99
12) Acetonitrile	8.452	41	16728	16.99 ug/L	91
13) Methyl acetate	8.559	43	16532	2.70 ug/L	95
14) Carbon disulfide	8.274	76	52610	2.49 ug/L	100
15) Methylene chloride	8.737	84	8551	N.D.	
16) tert-Butyl methyl ether	9.235	73	9346	0.59 ug/L	98
17) trans-1,2-Dichloroethy...	9.223	61	5883	0.52 ug/L	96
18) Vinyl acetate	9.970	43	34145	2.13 ug/L	100
19) 1,1-Dichloroethane	9.922	63	7035	0.49 ug/L	98
20) 2-Butanone	10.812	43	14925	2.53 ug/L	96
21) cis-1,2-Dichloroethylene	10.812	61	6396	0.51 ug/L	99
22) 2,2-Dichloropropane	10.836	77	4128	0.47 ug/L	84
23) Bromochloromethane	11.168	128	2545	0.55 ug/L	99
24) Chloroform	11.263	83	7884	0.52 ug/L	95
25) 1,1,1-Trichloroethane	11.559	97	5624	0.47 ug/L	93
26) Cyclohexane	11.666	56	5517	0.49 ug/L	97
27) 1,1-Dichloropropene	11.772	75	5111	0.49 ug/L	97
28) Carbon tetrachloride	11.808	117	4909	0.45 ug/L	100
30) 1,2-Dichloroethane	12.057	62	6522	0.55 ug/L	99
31) Benzene	12.057	78	16860	0.54 ug/L	96
32) Cyclohexene	12.211	67	7007	0.47 ug/L	99
33) n-Butyl alcohol	12.674	56	8120	156.02 ug/L	87
34) Trichloroethylene	12.875	95	4456	0.51 ug/L	96
35) 1,2-Dichloropropane	13.148	63	4201	0.52 ug/L	94
36) Methylcyclohexane	13.148	83	6258	0.49 ug/L	98
37) Dibromomethane	13.290	93	2687	0.53 ug/L	94
38) Bromodichloromethane	13.456	83	4769	0.46 ug/L	95
39) 2-Chloroethylvinyl ether	13.765	63	10012	2.06 ug/L	98
40) cis-1,3-Dichloropropylene	13.978	75	5128	0.45 ug/L	95

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20611.D
Acq On : 5 Dec 2009 4:14 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-08|ICAL|1|VOAF|1|
Misc : VSTD0005 5ML MIX[A]
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 07 08:20:45 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 4-Methyl-2-pentanone	14.132	58	6229	1.99 ug/L	94
44) Toluene	14.405	91	19941	0.57 ug/L	100
45) trans-1,3-Dichloroprop...	14.595	75	4663	0.45 ug/L	94
46) 1,1,2-Trichloroethane	14.820	83	2831	0.47 ug/L	92
47) 2-Hexanone	15.057	43	18151	1.99 ug/L	97
48) 1,3-Dichloropropane	15.022	76	6763	0.56 ug/L	82
49) Tetrachloroethylene	15.045	164	5190	0.58 ug/L	99
50) Dibromochloromethane	15.306	129	3266	1.81 ug/L	94
51) 1,2-Dibromoethane	15.460	107	3631	0.49 ug/L	95
52) Chlorobenzene	15.994	112	14818	0.60 ug/L #	21
53) 1,1,1,2-Tetrachloroethane	16.065	131	3773	0.43 ug/L	96
54) Ethylbenzene	16.077	91	20201	0.51 ug/L	100
55) m,p-Xylenes	16.208	106	15866	1.02 ug/L	99
56) o-Xylene	16.646	106	7309	0.48 ug/L	99
57) Styrene	16.646	104	9507	0.42 ug/L	95
59) Bromoform	16.895	173	2085	2.65 ug/L	94
60) Isopropylbenzene	17.026	105	17701	0.46 ug/L	99
62) 1,1,2,2-Tetrachloroethane	17.310	83	4322	0.46 ug/L	98
63) 1,2,3-Trichloropropane	17.381	110	1230	0.45 ug/L #	38
64) Bromobenzene	17.417	156	7402	0.62 ug/L	97
65) n-Propylbenzene	17.465	91	21950	0.47 ug/L	99
66) 1,3,5-Trimethylbenzene	17.631	105	14843	0.45 ug/L	98
67) 2-Chlorotoluene	17.595	126	5242	0.50 ug/L	87
68) 4-Chlorotoluene	17.702	91	16338	0.56 ug/L	100
69) tert-Butylbenzene	18.010	134	3144	0.42 ug/L #	88
70) 1,2,4-Trimethylbenzene	18.046	105	15160	0.45 ug/L	97
71) sec-Butylbenzene	18.235	105	19361	0.44 ug/L	99
72) 4-Isopropyltoluene	18.366	119	14673	0.42 ug/L	98
73) 1,3-Dichlorobenzene	18.401	146	13935	0.61 ug/L	97
74) 1,4-Dichlorobenzene	18.484	146	15871	0.67 ug/L #	47
75) n-Butylbenzene	18.805	91	15083	0.45 ug/L	98
76) 1,2-Dichlorobenzene	18.899	146	12904	0.59 ug/L	98
77) 1,2-Dibromo-3-chloropr...	19.706	157	630	3.15 ug/L #	76
78) 1,2,4-Trichlorobenzene	20.690	180	10551	0.64 ug/L	99
79) Hexachlorobutadiene	20.868	225	4977	0.51 ug/L	99
80) Naphthalene	21.022	128	20888	0.64 ug/L	99
81) 1,2,3-Trichlorobenzene	21.342	180	9990	0.66 ug/L	98
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000		0	N.D.	
88) Allyl chloride	8.452		0m	N.D. d	
89) tert-Butyl Alcohol	0.000		0	N.D.	
90) Acrylonitrile	0.000		0	N.D.	
91) Isopropyl ether	9.970		0m	N.D. d	
92) 2-Chloro-1,3-butadiene	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	10.812		0m	N.D. d	
95) Propionitrile	0.000		0	N.D.	
96) Methacrylonitrile	0.000		0	N.D.	
97) Tetrahydrofuran	11.263		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20611.D
Acq On : 5 Dec 2009 4:14 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-08|ICAL|1|VOAF|1|
Misc : VSTD0005 5ML MIX[A]
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 07 08:20:45 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	Isobutyl alcohol	11.950		0m	N.D.	d
99)	Methyl tert-amyl ether	12.069		0m	N.D.	d
100)	Methyl methacrylate	13.148		0m	N.D.	d
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	13.765		0m	N.D.	d
104)	Ethyl methacrylate	0.000		0	N.D.	
106)	1-Chlorohexane	15.958		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	17.026		0m	N.D.	d
108)	Cyclohexanone	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000		0	N.D.	
110)	Pentachloroethane	0.000		0	N.D.	
111)	Benzyl chloride	18.461		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20611.D
Acq On : 5 Dec 2009 4:14 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-08|ICAL|1|VOAF|1|
Misc : VSTD0005 5ML MIX[A]
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 07 08:20:45 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

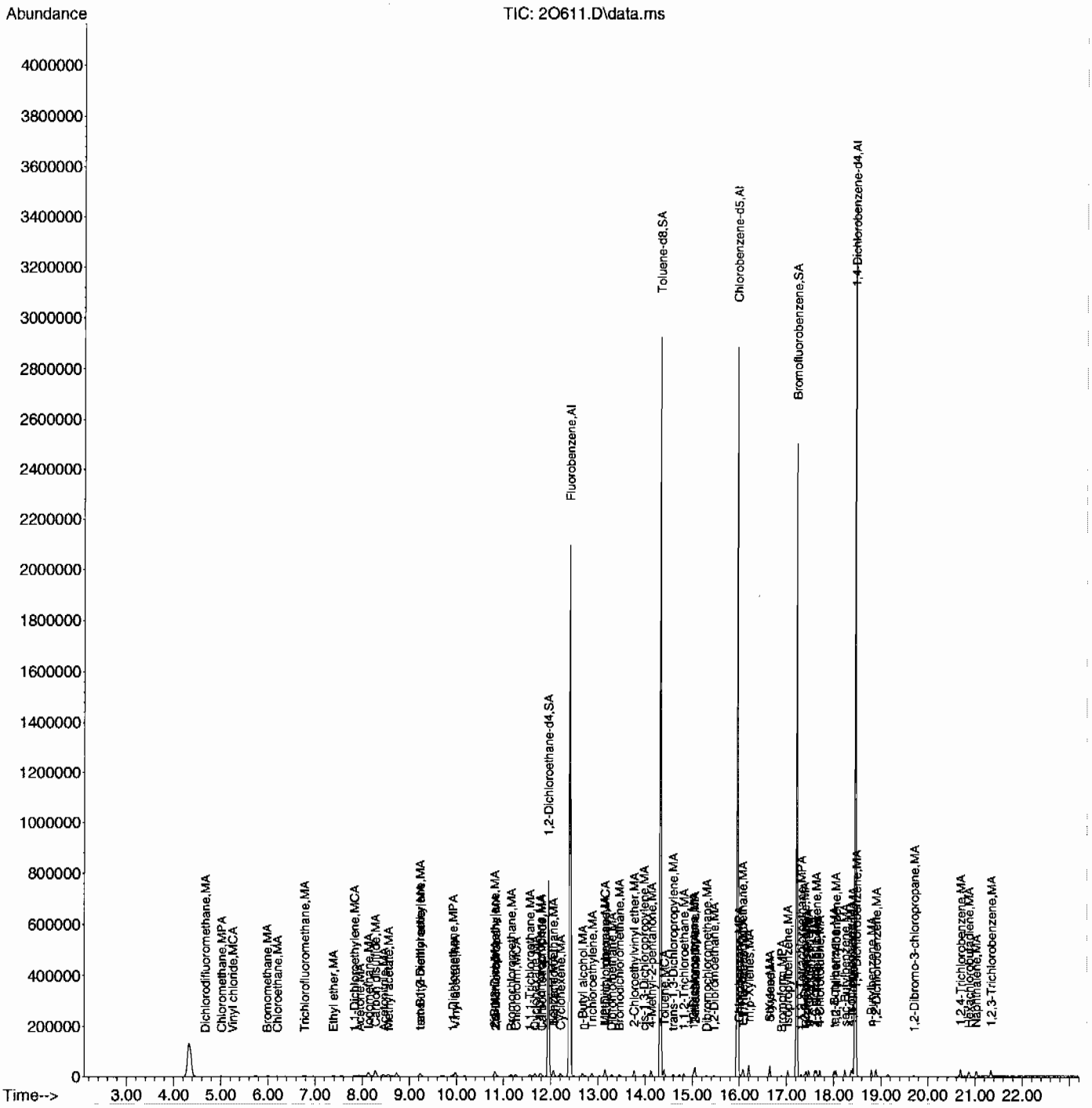

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20615.D
Acq On : 5 Dec 2009 6:11 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-11|ICAL|1|VOAF|1|
Misc : VSTD005S 5ML MIX[B] 1118-01/1110-01B
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 07 06:55:30 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 06:51:33 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	12.401	96	0m	50.00 ug/L	-0.01
41) Chlorobenzene-d5	15.959	117	0m	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	0m	50.00 ug/L	0.00
82) B Fluorobenzene	12.401	96	1987007	50.00 ug/L	0.01
103) B Chlorobenzene-d5	15.959	117	1580734	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	941709	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	11.951	65	0d	0.00 ug/L	
43) Toluene-d8	14.322	98	0d	0.00 ug/L	
61) Bromofluorobenzene	17.216	95	0d	0.00 ug/L	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	4.613		0m	N.D. d	
3) Chloromethane	5.029		0m	N.D. d	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	7.990		0m	N.D. d	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	8.132		0m	N.D. d	
12) Acetonitrile	8.523		0m	N.D. d	
13) Methyl acetate	8.559		0m	N.D. d	
14) Carbon disulfide	8.274		0m	N.D. d	
15) Methylene chloride	8.725		0m	N.D. d	
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	9.235		0m	N.D. d	
18) Vinyl acetate	10.029		0m	N.D. d	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	10.883		0m	N.D. d	
21) cis-1,2-Dichloroethylene	10.883		0m	N.D. d	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	11.251		0m	N.D. d	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	12.045		0m	N.D. d	
31) Benzene	12.057		0m	N.D. d	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	12.674		0m	N.D. d	
34) Trichloroethylene	12.875		0m	N.D. d	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	13.978		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20615.D
Acq On : 5 Dec 2009 6:11 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-11|ICAL|1|VOAF|1|
Misc : VSTD005S 5ML MIX[B] 1118-01/1110-01B
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 07 06:55:30 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 06:51:33 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 4-Methyl-2-pentanone	0.000		0	N.D.	
44) Toluene	14.405		0m	N.D. d	
45) trans-1,3-Dichloroprop...	14.595		0m	N.D. d	
46) 1,1,2-Trichloroethane	0.000		0	N.D.	
47) 2-Hexanone	15.057		0m	N.D. d	
48) 1,3-Dichloropropane	15.022		0m	N.D. d	
49) Tetrachloroethylene	15.046		0m	N.D. d	
50) Dibromochloromethane	0.000		0	N.D.	
51) 1,2-Dibromoethane	15.461		0m	N.D. d	
52) Chlorobenzene	15.994		0m	N.D. d	
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54) Ethylbenzene	16.077		0m	N.D. d	
55) m,p-Xylenes	16.208		0m	N.D. d	
56) o-Xylene	16.646		0m	N.D. d	
57) Styrene	16.646		0m	N.D. d	
59) Bromoform	0.000		0	N.D.	
60) Isopropylbenzene	17.026		0m	N.D. d	
62) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000		0	N.D.	
64) Bromobenzene	17.417		0m	N.D. d	
65) n-Propylbenzene	17.465		0m	N.D. d	
66) 1,3,5-Trimethylbenzene	17.631		0m	N.D. d	
67) 2-Chlorotoluene	17.595		0m	N.D. d	
68) 4-Chlorotoluene	17.702		0m	N.D. d	
69) tert-Butylbenzene	18.058		0m	N.D. d	
70) 1,2,4-Trimethylbenzene	18.046		0m	N.D. d	
71) sec-Butylbenzene	18.236		0m	N.D. d	
72) 4-Isopropyltoluene	18.366		0m	N.D. d	
73) 1,3-Dichlorobenzene	18.402		0m	N.D. d	
74) 1,4-Dichlorobenzene	18.485		0m	N.D. d	
75) n-Butylbenzene	18.805		0m	N.D. d	
76) 1,2-Dichlorobenzene	18.900		0m	N.D. d	
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	20.690		0m	N.D. d	
79) Hexachlorobutadiene	0.000		0	N.D.	
80) Naphthalene	21.022		0m	N.D. d	
81) 1,2,3-Trichlorobenzene	21.342		0m	N.D. d	
83) Chlorotrifluoroethylene	4.613	116	21849	4.59 ug/L	97
84) 2-Chloro-1,1,1-trifluo...	5.460	118	34634	3.32 ug/L	98
85) Acrolein	7.622	56	3790	3.38 ug/L	98
86) Trichlorotrifluoroethane	7.871	85	10980	4.46 ug/L	96
87) Isopropyl Alcohol	8.180	45	22883	136.17 ug/L	87
88) Allyl chloride	8.523	41	65253	5.02 ug/L	97
89) tert-Butyl Alcohol	8.903	59	33908	118.68 ug/L	78
90) Acrylonitrile	9.140	53	11836	4.44 ug/L	98
91) Isopropyl ether	10.029	45	23811	0.83 ug/L	90
92) 2-Chloro-1,3-butadiene	10.077	53	10576	0.89 ug/L	98
93) Ethyl tert-butyl ether	10.587	59	19339	0.82 ug/L	99
94) Ethyl acetate	10.883	43	38918	4.87 ug/L	97
95) Propionitrile	10.883	54	5056	4.85 ug/L	89
96) Methacrylonitrile	11.109	41	20639	4.26 ug/L	97
97) Tetrahydrofuran	11.239	42	11437	4.64 ug/L	92

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20615.D
Acq On : 5 Dec 2009 6:11 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-11|ICAL|1|VOAF|1|
Misc : VSTD005S 5ML MIX[B] 1118-01/1110-01B
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 07 06:55:30 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 06:51:33 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
98)	Isobutyl alcohol	11.820	41	11827	48.68 ug/L		88
99)	Methyl tert-amyl ether	12.176	73	16924	0.80 ug/L		88
100)	Methyl methacrylate	13.219	69	18108	3.91 ug/L		97
101)	1,4-Dioxane	13.291	88	3626	66.15 ug/L		93
102)	2-Nitropropane	13.694	43	6763	10.48 ug/L		85
104)	Ethyl methacrylate	14.654	69	33041	3.89 ug/L		98
106)	1-Chlorohexane	15.899	55	5845	0.76 ug/L		93
107)	cis-1,4-Dichloro-2-butene	17.062	53	11987	4.19 ug/L	#	74
108)	Cyclohexanone	17.156	42	10893	43.42 ug/L		96
109)	trans-1,4-Dichloro-2-b...	17.358	53	12569	4.48 ug/L		78
110)	Pentachloroethane	18.058	167	14255	3.54 ug/L		52
111)	Benzyl chloride	18.603	91	48038	3.36 ug/L		97
112)	bis(2-Chloroisopropyl)...	19.018	45	18598	4.32 ug/L		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20615.D
Acq On : 5 Dec 2009 6:11 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-11|ICAL|1|VOAF|1|
Misc : VSTD005S 5ML MIX[B] 1118-01/1110-01B
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 07 06:55:30 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 06:51:33 2009
Response via : Initial Calibration
Integrator: RTE

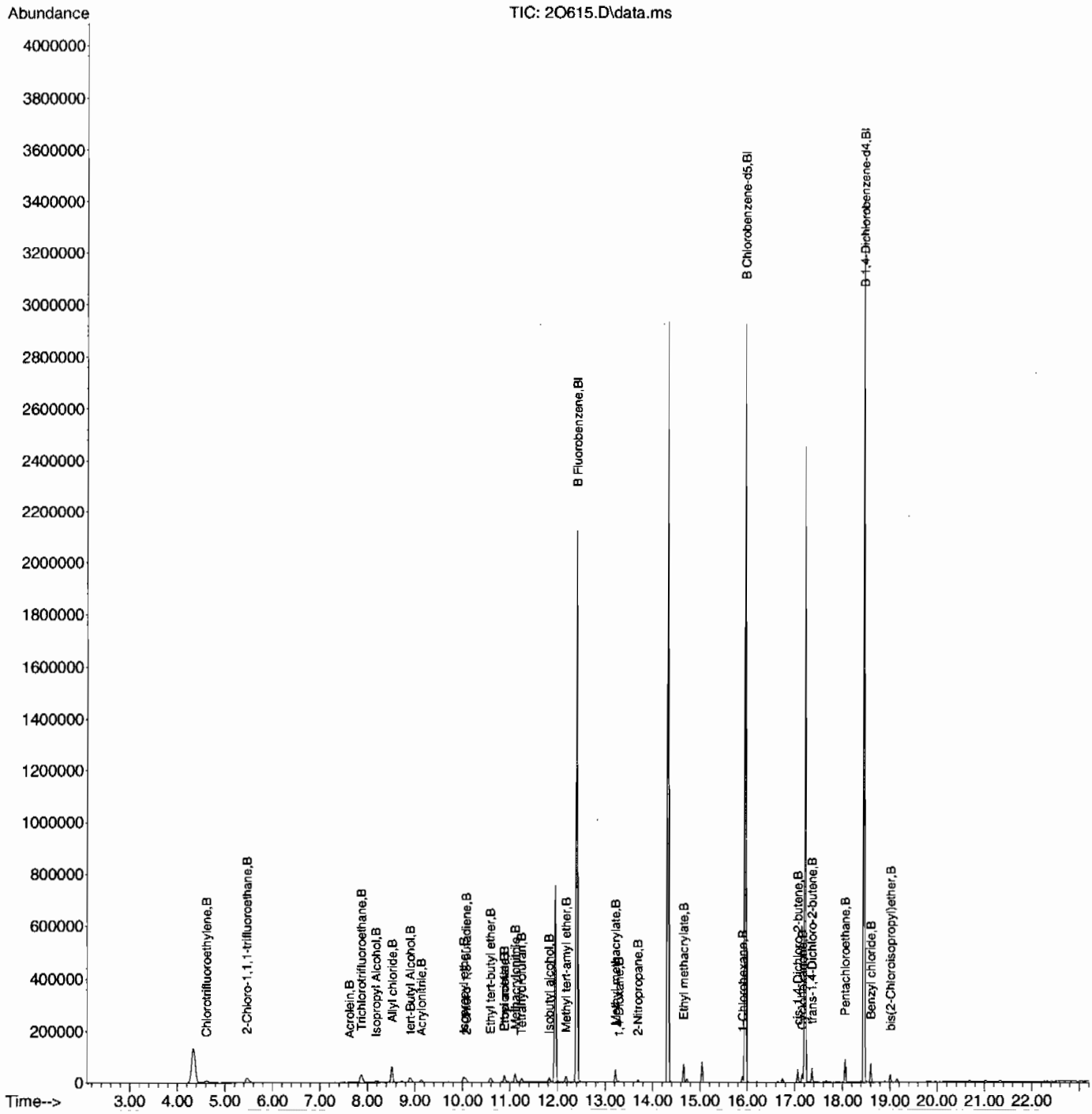

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20616.D
Acq On : 5 Dec 2009 6:41 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-12|ICAL|1|VOAF|1|
Misc : VSTD010S 5ML MIX[B] 1118-02/1110-02B
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 07 06:50:54 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	12.401	96	0m	50.00	ug/L	0.01
41) Chlorobenzene-d5	15.959	117	0m	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	0m	50.00	ug/L	0.00
82) B Fluorobenzene	12.401	96	1963357	50.00	ug/L	0.01
103) B Chlorobenzene-d5	15.959	117	1568895	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	935097	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	11.950	65	0d	0.00	ug/L	
43) Toluene-d8	14.322	98	0d	0.00	ug/L	
61) Bromofluorobenzene	17.216	95	0d	0.00	ug/L	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.613		0m	N.D.	d	
3) Chloromethane	5.014		0m	N.D.	d	
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
9) Acetone	7.966		0m	N.D.	d	
10) 1,1-Dichloroethylene	0.000		0	N.D.		
11) Iodomethane	8.132		0m	N.D.	d	
12) Acetonitrile	8.357		0m	N.D.	d	
13) Methyl acetate	8.571		0m	N.D.	d	
14) Carbon disulfide	8.274		0m	N.D.	d	
15) Methylene chloride	8.725		0m	N.D.	d	
16) tert-Butyl methyl ether	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000		0	N.D.		
18) Vinyl acetate	10.029		0m	N.D.	d	
19) 1,1-Dichloroethane	0.000		0	N.D.		
20) 2-Butanone	10.883		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	10.883		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000		0	N.D.		
23) Bromochloromethane	0.000		0	N.D.		
24) Chloroform	11.263		0m	N.D.	d	
25) 1,1,1-Trichloroethane	11.559		0m	N.D.	d	
26) Cyclohexane	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000		0	N.D.		
28) Carbon tetrachloride	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000		0	N.D.		
31) Benzene	12.069		0m	N.D.	d	
32) Cyclohexene	12.176		0m	N.D.	d	
33) n-Butyl alcohol	12.686		0m	N.D.	d	
34) Trichloroethylene	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000		0	N.D.		
36) Methylcyclohexane	0.000		0	N.D.		
37) Dibromomethane	0.000		0	N.D.		
38) Bromodichloromethane	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20616.D
Acq On : 5 Dec 2009 6:41 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-12|ICAL|1|VOAF|1|
Misc : VSTD010S 5ML MIX[B] 1118-02/1110-02B
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 07 06:50:54 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42)	4-Methyl-2-pentanone	0.000		0	N.D.		
44)	Toluene	14.405		0m	N.D.	d	
45)	trans-1,3-Dichloroprop...	14.595		0m	N.D.	d	
46)	1,1,2-Trichloroethane	0.000		0	N.D.		
47)	2-Hexanone	15.057		0m	N.D.	d	
48)	1,3-Dichloropropane	15.022		0m	N.D.	d	
49)	Tetrachloroethylene	15.045		0m	N.D.	d	
50)	Dibromochloromethane	0.000		0	N.D.		
51)	1,2-Dibromoethane	15.449		0m	N.D.	d	
52)	Chlorobenzene	15.994		0m	N.D.	d	
53)	1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
54)	Ethylbenzene	16.077		0m	N.D.	d	
55)	m,p-Xylenes	16.208		0m	N.D.	d	
56)	o-Xylene	16.646		0m	N.D.	d	
57)	Styrene	16.646		0m	N.D.	d	
59)	Bromoform	0.000		0	N.D.		
60)	Isopropylbenzene	17.026		0m	N.D.	d	
62)	1,1,2,2-Tetrachloroethane	0.000		0	N.D.		
63)	1,2,3-Trichloropropane	0.000		0	N.D.		
64)	Bromobenzene	17.417		0m	N.D.	d	
65)	n-Propylbenzene	17.465		0m	N.D.	d	
66)	1,3,5-Trimethylbenzene	17.631		0m	N.D.	d	
67)	2-Chlorotoluene	17.607		0m	N.D.	d	
68)	4-Chlorotoluene	17.702		0m	N.D.	d	
69)	tert-Butylbenzene	18.057		0m	N.D.	d	
70)	1,2,4-Trimethylbenzene	18.046		0m	N.D.	d	
71)	sec-Butylbenzene	18.235		0m	N.D.	d	
72)	4-Isopropyltoluene	18.366		0m	N.D.	d	
73)	1,3-Dichlorobenzene	18.401		0m	N.D.	d	
74)	1,4-Dichlorobenzene	18.484		0m	N.D.	d	
75)	n-Butylbenzene	18.805		0m	N.D.	d	
76)	1,2-Dichlorobenzene	18.899		0m	N.D.	d	
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
78)	1,2,4-Trichlorobenzene	20.690		0m	N.D.	d	
79)	Hexachlorobutadiene	0.000		0	N.D.		
80)	Naphthalene	21.022		0m	N.D.	d	
81)	1,2,3-Trichlorobenzene	21.342		0m	N.D.	d	
83)	Chlorotrifluoroethylene	4.613	116	45821	8.38	ug/L	99
84)	2-Chloro-1,1,1-trifluo...	5.459	118	71064	6.90	ug/L	99
85)	Acrolein	7.622	56	8855	7.99	ug/L	96
86)	Trichlorotrifluoroethane	7.871	85	20715	8.51	ug/L	99
87)	Isopropyl Alcohol	8.179	45	43090	170.75	ug/L	86
88)	Allyl chloride	8.523	41	125531	9.77	ug/L	98
89)	tert-Butyl Alcohol	8.903	59	66093	156.41	ug/L	77
90)	Acrylonitrile	9.140	53	25671	9.74	ug/L	99
91)	Isopropyl ether	10.029	45	46881	1.64	ug/L	96
92)	2-Chloro-1,3-butadiene	10.077	53	21020	1.80	ug/L	98
93)	Ethyl tert-butyl ether	10.587	59	36795	1.58	ug/L	99
94)	Ethyl acetate	10.883	43	76511	9.68	ug/L	99
95)	Propionitrile	10.883	54	10006	9.72	ug/L	96
96)	Methacrylonitrile	11.108	41	44766	9.35	ug/L	100
97)	Tetrahydrofuran	11.239	42	23360	9.58	ug/L	95

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20616.D
Acq On : 5 Dec 2009 6:41 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-12|ICAL|1|VOAF|1|
Misc : VSTD010S 5ML MIX[B] 1118-02/1110-02B
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 07 06:50:54 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98) Isobutyl alcohol	11.820	41	26611	110.85 ug/L	86
99) Methyl tert-amyl ether	12.176	73	32240	1.54 ug/L	90
100) Methyl methacrylate	13.219	69	39984	8.74 ug/L	98
101) 1,4-Dioxane	13.290	88	6550	120.93 ug/L	97
102) 2-Nitropropane	13.694	43	15836	13.61 ug/L	90
104) Ethyl methacrylate	14.654	69	75065	8.91 ug/L	98
106) 1-Chlorohexane	15.899	55	11941	1.57 ug/L	95
107) cis-1,4-Dichloro-2-butene	17.061	53	25864	9.11 ug/L	78
108) Cyclohexanone	17.156	42	24183	73.11 ug/L	95
109) trans-1,4-Dichloro-2-b...	17.358	53	25785	9.26 ug/L	84
110) Pentachloroethane	18.057	167	33594	7.41 ug/L	64
111) Benzyl chloride	18.603	91	110783	7.81 ug/L	97
112) bis(2-Chloroisopropyl)...	19.018	45	42580	9.97 ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20616.D
Acq On : 5 Dec 2009 6:41 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-12|ICAL|1|VOAF|1|
Misc : VSTD010S 5ML MIX[B] 1118-02/1110-02B
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 07 06:50:54 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

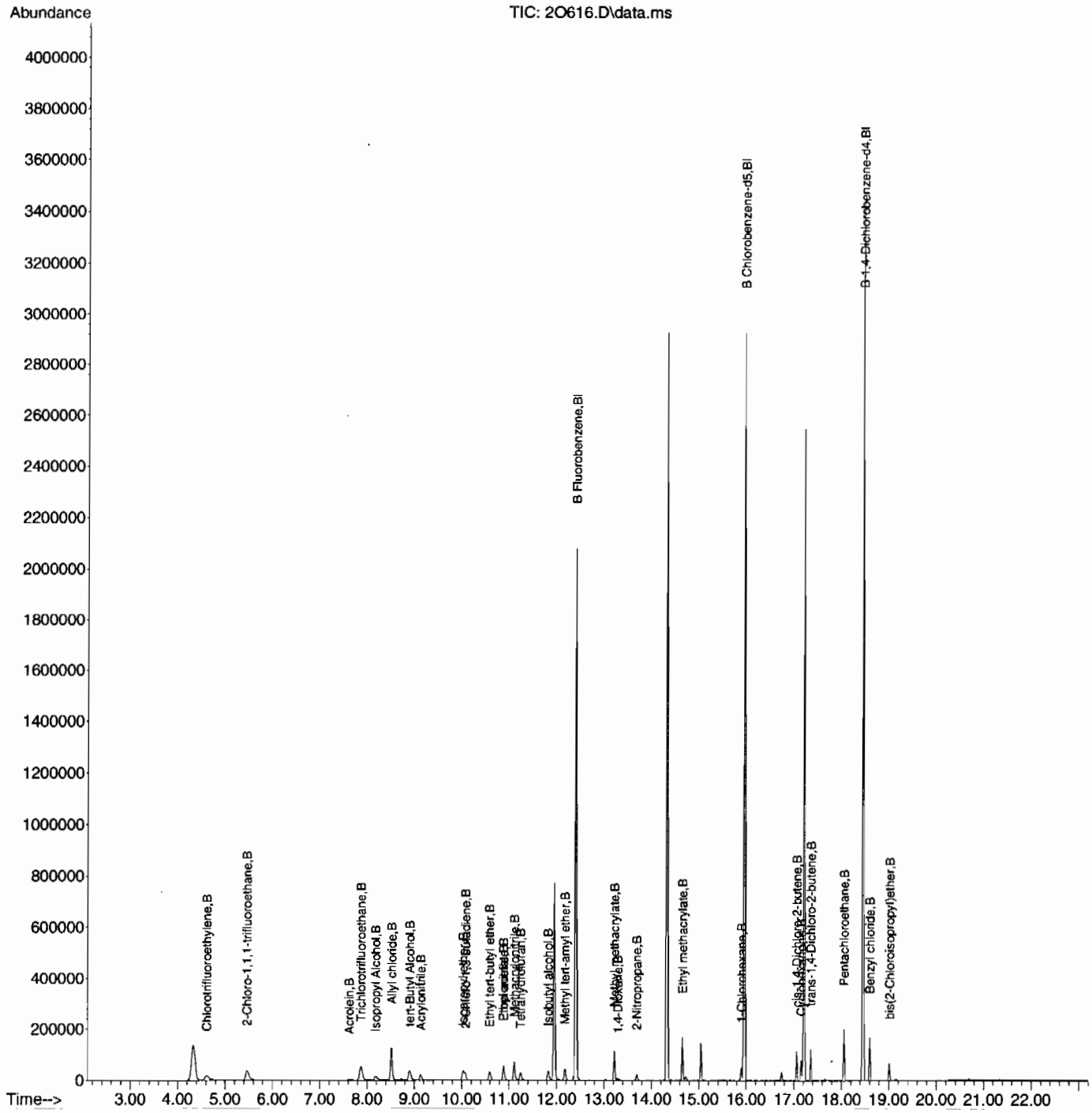

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20617.D
Acq On : 5 Dec 2009 7:10 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-13|ICAL|1|VOAF|1|
Misc : VSTD025S 5ML MIX[B]1118-03/1110-03B
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 07 06:50:56 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	12.401	96	0m	50.00	ug/L	0.01
41) Chlorobenzene-d5	15.959	117	0m	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	0m	50.00	ug/L	0.00
82) B Fluorobenzene	12.401	96	1968230	50.00	ug/L	0.01
103) B Chlorobenzene-d5	15.959	117	1572085	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	937539	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	11.950	65	0d	0.00	ug/L	
43) Toluene-d8	14.322	98	0d	0.00	ug/L	
61) Bromofluorobenzene	17.215	95	0d	0.00	ug/L	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.613		0m	N.D.	d	
3) Chloromethane	0.000		0	N.D.		
4) Vinyl chloride	5.474		0m	N.D.	d	
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
9) Acetone	7.871		0m	N.D.	d	
10) 1,1-Dichloroethylene	0.000		0	N.D.		
11) Iodomethane	0.000		0	N.D.		
12) Acetonitrile	8.523		0m	N.D.	d	
13) Methyl acetate	8.511		0m	N.D.	d	
14) Carbon disulfide	8.274		0m	N.D.	d	
15) Methylene chloride	8.725		0m	N.D.	d	
16) tert-Butyl methyl ether	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000		0	N.D.		
18) Vinyl acetate	10.029		0m	N.D.	d	
19) 1,1-Dichloroethane	0.000		0	N.D.		
20) 2-Butanone	10.883		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	10.883		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000		0	N.D.		
23) Bromochloromethane	0.000		0	N.D.		
24) Chloroform	11.251		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000		0	N.D.		
26) Cyclohexane	11.689		0m	N.D.	d	
27) 1,1-Dichloropropene	0.000		0	N.D.		
28) Carbon tetrachloride	0.000		0	N.D.		
30) 1,2-Dichloroethane	11.974		0m	N.D.	d	
31) Benzene	12.057		0m	N.D.	d	
32) Cyclohexene	12.176		0m	N.D.	d	
33) n-Butyl alcohol	12.674		0m	N.D.	d	
34) Trichloroethylene	12.875		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000		0	N.D.		
36) Methylcyclohexane	13.219		0m	N.D.	d	
37) Dibromomethane	0.000		0	N.D.		
38) Bromodichloromethane	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20617.D
Acq On : 5 Dec 2009 7:10 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-13|ICAL|1|VOAF|1|
Misc : VSTD025S 5ML MIX[B]1118-03/1110-03B
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 07 06:50:56 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) 4-Methyl-2-pentanone	0.000		0	N.D.		
44) Toluene	14.405		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	0.000		0	N.D.		
46) 1,1,2-Trichloroethane	0.000		0	N.D.		
47) 2-Hexanone	15.057		0m	N.D.	d	
48) 1,3-Dichloropropane	15.022		0m	N.D.	d	
49) Tetrachloroethylene	15.045		0m	N.D.	d	
50) Dibromochloromethane	0.000		0	N.D.		
51) 1,2-Dibromoethane	15.460		0m	N.D.	d	
52) Chlorobenzene	15.994		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
54) Ethylbenzene	16.077		0m	N.D.	d	
55) m,p-Xylenes	16.196		0m	N.D.	d	
56) o-Xylene	16.646		0m	N.D.	d	
57) Styrene	16.646		0m	N.D.	d	
59) Bromoform	0.000		0	N.D.		
60) Isopropylbenzene	17.038		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	17.358		0m	N.D.	d	
63) 1,2,3-Trichloropropane	0.000		0	N.D.		
64) Bromobenzene	17.417		0m	N.D.	d	
65) n-Propylbenzene	17.465		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	17.631		0m	N.D.	d	
67) 2-Chlorotoluene	17.595		0m	N.D.	d	
68) 4-Chlorotoluene	17.702		0m	N.D.	d	
69) tert-Butylbenzene	18.057		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	18.046		0m	N.D.	d	
71) sec-Butylbenzene	18.235		0m	N.D.	d	
72) 4-Isopropyltoluene	18.366		0m	N.D.	d	
73) 1,3-Dichlorobenzene	18.401		0m	N.D.	d	
74) 1,4-Dichlorobenzene	18.484		0m	N.D.	d	
75) n-Butylbenzene	18.805		0m	N.D.	d	
76) 1,2-Dichlorobenzene	18.899		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	20.690		0m	N.D.	d	
79) Hexachlorobutadiene	0.000		0	N.D.		
80) Naphthalene	21.022		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	21.342		0m	N.D.	d	
83) Chlorotrifluoroethylene	4.627	116	134299	22.19	ug/L	99
84) 2-Chloro-1,1,1-trifluo...	5.474	118	199610	19.33	ug/L	99
85) Acrolein	7.622	56	23290	20.96	ug/L	94
86) Trichlorotrifluoroethane	7.871	85	47925	19.64	ug/L	98
87) Isopropyl Alcohol	8.167	45	109639	282.68	ug/L	89
88) Allyl chloride	8.523	41	305248	23.70	ug/L	98
89) tert-Butyl Alcohol	8.891	59	167055	272.81	ug/L	83
90) Acrylonitrile	9.128	53	62253	23.57	ug/L	99
91) Isopropyl ether	10.029	45	128871	4.51	ug/L	98
92) 2-Chloro-1,3-butadiene	10.077	53	54886	4.68	ug/L	100
93) Ethyl tert-butyl ether	10.587	59	100575	4.31	ug/L	99
94) Ethyl acetate	10.883	43	186161	23.50	ug/L	100
95) Propionitrile	10.871	54	24735	23.96	ug/L	99
96) Methacrylonitrile	11.108	41	113836	23.71	ug/L	100
97) Tetrahydrofuran	11.239	42	56988	23.32	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20617.D
Acq On : 5 Dec 2009 7:10 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-13|ICAL|1|VOAF|1|
Misc : VSTD025S 5ML MIX[B]1118-03/1110-03B
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 07 06:50:56 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98) Isobutyl alcohol	11.820	41	64515	268.07 ug/L	93
99) Methyl tert-amyl ether	12.176	73	87244	4.15 ug/L	92
100) Methyl methacrylate	13.219	69	106983	23.33 ug/L	99
101) 1,4-Dioxane	13.290	88	17392	320.31 ug/L	98
102) 2-Nitropropane	13.694	43	43355	22.97 ug/L	91
104) Ethyl methacrylate	14.654	69	212782	25.21 ug/L	99
106) 1-Chlorohexane	15.899	55	38453	5.04 ug/L	93
107) cis-1,4-Dichloro-2-butene	17.061	53	68314	24.00 ug/L	83
108) Cyclohexanone	17.156	42	67430	168.76 ug/L	98
109) trans-1,4-Dichloro-2-b...	17.358	53	68325	24.48 ug/L	89
110) Pentachloroethane	18.057	167	71480	14.90 ug/L	76
111) Benzyl chloride	18.603	91	309010	21.73 ug/L	98
112) bis(2-Chloroisopropyl)...	19.018	45	107723	25.16 ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20617.D
Acq On : 5 Dec 2009 7:10 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-13|ICAL|1|VOAF|1|
Misc : VSTD025S 5ML MIX[B]1118-03/1110-03B
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 07 06:50:56 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

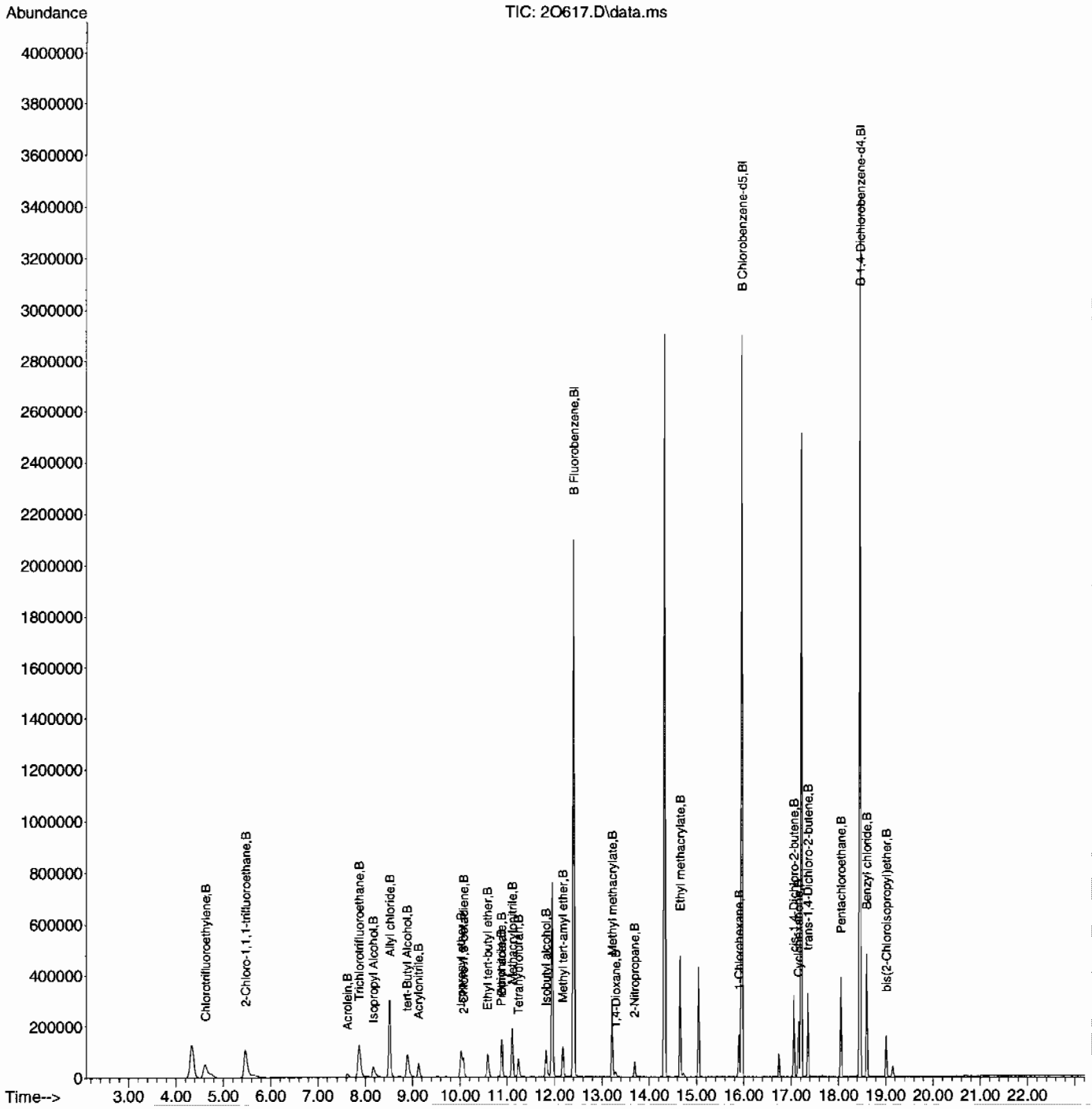

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20618.D
Acq On : 5 Dec 2009 7:39 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-14|ICAL|1|VOAF|1|
Misc : VSTD050S 5ML MIX[B]1118-04/1110-04B
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 07 06:50:58 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	12.389	96	0m	50.00	ug/L	0.00
41) Chlorobenzene-d5	15.959	117	0m	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	0m	50.00	ug/L	0.00
82) B Fluorobenzene	12.389	96	1950155	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.959	117	1556037	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	928907	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	11.939	65	0d	0.00	ug/L	
43) Toluene-d8	14.322	98	0d	0.00	ug/L	
61) Bromofluorobenzene	17.216	95	0d	0.00	ug/L	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.613		0m	N.D.	d	
3) Chloromethane	5.014		0m	N.D.	d	
4) Vinyl chloride	5.460		0m	N.D.	d	
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
9) Acetone	7.847		0m	N.D.	d	
10) 1,1-Dichloroethylene	0.000		0	N.D.		
11) Iodomethane	0.000		0	N.D.		
12) Acetonitrile	8.500		0m	N.D.	d	
13) Methyl acetate	0.000		0	N.D.		
14) Carbon disulfide	8.263		0m	N.D.	d	
15) Methylene chloride	8.713		0m	N.D.	d	
16) tert-Butyl methyl ether	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000		0	N.D.		
18) Vinyl acetate	10.018		0m	N.D.	d	
19) 1,1-Dichloroethane	0.000		0	N.D.		
20) 2-Butanone	10.871		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	10.871		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000		0	N.D.		
23) Bromochloromethane	0.000		0	N.D.		
24) Chloroform	11.251		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000		0	N.D.		
26) Cyclohexane	11.666		0m	N.D.	d	
27) 1,1-Dichloropropene	11.820		0m	N.D.	d	
28) Carbon tetrachloride	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000		0	N.D.		
31) Benzene	12.057		0m	N.D.	d	
32) Cyclohexene	12.164		0m	N.D.	d	
33) n-Butyl alcohol	12.781		0m	N.D.	d	
34) Trichloroethylene	12.864		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000		0	N.D.		
36) Methylcyclohexane	13.208		0m	N.D.	d	
37) Dibromomethane	0.000		0	N.D.		
38) Bromodichloromethane	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20618.D
Acq On : 5 Dec 2009 7:39 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-14|ICAL|1|VOAF|1|
Misc : VSTD050S 5ML MIX[B]1118-04/1110-04B
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 07 06:50:58 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) 4-Methyl-2-pentanone	0.000		0	N.D.		
44) Toluene	14.393		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	14.595		0m	N.D.	d	
46) 1,1,2-Trichloroethane	0.000		0	N.D.		
47) 2-Hexanone	15.057		0m	N.D.	d	
48) 1,3-Dichloropropane	15.022		0m	N.D.	d	
49) Tetrachloroethylene	15.046		0m	N.D.	d	
50) Dibromochloromethane	0.000		0	N.D.		
51) 1,2-Dibromoethane	15.449		0m	N.D.	d	
52) Chlorobenzene	15.994		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
54) Ethylbenzene	16.077		0m	N.D.	d	
55) m,p-Xylenes	16.196		0m	N.D.	d	
56) o-Xylene	0.000		0	N.D.		
57) Styrene	16.646		0m	N.D.	d	
59) Bromoform	0.000		0	N.D.		
60) Isopropylbenzene	17.026		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	17.358		0m	N.D.	d	
63) 1,2,3-Trichloropropane	0.000		0	N.D.		
64) Bromobenzene	17.417		0m	N.D.	d	
65) n-Propylbenzene	17.465		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	17.631		0m	N.D.	d	
67) 2-Chlorotoluene	17.595		0m	N.D.	d	
68) 4-Chlorotoluene	17.702		0m	N.D.	d	
69) tert-Butylbenzene	18.058		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	18.046		0m	N.D.	d	
71) sec-Butylbenzene	18.236		0m	N.D.	d	
72) 4-Isopropyltoluene	0.000		0	N.D.		
73) 1,3-Dichlorobenzene	18.402		0m	N.D.	d	
74) 1,4-Dichlorobenzene	18.485		0m	N.D.	d	
75) n-Butylbenzene	0.000		0	N.D.		
76) 1,2-Dichlorobenzene	18.900		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	20.690		0m	N.D.	d	
79) Hexachlorobutadiene	0.000		0	N.D.		
80) Naphthalene	21.022		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	21.331		0m	N.D.	d	
83) Chlorotrifluoroethylene	4.613	116	279196	45.23	ug/L	99
84) 2-Chloro-1,1,1-trifluo...	5.460	118	430513	42.08	ug/L	99
85) Acrolein	7.598	56	50662	46.01	ug/L	98
86) Trichlorotrifluoroethane	7.859	85	98447	40.71	ug/L	98
87) Isopropyl Alcohol	8.156	45	252620	527.48	ug/L	93
88) Allyl chloride	8.500	41	650996	51.01	ug/L	99
89) tert-Butyl Alcohol	8.879	59	380522	523.39	ug/L	89
90) Acrylonitrile	9.116	53	133860	51.16	ug/L	100
91) Isopropyl ether	10.018	45	276324	9.76	ug/L	99
92) 2-Chloro-1,3-butadiene	10.065	53	120906	10.41	ug/L	99
93) Ethyl tert-butyl ether	10.575	59	217182	9.40	ug/L	99
94) Ethyl acetate	10.871	43	393369	50.12	ug/L	100
95) Propionitrile	10.860	54	53520	52.32	ug/L	99
96) Methacrylonitrile	11.097	41	242870	51.06	ug/L	99
97) Tetrahydrofuran	11.227	42	120124	49.61	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20618.D
Acq On : 5 Dec 2009 7:39 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-14|ICAL|1|VOAF|1|
Misc : VSTD050S 5ML MIX[B]1118-04/1110-04B
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 07 06:50:58 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98) Isobutyl alcohol	11.808	41	142273	596.64 ug/L	96
99) Methyl tert-amyl ether	12.164	73	189599	9.11 ug/L	94
100) Methyl methacrylate	13.208	69	234727	51.67 ug/L	97
101) 1,4-Dioxane	13.279	88	35949	668.22 ug/L	99
102) 2-Nitropropane	13.694	43	102817	43.54 ug/L	96
104) Ethyl methacrylate	14.654	69	467070	55.90 ug/L	99
106) 1-Chlorohexane	15.899	55	84388	11.16 ug/L	96
107) cis-1,4-Dichloro-2-butene	17.062	53	150253	53.28 ug/L	88
108) Cyclohexanone	17.156	42	149929	354.59 ug/L	99
109) trans-1,4-Dichloro-2-b...	17.358	53	147379	53.30 ug/L	94
110) Pentachloroethane	18.058	167	157600	32.25 ug/L	84
111) Benzyl chloride	18.603	91	699641	49.67 ug/L	98
112) bis(2-Chloroisopropyl)...	19.006	45	239910	56.55 ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20618.D
Acq On : 5 Dec 2009 7:39 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-14|ICAL|1|VOAF|1|
Misc : VSTD050S 5ML MIX[B]1118-04/1110-04B
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 07 06:50:58 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

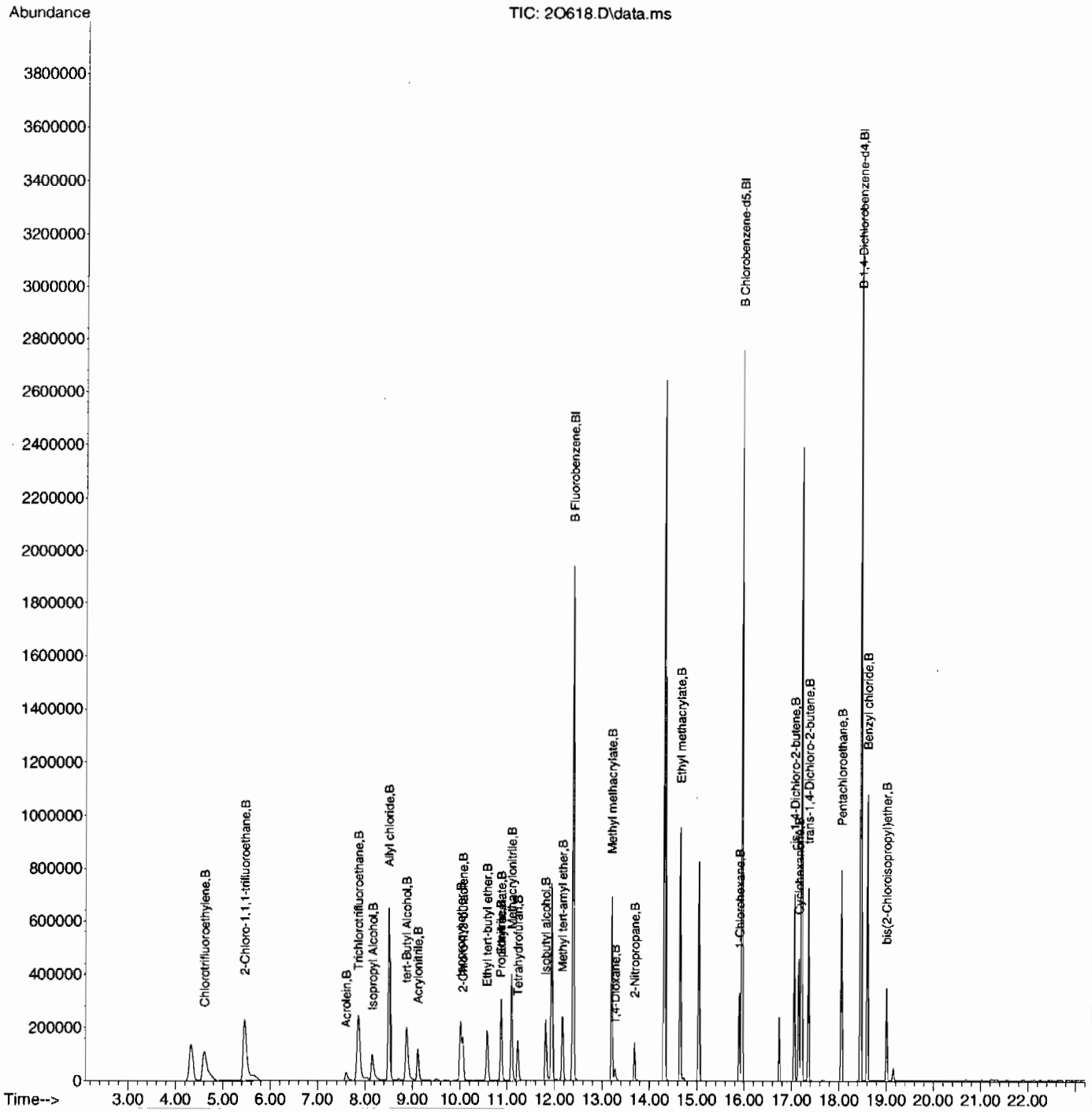

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20619.D
Acq On : 5 Dec 2009 8:08 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-15|ICAL|1|VOAF|1|
Misc : VSTD100S 5ML MIX[B]1118-05/1110-05B
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 07 06:51:00 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	12.401	96	0m	50.00	ug/L	0.01
41) Chlorobenzene-d5	15.959	117	0m	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	0m	50.00	ug/L	0.00
82) B Fluorobenzene	12.401	96	1982097	50.00	ug/L	0.01
103) B Chlorobenzene-d5	15.959	117	1596221	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	955173	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	11.951	65	0d	0.00	ug/L	
43) Toluene-d8	14.322	98	0d	0.00	ug/L	
61) Bromofluorobenzene	17.216	95	0d	0.00	ug/L	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.613		0m	N.D.	d	
3) Chloromethane	5.014		0m	N.D.	d	
4) Vinyl chloride	5.460		0m	N.D.	d	
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
9) Acetone	7.871		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.859		0m	N.D.	d	
11) Iodomethane	0.000		0	N.D.		
12) Acetonitrile	8.512		0m	N.D.	d	
13) Methyl acetate	0.000		0	N.D.		
14) Carbon disulfide	8.274		0m	N.D.	d	
15) Methylene chloride	8.737		0m	N.D.	d	
16) tert-Butyl methyl ether	9.247		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.		
18) Vinyl acetate	10.029		0m	N.D.	d	
19) 1,1-Dichloroethane	0.000		0	N.D.		
20) 2-Butanone	10.883		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	10.883		0m	N.D.	d	
22) 2,2-Dichloropropane	0.000		0	N.D.		
23) Bromochloromethane	0.000		0	N.D.		
24) Chloroform	11.263		0m	N.D.	d	
25) 1,1,1-Trichloroethane	0.000		0	N.D.		
26) Cyclohexane	11.678		0m	N.D.	d	
27) 1,1-Dichloropropene	11.820		0m	N.D.	d	
28) Carbon tetrachloride	0.000		0	N.D.		
30) 1,2-Dichloroethane	11.974		0m	N.D.	d	
31) Benzene	12.057		0m	N.D.	d	
32) Cyclohexene	12.176		0m	N.D.	d	
33) n-Butyl alcohol	12.792		0m	N.D.	d	
34) Trichloroethylene	12.875		0m	N.D.	d	
35) 1,2-Dichloropropane	0.000		0	N.D.		
36) Methylcyclohexane	13.219		0m	N.D.	d	
37) Dibromomethane	0.000		0	N.D.		
38) Bromodichloromethane	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000		0	N.D.		
40) cis-1,3-Dichloropropylene	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20619.D
Acq On : 5 Dec 2009 8:08 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-15|ICAL|1|VOAF|1|
Misc : VSTD100S 5ML MIX[B]1118-05/1110-05B
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 07 06:51:00 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) 4-Methyl-2-pentanone	0.000		0	N.D.		
44) Toluene	14.405		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	0.000		0	N.D.		
46) 1,1,2-Trichloroethane	0.000		0	N.D.		
47) 2-Hexanone	15.057		0m	N.D.	d	
48) 1,3-Dichloropropane	15.022		0m	N.D.	d	
49) Tetrachloroethylene	15.046		0m	N.D.	d	
50) Dibromochloromethane	0.000		0	N.D.		
51) 1,2-Dibromoethane	15.461		0m	N.D.	d	
52) Chlorobenzene	15.994		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	16.065		0m	N.D.	d	
54) Ethylbenzene	16.077		0m	N.D.	d	
55) m,p-Xylenes	16.196		0m	N.D.	d	
56) o-Xylene	0.000		0	N.D.		
57) Styrene	16.646		0m	N.D.	d	
59) Bromoform	0.000		0	N.D.		
60) Isopropylbenzene	17.026		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	17.299		0m	N.D.	d	
63) 1,2,3-Trichloropropane	0.000		0	N.D.		
64) Bromobenzene	17.417		0m	N.D.	d	
65) n-Propylbenzene	17.465		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	17.631		0m	N.D.	d	
67) 2-Chlorotoluene	17.595		0m	N.D.	d	
68) 4-Chlorotoluene	17.702		0m	N.D.	d	
69) tert-Butylbenzene	18.058		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	18.081		0m	N.D.	d	
71) sec-Butylbenzene	0.000		0	N.D.		
72) 4-Isopropyltoluene	0.000		0	N.D.		
73) 1,3-Dichlorobenzene	18.402		0m	N.D.	d	
74) 1,4-Dichlorobenzene	18.485		0m	N.D.	d	
75) n-Butylbenzene	0.000		0	N.D.		
76) 1,2-Dichlorobenzene	18.900		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	20.690		0m	N.D.	d	
79) Hexachlorobutadiene	0.000		0	N.D.		
80) Naphthalene	21.022		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	21.342		0m	N.D.	d	
83) Chlorotrifluoroethylene	4.613	116	561863	88.38	ug/L	99
84) 2-Chloro-1,1,1-trifluo...	5.460	118	815212	78.40	ug/L	99
85) Acrolein	7.610	56	106443	95.11	ug/L	99
86) Trichlorotrifluoroethane	7.871	85	188930	76.87	ug/L	96
87) Isopropyl Alcohol	8.156	45	523628	973.90	ug/L	98
88) Allyl chloride	8.512	41	1274136	98.22	ug/L	99
89) tert-Butyl Alcohol	8.891	59	794329	990.75	ug/L	93
90) Acrylonitrile	9.128	53	272119	102.32	ug/L	100
91) Isopropyl ether	10.029	45	553645	19.24	ug/L	99
92) 2-Chloro-1,3-butadiene	10.077	53	249391	21.12	ug/L	99
93) Ethyl tert-butyl ether	10.587	59	443628	18.88	ug/L	100
94) Ethyl acetate	10.883	43	804083	100.79	ug/L	100
95) Propionitrile	10.871	54	106946	102.86	ug/L	98
96) Methacrylonitrile	11.109	41	496678	102.73	ug/L	99
97) Tetrahydrofuran	11.239	42	244431	99.32	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20619.D
Acq On : 5 Dec 2009 8:08 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-15|ICAL|1|VOAF|1|
Misc : VSTD100S 5ML MIX[B]1118-05/1110-05B
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 07 06:51:00 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
98)	Isobutyl alcohol	11.820	41	296982	1225.36	ug/L	97	
99)	Methyl tert-amyl ether	12.176	73	389991	18.44	ug/L	95	
100)	Methyl methacrylate	13.219	69	496242	107.48	ug/L	99	
101)	1,4-Dioxane	13.279	88	70848	1295.69	ug/L	99	
102)	2-Nitropropane	13.694	43	233256	87.09	ug/L	99	
104)	Ethyl methacrylate	14.654	69	976298	113.90	ug/L	99	
106)	1-Chlorohexane	15.899	55	166639	21.44	ug/L	97	
107)	cis-1,4-Dichloro-2-butene	17.062	53	320594	110.56	ug/L	93	
108)	Cyclohexanone	17.156	42	315452	705.25	ug/L	98	E
109)	trans-1,4-Dichloro-2-b...	17.358	53	308164	108.39	ug/L	95	
110)	Pentachloroethane	18.058	167	387498	76.10	ug/L	90	
111)	Benzyl chloride	18.603	91	1493218	103.09	ug/L	98	
112)	bis(2-Chloroisopropyl)...	19.006	45	512224	117.41	ug/L	98	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 2O619.D
Acq On : 5 Dec 2009 8:08 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-15|ICAL|1|VOAF|1|
Misc : VSTD100S 5ML MIX[B]1118-05/1110-05B
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 07 06:51:00 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

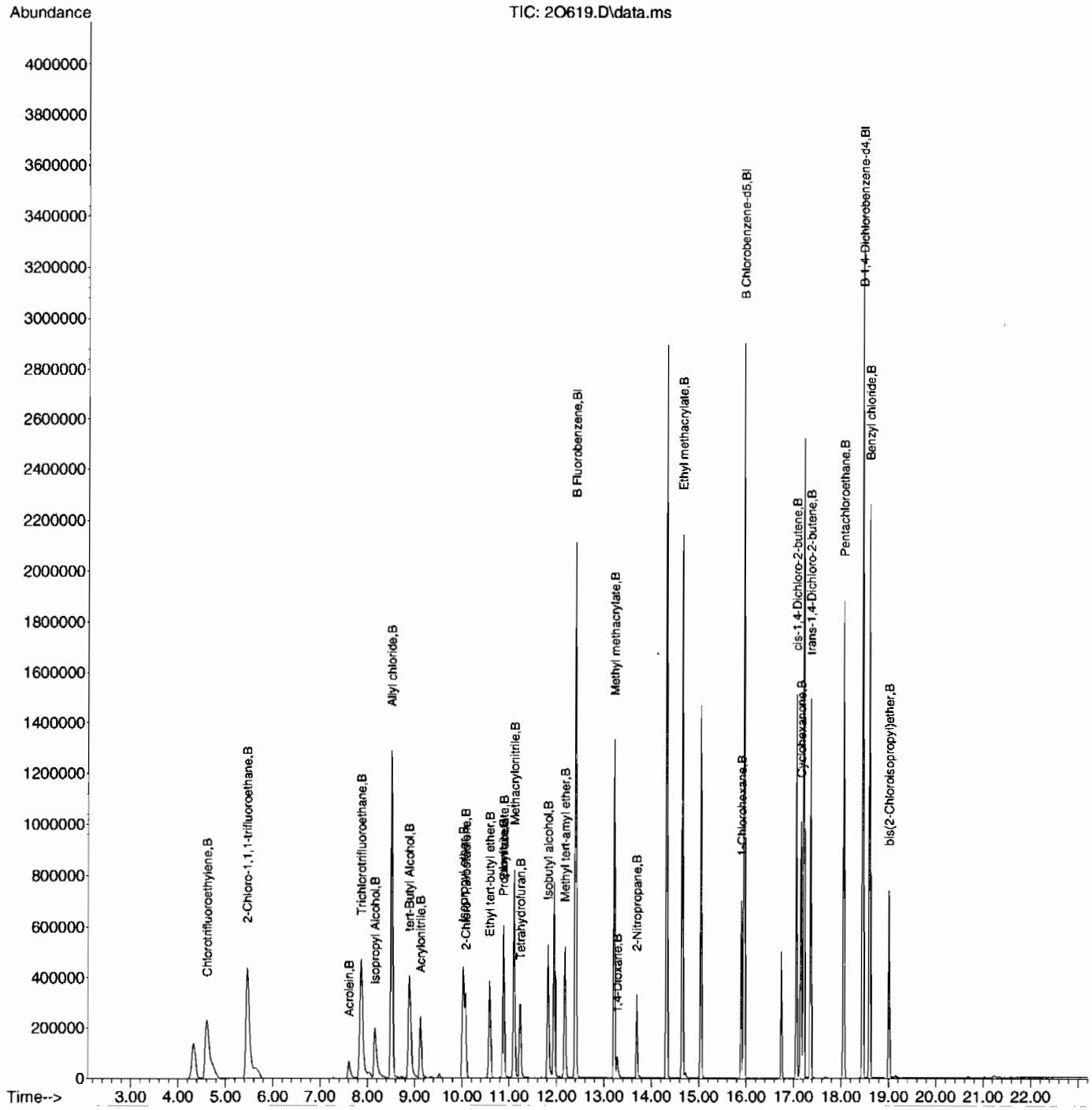

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20620.D
Acq On : 5 Dec 2009 8:38 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-16|ICAL|1|VOAF|1|
Misc : VSTD250S 5ML MIX[B]1118-06/1110-06B
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 07 06:51:02 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	12.401	96	0m	50.00 ug/L	0.01
41) Chlorobenzene-d5	15.959	117	0m	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	0m	50.00 ug/L	0.00
82) B Fluorobenzene	12.401	96	2047153	50.00 ug/L	0.01
103) B Chlorobenzene-d5	15.959	117	1625208	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	976352	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	11.950	65	0d	0.00 ug/L	
43) Toluene-d8	14.322	98	0d	0.00 ug/L	
61) Bromofluorobenzene	17.216	95	0d	0.00 ug/L	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	4.613		0m	N.D. d	
3) Chloromethane	5.237		0m	N.D. d	
4) Vinyl chloride	5.266		0m	N.D. d	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	7.883		0m	N.D. d	
10) 1,1-Dichloroethylene	7.871		0m	N.D. d	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	8.523		0m	N.D. d	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	8.274		0m	N.D. d	
15) Methylene chloride	8.737		0m	N.D. d	
16) tert-Butyl methyl ether	9.247		0m	N.D. d	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	10.029		0m	N.D. d	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	10.883		0m	N.D. d	
21) cis-1,2-Dichloroethylene	10.883		0m	N.D. d	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	11.263		0m	N.D. d	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	11.690		0m	N.D. d	
27) 1,1-Dichloropropene	11.820		0m	N.D. d	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	12.057		0m	N.D. d	
31) Benzene	12.057		0m	N.D. d	
32) Cyclohexene	12.176		0m	N.D. d	
33) n-Butyl alcohol	12.792		0m	N.D. d	
34) Trichloroethylene	12.875		0m	N.D. d	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	13.219		0m	N.D. d	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20620.D
Acq On : 5 Dec 2009 8:38 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-16|ICAL|1|VOAF|1|
Misc : VSTD250S 5ML MIX[B]1118-06/1110-06B
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 07 06:51:02 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
42)	4-Methyl-2-pentanone	0.000		0	N.D.			
44)	Toluene	14.405		0m	N.D.	d		
45)	trans-1,3-Dichloroprop...	14.595		0m	N.D.	d		
46)	1,1,2-Trichloroethane	0.000		0	N.D.			
47)	2-Hexanone	15.045		0m	N.D.	d		
48)	1,3-Dichloropropane	15.022		0m	N.D.	d		
49)	Tetrachloroethylene	15.045		0m	N.D.	d		
50)	Dibromochloromethane	0.000		0	N.D.			
51)	1,2-Dibromoethane	15.461		0m	N.D.	d		
52)	Chlorobenzene	15.994		0m	N.D.	d		
53)	1,1,1,2-Tetrachloroethane	16.065		0m	N.D.	d		
54)	Ethylbenzene	16.077		0m	N.D.	d		
55)	m,p-Xylenes	16.196		0m	N.D.	d		
56)	o-Xylene	0.000		0	N.D.			
57)	Styrene	16.646		0m	N.D.	d		
59)	Bromoform	0.000		0	N.D.			
60)	Isopropylbenzene	17.026		0m	N.D.	d		
62)	1,1,2,2-Tetrachloroethane	17.299		0m	N.D.	d		
63)	1,2,3-Trichloropropane	0.000		0	N.D.			
64)	Bromobenzene	17.417		0m	N.D.	d		
65)	n-Propylbenzene	17.465		0m	N.D.	d		
66)	1,3,5-Trimethylbenzene	17.631		0m	N.D.	d		
67)	2-Chlorotoluene	17.607		0m	N.D.	d		
68)	4-Chlorotoluene	17.702		0m	N.D.	d		
69)	tert-Butylbenzene	18.058		0m	N.D.	d		
70)	1,2,4-Trimethylbenzene	18.081		0m	N.D.	d		
71)	sec-Butylbenzene	18.235		0m	N.D.	d		
72)	4-Isopropyltoluene	18.366		0m	N.D.	d		
73)	1,3-Dichlorobenzene	18.401		0m	N.D.	d		
74)	1,4-Dichlorobenzene	18.484		0m	N.D.	d		
75)	n-Butylbenzene	0.000		0	N.D.			
76)	1,2-Dichlorobenzene	18.899		0m	N.D.	d		
77)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.			
78)	1,2,4-Trichlorobenzene	20.690		0m	N.D.	d		
79)	Hexachlorobutadiene	20.868		0m	N.D.	d		
80)	Naphthalene	21.022		0m	N.D.	d		
81)	1,2,3-Trichlorobenzene	21.342		0m	N.D.	d		
83)	Chlorotrifluoroethylene	4.627	116	755626	114.72	ug/L	99	
84)	2-Chloro-1,1,1-trifluo...	5.474	118	1215516	113.19	ug/L	99	
85)	Acrolein	7.610	56	268828	232.58	ug/L	99	E
86)	Trichlorotrifluoroethane	7.871	85	455897	179.59	ug/L	98	
87)	Isopropyl Alcohol	8.156	45	1300966	2205.05	ug/L	100	
88)	Allyl chloride	8.523	41	3215891	240.04	ug/L	100	
89)	tert-Butyl Alcohol	8.903	59	1875829	2162.54	ug/L	96	
90)	Acrylonitrile	9.128	53	672437	244.80	ug/L	100	
91)	Isopropyl ether	10.029	45	1361873	45.82	ug/L	100	
92)	2-Chloro-1,3-butadiene	10.077	53	673136	55.19	ug/L	99	
93)	Ethyl tert-butyl ether	10.599	59	1082976	44.64	ug/L	99	
94)	Ethyl acetate	10.883	43	1958978	237.75	ug/L	100	
95)	Propionitrile	10.871	54	260181	242.29	ug/L	100	
96)	Methacrylonitrile	11.108	41	1232140	246.75	ug/L	100	
97)	Tetrahydrofuran	11.239	42	590365	232.26	ug/L	99	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20620.D
Acq On : 5 Dec 2009 8:38 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-16|ICAL|1|VOAF|1|
Misc : VSTD250S 5ML MIX[B]1118-06/1110-06B
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 07 06:51:02 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)	
98) Isobutyl alcohol	11.820	41	744867	2975.68 ug/L	100	
99) Methyl tert-amyl ether	12.176	73	958094	43.86 ug/L	97	
100) Methyl methacrylate	13.219	69	1228388	257.59 ug/L	99	
101) 1,4-Dioxane	13.279	88	182322	3228.40 ug/L	99	
102) 2-Nitropropane	13.694	43	626528	213.37 ug/L	100	
104) Ethyl methacrylate	14.654	69	2363064	270.78 ug/L	99	
106) 1-Chlorohexane	15.899	55	394068	49.60 ug/L	100	
107) cis-1,4-Dichloro-2-butene	17.061	53	802068	270.59 ug/L	97	
108) Cyclohexanone	17.156	42	780921	1680.44 ug/L	98	E
109) trans-1,4-Dichloro-2-b...	17.358	53	754700	259.69 ug/L	99	
110) Pentachloroethane	18.058	167	872949	166.84 ug/L	96	
111) Benzyl chloride	18.603	91	3848351	259.92 ug/L	99	
112) bis(2-Chloroisopropyl)...	19.006	45	1252452	280.86 ug/L	98	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20620.D
Acq On : 5 Dec 2009 8:38 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-16|ICAL|1|VOAF|1|
Misc : VSTD250S 5ML MIX[B]1118-06/1110-06B
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 07 06:51:02 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

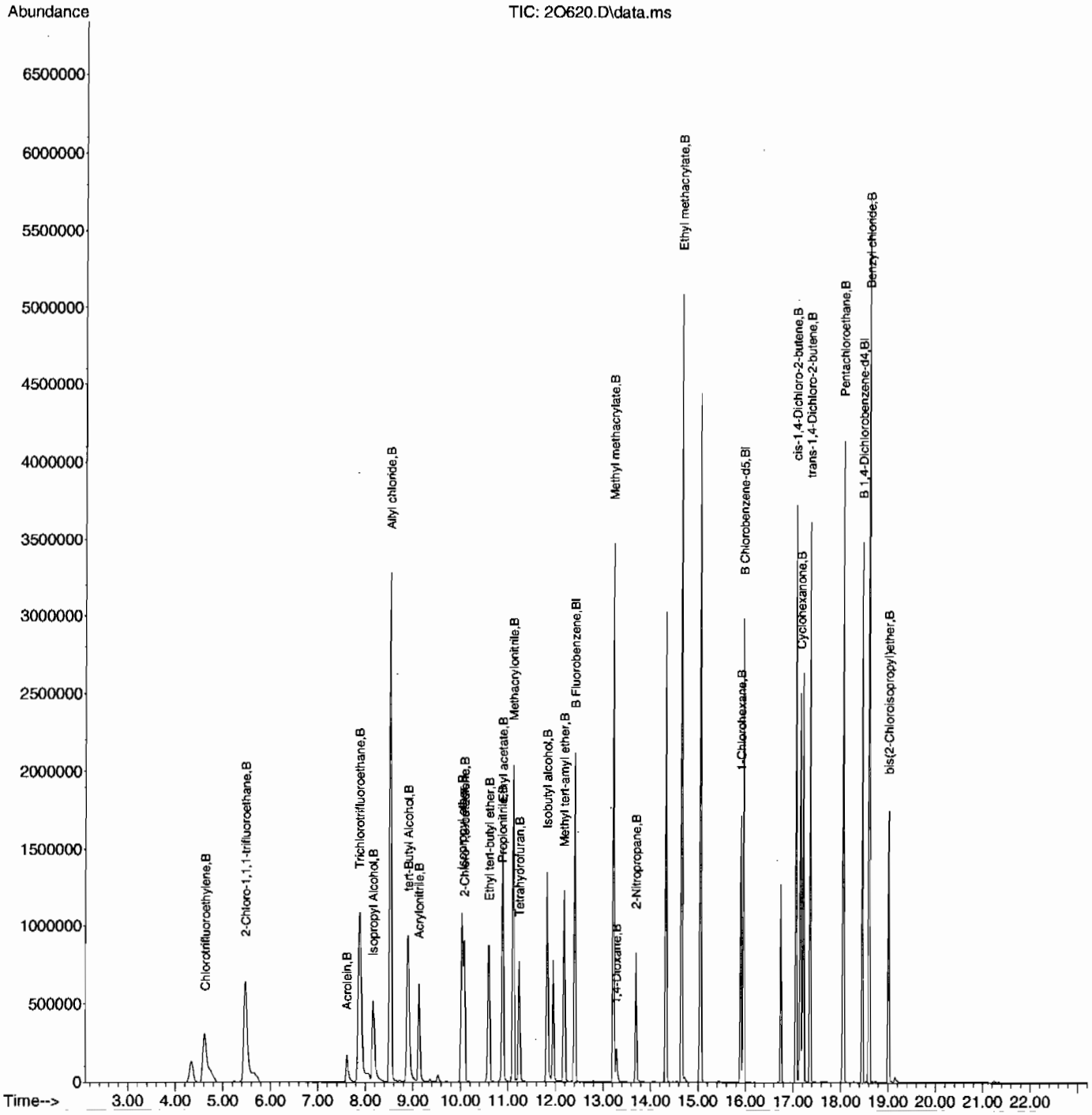

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20622.D
Acq On : 5 Dec 2009 9:36 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-18|ICAL|1|VOAF|1|
Misc : VSTD500S 5ML MIX[B]1118-07/1110-07B
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 07 06:51:06 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	12.389	96	0m	50.00 ug/L	0.00
41) Chlorobenzene-d5	15.959	117	0m	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	0m	50.00 ug/L	0.00
82) B Fluorobenzene	12.389	96	2058953	50.00 ug/L	0.00
103) B Chlorobenzene-d5	15.959	117	1659667	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	995020	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	11.939	65	0d	0.00 ug/L	
43) Toluene-d8	14.322	98	0d	0.00 ug/L	
61) Bromofluorobenzene	17.216	95	0d	0.00 ug/L	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	4.613		0m	N.D. d	
3) Chloromethane	5.237		0m	N.D. d	
4) Vinyl chloride	5.445		0m	N.D. d	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	7.859		0m	N.D. d	
10) 1,1-Dichloroethylene	7.847		0m	N.D. d	
11) Iodomethane	0.000		0	N.D.	
12) Acetonitrile	8.500		0m	N.D. d	
13) Methyl acetate	8.535		0m	N.D. d	
14) Carbon disulfide	8.263		0m	N.D. d	
15) Methylene chloride	8.725		0m	N.D. d	
16) tert-Butyl methyl ether	9.223		0m	N.D. d	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	10.018		0m	N.D. d	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	10.871		0m	N.D. d	
21) cis-1,2-Dichloroethylene	10.871		0m	N.D. d	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	11.251		0m	N.D. d	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	11.678		0m	N.D. d	
27) 1,1-Dichloropropene	11.820		0m	N.D. d	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	12.045		0m	N.D. d	
31) Benzene	12.057		0m	N.D. d	
32) Cyclohexene	12.164		0m	N.D. d	
33) n-Butyl alcohol	12.781		0m	N.D. d	
34) Trichloroethylene	12.864		0m	N.D. d	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	13.208		0m	N.D. d	
37) Dibromomethane	0.000		0	N.D.	
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	13.978		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20622.D
Acq On : 5 Dec 2009 9:36 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-18|ICAL|1|VOAF|1|
Misc : VSTD500S 5ML MIX[B]1118-07/1110-07B
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 07 06:51:06 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
42) 4-Methyl-2-pentanone	0.000		0	N.D.			
44) Toluene	14.393		0m	N.D.	d		
45) trans-1,3-Dichloroprop...	14.595		0m	N.D.	d		
46) 1,1,2-Trichloroethane	14.820		0m	N.D.	d		
47) 2-Hexanone	15.046		0m	N.D.	d		
48) 1,3-Dichloropropane	15.022		0m	N.D.	d		
49) Tetrachloroethylene	15.046		0m	N.D.	d		
50) Dibromochloromethane	0.000		0	N.D.			
51) 1,2-Dibromoethane	15.461		0m	N.D.	d		
52) Chlorobenzene	15.982		0m	N.D.	d		
53) 1,1,1,2-Tetrachloroethane	16.054		0m	N.D.	d		
54) Ethylbenzene	16.077		0m	N.D.	d		
55) m,p-Xylenes	16.196		0m	N.D.	d		
56) o-Xylene	0.000		0	N.D.			
57) Styrene	16.646		0m	N.D.	d		
59) Bromoform	0.000		0	N.D.			
60) Isopropylbenzene	17.026		0m	N.D.	d		
62) 1,1,2,2-Tetrachloroethane	17.358		0m	N.D.	d		
63) 1,2,3-Trichloropropane	17.382		0m	N.D.	d		
64) Bromobenzene	17.417		0m	N.D.	d		
65) n-Propylbenzene	17.465		0m	N.D.	d		
66) 1,3,5-Trimethylbenzene	17.631		0m	N.D.	d		
67) 2-Chlorotoluene	17.595		0m	N.D.	d		
68) 4-Chlorotoluene	17.702		0m	N.D.	d		
69) tert-Butylbenzene	18.058		0m	N.D.	d		
70) 1,2,4-Trimethylbenzene	18.081		0m	N.D.	d		
71) sec-Butylbenzene	18.236		0m	N.D.	d		
72) 4-Isopropyltoluene	18.366		0m	N.D.	d		
73) 1,3-Dichlorobenzene	18.402		0m	N.D.	d		
74) 1,4-Dichlorobenzene	18.485		0m	N.D.	d		
75) n-Butylbenzene	0.000		0	N.D.			
76) 1,2-Dichlorobenzene	18.900		0m	N.D.	d		
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.			
78) 1,2,4-Trichlorobenzene	20.690		0m	N.D.	d		
79) Hexachlorobutadiene	20.880		0m	N.D.	d		
80) Naphthalene	21.022		0m	N.D.	d		
81) 1,2,3-Trichlorobenzene	21.342		0m	N.D.	d		
83) Chlorotrifluoroethylene	4.613	116	1193927	179.53	ug/L	100	
84) 2-Chloro-1,1,1-trifluo...	5.460	118	1662818	153.95	ug/L	99	
85) Acrolein	7.587	56	569053	489.50	ug/L	99	E
86) Trichlorotrifluoroethane	7.859	85	914606	358.23	ug/L	99	
87) Isopropyl Alcohol	8.144	45	3081278	5059.88	ug/L	99	E
88) Allyl chloride	8.500	41	6078467	451.10	ug/L	99	
89) tert-Butyl Alcohol	8.879	59	4413285	4951.67	ug/L	99	
90) Acrylonitrile	9.116	53	1406070	508.95	ug/L	99	E
91) Isopropyl ether	10.018	45	2864323	95.82	ug/L	99	
92) 2-Chloro-1,3-butadiene	10.065	53	1355357	110.48	ug/L	100	E
93) Ethyl tert-butyl ether	10.575	59	2326801	95.35	ug/L	100	
94) Ethyl acetate	10.871	43	4038869	487.36	ug/L	99	
95) Propionitrile	10.860	54	540428	500.38	ug/L	99	E
96) Methacrylonitrile	11.097	41	2501215	498.02	ug/L	99	
97) Tetrahydrofuran	11.227	42	1248613	488.41	ug/L	99	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20622.D
Acq On : 5 Dec 2009 9:36 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-18|ICAL|1|VOAF|1|
Misc : VSTD500S 5ML MIX[B]1118-07/1110-07B
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 07 06:51:06 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
98)	Isobutyl alcohol	11.808	41	1616227	6419.68	ug/L	99	E
99)	Methyl tert-amyl ether	12.164	73	2033740	92.58	ug/L	98	
100)	Methyl methacrylate	13.208	69	2398517	500.08	ug/L	97	E
101)	1,4-Dioxane	13.279	88	396152	6974.52	ug/L	99	E
102)	2-Nitropropane	13.694	43	1368530	453.78	ug/L	99	
104)	Ethyl methacrylate	14.654	69	4447511	499.05	ug/L	98	
106)	1-Chlorohexane	15.899	55	841940	103.98	ug/L	99	E
107)	cis-1,4-Dichloro-2-butene	17.062	53	1600046	529.68	ug/L	99	E
108)	Cyclohexanone	17.156	42	1850663	3881.96	ug/L	97	E
109)	trans-1,4-Dichloro-2-b...	17.358	53	1491720	503.66	ug/L	99	E
110)	Pentachloroethane	18.058	167	1469771	275.15	ug/L	98	
111)	Benzyl chloride	18.603	91	7528418	498.93	ug/L	99	
112)	bis(2-Chloroisopropyl)...	19.006	45	2670432	587.59	ug/L	100	E

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20622.D
Acq On : 5 Dec 2009 9:36 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-18|ICAL|1|VOAF|1|
Misc : VSTD500S 5ML MIX[B]1118-07/1110-07B
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 07 06:51:06 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Fri Oct 09 06:32:53 2009
Response via : Initial Calibration
Integrator: RTE

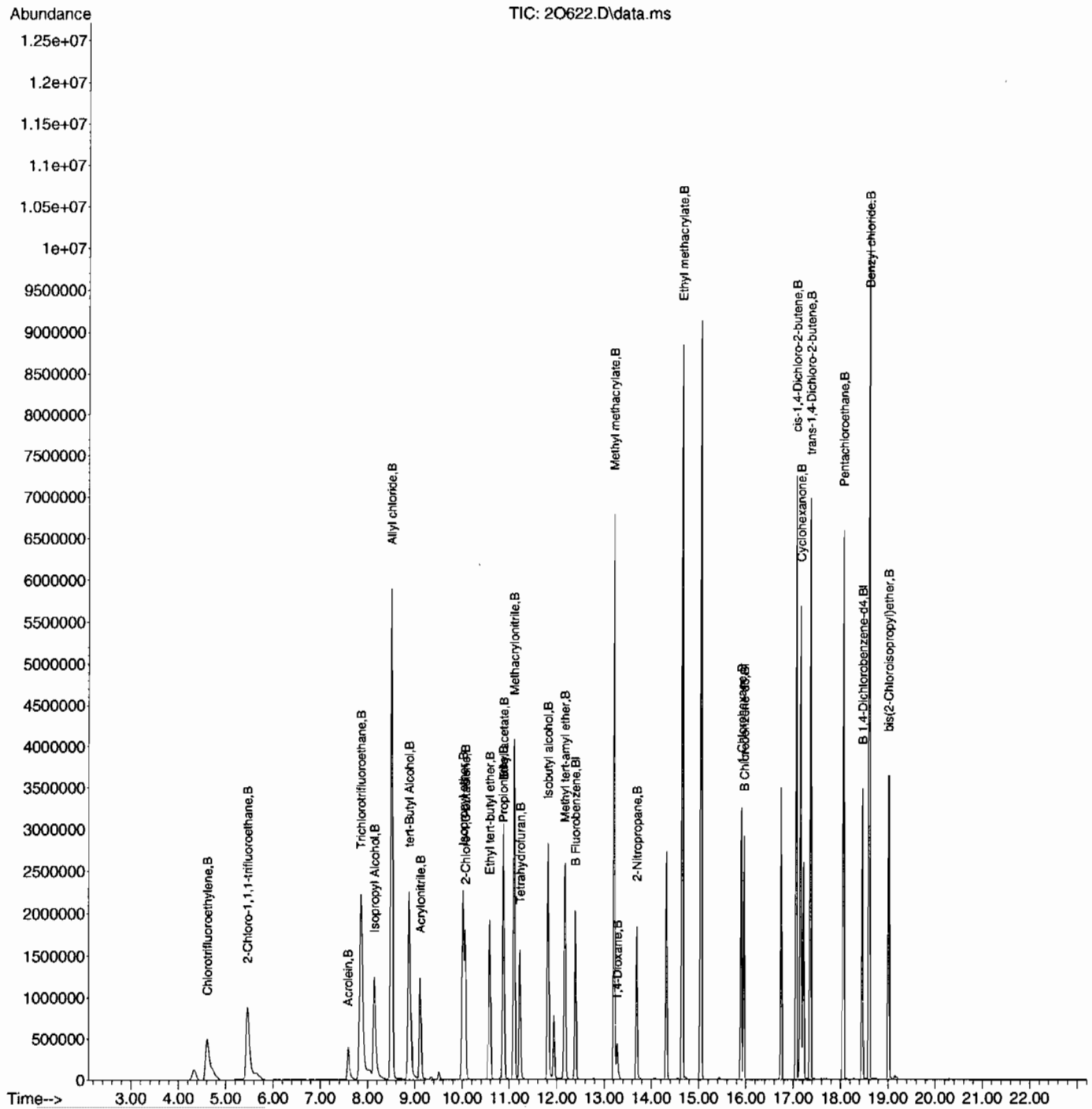

Continuing Calibration Summary

Client SDG: 10-1020

Instrument ID: VOA2.I **Injection Date** 05-DEC-09 17:13

Data File: 120509V2.b\2O613.D **Init. Cal. Date(s)** 05-DEC-09 12:22 - 05-DEC-09 21:3

Lab Sample ID W2VM091205-10 **Quant Type** ISTD **Method:** 120509V2.b\VOA2-8260-120509.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.2871	0.27453		.01		-4.37827	30		Averaged	
S	Toluene-d8	1.1957	1.17925		.01		-1.37576	30		Averaged	
S	Bromofluorobenzene	0.7962	0.7803		.01		-1.99699	30		Averaged	
	Dichlorodifluoromethane	0.1653	0.14696		.01		-11.09498	30		Averaged	
	Chloromethane	0.1581	0.13792		.1		-12.76407	30		Averaged	spcc
	Vinyl chloride	0.1765	0.15845		.01		-10.22663	20		Averaged	ccc
	Bromomethane	0.1352	0.12842		.01		-5.01479	30		Averaged	
	Chloroethane	0.1194	0.11344		.01		-4.99162	30		Averaged	
	Trichlorofluoromethane	0.2755	0.2656		.01		-3.59347	30		Averaged	
	Ethyl ether	0.1668	0.16344		.01		-2.01439	30		Averaged	
	1,1-Dichloroethylene	0.2516	0.25009		.01		-0.60016	20		Averaged	ccc
	Acetone	0.1325	0.11895		.01		-10.22642	40		Averaged	
	Iodomethane	0.3347	0.34124		.01		1.95399	30		Averaged	
	Carbon disulfide	0.5371	0.57166		.01		6.43456	30		Averaged	
	Acetonitrile	0.025	0.02494		.01		-0.24	30		Averaged	
	Methyl acetate	0.1555	0.15469		.01		-0.5209	40		Averaged	
	Methylene chloride	0.2149	0.19883		.01		-7.4779	30		Averaged	
	trans-1,2-Dichloroethylene	0.2864	0.28865		.01		0.78561	30		Averaged	
	tert-Butyl methyl ether	0.4025	0.40612		.01		0.89938	30		Averaged	
	1,1-Dichloroethane	0.3616	0.36926		.1		2.11836	30		Averaged	spcc
	Vinyl acetate	0.4062	0.40259		.01		-0.88872	40		Averaged	
	2-Butanone	0.1499	0.13996		.01		-6.63109	40		Averaged	
	cis-1,2-Dichloroethylene	0.3183	0.32281		.01		1.4169	30		Averaged	
	2,2-Dichloropropane	0.2239	0.23549		.01		5.17642	30		Averaged	
	Bromochloromethane	0.1183	0.12439		.01		5.14793	30		Averaged	
	Chloroform	0.3852	0.3916		.01		1.66147	20		Averaged	ccc
	1,1,1-Trichloroethane	0.3047	0.32243		.01		5.81884	30		Averaged	
	Cyclohexane	0.2866	0.30305		.01		5.73971	30		Averaged	
	1,1-Dichloropropene	0.2624	0.27135		.01		3.41082	30		Averaged	
	Carbon tetrachloride	0.2788	0.30836		.01		10.60258	30		Averaged	
	1,2-Dichloroethane	0.3022	0.29582		.01		-2.11118	30		Averaged	
	Benzene	0.7984	0.81103		.01		1.58191	30		Averaged	
	Cyclohexene	0.3801	0.40193		.01		5.74323	30		Averaged	
	n-Butyl alcohol	5000	5352.38	5000			7.0476	40		Linear	
	Trichloroethylene	0.2231	0.23525		.01		5.44599	30		Averaged	
	1,2-Dichloropropane	0.2054	0.20935		.01		1.92308	20		Averaged	ccc
	Methylcyclohexane	0.326	0.34508		.01		5.85276	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA2.I **Injection Date** 05-DEC-09 17:13

Data File: 120509V2.b\2O613.D **Init. Cal. Date(s)** 05-DEC-09 12:22 05-DEC-09 21:3

Lab Sample ID W2VM091205-10 **Quant Type** ISTD **Method:** 120509V2.b\VOA2-8260-120509.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1298	0.13456		.01		3.66718	30		Averaged	
Bromodichloromethane	0.261	0.29746		.01		13.96935	30		Averaged	
2-Chloroethylvinyl ether	0.1232	0.11622		.01		-5.66558	30		Averaged	
cis-1,3-Dichloropropylene	0.2881	0.32504		.01		12.82194	30		Averaged	
4-Methyl-2-pentanone	0.1	0.10418		.01		4.18	40		Averaged	
Toluene	1.1134	1.13566		.01		1.99928	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.3297	0.38524		.01		16.84562	30		Averaged	
1,1,2-Trichloroethane	0.1909	0.19726		.01		3.33159	30		Averaged	
1,3-Dichloropropane	0.3879	0.39463		.01		1.73498	30		Averaged	
Tetrachloroethylene	0.2873	0.29872		.01		3.97494	30		Averaged	
2-Hexanone	0.2905	0.26995		.01		-7.07401	40		Averaged	
Dibromochloromethane	50	50.27	50			0.54	30		Linear	
1,2-Dibromoethane	0.2363	0.25947		.01		9.80533	30		Averaged	
Chlorobenzene	0.7929	0.82133		.3		3.58557	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.2796	0.31388		.01		12.26037	30		Averaged	
Ethylbenzene	1.2654	1.32915		.01		5.03793	20		Averaged	ccc
m,p-Xylenes	0.496	0.51545		.01		3.92137	30		Averaged	
o-Xylene	0.4826	0.50505		.01		4.65189	30		Averaged	
Styrene	0.723	0.8589		.01		18.79668	30		Averaged	
Bromoform	50	48.92	50			-2.16	30		Linear	spcc
Isopropylbenzene	2.06	2.22866		.01		8.18738	30		Averaged	
1,1,2,2-Tetrachloroethane	0.4997	0.51164		.3		2.38943	30		Averaged	spcc
1,2,3-Trichloropropane	0.145	0.14741		.01		1.66207	30		Averaged	
Bromobenzene	0.6319	0.66326		.01		4.96281	30		Averaged	
n-Propylbenzene	2.4875	2.61708		.01		5.20925	30		Averaged	
2-Chlorotoluene	0.5585	0.59616		.01		6.74306	30		Averaged	
1,3,5-Trimethylbenzene	1.7568	1.87462		.01		6.70651	30		Averaged	
4-Chlorotoluene	1.5605	1.59219		.01		2.03076	30		Averaged	
tert-Butylbenzene	0.3951	0.44289		.01		12.09567	30		Averaged	
1,2,4-Trimethylbenzene	1.8045	1.9284		.01		6.86617	30		Averaged	
sec-Butylbenzene	2.3219	2.52278		.01		8.65154	30		Averaged	
4-Isopropyltoluene	1.8661	2.08139		.01		11.5369	30		Averaged	
1,3-Dichlorobenzene	1.2096	1.25325		.01		3.60863	30		Averaged	
1,4-Dichlorobenzene	1.2554	1.2668		.01		0.90808	30		Averaged	
n-Butylbenzene	1.7968	1.96054		.01		9.11287	30		Averaged	
1,2-Dichlorobenzene	1.1554	1.19331		.01		3.28111	30		Averaged	
1,2-Dibromo-3-chloropropane	50	47.39	50			-5.22	30		Linear	

Continuing Calibration Summary

Instrument ID: VOA2.I **Injection Dat** 05-DEC-09 17:13

Data File: 120509V2.b\2O613.D **Init. Cal. Date(s)** 05-DEC-09 12:22 05-DEC-09 21:3

Lab Sample ID W2VM091205-10 **Quant Type** ISTD **Method:** 120509V2.b\VOA2-8260-120509.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8802	0.94921		.01		7.84026	30		Averaged
Hexachlorobutadiene	0.5173	0.57382		.01		10.92596	30		Averaged
Naphthalene	1.7488	1.97092		.01		12.70128	30		Averaged
1,2,3-Trichlorobenzene	0.8062	0.88265		.01		9.48276	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20613.D
Acq On : 5 Dec 2009 5:13 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-10|ICV|1|VOAF|1|
Misc : ICV 5ML MIX[A] UVM091129-01B/IVM091203-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 07 08:11:42 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	12.401	96	2033024	50.00 ug/L	-0.01
41) Chlorobenzene-d5	15.958	117	1619872	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	993358	50.00 ug/L	0.00
82) B Fluorobenzene	12.401	96	2033024	50.00 ug/L	0.00
103) B Chlorobenzene-d5	15.958	117	1619872	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	993358	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	11.950	65	558123	47.81 ug/L	-0.01
43) Toluene-d8	14.322	98	1910242	49.31 ug/L	-0.01
61) Bromofluorobenzene	17.215	95	775119	49.00 ug/L	0.00
Target Compounds					Qvalue
2) Dichlorodifluoromethane	4.687	85	298764	44.44 ug/L	100
3) Chloromethane	5.014	50	280398	43.62 ug/L	100
4) Vinyl chloride	5.266	62	322137	44.90 ug/L	99
5) Bromomethane	5.979	94	261070	47.49 ug/L	99
6) Chloroethane	6.211	64	230628	47.52 ug/L	100
7) Trichlorofluoromethane	6.780	101	539968	48.20 ug/L	99
8) Ethyl ether	7.373	59	332283	48.98 ug/L	100
9) Acetone	7.895	43	1209096	224.47 ug/L	99
10) 1,1-Dichloroethylene	7.847	61	508439	49.71 ug/L	99
11) Iodomethane	8.132	142	3468735	254.89 ug/L	99
12) Acetonitrile	8.405	41	1267791	1246.95 ug/L	99
13) Methyl acetate	8.535	43	1572456	248.67 ug/L	100
14) Carbon disulfide	8.274	76	5811001	266.08 ug/L	100
15) Methylene chloride	8.725	84	404220	46.27 ug/L	99
16) tert-Butyl methyl ether	9.235	73	825654	50.45 ug/L	100
17) trans-1,2-Dichloroethy...	9.235	61	586836	50.39 ug/L	99
18) Vinyl acetate	9.970	43	4092376	247.79 ug/L	100
19) 1,1-Dichloroethane	9.911	63	750713	51.06 ug/L	100
20) 2-Butanone	10.800	43	1422666	233.45 ug/L	100
21) cis-1,2-Dichloroethylene	10.812	61	656283	50.71 ug/L	99
22) 2,2-Dichloropropane	10.836	77	478762	52.58 ug/L	98
23) Bromochloromethane	11.156	128	252883	52.57 ug/L	98
24) Chloroform	11.262	83	796134	50.83 ug/L	100
25) 1,1,1-Trichloroethane	11.559	97	655513	52.91 ug/L	99
26) Cyclohexane	11.666	56	616100	52.86 ug/L	99
27) 1,1-Dichloropropene	11.772	75	551651	51.71 ug/L	98
28) Carbon tetrachloride	11.808	117	626900	55.29 ug/L	100
30) 1,2-Dichloroethane	12.057	62	601415	48.94 ug/L	100
31) Benzene	12.057	78	1648846	50.79 ug/L	99
32) Cyclohexene	12.211	67	817126	52.87 ug/L	99
33) n-Butyl alcohol	12.662	56	1265260	5352.38 ug/L	99
34) Trichloroethylene	12.875	95	478276	52.73 ug/L	99
35) 1,2-Dichloropropane	13.148	63	425615	50.95 ug/L	100
36) Methylcyclohexane	13.148	83	701551	52.93 ug/L	100
37) Dibromomethane	13.290	93	273556	51.83 ug/L	98
38) Bromodichloromethane	13.456	83	604748	56.99 ug/L	100
39) 2-Chloroethylvinyl ether	13.765	63	1181419	235.84 ug/L	99
40) cis-1,3-Dichloropropylene	13.978	75	660803	56.42 ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20613.D
Acq On : 5 Dec 2009 5:13 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-10|ICV|1|VOAF|1|
Misc : ICV 5ML MIX[A] UVM091129-01B/IVM091203-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 07 08:11:42 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 4-Methyl-2-pentanone	14.120	58	843825	260.41 ug/L	98
44) Toluene	14.405	91	1839623	51.00 ug/L	100
45) trans-1,3-Dichloroprop...	14.595	75	624037	58.43 ug/L	98
46) 1,1,2-Trichloroethane	14.820	83	319529	51.67 ug/L	100
47) 2-Hexanone	15.057	43	2186424	232.32 ug/L	100
48) 1,3-Dichloropropane	15.022	76	639251	50.86 ug/L	89
49) Tetrachloroethylene	15.045	164	483884	51.99 ug/L	99
50) Dibromochloromethane	15.294	129	498433	50.27 ug/L	100
51) 1,2-Dibromoethane	15.460	107	420309	54.89 ug/L	100
52) Chlorobenzene	15.994	112	1330446	51.79 ug/L	99
53) 1,1,1,2-Tetrachloroethane	16.065	131	508444	56.13 ug/L	100
54) Ethylbenzene	16.077	91	2153059	52.52 ug/L	100
55) m,p-Xylenes	16.208	106	1669928	103.92 ug/L	100
56) o-Xylene	16.646	106	818118	52.32 ug/L	100
57) Styrene	16.646	104	1391314	59.40 ug/L	99
59) Bromoform	16.895	173	379828	48.92 ug/L	100
60) Isopropylbenzene	17.026	105	2213856	54.09 ug/L	99
62) 1,1,2,2-Tetrachloroethane	17.310	83	508245	51.20 ug/L	100
63) 1,2,3-Trichloropropane	17.381	110	146427	50.84 ug/L	96
64) Bromobenzene	17.417	156	658854	52.48 ug/L	99
65) n-Propylbenzene	17.465	91	2599697	52.60 ug/L	99
66) 1,3,5-Trimethylbenzene	17.631	105	1862165	53.35 ug/L	100
67) 2-Chlorotoluene	17.607	126	592195	53.38 ug/L	98
68) 4-Chlorotoluene	17.702	91	1581618	51.02 ug/L	99
69) tert-Butylbenzene	18.010	134	439946	56.05 ug/L	96
70) 1,2,4-Trimethylbenzene	18.046	105	1915589	53.43 ug/L	99
71) sec-Butylbenzene	18.235	105	2506023	54.33 ug/L	100
72) 4-Isopropyltoluene	18.366	119	2067565	55.77 ug/L	100
73) 1,3-Dichlorobenzene	18.401	146	1244930	51.81 ug/L	100
74) 1,4-Dichlorobenzene	18.484	146	1258381	50.45 ug/L	99
75) n-Butylbenzene	18.805	91	1947522	54.56 ug/L	99
76) 1,2-Dichlorobenzene	18.899	146	1185384	51.64 ug/L	100
77) 1,2-Dibromo-3-chloropr...	19.706	157	122934	47.39 ug/L	99
78) 1,2,4-Trichlorobenzene	20.690	180	942901	53.92 ug/L	100
79) Hexachlorobutadiene	20.868	225	570006	55.46 ug/L	100
80) Naphthalene	21.022	128	1957829	56.35 ug/L	100
81) 1,2,3-Trichlorobenzene	21.342	180	876784	54.74 ug/L	100
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	7.563		0m	N.D. d	
86) Trichlorotrifluoroethane	7.859		0m	N.D. d	
87) Isopropyl Alcohol	8.274		0m	N.D. d	
88) Allyl chloride	8.405		0m	N.D. d	
89) tert-Butyl Alcohol	8.938		0m	N.D. d	
90) Acrylonitrile	9.140		0m	N.D. d	
91) Isopropyl ether	9.970		0m	N.D. d	
92) 2-Chloro-1,3-butadiene	10.077		0m	N.D. d	
93) Ethyl tert-butyl ether	10.587		0m	N.D. d	
94) Ethyl acetate	10.800		0m	N.D. d	
95) Propionitrile	10.800		0m	N.D. d	
96) Methacrylonitrile	11.108		0m	N.D. d	
97) Tetrahydrofuran	11.262		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20613.D
Acq On : 5 Dec 2009 5:13 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-10|ICV|1|VOAF|1|
Misc : ICV 5ML MIX[A] UVM091129-01B/IVM091203-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 07 08:11:42 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98) Isobutyl alcohol	11.950		0m	N.D. d	
99) Methyl tert-amyl ether	12.199		0m	N.D. d	
100) Methyl methacrylate	13.148		0m	N.D. d	
101) 1,4-Dioxane	13.290		0m	N.D. d	
102) 2-Nitropropane	13.765		0m	N.D. d	
104) Ethyl methacrylate	14.654		0m	N.D. d	
106) 1-Chlorohexane	15.958		0m	N.D. d	
107) cis-1,4-Dichloro-2-butene	17.026		0m	N.D. d	
108) Cyclohexanone	17.156		0m	N.D. d	
109) trans-1,4-Dichloro-2-b...	17.358		0m	N.D. d	
110) Pentachloroethane	18.057		0m	N.D. d	
111) Benzyl chloride	18.603		0m	N.D. d	
112) bis(2-Chloroisopropyl)...	19.006		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 2O613.D
Acq On : 5 Dec 2009 5:13 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-10|ICV|1|VOAF|1|
Misc : ICV 5ML MIX[A] UVM091129-01B/IVM091203-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 07 08:11:42 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

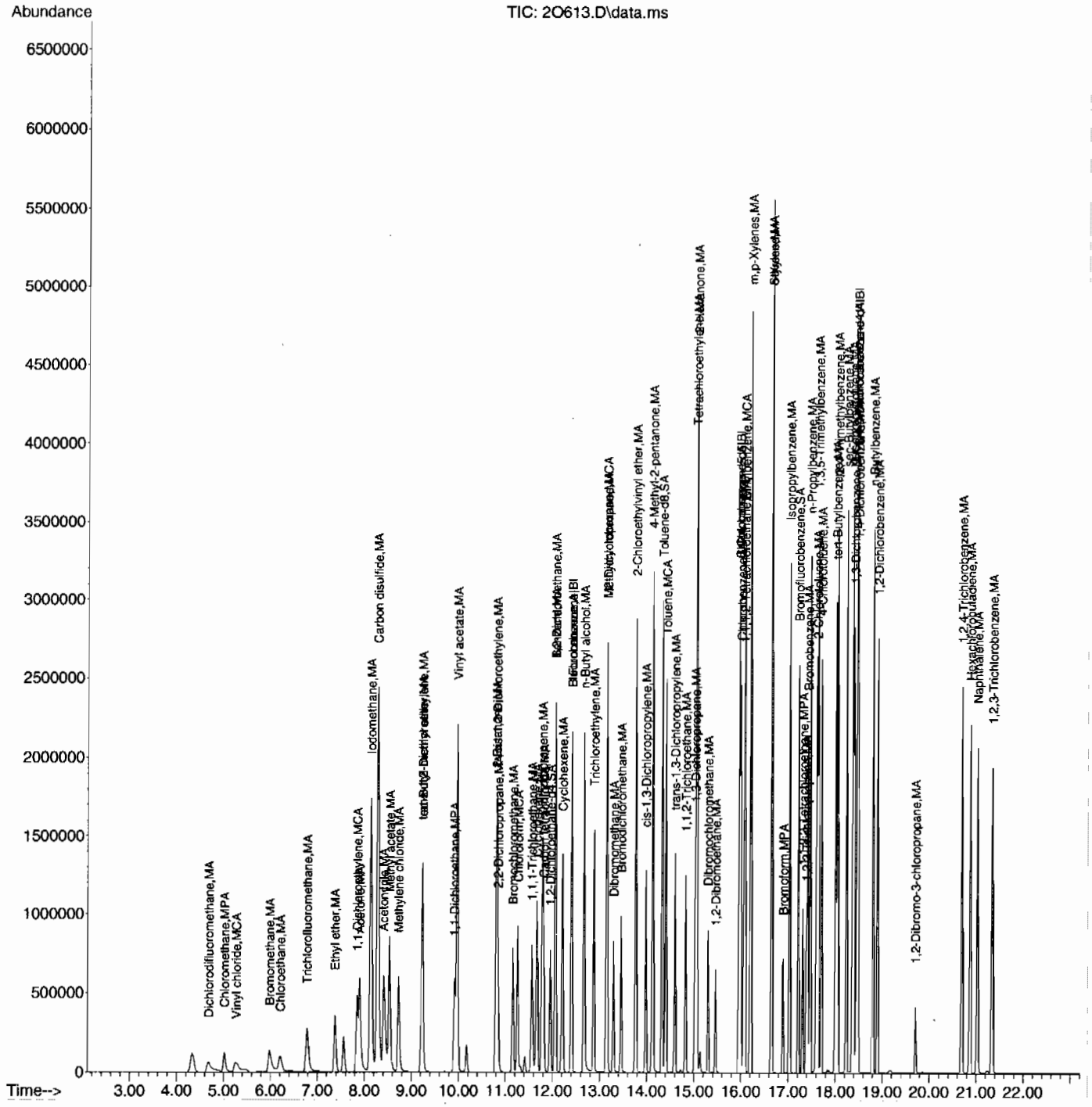

Continuing Calibration Summary

Client SDG: 10-1020

Instrument ID: VOA2.I **Injection Dat** 05-DEC-09 22:35

Data File: 120509V2.b\2O624.D **Init. Cal. Date(s)** 05-DEC-09 12:22 - 05-DEC-09 21:3

Lab Sample ID W2VM091205-19 **Quant Type** ISTD **Method:** 120509V2.b\VOA2-8260-120509.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.2871	0.27587		.01		-3.91153	30		Averaged
S	Toluene-d8	1.1957	1.18159		.01		-1.18006	30		Averaged
S	Bromofluorobenzene	0.7962	0.79769		.01		0.18714	30		Averaged
	Chlorotrifluoroethylene	0.1309	0.13956		.01		6.61574	30		Averaged
	2-Chloro-1,1,1-trifluoroethane	0.1978	0.22035		.01		11.4004	30		Averaged
	Acrolein	0.0246	0.02722		.01		10.65041	30		Averaged
	Trichlorotrifluoroethane	0.0491	0.05303		.01		8.00407	30		Averaged
	Isopropyl Alcohol	0.0125	0.01304		.01		4.32	40		Averaged
	Allyl chloride	0.3176	0.33696		.01		6.09572	30		Averaged
	tert-Butyl Alcohol	0.0186	0.01847		.01		-0.69892	40		Averaged
	Acrylonitrile	0.0656	0.06866		.01		4.66463	30		Averaged
	Isopropyl ether	0.6598	0.69634		.01		5.53804	30		Averaged
	2-Chloro-1,3-butadiene	0.2993	0.35015		.01		16.98964	30		Averaged
	Ethyl tert-butyl ether	0.5252	0.55123		.01		4.95621	30		Averaged
	Propionitrile	0.026	0.02578		.01		-0.84615	30		Averaged
	Ethyl acetate	0.196	0.18771		.01		-4.22959	40		Averaged
	Methacrylonitrile	0.1179	0.12254		.01		3.93554	30		Averaged
	Tetrahydrofuran	0.0595	0.06031		.01		1.36134	30		Averaged
	Isobutyl alcohol	0.007	0.00694		.01		-0.85714	40		Averaged
	Methyl tert-amyl ether	0.4599	0.48166		.01		4.73146	30		Averaged
	Methyl methacrylate	0.112	0.12034		.01		7.44643	30		Averaged
	1,4-Dioxane	0.0018	0.00181		.01		0.55556	40		Averaged
	2-Nitropropane	250	238.02	250			-4.792	30		Linear
	Ethyl methacrylate	0.2691	0.29021		.01		7.84467	30		Averaged
	1-Chlorohexane	0.3938	0.45405		.01		15.29964	30		Averaged
	cis-1,4-Dichloro-2-butene	0.1523	0.16991		.01		11.56271	30		Averaged
	Cyclohexanone	0.0292	0.01859		.01		-36.33562	40		Averaged
	trans-1,4-Dichloro-2-butene	0.1488	0.15973		.01		7.34543	30		Averaged
	Pentachloroethane	0.1689	0.14379		.01		-14.86679	30		Averaged
	Benzyl chloride	250	230.32	250			-7.872	30		Linear
	bis(2-Chloroisopropyl)ether	0.2438	0.25939		.01		6.39459	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20624.D
Acq On : 5 Dec 2009 10:35 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-19|ICV|1|VOAF|1|
Misc : ICV 5ML MIX[B]UVM091118-08B+UVM091105-02D
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Dec 07 08:12:03 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	12.401	96	2025593	50.00 ug/L	-0.01
41) Chlorobenzene-d5	15.959	117	1625460	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	975762	50.00 ug/L	0.00
82) B Fluorobenzene	12.401	96	2025593	50.00 ug/L	0.00
103) B Chlorobenzene-d5	15.959	117	1625460	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	975762	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	11.950	65	558805	48.04 ug/L	-0.01
43) Toluene-d8	14.322	98	1920635	49.41 ug/L	-0.01
61) Bromofluorobenzene	17.216	95	778353	50.09 ug/L	0.00

Target Compounds				Qvalue
2) Dichlorodifluoromethane	4.613	0m	N.D. d	
3) Chloromethane	5.014	0m	N.D. d	
4) Vinyl chloride	5.252	0m	N.D. d	
5) Bromomethane	0.000	0	N.D.	
6) Chloroethane	0.000	0	N.D.	
7) Trichlorofluoromethane	6.780	0m	N.D. d	
8) Ethyl ether	7.397	0m	N.D. d	
9) Acetone	8.156	0m	N.D. d	
10) 1,1-Dichloroethylene	7.859	0m	N.D. d	
11) Iodomethane	8.132	0m	N.D. d	
12) Acetonitrile	8.523	0m	N.D. d	
13) Methyl acetate	8.547	0m	N.D. d	
14) Carbon disulfide	8.274	0m	N.D. d	
15) Methylene chloride	8.737	0m	N.D. d	
16) tert-Butyl methyl ether	9.247	0m	N.D. d	
17) trans-1,2-Dichloroethy...	9.235	0m	N.D. d	
18) Vinyl acetate	10.029	0m	N.D. d	
19) 1,1-Dichloroethane	9.923	0m	N.D. d	
20) 2-Butanone	10.883	0m	N.D. d	
21) cis-1,2-Dichloroethylene	10.883	0m	N.D. d	
22) 2,2-Dichloropropane	10.824	0m	N.D. d	
23) Bromochloromethane	11.156	0m	N.D. d	
24) Chloroform	11.263	0m	N.D. d	
25) 1,1,1-Trichloroethane	11.571	0m	N.D. d	
26) Cyclohexane	11.678	0m	N.D. d	
27) 1,1-Dichloropropene	11.832	0m	N.D. d	
28) Carbon tetrachloride	11.808	0m	N.D. d	
30) 1,2-Dichloroethane	12.057	0m	N.D. d	
31) Benzene	12.069	0m	N.D. d	
32) Cyclohexene	12.188	0m	N.D. d	
33) n-Butyl alcohol	12.686	0m	N.D. d	
34) Trichloroethylene	12.875	0m	N.D. d	
35) 1,2-Dichloropropane	13.148	0m	N.D. d	
36) Methylcyclohexane	13.160	0m	N.D. d	
37) Dibromomethane	13.290	0m	N.D. d	
38) Bromodichloromethane	13.456	0m	N.D. d	
39) 2-Chloroethylvinyl ether	0.000	0	N.D.	
40) cis-1,3-Dichloropropylene	13.978	0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20624.D
Acq On : 5 Dec 2009 10:35 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-19|ICV|1|VOAF|1|
Misc : ICV 5ML MIX[B]UVM091118-08B+UVM091105-02D
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Dec 07 08:12:03 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) 4-Methyl-2-pentanone	14.132		0m	N.D.	d	
44) Toluene	14.405		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	14.595		0m	N.D.	d	
46) 1,1,2-Trichloroethane	14.820		0m	N.D.	d	
47) 2-Hexanone	15.057		0m	N.D.	d	
48) 1,3-Dichloropropane	15.022		0m	N.D.	d	
49) Tetrachloroethylene	15.046		0m	N.D.	d	
50) Dibromochloromethane	15.306		0m	N.D.	d	
51) 1,2-Dibromoethane	15.461		0m	N.D.	d	
52) Chlorobenzene	15.994		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	16.065		0m	N.D.	d	
54) Ethylbenzene	16.089		0m	N.D.	d	
55) m,p-Xylenes	16.208		0m	N.D.	d	
56) o-Xylene	16.646		0m	N.D.	d	
57) Styrene	16.646		0m	N.D.	d	
59) Bromoform	16.884		0m	N.D.	d	
60) Isopropylbenzene	17.026		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	17.310		0m	N.D.	d	
63) 1,2,3-Trichloropropane	17.382		0m	N.D.	d	
64) Bromobenzene	17.417		0m	N.D.	d	
65) n-Propylbenzene	17.465		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	17.631		0m	N.D.	d	
67) 2-Chlorotoluene	17.607		0m	N.D.	d	
68) 4-Chlorotoluene	17.702		0m	N.D.	d	
69) tert-Butylbenzene	18.058		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	18.046		0m	N.D.	d	
71) sec-Butylbenzene	18.235		0m	N.D.	d	
72) 4-Isopropyltoluene	18.366		0m	N.D.	d	
73) 1,3-Dichlorobenzene	18.401		0m	N.D.	d	
74) 1,4-Dichlorobenzene	18.484		0m	N.D.	d	
75) n-Butylbenzene	18.805		0m	N.D.	d	
76) 1,2-Dichlorobenzene	18.900		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	20.690		0m	N.D.	d	
79) Hexachlorobutadiene	20.868		0m	N.D.	d	
80) Naphthalene	21.022		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	21.342		0m	N.D.	d	
83) Chlorotrifluoroethylene	4.613	116	848094	159.98	ug/L	100
84) 2-Chloro-1,1,1-trifluo...	5.460	118	1339005	167.13	ug/L	99
85) Acrolein	7.610	56	275664	276.89	ug/L	100
86) Trichlorotrifluoroethane	7.871	85	537087	269.92	ug/L	98
87) Isopropyl Alcohol	8.156	45	1320383	2608.33	ug/L	100
88) Allyl chloride	8.523	41	3412743	265.28	ug/L	100
89) tert-Butyl Alcohol	8.891	59	1870940	2483.27	ug/L	97
90) Acrylonitrile	9.128	53	695343	261.49	ug/L	100
91) Isopropyl ether	10.029	45	1410506	52.77	ug/L	99
92) 2-Chloro-1,3-butadiene	10.077	53	709268	58.49	ug/L	100
93) Ethyl tert-butyl ether	10.599	59	1116564	52.48	ug/L	100
94) Ethyl acetate	10.883	43	1901069	239.42	ug/L	100
95) Propionitrile	10.871	54	261063	247.65	ug/L	99
96) Methacrylonitrile	11.108	41	1241033	259.85	ug/L	100
97) Tetrahydrofuran	11.239	42	610863	253.40	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20624.D
Acq On : 5 Dec 2009 10:35 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-19|ICV|1|VOAF|1|
Misc : ICV 5ML MIX[B]UVM091118-08B+UVM091105-02D
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Dec 07 08:12:03 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	Isobutyl alcohol	11.820	41	702709	2467.96 ug/L	100
99)	Methyl tert-amyl ether	12.176	73	975651	52.36 ug/L	97
100)	Methyl methacrylate	13.219	69	1218835	268.72 ug/L	98
101)	1,4-Dioxane	13.290	88	182884	2508.75 ug/L	99
102)	2-Nitropropane	13.694	43	620211	238.02 ug/L	100
104)	Ethyl methacrylate	14.654	69	2358589	269.61 ug/L	99
106)	1-Chlorohexane	15.899	55	443048	57.65 ug/L	96
107)	cis-1,4-Dichloro-2-butene	17.061	53	828947	278.93 ug/L	97
108)	Cyclohexanone	17.156	42	453505	796.45 ug/L	96
109)	trans-1,4-Dichloro-2-b...	17.358	53	779276	268.36 ug/L	100
110)	Pentachloroethane	18.058	167	701538	212.80 ug/L	95
111)	Benzyl chloride	18.603	91	3428454	230.32 ug/L	99
112)	bis(2-Chloroisopropyl)...	19.006	45	1265517	266.03 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 2O624.D
Acq On : 5 Dec 2009 10:35 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091205-19|ICV|1|VOAF|1|
Misc : ICV 5ML MIX[B]UVM091118-08B+UVM091105-02D
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Dec 07 08:12:03 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

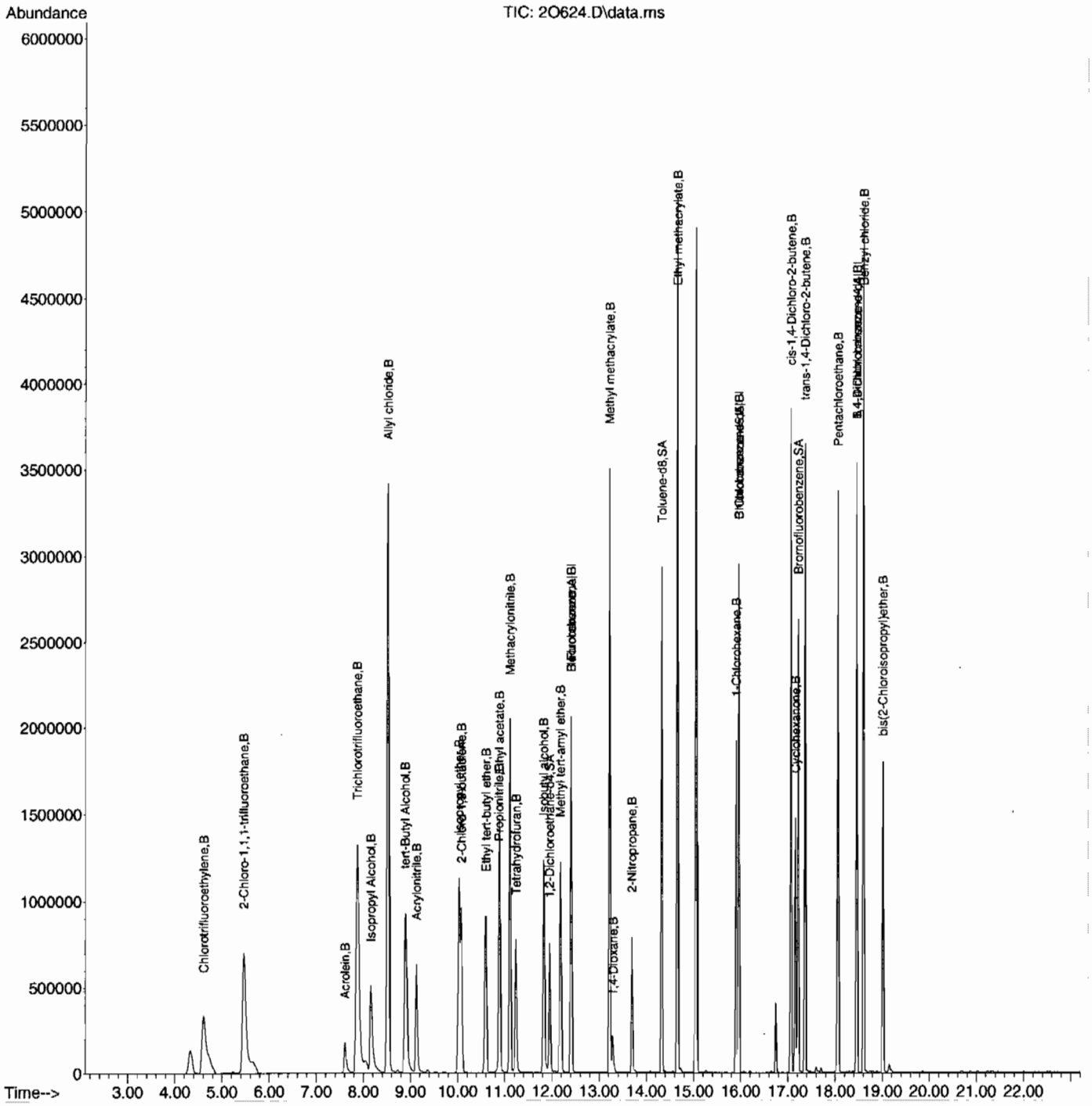

Continuing Calibration Summary

Client SDG: 10-1020

Instrument ID: VOA2.I **Injection Date** 28-DEC-09 19:57

Data File: 122809V2.b\2S128.D **Init. Cal. Date(s)** 05-DEC-09 12:22 - 05-DEC-09 21:3

Lab Sample ID W2VM091228-05 **Quant Type** ISTD **Method:** 120509V2.b\VOA2-8260-120509.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.2871	0.29993		.01		4.46883	30		Averaged	
S	Toluene-d8	1.1957	1.12968		.01		-5.52145	30		Averaged	
S	Bromofluorobenzene	0.7962	0.77964		.01		-2.07988	30		Averaged	
	Dichlorodifluoromethane	0.1653	0.1427		.01		-13.67211	30		Averaged	
	Chloromethane	0.1581	0.14458		.1		-8.55155	30		Averaged	spcc
	Vinyl chloride	0.1765	0.16577		.01		-6.07932	20		Averaged	ccc
	Bromomethane	0.1352	0.12813		.01		-5.22929	30		Averaged	
	Chloroethane	0.1194	0.10892		.01		-8.77722	30		Averaged	
	Trichlorofluoromethane	0.2755	0.27569		.01		0.06897	30		Averaged	
	Ethyl ether	0.1668	0.16236		.01		-2.66187	30		Averaged	
	1,1-Dichloroethylene	0.2516	0.2543		.01		1.07313	20		Averaged	ccc
	Acetone	0.1325	0.127		.01		-4.15094	40		Averaged	
	Iodomethane	0.3347	0.34469		.01		2.98476	30		Averaged	
	Carbon disulfide	0.5371	0.56276		.01		4.77751	30		Averaged	
	Acetonitrile	0.025	0.02249		.01		-10.04	30		Averaged	
	Methyl acetate	0.1555	0.15532		.01		-0.11576	40		Averaged	
	Methylene chloride	0.2149	0.20374		.01		-5.19311	30		Averaged	
	trans-1,2-Dichloroethylene	0.2864	0.28763		.01		0.42947	30		Averaged	
	tert-Butyl methyl ether	0.4025	0.4225		.01		4.96894	30		Averaged	
	1,1-Dichloroethane	0.3616	0.36447		.1		0.79369	30		Averaged	spcc
	Vinyl acetate	0.4062	0.4489		.01		10.51206	40		Averaged	
	2-Butanone	0.1499	0.15228		.01		1.58773	40		Averaged	
	cis-1,2-Dichloroethylene	0.3183	0.32426		.01		1.87245	30		Averaged	
	2,2-Dichloropropane	0.2239	0.24656		.01		10.12059	30		Averaged	
	Bromochloromethane	0.1183	0.12615		.01		6.63567	30		Averaged	
	Chloroform	0.3852	0.40151		.01		4.23416	20		Averaged	ccc
	1,1,1-Trichloroethane	0.3047	0.33551		.01		10.11159	30		Averaged	
	Cyclohexane	0.2866	0.29049		.01		1.35729	30		Averaged	
	1,1-Dichloropropene	0.2624	0.27647		.01		5.36204	30		Averaged	
	Carbon tetrachloride	0.2788	0.32213		.01		15.54161	30		Averaged	
	1,2-Dichloroethane	0.3022	0.31654		.01		4.7452	30		Averaged	
	Benzene	0.7984	0.78442		.01		-1.751	30		Averaged	
	Cyclohexene	0.3801	0.38499		.01		1.2865	30		Averaged	
	n-Butyl alcohol	5000	4679.48	5000			-6.4104	40		Linear	
	Trichloroethylene	0.2231	0.23143		.01		3.73375	30		Averaged	
	1,2-Dichloropropane	0.2054	0.20718		.01		0.8666	20		Averaged	ccc
	Methylcyclohexane	0.326	0.34209		.01		4.93558	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA2.I **Injection Date** 28-DEC-09 19:57

Data File: 122809V2.b\2S128.D **Init. Cal. Date(s)** 05-DEC-09 12:22 05-DEC-09 21:3

Lab Sample ID W2VM091228-05 **Quant Type** ISTD **Method:** 120509V2.b\VOA2-8260-120509.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.1298	0.13921		.01		7.24961	30		Averaged	
Bromodichloromethane	0.261	0.30658		.01		17.4636	30		Averaged	
2-Chloroethylvinyl ether	0.1232	0.10702		.01		-13.13312	30		Averaged	
cis-1,3-Dichloropropylene	0.2881	0.32707		.01		13.52655	30		Averaged	
4-Methyl-2-pentanone	0.1	0.09573		.01		-4.27	40		Averaged	
Toluene	1.1134	1.0112		.01		-9.17909	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.3297	0.35809		.01		8.61086	30		Averaged	
1,1,2-Trichloroethane	0.1909	0.18142		.01		-4.96595	30		Averaged	
1,3-Dichloropropane	0.3879	0.36399		.01		-6.16396	30		Averaged	
Tetrachloroethylene	0.2873	0.2638		.01		-8.1796	30		Averaged	
2-Hexanone	0.2905	0.2439		.01		-16.04131	40		Averaged	
Dibromochloromethane	50	47.77	50			-4.46	30		Linear	
1,2-Dibromoethane	0.2363	0.24037		.01		1.72239	30		Averaged	
Chlorobenzene	0.7929	0.73913		.3		-6.78144	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.2796	0.29511		.01		5.54721	30		Averaged	
Ethylbenzene	1.2654	1.19415		.01		-5.63063	20		Averaged	ccc
m,p-Xylenes	0.496	0.4649		.01		-6.27016	30		Averaged	
o-Xylene	0.4826	0.46122		.01		-4.43017	30		Averaged	
Styrene	0.723	0.77834		.01		7.65422	30		Averaged	
Bromoform	50	44.83	50			-10.34	30		Linear	spcc
Isopropylbenzene	2.06	1.95485		.01		-5.10437	30		Averaged	
1,1,2,2-Tetrachloroethane	0.4997	0.46616		.3		-6.71203	30		Averaged	spcc
1,2,3-Trichloropropane	0.145	0.13723		.01		-5.35862	30		Averaged	
Bromobenzene	0.6319	0.58555		.01		-7.33502	30		Averaged	
n-Propylbenzene	2.4875	2.29147		.01		-7.8806	30		Averaged	
2-Chlorotoluene	0.5585	0.52278		.01		-6.3957	30		Averaged	
1,3,5-Trimethylbenzene	1.7568	1.65397		.01		-5.85326	30		Averaged	
4-Chlorotoluene	1.5605	1.41911		.01		-9.06056	30		Averaged	
tert-Butylbenzene	0.3951	0.38548		.01		-2.43483	30		Averaged	
1,2,4-Trimethylbenzene	1.8045	1.70912		.01		-5.28567	30		Averaged	
sec-Butylbenzene	2.3219	2.2108		.01		-4.78487	30		Averaged	
4-Isopropyltoluene	1.8661	1.833		.01		-1.77375	30		Averaged	
1,3-Dichlorobenzene	1.2096	1.11417		.01		-7.88938	30		Averaged	
1,4-Dichlorobenzene	1.2554	1.1294		.01		-10.03664	30		Averaged	
n-Butylbenzene	1.7968	1.72027		.01		-4.25924	30		Averaged	
1,2-Dichlorobenzene	1.1554	1.06961		.01		-7.42513	30		Averaged	
1,2-Dibromo-3-chloropropane	50	43.93	50			-12.14	30		Linear	

Continuing Calibration Summary

Instrument ID: VOA2.I **Injection Dat** 28-DEC-09 19:57

Data File: 122809V2.b\2S128.D **Init. Cal. Date(s)** 05-DEC-09 12:22 05-DEC-09 21:3

Lab Sample ID W2VM091228-05 **Quant Type** ISTD **Method:** 120509V2.b\VOA2-8260-120509.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8802	0.8443		.01		-4.07862	30		Averaged
Hexachlorobutadiene	0.5173	0.50695		.01		-2.00077	30		Averaged
Naphthalene	1.7488	1.74995		.01		0.06576	30		Averaged
1,2,3-Trichlorobenzene	0.8062	0.7956		.01		-1.31481	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S128.D
Acq On : 28 Dec 2009 7:57 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091228-05|CCV|1|VOAF|1|VOA8260BL|
Misc : CCV 5ML - MIX[A]1214-01C+1228-01
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Dec 29 06:24:41 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	12.413	96	1659573	50.00 ug/L	0.00
41) Chlorobenzene-d5	15.959	117	1472762	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	932829	50.00 ug/L	0.00
82) B Fluorobenzene	12.413	96	1659573	50.00 ug/L	0.01
103) B Chlorobenzene-d5	15.959	117	1472762	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	932829	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	11.950	65	497759	52.23 ug/L	-0.01
43) Toluene-d8	14.322	98	1663746	47.24 ug/L	-0.01
61) Bromofluorobenzene	17.216	95	727273	48.96 ug/L	0.00
Target Compounds					Qvalue
2) Dichlorodifluoromethane	4.687	85	236819	43.16 ug/L	100
3) Chloromethane	5.014	50	239935	45.73 ug/L	100
4) Vinyl chloride	5.266	62	275105	46.97 ug/L	99
5) Bromomethane	5.980	94	212638	47.38 ug/L	99
6) Chloroethane	6.223	64	180754	45.63 ug/L	99
7) Trichlorofluoromethane	6.792	101	457532	50.03 ug/L	99
8) Ethyl ether	7.385	59	269454	48.66 ug/L	100
9) Acetone	7.907	43	1053803	239.67 ug/L	99
10) 1,1-Dichloroethylene	7.847	61	422030	50.55 ug/L	99
11) Iodomethane	8.132	142	2860177	257.46 ug/L	98
12) Acetonitrile	8.417	41	933191	1124.40 ug/L	99
13) Methyl acetate	8.535	43	1288781	249.67 ug/L	100
14) Carbon disulfide	8.286	76	4669724	261.94 ug/L	100
15) Methylene chloride	8.737	84	338123	47.41 ug/L	99
16) tert-Butyl methyl ether	9.235	73	701164	52.48 ug/L	99
17) trans-1,2-Dichloroethy...	9.235	61	477345	50.22 ug/L	99
18) Vinyl acetate	9.982	43	3724893	276.29 ug/L	100
19) 1,1-Dichloroethane	9.923	63	604872	50.40 ug/L	100
20) 2-Butanone	10.800	43	1263593	254.01 ug/L	100
21) cis-1,2-Dichloroethylene	10.824	61	538126	50.94 ug/L	99
22) 2,2-Dichloropropane	10.836	77	409188	55.05 ug/L	98
23) Bromochloromethane	11.168	128	209360	53.32 ug/L	98
24) Chloroform	11.263	83	666341	52.12 ug/L	100
25) 1,1,1-Trichloroethane	11.571	97	556803	55.06 ug/L	99
26) Cyclohexane	11.678	56	482094	50.67 ug/L	99
27) 1,1-Dichloropropene	11.784	75	458814	52.69 ug/L	100
28) Carbon tetrachloride	11.808	117	534599	57.76 ug/L	99
30) 1,2-Dichloroethane	12.057	62	525322	52.36 ug/L	100
31) Benzene	12.069	78	1301794	49.12 ug/L	99
32) Cyclohexene	12.211	67	638922	50.64 ug/L	100
33) n-Butyl alcohol	12.674	56	899980	4679.48 ug/L	99
34) Trichloroethylene	12.875	95	384078	51.88 ug/L	99
35) 1,2-Dichloropropane	13.148	63	343829	50.42 ug/L	100
36) Methylcyclohexane	13.160	83	567729	52.47 ug/L	100
37) Dibromomethane	13.290	93	231033	53.62 ug/L	100
38) Bromodichloromethane	13.456	83	508796	58.74 ug/L	99
39) 2-Chloroethylvinyl ether	13.777	63	888002	217.16 ug/L	99
40) cis-1,3-Dichloropropylene	13.990	75	542791	56.77 ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S128.D
Acq On : 28 Dec 2009 7:57 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091228-05|CCV|1|VOAF|1|VOA8260BL|
Misc : CCV 5ML - MIX[A]1214-01C+1228-01
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Dec 29 06:24:41 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 4-Methyl-2-pentanone	14.132	58	704903	239.27 ug/L	99
44) Toluene	14.405	91	1489250	45.41 ug/L	99
45) trans-1,3-Dichloroprop...	14.595	75	527383	54.31 ug/L	97
46) 1,1,2-Trichloroethane	14.820	83	267192	47.52 ug/L	100
47) 2-Hexanone	15.057	43	1796061	209.90 ug/L	100
48) 1,3-Dichloropropane	15.022	76	536068	46.91 ug/L	89
49) Tetrachloroethylene	15.046	164	388513	45.91 ug/L	99
50) Dibromochloromethane	15.306	129	429928	47.77 ug/L	99
51) 1,2-Dibromoethane	15.461	107	354008	50.85 ug/L	99
52) Chlorobenzene	15.994	112	1088569	46.61 ug/L	100
53) 1,1,1,2-Tetrachloroethane	16.065	131	434622	52.77 ug/L	99
54) Ethylbenzene	16.089	91	1758703	47.18 ug/L	99
55) m,p-Xylenes	16.208	106	1369375	93.73 ug/L	99
56) o-Xylene	16.646	106	679263	47.78 ug/L	99
57) Styrene	16.646	104	1146313	53.83 ug/L	98
59) Bromoform	16.895	173	325334	44.83 ug/L	100
60) Isopropylbenzene	17.026	105	1823542	47.45 ug/L	100
62) 1,1,2,2-Tetrachloroethane	17.310	83	434851	46.65 ug/L	100
63) 1,2,3-Trichloropropane	17.382	110	128009	47.33 ug/L	97
64) Bromobenzene	17.417	156	546219	46.33 ug/L	100
65) n-Propylbenzene	17.465	91	2137554	46.06 ug/L	100
66) 1,3,5-Trimethylbenzene	17.631	105	1542871	47.07 ug/L	100
67) 2-Chlorotoluene	17.607	126	487667	46.81 ug/L	99
68) 4-Chlorotoluene	17.702	91	1323788	45.47 ug/L	100
69) tert-Butylbenzene	18.010	134	359587	48.79 ug/L	99
70) 1,2,4-Trimethylbenzene	18.046	105	1594319	47.36 ug/L	100
71) sec-Butylbenzene	18.235	105	2062294	47.61 ug/L	100
72) 4-Isopropyltoluene	18.366	119	1709873	49.11 ug/L	100
73) 1,3-Dichlorobenzene	18.401	146	1039333	46.06 ug/L	100
74) 1,4-Dichlorobenzene	18.484	146	1053539	44.98 ug/L	99
75) n-Butylbenzene	18.805	91	1604715	47.87 ug/L	100
76) 1,2-Dichlorobenzene	18.900	146	997766	46.29 ug/L	100
77) 1,2-Dibromo-3-chloropr...	19.706	157	106464	43.93 ug/L	99
78) 1,2,4-Trichlorobenzene	20.690	180	787587	47.96 ug/L	100
79) Hexachlorobutadiene	20.868	225	472898	49.00 ug/L	99
80) Naphthalene	21.022	128	1632400	50.03 ug/L	99
81) 1,2,3-Trichlorobenzene	21.331	180	742154	49.34 ug/L	99
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	7.563		0m	N.D. d	
86) Trichlorotrifluoroethane	7.871		0m	N.D. d	
87) Isopropyl Alcohol	8.061		0m	N.D. d	
88) Allyl chloride	8.417		0m	N.D. d	
89) tert-Butyl Alcohol	8.938		0m	N.D. d	
90) Acrylonitrile	9.235		0m	N.D. d	
91) Isopropyl ether	9.982		0m	N.D. d	
92) 2-Chloro-1,3-butadiene	10.077		0m	N.D. d	
93) Ethyl tert-butyl ether	10.599		0m	N.D. d	
94) Ethyl acetate	10.800		0m	N.D. d	
95) Propionitrile	10.800		0m	N.D. d	
96) Methacrylonitrile	11.108		0m	N.D. d	
97) Tetrahydrofuran	11.263		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S128.D
Acq On : 28 Dec 2009 7:57 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091228-05|CCV|1|VOAF|1|VOA8260BL|
Misc : CCV 5ML - MIX[A]1214-01C+1228-01
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Dec 29 06:24:41 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	Isobutyl alcohol	0.000		0	N.D.	
99)	Methyl tert-amyl ether	12.211		0m	N.D.	d
100)	Methyl methacrylate	13.160		0m	N.D.	d
101)	1,4-Dioxane	13.290		0m	N.D.	d
102)	2-Nitropropane	13.765		0m	N.D.	d
104)	Ethyl methacrylate	14.654		0m	N.D.	d
106)	1-Chlorohexane	15.959		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	17.026		0m	N.D.	d
108)	Cyclohexanone	17.156		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	17.358		0m	N.D.	d
110)	Pentachloroethane	18.058		0m	N.D.	d
111)	Benzyl chloride	18.603		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	19.006		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S128.D
Acq On    : 28 Dec 2009   7:57 pm
Operator  : CDS1
InstName  : VOA2
Sample    : |W2VM091228-05|CCV|1|VOAF|1|VOA8260BL|
Misc      : CCV 5ML - MIX[A]1214-01C+1228-01
ALS Vial  : 28   Sample Multiplier: 1

Quant Time: Dec 29 06:24:41 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE
```

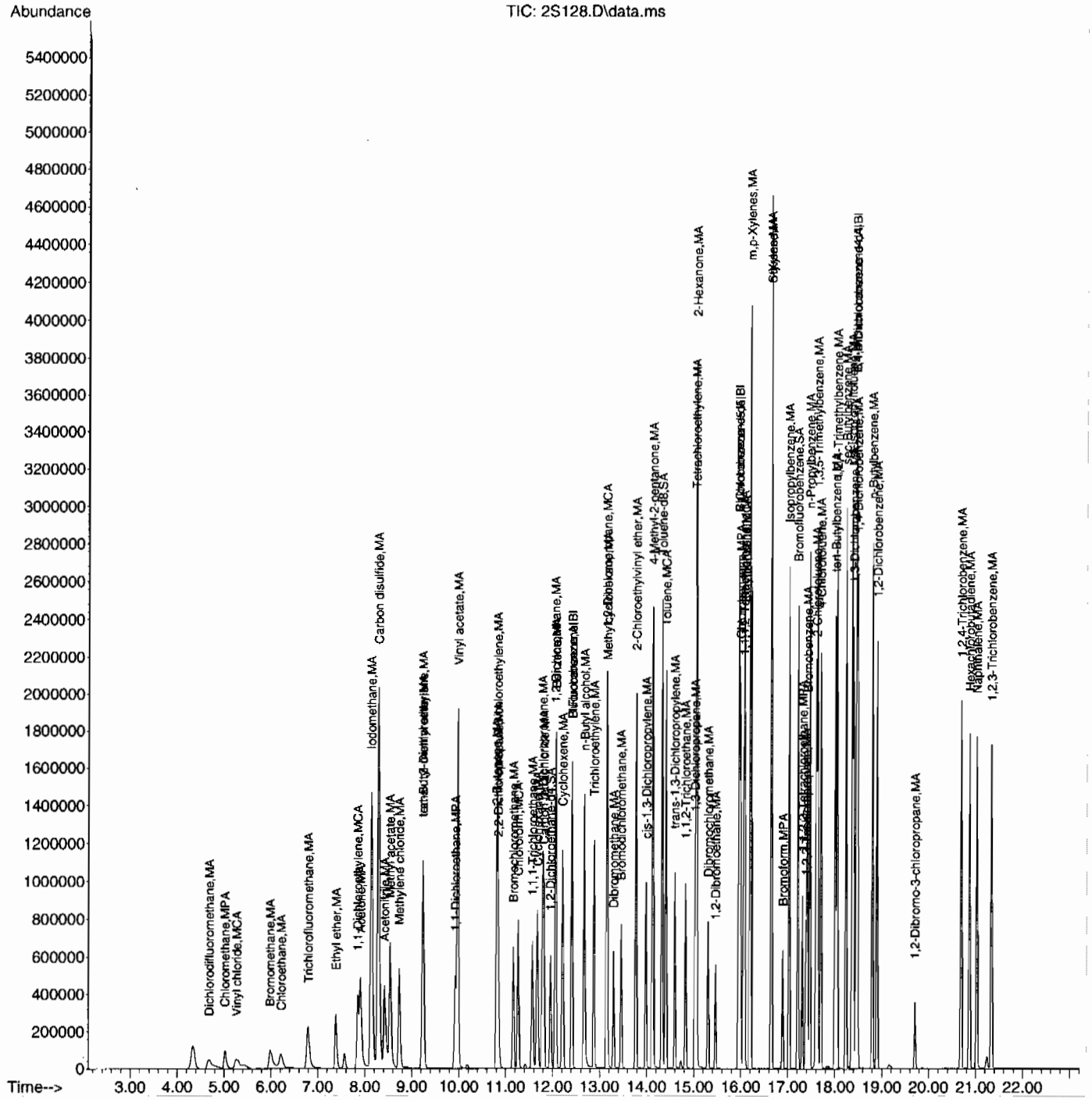

Continuing Calibration Summary

Client SDG: 10-1020

Instrument ID: VOA2.I **Injection Date** 28-DEC-09 21:24

Data File: 122809V2.b\2S131.D **Init. Cal. Date(s)** 05-DEC-09 12:22 - 05-DEC-09 21:3

Lab Sample ID W2VM091228-08 **Quant Type** ISTD **Method:** 120509V2.b\VOA2-8260-120509.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.2871	0.30688		.01		6.88959	30		Averaged
S	Toluene-d8	1.1957	1.1749		.01		-1.73957	30		Averaged
S	Bromofluorobenzene	0.7962	0.83594		.01		4.99121	30		Averaged
	Acrolein	0.0246	0.03213		.01		30.60976	30	*	Averaged
	Trichlorotrifluoroethane	0.0491	0.06556		.01		33.52342	30	*	Averaged
	Allyl chloride	0.3176	0.40128		.01		26.34761	30		Averaged
	Acrylonitrile	0.0656	0.08243		.01		25.65549	30		Averaged
	2-Chloro-1,3-butadiene	0.2993	0.40249		.01		34.47711	30	*	Averaged
	Propionitrile	0.026	0.03022		.01		16.23077	30		Averaged
	Ethyl acetate	0.196	0.23		.01		17.34694	40		Averaged
	Methacrylonitrile	0.1179	0.14991		.01		27.15013	30		Averaged
	Tetrahydrofuran	0.0595	0.07274		.01		22.2521	30		Averaged
	Isobutyl alcohol	0.007	0.00783		.01		11.85714	40		Averaged
	Methyl methacrylate	0.112	0.14862		.01		32.69643	30	*	Averaged
	1,4-Dioxane	0.0018	0.00164		.01		-8.88889	40		Averaged
	2-Nitropropane	250	312.7	250			25.08	30		Linear
	Ethyl methacrylate	0.2691	0.32884		.01		22.19993	30		Averaged
	cis-1,4-Dichloro-2-butene	0.1523	0.19719		.01		29.47472	30		Averaged
	Cyclohexanone	0.0292	0.01384		.01		-52.60274	40	*	Averaged
	trans-1,4-Dichloro-2-butene	0.1488	0.18759		.01		26.06855	30		Averaged
	Pentachloroethane	0.1689	0.28605		.01		69.36057	30	*	Averaged
	Benzyl chloride	250	321.08	250			28.432	30		Linear
	bis(2-Chloroisopropyl)ether	0.2438	0.28228		.01		15.78343	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S131.D
Acq On : 28 Dec 2009 9:24 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091228-08|CCV|1|VOAF|1|VOA8260BL|
Misc : CCV 5ML - MIX[B] UVM091216-08A
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Dec 29 06:28:51 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	12.389	96	1607462	50.00	ug/L	-0.02
41) Chlorobenzene-d5	15.959	117	1407189	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	881552	50.00	ug/L	0.00
82) B Fluorobenzene	12.389	96	1607462	50.00	ug/L	-0.01
103) B Chlorobenzene-d5	15.959	117	1407189	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	881552	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	11.939	65	493291	53.44	ug/L	-0.02
43) Toluene-d8	14.322	98	1653305	49.13	ug/L	-0.01
61) Bromofluorobenzene	17.216	95	736928	52.49	ug/L	0.00

Target Compounds				Qvalue
2) Dichlorodifluoromethane	0.000	0	N.D.	
3) Chloromethane	5.014	0m	N.D. d	
4) Vinyl chloride	0.000	0	N.D.	
5) Bromomethane	0.000	0	N.D.	
6) Chloroethane	0.000	0	N.D.	
7) Trichlorofluoromethane	0.000	0	N.D.	
8) Ethyl ether	0.000	0	N.D.	
9) Acetone	0.000	0	N.D.	
10) 1,1-Dichloroethylene	7.859	0m	N.D. d	
11) Iodomethane	8.120	0m	N.D. d	
12) Acetonitrile	8.500	0m	N.D. d	
13) Methyl acetate	8.535	0m	N.D. d	
14) Carbon disulfide	8.262	0m	N.D. d	
15) Methylene chloride	8.713	0m	N.D. d	
16) tert-Butyl methyl ether	0.000	0	N.D.	
17) trans-1,2-Dichloroethy...	9.211	0m	N.D. d	
18) Vinyl acetate	9.958	0m	N.D. d	
19) 1,1-Dichloroethane	0.000	0	N.D.	
20) 2-Butanone	10.871	0m	N.D. d	
21) cis-1,2-Dichloroethylene	10.871	0m	N.D. d	
22) 2,2-Dichloropropane	0.000	0	N.D.	
23) Bromochloromethane	11.156	0m	N.D. d	
24) Chloroform	11.251	0m	N.D. d	
25) 1,1,1-Trichloroethane	0.000	0	N.D.	
26) Cyclohexane	0.000	0	N.D.	
27) 1,1-Dichloropropene	11.808	0m	N.D. d	
28) Carbon tetrachloride	0.000	0	N.D.	
30) 1,2-Dichloroethane	12.033	0m	N.D. d	
31) Benzene	12.057	0m	N.D. d	
32) Cyclohexene	0.000	0	N.D.	
33) n-Butyl alcohol	12.662	0m	N.D. d	
34) Trichloroethylene	12.875	0m	N.D. d	
35) 1,2-Dichloropropane	0.000	0	N.D.	
36) Methylcyclohexane	13.207	0m	N.D. d	
37) Dibromomethane	13.279	0m	N.D. d	
38) Bromodichloromethane	13.445	0m	N.D. d	
39) 2-Chloroethylvinyl ether	0.000	0	N.D.	
40) cis-1,3-Dichloropropylene	13.978	0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S131.D
Acq On : 28 Dec 2009 9:24 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091228-08|CCV|1|VOAF|1|VOA8260BL|
Misc : CCV 5ML - MIX[B] UVM091216-08A
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Dec 29 06:28:51 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) 4-Methyl-2-pentanone	14.121		0m	N.D. d	
44) Toluene	14.393		0m	N.D. d	
45) trans-1,3-Dichloroprop...	14.595		0m	N.D. d	
46) 1,1,2-Trichloroethane	0.000		0	N.D.	
47) 2-Hexanone	15.057		0m	N.D. d	
48) 1,3-Dichloropropane	15.069		0m	N.D. d	
49) Tetrachloroethylene	15.045		0m	N.D. d	
50) Dibromochloromethane	15.294		0m	N.D. d	
51) 1,2-Dibromoethane	15.449		0m	N.D. d	
52) Chlorobenzene	15.982		0m	N.D. d	
53) 1,1,1,2-Tetrachloroethane	16.053		0m	N.D. d	
54) Ethylbenzene	16.077		0m	N.D. d	
55) m,p-Xylenes	16.196		0m	N.D. d	
56) o-Xylene	16.646		0m	N.D. d	
57) Styrene	16.646		0m	N.D. d	
59) Bromoform	0.000		0	N.D.	
60) Isopropylbenzene	17.026		0m	N.D. d	
62) 1,1,2,2-Tetrachloroethane	17.299		0m	N.D. d	
63) 1,2,3-Trichloropropane	0.000		0	N.D.	
64) Bromobenzene	17.417		0m	N.D. d	
65) n-Propylbenzene	17.465		0m	N.D. d	
66) 1,3,5-Trimethylbenzene	17.631		0m	N.D. d	
67) 2-Chlorotoluene	17.595		0m	N.D. d	
68) 4-Chlorotoluene	17.702		0m	N.D. d	
69) tert-Butylbenzene	18.058		0m	N.D. d	
70) 1,2,4-Trimethylbenzene	18.081		0m	N.D. d	
71) sec-Butylbenzene	18.235		0m	N.D. d	
72) 4-Isopropyltoluene	18.366		0m	N.D. d	
73) 1,3-Dichlorobenzene	18.401		0m	N.D. d	
74) 1,4-Dichlorobenzene	18.484		0m	N.D. d	
75) n-Butylbenzene	18.805		0m	N.D. d	
76) 1,2-Dichlorobenzene	18.899		0m	N.D. d	
77) 1,2-Dibromo-3-chloropr...	19.706		0m	N.D. d	
78) 1,2,4-Trichlorobenzene	20.690		0m	N.D. d	
79) Hexachlorobutadiene	20.868		0m	N.D. d	
80) Naphthalene	21.022		0m	N.D. d	
81) 1,2,3-Trichlorobenzene	21.330		0m	N.D. d	
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	7.586	56	258228	326.85 ug/L	95
86) Trichlorotrifluoroethane	7.859	85	526892	333.68 ug/L	99
87) Isopropyl Alcohol	0.000		0m	N.D. d	
88) Allyl chloride	8.500	41	3225202	315.91 ug/L	98
89) tert-Butyl Alcohol	0.000		0	N.D.	
90) Acrylonitrile	9.104	53	662546	313.97 ug/L	100
91) Isopropyl ether	10.065	45	146	N.D.	
92) 2-Chloro-1,3-butadiene	10.065	53	646989	67.24 ug/L	95
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	10.871	43	1848564	293.37 ug/L	100
95) Propionitrile	10.859	54	242891	290.34 ug/L	99
96) Methacrylonitrile	11.097	41	1204881	317.90 ug/L	100
97) Tetrahydrofuran	11.215	42	584660	305.62 ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S131.D
Acq On : 28 Dec 2009 9:24 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091228-08|CCV|1|VOAF|1|VOA8260BL|
Misc : CCV 5ML - MIX[B] UVM091216-08A
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Dec 29 06:28:51 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98)	Isobutyl alcohol	11.808	41	629139	2784.33 ug/L	98
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	13.207	69	1194469	331.85 ug/L	99
101)	1,4-Dioxane	13.267	88	131441	2272.08 ug/L	100
102)	2-Nitropropane	13.694	43	652322	312.70 ug/L	99
104)	Ethyl methacrylate	14.654	69	2313716	305.50 ug/L	99
106)	1-Chlorohexane	0.000		0m	N.D. d	
107)	cis-1,4-Dichloro-2-butene	17.061	53	869167	323.72 ug/L	98
108)	Cyclohexanone	17.144	42	304910	592.72 ug/L	98
109)	trans-1,4-Dichloro-2-b...	17.358	53	826863	315.18 ug/L	97
110)	Pentachloroethane	18.058	167	1260835	423.32 ug/L	98
111)	Benzyl chloride	18.603	91	4319907	321.08 ug/L	99
112)	bis(2-Chloroisopropyl)...	19.006	45	1244206	289.50 ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S131.D
Acq On : 28 Dec 2009 9:24 pm
Operator : CDS1
InstName : VOA2
Sample : |W2VM091228-08|CCV|1|VOAF|1|VOA8260BL|
Misc : CCV 5ML - MIX[B] UVM091216-08A
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Dec 29 06:28:51 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

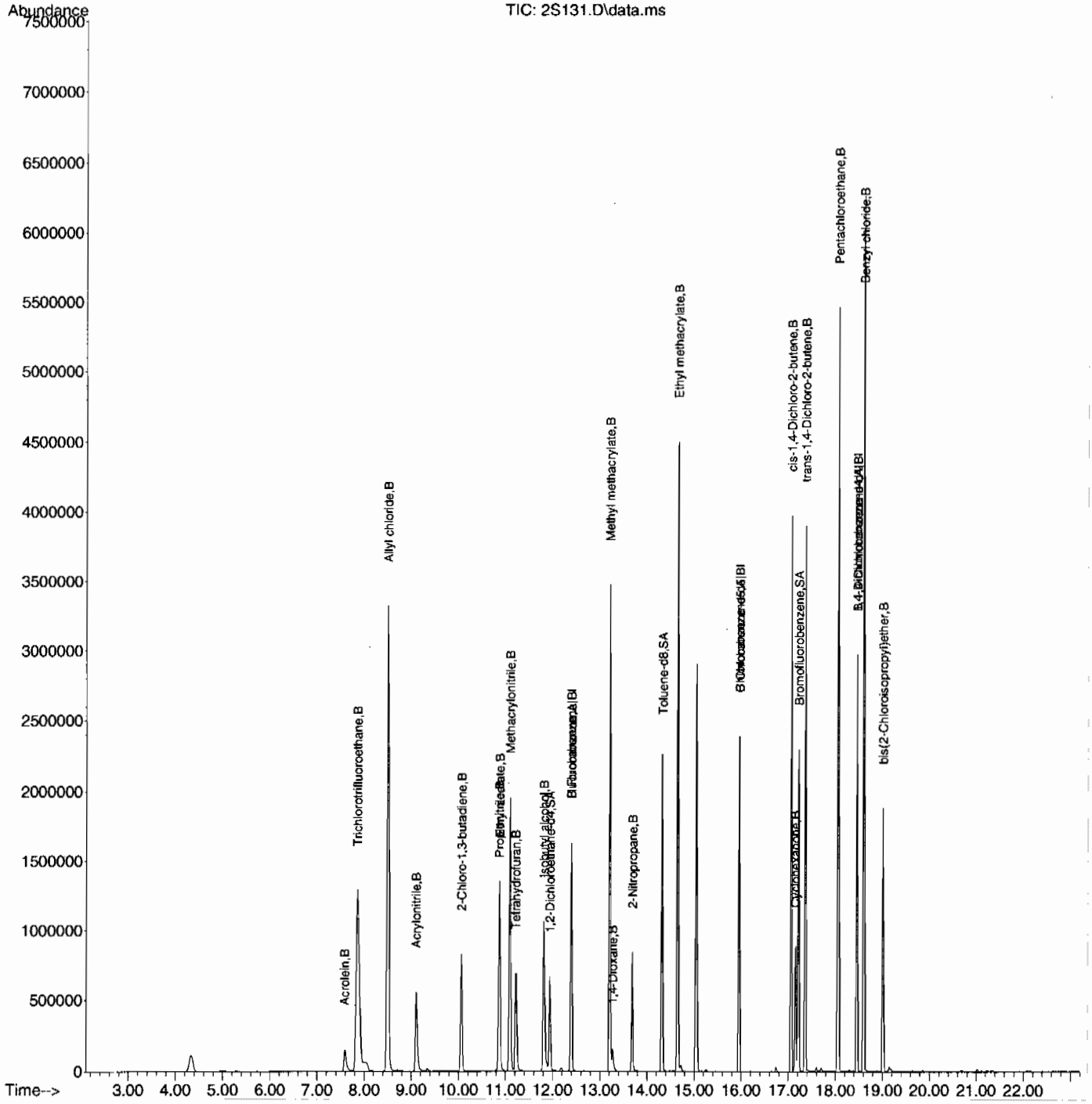

Quality Control Data

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\120509V2.b\
Data File : 20601.D
Acq On : 5 Dec 2009 11:26 am
Operator : CDS1
Sample : |UVM091117-02|BFB|1|VOAF|1|
Misc : BFB01
ALS Vial : 1 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Title : Volatile Organics 8260B SubList :
Last Update : Mon Dec 07 07:06:27 2009

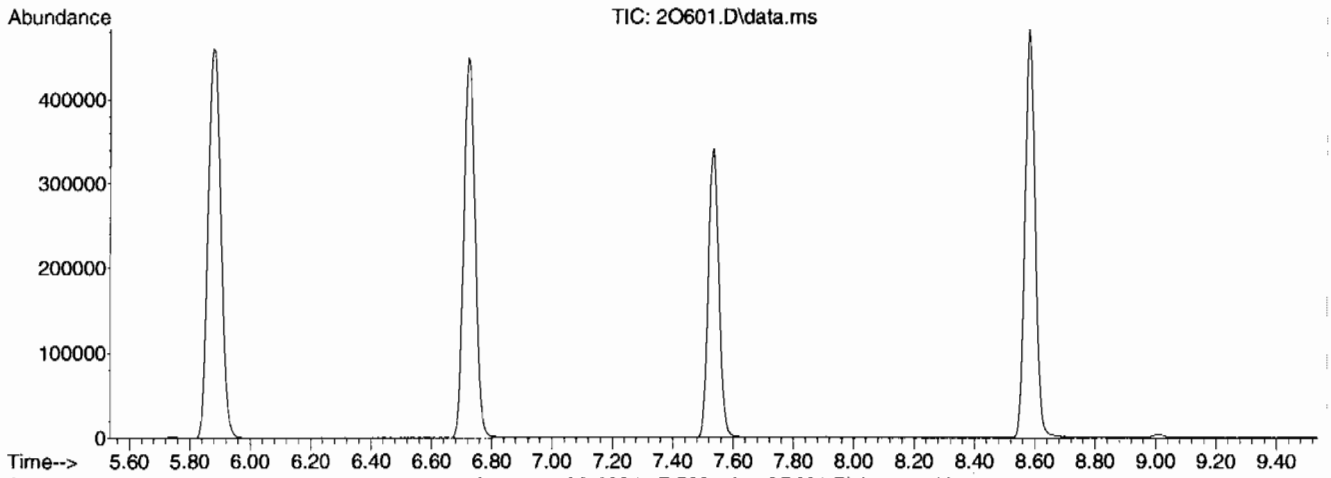

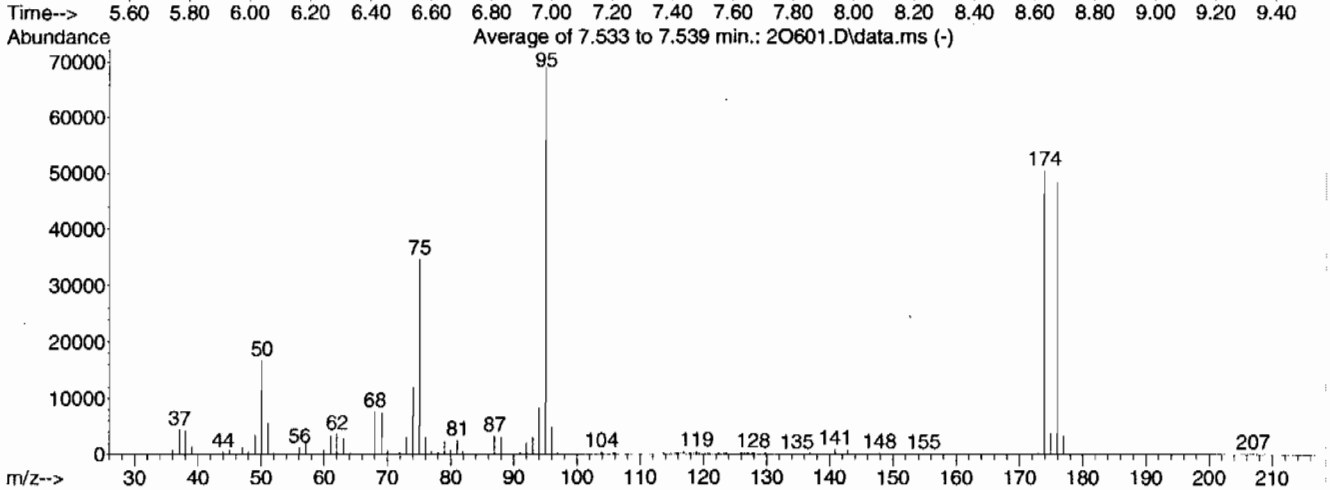

AutoFind: Scans 931, 932, 933; Background Corrected with Scan 913

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	24.2	16704	PASS
75	95	30	60	50.2	34632	PASS
95	95	100	100	100.0	68957	PASS
96	95	5	9	7.2	4984	PASS
173	174	0.00	2	0.6	304	PASS
174	95	50	100	73.2	50467	PASS
175	174	5	9	7.4	3744	PASS
176	174	95	101	95.6	48224	PASS
177	176	5	9	6.8	3283	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S127.D
Acq On : 28 Dec 2009 7:30 pm
Operator : CDS1
Sample : |UVM091117-02|BFB2|1|VOAF|1|
Misc : BFB01
ALS Vial : 27 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Title : Volatile Organics 8260B SubList :
Last Update : Mon Dec 07 08:11:25 2009

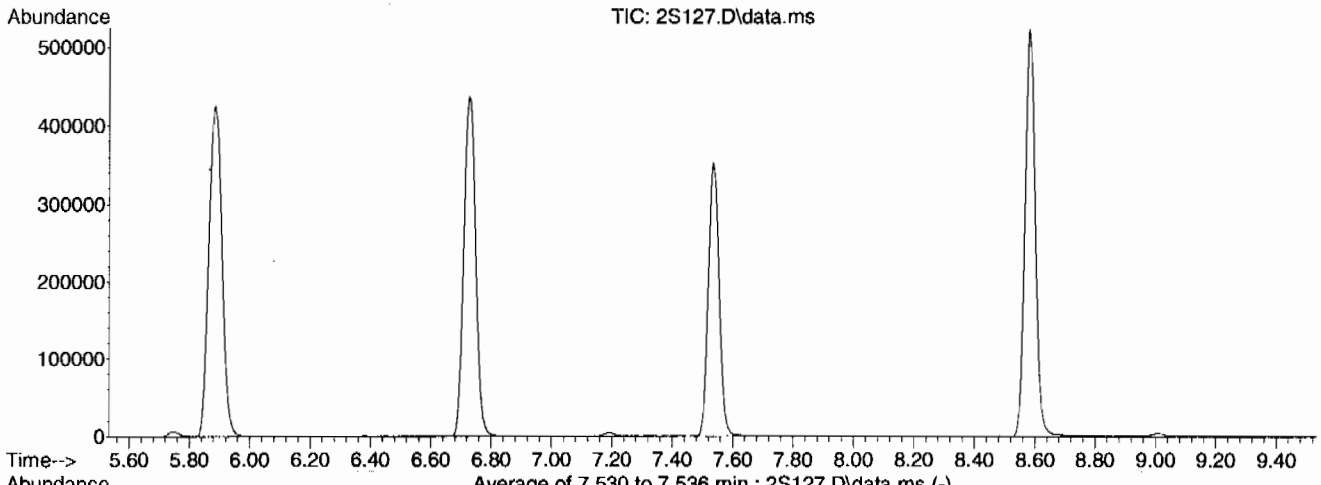

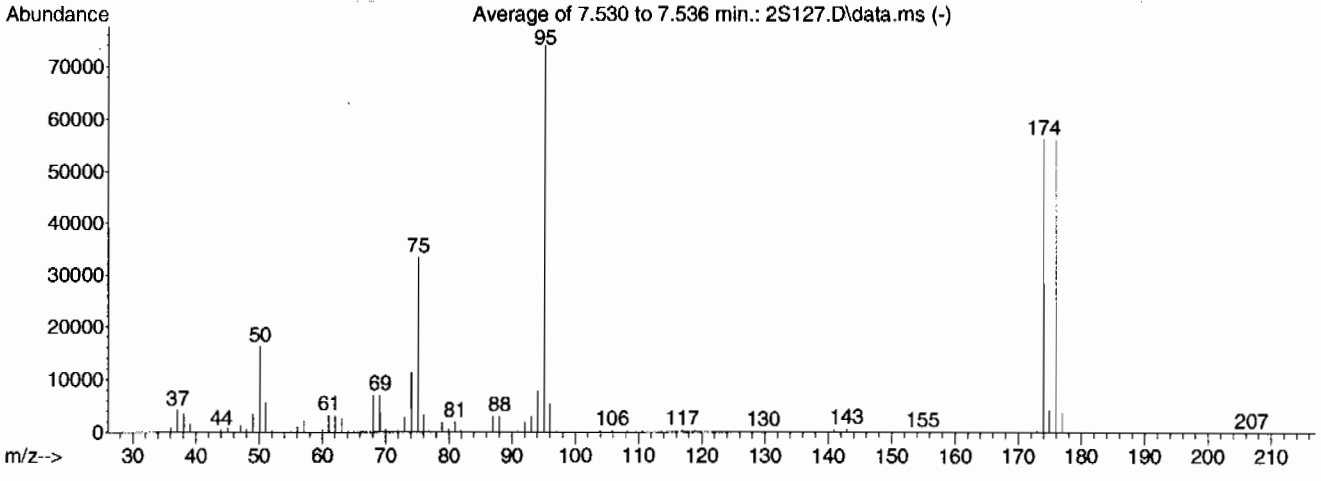

Spectrum Information: Average of 7.530 to 7.536 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.0	16231	PASS
75	95	30	60	45.1	33363	PASS
95	95	100	100	100.0	73928	PASS
96	95	5	9	7.2	5291	PASS
173	174	0.00	2	0.6	356	PASS
174	95	50	100	76.1	56224	PASS
175	174	5	9	7.5	4210	PASS
176	174	95	101	99.8	56117	PASS
177	176	5	9	6.6	3729	PASS

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202005361**				
Client Sample:	**QC for batch 937152**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937152**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/28/2009 22:22**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/28/2009 22:22**				
Data File:	**122809V2.b\2S133.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020			Matrix:	GROUND WATER
Lab Sample ID:	1202005361				
Client Sample:	QC for batch 937152	Client:	LANL010	Project:	QC
Client ID:	MB for batch 937152	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	937152	Inst:	VOA2.I	Dilution:	1
Run Date:	12/28/2009 22:22	Analyst:	CDS1	Purge Vol:	5 mL
Prep Date:	12/28/2009 22:22				
Data File:	122809V2.b\2S133.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202005361**				
Client Sample:	**QC for batch 937152**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937152**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/28/2009 22:22**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/28/2009 22:22**				
Data File:	**122809V2.b\2S133.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	52.5	50.0	ug/L	105	(59%-130%)
Bromofluorobenzene	50.0	50.0	ug/L	100	(71%-126%)
Toluene-d8	48.6	50.0	ug/L	97.1	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown	4.33	9.5	ug/L	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S133.D
Acq On : 28 Dec 2009 10:22 pm
Operator : CDS1
InstName : VOA2
Sample : |1202005361|937152|1|VOA|1|VOA8260BL|
Misc : BLANK 5ML
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Dec 29 06:32:50 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Fluorobenzene	12.401	96	1588133	50.00 ug/L	-0.01
41) Chlorobenzene-d5	15.958	117	1380288	50.00 ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	864546	50.00 ug/L	0.00
82) B Fluorobenzene	12.401	96	1588133	50.00 ug/L	0.00
103) B Chlorobenzene-d5	15.958	117	1380288	50.00 ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	864546	50.00 ug/L	0.00
System Monitoring Compounds					
29) 1,2-Dichloroethane-d4	11.950	65	478547	52.47 ug/L	-0.01
Spiked Amount 50.000	Range 59 - 130		Recovery = 104.94%		
43) Toluene-d8	14.322	98	1602372	48.55 ug/L	-0.01
Spiked Amount 50.000	Range 76 - 129		Recovery = 97.10%		
61) Bromofluorobenzene	17.215	95	688746	50.03 ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 100.06%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.	
3) Chloromethane	5.029	50	458	N.D.	
4) Vinyl chloride	0.000		0	N.D.	
5) Bromomethane	0.000		0	N.D.	
6) Chloroethane	0.000		0	N.D.	
7) Trichlorofluoromethane	0.000		0	N.D.	
8) Ethyl ether	0.000		0	N.D.	
9) Acetone	7.954	43	1730	N.D.	
10) 1,1-Dichloroethylene	0.000		0	N.D.	
11) Iodomethane	8.132	142	157	N.D.	
12) Acetonitrile	8.511	41	1949	N.D.	
13) Methyl acetate	0.000		0	N.D.	
14) Carbon disulfide	8.274	76	1806	N.D.	
15) Methylene chloride	8.725	84	3868	N.D.	
16) tert-Butyl methyl ether	0.000		0	N.D.	
17) trans-1,2-Dichloroethy...	0.000		0	N.D.	
18) Vinyl acetate	9.994	43	409	N.D.	
19) 1,1-Dichloroethane	0.000		0	N.D.	
20) 2-Butanone	10.836	43	292	N.D.	
21) cis-1,2-Dichloroethylene	0.000		0	N.D.	
22) 2,2-Dichloropropane	0.000		0	N.D.	
23) Bromochloromethane	0.000		0	N.D.	
24) Chloroform	11.262	83	235	N.D.	
25) 1,1,1-Trichloroethane	0.000		0	N.D.	
26) Cyclohexane	0.000		0	N.D.	
27) 1,1-Dichloropropene	0.000		0	N.D.	
28) Carbon tetrachloride	0.000		0	N.D.	
30) 1,2-Dichloroethane	0.000		0	N.D.	
31) Benzene	12.057	78	517	N.D.	
32) Cyclohexene	0.000		0	N.D.	
33) n-Butyl alcohol	0.000		0	N.D.	
34) Trichloroethylene	0.000		0	N.D.	
35) 1,2-Dichloropropane	0.000		0	N.D.	
36) Methylcyclohexane	0.000		0	N.D.	
37) Dibromomethane	0.000		0	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S133.D
Acq On : 28 Dec 2009 10:22 pm
Operator : CDS1
InstName : VOA2
Sample : |1202005361|937152|1|VOA|1|VOA8260BL|
Misc : BLANK 5ML
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Dec 29 06:32:50 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) Bromodichloromethane	0.000		0	N.D.	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000		0	N.D.	
44) Toluene	14.405	91	800	N.D.	
45) trans-1,3-Dichloroprop...	0.000		0	N.D.	
46) 1,1,2-Trichloroethane	0.000		0	N.D.	
47) 2-Hexanone	15.057	43	583	N.D.	
48) 1,3-Dichloropropane	0.000		0	N.D.	
49) Tetrachloroethylene	15.045	164	484	N.D.	
50) Dibromochloromethane	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000		0	N.D.	
52) Chlorobenzene	15.994	112	960	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.	
54) Ethylbenzene	16.077	91	498	N.D.	
55) m,p-Xylenes	16.196	106	374	N.D.	
56) o-Xylene	0.000		0	N.D.	
57) Styrene	16.646	104	362	N.D.	
59) Bromoform	0.000		0	N.D.	
60) Isopropylbenzene	0.000		0	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000		0	N.D.	
64) Bromobenzene	17.417	156	536	N.D.	
65) n-Propylbenzene	17.465	91	697	N.D.	
66) 1,3,5-Trimethylbenzene	17.631	105	181	N.D.	
67) 2-Chlorotoluene	0.000		0	N.D.	
68) 4-Chlorotoluene	17.702	91	1265	N.D.	
69) tert-Butylbenzene	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	18.081	105	844	N.D.	
71) sec-Butylbenzene	18.235	105	118	N.D.	
72) 4-Isopropyltoluene	0.000		0	N.D.	
73) 1,3-Dichlorobenzene	18.401	146	1310	N.D.	
74) 1,4-Dichlorobenzene	18.484	146	2138	N.D.	
75) n-Butylbenzene	18.805	91	546	N.D.	
76) 1,2-Dichlorobenzene	18.899	146	1033	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	20.690	180	1310	N.D.	
79) Hexachlorobutadiene	0.000		0	N.D.	
80) Naphthalene	21.022	128	3515	N.D.	
81) 1,2,3-Trichlorobenzene	21.342	180	982	N.D.	
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	7.681	56	896	N.D.	
86) Trichlorotrifluoroethane	0.000		0	N.D.	
87) Isopropyl Alcohol	8.061	45	139	N.D.	
88) Allyl chloride	8.511	41	1949	N.D.	
89) tert-Butyl Alcohol	0.000		0	N.D.	
90) Acrylonitrile	9.140	53	1205	N.D.	
91) Isopropyl ether	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	10.895	43	1471	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S133.D
Acq On : 28 Dec 2009 10:22 pm
Operator : CDS1
InstName : VOA2
Sample : |1202005361|937152|1|VOA|1|VOA8260BL|
Misc : BLANK 5ML
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Dec 29 06:32:50 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	10.907	54	248	N.D.	
96)	Methacrylonitrile	11.120	41	1123	N.D.	
97)	Tetrahydrofuran	11.251	42	662	N.D.	
98)	Isobutyl alcohol	11.832	41	231	N.D.	
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	13.219	69	579	N.D.	
101)	1,4-Dioxane	0.000		0	N.D.	
102)	2-Nitropropane	0.000		0m	N.D.	d
104)	Ethyl methacrylate	14.654	69	929	N.D.	
106)	1-Chlorohexane	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	17.061	53	980	N.D.	
108)	Cyclohexanone	17.156	42	638	N.D.	
109)	trans-1,4-Dichloro-2-b...	17.358	53	1490	N.D.	
110)	Pentachloroethane	18.057	167	118	N.D.	
111)	Benzyl chloride	18.603	91	4072	N.D.	
112)	bis(2-Chloroisopropyl)...	19.006	45	1473	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S133.D
Acq On : 28 Dec 2009 10:22 pm
Operator : CDS1
InstName : VOA2
Sample : |1202005361|937152|1|VOA|1|VOA8260BL|
Misc : BLANK 5ML
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Dec 29 06:32:50 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

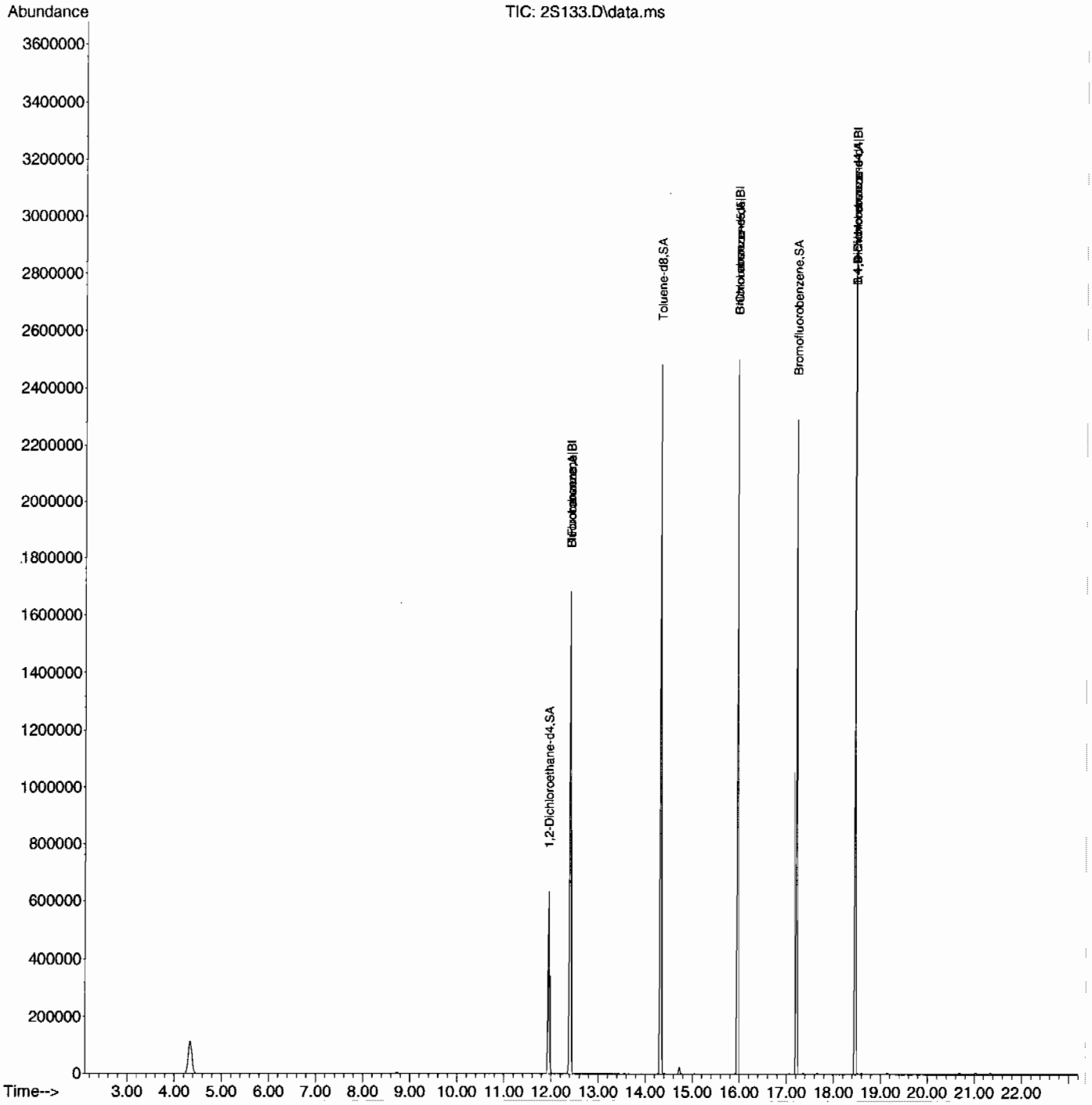

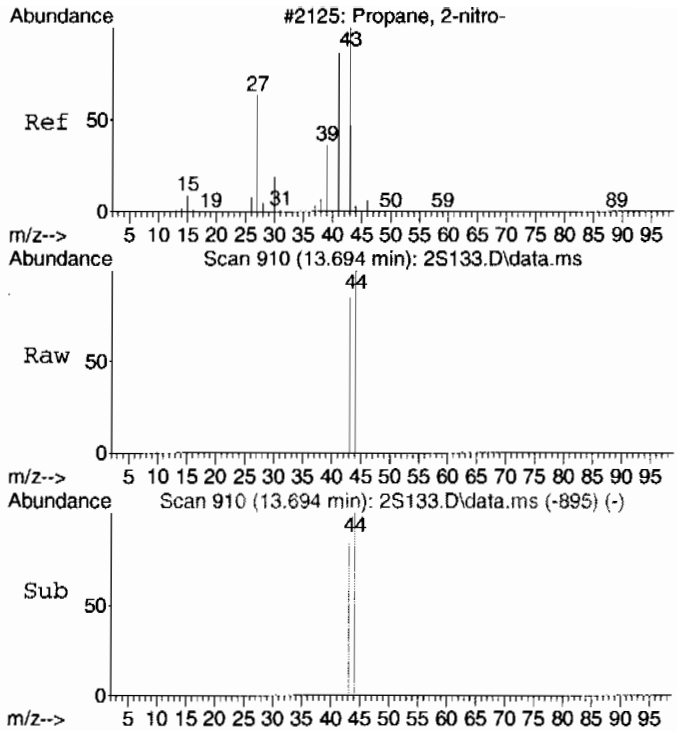

#102 BEFORE analyst DELETION
2-Nitropropane
Concen: 8.56 ug/L
RT: 13.694 min Scan# 910
Delta R.T. -0.001 min
Lab File: 2S133.D
Acq: 28 Dec 2009 10:22 pm

Tgt Ion: 43 Resp: 137

Ion	Ratio	Lower	Upper
43	100		
41	0.0	54.1	114.1#

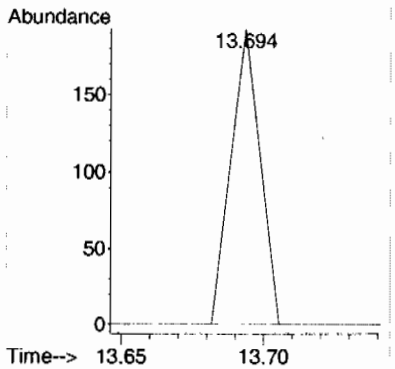

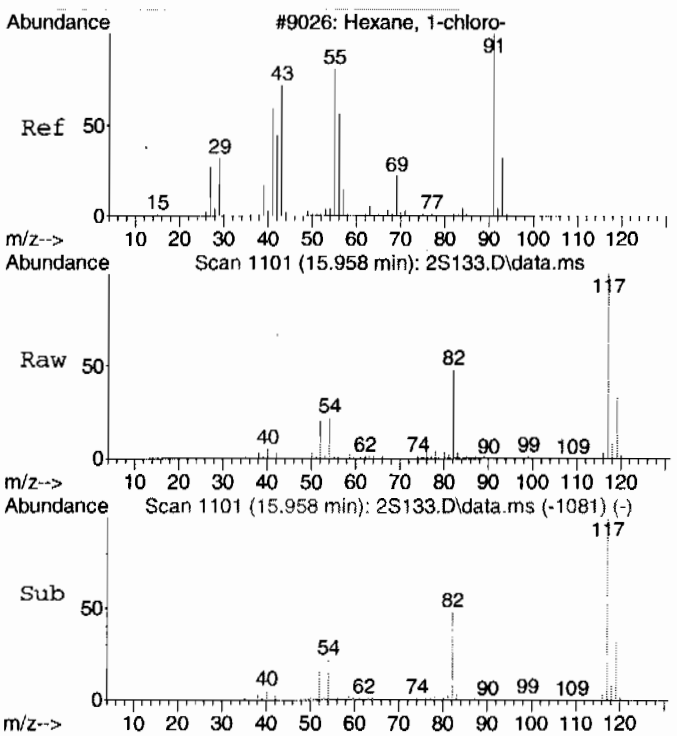

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.97 ug/L
RT: 15.958 min Scan# 1101
Delta R.T. 0.059 min
Lab File: 2S133.D
Acq: 28 Dec 2009 10:22 pm

Tgt Ion: 55 Resp: 13442

Ion	Ratio	Lower	Upper
55	100		
91	19.2	112.5	172.5#
56	56.5	29.7	89.7

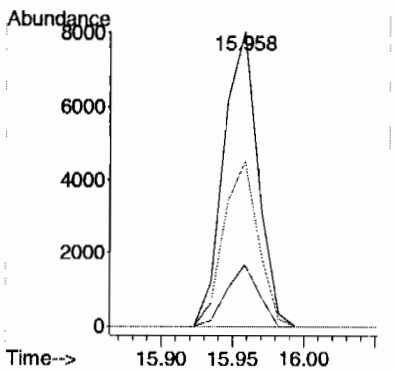

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S133.D
Acq On : 28 Dec 2009 10:22 pm
Operator : CDS1
Sample : |1202005361|937152|1|VOA|1|VOA8260BL|
Misc : BLANK 5ML
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.330	9.50 ug/L	629429	Fluorobenzene	12.401

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	3

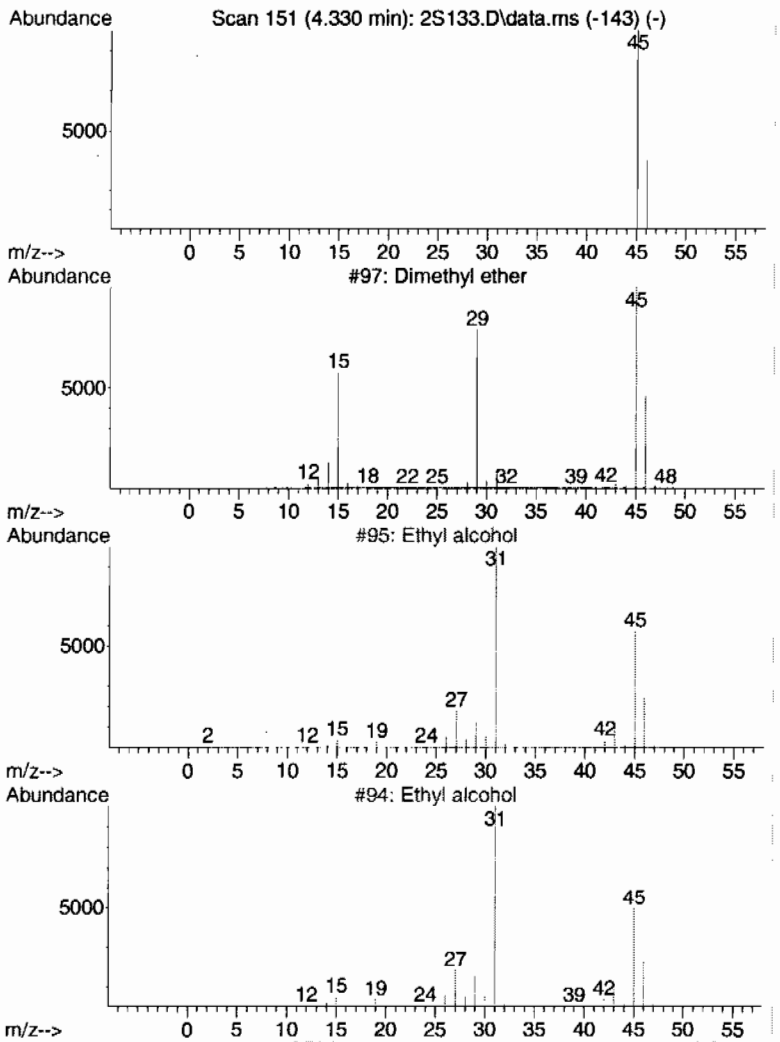

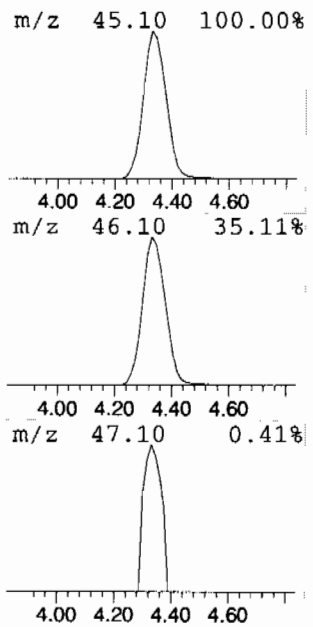

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S133.D
Acq On : 28 Dec 2009 10:22 pm
Operator : CDS1
Sample : |1202005361|937152|1|VOA|1|VOA8260BL|
Misc : BLANK 5ML
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown	4.330	9.5	ug/L	629429	1	12.401	3313590	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202005364**				
Client Sample:	**QC for batch 937152**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937152**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/28/2009 20:26**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/28/2009 20:26**				
Data File:	**122809V2.b\2S129.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		48.9	ug/L	0.300	1.00
74-87-3	Chloromethane		50.2	ug/L	0.300	1.00
75-01-4	Vinyl chloride		53.5	ug/L	0.500	1.00
74-83-9	Bromomethane		53.7	ug/L	0.300	1.00
75-00-3	Chloroethane		51.9	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		57.3	ug/L	0.300	1.00
60-29-7	Ethyl ether		54.2	ug/L	0.300	1.00
67-64-1	Acetone		253	ug/L	3.50	10.0
75-05-8	Acetonitrile		1200	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		58.8	ug/L	0.300	1.00
74-88-4	Iodomethane		302	ug/L	1.25	5.00
75-09-2	Methylene chloride		54.3	ug/L	3.00	10.0
75-15-0	Carbon disulfide		303	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		57.2	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		57.0	ug/L	0.300	1.00
108-05-4	Vinyl acetate		306	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		57.5	ug/L	0.300	1.00
78-93-3	2-Butanone		271	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		57.5	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		63.5	ug/L	0.300	1.00
67-66-3	Chloroform		58.9	ug/L	0.250	1.00
74-97-5	Bromochloromethane		60.1	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		63.7	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		60.5	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		5190	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		67.0	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		57.9	ug/L	0.250	1.00
71-43-2	Benzene		55.8	ug/L	0.300	1.00
79-01-6	Trichloroethylene		59.5	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		56.5	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		66.8	ug/L	0.250	1.00
74-95-3	Dibromomethane		59.7	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		261	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		64.6	ug/L	0.250	1.00
108-88-3	Toluene		51.7	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		61.3	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		52.6	ug/L	0.250	1.00
591-78-6	2-Hexanone		228	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202005364**				
Client Sample:	**QC for batch 937152**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937152**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/28/2009 20:26**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/28/2009 20:26**				
Data File:	**122809V2.b\2S129.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		52.3	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		53.2	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		53.8	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		56.7	ug/L	0.250	1.00
108-90-7	Chlorobenzene		53.6	ug/L	0.250	1.00
100-41-4	Ethylbenzene		53.8	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		107	ug/L	0.500	2.00
95-47-6	o-Xylene		54.3	ug/L	0.300	1.00
100-42-5	Styrene		61.1	ug/L	0.250	1.00
75-25-2	Bromoform		51.1	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		51.2	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		52.3	ug/L	0.300	1.00
108-86-1	Bromobenzene		53.2	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		52.7	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		54.3	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		54.6	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		53.9	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		51.6	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		55.6	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		54.1	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		54.2	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		56.9	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		52.6	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		51.5	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		54.5	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		49.4	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		57.3	ug/L	0.300	1.00
91-20-3	Naphthalene		56.8	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		56.1	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202005364**				
Client Sample:	**QC for batch 937152**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937152**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/28/2009 20:26**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/28/2009 20:26**				
Data File:	**122809V2.b\2S129.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		60.7	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		55.1	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		52.9	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	52.9	50.0	ug/L	106	(59%-130%)
Bromofluorobenzene	50.7	50.0	ug/L	101	(71%-126%)
Toluene-d8	48.7	50.0	ug/L	97.3	(76%-129%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S129.D
Acq On : 28 Dec 2009 8:26 pm
Operator : CDS1
InstName : VOA2
Sample : |1202005364|937152|1|VOA|1|VOA8260BL|
Misc : LCS 5ML - MIX[A]1214-01C+1228-01
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Dec 29 06:27:16 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	12.401	96	1643867	50.00	ug/L	-0.01
41) Chlorobenzene-d5	15.959	117	1447986	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	917807	50.00	ug/L	0.00
82) B Fluorobenzene	12.401	96	1643867	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.959	117	1447986	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	917807	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	11.950	65	499667	52.93	ug/L	-0.01
Spiked Amount 50.000	Range 59 - 130		Recovery = 105.86%			
43) Toluene-d8	14.322	98	1684447	48.65	ug/L	-0.01
Spiked Amount 50.000	Range 76 - 129		Recovery = 97.30%			
61) Bromofluorobenzene	17.216	95	740267	50.65	ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 101.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.687	85	265724	48.89	ug/L	100
3) Chloromethane	5.014	50	260733	50.17	ug/L	100
4) Vinyl chloride	5.281	62	310164	53.46	ug/L	100
5) Bromomethane	5.980	94	238520	53.65	ug/L	98
6) Chloroethane	6.211	64	203726	51.92	ug/L	99
7) Trichlorofluoromethane	6.780	101	519426	57.34	ug/L	99
8) Ethyl ether	7.373	59	297215	54.18	ug/L	100
9) Acetone	7.895	43	1102028	253.03	ug/L	99
10) 1,1-Dichloroethylene	7.835	61	486093	58.78	ug/L	100
11) Iodomethane	8.132	142	3323067	301.99	ug/L	99
12) Acetonitrile	8.405	41	988509	1202.43	ug/L	99
13) Methyl acetate	8.523	43	1402929	274.38	ug/L	99
14) Carbon disulfide	8.274	76	5358267	303.44	ug/L	100
15) Methylene chloride	8.725	84	383882	54.34	ug/L	98
16) tert-Butyl methyl ether	9.223	73	756970	57.20	ug/L	99
17) trans-1,2-Dichloroethy...	9.223	61	536799	57.01	ug/L	100
18) Vinyl acetate	9.970	43	4089928	306.27	ug/L	100
19) 1,1-Dichloroethane	9.911	63	682989	57.45	ug/L	99
20) 2-Butanone	10.788	43	1337614	271.46	ug/L	100
21) cis-1,2-Dichloroethylene	10.812	61	601358	57.47	ug/L	100
22) 2,2-Dichloropropane	10.836	77	467707	63.53	ug/L	96
23) Bromochloromethane	11.156	128	233580	60.06	ug/L	97
24) Chloroform	11.251	83	745937	58.90	ug/L	100
25) 1,1,1-Trichloroethane	11.559	97	637966	63.69	ug/L	99
26) Cyclohexane	11.666	56	549142	58.27	ug/L	99
27) 1,1-Dichloropropene	11.773	75	521978	60.51	ug/L	99
28) Carbon tetrachloride	11.796	117	613897	66.96	ug/L	99
30) 1,2-Dichloroethane	12.045	62	575231	57.89	ug/L	100
31) Benzene	12.057	78	1465782	55.84	ug/L	100
32) Cyclohexene	12.199	67	731300	58.52	ug/L	100
33) n-Butyl alcohol	12.662	56	991713	5192.06	ug/L	99
34) Trichloroethylene	12.875	95	436384	59.50	ug/L	100
35) 1,2-Dichloropropane	13.148	63	381727	56.52	ug/L	99
36) Methylcyclohexane	13.148	83	640252	59.74	ug/L	99
37) Dibromomethane	13.290	93	254704	59.68	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S129.D
Acq On : 28 Dec 2009 8:26 pm
Operator : CDS1
InstName : VOA2
Sample : |1202005364|937152|1|VOA|1|VOA8260BL|
Misc : LCS 5ML - MIX[A]1214-01C+1228-01
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Dec 29 06:27:16 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) Bromodichloromethane	13.456	83	572921	66.77 ug/L	100
39) 2-Chloroethylvinyl ether	13.765	63	915097	225.92 ug/L	99
40) cis-1,3-Dichloropropylene	13.978	75	611855	64.61 ug/L	100
42) 4-Methyl-2-pentanone	14.121	58	756181	261.07 ug/L	99
44) Toluene	14.405	91	1667136	51.71 ug/L	99
45) trans-1,3-Dichloroprop...	14.595	75	585255	61.30 ug/L	97
46) 1,1,2-Trichloroethane	14.820	83	290560	52.57 ug/L	98
47) 2-Hexanone	15.057	43	1917097	227.88 ug/L	100
48) 1,3-Dichloropropane	15.022	76	587738	52.32 ug/L	87
49) Tetrachloroethylene	15.045	164	442436	53.18 ug/L	99
50) Dibromochloromethane	15.294	129	477844	53.81 ug/L	99
51) 1,2-Dibromoethane	15.461	107	388312	56.74 ug/L	99
52) Chlorobenzene	15.994	112	1230816	53.60 ug/L	100
53) 1,1,1,2-Tetrachloroethane	16.065	131	491790	60.73 ug/L	99
54) Ethylbenzene	16.077	91	1970344	53.77 ug/L	99
55) m,p-Xylenes	16.196	106	1542989	107.42 ug/L	99
56) o-Xylene	16.646	106	758547	54.27 ug/L	99
57) Styrene	16.646	104	1278342	61.06 ug/L	99
59) Bromoform	16.895	173	367052	51.06 ug/L	100
60) Isopropylbenzene	17.026	105	2063006	54.56 ug/L	100
62) 1,1,2,2-Tetrachloroethane	17.310	83	469306	51.17 ug/L	100
63) 1,2,3-Trichloropropane	17.382	110	139116	52.28 ug/L	98
64) Bromobenzene	17.417	156	616649	53.16 ug/L	99
65) n-Propylbenzene	17.465	91	2404553	52.66 ug/L	99
66) 1,3,5-Trimethylbenzene	17.631	105	1737154	53.87 ug/L	100
67) 2-Chlorotoluene	17.595	126	556671	54.30 ug/L	98
68) 4-Chlorotoluene	17.702	91	1479036	51.63 ug/L	100
69) tert-Butylbenzene	18.010	134	403257	55.61 ug/L	99
70) 1,2,4-Trimethylbenzene	18.046	105	1793346	54.14 ug/L	99
71) sec-Butylbenzene	18.235	105	2310654	54.21 ug/L	100
72) 4-Isopropyltoluene	18.366	119	1948236	56.88 ug/L	99
73) 1,3-Dichlorobenzene	18.401	146	1166889	52.56 ug/L	100
74) 1,4-Dichlorobenzene	18.484	146	1186986	51.51 ug/L	99
75) n-Butylbenzene	18.805	91	1797503	54.50 ug/L	100
76) 1,2-Dichlorobenzene	18.899	146	1121872	52.90 ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.706	157	118774	49.43 ug/L	99
78) 1,2,4-Trichlorobenzene	20.690	180	890280	55.10 ug/L	100
79) Hexachlorobutadiene	20.868	225	543702	57.26 ug/L	100
80) Naphthalene	21.022	128	1822650	56.78 ug/L	99
81) 1,2,3-Trichlorobenzene	21.342	180	830755	56.14 ug/L	99
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	7.563		0m	N.D. d	
86) Trichlorotrifluoroethane	7.883		0m	N.D. d	
87) Isopropyl Alcohol	8.049		0m	N.D. d	
88) Allyl chloride	8.405		0m	N.D. d	
89) tert-Butyl Alcohol	8.926		0m	N.D. d	
90) Acrylonitrile	9.128		0m	N.D. d	
91) Isopropyl ether	9.970		0m	N.D. d	
92) 2-Chloro-1,3-butadiene	10.065		0m	N.D. d	
93) Ethyl tert-butyl ether	10.587		0m	N.D. d	
94) Ethyl acetate	10.788		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S129.D
Acq On : 28 Dec 2009 8:26 pm
Operator : CDS1
InstName : VOA2
Sample : |1202005364|937152|1|VOA|1|VOA8260BL|
Misc : LCS 5ML - MIX[A]1214-01C+1228-01
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Dec 29 06:27:16 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95) Propionitrile	10.871		0m	N.D. d	
96) Methacrylonitrile	11.108		0m	N.D. d	
97) Tetrahydrofuran	11.251		0m	N.D. d	
98) Isobutyl alcohol	11.950		0m	N.D. d	
99) Methyl tert-amyl ether	12.199		0m	N.D. d	
100) Methyl methacrylate	13.148		0m	N.D. d	
101) 1,4-Dioxane	13.290		0m	N.D. d	
102) 2-Nitropropane	13.765		0m	N.D. d	
104) Ethyl methacrylate	14.654		0m	N.D. d	
106) 1-Chlorohexane	15.959		0m	N.D. d	
107) cis-1,4-Dichloro-2-butene	17.026		0m	N.D. d	
108) Cyclohexanone	17.156		0m	N.D. d	
109) trans-1,4-Dichloro-2-b...	17.358		0m	N.D. d	
110) Pentachloroethane	18.058		0m	N.D. d	
111) Benzyl chloride	18.603		0m	N.D. d	
112) bis(2-Chloroisopropyl)...	19.006		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S129.D
Acq On : 28 Dec 2009 8:26 pm
Operator : CDS1
InstName : VOA2
Sample : |1202005364|937152|1|VOA|1|VOA8260BL|
Misc : LCS 5ML - MIX[A]1214-01C+1228-01
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Dec 29 06:27:16 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

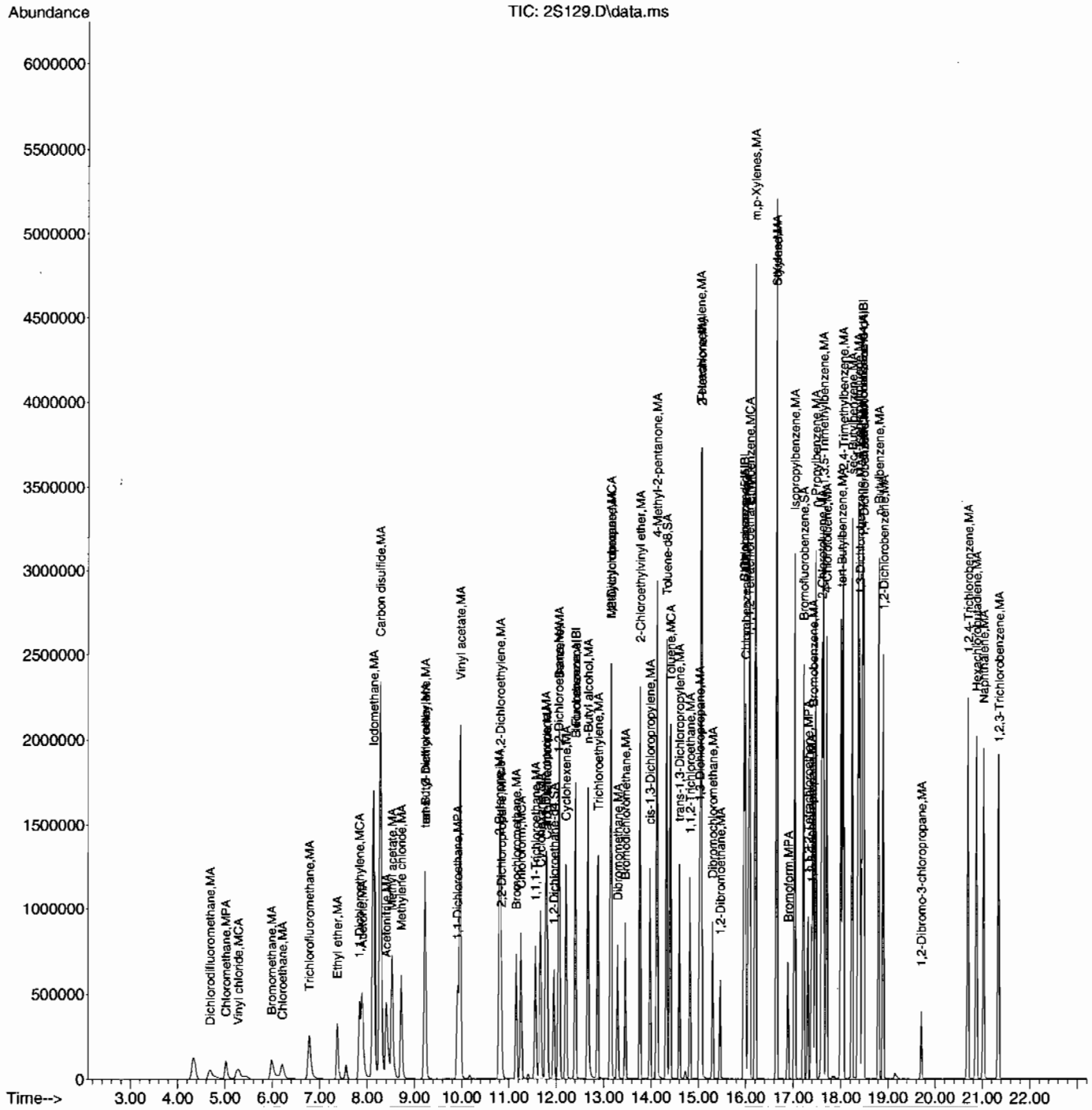

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020			**Matrix:**	GROUND WATER
Lab Sample ID:	1202005365				
Client Sample:	QC for batch 937152	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 937152	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	937152	**Inst:**	VOA2.I	**Dilution:**	1
Run Date:	12/28/2009 21:24	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	12/28/2009 21:24				
Data File:	122809V2.b\2S131SL.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202005365**				
Client Sample:	**QC for batch 937152**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937152**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/28/2009 21:24**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/28/2009 21:24**				
Data File:	**122809V2.b\2S131SL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein		327	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane		334	ug/L	1.00	5.00
107-05-1	Allyl chloride		316	ug/L	1.50	5.00
107-13-1	Acrylonitrile		314	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene		67.2	ug/L	0.300	1.00
107-12-0	Propionitrile		290	ug/L	1.50	5.00
126-98-7	Methacrylonitrile		318	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol		2780	ug/L	12.5	50.0
80-62-6	Methyl methacrylate		332	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202005365**				
Client Sample:	**QC for batch 937152**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937152**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.1**	**Dilution:**	**1**
Run Date:	**12/28/2009 21:24**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/28/2009 21:24**				
Data File:	**122809V2.b\2S131SL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate		306	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	53.4	50.0	ug/L	107	(59%-130%)
Bromofluorobenzene	52.5	50.0	ug/L	105	(71%-126%)
Toluene-d8	49.1	50.0	ug/L	98.3	(76%-129%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S131SL.D
Acq On : 28 Dec 2009 9:24 pm
Operator : CDS1
InstName : VOA2
Sample : |1202005365|937152|1|VOA|1|VOA8260BL|
Misc : LCS 5ML - MIX[B] UVM091216-08A
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Dec 29 06:28:51 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	12.389	96	1607462	50.00	ug/L	-0.02
41) Chlorobenzene-d5	15.959	117	1407189	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	881552	50.00	ug/L	0.00
82) B Fluorobenzene	12.389	96	1607462	50.00	ug/L	-0.01
103) B Chlorobenzene-d5	15.959	117	1407189	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	881552	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	11.939	65	493291	53.44	ug/L	-0.02
Spiked Amount 50.000	Range 59 - 130		Recovery = 106.88%			
43) Toluene-d8	14.322	98	1653305	49.13	ug/L	-0.01
Spiked Amount 50.000	Range 76 - 129		Recovery = 98.26%			
61) Bromofluorobenzene	17.216	95	736928	52.49	ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 104.98%			

Target Compounds			Qvalue
2) Dichlorodifluoromethane	0.000	0	N.D.
3) Chloromethane	5.014	0m	N.D. d
4) Vinyl chloride	0.000	0	N.D.
5) Bromomethane	0.000	0	N.D.
6) Chloroethane	0.000	0	N.D.
7) Trichlorofluoromethane	0.000	0	N.D.
8) Ethyl ether	0.000	0	N.D.
9) Acetone	0.000	0	N.D.
10) 1,1-Dichloroethylene	7.859	0m	N.D. d
11) Iodomethane	8.120	0m	N.D. d
12) Acetonitrile	8.500	0m	N.D. d
13) Methyl acetate	8.535	0m	N.D. d
14) Carbon disulfide	8.262	0m	N.D. d
15) Methylene chloride	8.713	0m	N.D. d
16) tert-Butyl methyl ether	0.000	0	N.D.
17) trans-1,2-Dichloroethy...	9.211	0m	N.D. d
18) Vinyl acetate	9.958	0m	N.D. d
19) 1,1-Dichloroethane	0.000	0	N.D.
20) 2-Butanone	10.871	0m	N.D. d
21) cis-1,2-Dichloroethylene	10.871	0m	N.D. d
22) 2,2-Dichloropropane	0.000	0	N.D.
23) Bromochloromethane	11.156	0m	N.D. d
24) Chloroform	11.251	0m	N.D. d
25) 1,1,1-Trichloroethane	0.000	0	N.D.
26) Cyclohexane	0.000	0	N.D.
27) 1,1-Dichloropropene	11.808	0m	N.D. d
28) Carbon tetrachloride	0.000	0	N.D.
30) 1,2-Dichloroethane	12.033	0m	N.D. d
31) Benzene	12.057	0m	N.D. d
32) Cyclohexene	0.000	0	N.D.
33) n-Butyl alcohol	12.662	0m	N.D. d
34) Trichloroethylene	12.875	0m	N.D. d
35) 1,2-Dichloropropane	0.000	0	N.D.
36) Methylcyclohexane	13.207	0m	N.D. d
37) Dibromomethane	13.279	0m	N.D. d

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S131SL.D
Acq On : 28 Dec 2009 9:24 pm
Operator : CDS1
InstName : VOA2
Sample : |1202005365|937152|1|VOA|1|VOA8260BL|
Misc : LCS 5ML - MIX[B] UVM091216-08A
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Dec 29 06:28:51 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) Bromodichloromethane	13.445		0m	N.D. d	
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	13.978		0m	N.D. d	
42) 4-Methyl-2-pentanone	14.121		0m	N.D. d	
44) Toluene	14.393		0m	N.D. d	
45) trans-1,3-Dichloroprop...	14.595		0m	N.D. d	
46) 1,1,2-Trichloroethane	0.000		0	N.D.	
47) 2-Hexanone	15.057		0m	N.D. d	
48) 1,3-Dichloropropane	15.069		0m	N.D. d	
49) Tetrachloroethylene	15.045		0m	N.D. d	
50) Dibromochloromethane	15.294		0m	N.D. d	
51) 1,2-Dibromoethane	15.449		0m	N.D. d	
52) Chlorobenzene	15.982		0m	N.D. d	
53) 1,1,1,2-Tetrachloroethane	16.053		0m	N.D. d	
54) Ethylbenzene	16.077		0m	N.D. d	
55) m,p-Xylenes	16.196		0m	N.D. d	
56) o-Xylene	16.646		0m	N.D. d	
57) Styrene	16.646		0m	N.D. d	
59) Bromoform	0.000		0	N.D.	
60) Isopropylbenzene	17.026		0m	N.D. d	
62) 1,1,2,2-Tetrachloroethane	17.299		0m	N.D. d	
63) 1,2,3-Trichloropropane	0.000		0	N.D.	
64) Bromobenzene	17.417		0m	N.D. d	
65) n-Propylbenzene	17.465		0m	N.D. d	
66) 1,3,5-Trimethylbenzene	17.631		0m	N.D. d	
67) 2-Chlorotoluene	17.595		0m	N.D. d	
68) 4-Chlorotoluene	17.702		0m	N.D. d	
69) tert-Butylbenzene	18.058		0m	N.D. d	
70) 1,2,4-Trimethylbenzene	18.081		0m	N.D. d	
71) sec-Butylbenzene	18.235		0m	N.D. d	
72) 4-Isopropyltoluene	18.366		0m	N.D. d	
73) 1,3-Dichlorobenzene	18.401		0m	N.D. d	
74) 1,4-Dichlorobenzene	18.484		0m	N.D. d	
75) n-Butylbenzene	18.805		0m	N.D. d	
76) 1,2-Dichlorobenzene	18.899		0m	N.D. d	
77) 1,2-Dibromo-3-chloropr...	19.706		0m	N.D. d	
78) 1,2,4-Trichlorobenzene	20.690		0m	N.D. d	
79) Hexachlorobutadiene	20.868		0m	N.D. d	
80) Naphthalene	21.022		0m	N.D. d	
81) 1,2,3-Trichlorobenzene	21.330		0m	N.D. d	
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	7.586	56	258228	326.85 ug/L	95
86) Trichlorotrifluoroethane	7.859	85	526892	333.68 ug/L	99
87) Isopropyl Alcohol	0.000		0m	N.D. d	
88) Allyl chloride	8.500	41	3225202	315.91 ug/L	98
89) tert-Butyl Alcohol	0.000		0	N.D.	
90) Acrylonitrile	9.104	53	662546	313.97 ug/L	100
91) Isopropyl ether	10.065	45	146	N.D.	
92) 2-Chloro-1,3-butadiene	10.065	53	646989	67.24 ug/L	95
93) Ethyl tert-butyl ether	0.000		0	N.D.	
94) Ethyl acetate	10.871	43	1848564	293.37 ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S131SL.D
Acq On : 28 Dec 2009 9:24 pm
Operator : CDS1
InstName : VOA2
Sample : |1202005365|937152|1|VOA|1|VOA8260BL|
Misc : LCS 5ML - MIX[B] UVM091216-08A
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Dec 29 06:28:51 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95)	Propionitrile	10.859	54	242891	290.34 ug/L	99
96)	Methacrylonitrile	11.097	41	1204881	317.90 ug/L	100
97)	Tetrahydrofuran	11.215	42	584660	305.62 ug/L	99
98)	Isobutyl alcohol	11.808	41	629139	2784.33 ug/L	98
99)	Methyl tert-amyl ether	0.000		0	N.D.	
100)	Methyl methacrylate	13.207	69	1194469	331.85 ug/L	99
101)	1,4-Dioxane	13.267	88	131441	2272.08 ug/L	100
102)	2-Nitropropane	13.694	43	652322	312.70 ug/L	99
104)	Ethyl methacrylate	14.654	69	2313716	305.50 ug/L	99
106)	1-Chlorohexane	0.000		0m	N.D. d	
107)	cis-1,4-Dichloro-2-butene	17.061	53	869167	323.72 ug/L	98
108)	Cyclohexanone	17.144	42	304910	592.72 ug/L	98
109)	trans-1,4-Dichloro-2-b...	17.358	53	826863	315.18 ug/L	97
110)	Pentachloroethane	18.058	167	1260835	423.32 ug/L	98
111)	Benzyl chloride	18.603	91	4319907	321.08 ug/L	99
112)	bis(2-Chloroisopropyl)...	19.006	45	1244206	289.50 ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S131SL.D
Acq On : 28 Dec 2009 9:24 pm
Operator : CDS1
InstName : VOA2
Sample : |1202005365|937152|1|VOA|1|VOA8260BL|
Misc : LCS 5ML - MIX[B] UVM091216-08A
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Dec 29 06:28:51 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

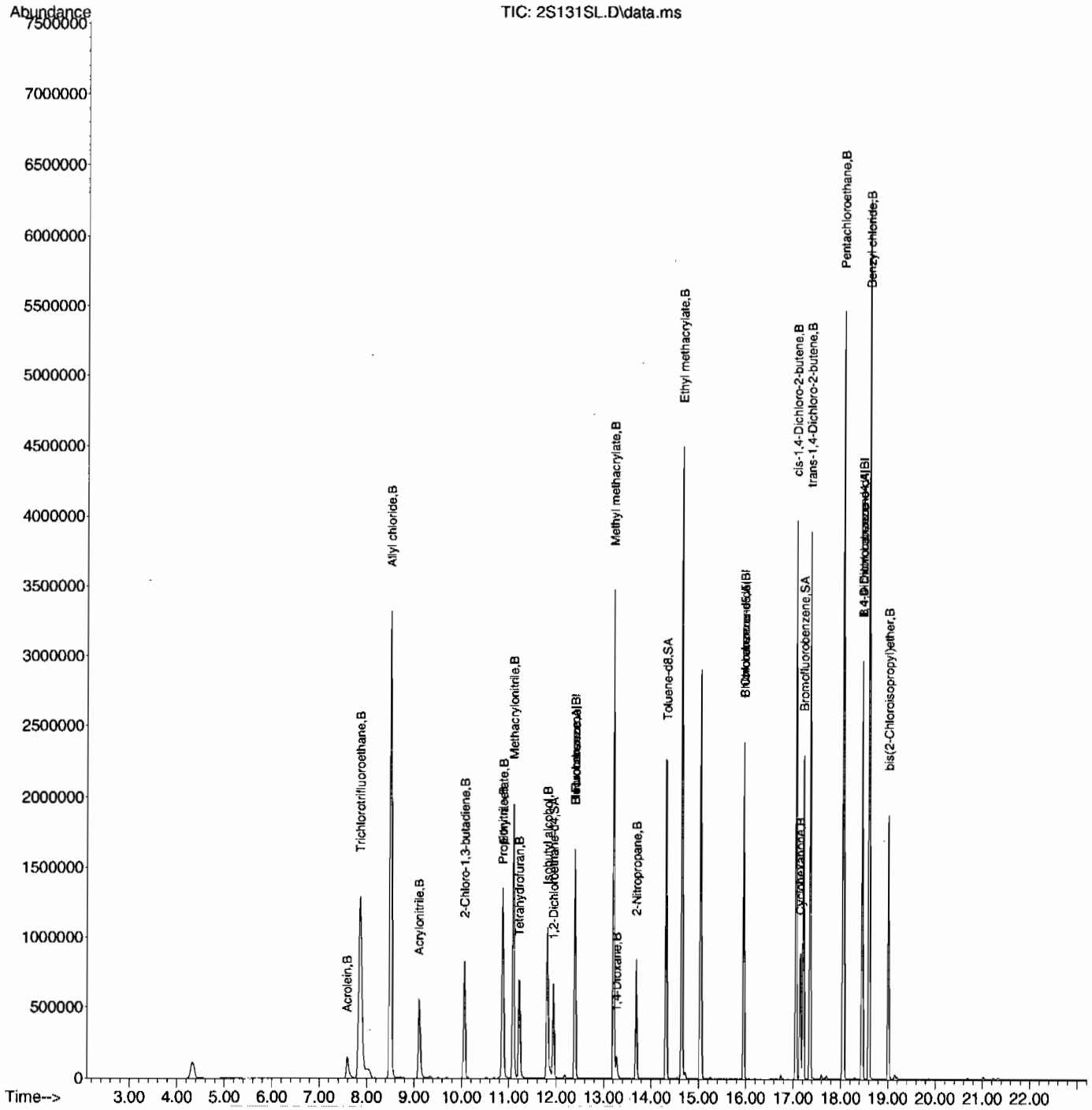

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202005362**	**Date Received:**	**12/22/2009 09:55**		
Client Sample:	**QC for batch 937152**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-6822PS**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 04:39**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 04:39**				
Data File:	**122809V2.b\2S146.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		46.2	ug/L	0.300	1.00
74-87-3	Chloromethane		48.0	ug/L	0.300	1.00
75-01-4	Vinyl chloride		50.8	ug/L	0.500	1.00
74-83-9	Bromomethane		50.3	ug/L	0.300	1.00
75-00-3	Chloroethane		52.2	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		55.9	ug/L	0.300	1.00
60-29-7	Ethyl ether		50.6	ug/L	0.300	1.00
67-64-1	Acetone		144	ug/L	3.50	10.0
75-05-8	Acetonitrile		1110	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		56.1	ug/L	0.300	1.00
74-88-4	Iodomethane		282	ug/L	1.25	5.00
75-09-2	Methylene chloride		51.4	ug/L	3.00	10.0
75-15-0	Carbon disulfide		287	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		55.5	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		53.4	ug/L	0.300	1.00
108-05-4	Vinyl acetate		294	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		53.2	ug/L	0.300	1.00
78-93-3	2-Butanone		175	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		54.1	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		56.0	ug/L	0.300	1.00
67-66-3	Chloroform		55.4	ug/L	0.250	1.00
74-97-5	Bromochloromethane		54.9	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		59.6	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		55.3	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		4410	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		63.2	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		56.2	ug/L	0.250	1.00
71-43-2	Benzene		51.0	ug/L	0.300	1.00
79-01-6	Trichloroethylene		53.6	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		53.2	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		62.4	ug/L	0.250	1.00
74-95-3	Dibromomethane		56.6	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		237	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		57.5	ug/L	0.250	1.00
108-88-3	Toluene		46.8	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		54.7	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		49.3	ug/L	0.250	1.00
591-78-6	2-Hexanone		166	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	**Date Collected:**	12/18/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	1202005362	**Date Received:**	12/22/2009 09:55		
Client Sample:	QC for batch 937152	**Client:**	LANL010	**Project:**	QC
Client ID:	CAPA-10-6822PS	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	937152	**Inst:**	VOA2.I	**Dilution:**	1
Run Date:	12/29/2009 04:39	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	12/29/2009 04:39				
Data File:	122809V2.b\2S146.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		48.4	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		45.9	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		49.6	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		52.5	ug/L	0.250	1.00
108-90-7	Chlorobenzene		47.9	ug/L	0.250	1.00
100-41-4	Ethylbenzene		48.7	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		96.3	ug/L	0.500	2.00
95-47-6	o-Xylene		49.1	ug/L	0.300	1.00
100-42-5	Styrene		54.9	ug/L	0.250	1.00
75-25-2	Bromoform		45.8	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		48.6	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		49.1	ug/L	0.300	1.00
108-86-1	Bromobenzene		46.5	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		47.2	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		47.5	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		48.7	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		48.2	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		46.0	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		49.2	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		48.7	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		48.3	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		49.6	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		45.9	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		44.9	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		48.3	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		43.7	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		47.0	ug/L	0.300	1.00
91-20-3	Naphthalene		49.7	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		47.6	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202005362**	**Date Received:**	**12/22/2009 09:55**		
Client Sample:	**QC for batch 937152**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-6822PS**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 04:39**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 04:39**				
Data File:	**122809V2.b\2S146.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		54.9	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		45.0	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		46.2	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	55.3	50.0	ug/L	111	(59%-130%)
Bromofluorobenzene	50.3	50.0	ug/L	101	(71%-126%)
Toluene-d8	48.3	50.0	ug/L	96.6	(76%-129%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S146.D
Acq On : 29 Dec 2009 4:39 am
Operator : CDS1
InstName : VOA2
Sample : |1202005362|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2 MS 243401002 MIX[A]
ALS Vial : 46 Sample Multiplier: 1

Quant Time: Dec 29 07:14:26 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	12.401	96	1425375	50.00	ug/L	-0.01
41) Chlorobenzene-d5	15.959	117	1270787	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	809307	50.00	ug/L	0.00
82) B Fluorobenzene	12.401	96	1425375	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.959	117	1270787	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	809307	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	11.938	65	452470	55.28	ug/L	-0.02
Spiked Amount 50.000	Range 59 - 130		Recovery = 110.56%			
43) Toluene-d8	14.322	98	1468282	48.32	ug/L	-0.01
Spiked Amount 50.000	Range 76 - 129		Recovery = 96.64%			
61) Bromofluorobenzene	17.216	95	648371	50.31	ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 100.62%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.687	85	217592	46.17	ug/L	100
3) Chloromethane	5.029	50	216434	48.03	ug/L	100
4) Vinyl chloride	5.281	62	255539	50.80	ug/L	100
5) Bromomethane	5.979	94	193857	50.29	ug/L	99
6) Chloroethane	6.211	64	177607	52.20	ug/L	99
7) Trichlorofluoromethane	6.780	101	438814	55.87	ug/L	99
8) Ethyl ether	7.373	59	240523	50.57	ug/L	100
9) Acetone	7.895	43	543191	143.84	ug/L	98
10) 1,1-Dichloroethylene	7.835	61	402384	56.11	ug/L	98
11) Iodomethane	8.120	142	2692840	282.23	ug/L	96
12) Acetonitrile	8.405	41	794138	1114.07	ug/L	98
13) Methyl acetate	8.523	43	1087267	245.24	ug/L	99
14) Carbon disulfide	8.274	76	4392982	286.91	ug/L	100
15) Methylene chloride	8.725	84	314997	51.42	ug/L	99
16) tert-Butyl methyl ether	9.223	73	636479	55.47	ug/L	99
17) trans-1,2-Dichloroethy...	9.223	61	435722	53.37	ug/L	97
18) Vinyl acetate	9.958	43	3406736	294.21	ug/L	99
19) 1,1-Dichloroethane	9.911	63	547878	53.15	ug/L	99
20) 2-Butanone	10.788	43	747076	174.85	ug/L	99
21) cis-1,2-Dichloroethylene	10.800	61	490750	54.09	ug/L	98
22) 2,2-Dichloropropane	10.824	77	357758	56.04	ug/L	97
23) Bromochloromethane	11.156	128	185163	54.91	ug/L	99
24) Chloroform	11.251	83	607760	55.35	ug/L	100
25) 1,1,1-Trichloroethane	11.559	97	517966	59.63	ug/L	100
26) Cyclohexane	11.666	56	440266	53.88	ug/L	99
27) 1,1-Dichloropropene	11.772	75	413407	55.27	ug/L	98
28) Carbon tetrachloride	11.796	117	502179	63.18	ug/L	99
30) 1,2-Dichloroethane	12.045	62	484309	56.21	ug/L	100
31) Benzene	12.057	78	1161270	51.02	ug/L	99
32) Cyclohexene	12.199	67	574810	53.05	ug/L	100
33) n-Butyl alcohol	12.662	56	727275	4409.99	ug/L	99
34) Trichloroethylene	12.863	95	340707	53.58	ug/L	99
35) 1,2-Dichloropropane	13.136	63	311497	53.19	ug/L	100
36) Methylcyclohexane	13.148	83	515893	55.52	ug/L	100
37) Dibromomethane	13.290	93	209347	56.57	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S146.D
Acq On : 29 Dec 2009 4:39 am
Operator : CDS1
InstName : VOA2
Sample : |1202005362|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2 MS 243401002 MIX[A]
ALS Vial : 46 Sample Multiplier: 1

Quant Time: Dec 29 07:14:26 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) Bromodichloromethane	13.456	83	464058	62.37 ug/L	99
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	13.978	75	472347	57.52 ug/L	99
42) 4-Methyl-2-pentanone	14.120	58	602956	237.20 ug/L	99
44) Toluene	14.393	91	1324464	46.81 ug/L	99
45) trans-1,3-Dichloroprop...	14.595	75	458479	54.72 ug/L	98
46) 1,1,2-Trichloroethane	14.820	83	238985	49.26 ug/L	100
47) 2-Hexanone	15.057	43	1223653	165.73 ug/L	99
48) 1,3-Dichloropropane	15.022	76	477185	48.40 ug/L	81
49) Tetrachloroethylene	15.045	164	335060	45.89 ug/L	96
50) Dibromochloromethane	15.294	129	385276	49.55 ug/L	100
51) 1,2-Dibromoethane	15.460	107	315404	52.51 ug/L	99
52) Chlorobenzene	15.994	112	964630	47.87 ug/L	99
53) 1,1,1,2-Tetrachloroethane	16.053	131	389798	54.85 ug/L	99
54) Ethylbenzene	16.077	91	1564497	48.65 ug/L	99
55) m,p-Xylenes	16.196	106	1213927	96.30 ug/L	97
56) o-Xylene	16.646	106	602161	49.09 ug/L	96
57) Styrene	16.646	104	1009004	54.91 ug/L	97
59) Bromoform	16.883	173	288416	45.76 ug/L	99
60) Isopropylbenzene	17.026	105	1625177	48.74 ug/L	100
62) 1,1,2,2-Tetrachloroethane	17.299	83	393153	48.61 ug/L	100
63) 1,2,3-Trichloropropane	17.382	110	115230	49.11 ug/L	98
64) Bromobenzene	17.417	156	475338	46.48 ug/L	97
65) n-Propylbenzene	17.465	91	1900444	47.20 ug/L	100
66) 1,3,5-Trimethylbenzene	17.631	105	1370868	48.21 ug/L	99
67) 2-Chlorotoluene	17.595	126	429517	47.52 ug/L	98
68) 4-Chlorotoluene	17.702	91	1161139	45.97 ug/L	100
69) tert-Butylbenzene	18.010	134	314722	49.22 ug/L	97
70) 1,2,4-Trimethylbenzene	18.046	105	1422533	48.70 ug/L	100
71) sec-Butylbenzene	18.235	105	1815189	48.30 ug/L	100
72) 4-Isopropyltoluene	18.366	119	1499040	49.63 ug/L	99
73) 1,3-Dichlorobenzene	18.401	146	899144	45.93 ug/L	99
74) 1,4-Dichlorobenzene	18.484	146	911450	44.85 ug/L	99
75) n-Butylbenzene	18.805	91	1403965	48.27 ug/L	99
76) 1,2-Dichlorobenzene	18.899	146	864614	46.23 ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.706	157	91732	43.65 ug/L	97
78) 1,2,4-Trichlorobenzene	20.690	180	641333	45.02 ug/L	100
79) Hexachlorobutadiene	20.868	225	393154	46.95 ug/L	99
80) Naphthalene	21.022	128	1407958	49.74 ug/L	99
81) 1,2,3-Trichlorobenzene	21.330	180	620769	47.57 ug/L	100
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	0.000		0	N.D.	
86) Trichlorotrifluoroethane	7.871		0m	N.D. d	
87) Isopropyl Alcohol	8.061		0m	N.D. d	
88) Allyl chloride	8.405		0m	N.D. d	
89) tert-Butyl Alcohol	8.926		0m	N.D. d	
90) Acrylonitrile	9.128		0m	N.D. d	
91) Isopropyl ether	9.958		0m	N.D. d	
92) 2-Chloro-1,3-butadiene	10.065		0m	N.D. d	
93) Ethyl tert-butyl ether	10.587		0m	N.D. d	
94) Ethyl acetate	10.788		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S146.D
Acq On : 29 Dec 2009 4:39 am
Operator : CDS1
InstName : VOA2
Sample : |1202005362|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2 MS 243401002 MIX[A]
ALS Vial : 46 Sample Multiplier: 1

Quant Time: Dec 29 07:14:26 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95) Propionitrile	10.788		0m	N.D.	d	
96) Methacrylonitrile	11.108		0m	N.D.	d	
97) Tetrahydrofuran	11.251		0m	N.D.	d	
98) Isobutyl alcohol	11.938		0m	N.D.	d	
99) Methyl tert-amyl ether	12.199		0m	N.D.	d	
100) Methyl methacrylate	13.148		0m	N.D.	d	
101) 1,4-Dioxane	13.290		0m	N.D.	d	
102) 2-Nitropropane	13.694		0m	N.D.	d	
104) Ethyl methacrylate	14.654		0m	N.D.	d	
106) 1-Chlorohexane	15.959		0m	N.D.	d	
107) cis-1,4-Dichloro-2-butene	17.026		0m	N.D.	d	
108) Cyclohexanone	17.026		0m	N.D.	d	
109) trans-1,4-Dichloro-2-b...	17.358		0m	N.D.	d	
110) Pentachloroethane	18.057		0m	N.D.	d	
111) Benzyl chloride	18.603		0m	N.D.	d	
112) bis(2-Chloroisopropyl)...	19.006		0m	N.D.	d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S146.D
Acq On : 29 Dec 2009 4:39 am
Operator : CDS1
InstName : VOA2
Sample : |1202005362|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2 MS 243401002 MIX[A]
ALS Vial : 46 Sample Multiplier: 1

Quant Time: Dec 29 07:14:26 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

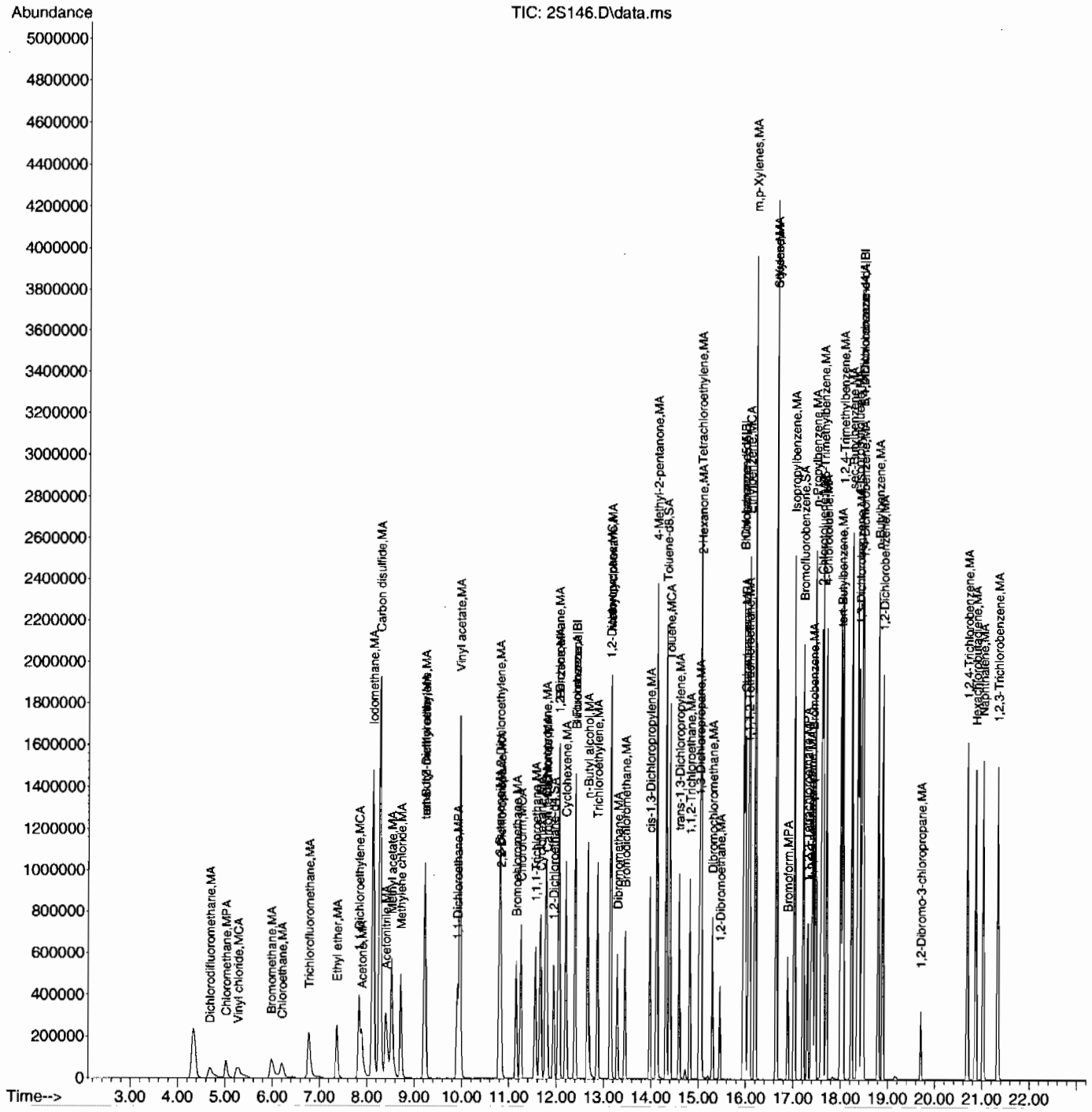

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202005363**	**Date Received:**	**12/22/2009 09:55**		
Client Sample:	**QC for batch 937152**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-6822PSD**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.1**	**Dilution:**	**1**
Run Date:	**12/29/2009 05:08**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 05:08**				
Data File:	**122809V2.b\2S147.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		48.7	ug/L	0.300	1.00
74-87-3	Chloromethane		51.6	ug/L	0.300	1.00
75-01-4	Vinyl chloride		54.5	ug/L	0.500	1.00
74-83-9	Bromomethane		52.9	ug/L	0.300	1.00
75-00-3	Chloroethane		54.8	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		58.5	ug/L	0.300	1.00
60-29-7	Ethyl ether		51.1	ug/L	0.300	1.00
67-64-1	Acetone		137	ug/L	3.50	10.0
75-05-8	Acetonitrile		1060	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		58.1	ug/L	0.300	1.00
74-88-4	Iodomethane		297	ug/L	1.25	5.00
75-09-2	Methylene chloride		53.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide		300	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		53.9	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		55.3	ug/L	0.300	1.00
108-05-4	Vinyl acetate		294	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		55.3	ug/L	0.300	1.00
78-93-3	2-Butanone		170	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		56.2	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		59.0	ug/L	0.300	1.00
67-66-3	Chloroform		56.9	ug/L	0.250	1.00
74-97-5	Bromochloromethane		57.1	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		61.6	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		57.4	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		4130	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		65.1	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		57.1	ug/L	0.250	1.00
71-43-2	Benzene		53.1	ug/L	0.300	1.00
79-01-6	Trichloroethylene		55.5	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		54.4	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		64.3	ug/L	0.250	1.00
74-95-3	Dibromomethane		57.2	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		236	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		59.3	ug/L	0.250	1.00
108-88-3	Toluene		48.4	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		56.6	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		49.6	ug/L	0.250	1.00
591-78-6	2-Hexanone		163	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	**Date Collected:**	12/18/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	1202005363	**Date Received:**	12/22/2009 09:55		
Client Sample:	QC for batch 937152	**Client:**	LANL010	**Project:**	QC
Client ID:	CAPA-10-6822PSD	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	937152	**Inst:**	VOA2.I	**Dilution:**	1
Run Date:	12/29/2009 05:08	**Analyst:**	CDS1	**Purge Vol:**	5 mL
Prep Date:	12/29/2009 05:08				
Data File:	122809V2.b\2S147.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		49.6	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		48.2	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		51.3	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		53.7	ug/L	0.250	1.00
108-90-7	Chlorobenzene		50.1	ug/L	0.250	1.00
100-41-4	Ethylbenzene		50.6	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		99.7	ug/L	0.500	2.00
95-47-6	o-Xylene		51.1	ug/L	0.300	1.00
100-42-5	Styrene		56.9	ug/L	0.250	1.00
75-25-2	Bromoform		46.6	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		47.8	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		48.5	ug/L	0.300	1.00
108-86-1	Bromobenzene		48.5	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		48.6	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		49.5	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		50.1	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		49.6	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		47.8	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		51.0	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		49.8	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		50.1	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		51.1	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		47.5	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		46.1	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		49.4	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		44.0	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		48.1	ug/L	0.300	1.00
91-20-3	Naphthalene		50.3	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		49.0	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202005363**	**Date Received:**	**12/22/2009 09:55**		
Client Sample:	**QC for batch 937152**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-6822PSD**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937152**	**Inst:**	**VOA2.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 05:08**	**Analyst:**	**CDS1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 05:08**				
Data File:	**122809V2.b\2S147.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		57.1	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		46.6	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		48.1	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	54.4	50.0	ug/L	109	(59%-130%)
Bromofluorobenzene	50.6	50.0	ug/L	101	(71%-126%)
Toluene-d8	48.3	50.0	ug/L	96.7	(76%-129%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S147.D
Acq On : 29 Dec 2009 5:08 am
Operator : CDS1
InstName : VOA2
Sample : |1202005363|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2 MS 243401002 MIX[A]
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Dec 29 07:14:28 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	12.401	96	1505743	50.00	ug/L	-0.01
41) Chlorobenzene-d5	15.959	117	1339861	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	18.461	152	861853	50.00	ug/L	0.00
82) B Fluorobenzene	12.401	96	1505743	50.00	ug/L	0.00
103) B Chlorobenzene-d5	15.959	117	1339861	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	18.461	152	861853	50.00	ug/L	0.00
System Monitoring Compounds						
29) 1,2-Dichloroethane-d4	11.951	65	470250	54.38	ug/L	-0.01
Spiked Amount 50.000	Range 59 - 130		Recovery = 108.76%			
43) Toluene-d8	14.322	98	1548438	48.33	ug/L	-0.01
Spiked Amount 50.000	Range 76 - 129		Recovery = 96.66%			
61) Bromofluorobenzene	17.216	95	694337	50.59	ug/L	0.00
Spiked Amount 50.000	Range 71 - 126		Recovery = 101.18%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	4.687	85	242229	48.65	ug/L	100
3) Chloromethane	5.014	50	245666	51.60	ug/L	99
4) Vinyl chloride	5.281	62	289770	54.53	ug/L	100
5) Bromomethane	5.980	94	215573	52.94	ug/L	99
6) Chloroethane	6.211	64	196907	54.78	ug/L	100
7) Trichlorofluoromethane	6.780	101	485150	58.47	ug/L	100
8) Ethyl ether	7.373	59	256951	51.14	ug/L	100
9) Acetone	7.895	43	546612	137.02	ug/L	98
10) 1,1-Dichloroethylene	7.836	61	440452	58.14	ug/L	98
11) Iodomethane	8.120	142	2998231	297.46	ug/L	97
12) Acetonitrile	8.405	41	795241	1056.07	ug/L	98
13) Methyl acetate	8.523	43	1129575	241.18	ug/L	99
14) Carbon disulfide	8.274	76	4844465	299.50	ug/L	100
15) Methylene chloride	8.725	84	343242	53.04	ug/L	100
16) tert-Butyl methyl ether	9.223	73	653303	53.90	ug/L	100
17) trans-1,2-Dichloroethy...	9.223	61	476506	55.25	ug/L	99
18) Vinyl acetate	9.958	43	3595309	293.93	ug/L	100
19) 1,1-Dichloroethane	9.911	63	602088	55.29	ug/L	100
20) 2-Butanone	10.788	43	766068	169.73	ug/L	100
21) cis-1,2-Dichloroethylene	10.800	61	538221	56.15	ug/L	98
22) 2,2-Dichloropropane	10.824	77	397687	58.97	ug/L	95
23) Bromochloromethane	11.156	128	203468	57.11	ug/L	98
24) Chloroform	11.251	83	659719	56.87	ug/L	100
25) 1,1,1-Trichloroethane	11.559	97	565109	61.59	ug/L	99
26) Cyclohexane	11.666	56	483545	56.02	ug/L	100
27) 1,1-Dichloropropene	11.773	75	453851	57.44	ug/L	99
28) Carbon tetrachloride	11.796	117	546727	65.11	ug/L	99
30) 1,2-Dichloroethane	12.045	62	519337	57.06	ug/L	100
31) Benzene	12.057	78	1277083	53.11	ug/L	99
32) Cyclohexene	12.200	67	629276	54.98	ug/L	100
33) n-Butyl alcohol	12.662	56	718811	4133.84	ug/L	99
34) Trichloroethylene	12.864	95	372556	55.46	ug/L	99
35) 1,2-Dichloropropane	13.136	63	336500	54.39	ug/L	100
36) Methylcyclohexane	13.148	83	560322	57.08	ug/L	99
37) Dibromomethane	13.291	93	223590	57.20	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S147.D
Acq On : 29 Dec 2009 5:08 am
Operator : CDS1
InstName : VOA2
Sample : |1202005363|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2 MS 243401002 MIX[A]
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Dec 29 07:14:28 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
38) Bromodichloromethane	13.457	83	505180	64.28 ug/L	100
39) 2-Chloroethylvinyl ether	0.000		0	N.D.	
40) cis-1,3-Dichloropropylene	13.978	75	514233	59.28 ug/L	100
42) 4-Methyl-2-pentanone	14.121	58	632880	236.13 ug/L	99
44) Toluene	14.393	91	1444122	48.40 ug/L	99
45) trans-1,3-Dichloroprop...	14.595	75	499570	56.55 ug/L	97
46) 1,1,2-Trichloroethane	14.820	83	253705	49.60 ug/L	100
47) 2-Hexanone	15.057	43	1266715	162.72 ug/L	100
48) 1,3-Dichloropropane	15.022	76	515727	49.61 ug/L #	78
49) Tetrachloroethylene	15.046	164	370974	48.19 ug/L	97
50) Dibromochloromethane	15.295	129	420733	51.27 ug/L	100
51) 1,2-Dibromoethane	15.461	107	339874	53.67 ug/L	100
52) Chlorobenzene	15.994	112	1064019	50.08 ug/L	100
53) 1,1,1,2-Tetrachloroethane	16.054	131	427602	57.07 ug/L	99
54) Ethylbenzene	16.077	91	1716447	50.62 ug/L	99
55) m,p-Xylenes	16.196	106	1324917	99.69 ug/L	98
56) o-Xylene	16.646	106	660798	51.09 ug/L	97
57) Styrene	16.646	104	1102504	56.91 ug/L	97
59) Bromoform	16.884	173	313252	46.62 ug/L	100
60) Isopropylbenzene	17.026	105	1779649	50.12 ug/L	100
62) 1,1,2,2-Tetrachloroethane	17.299	83	411734	47.81 ug/L	100
63) 1,2,3-Trichloropropane	17.382	110	121069	48.45 ug/L	96
64) Bromobenzene	17.417	156	527740	48.45 ug/L	98
65) n-Propylbenzene	17.465	91	2085040	48.63 ug/L	100
66) 1,3,5-Trimethylbenzene	17.631	105	1502942	49.63 ug/L	99
67) 2-Chlorotoluene	17.595	126	476745	49.53 ug/L	99
68) 4-Chlorotoluene	17.702	91	1286153	47.82 ug/L	99
69) tert-Butylbenzene	18.010	134	347131	50.97 ug/L	98
70) 1,2,4-Trimethylbenzene	18.046	105	1547501	49.75 ug/L	99
71) sec-Butylbenzene	18.236	105	2003963	50.07 ug/L	100
72) 4-Isopropyltoluene	18.366	119	1643359	51.09 ug/L	99
73) 1,3-Dichlorobenzene	18.402	146	989238	47.45 ug/L	99
74) 1,4-Dichlorobenzene	18.485	146	996948	46.07 ug/L	99
75) n-Butylbenzene	18.805	91	1529537	49.39 ug/L	99
76) 1,2-Dichlorobenzene	18.900	146	957151	48.06 ug/L	99
77) 1,2-Dibromo-3-chloropr...	19.706	157	98581	44.02 ug/L	100
78) 1,2,4-Trichlorobenzene	20.690	180	707520	46.63 ug/L	100
79) Hexachlorobutadiene	20.868	225	429089	48.12 ug/L	100
80) Naphthalene	21.022	128	1515616	50.28 ug/L	100
81) 1,2,3-Trichlorobenzene	21.331	180	680936	49.00 ug/L	100
83) Chlorotrifluoroethylene	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000		0	N.D.	
85) Acrolein	0.000		0	N.D.	
86) Trichlorotrifluoroethane	7.871		0m	N.D. d	
87) Isopropyl Alcohol	8.274		0m	N.D. d	
88) Allyl chloride	8.405		0m	N.D. d	
89) tert-Butyl Alcohol	8.915		0m	N.D. d	
90) Acrylonitrile	9.128		0m	N.D. d	
91) Isopropyl ether	9.958		0m	N.D. d	
92) 2-Chloro-1,3-butadiene	10.065		0m	N.D. d	
93) Ethyl tert-butyl ether	10.599		0m	N.D. d	
94) Ethyl acetate	10.788		0m	N.D. d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S147.D
Acq On : 29 Dec 2009 5:08 am
Operator : CDS1
InstName : VOA2
Sample : |1202005363|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2 MS 243401002 MIX[A]
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Dec 29 07:14:28 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95) Propionitrile	10.788		0m	N.D. d	
96) Methacrylonitrile	11.097		0m	N.D. d	
97) Tetrahydrofuran	11.251		0m	N.D. d	
98) Isobutyl alcohol	0.000		0	N.D.	
99) Methyl tert-amyl ether	12.200		0m	N.D. d	
100) Methyl methacrylate	13.148		0m	N.D. d	
101) 1,4-Dioxane	13.279		0m	N.D. d	
102) 2-Nitropropane	13.694		0m	N.D. d	
104) Ethyl methacrylate	14.654		0m	N.D. d	
106) 1-Chlorohexane	15.959		0m	N.D. d	
107) cis-1,4-Dichloro-2-butene	17.026		0m	N.D. d	
108) Cyclohexanone	17.026		0m	N.D. d	
109) trans-1,4-Dichloro-2-b...	17.358		0m	N.D. d	
110) Pentachloroethane	18.058		0m	N.D. d	
111) Benzyl chloride	18.603		0m	N.D. d	
112) bis(2-Chloroisopropyl)...	19.006		0m	N.D. d	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\122809V2.b\
Data File : 2S147.D
Acq On : 29 Dec 2009 5:08 am
Operator : CDS1
InstName : VOA2
Sample : |1202005363|937152|1|VOA|1|VOA8260BL|
Misc : LANL 5ML PH2 MS 243401002 MIX[A]
ALS Vial : 47 Sample Multiplier: 1

Quant Time: Dec 29 07:14:28 2009
Quant Method : C:\msdchem\1\DATA\120509V2.b\VOA2-8260-120509.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Dec 07 08:11:25 2009
Response via : Initial Calibration
Integrator: RTE

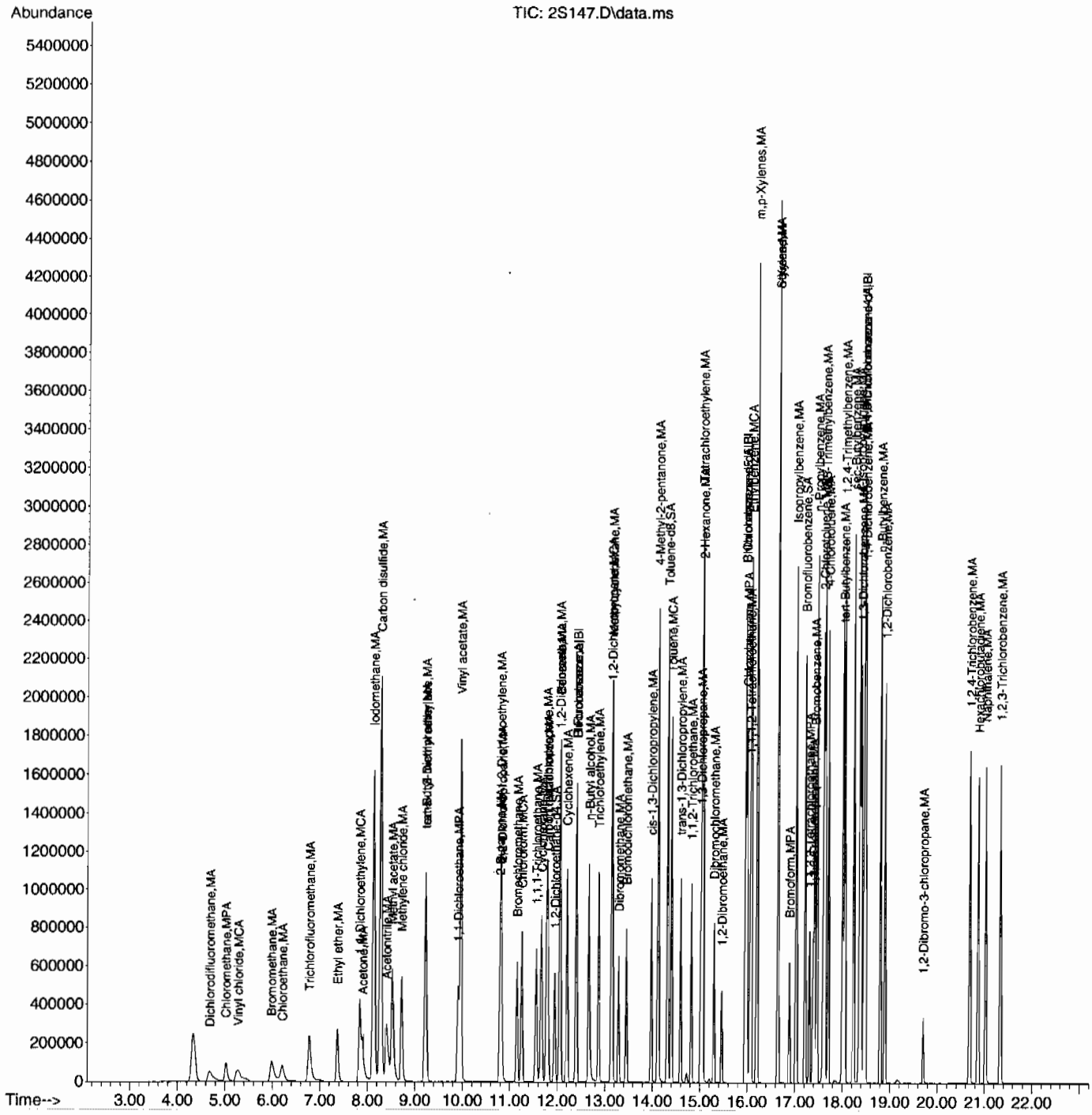

Miscellaneous

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA2

Date: 12/5/2009 Method 8260/624/QSM Operator: CDS1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1318

CALIBRATION & CC INFORMATION:

Initial Calibration Date: _____

(See pg. _____ for ICAL Std. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 120509V2

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
IS	UVM091203-01	1	1	1	
SS	UVM091117-02	1	1	1	
Long ICV	W2VM091205-10			5+5	
BFB	UVM091117-02				1
Short ICV	W2VM091205-19			5+5	

Purge Amount	
5	Water Purge Vol:
	Soil Purge Wt.
	Mid level ext. MeOH Vol:
	ul
	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
5 Dec 2009 11:26	2O601.D	UVM091117-02	--------	BFB	5mL	1	N/A	1	w	CDS1	N/A	O	
5 Dec 2009 11:52	2O602.D	120189------	--------	BLANK	5mL	1	N/A	2	w	CDS1	N/A	O	
5 Dec 2009 12:22	2O603.D	W2VM091205-01	VSTD001	ICAL	5uL ea.	1	N/A	3	w	CDS1	N/A	O	UVM090911-02C+UVM091130-02A
5 Dec 2009 12:51	2O604.D	W2VM091205-02	VSTD002	ICAL	5uL ea.	1	N/A	4	w	CDS1	N/A	O	UVM090911-03C+UVM091130-03A
5 Dec 2009 13:20	2O605.D	W2VM091205-03	VSTD005	ICAL	5uL ea.	1	N/A	5	w	CDS1	N/A	O	UVM090911-04C+UVM091130-04A
5 Dec 2009 13:49	2O606.D	W2VM091205-04	VSTD010	ICAL	5uL ea.	1	N/A	6	w	CDS1	N/A	O	UVM090911-05C+UVM091130-05A
5 Dec 2009 14:18	2O607.D	W2VM091205-05	VSTD020	ICAL	5uL ea.	1	N/A	7	w	CDS1	N/A	O	UVM090911-06C+UVM091130-06A
5 Dec 2009 14:47	2O608.D	W2VM091205-06	VSTD050	ICAL	5uL ea.	1	N/A	8	w	CDS1	N/A	O	UVM090911-07C+UVM091130-07A
5 Dec 2009 15:17	2O609.D	W2VM091205-07	VSTD100	ICAL	5uL ea.	1	N/A	9	w	CDS1	N/A	O	UVM090911-08C+UVM091130-08A
5 Dec 2009 15:46	2O610.D	120146------	--------	BLANK	5mL	1	N/A	10		CDS1	N/A	X	clean-up blank
5 Dec 2009 16:14	2O611.D	W2VM091205-08	VSTD0005	ICAL	5uL ea.	1	N/A	11	w	CDS1	N/A	O	UVM090911-01C+UVM091130-01A
5 Dec 2009 16:44	2O612.D	W2VM091205-09	LCS	ICV	5uL ea.	1	N/A	12	w	CDS1	N/A	X	UVM091105-01D/IVM091203-01acetone does not meet QSM reqs.
5 Dec 2009 17:13	2O613.D	W2VM091205-10	LCS	ICV	5uL ea.	1	N/A	13	w	CDS1	N/A	O	UVM091129-01B/IVM0091203-01
5 Dec 2009 17:42	2O614.D	120146------	--------	BLANK	5mL	1	N/A	14	w	CDS1	N/A	X	clean-up blank
5 Dec 2009 18:11	2O615.D	W2VM091205-11	VSTD005S	ICAL	5uL ea.	1	N/A	15	w	CDS1	N/A	O	UVM091118-01+UVM091110-01B
5 Dec 2009 18:41	2O616.D	W2VM091205-12	VSTD010S	ICAL	5uL ea.	1	N/A	16	w	CDS1	N/A	O	UVM091118-02+UVM091110-02B
5 Dec 2009 19:10	2O617.D	W2VM091205-13	VSTD025S	ICAL	5uL ea.	1	N/A	17	w	CDS1	N/A	O	UVM091118-03+UVM091110-03B
5 Dec 2009 19:39	2O618.D	W2VM091205-14	VSTD050S	ICAL	5uL ea.	1	N/A	18	w	CDS1	N/A	O	UVM091118-04+UVM091110-04B
5 Dec 2009 20:08	2O619.D	W2VM091205-15	VSTD100S	ICAL	5uL ea.	1	N/A	19	w	CDS1	N/A	O	UVM091118-05+UVM091110-05B
5 Dec 2009 20:38	2O620.D	W2VM091205-16	VSTD250S	ICAL	5uL ea.	1	N/A	20	w	CDS1	N/A	O	UVM091118-06+UVM091110-06B
5 Dec 2009 21:07	2O621.D	W2VM091205-17	VSTD250S	ICAL	2.5uL ea.	1	N/A	21	w	CDS1	N/A	X	UVM091118-07+UVM091110-07B not needed
5 Dec 2009 21:36	2O622.D	W2VM091205-18	VSTD500S	ICAL	5uL ea.	1	N/A	22	w	CDS1	N/A	O	UVM091118-07+UVM091110-07B
5 Dec 2009 22:06	2O623.D	120146-----	--------	BLANK	5mL	1	N/A	23	w	CDS1	N/A	X	clean-up blank
5 Dec 2009 22:35	2O624.D	W2VM091205-19	LCS	ICV	5uL ea.	1	N/A	24	w	CDS1	N/A	O	UVM091118-08B+UVM091105-02D

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA2

Date: 12/28/2009 Method 8260/624 Operator: CDS1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1318

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/5/2009

(See pg. 103 for ICAL Std. Ids)

NaHSO4 lot # N/A

Cl test lot # 81710

Sequence Number: 122809V2pm

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W2VM091228-05		5+5		
IS	UVM091216-09	1	1	1	
SS	UVM091216-10	1	1	1	
LCS/MS	W2VM091228-06/07			5+5	
BFB	UVM091117-02				1
SHORT	W2VM091228-08/09		5	5	

Purge Amount

5	Water Purge Vol:
5	Soil Purge Wt.
	Mid level ext. MeOH Vol:
	ul
	Methanol Lot #
X	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
12/28/2009	19:30	2S127.D	UVM091117-02	--------	BFB2	5mL	1	N/A	27	w	CDS1	N/A	O	
12/28/2009	19:57	2S128.D	W2VM091228-05	--------	CCV	5mL	1	N/A	28	w	CDS1	N/A	O	UVM091214-01C+IVM091228-01
12/28/2009	20:26	2S129.D	W2VM091228-06	--------	LCS	5mL	1	N/A	29	w	CDS1	N/A	O	UVM091214-01C+IVM091228-01
12/28/2009	20:55	2S130.D	W2VM091228-07	--------	LCS	5g	1	N/A	30	s	CDS1	N/A	O	
12/28/2009	21:24	2S131.D	W2VM091228-08	--------	CCV/LCS	5mL	1	N/A	31	w	CDS1	N/A	O	UVM091216-08A
12/28/2009	21:53	2S132.D	W2VM091228-09	--------	LCS	5g	1	N/A	32	s	CDS1	N/A	O	UVM091216-08A
12/28/2009	22:22	2S133.D	120200----	--------	BLANK	5mL	1	N/A	33	w	CDS1	N/A	O	
12/28/2009	22:51	2S134.D	120200----	--------	BLANK	5g	1	N/A	34	s	CDS1	N/A	O	
12/28/2009	23:20	2S135.D	243240015	LANL	936894	5G	1	N/A	35	s	CDS1	N/A	O	
12/28/2009	23:49	2S136.D	243240016	LANL	936894	5G	1	N/A	36	s	CDS1	N/A	O	IS low--conf. by 2S217
12/29/2009	0:18	2S137.D	243240017	LANL	936894	5G	1	N/A	37	s	CDS1	N/A	O	IS low--conf. by 2S218
12/29/2009	0:47	2S138.D	243240018	LANL	936894	5G	1	N/A	38	s	CDS1	N/A	O	
12/29/2009	1:17	2S139.D	243240019	LANL	936894	5G	1	N/A	39	s	CDS1	N/A	O	
12/29/2009	1:45	2S140.D	243401001	LANL	937152	5ML	1	PH2	40	w	CDS1	N	O	
12/29/2009	2:14	2S141.D	243401002	LANL	937152	5ML	1	PH2	41	w	CDS1	N	O	
12/29/2009	2:43	2S142.D	243401005	LANL	937152	5ML	1	PH2	42	w	CDS1	N	O	
12/29/2009	3:12	2S143.D	243401009	LANL	937152	5ML	1	PH2	43	w	CDS1	N	O	
12/29/2009	3:41	2S144.D	243401011	LANL	937152	5ML	1	PH2	44	w	CDS1	N	O	
12/29/2009	4:10	2S145.D	243401012	LANL	937152	5ML	1	PH2	45	w	CDS1	N	O	
12/29/2009	4:39	2S146.D	1202005362	LANL	937152	5ML	1	PH2	46	w	CDS1	N	O	MS 243401002
12/29/2009	5:08	2S147.D	1202005363	LANL	937152	5ML	1	PH2	47	w	CDS1	N	O	MS 243401002
12/29/2009	5:38	2S148.D	1202004640	LANL	936894	5G	1	N/A	48	s	CDS1	N/A	X	MS 243240019 mult. Failures-- see 2S224
12/29/2009	6:07	2S149.D	1202004641	LANL	936894	5G	1	N/A	49	s	CDS1	N/A	X	MSD 243240019 mult. Failures-- see 2S225

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
29-DEC-09	Federal	Client Contract	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
VOA GC/MS	8260	Liquid	LANL010
Batch ID:	**Sample Numbers:**		
937152	all		

Potentially affected work order(s)(SDG): 243401(10-1020)

Application Issues:

Failed Recovery for LCS/LCSD

Specification and Requirements Exception Description:	DER Disposition:
1. The recoveries for bromodichloromethane and cis-1,3-dichloropropylene were outside of acceptance limits in LCS 1202005364. Bromodichloromethane 134% limits: 77-130% cis-1,3-dichloropropylene 129% limits: 79-127%	1. Narrate and report data. The total number of compounds with unacceptable recoveries was within the client's acceptance limit.

Originator's Name:

Crystal Stacey 29-DEC-09

Data Validator/Group Leader:

Erin Haubert 30-DEC-09

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1020

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3510C
Analytical Batch Number:	936348
Prep Batch Number:	936345

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
243401002	CAPA-10-6822
243401005	CAPA-10-6823
243401009	CAPA-10-6824
243401011	CAPA-10-6826
1202003486	Method Blank (MB)
1202003487	Laboratory Control Sample (LCS)
1202003488	243401002(CAPA-10-6822) Matrix Spike (MS)
1202003489	243401002(CAPA-10-6822) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various

calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS(1202003487) recovered N-Methyl-N-nitrosomethylamine at 41%. The limits are 43%-68%. The LCS failure represented less than 5% of the total requested spike analyte list. That satisfied the acceptance criteria for the client and the data results have been reported.

QC Sample Designation
Sample 243401002 (CAPA-10-6822) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
The MS(1202003488) and MSD(1202003489) recovered Benzidine at 16% and 17%, respectively. The limits are 20%-126%. Since the MS recovery was confirmed by the MSD, the failures were attributed to sample matrix interference and the data results have been reported.

Matrix Spike Duplicate (MSD) Recovery Statement
The MS(1202003488) and MSD(1202003489) recovered Benzidine at 16% and 17%, respectively. The limits are 20%-126%. Since the MS recovery was confirmed by the MSD, the failures were attributed to sample matrix interference and the data results have been reported.

MS/MSD Relative Percent Difference (RPD) Statement
The MS(1202003488)/MSD(1202003489) RPD value for Hexachlorocyclopentadiene was 26%. The limit is 25%. Since Hexachlorocyclopentadiene was individually within the acceptance limits for the MS and MSD, the data results have been reported un-qualified for this failure.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Data Exception Report (DER) Documentation
The following DER was generated for this SDG: 778342. It is located in the Miscellaneous Section of the data report.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD6.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.20mm x 0.33 um (5% Phenylmethylpolysiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: _____ **Date:** 1-19-10

Roadmap for LANL 10-1020 SVOA

This roadmap was analyzed by nat00999 on 01-08-2010, 10:02.
This roadmap was reviewed by bar00895 on 01-11-2010, 13:57.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s010610.b/s6a0616.d	243401002	06-JAN-2010	16:02	10-1020.sub	CAPA-10-6822	1	936348	USE
☐	N	/chem/MSD6.i/s010610.b/s6a0619.d	243401005	06-JAN-2010	17:26	10-1020.sub	CAPA-10-6823	1	936348	USE
☐	N	/chem/MSD6.i/s010610.b/s6a0620.d	243401009	06-JAN-2010	17:53	10-1020.sub	CAPA-10-6824	1	936348	USE
☐	N	/chem/MSD6.i/s010610.b/s6a0621.d	243401011	06-JAN-2010	18:21	10-1020.sub	CAPA-10-6826	1	936348	USE

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s010610.b/s6a0608.d	1202003486	mb	06-JAN-2010	12:16	10-1020.sub	SBLK01	1	936348	USE
☐	N	/chem/MSD6.i/s010610.b/s6a0609.d	1202003487	lcs	06-JAN-2010	12:45	10-1020.sub	SBLK01LCS	1	936348	USE
☐	N	/chem/MSD6.i/s010610.b/s6a0617.d	1202003488	ms	06-JAN-2010	16:30	10-1020.sub	CAPA-10-6822MS	1	936348	USE
☐	N	/chem/MSD6.i/s010610.b/s6a0618.d	1202003489	msd	06-JAN-2010	16:58	10-1020.sub	CAPA-10-6822MSD	1	936348	USE

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	**Date Collected:**	12/18/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	243401002	**Date Received:**	12/22/2009 09:55		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-6822	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	936348	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	01/06/2010 16:02	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/24/2009 11:43	**Aliquot:**	860 mL	**Final Volume:**	1 mL
Data File:	s6a0616.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	11.6	ug/L	2.33	11.6
108-95-2	Phenol	U	11.6	ug/L	1.16	11.6
95-57-8	2-Chlorophenol	U	11.6	ug/L	2.33	11.6
106-46-7	1,4-Dichlorobenzene	U	11.6	ug/L	2.33	11.6
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	11.6	ug/L	2.33	11.6
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	11.6	ug/L	2.33	11.6
83-32-9	Acenaphthene	U	1.16	ug/L	0.360	1.16
121-14-2	2,4-Dinitrotoluene	U	11.6	ug/L	2.33	11.6
100-02-7	4-Nitrophenol	U	11.6	ug/L	2.33	11.6
87-86-5	Pentachlorophenol	U	11.6	ug/L	2.33	11.6
129-00-0	Pyrene	U	1.16	ug/L	0.349	1.16
110-86-1	Pyridine	U	11.6	ug/L	3.49	11.6
62-53-3	Aniline	U	11.6	ug/L	2.91	11.6
111-44-4	bis(2-Chloroethyl) ether	U	11.6	ug/L	2.33	11.6
541-73-1	1,3-Dichlorobenzene	U	11.6	ug/L	2.33	11.6
100-51-6	Benzyl alcohol	U	11.6	ug/L	2.33	11.6
95-50-1	1,2-Dichlorobenzene	U	11.6	ug/L	2.33	11.6
108-60-1	bis(2-Chloroisopropyl)ether	U	11.6	ug/L	2.33	11.6
95-48-7	o-Cresol	U	11.6	ug/L	2.33	11.6
65794-96-9	m,p-Cresols	U	11.6	ug/L	3.49	11.6
67-72-1	Hexachloroethane	U	11.6	ug/L	2.33	11.6
98-95-3	Nitrobenzene	U	11.6	ug/L	3.49	11.6
78-59-1	Isophorone	U	11.6	ug/L	3.49	11.6
88-75-5	2-Nitrophenol	U	11.6	ug/L	2.33	11.6
105-67-9	2,4-Dimethylphenol	U	11.6	ug/L	2.33	11.6
111-91-1	bis(2-Chloroethoxy)methane	U	11.6	ug/L	3.49	11.6
120-83-2	2,4-Dichlorophenol	U	11.6	ug/L	2.33	11.6
65-85-0	Benzoic acid	U	23.3	ug/L	6.98	23.3
91-20-3	Naphthalene	U	1.16	ug/L	0.349	1.16
106-47-8	4-Chloroaniline	U	11.6	ug/L	2.33	11.6
87-68-3	Hexachlorobutadiene	U	11.6	ug/L	2.33	11.6
91-57-6	2-Methylnaphthalene	U	1.16	ug/L	0.349	1.16
90-12-0	1-Methylnaphthalene	U	1.16	ug/L	0.349	1.16
77-47-4	Hexachlorocyclopentadiene	U	11.6	ug/L	3.49	11.6
88-06-2	2,4,6-Trichlorophenol	U	11.6	ug/L	2.33	11.6
95-95-4	2,4,5-Trichlorophenol	U	11.6	ug/L	2.33	11.6
91-58-7	2-Chloronaphthalene	U	1.16	ug/L	0.349	1.16

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401002**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6822**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 16:02**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**860 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0616.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	11.6	ug/L	2.33	11.6
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	11.6	ug/L	2.33	11.6
131-11-3	Dimethylphthalate	U	11.6	ug/L	2.33	11.6
606-20-2	2,6-Dinitrotoluene	U	11.6	ug/L	2.33	11.6
208-96-8	Acenaphthylene	U	1.16	ug/L	0.233	1.16
51-28-5	2,4-Dinitrophenol	U	23.3	ug/L	5.81	23.3
132-64-9	Dibenzofuran	U	11.6	ug/L	2.33	11.6
84-66-2	Diethylphthalate	U	11.6	ug/L	2.33	11.6
86-73-7	Fluorene	U	1.16	ug/L	0.233	1.16
7005-72-3	4-Chlorophenylphenylether	U	11.6	ug/L	2.33	11.6
534-52-1	2-Methyl-4,6-dinitrophenol	U	11.6	ug/L	3.49	11.6
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	11.6	ug/L	3.49	11.6
122-39-4	Diphenylamine	U	11.6	ug/L	3.49	11.6
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	11.6	ug/L	2.33	11.6
101-55-3	4-Bromophenylphenylether	U	11.6	ug/L	2.33	11.6
118-74-1	Hexachlorobenzene	U	11.6	ug/L	2.33	11.6
1912-24-9	Atrazine	U	11.6	ug/L	3.49	11.6
85-01-8	Phenanthrene	U	1.16	ug/L	0.233	1.16
120-12-7	Anthracene	U	1.16	ug/L	0.233	1.16
84-74-2	Di-n-butylphthalate	U	11.6	ug/L	2.33	11.6
206-44-0	Fluoranthene	U	1.16	ug/L	0.233	1.16
92-87-5	Benzidine	U	11.6	ug/L	3.49	11.6
85-68-7	Butylbenzylphthalate	U	11.6	ug/L	2.33	11.6
56-55-3	Benzo(a)anthracene	U	1.16	ug/L	0.233	1.16
91-94-1	3,3'-Dichlorobenzidine	U	11.6	ug/L	2.33	11.6
218-01-9	Chrysene	U	1.16	ug/L	0.233	1.16
117-81-7	bis(2-Ethylhexyl)phthalate	U	11.6	ug/L	2.33	11.6
117-84-0	Di-n-octylphthalate	U	11.6	ug/L	3.49	11.6
205-99-2	Benzo(b)fluoranthene	U	1.16	ug/L	0.233	1.16
207-08-9	Benzo(k)fluoranthene	U	1.16	ug/L	0.233	1.16
50-32-8	Benzo(a)pyrene	U	1.16	ug/L	0.233	1.16
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.16	ug/L	0.233	1.16
53-70-3	Dibenzo(a,h)anthracene	U	1.16	ug/L	0.233	1.16
191-24-2	Benzo(ghi)perylene	U	1.16	ug/L	0.233	1.16
123-91-1	1,4-Dioxane	J	2.55	ug/L	2.33	11.6
55-18-5	N-Nitrosodiethylamine	U	11.6	ug/L	2.33	11.6

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401002**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6822**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 16:02**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**860 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0616.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	11.6	ug/L	2.33	11.6
924-16-3	N-Nitrosodi-n-butylamine	U	11.6	ug/L	3.49	11.6
95-94-3	1,2,4,5-Tetrachlorobenzene	U	11.6	ug/L	3.49	11.6
608-93-5	Pentachlorobenzene	U	11.6	ug/L	3.49	11.6
58-90-2	2,3,4,6-Tetrachlorophenol	U	11.6	ug/L	2.33	11.6
88-85-7	Dinoseb	U	11.6	ug/L	2.33	11.6
120-82-1	1,2,4-Trichlorobenzene	U	11.6	ug/L	2.33	11.6

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	91.2	116	ug/L	78.5	(39%-115%)
2-Fluorobiphenyl	38.4	58.1	ug/L	66.1	(35%-100%)
2-Fluorophenol	49.6	116	ug/L	42.7	(25%-92%)
Nitrobenzene-d5	40.7	58.1	ug/L	70.0	(40%-112%)
Phenol-d5	32.7	116	ug/L	28.1	(15%-73%)
p-Terphenyl-d14	47.1	58.1	ug/L	81.1	(46%-130%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
563-80-4	2-Butanone, 3-methyl-	2.13	16.9	ug/L	72	NJ

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	**Date Collected:**	12/18/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	243401005	**Date Received:**	12/22/2009 09:55		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-6823	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	936348	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	01/06/2010 17:26	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/24/2009 11:43	**Aliquot:**	925 mL	**Final Volume:**	1 mL
Data File:	s6a0619.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.8	ug/L	2.16	10.8
108-95-2	Phenol	U	10.8	ug/L	1.08	10.8
95-57-8	2-Chlorophenol	U	10.8	ug/L	2.16	10.8
106-46-7	1,4-Dichlorobenzene	U	10.8	ug/L	2.16	10.8
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	10.8	ug/L	2.16	10.8
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	10.8	ug/L	2.16	10.8
83-32-9	Acenaphthene	U	1.08	ug/L	0.335	1.08
121-14-2	2,4-Dinitrotoluene	U	10.8	ug/L	2.16	10.8
100-02-7	4-Nitrophenol	U	10.8	ug/L	2.16	10.8
87-86-5	Pentachlorophenol	U	10.8	ug/L	2.16	10.8
129-00-0	Pyrene	U	1.08	ug/L	0.324	1.08
110-86-1	Pyridine	U	10.8	ug/L	3.24	10.8
62-53-3	Aniline	U	10.8	ug/L	2.70	10.8
111-44-4	bis(2-Chloroethyl) ether	U	10.8	ug/L	2.16	10.8
541-73-1	1,3-Dichlorobenzene	U	10.8	ug/L	2.16	10.8
100-51-6	Benzyl alcohol	U	10.8	ug/L	2.16	10.8
95-50-1	1,2-Dichlorobenzene	U	10.8	ug/L	2.16	10.8
108-60-1	bis(2-Chloroisopropyl)ether	U	10.8	ug/L	2.16	10.8
95-48-7	o-Cresol	U	10.8	ug/L	2.16	10.8
65794-96-9	m,p-Cresols	U	10.8	ug/L	3.24	10.8
67-72-1	Hexachloroethane	U	10.8	ug/L	2.16	10.8
98-95-3	Nitrobenzene	U	10.8	ug/L	3.24	10.8
78-59-1	Isophorone	U	10.8	ug/L	3.24	10.8
88-75-5	2-Nitrophenol	U	10.8	ug/L	2.16	10.8
105-67-9	2,4-Dimethylphenol	U	10.8	ug/L	2.16	10.8
111-91-1	bis(2-Chloroethoxy)methane	U	10.8	ug/L	3.24	10.8
120-83-2	2,4-Dichlorophenol	U	10.8	ug/L	2.16	10.8
65-85-0	Benzoic acid	U	21.6	ug/L	6.49	21.6
91-20-3	Naphthalene	U	1.08	ug/L	0.324	1.08
106-47-8	4-Chloroaniline	U	10.8	ug/L	2.16	10.8
87-68-3	Hexachlorobutadiene	U	10.8	ug/L	2.16	10.8
91-57-6	2-Methylnaphthalene	U	1.08	ug/L	0.324	1.08
90-12-0	1-Methylnaphthalene	U	1.08	ug/L	0.324	1.08
77-47-4	Hexachlorocyclopentadiene	U	10.8	ug/L	3.24	10.8
88-06-2	2,4,6-Trichlorophenol	U	10.8	ug/L	2.16	10.8
95-95-4	2,4,5-Trichlorophenol	U	10.8	ug/L	2.16	10.8
91-58-7	2-Chloronaphthalene	U	1.08	ug/L	0.324	1.08

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401005**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6823**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.1**	**Dilution:**	**1**
Run Date:	**01/06/2010 17:26**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**925 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0619.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.8	ug/L	2.16	10.8
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.8	ug/L	2.16	10.8
131-11-3	Dimethylphthalate	U	10.8	ug/L	2.16	10.8
606-20-2	2,6-Dinitrotoluene	U	10.8	ug/L	2.16	10.8
208-96-8	Acenaphthylene	U	1.08	ug/L	0.216	1.08
51-28-5	2,4-Dinitrophenol	U	21.6	ug/L	5.41	21.6
132-64-9	Dibenzofuran	U	10.8	ug/L	2.16	10.8
84-66-2	Diethylphthalate	U	10.8	ug/L	2.16	10.8
86-73-7	Fluorene	U	1.08	ug/L	0.216	1.08
7005-72-3	4-Chlorophenylphenylether	U	10.8	ug/L	2.16	10.8
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.8	ug/L	3.24	10.8
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.8	ug/L	3.24	10.8
122-39-4	Diphenylamine	U	10.8	ug/L	3.24	10.8
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	10.8	ug/L	2.16	10.8
101-55-3	4-Bromophenylphenylether	U	10.8	ug/L	2.16	10.8
118-74-1	Hexachlorobenzene	U	10.8	ug/L	2.16	10.8
1912-24-9	Atrazine	U	10.8	ug/L	3.24	10.8
85-01-8	Phenanthrene	U	1.08	ug/L	0.216	1.08
120-12-7	Anthracene	U	1.08	ug/L	0.216	1.08
84-74-2	Di-n-butylphthalate	U	10.8	ug/L	2.16	10.8
206-44-0	Fluoranthene	U	1.08	ug/L	0.216	1.08
92-87-5	Benzidine	U	10.8	ug/L	3.24	10.8
85-68-7	Butylbenzylphthalate	U	10.8	ug/L	2.16	10.8
56-55-3	Benzo(a)anthracene	U	1.08	ug/L	0.216	1.08
91-94-1	3,3'-Dichlorobenzidine	U	10.8	ug/L	2.16	10.8
218-01-9	Chrysene	U	1.08	ug/L	0.216	1.08
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.8	ug/L	2.16	10.8
117-84-0	Di-n-octylphthalate	U	10.8	ug/L	3.24	10.8
205-99-2	Benzo(b)fluoranthene	U	1.08	ug/L	0.216	1.08
207-08-9	Benzo(k)fluoranthene	U	1.08	ug/L	0.216	1.08
50-32-8	Benzo(a)pyrene	U	1.08	ug/L	0.216	1.08
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.08	ug/L	0.216	1.08
53-70-3	Dibenzo(a,h)anthracene	U	1.08	ug/L	0.216	1.08
191-24-2	Benzo(ghi)perylene	U	1.08	ug/L	0.216	1.08
123-91-1	1,4-Dioxane	U	10.8	ug/L	2.16	10.8
55-18-5	N-Nitrosodiethylamine	U	10.8	ug/L	2.16	10.8

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401005**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6823**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 17:26**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**925 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0619.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.8	ug/L	2.16	10.8
924-16-3	N-Nitrosodi-n-butylamine	U	10.8	ug/L	3.24	10.8
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.8	ug/L	3.24	10.8
608-93-5	Pentachlorobenzene	U	10.8	ug/L	3.24	10.8
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.8	ug/L	2.16	10.8
88-85-7	Dinoseb	U	10.8	ug/L	2.16	10.8
120-82-1	1,2,4-Trichlorobenzene	U	10.8	ug/L	2.16	10.8

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	86.2	108	ug/L	79.7	(39%-115%)
2-Fluorobiphenyl	36.7	54.1	ug/L	67.8	(35%-100%)
2-Fluorophenol	45.1	108	ug/L	41.7	(25%-92%)
Nitrobenzene-d5	38.1	54.1	ug/L	70.6	(40%-112%)
Phenol-d5	29.2	108	ug/L	27.0	(15%-73%)
p-Terphenyl-d14	50.8	54.1	ug/L	94.0	(46%-130%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.12	15.1	ug/L		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401009**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6824**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 17:53**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**925 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0620.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.8	ug/L	2.16	10.8
108-95-2	Phenol	U	10.8	ug/L	1.08	10.8
95-57-8	2-Chlorophenol	U	10.8	ug/L	2.16	10.8
106-46-7	1,4-Dichlorobenzene	U	10.8	ug/L	2.16	10.8
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	10.8	ug/L	2.16	10.8
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	10.8	ug/L	2.16	10.8
83-32-9	Acenaphthene	U	1.08	ug/L	0.335	1.08
121-14-2	2,4-Dinitrotoluene	U	10.8	ug/L	2.16	10.8
100-02-7	4-Nitrophenol	U	10.8	ug/L	2.16	10.8
87-86-5	Pentachlorophenol	U	10.8	ug/L	2.16	10.8
129-00-0	Pyrene	U	1.08	ug/L	0.324	1.08
110-86-1	Pyridine	U	10.8	ug/L	3.24	10.8
62-53-3	Aniline	U	10.8	ug/L	2.70	10.8
111-44-4	bis(2-Chloroethyl) ether	U	10.8	ug/L	2.16	10.8
541-73-1	1,3-Dichlorobenzene	U	10.8	ug/L	2.16	10.8
100-51-6	Benzyl alcohol	U	10.8	ug/L	2.16	10.8
95-50-1	1,2-Dichlorobenzene	U	10.8	ug/L	2.16	10.8
108-60-1	bis(2-Chloroisopropyl)ether	U	10.8	ug/L	2.16	10.8
95-48-7	o-Cresol	U	10.8	ug/L	2.16	10.8
65794-96-9	m,p-Cresols	U	10.8	ug/L	3.24	10.8
67-72-1	Hexachloroethane	U	10.8	ug/L	2.16	10.8
98-95-3	Nitrobenzene	U	10.8	ug/L	3.24	10.8
78-59-1	Isophorone	U	10.8	ug/L	3.24	10.8
88-75-5	2-Nitrophenol	U	10.8	ug/L	2.16	10.8
105-67-9	2,4-Dimethylphenol	U	10.8	ug/L	2.16	10.8
111-91-1	bis(2-Chloroethoxy)methane	U	10.8	ug/L	3.24	10.8
120-83-2	2,4-Dichlorophenol	U	10.8	ug/L	2.16	10.8
65-85-0	Benzoic acid	U	21.6	ug/L	6.49	21.6
91-20-3	Naphthalene	U	1.08	ug/L	0.324	1.08
106-47-8	4-Chloroaniline	U	10.8	ug/L	2.16	10.8
87-68-3	Hexachlorobutadiene	U	10.8	ug/L	2.16	10.8
91-57-6	2-Methylnaphthalene	U	1.08	ug/L	0.324	1.08
90-12-0	1-Methylnaphthalene	U	1.08	ug/L	0.324	1.08
77-47-4	Hexachlorocyclopentadiene	U	10.8	ug/L	3.24	10.8
88-06-2	2,4,6-Trichlorophenol	U	10.8	ug/L	2.16	10.8
95-95-4	2,4,5-Trichlorophenol	U	10.8	ug/L	2.16	10.8
91-58-7	2-Chloronaphthalene	U	1.08	ug/L	0.324	1.08

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401009**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6824**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 17:53**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**925 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0620.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.8	ug/L	2.16	10.8
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.8	ug/L	2.16	10.8
131-11-3	Dimethylphthalate	U	10.8	ug/L	2.16	10.8
606-20-2	2,6-Dinitrotoluene	U	10.8	ug/L	2.16	10.8
208-96-8	Acenaphthylene	U	1.08	ug/L	0.216	1.08
51-28-5	2,4-Dinitrophenol	U	21.6	ug/L	5.41	21.6
132-64-9	Dibenzofuran	U	10.8	ug/L	2.16	10.8
84-66-2	Diethylphthalate	U	10.8	ug/L	2.16	10.8
86-73-7	Fluorene	U	1.08	ug/L	0.216	1.08
7005-72-3	4-Chlorophenylphenylether	U	10.8	ug/L	2.16	10.8
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.8	ug/L	3.24	10.8
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.8	ug/L	3.24	10.8
122-39-4	Diphenylamine *1,2-Diphenylhydrazine*	U	10.8	ug/L	3.24	10.8
122-66-7	Azobenzene	U	10.8	ug/L	2.16	10.8
101-55-3	4-Bromophenylphenylether	U	10.8	ug/L	2.16	10.8
118-74-1	Hexachlorobenzene	U	10.8	ug/L	2.16	10.8
1912-24-9	Atrazine	U	10.8	ug/L	3.24	10.8
85-01-8	Phenanthrene	U	1.08	ug/L	0.216	1.08
120-12-7	Anthracene	U	1.08	ug/L	0.216	1.08
84-74-2	Di-n-butylphthalate	U	10.8	ug/L	2.16	10.8
206-44-0	Fluoranthene	U	1.08	ug/L	0.216	1.08
92-87-5	Benzidine	U	10.8	ug/L	3.24	10.8
85-68-7	Butylbenzylphthalate	U	10.8	ug/L	2.16	10.8
56-55-3	Benzo(a)anthracene	U	1.08	ug/L	0.216	1.08
91-94-1	3,3'-Dichlorobenzidine	U	10.8	ug/L	2.16	10.8
218-01-9	Chrysene	U	1.08	ug/L	0.216	1.08
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.8	ug/L	2.16	10.8
117-84-0	Di-n-octylphthalate	U	10.8	ug/L	3.24	10.8
205-99-2	Benzo(b)fluoranthene	U	1.08	ug/L	0.216	1.08
207-08-9	Benzo(k)fluoranthene	U	1.08	ug/L	0.216	1.08
50-32-8	Benzo(a)pyrene	U	1.08	ug/L	0.216	1.08
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.08	ug/L	0.216	1.08
53-70-3	Dibenzo(a,h)anthracene	U	1.08	ug/L	0.216	1.08
191-24-2	Benzo(ghi)perylene	U	1.08	ug/L	0.216	1.08
123-91-1	1,4-Dioxane	J	2.29	ug/L	2.16	10.8
55-18-5	N-Nitrosodiethylamine	U	10.8	ug/L	2.16	10.8

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401009**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6824**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 17:53**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**925 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0620.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.8	ug/L	2.16	10.8
924-16-3	N-Nitrosodi-n-butylamine	U	10.8	ug/L	3.24	10.8
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.8	ug/L	3.24	10.8
608-93-5	Pentachlorobenzene	U	10.8	ug/L	3.24	10.8
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.8	ug/L	2.16	10.8
88-85-7	Dinoseb	U	10.8	ug/L	2.16	10.8
120-82-1	1,2,4-Trichlorobenzene	U	10.8	ug/L	2.16	10.8

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	95.2	108	ug/L	88.0	(39%-115%)
2-Fluorobiphenyl	44.2	54.1	ug/L	81.7	(35%-100%)
2-Fluorophenol	55.0	108	ug/L	50.9	(25%-92%)
Nitrobenzene-d5	45.9	54.1	ug/L	84.9	(40%-112%)
Phenol-d5	35.3	108	ug/L	32.7	(15%-73%)
p-Terphenyl-d14	57.1	54.1	ug/L	106	(46%-130%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.13	15.7	ug/L		J

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401011**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6826**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 18:21**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**920 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0621.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.9	ug/L	2.17	10.9
108-95-2	Phenol	U	10.9	ug/L	1.09	10.9
95-57-8	2-Chlorophenol	U	10.9	ug/L	2.17	10.9
106-46-7	1,4-Dichlorobenzene	U	10.9	ug/L	2.17	10.9
621-64-7	N-Nitrosodi--n-propylamine	U	10.9	ug/L	2.17	10.9
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol	U	10.9	ug/L	2.17	10.9
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene	U	1.09	ug/L	0.337	1.09
121-14-2	2,4-Dinitrotoluene	U	10.9	ug/L	2.17	10.9
100-02-7	4-Nitrophenol	U	10.9	ug/L	2.17	10.9
87-86-5	Pentachlorophenol	U	10.9	ug/L	2.17	10.9
129-00-0	Pyrene	U	1.09	ug/L	0.326	1.09
110-86-1	Pyridine	U	10.9	ug/L	3.26	10.9
62-53-3	Aniline	U	10.9	ug/L	2.72	10.9
111-44-4	bis(2-Chloroethyl) ether	U	10.9	ug/L	2.17	10.9
541-73-1	1,3-Dichlorobenzene	U	10.9	ug/L	2.17	10.9
100-51-6	Benzyl alcohol	U	10.9	ug/L	2.17	10.9
95-50-1	1,2-Dichlorobenzene	U	10.9	ug/L	2.17	10.9
108-60-1	bis(2-Chloroisopropyl)ether	U	10.9	ug/L	2.17	10.9
95-48-7	o-Cresol	U	10.9	ug/L	2.17	10.9
65794-96-9	m,p-Cresols	U	10.9	ug/L	3.26	10.9
67-72-1	Hexachloroethane	U	10.9	ug/L	2.17	10.9
98-95-3	Nitrobenzene	U	10.9	ug/L	3.26	10.9
78-59-1	Isophorone	U	10.9	ug/L	3.26	10.9
88-75-5	2-Nitrophenol	U	10.9	ug/L	2.17	10.9
105-67-9	2,4-Dimethylphenol	U	10.9	ug/L	2.17	10.9
111-91-1	bis(2-Chloroethoxy)methane	U	10.9	ug/L	3.26	10.9
120-83-2	2,4-Dichlorophenol	U	10.9	ug/L	2.17	10.9
65-85-0	Benzoic acid	U	21.7	ug/L	6.52	21.7
91-20-3	Naphthalene	U	1.09	ug/L	0.326	1.09
106-47-8	4-Chloroaniline	U	10.9	ug/L	2.17	10.9
87-68-3	Hexachlorobutadiene	U	10.9	ug/L	2.17	10.9
91-57-6	2-Methylnaphthalene	U	1.09	ug/L	0.326	1.09
90-12-0	1-Methylnaphthalene	U	1.09	ug/L	0.326	1.09
77-47-4	Hexachlorocyclopentadiene	U	10.9	ug/L	3.26	10.9
88-06-2	2,4,6-Trichlorophenol	U	10.9	ug/L	2.17	10.9
95-95-4	2,4,5-Trichlorophenol	U	10.9	ug/L	2.17	10.9
91-58-7	2-Chloronaphthalene	U	1.09	ug/L	0.326	1.09

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401011**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6826**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 18:21**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**920 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0621.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline	U	10.9	ug/L	2.17	10.9
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	10.9	ug/L	2.17	10.9
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	10.9	ug/L	2.17	10.9
606-20-2	2,6-Dinitrotoluene	U	10.9	ug/L	2.17	10.9
208-96-8	Acenaphthylene	U	1.09	ug/L	0.217	1.09
51-28-5	2,4-Dinitrophenol	U	21.7	ug/L	5.43	21.7
132-64-9	Dibenzofuran	U	10.9	ug/L	2.17	10.9
84-66-2	Diethylphthalate	U	10.9	ug/L	2.17	10.9
86-73-7	Fluorene	U	1.09	ug/L	0.217	1.09
7005-72-3	4-Chlorophenylphenylether	U	10.9	ug/L	2.17	10.9
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.9	ug/L	3.26	10.9
100-01-6	4-Nitroaniline	U	10.9	ug/L	3.26	10.9
	p-Nitroaniline					
122-39-4	Diphenylamine	U	10.9	ug/L	3.26	10.9
122-66-7	Azobenzene	U	10.9	ug/L	2.17	10.9
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	10.9	ug/L	2.17	10.9
118-74-1	Hexachlorobenzene	U	10.9	ug/L	2.17	10.9
1912-24-9	Atrazine	U	10.9	ug/L	3.26	10.9
85-01-8	Phenanthrene	U	1.09	ug/L	0.217	1.09
120-12-7	Anthracene	U	1.09	ug/L	0.217	1.09
84-74-2	Di-n-butylphthalate	U	10.9	ug/L	2.17	10.9
206-44-0	Fluoranthene	U	1.09	ug/L	0.217	1.09
92-87-5	Benzidine	U	10.9	ug/L	3.26	10.9
85-68-7	Butylbenzylphthalate	U	10.9	ug/L	2.17	10.9
56-55-3	Benzo(a)anthracene	U	1.09	ug/L	0.217	1.09
91-94-1	3,3'-Dichlorobenzidine	U	10.9	ug/L	2.17	10.9
218-01-9	Chrysene	U	1.09	ug/L	0.217	1.09
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.9	ug/L	2.17	10.9
117-84-0	Di-n-octylphthalate	U	10.9	ug/L	3.26	10.9
205-99-2	Benzo(b)fluoranthene	U	1.09	ug/L	0.217	1.09
207-08-9	Benzo(k)fluoranthene	U	1.09	ug/L	0.217	1.09
50-32-8	Benzo(a)pyrene	U	1.09	ug/L	0.217	1.09
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.09	ug/L	0.217	1.09
53-70-3	Dibenzo(a,h)anthracene	U	1.09	ug/L	0.217	1.09
191-24-2	Benzo(ghi)perylene	U	1.09	ug/L	0.217	1.09
123-91-1	1,4-Dioxane	J	2.19	ug/L	2.17	10.9
55-18-5	N-Nitrosodiethylamine	U	10.9	ug/L	2.17	10.9

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401011**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6826**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 18:21**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**920 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0621.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.9	ug/L	2.17	10.9
924-16-3	N-Nitrosodi-n-butylamine	U	10.9	ug/L	3.26	10.9
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.9	ug/L	3.26	10.9
608-93-5	Pentachlorobenzene	U	10.9	ug/L	3.26	10.9
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.9	ug/L	2.17	10.9
88-85-7	Dinoseb	U	10.9	ug/L	2.17	10.9
120-82-1	1,2,4-Trichlorobenzene	U	10.9	ug/L	2.17	10.9

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	93.4	109	ug/L	85.9	(39%-115%)
2-Fluorobiphenyl	38.7	54.3	ug/L	71.3	(35%-100%)
2-Fluorophenol	47.5	109	ug/L	43.7	(25%-92%)
Nitrobenzene-d5	40.0	54.3	ug/L	73.6	(40%-112%)
Phenol-d5	31.0	109	ug/L	28.5	(15%-73%)
p-Terphenyl-d14	50.2	54.3	ug/L	92.4	(46%-130%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.13	22	ug/L		J
50-84-0	Benzoic acid, 2,4-dichloro-	7.95	46.6	ug/L	99	NJ

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-1020

Matrix Type: LIQUID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202003486	MB for batch 936345	46	29	79	73	88	93
1202003487	LCS for batch 936345	47	30	75	74	99	92
243401002	CAPA-10-6822	43	28	70	66	78	81
1202003488	CAPA-10-6822MS	61	47	79	77	99	91
1202003489	CAPA-10-6822MSD	55	43	71	73	99	94
243401005	CAPA-10-6823	42	27	71	68	80	94
243401009	CAPA-10-6824	51	33	85	82	88	106
243401011	CAPA-10-6826	44	28	74	71	86	92

Surrogate		Acceptance Limits
2FP	= 2-Fluorophenol	(25%-92%)
PHL	= Phenol-d5	(15%-73%)
NBZ	= Nitrobenzene-d5	(40%-112%)
FBP	= 2-Fluorobiphenyl	(35%-100%)
TBP	= 2,4,6-Tribromophenol	(39%-115%)
TPH	= p-Terphenyl-d14	(46%-130%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020
Client ID: LCS for batch 936345
Lab Sample ID: 1202003487
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 01/06/2010 12:45
Dilution: 1
Prep Batch ID: 936345
Batch ID: 936348

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	50.0	0.0	20.6	41 *	43-68
108-95-2	LCS	Phenol	50.0	0.0	16.5	33	21-45
95-57-8	LCS	2-Chlorophenol	50.0	0.0	37.5	75	49-96
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	33.7	67	38-88
621-64-7	LCS	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	50.0	0.0	40.6	81	44-118
59-50-7	LCS	Parachlorometa cresol *4-Chloro-3-methylphenol*	50.0	0.0	44.4	89	55-109
83-32-9	LCS	Acenaphthene	50.0	0.0	36.8	74	47-101
121-14-2	LCS	2,4-Dinitrotoluene	50.0	0.0	42.6	85	55-108
100-02-7	LCS	4-Nitrophenol	50.0	0.0	18.5	37	19-56
87-86-5	LCS	Pentachlorophenol	50.0	0.0	42.5	85	44-121
129-00-0	LCS	Pyrene	50.0	0.0	39.6	79	49-115
110-86-1	LCS	Pyridine	50.0	0.0	23.7	47	26-103
62-53-3	LCS	Aniline	50.0	0.0	39.3	79	49-124
111-44-4	LCS	bis(2-Chloroethyl) ether	50.0	0.0	34.1	68	46-106
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	34.0	68	38-88
100-51-6	LCS	Benzyl alcohol	50.0	0.0	37.3	75	41-88
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	34.8	70	39-91
108-60-1	LCS	bis(2-Chloroisopropyl)ether	50.0	0.0	38.9	78	44-115
95-48-7	LCS	o-Cresol	50.0	0.0	32.7	65	41-94
65794-96-9	LCS	m,p-Cresols	50.0	0.0	33.9	68	38-96
67-72-1	LCS	Hexachloroethane	50.0	0.0	30.4	61	35-92
98-95-3	LCS	Nitrobenzene	50.0	0.0	38.5	77	48-112

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-1020**
Client ID: **LCS for batch 936345**
Lab Sample ID: **1202003487**
Instrument: **MSD6.I**
Analyst: **NAG1**
Inj. Vol: **.5 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **GROUND WATER**
Analysis Date: **01/06/2010 12:45**
Prep Batch ID: **936345**
Batch ID: **936348**
Dilution: **1**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	50.0	0.0	41.4	83	52-113
88-75-5	LCS	2-Nitrophenol	50.0	0.0	40.7	81	52-104
105-67-9	LCS	2,4-Dimethylphenol	50.0	0.0	39.0	78	44-100
111-91-1	LCS	bis(2-Chloroethoxy)methane	50.0	0.0	38.8	78	54-107
120-83-2	LCS	2,4-Dichlorophenol	50.0	0.0	41.8	84	52-105
65-85-0	LCS	Benzoic acid	100	0.0	31.0	31	10-77
91-20-3	LCS	Naphthalene	50.0	0.0	33.9	68	40-93
106-47-8	LCS	4-Chloroaniline	50.0	0.0	47.8	96	57-145
87-68-3	LCS	Hexachlorobutadiene	50.0	0.0	33.1	66	33-98
91-57-6	LCS	2-Methylnaphthalene	50.0	0.0	39.1	78	42-97
90-12-0	LCS	1-Methylnaphthalene	50.0	0.0	38.7	77	40-95
77-47-4	LCS	Hexachlorocyclopentadiene	50.0	0.0	19.1	38	10-128
88-06-2	LCS	2,4,6-Trichlorophenol	50.0	0.0	42.2	84	54-111
95-95-4	LCS	2,4,5-Trichlorophenol	50.0	0.0	43.3	87	50-111
91-58-7	LCS	2-Chloronaphthalene	50.0	0.0	36.9	74	46-100
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	50.0	0.0	38.2	76	50-120
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	50.0	0.0	44.8	90	58-125
131-11-3	LCS	Dimethylphthalate	50.0	0.0	43.4	87	59-107
606-20-2	LCS	2,6-Dinitrotoluene	50.0	0.0	41.1	82	58-104
208-96-8	LCS	Acenaphthylene	50.0	0.0	39.9	80	58-99
51-28-5	LCS	2,4-Dinitrophenol	50.0	0.0	35.7	71	33-118
132-64-9	LCS	Dibenzofuran	50.0	0.0	48.4	97	54-108

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020
Client ID: LCS for batch 936345
Lab Sample ID: 1202003487
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 01/06/2010 12:45
Dilution: 1
Prep Batch ID: 936345
Batch ID: 936348

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
84-66-2	LCS	Diethylphthalate	50.0	0.0	44.0	88	60-112
86-73-7	LCS	Fluorene	50.0	0.0	41.6	83	52-106
7005-72-3	LCS	4-Chlorophenylphenylether	50.0	0.0	41.7	83	57-106
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	50.0	0.0	33.1	66	39-124
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	50.0	0.0	45.3	91	48-135
122-39-4	LCS	Diphenylamine	50.0	0.0	43.3	87	55-113
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	50.0	0.0	41.5	83	48-120
101-55-3	LCS	4-Bromophenylphenylether	50.0	0.0	42.2	84	56-108
118-74-1	LCS	Hexachlorobenzene	50.0	0.0	44.4	89	53-115
1912-24-9	LCS	Atrazine	50.0	0.0	45.0	90	49-118
85-01-8	LCS	Phenanthrene	50.0	0.0	42.2	84	54-105
120-12-7	LCS	Anthracene	50.0	0.0	43.0	86	55-106
84-74-2	LCS	Di-n-butylphthalate	50.0	0.0	46.7	93	58-119
206-44-0	LCS	Fluoranthene	50.0	0.0	45.8	92	57-114
92-87-5	LCS	Benzidine	100	0.0	39.7	40	17-138
85-68-7	LCS	Butylbenzylphthalate	50.0	0.0	44.3	89	55-122
56-55-3	LCS	Benzo(a)anthracene	50.0	0.0	42.6	85	56-105
91-94-1	LCS	3,3'-Dichlorobenzidine	50.0	0.0	40.4	81	41-107
218-01-9	LCS	Chrysene	50.0	0.0	42.9	86	56-105
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	50.0	0.0	46.4	93	55-124
117-84-0	LCS	Di-n-octylphthalate	50.0	0.0	47.1	94	41-136
205-99-2	LCS	Benzo(b)fluoranthene	50.0	0.0	44.7	89	53-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020
Client ID: LCS for batch 936345
Lab Sample ID: 1202003487
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 01/06/2010 12:45
Dilution: 1
Prep Batch ID: 936345
Batch ID: 936348

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
207-08-9	LCS	Benzo(k)fluoranthene	50.0	0.0	45.5	91	55-116
50-32-8	LCS	Benzo(a)pyrene	50.0	0.0	46.8	94	58-111
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	50.0	0.0	42.8	86	45-124
53-70-3	LCS	Dibenzo(a,h)anthracene	50.0	0.0	41.6	83	44-126
191-24-2	LCS	Benzo(ghi)perylene	50.0	0.0	44.1	88	41-125
123-91-1	LCS	1,4-Dioxane	50.0	0.0	26.5	53	30-80
930-55-2	LCS	N-Nitrosopyrrolidine	50.0	0.0	35.5	71	10-150
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	34.7	69	40-91

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020
Client ID: CAPA-10-6822MS
Lab Sample ID: 1202003488
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 01/06/2010 16:30
Prep Batch ID: 936345
Batch ID: 936348
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	100	0.00	U	59.7	60	42-89
108-95-2	MS	Phenol	100	0.00	U	52.9	53	27-88
95-57-8	MS	2-Chlorophenol	100	0.00	U	79.9	80	45-101
106-46-7	MS	1,4-Dichlorobenzene	100	0.00	U	73.6	74	37-91
621-64-7	MS	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	100	0.00	U	82.8	83	42-116
59-50-7	MS	Parachlorometa cresol *4-Chloro-3-methylphenol*	100	0.00	U	94.6	95	48-117
83-32-9	MS	Acenaphthene	100	0.00	U	76.9	77	46-104
121-14-2	MS	2,4-Dinitrotoluene	100	0.00	U	84.2	84	50-109
100-02-7	MS	4-Nitrophenol	100	0.00	U	51.8	52	28-96
87-86-5	MS	Pentachlorophenol	100	0.00	U	84.4	84	38-131
129-00-0	MS	Pyrene	100	0.00	U	81.2	81	42-122
110-86-1	MS	Pyridine	100	0.00	U	59.2	59	28-110
62-53-3	MS	Aniline	100	0.00	U	88.5	89	38-129
111-44-4	MS	bis(2-Chloroethyl) ether	100	0.00	U	72.5	73	41-107
541-73-1	MS	1,3-Dichlorobenzene	100	0.00	U	75.3	75	36-94
100-51-6	MS	Benzyl alcohol	100	0.00	U	97.6	98	34-104
95-50-1	MS	1,2-Dichlorobenzene	100	0.00	U	76.1	76	36-97
108-60-1	MS	bis(2-Chloroisopropyl)ether	100	0.00	U	81.3	81	38-118
95-48-7	MS	o-Cresol	100	0.00	U	75.3	75	37-105
65794-96-9	MS	m,p-Cresols	100	0.00	U	83.4	83	33-110
67-72-1	MS	Hexachloroethane	100	0.00	U	69.5	70	34-95
98-95-3	MS	Nitrobenzene	100	0.00	U	79.4	79	43-118

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020
Client ID: CAPA-10-6822MS
Lab Sample ID: 1202003488
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 01/06/2010 16:30
Dilution: 1
Prep Batch ID: 936345
Batch ID: 936348

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	100	0.00	U	85.1	85	46-115
88-75-5	MS	2-Nitrophenol	100	0.00	U	83.4	83	42-114
105-67-9	MS	2,4-Dimethylphenol	100	0.00	U	89.8	90	38-107
111-91-1	MS	bis(2-Chloroethoxy)methane	100	0.00	U	80.4	80	47-111
120-83-2	MS	2,4-Dichlorophenol	100	0.00	U	87.4	87	45-112
65-85-0	MS	Benzoic acid	200	0.00	U	109	55	27-106
91-20-3	MS	Naphthalene	100	0.00	U	73.2	73	41-96
106-47-8	MS	4-Chloroaniline	100	0.00	U	95.4	95	50-140
87-68-3	MS	Hexachlorobutadiene	100	0.00	U	77.8	78	31-106
91-57-6	MS	2-Methylnaphthalene	100	0.00	U	86.9	87	44-98
90-12-0	MS	1-Methylnaphthalene	100	0.00	U	83.6	84	45-94
77-47-4	MS	Hexachlorocyclopentadiene	100	0.00	U	43.5	43	15-139
88-06-2	MS	2,4,6-Trichlorophenol	100	0.00	U	86.6	87	46-114
95-95-4	MS	2,4,5-Trichlorophenol	100	0.00	U	88.1	88	46-117
91-58-7	MS	2-Chloronaphthalene	100	0.00	U	79.6	80	41-108
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	100	0.00	U	78.3	78	43-120
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	100	0.00	U	89.0	89	47-130
131-11-3	MS	Dimethylphthalate	100	0.00	U	87.4	87	50-114
606-20-2	MS	2,6-Dinitrotoluene	100	0.00	U	82.8	83	47-111
208-96-8	MS	Acenaphthylene	100	0.00	U	83.0	83	51-102
51-28-5	MS	2,4-Dinitrophenol	100	0.00	U	62.0	62	27-128
132-64-9	MS	Dibenzofuran	100	0.00	U	101	101	49-109

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020 **Sample Type:** Matrix Spike

Client ID: CAPA-10-6822MS **Matrix:** GROUND WATER

Lab Sample ID: 1202003488

Instrument: MSD6.I **Analysis Date:** 01/06/2010 16:30 **Dilution:** 1

Analyst: NAG1 **Prep Batch ID** 936345

Inj. Vol: .5 uL **Batch ID:** 936348

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
84-66-2	MS	Diethylphthalate	100	0.00	U	88.7	89	52-115
86-73-7	MS	Fluorene	100	0.00	U	85.4	85	49-110
7005-72-3	MS	4-Chlorophenylphenylether	100	0.00	U	86.9	87	48-115
534-52-1	MS	2-Methyl-4,6-dinitrophenol	100	0.00	U	55.9	56	33-128
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	100	0.00	U	88.4	88	37-138
122-39-4	MS	Diphenylamine	100	0.00	U	86.4	86	44-117
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	100	0.00	U	84.0	84	43-119
101-55-3	MS	4-Bromophenylphenylether	100	0.00	U	84.8	85	44-118
118-74-1	MS	Hexachlorobenzene	100	0.00	U	90.4	90	47-120
1912-24-9	MS	Atrazine	100	0.00	U	87.2	87	43-118
85-01-8	MS	Phenanthrene	100	0.00	U	83.0	83	46-112
120-12-7	MS	Anthracene	100	0.00	U	84.9	85	47-112
84-74-2	MS	Di-n-butylphthalate	100	0.00	U	91.4	91	49-120
206-44-0	MS	Fluoranthene	100	0.00	U	89.8	90	46-122
92-87-5	MS	Benzidine	200	0.00	U	32.4	16 *	20-126
85-68-7	MS	Butylbenzylphthalate	100	0.00	U	89.2	89	47-127
56-55-3	MS	Benzo(a)anthracene	100	0.00	U	82.9	83	47-111
91-94-1	MS	3,3'-Dichlorobenzidine	100	0.00	U	69.4	69	39-102
218-01-9	MS	Chrysene	100	0.00	U	84.0	84	48-112
117-81-7	MS	bis(2-Ethylhexyl)phthalate	100	0.00	U	92.2	92	43-130
117-84-0	MS	Di-n-octylphthalate	100	0.00	U	101	101	39-141
205-99-2	MS	Benzo(b)fluoranthene	100	0.00	U	92.1	92	43-125

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020
Client ID: CAPA-10-6822MS
Lab Sample ID: 1202003488
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 01/06/2010 16:30
Dilution: 1
Prep Batch ID: 936345
Batch ID: 936348

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
207-08-9	MS	Benzo(k)fluoranthene	100	0.00	U	92.7	93	50-120
50-32-8	MS	Benzo(a)pyrene	100	0.00	U	92.3	92	49-118
193-39-5	MS	Indeno(1,2,3-cd)pyrene	100	0.00	U	75.6	76	40-124
53-70-3	MS	Dibenzo(a,h)anthracene	100	0.00	U	73.9	74	41-125
191-24-2	MS	Benzo(ghi)perylene	100	0.00	U	74.7	75	36-124
123-91-1	MS	1,4-Dioxane	100	2.55	J	72.2	70	37-86
930-55-2	MS	N-Nitrosopyrrolidine	100	0.00	U	79.3	79	10-150
120-82-1	MS	1,2,4-Trichlorobenzene	100	0.00	U	77.3	77	34-100

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020
Client ID: CAPA-10-6822MSD
Lab Sample ID: 1202003489
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 01/06/2010 16:58
Dilution: 1
Prep Batch ID: 936345
Batch ID: 936348

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD	N-Methyl-N-nitrosomethylam	100	0.00	U	51.6	52	42-89	14	0-25
108-95-2	MSD	Phenol	100	0.00	U	47.1	47	27-88	12	0-25
95-57-8	MSD	2-Chlorophenol	100	0.00	U	72.6	73	45-101	10	0-25
106-46-7	MSD	1,4-Dichlorobenzene	100	0.00	U	64.0	64	37-91	14	0-25
621-64-7	MSD	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	100	0.00	U	74.6	75	42-116	11	0-25
59-50-7	MSD	Parachlorometa cresol *4-Chloro-3-methylphenol*	100	0.00	U	90.4	90	48-117	4	0-25
83-32-9	MSD	Acenaphthene	100	0.00	U	74.3	74	46-104	3	0-25
121-14-2	MSD	2,4-Dinitrotoluene	100	0.00	U	83.9	84	50-109	0	0-25
100-02-7	MSD	4-Nitrophenol	100	0.00	U	51.2	51	28-96	1	0-25
87-86-5	MSD	Pentachlorophenol	100	0.00	U	85.5	86	38-131	1	0-25
129-00-0	MSD	Pyrene	100	0.00	U	81.8	82	42-122	1	0-25
110-86-1	MSD	Pyridine	100	0.00	U	59.2	59	28-110	0	0-25
62-53-3	MSD	Aniline	100	0.00	U	79.3	79	38-129	11	0-25
111-44-4	MSD	bis(2-Chloroethyl) ether	100	0.00	U	65.4	65	41-107	10	0-25
541-73-1	MSD	1,3-Dichlorobenzene	100	0.00	U	63.9	64	36-94	16	0-25
100-51-6	MSD	Benzyl alcohol	100	0.00	U	86.7	87	34-104	12	0-25
95-50-1	MSD	1,2-Dichlorobenzene	100	0.00	U	65.9	66	36-97	14	0-25
108-60-1	MSD	bis(2-Chloroisopropyl)ether	100	0.00	U	73.0	73	38-118	11	0-25
95-48-7	MSD	o-Cresol	100	0.00	U	68.8	69	37-105	9	0-25
65794-96-9	MSD	m,p-Cresols	100	0.00	U	77.5	77	33-110	7	0-25
67-72-1	MSD	Hexachloroethane	100	0.00	U	57.9	58	34-95	18	0-25
98-95-3	MSD	Nitrobenzene	100	0.00	U	72.0	72	43-118	10	0-25

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-1020

Client ID: CAPA-10-6822MSD

Lab Sample ID: 1202003489

Instrument: MSD6.I

Analyst: NAG1

Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate

Matrix: GROUND WATER

Analysis Date: 01/06/2010 16:58

Dilution: 1

Prep Batch ID: 936345

Batch ID: 936348

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	100	0.00	U	77.5	77	46-115	9	0-25
88-75-5	MSD 2-Nitrophenol	100	0.00	U	76.6	77	42-114	9	0-25
105-67-9	MSD 2,4-Dimethylphenol	100	0.00	U	81.7	82	38-107	9	0-25
111-91-1	MSD bis(2-Chloroethoxy)methane	100	0.00	U	73.4	73	47-111	9	0-25
120-83-2	MSD 2,4-Dichlorophenol	100	0.00	U	80.6	81	45-112	8	0-25
65-85-0	MSD Benzoic acid	200	0.00	U	104	52	27-106	5	0-25
91-20-3	MSD Naphthalene	100	0.00	U	66.0	66	41-96	10	0-25
106-47-8	MSD 4-Chloroaniline	100	0.00	U	89.7	90	50-140	6	0-25
87-68-3	MSD Hexachlorobutadiene	100	0.00	U	65.7	66	31-106	17	0-25
91-57-6	MSD 2-Methylnaphthalene	100	0.00	U	77.5	77	44-98	12	0-25
90-12-0	MSD 1-Methylnaphthalene	100	0.00	U	75.4	75	45-94	10	0-25
77-47-4	MSD Hexachlorocyclopentadiene	100	0.00	U	33.5	34	15-139	26 *	0-25
88-06-2	MSD 2,4,6-Trichlorophenol	100	0.00	U	83.8	84	46-114	3	0-25
95-95-4	MSD 2,4,5-Trichlorophenol	100	0.00	U	87.0	87	46-117	1	0-25
91-58-7	MSD 2-Chloronaphthalene	100	0.00	U	74.3	74	41-108	7	0-25
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	100	0.00	U	76.9	77	43-120	2	0-25
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	100	0.00	U	88.8	89	47-130	0	0-25
131-11-3	MSD Dimethylphthalate	100	0.00	U	86.9	87	50-114	1	0-25
606-20-2	MSD 2,6-Dinitrotoluene	100	0.00	U	82.1	82	47-111	1	0-25
208-96-8	MSD Acenaphthylene	100	0.00	U	79.6	80	51-102	4	0-25
51-28-5	MSD 2,4-Dinitrophenol	100	0.00	U	63.6	64	27-128	2	0-25
132-64-9	MSD Dibenzofuran	100	0.00	U	96.6	97	49-109	4	0-25

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020 **Sample Type:** Matrix Spike Duplicate

Client ID: CAPA-10-6822MSD **Matrix:** GROUND WATER

Lab Sample ID: 1202003489

Instrument: MSD6.I **Analysis Date:** 01/06/2010 16:58 **Dilution:** 1

Analyst: NAG1 **Prep Batch ID** 936345

Inj. Vol: .5 uL **Batch ID:** 936348

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
84-66-2	MSD Diethylphthalate	100	0.00	U	88.1	88	52-115	1	0-25
86-73-7	MSD Fluorene	100	0.00	U	83.3	83	49-110	3	0-25
7005-72-3	MSD 4-Chlorophenylphenylether	100	0.00	U	85.3	85	48-115	2	0-25
534-52-1	MSD 2-Methyl-4,6-dinitrophenol	100	0.00	U	56.5	57	33-128	1	0-25
100-01-6	MSD 4-Nitroaniline *p-Nitroaniline*	100	0.00	U	88.5	89	37-138	0	0-25
122-39-4	MSD Diphenylamine	100	0.00	U	86.6	87	44-117	0	0-25
122-66-7	MSD Azobenzene *1,2-Diphenylhydrazine*	100	0.00	U	83.6	84	43-119	0	0-25
101-55-3	MSD 4-Bromophenylphenylether	100	0.00	U	85.3	85	44-118	1	0-25
118-74-1	MSD Hexachlorobenzene	100	0.00	U	90.1	90	47-120	0	0-25
1912-24-9	MSD Atrazine	100	0.00	U	87.3	87	43-118	0	0-25
85-01-8	MSD Phenanthrene	100	0.00	U	83.9	84	46-112	1	0-25
120-12-7	MSD Anthracene	100	0.00	U	84.9	85	47-112	0	0-25
84-74-2	MSD Di-n-butylphthalate	100	0.00	U	91.2	91	49-120	0	0-25
206-44-0	MSD Fluoranthene	100	0.00	U	88.7	89	46-122	1	0-25
92-87-5	MSD Benzidine	200	0.00	U	34.9	17 *	20-126	7	0-25
85-68-7	MSD Butylbenzylphthalate	100	0.00	U	90.5	91	47-127	2	0-25
56-55-3	MSD Benzo(a)anthracene	100	0.00	U	83.9	84	47-111	1	0-25
91-94-1	MSD 3,3'-Dichlorobenzidine	100	0.00	U	71.9	72	39-102	4	0-25
218-01-9	MSD Chrysene	100	0.00	U	85.3	85	48-112	2	0-25
117-81-7	MSD bis(2-Ethylhexyl)phthalate	100	0.00	U	94.0	94	43-130	2	0-25
117-84-0	MSD Di-n-octylphthalate	100	0.00	U	102	102	39-141	0	0-25
205-99-2	MSD Benzo(b)fluoranthene	100	0.00	U	91.4	91	43-125	1	0-25

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020
Client ID: CAPA-10-6822MSD
Lab Sample ID: 1202003489
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 01/06/2010 16:58
Dilution: 1
Prep Batch ID: 936345
Batch ID: 936348

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
207-08-9	MSD Benzo(k)fluoranthene	100	0.00	U	91.0	91	50-120	2	0-25
50-32-8	MSD Benzo(a)pyrene	100	0.00	U	90.8	91	49-118	2	0-25
193-39-5	MSD Indeno(1,2,3-cd)pyrene	100	0.00	U	76.3	76	40-124	1	0-25
53-70-3	MSD Dibenzo(a,h)anthracene	100	0.00	U	75.4	75	41-125	2	0-25
191-24-2	MSD Benzo(ghi)perylene	100	0.00	U	75.8	76	36-124	2	0-25
123-91-1	MSD 1,4-Dioxane	100	2.55	J	66.0	63	37-86	9	0-25
930-55-2	MSD N-Nitrosopyrrolidine	100	0.00	U	73.2	73	10-150	8	0-25
120-82-1	MSD 1,2,4-Trichlorobenzene	100	0.00	U	68.1	68	34-100	13	0-25

Method Blank Summary

SDG Number:	10-1020	Client:	LANL010	Matrix:	GROUND WATER
Client ID:	MB for batch 936345	Instrument ID:	MSD6.I	Data File:	s6a0608.d
Lab Sample ID:	1202003486	Prep Date:	12/24/2009 11:43	Analyzed:	01/06/10 12:16
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 936345	1202003487	s6a0609.d	01/06/10	1245
02 CAPA-10-6822	243401002	s6a0616.d	01/06/10	1602
03 CAPA-10-6822MS	1202003488	s6a0617.d	01/06/10	1630
04 CAPA-10-6822MSD	1202003489	s6a0618.d	01/06/10	1658
05 CAPA-10-6823	243401005	s6a0619.d	01/06/10	1726
06 CAPA-10-6824	243401009	s6a0620.d	01/06/10	1753
07 CAPA-10-6826	243401011	s6a0621.d	01/06/10	1821

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1020

Instrument ID: MSD6.I **Injection Date/Time:** 06-JAN-10 08:55

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s010610.b/s6a0601.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	43
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	41.4
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.7
197	0 - 1% of mass 198	0.5
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	23.5
365	Greater than 1% of mass 198	2.5
441	Present, but less than mass 443	75.6
442	Greater than 40% of mass 198	72.5
443	17 - 23% of mass 442	18.8

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN091223-17.2	/chem/MSD6.i/s010610.b/s6a060	06-JAN-10 09:46
AP12CVS	WBN100103-03.2	/chem/MSD6.i/s010610.b/s6a060	06-JAN-10 10:22
SBLK01	1202003486	/chem/MSD6.i/s010610.b/s6a060	06-JAN-10 12:16
SBLK01LCS	1202003487	/chem/MSD6.i/s010610.b/s6a060	06-JAN-10 12:45
CAPA-10-6822	243401002	/chem/MSD6.i/s010610.b/s6a061	06-JAN-10 16:02
CAPA-10-6822MS	1202003488	/chem/MSD6.i/s010610.b/s6a061	06-JAN-10 16:30
CAPA-10-6822MSD	1202003489	/chem/MSD6.i/s010610.b/s6a061	06-JAN-10 16:58
CAPA-10-6823	243401005	/chem/MSD6.i/s010610.b/s6a061	06-JAN-10 17:26
CAPA-10-6824	243401009	/chem/MSD6.i/s010610.b/s6a062	06-JAN-10 17:53
CAPA-10-6826	243401011	/chem/MSD6.i/s010610.b/s6a062	06-JAN-10 18:21

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1020

Instrument ID: MSD6.I **Injection Date/Time:** 09-NOV-09 18:00

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s110909.b/s6k0911.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.4
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.4
197	0 - 1% of mass 198	0.6
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.7
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	73.9
442	Greater than 40% of mass 198	77.9
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGAICAL	WBN091106-08	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 18:53
MEGAICAL	WBN091106-07	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 19:31
MEGAICAL	WBN091106-06	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 20:09
MEGAICAL	WBN091106-05.1	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 20:46
MEGAICAL	WBN091106-04	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 21:25
MEGAICAL	WBN091106-03	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 22:01
MEGAICAL	WBN091106-02	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 22:39
MEGAICAL	WBN091106-01	/chem/MSD6.i/s110909.b/s6k092	09-NOV-09 23:16

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-1020

Instrument ID: MSD6.I **Injection Date/Time:** 10-NOV-09 11:07

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s110909.b/s6k0921.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.1
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43.1
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	50.9
197	0 - 1% of mass 198	0.4
199	5 - 9% of mass 198	7
275	10 - 30% of mass 198	23.3
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	72.6
442	Greater than 40% of mass 198	76
443	17 - 23% of mass 442	19.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP12ICAL	WBN091016-01	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 11:59
AP12ICAL	WBN091016-02	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 12:36
AP12ICAL	WBN091016-03	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 13:13
AP12ICAL	WBN091016-04	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 13:51
AP12ICAL	WBN091016-05	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 14:30
AP12ICAL	WBN091016-06	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 15:06
AP12ICAL	WBN091016-07	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 15:43
MEGAICV	WBN091106-09.1	/chem/MSD6.i/s110909.b/s6k093	10-NOV-09 20:29
AP12ICV	WBN091016-08.1	/chem/MSD6.i/s110909.b/s6k093	10-NOV-09 21:07

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-1020

Instrument: MSD6.I

STD Analysis Time: 06-JAN-10 09:46

GC Column: J&W DB-5MS

Data File: s6a0603.d

	1,4-Dichlorobenzene-d4				Naphthalene-d8				Acenaphthene-d10				Phenanthrene-d10				Chrysene-d12				Perylene-d12			
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	246011		4.75		1013849		6.03		552080		7.89		999172		9.5		890342		12.5		743918		14.8	
Upper Limit	492022		5.25		2027698		6.53		1104160		8.39		1998344		10		1780684		13		1487836		15.3	
Lower Limit	123006		4.25		506925		5.53		276040		7.39		499586		9		445171		12		371959		14.3	
Sample ID																								
BLK01	259094		4.75		957158		6.02		536889		7.89		929353		9.5		754349		12.5		616377		14.8	
BLK01LCS	250866		4.75		1002198		6.03		543312		7.89		950027		9.5		795153		12.5		656973		14.8	
CAPA-10-6822	254597		4.75		937723		6.02		533803		7.89		936726		9.5		795809		12.5		693484		14.8	
CAPA-10-6822MS	259917		4.75		1042181		6.03		568113		7.89		1007265		9.5		821562		12.5		621882		14.8	
CAPA-10-6822MSD	288647		4.75		1138763		6.03		606504		7.89		1058534		9.5		841322		12.5		643144		14.8	
CAPA-10-6823	249255		4.75		906485		6.02		520422		7.89		890394		9.5		695596		12.5		513107		14.8	
CAPA-10-6824	249977		4.75		918021		6.02		510847		7.89		858924		9.5		623717		12.5		455879		14.8	
CAPA-10-6826	270410		4.75		995507		6.02		559677		7.89		965369		9.5		776172		12.5		570466		14.8	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401002**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6822**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 16:02**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**860 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0616.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	11.6	ug/L	2.33	11.6
108-95-2	Phenol	U	11.6	ug/L	1.16	11.6
95-57-8	2-Chlorophenol	U	11.6	ug/L	2.33	11.6
106-46-7	1,4-Dichlorobenzene	U	11.6	ug/L	2.33	11.6
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	11.6	ug/L	2.33	11.6
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	11.6	ug/L	2.33	11.6
83-32-9	Acenaphthene	U	1.16	ug/L	0.360	1.16
121-14-2	2,4-Dinitrotoluene	U	11.6	ug/L	2.33	11.6
100-02-7	4-Nitrophenol	U	11.6	ug/L	2.33	11.6
87-86-5	Pentachlorophenol	U	11.6	ug/L	2.33	11.6
129-00-0	Pyrene	U	1.16	ug/L	0.349	1.16
110-86-1	Pyridine	U	11.6	ug/L	3.49	11.6
62-53-3	Aniline	U	11.6	ug/L	2.91	11.6
111-44-4	bis(2-Chloroethyl) ether	U	11.6	ug/L	2.33	11.6
541-73-1	1,3-Dichlorobenzene	U	11.6	ug/L	2.33	11.6
100-51-6	Benzyl alcohol	U	11.6	ug/L	2.33	11.6
95-50-1	1,2-Dichlorobenzene	U	11.6	ug/L	2.33	11.6
108-60-1	bis(2-Chloroisopropyl)ether	U	11.6	ug/L	2.33	11.6
95-48-7	o-Cresol	U	11.6	ug/L	2.33	11.6
65794-96-9	m,p-Cresols	U	11.6	ug/L	3.49	11.6
67-72-1	Hexachloroethane	U	11.6	ug/L	2.33	11.6
98-95-3	Nitrobenzene	U	11.6	ug/L	3.49	11.6
78-59-1	Isophorone	U	11.6	ug/L	3.49	11.6
88-75-5	2-Nitrophenol	U	11.6	ug/L	2.33	11.6
105-67-9	2,4-Dimethylphenol	U	11.6	ug/L	2.33	11.6
111-91-1	bis(2-Chloroethoxy)methane	U	11.6	ug/L	3.49	11.6
120-83-2	2,4-Dichlorophenol	U	11.6	ug/L	2.33	11.6
65-85-0	Benzoic acid	U	23.3	ug/L	6.98	23.3
91-20-3	Naphthalene	U	1.16	ug/L	0.349	1.16
106-47-8	4-Chloroaniline	U	11.6	ug/L	2.33	11.6
87-68-3	Hexachlorobutadiene	U	11.6	ug/L	2.33	11.6
91-57-6	2-Methylnaphthalene	U	1.16	ug/L	0.349	1.16
90-12-0	1-Methylnaphthalene	U	1.16	ug/L	0.349	1.16
77-47-4	Hexachlorocyclopentadiene	U	11.6	ug/L	3.49	11.6
88-06-2	2,4,6-Trichlorophenol	U	11.6	ug/L	2.33	11.6
95-95-4	2,4,5-Trichlorophenol	U	11.6	ug/L	2.33	11.6
91-58-7	2-Chloronaphthalene	U	1.16	ug/L	0.349	1.16

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401002**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6822**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 16:02**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**860 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0616.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	11.6	ug/L	2.33	11.6
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	11.6	ug/L	2.33	11.6
131-11-3	Dimethylphthalate	U	11.6	ug/L	2.33	11.6
606-20-2	2,6-Dinitrotoluene	U	11.6	ug/L	2.33	11.6
208-96-8	Acenaphthylene	U	1.16	ug/L	0.233	1.16
51-28-5	2,4-Dinitrophenol	U	23.3	ug/L	5.81	23.3
132-64-9	Dibenzofuran	U	11.6	ug/L	2.33	11.6
84-66-2	Diethylphthalate	U	11.6	ug/L	2.33	11.6
86-73-7	Fluorene	U	1.16	ug/L	0.233	1.16
7005-72-3	4-Chlorophenylphenylether	U	11.6	ug/L	2.33	11.6
534-52-1	2-Methyl-4,6-dinitrophenol	U	11.6	ug/L	3.49	11.6
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	11.6	ug/L	3.49	11.6
122-39-4	Diphenylamine	U	11.6	ug/L	3.49	11.6
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	11.6	ug/L	2.33	11.6
101-55-3	4-Bromophenylphenylether	U	11.6	ug/L	2.33	11.6
118-74-1	Hexachlorobenzene	U	11.6	ug/L	2.33	11.6
1912-24-9	Atrazine	U	11.6	ug/L	3.49	11.6
85-01-8	Phenanthrene	U	1.16	ug/L	0.233	1.16
120-12-7	Anthracene	U	1.16	ug/L	0.233	1.16
84-74-2	Di-n-butylphthalate	U	11.6	ug/L	2.33	11.6
206-44-0	Fluoranthene	U	1.16	ug/L	0.233	1.16
92-87-5	Benzidine	U	11.6	ug/L	3.49	11.6
85-68-7	Butylbenzylphthalate	U	11.6	ug/L	2.33	11.6
56-55-3	Benzo(a)anthracene	U	1.16	ug/L	0.233	1.16
91-94-1	3,3'-Dichlorobenzidine	U	11.6	ug/L	2.33	11.6
218-01-9	Chrysene	U	1.16	ug/L	0.233	1.16
117-81-7	bis(2-Ethylhexyl)phthalate	U	11.6	ug/L	2.33	11.6
117-84-0	Di-n-octylphthalate	U	11.6	ug/L	3.49	11.6
205-99-2	Benzo(b)fluoranthene	U	1.16	ug/L	0.233	1.16
207-08-9	Benzo(k)fluoranthene	U	1.16	ug/L	0.233	1.16
50-32-8	Benzo(a)pyrene	U	1.16	ug/L	0.233	1.16
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.16	ug/L	0.233	1.16
53-70-3	Dibenzo(a,h)anthracene	U	1.16	ug/L	0.233	1.16
191-24-2	Benzo(ghi)perylene	U	1.16	ug/L	0.233	1.16
123-91-1	1,4-Dioxane	J	2.55	ug/L	2.33	11.6
55-18-5	N-Nitrosodiethylamine	U	11.6	ug/L	2.33	11.6

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401002**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6822**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 16:02**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**860 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0616.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	11.6	ug/L	2.33	11.6
924-16-3	N-Nitrosodi-n-butylamine	U	11.6	ug/L	3.49	11.6
95-94-3	1,2,4,5-Tetrachlorobenzene	U	11.6	ug/L	3.49	11.6
608-93-5	Pentachlorobenzene	U	11.6	ug/L	3.49	11.6
58-90-2	2,3,4,6-Tetrachlorophenol	U	11.6	ug/L	2.33	11.6
88-85-7	Dinoseb	U	11.6	ug/L	2.33	11.6
120-82-1	1,2,4-Trichlorobenzene	U	11.6	ug/L	2.33	11.6

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	91.2	116	ug/L	78.5	(39%-115%)
2-Fluorobiphenyl	38.4	58.1	ug/L	66.1	(35%-100%)
2-Fluorophenol	49.6	116	ug/L	42.7	(25%-92%)
Nitrobenzene-d5	40.7	58.1	ug/L	70.0	(40%-112%)
Phenol-d5	32.7	116	ug/L	28.1	(15%-73%)
p-Terphenyl-d14	47.1	58.1	ug/L	81.1	(46%-130%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
563-80-4	2-Butanone, 3-methyl-	2.13	16.9	ug/L	72	NJ

GEL Laboratories LLC

Data file : /chem/MSD6.i/s010610.b/s6a0616.d
Lab Smp Id: 243401002 Client Smp ID: CAPA-10-6822
Inj Date : 06-JAN-2010 16:02
Operator : nagl Inst ID: MSD6.i
Smp Info : |243401002|936348|1|SVM|1|LANL
Misc Info : |MSD82709L|WBN091223-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Meth Date : 07-Jan-2010 08:58 hnm Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1020.sub
Target Version: 3.50
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	860.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.749	4.750	(1.000)	254597	40.0000	
* 29 Naphthalene-d8	136	6.023	6.026	(1.000)	937723	40.0000	
* 46 Acenaphthene-d10	164	7.888	7.894	(1.000)	533803	40.0000	
* 67 Phenanthrene-d10	188	9.499	9.502	(1.000)	936726	40.0000	
* 91 Chrysene-d12	240	12.485	12.496	(1.000)	795809	40.0000	
* 98 Perylene-d12	264	14.773	14.779	(1.000)	693484	40.0000	
$ 3 2-Fluorophenol	112	3.595	3.588	(0.757)	272197	42.6930	49.6
$ 5 Phenol-d5	99	4.362	4.370	(0.918)	226095	28.0969	32.7
$ 20 Nitrobenzene-d5	82	5.284	5.290	(0.877)	232006	34.9754	40.7
$ 39 2-Fluorobiphenyl	172	7.147	7.150	(0.906)	454626	33.0480	38.4
$ 60 2,4,6-Tribromophenol	329	8.737	8.743	(1.108)	122231	78.4525	91.2
$ 81 p-Terphenyl-d14	244	11.206	11.207	(0.898)	520250	40.5376	47.1
102 1,4-Dioxane	88	2.412	2.410	(0.508)	5117	2.19619	2.6(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s6a0616.d
Report Date: 01/06/2010 16:55
Lab. ID: 243401002 SampleType: SAMPLE
Injection Date: 06-JAN-2010 16:02
Operator: nagl Instrument: MSD6.i
Sample Info: |243401002|936348|1|SVM|1|LANL
Miscellaneous Info: |MSD82709L|WBN091223-01
Comment:
Method used: /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1020
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	33060	5.28	5.13	80-120	100	(T)
42	20674	5.28	5.13	46-106	63	(T)
22 Isophorone				CAS#: 78-59-1		
82	232006	5.28	5.54	80-120	100	(T)
138	5026	6.02	5.54	0- 49	2	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	94324	7.89	7.58	80-120	100	(T)
164	533803	7.89	7.58	0- 40	566	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	69651	7.89	8.09	80-120	100	(T)
89	869	7.89	8.09	44-104	1	(QT)
63	877	7.89	8.09	21- 81	1	(QT)
52 4-Nitrophenol				CAS#: 100-02-7		
139	431	8.48	8.01	80-120	100	(T)
109	906	7.89	8.01	40-100	210	(QT)
65	1948	8.48	8.01	64-124	452	(QT)
53 Fluorene				CAS#: 86-73-7		
166	7047	8.74	8.48	80-120	100	(T)
165	7920	8.73	8.48	62-122	112	(T)
167	2570	8.74	8.48	0- 44	36	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	241	8.74	8.53	80-120	100	(T)
105	697	8.73	8.53	11- 71	289	(QT)
51	921	8.73	8.53	28- 88	381	(QT)
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	7788	8.74	9.00	80-120	100	(T)
141	55630	8.74	9.00	51-111	714	(QT)
250	15720	8.74	9.00	69-129	202	(QT)
102 1,4-Dioxane				CAS#: 123-91-1		
88	5117	2.41	2.41	80-120	100	( )
58	4038	2.41	2.41	55-115	79	( )
108 N-Nitrosodiethylamine				CAS#: 55-18-5		
102	28184	3.37	3.79	80-120	100	(T)
56	119260	3.37	3.79	37- 97	423	(QT)
121 N-Nitrosodi-n-butylamine				CAS#: 924-16-3		
84	22735	6.02	6.43	80-120	100	(T)
57	615	6.02	6.43	51-111	3	(QT)
41	720	6.03	6.43	0- 30	3	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s010610.b/s6a0616.d
Lab Smp Id: 243401002 Client Smp ID: CAPA-10-6822
Inj Date : 06-JAN-2010 16:02
Operator : nagl Inst ID: MSD6.i
Smp Info : |243401002|936348|1|SVM|1|LANL
Misc Info : |MSD82709L|WBN091223-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Meth Date : 07-Jan-2010 08:58 hnm Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1020.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	860.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.749	1507167	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/L)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.127	548626	14.5604630	16.9	0		0	10

Data File: /chem/MSD6.i/s010610.b/s6a0616.d
Date : 06-JAN-2010 16:02
Client ID: CAPA-10-6822
Sample Info: 1243401002|936348|1|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

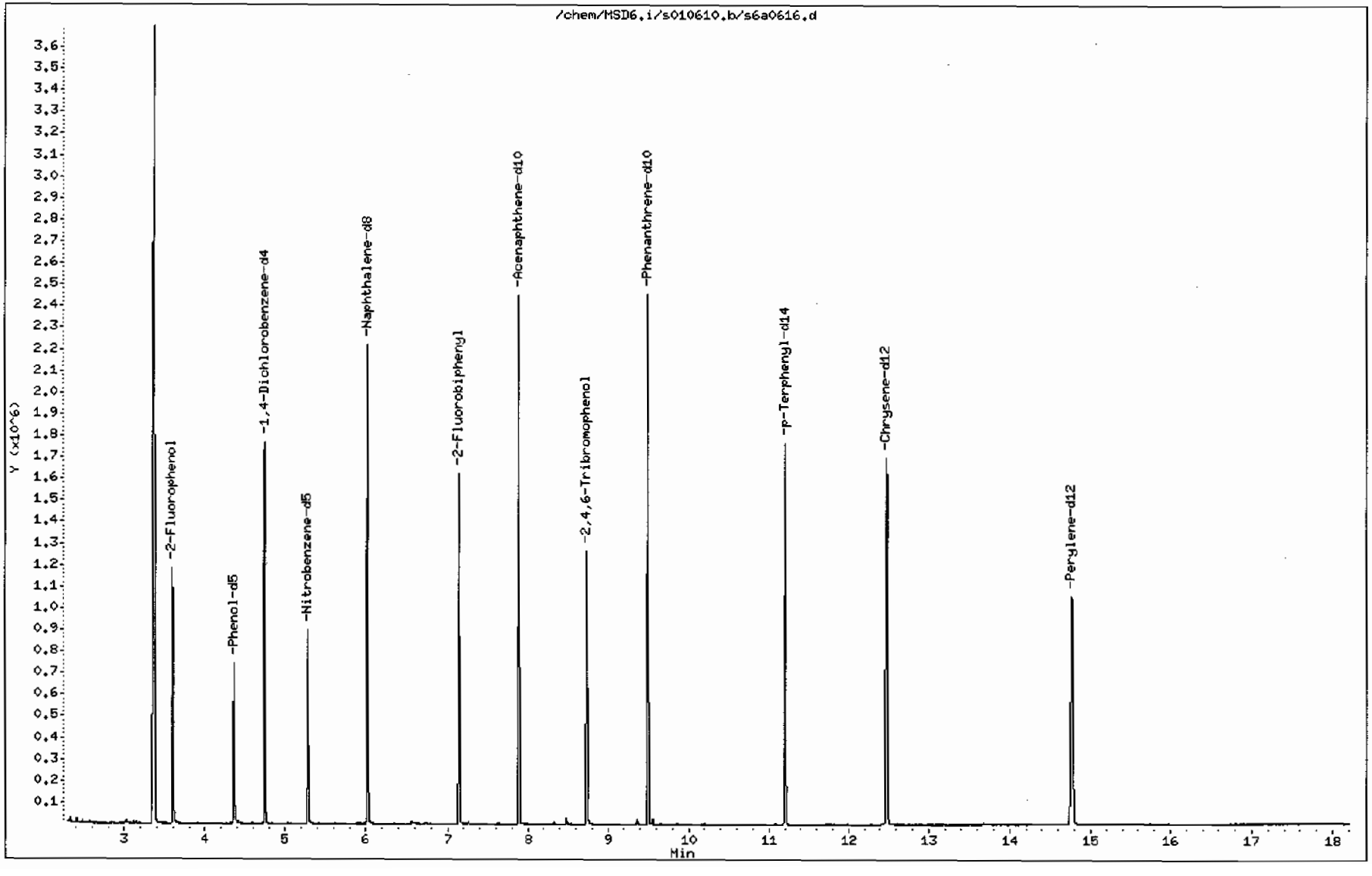

Data File: /chem/MSD6.i/s010610.b/s6a0616.d

Date : 06-JAN-2010 16:02

Client ID: CAPA-10-6822

Instrument: MSD6.i

Sample Info: 1243401002193634811ISVMI1ILANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

102 1,4-Dioxane

Concentration: 2.6 ug/L

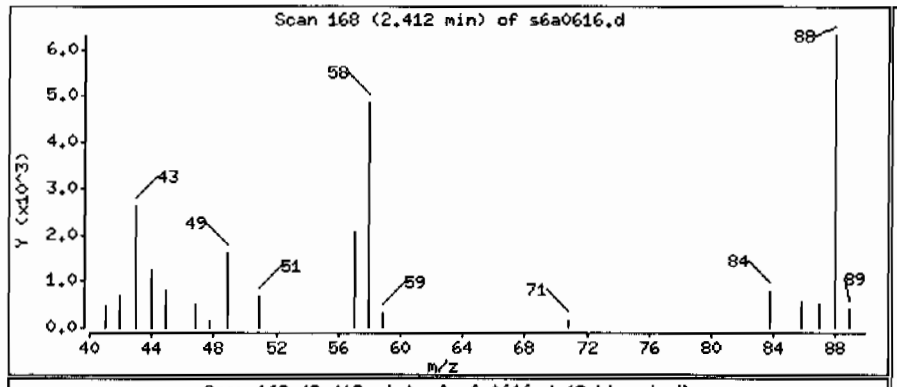

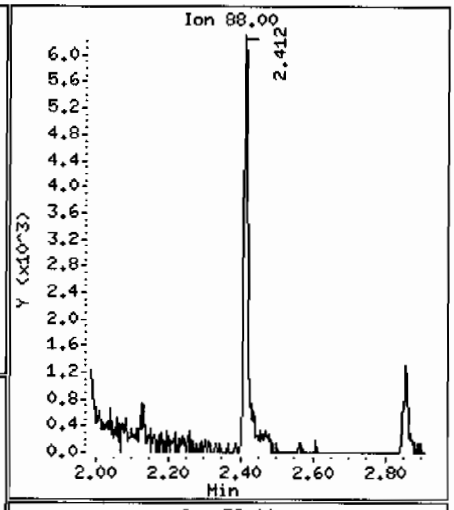

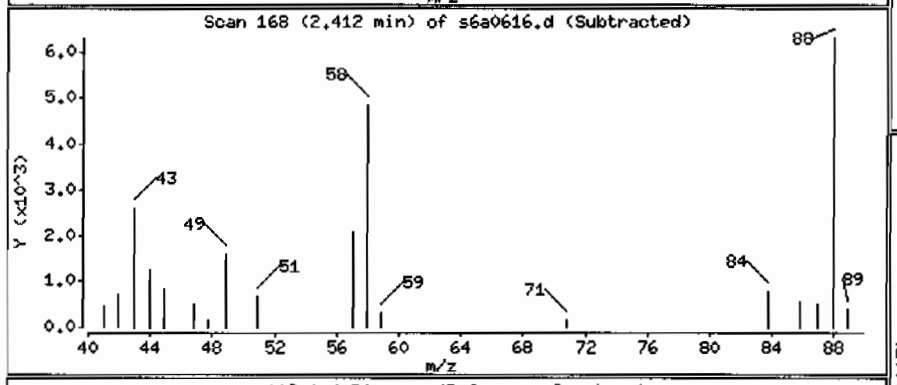

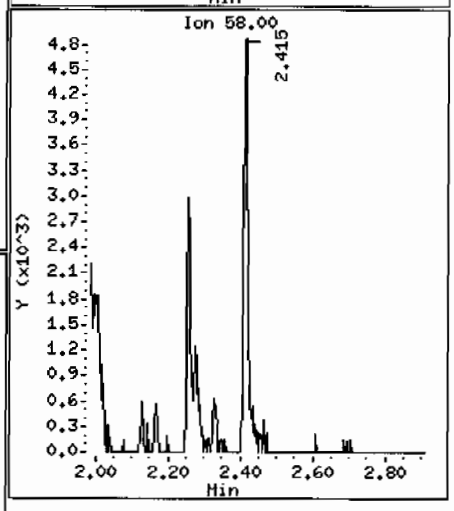

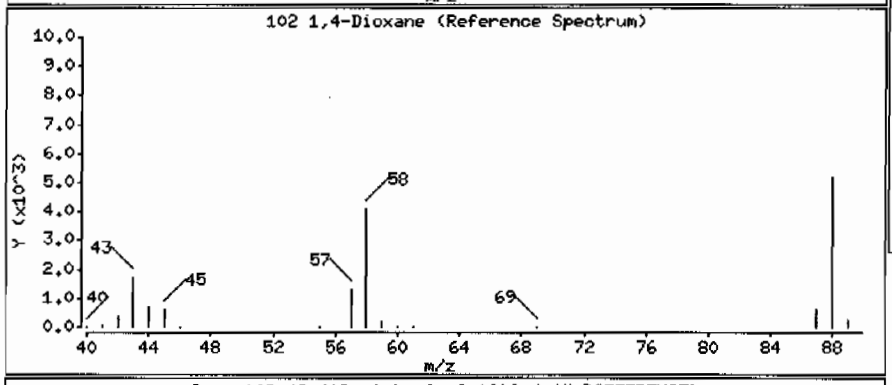

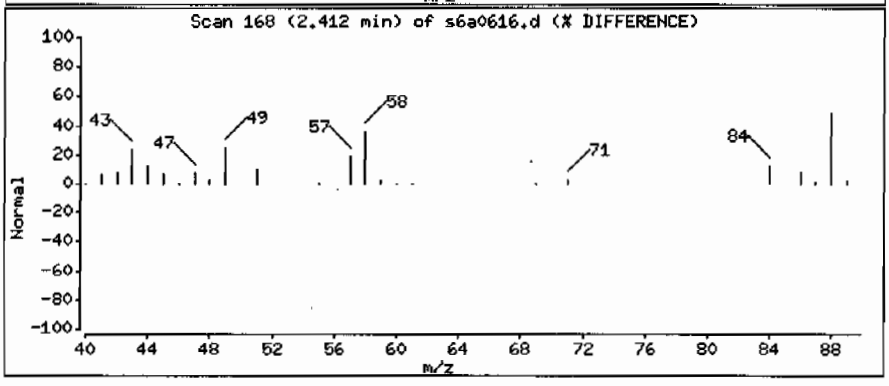

Data File: /chem/MSD6.i/s010610.b/s6a0616.d

Date : 06-JAN-2010 16:02

Client ID: CAPA-10-6822

Instrument: MSD6.i

Sample Info: 1243401002193634811SVMI1ILANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Butanone, 3-methyl-	563-80-4	NIST05.L	1740	72	C5H10O	86
2,3-Butanedione	431-03-8	NIST05.L	1636	45	C4H6O2	86
2,3-Butanedione	431-03-8	NIST05.L	1632	37	C4H6O2	86

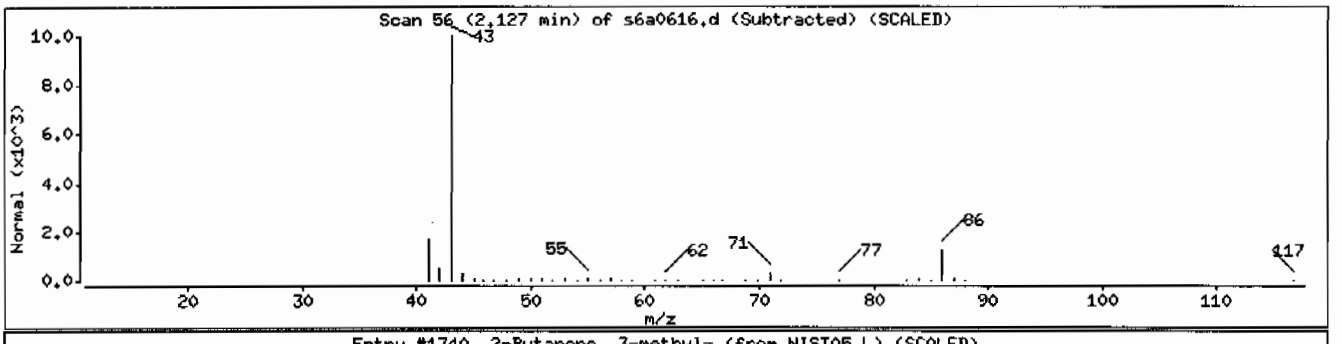

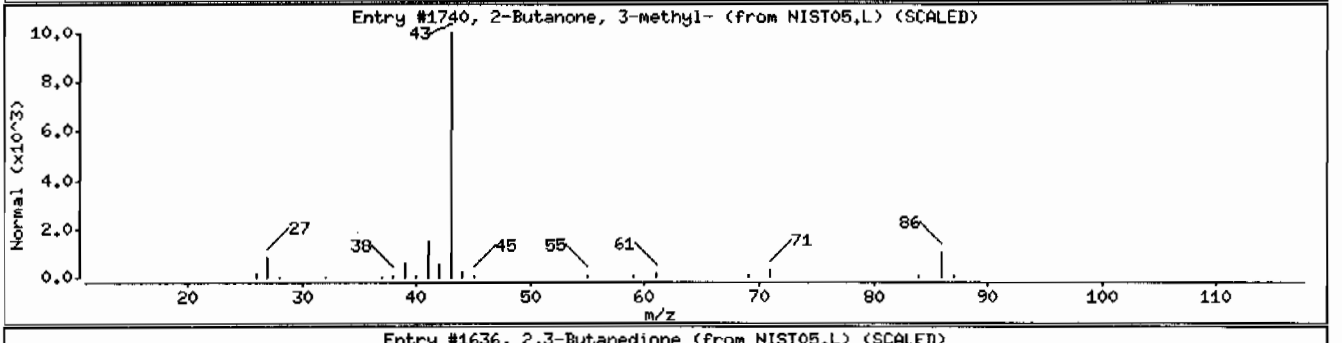

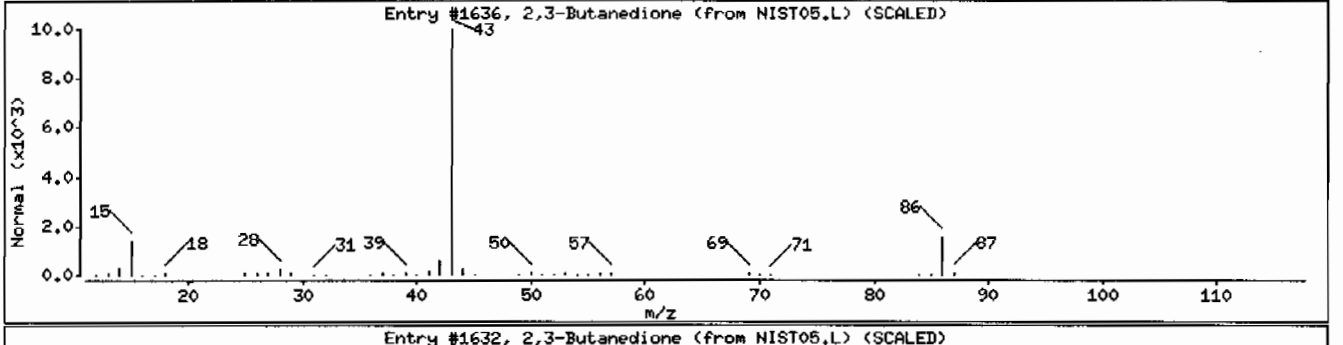

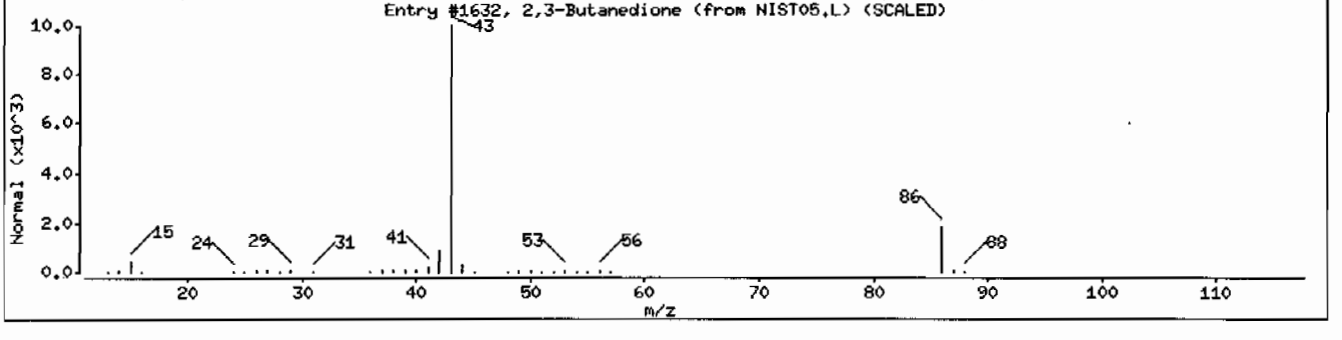

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401005**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6823**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 17:26**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**925 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0619.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.8	ug/L	2.16	10.8
108-95-2	Phenol	U	10.8	ug/L	1.08	10.8
95-57-8	2-Chlorophenol	U	10.8	ug/L	2.16	10.8
106-46-7	1,4-Dichlorobenzene	U	10.8	ug/L	2.16	10.8
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	10.8	ug/L	2.16	10.8
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	10.8	ug/L	2.16	10.8
83-32-9	Acenaphthene	U	1.08	ug/L	0.335	1.08
121-14-2	2,4-Dinitrotoluene	U	10.8	ug/L	2.16	10.8
100-02-7	4-Nitrophenol	U	10.8	ug/L	2.16	10.8
87-86-5	Pentachlorophenol	U	10.8	ug/L	2.16	10.8
129-00-0	Pyrene	U	1.08	ug/L	0.324	1.08
110-86-1	Pyridine	U	10.8	ug/L	3.24	10.8
62-53-3	Aniline	U	10.8	ug/L	2.70	10.8
111-44-4	bis(2-Chloroethyl) ether	U	10.8	ug/L	2.16	10.8
541-73-1	1,3-Dichlorobenzene	U	10.8	ug/L	2.16	10.8
100-51-6	Benzyl alcohol	U	10.8	ug/L	2.16	10.8
95-50-1	1,2-Dichlorobenzene	U	10.8	ug/L	2.16	10.8
108-60-1	bis(2-Chloroisopropyl)ether	U	10.8	ug/L	2.16	10.8
95-48-7	o-Cresol	U	10.8	ug/L	2.16	10.8
65794-96-9	m,p-Cresols	U	10.8	ug/L	3.24	10.8
67-72-1	Hexachloroethane	U	10.8	ug/L	2.16	10.8
98-95-3	Nitrobenzene	U	10.8	ug/L	3.24	10.8
78-59-1	Isophorone	U	10.8	ug/L	3.24	10.8
88-75-5	2-Nitrophenol	U	10.8	ug/L	2.16	10.8
105-67-9	2,4-Dimethylphenol	U	10.8	ug/L	2.16	10.8
111-91-1	bis(2-Chloroethoxy)methane	U	10.8	ug/L	3.24	10.8
120-83-2	2,4-Dichlorophenol	U	10.8	ug/L	2.16	10.8
65-85-0	Benzoic acid	U	21.6	ug/L	6.49	21.6
91-20-3	Naphthalene	U	1.08	ug/L	0.324	1.08
106-47-8	4-Chloroaniline	U	10.8	ug/L	2.16	10.8
87-68-3	Hexachlorobutadicne	U	10.8	ug/L	2.16	10.8
91-57-6	2-Methylnaphthalene	U	1.08	ug/L	0.324	1.08
90-12-0	1-Methylnaphthalene	U	1.08	ug/L	0.324	1.08
77-47-4	Hexachlorocyclopentadiene	U	10.8	ug/L	3.24	10.8
88-06-2	2,4,6-Trichlorophenol	U	10.8	ug/L	2.16	10.8
95-95-4	2,4,5-Trichlorophenol	U	10.8	ug/L	2.16	10.8
91-58-7	2-Chloronaphthalene	U	1.08	ug/L	0.324	1.08

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401005**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6823**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 17:26**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**925 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0619.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.8	ug/L	2.16	10.8
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.8	ug/L	2.16	10.8
131-11-3	Dimethylphthalate	U	10.8	ug/L	2.16	10.8
606-20-2	2,6-Dinitrotoluene	U	10.8	ug/L	2.16	10.8
208-96-8	Acenaphthylene	U	1.08	ug/L	0.216	1.08
51-28-5	2,4-Dinitrophenol	U	21.6	ug/L	5.41	21.6
132-64-9	Dibenzofuran	U	10.8	ug/L	2.16	10.8
84-66-2	Diethylphthalate	U	10.8	ug/L	2.16	10.8
86-73-7	Fluorene	U	1.08	ug/L	0.216	1.08
7005-72-3	4-Chlorophenylphenylether	U	10.8	ug/L	2.16	10.8
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.8	ug/L	3.24	10.8
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.8	ug/L	3.24	10.8
122-39-4	Diphenylamine *1,2-Diphenylhydrazine*	U	10.8	ug/L	3.24	10.8
122-66-7	Azobenzene	U	10.8	ug/L	2.16	10.8
101-55-3	4-Bromophenylphenylether	U	10.8	ug/L	2.16	10.8
118-74-1	Hexachlorobenzene	U	10.8	ug/L	2.16	10.8
1912-24-9	Atrazine	U	10.8	ug/L	3.24	10.8
85-01-8	Phenanthrene	U	1.08	ug/L	0.216	1.08
120-12-7	Anthracene	U	1.08	ug/L	0.216	1.08
84-74-2	Di-n-butylphthalate	U	10.8	ug/L	2.16	10.8
206-44-0	Fluoranthene	U	1.08	ug/L	0.216	1.08
92-87-5	Benzidine	U	10.8	ug/L	3.24	10.8
85-68-7	Butylbenzylphthalate	U	10.8	ug/L	2.16	10.8
56-55-3	Benzo(a)anthracene	U	1.08	ug/L	0.216	1.08
91-94-1	3,3'-Dichlorobenzidine	U	10.8	ug/L	2.16	10.8
218-01-9	Chrysene	U	1.08	ug/L	0.216	1.08
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.8	ug/L	2.16	10.8
117-84-0	Di-n-octylphthalate	U	10.8	ug/L	3.24	10.8
205-99-2	Benzo(b)fluoranthene	U	1.08	ug/L	0.216	1.08
207-08-9	Benzo(k)fluoranthene	U	1.08	ug/L	0.216	1.08
50-32-8	Benzo(a)pyrene	U	1.08	ug/L	0.216	1.08
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.08	ug/L	0.216	1.08
53-70-3	Dibenzo(a,h)anthracene	U	1.08	ug/L	0.216	1.08
191-24-2	Benzo(ghi)perylene	U	1.08	ug/L	0.216	1.08
123-91-1	1,4-Dioxane	U	10.8	ug/L	2.16	10.8
55-18-5	N-Nitrosodiethylamine	U	10.8	ug/L	2.16	10.8

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401005**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6823**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.1**	**Dilution:**	**1**
Run Date:	**01/06/2010 17:26**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**925 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0619.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.8	ug/L	2.16	10.8
924-16-3	N-Nitrosodi-n-butylamine	U	10.8	ug/L	3.24	10.8
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.8	ug/L	3.24	10.8
608-93-5	Pentachlorobenzene	U	10.8	ug/L	3.24	10.8
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.8	ug/L	2.16	10.8
88-85-7	Dinoseb	U	10.8	ug/L	2.16	10.8
120-82-1	1,2,4-Trichlorobenzene	U	10.8	ug/L	2.16	10.8

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	86.2	108	ug/L	79.7	(39%-115%)
2-Fluorobiphenyl	36.7	54.1	ug/L	67.8	(35%-100%)
2-Fluorophenol	45.1	108	ug/L	41.7	(25%-92%)
Nitrobenzene-d5	38.1	54.1	ug/L	70.6	(40%-112%)
Phenol-d5	29.2	108	ug/L	27.0	(15%-73%)
p-Terphenyl-d14	50.8	54.1	ug/L	94.0	(46%-130%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.12	15.1	ug/L		J

GEL Laboratories LLC

Data file : /chem/MSD6.i/s010610.b/s6a0619.d
Lab Smp Id: 243401005 Client Smp ID: CAPA-10-6823
Inj Date : 06-JAN-2010 17:26
Operator : nagl Inst ID: MSD6.i
Smp Info : |243401005|936348|1|SVM|1|LANL
Misc Info : |MSD82709L|WBN091223-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Meth Date : 06-Jan-2010 16:53 llo00884 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1020.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	925.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.749	4.750	(1.000)	249255	40.0000	
* 29 Naphthalene-d8	136	6.023	6.026	(1.000)	906485	40.0000	
* 46 Acenaphthene-d10	164	7.888	7.894	(1.000)	520422	40.0000	
* 67 Phenanthrene-d10	188	9.499	9.502	(1.000)	890394	40.0000	
* 91 Chrysene-d12	240	12.482	12.496	(1.000)	695596	40.0000	
* 98 Perylene-d12	264	14.768	14.779	(1.000)	513107	40.0000	
$ 3 2-Fluorophenol	112	3.595	3.588	(0.757)	260324	41.7059	45.1
$ 5 Phenol-d5	99	4.362	4.370	(0.918)	212663	26.9941	29.2
$ 20 Nitrobenzene-d5	82	5.284	5.290	(0.877)	226200	35.2752	38.1
$ 39 2-Fluorobiphenyl	172	7.147	7.150	(0.906)	454797	33.9105	36.7
$ 60 2,4,6-Tribromophenol	329	8.737	8.743	(1.108)	121055	79.6954	86.2
$ 81 p-Terphenyl-d14	244	11.206	11.207	(0.898)	527199	46.9973	50.8

ION RATIO REPORT

SV REPORT

Data file: s6a0619.d
Report Date: 01/06/2010 18:03
Lab. ID: 243401005 SampleType: SAMPLE
Injection Date: 06-JAN-2010 17:26
Operator: nagl Instrument: MSD6.i
Sample Info: |243401005|936348|1|SVM|1|LANL
Miscellaneous Info: |MSD82709L|WBN091223-01
Comment:
Method used: /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1020
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	10922	4.36	4.44	80-120	100	(T)
93	129	4.84	4.44	218-278	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	31952	5.28	5.13	80-120	100	(T)
42	19938	5.28	5.13	46-106	62	(T)
22 Isophorone		CAS#: 78-59-1				
82	226200	5.28	5.54	80-120	100	(T)
138	4978	6.02	5.54	0- 49	2	(T)
43 Dimethylphthalate			CAS#: 131-11-3			
163	92374	7.89	7.58	80-120	100	(T)
164	520422	7.89	7.58	0- 40	563	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	66505	7.89	8.09	80-120	100	(T)
89	508	7.89	8.09	44-104	1	(QT)
63	636	7.89	8.09	21- 81	1	(QT)
53 Fluorene		CAS#: 86-73-7				
166	7339	8.74	8.48	80-120	100	(T)
165	7576	8.74	8.48	62-122	103	(T)
167	2447	8.73	8.48	0- 44	33	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	236	8.73	8.53	80-120	100	(T)
105	782	8.74	8.53	11- 71	331	(QT)
51	681	8.74	8.53	28- 88	288	(QT)
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	7736	8.74	9.00	80-120	100	(T)
141	54019	8.74	9.00	51-111	698	(QT)
250	14941	8.74	9.00	69-129	193	(QT)
108 N-Nitrosodiethylamine				CAS#: 55-18-5		
102	29120	3.37	3.79	80-120	100	(T)
56	120287	3.37	3.79	37- 97	413	(QT)
121 N-Nitrosodi-n-butylamine				CAS#: 924-16-3		
84	22646	6.02	6.43	80-120	100	(T)
57	1063	6.02	6.43	51-111	5	(QT)
41	410	6.02	6.43	0- 30	2	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s010610.b/s6a0619.d
Lab Smp Id: 243401005 Client Smp ID: CAPA-10-6823
Inj Date : 06-JAN-2010 17:26
Operator : nag1 Inst ID: MSD6.i
Smp Info : |243401005|936348|1|SVM|1|LANL
Misc Info : |MSD82709L|WBN091223-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Meth Date : 06-Jan-2010 16:53 llo00884 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1020.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	925.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.749	1467407	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/L)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.124	511795	13.9510067	15.1	0		0	10

Data File: /chem/MSD6.i/s010610.b/s6a0619.d

Date : 06-JAN-2010 17:26

Client ID: CAPA-10-6823

Sample Info: !2434010051936348!1!SVMI1!LANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1

Column diameter: 0.20

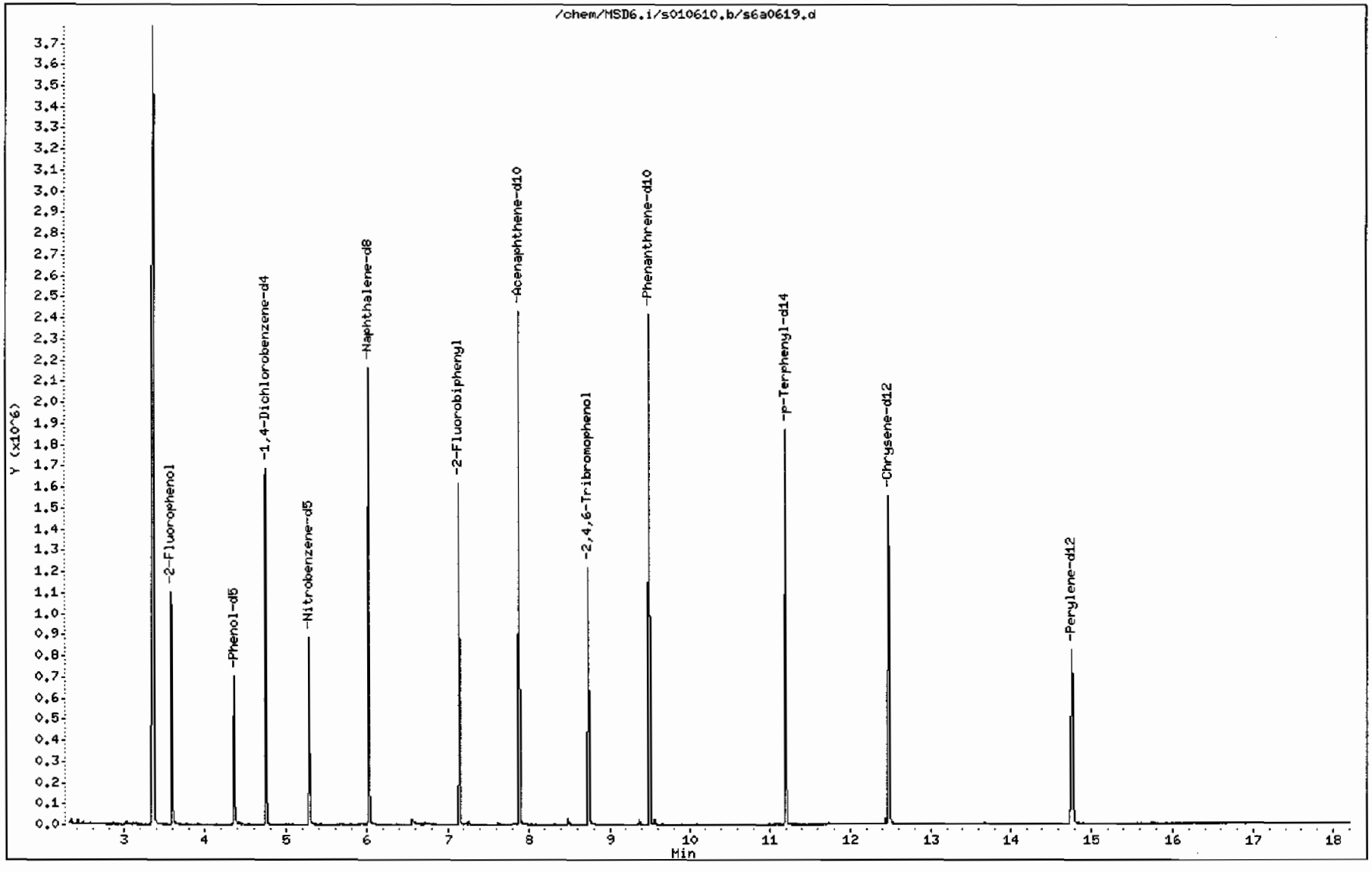

Data File: /chem/MSD6.i/s010610.b/s6a0619.d

Date : 06-JAN-2010 17:26

Client ID: CAPA-10-6823

Instrument: MSD6.i

Sample Info: |2434010051936348|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Butanone, 3-methyl-	563-80-4	NIST05.L	1738	59	C5H10O	86
2-Butanone, 3-methyl-	563-80-4	NIST05.L	1740	50	C5H10O	86
2,3-Butanedione	431-03-8	NIST05.L	1636	45	C4H6O2	86

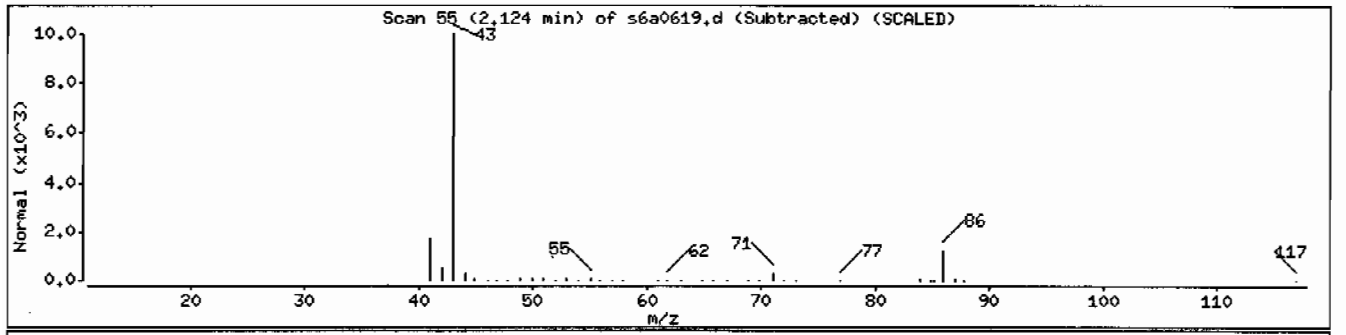

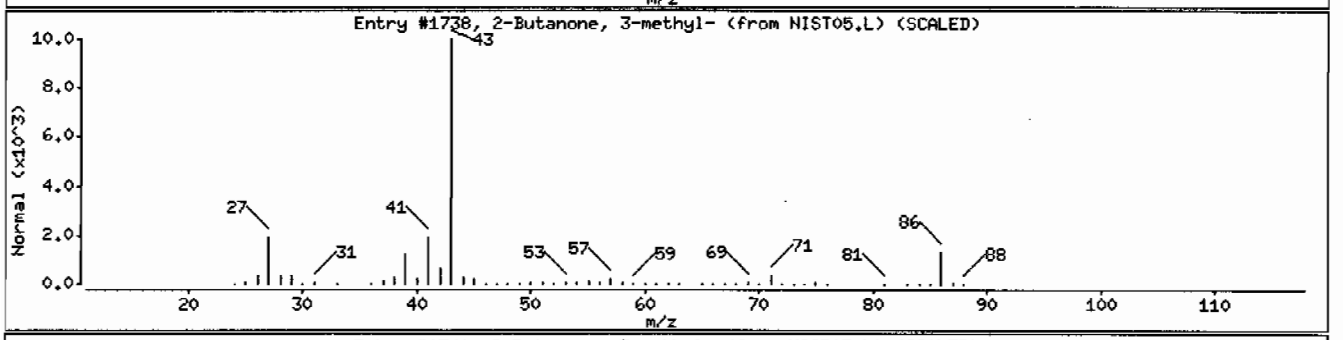

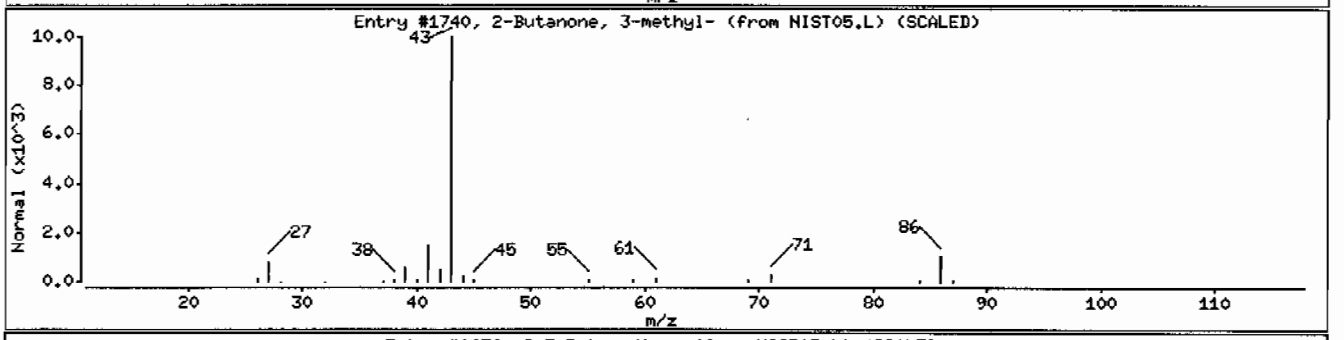

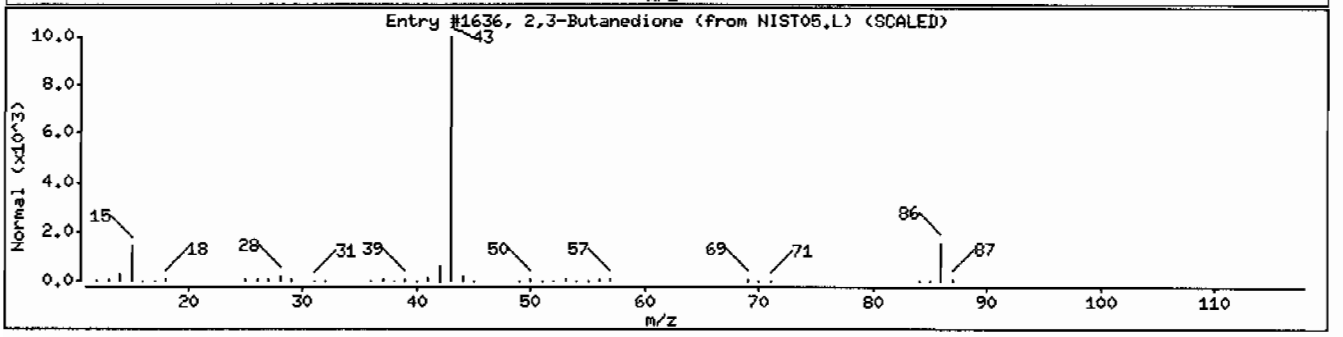

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401009**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6824**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 17:53**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**925 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0620.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.8	ug/L	2.16	10.8
108-95-2	Phenol	U	10.8	ug/L	1.08	10.8
95-57-8	2-Chlorophenol	U	10.8	ug/L	2.16	10.8
106-46-7	1,4-Dichlorobenzene	U	10.8	ug/L	2.16	10.8
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	10.8	ug/L	2.16	10.8
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	10.8	ug/L	2.16	10.8
83-32-9	Acenaphthene	U	1.08	ug/L	0.335	1.08
121-14-2	2,4-Dinitrotoluene	U	10.8	ug/L	2.16	10.8
100-02-7	4-Nitrophenol	U	10.8	ug/L	2.16	10.8
87-86-5	Pentachlorophenol	U	10.8	ug/L	2.16	10.8
129-00-0	Pyrene	U	1.08	ug/L	0.324	1.08
110-86-1	Pyridine	U	10.8	ug/L	3.24	10.8
62-53-3	Aniline	U	10.8	ug/L	2.70	10.8
111-44-4	bis(2-Chloroethyl) ether	U	10.8	ug/L	2.16	10.8
541-73-1	1,3-Dichlorobenzene	U	10.8	ug/L	2.16	10.8
100-51-6	Benzyl alcohol	U	10.8	ug/L	2.16	10.8
95-50-1	1,2-Dichlorobenzene	U	10.8	ug/L	2.16	10.8
108-60-1	bis(2-Chloroisopropyl)ether	U	10.8	ug/L	2.16	10.8
95-48-7	o-Cresol	U	10.8	ug/L	2.16	10.8
65794-96-9	m,p-Cresols	U	10.8	ug/L	3.24	10.8
67-72-1	Hexachloroethane	U	10.8	ug/L	2.16	10.8
98-95-3	Nitrobenzene	U	10.8	ug/L	3.24	10.8
78-59-1	Isophorone	U	10.8	ug/L	3.24	10.8
88-75-5	2-Nitrophenol	U	10.8	ug/L	2.16	10.8
105-67-9	2,4-Dimethylphenol	U	10.8	ug/L	2.16	10.8
111-91-1	bis(2-Chloroethoxy)methane	U	10.8	ug/L	3.24	10.8
120-83-2	2,4-Dichlorophenol	U	10.8	ug/L	2.16	10.8
65-85-0	Benzoic acid	U	21.6	ug/L	6.49	21.6
91-20-3	Naphthalene	U	1.08	ug/L	0.324	1.08
106-47-8	4-Chloroaniline	U	10.8	ug/L	2.16	10.8
87-68-3	Hexachlorobutadiene	U	10.8	ug/L	2.16	10.8
91-57-6	2-Methylnaphthalene	U	1.08	ug/L	0.324	1.08
90-12-0	1-Methylnaphthalene	U	1.08	ug/L	0.324	1.08
77-47-4	Hexachlorocyclopentadiene	U	10.8	ug/L	3.24	10.8
88-06-2	2,4,6-Trichlorophenol	U	10.8	ug/L	2.16	10.8
95-95-4	2,4,5-Trichlorophenol	U	10.8	ug/L	2.16	10.8
91-58-7	2-Chloronaphthalene	U	1.08	ug/L	0.324	1.08

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401009**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6824**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 17:53**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**925 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0620.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.8	ug/L	2.16	10.8
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.8	ug/L	2.16	10.8
131-11-3	Dimethylphthalate	U	10.8	ug/L	2.16	10.8
606-20-2	2,6-Dinitrotoluene	U	10.8	ug/L	2.16	10.8
208-96-8	Acenaphthylene	U	1.08	ug/L	0.216	1.08
51-28-5	2,4-Dinitrophenol	U	21.6	ug/L	5.41	21.6
132-64-9	Dibenzofuran	U	10.8	ug/L	2.16	10.8
84-66-2	Diethylphthalate	U	10.8	ug/L	2.16	10.8
86-73-7	Fluorene	U	1.08	ug/L	0.216	1.08
7005-72-3	4-Chlorophenylphenylether	U	10.8	ug/L	2.16	10.8
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.8	ug/L	3.24	10.8
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.8	ug/L	3.24	10.8
122-39-4	Diphenylamine	U	10.8	ug/L	3.24	10.8
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	10.8	ug/L	2.16	10.8
101-55-3	4-Bromophenylphenylether	U	10.8	ug/L	2.16	10.8
118-74-1	Hexachlorobenzene	U	10.8	ug/L	2.16	10.8
1912-24-9	Atrazine	U	10.8	ug/L	3.24	10.8
85-01-8	Phenanthrene	U	1.08	ug/L	0.216	1.08
120-12-7	Anthracene	U	1.08	ug/L	0.216	1.08
84-74-2	Di-n-butylphthalate	U	10.8	ug/L	2.16	10.8
206-44-0	Fluoranthene	U	1.08	ug/L	0.216	1.08
92-87-5	Benzidine	U	10.8	ug/L	3.24	10.8
85-68-7	Butylbenzylphthalate	U	10.8	ug/L	2.16	10.8
56-55-3	Benzo(a)anthracene	U	1.08	ug/L	0.216	1.08
91-94-1	3,3'-Dichlorobenzidine	U	10.8	ug/L	2.16	10.8
218-01-9	Chrysene	U	1.08	ug/L	0.216	1.08
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.8	ug/L	2.16	10.8
117-84-0	Di-n-octylphthalate	U	10.8	ug/L	3.24	10.8
205-99-2	Benzo(b)fluoranthene	U	1.08	ug/L	0.216	1.08
207-08-9	Benzo(k)fluoranthene	U	1.08	ug/L	0.216	1.08
50-32-8	Benzo(a)pyrene	U	1.08	ug/L	0.216	1.08
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.08	ug/L	0.216	1.08
53-70-3	Dibenzo(a,h)anthracene	U	1.08	ug/L	0.216	1.08
191-24-2	Benzo(ghi)perylene	U	1.08	ug/L	0.216	1.08
123-91-1	1,4-Dioxane	J	2.29	ug/L	2.16	10.8
55-18-5	N-Nitrosodiethylamine	U	10.8	ug/L	2.16	10.8

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401009**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6824**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 17:53**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**925 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0620.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.8	ug/L	2.16	10.8
924-16-3	N-Nitrosodi-n-butylamine	U	10.8	ug/L	3.24	10.8
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.8	ug/L	3.24	10.8
608-93-5	Pentachlorobenzene	U	10.8	ug/L	3.24	10.8
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.8	ug/L	2.16	10.8
88-85-7	Dinoseb	U	10.8	ug/L	2.16	10.8
120-82-1	1,2,4-Trichlorobenzene	U	10.8	ug/L	2.16	10.8

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	95.2	108	ug/L	88.0	(39%-115%)
2-Fluorobiphenyl	44.2	54.1	ug/L	81.7	(35%-100%)
2-Fluorophenol	55.0	108	ug/L	50.9	(25%-92%)
Nitrobenzene-d5	45.9	54.1	ug/L	84.9	(40%-112%)
Phenol-d5	35.3	108	ug/L	32.7	(15%-73%)
p-Terphenyl-d14	57.1	54.1	ug/L	106	(46%-130%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.13	15.7	ug/L		J

GEL Laboratories LLC

Data file : /chem/MSD6.i/s010610.b/s6a0620.d
Lab Smp Id: 243401009 Client Smp ID: CAPA-10-6824
Inj Date : 06-JAN-2010 17:53
Operator : nagl Inst ID: MSD6.i
Smp Info : |243401009|936348|1|SVM|1|LANL
Misc Info : |MSD82709L|WBN091223-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Meth Date : 06-Jan-2010 16:53 llo00884 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1020.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	925.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.749	4.750	(1.000)	249977	40.0000	
* 29 Naphthalene-d8	136	6.021	6.026	(1.000)	918021	40.0000	
* 46 Acenaphthene-d10	164	7.888	7.894	(1.000)	510847	40.0000	
* 67 Phenanthrene-d10	188	9.499	9.502	(1.000)	858924	40.0000	
* 91 Chrysene-d12	240	12.482	12.496	(1.000)	623717	40.0000	
* 98 Perylene-d12	264	14.768	14.779	(1.000)	455879	40.0000	
$ 3 2-Fluorophenol	112	3.587	3.588	(0.755)	318676	50.9068	55.0
$ 5 Phenol-d5	99	4.362	4.370	(0.918)	258017	32.6564	35.3
$ 20 Nitrobenzene-d5	82	5.284	5.290	(0.878)	275638	42.4448	45.9
$ 39 2-Fluorobiphenyl	172	7.147	7.150	(0.906)	537815	40.8521	44.2
$ 60 2,4,6-Tribromophenol	329	8.737	8.743	(1.108)	131241	88.0207	95.2
$ 81 p-Terphenyl-d14	244	11.206	11.207	(0.898)	530972	52.7885	57.1
102 1,4-Dioxane	88	2.412	2.410	(0.508)	4837	2.11439	2.3(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s6a0620.d
Report Date: 01/06/2010 18:41
Lab. ID: 243401009 SampleType: SAMPLE
Injection Date: 06-JAN-2010 17:53
Operator: nagl Instrument: MSD6.i
Sample Info: |243401009|936348|1|SVM|1|LANL
Miscellaneous Info: |MSD82709L|WBN091223-01
Comment:
Method used: /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1020
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	38761	5.28	5.13	80-120	100	(T)
42	24420	5.28	5.13	46-106	63	(T)
22 Isophorone				CAS#: 78-59-1		
82	275638	5.28	5.54	80-120	100	(T)
138	5017	6.02	5.54	0- 49	2	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	91014	7.89	7.58	80-120	100	(T)
164	510847	7.89	7.58	0- 40	561	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	67956	7.89	8.09	80-120	100	(T)
89	835	7.89	8.09	44-104	1	(QT)
63	576	7.89	8.09	21- 81	1	(QT)
53 Fluorene				CAS#: 86-73-7		
166	8135	8.74	8.48	80-120	100	(T)
165	8289	8.74	8.48	62-122	102	(T)
167	2740	8.74	8.48	0- 44	34	(T)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	326	8.74	8.53	80-120	100	(T)
105	807	8.74	8.53	11- 71	247	(QT)
51	753	8.73	8.53	28- 88	230	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	8072	8.74	9.00	80-120	100	(T)
141	60453	8.74	9.00	51-111	749	(QT)
250	16560	8.74	9.00	69-129	205	(QT)
102 1,4-Dioxane			CAS#: 123-91-1			
88	4837	2.41	2.41	80-120	100	( )
58	3823	2.41	2.41	55-115	79	( )
121 N-Nitrosodi-n-butylamine				CAS#: 924-16-3		
84	22769	6.02	6.43	80-120	100	(T)
57	553	6.02	6.43	51-111	2	(QT)
41	1135	6.03	6.43	0- 30	5	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s010610.b/s6a0620.d
Lab Smp Id: 243401009 Client Smp ID: CAPA-10-6824
Inj Date : 06-JAN-2010 17:53
Operator : nag1 Inst ID: MSD6.i
Smp Info : |243401009|936348|1|SVM|1|LANL
Misc Info : |MSD82709L|WBN091223-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Meth Date : 06-Jan-2010 16:53 llo00884 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1020.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	925.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.749	1473792	40.000

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/L)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
2.127	535186	14.5254177	15.7	0		0	10

Data File: /chem/MSD6.i/s010610.b/s6a0620.d
Date : 06-JAN-2010 17:53
Client ID: CAPA-10-6824
Sample Info: |2434010091936348|1|SVM|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

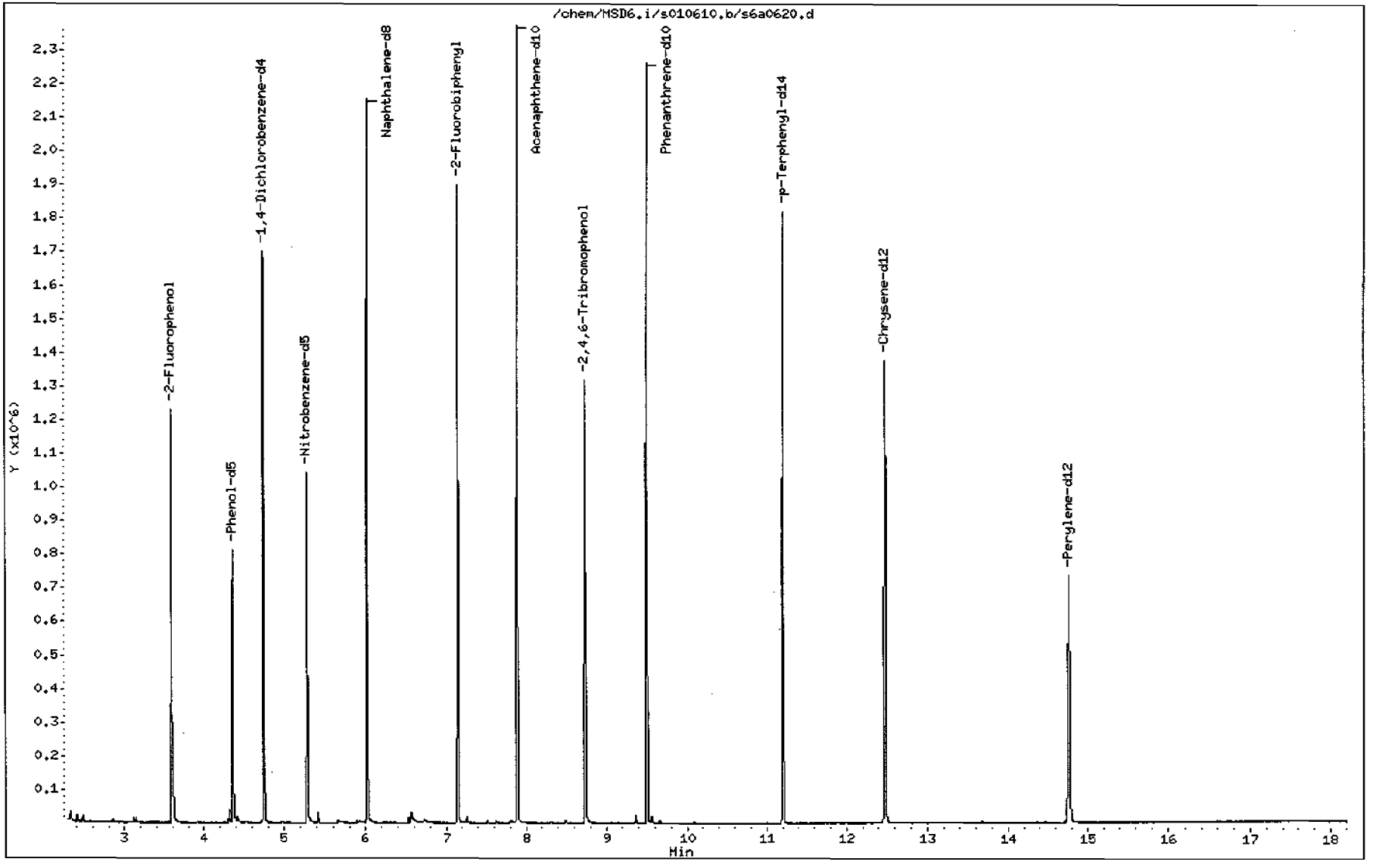

Data File: /chem/MSD6.i/s010610.b/s6a0620.d

Date : 06-JAN-2010 17:53

Client ID: CAPA-10-6824

Instrument: MSD6.i

Sample Info: |2434010091936348|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

102 1,4-Dioxane

Concentration: 2.3 ug/L

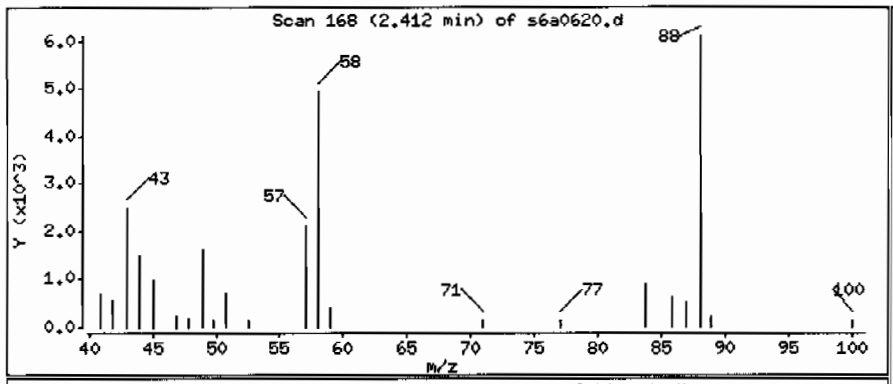

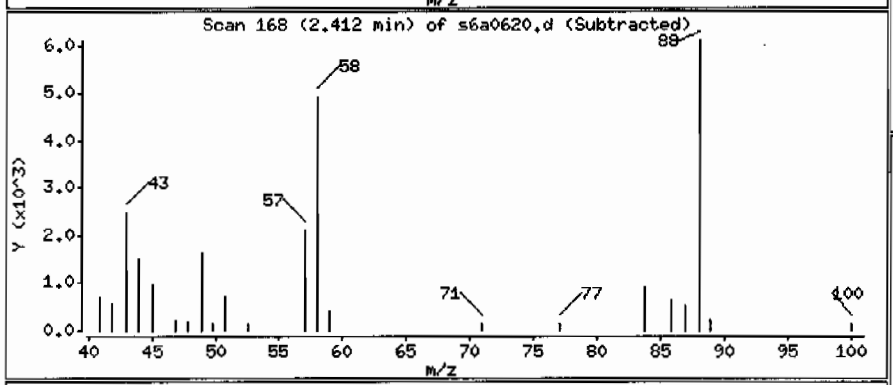

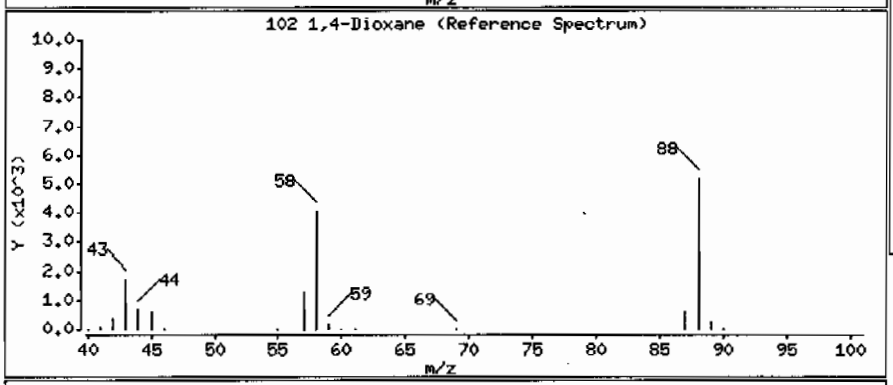

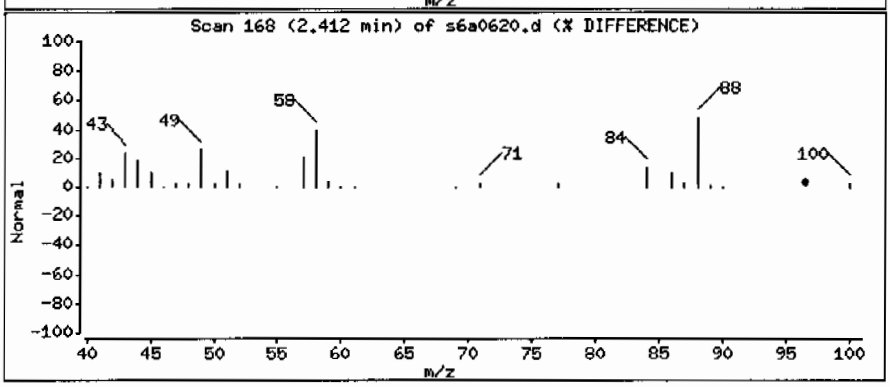

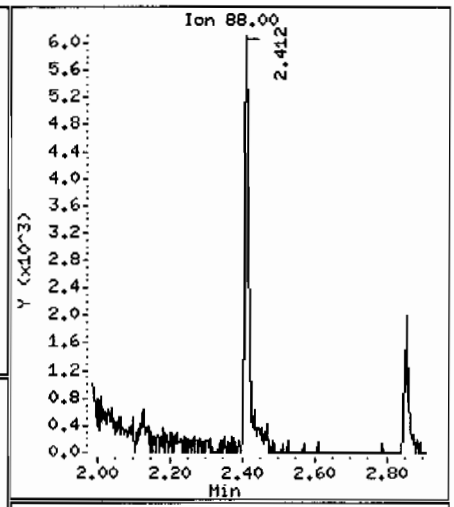

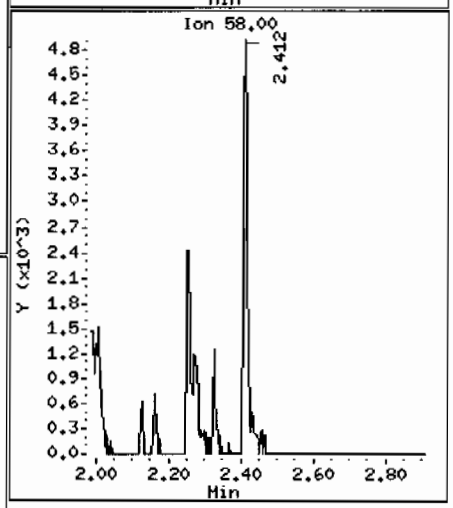

Data File: /chem/MSD6.i/s010610.b/s6a0620.d

Date : 06-JAN-2010 17:53

Client ID: CAPA-10-6824

Instrument: MSD6.i

Sample Info: |2434010091936348|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Butanone, 3-methyl-	563-80-4	NIST05.L	1740	72	C5H10O	86
2,3-Butanedione	431-03-8	NIST05.L	1636	42	C4H6O2	86
2-Butanone, 3-methyl-	563-80-4	NIST05.L	1738	40	C5H10O	86

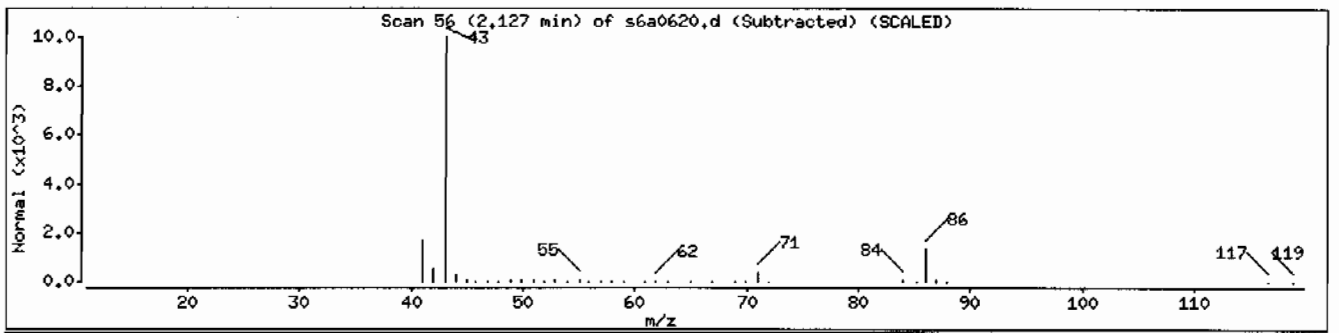

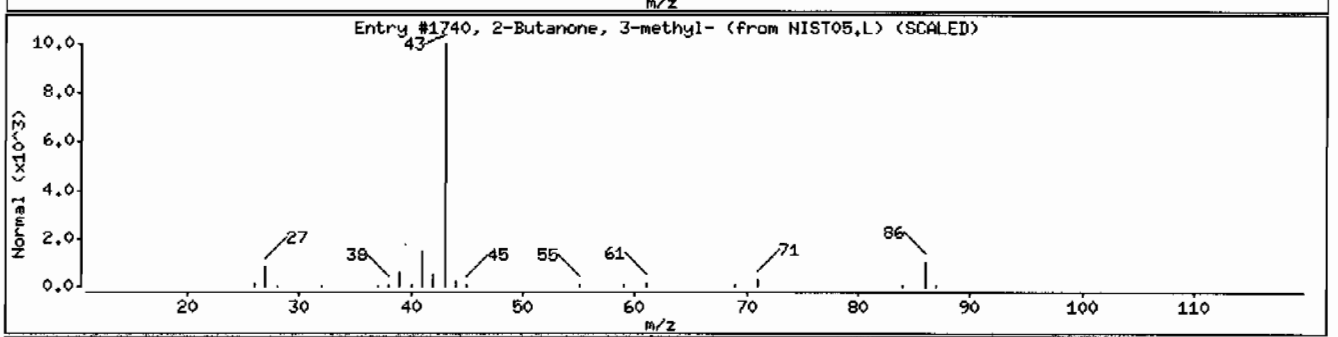

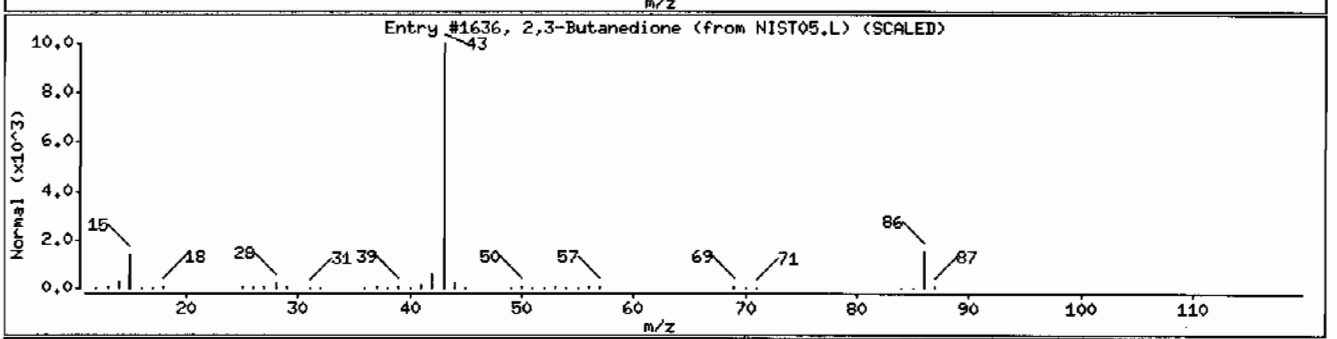

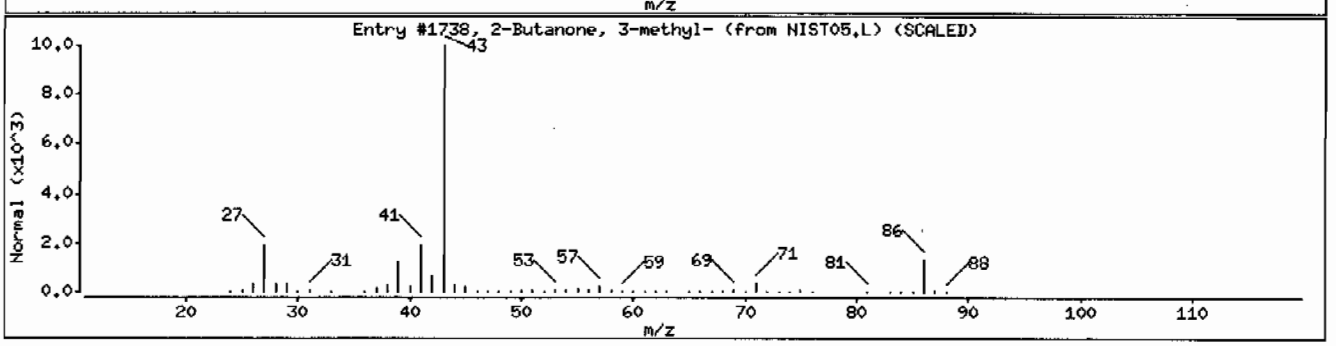

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401011**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6826**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 18:21**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**920 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0621.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.9	ug/L	2.17	10.9
108-95-2	Phenol	U	10.9	ug/L	1.09	10.9
95-57-8	2-Chlorophenol	U	10.9	ug/L	2.17	10.9
106-46-7	1,4-Dichlorobenzene	U	10.9	ug/L	2.17	10.9
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	10.9	ug/L	2.17	10.9
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	10.9	ug/L	2.17	10.9
83-32-9	Acenaphthene	U	1.09	ug/L	0.337	1.09
121-14-2	2,4-Dinitrotoluene	U	10.9	ug/L	2.17	10.9
100-02-7	4-Nitrophenol	U	10.9	ug/L	2.17	10.9
87-86-5	Pentachlorophenol	U	10.9	ug/L	2.17	10.9
129-00-0	Pyrene	U	1.09	ug/L	0.326	1.09
110-86-1	Pyridine	U	10.9	ug/L	3.26	10.9
62-53-3	Aniline	U	10.9	ug/L	2.72	10.9
111-44-4	bis(2-Chloroethyl) ether	U	10.9	ug/L	2.17	10.9
541-73-1	1,3-Dichlorobenzene	U	10.9	ug/L	2.17	10.9
100-51-6	Benzyl alcohol	U	10.9	ug/L	2.17	10.9
95-50-1	1,2-Dichlorobenzene	U	10.9	ug/L	2.17	10.9
108-60-1	bis(2-Chloroisopropyl)ether	U	10.9	ug/L	2.17	10.9
95-48-7	o-Cresol	U	10.9	ug/L	2.17	10.9
65794-96-9	m,p-Cresols	U	10.9	ug/L	3.26	10.9
67-72-1	Hexachloroethane	U	10.9	ug/L	2.17	10.9
98-95-3	Nitrobenzene	U	10.9	ug/L	3.26	10.9
78-59-1	Isophorone	U	10.9	ug/L	3.26	10.9
88-75-5	2-Nitrophenol	U	10.9	ug/L	2.17	10.9
105-67-9	2,4-Dimethylphenol	U	10.9	ug/L	2.17	10.9
111-91-1	bis(2-Chloroethoxy)methane	U	10.9	ug/L	3.26	10.9
120-83-2	2,4-Dichlorophenol	U	10.9	ug/L	2.17	10.9
65-85-0	Benzoic acid	U	21.7	ug/L	6.52	21.7
91-20-3	Naphthalene	U	1.09	ug/L	0.326	1.09
106-47-8	4-Chloroaniline	U	10.9	ug/L	2.17	10.9
87-68-3	Hexachlorobutadiene	U	10.9	ug/L	2.17	10.9
91-57-6	2-Methylnaphthalene	U	1.09	ug/L	0.326	1.09
90-12-0	1-Methylnaphthalene	U	1.09	ug/L	0.326	1.09
77-47-4	Hexachlorocyclopentadiene	U	10.9	ug/L	3.26	10.9
88-06-2	2,4,6-Trichlorophenol	U	10.9	ug/L	2.17	10.9
95-95-4	2,4,5-Trichlorophenol	U	10.9	ug/L	2.17	10.9
91-58-7	2-Chloronaphthalene	U	1.09	ug/L	0.326	1.09

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401011**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6826**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 18:21**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**920 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0621.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.9	ug/L	2.17	10.9
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.9	ug/L	2.17	10.9
131-11-3	Dimethylphthalate	U	10.9	ug/L	2.17	10.9
606-20-2	2,6-Dinitrotoluene	U	10.9	ug/L	2.17	10.9
208-96-8	Açenaphthylene	U	1.09	ug/L	0.217	1.09
51-28-5	2,4-Dinitrophenol	U	21.7	ug/L	5.43	21.7
132-64-9	Dibenzofuran	U	10.9	ug/L	2.17	10.9
84-66-2	Diethylphthalate	U	10.9	ug/L	2.17	10.9
86-73-7	Fluorene	U	1.09	ug/L	0.217	1.09
7005-72-3	4-Chlorophenylphenylether	U	10.9	ug/L	2.17	10.9
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.9	ug/L	3.26	10.9
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.9	ug/L	3.26	10.9
122-39-4	Diphenylamine *1,2-Diphenylhydrazine*	U	10.9	ug/L	3.26	10.9
122-66-7	Azobenzene	U	10.9	ug/L	2.17	10.9
101-55-3	4-Bromophenylphenylether	U	10.9	ug/L	2.17	10.9
118-74-1	Hexachlorobenzene	U	10.9	ug/L	2.17	10.9
1912-24-9	Atrazine	U	10.9	ug/L	3.26	10.9
85-01-8	Phenanthrene	U	1.09	ug/L	0.217	1.09
120-12-7	Anthracene	U	1.09	ug/L	0.217	1.09
84-74-2	Di-n-butylphthalate	U	10.9	ug/L	2.17	10.9
206-44-0	Fluoranthene	U	1.09	ug/L	0.217	1.09
92-87-5	Benzidine	U	10.9	ug/L	3.26	10.9
85-68-7	Butylbenzylphthalate	U	10.9	ug/L	2.17	10.9
56-55-3	Benzo(a)anthracene	U	1.09	ug/L	0.217	1.09
91-94-1	3,3'-Dichlorobenzidine	U	10.9	ug/L	2.17	10.9
218-01-9	Chrysene	U	1.09	ug/L	0.217	1.09
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.9	ug/L	2.17	10.9
117-84-0	Di-n-octylphthalate	U	10.9	ug/L	3.26	10.9
205-99-2	Benzo(b)fluoranthene	U	1.09	ug/L	0.217	1.09
207-08-9	Benzo(k)fluoranthene	U	1.09	ug/L	0.217	1.09
50-32-8	Benzo(a)pyrene	U	1.09	ug/L	0.217	1.09
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.09	ug/L	0.217	1.09
53-70-3	Dibenzo(a,h)anthracene	U	1.09	ug/L	0.217	1.09
191-24-2	Benzo(ghi)perylene	U	1.09	ug/L	0.217	1.09
123-91-1	1,4-Dioxane	J	2.19	ug/L	2.17	10.9
55-18-5	N-Nitrosodiethylamine	U	10.9	ug/L	2.17	10.9

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401011**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6826**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 18:21**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**920 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0621.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.9	ug/L	2.17	10.9
924-16-3	N-Nitrosodi-n-butylamine	U	10.9	ug/L	3.26	10.9
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.9	ug/L	3.26	10.9
608-93-5	Pentachlorobenzene	U	10.9	ug/L	3.26	10.9
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.9	ug/L	2.17	10.9
88-85-7	Dinoseb	U	10.9	ug/L	2.17	10.9
120-82-1	1,2,4-Trichlorobenzene	U	10.9	ug/L	2.17	10.9

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	93.4	109	ug/L	85.9	(39%-115%)
2-Fluorobiphenyl	38.7	54.3	ug/L	71.3	(35%-100%)
2-Fluorophenol	47.5	109	ug/L	43.7	(25%-92%)
Nitrobenzene-d5	40.0	54.3	ug/L	73.6	(40%-112%)
Phenol-d5	31.0	109	ug/L	28.5	(15%-73%)
p-Terphenyl-d14	50.2	54.3	ug/L	92.4	(46%-130%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.13	22	ug/L		J
50-84-0	Benzoic acid, 2,4-dichloro-	7.95	46.6	ug/L	99	NJ

GEL Laboratories LLC

Data file : /chem/MSD6.i/s010610.b/s6a0621.d
Lab Smp Id: 243401011 Client Smp ID: CAPA-10-6826
Inj Date : 06-JAN-2010 18:21
Operator : nagl Inst ID: MSD6.i
Smp Info : |243401011|936348|1|SVM|1|LANL
Misc Info : |MSD82709L|WBN091223-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Meth Date : 06-Jan-2010 16:53 llo00884 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1020.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	920.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.747	4.750	(1.000)	270410	40.0000	
* 29 Naphthalene-d8	136	6.021	6.026	(1.000)	995507	40.0000	
* 46 Acenaphthene-d10	164	7.888	7.894	(1.000)	559677	40.0000	
* 67 Phenanthrene-d10	188	9.499	9.502	(1.000)	965369	40.0000	
* 91 Chrysene-d12	240	12.483	12.496	(1.000)	776172	40.0000	
* 98 Perylene-d12	264	14.771	14.779	(1.000)	570466	40.0000	
$ 3 2-Fluorophenol	112	3.587	3.588	(0.756)	295718	43.6698	47.5
$ 5 Phenol-d5	99	4.359	4.370	(0.918)	243550	28.4961	31.0
$ 20 Nitrobenzene-d5	82	5.284	5.290	(0.878)	259040	36.7841	40.0
$ 39 2-Fluorobiphenyl	172	7.147	7.150	(0.906)	513950	35.6333	38.7
$ 60 2,4,6-Tribromophenol	329	8.739	8.743	(1.108)	140318	85.8978	93.4
$ 81 p-Terphenyl-d14	244	11.206	11.207	(0.898)	578441	46.2122	50.2
102 1,4-Dioxane	88	2.412	2.410	(0.508)	4992	2.01725	2.2(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s6a0621.d
Report Date: 01/06/2010 18:41
Lab. ID: 243401011 SampleType: SAMPLE
Injection Date: 06-JAN-2010 18:21
Operator: nagl Instrument: MSD6.i
Sample Info: |243401011|936348|1|SVM|1|LANL
Miscellaneous Info: |MSD82709L|WBN091223-01
Comment:
Method used: /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-1020
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	36314	5.28	5.13	80-120	100	(T)
42	22381	5.28	5.13	46-106	62	(T)
22 Isophorone			CAS#: 78-59-1			
82	259040	5.28	5.54	80-120	100	(T)
138	5419	6.02	5.54	0- 49	2	(T)
43 Dimethylphthalate			CAS#: 131-11-3			
163	101106	7.89	7.58	80-120	100	(T)
164	559677	7.89	7.58	0- 40	554	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	73425	7.89	8.09	80-120	100	(T)
89	880	7.89	8.09	44-104	1	(QT)
63	738	7.89	8.09	21- 81	1	(QT)
52 4-Nitrophenol			CAS#: 100-02-7			
139	417	8.01	8.01	80-120	100	( )
109	684	8.00	8.01	40-100	164	(Q)
65	821	7.95	8.01	64-124	196	(QT)
53 Fluorene			CAS#: 86-73-7			
166	8640	8.74	8.48	80-120	100	(T)
165	8418	8.73	8.48	62-122	97	(T)
167	2795	8.73	8.48	0- 44	32	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	229	8.74	8.53	80-120	100	(T)
105	941	8.74	8.53	11- 71	410	(QT)
51	822	8.74	8.53	28- 88	357	(QT)
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	8921	8.74	9.00	80-120	100	(T)
141	63944	8.74	9.00	51-111	717	(QT)
250	17188	8.74	9.00	69-129	193	(QT)
102 1,4-Dioxane				CAS#: 123-91-1		
88	4992	2.41	2.41	80-120	100	( )
58	4200	2.41	2.41	55-115	84	( )
121 N-Nitrosodi-n-butylamine				CAS#: 924-16-3		
84	24948	6.02	6.43	80-120	100	(T)
57	495	6.02	6.43	51-111	2	(QT)
41	966	6.02	6.43	0- 30	4	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s010610.b/s6a0621.d
Lab Smp Id: 243401011 Client Smp ID: CAPA-10-6826
Inj Date : 06-JAN-2010 18:21
Operator : nag1 Inst ID: MSD6.i
Smp Info : |243401011|936348|1|SVM|1|LANL
Misc Info : |MSD82709L|WBN091223-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Meth Date : 06-Jan-2010 16:53 llo00884 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1020.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	920.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.747	1598972	40.000
* 46 Acenaphthene-d10	7.888	2364092	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/L)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
2.130	810648	20.2792290	22.0	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/L)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	=========	======
Benzoic acid, 2,4-dichloro-					CAS #: 50-84-0		
7.949	2531732	42.8364194	46.6	99	NIST05.L	50190	46

Data File: /chem/MSD6.i/s010610.b/s6a0621.d
Date : 06-JAN-2010 18:21
Client ID: CAPA-10-6826
Sample Info: |2434010111936348111SVMI11LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nagi
Column diameter: 0.20

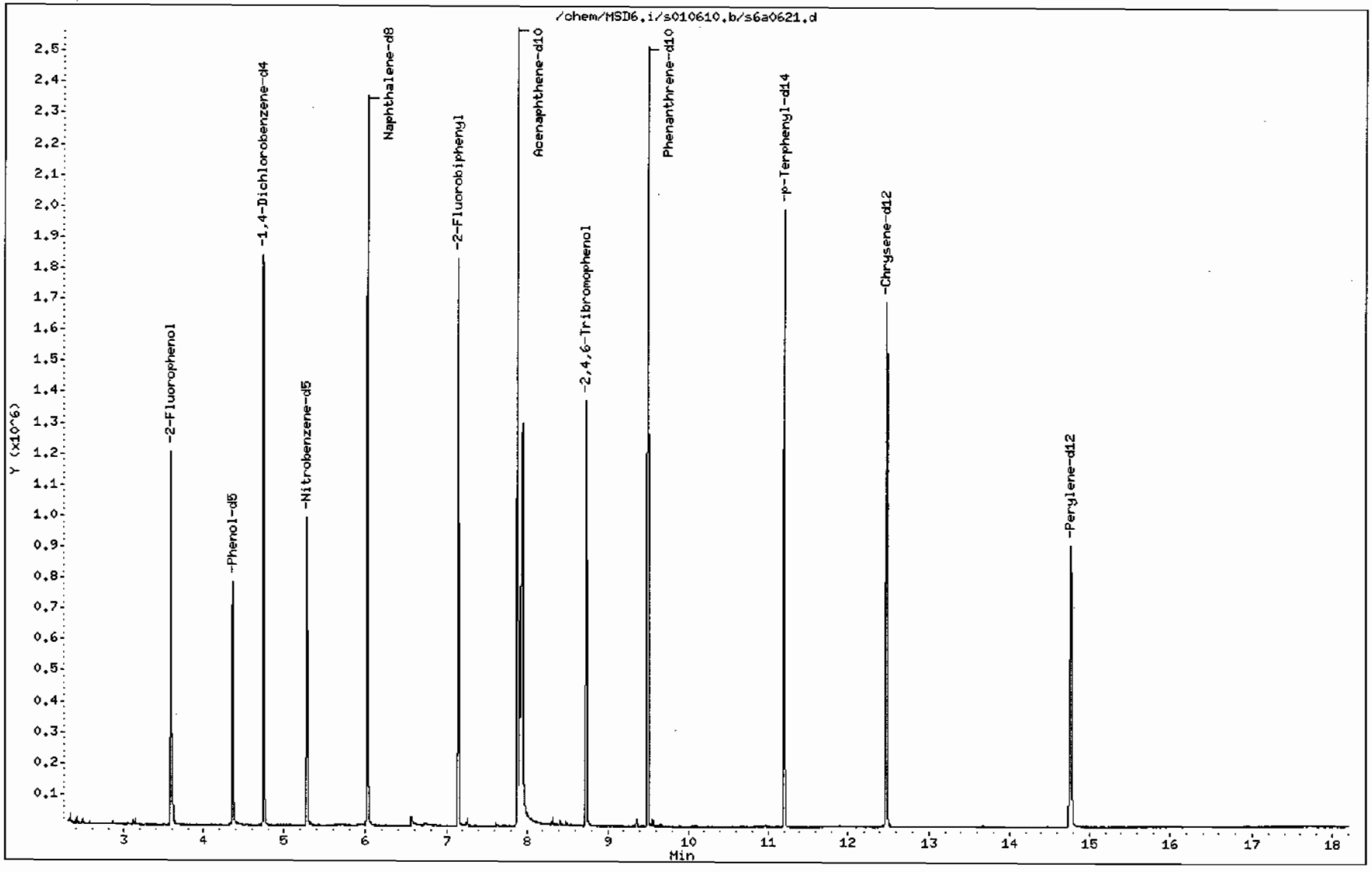

Data File: /chem/MSD6.i/s010610.b/s6a0621.d

Date : 06-JAN-2010 18:21

Client ID: CAPA-10-6826

Instrument: MSD6.i

Sample Info: |2434010111|936348|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

102 1,4-Dioxane

Concentration: 2.2 ug/L

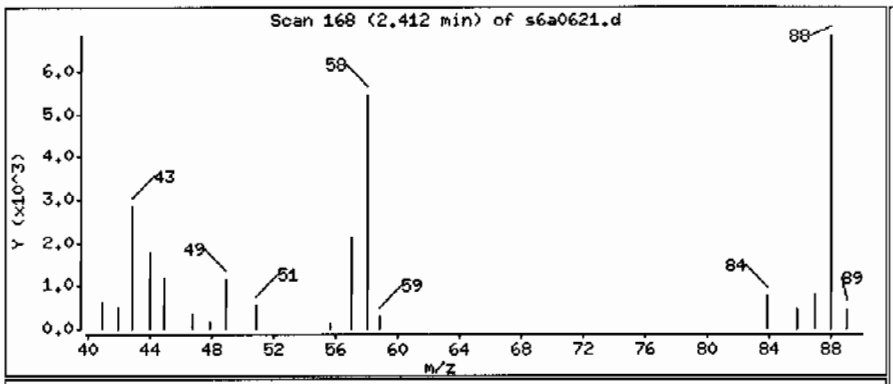

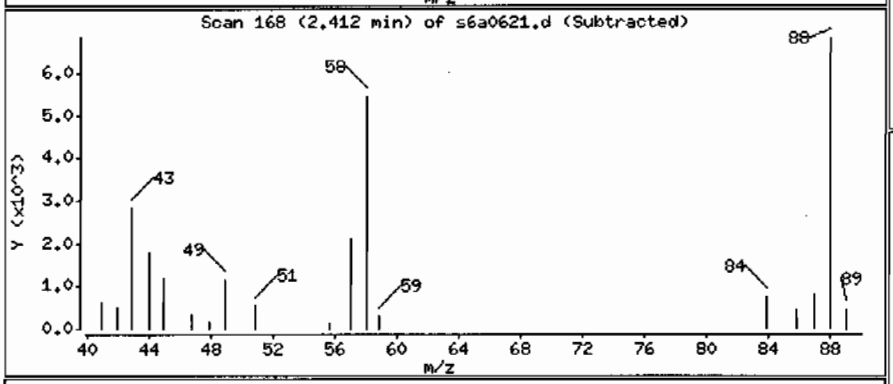

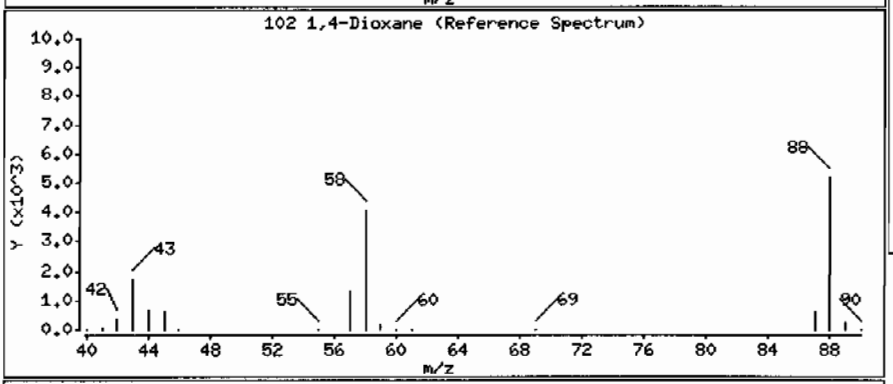

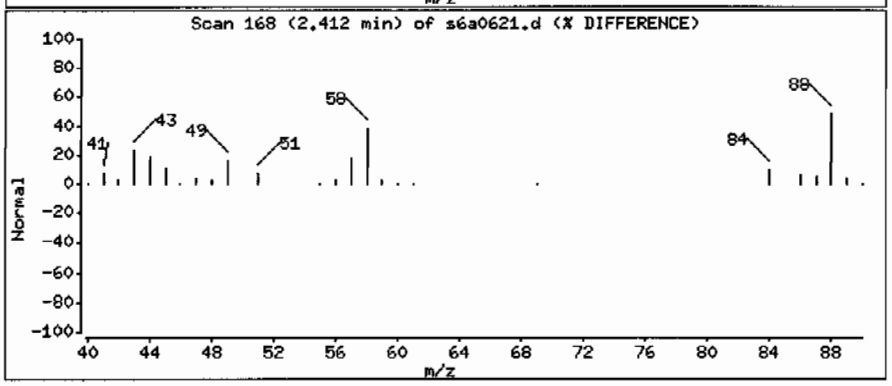

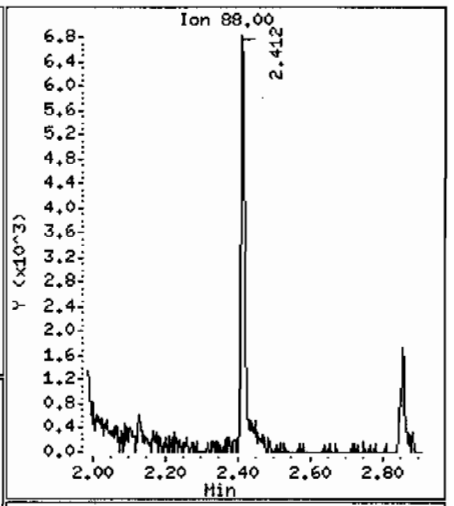

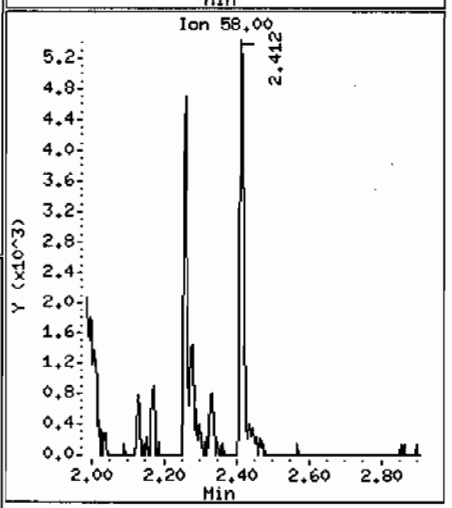

Data File: /chem/MSD6.i/s010610.b/s6a0621.d

Date : 06-JAN-2010 18:21

Client ID: CAPA-10-6826

Instrument: MSD6.i

Sample Info: |2434010111936348|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Butanone, 3-methyl-	563-80-4	NIST05.L	1738	50	C5H10O	86
2-Butanone, 3-methyl-	563-80-4	NIST05.L	1740	45	C5H10O	86
2,3-Butanedione	431-03-8	NIST05.L	1636	45	C4H6O2	86

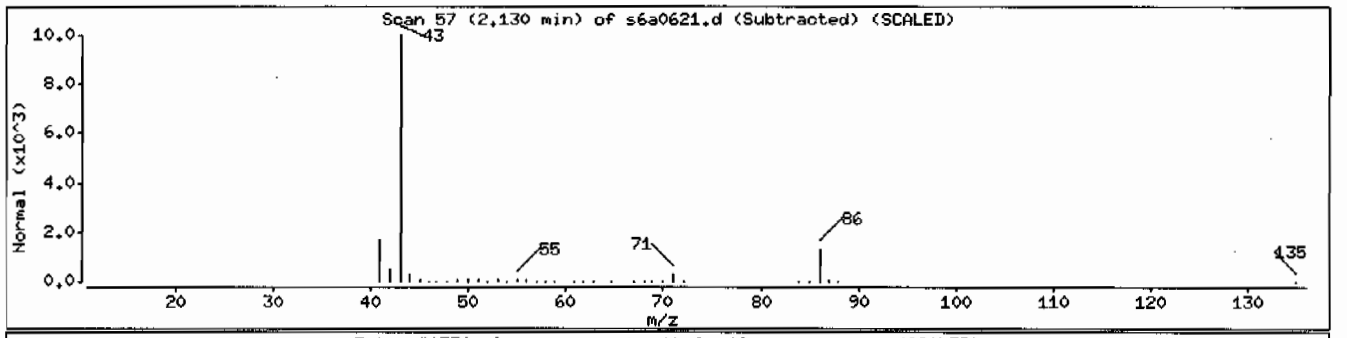

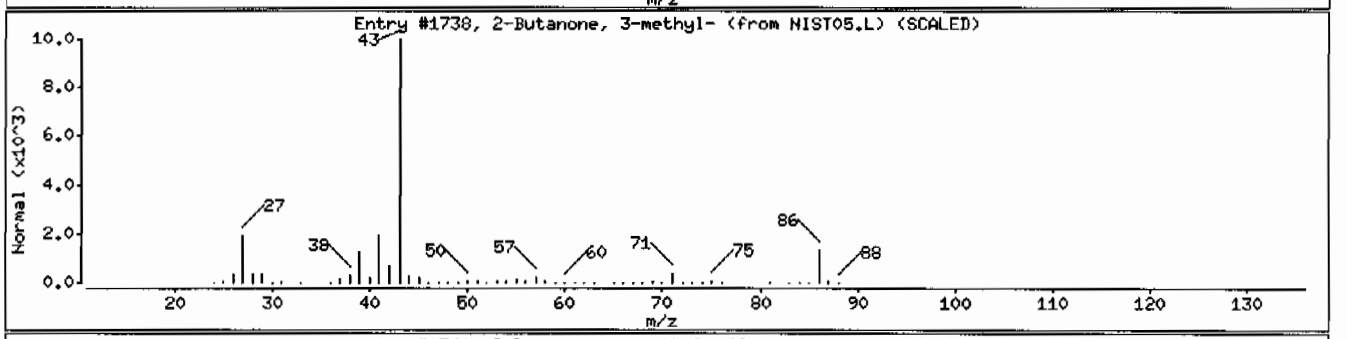

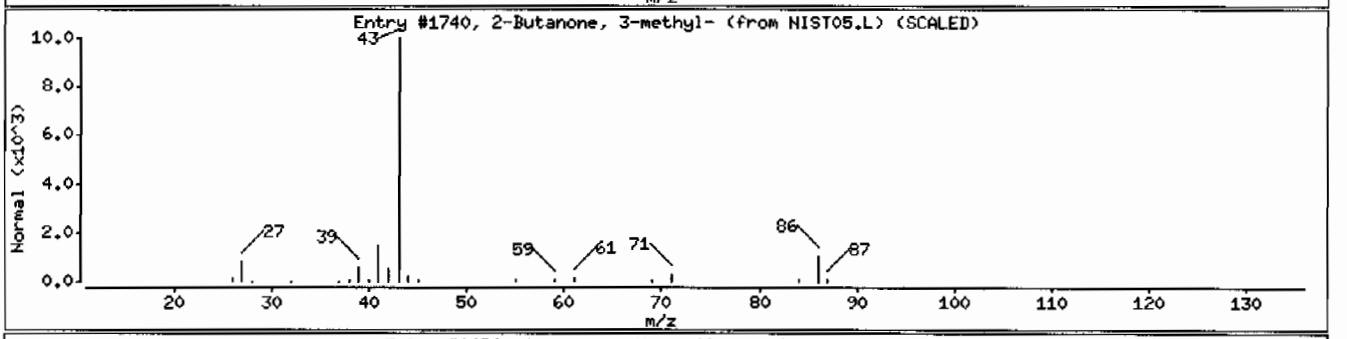

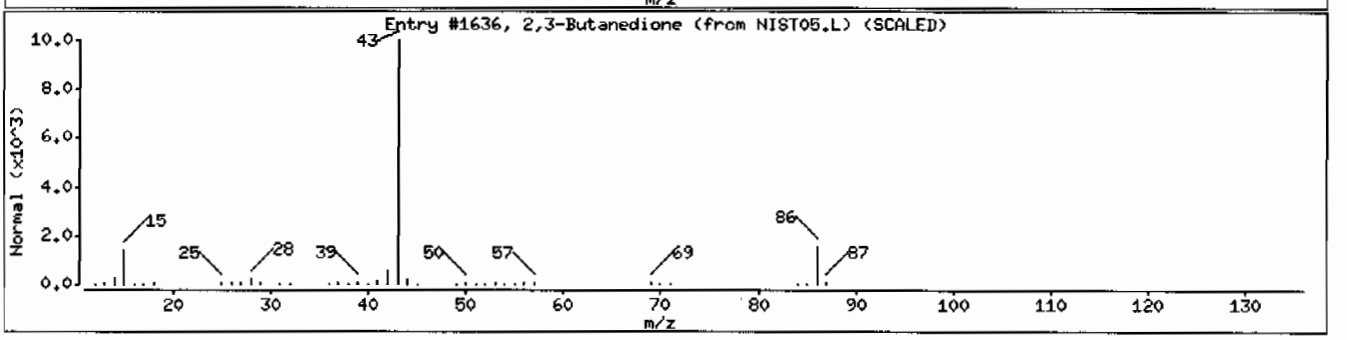

Data File: /chem/MSD6.i/s010610.b/s6a0621.d

Date : 06-JAN-2010 18:21

Client ID: CAPA-10-6826

Instrument: MSD6.i

Sample Info: |2434010111|936348|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzoic acid, 2,4-dichloro-	50-84-0	NIST05.L	50190	99	C7H4Cl2O2	190
Benzoic acid, 2,4-dichloro-	50-84-0	NIST05.L	50185	98	C7H4Cl2O2	190
Benzoic acid, 2,5-dichloro-	50-79-3	NIST05.L	50192	98	C7H4Cl2O2	190

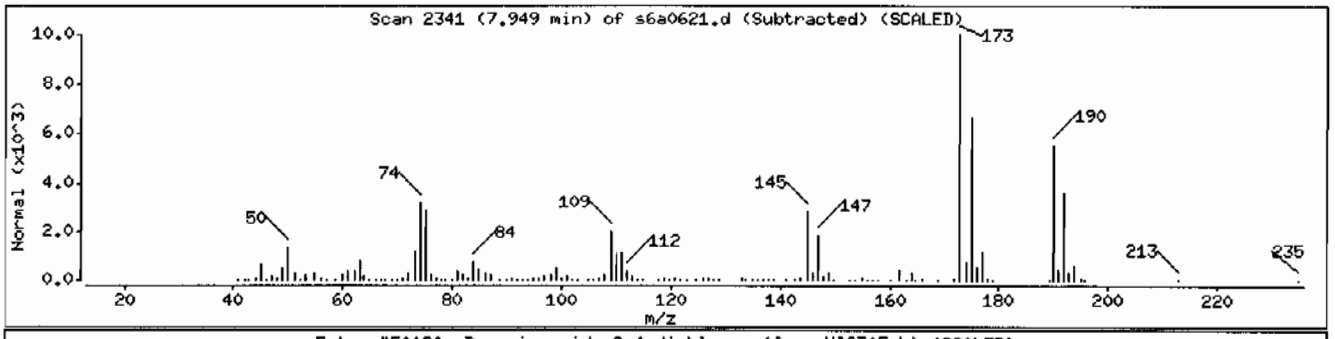

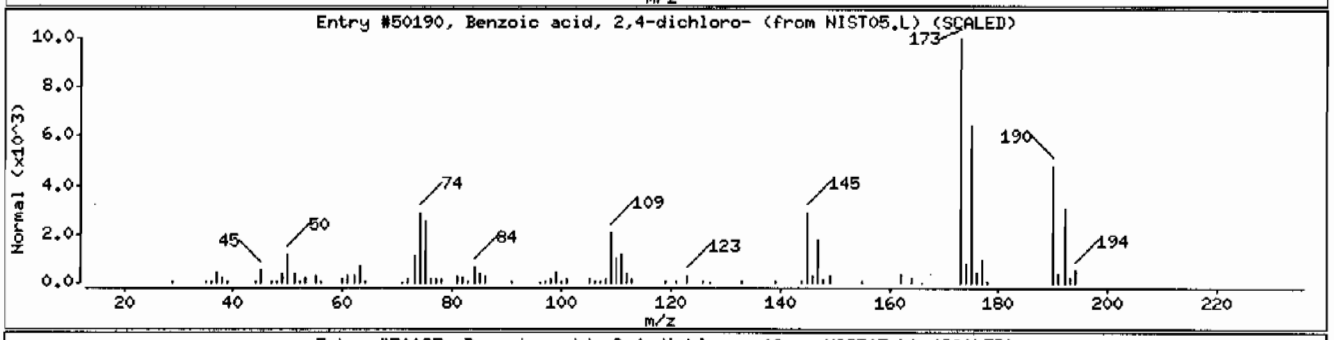

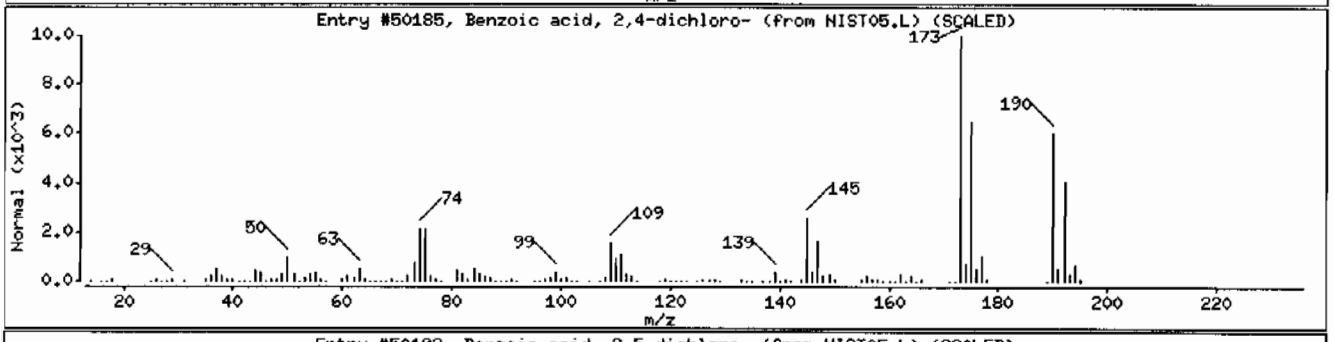

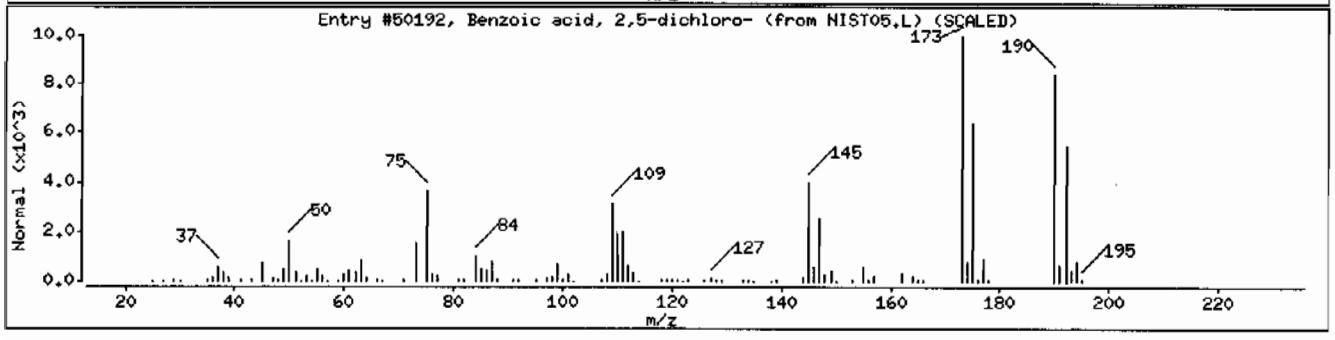

Standard Data

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine		10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Benzaldehyde		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether	1	10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120

2-Methylnaphthalene	1	10	20	40	50	80	100	120
1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
Tributylphosphate		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1	10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

APPENDIX IX

1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate (cis and trans)		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625

Calibration Standard Concentration Levels*

	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Dimethoate		10	20	40	50	80	100	120
4-Aminobiphenyl		10	20	40	50	80	100	120
Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene		10	20	40	50	80	100	120
Isodrin		10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone		10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120

Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120
Hexachlorophene		500	1000	1250	1500	1750	2000	
p-Benzoquinone		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120
Methoxychlor		10	20	40	50	80	100	120
2-Ethoxyethanol		50	75	100	125	150	200	250
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
Dibenzo(a,e)pyrene		50	75	100	125	150	200	250
Phthalic anhydride		50	75	100	125	150	200	250
1,4-Dinitrobenzene		50	75	100	125	150	200	250
(2,3-Dibromopropyl)phosphate		50	75	100	125	150	200	250
Methylenebis(2-chloroaniline)		50	75	100	125	150	200	250
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothio anisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalamide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120
bis(p-Chlorophenyl)sulfone		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
Level 1 may be included at request of client
(06/08)

Report Date: 06-Jan-2010 15:14

Calibration History

Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Start Cal Date: 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
09-NOV-2009 18:53	MEGA	/chem/MSD6.i/s110909.b/s6k0913.d
Cal Level: 2 , Cal Amount: 10.00000		
11-NOV-2009 01:47	NEV	/chem/MSD6.i/s110909.b/s6k0948.d
10-NOV-2009 22:55	HEX	/chem/MSD6.i/s110909.b/s6k0942.d
10-NOV-2009 16:20	PEST	/chem/MSD6.i/s110909.b/s6k0930.d
10-NOV-2009 11:59	AP12	/chem/MSD6.i/s110909.b/s6k0923.d
09-NOV-2009 19:31	MEGA	/chem/MSD6.i/s110909.b/s6k0914.d
Cal Level: 3 , Cal Amount: 20.00000		
11-NOV-2009 02:16	NEV	/chem/MSD6.i/s110909.b/s6k0949.d
10-NOV-2009 23:24	HEX	/chem/MSD6.i/s110909.b/s6k0943.d
10-NOV-2009 16:56	PEST	/chem/MSD6.i/s110909.b/s6k0931.d
10-NOV-2009 12:36	AP12	/chem/MSD6.i/s110909.b/s6k0924.d
09-NOV-2009 20:09	MEGA	/chem/MSD6.i/s110909.b/s6k0915.d
Cal Level: 4 , Cal Amount: 40.00000		
11-NOV-2009 02:44	NEV	/chem/MSD6.i/s110909.b/s6k0950.d
10-NOV-2009 23:53	HEX	/chem/MSD6.i/s110909.b/s6k0944.d
10-NOV-2009 17:33	PEST	/chem/MSD6.i/s110909.b/s6k0932.d
10-NOV-2009 13:13	AP12	/chem/MSD6.i/s110909.b/s6k0925.d
09-NOV-2009 20:46	MEGA	/chem/MSD6.i/s110909.b/s6k0916.d
Cal Level: 5 , Cal Amount: 50.00000		
11-NOV-2009 03:12	NEV	/chem/MSD6.i/s110909.b/s6k0951.d
11-NOV-2009 00:21	HEX	/chem/MSD6.i/s110909.b/s6k0945.d
10-NOV-2009 18:09	PEST	/chem/MSD6.i/s110909.b/s6k0933.d
10-NOV-2009 13:51	AP12	/chem/MSD6.i/s110909.b/s6k0926.d
09-NOV-2009 21:25	MEGA	/chem/MSD6.i/s110909.b/s6k0917.d
Cal Level: 6 , Cal Amount: 80.00000		
11-NOV-2009 03:41	NEV	/chem/MSD6.i/s110909.b/s6k0952.d
11-NOV-2009 00:50	HEX	/chem/MSD6.i/s110909.b/s6k0946.d
10-NOV-2009 18:45	PEST	/chem/MSD6.i/s110909.b/s6k0934.d
10-NOV-2009 14:30	AP12	/chem/MSD6.i/s110909.b/s6k0927.d
09-NOV-2009 22:01	MEGA	/chem/MSD6.i/s110909.b/s6k0918.d
Cal Level: 7 , Cal Amount: 100.00000		

11-NOV-2009 04:10	NEV	/chem/MSD6.i/s110909.b/s6k0953.d
11-NOV-2009 01:18	HEX	/chem/MSD6.i/s110909.b/s6k0947.d
10-NOV-2009 19:21	PEST	/chem/MSD6.i/s110909.b/s6k0935.d
10-NOV-2009 15:06	AP12	/chem/MSD6.i/s110909.b/s6k0928.d
09-NOV-2009 22:39	MEGA	/chem/MSD6.i/s110909.b/s6k0919.d

Cal Level: 8 , Cal Amount: 120.00000		
11-NOV-2009 04:38	NEV	/chem/MSD6.i/s110909.b/s6k0954.d
10-NOV-2009 19:58	PEST	/chem/MSD6.i/s110909.b/s6k0936.d
10-NOV-2009 15:43	AP12	/chem/MSD6.i/s110909.b/s6k0929.d
09-NOV-2009 23:16	MEGA	/chem/MSD6.i/s110909.b/s6k0920.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
06-JAN-2010 10:50	PEST	/chem/MSD6.i/s010610.b/s6a0605.d
Ccal Level: 4 , Ccal Amount: 40.0		
06-JAN-2010 10:22	AP12	/chem/MSD6.i/s010610.b/s6a0604.d
Ccal Level: 4 , Ccal Amount: 40.0		
06-JAN-2010 09:46	MEGA	/chem/MSD6.i/s010610.b/s6a0603.d
Ccal Level: 4 , Ccal Amount: 40.0		
06-JAN-2010 09:09	MEGA	/chem/MSD6.i/s010610.b/s6a0602.d

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INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Cal Date : 06-Jan-2010 15:13 jos00786

Calibration File Names:
Level 1: /chem/MSD6.i/s110909.b/s6k0913.d
Level 2: /chem/MSD6.i/s110909.b/s6k0948.d
Level 3: /chem/MSD6.i/s110909.b/s6k0949.d
Level 4: /chem/MSD6.i/s110909.b/s6k0950.d
Level 5: /chem/MSD6.i/s110909.b/s6k0951.d
Level 6: /chem/MSD6.i/s110909.b/s6k0952.d
Level 7: /chem/MSD6.i/s110909.b/s6k0953.d
Level 8: /chem/MSD6.i/s110909.b/s6k0954.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.62711	0.72014	0.69994	0.71294	0.67761					
	0.66245	0.66663					AVRG		0.68098		4.78734
2 Pyridine	+++++	0.78506	0.84345	0.94451	0.94132	0.77430					
	0.82190	0.82246					AVRG		0.84757		8.16958
4 Aniline	+++++	0.51792	0.56281	0.52949	0.53182	0.51964					
	0.51849	0.51247					AVRG		0.52752		3.21865
209 Benzaldehyde	+++++	0.94297	0.91161	0.92064	0.86617	0.84259					
	0.79828	0.74667					AVRG		0.86127		8.23824
6 Phenol	+++++	1.29580	1.38609	1.27955	1.27629	1.24279					
	1.20107	1.21677					AVRG		1.27120		4.82676

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	0.93365	0.90056	0.92748	0.85273	0.86174	0.82247					
	0.79075	0.79709					AVRG		0.86081		6.48811
8 2-Chlorophenol	+++++	1.05270	1.10343	1.04994	1.05384	0.99340					
	0.95375	0.94058					AVRG		1.02109		5.85808
203 n-Decane	+++++	1.57696	1.59018	1.40648	1.36249	1.17658					
	+++++	+++++					AVRG		1.42254		11.98709
9 1,3-Dichlorobenzene	+++++	1.22415	1.27608	1.20806	1.21136	1.14335					
	1.08668	1.07881					AVRG		1.17550		6.31837
11 1,4-Dichlorobenzene	+++++	1.27202	1.32037	1.21925	1.20743	1.15141					
	1.09639	1.07447					AVRG		1.19162		7.54222
12 Benzyl alcohol	+++++	0.60900	0.65716	0.63043	0.62465	0.64143					
	0.63021	0.64767					AVRG		0.63436		2.50657
13 1,2-Dichlorobenzene	+++++	1.16666	1.21707	1.13327	1.12016	1.08966					
	1.03460	1.02472					AVRG		1.11231		6.21300
14 bis(2-Chloroisopropyl)ether	+++++	2.07635	2.13325	1.99088	1.97675	1.86028					
	1.72252	1.69272					AVRG		1.92182		8.81925
15 o-Cresol	+++++	0.82992	0.88629	0.84024	0.85639	0.80893					
	0.80386	0.79407					AVRG		0.83139		3.92027

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
16 Acetophenone	+++++	1.20921	1.17591	1.21168	1.15285	1.16925					
	1.13524	1.12939					AVRG		1.16908		2.80572
17 N-Nitrosodipropylamine	0.65638	0.74117	0.78851	0.72893	0.73002	0.72328					
	0.70725	0.59369					AVRG		0.70865		8.34285
18 m,p-Cresols	+++++	1.03591	1.12590	1.04958	1.05532	1.04720					
	1.02399	1.03632					AVRG		1.05346		3.18987
19 Hexachloroethane	+++++	0.45806	0.49524	0.47390	0.46960	0.45628					
	0.43995	0.43396					AVRG		0.46100		4.53111
21 Nitrobenzene	+++++	0.31691	0.32516	0.29885	0.29715	0.27038					
	0.24823	0.23966					AVRG		0.28519		11.62250
22 Isophorone	+++++	0.55891	0.57824	0.53268	0.53266	0.49425					
	0.45829	0.38358					AVRG		0.50552		13.23015
23 2-Nitrophenol	+++++	0.13453	0.14214	0.13601	0.13806	0.12888					
	0.12072	0.12047					AVRG		0.13154		6.43934
24 2,4-Dimethylphenol	+++++	0.23987	0.22536	0.21067	0.20421	0.21065					
	0.21868	0.21622					AVRG		0.21795		5.40955
25 bis(2-Chloroethoxy)methane	+++++	0.33208	0.34147	0.30906	0.30442	0.28195					
	0.26036	0.25310					AVRG		0.29749		11.40063

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.19875	0.21444	0.20921	0.20622	0.19391					
	0.18142	0.17985					AVRG		0.19769		6.80078
27 Benzoic acid	+++++	+++++	0.10585	0.12338	0.14032	0.14157					
	0.15049	0.14556					AVRG		0.13453		12.46641
28 1,2,4-Trichlorobenzene	+++++	0.27809	0.27557	0.25214	0.25046	0.22876					
	0.21050	0.20278					AVRG		0.24261		12.25857
30 Naphthalene	0.93577	0.85146	0.85267	0.76017	0.74029	0.64713					
	+++++	+++++					AVRG		0.79792		12.82401
204 alpha-Terpineol	+++++	0.23577	0.25490	0.22003	0.21987	0.20427					
	0.17723	+++++					AVRG		0.21868		12.15593
31 4-Chloroaniline	+++++	0.26389	0.28196	0.26991	0.26064	0.24995					
	0.23771	0.23114					AVRG		0.25646		7.00922
189 Caprolactam	+++++	0.06766	0.07272	0.08214	0.08102	0.07115					
	0.07075	0.07172					AVRG		0.07388		7.43636
32 Hexachlorobutadiene	+++++	0.14265	0.14557	0.13182	0.13097	0.11864					
	0.10931	0.10542					AVRG		0.12634		12.40746
33 4-Chloro-3-methylphenol	+++++	0.20824	0.22585	0.20971	0.20633	0.19424					
	0.17957	0.17303					AVRG		0.19957		9.25582

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
34 2-Methylnaphthalene	0.56779	0.53746	0.54769	0.49857	0.47476	0.43707					
	0.39981	0.38884					AVRG		0.48150		14.15789
35 1-Methylnaphthalene	0.55872	0.52838	0.53208	0.48366	0.46920	0.42612					
	0.38935	0.38051					AVRG		0.47100		14.29869
36 Hexachlorocyclopentadiene	+++++	0.13520	0.17775	0.15114	0.16219	0.15378					
	0.18308	0.16783					AVRG		0.16157		10.19735
208 1,1'-Biphenyl	+++++	1.32152	1.23439	1.25731	1.19710	1.16580					
	1.12776	1.10528					AVRG		1.20131		6.32036
205 2,3-Dichloroaniline	+++++	0.51880	0.53286	0.48272	0.49159	0.46096					
	0.42997	0.43664					AVRG		0.47908		8.16477
37 2,4,6-Trichlorophenol	+++++	0.27570	0.29634	0.28058	0.28008	0.26989					
	0.25242	0.25556					AVRG		0.27294		5.58990
38 2,4,5-Trichlorophenol	+++++	0.28031	0.30282	0.29443	0.29832	0.29160					
	0.28523	0.28197					AVRG		0.29067		2.92500
40 2-Chloronaphthalene	0.91208	0.94921	0.97975	0.90835	0.91949	0.87198					
	0.81926	0.82647					AVRG		0.89832		6.24992
42 o-Nitroaniline	+++++	0.28653	0.32807	0.30812	0.31848	0.31056					
	0.29539	0.30412					AVRG		0.30732		4.50651

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.19029	0.23187	0.23025	0.23197	0.23511					
	0.22216	0.23314					AVRG		0.22497		7.03906
43 Dimethylphthalate	+++++	1.10253	1.11895	1.05121	1.05401	1.01311					
	0.95493	0.88796					AVRG		1.02610		7.97599
44 2,6-Dinitrotoluene	+++++	0.24859	0.25869	0.24751	0.24771	0.24514					
	0.22903	0.23656					AVRG		0.24475		3.87474
45 Acenaphthylene	1.45077	1.53234	1.59736	1.47314	1.47686	1.41153					
	1.30118	1.31187					AVRG		1.44438		7.03164
47 Acenaphthene	0.97754	0.93463	0.97051	0.90906	0.90733	0.85875					
	0.82122	0.83304					AVRG		0.90151		6.58830
48 2,4-Dinitrophenol	+++++	+++++	15920	45695	60199	121040					
	185455	+++++					LINR	0.36255	0.13077		0.99262
49 Dibenzofuran	+++++	1.31036	1.35172	1.24091	1.23630	1.17505					
	1.09035	1.11352					AVRG		1.21689		7.96140
50 2,4-Dinitrotoluene	+++++	0.28688	0.32526	0.31392	0.31582	0.31468					
	0.30077	0.30301					AVRG		0.30862		4.09740
51 Diethylphthalate	+++++	1.08427	1.13193	1.06273	1.05585	1.00787					
	0.93441	0.95637					AVRG		1.03335		6.84784

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	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	12277	40572	90802	114423	208122					
	294363	379687					LINR	0.18209	0.20146		0.99664
53 Fluorene	1.06940	1.05468	1.10259	1.00777	1.00699	0.94775					
	0.89677	0.90440					AVRG		0.99879		7.65829
54 4-Chlorophenylphenylether	+++++	0.49941	0.52344	0.48539	0.48490	0.45443					
	0.43029	0.42560					AVRG		0.47192		7.71070
55 2-Methyl-4,6-dinitrophenol	+++++	9251	34357	85168	107219	199515					
	279188	346834					LINR	0.17722	0.10780		0.99957
56 p-Nitroaniline	+++++	18297	49968	114446	144020	267165					
	377942	477974					LINR	0.17663	0.25514		0.99741
133 Diphenylamine	+++++	0.51235	0.51279	0.48995	0.49110	0.46341					
	0.45142	0.45392					AVRG		0.48213		5.41113
58 1,2-Diphenylhydrazine	+++++	0.65288	0.67935	0.62730	0.62752	0.58724					
	0.56393	0.55466					AVRG		0.61327		7.55575
59 Tributylphosphate	+++++	1.19922	1.25332	1.24022	1.27997	1.24188					
	1.19433	1.14050					AVRG		1.22135		3.81011
61 4-Bromophenylphenylether	+++++	0.16321	0.16758	0.15949	0.16092	0.15366					
	0.14977	0.15022					AVRG		0.15784		4.30183

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	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.17072	0.17525	0.16702	0.16690	0.16190					
	0.15730	0.15822					AVRG		0.16533		3.97990
207 Atrazine	+++++	0.04466	0.04316	0.04336	0.04050	0.04104					
	0.03746	0.03425					AVRG		0.04063		9.04410
65 Pentachlorophenol	+++++	12427	38945	80211	100581	192628					
	259470	326879					LINR	0.13427	0.09964		0.99838
206 n-Octadecane	+++++	0.51627	0.51598	0.45832	0.46068	0.40718					
	0.37377	0.35992					AVRG		0.44173		14.37986
68 Phenanthrene	0.95060	0.88603	0.89746	0.83221	0.81673	0.77346					
	0.73349	0.72773					AVRG		0.82721		9.72714
69 Anthracene	0.87683	0.86194	0.90534	0.83970	0.83829	0.78921					
	0.75133	0.75196					AVRG		0.82682		6.91971
72 Di-n-butylphthalate	+++++	1.00113	1.04654	0.99105	0.98676	0.92173					
	0.85606	0.84350					AVRG		0.94954		8.15043
76 Fluoranthene	0.78392	0.79487	0.87026	0.82674	0.81613	0.77420					
	0.73596	0.73727					AVRG		0.79242		5.73137
77 Benzidine	+++++	0.35813	0.40641	0.39242	0.37729	0.37701					
	0.39765	0.44234					AVRG		0.39304		6.85454

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
79 Pyrene	1.12114	1.31021	1.22539	1.10007	1.11660	1.02083					
	0.96007	0.94734					AVRG		1.10021		11.38295
85 Butylbenzylphthalate	+++++	0.52543	0.54028	0.51608	0.52406	0.49119					
	0.46906	0.45845					AVRG		0.50351		6.16544
89 Benzo(a)anthracene	0.94221	0.85505	0.89830	0.85692	0.85716	0.83423					
	0.82127	0.83891					AVRG		0.86301		4.55256
90 3,3'-Dichlorobenzidine	+++++	0.23529	0.28074	0.29290	0.29384	0.28532					
	0.28779	0.30173					AVRG		0.28252		7.74710
92 Chrysene	0.87195	0.83557	0.87346	0.82487	0.82639	0.80729					
	0.78155	0.79409					AVRG		0.82690		4.03552
93 bis(2-Ethylhexyl)phthalate	7340	107837	270739	551016	645048	1078889					
	1389660	1700943					WLINR	0.01019	0.70092		0.99014
94 Di-n-octylphthalate	+++++	1.19610	1.35485	1.31605	1.35770	1.25055					
	1.27306	1.15060					AVRG		1.27127		6.18607
95 Benzo(b)fluoranthene	0.74161	0.85750	0.94279	0.90432	0.93361	0.89239					
	0.89332	0.91506					AVRG		0.88507		7.19928
96 Benzo(k)fluoranthene	0.73172	0.86857	0.95518	0.92430	0.92244	0.89945					
	0.88010	0.85909					AVRG		0.88011		7.72381

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Method file : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Cal Date : 06-Jan-2010 15:13 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	0.54179	0.70605	0.81133	0.81358	0.82559	0.80913					
	0.80179	0.80647					AVRG		0.76447		12.74919
99 Indeno(1,2,3-cd)pyrene	5888	60939	200863	402882	510813	1012558					
	1348903	1889688					LINR	0.07592	0.78768		0.99752
100 Dibenzo(a,h)anthracene	3385	46770	157194	361792	411532	815285					
	1094612	1529825					LINR	0.06768	0.63666		0.99908
101 Benzo(ghi)perylene	0.41694	0.53228	0.60870	0.60962	0.60436	0.63133					
	0.62968	0.63931					AVRG		0.58403		12.88683
102 1,4-Dioxane	+++++	0.37671	0.37043	0.39061	0.37803	0.36375					
	0.35237	0.33052					AVRG		0.36606		5.38827
103 Methyl methacrylate	+++++	0.19626	0.19646	0.20436	0.20625	0.18540					
	0.18964	0.17876					AVRG		0.19388		5.13081
104 Ethyl methacrylate	+++++	0.79650	0.81191	0.84398	0.82898	0.80568					
	0.79571	0.75648					AVRG		0.80561		3.45659
105 2-Picoline	+++++	1.39124	1.31746	1.36987	1.31904	1.28927					
	1.27506	1.19912					AVRG		1.30872		4.85814
106 N-Nitrosomethylethylamine	+++++	0.50512	0.48970	0.52453	0.49928	0.51969					
	0.51463	0.52429					AVRG		0.51104		2.61826

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	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.56429	0.53321	0.56316	0.50377	0.53102					
	0.50923	0.49498					AVRG		0.52852		5.24900
108 N-Nitrosodiethylamine	+++++	0.50310	0.47987	0.51154	0.48534	0.49862					
	0.49304	0.49722					AVRG		0.49553		2.15019
109 Ethyl Methanesulfonate	+++++	0.65808	0.64977	0.67344	0.62747	0.66045					
	0.64399	0.64860					AVRG		0.65169		2.21442
110 Pentachloroethane	+++++	0.32209	0.31386	0.33094	0.32010	0.31614					
	0.31148	0.30303					AVRG		0.31681		2.78134
111 N-Nitrosopyrrolidine	+++++	0.44182	0.46376	0.50830	0.47779	0.50143					
	0.49385	0.44600					AVRG		0.47614		5.57640
113 N-Nitrosomorpholine	+++++	0.71032	0.67134	0.71256	0.65887	0.68726					
	0.65974	0.65547					AVRG		0.67936		3.58698
114 o-Toluidine	+++++	1.74797	1.65530	1.71709	1.64005	1.64679					
	1.58070	1.58178					AVRG		1.65281		3.79762
115 N-Nitrosopiperidine	+++++	0.13834	0.13623	0.14736	0.13885	0.14290					
	0.13997	0.14373					AVRG		0.14105		2.69891
116 a,a-Dimethylphenethylamine	+++++	0.78770	0.81587	0.88476	0.87463	0.88336					
	0.86623	0.87565					AVRG		0.85546		4.44785

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	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.14741	0.14492	0.13783	0.14116	0.13439					
	0.12857	0.12370					AVRG		0.13685		6.28357
118 2,6-Dichlorophenol	+++++	0.19682	0.19992	0.21240	0.20960	0.21251					
	0.20568	0.21118					AVRG		0.20687		3.05257
119 Hexachloropropene	+++++	0.08644	0.09499	0.10791	0.10350	0.10830					
	0.10654	0.11112					AVRG		0.10269		8.60612
120 p-Phenylenediamine	+++++	0.19714	0.24091	0.25567	0.24421	0.23168					
	0.22043	0.21678					AVRG		0.22955		8.57933
121 N-Nitrosodi-n-butylamine	+++++	0.22447	0.22501	0.22216	0.21154	0.19839					
	0.19348	0.19524					AVRG		0.21004		6.76180
122 Safrole	+++++	0.18675	0.18585	0.19677	0.19040	0.18675					
	0.17956	0.17958					AVRG		0.18653		3.22597
123 1,2,4,5-Tetrachlorobenzene	+++++	0.45393	0.42422	0.44255	0.41650	0.41676					
	0.40609	0.40229					AVRG		0.42319		4.45863
124 Isosafrole	+++++	0.34011	0.33198	0.35164	0.33779	0.34233					
	0.33627	0.33702					AVRG		0.33959		1.83025
125 1,4-Naphthoquinone	+++++	0.30018	0.32824	0.34894	0.32634	0.29745					
	0.28366	0.26235					AVRG		0.30674		9.65282

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	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.15441	0.17500	0.17160	0.17355	0.17392					
	0.16754	0.16904					AVRG		0.16929		4.19006
127 Pentachlorobenzene	+++++	0.38426	0.36575	0.37736	0.36552	0.35674					
	0.35182	0.35035					AVRG		0.36454		3.50537
128 1-Naphthylamine	+++++	0.90674	0.92102	0.95184	0.91692	0.90718					
	0.86367	0.88454					AVRG		0.90742		3.07978
129 2-Naphthylamine	+++++	0.96578	1.00999	1.02440	0.99125	0.97953					
	0.93471	0.95520					AVRG		0.98012		3.19024
130 2,3,4,6-Tetrachlorophenol	+++++	0.20640	0.23481	0.21862	0.21374	0.22201					
	0.21460	0.22254					AVRG		0.21896		4.07356
131 5-Nitro-o-toluidine	+++++	0.22084	0.26615	0.28994	0.29013	0.29251					
	0.28841	0.30508					AVRG		0.27901		10.07623
132 Thionazin	+++++	0.16760	0.17396	0.17237	0.17849	0.17822					
	0.16987	0.16398					AVRG		0.17207		3.11896
134 Sulfotepp	+++++	0.08934	0.08802	0.08507	0.08886	0.08655					
	0.08265	0.08005					AVRG		0.08579		4.00843
135 Phorate	+++++	0.38230	0.38968	0.37391	0.38904	0.37359					
	0.35020	0.32660					AVRG		0.36933		6.25438

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	14861	45341	104071	130665	222134					
	265730	408609					LINR	0.09141	0.12978		0.99734
137 Phenacetin	+++++	0.21732	0.25812	0.27209	0.26902	0.27044					
	0.26738	0.28241					AVRG		0.26240		8.05167
138 Diallate	+++++	0.26191	0.24374	0.25182	0.23998	0.23522					
	0.22716	0.22410					AVRG		0.24056		5.55643
139 Dimethoate	+++++	0.18955	0.19806	0.21061	0.22946	0.23158					
	0.22398	0.21950					AVRG		0.21468		7.45885
140 4-Aminobiphenyl	+++++	0.50489	0.50584	0.54599	0.56556	0.56494					
	0.53276	0.52934					AVRG		0.53562		4.66298
141 Pentachloronitrobenzene	+++++	0.06195	0.06081	0.06546	0.06329	0.06151					
	0.06084	0.05959					AVRG		0.06192		3.12402
142 Pronamide	+++++	0.26962	0.26582	0.27431	0.26759	0.26151					
	0.25173	0.25174					AVRG		0.26319		3.31411
143 Dinoseb	+++++	11996	47856	123552	154632	280906					
	375481	479562					LINR	0.15482	0.14736		0.99949
144 Disulfoton	+++++	0.31933	0.32969	0.31920	0.32975	0.31125					
	0.29624	0.27823					AVRG		0.31196		6.02930

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	100 Level 7	120 Level 8									
145 Methyl parathion	+++++	0.14493	0.15978	0.17270	0.18140	0.18775					
	0.18141	0.17864					AVRG		0.17237		8.70434
146 4-Nitroquinoline-1-oxide	+++++	0.02012	0.03296	0.02700	0.02533	0.02224					
	0.01930	0.01750					AVRG		0.02349		22.76469 <-
147 Methapyrilene	+++++	0.40623	0.42209	0.41103	0.39768	0.37937					
	0.35132	0.33430					AVRG		0.38600		8.45747
148 Isodrin	+++++	0.10136	0.09753	0.10130	0.09757	0.09481					
	0.09122	0.09037					AVRG		0.09631		4.58453
149 Aramite	+++++	0.03841	0.04251	0.04600	0.04566	0.04690					
	0.04564	0.04428					AVRG		0.04420		6.60357
150 Kepone	+++++	0.05674	0.06191	0.06311	0.06098	0.06085					
	0.06194	0.06656					AVRG		0.06173		4.75009
151 p-(Dimethylamino)azobenzene	+++++	0.31224	0.31378	0.33288	0.32474	0.31931					
	0.31446	0.30396					AVRG		0.31734		2.95033
152 Chlorobenzilate	+++++	0.30009	0.27506	0.30295	0.29512	0.29377					
	0.29203	0.28006					AVRG		0.29130		3.50189
153 3,3'-Dimethylbenzidine	+++++	0.49489	0.52397	0.53487	0.52482	0.53397					
	0.53619	0.54473					AVRG		0.52763		3.04743

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	100 Level 7	120 Level 8									
154 Famphur	+++++	0.28850	0.33742	0.33640	0.36516	0.37704					
	0.35655	0.33317					AVRG		0.34203		8.41381
155 2-Acetylaminofluorene	+++++	23996	98558	217618	290992	478700					
	598627	953419					LINR	0.12414	0.37309		0.99874
157 7,12Dimethylbenz(a)anthracene	+++++	0.45745	0.44941	0.48919	0.48420	0.49542					
	0.49422	0.48353					AVRG		0.47906		3.80416
158 3-Methylcholanthrene	+++++	0.29343	0.35502	0.37871	0.37695	0.38953					
	0.38995	0.40328					AVRG		0.36955		9.94080
26 Phthalic anhydride	+++++	10939	40864	83487	108159	203846					
	306459	+++++					LINR	0.14938	0.09004		0.99590
173 Carbazole	0.68572	0.63216	0.65059	0.65023	0.64669	0.65901					
	0.65208	0.65947					AVRG		0.65449		2.32370
174 Hexachlorophene	+++++	0.04700	0.06194	0.06687	0.06701	0.06606					
	+++++	+++++					AVRG		0.06178		13.78238
179 Dibenzo(a,e)pyrene	+++++	21397	67635	183254	214017	467062					
	+++++	+++++					LINR	0.16800	0.36891		0.99459
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

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	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	0.09983	0.11502	0.14598	0.13665	0.14571					
	0.12211	0.12583					AVRG		0.12730		13.25929
191 Parathion	+++++	0.05089	0.05709	0.06102	0.06360	0.06315					
	0.06253	0.06173					AVRG		0.06000		7.60183
192 Methoxychlor	+++++	0.54663	0.59527	0.57022	0.57190	0.55995					
	0.49223	0.53082					AVRG		0.55243		6.05482
210 m-Toluidine	+++++	1.07152	1.09862	1.08267	1.09477	1.19760					
	1.39731	0.92523					AVRG		1.12396		12.87193
211 p-Toluidine	+++++	0.98878	1.01175	0.93629	0.93823	0.84629					
	0.67790	+++++					AVRG		0.89987		13.64283
212 Cis Diallate	+++++	0.25680	0.24216	0.25774	0.25015	0.25647					
	0.24871	0.25860					AVRG		0.25295		2.41779
213 Trans Diallate	+++++	0.30813	0.28675	0.29626	0.28232	0.27673					
	0.26725	0.26364					AVRG		0.28301		5.55643
214 1,4-Dinitrobenzene	+++++	0.15465	0.18602	0.18671	0.19154	0.19074					
	0.18381	0.19324					AVRG		0.18382		7.23195
215 2-Ethoxyethanol	+++++	0.69474	0.75708	0.72314	0.72734	0.69576					
	0.68979	0.68463					AVRG		0.71035		3.71426

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	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	11622	37526	94270	117296	226774					
	306702	394688					LINR	0.14094	0.14618		0.99920
229 2,2'-Dichlorobenzil	+++++	0.65548	0.70788	0.67278	+++++	0.85557					
	0.79635	+++++					AVRG		0.73761		11.58274
230 4-Chlorothioanisole	+++++	65505	120100	275307	+++++	727615					
	828249	+++++					LINR	0.13623	0.30665		0.99347
231 4-Chlorothiophenol	+++++	14955	49890	195788	+++++	593706					
	683100	+++++					LINR	0.29380	0.27176		0.99219
232 bis(p-Chlorophenyl)sulfone	+++++	0.41911	0.42098	0.38909	+++++	0.48605					
	0.44832	+++++					AVRG		0.43271		8.42306
233 bis(p-Chlorophenyl)disulfide	+++++	0.19644	0.20913	0.18244	+++++	0.22594					
	0.20806	+++++					AVRG		0.20440		7.90920
234 Diphenyl disulfide	+++++	0.20078	0.21401	0.19911	+++++	0.24759					
	0.23595	+++++					AVRG		0.21949		9.81334
235 Diphenyl sulfide	+++++	0.77537	0.76082	0.73538	+++++	0.86393					
	0.82035	+++++					AVRG		0.79117		6.45415
236 Phenyl sulfone	+++++	0.43220	0.43102	0.40994	+++++	0.50304					
	0.47114	+++++					AVRG		0.44947		8.28032

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237 Hydroxymethyl phthalimide	+++++	0.14671	0.15531	0.12673	+++++	0.19818					
	0.17963	+++++					AVRG		0.16131		17.36813 <-
238 Phthalic acid	+++++	13646	40994	115933	+++++	343308					
	402020	+++++					LINR	0.25337	0.15547		0.99358
239 Thiophenol	+++++	41092	104698	327879	+++++	922601					
	1046955	+++++					LINR	0.23456	1.46946		0.99364
240 bis(Chloromethyl)ether	+++++	1.01755	1.00429	0.94829	+++++	1.10480					
	1.05711	+++++					AVRG		1.02641		5.71407
241 Octachlorostyrene	+++++	0.06097	0.06109	0.05953	+++++	0.07399					
	0.07072	+++++					AVRG		0.06526		10.12747
M 225 Trichlorophenols	+++++	0.27800	0.29958	0.28751	0.28920	0.28074					
	0.26883	0.26877					AVRG		0.28180		3.98593
M 226 Tetrachlorophenols	+++++	0.20640	0.23481	0.21862	0.21374	0.22201					
	0.21460	0.22254					AVRG		0.21896		4.07356
M 227 Benzo(b,k)fluoranthene	0.73667	0.86303	0.94898	0.91431	0.92802	0.89592					
	0.88671	0.88707					AVRG		0.88259		7.33906
M 228 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

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INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Cal Date : 06-Jan-2010 15:13 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
$ 3 2-Fluorophenol	+++++	0.98202	1.07204	1.02934	1.03017	0.98830					
	0.95348	0.95648					AVRG		1.00169		4.36295
$ 5 Phenol-d5	+++++	1.23734	1.34586	1.27212	1.28456	1.26316					
	1.22407	1.22277					AVRG		1.26427		3.41674
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-
$ 20 Nitrobenzene-d5	+++++	0.30745	0.31426	0.29453	0.29315	0.27101					
	0.25359	0.24671					AVRG		0.28296		9.27927
$ 39 2-Fluorobiphenyl	+++++	1.11512	1.14628	1.04977	1.05601	0.99136					
	0.92488	0.93239					AVRG		1.03083		8.29816
$ 60 2,4,6-Tribromophenol	+++++	0.10485	0.11685	0.11180	0.11267	0.12310					
	0.12190	0.12607					AVRG		0.11675		6.41378
$ 81 p-Terphenyl-d14	+++++	0.71309	0.69797	0.64349	0.66522	0.61764					
	0.59401	0.58404					AVRG		0.64507		7.73004

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Cal Date : 06-Jan-2010 15:13 jos00786

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

Data file : /chem/MSD6.i/s110909.b/s6k0913.d
Lab Smp Id: WBN091106-08 Client Smp ID: MEGAICAL
Inj Date : 09-NOV-2009 18:53
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-08|1 PPM|1|SVMF|1|MEGAICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:51 nat00999 Quant Type: ISTD
Cal Date : 09-NOV-2009 18:53 Cal File: s6k0913.d
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.833	4.833	(1.000)	284776	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	1018965	40.0000	
* 46 Acenaphthene-d10	164	7.986	7.986	(1.000)	545612	40.0000	
* 67 Phenanthrene-d10	188	9.598	9.598	(1.000)	921774	40.0000	
* 91 Chrysene-d12	240	12.615	12.615	(1.000)	727011	40.0000	
* 98 Perylene-d12	264	14.955	14.955	(1.000)	586942	40.0000	
1 N-Methyl-N-nitrosomethylamine	74	2.663	2.663	(0.551)	4297	1.00000	0.89(H)
7 bis(2-Chloroethyl) ether	63	4.548	4.548	(0.941)	6647	1.00000	1.1
17 N-Nitrosodipropylamine	70	5.190	5.190	(1.074)	4673	1.00000	0.93
30 Naphthalene	128	6.133	6.133	(1.003)	23838	1.00000	1.2
34 2-Methylnaphthalene	142	6.857	6.857	(1.122)	14464	1.00000	1.2
35 1-Methylnaphthalene	142	6.964	6.964	(1.139)	14233	1.00000	1.2
40 2-Chloronaphthalene	162	7.379	7.379	(0.924)	12441	1.00000	1.0
43 Dimethylphthalate	163	7.657	7.657	(0.959)	13728	1.00000	0.98
45 Acenaphthylene	152	7.830	7.830	(0.981)	19789	1.00000	1.0
47 Acenaphthene	154	8.016	8.016	(1.004)	13334	1.00000	1.1
51 Diethylphthalate	149	8.414	8.414	(1.054)	15410	1.00000	1.1
53 Fluorene	166	8.572	8.572	(1.073)	14587	1.00000	1.1
68 Phenanthrene	178	9.619	9.619	(1.002)	21906	1.00000	1.1
69 Anthracene	178	9.672	9.672	(1.008)	20206	1.00000	1.1
72 Di-n-butylphthalate	149	10.187	10.187	(1.061)	17369	1.00000	0.79
76 Fluoranthene	202	10.908	10.908	(1.136)	18065	1.00000	0.99
79 Pyrene	202	11.158	11.158	(0.884)	20377	1.00000	1.0(H)
85 Butylbenzylphthalate	149	11.838	11.838	(0.938)	5225	1.00000	0.57
89 Benzo(a)anthracene	228	12.592	12.592	(0.998)	17125	1.00000	1.1
92 Chrysene	228	12.643	12.643	(1.002)	15848	1.00000	1.0(H)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
93 bis(2-Ethylhexyl)phthalate	149	12.572	12.572	(0.997)	7340	1.00000	0.98
94 Di-n-octylphthalate	149	13.558	13.558	(0.907)	6621	1.00000	0.35
95 Benzo(b)fluoranthene	252	14.261	14.261	(0.954)	10882	1.00000	0.84(H)
96 Benzo(k)fluoranthene	252	14.310	14.310	(0.957)	10737	1.00000	0.83(H)
97 Benzo(a)pyrene	252	14.842	14.842	(0.992)	7950	1.00000	0.71
99 Indeno(1,2,3-cd)pyrene	276	16.929	16.929	(1.132)	5888	1.00000	3.5(H)
100 Dibenzo(a,h)anthracene	278	16.962	16.962	(1.134)	3385	1.00000	3.1(H)
101 Benzo(ghi)perylene	276	17.434	17.434	(1.166)	6118	1.00000	0.71(H)
173 Carbazole	167	9.835	9.835	(1.025)	15802	1.00000	1.0
M 227 Benzo(b,k)fluoranthene	252				21619	2.00000	1.7

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0913.d
Date : 09-NOV-2009 18:53
Client ID: MEGAICAL
Sample Info: IWBN091106-0811 PPM11SVMF11MEGAICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JWB3
Column diameter: 0.20

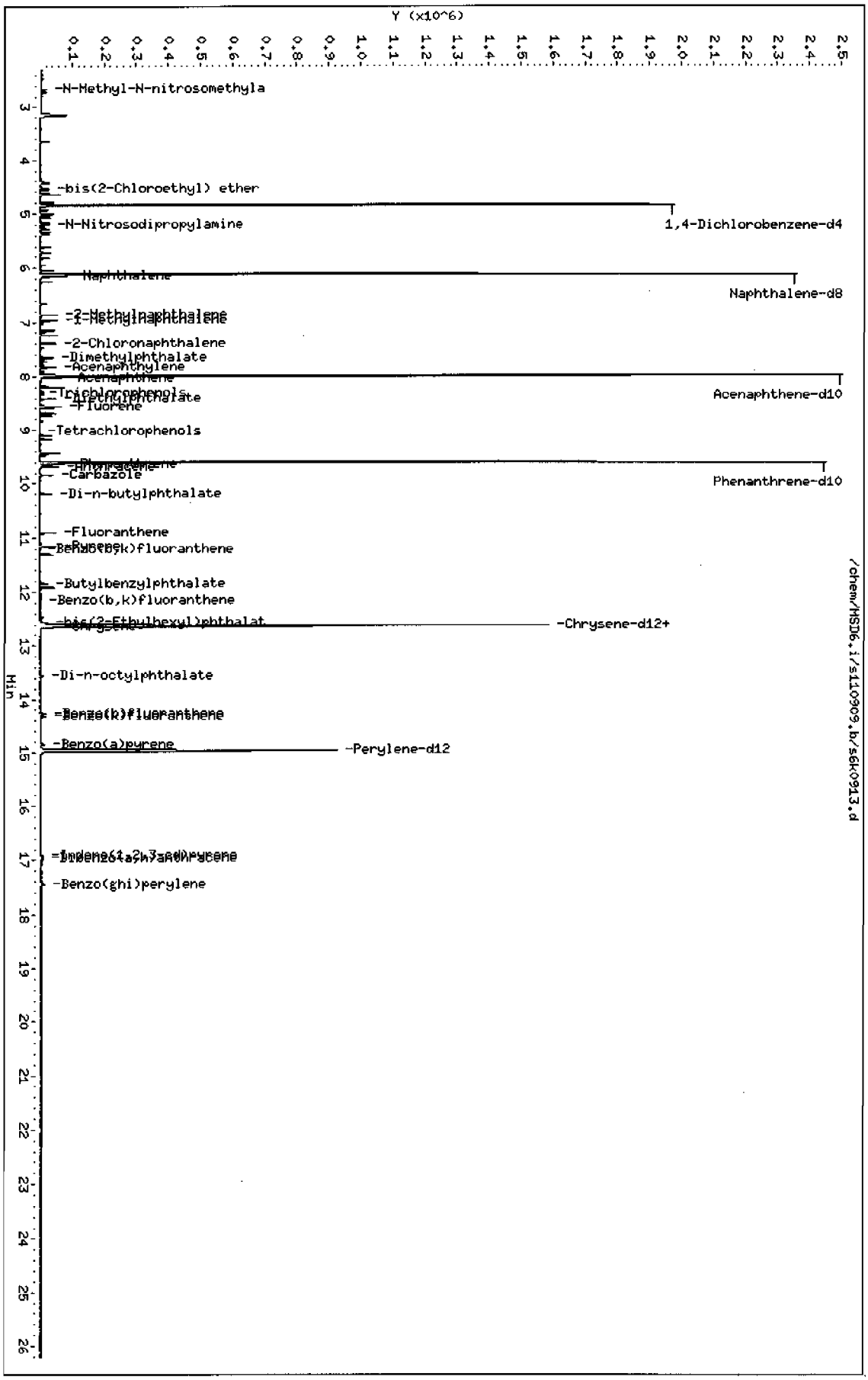

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Data file : /chem/MSD6.i/s110909.b/s6k0914.d
Lab Smp Id: WBN091106-07 Client Smp ID: MEGAICAL
Inj Date : 09-NOV-2009 19:31
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-07|10 PPM|1|SVMF|1|MEGAICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:51 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 01:47 Cal File: s6k0948.d
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpc1p1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	282234	40.0000	
* 29 Naphthalene-d8	136	6.115	6.115	(1.000)	1024045	40.0000	
* 46 Acenaphthene-d10	164	7.986	7.986	(1.000)	524483	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	864358	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	561593	40.0000	
* 98 Perylene-d12	264	14.950	14.950	(1.000)	416639	40.0000	
$ 3 2-Fluorophenol	112	3.649	3.649	(0.755)	69290	10.0000	9.8
$ 5 Phenol-d5	99	4.426	4.426	(0.916)	87305	10.0000	9.8
$ 20 Nitrobenzene-d5	82	5.366	5.366	(0.877)	78711	10.0000	10.9
$ 39 2-Fluorobiphenyl	172	7.239	7.239	(0.906)	146216	10.0000	10.8
$ 60 2,4,6-Tribromophenol	329	8.829	8.829	(1.106)	13748	10.0000	9.0
$ 81 p-Terphenyl-d14	244	11.303	11.303	(0.896)	100117	10.0000	11.0
1 N-Methyl-N-nitrosomethylamine	74	2.660	2.660	(0.550)	44248	10.0000	9.2
2 Pyridine	79	2.703	2.703	(0.559)	55393	10.0000	9.3
4 Aniline	66	4.515	4.515	(0.934)	36544	10.0000	9.8
6 Phenol	94	4.439	4.439	(0.918)	91430	10.0000	10.2(Q)
7 bis(2-Chloroethyl) ether	63	4.553	4.553	(0.942)	63542	10.0000	10.5
8 2-Chlorophenol	128	4.630	4.630	(0.958)	74277	10.0000	10.3
203 n-Decane	43	4.643	4.643	(0.960)	111268	10.0000	11.1
9 1,3-Dichlorobenzene	146	4.783	4.783	(0.989)	86374	10.0000	10.4
11 1,4-Dichlorobenzene	146	4.852	4.852	(1.004)	89752	10.0000	10.7
13 1,2-Dichlorobenzene	146	4.999	4.999	(1.034)	82318	10.0000	10.5
14 bis(2-Chloroisopropyl)ether	45	5.066	5.066	(1.048)	146504	10.0000	10.8
12 Benzyl alcohol	108	4.936	4.936	(1.021)	42970	10.0000	9.6
15 o-Cresol	107	5.022	5.022	(1.039)	58558	10.0000	10
18 m,p-Cresols	107	5.170	5.170	(1.070)	73092	10.0000	9.8(H)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.196	5.196	(1.075)	52296	10.0000	10.4
19 Hexachloroethane	117	5.338	5.338	(1.104)	32320	10.0000	9.9
21 Nitrobenzene	77	5.387	5.387	(0.881)	81133	10.0000	11.1
22 Isophorone	82	5.618	5.618	(0.919)	143086	10.0000	11.0
23 2-Nitrophenol	139	5.705	5.705	(0.933)	34440	10.0000	10.2
24 2,4-Dimethylphenol	122	5.715	5.715	(0.935)	61410	10.0000	11.0
25 bis(2-Chloroethoxy)methane	93	5.822	5.822	(0.952)	85015	10.0000	11.2
26 2,4-Dichlorophenol	162	5.945	5.945	(0.972)	50883	10.0000	10.0
27 Benzoic acid	105	5.756	5.756	(0.941)	13180	10.0000	3.8(QH)
28 1,2,4-Trichlorobenzene	180	6.044	6.044	(0.988)	71193	10.0000	11.5
30 Naphthalene	128	6.136	6.136	(1.003)	217984	10.0000	10.7
204 alpha-Terpineol	59	6.120	6.120	(1.001)	60361	10.0000	10.8
31 4-Chloroaniline	127	6.169	6.169	(1.009)	67559	10.0000	10.3
32 Hexachlorobutadiene	225	6.250	6.250	(1.022)	36520	10.0000	11.3
33 4-Chloro-3-methylphenol	107	6.650	6.650	(1.087)	53312	10.0000	10.4
34 2-Methylnaphthalene	142	6.859	6.859	(1.122)	137596	10.0000	11.2
35 1-Methylnaphthalene	142	6.966	6.966	(1.139)	135270	10.0000	11.2
36 Hexachlorocyclopentadiene	237	7.022	7.022	(0.879)	17728	10.0000	8.4
205 2,3-Dichloroaniline	161	7.152	7.152	(0.896)	68026	10.0000	10.8
37 2,4,6-Trichlorophenol	196	7.145	7.145	(0.895)	36150	10.0000	10.1
38 2,4,5-Trichlorophenol	196	7.180	7.180	(0.899)	36754	10.0000	9.6
40 2-Chloronaphthalene	162	7.382	7.382	(0.924)	124461	10.0000	10.6
42 o-Nitroaniline	65	7.474	7.474	(0.936)	37570	10.0000	9.3
41 m-Nitroaniline	138	7.914	7.914	(0.991)	24951	10.0000	8.4
43 Dimethylphthalate	163	7.662	7.662	(0.959)	144565	10.0000	10.7
44 2,6-Dinitrotoluene	165	7.731	7.731	(0.968)	32595	10.0000	10.2
50 2,4-Dinitrotoluene	165	8.164	8.164	(1.022)	37616	10.0000	9.3
45 Acenaphthylene	152	7.833	7.833	(0.981)	200921	10.0000	10.6
47 Acenaphthene	154	8.019	8.019	(1.004)	122550	10.0000	10.4
48 2,4-Dinitrophenol	184	8.024	8.024	(1.005)	3239	10.0000	16.4(Q)
49 Dibenzofuran	168	8.202	8.202	(1.027)	171816	10.0000	10.8
51 Diethylphthalate	149	8.416	8.416	(1.054)	142170	10.0000	10.5
52 4-Nitrophenol	139	8.060	8.060	(1.009)	12277	10.0000	11.9
53 Fluorene	166	8.574	8.574	(1.074)	138291	10.0000	10.6
54 4-Chlorophenylphenylether	204	8.559	8.559	(1.072)	65483	10.0000	10.6
55 2-Methyl-4,6-dinitrophenol	198	8.605	8.605	(0.896)	9251	10.0000	11.1
56 p-Nitroaniline	138	8.572	8.572	(1.073)	18297	10.0000	12.5(H)
133 Diphenylamine	169	8.681	8.681	(0.904)	110713	10.0000	10.6
58 1,2-Diphenylhydrazine	77	8.732	8.732	(0.910)	141081	10.0000	10.6
61 4-Bromophenylphenylether	248	9.092	9.092	(0.947)	35269	10.0000	10.3
63 Hexachlorobenzene	284	9.168	9.168	(0.955)	36891	10.0000	10.3
65 Pentachlorophenol	266	9.372	9.372	(0.976)	12427	10.0000	11.1
206 n-Octadecane	57	9.428	9.428	(0.982)	111561	10.0000	11.7
68 Phenanthrene	178	9.622	9.622	(1.002)	191461	10.0000	10.7
69 Anthracene	178	9.675	9.675	(1.008)	186256	10.0000	10.4
72 Di-n-butylphthalate	149	10.187	10.187	(1.061)	216333	10.0000	10.5
76 Fluoranthene	202	10.911	10.911	(1.137)	171763	10.0000	10.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.161	11.161	(0.885)	183951	10.0000	11.9
85 Butylbenzylphthalate	149	11.838	11.838	(0.939)	73769	10.0000	10.4
89 Benzo(a)anthracene	228	12.593	12.593	(0.998)	120048	10.0000	9.9
92 Chrysene	228	12.644	12.644	(1.002)	117313	10.0000	10.1
93 bis(2-Ethylhexyl)phthalate	149	12.567	12.567	(0.996)	107837	10.0000	11.4
94 Di-n-octylphthalate	149	13.558	13.558	(0.907)	124585	10.0000	9.4
95 Benzo(b)fluoranthene	252	14.264	14.264	(0.954)	89317	10.0000	9.7
96 Benzo(k)fluoranthene	252	14.313	14.313	(0.957)	90470	10.0000	9.9
97 Benzo(a)pyrene	252	14.843	14.843	(0.993)	73542	10.0000	9.2
99 Indeno(1,2,3-cd)pyrene	276	16.932	16.932	(1.133)	60939	10.0000	10.5
100 Dibenzo(a,h)anthracene	278	16.963	16.963	(1.135)	46770	10.0000	9.8
101 Benzo(ghi)perylene	276	17.444	17.444	(1.167)	55442	10.0000	9.1
126 m-Dinitrobenzene	168	7.700	7.700	(0.964)	20247	10.0000	9.1
130 2,3,4,6-Tetrachlorophenol	232	8.322	8.322	(1.042)	27063	10.0000	9.4
143 Dinoseb	211	9.558	9.558	(0.996)	11996	10.0000	10
173 Carbazole	167	9.836	9.836	(1.025)	136603	10.0000	9.6
184 p-Benzoquinone	54	4.082	4.082	(0.844)	7044	10.0000	7.8
192 Methoxychlor	227	12.465	12.465	(0.988)	76746	10.0000	9.9
211 p-Toluidine	106	5.249	5.249	(1.086)	69767	10.0000	11.0
210 m-Toluidine	106	5.280	5.280	(1.092)	75605	10.0000	9.5
26 Phthalic anhydride	104	6.900	6.900	(1.128)	10939	10.0000	10.7
179 Dibenzo(a,e)pyrene	302	21.164	21.164	(1.416)	21397	10.0000	12.3
214 1,4-Dinitrobenzene	75	7.619	7.619	(0.954)	20278	10.0000	8.4
215 2-Ethoxyethanol	59	2.449	2.449	(0.507)	49020	10.0000	9.8
216 Methylenebis(2-chloroaniline)	231	12.534	12.534	(0.994)	11622	10.0000	11.3(Q)
M 225 Trichlorophenols	196				72904	20.0000	19.7
M 226 Tetrachlorophenols	232				27063	10.0000	9.4
M 227 Benzo(b,k)fluoranthene	252				179787	20.0000	19.6

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0914.d
Date : 09-NOV-2009 19:31
Client ID: MEGAICAL
Sample Info: IWBN091106-07140 PPM11|SVMF11|MEGAICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

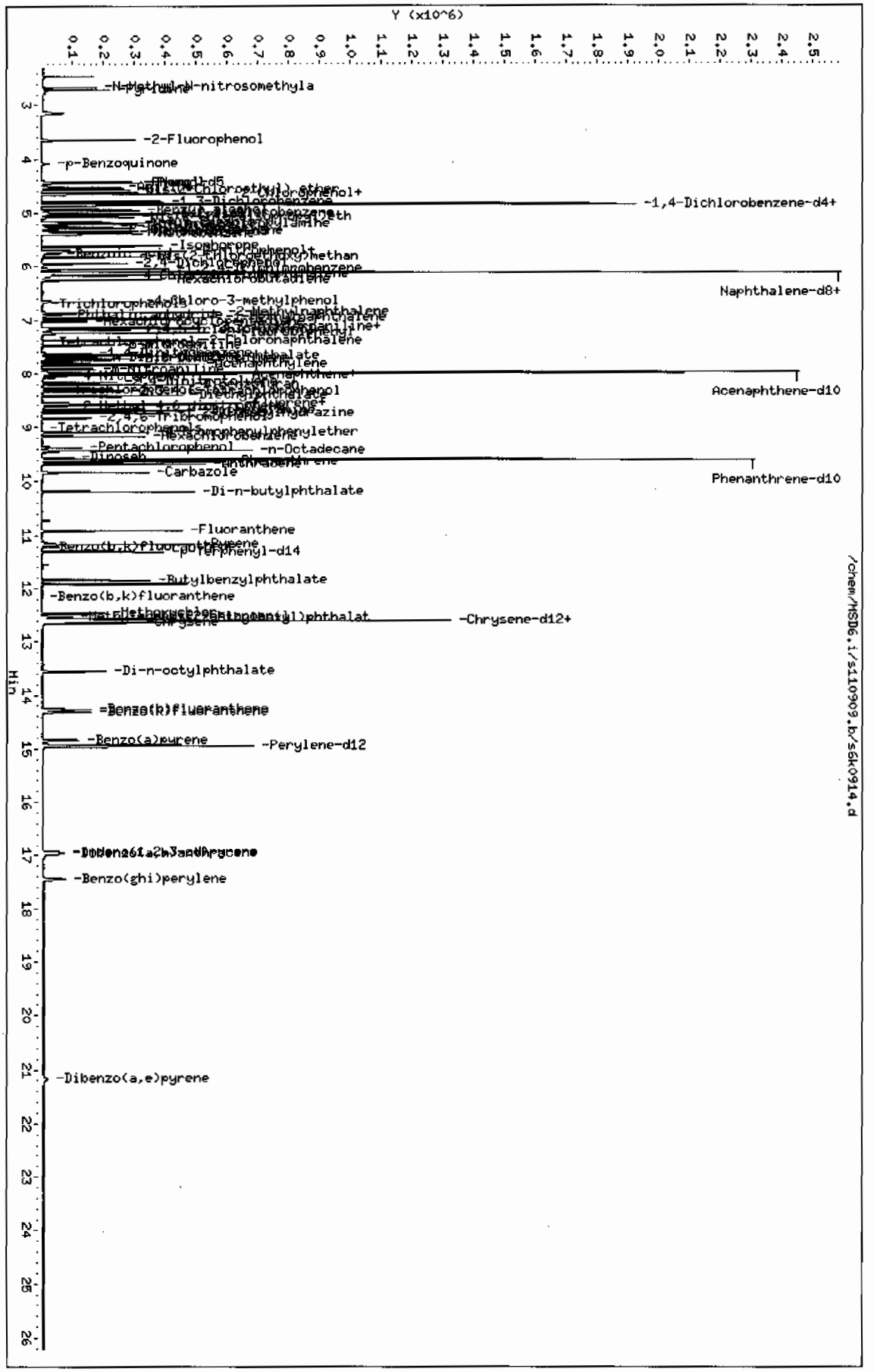

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GEL Laboratories LLC

Data file : /chem/MSD6.i/s110909.b/s6k0915.d
Lab Smp Id: WBN091106-06 Client Smp ID: MEGAICAL
Inj Date : 09-NOV-2009 20:09
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-06|20 PPM|1|SVMF|1|MEGAICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:51 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 02:16 Cal File: s6k0949.d
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.836	4.836	(1.000)	289417	40.0000	
* 29 Naphthalene-d8	136	6.115	6.115	(1.000)	1088371	40.0000	
* 46 Acenaphthene-d10	164	7.988	7.988	(1.000)	552569	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	946467	40.0000	
* 91 Chrysene-d12	240	12.616	12.616	(1.000)	713356	40.0000	
* 98 Perylene-d12	264	14.957	14.957	(1.000)	558138	40.0000	
$ 3 2-Fluorophenol	112	3.649	3.649	(0.754)	155134	20.0000	21.4
$ 5 Phenol-d5	99	4.429	4.429	(0.916)	194758	20.0000	21.3
$ 20 Nitrobenzene-d5	82	5.369	5.369	(0.878)	171017	20.0000	22.2
$ 39 2-Fluorobiphenyl	172	7.242	7.242	(0.907)	316700	20.0000	22.2
$ 60 2,4,6-Tribromophenol	329	8.829	8.829	(1.105)	32283	20.0000	20.0
$ 81 p-Terphenyl-d14	244	11.303	11.303	(0.896)	248952	20.0000	21.6
1 N-Methyl-N-nitrosomethylamine	74	2.663	2.663	(0.551)	104210	20.0000	21.2
2 Pyridine	79	2.704	2.704	(0.559)	122054	20.0000	19.9
4 Aniline	66	4.518	4.518	(0.934)	81443	20.0000	21.3
6 Phenol	94	4.441	4.441	(0.918)	200579	20.0000	21.8(Q)
7 bis(2-Chloroethyl) ether	63	4.556	4.556	(0.942)	134214	20.0000	21.5
8 2-Chlorophenol	128	4.630	4.630	(0.957)	159676	20.0000	21.6
203 n-Decane	43	4.643	4.643	(0.960)	230112	20.0000	22.4
9 1,3-Dichlorobenzene	146	4.783	4.783	(0.989)	184659	20.0000	21.7
11 1,4-Dichlorobenzene	146	4.852	4.852	(1.003)	191069	20.0000	22.2
13 1,2-Dichlorobenzene	146	4.999	4.999	(1.034)	176121	20.0000	21.9
14 bis(2-Chloroisopropyl)ether	45	5.068	5.068	(1.048)	308699	20.0000	22.2
12 Benzyl alcohol	108	4.941	4.941	(1.022)	95096	20.0000	20.7
15 o-Cresol	107	5.022	5.022	(1.038)	128253	20.0000	21.3
18 m,p-Cresols	107	5.175	5.175	(1.070)	162927	20.0000	21.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.201	5.201	(1.075)	114104	20.0000	22.2
19 Hexachloroethane	117	5.338	5.338	(1.104)	71665	20.0000	21.5
21 Nitrobenzene	77	5.389	5.389	(0.881)	176947	20.0000	22.8
22 Isophorone	82	5.621	5.621	(0.919)	314669	20.0000	22.9
23 2-Nitrophenol	139	5.708	5.708	(0.933)	77352	20.0000	21.6
24 2,4-Dimethylphenol	122	5.715	5.715	(0.935)	122636	20.0000	20.7
25 bis(2-Chloroethoxy)methane	93	5.822	5.822	(0.952)	185821	20.0000	23.0
26 2,4-Dichlorophenol	162	5.947	5.947	(0.972)	116696	20.0000	21.7
27 Benzoic acid	105	5.782	5.782	(0.945)	57602	20.0000	15.7
28 1,2,4-Trichlorobenzene	180	6.047	6.047	(0.989)	149963	20.0000	22.7
30 Naphthalene	128	6.136	6.136	(1.003)	464010	20.0000	21.4
204 alpha-Terpineol	59	6.123	6.123	(1.001)	138713	20.0000	23.3
31 4-Chloroaniline	127	6.169	6.169	(1.009)	153437	20.0000	22.0
32 Hexachlorobutadiene	225	6.251	6.251	(1.022)	79219	20.0000	23.0
33 4-Chloro-3-methylphenol	107	6.651	6.651	(1.087)	122902	20.0000	22.6
34 2-Methylnaphthalene	142	6.860	6.860	(1.122)	298046	20.0000	22.7
35 1-Methylnaphthalene	142	6.967	6.967	(1.139)	289552	20.0000	22.6
36 Hexachlorocyclopentadiene	237	7.023	7.023	(0.879)	49109	20.0000	22.0
205 2,3-Dichloroaniline	161	7.153	7.153	(0.895)	147220	20.0000	22.2
37 2,4,6-Trichlorophenol	196	7.145	7.145	(0.894)	81873	20.0000	21.7
38 2,4,5-Trichlorophenol	196	7.181	7.181	(0.899)	83664	20.0000	20.8
40 2-Chloronaphthalene	162	7.384	7.384	(0.924)	270690	20.0000	21.8
42 o-Nitroaniline	65	7.476	7.476	(0.936)	90640	20.0000	21.3
41 m-Nitroaniline	138	7.917	7.917	(0.991)	64063	20.0000	20.6
43 Dimethylphthalate	163	7.665	7.665	(0.959)	309149	20.0000	21.8
44 2,6-Dinitrotoluene	165	7.736	7.736	(0.968)	71471	20.0000	21.1
50 2,4-Dinitrotoluene	165	8.169	8.169	(1.023)	89865	20.0000	21.1
45 Acenaphthylene	152	7.835	7.835	(0.981)	441326	20.0000	22.1
47 Acenaphthene	154	8.021	8.021	(1.004)	268137	20.0000	21.5
48 2,4-Dinitrophenol	184	8.027	8.027	(1.005)	15920	20.0000	23.3(Q)
49 Dibenzofuran	168	8.205	8.205	(1.027)	373458	20.0000	22.2
51 Diethylphthalate	149	8.422	8.422	(1.054)	312734	20.0000	21.9
52 4-Nitrophenol	139	8.065	8.065	(1.010)	40572	20.0000	21.9
53 Fluorene	166	8.574	8.574	(1.073)	304628	20.0000	22.1
54 4-Chlorophenylphenylether	204	8.562	8.562	(1.072)	144619	20.0000	22.2
55 2-Methyl-4,6-dinitrophenol	198	8.608	8.608	(0.897)	34357	20.0000	20.6
56 p-Nitroaniline	138	8.577	8.577	(1.074)	49968	20.0000	21.2
133 Diphenylamine	169	8.687	8.687	(0.905)	242668	20.0000	21.3
58 1,2-Diphenylhydrazine	77	8.735	8.735	(0.910)	321489	20.0000	22.2
61 4-Bromophenylphenylether	248	9.094	9.094	(0.947)	79306	20.0000	21.2
63 Hexachlorobenzene	284	9.171	9.171	(0.955)	82935	20.0000	21.2
65 Pentachlorophenol	266	9.374	9.374	(0.977)	38945	20.0000	21.9
206 n-Octadecane	57	9.431	9.431	(0.982)	244179	20.0000	23.4
68 Phenanthrene	178	9.624	9.624	(1.003)	424706	20.0000	21.7
69 Anthracene	178	9.678	9.678	(1.008)	428435	20.0000	21.9
72 Di-n-butylphthalate	149	10.187	10.187	(1.061)	495257	20.0000	22.0
76 Fluoranthene	202	10.911	10.911	(1.137)	411837	20.0000	22.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.163	11.163	(0.885)	437071	20.0000	22.3
85 Butylbenzylphthalate	149	11.838	11.838	(0.938)	192705	20.0000	21.5
89 Benzo(a)anthracene	228	12.598	12.598	(0.999)	320405	20.0000	20.8
92 Chrysene	228	12.651	12.651	(1.003)	311544	20.0000	21.1
93 bis(2-Ethylhexyl)phthalate	149	12.570	12.570	(0.996)	270739	20.0000	22.1
94 Di-n-octylphthalate	149	13.561	13.561	(0.907)	378096	20.0000	21.3
95 Benzo(b)fluoranthene	252	14.269	14.269	(0.954)	263103	20.0000	21.3
96 Benzo(k)fluoranthene	252	14.318	14.318	(0.957)	266560	20.0000	21.7
97 Benzo(a)pyrene	252	14.848	14.848	(0.993)	226418	20.0000	21.2
99 Indeno(1,2,3-cd)pyrene	276	16.935	16.935	(1.132)	200863	20.0000	21.3
100 Dibenzo(a,h)anthracene	278	16.970	16.970	(1.135)	157194	20.0000	20.4
101 Benzo(ghi)perylene	276	17.449	17.449	(1.167)	169870	20.0000	20.8
126 m-Dinitrobenzene	168	7.703	7.703	(0.964)	48351	20.0000	20.7
130 2,3,4,6-Tetrachlorophenol	232	8.322	8.322	(1.042)	64873	20.0000	21.4
143 Dinoseb	211	9.558	9.558	(0.996)	47856	20.0000	19.9
173 Carbazole	167	9.838	9.838	(1.025)	307883	20.0000	19.9
184 p-Benzoquinone	54	4.085	4.085	(0.845)	16645	20.0000	18.1
192 Methoxychlor	227	12.468	12.468	(0.988)	212321	20.0000	21.6
211 p-Toluidine	106	5.249	5.249	(1.085)	146409	20.0000	22.5
210 m-Toluidine	106	5.282	5.282	(1.092)	158980	20.0000	19.5
26 Phthalic anhydride	104	6.905	6.905	(1.129)	40864	20.0000	22.6
179 Dibenzo(a,e)pyrene	302	21.177	21.177	(1.416)	67635	20.0000	19.8
214 1,4-Dinitrobenzene	75	7.624	7.624	(0.954)	51394	20.0000	20.2
215 2-Ethoxyethanol	59	2.454	2.454	(0.507)	109556	20.0000	21.3
216 Methylenebis(2-chloroaniline)	231	12.537	12.537	(0.994)	37526	20.0000	20.0(Q)
M 225 Trichlorophenols	196				165537	40.0000	42.5
M 226 Tetrachlorophenols	232				64873	20.0000	21.4
M 227 Benzo(b,k)fluoranthene	252				529663	40.0000	43.0

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0915.d
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Client ID: MEGAICAL
Sample Info: |WBN091106-06|20 PPM|1|SVMF|1|MEGAICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

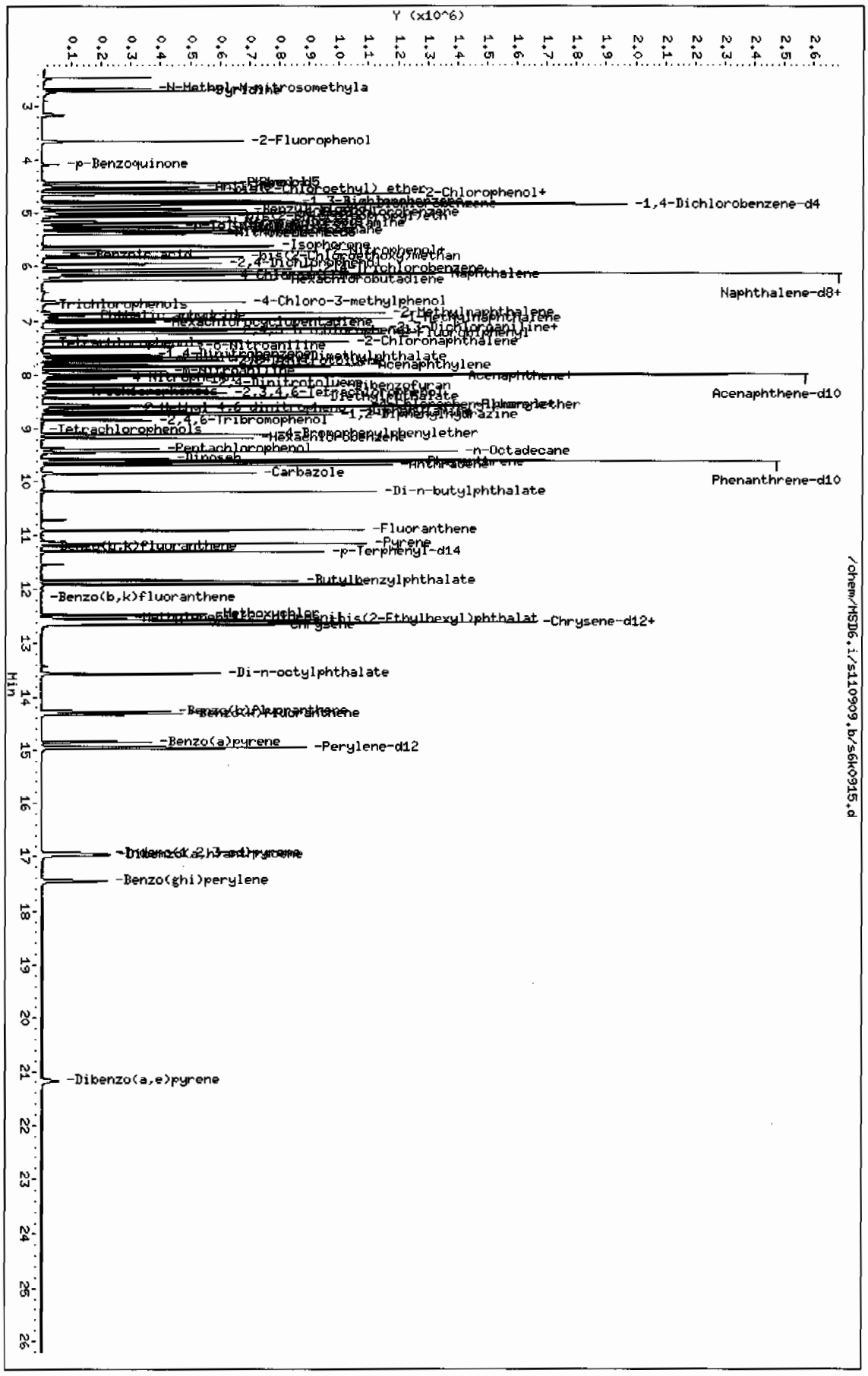

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Data file : /chem/MSD6.i/s110909.b/s6k0916.d
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Inj Date : 09-NOV-2009 20:46
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-05.1|40 PPM|1|SVMF|1|MEGAICAL
Misc Info : |MSD8270|WBN091106-10
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Meth Date : 11-Nov-2009 10:51 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 02:44 Cal File: s6k0950.d
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.836	4.836	(1.000)	298722	40.0000	
* 29 Naphthalene-d8	136	6.118	6.118	(1.000)	1143952	40.0000	
* 46 Acenaphthene-d10	164	7.991	7.991	(1.000)	575628	40.0000	
* 67 Phenanthrene-d10	188	9.601	9.601	(1.000)	993660	40.0000	
* 91 Chrysene-d12	240	12.623	12.623	(1.000)	793787	40.0000	
* 98 Perylene-d12	264	14.960	14.960	(1.000)	630407	40.0000	
$ 3 2-Fluorophenol	112	3.651	3.651	(0.755)	307486	40.0000	41.1
$ 5 Phenol-d5	99	4.434	4.434	(0.917)	380010	40.0000	40.2
$ 20 Nitrobenzene-d5	82	5.374	5.374	(0.878)	336930	40.0000	41.6
$ 39 2-Fluorobiphenyl	172	7.244	7.244	(0.907)	604279	40.0000	40.7
$ 60 2,4,6-Tribromophenol	329	8.834	8.834	(1.106)	64358	40.0000	38.3
$ 81 p-Terphenyl-d14	244	11.308	11.308	(0.896)	510797	40.0000	39.9
1 N-Methyl-N-nitrosomethylamine	74	2.665	2.665	(0.551)	209088	40.0000	41.1
2 Pyridine	79	2.701	2.701	(0.558)	282146	40.0000	44.6
4 Aniline	66	4.520	4.520	(0.935)	158171	40.0000	40.1
6 Phenol	94	4.446	4.446	(0.919)	382231	40.0000	40.3
7 bis(2-Chloroethyl) ether	63	4.559	4.559	(0.943)	254729	40.0000	39.6
8 2-Chlorophenol	128	4.632	4.632	(0.958)	313640	40.0000	41.1
203 n-Decane	43	4.645	4.645	(0.960)	420146	40.0000	39.5
9 1,3-Dichlorobenzene	146	4.785	4.785	(0.989)	360873	40.0000	41.1
11 1,4-Dichlorobenzene	146	4.854	4.854	(1.004)	364217	40.0000	40.9
13 1,2-Dichlorobenzene	146	5.002	5.002	(1.034)	338533	40.0000	40.8
14 bis(2-Chloroisopropyl)ether	45	5.071	5.071	(1.048)	594721	40.0000	41.4
12 Benzyl alcohol	108	4.946	4.946	(1.023)	188324	40.0000	39.8
15 o-Cresol	107	5.027	5.027	(1.040)	250999	40.0000	40.4
18 m,p-Cresols	107	5.183	5.183	(1.072)	313533	40.0000	39.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.211	5.211	(1.077)	217747	40.0000	41.1
19 Hexachloroethane	117	5.338	5.338	(1.104)	141565	40.0000	41.1
21 Nitrobenzene	77	5.394	5.394	(0.882)	341873	40.0000	41.9
22 Isophorone	82	5.629	5.629	(0.920)	609361	40.0000	42.1
23 2-Nitrophenol	139	5.710	5.710	(0.933)	155591	40.0000	41.4
24 2,4-Dimethylphenol	122	5.720	5.720	(0.935)	240998	40.0000	38.7
25 bis(2-Chloroethoxy)methane	93	5.827	5.827	(0.953)	353549	40.0000	41.6
26 2,4-Dichlorophenol	162	5.952	5.952	(0.973)	239324	40.0000	42.3
27 Benzoic acid	105	5.815	5.815	(0.950)	141142	40.0000	36.7(H)
28 1,2,4-Trichlorobenzene	180	6.049	6.049	(0.989)	288440	40.0000	41.6
30 Naphthalene	128	6.141	6.141	(1.004)	869601	40.0000	38.1
204 alpha-Terpineol	59	6.128	6.128	(1.002)	251702	40.0000	40.2
31 4-Chloroaniline	127	6.174	6.174	(1.009)	308766	40.0000	42.1
32 Hexachlorobutadiene	225	6.253	6.253	(1.022)	150798	40.0000	41.7
33 4-Chloro-3-methylphenol	107	6.656	6.656	(1.088)	239902	40.0000	42.0
34 2-Methylnaphthalene	142	6.862	6.862	(1.122)	570340	40.0000	41.4
35 1-Methylnaphthalene	142	6.972	6.972	(1.140)	553281	40.0000	41.1
36 Hexachlorocyclopentadiene	237	7.023	7.023	(0.879)	87000	40.0000	37.4
205 2,3-Dichloroaniline	161	7.158	7.158	(0.896)	277867	40.0000	40.3
37 2,4,6-Trichlorophenol	196	7.150	7.150	(0.895)	161512	40.0000	41.1
38 2,4,5-Trichlorophenol	196	7.186	7.186	(0.899)	169483	40.0000	40.5
40 2-Chloronaphthalene	162	7.387	7.387	(0.924)	522872	40.0000	40.4
42 o-Nitroaniline	65	7.481	7.481	(0.936)	177361	40.0000	40.1
41 m-Nitroaniline	138	7.925	7.925	(0.992)	132538	40.0000	40.9
43 Dimethylphthalate	163	7.675	7.675	(0.960)	605104	40.0000	41.0
44 2,6-Dinitrotoluene	165	7.741	7.741	(0.969)	142474	40.0000	40.4
50 2,4-Dinitrotoluene	165	8.174	8.174	(1.023)	180702	40.0000	40.7
45 Acenaphthylene	152	7.840	7.840	(0.981)	847979	40.0000	40.8
47 Acenaphthene	154	8.027	8.027	(1.004)	523279	40.0000	40.3
48 2,4-Dinitrophenol	184	8.032	8.032	(1.005)	45695	40.0000	38.8
49 Dibenzofuran	168	8.207	8.207	(1.027)	714305	40.0000	40.8
51 Diethylphthalate	149	8.427	8.427	(1.055)	611739	40.0000	41.1
52 4-Nitrophenol	139	8.072	8.072	(1.010)	90802	40.0000	38.6
53 Fluorene	166	8.579	8.579	(1.074)	580101	40.0000	40.4
54 4-Chlorophenylphenylether	204	8.564	8.564	(1.072)	279403	40.0000	41.1
55 2-Methyl-4,6-dinitrophenol	198	8.618	8.618	(0.898)	85168	40.0000	38.9
56 p-Nitroaniline	138	8.585	8.585	(1.074)	114446	40.0000	38.2
133 Diphenylamine	169	8.692	8.692	(0.905)	486846	40.0000	40.6
58 1,2-Diphenylhydrazine	77	8.740	8.740	(0.910)	623327	40.0000	40.9
61 4-Bromophenylphenylether	248	9.097	9.097	(0.947)	158482	40.0000	40.4
63 Hexachlorobenzene	284	9.176	9.176	(0.956)	165966	40.0000	40.4
65 Pentachlorophenol	266	9.377	9.377	(0.977)	80211	40.0000	37.8
206 n-Octadecane	57	9.433	9.433	(0.982)	455414	40.0000	41.5
68 Phenanthrene	178	9.627	9.627	(1.003)	826930	40.0000	40.2
69 Anthracene	178	9.683	9.683	(1.008)	834373	40.0000	40.6
72 Di-n-butylphthalate	149	10.190	10.190	(1.061)	984767	40.0000	41.7
76 Fluoranthene	202	10.916	10.916	(1.137)	821495	40.0000	41.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.166	11.166	(0.885)	873225	40.0000	40.0
85 Butylbenzylphthalate	149	11.841	11.841	(0.938)	409656	40.0000	41.0
89 Benzo(a)anthracene	228	12.603	12.603	(0.998)	680213	40.0000	39.7
92 Chrysene	228	12.656	12.656	(1.003)	654773	40.0000	39.9
93 bis(2-Ethylhexyl)phthalate	149	12.572	12.572	(0.996)	551016	40.0000	40.0
94 Di-n-octylphthalate	149	13.564	13.564	(0.907)	829648	40.0000	41.4
95 Benzo(b)fluoranthene	252	14.277	14.277	(0.954)	570092	40.0000	40.9
96 Benzo(k)fluoranthene	252	14.328	14.328	(0.958)	582683	40.0000	42.0
97 Benzo(a)pyrene	252	14.853	14.853	(0.993)	512885	40.0000	42.6
99 Indeno(1,2,3-cd)pyrene	276	16.947	16.947	(1.133)	402882	40.0000	35.5
100 Dibenzo(a,h)anthracene	278	16.983	16.983	(1.135)	361792	40.0000	38.8
101 Benzo(ghi)perylene	276	17.465	17.465	(1.167)	384310	40.0000	41.8
126 m-Dinitrobenzene	168	7.711	7.711	(0.965)	98777	40.0000	40.5
130 2,3,4,6-Tetrachlorophenol	232	8.327	8.327	(1.042)	125841	40.0000	39.9
143 Dinoseb	211	9.563	9.563	(0.996)	123552	40.0000	39.9
173 Carbazole	167	9.843	9.843	(1.025)	646111	40.0000	39.7
184 p-Benzoquinone	54	4.085	4.085	(0.845)	43607	40.0000	45.9
192 Methoxychlor	227	12.473	12.473	(0.988)	452636	40.0000	41.3
211 p-Toluidine	106	5.254	5.254	(1.086)	279690	40.0000	41.6
210 m-Toluidine	106	5.287	5.287	(1.093)	323416	40.0000	38.5
26 Phthalic anhydride	104	6.910	6.910	(1.130)	83487	40.0000	38.4
179 Dibenzo(a,e)pyrene	302	21.193	21.193	(1.417)	183254	40.0000	38.2
214 1,4-Dinitrobenzene	75	7.629	7.629	(0.955)	107473	40.0000	40.6
215 2-Ethoxyethanol	59	2.454	2.454	(0.507)	216018	40.0000	40.7
216 Methylenebis(2-chloroaniline)	231	12.542	12.542	(0.994)	94270	40.0000	38.1
M 225 Trichlorophenols	196				330995	80.0000	81.6
M 226 Tetrachlorophenols	232				125841	40.0000	39.9
M 227 Benzo(b,k)fluoranthene	252				1152775	80.0000	82.9

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0916.d
Date : 09-NOV-2009 20:46
Client ID: MEGAICAL
Sample Info: IWBN091106-05.1140 PPM11SVMF11MEGAICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

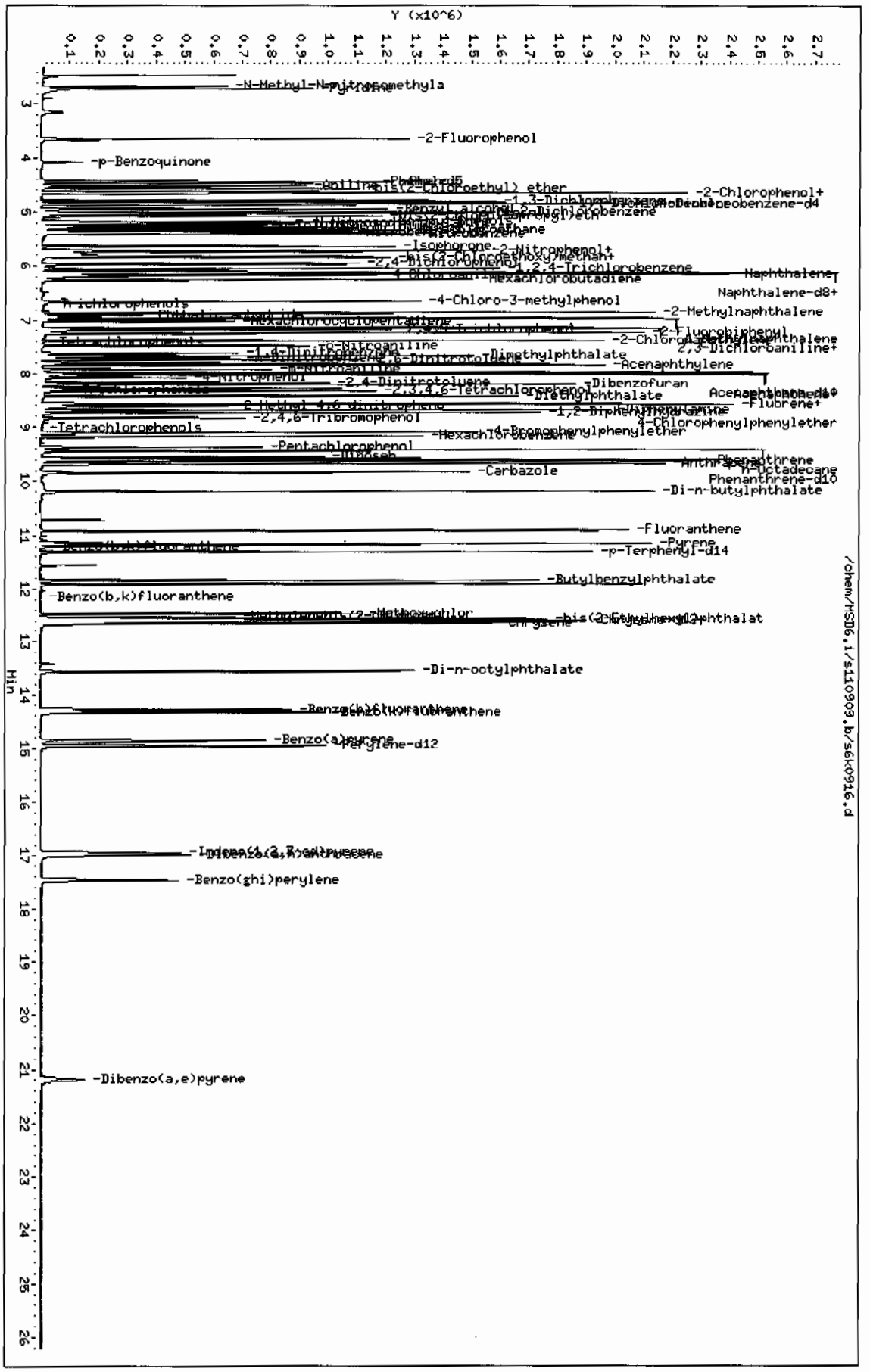

/chem/MSD6.i/s110909.b/s6k0916.d

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Data file : /chem/MSD6.i/s110909.b/s6k0917.d
Lab Smp Id: WBN091106-04 Client Smp ID: MEGAICAL
Inj Date : 09-NOV-2009 21:25
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-04|50 PPM|1|SVMF|1|MEGAICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:52 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 03:12 Cal File: s6k0951.d
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.836	4.836	(1.000)	302004	40.0000	
* 29 Naphthalene-d8	136	6.118	6.118	(1.000)	1155922	40.0000	
* 46 Acenaphthene-d10	164	7.991	7.991	(1.000)	554397	40.0000	
* 67 Phenanthrene-d10	188	9.601	9.601	(1.000)	948438	40.0000	
* 91 Chrysene-d12	240	12.623	12.623	(1.000)	730814	40.0000	
* 98 Perylene-d12	264	14.957	14.957	(1.000)	564456	40.0000	
$ 3 2-Fluorophenol	112	3.651	3.651	(0.755)	388894	50.0000	51.4
$ 5 Phenol-d5	99	4.436	4.436	(0.917)	484929	50.0000	50.8
$ 20 Nitrobenzene-d5	82	5.376	5.376	(0.879)	423567	50.0000	51.8
$ 39 2-Fluorobiphenyl	172	7.244	7.244	(0.907)	731813	50.0000	51.2
$ 60 2,4,6-Tribromophenol	329	8.837	8.837	(1.106)	78080	50.0000	48.2
$ 81 p-Terphenyl-d14	244	11.311	11.311	(0.896)	607689	50.0000	51.6
1 N-Methyl-N-nitrosomethylamine	74	2.670	2.670	(0.552)	269140	50.0000	52.3
2 Pyridine	79	2.703	2.703	(0.559)	355353	50.0000	55.5
4 Aniline	66	4.523	4.523	(0.935)	200763	50.0000	50.4
6 Phenol	94	4.451	4.451	(0.920)	481806	50.0000	50.2(Q)
7 bis(2-Chloroethyl) ether	63	4.561	4.561	(0.943)	325313	50.0000	50.0
8 2-Chlorophenol	128	4.635	4.635	(0.958)	397829	50.0000	51.6
203 n-Decane	43	4.645	4.645	(0.960)	514345	50.0000	47.9
9 1,3-Dichlorobenzene	146	4.785	4.785	(0.989)	457295	50.0000	51.5
11 1,4-Dichlorobenzene	146	4.854	4.854	(1.004)	455811	50.0000	50.7
13 1,2-Dichlorobenzene	146	5.002	5.002	(1.034)	422867	50.0000	50.4
14 bis(2-Chloroisopropyl)ether	45	5.071	5.071	(1.048)	746233	50.0000	51.4
12 Benzyl alcohol	108	4.946	4.946	(1.023)	235807	50.0000	49.2
15 o-Cresol	107	5.030	5.030	(1.040)	323291	50.0000	51.5
18 m,p-Cresols	107	5.185	5.185	(1.072)	398387	50.0000	50.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.218	5.218	(1.079)	275587	50.0000	51.5
19 Hexachloroethane	117	5.341	5.341	(1.104)	177276	50.0000	50.9
21 Nitrobenzene	77	5.397	5.397	(0.882)	429349	50.0000	52.1
22 Isophorone	82	5.634	5.634	(0.921)	769638	50.0000	52.7
23 2-Nitrophenol	139	5.713	5.713	(0.934)	199485	50.0000	52.5
24 2,4-Dimethylphenol	122	5.723	5.723	(0.935)	295059	50.0000	46.8
25 bis(2-Chloroethoxy)methane	93	5.830	5.830	(0.953)	439862	50.0000	51.2
26 2,4-Dichlorophenol	162	5.955	5.955	(0.973)	297965	50.0000	52.2
27 Benzoic acid	105	5.830	5.830	(0.953)	202753	50.0000	52.2(H)
28 1,2,4-Trichlorobenzene	180	6.049	6.049	(0.989)	361892	50.0000	51.6
30 Naphthalene	128	6.141	6.141	(1.004)	1069650	50.0000	46.4
204 alpha-Terpineol	59	6.131	6.131	(1.002)	317685	50.0000	50.3
31 4-Chloroaniline	127	6.177	6.177	(1.010)	376602	50.0000	50.8
32 Hexachlorobutadiene	225	6.253	6.253	(1.022)	189234	50.0000	51.8
33 4-Chloro-3-methylphenol	107	6.658	6.658	(1.088)	298121	50.0000	51.7
34 2-Methylnaphthalene	142	6.864	6.864	(1.122)	685976	50.0000	49.3
35 1-Methylnaphthalene	142	6.972	6.972	(1.140)	677942	50.0000	49.8
36 Hexachlorocyclopentadiene	237	7.022	7.022	(0.879)	112398	50.0000	50.2
205 2,3-Dichloroaniline	161	7.158	7.158	(0.896)	340669	50.0000	51.3
37 2,4,6-Trichlorophenol	196	7.152	7.152	(0.895)	194092	50.0000	51.3
38 2,4,5-Trichlorophenol	196	7.186	7.186	(0.899)	206734	50.0000	51.3
40 2-Chloronaphthalene	162	7.389	7.389	(0.925)	637201	50.0000	51.2
42 o-Nitroaniline	65	7.484	7.484	(0.937)	220705	50.0000	51.8
41 m-Nitroaniline	138	7.930	7.930	(0.992)	160753	50.0000	51.6
43 Dimethylphthalate	163	7.677	7.677	(0.961)	730427	50.0000	51.4
44 2,6-Dinitrotoluene	165	7.746	7.746	(0.969)	171665	50.0000	50.6
50 2,4-Dinitrotoluene	165	8.179	8.179	(1.024)	218862	50.0000	51.2
45 Acenaphthylene	152	7.840	7.840	(0.981)	1023459	50.0000	51.1
47 Acenaphthene	154	8.026	8.026	(1.004)	628774	50.0000	50.3
48 2,4-Dinitrophenol	184	8.034	8.034	(1.005)	60199	50.0000	47.7(Q)
49 Dibenzofuran	168	8.210	8.210	(1.027)	856749	50.0000	50.8
51 Diethylphthalate	149	8.429	8.429	(1.055)	731700	50.0000	51.1
52 4-Nitrophenol	139	8.077	8.077	(1.011)	114423	50.0000	48.3
53 Fluorene	166	8.582	8.582	(1.074)	697837	50.0000	50.4
54 4-Chlorophenylphenylether	204	8.567	8.567	(1.072)	336031	50.0000	51.4
55 2-Methyl-4,6-dinitrophenol	198	8.620	8.620	(0.898)	107219	50.0000	49.0
56 p-Nitroaniline	138	8.590	8.590	(1.075)	144020	50.0000	47.8(H)
133 Diphenylamine	169	8.694	8.694	(0.906)	582219	50.0000	50.9
58 1,2-Diphenylhydrazine	77	8.742	8.742	(0.911)	743959	50.0000	51.2
61 4-Bromophenylphenylether	248	9.099	9.099	(0.948)	190778	50.0000	51.0
63 Hexachlorobenzene	284	9.176	9.176	(0.956)	197870	50.0000	50.5
65 Pentachlorophenol	266	9.377	9.377	(0.977)	100581	50.0000	47.9
206 n-Octadecane	57	9.433	9.433	(0.982)	546158	50.0000	52.1
68 Phenanthrene	178	9.629	9.629	(1.003)	968276	50.0000	49.4
69 Anthracene	178	9.685	9.685	(1.009)	993833	50.0000	50.7
72 Di-n-butylphthalate	149	10.192	10.192	(1.062)	1169848	50.0000	52.0
76 Fluoranthene	202	10.919	10.919	(1.137)	967563	50.0000	51.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.168	11.168	(0.885)	1020034	50.0000	50.7
85 Butylbenzylphthalate	149	11.843	11.843	(0.938)	478741	50.0000	52.0
89 Benzo(a)anthracene	228	12.603	12.603	(0.998)	783027	50.0000	49.7
92 Chrysene	228	12.659	12.659	(1.003)	754926	50.0000	50.0
93 bis(2-Ethylhexyl)phthalate	149	12.575	12.575	(0.996)	645048	50.0000	50.8
94 Di-n-octylphthalate	149	13.563	13.563	(0.907)	957955	50.0000	53.4
95 Benzo(b)fluoranthene	252	14.279	14.279	(0.955)	658725	50.0000	52.7
96 Benzo(k)fluoranthene	252	14.330	14.330	(0.958)	650848	50.0000	52.4
97 Benzo(a)pyrene	252	14.858	14.858	(0.993)	582512	50.0000	54.0
99 Indeno(1,2,3-cd)pyrene	276	16.950	16.950	(1.133)	510813	50.0000	49.0
100 Dibenzo(a,h)anthracene	278	16.983	16.983	(1.135)	411532	50.0000	48.5
101 Benzo(ghi)perylene	276	17.470	17.470	(1.168)	426415	50.0000	51.7
126 m-Dinitrobenzene	168	7.713	7.713	(0.965)	120267	50.0000	51.2
130 2,3,4,6-Tetrachlorophenol	232	8.330	8.330	(1.042)	148123	50.0000	48.8
143 Dinoseb	211	9.565	9.565	(0.996)	154632	50.0000	50.4
173 Carbazole	167	9.843	9.843	(1.025)	766686	50.0000	49.4
184 p-Benzoquinone	54	4.087	4.087	(0.845)	51587	50.0000	53.7
192 Methoxychlor	227	12.475	12.475	(0.988)	522439	50.0000	51.8
211 p-Toluidine	106	5.257	5.257	(1.087)	354186	50.0000	52.1
210 m-Toluidine	106	5.290	5.290	(1.094)	413282	50.0000	48.7
26 Phthalic anhydride	104	6.913	6.913	(1.130)	108159	50.0000	47.5
179 Dibenzo(a,e)pyrene	302	21.195	21.195	(1.417)	214017	50.0000	47.8
214 1,4-Dinitrobenzene	75	7.629	7.629	(0.955)	132736	50.0000	52.1
215 2-Ethoxyethanol	59	2.456	2.456	(0.508)	274575	50.0000	51.2
216 Methylenebis(2-chloroaniline)	231	12.547	12.547	(0.994)	117296	50.0000	49.6(Q)
M 225 Trichlorophenols	196				400826	100.000	103
M 226 Tetrachlorophenols	232				148123	50.0000	48.8
M 227 Benzo(b,k)fluoranthene	252				1309573	100.000	105

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0917.d
Date : 09-NOV-2009 21:25
Client ID: MEGAICAL
Sample Info: |WBN091106-04|50 PPM|1|SVMF|1|MEGAICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

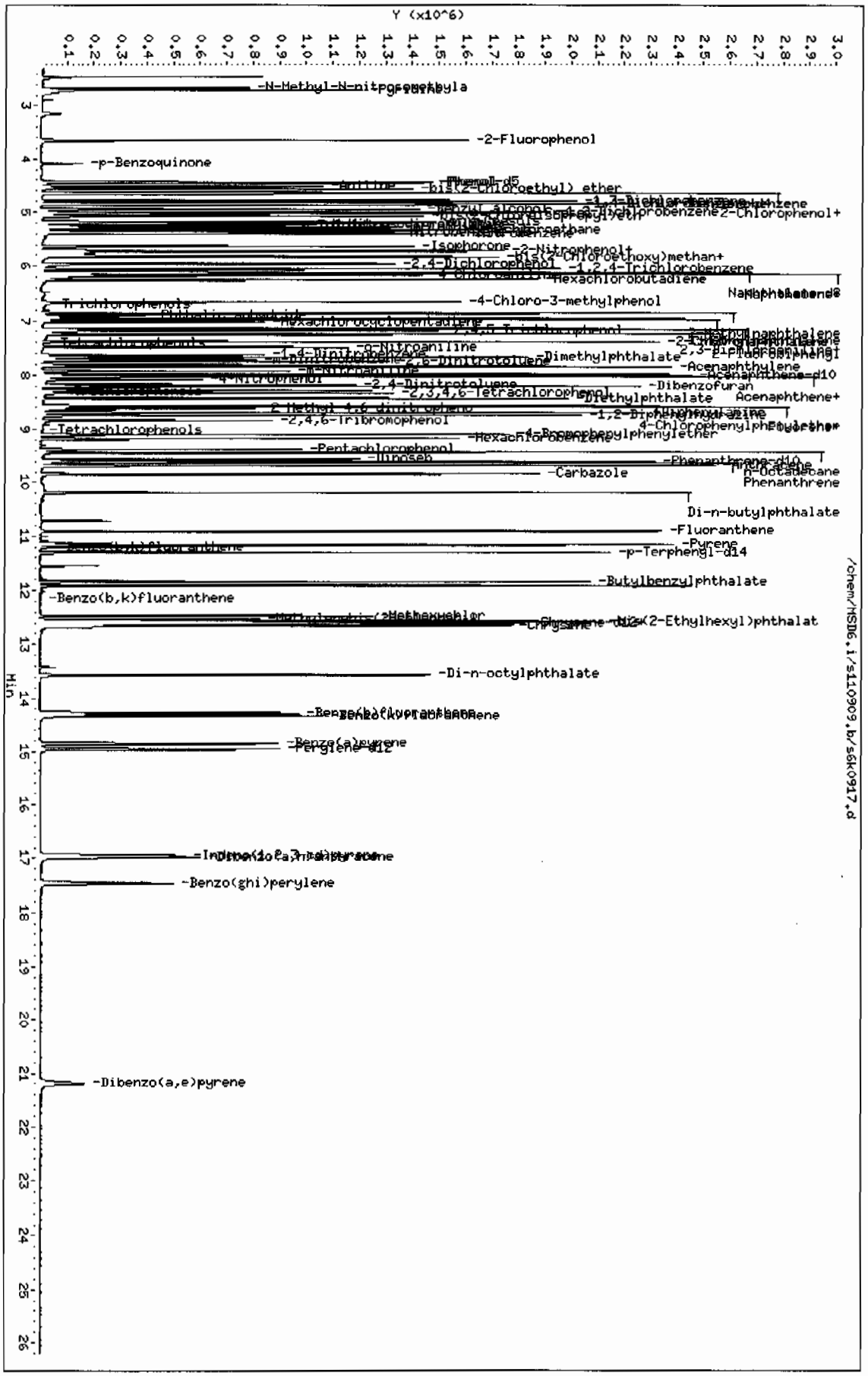

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Data file : /chem/MSD6.i/s110909.b/s6k0918.d
Lab Smp Id: WBN091106-03 Client Smp ID: MEGAICAL
Inj Date : 09-NOV-2009 22:01
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-03|80 PPM|1|SVMF|1|MEGAICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:52 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 03:41 Cal File: s6k0952.d
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.839	4.839	(1.000)	304898	40.0000	
* 29 Naphthalene-d8	136	6.120	6.120	(1.000)	1251706	40.0000	
* 46 Acenaphthene-d10	164	7.993	7.993	(1.000)	586776	40.0000	
* 67 Phenanthrene-d10	188	9.604	9.604	(1.000)	1023140	40.0000	
* 91 Chrysene-d12	240	12.628	12.628	(1.000)	818530	40.0000	
* 98 Perylene-d12	264	14.965	14.965	(1.000)	674673	40.0000	
$ 3 2-Fluorophenol	112	3.654	3.654	(0.755)	602660	80.0000	78.9
$ 5 Phenol-d5	99	4.444	4.444	(0.918)	770270	80.0000	79.9
$ 20 Nitrobenzene-d5	82	5.381	5.381	(0.879)	678450	80.0000	76.6
$ 39 2-Fluorobiphenyl	172	7.249	7.249	(0.907)	1163417	80.0000	76.9
$ 60 2,4,6-Tribromophenol	329	8.842	8.842	(1.106)	144470	80.0000	84.4
$ 81 p-Terphenyl-d14	244	11.313	11.313	(0.896)	1011106	80.0000	76.6
1 N-Methyl-N-nitrosomethylamine	74	2.675	2.675	(0.553)	413204	80.0000	79.6
2 Pyridine	79	2.703	2.703	(0.559)	472168	80.0000	73.1
4 Aniline	66	4.528	4.528	(0.936)	316875	80.0000	78.8
6 Phenol	94	4.456	4.456	(0.921)	757850	80.0000	78.2(Q)
7 bis(2-Chloroethyl) ether	63	4.566	4.566	(0.944)	501536	80.0000	76.4
8 2-Chlorophenol	128	4.637	4.637	(0.958)	605774	80.0000	77.8
203 n-Decane	43	4.648	4.648	(0.960)	717473	80.0000	66.2
9 1,3-Dichlorobenzene	146	4.788	4.788	(0.989)	697208	80.0000	77.8
11 1,4-Dichlorobenzene	146	4.857	4.857	(1.004)	702123	80.0000	77.3
13 1,2-Dichlorobenzene	146	5.004	5.004	(1.034)	664473	80.0000	78.4
14 bis(2-Chloroisopropyl)ether	45	5.076	5.076	(1.049)	1134393	80.0000	77.4
12 Benzyl alcohol	108	4.953	4.953	(1.024)	391141	80.0000	80.9
15 o-Cresol	107	5.035	5.035	(1.041)	493284	80.0000	77.8
18 m,p-Cresols	107	5.195	5.195	(1.074)	638579	80.0000	79.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.229	5.229	(1.081)	441053	80.0000	81.6
19 Hexachloroethane	117	5.341	5.341	(1.104)	278235	80.0000	79.2
21 Nitrobenzene	77	5.402	5.402	(0.883)	676862	80.0000	75.8
22 Isophorone	82	5.641	5.641	(0.922)	1237317	80.0000	78.2
23 2-Nitrophenol	139	5.715	5.715	(0.934)	322643	80.0000	78.4
24 2,4-Dimethylphenol	122	5.728	5.728	(0.936)	527356	80.0000	77.3
25 bis(2-Chloroethoxy)methane	93	5.832	5.832	(0.953)	705848	80.0000	75.8
26 2,4-Dichlorophenol	162	5.960	5.960	(0.974)	485436	80.0000	78.5
27 Benzoic acid	105	5.866	5.866	(0.958)	354417	80.0000	84.2
28 1,2,4-Trichlorobenzene	180	6.052	6.052	(0.989)	572693	80.0000	75.4
30 Naphthalene	128	6.143	6.143	(1.004)	1620027	80.0000	64.9
204 alpha-Terpineol	59	6.136	6.136	(1.002)	511383	80.0000	74.7
31 4-Chloroaniline	127	6.182	6.182	(1.010)	625731	80.0000	78.0
32 Hexachlorobutadiene	225	6.255	6.255	(1.022)	296995	80.0000	75.1
33 4-Chloro-3-methylphenol	107	6.661	6.661	(1.088)	486253	80.0000	77.9
34 2-Methylnaphthalene	142	6.867	6.867	(1.122)	1094176	80.0000	72.6
35 1-Methylnaphthalene	142	6.977	6.977	(1.140)	1066765	80.0000	72.4
36 Hexachlorocyclopentadiene	237	7.025	7.025	(0.879)	180471	80.0000	76.1
205 2,3-Dichloroaniline	161	7.163	7.163	(0.896)	540961	80.0000	77.0
37 2,4,6-Trichlorophenol	196	7.155	7.155	(0.895)	316731	80.0000	79.1
38 2,4,5-Trichlorophenol	196	7.191	7.191	(0.900)	342202	80.0000	80.2
40 2-Chloronaphthalene	162	7.392	7.392	(0.925)	1023319	80.0000	77.6
42 o-Nitroaniline	65	7.489	7.489	(0.937)	364460	80.0000	80.8
41 m-Nitroaniline	138	7.937	7.937	(0.993)	275916	80.0000	83.6
43 Dimethylphthalate	163	7.687	7.687	(0.962)	1188934	80.0000	79.0
44 2,6-Dinitrotoluene	165	7.754	7.754	(0.970)	287684	80.0000	80.1
50 2,4-Dinitrotoluene	165	8.187	8.187	(1.024)	369296	80.0000	81.6
45 Acenaphthylene	152	7.848	7.848	(0.982)	1656503	80.0000	78.2
47 Acenaphthene	154	8.031	8.031	(1.005)	1007792	80.0000	76.2
48 2,4-Dinitrophenol	184	8.042	8.042	(1.006)	121040	80.0000	77.6(Q)
49 Dibenzofuran	168	8.215	8.215	(1.028)	1378986	80.0000	77.2
51 Diethylphthalate	149	8.437	8.437	(1.055)	1182782	80.0000	78.0
52 4-Nitrophenol	139	8.088	8.088	(1.012)	208122	80.0000	77.7
53 Fluorene	166	8.587	8.587	(1.074)	1112233	80.0000	75.9
54 4-Chlorophenylphenylether	204	8.572	8.572	(1.072)	533296	80.0000	77.0
55 2-Methyl-4,6-dinitrophenol	198	8.630	8.630	(0.899)	199515	80.0000	79.4
56 p-Nitroaniline	138	8.605	8.605	(1.077)	267165	80.0000	78.4
133 Diphenylamine	169	8.699	8.699	(0.906)	948274	80.0000	76.9
58 1,2-Diphenylhydrazine	77	8.745	8.745	(0.911)	1201649	80.0000	76.6
61 4-Bromophenylphenylether	248	9.102	9.102	(0.948)	314432	80.0000	77.9
63 Hexachlorobenzene	284	9.181	9.181	(0.956)	331294	80.0000	78.3
65 Pentachlorophenol	266	9.382	9.382	(0.977)	192628	80.0000	81.0
206 n-Octadecane	57	9.438	9.438	(0.983)	833210	80.0000	73.7
68 Phenanthrene	178	9.634	9.634	(1.003)	1582722	80.0000	74.8
69 Anthracene	178	9.690	9.690	(1.009)	1614945	80.0000	76.4
72 Di-n-butylphthalate	149	10.195	10.195	(1.062)	1886112	80.0000	77.6
76 Fluoranthene	202	10.924	10.924	(1.137)	1584229	80.0000	78.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.176	11.176	(0.885)	1671156	80.0000	74.2
85 Butylbenzylphthalate	149	11.849	11.849	(0.938)	804101	80.0000	78.0
89 Benzo(a)anthracene	228	12.608	12.608	(0.998)	1365683	80.0000	77.3
92 Chrysene	228	12.669	12.669	(1.003)	1321586	80.0000	78.1
93 bis(2-Ethylhexyl)phthalate	149	12.577	12.577	(0.996)	1078889	80.0000	75.6
94 Di-n-octylphthalate	149	13.571	13.571	(0.907)	1687425	80.0000	78.7
95 Benzo(b)fluoranthene	252	14.295	14.295	(0.955)	1204142	80.0000	80.7
96 Benzo(k)fluoranthene	252	14.346	14.346	(0.959)	1213675	80.0000	81.8
97 Benzo(a)pyrene	252	14.871	14.871	(0.994)	1091797	80.0000	84.7
99 Indeno(1,2,3-cd)pyrene	276	16.970	16.970	(1.134)	1012558	80.0000	79.2
100 Dibenzo(a,h)anthracene	278	17.006	17.006	(1.136)	815285	80.0000	78.6
101 Benzo(ghi)perylene	276	17.490	17.490	(1.169)	851887	80.0000	86.5
126 m-Dinitrobenzene	168	7.721	7.721	(0.966)	204100	80.0000	82.2
130 2,3,4,6-Tetrachlorophenol	232	8.332	8.332	(1.042)	260543	80.0000	81.1
143 Dinoseb	211	9.571	9.571	(0.997)	280906	80.0000	80.7
173 Carbazole	167	9.851	9.851	(1.026)	1348512	80.0000	80.6
184 p-Benzoquinone	54	4.087	4.087	(0.845)	88853	80.0000	91.6
192 Methoxychlor	227	12.480	12.480	(0.988)	916678	80.0000	81.1
211 p-Toluidine	106	5.259	5.259	(1.087)	516062	80.0000	75.2
210 m-Toluidine	106	5.295	5.295	(1.094)	730294	80.0000	85.2
26 Phthalic anhydride	104	6.923	6.923	(1.131)	203846	80.0000	78.3
179 Dibenzo(a,e)pyrene	302	21.231	21.231	(1.419)	467062	80.0000	81.8
214 1,4-Dinitrobenzene	75	7.637	7.637	(0.955)	223847	80.0000	83.0
215 2-Ethoxyethanol	59	2.461	2.461	(0.509)	424273	80.0000	78.4
216 Methylenebis(2-chloroaniline)	231	12.552	12.552	(0.994)	226774	80.0000	81.4(Q)
M 225 Trichlorophenols	196				658933	160.000	159
M 226 Tetrachlorophenols	232				260543	80.0000	81.1
M 227 Benzo(b,k)fluoranthene	252				2417817	160.000	162

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0918.d
Date : 09-NOV-2009 22:01
Client ID: MEGAICAL
Sample Info: WEN091106-03180 PPM|1|SVMF1|MEGAICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

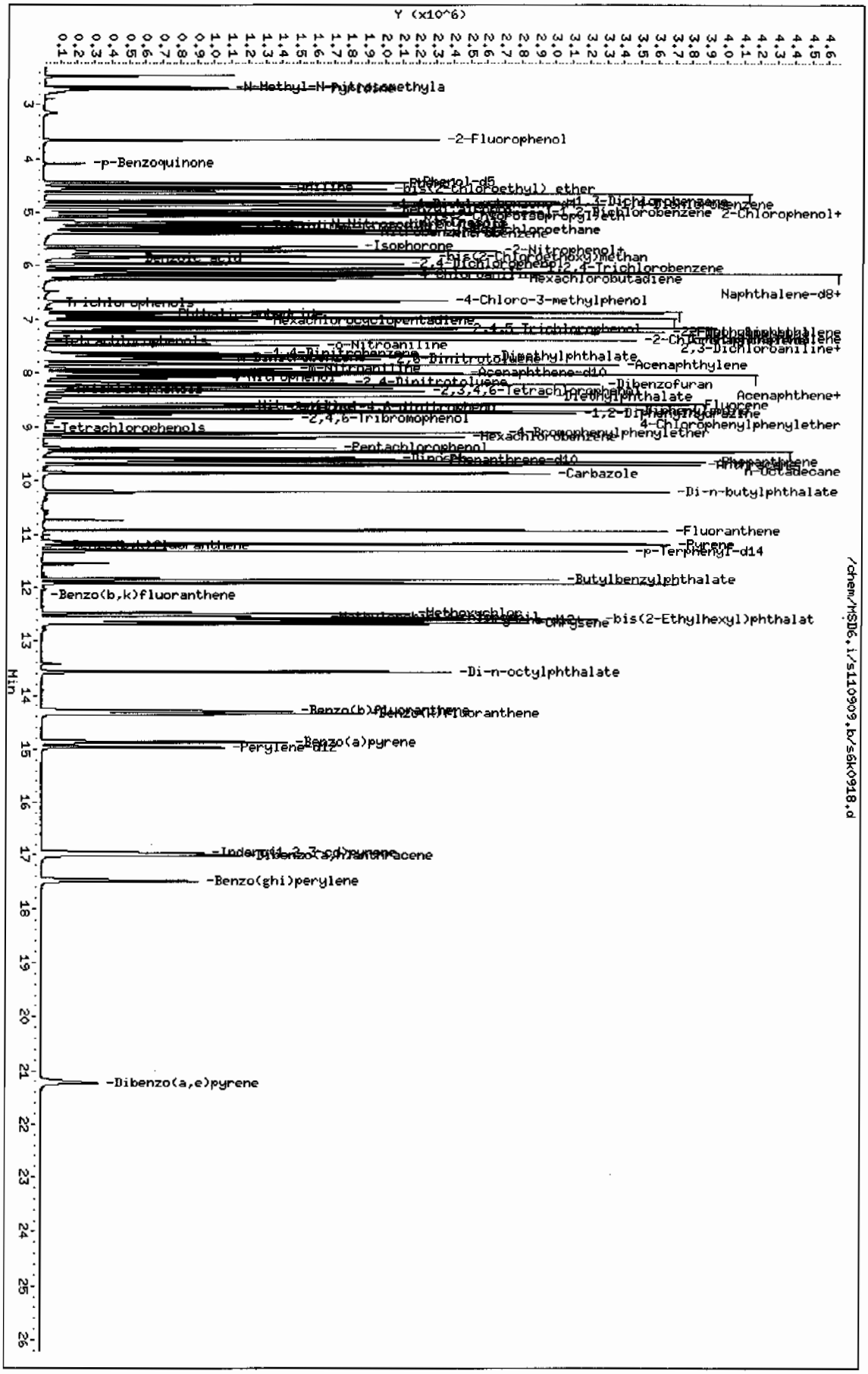

GEL Laboratories LLC

Data file : /chem/MSD6.i/s110909.b/s6k0919.d
Lab Smp Id: WBN091106-02 Client Smp ID: MEGAICAL
Inj Date : 09-NOV-2009 22:39
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-02|100 PPM|1|SVMF|1|MEGAICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:52 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:10 Cal File: s6k0953.d
Als bottle: 9 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.839	4.839	(1.000)	330680	40.0000	
* 29 Naphthalene-d8	136	6.123	6.123	(1.000)	1412427	40.0000	
* 46 Acenaphthene-d10	164	7.996	7.996	(1.000)	644045	40.0000	
* 67 Phenanthrene-d10	188	9.606	9.606	(1.000)	1109067	40.0000	
* 91 Chrysene-d12	240	12.633	12.633	(1.000)	896879	40.0000	
* 98 Perylene-d12	264	14.970	14.970	(1.000)	703276	40.0000	
$ 3 2-Fluorophenol	112	3.657	3.657	(0.756)	788238	100.000	95.2
$ 5 Phenol-d5	99	4.449	4.449	(0.919)	1011939	100.000	96.8
$ 20 Nitrobenzene-d5	82	5.387	5.387	(0.880)	895459	100.000	89.6
$ 39 2-Fluorobiphenyl	172	7.252	7.252	(0.907)	1489153	100.000	89.7
$ 60 2,4,6-Tribromophenol	329	8.847	8.847	(1.106)	196276	100.000	104
$ 81 p-Terphenyl-d14	244	11.316	11.316	(0.896)	1331883	100.000	92.1
1 N-Methyl-N-nitrosomethylamine	74	2.678	2.678	(0.553)	547651	100.000	97.3
2 Pyridine	79	2.706	2.706	(0.559)	679468	100.000	97.0
4 Aniline	66	4.531	4.531	(0.936)	428636	100.000	98.3
6 Phenol	94	4.464	4.464	(0.923)	992925	100.000	94.5(Q)
7 bis(2-Chloroethyl) ether	63	4.571	4.571	(0.945)	653713	100.000	91.9
8 2-Chlorophenol	128	4.640	4.640	(0.959)	788462	100.000	93.4
203 n-Decane	43	4.650	4.650	(0.961)	859925	100.000	73.1
9 1,3-Dichlorobenzene	146	4.790	4.790	(0.990)	898362	100.000	92.4
11 1,4-Dichlorobenzene	146	4.857	4.857	(1.004)	906388	100.000	92.0
13 1,2-Dichlorobenzene	146	5.007	5.007	(1.035)	855301	100.000	93.0
14 bis(2-Chloroisopropyl)ether	45	5.078	5.078	(1.049)	1424009	100.000	89.6
12 Benzyl alcohol	108	4.959	4.959	(1.025)	520993	100.000	99.3
15 o-Cresol	107	5.040	5.040	(1.042)	664551	100.000	96.7
18 m,p-Cresols	107	5.201	5.201	(1.075)	846534	100.000	97.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.236	5.236	(1.082)	584680	100.000	99.8
19 Hexachloroethane	117	5.343	5.343	(1.104)	363707	100.000	95.4
21 Nitrobenzene	77	5.407	5.407	(0.883)	876503	100.000	87.0
22 Isophorone	82	5.647	5.647	(0.922)	1618267	100.000	90.6
23 2-Nitrophenol	139	5.721	5.721	(0.934)	426260	100.000	91.8
24 2,4-Dimethylphenol	122	5.733	5.733	(0.936)	772185	100.000	100
25 bis(2-Chloroethoxy)methane	93	5.838	5.838	(0.953)	919366	100.000	87.5
26 2,4-Dichlorophenol	162	5.965	5.965	(0.974)	640589	100.000	91.8
27 Benzoic acid	105	5.891	5.891	(0.962)	531391	100.000	112
28 1,2,4-Trichlorobenzene	180	6.054	6.054	(0.989)	743276	100.000	86.8
30 Naphthalene	128	6.149	6.149	(1.004)	2034122	100.000	72.2
204 alpha-Terpineol	59	6.138	6.138	(1.002)	625805	100.000	81.0
31 4-Chloroaniline	127	6.187	6.187	(1.010)	839384	100.000	92.7
32 Hexachlorobutadiene	225	6.258	6.258	(1.022)	385992	100.000	86.5
33 4-Chloro-3-methylphenol	107	6.666	6.666	(1.089)	634058	100.000	90.0
34 2-Methylnaphthalene	142	6.870	6.870	(1.122)	1411742	100.000	83.0
35 1-Methylnaphthalene	142	6.979	6.979	(1.140)	1374835	100.000	82.7
36 Hexachlorocyclopentadiene	237	7.025	7.025	(0.879)	294782	100.000	113
205 2,3-Dichloroaniline	161	7.168	7.168	(0.896)	692307	100.000	89.8
37 2,4,6-Trichlorophenol	196	7.160	7.160	(0.895)	406428	100.000	92.5
38 2,4,5-Trichlorophenol	196	7.196	7.196	(0.900)	459259	100.000	98.1
40 2-Chloronaphthalene	162	7.395	7.395	(0.925)	1319102	100.000	91.2
42 o-Nitroaniline	65	7.497	7.497	(0.938)	475616	100.000	96.1
41 m-Nitroaniline	138	7.945	7.945	(0.994)	357709	100.000	98.8
43 Dimethylphthalate	163	7.695	7.695	(0.962)	1537547	100.000	93.1
44 2,6-Dinitrotoluene	165	7.759	7.759	(0.970)	368765	100.000	93.6
50 2,4-Dinitrotoluene	165	8.195	8.195	(1.025)	484269	100.000	97.4
45 Acenaphthylene	152	7.851	7.851	(0.982)	2095043	100.000	90.1
47 Acenaphthene	154	8.037	8.037	(1.005)	1322253	100.000	91.1
48 2,4-Dinitrophenol	184	8.049	8.049	(1.007)	185455	100.000	102(Q)
49 Dibenzofuran	168	8.220	8.220	(1.028)	1755593	100.000	89.6
51 Diethylphthalate	149	8.442	8.442	(1.056)	1504510	100.000	90.4
52 4-Nitrophenol	139	8.098	8.098	(1.013)	294363	100.000	98.0
53 Fluorene	166	8.592	8.592	(1.075)	1443897	100.000	89.8
54 4-Chlorophenylphenylether	204	8.574	8.574	(1.072)	692810	100.000	91.2
55 2-Methyl-4,6-dinitrophenol	198	8.641	8.641	(0.899)	279188	100.000	100
56 p-Nitroaniline	138	8.615	8.615	(1.077)	377942	100.000	99.1(H)
133 Diphenylamine	169	8.707	8.707	(0.906)	1251636	100.000	93.6
58 1,2-Diphenylhydrazine	77	8.750	8.750	(0.911)	1563583	100.000	92.0
61 4-Bromophenylphenylether	248	9.107	9.107	(0.948)	415272	100.000	94.9
63 Hexachlorobenzene	284	9.183	9.183	(0.956)	436128	100.000	95.1
65 Pentachlorophenol	266	9.385	9.385	(0.977)	259470	100.000	99.3
206 n-Octadecane	57	9.441	9.441	(0.983)	1036341	100.000	84.6
68 Phenanthrene	178	9.639	9.639	(1.003)	2033728	100.000	88.7
69 Anthracene	178	9.696	9.696	(1.009)	2083180	100.000	90.9
72 Di-n-butylphthalate	149	10.198	10.198	(1.062)	2373557	100.000	90.2
76 Fluoranthene	202	10.926	10.926	(1.137)	2040583	100.000	92.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.179	11.179	(0.885)	2152662	100.000	87.3
85 Butylbenzylphthalate	149	11.851	11.851	(0.938)	1051724	100.000	93.2
89 Benzo(a)anthracene	228	12.616	12.616	(0.999)	1841444	100.000	95.2
92 Chrysene	228	12.677	12.677	(1.003)	1752387	100.000	94.5
93 bis(2-Ethylhexyl)phthalate	149	12.583	12.583	(0.996)	1389660	100.000	88.8
94 Di-n-octylphthalate	149	13.576	13.576	(0.907)	2238289	100.000	100
95 Benzo(b)fluoranthene	252	14.300	14.300	(0.955)	1570629	100.000	101
96 Benzo(k)fluoranthene	252	14.351	14.351	(0.959)	1547376	100.000	100
97 Benzo(a)pyrene	252	14.878	14.878	(0.994)	1409695	100.000	105
99 Indeno(1,2,3-cd)pyrene	276	16.981	16.981	(1.134)	1348903	100.000	100
100 Dibenzo(a,h)anthracene	278	17.016	17.016	(1.137)	1094612	100.000	100
101 Benzo(ghi)perylene	276	17.500	17.500	(1.169)	1107099	100.000	108
126 m-Dinitrobenzene	168	7.731	7.731	(0.967)	269752	100.000	99.0
130 2,3,4,6-Tetrachlorophenol	232	8.337	8.337	(1.043)	345531	100.000	98.0
143 Dinoseb	211	9.576	9.576	(0.997)	375481	100.000	98.1
173 Carbazole	167	9.856	9.856	(1.026)	1808011	100.000	99.6
184 p-Benzoquinone	54	4.090	4.090	(0.845)	100948	100.000	95.9
192 Methoxychlor	227	12.486	12.486	(0.988)	1103669	100.000	89.1
211 p-Toluidine	106	5.262	5.262	(1.087)	560424	100.000	75.3
210 m-Toluidine	106	5.308	5.308	(1.097)	1155156	100.000	124(A)
26 Phthalic anhydride	104	6.926	6.926	(1.131)	306459	100.000	102
179 Dibenzo(a,e)pyrene	302	21.231	21.231	(1.418)	497266	100.000	83.4
214 1,4-Dinitrobenzene	75	7.642	7.642	(0.956)	295950	100.000	100
215 2-Ethoxyethanol	59	2.464	2.464	(0.509)	570248	100.000	97.1
216 Methylenebis(2-chloroaniline)	231	12.560	12.560	(0.994)	306702	100.000	99.2(Q)
M 225 Trichlorophenols	196				865687	200.000	191
M 226 Tetrachlorophenols	232				345531	100.000	98.0
M 227 Benzo(b,k)fluoranthene	252				3118005	200.000	201

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0919.d
Date : 09-NOV-2009 22:39
Client ID: MEGAICAL
Sample Info: IWBN091106-021100 PPM|1|SVMF|1|MEGAICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

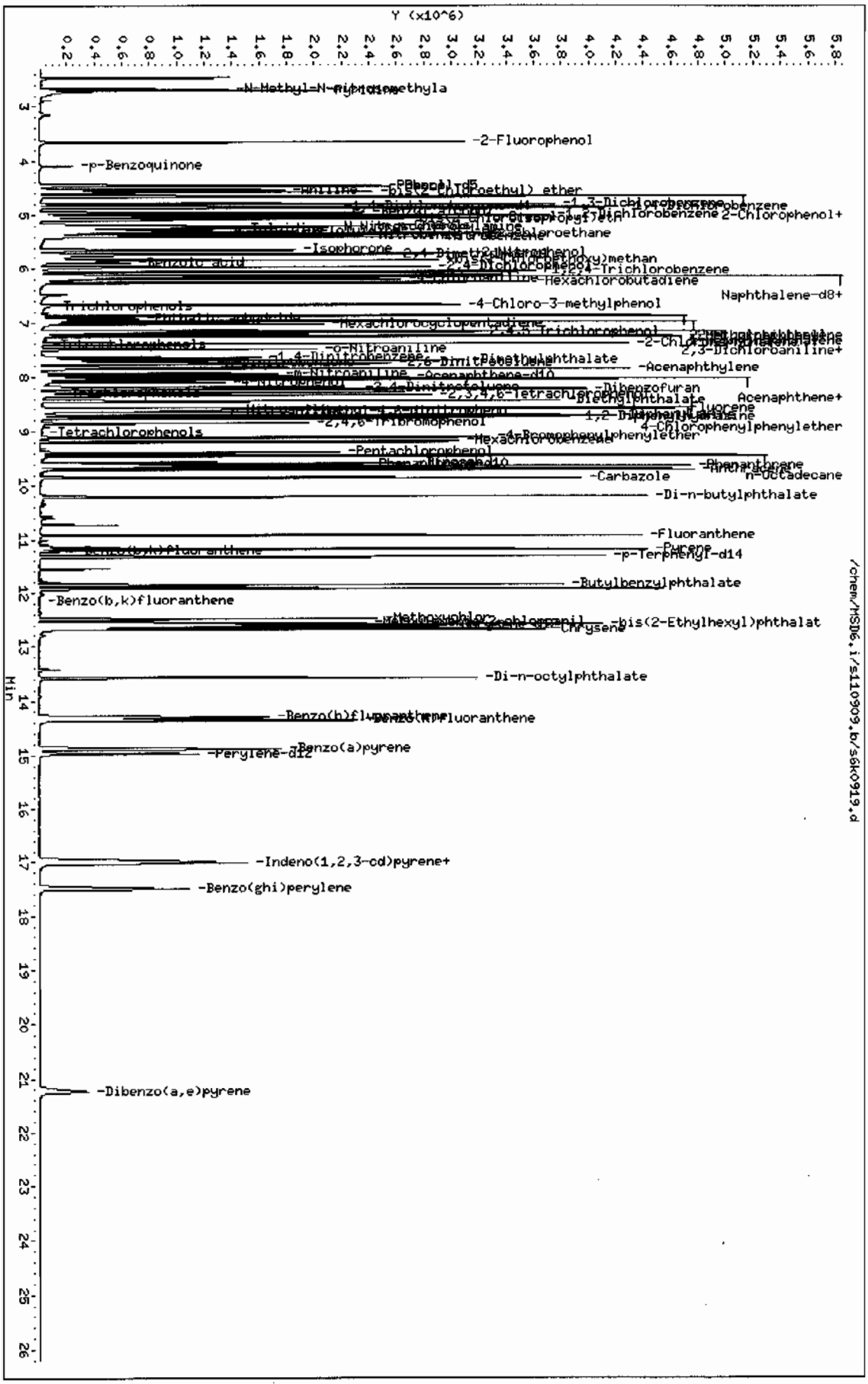

GEL Laboratories LLC

Data file : /chem/MSD6.i/s110909.b/s6k0920.d
Lab Smp Id: WBN091106-01 Client Smp ID: MEGAICAL
Inj Date : 09-NOV-2009 23:16
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-01|120 PPM|1|SVMF|1|MEGAICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:52 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.841	4.841	(1.000)	333223	40.0000	
* 29 Naphthalene-d8	136	6.123	6.123	(1.000)	1463272	40.0000	
* 46 Acenaphthene-d10	164	7.998	7.998	(1.000)	648114	40.0000	
* 67 Phenanthrene-d10	188	9.609	9.609	(1.000)	1134747	40.0000	
* 91 Chrysene-d12	240	12.638	12.638	(1.000)	941778	40.0000	
* 98 Perylene-d12	264	14.975	14.975	(1.000)	810019	40.0000	
$ 3 2-Fluorophenol	112	3.659	3.659	(0.756)	956166	120.000	114
$ 5 Phenol-d5	99	4.451	4.451	(0.919)	1222364	120.000	116
$ 20 Nitrobenzene-d5	82	5.389	5.389	(0.880)	1083018	120.000	105
$ 39 2-Fluorobiphenyl	172	7.252	7.252	(0.907)	1812882	120.000	108
$ 60 2,4,6-Tribromophenol	329	8.849	8.849	(1.106)	245114	120.000	130(A)
$ 81 p-Terphenyl-d14	244	11.321	11.321	(0.896)	1650122	120.000	109
1 N-Methyl-N-nitrosomethylamine	74	2.680	2.680	(0.554)	666413	120.000	117
2 Pyridine	79	2.706	2.706	(0.559)	822183	120.000	116
4 Aniline	66	4.535	4.535	(0.937)	512300	120.000	116
6 Phenol	94	4.469	4.469	(0.923)	1216367	120.000	115(Q)
7 bis(2-Chloroethyl) ether	63	4.574	4.574	(0.945)	796827	120.000	111
8 2-Chlorophenol	128	4.642	4.642	(0.959)	940267	120.000	110
203 n-Decane	43	4.653	4.653	(0.961)	961133	120.000	81.1
9 1,3-Dichlorobenzene	146	4.793	4.793	(0.990)	1078457	120.000	110
11 1,4-Dichlorobenzene	146	4.859	4.859	(1.004)	1074113	120.000	108
13 1,2-Dichlorobenzene	146	5.009	5.009	(1.035)	1024380	120.000	110
14 bis(2-Chloroisopropyl)ether	45	5.081	5.081	(1.049)	1692158	120.000	106
12 Benzyl alcohol	108	4.966	4.966	(1.026)	647455	120.000	122(A)
15 o-Cresol	107	5.043	5.043	(1.042)	793811	120.000	115
18 m,p-Cresols	107	5.206	5.206	(1.075)	1035973	120.000	118

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.241	5.241	(1.083)	593493	120.000	100
19 Hexachloroethane	117	5.343	5.343	(1.104)	433814	120.000	113
21 Nitrobenzene	77	5.412	5.412	(0.884)	1052072	120.000	101
22 Isophorone	82	5.654	5.654	(0.923)	1683858	120.000	91.0
23 2-Nitrophenol	139	5.723	5.723	(0.935)	528860	120.000	110
24 2,4-Dimethylphenol	122	5.738	5.738	(0.937)	949157	120.000	119
25 bis(2-Chloroethoxy)methane	93	5.840	5.840	(0.954)	1111077	120.000	102
26 2,4-Dichlorophenol	162	5.967	5.967	(0.975)	789520	120.000	109
27 Benzoic acid	105	5.906	5.906	(0.965)	638965	120.000	130(A)
28 1,2,4-Trichlorobenzene	180	6.057	6.057	(0.989)	890158	120.000	100
30 Naphthalene	128	6.151	6.151	(1.005)	2444601	120.000	83.8
204 alpha-Terpineol	59	6.141	6.141	(1.003)	723777	120.000	90.5
31 4-Chloroaniline	127	6.189	6.189	(1.011)	1014652	120.000	108
32 Hexachlorobutadiene	225	6.258	6.258	(1.022)	462771	120.000	100
33 4-Chloro-3-methylphenol	107	6.668	6.668	(1.089)	759568	120.000	104
34 2-Methylnaphthalene	142	6.872	6.872	(1.122)	1706925	120.000	96.9
35 1-Methylnaphthalene	142	6.982	6.982	(1.140)	1670386	120.000	96.9
36 Hexachlorocyclopentadiene	237	7.025	7.025	(0.878)	326317	120.000	125(A)
205 2,3-Dichloroaniline	161	7.168	7.168	(0.896)	848984	120.000	109
37 2,4,6-Trichlorophenol	196	7.163	7.163	(0.896)	496898	120.000	112
38 2,4,5-Trichlorophenol	196	7.198	7.198	(0.900)	548249	120.000	116
40 2-Chloronaphthalene	162	7.397	7.397	(0.925)	1606934	120.000	110
42 o-Nitroaniline	65	7.499	7.499	(0.938)	591312	120.000	119
41 m-Nitroaniline	138	7.950	7.950	(0.994)	453301	120.000	124(A)
43 Dimethylphthalate	163	7.700	7.700	(0.963)	1726505	120.000	104
44 2,6-Dinitrotoluene	165	7.764	7.764	(0.971)	459963	120.000	116
50 2,4-Dinitrotoluene	165	8.200	8.200	(1.025)	589150	120.000	118
45 Acenaphthylene	152	7.853	7.853	(0.982)	2550730	120.000	109
47 Acenaphthene	154	8.039	8.039	(1.005)	1619711	120.000	111
48 2,4-Dinitrophenol	184	8.054	8.054	(1.007)	246126	120.000	131(AQ)
49 Dibenzofuran	168	8.223	8.223	(1.028)	2165065	120.000	110
51 Diethylphthalate	149	8.447	8.447	(1.056)	1859513	120.000	111
52 4-Nitrophenol	139	8.105	8.105	(1.013)	379687	120.000	124(A)
53 Fluorene	166	8.595	8.595	(1.075)	1758463	120.000	109
54 4-Chlorophenylphenylether	204	8.577	8.577	(1.072)	827514	120.000	108
55 2-Methyl-4,6-dinitrophenol	198	8.646	8.646	(0.900)	346834	120.000	120(A)
56 p-Nitroaniline	138	8.628	8.628	(1.079)	477974	120.000	123(A)
133 Diphenylamine	169	8.712	8.712	(0.907)	1545255	120.000	113
58 1,2-Diphenylhydrazine	77	8.753	8.753	(0.911)	1888199	120.000	108
61 4-Bromophenylphenylether	248	9.109	9.109	(0.948)	511390	120.000	114
63 Hexachlorobenzene	284	9.188	9.188	(0.956)	538604	120.000	115
65 Pentachlorophenol	266	9.387	9.387	(0.977)	326879	120.000	121(A)
206 n-Octadecane	57	9.443	9.443	(0.983)	1225249	120.000	97.8
68 Phenanthrene	178	9.642	9.642	(1.003)	2477381	120.000	106
69 Anthracene	178	9.700	9.700	(1.010)	2559859	120.000	109
72 Di-n-butylphthalate	149	10.200	10.200	(1.062)	2871463	120.000	106
76 Fluoranthene	202	10.931	10.931	(1.138)	2509833	120.000	112

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.183	11.183	(0.885)	2676547	120.000	103
85 Butylbenzylphthalate	149	11.854	11.854	(0.938)	1295261	120.000	109
89 Benzo(a)anthracene	228	12.621	12.621	(0.999)	2370190	120.000	117
92 Chrysene	228	12.682	12.682	(1.003)	2243579	120.000	115
93 bis(2-Ethylhexyl)phthalate	149	12.585	12.585	(0.996)	1700943	120.000	103
94 Di-n-octylphthalate	149	13.581	13.581	(0.907)	2796015	120.000	109
95 Benzo(b)fluoranthene	252	14.313	14.313	(0.956)	2223643	120.000	124(A)
96 Benzo(k)fluoranthene	252	14.363	14.363	(0.959)	2087639	120.000	117
97 Benzo(a)pyrene	252	14.891	14.891	(0.994)	1959776	120.000	126(A)
99 Indeno(1,2,3-cd)pyrene	276	16.993	16.993	(1.135)	1889688	120.000	122(A)
100 Dibenzo(a,h)anthracene	278	17.031	17.031	(1.137)	1529825	120.000	121(A)
101 Benzo(ghi)perylene	276	17.515	17.515	(1.170)	1553559	120.000	131(A)
126 m-Dinitrobenzene	168	7.744	7.744	(0.968)	328678	120.000	120
130 2,3,4,6-Tetrachlorophenol	232	8.340	8.340	(1.043)	432688	120.000	122(A)
143 Dinoseb	211	9.581	9.581	(0.997)	479562	120.000	121(A)
173 Carbazole	167	9.858	9.858	(1.026)	2244987	120.000	121(A)
184 p-Benzoquinone	54	4.092	4.092	(0.845)	125786	120.000	119
192 Methoxychlor	227	12.493	12.493	(0.988)	1499742	120.000	115
211 p-Toluidine	106	5.267	5.267	(1.088)	647565	120.000	86.4
210 m-Toluidine	106	5.313	5.313	(1.097)	924924	120.000	98.8
26 Phthalic anhydride	104	6.931	6.931	(1.132)	320729	120.000	103
179 Dibenzo(a,e)pyrene	302	21.261	21.261	(1.420)	844324	120.000	120
214 1,4-Dinitrobenzene	75	7.647	7.647	(0.956)	375732	120.000	126(A)
215 2-Ethoxyethanol	59	2.466	2.466	(0.509)	684402	120.000	116
216 Methylenebis(2-chloroaniline)	231	12.565	12.565	(0.994)	394688	120.000	120(AQ)
M 225 Trichlorophenols	196				1045147	240.000	229
M 226 Tetrachlorophenols	232				432688	120.000	122(A)
M 227 Benzo(b,k)fluoranthene	252				4311282	240.000	241(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0920.d
Date : 09-NOV-2009 23:16
Client ID: MEGAICAL
Sample Info: IWBN091106-011120 PPM|1|SVHF1|1|MEGAICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

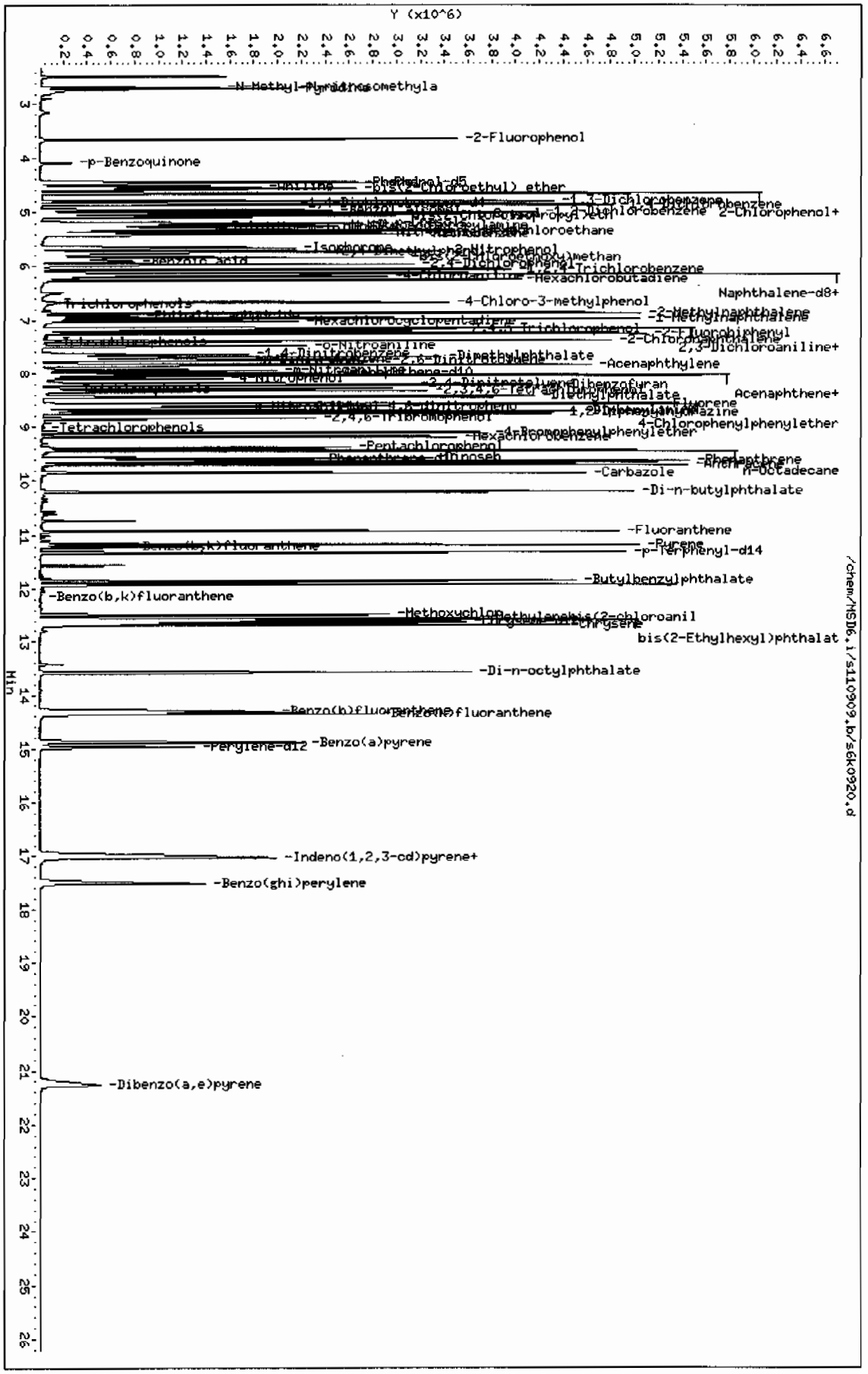
Y (x10^6)
Min
-N-Methyl-Pyrrolidinosomethyla
-2-Fluorophenol
-p-Benzoquinone
-Phenol-d5
-Aniline
-bis(2-Chloroethyl) ether
-1,3-Dichlorobenzene
-1,4-Dichlorobenzene
2-Chlorophenol+
-Benzyl alcohol
-Chlorobenzene
-Phenol
-Chlorobenzene
-Chlorobenzene
-Chlorobenzene

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD6.i/s110909.b/s6k0923.d
Lab Smp Id: WBN091016-01 Client Smp ID: AP12ICAL
Inj Date : 10-NOV-2009 11:59
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-01|10 PPM|1|SVMF|1|AP12ICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD6.i/s110909.b/MSD6-M8270D-110909.m
Meth Date : 10-Nov-2009 22:15 nat00999 Quant Type: ISTD
Cal Date : 10-NOV-2009 11:59 Cal File: s6k0923.d
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	247567	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	883871	40.0000	
* 46 Acenaphthene-d10	164	7.986	7.986	(1.000)	454586	40.0000	
* 67 Phenanthrene-d10	188	9.598	9.598	(1.000)	758263	40.0000	
* 91 Chrysene-d12	240	12.610	12.610	(1.000)	522180	40.0000	
* 98 Perylene-d12	264	14.947	14.947	(1.000)	359436	40.0000	
209 Benzaldehyde	77	4.426	4.426	(0.916)	58362	10.0000	10.0(Q)
16 Acetophenone	105	5.208	5.208	(1.077)	74840	10.0000	10.0(Q)
189 Caprolactam	113	6.503	6.503	(1.064)	14951	10.0000	10.0(Q)
208 1,1'-Biphenyl	154	7.351	7.351	(0.921)	150186	10.0000	10.0(Q)
207 Atrazine	173	9.244	9.244	(0.963)	8466	10.0000	10.0(Q)
77 Benzidine	184	11.036	11.036	(0.875)	46752	10.0000	10.0
90 3,3'-Dichlorobenzidine	252	12.534	12.534	(0.994)	30716	10.0000	10.0(Q)
102 1,4-Dioxane	88	2.451	2.451	(0.507)	23315	10.0000	10.0(Q)
103 Methyl methacrylate	100	2.449	2.449	(0.507)	12147	10.0000	10.0(Q)
104 Ethyl methacrylate	69	2.968	2.968	(0.614)	49297	10.0000	10.0(Q)
105 2-Picoline	93	3.228	3.228	(0.668)	86106	10.0000	10.0(Q)
106 N-Nitrosomethylethylamine	88	3.292	3.292	(0.681)	31263	10.0000	10.0(Q)
107 Methyl methanesulfonate	80	3.519	3.519	(0.728)	34925	10.0000	10.0(Q)
108 N-Nitrosodiethylamine	102	3.855	3.855	(0.798)	31138	10.0000	10.0(Q)
109 Ethyl Methanesulfonate	79	4.089	4.089	(0.846)	40730	10.0000	10.0(Q)
110 Pentachloroethane	167	4.574	4.574	(0.946)	19935	10.0000	10.0(Q)
111 N-Nitrosopyrrolidine	100	5.180	5.180	(1.072)	27345	10.0000	10.0(Q)
113 N-Nitrosomorpholine	56	5.216	5.216	(1.079)	43963	10.0000	10.0(Q)
114 o-Toluidine	106	5.241	5.241	(1.084)	108185	10.0000	10.0(Q)
115 N-Nitrosopiperidine	114	5.534	5.534	(0.905)	30569	10.0000	10.0(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.924	5.924	(0.969)	174056	10.0000	10.0
118 2,6-Dichlorophenol	162	6.179	6.179	(1.011)	43490	10.0000	10.0(QH)
119 Hexachloropropene	213	6.222	6.222	(1.018)	19101	10.0000	10.0(Q)
120 p-Phenylenediamine	108	6.533	6.533	(1.069)	43562	10.0000	10.0(QH)
121 N-Nitrosodi-n-butylamine	84	6.508	6.508	(1.065)	49601	10.0000	10.0(TQ)
122 Safrole	162	6.747	6.747	(1.104)	41266	10.0000	10.0(Q)
123 1,2,4,5-Tetrachlorobenzene	216	7.033	7.033	(0.881)	51588	10.0000	10.0(Q)
124 Isosafrole	162	7.300	7.300	(0.914)	38652	10.0000	10.0(Q)
125 1,4-Naphthoquinone	158	7.563	7.563	(0.947)	34114	10.0000	10.0(Q)
127 Pentachlorobenzene	250	8.156	8.156	(1.021)	43670	10.0000	10.0(Q)
128 1-Naphthylamine	143	8.281	8.281	(1.037)	103048	10.0000	10.0(Q)
129 2-Naphthylamine	143	8.365	8.365	(1.048)	109757	10.0000	10.0(QH)
131 5-Nitro-o-toluidine	152	8.566	8.566	(1.073)	25098	10.0000	10.0(Q)
136 1,3,5-Trinitrobenzene	75	8.941	8.941	(0.932)	14861	10.0000	10.0(Q)
137 Phenacetin	108	8.997	8.997	(0.937)	41196	10.0000	10.0(QH)
138 Diallate	86	8.989	8.989	(0.937)	49649	10.0000	10.0(Q)
140 4-Aminobiphenyl	169	9.372	9.372	(0.976)	95709	10.0000	10.0(H)
141 Pentachloronitrobenzene	237	9.390	9.390	(0.978)	11744	10.0000	10.0(Q)
142 Pronamide	173	9.418	9.418	(0.981)	51110	10.0000	10.0(Q)
146 4-Nitroquinoline-1-oxide	101	10.444	10.444	(1.088)	3815	10.0000	10.0(Q)
147 Methapyrilene	58	10.513	10.513	(1.095)	77008	10.0000	10.0(Q)
148 Isodrin	193	10.753	10.753	(1.120)	19214	10.0000	10.0(Q)
149 Aramite	185	11.265	11.265	(1.174)	7281	10.0000	10.0(Q)
150 Kepone	272	11.933	11.933	(1.243)	10756	10.0000	10.0(QH)
151 p-(Dimethylamino)azobenzene	120	11.454	11.454	(0.908)	40762	10.0000	10.0(Q)
152 Chlorobenzilate	251	11.497	11.497	(0.912)	39175	10.0000	10.0(Q)
153 3,3'-Dimethylbenzidine	212	11.836	11.836	(0.939)	64606	10.0000	10.0
155 2-Acetylaminofluorene	181	12.144	12.144	(0.963)	23996	10.0000	10.0(QH)
157 7,12Dimethylbenz(a)anthracene	256	14.246	14.246	(0.953)	41106	10.0000	10.0(Q)
158 3-Methylcholanthrene	268	15.467	15.467	(1.035)	26367	10.0000	10(QH)
212 Cis Diallate	86	9.089	9.089	(0.947)	7302	1.50000	1.5(Q)
213 Trans Diallate	86	8.989	8.989	(0.937)	49649	8.50000	8.5(Q)

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0923.d
Date : 10-NOV-2009 11:59
Client ID: AP12ICAL
Sample Info: |WBN091016-01|10 PPM|1|SVMF11|AP12ICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

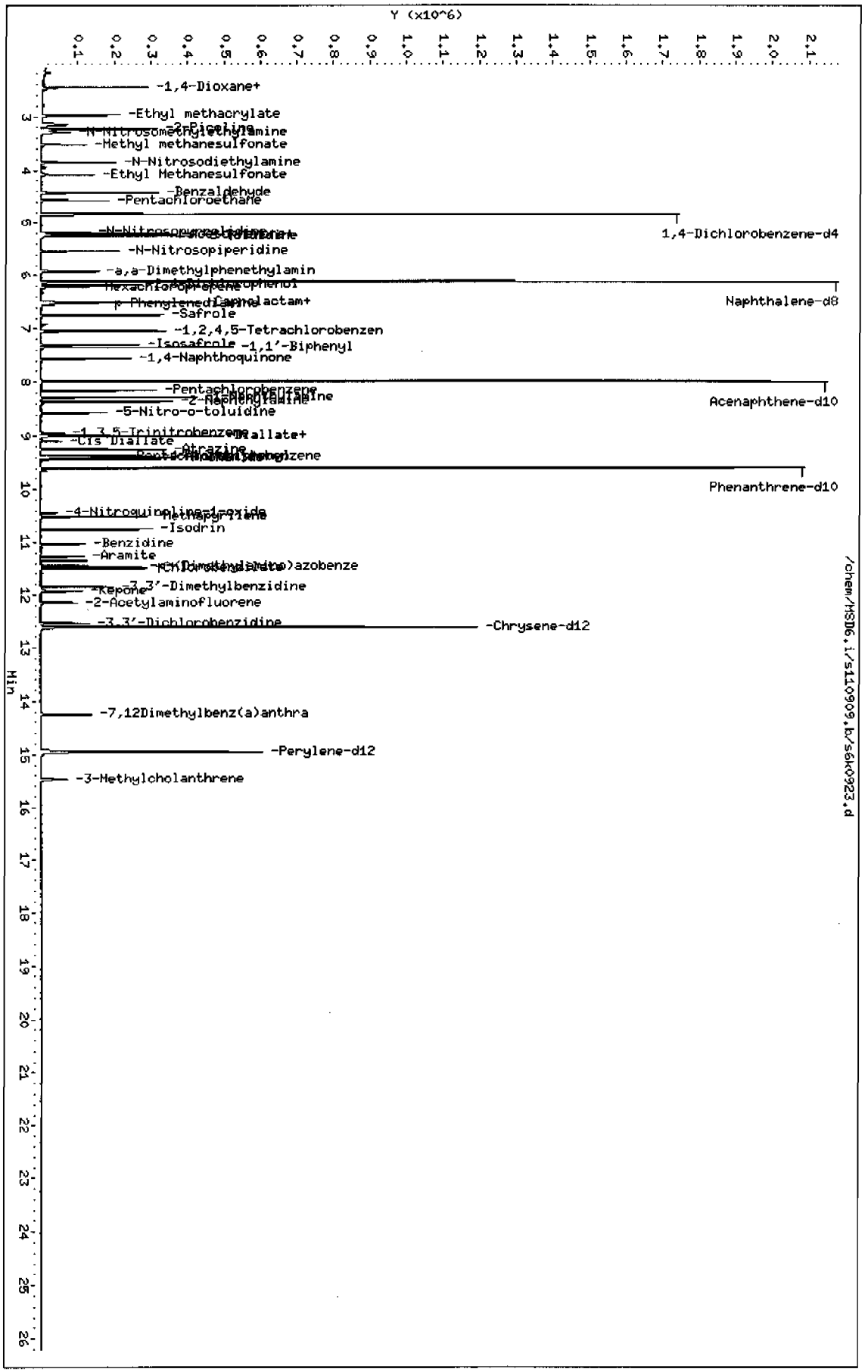

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Data file : /chem/MSD6.i/s110909.b/s6k0924.d
Lab Smp Id: WBN091016-02 Client Smp ID: AP12ICAL
Inj Date : 10-NOV-2009 12:36
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-02|20 PPM|1|SVMF|1|AP12ICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD6.i/s110909.b/MSD6-M8270D-110909.m
Meth Date : 10-Nov-2009 22:15 nat00999 Quant Type: ISTD
Cal Date : 10-NOV-2009 12:36 Cal File: s6k0924.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	256549	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	922700	40.0000	
* 46 Acenaphthene-d10	164	7.983	7.983	(1.000)	490585	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	853832	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	688612	40.0000	
* 98 Perylene-d12	264	14.952	14.952	(1.000)	518310	40.0000	
209 Benzaldehyde	77	4.426	4.426	(0.916)	116936	20.0000	19.7(Q)
16 Acetophenone	105	5.208	5.208	(1.077)	150839	20.0000	19.7(Q)
189 Caprolactam	113	6.513	6.513	(1.065)	33549	20.0000	20.7(Q)
208 1,1'-Biphenyl	154	7.351	7.351	(0.921)	302786	20.0000	19.3(Q)
207 Atrazine	173	9.247	9.247	(0.963)	18427	20.0000	19.6(Q)
77 Benzidine	184	11.036	11.036	(0.875)	139931	20.0000	21.3
90 3,3'-Dichlorobenzidine	252	12.534	12.534	(0.994)	96661	20.0000	21.8(Q)
102 1,4-Dioxane	88	2.456	2.456	(0.508)	47517	20.0000	19.8(Q)
103 Methyl methacrylate	100	2.454	2.454	(0.508)	25201	20.0000	20.0(Q)
104 Ethyl methacrylate	69	2.971	2.971	(0.615)	104147	20.0000	20.2(Q)
105 2-Picoline	93	3.228	3.228	(0.668)	168996	20.0000	19.4(Q)
106 N-Nitrosomethylethylamine	88	3.295	3.295	(0.682)	62816	20.0000	19.7(Q)
107 Methyl methanesulfonate	80	3.522	3.522	(0.729)	68397	20.0000	19.4(Q)
108 N-Nitrosodiethylamine	102	3.858	3.858	(0.798)	61555	20.0000	19.5(Q)
109 Ethyl Methanesulfonate	79	4.092	4.092	(0.847)	83349	20.0000	19.9(Q)
110 Pentachloroethane	167	4.574	4.574	(0.946)	40260	20.0000	19.7(Q)
111 N-Nitrosopyrrolidine	100	5.183	5.183	(1.072)	59489	20.0000	20.5(Q)
113 N-Nitrosomorpholine	56	5.219	5.219	(1.080)	86116	20.0000	19.4(Q)
114 o-Toluidine	106	5.244	5.244	(1.085)	212333	20.0000	19.4(Q)
115 N-Nitrosopiperidine	114	5.535	5.535	(0.905)	62849	20.0000	19.8(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.914	5.914	(0.967)	376403	20.0000	20.4
118 2,6-Dichlorophenol	162	6.182	6.182	(1.011)	92233	20.0000	20.2(Q)
119 Hexachloropropene	213	6.223	6.223	(1.018)	43822	20.0000	20.9(Q)
120 p-Phenylenediamine	108	6.536	6.536	(1.069)	111144	20.0000	22.0(Q)
121 N-Nitrosodi-n-butylamine	84	6.510	6.510	(1.065)	103810	20.0000	20.0(TQ)
122 Safrole	162	6.750	6.750	(1.104)	85743	20.0000	20.0(Q)
123 1,2,4,5-Tetrachlorobenzene	216	7.035	7.035	(0.881)	104059	20.0000	19.3(Q)
124 Isosafrole	162	7.303	7.303	(0.915)	81432	20.0000	19.8(Q)
125 1,4-Naphthoquinone	158	7.565	7.565	(0.948)	80516	20.0000	20.9(Q)
127 Pentachlorobenzene	250	8.157	8.157	(1.022)	89715	20.0000	19.5(Q)
128 1-Naphthylamine	143	8.281	8.281	(1.037)	225919	20.0000	20.2(Q)
129 2-Naphthylamine	143	8.368	8.368	(1.048)	247742	20.0000	20.4(Q)
131 5-Nitro-o-toluidine	152	8.569	8.569	(1.073)	65284	20.0000	21.9(Q)
136 1,3,5-Trinitrobenzene	75	8.944	8.944	(0.932)	45341	20.0000	23.0(Q)
137 Phenacetin	108	9.002	9.002	(0.938)	110195	20.0000	21.7(Q)
138 Diallate	86	8.990	8.990	(0.937)	104056	20.0000	19.3(Q)
140 4-Aminobiphenyl	169	9.374	9.374	(0.977)	215951	20.0000	20.0
141 Pentachloronitrobenzene	237	9.390	9.390	(0.978)	25960	20.0000	19.8(Q)
142 Pronamide	173	9.418	9.418	(0.981)	113483	20.0000	19.8(Q)
146 4-Nitroquinoline-1-oxide	101	10.445	10.445	(1.088)	14070	20.0000	24.8(Q)
147 Methapyrilene	58	10.514	10.514	(1.095)	180198	20.0000	20.4(Q)
148 Isodrin	193	10.750	10.750	(1.120)	41636	20.0000	19.6(Q)
149 Aramite	185	11.265	11.265	(1.174)	18150	20.0000	21.0(Q)
150 Kepone	272	11.930	11.930	(1.243)	26432	20.0000	20.9(Q)
151 p-(Dimethylamino)azobenzene	120	11.454	11.454	(0.908)	108037	20.0000	20.0(Q)
152 Chlorobenzilate	251	11.497	11.497	(0.912)	94704	20.0000	19.1(Q)
153 3,3'-Dimethylbenzidine	212	11.836	11.836	(0.938)	180406	20.0000	20.6
155 2-Acetylaminofluorene	181	12.147	12.147	(0.963)	98558	20.0000	24.4(Q)
157 7,12Dimethylbenz(a)anthracene	256	14.249	14.249	(0.953)	116466	20.0000	19.8(Q)
158 3-Methylcholanthrene	268	15.472	15.472	(1.035)	92005	20.0000	21.9(Q)
212 Cis Diallate	86	9.092	9.092	(0.947)	15507	3.00000	2.9(Q)
213 Trans Diallate	86	8.990	8.990	(0.937)	104056	17.0000	16.4(Q)

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0924.d
Date : 10-NOV-2009 12:36
Client ID: AP12ICAL
Sample Info: WBN091016-02120 PPM11SVMF11IAP12ICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

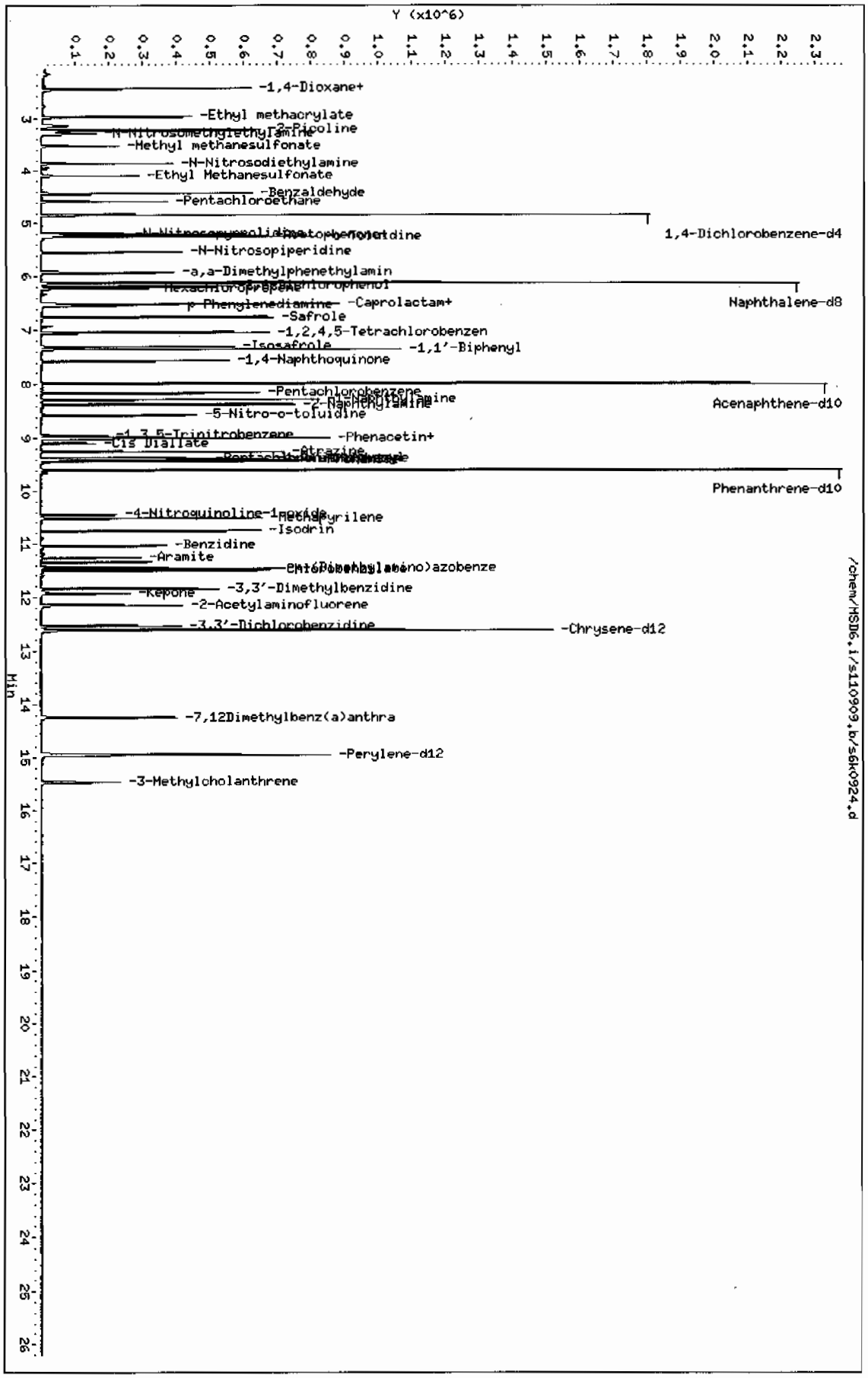

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Data file : /chem/MSD6.i/s110909.b/s6k0925.d
Lab Smp Id: WBN091016-03 Client Smp ID: AP12ICAL
Inj Date : 10-NOV-2009 13:13
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-03|40 PPM|1|SVMF|1|AP12ICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD6.i/s110909.b/MSD6-M8270D-110909.m
Meth Date : 10-Nov-2009 22:16 nat00999 Quant Type: ISTD
Cal Date : 10-NOV-2009 13:13 Cal File: s6k0925.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	263784	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	929195	40.0000	
* 46 Acenaphthene-d10	164	7.983	7.983	(1.000)	488159	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	849770	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	655637	40.0000	
* 98 Perylene-d12	264	14.950	14.950	(1.000)	480061	40.0000	
209 Benzaldehyde	77	4.429	4.429	(0.916)	242849	40.0000	39.8
16 Acetophenone	105	5.213	5.213	(1.079)	319622	40.0000	40.4
189 Caprolactam	113	6.531	6.531	(1.068)	76323	40.0000	44.3
208 1,1'-Biphenyl	154	7.354	7.354	(0.921)	613769	40.0000	39.6
207 Atrazine	173	9.252	9.252	(0.964)	36850	40.0000	39.7
77 Benzidine	184	11.038	11.038	(0.875)	257284	40.0000	40.7
90 3,3'-Dichlorobenzidine	252	12.537	12.537	(0.994)	192035	40.0000	43.4
102 1,4-Dioxane	88	2.459	2.459	(0.509)	103036	40.0000	41.2
103 Methyl methacrylate	100	2.456	2.456	(0.508)	53908	40.0000	41.1
104 Ethyl methacrylate	69	2.974	2.974	(0.615)	222628	40.0000	41.3
105 2-Picoline	93	3.228	3.228	(0.668)	361350	40.0000	40.3
106 N-Nitrosomethylethylamine	88	3.297	3.297	(0.682)	138363	40.0000	41.4
107 Methyl methanesulfonate	80	3.524	3.524	(0.729)	148553	40.0000	40.7
108 N-Nitrosodiethylamine	102	3.860	3.860	(0.799)	134935	40.0000	41.1
109 Ethyl Methanesulfonate	79	4.097	4.097	(0.848)	177643	40.0000	40.8
110 Pentachloroethane	167	4.574	4.574	(0.946)	87297	40.0000	41.1
111 N-Nitrosopyrrolidine	100	5.191	5.191	(1.074)	134081	40.0000	43.1
113 N-Nitrosomorpholine	56	5.226	5.226	(1.081)	187961	40.0000	40.8
114 o-Toluidine	106	5.249	5.249	(1.086)	452942	40.0000	40.2
115 N-Nitrosopiperidine	114	5.540	5.540	(0.906)	136923	40.0000	41.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.937	5.937	(0.971)	822116	40.0000	42.7
118 2,6-Dichlorophenol	162	6.184	6.184	(1.012)	197363	40.0000	41.8
119 Hexachloropropene	213	6.222	6.222	(1.018)	100271	40.0000	44.8
120 p-Phenylenediamine	108	6.541	6.541	(1.070)	237565	40.0000	44.2
121 N-Nitrosodi-n-butylamine	84	6.516	6.516	(1.066)	206427	40.0000	39.7(T)
122 Safrole	162	6.750	6.750	(1.104)	182839	40.0000	41.5
123 1,2,4,5-Tetrachlorobenzene	216	7.035	7.035	(0.881)	216035	40.0000	40.2
124 Isosafrole	162	7.305	7.305	(0.915)	171657	40.0000	41.2
125 1,4-Naphthoquinone	158	7.568	7.568	(0.948)	170338	40.0000	42.8
127 Pentachlorobenzene	250	8.159	8.159	(1.022)	184211	40.0000	40.2
128 1-Naphthylamine	143	8.284	8.284	(1.038)	464647	40.0000	41.1
129 2-Naphthylamine	143	8.371	8.371	(1.048)	500071	40.0000	41.0
131 5-Nitro-o-toluidine	152	8.574	8.574	(1.074)	141536	40.0000	44.8
136 1,3,5-Trinitrobenzene	75	8.946	8.946	(0.932)	104071	40.0000	47.8
137 Phenacetin	108	9.010	9.010	(0.939)	231214	40.0000	43.7
138 Diallate	86	8.992	8.992	(0.937)	213990	40.0000	39.9
140 4-Aminobiphenyl	169	9.377	9.377	(0.977)	463964	40.0000	42.1
141 Pentachloronitrobenzene	237	9.392	9.392	(0.978)	55629	40.0000	41.7
142 Pronamide	173	9.423	9.423	(0.982)	233100	40.0000	40.6
146 4-Nitroquinoline-1-oxide	101	10.445	10.445	(1.088)	22943	40.0000	40.4
147 Methapyrilene	58	10.516	10.516	(1.096)	349282	40.0000	39.8
148 Isodrin	193	10.753	10.753	(1.120)	86082	40.0000	40.5
149 Aramite	185	11.265	11.265	(1.174)	39093	40.0000	43.5
150 Kepone	272	11.933	11.933	(1.243)	53631	40.0000	41.7
151 p-(Dimethylamino)azobenzene	120	11.456	11.456	(0.908)	218246	40.0000	41.6
152 Chlorobenzilate	251	11.500	11.500	(0.912)	198625	40.0000	41.4
153 3,3'-Dimethylbenzidine	212	11.838	11.838	(0.939)	350679	40.0000	41.3
155 2-Acetylaminofluorene	181	12.154	12.154	(0.964)	217618	40.0000	49.7
157 7,12Dimethylbenz(a)anthracene	256	14.252	14.252	(0.953)	234840	40.0000	42.0
158 3-Methylcholanthrene	268	15.480	15.480	(1.035)	181802	40.0000	44.2
212 Cis Diallate	86	9.092	9.092	(0.947)	32853	6.00000	6.1
213 Trans Diallate	86	8.992	8.992	(0.937)	213990	34.0000	33.9

QC Flag Legend

T - Target compound detected outside RT window.

Data File: /chem/MSD6.i/s110909.b/s6k0925.d
Date : 10-NOV-2009 13:13
Client ID: AP12ICAL
Sample Info: IWBN091016-03140 PPM11|SVMF11|AP12ICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

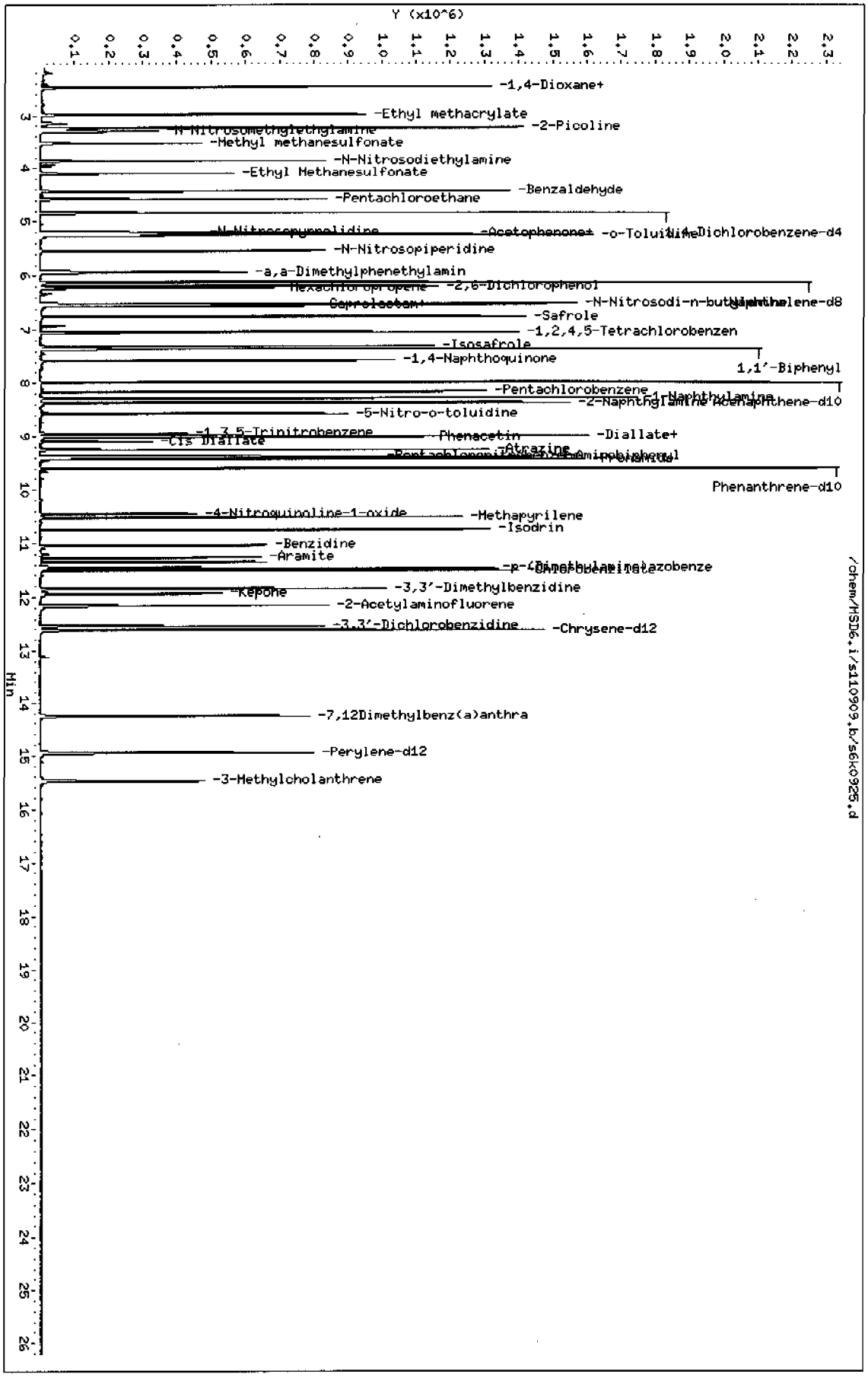

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Data file : /chem/MSD6.i/s110909.b/s6k0926.d
Lab Smp Id: WBN091016-04 Client Smp ID: AP12ICAL
Inj Date : 10-NOV-2009 13:51
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-04|50 PPM|1|SVMF|1|AP12ICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD6.i/s110909.b/MSD6-M8270D-110909.m
Meth Date : 10-Nov-2009 22:16 nat00999 Quant Type: ISTD
Cal Date : 10-NOV-2009 13:51 Cal File: s6k0926.d
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	250921	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	887231	40.0000	
* 46 Acenaphthene-d10	164	7.983	7.983	(1.000)	483118	40.0000	
* 67 Phenanthrene-d10	188	9.601	9.601	(1.000)	863982	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	678374	40.0000	
* 98 Perylene-d12	264	14.952	14.952	(1.000)	505705	40.0000	
209 Benzaldehyde	77	4.431	4.431	(0.917)	271675	50.0000	47.6
16 Acetophenone	105	5.213	5.213	(1.079)	361594	50.0000	48.5
189 Caprolactam	113	6.536	6.536	(1.069)	89854	50.0000	53.4
208 1,1'-Biphenyl	154	7.354	7.354	(0.921)	722924	50.0000	47.8
207 Atrazine	173	9.255	9.255	(0.964)	43736	50.0000	47.2
77 Benzidine	184	11.041	11.041	(0.875)	319932	50.0000	49.2
90 3,3'-Dichlorobenzidine	252	12.539	12.539	(0.994)	249163	50.0000	53.3
102 1,4-Dioxane	88	2.461	2.461	(0.509)	118569	50.0000	49.9
103 Methyl methacrylate	100	2.459	2.459	(0.509)	64691	50.0000	51.3
104 Ethyl methacrylate	69	2.976	2.976	(0.616)	260010	50.0000	50.5
105 2-Picoline	93	3.231	3.231	(0.668)	413718	50.0000	48.9
106 N-Nitrosomethylethylamine	88	3.300	3.300	(0.683)	156599	50.0000	49.5
107 Methyl methanesulfonate	80	3.526	3.526	(0.730)	158007	50.0000	46.5
108 N-Nitrosodiethylamine	102	3.863	3.863	(0.799)	152229	50.0000	49.0
109 Ethyl Methanesulfonate	79	4.097	4.097	(0.848)	196808	50.0000	48.1
110 Pentachloroethane	167	4.574	4.574	(0.946)	100400	50.0000	49.7
111 N-Nitrosopyrrolidine	100	5.193	5.193	(1.074)	149858	50.0000	50.5(Q)
113 N-Nitrosomorpholine	56	5.229	5.229	(1.082)	206654	50.0000	47.9
114 o-Toluidine	106	5.252	5.252	(1.086)	514405	50.0000	48.5
115 N-Nitrosopiperidine	114	5.542	5.542	(0.907)	153985	50.0000	49.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.950	5.950	(0.973)	969998	50.0000	52.0
118 2,6-Dichlorophenol	162	6.184	6.184	(1.012)	232452	50.0000	51.2
119 Hexachloropropene	213	6.222	6.222	(1.018)	114784	50.0000	52.7
120 p-Phenylenediamine	108	6.543	6.543	(1.070)	270833	50.0000	52.1
121 N-Nitrosodi-n-butylamine	84	6.518	6.518	(1.066)	234607	50.0000	47.9(T)
122 Safrole	162	6.752	6.752	(1.105)	211165	50.0000	50.1
123 1,2,4,5-Tetrachlorobenzene	216	7.038	7.038	(0.882)	251525	50.0000	48.0
124 Isosafrole	162	7.305	7.305	(0.915)	203991	50.0000	49.6
125 1,4-Naphthoquinone	158	7.568	7.568	(0.948)	197074	50.0000	50.1
127 Pentachlorobenzene	250	8.159	8.159	(1.022)	220739	50.0000	49.0
128 1-Naphthylamine	143	8.286	8.286	(1.038)	553727	50.0000	49.6
129 2-Naphthylamine	143	8.370	8.370	(1.048)	598614	50.0000	49.7
131 5-Nitro-o-toluidine	152	8.577	8.577	(1.074)	175206	50.0000	54.4
136 1,3,5-Trinitrobenzene	75	8.949	8.949	(0.932)	130665	50.0000	56.5
137 Phenacetin	108	9.013	9.013	(0.939)	290534	50.0000	52.9(Q)
138 Diallate	86	8.992	8.992	(0.937)	259168	50.0000	48.1
140 4-Aminobiphenyl	169	9.377	9.377	(0.977)	610793	50.0000	53.3
141 Pentachloronitrobenzene	237	9.392	9.392	(0.978)	68356	50.0000	50.3(Q)
142 Pronamide	173	9.425	9.425	(0.982)	288993	50.0000	49.7
146 4-Nitroquinoline-1-oxide	101	10.450	10.450	(1.088)	27356	50.0000	48.0
147 Methapyrilene	58	10.516	10.516	(1.095)	429483	50.0000	48.6
148 Isodrin	193	10.753	10.753	(1.120)	105375	50.0000	49.1
149 Aramite	185	11.268	11.268	(1.174)	49307	50.0000	52.9
150 Kepone	272	11.938	11.938	(1.243)	65859	50.0000	50.2
151 p-(Dimethylamino)azobenzene	120	11.459	11.459	(0.908)	275367	50.0000	50.6
152 Chlorobenzilate	251	11.502	11.502	(0.912)	250256	50.0000	50.3
153 3,3'-Dimethylbenzidine	212	11.841	11.841	(0.939)	445030	50.0000	50.5
155 2-Acetylaminofluorene	181	12.157	12.157	(0.964)	290992	50.0000	59.9
157 7,12Dimethylbenz(a)anthracene	256	14.257	14.257	(0.953)	306081	50.0000	51.5
158 3-Methylcholanthrene	268	15.485	15.485	(1.036)	238279	50.0000	53.7(Q)
212 Cis Diallate	86	9.092	9.092	(0.947)	40524	7.50000	7.4
213 Trans Diallate	86	8.992	8.992	(0.937)	259168	42.5000	40.9

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0926.d
Date : 10-NOV-2009 13:51
Client ID: AP12ICAL
Sample Info: !ABN091016-04!50 PPM!1!SVMF1!!AP12ICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

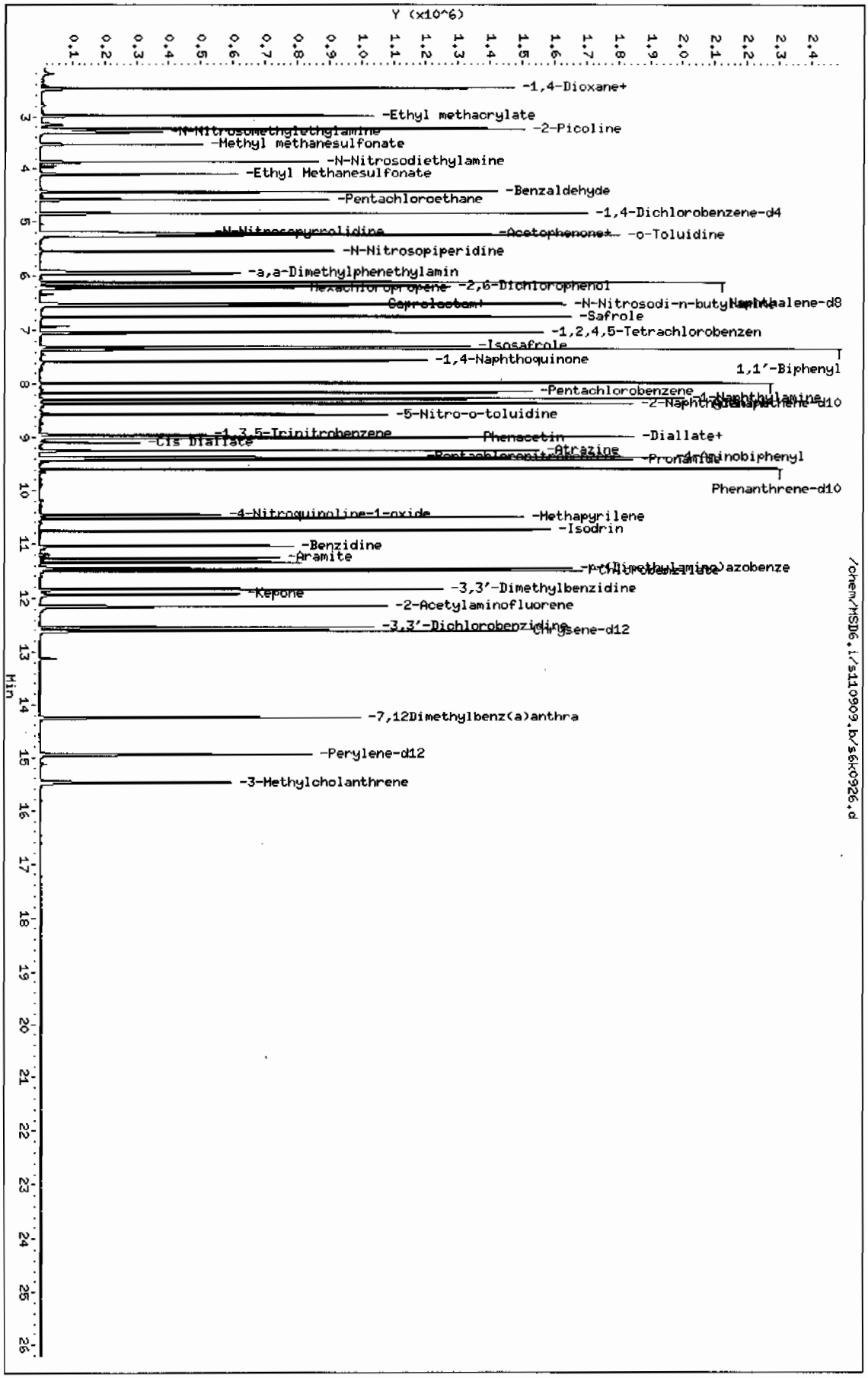

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Data file : /chem/MSD6.i/s110909.b/s6k0927.d
Lab Smp Id: WBN091016-05 Client Smp ID: AP12ICAL
Inj Date : 10-NOV-2009 14:30
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-05|80 PPM|1|SVMF|1|AP12ICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD6.i/s110909.b/MSD6-M8270D-110909.m
Meth Date : 10-Nov-2009 22:16 nat00999 Quant Type: ISTD
Cal Date : 10-NOV-2009 14:30 Cal File: s6k0927.d
Als bottle: 7 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	276239	40.0000	
* 29 Naphthalene-d8	136	6.115	6.115	(1.000)	973833	40.0000	
* 46 Acenaphthene-d10	164	7.986	7.986	(1.000)	510901	40.0000	
* 67 Phenanthrene-d10	188	9.601	9.601	(1.000)	893057	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	703590	40.0000	
* 98 Perylene-d12	264	14.952	14.952	(1.000)	512813	40.0000	
209 Benzaldehyde	77	4.434	4.434	(0.917)	465512	80.0000	75.2
16 Acetophenone	105	5.219	5.219	(1.080)	645987	80.0000	79.0
189 Caprolactam	113	6.554	6.554	(1.072)	138581	80.0000	76.0(Q)
208 1,1'-Biphenyl	154	7.359	7.359	(0.922)	1191213	80.0000	75.5
207 Atrazine	173	9.262	9.262	(0.965)	73310	80.0000	77.2
77 Benzidine	184	11.046	11.046	(0.876)	530516	80.0000	78.9
90 3,3'-Dichlorobenzidine	252	12.544	12.544	(0.995)	401503	80.0000	82.2
102 1,4-Dioxane	88	2.454	2.454	(0.508)	200966	80.0000	77.4
103 Methyl methacrylate	100	2.451	2.451	(0.507)	102431	80.0000	75.0
104 Ethyl methacrylate	69	2.971	2.971	(0.615)	445120	80.0000	78.8
105 2-Picoline	93	3.231	3.231	(0.668)	712295	80.0000	77.1
106 N-Nitrosomethylethylamine	88	3.302	3.302	(0.683)	287120	80.0000	81.9
107 Methyl methanesulfonate	80	3.534	3.534	(0.731)	293376	80.0000	78.8
108 N-Nitrosodiethylamine	102	3.868	3.868	(0.800)	275478	80.0000	80.5
109 Ethyl Methanesulfonate	79	4.105	4.105	(0.849)	364882	80.0000	80.8
110 Pentachloroethane	167	4.574	4.574	(0.946)	174658	80.0000	78.9
111 N-Nitrosopyrrolidine	100	5.206	5.206	(1.077)	277028	80.0000	83.8(Q)
113 N-Nitrosomorpholine	56	5.239	5.239	(1.084)	379696	80.0000	79.9
114 o-Toluidine	106	5.257	5.257	(1.087)	909814	80.0000	78.4
115 N-Nitrosopiperidine	114	5.547	5.547	(0.907)	278319	80.0000	81.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.950	5.950	(0.973)	1720488	80.0000	83.2
118 2,6-Dichlorophenol	162	6.189	6.189	(1.012)	413898	80.0000	82.4
119 Hexachloropropene	213	6.225	6.225	(1.018)	210927	80.0000	86.4
120 p-Phenylenediamine	108	6.551	6.551	(1.071)	451242	80.0000	79.2
121 N-Nitrosodi-n-butylamine	84	6.523	6.523	(1.067)	386399	80.0000	73.4(T)
122 Safrole	162	6.755	6.755	(1.105)	363735	80.0000	78.9
123 1,2,4,5-Tetrachlorobenzene	216	7.040	7.040	(0.882)	425849	80.0000	77.4
124 Isosafrole	162	7.311	7.311	(0.915)	349789	80.0000	80.4
125 1,4-Naphthoquinone	158	7.570	7.570	(0.948)	303940	80.0000	74.3
127 Pentachlorobenzene	250	8.162	8.162	(1.022)	364514	80.0000	77.1
128 1-Naphthylamine	143	8.292	8.292	(1.038)	926962	80.0000	78.8
129 2-Naphthylamine	143	8.376	8.376	(1.049)	1000885	80.0000	78.8
131 5-Nitro-o-toluidine	152	8.582	8.582	(1.075)	298885	80.0000	86.0
136 1,3,5-Trinitrobenzene	75	8.954	8.954	(0.933)	222134	80.0000	90.0
137 Phenacetin	108	9.023	9.023	(0.940)	483029	80.0000	84.0(Q)
138 Diallate	86	8.995	8.995	(0.937)	420134	80.0000	76.3
140 4-Aminobiphenyl	169	9.382	9.382	(0.977)	1009045	80.0000	84.1
141 Pentachloronitrobenzene	237	9.397	9.397	(0.979)	109865	80.0000	78.6(Q)
142 Pronamide	173	9.431	9.431	(0.982)	467086	80.0000	78.1
146 4-Nitroquinoline-1-oxide	101	10.452	10.452	(1.089)	39722	80.0000	69.7
147 Methapyrilene	58	10.519	10.519	(1.096)	677593	80.0000	75.2
148 Isodrin	193	10.756	10.756	(1.120)	169335	80.0000	77.0
149 Aramite	185	11.270	11.270	(1.174)	83762	80.0000	85.5
150 Kepone	272	11.940	11.940	(1.244)	108681	80.0000	80.2
151 p-(Dimethylamino)azobenzene	120	11.464	11.464	(0.909)	449328	80.0000	79.7
152 Chlorobenzilate	251	11.505	11.505	(0.912)	413386	80.0000	80.1
153 3,3'-Dimethylbenzidine	212	11.844	11.844	(0.939)	751395	80.0000	81.8
155 2-Acetylaminofluorene	181	12.165	12.165	(0.964)	478700	80.0000	91.6
157 7,12Dimethylbenz(a)anthracene	256	14.264	14.264	(0.954)	508112	80.0000	83.4
158 3-Methylcholanthrene	268	15.490	15.490	(1.036)	399514	80.0000	86.9(Q)
212 Cis Diallate	86	9.094	9.094	(0.947)	68713	12.0000	12.2
213 Trans Diallate	86	8.995	8.995	(0.937)	420134	68.0000	64.9

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0927.d
Date : 10-NOV-2009 14:30
Client ID: AP12ICAL
Sample Info: IKBN091016-05|80 PPM|1|SVMF|1|AP12ICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

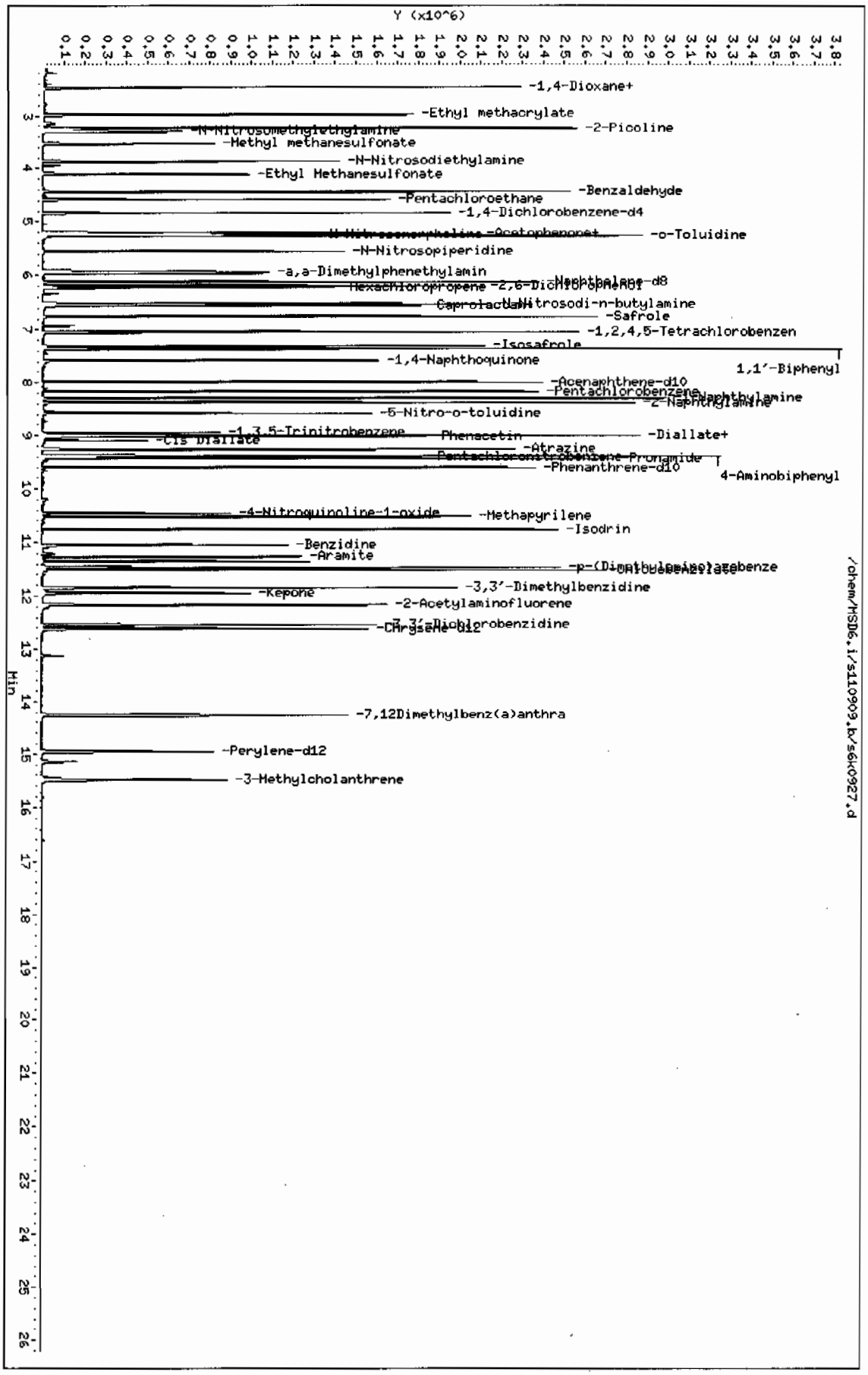

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GEL Laboratories, LLC
Data file : /chem/MSD6.i/s110909.b/s6k0928.d
Lab Smp Id: WBN091016-06 Client Smp ID: AP12ICAL
Inj Date : 10-NOV-2009 15:06
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-06|100 PPM|1|SVMF|1|AP12ICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD6.i/s110909.b/MSD6-M8270D-110909.m
Meth Date : 10-Nov-2009 22:16 nat00999 Quant Type: ISTD
Cal Date : 10-NOV-2009 15:06 Cal File: s6k0928.d
Als bottle: 8 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	269726	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	951450	40.0000	
* 46 Acenaphthene-d10	164	7.983	7.983	(1.000)	504353	40.0000	
* 67 Phenanthrene-d10	188	9.601	9.601	(1.000)	889633	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	687577	40.0000	
* 98 Perylene-d12	264	14.952	14.952	(1.000)	493603	40.0000	
209 Benzaldehyde	77	4.434	4.434	(0.917)	538292	100.000	90.7
16 Acetophenone	105	5.221	5.221	(1.080)	765509	100.000	96.6
189 Caprolactam	113	6.556	6.556	(1.073)	168280	100.000	95.3(Q)
208 1,1'-Biphenyl	154	7.359	7.359	(0.922)	1421978	100.000	92.6
207 Atrazine	173	9.265	9.265	(0.965)	83322	100.000	89.8
77 Benzidine	184	11.048	11.048	(0.876)	683542	100.000	103
90 3,3'-Dichlorobenzidine	252	12.544	12.544	(0.995)	494688	100.000	103
102 1,4-Dioxane	88	2.456	2.456	(0.508)	237610	100.000	94.7
103 Methyl methacrylate	100	2.454	2.454	(0.508)	127875	100.000	96.6(Q)
104 Ethyl methacrylate	69	2.974	2.974	(0.615)	536559	100.000	97.8
105 2-Picoline	93	3.231	3.231	(0.668)	859789	100.000	96.1
106 N-Nitrosomethylethylamine	88	3.305	3.305	(0.684)	347021	100.000	101
107 Methyl methanesulfonate	80	3.534	3.534	(0.731)	343383	100.000	95.3
108 N-Nitrosodiethylamine	102	3.868	3.868	(0.800)	332464	100.000	99.6
109 Ethyl Methanesulfonate	79	4.105	4.105	(0.849)	434255	100.000	98.7
110 Pentachloroethane	167	4.576	4.576	(0.947)	210039	100.000	97.6
111 N-Nitrosopyrrolidine	100	5.208	5.208	(1.077)	333013	100.000	103(Q)
113 N-Nitrosomorpholine	56	5.241	5.241	(1.084)	444870	100.000	96.5
114 o-Toluidine	106	5.259	5.259	(1.088)	1065890	100.000	95.0
115 N-Nitrosopiperidine	114	5.550	5.550	(0.908)	332946	100.000	99.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.947	5.947	(0.973)	2060426	100.000	102
118 2,6-Dichlorophenol	162	6.192	6.192	(1.013)	489228	100.000	99.8
119 Hexachloropropene	213	6.225	6.225	(1.018)	253423	100.000	105
120 p-Phenylenediamine	108	6.551	6.551	(1.072)	524330	100.000	95.1
121 N-Nitrosodi-n-butylamine	84	6.523	6.523	(1.067)	460225	100.000	91.0(T)
122 Safrole	162	6.755	6.755	(1.105)	427111	100.000	95.7
123 1,2,4,5-Tetrachlorobenzene	216	7.040	7.040	(0.882)	512033	100.000	95.2
124 Isosafrole	162	7.310	7.310	(0.916)	423998	100.000	98.9
125 1,4-Naphthoquinone	158	7.570	7.570	(0.948)	357656	100.000	90.3
127 Pentachlorobenzene	250	8.161	8.161	(1.022)	443605	100.000	95.9
128 1-Naphthylamine	143	8.291	8.291	(1.039)	1088986	100.000	94.8
129 2-Naphthylamine	143	8.375	8.375	(1.049)	1178556	100.000	95.0
131 5-Nitro-o-toluidine	152	8.584	8.584	(1.075)	363649	100.000	105
136 1,3,5-Trinitrobenzene	75	8.956	8.956	(0.933)	265730	100.000	107
137 Phenacetin	108	9.028	9.028	(0.940)	594671	100.000	103(Q)
138 Diallate	86	8.995	8.995	(0.937)	505233	100.000	93.4
140 4-Aminobiphenyl	169	9.385	9.385	(0.977)	1184900	100.000	99.3
141 Pentachloronitrobenzene	237	9.397	9.397	(0.979)	135313	100.000	97.6(Q)
142 Pronamide	173	9.430	9.430	(0.982)	559863	100.000	95.0
146 4-Nitroquinoline-1-oxide	101	10.455	10.455	(1.089)	42924	100.000	75.6
147 Methapyrilene	58	10.524	10.524	(1.096)	781358	100.000	89.0
148 Isodrin	193	10.755	10.755	(1.120)	202874	100.000	93.8
149 Aramite	185	11.270	11.270	(1.174)	101518	100.000	103
150 Kepone	272	11.940	11.940	(1.244)	137760	100.000	102
151 p-(Dimethylamino)azobenzene	120	11.464	11.464	(0.909)	540533	100.000	98.4
152 Chlorobenzilate	251	11.507	11.507	(0.912)	501976	100.000	99.6
153 3,3'-Dimethylbenzidine	212	11.846	11.846	(0.939)	921672	100.000	102
155 2-Acetylaminofluorene	181	12.167	12.167	(0.965)	598627	100.000	114
157 7,12Dimethylbenz(a)anthracene	256	14.264	14.264	(0.954)	609873	100.000	103
158 3-Methylcholanthrene	268	15.495	15.495	(1.036)	481197	100.000	107(Q)
212 Cis Diallate	86	9.094	9.094	(0.947)	82974	15.0000	14.8
213 Trans Diallate	86	8.995	8.995	(0.937)	505233	85.0000	79.4

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0928.d
Date : 10-NOV-2009 15:06
Client ID: AP12ICAL
Sample Info: IWBN091016-06|100 PPM|1|SVMF|1|AP12ICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

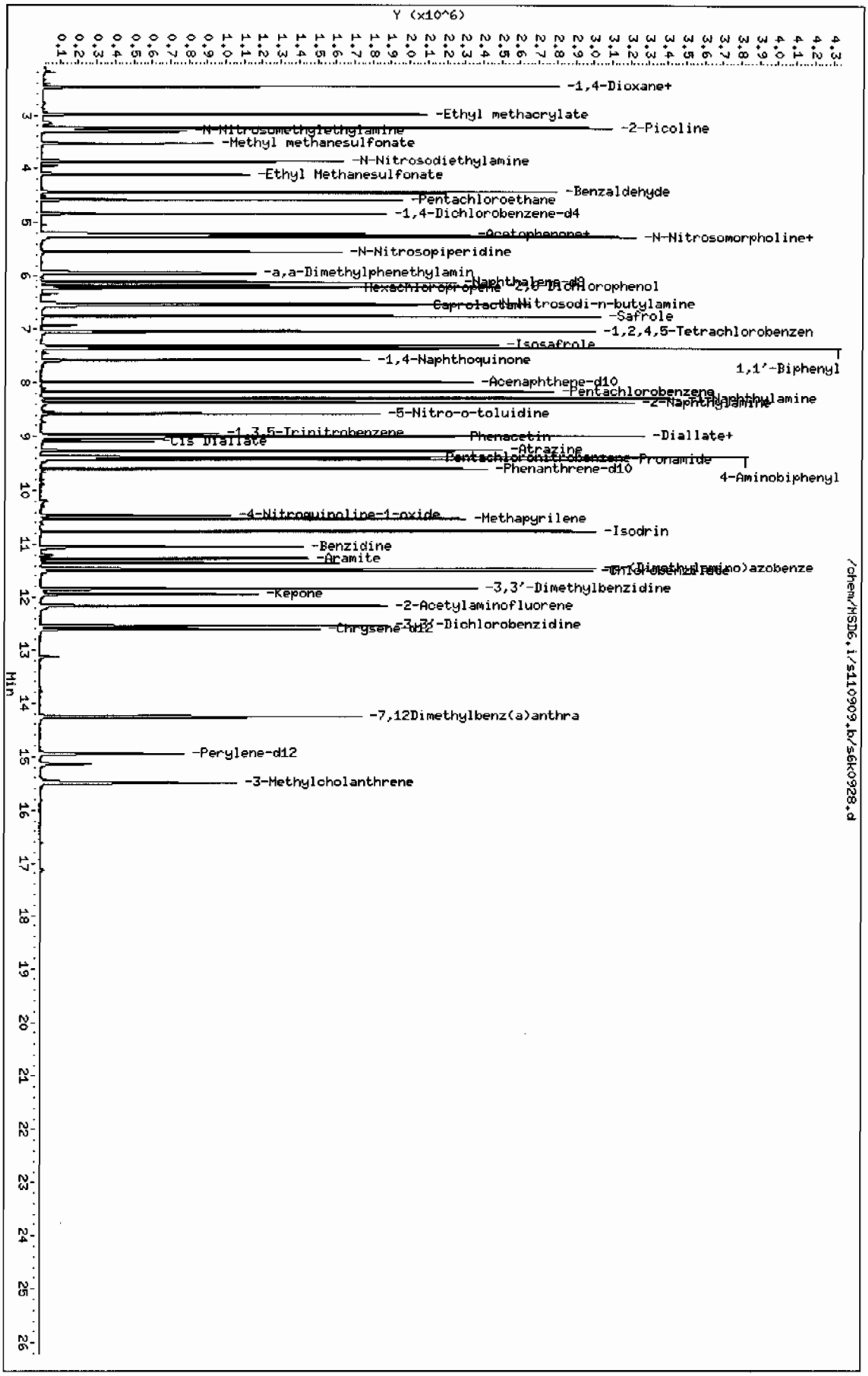

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Data file : /chem/MSD6.i/s110909.b/s6k0929.d
Lab Smp Id: WBN091016-07 Client Smp ID: AP12ICAL
Inj Date : 10-NOV-2009 15:43
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-07|120 PPM|1|SVMF|1|AP12ICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD6.i/s110909.b/MSD6-M8270D-110909.m
Meth Date : 10-Nov-2009 22:16 nat00999 Quant Type: ISTD
Cal Date : 10-NOV-2009 15:43 Cal File: s6k0929.d
Als bottle: 9 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	316668	40.0000	
* 29 Naphthalene-d8	136	6.115	6.115	(1.000)	1127304	40.0000	
* 46 Acenaphthene-d10	164	7.986	7.986	(1.000)	597582	40.0000	
* 67 Phenanthrene-d10	188	9.606	9.606	(1.000)	1059068	40.0000	
* 91 Chrysene-d12	240	12.618	12.618	(1.000)	872881	40.0000	
* 98 Perylene-d12	264	14.957	14.957	(1.000)	672288	40.0000	
209 Benzaldehyde	77	4.436	4.436	(0.918)	709340	120.000	104
16 Acetophenone	105	5.226	5.226	(1.081)	1072926	120.000	116
189 Caprolactam	113	6.569	6.569	(1.074)	242566	120.000	116(Q)
208 1,1'-Biphenyl	154	7.362	7.362	(0.922)	1981495	120.000	110
207 Atrazine	173	9.270	9.270	(0.965)	108824	120.000	101
77 Benzidine	184	11.056	11.056	(0.876)	1158331	120.000	135(A)
90 3,3'-Dichlorobenzidine	252	12.555	12.555	(0.995)	790124	120.000	128(A)
102 1,4-Dioxane	88	2.459	2.459	(0.509)	313992	120.000	108
103 Methyl methacrylate	100	2.456	2.456	(0.508)	169825	120.000	111(Q)
104 Ethyl methacrylate	69	2.974	2.974	(0.615)	718659	120.000	113
105 2-Picoline	93	3.234	3.234	(0.669)	1139171	120.000	110
106 N-Nitrosomethylethylamine	88	3.307	3.307	(0.684)	498080	120.000	123(A)
107 Methyl methanesulfonate	80	3.539	3.539	(0.732)	470230	120.000	112
108 N-Nitrosodiethylamine	102	3.873	3.873	(0.801)	472357	120.000	120(A)
109 Ethyl Methanesulfonate	79	4.110	4.110	(0.850)	616173	120.000	119
110 Pentachloroethane	167	4.576	4.576	(0.947)	287880	120.000	115
111 N-Nitrosopyrrolidine	100	5.219	5.219	(1.080)	423699	120.000	112(Q)
113 N-Nitrosomorpholine	56	5.249	5.249	(1.086)	622702	120.000	116
114 o-Toluidine	106	5.264	5.264	(1.089)	1502696	120.000	115
115 N-Nitrosopiperidine	114	5.555	5.555	(0.908)	486070	120.000	122(A)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.947	5.947	(0.972)	2961362	120.000	123(A)
118 2,6-Dichlorophenol	162	6.197	6.197	(1.013)	714204	120.000	122(A)
119 Hexachloropropene	213	6.225	6.225	(1.018)	375796	120.000	130(A)
120 p-Phenylenediamine	108	6.561	6.561	(1.073)	733126	120.000	113
121 N-Nitrosodi-n-butylamine	84	6.528	6.528	(1.067)	660297	120.000	112(T)
122 Safrole	162	6.758	6.758	(1.105)	607338	120.000	116
123 1,2,4,5-Tetrachlorobenzene	216	7.043	7.043	(0.882)	721210	120.000	114
124 Isosafrole	162	7.316	7.316	(0.916)	604188	120.000	119
125 1,4-Naphthoquinone	158	7.570	7.570	(0.948)	470325	120.000	103
127 Pentachlorobenzene	250	8.164	8.164	(1.022)	628086	120.000	115
128 1-Naphthylamine	143	8.297	8.297	(1.039)	1585757	120.000	117
129 2-Naphthylamine	143	8.383	8.383	(1.050)	1712431	120.000	117
131 5-Nitro-o-toluidine	152	8.590	8.590	(1.076)	546937	120.000	131(A)
136 1,3,5-Trinitrobenzene	75	8.962	8.962	(0.933)	408609	120.000	135(A)
137 Phenacetin	108	9.041	9.041	(0.941)	897271	120.000	129(AQ)
138 Diallate	86	8.997	8.997	(0.937)	712002	120.000	112
140 4-Aminobiphenyl	169	9.390	9.390	(0.977)	1681806	120.000	118
141 Pentachloronitrobenzene	237	9.403	9.403	(0.979)	189324	120.000	115(Q)
142 Pronamide	173	9.438	9.438	(0.982)	799839	120.000	115
146 4-Nitroquinoline-1-oxide	101	10.460	10.460	(1.089)	55611	120.000	82.3
147 Methapyrilene	58	10.529	10.529	(1.096)	1062145	120.000	104
148 Isodrin	193	10.758	10.758	(1.120)	287118	120.000	113
149 Aramite	185	11.273	11.273	(1.173)	140689	120.000	120(A)
150 Kepone	272	11.951	11.951	(1.244)	211485	120.000	129(A)
151 p-(Dimethylamino)azobenzene	120	11.469	11.469	(0.909)	795963	120.000	115
152 Chlorobenzilate	251	11.512	11.512	(0.912)	733377	120.000	115
153 3,3'-Dimethylbenzidine	212	11.854	11.854	(0.939)	1426464	120.000	124(A)
155 2-Acetylaminofluorene	181	12.180	12.180	(0.965)	953419	120.000	139(A)
157 7,12Dimethylbenz(a)anthracene	256	14.277	14.277	(0.954)	975211	120.000	121(A)
158 3-Methylcholanthrene	268	15.510	15.510	(1.037)	813356	120.000	131(AQ)
212 Cis Diallate	86	9.094	9.094	(0.947)	123246	18.0000	18.4(A)
213 Trans Diallate	86	8.997	8.997	(0.937)	712002	102.000	95.0

QC Flag Legend

T - Target compound detected outside RT window.
A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0929.d
Date : 10-NOV-2009 15:43
Client ID: AP12ICAL
Sample Info: WBN091016-071120 PPM(1)SVMF(1)AP12ICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

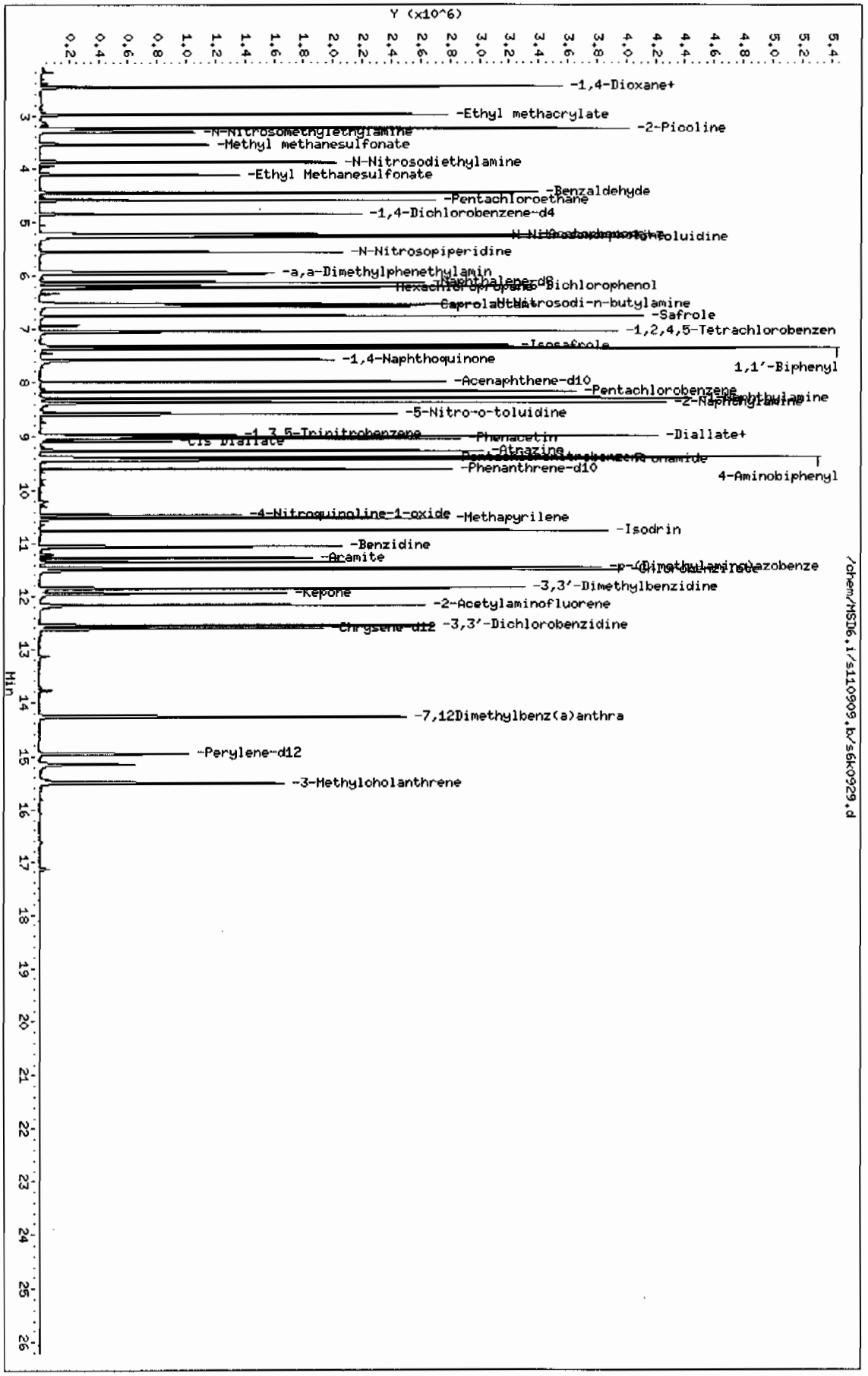

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Data File: /chem/MSD6.i/s110909.b/s6k0937.d
Report Date: 11-Nov-2009 10:50

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6k0937.d
Analysis Type:
Lab Sample ID: WBN091106-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

Injection Date: 10-NOV-2009 20:29
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.00169	1.03466	1.03466	0.000	3.29147	60.00000	Averaged
$ 5 Phenol-d5	1.26427	1.24245	1.24245	0.000	-1.72556	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.28296	0.29902	0.29902	0.000	5.67523	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.03083	1.08174	1.08174	0.000	4.93820	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11675	0.12945	0.12945	0.000	10.88297	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.64507	0.72359	0.72359	0.000	12.17316	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.68098	0.64081	0.64081	0.000	-5.89855	60.00000	Averaged
2 Pyridine	0.84757	0.77144	0.77144	0.000	-8.98267	60.00000	Averaged
4 Aniline	0.52752	0.51930	0.51930	0.000	-1.55765	60.00000	Averaged
6 Phenol	1.27120	1.23489	1.23489	0.001	-2.85632	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.86081	0.80936	0.80936	0.000	-5.97614	60.00000	Averaged
8 2-Chlorophenol	1.02109	1.01772	1.01772	0.000	-0.32996	60.00000	Averaged
203 n-Decane	1.42254	1.44155	1.44155	0.000	1.33631	60.00000	Averaged
9 1,3-Dichlorobenzene	1.17550	1.19665	1.19665	0.000	1.79939	60.00000	Averaged
11 1,4-Dichlorobenzene	1.19162	1.18877	1.18877	0.001	-0.23932	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.11231	1.12583	1.12583	0.000	1.21558	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.92182	1.94108	1.94108	0.000	1.00230	60.00000	Averaged
12 Benzyl alcohol	0.63436	0.65075	0.65075	0.000	2.58272	60.00000	Averaged
15 o-Cresol	0.83139	0.83798	0.83798	0.000	0.79318	60.00000	Averaged
18 m,p-Cresols	1.05346	1.05662	1.05662	0.000	0.29972	60.00000	Averaged
17 N-Nitrosodipropylamine	0.70865	0.69204	0.69204	0.050	-2.34415	60.00000	Averaged spcc
19 Hexachloroethane	0.46100	0.44650	0.44650	0.000	-3.14409	60.00000	Averaged
21 Nitrobenzene	0.28519	0.29957	0.29957	0.000	5.04113	60.00000	Averaged
22 Isophorone	0.50552	0.52435	0.52435	0.000	3.72478	60.00000	Averaged
23 2-Nitrophenol	0.13154	0.13639	0.13639	0.001	3.68222	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.21795	0.23088	0.23088	0.000	5.93159	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.29749	0.30276	0.30276	0.000	1.77222	60.00000	Averaged
26 2,4-Dichlorophenol	0.19769	0.20590	0.20590	0.001	4.15386	20.00000	Averaged ccc
27 Benzoic acid	0.13453	0.14567	0.14567	0.000	8.28081	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24261	0.24953	0.24953	0.000	2.85087	60.00000	Averaged
30 Naphthalene	0.79792	0.83170	0.83170	0.000	4.23406	60.00000	Averaged
204 alpha-Terpineol	0.21868	0.21801	0.21801	0.000	-0.30655	60.00000	Averaged
31 4-Chloroaniline	0.25646	0.26546	0.26546	0.000	3.51176	60.00000	Averaged
32 Hexachlorobutadiene	0.12634	0.13489	0.13489	0.001	6.77038	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.19957	0.20148	0.20148	0.001	0.96147	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.48150	0.55976	0.55976	0.000	16.25394	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6k0937.d
Analysis Type:
Lab Sample ID: WBN091106-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

Injection Date: 10-NOV-2009 20:29
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35	1-Methylnaphthalene	0.47100	0.53047	0.53047	0.000	12.62514	60.00000	Averaged
36	Hexachlorocyclopentadiene	0.16157	0.12441	0.12441	0.050	-22.99690	60.00000	Averaged spcc
205	2,3-Dichloroaniline	0.47908	0.48878	0.48878	0.000	2.02564	60.00000	Averaged
37	2,4,6-Trichlorophenol	0.27294	0.27425	0.27425	0.001	0.48093	20.00000	Averaged ccc
38	2,4,5-Trichlorophenol	0.29067	0.30912	0.30912	0.000	6.34737	60.00000	Averaged
40	2-Chloronaphthalene	0.89832	0.89821	0.89821	0.000	-0.01212	60.00000	Averaged
42	o-Nitroaniline	0.30732	0.29883	0.29883	0.000	-2.76487	60.00000	Averaged
41	m-Nitroaniline	0.22497	0.22544	0.22544	0.000	0.20968	60.00000	Averaged
43	Dimethylphthalate	1.02610	1.07233	1.07233	0.000	4.50566	60.00000	Averaged
44	2,6-Dinitrotoluene	0.24475	0.24571	0.24571	0.000	0.39287	60.00000	Averaged
50	2,4-Dinitrotoluene	0.30862	0.32387	0.32387	0.000	4.94261	60.00000	Averaged
45	Acenaphthylene	1.44438	1.60997	1.60997	0.000	11.46448	60.00000	Averaged
47	Acenaphthene	0.90151	0.96315	0.96315	0.001	6.83729	20.00000	Averaged ccc
48	2,4-Dinitrophenol	35.88405	40.00000	0.06990	0.050	-10.28987	60.00000	Linear spcc
49	Dibenzofuran	1.21689	1.24464	1.24464	0.000	2.28092	60.00000	Averaged
51	Diethylphthalate	1.03335	1.08103	1.08103	0.000	4.61479	60.00000	Averaged
52	4-Nitrophenol	37.16907	40.00000	0.15052	0.050	-7.07733	60.00000	Linear spcc
53	Fluorene	0.99879	1.09503	1.09503	0.000	9.63571	60.00000	Averaged
54	4-Chlorophenylphenylether	0.47192	0.49481	0.49481	0.000	4.84948	60.00000	Averaged
55	2-Methyl-4,6-dinitrophenol	44.79678	40.00000	0.10162	0.000	11.99194	60.00000	Linear
56	p-Nitroaniline	37.18126	40.00000	0.19210	0.000	-7.04684	60.00000	Linear
133	Diphenylamine	0.48213	0.48382	0.48382	0.001	0.34977	20.00000	Averaged ccc
58	1,2-Diphenylhydrazine	0.61327	0.61966	0.61966	0.000	1.04277	60.00000	Averaged
61	4-Bromophenylphenylether	0.15784	0.15705	0.15705	0.000	-0.50023	60.00000	Averaged
63	Hexachlorobenzene	0.16533	0.16268	0.16268	0.000	-1.60406	60.00000	Averaged
65	Pentachlorophenol	41.23337	40.00000	0.08933	0.001	3.08343	20.00000	Linear ccc
206	n-Octadecane	0.44173	0.45929	0.45929	0.000	3.97491	60.00000	Averaged
68	Phenanthrene	0.82721	0.88585	0.88585	0.000	7.08867	60.00000	Averaged
69	Anthracene	0.82682	0.90991	0.90991	0.000	10.04830	60.00000	Averaged
72	Di-n-butylphthalate	0.94954	1.02135	1.02135	0.000	7.56331	60.00000	Averaged
76	Fluoranthene	0.79242	0.90654	0.90654	0.001	14.40110	20.00000	Averaged ccc
79	Pyrene	1.10021	1.20816	1.20816	0.000	9.81213	60.00000	Averaged
85	Butylbenzylphthalate	0.50351	0.54090	0.54090	0.000	7.42706	60.00000	Averaged
89	Benzo(a)anthracene	0.86301	0.92157	0.92157	0.000	6.78546	60.00000	Averaged
92	Chrysene	0.82690	0.90169	0.90169	0.000	9.04505	60.00000	Averaged
93	bis(2-Ethylhexyl)phthalate	41.60196	40.00000	0.72185	0.000	4.00491	60.00000	Wt Linear

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 20:29
Lab File ID: s6k0937.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091106-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.27127	1.35676	1.35676	0.001	6.72426	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	0.88507	0.99154	0.99154	0.000	12.02912	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.88011	1.01364	1.01364	0.000	15.17242	60.00000	Averaged	
	97 Benzo(a)pyrene	0.76447	0.88080	0.88080	0.001	15.21790	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	40.05227	40.00000	0.72891	0.000	0.13069	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	37.95723	40.00000	0.56106	0.000	-5.10692	60.00000	Linear	
	101 Benzo(ghi)perylene	0.58403	0.61594	0.61594	0.000	5.46367	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16929	0.17081	0.17081	0.000	0.89311	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21896	0.23318	0.23318	0.000	6.49309	60.00000	Averaged	
	143 Dinoseb	37.88463	40.00000	0.11675	0.000	-5.28842	60.00000	Linear	
	173 Carbazole	0.65449	0.70032	0.70032	0.000	7.00193	60.00000	Averaged	
	184 p-Benzoquinone	0.12730	0.14364	0.14364	0.000	12.83157	60.00000	Averaged	
	192 Methoxychlor	0.55243	0.57593	0.57593	0.000	4.25434	60.00000	Averaged	
	211 p-Toluidine	0.89987	0.90823	0.90823	0.000	0.92871	60.00000	Averaged	
	210 m-Toluidine	1.12396	1.11262	1.11262	0.000	-1.00903	60.00000	Averaged	
	26 Phthalic anhydride	71.32284	40.00000	0.14710	0.000	78.30709	60.00000	Linear	<-
	179 Dibenzo(a,e)pyrene	23.04060	40.00000	0.15052	0.000	-42.39851	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.18382	0.17485	0.17485	0.000	-4.87689	60.00000	Averaged	
	215 2-Ethoxyethanol	0.71035	0.75383	0.75383	0.000	6.12038	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	38.25405	40.00000	0.11920	0.000	-4.36487	60.00000	Linear	
M	225 Trichlorophenols	0.28180	0.29168	0.29168	0.000	3.50642	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21896	0.23318	0.23318	0.000	6.49309	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.88259	1.00259	1.00259	0.000	13.59635	60.00000	Averaged	

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Data file : /chem/MSD6.i/s110909.b/s6k0937.d
Lab Smp Id: WBN091106-09.1 Client Smp ID: MEGAICV
Inj Date : 10-NOV-2009 20:29
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-09.1|40 PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:50 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 02:44 Cal File: s6k0950.d
Als bottle: 17 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	267857	40.0000	
* 29 Naphthalene-d8	136	6.116	6.116	(1.000)	1007489	40.0000	
* 46 Acenaphthene-d10	164	7.986	7.986	(1.000)	511035	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	891521	40.0000	
* 91 Chrysene-d12	240	12.618	12.618	(1.000)	688764	40.0000	
* 98 Perylene-d12	264	14.955	14.955	(1.000)	524055	40.0000	
$ 3 2-Fluorophenol	112	3.646	3.646	(0.754)	277141	40.0000	41.3
$ 5 Phenol-d5	99	4.431	4.431	(0.917)	332800	40.0000	39.3
$ 20 Nitrobenzene-d5	82	5.371	5.371	(0.878)	301256	40.0000	42.3
$ 39 2-Fluorobiphenyl	172	7.242	7.242	(0.907)	552805	40.0000	42.0
$ 60 2,4,6-Tribromophenol	329	8.834	8.834	(1.106)	66156	40.0000	44.4
$ 81 p-Terphenyl-d14	244	11.306	11.306	(0.896)	498384	40.0000	44.9
1 N-Methyl-N-nitrosomethylamine	74	2.663	2.663	(0.551)	171645	40.0000	37.6
2 Pyridine	79	2.701	2.701	(0.559)	206635	40.0000	36.4
4 Aniline	66	4.518	4.518	(0.935)	139099	40.0000	39.4
6 Phenol	94	4.444	4.444	(0.919)	330773	40.0000	38.8
7 bis(2-Chloroethyl) ether	63	4.559	4.559	(0.943)	216794	40.0000	37.6
8 2-Chlorophenol	128	4.633	4.633	(0.958)	272604	40.0000	39.9
203 n-Decane	43	4.643	4.643	(0.960)	386128	40.0000	40.5
9 1,3-Dichlorobenzene	146	4.783	4.783	(0.989)	320531	40.0000	40.7
11 1,4-Dichlorobenzene	146	4.852	4.852	(1.004)	318420	40.0000	39.9
13 1,2-Dichlorobenzene	146	5.002	5.002	(1.035)	301561	40.0000	40.5
14 bis(2-Chloroisopropyl)ether	45	5.068	5.068	(1.048)	519933	40.0000	40.4
12 Benzyl alcohol	108	4.941	4.941	(1.022)	174307	40.0000	41.0
15 o-Cresol	107	5.025	5.025	(1.040)	224459	40.0000	40.3
18 m,p-Cresols	107	5.180	5.180	(1.072)	283022	40.0000	40.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.206	5.206	(1.077)	185368	40.0000	39.1
19 Hexachloroethane	117	5.338	5.338	(1.104)	119599	40.0000	38.7
21 Nitrobenzene	77	5.392	5.392	(0.882)	301811	40.0000	42.0
22 Isophorone	82	5.626	5.626	(0.920)	528272	40.0000	41.5
23 2-Nitrophenol	139	5.708	5.708	(0.933)	137410	40.0000	41.5
24 2,4-Dimethylphenol	122	5.718	5.718	(0.935)	232609	40.0000	42.4
25 bis(2-Chloroethoxy)methane	93	5.825	5.825	(0.952)	305032	40.0000	40.7
26 2,4-Dichlorophenol	162	5.950	5.950	(0.973)	207439	40.0000	41.7
27 Benzoic acid	105	5.812	5.812	(0.950)	146760	40.0000	43.3(H)
28 1,2,4-Trichlorobenzene	180	6.047	6.047	(0.989)	251400	40.0000	41.1
30 Naphthalene	128	6.138	6.138	(1.004)	837929	40.0000	41.7
204 alpha-Terpineol	59	6.123	6.123	(1.001)	219641	40.0000	39.9
31 4-Chloroaniline	127	6.172	6.172	(1.009)	267452	40.0000	41.4
32 Hexachlorobutadiene	225	6.251	6.251	(1.022)	135904	40.0000	42.7
33 4-Chloro-3-methylphenol	107	6.653	6.653	(1.088)	202993	40.0000	40.4
34 2-Methylnaphthalene	142	6.862	6.862	(1.122)	563953	40.0000	46.5
35 1-Methylnaphthalene	142	6.969	6.969	(1.140)	534441	40.0000	45.0
36 Hexachlorocyclopentadiene	237	7.020	7.020	(0.879)	63579	40.0000	30.8
205 2,3-Dichloroaniline	161	7.155	7.155	(0.896)	249785	40.0000	40.8
37 2,4,6-Trichlorophenol	196	7.147	7.147	(0.895)	140152	40.0000	40.2
38 2,4,5-Trichlorophenol	196	7.183	7.183	(0.899)	157970	40.0000	42.5
40 2-Chloronaphthalene	162	7.384	7.384	(0.925)	459019	40.0000	40.0
42 o-Nitroaniline	65	7.479	7.479	(0.936)	152711	40.0000	38.9
41 m-Nitroaniline	138	7.922	7.922	(0.992)	115209	40.0000	40.1
43 Dimethylphthalate	163	7.670	7.670	(0.960)	548000	40.0000	41.8
44 2,6-Dinitrotoluene	165	7.739	7.739	(0.969)	125566	40.0000	40.2
50 2,4-Dinitrotoluene	165	8.172	8.172	(1.023)	165511	40.0000	42.0
45 Acenaphthylene	152	7.835	7.835	(0.981)	822752	40.0000	44.6
47 Acenaphthene	154	8.024	8.024	(1.005)	492203	40.0000	42.7
48 2,4-Dinitrophenol	184	8.029	8.029	(1.005)	35722	40.0000	35.9
49 Dibenzofuran	168	8.205	8.205	(1.027)	636057	40.0000	40.9
51 Diethylphthalate	149	8.424	8.424	(1.055)	552446	40.0000	41.8
52 4-Nitrophenol	139	8.070	8.070	(1.011)	76920	40.0000	37.2
53 Fluorene	166	8.577	8.577	(1.074)	559601	40.0000	43.8
54 4-Chlorophenylphenylether	204	8.564	8.564	(1.072)	252864	40.0000	41.9
55 2-Methyl-4,6-dinitrophenol	198	8.613	8.613	(0.897)	90597	40.0000	44.8
56 p-Nitroaniline	138	8.582	8.582	(1.075)	98168	40.0000	37.2
133 Diphenylamine	169	8.689	8.689	(0.905)	431336	40.0000	40.1
58 1,2-Diphenylhydrazine	77	8.738	8.738	(0.910)	552443	40.0000	40.4
61 4-Bromophenylphenylether	248	9.094	9.094	(0.947)	140012	40.0000	39.8
63 Hexachlorobenzene	284	9.173	9.173	(0.956)	145031	40.0000	39.4
65 Pentachlorophenol	266	9.375	9.375	(0.977)	79644	40.0000	41.2
206 n-Octadecane	57	9.431	9.431	(0.982)	409467	40.0000	41.6
68 Phenanthrene	178	9.624	9.624	(1.003)	789756	40.0000	42.8
69 Anthracene	178	9.680	9.680	(1.008)	811200	40.0000	44.0
72 Di-n-butylphthalate	149	10.190	10.190	(1.062)	910557	40.0000	43.0
76 Fluoranthene	202	10.914	10.914	(1.137)	808196	40.0000	45.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.166	11.166	(0.885)	832137	40.0000	43.9
85 Butylbenzylphthalate	149	11.841	11.841	(0.938)	372553	40.0000	43.0
89 Benzo(a)anthracene	228	12.598	12.598	(0.998)	634741	40.0000	42.7
92 Chrysene	228	12.654	12.654	(1.003)	621053	40.0000	43.6
93 bis(2-Ethylhexyl)phthalate	149	12.570	12.570	(0.996)	497186	40.0000	41.6
94 Di-n-octylphthalate	149	13.561	13.561	(0.907)	711015	40.0000	42.7
95 Benzo(b)fluoranthene	252	14.275	14.275	(0.954)	519622	40.0000	44.8
96 Benzo(k)fluoranthene	252	14.326	14.326	(0.958)	531203	40.0000	46.1
97 Benzo(a)pyrene	252	14.853	14.853	(0.993)	461589	40.0000	46.1
99 Indeno(1,2,3-cd)pyrene	276	16.945	16.945	(1.133)	381990	40.0000	40.0
100 Dibenzo(a,h)anthracene	278	16.978	16.978	(1.135)	294025	40.0000	38.0
101 Benzo(ghi)perylene	276	17.460	17.460	(1.167)	322785	40.0000	42.2
126 m-Dinitrobenzene	168	7.708	7.708	(0.965)	87288	40.0000	40.4
130 2,3,4,6-Tetrachlorophenol	232	8.325	8.325	(1.042)	119161	40.0000	42.6
143 Dinoseb	211	9.561	9.561	(0.996)	104085	40.0000	37.9
173 Carbazole	167	9.841	9.841	(1.025)	624352	40.0000	42.8
184 p-Benzoquinone	54	4.085	4.085	(0.845)	38475	40.0000	45.1
192 Methoxychlor	227	12.468	12.468	(0.988)	396683	40.0000	41.7
211 p-Toluidine	106	5.252	5.252	(1.086)	243276	40.0000	40.4
210 m-Toluidine	106	5.285	5.285	(1.093)	298023	40.0000	39.6
26 Phthalic anhydride	104	6.911	6.911	(1.130)	148201	40.0000	71.3
179 Dibenzo(a,e)pyrene	302	21.182	21.182	(1.416)	78881	40.0000	23.0
214 1,4-Dinitrobenzene	75	7.624	7.624	(0.955)	89355	40.0000	38.0
215 2-Ethoxyethanol	59	2.454	2.454	(0.508)	201919	40.0000	42.4
216 Methylenebis(2-chloroaniline)	231	12.539	12.539	(0.994)	82098	40.0000	38.2
M 225 Trichlorophenols	196				298122	80.0000	82.8
M 226 Tetrachlorophenols	232				119161	40.0000	42.6
M 227 Benzo(b,k)fluoranthene	252				1050825	80.0000	90.9

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0937.d
Date : 10-NOV-2009 20:29
Client ID: MEGAICV
Sample Info: IWBN091106-09.1|40 PPM|1|SWMF|1|MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

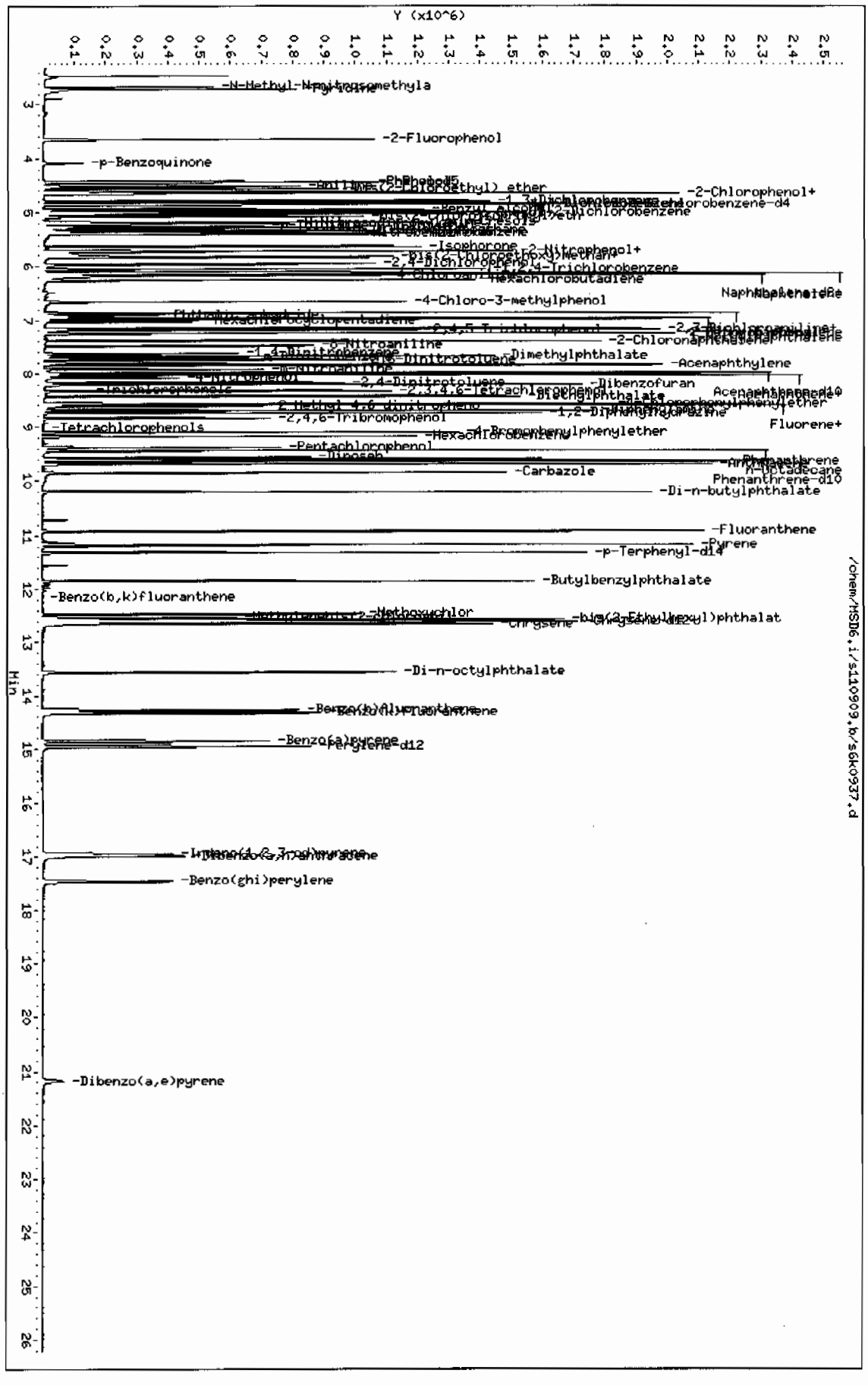

/chem/MSD6.i/s110909.b/s6k0937.d

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6k0938.d
Analysis Type:
Lab Sample ID: WBN091016-08.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

Injection Date: 10-NOV-2009 21:07
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86127	0.67526	0.67526	0.000	-21.59733	60.00000	Averaged
16 Acetophenone	1.16908	1.08481	1.08481	0.000	-7.20809	60.00000	Averaged
189 Caprolactam	0.07388	0.08118	0.08118	0.000	9.87786	60.00000	Averaged
208 1,1'-Biphenyl	1.20131	1.15865	1.15865	0.000	-3.55099	60.00000	Averaged
207 Atrazine	0.04063	0.03738	0.03738	0.000	-8.01727	60.00000	Averaged
77 Benzidine	0.39304	0.35886	0.35886	0.000	-8.69608	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.28252	0.30132	0.30132	0.000	6.65684	60.00000	Averaged
102 1,4-Dioxane	0.36606	0.45837	0.45837	0.000	25.21672	60.00000	Averaged
103 Methyl methacrylate	0.19388	0.26059	0.26059	0.000	34.40927	60.00000	Averaged
104 Ethyl methacrylate	0.80561	0.97594	0.97594	0.000	21.14390	60.00000	Averaged
105 2-Picoline	1.30872	1.36092	1.36092	0.000	3.98846	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.51104	0.53755	0.53755	0.000	5.18772	60.00000	Averaged
107 Methyl methanesulfonate	0.52852	0.52223	0.52223	0.000	-1.19058	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49553	0.51026	0.51026	0.000	2.97098	60.00000	Averaged
109 Ethyl Methanesulfonate	0.65169	0.73760	0.73760	0.000	13.18337	60.00000	Averaged
110 Pentachloroethane	0.31681	0.42390	0.42390	0.000	33.80401	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47614	0.46325	0.46325	0.000	-2.70540	60.00000	Averaged
113 N-Nitrosomorpholine	0.67936	0.65676	0.65676	0.000	-3.32751	60.00000	Averaged
114 o-Toluidine	1.65281	1.64899	1.64899	0.000	-0.23102	60.00000	Averaged
115 N-Nitrosopiperidine	0.14105	0.14180	0.14180	0.000	0.52679	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.85546	0.87204	0.87204	0.000	1.93819	60.00000	Averaged
118 2,6-Dichlorophenol	0.20687	0.20008	0.20008	0.000	-3.28259	60.00000	Averaged
119 Hexachloropropene	0.10269	0.14537	0.14537	0.000	41.57055	60.00000	Averaged
120 p-Phenylenediamine	0.22955	0.23182	0.23182	0.000	0.99155	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21004	0.21749	0.21749	0.000	3.54470	60.00000	Averaged
122 Safrole	0.18653	0.20933	0.20933	0.000	12.22661	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42319	0.42512	0.42512	0.000	0.45545	60.00000	Averaged
124 Isosafrole	0.33959	0.43257	0.43257	0.000	27.38086	60.00000	Averaged
125 1,4-Naphthoquinone	0.30674	0.30375	0.30375	0.000	-0.97466	60.00000	Averaged
127 Pentachlorobenzene	0.36454	0.36394	0.36394	0.000	-0.16566	60.00000	Averaged
128 1-Naphthylamine	0.90742	0.91190	0.91190	0.000	0.49410	60.00000	Averaged
129 2-Naphthylamine	0.98012	0.91865	0.91865	0.000	-6.27177	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27901	0.28996	0.28996	0.000	3.92480	60.00000	Averaged
136 1,3,5-Trinitrobenzene	46.05690	40.00000	0.13757	0.000	15.14226	60.00000	Linear
137 Phenacetin	0.26240	0.25991	0.25991	0.000	-0.94903	60.00000	Averaged
138 Diallate	0.24056	0.23148	0.23148	0.000	-3.77545	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6k0938.d
Analysis Type:
Lab Sample ID: WBN091016-08.1
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

Injection Date: 10-NOV-2009 21:07
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.53562	0.58994	0.58994	0.000	10.14239	60.00000	Averaged
141 Pentachloronitrobenzene	0.06192	0.06213	0.06213	0.000	0.34079	60.00000	Averaged
142 Pronamide	0.26319	0.26234	0.26234	0.000	-0.32101	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02349	0.02580	0.02580	0.000	9.82299	60.00000	Averaged
147 Methapyrilene	0.38600	0.39422	0.39422	0.000	2.12820	60.00000	Averaged
148 Isodrin	0.09631	0.08838	0.08838	0.000	-8.22821	60.00000	Averaged
149 Aramite	0.04420	0.04155	0.04155	0.000	-5.99495	60.00000	Averaged
150 Kepone	0.06173	0.05889	0.05889	0.000	-4.59530	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31734	0.33079	0.33079	0.000	4.23929	60.00000	Averaged
152 Chlorobenzilate	0.29130	0.29321	0.29321	0.000	0.65640	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52763	0.57778	0.57778	0.000	9.50435	60.00000	Averaged
155 2-Acetylaminofluorene	41.44131	40.00000	0.34022	0.000	3.60328	60.00000	Linear
157 7,12Dimethylbenz(a)anthrace	0.47906	0.41447	0.41447	0.000	-13.48259	60.00000	Averaged
158 3-Methylcholanthrene	0.36955	0.35869	0.35869	0.000	-2.93887	60.00000	Averaged
212 Cis Diallate	0.26295	0.25705	0.25705	0.000	1.62146	60.00000	Averaged
213 Trans Diallate	0.28301	0.27233	0.27233	0.000	-3.77545	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD6.i/s110909.b/s6k0938.d
Lab Smp Id: WBN091016-08.1 Client Smp ID: AP12ICV
Inj Date : 10-NOV-2009 21:07
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-08.1|40 PPM|1|SVMF|1|AP12ICV
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 09:25 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 02:44 Cal File: s6k0950.d
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	282437	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	974498	40.0000	
* 46 Acenaphthene-d10	164	7.983	7.983	(1.000)	519475	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	914999	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	718441	40.0000	
* 98 Perylene-d12	264	14.950	14.950	(1.000)	524113	40.0000	
209 Benzaldehyde	77	4.428	4.428	(0.916)	190719	40.0000	31.4
16 Acetophenone	105	5.211	5.211	(1.078)	306390	40.0000	37.1
189 Caprolactam	113	6.531	6.531	(1.068)	79108	40.0000	44.0
208 1,1'-Biphenyl	154	7.354	7.354	(0.921)	601890	40.0000	38.6
207 Atrazine	173	9.249	9.249	(0.964)	34200	40.0000	36.8
77 Benzidine	184	11.038	11.038	(0.875)	257818	40.0000	36.5
90 3,3'-Dichlorobenzidine	252	12.539	12.539	(0.994)	216482	40.0000	42.7
102 1,4-Dioxane	88	2.456	2.456	(0.508)	129460	40.0000	50.1
103 Methyl methacrylate	100	2.454	2.454	(0.508)	73600	40.0000	53.8
104 Ethyl methacrylate	69	2.971	2.971	(0.615)	275642	40.0000	48.4
105 2-Picoline	93	3.228	3.228	(0.668)	384374	40.0000	41.6
106 N-Nitrosomethylethylamine	88	3.297	3.297	(0.682)	151823	40.0000	42.1
107 Methyl methanesulfonate	80	3.521	3.521	(0.728)	147497	40.0000	39.5
108 N-Nitrosodiethylamine	102	3.858	3.858	(0.798)	144115	40.0000	41.2
109 Ethyl Methanesulfonate	79	4.097	4.097	(0.848)	208326	40.0000	45.3
110 Pentachloroethane	167	4.574	4.574	(0.946)	119725	40.0000	53.5
111 N-Nitrosopyrrolidine	100	5.190	5.190	(1.074)	130840	40.0000	38.9(Q)
113 N-Nitrosomorpholine	56	5.223	5.223	(1.081)	185493	40.0000	38.7
114 o-Toluidine	106	5.249	5.249	(1.086)	465737	40.0000	39.9
115 N-Nitrosopiperidine	114	5.539	5.539	(0.906)	138180	40.0000	40.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.962	5.962	(0.975)	849798	40.0000	40.8
118 2,6-Dichlorophenol	162	6.184	6.184	(1.012)	194979	40.0000	38.7
119 Hexachloropropene	213	6.222	6.222	(1.018)	141665	40.0000	56.6
120 p-Phenylenediamine	108	6.541	6.541	(1.070)	225910	40.0000	40.4
121 N-Nitrosodi-n-butylamine	84	6.515	6.515	(1.066)	211942	40.0000	41.4(T)
122 Safrole	162	6.750	6.750	(1.104)	203993	40.0000	44.9
123 1,2,4,5-Tetrachlorobenzene	216	7.035	7.035	(0.881)	220840	40.0000	40.2
124 Isosafrole	162	7.305	7.305	(0.915)	224711	40.0000	51.0
125 1,4-Naphthoquinone	158	7.565	7.565	(0.948)	157789	40.0000	39.6
127 Pentachlorobenzene	250	8.156	8.156	(1.022)	189057	40.0000	39.9
128 1-Naphthylamine	143	8.284	8.284	(1.038)	473709	40.0000	40.2
129 2-Naphthylamine	143	8.368	8.368	(1.048)	477216	40.0000	37.5
131 5-Nitro-o-toluidine	152	8.574	8.574	(1.074)	150626	40.0000	41.6
136 1,3,5-Trinitrobenzene	75	8.946	8.946	(0.932)	125876	40.0000	46.0
137 Phenacetin	108	9.010	9.010	(0.939)	237813	40.0000	39.6(Q)
138 Diallate	86	8.990	8.990	(0.937)	211803	40.0000	38.5
140 4-Aminobiphenyl	169	9.374	9.374	(0.977)	539794	40.0000	44.0
141 Pentachloronitrobenzene	237	9.392	9.392	(0.978)	56852	40.0000	40.1(Q)
142 Pronamide	173	9.423	9.423	(0.982)	240044	40.0000	39.9
146 4-Nitroquinoline-1-oxide	101	10.445	10.445	(1.088)	23608	40.0000	43.9
147 Methapyrilene	58	10.518	10.518	(1.096)	360709	40.0000	40.8
148 Isodrin	193	10.750	10.750	(1.120)	80870	40.0000	36.7
149 Aramite	185	11.265	11.265	(1.174)	38019	40.0000	37.6
150 Kepone	272	11.933	11.933	(1.243)	53886	40.0000	38.2
151 p-(Dimethylamino)azobenzene	120	11.456	11.456	(0.908)	237654	40.0000	41.7
152 Chlorobenzilate	251	11.499	11.499	(0.912)	210653	40.0000	40.3
153 3,3'-Dimethylbenzidine	212	11.838	11.838	(0.939)	415103	40.0000	43.8
155 2-Acetylaminofluorene	181	12.154	12.154	(0.964)	244425	40.0000	41.4
157 7,12Dimethylbenz(a)anthracene	256	14.251	14.251	(0.953)	217229	40.0000	34.6
158 3-Methylcholanthrene	268	15.477	15.477	(1.035)	187994	40.0000	38.8(Q)
212 Cis Diallate	86	9.092	9.092	(0.947)	35280	6.00000	6.1
213 Trans Diallate	86	8.990	8.990	(0.937)	211803	34.0000	32.7

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0938.d
Date : 10-NOV-2009 21:07
Client ID: AP12ICV
Sample Info: WBN091016-08,1|40 PPM|1|SVMF|1|AP12ICV
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

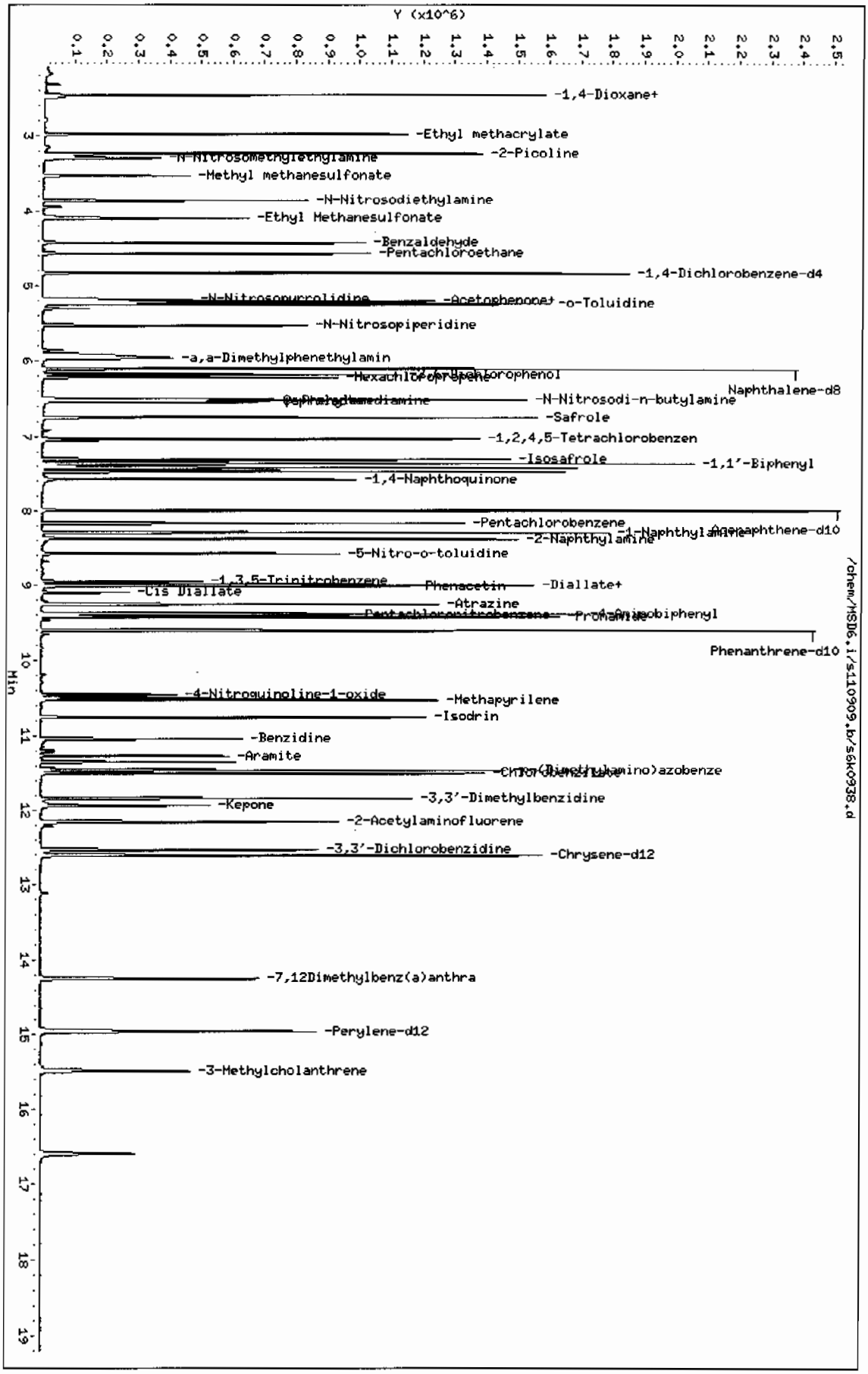

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Data File: /chem/MSD6.i/s010610.b/s6a0603.d
Report Date: 07-Jan-2010 08:58

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 06-JAN-2010 09:46
Lab File ID: s6a0603.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091223-17.2 Quant Type: ISTD
Method: /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$	3 2-Fluorophenol	1.00169	0.93161	0.93161	0.000	-6.99589	60.00000	Averaged	
$	5 Phenol-d5	1.26427	1.22987	1.22987	0.000	-2.72109	60.00000	Averaged	
$	20 Nitrobenzene-d5	0.28296	0.27438	0.27438	0.000	-3.03225	60.00000	Averaged	
$	39 2-Fluorobiphenyl	1.03083	1.01326	1.01326	0.000	-1.70488	60.00000	Averaged	
$	60 2,4,6-Tribromophenol	0.11675	0.13365	0.13365	0.000	14.47234	60.00000	Averaged	
$	81 p-Terphenyl-d14	0.64507	0.64382	0.64382	0.000	-0.19259	60.00000	Averaged	
	1 N-Methyl-N-nitrosomethylami	0.68098	0.54276	0.54276	0.000	-20.29731	60.00000	Averaged	
	2 Pyridine	0.84757	0.68299	0.68299	0.000	-19.41859	60.00000	Averaged	
	4 Aniline	0.52752	0.49822	0.49822	0.000	-5.55401	60.00000	Averaged	
	6 Phenol	1.27120	1.19624	1.19624	0.001	-5.89624	20.00000	Averaged	ccc
	7 bis(2-Chloroethyl) ether	0.86081	0.77035	0.77035	0.000	-10.50828	60.00000	Averaged	
	8 2-Chlorophenol	1.02109	0.96167	0.96167	0.000	-5.81955	60.00000	Averaged	
	203 n-Decane	1.42254	1.23775	1.23775	0.000	-12.98964	60.00000	Averaged	
	9 1,3-Dichlorobenzene	1.17550	1.18359	1.18359	0.000	0.68868	60.00000	Averaged	
	11 1,4-Dichlorobenzene	1.19162	1.18095	1.18095	0.001	-0.89569	20.00000	Averaged	ccc
	13 1,2-Dichlorobenzene	1.11231	1.12612	1.12612	0.000	1.24184	60.00000	Averaged	
	14 bis(2-Chloroisopropyl)ether	1.92182	1.91578	1.91578	0.000	-0.31437	60.00000	Averaged	
	12 Benzyl alcohol	0.63436	0.56847	0.56847	0.000	-10.38650	60.00000	Averaged	
	15 o-Cresol	0.83139	0.79562	0.79562	0.000	-4.30215	60.00000	Averaged	
	18 m,p-Cresols	1.05346	1.03449	1.03449	0.000	-1.80019	60.00000	Averaged	
	17 N-Nitrosodipropylamine	0.70865	0.72391	0.72391	0.050	2.15366	60.00000	Averaged	spcc
	19 Hexachloroethane	0.46100	0.45122	0.45122	0.000	-2.12187	60.00000	Averaged	
	21 Nitrobenzene	0.28519	0.27499	0.27499	0.000	-3.57623	60.00000	Averaged	
	22 Isophorone	0.50552	0.48338	0.48338	0.000	-4.37950	60.00000	Averaged	
	23 2-Nitrophenol	0.13154	0.13101	0.13101	0.001	-0.40983	20.00000	Averaged	ccc
	24 2,4-Dimethylphenol	0.21795	0.22090	0.22090	0.000	1.35342	60.00000	Averaged	
	25 bis(2-Chloroethoxy)methane	0.29749	0.27899	0.27899	0.000	-6.21870	60.00000	Averaged	
	26 2,4-Dichlorophenol	0.19769	0.20054	0.20054	0.001	1.44334	20.00000	Averaged	ccc
	27 Benzoic acid	0.13453	0.15734	0.15734	0.000	16.95254	60.00000	Averaged	
	28 1,2,4-Trichlorobenzene	0.24261	0.23859	0.23859	0.000	-1.65773	60.00000	Averaged	
	30 Naphthalene	0.79792	0.78636	0.78636	0.000	-1.44882	60.00000	Averaged	
	204 alpha-Terpineol	0.21868	0.20164	0.20164	0.000	-7.79369	60.00000	Averaged	
	31 4-Chloroaniline	0.25646	0.24969	0.24969	0.000	-2.64046	60.00000	Averaged	
	32 Hexachlorobutadiene	0.12634	0.13237	0.13237	0.001	4.76950	20.00000	Averaged	ccc
	33 4-Chloro-3-methylphenol	0.19957	0.20306	0.20306	0.001	1.75205	20.00000	Averaged	ccc
	34 2-Methylnaphthalene	0.48150	0.55778	0.55778	0.000	15.84280	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 06-JAN-2010 09:46
Lab File ID: s6a0603.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091223-17.2 Quant Type: ISTD
Method: /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.47100	0.51797	0.51797	0.000	9.97172	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.16157	0.11566	0.11566	0.050	-28.41460	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.47908	0.45721	0.45721	0.000	-4.56520	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.27294	0.25821	0.25821	0.001	-5.39537	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.29067	0.29283	0.29283	0.000	0.74219	60.00000	Averaged
40 2-Chloronaphthalene	0.89832	0.84807	0.84807	0.000	-5.59401	60.00000	Averaged
42 o-Nitroaniline	0.30732	0.27654	0.27654	0.000	-10.01573	60.00000	Averaged
41 m-Nitroaniline	0.22497	0.22226	0.22226	0.000	-1.20277	60.00000	Averaged
43 Dimethylphthalate	1.02610	1.01733	1.01733	0.000	-0.85453	60.00000	Averaged
44 2,6-Dinitrotoluene	0.24475	0.23185	0.23185	0.000	-5.27181	60.00000	Averaged
50 2,4-Dinitrotoluene	0.30862	0.31057	0.31057	0.000	0.63208	60.00000	Averaged
45 Acenaphthylene	1.44438	1.53360	1.53360	0.000	6.17697	60.00000	Averaged
47 Acenaphthene	0.90151	0.89934	0.89934	0.001	-0.24128	20.00000	Averaged ccc
48 2,4-Dinitrophenol	39.92034	40.00000	0.08310	0.050	-0.19914	60.00000	Linear spcc
49 Dibenzofuran	1.21689	1.19956	1.19956	0.000	-1.42401	60.00000	Averaged
51 Diethylphthalate	1.03335	1.05132	1.05132	0.000	1.73954	60.00000	Averaged
52 4-Nitrophenol	38.57130	40.00000	0.15758	0.050	-3.57175	60.00000	Linear spcc
53 Fluorene	0.99879	1.08243	1.08243	0.000	8.37392	60.00000	Averaged
54 4-Chlorophenylphenylether	0.47192	0.48456	0.48456	0.000	2.67730	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	46.23898	40.00000	0.10551	0.000	15.59746	60.00000	Linear
56 p-Nitroaniline	39.87399	40.00000	0.20927	0.000	-0.31501	60.00000	Linear
133 Diphenylamine	0.48213	0.45595	0.45595	0.001	-5.43095	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.61327	0.56282	0.56282	0.000	-8.22698	60.00000	Averaged
61 4-Bromophenylphenylether	0.15784	0.15215	0.15215	0.000	-3.60182	60.00000	Averaged
63 Hexachlorobenzene	0.16533	0.15870	0.15870	0.000	-4.01061	60.00000	Averaged
65 Pentachlorophenol	38.07988	40.00000	0.08148	0.001	-4.80029	20.00000	Linear ccc
206 n-Octadecane	0.44173	0.40252	0.40252	0.000	-8.87793	60.00000	Averaged
68 Phenanthrene	0.82721	0.85546	0.85546	0.000	3.41489	60.00000	Averaged
69 Anthracene	0.82682	0.88458	0.88458	0.000	6.98474	60.00000	Averaged
72 Di-n-butylphthalate	0.94954	0.98609	0.98609	0.000	3.85004	60.00000	Averaged
76 Fluoranthene	0.79242	0.89845	0.89845	0.001	13.38014	20.00000	Averaged ccc
79 Pyrene	1.10021	1.04862	1.04862	0.000	-4.68913	60.00000	Averaged
85 Butylbenzylphthalate	0.50351	0.48570	0.48570	0.000	-3.53604	60.00000	Averaged
89 Benzo(a)anthracene	0.86301	0.89370	0.89370	0.000	3.55677	60.00000	Averaged
92 Chrysene	0.82690	0.85775	0.85775	0.000	3.73141	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	39.77820	40.00000	0.68989	0.000	-0.55450	60.00000	Wt Linear

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6a0603.d
Analysis Type: WATER
Lab Sample ID: WBN091223-17.2
Method: /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m

Injection Date: 06-JAN-2010 09:46
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.27127	1.33277	1.33277	0.001	4.83707	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	0.88507	0.98091	0.98091	0.000	10.82835	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.88011	0.97036	0.97036	0.000	10.25497	60.00000	Averaged	
	97 Benzo(a)pyrene	0.76447	0.86361	0.86361	0.001	12.96893	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	40.53600	40.00000	0.73844	0.000	1.34000	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	39.92557	40.00000	0.59239	0.000	-0.18608	60.00000	Linear	
	101 Benzo(ghi)perylene	0.58403	0.61743	0.61743	0.000	5.71897	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16929	0.16014	0.16014	0.000	-5.40637	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21896	0.22876	0.22876	0.000	4.47568	60.00000	Averaged	
	143 Dinoseb	38.19129	40.00000	0.11788	0.000	-4.52178	60.00000	Linear	
	173 Carbazole	0.65449	0.67822	0.67822	0.000	3.62517	60.00000	Averaged	
	184 p-Benzoquinone	0.12730	0.09932	0.09932	0.000	-21.98196	60.00000	Averaged	
	192 Methoxychlor	0.55243	0.44971	0.44971	0.000	-18.59468	60.00000	Averaged	
	211 p-Toluidine	0.89987	0.88037	0.88037	0.000	-2.16724	60.00000	Averaged	
	210 m-Toluidine	1.12396	1.11173	1.11173	0.000	-1.08849	60.00000	Averaged	
	26 Phthalic anhydride	65.09396	40.00000	0.13308	0.000	62.73489	60.00000	Linear	<-
	179 Dibenzo(a,e)pyrene	28.72568	40.00000	0.20295	0.000	-28.18580	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.18382	0.17077	0.17077	0.000	-7.09481	60.00000	Averaged	
	215 2-Ethoxyethanol	0.71035	0.56112	0.56112	0.000	-21.00890	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	37.60793	40.00000	0.11683	0.000	-5.98018	60.00000	Linear	
M	225 Trichlorophenols	0.28180	0.27552	0.27552	0.000	-2.23006	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21896	0.22876	0.22876	0.000	4.47568	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.88259	0.97564	0.97564	0.000	10.54247	60.00000	Averaged	

GEL Laboratories LLC

Data file : /chem/MSD6.i/s010610.b/s6a0603.d
Lab Smp Id: WBN091223-17.2 Client Smp ID: MEGACVS
Inj Date : 06-JAN-2010 09:46
Operator : nagl Inst ID: MSD6.i
Smp Info : |WBN091223-17.2|CVS|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN091223-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Meth Date : 07-Jan-2010 08:58 hnm Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.750	4.750	(1.000)	246011	40.0000	
* 29 Naphthalene-d8	136	6.026	6.026	(1.000)	1013849	40.0000	
* 46 Acenaphthene-d10	164	7.894	7.894	(1.000)	552080	40.0000	
* 67 Phenanthrene-d10	188	9.502	9.502	(1.000)	999172	40.0000	
* 91 Chrysene-d12	240	12.496	12.496	(1.000)	890342	40.0000	
* 98 Perylene-d12	264	14.779	14.779	(1.000)	743918	40.0000	
$ 3 2-Fluorophenol	112	3.588	3.588	(0.755)	229187	40.0000	37.2
$ 5 Phenol-d5	99	4.370	4.370	(0.920)	302561	40.0000	38.9
$ 20 Nitrobenzene-d5	82	5.290	5.290	(0.878)	278178	40.0000	38.8
$ 39 2-Fluorobiphenyl	172	7.150	7.150	(0.906)	559399	40.0000	39.3
$ 60 2,4,6-Tribromophenol	329	8.743	8.743	(1.107)	73783	40.0000	45.8
$ 81 p-Terphenyl-d14	244	11.207	11.207	(0.897)	573224	40.0000	39.9
1 N-Methyl-N-nitrosomethylamine	74	2.619	2.619	(0.552)	133524	40.0000	31.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
2 Pyridine	79	2.655	2.655	(0.559)	168022	40.0000	32.2
4 Aniline	66	4.444	4.444	(0.936)	122568	40.0000	37.8
6 Phenol	94	4.383	4.383	(0.923)	294289	40.0000	37.6(Q)
7 bis(2-Chloroethyl) ether	63	4.480	4.480	(0.943)	189515	40.0000	35.8
8 2-Chlorophenol	128	4.556	4.556	(0.959)	236581	40.0000	37.7
203 n-Decane	43	4.556	4.556	(0.959)	304501	40.0000	34.8
9 1,3-Dichlorobenzene	146	4.699	4.699	(0.989)	291177	40.0000	40.3
11 1,4-Dichlorobenzene	146	4.767	4.767	(1.004)	290526	40.0000	39.6
13 1,2-Dichlorobenzene	146	4.915	4.915	(1.035)	277038	40.0000	40.5
14 bis(2-Chloroisopropyl)ether	45	4.984	4.984	(1.049)	471303	40.0000	39.9
12 Benzyl alcohol	108	4.864	4.864	(1.024)	139851	40.0000	35.8
15 o-Cresol	107	4.953	4.953	(1.043)	195731	40.0000	38.3
18 m,p-Cresols	107	5.109	5.109	(1.076)	254497	40.0000	39.3
17 N-Nitrosodipropylamine	70	5.129	5.129	(1.080)	178091	40.0000	40.9
19 Hexachloroethane	117	5.247	5.247	(1.105)	111004	40.0000	39.2
21 Nitrobenzene	77	5.310	5.310	(0.881)	278800	40.0000	38.6
22 Isophorone	82	5.542	5.542	(0.920)	490071	40.0000	38.2
23 2-Nitrophenol	139	5.624	5.624	(0.933)	132820	40.0000	39.8
24 2,4-Dimethylphenol	122	5.641	5.641	(0.936)	223961	40.0000	40.5
25 bis(2-Chloroethoxy)methane	93	5.743	5.743	(0.953)	282856	40.0000	37.5
26 2,4-Dichlorophenol	162	5.871	5.871	(0.974)	203316	40.0000	40.6
27 Benzoic acid	105	5.754	5.754	(0.955)	159514	40.0000	46.8
28 1,2,4-Trichlorobenzene	180	5.957	5.957	(0.989)	241897	40.0000	39.3
30 Naphthalene	128	6.049	6.049	(1.004)	797246	40.0000	39.4
204 alpha-Terpineol	59	6.036	6.036	(1.002)	204428	40.0000	36.9
31 4-Chloroaniline	127	6.090	6.090	(1.011)	253144	40.0000	38.9
32 Hexachlorobutadiene	225	6.156	6.156	(1.022)	134199	40.0000	41.9
33 4-Chloro-3-methylphenol	107	6.579	6.579	(1.092)	205874	40.0000	40.7
34 2-Methylnaphthalene	142	6.770	6.770	(1.123)	565506	40.0000	46.3
35 1-Methylnaphthalene	142	6.877	6.877	(1.141)	525144	40.0000	44.0
36 Hexachlorocyclopentadiene	237	6.926	6.926	(0.877)	63853	40.0000	28.6
205 2,3-Dichloroaniline	161	7.066	7.066	(0.895)	252415	40.0000	38.2
37 2,4,6-Trichlorophenol	196	7.061	7.061	(0.894)	142554	40.0000	37.8
38 2,4,5-Trichlorophenol	196	7.104	7.104	(0.900)	161663	40.0000	40.3
40 2-Chloronaphthalene	162	7.293	7.293	(0.924)	468203	40.0000	37.8
42 o-Nitroaniline	65	7.395	7.395	(0.937)	152674	40.0000	36.0
41 m-Nitroaniline	138	7.840	7.840	(0.993)	122708	40.0000	39.5
43 Dimethylphthalate	163	7.583	7.583	(0.961)	561649	40.0000	39.6
44 2,6-Dinitrotoluene	165	7.654	7.654	(0.970)	127997	40.0000	37.9
50 2,4-Dinitrotoluene	165	8.090	8.090	(1.025)	171460	40.0000	40.2
45 Acenaphthylene	152	7.744	7.744	(0.981)	846670	40.0000	42.5
47 Acenaphthene	154	7.930	7.930	(1.005)	496505	40.0000	39.9
48 2,4-Dinitrophenol	184	7.950	7.950	(1.007)	45876	40.0000	39.9
49 Dibenzofuran	168	8.113	8.113	(1.028)	662253	40.0000	39.4
51 Diethylphthalate	149	8.335	8.335	(1.056)	580414	40.0000	40.7
52 4-Nitrophenol	139	8.011	8.011	(1.015)	86997	40.0000	38.6
53 Fluorene	166	8.483	8.483	(1.075)	597589	40.0000	43.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
54 4-Chlorophenylphenylether	204	8.467	8.467	(1.073)	267514	40.0000	41.1
55 2-Methyl-4,6-dinitrophenol	198	8.531	8.531	(0.898)	105420	40.0000	46.2
56 p-Nitroaniline	138	8.503	8.503	(1.077)	115535	40.0000	39.9
133 Diphenylamine	169	8.597	8.597	(0.905)	455572	40.0000	37.8
58 1,2-Diphenylhydrazine	77	8.643	8.643	(0.910)	562349	40.0000	36.7
61 4-Bromophenylphenylether	248	9.000	9.000	(0.947)	152027	40.0000	38.6
63 Hexachlorobenzene	284	9.074	9.074	(0.955)	158568	40.0000	38.4
65 Pentachlorophenol	266	9.283	9.283	(0.977)	81412	40.0000	38.1
206 n-Octadecane	57	9.331	9.331	(0.982)	402182	40.0000	36.4
68 Phenanthrene	178	9.530	9.530	(1.003)	854754	40.0000	41.4
69 Anthracene	178	9.583	9.583	(1.009)	883843	40.0000	42.8
72 Di-n-butylphthalate	149	10.093	10.093	(1.062)	985277	40.0000	41.5
76 Fluoranthene	202	10.814	10.814	(1.138)	897702	40.0000	45.4
79 Pyrene	202	11.066	11.066	(0.886)	933627	40.0000	38.1
85 Butylbenzylphthalate	149	11.731	11.731	(0.939)	432440	40.0000	38.6
89 Benzo(a)anthracene	228	12.473	12.473	(0.998)	795700	40.0000	41.4
92 Chrysene	228	12.529	12.529	(1.003)	763694	40.0000	41.5
93 bis(2-Ethylhexyl)phthalate	149	12.442	12.442	(0.996)	614242	40.0000	39.8
94 Di-n-octylphthalate	149	13.406	13.406	(0.907)	991468	40.0000	41.9
95 Benzo(b)fluoranthene	252	14.114	14.114	(0.955)	729719	40.0000	44.3
96 Benzo(k)fluoranthene	252	14.160	14.160	(0.958)	721869	40.0000	44.1
97 Benzo(a)pyrene	252	14.680	14.680	(0.993)	642455	40.0000	45.2
99 Indeno(1,2,3-cd)pyrene	276	16.741	16.741	(1.133)	549337	40.0000	40.5
100 Dibenzo(a,h)anthracene	278	16.769	16.769	(1.135)	440687	40.0000	39.9
101 Benzo(ghi)perylene	276	17.248	17.248	(1.167)	459316	40.0000	42.3
126 m-Dinitrobenzene	168	7.629	7.629	(0.966)	88411	40.0000	37.8
130 2,3,4,6-Tetrachlorophenol	232	8.235	8.235	(1.043)	126293	40.0000	41.8
143 Dinoseb	211	9.469	9.469	(0.996)	117782	40.0000	38.2
173 Carbazole	167	9.749	9.749	(1.026)	677660	40.0000	41.4
184 p-Benzoquinone	54	4.016	4.016	(0.845)	24434	40.0000	31.2
192 Methoxychlor	227	12.346	12.346	(0.988)	400395	40.0000	32.6
211 p-Toluidine	106	5.170	5.170	(1.089)	216581	40.0000	39.1
210 m-Toluidine	106	5.206	5.206	(1.096)	273497	40.0000	39.6
26 Phthalic anhydride	104	6.834	6.834	(1.134)	134921	40.0000	65.1
179 Dibenzo(a,e)pyrene	302	20.818	20.818	(1.409)	150980	40.0000	28.7
214 1,4-Dinitrobenzene	75	7.547	7.547	(0.956)	94281	40.0000	37.2
215 2-Ethoxyethanol	59	2.410	2.410	(0.507)	138041	40.0000	31.6
216 Methylenebis(2-chloroaniline)	231	12.419	12.419	(0.994)	104023	40.0000	37.6(Q)
M 225 Trichlorophenols	196				304217	80.0000	78.2
M 226 Tetrachlorophenols	232				126293	40.0000	41.8
M 227 Benzo(b,k)fluoranthene	252				1451588	80.0000	88.4

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s010610.b/s6a0603.d
Date : 06-JAN-2010 09:46
Client ID: MECACVS
Sample Info: IWBN091223-17,2|CVS|1|SVMF|1|MECACVS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

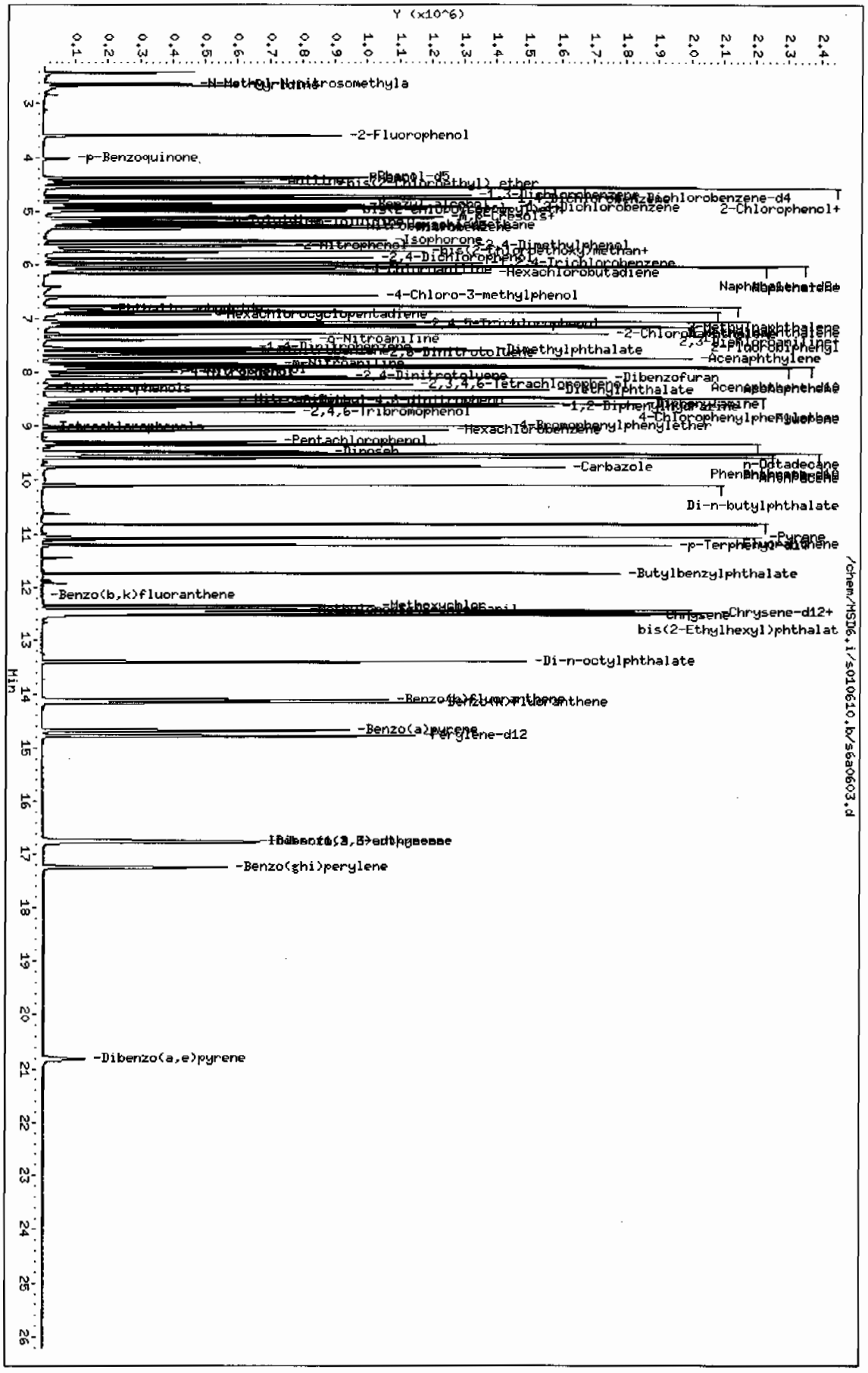

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 06-JAN-2010 10:22
Lab File ID: s6a0604.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN100103-03.2 Quant Type: ISTD
Method: /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86127	0.81515	0.81515	0.000	-5.35539	60.00000	Averaged
16 Acetophenone	1.16908	1.12150	1.12150	0.000	-4.06973	60.00000	Averaged
189 Caprolactam	0.07388	0.07843	0.07843	0.000	6.15797	60.00000	Averaged
208 1,1'-Biphenyl	1.20131	1.14505	1.14505	0.000	-4.68322	60.00000	Averaged
207 Atrazine	0.04063	0.03978	0.03978	0.000	-2.09592	60.00000	Averaged
77 Benzidine	0.39304	0.16697	0.16697	0.000	-57.51805	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.28252	0.25249	0.25249	0.000	-10.62850	60.00000	Averaged
102 1,4-Dioxane	0.36606	0.32152	0.32152	0.000	-12.16710	60.00000	Averaged
103 Methyl methacrylate	0.19388	0.17916	0.17916	0.000	-7.59079	60.00000	Averaged
104 Ethyl methacrylate	0.80561	0.71833	0.71833	0.000	-10.83341	60.00000	Averaged
105 2-Picoline	1.30872	1.16155	1.16155	0.000	-11.24561	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.51104	0.44166	0.44166	0.000	-13.57604	60.00000	Averaged
107 Methyl methanesulfonate	0.52852	0.46570	0.46570	0.000	-11.88638	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49553	0.45284	0.45284	0.000	-8.61627	60.00000	Averaged
109 Ethyl Methanesulfonate	0.65169	0.58769	0.58769	0.000	-9.82095	60.00000	Averaged
110 Pentachloroethane	0.31681	0.31293	0.31293	0.000	-1.22494	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47614	0.47784	0.47784	0.000	0.35797	60.00000	Averaged
113 N-Nitrosomorpholine	0.67936	0.66078	0.66078	0.000	-2.73544	60.00000	Averaged
114 o-Toluidine	1.65281	1.56870	1.56870	0.000	-5.08916	60.00000	Averaged
115 N-Nitrosopiperidine	0.14105	0.13504	0.13504	0.000	-4.25958	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.85546	0.66030	0.66030	0.000	-22.81342	60.00000	Averaged
118 2,6-Dichlorophenol	0.20687	0.20595	0.20595	0.000	-0.44423	60.00000	Averaged
119 Hexachloropropene	0.10269	0.08088	0.08088	0.000	-21.23573	60.00000	Averaged
120 p-Phenylenediamine	0.22955	0.16318	0.16318	0.000	-28.91032	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21004	0.20088	0.20088	0.000	-4.36106	60.00000	Averaged
122 Safrole	0.18653	0.18828	0.18828	0.000	0.93948	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42319	0.41331	0.41331	0.000	-2.33623	60.00000	Averaged
124 Isosafrole	0.33959	0.32029	0.32029	0.000	-5.68274	60.00000	Averaged
125 1,4-Naphthoquinone	0.30674	0.31650	0.31650	0.000	3.18449	60.00000	Averaged
127 Pentachlorobenzene	0.36454	0.36695	0.36695	0.000	0.66073	60.00000	Averaged
128 1-Naphthylamine	0.90742	0.81882	0.81882	0.000	-9.76305	60.00000	Averaged
129 2-Naphthylamine	0.98012	0.89711	0.89711	0.000	-8.46999	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27901	0.26597	0.26597	0.000	-4.67248	60.00000	Averaged
136 1,3,5-Trinitrobenzene	28.83327	40.00000	0.08169	0.000	-27.91683	60.00000	Linear
137 Phenacetin	0.26240	0.25017	0.25017	0.000	-4.65763	60.00000	Averaged
138 Diallate	0.24056	0.23650	0.23650	0.000	-1.68652	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6a0604.d
Analysis Type: WATER
Lab Sample ID: WBN100103-03.2
Method: /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m

Injection Date: 06-JAN-2010 10:22
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
140 4-Aminobiphenyl	0.53562	0.49010	0.49010	0.000	-8.49693	60.00000	Averaged	
141 Pentachloronitrobenzene	0.06192	0.06521	0.06521	0.000	5.31424	60.00000	Averaged	
142 Pronamide	0.26319	0.26072	0.26072	0.000	-0.93935	60.00000	Averaged	
146 4-Nitroquinoline-1-oxide	0.02349	0.00484	0.00484	0.000	-79.40060	60.00000	Averaged	<-
147 Methapyrilene	0.38600	0.31468	0.31468	0.000	-18.47718	60.00000	Averaged	
148 Isodrin	0.09631	0.10465	0.10465	0.000	8.66286	60.00000	Averaged	
149 Aramite	0.04420	0.04804	0.04804	0.000	8.68180	60.00000	Averaged	
150 Kepone	0.06173	0.06800	0.06800	0.000	10.16290	60.00000	Averaged	
151 p-(Dimethylamino)azobenzene	0.31734	0.28935	0.28935	0.000	-8.81889	60.00000	Averaged	
152 Chlorobenzilate	0.29130	0.28815	0.28815	0.000	-1.07880	60.00000	Averaged	
153 3,3'-Dimethylbenzidine	0.52763	0.41395	0.41395	0.000	-21.54614	60.00000	Averaged	
155 2-Acetylaminofluorene	35.75788	40.00000	0.28721	0.000	-10.60529	60.00000	Linear	
157 7,12Dimethylbenz(a)anthrace	0.47906	0.47785	0.47785	0.000	-0.25295	60.00000	Averaged	
158 3-Methylcholanthrene	0.36955	0.37060	0.37060	0.000	0.28428	60.00000	Averaged	
212 Cis Diallate	0.25295	0.23951	0.23951	0.000	-5.31163	60.00000	Averaged	
213 Trans Diallate	0.28301	0.27824	0.27824	0.000	-1.68652	60.00000	Averaged	

GEL Laboratories LLC

Data file : /chem/MSD6.i/s010610.b/s6a0604.d
Lab Smp Id: WBN100103-03.2 Client Smp ID: AP12CVS
Inj Date : 06-JAN-2010 10:22
Operator : nag1 Inst ID: MSD6.i
Smp Info : |WBN100103-03.2|CVS|1|SVMF|1|AP12CVS
Misc Info : |MSD8270|WBN091223-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Meth Date : 06-Jan-2010 15:14 jos00786 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.749	4.749	(1.000)	249359	40.0000	
* 29 Naphthalene-d8	136	6.023	6.023	(1.000)	924118	40.0000	
* 46 Acenaphthene-d10	164	7.891	7.888	(1.000)	525997	40.0000	
* 67 Phenanthrene-d10	188	9.501	9.499	(1.000)	931180	40.0000	
* 91 Chrysene-d12	240	12.485	12.483	(1.000)	764012	40.0000	
* 98 Perylene-d12	264	14.771	14.768	(1.000)	592829	40.0000	
209 Benzaldehyde	77	4.351	4.351	(0.916)	203265	40.0000	37.8
16 Acetophenone	105	5.129	5.129	(1.080)	279656	40.0000	38.4
189 Caprolactam	113	6.454	6.454	(1.071)	72478	40.0000	42.5
208 1,1'-Biphenyl	154	7.261	7.261	(0.920)	602292	40.0000	38.1
207 Atrazine	173	9.165	9.165	(0.965)	37045	40.0000	39.2
77 Benzidine	184	10.941	10.941	(0.876)	127566	40.0000	17.0
90 3,3'-Dichlorobenzidine	252	12.414	12.414	(0.994)	192904	40.0000	35.7
102 1,4-Dioxane	88	2.410	2.410	(0.507)	80174	40.0000	35.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
103 Methyl methacrylate	100	2.407	2.407	(0.507)	44675	40.0000	37.0
104 Ethyl methacrylate	69	2.909	2.909	(0.613)	179122	40.0000	35.7
105 2-Picoline	93	3.167	3.167	(0.667)	289642	40.0000	35.5
106 N-Nitrosomethylethylamine	88	3.235	3.235	(0.681)	110131	40.0000	34.6
107 Methyl methanesulfonate	80	3.465	3.465	(0.730)	116126	40.0000	35.2
108 N-Nitrosodiethylamine	102	3.791	3.791	(0.798)	112919	40.0000	36.6
109 Ethyl Methanesulfonate	79	4.028	4.028	(0.848)	146544	40.0000	36.1
110 Pentachloroethane	167	4.492	4.492	(0.946)	78031	40.0000	39.5
111 N-Nitrosopyrrolidine	100	5.116	5.116	(1.077)	119153	40.0000	40.1(Q)
113 N-Nitrosomorpholine	56	5.149	5.149	(1.084)	164771	40.0000	38.9
114 o-Toluidine	106	5.167	5.167	(1.088)	391169	40.0000	38.0
115 N-Nitrosopiperidine	114	5.457	5.457	(0.906)	124797	40.0000	38.3
116 a,a-Dimethylphenethylamine	58	5.824	5.824	(0.967)	610192	40.0000	30.9
118 2,6-Dichlorophenol	162	6.099	6.099	(1.013)	190325	40.0000	39.8
119 Hexachloropropene	213	6.127	6.127	(1.017)	74742	40.0000	31.5
120 p-Phenylenediamine	108	6.461	6.461	(1.073)	150800	40.0000	28.4
121 N-Nitrosodi-n-butylamine	84	6.428	6.428	(1.067)	185639	40.0000	38.2(Q)
122 Safrole	162	6.660	6.660	(1.106)	173991	40.0000	40.4
123 1,2,4,5-Tetrachlorobenzene	216	6.943	6.943	(0.880)	217398	40.0000	39.1
124 Isosafrole	162	7.215	7.215	(0.914)	168473	40.0000	37.7
125 1,4-Naphthoquinone	158	7.480	7.480	(0.948)	166480	40.0000	41.3
127 Pentachlorobenzene	250	8.064	8.064	(1.022)	193015	40.0000	40.3
128 1-Naphthylamine	143	8.194	8.194	(1.038)	430699	40.0000	36.1
129 2-Naphthylamine	143	8.278	8.278	(1.049)	471875	40.0000	36.6
131 5-Nitro-o-toluidine	152	8.487	8.487	(1.076)	139900	40.0000	38.1
136 1,3,5-Trinitrobenzene	75	8.879	8.879	(0.935)	76065	40.0000	28.8
137 Phenacetin	108	8.925	8.925	(0.939)	232957	40.0000	38.1(Q)
138 Diallate	86	8.895	8.895	(0.936)	220228	40.0000	39.3
140 4-Aminobiphenyl	169	9.282	9.282	(0.977)	456375	40.0000	36.6
141 Pentachloronitrobenzene	237	9.295	9.295	(0.978)	60725	40.0000	42.1(Q)
142 Pronamide	173	9.330	9.330	(0.982)	242773	40.0000	39.6
146 4-Nitroquinoline-1-oxide	101	10.355	10.355	(1.090)	4506	40.0000	8.2(a)
147 Methapyrilene	58	10.416	10.416	(1.096)	293024	40.0000	32.6
148 Isodrin	193	10.645	10.645	(1.120)	97447	40.0000	43.5
149 Aramite	185	11.165	11.165	(1.175)	44732	40.0000	43.5
150 Kepone	272	11.812	11.812	(1.243)	63322	40.0000	44.1
151 p-(Dimethylamino)azobenzene	120	11.356	11.356	(0.910)	221069	40.0000	36.5
152 Chlorobenzilate	251	11.397	11.397	(0.913)	220153	40.0000	39.6
153 3,3'-Dimethylbenzidine	212	11.733	11.733	(0.940)	316263	40.0000	31.4
155 2-Acetylaminofluorene	181	12.044	12.044	(0.965)	219428	40.0000	35.8
157 7,12Dimethylbenz(a)anthracene	256	14.083	14.083	(0.953)	283281	40.0000	39.9
158 3-Methylcholanthrene	268	15.288	15.288	(1.035)	219703	40.0000	40.1(Q)
212 Cis Diallate	86	8.994	8.994	(0.947)	33454	6.00000	5.7
213 Trans Diallate	86	8.895	8.895	(0.936)	220228	34.0000	33.4

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s010610.b/s6a0604.d
Date : 06-JAN-2010 10:22
Client ID: AP12CVS
Sample Info: IWBN100103-03,2ICVS11SVMFI11AP12CVS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

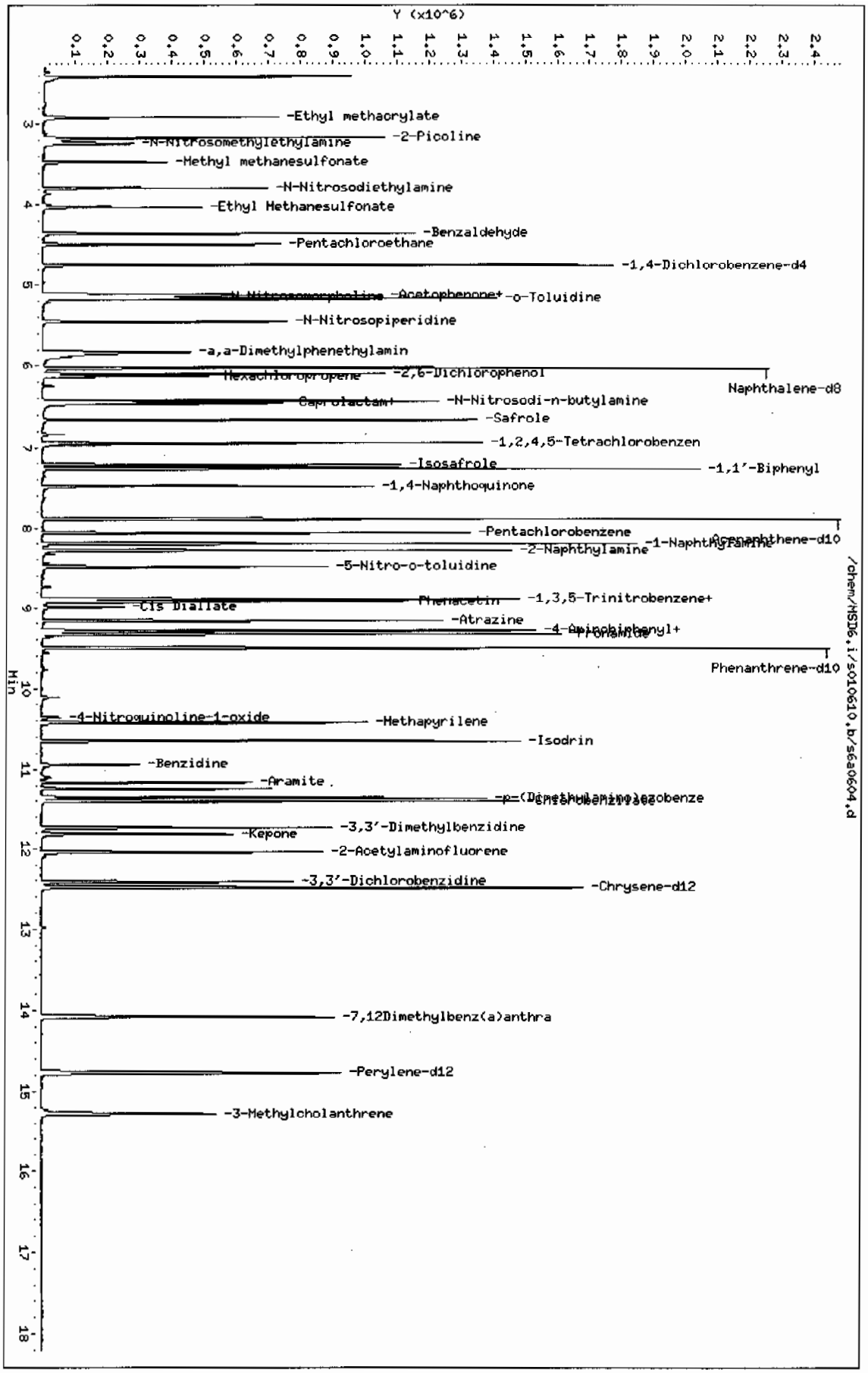

Page 1

QC Data

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Page 1

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

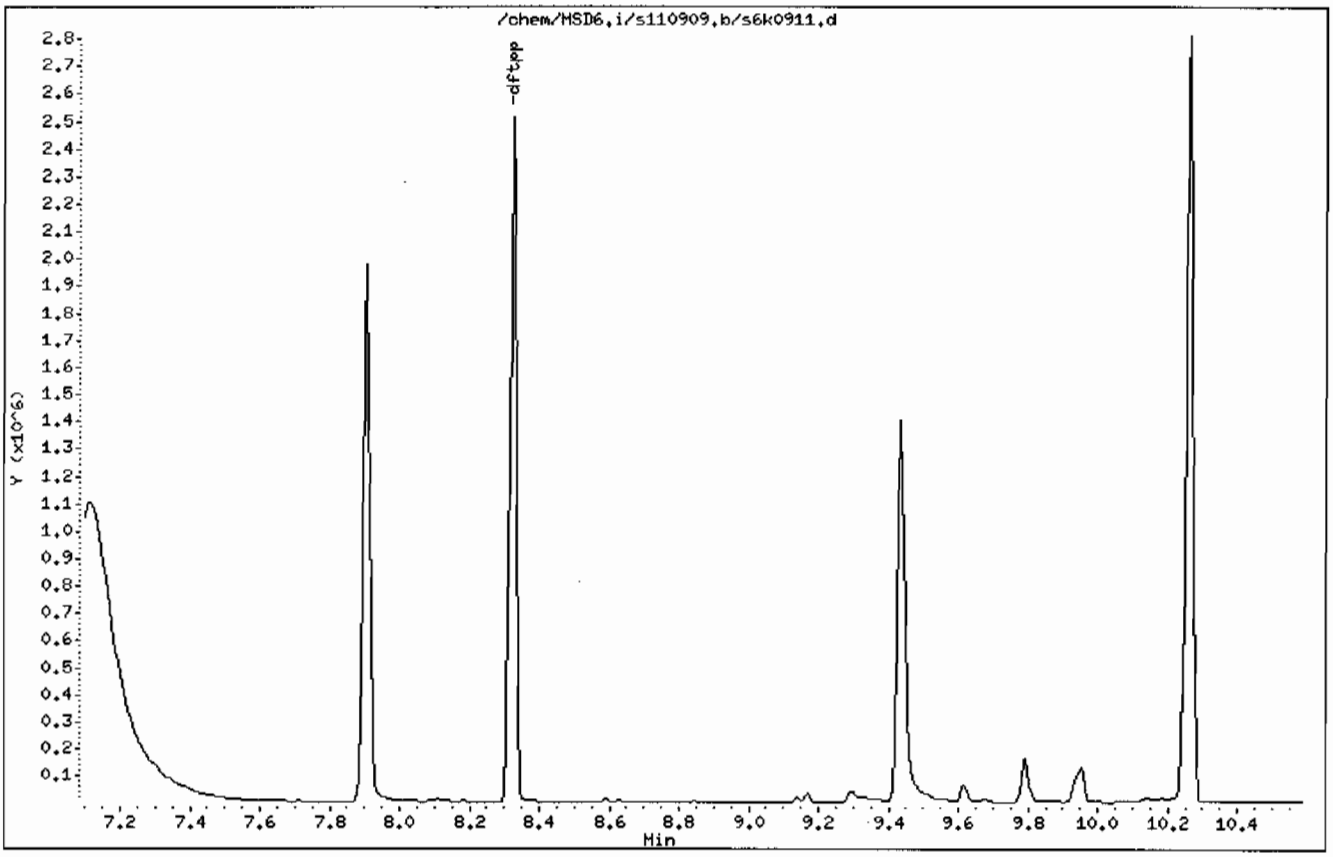

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

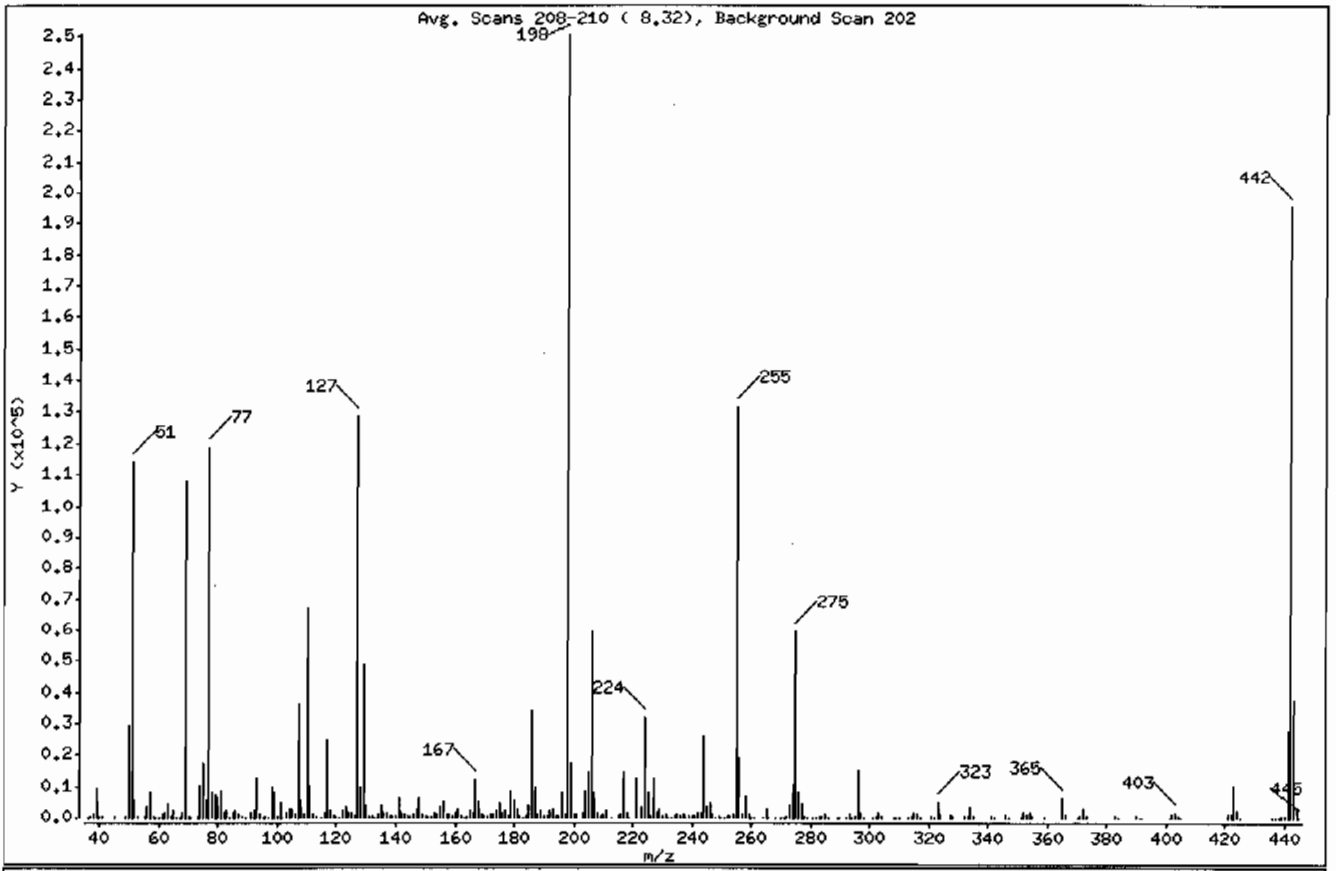

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.40
68	Less than 2.00% of mass 69	0.67 (1.56)
69	Mass 69 relative abundance	42.98
70	Less than 2.00% of mass 69	0.23 (0.53)
127	40.00 - 60.00% of mass 198	51.37
197	Less than 1.00% of mass 198	0.57
199	5.00 - 9.00% of mass 198	6.92
275	10.00 - 30.00% of mass 198	23.67
365	Greater than 1.00% of mass 198	2.45
441	Present, but less than mass 443	11.05
442	Greater than 40.00% of mass 198	77.94
443	17.00 - 23.00% of mass 442	14.94 (19.17)

Date : 09-NOV-2009 18:00

Client ID: DFTPP Instrument: MSD6.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg, Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	8	122.00	2302	198.00	250752	284.00	336
37.00	393	123.00	3695	199.00	17344	285.00	937
38.00	1200	124.00	1621	200.00	1195	286.00	170
39.00	9016	125.00	1448	201.00	1207	289.00	255
40.00	406	126.00	632	203.00	1659	290.00	159
41.00	292	127.00	128832	204.00	8363	292.00	269
45.00	305	128.00	9787	205.00	14289	293.00	1083
49.00	640	129.00	49280	206.00	59576	294.00	255
50.00	29544	130.00	4085	207.00	7878	295.00	324
51.00	113864	131.00	795	208.00	1898	296.00	14712
52.00	5719	132.00	464	209.00	609	297.00	1998
53.00	291	133.00	153	210.00	1016	298.00	48
55.00	556	134.00	1412	211.00	2089	301.00	220
56.00	3212	135.00	3908	213.00	96	302.00	374
57.00	7977	136.00	1509	215.00	674	303.00	1716
58.00	306	137.00	2002	216.00	1188	304.00	518
59.00	43	138.00	459	217.00	14324	308.00	142
60.00	144	139.00	392	218.00	1841	309.00	104
61.00	1384	140.00	751	219.00	194	310.00	127
62.00	1579	141.00	6116	221.00	12869	313.00	98
63.00	4522	142.00	1931	223.00	3368	314.00	758
64.00	592	143.00	1380	224.00	31752	315.00	1571
65.00	2251	144.00	329	225.00	7987	316.00	915
66.00	47	145.00	339	226.00	839	317.00	119
67.00	98	146.00	1032	227.00	12952	321.00	481
68.00	1681	147.00	3100	228.00	1848	322.00	229
69.00	107792	148.00	6347	229.00	2774	323.00	5178
70.00	566	149.00	1410	230.00	478	324.00	998
71.00	154	150.00	411	231.00	1257	327.00	960
73.00	818	151.00	692	232.00	280	328.00	487
74.00	10556	152.00	489	233.00	226	332.00	397
75.00	17208	153.00	1814	234.00	759	333.00	430
76.00	5735	154.00	1411	235.00	1001	334.00	3299
77.00	118792	155.00	3187	236.00	589	335.00	849
78.00	8119	156.00	5061	237.00	1093	341.00	644

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	7616	157.00	1047	238.00	176	342.00	184
80.00	6053	158.00	1005	239.00	483	346.00	1112
81.00	8741	159.00	819	240.00	449	347.00	197
82.00	1932	160.00	1690	241.00	776	351.00	99
83.00	2188	161.00	2737	242.00	1684	352.00	1491
84.00	232	162.00	809	243.00	1819	353.00	1169
85.00	1461	163.00	190	244.00	25832	354.00	1725
86.00	2130	164.00	335	245.00	3598	355.00	318
87.00	1162	165.00	2034	246.00	4786	359.00	103
88.00	449	166.00	1979	247.00	980	365.00	6134
89.00	268	167.00	12360	248.00	210	366.00	872
91.00	1835	168.00	5121	249.00	829	370.00	96
92.00	2163	169.00	1038	250.00	174	371.00	434
93.00	12786	170.00	446	251.00	238	372.00	2651
94.00	908	171.00	470	252.00	289	373.00	754
95.00	251	172.00	1064	253.00	569	383.00	711
96.00	626	173.00	1291	254.00	1047	384.00	258
97.00	236	174.00	2515	255.00	131328	390.00	402
98.00	9808	175.00	4789	256.00	18784	391.00	259
99.00	8032	176.00	1446	257.00	1424	392.00	153
100.00	745	177.00	2269	258.00	6873	401.00	116
101.00	4358	178.00	802	259.00	1148	402.00	1140
102.00	258	179.00	8475	260.00	228	403.00	1594
103.00	1616	180.00	5994	261.00	261	404.00	514
104.00	3096	181.00	2983	264.00	141	405.00	98
105.00	2795	182.00	429	265.00	2620	421.00	1430
106.00	910	183.00	259	266.00	251	422.00	1234
107.00	36184	184.00	679	268.00	180	423.00	10131
108.00	5604	185.00	3929	270.00	163	424.00	2144
109.00	997	186.00	34256	271.00	257	425.00	193
110.00	66656	187.00	9747	272.00	290	436.00	45
111.00	10177	188.00	1146	273.00	3906	437.00	191
112.00	1133	189.00	2105	274.00	10561	438.00	232
113.00	472	190.00	292	275.00	59368	439.00	301
115.00	217	191.00	815	276.00	7957	440.00	309

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0911.d

Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202

Location of Maximum: 198.00

Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	1841	192.00	2423	277.00	4641	441.00	27712
117.00	25072	193.00	3008	278.00	676	442.00	195456
118.00	2060	194.00	699	279.00	175	443.00	37472
119.00	345	195.00	448	281.00	87	444.00	3400
120.00	476	196.00	7876	282.00	46	445.00	197
121.00	165	197.00	1433	283.00	505		

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Page 1

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

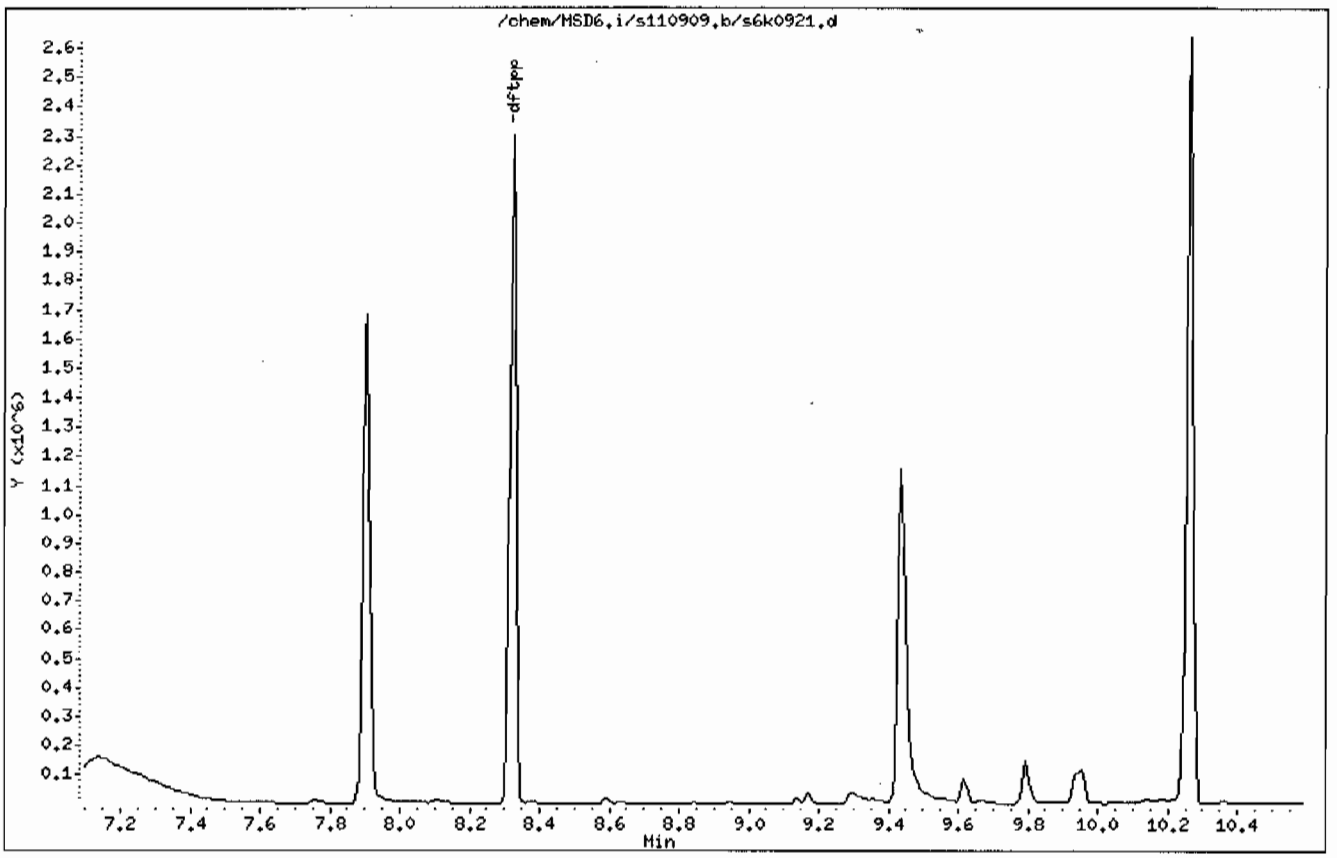

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

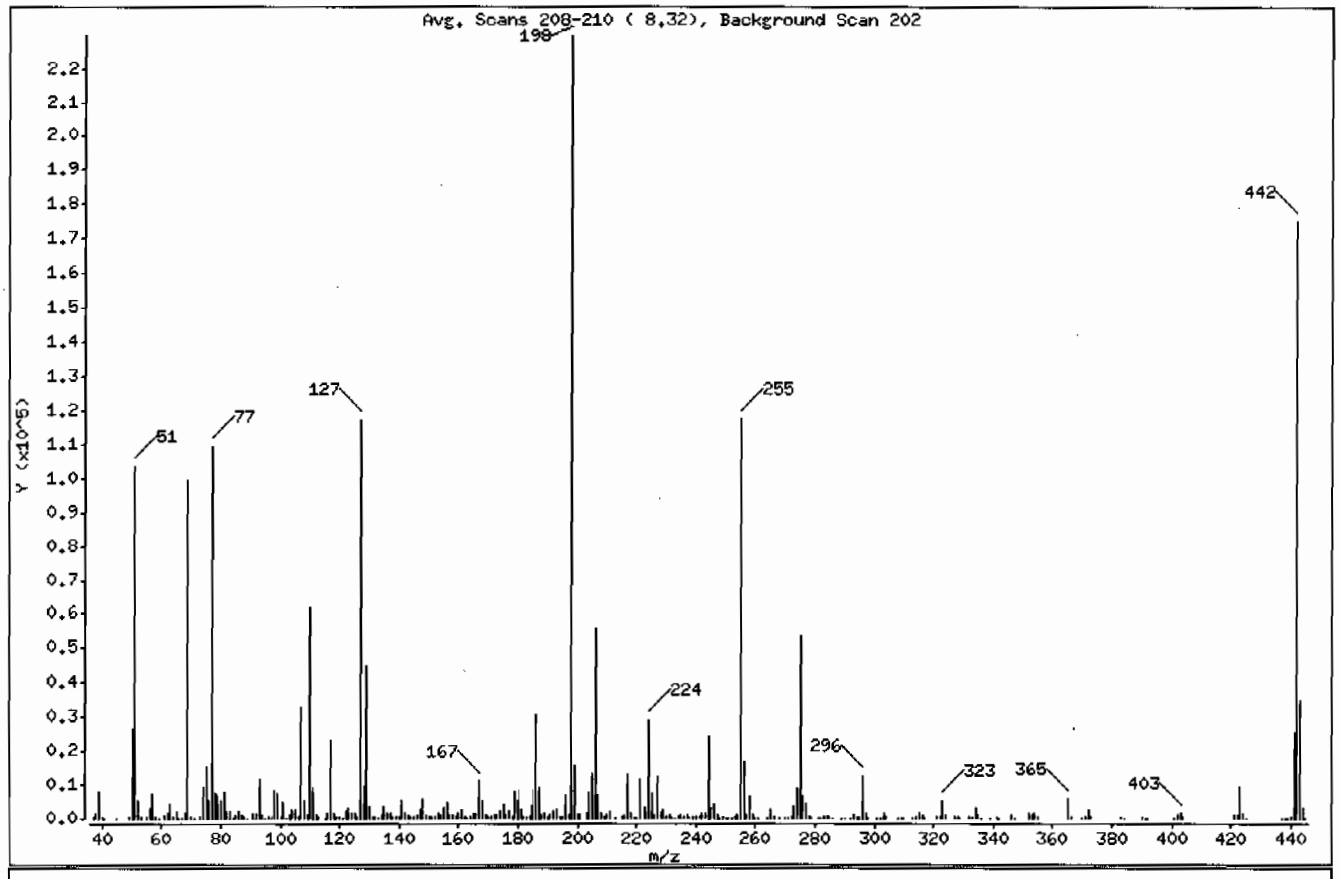

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.09
68	Less than 2.00% of mass 69	0.69 (1.59)
69	Mass 69 relative abundance	43.13
70	Less than 2.00% of mass 69	0.21 (0.50)
127	40.00 - 60.00% of mass 198	50.95
197	Less than 1.00% of mass 198	0.38
199	5.00 - 9.00% of mass 198	7.01
275	10.00 - 30.00% of mass 198	23.31
365	Greater than 1.00% of mass 198	2.61
441	Present, but less than mass 443	11.00
442	Greater than 40.00% of mass 198	76.04
443	17.00 - 23.00% of mass 442	15.14 (19.92)

Date : 10-NOV-2009 11:07

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	446	124.00	1597	200.00	1296	285.00	727
38.00	1364	125.00	1527	201.00	1130	286.00	93
39.00	8081	126.00	500	203.00	1398	289.00	109
40.00	429	127.00	117112	204.00	7870	290.00	48
41.00	123	128.00	9305	205.00	12990	292.00	179
45.00	232	129.00	44864	206.00	55704	293.00	996
49.00	676	130.00	3877	207.00	6919	294.00	284
50.00	26328	131.00	762	208.00	1589	295.00	295
51.00	103656	132.00	413	209.00	492	296.00	12743
52.00	5217	133.00	83	210.00	869	297.00	1758
53.00	281	134.00	1179	211.00	2059	298.00	106
55.00	508	135.00	3584	213.00	155	301.00	200
56.00	3141	136.00	1380	215.00	501	302.00	236
57.00	7300	137.00	1770	216.00	1098	303.00	1828
58.00	351	138.00	422	217.00	13179	304.00	578
59.00	89	139.00	313	218.00	1725	308.00	164
61.00	1282	140.00	577	219.00	178	309.00	120
62.00	1522	141.00	5319	220.00	48	310.00	179
63.00	4035	142.00	1826	221.00	11795	313.00	116
64.00	709	143.00	1268	223.00	3181	314.00	633
65.00	2010	144.00	322	224.00	29056	315.00	1462
66.00	201	145.00	315	225.00	7532	316.00	903
67.00	136	146.00	853	226.00	796	317.00	97
68.00	1576	147.00	2856	227.00	12169	321.00	535
69.00	99128	148.00	5895	228.00	1834	322.00	301
70.00	492	149.00	1137	229.00	2389	323.00	5031
71.00	87	150.00	371	230.00	448	324.00	932
73.00	640	151.00	713	231.00	1077	327.00	782
74.00	9704	152.00	430	232.00	217	328.00	460
75.00	15458	153.00	1634	233.00	234	329.00	92
76.00	5031	154.00	1294	234.00	764	332.00	329
77.00	109208	155.00	2977	235.00	895	333.00	541
78.00	7381	156.00	4520	236.00	588	334.00	3026
79.00	6803	157.00	931	237.00	934	335.00	912
80.00	5397	158.00	937	238.00	52	336.00	92

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	7979	159.00	792	239.00	457	339.00	88
82.00	2000	160.00	1501	240.00	364	341.00	550
83.00	1851	161.00	2637	241.00	638	342.00	176
84.00	203	162.00	756	242.00	1412	346.00	1020
85.00	1319	163.00	204	243.00	1572	347.00	119
86.00	1985	164.00	328	244.00	24152	352.00	1335
87.00	1000	165.00	1810	245.00	3200	353.00	950
88.00	412	166.00	1695	246.00	4314	354.00	1475
89.00	260	167.00	10891	247.00	844	355.00	296
91.00	1676	168.00	5136	248.00	166	365.00	5995
92.00	1806	169.00	973	249.00	748	366.00	747
93.00	11677	170.00	306	250.00	170	370.00	103
94.00	892	171.00	442	251.00	190	371.00	323
95.00	199	172.00	897	252.00	210	372.00	2543
96.00	636	173.00	1105	253.00	472	373.00	611
97.00	286	174.00	2178	254.00	899	383.00	675
98.00	8556	175.00	4297	255.00	117320	384.00	156
99.00	7312	176.00	1290	256.00	16728	390.00	314
100.00	595	177.00	2105	257.00	1320	391.00	189
101.00	4548	178.00	636	258.00	6484	392.00	157
102.00	251	179.00	8002	259.00	1064	401.00	199
103.00	1289	180.00	5191	260.00	200	402.00	1090
104.00	2626	181.00	2701	261.00	212	403.00	1396
105.00	2533	182.00	448	264.00	192	404.00	427
106.00	724	183.00	312	265.00	2469	421.00	1265
107.00	33008	184.00	599	266.00	401	422.00	1145
108.00	5264	185.00	3797	268.00	43	423.00	9473
109.00	994	186.00	30448	270.00	167	424.00	1846
110.00	61616	187.00	8914	271.00	186	425.00	183
111.00	9026	188.00	970	272.00	329	437.00	54
112.00	1057	189.00	1726	273.00	3492	438.00	170
113.00	367	190.00	298	274.00	9124	439.00	228
115.00	227	191.00	976	275.00	53576	440.00	294
116.00	1610	192.00	2282	276.00	7126	441.00	25272
117.00	23152	193.00	2535	277.00	3970	442.00	174784

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
118.00	1681	194.00	518	278.00	653	443.00	34808
119.00	280	195.00	333	279.00	140	444.00	3177
120.00	427	196.00	6863	281.00	140	445.00	129
121.00	176	197.00	878	282.00	42		
122.00	2199	198.00	229824	283.00	507		
123.00	3315	199.00	16104	284.00	294		

Data File: /chem/MSD6.i/s010610.b/s6a0601.d

Date : 06-JAN-2010 08:55

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

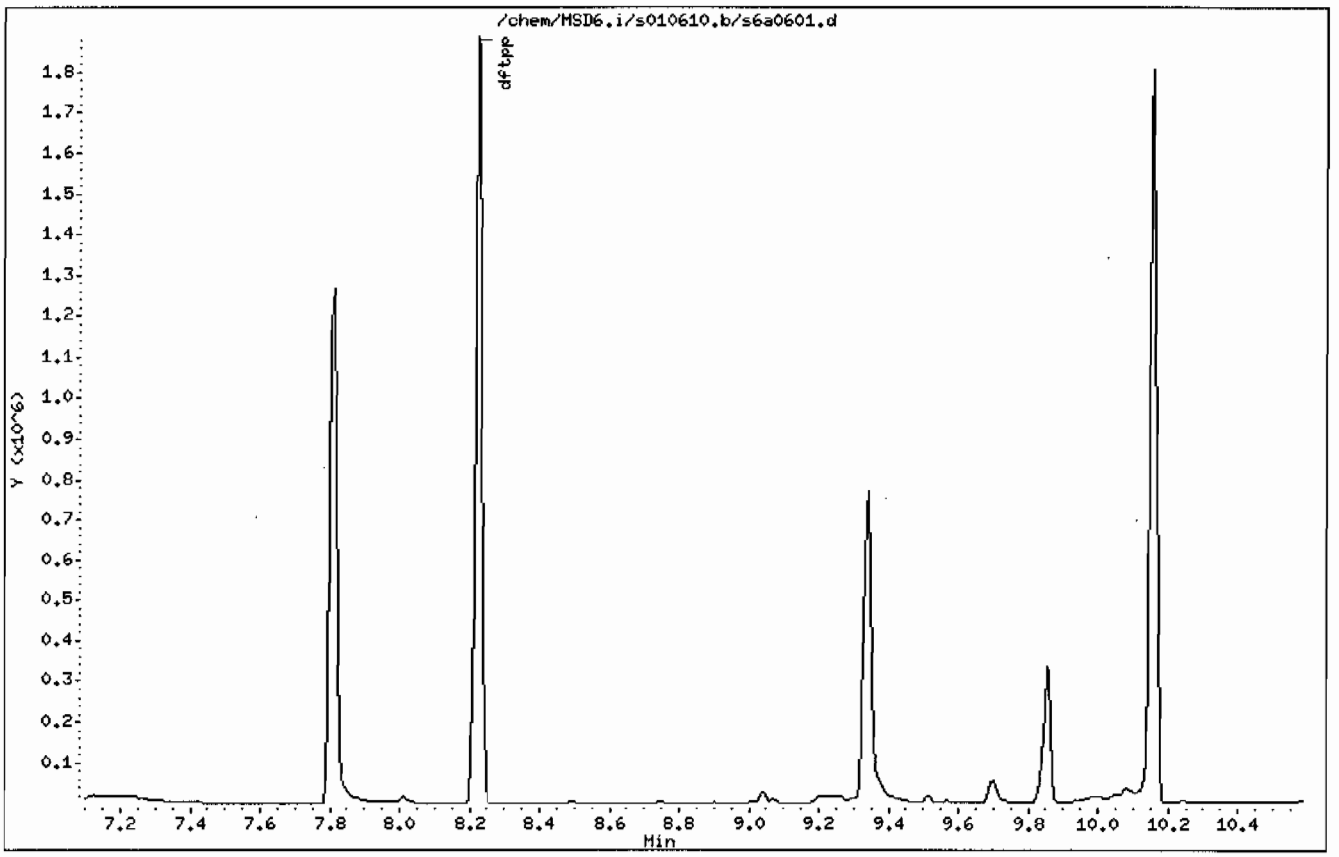

Data File: /chem/MSD6.i/s010610.b/s6a0601.d

Date : 06-JAN-2010 08:55

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

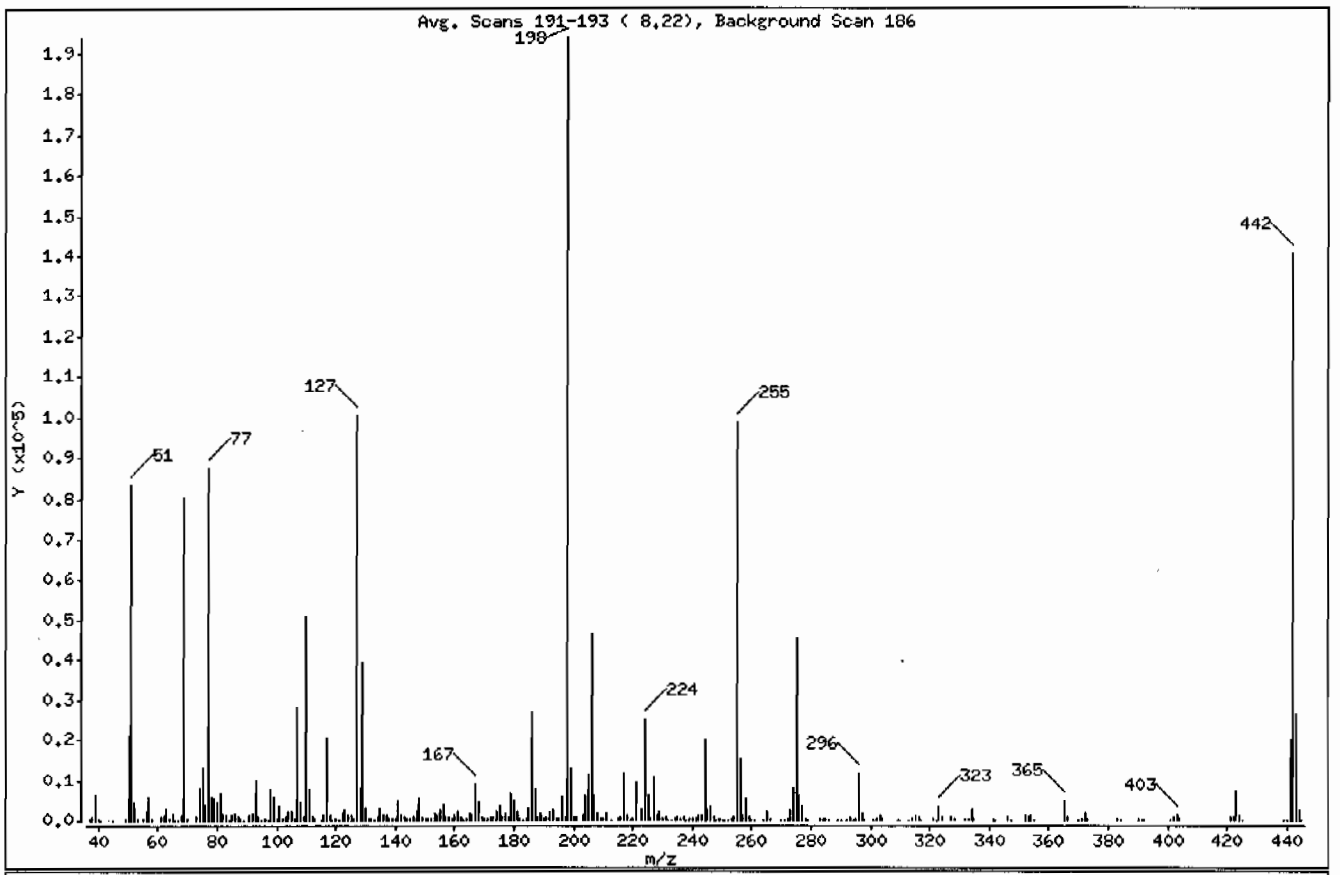

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	43.01
68	Less than 2.00% of mass 69	0.60 (1.46)
69	Mass 69 relative abundance	41.36
70	Less than 2.00% of mass 69	0.19 (0.45)
127	40.00 - 60.00% of mass 198	51.72
197	Less than 1.00% of mass 198	0.50
199	5.00 - 9.00% of mass 198	6.77
275	10.00 - 30.00% of mass 198	23.49
365	Greater than 1.00% of mass 198	2.52
441	Present, but less than mass 443	10.30
442	Greater than 40.00% of mass 198	72.46
443	17.00 - 23.00% of mass 442	13.61 (18.79)

Date : 06-JAN-2010 08:55

Client ID: DFTPP Instrument: MSD6.i

Sample Info: IWBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6a0601.d
Spectrum: Avg. Scans 191-193 (8.22), Background Scan 186
Location of Maximum: 198.00
Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	356	123.00	2700	196.00	5653	278.00	578
38.00	1039	124.00	1217	197.00	973	279.00	117
39.00	6224	125.00	1219	198.00	193920	283.00	408
40.00	424	126.00	453	199.00	13134	284.00	287
41.00	121	127.00	100304	200.00	966	285.00	647
45.00	171	128.00	7945	201.00	841	286.00	41
49.00	501	129.00	39152	203.00	1272	289.00	116
50.00	21112	130.00	3224	204.00	6435	290.00	42
51.00	83416	131.00	599	205.00	11149	292.00	134
52.00	4344	132.00	306	206.00	46584	293.00	804
53.00	231	133.00	106	207.00	6079	294.00	218
55.00	443	134.00	1039	208.00	1595	295.00	254
56.00	2396	135.00	3168	209.00	525	296.00	11483
57.00	5657	136.00	1194	210.00	547	297.00	1562
58.00	245	137.00	1428	211.00	1867	298.00	93
61.00	981	138.00	275	213.00	88	301.00	139
62.00	1197	139.00	224	215.00	503	302.00	226
63.00	3286	140.00	403	216.00	907	303.00	1471
64.00	390	141.00	4981	217.00	11543	304.00	343
65.00	1597	142.00	1482	218.00	1543	309.00	46
66.00	90	143.00	979	219.00	105	310.00	133
67.00	44	144.00	303	220.00	297	313.00	95
68.00	1173	145.00	283	221.00	9490	314.00	570
69.00	80216	146.00	831	223.00	2563	315.00	1213
70.00	361	147.00	2376	224.00	24824	316.00	713
73.00	700	148.00	5400	225.00	6331	317.00	115
74.00	7988	149.00	1089	226.00	635	321.00	410
75.00	12877	150.00	328	227.00	10591	322.00	125
76.00	4092	151.00	567	228.00	1463	323.00	3758
77.00	87360	152.00	327	229.00	2269	324.00	694
78.00	5935	153.00	1578	230.00	312	327.00	734
79.00	5566	154.00	1204	231.00	772	328.00	316
80.00	4473	155.00	2522	232.00	135	332.00	243
81.00	6655	156.00	4079	233.00	137	333.00	314
82.00	1565	157.00	670	234.00	591	334.00	2509

Data File: /chem/MSD6.i/s010610.b/s6a0601.d

Date : 06-JAN-2010 08:55

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6a0601.d

Spectrum: Avg. Scans 191-193 (8.22), Background Scan 186

Location of Maximum: 198.00

Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
83.00	1438	158.00	896	235.00	702	335.00	618
84.00	192	159.00	564	236.00	419	341.00	471
85.00	1150	160.00	1488	237.00	794	342.00	90
86.00	1959	161.00	2277	238.00	49	346.00	817
87.00	857	162.00	698	239.00	365	347.00	116
88.00	340	163.00	221	240.00	390	352.00	1174
89.00	158	164.00	237	241.00	544	353.00	839
91.00	1474	165.00	1618	242.00	1252	354.00	1236
92.00	1581	166.00	1385	243.00	1434	355.00	218
93.00	9756	167.00	8982	244.00	20016	365.00	4891
94.00	728	168.00	4337	245.00	2618	366.00	783
95.00	207	169.00	798	246.00	3621	370.00	42
96.00	509	170.00	328	247.00	729	371.00	300
97.00	215	171.00	393	248.00	162	372.00	1818
98.00	7603	172.00	798	249.00	624	373.00	575
99.00	5960	173.00	1096	250.00	92	383.00	527
100.00	488	174.00	2014	251.00	188	384.00	123
101.00	3513	175.00	3632	252.00	210	390.00	255
102.00	225	176.00	933	253.00	466	391.00	128
103.00	1015	177.00	1754	254.00	770	392.00	103
104.00	2166	178.00	723	255.00	98608	401.00	93
105.00	2192	179.00	6789	256.00	15060	402.00	798
106.00	655	180.00	4832	257.00	1147	403.00	1137
107.00	28048	181.00	2291	258.00	5468	404.00	426
108.00	4267	182.00	355	259.00	938	421.00	942
109.00	759	183.00	187	260.00	183	422.00	884
110.00	50688	184.00	531	261.00	137	423.00	7244
111.00	7775	185.00	3169	264.00	176	424.00	1539
112.00	892	186.00	26552	265.00	2132	425.00	115
113.00	296	187.00	7565	266.00	267	439.00	115
115.00	177	188.00	724	270.00	119	440.00	161
116.00	1349	189.00	1625	271.00	196	441.00	19968
117.00	20360	190.00	281	272.00	273	442.00	140480
118.00	1497	191.00	721	273.00	2789	443.00	26400
119.00	200	192.00	2057	274.00	7920	444.00	2457

Data File: /chem/MSD6.i/s010610.b/s6a0601.d

Date : 06-JAN-2010 08:55

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6a0601.d
Spectrum: Avg. Scans 191-193 (8.22), Background Scan 186
Location of Maximum: 198.00
Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
120.00	401	193.00	2521	275.00	45552	445.00	141
121.00	94	194.00	539	276.00	6036		
122.00	1741	195.00	360	277.00	3531		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202003486**				
Client Sample:	**QC for batch 936345**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 936345**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.1**	**Dilution:**	**1**
Run Date:	**01/06/2010 12:16**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0608.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.0	ug/L	2.00	10.0
108-95-2	Phenol	U	10.0	ug/L	1.00	10.0
95-57-8	2-Chlorophenol	U	10.0	ug/L	2.00	10.0
106-46-7	1,4-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	10.0	ug/L	2.00	10.0
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	10.0	ug/L	2.00	10.0
83-32-9	Acenaphthene	U	1.00	ug/L	0.310	1.00
121-14-2	2,4-Dinitrotoluene	U	10.0	ug/L	2.00	10.0
100-02-7	4-Nitrophenol	U	10.0	ug/L	2.00	10.0
87-86-5	Pentachlorophenol	U	10.0	ug/L	2.00	10.0
129-00-0	Pyrene	U	1.00	ug/L	0.300	1.00
110-86-1	Pyridine	U	10.0	ug/L	3.00	10.0
62-53-3	Aniline	U	10.0	ug/L	2.50	10.0
111-44-4	bis(2-Chloroethyl) ether	U	10.0	ug/L	2.00	10.0
541-73-1	1,3-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
100-51-6	Benzyl alcohol	U	10.0	ug/L	2.00	10.0
95-50-1	1,2-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
108-60-1	bis(2-Chloroisopropyl)ether	U	10.0	ug/L	2.00	10.0
95-48-7	o-Cresol	U	10.0	ug/L	2.00	10.0
65794-96-9	m,p-Cresols	U	10.0	ug/L	3.00	10.0
67-72-1	Hexachloroethane	U	10.0	ug/L	2.00	10.0
98-95-3	Nitrobenzene	U	10.0	ug/L	3.00	10.0
78-59-1	Isophorone	U	10.0	ug/L	3.00	10.0
88-75-5	2-Nitrophenol	U	10.0	ug/L	2.00	10.0
105-67-9	2,4-Dimethylphenol	U	10.0	ug/L	2.00	10.0
111-91-1	bis(2-Chloroethoxy)methane	U	10.0	ug/L	3.00	10.0
120-83-2	2,4-Dichlorophenol	U	10.0	ug/L	2.00	10.0
65-85-0	Benzoic acid	U	20.0	ug/L	6.00	20.0
91-20-3	Naphthalene	U	1.00	ug/L	0.300	1.00
106-47-8	4-Chloroaniline	U	10.0	ug/L	2.00	10.0
87-68-3	Hexachlorobutadiene	U	10.0	ug/L	2.00	10.0
91-57-6	2-Methylnaphthalene	U	1.00	ug/L	0.300	1.00
90-12-0	1-Methylnaphthalene	U	1.00	ug/L	0.300	1.00
77-47-4	Hexachlorocyclopentadiene	U	10.0	ug/L	3.00	10.0
88-06-2	2,4,6-Trichlorophenol	U	10.0	ug/L	2.00	10.0
95-95-4	2,4,5-Trichlorophenol	U	10.0	ug/L	2.00	10.0
91-58-7	2-Chloronaphthalene	U	1.00	ug/L	0.300	1.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202003486**				
Client Sample:	**QC for batch 936345**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 936345**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 12:16**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0608.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.0	ug/L	2.00	10.0
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.0	ug/L	2.00	10.0
131-11-3	Dimethylphthalate	U	10.0	ug/L	2.00	10.0
606-20-2	2,6-Dinitrotoluene	U	10.0	ug/L	2.00	10.0
208-96-8	Acenaphthylene	U	1.00	ug/L	0.200	1.00
51-28-5	2,4-Dinitrophenol	U	20.0	ug/L	5.00	20.0
132-64-9	Dibenzofuran	U	10.0	ug/L	2.00	10.0
84-66-2	Diethylphthalate	U	10.0	ug/L	2.00	10.0
86-73-7	Fluorene	U	1.00	ug/L	0.200	1.00
7005-72-3	4-Chlorophenylphenylether	U	10.0	ug/L	2.00	10.0
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.0	ug/L	3.00	10.0
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.0	ug/L	3.00	10.0
122-39-4	Diphenylamine	U	10.0	ug/L	3.00	10.0
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	10.0	ug/L	2.00	10.0
101-55-3	4-Bromophenylphenylether	U	10.0	ug/L	2.00	10.0
118-74-1	Hexachlorobenzene	U	10.0	ug/L	2.00	10.0
1912-24-9	Atrazine	U	10.0	ug/L	3.00	10.0
85-01-8	Phenanthrene	U	1.00	ug/L	0.200	1.00
120-12-7	Anthracene	U	1.00	ug/L	0.200	1.00
84-74-2	Di-n-butylphthalate	U	10.0	ug/L	2.00	10.0
206-44-0	Fluoranthene	U	1.00	ug/L	0.200	1.00
92-87-5	Benzidine	U	10.0	ug/L	3.00	10.0
85-68-7	Butylbenzylphthalate	U	10.0	ug/L	2.00	10.0
56-55-3	Benzo(a)anthracene	U	1.00	ug/L	0.200	1.00
91-94-1	3,3'-Dichlorobenzidine	U	10.0	ug/L	2.00	10.0
218-01-9	Chrysene	U	1.00	ug/L	0.200	1.00
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.0	ug/L	2.00	10.0
117-84-0	Di-n-octylphthalate	U	10.0	ug/L	3.00	10.0
205-99-2	Benzo(b)fluoranthene	U	1.00	ug/L	0.200	1.00
207-08-9	Benzo(k)fluoranthene	U	1.00	ug/L	0.200	1.00
50-32-8	Benzo(a)pyrene	U	1.00	ug/L	0.200	1.00
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.00	ug/L	0.200	1.00
53-70-3	Dibenzo(a,h)anthracene	U	1.00	ug/L	0.200	1.00
191-24-2	Benzo(ghi)perylene	U	1.00	ug/L	0.200	1.00
123-91-1	1,4-Dioxane	U	10.0	ug/L	2.00	10.0
55-18-5	N-Nitrosodiethylamine	U	10.0	ug/L	2.00	10.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202003486**				
Client Sample:	**QC for batch 936345**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 936345**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 12:16**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0608.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.0	ug/L	2.00	10.0
924-16-3	N-Nitrosodi-n-butylamine	U	10.0	ug/L	3.00	10.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.0	ug/L	3.00	10.0
608-93-5	Pentachlorobenzene	U	10.0	ug/L	3.00	10.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.0	ug/L	2.00	10.0
88-85-7	Dinoseb	U	10.0	ug/L	2.00	10.0
120-82-1	1,2,4-Trichlorobenzene	U	10.0	ug/L	2.00	10.0

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	88.2	100	ug/L	88.2	(39%-115%)
2-Fluorobiphenyl	36.6	50.0	ug/L	73.1	(35%-100%)
2-Fluorophenol	45.8	100	ug/L	45.8	(25%-92%)
Nitrobenzene-d5	39.3	50.0	ug/L	78.5	(40%-112%)
Phenol-d5	29.4	100	ug/L	29.4	(15%-73%)
p-Terphenyl-d14	46.6	50.0	ug/L	93.3	(46%-130%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	2.13	16	ug/L		J

GEL Laboratories LLC

Data file : /chem/MSD6.i/s010610.b/s6a0608.d
Lab Smp Id: 1202003486 Client Smp ID: SBLK01
Inj Date : 06-JAN-2010 12:16
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202003486|936348|1|SVM|1|SBLK01
Misc Info : |MSD82709L|WBN091223-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Meth Date : 07-Jan-2010 08:58 hnm Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1020.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.749	4.750	(1.000)	259094	40.0000	
* 29 Naphthalene-d8	136	6.020	6.026	(1.000)	957158	40.0000	
* 46 Acenaphthene-d10	164	7.888	7.894	(1.000)	536889	40.0000	
* 67 Phenanthrene-d10	188	9.499	9.502	(1.000)	929353	40.0000	
* 91 Chrysene-d12	240	12.482	12.496	(1.000)	754349	40.0000	
* 98 Perylene-d12	264	14.773	14.779	(1.000)	616377	40.0000	
$ 3 2-Fluorophenol	112	3.587	3.588	(0.755)	297318	45.8237	45.8
$ 5 Phenol-d5	99	4.359	4.370	(0.918)	241035	29.4336	29.4
$ 20 Nitrobenzene-d5	82	5.284	5.290	(0.878)	265918	39.2737	39.3
$ 39 2-Fluorobiphenyl	172	7.147	7.150	(0.906)	506018	36.5724	36.6
$ 60 2,4,6-Tribromophenol	329	8.737	8.743	(1.108)	138198	88.1908	88.2
$ 81 p-Terphenyl-d14	244	11.206	11.207	(0.898)	567241	46.6284	46.6

GEL Laboratories LLC

Data file : /chem/MSD6.i/s010610.b/s6a0608.d
Lab Smp Id: 1202003486 Client Smp ID: SBLK01
Inj Date : 06-JAN-2010 12:16
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202003486|936348|1|SVM|1|SBLK01
Misc Info : |MSD82709L|WBN091223-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Meth Date : 07-Jan-2010 08:58 hnm Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1020.sub
Target Version: 3.50
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	4.749	1528628	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/L)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
2.127	611519	16.0017636	16.0	0		0	10

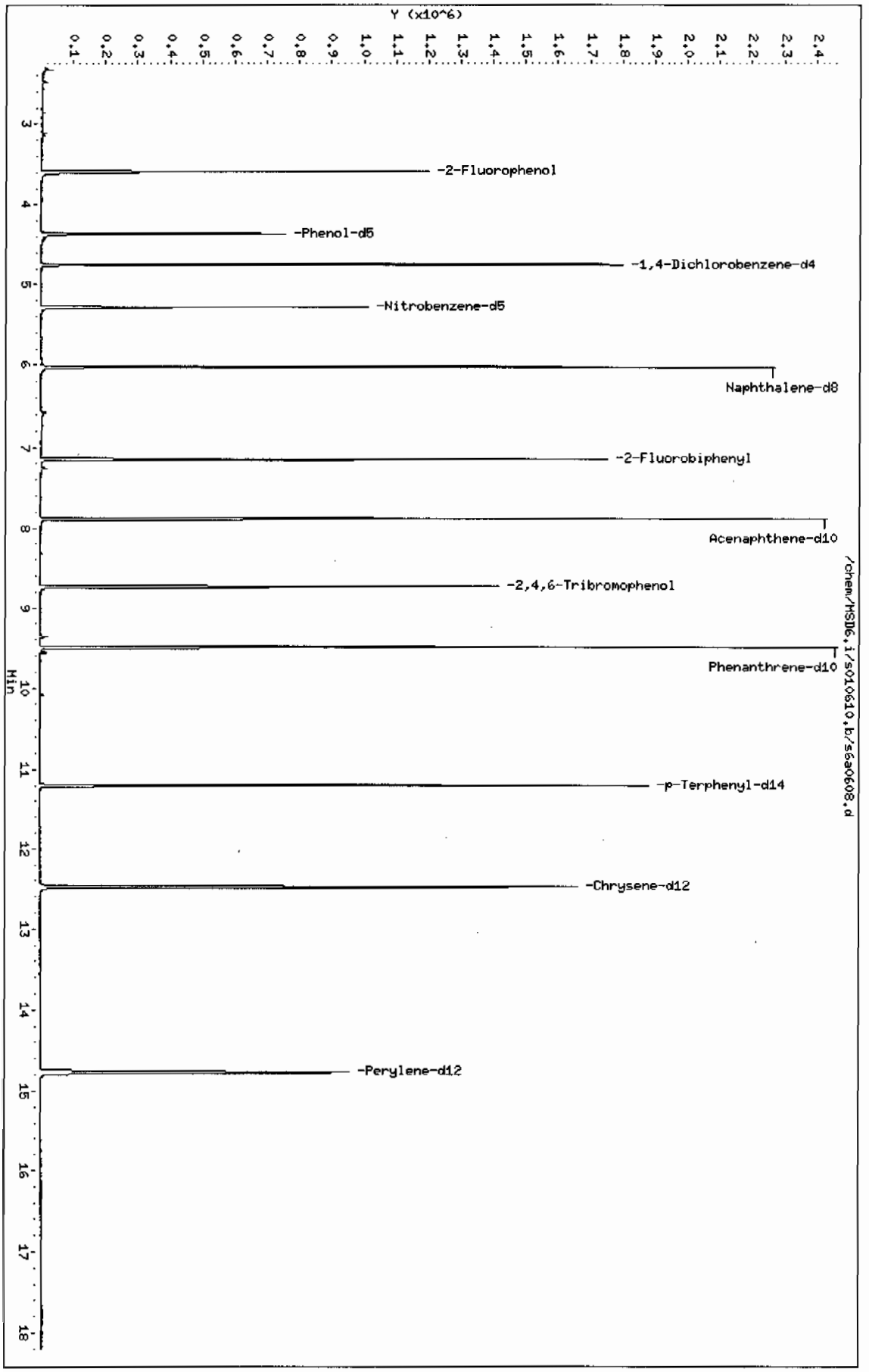
Data File: /chem/MSD6.i/s010610.b/s6a0608.d
Date : 06-JAN-2010 12:16
Client ID: SBLK01
Sample Info: 1202003486|93634811|SWM11|SBLK01
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS
Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20
Page 1
Y (x10^6)
-2-Fluorophenol
-Phenol-d5
-1,4-Dichlorobenzene-d4
-Nitrobenzene-d5
Naphthalene-d8
-2-Fluorobiphenyl
Acenaphthene-d10
-2,4,6-Tribromophenol
Phenanthrene-d10
-p-Terphenyl-d14
-Chrysene-d12
-Perylene-d12
/chem/MSD6.i/s010610.b/s6a0608.d
Min

Data File: /chem/MSD6.i/s010610.b/s6a0608.d

Date : 06-JAN-2010 12:16

Client ID: SBLK01

Instrument: MSD6.i

Sample Info: |12020034861936348|1|SVM|1|SBLK01

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Butanone, 3-methyl-	563-80-4	NIST05.L	1738	59	C5H10O	86
2-Butanone, 3-methyl-	563-80-4	NIST05.L	1740	50	C5H10O	86
2,3-Butanedione	431-03-8	NIST05.L	1636	45	C4H6O2	86

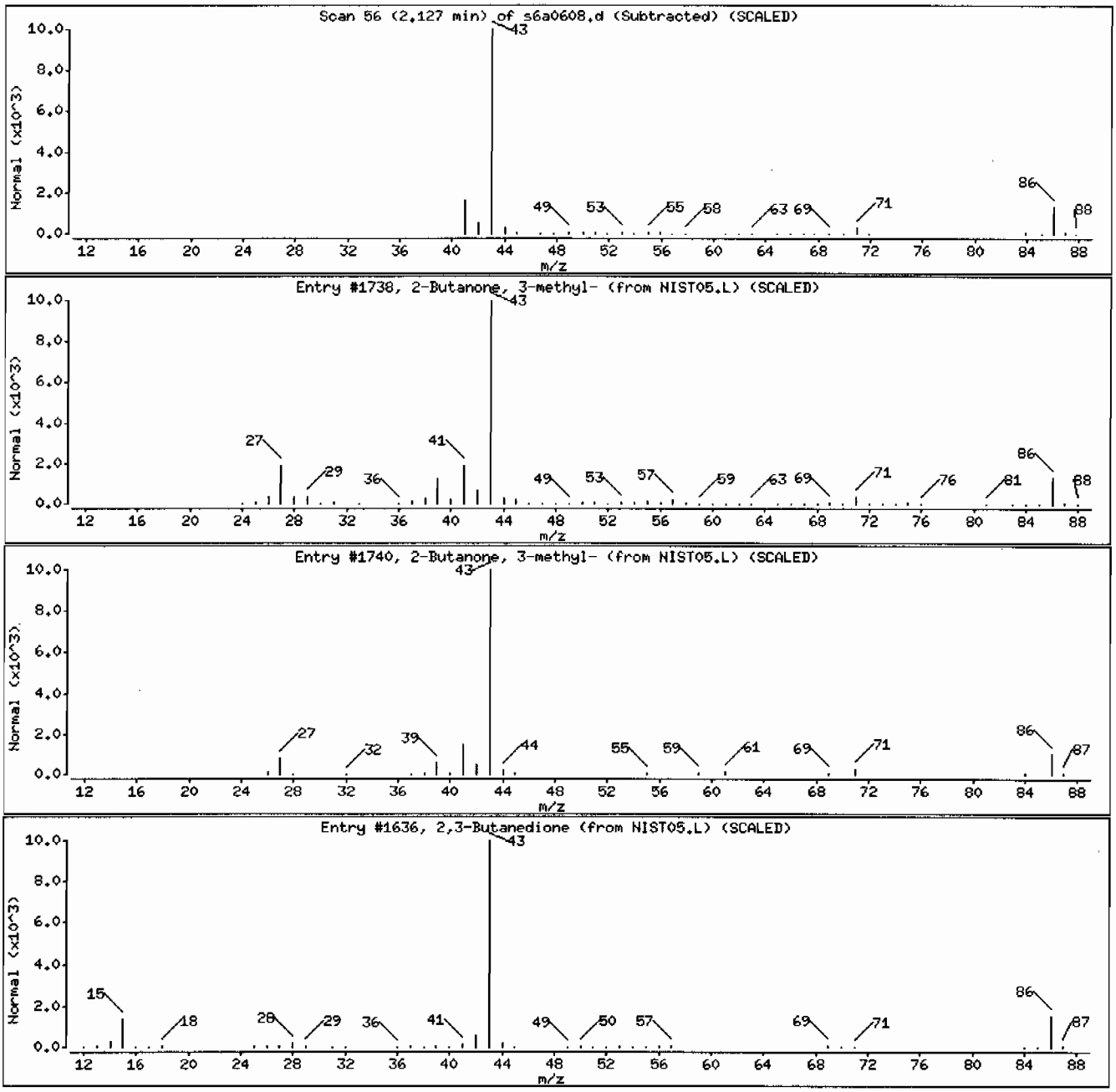

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202003487**				
Client Sample:	**QC for batch 936345**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 936345**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 12:45**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0609.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		20.6	ug/L	2.00	10.0
108-95-2	Phenol		16.5	ug/L	1.00	10.0
95-57-8	2-Chlorophenol		37.5	ug/L	2.00	10.0
106-46-7	1,4-Dichlorobenzene		33.7	ug/L	2.00	10.0
621-64-7	N-Nitrosodi--n-propylamine		40.6	ug/L	2.00	10.0
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol		44.4	ug/L	2.00	10.0
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene		36.8	ug/L	0.310	1.00
121-14-2	2,4-Dinitrotoluene		42.6	ug/L	2.00	10.0
100-02-7	4-Nitrophenol		18.5	ug/L	2.00	10.0
87-86-5	Pentachlorophenol		42.5	ug/L	2.00	10.0
129-00-0	Pyrene		39.6	ug/L	0.300	1.00
110-86-1	Pyridine		23.7	ug/L	3.00	10.0
62-53-3	Aniline		39.3	ug/L	2.50	10.0
111-44-4	bis(2-Chloroethyl) ether		34.1	ug/L	2.00	10.0
541-73-1	1,3-Dichlorobenzene		34.0	ug/L	2.00	10.0
100-51-6	Benzyl alcohol		37.3	ug/L	2.00	10.0
95-50-1	1,2-Dichlorobenzene		34.8	ug/L	2.00	10.0
108-60-1	bis(2-Chloroisopropyl)ether		38.9	ug/L	2.00	10.0
95-48-7	o-Cresol		32.7	ug/L	2.00	10.0
65794-96-9	m,p-Cresols		33.9	ug/L	3.00	10.0
67-72-1	Hexachloroethane		30.4	ug/L	2.00	10.0
98-95-3	Nitrobenzene		38.5	ug/L	3.00	10.0
78-59-1	Isophorone		41.4	ug/L	3.00	10.0
88-75-5	2-Nitrophenol		40.7	ug/L	2.00	10.0
105-67-9	2,4-Dimethylphenol		39.0	ug/L	2.00	10.0
111-91-1	bis(2-Chloroethoxy)methane		38.8	ug/L	3.00	10.0
120-83-2	2,4-Dichlorophenol		41.8	ug/L	2.00	10.0
65-85-0	Benzoic acid		31.0	ug/L	6.00	20.0
91-20-3	Naphthalene		33.9	ug/L	0.300	1.00
106-47-8	4-Chloroaniline		47.8	ug/L	2.00	10.0
87-68-3	Hexachlorobutadiene		33.1	ug/L	2.00	10.0
91-57-6	2-Methylnaphthalene		39.1	ug/L	0.300	1.00
90-12-0	1-Methylnaphthalene		38.7	ug/L	0.300	1.00
77-47-4	Hexachlorocyclopentadiene		19.1	ug/L	3.00	10.0
88-06-2	2,4,6-Trichlorophenol		42.2	ug/L	2.00	10.0
95-95-4	2,4,5-Trichlorophenol		43.3	ug/L	2.00	10.0
91-58-7	2-Chloronaphthalene		36.9	ug/L	0.300	1.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202003487**				
Client Sample:	**QC for batch 936345**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 936345**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 12:45**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0609.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*		38.2	ug/L	2.00	10.0
99-09-2	3-Nitroaniline *m-Nitroaniline*		44.8	ug/L	2.00	10.0
131-11-3	Dimethylphthalate		43.4	ug/L	2.00	10.0
606-20-2	2,6-Dinitrotoluene		41.1	ug/L	2.00	10.0
208-96-8	Acenaphthylene		39.9	ug/L	0.200	1.00
51-28-5	2,4-Dinitrophenol		35.7	ug/L	5.00	20.0
132-64-9	Dibenzofuran		48.4	ug/L	2.00	10.0
84-66-2	Diethylphthalate		44.0	ug/L	2.00	10.0
86-73-7	Fluorene		41.6	ug/L	0.200	1.00
7005-72-3	4-Chlorophenylphenylether		41.7	ug/L	2.00	10.0
534-52-1	2-Methyl-4,6-dinitrophenol		33.1	ug/L	3.00	10.0
100-01-6	4-Nitroaniline *p-Nitroaniline*		45.3	ug/L	3.00	10.0
122-39-4	Diphenylamine		43.3	ug/L	3.00	10.0
122-66-7	Azobenzene *1,2-Diphenylhydrazine*		41.5	ug/L	2.00	10.0
101-55-3	4-Bromophenylphenylether		42.2	ug/L	2.00	10.0
118-74-1	Hexachlorobenzene		44.4	ug/L	2.00	10.0
1912-24-9	Atrazine		45.0	ug/L	3.00	10.0
85-01-8	Phenanthrene		42.2	ug/L	0.200	1.00
120-12-7	Anthracene		43.0	ug/L	0.200	1.00
84-74-2	Di-n-butylphthalate		46.7	ug/L	2.00	10.0
206-44-0	Fluoranthene		45.8	ug/L	0.200	1.00
92-87-5	Benzidine		39.7	ug/L	3.00	10.0
85-68-7	Butylbenzylphthalate		44.3	ug/L	2.00	10.0
56-55-3	Benzo(a)anthracene		42.6	ug/L	0.200	1.00
91-94-1	3,3'-Dichlorobenzidine		40.4	ug/L	2.00	10.0
218-01-9	Chrysene		42.9	ug/L	0.200	1.00
117-81-7	bis(2-Ethylhexyl)phthalate		46.4	ug/L	2.00	10.0
117-84-0	Di-n-octylphthalate		47.1	ug/L	3.00	10.0
205-99-2	Benzo(b)fluoranthene		44.7	ug/L	0.200	1.00
207-08-9	Benzo(k)fluoranthene		45.5	ug/L	0.200	1.00
50-32-8	Benzo(a)pyrene		46.8	ug/L	0.200	1.00
193-39-5	Indeno(1,2,3-cd)pyrene		42.8	ug/L	0.200	1.00
53-70-3	Dibenzo(a,h)anthracene		41.6	ug/L	0.200	1.00
191-24-2	Benzo(ghi)perylene		44.1	ug/L	0.200	1.00
123-91-1	1,4-Dioxane		26.5	ug/L	2.00	10.0
55-18-5	N-Nitrosodiethylamine	U	10.0	ug/L	2.00	10.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202003487**				
Client Sample:	**QC for batch 936345**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 936345**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 12:45**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0609.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine		35.5	ug/L	2.00	10.0
924-16-3	N-Nitrosodi-n-butylamine	U	10.0	ug/L	3.00	10.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.0	ug/L	3.00	10.0
608-93-5	Pentachlorobenzene	U	10.0	ug/L	3.00	10.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.0	ug/L	2.00	10.0
88-85-7	Dinoseb	U	10.0	ug/L	2.00	10.0
120-82-1	1,2,4-Trichlorobenzene		34.7	ug/L	2.00	10.0

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	98.9	100	ug/L	98.9	(39%-115%)
2-Fluorobiphenyl	37.2	50.0	ug/L	74.4	(35%-100%)
2-Fluorophenol	46.5	100	ug/L	46.5	(25%-92%)
Nitrobenzene-d5	37.7	50.0	ug/L	75.4	(40%-112%)
Phenol-d5	30.2	100	ug/L	30.2	(15%-73%)
p-Terphenyl-d14	45.9	50.0	ug/L	91.9	(46%-130%)

GEL Laboratories LLC

Data file : /chem/MSD6.i/s010610.b/s6a0609.d
Lab Smp Id: 1202003487 Client Smp ID: SBLK01LCS
Inj Date : 06-JAN-2010 12:45
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202003487|936348|1|SVM|1|SBLK01LCS
Misc Info : |MSD82709L|WBN091223-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Meth Date : 07-Jan-2010 08:58 hnm Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 8 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1020.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.749	4.750	(1.000)	250866	40.0000	
* 29 Naphthalene-d8	136	6.026	6.026	(1.000)	1002198	40.0000	
* 46 Acenaphthene-d10	164	7.891	7.894	(1.000)	543312	40.0000	
* 67 Phenanthrene-d10	188	9.501	9.502	(1.000)	950027	40.0000	
* 91 Chrysene-d12	240	12.493	12.496	(1.000)	795153	40.0000	
* 98 Perylene-d12	264	14.778	14.779	(1.000)	656973	40.0000	
$ 3 2-Fluorophenol	112	3.587	3.588	(0.755)	292175	46.5080	46.5
$ 5 Phenol-d5	99	4.367	4.370	(0.920)	239335	30.1845	30.2
$ 20 Nitrobenzene-d5	82	5.289	5.290	(0.878)	267124	37.6788	37.7
$ 39 2-Fluorobiphenyl	172	7.149	7.150	(0.906)	520765	37.1933	37.2
$ 60 2,4,6-Tribromophenol	329	8.744	8.743	(1.108)	156905	98.9450	98.9
$ 81 p-Terphenyl-d14	244	11.206	11.207	(0.897)	589120	45.9418	45.9
6 Phenol	94	4.380	4.383	(0.922)	131605	16.5074	16.5(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	4.553	4.556	(0.959)	240119	37.4956	37.5
11 1,4-Dichlorobenzene	146	4.767	4.767	(1.004)	252224	33.7494	33.7
17 N-Nitrosodipropylamine	70	5.121	5.129	(1.078)	180498	40.6123	40.6(Q)
28 1,2,4-Trichlorobenzene	180	5.957	5.957	(0.989)	210925	34.6990	34.7
33 4-Chloro-3-methylphenol	107	6.584	6.579	(1.093)	221944	44.3879	44.4
47 Acenaphthene	154	7.927	7.930	(1.005)	450061	36.7546	36.8
50 2,4-Dinitrotoluene	165	8.087	8.090	(1.025)	178690	42.6272	42.6
52 4-Nitrophenol	139	8.021	8.011	(1.016)	30605	18.4681	18.5(Q)
65 Pentachlorophenol	266	9.287	9.283	(0.977)	87892	42.5101	42.5
79 Pyrene	202	11.066	11.066	(0.886)	866660	39.6263	39.6
2 Pyridine	79	2.652	2.655	(0.558)	126177	23.7368	23.7
4 Aniline	66	4.441	4.444	(0.935)	130146	39.3378	39.3
7 bis(2-Chloroethyl) ether	63	4.479	4.480	(0.943)	183949	34.0729	34.1
9 1,3-Dichlorobenzene	146	4.698	4.699	(0.989)	250587	33.9903	34.0
12 Benzyl alcohol	108	4.864	4.864	(1.024)	148582	37.3462	37.3
13 1,2-Dichlorobenzene	146	4.912	4.915	(1.034)	242875	34.8158	34.8
14 bis(2-Chloroisopropyl)ether	45	4.983	4.984	(1.049)	468737	38.8897	38.9
15 o-Cresol	107	4.953	4.953	(1.043)	170455	32.6908	32.7
18 m,p-Cresols	107	5.106	5.109	(1.075)	224115	33.9212	33.9
19 Hexachloroethane	117	5.246	5.247	(1.105)	88033	30.4485	30.4
21 Nitrobenzene	77	5.310	5.310	(0.881)	274859	38.4664	38.5
22 Isophorone	82	5.542	5.542	(0.920)	523958	41.3683	41.4
23 2-Nitrophenol	139	5.623	5.624	(0.933)	134177	40.7109	40.7
24 2,4-Dimethylphenol	122	5.641	5.641	(0.936)	213031	39.0111	39.0
25 bis(2-Chloroethoxy)methane	93	5.740	5.743	(0.953)	288885	38.7575	38.8
26 2,4-Dichlorophenol	162	5.868	5.871	(0.974)	206968	41.7864	41.8
27 Benzoic acid	105	5.748	5.754	(0.954)	104625	31.0403	31.0(Q)
30 Naphthalene	128	6.049	6.049	(1.004)	677709	33.8994	33.9
31 4-Chloroaniline	127	6.092	6.090	(1.011)	306858	47.7560	47.8
32 Hexachlorobutadiene	225	6.156	6.156	(1.022)	104796	33.1063	33.1
34 2-Methylnaphthalene	142	6.770	6.770	(1.123)	472264	39.1468	39.1
35 1-Methylnaphthalene	142	6.877	6.877	(1.141)	456321	38.6681	38.7
36 Hexachlorocyclopentadiene	237	6.925	6.926	(0.878)	41841	19.0659	19.1
37 2,4,6-Trichlorophenol	196	7.063	7.061	(0.895)	156300	42.1604	42.2
38 2,4,5-Trichlorophenol	196	7.106	7.104	(0.901)	171071	43.3301	43.3
40 2-Chloronaphthalene	162	7.295	7.293	(0.924)	449651	36.8514	36.8
42 o-Nitroaniline	65	7.397	7.395	(0.937)	159509	38.2120	38.2
41 m-Nitroaniline	138	7.840	7.840	(0.994)	136791	44.7654	44.8
43 Dimethylphthalate	163	7.577	7.583	(0.960)	605329	43.4322	43.4
44 2,6-Dinitrotoluene	165	7.654	7.654	(0.970)	136615	41.0951	41.1
45 Acenaphthylene	152	7.741	7.744	(0.981)	782923	39.9069	39.9
48 2,4-Dinitrophenol	184	7.952	7.950	(1.008)	37669	35.7100	35.7
49 Dibenzofuran	168	8.113	8.113	(1.028)	800125	48.4081	48.4
51 Diethylphthalate	149	8.334	8.335	(1.056)	616978	43.9576	44.0
53 Fluorene	166	8.482	8.483	(1.075)	564489	41.6093	41.6
54 4-Chlorophenylphenylether	204	8.467	8.467	(1.073)	267450	41.7237	41.7
55 2-Methyl-4,6-dinitrophenol	198	8.530	8.531	(0.898)	66473	33.0521	33.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
56 p-Nitroaniline	138	8.502	8.503	(1.077)	132398	45.2694	45.3
133 Diphenylamine	169	8.599	8.597	(0.905)	495493	43.2707	43.3
58 1,2-Diphenylhydrazine	77	8.643	8.643	(0.910)	604503	41.5023	41.5
61 4-Bromophenylphenylether	248	8.999	9.000	(0.947)	158077	42.1678	42.2
63 Hexachlorobenzene	284	9.076	9.074	(0.955)	174363	44.4044	44.4
207 Atrazine	173	9.165	9.165	(0.965)	43432	45.0023	45.0
68 Phenanthrene	178	9.527	9.530	(1.003)	829959	42.2438	42.2
69 Anthracene	178	9.583	9.583	(1.009)	844302	42.9941	43.0
72 Di-n-butylphthalate	149	10.092	10.093	(1.062)	1053296	46.7050	46.7
76 Fluoranthene	202	10.814	10.814	(1.138)	862009	45.8016	45.8
77 Benzidine	184	10.941	10.941	(0.876)	310101	39.6899	39.7
85 Butylbenzylphthalate	149	11.731	11.731	(0.939)	443483	44.3080	44.3
89 Benzo(a)anthracene	228	12.470	12.473	(0.998)	730509	42.5815	42.6
90 3,3'-Dichlorobenzidine	252	12.419	12.414	(0.994)	227101	40.4377	40.4
92 Chrysene	228	12.526	12.529	(1.003)	705035	42.8912	42.9
93 bis(2-Ethylhexyl)phthalate	149	12.442	12.442	(0.996)	640786	46.3964	46.4
94 Di-n-octylphthalate	149	13.405	13.406	(0.907)	983759	47.1154	47.1
95 Benzo(b)fluoranthene	252	14.111	14.114	(0.955)	649916	44.7085	44.7
96 Benzo(k)fluoranthene	252	14.159	14.160	(0.958)	657631	45.4946	45.5
97 Benzo(a)pyrene	252	14.679	14.680	(0.993)	587120	46.7607	46.8
99 Indeno(1,2,3-cd)pyrene	276	16.738	16.741	(1.133)	514445	42.8017	42.8
100 Dibenzo(a,h)anthracene	278	16.768	16.769	(1.135)	407137	41.6427	41.6
101 Benzo(ghi)perylene	276	17.242	17.248	(1.167)	423068	44.1051	44.1
102 1,4-Dioxane	88	2.410	2.410	(0.507)	60813	26.4888	26.5
111 N-Nitrosopyrrolidine	100	5.119	5.116	(1.078)	106003	35.4982	35.5(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.616	2.619	(0.551)	88049	20.6163	20.6(R)

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD6.i/s010610.b/s6a0609.d
Date : 06-JAN-2010 12:45
Client ID: SBLK01LCS
Sample Info: 1120200348719363481 1|SWM|1|SBLK01LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

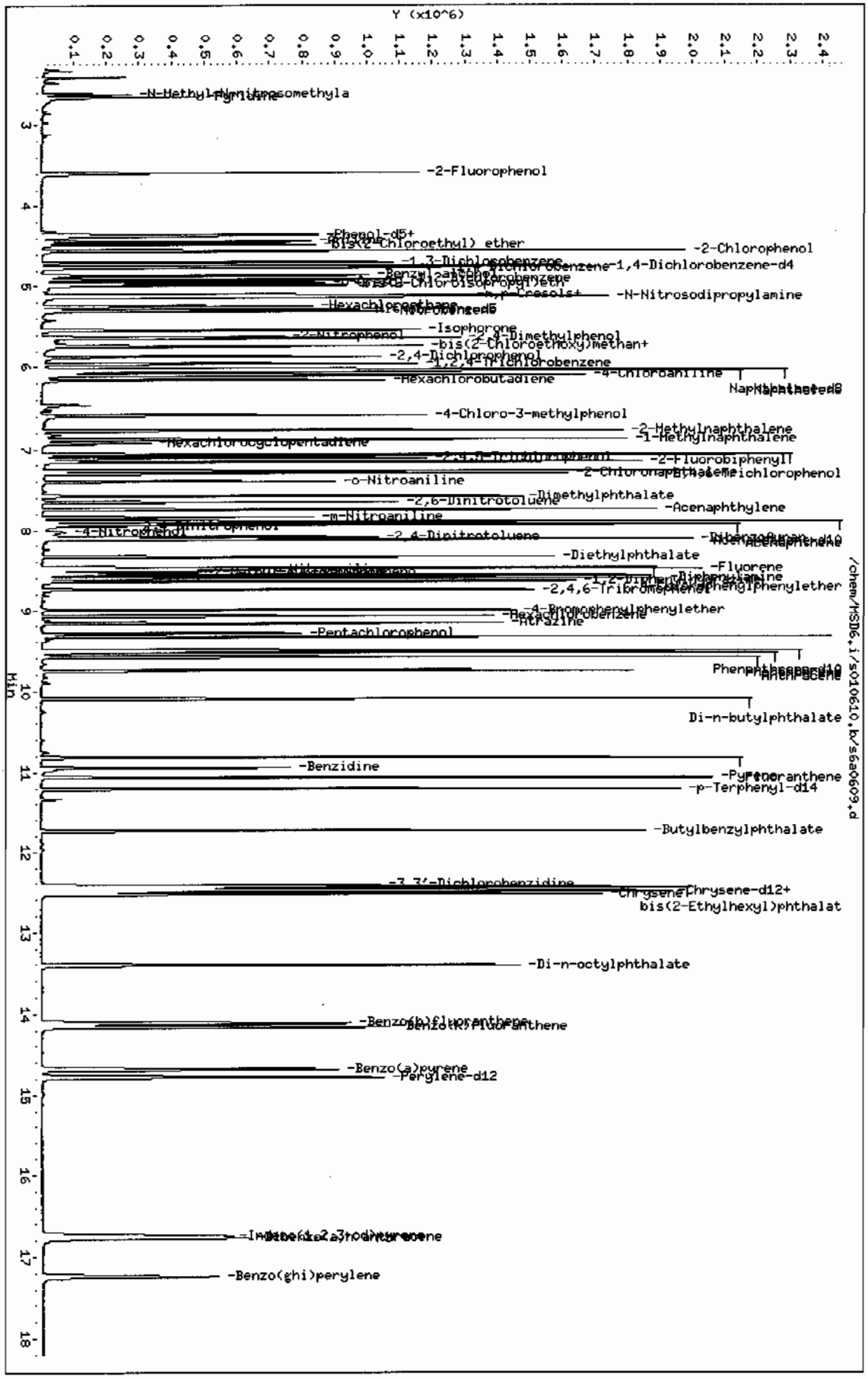

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202003488**	**Date Received:**	**12/22/2009 09:55**		
Client Sample:	**QC for batch 936345**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-6822MS**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 16:30**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**500 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0617.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		59.7	ug/L	4.00	20.0
108-95-2	Phenol		52.9	ug/L	2.00	20.0
95-57-8	2-Chlorophenol		79.9	ug/L	4.00	20.0
106-46-7	1,4-Dichlorobenzene		73.6	ug/L	4.00	20.0
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*		82.8	ug/L	4.00	20.0
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*		94.6	ug/L	4.00	20.0
83-32-9	Acenaphthene		76.9	ug/L	0.620	2.00
121-14-2	2,4-Dinitrotoluene		84.2	ug/L	4.00	20.0
100-02-7	4-Nitrophenol		51.8	ug/L	4.00	20.0
87-86-5	Pentachlorophenol		84.4	ug/L	4.00	20.0
129-00-0	Pyrene		81.2	ug/L	0.600	2.00
110-86-1	Pyridine		59.2	ug/L	6.00	20.0
62-53-3	Aniline		88.5	ug/L	5.00	20.0
111-44-4	bis(2-Chloroethyl) ether		72.5	ug/L	4.00	20.0
541-73-1	1,3-Dichlorobenzene		75.3	ug/L	4.00	20.0
100-51-6	Benzyl alcohol		97.6	ug/L	4.00	20.0
95-50-1	1,2-Dichlorobenzene		76.1	ug/L	4.00	20.0
108-60-1	bis(2-Chloroisopropyl)ether		81.3	ug/L	4.00	20.0
95-48-7	o-Cresol		75.3	ug/L	4.00	20.0
65794-96-9	m,p-Cresols		83.4	ug/L	6.00	20.0
67-72-1	Hexachloroethane		69.5	ug/L	4.00	20.0
98-95-3	Nitrobenzene		79.4	ug/L	6.00	20.0
78-59-1	Isophorone		85.1	ug/L	6.00	20.0
88-75-5	2-Nitrophenol		83.4	ug/L	4.00	20.0
105-67-9	2,4-Dimethylphenol		89.8	ug/L	4.00	20.0
111-91-1	bis(2-Chloroethoxy)methane		80.4	ug/L	6.00	20.0
120-83-2	2,4-Dichlorophenol		87.4	ug/L	4.00	20.0
65-85-0	Benzoic acid		109	ug/L	12.0	40.0
91-20-3	Naphthalene		73.2	ug/L	0.600	2.00
106-47-8	4-Chloroaniline		95.4	ug/L	4.00	20.0
87-68-3	Hexachlorobutadiene		77.8	ug/L	4.00	20.0
91-57-6	2-Methylnaphthalene		86.9	ug/L	0.600	2.00
90-12-0	1-Methylnaphthalene		83.6	ug/L	0.600	2.00
77-47-4	Hexachlorocyclopentadiene		43.5	ug/L	6.00	20.0
88-06-2	2,4,6-Trichlorophenol		86.6	ug/L	4.00	20.0
95-95-4	2,4,5-Trichlorophenol		88.1	ug/L	4.00	20.0
91-58-7	2-Chloronaphthalene		79.6	ug/L	0.600	2.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202003488**	**Date Received:**	**12/22/2009 09:55**		
Client Sample:	**QC for batch 936345**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-6822MS**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 16:30**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**500 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0617.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*		78.3	ug/L	4.00	20.0
99-09-2	3-Nitroaniline *m-Nitroaniline*		89.0	ug/L	4.00	20.0
131-11-3	Dimethylphthalate		87.4	ug/L	4.00	20.0
606-20-2	2,6-Dinitrotoluene		82.8	ug/L	4.00	20.0
208-96-8	Acenaphthylene		83.0	ug/L	0.400	2.00
51-28-5	2,4-Dinitrophenol		62.0	ug/L	10.0	40.0
132-64-9	Dibenzofuran		101	ug/L	4.00	20.0
84-66-2	Diethylphthalate		88.7	ug/L	4.00	20.0
86-73-7	Fluorene		85.4	ug/L	0.400	2.00
7005-72-3	4-Chlorophenylphenylether		86.9	ug/L	4.00	20.0
534-52-1	2-Methyl-4,6-dinitrophenol		55.9	ug/L	6.00	20.0
100-01-6	4-Nitroaniline *p-Nitroaniline*		88.4	ug/L	6.00	20.0
122-39-4	Diphenylamine *1,2-Diphenylhydrazine*		86.4	ug/L	6.00	20.0
122-66-7	Azobenzene		84.0	ug/L	4.00	20.0
101-55-3	4-Bromophenylphenylether		84.8	ug/L	4.00	20.0
118-74-1	Hexachlorobenzene		90.4	ug/L	4.00	20.0
1912-24-9	Atrazine		87.2	ug/L	6.00	20.0
85-01-8	Phenanthrene		83.0	ug/L	0.400	2.00
120-12-7	Anthracene		84.9	ug/L	0.400	2.00
84-74-2	Di-n-butylphthalate		91.4	ug/L	4.00	20.0
206-44-0	Fluoranthene		89.8	ug/L	0.400	2.00
92-87-5	Benzidine		32.4	ug/L	6.00	20.0
85-68-7	Butylbenzylphthalate		89.2	ug/L	4.00	20.0
56-55-3	Benzo(a)anthracene		82.9	ug/L	0.400	2.00
91-94-1	3,3'-Dichlorobenzidine		69.4	ug/L	4.00	20.0
218-01-9	Chrysene		84.0	ug/L	0.400	2.00
117-81-7	bis(2-Ethylhexyl)phthalate		92.2	ug/L	4.00	20.0
117-84-0	Di-n-octylphthalate		101	ug/L	6.00	20.0
205-99-2	Benzo(b)fluoranthene		92.1	ug/L	0.400	2.00
207-08-9	Benzo(k)fluoranthene		92.7	ug/L	0.400	2.00
50-32-8	Benzo(a)pyrene		92.3	ug/L	0.400	2.00
193-39-5	Indeno(1,2,3-cd)pyrene		75.6	ug/L	0.400	2.00
53-70-3	Dibenzo(a,h)anthracene		73.9	ug/L	0.400	2.00
191-24-2	Benzo(ghi)perylene		74.7	ug/L	0.400	2.00
123-91-1	1,4-Dioxane		72.2	ug/L	4.00	20.0
55-18-5	N-Nitrosodiethylamine	U	20.0	ug/L	4.00	20.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202003488**	**Date Received:**	**12/22/2009 09:55**		
Client Sample:	**QC for batch 936345**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-6822MS**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 16:30**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**500 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0617.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine		79.3	ug/L	4.00	20.0
924-16-3	N-Nitrosodi-n-butylamine	U	20.0	ug/L	6.00	20.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	20.0	ug/L	6.00	20.0
608-93-5	Pentachlorobenzene	U	20.0	ug/L	6.00	20.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	20.0	ug/L	4.00	20.0
88-85-7	Dinoseb	U	20.0	ug/L	4.00	20.0
120-82-1	1,2,4-Trichlorobenzene		77.3	ug/L	4.00	20.0

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	198	200	ug/L	99.0	(39%-115%)
2-Fluorobiphenyl	77.1	100	ug/L	77.1	(35%-100%)
2-Fluorophenol	123	200	ug/L	61.3	(25%-92%)
Nitrobenzene-d5	78.7	100	ug/L	78.7	(40%-112%)
Phenol-d5	94.9	200	ug/L	47.4	(15%-73%)
p-Terphenyl-d14	91.3	100	ug/L	91.3	(46%-130%)

GEL Laboratories LLC

Data file : /chem/MSD6.i/s010610.b/s6a0617.d
Lab Smp Id: 1202003488 Client Smp ID: CAPA-10-6822MS
Inj Date : 06-JAN-2010 16:30
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202003488|936348|1|SVM|1|LANL002MS
Misc Info : |MSD82709L|WBN091223-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Meth Date : 06-Jan-2010 16:53 llo00884 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 16 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1020.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	500.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.749	4.750	(1.000)	259917	40.0000	
* 29 Naphthalene-d8	136	6.026	6.026	(1.000)	1042181	40.0000	
* 46 Acenaphthene-d10	164	7.893	7.894	(1.000)	568113	40.0000	
* 67 Phenanthrene-d10	188	9.501	9.502	(1.000)	1007265	40.0000	
* 91 Chrysene-d12	240	12.493	12.496	(1.000)	821562	40.0000	
* 98 Perylene-d12	264	14.776	14.779	(1.000)	621882	40.0000	
$ 3 2-Fluorophenol	112	3.597	3.588	(0.757)	399088	61.3141	123
$ 5 Phenol-d5	99	4.369	4.370	(0.920)	389798	47.4488	94.9
$ 20 Nitrobenzene-d5	82	5.289	5.290	(0.878)	290071	39.3459	78.7
$ 39 2-Fluorobiphenyl	172	7.152	7.150	(0.906)	564487	38.5560	77.1
$ 60 2,4,6-Tribromophenol	329	8.745	8.743	(1.108)	164213	99.0328	198
$ 81 p-Terphenyl-d14	244	11.206	11.207	(0.897)	604869	45.6537	91.3
6 Phenol	94	4.382	4.383	(0.923)	218419	26.4425	52.9(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	4.555	4.556	(0.959)	265212	39.9718	79.9
11 1,4-Dichlorobenzene	146	4.767	4.767	(1.004)	284908	36.7953	73.6
17 N-Nitrosodipropylamine	70	5.124	5.129	(1.079)	190637	41.3999	82.8(Q)
28 1,2,4-Trichlorobenzene	180	5.957	5.957	(0.989)	244157	38.6250	77.2
33 4-Chloro-3-methylphenol	107	6.586	6.579	(1.093)	245865	47.2856	94.6
47 Acenaphthene	154	7.927	7.930	(1.004)	492323	38.4507	76.9
50 2,4-Dinitrotoluene	165	8.087	8.090	(1.025)	184436	42.0772	84.2
52 4-Nitrophenol	139	8.021	8.011	(1.016)	53234	25.8884	51.8
65 Pentachlorophenol	266	9.290	9.283	(0.978)	92421	42.2046	84.4
79 Pyrene	202	11.066	11.066	(0.886)	917259	40.5917	81.2
2 Pyridine	79	2.652	2.655	(0.558)	163092	29.6129	59.2
4 Aniline	66	4.441	4.444	(0.935)	151704	44.2571	88.5
7 bis(2-Chloroethyl) ether	63	4.479	4.480	(0.943)	202849	36.2654	72.5
9 1,3-Dichlorobenzene	146	4.698	4.699	(0.989)	287409	37.6274	75.2
12 Benzyl alcohol	108	4.866	4.864	(1.025)	201155	48.7999	97.6
13 1,2-Dichlorobenzene	146	4.915	4.915	(1.035)	275190	38.0744	76.1
14 bis(2-Chloroisopropyl)ether	45	4.986	4.984	(1.050)	507831	40.6660	81.3
15 o-Cresol	107	4.955	4.953	(1.043)	203499	37.6691	75.3
18 m,p-Cresols	107	5.108	5.109	(1.076)	285434	41.6978	83.4
19 Hexachloroethane	117	5.246	5.247	(1.105)	104159	34.7715	69.5
21 Nitrobenzene	77	5.310	5.310	(0.881)	295124	39.7179	79.4
22 Isophorone	82	5.542	5.542	(0.920)	560415	42.5492	85.1
23 2-Nitrophenol	139	5.623	5.624	(0.933)	142914	41.6983	83.4
24 2,4-Dimethylphenol	122	5.643	5.641	(0.937)	254963	44.8986	89.8
25 bis(2-Chloroethoxy)methane	93	5.743	5.743	(0.953)	311506	40.1890	80.4
26 2,4-Dichlorophenol	162	5.870	5.871	(0.974)	225151	43.7135	87.4
27 Benzoic acid	105	5.771	5.754	(0.958)	191624	54.6702	109
30 Naphthalene	128	6.049	6.049	(1.004)	761358	36.6225	73.2
31 4-Chloroaniline	127	6.092	6.090	(1.011)	318766	47.7060	95.4
32 Hexachlorobutadiene	225	6.156	6.156	(1.022)	128098	38.9151	77.8
34 2-Methylnaphthalene	142	6.770	6.770	(1.123)	545063	43.4479	86.9
35 1-Methylnaphthalene	142	6.877	6.877	(1.141)	513129	41.8138	83.6
36 Hexachlorocyclopentadiene	237	6.925	6.926	(0.877)	49859	21.7277	43.4
37 2,4,6-Trichlorophenol	196	7.063	7.061	(0.895)	167809	43.2888	86.6
38 2,4,5-Trichlorophenol	196	7.109	7.104	(0.901)	181865	44.0532	88.1
40 2-Chloronaphthalene	162	7.295	7.293	(0.924)	507934	39.8107	79.6
42 o-Nitroaniline	65	7.397	7.395	(0.937)	170784	39.1269	78.2
41 m-Nitroaniline	138	7.840	7.840	(0.993)	142180	44.4977	89.0
43 Dimethylphthalate	163	7.577	7.583	(0.960)	637220	43.7245	87.4
44 2,6-Dinitrotoluene	165	7.654	7.654	(0.970)	143952	41.4118	82.8
45 Acenaphthylene	152	7.741	7.744	(0.981)	851205	41.4933	83.0
48 2,4-Dinitrophenol	184	7.952	7.950	(1.007)	30653	31.0065	62.0
49 Dibenzofuran	168	8.113	8.113	(1.028)	870617	50.3734	101
51 Diethylphthalate	149	8.334	8.335	(1.056)	651225	44.3721	88.7
53 Fluorene	166	8.482	8.483	(1.075)	605828	42.7070	85.4
54 4-Chlorophenylphenylether	204	8.469	8.467	(1.073)	291083	43.4282	86.8
55 2-Methyl-4,6-dinitrophenol	198	8.530	8.531	(0.898)	56638	27.9536	55.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
56 p-Nitroaniline	138	8.502	8.503	(1.077)	134577	44.2029	88.4
133 Diphenylamine	169	8.599	8.597	(0.905)	524255	43.1808	86.4
58 1,2-Diphenylhydrazine	77	8.643	8.643	(0.910)	648517	41.9940	84.0
61 4-Bromophenylphenylether	248	8.999	9.000	(0.947)	168584	42.4151	84.8
63 Hexachlorobenzene	284	9.076	9.074	(0.955)	188093	45.1790	90.4
207 Atrazine	173	9.165	9.165	(0.965)	44635	43.6207	87.2
68 Phenanthrene	178	9.529	9.530	(1.003)	864823	41.5170	83.0
69 Anthracene	178	9.583	9.583	(1.009)	883406	42.4291	84.8
72 Di-n-butylphthalate	149	10.092	10.093	(1.062)	1092689	45.6984	91.4
76 Fluoranthene	202	10.814	10.814	(1.138)	895744	44.8895	89.8
77 Benzidine	184	10.941	10.941	(0.876)	130932	16.2193	32.4(R)
85 Butylbenzylphthalate	149	11.733	11.731	(0.939)	460986	44.5762	89.2
89 Benzo(a)anthracene	228	12.472	12.473	(0.998)	734603	41.4437	82.9
90 3,3'-Dichlorobenzidine	252	12.419	12.414	(0.994)	201266	34.6855	69.4
92 Chrysene	228	12.528	12.529	(1.003)	713296	41.9988	84.0
93 bis(2-Ethylhexyl)phthalate	149	12.439	12.442	(0.996)	657965	46.1113	92.2
94 Di-n-octylphthalate	149	13.405	13.406	(0.907)	1001476	50.6703	101
95 Benzo(b)fluoranthene	252	14.111	14.114	(0.955)	633428	46.0330	92.1
96 Benzo(k)fluoranthene	252	14.162	14.160	(0.958)	633909	46.3280	92.6
97 Benzo(a)pyrene	252	14.674	14.680	(0.993)	548726	46.1688	92.3
99 Indeno(1,2,3-cd)pyrene	276	16.738	16.741	(1.133)	425590	37.7897	75.6
100 Dibenzo(a,h)anthracene	278	16.763	16.769	(1.135)	339134	36.9694	73.9
101 Benzo(ghi)perylene	276	17.240	17.248	(1.167)	338913	37.3256	74.6
102 1,4-Dioxane	88	2.410	2.410	(0.507)	85836	36.0864	72.2
111 N-Nitrosopyrrolidine	100	5.124	5.116	(1.079)	122605	39.6281	79.2(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.619	2.619	(0.551)	132055	29.8434	59.7

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD6.i/s010610.b/s6a0617.d
Date : 06-JAN-2010 16:30
Client ID: CAPA-10-6822MS
Sample Info: 1120200348819363481|1|SVM11|LANL002MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

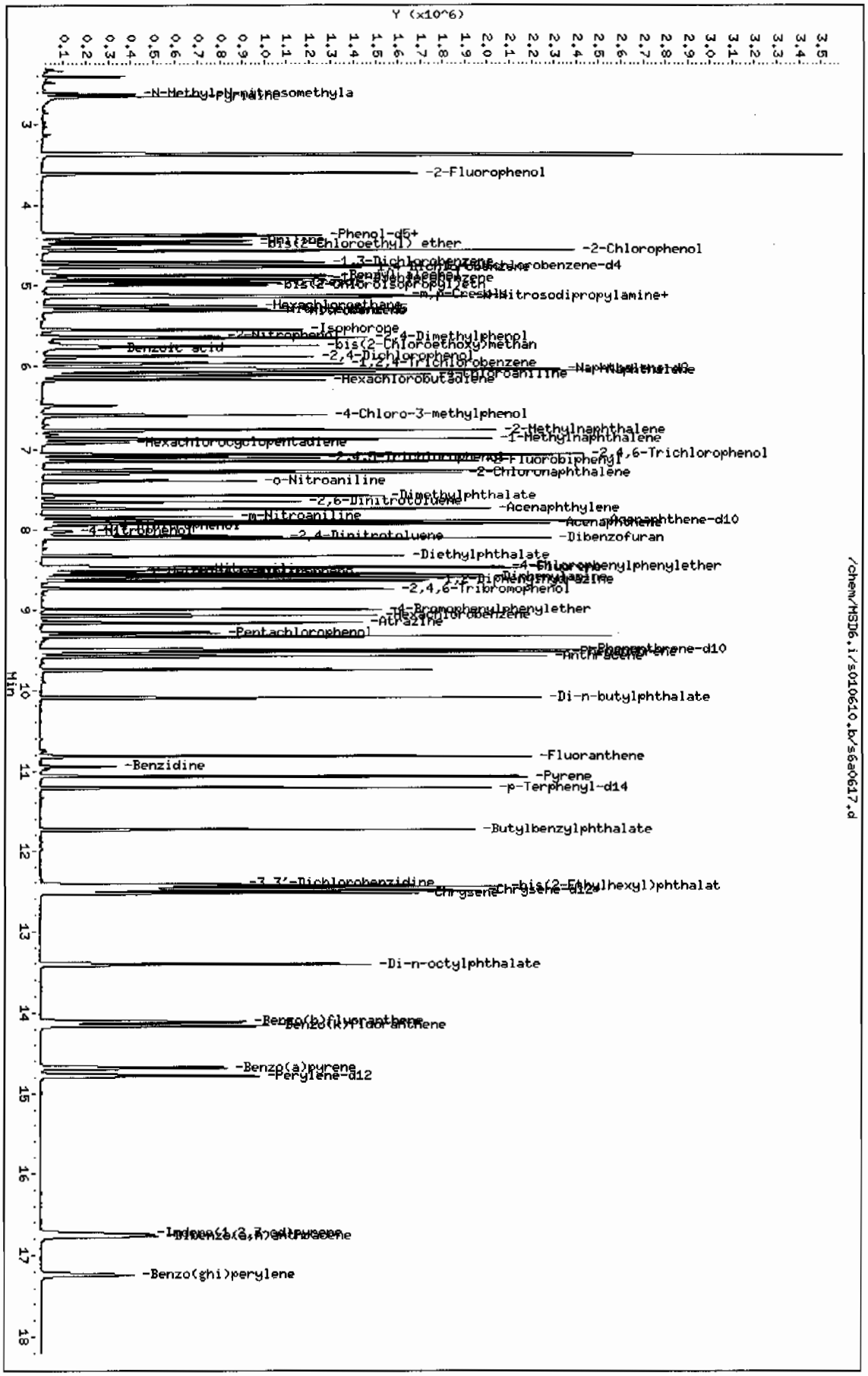

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	**Date Collected:**	12/18/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	1202003489	**Date Received:**	12/22/2009 09:55		
Client Sample:	QC for batch 936345	**Client:**	LANL010	**Project:**	QC
Client ID:	CAPA-10-6822MSD	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	936348	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	01/06/2010 16:58	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/24/2009 11:43	**Aliquot:**	500 mL	**Final Volume:**	1 mL
Data File:	s6a0618.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		51.6	ug/L	4.00	20.0
108-95-2	Phenol		47.1	ug/L	2.00	20.0
95-57-8	2-Chlorophenol		72.6	ug/L	4.00	20.0
106-46-7	1,4-Dichlorobenzene		64.0	ug/L	4.00	20.0
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*		74.6	ug/L	4.00	20.0
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*		90.4	ug/L	4.00	20.0
83-32-9	Acenaphthene		74.3	ug/L	0.620	2.00
121-14-2	2,4-Dinitrotoluene		83.9	ug/L	4.00	20.0
100-02-7	4-Nitrophenol		51.2	ug/L	4.00	20.0
87-86-5	Pentachlorophenol		85.5	ug/L	4.00	20.0
129-00-0	Pyrene		81.8	ug/L	0.600	2.00
110-86-1	Pyridine		59.2	ug/L	6.00	20.0
62-53-3	Aniline		79.3	ug/L	5.00	20.0
111-44-4	bis(2-Chloroethyl) ether		65.4	ug/L	4.00	20.0
541-73-1	1,3-Dichlorobenzene		63.9	ug/L	4.00	20.0
100-51-6	Benzyl alcohol		86.7	ug/L	4.00	20.0
95-50-1	1,2-Dichlorobenzene		65.9	ug/L	4.00	20.0
108-60-1	bis(2-Chloroisopropyl)ether		73.0	ug/L	4.00	20.0
95-48-7	o-Cresol		68.8	ug/L	4.00	20.0
65794-96-9	m,p-Cresols		77.5	ug/L	6.00	20.0
67-72-1	Hexachloroethane		57.9	ug/L	4.00	20.0
98-95-3	Nitrobenzene		72.0	ug/L	6.00	20.0
78-59-1	Isophorone		77.5	ug/L	6.00	20.0
88-75-5	2-Nitrophenol		76.6	ug/L	4.00	20.0
105-67-9	2,4-Dimethylphenol		81.7	ug/L	4.00	20.0
111-91-1	bis(2-Chloroethoxy)methane		73.4	ug/L	6.00	20.0
120-83-2	2,4-Dichlorophenol		80.6	ug/L	4.00	20.0
65-85-0	Benzoic acid		104	ug/L	12.0	40.0
91-20-3	Naphthalene		66.0	ug/L	0.600	2.00
106-47-8	4-Chloroaniline		89.7	ug/L	4.00	20.0
87-68-3	Hexachlorobutadiene		65.7	ug/L	4.00	20.0
91-57-6	2-Methylnaphthalene		77.5	ug/L	0.600	2.00
90-12-0	1-Methylnaphthalene		75.4	ug/L	0.600	2.00
77-47-4	Hexachlorocyclopentadiene		33.5	ug/L	6.00	20.0
88-06-2	2,4,6-Trichlorophenol		83.8	ug/L	4.00	20.0
95-95-4	2,4,5-Trichlorophenol		87.0	ug/L	4.00	20.0
91-58-7	2-Chloronaphthalene		74.3	ug/L	0.600	2.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202003489**	**Date Received:**	**12/22/2009 09:55**		
Client Sample:	**QC for batch 936345**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-6822MSD**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 16:58**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**500 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0618.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*		76.9	ug/L	4.00	20.0
99-09-2	3-Nitroaniline *m-Nitroaniline*		88.8	ug/L	4.00	20.0
131-11-3	Dimethylphthalate		86.9	ug/L	4.00	20.0
606-20-2	2,6-Dinitrotoluene		82.1	ug/L	4.00	20.0
208-96-8	Acenaphthylene		79.6	ug/L	0.400	2.00
51-28-5	2,4-Dinitrophenol		63.6	ug/L	10.0	40.0
132-64-9	Dibenzofuran		96.6	ug/L	4.00	20.0
84-66-2	Diethylphthalate		88.1	ug/L	4.00	20.0
86-73-7	Fluorene		83.3	ug/L	0.400	2.00
7005-72-3	4-Chlorophenylphenylether		85.3	ug/L	4.00	20.0
534-52-1	2-Methyl-4,6-dinitrophenol		56.5	ug/L	6.00	20.0
100-01-6	4-Nitroaniline *p-Nitroaniline*		88.5	ug/L	6.00	20.0
122-39-4	Diphenylamine *1,2-Diphenylhydrazine*		86.6	ug/L	6.00	20.0
122-66-7	Azobenzene		83.6	ug/L	4.00	20.0
101-55-3	4-Bromophenylphenylether		85.3	ug/L	4.00	20.0
118-74-1	Hexachlorobenzene		90.1	ug/L	4.00	20.0
1912-24-9	Atrazine		87.3	ug/L	6.00	20.0
85-01-8	Phenanthrene		83.9	ug/L	0.400	2.00
120-12-7	Anthracene		84.9	ug/L	0.400	2.00
84-74-2	Di-n-butylphthalate		91.2	ug/L	4.00	20.0
206-44-0	Fluoranthene		88.7	ug/L	0.400	2.00
92-87-5	Benzidine		34.9	ug/L	6.00	20.0
85-68-7	Butylbenzylphthalate		90.5	ug/L	4.00	20.0
56-55-3	Benzo(a)anthracene		83.9	ug/L	0.400	2.00
91-94-1	3,3'-Dichlorobenzidine		71.9	ug/L	4.00	20.0
218-01-9	Chrysene		85.3	ug/L	0.400	2.00
117-81-7	bis(2-Ethylhexyl)phthalate		94.0	ug/L	4.00	20.0
117-84-0	Di-n-octylphthalate		102	ug/L	6.00	20.0
205-99-2	Benzo(b)fluoranthene		91.4	ug/L	0.400	2.00
207-08-9	Benzo(k)fluoranthene		91.0	ug/L	0.400	2.00
50-32-8	Benzo(a)pyrene		90.8	ug/L	0.400	2.00
193-39-5	Indeno(1,2,3-cd)pyrene		76.3	ug/L	0.400	2.00
53-70-3	Dibenzo(a,h)anthracene		75.4	ug/L	0.400	2.00
191-24-2	Benzo(ghi)perylene		75.8	ug/L	0.400	2.00
123-91-1	1,4-Dioxane		66.0	ug/L	4.00	20.0
55-18-5	N-Nitrosodiethylamine	U	20.0	ug/L	4.00	20.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202003489**	**Date Received:**	**12/22/2009 09:55**		
Client Sample:	**QC for batch 936345**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-6822MSD**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936348**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 16:58**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/24/2009 11:43**	**Aliquot:**	**500 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0618.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Resnlt	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine		73.2	ug/L	4.00	20.0
924-16-3	N-Nitrosodi-n-butylamine	U	20.0	ug/L	6.00	20.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	20.0	ug/L	6.00	20.0
608-93-5	Pentachlorobenzene	U	20.0	ug/L	6.00	20.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	20.0	ug/L	4.00	20.0
88-85-7	Dinoseb	U	20.0	ug/L	4.00	20.0
120-82-1	1,2,4-Trichlorobenzene		68.1	ug/L	4.00	20.0

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	198	200	ug/L	98.9	(39%-115%)
2-Fluorobiphenyl	72.6	100	ug/L	72.6	(35%-100%)
2-Fluorophenol	110	200	ug/L	55.1	(25%-92%)
Nitrobenzene-d5	70.8	100	ug/L	70.8	(40%-112%)
Phenol-d5	85.8	200	ug/L	42.9	(15%-73%)
p-Terphenyl-d14	94.2	100	ug/L	94.2	(46%-130%)

GEL Laboratories LLC

Data file : /chem/MSD6.i/s010610.b/s6a0618.d
Lab Smp Id: 1202003489 Client Smp ID: CAPA-10-6822MSD
Inj Date : 06-JAN-2010 16:58
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202003489|936348|1|SVM|1|LANL002MSD
Misc Info : |MSD82709L|WBN091223-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Meth Date : 06-Jan-2010 16:53 11o00884 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 17 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-1020.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	500.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.752	4.750	(1.000)	288647	40.0000	
* 29 Naphthalene-d8	136	6.026	6.026	(1.000)	1138763	40.0000	
* 46 Acenaphthene-d10	164	7.893	7.894	(1.000)	606504	40.0000	
* 67 Phenanthrene-d10	188	9.501	9.502	(1.000)	1058534	40.0000	
* 91 Chrysene-d12	240	12.493	12.496	(1.000)	841322	40.0000	
* 98 Perylene-d12	264	14.776	14.779	(1.000)	643144	40.0000	
$ 3 2-Fluorophenol	112	3.595	3.588	(0.757)	398116	55.0769	110
$ 5 Phenol-d5	99	4.369	4.370	(0.920)	391596	42.9231	85.8
$ 20 Nitrobenzene-d5	82	5.289	5.290	(0.878)	285228	35.4076	70.8
$ 39 2-Fluorobiphenyl	172	7.152	7.150	(0.906)	567689	36.3203	72.6
$ 60 2,4,6-Tribromophenol	329	8.744	8.743	(1.108)	175083	98.9046	198
$ 81 p-Terphenyl-d14	244	11.206	11.207	(0.897)	639205	47.1122	94.2
6 Phenol	94	4.382	4.383	(0.922)	216257	23.5749	47.1(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	4.553	4.556	(0.958)	267303	36.2771	72.6
11 1,4-Dichlorobenzene	146	4.767	4.767	(1.003)	275266	32.0116	64.0
17 N-Nitrosodipropylamine	70	5.124	5.129	(1.078)	190662	37.2841	74.6(Q)
28 1,2,4-Trichlorobenzene	180	5.957	5.957	(0.989)	235311	34.0684	68.1
33 4-Chloro-3-methylphenol	107	6.586	6.579	(1.093)	256843	45.2074	90.4
47 Acenaphthene	154	7.929	7.930	(1.005)	507930	37.1586	74.3
50 2,4-Dinitrotoluene	165	8.090	8.090	(1.025)	196343	41.9583	83.9
52 4-Nitrophenol	139	8.021	8.011	(1.016)	55955	25.6015	51.2
65 Pentachlorophenol	266	9.290	9.283	(0.978)	98589	42.7598	85.5
79 Pyrene	202	11.066	11.066	(0.886)	946758	40.9131	81.8
2 Pyridine	79	2.652	2.655	(0.558)	181020	29.5967	59.2
4 Aniline	66	4.441	4.444	(0.935)	150901	39.6411	79.3
7 bis(2-Chloroethyl) ether	63	4.479	4.480	(0.943)	203038	32.6862	65.4
9 1,3-Dichlorobenzene	146	4.698	4.699	(0.989)	270892	31.9350	63.9
12 Benzyl alcohol	108	4.866	4.864	(1.024)	198334	43.3264	86.6
13 1,2-Dichlorobenzene	146	4.915	4.915	(1.034)	264552	32.9594	65.9
14 bis(2-Chloroisopropyl)ether	45	4.983	4.984	(1.049)	506052	36.4901	73.0
15 o-Cresol	107	4.955	4.953	(1.043)	206521	34.4234	68.8
18 m,p-Cresols	107	5.108	5.109	(1.075)	294393	38.7260	77.4
19 Hexachloroethane	117	5.246	5.247	(1.104)	96281	28.9424	57.9
21 Nitrobenzene	77	5.310	5.310	(0.881)	292265	35.9971	72.0
22 Isophorone	82	5.541	5.542	(0.920)	557391	38.7304	77.5
23 2-Nitrophenol	139	5.623	5.624	(0.933)	143339	38.2752	76.6
24 2,4-Dimethylphenol	122	5.643	5.641	(0.937)	253542	40.8616	81.7
25 bis(2-Chloroethoxy)methane	93	5.743	5.743	(0.953)	310833	36.7010	73.4
26 2,4-Dichlorophenol	162	5.870	5.871	(0.974)	226776	40.2948	80.6
27 Benzoic acid	105	5.771	5.754	(0.958)	199544	52.1014	104
30 Naphthalene	128	6.049	6.049	(1.004)	749821	33.0086	66.0
31 4-Chloroaniline	127	6.092	6.090	(1.011)	327480	44.8534	89.7
32 Hexachlorobutadiene	225	6.156	6.156	(1.022)	118173	32.8552	65.7
34 2-Methylnaphthalene	142	6.770	6.770	(1.123)	531005	38.7374	77.5
35 1-Methylnaphthalene	142	6.877	6.877	(1.141)	505381	37.6896	75.4
36 Hexachlorocyclopentadiene	237	6.925	6.926	(0.877)	41093	16.7741	33.5
37 2,4,6-Trichlorophenol	196	7.063	7.061	(0.895)	173451	41.9120	83.8
38 2,4,5-Trichlorophenol	196	7.109	7.104	(0.901)	191714	43.4994	87.0
40 2-Chloronaphthalene	162	7.295	7.293	(0.924)	506086	37.1551	74.3
42 o-Nitroaniline	65	7.396	7.395	(0.937)	179274	38.4722	76.9
41 m-Nitroaniline	138	7.842	7.840	(0.994)	151439	44.3954	88.8
43 Dimethylphthalate	163	7.580	7.583	(0.960)	676371	43.4732	86.9
44 2,6-Dinitrotoluene	165	7.654	7.654	(0.970)	152356	41.0551	82.1
45 Acenaphthylene	152	7.740	7.744	(0.981)	871279	39.7834	79.6
48 2,4-Dinitrophenol	184	7.952	7.950	(1.007)	34273	31.7876	63.6
49 Dibenzofuran	168	8.113	8.113	(1.028)	891594	48.3218	96.6
51 Diethylphthalate	149	8.334	8.335	(1.056)	690314	44.0582	88.1
53 Fluorene	166	8.482	8.483	(1.075)	630761	41.6500	83.3
54 4-Chlorophenylphenylether	204	8.469	8.467	(1.073)	305166	42.6474	85.3
55 2-Methyl-4,6-dinitrophenol	198	8.530	8.531	(0.898)	60381	28.2551	56.5

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
56	p-Nitroaniline	138	8.505	8.503	(1.077)	143921	44.2674	88.5
133	Diphenylamine	169	8.599	8.597	(0.905)	552703	43.3191	86.6
58	1,2-Diphenylhydrazine	77	8.645	8.643	(0.910)	678751	41.8230	83.6
61	4-Bromophenylphenylether	248	8.999	9.000	(0.947)	178161	42.6536	85.3
63	Hexachlorobenzene	284	9.076	9.074	(0.955)	197048	45.0376	90.1
207	Atrazine	173	9.167	9.165	(0.965)	46927	43.6394	87.3
68	Phenanthrene	178	9.529	9.530	(1.003)	918219	41.9453	83.9
69	Anthracene	178	9.585	9.583	(1.009)	928719	42.4450	84.9
72	Di-n-butylphthalate	149	10.092	10.093	(1.062)	1146099	45.6106	91.2
76	Fluoranthene	202	10.816	10.814	(1.138)	929722	44.3357	88.7
77	Benzidine	184	10.941	10.941	(0.876)	144079	17.4287	34.8(R)
85	Butylbenzylphthalate	149	11.733	11.731	(0.939)	479223	45.2513	90.5
89	Benzo(a)anthracene	228	12.475	12.473	(0.999)	761740	41.9653	83.9
90	3,3'-Dichlorobenzidine	252	12.416	12.414	(0.994)	213627	35.9511	71.9
92	Chrysene	228	12.528	12.529	(1.003)	742183	42.6733	85.3
93	bis(2-Ethylhexyl)phthalate	149	12.442	12.442	(0.996)	686718	46.9882	94.0
94	Di-n-octylphthalate	149	13.405	13.406	(0.907)	1037713	50.7680	102
95	Benzo(b)fluoranthene	252	14.111	14.114	(0.955)	650432	45.7061	91.4
96	Benzo(k)fluoranthene	252	14.159	14.160	(0.958)	643924	45.5042	91.0
97	Benzo(a)pyrene	252	14.679	14.680	(0.993)	557882	45.3874	90.8
99	Indeno(1,2,3-cd)pyrene	276	16.738	16.741	(1.133)	444820	38.1592	76.3
100	Dibenzo(a,h)anthracene	278	16.768	16.769	(1.135)	357967	37.6765	75.4
101	Benzo(ghi)perylene	276	17.240	17.248	(1.167)	355902	37.9008	75.8
102	1,4-Dioxane	88	2.412	2.410	(0.508)	87220	33.0185	66.0
111	N-Nitrosopyrrolidine	100	5.121	5.116	(1.078)	125787	36.6099	73.2(Q)
1	N-Methyl-N-nitrosomethylamine	74	2.619	2.619	(0.551)	126890	25.8219	51.6

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD6.i/s010610.b/s6a0618.d
Date : 06-JAN-2010 16:58
Client ID: CAPA-10-6822MSD
Sample Info: 1120200348919363481|SVMI1|LANL002MSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

Page 1

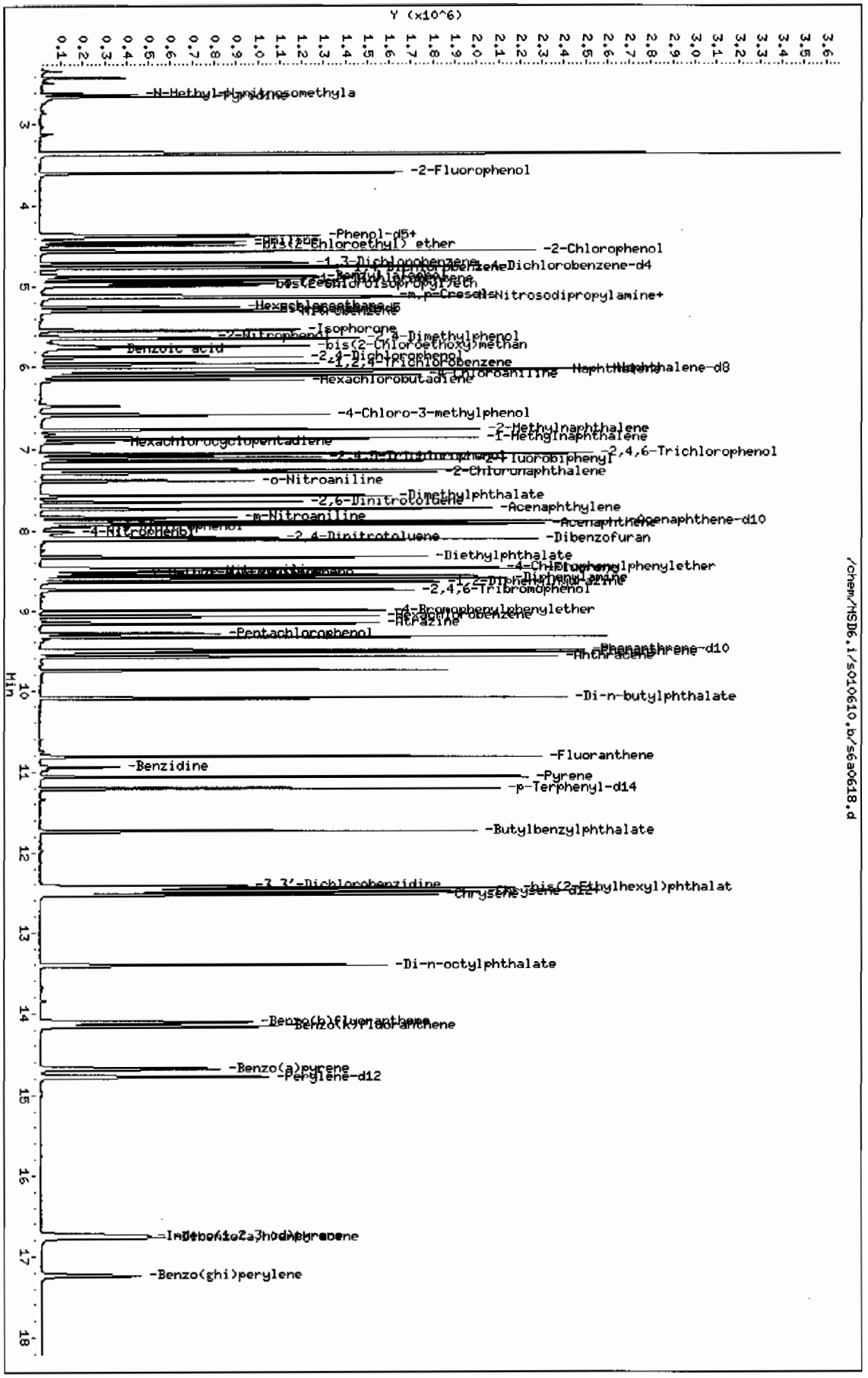

/chem/MSD6.i/s010610.b/s6a0618.d

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 936345 **Verified by:** _____
Analyst: Jesse Craig
Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21
Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Sec Ext pH	Final Volume (mL)	Prepped Factor (mL/mL)
1202003486 MB	24-DEC-2009 11:43:49	1000	5	1	13	1	0.001
1202003487 LCS	24-DEC-2009 11:43:49	1000	5	1	13	1	0.001
243401002	24-DEC-2009 11:43:49	860	6	1	13	1	0.00116
1202003488 MS (243401002)	24-DEC-2009 11:43:49	500	6	1	13	1	0.002
1202003489 MSD (243401002)	24-DEC-2009 11:43:49	500	6	1	13	1	0.002
243401005	24-DEC-2009 11:43:49	925	6	1	13	1	0.00108
243401009	24-DEC-2009 11:43:49	925	6	1	13	1	0.00108
243401011	24-DEC-2009 11:43:49	920	6	1	13	1	0.00109

Type	Sample Id	Description	Serial Number	Spike Amt	Units	Comments:
LCS	1202003487	BNA LCS w/o Benzidine 50ppm	UE091217-12	1	mL	Verified By: SCC
LCS	1202003487	BENZIDINE LCS	UE091217-21	1	mL	Final Solvent: CH2Cl2
MS	1202003488	BNA LCS w/o Benzidine 50ppm	UE091217-12	1	mL	
MS	1202003488	BENZIDINE LCS	UE091217-21	1	mL	
MSD	1202003489	BNA LCS w/o Benzidine 50ppm	UE091217-12	1	mL	
MSD	1202003489	BENZIDINE LCS	UE091217-21	1	mL	
SURR	All	BNA for all Surrogate	UE091217-10	1	mL	
REGNT	All	Methylene Chloride	1245620-D	360	mL	
REGNT	All	Sulfuric Acid Sol., 1:1	1245641	2	mL	
REGNT	All	10 N Sodium Hydroxide Solution	1246682	10	mL	
SOURC	All	SODIUM SULFATE	1242582	30	g	

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 11/09/2009 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1198658-D
Multiplier Voltage: 1565 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091101-01 Internal Std ID: WBN091106-10
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 22 Sequence Number: /chem/MSD6.i/s110909.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6k0901.d	WBN091101-01	JMB3	09-NOV-2009 11:20	50 PPM	s110909	1.0	DFTPP	DUSE
s6k0902.d	inst blk	JMB3	09-NOV-2009 11:35	--------	s110909	1.0	INST BLK	DUSE
s6k0903.d	WBN091106-08	JMB3	09-NOV-2009 12:23	1 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0904.d	WBN091106-07	JMB3	09-NOV-2009 13:00	10 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0905.d	WBN091106-06	JMB3	09-NOV-2009 13:36	20 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0906.d	WBN091106-05.1	JMB3	09-NOV-2009 14:14	40 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0907.d	WBN091106-04	JMB3	09-NOV-2009 14:52	50 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0908.d	WBN091106-03	JMB3	09-NOV-2009 15:30	80 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0909.d	WBN091106-02	JMB3	09-NOV-2009 16:06	100 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0910.d	WBN091106-01	JMB3	09-NOV-2009 16:43	120 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0911-D.d	WBN091101-01	JMB3	09-NOV-2009 18:00	50 PPM	s110909	1.0	DFTPP	
s6k0911.d	WBN091101-01	JMB3	09-NOV-2009 18:00	50 PPM	s110909	1.0	DFTPP	
s6k0912.d	inst blk	JMB3	09-NOV-2009 18:15	--------	s110909	1.0	INST BLK	
s6k0913.d	WBN091106-08	JMB3	09-NOV-2009 18:53	1 PPM	s110909	1.0	MEGAICAL	
s6k0914.d	WBN091106-07	JMB3	09-NOV-2009 19:31	10 PPM	s110909	1.0	MEGAICAL	
s6k0915.d	WBN091106-06	JMB3	09-NOV-2009 20:09	20 PPM	s110909	1.0	MEGAICAL	
s6k0916.d	WBN091106-05.1	JMB3	09-NOV-2009 20:46	40 PPM	s110909	1.0	MEGAICAL	
s6k0917.d	WBN091106-04	JMB3	09-NOV-2009 21:25	50 PPM	s110909	1.0	MEGAICAL	
s6k0918.d	WBN091106-03	JMB3	09-NOV-2009 22:01	80 PPM	s110909	1.0	MEGAICAL	

s6k0919.d	WBN091106-02	JMB3	09-NOV-2009 22:39	100 PPM	s110909		1.0	MEGAICAL	
s6k0920.d	WBN091106-01	JMB3	09-NOV-2009 23:16	120 PPM	s110909		1.0	MEGAICAL	
s6k0921-D.d	WBN091101-01	JMB3	10-NOV-2009 11:07	50 PPM	s110909		1.0	DFTPP	
s6k0921.d	WBN091101-01	JMB3	10-NOV-2009 11:07	50 PPM	s110909		1.0	DFTPP	
s6k0922.d	inst blk	JMB3	10-NOV-2009 11:21	--------	s110909		1.0	INST BLK	
s6k0923.d	WBN091016-01	JMB3	10-NOV-2009 11:59	10 PPM	s110909		1.0	AP12ICAL	
s6k0924.d	WBN091016-02	JMB3	10-NOV-2009 12:36	20 PPM	s110909		1.0	AP12ICAL	
s6k0925.d	WBN091016-03	JMB3	10-NOV-2009 13:13	40 PPM	s110909		1.0	AP12ICAL	
s6k0926.d	WBN091016-04	JMB3	10-NOV-2009 13:51	50 PPM	s110909		1.0	AP12ICAL	
s6k0927.d	WBN091016-05	JMB3	10-NOV-2009 14:30	80 PPM	s110909		1.0	AP12ICAL	
s6k0928.d	WBN091016-06	JMB3	10-NOV-2009 15:06	100 PPM	s110909		1.0	AP12ICAL	
s6k0929.d	WBN091016-07	JMB3	10-NOV-2009 15:43	120 PPM	s110909		1.0	AP12ICAL	
s6k0930.d	WBN091029-25	JMB3	10-NOV-2009 16:20	10 PPM	s110909		1.0	PESTICAL	
s6k0931.d	WBN091029-24	JMB3	10-NOV-2009 16:56	20 PPM	s110909		1.0	PESTICAL	
s6k0932.d	WBN091029-23.1	JMB3	10-NOV-2009 17:33	40 PPM	s110909		1.0	PESTICAL	
s6k0933.d	WBN091029-22	JMB3	10-NOV-2009 18:09	50 PPM	s110909		1.0	PESTICAL	
s6k0934.d	WBN091029-21	JMB3	10-NOV-2009 18:45	80 PPM	s110909		1.0	PESTICAL	
s6k0935.d	WBN091029-20	JMB3	10-NOV-2009 19:21	100 PPM	s110909		1.0	PESTICAL	
s6k0936.d	WBN091029-19	JMB3	10-NOV-2009 19:58	120 PPM	s110909		1.0	PESTICAL	
s6k0937-D.d	WBN091106-09.1	JMB3	10-NOV-2009 20:29	40 PPM	s110909		1.0	MEGAICV	FAILED SC 8270D
s6k0937.d	WBN091106-09.1	JMB3	10-NOV-2009 20:29	40 PPM	s110909		1.0	MEGAICV	
s6k0938-D.d	WBN091016-08.1	JMB3	10-NOV-2009 21:07	40 PPM	s110909		1.0	AP12ICV	
s6k0938.d	WBN091016-08.1	JMB3	10-NOV-2009 21:07	40 PPM	s110909		1.0	AP12ICV	
s6k0939-D.d	WBN091029-26.1	JMB3	10-NOV-2009 21:35	40 PPM	s110909		1.0	PESTICV	
s6k0939.d	WBN091029-26.1	JMB3	10-NOV-2009 21:35	40 PPM	s110909		1.0	PESTICV	
s6k0940-D.d	WBN091101-01	JMB3	10-NOV-2009 22:12	50 PPM	s110909		1.0	DFTPP	
s6k0940.d	WBN091101-01	JMB3	10-NOV-2009 22:12	50 PPM	s110909		1.0	DFTPP	

s6k0941.d	inst blk	JMB3	10-NOV-2009 22:26	--------	s110909	1.0	INST BLK	
s6k0942.d	WBN091016-16	JMB3	10-NOV-2009 22:55	500 PPM	s110909	1.0	HEXICAL	
s6k0943.d	WBN091016-15	JMB3	10-NOV-2009 23:24	1000 PPM	s110909	1.0	HEXICAL	
s6k0944.d	WBN091016-14	JMB3	10-NOV-2009 23:53	1250 PPM	s110909	1.0	HEXICAL	
s6k0945.d	WBN091016-13	JMB3	11-NOV-2009 00:21	1500 PPM	s110909	1.0	HEXICAL	
s6k0946.d	WBN091016-12	JMB3	11-NOV-2009 00:50	1750 PPM	s110909	1.0	HEXICAL	
s6k0947.d	UBN090828-02.4-16	JMB3	11-NOV-2009 01:18	500 PPM	s110909	1.0	HEXICAL	
s6k0948.d	UBN090924-01	JMB3	11-NOV-2009 01:47	10 PPM	s110909	1.0	NEVICAL	
s6k0949.d	UBN090924-02	JMB3	11-NOV-2009 02:16	20 PPM	s110909	1.0	NEVICAL	
s6k0950.d	UBN090924-03	JMB3	11-NOV-2009 02:44	40 PPM	s110909	1.0	NEVICAL	
s6k0951.d	UBN090924-04	JMB3	11-NOV-2009 03:12	50 PPM	s110909	1.0	NEVICAL	DUSE - disabled
s6k0952.d	UBN090924-05	JMB3	11-NOV-2009 03:41	80 PPM	s110909	1.0	NEVICAL	
s6k0953.d	UBN090924-06	JMB3	11-NOV-2009 04:10	100 PPM	s110909	1.0	NEVICAL	
s6k0954.d	UBN090924-07	JMB3	11-NOV-2009 04:38	120 PPM	s110909	1.0	NEVICAL	DUSE - disabled
s6k0955-D.d	WBN091016-10.1	JMB3	11-NOV-2009 05:07	1250 PPM	s110909	1.0	HEXICV	DUSE - failed >70%-130%
s6k0955.d	WBN091016-10.1	JMB3	11-NOV-2009 05:07	1250 PPM	s110909	1.0	HEXICV	

Instrument Batch: /chem/MSD6.i/s110909.b Page: 2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 01/06/2010 METHOD: See raw data OPERATOR: nagl REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1529 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091213-01 Internal Std ID: WBN091223-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD6.i/s010610.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6a0601.d	WBN091213-01	nagl	06-JAN-2010 08:55	50 PPM	s010610	1.0	DFTPP	
s6a0602.d	WBN091223-17.2	nagl	06-JAN-2010 09:09	CVS	s010610	1.0	MEGACVS	DUSE
s6a0603.d	WBN091223-17.2	nagl	06-JAN-2010 09:46	CVS	s010610	1.0	MEGACVS	pass 246011
s6a0604.d	WBN100103-03.2	nagl	06-JAN-2010 10:22	CVS	s010610	1.0	AP12CVS	
s6a0605.d	WBN100303-23.2	nagl	06-JAN-2010 10:50	CVS	s010610	1.0	PESTCVS	
s6a0606-1.d	1202003210	nagl	06-JAN-2010 11:20	936197	10-994	1.0	SBLK01	USE
s6a0606.d	1202003210	nagl	06-JAN-2010 11:20	936197	10-997	1.0	SBLK01	USE
s6a0607-1.d	1202003211	nagl	06-JAN-2010 11:48	936197	10-994	1.0	SBLK01LCS	USE
s6a0607.d	1202003211	nagl	06-JAN-2010 11:48	936197	10-997	1.0	SBLK01LCS	USE
s6a0608.d	1202003486	nagl	06-JAN-2010 12:16	936348	10-1020	1.0	SBLK01	USE
s6a0609.d	1202003487	nagl	06-JAN-2010 12:45	936348	10-1020	1.0	SBLK01LCS	USE
s6a0610.d	243283003	nagl	06-JAN-2010 13:14	936348	10-994	1.0	LANL	USE
s6a0611.d	243284004	nagl	06-JAN-2010 13:43	936348	10-997	1.0	LANL	USE
s6a0612.d	1202003212	nagl	06-JAN-2010 14:10	936197	10-997	1.0	LANL004MS	USE
s6a0613.d	1202003213	nagl	06-JAN-2010 14:38	936197	10-997	1.0	LANL004MSD	USE
s6a0614.d	243284008	nagl	06-JAN-2010 15:06	936197	10-997	1.0	LANL	USE
s6a0615.d	243284011	nagl	06-JAN-2010 15:34	936197	10-997	1.0	LANL	USE
s6a0616.d	243401002	nagl	06-JAN-2010 16:02	936348	10-1020	1.0	LANL	USE
s6a0617.d	1202003488	nagl	06-JAN-2010 16:30	936348	10-1020	1.0	LANL002MS	USE

s6a0618.d	1202003489	nag1	06-JAN-2010 16:58	936348	10-1020	1.0	LANL002MSD	USE
s6a0619.d	243401005	nag1	06-JAN-2010 17:26	936348	10-1020	1.0	LANL	USE
s6a0620.d	243401009	nag1	06-JAN-2010 17:53	936348	10-1020	1.0	LANL	USE
s6a0621.d	243401011	nag1	06-JAN-2010 18:21	936348	10-1020	1.0	LANL	USE

(s10HInstrument Batch: /chem/MSD6.i/s010610.b Page: 1

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
08-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
936348	See Below		

Potentially affected work order(s)(SDG): 243401(10-1020)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for LCS/LCSD

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The LCS(1202003487) recovered N-Methyl-N-nitrosomethylamine at 41%. The limits are 43%-68%.	1. The LCS failure represented less than 5% of the total requested spike analyte list. That satisfied the acceptance criteria for the client and the data results have been reported.
2. The MS(1202003488) and MSD(1202003489) recovered Benzidine at 16% and 17%, respectively. The limits are 20%-126%.	2. Since the MS recovery was confirmed by the MSD, the failures were attributed to sample matrix interference and the data results have been reported.
3. The MS(1202003488)/MSD(1202003489) RPD value for Hexachlorocyclopentadiene was 26%. The limit is 25%.	3. Since Hexachlorocyclopentadiene was individually within the acceptance limits for the MS and MSD, the data results have been reported un-qualified for this failure.

Originator's Name:

Nathan Greene 08-JAN-10

Data Validator/Group Leader:

Barbara Bailey 08-JAN-10

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LC/MS/MS EXPLOSIVES ANALYSIS

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LC/MS/MS Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1020

Method/Analysis Information

Procedure:	**Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)**
Analytical Method:	SW846 3535/8321A Modified
Prep Method:	SW846 Method 3535
Analytical Batch Number:	936340
Prep Batch Number:	936335

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 3535/8321A Modified :

Sample ID	Client ID
243401006	CAPA-10-6823
243401010	CAPA-10-6824
1202003473	Method Blank (MB)
1202003474	Laboratory Control Sample (LCS)
1202003475	243401006(CAPA-10-6823) Matrix Spike (MS)
1202003476	243401006(CAPA-10-6823) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

Primary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

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Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Sample 243401006 (CAPA-10-6823) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recovered Tetryl at 31.4%. The recovery limits are 35-124%. Since similar recoveries were obtained in the MS and MSD, the noted exceptions are attributed to sample matrix interference. The LCS met acceptance criteria. The data are reported. Please see data exception report 781324.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovered Tetryl at 24.9%. The recovery limits are 35-124%. Since similar recoveries were obtained in the MS and MSD, the noted exceptions are attributed to sample matrix interference. The LCS met acceptance criteria. The data are reported. Please see data exception report 781324.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
Samples 1202003473 (MB) and 243401010 (CAPA-10-6824) failed ISTD acceptance criteria. Please see the Form 8 in the data package for the exact recoveries. The samples were re-analyzed and similar recoveries were observed. The re-analysis data are reported. The confirmation raw data are in the Miscellaneous Section. Please see data exception report 781324.

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Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
The SDG failed ISTD acceptance criteria. It was re-analyzed and all passed acceptance criteria except samples 1202003473 (MB) and 243401010 (CAPA-10-6824). The re-analysis of all samples is reported. The confirmation raw data for samples 1202003473 (MB) and 243401010 (CAPA-10-6824) are in the Miscellaneous Section. Please see data exception report 781324.

Secondary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

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QC Sample Designation
Sample 243401006 (CAPA-10-6823) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standards were not added to the secondary analyte extracts.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report 781324 was generated for this SDG.

The MS recovered Tetryl at 31.4%. The MSD recovered Tetryl at 24.9%. The recovery limits are 35-124%. Since similar recoveries were obtained in the MS and MSD, the noted exceptions are attributed to sample matrix interference. The LCS met acceptance criteria. The data are reported.

Samples 1202003473 (MB) and 243401010 (CAPA-10-6824) failed ISTD acceptance criteria. Please see the Form 8 in the data package for the exact recoveries. The samples were re-analyzed and similar recoveries were observed. The re-analysis data are reported. The confirmation raw data are in the Miscellaneous Section.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

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Flagging Convention
The samples were not originally analyzed using SW-846 Method 8330.

Additional Comments
Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Heather M Meier **Date:** 01/20/10

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SAMPLE DATA SUMMARY

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6823

Lab Code: GEL

GEL Job No (SDG) 10-1020

Matrix: GROUND WATER

GEL Sample ID: 243401006

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 22-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 936335

Concentrated Extract Volume (mL) 5

Date Extracted: 24-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0118015a

Date Analyzed: 18-JAN-10 20:56

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	U
121-14-2	2,4-Dinitrotoluene	0.325	U
121-82-4	RDX	0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	U
2691-41-0	HMX	0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	U
479-45-8	Tetryl	0.649	U
606-20-2	2,6-Dinitrotoluene	0.325	U
78-11-5	PETN	1.3	U
88-72-2	o-Nitrotoluene	0.325	U
98-95-3	Nitrobenzene	0.325	U
99-08-1	m-Nitrotoluene	0.325	U
99-35-4	1,3,5-Trinitrobenzene	0.325	U
99-65-0	m-Dinitrobenzene	0.325	U
99-99-0	p-Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6823

Lab Code: GEL

GEL Job No (SDG) 10-1020

Matrix: GROUND WATER

GEL Sample ID: 243401006

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 22-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 936335

Concentrated Extract Volume (mL) 5

Date Extracted: 24-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01100018.wiff

Date Analyzed: 11-JAN-10 15:43

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6824

Lab Code: GEL

GEL Job No (SDG) 10-1020

Matrix: GROUND WATER

GEL Sample ID: 243401010

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 22-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 936335

Concentrated Extract Volume (mL) 5

Date Extracted: 24-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0118018a

Date Analyzed: 18-JAN-10 22:24

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	U
121-14-2	2,4-Dinitrotoluene	0.325	U
121-82-4	RDX	0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	U
2691-41-0	HMX	0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	U
479-45-8	Tetryl	0.649	U
606-20-2	2,6-Dinitrotoluene	0.325	U
78-11-5	PETN	1.3	U
88-72-2	o-Nitrotoluene	0.325	U
98-95-3	Nitrobenzene	0.325	U
99-08-1	m-Nitrotoluene	0.325	U
99-35-4	1,3,5-Trinitrobenzene	0.325	U
99-65-0	m-Dinitrobenzene	0.325	U
99-99-0	p-Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6824

Lab Code: GEL

GEL Job No (SDG) 10-1020

Matrix: GROUND WATER

GEL Sample ID: 243401010

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 22-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 936335

Concentrated Extract Volume (mL) 5

Date Extracted: 24-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01100021.wiff

Date Analyzed: 11-JAN-10 16:31

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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QUALITY CONTROL SUMMARY

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High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1020

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
243401006	CAPA–10–6823	96.3	66.8 – 128.8	
243401006	CAPA–10–6823	92.4	66.8 – 128.8	
243401010	CAPA–10–6824	89.7	66.8 – 128.8	
243401010	CAPA–10–6824	94.8	66.8 – 128.8	
1202003473	MB for batch 936335	91.9	66.8 – 128.8	
1202003473	MB for batch 936335	91.2	66.8 – 128.8	
1202003474	LCS for batch 936335	97.7	66.8 – 128.8	
1202003474	LCS for batch 936335	95.2	66.8 – 128.8	
1202003475	CAPA–10–6823(243401006MS)	93.2	66.8 – 128.8	
1202003475	CAPA–10–6823(243401006MS)	92.4	66.8 – 128.8	
1202003476	CAPA–10–6823(243401006MSD)	95.8	66.8 – 128.8	
1202003476	CAPA–10–6823(243401006MSD)	94.8	66.8 – 128.8	

DNT = 3,4–Dinitrotoluene

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10–1020

Extract Batch Code: 936335

Date Extracted: 24–DEC–09

GEL LCS ID: 1202003474

GEL LCSDUP ID:

Analysis Date/Time: 18–JAN–10 20:26

DUP Analysis Date/Time:

Reporting Units: ug/L

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
Tetryl	6.49351	5.07	78.1					56.9 – 126
1,3,5–Trinitrobenzene	6.49351	5.53	85.2					64.7 – 122
2,4–Dinitrotoluene	6.49351	5.88	90.5					76.9 – 126
2–Amino–4,6–dinitrotoluene	6.49351	6.17	95					72.9 – 142
PETN	6.49351	5.42	83.5					58.8 – 135
Nitrobenzene	6.49351	5.36	82.6					65 – 116
HMX	6.49351	5.1	78.6					59.6 – 135
4–Amino–2,6–dinitrotoluene	6.49351	6.3	97					75.7 – 130
2,6–Dinitrotoluene	6.49351	5.8	89.3					78.8 – 117
2,4,6–Trinitrotoluene	6.49351	5.76	88.6					76 – 132
RDX	6.49351	5.93	91.3					68.3 – 140
m–Dinitrobenzene	6.49351	5.48	84.5					75.7 – 119
m–Nitrotoluene	6.49351	5.31	81.7					62 – 120
o–Nitrotoluene	6.49351	5.22	80.4					63.3 – 114
p–Nitrotoluene	6.49351	6.12	94.2					64 – 117

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-1020

Extract Batch Code: 936335

Date Extracted: 24-DEC-09

GEL LCS ID: 1202003474

GEL LCSDUP ID:

Analysis Date/Time: 11-JAN-10 15:28

DUP Analysis Date/Time:

Reporting Units: ug/L

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
2,4-Diamino-6-nitrotoluene	6.49351	3.96	61					52.3 - 113
2,6-Diamino-4-nitrotoluene	6.49351	5.05	77.8					59.1 - 123
3,5-Dinitroaniline	6.49351	5.42	83.4					68.2 - 116
tris(o-cresyl) phosphate	6.49351	2.79	43					26.1 - 68.5
TATB	6.49351	5.26	81					32.7 - 150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: CAPA-10-6823

Lab Code: GEL

GEL Job No (SDG) 10-1020

Extract Batch Code: 936335

Date Extracted: 24-DEC-09

GEL Spike ID: 1202003475

GEL SpikeDup ID: 1202003476

Analysis Date/Time: 18-JAN-10 21:25

MSD Analysis Date/Time:

Reporting Units: ug/L

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
1,3,5-Trinitrobenzene	6.49351	0	5.39	83	5.31	81.8	1.42	30	62 – 123
2,4,6-Trinitrotoluene	6.49351	0	5.83	89.8	5.59	86.1	4.28	30	72.6 – 139
2,4-Dinitrotoluene	6.49351	0	6.06	93.4	6.24	96.2	2.92	30	77.5 – 131
2,6-Dinitrotoluene	6.49351	0	5.91	91	6.3	96.9	6.33	30	79.6 – 118
2-Amino-4,6-dinitrotoluene	6.49351	0	6.17	95	6.22	95.8	.84	30	70.9 – 155
4-Amino-2,6-dinitrotoluene	6.49351	0	6.65	102	6.89	106	3.55	30	73.6 – 134
HMX	6.49351	0	5.62	86.6	5.55	85.5	1.2	30	61.2 – 151
Nitrobenzene	6.49351	0	5.91	91	5.71	88	3.4	30	63 – 117
PETN	6.49351	0	5.75	88.5	5.69	87.7	.959	30	48.5 – 143
RDX	6.49351	0	6.31	97.1	6.54	101	3.63	30	66.4 – 153
Tetryl	6.49351	0	2.04	31.4 *	1.62	24.9 *	22.8	30	34.7 – 124
m-Dinitrobenzene	6.49351	0	5.97	91.9	6.38	98.3	6.72	30	73.3 – 121
m-Nitrotoluene	6.49351	0	5.24	80.8	5.46	84.1	4.11	30	60.8 – 123
o-Nitrotoluene	6.49351	0	5.3	81.6	5.23	80.6	1.28	30	63.4 – 119
p-Nitrotoluene	6.49351	0	5.84	90	5.83	89.8	.202	30	65.4 – 120

#Column to be used to flag recovery and RPD values with an asterisk

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: CAPA-10-6823

Lab Code: GEL

GEL Job No (SDG) 10-1020

Extract Batch Code: 936335

Date Extracted: 24-DEC-09

GEL Spike ID: 1202003475

GEL SpikeDup ID: 1202003476

Analysis Date/Time: 11-JAN-10 15:59

MSD Analysis Date/Time:

Reporting Units: ug/L

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
2,4-Diamino-6-nitrotoluene	6.49351	0	4.3	66.2	4.97	76.6	14.6	30	48.7 - 126
2,6-Diamino-4-nitrotoluene	6.49351	0	5.06	78	5.3	81.6	4.51	30	50.3 - 136
3,5-Dinitroaniline	6.49351	0	5.34	82.2	5.64	86.8	5.44	30	66.6 - 124
tris(o-cresyl) phosphate	6.49351	0	2.38	36.6	2.62	40.4	9.87	30	21.1 - 96.3
TATB	6.49351	0	5.25	80.8	5.51	84.8	4.83	30	27.3 - 153

#Column to be used to flag recovery and RPD values with an asterisk

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1020

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 18-JAN-10 14:03

GEL Data File: EXP0118001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	533.831
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	572.959
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\011810expa.mdb, Time: Tue Jan 19 09:10:36 2010
Calibration: Untitled, Time: Tue Jan 19 10:56:45 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0118001a
Date: 18-Jan-2010
Time: 14:03:34
ID: XIBLK01
Vial: 1:1,A

1/19/10

HMX
F2:MRM of 1 channel,AP-
4.01 176 > 102 1.627e+004
8.35
min 5.00 10.00

RDX
F2:MRM of 1 channel,AP-
4.01 176 > 102 1.627e+004
8.35
min 5.00 10.00

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
8.01 213 > 183 1.025e+004
min 10.00 12.50

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142 1.536e+004
10.01
min 10.00 12.00 14.00

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138 6.590e+003
min 10.00 12.00 14.00

Tetryl
F6:MRM of 1 channel,AP-
241 > 181 6.654e+003
min 10.00 15.00

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46 6.580e+003
min 12.00 14.00 16.00

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
13.65 197 > 167 7.525e+003
min 14.00 16.00 18.00

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
13.57 197 > 180 7.404e+003
min 14.00 16.00 18.00

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
13.12 227 > 210 7.028e+003
min 14.00 16.00 18.00

34-dinitrotoluene
F9:MRM of 2 channels,AP-
14.21 182 > 152 6.744e+003
min 15.00 20.00

Hnw 01/19/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.16 182 > 152 6.790e+003
min 15.00 20.00

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

24-dinitrotoluene

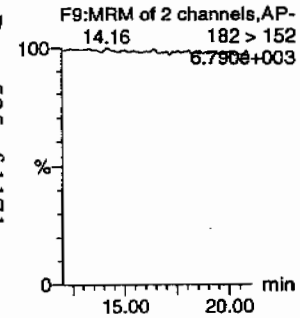

26-dinitrotoluene-d3

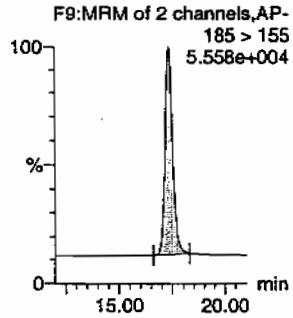

2-Nitrotoluene

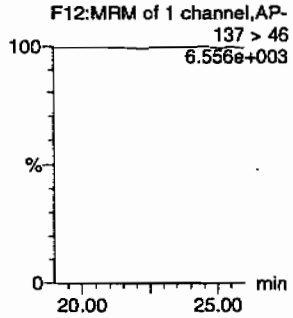

4-Nitrotoluene

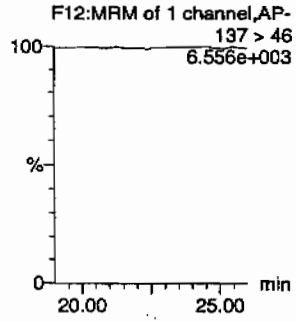

3-Nitrotoluene

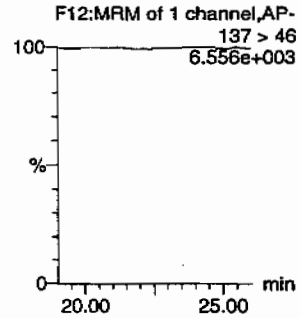

PETN

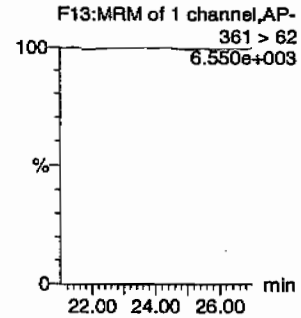

ID	Name	Trace	RT	Area	S/Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			3622.916									
XIBLK01	RDX	176 > 102			3622.916									
XIBLK01	135-Trinitrobenzene	213 > 183			3622.916									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.00	3622.916		3622.916	3622.916	bb			533.8315	106.8	6.8	515.3
XIBLK01	13-Dinitrobenzene	168 > 138			3622.916									
XIBLK01	Tetryl	241 > 181			3622.916									
XIBLK01	Nitrobenzene	123 > 46			3622.916									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			21021.373									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			21021.373									
XIBLK01	246-Trinitrotoluene	227 > 210			21021.373									
XIBLK01	34-dinitrotoluene	182 > 152			21021.373									
XIBLK01	26-dinitrotoluene	182 > 152			21021.373			MM-	19-Jan-10	10:52:05				
XIBLK01	24-dinitrotoluene	182 > 152			21021.373									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.33	21021.373		21021.373	21021.373	bb			572.9589	114.6	14.6	1215.1
XIBLK01	2-Nitrotoluene	137 > 46			21021.373									
XIBLK01	4-Nitrotoluene	137 > 46			21021.373									
XIBLK01	3-Nitrotoluene	137 > 46			21021.373									
XIBLK01	PETN	361 > 62			21021.373									

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1020

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 18-JAN-10 14:33

GEL Data File: EXP0118002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	548.487
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	599.618
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0118002a
Date: 18-Jan-2010
Time: 14:33:05
ID: XIBLK01
Vial: 1:1,A

HMX
F2:MRM of 1 channel,AP-
4.01 176 > 102
1.223e+004

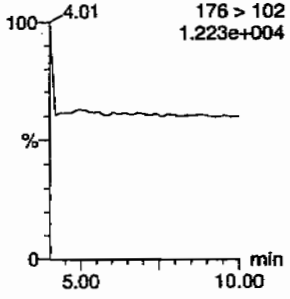

RDX
F2:MRM of 1 channel,AP-
4.01 176 > 102
1.223e+004

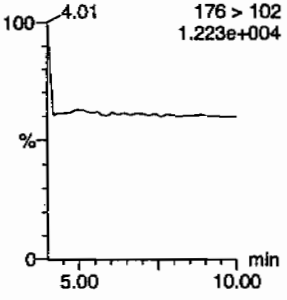

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.881e+003

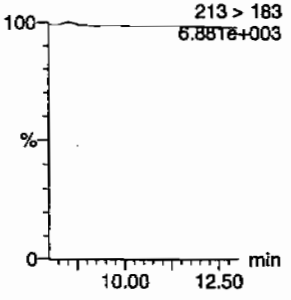

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.577e+004

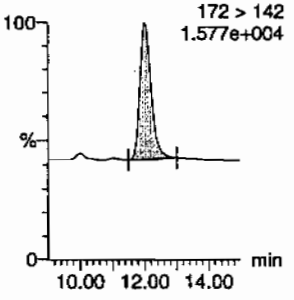

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.657e+003

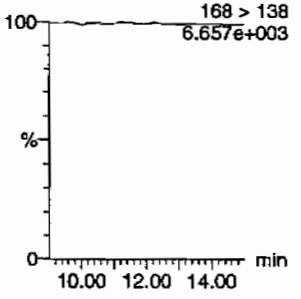

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.677e+003

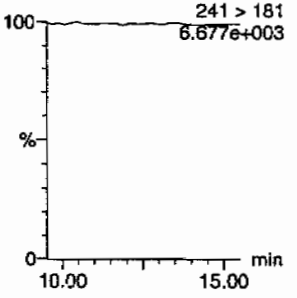

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.673e+003

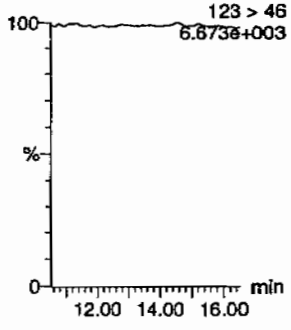

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
12.51 197 > 167
6.980e+003

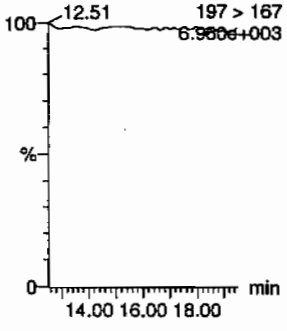

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.921e+003

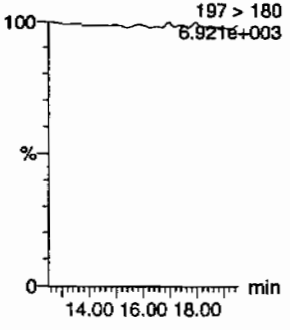

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.695e+003

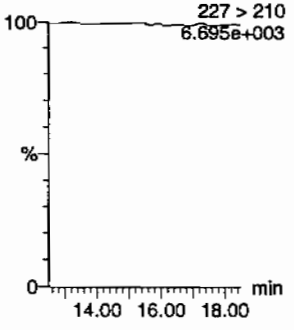

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.688e+003

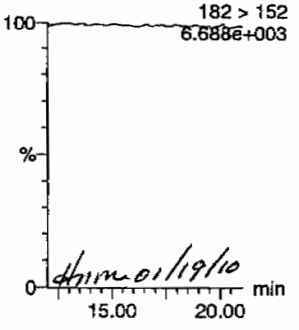

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.702e+003

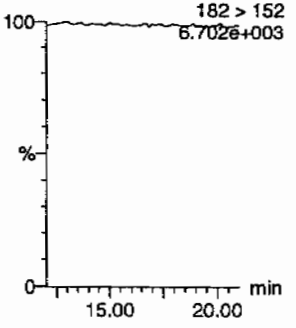

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

24-dinitrotoluene

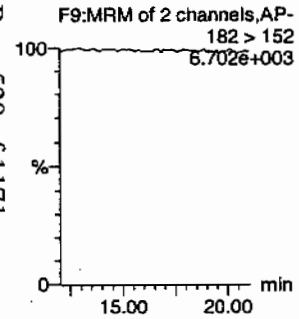

26-dinitrotoluene-d3

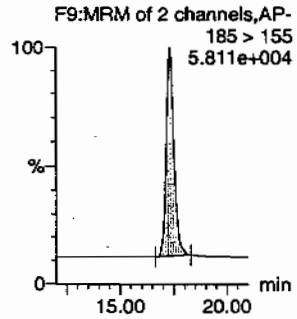

2-Nitrotoluene

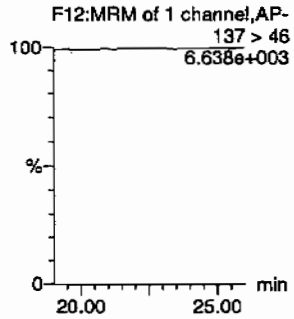

4-Nitrotoluene

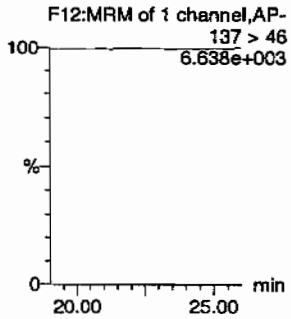

3-Nitrotoluene

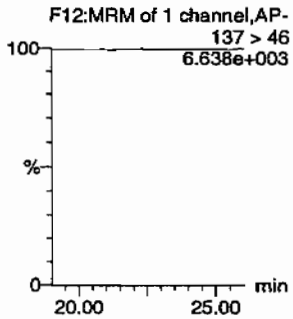

PETN

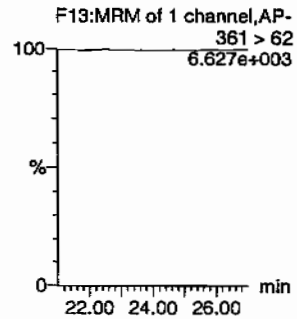

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			3722.375									
XIBLK01	RDX	176 > 102			3722.375									
XIBLK01	135-Trinitrobenzene	213 > 183			3722.375									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.00	3722.375		3722.375	3722.375	bb			548.4866	109.7	9.7	375.6
XIBLK01	13-Dinitrobenzene	168 > 138			3722.375									
XIBLK01	Tetryl	241 > 181			3722.375									
XIBLK01	Nitrobenzene	123 > 46			3722.375									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			21999.465									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			21999.465									
XIBLK01	246-Trinitrotoluene	227 > 210			21999.465									
XIBLK01	34-dinitrotoluene	182 > 152			21999.465									
XIBLK01	26-dinitrotoluene	182 > 152			21999.465									
XIBLK01	24-dinitrotoluene	182 > 152			21999.465									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.33	21999.465		21999.465	21999.465	bb			599.6178	119.9	19.9	2732.8
XIBLK01	2-Nitrotoluene	137 > 46			21999.465									
XIBLK01	4-Nitrotoluene	137 > 46			21999.465									
XIBLK01	3-Nitrotoluene	137 > 46			21999.465									
XIBLK01	PETN	361 > 62			21999.465									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1020

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 11-JAN-10 11:16

GEL Data File: EXS01100001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

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Lar 1/12/10

mple Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS01100001.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
Date: 1/11/2010
Time: 11:16:57 AM

fied: No

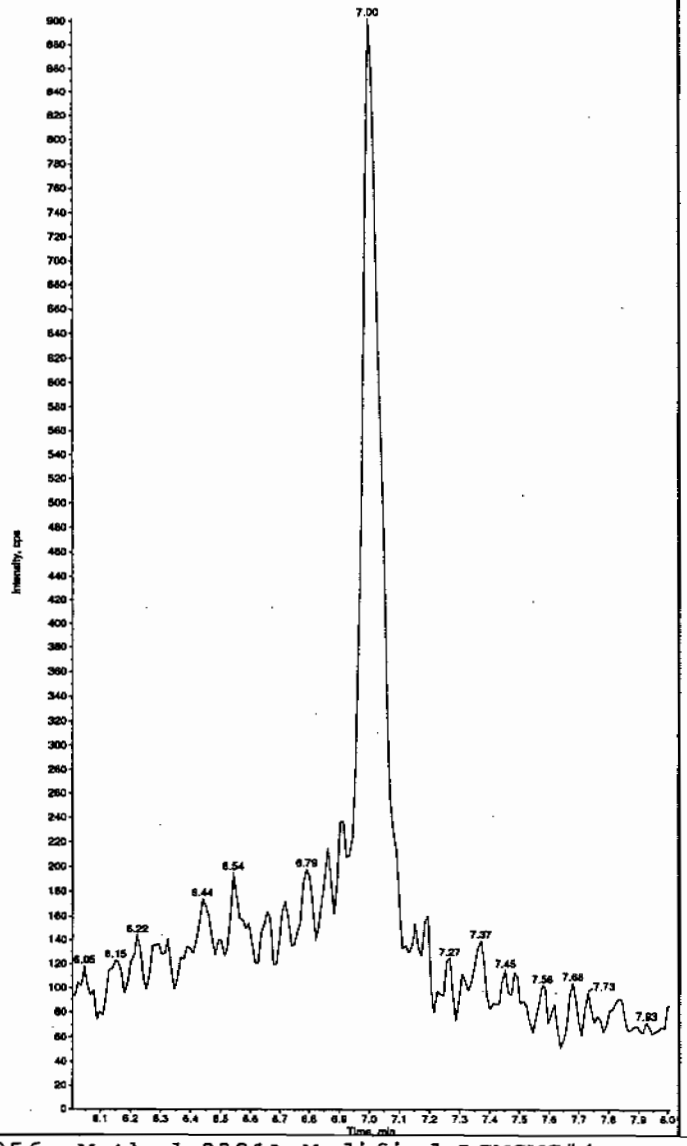

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS01100001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 11:16:57 AM

Modified: No

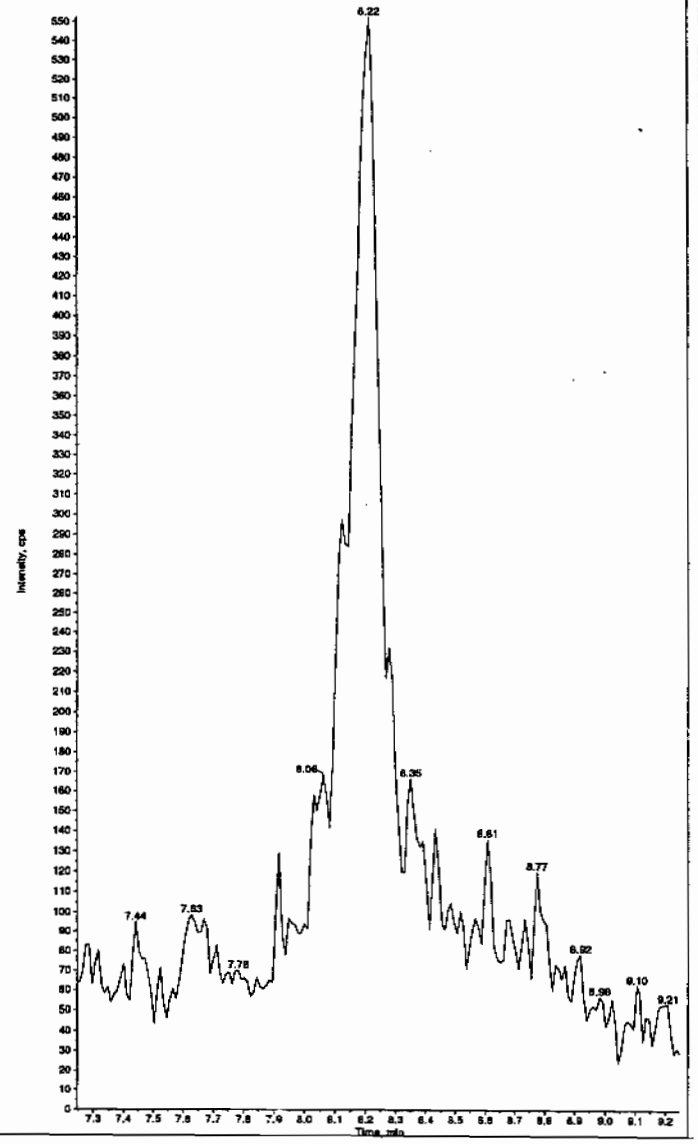

Hmm 01/12/10

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS01100001.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_8" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 1/11/2010
. Time: 11:16:57 AM
ified: No

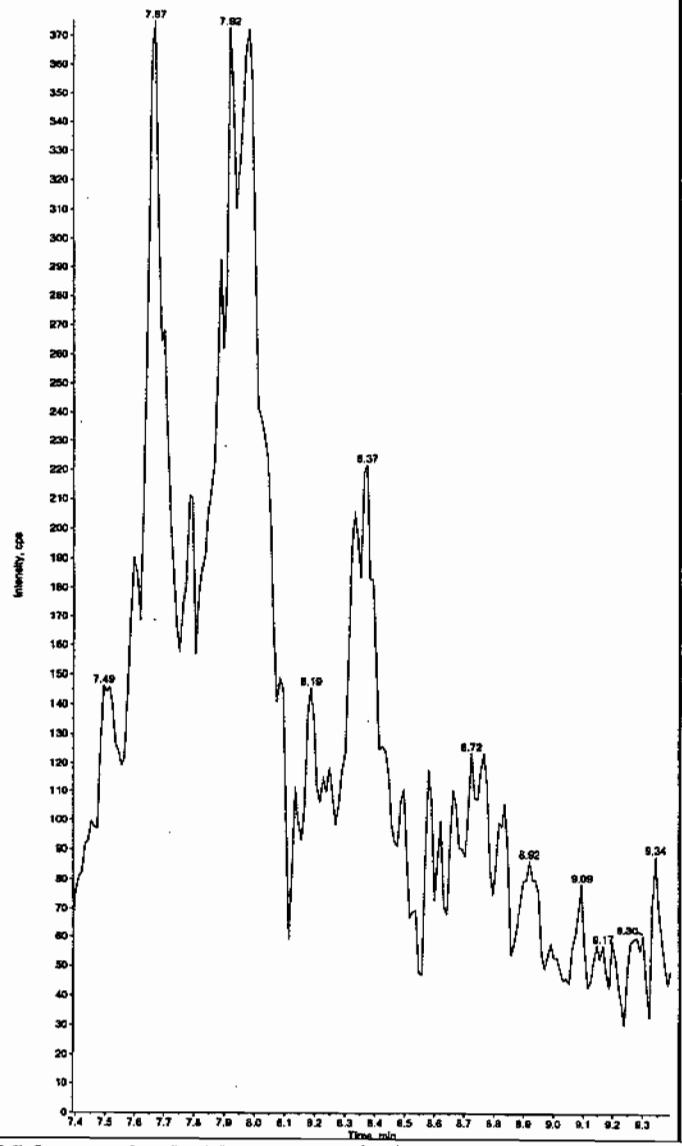

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS01100001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_8" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 11:16:57 AM

Modified: No

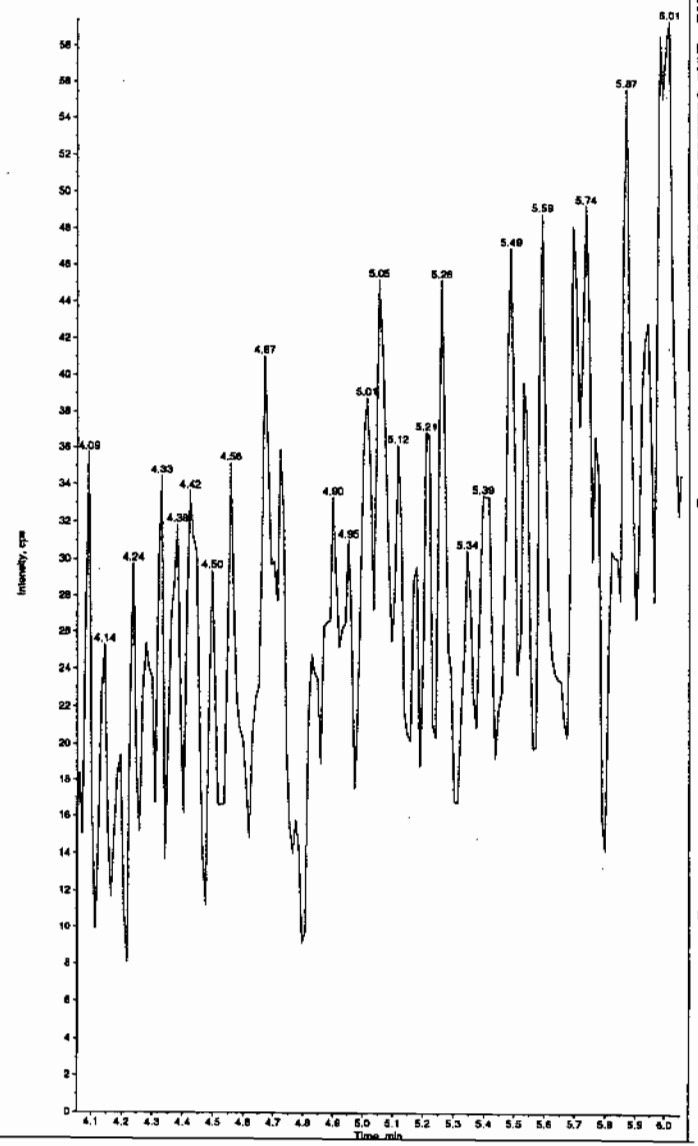

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS01100001.wiff"
ask Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""

```
ple Index:        1
ple Type:       Unknown
centration:       N/A
culated Conc:     0.00     ng/mL
. Date:         1/11/2010
. Time:         11:16:57 AM

ified:            No
```

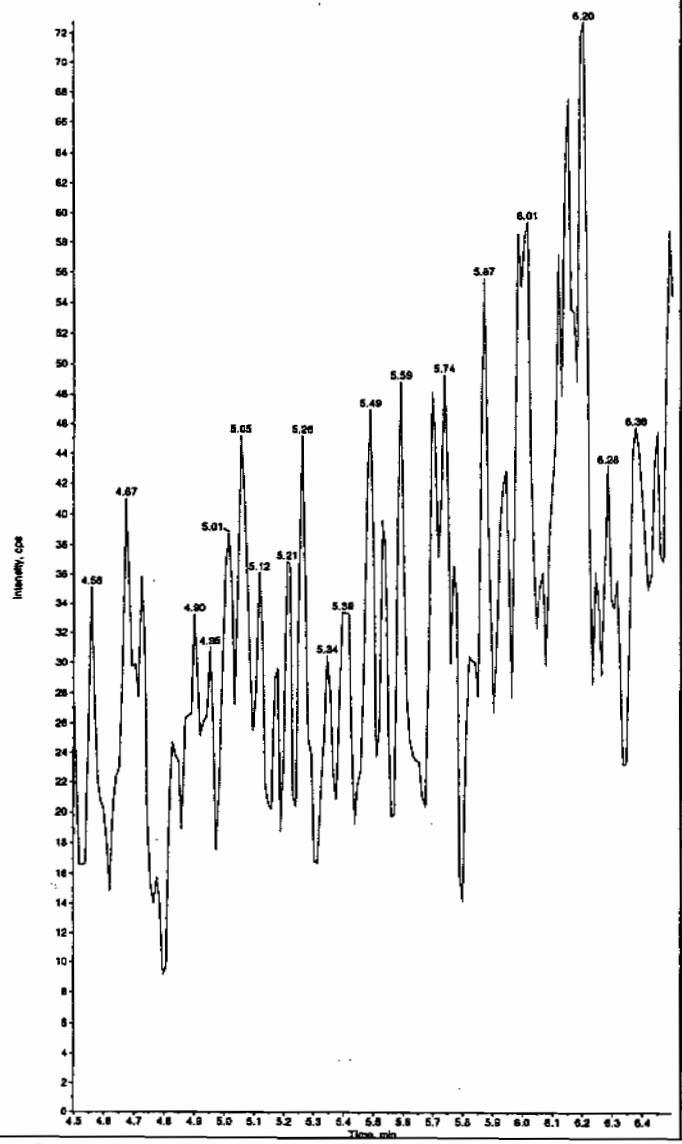

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS01100001.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
Sample Index:        1
Sample Type:       Unknown
Concentration:       N/A
Calculated Conc:  No Intercept
Acq. Date:         1/11/2010
Acq. Time:         11:16:57 AM

Modified:            No
Proc. Algorithm:  IntelliQuan - IQA
Min. Peak Height:  1.00e4    cps
Min. Peak Width:     0.00    sec
Smoothing Width:   3         points
RT Window:          30.0     sec
Expected RT:        10.9     min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.9     min
Area:          5.84e+004    counts
Height:        10430.092    cps
Start Time:         10.8     min
End Time:           11.0     min
```

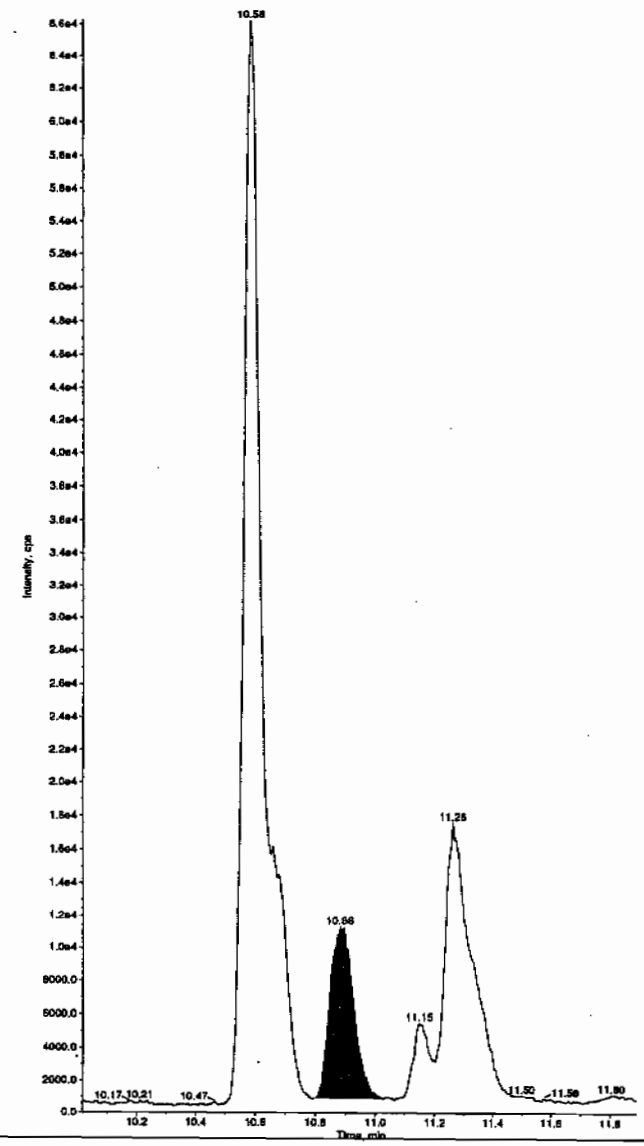

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1020

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 11–JAN–10 11:32

GEL Data File: EXS01100002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

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Lar 1/12/10

mple Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS01100002.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
entration: N/A
culated Conc: 0.00 ng/mL
Date: 1/11/2010
Time: 11:32:46 AM
fied: No

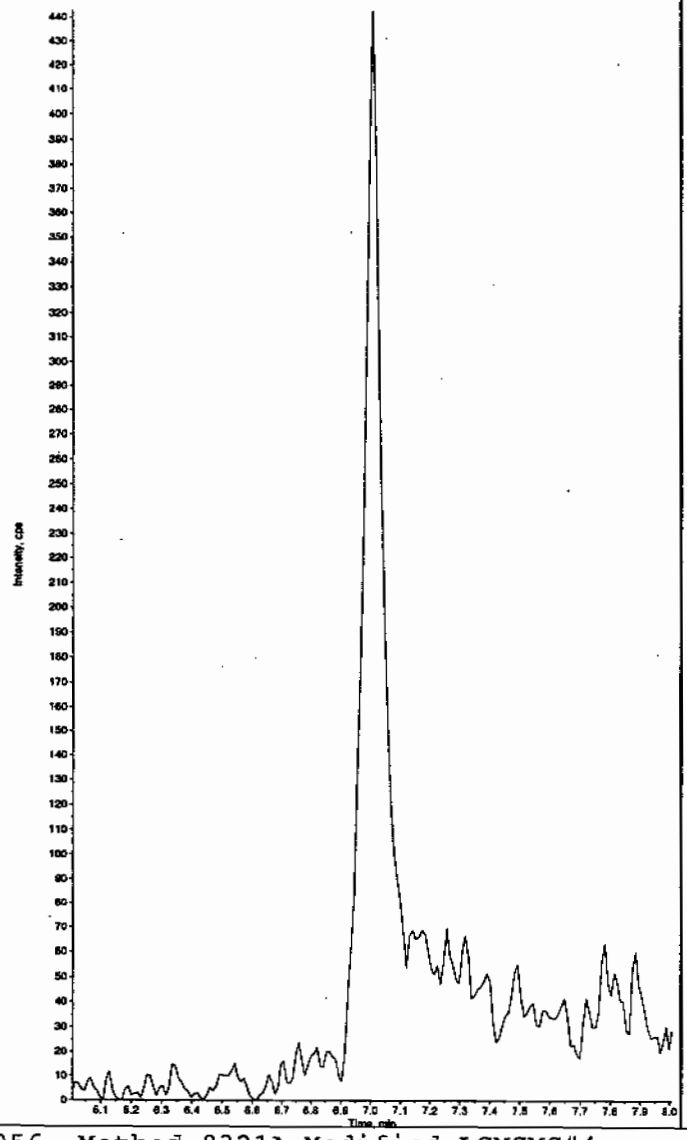

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS01100002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 11:32:46 AM

Modified: No

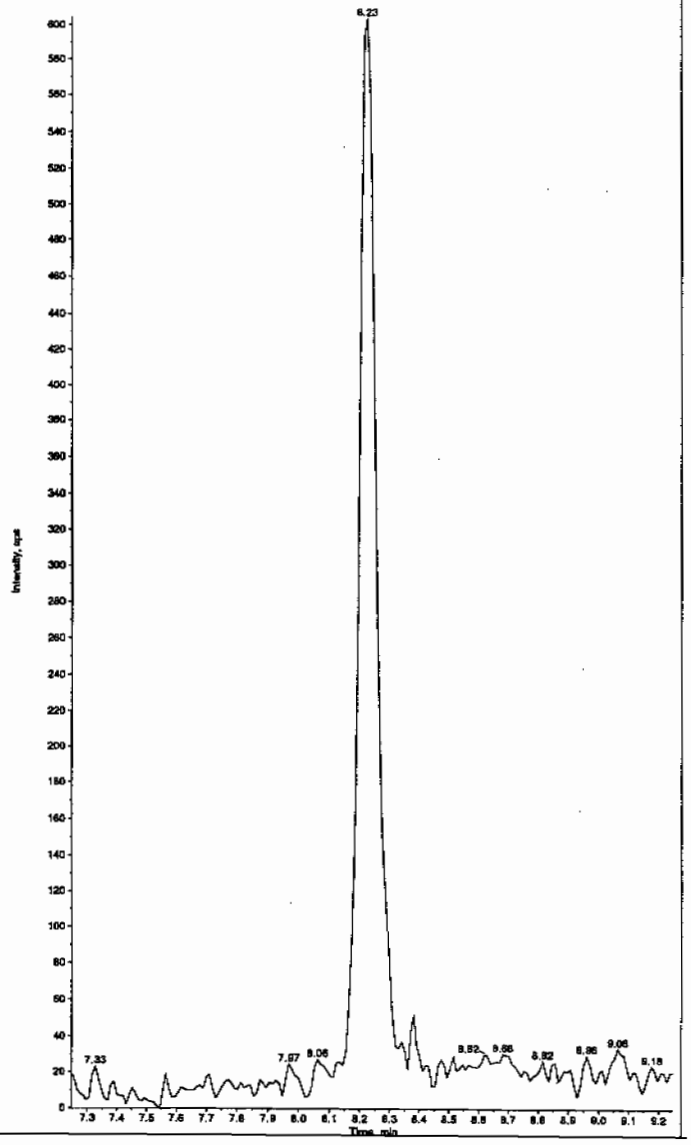

HMM 01/12/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK01" Sample ID: "1|LER" File: "EXS01100002.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 1/11/2010
. Time: 11:32:46 AM

ified: No

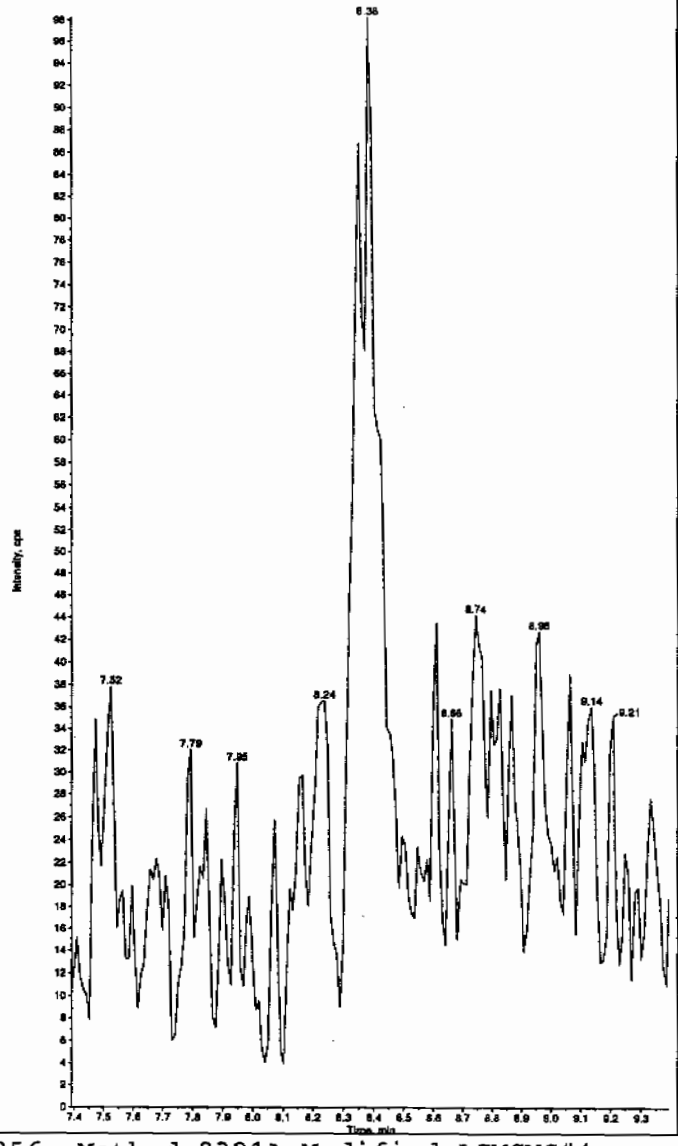

Sample Name: "XIBLK01" Sample ID: "1|LER" File: "EXS01100002.wiff"
Peak Name: "25-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 11:32:46 AM

Modified: No

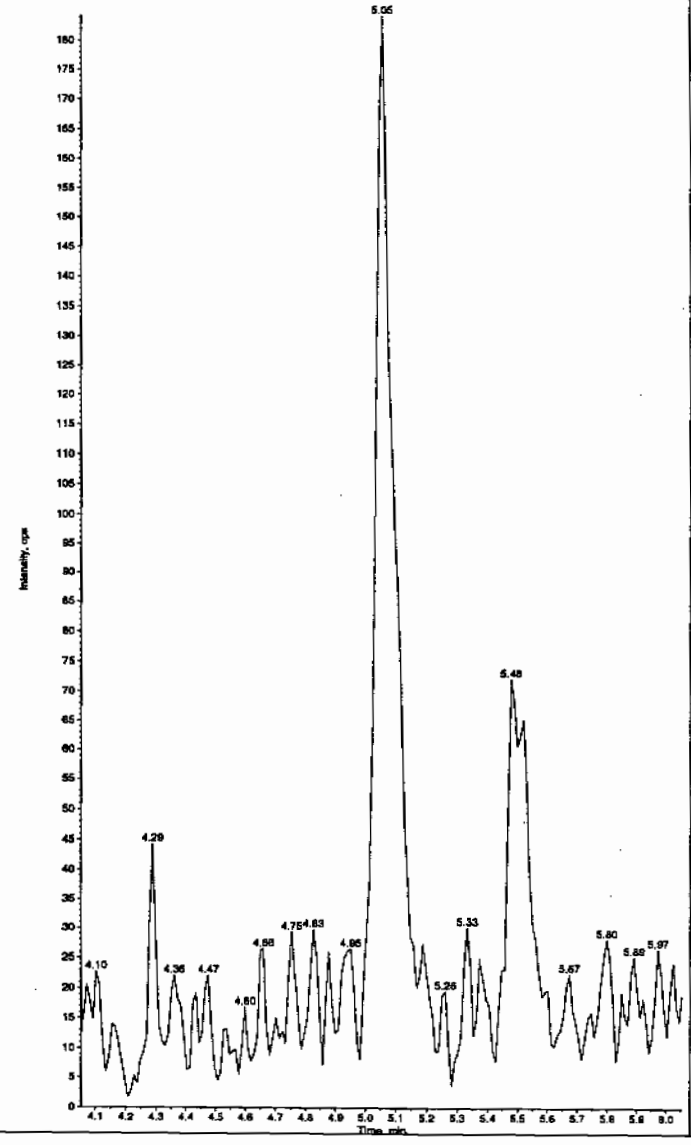

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS01100002.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 1/11/2010
. Time: 11:32:46 AM

ified: No

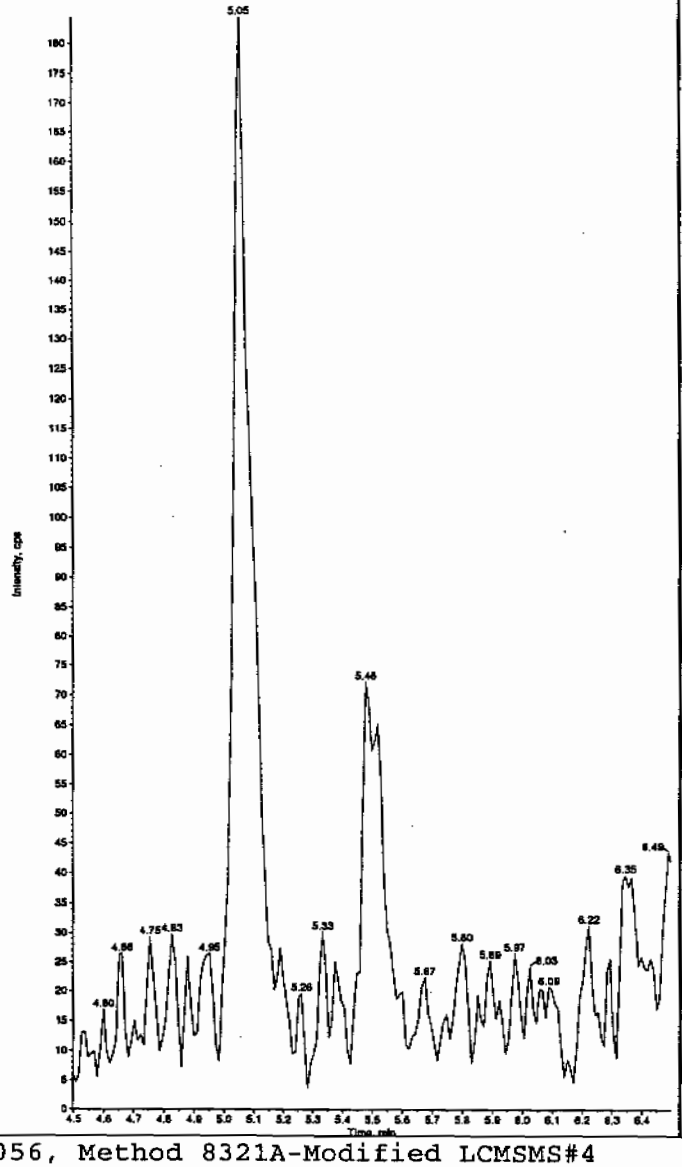

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS01100002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 11:32:46 AM

Modified: No

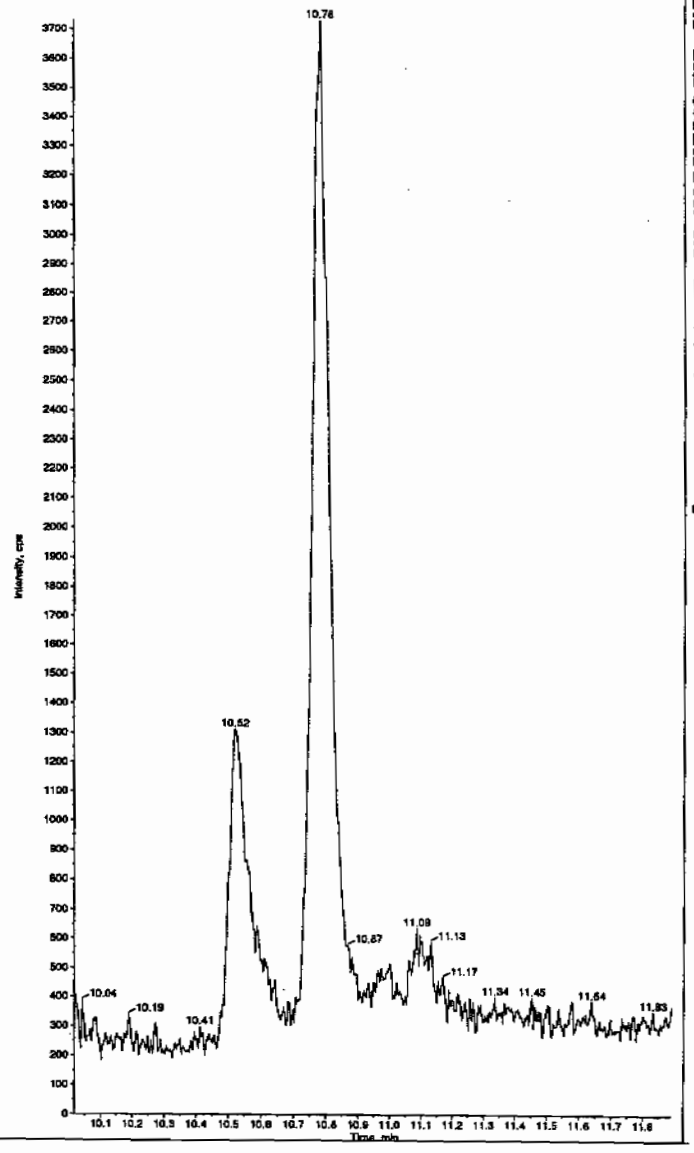

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-1020

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 18-JAN-10 17:59

GEL Data File: EXP0118009a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	469.445
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	491.076
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0118009a
Date: 18-Jan-2010
Time: 17:59:22
ID: X!BLK02
Vial: 1:1,A

MAP 1/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.618e+003

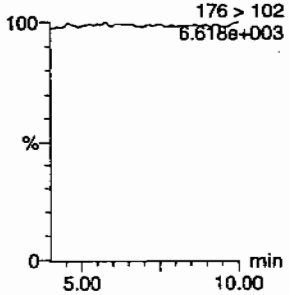

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.618e+003

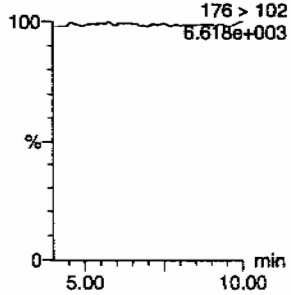

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.367e+003

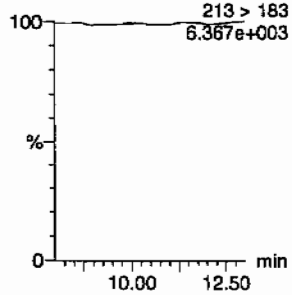

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.403e+004

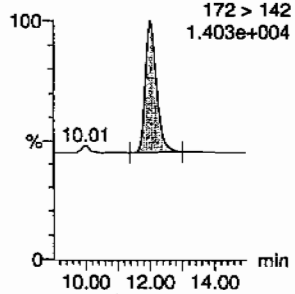

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.339e+003

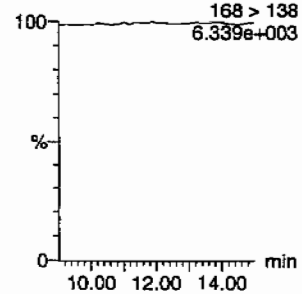

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.362e+003

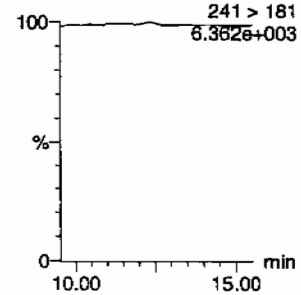

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.440e+003

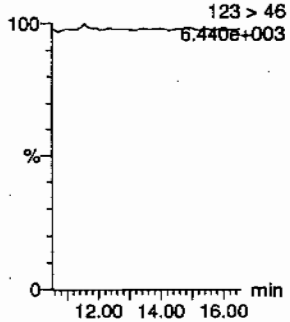

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.447e+003

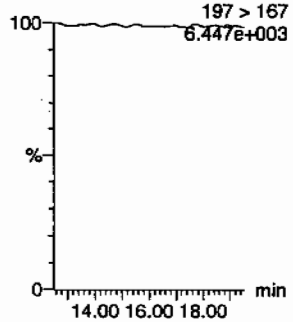

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.417e+003

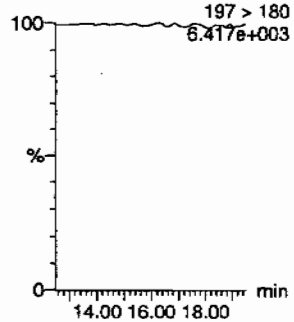

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.351e+003

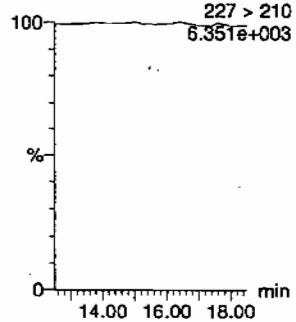

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.337e+003

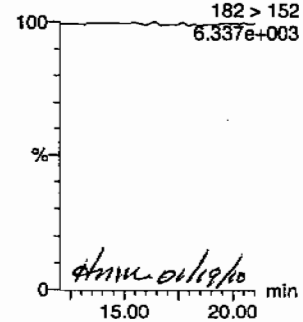

dmm 01/19/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.353e+003

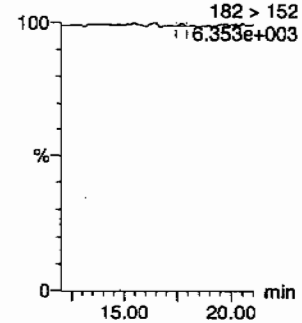

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.353e+003

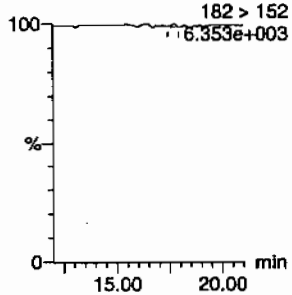

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
4.834e+004

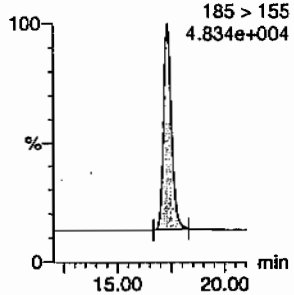

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.331e+003

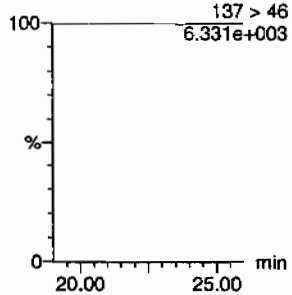

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.331e+003

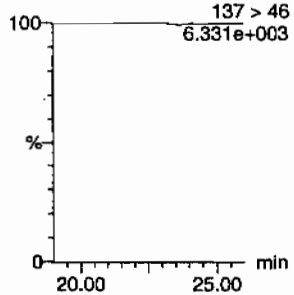

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.331e+003

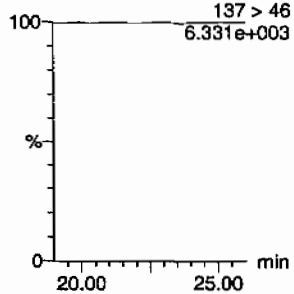

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.299e+003

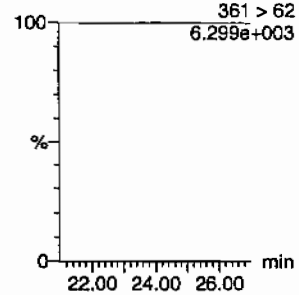

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK02	HMX	176 > 102			3185.947									
XIBLK02	RDX	176 > 102			3185.947									
XIBLK02	135-Trinitrobenzene	213 > 183			3185.947									
XIBLK02	13-Dinitrobenzene-d4	172 > 142	12.00	3185.947		3185.947	3185.947	bb			469.4447	93.9	-6.1	154.4
XIBLK02	13-Dinitrobenzene	168 > 138			3185.947									
XIBLK02	Tetryl	241 > 181			3185.947									
XIBLK02	Nitrobenzene	123 > 46			3185.947									
XIBLK02	4-Amino-26-dinitrotoluene	197 > 167			18017.145									
XIBLK02	2-Amino-46-dinitrotoluene	197 > 180			18017.145									
XIBLK02	246-Trinitrotoluene	227 > 210			18017.145									
XIBLK02	34-dinitrotoluene	182 > 152			18017.145									
XIBLK02	26-dinitrotoluene	182 > 152			18017.145			MM-	19-Jan-10	10:53:00				
XIBLK02	24-dinitrotoluene	182 > 152			18017.145			MM-	19-Jan-10	10:56:51				
XIBLK02	26-dinitrotoluene-d3	185 > 155	17.31	18017.145		18017.145	18017.145	bb			491.0756	98.2	-1.8	1816.2
XIBLK02	2-Nitrotoluene	137 > 46			18017.145									
XIBLK02	4-Nitrotoluene	137 > 46			18017.145									
XIBLK02	3-Nitrotoluene	137 > 46			18017.145									
XIBLK02	PETN	361 > 62			18017.145									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10–1020
Lab Code: GEL
Lab Sample ID: XIBLK03
Analysis Date: 18–JAN–10 18:58
GEL Data File: EXP0118011a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	464.129
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	483.307
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0118011a
Date: 18-Jan-2010
Time: 18:58:20
ID: XIBLK03
Vial: 1:1,A

MTP 1/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.804e+003

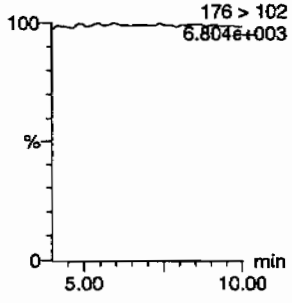

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.804e+003

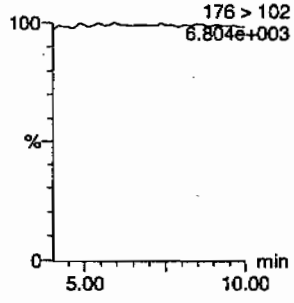

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.568e+003

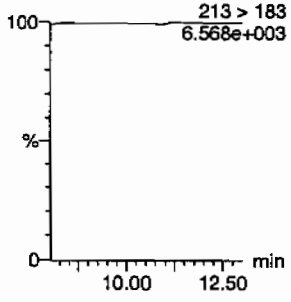

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.437e+004

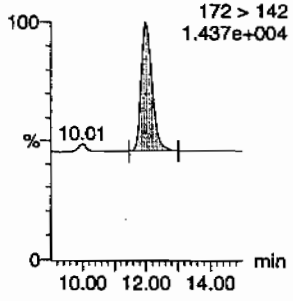

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.569e+003

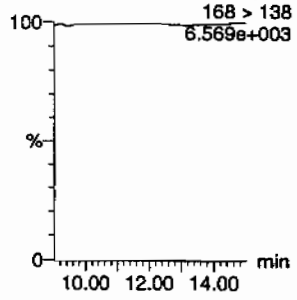

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.554e+003

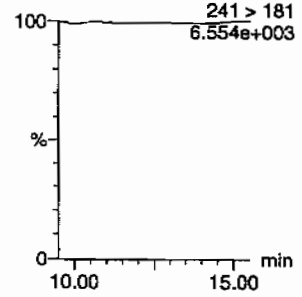

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.578e+003

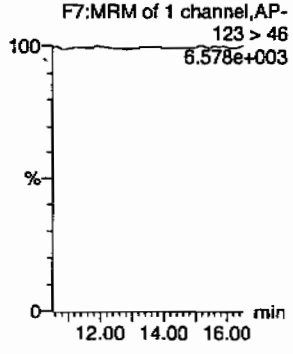

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.711e+003

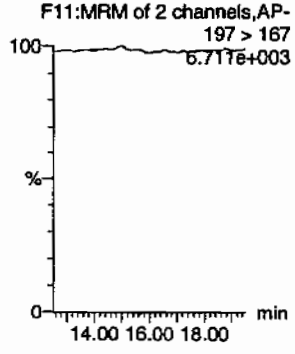

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.638e+003

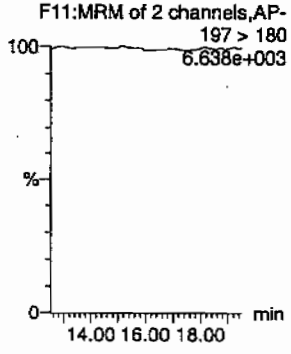

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.585e+003

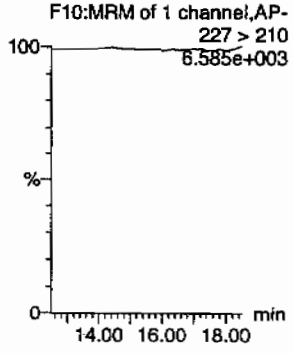

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.581e+003

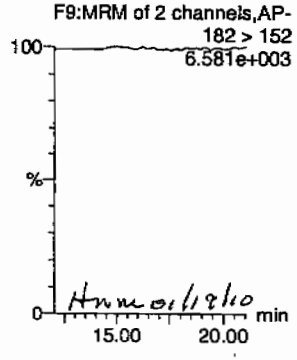

Hmm 01/18/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.596e+003

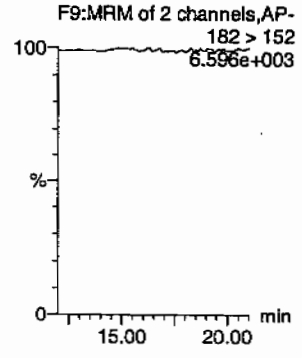

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

24-dinitrotoluene

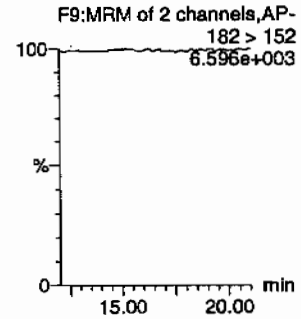

26-dinitrotoluene-d3

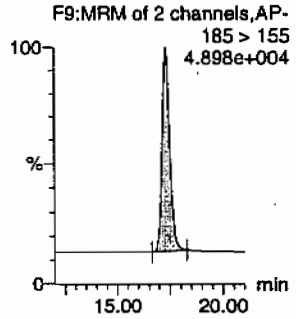

2-Nitrotoluene

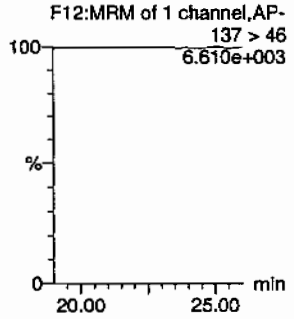

4-Nitrotoluene

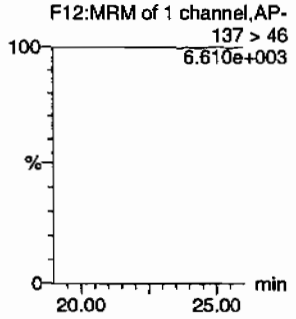

3-Nitrotoluene

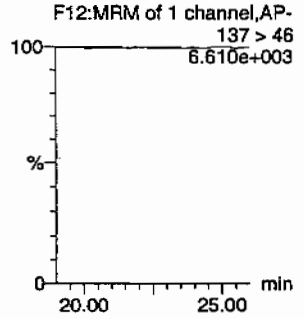

PETN

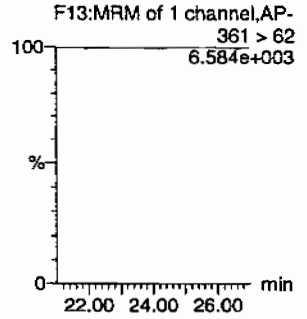

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK03	HMX	176 > 102			3149.868									
XIBLK03	RDX	176 > 102			3149.868									
XIBLK03	135-Trinitrobenzene	213 > 183			3149.868									
XIBLK03	13-Dinitrobenzene-d4	172 > 142	12.00	3149.868		3149.868	3149.868	bb			464.1285	92.8	-7.2	336.5
XIBLK03	13-Dinitrobenzene	168 > 138			3149.868									
XIBLK03	Tetryl	241 > 181			3149.868									
XIBLK03	Nitrobenzene	123 > 46			3149.868									
XIBLK03	4-Amino-26-dinitrotoluene	197 > 167			17732.127									
XIBLK03	2-Amino-46-dinitrotoluene	197 > 180			17732.127									
XIBLK03	246-Trinitrotoluene	227 > 210			17732.127									
XIBLK03	34-dinitrotoluene	182 > 152			17732.127									
XIBLK03	26-dinitrotoluene	182 > 152			17732.127									
XIBLK03	24-dinitrotoluene	182 > 152			17732.127									
XIBLK03	26-dinitrotoluene-d3	185 > 155	17.31	17732.127		17732.127	17732.127	bb			483.3072	96.7	-3.3	818.5
XIBLK03	2-Nitrotoluene	137 > 46			17732.127									
XIBLK03	4-Nitrotoluene	137 > 46			17732.127									
XIBLK03	3-Nitrotoluene	137 > 46			17732.127									
XIBLK03	PETN	361 > 62			17732.127									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-1020
Lab Code: GEL
Lab Sample ID: XIBLK04
Analysis Date: 18-JAN-10 23:23
GEL Data File: EXP0118020a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	472.082
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	530.135
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0118020a
Date: 18-Jan-2010
Time: 23:23:38
ID: XIBLK04
Vial: 1:1,A

MMT 1/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.321e+003

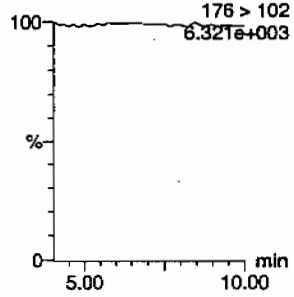

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.321e+003

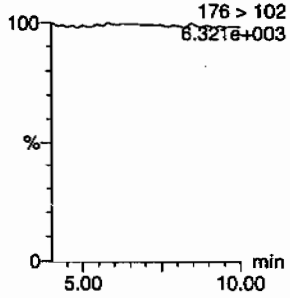

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.132e+003

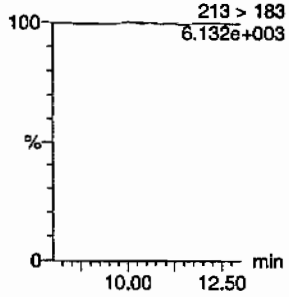

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.413e+004

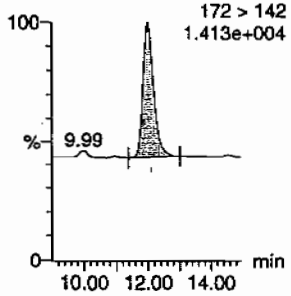

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.157e+003

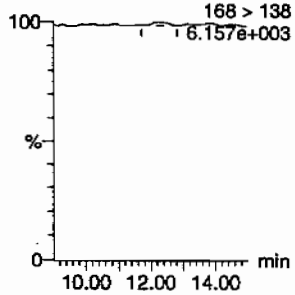

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.116e+003

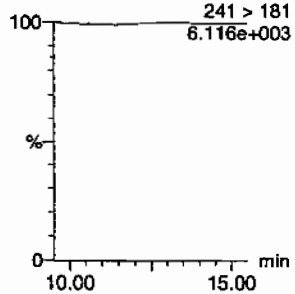

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.146e+003

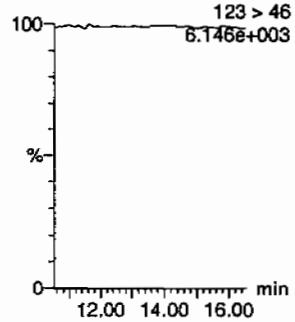

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.242e+003

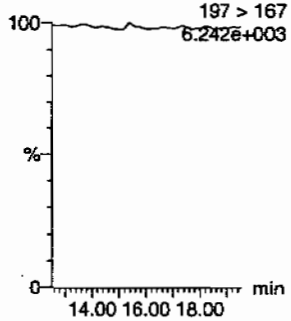

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.197e+003

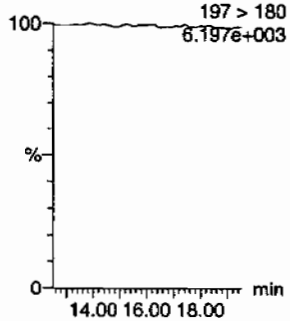

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.115e+003

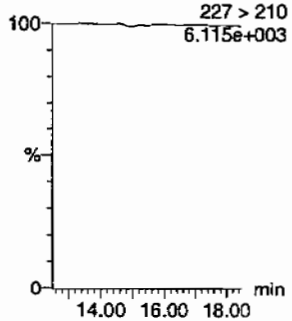

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.160e+003

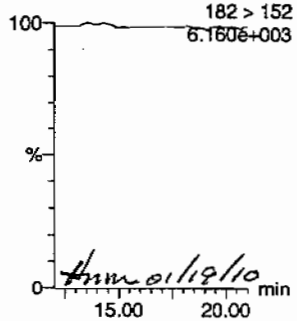

Hmm 01/19/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.189e+003

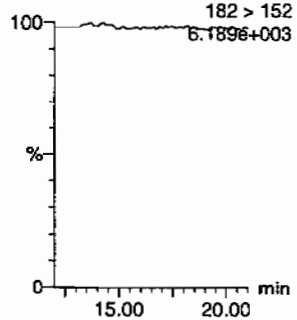

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

24-dinitrotoluene

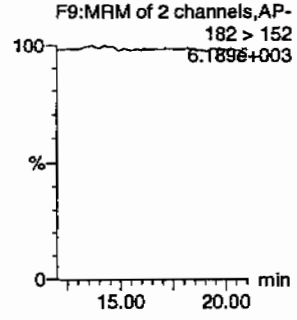

26-dinitrotoluene-d3

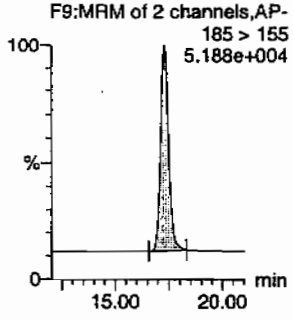

2-Nitrotoluene

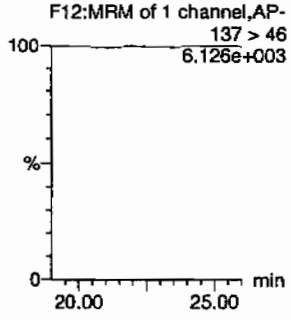

4-Nitrotoluene

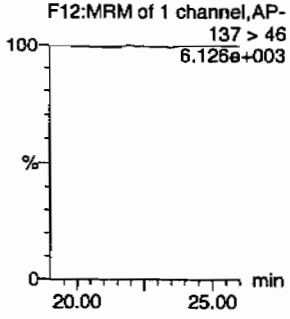

3-Nitrotoluene

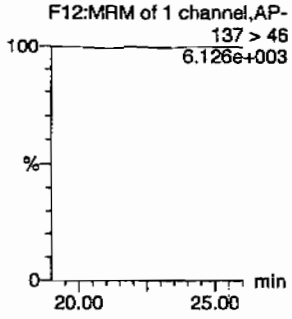

PETN

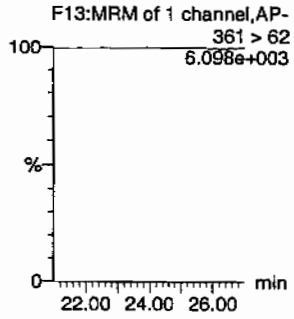

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK04	HMX	176 > 102			3203.848									
XIBLK04	RDX	176 > 102			3203.848									
XIBLK04	135-Trinitrobenzene	213 > 183			3203.848									
XIBLK04	13-Dinitrobenzene-d4	172 > 142	11.97	3203.848		3203.848	3203.848	bb			472.0824	94.4	-5.6	317.6
XIBLK04	13-Dinitrobenzene	168 > 138			3203.848			MM-	19-Jan-10	10:45:50				
XIBLK04	Tetryl	241 > 181			3203.848									
XIBLK04	Nitrobenzene	123 > 46			3203.848									
XIBLK04	4-Amino-26-dinitrotoluene	197 > 167			19450.213									
XIBLK04	2-Amino-46-dinitrotoluene	197 > 180			19450.213									
XIBLK04	246-Trinitrotoluene	227 > 210			19450.213									
XIBLK04	34-dinitrotoluene	182 > 152			19450.213									
XIBLK04	26-dinitrotoluene	182 > 152			19450.213									
XIBLK04	24-dinitrotoluene	182 > 152			19450.213									
XIBLK04	26-dinitrotoluene-d3	185 > 155	17.29	19450.213		19450.213	19450.213	bb			530.1354	106.0	6.0	1988.7
XIBLK04	2-Nitrotoluene	137 > 46			19450.213									
XIBLK04	4-Nitrotoluene	137 > 46			19450.213									
XIBLK04	3-Nitrotoluene	137 > 46			19450.213									
XIBLK04	PETN	361 > 62			19450.213									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1020

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 11–JAN–10 13:38

GEL Data File: EXS01100010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Lan 1/12/10

mple Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS01100010.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 1/11/2010
. Time: 1:38:20 PM

ified: No

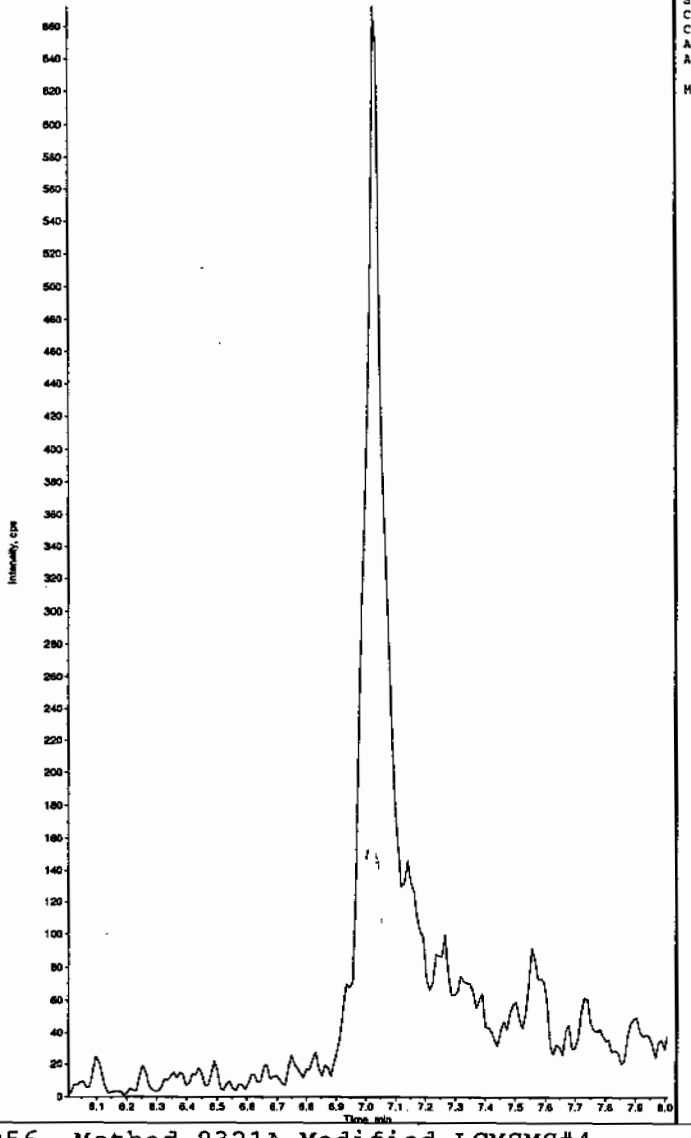

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS01100010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 1:38:20 PM

Modified: No

Hum 01/12/10

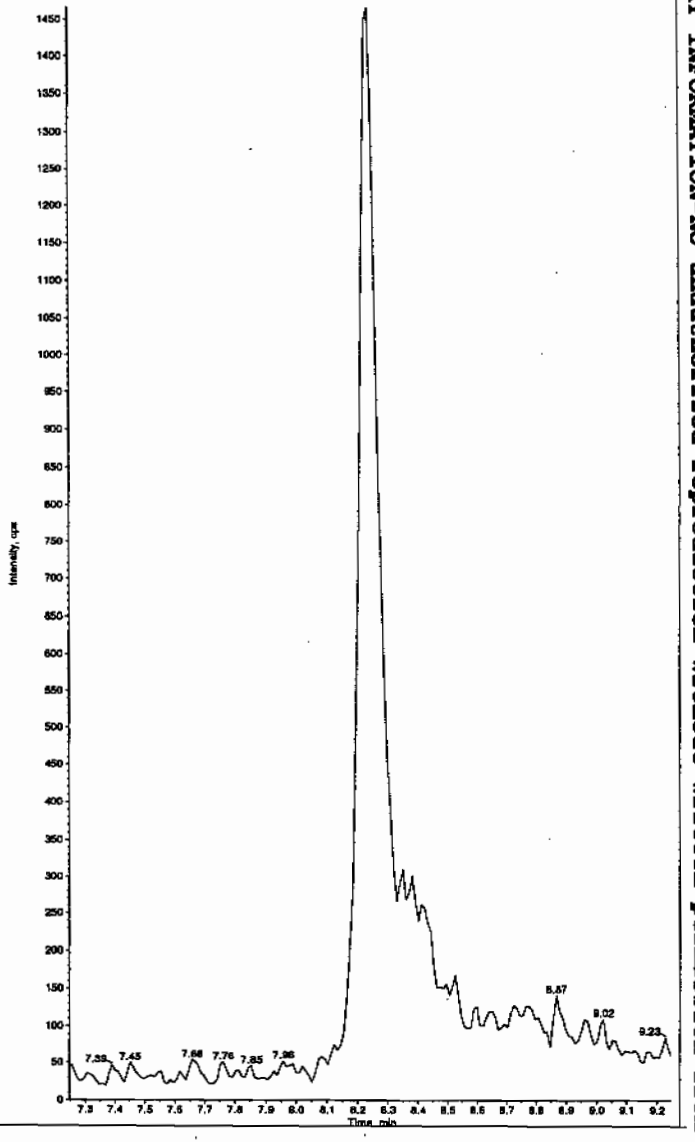

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS01100010.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 1/11/2010
Time: 1:38:20 PM

fied: No

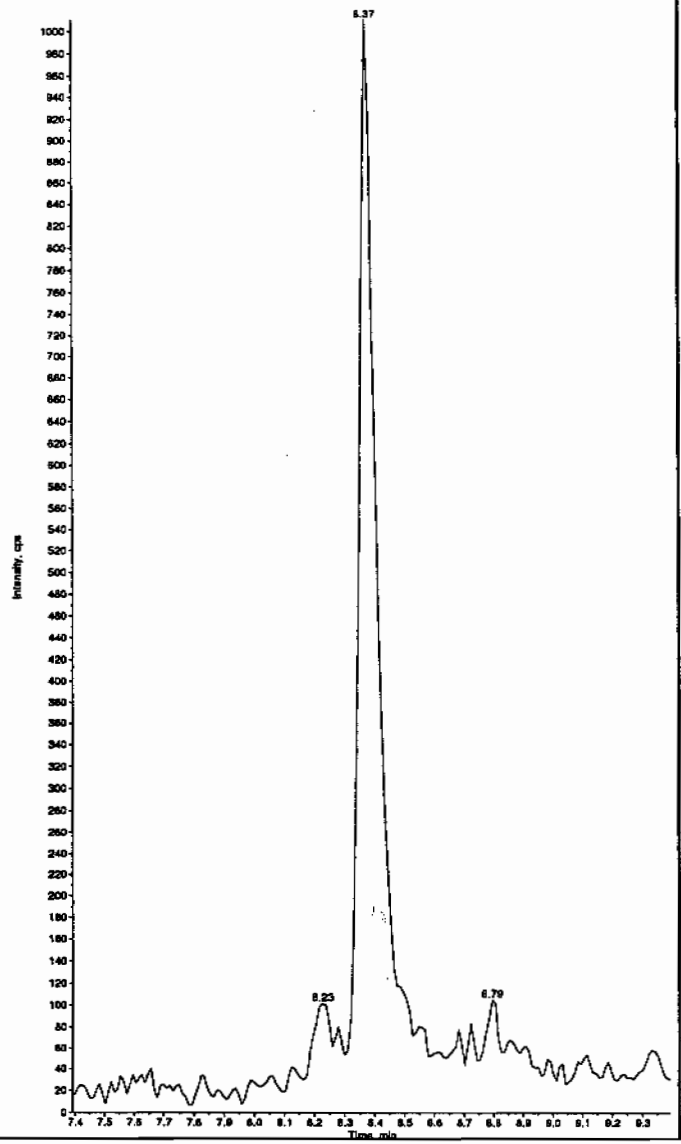

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS01100010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 1:38:20 PM

Modified: No

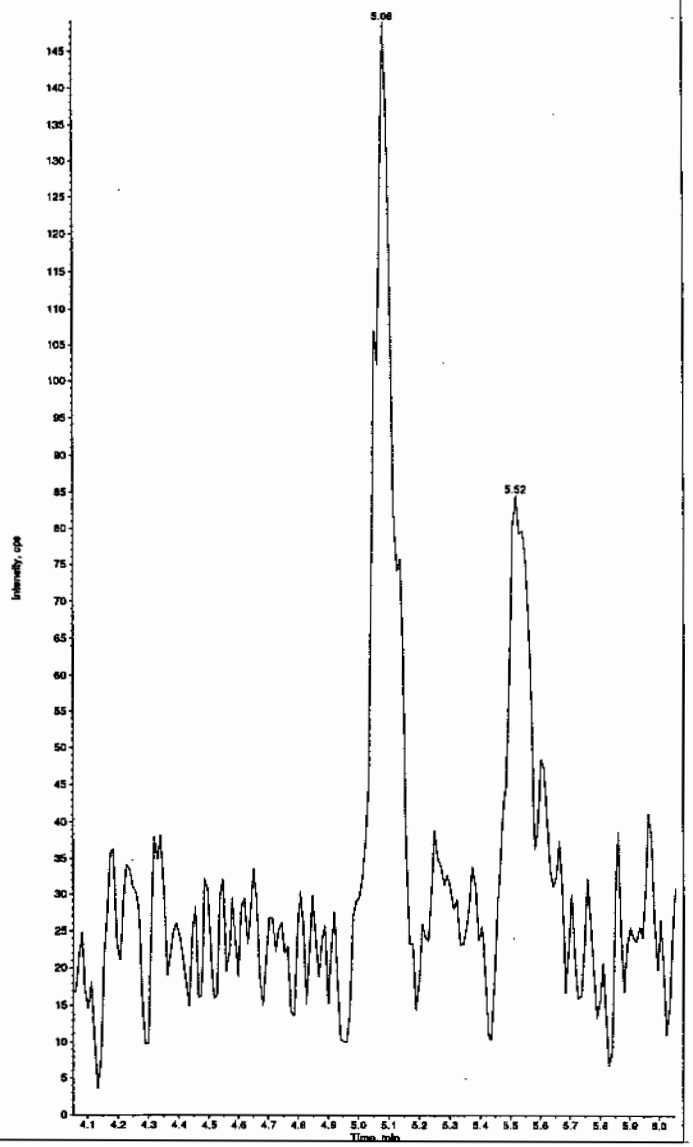

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS01100010.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 1/11/2010
Time: 1:38:20 PM

fied: No

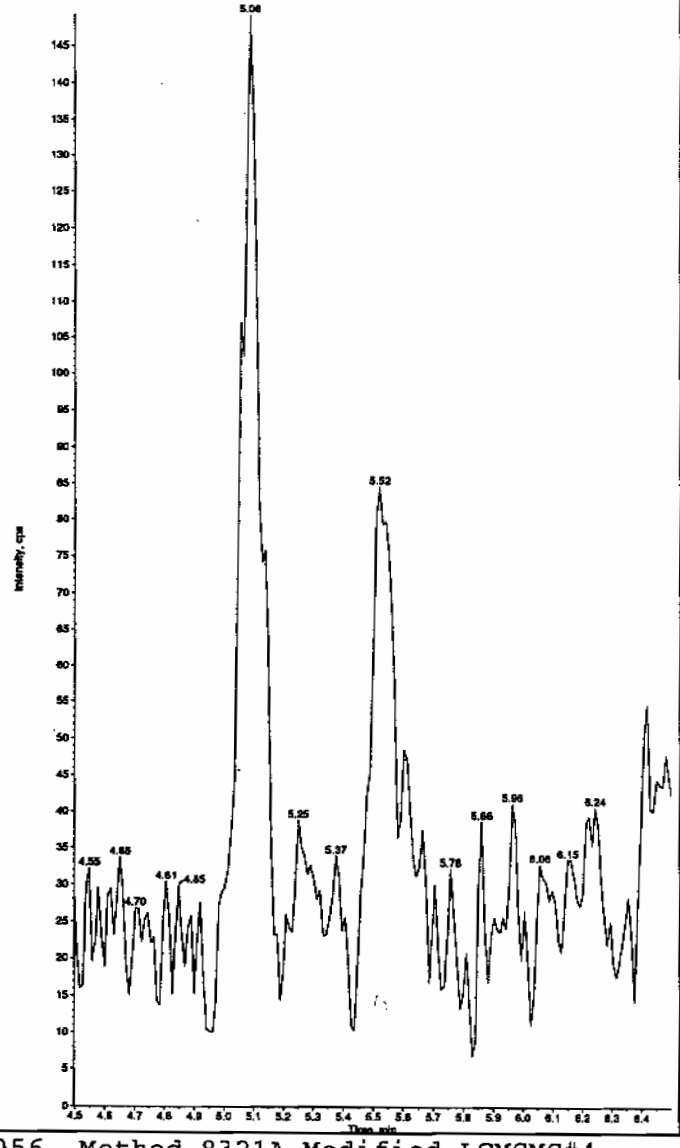

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS01100010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "368.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	< 0	
Acq. Date:	1/11/2010	
Acq. Time:	1:38:20 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	1.00e4	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.8	min
Area:	1.86e+005	counts
Height:	40498.867	cps
Start Time:	10.7	min
End Time:	11.1	min

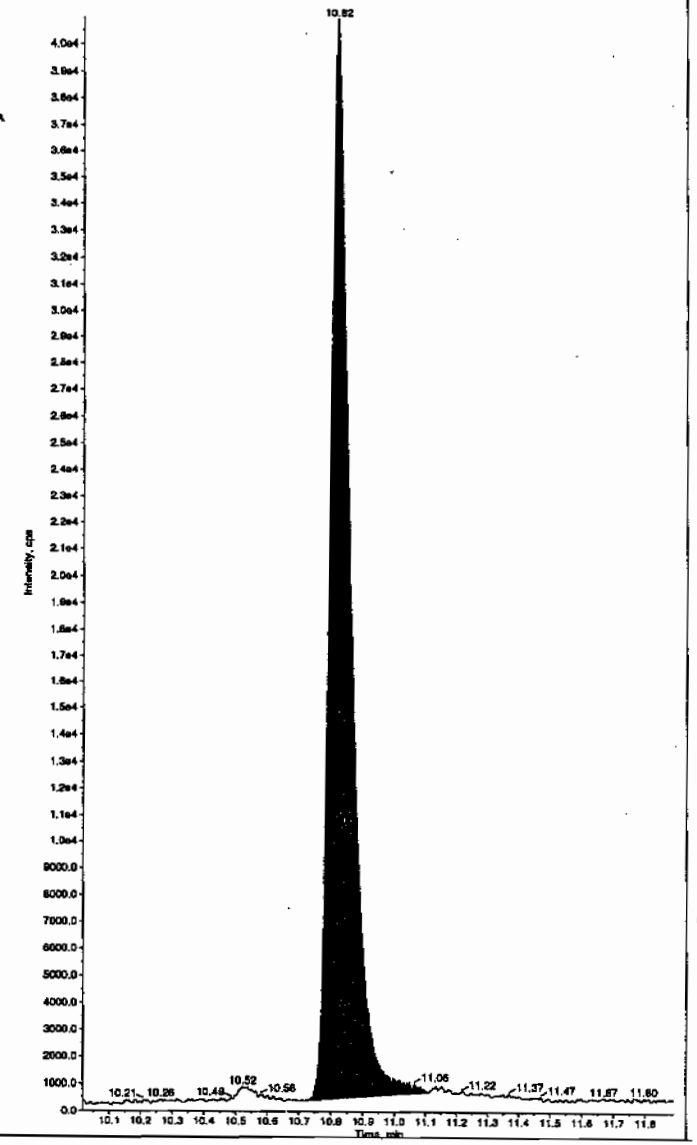

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1020

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 11–JAN–10 14:09

GEL Data File: EXS01100012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0

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Lcw 1/12/10

ample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS01100012.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 1/11/2010
. Time: 2:09:45 PM
ified: No

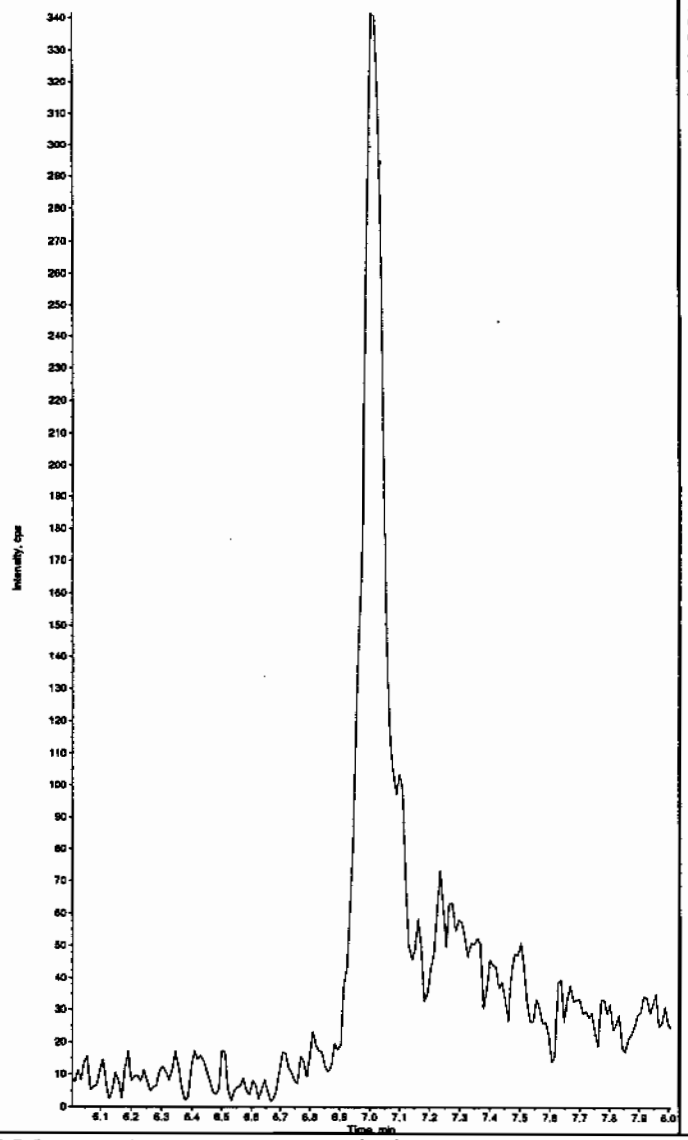

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS01100012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 2:09:45 PM

Modified: No

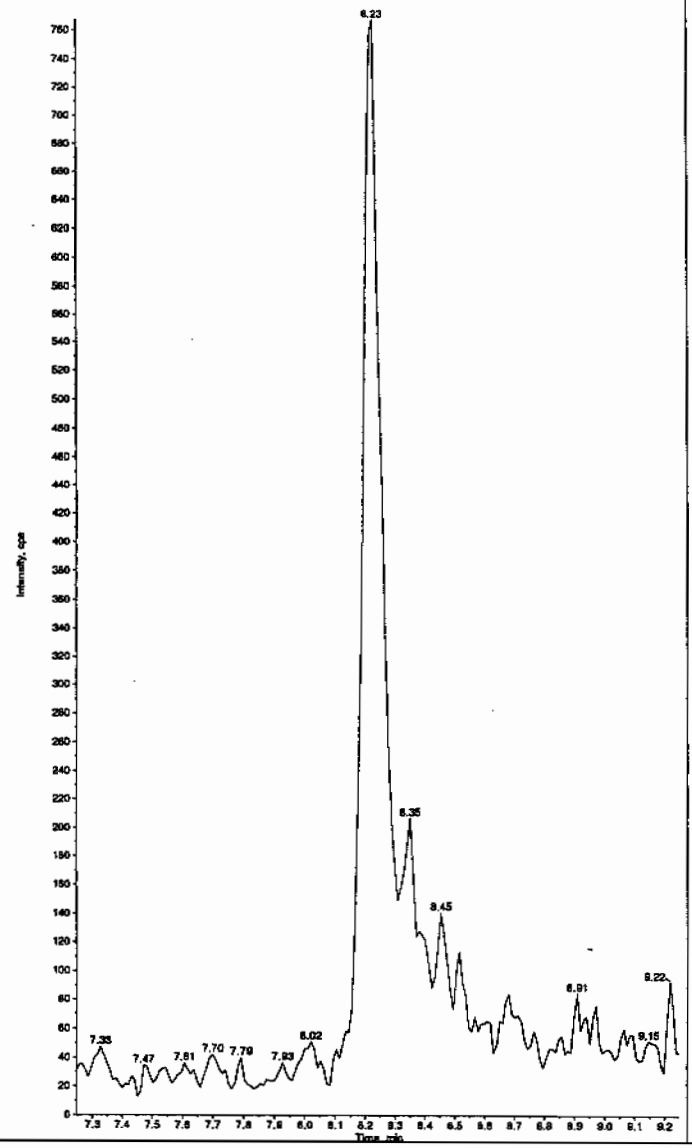

Hnm 01/12/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS01100012.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 1/11/2010
. Time: 2:09:45 PM
ified: No

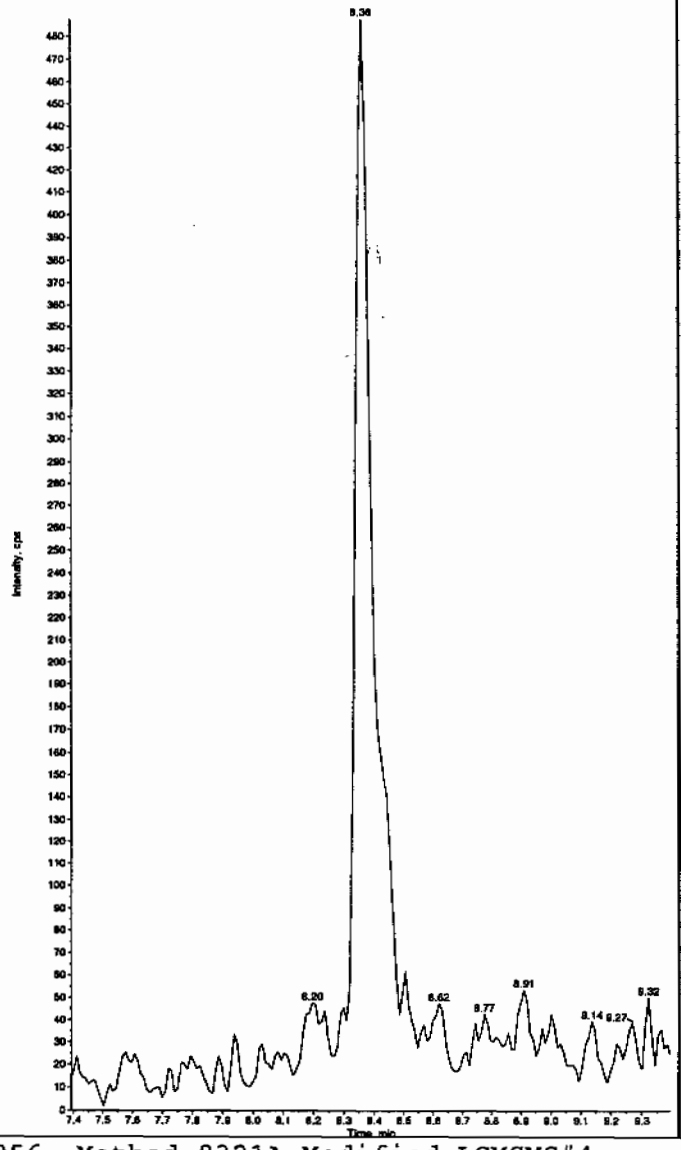

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS01100012.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 2:09:45 PM

Modified: No

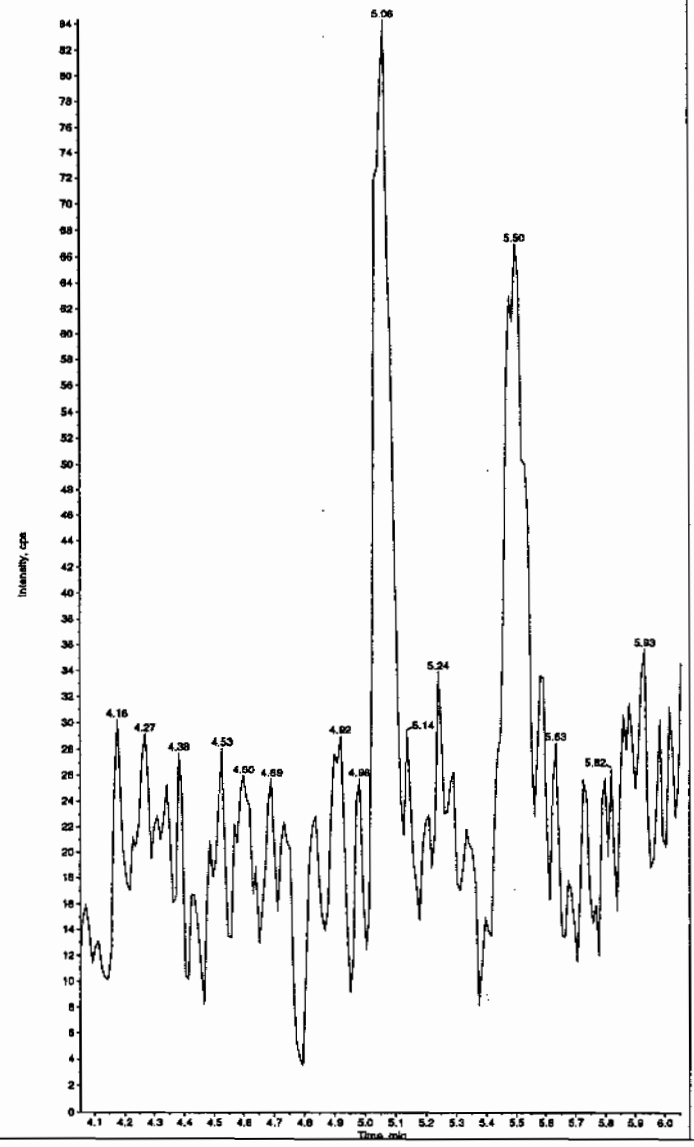

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS01100012.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 1/11/2010
. Time: 2:09:45 PM

lified: No

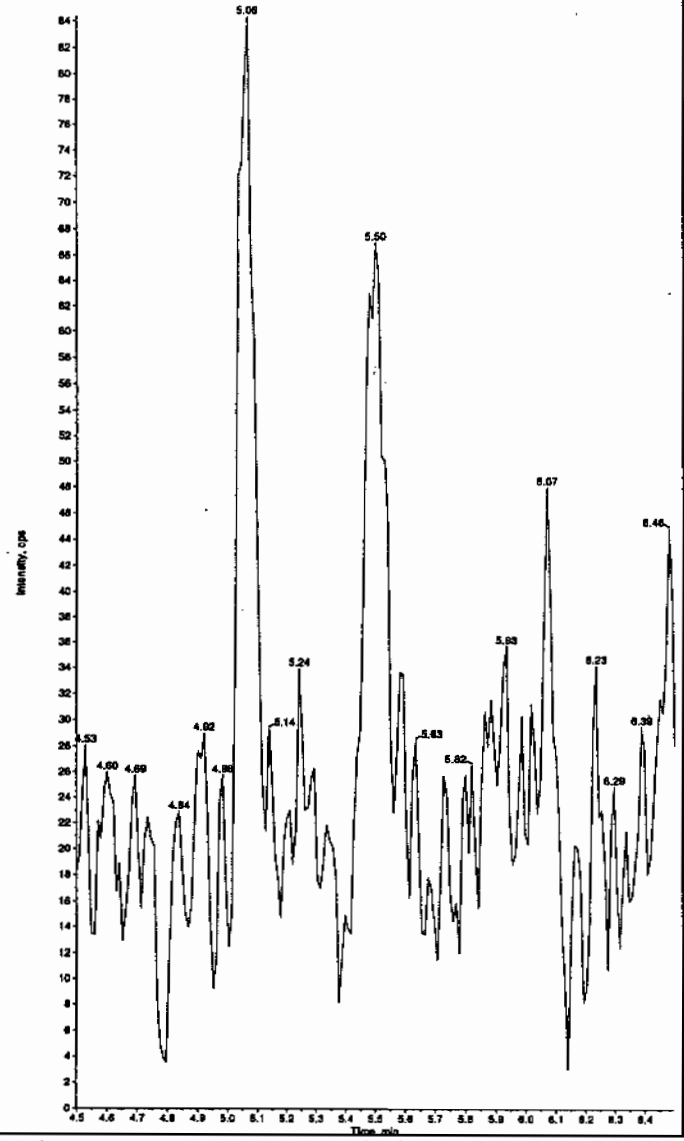

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS01100012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	No Intercept	
Acq. Date:	1/11/2010	
Acq. Time:	2:09:45 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	1.00e4	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	9.26e+004	counts
Height:	21862.732	cps
Start Time:	10.8	min
End Time:	11.2	min

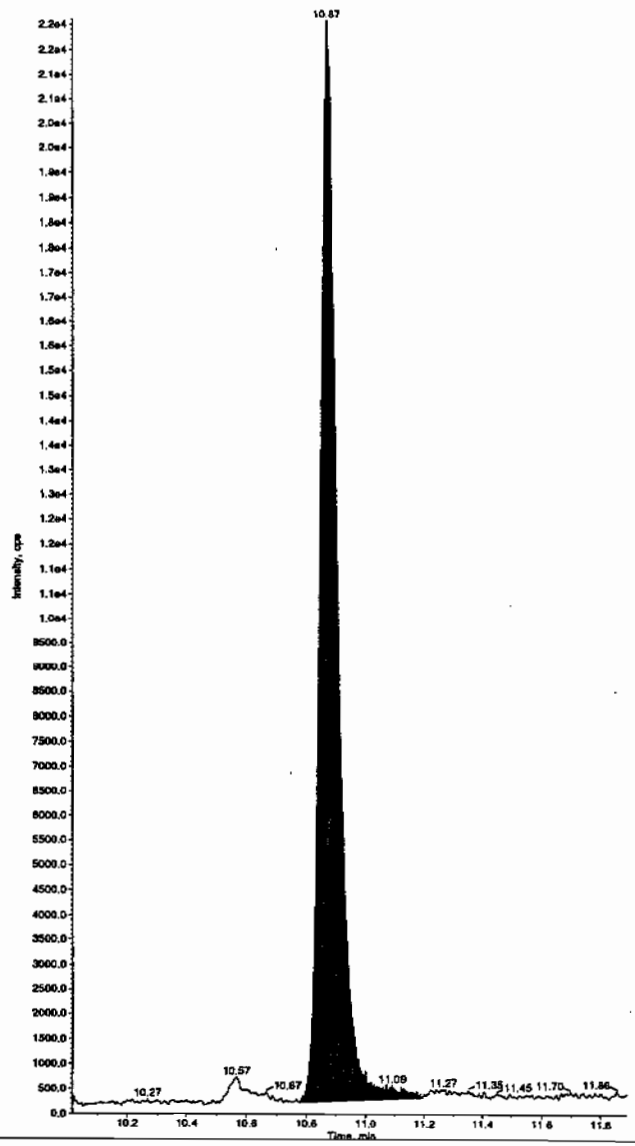

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10–1020
Lab Code: GEL
Lab Sample ID: XIBLK04
Analysis Date: 11–JAN–10 14:56
GEL Data File: EXS01100015.wiff
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

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Lau 1/12/10

mple Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS01100015.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 1/11/2010
Time: 2:56:50 PM

fied: No

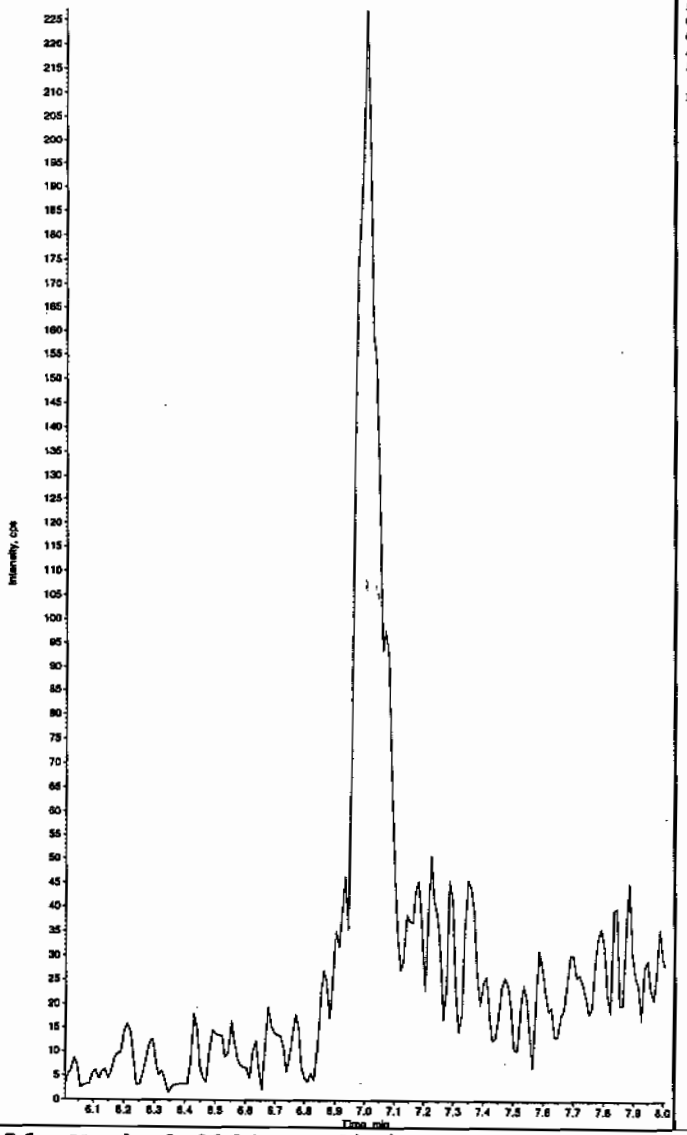

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS01100015.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 2:56:50 PM

Modified: No

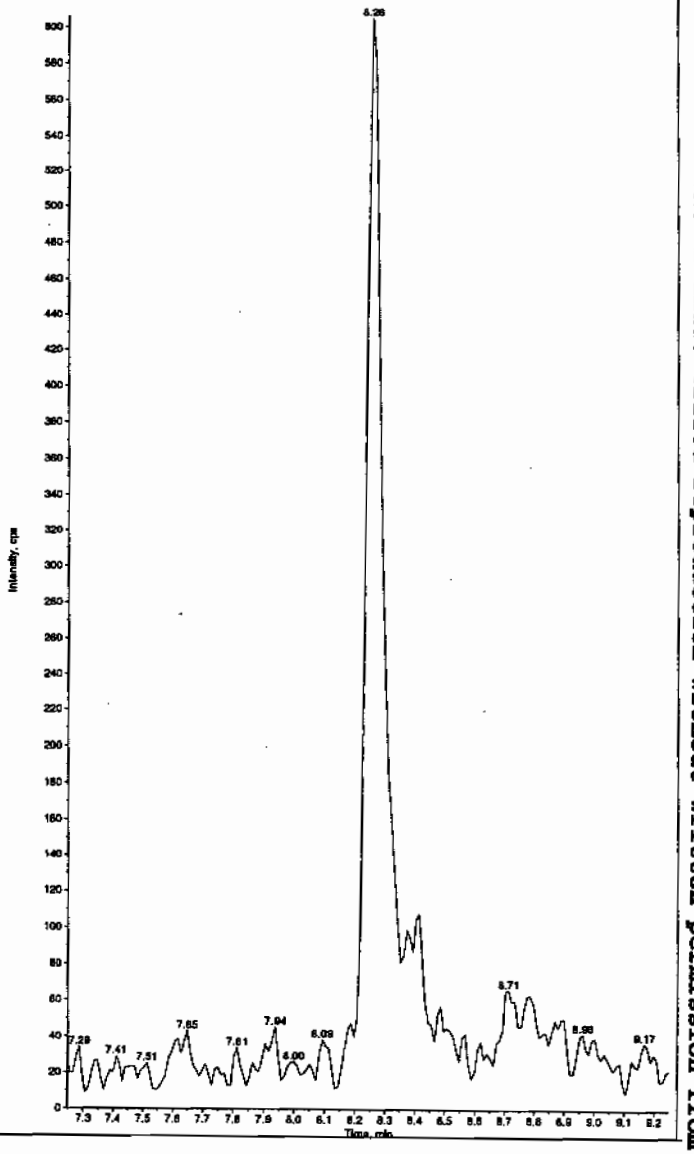

Hum 01/12/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS01100015.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 1/11/2010
. Time: 2:56:50 PM

lified: No

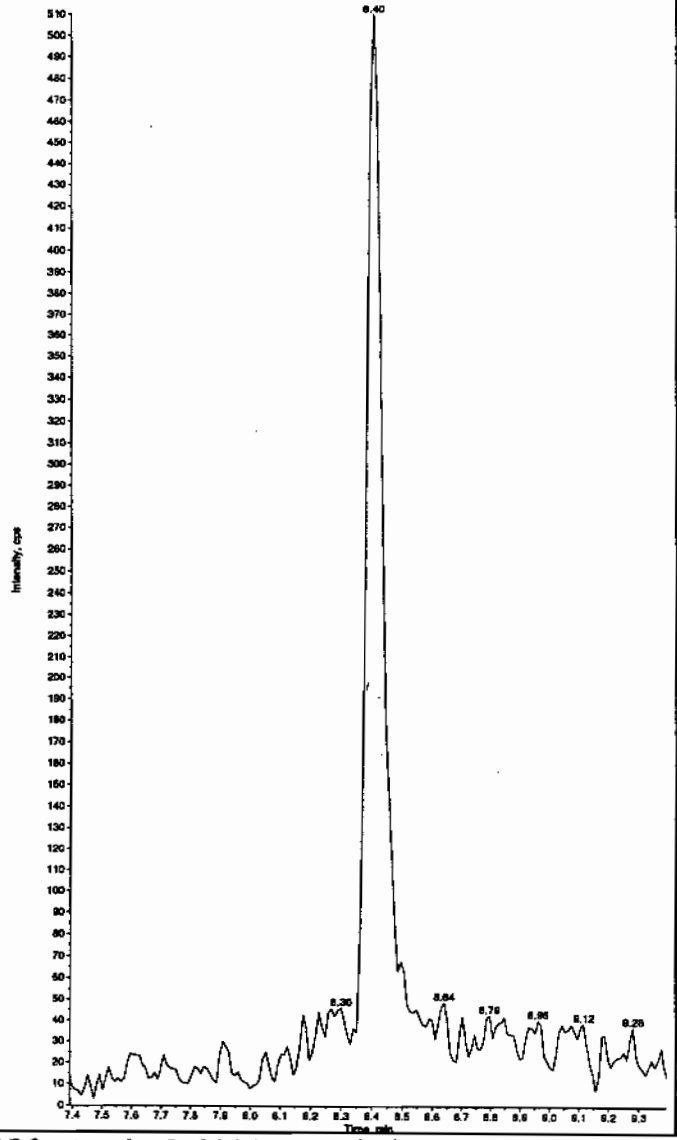

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS01100015.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 2:56:50 PM

Modified: No

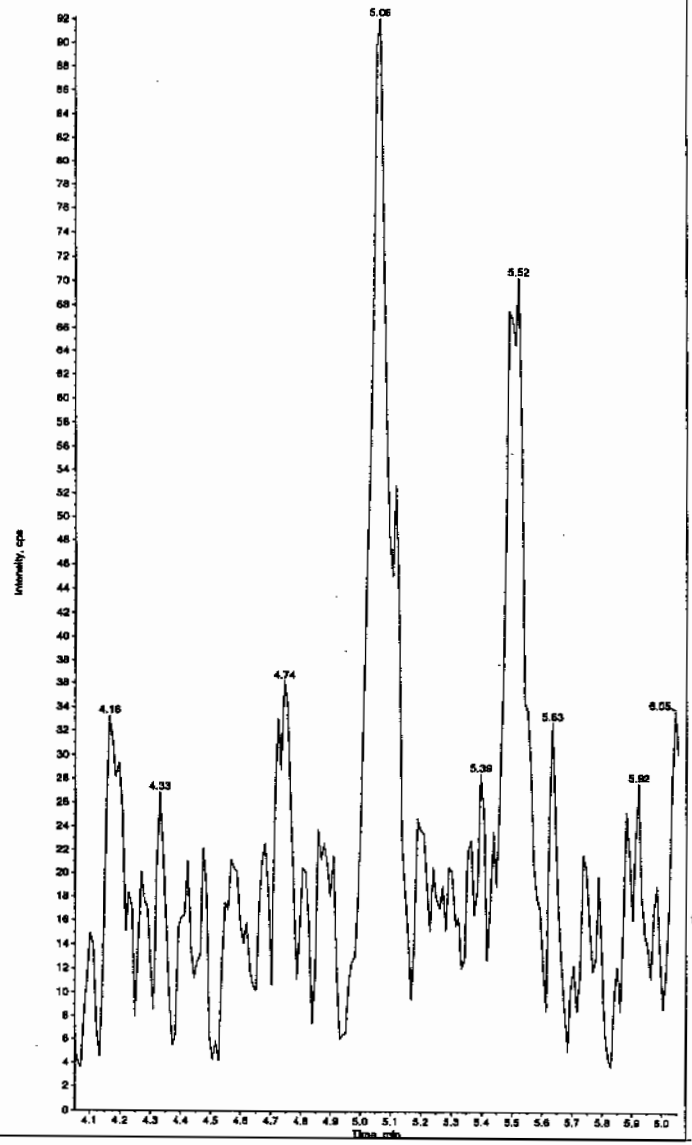

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS01100015.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 1/11/2010
. Time: 2:56:50 PM
lfied: No

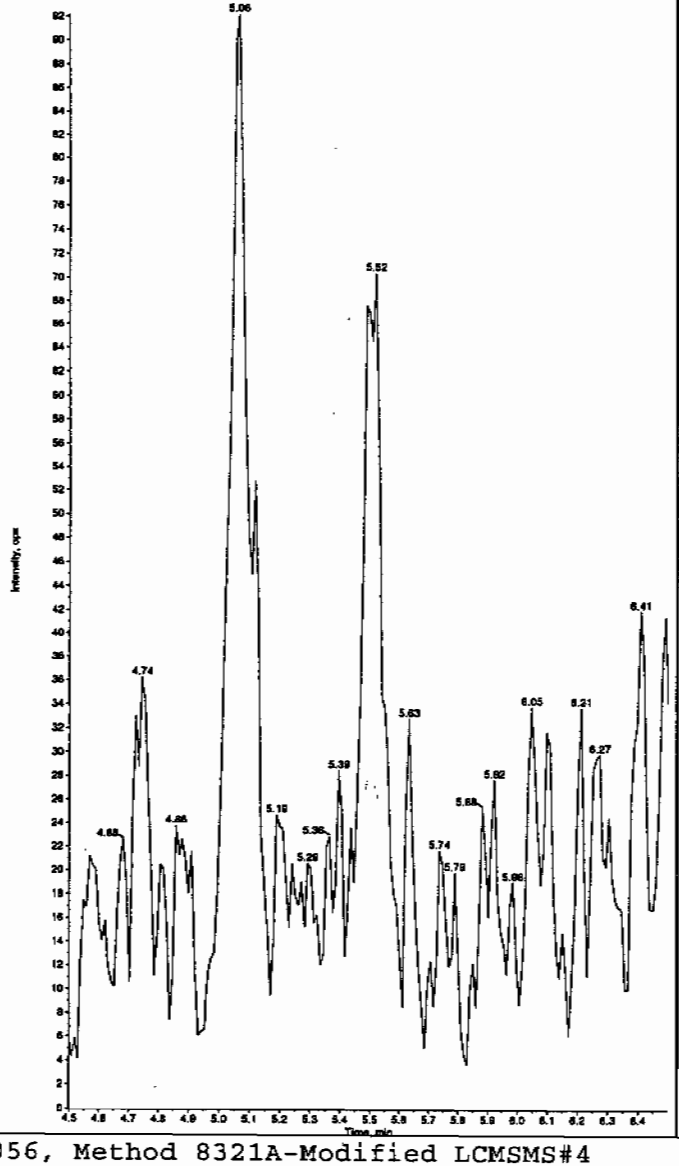

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS01100015.wiff"
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 2:56:50 PM

Modified: No

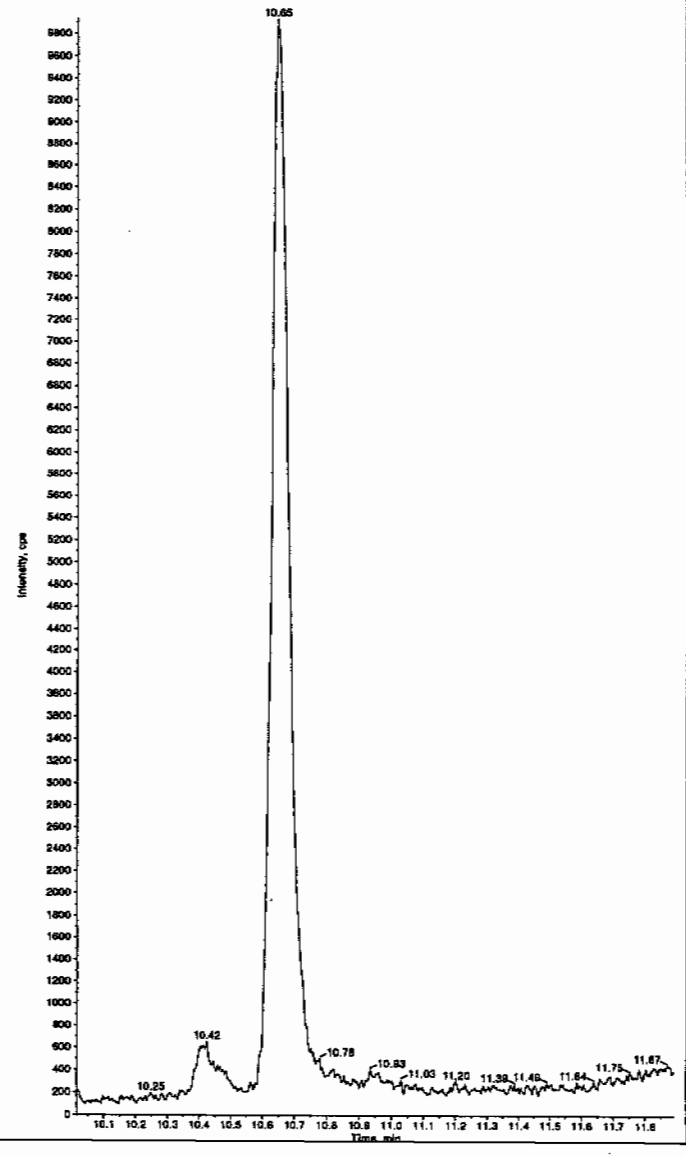

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–1020

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 11–JAN–10 17:02

GEL Data File: EXS01100023.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Dan 1/12/10

mple Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS01100023.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_8" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 1/11/2010
. Time: 5:02:23 PM

ified: No

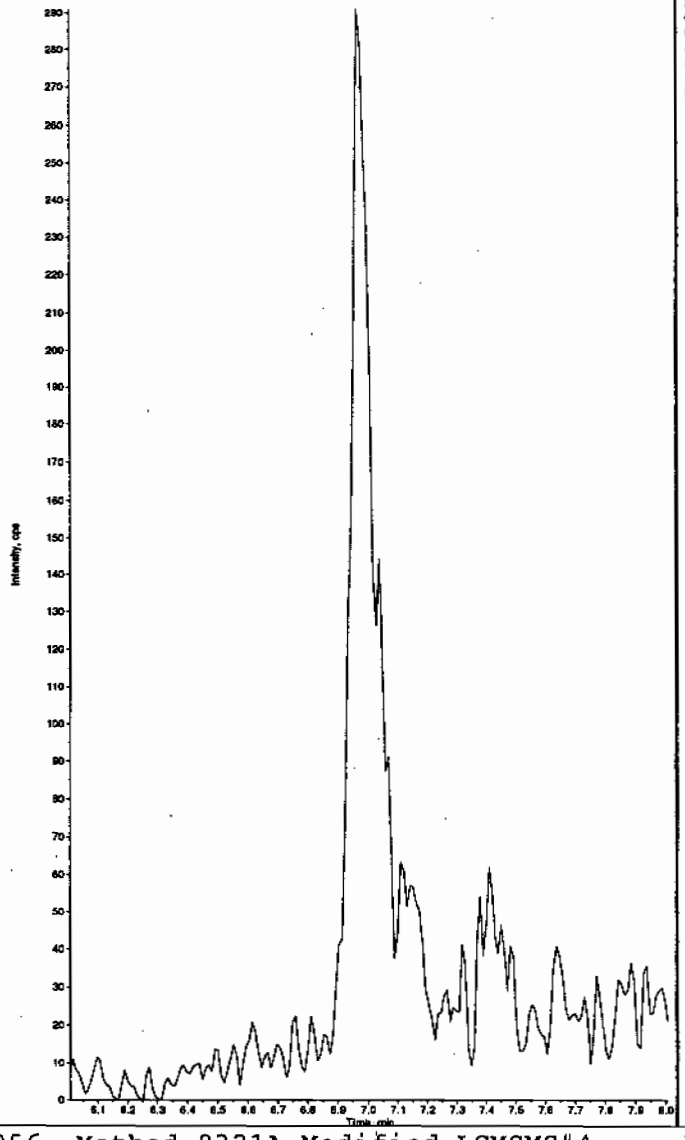

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS01100023.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_8" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 5:02:23 PM

Modified: No

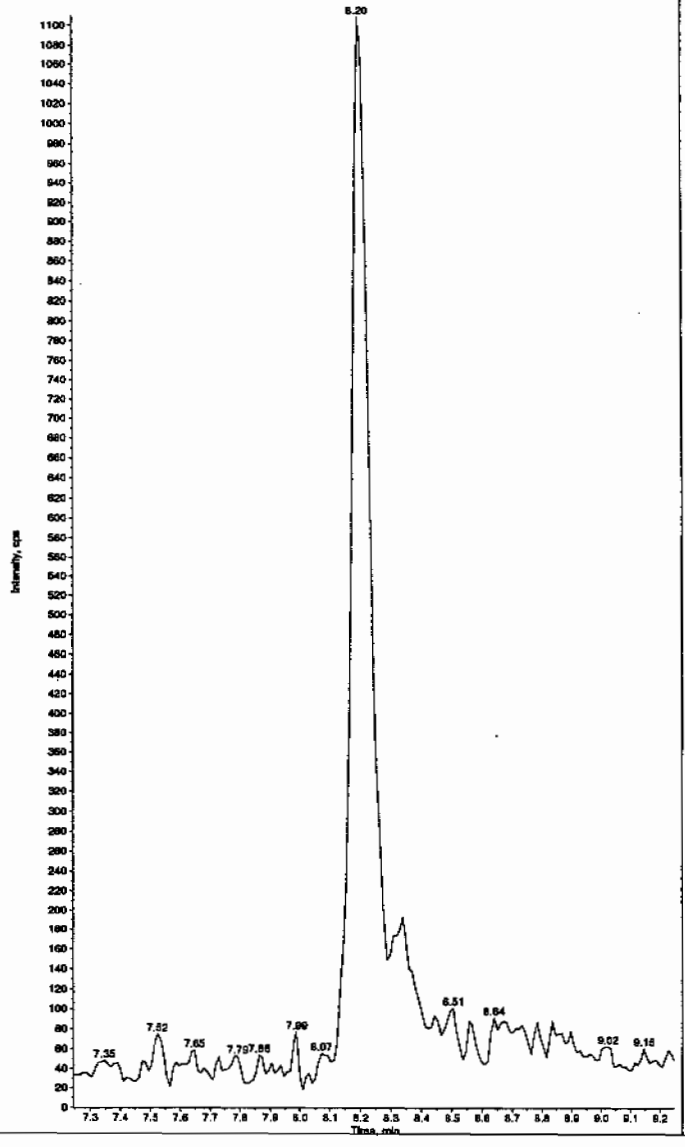

Hmm 01/12/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS01100023.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_8" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 1/11/2010
Time: 5:02:23 PM
fied: No

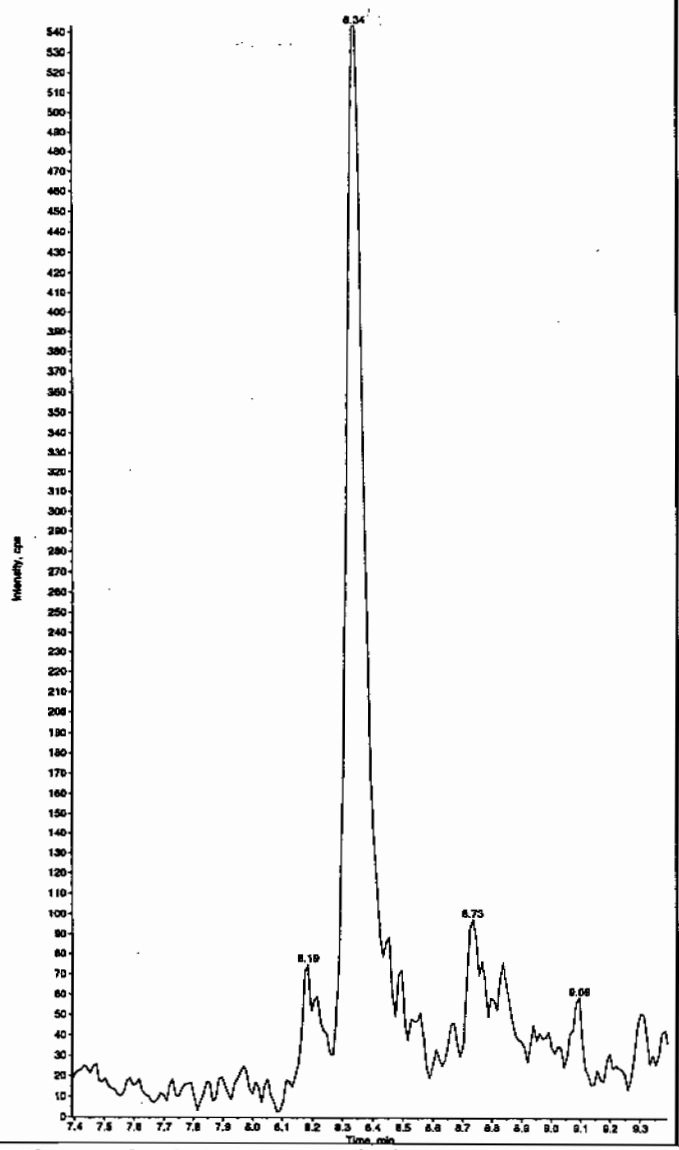

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS01100023.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_8" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 5:02:23 PM

Modified: No

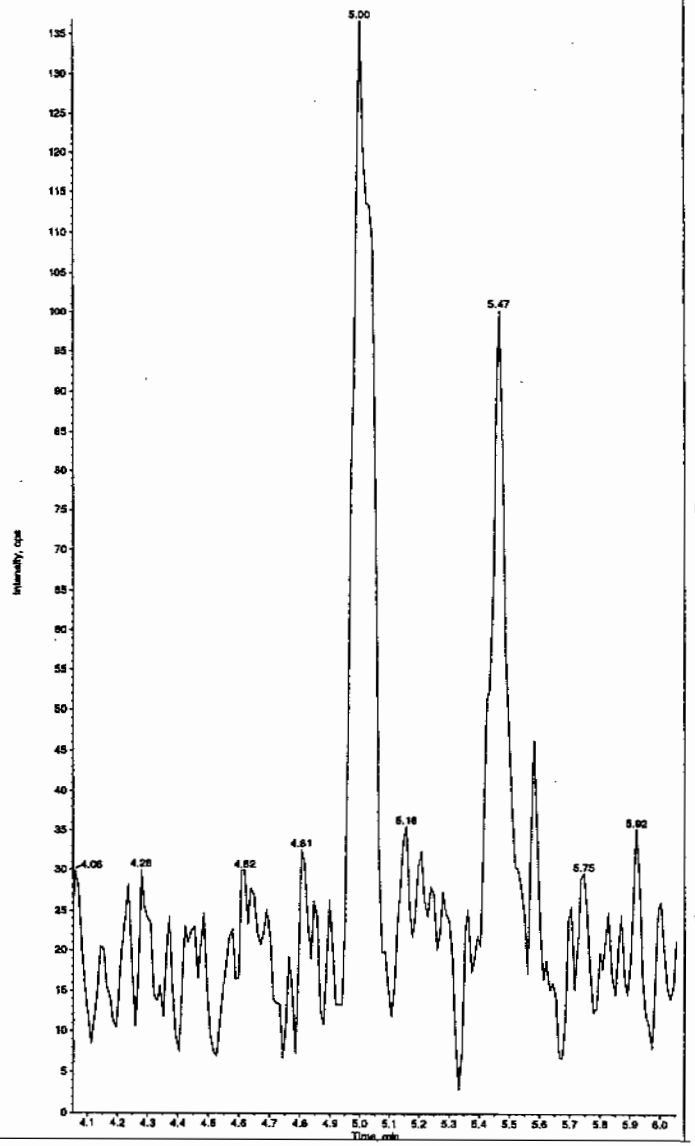

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS01100023.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
ncentration: N/A
culated Conc: 0.00 ng/mL
. Date: 1/11/2010
. Time: 5:02:23 PM
dified: No

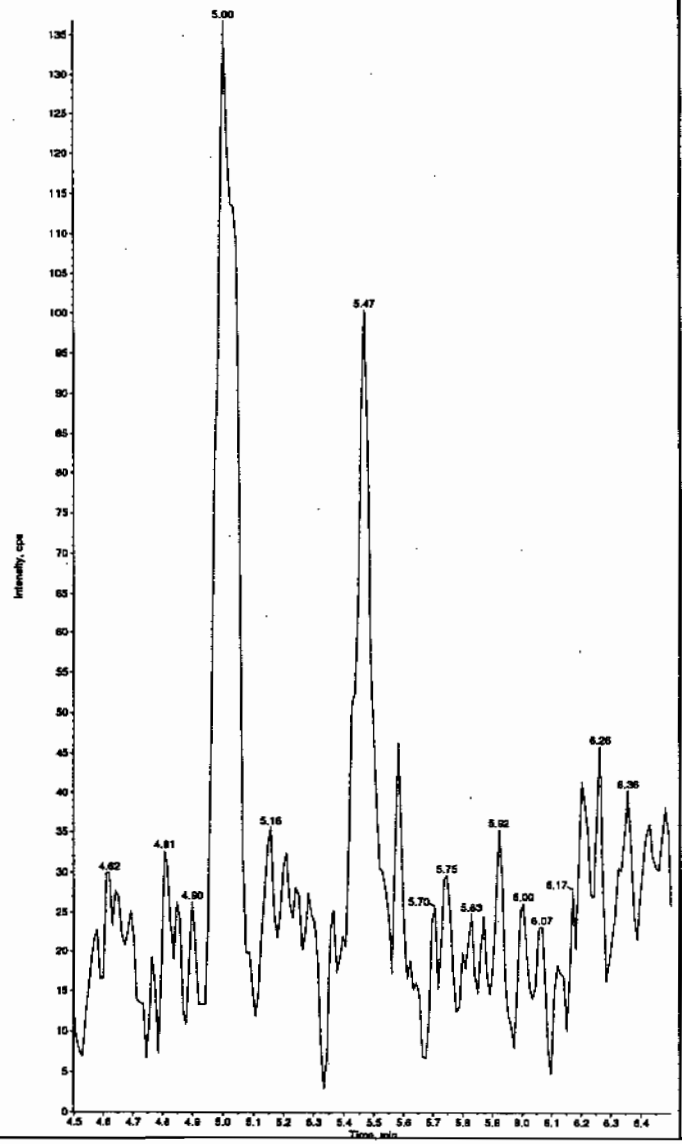

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS01100023.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	No Intercept
Acq. Date:	1/11/2010
Acq. Time:	5:02:23 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	1.00e4 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.9 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.8 min
Area:	5.98e+004 counts
Height:	14745.577 cps
Start Time:	10.7 min
End Time:	11.0 min

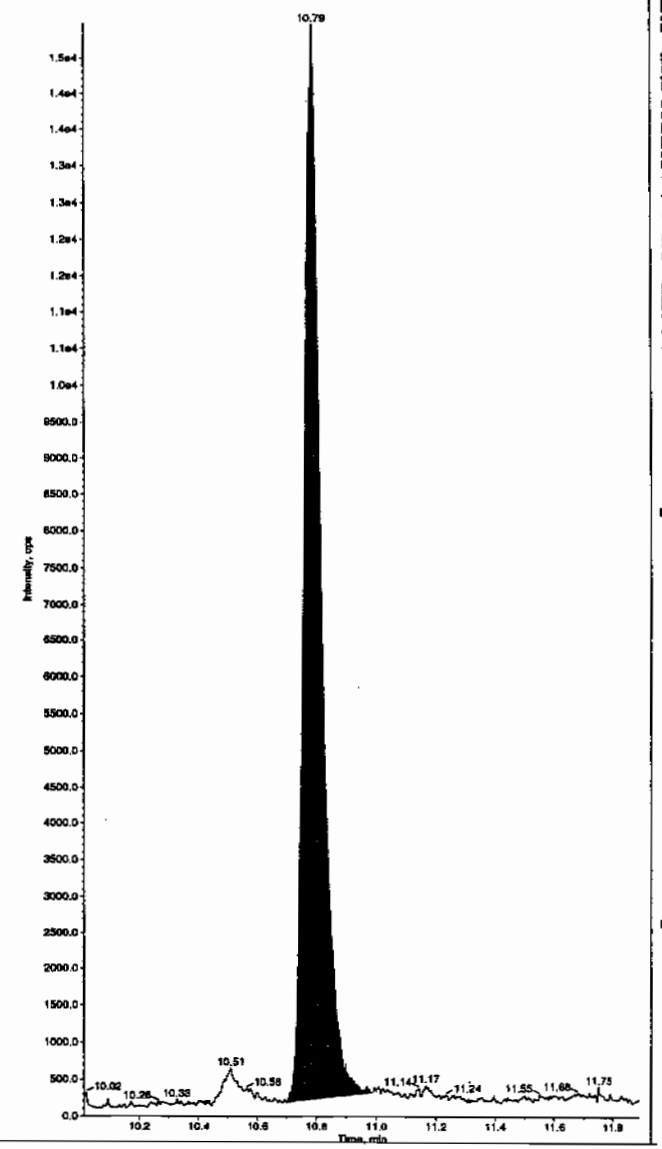

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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Calibration Report - MS1 Static

Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

15 matches of 15 tested references

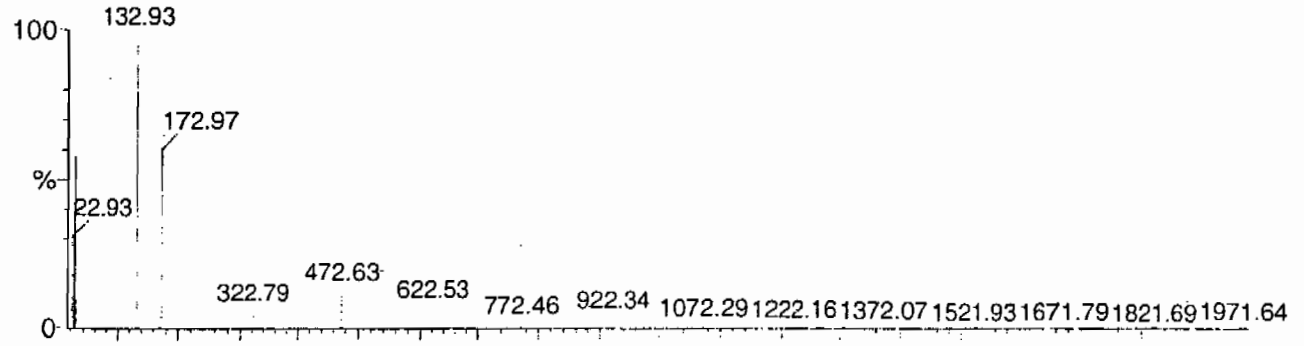

Reference file: Naics2

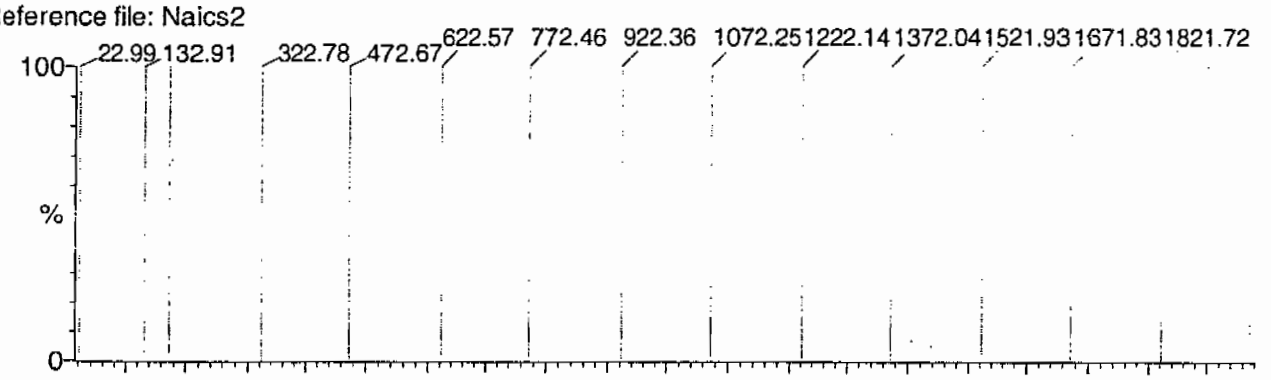

Mass difference (Raw - Ref mass)

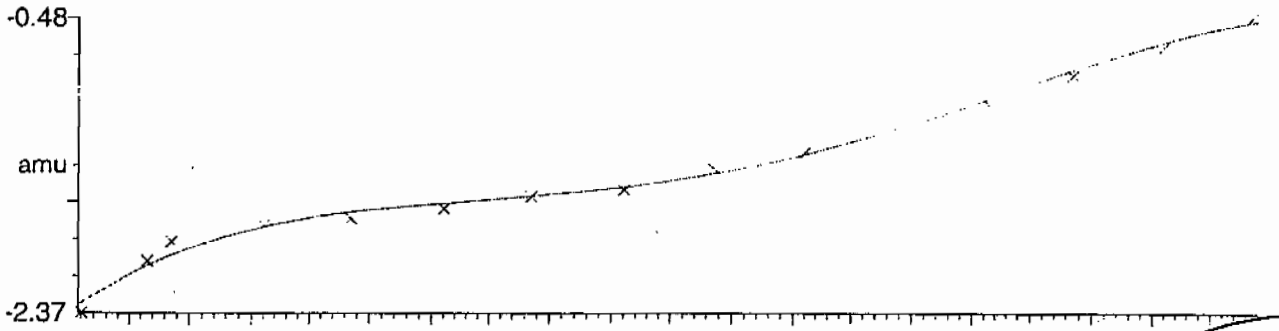

Residuals

Mean residual = -1.673470e-9 ± 0.036953

ok
hm

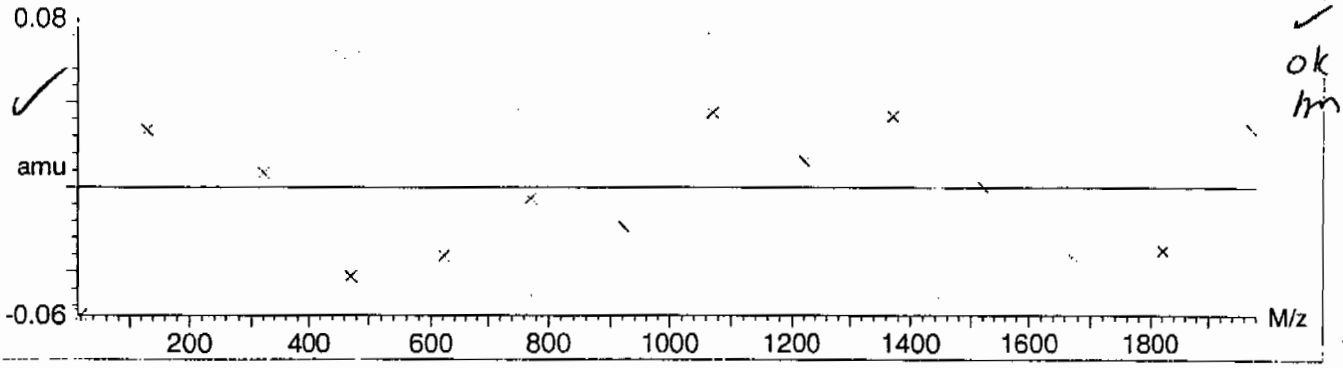

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Calibration Report - MS1 Scanning

Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

15 matches of 15 tested references

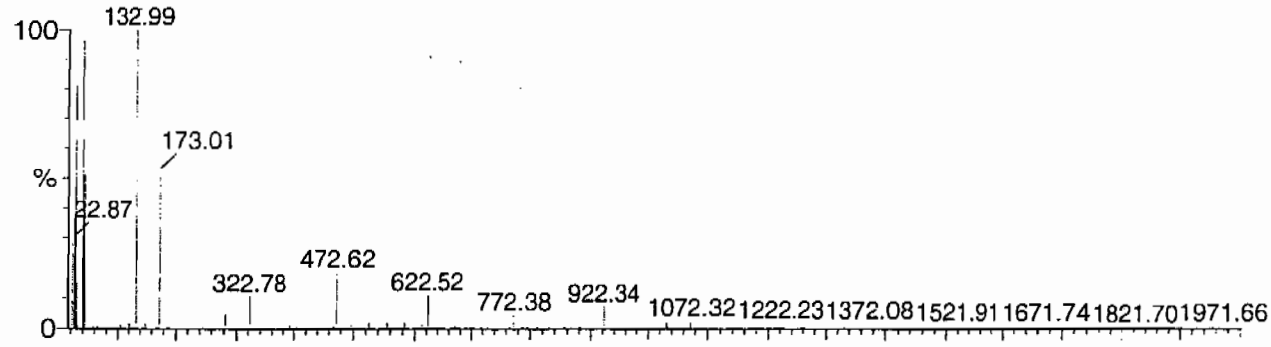

Reference file: Naics2

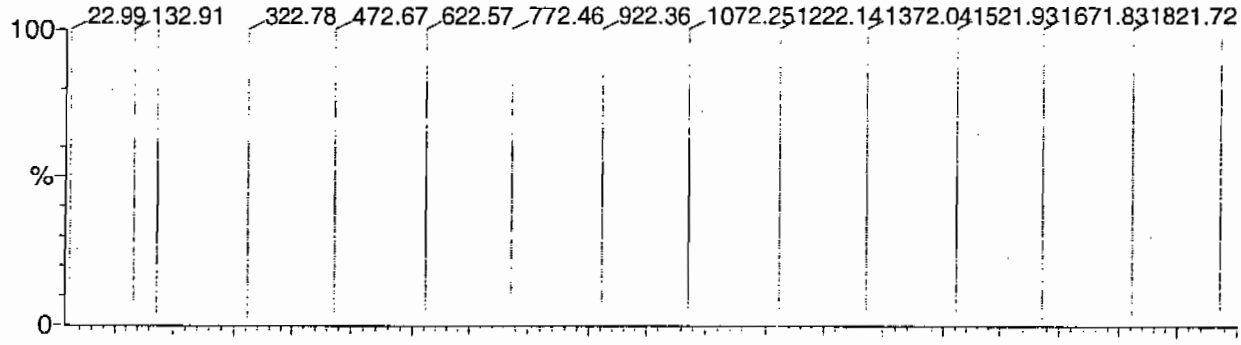

Mass difference (Raw - Ref mass)

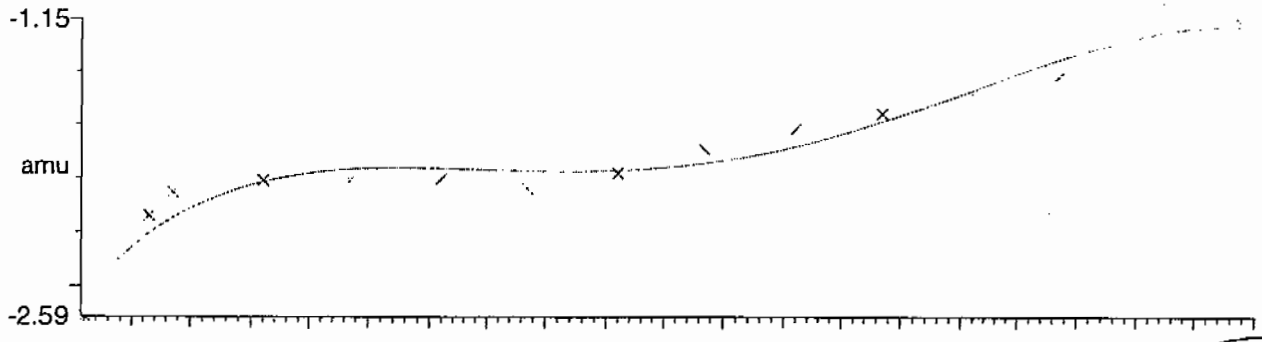

Residuals

Mean residual = -5.432715e-9 ± 0.069858

ok
mm

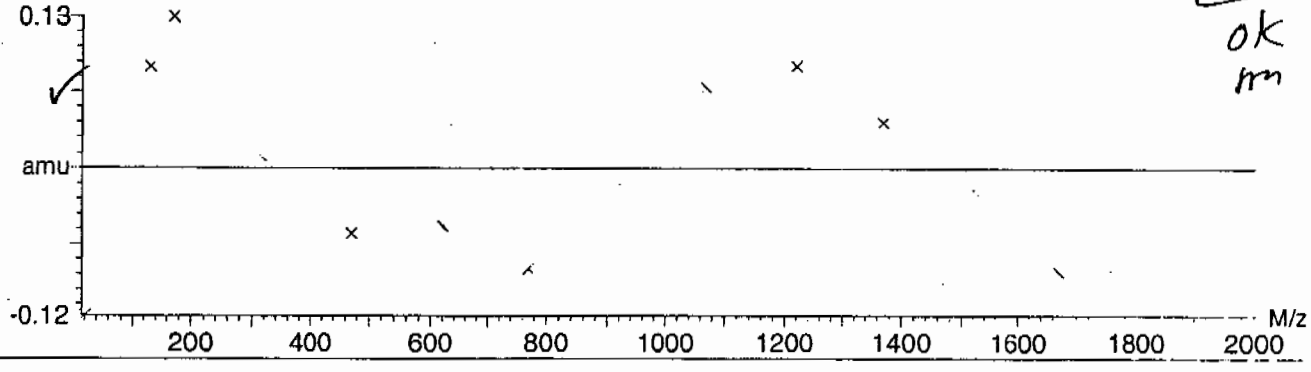

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Calibration Report - MS1 Scan Speed Compensation

Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

15 matches of 15 tested references

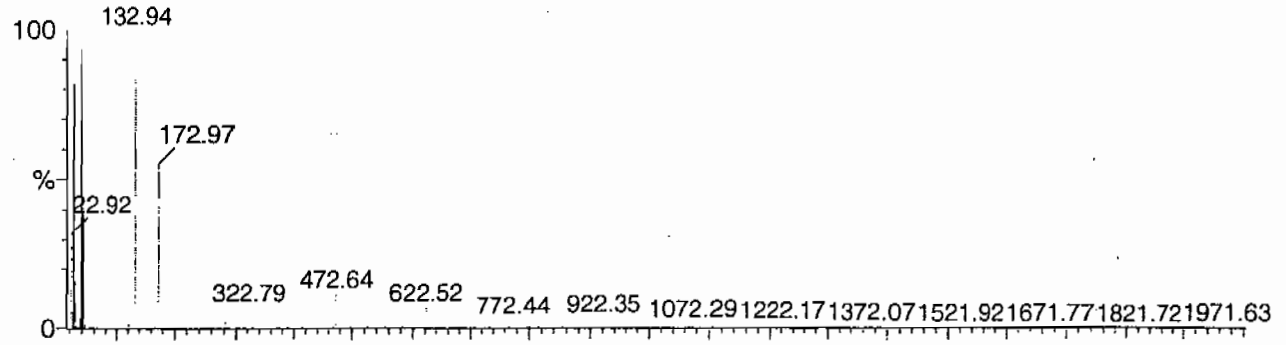

Reference file: Naics2

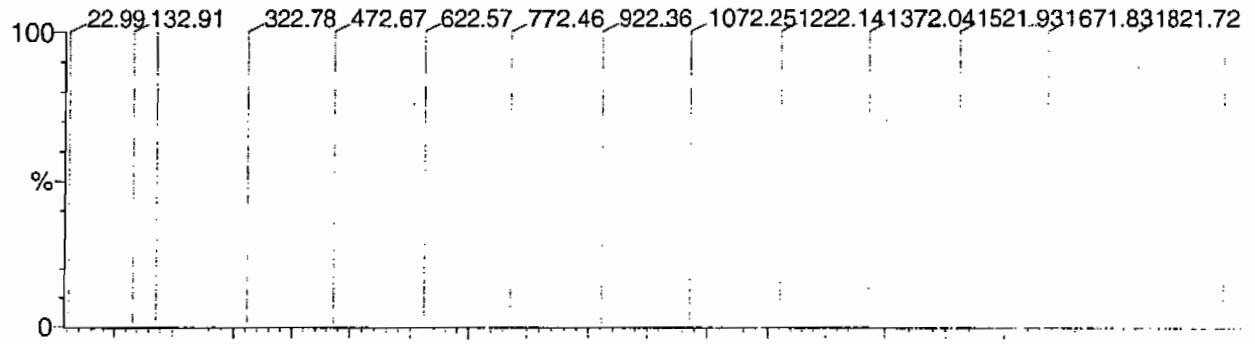

Mass difference (Raw - Ref mass)

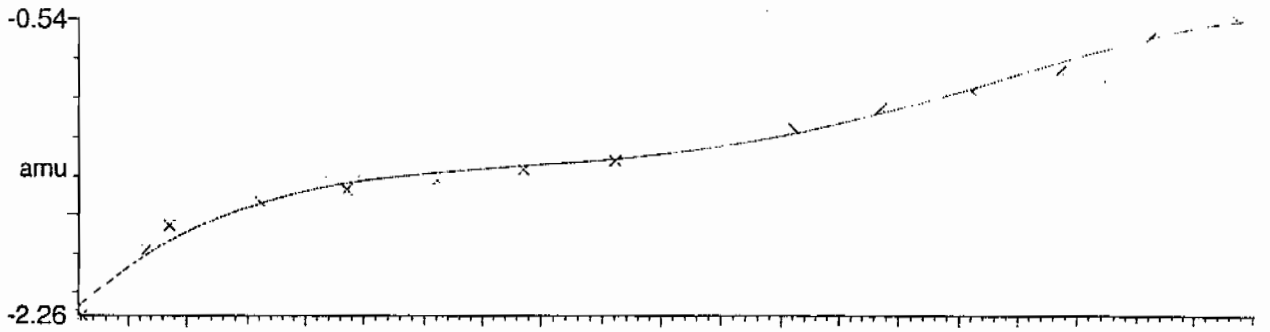

Residuals

Mean residual = 3.486639e-9 ± 0.040487

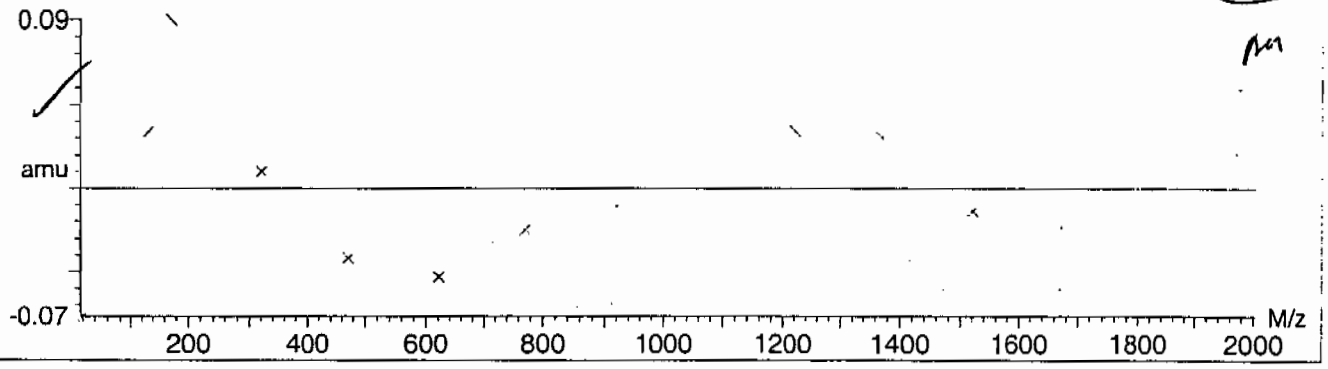

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Calibration Report - MS2 Static

Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

15 matches of 15 tested references

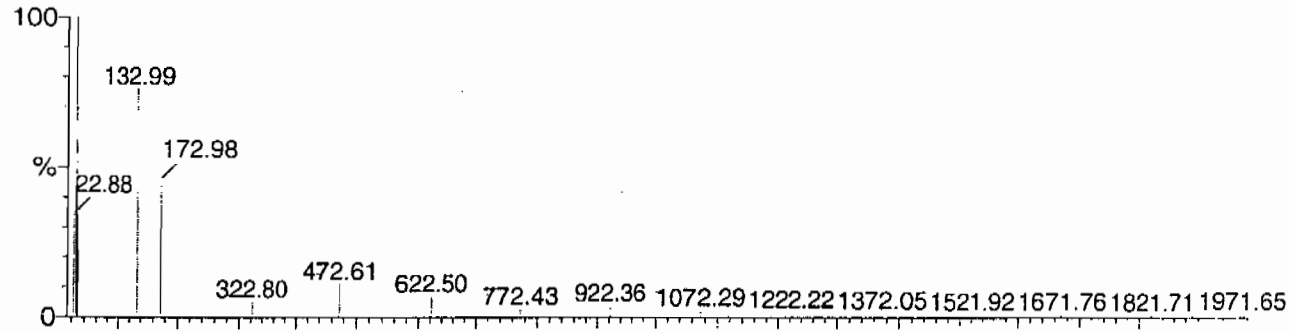

Reference file: Naics2

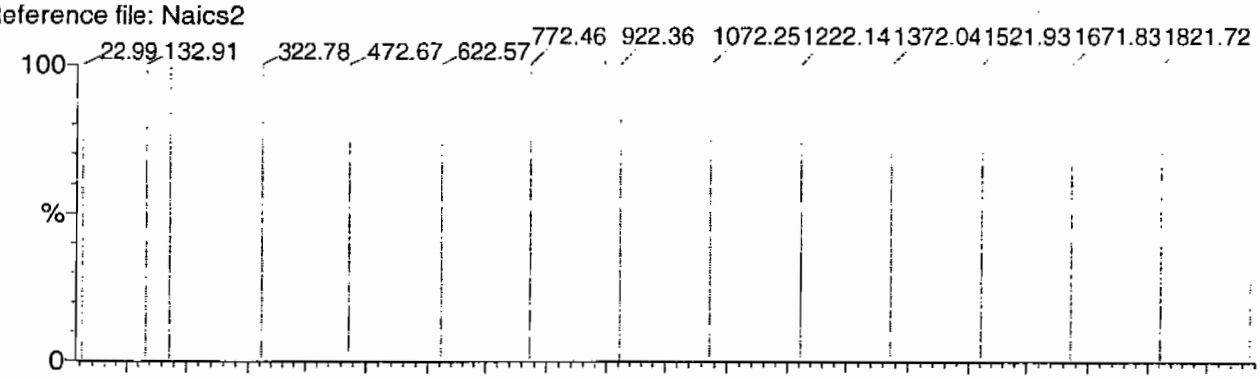

Mass difference (Raw - Ref mass)

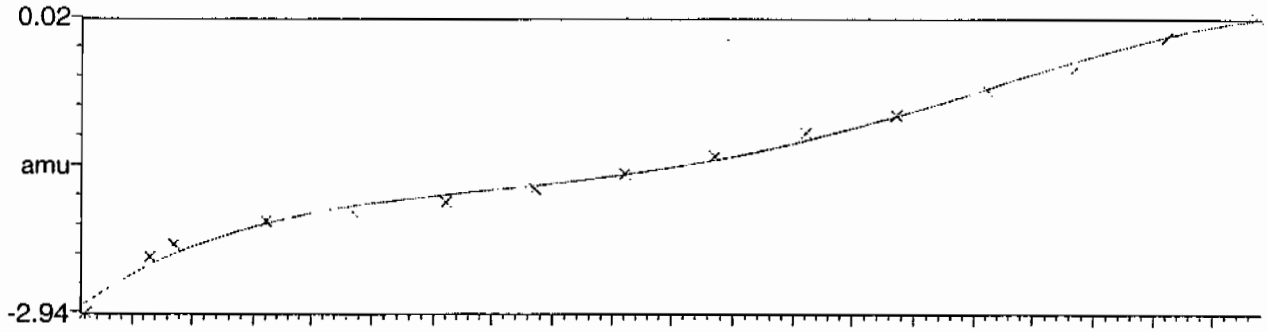

Residuals

Mean residual = 2.048910e-9 ± 0.057803

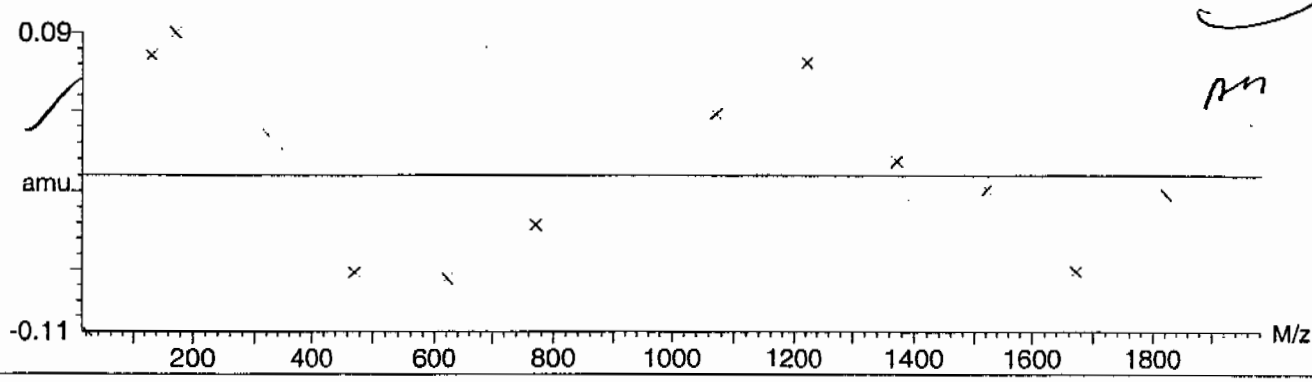

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Calibration Report - MS2 Scanning

Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

14 matches of 15 tested references

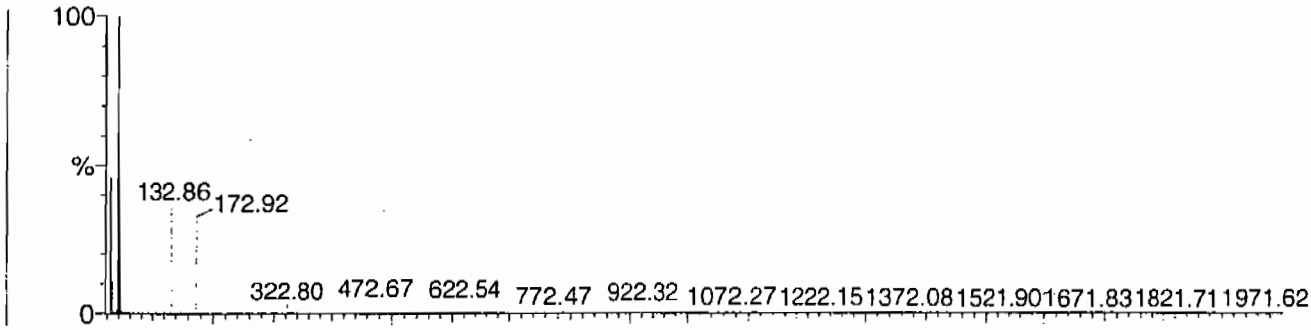

Reference file: Naics2

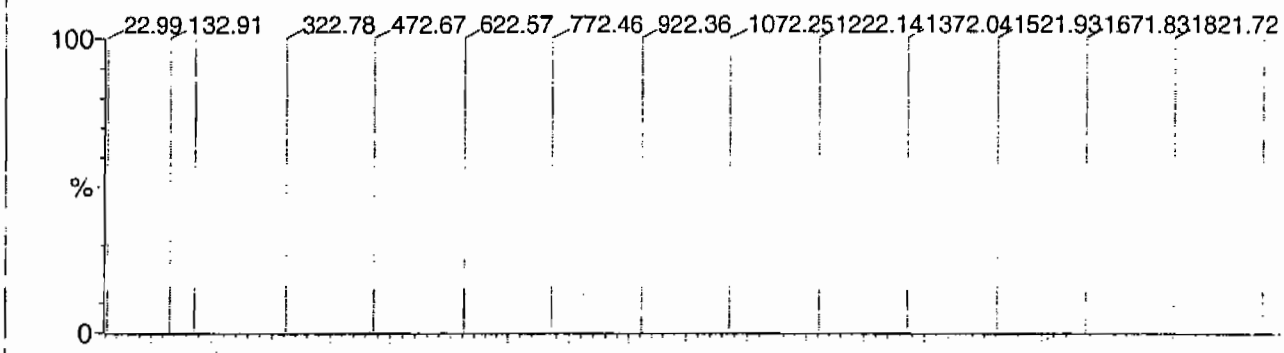

Mass difference (Raw - Ref mass)

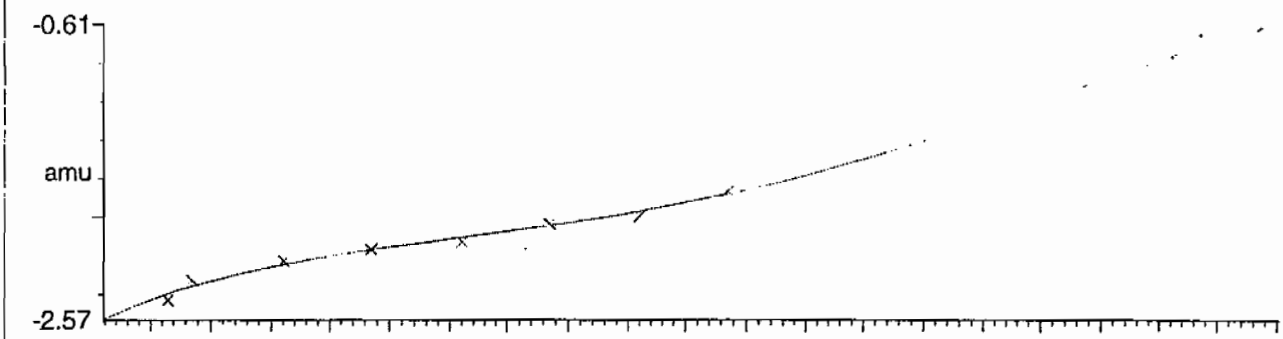

Residuals

Mean residual = -2.623502e-9 ± 0.025622

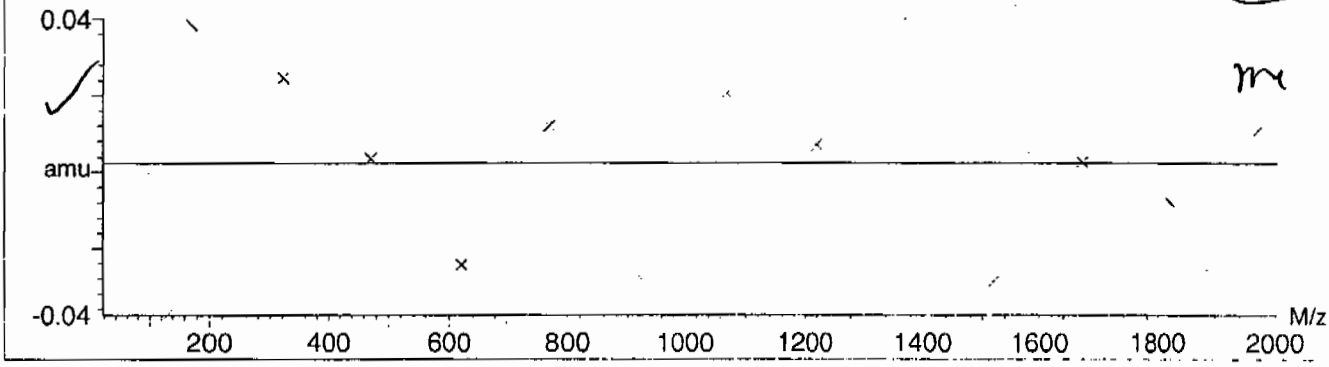

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Calibration Report - MS2 Scan Speed Compensation

Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

14 matches of 15 tested references

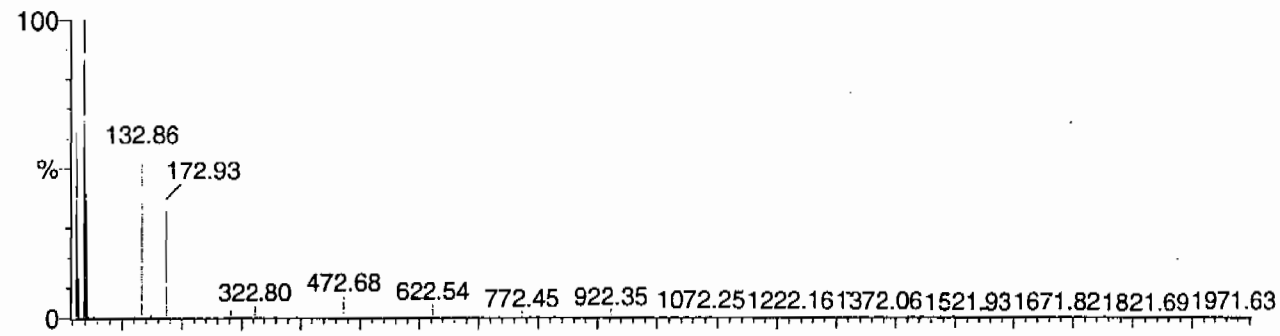

Reference file: Naics2

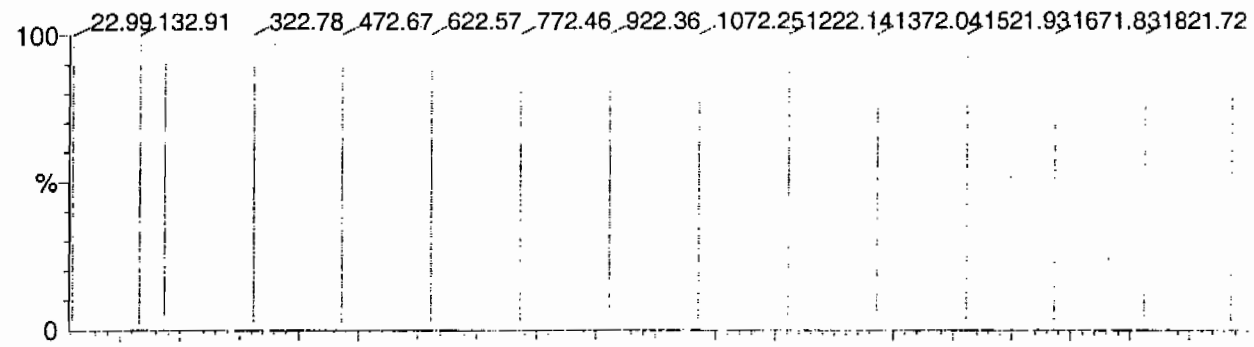

Mass difference (Raw - Ref mass)

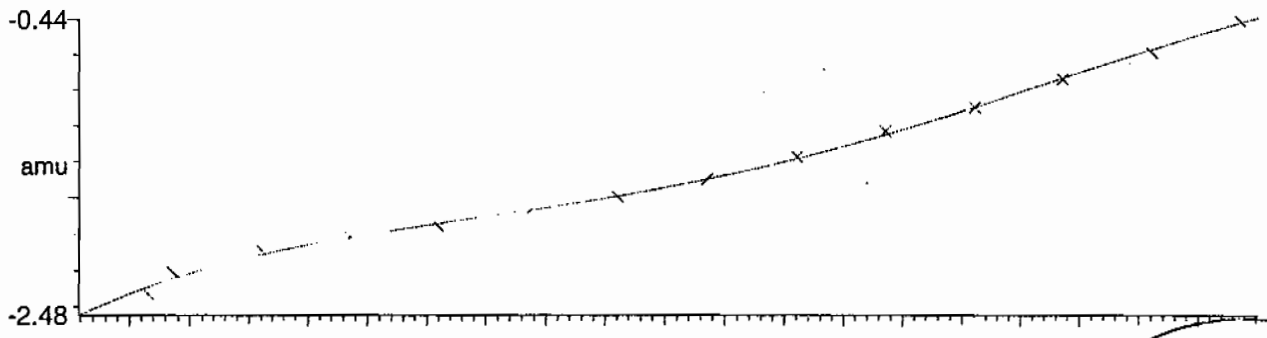

Residuals

Mean residual = -6.785350e-9 ± 0.023134

m

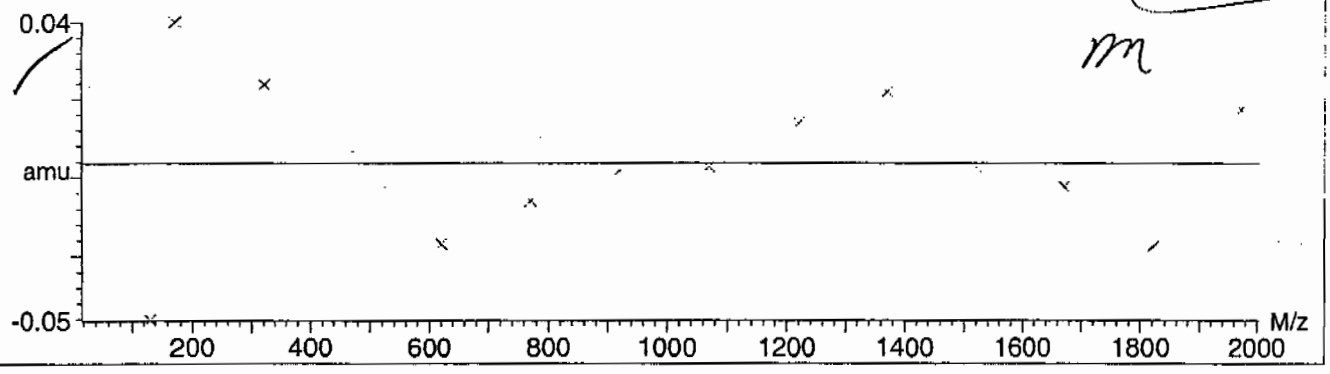

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Quattro Micro Tune Parameters

Parameter File: C:\MASSLYNX\NEW_EXP.PRO\ACQUDB\explosives04.ipr

Printed : Mon Jan 18 14:02:19 2010

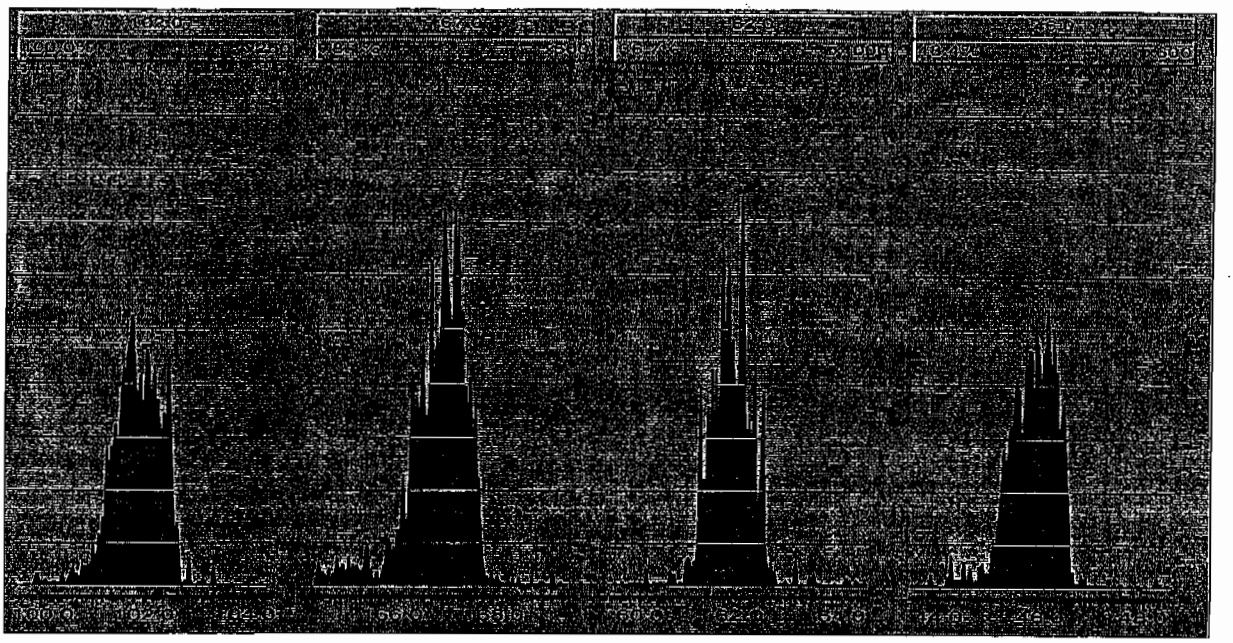

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1020

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			3393.317	11.997	18344.583	17.32
Upper Limit			4411.3121	12.497	23847.9579	17.82
Lower Limit			2375.3219	11.497	12841.2081	16.82
MB for batch 936335	18–jan–10 19:57	EXP0118013a	4219.72	11.998	23862.2 *	17.335
LCS for batch 936335	18–jan–10 20:26	EXP0118014a	4247.17	11.998	23779.9	17.313
CAPA–10–6823	18–jan–10 20:56	EXP0118015a	3790.44	11.998	21781.6	17.313
CAPA–10–6823(243401006MS)	18–jan–10 21:25	EXP0118016a	4064.01	11.996	23298.9	17.303
CAPA–10–6823(243401006MSD	18–jan–10 21:55	EXP0118017a	4063.81	11.995	23132.2	17.302
CAPA–10–6824	18–jan–10 22:24	EXP0118018a	3910.42	11.996	24569.6 *	17.324

IS1 (DNB) = 1,3–Dinitrobenzene–d4
IS2 (DNT) = 2,6–Dinitrotoluene–d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = – 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = –0.5 of average multipoint RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits

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SAMPLE
DATA

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6823

Lab Code: GEL

GEL Job No (SDG) 10-1020

Matrix: GROUND WATER

GEL Sample ID: 243401006

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 22-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 936335

Concentrated Extract Volume (mL) 5

Date Extracted: 24-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0118015a

Date Analyzed: 18-JAN-10 20:56

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	U
121-14-2	2,4-Dinitrotoluene	0.325	U
121-82-4	RDX	0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	U
2691-41-0	HMX	0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	U
479-45-8	Tetryl	0.649	U
606-20-2	2,6-Dinitrotoluene	0.325	U
78-11-5	PETN	1.3	U
88-72-2	o-Nitrotoluene	0.325	U
98-95-3	Nitrobenzene	0.325	U
99-08-1	m-Nitrotoluene	0.325	U
99-35-4	1,3,5-Trinitrobenzene	0.325	U
99-65-0	m-Dinitrobenzene	0.325	U
99-99-0	p-Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0118015a
Date: 18-Jan-2010
Time: 20:56:17
ID: 243401006
Vial: 1:4,C

LANL/936340/LAB/2/

1/19/10

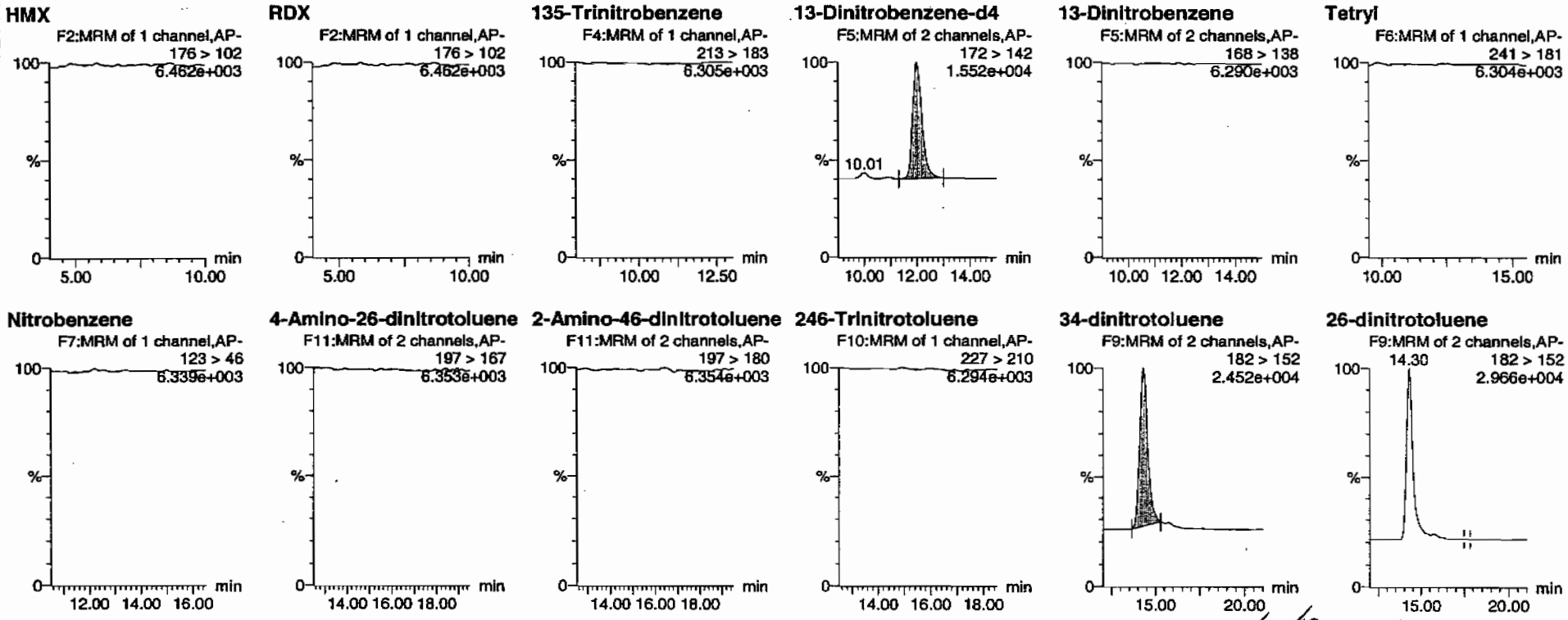

Amec 01/19/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

24-dinitrotoluene

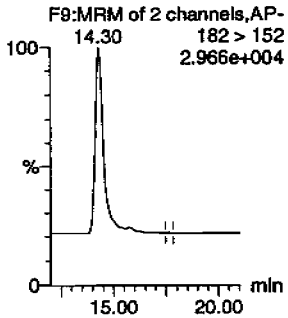

26-dinitrotoluene-d3

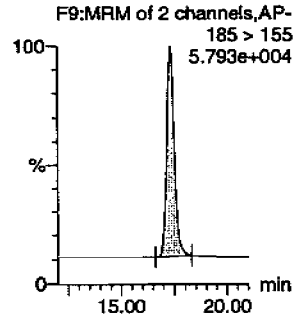

2-Nitrotoluene

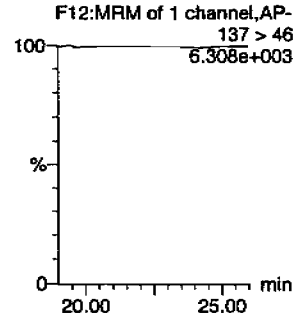

4-Nitrotoluene

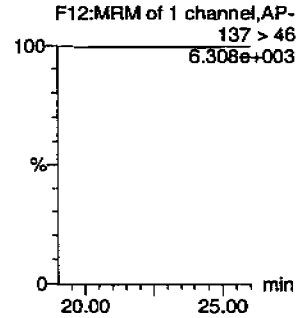

3-Nitrotoluene

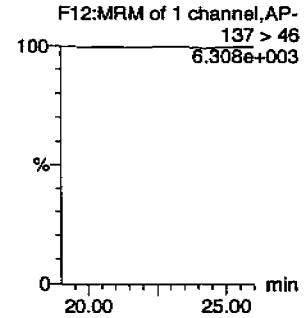

PETN

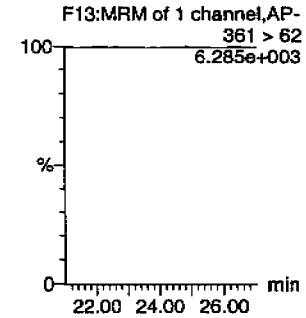

ID	Name	Trace	RT	Area	IS Area	%Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
243401006	HMX	176 > 102			3790.444									
243401006	RDX	176 > 102			3790.444									
243401006	135-Trinitrobenzene	213 > 183			3790.444									
243401006	13-Dinitrobenzene-d4	172 > 142	12.00	3790.444		3790.444	3790.444	bb			558.5165	111.7	11.7	398.0
243401006	13-Dinitrobenzene	168 > 138			3790.444									
243401006	Tetryl	241 > 181			3790.444									
243401006	Nitrobenzene	123 > 46			3790.444									
243401006	4-Amino-26-dinitrotoluene	197 > 167			21781.635									
243401006	2-Amino-46-dinitrotoluene	197 > 180			21781.635									
243401006	246-Trinitrotoluene	227 > 210			21781.635									
243401006	34-dinitrotoluene	182 > 152	14.30	9772.927	21781.635	9772.927	224.339	bb		3.12	240.6442	96.3	-3.7	504.0
243401006	26-dinitrotoluene	182 > 152			21781.635			MM-	19-Jan-10	10:53:34				
243401006	24-dinitrotoluene	182 > 152			21781.635			MM-	19-Jan-10	10:57:34				
243401006	26-dinitrotoluene-d3	185 > 155	17.31	21781.635		21781.635	21781.635	bb			593.6806	118.7	18.7	2434.6
243401006	2-Nitrotoluene	137 > 46			21781.635									
243401006	4-Nitrotoluene	137 > 46			21781.635									
243401006	3-Nitrotoluene	137 > 46			21781.635									
243401006	PETN	361 > 62			21781.635									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6823

Lab Code: GEL

GEL Job No (SDG) 10-1020

Matrix: GROUND WATER

GEL Sample ID: 243401006

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 22-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 936335

Concentrated Extract Volume (mL) 5

Date Extracted: 24-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01100018.wiff

Date Analyzed: 11-JAN-10 15:43

Units: µg/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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Dan 1/12/10

ample Name: "243401006" Sample ID: "936340|2|LER" File: "EXS01100018.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212L" Annotation: ""
ple Index: 1
ple Type: Unknown
ncentration: N/A
culated Conc: 0.00 ng/mL
. Date: 1/11/2010
. Time: 3:43:55 PM
lified: No

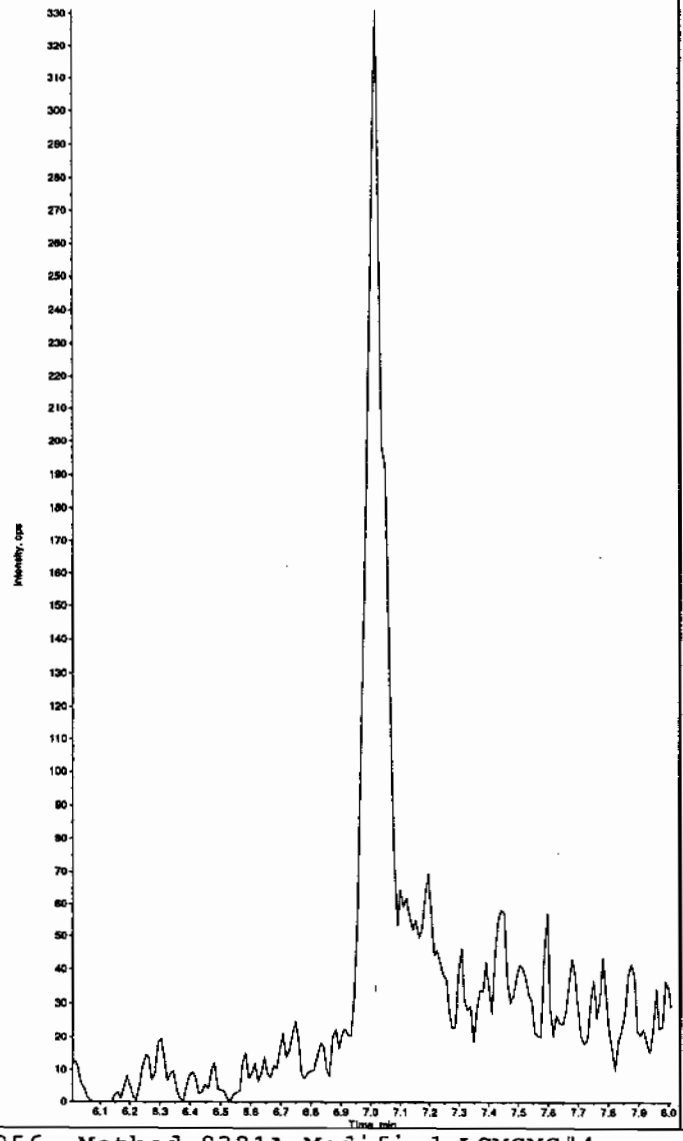

Sample Name: "243401006" Sample ID: "936340|2|LER" File: "EXS01100018.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 3:43:55 PM

Modified: Yes

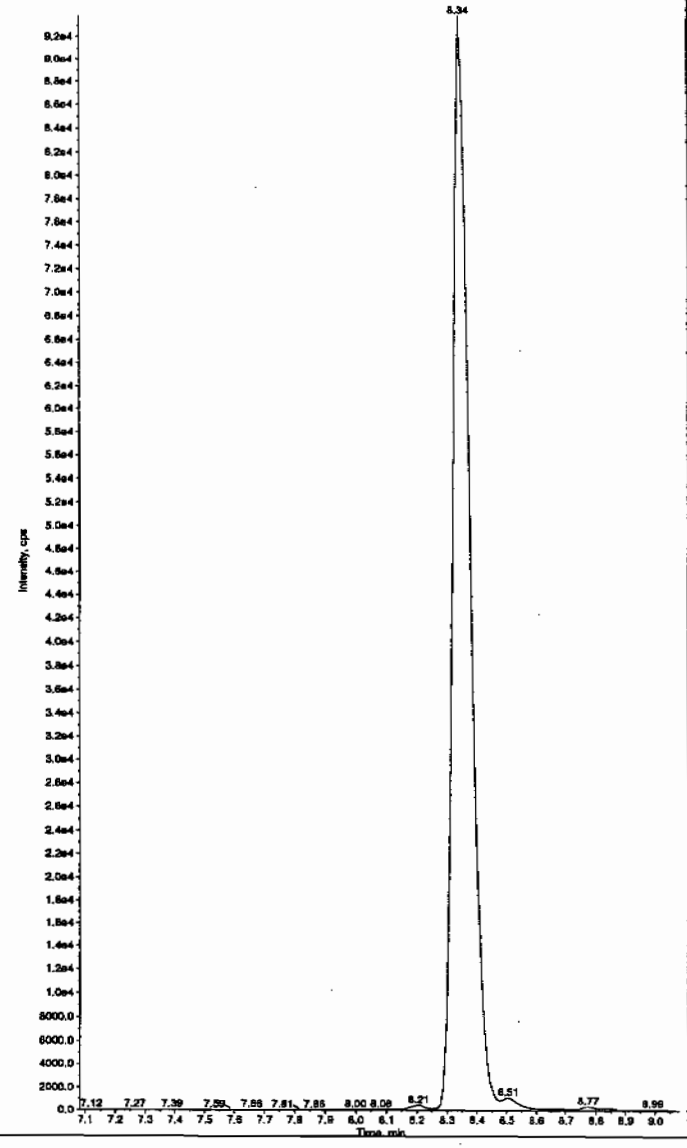

Hmm 01/12/10

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Sample Name: "243401006" Sample ID: "936340[2]LER" File: "EXS01100018.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212L" Annotation: ""

ple Index: 1
ple Type: Unknown 3.00
ncentration: N/A
lculated Conc: 231. ng/mL
q. Date: 1/11/2010
q. Time: 3:43:55 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.39 min
Relative RT: No

. Type: Valley
tention Time: 8.34 min
a: 3.20e+006 counts
ight: 800112.366 cps
rt Time: 8.22 min
Time: 8.69 min

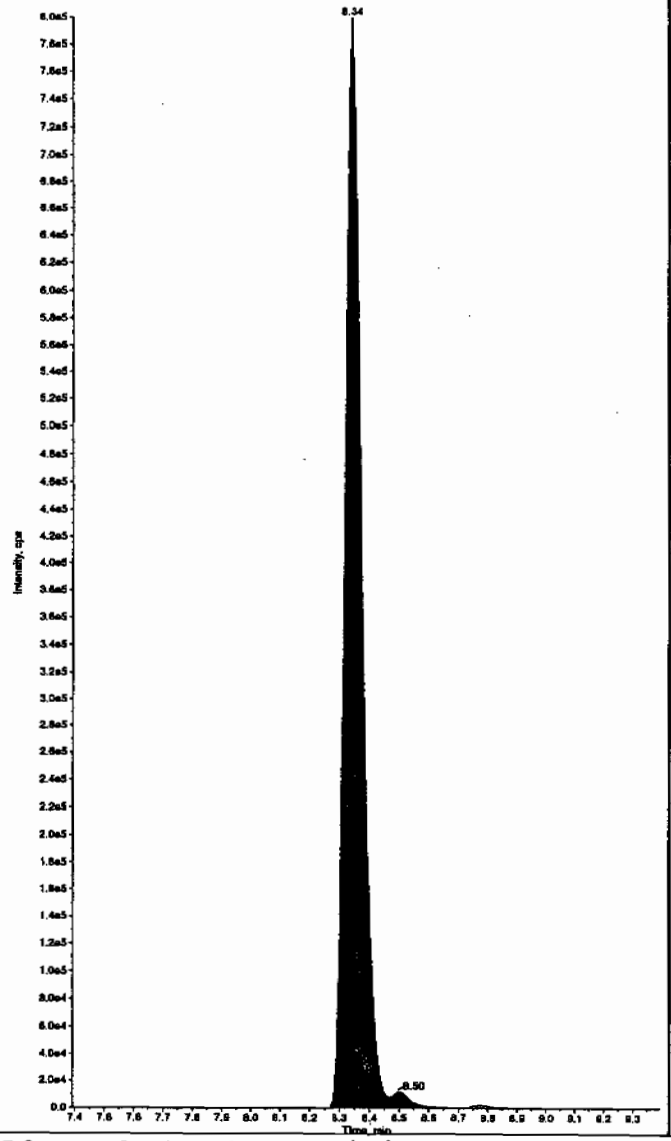

Sample Name: "243401006" Sample ID: "936340[2]LER" File: "EXS01100018.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 3:43:55 PM

Modified: No

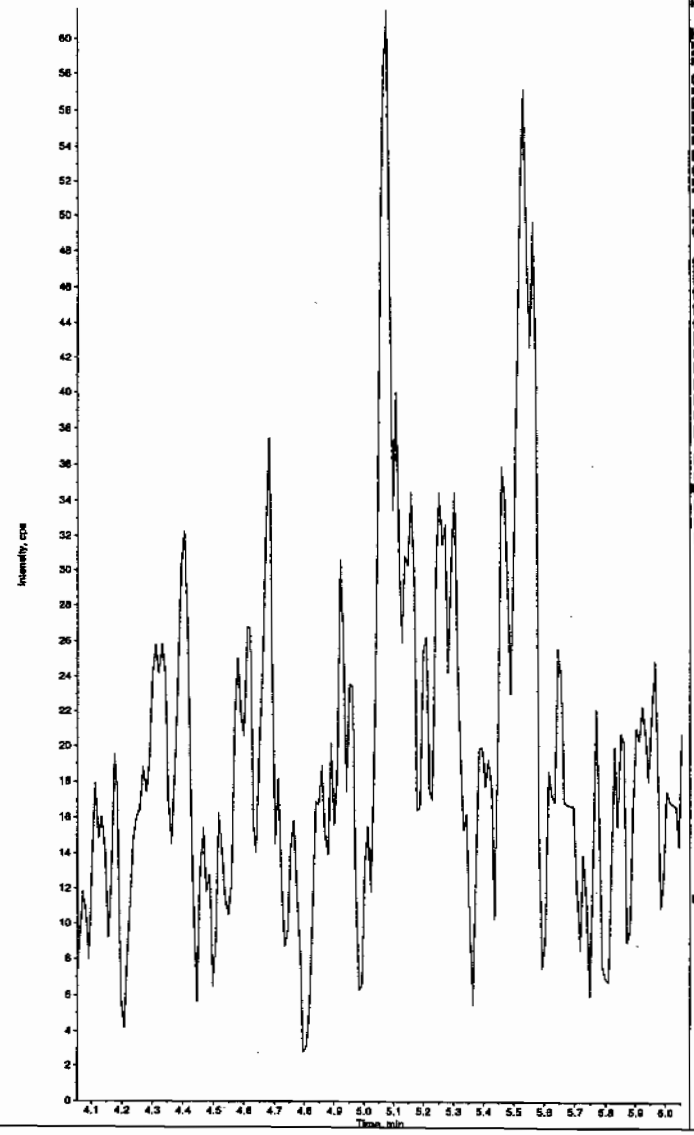

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ample Name: "243401006" Sample ID: "936340[2]LER" File: "EXS01100018.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCX83212L" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 1/11/2010
. Time: 3:43:55 PM

ified: No

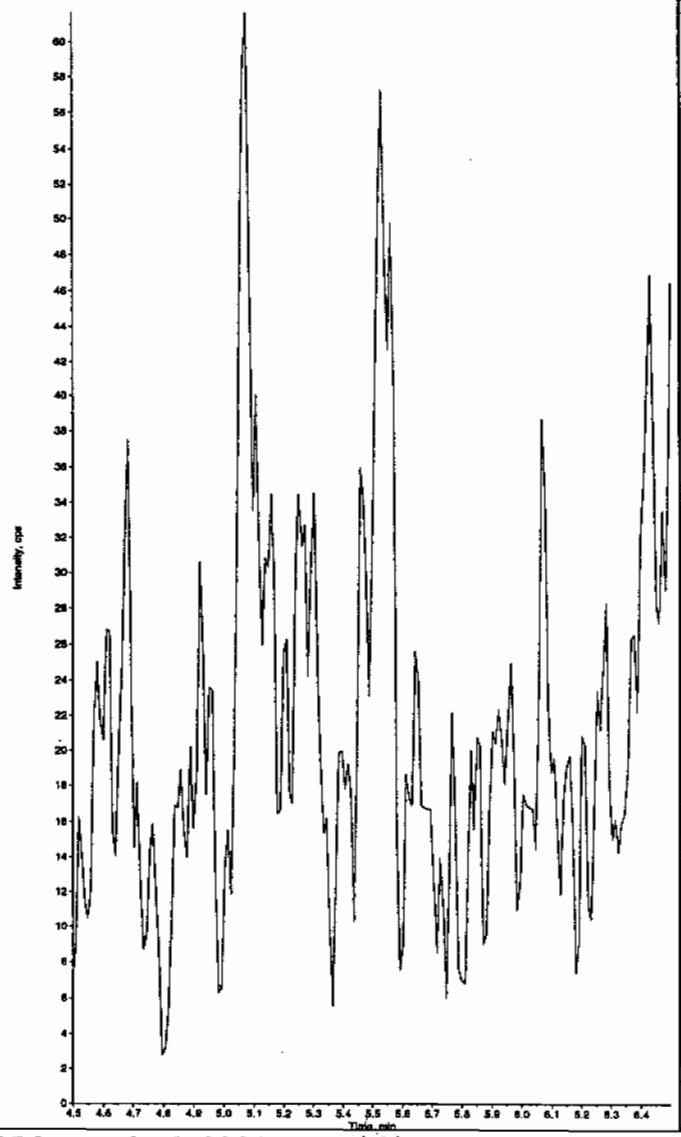

Sample Name: "243401006" Sample ID: "936340[2]LER" File: "EXS01100018.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 3:43:55 PM

Modified: No

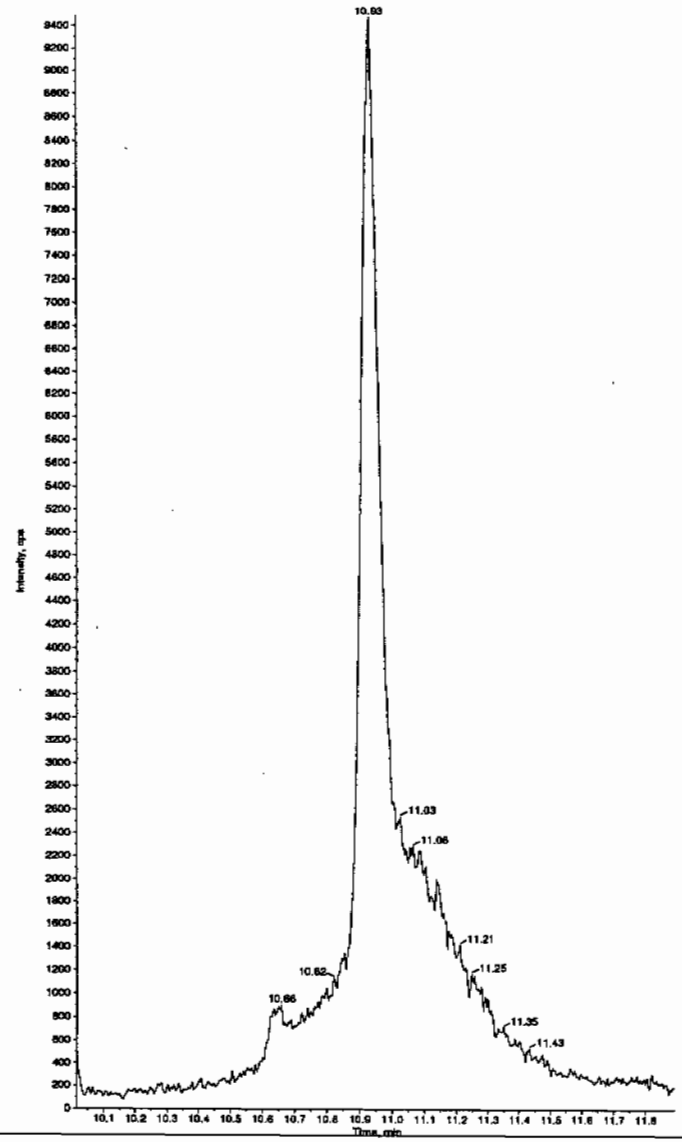

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6824

Lab Code: GEL

GEL Job No (SDG) 10-1020

Matrix: GROUND WATER

GEL Sample ID: 243401010

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 22-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 936335

Concentrated Extract Volume (mL) 5

Date Extracted: 24-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0118018a

Date Analyzed: 18-JAN-10 22:24

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	U
121-14-2	2,4-Dinitrotoluene	0.325	U
121-82-4	RDX	0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	U
2691-41-0	HMX	0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	U
479-45-8	Tetryl	0.649	U
606-20-2	2,6-Dinitrotoluene	0.325	U
78-11-5	PETN	1.3	U
88-72-2	o-Nitrotoluene	0.325	U
98-95-3	Nitrobenzene	0.325	U
99-08-1	m-Nitrotoluene	0.325	U
99-35-4	1,3,5-Trinitrobenzene	0.325	U
99-65-0	m-Dinitrobenzene	0.325	U
99-99-0	p-Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0118018a
Date: 18-Jan-2010
Time: 22:24:42
ID: 243401010
Vial: 1:4,F

LANL | 936340 | LOD | 2 |

MAP 1/19/10

PBS #2

XC: EXP0117035a

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.427e+003

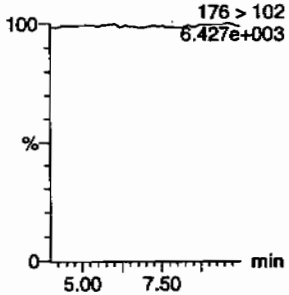

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.427e+003

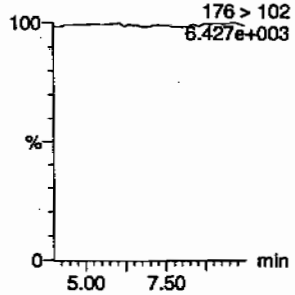

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.268e+003

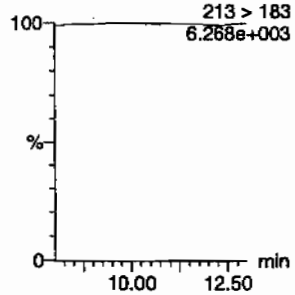

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.593e+004

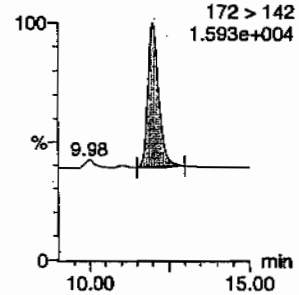

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.277e+003

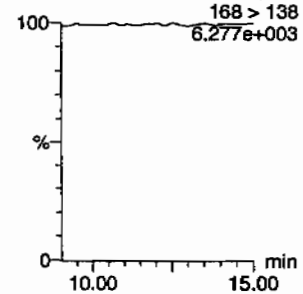

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.245e+003

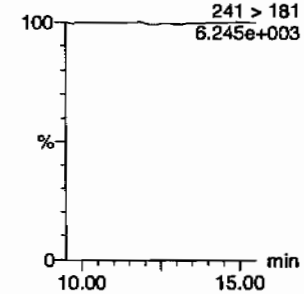

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.275e+003

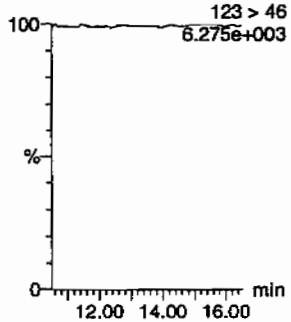

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.431e+003

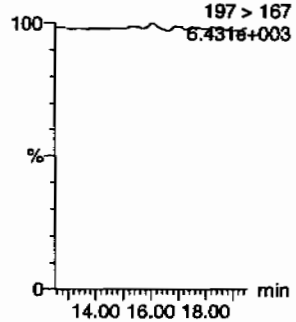

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.344e+003

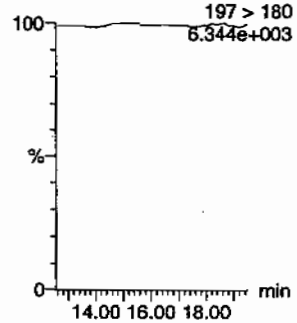

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.312e+003

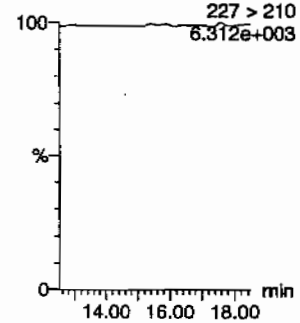

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.542e+004

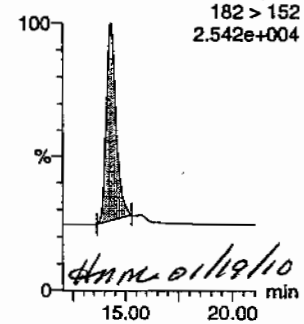

HMM 01/19/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.28
182 > 152
3.076e+004

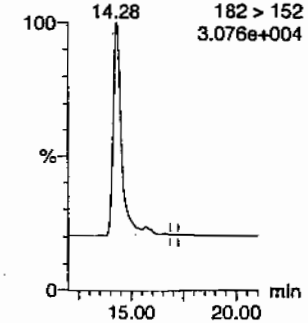

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

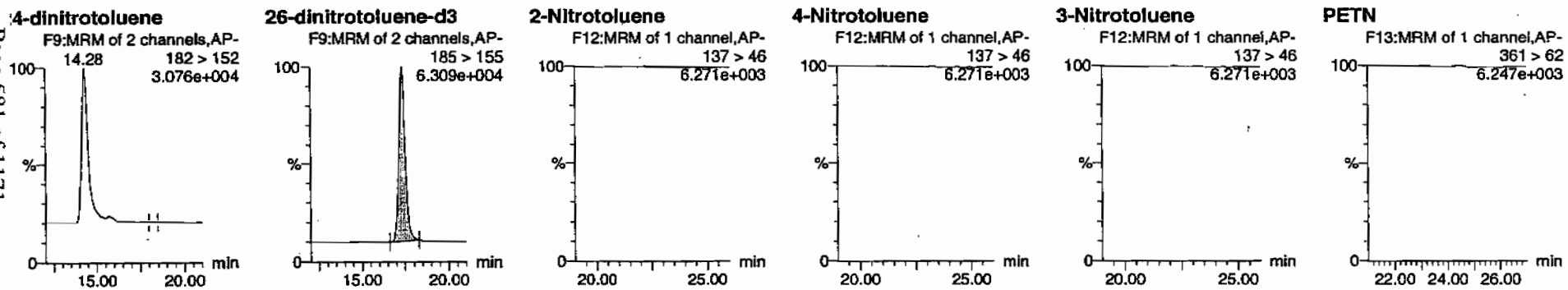

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
243401010	HMX	176 > 102			3910.415									
243401010	RDX	176 > 102			3910.415									
243401010	135-Trinitrobenzene	213 > 183			3910.415									
243401010	13-Dinitrobenzene-d4	172 > 142	12.00	3910.415		3910.415	3910.415	bb			576.1940	115.2	15.2	367.3
243401010	13-Dinitrobenzene	168 > 138			3910.415									
243401010	Tetryl	241 > 181			3910.415									
243401010	Nitrobenzene	123 > 46			3910.415									
243401010	4-Amino-26-dinitrotoluene	197 > 167			24569.564									
243401010	2-Amino-46-dinitrotoluene	197 > 180			24569.564									
243401010	246-Trinitrotoluene	227 > 210			24569.564									
243401010	34-dinitrotoluene	182 > 152	14.32	10268.015	24569.564	10268.015	208.958	bb		291	224.1456	89.7	-10.3	481.2
243401010	26-dinitrotoluene	182 > 152			24569.564			MM-	19-Jan-10	10:53:52				
243401010	24-dinitrotoluene	182 > 152			24569.564			MM-	19-Jan-10	10:58:01				
243401010	26-dinitrotoluene-d3	185 > 155	17.32	24569.564		24569.564	24569.564	bb			669.6685	133.9	33.9	1824.0
243401010	2-Nitrotoluene	137 > 46			24569.564									
243401010	4-Nitrotoluene	137 > 46			24569.564									
243401010	3-Nitrotoluene	137 > 46			24569.564									
243401010	PETN	361 > 62			24569.564									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6824

Lab Code: GEL

GEL Job No (SDG) 10-1020

Matrix: GROUND WATER

GEL Sample ID: 243401010

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 22-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 936335

Concentrated Extract Volume (mL) 5

Date Extracted: 24-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01100021.wiff

Date Analyzed: 11-JAN-10 16:31

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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Sar 1/12/10

ample Name: "243401010" Sample ID: "936340|2|LER" File: "EXS01100021.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212L" Annotation: ""
mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 1/11/2010
q. Time: 4:31:01 PM
ified: No

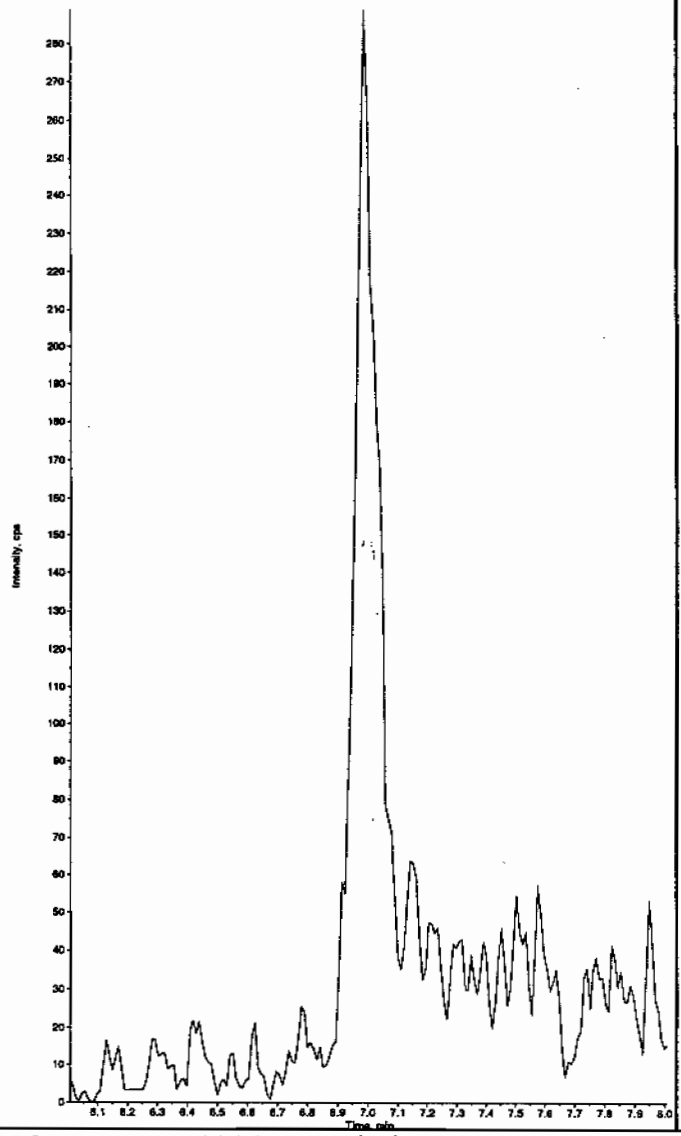

Sample Name: "243401010" Sample ID: "936340|2|LER" File: "EXS01100021.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 4:31:01 PM

Modified: Yes

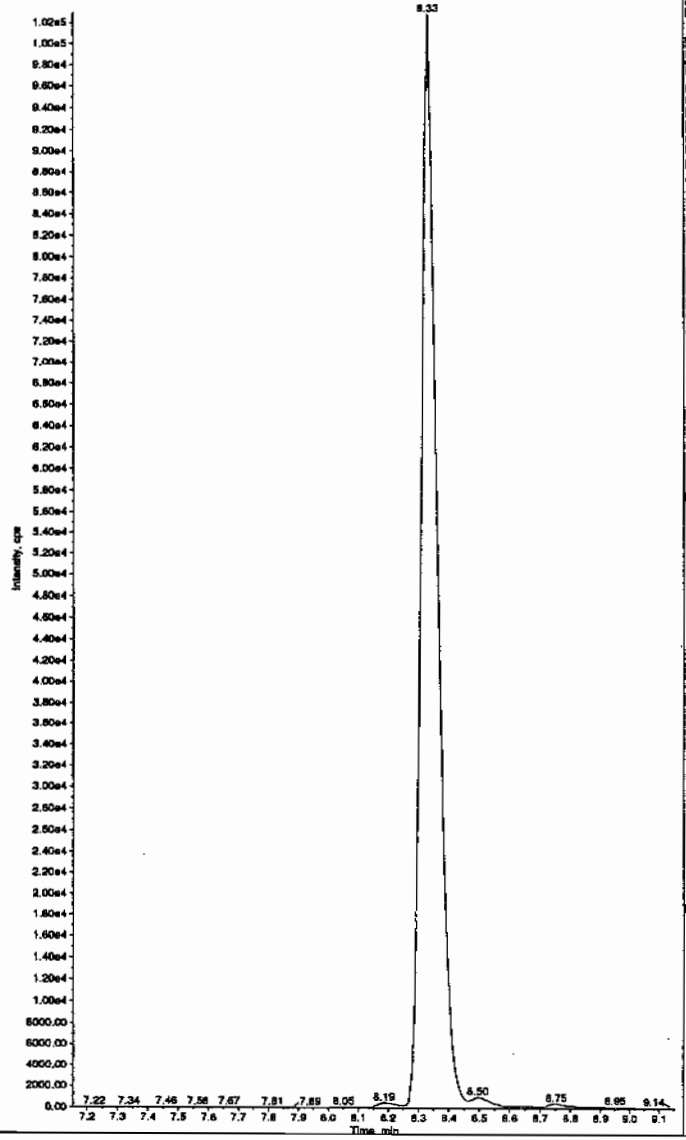

HMM 01/12/10

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ample Name: "243401010" Sample ID: "936340|2|LER" File: "EXS01100021.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212L" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 237. ng/mL
. Date: 1/11/2010
. Time: 4:31:01 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.39 min
Relative RT: No

. Type: Valley
ention Time: 8.32 min
a: 3.27e+006 counts
ght: 847459.534 cps
rt Time: 8.23 min
Time: 8.62 min

3.06

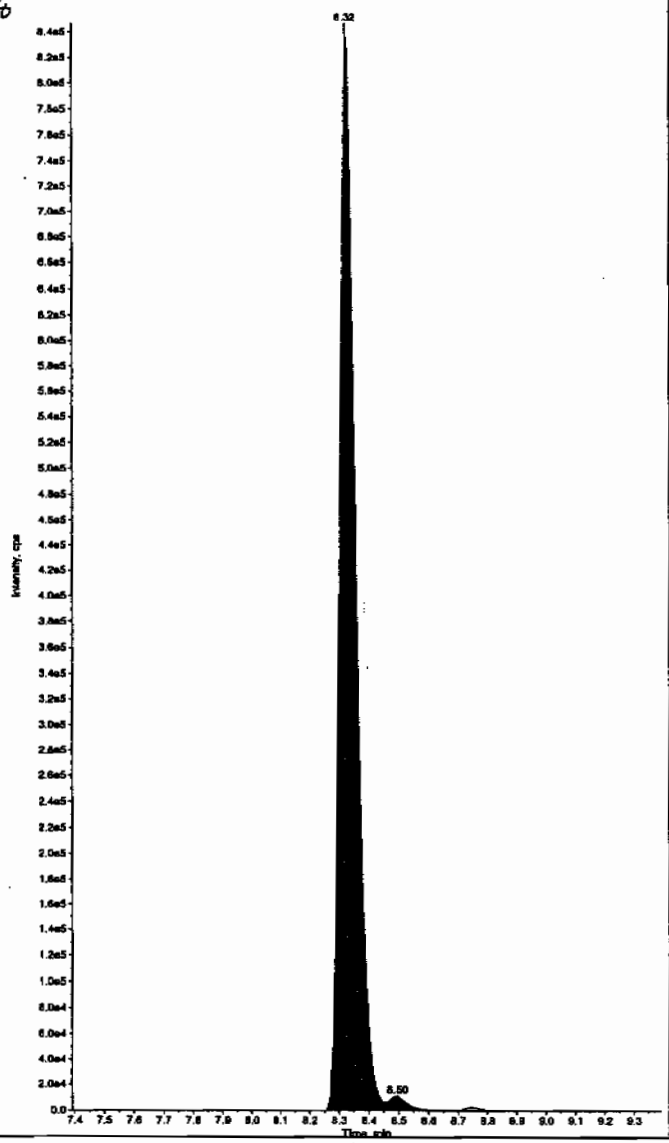

Sample Name: "243401010" Sample ID: "936340|2|LER" File: "EXS01100021.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 4:31:01 PM

Modified: No

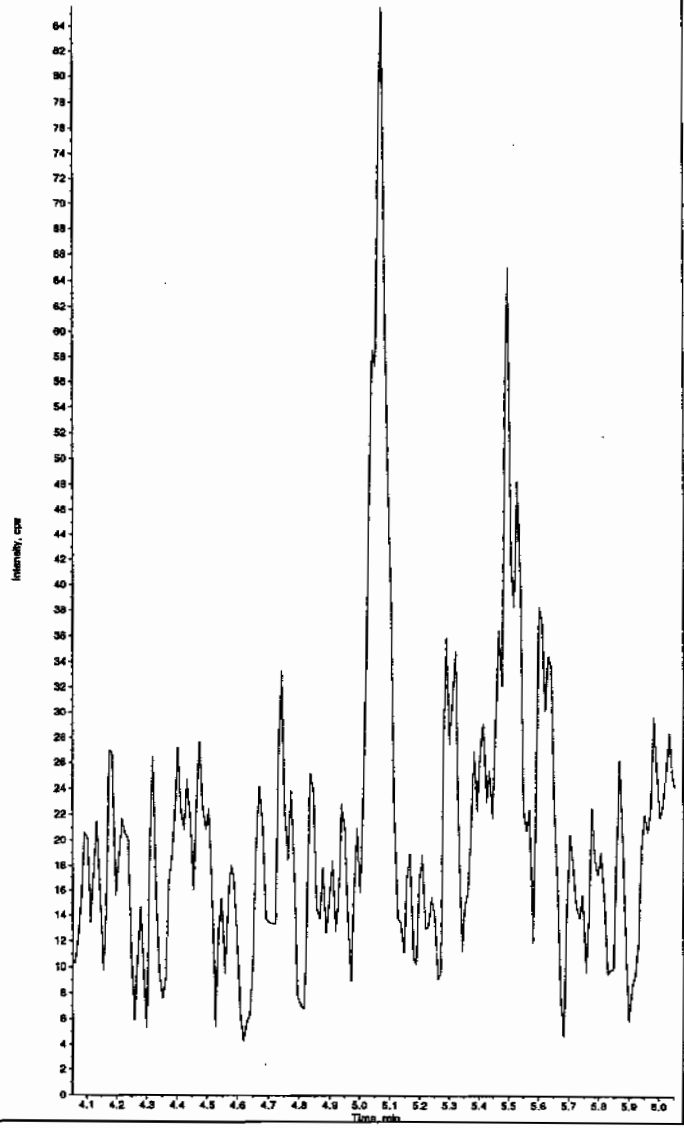

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Sample Name: "243401010" Sample ID: "936340|2|LER" File: "EXS01100021.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 4:31:01 PM

Modified: No

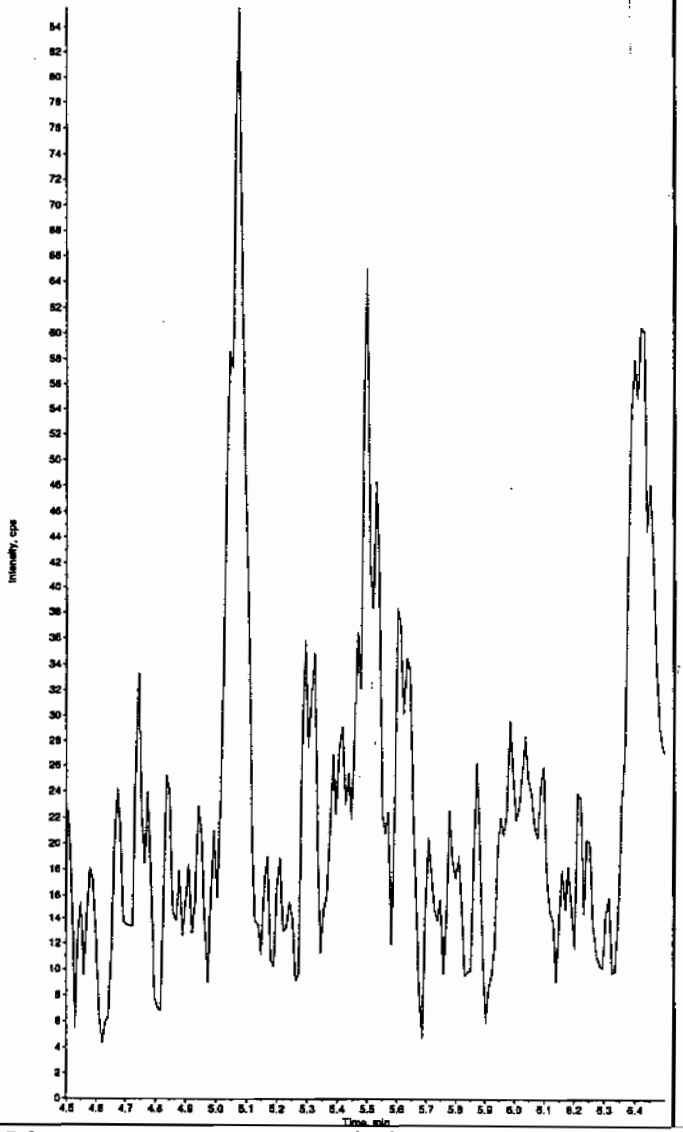

Sample Name: "243401010" Sample ID: "936340|2|LER" File: "EXS01100021.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 4:31:01 PM

Modified: No

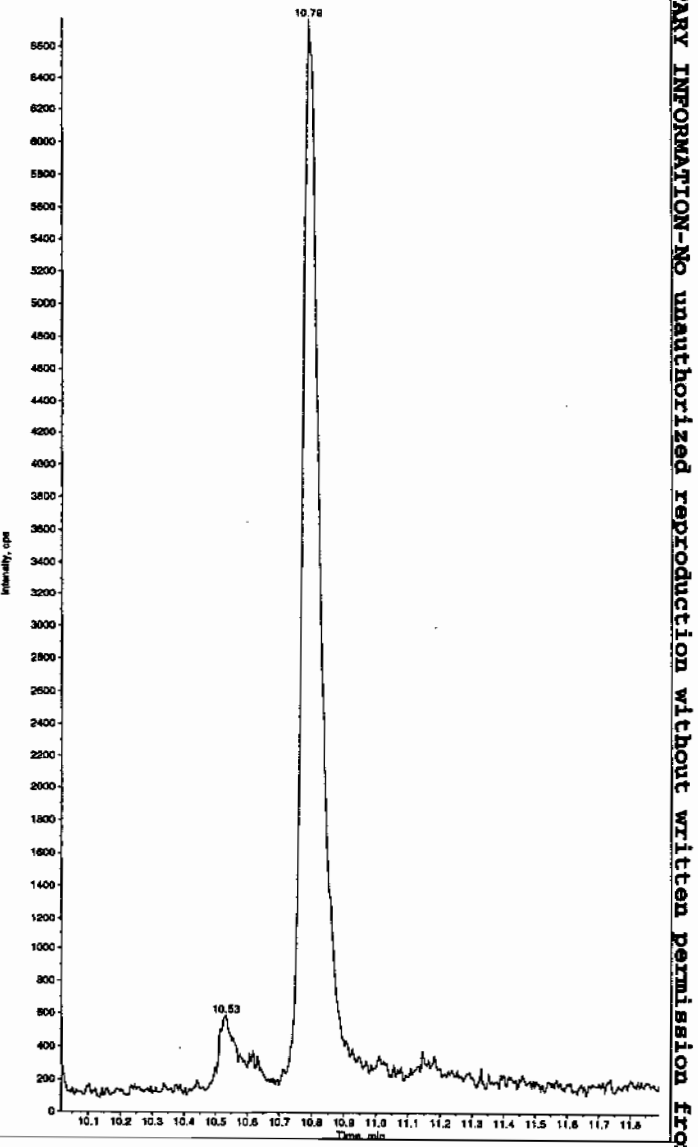

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STANDARDS DATA

SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MNX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1020

Lab Code: GEL

Run Date: 11-JAN-10,18-JAN-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	1	2	3	4	5	6	Ave RF	RSD	Q
Data File:	EXP0118003a	EXP0118004a	EXP0118005a	EXP0118006a	EXP0118007a	EXP0118008a			
Parmname									
1,3,5-Trinitrobenzene	3.484	3.337	3.183	3.346	3.389	3.251	3.332	3.151	
1,3-Dinitrobenzene-d4	8.417	7.127	6.57	7.116	5.921	5.569	6.787	14.975	
2,4,6-Trinitrotoluene	.377	.396	.322	.334	.345	.339	0.352	7.994	
2,4-Dinitrotoluene	.243	.259	.246	.253	.265	.251	0.253	3.203	
2,6-Dinitrotoluene	1.153	1.028	1.057	1.111	1.097	1.108	1.092	4.045	
2,6-Dinitrotoluene-d3	39.096	38.049	37.926	39.55	34.278	31.235	36.689	8.867	
2-Amino-4,6-dinitrotoluene	.384	.362	.364	.408	.425	.393	0.389	6.304	
3,4-Dinitrotoluene	1.094	.866	.869	.913	.9	.951	0.932	9.132	
4-Amino-2,6-dinitrotoluene	.207	.279	.263	.272	.282	.281	0.264	10.877	
HMX	2.748	3.079	2.841	3.009	4.254	3.437	3.228	17.23	
Nitrobenzene	.948	.786	.819	.79	.837	.843	0.837	7.056	
PETN	1.934	1.886	1.782	1.556	1.494	1.373	1.671	13.671	
RDX	1.703	2.055	2.131	2.096	3.008	2.349	2.224	19.659	
Tetryl	1.014	1.261	1.006	.872	.832	.875	0.977	16.224	
m-Dinitrobenzene	1.102	1.271	1.177	1.173	1.202	1.167	1.182	4.639	
m-Nitrotoluene	.074	.088	.086	.096	.085	.083	0.085	8.24	
o-Nitrotoluene	.142	.174	.141	.15	.148	.145	0.150	8.071	
p-Nitrotoluene	.072	.076	.065	.075	.072	.069	0.072	5.54	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\011810expa.mdb, Time: Tue Jan 19 09:10:36 2010
Calibration: Untitled, Time: Tue Jan 19 10:56:45 2010

Compound name: HMX
Response Factor: 3.22807
RRF SD: 0.556189, % Relative SD: 17.2298
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

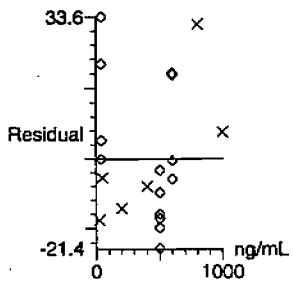

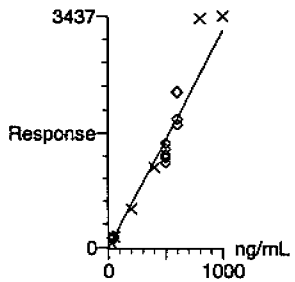

MMT 1/19/10

Compound name: RDX
Response Factor: 2.22353
RRF SD: 0.437117, % Relative SD: 19.6587
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

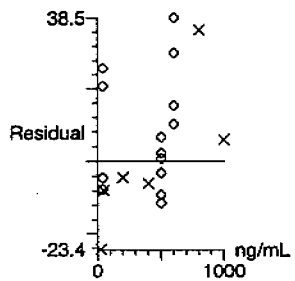

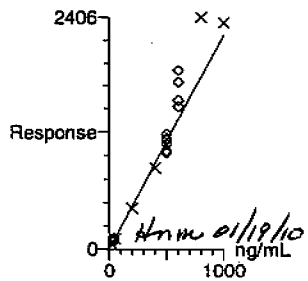

Hmm 01/19/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Compound name: 135-Trinitrobenzene
Response Factor: 3.33183
RRF SD: 0.104974, % Relative SD: 3.15064
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

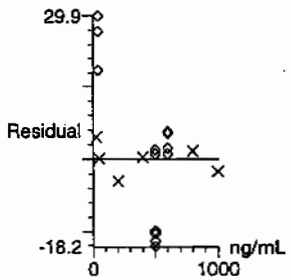

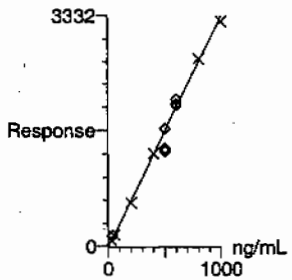

Compound name: 13-Dinitrobenzene-d4
Response Factor: 6.78663
RRF SD: 1.01627, % Relative SD: 14.9747
Response type: External Std, Area
Curve type: RF

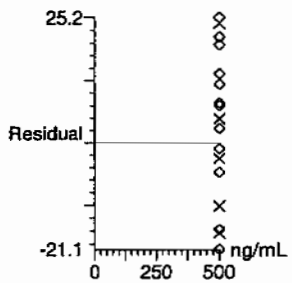

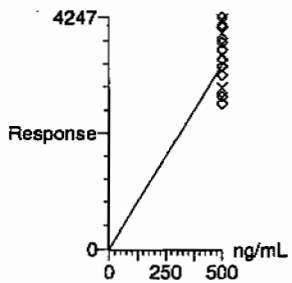

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Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Compound name: 13-Dinitrobenzene
Response Factor: 1.18172
RRF SD: 0.0548147, % Relative SD: 4.63857
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

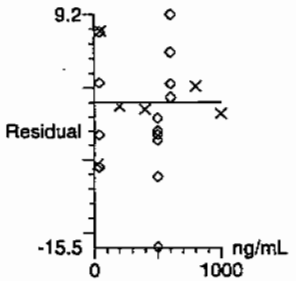

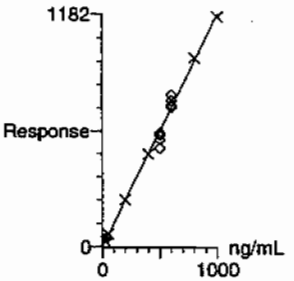

Compound name: Tetryl
Response Factor: 0.976612
RRF SD: 0.158443, % Relative SD: 16.2237
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

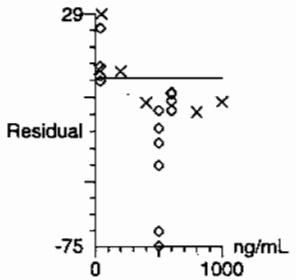

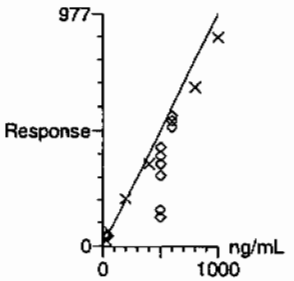

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Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Compound name: Nitrobenzene
Response Factor: 0.837186
RRF SD: 0.0590728, % Relative SD: 7.05612
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

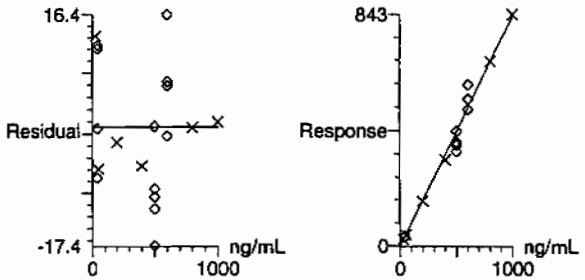

Compound name: 4-Amino-26-dinitrotoluene
Response Factor: 0.263992
RRF SD: 0.0287134, % Relative SD: 10.8766
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

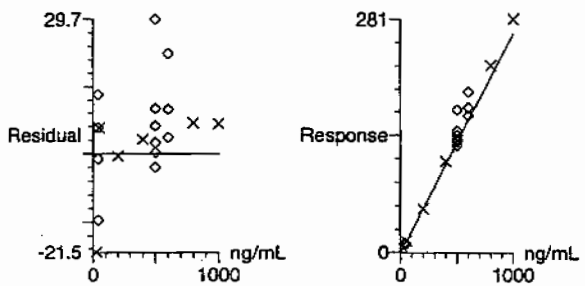

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Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Compound name: 2-Amino-46-dinitrotoluene
Response Factor: 0.389564
RRF SD: 0.0245563, % Relative SD: 6.30354
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

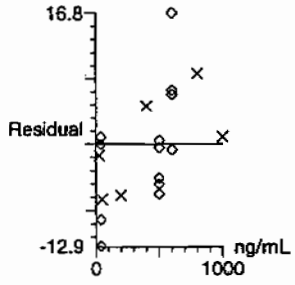

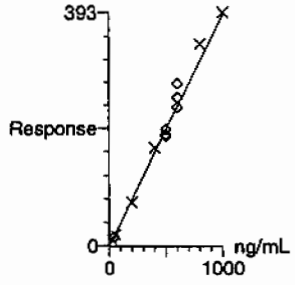

Compound name: 246-Trinitrotoluene
Response Factor: 0.352125
RRF SD: 0.0281482, % Relative SD: 7.99381
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

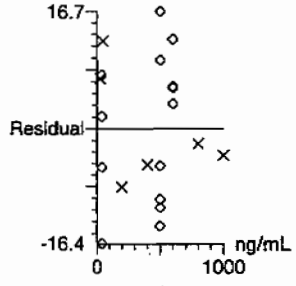

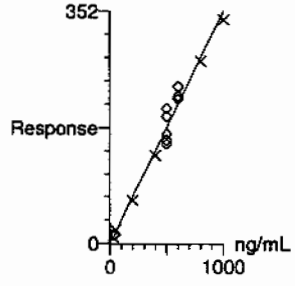

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Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Compound name: 34-dinitrotoluene
Response Factor: 0.932242
RRF SD: 0.0851351, % Relative SD: 9.1323
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

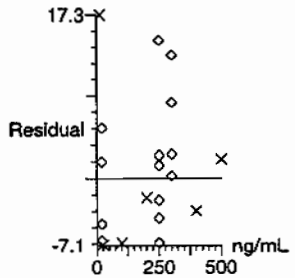

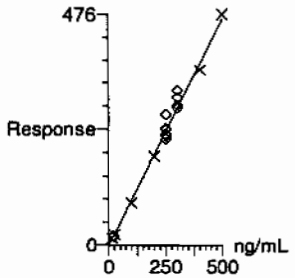

Compound name: 26-dinitrotoluene
Response Factor: 1.09228
RRF SD: 0.0441813, % Relative SD: 4.04489
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

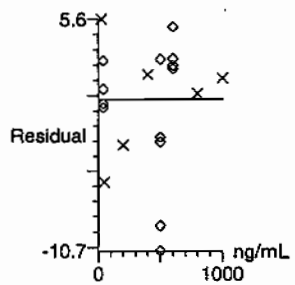

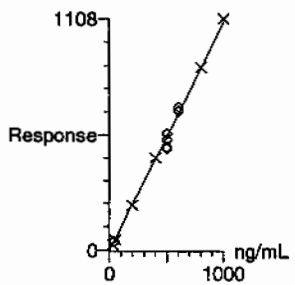

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Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Compound name: 24-dinitrotoluene
Response Factor: 0.252831
RRF SD: 0.00809816, % Relative SD: 3.20299
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

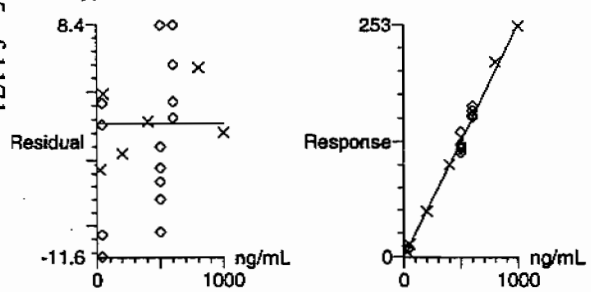

Compound name: 26-dinitrotoluene-d3
Response Factor: 36.6891
RRF SD: 3.25316, % Relative SD: 8.86682
Response type: External Std, Area
Curve type: RF

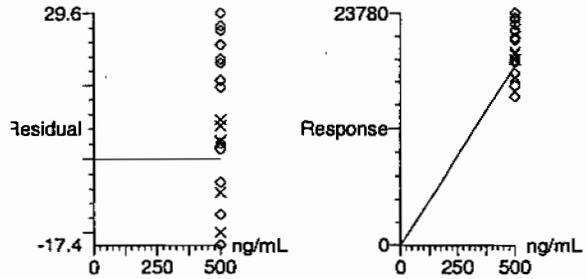

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Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Compound name: 2-Nitrotoluene
Response Factor: 0.150077
RRF SD: 0.0121131, % Relative SD: 8.07131
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

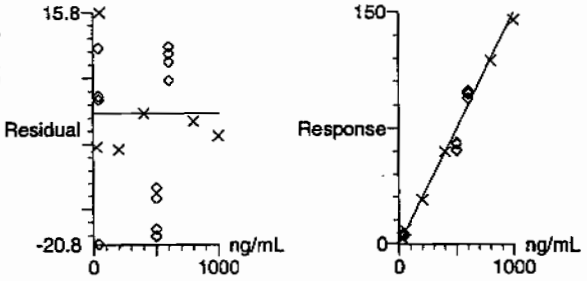

Compound name: 4-Nitrotoluene
Response Factor: 0.0715991
RRF SD: 0.00396681, % Relative SD: 5.5403
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

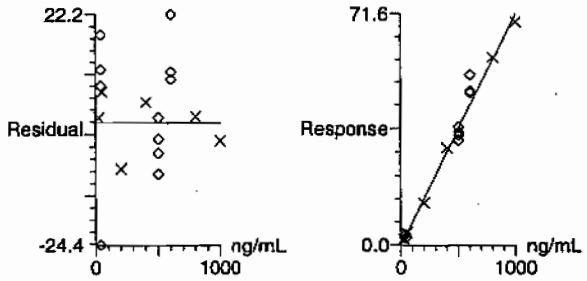

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Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Compound name: 3-Nitrotoluene
Response Factor: 0.0852801
RRF SD: 0.00702733, % Relative SD: 8.24029
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

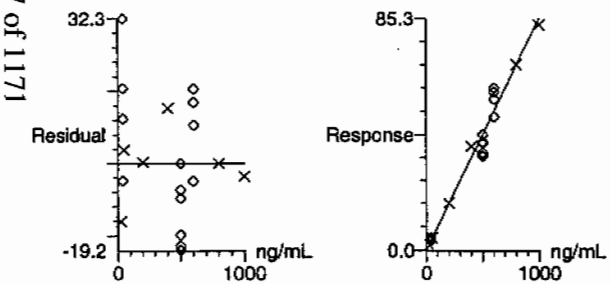

Compound name: PETN
Response Factor: 1.67101
RRF SD: 0.228436, % Relative SD: 13.6705
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

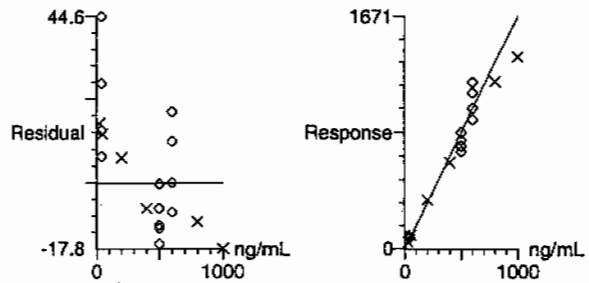

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0118003a
Date: 18-Jan-2010
Time: 15:02:34
ID: WXX100118-01
Vial: 1:2,A

MM 1/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.001e+004
7.56

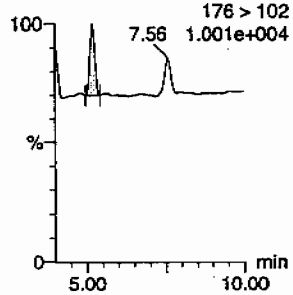

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.001e+004
5.17

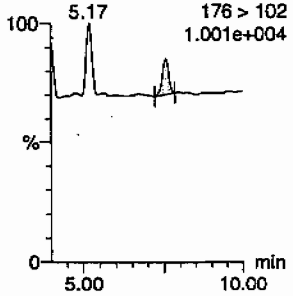

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
8.671e+003

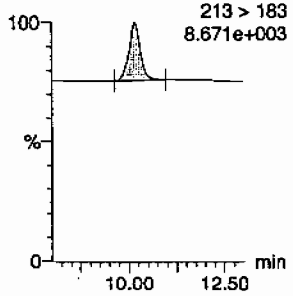

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.685e+004
10.01

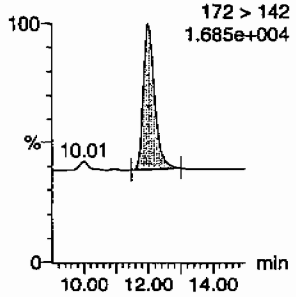

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
7.084e+003

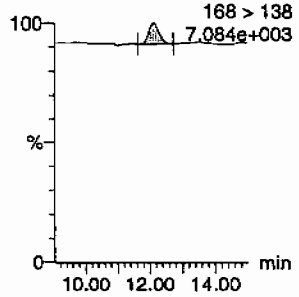

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.901e+003

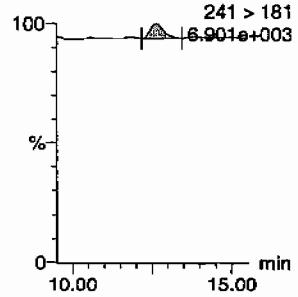

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.959e+003

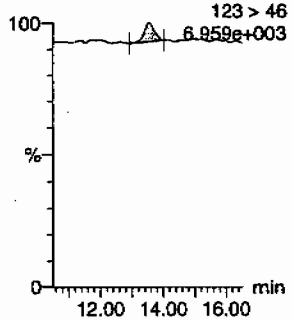

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.174e+003

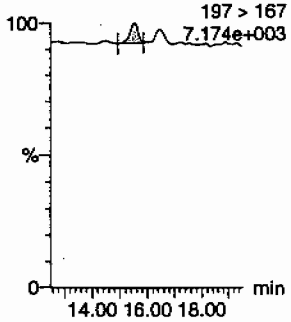

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.539e+003

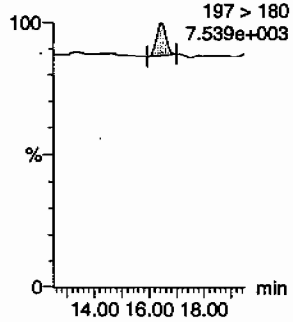

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.211e+003

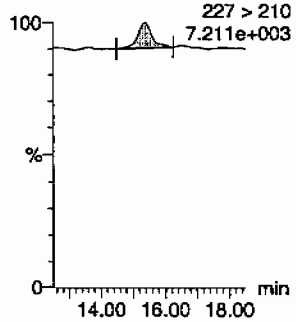

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
9.082e+003
17.49

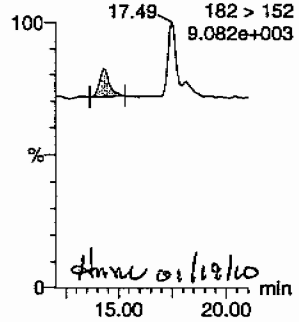

Hmw 01/18/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
9.303e+003
14.30

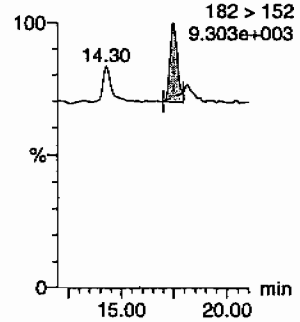

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

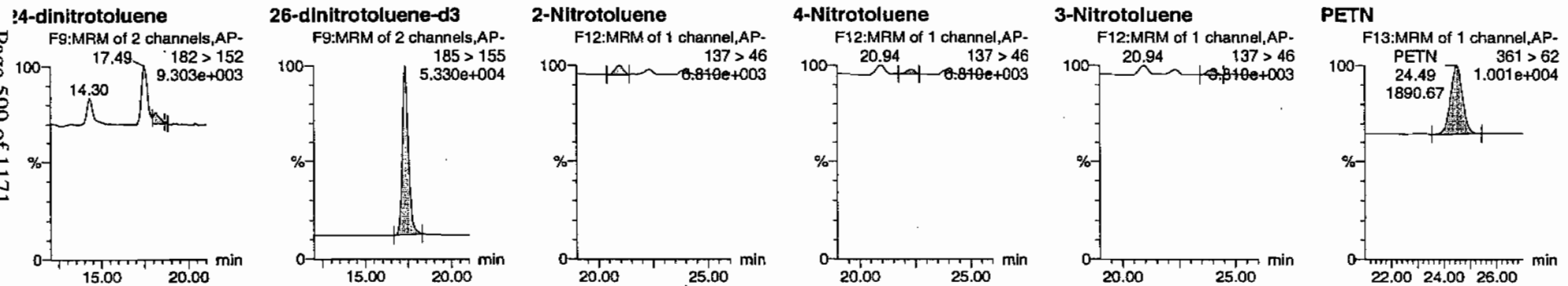

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100118-01	HMX	176 > 102	5.17	578.361	4208.726	578.361	68.710	bb			21.2851	85.1	-14.9	35.0
WXX100118-01	RDX	176 > 102	7.56	358.385	4208.726	358.385	42.576	bb			19.1481	76.6	-23.4	17.6
WXX100118-01	135-Trinitrobenzene	213 > 183	10.16	733.095	4208.726	733.095	87.092	bb			26.1395	104.6	4.6	151.9
WXX100118-01	13-Dinitrobenzene-d4	172 > 142	12.00	4208.726		4208.726	4208.726	bb			620.1497	124.0	24.0	217.6
WXX100118-01	13-Dinitrobenzene	168 > 138	12.14	231.816	4208.726	231.816	27.540	bb			23.3050	93.2	-6.8	27.8
WXX100118-01	Tetryl	241 > 181	12.63	213.386	4208.726	213.386	25.350	bb			25.9575	103.8	3.8	17.5
WXX100118-01	Nitrobenzene	123 > 46	13.54	199.486	4208.726	199.486	23.699	bb			28.3080	113.2	13.2	14.1
WXX100118-01	4-Amino-26-dinitrotoluene	197 > 167	15.53	202.583	19548.176	202.583	5.182	MM	19-Jan-10	10:46:38	19.6280	78.5	-21.5	14.9
WXX100118-01	2-Amino-46-dinitrotoluene	197 > 180	16.43	375.194	19548.176	375.194	9.597	bb			24.6343	98.5	-1.5	35.9
WXX100118-01	246-Trinitrotoluene	227 > 210	15.38	368.566	19548.176	368.566	9.427	bb			26.7721	107.1	7.1	18.5
WXX100118-01	34-dinitrotoluene	182 > 152	14.34	534.562	19548.176	534.562	13.673	bb			14.6667	117.3	17.3	24.5
WXX100118-01	26-dinitrotoluene	182 > 152	17.49	1127.093	19548.176	1127.093	28.829	MM	19-Jan-10	10:52:18	26.3931	105.6	5.6	57.9
WXX100118-01	24-dinitrotoluene	182 > 152	18.14	237.300	19548.176	237.300	6.070	MM	19-Jan-10	10:56:45	24.0066	96.0	-4.0	11.2
WXX100118-01	26-dinitrotoluene-d3	185 > 155	17.31	19548.176		19548.176	19548.176	bb			532.8054	106.6	6.6	1322.3
WXX100118-01	2-Nitrotoluene	137 > 46	20.94	138.876	19548.176	138.876	3.552	bb			23.6689	94.7	-5.3	34.4
WXX100118-01	4-Nitrotoluene	137 > 46	22.32	70.660	19548.176	70.660	1.807	bb			25.2424	101.0	1.0	18.2
WXX100118-01	3-Nitrotoluene	137 > 46	23.86	72.560	19548.176	72.560	1.856	bb			21.7627	87.1	-12.9	15.5
WXX100118-01	PETN	361 > 62	24.49	1890.668	19548.176	1890.668	48.359	bb			28.9400	115.8	15.8	629.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0118004a
Date: 18-Jan-2010
Time: 15:32:03
ID: WXX100118-02
Vial: 1:2,B

MT 1/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.205e+004
7.56

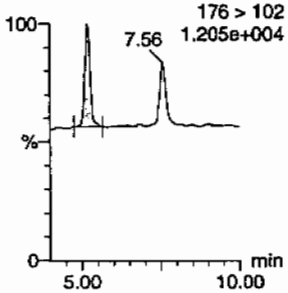

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.205e+004
5.19

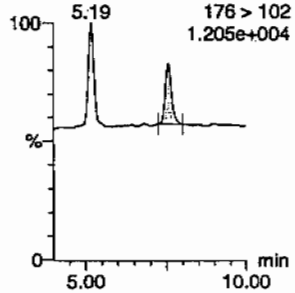

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.009e+004

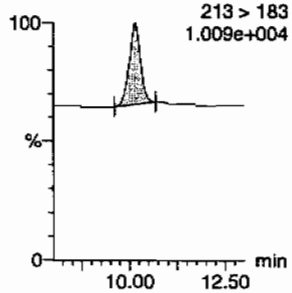

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.527e+004
10.01

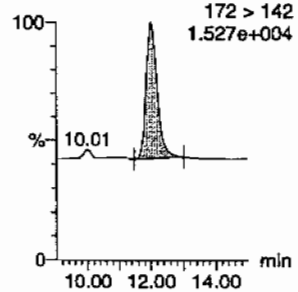

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
7.527e+003

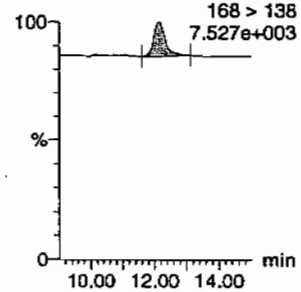

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
7.280e+003

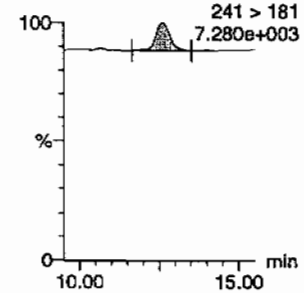

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
7.227e+003

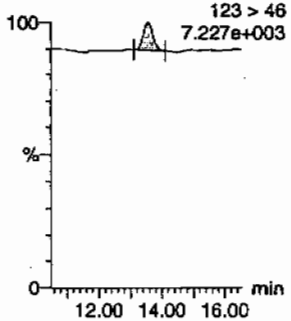

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.642e+003

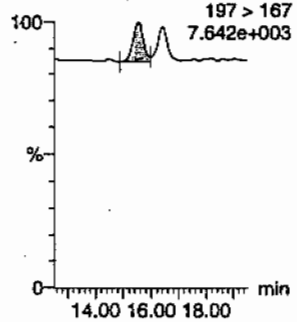

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
8.069e+003

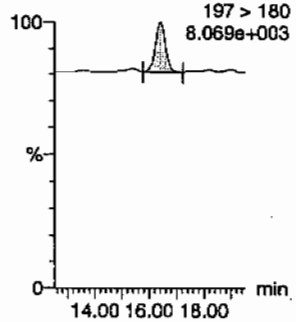

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.983e+003

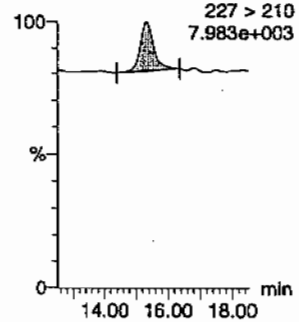

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.134e+004
17.49

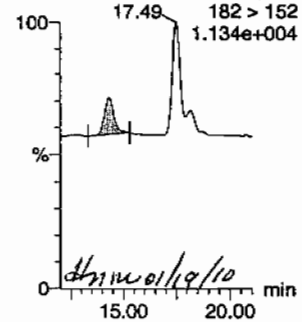

HMW 01/19/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.176e+004
14.30
18.19

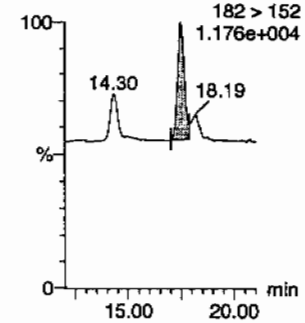

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ataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

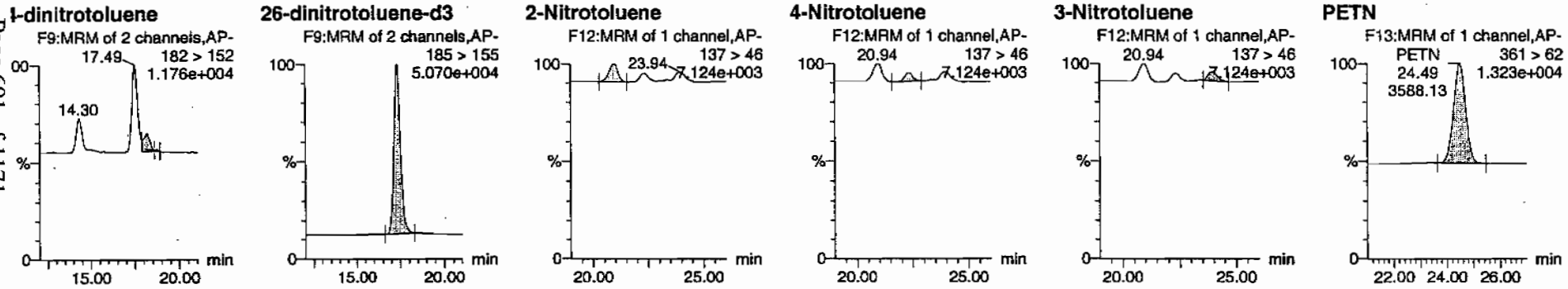

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	% Rec	%Dev	S/N
VXX100118-02	HMX	176 > 102	5.19	1097.172	3563.715	1097.172	153.937	bb			47.6868	95.4	-4.6	160.3
VXX100118-02	RDX	176 > 102	7.56	732.391	3563.715	732.391	102.757	bb			46.2133	92.4	-7.6	95.0
VXX100118-02	135-Trinitrobenzene	213 > 183	10.16	1189.177	3563.715	1189.177	166.845	bb			50.0761	100.2	0.2	190.9
VXX100118-02	13-Dinitrobenzene-d4	172 > 142	12.00	3563.715		3563.715	3563.715	bb			525.1083	105.0	5.0	372.3
VXX100118-02	13-Dinitrobenzene	168 > 138	12.14	452.800	3563.715	452.800	63.529	bb			53.7601	107.5	7.5	52.4
VXX100118-02	Tetryl	241 > 181	12.63	449.398	3563.715	449.398	63.052	bb			64.5619	129.1	29.1	34.4
VXX100118-02	Nitrobenzene	123 > 46	13.54	280.261	3563.715	280.261	39.321	bb			46.9686	93.9	-6.1	26.4
VXX100118-02	4-Amino-26-dinitrotoluene	197 > 167	15.56	530.553	19024.348	530.553	13.944	MM	19-Jan-10	10:46:45	52.8200	105.6	5.6	30.7
VXX100118-02	2-Amino-46-dinitrotoluene	197 > 180	16.40	689.605	19024.348	689.605	18.124	bb			46.5245	93.0	-7.0	47.1
VXX100118-02	246-Trinitrotoluene	227 > 210	15.35	752.753	19024.348	752.753	19.784	bb			56.1845	112.4	12.4	35.9
VXX100118-02	34-dinitrotoluene	182 > 152	14.34	823.891	19024.348	823.891	21.654	bb			23.2274	92.9	-7.1	40.0
VXX100118-02	26-dinitrotoluene	182 > 152	17.49	1955.079	19024.348	1955.079	51.384	MM	19-Jan-10	10:52:25	47.0427	94.1	-5.9	97.7
VXX100118-02	24-dinitrotoluene	182 > 152	18.19	492.883	19024.348	492.883	12.954	MM	19-Jan-10	10:55:48	51.2358	102.5	2.5	20.3
VXX100118-02	26-dinitrotoluene-d3	185 > 155	17.31	19024.348		19024.348	19024.348	bb			518.5280	103.7	3.7	1248.2
VXX100118-02	2-Nitrotoluene	137 > 46	20.94	330.718	19024.348	330.718	8.692	bb			57.9169	115.8	15.8	67.1
VXX100118-02	4-Nitrotoluene	137 > 46	22.33	144.783	19024.348	144.783	3.805	bb			53.1460	106.3	6.3	32.2
VXX100118-02	3-Nitrotoluene	137 > 46	23.94	167.277	19024.348	167.277	4.396	bb			51.5524	103.1	3.1	32.4
VXX100118-02	PETN	361 > 62	24.49	3588.126	19024.348	3588.126	94.304	bb			56.4349	112.9	12.9	470.3

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Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0118005a
Date: 18-Jan-2010
Time: 16:01:32
ID: WXX100118-03
Vial: 1:2,C

MAP 1/19/10

HMX

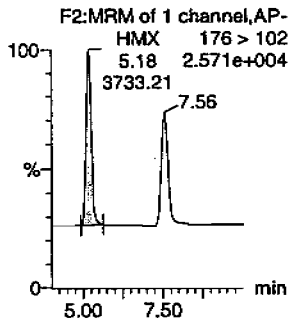

RDX

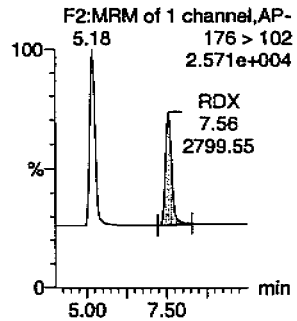

135-Trinitrobenzene

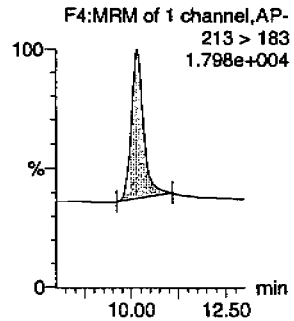

13-Dinitrobenzene-d4

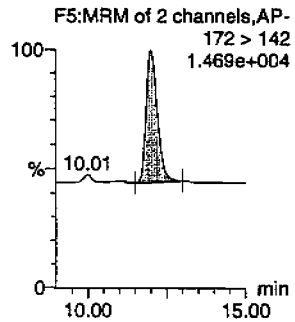

13-Dinitrobenzene

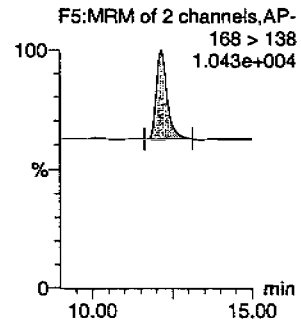

Tetryl

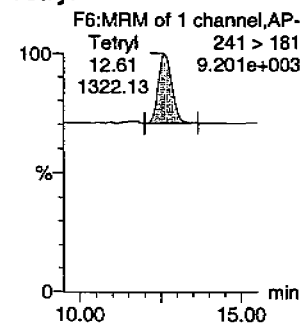

Nitrobenzene

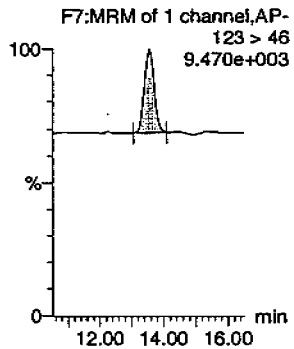

4-Amino-26-dinitrotoluene

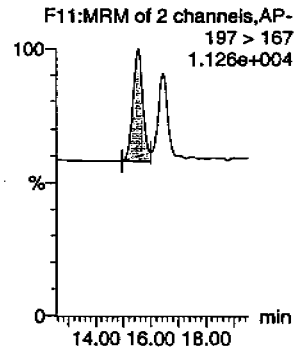

2-Amino-46-dinitrotoluene

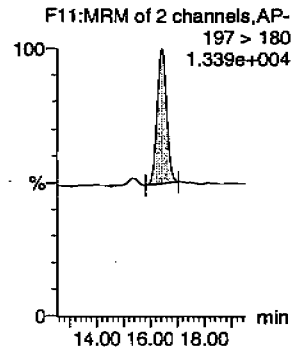

246-Trinitrotoluene

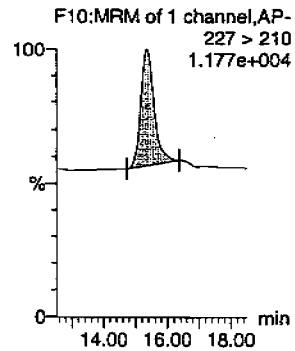

34-dinitrotoluene

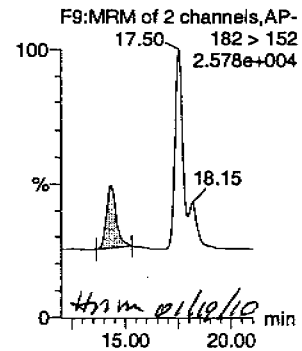

HM 01/18/10

26-dinitrotoluene

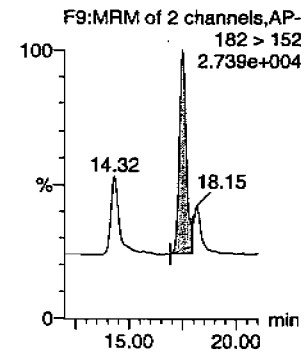

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

24-dinitrotoluene

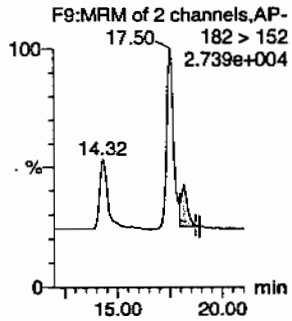

26-dinitrotoluene-d3

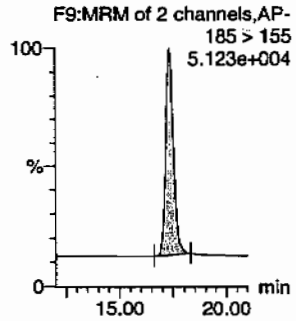

2-Nitrotoluene

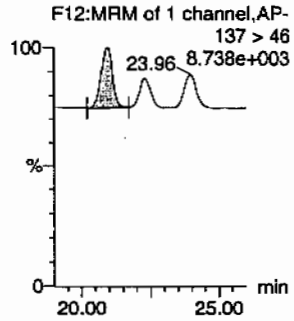

4-Nitrotoluene

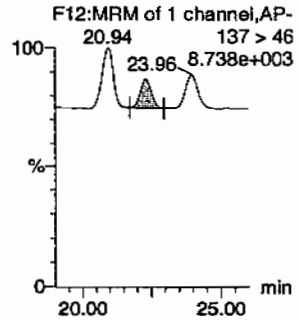

3-Nitrotoluene

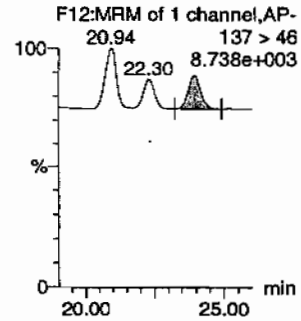

PETN

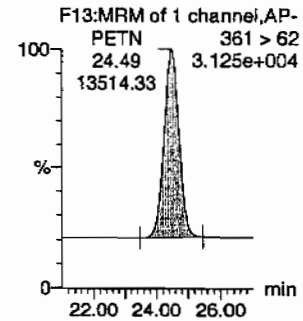

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100118-03	HMX	176 > 102	5.18	3733.207	3284.797	3733.207	568.255	bb			176.0355	88.0	-12.0	386.9
WXX100118-03	RDX	176 > 102	7.56	2799.551	3284.797	2799.551	426.138	bb			191.6493	95.8	-4.2	245.9
WXX100118-03	135-Trinitrobenzene	213 > 183	10.16	4182.700	3284.797	4182.700	636.676	bb			191.0889	95.5	-4.5	399.2
WXX100118-03	13-Dinitrobenzene-d4	172 > 142	12.00	3284.797		3284.797	3284.797	bb			484.0101	96.8	-3.2	335.2
WXX100118-03	13-Dinitrobenzene	168 > 138	12.13	1545.887	3284.797	1545.887	235.309	bb			199.1251	99.6	-0.4	181.5
WXX100118-03	Tetryl	241 > 181	12.61	1322.133	3284.797	1322.133	201.250	bb			206.0700	103.0	3.0	163.9
WXX100118-03	Nitrobenzene	123 > 46	13.57	1075.744	3284.797	1075.744	163.746	bb			195.5908	97.8	-2.2	115.7
WXX100118-03	4-Amino-26-dinitrotoluene	197 > 167	15.55	1991.711	18962.865	1991.711	52.516	MM	19-Jan-10	10:47:15	198.9307	99.5	-0.5	112.0
WXX100118-03	2-Amino-46-dinitrotoluene	197 > 180	16.42	2764.533	18962.865	2764.533	72.893	bb			187.1152	93.6	-6.4	108.5
WXX100118-03	246-Trinitrotoluene	227 > 210	15.37	2446.114	18962.865	2446.114	64.497	bb			183.1666	91.6	-8.4	114.8
WXX100118-03	34-dinitrotoluene	182 > 152	14.32	3294.936	18962.865	3294.936	86.879	bb			93.1932	93.2	-6.8	116.2
WXX100118-03	26-dinitrotoluene	182 > 152	17.50	8016.256	18962.865	8016.256	211.367	MM	19-Jan-10	10:52:33	193.5108	96.8	-3.2	291.3
WXX100118-03	24-dinitrotoluene	182 > 152	18.15	1868.095	18962.865	1868.095	49.257	MM	19-Jan-10	10:55:57	194.8202	97.4	-2.6	67.2
WXX100118-03	26-dinitrotoluene-d3	185 > 155	17.32	18962.865		18962.865	18962.865	bb			516.8522	103.4	3.4	2039.4
WXX100118-03	2-Nitrotoluene	137 > 46	20.94	1073.151	18962.865	1073.151	28.296	bb			188.5446	94.3	-5.7	81.2
WXX100118-03	4-Nitrotoluene	137 > 46	22.30	493.812	18962.865	493.812	13.021	bb			181.8529	90.9	-9.1	38.9
WXX100118-03	3-Nitrotoluene	137 > 46	23.96	648.587	18962.865	648.587	17.102	bb			200.5333	100.3	0.3	45.6
WXX100118-03	PETN	361 > 62	24.49	13514.331	18962.865	13514.331	356.337	bb			213.2460	106.6	6.6	3223.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0118006a
Date: 18-Jan-2010
Time: 16:31:00
ID: WXX100118-04
Vial: 1:2,D

MATT 1/19/10

HMX

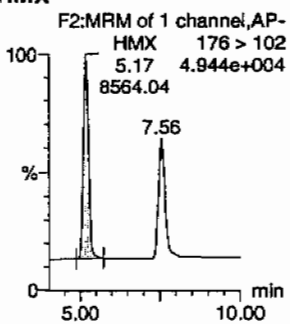

RDX

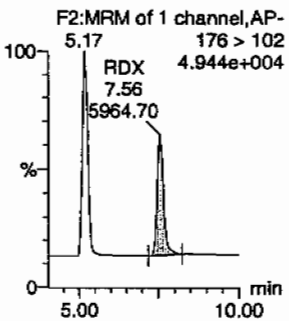

135-Trinitrobenzene

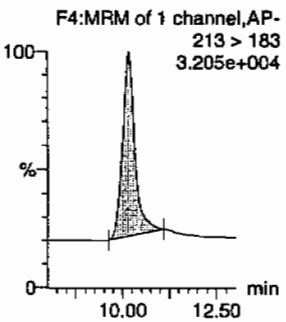

13-Dinitrobenzene-d4

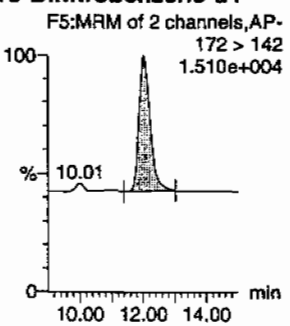

13-Dinitrobenzene

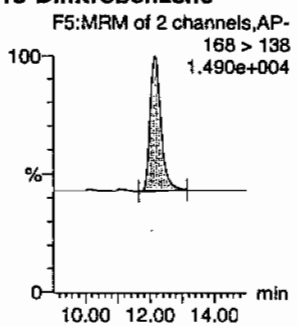

Tetryl

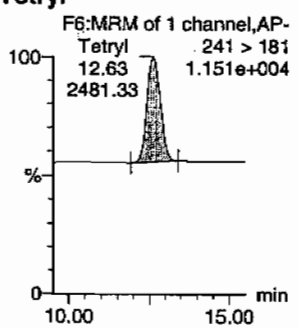

Nitrobenzene

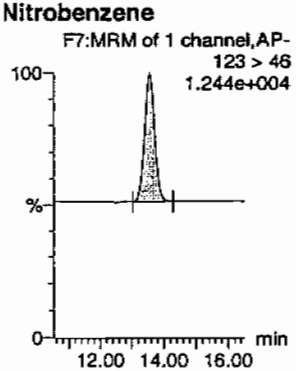

4-Amino-26-dinitrotoluene

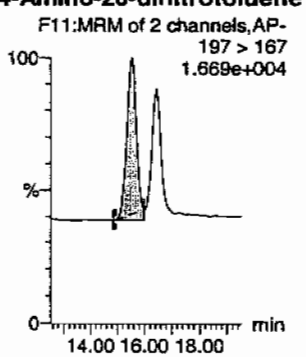

2-Amino-46-dinitrotoluene

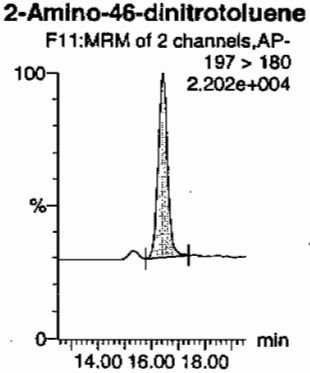

246-Trinitrotoluene

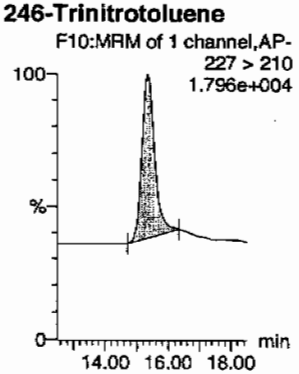

34-dinitrotoluene

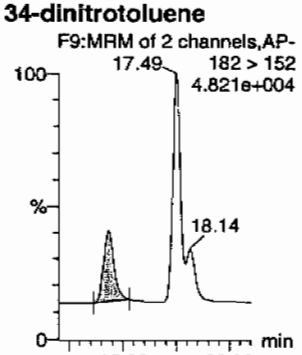

Hmm 01/19/10

26-dinitrotoluene

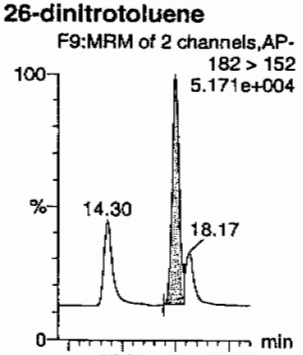

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

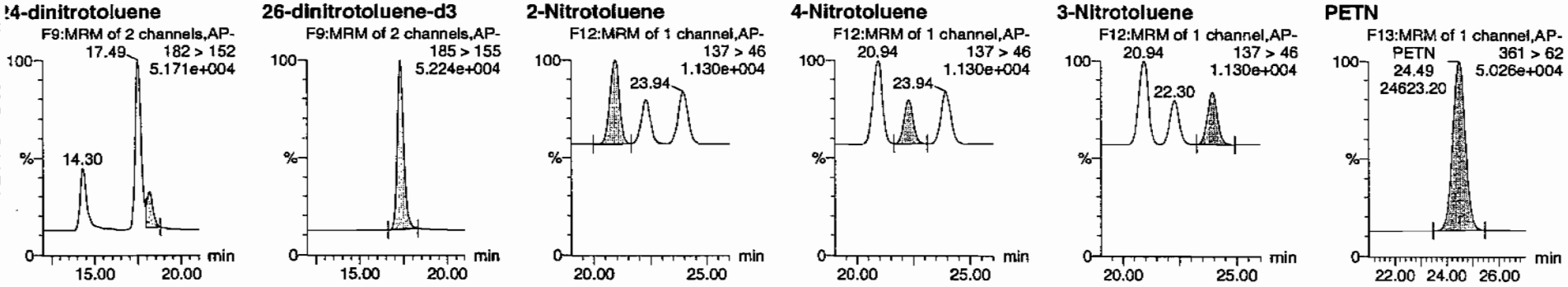

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100118-04	HMX	176 > 102	5.17	8564.036	3557.880	8564.036	1203.531	bb			372.8327	93.2	-6.8	1439.1
WXX100118-04	RDX	176 > 102	7.56	5964.697	3557.880	5964.697	838.238	bb			376.9853	94.2	-5.8	841.0
WXX100118-04	135-Trinitrobenzene	213 > 183	10.16	9524.204	3557.880	9524.204	1338.466	bb			401.7211	100.4	0.4	445.2
WXX100118-04	13-Dinitrobenzene-d4	172 > 142	12.00	3557.880		3557.880	3557.880	bb			524.2485	104.8	4.8	296.7
WXX100118-04	13-Dinitrobenzene	168 > 138	12.14	3338.174	3557.880	3338.174	469.124	bb			396.9853	99.2	-0.8	386.4
WXX100118-04	Tetryl	241 > 181	12.63	2481.326	3557.880	2481.326	348.709	bb			357.0595	89.3	-10.7	274.1
WXX100118-04	Nitrobenzene	123 > 46	13.54	2248.715	3557.880	2248.715	316.019	bb			377.4776	94.4	-5.6	228.3
WXX100118-04	4-Amino-26-dinitrotoluene	197 > 167	15.53	4306.894	19775.211	4306.894	108.896	MM	19-Jan-10	10:47:23	412.4986	103.1	3.1	170.5
WXX100118-04	2-Amino-46-dinitrotoluene	197 > 180	16.43	6462.493	19775.211	6462.493	163.399	bb			419.4404	104.9	4.9	156.9
WXX100118-04	246-Trinitrotoluene	227 > 210	15.34	5282.870	19775.211	5282.870	133.573	bb			379.3344	94.8	-5.2	321.7
WXX100118-04	34-dinitrotoluene	182 > 152	14.34	7223.575	19775.211	7223.575	182.642	bb			195.9171	98.0	-2.0	246.9
WXX100118-04	26-dinitrotoluene	182 > 152	17.49	17577.158	19775.211	17577.158	444.424	MM	19-Jan-10	10:52:39	406.8789	101.7	1.7	551.1
WXX100118-04	24-dinitrotoluene	182 > 152	18.17	4006.096	19775.211	4006.096	101.291	MM	19-Jan-10	10:56:07	400.6261	100.2	0.2	116.8
WXX100118-04	26-dinitrotoluene-d3	185 > 155	17.33	19775.211		19775.211	19775.211	bb			538.9935	107.8	7.8	2160.6
WXX100118-04	2-Nitrotoluene	137 > 46	20.94	2373.861	19775.211	2373.861	60.021	bb			399.9368	100.0	-0.0	182.3
WXX100118-04	4-Nitrotoluene	137 > 46	22.30	1179.227	19775.211	1179.227	29.816	bb			416.4269	104.1	4.1	93.7
WXX100118-04	3-Nitrotoluene	137 > 46	23.94	1516.506	19775.211	1516.506	38.344	bb			449.6195	112.4	12.4	111.9
WXX100118-04	PETN	361 > 62	24.49	24623.195	19775.211	24623.195	622.577	bb			372.5748	93.1	-6.9	1755.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0118007a
Date: 18-Jan-2010
Time: 17:00:28
ID: WXX100118-05
Vial: 1:2,E

MM 1/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.057e+005

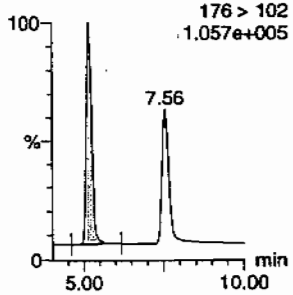

RDX
F2:MRM of 1 channel,AP-
5.17
176 > 102
1.057e+005

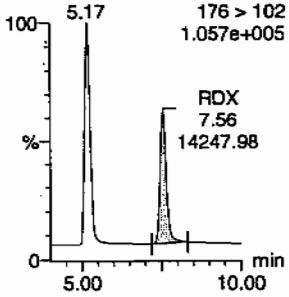

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
4.987e+004

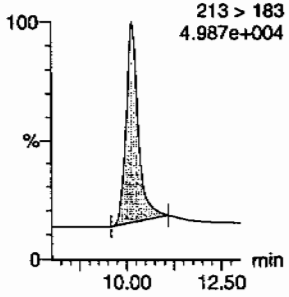

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.382e+004

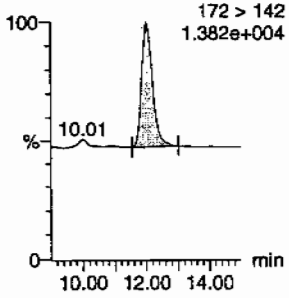

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
2.105e+004

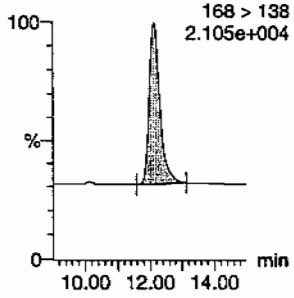

Tetryl
F6:MRM of 1 channel,AP-
Tetryl
12.63
3939.06
241 > 181
1.464e+004

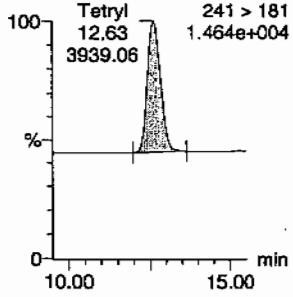

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.736e+004

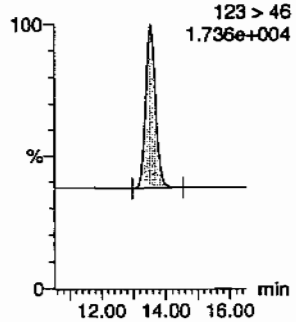

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.493e+004

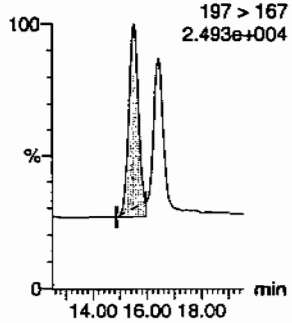

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.443e+004

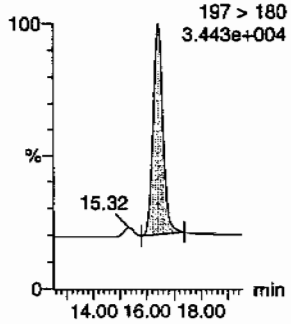

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.683e+004

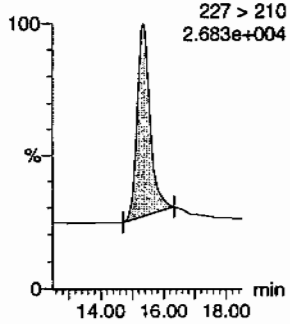

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.49
182 > 152
7.710e+004

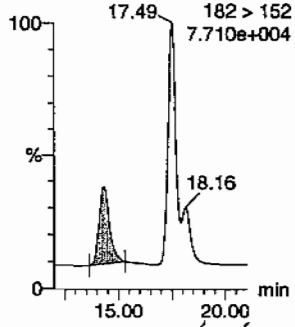

Hmm 01/19/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
8.264e+004

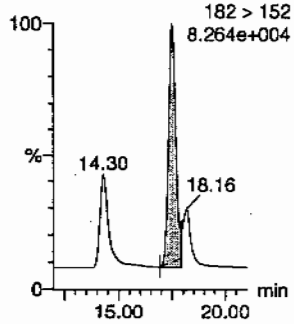

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Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

24-dinitrotoluene

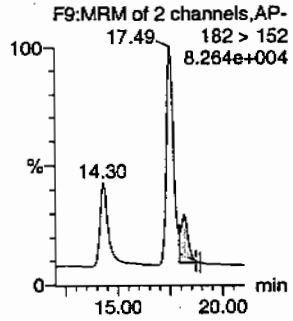

26-dinitrotoluene-d3

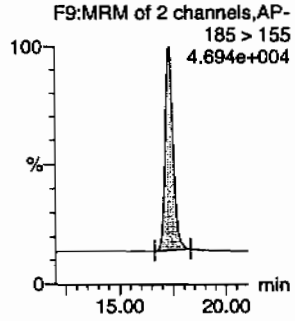

2-Nitrotoluene

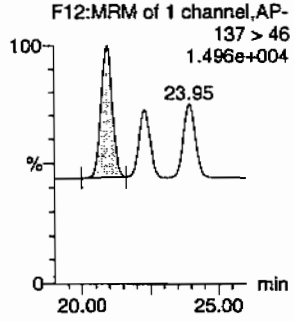

4-Nitrotoluene

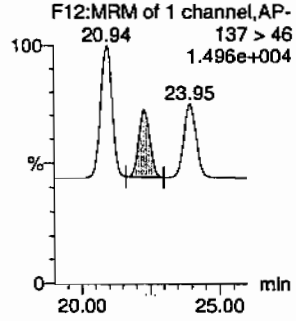

3-Nitrotoluene

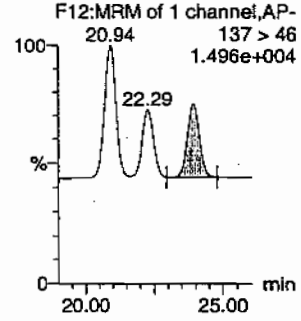

PETN

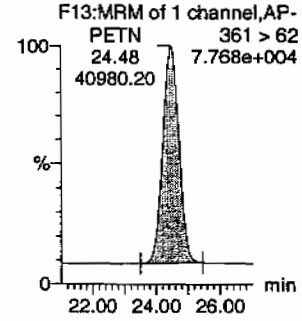

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100118-05	HMX	176 > 102	5.17	20150.730	2960.391	20150.730	3403.390	bb			1054.3...	131.8	31.8	2169.3
WXX100118-05	RDX	176 > 102	7.56	14247.984	2960.391	14247.984	2406.436	bb			1082.2...	135.3	35.3	1324.5
WXX100118-05	135-Trinitrobenzene	213 > 183	10.16	16054.148	2960.391	16054.148	2711.491	bb			813.8145	101.7	1.7	432.5
WXX100118-05	13-Dinitrobenzene-d4	172 > 142	12.00	2960.391		2960.391	2960.391	bb			436.2094	87.2	-12.8	254.1
WXX100118-05	13-Dinitrobenzene	168 > 138	12.14	5691.070	2960.391	5691.070	961.202	bb			813.3952	101.7	1.7	234.2
WXX100118-05	Tetryl	241 > 181	12.63	3939.061	2960.391	3939.061	665.294	bb			681.2268	85.2	-14.8	357.4
WXX100118-05	Nitrobenzene	123 > 46	13.54	3962.994	2960.391	3962.994	669.336	bb			799.5073	99.9	-0.1	181.8
WXX100118-05	4-Amino-26-dinitrotoluene	197 > 167	15.53	7727.542	17139.180	7727.542	225.435	MM	19-Jan-10	10:47:31	853.9466	106.7	6.7	160.5
WXX100118-05	2-Amino-46-dinitrotoluene	197 > 180	16.43	11651.635	17139.180	11651.635	339.912	bb			872.5457	109.1	9.1	264.2
WXX100118-05	246-Trinitrotoluene	227 > 210	15.34	9455.755	17139.180	9455.755	275.852	bb			783.3929	97.9	-2.1	646.4
WXX100118-05	34-dinitrotoluene	182 > 152	14.30	12345.535	17139.180	12345.535	360.155	bb			386.3324	96.6	-3.4	562.8
WXX100118-05	26-dinitrotoluene	182 > 152	17.49	30076.805	17139.180	30076.805	877.428	MM	19-Jan-10	10:52:49	803.3029	100.4	0.4	1277.9
WXX100118-05	24-dinitrotoluene	182 > 152	18.16	7259.125	17139.180	7259.125	211.770	MM	19-Jan-10	10:56:15	837.5935	104.7	4.7	283.2
WXX100118-05	26-dinitrotoluene-d3	185 > 155	17.31	17139.180		17139.180	17139.180	bb			467.1458	93.4	-6.6	1639.6
WXX100118-05	2-Nitrotoluene	137 > 46	20.94	4063.519	17139.180	4063.519	118.545	bb			789.8952	98.7	-1.3	413.2
WXX100118-05	4-Nitrotoluene	137 > 46	22.29	1987.211	17139.180	1987.211	57.973	bb			809.6855	101.2	1.2	209.7
WXX100118-05	3-Nitrotoluene	137 > 46	23.95	2339.623	17139.180	2339.623	68.254	bb			800.3464	100.0	0.0	229.5
WXX100118-05	PETN	361 > 62	24.48	40980.199	17139.180	40980.199	1195.512	bb			715.4417	89.4	-10.6	4169.4

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Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0118008a
Date: 18-Jan-2010
Time: 17:29:55
ID: WXX100118-06
Vial: 1:2,F

MAP 1/19/10

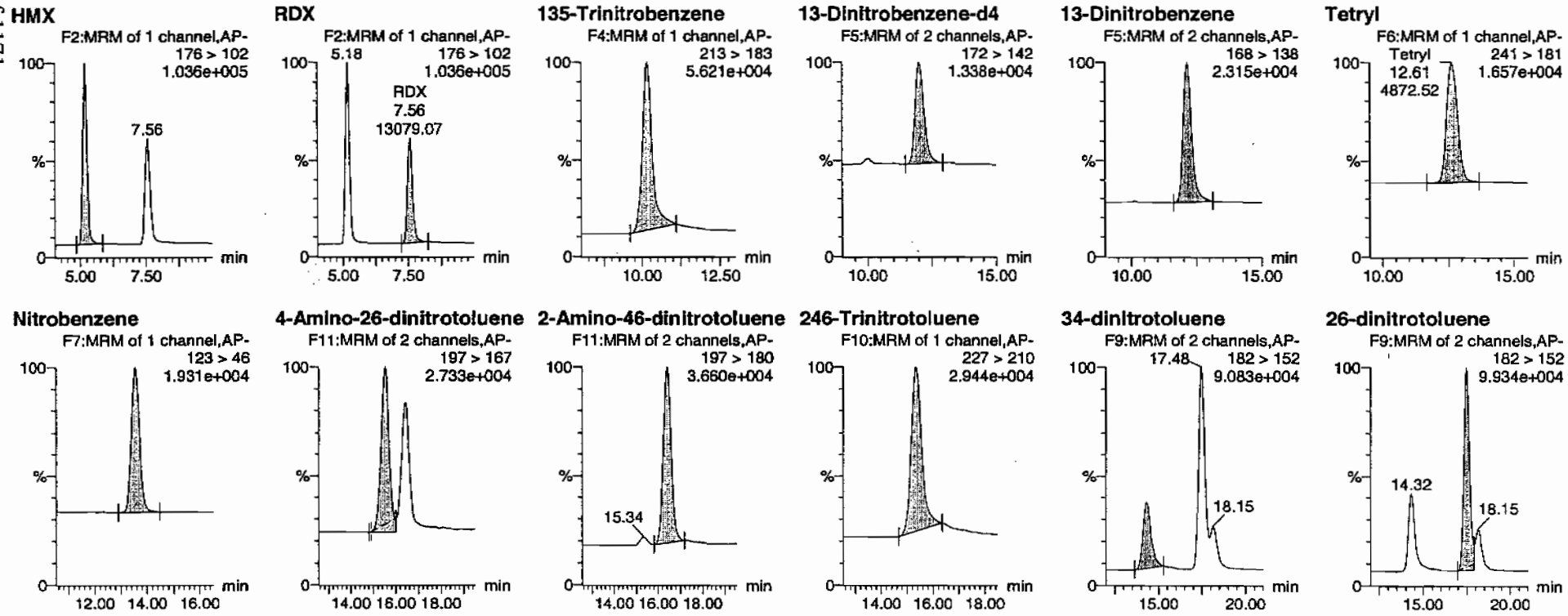

Hmm 01/19/10

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GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qid, Time: Tue Jan 19 10:59:58 2010

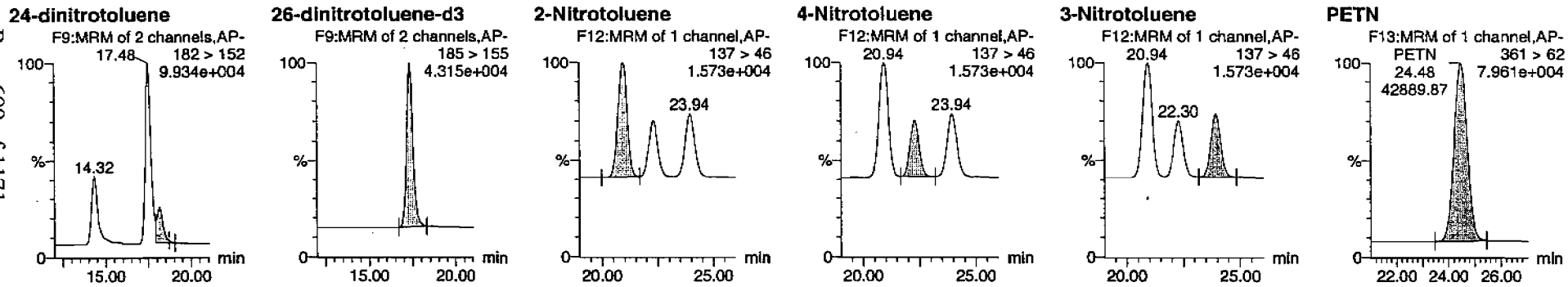

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	mg/mL	%Rec	%Dev	S/N
WXX100118-06	HMX	176 > 102	5.18	19139.641	2784.377	19139.641	3436.970	bb			1064.7...	106.5	6.5	1012.5
WXX100118-06	RDX	176 > 102	7.56	13079.070	2784.377	13079.070	2348.653	bb			1056.2...	105.6	5.6	592.3
WXX100118-06	135-Trinitrobenzene	213 > 183	10.16	18106.678	2784.377	18106.678	3251.477	bb			975.8834	97.6	-2.4	2672.2
WXX100118-06	13-Dinitrobenzene-d4	172 > 142	12.00	2784.377		2784.377	2784.377	bb			410.2740	82.1	-17.9	240.1
WXX100118-06	13-Dinitrobenzene	168 > 138	12.13	6500.165	2784.377	6500.165	1167.257	bb			987.7638	98.8	-1.2	321.3
WXX100118-06	Tetryl	241 > 181	12.61	4872.519	2784.377	4872.519	874.975	bb			895.9290	89.6	-10.4	951.7
WXX100118-06	Nitrobenzene	123 > 46	13.57	4695.991	2784.377	4695.991	843.275	bb			1007.2...	100.7	0.7	443.0
WXX100118-06	4-Amino-26-dinitrotoluene	197 > 167	15.55	8783.063	15617.655	8783.063	281.190	MM	19-Jan-10	10:47:40	1065.1...	106.5	6.5	374.6
WXX100118-06	2-Amino-46-dinitrotoluene	197 > 180	16.42	12281.026	15617.655	12281.026	393.178	bb			1009.2...	100.9	0.9	959.2
WXX100118-06	246-Trinitrotoluene	227 > 210	15.37	10580.957	15617.655	10580.957	338.750	bb			962.0167	96.2	-3.8	648.6
WXX100118-06	34-dinitrotoluene	182 > 152	14.32	14853.782	15617.655	14853.782	475.545	bb			510.1084	102.0	2.0	757.2
WXX100118-06	26-dinitrotoluene	182 > 152	17.48	34613.637	15617.655	34613.637	1108.157	MM	19-Jan-10	10:52:56	1014.5...	101.5	1.5	1697.5
WXX100118-06	24-dinitrotoluene	182 > 152	18.15	7836.953	15617.655	7836.953	250.900	MM	19-Jan-10	10:56:23	992.3628	99.2	-0.8	333.9
WXX100118-06	26-dinitrotoluene-d3	185 > 155	17.32	15617.655		15617.655	15617.655	bb			425.6751	85.1	-14.9	1009.6
WXX100118-06	2-Nitrotoluene	137 > 46	20.94	4523.486	15617.655	4523.486	144.820	bb			964.9719	96.5	-3.5	484.1
WXX100118-06	4-Nitrotoluene	137 > 46	22.30	2158.030	15617.655	2158.030	69.089	bb			964.9484	96.5	-3.5	238.1
WXX100118-06	3-Nitrotoluene	137 > 46	23.94	2587.291	15617.655	2587.291	82.832	bb			971.2960	97.1	-2.9	265.8
WXX100118-06	PETN	361 > 62	24.48	42889.871	15617.655	42889.871	1373.121	bb			821.7300	82.2	-17.8	18578.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1020

Lab Code: GEI

GEL Sample ID: WXXICV

GEL Data File EXP0118010a

Analysis Date: 18-JAN-10 18:28

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	606.572	101	
1,3-Dinitrobenzene-d4	500	470.52	94	
2,4,6-Trinitrotoluene	600	621.487	104	
2,4-Dinitrotoluene	600	602.873	100	
2,6-Dinitrotoluene	600	630.14	105	
2,6-Dinitrotoluene-d3	500	515.861	103	
2-Amino-4,6-dinitrotoluene	600	595.43	99	
3,4-Dinitrotoluene	300	300.86	100	
4-Amino-2,6-dinitrotoluene	600	621.304	104	
HMX	600	570.4	95	
Nitrobenzene	600	639.033	107	
PETN	600	552.42	92	
RDX	600	658.602	110	
Tetryl	600	515.579	86	
m-Dinitrobenzene	600	611.69	102	
m-Nitrotoluene	600	682.223	114	
o-Nitrotoluene	600	662.222	110	
p-Nitrotoluene	600	732.953	122	*

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0118010a
Date: 18-Jan-2010
Time: 18:28:52
ID: WXX100118-07ICV
Vial: 1:1,B

MM 1/19/10

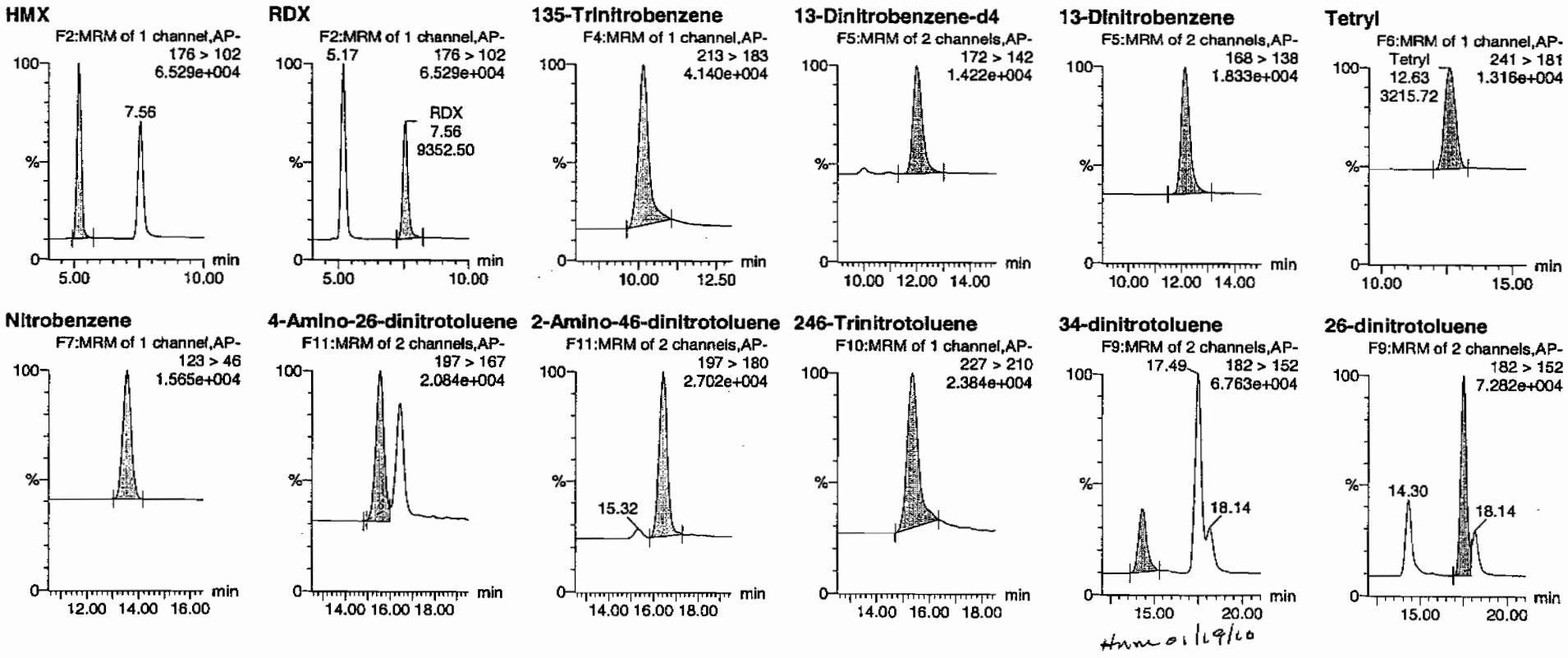

Hmm 01/19/10

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GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

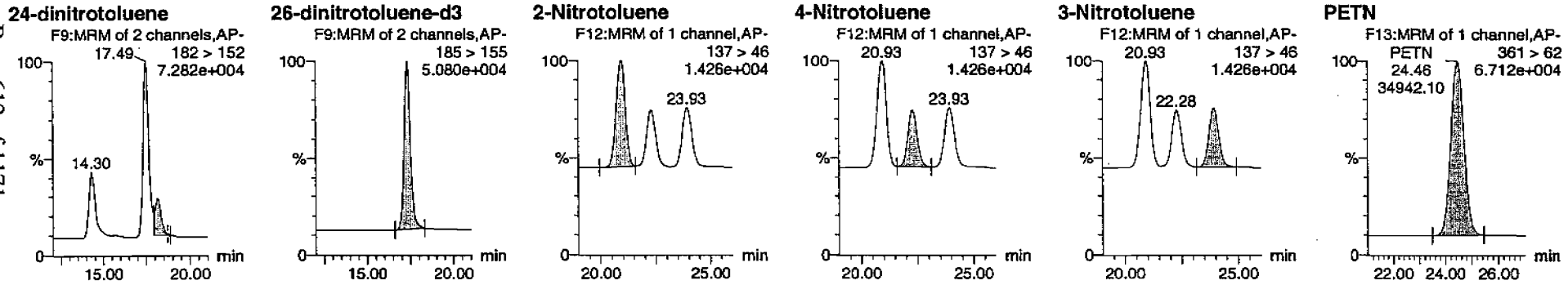

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100118-07ICV	HMX	176 > 102	5.17	11759.395	3193.243	11759.395	1841.293	db			570.4004	95.1	-4.9	1064.9
WXX100118-07ICV	RDX	176 > 102	7.56	9352.498	3193.243	9352.498	1464.420	bb			658.6019	109.8	9.8	713.6
WXX100118-07ICV	135-Trinitrobenzene	213 > 183	10.16	12907.048	3193.243	12907.048	2020.994	bb			606.5717	101.1	1.1	1644.6
WXX100118-07ICV	13-Dinitrobenzene-d4	172 > 142	12.00	3193.243		3193.243	3193.243	bb			470.5198	94.1	-5.9	176.3
WXX100118-07ICV	13-Dinitrobenzene	168 > 138	12.14	4616.433	3193.243	4616.433	722.844	bb			611.6900	101.9	1.9	629.5
WXX100118-07ICV	Tetryl	241 > 181	12.63	3215.724	3193.243	3215.724	503.520	bb			515.5786	85.9	-14.1	315.4
WXX100118-07ICV	Nitrobenzene	123 > 46	13.54	3416.705	3193.243	3416.705	534.990	bb			639.0335	106.5	6.5	527.3
WXX100118-07ICV	4-Amino-26-dinitrotoluene	197 > 167	15.53	6208.615	18926.488	6208.615	164.019	MM	19-Jan-10	10:47:48	621.3039	103.6	3.6	189.2
WXX100118-07ICV	2-Amino-46-dinitrotoluene	197 > 180	16.40	8780.297	18926.488	8780.297	231.958	bb			595.4297	99.2	-0.8	266.0
WXX100118-07ICV	246-Trinitrotoluene	227 > 210	15.35	8283.787	18926.488	8283.787	218.841	bb			621.4874	103.6	3.6	346.8
WXX100118-07ICV	34-dinitrotoluene	182 > 152	14.30	10616.799	18926.488	10616.799	280.475	bb			300.8602	100.3	0.3	580.9
WXX100118-07ICV	26-dinitrotoluene	182 > 152	17.49	26053.697	18926.488	26053.697	688.287	MM	19-Jan-10	10:53:08	630.1400	105.0	5.0	1044.8
WXX100118-07ICV	24-dinitrotoluene	182 > 152	18.14	5769.747	18926.488	5769.747	152.425	MM	19-Jan-10	10:57:03	602.8729	100.5	0.5	217.3
WXX100118-07ICV	26-dinitrotoluene-d3	185 > 155	17.31	18926.488		18926.488	18926.488	bb			515.8607	103.2	3.2	1349.0
WXX100118-07ICV	2-Nitrotoluene	137 > 46	20.93	3761.979	18926.488	3761.979	99.384	bb			662.2219	110.4	10.4	542.3
WXX100118-07ICV	4-Nitrotoluene	137 > 46	22.28	1986.477	18926.488	1986.477	52.479	bb			732.9527	122.2	22.2	287.7
WXX100118-07ICV	3-Nitrotoluene	137 > 46	23.93	2202.288	18926.488	2202.288	58.180	bb			682.2228	113.7	13.7	300.5
WXX100118-07ICV	PETN	361 > 62	24.46	34942.102	18926.488	34942.102	923.101	bb			552.4198	92.1	-7.9	3601.3

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 01/18/10
Time of Injection: 1828
Standard Number: WXX100118-07ICV
Data File: EXP0118010a

HMX		95.1
RDX		109.8
135-TNB		101.1
13-DNB		101.9
Tetryl		85.9
Nitrobenzene		106.5
4A-26-DNT		103.6
2A-46-DNT		99.2
246-TNT		103.6
34-DNT(surr)		100.3
26-DNT		105.0
24-DNT		100.5
2-NT		110.4
4-NT		122.2
3-NT		113.7
PETN		92.1
Total		1650.9
Average		103.2

1/19/10

01/19/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-1020

Lab Code: GEL

Run Date: 11-JAN-10,18-JAN-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H80

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS01100003.wiff	EXS01100004.wiff	EXS01100005.wiff	EXS01100006.wiff	EXS01100007.wiff	EXS01100008.wiff	EXS01100009.wiff					
Parmname:												
2,4-Diamino-6-nitrotoluene	136000	270000	647000	1230000	1710000	2100000	4130000	66300	2230	-.101	.9992	
2,6-Diamino-4-nitrotoluene	185000	385000	935000	1720000	2420000	2910000	5530000	90100	3210	-.251	.999	
3,4-Dinitrotoluene	369000	753000	1820000	3420000	4860000	6090000	11700000	105000	13900	-2.33	.9979	
3,5-Dinitroaniline	632000	1230000	2820000	5120000	7050000	9120000	15900000	250000	10000	-1.12	.9998	
TATB	86900	170000	408000	762000	1150000	1500000	2970000	20100	1500	-.013	1	
tris(o-cresyl) phosphate	1480000	2820000	6430000	11800000	17400000	20800000	31100000	204000	26300	-5.44	.9997	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	2.01e+004			
a1	1.5e+003			
a2	-0.0128			

Correlation coefficient 1.0000
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	2.5e+005			
a1	1e+004			
a2	-1.12			

Correlation coefficient 0.9998
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	1.05e+005			
a1	1.39e+004			
a2	-2.33			

Correlation coefficient 0.9979
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	9.01e+004			
a1	3.21e+003			
a2	-0.251			

Correlation coefficient 0.9990
Use Area

Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Lar 1/12/10

Hnme 01/12/10

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Fit	Quadratic	Weighting	None	Iterate No
a0	6.63e+004			
a1	2.23e+003			
a2	-0.101			

Correlation coefficient 0.9992
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	2.04e+005			
a1	2.63e+004			
a2	-5.44			

Correlation coefficient 0.9997
Use Area

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

011110.rdb (TATB): "Quadratic" Regression ("No" weighting): y = -0.0128 x^2 + 1.5e+003 x + 2.01e+004 (r = 1.0000)

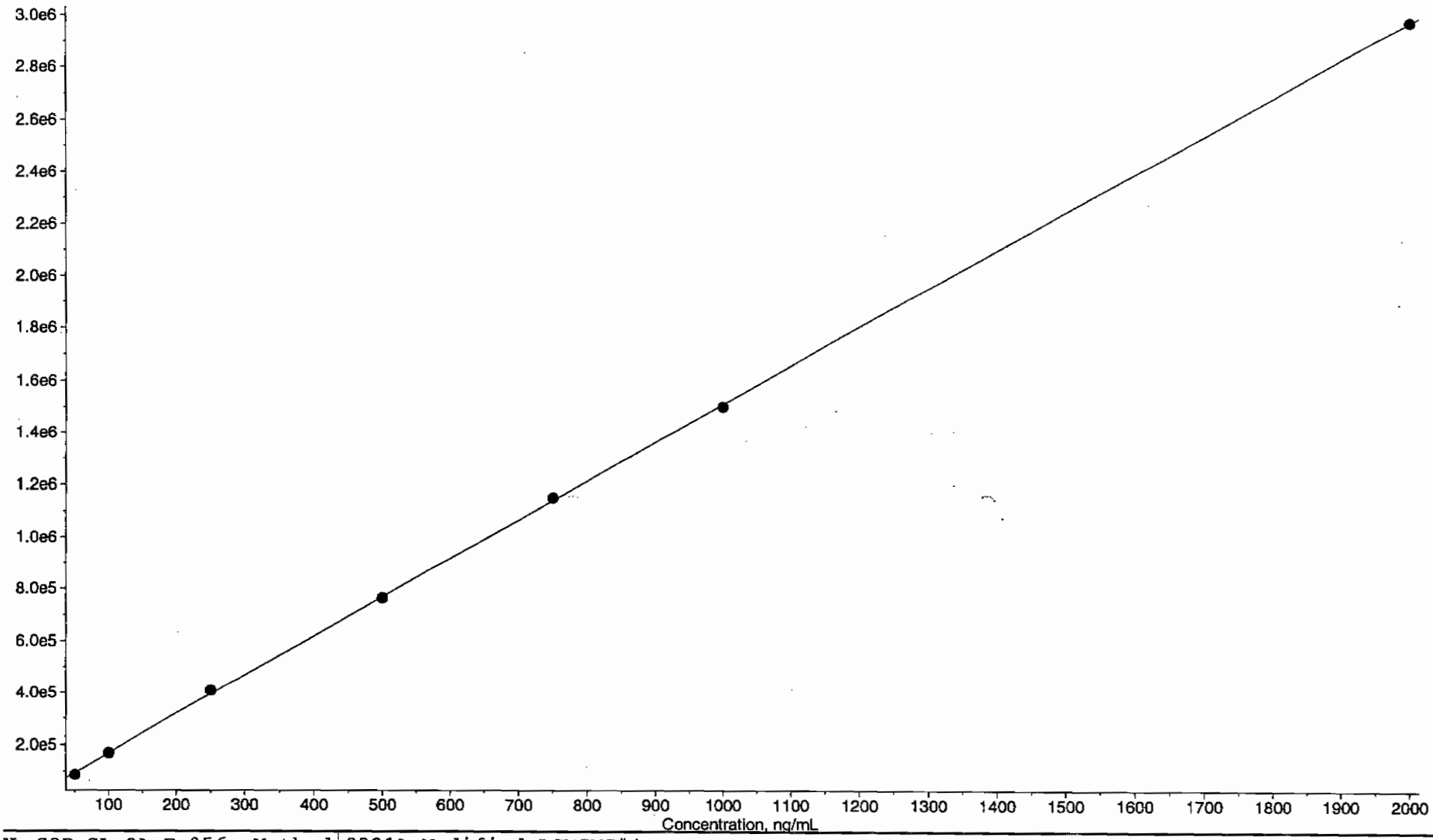

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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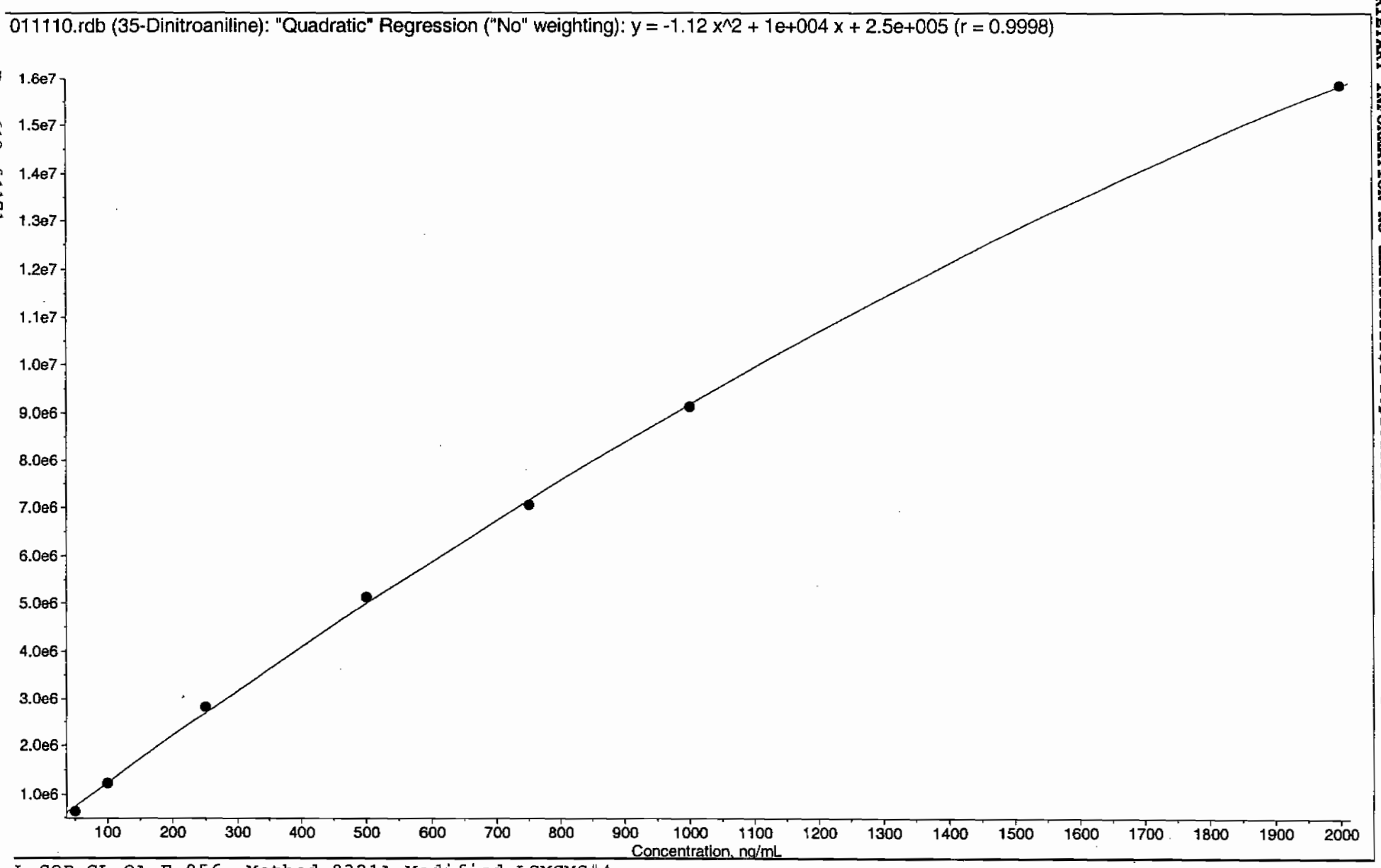

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011110.rdb (34-Dinitrotoluene): "Quadratic" Regression ("No" weighting): y = -2.33 x^2 + 1.39e+004 x + 1.05e+005 (r = 0.9979)

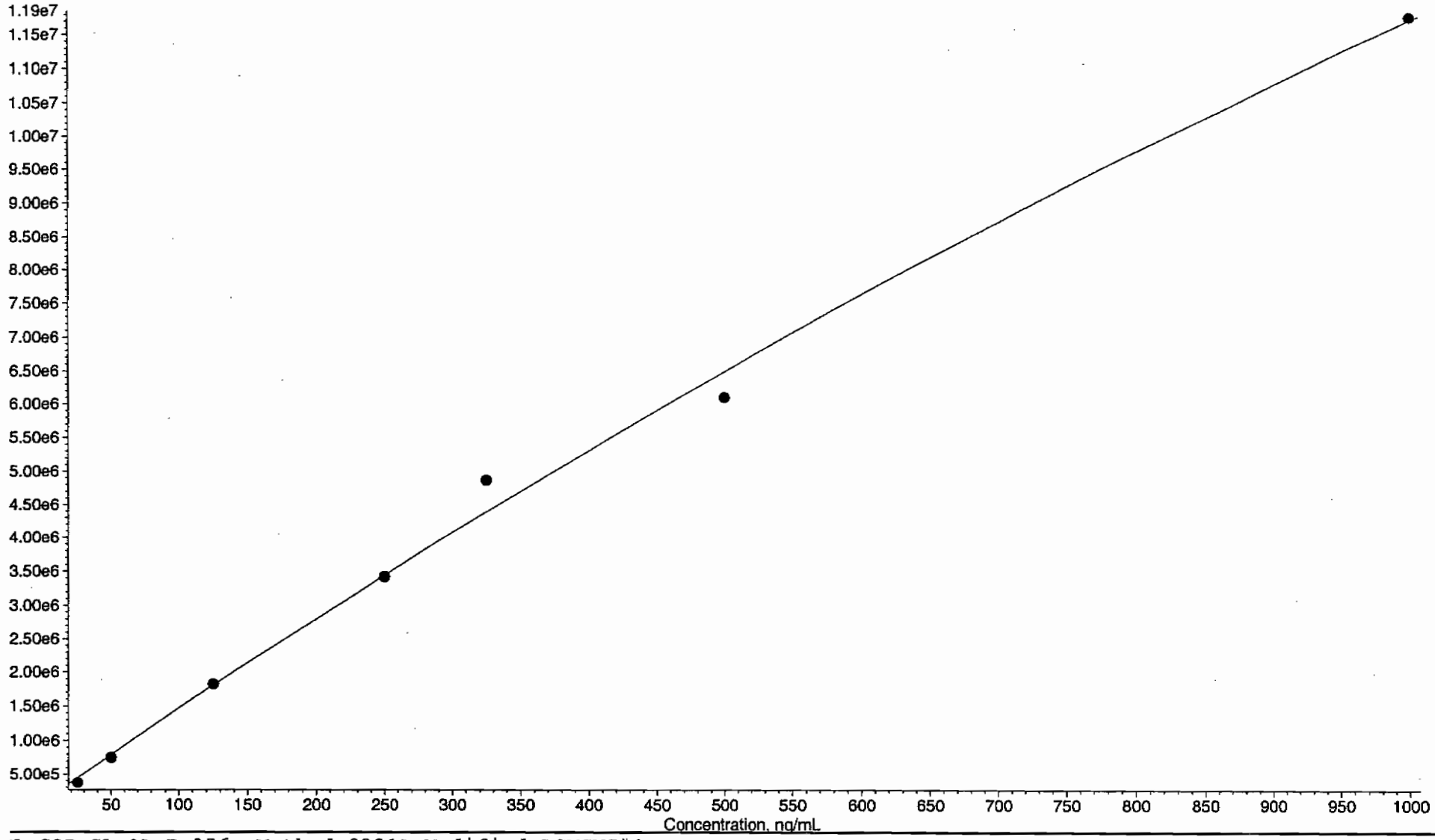

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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011110.rdb (26-Diamino-4-nitrotoluene): "Quadratic" Regression ("No" weighting): y = -0.251 x^2 + 3.21e+003 x + 9.01e+004 (r = 0.9990)

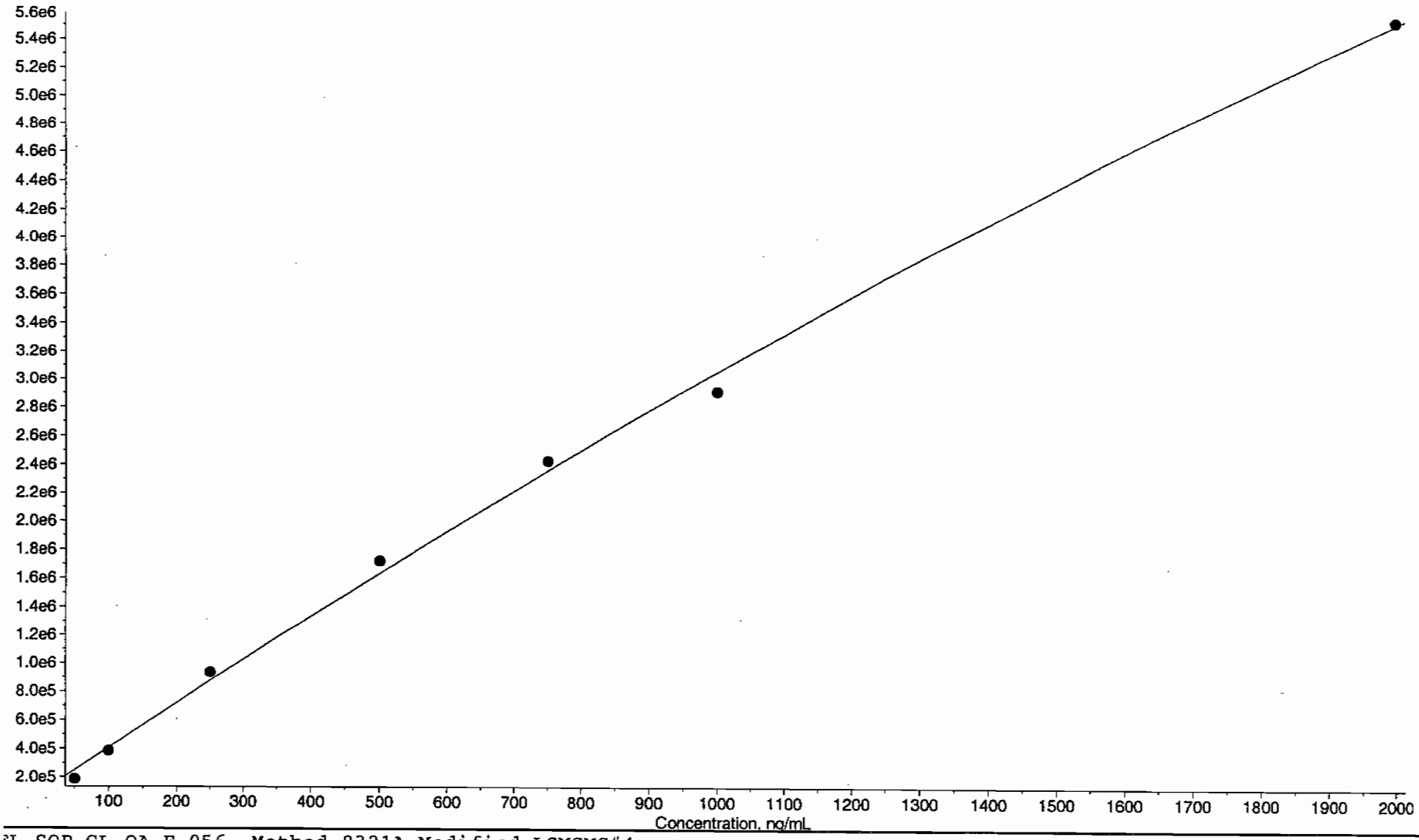

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011110.rdb (24-Diamino-6-nitrotoluene): "Quadratic" Regression ("No" weighting): y = -0.101 x^2 + 2.23e+003 x + 6.63e+004 (r = 0.9992)

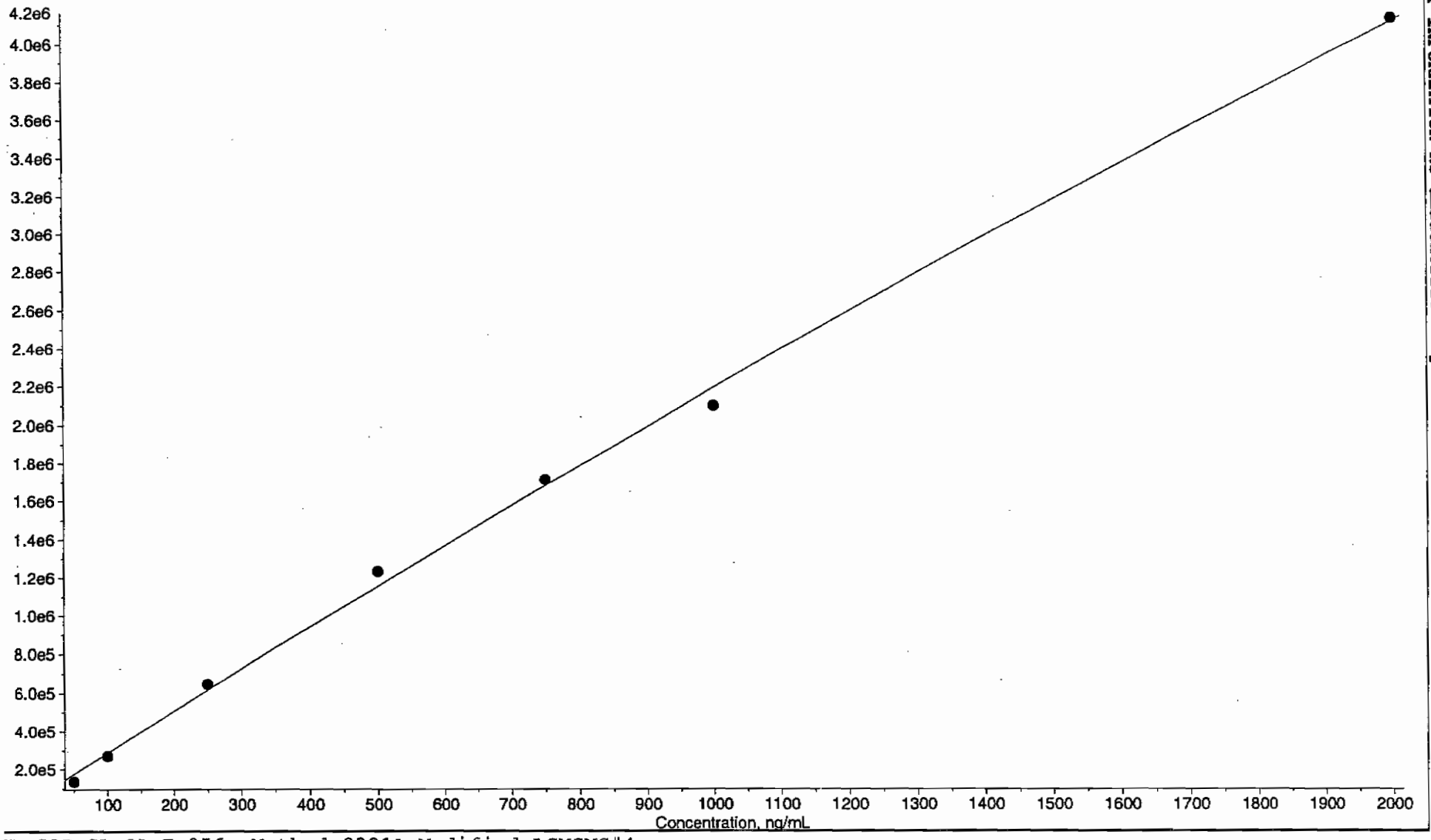

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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011110.rdb (tris(o-cresyl) phosphate): "Quadratic" Regression ("No" weighting): y = -5.44 x^2 + 2.63e+004 x + 2.04e+005 (r = 0.9997)

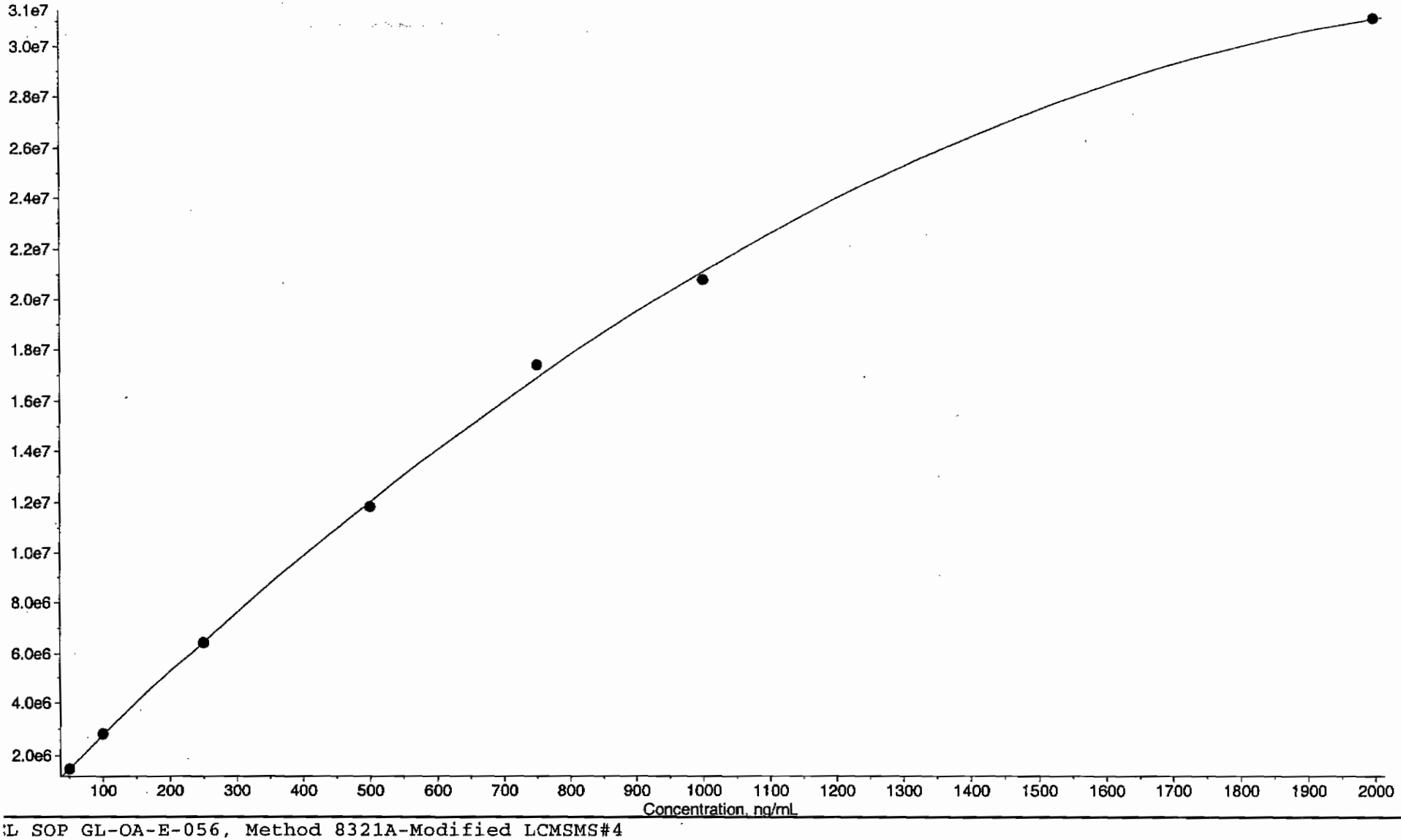

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Before Clear 1/12/10

Sample Name: "WXX100111-19" Sample ID: "|1|LER" File: "EXS01100003.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

mple Index: 1
mple Type: Standard
ncentration: 50.0 ng/mL
lculated Conc: 44.5 ng/mL
q. Date: 1/11/2010
q. Time: 11:46:28 AM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 2500.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 7.01 min
e Relative RT: No

t. Type: Valley
tention Time: 7.02 min
ea: 8.69e+004 counts
ight: 19716.211 cps
art Time: 6.86 min
d Time: 7.49 min

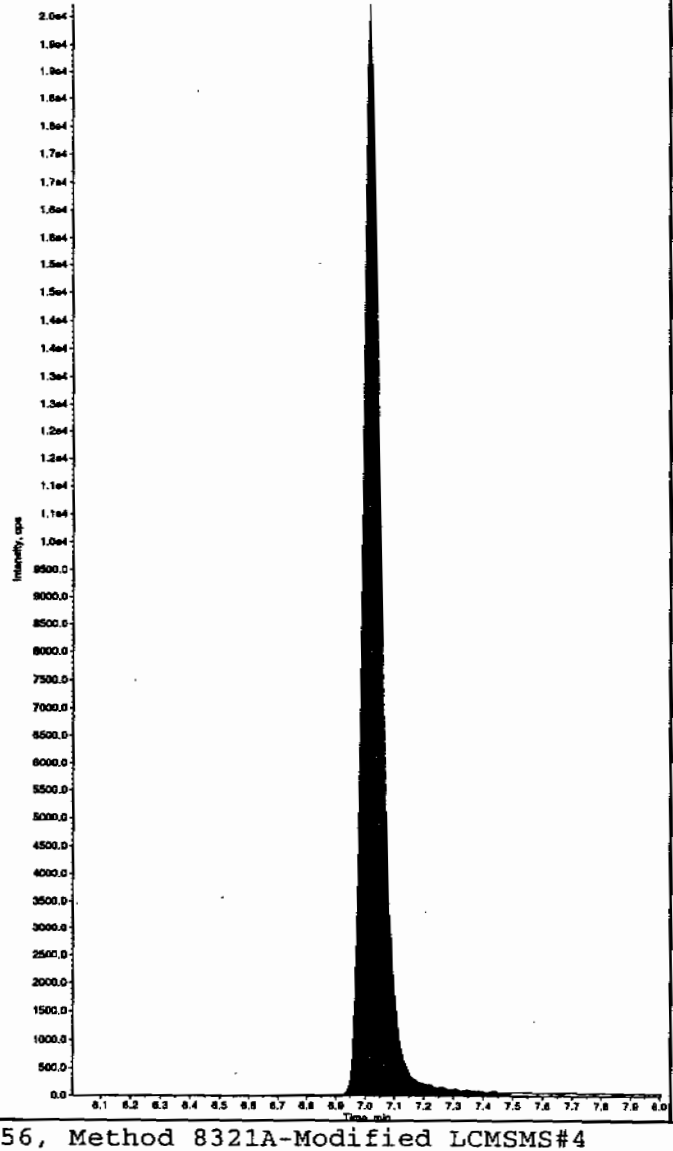

Sample Name: "WXX100111-19" Sample ID: "|1|LER" File: "EXS01100003.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 50.0 ng/mL
Calculated Conc: 38.2 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 11:46:28 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.20 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 6.97e+005 counts
Height: 161214.661 cps
Start Time: 8.13 min
End Time: 8.82 min

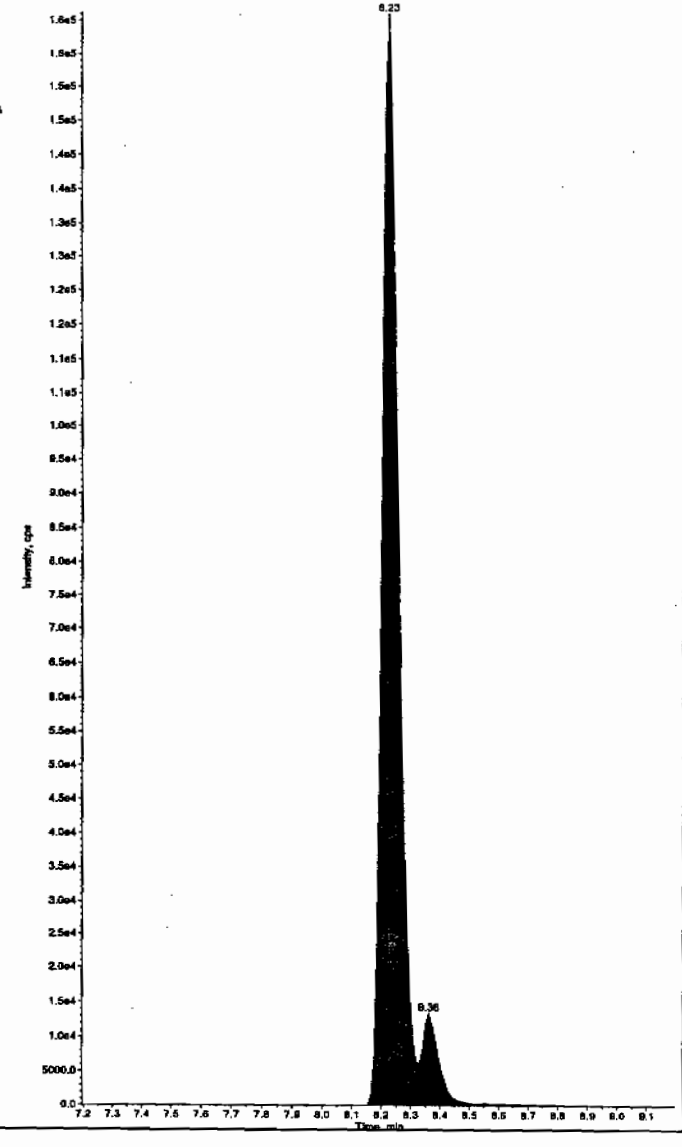

Hmm 01/12/10

after Dan 1/12/10

ample Name: "WXX100111-19" Sample ID: "[1]LER" File: "EXS01100003.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_I" Annotation: "

ple Index: 1
ple Type: Standard
centration: 50.0 ng/mL
culated Conc: 44.5 ng/mL
. Date: 1/11/2010
. Time: 11:48:28 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.01 min
Relative RT: No

. Type: Valley
ention Time: 7.02 min
a: 8.69e+004 counts
ght: 19716.211 cps
rt Time: 6.86 min
Time: 7.49 min

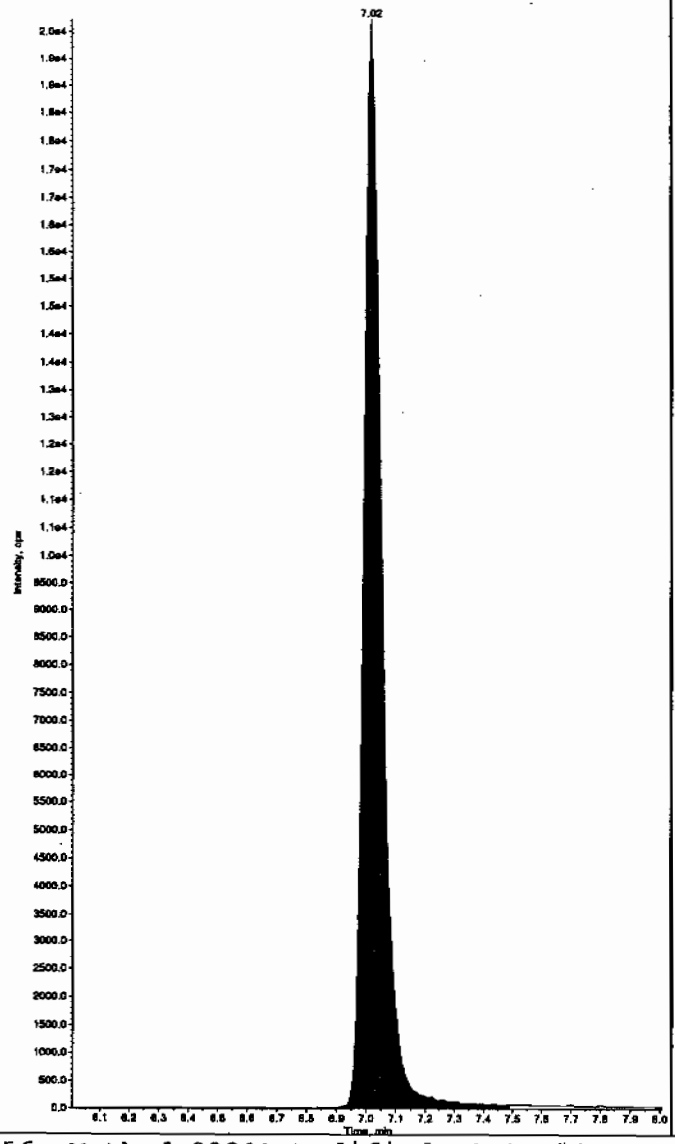

Sample Name: "WXX100111-19" Sample ID: "[1]LER" File: "EXS01100003.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: "

Sample Index: 1
Sample Type: Standard
Concentration: 50.0 ng/mL
Calculated Conc: 38.2 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 11:48:28 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.20 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.23 min
Area: 6.32e+005 counts
Height: 160917.734 cps
Start Time: 8.15 min
End Time: 8.32 min

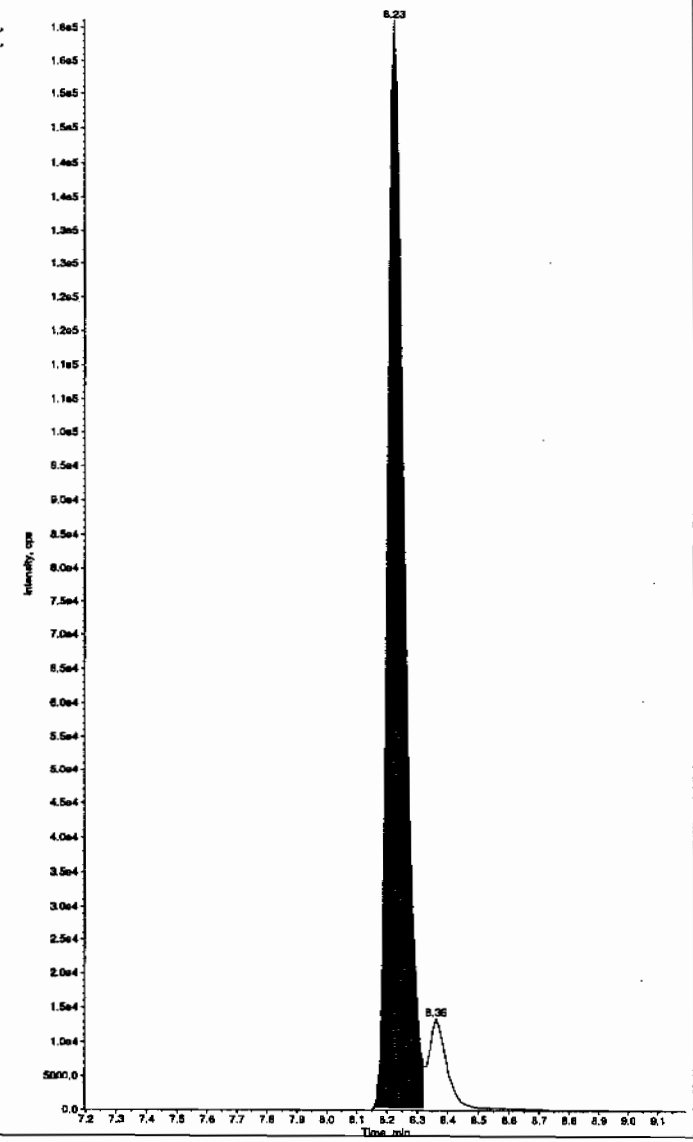

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Sample Name: "WXX100111-19" Sample ID: "|1|LER" File: "EXS01100003.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

ple Index:	1	
ple Type:	Standard	
centration:	25.0	ng/mL
culated Conc:	19.0	ng/mL
. Date:	1/11/2010	
. Time:	11:48:28 AM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	1460.00	cps
. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	15.0	sec
ected RT:	8.39	min
Relative RT:	No	
. Type:	Valley	
ention Time:	8.36	min
a:	3.69e+005	counts
ght:	96149.086	cps
rt Time:	8.29	min
Time:	8.64	min

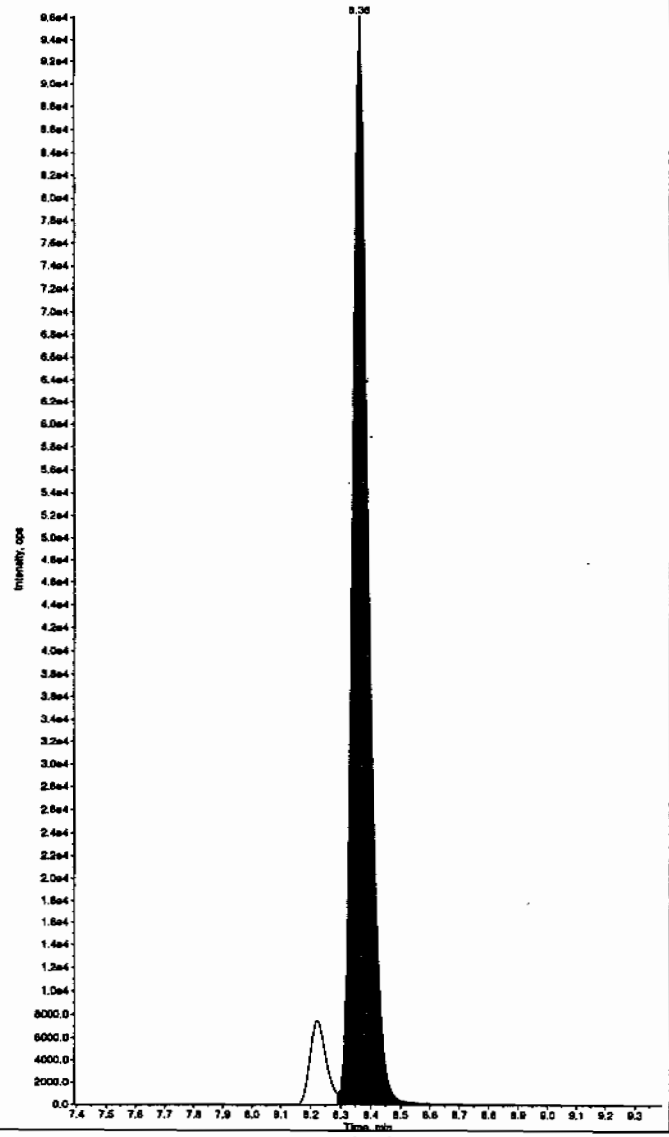

Sample Name: "WXX100111-19" Sample ID: "|1|LER" File: "EXS01100003.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	50.0	ng/mL
Calculated Conc:	29.6	ng/mL
Acq. Date:	1/11/2010	
Acq. Time:	11:48:28 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	5.05	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	5.05	min
Area:	1.85e+005	counts
Height:	43647.149	cps
Start Time:	4.95	min
End Time:	5.34	min

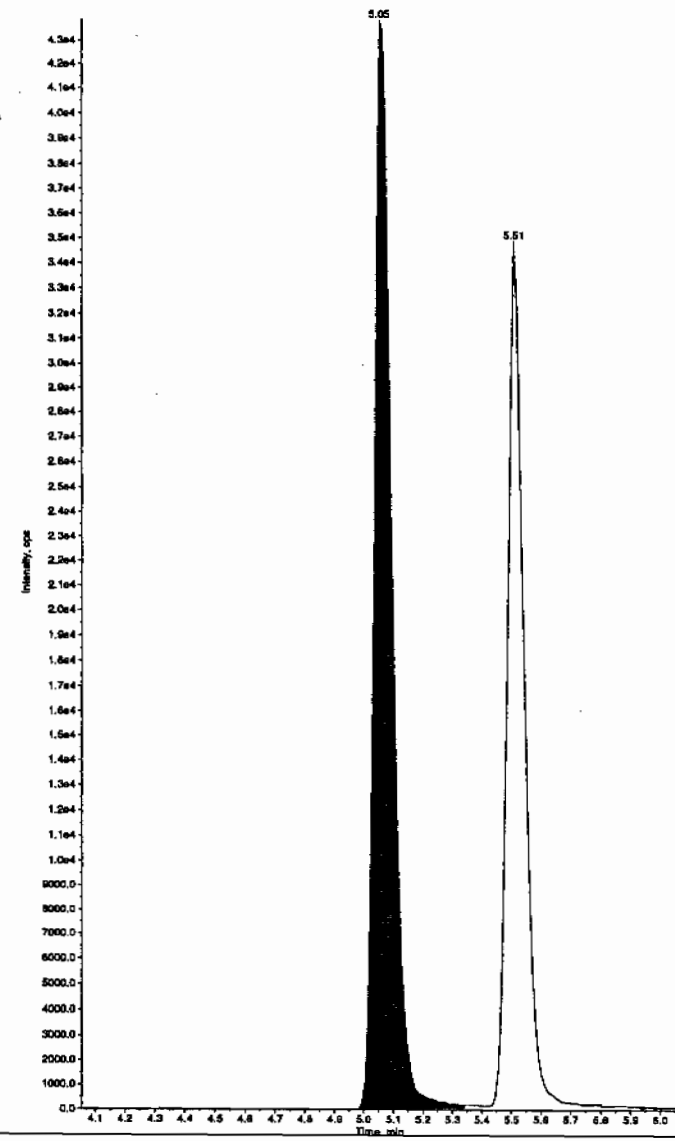

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mple Name: "WXX100111-19" Sample ID: "[1]LER" File: "EXS01100003.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_I" Annotation: "

```
ple Index:        1
ple Type:      Standard
centration:       50.0     ng/mL
culated Conc:     31.2     ng/mL
. Date:        1/11/2010
. Time:        11:48:28 AM

ified:            No
:. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00    cps
. Peak Width:    0.00    sec
othing Width:  3        points
window:         30.0     sec
ected RT:        5.50    min
Relative RT:     No

. Type:        Valley
ention Time:     5.51    min
:          1.36e+005    counts
ght:         34734.509  cps
t Time:          5.44    min
Time:            6.00    min
```

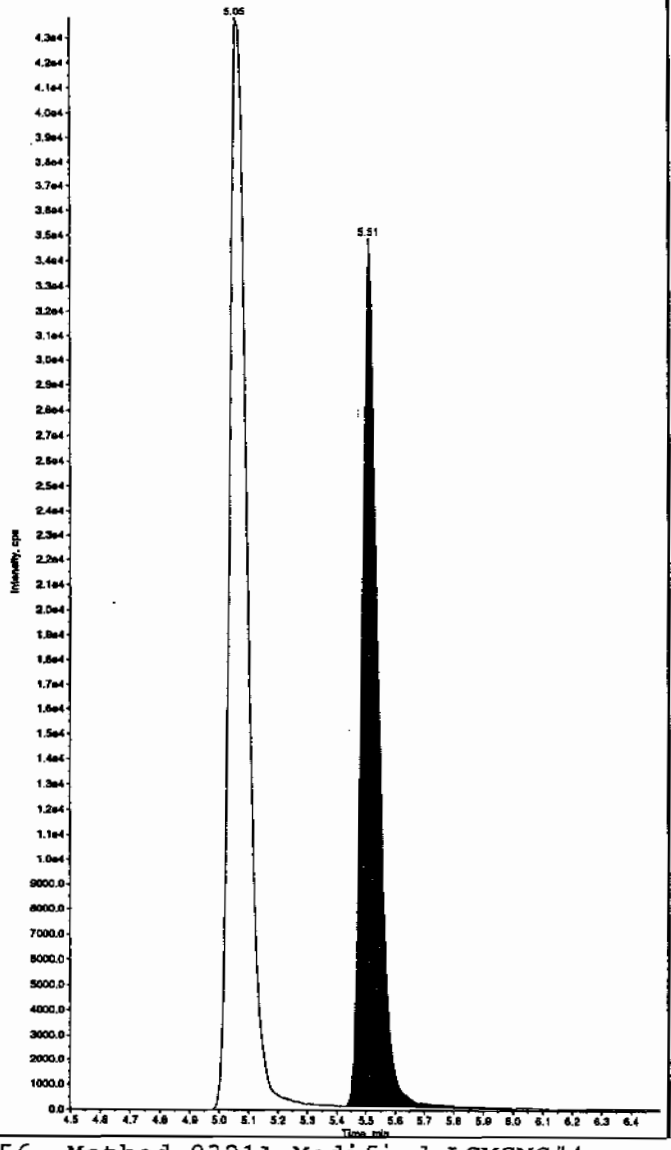

Sample Name: "WXX100111-19" Sample ID: "[1]LER" File: "EXS01100003.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: "

```
Sample Index:        1
Sample Type:      Standard
Concentration:       50.0     ng/mL
Calculated Conc:     49.0     ng/mL
Acq. Date:        1/11/2010
Acq. Time:        11:48:28 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:       10.9     min
Use Relative RT:     No

Int. Type:        Valley
Retention Time:    10.9     min
Area:          1.48e+006    counts
Height:        385687.622   cps
Start Time:        10.8     min
End Time:          11.1     min
```

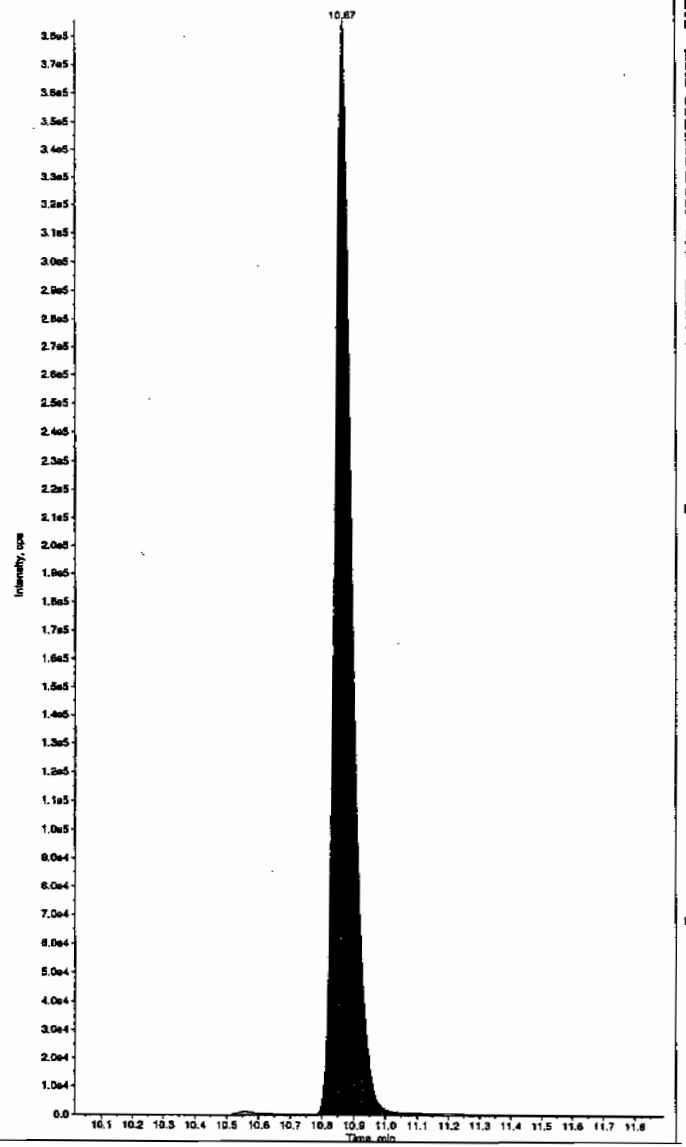

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Lar 1/12/10

ample Name: "WXX100111-20" Sample ID: "[1]LER" File: "EXS01100004.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_I" Annotation: ""

```
ple Index:        1
ple Type:       Standard
centration:       100.     ng/mL
culated Conc:     99.7     ng/mL
. Date:         1/11/2010
. Time:         12:04:10 PM

ified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height:2500.00    cps
. Peak Width:     0.00    sec
othing Width:  3        points
Window:          30.0     sec
ected RT:         7.01    min
 Relative RT:     No

. Type:         Valley
ention Time:      7.01    min
a:          1.70e+005    counts
ght:          39617.298  cps
rt Time:          6.86    min
 Time:            7.48    min
```

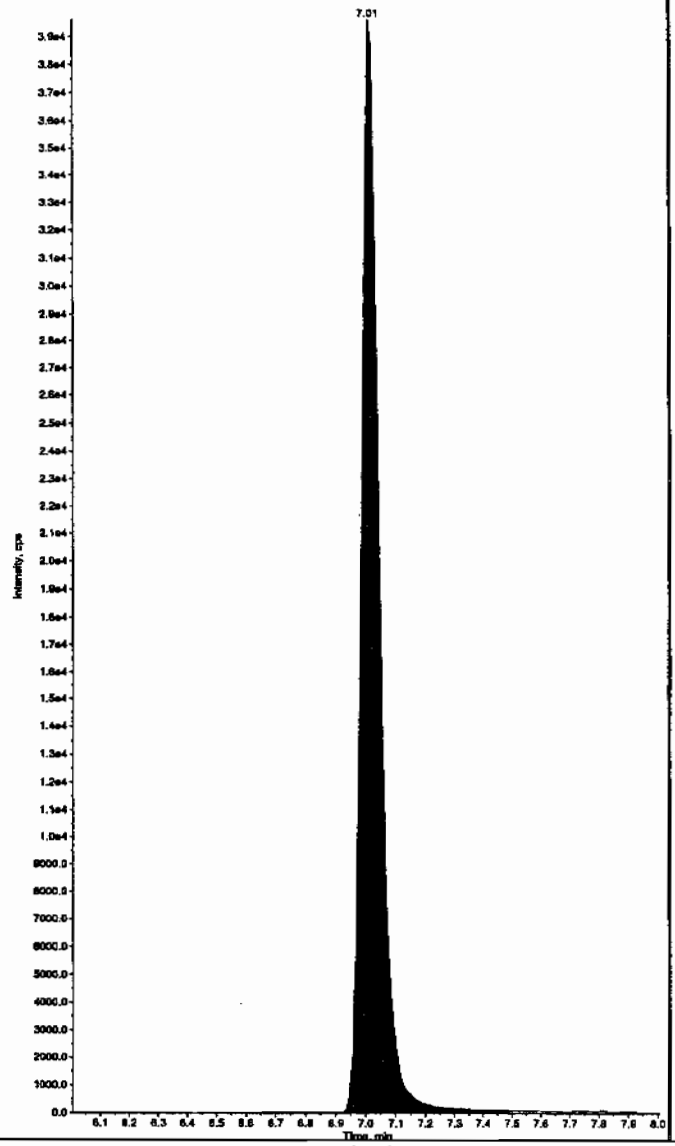

Sample Name: "WXX100111-20" Sample ID: "[1]LER" File: "EXS01100004.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:       Standard
Concentration:       100.     ng/mL
Calculated Conc:     98.9     ng/mL
Acq. Date:         1/11/2010
Acq. Time:         12:04:10 PM

Modified:            Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2000.00    cps
Min. Peak Width:     0.00    sec
Smoothing Width:  3        points
RT Window:          15.0     sec
Expected RT:         8.15    min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      8.23    min
Area:          1.23e+006    counts
Height:        306540.741   cps
Start Time:          8.12    min
End Time:            8.33    min
```

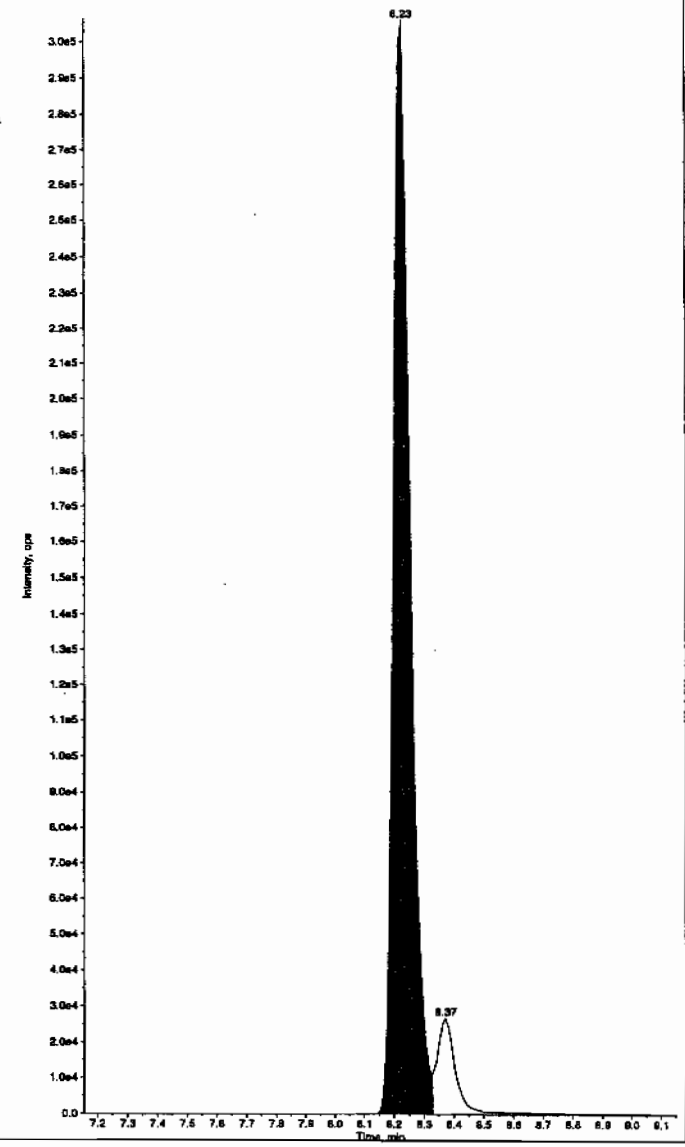

Hm 01/12/10

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ample Name: "WXX100111-20" Sample ID: "[1]LER" File: "EXS01100004.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.3/151.9 amu"
omment: "LCMSEXP_I" Annotation: ""

ple Index:	1	
ple Type:	Standard	
centration:	50.0	ng/mL
culated Conc:	46.9	ng/mL
. Date:	1/11/2010	
. Time:	12:04:10 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	1460.00	cps
. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	15.0	sec
ected RT:	8.39	min
Relative RT:	No	
. Type:	Valley	
ention Time:	8.36	min
a:	7.53e+005	counts
ght:	195310.379	cps
rt Time:	8.29	min
. Time:	8.71	min

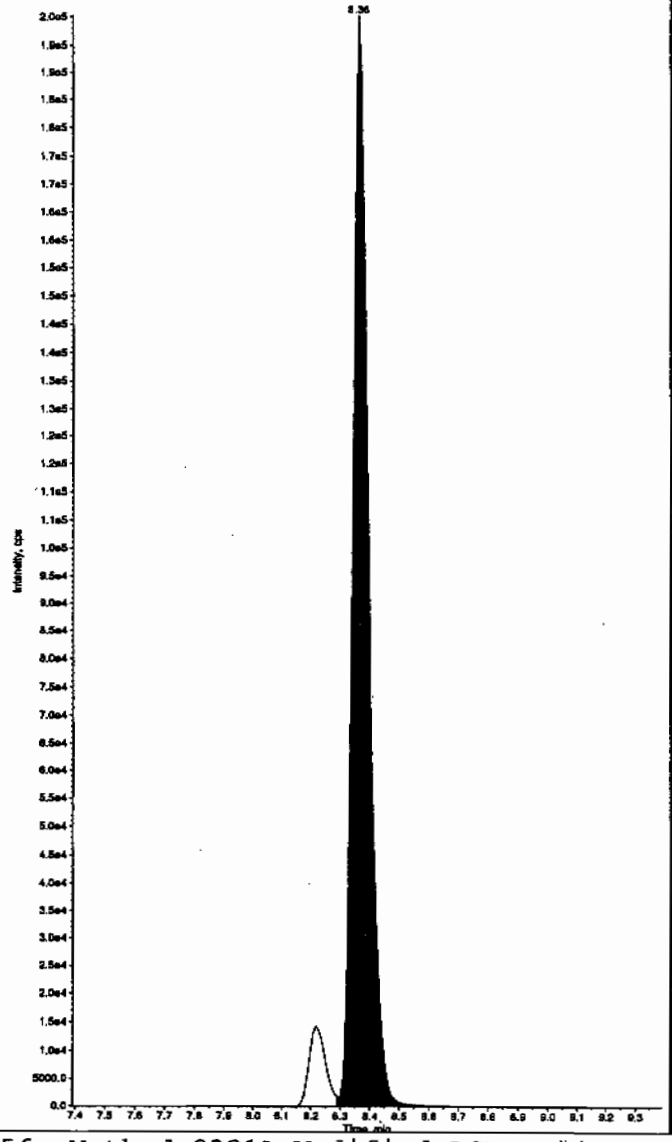

Sample Name: "WXX100111-20" Sample ID: "[1]LER" File: "EXS01100004.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	100.	ng/mL
Calculated Conc:	92.5	ng/mL
Acq. Date:	1/11/2010	
Acq. Time:	12:04:10 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	5.05	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	5.05	min
Area:	3.85e+005	counts
Height:	91882.378	cps
Start Time:	4.95	min
End Time:	5.33	min

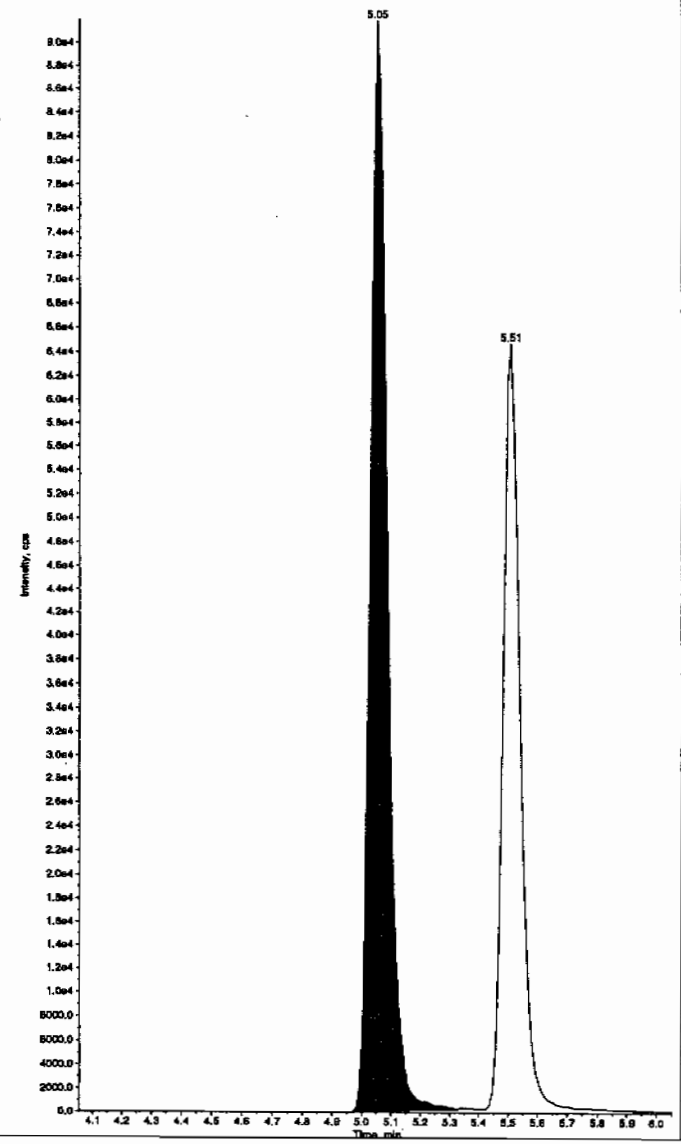

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100111-20" Sample ID: "[1]LER" File: "EXS01100004.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "156.0/46.0 amu"
omment: "LCMSEXP_I" Annotation: ""

ple Index: 1
ple Type: Standard
centration: 100. ng/mL
culated Conc: 91.8 ng/mL
. Date: 1/11/2010
. Time: 12:04:10 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 5.50 min
Relative RT: No

. Type: Valley
ention Time: 5.51 min
a: 2.70e+005 counts
ght: 64728.073 cps
rt Time: 5.42 min
Time: 6.09 min

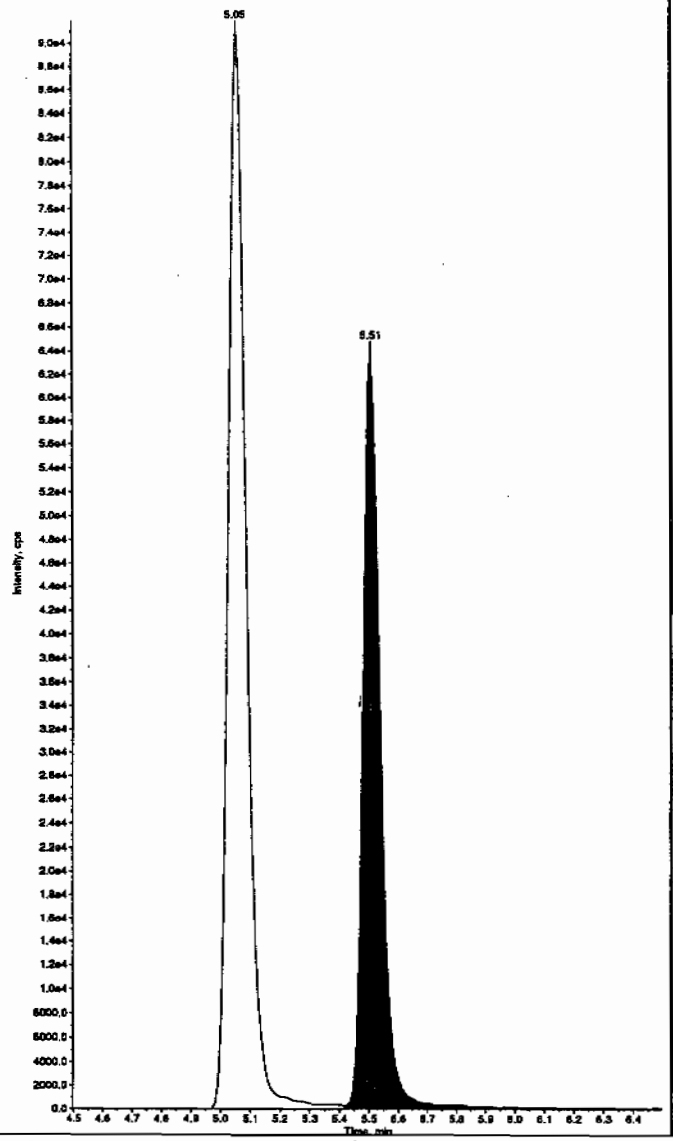

Sample Name: "WXX100111-20" Sample ID: "[1]LER" File: "EXS01100004.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 100. ng/mL
Calculated Conc: 101. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 12:04:10 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 2.82e+006 counts
Height: 724478.516 cps
Start Time: 10.6 min
End Time: 11.1 min

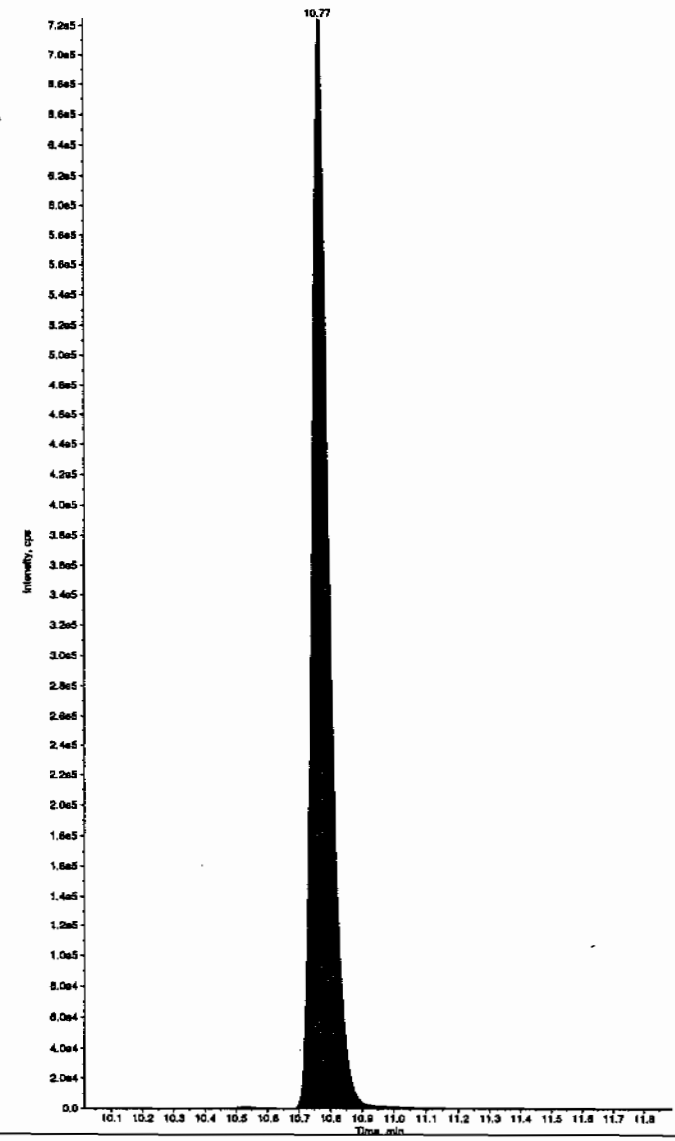

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

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mple Name: "WXX100111-21" Sample ID: "[1]LER" File: "EXS01100005.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_I" Annotation: ""
ple Index: 1
ple Type: Standard
centration: 250. ng/mL
culated Conc: 259. ng/mL
. Date: 1/11/2010
. Time: 12:19:52 PM

ified: No
:. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
cted RT: 7.01 min
Relative RT: No

Type: Valley
ntion Time: 7.01 min
: 4.08e+005 counts
ht: 93676.300 cps
t Time: 6.90 min
Time: 7.37 min

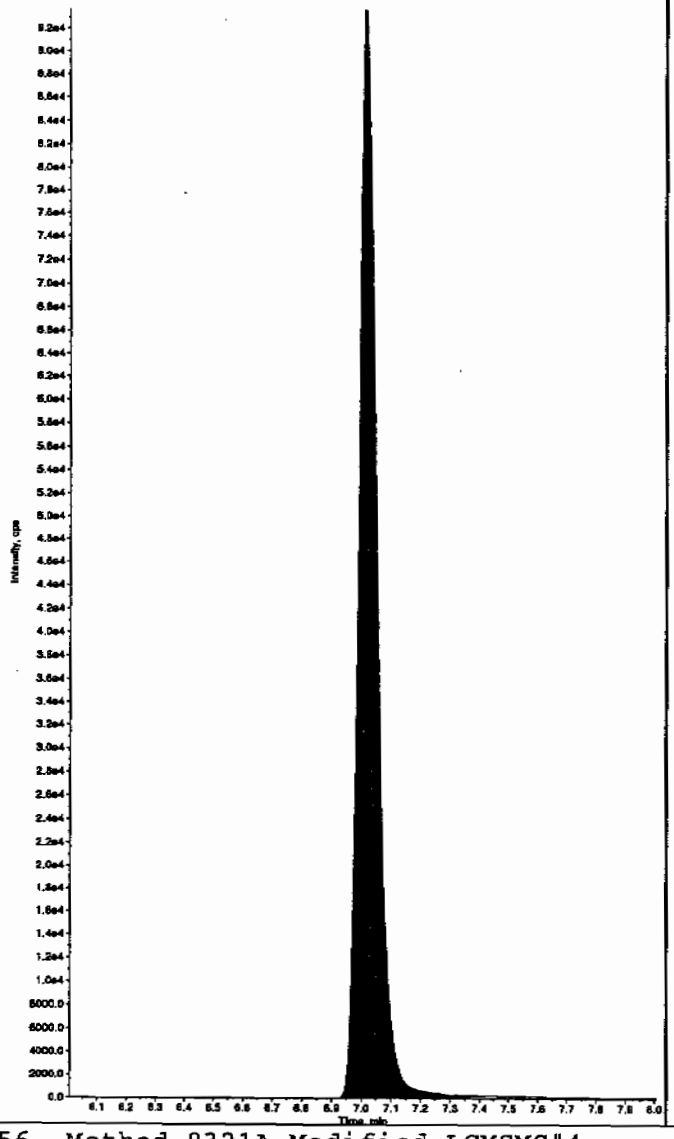

Sample Name: "WXX100111-21" Sample ID: "[1]LER" File: "EXS01100005.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 250. ng/mL
Calculated Conc: 264. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 12:19:52 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 2.82e+006 counts
Height: 706086.426 cps
Start Time: 8.11 min
End Time: 8.33 min

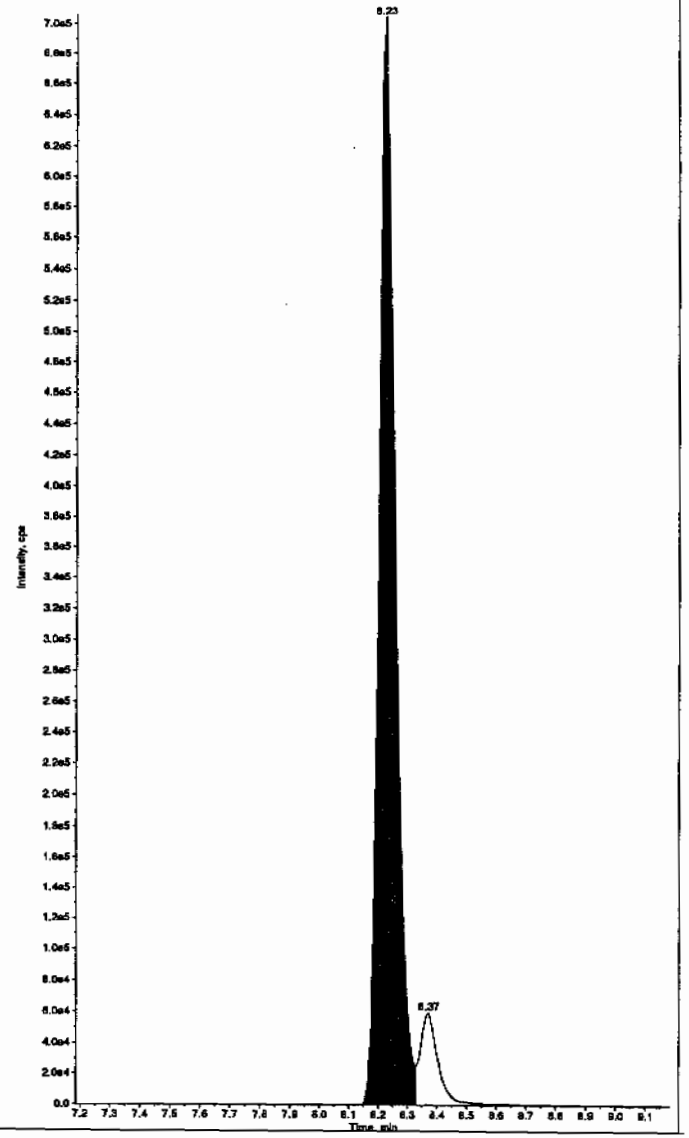

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:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100111-21" Sample ID: "[1]LER" File: "EXS01100005.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_I" Annotation: ""
ple Index: 1
ple Type: Standard
entration: 125. ng/mL
ulated Conc: 126. ng/mL
Date: 1/11/2010
Time: 12:19:52 PM

ified: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 15.0 sec
cted RT: 8.39 min
Relative RT: No

Type: Valley
ntion Time: 8.36 min
: 1.82e+006 counts
ht: 493968.506 cps
t Time: 8.30 min
Time: 8.70 min

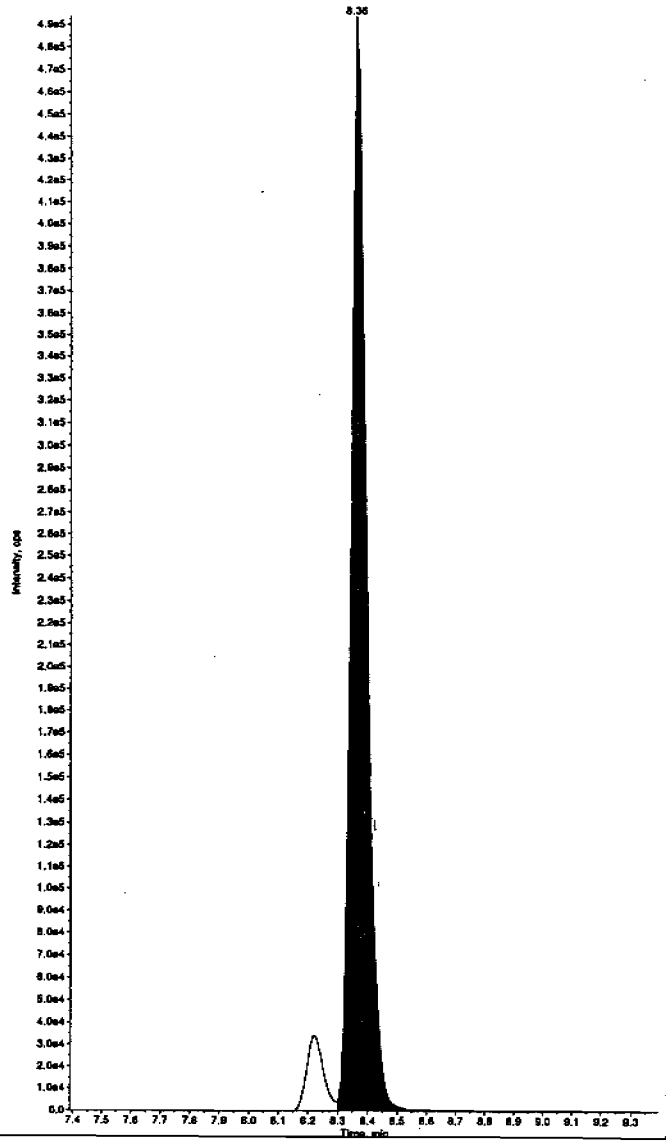

Sample Name: "WXX100111-21" Sample ID: "[1]LER" File: "EXS01100005.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "168.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 250. ng/mL
Calculated Conc: 269. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 12:19:52 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.05 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.05 min
Area: 9.35e+005 counts
Height: 216361.679 cps
Start Time: 4.95 min
End Time: 5.34 min

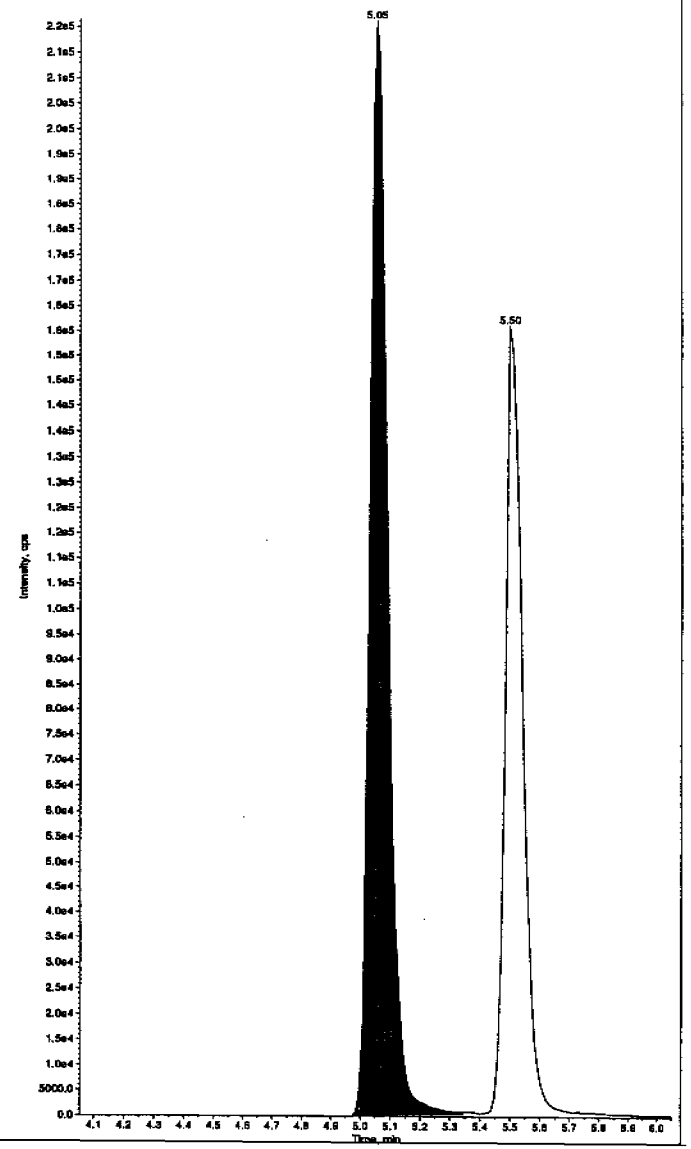

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100111-21" Sample ID: "[1]LER" File: "EXS01100005.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_I" Annotation: ""
ple Index: 1
ple Type: Standard
centration: 250. ng/mL
culated Conc: 264. ng/mL
Date: 1/11/2010
Time: 12:19:52 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 30.0 sec
cted RT: 5.50 min
Relative RT: No

Type: Valley
ntion Time: 5.50 min
: 6.47e+005 counts
ht: 156228.256 cps
t Time: 5.41 min
Time: 5.98 min

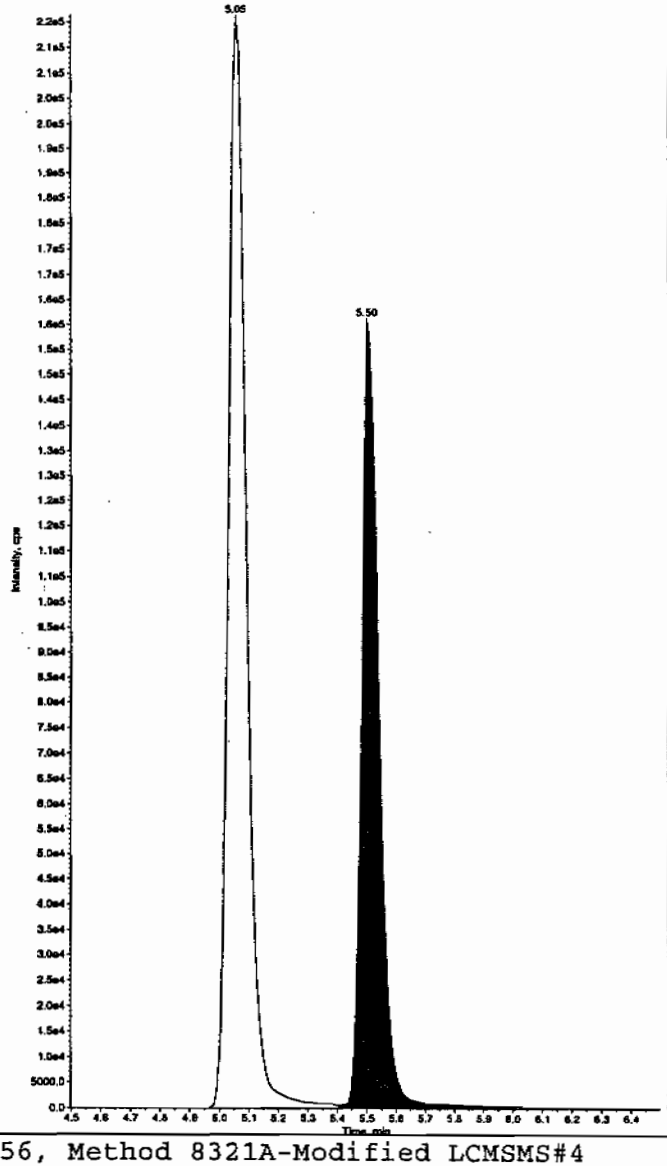

Sample Name: "WXX100111-21" Sample ID: "[1]LER" File: "EXS01100005.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 250. ng/mL
Calculated Conc: 249. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 12:19:52 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 6.43e+006 counts
Height: 1634490.723 cps
Start Time: 10.7 min
End Time: 11.1 min

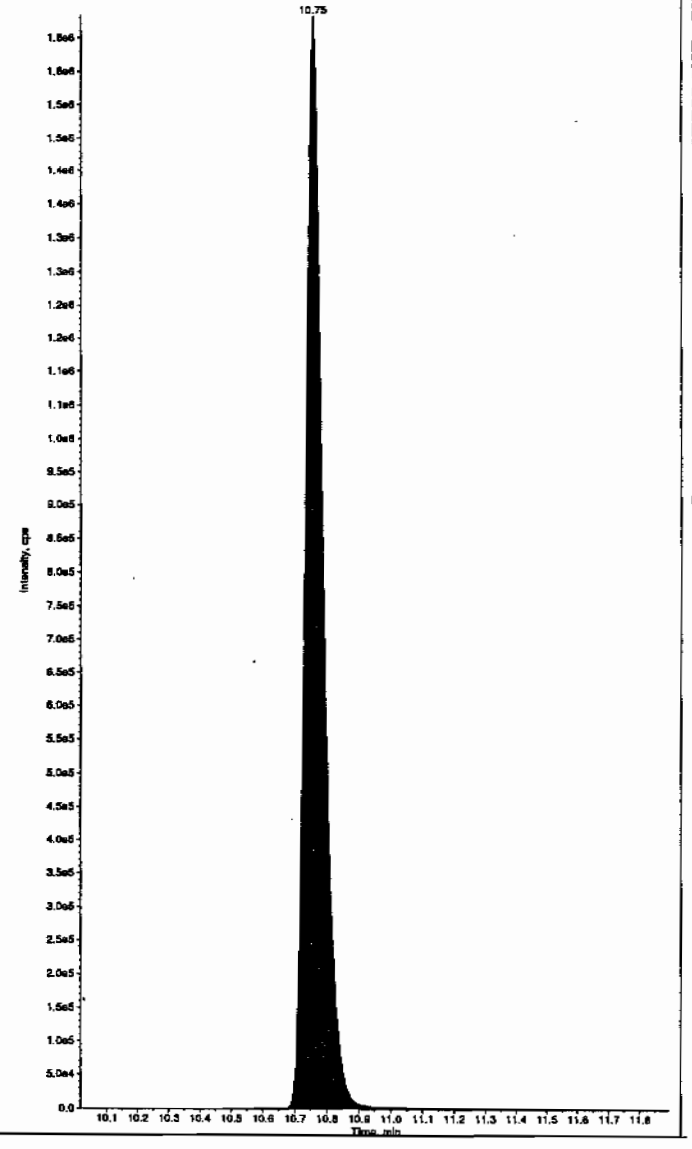

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Before Start 1/12/10

ample Name: "WXX100111-22" Sample ID: "|1|LER" File: "EXS01100006.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_|" Annotation: ""

ple Index: 1
ple Type: Standard
ncentration: 500. ng/mL
lculated Conc: 496. ng/mL
. Date: 1/11/2010
. Time: 12:35:34 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
ected RT: 7.01 min
Relative RT: No

. Type: Valley
ention Time: 7.23 min
a: 7.62e+005 counts
ght: 166900.772 cps
rt Time: 7.12 min
Time: 7.68 min

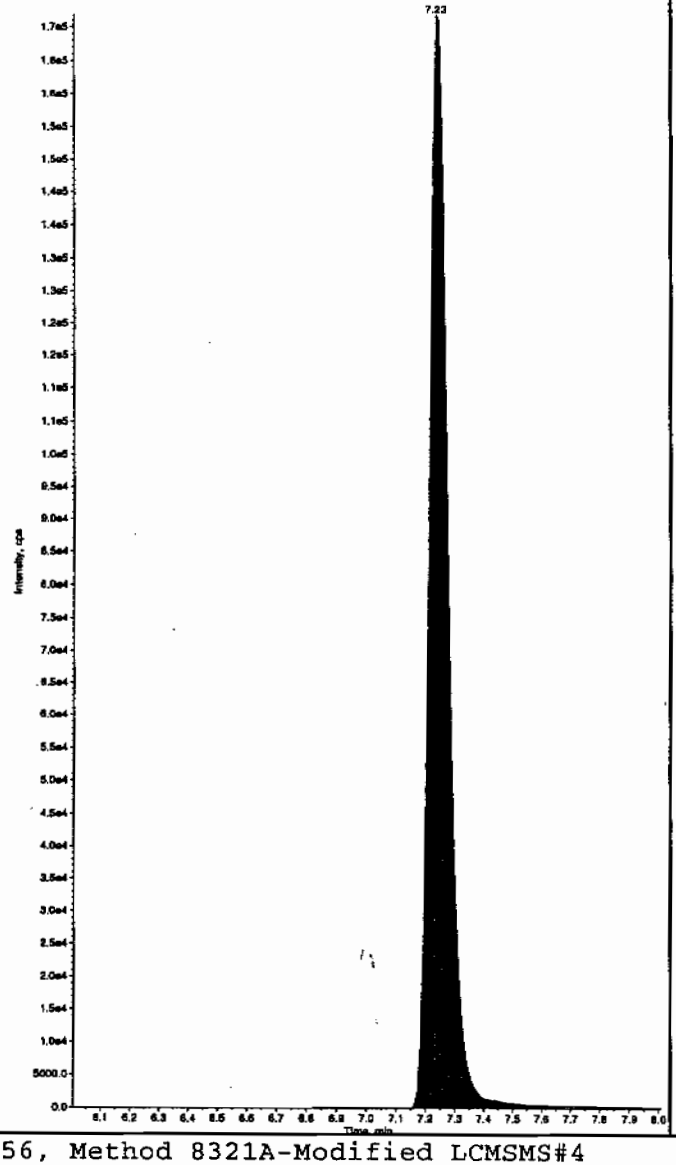

Sample Name: "WXX100111-22" Sample ID: "|1|LER" File: "EXS01100006.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_|" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 500. ng/mL
Calculated Conc: 514. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 12:35:34 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.31 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.34 min
Area: 5.66e+006 counts
Height: 1321798.950 cps
Start Time: 8.25 min
End Time: 8.92 min

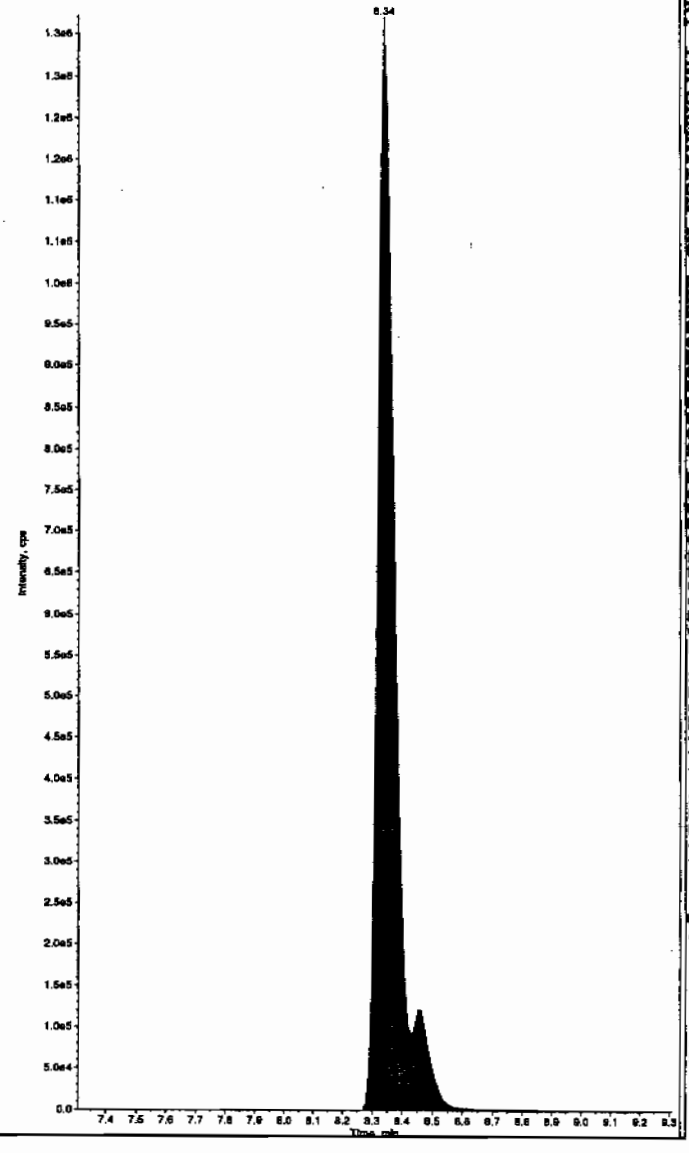

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after Lan 1/12/10

ample Name: "WXX100111-22" Sample ID: "|1|LER" File: "EXS01100006.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_I" Annotation: ""
ple Index: 1
ple Type: Standard
centration: 500. ng/mL
culated Conc: 496. ng/mL
. Date: 1/11/2010
. Time: 12:35:34 PM

ified: No
. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.01 min
Relative RT: No

. Type: Valley
ention Time: 7.23 min
: 7.62e+005 counts
ght: 166900.772 cps
t Time: 7.12 min
Time: 7.68 min

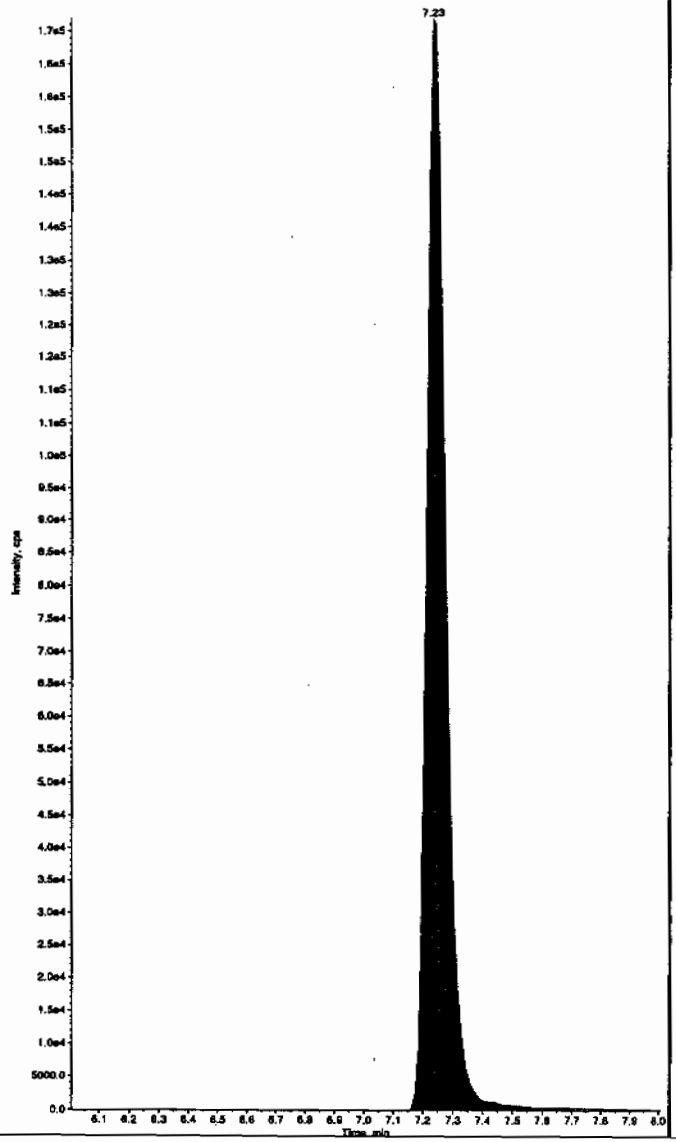

Sample Name: "WXX100111-22" Sample ID: "|1|LER" File: "EXS01100006.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 500. ng/mL
Calculated Conc: 514. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 12:35:34 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.31 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.34 min
Area: 5.12e+006 counts
Height: 1321398.884 cps
Start Time: 8.27 min
End Time: 8.43 min

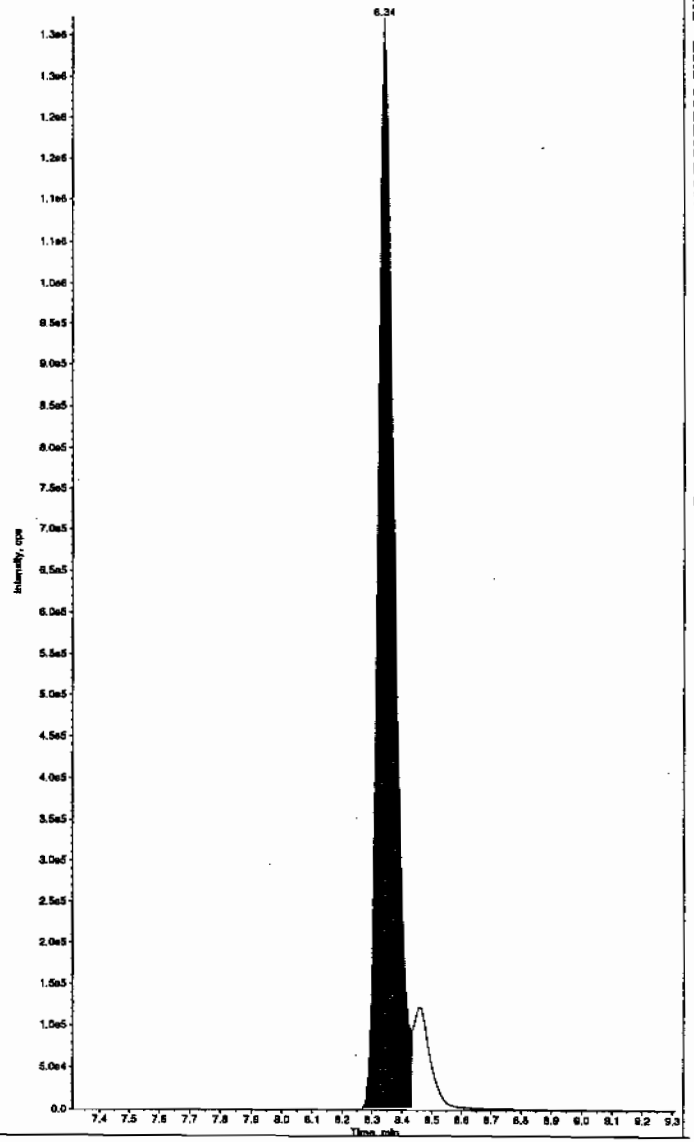

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100111-22" Sample ID: "|1|LER" File: "EXS01100006.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_I" Annotation: ""

ple Index: 1
ple Type: Standard
centration: 250. ng/mL
culated Conc: 248. ng/mL
. Date: 1/11/2010
. Time: 12:35:34 PM

ified: No
. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.39 min
Relative RT: No

. Type: Valley
ention Time: 8.45 min
: 3.42e+006 counts
ght: 903299.011 cps
t Time: 8.39 min
Time: 8.77 min

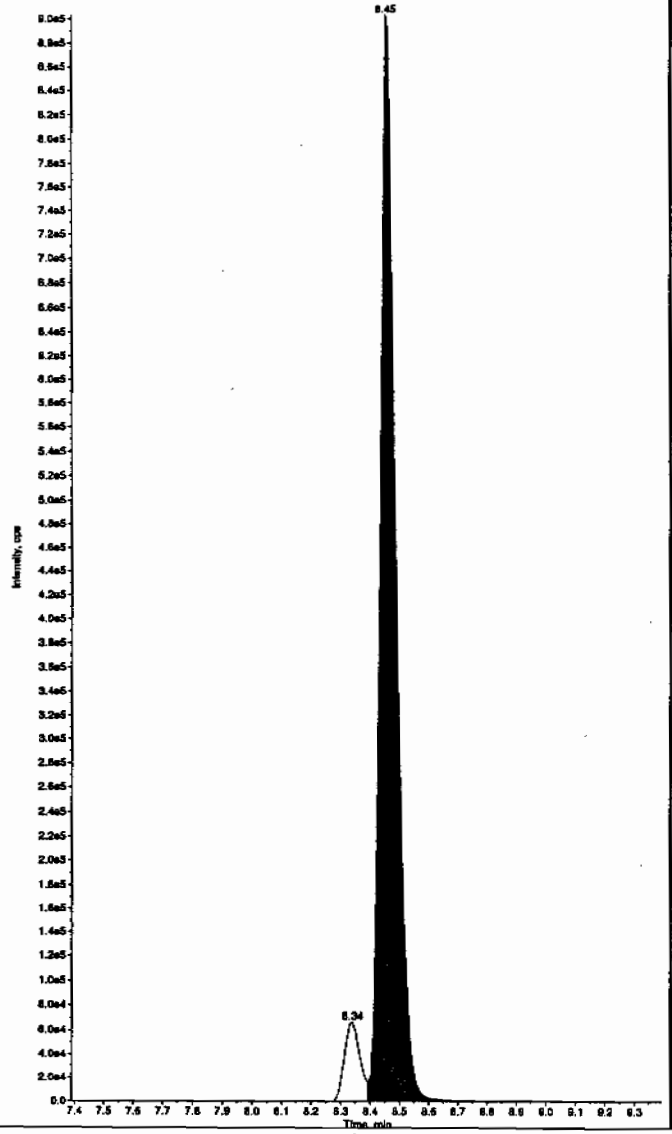

Sample Name: "WXX100111-22" Sample ID: "|1|LER" File: "EXS01100006.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 500. ng/mL
Calculated Conc: 529. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 12:35:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.05 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.26 min
Area: 1.72e+006 counts
Height: 376261.139 cps
Start Time: 5.17 min
End Time: 5.57 min

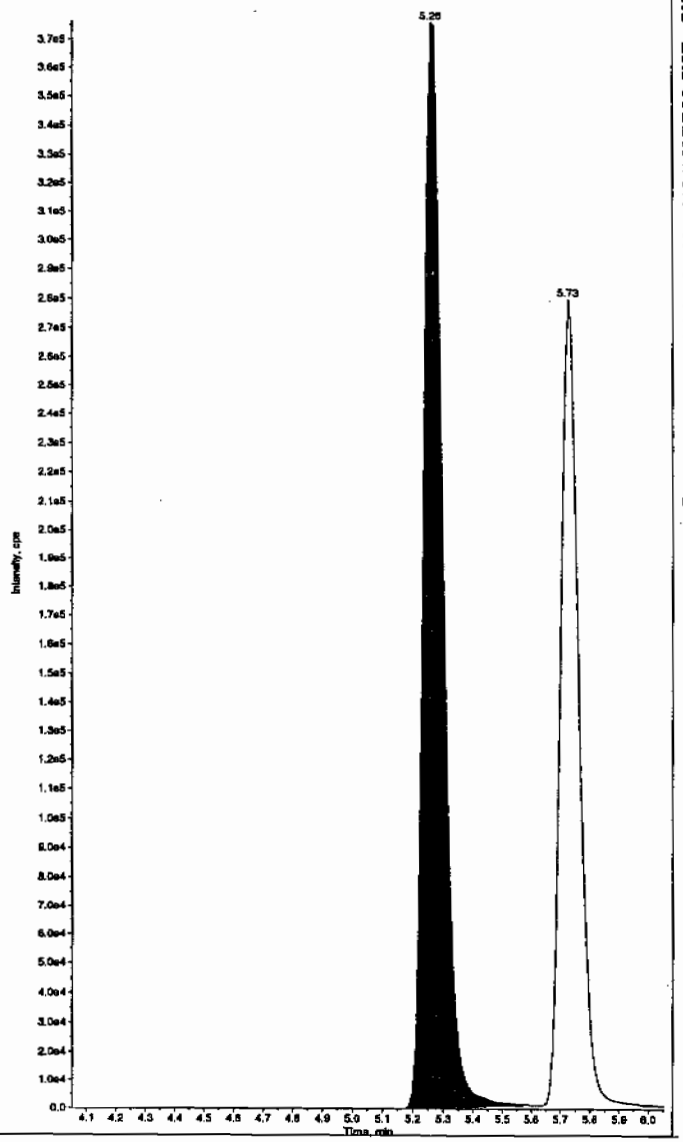

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100111-22" Sample ID: "[1]LER" File: "EXS01100006.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_I" Annotation: ""
ple Index: 1
ple Type: Standard
centration: 500. ng/mL
culated Conc: 537. ng/mL
. Date: 1/11/2010
. Time: 12:35:34 PM

ified: Yes
:. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 5.73 min
Relative RT: No

. Type: Valley
ention Time: 5.73 min
: 1.23e+006 counts
ght: 279861.847 cps
t Time: 5.62 min
Time: 6.19 min

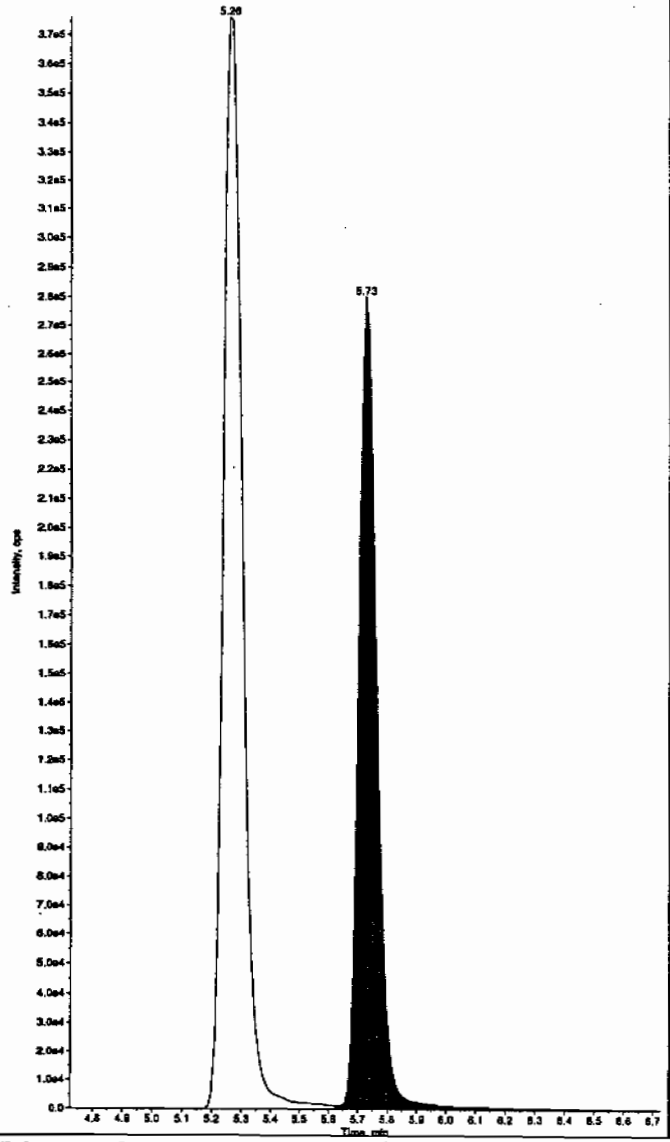

Sample Name: "WXX100111-22" Sample ID: "[1]LER" File: "EXS01100006.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 500. ng/mL
Calculated Conc: 491. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 12:35:34 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.18e+007 counts
Height: 2843925.049 cps
Start Time: 10.6 min
End Time: 11.3 min

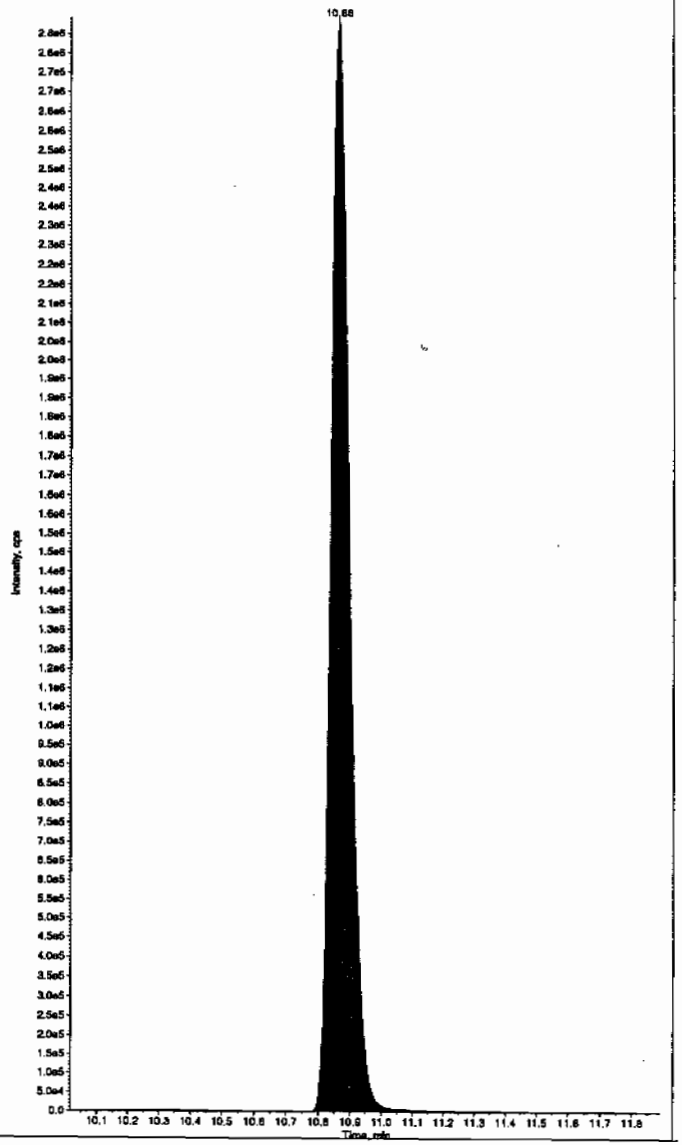

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Before Lab 1/12/10

ample Name: "WXX100111-23" Sample ID: "|1|LER" File: "EXS01100007.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_I" Annotation: ""
ple Index: 1
ple Type: Standard
icentration: 750. ng/mL
culated Conc: 757. ng/mL
:. Date: 1/11/2010
. Time: 12:51:16 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.01 min
Relative RT: No

. Type: Valley
ention Time: 7.04 min
a: 1.15e+006 counts
ght: 254423.264 cps
rt Time: 6.91 min
Time: 7.56 min

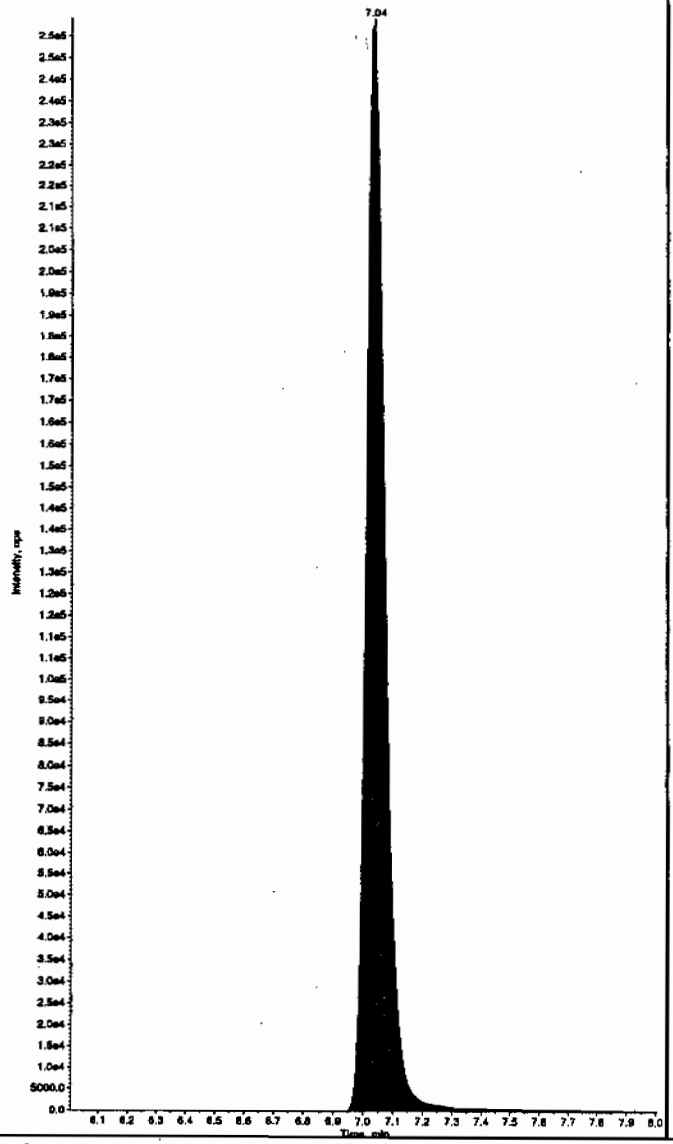

Sample Name: "WXX100111-23" Sample ID: "|1|LER" File: "EXS01100007.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 750. ng/mL
Calculated Conc: 722. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 12:51:16 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.15 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.22 min
Area: 6.66e+006 counts
Height: 1610960.571 cps
Start Time: 8.14 min
End Time: 8.32 min

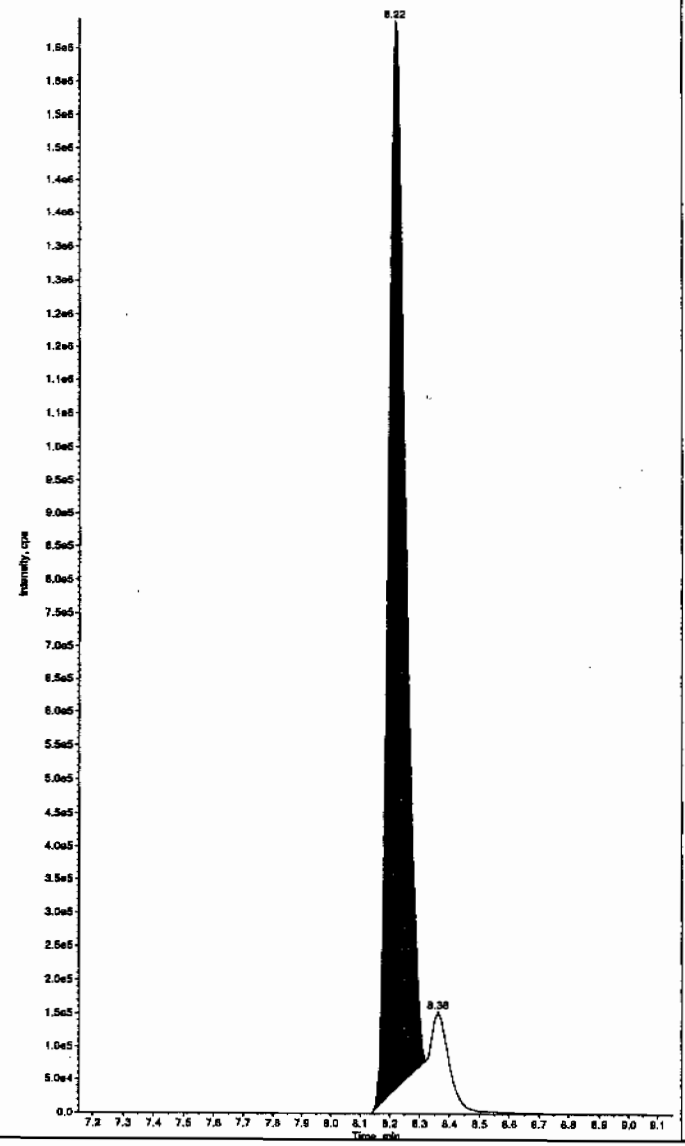

Hnm 01/12/10

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

after flar 1/12/10

ample Name: "WXX100111-23" Sample ID: "[1]LER" File: "EXS01100007.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_I" Annotation: ""
ple Index: 1
ple Type: Standard
centration: 750. ng/mL
culated Conc: 757. ng/mL
. Date: 1/11/2010
. Time: 12:51:16 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.01 min
Relative RT: No

. Type: Valley
ention Time: 7.04 min
a: 1.15e+006 counts
ght: 254423.264 cps
rt Time: 6.91 min
Time: 7.56 min

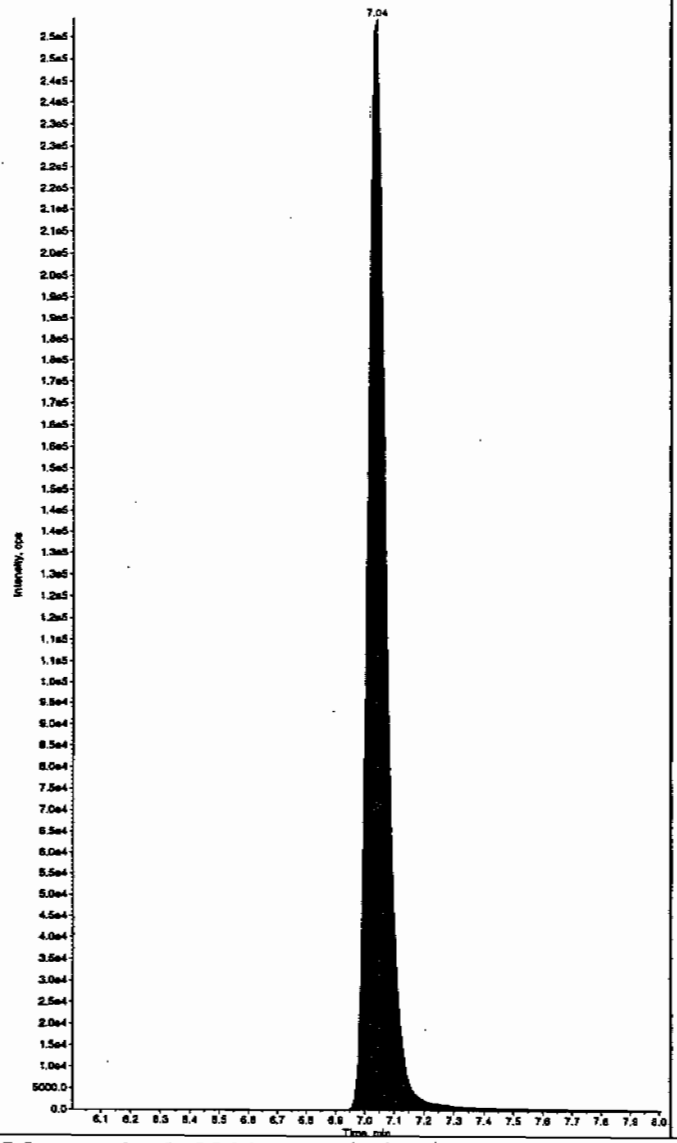

Sample Name: "WXX100111-23" Sample ID: "[1]LER" File: "EXS01100007.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 750. ng/mL
Calculated Conc: 738. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 12:51:16 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.15 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.22 min
Area: 7.05e+006 counts
Height: 1661154.151 cps
Start Time: 8.14 min
End Time: 8.32 min

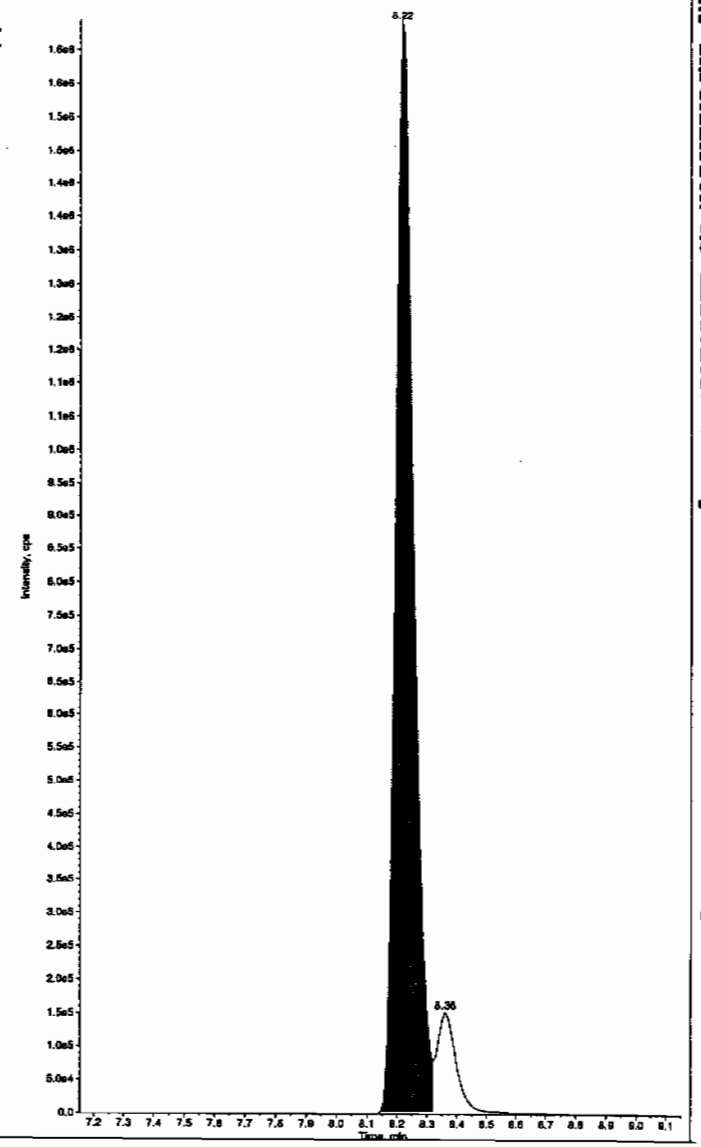

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100111-23" Sample ID: "[1]LER" File: "EXS01100007.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_I" Annotation: ""

ple Index: 1
ple Type: Standard
centration: 325. ng/mL
culated Conc: 364. ng/mL
. Date: 1/11/2010
. Time: 12:51:16 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.39 min
Relative RT: No

. Type: Valley
ention Time: 8.36 min
a: 4.86e+006 counts
ght: 1225188.232 cps
rt Time: 8.29 min
Time: 8.70 min

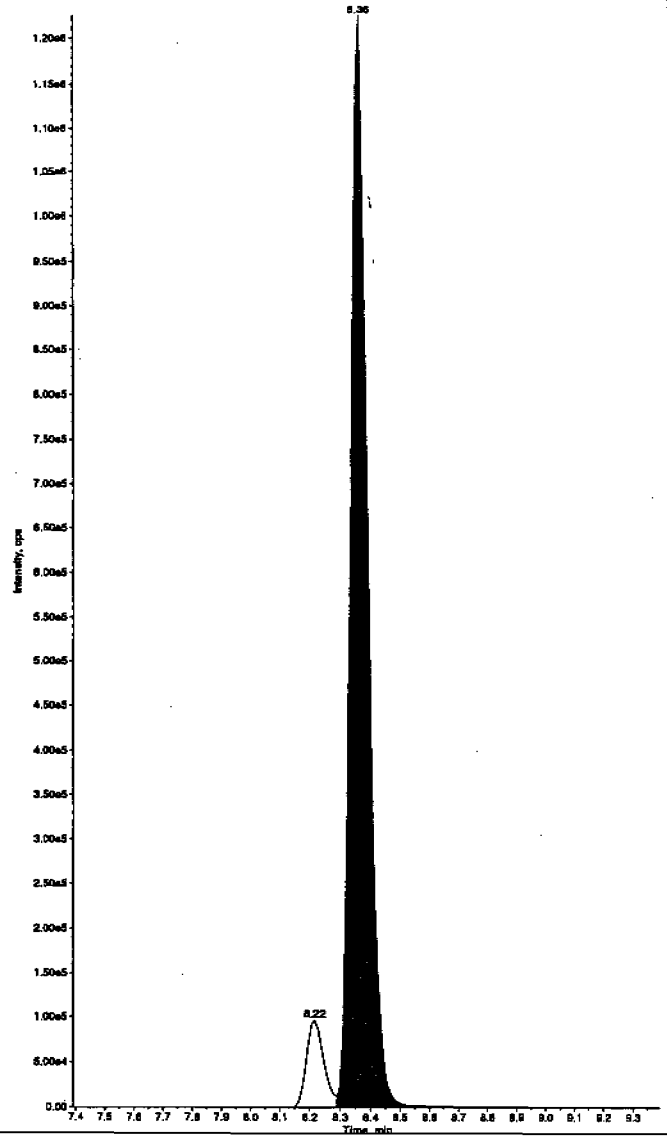

Sample Name: "WXX100111-23" Sample ID: "[1]LER" File: "EXS01100007.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 750. ng/mL
Calculated Conc: 774. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 12:51:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.05 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.19 min
Area: 2.42e+006 counts
Height: 570643.250 cps
Start Time: 5.09 min
End Time: 5.44 min

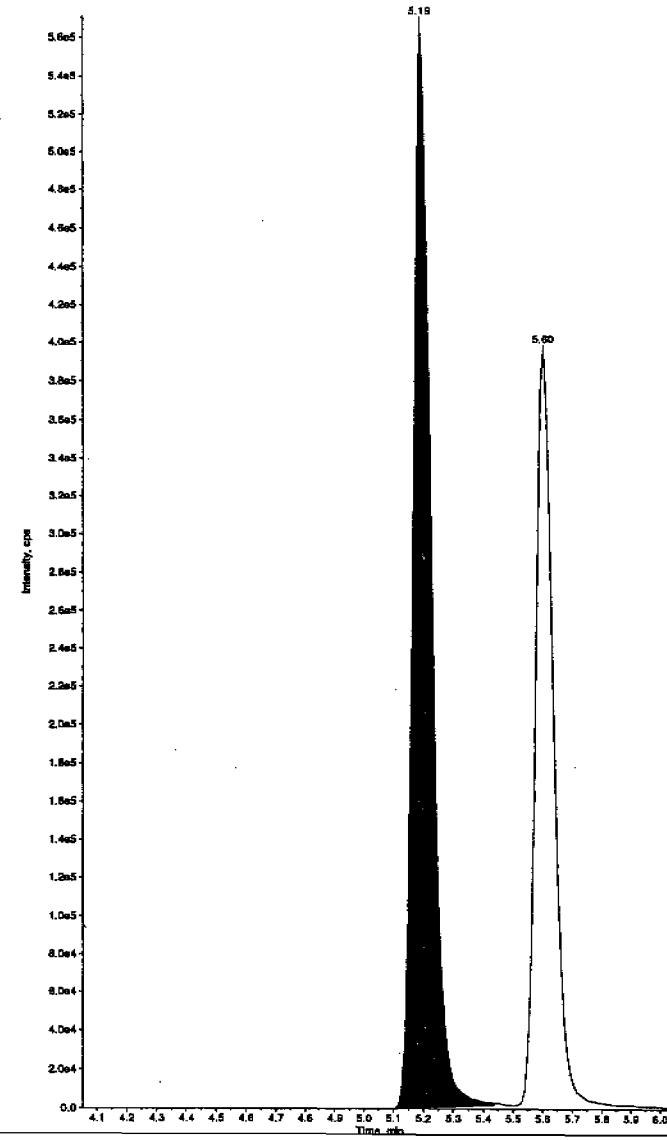

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100111-23" Sample ID: "|1|LER" File: "EXS01100007.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_I" Annotation: ""

```
ple Index:        1
ple Type:      Standard
centration:       750.     ng/mL
culated Conc:     765.     ng/mL
. Date:        1/11/2010
. Time:        12:51:16 PM

ified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00    cps
. Peak Width:    0.00    sec
othing Width:  3        points
Window:         30.0     sec
ected RT:        5.50    min
 Relative RT:    No

. Type:        Valley
ention Time:     5.60    min
a:          1.71e+006   counts
ght:        398806.519   cps
rt Time:         5.50    min
 Time:           6.17    min
```

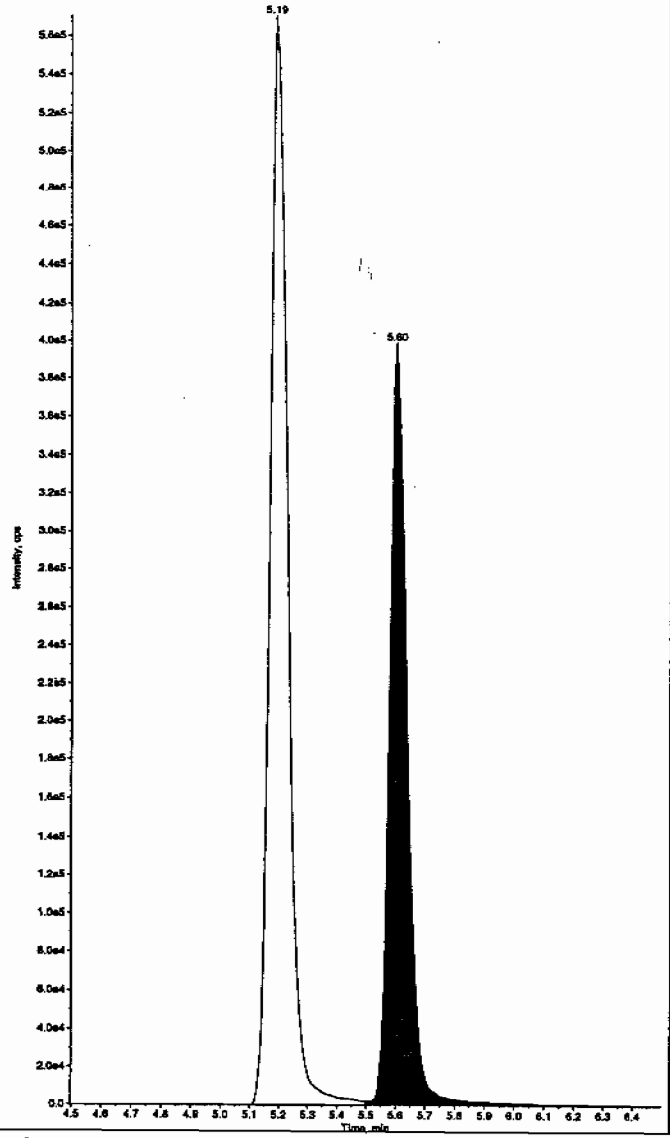

Sample Name: "WXX100111-23" Sample ID: "|1|LER" File: "EXS01100007.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:       750.     ng/mL
Calculated Conc:     777.     ng/mL
Acq. Date:        1/11/2010
Acq. Time:        12:51:16 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:          30.0     sec
Expected RT:        10.9     min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.8     min
Area:          1.74e+007   counts
Height:        4180046.875   cps
Start Time:         10.7     min
End Time:           11.2     min
```

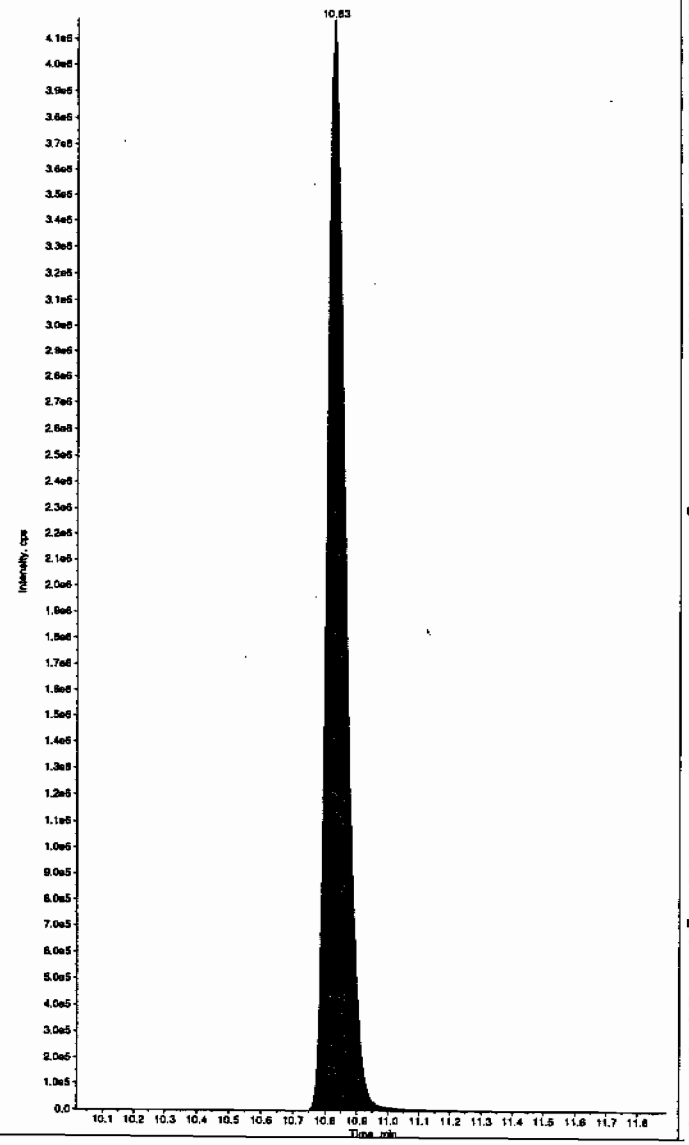

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Before Scan 1/12/10

mple Name: "WXX100111-24" Sample ID: "[1]LER" File: "EXS01100008.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_I" Annotation: ""

```
ple Index:        1
ple Type:       Standard
centration:       1000.     ng/mL
culated Conc:      993.     ng/mL
. Date:         1/11/2010
. Time:         1:06:58 PM

fied:             No
:. Algorithm: IntelliQuan - IQA
. Peak Height:2500.00    cps
. Peak Width:     0.00   sec
othing Width:  3         points
Window:          30.0    sec
cted RT:          7.01   min
Relative RT:      No

Type:           Valley
ntion Time:       7.01   min
:            1.50e+006   counts
ht:          326587.006  cps
t Time:           6.86   min
Time:             7.70   min
```

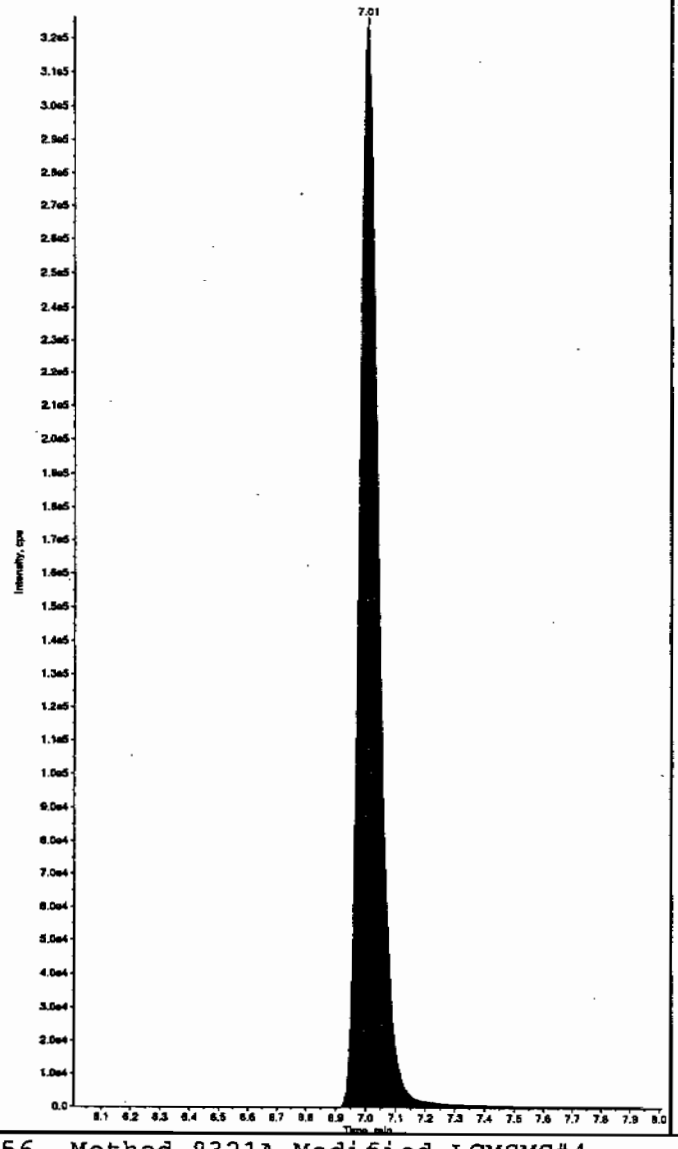

Sample Name: "WXX100111-24" Sample ID: "[1]LER" File: "EXS01100008.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:       Standard
Concentration:       1000.     ng/mL
Calculated Conc:      997.     ng/mL
Acq. Date:         1/11/2010
Acq. Time:         1:06:58 PM

Modified:            Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2000.00    cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3         points
RT Window:          15.0    sec
Expected RT:         8.17   min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      8.23   min
Area:          8.68e+006   counts
Height:        2125116.943 cps
Start Time:          8.15   min
End Time:            8.34   min
```

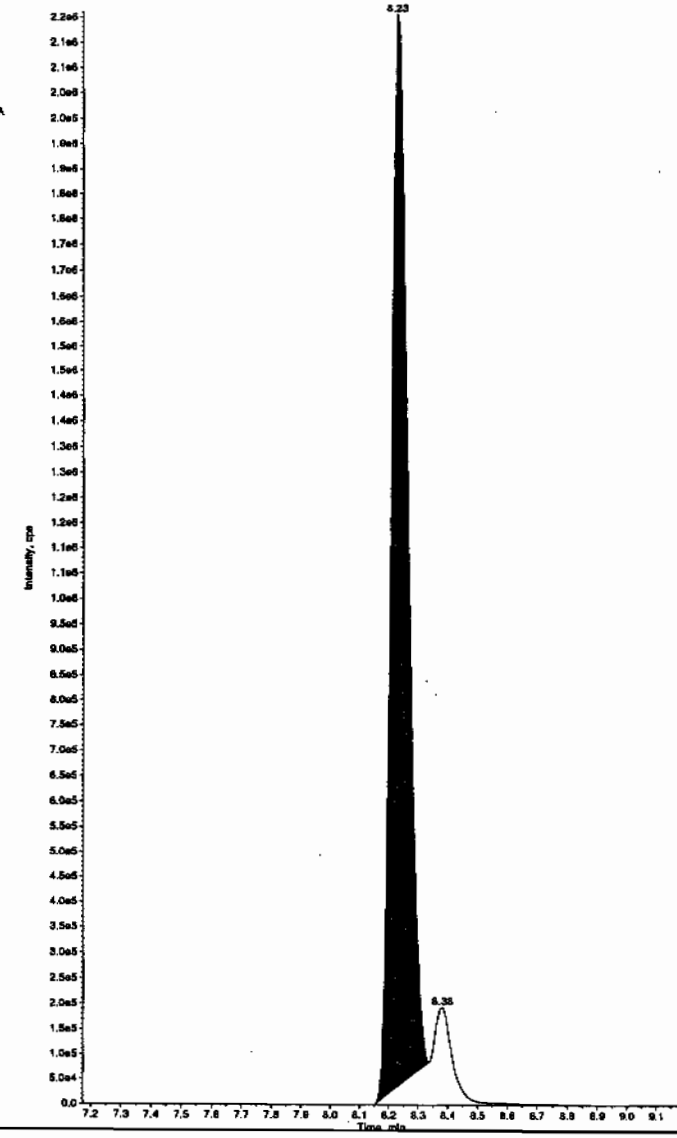

HMM 01/12/10

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

after Sam 11/2/10

ample Name: "WXX100111-24" Sample ID: "[1]LER" File: "EXS01100008.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_I" Annotation: ""

ple Index:	1	
ple Type:	Standard	
centration:	1000.	ng/mL
culated Conc:	993.	ng/mL
. Date:	1/11/2010	
. Time:	1:06:58 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	7.01	min
Relative RT:	No	
. Type:	Valley	
ention Time:	7.01	min
a:	1.50e+006	counts
ght:	326587.006	cps
rt Time:	6.86	min
Time:	7.70	min

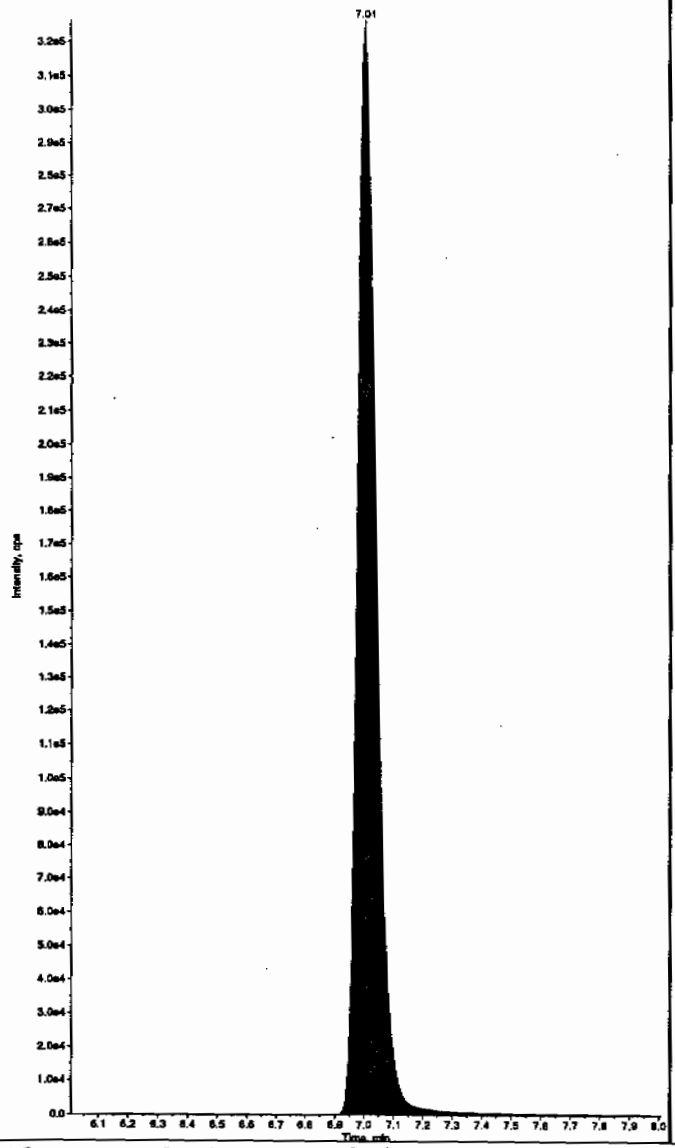

Sample Name: "WXX100111-24" Sample ID: "[1]LER" File: "EXS01100008.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	1000.	ng/mL
Calculated Conc:	994.	ng/mL
Acq. Date:	1/11/2010	
Acq. Time:	1:06:58 PM	
Modified:	Yes	
RT Window:	15.0	sec
Expected RT:	8.17	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	8.23	min
Area:	9.12e+006	counts
Height:	2182060.332	cps
Start Time:	8.15	min
End Time:	8.34	min

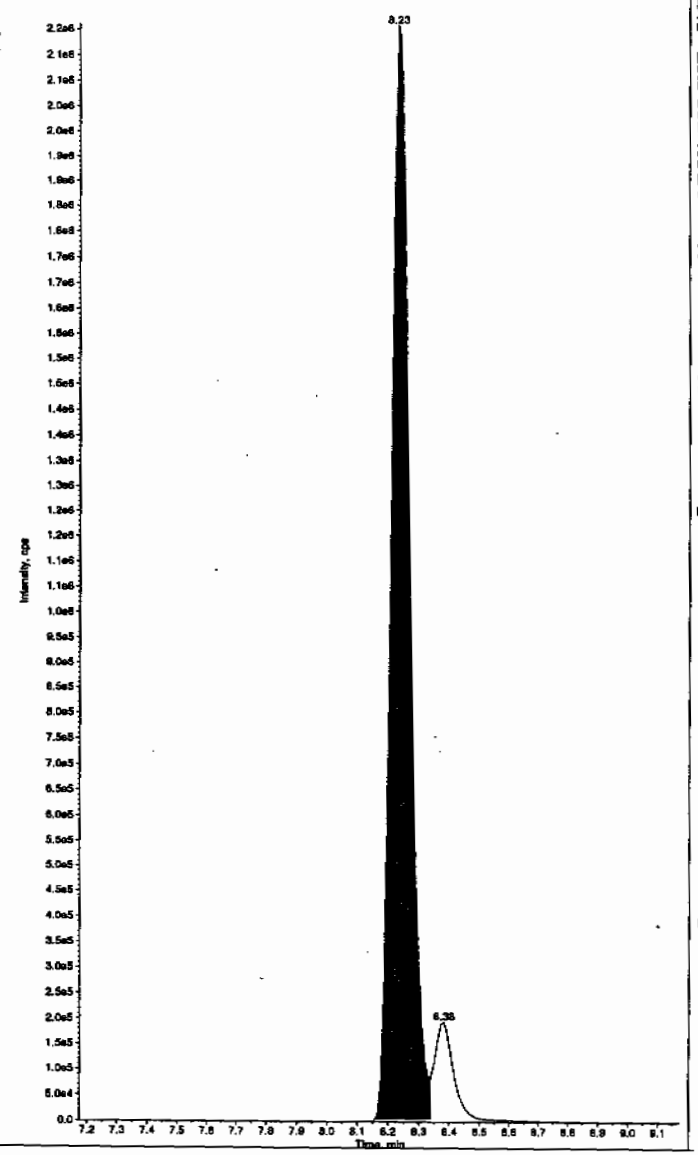

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

vmple Name: "WXX100111-24" Sample ID: "[1]LER" File: "EXS01100008.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_I" Annotation: ""

ple Index:	1	
ple Type:	Standard	
centration:	500.	ng/mL
culated Conc:	466.	ng/mL
. Date:	1/11/2010	
. Time:	1:06:58 PM	
lified:	No	
. Algorithm:	IntelliQuan - IQA	
. Peak Height:	1460.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	15.0	sec
ected RT:	8.39	min
Relative RT:	No	
. Type:	Valley	
ention Time:	8.37	min
a:	6.09e+006	counts
ght:	1483068.726	cps
rt Time:	8.30	min
Time:	8.70	min

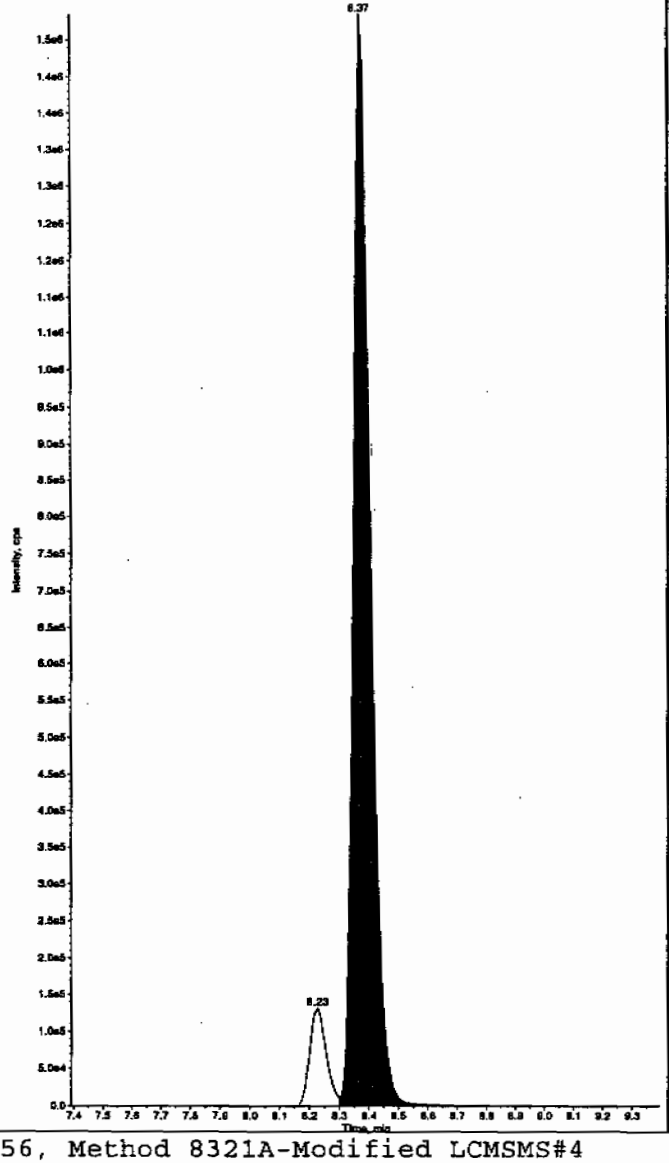

Sample Name: "WXX100111-24" Sample ID: "[1]LER" File: "EXS01100008.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	1000.	ng/mL
Calculated Conc:	948.	ng/mL
Acq. Date:	1/11/2010	
Acq. Time:	1:06:58 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	5.05	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	5.07	min
Area:	2.91e+006	counts
Height:	687203.735	cps
Start Time:	4.97	min
End Time:	5.36	min

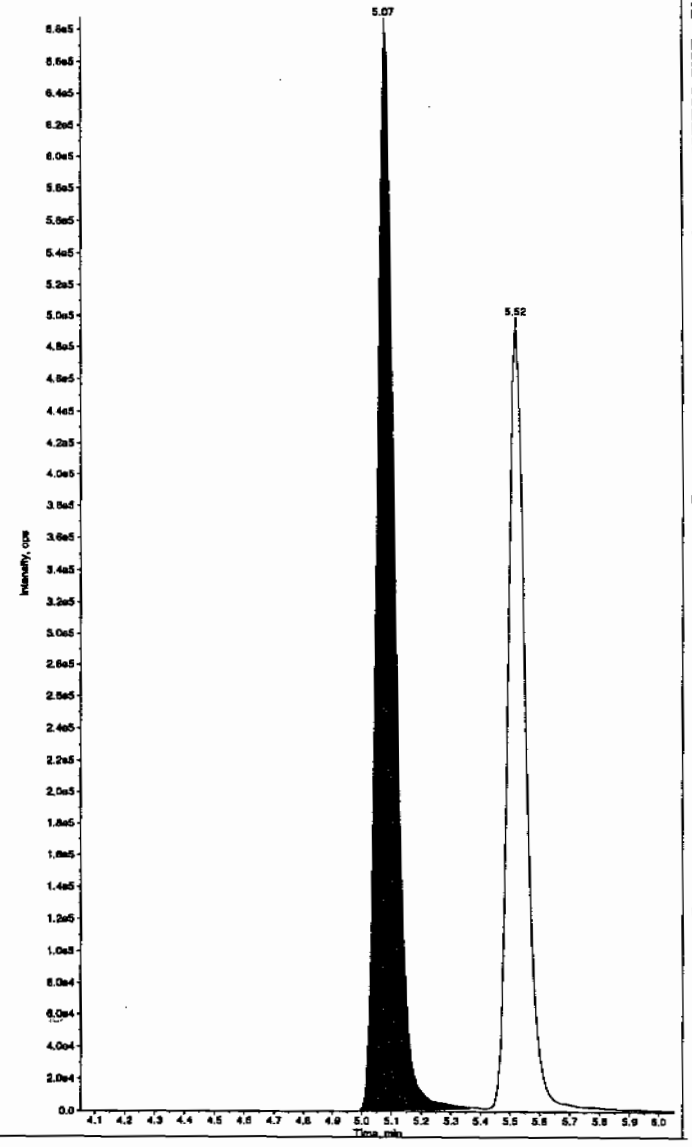

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100111-24" Sample ID: "[1]LER" File: "EXS01100008.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_I" Annotation: ""
le Index: 1
le Type: Standard
entration: 1000. ng/mL
ulated Conc: 954. ng/mL
Date: 1/11/2010
Time: 1:06:58 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 30.0 sec
cted RT: 5.50 min
Relative RT: No

Type: Valley
ntion Time: 5.52 min
: 2.10e+006 counts
ht: 499353.241 cps
t Time: 5.42 min
Time: 5.21 min

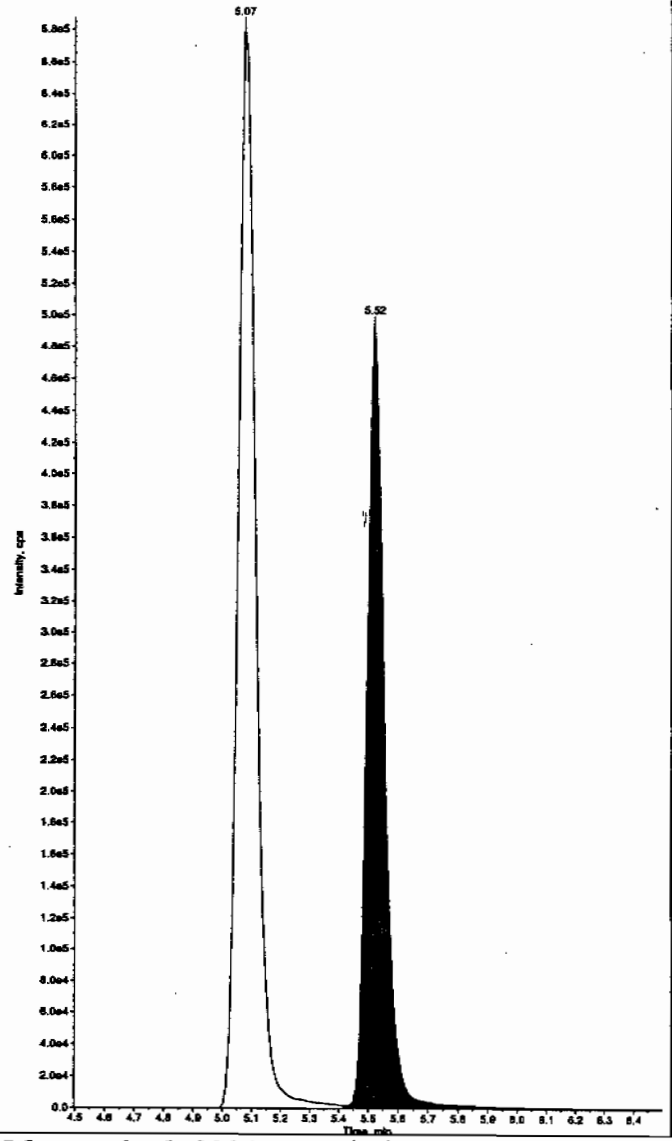

Sample Name: "WXX100111-24" Sample ID: "[1]LER" File: "EXS01100008.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 1000. ng/mL
Calculated Conc: 979. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 1:06:58 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.7 min
Area: 2.08e+007 counts
Height: 5104202.148 cps
Start Time: 10.6 min
End Time: 11.2 min

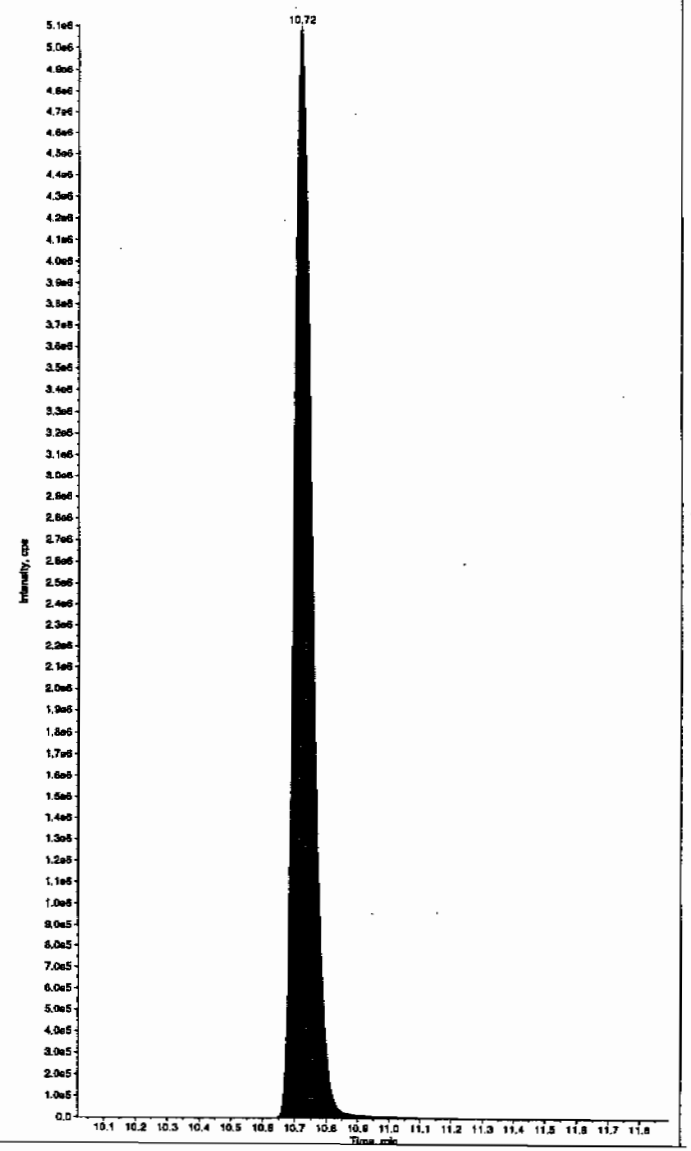

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Before flat 1/12/10

mple Name: "WXX100111-25" Sample ID: "|1|LER" File: "EXS01100009.wiff"
ak Name: "TATB" Mass(as): "257.2/204.9 amu"
mment: "LCMSEXP_I" Annotation: ""

```
le Index:        1
le Type:      Standard
entration:      2000.     ng/mL
culated Conc:   2000.     ng/mL
  Date:        1/11/2010
  Time:        1:22:39 PM

fied:            No
. Algorithm: IntelliQuan - IQA
  Peak Height:2500.00    cps
  Peak Width:    0.00    sec
thing Width:  3        points
indow:          30.0    sec
cted RT:         7.01   min
Relative RT:     No

  Type:        Valley
ntion Time:      7.00   min
:          2.97e+006   counts
ht:          654522.095  cps
t Time:          6.82   min
Time:            7.52   min
```

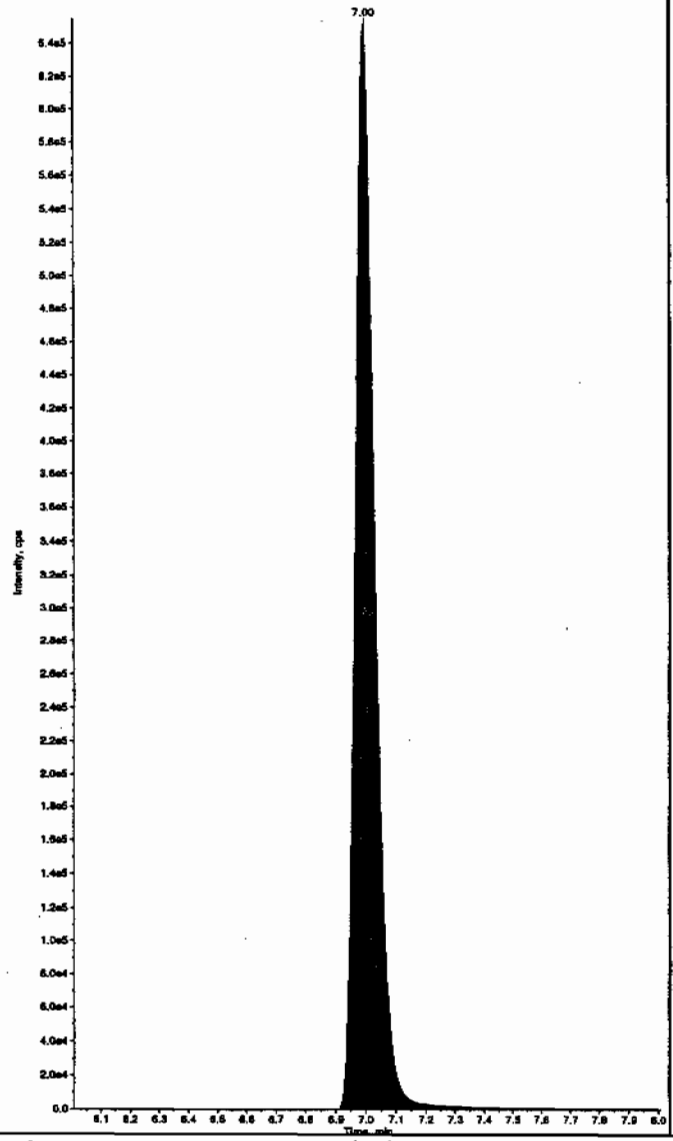

Sample Name: "WXX100111-25" Sample ID: "|1|LER" File: "EXS01100009.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:      2000.     ng/mL
Calculated Conc:    2010.     ng/mL
Acq. Date:        1/11/2010
Acq. Time:        1:22:39 PM

Modified:            Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:          15.0    sec
Expected RT:         8.17   min
Use Relative RT:     No

Int. Type:        Valley
Retention Time:      8.22   min
Area:          1.50e+007   counts
Height:        3510480.957  cps
Start Time:          8.14   min
End Time:            8.32   min
```

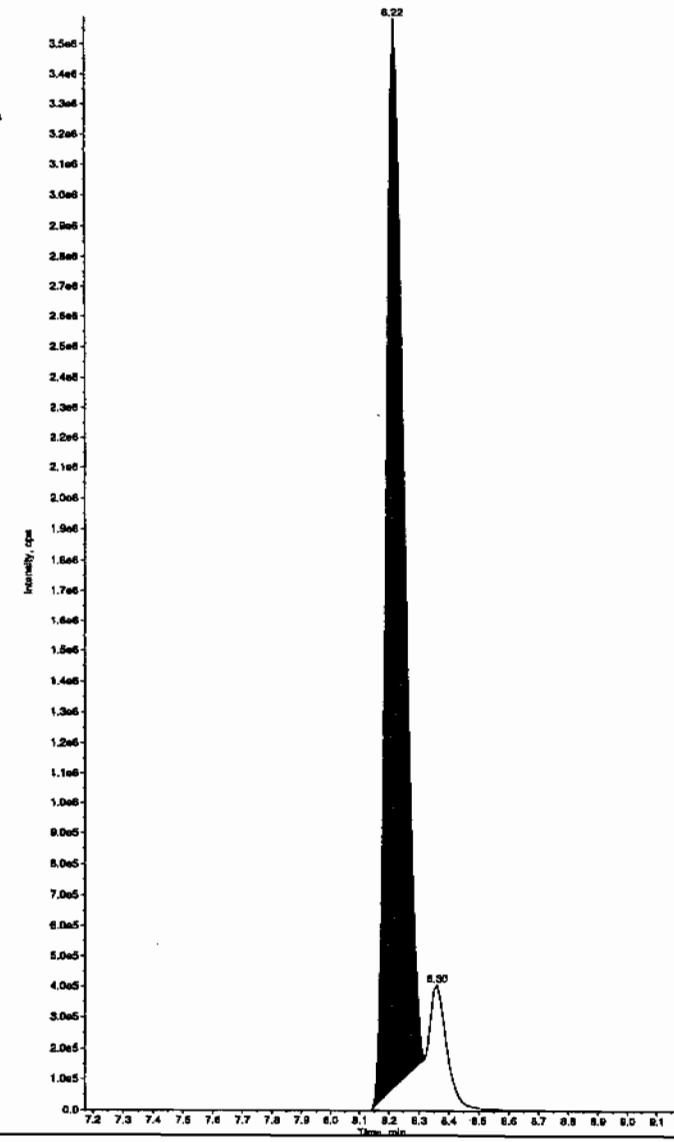

Hrm 01/12/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

after Bar 1/12/10

nple Name: "WXX100111-25" Sample ID: "[1]LER" File: "EXS01100009.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_I" Annotation: ""
le Index: 1
le Type: Standard
entration: 2000. ng/mL
ulated Conc: 2000. ng/mL
Date: 1/11/2010
Time: 1:22:39 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.01 min
Relative RT: No

Type: Valley
ation Time: 7.00 min
: 2.97e+006 counts
t: 654522.095 cps
: Time: 6.82 min
Time: 7.52 min

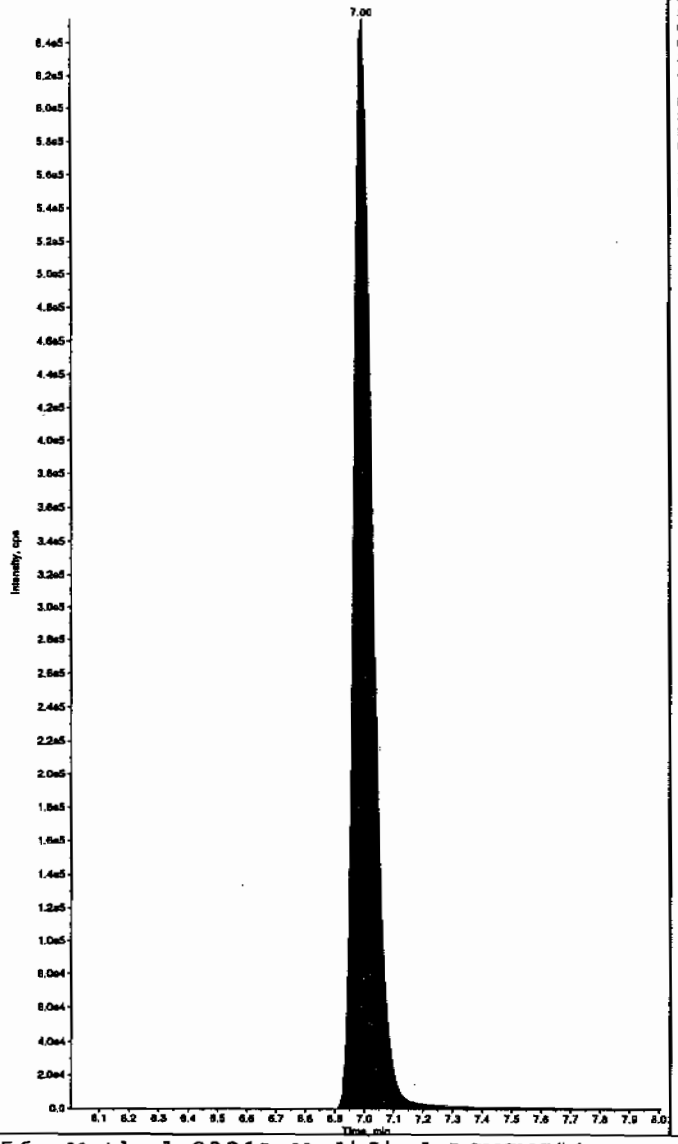

Sample Name: "WXX100111-25" Sample ID: "[1]LER" File: "EXS01100009.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 2000. ng/mL
Calculated Conc: 2000. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 1:22:39 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.22 min
Area: 1.59e+007 counts
Height: 3580504.274 cps
Start Time: 8.14 min
End Time: 8.32 min

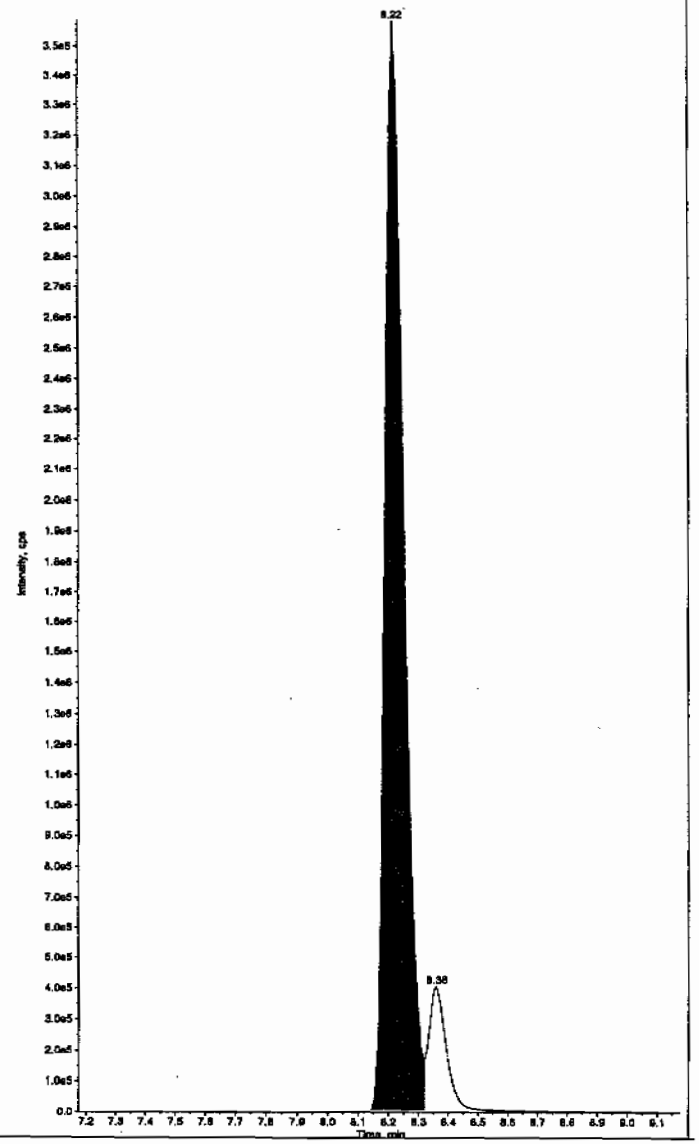

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100111-25" Sample ID: "[1]LER" File: "EXS01100009.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_I" Annotation: ""
ple Index: 1
ple Type: Standard
centration: 1000. ng/mL
culated Conc: 1010. ng/mL
Date: 1/11/2010
Time: 1:22:39 PM

dified: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 15.0 sec
cted RT: 8.39 min
Relative RT: No

Type: Valley
ntion Time: 8.35 min
: 1.17e+007 counts
ht: 2879606.689 cps
t Time: 8.29 min
Time: 8.70 min

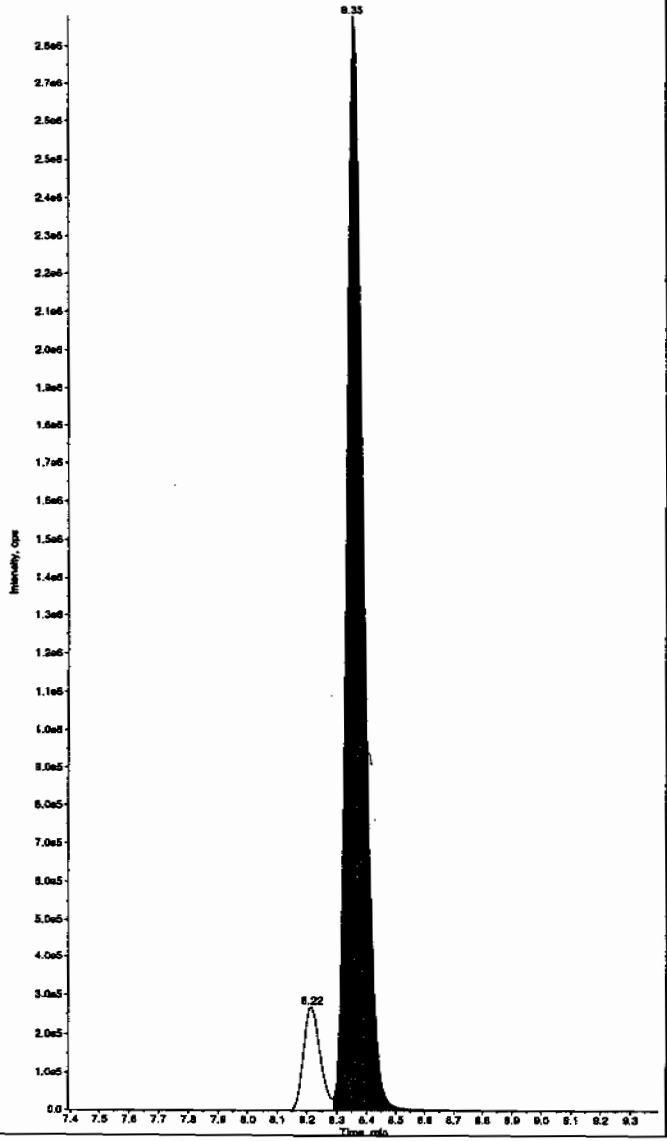

Sample Name: "WXX100111-25" Sample ID: "[1]LER" File: "EXS01100009.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 2000. ng/mL
Calculated Conc: 2010. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 1:22:39 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.05 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.04 min
Area: 5.53e+006 counts
Height: 1234604.126 cps
Start Time: 4.95 min
End Time: 5.34 min

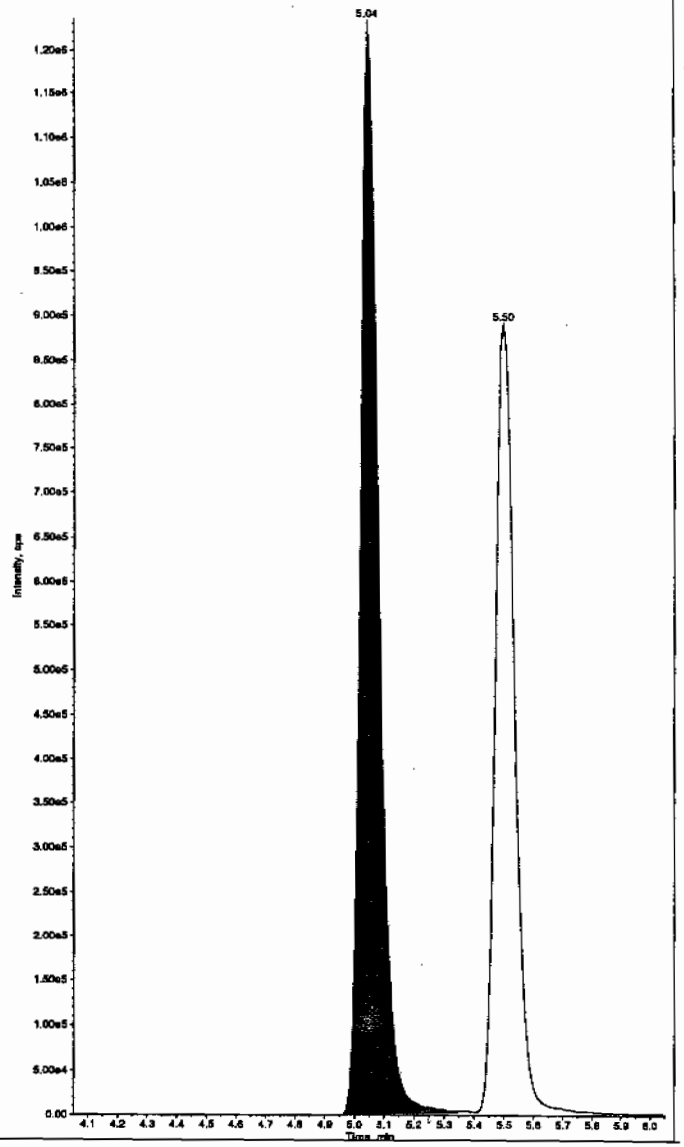

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100111-25" Sample ID: "[1]LER" File: "EXS01100009.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_I" Annotation: ""
ple Index: 1
ple Type: Standard
entration: 2000. ng/mL
culated Conc: 2010. ng/mL
Date: 1/11/2010
Time: 1:22:39 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.50 min
Relative RT: No

Type: Valley
ntion Time: 5.50 min
: 4.13e+006 counts
ht: 892559.082 cps
t Time: 5.41 min
Time: 6.09 min

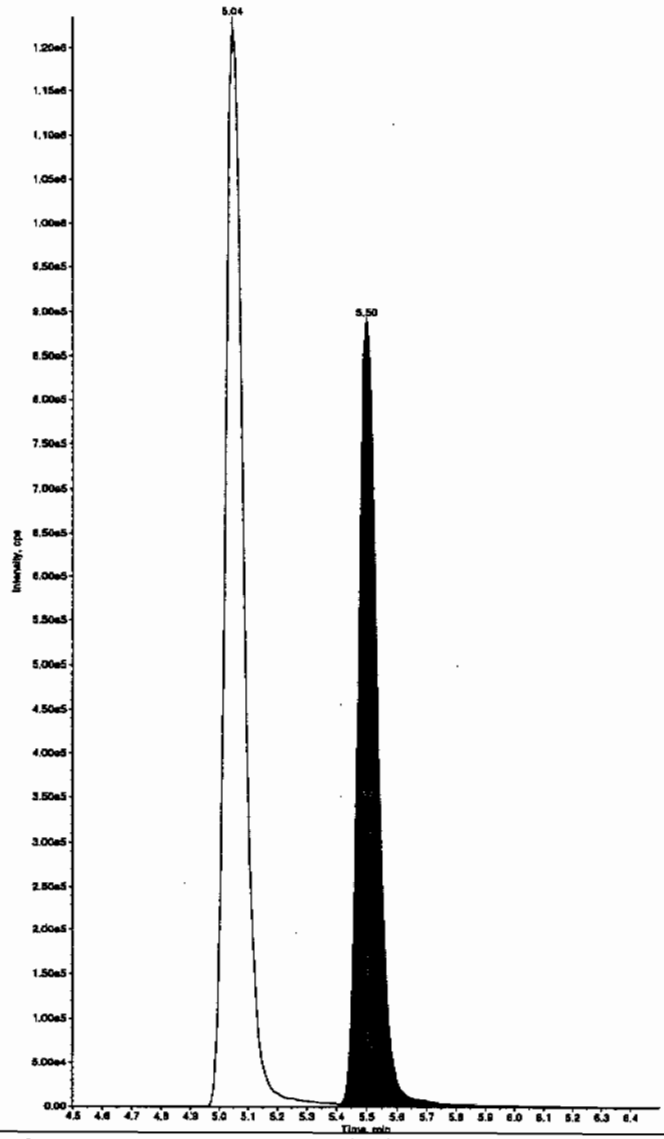

Sample Name: "WXX100111-25" Sample ID: "[1]LER" File: "EXS01100009.wiff"
Peak Name: "tris(o-cresyl).phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 2000. ng/mL
Calculated Conc: 2000. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 1:22:39 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 3.11e+007 counts
Height: 5926554.688 cps
Start Time: 10.7 min
End Time: 11.1 min

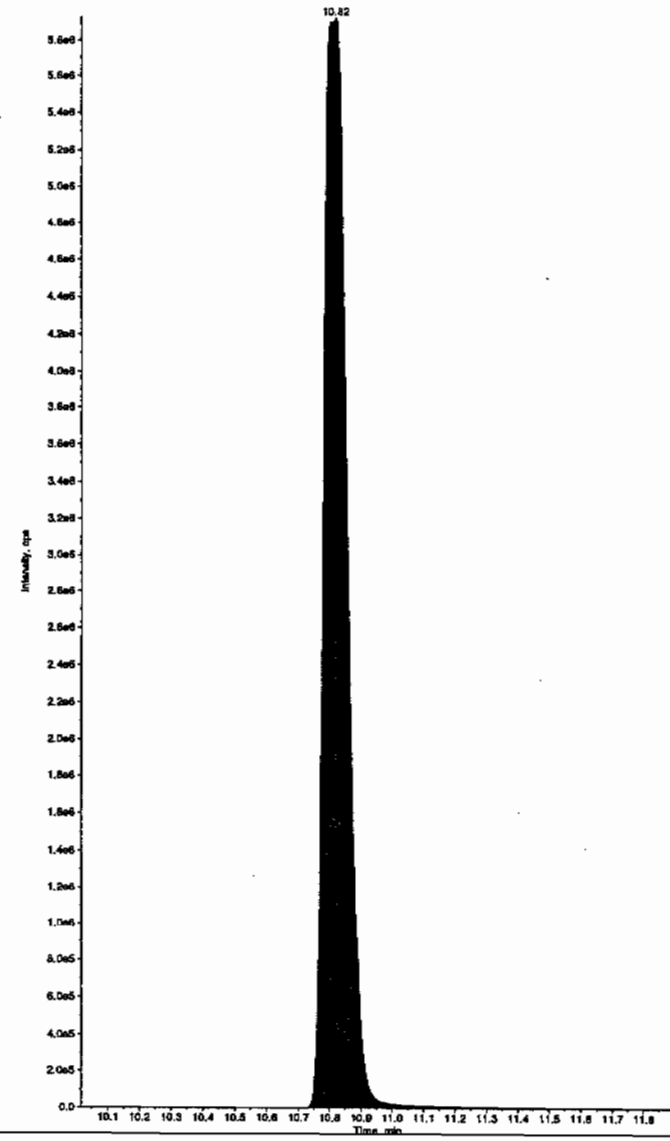

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Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-1020

Lab Code: GEI

GEL Sample ID: WXXICV

GEL Data File EXS01100011.wiff

Analysis Date: 11-JAN-10 13:54

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,6-Diamino-4-nitrotoluene	500	459	92	
3,4-Dinitrotoluene	250	225	90	
3,5-Dinitroaniline	500	469	94	
TATB	500	494	99	
tris(o-cresyl) phosphate	500	475	95	
2,4-Diamino-6-nitrotoluene	500	482	96	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Before Jan 1/12/10

mple Name: "WXX100111-26ICV" Sample ID: "[1]LER" File: "EXS01100011.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 494. ng/mL
Date: 1/11/2010
Time: 1:54:03 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 30.0 sec
cted RT: 7.01 min
Relative RT: No

Type: Valley
ntion Time: 7.01 min
: 7.59e+005 counts
ht: 167199.860 cps
t Time: 6.87 min
Time: 7.53 min

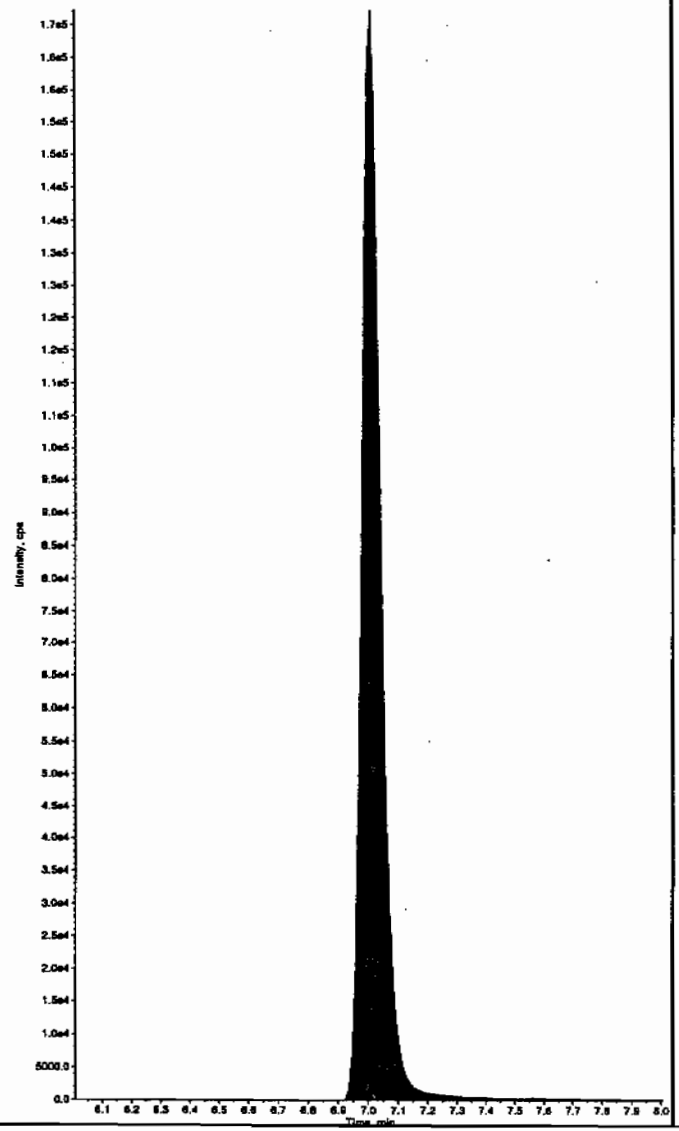

Sample Name: "WXX100111-26ICV" Sample ID: "[1]LER" File: "EXS01100011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 473. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 1:54:03 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.20 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.25 min
Area: 5.21e+005 counts
Height: 1105112.061 cps
Start Time: 8.14 min
End Time: 8.37 min

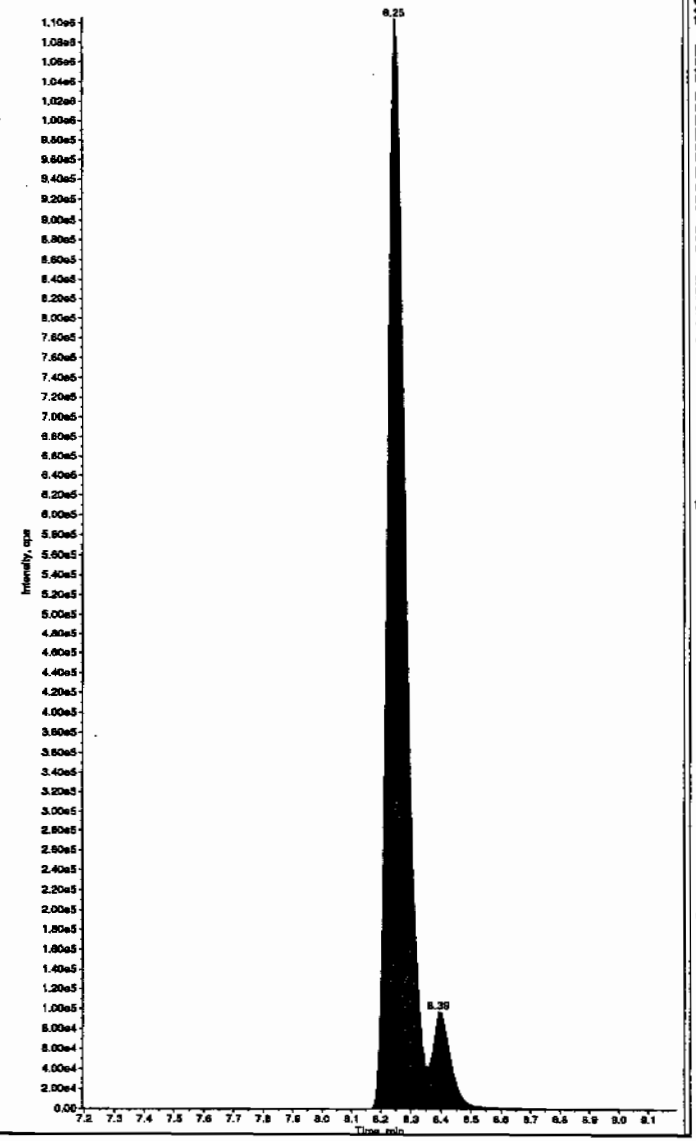

Hum 01/12/10

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

after Ran 1/12/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100111-26ICV" Sample ID: "[1]LER" File: "EXS01100011.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: "

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 494. ng/mL
Date: 1/11/2010
Time: 1:54:03 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.01 min
Relative RT: No

Type: Valley
ntion Time: 7.01 min
: 7.59e+005 counts
ht: 167199.860 cps
t Time: 6.87 min
Time: 7.53 min

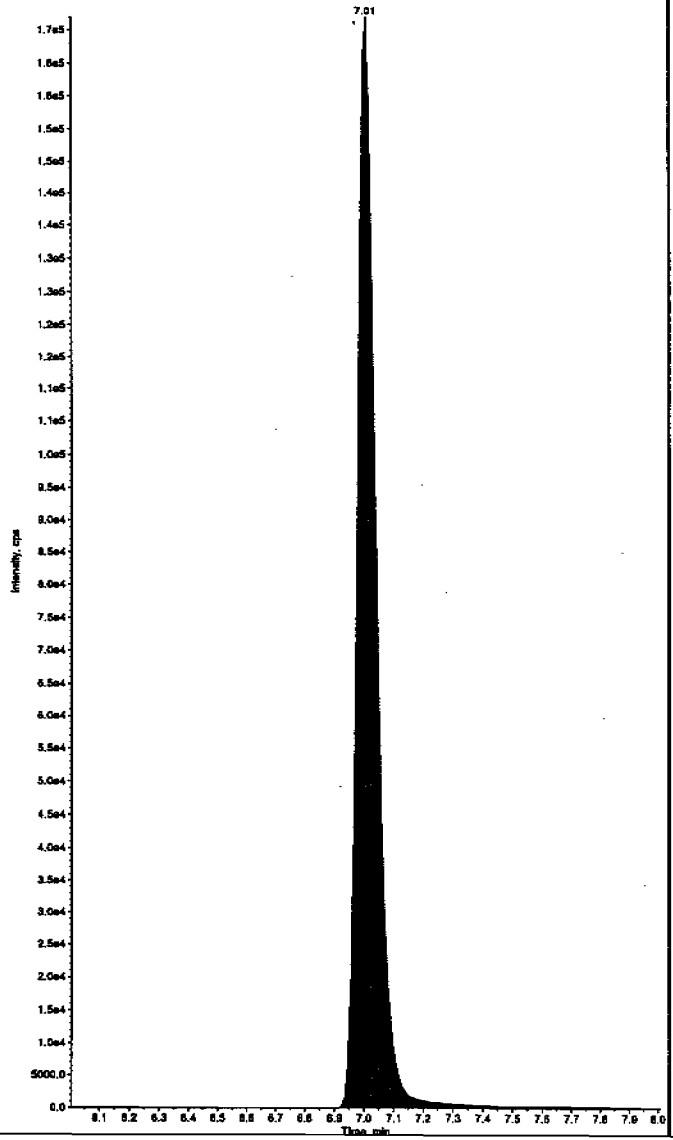

Sample Name: "WXX100111-26ICV" Sample ID: "[1]LER" File: "EXS01100011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 469. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 1:54:03 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.20 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.25 min
Area: 4.72e+006 counts
Height: 1109237.845 cps
Start Time: 8.17 min
End Time: 8.35 min

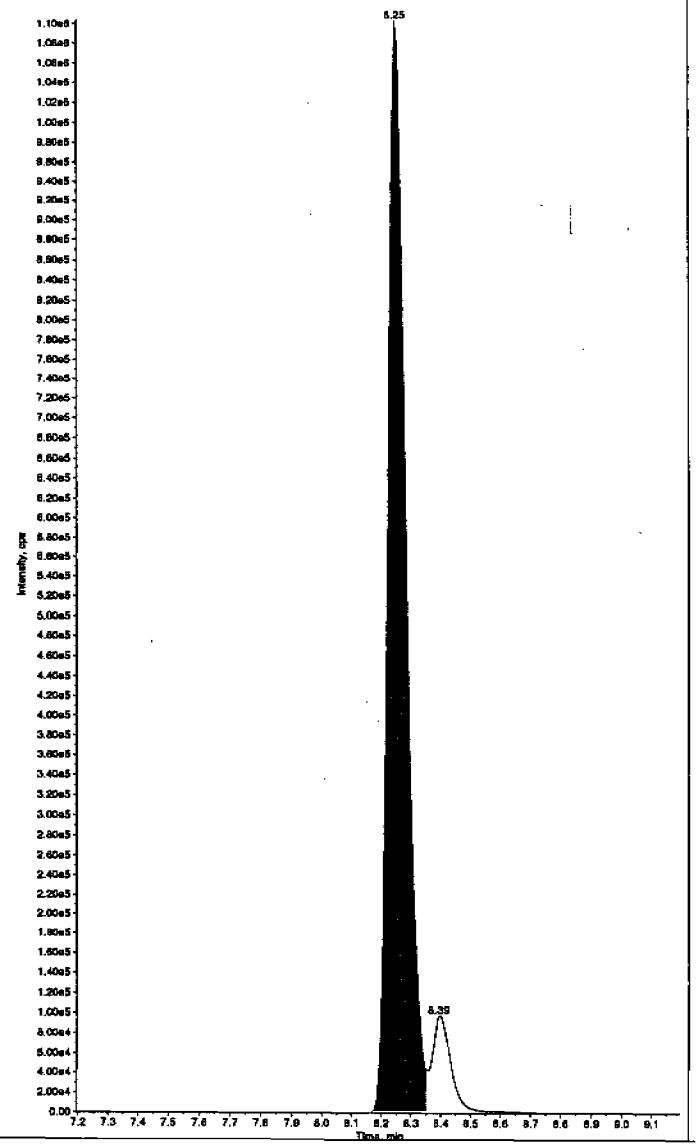

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100111-26ICV" Sample ID: "[1]LER" File: "EXS01100011.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	250.	ng/mL
culated Conc:	225.	ng/mL
. Date:	1/11/2010	
. Time:	1:54:03 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	1460.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	15.0	sec
ected RT:	8.39	min
Relative RT:	No	
. Type:	Valley	
ention Time:	8.39	min
a:	3.12e+006	counts
ght:	836233.887	cps
rt Time:	8.32	min
Time:	8.72	min

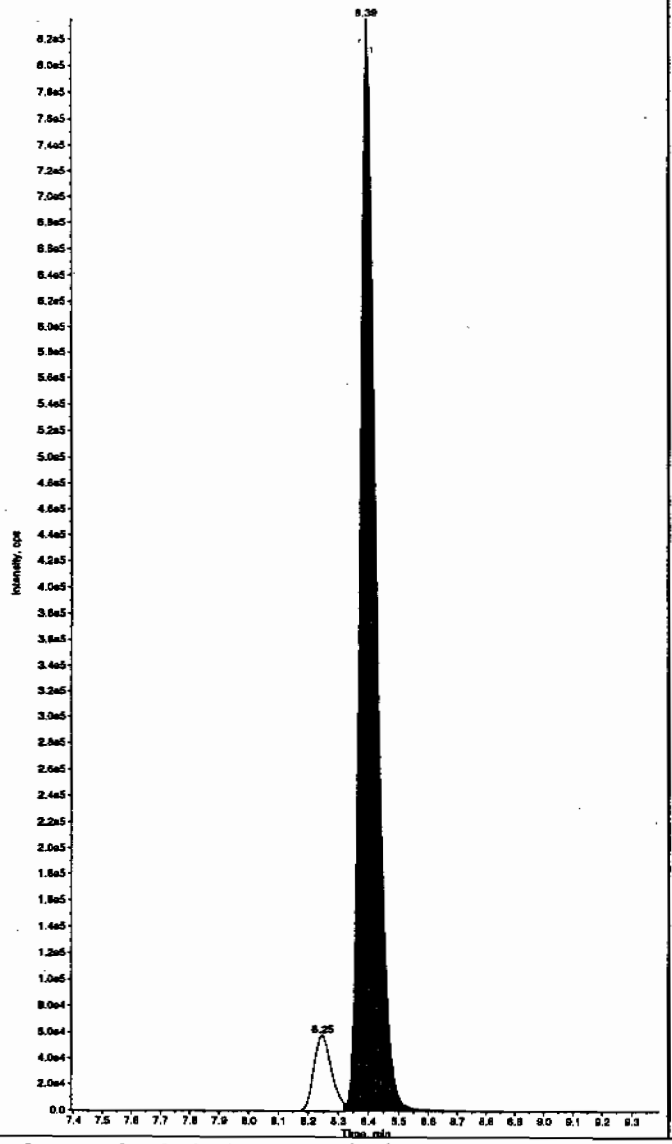

Sample Name: "WXX100111-26ICV" Sample ID: "[1]LER" File: "EXS01100011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	459.	ng/mL
Acq. Date:	1/11/2010	
Acq. Time:	1:54:03 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	5.05	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	5.05	min
Area:	1.51e+006	counts
Height:	358172.241	cps
Start Time:	4.96	min
End Time:	5.34	min

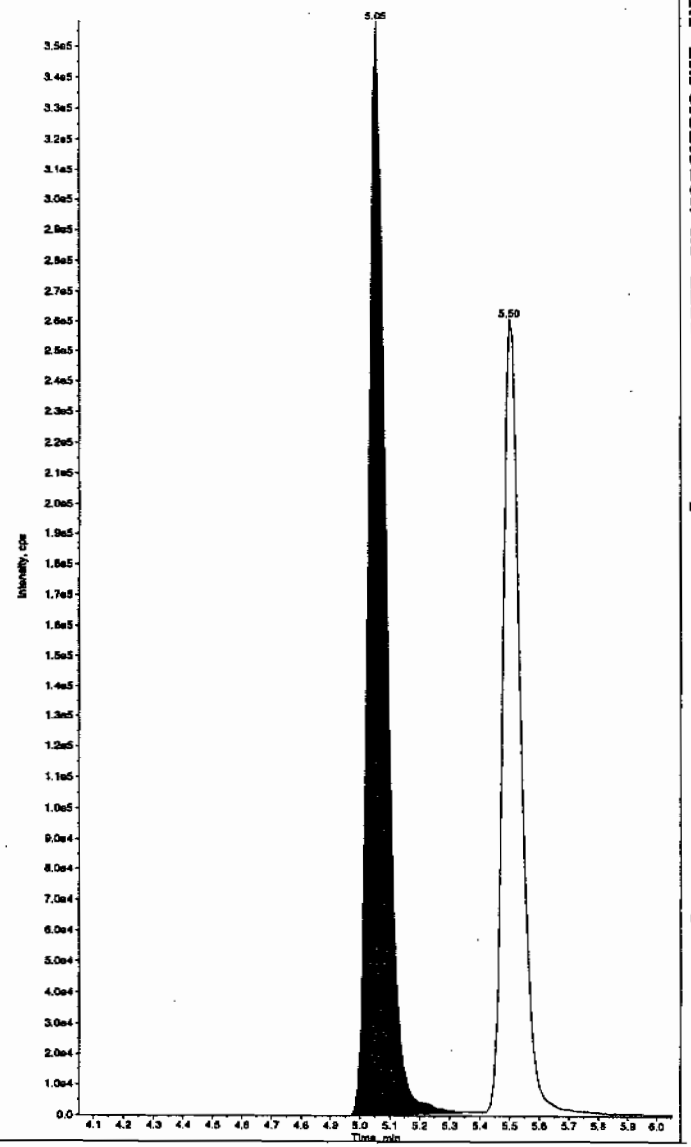

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ample Name: "WXX100111-26ICV" Sample ID: "[1]LER" File: "EXS01100011.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 482. ng/mL
. Date: 1/11/2010
. Time: 1:54:03 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
ected RT: 5.50 min
Relative RT: No

. Type: Valley
ention Time: 5.50 min
a: 1.12e+006 counts
ght: 260977.478 cps
rt Time: 5.42 min
Time: 6.12 min

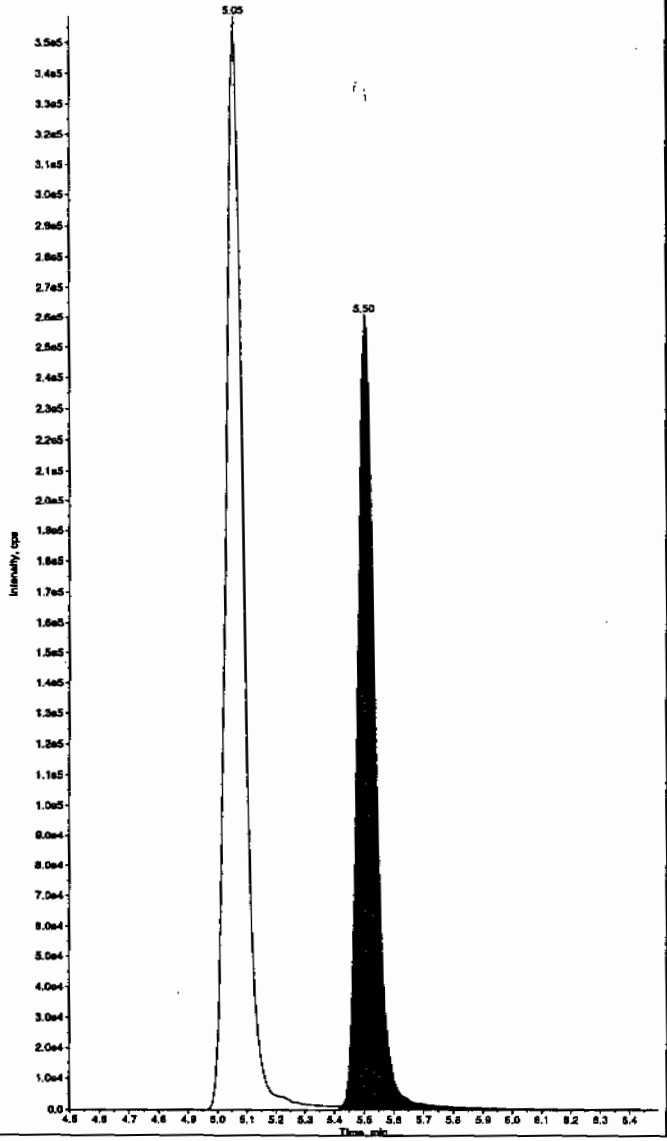

Sample Name: "WXX100111-26ICV" Sample ID: "[1]LER" File: "EXS01100011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 475. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 1:54:03 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.15e+007 counts
Height: 2903220.459 cps
Start Time: 10.8 min
End Time: 11.2 min

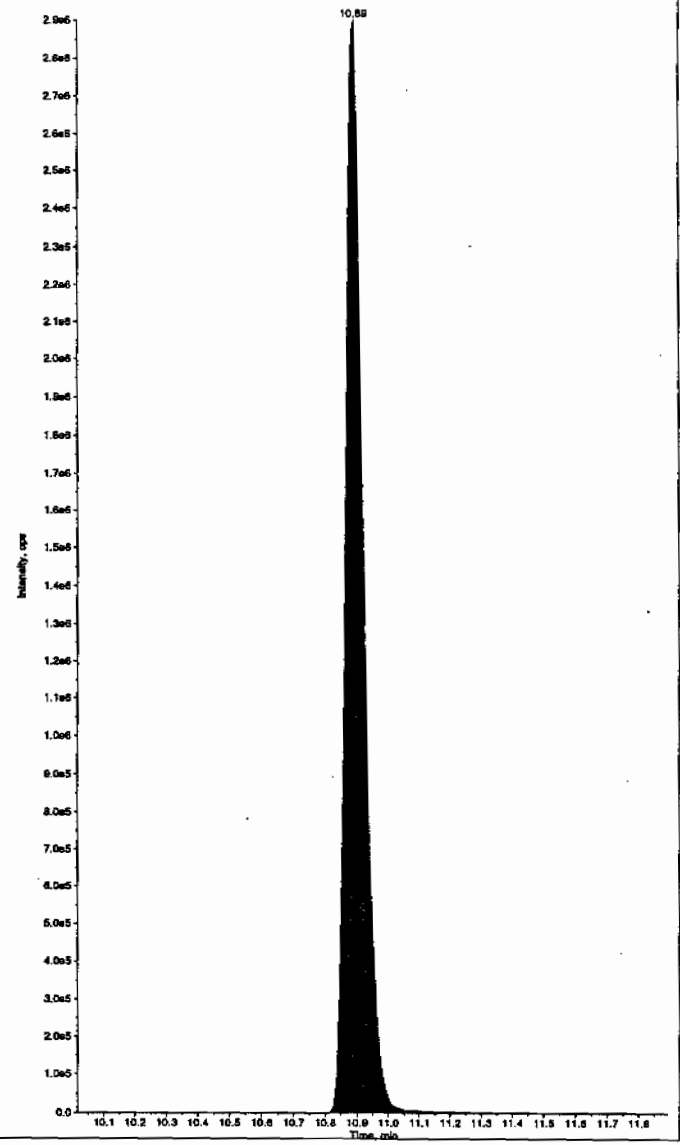

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1020

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0118012a

Analysis Date: 18–JAN–10 19:27

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
4–Amino–2,6–dinitrotoluene	40	42.288	106	
HMX	40	39.982	100	
Nitrobenzene	40	44.51	111	
PETN	40	45.548	114	
RDX	40	37.064	93	
Tetryl	40	49.073	123	
m–Dinitrobenzene	40	40.812	102	
m–Nitrotoluene	40	46.72	117	
o–Nitrotoluene	40	41.066	103	
p–Nitrotoluene	40	43.026	108	
1,3,5–Trinitrobenzene	40	50.691	127	
1,3–Dinitrobenzene–d4	500	537.934	108	
2,4,6–Trinitrotoluene	40	43.056	108	
2,4–Dinitrotoluene	40	39.965	100	
2,6–Dinitrotoluene	40	39.88	100	
2,6–Dinitrotoluene–d3	500	597.351	119	
2–Amino–4,6–dinitrotoluene	40	39.987	100	
3,4–Dinitrotoluene	20	18.681	93	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0118012a
Date: 18-Jan-2010
Time: 19:27:49
ID: WXX100118-08CRI
Vial: 1:1,C

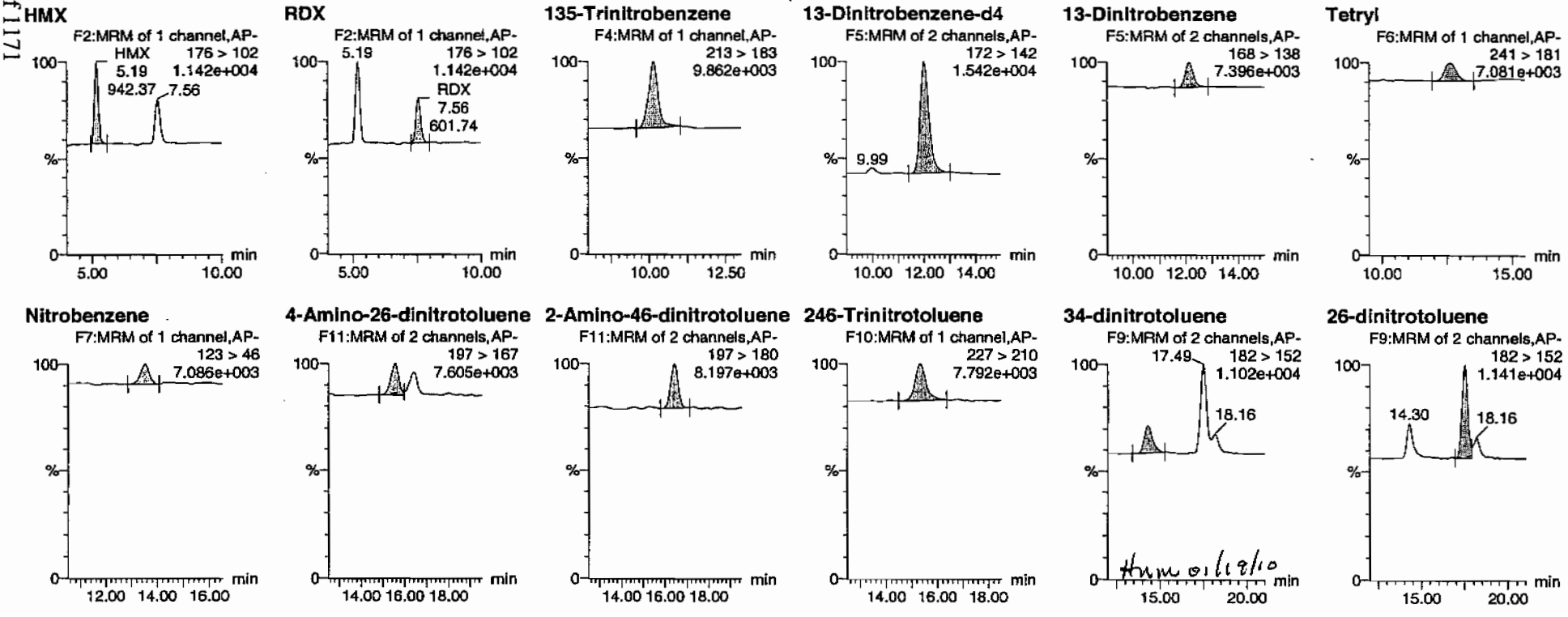

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

24-dinitrotoluene

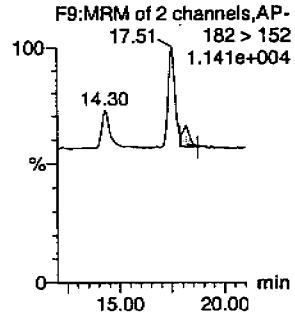

26-dinitrotoluene-d3

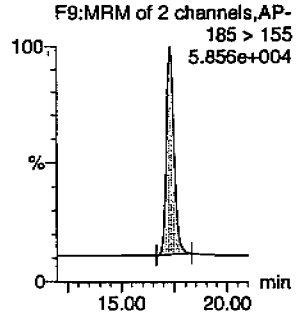

2-Nitrotoluene

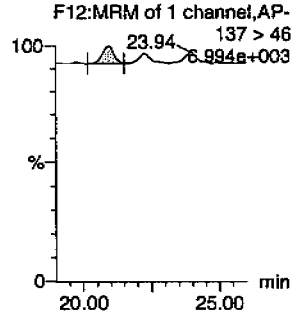

4-Nitrotoluene

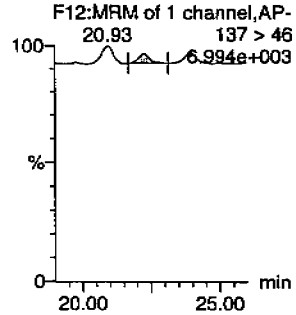

3-Nitrotoluene

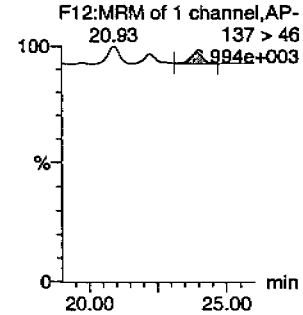

PETN

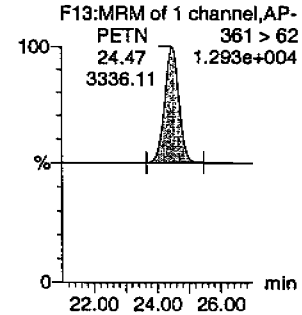

ID	Name	Trace	RT	Area	IS Area	Aus Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100118-08CRI	HMX	176 > 102	5.19	942.368	3650.761	942.368	129.065	bb			39.9819	100.0	-0.0	82.8
WXX100118-08CRI	RDX	176 > 102	7.56	601.741	3650.761	601.741	82.413	bb			37.0641	92.7	-7.3	45.2
WXX100118-08CRI	135-Trinitrobenzene	213 > 183	10.14	1233.176	3650.761	1233.176	168.893	bb			50.6908	126.7	26.7	172.6
WXX100118-08CRI	13-Dinitrobenzene-d4	172 > 142	12.00	3650.761		3650.761	3650.761	bb			537.9344	107.6	7.6	517.0
WXX100118-08CRI	13-Dinitrobenzene	168 > 138	12.14	352.143	3650.761	352.143	48.229	bb			40.8124	102.0	2.0	45.8
WXX100118-08CRI	Tetryl	241 > 181	12.63	349.926	3650.761	349.926	47.925	bb			49.0728	122.7	22.7	30.8
WXX100118-08CRI	Nitrobenzene	123 > 46	13.54	272.080	3650.761	272.080	37.263	bb			44.5104	111.3	11.3	20.2
WXX100118-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.56	489.338	21916.291	489.338	11.164	MM	19-Jan-10	10:47:55	42.2884	105.7	5.7	22.6
WXX100118-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.43	682.797	21916.291	682.797	15.577	bb			39.9867	100.0	-0.0	33.0
WXX100118-08CRI	246-Trinitrotoluene	227 > 210	15.31	664.546	21916.291	664.546	15.161	bb			43.0558	107.6	7.6	61.0
WXX100118-08CRI	34-dinitrotoluene	182 > 152	14.30	763.362	21916.291	763.362	17.415	bb			18.6812	93.4	-6.6	26.5
WXX100118-08CRI	26-dinitrotoluene	182 > 152	17.51	1909.356	21916.291	1909.356	43.560	MM	19-Jan-10	10:53:17	39.8802	99.7	-0.3	71.1
WXX100118-08CRI	24-dinitrotoluene	182 > 152	18.16	442.897	21916.291	442.897	10.104	MM	19-Jan-10	10:57:10	39.9645	99.9	-0.1	15.2
WXX100118-08CRI	26-dinitrotoluene-d3	185 > 155	17.31	21916.291		21916.291	21916.291	bb			597.3508	119.5	19.5	1503.2
WXX100118-08CRI	2-Nitrotoluene	137 > 46	20.93	270.144	21916.291	270.144	6.163	bb			41.0663	102.7	2.7	68.3
WXX100118-08CRI	4-Nitrotoluene	137 > 46	22.25	135.030	21916.291	135.030	3.081	bb			43.0255	107.6	7.6	35.9
WXX100118-08CRI	3-Nitrotoluene	137 > 46	23.94	174.640	21916.291	174.640	3.984	bb			46.7196	116.8	16.8	41.7
WXX100118-08CRI	PETN	361 > 62	24.47	3336.115	21916.291	3336.115	76.110	bb			45.5475	113.9	13.9	655.3

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	01/18/10
Time of Injection	1927
Standard Number	WXX100118-08CRI
Data File	EXP0118012a

HMX	100.0
RDX	92.7
135-TNB	126.7
13-DNB	102.0
Tetryl	122.7
Nitrobenzene	111.3
4A-26-DNT	105.7
2A-46-DNT	100.0
246-TNT	107.6
34-DNT(surr)	93.4
26-DNT	99.7
24-DNT	99.9
2-NT	102.7
4-NT	107.6
3-NT	116.8
PETN	113.9
Total	1702.7
Average	106.4

MJP 1/19/10

Hmm 01/18/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–1020

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0118019a **Analysis Date:** 18–JAN–10 22:54

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m–Dinitrobenzene	600	603.025	101	
m–Nitrotoluene	600	651.691	109	
o–Nitrotoluene	600	630.709	105	
p–Nitrotoluene	600	662.108	110	
1,3,5–Trinitrobenzene	600	614.058	102	
1,3–Dinitrobenzene–d4	500	494.251	99	
2,4,6–Trinitrotoluene	600	636.232	106	
2,4–Dinitrotoluene	600	629.771	105	
2,6–Dinitrotoluene	600	614.102	102	
2,6–Dinitrotoluene–d3	500	477.476	95	
2–Amino–4,6–dinitrotoluene	600	641.375	107	
3,4–Dinitrotoluene	300	323.805	108	
4–Amino–2,6–dinitrotoluene	600	659.577	110	
HMX	600	597.765	100	
Nitrobenzene	600	592.53	99	
PETN	600	600.489	100	
RDX	600	688.562	115	
Tetryl	600	559.14	93	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0118019a
Date: 18-Jan-2010
Time: 22:54:11
ID: WXX100118-07CCV
Vial: 1:1,B

MM 1/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.108e+004
7.56

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.108e+004
5.17
RDX
7.56
10271.12

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
4.357e+004

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.451e+004
9.99

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.867e+004

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.379e+004
Tetryl
12.58
3663.32

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.532e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.071e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
2.718e+004
15.32

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.304e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.239e+004
17.47
18.12

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.726e+004
14.30
18.14

HWM 01/19/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

24-dinitrotoluene

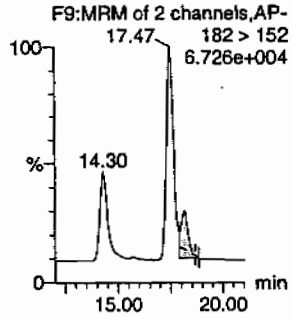

26-dinitrotoluene-d3

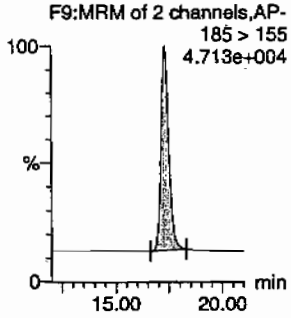

2-Nitrotoluene

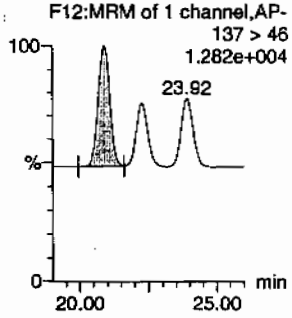

4-Nitrotoluene

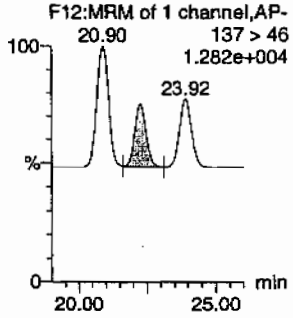

3-Nitrotoluene

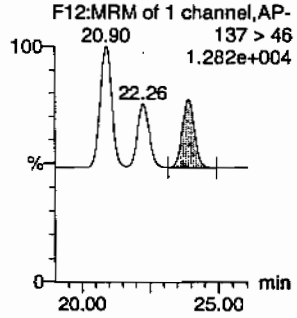

PETN

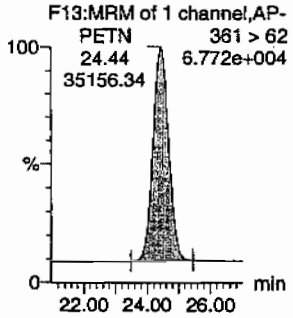

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100118-07CCV	HMX	176 > 102	5.17	12945.098	3354.300	12945.098	1929.627	bb			597.7646	99.6	-0.4	1846.7
WXX100118-07CCV	RDX	176 > 102	7.56	10271.115	3354.300	10271.115	1531.037	bb			688.5619	114.8	14.8	1239.7
WXX100118-07CCV	135-Trinitrobenzene	213 > 183	10.14	13725.381	3354.300	13725.381	2045.938	bb			614.0585	102.3	2.3	5254.0
WXX100118-07CCV	13-Dinitrobenzene-d4	172 > 142	11.97	3354.300		3354.300	3354.300	bb			494.2513	98.9	-1.1	141.9
WXX100118-07CCV	13-Dinitrobenzene	168 > 138	12.14	4780.582	3354.300	4780.582	712.605	bb			603.0255	100.5	0.5	527.6
WXX100118-07CCV	Tetryl	241 > 181	12.58	3663.319	3354.300	3663.319	546.063	bb			559.1405	93.2	-6.8	411.0
WXX100118-07CCV	Nitrobenzene	123 > 46	13.54	3327.854	3354.300	3327.854	496.058	bb			592.5302	98.8	-1.2	261.0
WXX100118-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.53	6100.633	17518.184	6100.633	174.123	MM	19-Jan-10	10:48:31	659.5765	109.9	9.9	175.1
WXX100118-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.40	8754.067	17518.184	8754.067	249.857	bb			641.3751	106.9	6.9	378.4
WXX100118-07CCV	246-Trinitrotoluene	227 > 210	15.34	7849.298	17518.184	7849.298	224.033	bb			636.2316	106.0	6.0	522.3
WXX100118-07CCV	34-dinitrotoluene	182 > 152	14.30	10576.247	17518.184	10576.247	301.865	bb			323.8051	107.9	7.9	523.1
WXX100118-07CCV	26-dinitrotoluene	182 > 152	17.47	23501.309	17518.184	23501.309	670.769	MM	19-Jan-10	10:54:02	614.1022	102.4	2.4	880.3
WXX100118-07CCV	24-dinitrotoluene	182 > 152	18.14	5578.699	17518.184	5578.699	159.226	MM	19-Jan-10	10:58:11	629.7714	105.0	5.0	193.9
WXX100118-07CCV	26-dinitrotoluene-d3	185 > 155	17.29	17518.184		17518.184	17518.184	bb			477.4759	95.5	-4.5	2270.7
WXX100118-07CCV	2-Nitrotoluene	137 > 46	20.90	3316.352	17518.184	3316.352	94.655	bb			630.7086	105.1	5.1	204.8
WXX100118-07CCV	4-Nitrotoluene	137 > 46	22.26	1660.945	17518.184	1660.945	47.406	bb			662.1077	110.4	10.4	107.3
WXX100118-07CCV	3-Nitrotoluene	137 > 46	23.92	1947.193	17518.184	1947.193	55.576	bb			651.6915	108.6	8.6	116.4
WXX100118-07CCV	PETN	361 > 62	24.44	35156.344	17518.184	35156.344	1003.424	bb			600.4887	100.1	0.1	10636.3

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 01/18/10
Time of Injection: 2254
Standard Number: WXX100118-07CCV
Data File: EXP0118019a

HMX		99.6
RDX		114.8
135-TNB		102.3
13-DNB		100.5
Tetryl		93.2
Nitrobenzene		98.8
4A-26-DNT		109.9
2A-46-DNT		106.9
246-TNT		106.0
34-DNT(surr)		107.9
26-DNT		102.4
24-DNT		105.0
2-NT		105.1
4-NT		110.4
3-NT		108.6
PETN		100.1
Total		1671.5
Average		104.5

MT 1/19/10

Hmc 01/19/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1020

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0118021a

Analysis Date: 18–JAN–10 23:53

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	51.962	130	
1,3–Dinitrobenzene–d4	500	514.616	103	
2,4,6–Trinitrotoluene	40	33.453	84	
2,4–Dinitrotoluene	40	40.668	102	
2,6–Dinitrotoluene	40	41.074	103	
2,6–Dinitrotoluene–d3	500	616.151	123	
2–Amino–4,6–dinitrotoluene	40	34.84	87	
3,4–Dinitrotoluene	20	20.351	102	
4–Amino–2,6–dinitrotoluene	40	34.262	86	
HMX	40	41.795	104	
Nitrobenzene	40	37.04	93	
PETN	40	42.807	107	
RDX	40	38.304	96	
Tetryl	40	40.399	101	
m–Dinitrobenzene	40	37.182	93	
m–Nitrotoluene	40	38.459	96	
o–Nitrotoluene	40	31.698	79	
p–Nitrotoluene	40	30.243	76	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0118021a
Date: 18-Jan-2010
Time: 23:53:08
ID: WXX100118-08CRI
Vial: 1:1,C

MM 1/19/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.18 1.090e+004
942.39 7.55

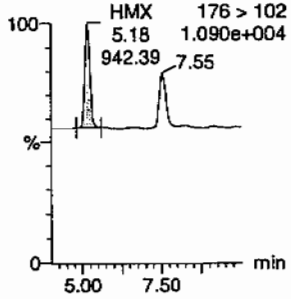

RDX
F2:MRM of 1 channel,AP-
5.18 176 > 102
1.090e+004
RDX
7.55
594.91

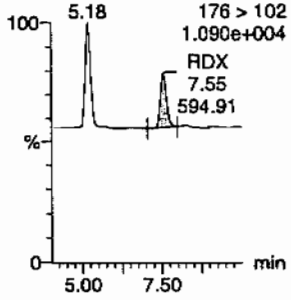

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
9.255e+003

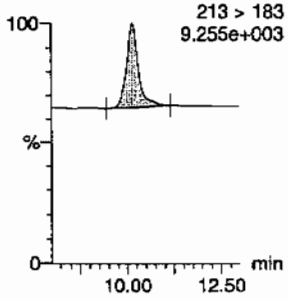

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.438e+004

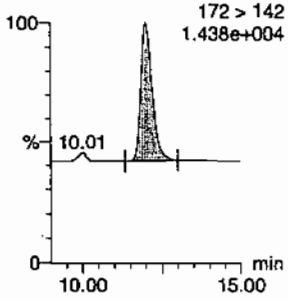

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.788e+003

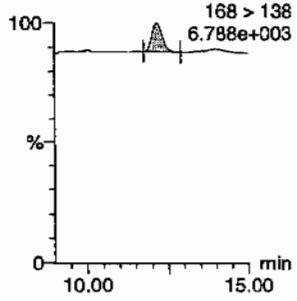

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.525e+003

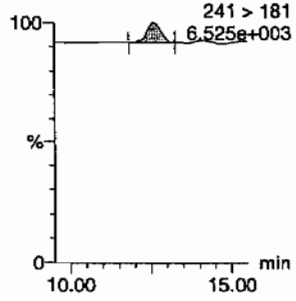

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.630e+003

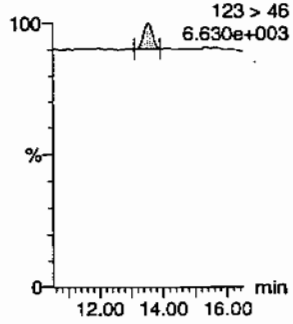

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.031e+003

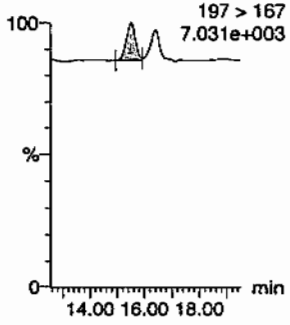

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.480e+003

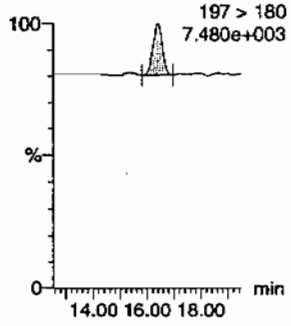

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.137e+003

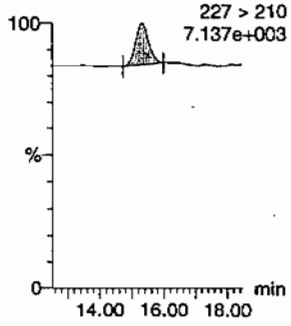

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.48 182 > 152
1.075e+004

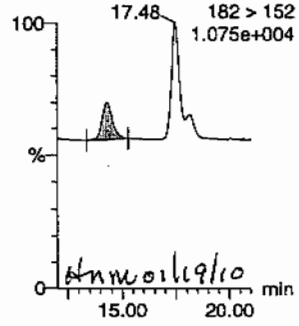

Hnw 01/19/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.122e+004

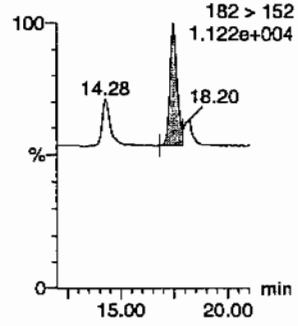

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

24-dinitrotoluene

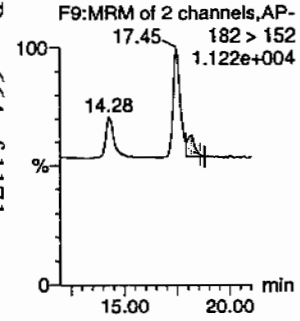

26-dinitrotoluene-d3

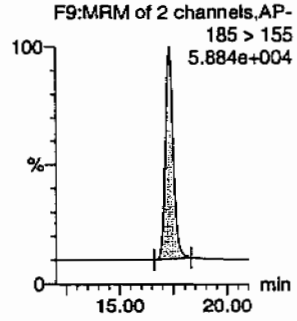

2-Nitrotoluene

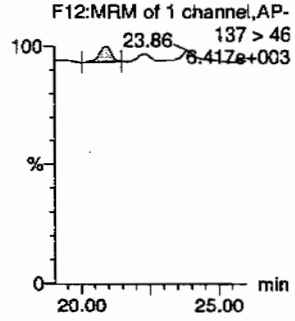

4-Nitrotoluene

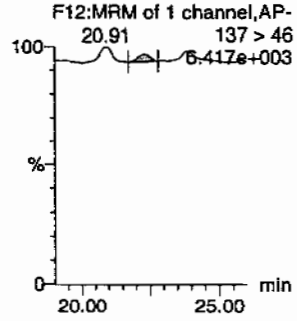

3-Nitrotoluene

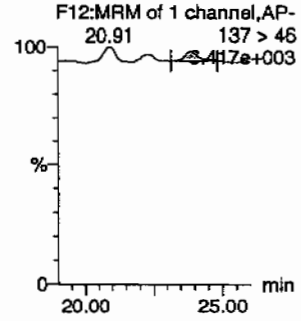

PETN

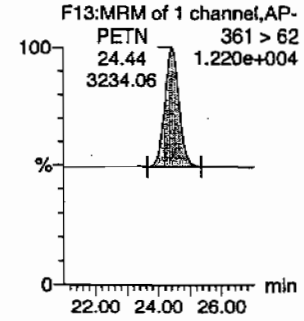

ID	Name	Trace	RT	Area	ISArea	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100118-08CRI	HMX	176 > 102	5.18	942.393	3492.511	942.393	134.916	bb			41.7947	104.5	4.5	254.1
WXX100118-08CRI	RDX	176 > 102	7.55	594.913	3492.511	594.913	85.170	bb			38.3039	95.8	-4.2	134.6
WXX100118-08CRI	135-Trinitrobenzene	213 > 183	10.14	1209.311	3492.511	1209.311	173.129	bb			51.9622	129.9	29.9	190.4
WXX100118-08CRI	13-Dinitrobenzene-d4	172 > 142	12.00	3492.511		3492.511	3492.511	bb			514.6165	102.9	2.9	318.5
WXX100118-08CRI	13-Dinitrobenzene	168 > 138	12.17	306.910	3492.511	306.910	43.938	bb			37.1818	93.0	-7.0	57.9
WXX100118-08CRI	Tetryl	241 > 181	12.61	275.585	3492.511	275.585	39.454	bb			40.3986	101.0	1.0	35.5
WXX100118-08CRI	Nitrobenzene	123 > 46	13.52	216.600	3492.511	216.600	31.009	bb			37.0398	92.6	-7.4	24.7
WXX100118-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.52	408.943	22606.063	408.943	9.045	MM	19-Jan-10	10:48:39	34.2624	85.7	-14.3	28.5
WXX100118-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.42	613.641	22606.063	613.641	13.572	bb			34.8402	87.1	-12.9	33.4
WXX100118-08CRI	246-Trinitrotoluene	227 > 210	15.33	532.583	22606.063	532.583	11.780	bb			33.4531	83.6	-16.4	68.4
WXX100118-08CRI	34-dinitrotoluene	182 > 152	14.28	857.752	22606.063	857.752	18.972	bb			20.3506	101.8	1.8	19.8
WXX100118-08CRI	26-dinitrotoluene	182 > 152	17.45	2028.394	22606.063	2028.394	44.864	MM	19-Jan-10	10:54:11	41.0738	102.7	2.7	55.3
WXX100118-08CRI	24-dinitrotoluene	182 > 152	18.20	464.880	22606.063	464.880	10.282	MM	19-Jan-10	10:58:21	40.6682	101.7	1.7	11.2
WXX100118-08CRI	26-dinitrotoluene-d3	185 > 155	17.30	22606.063		22606.063	22606.063	bb			616.1513	123.2	23.2	1991.2
WXX100118-08CRI	2-Nitrotoluene	137 > 46	20.91	215.080	22606.063	215.080	4.757	bb			31.6980	79.2	-20.8	40.2
WXX100118-08CRI	4-Nitrotoluene	137 > 46	22.31	97.900	22606.063	97.900	2.165	bb			30.2427	75.6	-24.4	17.8
WXX100118-08CRI	3-Nitrotoluene	137 > 46	23.86	148.285	22606.063	148.285	3.280	bb			38.4587	96.1	-3.9	25.0
WXX100118-08CRI	PETN	361 > 62	24.44	3234.064	22606.063	3234.064	71.531	bb			42.8069	107.0	7.0	1225.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	01/18/10
Time of Injection	2353
Standard Number	WXX100118-08CRI
Data File	EXP0118021a

HMX	104.5
RDX	95.8
135-TNB	129.9
13-DNB	93.0
Tetryl	101.0
Nitrobenzene	92.6
4A-26-DNT	85.7
2A-46-DNT	87.1
246-TNT	83.6
34-DNT(surr)	101.8
26-DNT	102.7
24-DNT	101.7
2-NT	79.2
4-NT	75.6
3-NT	96.1
PETN	107.0
Total	1537.3
Average	96.1

MJT 1/19/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1020

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS01100013.wiff

Analysis Date: 11–JAN–10 14:25

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	65.7	66	
2,6–Diamino–4–nitrotoluene	100	69.7	70	
3,4–Dinitrotoluene	50	39	78	
3,5–Dinitroaniline	100	80.3	80	
TATB	100	95.9	96	
tris(o–cresyl) phosphate	100	98.2	98	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Ler 1/12/10

mple Name: "WXX100111-27CRI" Sample ID: "[1]LER" File: "EXS01100013.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 95.9 ng/mL
Date: 1/11/2010
Time: 2:25:27 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.01 min
Relative RT: No

Type: Valley
ntion Time: 7.01 min
: 1.64e+005 counts
ht: 36404.556 cps
t Time: 6.88 min
Time: 7.45 min

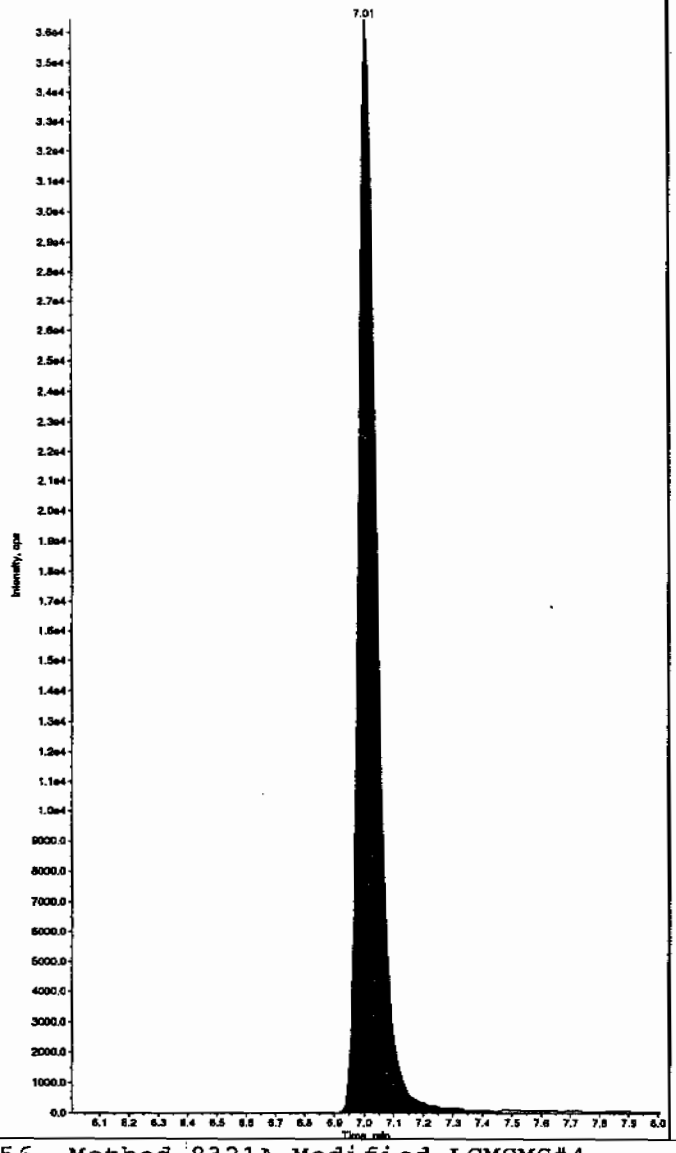

Sample Name: "WXX100111-27CRI" Sample ID: "[1]LER" File: "EXS01100013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 80.3 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 2:25:27 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.22 min
Area: 1.05e+006 counts
Height: 260979.156 cps
Start Time: 8.08 min
End Time: 8.32 min

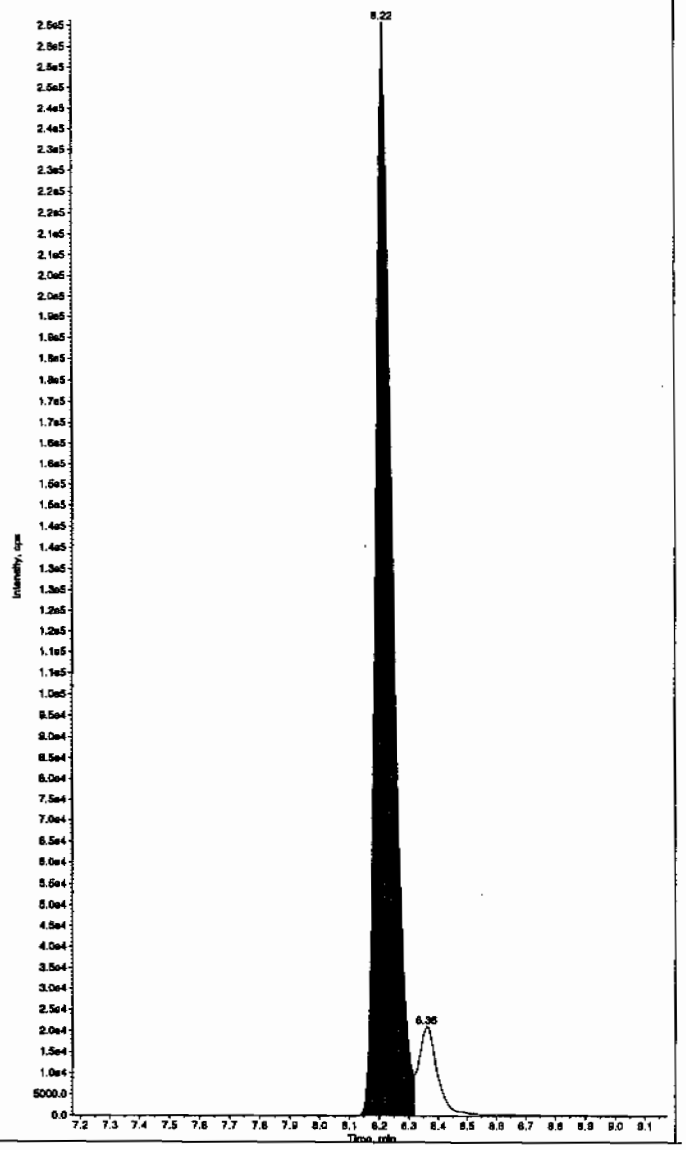

Hnm 01/12/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100111-27CRI" Sample ID: "|1|LER" File: "EXS01100013.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
entration: 50.0 ng/mL
culated Conc: 39.0 ng/mL
. Date: 1/11/2010
. Time: 2:25:27 PM

ified: No
:. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.39 min
Relative RT: No

. Type: Valley
ention Time: 8.36 min
: 5.45e+005 counts
ght: 160565.079 cps
t Time: 8.29 min
Time: 8.64 min

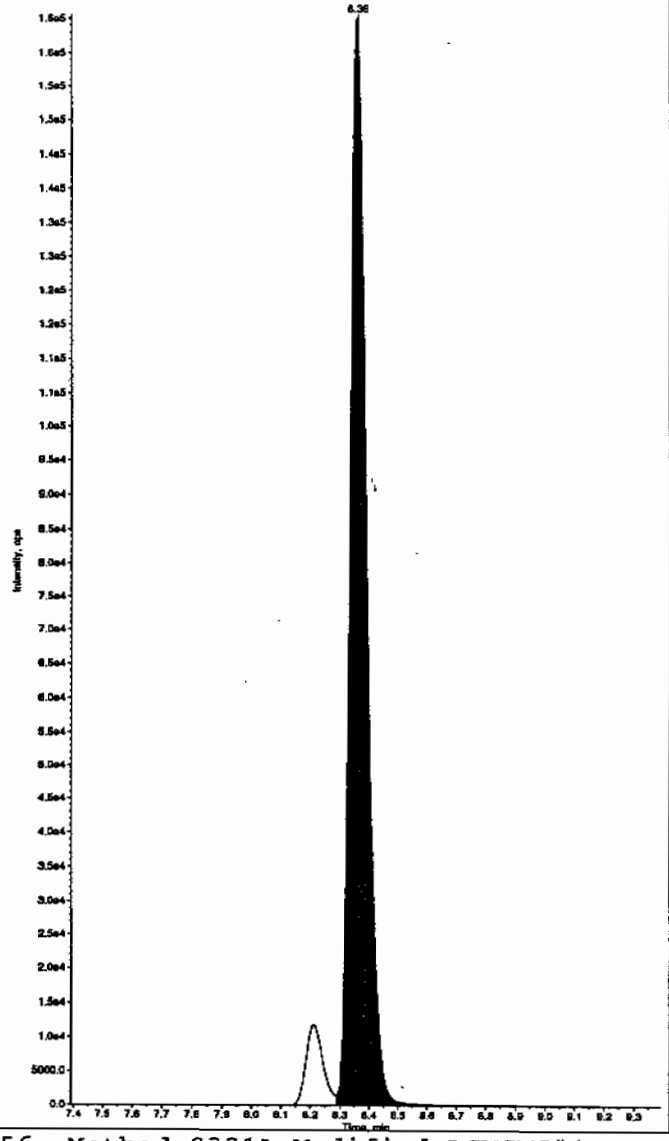

Sample Name: "WXX100111-27CRI" Sample ID: "|1|LER" File: "EXS01100013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 69.7 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 2:25:27 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.05 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.04 min
Area: 3.13e+005 counts
Height: 71772.331 cps
Start Time: 4.95 min
End Time: 5.29 min

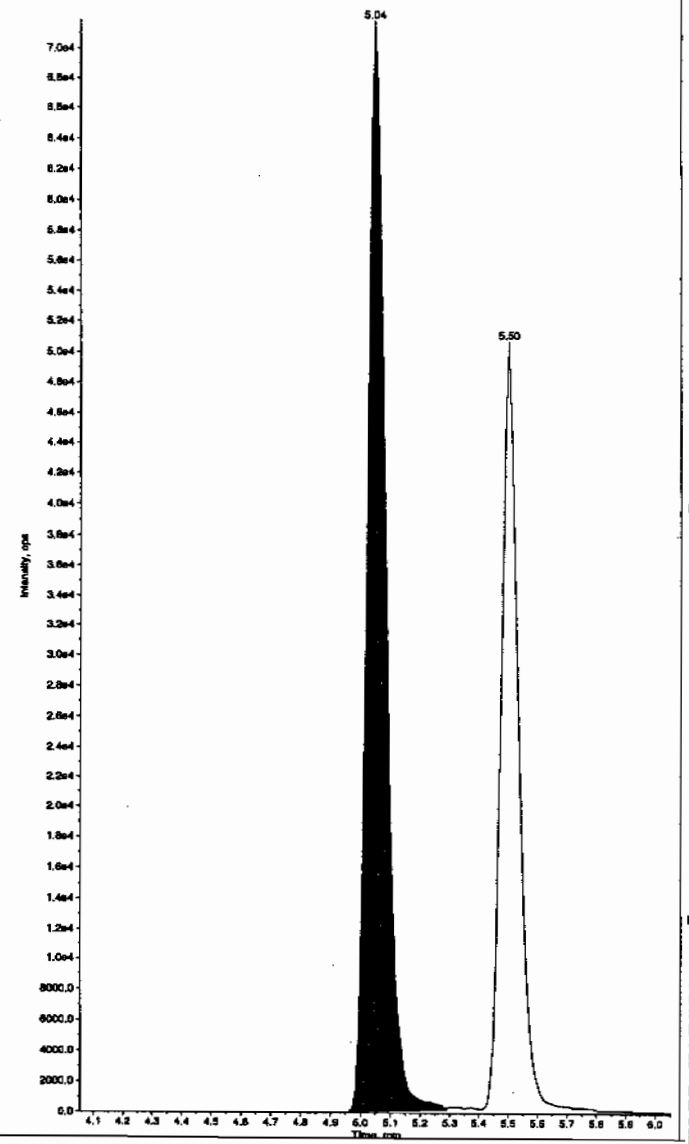

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100111-27CRI" Sample ID: "[1]LER" File: "EXS01100013.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 65.7 ng/mL
Date: 1/11/2010
Time: 2:25:27 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.50 min
Relative RT: No

Type: Valley
ntion Time: 5.50 min
: 2.12e+005 counts
ht: 50674.736 cps
t Time: 5.41 min
Time: 5.94 min

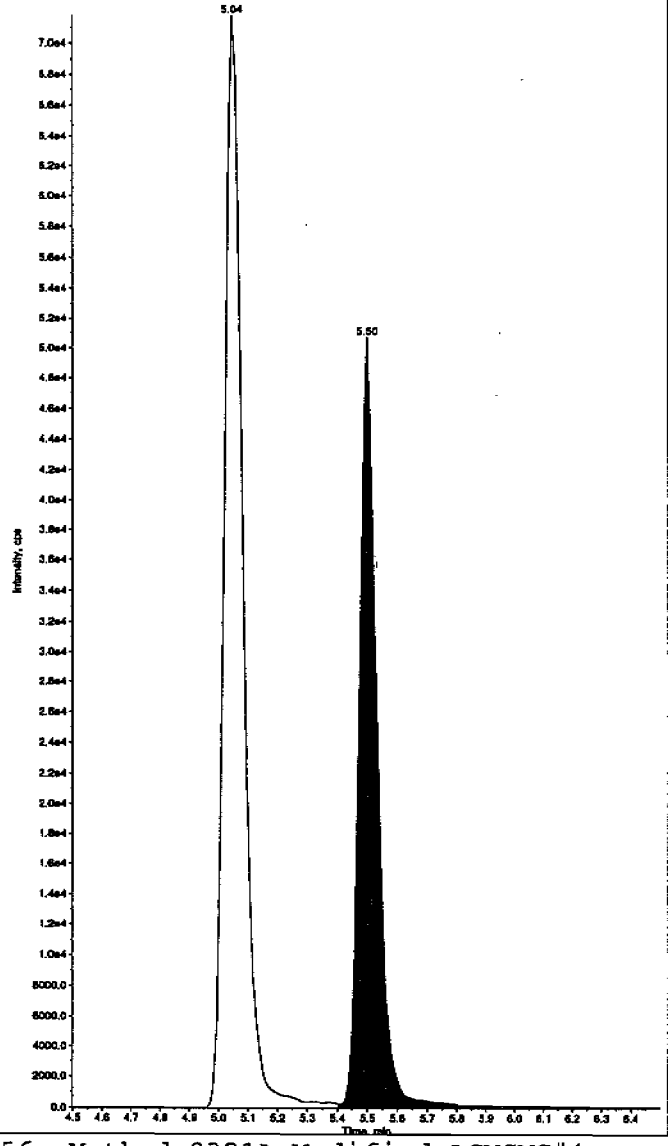

Sample Name: "WXX100111-27CRI" Sample ID: "[1]LER" File: "EXS01100013.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 98.2 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 2:25:27 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.7 min
Area: 2.74e+006 counts
Height: 746119.629 cps
Start Time: 10.6 min
End Time: 11.1 min

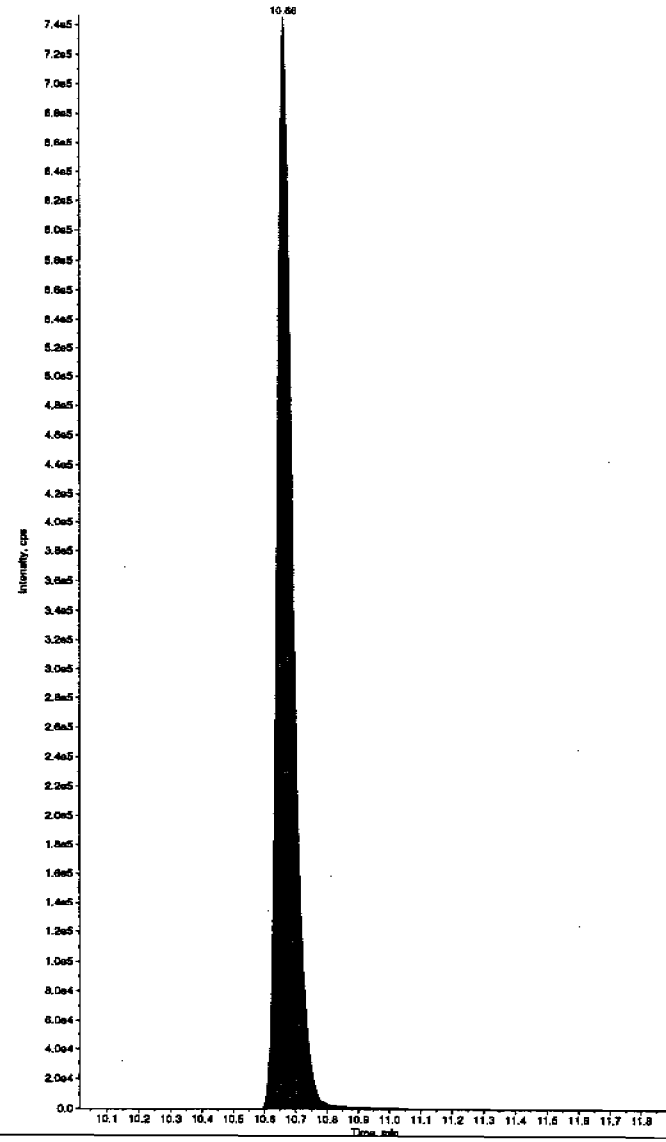

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1020

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS01100022.wiff

Analysis Date: 11–JAN–10 16:46

LCMSMS ID: 1358

Column ID JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	397	80	
2,6–Diamino–4–nitrotoluene	500	445	89	
3,4–Dinitrotoluene	250	216	87	
3,5–Dinitroaniline	500	460	92	
TATB	500	477	96	
tris(o–cresyl) phosphate	500	460	92	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Before Clean 1/12/10

nple Name: "WXX100111-26CCV" Sample ID: "[1]LER" File: "EXS01100022.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 477. ng/mL
Date: 1/11/2010
Time: 4:46:42 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.01 min
Relative RT: No

Type: Valley
ntion Time: 6.97 min
: 7.34e+005 counts
ht: 169298.584 cps
t Time: 6.81 min
Time: 7.53 min

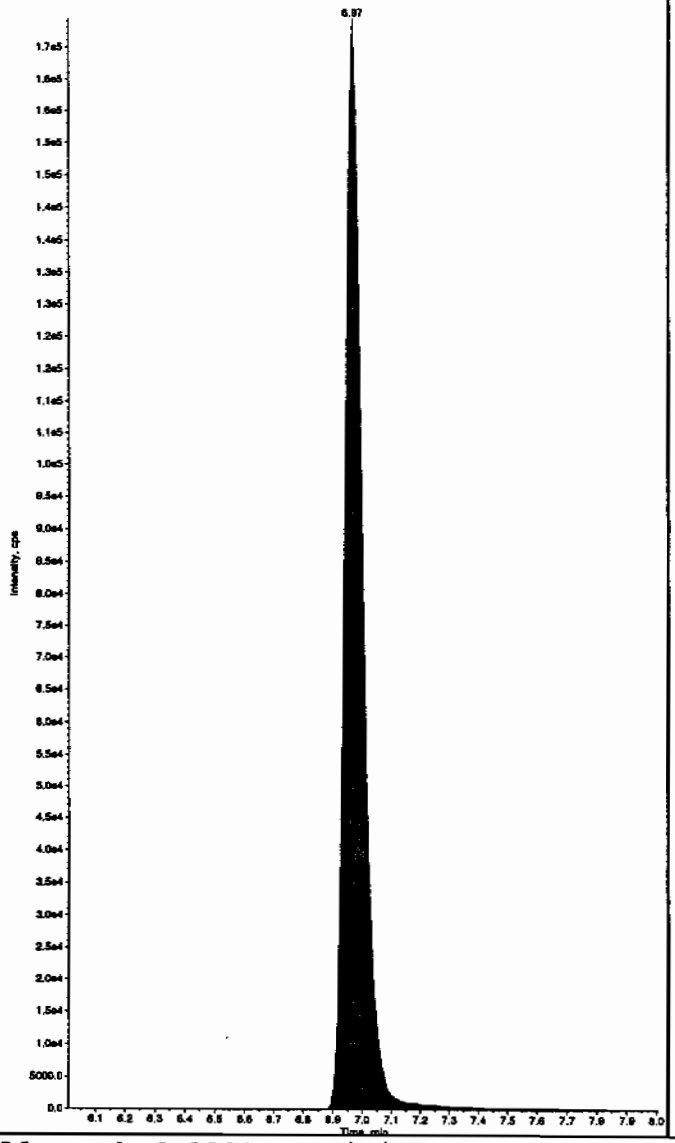

Sample Name: "WXX100111-26CCV" Sample ID: "[1]LER" File: "EXS01100022.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 463. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 4:46:42 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.19 min
Area: 4.43e+006 counts
Height: 1126556.274 cps
Start Time: 8.11 min
End Time: 8.29 min

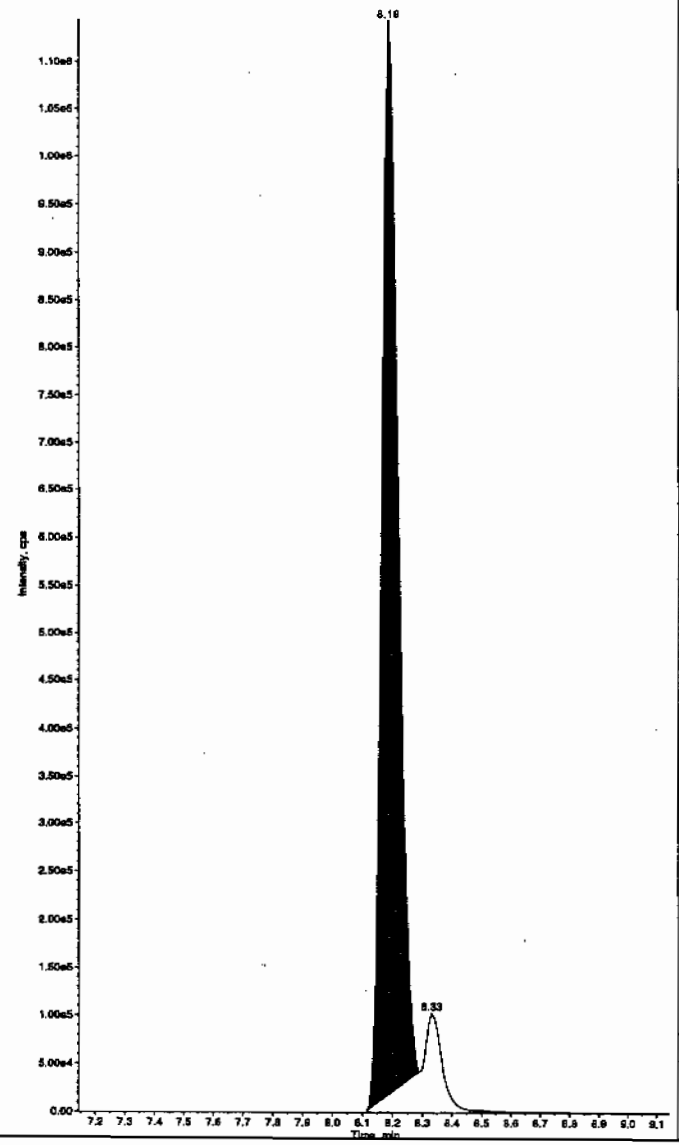

Hmm 01/12/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

After Ref 1/12/10

nple Name: "WXX100111-26CCV" Sample ID: "[1]LER" File: "EXS01100022.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 477. ng/mL
Date: 1/11/2010
Time: 4:46:42 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.01 min
Relative RT: No

Type: Valley
ntion Time: 6.97 min
: 7.34e+005 counts
ht: 169298.584 cps
t Time: 6.81 min
Time: 7.53 min

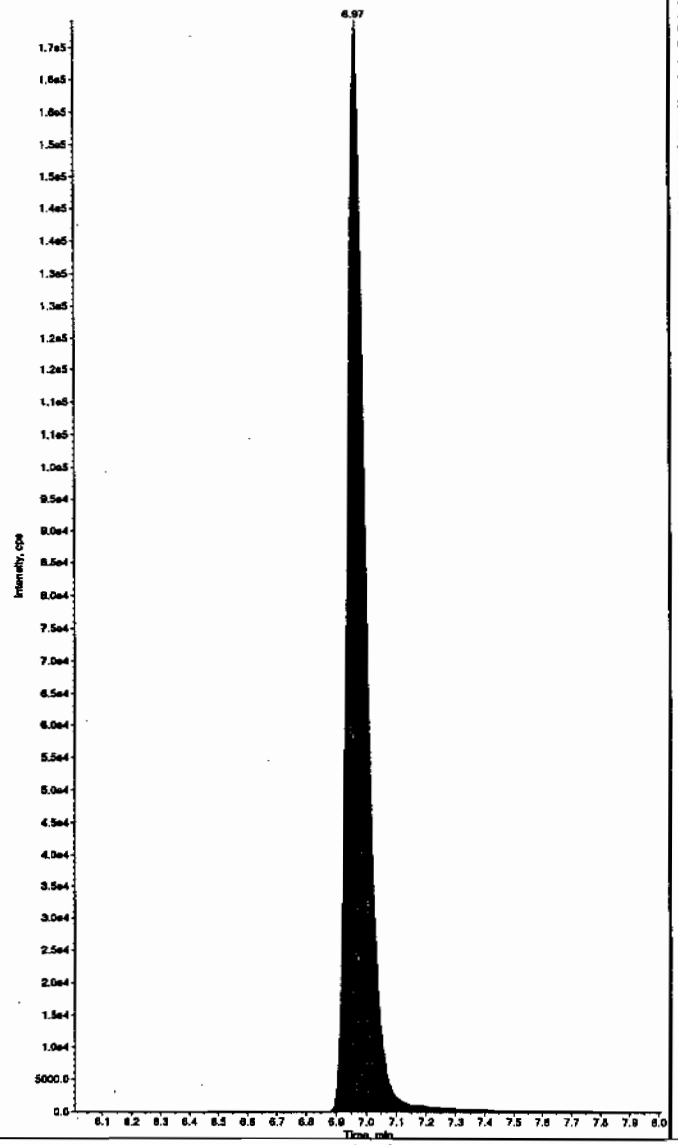

Sample Name: "WXX100111-26CCV" Sample ID: "[1]LER" File: "EXS01100022.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 460. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 4:46:42 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.19 min
Area: 4.63e+006 counts
Height: 1148483.233 cps
Start Time: 8.11 min
End Time: 8.29 min

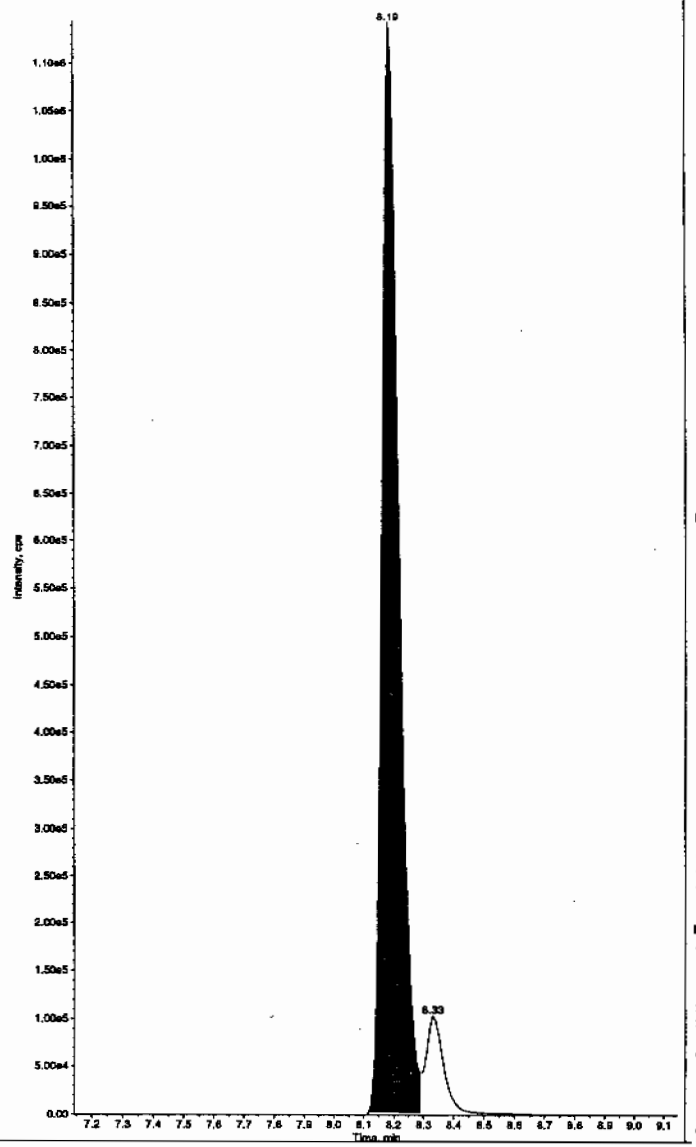

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100111-25CCV" Sample ID: "[1]LER" File: "EXS01100022.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 250. ng/mL
ulated Conc: 216. ng/mL
Date: 1/11/2010
Time: 4:46:42 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 15.0 sec
cted RT: 8.39 min
Relative RT: No

Type: Valley
ntion Time: 8.33 min
: 3.01e+006 counts
ht: 799728.882 cps
t Time: 8.26 min
Time: 8.64 min

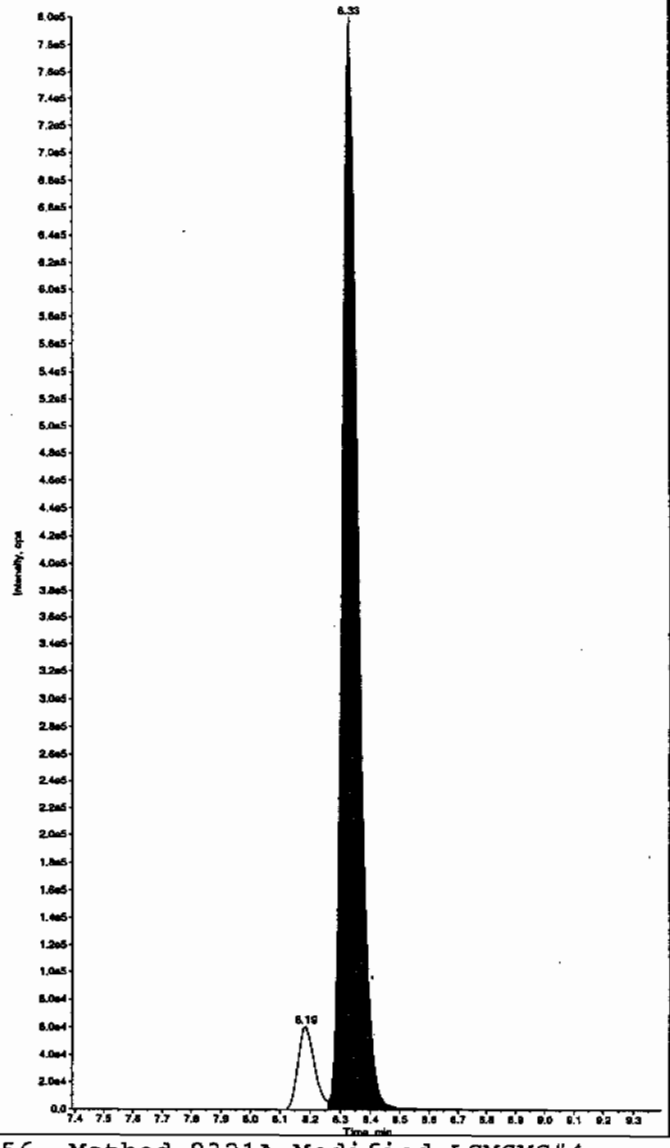

Sample Name: "WXX100111-25CCV" Sample ID: "[1]LER" File: "EXS01100022.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 445. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 4:46:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.05 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.05 min
Area: 1.47e+006 counts
Height: 330026.611 cps
Start Time: 4.96 min
End Time: 5.33 min

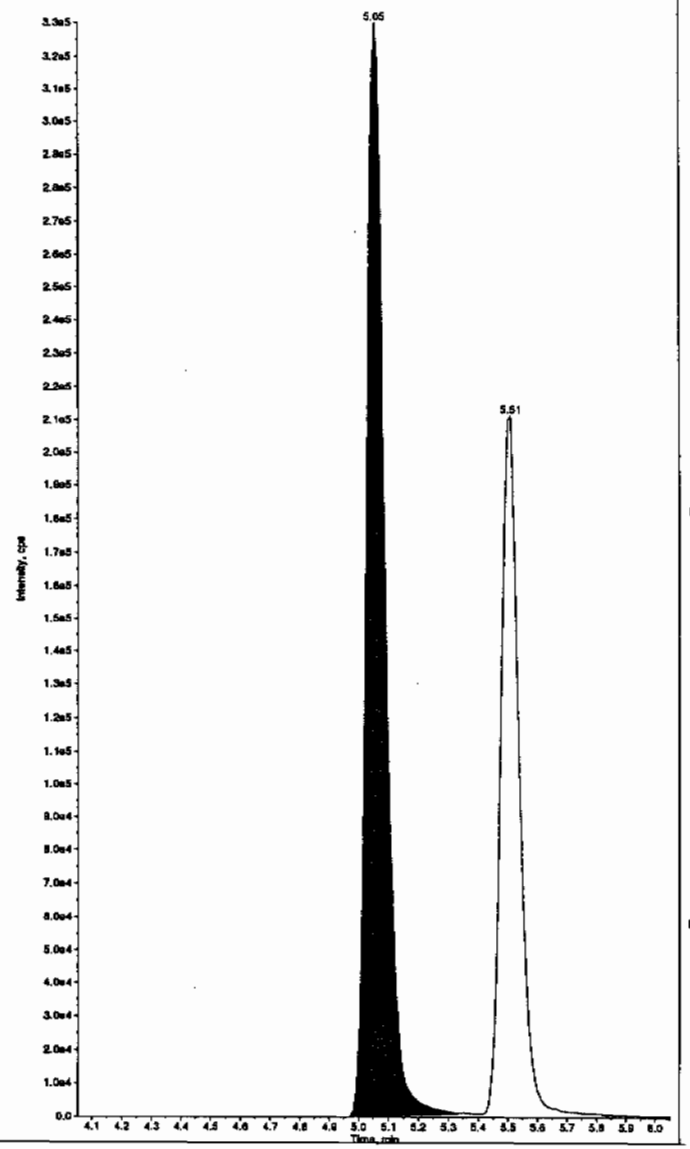

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100111-26CCV" Sample ID: "|1|LER" File: "EXS01100022.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 397. ng/mL
Date: 1/11/2010
Time: 4:46:42 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.50 min
Relative RT: No

Type: Valley
ntion Time: 5.51 min
: 9.35e+005 counts
ht: 211477.432 cps
t Time: 5.40 min
Time: 6.21 min

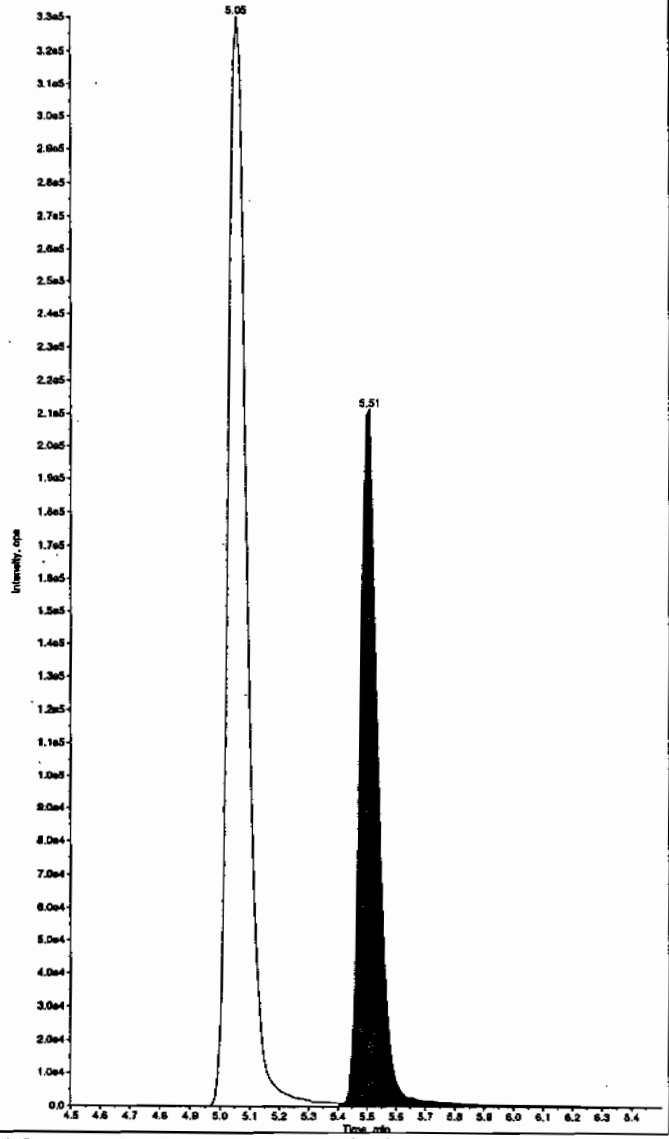

Sample Name: "WXX100111-26CCV" Sample ID: "|1|LER" File: "EXS01100022.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 460. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 4:46:42 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.12e+007 counts
Height: 2588738.525 cps
Start Time: 10.7 min
End Time: 11.1 min

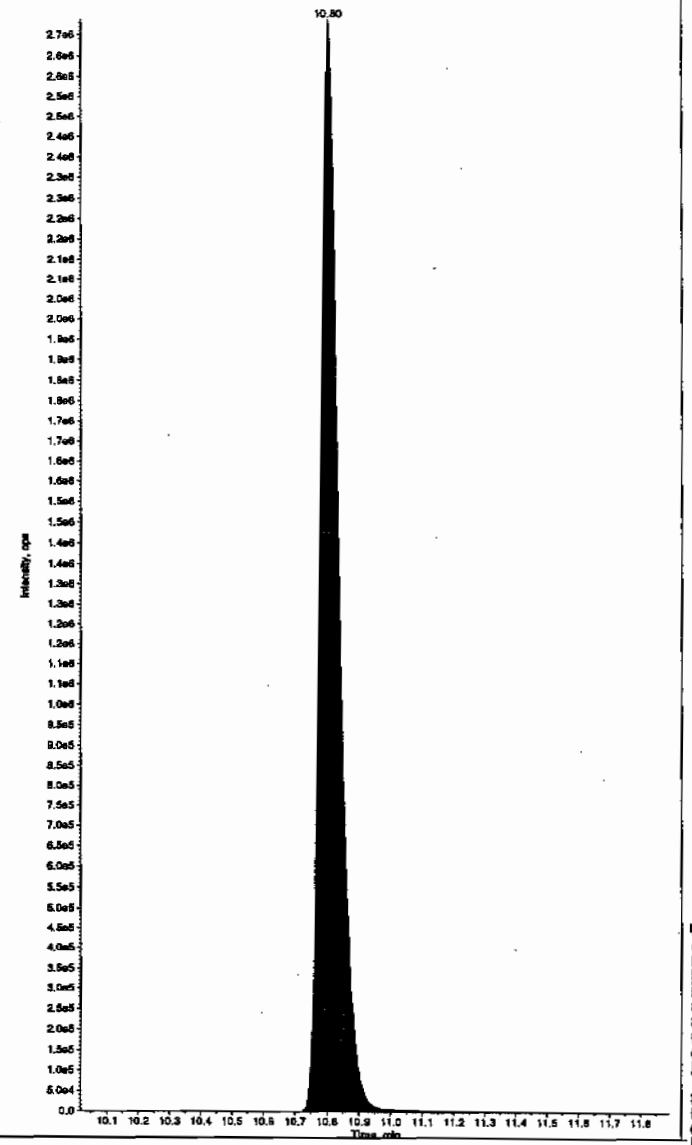

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–1020

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS01100024.wiff

Analysis Date: 11–JAN–10 17:18

LCMSMS ID: 1358

Column ID JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	57	57	
2,6–Diamino–4–nitrotoluene	100	62.9	63	
3,4–Dinitrotoluene	50	37.7	75	
3,5–Dinitroaniline	100	74.4	74	
TATB	100	87.5	88	
tris(o–cresyl) phosphate	100	87.3	87	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Before Clear 1/12/10

ample Name: "WXX100111-27CRI" Sample ID: "[1]LER" File: "EXS01100024.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 100. ng/mL
culated Conc: 87.5 ng/mL
. Date: 1/11/2010
. Time: 5:18:05 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.01 min
Relative RT: No

. Type: Valley
ention Time: 7.00 min
: 1.51e+005 counts
ght: 34708.321 cps
rt Time: 6.86 min
Time: 7.40 min

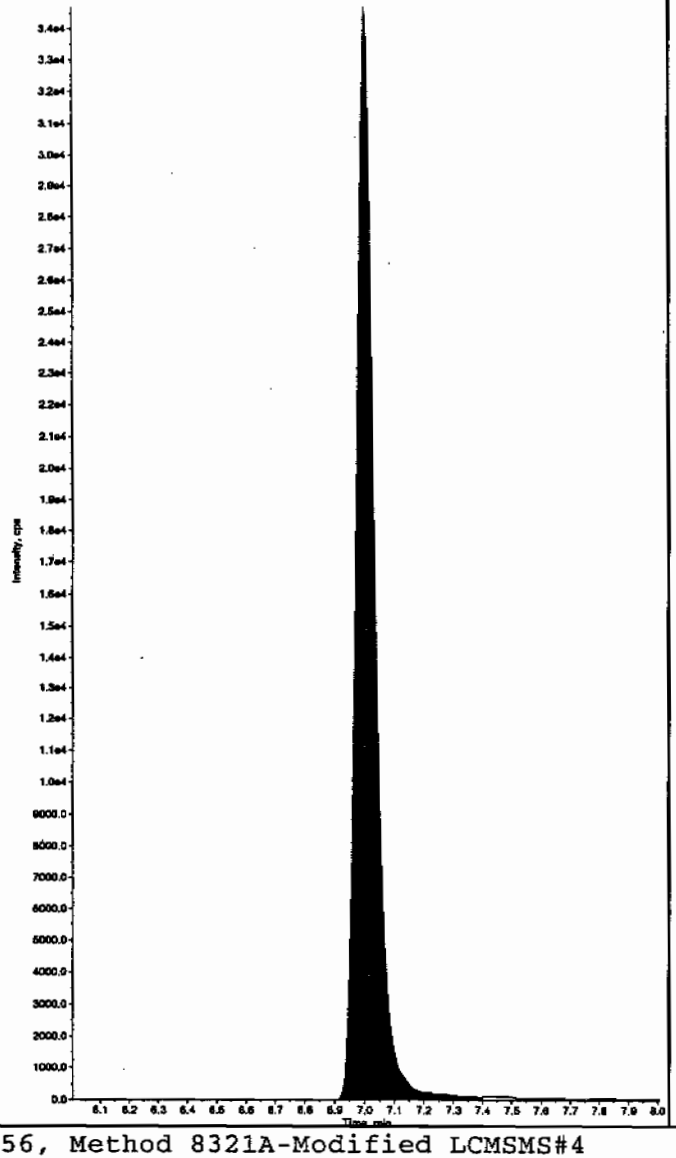

Sample Name: "WXX100111-27CRI" Sample ID: "[1]LER" File: "EXS01100024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 62.3 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 5:18:05 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.20 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.22 min
Area: 1.10e+006 counts
Height: 252172.180 cps
Start Time: 8.10 min
End Time: 8.74 min

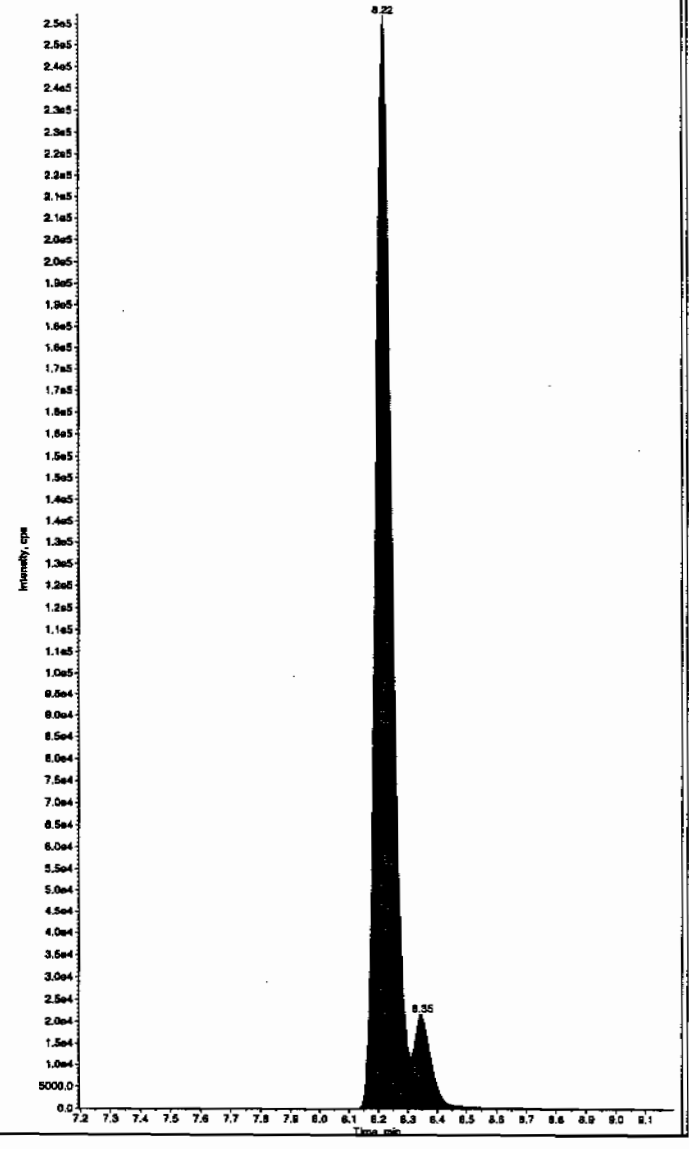

dhm 01/12/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

after Scan 1/12/10

mple Name: "WXX100111-27CRI" Sample ID: "[1]LER" File: "EXS01100024.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 87.5 ng/mL
Date: 1/11/2010
Time: 5:18:05 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 7.01 min
Relative RT: No

Type: Valley
ntion Time: 7.00 min
: 1.51e+005 counts
ht: 34708.321 cps
t Time: 6.86 min
Time: 7.40 min

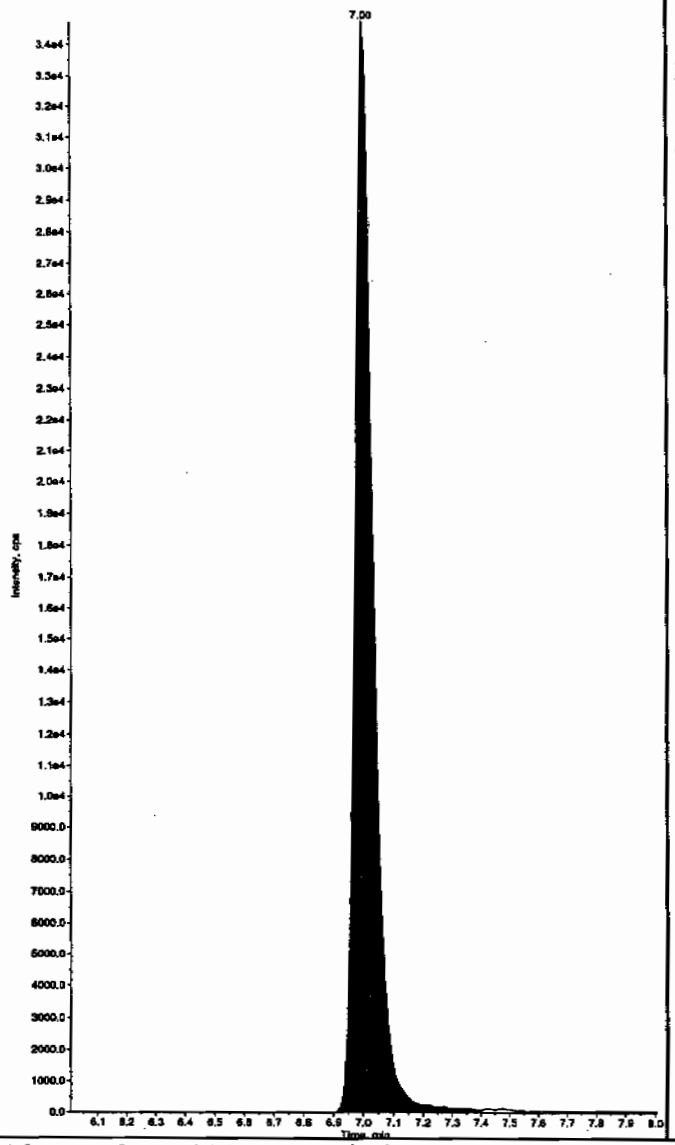

Sample Name: "WXX100111-27CRI" Sample ID: "[1]LER" File: "EXS01100024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 74.4 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 5:18:05 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.20 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.22 min
Area: 9.92e+005 counts
Height: 251701.239 cps
Start Time: 8.13 min
End Time: 8.31 min

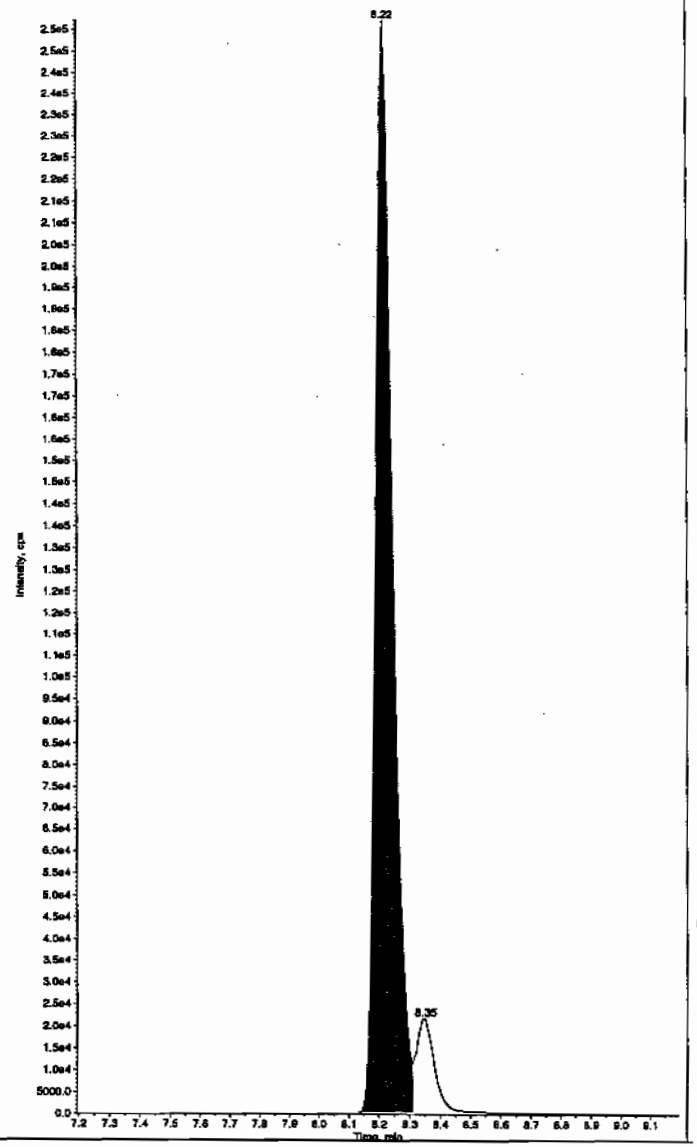

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100111-27CRI" Sample ID: "[1]LER" File: "EXS01100024.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
entration: 50.0 ng/mL
ulated Conc: 37.7 ng/mL
Date: 1/11/2010
Time: 5:18:05 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.39 min
Relative RT: No

Type: Valley
ention Time: 8.34 min
: 6.27e+005 counts
ght: 168165.314 cps
t Time: 8.28 min
Time: 8.63 min

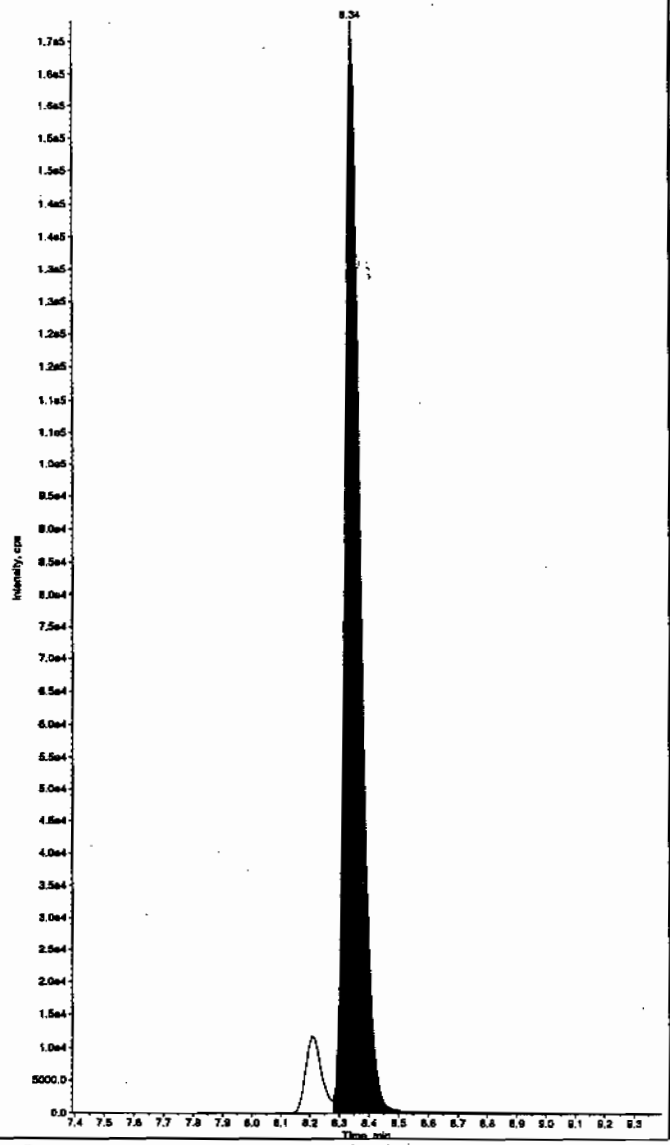

Sample Name: "WXX100111-27CRI" Sample ID: "[1]LER" File: "EXS01100024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 62.9 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 5:18:05 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.05 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 2.91e+005 counts
Height: 66999.504 cps
Start Time: 4.92 min
End Time: 5.32 min

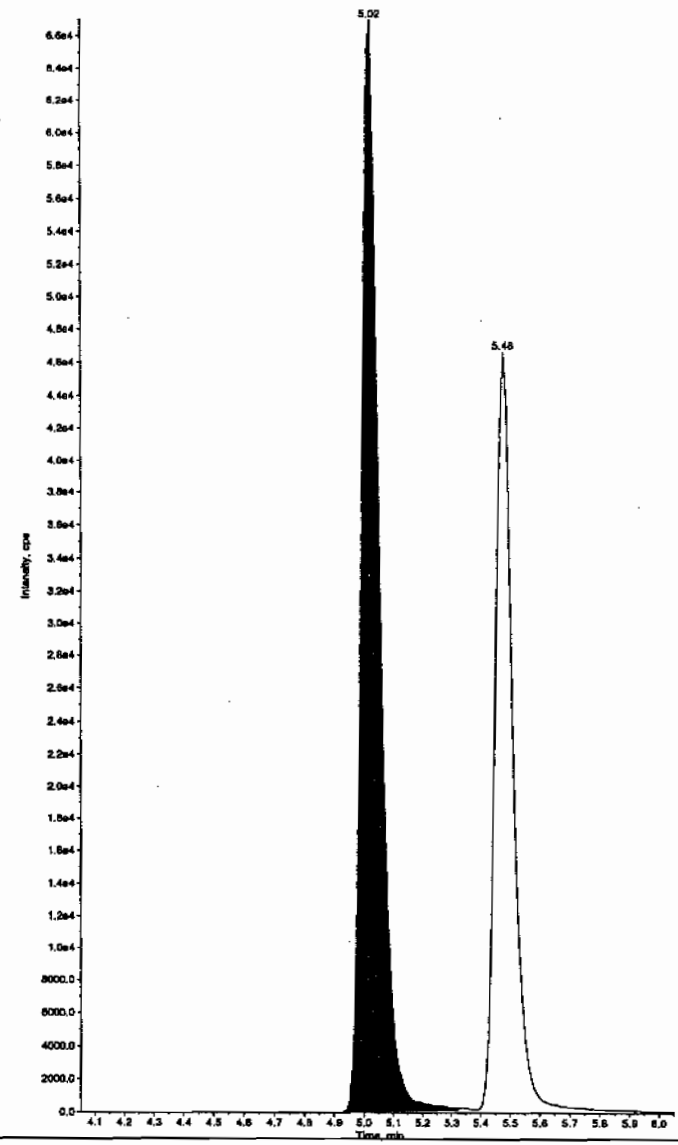

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100111-27CRI" Sample ID: "[1]LER" File: "EXS01100024.wiff"
ask Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
centration: 100. ng/mL
culated Conc: 57.0 ng/mL
. Date: 1/11/2010
. Time: 5:18:05 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 5.50 min
Relative RT: No

. Type: Valley
ention Time: 5.48 min
a: 1.93e+005 counts
ght: 46496.441 cps
rt Time: 5.37 min
Time: 5.80 min

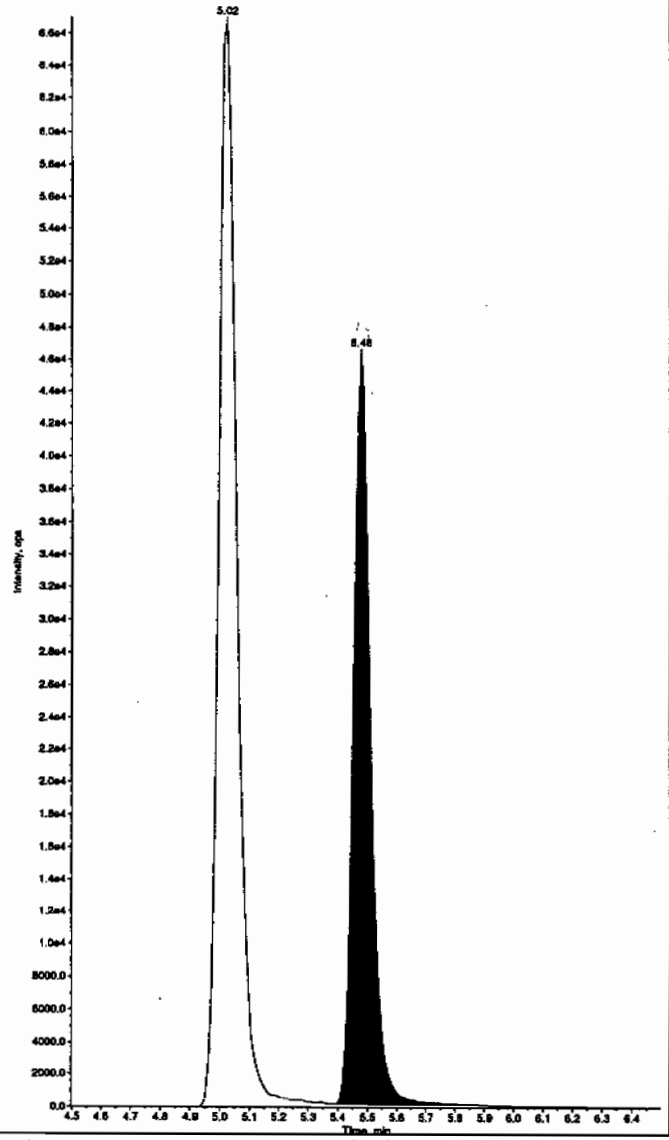

Sample Name: "WXX100111-27CRI" Sample ID: "[1]LER" File: "EXS01100024.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 87.3 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 5:18:05 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 2.46e+006 counts
Height: 578495.483 cps
Start Time: 10.7 min
End Time: 11.1 min

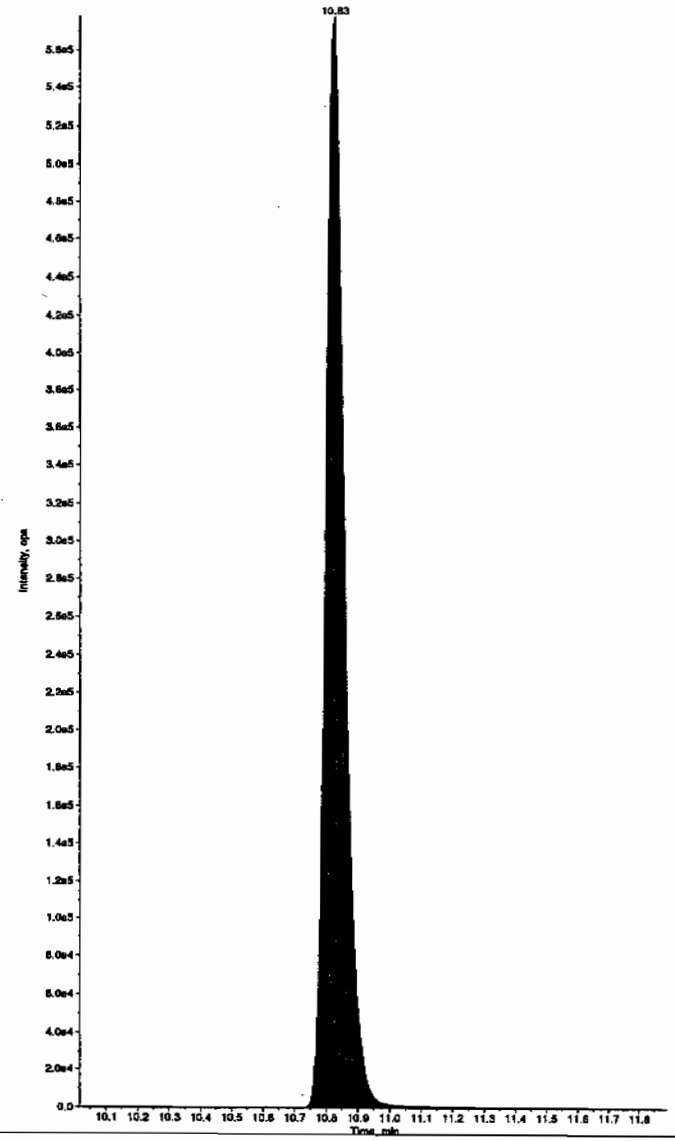

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QUALITY CONTROL DATA

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 936335

Lab Code: GEL

GEL Job No (SDG) 10-1020

Matrix: GROUND WATER

GEL Sample ID: 1202003473

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 23-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 936335

Concentrated Extract Volume (mL) 5

Date Extracted: 24-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0118013a

Date Analyzed: 18-JAN-10 19:57

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	U
121-14-2	2,4-Dinitrotoluene	0.325	U
121-82-4	RDX	0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	U
2691-41-0	HMX	0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	U
479-45-8	Tetryl	0.649	U
606-20-2	2,6-Dinitrotoluene	0.325	U
78-11-5	PETN	1.3	U
88-72-2	o-Nitrotoluene	0.325	U
98-95-3	Nitrobenzene	0.325	U
99-08-1	m-Nitrotoluene	0.325	U
99-35-4	1,3,5-Trinitrobenzene	0.325	U
99-65-0	m-Dinitrobenzene	0.325	U
99-99-0	p-Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

uantify Sample Report
iEL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

lame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0118013a
late: 18-Jan-2010
ime: 19:57:18
D: 1202003473 | LANW | 936340 | LEQ | MB | 2 |
ial: 1:4,A

MM 1/19/10

PBS #2

XQ: EXP0117030a

IMX
F2:MRM of 1 channel,AP-
176 > 102
6.712e+003

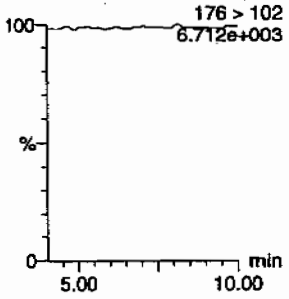

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.712e+003

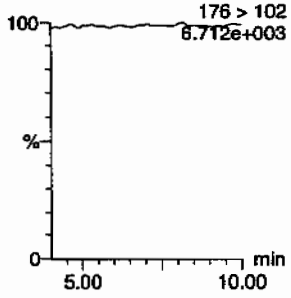

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.522e+003

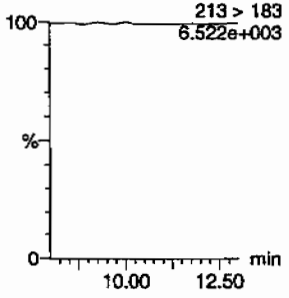

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.714e+004

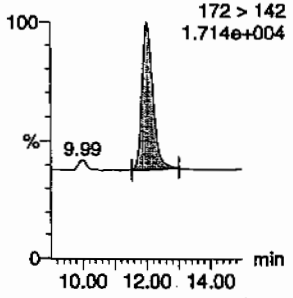

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.514e+003

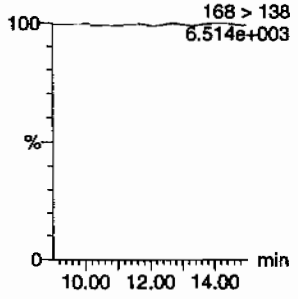

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.514e+003

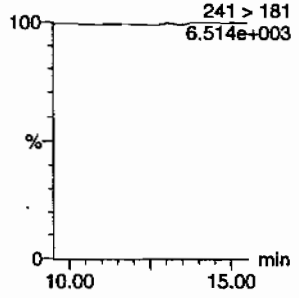

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.588e+003

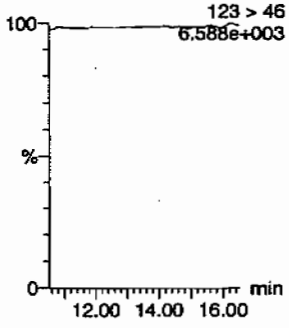

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.587e+003

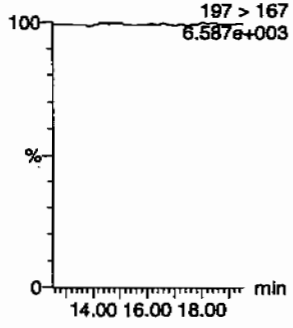

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.579e+003

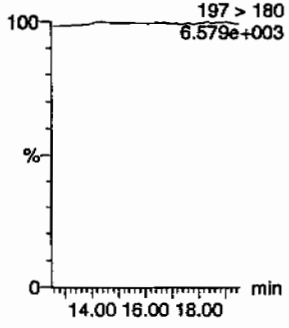

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.534e+003

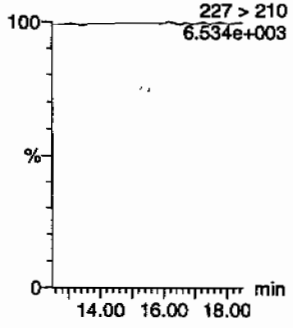

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.560e+004

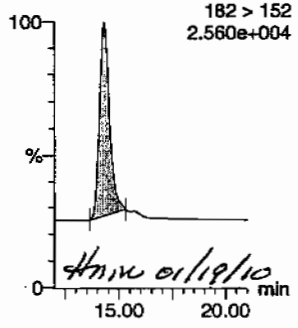

HMW 01/19/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.30
182 > 152
3.081e+004

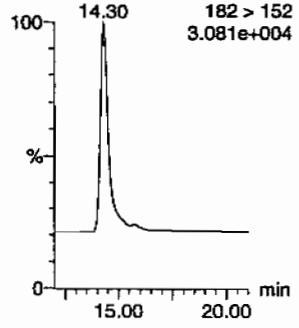

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

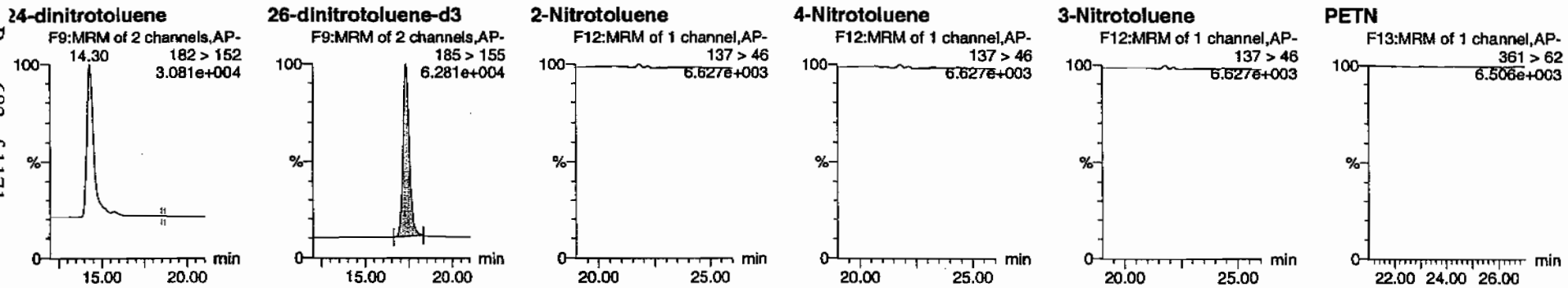

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
1202003473	HMX	176 > 102			4219.716									
1202003473	RDX	176 > 102			4219.716									
1202003473	135-Trinitrobenzene	213 > 183			4219.716									
1202003473	13-Dinitrobenzene-d4	172 > 142	12.00	4219.716		4219.716	4219.716	bb			621.7691	124.4	24.4	215.3
1202003473	13-Dinitrobenzene	168 > 138			4219.716									
1202003473	Tetryl	241 > 181			4219.716									
1202003473	Nitrobenzene	123 > 46			4219.716									
1202003473	4-Amino-26-dinitrotoluene	197 > 167			23862.221									
1202003473	2-Amino-46-dinitrotoluene	197 > 180			23862.221									
1202003473	246-Trinitrotoluene	227 > 210			23862.221									
1202003473	34-dinitrotoluene	182 > 152	14.34	10217.742	23862.221	10217.742	214.099	bb			229.6600	91.9	-8.1	446.1
1202003473	26-dinitrotoluene	182 > 152			23862.221									
1202003473	24-dinitrotoluene	182 > 152			23862.221			MM-	19-Jan-10	10:57:21				
1202003473	26-dinitrotoluene-d3	185 > 155	17.33	23862.221		23862.221	23862.221	bb			650.3891	130.1	30.1	1669.0
1202003473	2-Nitrotoluene	137 > 46			23862.221									
1202003473	4-Nitrotoluene	137 > 46			23862.221									
1202003473	3-Nitrotoluene	137 > 46			23862.221									
1202003473	PETN	361 > 62			23862.221									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 936335

Lab Code: GEL

GEL Job No (SDG) 10-1020

Matrix: GROUND WATER

GEL Sample ID: 1202003473

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 23-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 936335

Concentrated Extract Volume (mL) 5

Date Extracted: 24-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01100016.wiff

Date Analyzed: 11-JAN-10 15:12

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

LER 1/12/10

ample Name: "1202003473" Sample ID: "936340|2|LER" File: "EXS01100016.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212L" Annotation: ""
ple Index: 1
ple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
. Date: 1/11/2010
. Time: 3:12:31 PM
ified: No

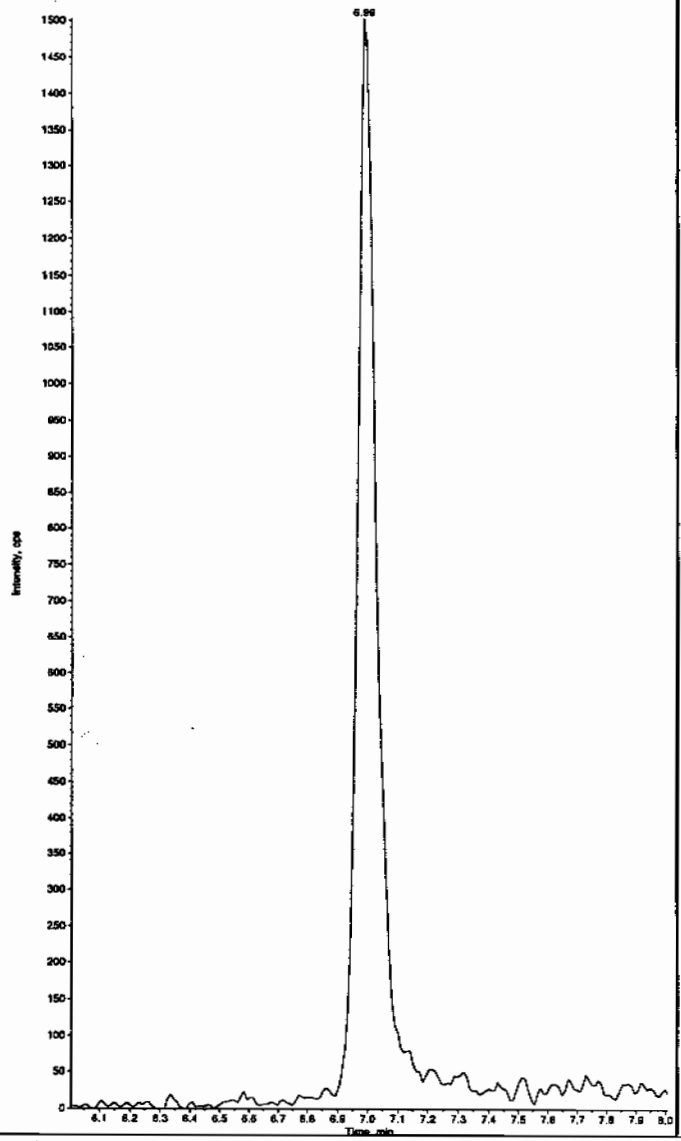

Sample Name: "1202003473" Sample ID: "936340|2|LER" File: "EXS01100016.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 3:12:31 PM

Modified: No

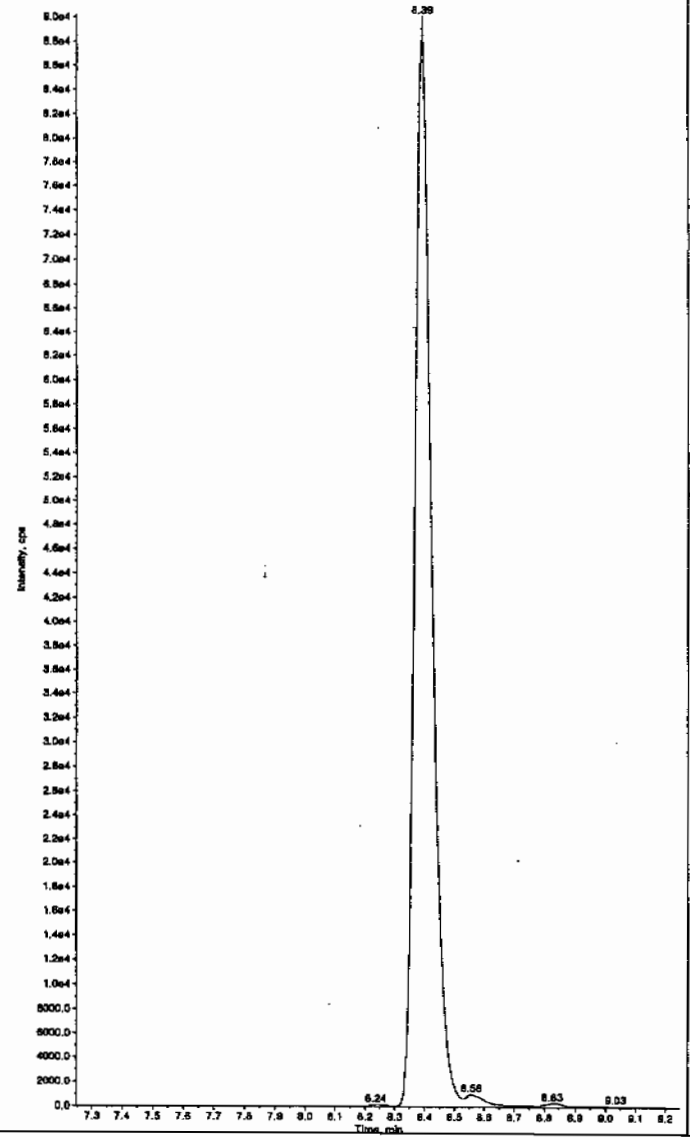

HMK 01/12/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "1202003473" Sample ID: "936340|2|LER" File: "EXS01100016.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212L" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 228. ng/mL
. Date: 1/11/2010
. Time: 3:12:31 PM

ified: No
:. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.39 min
Relative RT: No

. Type: Valley
ention Time: 8.38 min
s: 3.15e+006 counts
ght: 772823.730 cps
rt Time: 8.28 min
Time: 8.74 min

2.96

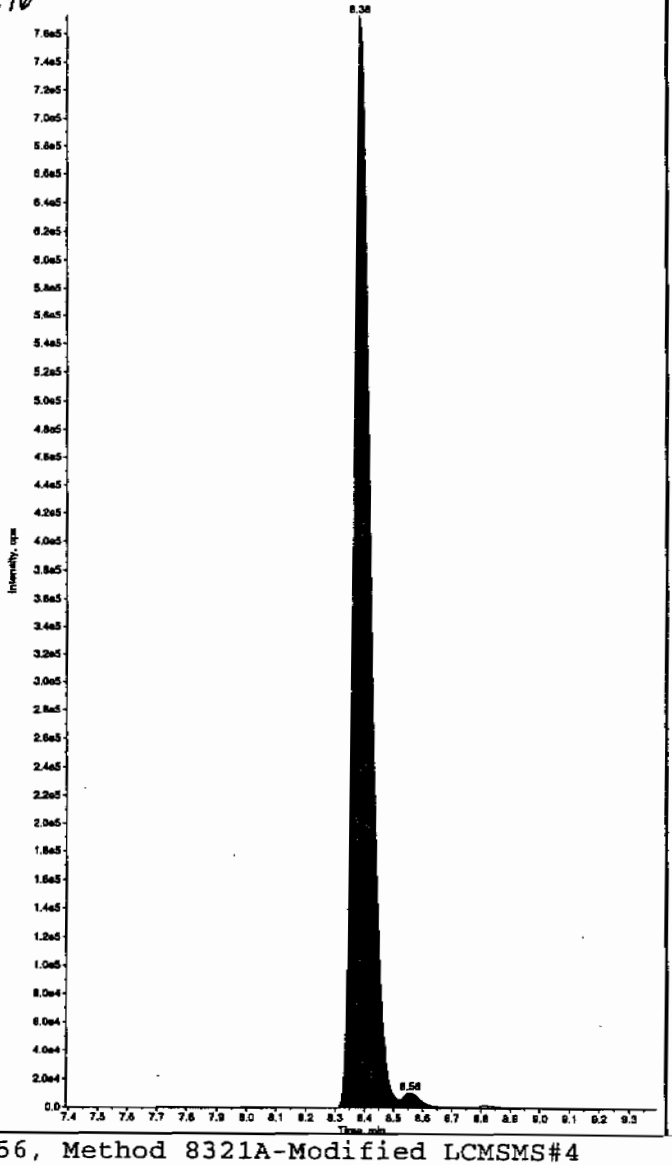

Sample Name: "1202003473" Sample ID: "936340|2|LER" File: "EXS01100016.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 3:12:31 PM

Modified: No

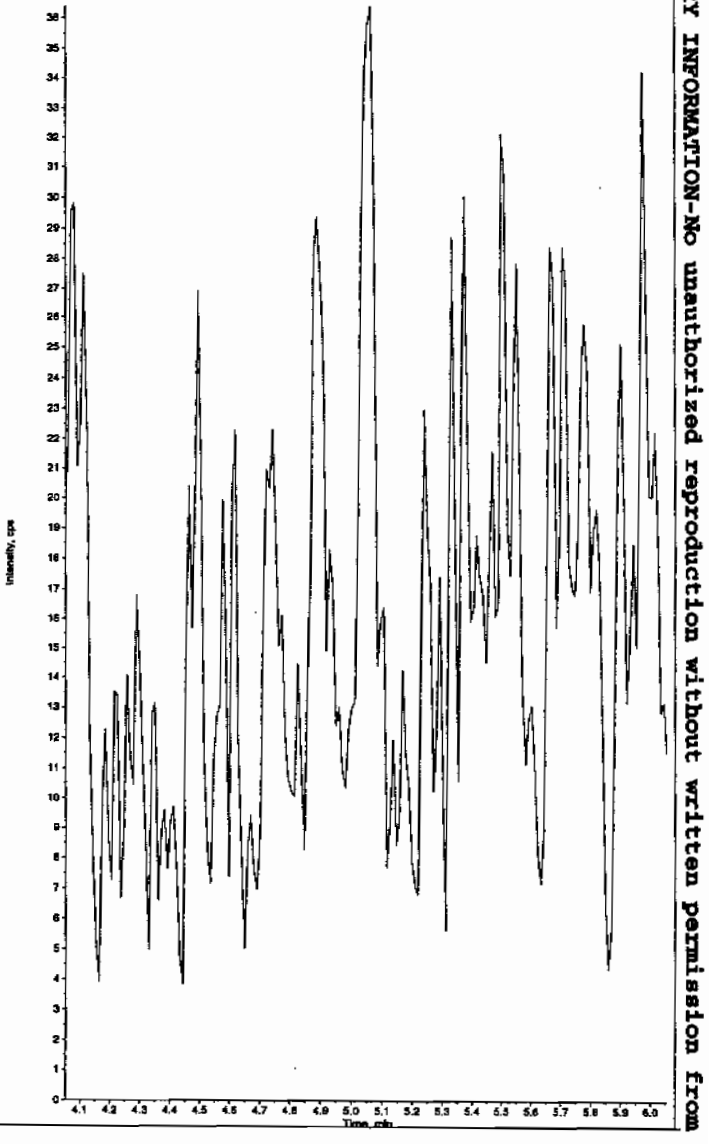

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "1202003473" Sample ID: "936340[2]LER" File: "EXS01100016.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCX83212L" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 1/11/2010
. Time: 3:12:31 PM

ified: No

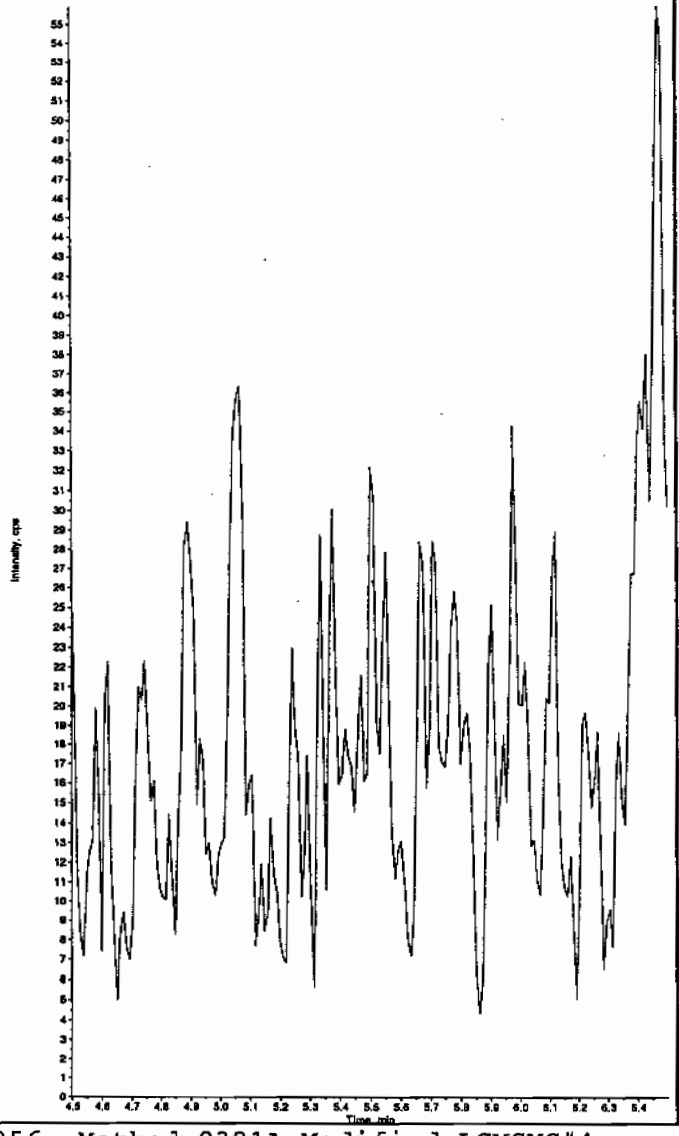

Sample Name: "1202003473" Sample ID: "936340[2]LER" File: "EXS01100016.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/11/2010
Acq. Time: 3:12:31 PM

Modified: No

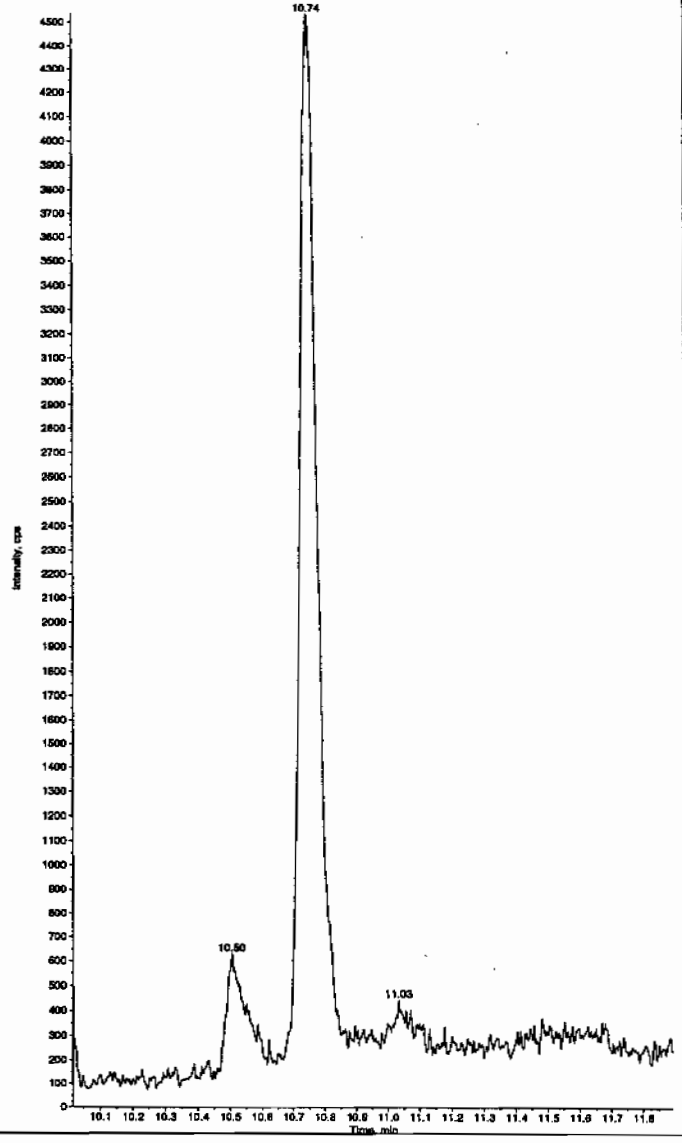

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 936335

Lab Code: GEL

GEL Job No (SDG) 10-1020

Matrix: GROUND WATER

GEL Sample ID: 1202003474

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 23-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 936335

Concentrated Extract Volume (mL) 5

Date Extracted: 24-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0118014a

Date Analyzed: 18-JAN-10 20:26

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5.76	
121-14-2	2,4-Dinitrotoluene	5.88	
121-82-4	RDX	5.93	
19406-51-0	4-Amino-2,6-dinitrotoluene	6.3	
2691-41-0	HMX	5.1	
35572-78-2	2-Amino-4,6-dinitrotoluene	6.17	
479-45-8	Tetryl	5.07	
606-20-2	2,6-Dinitrotoluene	5.8	
78-11-5	PETN	5.42	
88-72-2	o-Nitrotoluene	5.22	
98-95-3	Nitrobenzene	5.36	
99-08-1	m-Nitrotoluene	5.31	
99-35-4	1,3,5-Trinitrobenzene	5.53	
99-65-0	m-Dinitrobenzene	5.48	
99-99-0	p-Nitrotoluene	6.12	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0118014a
Date: 18-Jan-2010
Time: 20:26:48
ID: 1202003474
Vial: 1:4,B

LANL | 936340 | LCO | LC8 | 2

MAT 1/19/10

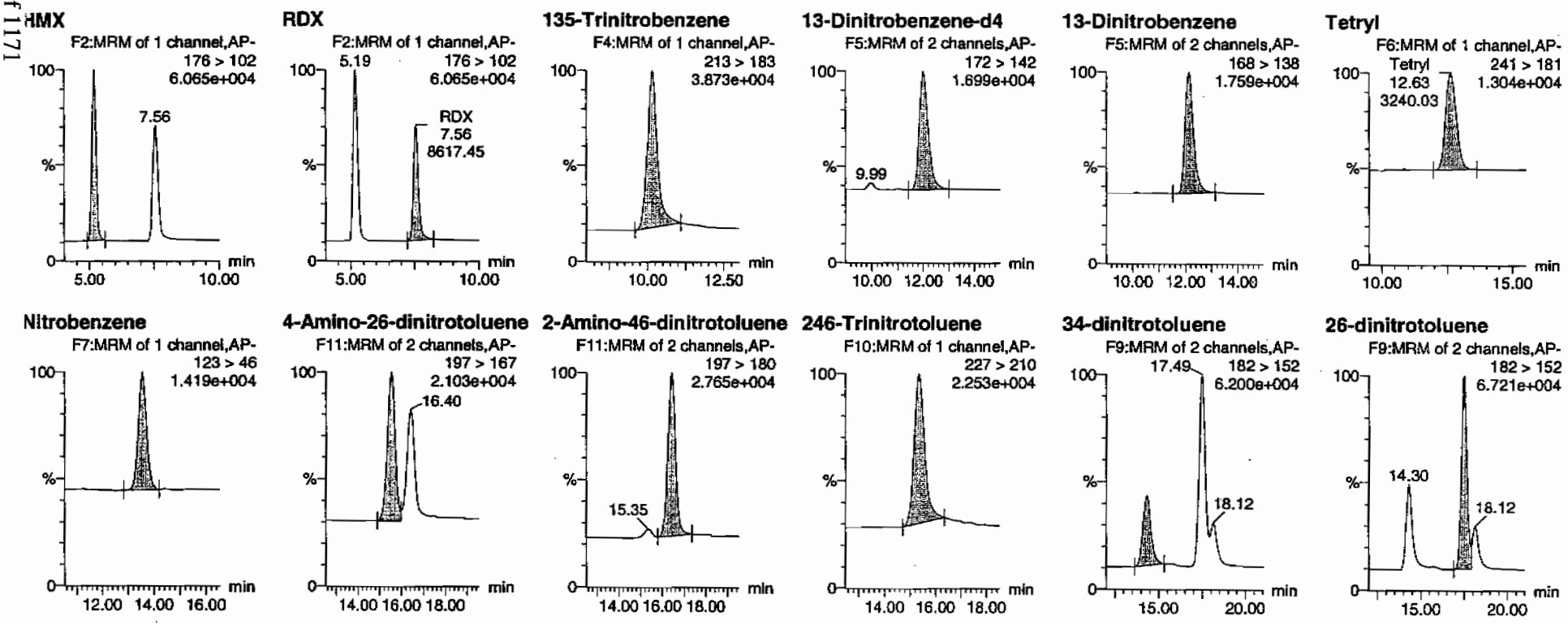

Anne 01/19/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

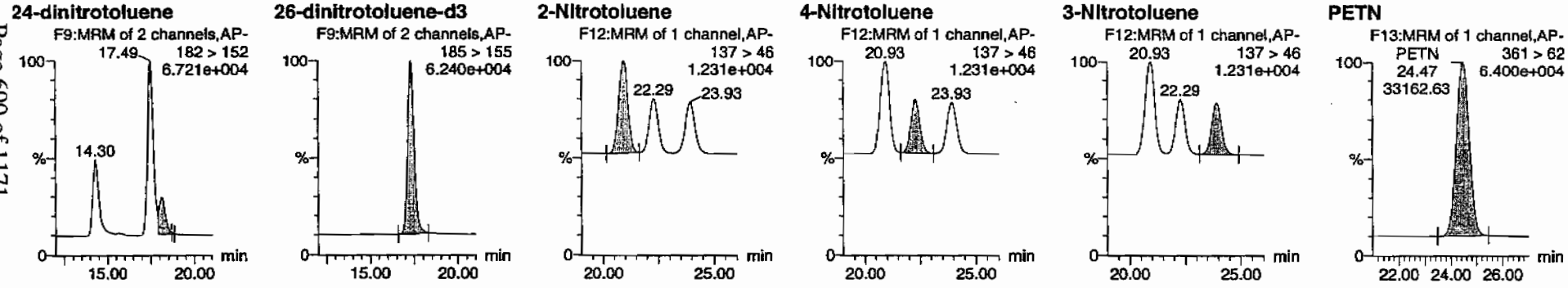

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
1202003474	HMX	176 > 102	5.19	10774.880	4247.167	10774.880	1268.478	db			392.9524	78.6	-21.4	521.8
1202003474	RDX	176 > 102	7.56	8617.450	4247.167	8617.450	1014.494	bb			456.2541	91.3	-8.7	351.4
1202003474	135-Trinitrobenzene	213 > 183	10.16	12056.652	4247.167	12056.652	1419.376	bb			426.0049	85.2	-14.8	2098.4
1202003474	13-Dinitrobenzene-d4	172 > 142	12.00	4247.167		4247.167	4247.167	bb			625.8140	125.2	25.2	544.7
1202003474	13-Dinitrobenzene	168 > 138	12.14	4238.976	4247.167	4238.976	499.036	bb			422.2974	84.5	-15.5	750.3
1202003474	Tetryl	241 > 181	12.63	3240.035	4247.167	3240.035	381.435	bb			390.5696	78.1	-21.9	263.6
1202003474	Nitrobenzene	123 > 46	13.54	2937.677	4247.167	2937.677	345.840	bb			413.0977	82.6	-17.4	206.9
1202003474	4-Amino-26-dinitrotoluene	197 > 167	15.53	6091.558	23779.924	6091.558	128.082	MM	19-Jan-10	10:48:03	485.1737	97.0	-3.0	301.3
1202003474	2-Amino-46-dinitrotoluene	197 > 180	16.40	8802.046	23779.924	8802.046	185.073	bb			475.0775	95.0	-5.0	630.1
1202003474	246-Trinitrotoluene	227 > 210	15.34	7422.761	23779.924	7422.761	156.072	bb			443.2293	88.6	-11.4	316.0
1202003474	34-dinitrotoluene	182 > 152	14.30	10834.396	23779.924	10834.396	227.806	bb		3:17	244.3630	97.7	-2.3	326.0
1202003474	26-dinitrotoluene	182 > 152	17.49	23193.189	23779.924	23193.189	487.663	MM	19-Jan-10	10:53:30	446.4653	89.3	-10.7	912.5
1202003474	24-dinitrotoluene	182 > 152	18.12	5440.881	23779.924	5440.881	114.401	MM	19-Jan-10	10:57:30	452.4784	90.5	-9.5	193.8
1202003474	26-dinitrotoluene-d3	185 > 155	17.31	23779.924		23779.924	23779.924	bb			648.1460	129.6	29.6	1535.3
1202003474	2-Nitrotoluene	137 > 46	20.93	2869.437	23779.924	2869.437	60.333	bb			402.0161	80.4	-19.6	349.3
1202003474	4-Nitrotoluene	137 > 46	22.29	1604.410	23779.924	1604.410	33.735	bb			471.1588	94.2	-5.8	201.4
1202003474	3-Nitrotoluene	137 > 46	23.93	1656.801	23779.924	1656.801	34.836	bb			408.4906	81.7	-18.3	191.4
1202003474	PETN	361 > 62	24.47	33162.625	23779.924	33162.625	697.282	bb			417.2811	83.5	-16.5	6668.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 936335

Lab Code: GEL

GEL Job No (SDG) 10-1020

Matrix: GROUND WATER

GEL Sample ID: 1202003474

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 23-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 936335

Concentrated Extract Volume (mL) 5

Date Extracted: 24-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01100017.wiff

Date Analyzed: 11-JAN-10 15:28

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5.26	
59229-75-3	2,6-Diamino-4-nitrotoluene	5.05	
618-87-1	3,5-Dinitroaniline	5.42	
6629-29-4	2,4-Diamino-6-nitrotoluene	3.96	
78-30-8	tris(o-cresyl) phosphate	2.79	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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Before Lab 1/12/10

Sample Name: "1202003474" Sample ID: "936340|2|LER" File: "EXS01100017.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212L" Annotation: ""

ple Index: 1
ple Type: Unknown
centration: N/A
lculated Conc: 405. ng/mL
. Date: 1/11/2010
. Time: 3:28:13 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
ected RT: 7.01 min
Relative RT: No

. Type: Valley
tention Time: 7.02 min
a: 5.26e+005 counts
ight: 144699.890 cps
rt Time: 6.89 min
Time: 7.55 min

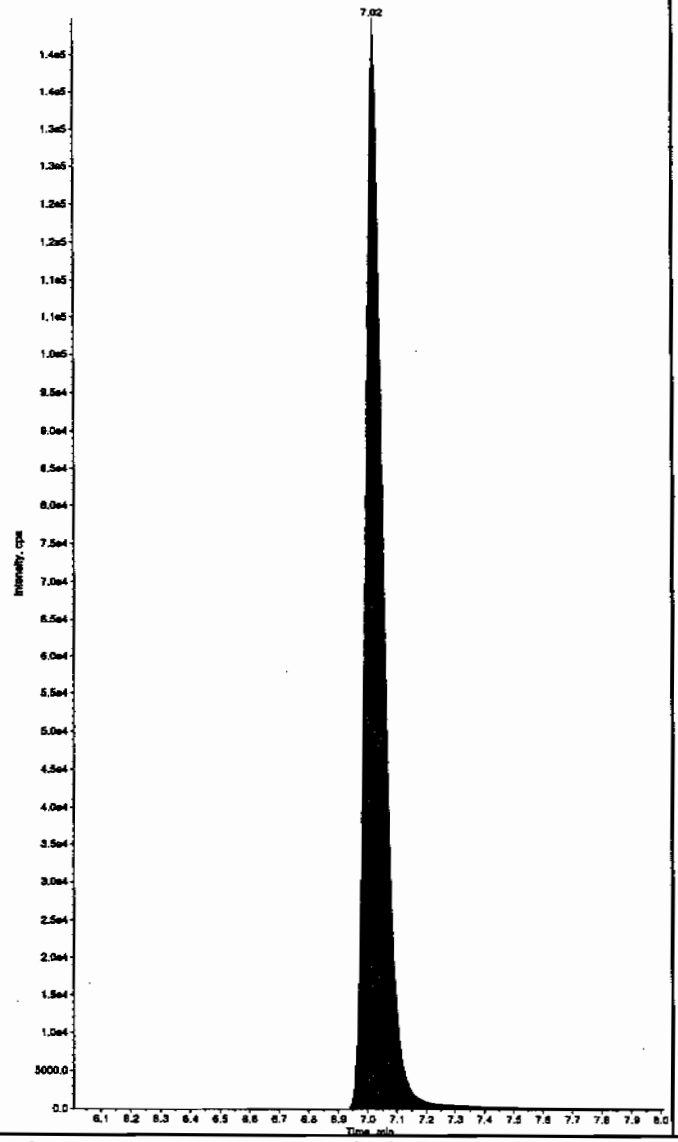

Sample Name: "1202003474" Sample ID: "936340|2|LER" File: "EXS01100017.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 418. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 3:28:13 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.19 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.19 min
Area: 4.39e+006 counts
Height: 1031533.081 cps
Start Time: 8.11 min
End Time: 8.39 min

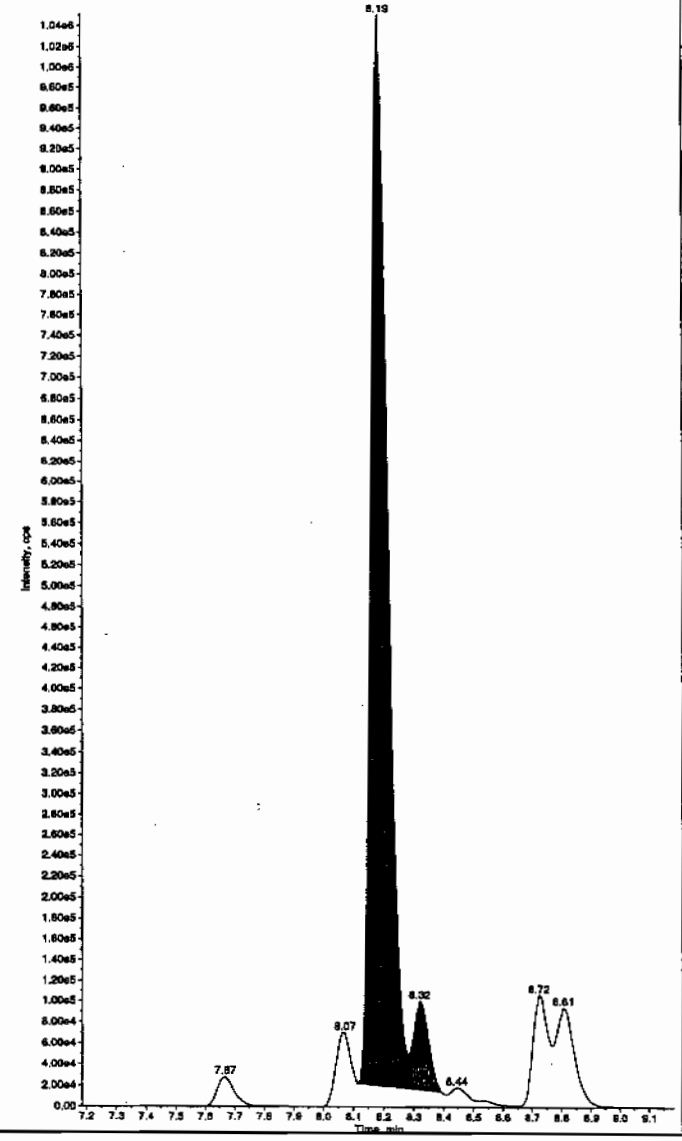

AMW 01/12/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

after Lar 1/12/10

Sample Name: "1202003474" Sample ID: "936340|2|LER" File: "EXS01100017.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212L" Annotation: ""

ample Index:	1
ample Type:	Unknown
oncentration:	N/A
alculated Conc:	405. ng/mL
q. Date:	1/11/2010
q. Time:	3:28:13 PM
odified:	No
gc. Algorithm:	IntelliQuan - IQA
q. Peak Height:	2500.00 cps
q. Peak Width:	0.00 sec
oothing Width:	3 points
T Window:	30.0 sec
pected RT:	7.01 min
e Relative RT:	No
t. Type:	Valley
etention Time:	7.02 min
ea:	6.26e+005 counts
eight:	144699.890 cps
art Time:	6.89 min
d Time:	7.55 min

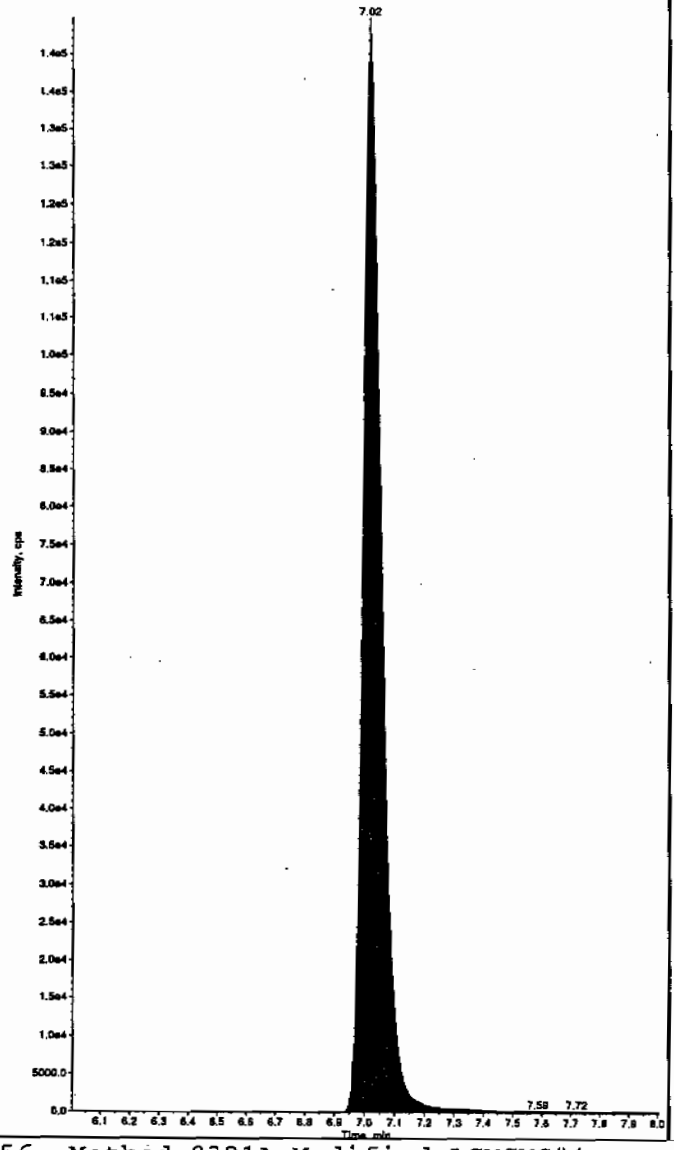

Sample Name: "1202003474" Sample ID: "936340|2|LER" File: "EXS01100017.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	417. ng/mL
Acq. Date:	1/11/2010
Acq. Time:	3:28:13 PM
Modified:	Yes
RT Window:	15.0 sec
Expected RT:	8.19 min
Use Relative RT:	No
Int. Type:	Manual
Retention Time:	8.18 min
Area:	4.24e+006 counts
Height:	1049893.096 cps
Start Time:	8.11 min
End Time:	8.28 min

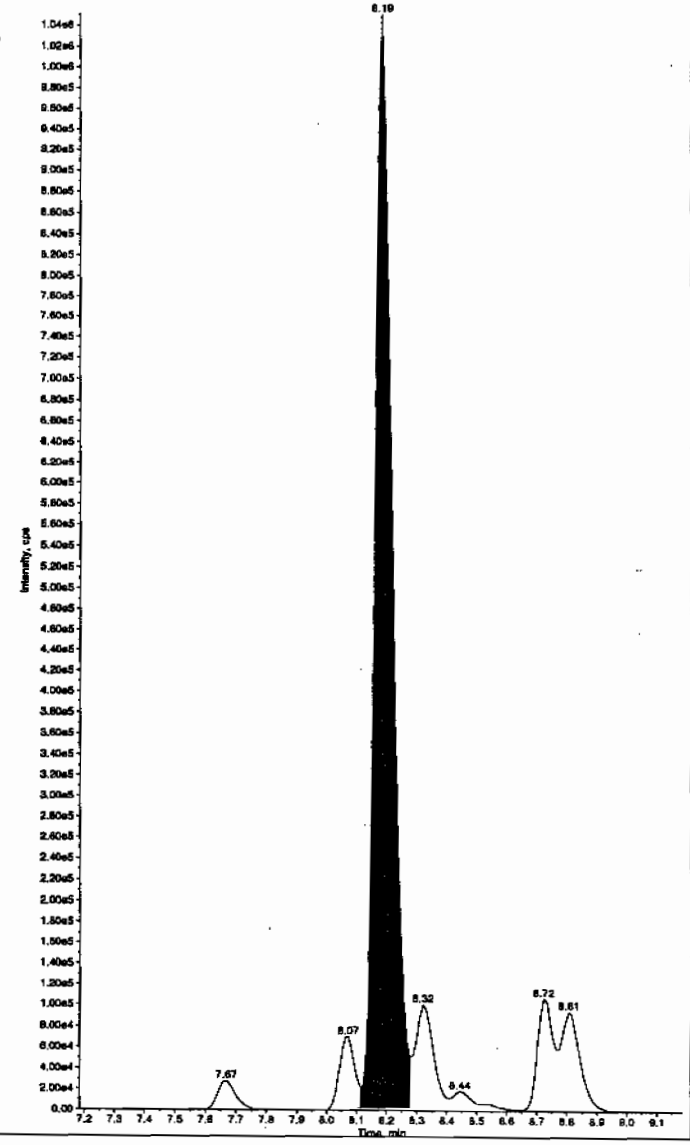

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "1202003474" Sample ID: "936340[2]LER" File: "EXS01100017.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212L" Annotation: ""
ple Index: 1
ple Type: Unknown 3.89
centration: N/A
culated Conc: 238. ng/mL
. Date: 1/11/2010
. Time: 3:28:13 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.39 min
Relative RT: No

. Type: Valley
ention Time: 8.32 min
a: 3.29e+006 counts
ght: 822247.253 cps
rt Time: 8.25 min
Time: 8.56 min

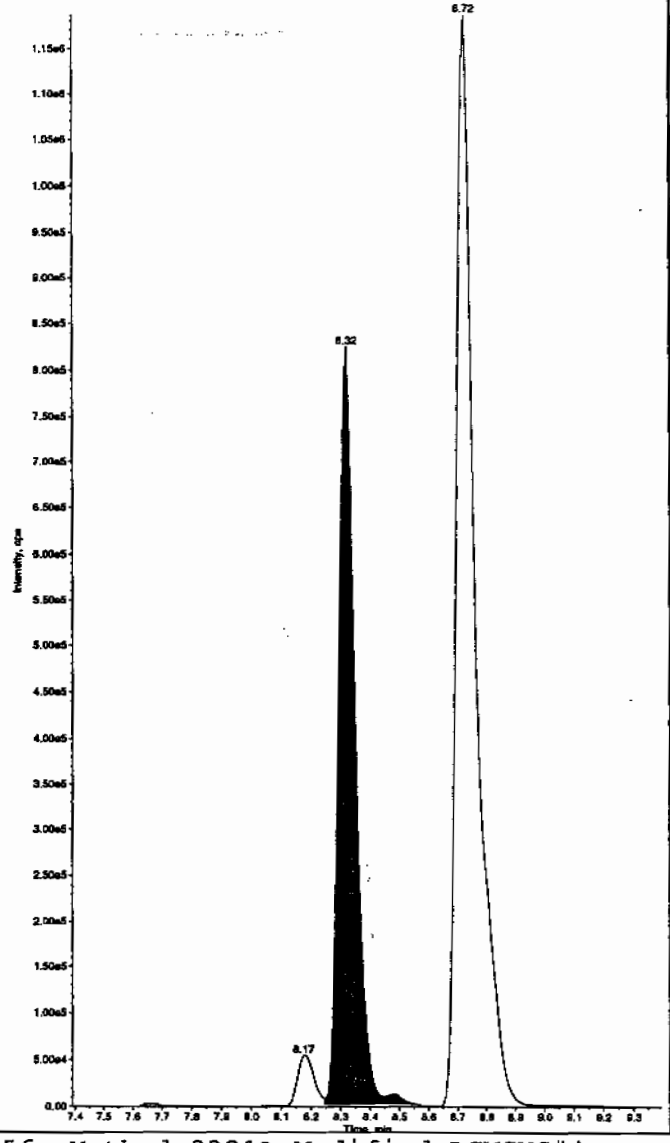

Sample Name: "1202003474" Sample ID: "936340[2]LER" File: "EXS01100017.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 389. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 3:28:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.05 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.07 min
Area: 1.30e+006 counts
Height: 307395.172 cps
Start Time: 4.97 min
End Time: 5.34 min

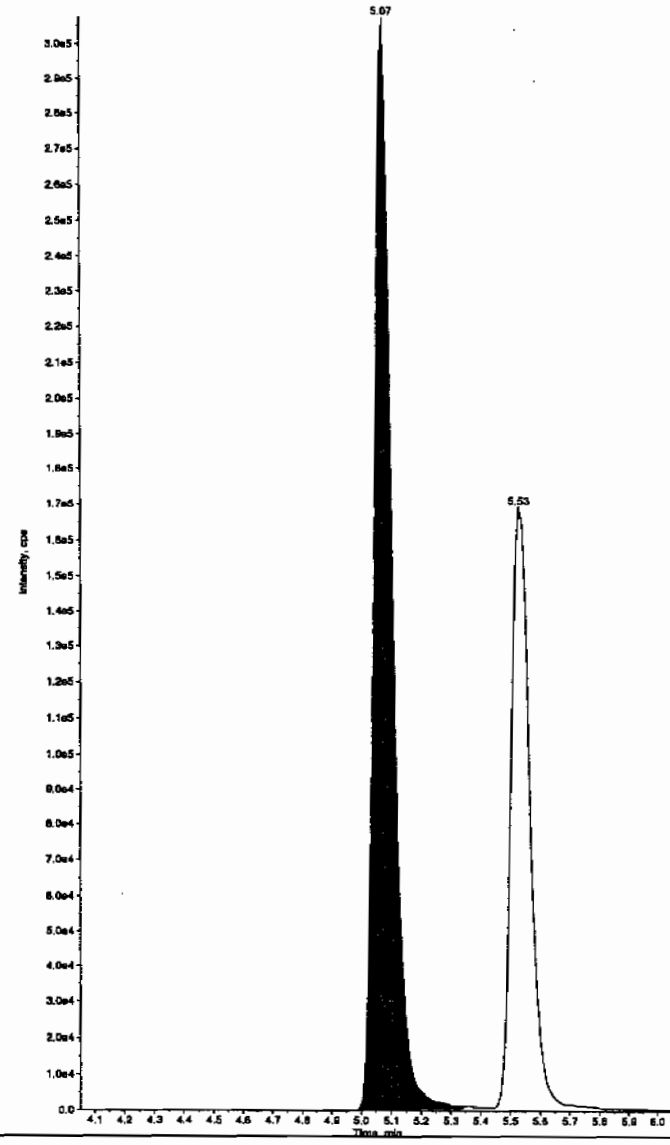

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "1202003474" Sample ID: "936340[2]LER" File: "EXS01100017.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCX83212L" Annotation: ""

ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 305. ng/mL
. Date: 1/11/2010
. Time: 3:28:13 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 5.50 min
Relative RT: No

. Type: Valley
ention Time: 5.53 min
a: 7.36e+005 counts
ght: 168607.056 cps
rt Time: 5.44 min
Time: 5.82 min

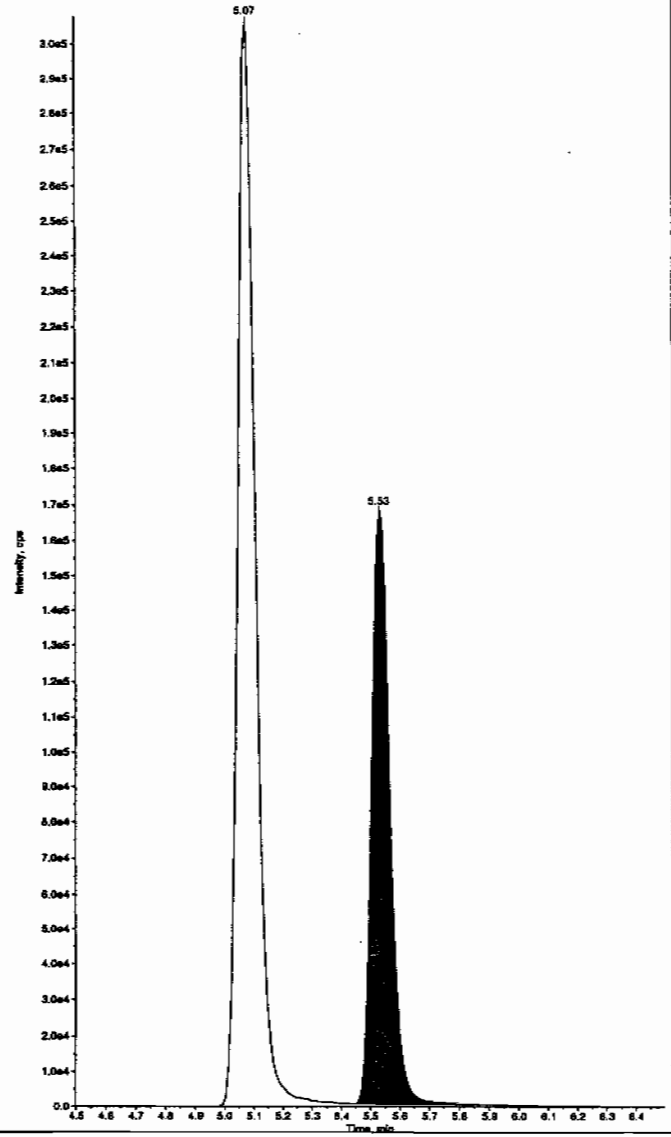

Sample Name: "1202003474" Sample ID: "936340[2]LER" File: "EXS01100017.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 215. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 3:28:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 5.61e+006 counts
Height: 1490168.599 cps
Start Time: 10.7 min
End Time: 11.2 min

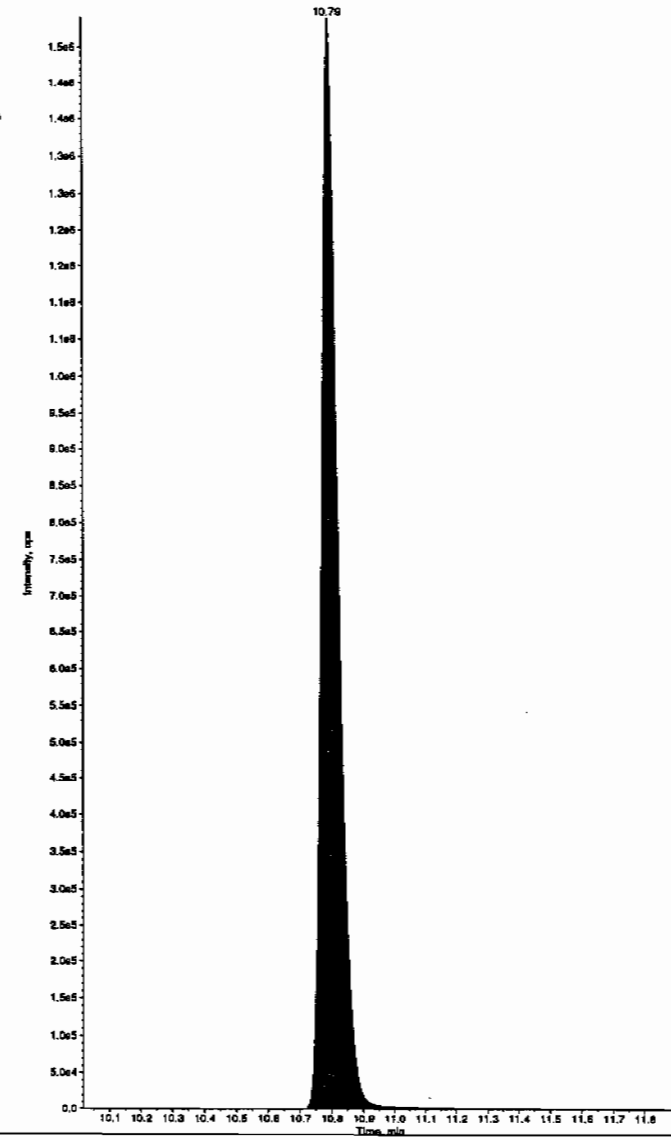

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6823(243401006MS)

Lab Code: GEL

GEL Job No (SDG) 10-1020

Matrix: GROUND WATER

GEL Sample ID: 1202003475

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 22-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 936335

Concentrated Extract Volume (mL) 5

Date Extracted: 24-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0118016a

Date Analyzed: 18-JAN-10 21:25

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5.83	
121-14-2	2,4-Dinitrotoluene	6.06	
121-82-4	RDX	6.31	
19406-51-0	4-Amino-2,6-dinitrotoluene	6.65	
2691-41-0	HMX	5.62	
35572-78-2	2-Amino-4,6-dinitrotoluene	6.17	
479-45-8	Tetryl	2.04	
606-20-2	2,6-Dinitrotoluene	5.91	
78-11-5	PETN	5.75	
88-72-2	o-Nitrotoluene	5.3	
98-95-3	Nitrobenzene	5.91	
99-08-1	m-Nitrotoluene	5.24	
99-35-4	1,3,5-Trinitrobenzene	5.39	
99-65-0	m-Dinitrobenzene	5.97	
99-99-0	p-Nitrotoluene	5.84	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0118016a
Date: 18-Jan-2010
Time: 21:25:46
ID: 1202003475 | LANL | 936340 | GEL | 243401006MS | 2 |
Vial: 1:4,D

MAP 1/19/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.374e+004
7.56

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.374e+004
5.18
RDX
7.56
8775.42

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
3.671e+004

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.630e+004
10.01

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.779e+004

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
8.806e+003
Tetryl
12.61
1244.28

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.493e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.149e+004
16.42

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
2.664e+004
15.31

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.198e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.200e+004
17.48
18.13

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.721e+004
14.28
18.13

HMM 01/19/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

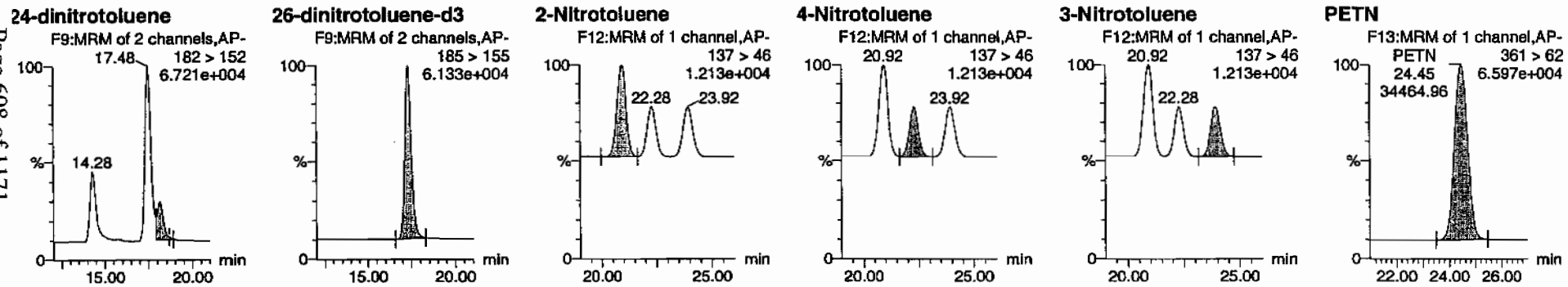

ID	Name	Trace	RT	Area	ISArea	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
1202003475	HMX	176 > 102	5.18	11356.442	4064.014	11356.442	1397.195	db			432.8265	86.6	-13.4	1518.8
1202003475	RDX	176 > 102	7.56	8775.422	4064.014	8775.422	1079.650	bb			485.5569	97.1	-2.9	976.1
1202003475	135-Trinitrobenzene	213 > 183	10.16	11240.101	4064.014	11240.101	1382.882	bb			415.0517	83.0	-17.0	199.9
1202003475	13-Dinitrobenzene-d4	172 > 142	12.00	4064.014		4064.014	4064.014	bb			598.8266	119.8	19.8	383.9
1202003475	13-Dinitrobenzene	168 > 138	12.13	4414.627	4064.014	4414.627	543.136	bb			459.6165	91.9	-8.1	405.8
1202003475	Tetryl	241 > 181	12.61	1244.278	4064.014	1244.278	153.085	bb			156.7510	31.4	-68.6	100.7
1202003475	Nitrobenzene	123 > 46	13.53	3096.570	4064.014	3096.570	380.974	bb			455.0654	91.0	-9.0	227.7
1202003475	4-Amino-26-dinitrotoluene	197 > 167	15.52	6296.691	23298.875	6296.691	135.129	MM	19-Jan-10	10:48:12	511.8666	102.4	2.4	445.9
1202003475	2-Amino-46-dinitrotoluene	197 > 180	16.42	8619.446	23298.875	8619.446	184.976	bb			474.8274	95.0	-5.0	545.3
1202003475	246-Trinitrotoluene	227 > 210	15.33	7369.992	23298.875	7369.992	158.162	bb			449.1646	89.8	-10.2	200.5
1202003475	34-dinitrotoluene	182 > 152	14.32	10120.868	23298.875	10120.868	217.196	bb		3.01	232.9829	93.2	-6.8	366.2
1202003475	26-dinitrotoluene	182 > 152	17.48	23158.135	23298.875	23158.135	496.980	MM	19-Jan-10	10:53:40	454.9947	91.0	-9.0	724.9
1202003475	24-dinitrotoluene	182 > 152	18.13	5501.931	23298.875	5501.931	118.073	MM	19-Jan-10	10:57:47	467.0025	93.4	-6.6	157.2
1202003475	26-dinitrotoluene-d3	185 > 155	17.30	23298.875		23298.875	23298.875	bb			635.0346	127.0	27.0	2214.1
1202003475	2-Nitrotoluene	137 > 46	20.92	2853.037	23298.875	2853.037	61.227	bb			407.9714	81.6	-18.4	421.1
1202003475	4-Nitrotoluene	137 > 46	22.28	1501.402	23298.875	1501.402	32.220	bb			450.0124	90.0	-10.0	229.3
1202003475	3-Nitrotoluene	137 > 46	23.92	1604.593	23298.875	1604.593	34.435	bb			403.7868	80.8	-19.2	227.9
1202003475	PETN	361 > 62	24.45	34464.957	23298.875	34464.957	739.627	bb			442.6220	88.5	-11.5	5862.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6823(243401006MS)

Lab Code: GEL

GEL Job No (SDG) 10-1020

Matrix: GROUND WATER

GEL Sample ID: 1202003475

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 22-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 936335

Concentrated Extract Volume (mL) 5

Date Extracted: 24-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01100019.wiff

Date Analyzed: 11-JAN-10 15:59

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5.25	
59229-75-3	2,6-Diamino-4-nitrotoluene	5.06	
618-87-1	3,5-Dinitroaniline	5.34	
6629-29-4	2,4-Diamino-6-nitrotoluene	4.3	
78-30-8	tris(o-cresyl) phosphate	2.38	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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Before Clean 1/12/10

ample Name: "1202003475" Sample ID: "936340|2|LER" File: "EXS01100019.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212L" Annotation: "
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 404. ng/mL
. Date: 1/11/2010
. Time: 3:59:37 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.01 min
Relative RT: No

. Type: Valley
ention Time: 7.02 min
a: 6.25e+005 counts
ght: 139860.565 cps
rt Time: 6.85 min
Time: 7.42 min

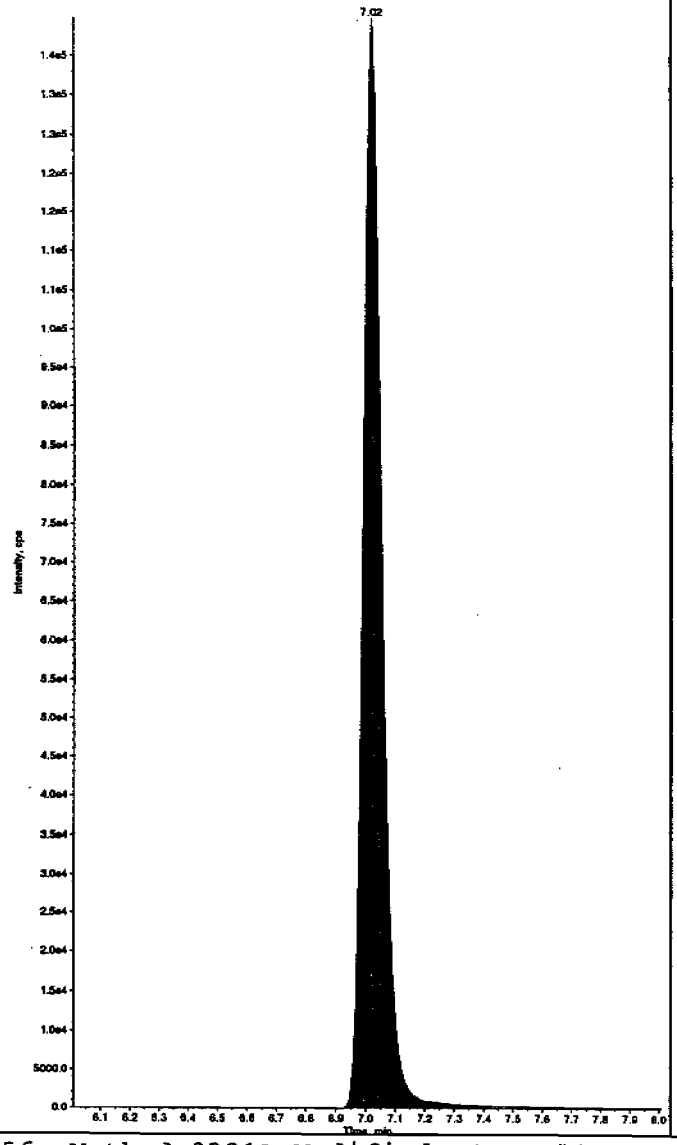

Sample Name: "1202003475" Sample ID: "936340|2|LER" File: "EXS01100019.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: "
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 412. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 3:59:37 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.21 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.21 min
Area: 4.54e+006 counts
Height: 1014941.223 cps
Start Time: 8.13 min
End Time: 8.54 min

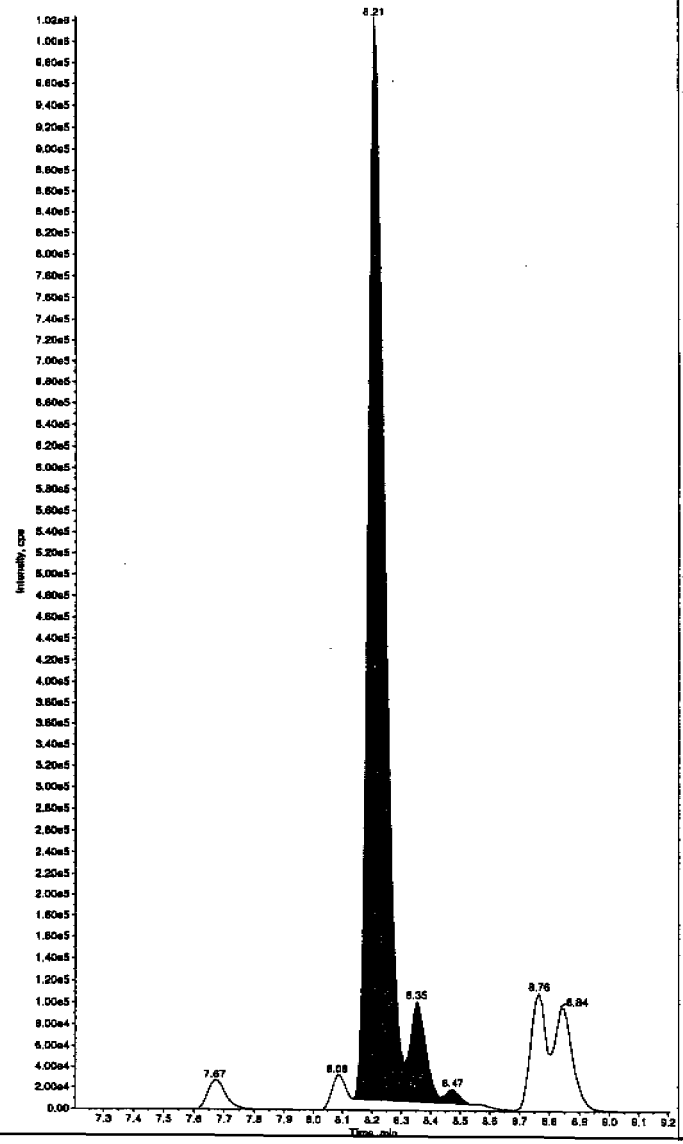

Hnm 01/12/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Lab 1/12/10

ample Name: "1202003475" Sample ID: "936340|2|LER" File: "EXS01100019.wiff"
ask Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212L" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 404. ng/mL
. Date: 1/11/2010
. Time: 3:59:37 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.01 min
Relative RT: No

. Type: Valley
ention Time: 7.02 min
a: 6.25e+005 counts
ght: 139860.565 cps
rt Time: 6.85 min
Time: 7.42 min

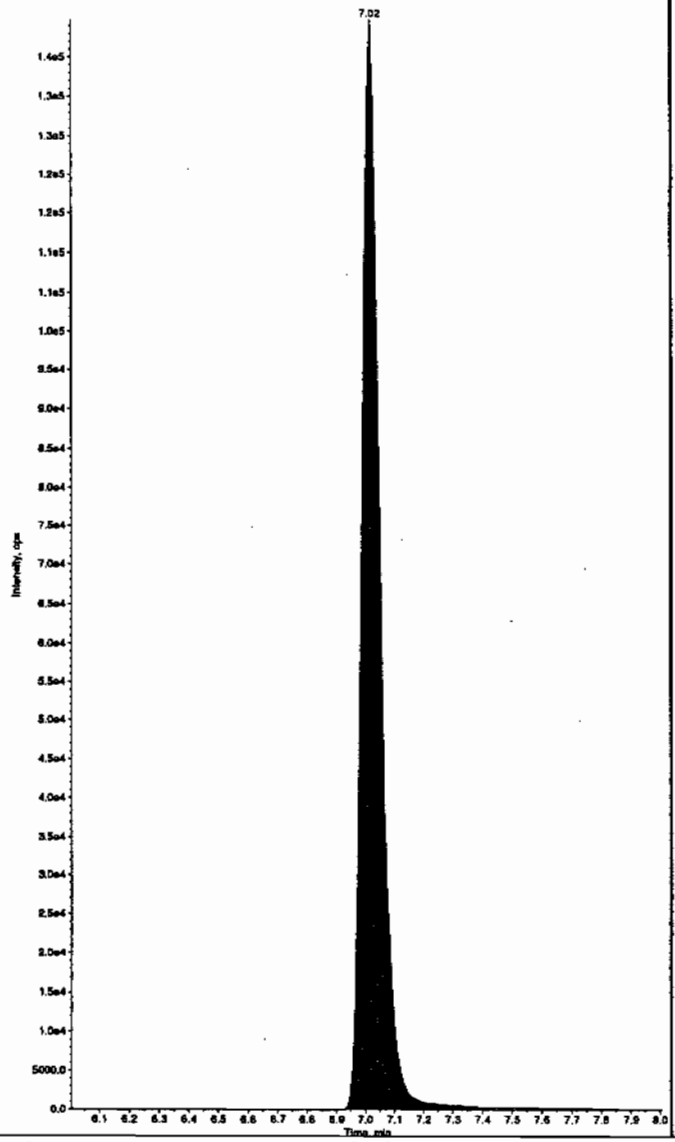

Sample Name: "1202003475" Sample ID: "936340|2|LER" File: "EXS01100019.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 411. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 3:59:37 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.21 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.21 min
Area: 4.19e+006 counts
Height: 1031594.720 cps
Start Time: 8.13 min
End Time: 8.31 min

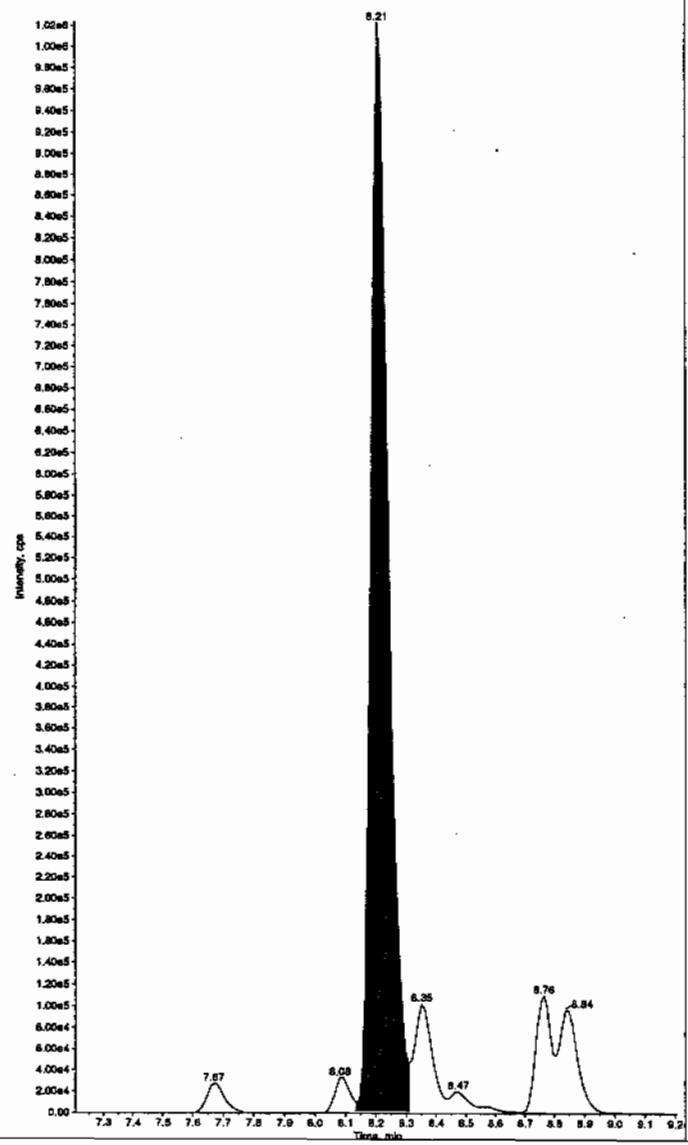

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "1202003475" Sample ID: "936340(2)LER" File: "EXS01100019.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212L" Annotation: ""

ple Index: 1
ple Type: Unknown
centration: N/A 3.00
culated Conc: 231. ng/mL
. Date: 1/11/2010
. Time: 3:59:37 PM

lified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.39 min
Relative RT: No

. Type: Valley
ention Time: 8.35 min
a: 3.20e+006 counts
ght: 788052.124 cps
rt Time: 8.28 min
Time: 8.59 min

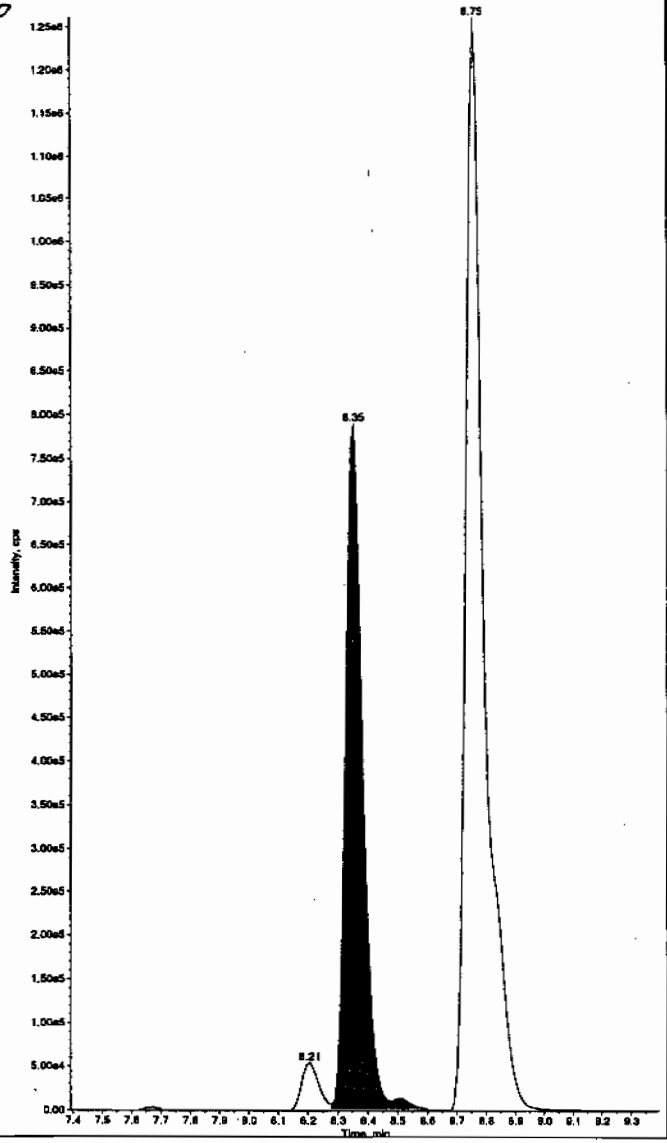

Sample Name: "1202003475" Sample ID: "936340(2)LER" File: "EXS01100019.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 390. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 3:59:37 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.05 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.07 min
Area: 1.31e+006 counts
Height: 300198.395 cps
Start Time: 4.96 min
End Time: 5.34 min

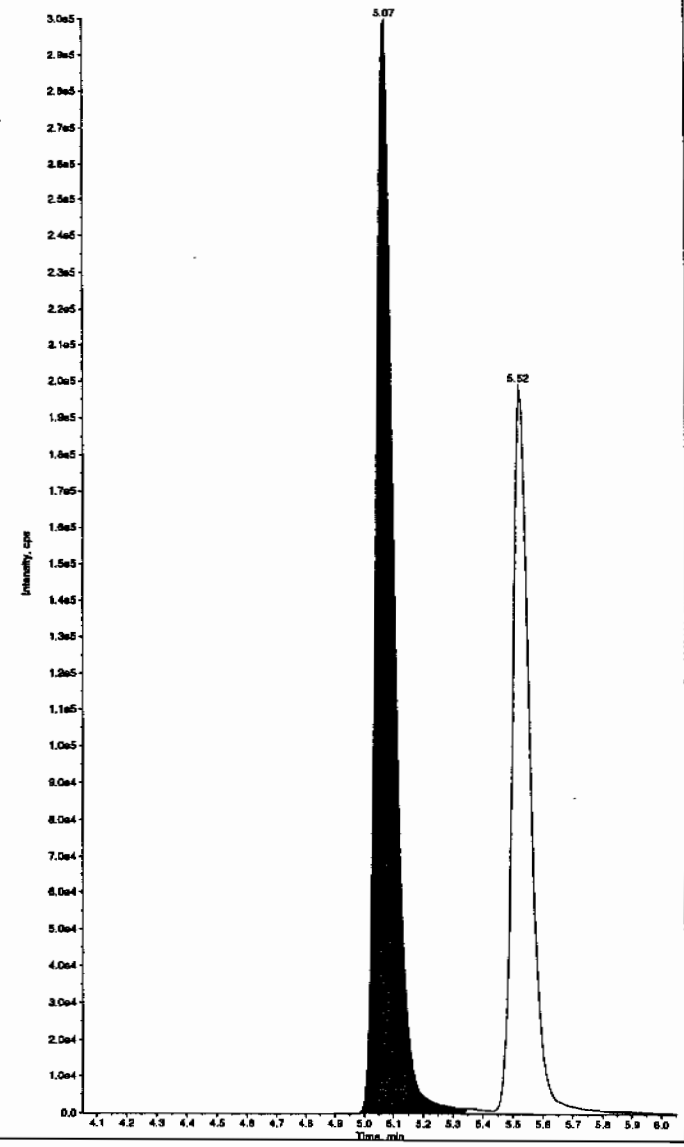

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "1202003475" Sample ID: "936340[2]LER" File: "EXS01100019.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCX83212L" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 331. ng/mL
. Date: 1/11/2010
. Time: 3:59:37 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 5.50 min
Relative RT: No

. Type: Valley
ention Time: 5.52 min
a: 7.92e+005 counts
ght: 198725.189 cps
rt Time: 5.43 min
Time: 5.85 min

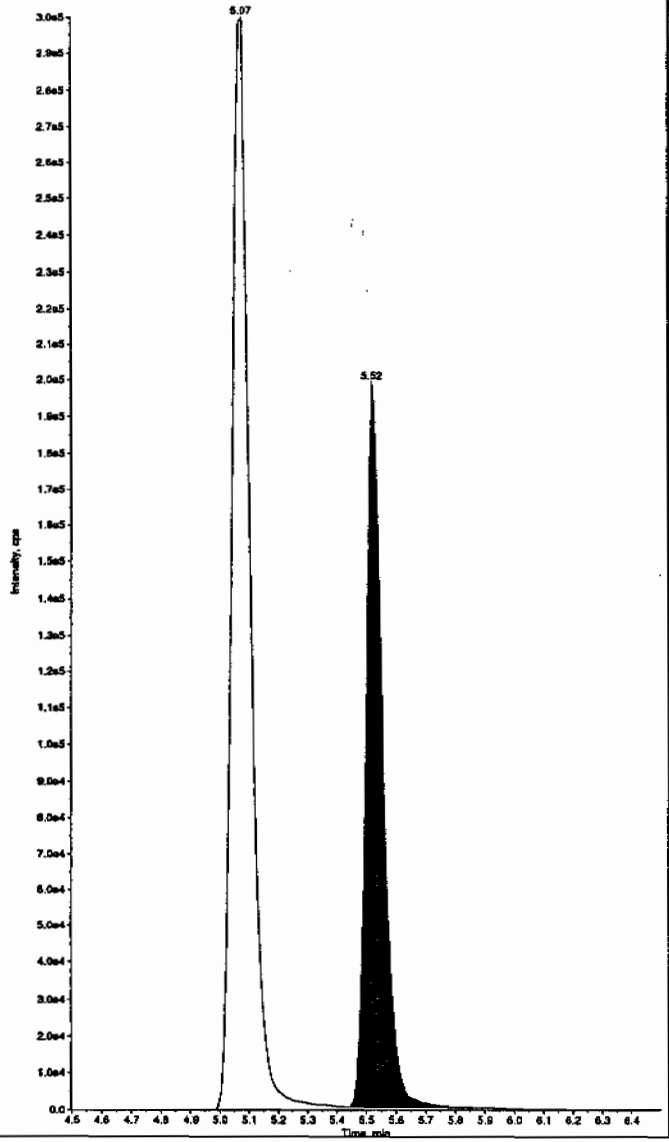

Sample Name: "1202003475" Sample ID: "936340[2]LER" File: "EXS01100019.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 183. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 3:59:37 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 4.84e+006 counts
Height: 1171050.049 cps
Start Time: 10.7 min
End Time: 11.1 min

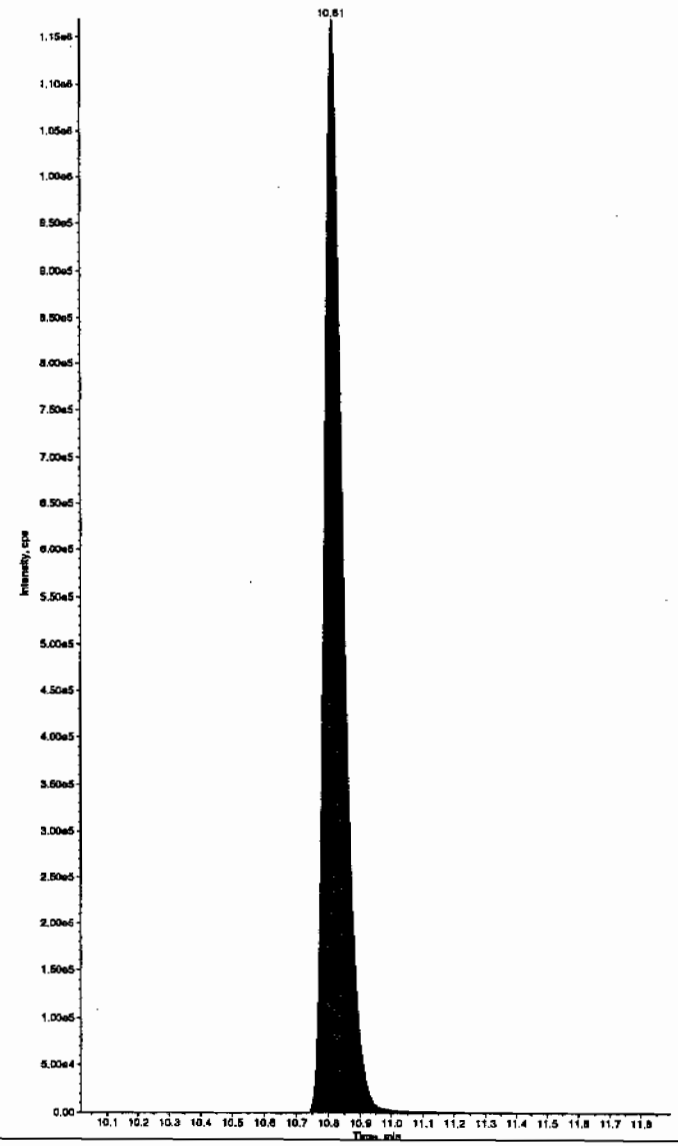

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6823(243401006MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1020

Matrix: GROUND WATER

GEL Sample ID: 1202003476

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 22-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 936335

Concentrated Extract Volume (mL) 5

Date Extracted: 24-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0118017a

Date Analyzed: 18-JAN-10 21:55

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5.59	
121-14-2	2,4-Dinitrotoluene	6.24	
121-82-4	RDX	6.54	
19406-51-0	4-Amino-2,6-dinitrotoluene	6.89	
2691-41-0	HMX	5.55	
35572-78-2	2-Amino-4,6-dinitrotoluene	6.22	
479-45-8	Tetryl	1.62	
606-20-2	2,6-Dinitrotoluene	6.3	
78-11-5	PETN	5.69	
88-72-2	o-Nitrotoluene	5.23	
98-95-3	Nitrobenzene	5.71	
99-08-1	m-Nitrotoluene	5.46	
99-35-4	1,3,5-Trinitrobenzene	5.31	
99-65-0	m-Dinitrobenzene	6.38	
99-99-0	p-Nitrotoluene	5.83	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0118017a
Date: 18-Jan-2010
Time: 21:55:14
ID: 1202003476
Vial: 1:4,E

| LANL | 936340 | LAB | 243401006MSD | 2 |

MAP 1/19/10

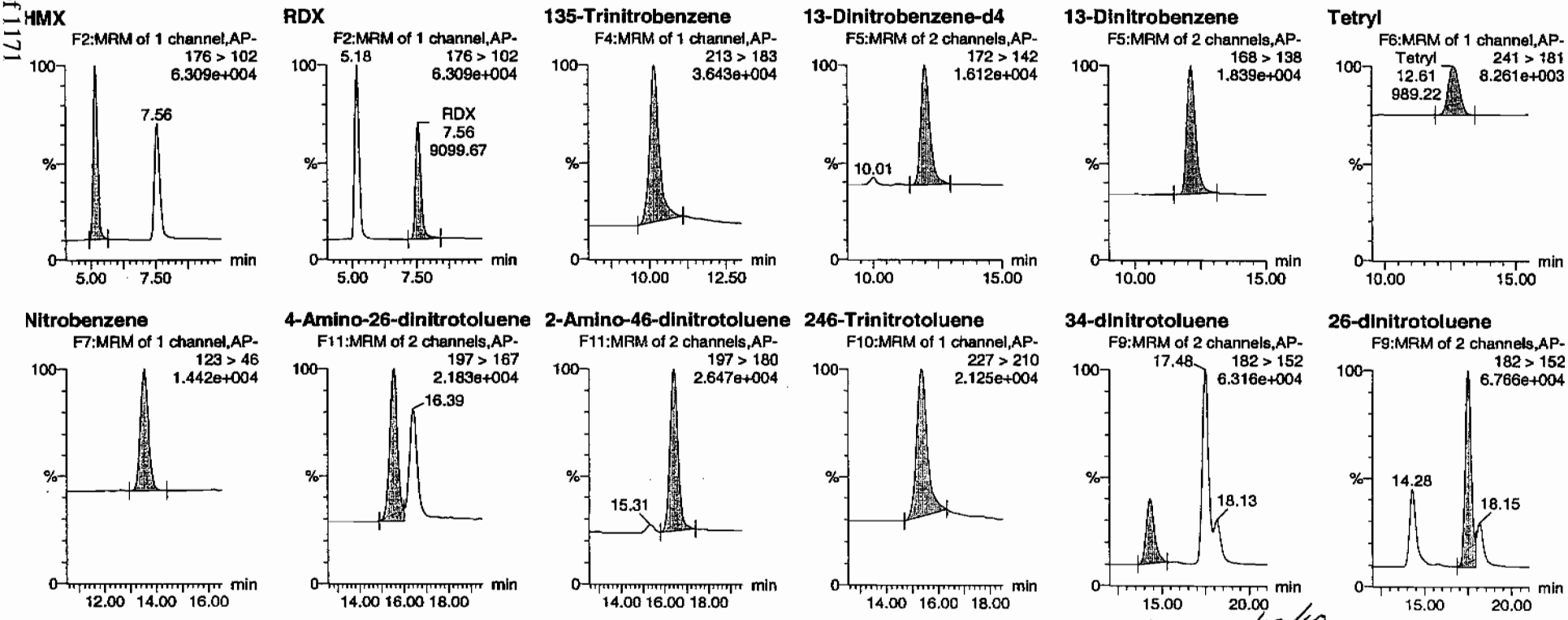

HMM 01/18/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011810expA.qld, Time: Tue Jan 19 10:59:58 2010

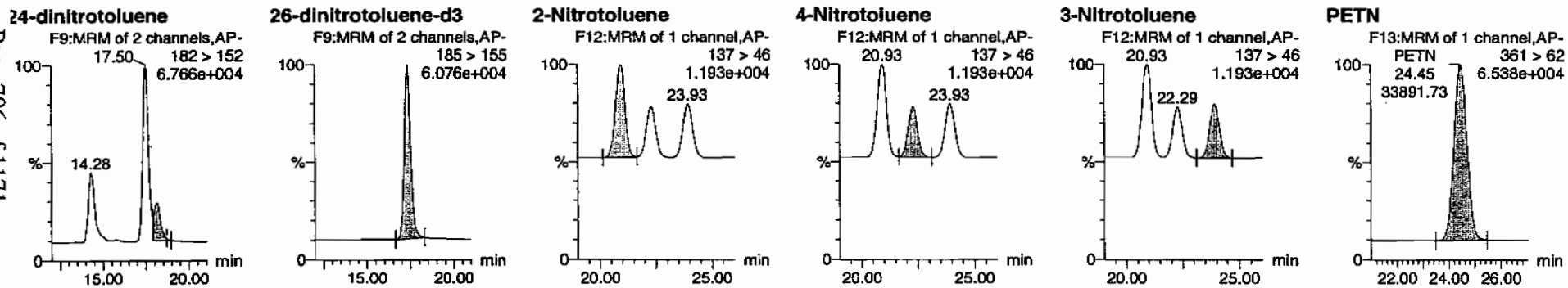

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Conc	%Rec	%Dev	S/N
1202003476	HMX	176 > 102	5.18	11219.958	4063.809	11219.958	1380.473	bb			427.6463	85.5	-14.5	696.3
1202003476	RDX	176 > 102	7.56	9099.669	4063.809	9099.669	1119.599	bb			503.5234	100.7	0.7	469.5
1202003476	135-Trinitrobenzene	213 > 183	10.16	11080.592	4063.809	11080.592	1363.326	bb			409.1823	81.8	-18.2	1516.7
1202003476	13-Dinitrobenzene-d4	172 > 142	12.00	4063.809		4063.809	4063.809	bb			598.7964	119.8	19.8	305.8
1202003476	13-Dinitrobenzene	168 > 138	12.13	4721.506	4063.809	4721.506	580.921	bb			491.5911	98.3	-1.7	412.5
1202003476	Tetryl	241 > 181	12.61	989.221	4063.809	989.221	121.711	bb			124.6258	24.9	-75.1	150.9
1202003476	Nitrobenzene	123 > 46	13.52	2992.931	4063.809	2992.931	368.242	bb			439.8570	88.0	-12.0	247.0
1202003476	4-Amino-26-dinitrotoluene	197 > 167	15.55	6477.869	23132.225	6477.869	140.018	MM	19-Jan-10	10:48:21	530.3885	106.1	6.1	428.4
1202003476	2-Amino-46-dinitrotoluene	197 > 180	16.42	8629.977	23132.225	8629.977	186.536	bb			478.8324	95.8	-4.2	412.0
1202003476	246-Trinitrotoluene	227 > 210	15.33	7010.606	23132.225	7010.606	151.533	bb			430.3399	86.1	-13.9	362.8
1202003476	34-dinitrotoluene	182 > 152	14.32	10327.324	23132.225	10327.324	223.224	bb		3.10	239.4482	95.8	-4.2	674.8
1202003476	26-dinitrotoluene	182 > 152	17.50	24495.643	23132.225	24495.643	529.470	MM	19-Jan-10	10:53:48	484.7403	96.9	-3.1	711.9
1202003476	24-dinitrotoluene	182 > 152	18.15	5624.595	23132.225	5624.595	121.575	MM	19-Jan-10	10:57:55	480.8536	96.2	-3.8	148.2
1202003476	26-dinitrotoluene-d3	185 > 155	17.30	23132.225		23132.225	23132.225	bb			630.4923	126.1	26.1	1671.7
1202003476	2-Nitrotoluene	137 > 46	20.93	2796.667	23132.225	2796.667	60.450	bb			402.7918	80.6	-19.4	191.9
1202003476	4-Nitrotoluene	137 > 46	22.29	1487.657	23132.225	1487.657	32.156	bb			449.1050	89.8	-10.2	103.6
1202003476	3-Nitrotoluene	137 > 46	23.93	1660.008	23132.225	1660.008	35.881	bb			420.7411	84.1	-15.9	110.1
1202003476	PETN	361 > 62	24.45	33891.730	23132.225	33891.730	732.565	bb			438.3960	87.7	-12.3	7298.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6823(243401006MSD)

Lab Code: GEL

GEL Job No (SDG) 10-1020

Matrix: GROUND WATER

GEL Sample ID: 1202003476

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 22-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 936335

Concentrated Extract Volume (mL) 5

Date Extracted: 24-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01100020.wiff

Date Analyzed: 11-JAN-10 16:15

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5.51	
59229-75-3	2,6-Diamino-4-nitrotoluene	5.3	
618-87-1	3,5-Dinitroaniline	5.64	
6629-29-4	2,4-Diamino-6-nitrotoluene	4.97	
78-30-8	tris(o-cresyl) phosphate	2.62	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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Bryan Lau 1/12/10

ample Name: "1202003476" Sample ID: "936340|2|LER" File: "EXS01100020.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212L" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 424. ng/mL
. Date: 1/11/2010
. Time: 4:15:19 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.01 min
Relative RT: No

. Type: Valley
ention Time: 7.00 min
a: 6.55e+005 counts
ght: 148500.183 cps
rt Time: 6.86 min
Time: 7.48 min

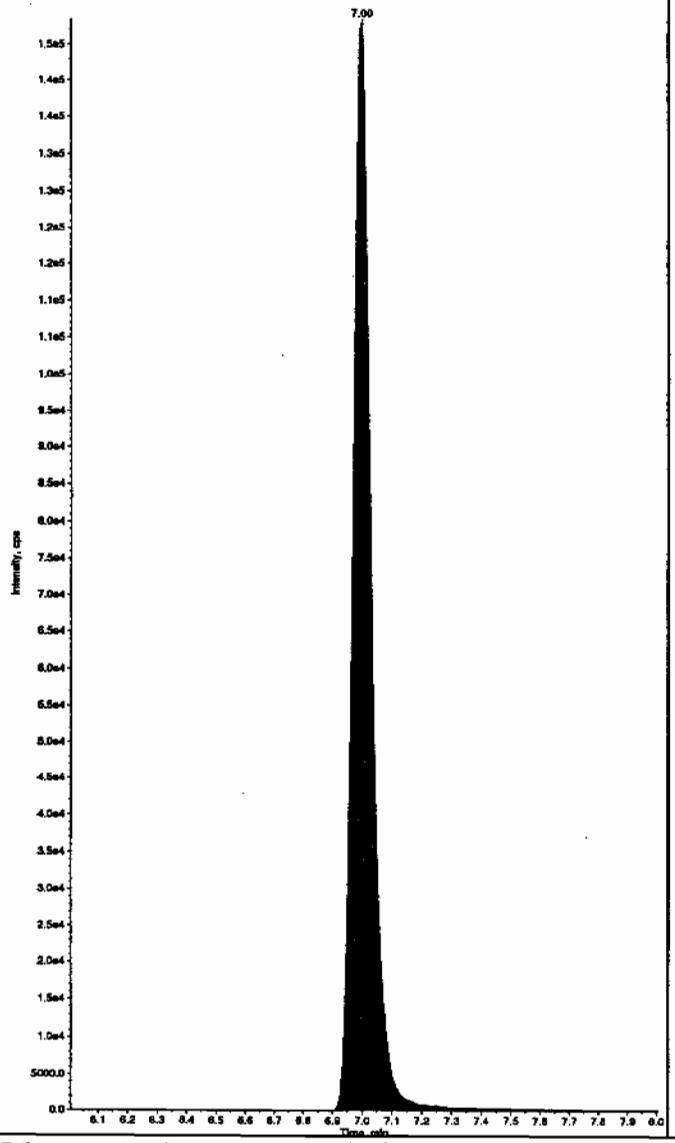

Sample Name: "1202003476" Sample ID: "936340|2|LER" File: "EXS01100020.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 436. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 4:15:19 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.22 min
Area: 4.12e+006 counts
Height: 1027536.621 cps
Start Time: 8.13 min
End Time: 8.31 min

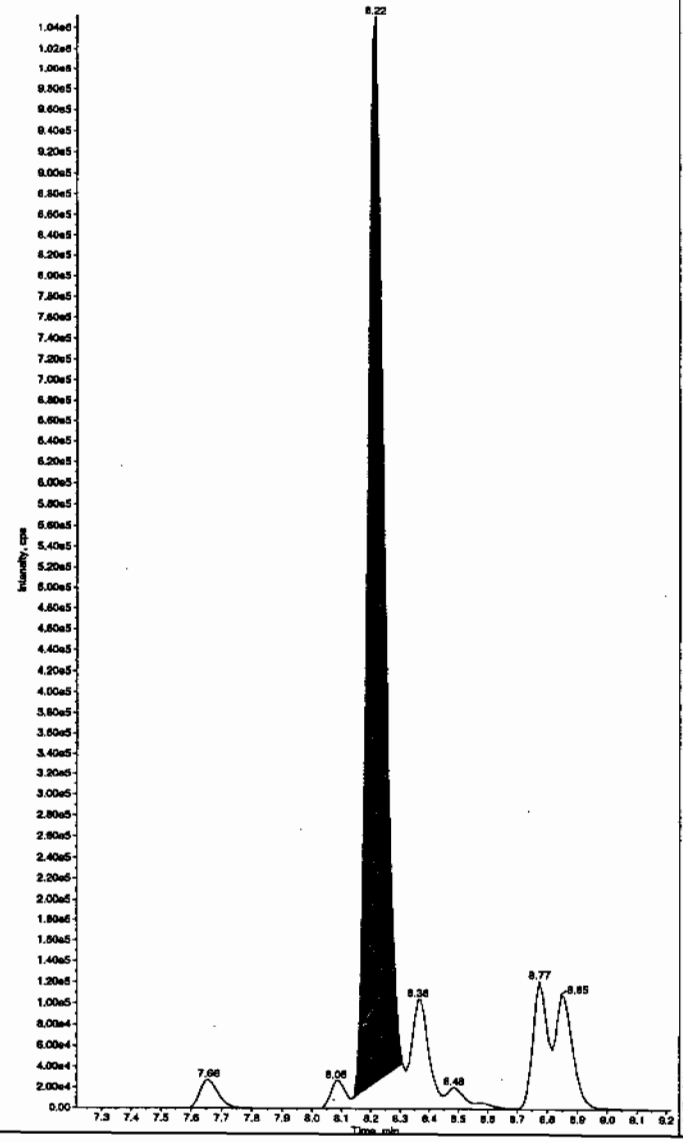

Hmm 01/12/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

after 8 dar 1/12/10

ample Name: "1202003476" Sample ID: "936340[2]LER" File: "EXS01100020.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212L" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 424. ng/mL
. Date: 1/11/2010
. Time: 4:15:19 PM

ified: No
c. Algorithm: IntelliQuan - IQA
.. Peak Height: 2500.00 cps
.. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 7.01 min
Relative RT: No

. Type: Valley
ention Time: 7.00 min
a: 5.55e+005 counts
ght: 148500.183 cps
rt Time: 6.86 min
Time: 7.48 min

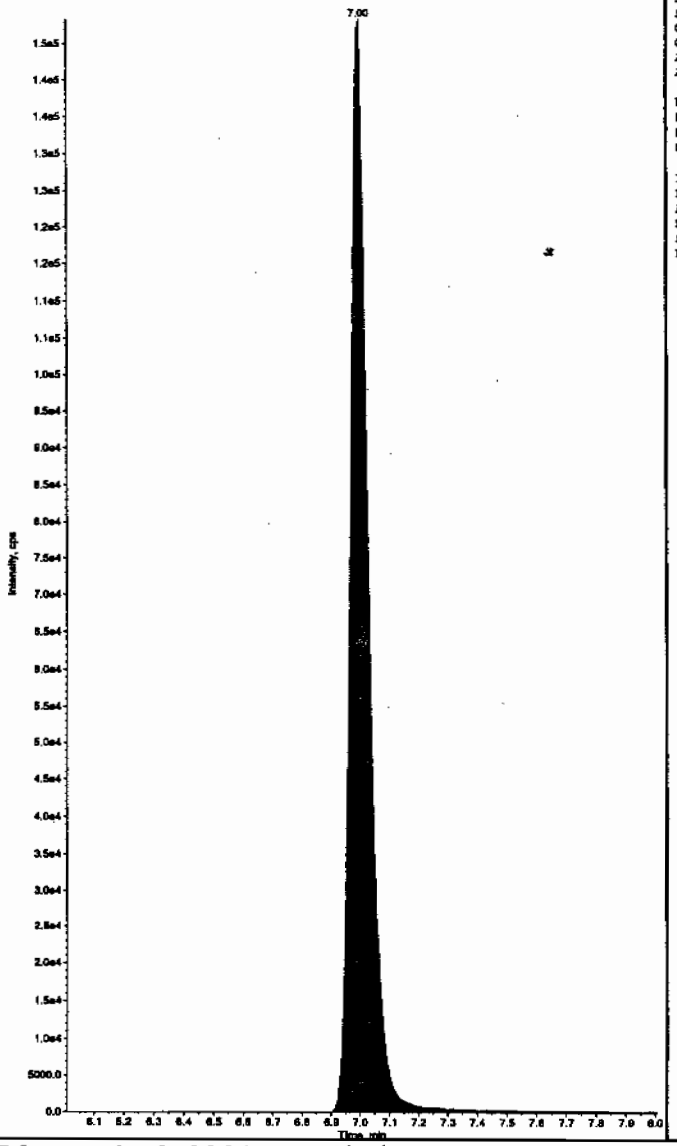

Sample Name: "1202003476" Sample ID: "936340[2]LER" File: "EXS01100020.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 434. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 4:15:19 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.21 min
Area: 4.40e+006 counts
Height: 1059658.026 cps
Start Time: 8.14 min
End Time: 8.32 min

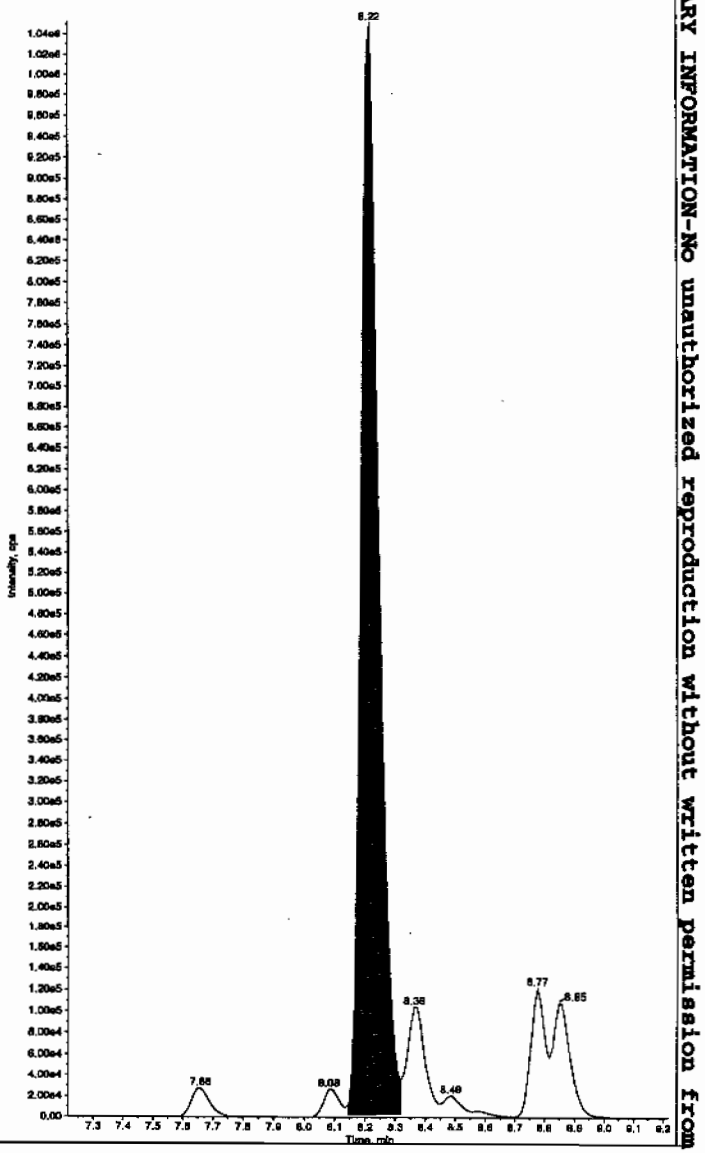

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ample Name: "1202003476" Sample ID: "936340[2]LER" File: "EXS01100020.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212L" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 237. ng/mL
. Date: 1/11/2010
. Time: 4:15:19 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.39 min
Relative RT: No

. Type: Valley
ention Time: 8.36 min
a: 3.27e+006 counts
ght: 827261.047 cps
rt Time: 8.29 min
Time: 8.59 min

3.06

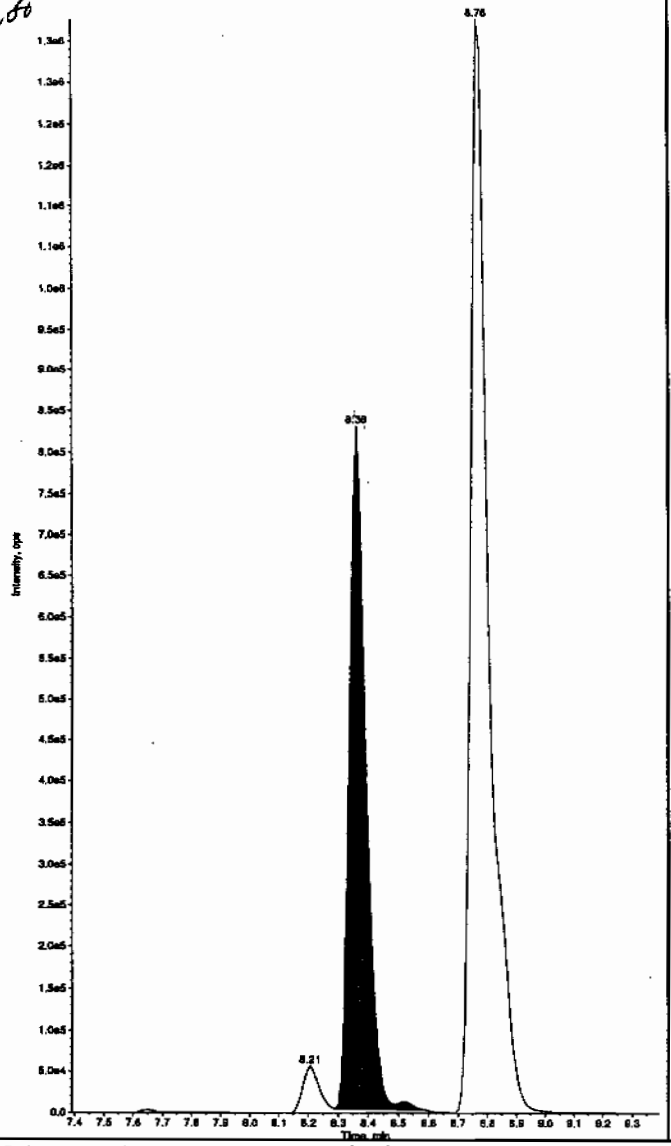

Sample Name: "1202003476" Sample ID: "936340[2]LER" File: "EXS01100020.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 408. ng/mL
Acq. Date: 1/11/2010
Acq. Time: 4:15:19 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.05 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.04 min
Area: 1.36e+006 counts
Height: 322275.604 cps
Start Time: 4.95 min
End Time: 5.34 min

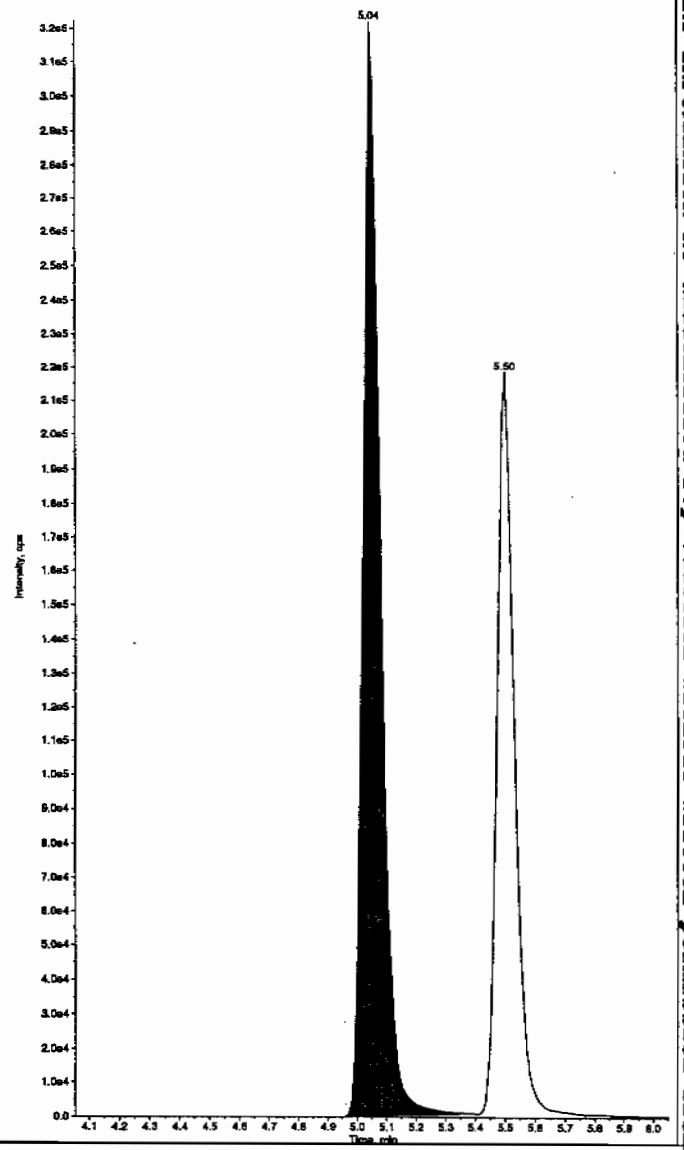

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ample Name: "1202003476" Sample ID: "936340|2|LER" File: "EXS01100020.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCX83212L" Annotation: ""

```
aple Index:        1
aple Type:       Unknown
ncentration:       N/A
lculated Conc:     383.     ng/mL
g. Date:        1/11/2010
g. Time:        4:15:19 PM

lified:            No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 350.00    cps
n. Peak Width:    0.00    sec
oothing Width:  3        points
 Window:         30.0     sec
ected RT:         5.50    min
: Relative RT:    No

:. Type:         Valley
tention Time:     5.50    min
a:          9.04e+005    counts
ght:          218719.971  cps
rt Time:          5.40    min
l Time:           5.96    min
```

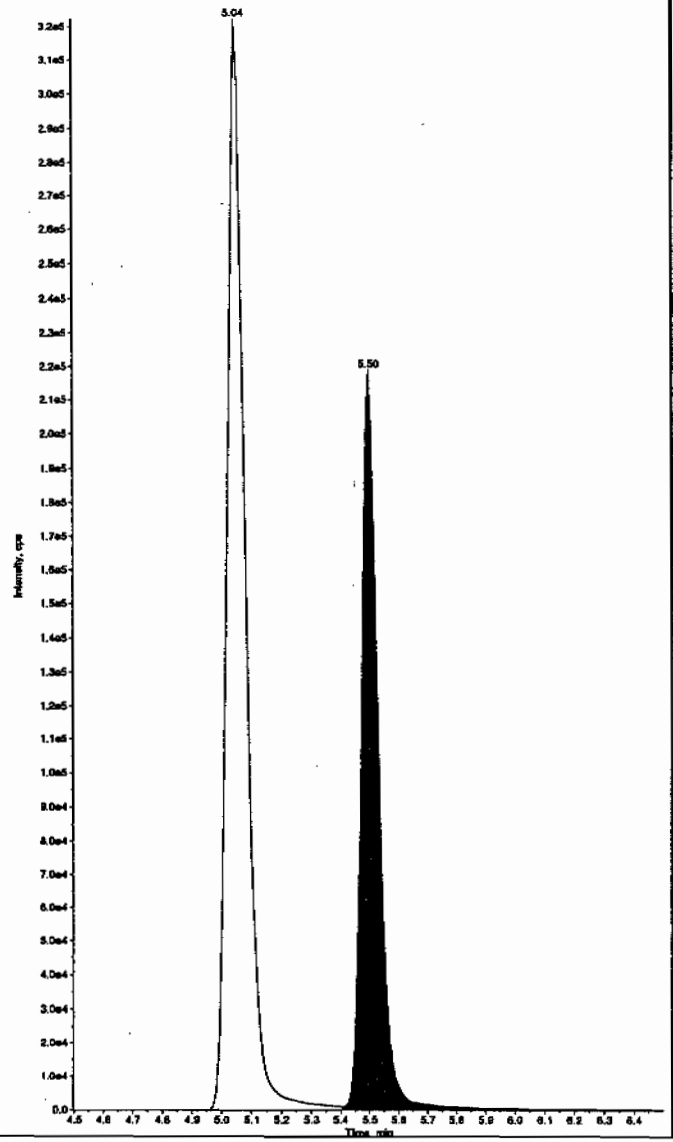

Sample Name: "1202003476" Sample ID: "936340|2|LER" File: "EXS01100020.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""

```
Sample Index:        1
Sample Type:       Unknown
Concentration:       N/A
Calculated Conc:     202.     ng/mL
Acq. Date:        1/11/2010
Acq. Time:        4:15:19 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:       10.9     min
Use Relative RT:   No

Int. Type:         Valley
Retention Time:    10.8     min
Area:          5.31e+006    counts
Height:        1303180.908  cps
Start Time:        10.7     min
End Time:          11.2     min
```

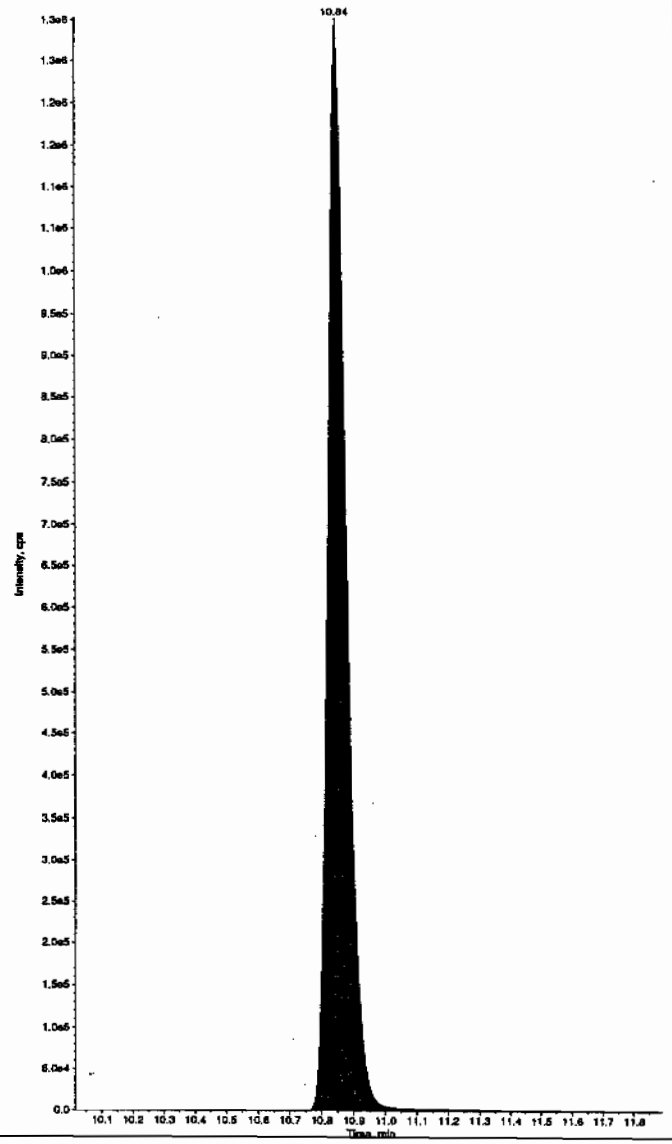

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MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 936335 **Verified by:** _____
Analyst: Sirena White
Method: SW846 Method 3535

Lab SOP: GL-OA-E-033 REV# 17
Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Ph 1	Final Volume (mL)	Prepped Factor (mL/mL)
1202003473 MB	24-DEC-2009 11:51:57	770	5	5	0.00649
1202003474 LCS	24-DEC-2009 11:51:57	770	5	5	0.00649
243401006	24-DEC-2009 11:51:57	770	6	5	0.00649
1202003475 MS (243401006)	24-DEC-2009 11:51:57	770	6	5	0.00649
1202003476 MSD (243401006)	24-DEC-2009 11:51:57	770	6	5	0.00649
243401010	24-DEC-2009 11:51:57	770	6	5	0.00649

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202003474	8321 Explosives LCS	IXX091127-03	.05	mL
LCS	1202003474	8321 LANL Explosives Mix 10mg/L	UXX091007-02.4	.5	mL
MS	1202003475	8321 Explosives LCS	IXX091127-03	.05	mL
MS	1202003475	8321 LANL Explosives Mix 10mg/L	UXX091007-02.4	.5	mL
MSD	1202003476	8321 Explosives LCS	IXX091127-03	.05	mL
MSD	1202003476	8321 LANL Explosives Mix 10mg/L	UXX091007-02.4	.5	mL
SURR	All	3,4-Dinitrotoluene (8330 Surr.) 100ppm	IXP091204-02	.025	mL

Comments:

SPE Cartridge: 003339260A

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 01/18/10
Extr. Injection Volume: 50uL
Sequence Number: 011810expA
Initial Calibration Date: 01/18/10

Method: SW846 8321A-Modified
Int. Std.: UXX091230-01.2
Mobile Phase Lot#: 1255172, 1236350
Standard-Samp Reagent Lot#: 1253092, 1246195

Reviewed BY: Hnne
Date: 01/19/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100118-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0118001a	XIBLK01	MAP	1/18/10 14:03			1		USE	B
EXP0118002a	XIBLK01	MAP	1/18/10 14:33			1		USE	B
EXP0118003a	WXXICAL-01	MAP	1/18/10 15:02			1		USE	I
EXP0118004a	WXXICAL-02	MAP	1/18/10 15:32			1		USE	I
EXP0118005a	WXXICAL-03	MAP	1/18/10 16:01			1		USE	I
EXP0118006a	WXXICAL-04	MAP	1/18/10 16:31			1		USE	I
EXP0118007a	WXXICAL-05	MAP	1/18/10 17:00			1		USE	I
EXP0118008a	WXXICAL-06	MAP	1/18/10 17:29			1		USE	I
EXP0118009a	XIBLK02	MAP	1/18/10 17:59			1		USE	B
EXP0118010a	WXXICV	MAP	1/18/10 18:28			1		USE	C
EXP0118011a	XIBLK03	MAP	1/18/10 18:58			1		USE	B
EXP0118012a	WXXCRI	MAP	1/18/10 19:27			1		USE	C
EXP0118013a	1202003473	MAP	1/18/10 19:57	936340	10-1020	2	LANL	USE	S
EXP0118014a	1202003474	MAP	1/18/10 20:26	936340	10-1020	2	LANL	USE	S
EXP0118015a	243401006	MAP	1/18/10 20:56	936340	10-1020	2	LANL	USE	S
EXP0118016a	1202003475	MAP	1/18/10 21:25	936340	10-1020	2	LANL	USE	S
EXP0118017a	1202003476	MAP	1/18/10 21:55	936340	10-1020	2	LANL	USE	S
EXP0118018a	243401010	MAP	1/18/10 22:24	936340	10-1020	2	LANL	USE	S
EXP0118019a	WXXCCV	MAP	1/18/10 22:54			1		USE	C
EXP0118020a	XIBLK04	MAP	1/18/10 23:23			1		USE	B
EXP0118021a	WXXCRI	MAP	1/18/10 23:53			1		USE	C
EXP0118022a	1202006240	MAP	1/19/10 0:22	937564	10-1100	2	LANL	USE	S
EXP0118023a	1202006241	MAP	1/19/10 0:52	937564	10-1100	2	LANL	USE	S
EXP0118024a	243624001	MAP	1/19/10 1:21	937564	10-1100	2	LANL	USE	S
EXP0118025a	1202006242	MAP	1/19/10 1:51	937564	10-1100	2	LANL	USE	S
EXP0118026a	1202006243	MAP	1/19/10 2:20	937564	10-1100	2	LANL	USE	S
EXP0118027a	243624002	MAP	1/19/10 2:50	937564	10-1100	2	LANL	USE	S
EXP0118028a	243624003	MAP	1/19/10 3:19	937564	10-1100	2	LANL	USE	S
EXP0118029a	243624004	MAP	1/19/10 3:48	937564	10-1100	2	LANL	USE	S

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EXP0118030a	243624005	MAP	1/19/10 4:18	937564	10-1100	2	LANL	USE	S
EXP0118031a	243624006	MAP	1/19/10 4:47	937564	10-1100	2	LANL	USE	S
EXP0118032a	WXXCCV	MAP	1/19/10 5:17			1		USE	C
EXP0118033a	XIBLK05	MAP	1/19/10 5:47			1		USE	B
EXP0118034a	WXXCRI	MAP	1/19/10 6:16			1		USE	C
EXP0118035a	243624007	MAP	1/19/10 6:46	937564	10-1100	2	LANL	USE	S
EXP0118036a	243624008	MAP	1/19/10 7:15	937564	10-1100	2	LANL	USE	S
EXP0118037a	243624009	MAP	1/19/10 7:45	937564	10-1100	2	LANL	USE	S
EXP0118038a	243624010	MAP	1/19/10 8:14	937564	10-1100	2	LANL	USE	S
EXP0118039a	243624011	MAP	1/19/10 8:44	937564	10-1100	2	LANL	USE	S
EXP0118040a	WXXCCV	MAP	1/19/10 9:13			1		USE	C
EXP0118041a	XIBLK06	MAP	1/19/10 9:43			1		USE	B
EXP0118042a	WXXCRI	MAP	1/19/10 10:12			1		USE	C

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS4

Date: 01/11/10

Method: 8321A-Modified

Reviewed By: Hnc

Date: 01/12/10

Extr. Injection Volume: 10uL

Int. Std.: N/A

Sequence Number: 011110exs

Mobile Phase Lot#:1236350, 1246467

SOP: GL-OA-E-056 Rev.12

Initial Calibration Date: 011110

Standard-Samp Reagent Lot# :1246195, 1253092

Alt Check Std. ID: WXX100111-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS01100001.wiff	XIBLK01	LER	1/11/2010 11:16			1		USE	B
EXS01100002.wiff	XIBLK01	LER	1/11/2010 11:32			1		USE	B
EXS01100003.wiff	WXXICAL-19	LER	1/11/2010 11:48			1		USE	I
EXS01100004.wiff	WXXICAL-20	LER	1/11/2010 12:04			1		USE	I
EXS01100005.wiff	WXXICAL-21	LER	1/11/2010 12:19			1		USE	I
EXS01100006.wiff	WXXICAL-22	LER	1/11/2010 12:35			1		USE	I
EXS01100007.wiff	WXXICAL-23	LER	1/11/2010 12:51			1		USE	I
EXS01100008.wiff	WXXICAL-24	LER	1/11/2010 13:06			1		USE	I
EXS01100009.wiff	WXXICAL-25	LER	1/11/2010 13:22			1		USE	I
EXS01100010.wiff	XIBLK02	LER	1/11/2010 13:38			1		USE	B
EXS01100011.wiff	WXXICV	LER	1/11/2010 13:54			1		USE	C
EXS01100012.wiff	XIBLK03	LER	1/11/2010 14:09			1		USE	B
EXS01100013.wiff	WXXCRI	LER	1/11/2010 14:25			1		USE	C
EXS01100014.wiff	243605007	LER	1/11/2010 14:41	937541	10-1093	2	LANL	USE	S
EXS01100015.wiff	XIBLK04	LER	1/11/2010 14:56			1		USE	B
EXS01100016.wiff	1202003473	LER	1/11/2010 15:12	936340	10-1020	2	LANL	USE	S
EXS01100017.wiff	1202003474	LER	1/11/2010 15:28	936340	10-1020	2	LANL	USE	S
EXS01100018.wiff	243401006	LER	1/11/2010 15:43	936340	10-1020	2	LANL	USE	S
EXS01100019.wiff	1202003475	LER	1/11/2010 15:59	936340	10-1020	2	LANL	USE	S
EXS01100020.wiff	1202003476	LER	1/11/2010 16:15	936340	10-1020	2	LANL	USE	S
EXS01100021.wiff	243401010	LER	1/11/2010 16:31	936340	10-1020	2	LANL	USE	S
EXS01100022.wiff	WXXCCV	LER	1/11/2010 16:46			1		USE	C
EXS01100023.wiff	XIBLK05	LER	1/11/2010 17:02			1		USE	B
EXS01100024.wiff	WXXCRI	LER	1/11/2010 17:18			1		USE	C
EXS01100025.wiff	1202006244	LER	1/11/2010 17:33	937567	10-1102	2	LANL	USE	S
EXS01100026.wiff	1202006245	LER	1/11/2010 17:49	937567	10-1102	2	LANL	USE	S
EXS01100027.wiff	243630001	LER	1/11/2010 18:05	937567	10-1102	2	LANL	USE	S
EXS01100028.wiff	1202006246	LER	1/11/2010 18:20	937567	10-1102	2	LANL	USE	S
EXS01100029.wiff	1202006247	LER	1/11/2010 18:36	937567	10-1102	2	LANL	USE	S

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EXS01100030.wiff	243630002	LER	1/11/2010 18:52	937567	10-1102	2	LANL	USE	S
EXS01100031.wiff	243630003	LER	1/11/2010 19:08	937567	10-1102	2	LANL	USE	S
EXS01100032.wiff	243630004	LER	1/11/2010 19:23	937567	10-1102	2	LANL	USE	S
EXS01100033.wiff	243630005	LER	1/11/2010 19:39	937567	10-1102	2	LANL	USE	S
EXS01100034.wiff	243630006	LER	1/11/2010 19:55	937567	10-1102	2	LANL	USE	S
EXS01100035.wiff	WXXCCV	LER	1/11/2010 20:10			1		USE	C
EXS01100036.wiff	XIBLK06	LER	1/11/2010 20:26			1		USE	B
EXS01100037.wiff	WXXCRI	LER	1/11/2010 20:42			1		USE	C
EXS01100038.wiff	243630007	LER	1/11/2010 20:57	937567	10-1102	2	LANL	USE	S
EXS01100039.wiff	243630008	LER	1/11/2010 21:13	937567	10-1102	2	LANL	USE	S
EXS01100040.wiff	243630009	LER	1/11/2010 21:29	937567	10-1102	2	LANL	USE	S
EXS01100041.wiff	243630010	LER	1/11/2010 21:45	937567	10-1102	2	LANL	USE	S
EXS01100042.wiff	243630011	LER	1/11/2010 22:00	937567	10-1102	2	LANL	USE	S
EXS01100043.wiff	WXXCCV	LER	1/11/2010 22:16			1		USE	C
EXS01100044.wiff	XIBLK07	LER	1/11/2010 22:32			1		USE	B
EXS01100045.wiff	WXXCRI	LER	1/11/2010 22:47			1		USE	C

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011710expA1.qld, Time: Mon Jan 18 13:15:44 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0117030a
Date: 18-Jan-2010
Time: 08:26:09
ID: 1202003473 | LANL | 936340 | LCD | MB | 2 |
Vial: 1:6,A

MAP 1/18/10

RA - P28 #1

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.859e+003

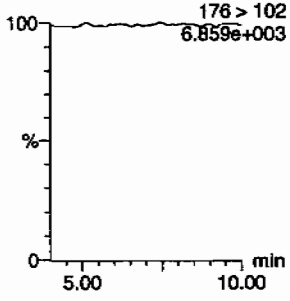

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.859e+003

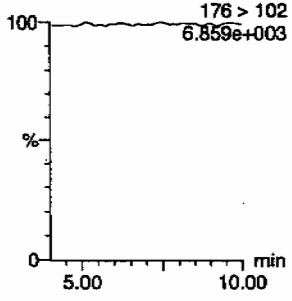

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.746e+003

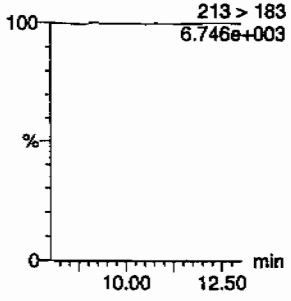

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.928e+004

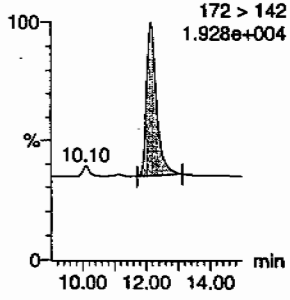

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.754e+003

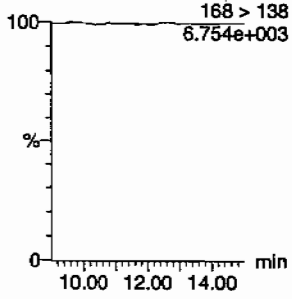

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.755e+003

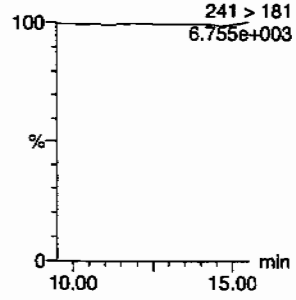

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.769e+003

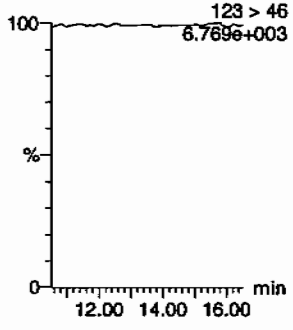

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.817e+003

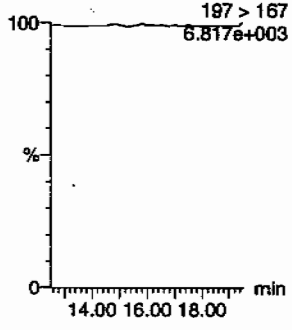

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.800e+003

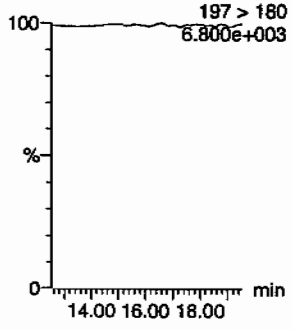

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.779e+003

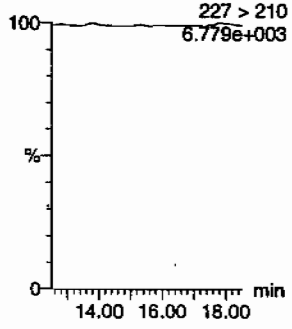

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
3.559e+004

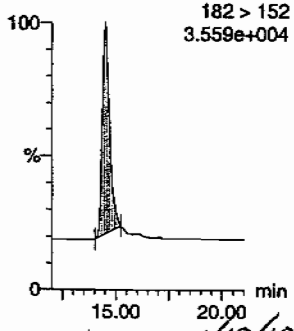

HMW 01/19/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.52
182 > 152
3.559e+004

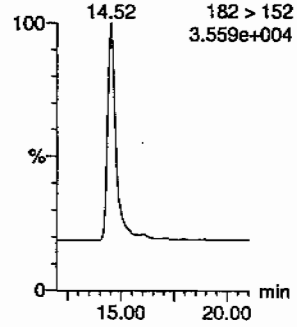

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011710expA1.qld, Time: Mon Jan 18 13:15:44 2010

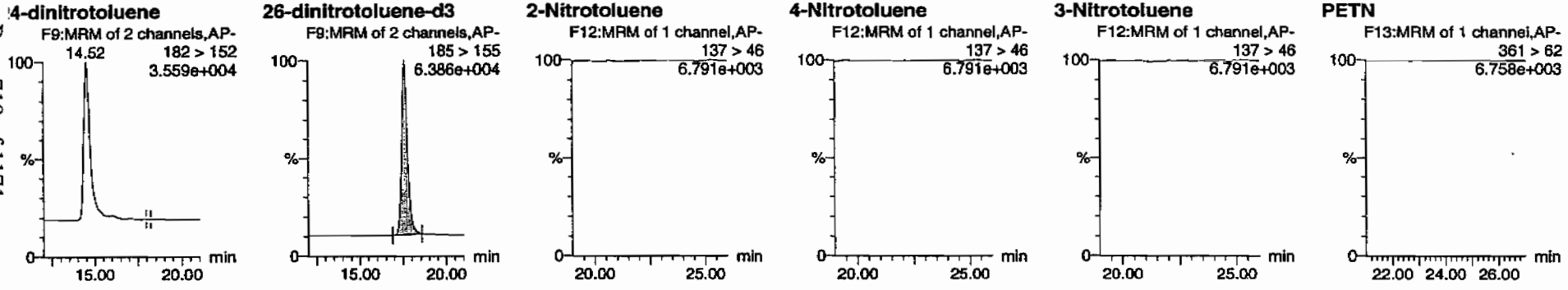

D	Name	Trace	RT	Area	S/Area	Abs.Resp	Response	Flags	ModDate	ModTime	ng/ml	%Rec	%Dev	S/N
1202003473	HMX	176 > 102			4794.793									
1202003473	RDX	176 > 102			4794.793									
1202003473	135-Trinitrobenzene	213 > 183			4794.793									
1202003473	13-Dinitrobenzene-d4	172 > 142	12.17	4794.793		4794.793	4794.793	bb			718.7515	143.8	43.8	344.6
1202003473	13-Dinitrobenzene	168 > 138			4794.793									
1202003473	Tetryl	241 > 181			4794.793									
1202003473	Nitrobenzene	123 > 46			4794.793									
1202003473	4-Amino-26-dinitrotoluene	197 > 167			22939.086									
1202003473	2-Amino-46-dinitrotoluene	197 > 180			22939.086									
1202003473	246-Trinitrotoluene	227 > 210			22939.086									
1202003473	34-dinitrotoluene	182 > 152	14.52	11225.124	22939.086	11225.124	244.672	bb		3.45	266.5457	106.6	6.6	379.3
1202003473	26-dinitrotoluene	182 > 152			22939.086									
1202003473	24-dinitrotoluene	182 > 152			22939.086			MM-	18-Jan-10	13:14:30				
1202003473	26-dinitrotoluene-d3	185 > 155	17.58	22939.086		22939.086	22939.086	bb			610.4041	122.1	22.1	2836.0
1202003473	2-Nitrotoluene	137 > 46			22939.086									
1202003473	4-Nitrotoluene	137 > 46			22939.086									
1202003473	3-Nitrotoluene	137 > 46			22939.086									
1202003473	PETN	361 > 62			22939.086									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011710expA1.qld, Time: Mon Jan 18 13:15:44 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0117035a
Date: 18-Jan-2010
Time: 10:53:43
ID: 243401010 | LANL | 936340 | LCD | 21
Vial: 1:6,F

MAP 1/18/10

RA - P28

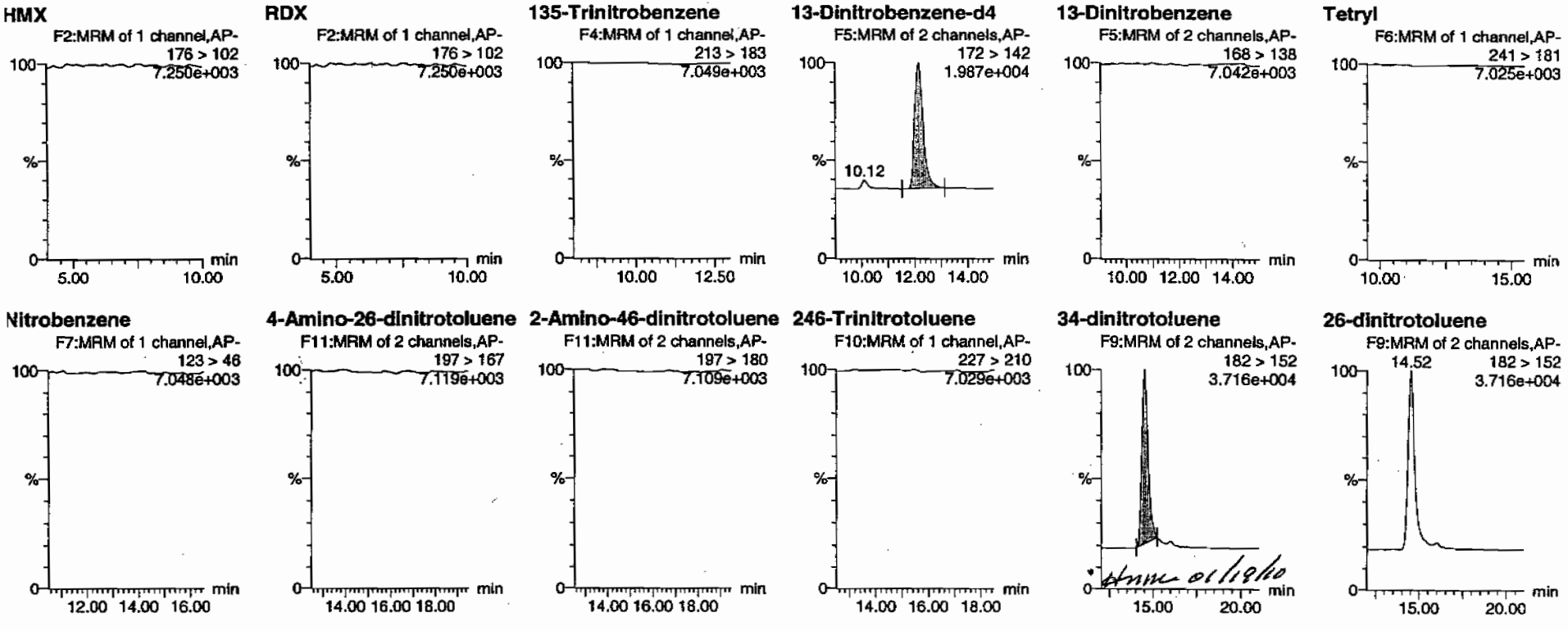

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011710expA1.qld, Time: Mon Jan 18 13:15:44 2010

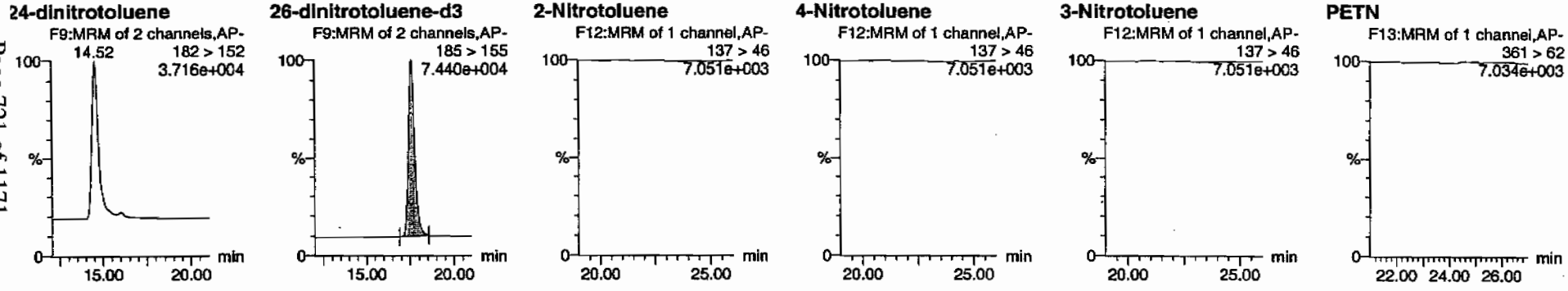

ID	Name	Trace	RT	Area	ISArea	Abs Resp	Response	Flags	Mod Date	Mod Time	µg/ml	%Rec	%Dev	S/N
243401010	HMX	176 > 102			4808.371									
243401010	RDX	176 > 102			4808.371									
243401010	135-Trinitrobenzene	213 > 183			4808.371									
243401010	13-Dinitrobenzene-d4	172 > 142	12.17	4808.371		4808.371	4808.371	bb			720.7869	144.2	44.2	586.0
243401010	13-Dinitrobenzene	168 > 138			4808.371									
243401010	Tetryl	241 > 181			4808.371									
243401010	Nitrobenzene	123 > 46			4808.371									
243401010	4-Amino-26-dinitrotoluene	197 > 167			27489.740									
243401010	2-Amino-46-dinitrotoluene	197 > 180			27489.740									
243401010	246-Trinitrotoluene	227 > 210			27489.740									
243401010	34-dinitrotoluene	182 > 152	14.52	11890.995	27489.740	11890.995	216.281	bb		3.06	235.6157	94.2	-5.8	549.0
243401010	26-dinitrotoluene	182 > 152			27489.740									
243401010	24-dinitrotoluene	182 > 152			27489.740									
243401010	26-dinitrotoluene-d3	185 > 155	17.58	27489.740		27489.740	27489.740	bb			731.4960	146.3	46.3	2261.8
243401010	2-Nitrotoluene	137 > 46			27489.740									
243401010	4-Nitrotoluene	137 > 46			27489.740									
243401010	3-Nitrotoluene	137 > 46			27489.740									
243401010	PETN	361 > 62			27489.740									

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DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
19-JAN-10	Federal	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LC-MS/MS	SW846 8321A Modified	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
936340	243401010, 1202003473, 1202003475, 1202003476		

Potentially affected work order(s)(SDG): 243401(10-1020)

Application Issues:

Other

Failed Recovery for MSD/PSD

Failed Recovery for MS/PS

Specification and Requirements Exception Description:	DER Disposition:
1. The Matrix Spike (1202003475) did not meet spike recovery limits for Tetryl at 31.4%. The recovery limits are 35-124%. 2. The Matrix Spike Duplicate (1202003476) did not meet spike recovery limits for Tetryl at 24.9%. The recovery limits are 35-124%. 3. The internal standard responses were outside of the acceptance criteria in the following samples: 243401010 and 1202003473(MB). Please see the Form 8 in the data package for the exact recoveries.	1. & 2. Since similar recoveries were obtained between matrix spikes, the noted exceptions are attributed to sample matrix interference. The Laboratory Control Sample met acceptance criteria, therefore, the data are reported with the appropriate DER. The discrepancies are noted in the case narrative. 3. The samples were re-analyzed and similar recoveries were observed. The re-analysis data are reported with the appropriate DER. The discrepancies are noted in the case narrative. The confirmation raw data are located in the Miscellaneous Section of the data package.

Originator's Name:

Michael Penny 19-JAN-10

Data Validator/Group Leader:

Herbert Maier 19-JAN-10

GC SEMIVOLATILE PESTICIDE ANALYSIS

Pesticide Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1020

Method/Analysis Information

Procedure:	**Analysis of Organochlorine Pesticides and Chlorinated Hydrocarbons by ECD**
Analytical Method:	SW846 8081A
Prep Method:	SW846 3510C
Analytical Batch Number:	936267
Prep Batch Number:	936266

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8081A:

Sample ID	Client ID
243401003	CAPA-10-6823
243401007	CAPA-10-6824
1202003313	Method Blank (MB)
1202003314	Laboratory Control Sample (LCS)
1202003318	Laboratory Control Sample (LCS)-Toxaphene LCS Only
1202003315	243401003(CAPA-10-6823) Matrix Spike (MS)
1202003316	243401003(CAPA-10-6823) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-041 REV# 10.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising

the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
The calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

One of the five quantified peaks did not meet the acceptance criteria in Toxaphene standard analyzed for this SDG; however, the average concentration of the five peaks met the acceptance criteria.

Several target analytes failed to meet the acceptance criteria with positive bias in the standards analyzed for this SDG. The positive bias for the analytical data is a result of instrument response increasing after the initial calibration. These target analytes were not detected in the associated samples; therefore, the non-compliance has no adverse effects on the data.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
QC samples 1202003315 (CAPA-10-6823MS) and 1202003318 (Toxaphene LCS) did not meet the surrogate recovery acceptance criteria. Samples 243401003 (CAPA-10-6823) and 243401007 (CAPA-10-6824) in this SDG met surrogate recovery acceptance criteria, and there were no target analytes detected in the samples. Therefore, this non-compliance had no adverse effects on the data. See DER 776464# located in the Miscellaneous Data section.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243401003 (CAPA-10-6823) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were not within the established acceptance limits for Gamma-BHC and Endrin with positive bias. There were no target analytes detected in the associated samples; therefore, this non-compliance had no adverse effects on the data. See DER #776464 located in the Miscellaneous Data section.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information:

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample

collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. Sample extracts were cleaned with Florisil prior to analysis.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information:

Electronic Package Comment

This package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative.

Data Exception (DER) Documentation
Data Exception Report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. DER # 776464 was generated for this SDG. A copy is included in the Miscellaneous Data section of this package.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this pesticide fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The lower results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-Pesticide analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD3A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD3A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimi Cao Date: 1/20/10

Roadmap for LANL 10-1020 PEST

This roadmap was analyzed by cla01575 on 01-04-2010, 15:19.
This roadmap was reviewed by jcb on 01-04-2010, 16:52.
This roadmap was packaged by yml on 01-19-2010, 12:36.
This roadmap was validated by jim01140 on 01-20-2010, 08:47.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/122909p.b/064f6401.d	243401003	sample	30-DEC-2009	07:55	10-1020.sub	CAPA-10-6823	1.00000	936267	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/122909p.b/067f6701.d	243401007	sample	30-DEC-2009	08:36	10-1020.sub	CAPA-10-6824	1.00000	936267	USE, uploaded both columns, reporting lower result

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/122909p.b/064b6401.d	243401003	sample	30-DEC-2009	07:55	10-1020.sub	CAPA-10-6823	1.00000	936267	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/122909p.b/067b6701.d	243401007	sample	30-DEC-2009	08:36	10-1020.sub	CAPA-10-6824	1.00000	936267	USE, uploaded both columns, reporting lower result

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/122909p.b/061f6101.d	1202003313	mb	30-DEC-2009	07:14	10-1020.sub	PBLK01	1.00000	936267	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/122909p.b/062f6201.d	1202003314	lcs	30-DEC-2009	07:28	10-1020.sub	PBLK01LCS	1.00000	936267	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/122909p.b/063f6301.d	1202003318	lcs	30-DEC-2009	07:42	10-1020.sub	PBLK01TLCS	1.00000	936267	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/122909p.b/065f6501.d	1202003315	ms	30-DEC-2009	08:09	10-1020.sub	CAPA-10-6823MS	1.00000	936267	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/122909p.b/066f6601.d	1202003316	msd	30-DEC-2009	08:23	10-1020.sub	CAPA-10-6823MSD	1.00000	936267	USE, uploaded both columns, reporting lower result

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/122909p.b/061b6101.d	1202003313	mb	30-DEC-2009	07:14	10-1020.sub	PBLK01	1.00000	936267	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/122909p.b/062b6201.d	1202003314	lcs	30-DEC-2009	07:28	10-1020.sub	PBLK01LCS	1.00000	936267	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/122909p.b/063b6301.d	1202003318	lcs	30-DEC-2009	07:42	10-1020.sub	PBLK01TLCS	1.00000	936267	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/122909p.b/065b6501.d	1202003315	ms	30-DEC-2009	08:09	10-1020.sub	CAPA-10-6823MS	1.00000	936267	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd3a.i/122909p.b/066b6601.d	1202003316	msd	30-DEC-2009	08:23	10-1020.sub	CAPA-10-6823MSD	1.00000	936267	USE, uploaded both columns, reporting lower result

SAMPLE DATA SUMMARY

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401003**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA–10–6823**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**936267**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 07:55**	**Analyst:**	**CXC2**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/24/2009 12:37**	**Aliquot:**	**800 mL**	**Final Volume:**	**5 mL**
Data File:	**064f6401.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	064b6401.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.025	ug/L	0.00625	0.025	1
58–89–9	gamma–BHC (Lindane)	U	0.025	ug/L	0.00625	0.025	1
319–85–7	beta–BHC	U	0.025	ug/L	0.0075	0.025	1
319–86–8	delta–BHC	U	0.025	ug/L	0.00625	0.025	1
76–44–8	Heptachlor	U	0.025	ug/L	0.00625	0.025	1
309–00–2	Aldrin	U	0.025	ug/L	0.00625	0.025	1
1024–57–3	Heptachlor epoxide	U	0.025	ug/L	0.00625	0.025	1
5103–74–2	gamma–Chlordane	U	0.025	ug/L	0.00625	0.025	1
5103–71–9	alpha–Chlordane	U	0.025	ug/L	0.00625	0.025	1
959–98–8	Endosulfan I	U	0.025	ug/L	0.00625	0.025	1
72–55–9	4,4'–DDE	U	0.050	ug/L	0.00625	0.050	1
60–57–1	Dieldrin	U	0.050	ug/L	0.0125	0.050	1
72–20–8	Endrin	U	0.050	ug/L	0.0125	0.050	1
72–54–8	4,4'–DDD	U	0.050	ug/L	0.0125	0.050	1
33213–65–9	Endosulfan II	U	0.050	ug/L	0.0125	0.050	1
7421–93–4	Endrin aldehyde	U	0.050	ug/L	0.00625	0.050	1
50–29–3	4,4'–DDT	U	0.050	ug/L	0.0125	0.050	1
1031–07–8	Endosulfan sulfate	U	0.050	ug/L	0.0125	0.050	1
72–43–5	Methoxychlor	U	0.250	ug/L	0.0625	0.250	1
53494–70–5	Endrin ketone	U	0.050	ug/L	0.0125	0.050	1
8001–35–2	Toxaphene	U	0.625	ug/L	0.188	0.625	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
Decachlorobiphenyl	1.23	1.25	ug/L	98.5	(34%–118%)
4cmx	1.06	1.25	ug/L	84.7	(29%–103%)

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401007**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6824**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**936267**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 08:36**	**Analyst:**	**CXC2**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/24/2009 12:37**	**Aliquot:**	**940 mL**	**Final Volume:**	**5 mL**
Data File:	**067f6701.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	067b6701.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.0213	ug/L	0.00532	0.0213	1
58-89-9	gamma-BHC (Lindane)	U	0.0213	ug/L	0.00532	0.0213	1
319-85-7	beta-BHC	U	0.0213	ug/L	0.00638	0.0213	1
319-86-8	delta-BHC	U	0.0213	ug/L	0.00532	0.0213	1
76-44-8	Heptachlor	U	0.0213	ug/L	0.00532	0.0213	1
309-00-2	Aldrin	U	0.0213	ug/L	0.00532	0.0213	1
1024-57-3	Heptachlor epoxide	U	0.0213	ug/L	0.00532	0.0213	1
5103-74-2	gamma-Chlordane	U	0.0213	ug/L	0.00532	0.0213	1
5103-71-9	alpha-Chlordane	U	0.0213	ug/L	0.00532	0.0213	1
959-98-8	Endosulfan I	U	0.0213	ug/L	0.00532	0.0213	1
72-55-9	4,4'-DDE	U	0.0426	ug/L	0.00532	0.0426	1
60-57-1	Dieldrin	U	0.0426	ug/L	0.0106	0.0426	1
72-20-8	Endrin	U	0.0426	ug/L	0.0106	0.0426	1
72-54-8	4,4'-DDD	U	0.0426	ug/L	0.0106	0.0426	1
33213-65-9	Endosulfan II	U	0.0426	ug/L	0.0106	0.0426	1
7421-93-4	Endrin aldehyde	U	0.0426	ug/L	0.00532	0.0426	1
50-29-3	4,4'-DDT	U	0.0426	ug/L	0.0106	0.0426	1
1031-07-8	Endosulfan sulfate	U	0.0426	ug/L	0.0106	0.0426	1
72-43-5	Methoxychlor	U	0.213	ug/L	0.0532	0.213	1
53494-70-5	Endrin ketone	U	0.0426	ug/L	0.0106	0.0426	1
8001-35-2	Toxaphene	U	0.532	ug/L	0.160	0.532	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
Decachlorobiphenyl	0.911	1.06	ug/L	85.6	(34%-118%)
4cmx	0.833	1.06	ug/L	78.3	(29%-103%)

QUALITY CONTROL SUMMARY

Pesticide

Surrogate Recovery Report

SDG Number: 10-1020

Matrix Type: LIQUID

CAP Column (1) : CLP-1 **CAP Column (2) : CLP-2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202003313	MB for batch 936266	85	81	93	93
1202003314	LCS for batch 936266	83	81	91	94
1202003318	LCS for batch 936266	104 *	96	115	118
243401003	CAPA-10-6823	91	85	99	102
1202003315	CAPA-10-6823MS	109 *	100	117	122 *
1202003316	CAPA-10-6823MSD	84	80	93	97
243401007	CAPA-10-6824	82	78	86	88

Surrogate	Acceptance Limits
4CMX = 4cmx	(29%-103%)
DCB = Decachlorobiphenyl	(34%-118%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020
Client ID: LCS for batch 936266
Lab Sample ID: 1202003314
Instrument: ECD3A.I
Analyst: CXC2
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 12/30/2009 07:28
Dilution: 1
Prep Batch ID: 936266
Batch ID: 936267

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
319-84-6	LCS	alpha-BHC	0.500	0.0	0.465	93	52-146
58-89-9	LCS	gamma-BHC (Lindane)	0.500	0.0	0.520	104	49-138
319-85-7	LCS	beta-BHC	0.500	0.0	0.487	97	49-138
319-86-8	LCS	delta-BHC	0.500	0.0	0.467	93	54-148
76-44-8	LCS	Heptachlor	0.500	0.0	0.453	91	38-132
309-00-2	LCS	Aldrin	0.500	0.0	0.426	85	37-137
1024-57-3	LCS	Heptachlor epoxide	0.500	0.0	0.483	97	49-134
5103-74-2	LCS	gamma-Chlordane	0.500	0.0	0.530	106	50-147
5103-71-9	LCS	alpha-Chlordane	0.500	0.0	0.510	102	50-144
959-98-8	LCS	Endosulfan I	0.500	0.0	0.513	103	41-137
72-55-9	LCS	4,4'-DDE	1.25	0.0	1.27	102	52-148
60-57-1	LCS	Dieldrin	1.25	0.0	1.29	103	51-141
72-20-8	LCS	Endrin	1.25	0.0	1.51	121	56-145
72-54-8	LCS	4,4'-DDD	1.25	0.0	1.39	111	55-151
33213-65-9	LCS	Endosulfan II	1.25	0.0	1.38	110	43-142
7421-93-4	LCS	Endrin aldehyde	1.25	0.0	1.24	99	51-145
50-29-3	LCS	4,4'-DDT	1.25	0.0	1.40	112	55-156
1031-07-8	LCS	Endosulfan sulfate	1.25	0.0	1.46	117	52-145
72-43-5	LCS	Methoxychlor	5.00	0.0	5.25	105	53-151
53494-70-5	LCS	Endrin ketone	1.25	0.0	1.38	110	50-151

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10–1020
Client ID: LCS for batch 936266
Lab Sample ID: 1202003318
Instrument: ECD3A.I
Analyst: CXC2
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 12/30/2009 07:42
Dilution: 1
Prep Batch ID: 936266
Batch ID: 936267

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
8001–35–2	LCS Toxaphene	4.00	0.0	5.11	128	41–143

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020
Client ID: CAPA-10-6823MS
Lab Sample ID: 1202003315
Instrument: ECD3A.I
Analyst: CXC2
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 12/30/2009 08:09
Prep Batch ID: 936266
Batch ID: 936267
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
319-84-6	MS	alpha-BHC	0.500	0.00	U	0.555	111	40-143
58-89-9	MS	gamma-BHC (Lindane)	0.500	0.00	U	0.683	137 *	46-132
319-85-7	MS	beta-BHC	0.500	0.00	U	0.648	130	38-140
319-86-8	MS	delta-BHC	0.500	0.00	U	0.556	111	39-148
76-44-8	MS	Heptachlor	0.500	0.00	U	0.634	127	37-127
309-00-2	MS	Aldrin	0.500	0.00	U	0.595	119	37-130
1024-57-3	MS	Heptachlor epoxide	0.500	0.00	U	0.639	128	44-129
5103-74-2	MS	gamma-Chlordane	0.500	0.00	U	0.639	128	39-146
5103-71-9	MS	alpha-Chlordane	0.500	0.00	U	0.637	127	40-140
959-98-8	MS	Endosulfan I	0.500	0.00	U	0.645	129	36-133
72-55-9	MS	4,4'-DDE	1.25	0.00	U	1.58	126	40-148
60-57-1	MS	Dieldrin	1.25	0.00	U	1.58	126	41-140
72-20-8	MS	Endrin	1.25	0.00	U	1.89	151 *	48-145
72-54-8	MS	4,4'-DDD	1.25	0.00	U	1.70	136	38-155
33213-65-9	MS	Endosulfan II	1.25	0.00	U	1.69	135	38-141
7421-93-4	MS	Endrin aldehyde	1.25	0.00	U	1.47	117	34-143
50-29-3	MS	4,4'-DDT	1.25	0.00	U	1.73	139	42-159
1031-07-8	MS	Endosulfan sulfate	1.25	0.00	U	1.75	140	39-143
72-43-5	MS	Methoxychlor	5.00	0.00	U	6.40	128	47-156
53494-70-5	MS	Endrin ketone	1.25	0.00	U	1.63	130	41-150

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020
Client ID: CAPA-10-6823MSD
Lab Sample ID: 1202003316
Instrument: ECD3A.I
Analyst: CXC2
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 12/30/2009 08:23
Prep Batch ID: 936266
Batch ID: 936267
Dilution: 1

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
319-84-6	MSD alpha-BHC	0.500	0.00	U	0.443	89	40-143	23	0-30
58-89-9	MSD gamma-BHC (Lindane)	0.500	0.00	U	0.541	108	46-132	23	0-30
319-85-7	MSD beta-BHC	0.500	0.00	U	0.524	105	38-140	21	0-30
319-86-8	MSD delta-BHC	0.500	0.00	U	0.449	90	39-148	21	0-30
76-44-8	MSD Heptachlor	0.500	0.00	U	0.497	99	37-127	24	0-30
309-00-2	MSD Aldrin	0.500	0.00	U	0.463	93	37-130	25	0-30
1024-57-3	MSD Heptachlor epoxide	0.500	0.00	U	0.507	101	44-129	23	0-30
5103-74-2	MSD gamma-Chlordane	0.500	0.00	U	0.504	101	39-146	24	0-30
5103-71-9	MSD alpha-Chlordane	0.500	0.00	U	0.505	101	40-140	23	0-30
959-98-8	MSD Endosulfan I	0.500	0.00	U	0.514	103	36-133	23	0-30
72-55-9	MSD 4,4'-DDE	1.25	0.00	U	1.27	102	40-148	22	0-30
60-57-1	MSD Dieldrin	1.25	0.00	U	1.26	101	41-140	22	0-30
72-20-8	MSD Endrin	1.25	0.00	U	1.52	121	48-145	22	0-30
72-54-8	MSD 4,4'-DDD	1.25	0.00	U	1.39	111	38-155	20	0-30
33213-65-9	MSD Endosulfan II	1.25	0.00	U	1.37	109	38-141	21	0-30
7421-93-4	MSD Endrin aldehyde	1.25	0.00	U	1.18	94	34-143	22	0-30
50-29-3	MSD 4,4'-DDT	1.25	0.00	U	1.41	113	42-159	21	0-30
1031-07-8	MSD Endosulfan sulfate	1.25	0.00	U	1.42	114	39-143	21	0-30
72-43-5	MSD Methoxychlor	5.00	0.00	U	5.22	104	47-156	20	0-30
53494-70-5	MSD Endrin ketone	1.25	0.00	U	1.32	106	41-150	21	0-30

Method Blank Summary

SDG Number:	10-1020	Client:	LANL010	Matrix:	GROUND WATER
Client ID:	MB for batch 936266	Instrument ID:	ECD3A.I_2 ECD3A.I_1	Data File:	061b6101.d 061f6101.d
Lab Sample ID:	1202003313				
Column:	CLP-2 CLP-1	Prep Date:	12/24/2009 12:37	Analyzed:	12/30/09 07:14
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 936266	1202003314	062f6201.d 062b6201.d	12/30/09	0728
02 LCS for batch 936266	1202003318	063f6301.d 063b6301.d	12/30/09	0742
03 CAPA-10-6823	243401003	064f6401.d 064b6401.d	12/30/09	0755
04 CAPA-10-6823MS	1202003315	065f6501.d 065b6501.d	12/30/09	0809
05 CAPA-10-6823MSD	1202003316	066f6601.d 066b6601.d	12/30/09	0823
06 CAPA-10-6824	243401007	067f6701.d 067b6701.d	12/30/09	0836

SAMPLE DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401003**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6823**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**936267**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 07:55**	**Analyst:**	**CXC2**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/24/2009 12:37**	**Aliquot:**	**800 mL**	**Final Volume:**	**5 mL**
Data File:	**064f6401.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	064b6401.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.025	ug/L	0.00625	0.025	1
58-89-9	gamma-BHC (Lindane)	U	0.025	ug/L	0.00625	0.025	1
319-85-7	beta-BHC	U	0.025	ug/L	0.0075	0.025	1
319-86-8	delta-BHC	U	0.025	ug/L	0.00625	0.025	1
76-44-8	Heptachlor	U	0.025	ug/L	0.00625	0.025	1
309-00-2	Aldrin	U	0.025	ug/L	0.00625	0.025	1
1024-57-3	Heptachlor epoxide	U	0.025	ug/L	0.00625	0.025	1
5103-74-2	gamma-Chlordane	U	0.025	ug/L	0.00625	0.025	1
5103-71-9	alpha-Chlordane	U	0.025	ug/L	0.00625	0.025	1
959-98-8	Endosulfan I	U	0.025	ug/L	0.00625	0.025	1
72-55-9	4,4'-DDE	U	0.050	ug/L	0.00625	0.050	1
60-57-1	Dieldrin	U	0.050	ug/L	0.0125	0.050	1
72-20-8	Endrin	U	0.050	ug/L	0.0125	0.050	1
72-54-8	4,4'-DDD	U	0.050	ug/L	0.0125	0.050	1
33213-65-9	Endosulfan II	U	0.050	ug/L	0.0125	0.050	1
7421-93-4	Endrin aldehyde	U	0.050	ug/L	0.00625	0.050	1
50-29-3	4,4'-DDT	U	0.050	ug/L	0.0125	0.050	1
1031-07-8	Endosulfan sulfate	U	0.050	ug/L	0.0125	0.050	1
72-43-5	Methoxychlor	U	0.250	ug/L	0.0625	0.250	1
53494-70-5	Endrin ketone	U	0.050	ug/L	0.0125	0.050	1
8001-35-2	Toxaphene	U	0.625	ug/L	0.188	0.625	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
Decachlorobiphenyl	1.23	1.25	ug/L	98.5	(34%-118%)
4cmx	1.06	1.25	ug/L	84.7	(29%-103%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/122909p.b/064f6401.d
Lab Smp Id: 243401003 Client Smp ID: CAPA-10-6823
Inj Date : 30-DEC-2009 07:55
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |243401003|1|
Misc Info : |ECD81A_1L|936267|SVP|LANL|GROUND WATER|CAPA-10-6823|||
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 12:18 hea01125 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 64
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1020.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	800.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.679	2.679	0.000	12044322	182.585	1.14	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.821	7.824	-0.003	9494756	197.006	1.23	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/122909p.b/064f6401.d

Page 1

Date : 30-DEC-2009 07:55

Client ID: CAPA-10-6823

Instrument: ecd3a.i

Sample Info: 1243401003|1|

Volume Injected (uL): 1.0

Operator: CXC2

Column phase: CLP-1

Column diameter: 0.25

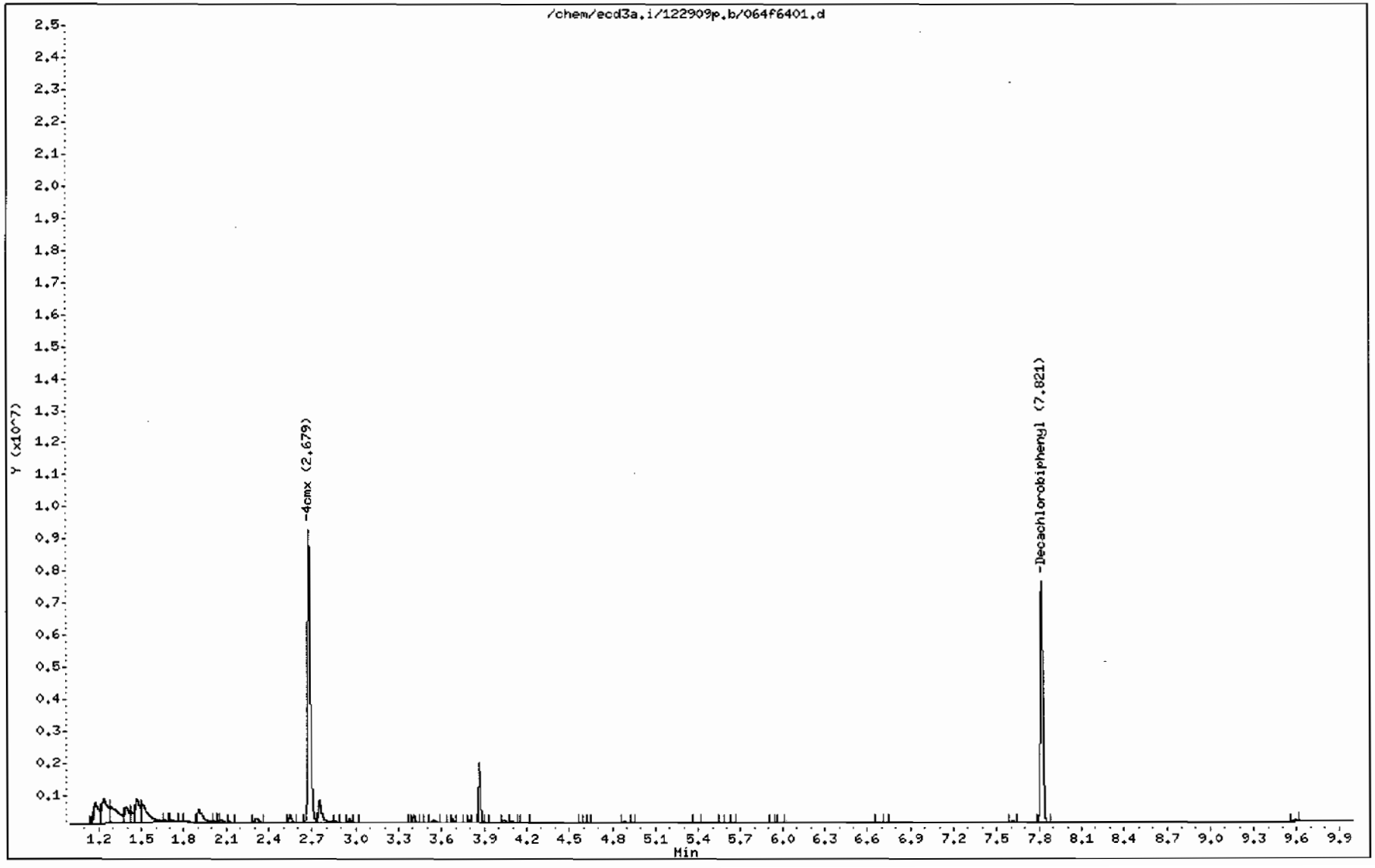

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/064b6401.d
Lab Smp Id: 243401003 Client Smp ID: CAPA-10-6823
Inj Date : 30-DEC-2009 07:55
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |243401003|1|
Misc Info : |ECD81A_1L|936267|SVP|LANL|GROUND WATER|CAPA-10-6823|||
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 12:18 hea01125 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 64
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1020.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	800.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.922	0.000	79434048	169.370	1.06	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.858	8.860	-0.002	66985748	204.086	1.28	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/122909p.b/064b6401.d

Date : 30-DEC-2009 07:55

Client ID: CAPA-10-6823

Sample Info: 1243401003111

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd3a.i

Operator: CXC2

Column diameter: 0.25

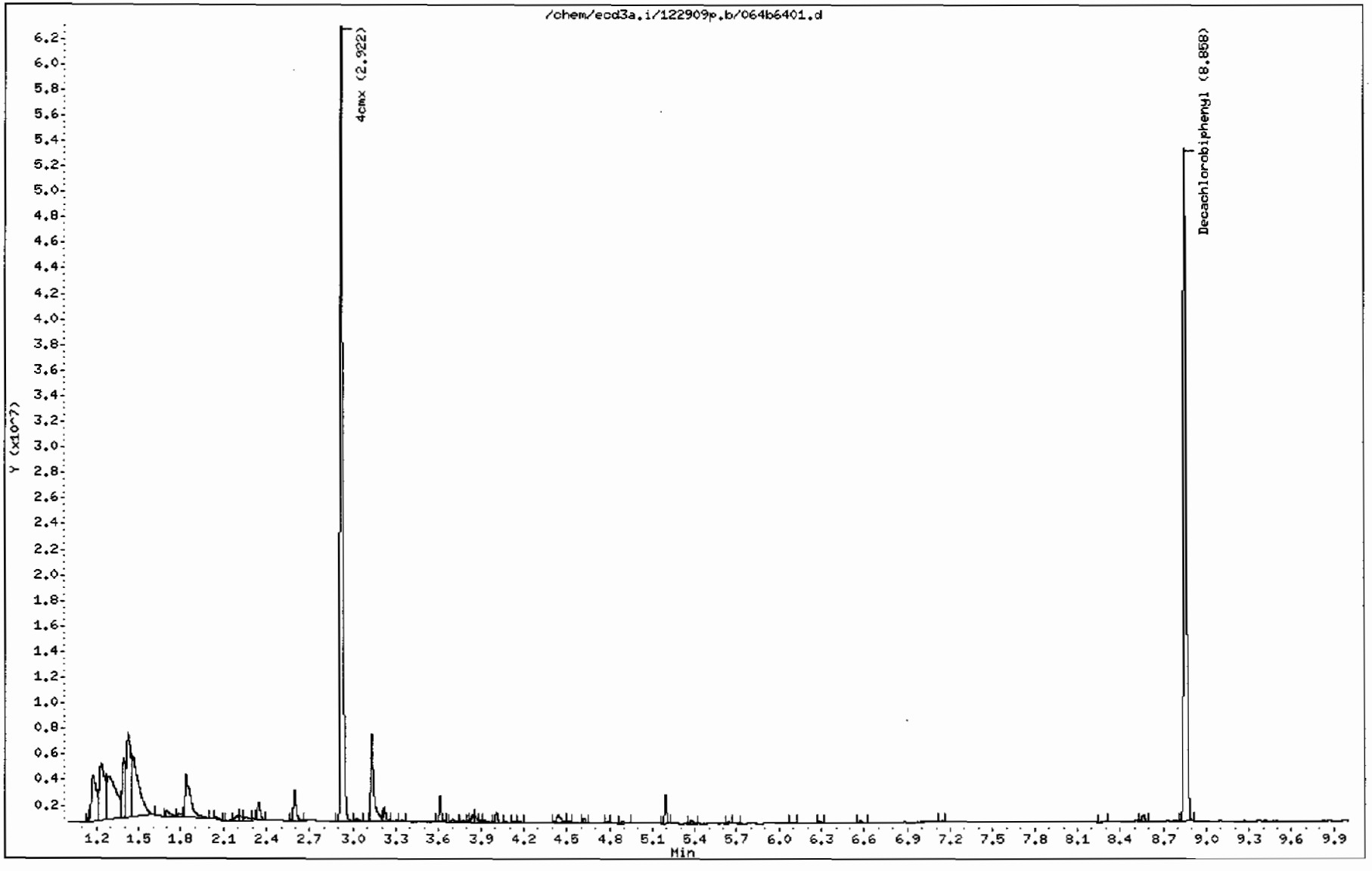

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	**Date Collected:**	12/18/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	243401007	**Date Received:**	12/22/2009 09:55		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-6824	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	936267	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	12/30/2009 08:36	**Analyst:**	CXC2	**Inj. Vol:**	1 uL
Prep Date:	12/24/2009 12:37	**Aliquot:**	940 mL	**Final Volume:**	5 mL
Data File:	067f6701.d	**Column:**	1 CLP-1	**Level:**	LOW
	067b6701.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.0213	ug/L	0.00532	0.0213	1
58-89-9	gamma-BHC (Lindane)	U	0.0213	ug/L	0.00532	0.0213	1
319-85-7	beta-BHC	U	0.0213	ug/L	0.00638	0.0213	1
319-86-8	delta-BHC	U	0.0213	ug/L	0.00532	0.0213	1
76-44-8	Heptachlor	U	0.0213	ug/L	0.00532	0.0213	1
309-00-2	Aldrin	U	0.0213	ug/L	0.00532	0.0213	1
1024-57-3	Heptachlor epoxide	U	0.0213	ug/L	0.00532	0.0213	1
5103-74-2	gamma-Chlordane	U	0.0213	ug/L	0.00532	0.0213	1
5103-71-9	alpha-Chlordane	U	0.0213	ug/L	0.00532	0.0213	1
959-98-8	Endosulfan I	U	0.0213	ug/L	0.00532	0.0213	1
72-55-9	4,4'-DDE	U	0.0426	ug/L	0.00532	0.0426	1
60-57-1	Dieldrin	U	0.0426	ug/L	0.0106	0.0426	1
72-20-8	Endrin	U	0.0426	ug/L	0.0106	0.0426	1
72-54-8	4,4'-DDD	U	0.0426	ug/L	0.0106	0.0426	1
33213-65-9	Endosulfan II	U	0.0426	ug/L	0.0106	0.0426	1
7421-93-4	Endrin aldehyde	U	0.0426	ug/L	0.00532	0.0426	1
50-29-3	4,4'-DDT	U	0.0426	ug/L	0.0106	0.0426	1
1031-07-8	Endosulfan sulfate	U	0.0426	ug/L	0.0106	0.0426	1
72-43-5	Methoxychlor	U	0.213	ug/L	0.0532	0.213	1
53494-70-5	Endrin ketone	U	0.0426	ug/L	0.0106	0.0426	1
8001-35-2	Toxaphene	U	0.532	ug/L	0.160	0.532	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
Decachlorobiphenyl	0.911	1.06	ug/L	85.6	(34%-118%)
4cmx	0.833	1.06	ug/L	78.3	(29%-103%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/122909p.b/067f6701.d
Lab Smp Id: 243401007 Client Smp ID: CAPA-10-6824
Inj Date : 30-DEC-2009 08:36
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |243401007|1|
Misc Info : |ECD81A_1L|936267|SVP|LANL|GROUND WATER|CAPA-10-6824|||
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 12:18 hea01125 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 67
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1020.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	940.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.678	2.679	-0.001	10818566	164.003	0.872	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.820	7.824	-0.004	8252280	171.226	0.911	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/122909p.b/067f6701.d

Date : 30-DEC-2009 08:36

Client ID: CAPA-10-6824

Sample Info: 1243401007111

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd3a.i

Operator: CXC2

Column diameter: 0.25

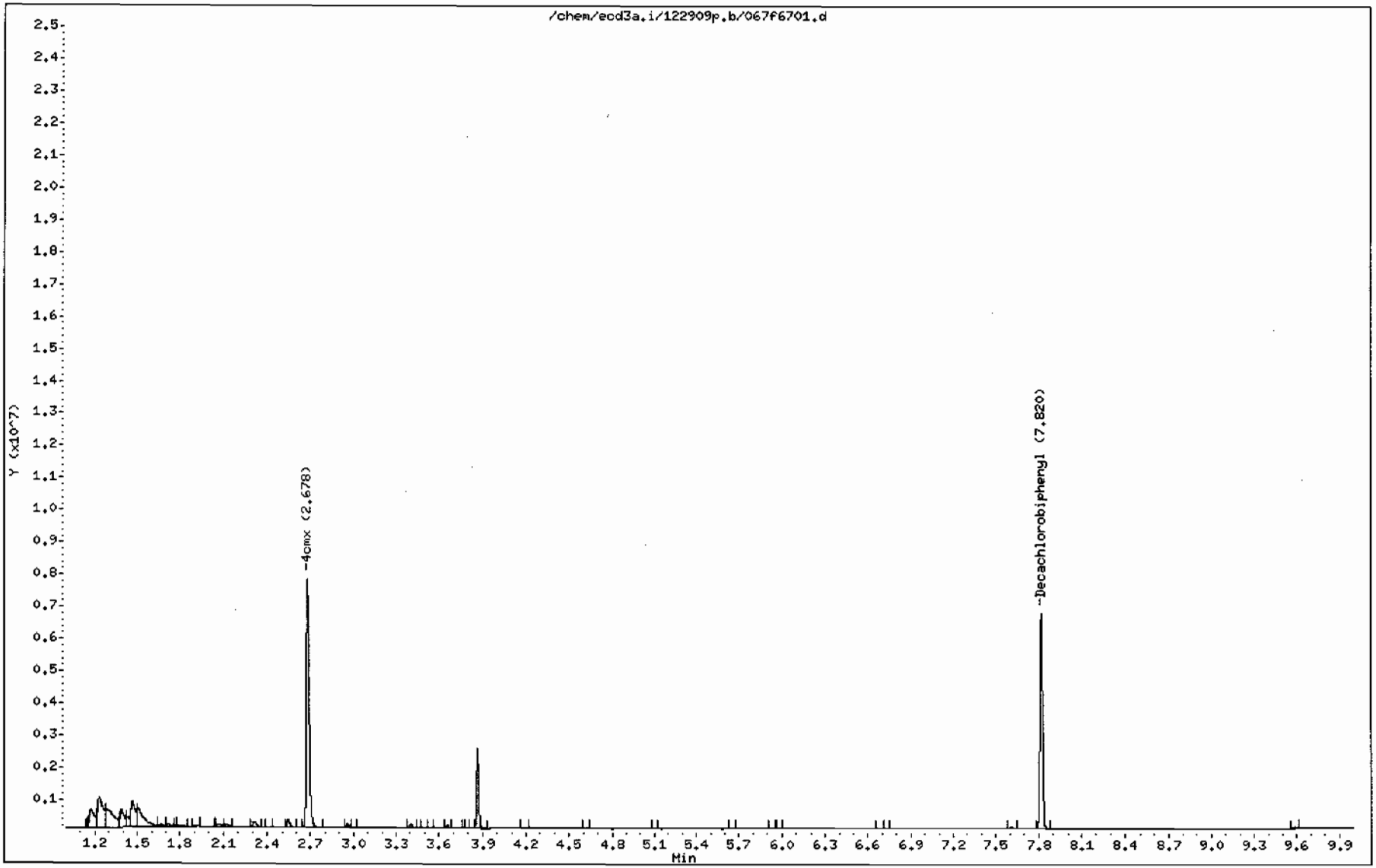

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/067b6701.d
Lab Smp Id: 243401007 Client Smp ID: CAPA-10-6824
Inj Date : 30-DEC-2009 08:36
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |243401007|1|
Misc Info : |ECD81A_1L|936267|SVP|LANL|GROUND WATER|CAPA-10-6824|||
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 12:18 hea01125 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 67
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1020.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	940.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.921	2.922	-0.001	73457661	156.627	0.833	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.857	8.860	-0.003	57958137	176.582	0.939	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/122909p.b/067b6701.d
Date : 30-DEC-2009 08:36
Client ID: CAPA-10-6824
Sample Info: 1243401007111
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i
Operator: CXC2
Column diameter: 0.25

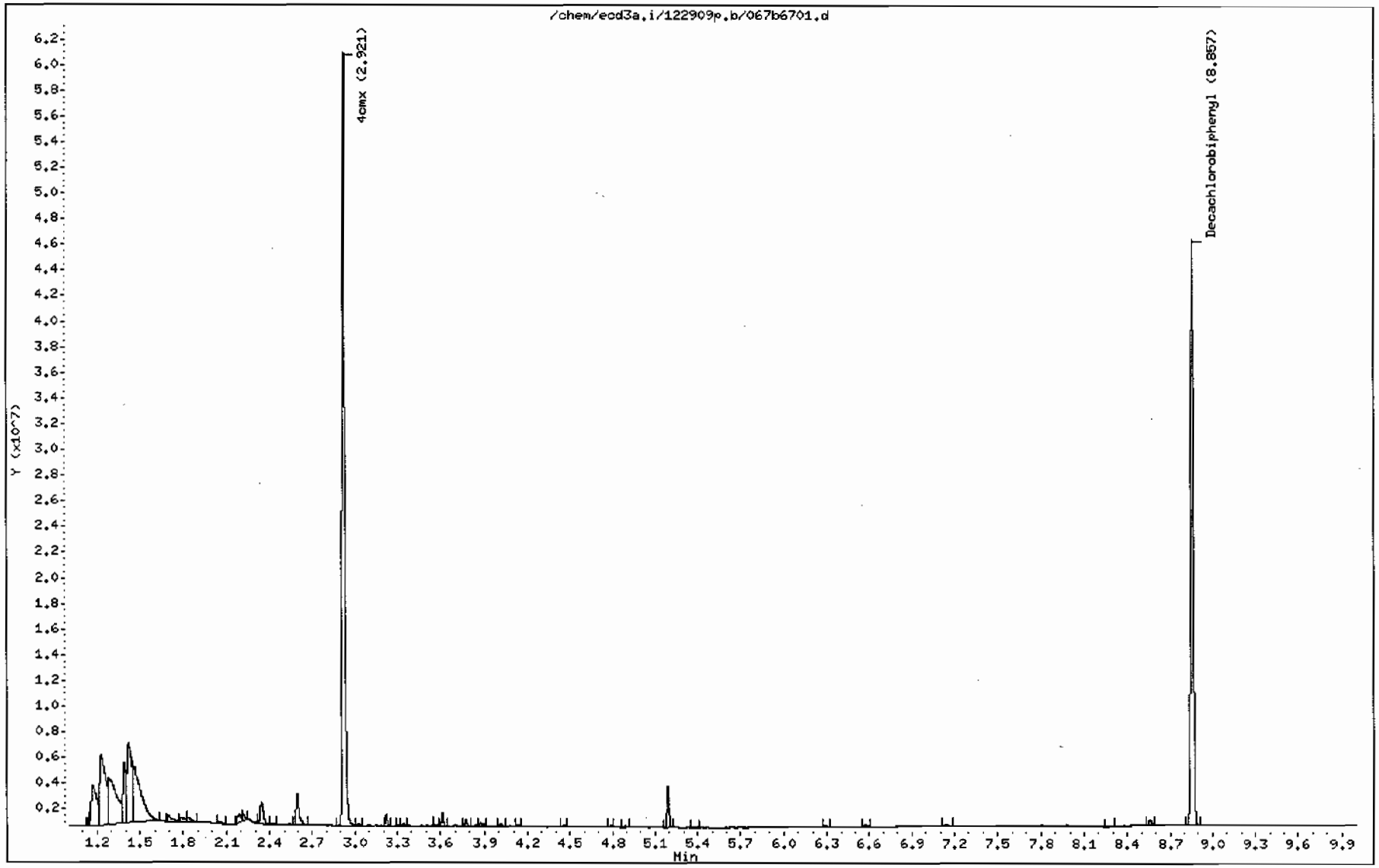

STANDARDS DATA

Report Date: 31-Dec-2009 09:51

Calibration History

Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Start Cal Date: 29-DEC-2009 17:34
End Cal Date : 29-DEC-2009 21:55

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
29-DEC-2009 20:42	chlor	/chem/ecd3a.i/122909p.b/016f1601.d
29-DEC-2009 18:56	tox	/chem/ecd3a.i/122909p.b/009f0901.d
29-DEC-2009 17:34	indab	/chem/ecd3a.i/122909p.b/003f0301.d
Cal Level: 2 , Cal Amount: 10.00000		
29-DEC-2009 21:14	chlor	/chem/ecd3a.i/122909p.b/017f1701.d
29-DEC-2009 19:10	tox	/chem/ecd3a.i/122909p.b/010f1001.d
29-DEC-2009 17:47	indab	/chem/ecd3a.i/122909p.b/004f0401.d
Cal Level: 3 , Cal Amount: 50.00000		
29-DEC-2009 21:28	chlor	/chem/ecd3a.i/122909p.b/018f1801.d
29-DEC-2009 19:24	tox	/chem/ecd3a.i/122909p.b/011f1101.d
29-DEC-2009 18:01	indab	/chem/ecd3a.i/122909p.b/005f0501.d
Cal Level: 4 , Cal Amount: 100.00000		
29-DEC-2009 21:41	chlor	/chem/ecd3a.i/122909p.b/019f1901.d
29-DEC-2009 20:01	tox	/chem/ecd3a.i/122909p.b/013f1301.d
29-DEC-2009 18:15	indab	/chem/ecd3a.i/122909p.b/006f0601.d
Cal Level: 5 , Cal Amount: 200.00000		
29-DEC-2009 21:55	chlor	/chem/ecd3a.i/122909p.b/020f2001.d
29-DEC-2009 20:14	tox	/chem/ecd3a.i/122909p.b/014f1401.d
29-DEC-2009 18:29	indab	/chem/ecd3a.i/122909p.b/007f0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
30-DEC-2009 04:17	indab	/chem/ecd3a.i/122909p.b/048f4801.d
Ccal Level: 4 , Ccal Amount: 100		
30-DEC-2009 02:01	indab	/chem/ecd3a.i/122909p.b/038f3801.d
Ccal Level: 4 , Ccal Amount: 100		

29-DEC-2009 23:58	indab	/chem/ecd3a.i/122909p.b/029f2901.d
Ccal Level: 4 , Ccal Amount: 100		
30-DEC-2009 08:50	indab	/chem/ecd3a.i/122909p.b/068f6801.d
Ccal Level: 4 , Ccal Amount: 100		
30-DEC-2009 06:47	indab	/chem/ecd3a.i/122909p.b/059f5901.d
Ccal Level: 4 , Ccal Amount: 100		
29-DEC-2009 22:09	chlor	/chem/ecd3a.i/122909p.b/021f2101.d
Ccal Level: 4 , Ccal Amount: 100		
29-DEC-2009 21:41	chlor	/chem/ecd3a.i/122909p.b/019f1901.d
Ccal Level: 4 , Ccal Amount: 100		
29-DEC-2009 20:28	tox	/chem/ecd3a.i/122909p.b/015f1501.d
Ccal Level: 4 , Ccal Amount: 100		
29-DEC-2009 20:01	tox	/chem/ecd3a.i/122909p.b/013f1301.d
Ccal Level: 4 , Ccal Amount: 100		
29-DEC-2009 18:43	indab	/chem/ecd3a.i/122909p.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 100		
29-DEC-2009 18:15	indab	/chem/ecd3a.i/122909p.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 100		
29-DEC-2009 22:09	chlor	/chem/ecd3a.i/122909p.b/021b2101.d

Report Date: 31-Dec-2009 09:50

Calibration History

Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Start Cal Date: 29-DEC-2009 17:34
End Cal Date : 29-DEC-2009 21:55

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
29-DEC-2009 20:42	chlor	/chem/ecd3a.i/122909p.b/016b1601.d
29-DEC-2009 18:56	tox	/chem/ecd3a.i/122909p.b/009b0901.d
29-DEC-2009 17:34	indab	/chem/ecd3a.i/122909p.b/003b0301.d
Cal Level: 2 , Cal Amount: 10.00000		
29-DEC-2009 21:14	chlor	/chem/ecd3a.i/122909p.b/017b1701.d
29-DEC-2009 19:10	tox	/chem/ecd3a.i/122909p.b/010b1001.d
29-DEC-2009 17:47	indab	/chem/ecd3a.i/122909p.b/004b0401.d
Cal Level: 3 , Cal Amount: 50.00000		
29-DEC-2009 21:28	chlor	/chem/ecd3a.i/122909p.b/018b1801.d
29-DEC-2009 19:24	tox	/chem/ecd3a.i/122909p.b/011b1101.d
29-DEC-2009 18:01	indab	/chem/ecd3a.i/122909p.b/005b0501.d
Cal Level: 4 , Cal Amount: 100.00000		
29-DEC-2009 21:41	chlor	/chem/ecd3a.i/122909p.b/019b1901.d
29-DEC-2009 20:01	tox	/chem/ecd3a.i/122909p.b/013b1301.d
29-DEC-2009 18:15	indab	/chem/ecd3a.i/122909p.b/006b0601.d
Cal Level: 5 , Cal Amount: 200.00000		
29-DEC-2009 21:55	chlor	/chem/ecd3a.i/122909p.b/020b2001.d
29-DEC-2009 20:14	tox	/chem/ecd3a.i/122909p.b/014b1401.d
29-DEC-2009 18:29	indab	/chem/ecd3a.i/122909p.b/007b0701.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
30-DEC-2009 04:17	indab	/chem/ecd3a.i/122909p.b/048b4801.d
Ccal Level: 4 , Ccal Amount: 100		
30-DEC-2009 02:01	indab	/chem/ecd3a.i/122909p.b/038b3801.d
Ccal Level: 4 , Ccal Amount: 100		
29-DEC-2009 23:58	indab	/chem/ecd3a.i/122909p.b/029b2901.d
Ccal Level: 4 , Ccal Amount: 100		

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|30-DEC-2009 08:50 |indab             |/chem/ecd3a.i/122909p.b/068b6801.d      |
+------------------+------------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==============================================================================+
|30-DEC-2009 06:47 |indab             |/chem/ecd3a.i/122909p.b/059b5901.d      |
+------------------+------------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==============================================================================+
|29-DEC-2009 22:09 |chlor             |/chem/ecd3a.i/122909p.b/021b2101.d      |
+------------------+------------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==============================================================================+
|29-DEC-2009 21:41 |chlor             |/chem/ecd3a.i/122909p.b/019b1901.d      |
+------------------+------------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==============================================================================+
|29-DEC-2009 20:28 |tox               |/chem/ecd3a.i/122909p.b/015b1501.d      |
+------------------+------------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==============================================================================+
|29-DEC-2009 20:01 |tox               |/chem/ecd3a.i/122909p.b/013b1301.d      |
+------------------+------------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==============================================================================+
|29-DEC-2009 18:43 |indab             |/chem/ecd3a.i/122909p.b/008b0801.d      |
+------------------+------------------+----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                              |
+==============================================================================+
|29-DEC-2009 18:15 |indab             |/chem/ecd3a.i/122909p.b/006b0601.d      |
+------------------+------------------+----------------------------------------+
```

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Quant Method : ESTD Target Version : 3.50
Last Update : 31-Dec-2009 09:07 Number of Cpnds : 44
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1005.000000
Initial:End Threshold	502.500000
Initial:Area Threshold	10005.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	5.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.679	2.649-2.709	6.597e+04
63 2,4,5-Trichlorophenol	1.334	1.234-1.434	
59 Hexachlorobenzene	3.098	2.998-3.198	
2 Aroclor-1221	2.920	2.890-2.950	
	3.052	3.022-3.082	
	3.087	3.057-3.117	
3 Aroclor-1016	3.727	3.697-3.757	
	3.822	3.792-3.852	
	3.866	3.836-3.896	
	3.950	3.920-3.980	
	4.102	4.072-4.132	
4 Aroclor-1232	3.377	3.347-3.407	
	3.536	3.506-3.566	
	3.727	3.697-3.757	
	3.822	3.792-3.852	
	4.379	4.349-4.409	
5 alpha-BHC	3.085	3.055-3.115	1.113e+05
6 Aroclor-1242	3.377	3.277-3.477	
	3.728	3.628-3.828	
	3.866	3.766-3.966	
	4.379	4.279-4.479	
	4.398	4.298-4.498	
7 gamma-BHC (Lindane)	3.330	3.300-3.360	7.853e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.646	3.546-3.746	2.510e+03
	4.083	3.983-4.183	2.557e+03
	4.446	4.346-4.546	1.407e+03
	4.620	4.520-4.720	8.435e+03
	5.486	5.386-5.586	1.813e+03
9 Aroclor-1248	3.949	3.849-4.049	
	4.103	4.003-4.203	
	4.159	4.059-4.259	
	4.378	4.278-4.478	
	4.768	4.668-4.868	
10 Heptachlor	3.713	3.683-3.743	6.406e+04
11 Aldrin	3.970	3.940-4.000	7.593e+04
12 beta-BHC	3.393	3.363-3.423	3.470e+04
13 delta-BHC	3.542	3.512-3.572	9.919e+04
14 Heptachlor epoxide	4.507	4.477-4.537	6.671e+04
15 Aroclor-1254	4.352	4.322-4.382	
	4.516	4.486-4.546	
	4.769	4.739-4.799	
	4.937	4.907-4.967	
	5.219	5.189-5.249	
16 Endosulfan I	4.877	4.847-4.907	5.951e+04
17 gamma-Chlordane	4.621	4.591-4.651	6.592e+04
18 alpha-Chlordane	4.744	4.714-4.774	6.611e+04
19 4,4'-DDE	4.811	4.781-4.841	6.629e+04
20 Dieldrin	5.105	5.075-5.135	6.786e+04
21 Aroclor-1260	4.881	4.781-4.981	
	5.046	4.946-5.146	
	5.125	5.025-5.225	
	5.219	5.119-5.319	
	5.436	5.336-5.536	
22 Endrin	5.334	5.304-5.364	5.269e+04
23 Toxaphene	5.005	4.975-5.035	4.853e+02
	5.109	5.079-5.139	7.541e+02
	5.194	5.164-5.224	8.704e+02
	5.353	5.323-5.383	1.137e+03
	5.544	5.514-5.574	2.022e+03
24 Endosulfan II	5.558	5.528-5.588	5.591e+04
25 4,4'-DDD	5.394	5.364-5.424	5.161e+04
26 4,4'-DDT	5.673	5.643-5.703	4.414e+04
27 Endrin aldehyde	5.982	5.952-6.012	4.711e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m

	Compound	RT	RT Window	RF
	28 Methoxychlor	6.177	6.147-6.207	2.154e+04
	29 Endosulfan sulfate	6.434	6.404-6.464	4.718e+04
	30 Aroclor-1268	5.050	4.950-5.150	
		5.067	4.967-5.167	
		5.185	5.085-5.285	
		5.378	5.278-5.478	
		5.531	5.431-5.631	
	61 Aroclor-1262	4.121	4.021-4.221	
		4.289	4.189-4.389	
		4.525	4.425-4.625	
		4.671	4.571-4.771	
		4.854	4.754-4.954	
	31 Endrin ketone	6.732	6.702-6.762	6.169e+04
	51 Mirex	5.620	5.590-5.650	
	52 C-Nonachlor	5.043	5.013-5.073	
	53 O-Chlordane	4.411	4.381-4.441	
	54 T-Nonachlor	4.632	4.602-4.662	
	55 1,2-Dichlorobenzene	6.525	6.495-6.555	
	56 2,4-DDE	4.471	4.441-4.501	
	58 2,4-DDD	4.798	4.768-4.828	
	57 2,4-DDT	4.955	4.925-4.985	
$	32 Decachlorobiphenyl	7.824	7.794-7.854	4.820e+04
M	62 TTO Sum Pesticides	1.000	0.980-1.020	

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Quant Method : ESTD Target Version : 3.50
Last Update : 31-Dec-2009 09:07 Number of Cpnds : 43
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	9270.000000
Initial:End Threshold	4635.000000
Initial:Area Threshold	92700.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	10.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.922	2.892-2.952	4.690e+05
61 2,4,5-Trichlorophenol	1.631	1.531-1.731	
59 Hexachlorobenzene	3.571	3.542-3.602	
2 Aroclor-1221	3.414	3.385-3.445	
	3.531	3.501-3.561	
	3.579	3.550-3.610	
3 Aroclor-1016	4.216	4.186-4.246	
	4.378	4.348-4.408	
	4.466	4.436-4.496	
	4.617	4.587-4.647	
	4.999	4.969-5.029	
4 Aroclor-1232	3.579	3.549-3.609	
	4.216	4.186-4.246	
	4.307	4.277-4.337	
	4.617	4.587-4.647	
	4.887	4.857-4.917	
5 alpha-BHC	3.414	3.384-3.444	6.484e+05
6 Aroclor-1242	3.888	3.858-3.918	
	4.308	4.278-4.338	
	4.378	4.348-4.408	
	4.617	4.587-4.647	
	4.698	4.668-4.728	
7 gamma-BHC (Lindane)	3.723	3.693-3.753	5.403e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	4.001	3.971-4.031	1.597e+04
	4.578	4.548-4.608	1.176e+04
	4.959	4.929-4.989	6.808e+03
	5.336	5.306-5.366	2.675e+04
	6.276	6.246-6.306	1.236e+04
9 Aroclor-1248	4.436	4.406-4.466	
	4.617	4.587-4.647	
	4.697	4.667-4.727	
	4.856	4.826-4.886	
	5.034	5.004-5.064	
10 Heptachlor	4.137	4.107-4.167	4.119e+05
11 Aldrin	4.449	4.419-4.479	3.715e+05
12 beta-BHC	3.785	3.755-3.815	2.295e+05
13 delta-BHC	4.057	4.027-4.087	5.092e+05
14 Heptachlor epoxide	4.999	4.969-5.029	2.676e+05
15 Aroclor-1254	4.885	4.855-4.915	
	4.999	4.969-5.029	
	5.290	5.260-5.320	
	5.423	5.393-5.453	
	5.749	5.719-5.779	
16 Endosulfan I	5.401	5.371-5.431	2.464e+05
17 gamma-Chlordane	5.191	5.161-5.221	3.055e+05
18 alpha-Chlordane	5.337	5.307-5.367	2.612e+05
19 4,4'-DDE	5.494	5.464-5.524	2.620e+05
20 Dieldrin	5.681	5.651-5.711	2.938e+05
21 Aroclor-1260	5.310	5.280-5.340	
	5.406	5.376-5.436	
	5.526	5.496-5.556	
	5.628	5.598-5.658	
	5.749	5.719-5.779	
22 Endrin	6.001	5.971-6.031	2.755e+05
23 Toxaphene	5.653	5.623-5.683	5.066e+03
	5.778	5.748-5.808	2.991e+03
	6.168	6.138-6.198	6.013e+03
	6.210	6.180-6.240	1.060e+04
	6.313	6.283-6.343	1.915e+04
24 Endosulfan II	6.222	6.192-6.252	3.287e+05
25 4,4'-DDD	6.100	6.070-6.130	2.908e+05
26 4,4'-DDT	6.439	6.409-6.469	3.192e+05
27 Endrin aldehyde	6.579	6.549-6.609	3.261e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m

Compound	RT	RT Window	RF
28 Methoxychlor	7.182	7.152-7.212	1.798e+05
29 Endosulfan sulfate	6.882	6.852-6.912	4.124e+05
30 Aroclor-1268	5.217	5.187-5.247	
	5.596	5.566-5.626	
	5.628	5.598-5.658	
	5.769	5.739-5.799	
	6.149	6.119-6.179	
60 Aroclor-1262	4.689	4.589-4.789	
	4.779	4.679-4.879	
	5.074	4.974-5.174	
	5.224	5.124-5.324	
	5.396	5.296-5.496	
31 Endrin ketone	7.473	7.443-7.503	5.027e+05
51 Mirex	6.337	6.307-6.367	
52 C-Nonachlor	5.549	5.519-5.579	
53 O-Chlordane	4.834	4.804-4.864	
54 T-Nonachlor	5.070	5.040-5.100	
55 1,2-Dichlorobenzene	6.619	6.589-6.649	
56 2,4-DDE	5.000	4.970-5.030	
58 2,4-DDD	5.319	5.289-5.349	
57 2,4-DDT	5.509	5.479-5.539	
$ 32 Decachlorobiphenyl	8.860	8.830-8.890	3.282e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 29-DEC-2009 21:55
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Cal Date : 31-Dec-2009 12:18 hea01125

Calibration File Names:
Level 1: /chem/ecd3a.i/122909p.b/016f1601.d
Level 2: /chem/ecd3a.i/122909p.b/017f1701.d
Level 3: /chem/ecd3a.i/122909p.b/018f1801.d
Level 4: /chem/ecd3a.i/122909p.b/019f1901.d
Level 5: /chem/ecd3a.i/122909p.b/020f2001.d

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
63 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
59 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
3 Aroclor-1016(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
5 alpha-BHC	264152	745708	4680402	9972466	22025703	LINR	5.10241	111344		0.99768
6 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 29-DEC-2009 21:55
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Cal Date : 31-Dec-2009 12:18 hea01125

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
7 gamma-BHC (Lindane)	60356	67072	82177	87245	95784	AVRG		78527		18.54783
8 Chlordane (tech.) (1)	2125	2195	2493	2718	3020	AVRG		2510		14.79274
(2)	2434	2422	2516	2647	2767	AVRG		2557		5.76710
(3)	1197	1289	1370	1508	1671	AVRG		1407		13.25852
(4)	6942	7337	8576	9356	9966	AVRG		8435		15.27981
(5)	1589	1611	1721	1967	2176	AVRG		1813		13.93886
9 Aroclor-1248 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
10 Heptachlor	51630	56908	66376	70101	75287	AVRG		64060		15.08560
11 Aldrin	59595	65541	80298	83260	90946	AVRG		75928		17.08388
12 beta-BHC	30548	32139	34918	36260	39615	AVRG		34696		10.23361
13 delta-BHC	236893	660066	4151849	8828466	19622776	LINR	5.25094	99187		0.99741
14 Heptachlor epoxide	54724	59042	69225	72101	78470	AVRG		66712		14.53529
15 Aroclor-1254 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
16 Endosulfan I	49125	51983	61812	64123	70521	AVRG		59513		14.84807
17 gamma-Chlordane	52666	56517	68461	71974	80000	AVRG		65924		17.05134
18 alpha-Chlordane	55120	58081	68171	70804	78369	AVRG		66109		14.38630

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 29-DEC-2009 21:55
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Cal Date : 31-Dec-2009 12:18 hea01125

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
19 4,4'-DDE	52631	58529	70505	71693	78109	AVRG		66293		15.70282
20 Dieldrin	54132	60242	71769	73217	79919	AVRG		67856		15.38420
21 Aroclor-1260 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
22 Endrin	43010	47339	54972	56564	61583	AVRG		52694		14.12647
23 Toxaphene (1)	444	472	490	512	508	AVRG		485		5.76611
(2)	743	763	748	749	767	AVRG		754		1.36434
(3)	740	862	877	929	944	AVRG		870		9.23030
(4)	990	1124	1153	1182	1234	AVRG		1137		8.06830
(5)	1875	1952	1948	2080	2252	AVRG		2022		7.34628
24 Endosulfan II	46579	50368	58106	59223	65276	AVRG		55910		13.30386
25 4,4'-DDD	41119	45347	54178	55854	61543	AVRG		51608		15.99451
26 4,4'-DDT	36302	40184	45512	46898	51794	AVRG		44138		13.64848
27 Endrin aldehyde	40892	43259	48130	49348	53945	AVRG		47115		10.93946
28 Methoxychlor	20592	21089	21170	21142	23705	AVRG		21540		5.72500
29 Endosulfan sulfate	40227	42168	48060	49927	55539	AVRG		47184		13.04984
30 Aroclor-1268 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 29-DEC-2009 21:55
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Cal Date : 31-Dec-2009 12:18 hea01125

	Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
	61 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	31 Endrin ketone	54696	57827	62940	63545	69431	AVRG		61688		9.19736
	51 Mirex	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	52 C-Nonachlor	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	53 O-Chlordane	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	54 T-Nonachlor	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	56 2,4-DDE	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	58 2,4-DDD	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	57 2,4-DDT	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
M	62 TTO Sum Pesticides	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
$	1 4cmx	56422	60699	68350	69753	74603	AVRG		65966		11.07362
$	32 Decachlorobiphenyl	47327	45714	47721	47554	52660	AVRG		48195		5.43834

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 29-DEC-2009 21:55
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Cal Date : 31-Dec-2009 12:18 hea01125

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 29-DEC-2009 21:55
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Cal Date : 31-Dec-2009 12:18 hea01125

Calibration File Names:
Level 1: /chem/ecd3a.i/122909p.b/016b1601.d
Level 2: /chem/ecd3a.i/122909p.b/017b1701.d
Level 3: /chem/ecd3a.i/122909p.b/018b1801.d
Level 4: /chem/ecd3a.i/122909p.b/019b1901.d
Level 5: /chem/ecd3a.i/122909p.b/020b2001.d

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
61 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
59 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
3 Aroclor-1016(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
5 alpha-BHC	549787	589210	674746	686622	741505	AVRG		648374		11.95957
6 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 29-DEC-2009 21:55
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Cal Date : 31-Dec-2009 12:18 hea01125

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
7 gamma-BHC (Lindane)	475730	503434	556205	565362	600688	AVRG		540284		9.28035
8 Chlordane (tech.) (1)	15279	15419	15641	16410	17082	AVRG		15966		4.76841
(2)	12806	12324	11225	11210	11245	AVRG		11762		6.39789
(3)	7744	6628	6215	6326	7129	AVRG		6808		9.27475
(4)	25690	25900	26043	27518	28578	AVRG		26746		4.68382
(5)	10143	11069	11884	13584	15097	AVRG		12355		16.08411
9 Aroclor-1248 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
10 Heptachlor	380964	399102	421805	424647	432971	AVRG		411898		5.18630
11 Aldrin	347598	358946	380766	377675	392697	AVRG		371536		4.85638
12 beta-BHC	223166	223683	228733	229407	242512	AVRG		229500		3.40209
13 delta-BHC	439850	466712	524836	535183	579463	AVRG		509209		10.96547
14 Heptachlor epoxide	264932	260921	265281	267061	279813	AVRG		267602		2.68529
15 Aroclor-1254 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
16 Endosulfan I	239537	233713	246165	248265	264407	AVRG		246417		4.69691
17 gamma-Chlordane	2301244	2459537	14031912	27148432	61575874	LINR	2.40580	305471		0.99502
18 alpha-Chlordane	253668	245458	259103	262782	284888	AVRG		261180		5.65489

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 29-DEC-2009 21:55
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Cal Date : 31-Dec-2009 12:18 hea01125

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
19 4,4'-DDE	242907	245547	271057	268719	281725	AVRG		261991		6.47608
20 Dieldrin	271752	276896	302856	300036	317441	AVRG		293796		6.48417
21 Aroclor-1260(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
22 Endrin	252223	260705	285569	283399	295745	AVRG		275528		6.62881
23 Toxaphene(1)	4702	4871	4804	5615	5337	AVRG		5066		7.73537
(2)	2723	2764	2831	3440	3194	AVRG		2991		10.45886
(3)	5066	5867	5840	6796	6496	AVRG		6013		11.13937
(4)	9489	10306	10382	11696	11124	AVRG		10599		7.95706
(5)	17216	18854	18845	20949	19876	AVRG		19148		7.23958
24 Endosulfan II	308222	314103	337470	332098	351644	AVRG		328707		5.37211
25 4,4'-DDD	256304	267677	301652	303169	325199	AVRG		290800		9.69388
26 4,4'-DDT	277658	298716	329121	332155	358154	AVRG		319161		9.81966
27 Endrin aldehyde	304523	316501	334400	329403	345428	AVRG		326051		4.87609
28 Methoxychlor	177979	180759	174182	171410	194845	AVRG		179835		5.06997
29 Endosulfan sulfate	356524	380446	426347	433391	465147	AVRG		412371		10.54291
30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e-00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 29-DEC-2009 21:55
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Cal Date : 31-Dec-2009 12:18 hea01125

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
60 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	-++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	-++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	-++++	+++++	AVRG		0.000e+00		0.000e+00
31 Endrin ketone	457359	474055	516547	510704	554653	AVRG		502664		7.59581
51 Mirex	+++++	+++++	-++++	-++++	+++++	AVRG		0.000e+00		0.000e+00
52 C-Nonachlor	+++++	+++++	+++++	-++++	+++++	AVRG		0.000e+00		0.000e+00
53 O-Chlordane	+++++	+++++	+++++	-++++	+++++	AVRG		0.000e+00		0.000e+00
54 T-Nonachlor	+++++	+++++	+++++	-++++	+++++	AVRG		0.000e+00		0.000e+00
55 1,2-Dichlorobenzene	++-++	+++++	+++++	-++++	++-++	AVRG		0.000e+00		0.000e+00
56 2,4-DDE	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
58 2,4-DDD	+++++	+++++	+++++	-++++	+++++	AVRG		0.000e+00		0.000e+00
57 2,4-DDT	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
$ 1 4cmx	468813	472839	480186	459915	463237	AVRG		468998		1.70460
$ 32 Decachlorobiphenyl	331664	316036	320853	318785	353775	AVRG		328223		4.71180

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 29-DEC-2009 21:55
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Cal Date : 31-Dec-2009 12:18 hea01125

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/122909p.b/003f0301.d
Lab Smp Id: WPE091228-01AB Client Smp ID: INDAB01
Inj Date : 29-DEC-2009 17:34
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-01AB
Misc Info : |ABLEVEL1|
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 20:42 Cal File: 016f1601.d
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.090	3.085	0.005	264152	4.00000	7.47	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.336	3.330	0.006	241422	4.00000	3.07	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.401	3.393	0.008	122194	4.00000	3.52	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.720	3.713	0.007	206518	4.00000	3.22	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.549	3.542	0.007	236893	4.00000	7.64	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.977	3.970	0.007	238380	4.00000	3.14	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.515	4.507	0.008	218898	4.00000	3.28	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.630	4.621	0.009	210665	4.00000	3.20	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.754	4.744	0.010	220479	4.00000	3.34	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.886	4.877	0.009	196500	4.00000	3.30	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.821	4.811	0.010	421045	8.00000	6.35	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.114	5.105	0.009	433057	8.00000	6.38	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.343	5.334	0.009	344080	8.00000	6.53	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.406	5.394	0.012	328952	8.00000	6.37	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.568	5.558	0.010	372630	8.00000	6.66	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.992	5.982	0.010	327139	8.00000	6.94	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.685	5.673	0.012	290414	8.00000	6.58	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.446	6.434	0.012	321815	8.00000	6.82	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.189	6.177	0.012	823689	40.0000	38.2	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.744	6.732	0.012	437570	8.00000	7.09	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.684	2.679	0.005	451378	8.00000	6.84	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.833	7.824	0.009	378616	8.00000	7.86	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/122909p.b/003f0301.d
Date : 29-DEC-2009 17:34
Client ID: INDA8B01
Sample Info: IWPE091228-01AB

Instrument: ecd3a.i

Operator: CXC2
Column diameter: 0.25

Column phase: CLP-1

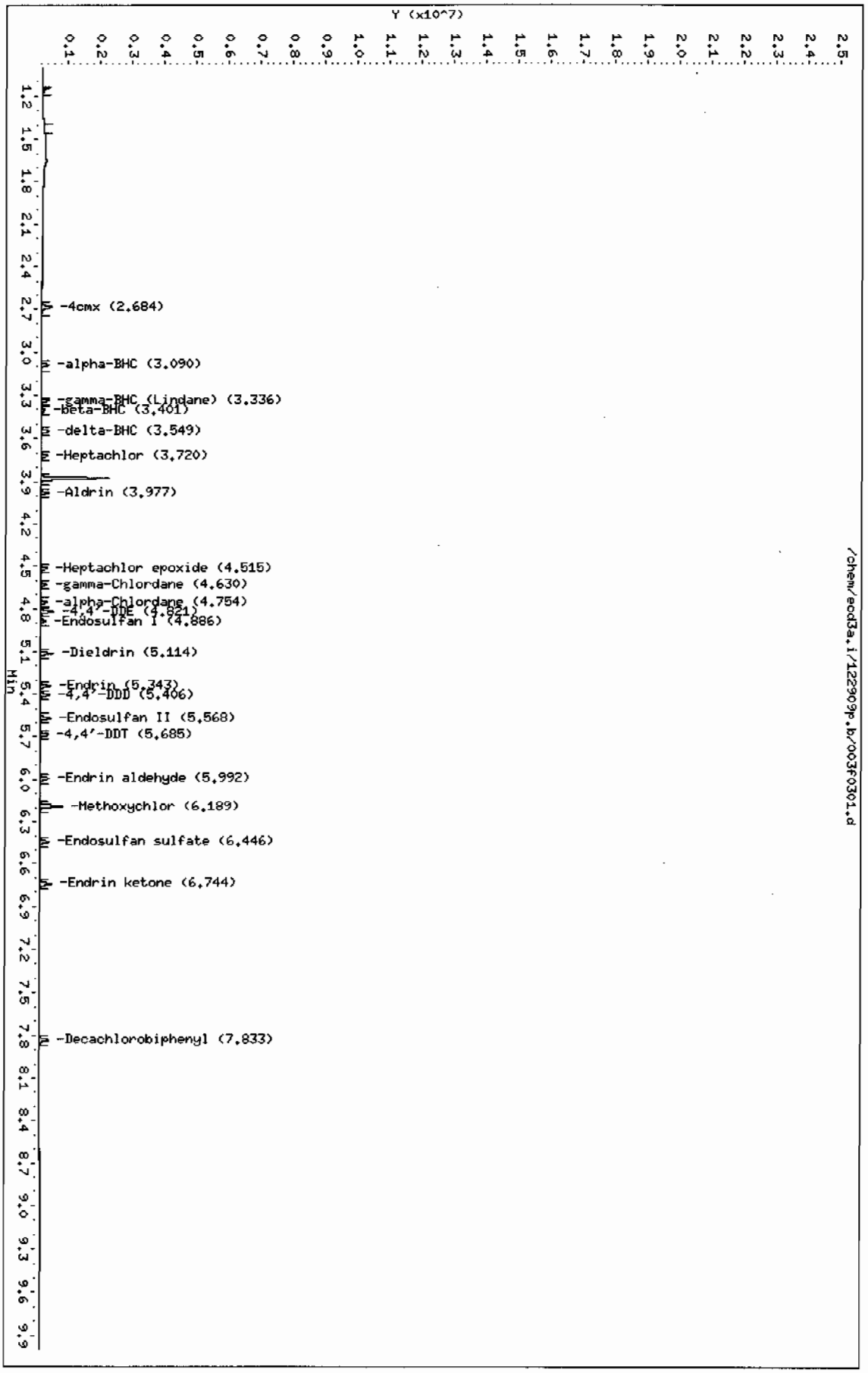

Page 1

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/003b0301.d
Lab Smp Id: WPE091228-01AB Client Smp ID: INDAB01
Inj Date : 29-DEC-2009 17:34
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-01AB
Misc Info : |ABLEVEL1|
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 20:42 Cal File: 016b1601.d
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.418	3.414	0.004	2199149	4.00000	3.39	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.728	3.723	0.005	1902919	4.00000	3.52	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.789	3.785	0.004	892666	4.00000	3.89	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.142	4.137	0.005	1523858	4.00000	3.70	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.062	4.057	0.005	1759400	4.00000	3.46	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.454	4.449	0.005	1390390	4.00000	3.74	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.004	4.999	0.005	1059730	4.00000	3.96	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.199	5.191	0.008	2301244	4.00000	9.94	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.342	5.337	0.005	1014670	4.00000	3.88	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.407	5.401	0.006	958149	4.00000	3.89	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.500	5.494	0.006	1943257	8.00000	7.42	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.687	5.681	0.006	2174017	8.00000	7.40	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.007	6.001	0.006	2017784	8.00000	7.32	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.107	6.100	0.007	2050435	8.00000	7.05	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.228	6.222	0.006	2465777	8.00000	7.50	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.586	6.579	0.007	2436187	8.00000	7.47	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.446	6.439	0.007	2221268	8.00000	6.96	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.888	6.882	0.006	2852195	8.00000	6.92	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.188	7.182	0.006	7119172	40.0000	39.6	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.480	7.473	0.007	3658872	8.00000	7.28	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.925	2.922	0.003	3750506	8.00000	8.00	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.866	8.860	0.006	2653314	8.00000	8.08	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/122909p.b/003b0301.d
Date : 29-DEC-2009 17:34
Client ID: INDAB01
Sample Info: IWPE091228-01AB
Column phase: CLP-2

Instrument: ecd3a.i
Operator: CXC2
Column diameter: 0.25

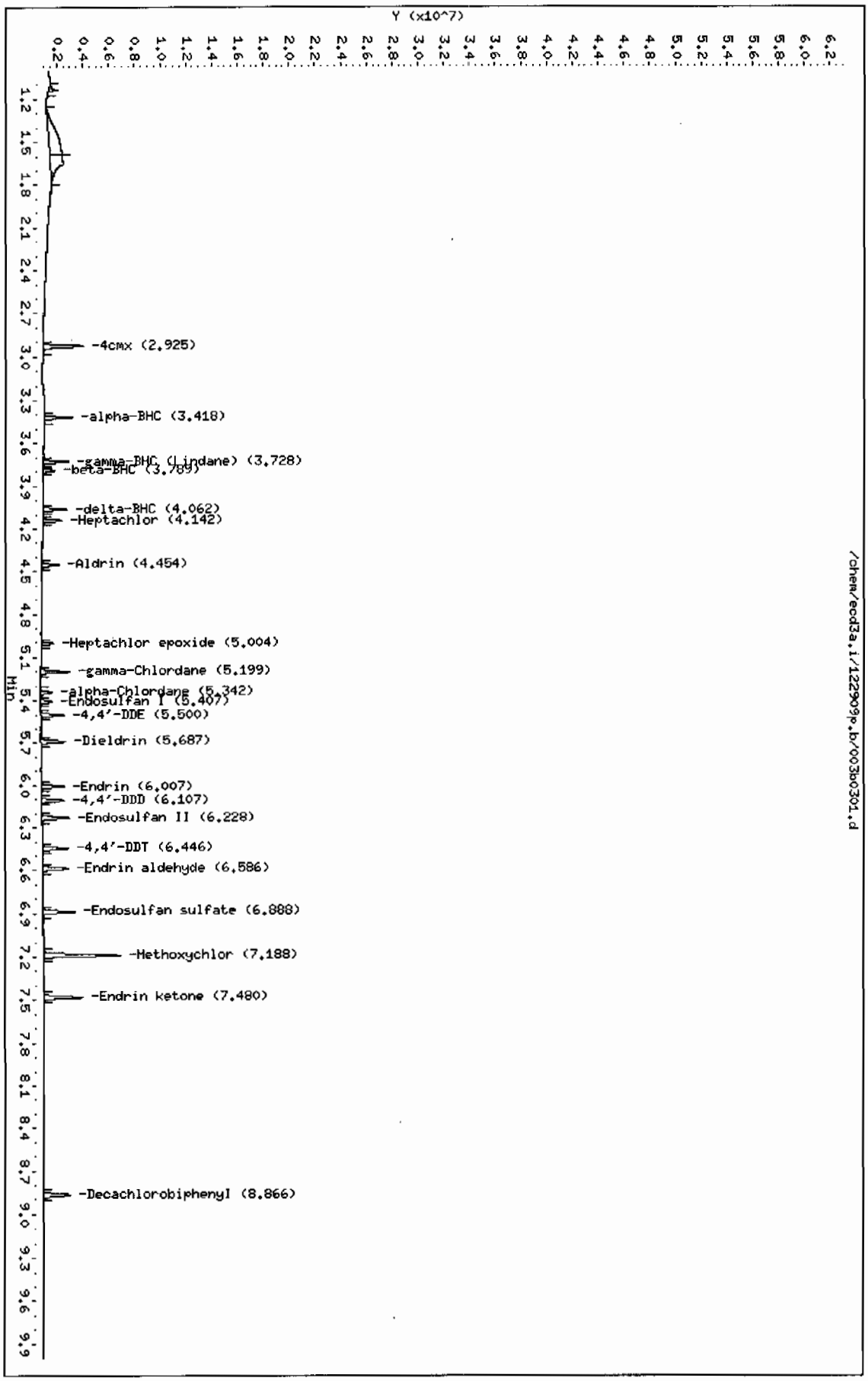

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CLP-1

Data file : /chem/ecd3a.i/122909p.b/004f0401.d
Lab Smp Id: WPE091228-02AB Client Smp ID: INDAB02
Inj Date : 29-DEC-2009 17:47
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-02AB
Misc Info : |ABLEVEL2|
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 09:07 c1a01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:14 Cal File: 017f1701.d
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.085	3.085	0.000	745708	10.0000	11.8	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.330	3.330	0.000	670725	10.0000	8.54	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.394	3.393	0.001	321392	10.0000	9.26	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.713	3.713	0.000	569085	10.0000	8.88	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.543	3.542	0.001	660066	10.0000	11.9	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.970	3.970	0.000	655414	10.0000	8.63	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.507	4.507	0.000	590424	10.0000	8.85	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.622	4.621	0.001	565171	10.0000	8.57	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.746	4.744	0.002	580809	10.0000	8.78	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.878	4.877	0.001	519830	10.0000	8.73	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.813	4.811	0.002	1170571	20.0000	17.6	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.107	5.105	0.002	1204832	20.0000	17.8	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.335	5.334	0.001	946784	20.0000	18.0	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.397	5.394	0.003	906944	20.0000	17.6	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.560	5.558	0.002	1007356	20.0000	18.0	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.985	5.982	0.003	865177	20.0000	18.4	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.676	5.673	0.003	803673	20.0000	18.2	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.437	6.434	0.003	843370	20.0000	17.9	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.180	6.177	0.003	2108933	100.000	97.9	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.736	6.732	0.004	1156546	20.0000	18.7	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.680	2.679	0.001	1213989	20.0000	18.4	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.826	7.824	0.002	914286	20.0000	19.0	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/122909p.b/004f0401.d
Date : 29-DEC-2009 17:47
Client ID: INDAB02
Sample Info: IWPE091228-02AB

Instrument: ecd3a.i

Operator: CXC2
Column diameter: 0.25

Column phase: CLP-1

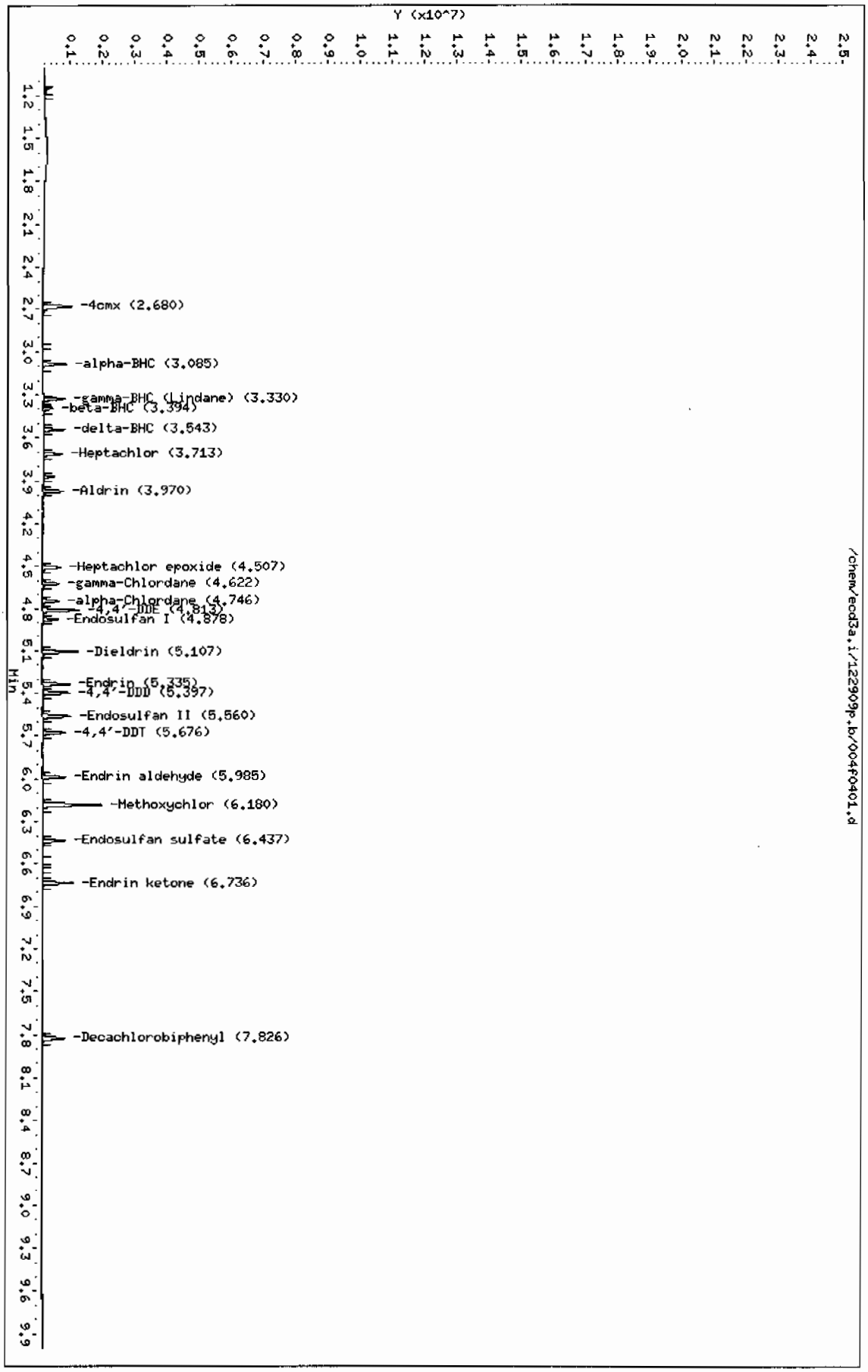

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/004b0401.d
Lab Smp Id: WPE091228-02AB Client Smp ID: INDAB02
Inj Date : 29-DEC-2009 17:47
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-02AB
Misc Info : |ABLEVEL2|
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:14 Cal File: 017b1701.d
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.414	3.414	0.000	5892105	10.0000	9.09	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.723	3.723	0.000	5034344	10.0000	9.32	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.786	3.785	0.001	2236834	10.0000	9.75	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.137	4.137	0.000	3991025	10.0000	9.69	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.058	4.057	0.001	4667116	10.0000	9.16	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.449	4.449	0.000	3589456	10.0000	9.66	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.000	4.999	0.001	2609210	10.0000	9.75	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.191	5.191	0.000	2459537	10.0000	10.4	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.337	5.337	0.000	2454583	10.0000	9.40	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.402	5.401	0.001	2337132	10.0000	9.48	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.496	5.494	0.002	4910934	20.0000	18.7	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.682	5.681	0.001	5537924	20.0000	18.8	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.002	6.001	0.001	5214106	20.0000	18.9	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.102	6.100	0.002	5353534	20.0000	18.4	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.223	6.222	0.001	6282052	20.0000	19.1	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.581	6.579	0.002	6330020	20.0000	19.4	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.440	6.439	0.001	5974329	20.0000	18.7	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.883	6.882	0.001	7608911	20.0000	18.4	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.183	7.182	0.001	18075888	100.000	100	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.474	7.473	0.001	9481103	20.0000	18.9	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.922	0.000	9456780	20.0000	20.2	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.862	8.860	0.002	6320720	20.0000	19.2	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/122909p.b/004b0401.d
Date : 29-DEC-2009 17:47
Client ID: INDAB02
Sample Info: IWPE091228-02AB
Column phase: CLP-2

Instrument: ecd3a.i
Operator: CXC2
Column diameter: 0.25

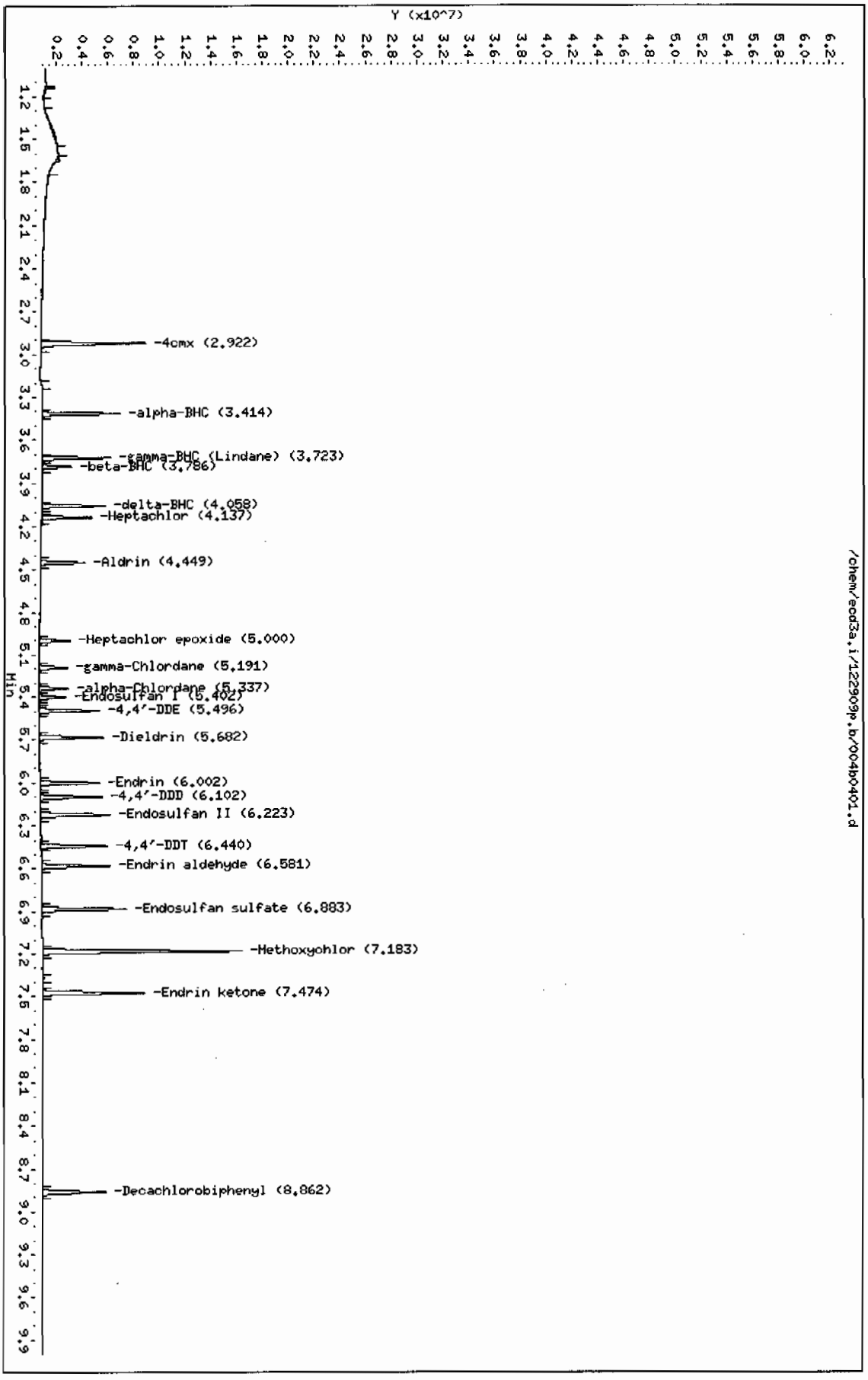

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CLP-1

Data file : /chem/ecd3a.i/122909p.b/005f0501.d
Lab Smp Id: WPE091228-03AB Client Smp ID: INDAB03
Inj Date : 29-DEC-2009 18:01
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-03AB
Misc Info : |ABLEVEL3|
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:28 Cal File: 018f1801.d
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.085	3.085	0.000	4680402	50.0000	47.1	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.330	3.330	0.000	4108872	50.0000	52.3	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.394	3.393	0.001	1745902	50.0000	50.3	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.713	3.713	0.000	3318825	50.0000	51.8	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.542	3.542	0.000	4151849	50.0000	47.1	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.970	3.970	0.000	4014889	50.0000	52.9	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.506	4.507	-0.001	3461229	50.0000	51.9	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.622	4.621	0.001	3423027	50.0000	51.9	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.745	4.744	0.001	3408526	50.0000	51.6	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.877	4.877	0.000	3090625	50.0000	51.9	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.812	4.811	0.001	7050483	100.000	106	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.105	5.105	0.000	7176937	100.000	106	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.334	5.334	0.000	5497170	100.000	104	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.395	5.394	0.001	5417777	100.000	105	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.559	5.558	0.001	5810571	100.000	104	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.983	5.982	0.001	4813020	100.000	102	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.674	5.673	0.001	4551167	100.000	103	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.435	6.434	0.001	4806013	100.000	102	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.178	6.177	0.001	10584902	500.000	491	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.734	6.732	0.002	6293996	100.000	102	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.678	2.679	-0.001	6835023	100.000	104	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.825	7.824	0.001	4772148	100.000	99.0	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/122909p.b/005f0501.d
Date : 29-DEC-2009 18:01
Client ID: INDAB03
Sample Info: IWPE091228-03AB
Column phase: CLP-1

Instrument: ecd3a.i
Operator: CXC2
Column diameter: 0.25

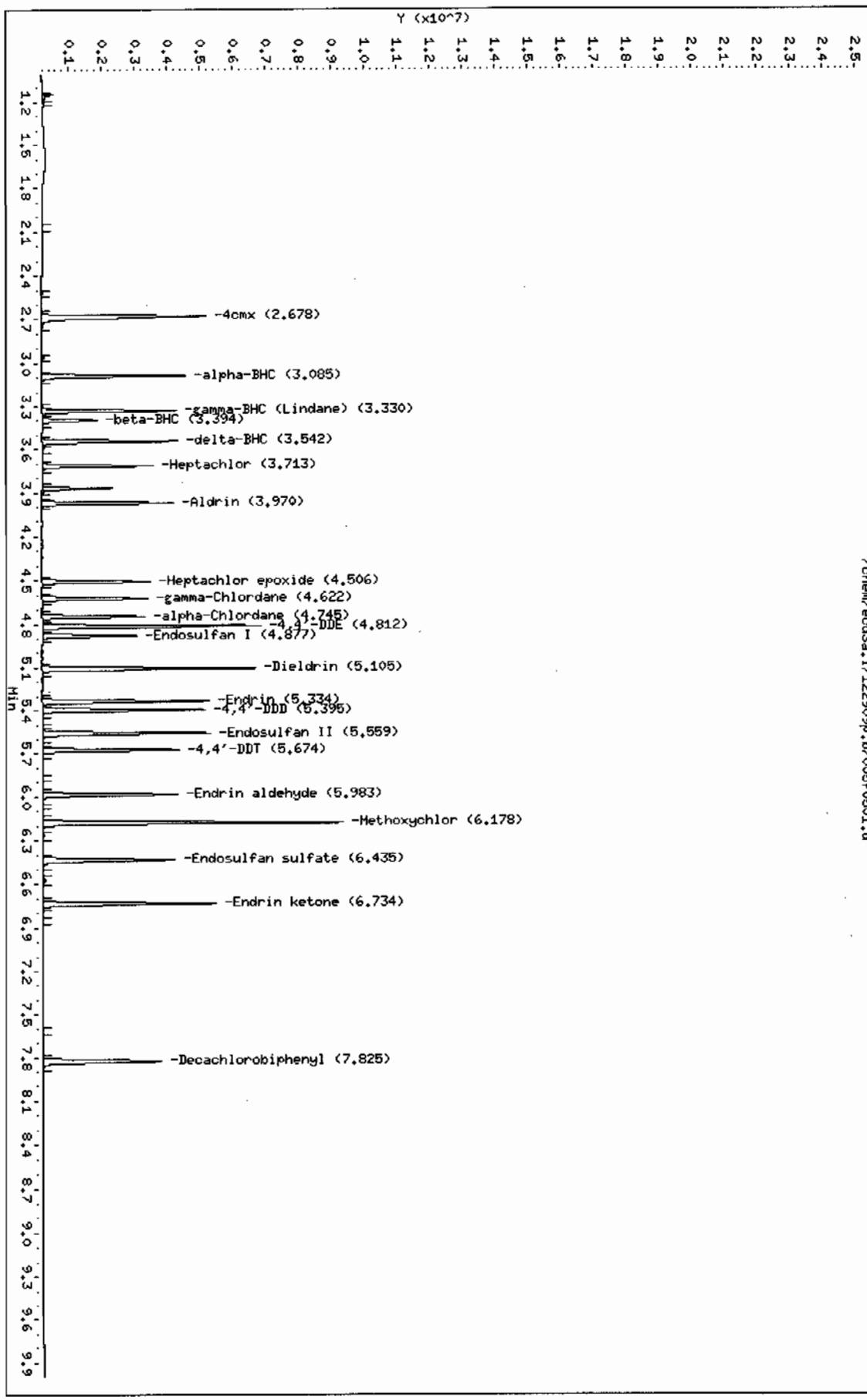

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CLP-2

Data file : /chem/ecd3a.i/122909p.b/005b0501.d
Lab Smp Id: WPE091228-03AB Client Smp ID: INDAB03
Inj Date : 29-DEC-2009 18:01
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-03AB
Misc Info : |ABLEVEL3|
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:28 Cal File: 018b1801.d
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.415	3.414	0.001	33737315	50.0000	52.0	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.724	3.723	0.001	27810266	50.0000	51.5	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.785	3.785	0.000	11436672	50.0000	49.8	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.137	4.137	0.000	21090252	50.0000	51.2	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.057	4.057	0.000	26241808	50.0000	51.5	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.449	4.449	0.000	19038286	50.0000	51.2	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.999	4.999	0.000	13264062	50.0000	49.6	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.191	5.191	0.000	14031912	50.0000	48.3	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.338	5.337	0.001	12955147	50.0000	49.6	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.401	5.401	0.000	12308236	50.0000	49.9	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.495	5.494	0.001	27105703	100.000	103	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.682	5.681	0.001	30285605	100.000	103	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.001	6.001	0.000	28556878	100.000	104	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.100	6.100	0.000	30165195	100.000	104	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.222	6.222	0.000	33746968	100.000	103	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.580	6.579	0.001	33440019	100.000	102	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.440	6.439	0.001	32912122	100.000	103	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.882	6.882	0.000	42634746	100.000	103	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.182	7.182	0.000	87090889	500.000	484	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.474	7.473	0.001	51654669	100.000	103	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.922	0.000	48018586	100.000	102	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.861	8.860	0.001	32085266	100.000	97.8	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/122909p.b/005b0501.d
Date : 29-DEC-2009 18:01
Client ID: INDAB03
Sample Info: IWPE091228-03AB

Column phase: CLP-2

Instrument: ecd3a.i

Operator: CXC2
Column diameter: 0.25

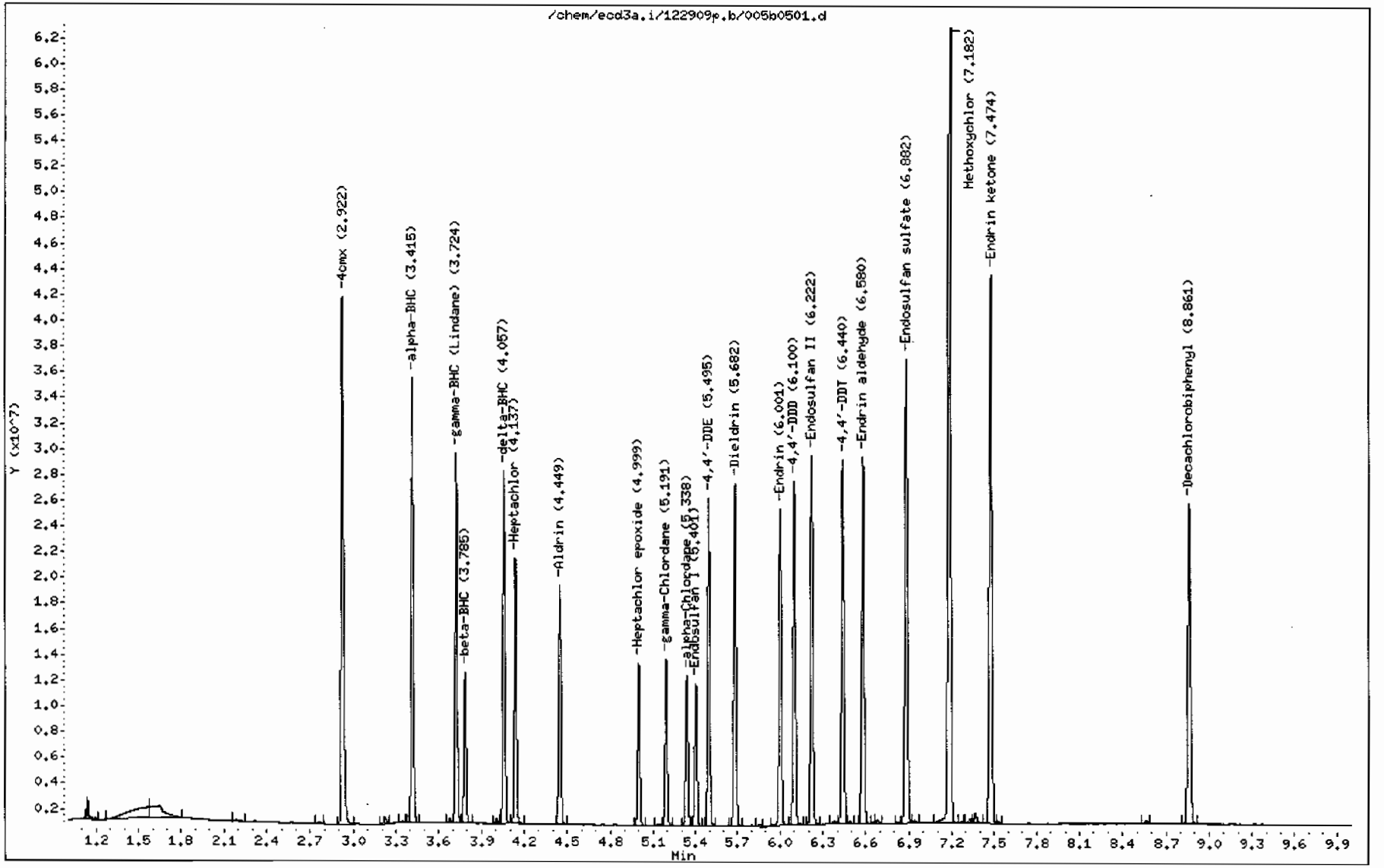

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/122909p.b/006f0601.d
Lab Smp Id: WPE091228-04AB Client Smp ID: INDAB04
Inj Date : 29-DEC-2009 18:15
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-04AB
Misc Info : |ABLEVEL4|
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:41 Cal File: 019f1901.d
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.085	3.085	0.000	9972466	100.000	94.7	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.330	3.330	0.000	8724545	100.000	111	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.394	3.393	0.001	3625962	100.000	104	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.713	3.713	0.000	7010081	100.000	109	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.542	3.542	0.000	8828466	100.000	94.2	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.971	3.970	0.001	8326009	100.000	110	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.507	4.507	0.000	7210073	100.000	108	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.622	4.621	0.001	7197390	100.000	109	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.745	4.744	0.001	7080352	100.000	107	80.00- 120.00	100.00

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endsulfan I					CAS #: 959-98-8		
4.877	4.877	0.000	6412309	100.000	108	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.812	4.811	0.001	14338590	200.000	216	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.105	5.105	0.000	14643488	200.000	216	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.334	5.334	0.000	11312814	200.000	215	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.394	5.394	0.000	11170754	200.000	216	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.558	5.558	0.000	11844612	200.000	212	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.983	5.982	0.001	9869559	200.000	209	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.674	5.673	0.001	9379573	200.000	212	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.435	6.434	0.001	9985365	200.000	212	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.177	6.177	0.000	21142173	1000.00	982	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.733	6.732	0.001	12708988	200.000	206	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.680	2.679	0.001	13950618	200.000	211	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.823	7.824	-0.001	9510760	200.000	197	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/122909p.b/006f0601.d
Date : 29-DEC-2009 18:15
Client ID: INDAB04
Sample Info: IWFE091228-04AB
Column phase: CLP-1

Instrument: ecd3a.i
Operator: CXC2
Column diameter: 0.25

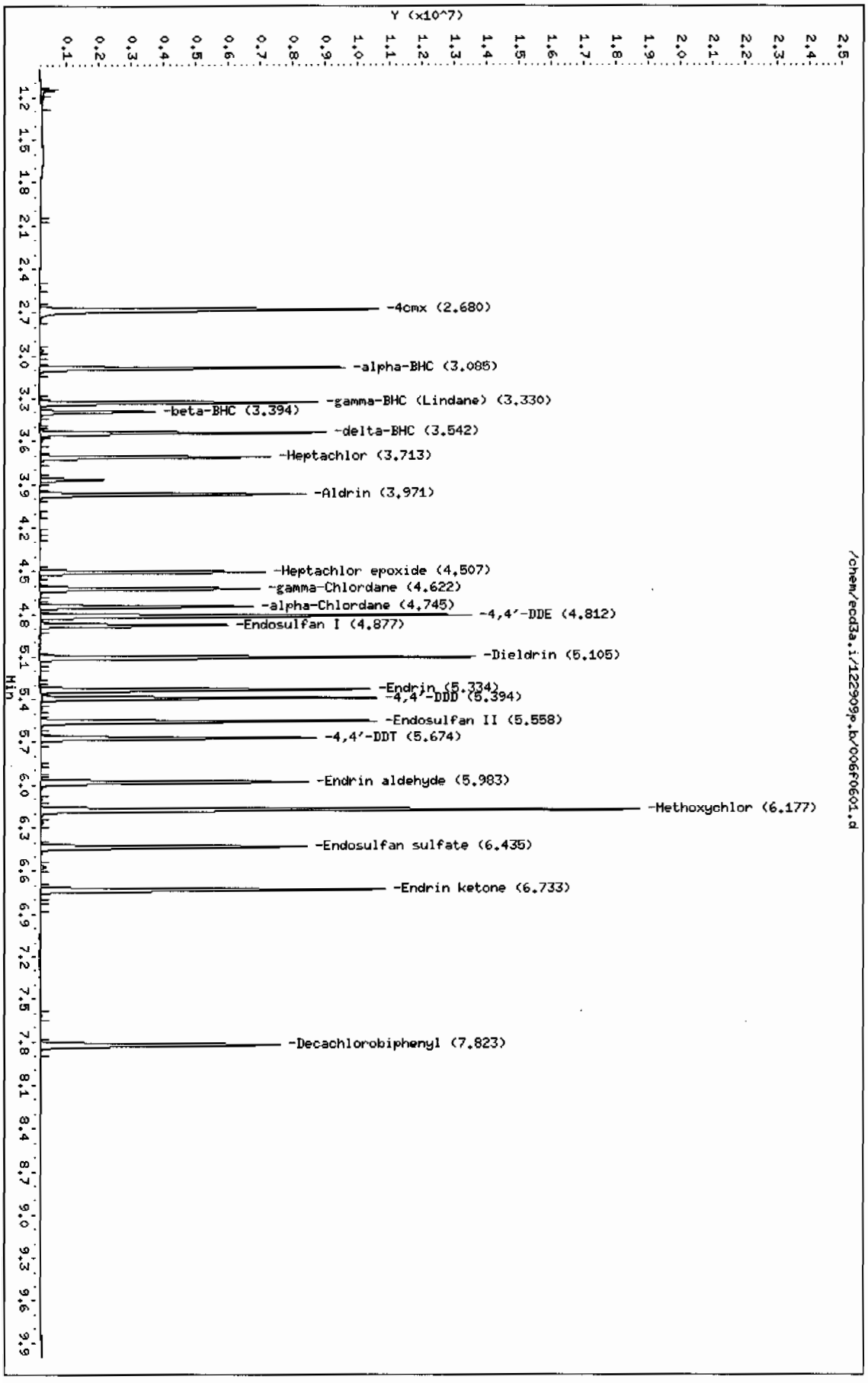

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CLP-2

Data file : /chem/ecd3a.i/122909p.b/006b0601.d
Lab Smp Id: WPE091228-04AB Client Smp ID: INDAB04
Inj Date : 29-DEC-2009 18:15
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-04AB
Misc Info : |ABLEVEL4|
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:41 Cal File: 019b1901.d
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.415	3.414	0.001	68662168	100.000	106	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.724	3.723	0.001	56536245	100.000	105	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.785	3.785	0.000	22940666	100.000	100	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.138	4.137	0.001	42464732	100.000	103	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.058	4.057	0.001	53518297	100.000	105	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.450	4.449	0.001	37767459	100.000	102	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.000	4.999	0.001	26706116	100.000	99.8	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.191	5.191	0.000	27148432	100.000	91.3	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.337	5.337	0.000	26278152	100.000	101	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.401	5.401	0.000	24826513	100.000	101	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.495	5.494	0.001	53743768	200.000	205	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.682	5.681	0.001	60007176	200.000	204	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.002	6.001	0.001	56679730	200.000	206	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.100	6.100	0.000	60633701	200.000	208	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.222	6.222	0.000	66419653	200.000	202	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.579	6.579	0.000	65880692	200.000	202	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.440	6.439	0.001	66431086	200.000	208	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.882	6.882	0.000	86678249	200.000	210	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.182	7.182	0.000	171410263	1000.00	953	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.473	7.473	0.000	102140819	200.000	203	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.923	2.922	0.001	91982969	200.000	196	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.861	8.860	0.001	63756971	200.000	194	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/122909p.b/006b0601.d
Date : 29-DEC-2009 18:15
Client ID: INDAB04
Sample Info: IWPE091228-04AB
Column phase: CLP-2

Instrument: ecd3a.i
Operator: CXC2
Column diameter: 0.25

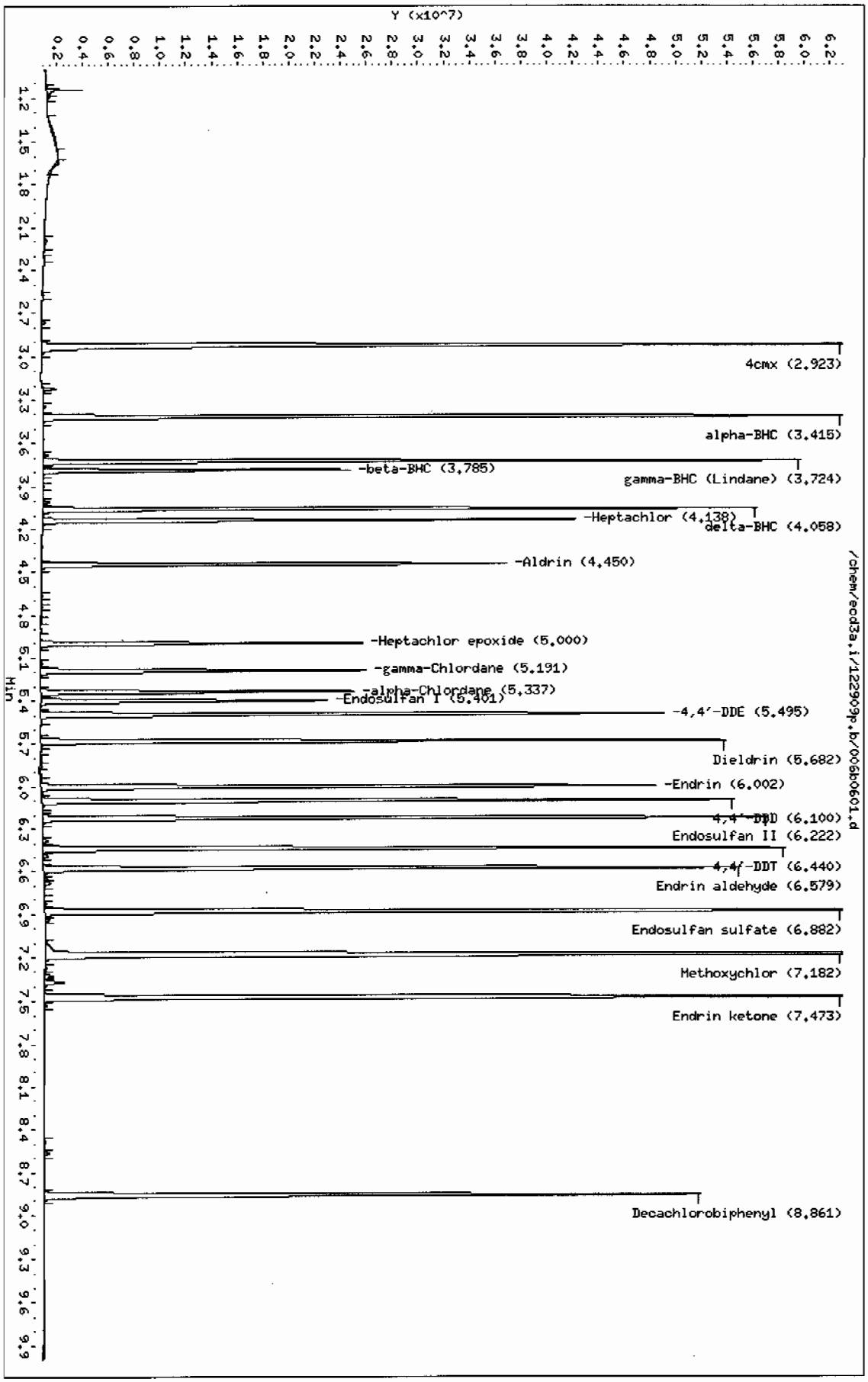

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CLP-1

Data file : /chem/ecd3a.i/122909p.b/007f0701.d
Lab Smp Id: IPE091219-02AB Client Smp ID: INDAB05
Inj Date : 29-DEC-2009 18:29
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |IPE091219-02AB
Misc Info : |ABLEVEL5|
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.086	3.085	0.001	22025703	200.000	203	80.00- 120.00	100.00(A)
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.331	3.330	0.001	19156886	200.000	244	80.00- 120.00	100.00(A)
12 beta-BHC					CAS #: 319-85-7		
3.395	3.393	0.002	7922978	200.000	228	80.00- 120.00	100.00(A)
10 Heptachlor					CAS #: 76-44-8		
3.714	3.713	0.001	15057398	200.000	235	80.00- 120.00	100.00(A)
13 delta-BHC					CAS #: 319-86-8		
3.543	3.542	0.001	19622776	200.000	203	80.00- 120.00	100.00(A)
11 Aldrin					CAS #: 309-00-2		
3.972	3.970	0.002	18189136	200.000	240	80.00- 120.00	100.00(A)
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.508	4.507	0.001	15693910	200.000	235	80.00- 120.00	100.00(A)
17 gamma-Chlordane					CAS #: 5103-74-2		
4.623	4.621	0.002	16000000	200.000	243	80.00- 120.00	100.00(A)
18 alpha-Chlordane					CAS #: 5103-71-9		
4.746	4.744	0.002	15673766	200.000	237	80.00- 120.00	100.00(A)

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.878	4.877	0.001	14104281	200.000	237	80.00- 120.00	100.00(A)
19 4,4'-DDE					CAS #: 72-55-9		
4.813	4.811	0.002	31243607	400.000	471	80.00- 120.00	100.00(A)
20 Dieldrin					CAS #: 60-57-1		
5.107	5.105	0.002	31967582	400.000	471	80.00- 120.00	100.00(A)
22 Endrin					CAS #: 72-20-8		
5.335	5.334	0.001	24633296	400.000	467	80.00- 120.00	100.00(A)
25 4,4'-DDD					CAS #: 72-54-8		
5.395	5.394	0.001	24617059	400.000	477	80.00- 120.00	100.00(A)
24 Endosulfan II					CAS #: 33213-65-9		
5.558	5.558	0.000	26110420	400.000	467	80.00- 120.00	100.00(A)
27 Endrin aldehyde					CAS #: 7421-93-4		
5.983	5.982	0.001	21578110	400.000	458	80.00- 120.00	100.00(A)
26 4,4'-DDT					CAS #: 50-29-3		
5.675	5.673	0.002	20717570	400.000	469	80.00- 120.00	100.00(A)
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.435	6.434	0.001	22215712	400.000	471	80.00- 120.00	100.00(A)
28 Methoxychlor					CAS #: 72-43-5		
6.178	6.177	0.001	47409383	2000.00	2200	80.00- 120.00	100.00(A)
31 Endrin ketone					CAS #: 53494-70-5		
6.734	6.732	0.002	27772463	400.000	450	80.00- 120.00	100.00(A)
$ 1 4cmx					CAS #: 877-09-8		
2.680	2.679	0.001	29841081	400.000	452	80.00- 120.00	100.00(A)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.825	7.824	0.001	21064008	400.000	437	80.00- 120.00	100.00(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/ecd3a.i/122909p.b/007f0701.d
Date : 29-DEC-2009 18:29
Client ID: INDABO5
Sample Info: IIPE091219-02AB
Column phase: CLP-1

Instrument: ecd3a.i
Operator: CXC2
Column diameter: 0.25

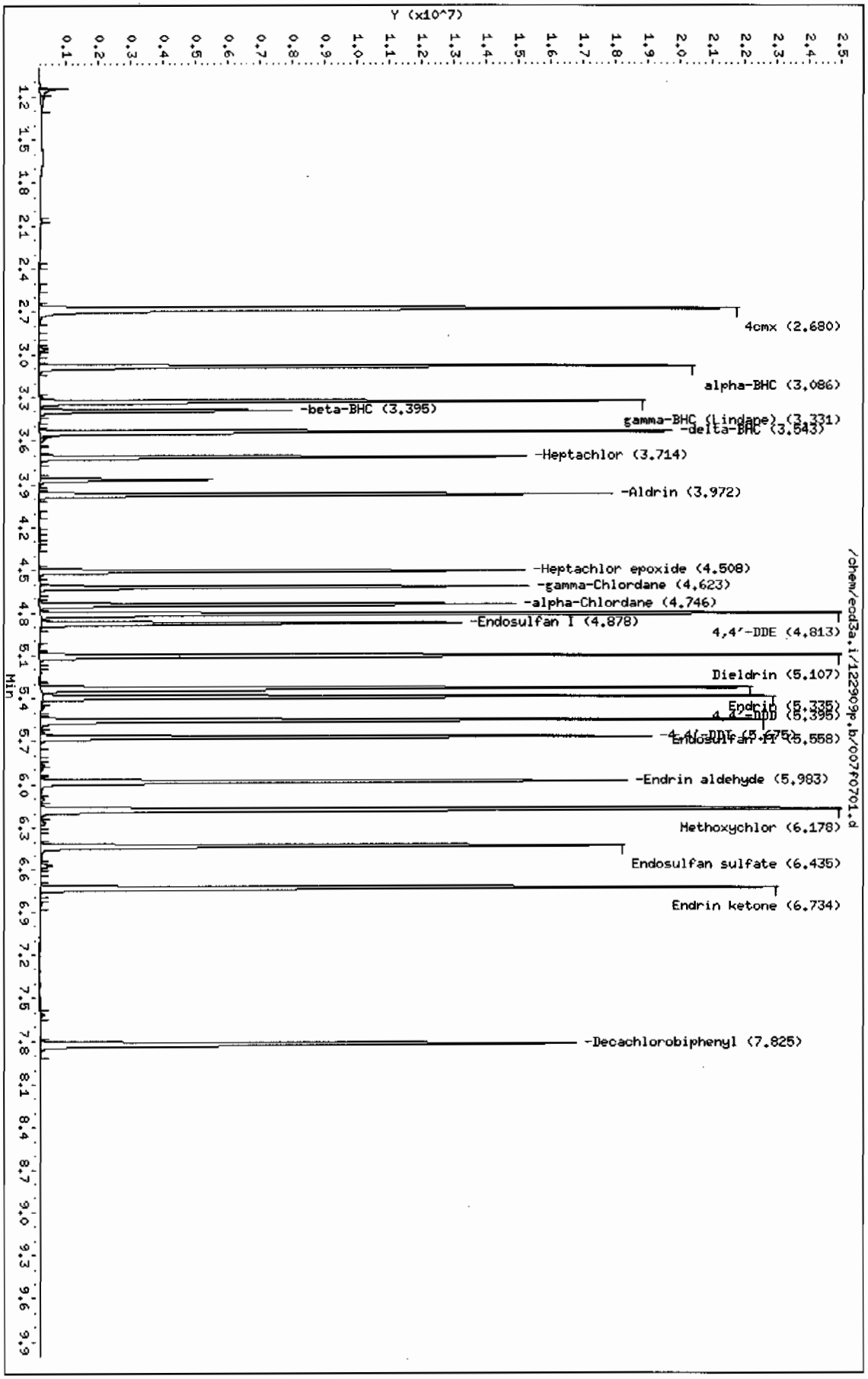

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CLP-2

Data file : /chem/ecd3a.i/122909p.b/007b0701.d
Lab Smp Id: IPE091219-02AB Client Smp ID: INDAB05
Inj Date : 29-DEC-2009 18:29
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |IPE091219-02AB
Misc Info : |ABLEVEL5|
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.415	3.414	0.001	148301099	200.000	229	80.00- 120.00	100.00(A)
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.725	3.723	0.002	120137567	200.000	222	80.00- 120.00	100.00(A)
12 beta-BHC					CAS #: 319-85-7		
3.786	3.785	0.001	48502345	200.000	211	80.00- 120.00	100.00(A)
10 Heptachlor					CAS #: 76-44-8		
4.138	4.137	0.001	86594256	200.000	210	80.00- 120.00	100.00(A)
13 delta-BHC					CAS #: 319-86-8		
4.059	4.057	0.002	115892550	200.000	228	80.00- 120.00	100.00(A)
11 Aldrin					CAS #: 309-00-2		
4.450	4.449	0.001	78539417	200.000	211	80.00- 120.00	100.00(A)
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.000	4.999	0.001	55962586	200.000	209	80.00- 120.00	100.00(A)
17 gamma-Chlordane					CAS #: 5103-74-2		
5.192	5.191	0.001	61575874	200.000	204	80.00- 120.00	100.00(A)
18 alpha-Chlordane					CAS #: 5103-71-9		
5.338	5.337	0.001	56977535	200.000	218	80.00- 120.00	100.00(A)

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.402	5.401	0.001	52881366	200.000	215	80.00- 120.00	100.00(A)
19 4,4'-DDE					CAS #: 72-55-9		
5.496	5.494	0.002	112689845	400.000	430	80.00- 120.00	100.00(A)
20 Dieldrin					CAS #: 60-57-1		
5.683	5.681	0.002	126976441	400.000	432	80.00- 120.00	100.00(A)
22 Endrin					CAS #: 72-20-8		
6.002	6.001	0.001	118298008	400.000	429	80.00- 120.00	100.00(A)
25 4,4'-DDD					CAS #: 72-54-8		
6.102	6.100	0.002	130079530	400.000	447	80.00- 120.00	100.00(A)
24 Endosulfan II					CAS #: 33213-65-9		
6.223	6.222	0.001	140657453	400.000	428	80.00- 120.00	100.00(A)
27 Endrin aldehyde					CAS #: 7421-93-4		
6.579	6.579	0.000	138171165	400.000	424	80.00- 120.00	100.00(A)
26 4,4'-DDT					CAS #: 50-29-3		
6.441	6.439	0.002	143261406	400.000	449	80.00- 120.00	100.00(A)
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.882	6.882	0.000	186058957	400.000	451	80.00- 120.00	100.00(A)
28 Methoxychlor					CAS #: 72-43-5		
7.183	7.182	0.001	389689262	2000.00	2170	80.00- 120.00	100.00(AM)
31 Endrin ketone					CAS #: 53494-70-5		
7.474	7.473	0.001	221861344	400.000	441	80.00- 120.00	100.00(A)
$ 1 4cmx					CAS #: 877-09-8		
2.923	2.922	0.001	185294768	400.000	395	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.861	8.860	0.001	141510151	400.000	431	80.00- 120.00	100.00

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/007b0701.d
Date : 29-DEC-2009 18:29
Client ID: INDAB05
Sample Info: IIPE091219-02AB

Column phase: CLP-2

Instrument: ecd3a.i

Operator: CXC2
Column diameter: 0.25

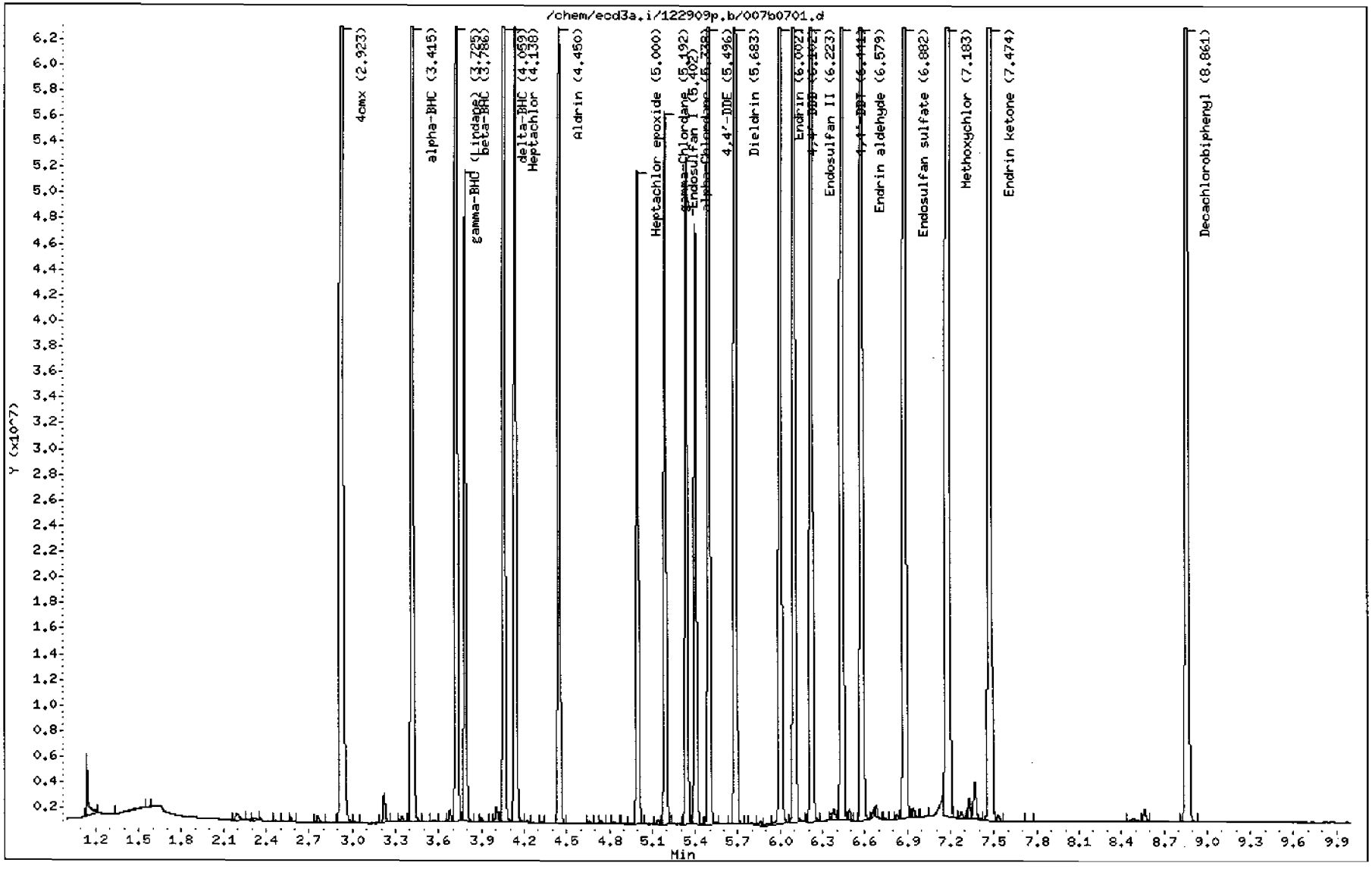

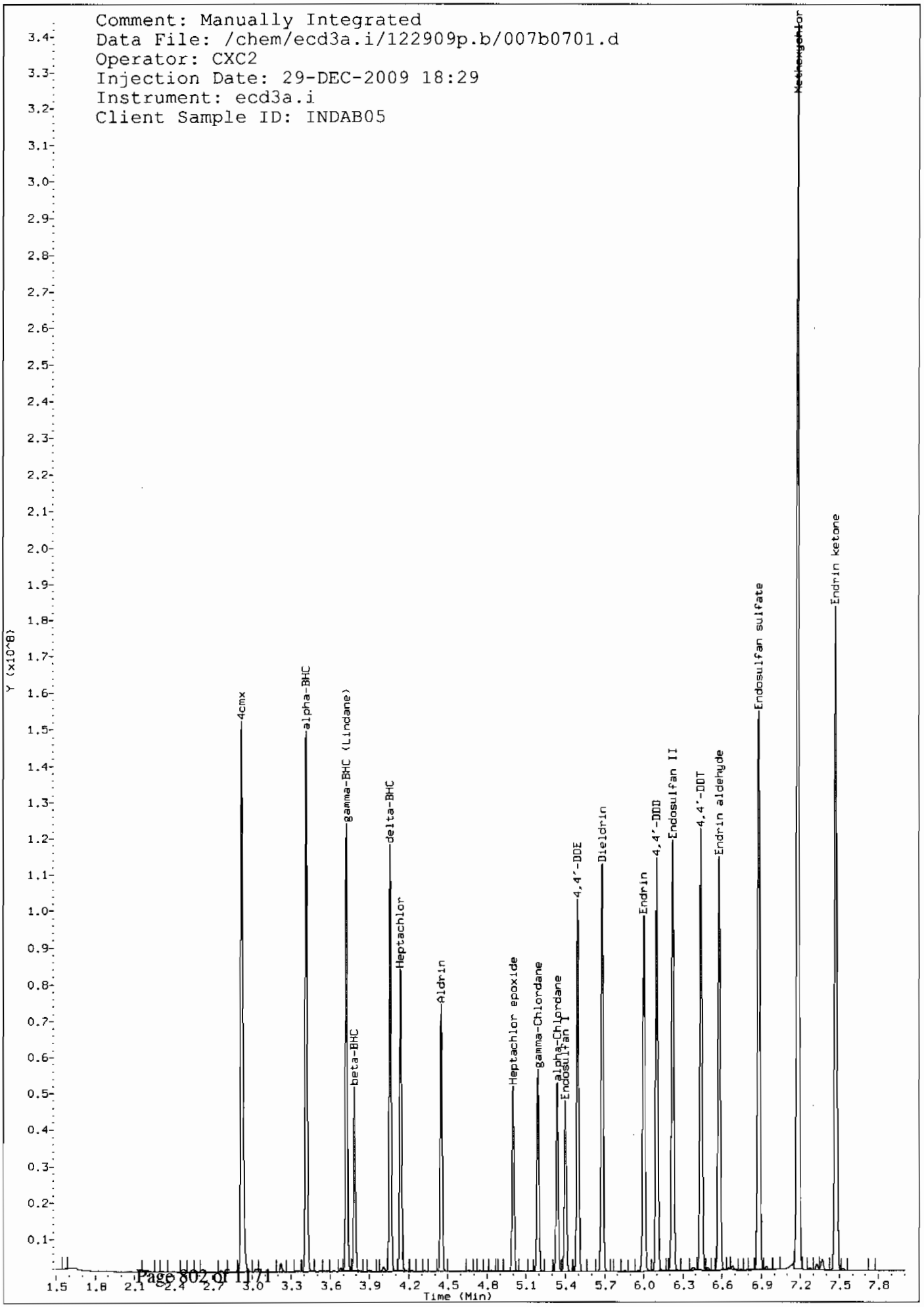
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Operator: CXC2
Injection Date: 29-DEC-2009 18:29
Instrument: ecd3a.i
Client Sample ID: INDAB05
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone

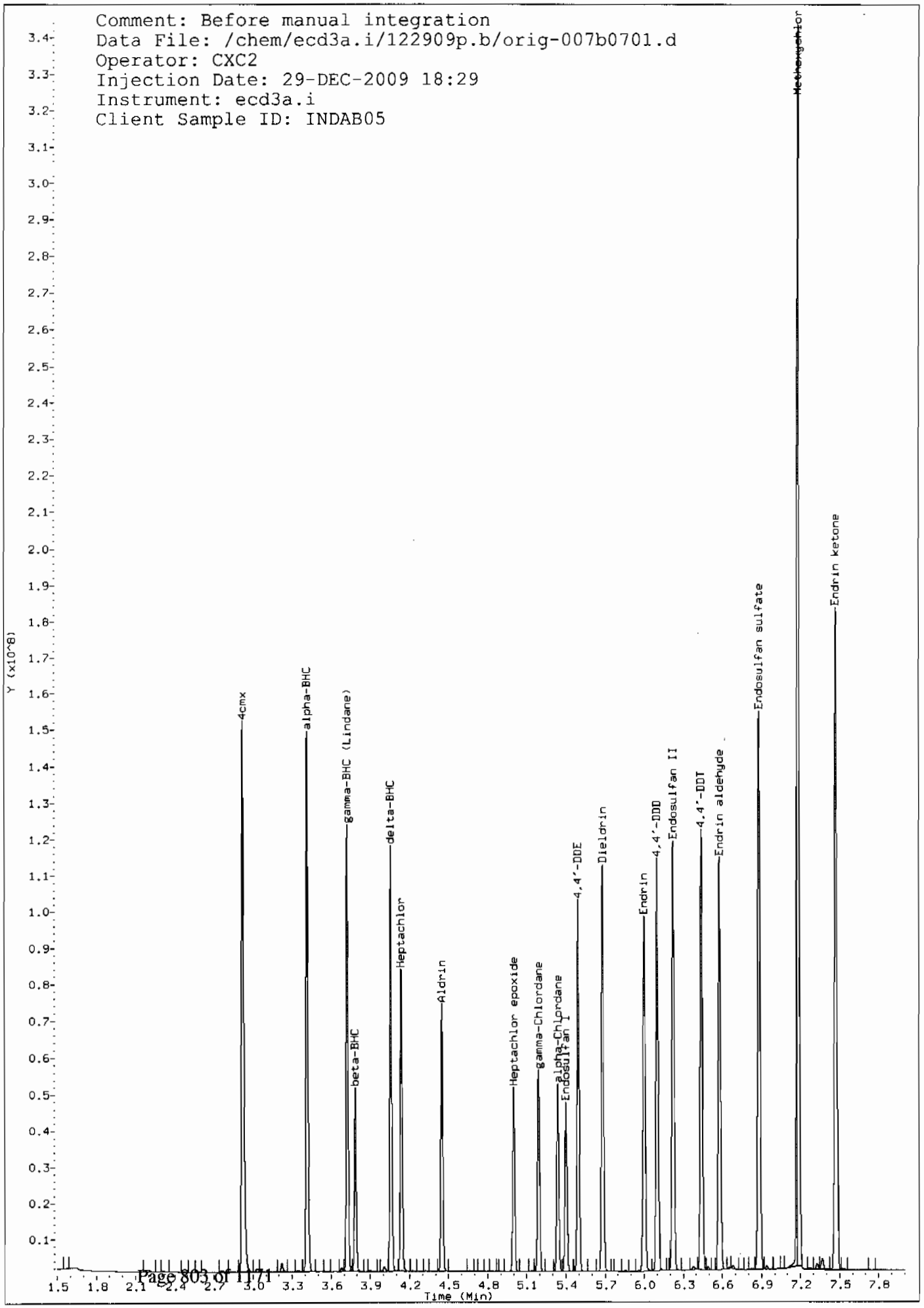
Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-007b0701.d
Operator: CXC2
Injection Date: 29-DEC-2009 18:29
Instrument: ecd3a.i
Client Sample ID: INDAB05
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone

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CLP-1

Data file : /chem/ecd3a.i/122909p.b/009f0901.d
Lab Smp Id: WPE091228-11TX Client Smp ID: TOXAPH01
Inj Date : 29-DEC-2009 18:56
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-11TX
Misc Info : |TOXLEVEL1
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 20:42 Cal File: 016f1601.d
Als bottle: 9 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.004	5.005	-0.001	44436	100.000	91.6	80.00- 120.00	100.00(M)
5.111	5.109	0.002	74342	100.000	98.6	136.78- 176.78	167.30
5.196	5.194	0.002	74020	100.000	85.0	169.96- 209.96	166.58
5.355	5.353	0.002	98971	100.000	87.1	213.58- 253.58	222.73
5.548	5.544	0.004	187549	100.000	92.8	347.48- 387.48	422.07
Average of Peak Amounts =					91		
$ 1 4cmx					CAS #: 877-09-8		
2.678	2.679	-0.001	848503	8.00000	12.9	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.824	7.824	0.000	654866	8.00000	13.6	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/009f0901.d
Date : 29-DEC-2009 18:56
Client ID: TOXAPH01
Sample Info: IWPE091228-11TX

Column phase: CLP-1

Instrument: ecd3a.i

Operator: CXC2
Column diameter: 0.25

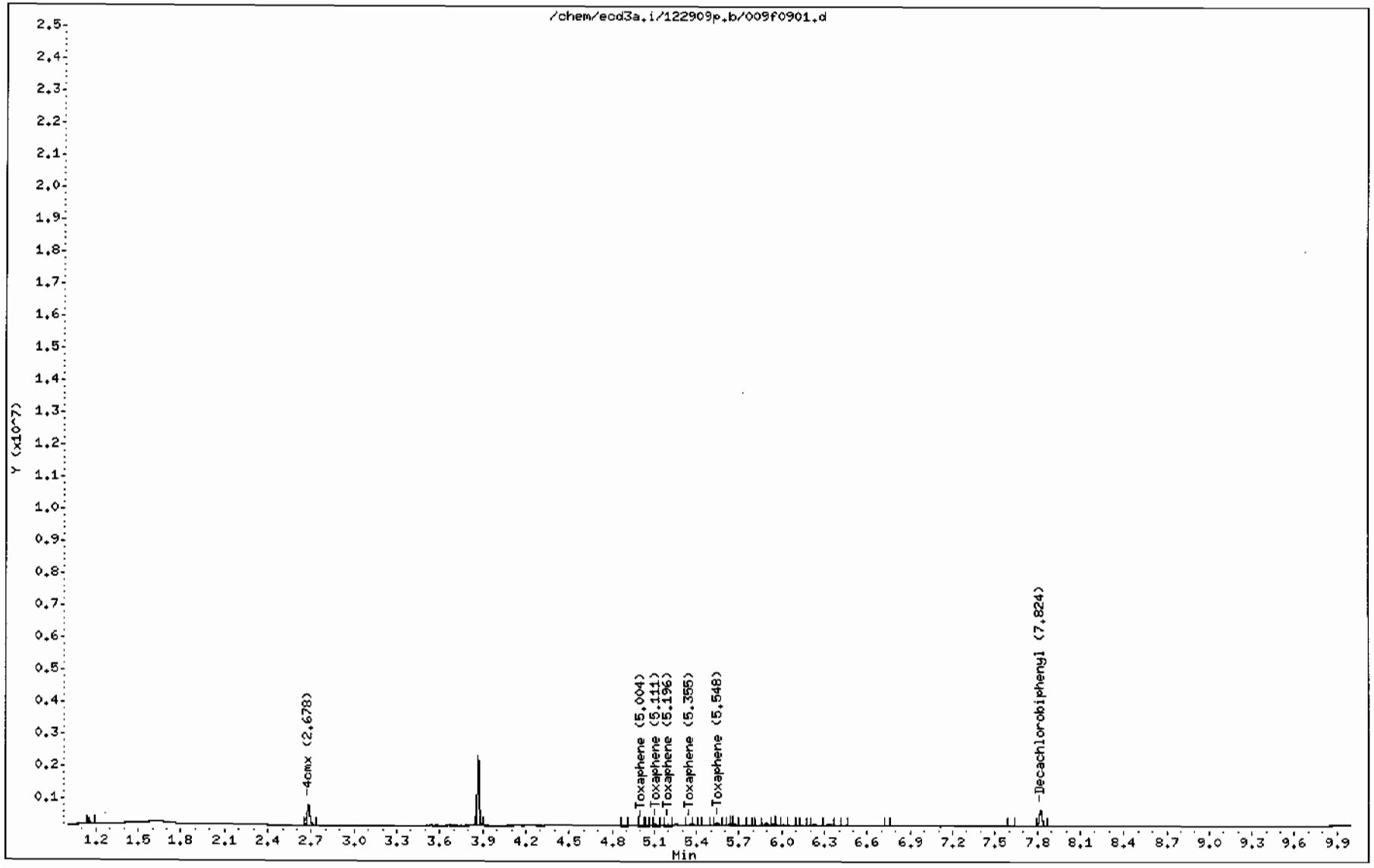

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/009f0901.d
Operator: CXC2
Injection Date: 29-DEC-2009 18:56
Instrument: ecd3a.i
Client Sample ID: TOXAPH01

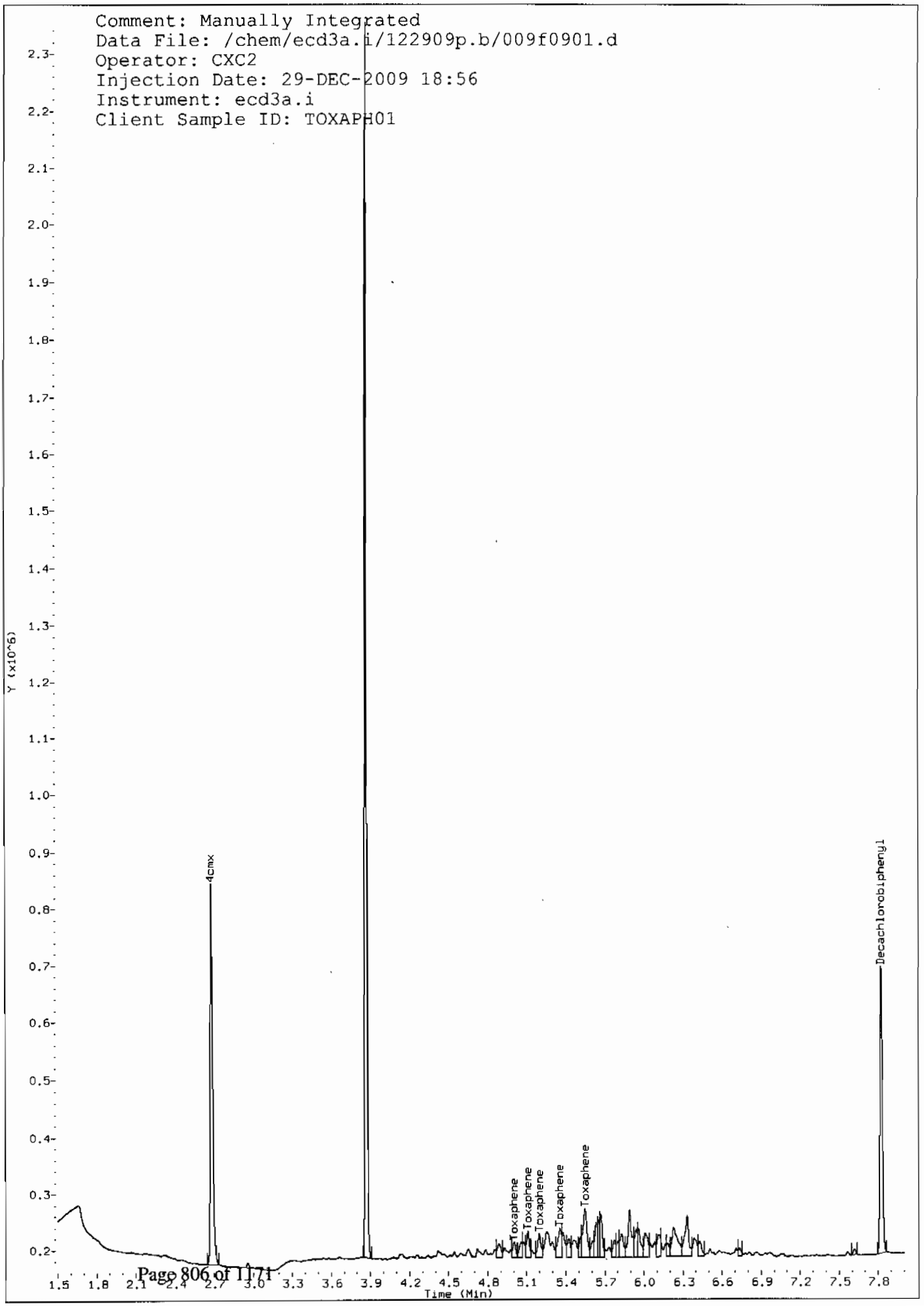

Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-009f0901.d
Operator: CXC2
Injection Date: 29-DEC-2009 18:56
Instrument: ecd3a.i
Client Sample ID: TOXAPH01

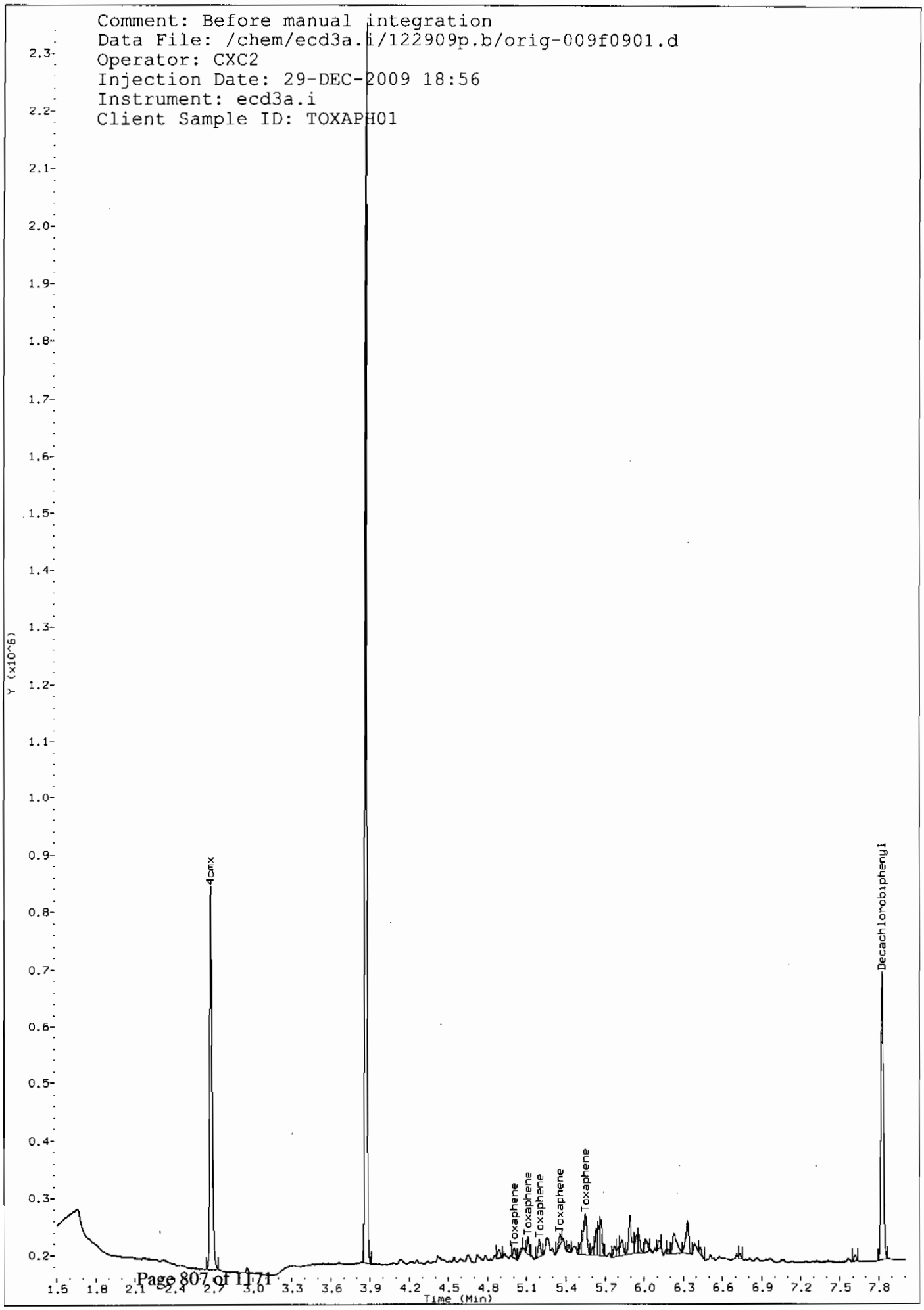

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CLP-2

Data file : /chem/ecd3a.i/122909p.b/009b0901.d
Lab Smp Id: WPE091228-11TX Client Smp ID: TOXAPH01
Inj Date : 29-DEC-2009 18:56
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-11TX
Misc Info : |TOXLEVEL1
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 20:42 Cal File: 016b1601.d
Als bottle: 9 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.658	5.653	0.005	470223	100.000	92.8	80.00- 120.00	100.00(M)
5.779	5.778	0.001	272329	100.000	91.1	37.72- 77.72	57.91
6.170	6.168	0.002	506614	100.000	84.2	78.89- 118.89	107.74
6.212	6.210	0.002	948873	100.000	89.5	158.10- 198.10	201.79
6.314	6.313	0.001	1721564	100.000	89.9	271.11- 311.11	366.12
Average of Peak Amounts =					89.5		
$ 1 4cmx					CAS #: 877-09-8		
2.921	2.922	-0.001	6780433	8.00000	14.4	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.860	8.860	0.000	4611378	8.00000	14.0	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/009b0901.d
Date : 29-DEC-2009 18:56
Client ID: TOXAPH01
Sample Info: IWPE091228-11TX

Column phase: CLP-2

Instrument: ecd3a.i

Operator: CXC2
Column diameter: 0.25

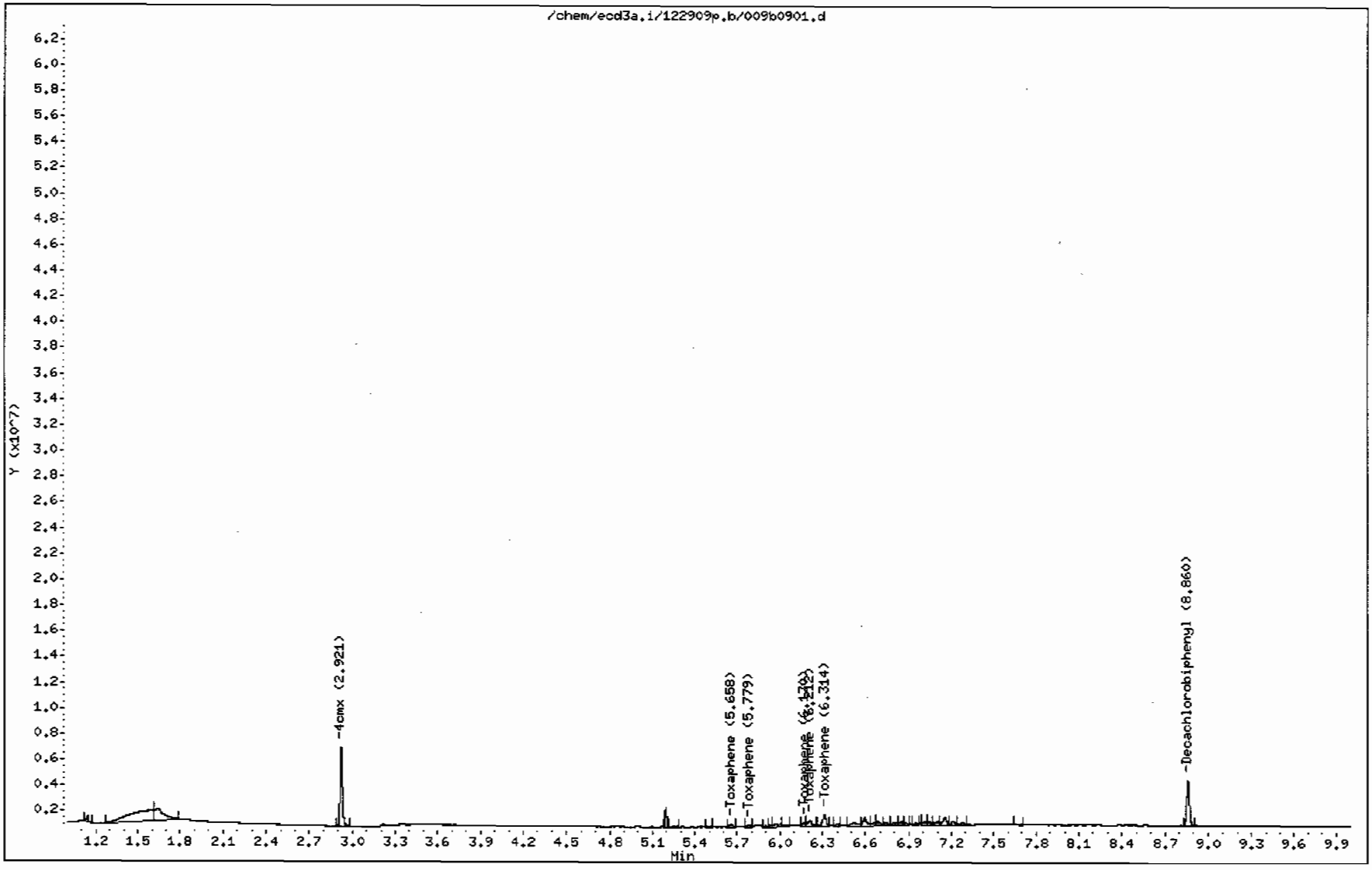

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/009b0901.d
Operator: CXC2
Injection Date: 29-DEC-2009 18:56
Instrument: ecd3a.i
Client Sample ID: TOXAPH01

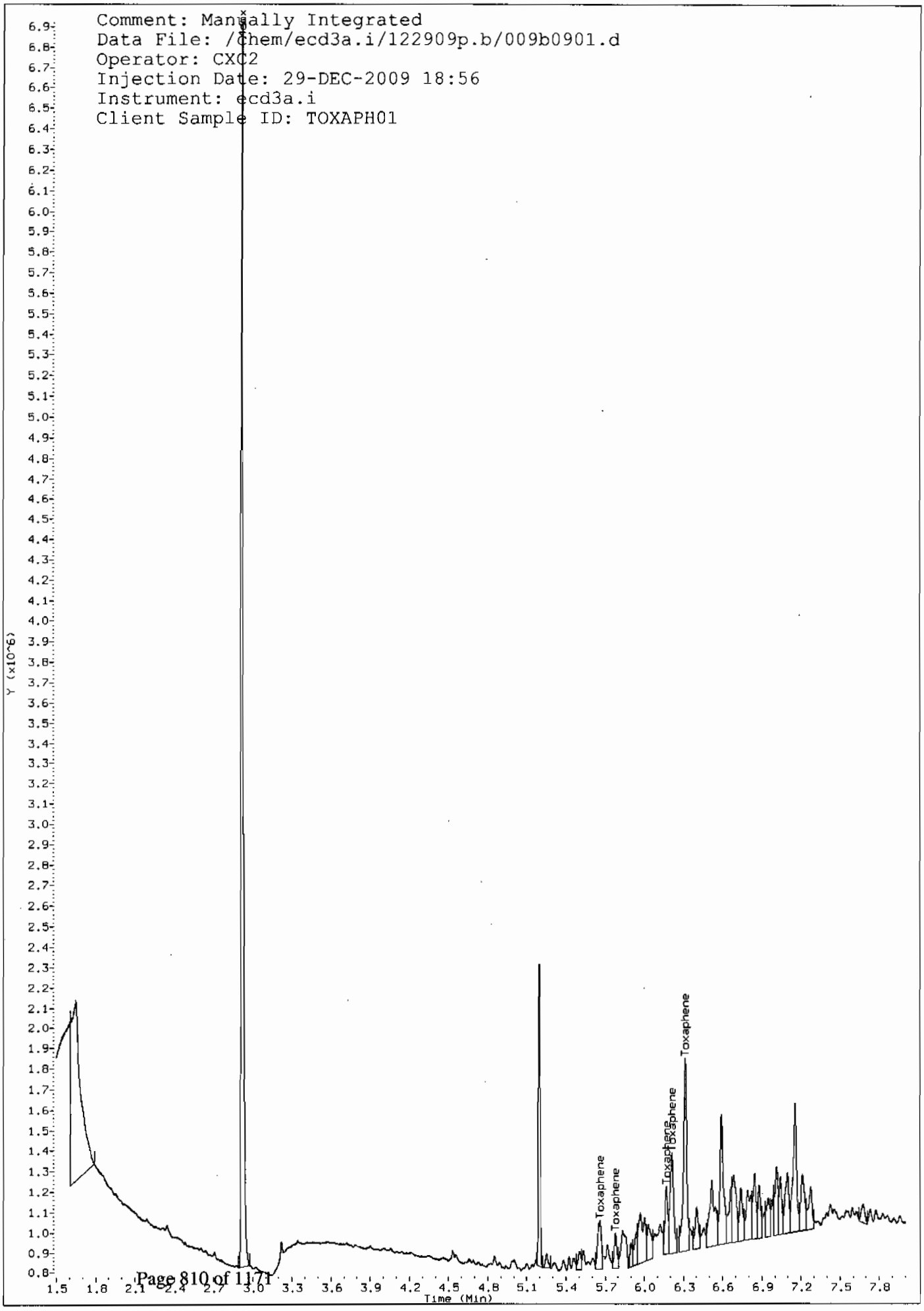

Comment: Before manual integration
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Operator: CXC2
Injection Date: 29-DEC-2009 18:56
Instrument: ecd3a.i
Client Sample ID: TOXAPH01

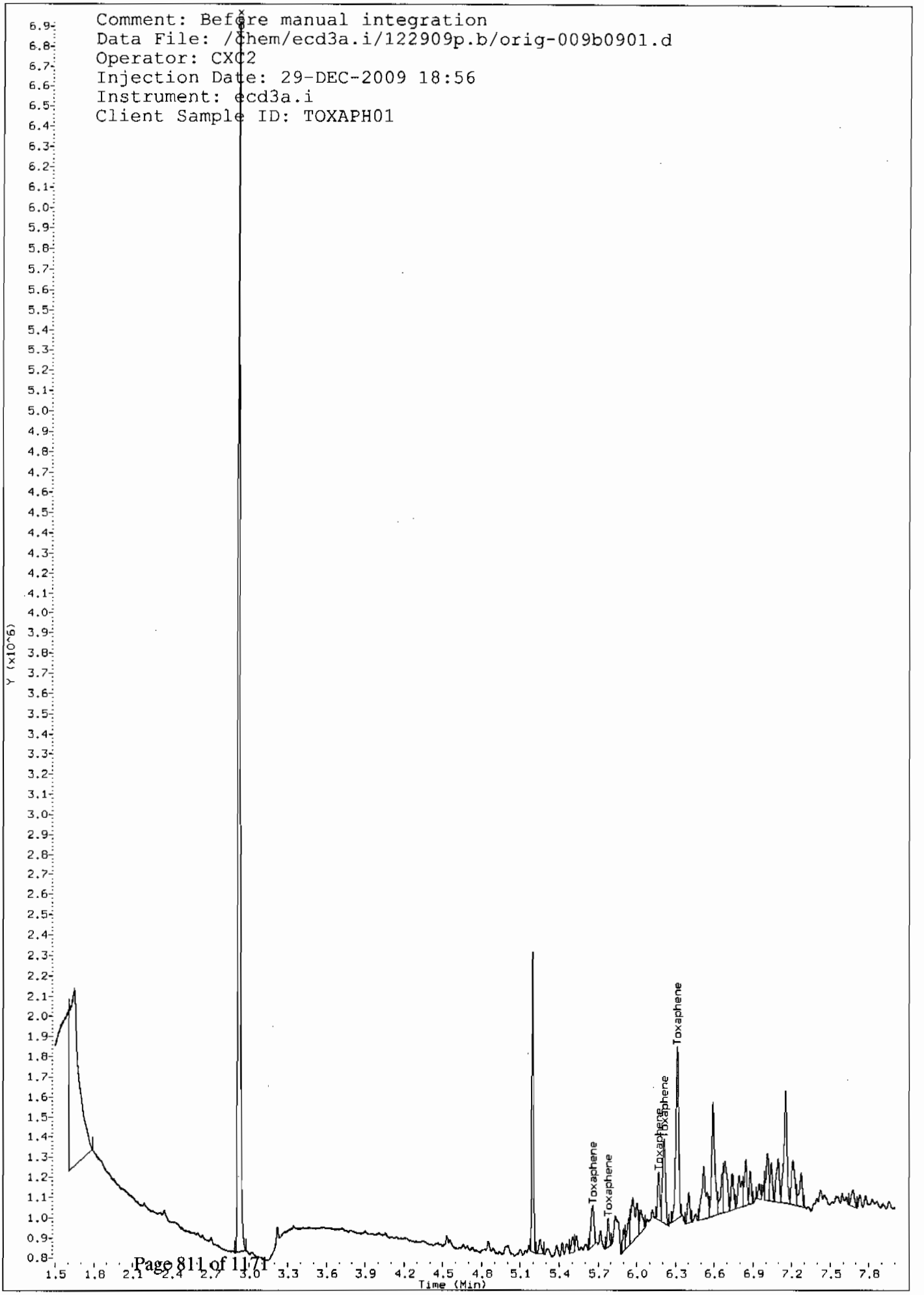

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CLP-1

Data file : /chem/ecd3a.i/122909p.b/010f1001.d
Lab Smp Id: WPE091228-12TX Client Smp ID: TOXAPH02
Inj Date : 29-DEC-2009 19:10
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-12TX
Misc Info : |TOXLEVEL2
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:14 Cal File: 017f1701.d
Als bottle: 10 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.004	5.005	-0.001	235894	500.000	486	80.00- 120.00	100.00(M)
5.110	5.109	0.001	381338	500.000	506	136.78- 176.78	161.66
5.195	5.194	0.001	431043	500.000	495	169.96- 209.96	182.73
5.355	5.353	0.002	562023	500.000	494	213.58- 253.58	238.25
5.546	5.544	0.002	975994	500.000	483	347.48- 387.48	413.74
Average of Peak Amounts =					493		
$ 1 4cmx					CAS #: 877-09-8		
2.679	2.679	0.000	4443569	20.0000	67.4	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.824	7.824	0.000	3132352	20.0000	65.0	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/010f1001.d

Date : 29-DEC-2009 19:10

Client ID: TOXAPH02

Sample Info: HWPE091228-12TX

Column phase: CLP-1

Instrument: ecd3a.i

Operator: CXC2

Column diameter: 0.25

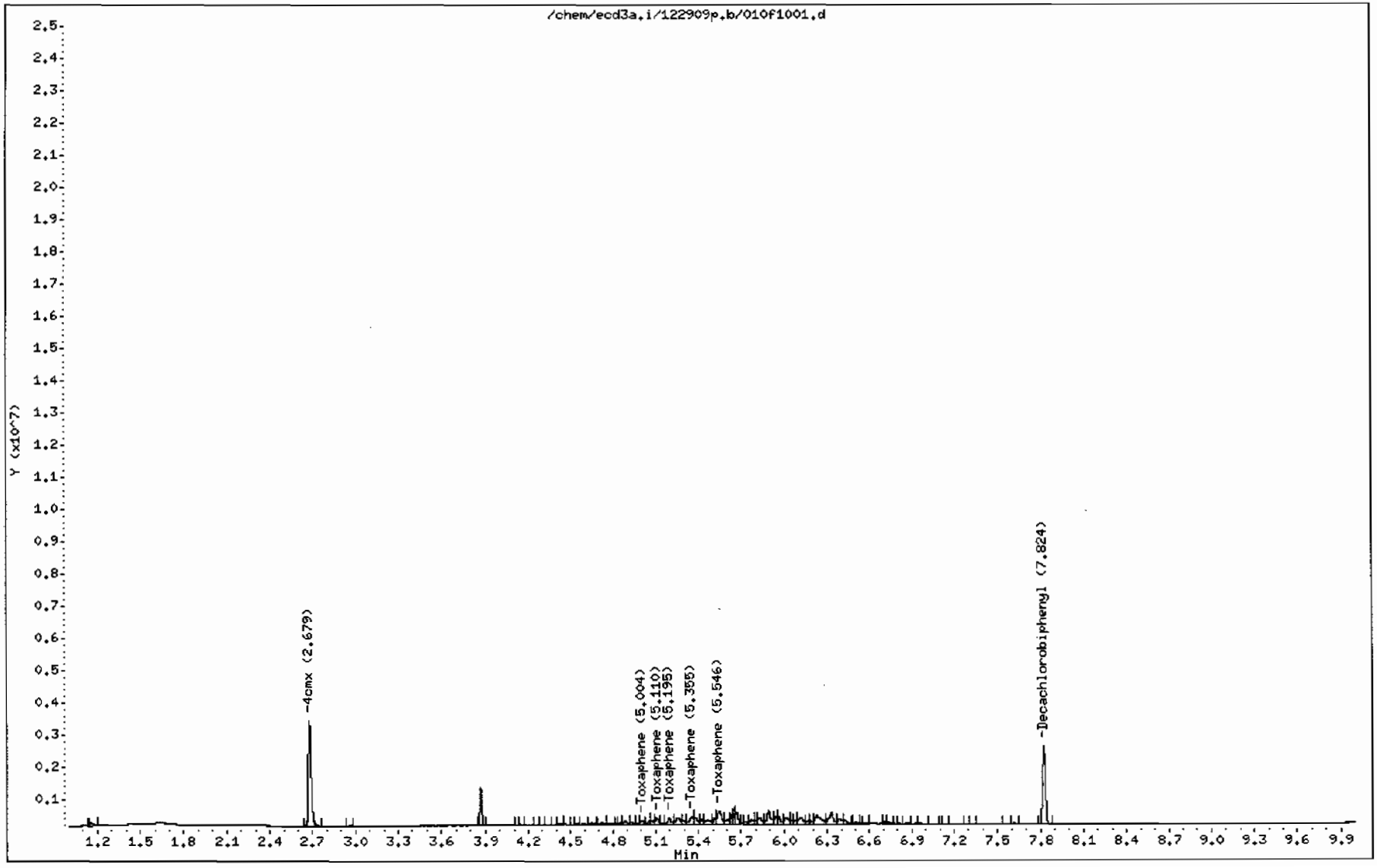

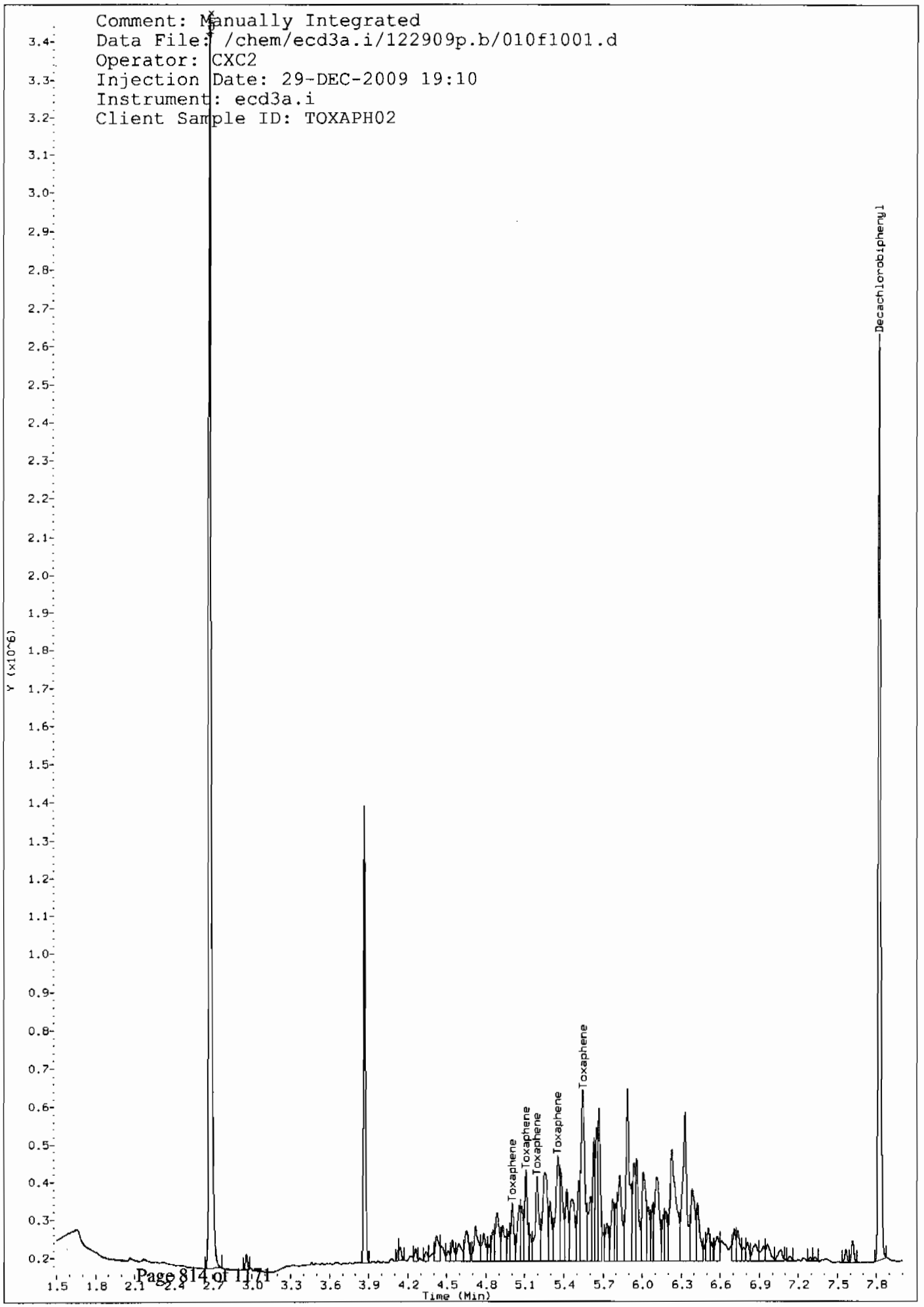
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Data File: /chem/ecd3a.i/122909p.b/010f1001.d
Operator: CXC2
Injection Date: 29-DEC-2009 19:10
Instrument: ecd3a.i
Client Sample ID: TOXAPH02
Y (x10^6)
Time (Min)
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Decachlorobiphenyl

Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-010f1001.d
Operator: CXC2
Injection Date: 29-DEC-2009 19:10
Instrument: ecd3a.i
Client Sample ID: TOXAPH02

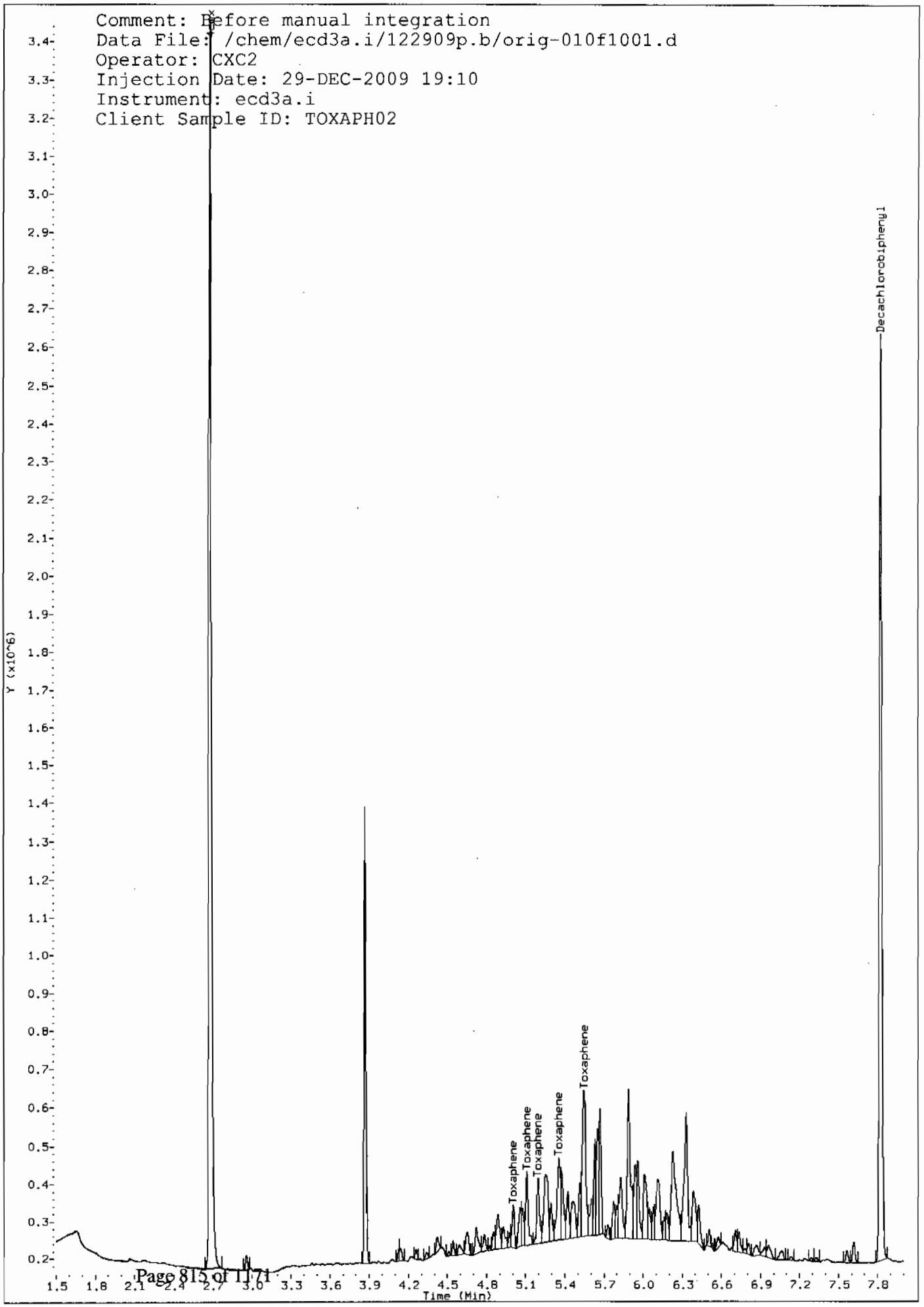

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CLP-2

Data file : /chem/ecd3a.i/122909p.b/010b1001.d
Lab Smp Id: WPE091228-12TX Client Smp ID: TOXAPH02
Inj Date : 29-DEC-2009 19:10
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-12TX
Misc Info : |TOXLEVEL2
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:14 Cal File: 017b1701.d
Als bottle: 10 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.659	5.653	0.006	2435357	500.000	481	80.00- 120.00	100.00(M)
5.778	5.778	0.000	1382120	500.000	462	37.72- 77.72	56.75
6.168	6.168	0.000	2933662	500.000	488	78.89- 118.89	120.46
6.212	6.210	0.002	5153228	500.000	486	158.10- 198.10	211.60
6.313	6.313	0.000	9426983	500.000	492	271.11- 311.11	387.09
Average of Peak Amounts =					482		
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.922	0.000	32492133	20.0000	69.3	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.860	8.860	0.000	21452607	20.0000	65.4	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/010b1001.d
Date : 29-DEC-2009 19:10
Client ID: TOXAPH02
Sample Info: IWPE091228-12TX
Column phase: CLP-2

Instrument: ecd3a.i
Operator: CXC2
Column diameter: 0.25

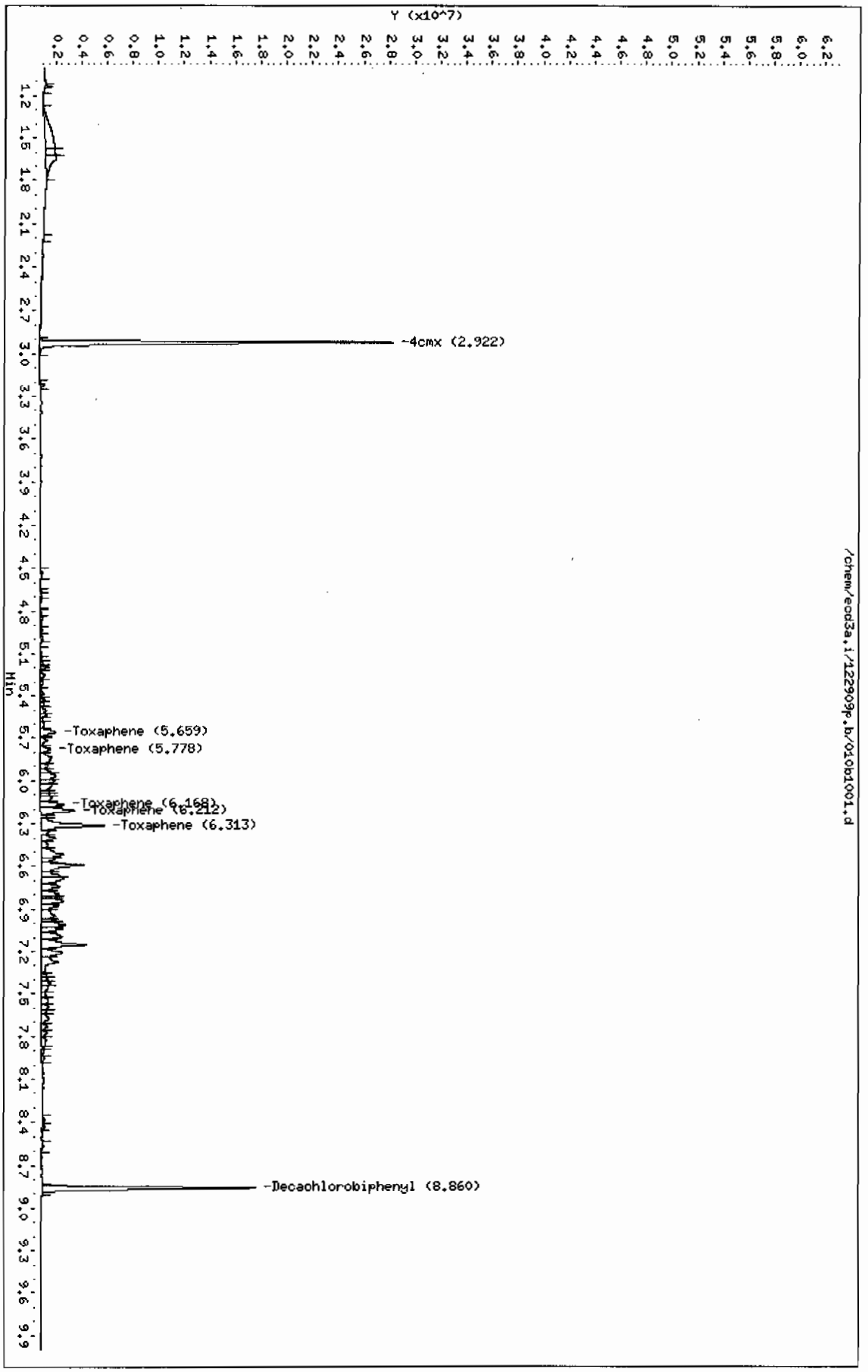

Page 1

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/010b1001.d
Operator: CXC2
Injection Date: 29-DEC-2009 19:10
Instrument: ecd3a.i
Client Sample ID: TOXAPH02

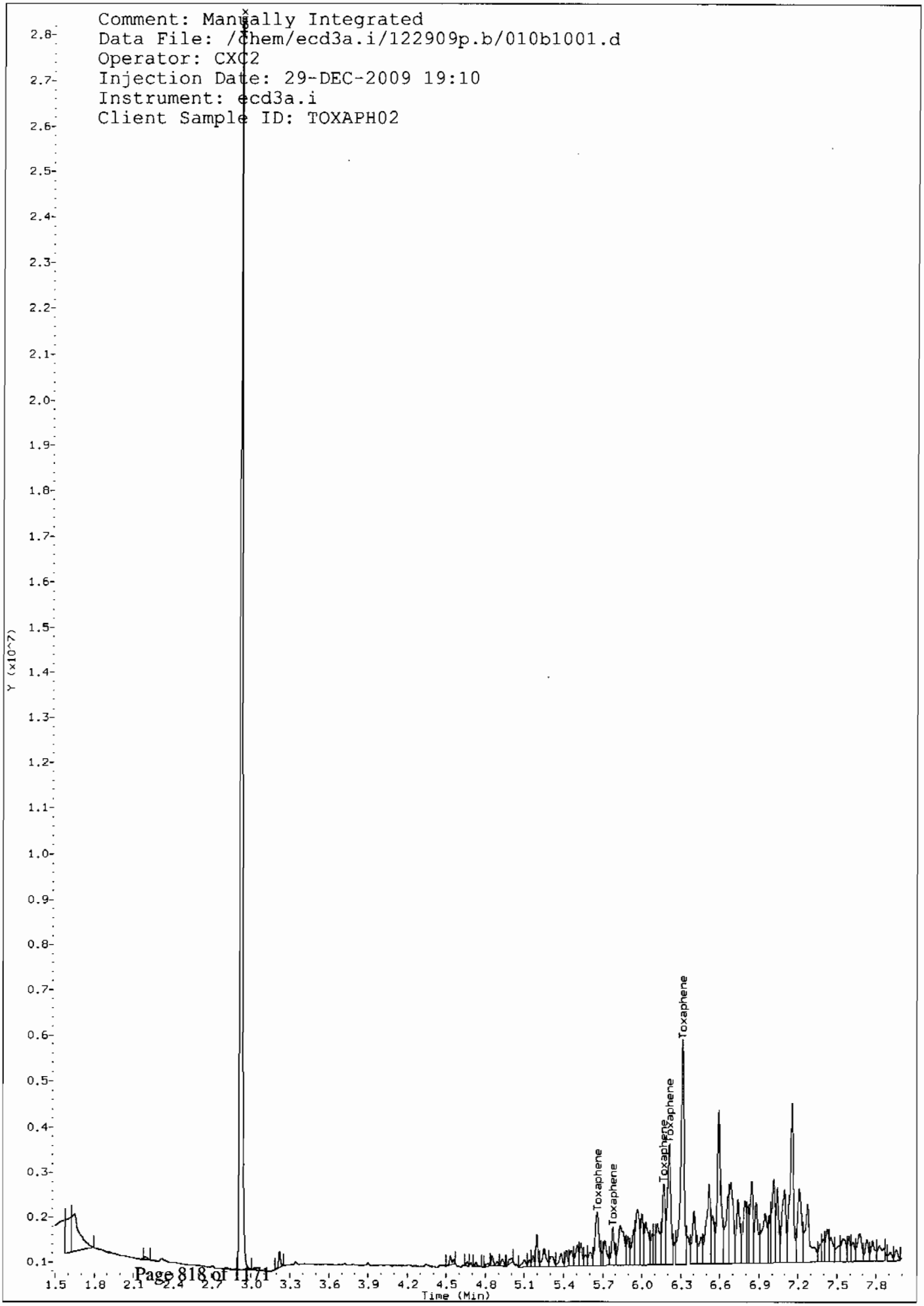

Comment: Before manual integration
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Operator: CXC2
Injection Date: 29-DEC-2009 19:10
Instrument: ecd3a.i
Client Sample ID: TOXAPH02

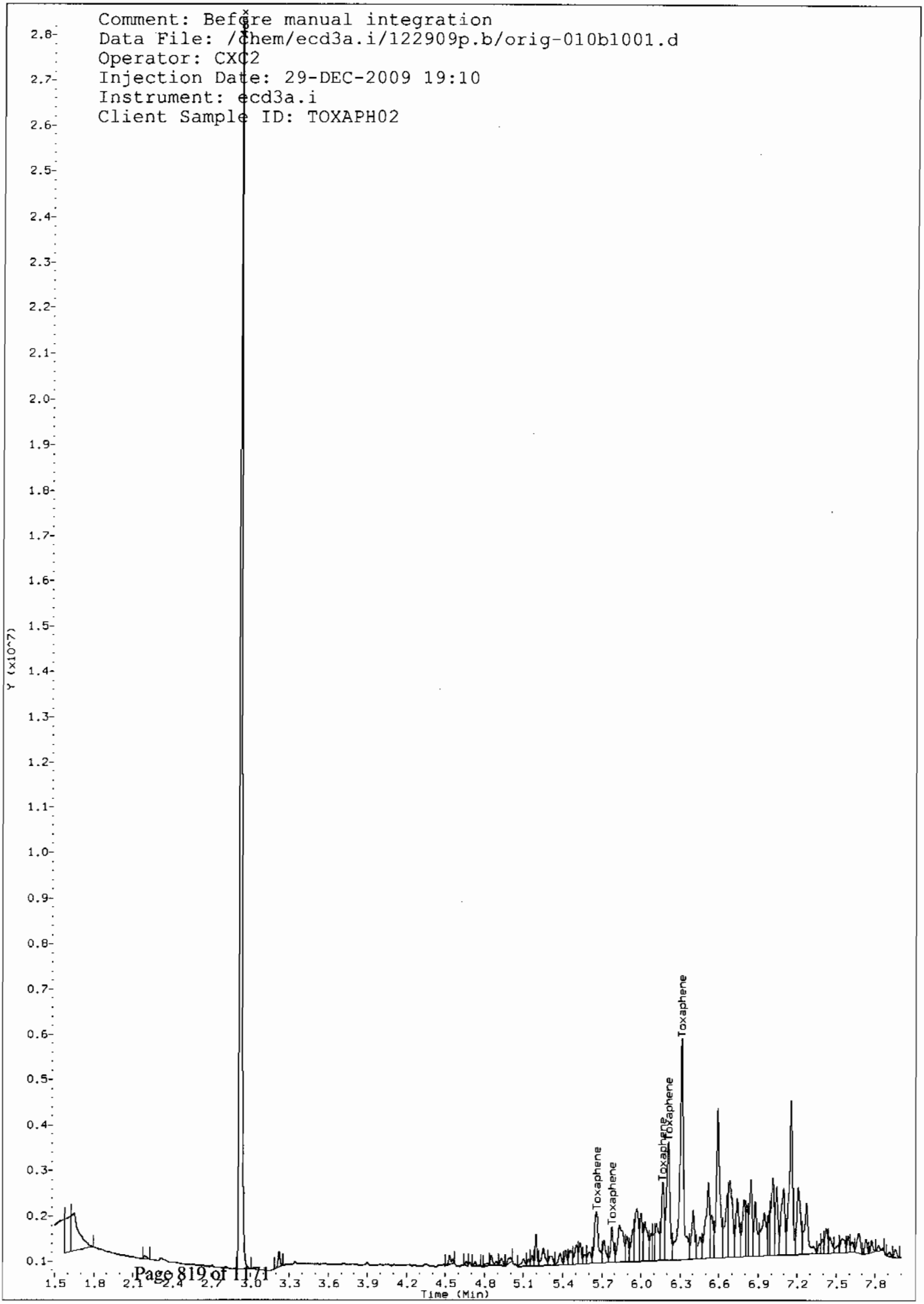

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CLP-1

Data file : /chem/ecd3a.i/122909p.b/011f1101.d
Lab Smp Id: WPE091228-13TX Client Smp ID: TOXAPH03
Inj Date : 29-DEC-2009 19:24
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-13TX
Misc Info : |TOXLEVLE3
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:28 Cal File: 018f1801.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.004	5.005	-0.001	489599	1000.00	1010	80.00- 120.00	100.00(M)
5.110	5.109	0.001	748346	1000.00	992	136.78- 176.78	152.85
5.197	5.194	0.003	877437	1000.00	1010	169.96- 209.96	179.22
5.354	5.353	0.001	1152768	1000.00	1010	213.58- 253.58	235.45
5.546	5.544	0.002	1948280	1000.00	964	347.48- 387.48	397.93
Average of Peak Amounts =					997		
$ 1 4cmx					CAS #: 877-09-8		
2.680	2.679	0.001	8941431	100.000	136	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.824	7.824	0.000	6137933	100.000	127	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/011f1101.d

Date : 29-DEC-2009 19:24

Client ID: TOXAPH03

Sample Info: IWPE091228-13TX

Column phase: CLP-1

Instrument: ecd3a.i

Operator: CXC2

Column diameter: 0.25

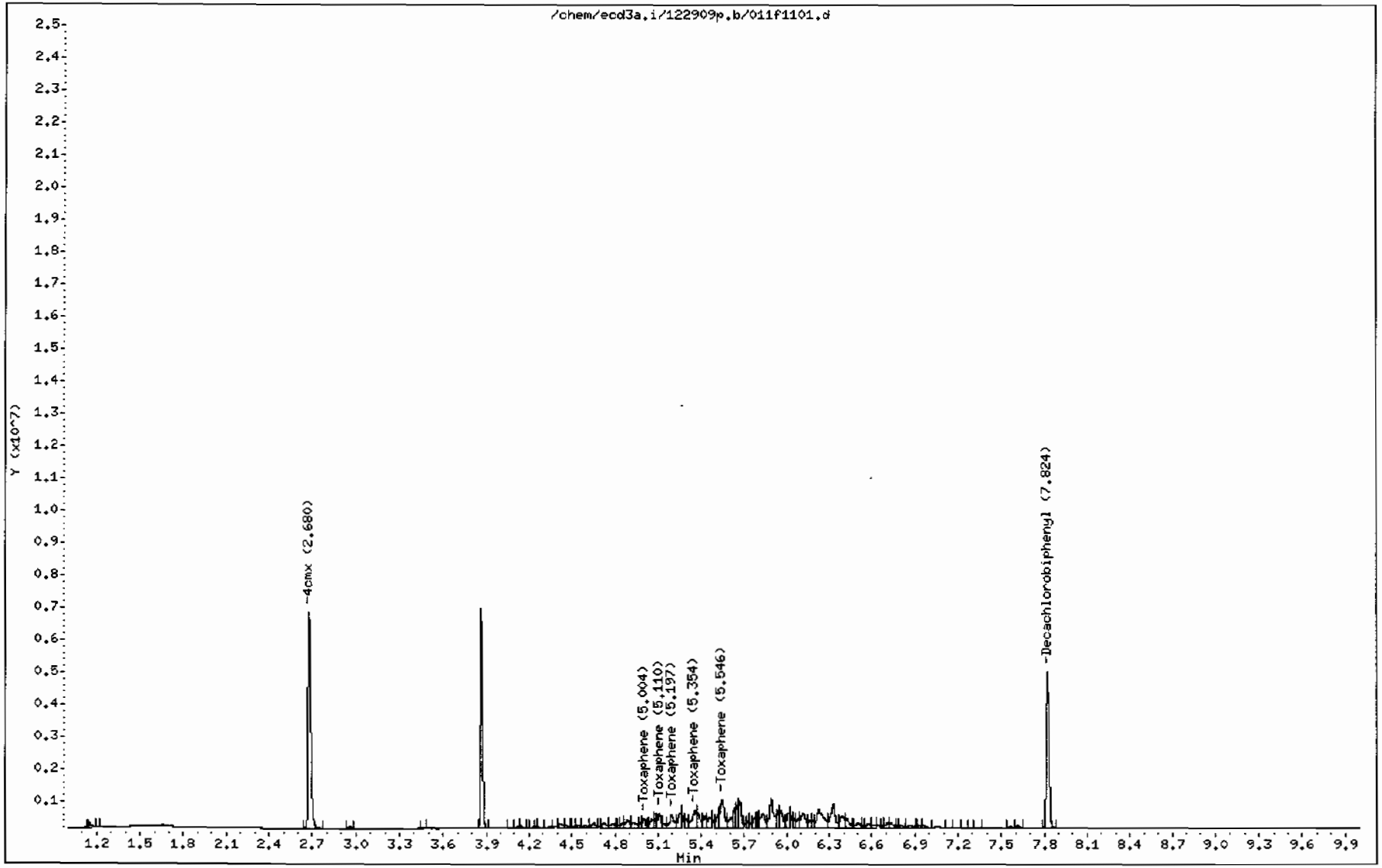

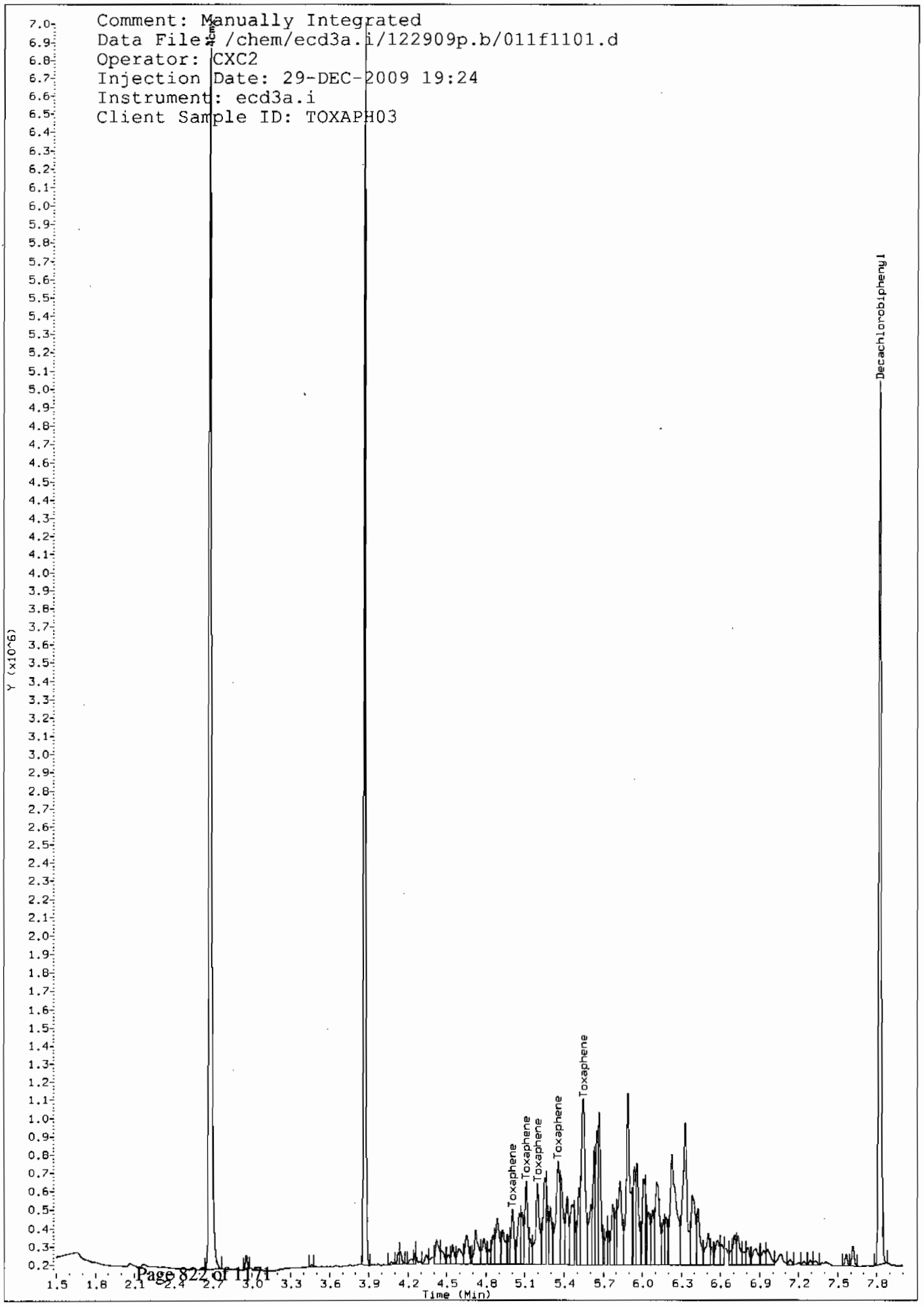
Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/011f1101.d
Operator: CXC2
Injection Date: 29-DEC-2009 19:24
Instrument: ecd3a.i
Client Sample ID: TOXAPH03
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)

Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-011f1101.d
Operator: CXC2
Injection Date: 29-DEC-2009 19:24
Instrument: ecd3a.i
Client Sample ID: TOXAPH03

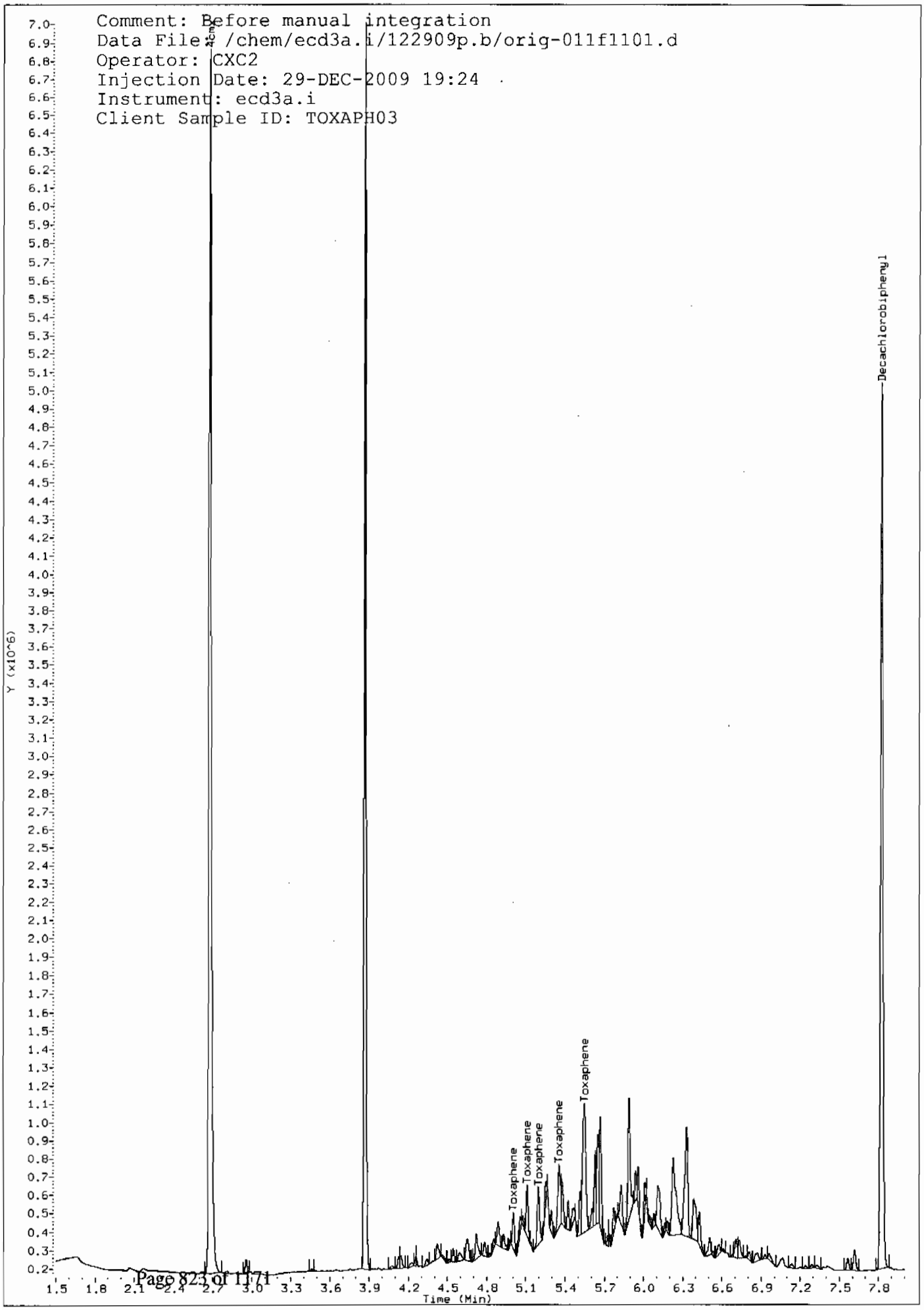

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CLP-2

Data file : /chem/ecd3a.i/122909p.b/011b1101.d
Lab Smp Id: WPE091228-13TX Client Smp ID: TOXAPH03
Inj Date : 29-DEC-2009 19:24
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-13TX
Misc Info : |TOXLEVLE3
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:28 Cal File: 018b1801.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.658	5.653	0.005	4804106	1000.00	948	80.00- 120.00	100.00(M)
5.779	5.778	0.001	2831403	1000.00	947	37.72- 77.72	58.94
6.168	6.168	0.000	5839763	1000.00	971	78.89- 118.89	121.56
6.211	6.210	0.001	10381890	1000.00	979	158.10- 198.10	216.10
6.314	6.313	0.001	18844510	1000.00	984	271.11- 311.11	392.26
Average of Peak Amounts =					966		
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.922	0.000	61503498	100.000	131	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.860	8.860	0.000	42312451	100.000	129	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/011b1101.d

Date : 29-DEC-2009 19:24

Client ID: TOXAPH03

Sample Info: IWPE091228-13TX

Column phase: CLP-2

Instrument: ecd3a.i

Operator: CXC2

Column diameter: 0.25

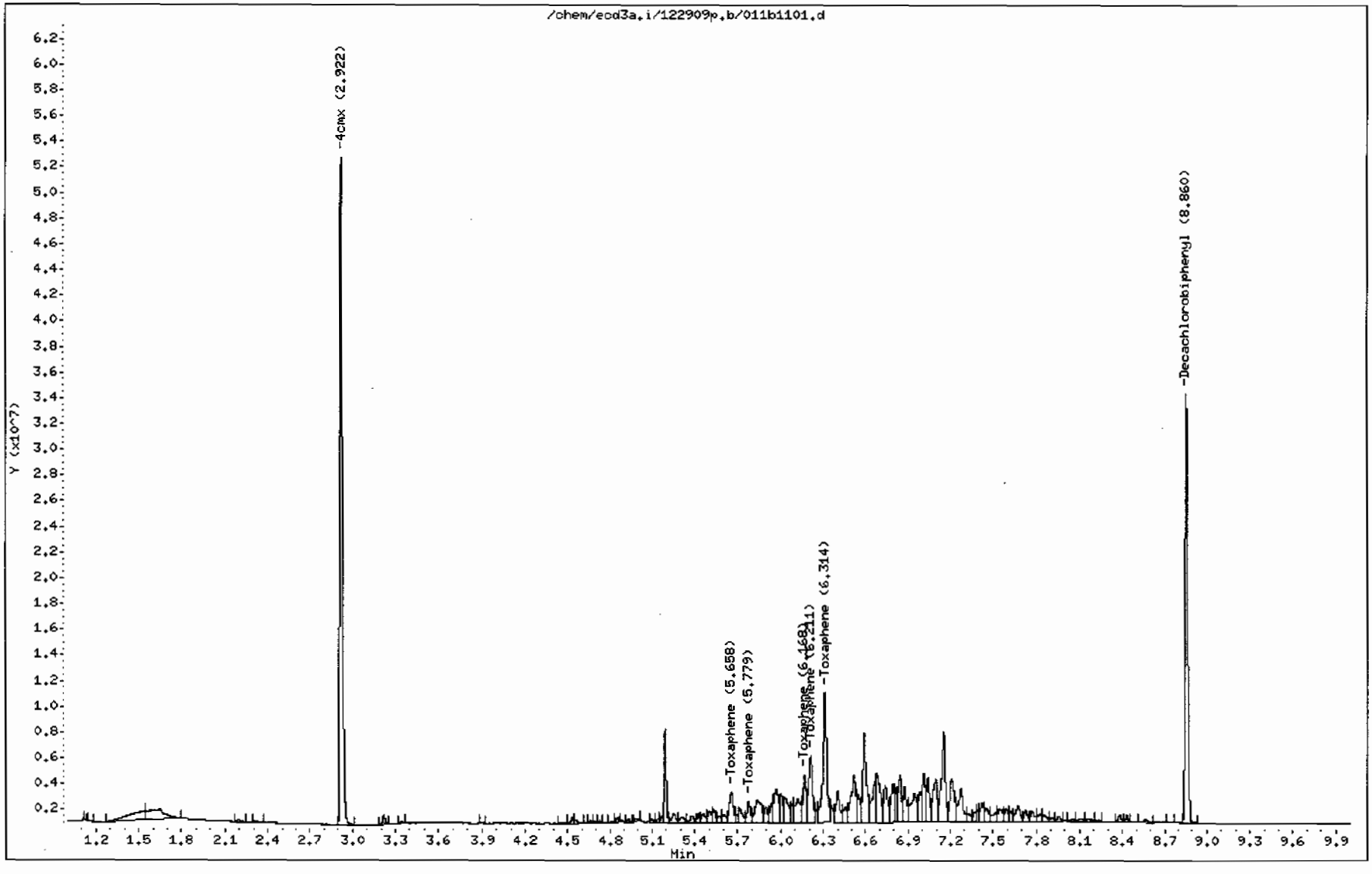

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/011b1101.d
Operator: CXC2
Injection Date: 29-DEC-2009 19:24
Instrument: ecd3a.i
Client Sample ID: TOXAPH03

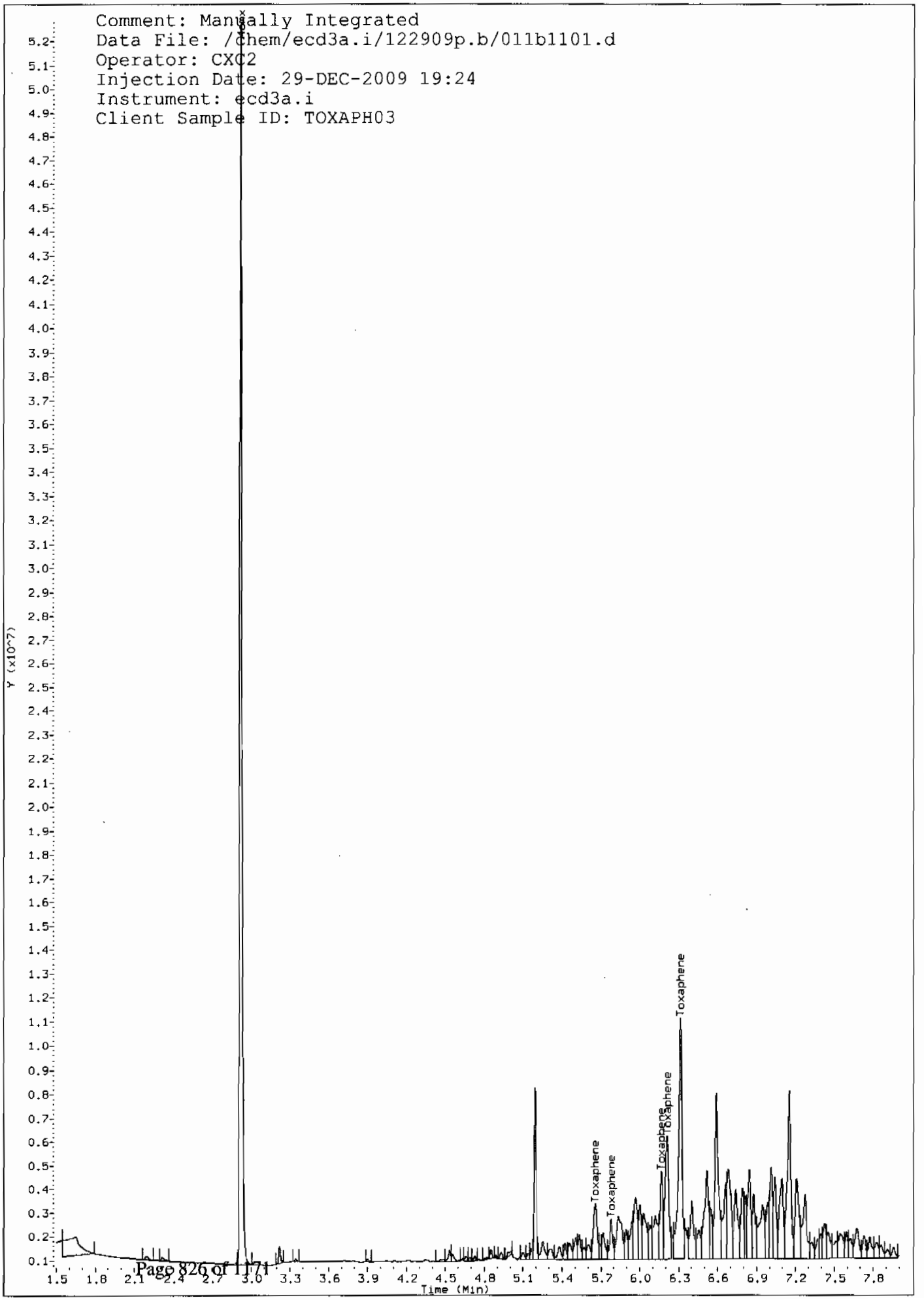

Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-011b1101.d
Operator: CXC2
Injection Date: 29-DEC-2009 19:24
Instrument: ecd3a.i
Client Sample ID: TOXAPH03

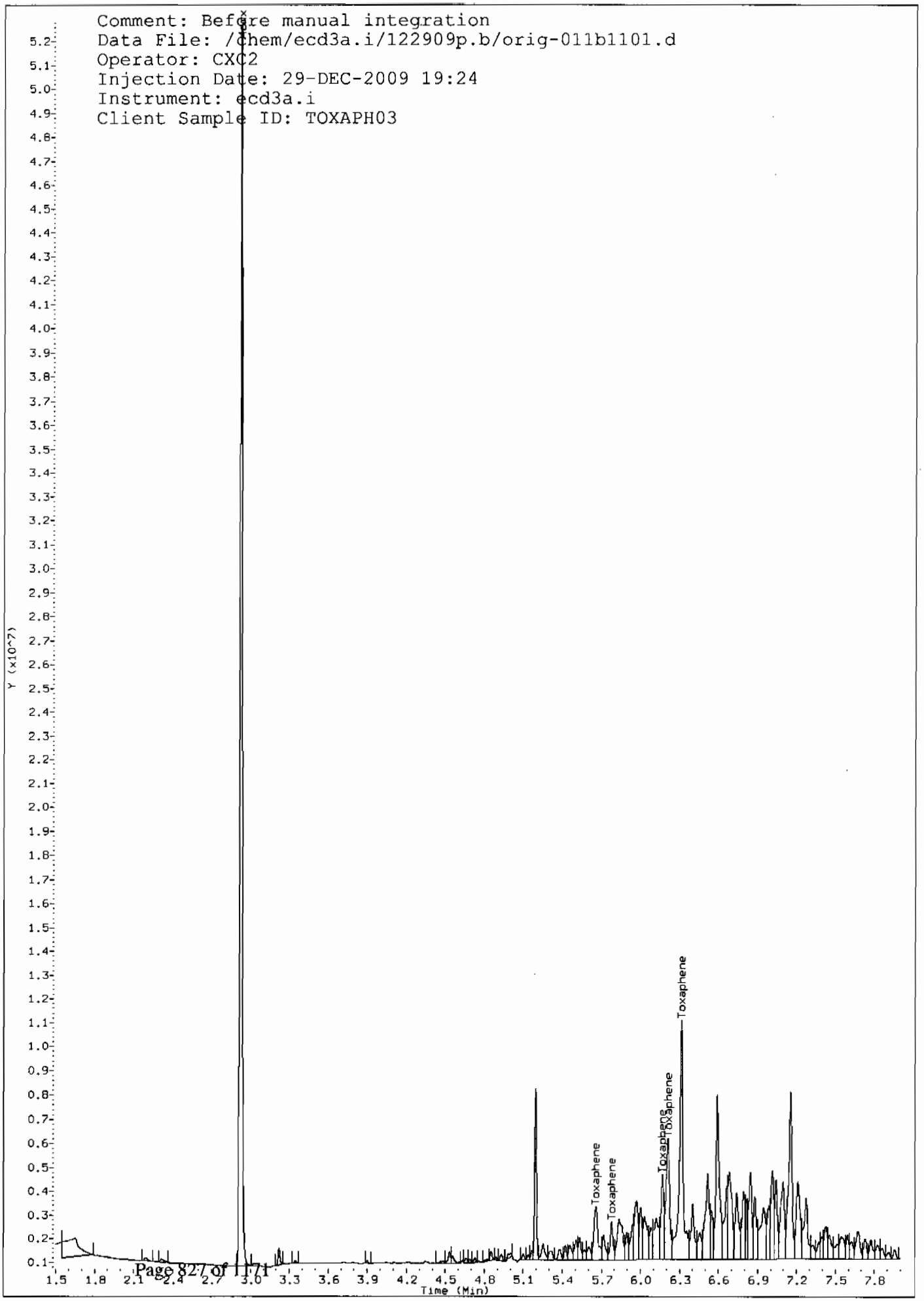

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/122909p.b/013f1301.d
Lab Smp Id: WPE091228-14TX Client Smp ID: TOXAPH04
Inj Date : 29-DEC-2009 20:01
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-14TX
Misc Info : |TOXLEVEL4
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:41 Cal File: 019f1901.d
Als bottle: 13 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.006	5.005	0.001	1024335	2000.00	2110	80.00- 120.00	100.00(M)
5.113	5.109	0.004	1497662	2000.00	1980	136.78- 176.78	146.21
5.198	5.194	0.004	1857452	2000.00	2130	169.96- 209.96	181.33
5.358	5.353	0.005	2364061	2000.00	2080	213.58- 253.58	230.79
5.549	5.544	0.005	4159333	2000.00	2060	347.48- 387.48	406.05
Average of Peak Amounts =					2.07e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.680	2.679	0.001	18258279	200.000	277	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.826	7.824	0.002	12666652	200.000	263	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/013f1301.d

Date : 29-DEC-2009 20:01

Client ID: TOXAPH04

Sample Info: IWPE091228-14TX

Column phase: CLP-1

Instrument: ecd3a.i

Operator: CXC2

Column diameter: 0.25

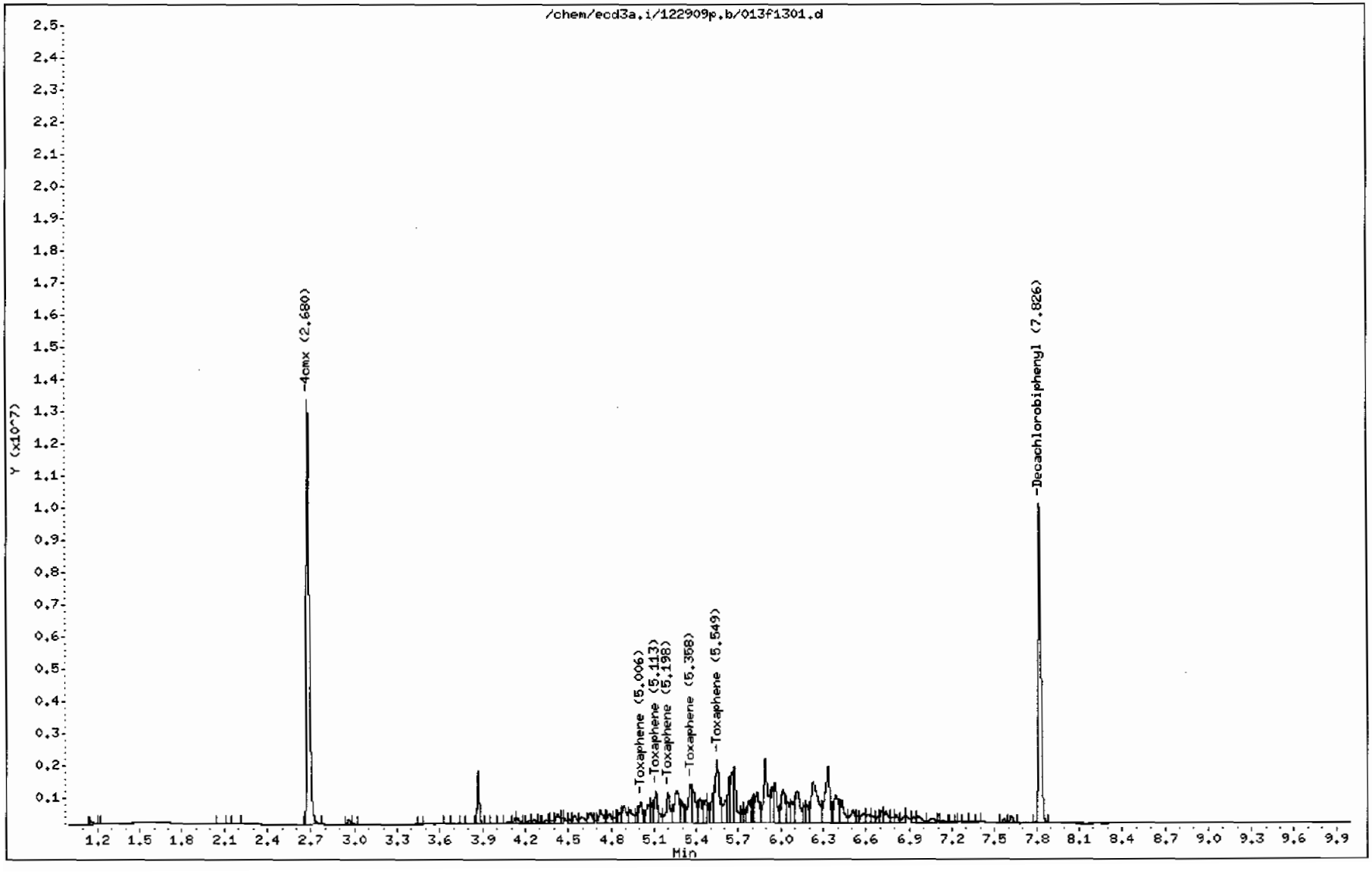

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/013f1301.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:01
Instrument: ecd3a.i
Client Sample ID: TOXAPH04

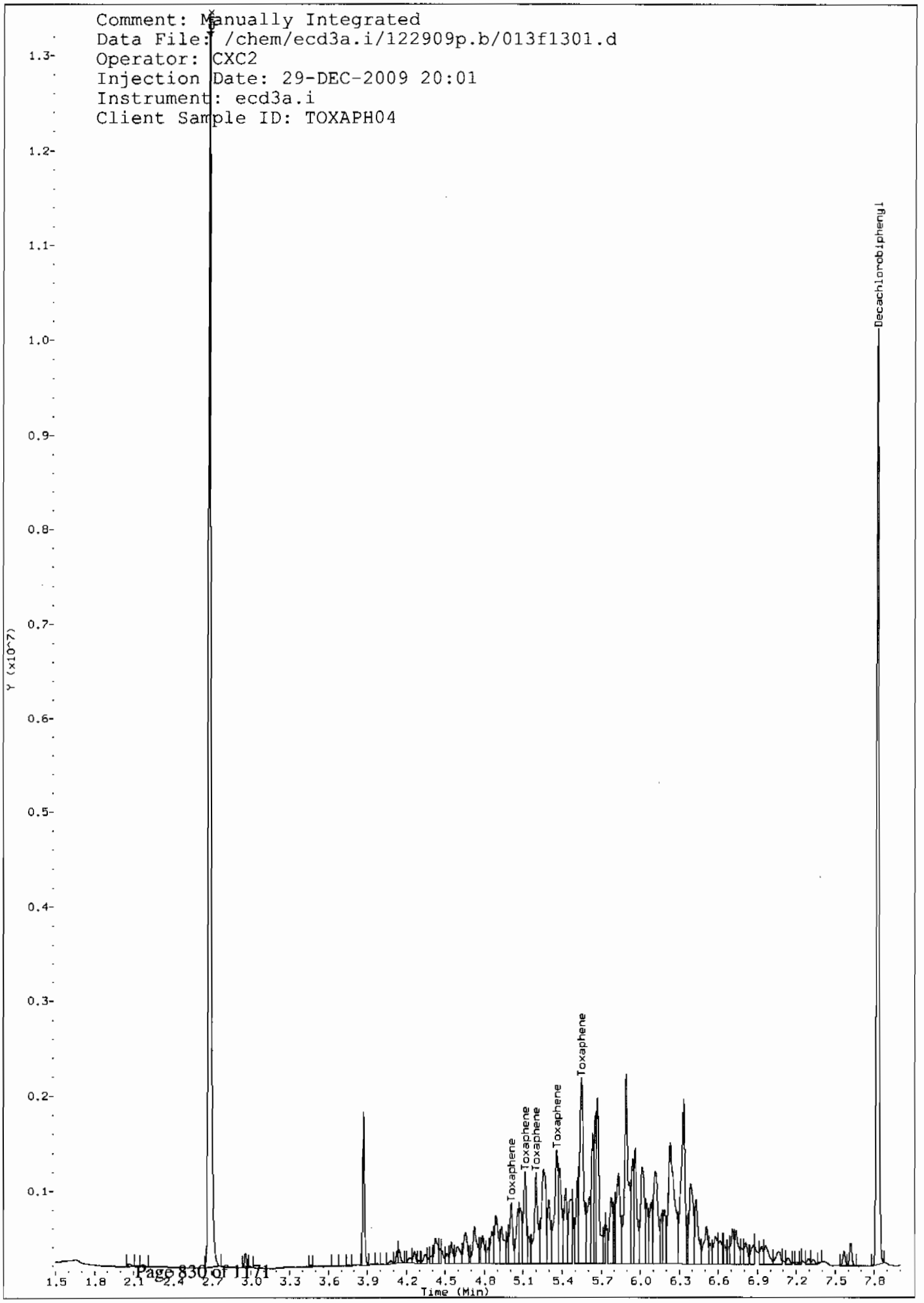

Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-013f1301.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:01
Instrument: ecd3a.i
Client Sample ID: TOXAPH04

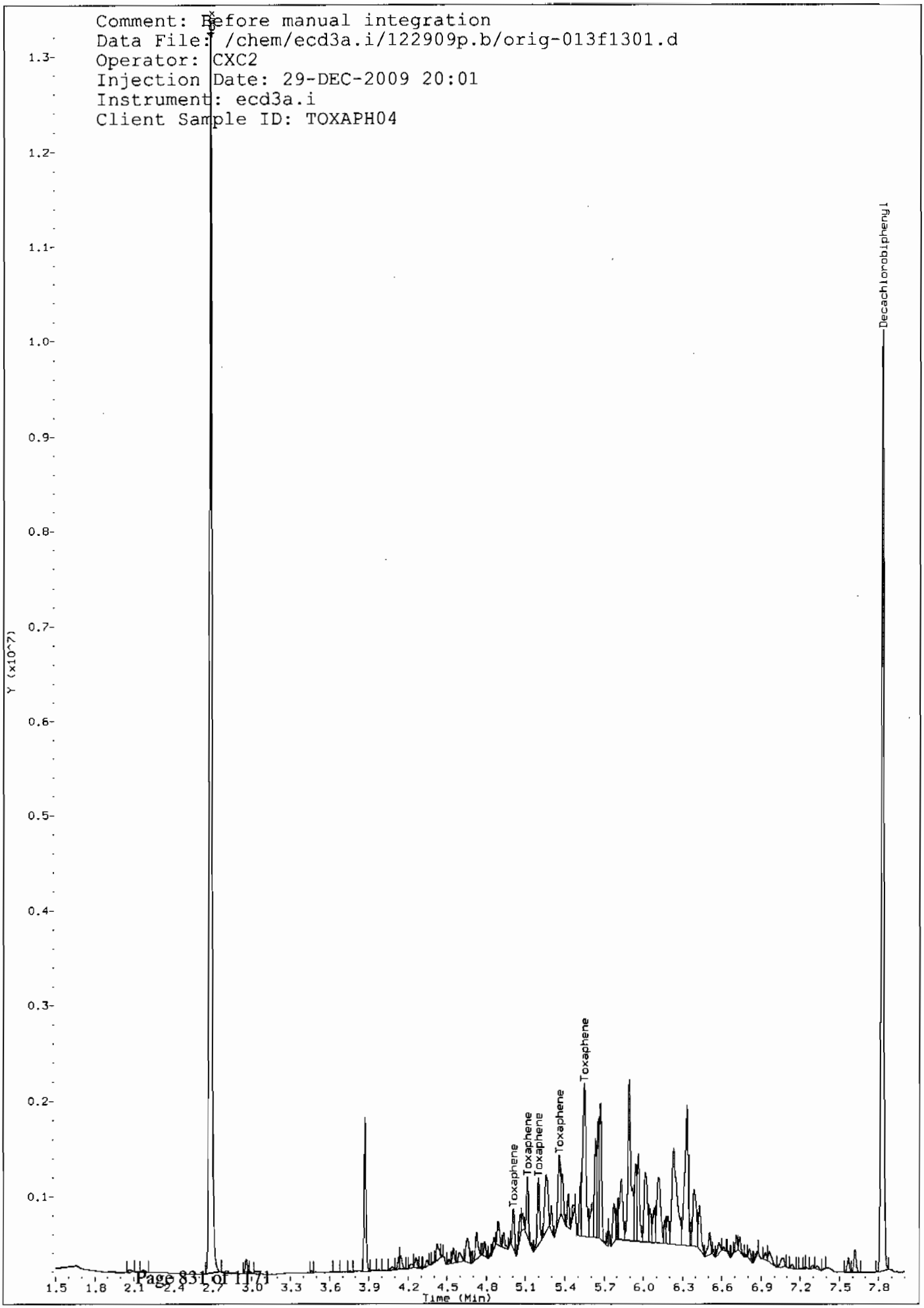

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/013b1301.d
Lab Smp Id: WPE091228-14TX Client Smp ID: TOXAPH04
Inj Date : 29-DEC-2009 20:01
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-14TX
Misc Info : |TOXLEVEL4
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:41 Cal File: 019b1901.d
Als bottle: 13 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.662	5.653	0.009	11230770	2000.00	2220	80.00- 120.00	100.00(M)
5.780	5.778	0.002	6880158	2000.00	2300	37.72- 77.72	61.26
6.170	6.168	0.002	13592060	2000.00	2260	78.89- 118.89	121.03
6.214	6.210	0.004	23392956	2000.00	2210	158.10- 198.10	208.29
6.315	6.313	0.002	41898337	2000.00	2190	271.11- 311.11	373.07
Average of Peak Amounts =					2.23e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.923	2.922	0.001	122860141	200.000	262	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.862	8.860	0.002	86472326	200.000	263	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/013b1301.d

Date : 29-DEC-2009 20:01

Client ID: TOXAPH04

Sample Info: IWPE091228-14TX

Column phase: CLP-2

Instrument: ecd3a.i

Operator: CXC2

Column diameter: 0.25

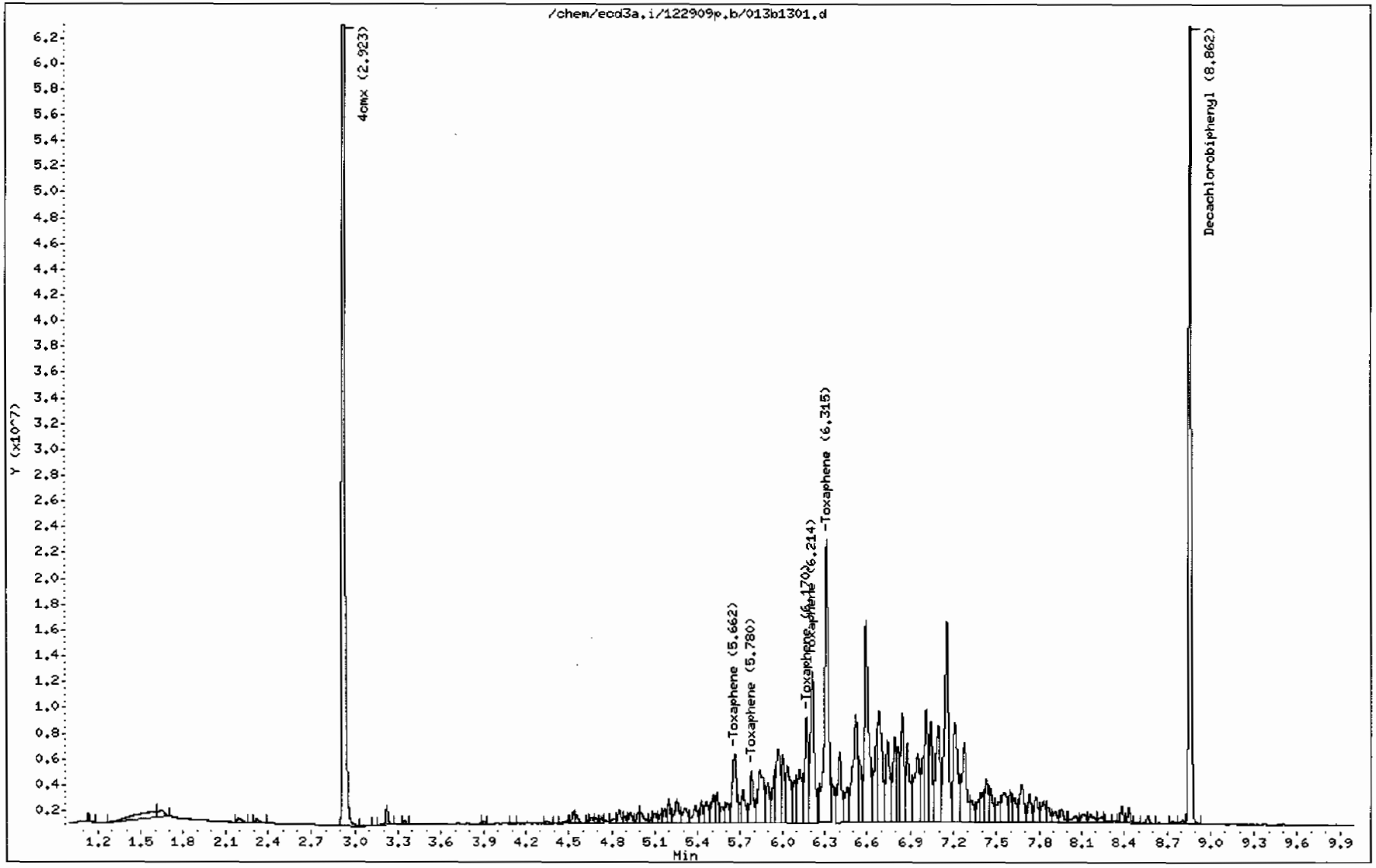

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/013b1301.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:01
Instrument: ecd3a.i
Client Sample ID: TOXAPH04

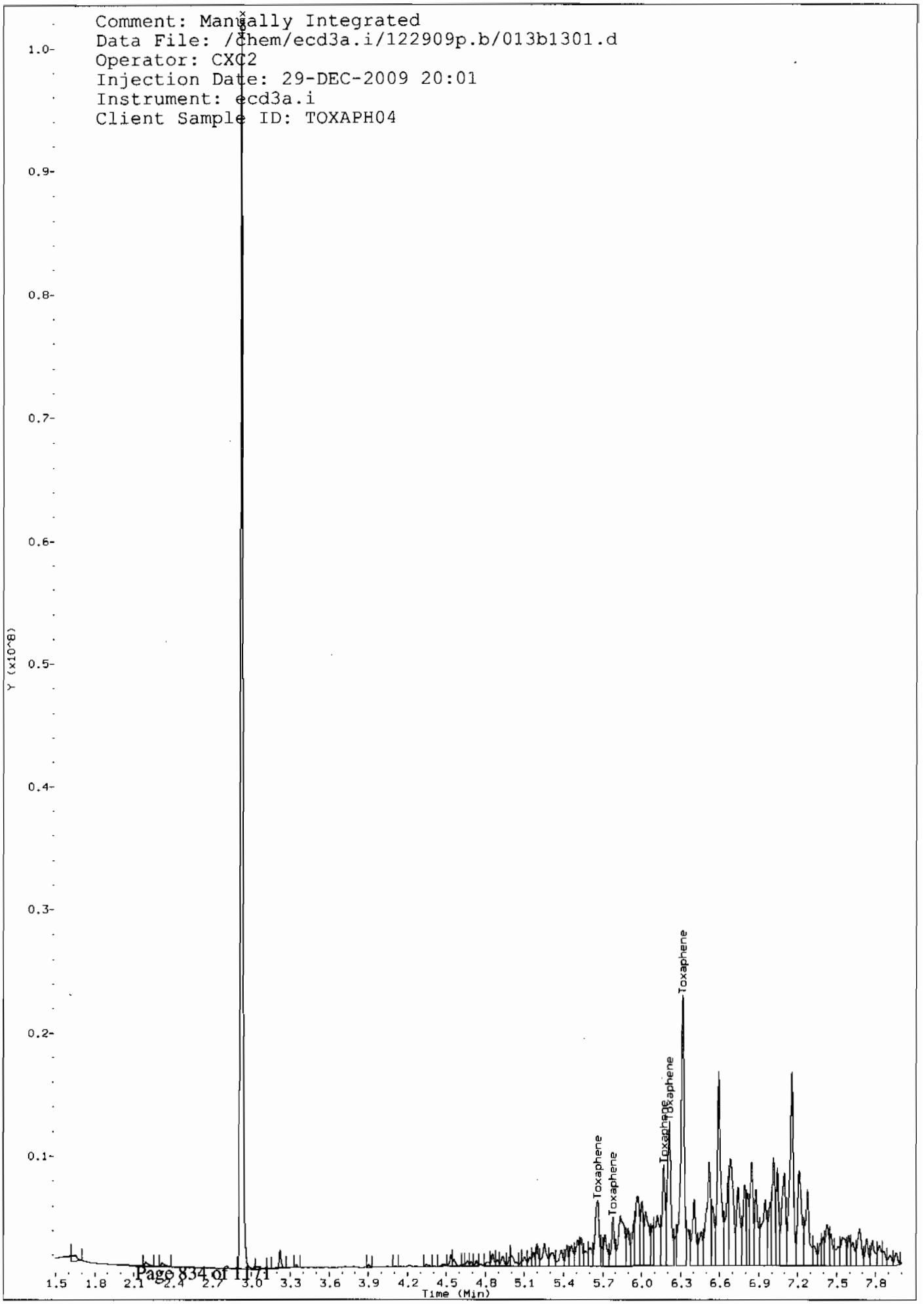

Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-013b1301.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:01
Instrument: ecd3a.i
Client Sample ID: TOXAPH04

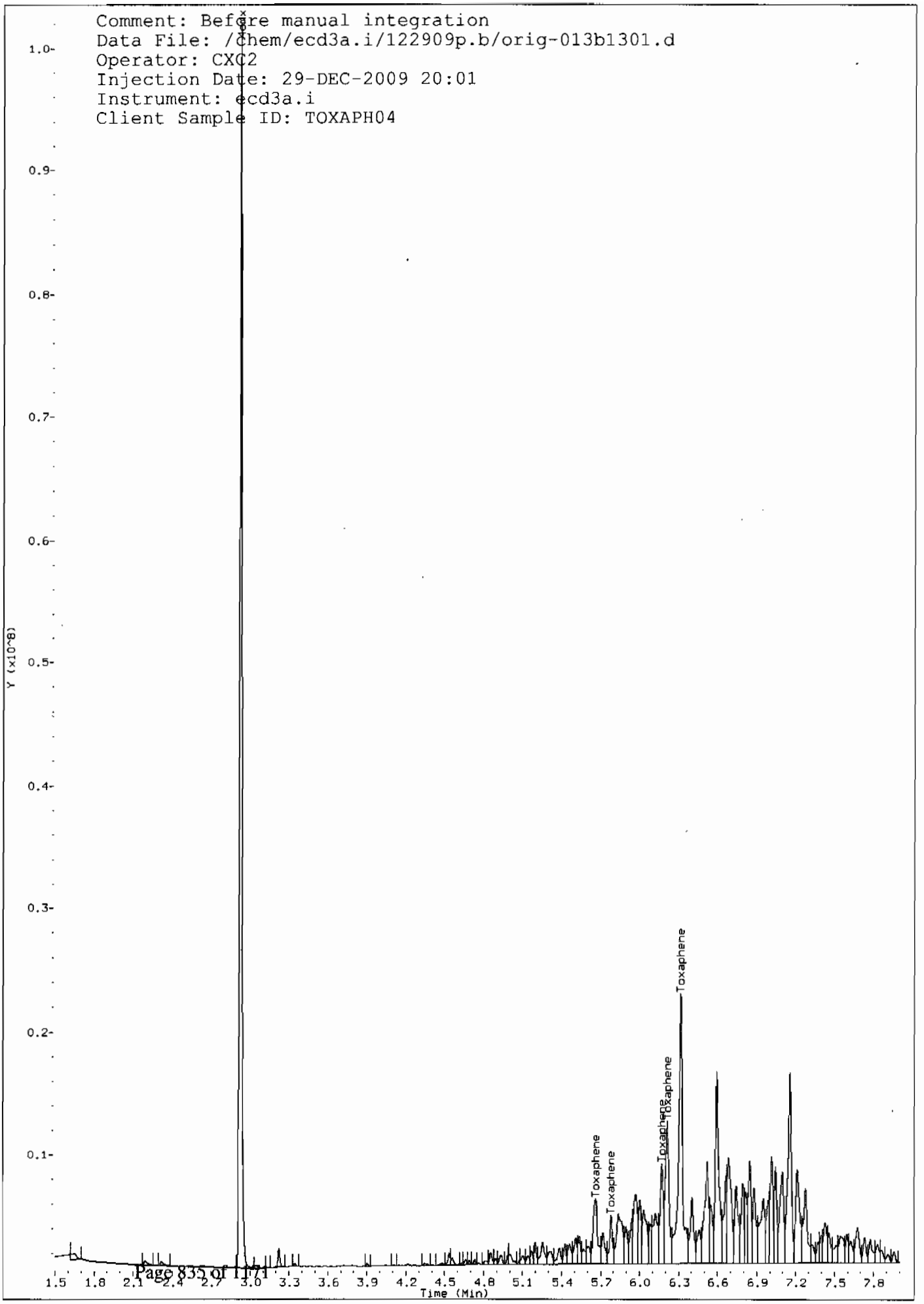

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CLP-1

Data file : /chem/ecd3a.i/122909p.b/014f1401.d
Lab Smp Id: IPE091121-40TX Client Smp ID: TOXAPH05
Inj Date : 29-DEC-2009 20:14
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |IPE091121-40TX
Misc Info : |TOXLEVEL5
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 14 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.003	5.005	-0.002	1525138	3000.00	3140	80.00- 120.00	100.00(AM)
5.110	5.109	0.001	2301981	3000.00	3050	136.78- 176.78	150.94
5.195	5.194	0.001	2830535	3000.00	3250	169.96- 209.96	185.59
5.356	5.353	0.003	3703424	3000.00	3260	213.58- 253.58	242.83
5.546	5.544	0.002	6757271	3000.00	3340	347.48- 387.48	443.06
Average of Peak Amounts =					3.21e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.679	2.679	0.000	27303201	400.000	414	80.00- 120.00	100.00(A)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.823	7.824	-0.001	19107307	400.000	396	80.00- 120.00	100.00

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/014f1401.d
Date : 29-DEC-2009 20:14
Client ID: TOXAPH05
Sample Info: IIPE091121-40TX

Column phase: CLP-1

Instrument: ecd3a.i

Operator: CXC2
Column diameter: 0.25

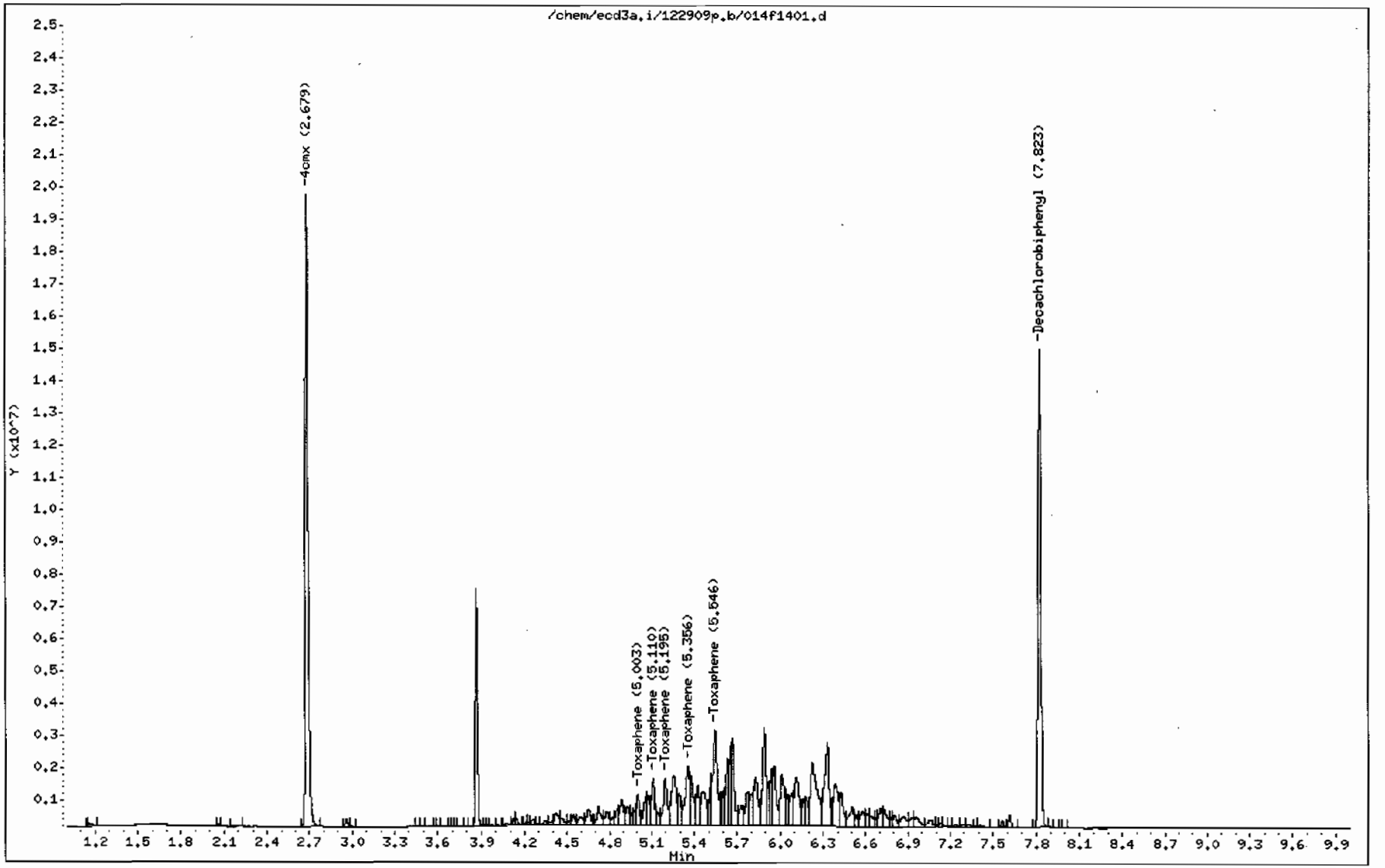

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/014f1401.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:14
Instrument: ecd3a.i
Client Sample ID: TOXAPH05

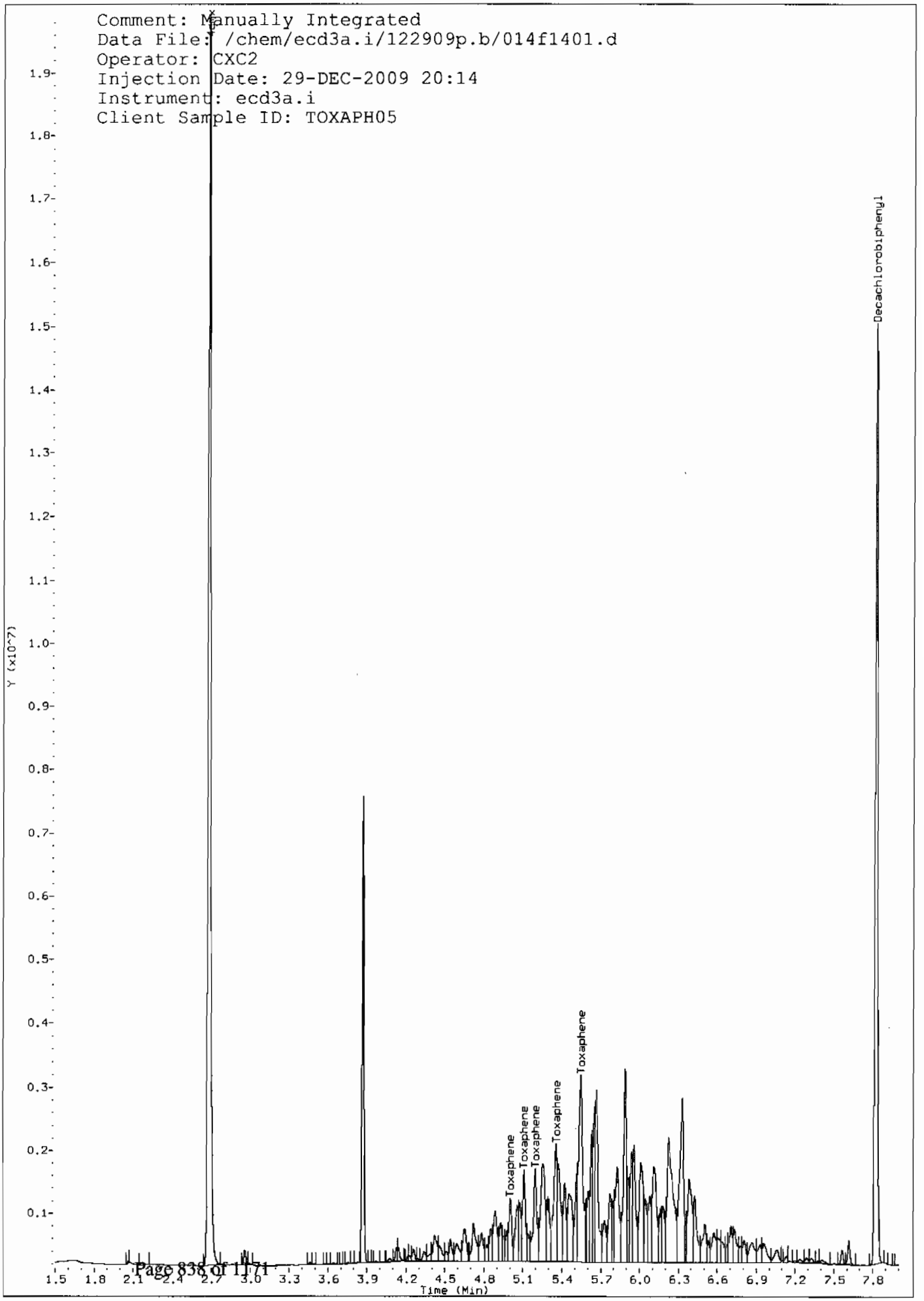

Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-014f1401.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:14
Instrument: ecd3a.i
Client Sample ID: TOXAPH05

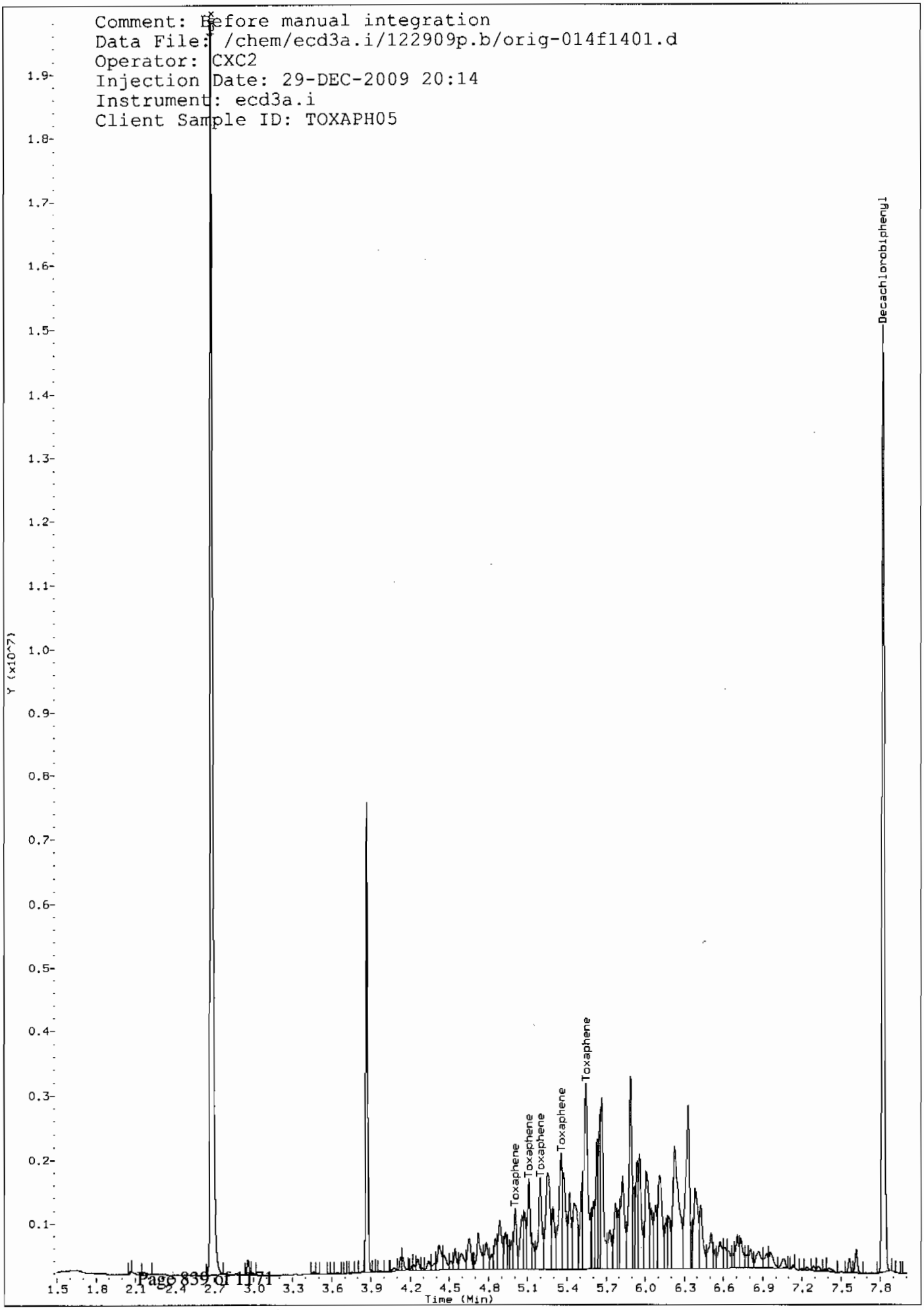

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/014b1401.d
Lab Smp Id: IPE091121-40TX Client Smp ID: TOXAPH05
Inj Date : 29-DEC-2009 20:14
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |IPE091121-40TX
Misc Info : |TOXLEVEL5
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 14 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.660	5.653	0.007	16010477	3000.00	3160	80.00- 120.00	100.00(AM)
5.779	5.778	0.001	9581089	3000.00	3200	37.72- 77.72	59.84
6.168	6.168	0.000	19489464	3000.00	3240	78.89- 118.89	121.73
6.212	6.210	0.002	33371554	3000.00	3150	158.10- 198.10	208.44
6.314	6.313	0.001	59627301	3000.00	3110	271.11- 311.11	372.43
Average of Peak Amounts =					3.17e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.923	2.922	0.001	171009753	400.000	365	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.860	8.860	0.000	132316885	400.000	403	80.00- 120.00	100.00

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/014b1401.d
Date : 29-DEC-2009 20:14
Client ID: TOXAPH05
Sample Info: IIPE091121-40TX

Column phase: CLP-2

Instrument: ecd3a.i

Operator: CXC2
Column diameter: 0.25

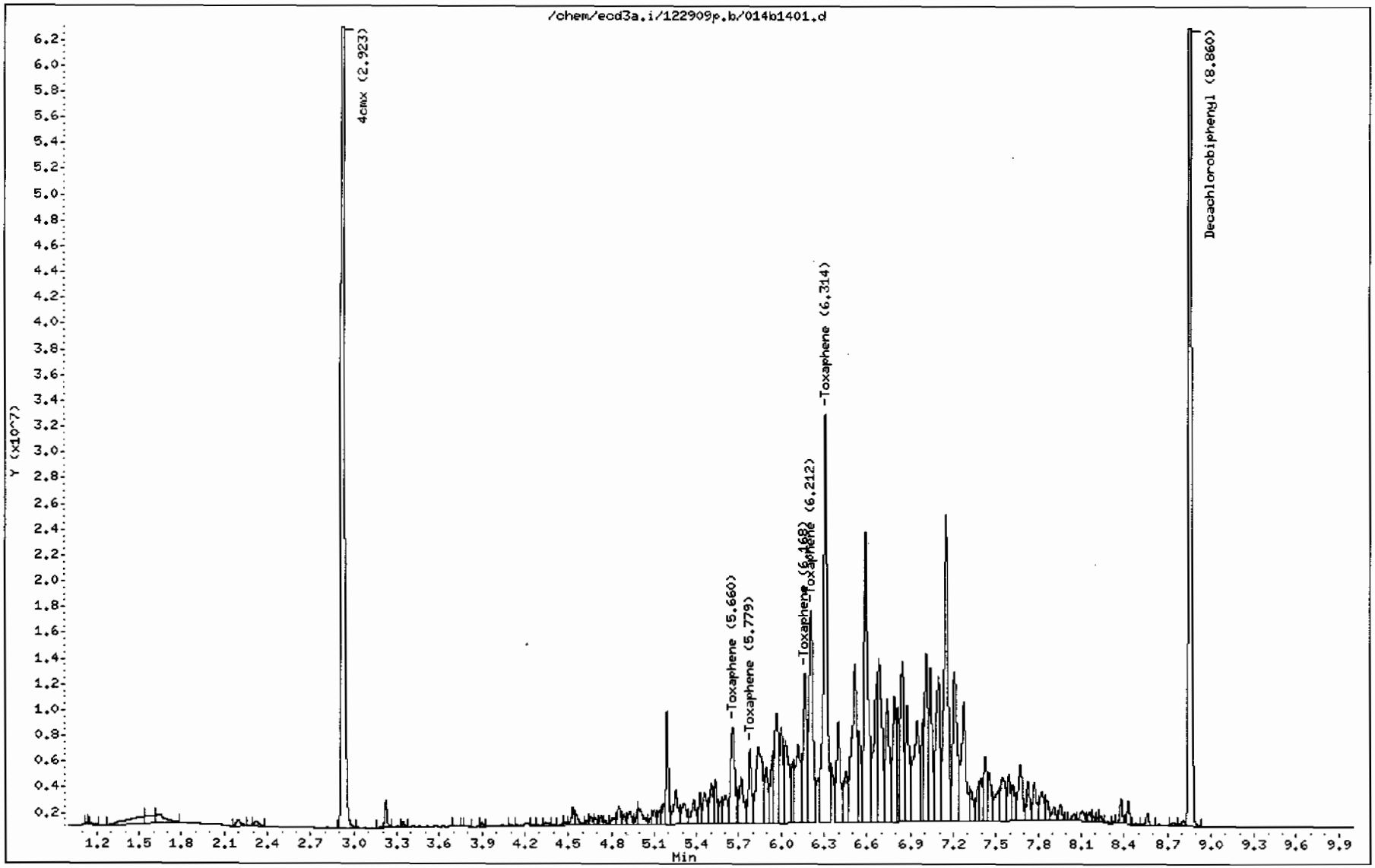

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/014b1401.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:14
Instrument: ecd3a.i
Client Sample ID: TOXAPH05

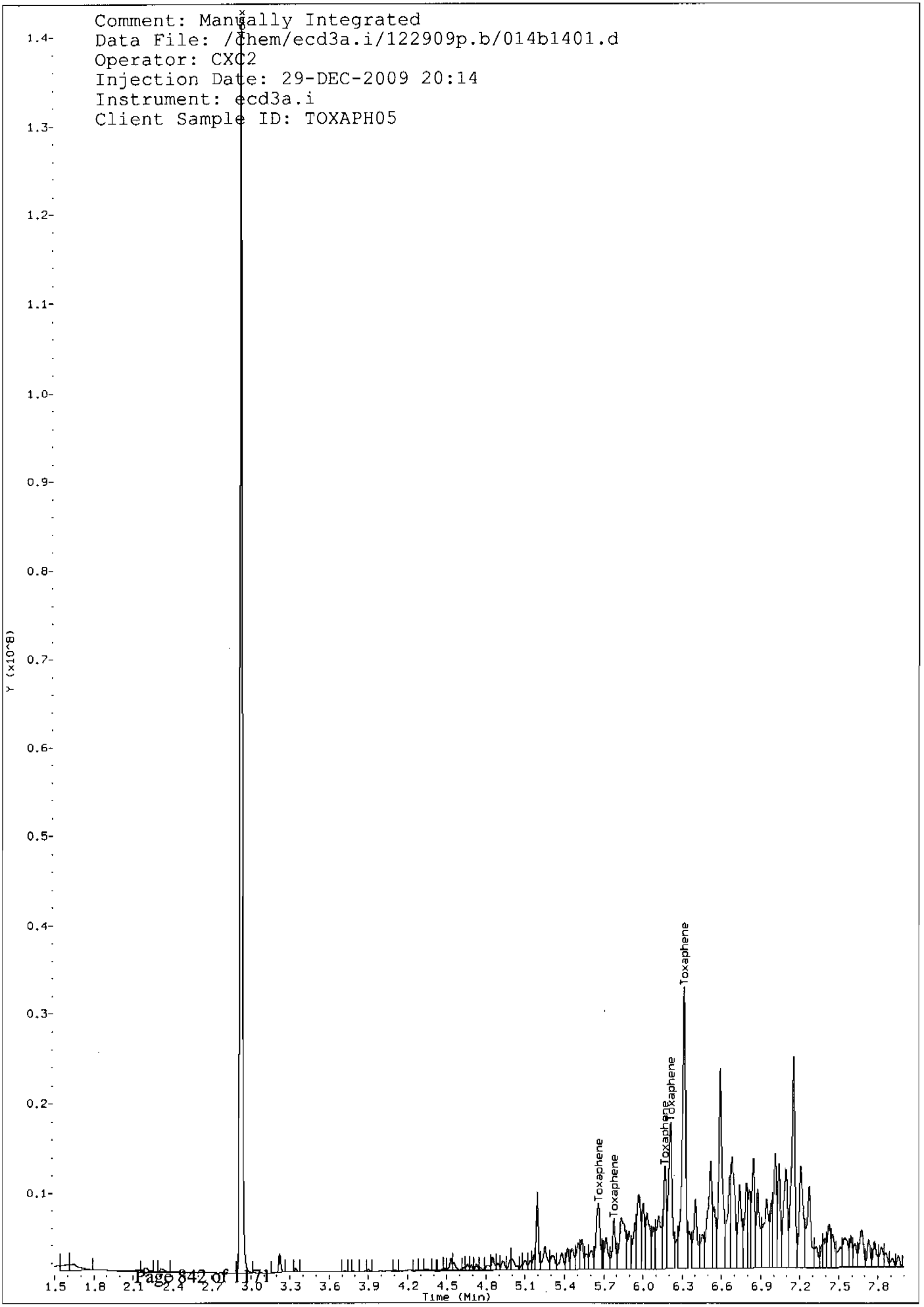

Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-014b1401.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:14
Instrument: ecd3a.i
Client Sample ID: TOXAPH05

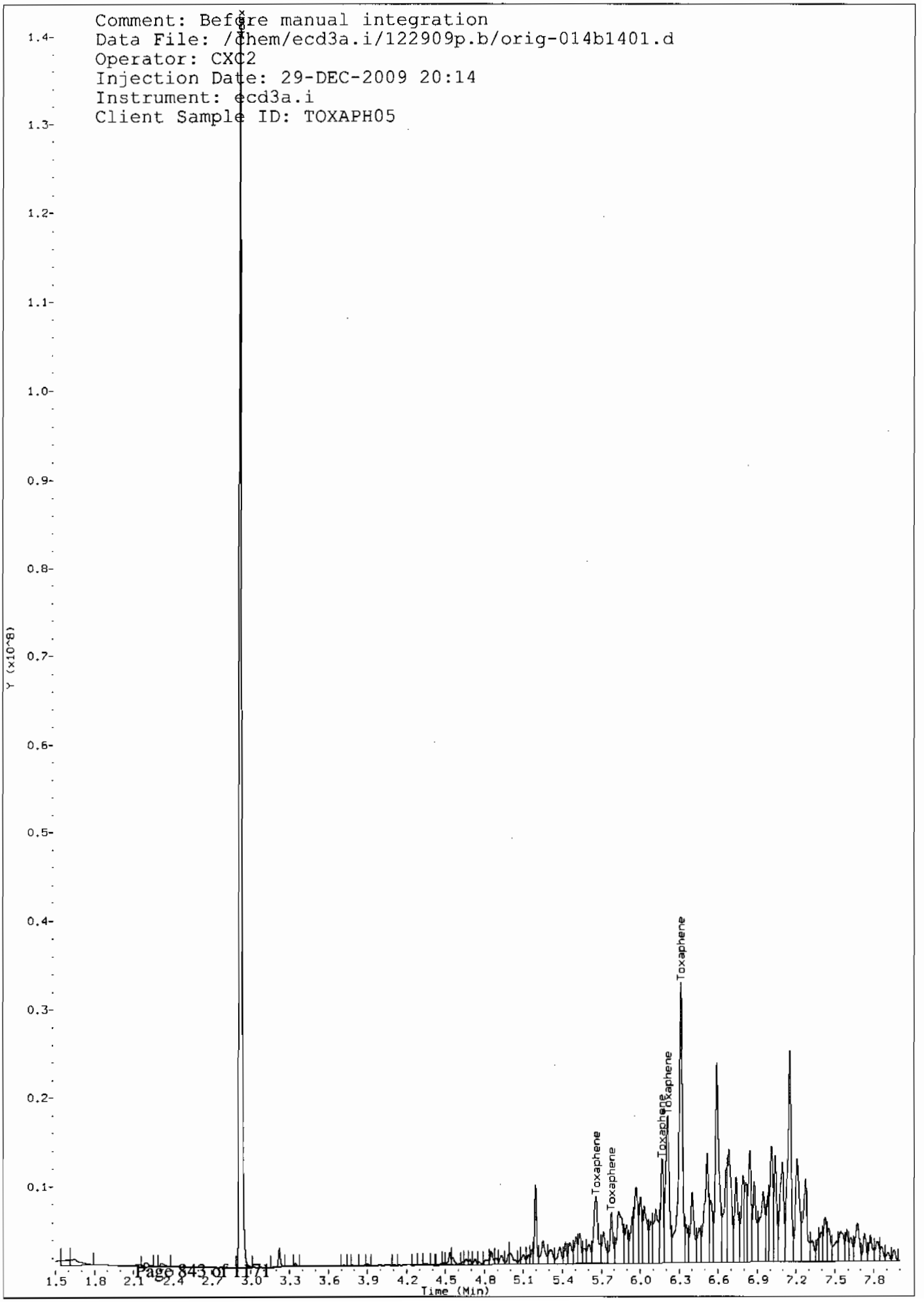

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1020

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM Date Analyzed :12/29/09

Lab Sample ID (PEM): WPE091219-99 Time Analyzed :1710

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	3.97	3.94	4.00	127	100	27.0
4,4'-DDE						
Endrin	5.33	5.30	5.36	120	100	20.0
4,4'-DDD						
4,4'-DDT	5.67	5.64	5.70	105	100	5.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 1.30 Endrin % breakdown (1): 3.30

Combined % breakdown (1): 4.60

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1020

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM Date Analyzed :12/29/09

Lab Sample ID (PEM): WPE091219-99 Time Analyzed :1710

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.45	4.42	4.48	117	100	17.0
4,4'-DDE						
Endrin	6.00	5.97	6.03	113	100	13.0
4,4'-DDD						
4,4'-DDT	6.44	6.41	6.47	102	100	2.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 1.00 Endrin % breakdown (1): 5.40

Combined % breakdown (1): 6.40

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1020

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM02 Date Analyzed :12/29/09

Lab Sample ID (PEM): WPE091219-99 Time Analyzed :2222

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	3.97	3.94	4.00	131	100	31.0
4,4'-DDE						
Endrin	5.33	5.30	5.36	120	100	20.0
4,4'-DDD						
4,4'-DDT	5.67	5.64	5.70	104	100	4.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 3.30 Endrin % breakdown (1): 5.70

Combined % breakdown (1): 9.00

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1020

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM02 Date Analyzed :12/29/09

Lab Sample ID (PEM): WPE091219-99 Time Analyzed :2222

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.45	4.42	4.48	120	100	20.0
4,4'-DDE						
Endrin	6.00	5.97	6.03	122	100	22.0
4,4'-DDD						
4,4'-DDT	6.44	6.41	6.47	106	100	6.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 2.90 Endrin % breakdown (1): 8.60

Combined % breakdown (1): 11.50

FORM VII PEST-1 OLM03.0

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1020

Instrument ID: ECD3A Calibration Date: 12/29/09 Time: 1843

Lab File ID: 008F0801 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1829

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d
alpha-BHC	92.2	100	LINR	-7.8	15.0
beta-BHC	103	100	AVRG	3.0	15.0
delta-BHC	92.0	100	LINR	-8.0	15.0
gamma-BHC (Lindane)	113	100	AVRG	13.0	15.0
Heptachlor	102	100	AVRG	2.0	15.0
Aldrin	104	100	AVRG	4.0	15.0
Heptachlor epoxide	106	100	AVRG	6.0	15.0
Endosulfan I	111	100	AVRG	11.0	15.0
Dieldrin	212	200	AVRG	6.0	15.0
4,4'-DDE	215	200	AVRG	7.5	15.0
Endrin	227	200	AVRG	13.5	15.0
Endosulfan II	216	200	AVRG	8.0	15.0
4,4'-DDD	214	200	AVRG	7.0	15.0
Endosulfan sulfate	210	200	AVRG	5.0	15.0
4,4'-DDT	218	200	AVRG	9.0	15.0
Methoxychlor	981	1000	AVRG	-1.9	15.0
Endrin ketone	198	200	AVRG	-1.0	15.0
Endrin aldehyde	201	200	AVRG	0.5	15.0
gamma-Chlordane	113	100	AVRG	13.0	15.0
alpha-Chlordane	98.8	100	AVRG	-1.2	15.0
4cmx	201	200	AVRG	0.5	15.0
Decachlorobiphenyl	189	200	AVRG	-5.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1020

Instrument ID: ECD3A Calibration Date: 12/29/09 Time: 1843

Lab File ID: 008B0801 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1829

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d	
alpha-BHC	105	100	AVRG	5.0	15.0	
beta-BHC	99.2	100	AVRG	-0.8	15.0	
delta-BHC	103	100	AVRG	3.0	15.0	
gamma-BHC (Lindane)	107	100	AVRG	7.0	15.0	
Heptachlor	97.0	100	AVRG	-3.0	15.0	
Aldrin	97.1	100	AVRG	-2.9	15.0	
Heptachlor epoxide	99.1	100	AVRG	-0.9	15.0	
Endosulfan I	104	100	AVRG	4.0	15.0	
Dieldrin	205	200	AVRG	2.5	15.0	
4,4'-DDE	206	200	AVRG	3.0	15.0	
Endrin	224	200	AVRG	12.0	15.0	
Endosulfan II	205	200	AVRG	2.5	15.0	
4,4'-DDD	208	200	AVRG	4.0	15.0	
Endosulfan sulfate	209	200	AVRG	4.5	15.0	
4,4'-DDT	216	200	AVRG	8.0	15.0	
Methoxychlor	950	1000	AVRG	-5.0	15.0	
Endrin ketone	198	200	AVRG	-1.0	15.0	
Endrin aldehyde	196	200	AVRG	-2.0	15.0	
gamma-Chlordane	124	100	LINR	24.0	15.0	<-
alpha-Chlordane	93.9	100	AVRG	-6.1	15.0	
4cmx	189	200	AVRG	-5.5	15.0	
Decachlorobiphenyl	189	200	AVRG	-5.5	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1020

Instrument ID: ECD3A Calibration Date: 12/29/09 Time: 2028

Lab File ID: 015F1501 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1856 2014

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D
Toxaphene	485.259	475.066	0.01	-2.1	15.0
(2)	754.120	744.815	0.01	-1.2	15.0
(3)	870.392	902.424	0.01	3.7	15.0
(4)	1136.606	1109.682	0.01	-2.4	15.0
(5)	2021.570	1745.770	0.01	-13.6	15.0
4cmx	65965.544	68377.170	0.01	3.6	15.0
Decachlorobiphenyl	48195.320	46919.335	0.01	-2.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1020

Instrument ID: ECD3A Calibration Date: 12/29/09 Time: 2028

Lab File ID: 015B1501 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1856 2014

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D	
Toxaphene	5065.852	5085.038	0.01	0.4	15.0	
(2)	2990.542	2935.114	0.01	-1.8	15.0	
(3)	6013.149	5028.560	0.01	-16.4	15.0	<-
(4)	10599.481	9056.420	0.01	-14.6	15.0	
(5)	19147.810	14802.930	0.01	-22.7	15.0	<-
4cmx	468997.97	453860.23	0.01	-3.2	15.0	
Decachlorobiphenyl	328222.63	319051.33	0.01	-2.8	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1020

Instrument ID: ECD3A Calibration Date: 12/30/09 Time: 0647

Lab File ID: 059F5901 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1829

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d	
alpha-BHC	95.2	100	LINR	-4.8	15.0	
beta-BHC	105	100	AVRG	5.0	15.0	
delta-BHC	94.6	100	LINR	-5.4	15.0	
gamma-BHC (Lindane)	116	100	AVRG	16.0	15.0	<-
Heptachlor	106	100	AVRG	6.0	15.0	
Aldrin	104	100	AVRG	4.0	15.0	
Heptachlor epoxide	108	100	AVRG	8.0	15.0	
Endosulfan I	113	100	AVRG	13.0	15.0	
Dieldrin	216	200	AVRG	8.0	15.0	
4,4'-DDE	217	200	AVRG	8.5	15.0	
Endrin	238	200	AVRG	19.0	15.0	<-
Endosulfan II	220	200	AVRG	10.0	15.0	
4,4'-DDD	226	200	AVRG	13.0	15.0	
Endosulfan sulfate	219	200	AVRG	9.5	15.0	
4,4'-DDT	225	200	AVRG	12.5	15.0	
Methoxychlor	1020	1000	AVRG	2.0	15.0	
Endrin ketone	210	200	AVRG	5.0	15.0	
Endrin aldehyde	207	200	AVRG	3.5	15.0	
gamma-Chlordane	115	100	AVRG	15.0	15.0	
alpha-Chlordane	99.9	100	AVRG	-0.1	15.0	
4cmx	201	200	AVRG	0.5	15.0	
Decachlorobiphenyl	180	200	AVRG	-10.0	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1020

Instrument ID: ECD3A Calibration Date: 12/30/09 Time: 0647

Lab File ID: 059B5901 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1829

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d	
alpha-BHC	104	100	AVRG	4.0	15.0	
beta-BHC	98.3	100	AVRG	-1.7	15.0	
delta-BHC	102	100	AVRG	2.0	15.0	
gamma-BHC (Lindane)	106	100	AVRG	6.0	15.0	
Heptachlor	95.4	100	AVRG	-4.6	15.0	
Aldrin	94.4	100	AVRG	-5.6	15.0	
Heptachlor epoxide	99.3	100	AVRG	-0.7	15.0	
Endosulfan I	106	100	AVRG	6.0	15.0	
Dieldrin	208	200	AVRG	4.0	15.0	
4,4'-DDE	205	200	AVRG	2.5	15.0	
Endrin	233	200	AVRG	16.5	15.0	<-
Endosulfan II	208	200	AVRG	4.0	15.0	
4,4'-DDD	215	200	AVRG	7.5	15.0	
Endosulfan sulfate	217	200	AVRG	8.5	15.0	
4,4'-DDT	213	200	AVRG	6.5	15.0	
Methoxychlor	941	1000	AVRG	-5.9	15.0	
Endrin ketone	204	200	AVRG	2.0	15.0	
Endrin aldehyde	197	200	AVRG	-1.5	15.0	
gamma-Chlordane	91.6	100	LINR	-8.4	15.0	
alpha-Chlordane	94.0	100	AVRG	-6.0	15.0	
4cmx	185	200	AVRG	-7.5	15.0	
Decachlorobiphenyl	191	200	AVRG	-4.5	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1020

Instrument ID: ECD3A Calibration Date: 12/30/09 Time: 0850

Lab File ID: 068F6801 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1829

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d
alpha-BHC	94.5	100	LINR	-5.5	15.0
beta-BHC	104	100	AVRG	4.0	15.0
delta-BHC	93.8	100	LINR	-6.2	15.0
gamma-BHC (Lindane)	115	100	AVRG	15.0	15.0
Heptachlor	105	100	AVRG	5.0	15.0
Aldrin	103	100	AVRG	3.0	15.0
Heptachlor epoxide	108	100	AVRG	8.0	15.0
Endosulfan I	113	100	AVRG	13.0	15.0
Dieldrin	215	200	AVRG	7.5	15.0
4,4'-DDE	215	200	AVRG	7.5	15.0
Endrin	229	200	AVRG	14.5	15.0
Endosulfan II	218	200	AVRG	9.0	15.0
4,4'-DDD	225	200	AVRG	12.5	15.0
Endosulfan sulfate	220	200	AVRG	10.0	15.0
4,4'-DDT	221	200	AVRG	10.5	15.0
Methoxychlor	1000	1000	AVRG	0.0	15.0
Endrin ketone	213	200	AVRG	6.5	15.0
Endrin aldehyde	207	200	AVRG	3.5	15.0
gamma-Chlordane	114	100	AVRG	14.0	15.0
alpha-Chlordane	99.2	100	AVRG	-0.8	15.0
4cmx	200	200	AVRG	0.0	15.0
Decachlorobiphenyl	194	200	AVRG	-3.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-1020

Instrument ID: ECD3A Calibration Date: 12/30/09 Time: 0850

Lab File ID: 068B6801 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1734 1829

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d
alpha-BHC	99.2	100	AVRG	-0.8	15.0
beta-BHC	95.3	100	AVRG	-4.7	15.0
delta-BHC	100	100	AVRG	0.0	15.0
gamma-BHC (Lindane)	102	100	AVRG	2.0	15.0
Heptachlor	93.4	100	AVRG	-6.6	15.0
Aldrin	93.7	100	AVRG	-6.3	15.0
Heptachlor epoxide	99.0	100	AVRG	-1.0	15.0
Endosulfan I	107	100	AVRG	7.0	15.0
Dieldrin	210	200	AVRG	5.0	15.0
4,4'-DDE	207	200	AVRG	3.5	15.0
Endrin	228	200	AVRG	14.0	15.0
Endosulfan II	210	200	AVRG	5.0	15.0
4,4'-DDD	219	200	AVRG	9.5	15.0
Endosulfan sulfate	217	200	AVRG	8.5	15.0
4,4'-DDT	217	200	AVRG	8.5	15.0
Methoxychlor	955	1000	AVRG	-4.5	15.0
Endrin ketone	208	200	AVRG	4.0	15.0
Endrin aldehyde	204	200	AVRG	2.0	15.0
gamma-Chlordane	91.7	100	LINR	-8.3	15.0
alpha-Chlordane	94.5	100	AVRG	-5.5	15.0
4cmx	180	200	AVRG	-10.0	15.0
Decachlorobiphenyl	198	200	AVRG	-1.0	15.0

FORM VII PEST

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/122909p.b/002f0201.d
Lab Smp Id: WPE091219-99DG Client Smp ID: PEM01
Inj Date : 29-DEC-2009 17:10
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091219-99DG
Misc Info : |PEM|
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 12:18 hea01125 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
3.971	3.970	0.001	9658370	127.204	127	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.334	5.334	0.000	6299359	119.547	120	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.983	5.982	0.001	93713	1.98903	1.99	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.674	5.673	0.001	4641338	105.156	105	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.733	6.732	0.001	124130	2.01223	2.01	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.680	2.679	0.001	13296049	201.561	202	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.823	7.824	-0.001	9186736	190.615	191	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/122909p.b/002f0201.d
Date : 29-DEC-2009 17:10
Client ID: PEW01
Sample Info: IWPE091219-99DC
Column phase: CLP-1

Instrument: ecd3a.i
Operator: CXC2
Column diameter: 0.25

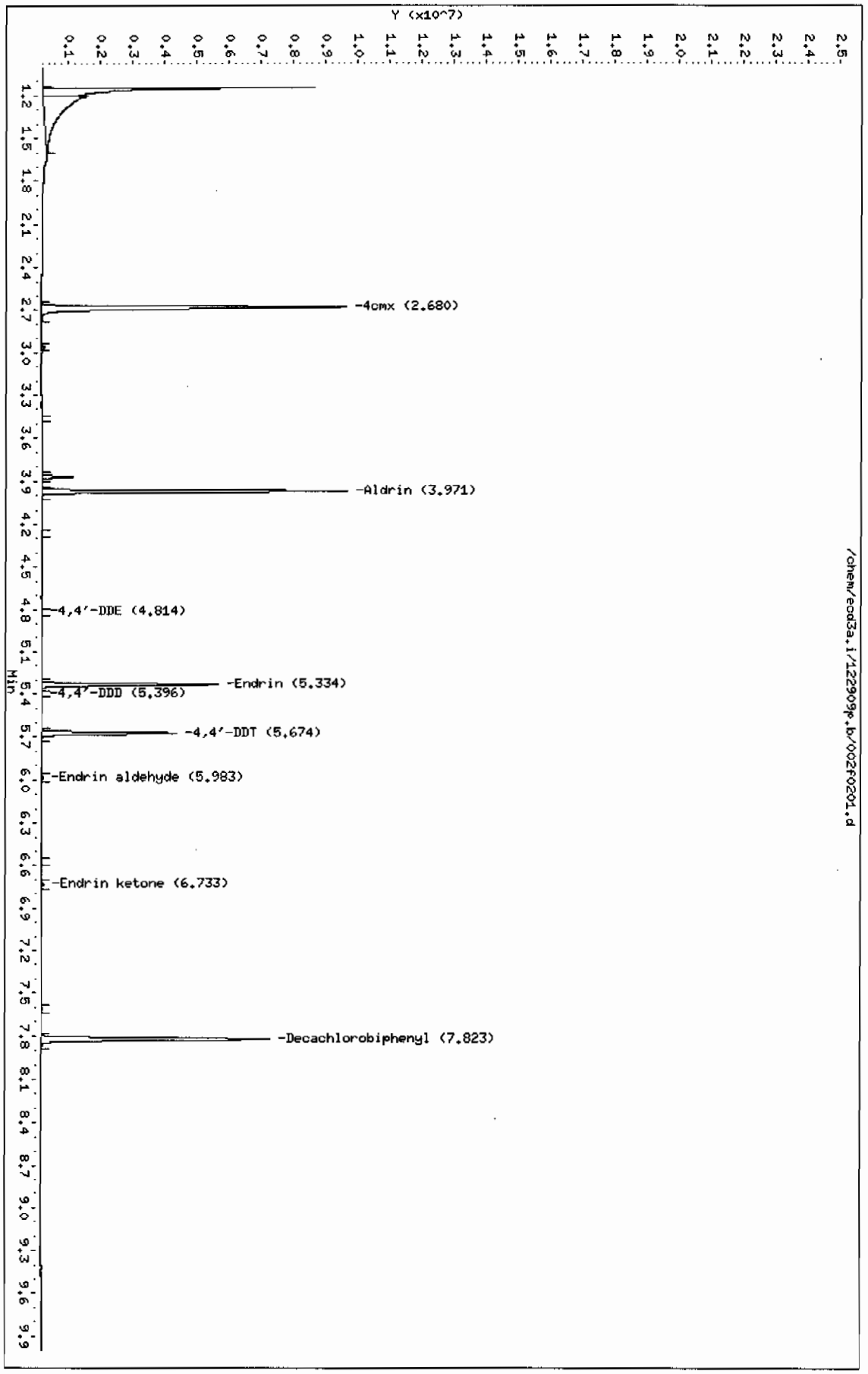

Page 1

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CLP-2

Data file : /chem/ecd3a.i/122909p.b/002b0201.d
Lab Smp Id: WPE091219-99DG Client Smp ID: PEM01
Inj Date : 29-DEC-2009 17:10
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091219-99DG
Misc Info : |PEM|
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 12:18 hea01125 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.450	4.449	0.001	43590706	117.326	117	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
6.002	6.001	0.001	31184744	113.182	113	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
6.580	6.579	0.001	698179	2.14132	2.14	80.00- 120.00	100.00(M)
26 4,4'-DDT					CAS #: 50-29-3		
6.440	6.439	0.001	32609759	102.173	102	80.00- 120.00	100.00(M)
31 Endrin ketone					CAS #: 53494-70-5		
7.472	7.473	-0.001	1109408	2.20706	2.21	80.00- 120.00	100.00(M)
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.922	0.000	88523499	188.750	189	80.00- 120.00	100.00(RM)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.860	8.860	0.000	60681664	184.880	185	80.00- 120.00	100.00(RM)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/002b0201.d

Date : 29-DEC-2009 17:10

Client ID: PEM01

Sample Info: IWPE091219-99DG

Column phase: CLP-2

Instrument: ecd3a.i

Operator: CXC2

Column diameter: 0.25

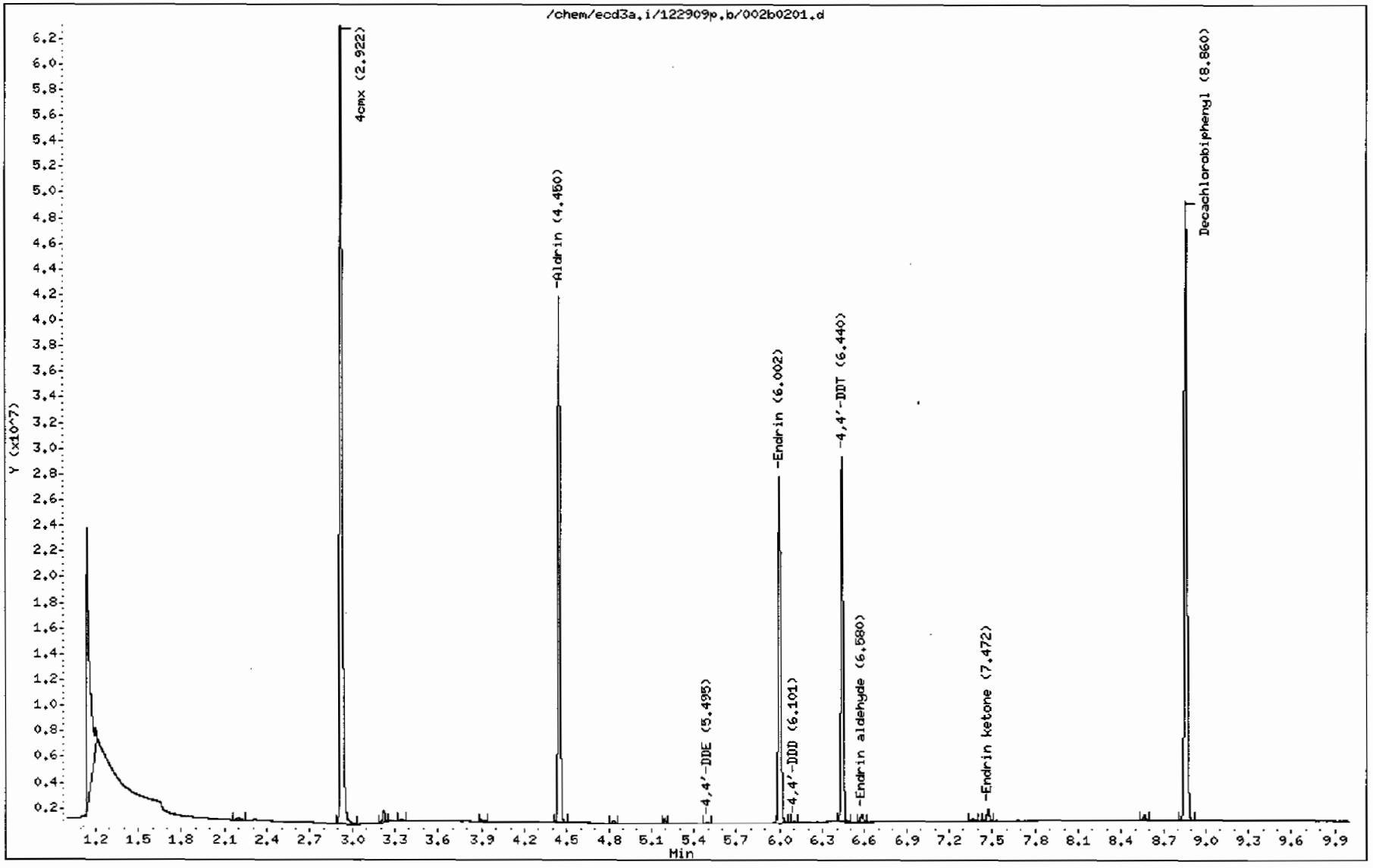

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CLP-1

Data file : /chem/ecd3a.i/122909p.b/022f2201.d
Lab Smp Id: WPE091219-99DG Client Smp ID: PEM02
Inj Date : 29-DEC-2009 22:22
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091219-99DG
Misc Info : |PEM|
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 22 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
3.969	3.970	-0.001	9928528	130.762	131	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.809	4.811	-0.002	25236	0.38068	0.381	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.332	5.334	-0.002	6298756	119.535	120	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.394	5.394	0.000	129880	2.51666	2.52	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.982	5.982	0.000	141032	2.99336	2.99	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.672	5.673	-0.001	4588835	103.966	104	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.732	6.732	0.000	241452	3.91409	3.91	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.678	2.679	-0.001	13696271	207.628	208	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.821	7.824	-0.003	9340006	193.795	194	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/022f2201.d
Date : 29-DEC-2009 22:22
Client ID: PEM02
Sample Info: IWPE091219-99DG

Column phase: CLP-1

Instrument: ecd3a.i

Operator: CXC2
Column diameter: 0.25

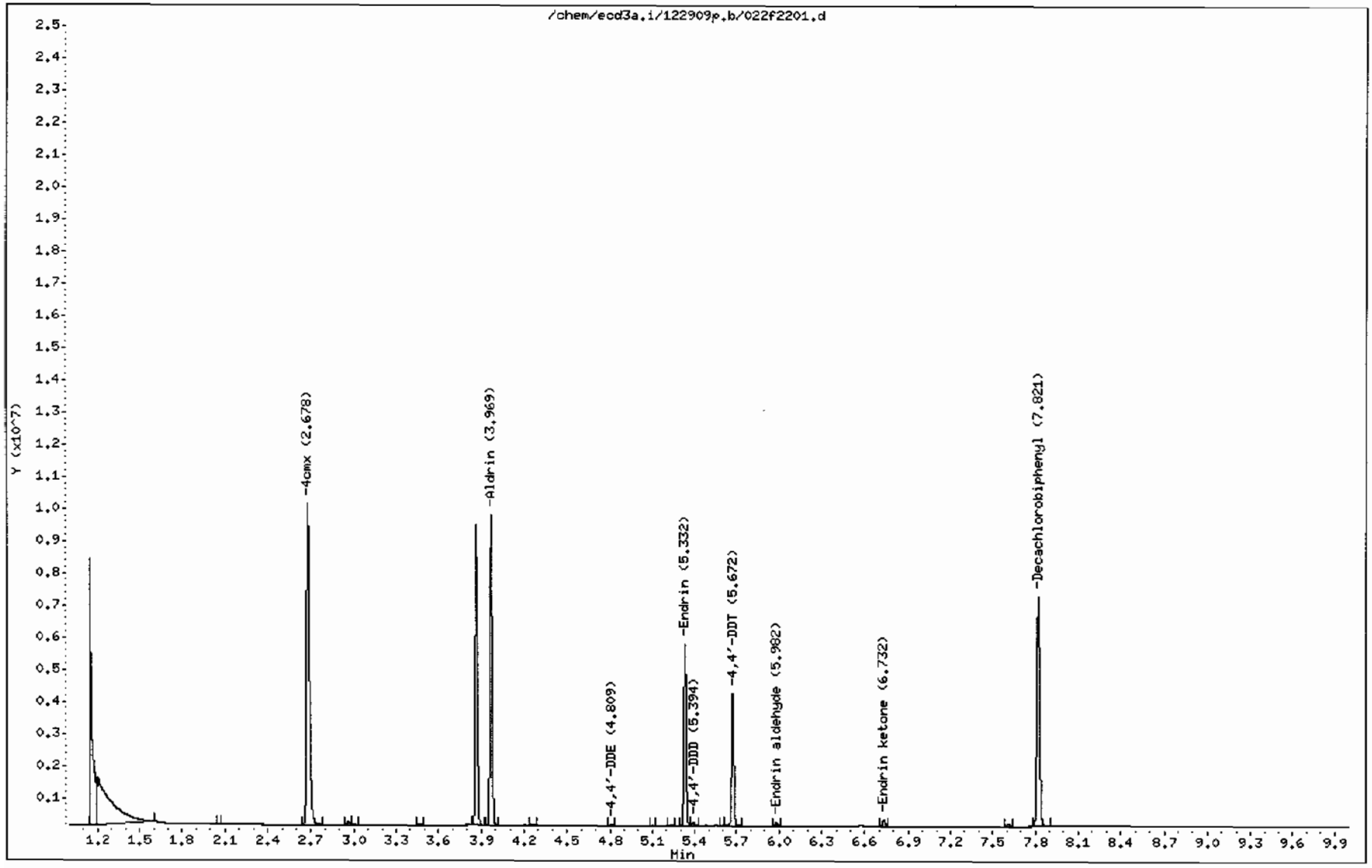

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/022b2201.d
Lab Smp Id: WPE091219-99DG Client Smp ID: PEM02
Inj Date : 29-DEC-2009 22:22
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091219-99DG
Misc Info : |PEM|
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 22 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.448	4.449	-0.001	44464282	119.677	120	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.493	5.494	-0.001	151657	0.57886	0.579	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
6.000	6.001	-0.001	33549442	121.764	122	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.099	6.100	-0.001	875947	3.01220	3.01	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.579	6.579	0.000	1057074	3.24205	3.24	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.438	6.439	-0.001	34005235	106.546	106	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.472	7.473	-0.001	2107729	4.19312	4.19	80.00- 120.00	100.00
$ 1 4cmx			.		CAS #: 877-09-8		
2.922	2.922	0.000	91105131	194.255	194	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.859	8.860	-0.001	64241353	195.725	196	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/022b2201.d
Date : 29-DEC-2009 22:22
Client ID: PEM02
Sample Info: IWPE091219-99DG
Column phase: CLP-2

Instrument: ecd3a.i
Operator: CXC2
Column diameter: 0.25

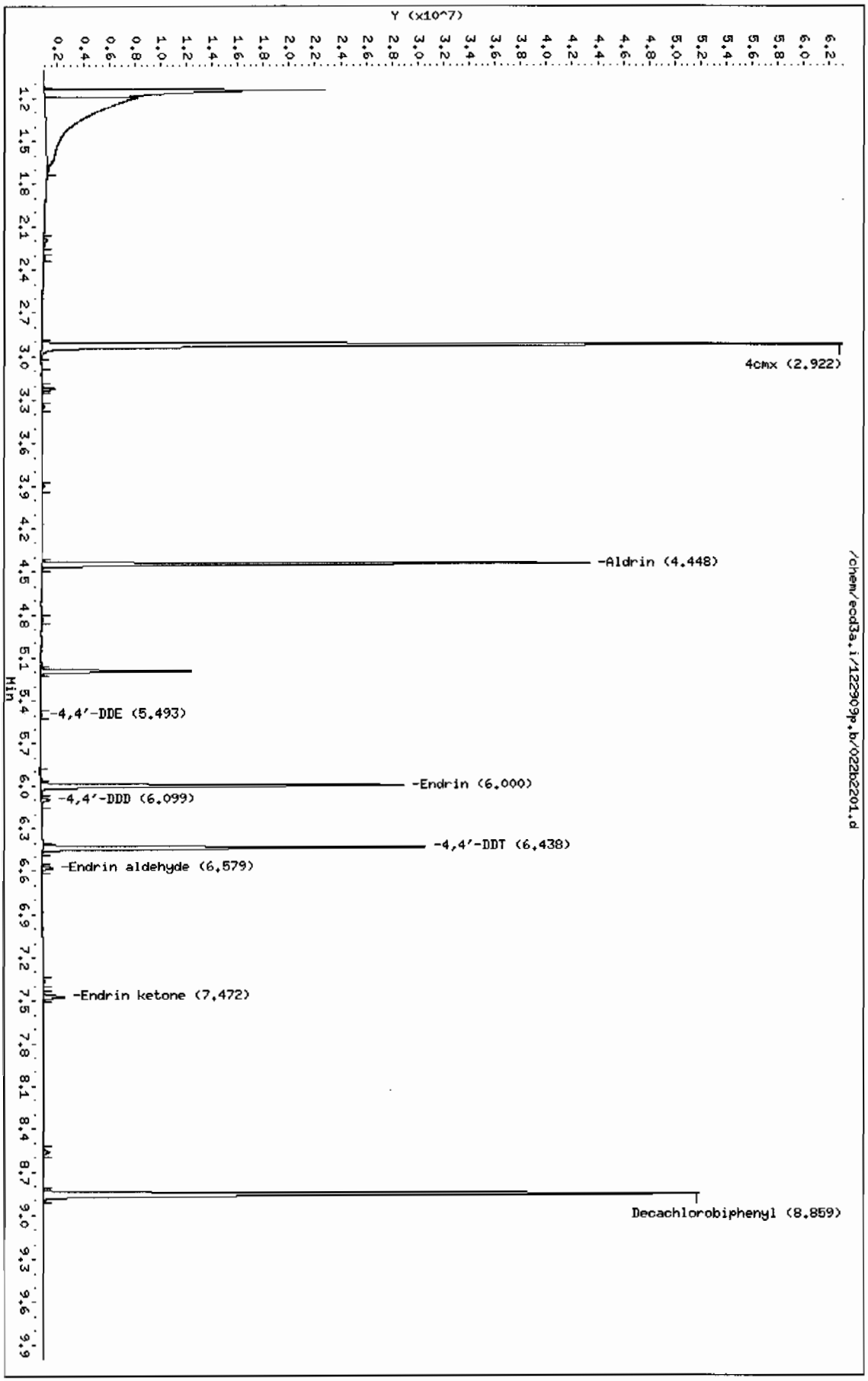

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GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/122909p.b/008f0801.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB01
Inj Date : 29-DEC-2009 18:43
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.085	3.085	0.000	9704399	100.000	92.2	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.330	3.330	0.000	8901265	100.000	113	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.393	3.393	0.000	3573189	100.000	103	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.713	3.713	0.000	6534253	100.000	102	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.542	3.542	0.000	8604262	100.000	92.0	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.970	3.970	0.000	7891657	100.000	104	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.507	4.507	0.000	7091737	100.000	106	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.621	4.621	0.000	7478328	100.000	113	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.744	4.744	0.000	6533774	100.000	98.8	80.00- 120.00	100.00

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.877	4.877	0.000	6604189	100.000	111	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.811	4.811	0.000	14249707	200.000	215	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.105	5.105	0.000	14394345	200.000	212	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.334	5.334	0.000	11981884	200.000	227	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.394	5.394	0.000	11052396	200.000	214	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.558	5.558	0.000	12050906	200.000	216	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.982	5.982	0.000	9472512	200.000	201	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.673	5.673	0.000	9643771	200.000	218	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.434	6.434	0.000	9906168	200.000	210	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.177	6.177	0.000	21129665	1000.00	981	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.732	6.732	0.000	12225226	200.000	198	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.679	2.679	0.000	13270729	200.000	201	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.824	7.824	0.000	9109612	200.000	189	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/122909p.b/008f0801.d
Date : 29-DEC-2009 18:43
Client ID: INDCB01
Sample Info: IWFE091218-10AB
Column phase: CLP-1

Instrument: ecd3a.i
Operator: CXC2
Column diameter: 0.25

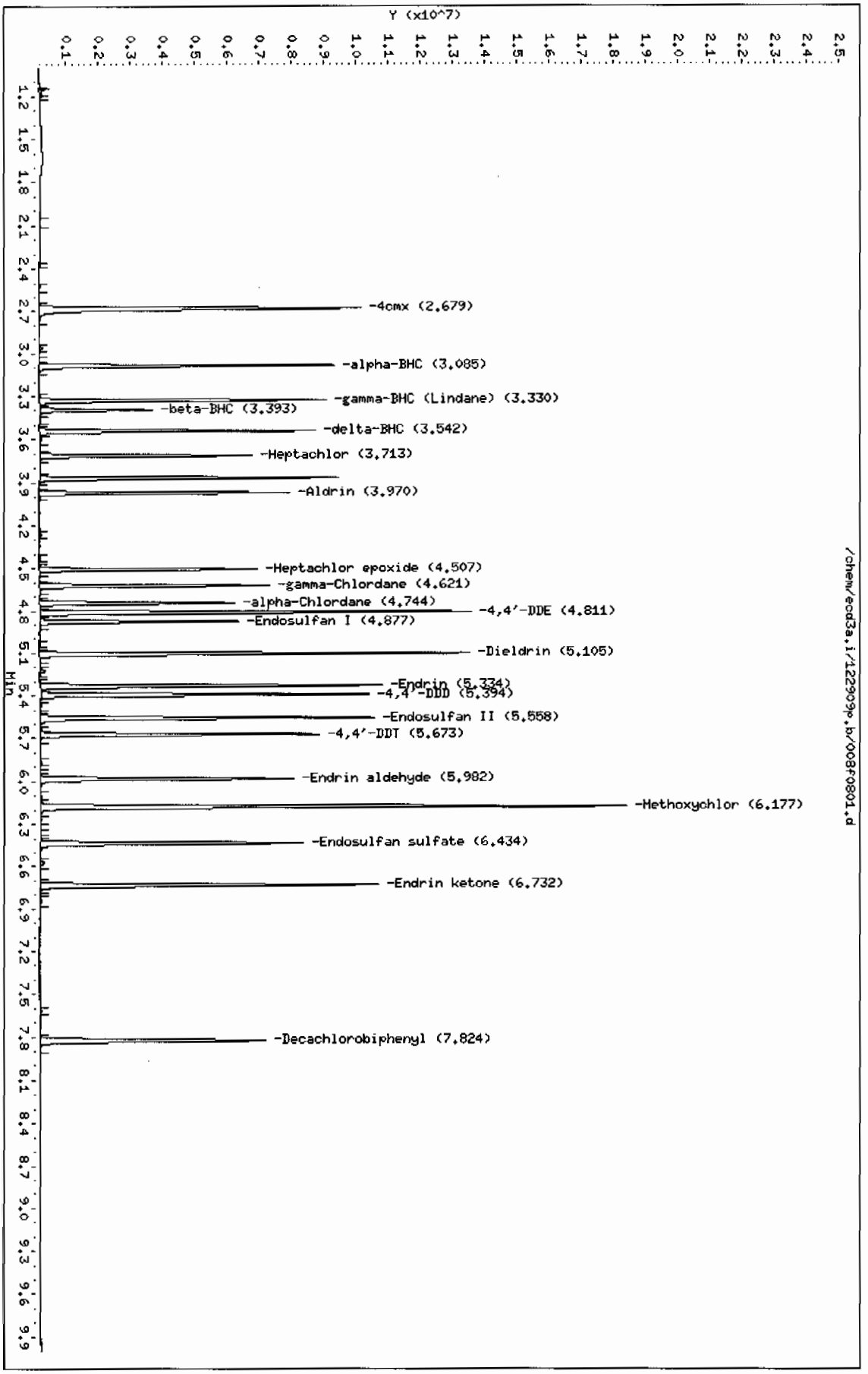

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/008b0801.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB01
Inj Date : 29-DEC-2009 18:43
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.414	3.414	0.000	68385771	100.000	105	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.723	3.723	0.000	57889372	100.000	107	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.785	3.785	0.000	22766551	100.000	99.2	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.137	4.137	0.000	39962902	100.000	97.0	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.057	4.057	0.000	52534169	100.000	103	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.449	4.449	0.000	36066518	100.000	97.1	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.999	4.999	0.000	26509244	100.000	99.1	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.191	5.191	0.000	37281382	100.000	124	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.337	5.337	0.000	24523160	100.000	93.9	80.00- 120.00	100.00

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.401	5.401	0.000	25677413	100.000	104	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.494	5.494	0.000	53938373	200.000	206	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.681	5.681	0.000	60149765	200.000	205	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.001	6.001	0.000	61612440	200.000	224	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.100	6.100	0.000	60450015	200.000	208	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.222	6.222	0.000	67446704	200.000	205	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.579	6.579	0.000	63827031	200.000	196	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.439	6.439	0.000	69103247	200.000	216	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.882	6.882	0.000	86103108	200.000	209	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.182	7.182	0.000	170792216	1000.00	950	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.473	7.473	0.000	99391984	200.000	198	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.922	0.000	88461418	200.000	189	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.860	8.860	0.000	62039066	200.000	189	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/122909p.b/008b0801.d
Date : 29-DEC-2009 18:43
Client ID: INDAB01
Sample Info: WPE091218-10AB
Column phase: CLP-2

Instrument: ecd3a.i
Operator: CXC2
Column diameter: 0.25

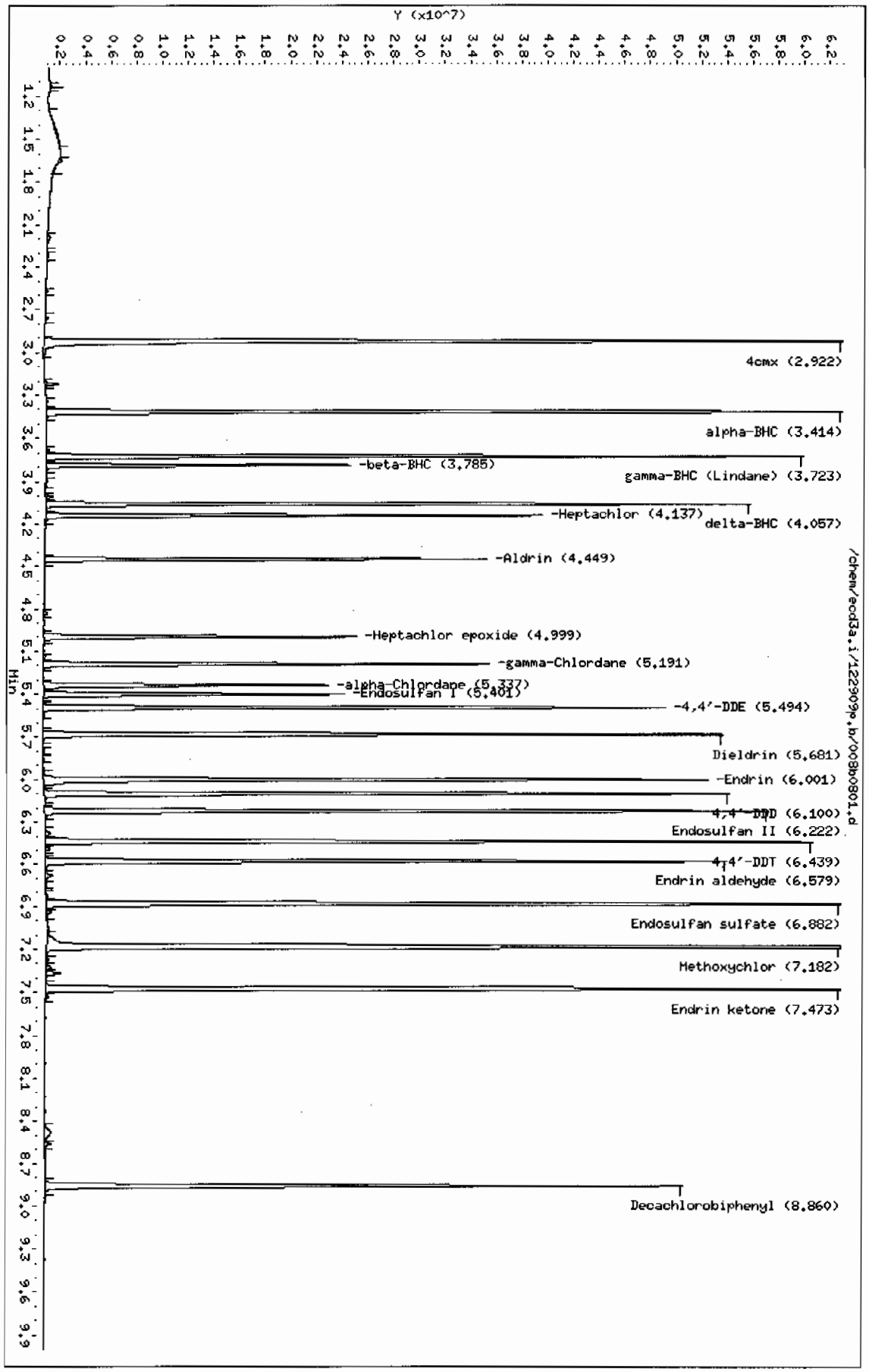

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GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/122909p.b/015f1501.d
Lab Smp Id: WPE091219-52TX Client Smp ID: TOXAPH01
Inj Date : 29-DEC-2009 20:28
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091219-52TX
Misc Info : |TOXICV
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 15 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.005	5.005	0.000	950132	2000.00	1960	80.00- 120.00	100.00(M)
5.109	5.109	0.000	1489630	2000.00	1980	136.78- 176.78	156.78
5.194	5.194	0.000	1804848	2000.00	2070	169.96- 209.96	189.96
5.353	5.353	0.000	2219365	2000.00	1950	213.58- 253.58	233.58
5.544	5.544	0.000	3491539	2000.00	1730	347.48- 387.48	367.48
Average of Peak Amounts =					1.94e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.679	2.679	0.000	13675434	200.000	207	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.823	7.824	-0.001	9383867	200.000	195	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/015f1501.d

Date : 29-DEC-2009 20:28

Client ID: TOXAPH01

Sample Info: IWPE091219-52TX

Column phase: CLP-1

Instrument: ecd3a.i

Operator: CXC2

Column diameter: 0.25

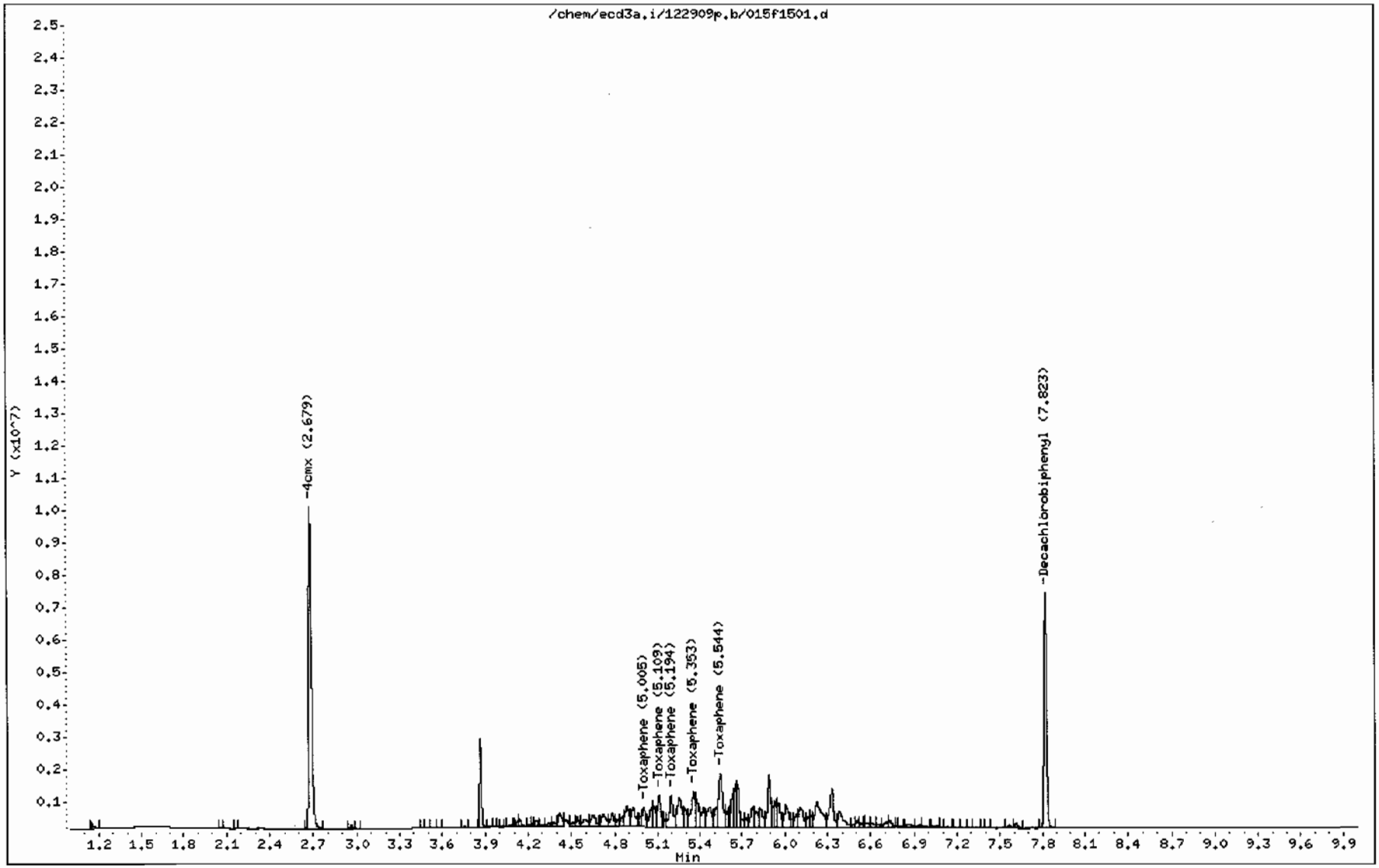

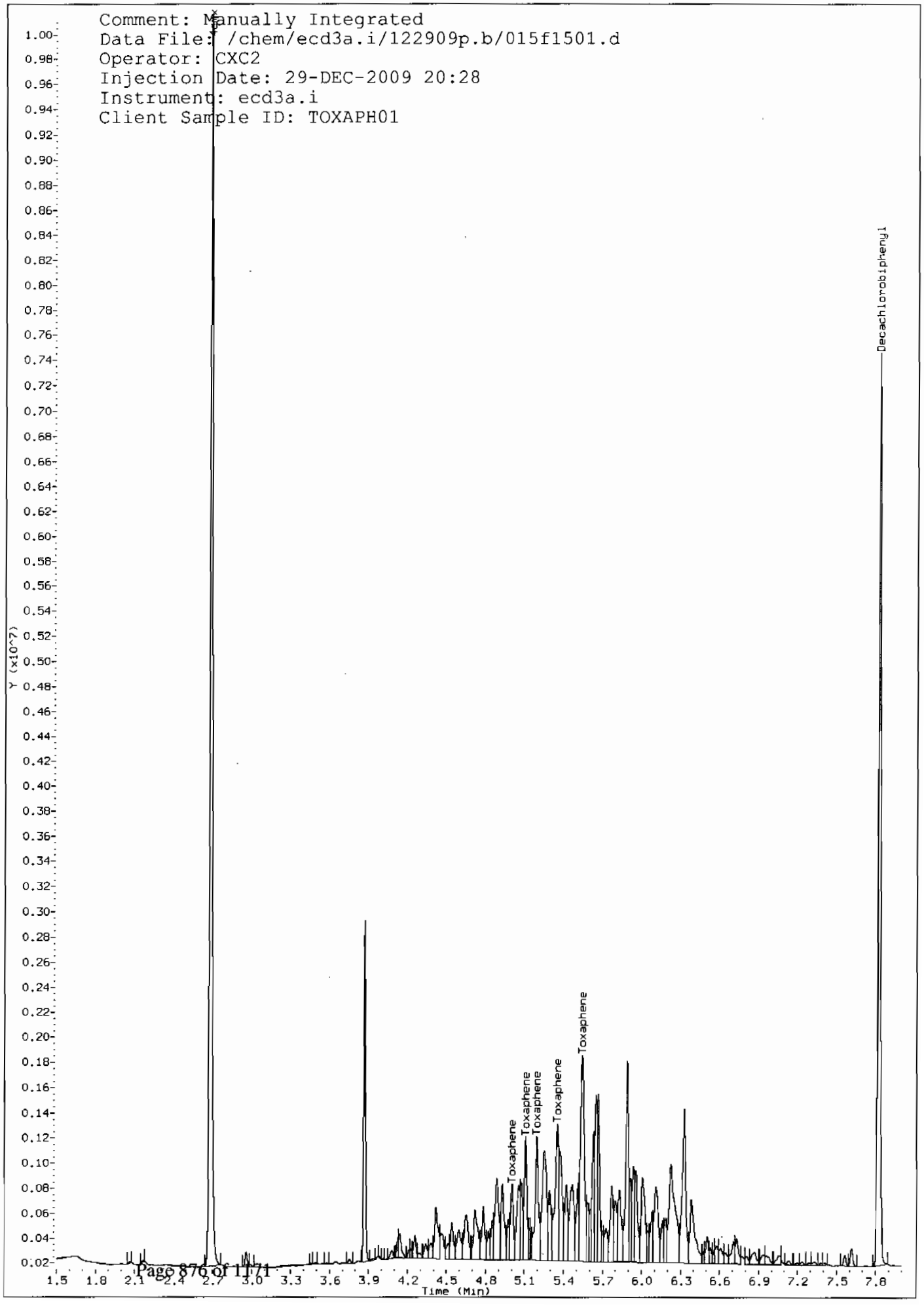
Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/015f1501.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:28
Instrument: ecd3a.i
Client Sample ID: TOXAPH01
Y (x10^7)
Time (Min)
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Decachlorobiphenyl

Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-015f1501.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:28
Instrument: ecd3a.i
Client Sample ID: TOXAPH01

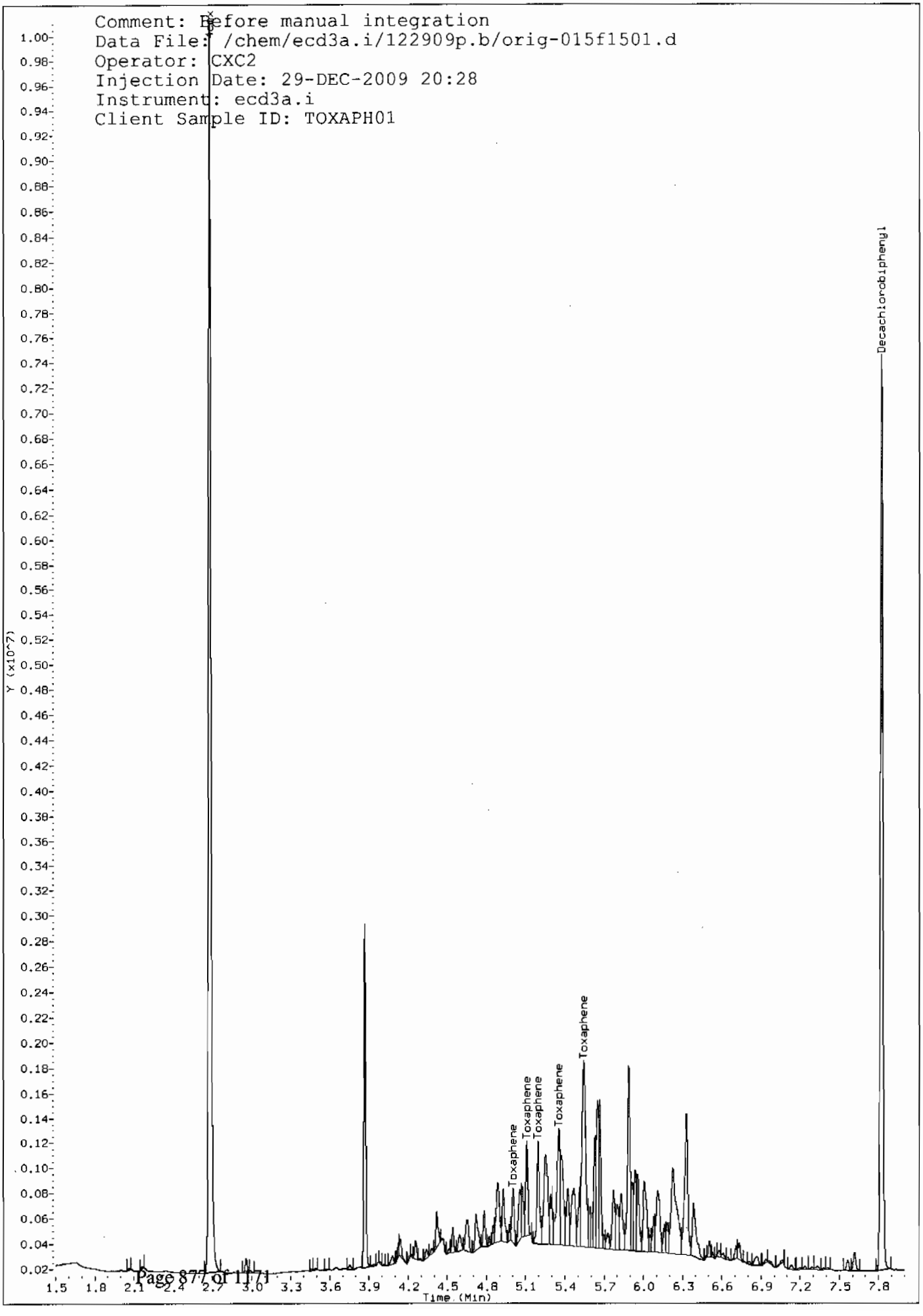

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/015b1501.d
Lab Smp Id: WPE091219-52TX Client Smp ID: TOXAPH01
Inj Date : 29-DEC-2009 20:28
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091219-52TX
Misc Info : |TOXICV
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 15 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.653	5.653	0.000	10170075	2000.00	2010	80.00- 120.00	100.00(M)
5.778	5.778	0.000	5870227	2000.00	1960	37.72- 77.72	57.72
6.168	6.168	0.000	10057121	2000.00	1670	78.89- 118.89	98.89
6.210	6.210	0.000	18112841	2000.00	1710	158.10- 198.10	178.10
6.313	6.313	0.000	29605861	2000.00	1550	271.11- 311.11	291.11
Average of Peak Amounts =					1.78e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.922	0.000	90772046	200.000	194	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.859	8.860	-0.001	63810266	200.000	194	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/015b1501.d

Date : 29-DEC-2009 20:28

Client ID: TOXAPH01

Sample Info: IWPE091219-52TX

Column phase: CLP-2

Instrument: ecd3a.i

Operator: CXC2

Column diameter: 0.25

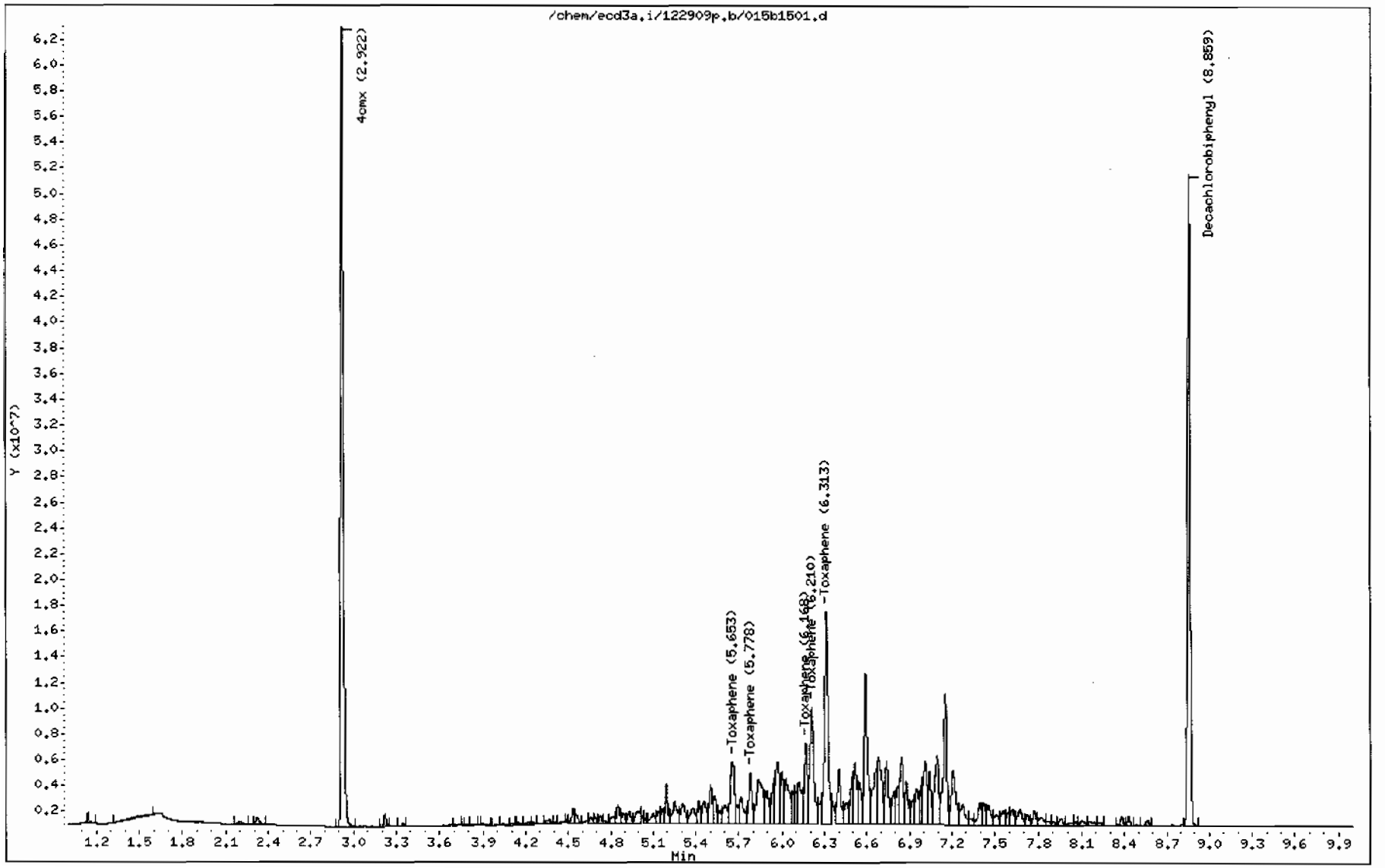

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/015b1501.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:28
Instrument: ecd3a.i
Client Sample ID: TOXAPH01

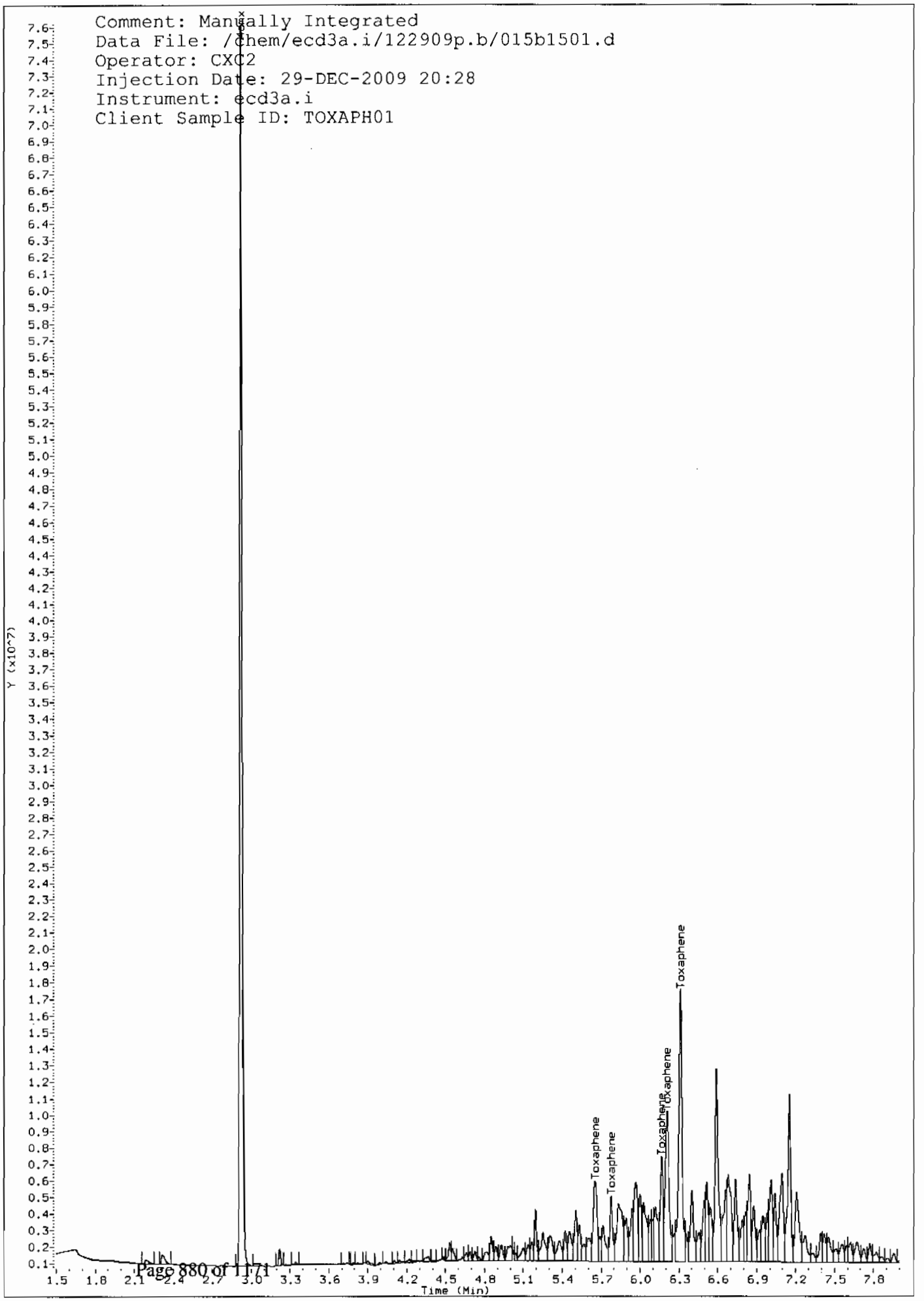

Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-015b1501.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:28
Instrument: ecd3a.i
Client Sample ID: TOXAPH01

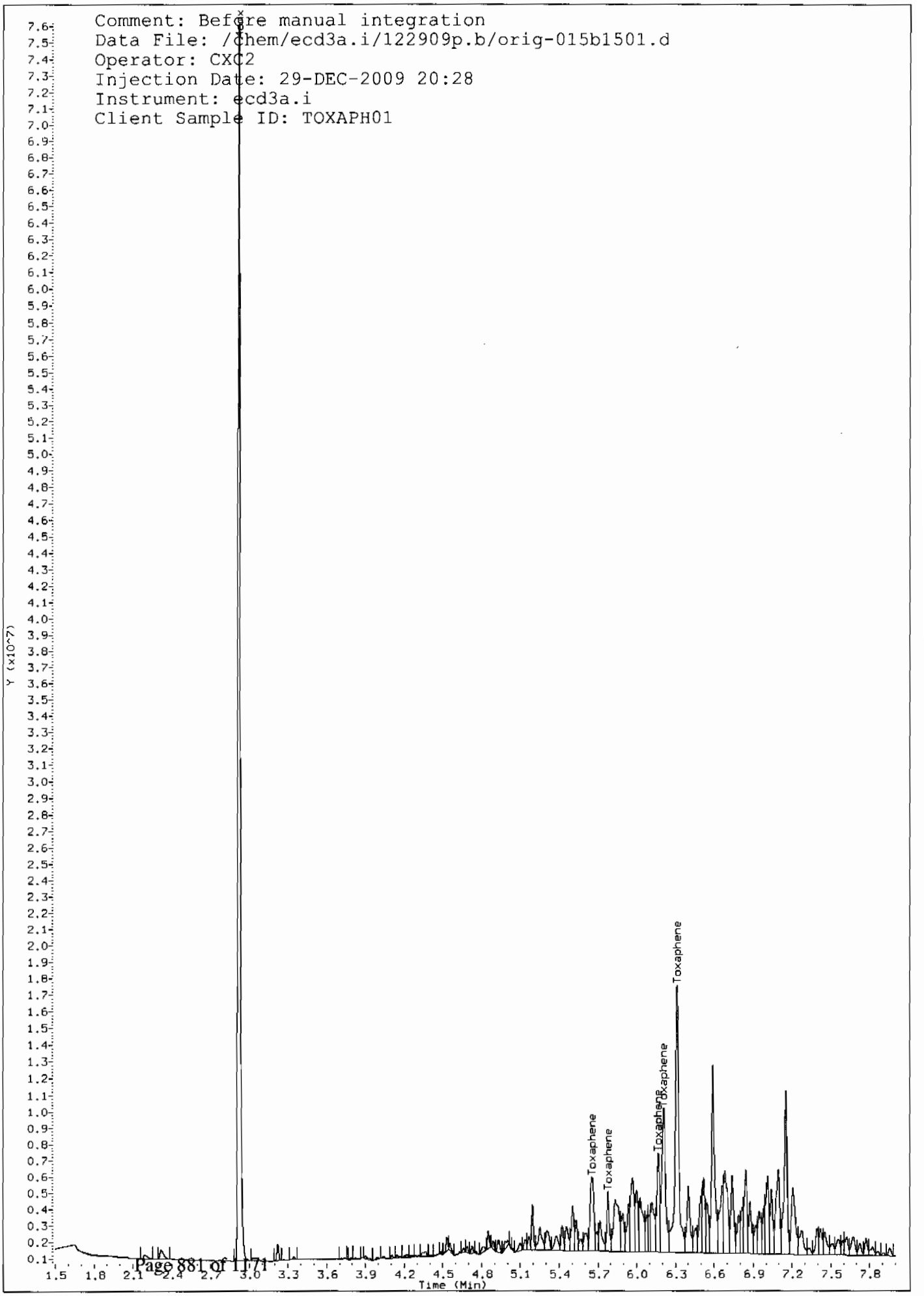

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/122909p.b/059f5901.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB05
Inj Date : 30-DEC-2009 06:47
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 12:17 hea01125 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 59 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.084	3.085	-0.001	10031953	100.000	95.2	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.329	3.330	-0.001	9134580	100.000	116	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.392	3.393	-0.001	3647818	100.000	105	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.711	3.713	-0.002	6794033	100.000	106	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.541	3.542	-0.001	8857857	100.000	94.6	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.969	3.970	-0.001	7909141	100.000	104	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.504	4.507	-0.003	7231970	100.000	108	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.619	4.621	-0.002	7562279	100.000	115	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.742	4.744	-0.002	6602358	100.000	99.9	80.00- 120.00	100.00

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.874	4.877	-0.003	6752028	100.000	113	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.809	4.811	-0.002	14394374	200.000	217	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.102	5.105	-0.003	14694290	200.000	216	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.331	5.334	-0.003	12572073	200.000	238	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.391	5.394	-0.003	11653462	200.000	226	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.554	5.558	-0.004	12308950	200.000	220	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.979	5.982	-0.003	9765608	200.000	207	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.671	5.673	-0.002	9944035	200.000	225	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.431	6.434	-0.003	10352514	200.000	219	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.174	6.177	-0.003	21966617	1000.00	1020	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.729	6.732	-0.003	12984051	200.000	210	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.678	2.679	-0.001	13285453	200.000	201	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.820	7.824	-0.004	8687075	200.000	180	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/122909p.b/059f5901.d
Date : 30-DEC-2009 06:47
Client ID: INDAB05
Sample Info: IWPE091218-10AB
Column phase: CLP-1

Instrument: ecd3a.i
Operator: CXC2
Column diameter: 0.25

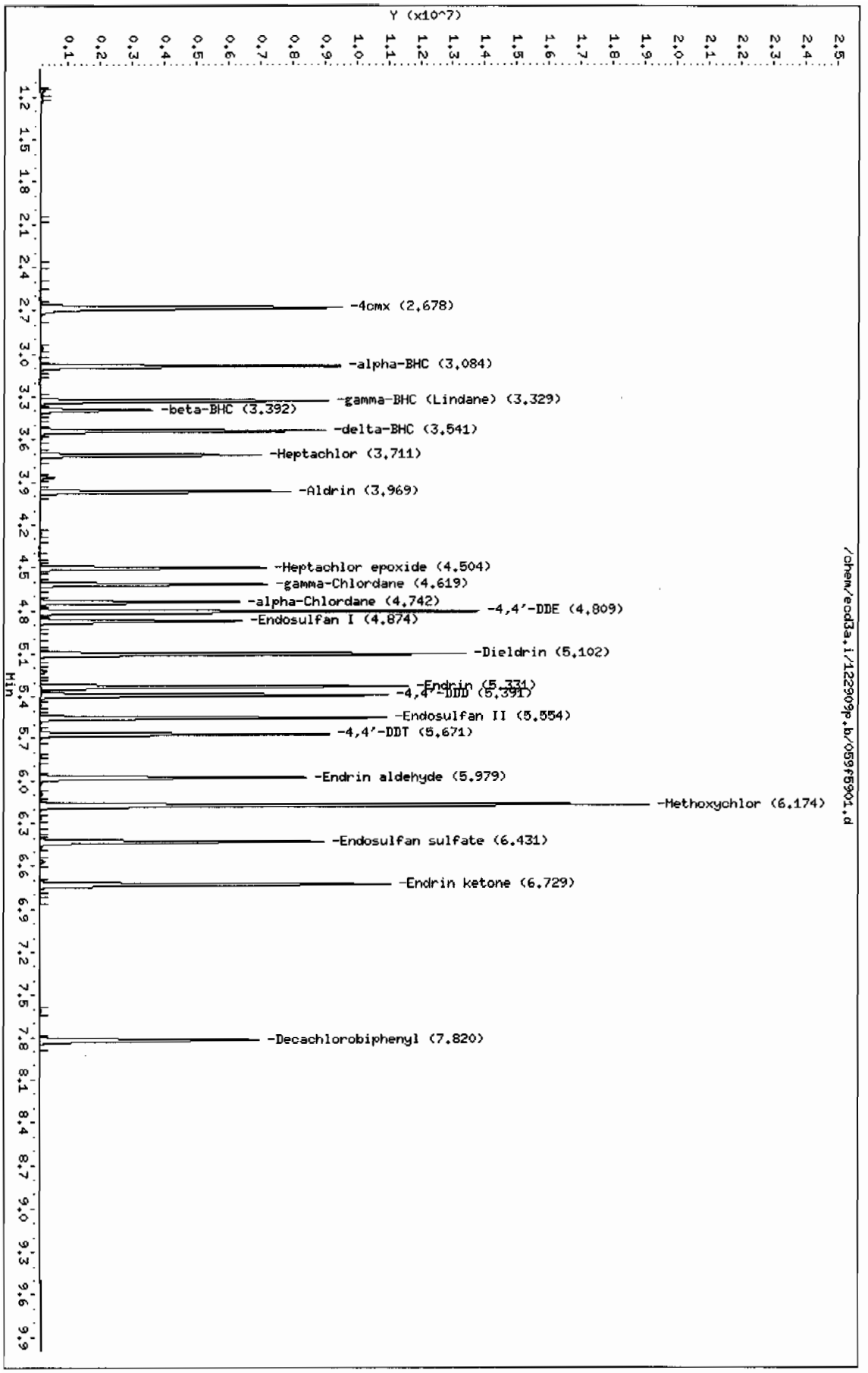

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/059b5901.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB05
Inj Date : 30-DEC-2009 06:47
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 12:17 hea01125 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 59 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.414	3.414	0.000	67709719	100.000	104	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.723	3.723	0.000	57351600	100.000	106	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.785	3.785	0.000	22558972	100.000	98.3	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.136	4.137	-0.001	39310057	100.000	95.4	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.057	4.057	0.000	52001742	100.000	102	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.448	4.449	-0.001	35073596	100.000	94.4	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.998	4.999	-0.001	26582483	100.000	99.3	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.189	5.191	-0.002	27248898	100.000	91.6	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.335	5.337	-0.002	24554278	100.000	94.0	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.399	5.401	-0.002	26162418	100.000	106	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.493	5.494	-0.001	53804980	200.000	205	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.680	5.681	-0.001	61147290	200.000	208	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.999	6.001	-0.002	64175495	200.000	233	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.099	6.100	-0.001	62480571	200.000	215	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.220	6.222	-0.002	68294926	200.000	208	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.577	6.579	-0.002	64144281	200.000	197	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.438	6.439	-0.001	68040140	200.000	213	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.879	6.882	-0.003	89572910	200.000	217	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.180	7.182	-0.002	169189686	1000.00	941	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.470	7.473	-0.003	102763179	200.000	204	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.922	0.000	86900929	200.000	185	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.858	8.860	-0.002	62829982	200.000	191	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/122909p.b/059b5901.d
Date : 30-DEC-2009 06:47
Client ID: INDAB05
Sample Info: IWPE091218-10AB

Instrument: ecd3a.i

Column phase: CLP-2

Operator: CXC2
Column diameter: 0.25

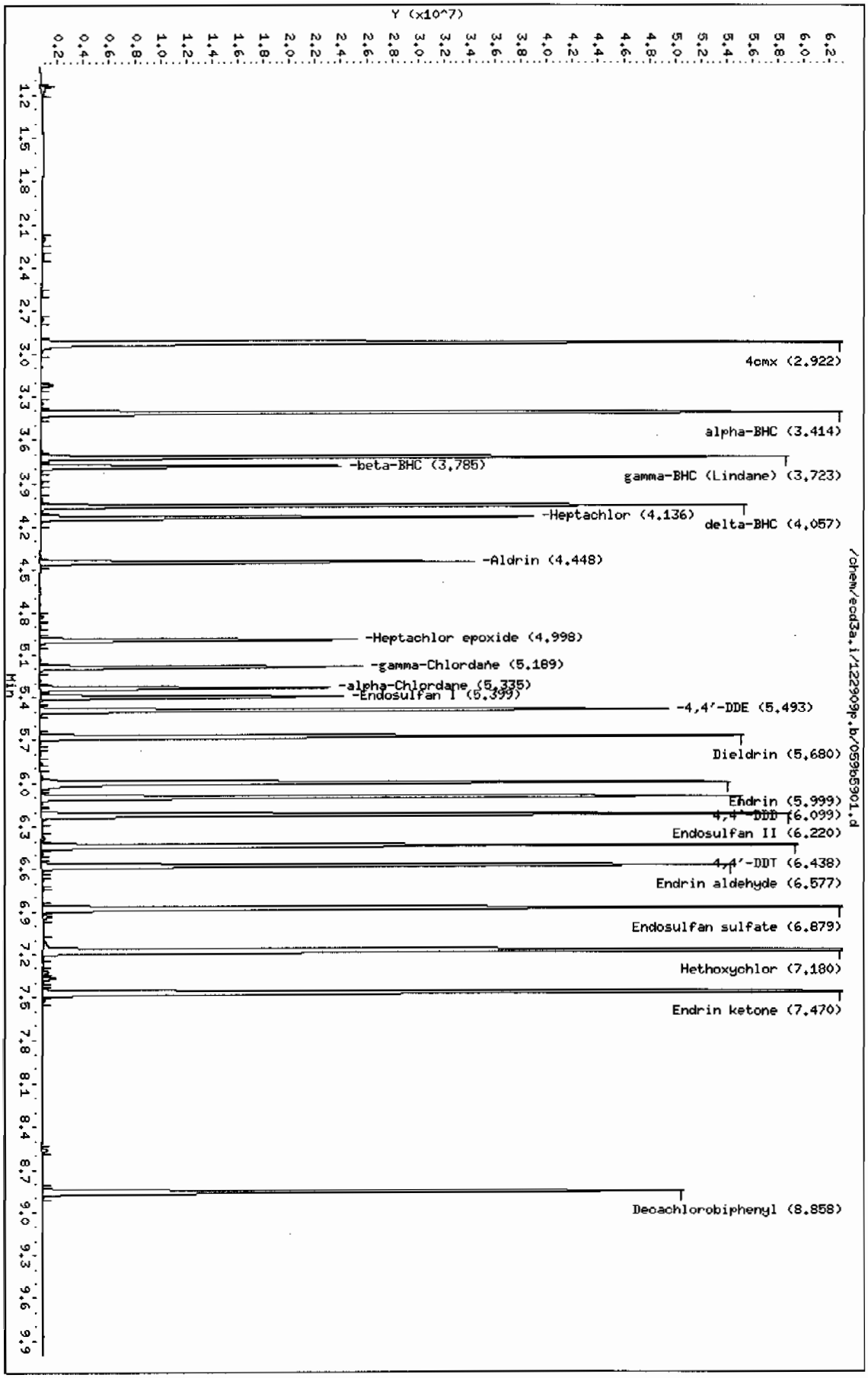

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GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/122909p.b/068f6801.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB06
Inj Date : 30-DEC-2009 08:50
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 12:18 hea01125 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 68 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.084	3.085	-0.001	9952646	100.000	94.5	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.329	3.330	-0.001	9069367	100.000	115	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.392	3.393	-0.001	3622664	100.000	104	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.711	3.713	-0.002	6707127	100.000	105	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.541	3.542	-0.001	8778458	100.000	93.8	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.969	3.970	-0.001	7850855	100.000	103	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.505	4.507	-0.002	7187817	100.000	108	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.619	4.621	-0.002	7516956	100.000	114	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.742	4.744	-0.002	6560065	100.000	99.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.875	4.877	-0.002	6706994	100.000	113	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.809	4.811	-0.002	14281979	200.000	215	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.102	5.105	-0.003	14565511	200.000	215	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.331	5.334	-0.003	12078649	200.000	229	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.391	5.394	-0.003	11604390	200.000	225	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.554	5.558	-0.004	12160745	200.000	218	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.980	5.982	-0.002	9764685	200.000	207	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.671	5.673	-0.002	9752168	200.000	221	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.431	6.434	-0.003	10378674	200.000	220	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.174	6.177	-0.003	21587643	1000.00	1000	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.730	6.732	-0.002	13131965	200.000	213	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.679	2.679	0.000	13214423	200.000	200	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.821	7.824	-0.003	9362399	200.000	194	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/122909p.b/068f6801.d
Date : 30-DEC-2009 08:50
Client ID: INDAB06
Sample Info: IWPE091218-10AB
Column phase: CLP-1

Instrument: ecd3a.i
Operator: CXC2
Column diameter: 0.25

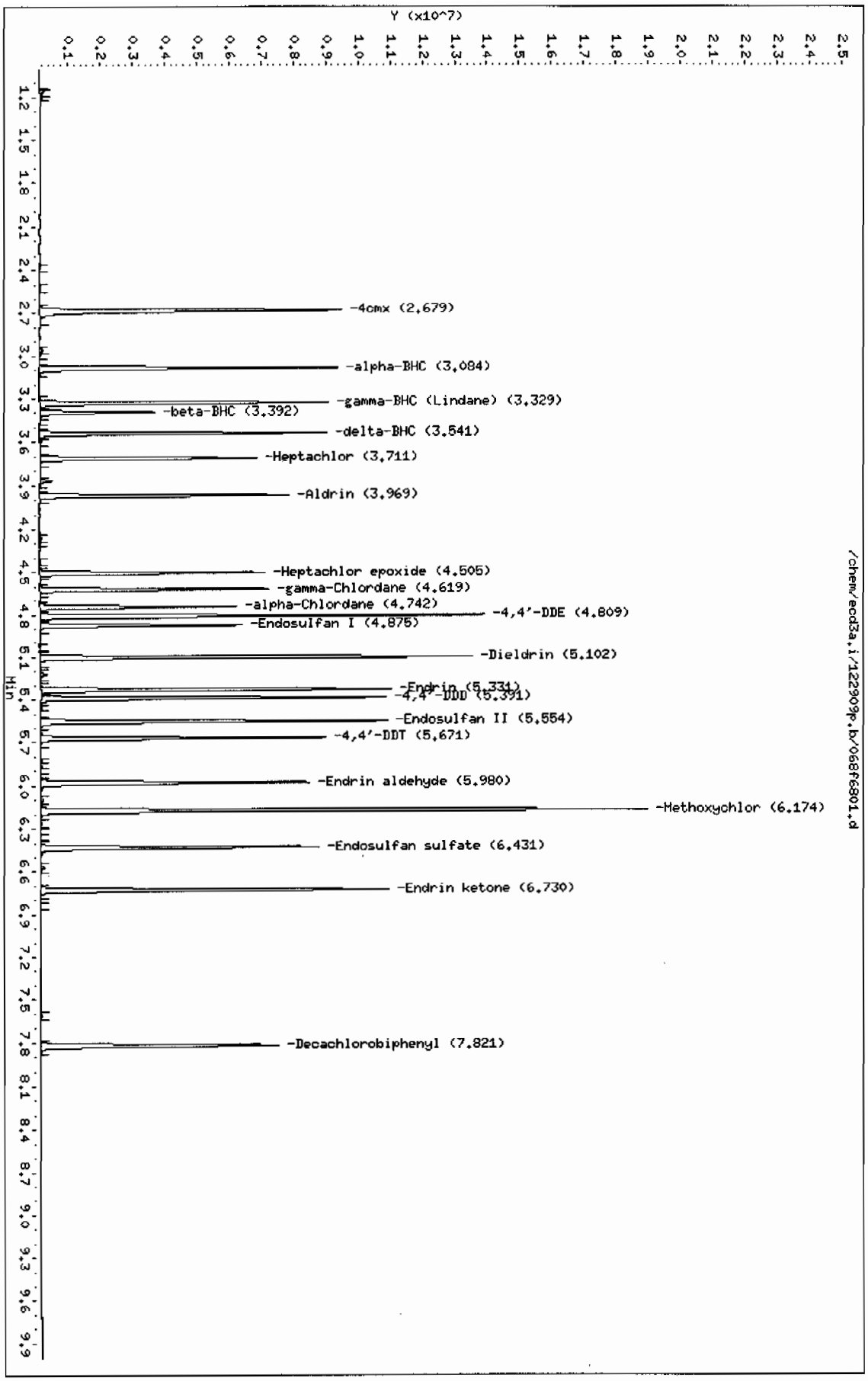

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/068b6801.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB06
Inj Date : 30-DEC-2009 08:50
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 12:18 hea01125 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 68 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.414	3.414	0.000	64340389	100.000	99.2	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.723	3.723	0.000	55218303	100.000	102	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.785	3.785	0.000	21863316	100.000	95.3	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.136	4.137	-0.001	38479672	100.000	93.4	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.057	4.057	0.000	50899234	100.000	100	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.448	4.449	-0.001	34807072	100.000	93.7	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.998	4.999	-0.001	26499103	100.000	99.0	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.189	5.191	-0.002	27279357	100.000	91.7	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.336	5.337	-0.001	24672974	100.000	94.5	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.399	5.401	-0.002	26344420	100.000	107	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.493	5.494	-0.001	54206225	200.000	207	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.680	5.681	-0.001	61686134	200.000	210	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.999	6.001	-0.002	62727316	200.000	228	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.098	6.100	-0.002	63705326	200.000	219	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.220	6.222	-0.002	69224591	200.000	210	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.577	6.579	-0.002	66363416	200.000	204	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.437	6.439	-0.002	69331910	200.000	217	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.879	6.882	-0.003	89671275	200.000	217	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.180	7.182	-0.002	171747298	1000.00	955	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.471	7.473	-0.002	104776414	200.000	208	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.922	0.000	84443146	200.000	180	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.858	8.860	-0.002	64978665	200.000	198	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/122909p.b/068b6801.d
Date : 30-DEC-2009 08:50
Client ID: INDAB06
Sample Info: IWPE091218-10AB
Column phase: CLP-2

Instrument: ecd3a.i
Operator: CXC2
Column diameter: 0.25

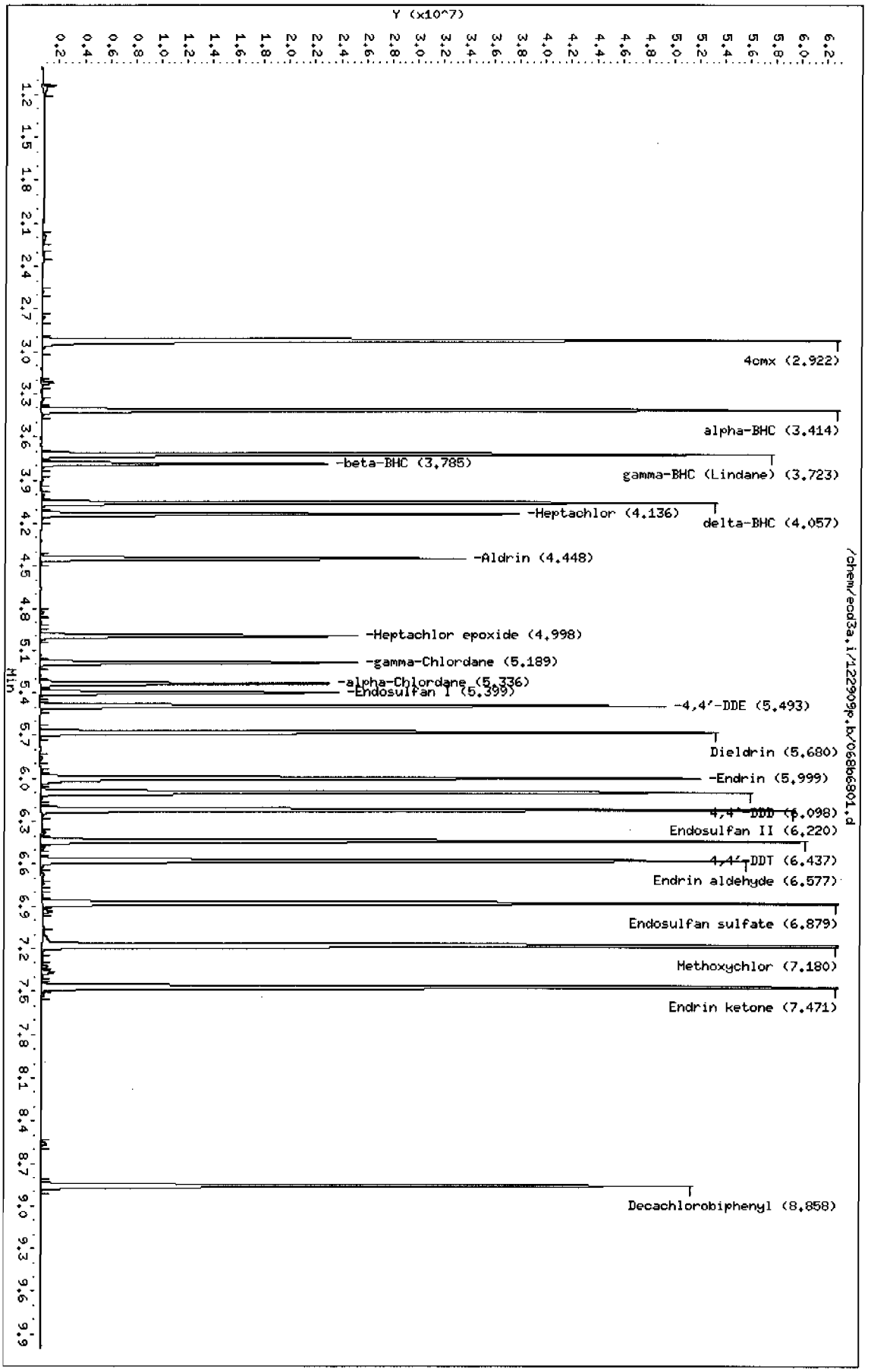

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8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1020

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.68 DCB: 7.82

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/29/09	1657	2.68	7.82
02	PEM01	WPE091219-99	12/29/09	1710	2.68	7.82
03	INDAB01	WPE091228-01	12/29/09	1734	2.68	7.83
04	INDAB02	WPE091228-02	12/29/09	1747	2.68	7.83
05	INDAB03	WPE091228-03	12/29/09	1801	2.68	7.82
06	INDAB04	WPE091228-04	12/29/09	1815	2.68	7.82
07	INDAB05	IPE091219-02	12/29/09	1829	2.68	7.82
08	INDAB01	WPE091218-10	12/29/09	1843	2.68	7.82
09	TOXAPH01	WPE091228-11	12/29/09	1856	2.68	7.82
10	TOXAPH02	WPE091228-12	12/29/09	1910	2.68	7.82
11	TOXAPH03	WPE091228-13	12/29/09	1924	2.68	7.82
12	ZZZZZ	ZZZZZ	12/29/09	1937		
13	TOXAPH04	WPE091228-14	12/29/09	2001	2.68	7.83
14	TOXAPH05	IPE091121-40	12/29/09	2014	2.68	7.82
15	TOXAPH01	WPE091219-52	12/29/09	2028	2.68	7.82
16	CHLOR01	WPE091228-21	12/29/09	2042	2.68	7.82
17	CHLOR02	WPE091228-22	12/29/09	2114	2.68	7.83
18	CHLOR03	WPE091228-23	12/29/09	2128	2.68	7.82
19	CHLOR04	WPE091228-24	12/29/09	2141	2.68	7.82
20	CHLOR05	IPE091029-06	12/29/09	2155	2.68	7.82
21	CHLOR01	WPE091206-60	12/29/09	2209	2.68	7.82
22	PEM02	WPE091219-99	12/29/09	2222	2.68	7.82
23	PIBLK02	WAR091130-99	12/29/09	2236	2.68	7.82
24	ZZZZZ	ZZZZZ	12/29/09	2249	2.68	7.82
25	ZZZZZ	ZZZZZ	12/29/09	2303	2.68	7.82
26	ZZZZZ	ZZZZZ	12/29/09	2317	2.68	7.82
27	ZZZZZ	ZZZZZ	12/29/09	2330	2.68	7.82
28	PIBLK03	WAR091130-99	12/29/09	2344	2.68	7.82
29	INDAB02	WPE091218-10	12/29/09	2358	2.68	7.82
30	PIBLK04	WAR091130-99	12/30/09	0011	2.68	7.82
31	ZZZZZ	ZZZZZ	12/30/09	0025	2.68	7.82
32	ZZZZZ	ZZZZZ	12/30/09	0039	2.68	7.82

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1020

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.68 DCB: 7.82

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/30/09	0052	2.68	7.82
02	ZZZZZ	ZZZZZ	12/30/09	0106	2.68	7.82
03	ZZZZZ	ZZZZZ	12/30/09	0119	2.68	7.82
04	ZZZZZ	ZZZZZ	12/30/09	0133	2.68	7.82
05	PIBLK05	WAR091130-99	12/30/09	0147	2.68	7.82
06	INDAB03	WPE091218-10	12/30/09	0201	2.68	7.82
07	PIBLK06	WAR091130-99	12/30/09	0214	2.68	7.82
08	ZZZZZ	ZZZZZ	12/30/09	0228	2.68	7.82
09	ZZZZZ	ZZZZZ	12/30/09	0242	2.68	7.82
10	ZZZZZ	ZZZZZ	12/30/09	0255	2.68	7.82
11	ZZZZZ	ZZZZZ	12/30/09	0309	2.68	7.82
12	ZZZZZ	ZZZZZ	12/30/09	0322	2.68	7.82
13	ZZZZZ	ZZZZZ	12/30/09	0336	2.68	7.82
14	ZZZZZ	ZZZZZ	12/30/09	0350	2.68	7.82
15	PIBLK07	WAR091130-99	12/30/09	0403	2.68	7.82
16	INDAB04	WPE091218-10	12/30/09	0417	2.68	7.82
17	PIBLK08	WAR091130-99	12/30/09	0431	2.68	7.82
18	ZZZZZ	ZZZZZ	12/30/09	0444	2.68	7.82
19	ZZZZZ	ZZZZZ	12/30/09	0458	2.68	7.82
20	ZZZZZ	ZZZZZ	12/30/09	0512	2.68	7.82
21	ZZZZZ	ZZZZZ	12/30/09	0525	2.68	7.82
22	ZZZZZ	ZZZZZ	12/30/09	0539	2.68	7.82
23	ZZZZZ	ZZZZZ	12/30/09	0552	2.68	7.82
24	ZZZZZ	ZZZZZ	12/30/09	0606	2.68	7.82
25	ZZZZZ	ZZZZZ	12/30/09	0620	2.68	7.82
26	ZZZZZ	ZZZZZ	12/30/09	0633	2.68	7.82
27	INDAB05	WPE091218-10	12/30/09	0647	2.68	7.82
28	PIBLK09	WAR091130-99	12/30/09	0701	2.68	7.82
29	PBLK01	1202003313	12/30/09	0714	2.68	7.82
30	PBLK01LCS	1202003314	12/30/09	0728	2.68	7.82
31	PBLK01TLCS	1202003318	12/30/09	0742	2.68	7.82
32	CAPA-10-6823	243401003	12/30/09	0755	2.68	7.82

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1020

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.68 DCB: 7.82

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	CAPA-10-6823MS	1202003315	12/30/09	0809	2.68	7.82
02	CAPA-10-6823MSD	1202003316	12/30/09	0823	2.68	7.82
03	CAPA-10-6824	243401007	12/30/09	0836	2.68	7.82
04	INDAB06	WPE091218-10	12/30/09	0850	2.68	7.82
05	PIBLK10	WAR091130-99	12/30/09	0904	2.68	7.82
06						
07						
08						
09						
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30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1020

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.92 DCB: 8.86

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/29/09	1657	2.92	8.86
02	PEM01	WPE091219-99	12/29/09	1710	2.92	8.86
03	INDAB01	WPE091228-01	12/29/09	1734	2.92	8.87
04	INDAB02	WPE091228-02	12/29/09	1747	2.92	8.86
05	INDAB03	WPE091228-03	12/29/09	1801	2.92	8.86
06	INDAB04	WPE091228-04	12/29/09	1815	2.92	8.86
07	INDAB05	IPE091219-02	12/29/09	1829	2.92	8.86
08	INDAB01	WPE091218-10	12/29/09	1843	2.92	8.86
09	TOXAPH01	WPE091228-11	12/29/09	1856	2.92	8.86
10	TOXAPH02	WPE091228-12	12/29/09	1910	2.92	8.86
11	TOXAPH03	WPE091228-13	12/29/09	1924	2.92	8.86
12	ZZZZZ	ZZZZZ	12/29/09	1937		
13	TOXAPH04	WPE091228-14	12/29/09	2001	2.92	8.86
14	TOXAPH05	IPE091121-40	12/29/09	2014	2.92	8.86
15	TOXAPH01	WPE091219-52	12/29/09	2028	2.92	8.86
16	CHLOR01	WPE091228-21	12/29/09	2042	2.92	8.86
17	CHLOR02	WPE091228-22	12/29/09	2114	2.92	8.86
18	CHLOR03	WPE091228-23	12/29/09	2128	2.92	8.86
19	CHLOR04	WPE091228-24	12/29/09	2141	2.92	8.86
20	CHLOR05	IPE091029-06	12/29/09	2155	2.92	8.86
21	CHLOR01	WPE091206-60	12/29/09	2209	2.92	8.86
22	PEM02	WPE091219-99	12/29/09	2222	2.92	8.86
23	PIBLK02	WAR091130-99	12/29/09	2236	2.92	8.86
24	ZZZZZ	ZZZZZ	12/29/09	2249	2.92	8.86
25	ZZZZZ	ZZZZZ	12/29/09	2303	2.92	8.86
26	ZZZZZ	ZZZZZ	12/29/09	2317	2.92	8.86
27	ZZZZZ	ZZZZZ	12/29/09	2330	2.92	8.86
28	PIBLK03	WAR091130-99	12/29/09	2344	2.92	8.86
29	INDAB02	WPE091218-10	12/29/09	2358	2.92	8.86
30	PIBLK04	WAR091130-99	12/30/09	0011	2.92	8.86
31	ZZZZZ	ZZZZZ	12/30/09	0025	2.92	8.86
32	ZZZZZ	ZZZZZ	12/30/09	0039	2.92	8.86

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1020

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.92 DCB: 8.86

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	12/30/09	0052	2.92	8.86
02	ZZZZZ	ZZZZZ	12/30/09	0106	2.92	8.86
03	ZZZZZ	ZZZZZ	12/30/09	0119	2.92	8.86
04	ZZZZZ	ZZZZZ	12/30/09	0133	2.92	8.86
05	PIBLK05	WAR091130-99	12/30/09	0147	2.92	8.86
06	INDAB03	WPE091218-10	12/30/09	0201	2.92	8.86
07	PIBLK08	WAR091130-99	12/30/09	0214	2.92	8.86
08	ZZZZZ	ZZZZZ	12/30/09	0228	2.92	8.86
09	ZZZZZ	ZZZZZ	12/30/09	0242	2.92	8.86
10	ZZZZZ	ZZZZZ	12/30/09	0255	2.92	8.86
11	ZZZZZ	ZZZZZ	12/30/09	0309	2.92	8.86
12	ZZZZZ	ZZZZZ	12/30/09	0322	2.92	8.86
13	ZZZZZ	ZZZZZ	12/30/09	0336	2.92	8.86
14	ZZZZZ	ZZZZZ	12/30/09	0350	2.92	8.86
15	ZZZZZ	ZZZZZ	12/30/09	0403	2.92	8.86
16	INDAB04	WPE091218-10	12/30/09	0417	2.92	8.86
17	ZZZZZ	ZZZZZ	12/30/09	0431	2.92	8.86
18	ZZZZZ	ZZZZZ	12/30/09	0444	2.92	8.86
19	ZZZZZ	ZZZZZ	12/30/09	0458	2.92	8.86
20	ZZZZZ	ZZZZZ	12/30/09	0512	2.92	8.86
21	ZZZZZ	ZZZZZ	12/30/09	0525	2.92	8.86
22	ZZZZZ	ZZZZZ	12/30/09	0539	2.92	8.86
23	ZZZZZ	ZZZZZ	12/30/09	0552	2.92	8.86
24	ZZZZZ	ZZZZZ	12/30/09	0606	2.92	8.86
25	ZZZZZ	ZZZZZ	12/30/09	0620	2.92	8.86
26	ZZZZZ	ZZZZZ	12/30/09	0633	2.92	8.86
27	INDAB05	WPE091218-10	12/30/09	0647	2.92	8.86
28	PIBLK09	WAR091130-99	12/30/09	0701	2.92	8.86
29	PBLK01	1202003313	12/30/09	0714	2.92	8.86
30	PBLK01LCS	1202003314	12/30/09	0728	2.92	8.86
31	PBLK01TLCS	1202003318	12/30/09	0742	2.92	8.86
32	CAPA-10-6823	243401003	12/30/09	0755	2.92	8.86

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1020

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.92 DCB: 8.86

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	CAPA-10-6823MS	1202003315	12/30/09	0809	2.92	8.86
02	CAPA-10-6823MSD	1202003316	12/30/09	0823	2.92	8.86
03	CAPA-10-6824	243401007	12/30/09	0836	2.92	8.86
04	INDAB06	WPE091218-10	12/30/09	0850	2.92	8.86
05	PIBLK10	WAR091130-99	12/30/09	0904	2.92	8.86
06						
07						
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14						
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29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

Identification Summary

SDG Number: 10–1020 **Client ID:** CAPA–10–6823MS

Lab Sample ID: 1202003315

Data File:	065f6501.d	**Data File:**	065b6501.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	30–DEC–09 08:09	**Analyzed:**	30–DEC–09 08:09

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							1.56
Column 1	1	3.08	3.05 – 3.11	.555		ug/L	
Column 2	1	3.41	3.38 – 3.44	.564		ug/L	
gamma–BHC (Lindane)							14.4
Column 1	1	3.33	3.3 – 3.36	.683		ug/L	
Column 2	1	3.72	3.69 – 3.75	.591		ug/L	
beta–BHC							14.4
Column 1	1	3.39	3.36 – 3.42	.648		ug/L	
Column 2	1	3.78	3.75 – 3.81	.561		ug/L	
delta–BHC							.423
Column 1	1	3.54	3.51 – 3.57	.556		ug/L	
Column 2	1	4.06	4.03 – 4.09	.558		ug/L	
Heptachlor							15.2
Column 1	1	3.71	3.68 – 3.74	.634		ug/L	
Column 2	1	4.14	4.11 – 4.17	.545		ug/L	

Identification Summary

SDG Number: 10–1020 **Client ID:** CAPA–10–6823MS

Lab Sample ID: 1202003315

Data File:	065f6501.d	**Data File:**	065b6501.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	30–DEC–09 08:09	**Analyzed:**	30–DEC–09 08:09

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin								14.3
	Column 1	1	3.97	3.94 – 4	.595		ug/L	
	Column 2	1	4.45	4.42 – 4.48	.516		ug/L	
Heptachlor epoxide								12.1
	Column 1	1	4.5	4.48 – 4.54	.639		ug/L	
	Column 2	1	5	4.97 – 5.03	.567		ug/L	
gamma–Chlordane								14.6
	Column 1	1	4.62	4.59 – 4.65	.639		ug/L	
	Column 2	1	5.19	5.16 – 5.22	.552		ug/L	
alpha–Chlordane								5.74
	Column 1	1	4.74	4.71 – 4.77	.637		ug/L	
	Column 2	1	5.34	5.31 – 5.37	.602		ug/L	
Endosulfan I								7.27
	Column 1	1	4.87	4.85 – 4.91	.645		ug/L	
	Column 2	1	5.4	5.37 – 5.43	.6		ug/L	

Identification Summary

SDG Number: 10–1020 **Client ID:** CAPA–10–6823MS

Lab Sample ID: 1202003315

Data File:	065f6501.d	**Data File:**	065b6501.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	30–DEC–09 08:09	**Analyzed:**	30–DEC–09 08:09

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE								5.29
	Column 1	1	4.81	4.78 – 4.84	1.58		ug/L	
	Column 2	1	5.49	5.46 – 5.52	1.5		ug/L	
Dieldrin								4.45
	Column 1	1	5.1	5.07 – 5.13	1.58		ug/L	
	Column 2	1	5.68	5.65 – 5.71	1.51		ug/L	
Endrin								7.55
	Column 1	1	5.33	5.3 – 5.36	1.89		ug/L	
	Column 2	1	6	5.97 – 6.03	1.75		ug/L	
4,4'–DDD								6.85
	Column 1	1	5.39	5.36 – 5.42	1.7		ug/L	
	Column 2	1	6.1	6.07 – 6.13	1.58		ug/L	
Endosulfan II								6.56
	Column 1	1	5.55	5.53 – 5.59	1.69		ug/L	
	Column 2	1	6.22	6.19 – 6.25	1.58		ug/L	

Identification Summary

SDG Number: 10–1020 **Client ID:** CAPA–10–6823MS

Lab Sample ID: 1202003315

Data File:	065f6501.d	**Data File:**	065b6501.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	30–DEC–09 08:09	**Analyzed:**	30–DEC–09 08:09

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							4.16
Column 1	1	5.98	5.95 – 6.01	1.47		ug/L	
Column 2	1	6.58	6.55 – 6.61	1.41		ug/L	
4,4'–DDT							7.22
Column 1	1	5.67	5.64 – 5.7	1.73		ug/L	
Column 2	1	6.44	6.41 – 6.47	1.61		ug/L	
Endosulfan sulfate							5.2
Column 1	1	6.43	6.4 – 6.46	1.75		ug/L	
Column 2	1	6.88	6.85 – 6.91	1.66		ug/L	
Methoxychlor							4.66
Column 1	1	6.17	6.15 – 6.21	6.4		ug/L	
Column 2	1	7.18	7.15 – 7.21	6.11		ug/L	
Endrin ketone							3.1
Column 1	1	6.73	6.7 – 6.76	1.63		ug/L	
Column 2	1	7.47	7.44 – 7.5	1.58		ug/L	

Identification Summary

SDG Number: 10-1020 **Client ID:** CAPA-10-6823MSD

Lab Sample ID: 1202003316

Data File:	066f6601.d	**Data File:**	066b6601.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	30-DEC-09 08:23	**Analyzed:**	30-DEC-09 08:23

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha-BHC							.645
Column 1	1	3.08	3.05 – 3.11	.443		ug/L	
Column 2	1	3.41	3.38 – 3.44	.446		ug/L	
gamma-BHC (Lindane)							12.7
Column 1	1	3.33	3.3 – 3.36	.541		ug/L	
Column 2	1	3.72	3.69 – 3.75	.477		ug/L	
beta-BHC							12.4
Column 1	1	3.39	3.36 – 3.42	.524		ug/L	
Column 2	1	3.78	3.75 – 3.81	.463		ug/L	
delta-BHC							1.13
Column 1	1	3.54	3.51 – 3.57	.449		ug/L	
Column 2	1	4.06	4.03 – 4.09	.454		ug/L	
Heptachlor							13.5
Column 1	1	3.71	3.68 – 3.74	.497		ug/L	
Column 2	1	4.14	4.11 – 4.17	.434		ug/L	

Identification Summary

SDG Number: 10–1020

Lab Sample ID: 1202003316

Client ID: CAPA–10–6823MSD

Data File: 066f6601.d
Inst: ECD3A.I_1
Column: CLP–1
Analyzed: 30–DEC–09 08:23

Data File: 066b6601.d
Inst: ECD3A.I_2
Column: CLP–2
Analyzed: 30–DEC–09 08:23

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							11
Column 1	1	3.97	3.94 – 4	.463		ug/L	
Column 2	1	4.45	4.42 – 4.48	.415		ug/L	
Heptachlor epoxide							10.6
Column 1	1	4.5	4.48 – 4.54	.507		ug/L	
Column 2	1	5	4.97 – 5.03	.456		ug/L	
gamma–Chlordane							19.7
Column 1	1	4.62	4.59 – 4.65	.504		ug/L	
Column 2	1	5.19	5.16 – 5.22	.414		ug/L	
alpha–Chlordane							5.07
Column 1	1	4.74	4.71 – 4.77	.505		ug/L	
Column 2	1	5.33	5.31 – 5.37	.48		ug/L	
Endosulfan I							6.23
Column 1	1	4.87	4.85 – 4.91	.514		ug/L	
Column 2	1	5.4	5.37 – 5.43	.483		ug/L	

Identification Summary

SDG Number: 10-1020 **Client ID:** CAPA-10-6823MSD

Lab Sample ID: 1202003316

Data File:	066f6601.d	**Data File:**	066b6601.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	30-DEC-09 08:23	**Analyzed:**	30-DEC-09 08:23

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'-DDE								3.55
	Column 1	1	4.81	4.78 – 4.84	1.27		ug/L	
	Column 2	1	5.49	5.46 – 5.52	1.23		ug/L	
Dieldrin								3.17
	Column 1	1	5.1	5.07 – 5.13	1.26		ug/L	
	Column 2	1	5.68	5.65 – 5.71	1.22		ug/L	
Endrin								6.07
	Column 1	1	5.33	5.3 – 5.36	1.52		ug/L	
	Column 2	1	6	5.97 – 6.03	1.43		ug/L	
4,4'-DDD								5.79
	Column 1	1	5.39	5.36 – 5.42	1.39		ug/L	
	Column 2	1	6.1	6.07 – 6.13	1.31		ug/L	
Endosulfan II								4.57
	Column 1	1	5.55	5.53 – 5.59	1.37		ug/L	
	Column 2	1	6.22	6.19 – 6.25	1.3		ug/L	

Identification Summary

SDG Number: 10–1020 **Client ID:** CAPA–10–6823MSD

Lab Sample ID: 1202003316

Data File:	066f6601.d	**Data File:**	066b6601.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	30–DEC–09 08:23	**Analyzed:**	30–DEC–09 08:23

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							1.98
Column 1	1	5.98	5.95 – 6.01	1.18		ug/L	
Column 2	1	6.58	6.55 – 6.61	1.16		ug/L	
4,4'–DDT							6.78
Column 1	1	5.67	5.64 – 5.7	1.41		ug/L	
Column 2	1	6.44	6.41 – 6.47	1.32		ug/L	
Endosulfan sulfate							3.65
Column 1	1	6.43	6.4 – 6.46	1.42		ug/L	
Column 2	1	6.88	6.85 – 6.91	1.37		ug/L	
Methoxychlor							4.22
Column 1	1	6.17	6.15 – 6.21	5.22		ug/L	
Column 2	1	7.18	7.15 – 7.21	5.01		ug/L	
Endrin ketone							2.55
Column 1	1	6.73	6.7 – 6.76	1.32		ug/L	
Column 2	1	7.47	7.44 – 7.5	1.29		ug/L	

Identification Summary

SDG Number: 10–1020 **Client ID:** LCS for batch 936266

Lab Sample ID: 1202003314

Data File:	062f6201.d	**Data File:**	062b6201.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	30–DEC–09 07:28	**Analyzed:**	30–DEC–09 07:28

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							4.69
Column 1	1	3.08	3.05 – 3.11	.465		ug/L	
Column 2	1	3.41	3.38 – 3.44	.487		ug/L	
gamma–BHC (Lindane)							8.83
Column 1	1	3.33	3.3 – 3.36	.568		ug/L	
Column 2	1	3.72	3.69 – 3.75	.52		ug/L	
beta–BHC							6.66
Column 1	1	3.39	3.36 – 3.42	.52		ug/L	
Column 2	1	3.78	3.75 – 3.81	.487		ug/L	
delta–BHC							4.66
Column 1	1	3.54	3.51 – 3.57	.467		ug/L	
Column 2	1	4.06	4.03 – 4.09	.489		ug/L	
Heptachlor							11.8
Column 1	1	3.71	3.68 – 3.74	.51		ug/L	
Column 2	1	4.13	4.11 – 4.17	.453		ug/L	

Identification Summary

SDG Number: 10–1020 **Client ID:** LCS for batch 936266

Lab Sample ID: 1202003314

Data File:	062f6201.d	**Data File:**	062b6201.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	30–DEC–09 07:28	**Analyzed:**	30–DEC–09 07:28

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							11.5
Column 1	1	3.97	3.94 – 4	.478		ug/L	
Column 2	1	4.45	4.42 – 4.48	.426		ug/L	
Heptachlor epoxide							10.2
Column 1	1	4.5	4.48 – 4.54	.535		ug/L	
Column 2	1	5	4.97 – 5.03	.483		ug/L	
gamma–Chlordane							6.68
Column 1	1	4.62	4.59 – 4.65	.53		ug/L	
Column 2	1	5.19	5.16 – 5.22	.567		ug/L	
alpha–Chlordane							4.2
Column 1	1	4.74	4.71 – 4.77	.531		ug/L	
Column 2	1	5.34	5.31 – 5.37	.51		ug/L	
Endosulfan I							5.61
Column 1	1	4.87	4.85 – 4.91	.542		ug/L	
Column 2	1	5.4	5.37 – 5.43	.513		ug/L	

Identification Summary

SDG Number: 10-1020 **Client ID:** LCS for batch 936266

Lab Sample ID: 1202003314

Data File:	062f6201.d	**Data File:**	062b6201.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	30-DEC-09 07:28	**Analyzed:**	30-DEC-09 07:28

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'-DDE								3.45
	Column 1	1	4.81	4.78 – 4.84	1.32		ug/L	
	Column 2	1	5.49	5.46 – 5.52	1.27		ug/L	
Dieldrin								2.88
	Column 1	1	5.1	5.07 – 5.13	1.33		ug/L	
	Column 2	1	5.68	5.65 – 5.71	1.29		ug/L	
Endrin								5.02
	Column 1	1	5.33	5.3 – 5.36	1.59		ug/L	
	Column 2	1	6	5.97 – 6.03	1.51		ug/L	
4,4'-DDD								4.81
	Column 1	1	5.39	5.36 – 5.42	1.46		ug/L	
	Column 2	1	6.1	6.07 – 6.13	1.39		ug/L	
Endosulfan II								4.05
	Column 1	1	5.55	5.53 – 5.59	1.44		ug/L	
	Column 2	1	6.22	6.19 – 6.25	1.38		ug/L	

Identification Summary

SDG Number: 10–1020 **Client ID:** LCS for batch 936266

Lab Sample ID: 1202003314

Data File:	062f6201.d	**Data File:**	062b6201.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	30–DEC–09 07:28	**Analyzed:**	30–DEC–09 07:28

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							1.65
Column 1	1	5.98	5.95 – 6.01	1.26		ug/L	
Column 2	1	6.58	6.55 – 6.61	1.24		ug/L	
4,4'–DDT							4.11
Column 1	1	5.67	5.64 – 5.7	1.46		ug/L	
Column 2	1	6.44	6.41 – 6.47	1.4		ug/L	
Endosulfan sulfate							.924
Column 1	1	6.43	6.4 – 6.46	1.48		ug/L	
Column 2	1	6.88	6.85 – 6.91	1.46		ug/L	
Methoxychlor							2.34
Column 1	1	6.17	6.15 – 6.21	5.37		ug/L	
Column 2	1	7.18	7.15 – 7.21	5.25		ug/L	
Endrin ketone							1.06
Column 1	1	6.73	6.7 – 6.76	1.39		ug/L	
Column 2	1	7.47	7.44 – 7.5	1.38		ug/L	

Identification Summary

SDG Number: 10-1020 **Client ID:** LCS for batch 936266

Lab Sample ID: 1202003318

Data File: 063f6301.d **Data File:** 063b6301.d

Inst: ECD3A.I_1 **Inst:** ECD3A.I_2

Column: CLP-1 **Column:** CLP-2

Analyzed: 30-DEC-09 07:42 **Analyzed:** 30-DEC-09 07:42

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Toxaphene							3.14
Column 1	1	5	4.97 – 5.03	5.15		ug/L	
	2	5.11	5.08 – 5.14	5.74		ug/L	
	3	5.19	5.16 – 5.22	5.17		ug/L	
	4	5.35	5.32 – 5.38	5.11		ug/L	
	5	5.54	5.51 – 5.57	5.21		ug/L	
					5.28		
Column 2	1	5.66	5.62 – 5.68	5.16		ug/L	
	2	5.78	5.75 – 5.81	5.02		ug/L	
	3	6.17	6.14 – 6.2	5.11		ug/L	
	4	6.21	6.18 – 6.24	5.1		ug/L	
	5	6.31	6.28 – 6.34	5.18		ug/L	
					5.11		

QUALITY CONTROL DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202003313**				
Client Sample:	**QC for batch 936266**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 936266**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**936267**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 07:14**	**Analyst:**	**CXC2**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/24/2009 12:37**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**061f6101.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	061b6101.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.020	ug/L	0.005	0.020	1
58-89-9	gamma-BHC (Lindane)	U	0.020	ug/L	0.005	0.020	1
319-85-7	beta-BHC	U	0.020	ug/L	0.006	0.020	1
319-86-8	delta-BHC	U	0.020	ug/L	0.005	0.020	1
76-44-8	Heptachlor	U	0.020	ug/L	0.005	0.020	1
309-00-2	Aldrin	U	0.020	ug/L	0.005	0.020	1
1024-57-3	Heptachlor epoxide	U	0.020	ug/L	0.005	0.020	1
5103-74-2	gamma-Chlordane	U	0.020	ug/L	0.005	0.020	1
5103-71-9	alpha-Chlordane	U	0.020	ug/L	0.005	0.020	1
959-98-8	Endosulfan I	U	0.020	ug/L	0.005	0.020	1
72-55-9	4,4'-DDE	U	0.040	ug/L	0.005	0.040	1
60-57-1	Dieldrin	U	0.040	ug/L	0.010	0.040	1
72-20-8	Endrin	U	0.040	ug/L	0.010	0.040	1
72-54-8	4,4'-DDD	U	0.040	ug/L	0.010	0.040	1
33213-65-9	Endosulfan II	U	0.040	ug/L	0.010	0.040	1
7421-93-4	Endrin aldehyde	U	0.040	ug/L	0.005	0.040	1
50-29-3	4,4'-DDT	U	0.040	ug/L	0.010	0.040	1
1031-07-8	Endosulfan sulfate	U	0.040	ug/L	0.010	0.040	1
72-43-5	Methoxychlor	U	0.200	ug/L	0.050	0.200	1
53494-70-5	Endrin ketone	U	0.040	ug/L	0.010	0.040	1
8001-35-2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
Decachlorobiphenyl	0.928	1.00	ug/L	92.8	(34%-118%)
4cmx	0.813	1.00	ug/L	81.3	(29%-103%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/122909p.b/061f6101.d
Lab Smp Id: 1202003313 Client Smp ID: PBLK01
Inj Date : 30-DEC-2009 07:14
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |1202003313|1|
Misc Info : |ECD81A_1L|936267|SVP|MB|GROUND WATER|MB|||
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 12:18 hea01125 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 61 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1020.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.679	2.679	0.000	11172313	169.366	0.847	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.820	7.824	-0.004	8941566	185.528	0.928	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/122909p.b/061f6101.d

Date : 30-DEC-2009 07:14

Client ID: PBLK01

Sample Info: |1202003313|1|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd3a.i

Operator: CXC2

Column diameter: 0.25

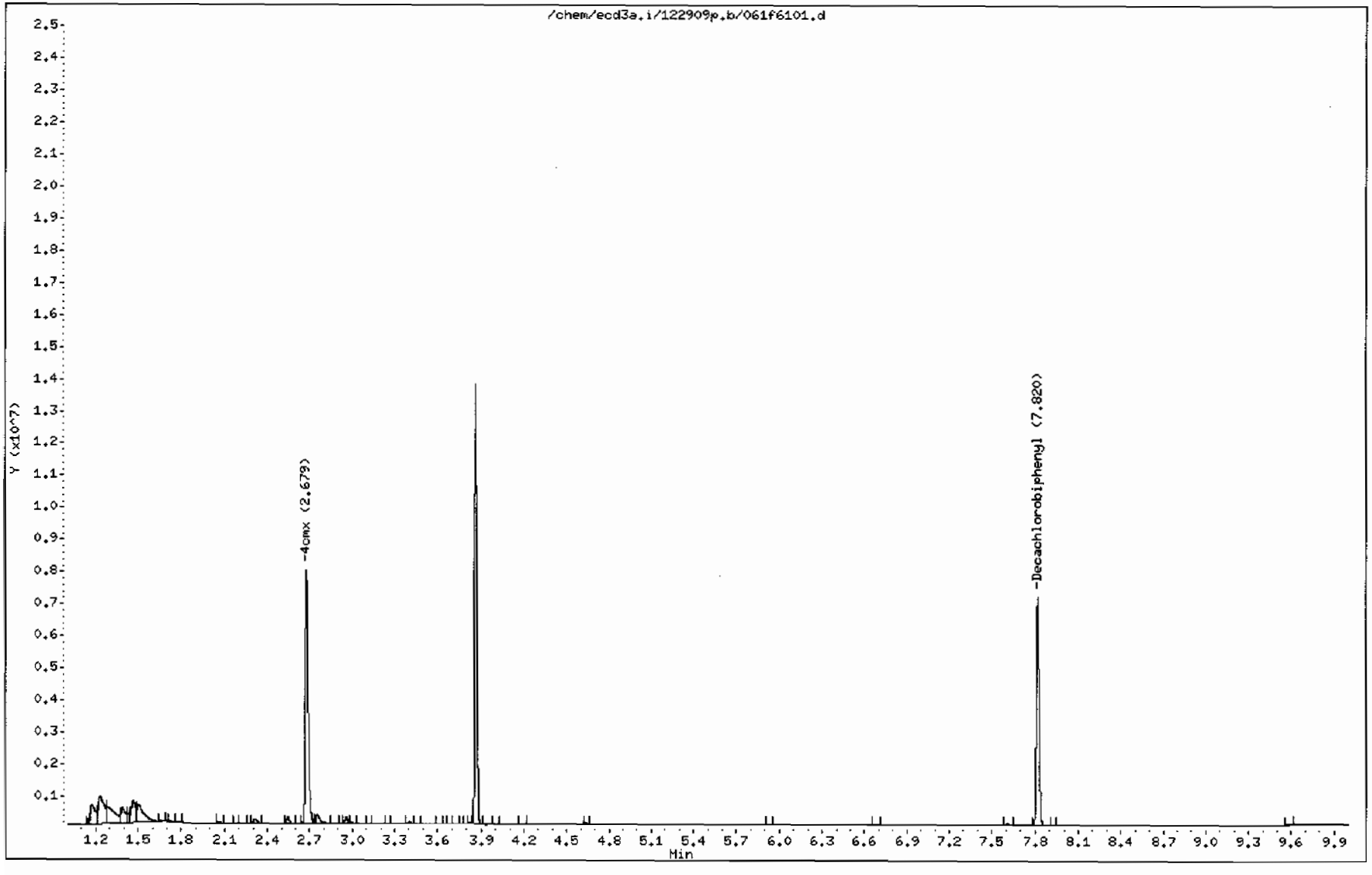

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/061b6101.d
Lab Smp Id: 1202003313 Client Smp ID: PBLK01
Inj Date : 30-DEC-2009 07:14
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |1202003313|1|
Misc Info : |ECD81A_1L|936267|SVP|MB|GROUND WATER|MB|||
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 12:18 hea01125 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 61 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1020.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.921	2.922	-0.001	76241713	162.563	0.813	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.858	8.860	-0.002	61085538	186.110	0.930	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/122909p.b/061b6101.d

Date : 30-DEC-2009 07:14

Client ID: PBLK01

Sample Info: 1120200331311

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd3a.i

Operator: CXC2

Column diameter: 0.25

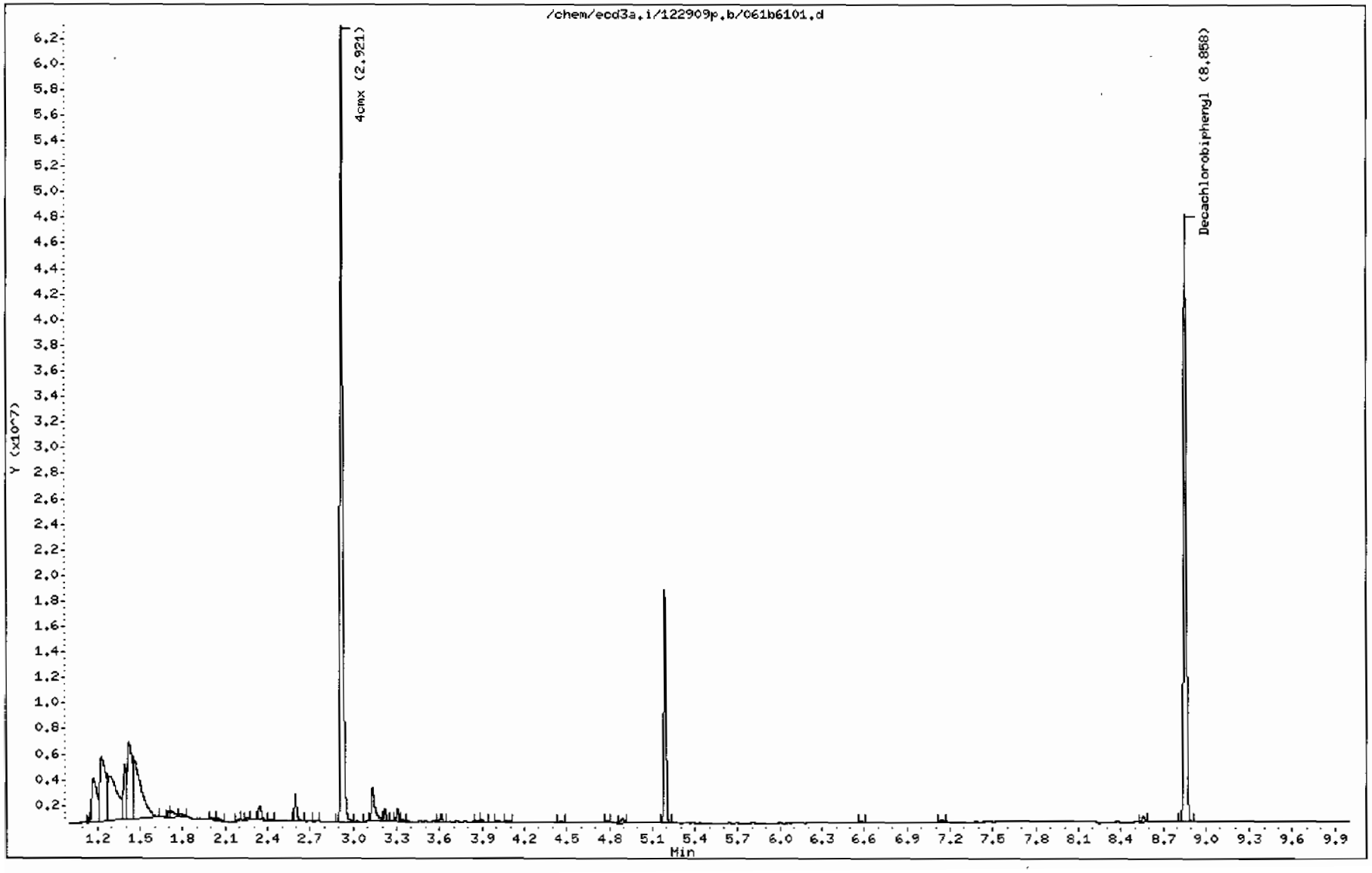

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202003314**				
Client Sample:	**QC for batch 936266**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 936266**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**936267**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 07:28**	**Analyst:**	**CXC2**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/24/2009 12:37**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**062f6201.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	062b6201.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC		0.465	ug/L	0.005	0.020	1
58-89-9	gamma-BHC (Lindane)		0.520	ug/L	0.005	0.020	2
319-85-7	beta-BHC		0.487	ug/L	0.006	0.020	2
319-86-8	delta-BHC		0.467	ug/L	0.005	0.020	1
76-44-8	Heptachlor		0.453	ug/L	0.005	0.020	2
309-00-2	Aldrin		0.426	ug/L	0.005	0.020	2
1024-57-3	Heptachlor epoxide		0.483	ug/L	0.005	0.020	2
5103-74-2	gamma-Chlordane		0.530	ug/L	0.005	0.020	1
5103-71-9	alpha-Chlordane		0.510	ug/L	0.005	0.020	2
959-98-8	Endosulfan I		0.513	ug/L	0.005	0.020	2
72-55-9	4,4'-DDE		1.27	ug/L	0.005	0.040	2
60-57-1	Dieldrin		1.29	ug/L	0.010	0.040	2
72-20-8	Endrin		1.51	ug/L	0.010	0.040	2
72-54-8	4,4'-DDD		1.39	ug/L	0.010	0.040	2
33213-65-9	Endosulfan II		1.38	ug/L	0.010	0.040	2
7421-93-4	Endrin aldehyde		1.24	ug/L	0.005	0.040	2
50-29-3	4,4'-DDT		1.40	ug/L	0.010	0.040	2
1031-07-8	Endosulfan sulfate		1.46	ug/L	0.010	0.040	2
72-43-5	Methoxychlor		5.25	ug/L	0.050	0.200	2
53494-70-5	Endrin ketone		1.38	ug/L	0.010	0.040	2
8001-35-2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
Decachlorobiphenyl	0.913	1.00	ug/L	91.3	(34%-118%)
4cmx	0.807	1.00	ug/L	80.7	(29%-103%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/122909p.b/062f6201.d
Lab Smp Id: 1202003314 Client Smp ID: PBLK01LCS
Inj Date : 30-DEC-2009 07:28
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |1202003314|1|
Misc Info : |ECD81A_1L|936267|SVP|LCS|GROUND WATER|LCS|||
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 12:18 hea01125 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 62 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1020.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.678	2.679	-0.001	10948786	165.977	0.830	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.820	7.824	-0.004	8805244	182.699	0.913	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.084	3.085	-0.001	9784253	92.9769	0.465	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.328	3.330	-0.002	8924911	113.654	0.568	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.392	3.393	-0.001	3608791	104.012	0.520	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.540	3.542	-0.002	8735834	93.3250	0.467	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.711	3.713	-0.002	6528009	101.904	0.510	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.968	3.970	-0.002	7253208	95.5275	0.478	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.504	4.507	-0.003	7137710	106.992	0.535	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.619	4.621	-0.002	6993339	106.083	0.530	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.742	4.744	-0.002	7026750	106.291	0.531	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.874	4.877	-0.003	6455860	108.478	0.542	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.809	4.811	-0.002	17482652	263.717	1.32	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.102	5.105	-0.003	18050634	266.014	1.33	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.330	5.334	-0.004	16718265	317.273	1.59	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.391	5.394	-0.003	15022268	291.084	1.46	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.553	5.558	-0.005	16048749	287.045	1.44	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.978	5.982	-0.004	11858441	251.692	1.26	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.670	5.673	-0.003	12852417	291.189	1.46	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.430	6.434	-0.004	13924101	295.100	1.48	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.173	6.177	-0.004	23133503	1074.00	5.37	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.728	6.732	-0.004	17189730	278.656	1.39	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/122909p.b/062f6201.d
Date : 30-DEC-2009 07:28
Client ID: PBLK01LCS
Sample Info: 1120200331411
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i
Operator: CXC2
Column diameter: 0.25

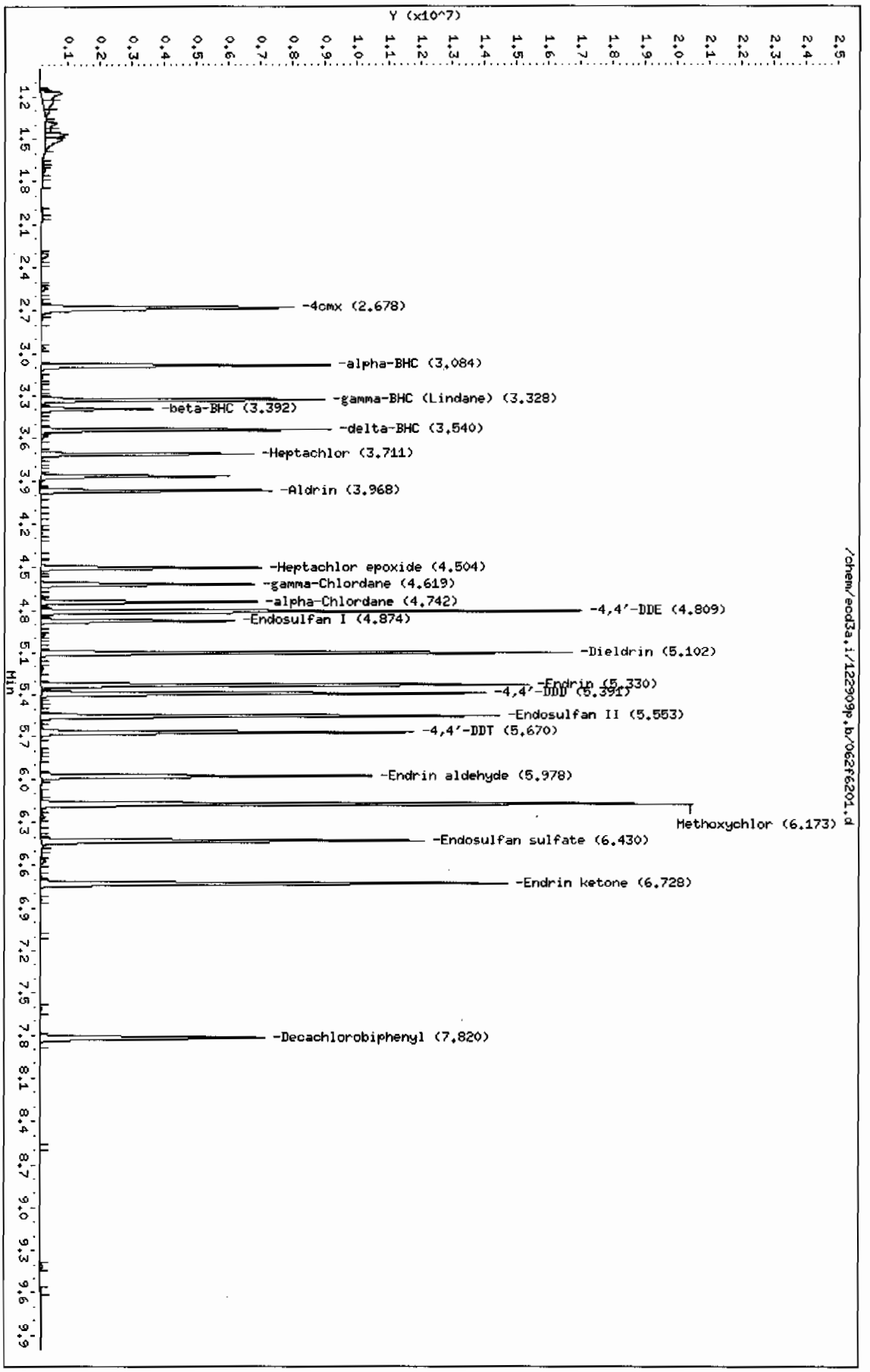

Page 1

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/062b6201.d
Lab Smp Id: 1202003314 Client Smp ID: PBLK01LCS
Inj Date : 30-DEC-2009 07:28
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |1202003314|1|
Misc Info : |ECD81A_1L|936267|SVP|LCS|GROUND WATER|LCS|||
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 12:17 hea01125 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 62 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1020.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.921	2.922	-0.001	75733911	161.480	0.807	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.858	8.860	-0.002	61426815	187.150	0.936	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.413	3.414	-0.001	63178908	97.4420	0.487	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.722	3.723	-0.001	56215134	104.047	0.520	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.784	3.785	-0.001	22331926	97.3067	0.486	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.056	4.057	-0.001	49790743	97.7806	0.489	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.135	4.137	-0.002	37314733	90.5921	0.453	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.447	4.449	-0.002	31629581	85.1319	0.426	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.998	4.999	-0.001	25863101	96.6477	0.483	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.189	5.191	-0.002	33909502	113.413	0.567	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.336	5.337	-0.001	26618285	101.916	0.510	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.399	5.401	-0.002	25271014	102.554	0.513	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.492	5.494	-0.002	66749278	254.777	1.27	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.680	5.681	-0.001	75937185	258.469	1.29	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.999	6.001	-0.002	83133810	301.725	1.51	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.097	6.100	-0.003	80667950	277.400	1.39	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.219	6.222	-0.003	90606738	275.646	1.38	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.576	6.579	-0.003	80723482	247.579	1.24	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.437	6.439	-0.002	89195394	279.468	1.40	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.879	6.882	-0.003	120571557	292.386	1.46	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.180	7.182	-0.002	188683578	1049.20	5.25	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.471	7.473	-0.002	138592919	275.717	1.38	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/1229099p.b/06206201.d
Date : 30-DEC-2009 07:28
Client ID: PBLK01LCS
Sample Info: I120200331414I
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i
Operator: CXC2
Column diameter: 0.25

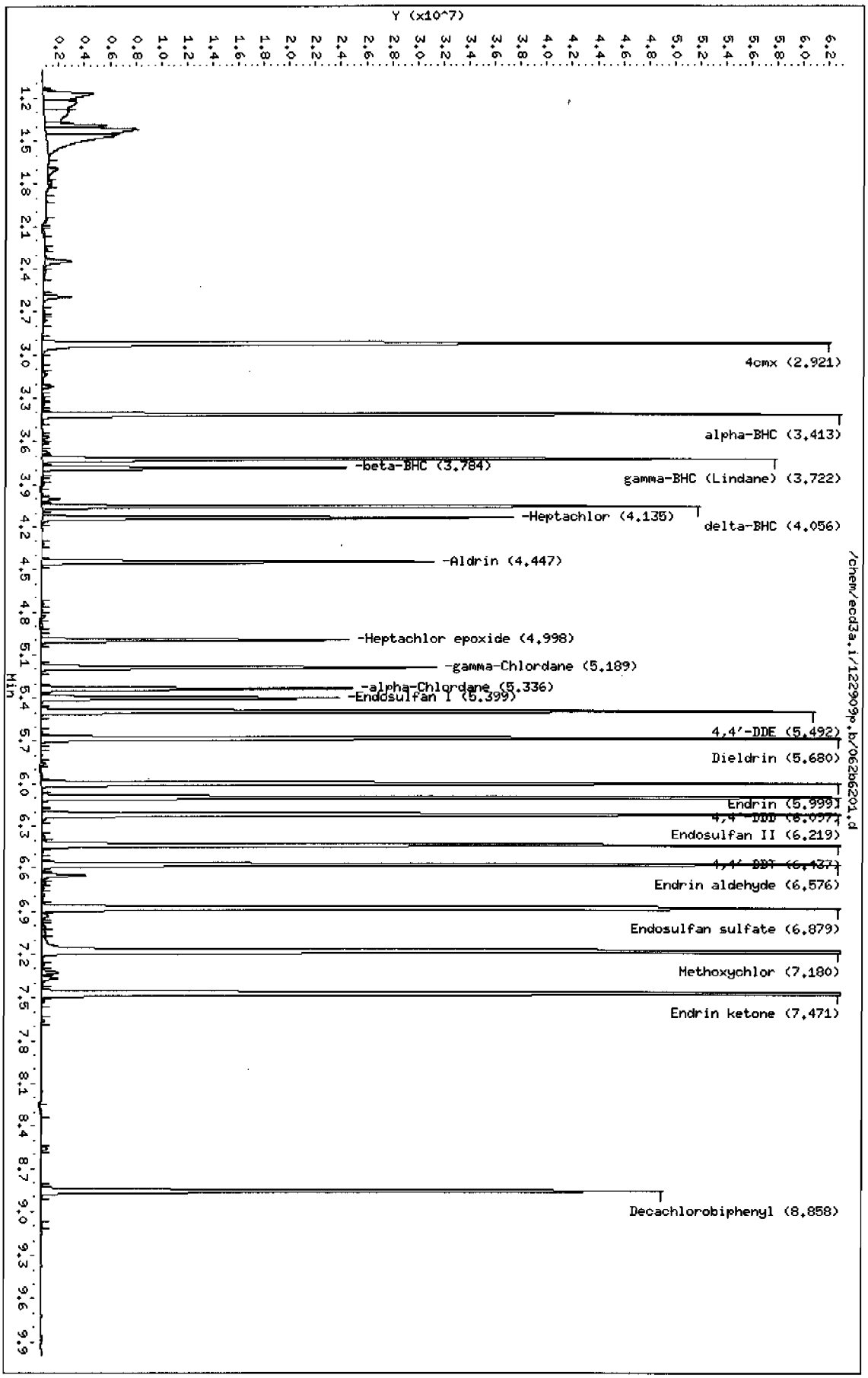

Page 1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–1020**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202003318**				
Client Sample:	**QC for batch 936266**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 936266**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**936267**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 07:42**	**Analyst:**	**CXC2**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/24/2009 12:37**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**063f6301.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	063b6301.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.020	ug/L	0.005	0.020	1
58–89–9	gamma–BHC (Lindane)	U	0.020	ug/L	0.005	0.020	1
319–85–7	beta–BHC	U	0.020	ug/L	0.006	0.020	1
319–86–8	delta–BHC	U	0.020	ug/L	0.005	0.020	1
76–44–8	Heptachlor	U	0.020	ug/L	0.005	0.020	1
309–00–2	Aldrin	U	0.020	ug/L	0.005	0.020	1
1024–57–3	Heptachlor epoxide	U	0.020	ug/L	0.005	0.020	1
5103–74–2	gamma–Chlordane	U	0.020	ug/L	0.005	0.020	1
5103–71–9	alpha–Chlordane	U	0.020	ug/L	0.005	0.020	1
959–98–8	Endosulfan I	U	0.020	ug/L	0.005	0.020	1
72–55–9	4,4'–DDE	U	0.040	ug/L	0.005	0.040	1
60–57–1	Dieldrin	U	0.040	ug/L	0.010	0.040	1
72–20–8	Endrin	U	0.040	ug/L	0.010	0.040	1
72–54–8	4,4'–DDD	U	0.040	ug/L	0.010	0.040	1
33213–65–9	Endosulfan II	U	0.040	ug/L	0.010	0.040	1
7421–93–4	Endrin aldehyde	U	0.040	ug/L	0.005	0.040	1
50–29–3	4,4'–DDT	U	0.040	ug/L	0.010	0.040	1
1031–07–8	Endosulfan sulfate	U	0.040	ug/L	0.010	0.040	1
72–43–5	Methoxychlor	U	0.200	ug/L	0.050	0.200	1
53494–70–5	Endrin ketone	U	0.040	ug/L	0.010	0.040	1
8001–35–2	Toxaphene		5.11	ug/L	0.150	0.500	2

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
Decachlorobiphenyl	1.15	1.00	ug/L	115	(34%–118%)
4cmx	0.960	1.00	ug/L	96.0	(29%–103%)

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CLP-1

Data file : /chem/ecd3a.i/122909p.b/063f6301.d
Lab Smp Id: 1202003318 Client Smp ID: PBLK01TLCS
Inj Date : 30-DEC-2009 07:42
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |1202003318|1|
Misc Info : |ECD81A_1L|936267|SVP|TLCS|GROUND WATER|TLCS|||
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 12:18 hea01125 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 63 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1020.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.679	2.679	0.000	13708511	207.813	1.04	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.821	7.824	-0.003	11063429	229.554	1.15	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.001	5.005	-0.004	500037	1030.45	5.15	80.00- 120.00	100.00(M)
5.108	5.109	-0.001	866038	1148.41	5.74	136.78- 176.78	173.19
5.193	5.194	-0.001	899919	1033.92	5.17	169.96- 209.96	179.97
5.352	5.353	-0.001	1161795	1022.16	5.11	213.58- 253.58	232.34
5.544	5.544	0.000	2104549	1041.05	5.20	347.48- 387.48	420.88

Average of Peak Concentrations = 5.27

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/063f6301.d
Date : 30-DEC-2009 07:42
Client ID: PBLK01TLCS
Sample Info: |1202003318|1|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i

Operator: CXC2
Column diameter: 0.25

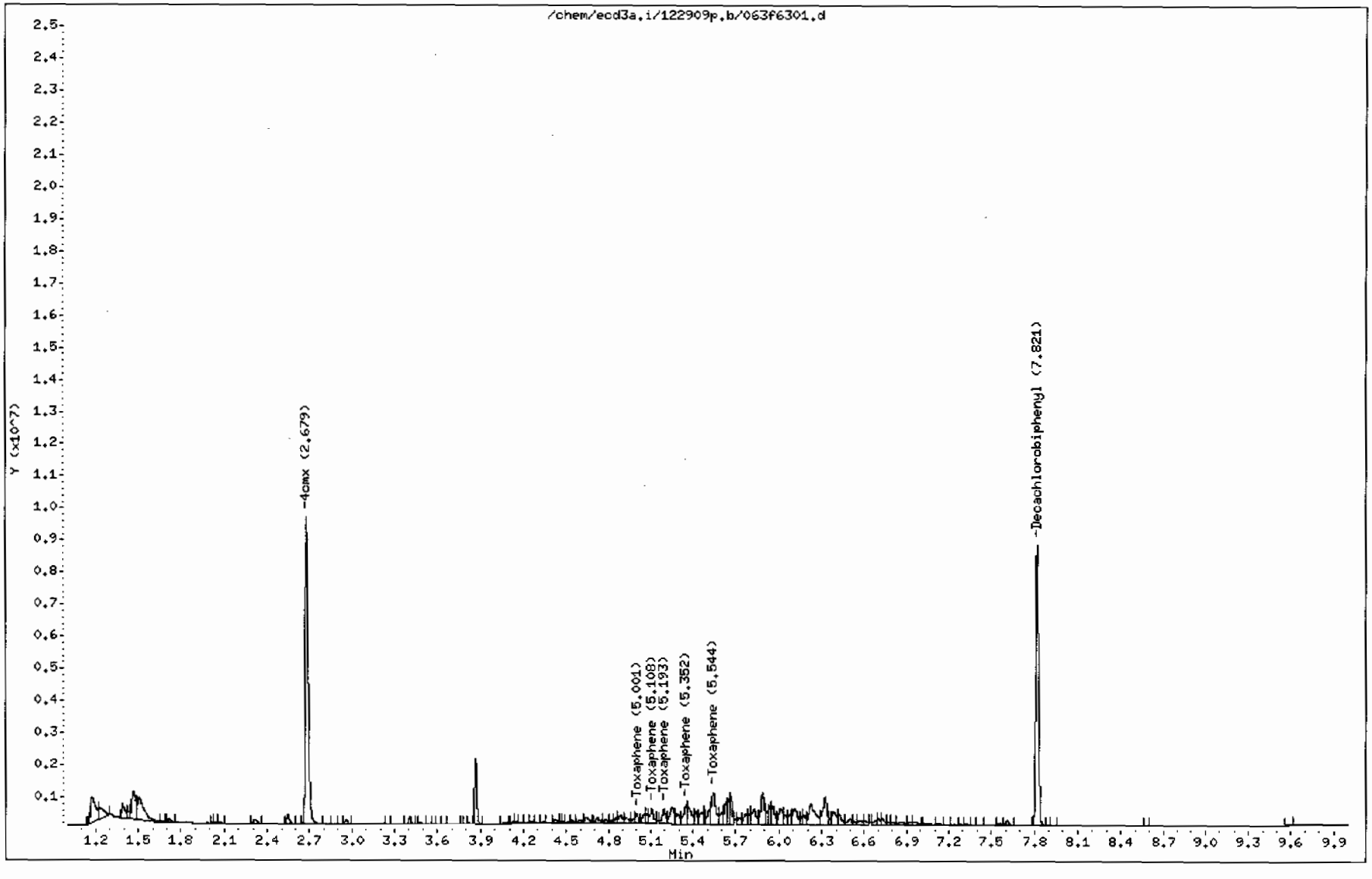

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/063f6301.d
Operator: CXC2
Injection Date: 30-DEC-2009 07:42
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS

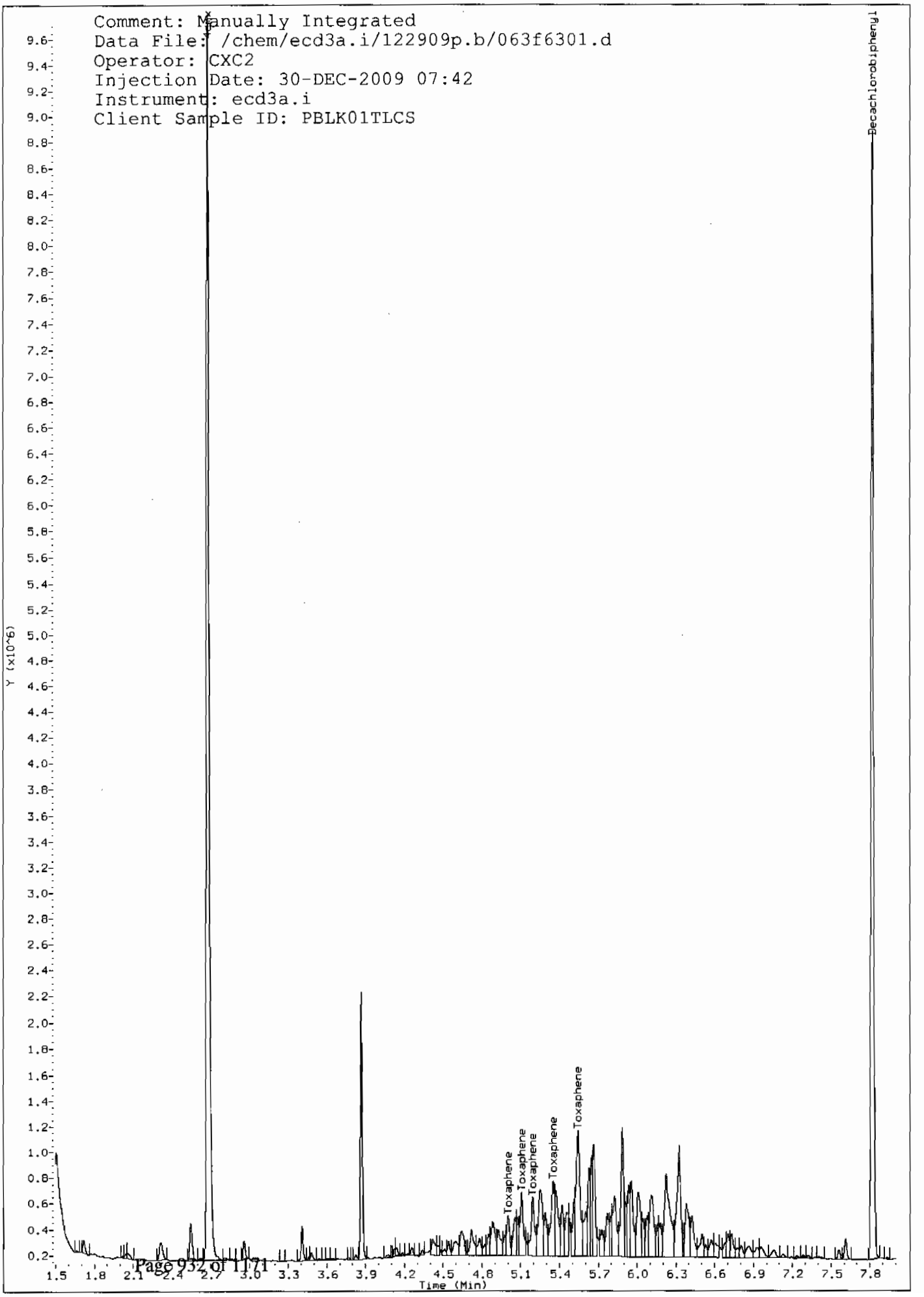

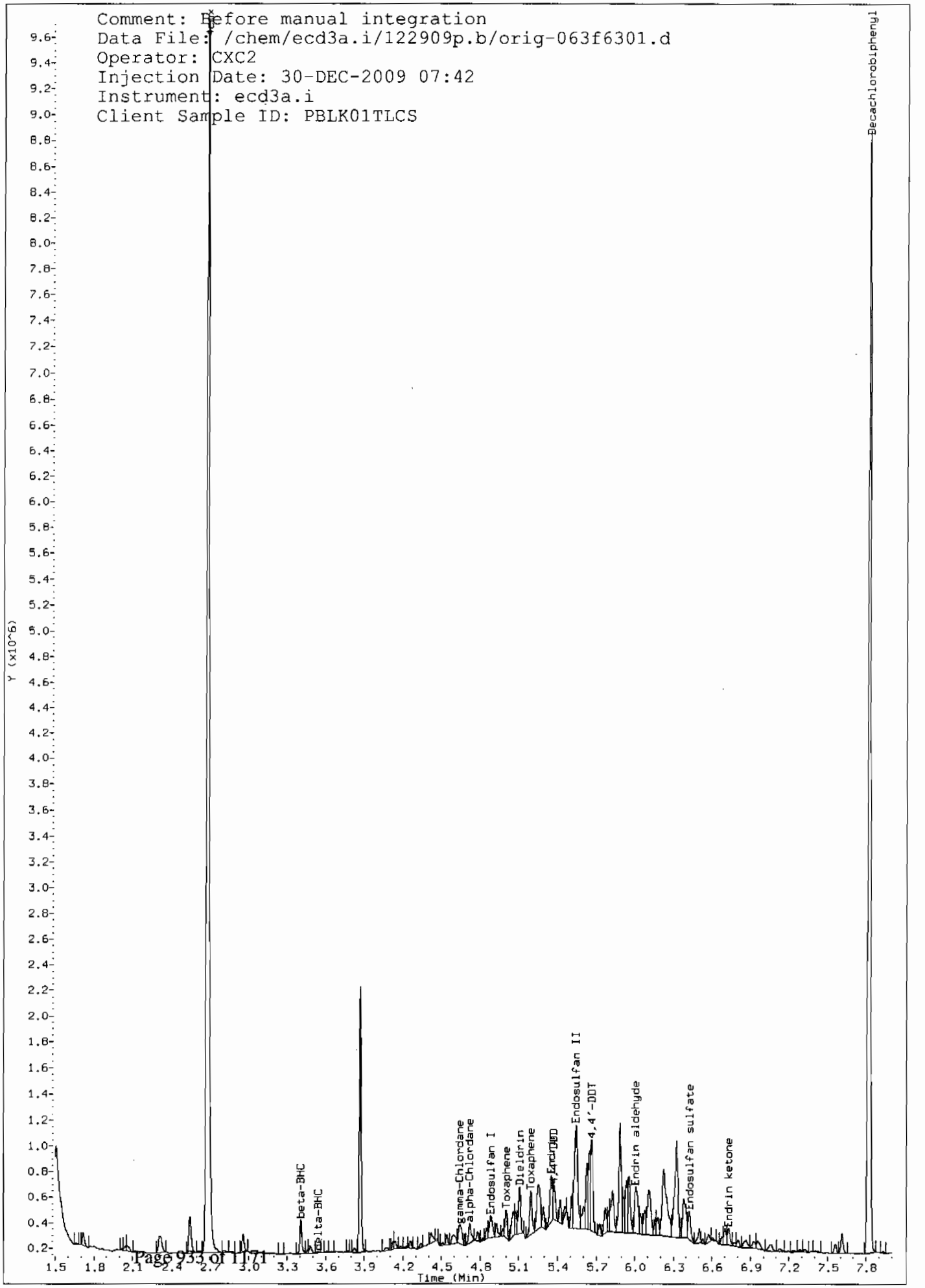
Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-063f6301.d
Operator: CXC2
Injection Date: 30-DEC-2009 07:42
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS
Y (x10^6)
Time (Min)
beta-BHC
delta-BHC
gamma-Chlordane
alpha-Chlordane
Endosulfan I
Toxaphene
Dieldrin
Toxaphene
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

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CLP-2

Data file : /chem/ecd3a.i/122909p.b/063b6301.d
Lab Smp Id: 1202003318 Client Smp ID: PBLK01TLCS
Inj Date : 30-DEC-2009 07:42
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |1202003318|1|
Misc Info : |ECD81A_1L|936267|SVP|TLCS|GROUND WATER|TLCS|||
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 12:18 hea01125 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 63 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1020.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.922	0.000	90032219	191.967	0.960	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.858	8.860	-0.002	77134053	235.005	1.18	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.657	5.653	0.004	5226699	1031.75	5.16	80.00- 120.00	100.00(M)
5.778	5.778	0.000	3001215	1003.57	5.02	37.72- 77.72	57.42
6.166	6.168	-0.002	6151189	1022.96	5.11	78.89- 118.89	117.69
6.209	6.210	-0.001	10804075	1019.30	5.10	158.10- 198.10	206.71
6.312	6.313	-0.001	19826823	1035.46	5.18	271.11- 311.11	379.34

Average of Peak Concentrations = 5.11

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/063b6301.d
Date : 30-DEC-2009 07:42
Client ID: PBLK01TLCS
Sample Info: |1202003318|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i

Operator: CXC2
Column diameter: 0.25

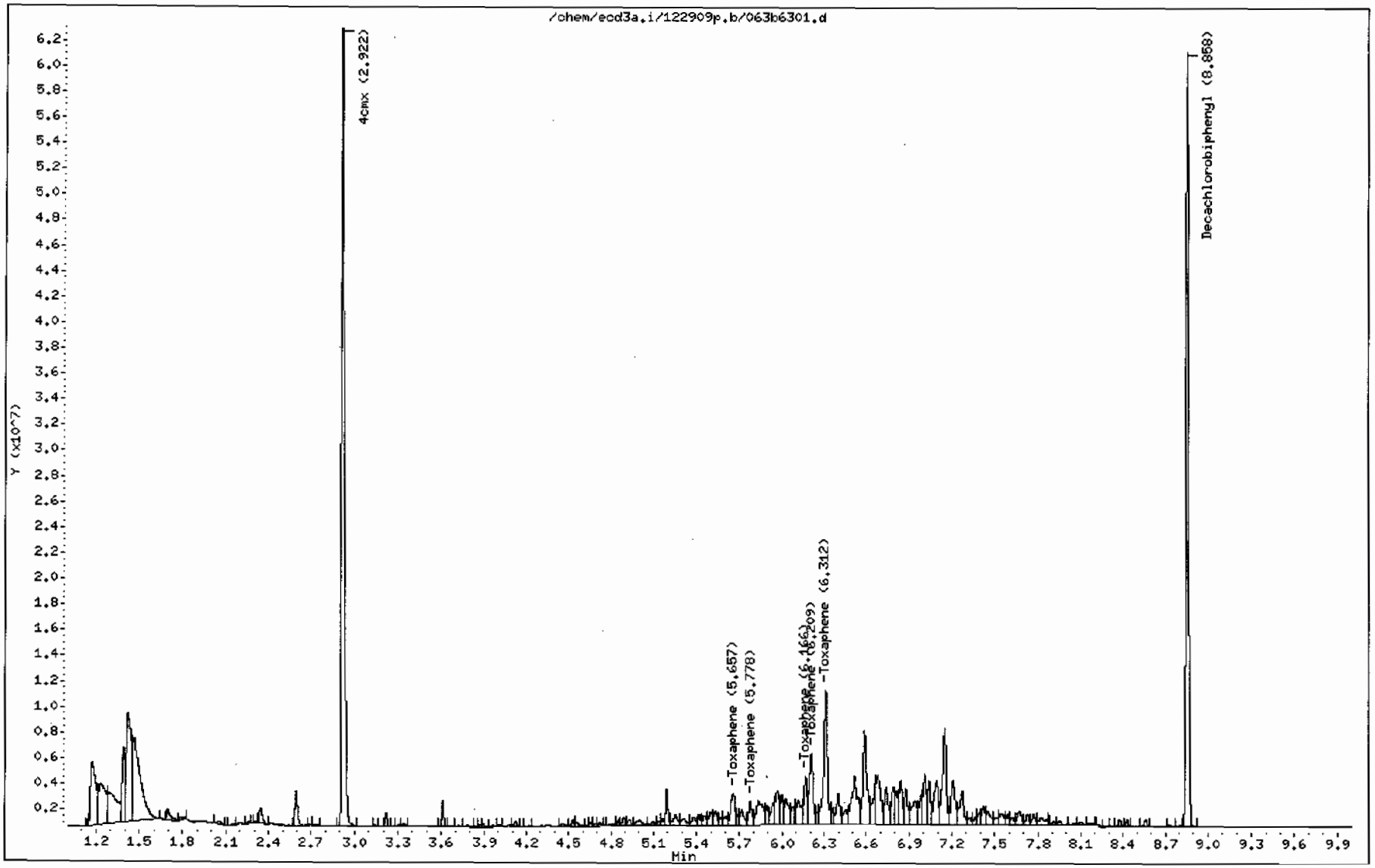

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/063b6301.d
Operator: CXC2
Injection Date: 30-DEC-2009 07:42
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS

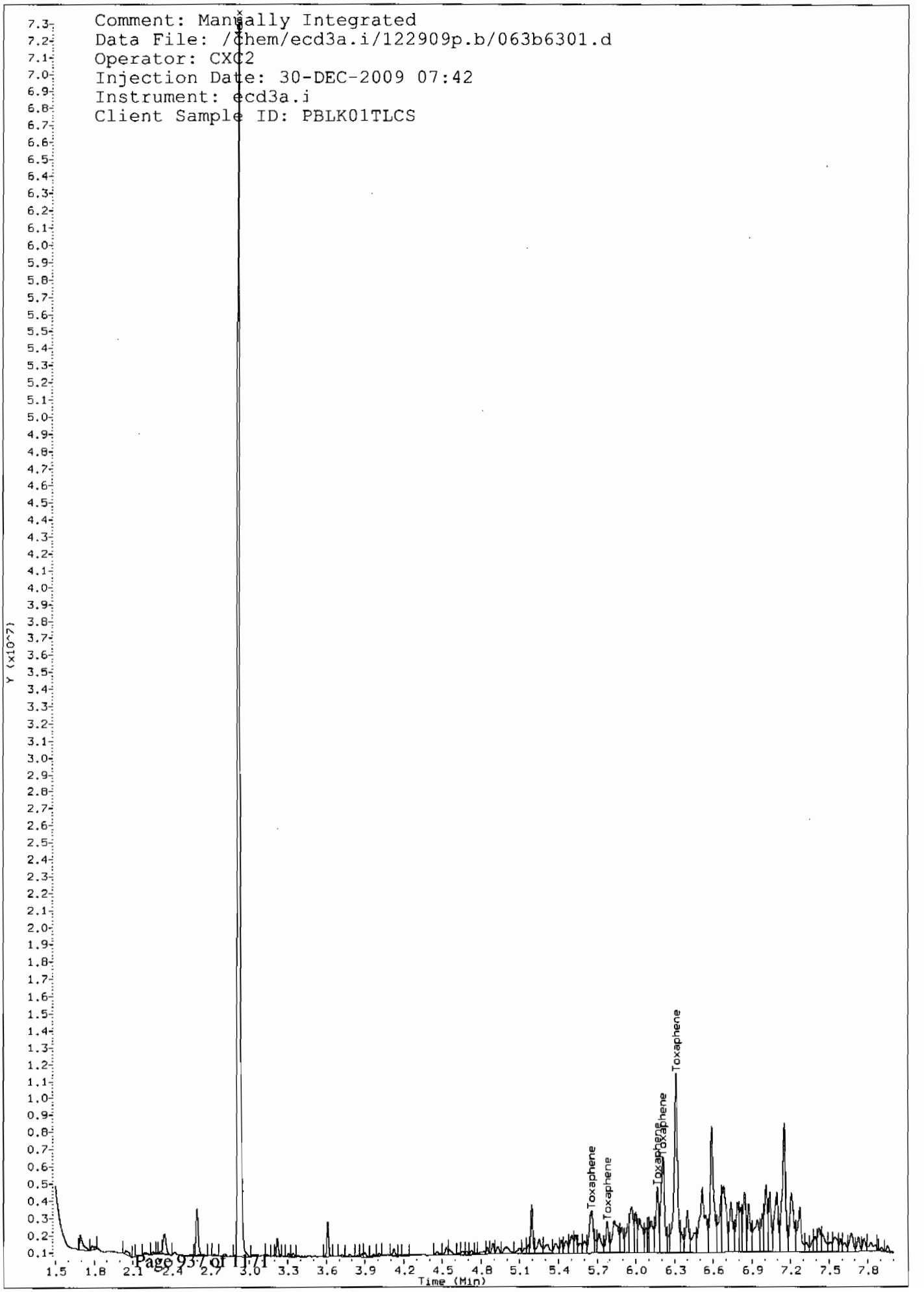

Comment: Before manual integration
Data File: /Chem/ecd3a.i/122909p.b/orig-063b6301.d
Operator: CXC2
Injection Date: 30-DEC-2009 07:42
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS

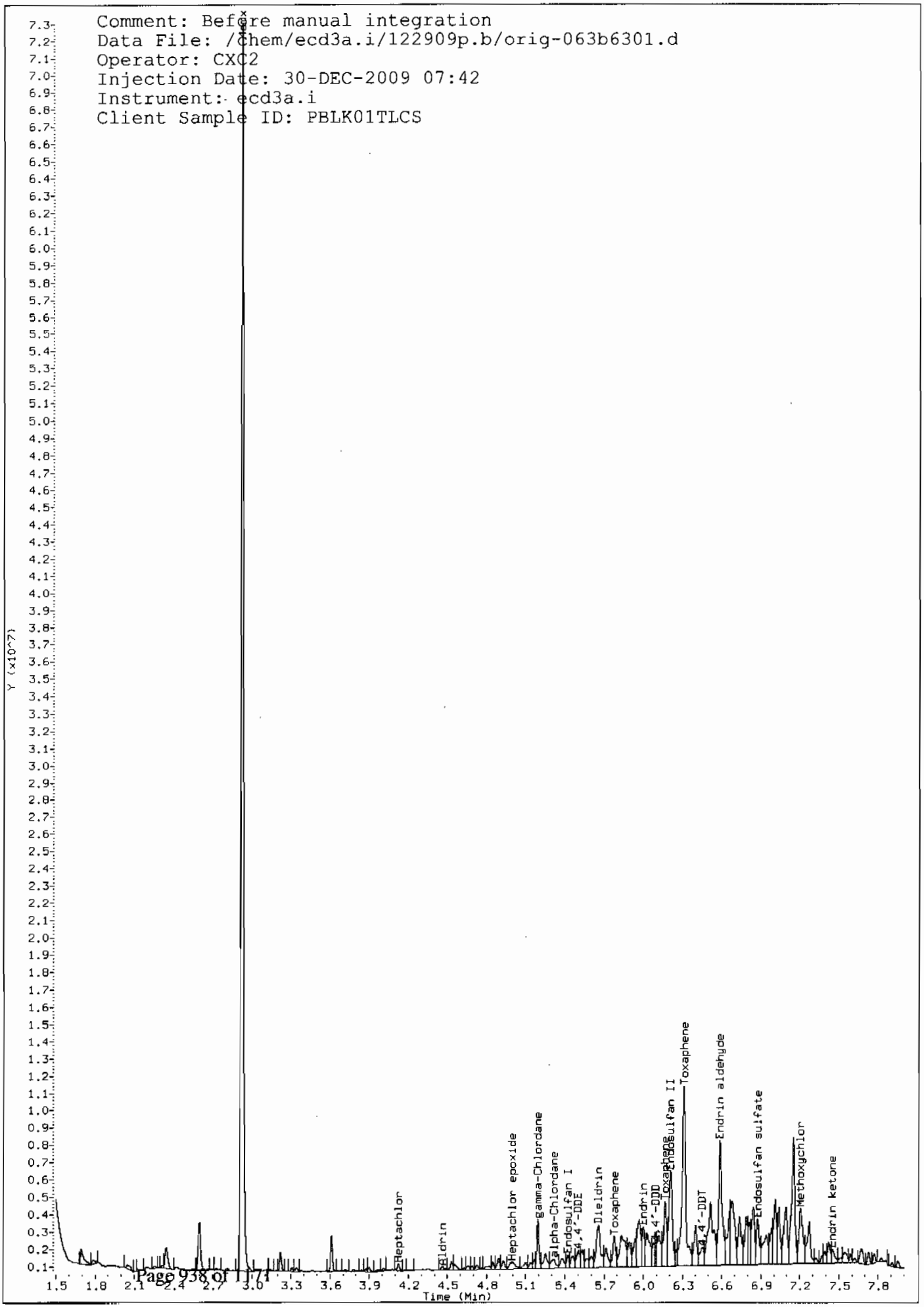

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–1020	**Date Collected:**	12/18/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	1202003315	**Date Received:**	12/22/2009 09:55		
Client Sample:	QC for batch 936266	**Client:**	LANL010	**Project:**	QC
Client ID:	CAPA–10–6823MS	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	936267	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	12/30/2009 08:09	**Analyst:**	CXC2	**Inj. Vol:**	1 uL
Prep Date:	12/24/2009 12:37	**Aliquot:**	500 mL	**Final Volume:**	2.5 mL
Data File:	065f6501.d	**Column:**	1 CLP–1	**Level:**	LOW
	065b6501.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC		0.555	ug/L	0.005	0.020	1
58–89–9	gamma–BHC (Lindane)		0.683	ug/L	0.005	0.020	1
319–85–7	beta–BHC		0.648	ug/L	0.006	0.020	1
319–86–8	delta–BHC		0.556	ug/L	0.005	0.020	1
76–44–8	Heptachlor		0.634	ug/L	0.005	0.020	1
309–00–2	Aldrin		0.595	ug/L	0.005	0.020	1
1024–57–3	Heptachlor epoxide		0.639	ug/L	0.005	0.020	1
5103–74–2	gamma–Chlordane		0.639	ug/L	0.005	0.020	1
5103–71–9	alpha–Chlordane		0.637	ug/L	0.005	0.020	1
959–98–8	Endosulfan I		0.645	ug/L	0.005	0.020	1
72–55–9	4,4'–DDE		1.58	ug/L	0.005	0.040	1
60–57–1	Dieldrin		1.58	ug/L	0.010	0.040	1
72–20–8	Endrin		1.89	ug/L	0.010	0.040	1
72–54–8	4,4'–DDD		1.70	ug/L	0.010	0.040	1
33213–65–9	Endosulfan II		1.69	ug/L	0.010	0.040	1
7421–93–4	Endrin aldehyde		1.47	ug/L	0.005	0.040	1
50–29–3	4,4'–DDT		1.73	ug/L	0.010	0.040	1
1031–07–8	Endosulfan sulfate		1.75	ug/L	0.010	0.040	1
72–43–5	Methoxychlor		6.40	ug/L	0.050	0.200	1
53494–70–5	Endrin ketone		1.63	ug/L	0.010	0.040	1
8001–35–2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
Decachlorobiphenyl	1.17	1.00	ug/L	117	(34%–118%)
4cmx	1.00	1.00	ug/L	100	(29%–103%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/122909p.b/065f6501.d
Lab Smp Id: 1202003315 Client Smp ID: CAPA-10-6823MS
Inj Date : 30-DEC-2009 08:09
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |1202003315|1|
Misc Info : |ECD81A_1L|936267|SVP|MS|GROUND WATER|MS|||
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 12:18 hea01125 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 65 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1020.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.680	2.679	0.001	14384081	218.054	1.09	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.820	7.824	-0.004	11296408	234.388	1.17	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.084	3.085	-0.001	11801047	111.090	0.555	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.328	3.330	-0.002	10720507	136.520	0.682	80.00- 120.00	100.00(R)

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.393	3.393	0.000	4494790	129.548	0.648	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.541	3.542	-0.001	10503250	111.144	0.556	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.712	3.713	-0.001	8128732	126.892	0.634	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.968	3.970	-0.002	9035757	119.004	0.595	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.504	4.507	-0.003	8530519	127.870	0.639	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.619	4.621	-0.002	8421694	127.749	0.639	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.742	4.744	-0.002	8427371	127.477	0.637	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.874	4.877	-0.003	7674230	128.950	0.645	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.809	4.811	-0.002	20963484	316.224	1.58	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.102	5.105	-0.003	21426654	315.767	1.58	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.330	5.334	-0.004	19932818	378.277	1.89	80.00- 120.00	100.00(R)
25 4,4'-DDD					CAS #: 72-54-8		
5.390	5.394	-0.004	17498207	339.059	1.70	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.554	5.558	-0.004	18891725	337.894	1.69	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.977	5.982	-0.005	13830855	293.556	1.47	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.670	5.673	-0.003	15305621	346.769	1.73	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.430	6.434	-0.004	16517562	350.065	1.75	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.173	6.177	-0.004	27571329	1280.03	6.40	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.728	6.732	-0.004	20069907	325.346	1.63	80.00- 120.00	100.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/122909p.b/065f6501.d
Date : 30-DEC-2009 08:09
Client ID: CAPA-10-6823MS
Sample Info: 1120200331511
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i
Operator: CXC2
Column diameter: 0.25

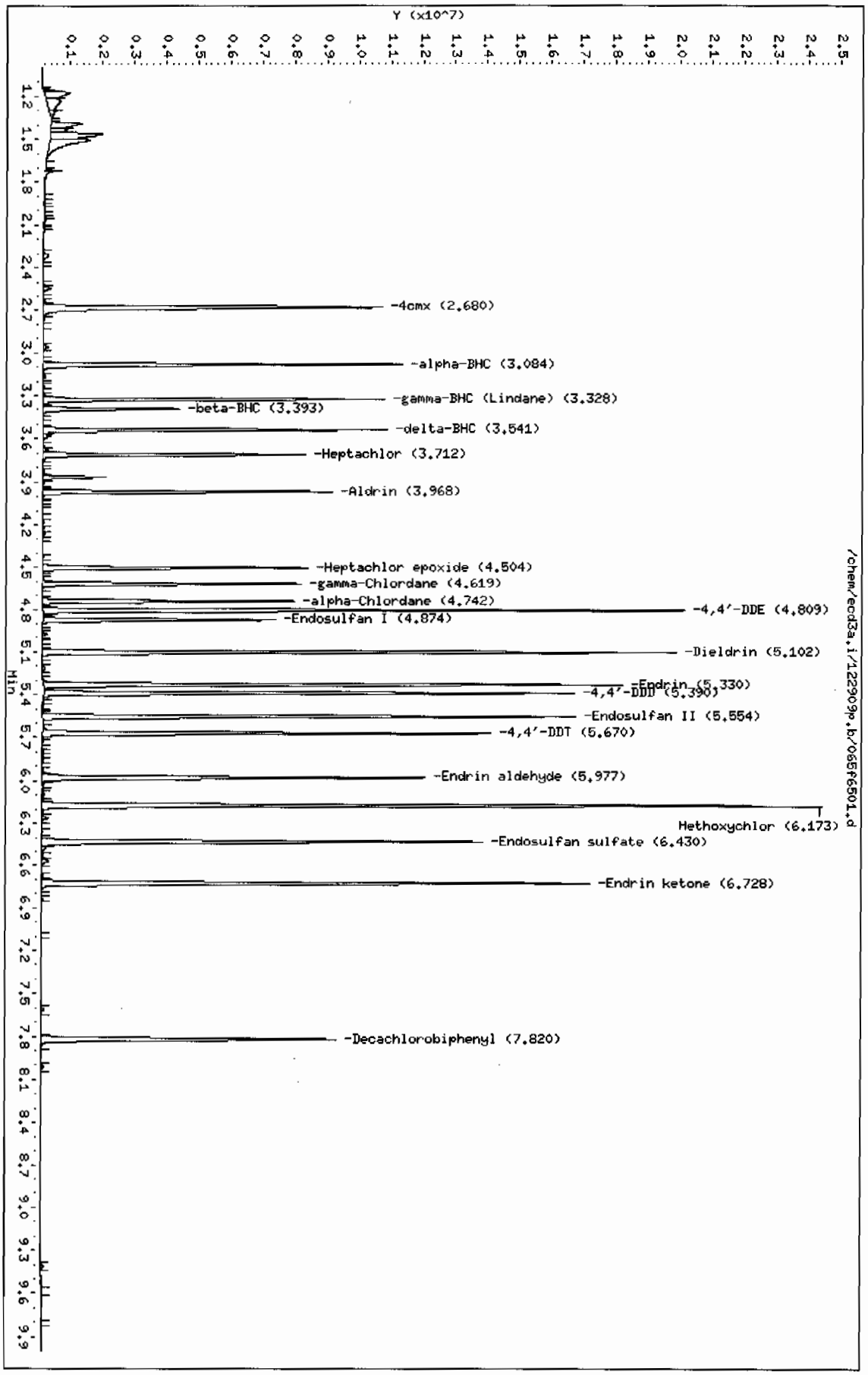

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/065b6501.d
Lab Smp Id: 1202003315 Client Smp ID: CAPA-10-6823MS
Inj Date : 30-DEC-2009 08:09
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |1202003315|1|
Misc Info : |ECD81A_1L|936267|SVP|MS|GROUND WATER|MS|||
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 12:17 hea01125 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 65 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1020.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.922	0.000	93834431	200.074	1.00	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.858	8.860	-0.002	79807519	243.151	1.22	80.00- 120.00	100.00(R)
5 alpha-BHC					CAS #: 319-84-6		
3.414	3.414	0.000	73156860	112.831	0.564	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.722	3.723	-0.001	63823270	118.129	0.591	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.784	3.785	-0.001	25727507	112.102	0.560	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.056	4.057	-0.001	56835438	111.615	0.558	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.136	4.137	-0.001	44865833	108.925	0.545	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.447	4.449	-0.002	38311383	103.116	0.516	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.998	4.999	-0.001	30323694	113.316	0.566	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.189	5.191	-0.002	32986406	110.391	0.552	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.335	5.337	-0.002	31435721	120.361	0.602	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.399	5.401	-0.002	29545789	119.901	0.600	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.492	5.494	-0.002	78577584	299.925	1.50	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.679	5.681	-0.002	88729251	302.009	1.51	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.999	6.001	-0.002	96640789	350.747	1.75	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.098	6.100	-0.002	92068383	316.604	1.58	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.219	6.222	-0.003	104016746	316.442	1.58	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.575	6.579	-0.004	91813281	281.592	1.41	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.437	6.439	-0.002	102959903	322.595	1.61	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.878	6.882	-0.004	137035825	332.312	1.66	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.180	7.182	-0.002	219705050	1221.70	6.11	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.470	7.473	-0.003	158542844	315.405	1.58	80.00- 120.00	100.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/122909e.b/065b6501.d
Date : 30-DEC-2009 08:09
Client ID: CAPA-10-6823MS
Sample Info: I120200331511
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i
Operator: CXC2
Column diameter: 0.25

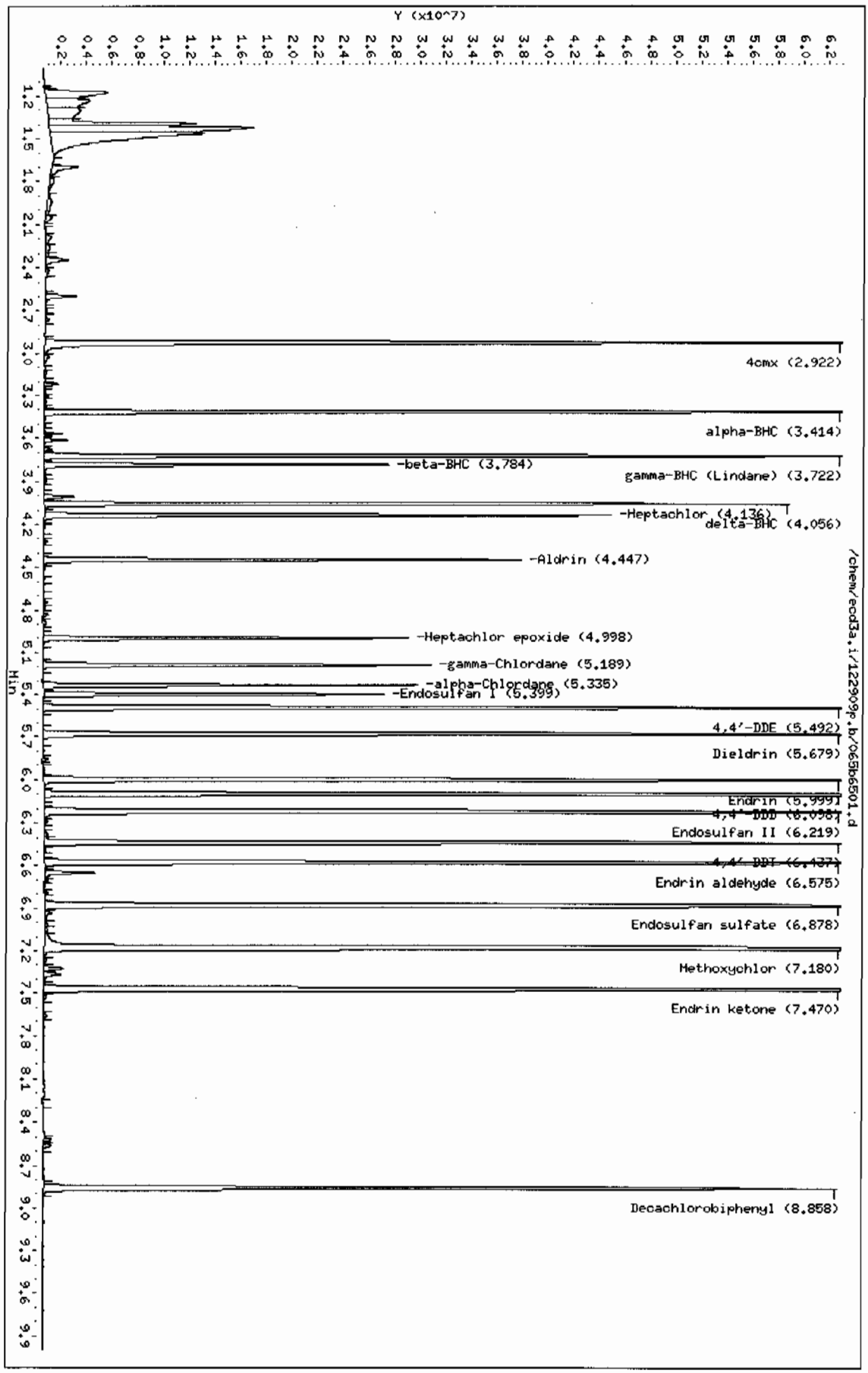

Page 1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-1020	**Date Collected:**	12/18/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	1202003316	**Date Received:**	12/22/2009 09:55		
Client Sample:	QC for batch 936266	**Client:**	LANL010	**Project:**	QC
Client ID:	CAPA-10-6823MSD	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	936267	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	12/30/2009 08:23	**Analyst:**	CXC2	**Inj. Vol:**	1 uL
Prep Date:	12/24/2009 12:37	**Aliquot:**	500 mL	**Final Volume:**	2.5 mL
Data File:	066f6601.d	**Column:**	1 CLP-1	**Level:**	LOW
	066b6601.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC		0.443	ug/L	0.005	0.020	1
58-89-9	gamma-BHC (Lindane)		0.541	ug/L	0.005	0.020	1
319-85-7	beta-BHC		0.524	ug/L	0.006	0.020	1
319-86-8	delta-BHC		0.449	ug/L	0.005	0.020	1
76-44-8	Heptachlor		0.497	ug/L	0.005	0.020	1
309-00-2	Aldrin		0.463	ug/L	0.005	0.020	1
1024-57-3	Heptachlor epoxide		0.507	ug/L	0.005	0.020	1
5103-74-2	gamma-Chlordane		0.504	ug/L	0.005	0.020	1
5103-71-9	alpha-Chlordane		0.505	ug/L	0.005	0.020	1
959-98-8	Endosulfan I		0.514	ug/L	0.005	0.020	1
72-55-9	4,4'-DDE		1.27	ug/L	0.005	0.040	1
60-57-1	Dieldrin		1.26	ug/L	0.010	0.040	1
72-20-8	Endrin		1.52	ug/L	0.010	0.040	1
72-54-8	4,4'-DDD		1.39	ug/L	0.010	0.040	1
33213-65-9	Endosulfan II		1.37	ug/L	0.010	0.040	1
7421-93-4	Endrin aldehyde		1.18	ug/L	0.005	0.040	1
50-29-3	4,4'-DDT		1.41	ug/L	0.010	0.040	1
1031-07-8	Endosulfan sulfate		1.42	ug/L	0.010	0.040	1
72-43-5	Methoxychlor		5.22	ug/L	0.050	0.200	1
53494-70-5	Endrin ketone		1.32	ug/L	0.010	0.040	1
8001-35-2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
Decachlorobiphenyl	0.934	1.00	ug/L	93.4	(34%-118%)
4cmx	0.797	1.00	ug/L	79.7	(29%-103%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/122909p.b/066f6601.d
Lab Smp Id: 1202003316 Client Smp ID: CAPA-10-6823MSD
Inj Date : 30-DEC-2009 08:23
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |1202003316|1|
Misc Info : |ECD81A_1L|936267|SVP|MSD|GROUND WATER|MSD|||
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 12:18 hea01125 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 66 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1020.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.679	2.679	0.000	11120011	168.573	0.843	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.821	7.824	-0.003	9000799	186.757	0.934	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.084	3.085	-0.001	9292939	88.5643	0.443	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.328	3.330	-0.002	8502811	108.279	0.541	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.392	3.393	-0.001	3634306	104.747	0.524	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.540	3.542	-0.002	8387871	89.8169	0.449	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.711	3.713	-0.002	6363797	99.3405	0.497	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.968	3.970	-0.002	7032558	92.6214	0.463	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.504	4.507	-0.003	6769501	101.473	0.507	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.619	4.621	-0.002	6649978	100.874	0.504	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.742	4.744	-0.002	6681378	101.067	0.505	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.874	4.877	-0.003	6122557	102.878	0.514	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.809	4.811	-0.002	16865568	254.409	1.27	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.102	5.105	-0.003	17157427	252.851	1.26	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.330	5.334	-0.004	16000509	303.652	1.52	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.390	5.394	-0.004	14299819	277.085	1.38	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.554	5.558	-0.004	15268408	273.088	1.36	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.979	5.982	-0.003	11125009	236.125	1.18	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.670	5.673	-0.003	12430060	281.620	1.41	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.430	6.434	-0.004	13427530	284.576	1.42	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.174	6.177	-0.003	22490217	1044.13	5.22	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.729	6.732	-0.003	16327997	264.687	1.32	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/122909p.b/066f6601.d
Date : 30-DEC-2009 08:23
Client ID: CAPA-10-6823MSD
Sample Info: 1120200331611
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i
Operator: CXC2
Column diameter: 0.25

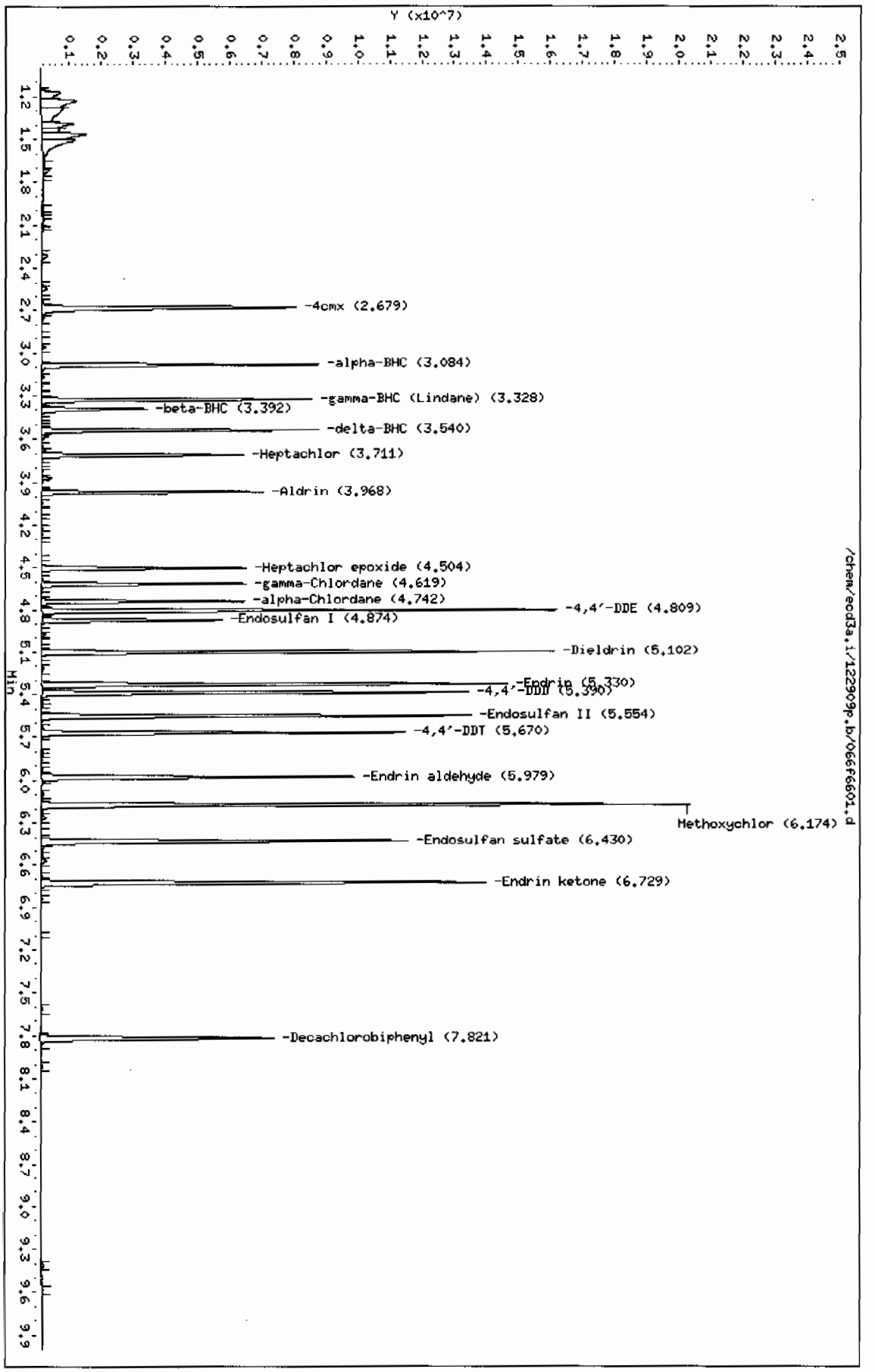

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/066b6601.d
Lab Smp Id: 1202003316 Client Smp ID: CAPA-10-6823MSD
Inj Date : 30-DEC-2009 08:23
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |1202003316|1|
Misc Info : |ECD81A_1L|936267|SVP|MSD|GROUND WATER|MSD|||
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 12:17 hea01125 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 66 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1020.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.922	0.000	74751564	159.386	0.797	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.858	8.860	-0.002	63802845	194.389	0.972	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.414	3.414	0.000	57794235	89.1372	0.446	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.723	3.723	0.000	51505016	95.3295	0.477	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.784	3.785	-0.001	21229808	92.5045	0.462	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.056	4.057	-0.001	46254092	90.8352	0.454	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.136	4.137	-0.001	35743485	86.7775	0.434	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.447	4.449	-0.002	30828482	82.9757	0.415	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.997	4.999	-0.002	24424361	91.2713	0.456	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.188	5.191	-0.003	24551621	82.7788	0.414	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.335	5.337	-0.002	25092048	96.0720	0.480	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.399	5.401	-0.002	23818207	96.6580	0.483	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.492	5.494	-0.002	64325607	245.526	1.23	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.680	5.681	-0.001	71968715	244.961	1.22	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.999	6.001	-0.002	78734441	285.758	1.43	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.098	6.100	-0.002	76044363	261.500	1.31	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.219	6.222	-0.003	85753255	260.880	1.30	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.576	6.579	-0.003	75478142	231.492	1.16	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.438	6.439	-0.001	83990441	263.160	1.32	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.879	6.882	-0.003	113146164	274.379	1.37	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.180	7.182	-0.002	180015417	1001.00	5.00	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.470	7.473	-0.003	129696766	258.019	1.29	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/122909p.b/066b6601.d
Date : 30-DEC-2009 08:23
Client ID: CAPA-10-6823MSD
Sample Info: |1202003316|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i
Operator: CXC2
Column diameter: 0.25

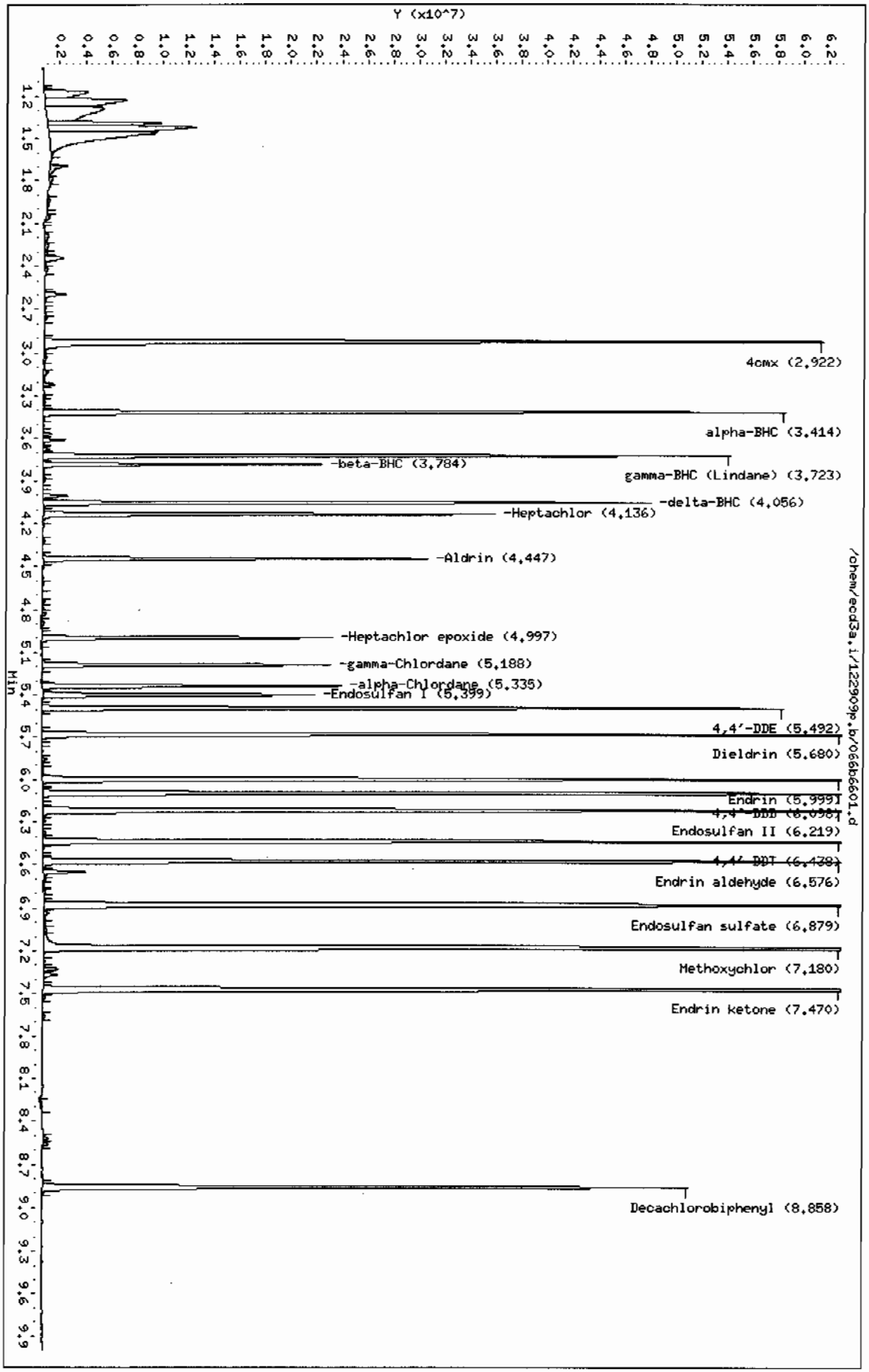

Page 1

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD3

DATE: 12/31/2009 METHOD: ECD3-B-8081-122909.m OPERATOR:CXC2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA385

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-041
EPA Method: 8081
8081A
Sequence Number:122909p.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR091130-99IB	CXC2	29-DEC-2009 16:57		122909p	1.0		Clean
002b0201.d	WPE091219-99DG	CXC2	29-DEC-2009 17:10		122909p	1.0		(b) DDT 1.0%, Endrin 5.4%; (f) DDT 1.3%, Endrin 3.3%
003b0301.d	WPE091228-01AB	CXC2	29-DEC-2009 17:34		122909p	1.0		INDAB ICAL level 1
004b0401.d	WPE091228-02AB	CXC2	29-DEC-2009 17:47		122909p	1.0		INDAB ICAL level 2
005b0501.d	WPE091228-03AB	CXC2	29-DEC-2009 18:01		122909p	1.0		INDAB ICAL level 3
006b0601.d	WPE091228-04AB	CXC2	29-DEC-2009 18:15		122909p	1.0		INDAB ICAL level 4
007b0701.d	IPE091219-02AB	CXC2	29-DEC-2009 18:29		122909p	1.0		INDAB ICAL level 5
008b0801.d	WPE091218-10AB	CXC2	29-DEC-2009 18:43		122909p	1.0		(b) gamma-Chlordane elevated - NCR LANL batches; (f) All okay
009b0901.d	WPE091228-11TX	CXC2	29-DEC-2009 18:56		122909p	1.0		TOXAPH ICAL level 1
010b1001.d	WPE091228-12TX	CXC2	29-DEC-2009 19:10		122909p	1.0		TOXAPH ICAL level 2
011b1101.d	WPE091228-13TX	CXC2	29-DEC-2009 19:24		122909p	1.0		TOXAPH ICAL level 3
012b1201.d	WPE091228-14TX	CXC2	29-DEC-2009 19:37		122909p	1.0		DCSE - misinjection - see vial 13
013b1301.d	WPE091228-14TX	CXC2	29-DEC-2009 20:01		122909p	1.0		TOXAPH ICAL level 4
014b1401.d	IPE091121-40TX	CXC2	29-DEC-2009 20:14		122909p	1.0		TOXAPH ICAL level 5
015b1501.d	WPE091219-52TX	CXC2	29-DEC-2009 20:28		122909p	1.0		All okay

Instrument Batch: /chem/ecd3a.i/122909p.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016b1601.d	WPE091228-21CL	CXC2	29-DEC-2009 20:42		122909p	1.0		CHLOR ICAL level 1

017b1701.d	WPE091228-22CL	CXC2	29-DEC-2009 21:14		122909p		1.0		CHLOR ICAL level 2
018b1801.d	WPE091228-23CL	CXC2	29-DEC-2009 21:28		122909p		1.0		CHLOR ICAL level 3
019b1901.d	WPE091228-24CL	CXC2	29-DEC-2009 21:41		122909p		1.0		CHLOR ICAL level 4
020b2001.d	IPE091029-06CL	CXC2	29-DEC-2009 21:55		122909p		1.0		CHLOR ICAL level 5
021b2101.d	WPE091206-60CL	CXC2	29-DEC-2009 22:09		122909p		1.0		All okay
022b2201.d	WPE091219-99DG	CXC2	29-DEC-2009 22:22		122909p		1.0		(b) DDT 2.9%, Endrin 8.6%; (f) DDT 3.3%, Endrin 5.7%
023b2301.d	WAR091130-99IB	CXC2	29-DEC-2009 22:36		122909p		1.0		Clean
024b2401.d	243434001	CXC2	29-DEC-2009 22:49	937138	243434		1.0	ENRG	USE, uploaded both columns, reporting higher result
025b2501.d	1202005324	CXC2	29-DEC-2009 23:03	937138	243434		1.0	MS	USE, uploaded both columns, reporting higher result
026b2601.d	1202005325	CXC2	29-DEC-2009 23:17	937138	243434		1.0	TMS	USE, uploaded both columns, reporting higher result
027b2701.d	1202005326	CXC2	29-DEC-2009 23:30	937138	243434		1.0	CMS	USE, uploaded both columns, reporting higher result
028b2801.d	WAR091130-99IB	CXC2	29-DEC-2009 23:44		122909p		1.0		Clean
029b2901.d	WPE091218-10AB	CXC2	29-DEC-2009 23:58		122909p		1.0		All okay
030b3001.d	WAR091130-99IB	CXC2	30-DEC-2009 00:11		122909p		1.0		Clean
031b3101.d	1202001156	CXC2	30-DEC-2009 00:25	937138	243434		1.0	TB	USE, uploaded both columns, reporting higher result
032b3201.d	1202003586	CXC2	30-DEC-2009 00:39	937138	243278		1.0	TB	USE, uploaded both columns, reporting higher result
033b3301.d	1202005320	CXC2	30-DEC-2009 00:52	937138	243434		1.0	MB	USE, uploaded both columns, reporting higher result
034b3401.d	1202005330	CXC2	30-DEC-2009 01:06	937138	243434		1.0	LCS	USE, uploaded both columns, reporting higher result
035b3501.d	1202005331	CXC2	30-DEC-2009 01:19	937138	243434		1.0	TLCS	USE, uploaded both columns, reporting higher result

Instrument Batch: /chem/ecd3a.i/122909p.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	1202005332	CXC2	30-DEC-2009 01:33	937138	243434	1.0	CLCS	USE, uploaded both columns, reporting higher result
037b3701.d	WAR091130-99IB	CXC2	30-DEC-2009 01:47		122909p	1.0		Clean
038b3801.d	WPE091218-10AB	CXC2	30-DEC-2009 02:01		122909p	1.0		All okay
039b3901.d	WAR091130-99IB	CXC2	30-DEC-2009 02:14		122909p	1.0		Clean
040b4001.d	243278003	CXC2	30-DEC-2009 02:28	937138	243278	1.0	ECWS	USE, uploaded both columns, reporting higher result
041b4101.d	1202005321	CXC2	30-DEC-2009 02:42	937138	243278	1.0	MS	USE, uploaded both columns, reporting higher result

042b4201.d	1202005327	CXC2	30-DEC-2009 02:55	937138	243278	1.0	MSD	USE, uploaded both columns, reporting higher result
043b4301.d	1202005322	CXC2	30-DEC-2009 03:09	937138	243278	1.0	TMS	USE, uploaded both columns, reporting higher result
044b4401.d	1202005328	CXC2	30-DEC-2009 03:22	937138	243278	1.0	TMSD	USE, uploaded both columns, reporting higher result
045b4501.d	1202005323	CXC2	30-DEC-2009 03:36	937138	243278	1.0	CMS	USE, uploaded both columns, reporting higher result
046b4601.d	1202005329	CXC2	30-DEC-2009 03:50	937138	243278	1.0	CMSD	USE, uploaded both columns, reporting higher result
047b4701.d	WAR091130-99IB	CXC2	30-DEC-2009 04:03		122909p	1.0		Clean
048b4801.d	WPE091218-10AB	CXC2	30-DEC-2009 04:17		122909p	1.0		(b) Endrin elevated; (f) gamma-BHC, Endrin elevated
049b4901.d	WAR091130-99IB	CXC2	30-DEC-2009 04:31		122909p	1.0		Clean
050b5001.d	1202004566	CXC2	30-DEC-2009 04:44	936866	10-1044	1.0	MB	USE, uploaded both columns, reporting lower result
051b5101.d	1202004567	CXC2	30-DEC-2009 04:58	936866	10-1044	1.0	LCS	USE, uploaded both columns, reporting lower result
052b5201.d	1202004570	CXC2	30-DEC-2009 05:12	936866	10-1044	1.0	TLCS	USE, uploaded both columns, reporting lower result
053b5301.d	243458003	CXC2	30-DEC-2009 05:25	936866	10-1044	1.0	LANL	USE, uploaded both columns, reporting lower result
054b5401.d	243460001	CXC2	30-DEC-2009 05:39	936866	10-1049	1.0	LANL	USE, uploaded both columns, reporting lower result
055b5501.d	243467003	CXC2	30-DEC-2009 05:52	936866	10-1055	5.0	LANL	USE, uploaded both columns, reporting lower result NCR - DCB low - confirmed in MS/MSD - matrix and dilution

Instrument Batch: /chem/ecd3a.i/122909p.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056b5601.d	1202004568	CXC2	30-DEC-2009 06:06	936866	10-1055	5.0	MS	USE, uploaded both columns, reporting lower result NCR - DCB low - confirmed in sample/MSD - matrix and dilution
057b5701.d	1202004569	CXC2	30-DEC-2009 06:20	936866	10-1055	5.0	MSD	USE, uploaded both columns, reporting lower result NCR - DCB low - confirmed in sample/MS - matrix and dilution
058b5801.d	243469002	CXC2	30-DEC-2009 06:33	936866	10-1052	1.0	LANL	USE, uploaded both columns, reporting lower result
059b5901.d	WPE091218-10AB	CXC2	30-DEC-2009 06:47		122909p	1.0		(b) Endrin elevated; (f) gamma-BHC, Endrin elevated
060b6001.d	WAR091130-99IB	CXC2	30-DEC-2009 07:01		122909p	1.0		Clean
061b6101.d	1202003313	CXC2	30-DEC-2009 07:14	936267	10-1020	1.0	MB	USE, uploaded both columns, reporting lower result
062b6201.d	1202003314	CXC2	30-DEC-2009 07:28	936267	10-1020	1.0	LCS	USE, uploaded both columns, reporting lower result
063b6301.d	1202003318	CXC2	30-DEC-2009 07:42	936267	10-1020	1.0	TLCS	USE, uploaded both columns, reporting lower result
064b6401.d	243401003	CXC2	30-DEC-2009 07:55	936267	10-1020	1.0	LANL	USE, uploaded both columns, reporting lower result

065b6501.d	1202003315	CXC2	30-DEC-2009 08:09	936267	10-1020	1.0	MS	USE, uploaded both columns, reporting lower result NCR - spikes and surrogates elevated - RPD fails? - no hits
066b6601.d	1202003316	CXC2	30-DEC-2009 08:23	936267	10-1020	1.0	MSD	USE, uploaded both columns, reporting lower result
067b6701.d	243401007	CXC2	30-DEC-2009 08:36	936267	10-1020	1.0	LANL	USE, uploaded both columns, reporting lower result
068b6801.d	WPE091218-10AB	CXC2	30-DEC-2009 08:50		122909p	1.0		(b) All okay; (f) gamma-BHC elevated
069b6901.d	WAR091130-99IB	CXC2	30-DEC-2009 09:04		122909p	1.0		Clean

Instrument Batch: /chem/ecd3a.i/122909p.b

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/001b0101.d
Lab Smp Id: WAR091130-99IB Client Smp ID: PIBLK01
Inj Date : 29-DEC-2009 16:57
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WAR091130-99IB
Misc Info : |IBLK|
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 1 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.921	2.922	-0.001	86177621	183.748	184	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.858	8.860	-0.002	58899800	179.451	179	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/122909p.b/001b0101.d

Date : 29-DEC-2009 16:57

Client ID: PIBLK01

Sample Info: IWAR091130-99IB

Column phase: CLP-2

Instrument: ecd3a.i

Operator: CXC2

Column diameter: 0.25

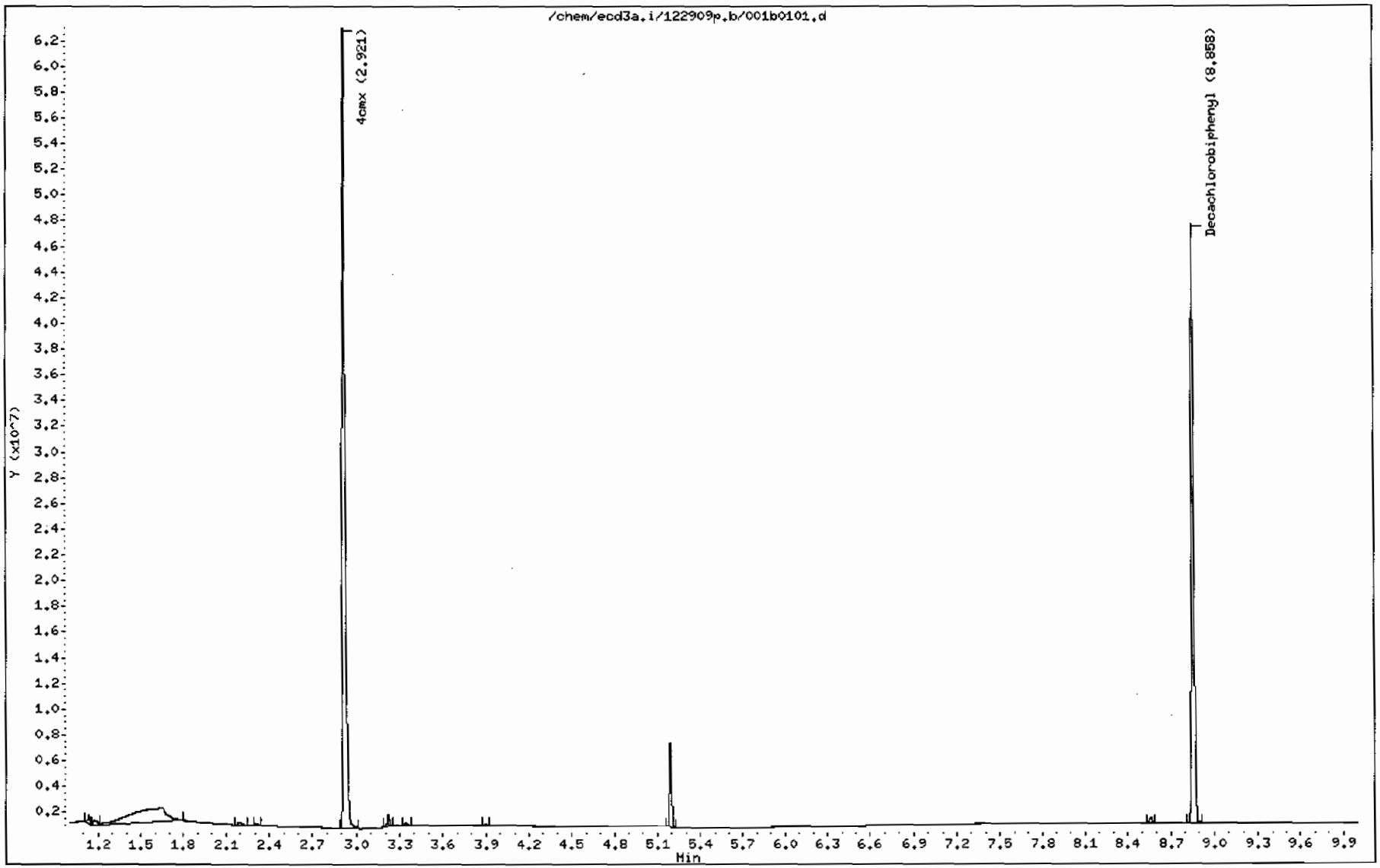

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/122909p.b/001f0101.d
Lab Smp Id: WAR091130-99IB Client Smp ID: PIBLK01
Inj Date : 29-DEC-2009 16:57
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WAR091130-99IB
Misc Info : |IBLK|
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 1 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.677	2.679	-0.002	13098802	198.570	198	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.819	7.824	-0.005	8969124	186.099	186	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/122909p.b/001f0101.d

Date : 29-DEC-2009 16:57

Client ID: PIBLK01

Sample Info: IWAR091130-99IB

Column phase: CLP-1

Instrument: ecd3a.i

Operator: CXC2

Column diameter: 0.25

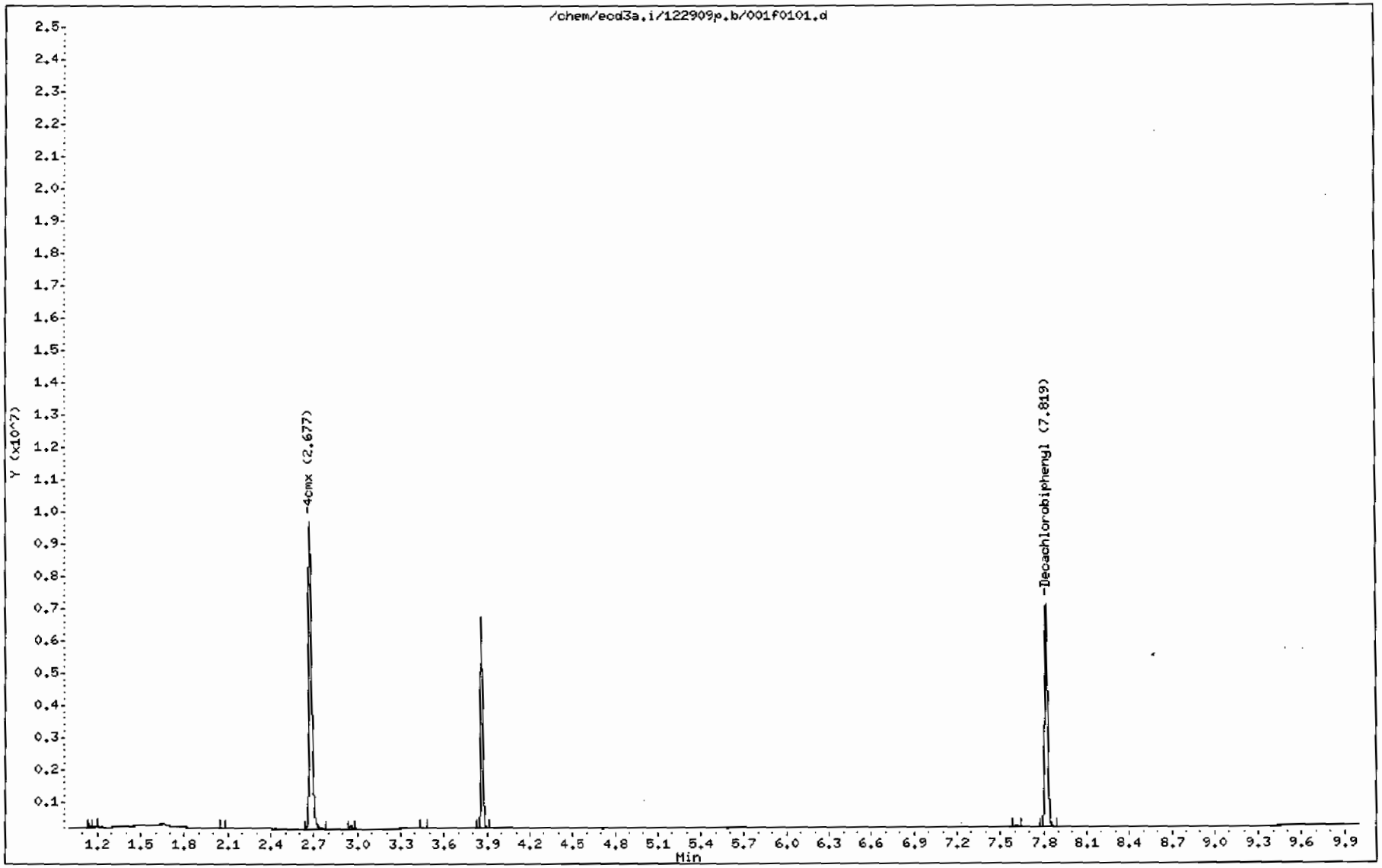

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/060b6001.d
Lab Smp Id: WAR091130-99IB Client Smp ID: PIBLK09
Inj Date : 30-DEC-2009 07:01
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WAR091130-99IB
Misc Info : |IBLK|
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 12:17 hea01125 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 60 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.922	0.000	87399825	186.354	186	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.858	8.860	-0.002	65663342	200.057	200	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/122909p.b/060b6001.d
Date : 30-DEC-2009 07:01
Client ID: PIBLK09
Sample Info: IWAR091130-99IB

Column phase: CLP-2

Instrument: ecd3a.i

Operator: CXC2
Column diameter: 0.25

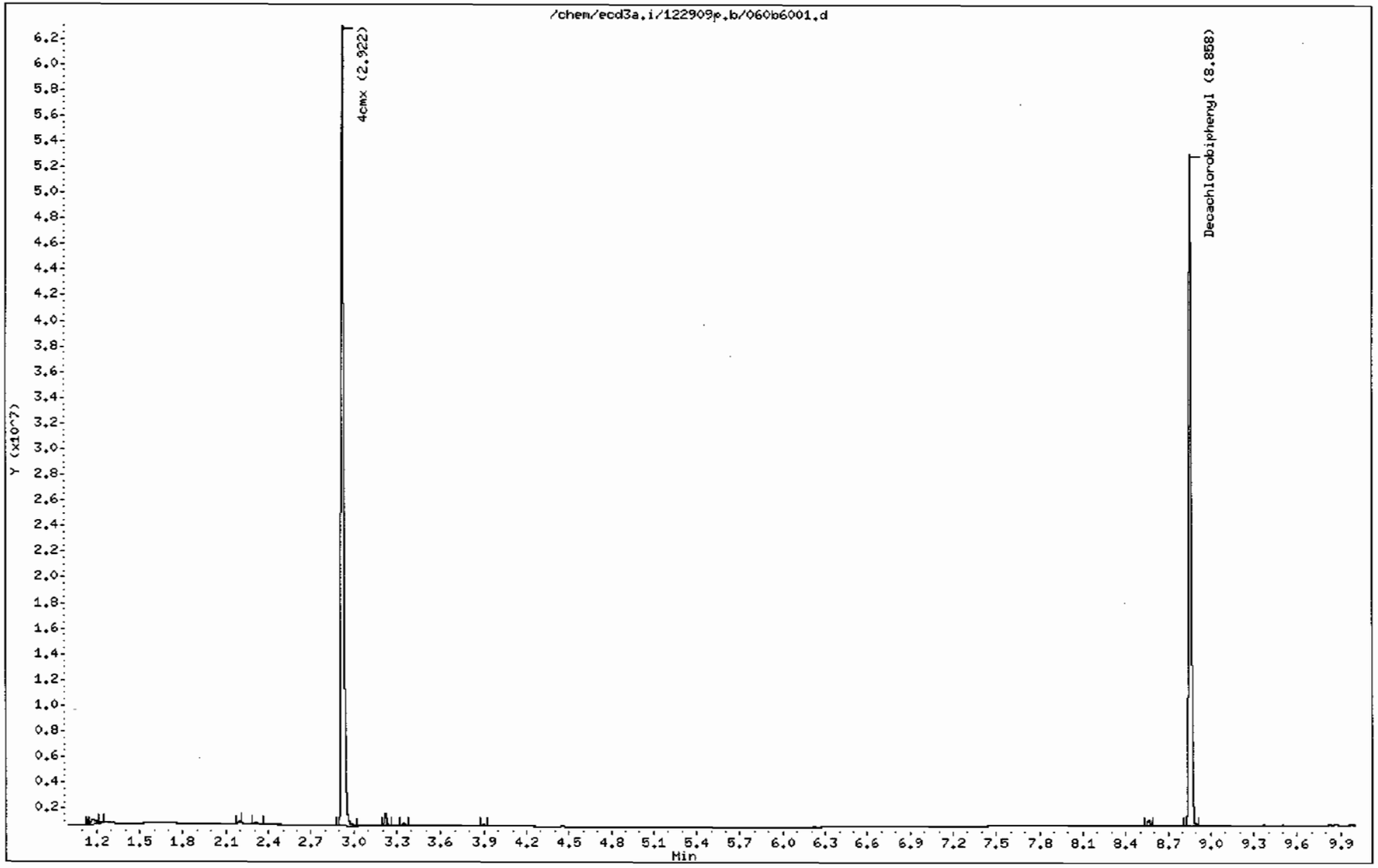

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/122909p.b/060f6001.d
Lab Smp Id: WAR091130-99IB Client Smp ID: PIBLK09
Inj Date : 30-DEC-2009 07:01
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WAR091130-99IB
Misc Info : |IBLK|
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 12:17 hea01125 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 60 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.678	2.679	-0.001	13771096	208.762	209	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.821	7.824	-0.003	9666785	200.575	200	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/122909p.b/060f6001.d

Page 1

Date : 30-DEC-2009 07:01

Client ID: PIBLK09

Instrument: ecd3a.i

Sample Info: IWAR091130-99IB

Operator: CXC2

Column phase: CLP-1

Column diameter: 0.25

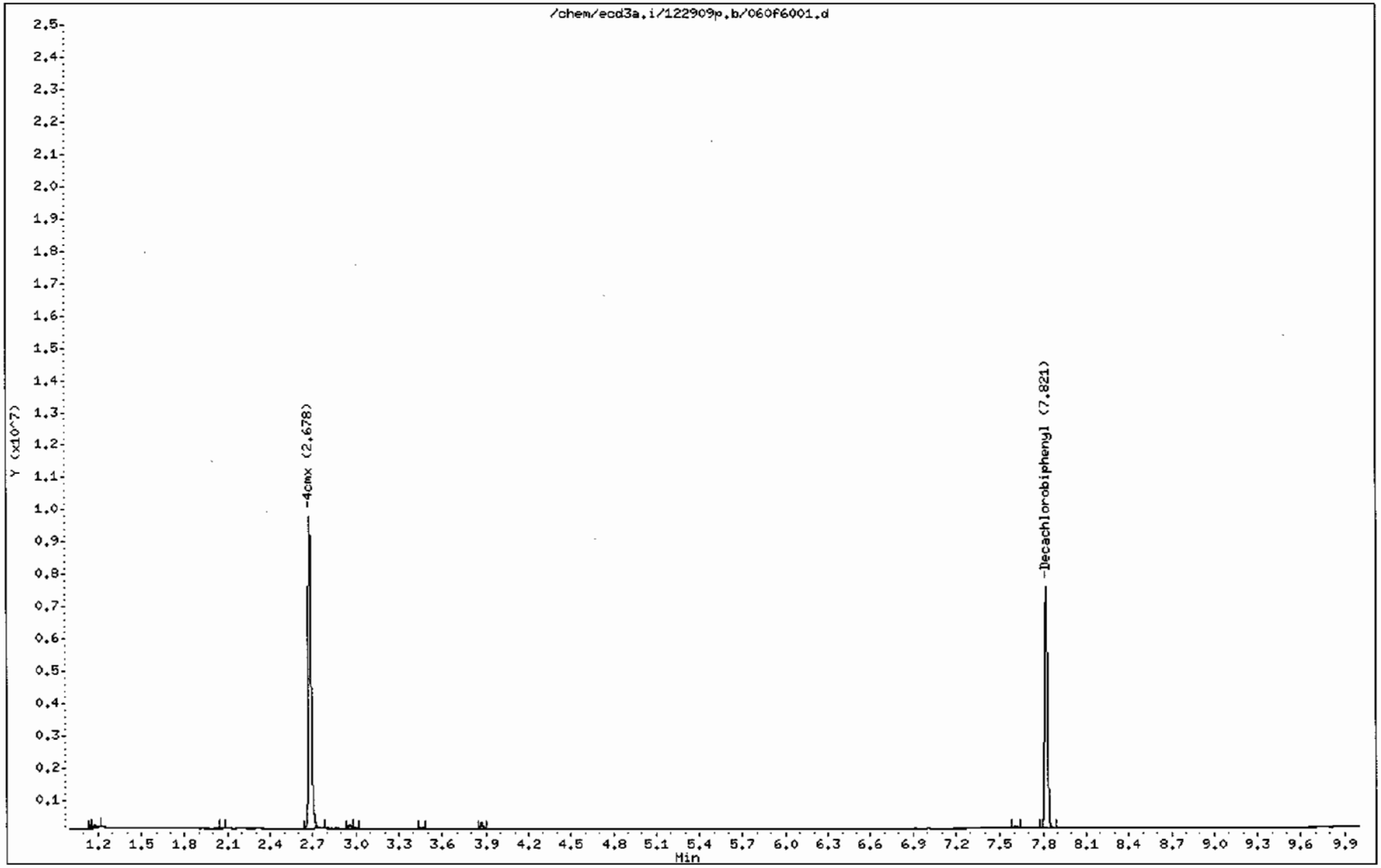

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 936266 **Verified by:** _____

Analyst: Sophia Cox

Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21

Instrument: HP Mass Spectrometer

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202003313 MB	24-DEC-2009 12:37:11	1000	5	Florisil	5	1	10	5	0.005
1202003314 LCS	24-DEC-2009 12:37:11	1000	5	Florisil	5	1	10	5	0.005
1202003318 LCS	24-DEC-2009 12:37:11	1000	5	Florisil	5	1	10	5	0.005
243401003	24-DEC-2009 12:37:11	800	6	Florisil	5	1	10	5	0.00625
1202003315 MS (243401003)	24-DEC-2009 12:37:11	500	6	Florisil	2.5	1	10	2.5	0.005
1202003316 MSD (243401003)	24-DEC-2009 12:37:11	500	6	Florisil	2.5	1	10	2.5	0.005
243401007	24-DEC-2009 12:37:11	940	6	Florisil	5	1	10	5	0.00532

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202003314	PESTSPIKE	UE091204-04	1	mL
LCS	1202003318	Toxaphene TCLP LCS	WE091204-11	2	mL
MS	1202003315	PESTSPIKE	UE091204-04	.5	mL
MSD	1202003316	PESTSPIKE	UE091204-04	.5	mL
SURR	All	PEST SURROGATE 1000 UG/L	UE091130-07	.5	mL
SURR	All	PEST SURROGATE 1000 UG/L	UE091130-07	1	mL
REGNT	All	Florisil cartridge 1000mg per cartridge	1103846-28	1	g
REGNT	All	Hexane	1241300-B2	5	mL
REGNT	All	Methylene Chloride	1245410-D	180	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Clean up Date: 12-24-09

Clean up Initials: SCC

Verified By: RLC

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-036

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
04-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GC/ECD	SW846 8081A	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
936267	See Below		

Potentially affected work order(s)(SDG): 243401(10-1020)

Application Issues:

Failed CCV or CCB

Failed Recovery for MS/PS

Failed Yield for Surrogates

Specification and Requirements Exception Description:	DER Disposition:
1. QC sample 1202003315 (MS) recovered slightly above the acceptance range for surrogates and spikes on one analytical column. 2. QC sample 1202003318 (TLCS) yielded above the acceptance range for the surrogate 4CMX on one analytical column. 3. The initial calibration verification standard (ICV) read above the acceptance range for gamma-Chlordane on one analytical column.	1., 2. Despite this positive bias, no target analytes were detected in the associated environmental samples; therefore, this non-conformance has no adverse effects on the data. 3. Despite the positive bias for gamma-Chlordane, this target analyte was not detected in the environmental samples in the SDG; therefore, this non-conformance has no adverse effects on the reported data.

Originator's Name:

Clairette Campbell 04-JAN-10

Data Validator/Group Leader:

Cameron Bearden 04-JAN-10

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1020

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3510C
Analytical Batch Number:	937373
Prep Batch Number:	937372

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
243401004	CAPA-10-6823
243401008	CAPA-10-6824
1202005820	Method Blank (MB)
1202005821	Laboratory Control Sample (LCS)
1202005822	243469003(WSTR47-10-8863) Matrix Spike (MS)
1202005823	243469003(WSTR47-10-8863) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-1052) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports (DERs) are for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integrations
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Andy Whatlock Date: 1-19-2010

Roadmap for LANL 10-1020 PCB

This roadmap was analyzed by jen01212 on 12-31-2009, 12:36.
This roadmap was reviewed by rob01090 on 01-04-2010, 16:28.
This roadmap was packaged by yml on 01-18-2010, 13:35.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/123109.b/014f1401.d	243401004	sample	31-DEC-2009	09:57	10-1020.sub	CAPA-10-6823	1.00000	937373	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123109.b/015f1501.d	243401008	sample	31-DEC-2009	10:08	10-1020.sub	CAPA-10-6824	1.00000	937373	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/123109.b/014b1401.d	243401004	sample	31-DEC-2009	09:57	10-1020.sub	CAPA-10-6823	1.00000	937373	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123109.b/015b1501.d	243401008	sample	31-DEC-2009	10:08	10-1020.sub	CAPA-10-6824	1.00000	937373	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/123109.b/012f1201.d	1202005820	mb	31-DEC-2009	09:36	10-1020.sub	PBLK01	1.00000	937373	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123109.b/013f1301.d	1202005821	lcs	31-DEC-2009	09:47	10-1020.sub	PBLK01LCS	1.00000	937373	UPLOAD BOTH, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/123109.b/012b1201.d	1202005820	mb	31-DEC-2009	09:36	10-1020.sub	PBLK01	1.00000	937373	UPLOAD BOTH, USE HIGHER
☐	N	/chem/ecd1a.i/123109.b/013b1301.d	1202005821	lcs	31-DEC-2009	09:47	10-1020.sub	PBLK01LCS	1.00000	937373	UPLOAD BOTH, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401004**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6823**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**937373**	**Inst:**	**ECD1A.1**	**Dilution:**	**1**
Run Date:	**12/31/2009 09:57**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/30/2009 15:41**	**Aliquot:**	**935 mL**	**Final Volume:**	**1 mL**
Data File:	**014f1401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	014b1401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.107	ug/L	0.0356	0.107	1
11104-28-2	Aroclor-1221	U	0.107	ug/L	0.0356	0.107	1
11141-16-5	Aroclor-1232	U	0.107	ug/L	0.0356	0.107	1
53469-21-9	Aroclor-1242	U	0.107	ug/L	0.0356	0.107	1
12672-29-6	Aroclor-1248	U	0.107	ug/L	0.0356	0.107	1
11097-69-1	Aroclor-1254	U	0.107	ug/L	0.0356	0.107	1
11096-82-5	Aroclor-1260	U	0.107	ug/L	0.0356	0.107	1
37324-23-5	Aroclor-1262	U	0.107	ug/L	0.0356	0.107	1

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
4cmx	0.129	0.214	ug/L	60.1	(29%-103%)
Decachlorobiphenyl	0.167	0.214	ug/L	78.0	(34%-118%)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401008**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6824**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**937373**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 10:08**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/30/2009 15:41**	**Aliquot:**	**950 mL**	**Final Volume:**	**1 mL**
Data File:	**015f1501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	015b1501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.105	ug/L	0.0351	0.105	1
11104-28-2	Aroclor-1221	U	0.105	ug/L	0.0351	0.105	1
11141-16-5	Aroclor-1232	U	0.105	ug/L	0.0351	0.105	1
53469-21-9	Aroclor-1242	U	0.105	ug/L	0.0351	0.105	1
12672-29-6	Aroclor-1248	U	0.105	ug/L	0.0351	0.105	1
11097-69-1	Aroclor-1254	U	0.105	ug/L	0.0351	0.105	1
11096-82-5	Aroclor-1260	U	0.105	ug/L	0.0351	0.105	1
37324-23-5	Aroclor-1262	U	0.105	ug/L	0.0351	0.105	1

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
4cmx	0.132	0.211	ug/L	62.8	(29%-103%)
Decachlorobiphenyl	0.162	0.211	ug/L	76.7	(34%-118%)

QUALITY CONTROL SUMMARY

Surrogate Recovery Report

SDG Number: 10-1020

Matrix Type: LIQUID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202005820	MB for batch 937372	62	61	74	79
1202005821	LCS for batch 937372	55	54	70	76
243401004	CAPA-10-6823	60	59	73	78
243401008	CAPA-10-6824	63	62	71	77

Surrogate	Acceptance Limits
4CMX = 4cmx	(29%-103%)
DCB = Decachlorobiphenyl	(34%-118%)

* Recovery outside Acceptance Limits
# Column to be used to flag recovery values
D Sample Diluted

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1020
Client ID: LCS for batch 937372
Lab Sample ID: 1202005821
Instrument: ECD1A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: WATER
Analysis Date: 12/31/2009 09:47
Dilution: 1
Prep Batch ID: 937372
Batch ID: 937373

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	1.00	0.0	0.660	66	42-110
11096-82-5	LCS	Aroclor-1260	1.00	0.0	0.820	82	50-110

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1052
Client ID: WSTR47-10-8863MS
Lab Sample ID: 1202005822
Instrument: ECD1A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: WATER
Analysis Date: 12/31/2009 10:50
Dilution: 1
Prep Batch ID: 937372
Batch ID: 937373

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	1.00	0.00	U	0.700	70	22-114
11096-82-5	MS	Aroclor-1260	1.00	0.00	U	0.750	75	32-112

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-1052
Client ID: WSTR47-10-8863MSD
Lab Sample ID: 1202005823
Instrument: ECD1A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: WATER
Analysis Date: 12/31/2009 11:00
Dilution: 1
Prep Batch ID: 937372
Batch ID: 937373

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	1.00	0.00	U	0.640	64	22-114	9	0-30
11096-82-5	MSD Aroclor-1260	1.00	0.00	U	0.730	73	32-112	3	0-30

Method Blank Summary

SDG Number:	10-1020	Client:	LANL010	Matrix:	WATER
Client ID:	MB for batch 937372	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	012b1201-1.d 012f1201-1.d
Lab Sample ID:	1202005820				
Column:	CLP2 CLP1	Prep Date:	12/30/2009 15:41	Analyzed:	12/31/09 09:36
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 937372	1202005821	013f1301-1.d 013b1301-1.d	12/31/09	0947
02 CAPA-10-6823	243401004	014f1401.d 014b1401.d	12/31/09	0957
03 CAPA-10-6824	243401008	015f1501.d 015b1501.d	12/31/09	1008

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401004**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6823**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**937373**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 09:57**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/30/2009 15:41**	**Aliquot:**	**935 mL**	**Final Volume:**	**1 mL**
Data File:	**014f1401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	014b1401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.107	ug/L	0.0356	0.107	1
11104-28-2	Aroclor-1221	U	0.107	ug/L	0.0356	0.107	1
11141-16-5	Aroclor-1232	U	0.107	ug/L	0.0356	0.107	1
53469-21-9	Aroclor-1242	U	0.107	ug/L	0.0356	0.107	1
12672-29-6	Aroclor-1248	U	0.107	ug/L	0.0356	0.107	1
11097-69-1	Aroclor-1254	U	0.107	ug/L	0.0356	0.107	1
11096-82-5	Aroclor-1260	U	0.107	ug/L	0.0356	0.107	1
37324-23-5	Aroclor-1262	U	0.107	ug/L	0.0356	0.107	1

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
4cmx	0.129	0.214	ug/L	60.1	(29%-103%)
Decachlorobiphenyl	0.167	0.214	ug/L	78.0	(34%-118%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/014f1401.d
Lab Smp Id: 243401004 Client Smp ID: CAPA-10-6823
Inj Date : 31-DEC-2009 09:57
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243401004|1|
Misc Info : |ECD82P_1L|937373|SVA|LANL|GROUND WATER|CAPA-10-6823|||
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 11:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1020.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	935.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.970	0.002	45155464	120.200	0.13	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.286	5.283	0.003	46421711	146.191	0.16	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/123109.b/014f1401.d
Date : 31-DEC-2009 09:57
Client ID: CAPA-10-6823
Sample Info: |2434010041|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

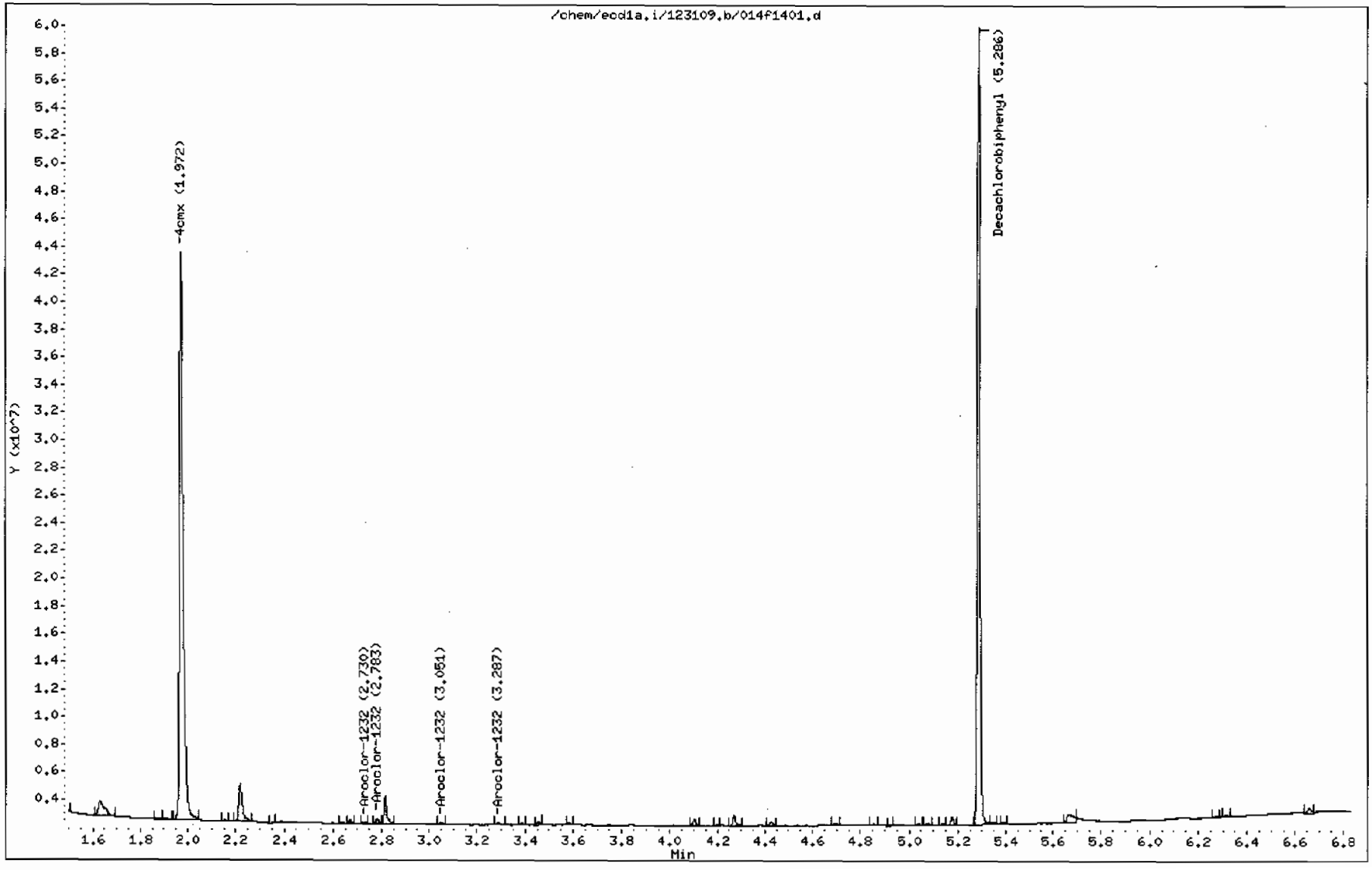

Comment: Manually Integrated
Data File: /chem/ecd1a.i/123109.b/014f1401.d
Operator: JAOC
Injection Date: 31-DEC-2009 09:57
Instrument: ecd1a.i
Client Sample ID: CAPA-10-6823

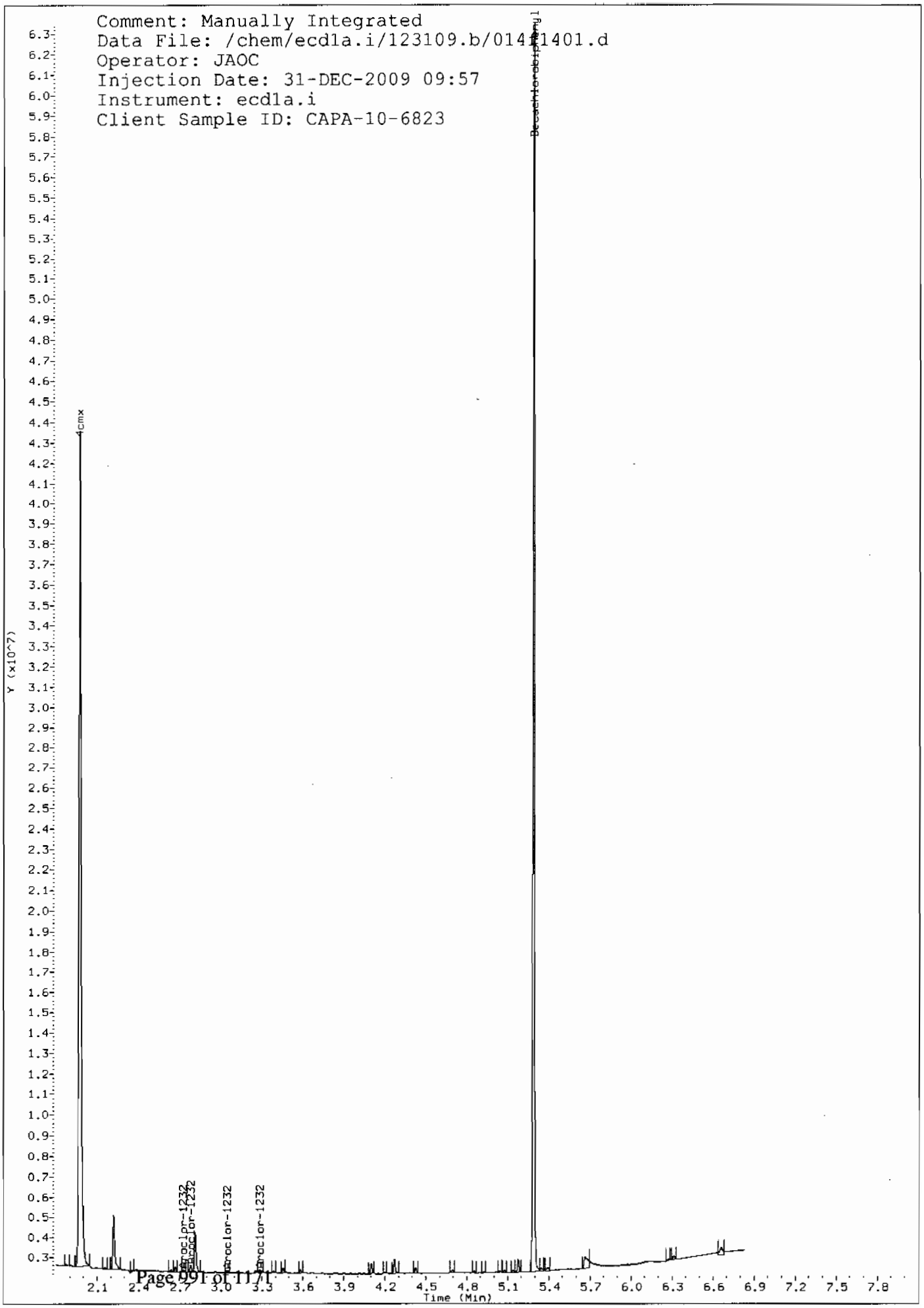

Comment: Before manual integration
Data File: /chem/ecd1a.i/123109.b/orig-014f1401.d
Operator: JAOC
Injection Date: 31-DEC-2009 09:57
Instrument: ecd1a.i
Client Sample ID: CAPA-10-6823

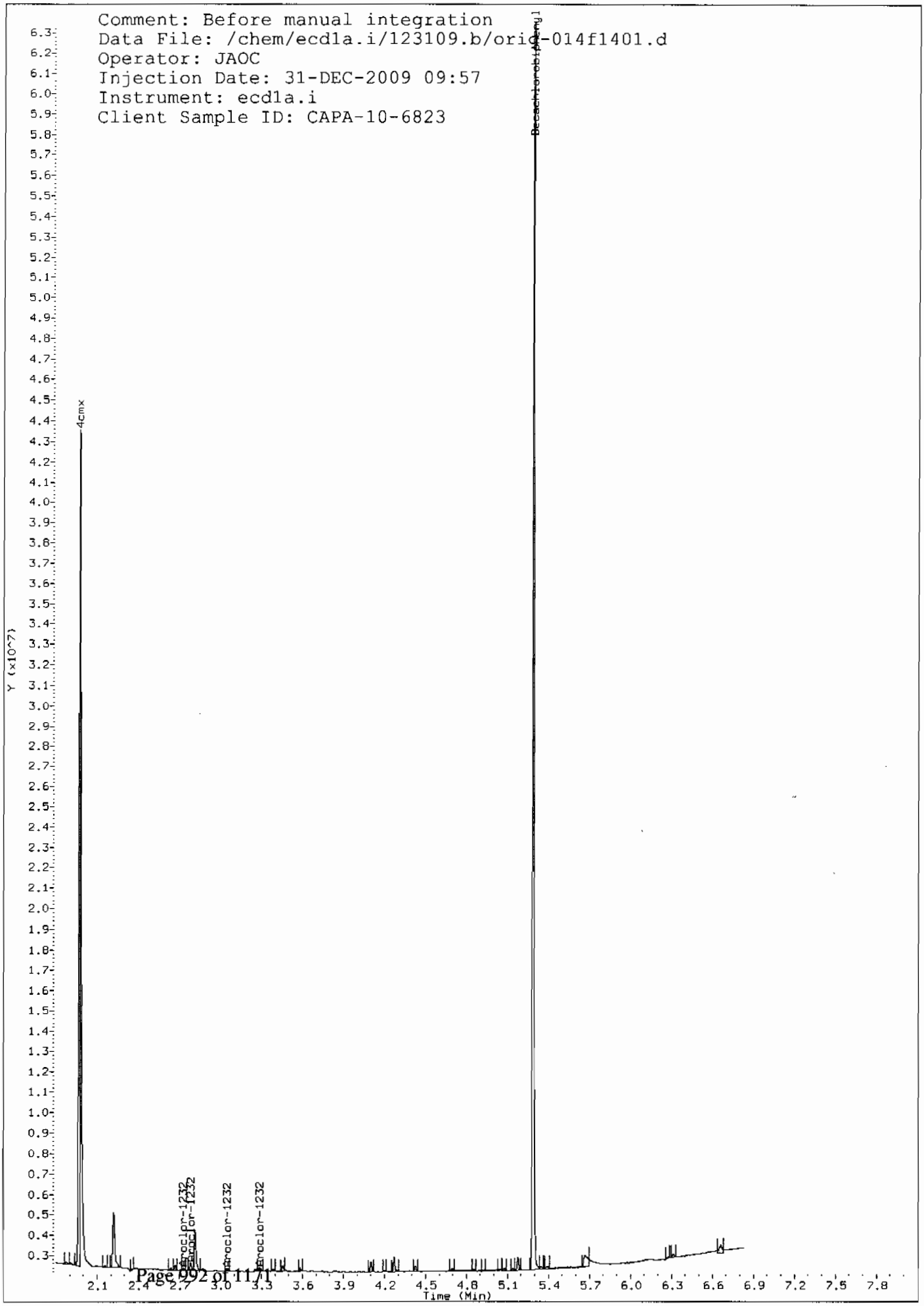

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/014b1401.d
Lab Smp Id: 243401004 Client Smp ID: CAPA-10-6823
Inj Date : 31-DEC-2009 09:57
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243401004|1|
Misc Info : |ECD82P_1L|937373|SVA|LANL|GROUND WATER|CAPA-10-6823|||
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 11:54 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1020.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	935.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.302	0.001	35437331	118.114	0.13	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.947	0.003	36366130	155.926	0.17	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123109.b/014b1401.d
Date : 31-DEC-2009 09:57
Client ID: CAPA-10-6823
Sample Info: 1243410041!!
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

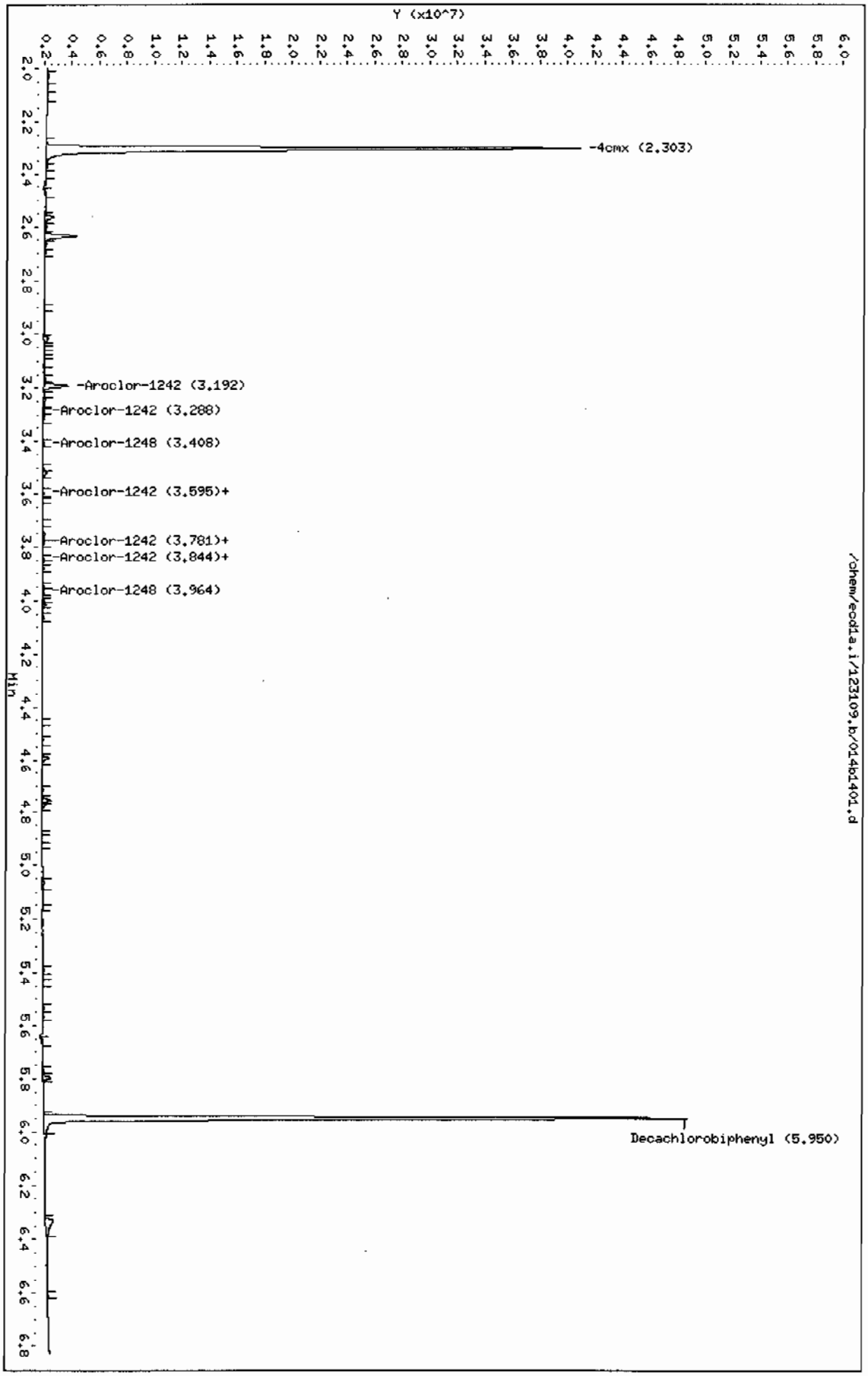

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**	**Date Collected:**	**12/18/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243401008**	**Date Received:**	**12/22/2009 09:55**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6824**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**937373**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 10:08**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/30/2009 15:41**	**Aliquot:**	**950 mL**	**Final Volume:**	**1 mL**
Data File:	**015f1501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	015b1501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.105	ug/L	0.0351	0.105	1
11104-28-2	Aroclor-1221	U	0.105	ug/L	0.0351	0.105	1
11141-16-5	Aroclor-1232	U	0.105	ug/L	0.0351	0.105	1
53469-21-9	Aroclor-1242	U	0.105	ug/L	0.0351	0.105	1
12672-29-6	Aroclor-1248	U	0.105	ug/L	0.0351	0.105	1
11097-69-1	Aroclor-1254	U	0.105	ug/L	0.0351	0.105	1
11096-82-5	Aroclor-1260	U	0.105	ug/L	0.0351	0.105	1
37324-23-5	Aroclor-1262	U	0.105	ug/L	0.0351	0.105	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.132	0.211	ug/L	62.8	(29%-103%)
Decachlorobiphenyl	0.162	0.211	ug/L	76.7	(34%-118%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/015f1501.d
Lab Smp Id: 243401008 Client Smp ID: CAPA-10-6824
Inj Date : 31-DEC-2009 10:08
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243401008|1|
Misc Info : |ECD82P_1L|937373|SVA|LANL|GROUND WATER|CAPA-10-6824|||
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 11:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1020.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	950.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.970	0.001	47198686	125.639	0.13	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.285	5.283	0.002	45372790	142.888	0.15	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123109.b/015f1501.d
Date : 31-DEC-2009 10:08
Client ID: CAPA-10-6824
Sample Info: |243401008|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

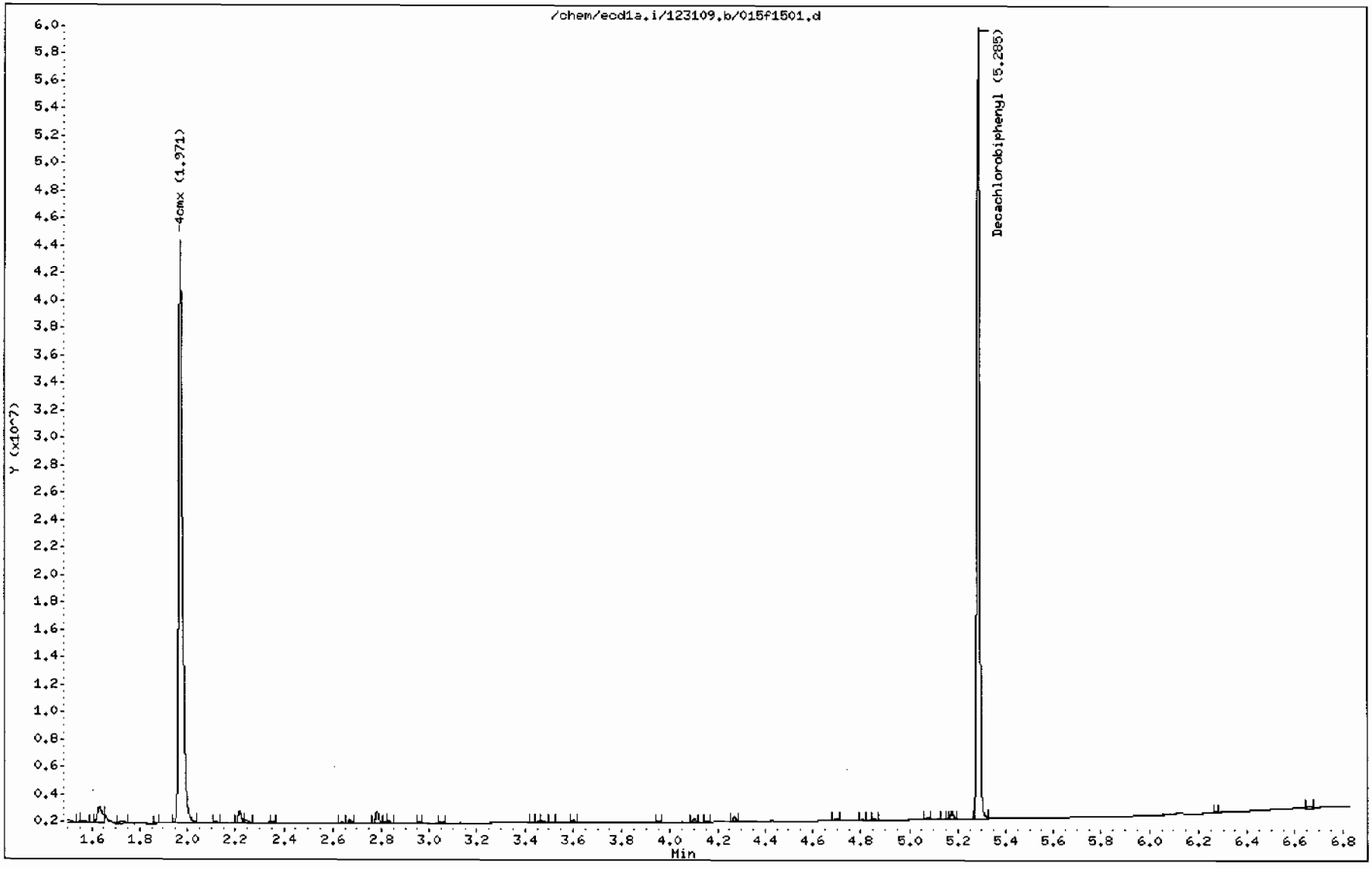

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/015b1501.d
Lab Smp Id: 243401008 Client Smp ID: CAPA-10-6824
Inj Date : 31-DEC-2009 10:08
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |243401008|1|
Misc Info : |ECD82P_1L|937373|SVA|LANL|GROUND WATER|CAPA-10-6824|||
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 11:54 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1020.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	950.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	37063894	123.536	0.13	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.947	0.002	35788340	153.448	0.16	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123109.b/015b1501.d
Date : 31-DEC-2009 10:08
Client ID: CAPA-10-6824
Sample Info: |2434010081|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

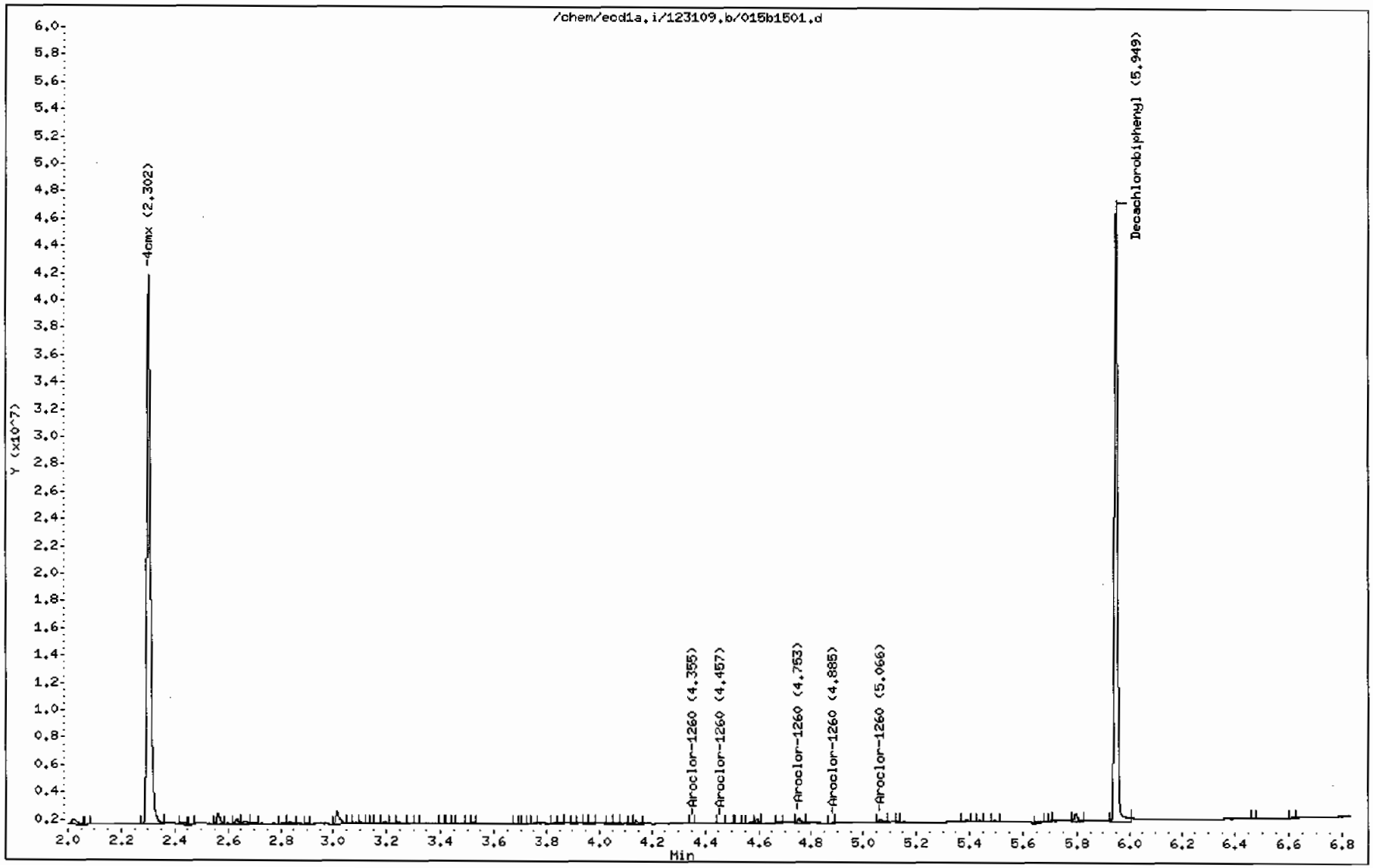

STANDARDS DATA

Report Date: 31-Dec-2009 12:04

Calibration History

Method : /chem/ecd1a.i/123109.b/ECD1-F-8082-121409.m
Start Cal Date: 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
14-DEC-2009 11:34	AR1268	/chem/ecd1a.i/121409.b/040f4001.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028f2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022f2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016f1601.d
14-DEC-2009 10:31	AR1660	/chem/ecd1a.i/121409.b/034f3401.d
Cal Level: 2 , Cal Amount: 200.00000		
14-DEC-2009 11:44	AR1268	/chem/ecd1a.i/121409.b/041f4101.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029f2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023f2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017f1701.d
14-DEC-2009 10:41	AR1660	/chem/ecd1a.i/121409.b/035f3501.d
Cal Level: 3 , Cal Amount: 500.00000		
14-DEC-2009 11:55	AR1268	/chem/ecd1a.i/121409.b/042f4201.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030f3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024f2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018f1801.d
14-DEC-2009 10:52	AR1660	/chem/ecd1a.i/121409.b/036f3601.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046f4601.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031f3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025f2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019f1901.d
14-DEC-2009 11:02	AR1660	/chem/ecd1a.i/121409.b/037f3701.d
14-DEC-2009 12:06	AR1268	/chem/ecd1a.i/121409.b/043f4301.d
14-DEC-2009 05:58	AR1262	/chem/ecd1a.i/121409.b/008f0801.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007f0701.d
14-DEC-2009 05:36	AR1232	/chem/ecd1a.i/121409.b/006f0601.d
Cal Level: 5 , Cal Amount: 4000.00000		
14-DEC-2009 12:16	AR1268	/chem/ecd1a.i/121409.b/044f4401.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032f3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026f2601.d
14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020f2001.d
14-DEC-2009 11:13	AR1660	/chem/ecd1a.i/121409.b/038f3801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
31-DEC-2009 11:11	AR1660	/chem/ecd1a.i/123109.b/021f2101.d
Ccal Level: 4 , Ccal Amount: 1000		
31-DEC-2009 08:52	AR1268	/chem/ecd1a.i/123109.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
31-DEC-2009 08:42	AR1262	/chem/ecd1a.i/123109.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
31-DEC-2009 08:31	AR1221	/chem/ecd1a.i/123109.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
31-DEC-2009 08:21	AR1232	/chem/ecd1a.i/123109.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
31-DEC-2009 08:10	AR1248	/chem/ecd1a.i/123109.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
31-DEC-2009 08:00	AR1242	/chem/ecd1a.i/123109.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
31-DEC-2009 07:49	AR1254	/chem/ecd1a.i/123109.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
31-DEC-2009 07:39	AR1660	/chem/ecd1a.i/123109.b/002f0201.d

Report Date: 31-Dec-2009 12:04

Calibration History

Method : /chem/ecd1a.i/123109.b/ECD1-B-8082-121409.m
Start Cal Date: 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
14-DEC-2009 11:34	AR1268	/chem/ecd1a.i/121409.b/040b4001.d
14-DEC-2009 09:28	AR1248	/chem/ecd1a.i/121409.b/028b2801.d
14-DEC-2009 08:25	AR1242	/chem/ecd1a.i/121409.b/022b2201.d
14-DEC-2009 07:22	AR1254	/chem/ecd1a.i/121409.b/016b1601.d
14-DEC-2009 10:31	AR1660	/chem/ecd1a.i/121409.b/034b3401.d
Cal Level: 2 , Cal Amount: 200.00000		
14-DEC-2009 11:44	AR1268	/chem/ecd1a.i/121409.b/041b4101.d
14-DEC-2009 09:38	AR1248	/chem/ecd1a.i/121409.b/029b2901.d
14-DEC-2009 08:35	AR1242	/chem/ecd1a.i/121409.b/023b2301.d
14-DEC-2009 07:32	AR1254	/chem/ecd1a.i/121409.b/017b1701.d
14-DEC-2009 10:41	AR1660	/chem/ecd1a.i/121409.b/035b3501.d
Cal Level: 3 , Cal Amount: 500.00000		
14-DEC-2009 11:55	AR1268	/chem/ecd1a.i/121409.b/042b4201.d
14-DEC-2009 09:49	AR1248	/chem/ecd1a.i/121409.b/030b3001.d
14-DEC-2009 08:46	AR1242	/chem/ecd1a.i/121409.b/024b2401.d
14-DEC-2009 07:43	AR1254	/chem/ecd1a.i/121409.b/018b1801.d
14-DEC-2009 10:52	AR1660	/chem/ecd1a.i/121409.b/036b3601.d
Cal Level: 4 , Cal Amount: 1000.00000		
14-DEC-2009 12:37	DDTANALOGSTD	/chem/ecd1a.i/121409.b/046b4601.d
14-DEC-2009 12:06	AR1268	/chem/ecd1a.i/121409.b/043b4301.d
14-DEC-2009 05:58	AR1262	/chem/ecd1a.i/121409.b/008b0801.d
14-DEC-2009 05:47	AR1221	/chem/ecd1a.i/121409.b/007b0701.d
14-DEC-2009 05:36	AR1232	/chem/ecd1a.i/121409.b/006b0601.d
14-DEC-2009 09:59	AR1248	/chem/ecd1a.i/121409.b/031b3101.d
14-DEC-2009 08:56	AR1242	/chem/ecd1a.i/121409.b/025b2501.d
14-DEC-2009 07:53	AR1254	/chem/ecd1a.i/121409.b/019b1901.d
14-DEC-2009 11:02	AR1660	/chem/ecd1a.i/121409.b/037b3701.d
Cal Level: 5 , Cal Amount: 4000.00000		
14-DEC-2009 12:16	AR1268	/chem/ecd1a.i/121409.b/044b4401.d
14-DEC-2009 10:10	AR1248	/chem/ecd1a.i/121409.b/032b3201.d
14-DEC-2009 09:07	AR1242	/chem/ecd1a.i/121409.b/026b2601.d
14-DEC-2009 08:04	AR1254	/chem/ecd1a.i/121409.b/020b2001.d
14-DEC-2009 11:13	AR1660	/chem/ecd1a.i/121409.b/038b3801.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000
31-DEC-2009 11:11 | AR1660 | /chem/ecd1a.i/123109.b/021b2101.d
Ccal Level: 4 , Ccal Amount: 1000
31-DEC-2009 08:52 | AR1268 | /chem/ecd1a.i/123109.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000
31-DEC-2009 08:42 | AR1262 | /chem/ecd1a.i/123109.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000
31-DEC-2009 08:31 | AR1221 | /chem/ecd1a.i/123109.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000
31-DEC-2009 08:21 | AR1232 | /chem/ecd1a.i/123109.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000
31-DEC-2009 08:10 | AR1248 | /chem/ecd1a.i/123109.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000
31-DEC-2009 08:00 | AR1242 | /chem/ecd1a.i/123109.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000
31-DEC-2009 07:49 | AR1254 | /chem/ecd1a.i/123109.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000
31-DEC-2009 07:39 | AR1660 | /chem/ecd1a.i/123109.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/123109.b/ECD1-F-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 31-Dec-2009 11:44 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.426	2.396-2.456	1.387e+04
	2.703	2.673-2.733	1.010e+04
	2.795	2.765-2.825	1.176e+04
	2.833	2.803-2.863	6.599e+03
	3.044	3.014-3.074	8.673e+03
63 4,4-DDD	3.953	3.933-3.973	3.938e+05
64 4,4-DDE	3.603	3.583-3.623	4.795e+05
62 4,4-DDT	4.118	4.098-4.138	3.238e+05
2 Aroclor-1221	2.084	2.054-2.114	4.301e+03
	2.177	2.147-2.207	2.440e+03
	2.203	2.173-2.233	1.027e+04
3 Aroclor-1232	2.427	2.397-2.457	6.717e+03
	2.716	2.686-2.746	8.157e+03
	2.797	2.767-2.827	5.751e+03
	3.045	3.015-3.075	3.954e+03
	3.299	3.269-3.329	3.533e+03
4 Aroclor-1242	2.427	2.397-2.457	1.166e+04
	2.717	2.687-2.747	1.345e+04
	2.835	2.805-2.865	5.506e+03
	3.046	3.016-3.076	7.245e+03
	3.299	3.269-3.329	6.811e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/123109.b/ECD1-F-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.097	3.067-3.127	7.848e+03
	3.248	3.218-3.278	6.870e+03
	3.299	3.269-3.329	1.331e+04
	3.431	3.401-3.461	1.101e+04
	3.663	3.633-3.693	7.455e+03
6 Aroclor-1254	3.273	3.243-3.303	1.249e+04
	3.429	3.399-3.459	1.672e+04
	3.662	3.632-3.692	2.071e+04
	3.826	3.796-3.856	1.569e+04
	3.935	3.905-3.965	1.517e+04
7 Aroclor-1260	3.770	3.740-3.800	1.675e+04
	3.932	3.902-3.962	2.474e+04
	4.162	4.132-4.192	1.469e+04
	4.306	4.276-4.336	1.518e+04
	4.485	4.455-4.515	3.435e+04
8 Aroclor-1262	3.772	3.742-3.802	1.402e+04
	3.935	3.905-3.965	1.841e+04
	4.165	4.136-4.196	2.251e+04
	4.308	4.278-4.338	2.033e+04
	4.487	4.457-4.517	4.317e+04
9 Aroclor-1268	4.671	4.641-4.701	5.438e+04
	4.695	4.665-4.725	5.419e+04
	4.807	4.777-4.837	4.052e+04
	5.011	4.981-5.041	1.833e+04
	5.176	5.146-5.206	1.233e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.970	1.940-2.000	3.757e+05
$ 12 Decachlorobiphenyl	5.283	5.253-5.313	3.175e+05

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COMPOUND LISTING

Method file : /chem/ecd1a.i/123109.b/ECD1-B-8082-121409.m
Quant Method : ESTD Target Version : 3.50
Last Update : 31-Dec-2009 11:54 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.199	3.169-3.229	1.261e+04
	3.282	3.252-3.312	9.328e+03
	3.346	3.316-3.376	5.411e+03
	3.572	3.542-3.602	7.052e+03
	3.647	3.617-3.677	6.551e+03
62 4,4-DDT	4.670	4.650-4.690	2.436e+05
63 4,4-DDE	4.139	4.119-4.159	3.580e+05
64 4,4-DDD	4.483	4.463-4.503	2.893e+05
2 Aroclor-1221	2.499	2.469-2.529	3.640e+03
	2.594	2.564-2.624	2.329e+03
	2.635	2.605-2.665	8.119e+03
3 Aroclor-1232	2.635	2.605-2.665	6.156e+03
	3.200	3.170-3.230	6.302e+03
	3.283	3.253-3.313	4.701e+03
	3.573	3.543-3.603	3.243e+03
	3.807	3.777-3.837	3.151e+03
4 Aroclor-1242	3.200	3.170-3.230	1.059e+04
	3.282	3.252-3.312	8.054e+03
	3.573	3.543-3.603	5.962e+03
	3.807	3.777-3.837	6.057e+03
	3.835	3.805-3.865	6.701e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/123109.b/ECD1-B-8082-121409.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.408	3.378-3.438	8.054e+03
	3.573	3.543-3.603	9.874e+03
	3.807	3.777-3.837	1.122e+04
	3.834	3.804-3.864	1.248e+04
	3.972	3.942-4.002	1.210e+04
6 Aroclor-1254	3.407	3.377-3.437	6.435e+03
	3.830	3.800-3.860	1.156e+04
	3.946	3.917-3.977	1.243e+04
	4.222	4.192-4.252	1.688e+04
	4.359	4.329-4.389	1.244e+04
7 Aroclor-1260	4.337	4.307-4.367	1.368e+04
	4.462	4.432-4.492	1.603e+04
	4.728	4.698-4.758	1.256e+04
	4.902	4.872-4.932	1.281e+04
	5.049	5.019-5.079	2.790e+04
8 Aroclor-1262	4.465	4.435-4.495	1.292e+04
	4.730	4.700-4.760	1.831e+04
	4.904	4.874-4.934	1.658e+04
	5.051	5.021-5.080	3.329e+04
	5.264	5.234-5.294	2.297e+04
9 Aroclor-1268	5.261	5.231-5.291	4.358e+04
	5.290	5.260-5.320	4.039e+04
	5.439	5.409-5.469	3.144e+04
	5.604	5.574-5.634	1.427e+04
	5.796	5.766-5.826	8.886e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.302	2.272-2.332	3.000e+05
$ 12 Decachlorobiphenyl	5.947	5.917-5.977	2.332e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/123109.b/ECD1-F-8082-121409.m
Cal Date : 31-Dec-2009 11:44 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/121409.b/040f4001.d
Level 2: /chem/ecd1a.i/121409.b/041f4101.d
Level 3: /chem/ecd1a.i/121409.b/042f4201.d
Level 4: /chem/ecd1a.i/121409.b/046f4601.d
Level 5: /chem/ecd1a.i/121409.b/044f4401.d

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	15975	14641	13829	13236	11653	13867	11.596
(2)	10801	10349	9832	9922	9584	10098	4.757
(3)	13242	12280	11732	11291	10240	11757	9.507
(4)	7178	6867	6609	6421	5920	6599	7.183
(5)	9710	9021	8649	8224	7763	8673	8.604
63 4,4-DDD	+++++	+++++	+++++	393799	+++++	393799	0.000
64 4,4-DDE	+++++	+++++	+++++	479509	+++++	479509	0.000
62 4,4-DDT	+++++	+++++	+++++	323817	+++++	323817	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4301	+++++	4301	0.000
(2)	+++++	+++++	+++++	2440	+++++	2440	0.000
(3)	+++++	+++++	+++++	10272	+++++	10272	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6717	+++++	6717	0.000
(2)	+++++	+++++	+++++	8157	+++++	8157	0.000
(3)	+++++	+++++	+++++	5751	+++++	5751	0.000
(4)	+++++	+++++	+++++	3954	+++++	3954	0.000
(5)	+++++	+++++	+++++	3533	+++++	3533	0.000
4 Aroclor-1242(1)	13692	12467	11522	10819	9798	11660	12.846
(2)	14782	14429	13236	12555	12263	13453	8.301
(3)	6076	5890	5423	5191	4949	5506	8.563
(4)	8395	7578	7079	6747	6426	7245	10.645
(5)	7587	7189	6604	6378	6296	6811	8.178
5 Aroclor-1248(1)	9070	8103	7743	7247	7078	7848	10.119
(2)	7785	7181	6827	6444	6114	6870	9.456
(3)	15108	13267	13037	12915	12225	13310	8.094
(4)	12682	11331	10815	10392	9852	11015	9.799
(5)	8605	7806	7405	7124	6336	7455	11.244

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 14-DEC-2009 05:36
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/123109.b/ECD1-F-8082-121409.m
Cal Date : 31-Dec-2009 11:44 jen01212
Curve Type : Average

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	14281	12975	12313	11911	10947	12485	9.963
(2)	18803	17181	16666	15949	15010	16722	8.494
(3)	22492	20906	20786	20326	19059	20714	5.957
(4)	16753	15627	15809	15513	14770	15694	4.535
(5)	16595	15169	15433	15075	13591	15172	7.071
7 Aroclor-1260(1)	18145	17177	16842	16407	15189	16752	6.464
(2)	26410	24871	24973	24571	22887	24743	5.081
(3)	16099	14386	14855	14472	13625	14687	6.171
(4)	16517	14719	15311	15032	14343	15185	5.451
(5)	35425	33953	34899	34487	32987	34350	2.719
8 Aroclor-1262(1)	+++++	+++++	+++++	14019	+++++	14019	0.000
(2)	+++++	+++++	+++++	18406	+++++	18406	0.000
(3)	+++++	+++++	+++++	22511	+++++	22511	0.000
(4)	+++++	+++++	+++++	20327	+++++	20327	0.000
(5)	+++++	+++++	+++++	43170	+++++	43170	0.000
9 Aroclor-1268(1)	56914	55996	53872	52565	52528	54375	3.680
(2)	57500	55307	54092	52376	51697	54194	4.300
(3)	43006	41368	40020	38976	39247	40524	4.120
(4)	19620	18932	18085	17425	17569	18326	5.094
(5)	128350	126812	122798	118830	119599	123278	3.436
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	367897	454677	359986	359846	335942	375669	12.182
$ 12 Decachlorobiphenyl	316645	388263	307193	296602	278999	317541	13.206

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/123109.b/ECD1-B-8082-121409.m
Cal Date : 31-Dec-2009 11:54 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/121409.b/040b4001.d
Level 2: /chem/ecd1a.i/121409.b/041b4101.d
Level 3: /chem/ecd1a.i/121409.b/042b4201.d
Level 4: /chem/ecd1a.i/121409.b/046b4601.d
Level 5: /chem/ecd1a.i/121409.b/044b4401.d

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14281	12734	12848	12156	11039	12612	9.333
(2)	10954	9913	9256	8806	7710	9328	13.003
(3)	6310	5679	5380	5089	4598	5411	11.852
(4)	8214	7430	6981	6696	5938	7052	12.003
(5)	7754	6843	6481	6115	5561	6551	12.561
62 4,4-DDT	+++++	+++++	+++++	243613	+++++	243613	0.000
63 4,4-DDE	+++++	+++++	+++++	357996	+++++	357996	0.000
64 4,4-DDD	+++++	+++++	+++++	289343	+++++	289343	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3640	+++++	3640	0.000
(2)	+++++	+++++	+++++	2329	+++++	2329	0.000
(3)	+++++	+++++	+++++	8119	+++++	8119	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6156	+++++	6156	0.000
(2)	+++++	+++++	+++++	6302	+++++	6302	0.000
(3)	+++++	+++++	+++++	4701	+++++	4701	0.000
(4)	+++++	+++++	+++++	3243	+++++	3243	0.000
(5)	+++++	+++++	+++++	3151	+++++	3151	0.000
4 Aroclor-1242(1)	12348	11309	9989	9755	9542	10589	11.338
(2)	9730	8628	7875	7358	6677	8054	14.627
(3)	7163	6326	5763	5452	5107	5962	13.534
(4)	7183	6468	5900	5548	5185	6057	12.997
(5)	7820	7123	6589	6229	5746	6701	11.977
5 Aroclor-1248(1)	9914	8542	7972	7289	6553	8054	15.880
(2)	11996	10356	9798	9046	8173	9874	14.605
(3)	13306	11756	11119	10365	9555	11220	12.723
(4)	14720	13121	12480	11577	10516	12483	12.732
(5)	14361	12633	11977	11210	10342	12104	12.596

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 11-DEC-2009 10:17
End Cal Date : 14-DEC-2009 12:37
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/123109.b/ECD1-B-8082-121409.m
Cal Date : 31-Dec-2009 11:54 jen01212
Curve Type : Average

Compound	100.000 Level 1	200.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7857	6938	6317	5878	5185	6435	15.850
(2)	13759	12316	11389	10708	9625	11559	13.615
(3)	14674	13172	12243	11576	10492	12431	12.786
(4)	19102	17554	16808	16165	14771	16880	9.533
(5)	14276	12708	12612	11843	10739	12435	10.425
7 Aroclor-1260(1)	15678	14232	13583	13177	11731	13680	10.567
(2)	18142	16574	16035	15527	13867	16029	9.709
(3)	14298	13064	12524	12030	10903	12564	9.989
(4)	14593	13310	12766	12230	11150	12810	9.970
(5)	30553	28626	28257	27276	24777	27898	7.569
8 Aroclor-1262(1)	+++++	+++++	+++++	12922	+++++	12922	0.000
(2)	+++++	+++++	+++++	18311	+++++	18311	0.000
(3)	+++++	+++++	+++++	16579	+++++	16579	0.000
(4)	+++++	+++++	+++++	33287	+++++	33287	0.000
(5)	+++++	+++++	+++++	22972	+++++	22972	0.000
9 Aroclor-1268(1)	48327	45655	43354	41349	39206	43578	8.193
(2)	44968	41865	39872	38249	36983	40388	7.790
(3)	35350	32573	30975	29630	28674	31440	8.372
(4)	16410	14977	13894	13214	12876	14274	10.077
(5)	96769	92419	87897	84047	83161	88859	6.460
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	307069	367145	286931	282899	256086	300026	13.893
$ 12 Decachlorobiphenyl	248884	286011	224119	212175	194946	233227	15.194

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121409.b/034f3401.d
Lab Smp Id: WAR091214-01 60 Client Smp ID: AR166001
Inj Date : 14-DEC-2009 10:31
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091214-01 60
Misc Info :
Comment :
Method : /chem/ecd1a.i/121409.b/ECD1-F-8082-121409.m
Meth Date : 14-Dec-2009 12:04 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 09:28 Cal File: 028f2801.d
Als bottle: 34 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.973	1.971	0.002	3678970	10.0000	9.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.288	5.288	0.000	3166446	10.0000	10	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 12674-11-2		
2.429	2.429	0.000	1597475	100.000	115	80.00- 120.00	100.00
2.707	2.707	0.000	1080123	100.000	107	47.61- 87.61	67.61
2.799	2.799	0.000	1324175	100.000	113	62.89- 102.89	82.89
2.837	2.837	0.000	717766	100.000	109	24.93- 64.93	44.93
3.048	3.048	0.000	971022	100.000	112	40.78- 80.78	60.78
Average of Peak Amounts =					111		
7 Aroclor-1260					CAS #: 11096-82-5		
3.773	3.773	0.000	1814507	100.000	108	80.00- 120.00	100.00
3.937	3.937	0.000	2640998	100.000	107	125.55- 165.55	145.55
4.167	4.167	0.000	1609910	100.000	110	68.72- 108.72	88.72
4.310	4.310	0.000	1651736	100.000	109	71.03- 111.03	91.03
4.488	4.488	0.000	3542504	100.000	103	175.23- 215.23	195.23
Average of Peak Amounts =					107		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/121409.b/034f3401.d
Date : 14-DEC-2009 10:31
Client ID: AR166001
Sample Info: IWAR091214-01 60

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

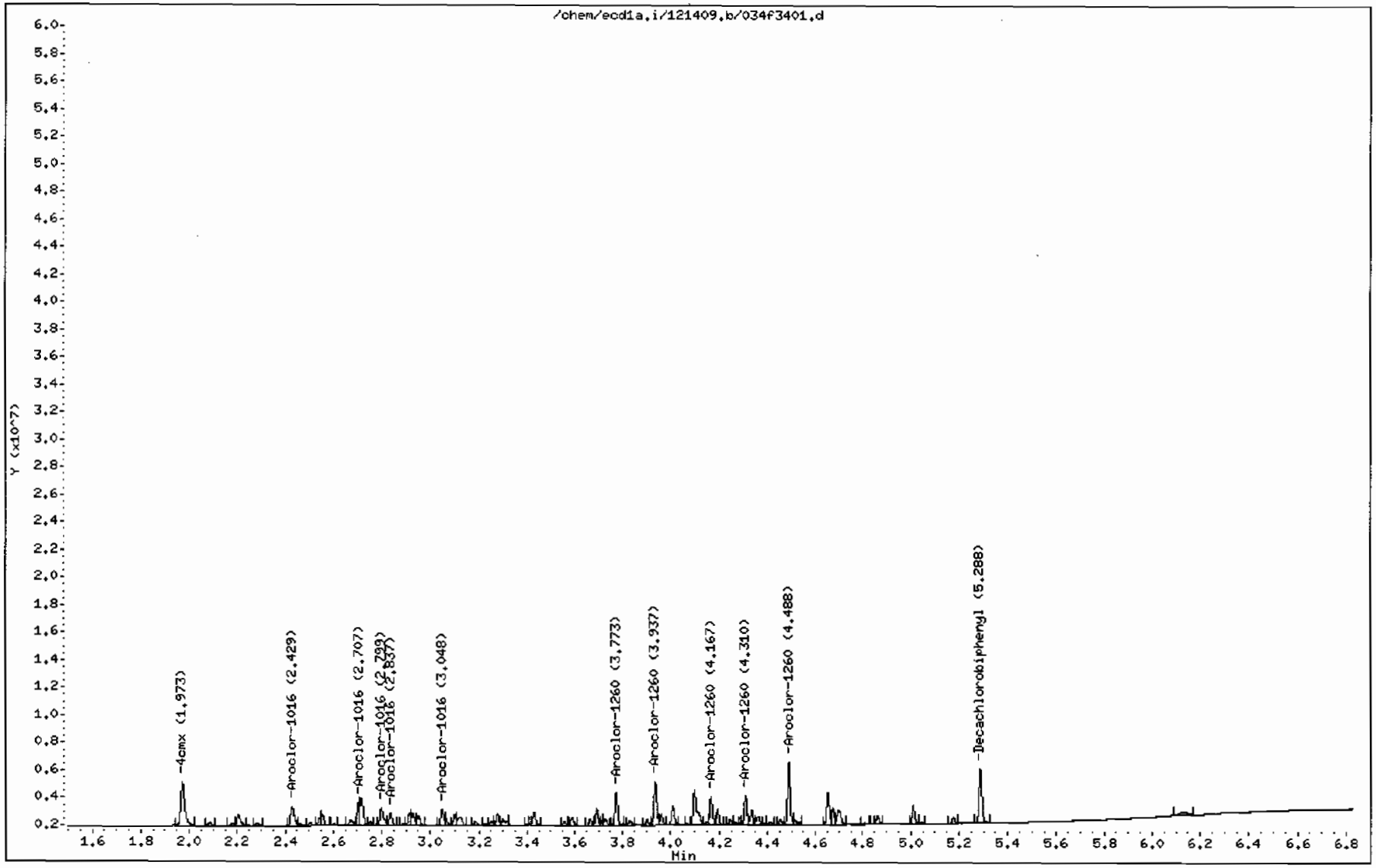

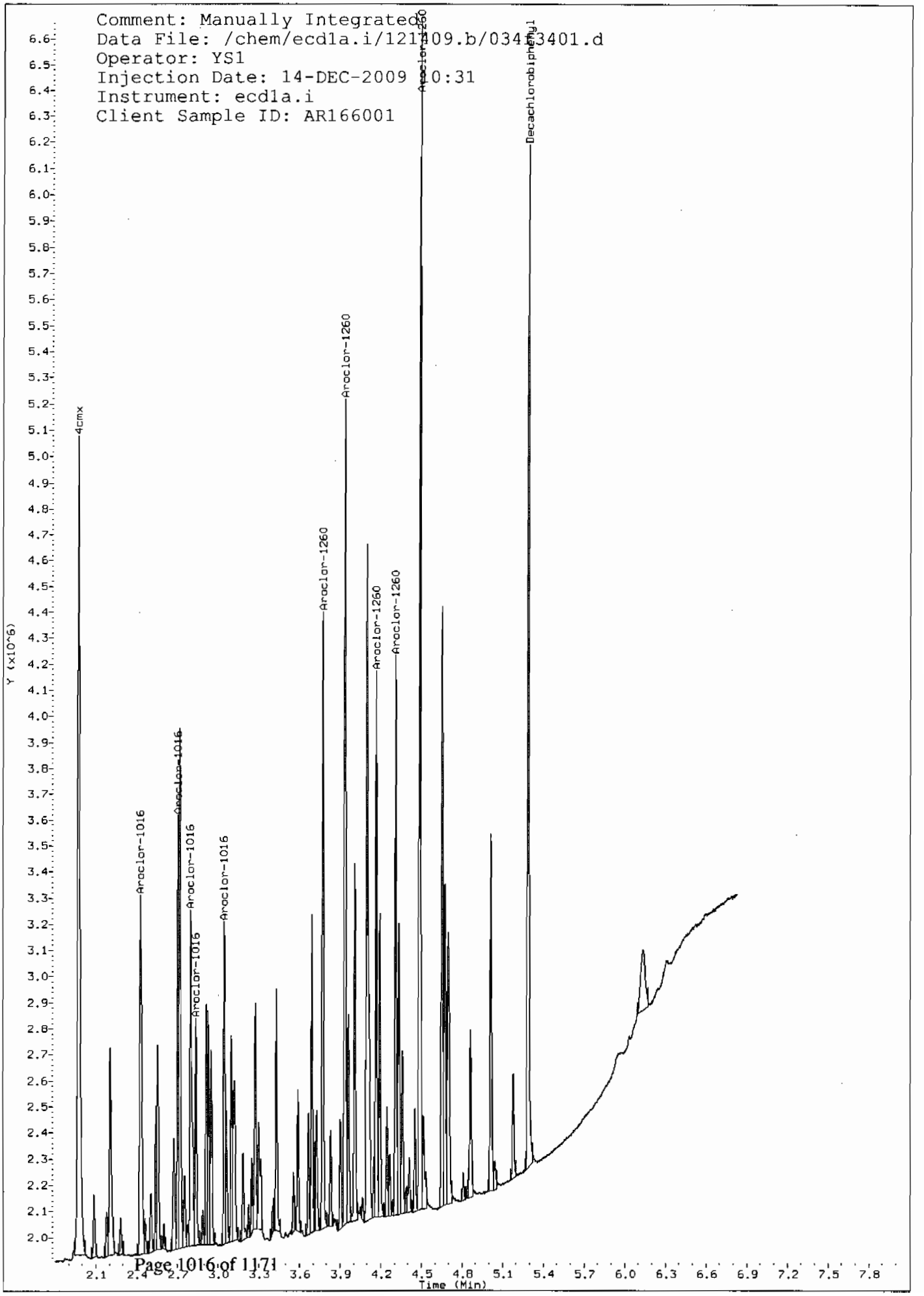
Comment: Manually Integrated
Data File: /chem/ecd1a.i/121409.b/03413401.d
Operator: YS1
Injection Date: 14-DEC-2009 10:31
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^6)
Time (Min)

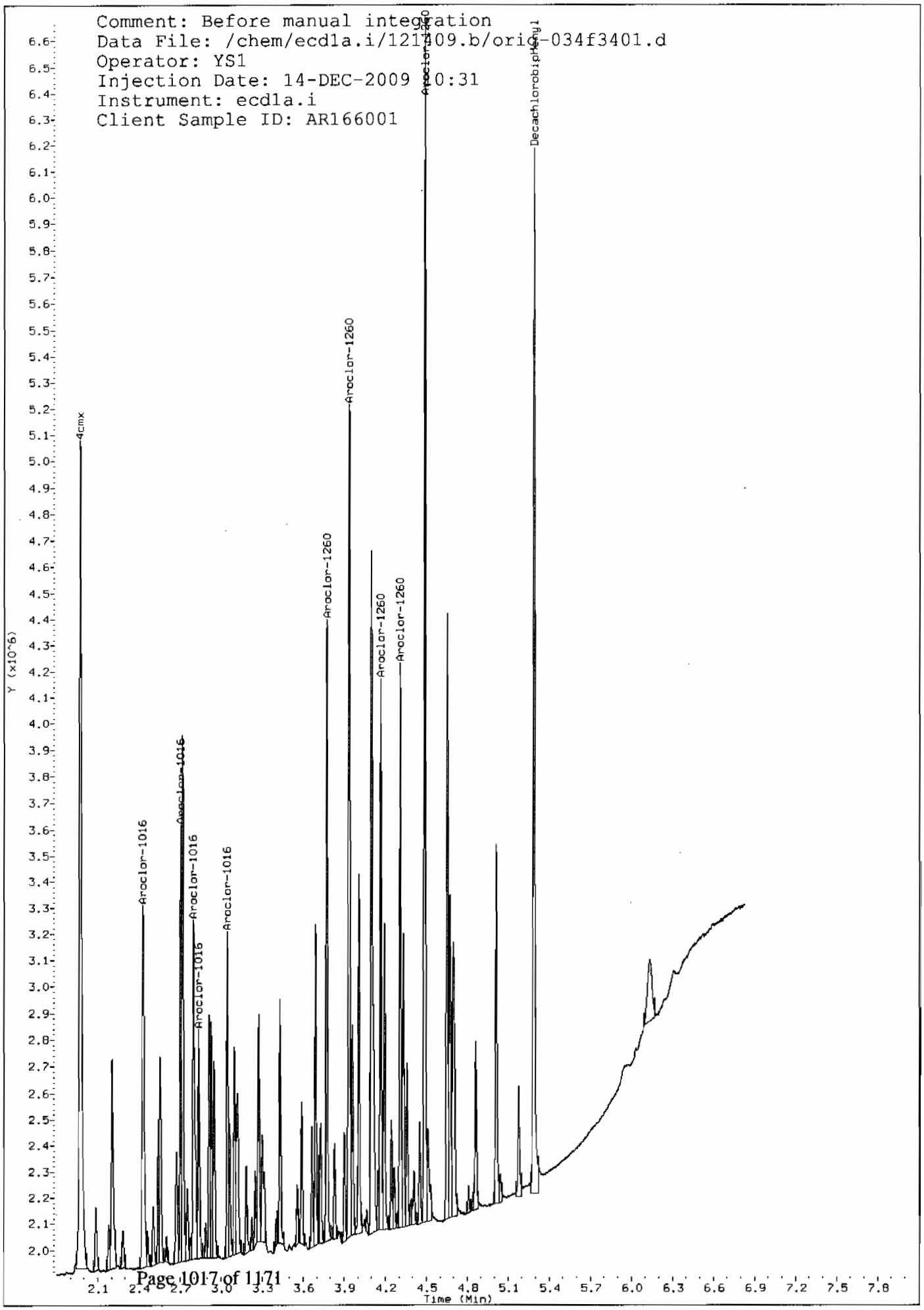
Comment: Before manual integration
Data File: /chem/ecd1a.i/121409.b/orig-034f3401.d
Operator: YS1
Injection Date: 14-DEC-2009 10:31
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^6)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121409.b/034b3401.d
Lab Smp Id: WAR091214-01 60 Client Smp ID: AR166001
Inj Date : 14-DEC-2009 10:31
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091214-01 60
Misc Info :
Comment :
Method : /chem/ecd1a.i/121409.b/ECD1-B-8082-121409.m
Meth Date : 14-Dec-2009 12:03 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 09:28 Cal File: 028b2801.d
Als bottle: 34 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.301	0.001	3070689	10.0000	10.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.944	5.945	-0.001	2488842	10.0000	10.7	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 12674-11-2		
3.198	3.198	0.000	1428146	100.000	113	80.00- 120.00	100.00(M)
3.281	3.281	0.000	1095436	100.000	117	56.70- 96.70	76.70
3.344	3.344	0.000	630971	100.000	117	24.18- 64.18	44.18
3.571	3.571	0.000	821400	100.000	116	37.52- 77.52	57.52
3.646	3.646	0.000	775428	100.000	118	34.30- 74.30	54.30
Average of Peak Amounts =					116		
7 Aroclor-1260					CAS #: 11096-82-5		
4.336	4.336	0.000	1567808	100.000	115	80.00- 120.00	100.00(M)
4.460	4.460	0.000	1814235	100.000	113	95.72- 135.72	115.72
4.726	4.726	0.000	1429770	100.000	114	71.20- 111.20	91.20
4.900	4.900	0.000	1459341	100.000	114	73.08- 113.08	93.08
5.046	5.046	0.000	3055282	100.000	110	174.88- 214.88	194.88
Average of Peak Amounts =					113		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/121409.b/034b3401.d

Date : 14-DEC-2009 10:31

Client ID: AR166001

Sample Info: IWAR091214-01 60

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

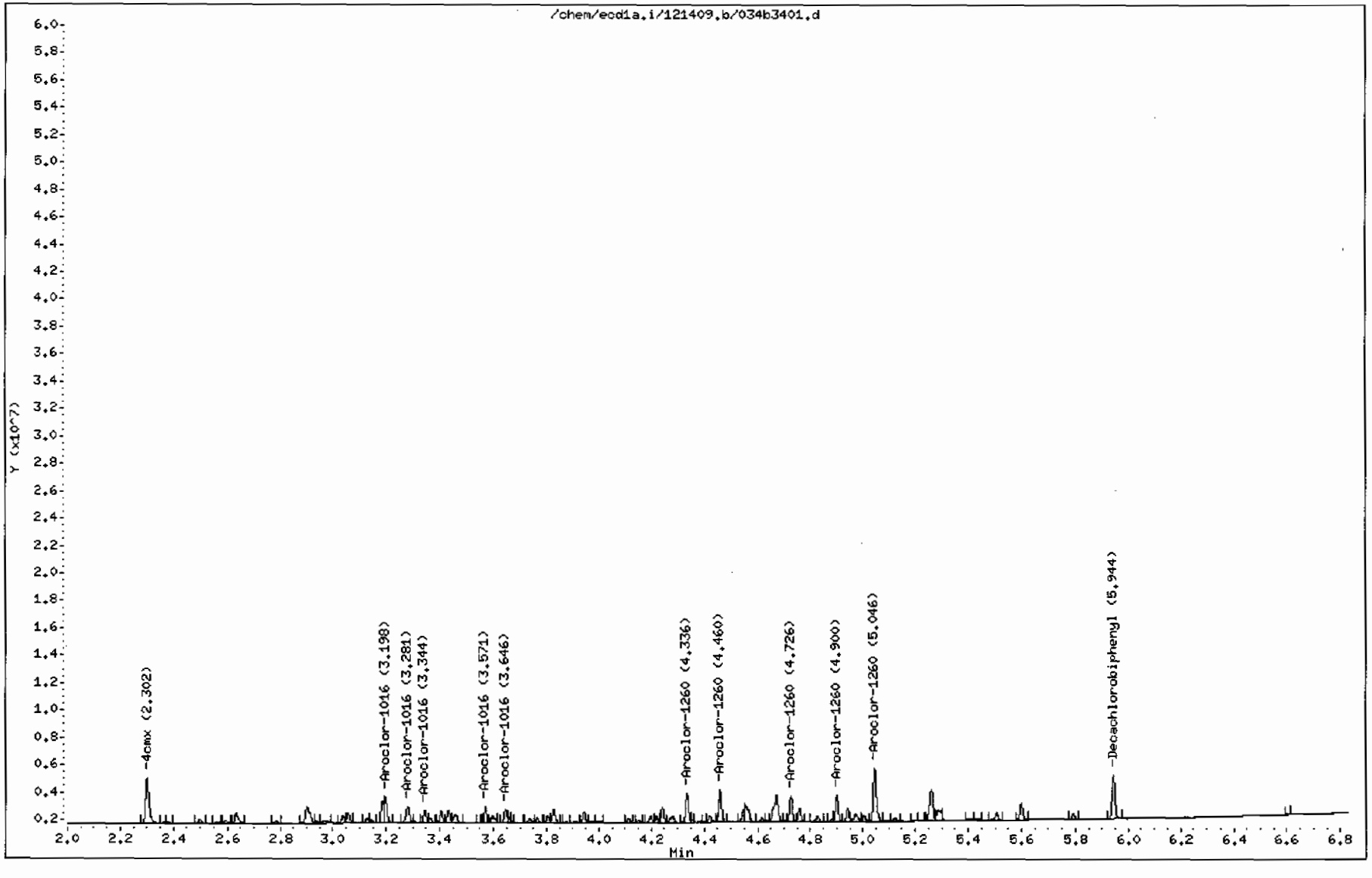

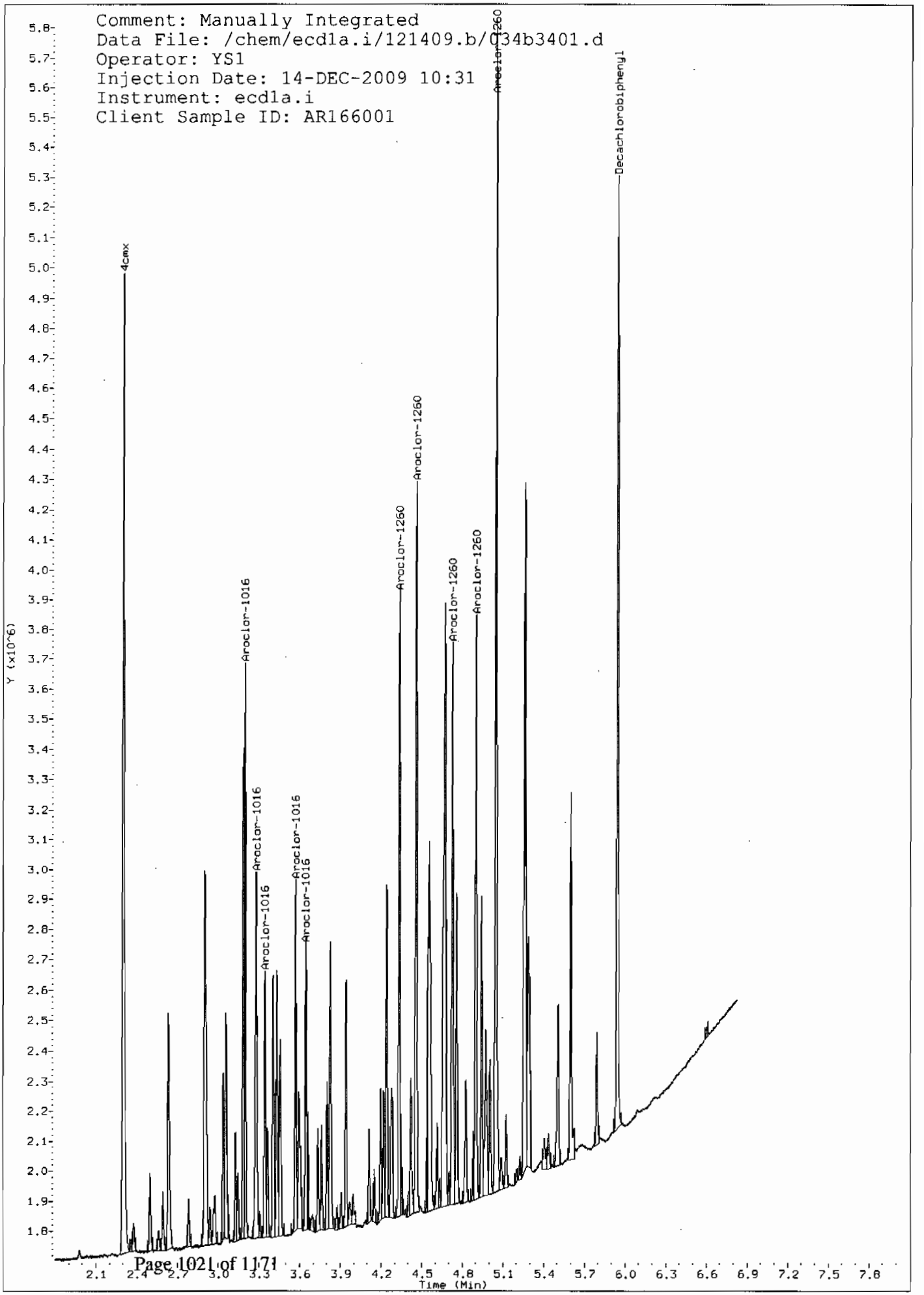
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Data File: /chem/ecd1a.i/121409.b/034b3401.d
Operator: YS1
Injection Date: 14-DEC-2009 10:31
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^6)
Time (Min)

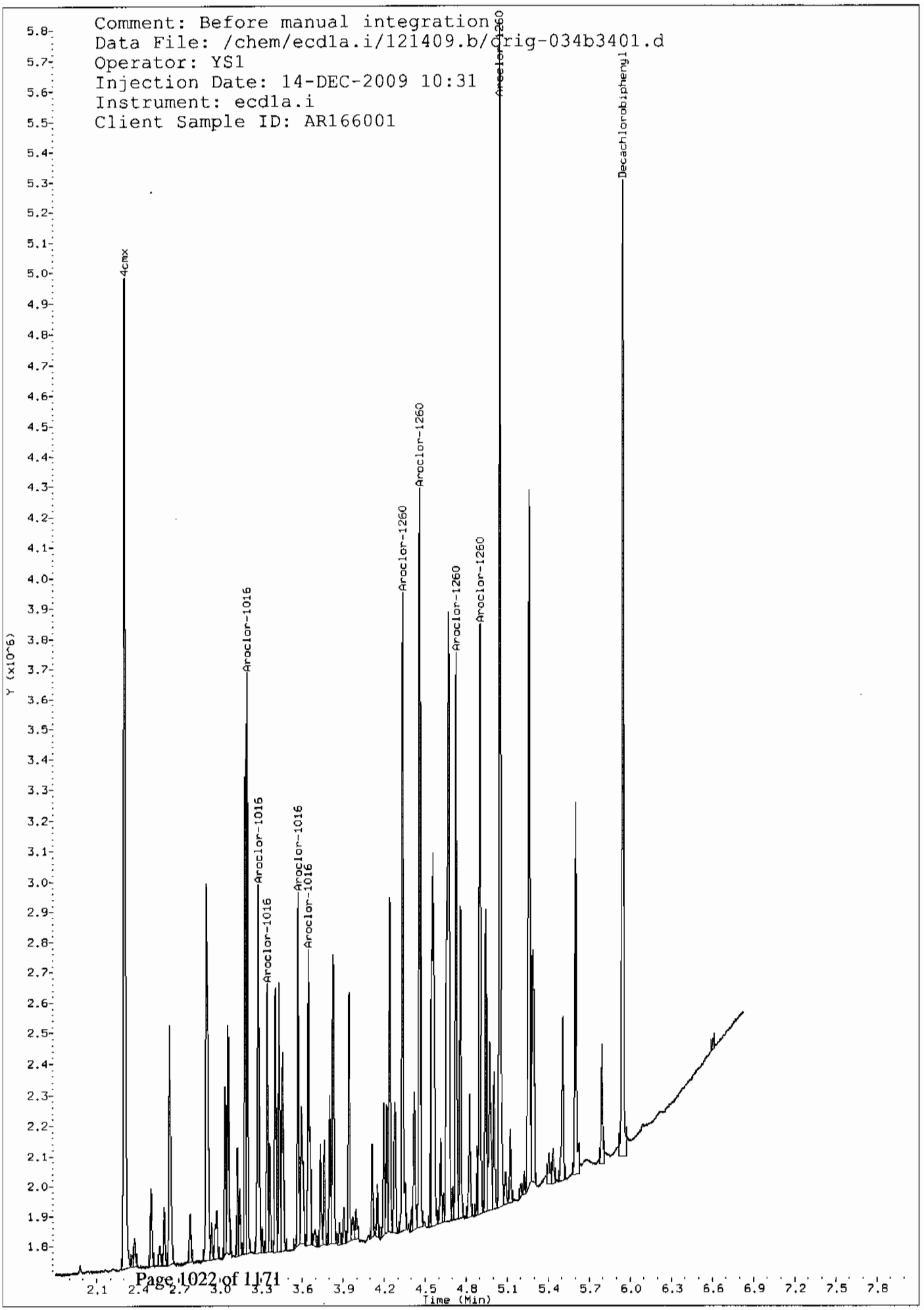
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Data File: /chem/ecd1a.i/121409.b/Orig-034b3401.d
Operator: YS1
Injection Date: 14-DEC-2009 10:31
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^6)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121409.b/035f3501.d
Lab Smp Id: WAR091214-02 60 Client Smp ID: AR166002
Inj Date : 14-DEC-2009 10:41
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091214-02 60
Misc Info :
Comment :
Method : /chem/ecd1a.i/121409.b/ECD1-F-8082-121409.m
Meth Date : 14-Dec-2009 12:04 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 09:38 Cal File: 029f2901.d
Als bottle: 35 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	9093536	20.0000	24.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.288	5.288	0.000	7765269	20.0000	24.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.427	2.427	0.000	3660370	250.000	264	80.00- 120.00	100.00
2.705	2.705	0.000	2587269	250.000	256	50.68- 90.68	70.68
2.797	2.797	0.000	3069970	250.000	261	63.87- 103.87	83.87
2.836	2.836	0.000	1716635	250.000	260	26.90- 66.90	46.90
3.046	3.046	0.000	2255288	250.000	260	41.61- 81.61	61.61
Average of Peak Amounts =					260		
7 Aroclor-1260					CAS #: 11096-82-5		
3.773	3.773	0.000	4294327	250.000	256	80.00- 120.00	100.00
3.936	3.936	0.000	6217862	250.000	251	124.79- 164.79	144.79
4.166	4.166	0.000	3596475	250.000	245	63.75- 103.75	83.75
4.310	4.310	0.000	3679860	250.000	242	65.69- 105.69	85.69
4.489	4.489	0.000	8488285	250.000	247	177.66- 217.66	197.66
Average of Peak Amounts =					248		

Data File: /chem/ecdla.i/121409.b/035f3501.d
Date : 14-DEC-2009 10:41
Client ID: AR166002
Sample Info: IWAR091214-02 60
Column phase: CLP1

Instrument: ecdla.i
Operator: YS1
Column diameter: 0.25

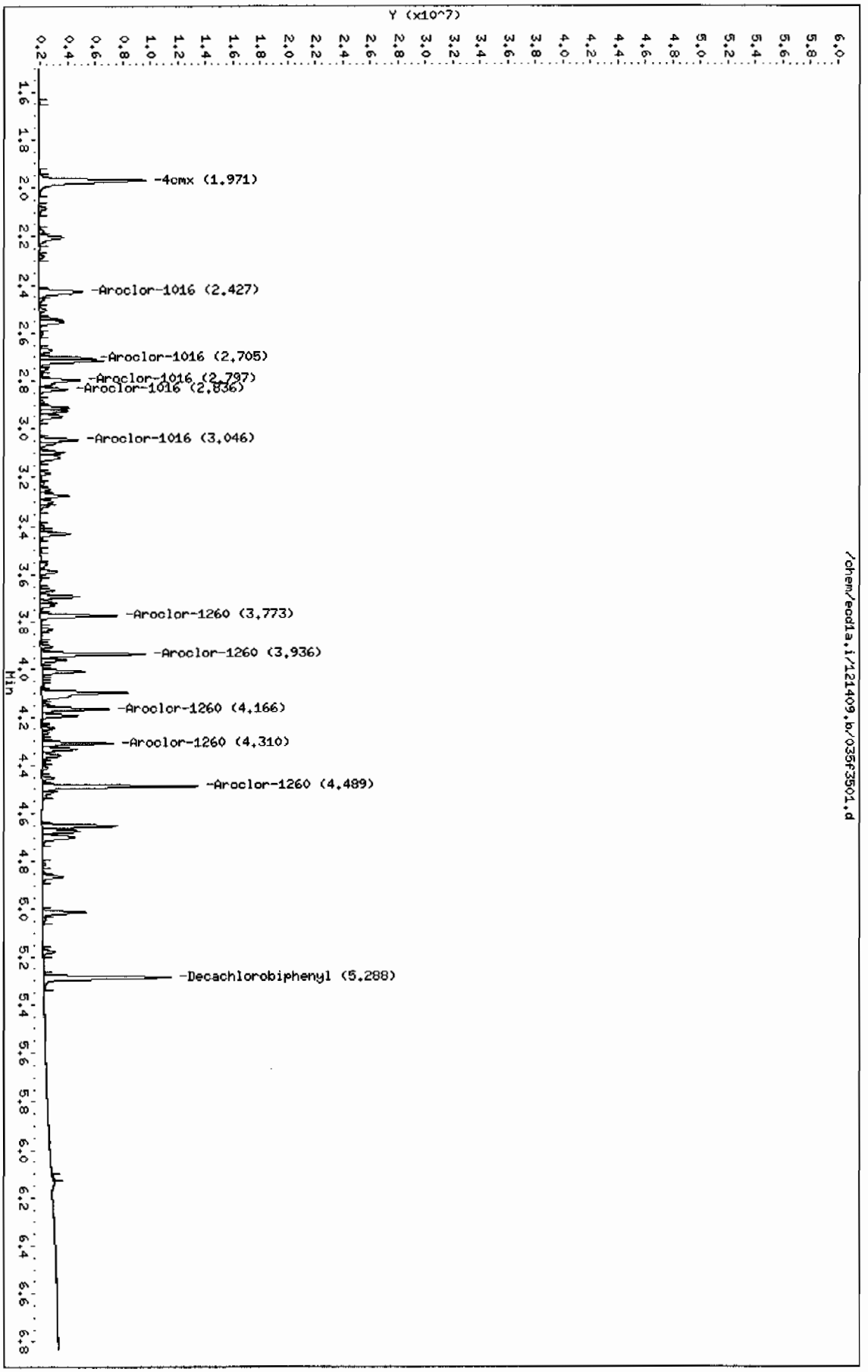

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121409.b/035b3501.d
Lab Smp Id: WAR091214-02 60 Client Smp ID: AR166002
Inj Date : 14-DEC-2009 10:41
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091214-02 60
Misc Info :
Comment :
Method : /chem/ecd1a.i/121409.b/ECD1-B-8082-121409.m
Meth Date : 14-Dec-2009 12:04 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 09:38 Cal File: 029b2901.d
Als bottle: 35 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.300	2.301	-0.001	7342893	20.0000	24.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.944	5.945	-0.001	5720229	20.0000	24.5	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 12674-11-2		
3.196	3.196	0.000	3183598	250.000	252	80.00- 120.00	100.00
3.280	3.280	0.000	2478267	250.000	266	57.84- 97.84	77.84
3.343	3.343	0.000	1419843	250.000	262	24.60- 64.60	44.60
3.570	3.570	0.000	1857555	250.000	263	38.35- 78.35	58.35
3.646	3.646	0.000	1710676	250.000	261	33.73- 73.73	53.73
Average of Peak Amounts =					261		
7 Aroclor-1260					CAS #: 11096-82-5		
4.336	4.336	0.000	3557877	250.000	260	80.00- 120.00	100.00(M)
4.460	4.460	0.000	4143434	250.000	258	96.46- 136.46	116.46
4.725	4.725	0.000	3266101	250.000	260	71.80- 111.80	91.80
4.899	4.899	0.000	3327617	250.000	260	73.53- 113.53	93.53
5.046	5.046	0.000	7156429	250.000	256	181.14- 221.14	201.14
Average of Peak Amounts =					259		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/121409.b/035b3501.d

Date : 14-DEC-2009 10:41

Client ID: AR166002

Sample Info: |WAR091214-02 60

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

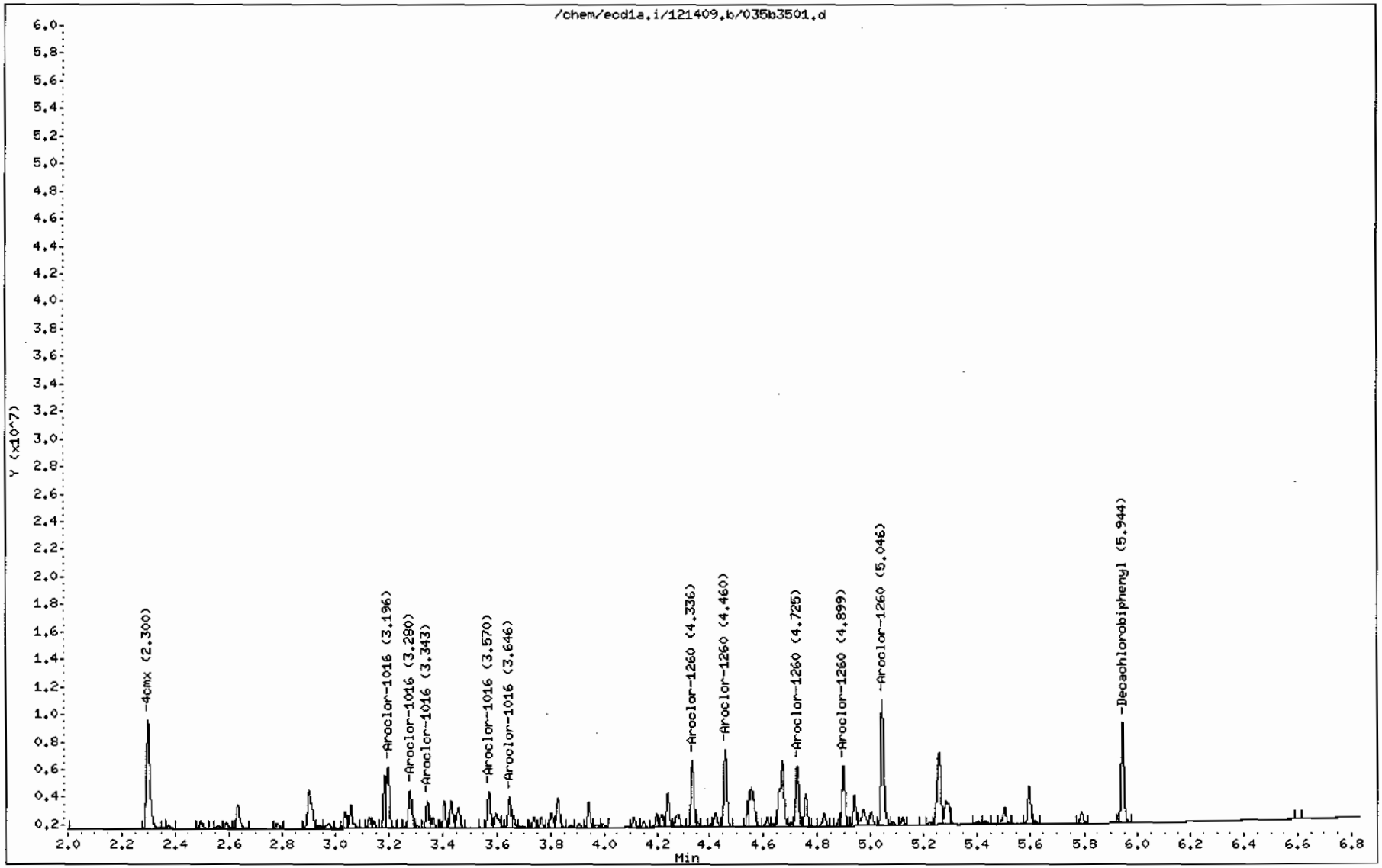

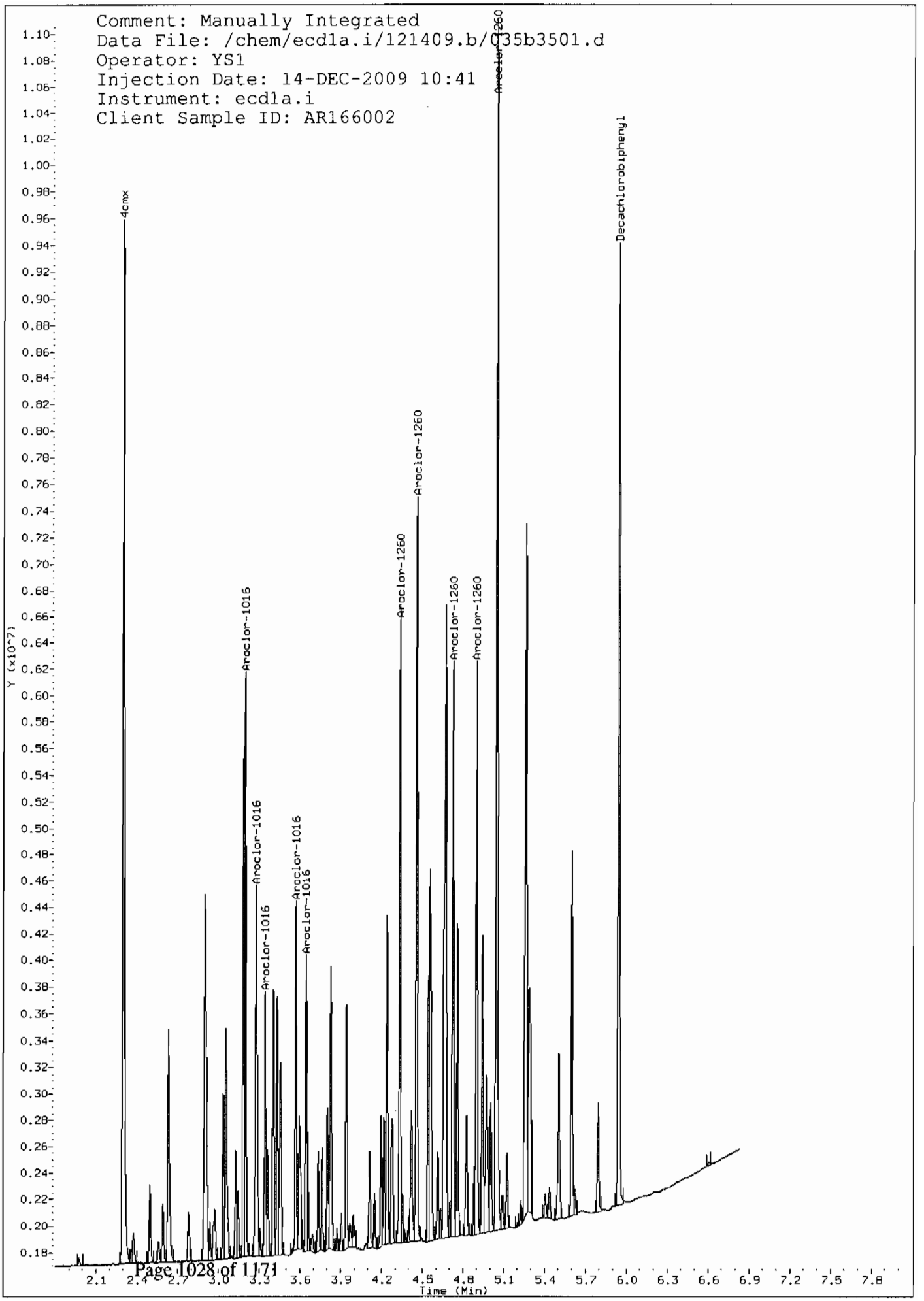
Comment: Manually Integrated
Data File: /chem/ecd1a.i/121409.b/C35b3501.d
Operator: YS1
Injection Date: 14-DEC-2009 10:41
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

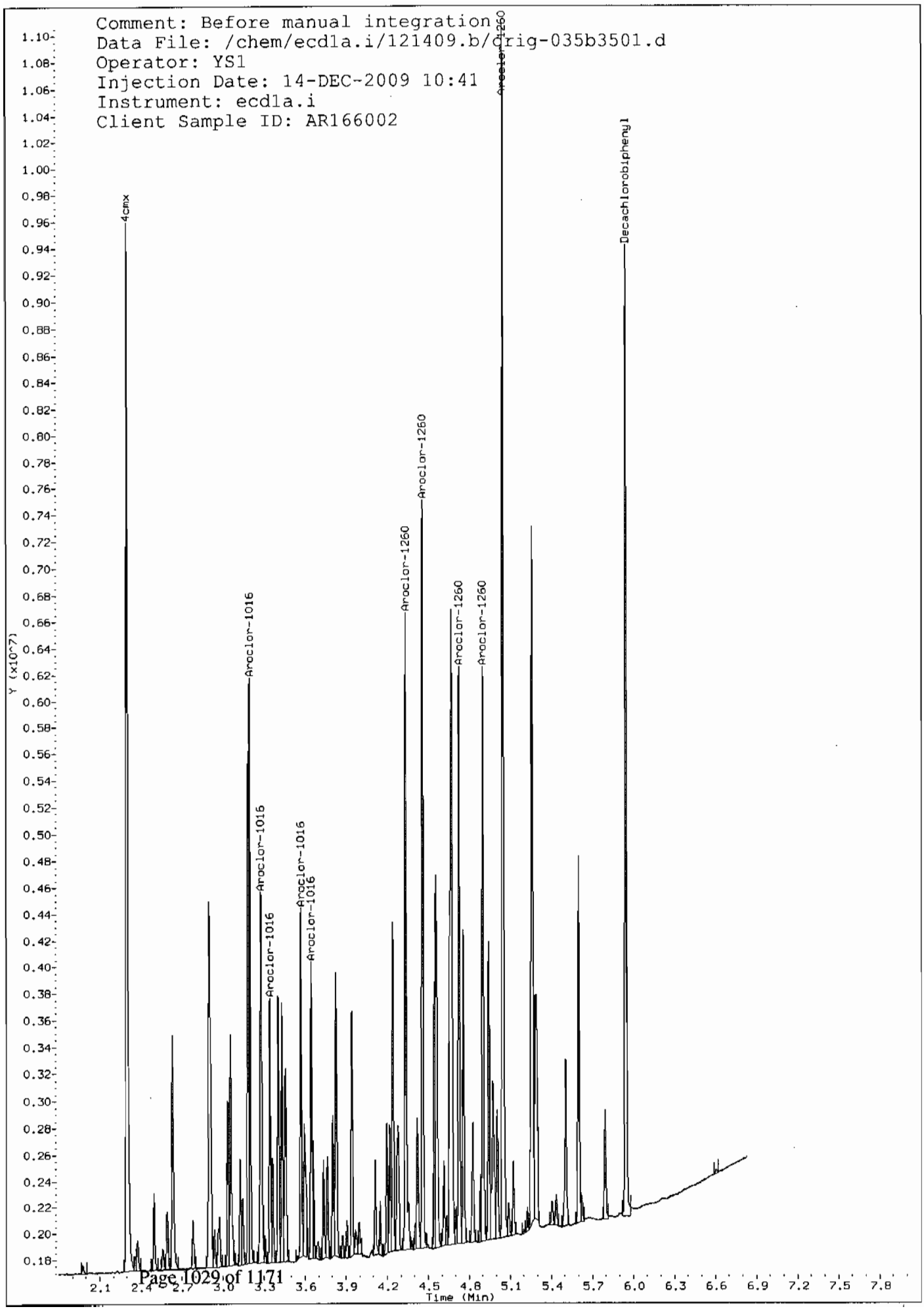
Comment: Before manual integration
Data File: /chem/ecd1a.i/121409.b/crig-035b3501.d
Operator: YS1
Injection Date: 14-DEC-2009 10:41
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121409.b/036f3601.d
Lab Smp Id: WAR091214-03 60 Client Smp ID: AR166003
Inj Date : 14-DEC-2009 10:52
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091214-03 60
Misc Info :
Comment :
Method : /chem/ecd1a.i/121409.b/ECD1-F-8082-121409.m
Meth Date : 14-Dec-2009 12:04 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 09:49 Cal File: 030f3001.d
Als bottle: 36 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.971	0.000	17999296	50.0000	47.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.288	5.288	0.000	15359669	50.0000	48.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.428	2.428	0.000	6914516	500.000	499	80.00- 120.00	100.00
2.706	2.706	0.000	4916073	500.000	487	51.10- 91.10	71.10
2.798	2.798	0.000	5866119	500.000	499	64.84- 104.84	84.84
2.836	2.836	0.000	3304749	500.000	501	27.79- 67.79	47.79
3.047	3.047	0.000	4324463	500.000	498	42.54- 82.54	62.54
Average of Peak Amounts =					497		
7 Aroclor-1260					CAS #: 11096-82-5		
3.774	3.774	0.000	8421027	500.000	503	80.00- 120.00	100.00
3.936	3.936	0.000	12486558	500.000	505	128.28- 168.28	148.28
4.167	4.167	0.000	7427338	500.000	506	68.20- 108.20	88.20
4.311	4.311	0.000	7655574	500.000	504	70.91- 110.91	90.91
4.489	4.489	0.000	17449728	500.000	508	187.22- 227.22	207.22
Average of Peak Amounts =					505		

Data File: /chem/ecd1a.i/121409.b/036f3601.d
Date : 14-DEC-2009 10:52
Client ID: AR166003
Sample Info: IWAR091214-03 60

Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

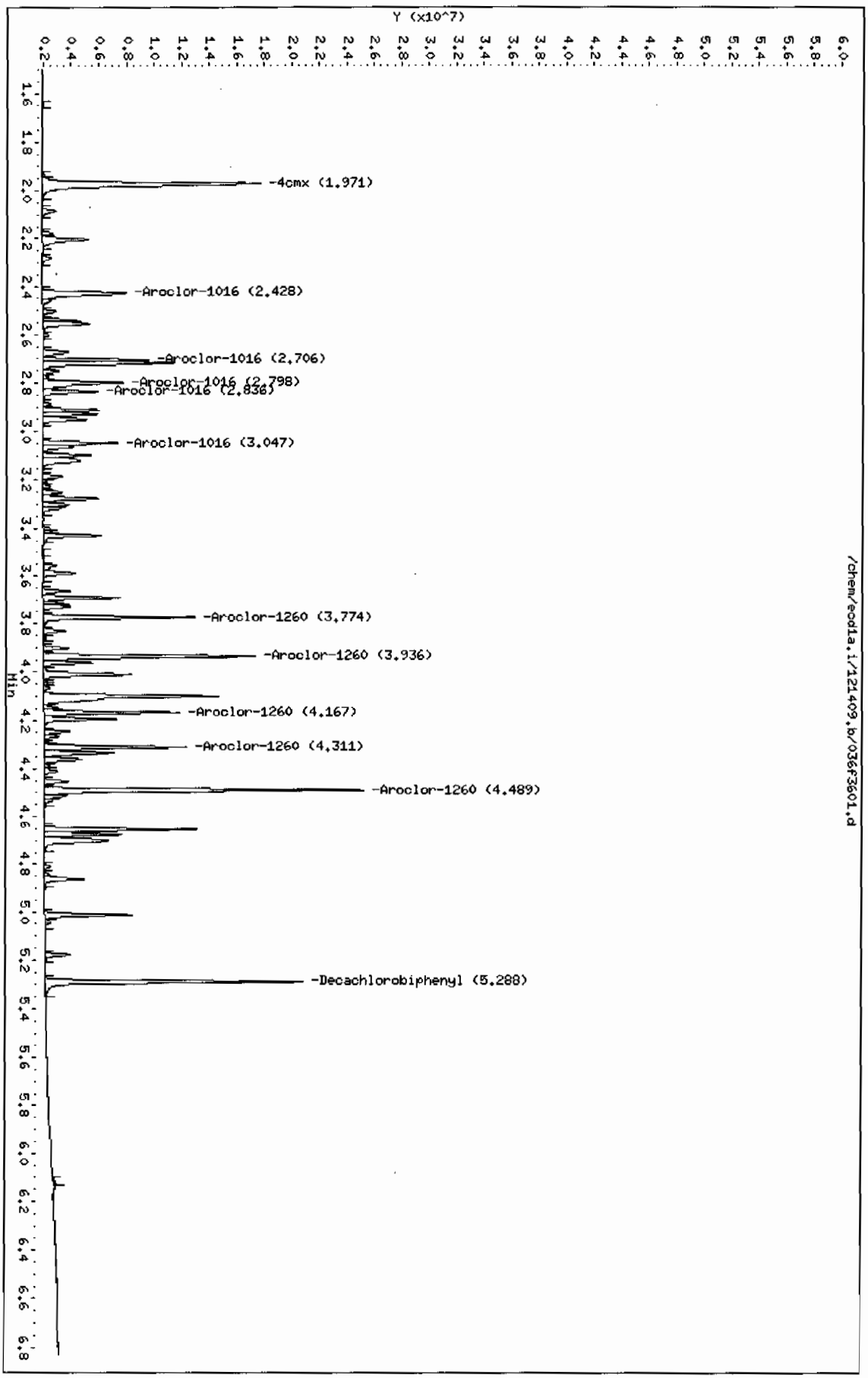

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121409.b/036b3601.d
Lab Smp Id: WAR091214-03 60 Client Smp ID: AR166003
Inj Date : 14-DEC-2009 10:52
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091214-03 60
Misc Info :
Comment :
Method : /chem/ecd1a.i/121409.b/ECD1-B-8082-121409.m
Meth Date : 14-Dec-2009 12:04 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 09:49 Cal File: 030b3001.d
Als bottle: 36 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.300	2.301	-0.001	14346552	50.0000	47.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.944	5.945	-0.001	11205958	50.0000	48.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.197	3.197	0.000	6423761	500.000	509	80.00- 120.00	100.00
3.281	3.281	0.000	4628021	500.000	496	52.05- 92.05	72.05
3.344	3.344	0.000	2690074	500.000	497	21.88- 61.88	41.88
3.571	3.571	0.000	3490619	500.000	495	34.34- 74.34	54.34
3.646	3.646	0.000	3240431	500.000	495	30.44- 70.44	50.44
Average of Peak Amounts =					498		
7 Aroclor-1260					CAS #: 11096-82-5		
4.336	4.336	0.000	6791375	500.000	496	80.00- 120.00	100.00
4.461	4.461	0.000	8017300	500.000	500	98.05- 138.05	118.05
4.726	4.726	0.000	6261958	500.000	498	72.20- 112.20	92.20
4.901	4.901	0.000	6383214	500.000	498	73.99- 113.99	93.99
5.046	5.046	0.000	14128601	500.000	506	188.04- 228.04	208.04
Average of Peak Amounts =					500		

Data File: /chem/ecdia.i/121409.b/036b3601.d
Date : 14-DEC-2009 10:52
Client ID: AR166003
Sample Info: IWAR091214-03 60
Column phase: CLP2

Instrument: ecdia.i
Operator: YSI
Column diameter: 0.25

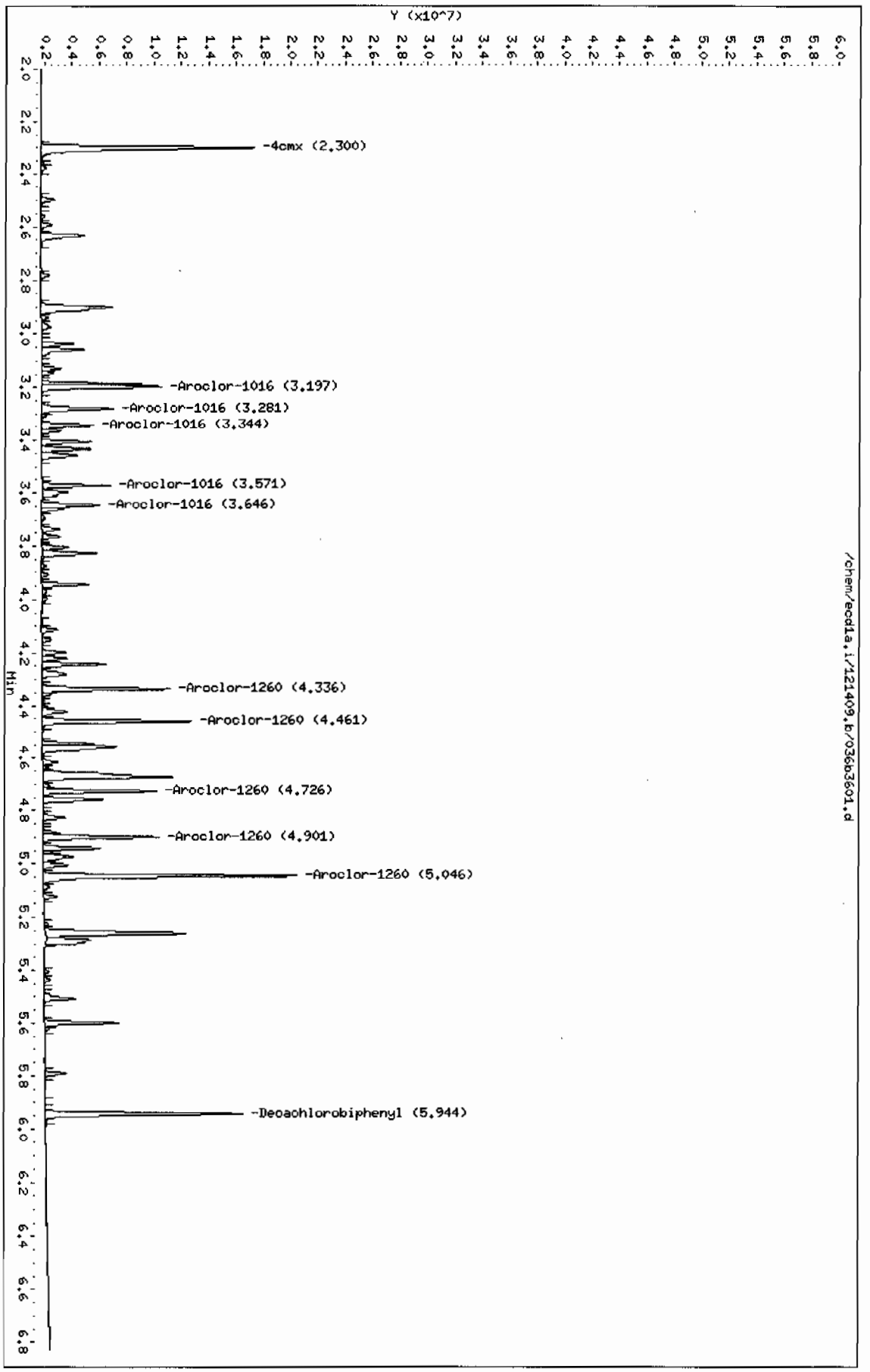

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121409.b/037f3701.d
Lab Smp Id: WAR091214-04 60 Client Smp ID: AR166004
Inj Date : 14-DEC-2009 11:02
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091214-04 60
Misc Info :
Comment :
Method : /chem/ecd1a.i/121409.b/ECD1-F-8082-121409.m
Meth Date : 14-Dec-2009 12:04 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 09:59 Cal File: 031f3101.d
Als bottle: 37 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.970	1.971	-0.001	35984575	100.000	95.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.288	5.288	0.000	29660212	100.000	93.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.428	2.428	0.000	13236019	1000.00	954	80.00- 120.00	100.00
2.705	2.705	0.000	9921814	1000.00	982	54.96- 94.96	74.96
2.798	2.798	0.000	11291454	1000.00	960	65.31- 105.31	85.31
2.835	2.835	0.000	6421035	1000.00	973	28.51- 68.51	48.51
3.046	3.046	0.000	8223868	1000.00	948	42.13- 82.13	62.13
Average of Peak Amounts =					964		
7 Aroclor-1260					CAS #: 11096-82-5		
3.774	3.774	0.000	16407111	1000.00	979	80.00- 120.00	100.00
3.936	3.936	0.000	24571334	1000.00	993	129.76- 169.76	149.76
4.167	4.167	0.000	14471762	1000.00	985	68.20- 108.20	88.20
4.310	4.310	0.000	15031848	1000.00	990	71.62- 111.62	91.62
4.489	4.489	0.000	34487147	1000.00	1000	190.20- 230.20	210.20
Average of Peak Amounts =					990		

Data File: /chem/ecd1a.i/121409.b/037f3701.d
Date : 14-DEC-2009 11:02
Client ID: AR166004
Sample Info: |WAR091214-04 60
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

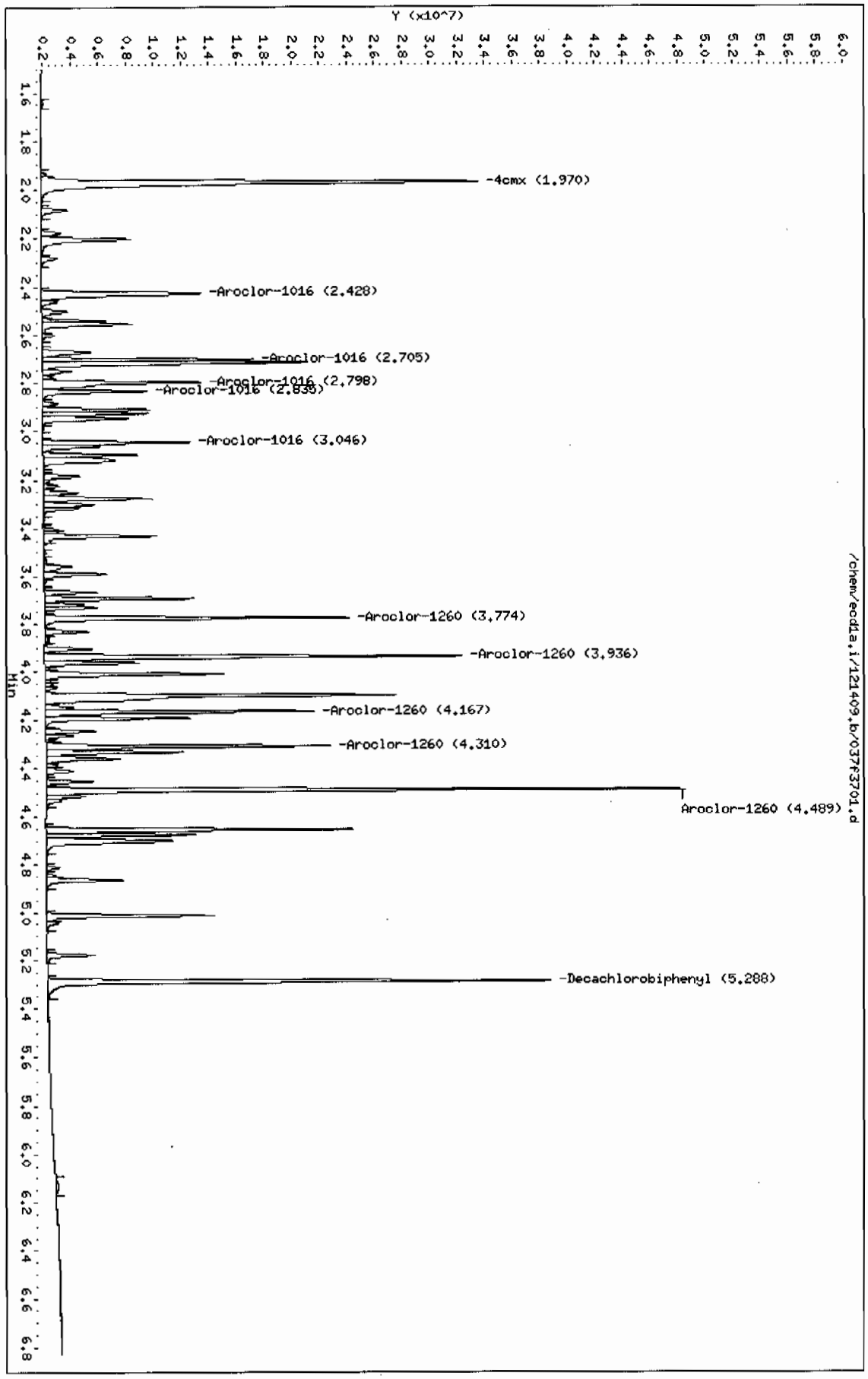

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121409.b/037b3701.d
Lab Smp Id: WAR091214-04 60 Client Smp ID: AR166004
Inj Date : 14-DEC-2009 11:02
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR091214-04 60
Misc Info :
Comment :
Method : /chem/ecd1a.i/121409.b/ECD1-B-8082-121409.m
Meth Date : 14-Dec-2009 12:04 yip00818 Quant Type: ESTD
Cal Date : 11-DEC-2009 15:42 Cal File: 041b4101.d
Als bottle: 37 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.300	2.301	-0.001	28289856	100.000	94.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.945	5.945	0.000	21217480	100.000	91.0	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.197	3.197	0.000	12155819	1000.00	964	80.00- 120.00	100.00
3.280	3.280	0.000	8806396	1000.00	944	52.45- 92.45	72.45
3.344	3.344	0.000	5089452	1000.00	940	21.87- 61.87	41.87
3.570	3.570	0.000	6695638	1000.00	949	35.08- 75.08	55.08
3.646	3.646	0.000	6114931	1000.00	933	30.30- 70.30	50.30
Average of Peak Amounts =					946		
7 Aroclor-1260					CAS #: 11096-82-5		
4.336	4.336	0.000	13177281	1000.00	963	80.00- 120.00	100.00
4.460	4.460	0.000	15527080	1000.00	969	97.83- 137.83	117.83
4.726	4.726	0.000	12030377	1000.00	958	71.30- 111.30	91.30
4.900	4.900	0.000	12229872	1000.00	955	72.81- 112.81	92.81
5.046	5.046	0.000	27275591	1000.00	978	186.99- 226.99	206.99
Average of Peak Amounts =					964		

Data File: /chem/ecdia.i/121409.b/037b3701.d
Date : 14-DEC-2009 11:02
Client ID: AR166004
Sample Info: IWAR091214-04 60
Column phase: CLP2

Instrument: ecdia.i
Operator: YSI
Column diameter: 0.25

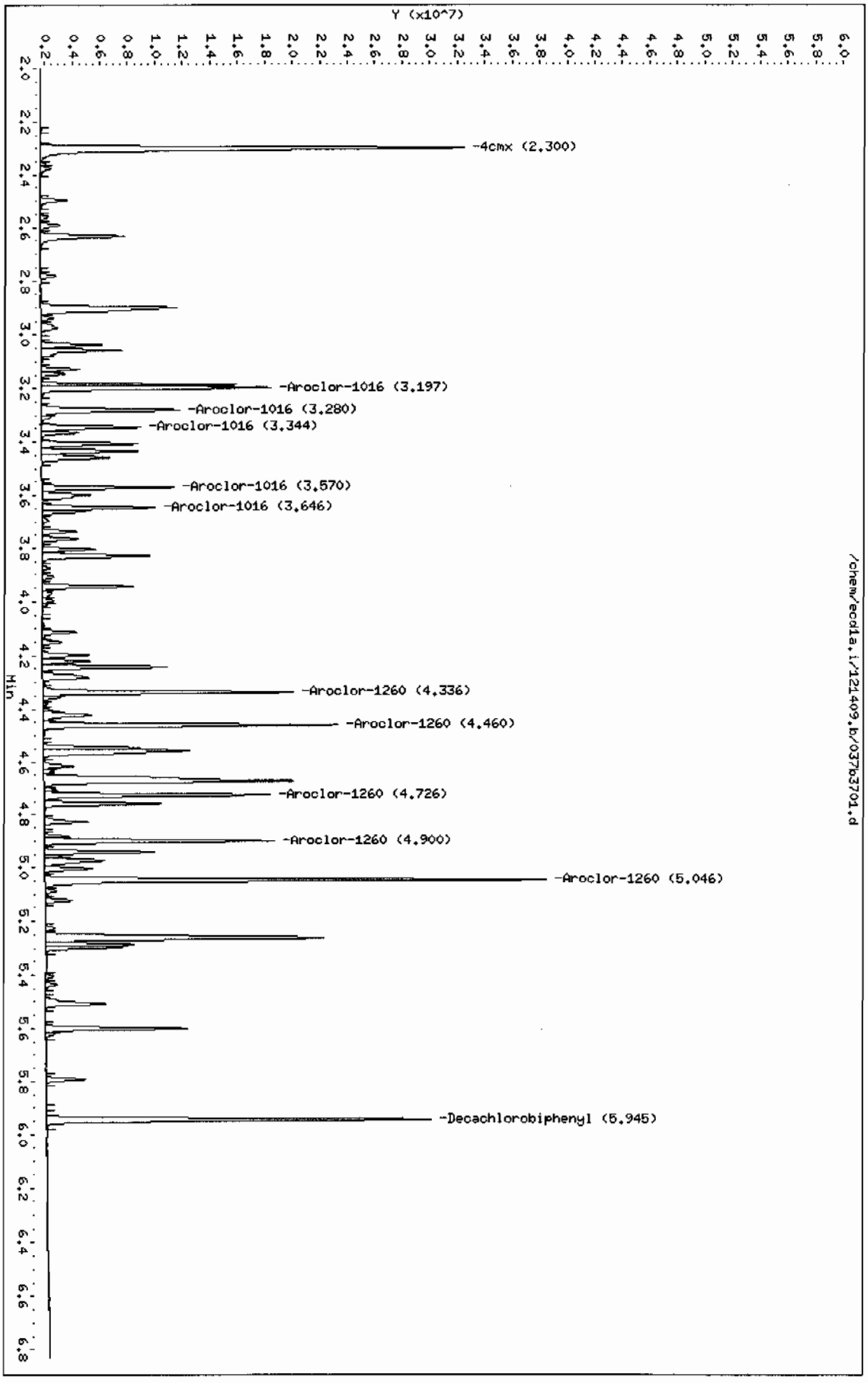

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/121409.b/038f3801.d
Lab Smp Id: IAR091102-01 Client Smp ID: AR166005
Inj Date : 14-DEC-2009 11:13
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |IAR091102-01
Misc Info :
Comment :
Method : /chem/ecd1a.i/121409.b/ECD1-F-8082-121409.m
Meth Date : 14-Dec-2009 12:05 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 10:10 Cal File: 032f3201.d
Als bottle: 38 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.971	0.001	134376628	400.000	358	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.288	5.288	0.000	111599631	400.000	351	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.428	2.428	0.000	46612268	4000.00	3360	80.00- 120.00	100.00
2.706	2.706	0.000	38337466	4000.00	3800	62.25- 102.25	82.25
2.798	2.798	0.000	40959106	4000.00	3480	67.87- 107.87	87.87
2.836	2.836	0.000	23681273	4000.00	3590	30.80- 70.80	50.80
3.048	3.048	0.000	31051368	4000.00	3580	46.62- 86.62	66.62
Average of Peak Amounts =					3.56e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
3.773	3.773	0.000	60756833	4000.00	3630	80.00- 120.00	100.00
3.936	3.936	0.000	91548546	4000.00	3700	130.68- 170.68	150.68
4.167	4.167	0.000	54501165	4000.00	3710	69.70- 109.70	89.70
4.310	4.310	0.000	57371390	4000.00	3780	74.43- 114.43	94.43
4.488	4.488	0.000	131949721	4000.00	3840	197.18- 237.18	217.18
Average of Peak Amounts =					3.73e+03		

Data File: /chem/ecd1a.i/121409.b/038f3801.d

Date : 14-DEC-2009 11:13

Client ID: AR166005

Sample Info: 11AR091102-01

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

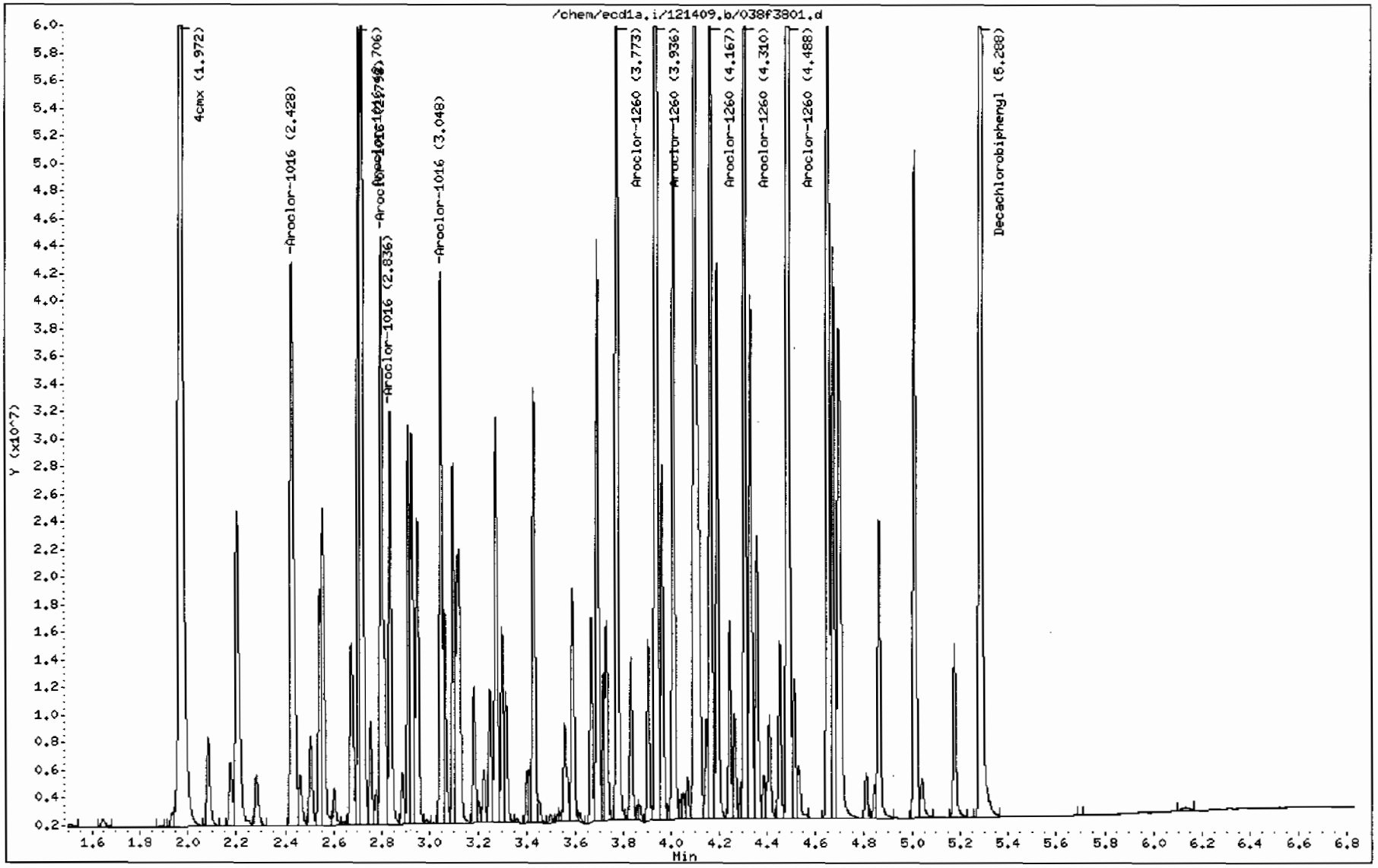

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/121409.b/038b3801.d
Lab Smp Id: IAR091102-01 Client Smp ID: AR166005
Inj Date : 14-DEC-2009 11:13
Operator : YS1 Inst ID: ecdla.i
Smp Info : |IAR091102-01
Misc Info :
Comment :
Method : /chem/ecdla.i/121409.b/ECD1-B-8082-121409.m
Meth Date : 14-Dec-2009 12:04 yip00818 Quant Type: ESTD
Cal Date : 14-DEC-2009 10:10 Cal File: 032b3201.d
Als bottle: 38 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.301	2.301	0.000	102434273	400.000	341	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.944	5.945	-0.001	77978318	400.000	334	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.198	3.198	0.000	44154001	4000.00	3500	80.00- 120.00	100.00
3.281	3.281	0.000	30838029	4000.00	3310	49.84- 89.84	69.84
3.344	3.344	0.000	18391593	4000.00	3400	21.65- 61.65	41.65
3.571	3.571	0.000	23753196	4000.00	3370	33.80- 73.80	53.80
3.647	3.647	0.000	22243551	4000.00	3400	30.38- 70.38	50.38
Average of Peak Amounts =				3.39e+03			
7 Aroclor-1260					CAS #: 11096-82-5		
4.336	4.336	0.000	46922068	4000.00	3430	80.00- 120.00	100.00
4.460	4.460	0.000	55469308	4000.00	3460	98.22- 138.22	118.22
4.726	4.726	0.000	43613066	4000.00	3470	72.95- 112.95	92.95
4.900	4.900	0.000	44600809	4000.00	3480	75.05- 115.05	95.05
5.046	5.046	0.000	99108158	4000.00	3550	191.22- 231.22	211.22
Average of Peak Amounts =				3.48e+03			

Data File: /chem/ecd1a.i/121409.b/038b3801.d
Date : 14-DEC-2009 11:13
Client ID: AR166005
Sample Info: IIAR091102-01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

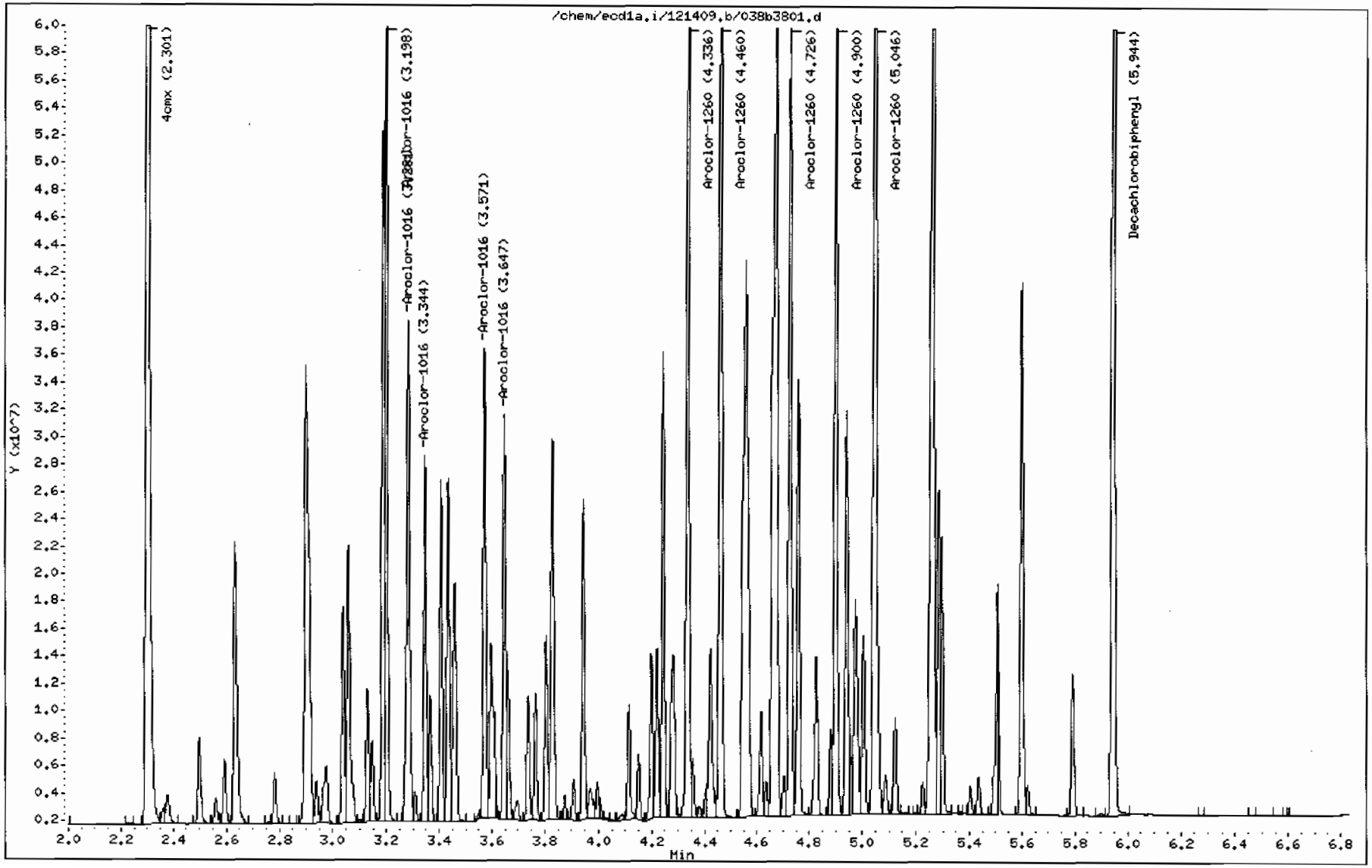

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1020

Instrument ID: ECD1A Calibration Date: 12/31/09 Time: 0739

Lab File ID: 002F0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	13866.870	12428.311	0.01	-10.4	15.0
(2)	10097.726	10734.785	0.01	6.3	15.0
(3)	11757.020	10744.380	0.01	-8.6	15.0
(4)	6599.010	6481.528	0.01	-1.8	15.0
(5)	8673.402	8378.041	0.01	-3.4	15.0
Aroclor-1260	16752.150	16975.657	0.01	1.3	15.0
(2)	24742.603	26084.994	0.01	5.4	15.0
(3)	14687.346	15612.562	0.01	6.3	15.0
(4)	15184.529	16429.472	0.01	8.2	15.0
(5)	34350.443	37896.796	0.01	10.3	15.0
4cmx	375669.41	374162.43	0.01	-0.4	15.0
Decachlorobiphenyl	317540.53	340349.52	0.01	7.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1020

Instrument ID: ECD1A Calibration Date: 12/31/09 Time: 0739

Lab File ID: 002B0201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	12358.983	0.01	-2.0	15.0
(2)	9327.875	8363.607	0.01	-10.3	15.0
(3)	5411.316	5223.183	0.01	-3.5	15.0
(4)	7051.879	6603.249	0.01	-6.4	15.0
(5)	6550.733	6176.551	0.01	-5.7	15.0
Aroclor-1260	13680.027	13194.823	0.01	-3.5	15.0
(2)	16029.019	16311.310	0.01	1.8	15.0
(3)	12563.933	12541.311	0.01	-0.2	15.0
(4)	12810.076	12954.538	0.01	1.1	15.0
(5)	27897.674	29410.023	0.01	5.4	15.0
4cmx	300025.77	295351.41	0.01	-1.6	15.0
Decachlorobiphenyl	233227.08	253043.98	0.01	8.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1020

Instrument ID: ECD1A Calibration Date: 12/31/09 Time: 1111

Lab File ID: 021F2101 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D	
Aroclor-1016	13866.870	13061.637	0.01	-5.8	15.0	
(2)	10097.726	10817.180	0.01	7.1	15.0	
(3)	11757.020	11278.826	0.01	-4.1	15.0	
(4)	6599.010	6787.618	0.01	2.8	15.0	
(5)	8673.402	8699.394	0.01	0.3	15.0	
Aroclor-1260	16752.150	17704.041	0.01	5.7	15.0	
(2)	24742.603	27320.103	0.01	10.4	15.0	
(3)	14687.346	16334.500	0.01	11.2	15.0	
(4)	15184.529	17163.616	0.01	13.0	15.0	
(5)	34350.443	39756.956	0.01	15.7	15.0	<-
4cmx	375669.41	393449.35	0.01	4.7	15.0	
Decachlorobiphenyl	317540.53	350162.79	0.01	10.3	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1020

Instrument ID: ECD1A Calibration Date: 12/31/09 Time: 1111

Lab File ID: 021B2101 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 1031 1113

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12611.539	12631.208	0.01	0.2	15.0
(2)	9327.875	8622.013	0.01	-7.6	15.0
(3)	5411.316	5390.833	0.01	-0.4	15.0
(4)	7051.879	6800.764	0.01	-3.6	15.0
(5)	6550.733	6240.266	0.01	-4.7	15.0
Aroclor-1260	13680.027	13548.187	0.01	-1.0	15.0
(2)	16029.019	16704.970	0.01	4.2	15.0
(3)	12563.933	12798.779	0.01	1.9	15.0
(4)	12810.076	13270.848	0.01	3.6	15.0
(5)	27897.674	30351.069	0.01	8.8	15.0
4cmx	300025.77	304523.21	0.01	1.5	15.0
Decachlorobiphenyl	233227.08	260070.42	0.01	11.5	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/002f0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 31-DEC-2009 07:39
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 11:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.970	1.970	0.000	37416243	100.000	99.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.283	5.283	0.000	34034952	100.000	107	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.426	2.426	0.000	12428310	1000.00	896	80.00- 120.00	100.00
2.703	2.703	0.000	10734785	1000.00	1060	62.82- 102.82	86.37
2.795	2.795	0.000	10744379	1000.00	914	66.35- 106.35	86.45
2.833	2.833	0.000	6481527	1000.00	982	31.97- 71.97	52.15
3.044	3.044	0.000	8378041	1000.00	966	46.60- 86.60	67.41
Average of Peak Amounts =					964		
7 Aroclor-1260					CAS #: 11096-82-5		
3.770	3.770	0.000	16975657	1000.00	1010	80.00- 120.00	100.00
3.932	3.932	0.000	26084993	1000.00	1050	134.32- 174.32	153.66
4.162	4.162	0.000	15612561	1000.00	1060	72.26- 112.26	91.97
4.306	4.306	0.000	16429471	1000.00	1080	76.95- 116.95	96.78
4.485	4.485	0.000	37896796	1000.00	1100	204.56- 244.56	223.24
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecd1a.i/123109.b/002f0201.d
Date : 31-DEC-2009 07:39
Client ID: AR166001
Sample Info: IWAR091211-60 01

Column phase: CLP1

Instrument: ecd1a.i
Operator: JADC
Column diameter: 0.25

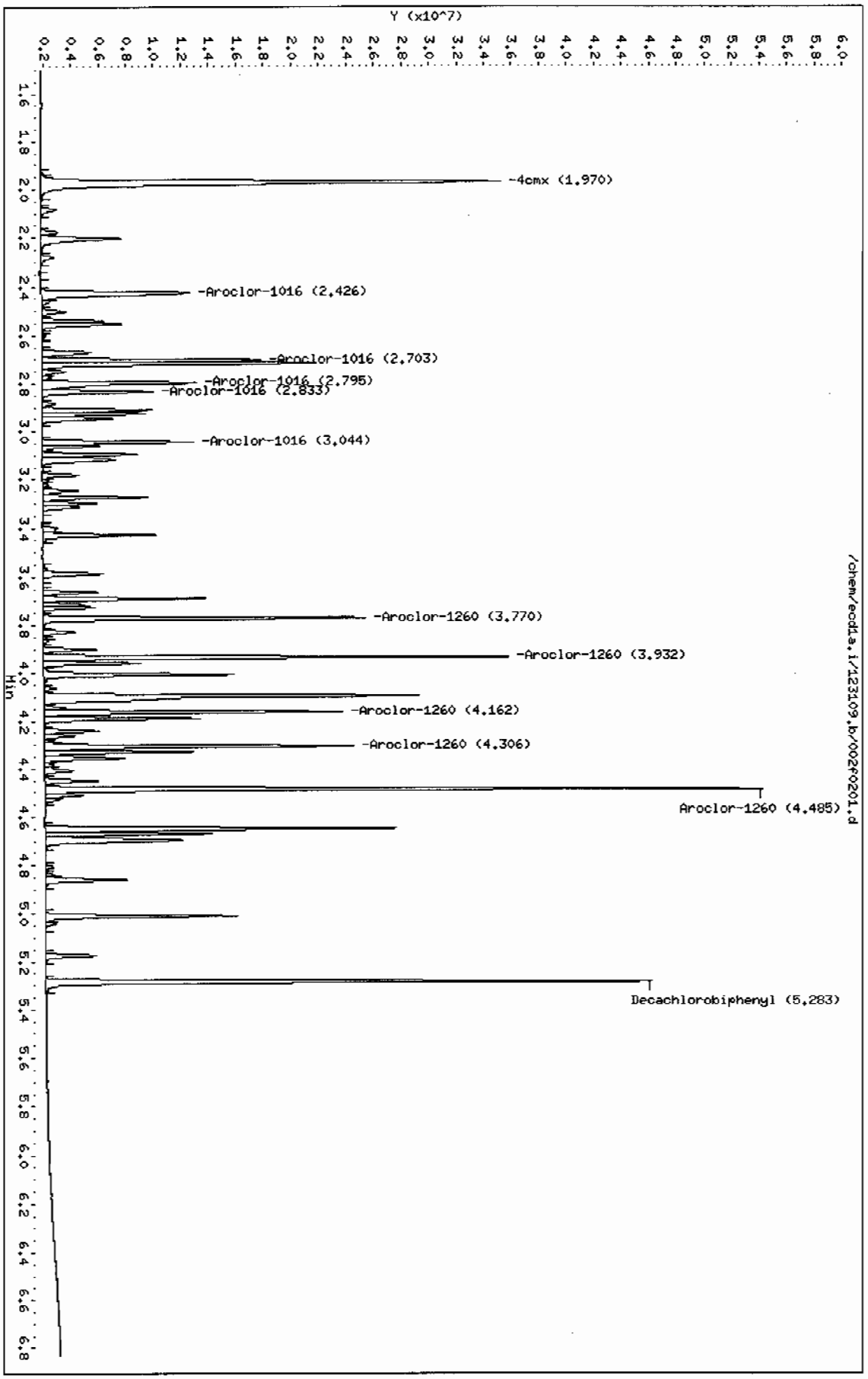

Page 1

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/002b0201.d
Lab Smp Id: WAR091211-60 01 Client Smp ID: AR166001
Inj Date : 31-DEC-2009 07:39
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 11:54 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	29535141	100.000	98.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.947	5.947	0.000	25304398	100.000	108	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.199	3.199	0.000	12358983	1000.00	980	80.00- 120.00	100.00(M)
3.282	3.282	0.000	8363607	1000.00	897	48.26- 88.26	67.67
3.346	3.346	0.000	5223183	1000.00	965	22.68- 62.68	42.26
3.572	3.572	0.000	6603249	1000.00	936	33.84- 73.84	53.43
3.647	3.647	0.000	6176551	1000.00	943	29.40- 69.40	49.98
Average of Peak Amounts =					944		
7 Aroclor-1260					CAS #: 11096-82-5		
4.337	4.337	0.000	13194823	1000.00	964	80.00- 120.00	100.00
4.462	4.462	0.000	16311310	1000.00	1020	103.30- 143.30	123.62
4.728	4.728	0.000	12541311	1000.00	998	74.47- 114.47	95.05
4.902	4.902	0.000	12954538	1000.00	1010	77.95- 117.95	98.18
5.049	5.049	0.000	29410023	1000.00	1050	204.02- 244.02	222.89
Average of Peak Amounts =					1.01e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/123109.b/002b0201.d

Date : 31-DEC-2009 07:39

Client ID: AR166001

Sample Info: IWAR091211-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

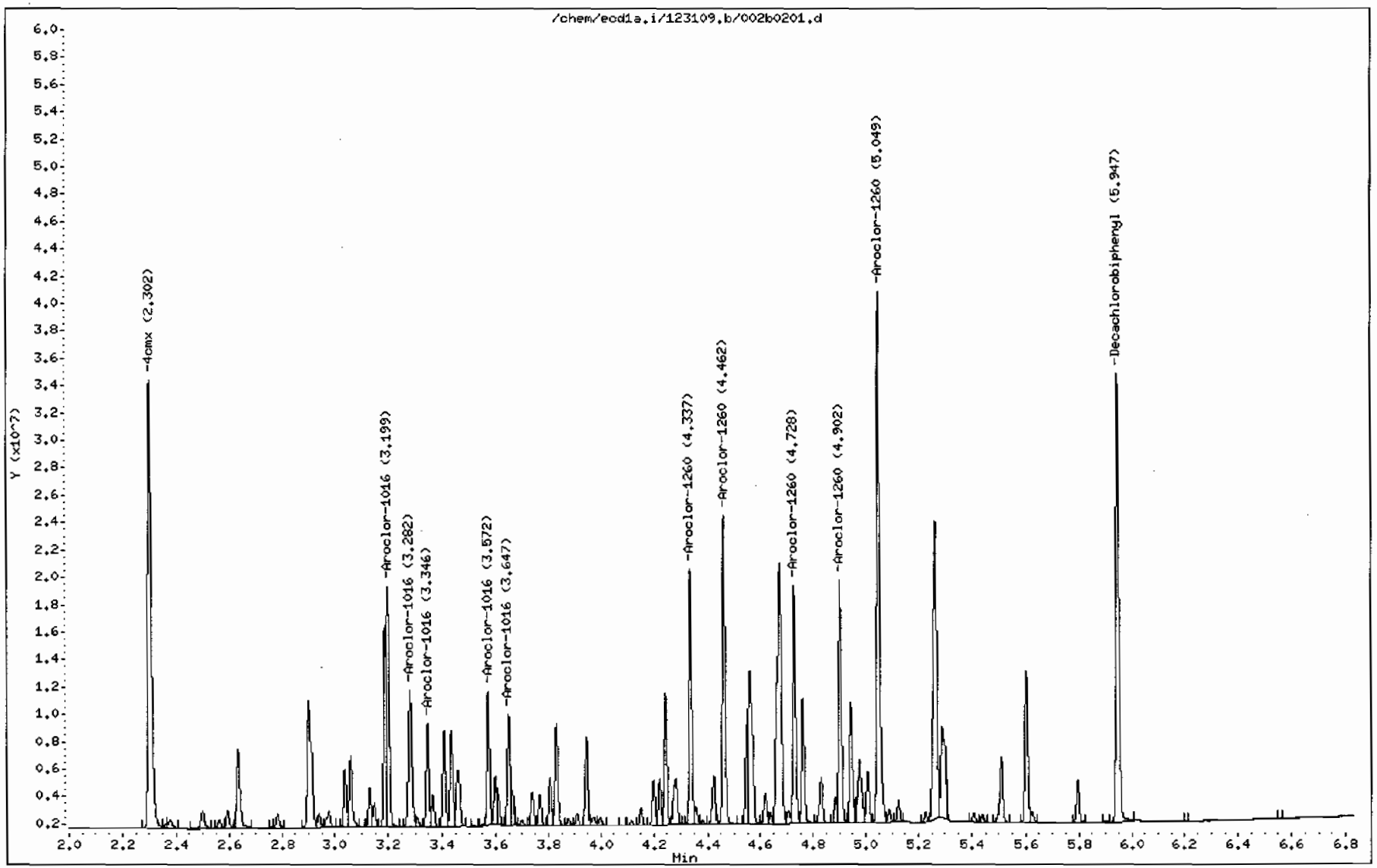

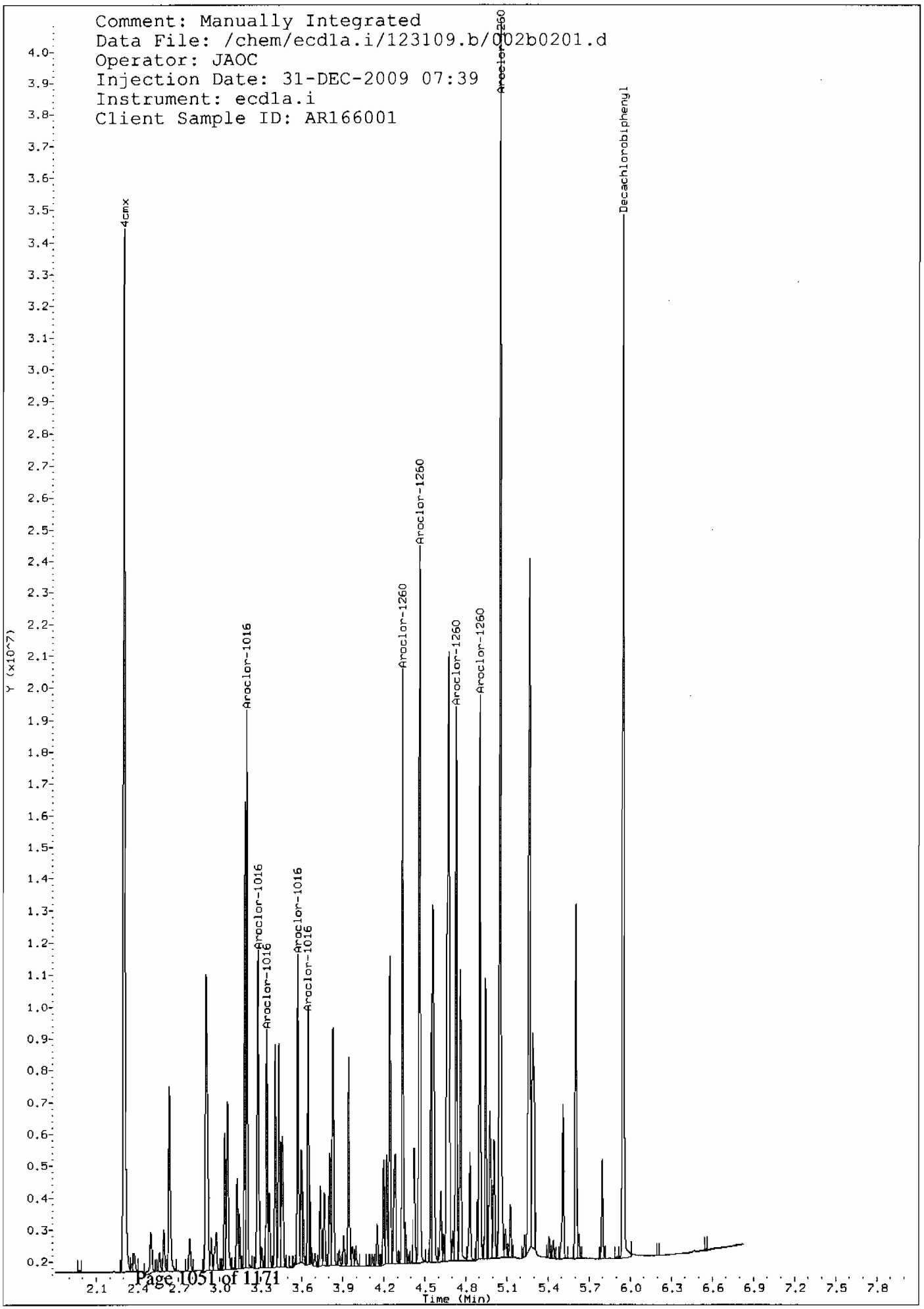
Comment: Manually Integrated
Data File: /chem/ecd1a.i/123109.b/002b0201.d
Operator: JAOC
Injection Date: 31-DEC-2009 07:39
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

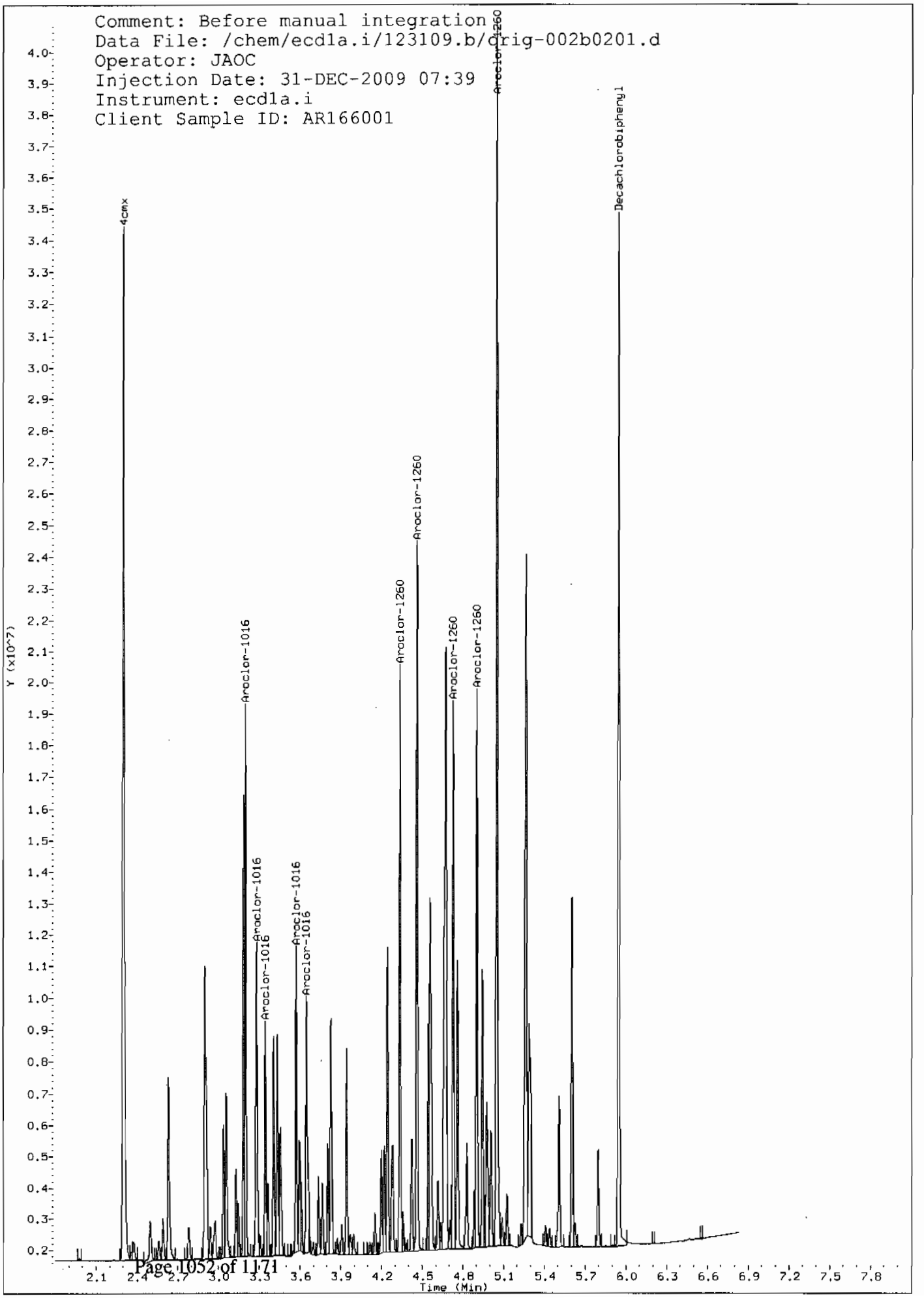
Comment: Before manual integration
Data File: /chem/ecd1a.i/123109.b/orig-002b0201.d
Operator: JAOC
Injection Date: 31-DEC-2009 07:39
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/003f0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 31-DEC-2009 07:49
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 11:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.970	0.001	39251905	100.000	104	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.285	5.283	0.002	36235158	100.000	114	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.273	3.273	0.000	12711664	1000.00	1020	80.00- 120.00	100.00
3.429	3.429	0.000	17431024	1000.00	1040	117.13- 157.13	137.13
3.662	3.662	0.000	23080988	1000.00	1110	161.57- 201.57	181.57
3.826	3.826	0.000	17816503	1000.00	1140	120.16- 160.16	140.16
3.935	3.935	0.000	16920016	1000.00	1120	113.11- 153.11	133.11

Average of Peak Amounts = 1.09e+03

Data File: /chem/ecd1a.i/123109.b/003f0301.d

Date : 31-DEC-2009 07:49

Client ID: AR125401

Sample Info: IWAR091216-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

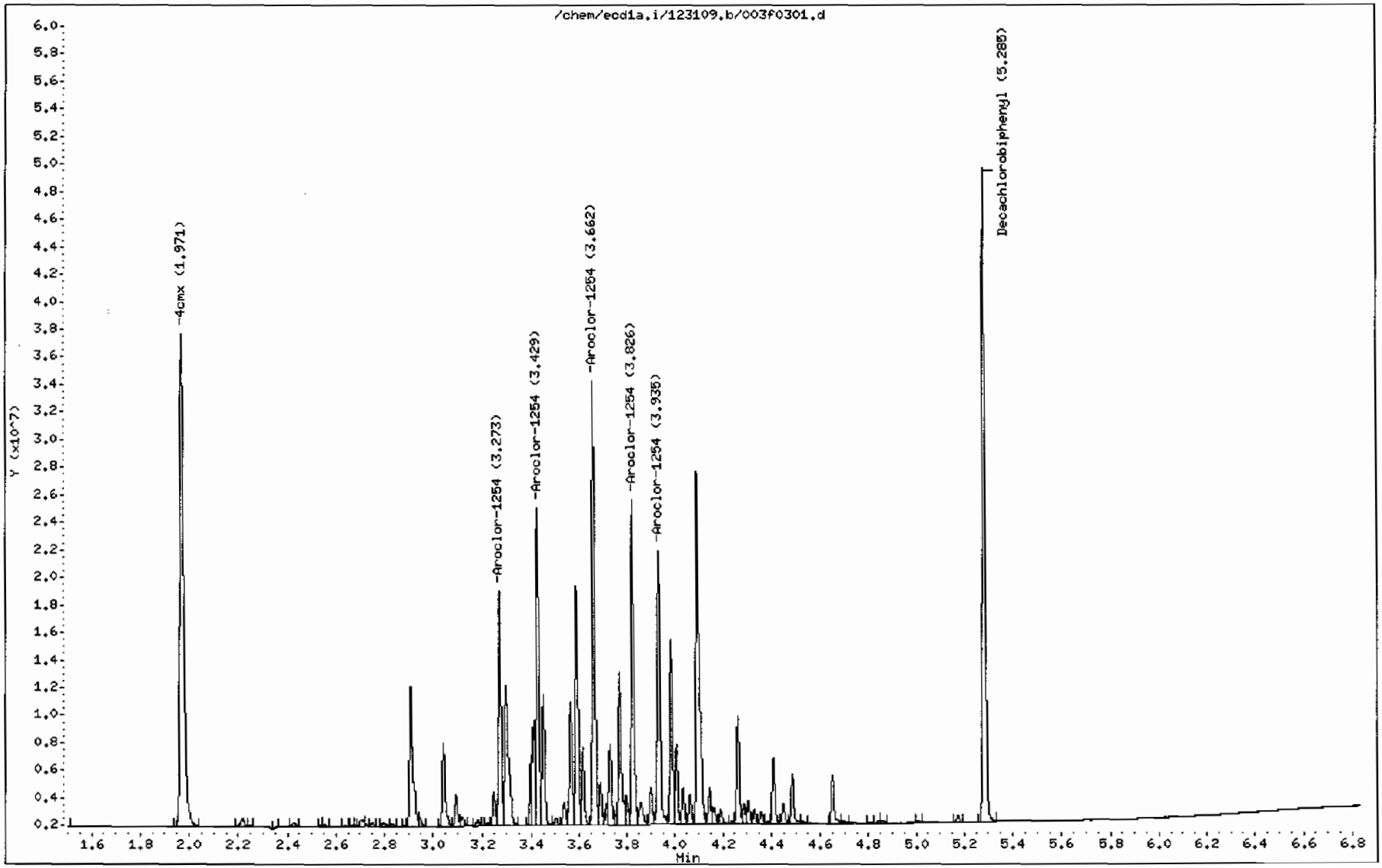

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/003b0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 31-DEC-2009 07:49
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091216-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 11:54 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.301	2.302	-0.001	31164081	100.000	104	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.947	0.001	26760922	100.000	115	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.407	3.407	0.000	6304760	1000.00	980	80.00- 120.00	100.00
3.830	3.830	0.000	11364595	1000.00	983	160.25- 200.25	180.25
3.946	3.946	0.000	12748266	1000.00	1020	182.20- 222.20	202.20
4.222	4.222	0.000	17905484	1000.00	1060	264.00- 304.00	284.00
4.359	4.359	0.000	13192163	1000.00	1060	189.24- 229.24	209.24

Average of Peak Amounts = 1.02e+03

Data File: /chem/ecd1a.i/123109.b/003b0301.d

Date : 31-DEC-2009 07:49

Client ID: AR125401

Sample Info: IWAR091216-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

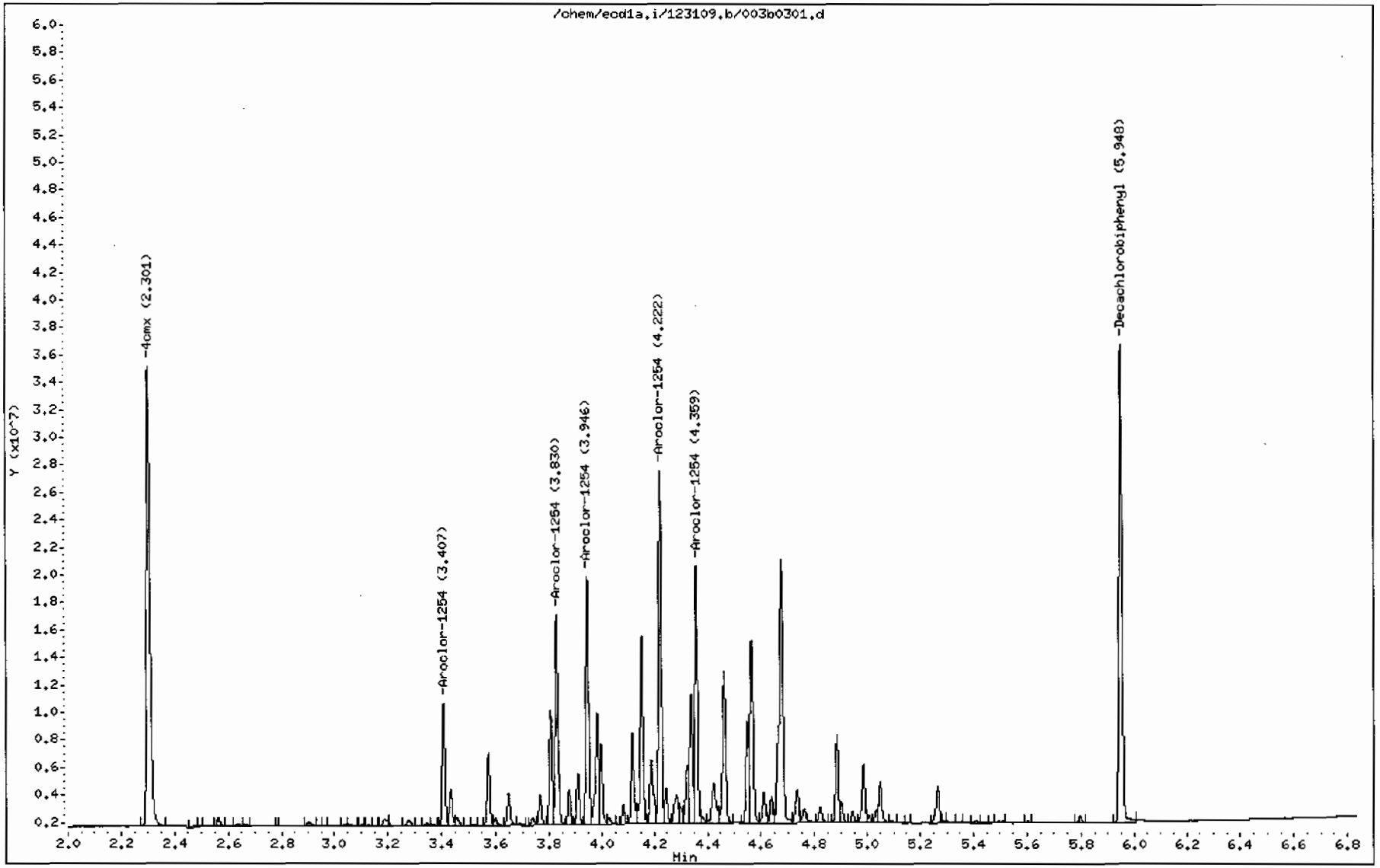

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/004f0401.d
Lab Smp Id: WAR091102-42 Client Smp ID: AR124201
Inj Date : 31-DEC-2009 08:00
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091102-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 11:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.970	0.002	39897644	100.000	106	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.286	5.283	0.003	35887041	100.000	113	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.427	2.427	0.000	11182199	1000.00	959	80.00- 120.00	100.00
2.717	2.717	0.000	14161664	1000.00	1050	106.64- 146.64	126.64
2.835	2.835	0.000	5624618	1000.00	1020	30.30- 70.30	50.30
3.046	3.046	0.000	7458860	1000.00	1030	46.70- 86.70	66.70
3.299	3.299	0.000	7422408	1000.00	1090	46.38- 86.38	66.38

Average of Peak Amounts = 1.03e+03

Data File: /chem/ecd1a.i/123109.b/004f0401.d

Date : 31-DEC-2009 08:00

Client ID: AR124201

Sample Info: IWAR091102-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

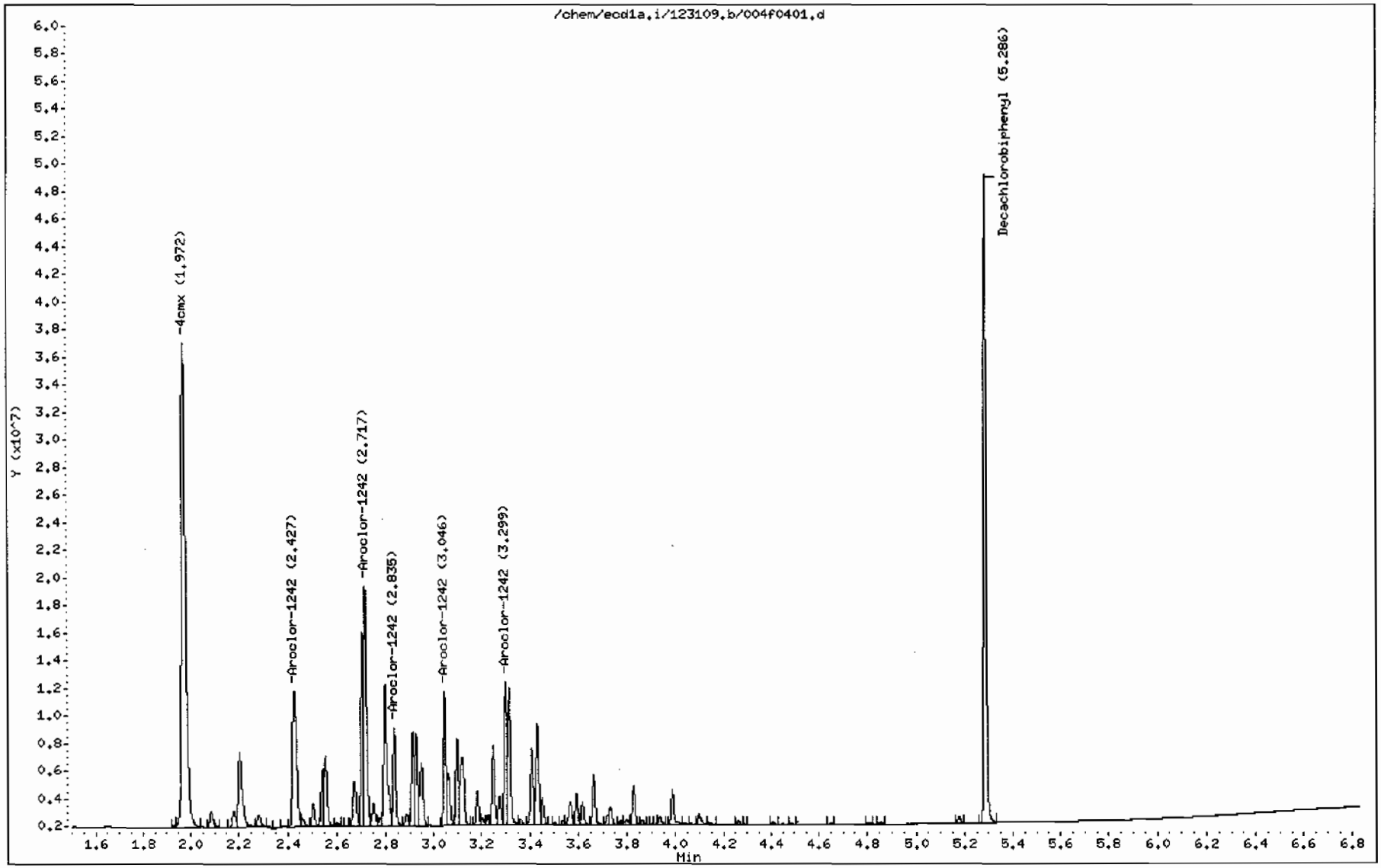

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/004b0401.d
Lab Smp Id: WAR091102-42 Client Smp ID: AR124201
Inj Date : 31-DEC-2009 08:00
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091102-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 11:54 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	31029610	100.000	103	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.948	5.947	0.001	26476286	100.000	114	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
3.200	3.200	0.000	10869225	1000.00	1030	80.00- 120.00	100.00
3.282	3.282	0.000	7344037	1000.00	912	47.57- 87.57	67.57
3.573	3.573	0.000	6017554	1000.00	1010	35.36- 75.36	55.36
3.807	3.807	0.000	6210824	1000.00	1020	37.14- 77.14	57.14
3.835	3.835	0.000	6867458	1000.00	1020	43.18- 83.18	63.18

Average of Peak Amounts = 1e+03

Data File: /chem/ecd1a.i/123109.b/004b0401.d
Date : 31-DEC-2009 08:00
Client ID: AR124201
Sample Info: IWAR091102-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

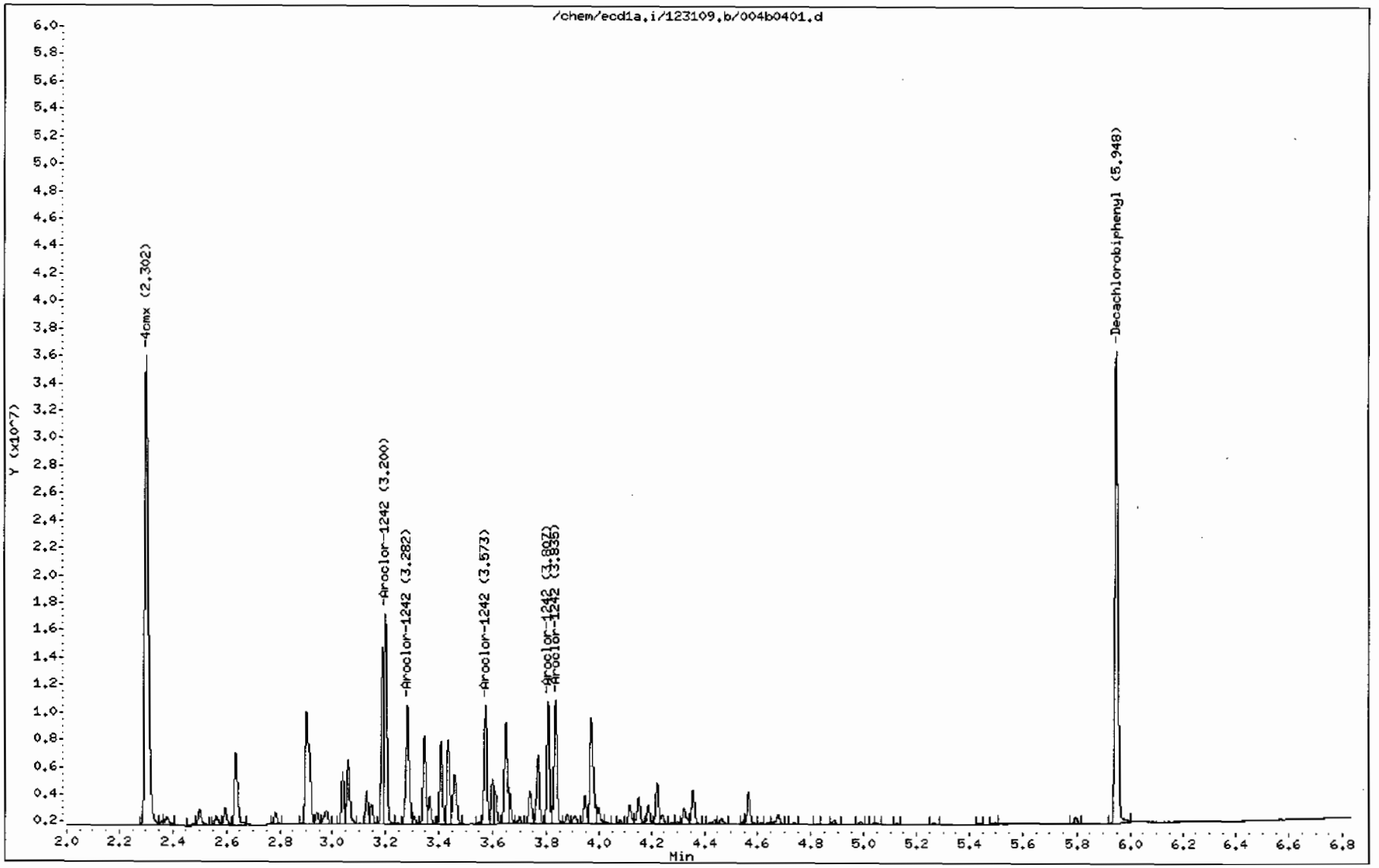

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/005f0501.d
Lab Smp Id: WAR091027-48 Client Smp ID: AR124801
Inj Date : 31-DEC-2009 08:10
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091027-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 11:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.970	0.001	43263708	100.000	115	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.285	5.283	0.002	39695842	100.000	125	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.097	3.097	0.000	8516930	1000.00	1080	80.00- 120.00	100.00
3.248	3.248	0.000	7574329	1000.00	1100	68.93- 108.93	88.93
3.299	3.299	0.000	15054488	1000.00	1130	156.76- 196.76	176.76
3.431	3.431	0.000	12015956	1000.00	1090	121.08- 161.08	141.08
3.663	3.663	0.000	7632626	1000.00	1020	69.62- 109.62	89.62

Average of Peak Amounts = 1.09e+03

Data File: /chem/ecd1a.i/123109.b/005f0501.d
Date : 31-DEC-2009 08:10
Client ID: AR124801
Sample Info: !WAR091027-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

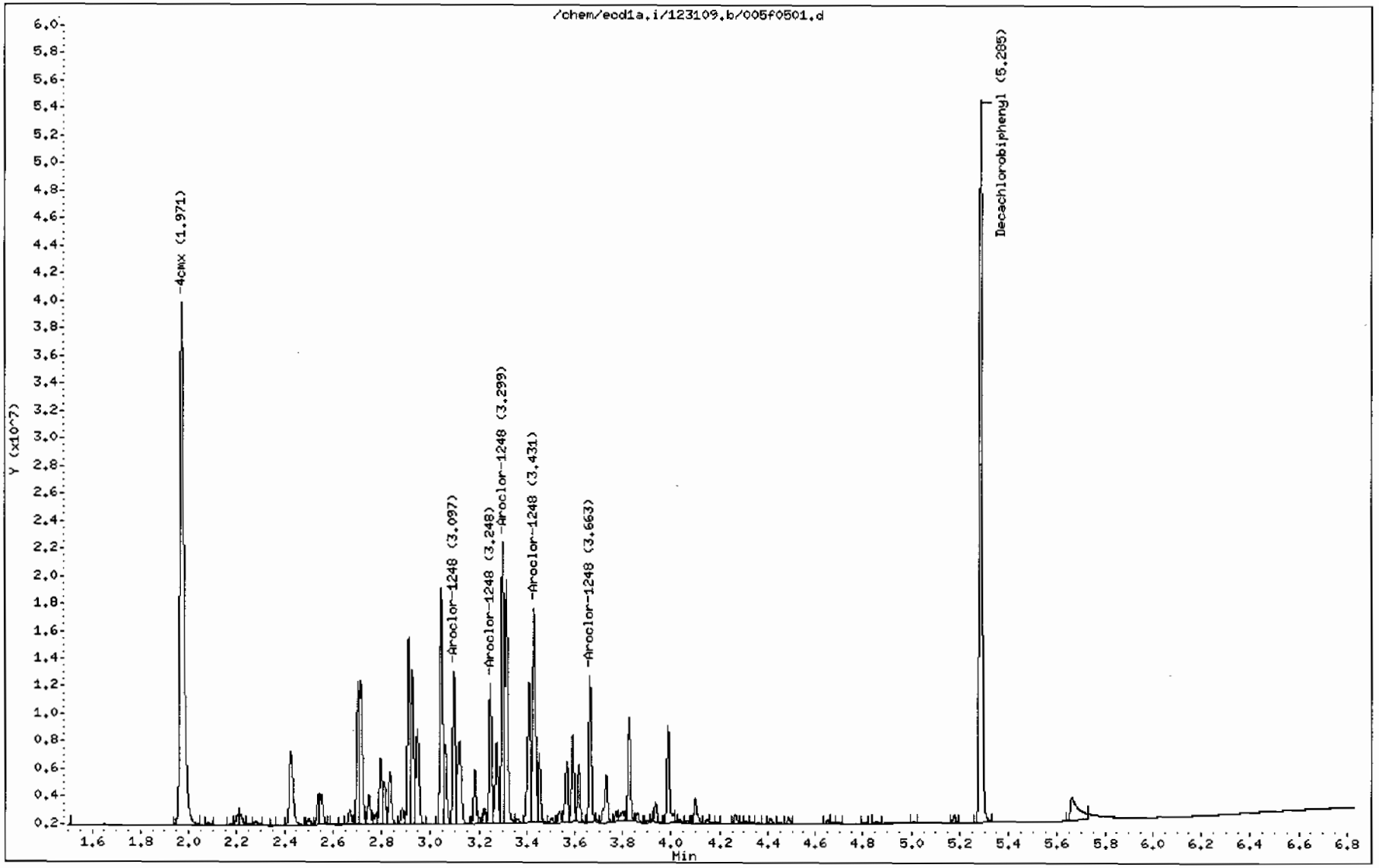

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/005b0501.d
Lab Smp Id: WAR091027-48 Client Smp ID: AR124801
Inj Date : 31-DEC-2009 08:10
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091027-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 11:54 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.302	0.001	34075671	100.000	114	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.947	0.002	29120153	100.000	125	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.408	3.408	0.000	8228432	1000.00	1020	80.00- 120.00	100.00
3.573	3.573	0.000	10346598	1000.00	1050	105.74- 145.74	125.74
3.807	3.807	0.000	11918071	1000.00	1060	124.84- 164.84	144.84
3.834	3.834	0.000	13209018	1000.00	1060	140.53- 180.53	160.53
3.972	3.972	0.000	12807715	1000.00	1060	135.65- 175.65	155.65

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/123109.b/005b0501.d

Date : 31-DEC-2009 08:10

Client ID: AR124801

Sample Info: IWAR091027-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

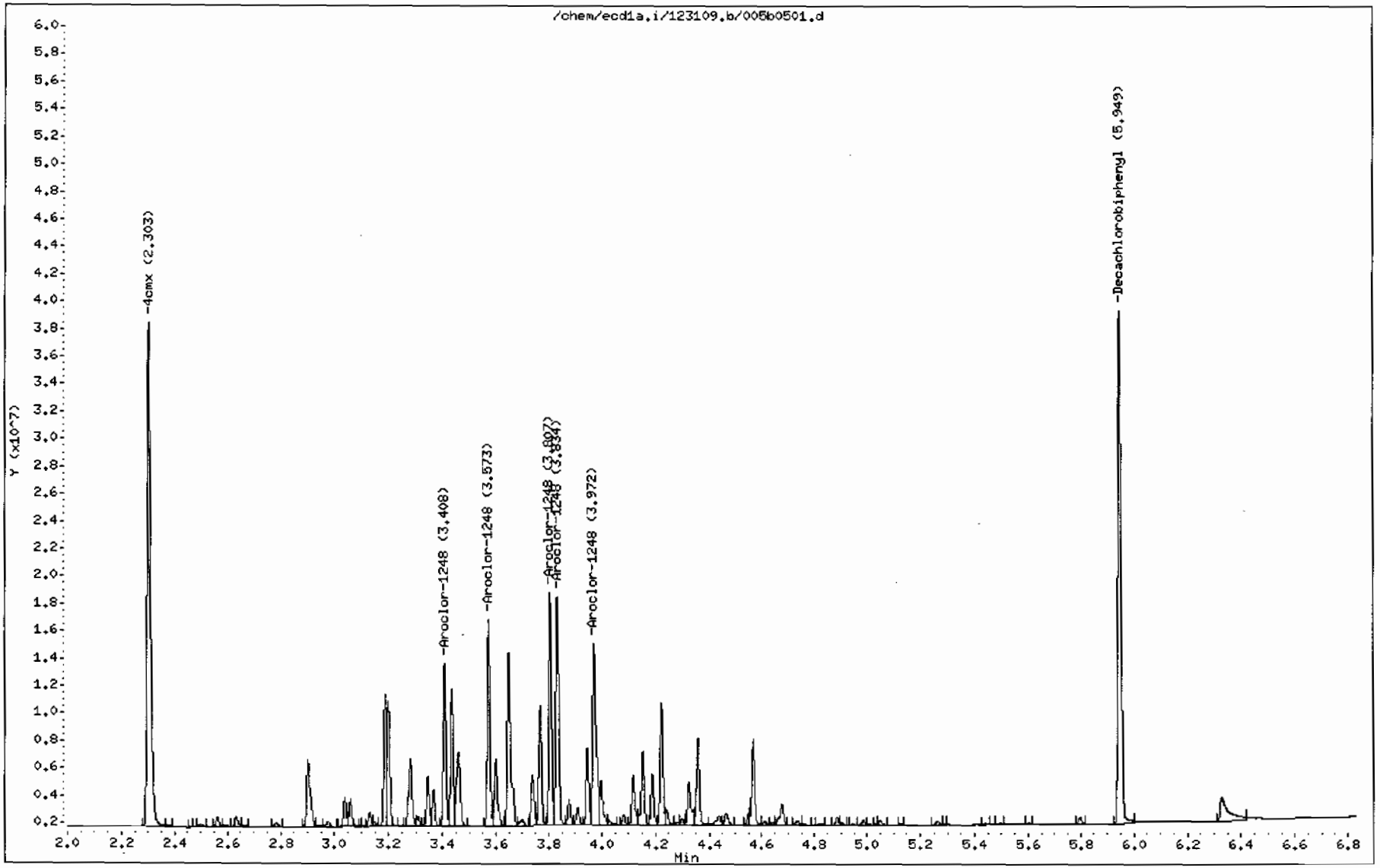

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/006f0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 31-DEC-2009 08:21
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR090930-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 11:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.970	0.001	61127078	100.000	163	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.286	5.283	0.003	55100676	100.000	174	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.427	2.427	0.000	8192857	1000.00	1220	80.00- 120.00	100.00
2.716	2.716	0.000	10418920	1000.00	1280	107.17- 147.17	127.17
2.797	2.797	0.000	7031442	1000.00	1220	65.82- 105.82	85.82
3.045	3.045	0.000	5228447	1000.00	1320	43.82- 83.82	63.82
3.299	3.299	0.000	5046693	1000.00	1430	41.60- 81.60	61.60

Average of Peak Amounts = 1.29e+03

Data File: /chem/ecd1a.i/123109.b/006f0601.d
Date : 31-DEC-2009 08:21
Client ID: AR123201
Sample Info: IWAR090930-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

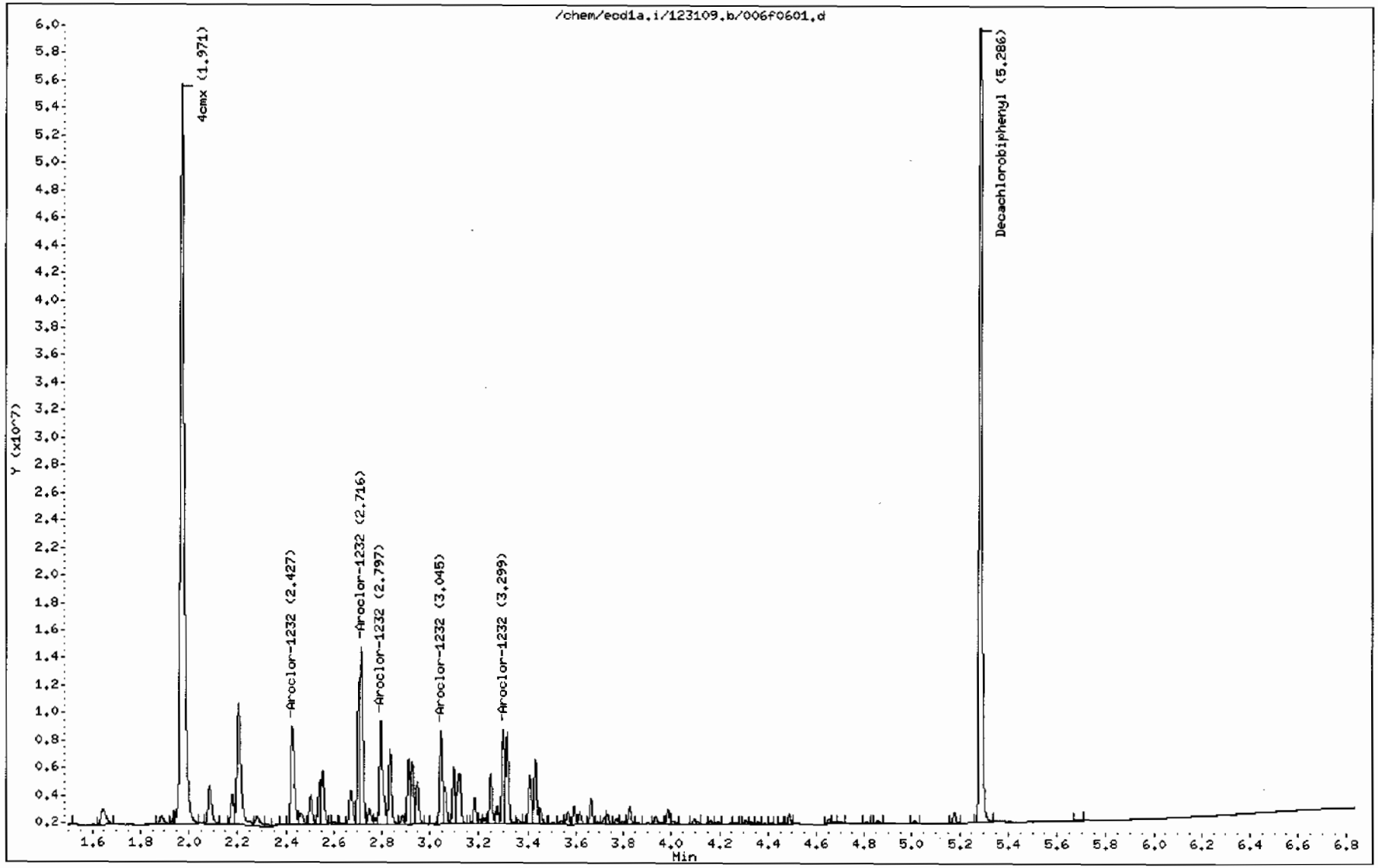

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/006b0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 31-DEC-2009 08:21
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR090930-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 11:54 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.302	0.001	47232625	100.000	157	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.947	0.003	40361645	100.000	173	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.635	2.635	0.000	7480605	1000.00	1220	80.00- 120.00	100.00
3.200	3.200	0.000	8178768	1000.00	1300	89.33- 129.33	109.33
3.283	3.283	0.000	5476848	1000.00	1160	53.21- 93.21	73.21
3.573	3.573	0.000	4081228	1000.00	1260	34.56- 74.56	54.56
3.807	3.807	0.000	4156717	1000.00	1320	35.57- 75.57	55.57

Average of Peak Amounts = 1.25e+03

Data File: /chem/ecd1a.i/123109.b/006b0601.d
Date : 31-DEC-2009 08:21
Client ID: AR123201
Sample Info: !WAR090930-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: JADC
Column diameter: 0.25

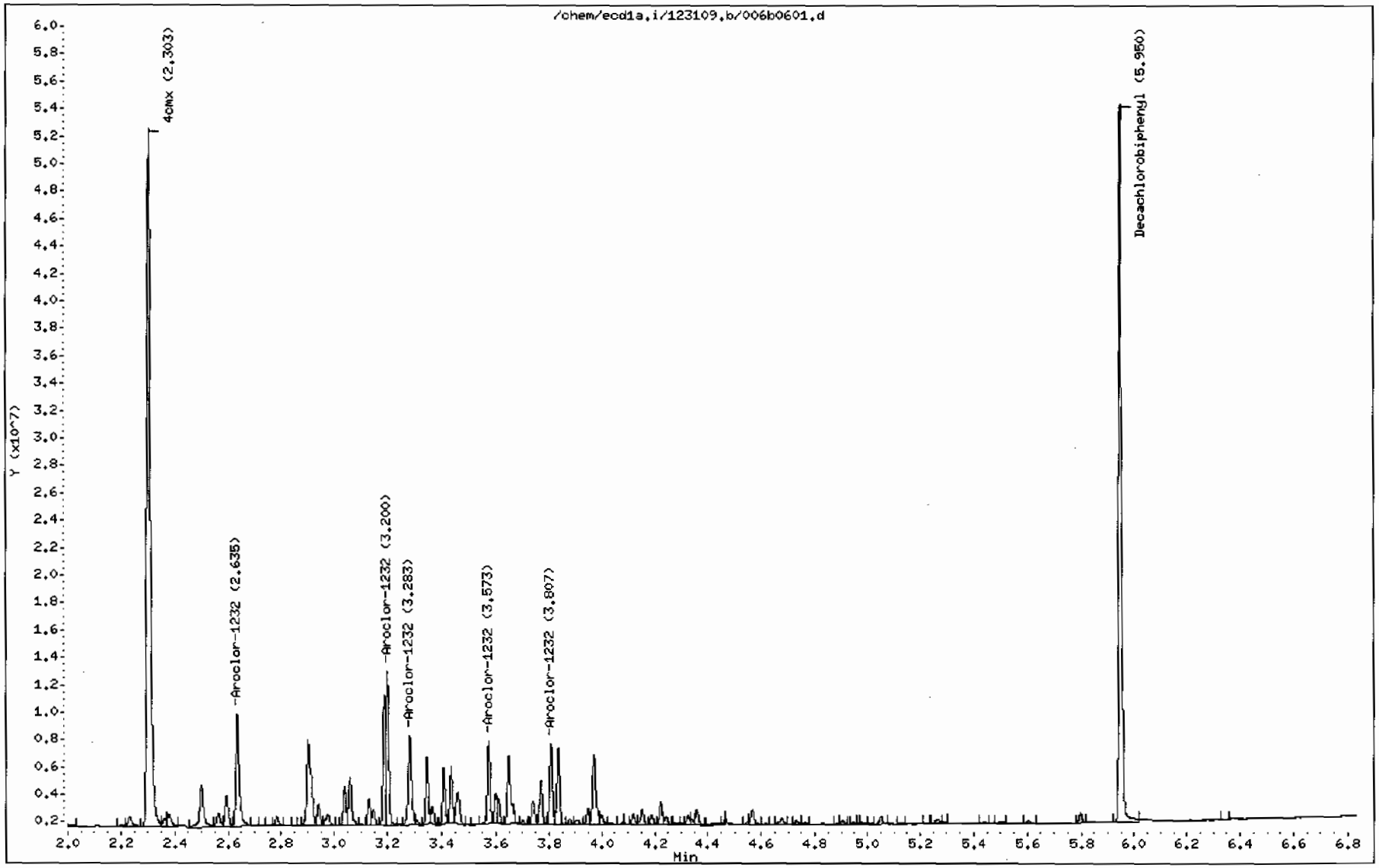

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/007f0701.d
Lab Smp Id: WAR090803-21 Client Smp ID: AR122101
Inj Date : 31-DEC-2009 08:31
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR090803-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 11:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.970	0.001	40828363	100.000	109	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.286	5.283	0.003	37211359	100.000	117	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.084	2.084	0.000	4695283	1000.00	1090	80.00- 120.00	100.00
2.177	2.177	0.000	2680666	1000.00	1100	37.09- 77.09	57.09
2.203	2.203	0.000	11313919	1000.00	1100	220.96- 260.96	240.96

Average of Peak Amounts = 1.1e+03

Data File: /chem/ecd1a.i/123109.b/007f0701.d
Date : 31-DEC-2009 08:31
Client ID: AR122101
Sample Info: IWAR090803-21

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

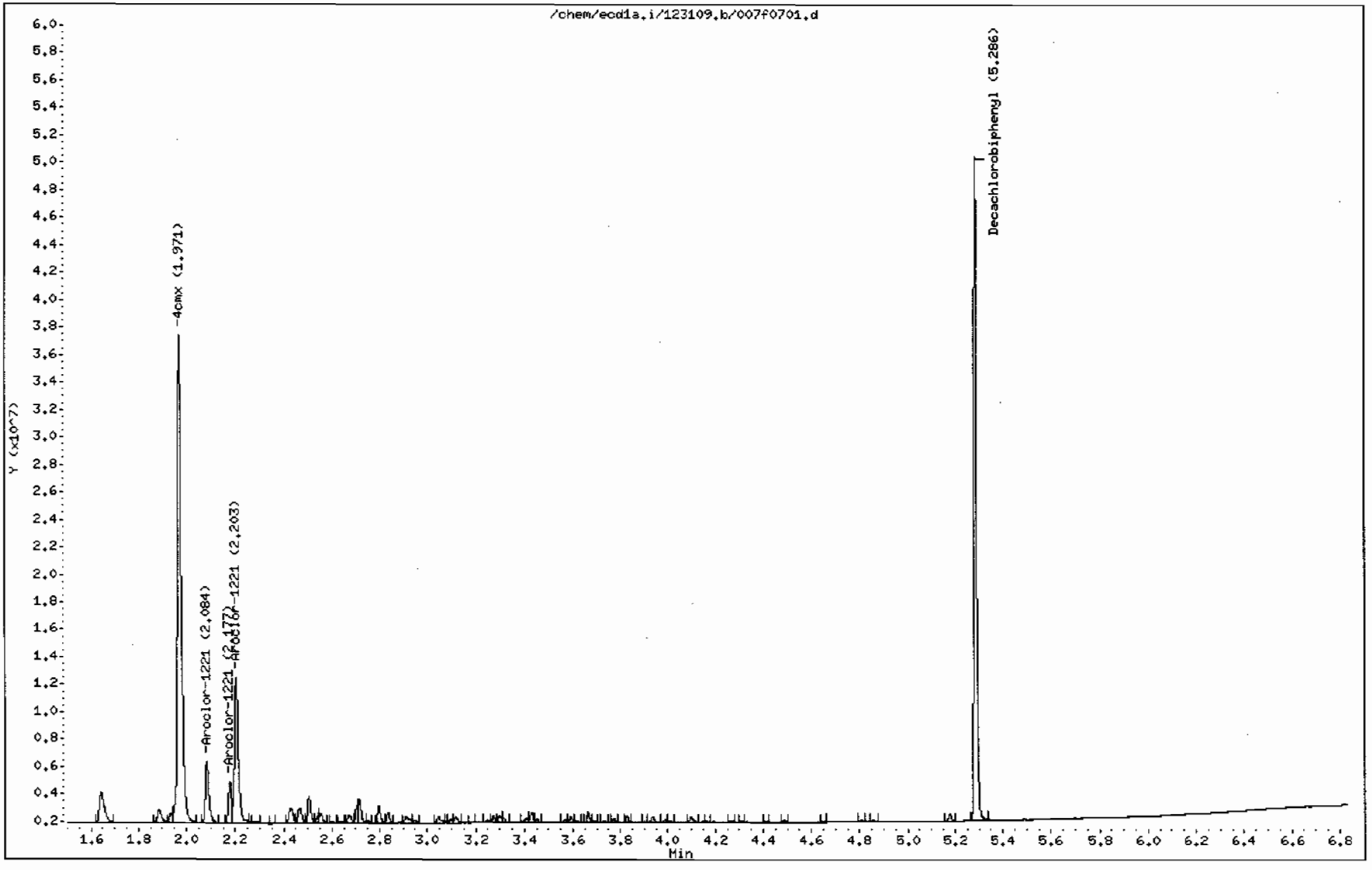

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/007b0701.d
Lab Smp Id: WAR090803-21 Client Smp ID: AR122101
Inj Date : 31-DEC-2009 08:31
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR090803-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 11:54 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	31604542	100.000	105	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.947	0.003	27192557	100.000	116	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.499	2.499	0.000	4211383	1000.00	1160	80.00- 120.00	100.00
2.594	2.594	0.000	2585057	1000.00	1110	41.38- 81.38	61.38
2.635	2.635	0.000	8923008	1000.00	1100	191.88- 231.88	211.88

Average of Peak Amounts = 1.12e+03

Data File: /chem/ecd1a.i/123109.b/007b0701.d

Date : 31-DEC-2009 08:31

Client ID: AR122101

Sample Info: !WAR090803-21

Column phase: CLP2

Instrument: ecd1a.i

Operator: JADC

Column diameter: 0.25

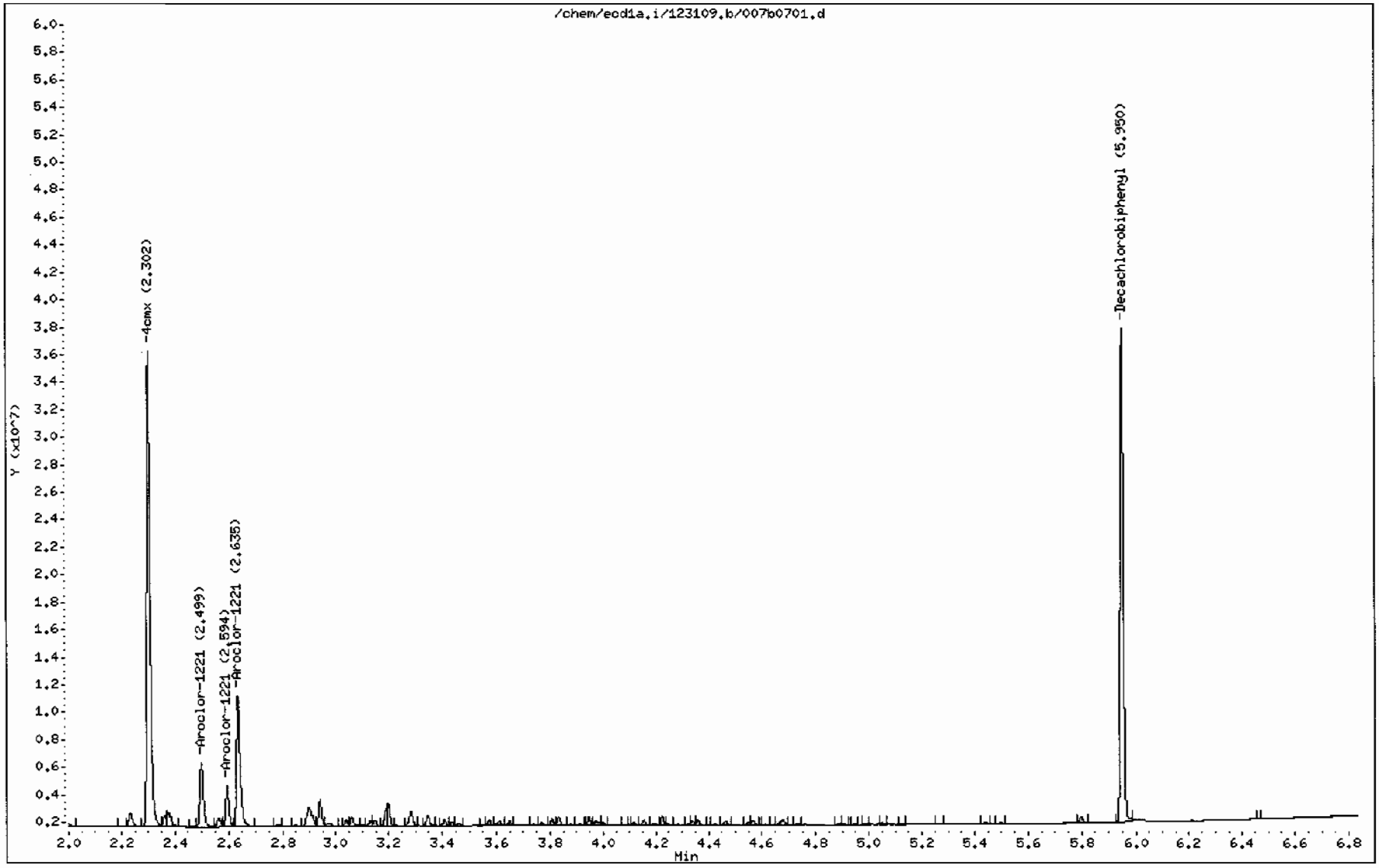

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/008f0801.d
Lab Smp Id: WAR090803-62 Client Smp ID: AR126201
Inj Date : 31-DEC-2009 08:42
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR090803-62
Misc Info :
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 11:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1262.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.970	0.001	52142214	100.000	139	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.286	5.283	0.003	47871038	100.000	151	80.00- 120.00	100.00
8 Aroclor-1262					CAS #: 37324-23-5		
3.772	3.772	0.000	17049396	1000.00	1220	80.00- 120.00	100.00
3.935	3.935	0.000	23507193	1000.00	1280	117.88- 157.88	137.88
4.165	4.165	0.000	29277437	1000.00	1300	151.72- 191.72	171.72
4.308	4.308	0.000	26578217	1000.00	1310	135.89- 175.89	155.89
4.487	4.487	0.000	56740805	1000.00	1310	312.80- 352.80	332.80

Average of Peak Amounts = 1.28e+03

Data File: /chem/ecd1a.i/123109.b/008f0801.d
Date : 31-DEC-2009 08:42
Client ID: AR126201
Sample Info: IWAR090803-62

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

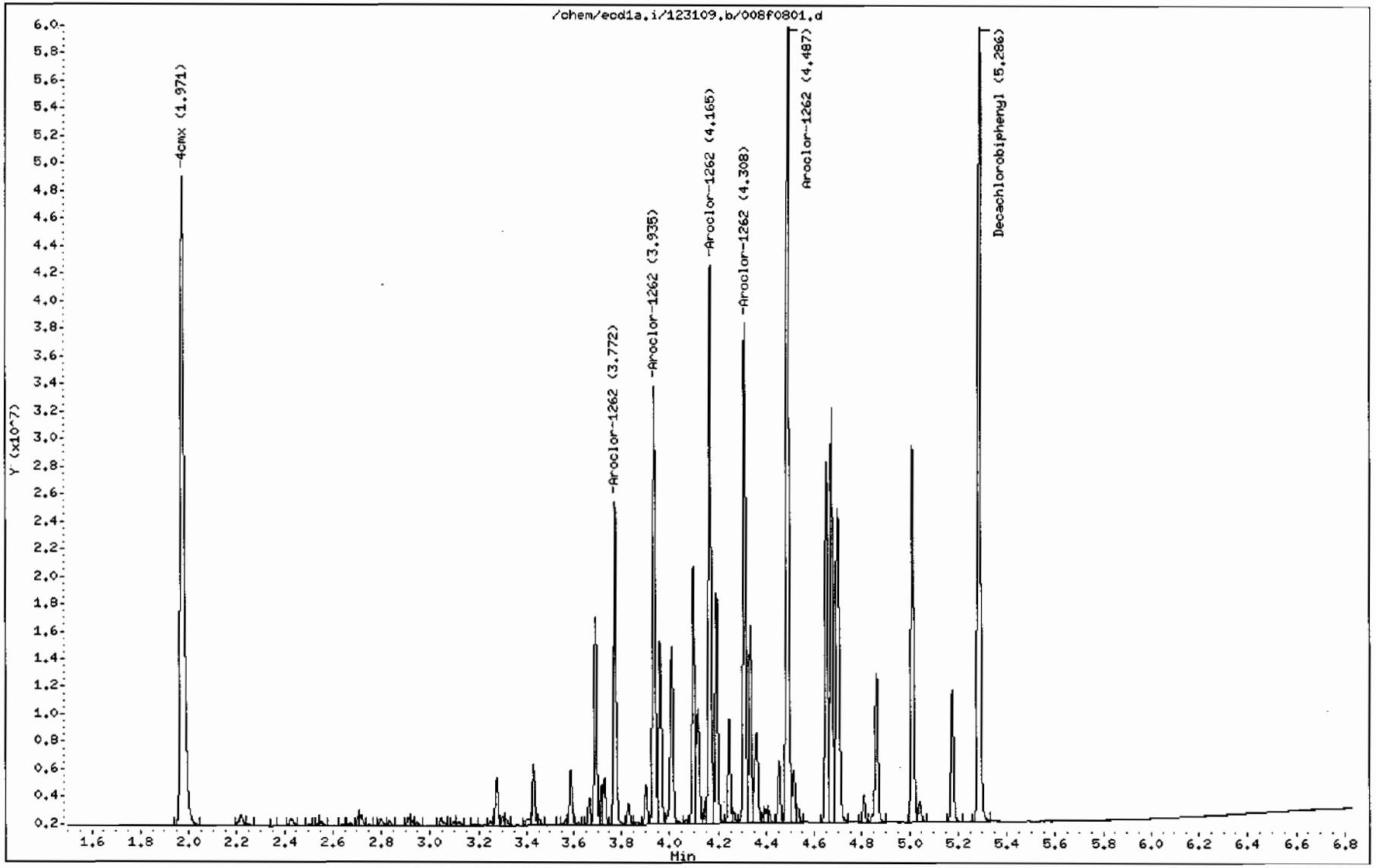

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/008b0801.d
Lab Smp Id: WAR090803-62 Client Smp ID: AR126201
Inj Date : 31-DEC-2009 08:42
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR090803-62
Misc Info :
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 11:54 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1262.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	40887551	100.000	136	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.947	0.003	35092210	100.000	150	80.00- 120.00	100.00
8 Aroclor-1262					CAS #: 37324-23-5		
4.465	4.465	0.000	15927275	1000.00	1230	80.00- 120.00	100.00
4.730	4.730	0.000	22515871	1000.00	1230	121.37- 161.37	141.37
4.904	4.904	0.000	20555041	1000.00	1240	109.06- 149.06	129.06
5.051	5.051	0.000	42351349	1000.00	1270	245.90- 285.90	265.90
5.264	5.264	0.000	30332506	1000.00	1320	170.44- 210.44	190.44

Average of Peak Amounts = 1.26e+03

Data File: /chem/ecdia.i/123109.b/008b0801.d
Date : 31-DEC-2009 08:42
Client ID: AR126201
Sample Info: IWAR090803-62

Instrument: ecdia.i
Operator: JAOC
Column diameter: 0.25

Column phase: CLP2

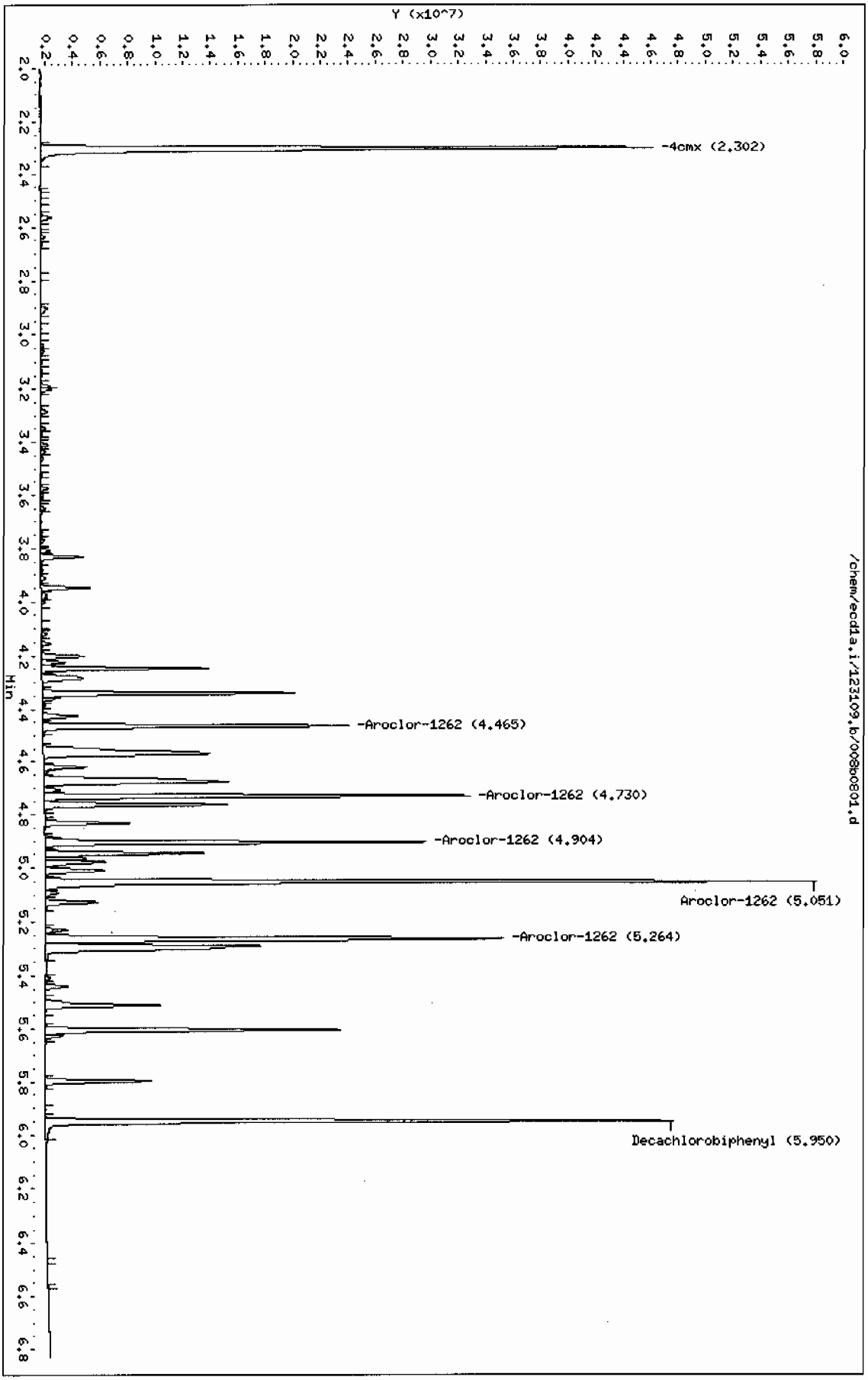

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/021f2101.d
Lab Smp Id: WAR091211-60 02 Client Smp ID: AR166002
Inj Date : 31-DEC-2009 11:11
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 11:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.970	0.001	39344935	100.000	105	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.286	5.283	0.003	35016279	100.000	110	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.428	2.426	0.002	13061637	1000.00	942	80.00- 120.00	100.00
2.704	2.703	0.001	10817180	1000.00	1070	62.82- 102.82	82.82
2.797	2.795	0.002	11278826	1000.00	959	66.35- 106.35	86.35
2.835	2.833	0.002	6787617	1000.00	1030	31.97- 71.97	51.97
3.045	3.044	0.001	8699394	1000.00	1000	46.60- 86.60	66.60
Average of Peak Amounts =					1e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
3.772	3.770	0.002	17704040	1000.00	1060	80.00- 120.00	100.00
3.935	3.932	0.003	27320103	1000.00	1100	134.32- 174.32	154.32
4.165	4.162	0.003	16334500	1000.00	1110	72.26- 112.26	92.26
4.308	4.306	0.002	17163616	1000.00	1130	76.95- 116.95	96.95
4.487	4.485	0.002	39756956	1000.00	1160	204.56- 244.56	224.56
Average of Peak Amounts =					1.11e+03		

Data File: /chem/ecd1a.i/123109.b/021f2101.d
Date : 31-DEC-2009 11:11
Client ID: AR166002
Sample Info: IWAR091211-60 02
Column phase: CLP1

Instrument: ecd1a.i
Operator: JADC
Column diameter: 0.25

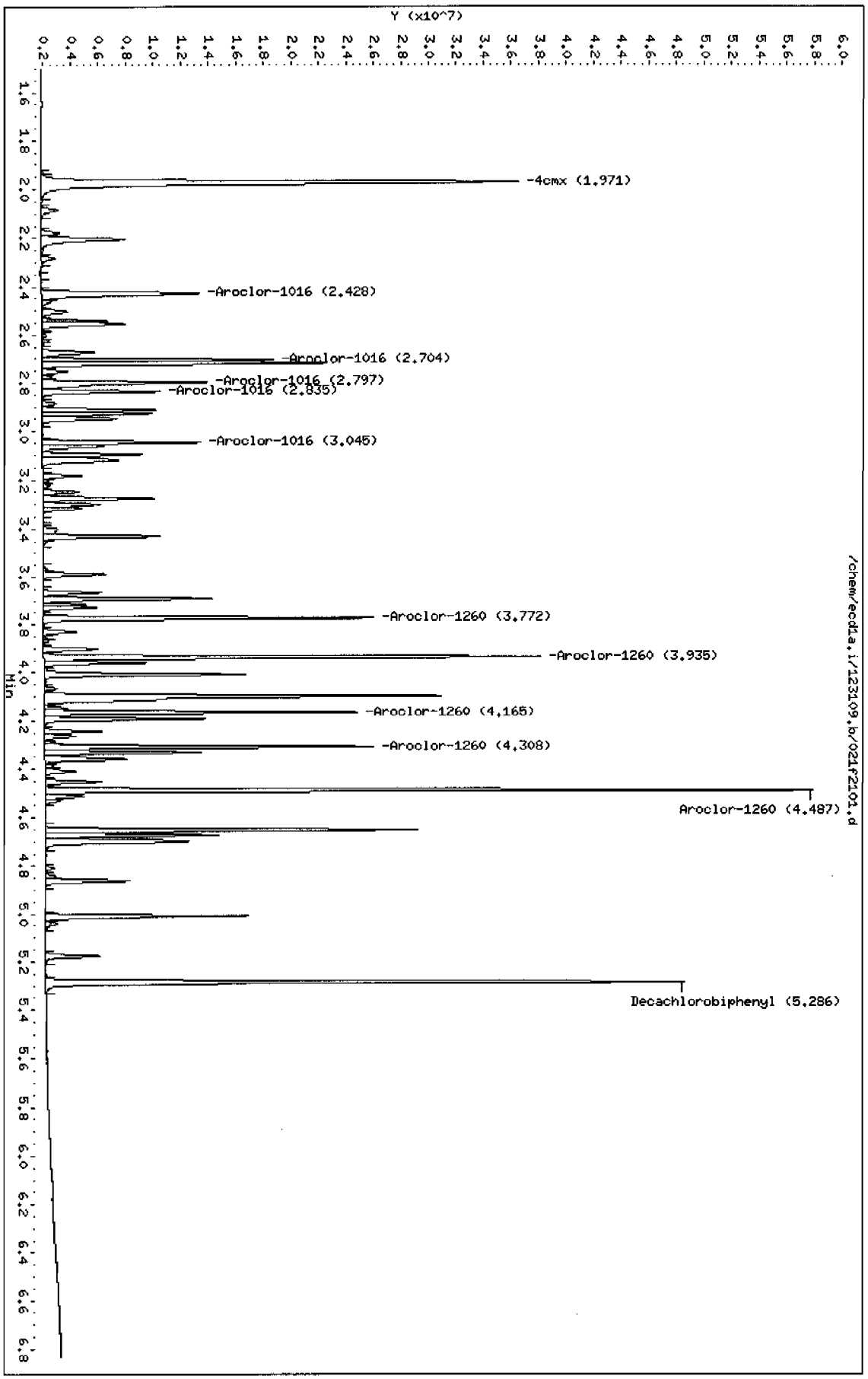

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/021b2101.d
Lab Smp Id: WAR091211-60 02 Client Smp ID: AR166002
Inj Date : 31-DEC-2009 11:11
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091211-60 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 11:54 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.302	0.001	30452321	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.947	0.002	26007042	100.000	112	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.199	3.199	0.000	12631208	1000.00	1000	80.00- 120.00	100.00(M)
3.283	3.282	0.001	8622013	1000.00	924	48.26- 88.26	68.26
3.346	3.346	0.000	5390833	1000.00	996	22.68- 62.68	42.68
3.573	3.572	0.001	6800764	1000.00	964	33.84- 73.84	53.84
3.649	3.647	0.002	6240266	1000.00	953	29.40- 69.40	49.40
Average of Peak Amounts =					968		
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.337	0.002	13548187	1000.00	990	80.00- 120.00	100.00
4.463	4.462	0.001	16704970	1000.00	1040	103.30- 143.30	123.30
4.730	4.728	0.002	12798779	1000.00	1020	74.47- 114.47	94.47
4.903	4.902	0.001	13270848	1000.00	1040	77.95- 117.95	97.95
5.051	5.049	0.002	30351069	1000.00	1090	204.02- 244.02	224.02
Average of Peak Amounts =					1.04e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdia.i/123109.b/021b2101.d
Date : 31-DEC-2009 11:11
Client ID: AR166002
Sample Info: IWAR091211-60 02
Column phase: CLP2

Instrument: ecdia.i
Operator: JAOC
Column diameter: 0.25

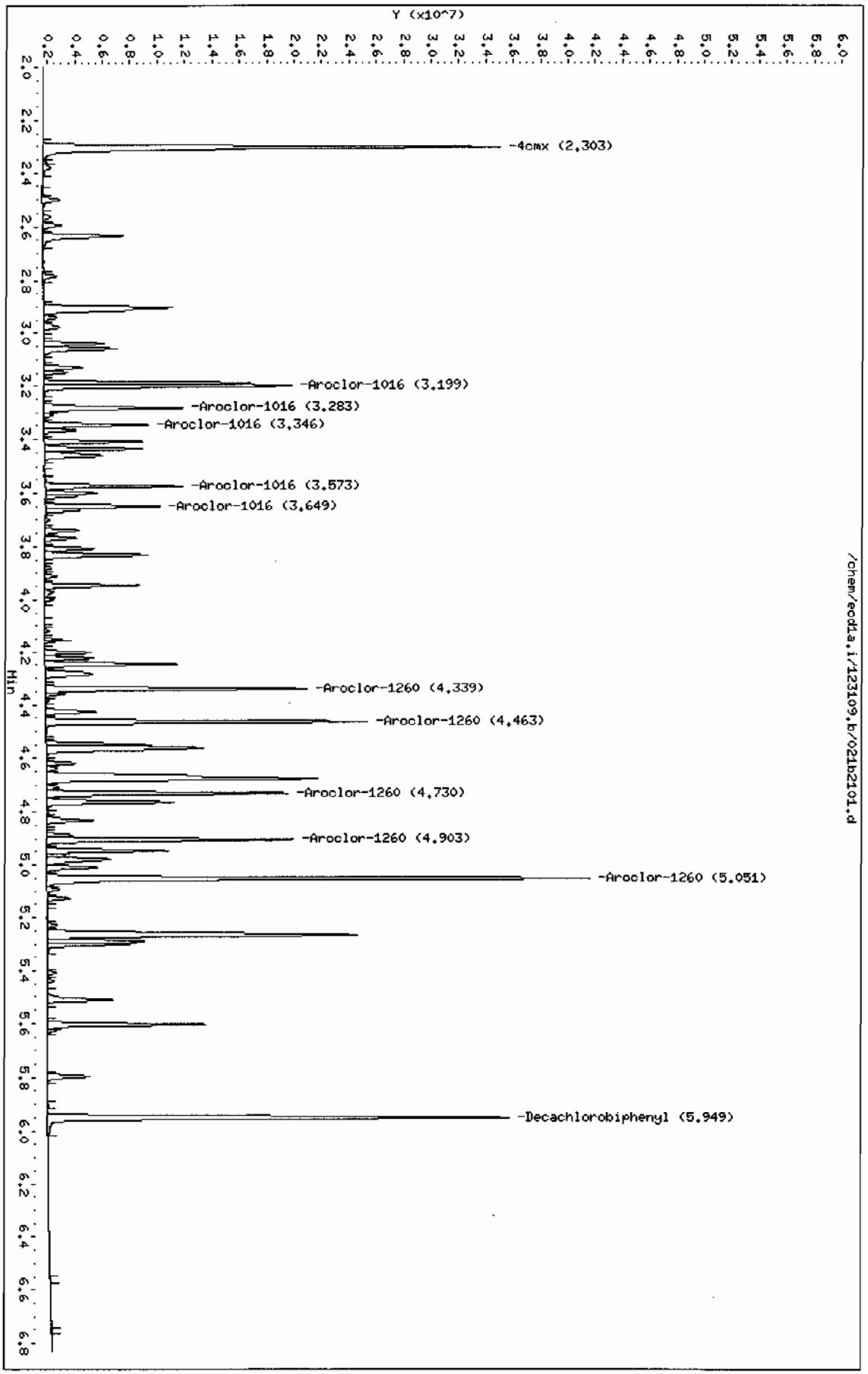

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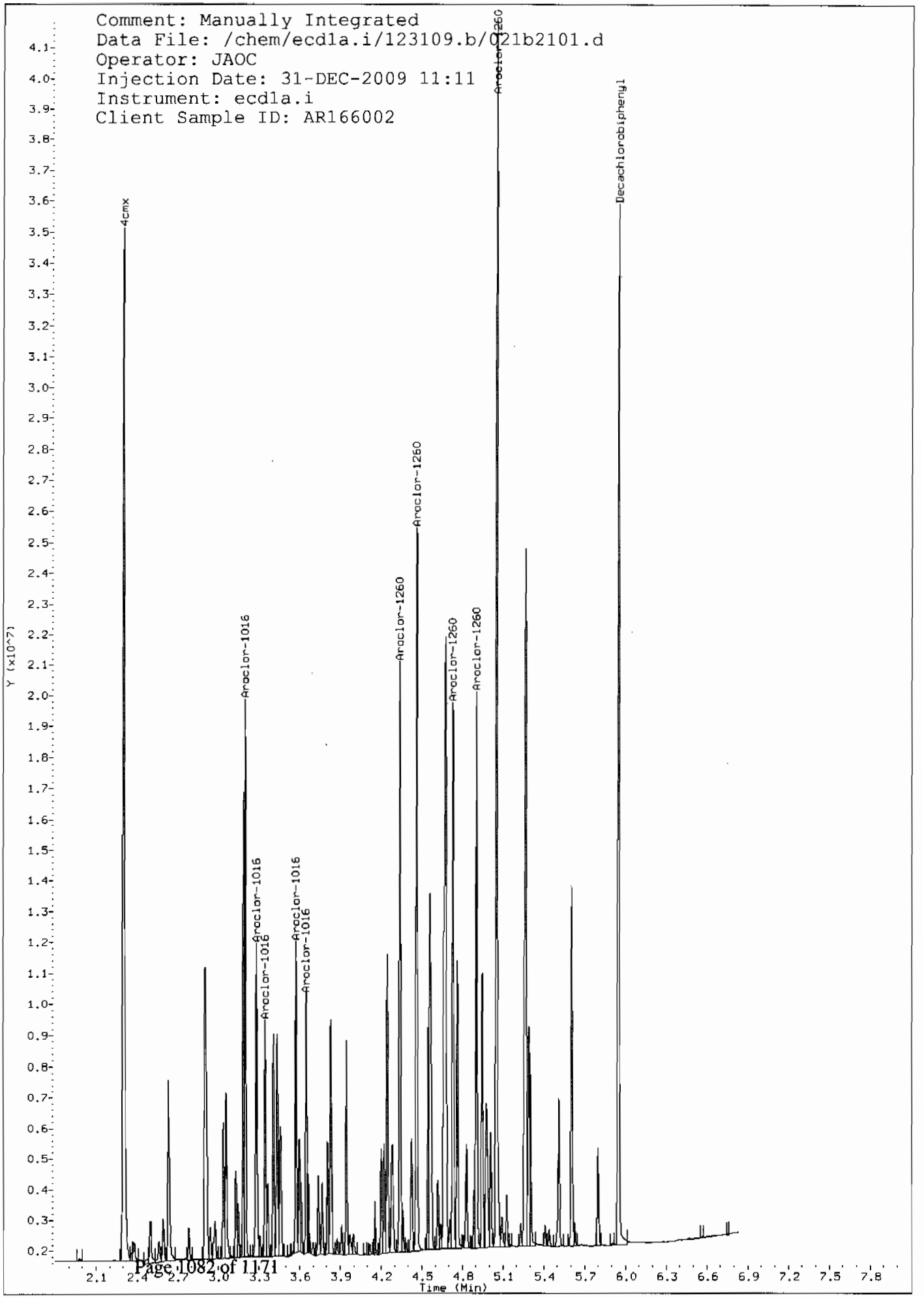
Comment: Manually Integrated
Data File: /chem/ecd1a.i/123109.b/021b2101.d
Operator: JAOC
Injection Date: 31-DEC-2009 11:11
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

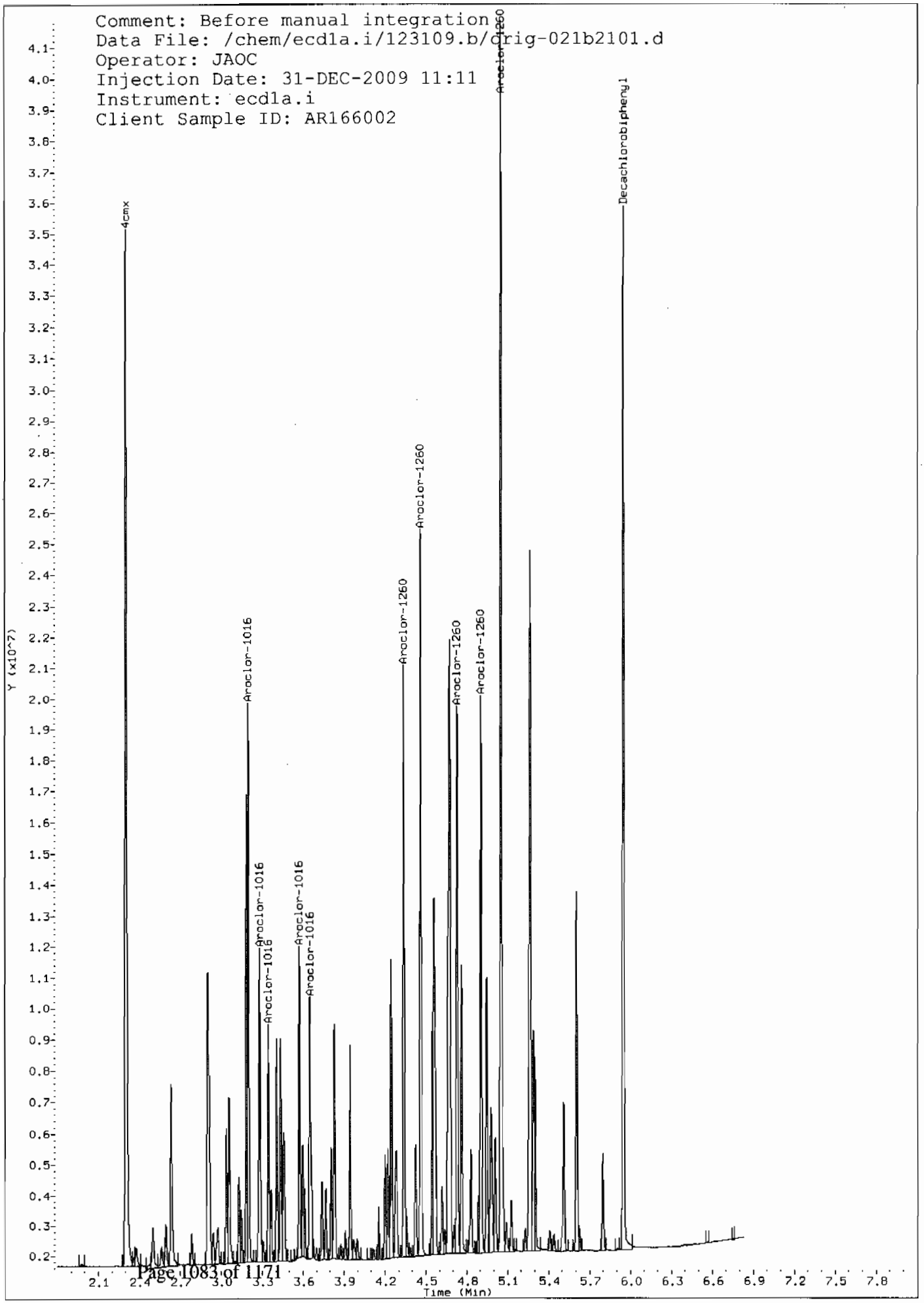
Comment: Before manual integration
Data File: /chem/ecd1a.i/123109.b/drig-021b2101.d
Operator: JAOC
Injection Date: 31-DEC-2009 11:11
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1020

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0444	1.97	5.29
02	ZZZZZ	ZZZZZ	12/14/09	0454	1.97	5.29
03	ZZZZZ	ZZZZZ	12/14/09	0505	1.97	5.29
04	ZZZZZ	ZZZZZ	12/14/09	0515	1.97	5.29
05	ZZZZZ	ZZZZZ	12/14/09	0526	1.97	5.29
06	AR123201	WAR090930-32	12/14/09	0536	1.97	5.29
07	AR122101	WAR090803-21	12/14/09	0547	1.97	5.29
08	AR126201	WAR090803-62	12/14/09	0558	1.97	5.29
09	ZZZZZ	ZZZZZ	12/14/09	0608	1.97	5.29
10	ZZZZZ	ZZZZZ	12/14/09	0619	1.97	5.29
11	ZZZZZ	ZZZZZ	12/14/09	0629	1.97	5.29
12	ZZZZZ	ZZZZZ	12/14/09	0640	1.97	5.29
13	ZZZZZ	ZZZZZ	12/14/09	0650	1.97	5.29
14	ZZZZZ	ZZZZZ	12/14/09	0701	1.97	5.29
15	ZZZZZ	ZZZZZ	12/14/09	0711	1.97	5.29
16	AR125401	WAR091214-05	12/14/09	0722	1.97	5.29
17	AR125402	WAR091214-06	12/14/09	0732	1.97	5.29
18	AR125403	WAR091214-07	12/14/09	0743	1.97	5.29
19	AR125404	WAR091214-08	12/14/09	0753	1.97	5.29
20	AR125405	IAR091027-01	12/14/09	0804	1.97	5.29
21	AR125401	WAR091102-54	12/14/09	0814	1.97	5.29
22	AR124201	WAR091214-09	12/14/09	0825	1.97	5.29
23	AR124202	WAR091214-10	12/14/09	0835	1.97	5.29
24	AR124203	WAR091214-11	12/14/09	0846	1.97	5.29
25	AR124204	WAR091214-12	12/14/09	0856	1.97	5.29
26	AR124205	IAR0911111-0	12/14/09	0907	1.97	5.29
27	AR124201	WAR091102-42	12/14/09	0917	1.97	5.29
28	AR124801	WAR091214-13	12/14/09	0928	1.97	5.29
29	AR124802	WAR091214-14	12/14/09	0938	1.97	5.29
30	AR124803	WAR091214-15	12/14/09	0949	1.97	5.29
31	AR124804	WAR091214-16	12/14/09	0959	1.97	5.29
32	AR124805	IAR091027-02	12/14/09	1010	1.97	5.29

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1020

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124801	WAR091027-48	12/14/09	1020	1.97	5.29
02	AR166001	WAR091214-01	12/14/09	1031	1.97	5.29
03	AR166002	WAR091214-02	12/14/09	1041	1.97	5.29
04	AR166003	WAR091214-03	12/14/09	1052	1.97	5.29
05	AR166004	WAR091214-04	12/14/09	1102	1.97	5.29
06	AR166005	IAR091102-01	12/14/09	1113	1.97	5.29
07	AR166001	WAR091211-60	12/14/09	1123	1.97	5.29
08	AR126801	WAR091214-17	12/14/09	1134	1.97	5.29
09	AR126802	WAR091214-18	12/14/09	1144	1.97	5.29
10	AR126803	WAR091214-19	12/14/09	1155	1.97	5.29
11	AR126804	WAR091214-20	12/14/09	1206	1.97	5.29
12	AR126805	IAR090817-02	12/14/09	1216	1.97	5.29
13	AR126801	WAR091106-68	12/14/09	1227	1.97	5.29
14	DDTANALOGSTD	WAR091020-DD	12/14/09	1237		
15	PIBLK02	WAR091130-99	12/14/09	1248	1.97	5.29
16	ZZZZZ	ZZZZZ	12/14/09	1258	1.97	5.29
17	ZZZZZ	ZZZZZ	12/14/09	1309	1.97	5.29
18	ZZZZZ	ZZZZZ	12/14/09	1319	1.97	5.29
19	ZZZZZ	ZZZZZ	12/14/09	1330	1.97	5.29
20	ZZZZZ	ZZZZZ	12/14/09	1340	1.97	5.29
21	ZZZZZ	ZZZZZ	12/14/09	1351	1.97	5.29
22	ZZZZZ	ZZZZZ	12/14/09	1403	1.97	5.29
23	ZZZZZ	ZZZZZ	12/14/09	1416	1.97	5.29
24	ZZZZZ	ZZZZZ	12/14/09	1429	1.97	5.29
25	ZZZZZ	ZZZZZ	12/14/09	1441	1.97	5.29
26	AR166002	WAR091211-60	12/14/09	1452	1.97	5.29
27	PIBLK03	WAR091130-99	12/14/09	1502	1.97	5.29
28	ZZZZZ	ZZZZZ	12/14/09	1513	1.97	5.29
29	ZZZZZ	ZZZZZ	12/14/09	1525	1.97	5.29
30	ZZZZZ	ZZZZZ	12/14/09	1538	1.97	5.29
31	ZZZZZ	ZZZZZ	12/14/09	1551	1.97	5.29
32	ZZZZZ	ZZZZZ	12/14/09	1603	1.97	5.27

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1020

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0444	2.30	5.95
02	ZZZZZ	ZZZZZ	12/14/09	0454	2.30	5.94
03	ZZZZZ	ZZZZZ	12/14/09	0505	2.30	5.95
04	ZZZZZ	ZZZZZ	12/14/09	0515	2.30	5.95
05	ZZZZZ	ZZZZZ	12/14/09	0526	2.30	5.95
06	AR123201	WAR090930-32	12/14/09	0536	2.30	5.95
07	AR122101	WAR090803-21	12/14/09	0547	2.30	5.95
08	AR126201	WAR090803-62	12/14/09	0558	2.30	5.94
09	ZZZZZ	ZZZZZ	12/14/09	0608	2.30	5.94
10	ZZZZZ	ZZZZZ	12/14/09	0619	2.30	5.95
11	ZZZZZ	ZZZZZ	12/14/09	0629	2.30	5.94
12	ZZZZZ	ZZZZZ	12/14/09	0640	2.30	5.94
13	ZZZZZ	ZZZZZ	12/14/09	0650	2.30	5.95
14	ZZZZZ	ZZZZZ	12/14/09	0701	2.30	5.94
15	ZZZZZ	ZZZZZ	12/14/09	0711	2.30	5.95
16	AR125401	WAR091214-05	12/14/09	0722	2.30	5.94
17	AR125402	WAR091214-06	12/14/09	0732	2.30	5.94
18	AR125403	WAR091214-07	12/14/09	0743	2.30	5.94
19	AR125404	WAR091214-08	12/14/09	0753	2.30	5.94
20	AR125405	IAR091027-01	12/14/09	0804	2.30	5.95
21	AR125401	WAR091102-54	12/14/09	0814	2.30	5.94
22	AR124201	WAR091214-09	12/14/09	0825	2.30	5.94
23	AR124202	WAR091214-10	12/14/09	0835	2.30	5.94
24	AR124203	WAR091214-11	12/14/09	0846	2.30	5.94
25	AR124204	WAR091214-12	12/14/09	0856	2.30	5.94
26	AR124205	IAR0911111-0	12/14/09	0907	2.30	5.94
27	AR124201	WAR091102-42	12/14/09	0917	2.30	5.94
28	AR124801	WAR091214-13	12/14/09	0928	2.30	5.94
29	AR124802	WAR091214-14	12/14/09	0938	2.30	5.94
30	AR124803	WAR091214-15	12/14/09	0949	2.30	5.94
31	AR124804	WAR091214-16	12/14/09	0959	2.30	5.94
32	AR124805	IAR091027-02	12/14/09	1010	2.30	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1020

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR124801	WAR091027-48	12/14/09	1020	2.30	5.95
02	AR166001	WAR091214-01	12/14/09	1031	2.30	5.94
03	AR166002	WAR091214-02	12/14/09	1041	2.30	5.94
04	AR166003	WAR091214-03	12/14/09	1052	2.30	5.94
05	AR166004	WAR091214-04	12/14/09	1102	2.30	5.94
06	AR166005	IAR091102-01	12/14/09	1113	2.30	5.94
07	AR166001	WAR091211-60	12/14/09	1123	2.30	5.94
08	AR126801	WAR091214-17	12/14/09	1134	2.30	5.95
09	AR126802	WAR091214-18	12/14/09	1144	2.30	5.94
10	AR126803	WAR091214-19	12/14/09	1155	2.30	5.94
11	AR126804	WAR091214-20	12/14/09	1206	2.30	5.94
12	AR126805	IAR090817-02	12/14/09	1216	2.30	5.94
13	AR126801	WAR091106-68	12/14/09	1227	2.30	5.94
14	DDTANALOGSTD	WAR091020-DD	12/14/09	1237		
15	PIBLK02	WAR091130-99	12/14/09	1248	2.30	5.94
16	ZZZZZ	ZZZZZ	12/14/09	1258	2.30	5.94
17	ZZZZZ	ZZZZZ	12/14/09	1309	2.30	5.94
18	ZZZZZ	ZZZZZ	12/14/09	1319	2.30	5.94
19	ZZZZZ	ZZZZZ	12/14/09	1330	2.30	5.94
20	ZZZZZ	ZZZZZ	12/14/09	1340	2.30	5.94
21	ZZZZZ	ZZZZZ	12/14/09	1351	2.30	5.94
22	ZZZZZ	ZZZZZ	12/14/09	1403	2.30	5.94
23	ZZZZZ	ZZZZZ	12/14/09	1416	2.30	5.94
24	ZZZZZ	ZZZZZ	12/14/09	1429	2.30	5.94
25	ZZZZZ	ZZZZZ	12/14/09	1441	2.30	5.94
26	AR166002	WAR091211-60	12/14/09	1452	2.30	5.94
27	PIBLK03	WAR091130-99	12/14/09	1502	2.30	5.94
28	ZZZZZ	ZZZZZ	12/14/09	1513	2.30	5.94
29	ZZZZZ	ZZZZZ	12/14/09	1525	2.30	5.94
30	ZZZZZ	ZZZZZ	12/14/09	1538	2.30	5.94
31	ZZZZZ	ZZZZZ	12/14/09	1551	2.30	5.94
32	ZZZZZ	ZZZZZ	12/14/09	1603	2.30	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1020

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.97 DCB: 5.28

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/31/09	0728	1.97	5.28
02	AR166001	WAR091211-60	12/31/09	0739	1.97	5.28
03	AR125401	WAR091216-54	12/31/09	0749	1.97	5.28
04	AR124201	WAR091102-42	12/31/09	0800	1.97	5.29
05	AR124801	WAR091027-48	12/31/09	0810	1.97	5.29
06	AR123201	WAR090930-32	12/31/09	0821	1.97	5.29
07	AR122101	WAR090803-21	12/31/09	0831	1.97	5.29
08	AR126201	WAR090803-62	12/31/09	0842	1.97	5.29
09	AR126801	WAR091106-68	12/31/09	0852	1.97	5.29
10	DDTANALOGSTD	WAR091219-DD	12/31/09	0903		
11	PIBLK02	WAR091130-99	12/31/09	0926	1.97	5.29
12	PBLK01	1202005820	12/31/09	0936	1.97	5.29
13	PBLK01LCS	1202005821	12/31/09	0947	1.97	5.29
14	CAPA-10-6823	243401004	12/31/09	0957	1.97	5.29
15	CAPA-10-6824	243401008	12/31/09	1008	1.97	5.29
16	ZZZZZ	ZZZZZ	12/31/09	1018	1.97	5.29
17	ZZZZZ	ZZZZZ	12/31/09	1029	1.97	5.29
18	ZZZZZ	ZZZZZ	12/31/09	1039	1.97	5.29
19	ZZZZZ	ZZZZZ	12/31/09	1050	1.97	5.29
20	ZZZZZ	ZZZZZ	12/31/09	1100	1.97	5.29
21	AR166002	WAR091211-60	12/31/09	1111	1.97	5.29
22	PIBLK03	WAR091130-99	12/31/09	1121	1.97	5.29
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-1020

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.30 DCB: 5.95

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/31/09	0728	2.30	5.95
02	AR166001	WAR091211-60	12/31/09	0739	2.30	5.95
03	AR125401	WAR091216-54	12/31/09	0749	2.30	5.95
04	AR124201	WAR091102-42	12/31/09	0800	2.30	5.95
05	AR124801	WAR091027-48	12/31/09	0810	2.30	5.95
06	AR123201	WAR090930-32	12/31/09	0821	2.30	5.95
07	AR122101	WAR090803-21	12/31/09	0831	2.30	5.95
08	AR126201	WAR090803-62	12/31/09	0842	2.30	5.95
09	AR126801	WAR091106-68	12/31/09	0852	2.30	5.95
10	DDTANALOGSTD	WAR091219-DD	12/31/09	0903		
11	PIBLK02	WAR091130-99	12/31/09	0926	2.30	5.95
12	PBLK01	1202005820	12/31/09	0936	2.30	5.95
13	PBLK01LCS	1202005821	12/31/09	0947	2.30	5.95
14	CAPA-10-6823	243401004	12/31/09	0957	2.30	5.95
15	CAPA-10-6824	243401008	12/31/09	1008	2.30	5.95
16	ZZZZZ	ZZZZZ	12/31/09	1018	2.30	5.95
17	ZZZZZ	ZZZZZ	12/31/09	1029	2.30	5.95
18	ZZZZZ	ZZZZZ	12/31/09	1039	2.30	5.95
19	ZZZZZ	ZZZZZ	12/31/09	1050	2.30	5.95
20	ZZZZZ	ZZZZZ	12/31/09	1100	2.30	5.95
21	AR166002	WAR091211-60	12/31/09	1111	2.30	5.95
22	PIBLK03	WAR091130-99	12/31/09	1121	2.30	5.95
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10–1020 **Client ID:** LCS for batch 937372

Lab Sample ID: 1202005821

Data File:	013f1301.d	**Data File:**	013b1301.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	31–DEC–09 09:47	**Analyzed:**	31–DEC–09 09:47

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							1.16
Column 1	1	2.43	2.4 – 2.46	.587		ug/L	
	2	2.71	2.67 – 2.73	.714		ug/L	
	3	2.8	2.76 – 2.82	.622		ug/L	
	4	2.84	2.8 – 2.86	.679		ug/L	
	5	3.05	3.01 – 3.07	.686		ug/L	
					.658		
Column 2	1	3.2	3.17 – 3.23	.671		ug/L	
	2	3.28	3.25 – 3.31	.617		ug/L	
	3	3.35	3.32 – 3.38	.647		ug/L	
	4	3.57	3.54 – 3.6	.66		ug/L	
	5	3.65	3.62 – 3.68	.655		ug/L	
					.65		
Aroclor–1260							5.2
Column 1	1	3.77	3.74 – 3.8	.757		ug/L	
	2	3.94	3.9 – 3.96	.809		ug/L	
	3	4.17	4.13 – 4.19	.817		ug/L	
	4	4.31	4.28 – 4.34	.839		ug/L	
	5	4.49	4.45 – 4.51	.86		ug/L	
					.816		
Column 2	1	4.34	4.31 – 4.37	.728		ug/L	
	2	4.46	4.43 – 4.49	.779		ug/L	
	3	4.73	4.7 – 4.76	.767		ug/L	
	4	4.9	4.87 – 4.93	.782		ug/L	
	5	5.05	5.02 – 5.08	.82		ug/L	
					.775		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–1020**			**Matrix:**	**WATER**
Lab Sample ID:	**1202005820**				
Client Sample:	**QC for batch 937372**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937372**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**937373**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 09:36**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/30/2009 15:41**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**012f1201–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	012b1201–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	0.100	ug/L	0.0333	0.100	1
11104–28–2	Aroclor–1221	U	0.100	ug/L	0.0333	0.100	1
11141–16–5	Aroclor–1232	U	0.100	ug/L	0.0333	0.100	1
53469–21–9	Aroclor–1242	U	0.100	ug/L	0.0333	0.100	1
12672–29–6	Aroclor–1248	U	0.100	ug/L	0.0333	0.100	1
11097–69–1	Aroclor–1254	U	0.100	ug/L	0.0333	0.100	1
11096–82–5	Aroclor–1260	U	0.100	ug/L	0.0333	0.100	1
37324–23–5	Aroclor–1262	U	0.100	ug/L	0.0333	0.100	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.124	0.200	ug/L	61.9	(29%–103%)
Decachlorobiphenyl	0.157	0.200	ug/L	78.6	(34%–118%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/012f1201.d
Lab Smp Id: 1202005820 Client Smp ID: PBLK01
Inj Date : 31-DEC-2009 09:36
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202005820|1|
Misc Info : |ECD82P_1L|937373|SVA|QC A|WATER|MB|||
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 11:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1020.sub
Target Version: 3.50 Sample Matrix: Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.970	0.001	46482252	123.732	0.12	80.00- 120.00	100.00
$ 12 Decachlorobipheny1					CAS #: 2051-24-3		
5.288	5.283	0.005	46799474	147.381	0.15	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123109.b/012f1201.d

Date : 31-DEC-2009 09:36

Client ID: PBLK01

Sample Info: 1120200582011

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

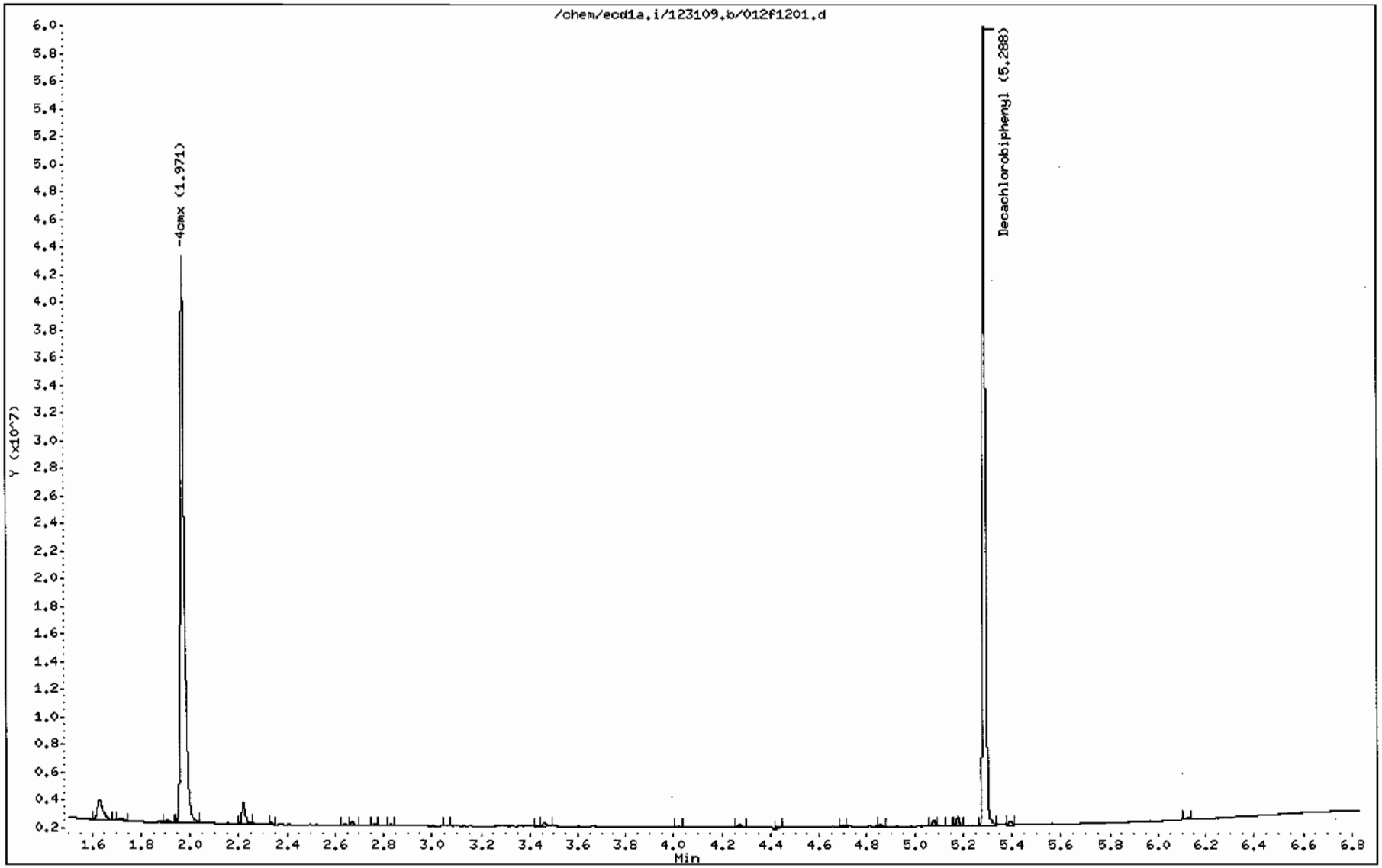

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/012b1201.d
Lab Smp Id: 1202005820 Client Smp ID: PBLK01
Inj Date : 31-DEC-2009 09:36
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202005820|1|
Misc Info : |ECD82P_1L|937373|SVA|QC A|WATER|MB|||
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 11:54 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1020.sub
Target Version: 3.50 Sample Matrix: Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	36860116	122.857	0.12	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.950	5.947	0.003	36664111	157.203	0.16	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/123109.b/012b1201.d
Date : 31-DEC-2009 09:36
Client ID: PBLK01
Sample Info: |1202005820|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

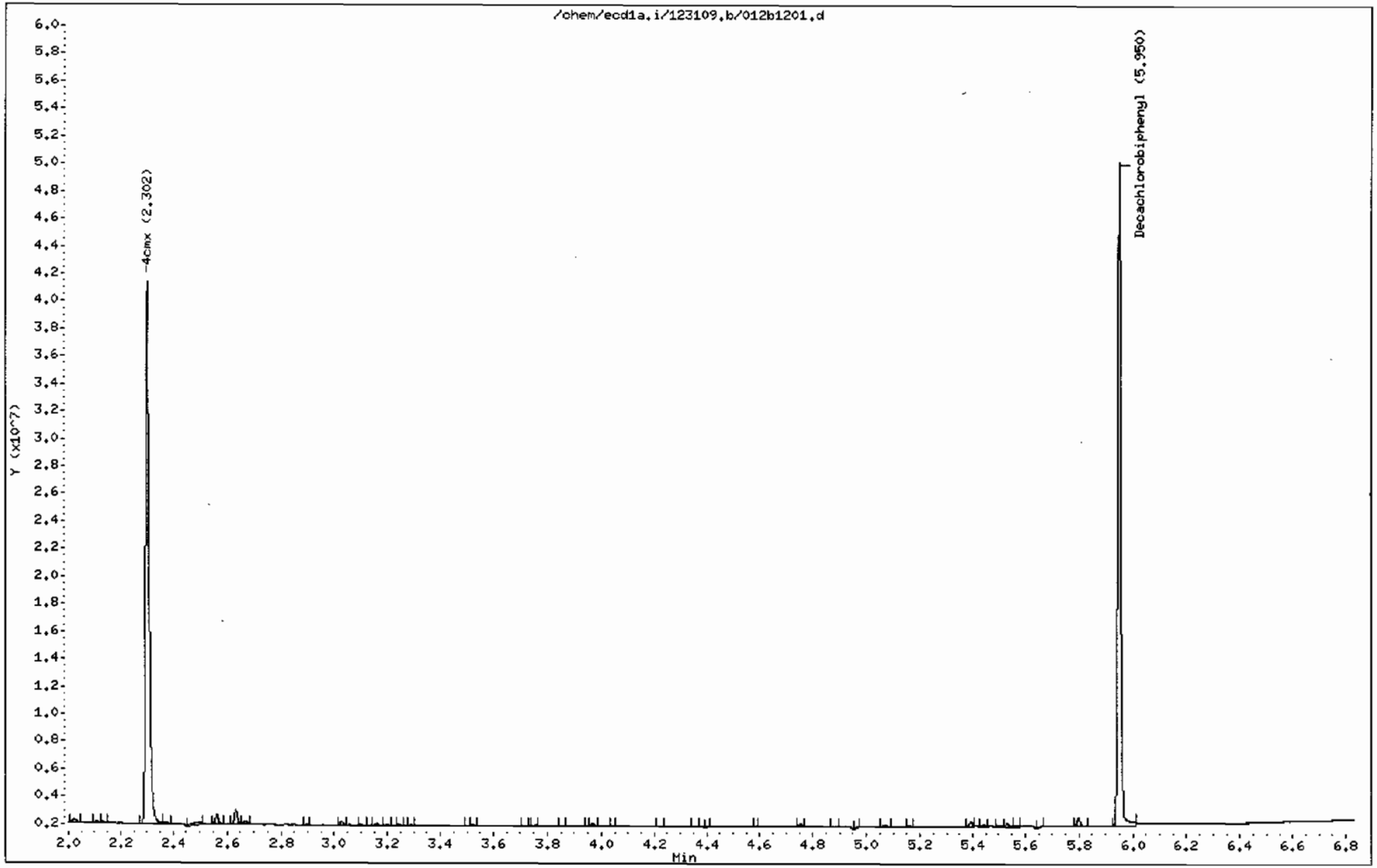

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-1020**			**Matrix:**	**WATER**
Lab Sample ID:	**1202005821**				
Client Sample:	**QC for batch 937372**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937372**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**937373**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**12/31/2009 09:47**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/30/2009 15:41**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**013f1301-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	013b1301-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		0.660	ug/L	0.0333	0.100	1
11104-28-2	Aroclor-1221	U	0.100	ug/L	0.0333	0.100	1
11141-16-5	Aroclor-1232	U	0.100	ug/L	0.0333	0.100	1
53469-21-9	Aroclor-1242	U	0.100	ug/L	0.0333	0.100	1
12672-29-6	Aroclor-1248	U	0.100	ug/L	0.0333	0.100	1
11097-69-1	Aroclor-1254	U	0.100	ug/L	0.0333	0.100	1
11096-82-5	Aroclor-1260		0.820	ug/L	0.0333	0.100	1
37324-23-5	Aroclor-1262	U	0.100	ug/L	0.0333	0.100	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.109	0.200	ug/L	54.6	(29%-103%)
Decachlorobiphenyl	0.152	0.200	ug/L	76.1	(34%-118%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/013f1301.d
Lab Smp Id: 1202005821 Client Smp ID: PBLK01LCS
Inj Date : 31-DEC-2009 09:47
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202005821|1|
Misc Info : |ECD82P_1L|937373|SVA|QC A|WATER|LCS|||
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 11:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1020.sub
Target Version: 3.50 Sample Matrix: Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.970	0.002	40995711	109.127	0.11	80.00- 120.00	100.00(M)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.286	5.283	0.003	44669812	140.674	0.14	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.429	2.426	0.003	8146120	587.452	0.59	80.00- 120.00	100.00
2.705	2.703	0.002	7208925	713.916	0.71	62.82- 102.82	88.50
2.797	2.795	0.002	7315092	622.189	0.62	66.35- 106.35	89.80
2.835	2.833	0.002	4481677	679.144	0.68	31.97- 71.97	55.02
3.046	3.044	0.002	5946510	685.603	0.68	46.60- 86.60	73.00

Average of Peak Concentrations = 0.66

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.773	3.770	0.003	12685633	757.254	0.76	80.00- 120.00	100.00(M)
3.935	3.932	0.003	20012938	808.845	0.81	134.32- 174.32	157.76
4.165	4.162	0.003	12001668	817.143	0.82	72.26- 112.26	94.61
4.308	4.306	0.002	12735662	838.726	0.84	76.95- 116.95	100.39
4.488	4.485	0.003	29534527	859.800	0.86	204.56- 244.56	232.82
			Average of Peak Concentrations =		0.82		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/123109.b/013f1301.d
Date : 31-DEC-2009 09:47
Client ID: PBLK01LCS
Sample Info: 1120200582111
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

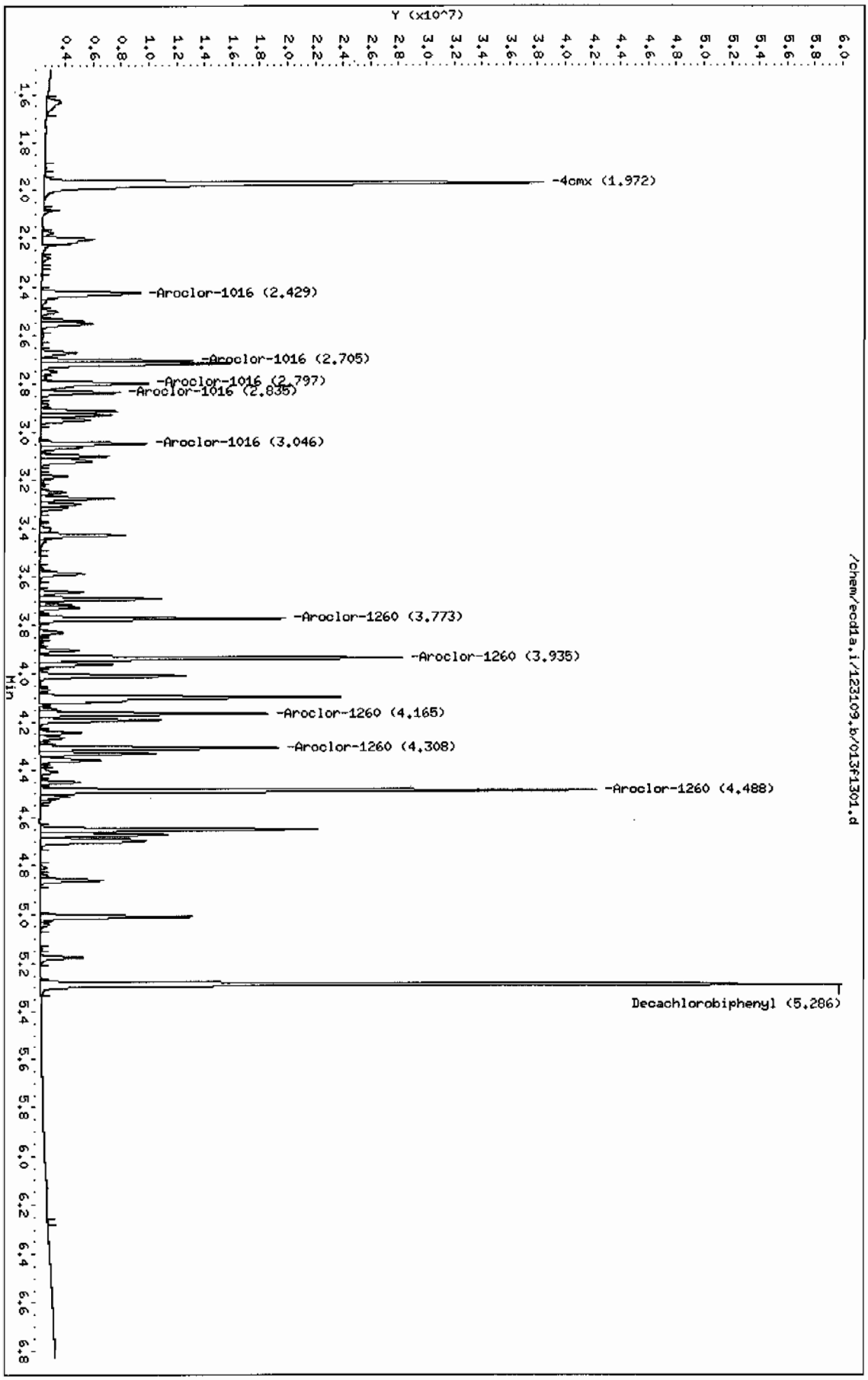

Page 1

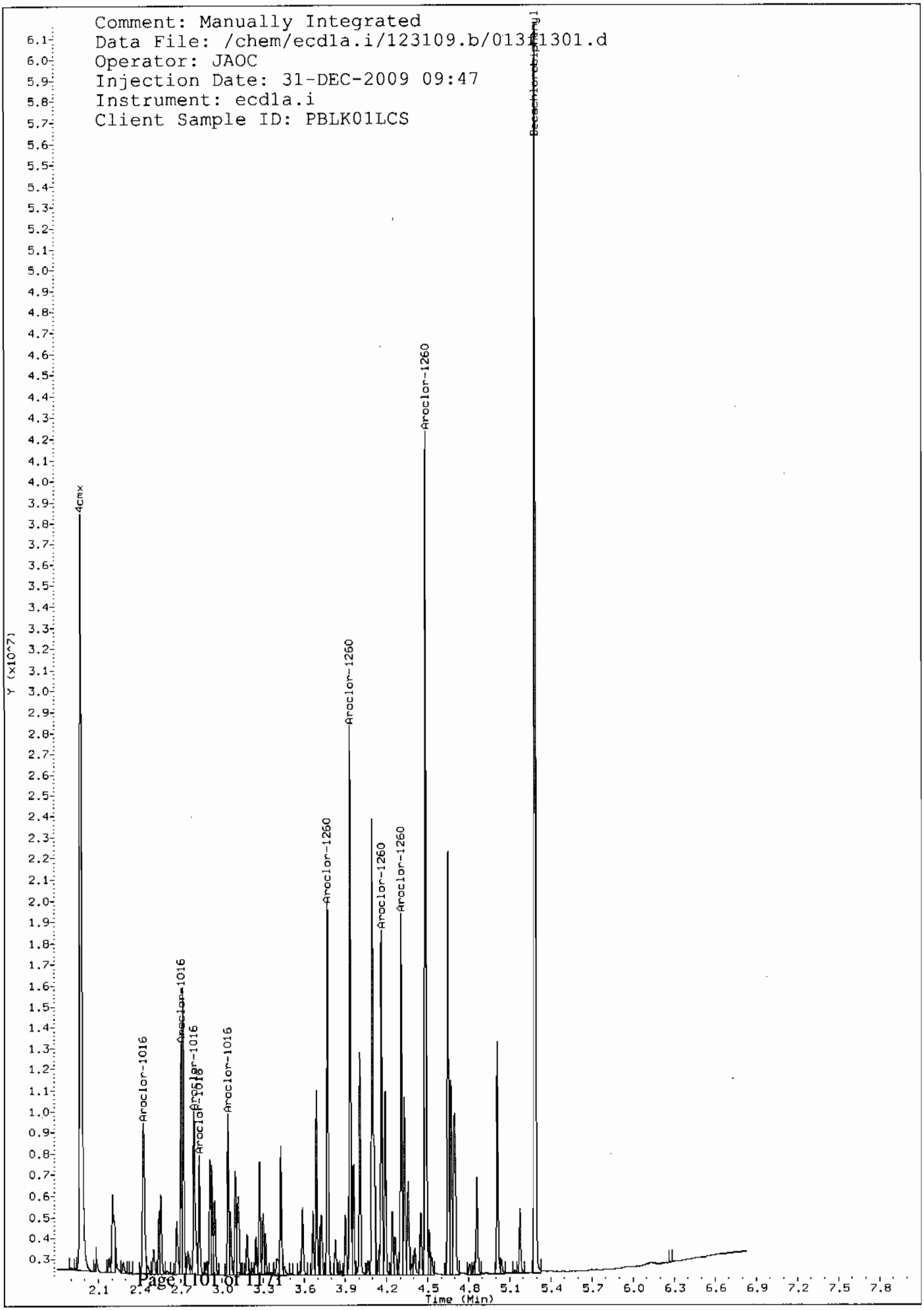
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Data File: /chem/ecd1a.i/123109.b/01311301.d
Operator: JAOC
Injection Date: 31-DEC-2009 09:47
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
Aroclor-1260
4cmx
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
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Y (x10^7)
Time (Min)

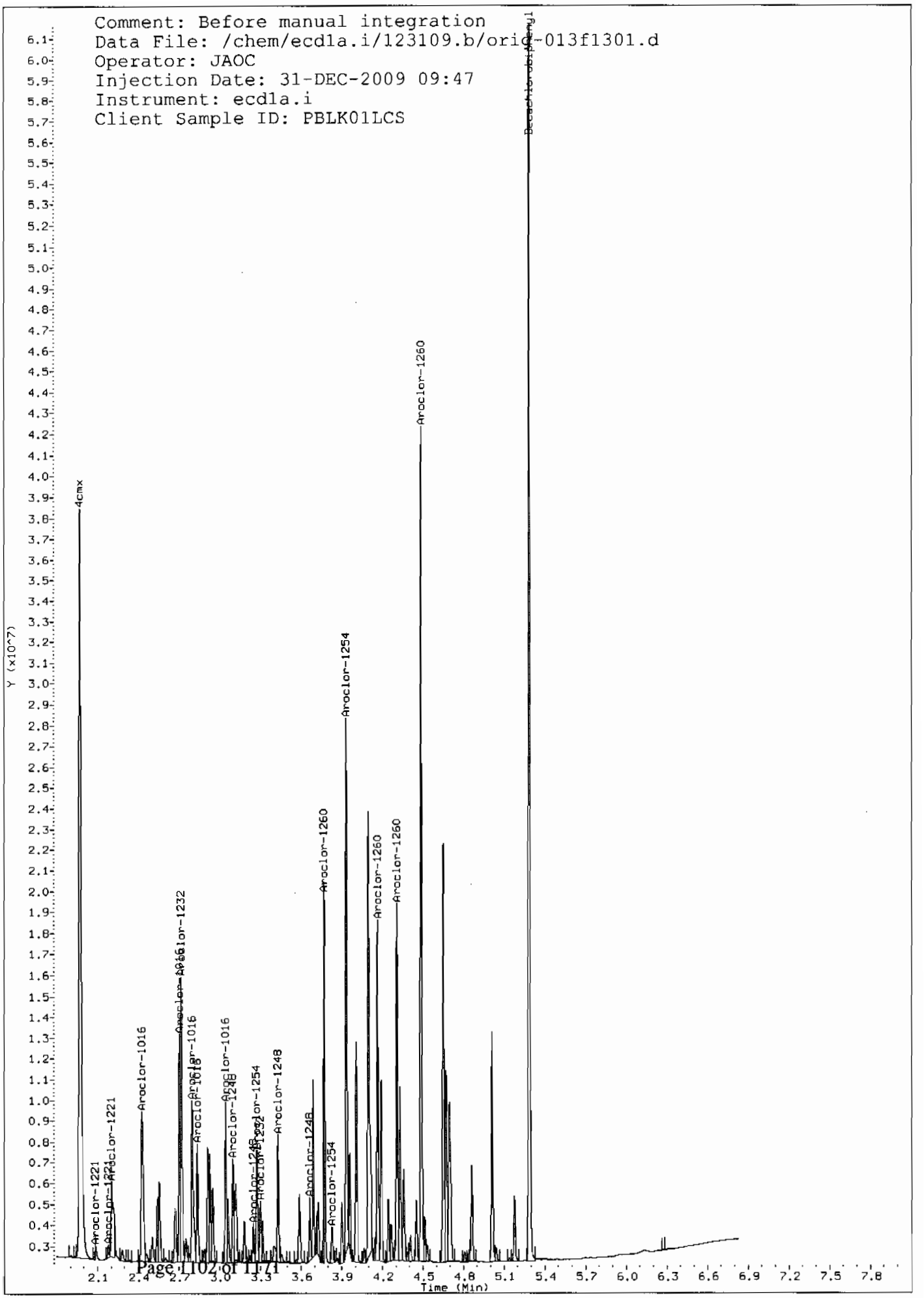
Comment: Before manual integration
Data File: /chem/ecd1a.i/123109.b/orig-013f1301.d
Operator: JAOC
Injection Date: 31-DEC-2009 09:47
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
4cmx
Aroclor-1260
Aroclor-1254
Aroclor-1248
Aroclor-1232
Aroclor-1221
Aroclor-1016
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/013b1301.d
Lab Smp Id: 1202005821 Client Smp ID: PBLK01LCS
Inj Date : 31-DEC-2009 09:47
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202005821|1|
Misc Info : |ECD82P_1L|937373|SVA|QC A|WATER|LCS|||
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 11:54 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1020.sub
Target Version: 3.50 Sample Matrix: Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.303	2.302	0.001	32132621	107.100	0.11	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.947	0.002	35489882	152.169	0.15	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.200	3.199	0.001	8464133	671.142	0.67	80.00- 120.00	100.00(M)
3.283	3.282	0.001	5758886	617.385	0.62	48.26- 88.26	68.04
3.347	3.346	0.001	3502404	647.237	0.65	22.68- 62.68	41.38
3.574	3.572	0.002	4651341	659.589	0.66	33.84- 73.84	54.95
3.650	3.647	0.003	4290836	655.016	0.66	29.40- 69.40	62.49

Average of Peak Concentrations = 0.65

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.340	4.337	0.003	9953023	727.559	0.73	80.00- 120.00	100.00
4.464	4.462	0.002	12482181	778.724	0.78	103.30- 143.30	125.41
4.730	4.728	0.002	9640082	767.282	0.77	74.47- 114.47	96.86
4.904	4.902	0.002	10014760	781.788	0.78	77.95- 117.95	100.62
5.050	5.049	0.001	22867340	819.686	0.82	204.02- 244.02	229.75
			Average of Peak Concentrations =		0.78		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/123109.b/013b1301.d
Date : 31-DEC-2009 09:47
Client ID: PBLK01LCS
Sample Info: |120200582111|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

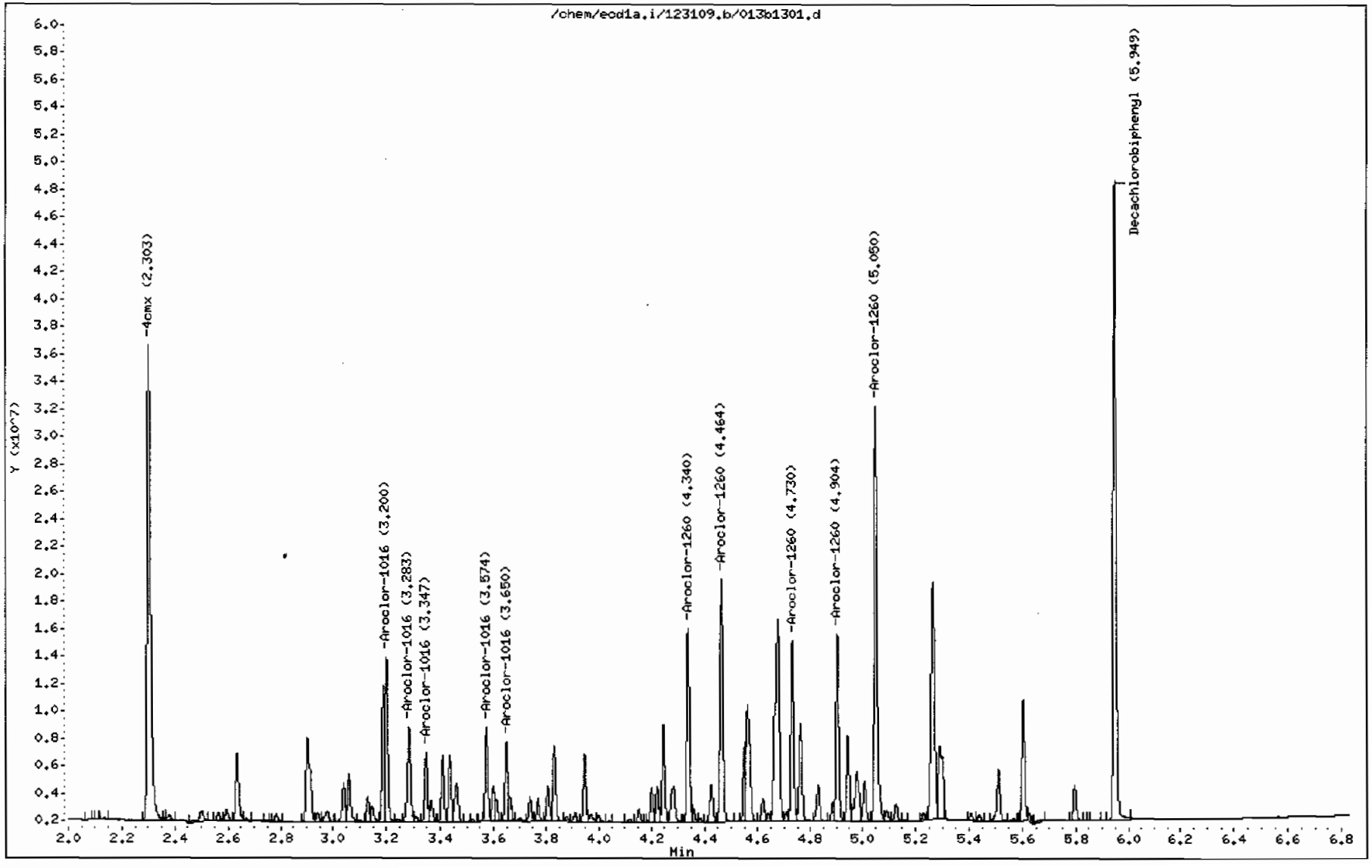

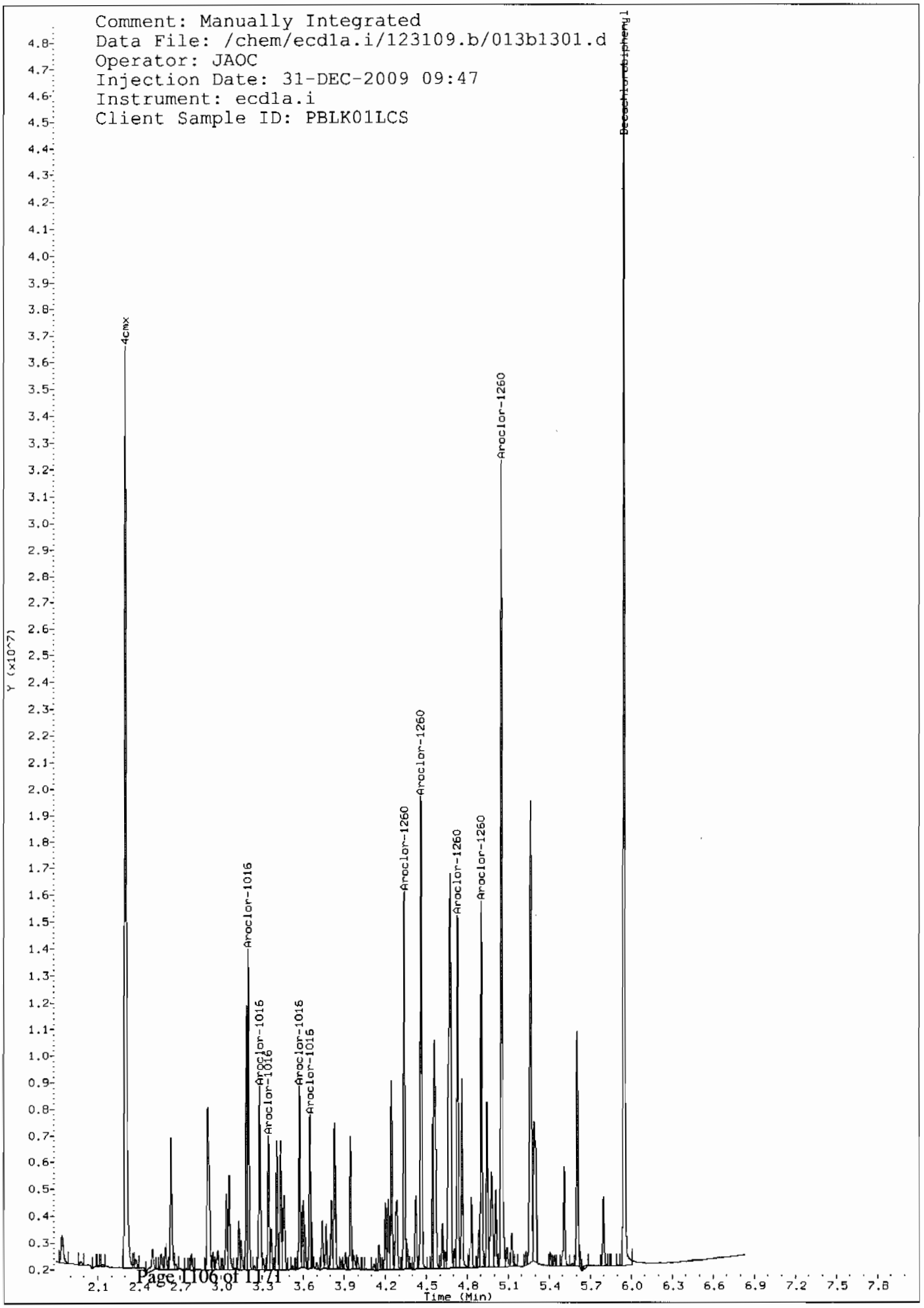
Comment: Manually Integrated
Data File: /chem/ecd1a.i/123109.b/013b1301.d
Operator: JAOC
Injection Date: 31-DEC-2009 09:47
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
Decachlorobiphenyl
4cmx
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
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Y (x10^7)
Time (Min)

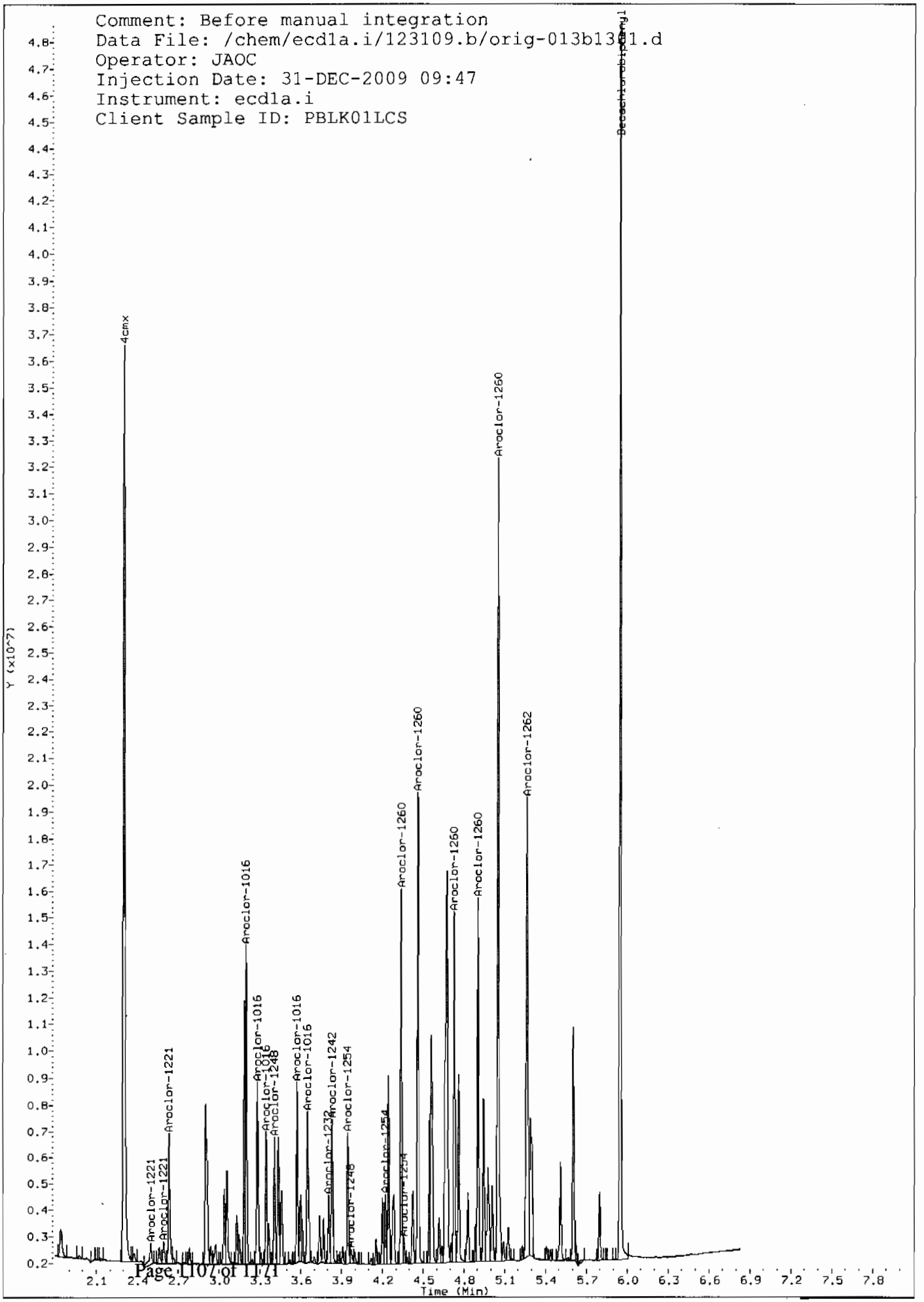
Comment: Before manual integration
Data File: /chem/ecd1a.i/123109.b/orig-013b1311.d
Operator: JAOC
Injection Date: 31-DEC-2009 09:47
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
4cmx
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1016
Aroclor-1016
Aroclor-1232
Aroclor-1242
Aroclor-1254
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1262
Decachlorobiphenyl
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 12/15/2009 METHOD: ECD1-F-8082-121409.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA385
ALUMINA LOT 1230997-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/121409.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	YS1	14-DEC-2009 04:44		121409	1.0	CLEAN	
002f0201.d	WAR091211-60 01	YS1	14-DEC-2009 04:54		121409	1.0	DUSE RE-ICAL	
003f0301.d	WAR091102-54	YS1	14-DEC-2009 05:05		121409	1.0	DUSE RE-ICAL	
004f0401.d	WAR091102-42	YS1	14-DEC-2009 05:15		121409	1.0	DUSE RE-ICAL	
005f0501.d	WAR091027-48	YS1	14-DEC-2009 05:26		121409	1.0	DUSE RE-ICAL	
006f0601.d	WAR090930-32	YS1	14-DEC-2009 05:36		121409	1.0	PATTERN ONLY	
007f0701.d	WAR090803-21	YS1	14-DEC-2009 05:47		121409	1.0	PATTERN ONLY	
008f0801.d	WAR090803-62	YS1	14-DEC-2009 05:58		121409	1.0	PATTERN ONLY	
009f0901.d	WAR091106-68	YS1	14-DEC-2009 06:08		121409	1.0	DUSE RE-ICAL	
010f1001.d	1660-1	YS1	14-DEC-2009 06:19		121409	1.0	DUSE	
011f1101.d	1660-2	YS1	14-DEC-2009 06:29		121409	1.0	DUSE	
012f1201.d	1660-3	YS1	14-DEC-2009 06:40		121409	1.0	DUSE	
013f1301.d	1660-4	YS1	14-DEC-2009 06:50		121409	1.0	DUSE	
014f1401.d	IAR091102-01	YS1	14-DEC-2009 07:01		121409	1.0	DUSE	
015f1501.d	WAR091211-60 01	YS1	14-DEC-2009 07:11		121409	1.0	DUSE	

Instrument Batch: /chem/ecd1a.i/121409.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR091214-05 54	YS1	14-DEC-2009 07:22		121409	1.0	AR1254 I-CAL LEVEL 1
017f1701.d	WAR091214-06 54	YS1	14-DEC-2009 07:32		121409	1.0	AR1254 I-CAL LEVEL 2
018f1801.d	WAR091214-07 54	YS1	14-DEC-2009 07:43		121409	1.0	AR1254 I-CAL LEVEL 3
019f1901.d	WAR091214-08 54	YS1	14-DEC-2009 07:53		121409	1.0	AR1254 I-CAL LEVEL 4
020f2001.d	IAR091027-01	YS1	14-DEC-2009 08:04		121409	1.0	AR1254 I-CAL LEVEL 5
021f2101.d	WAR091102-54	YS1	14-DEC-2009 08:14		121409	1.0	PASSED ON BOTH COLUMNS
022f2201.d	WAR091214-09 42	YS1	14-DEC-2009 08:25		121409	1.0	AR1242 I-CAL LEVEL 1
023f2301.d	WAR091214-10 42	YS1	14-DEC-2009 08:35		121409	1.0	AR1242 I-CAL LEVEL 2
024f2401.d	WAR091214-11 42	YS1	14-DEC-2009 08:46		121409	1.0	AR1242 I-CAL LEVEL 3
025f2501.d	WAR091214-12 42	YS1	14-DEC-2009 08:56		121409	1.0	AR1242 I-CAL LEVEL 4
026f2601.d	IAR0911111-01	YS1	14-DEC-2009 09:07		121409	1.0	AR1242 I-CAL LEVEL 5
027f2701.d	WAR091102-42	YS1	14-DEC-2009 09:17		121409	1.0	PASSED ON BOTH COLUMNS
028f2801.d	WAR091214-13 48	YS1	14-DEC-2009 09:28		121409	1.0	AR1248 I-CAL LEVEL 1
029f2901.d	WAR091214-14 48	YS1	14-DEC-2009 09:38		121409	1.0	AR1248 I-CAL LEVEL 2
030f3001.d	WAR091214-15 48	YS1	14-DEC-2009 09:49		121409	1.0	AR1248 I-CAL LEVEL 3
031f3101.d	WAR091214-16 48	YS1	14-DEC-2009 09:59		121409	1.0	AR1248 I-CAL LEVEL 4
032f3201.d	IAR091027-02	YS1	14-DEC-2009 10:10		121409	1.0	AR1248 I-CAL LEVEL 5
033f3301.d	WAR091027-48	YS1	14-DEC-2009 10:20		121409	1.0	PASSED ON BOTH COLUMNS
034f3401.d	WAR091214-01 60	YS1	14-DEC-2009 10:31		121409	1.0	AR1660 I-CAL LEVEL 1
035f3501.d	WAR091214-02 60	YS1	14-DEC-2009 10:41		121409	1.0	AR1660 I-CAL LEVEL 2

Instrument Batch: /chem/ecd1a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	WAR091214-03 60	YS1	14-DEC-2009 10:52		121409	1.0		AR1660 I-CAL LEVEL 3
037f3701.d	WAR091214-04 60	YS1	14-DEC-2009 11:02		121409	1.0		AR1660 I-CAL LEVEL 4
038f3801.d	IAR091102-01	YS1	14-DEC-2009 11:13		121409	1.0		AR1660 I-CAL LEVEL 5
039f3901.d	WAR091211-60 01	YS1	14-DEC-2009 11:23		121409	1.0		PASSED ON BOTH COLUMNS
040f4001.d	WAR091214-17 68	YS1	14-DEC-2009 11:34		121409	1.0		AR1268 I-CAL LEVEL 1

041f4101.d	WAR091214-18 68	YS1	14-DEC-2009 11:44		121409		1.0		AR1268 I-CAL LEVEL 2
042f4201.d	WAR091214-19 68	YS1	14-DEC-2009 11:55		121409		1.0		AR1268 I-CAL LEVEL 3
043f4301.d	WAR091214-20 68	YS1	14-DEC-2009 12:06		121409		1.0		AR1268 I-CAL LEVEL 4
044f4401.d	IAR090817-02	YS1	14-DEC-2009 12:16		121409		1.0		AR1268 I-CAL LEVEL 5
045f4501.d	WAR091106-68	YS1	14-DEC-2009 12:27		121409		1.0		PASSED ON BOTH COLUMNS
046f4601.d	WAR091020-DDT	YS1	14-DEC-2009 12:37		121409		1.0		DDT ANALOG STANDARD
047f4701.d	WAR091130-99 02	YS1	14-DEC-2009 12:48		121409		1.0		CLEAN
048f4801.d	1201991693	YS1	14-DEC-2009 12:58	931140	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	1201991694	YS1	14-DEC-2009 13:09	931140	10-782		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
050f5001.d	242297001	YS1	14-DEC-2009 13:19	931140	10-782		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
051f5101.d	242297002	YS1	14-DEC-2009 13:30	931140	10-782		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
052f5201.d	242297003	YS1	14-DEC-2009 13:40	931140	10-782		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	242297004	YS1	14-DEC-2009 13:51	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	242297005	YS1	14-DEC-2009 14:03	931140	10-782		5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	242297006	YS1	14-DEC-2009 14:16	931140	10-782		10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	242297007	YS1	14-DEC-2009 14:29	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	242297008	YS1	14-DEC-2009 14:41	931140	10-782	25.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	WAR091211-60 02	YS1	14-DEC-2009 14:52		121409	1.0		PASSED ON BOTH COLUMNS
059f5901.d	WAR091130-99 03	YS1	14-DEC-2009 15:02		121409	1.0		CLEAN
060f6001.d	242297009	YS1	14-DEC-2009 15:13	931140	10-782	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
061f6101.d	242297010	YS1	14-DEC-2009 15:25	931140	10-782	1.0	LANL	DCB LOW RE
062f6201.d	242297011	YS1	14-DEC-2009 15:38	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
063f6301.d	242297012	YS1	14-DEC-2009 15:51	931140	10-782	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	242297013	YS1	14-DEC-2009 16:03	931140	10-782	10.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

065f6501.d	242305004	YS1	14-DEC-2009 16:16	931140	10-786	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	1201991695	YS1	14-DEC-2009 16:28	931140	10-786	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
067f6701.d	1201991696	YS1	14-DEC-2009 16:41	931140	10-786	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
068f6801.d	242305005	YS1	14-DEC-2009 16:53	931140	10-786	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	242305006	YS1	14-DEC-2009 17:06	931140	10-786	5.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	WAR091211-60 03	YS1	14-DEC-2009 17:19		121409	1.0		PASSED ON BOTH COLUMNS
071f7101.d	WAR091130-99 04	YS1	14-DEC-2009 17:31		121409	1.0		CLEAN
072f7201.d	1201992645	YS1	14-DEC-2009 17:44	931553	242521	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	1201992646	YS1	14-DEC-2009 17:57	931553	242521	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	242264001	YS1	14-DEC-2009 18:09	931553	242264	5.0	ENRG	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	242521001	YS1	14-DEC-2009 18:22	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076f7601.d	1201992647	YS1	14-DEC-2009 18:35	931553	242521	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	1201992648	YS1	14-DEC-2009 18:47	931553	242521	5.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	242521002	YS1	14-DEC-2009 19:00	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
079f7901.d	242521003	YS1	14-DEC-2009 19:12	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
080f8001.d	242521004	YS1	14-DEC-2009 19:25	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
081f8101.d	242521005	YS1	14-DEC-2009 19:38	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
082f8201.d	WAR091211-60 04	YS1	14-DEC-2009 19:50		121409	1.0		PASSED ON BOTH COLUMNS
083f8301.d	WAR091130-99 05	YS1	14-DEC-2009 20:03		121409	1.0		CLEAN
084f8401.d	242521006	YS1	14-DEC-2009 20:15	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
085f8501.d	242521007	YS1	14-DEC-2009 20:28	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
086f8601.d	242521008	YS1	14-DEC-2009 20:41	931553	242521	5.0	EMSC	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	WAR091211-60 05	YS1	14-DEC-2009 20:53		121409	1.0		PASSED ON BOTH COLUMNS
088f8801.d	WAR091130-99 06	YS1	14-DEC-2009 21:06		121409	1.0		CLEAN
089f8901.d	242297010	YS1	14-DEC-2009 21:19	931140	10-782	1.0	LANL	

090f9001.d	WAR091211-60 06	YS1	14-DEC-2009 21:31		121409	1.0	PASSED ON BOTH COLUMNS
091f9101.d	WAR091130-99 07	YS1	14-DEC-2009 21:44		121409	1.0	CLEAN
092f9201.d	1660	YS1	14-DEC-2009 21:56		121409	1.0	screen
093f9301.d	1660	YS1	14-DEC-2009 22:09		121409	1.0	screen
094f9401.d	1660	YS1	14-DEC-2009 22:22		121409	1.0	screen

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 12/31/2009 METHOD: ECD1-F-8082-121409.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA385
ALUMINA LOT 1230997-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/123109.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 01	JAOC	31-DEC-2009 07:28		123109	1.0		CLEAN
002f0201.d	WAR091211-60 01	JAOC	31-DEC-2009 07:39		123109	1.0		PASSES BOTH COLUMNS
003f0301.d	WAR091216-54	JAOC	31-DEC-2009 07:49		123109	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR091102-42	JAOC	31-DEC-2009 08:00		123109	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR091027-48	JAOC	31-DEC-2009 08:10		123109	1.0		PASSES BOTH COLUMNS
006f0601.d	WAR090930-32	JAOC	31-DEC-2009 08:21		123109	1.0		PATTERN ONLY
007f0701.d	WAR090803-21	JAOC	31-DEC-2009 08:31		123109	1.0		PATTERN ONLY
008f0801.d	WAR090803-62	JAOC	31-DEC-2009 08:42		123109	1.0		PATTERN ONLY
009f0901.d	WAR091106-68	JAOC	31-DEC-2009 08:52		123109	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	JAOC	31-DEC-2009 09:03		123109	1.0		DDT
011f1101.d	WAR091130-99 02	JAOC	31-DEC-2009 09:26		123109	1.0		CLEAN
012f1201.d	1202005820	JAOC	31-DEC-2009 09:36	937373	10-1020	1.0	QC A	UPLOAD BOTH, USE HIGHER
013f1301.d	1202005821	JAOC	31-DEC-2009 09:47	937373	10-1020	1.0	QC A	UPLOAD BOTH, USE HIGHER
014f1401.d	243401004	JAOC	31-DEC-2009 09:57	937373	10-1020	1.0	LANL	UPLOAD BOTH, USE HIGHER
015f1501.d	243401008	JAOC	31-DEC-2009 10:08	937373	10-1020	1.0	LANL	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd1a.i/123109.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	243458004	JAOC	31-DEC-2009 10:18	937373	10-1044		1.0	LANL	UPLOAD BOTH, USE HIGHER
017f1701.d	243460002	JAOC	31-DEC-2009 10:29	937373	10-1049		1.0	LANL	UPLOAD BOTH, USE HIGHER
018f1801.d	243469003	JAOC	31-DEC-2009 10:39	937373	10-1052		1.0	LANL	UPLOAD BOTH, USE HIGHER
019f1901.d	1202005822	JAOC	31-DEC-2009 10:50	937373	10-1052		1.0	QC A	UPLOAD BOTH, USE HIGHER
020f2001.d	1202005823	JAOC	31-DEC-2009 11:00	937373	10-1052		1.0	QC A	UPLOAD BOTH, USE HIGHER
021f2101.d	WAR091211-60 02	JAOC	31-DEC-2009 11:11		123109		1.0		PASSES BOTH COLUMNS
022f2201.d	WAR091130-99 03	JAOC	31-DEC-2009 11:21		123109		1.0		CLEAN

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/001b0101.d
Lab Smp Id: WAR091130-99 01 Client Smp ID: PIBLK01
Inj Date : 31-DEC-2009 07:28
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091130-99 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 11:54 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.299	2.302	-0.003	63170542	210.550	210	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.945	5.947	-0.002	54502822	233.690	234	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd1a.i/123109.b/001b0101.d

Date : 31-DEC-2009 07:28

Client ID: PIBLK01

Sample Info: IWAR091130-99 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

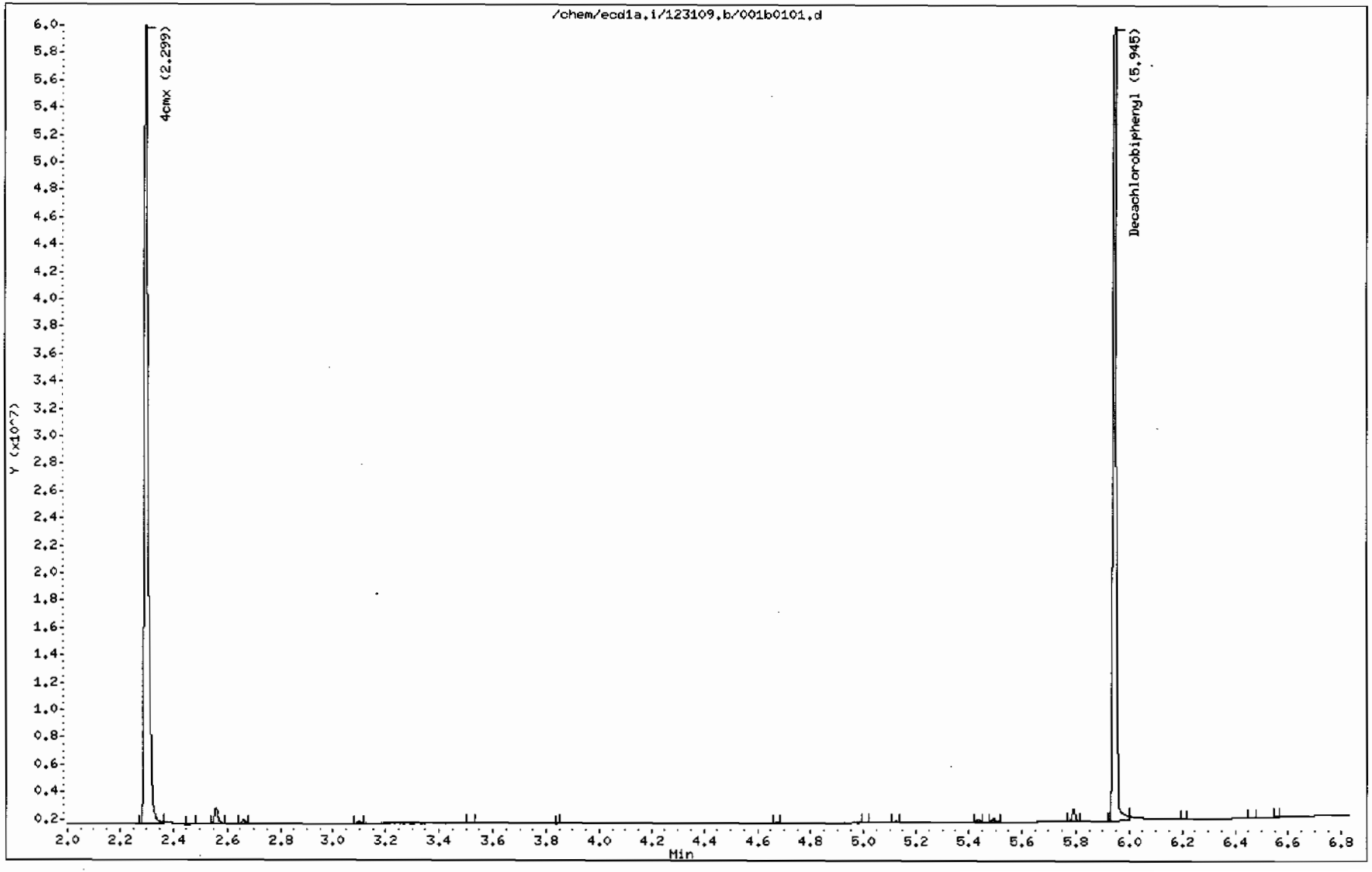

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/001f0101.d
Lab Smp Id: WAR091130-99 01 Client Smp ID: PIBLK01
Inj Date : 31-DEC-2009 07:28
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091130-99 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 11:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.968	1.970	-0.002	80359113	213.909	214	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.279	5.283	-0.004	74287494	233.946	234	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd1a.i/123109.b/001f0101.d
Date : 31-DEC-2009 07:28
Client ID: PIBLK01
Sample Info: IWAR091130-99 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

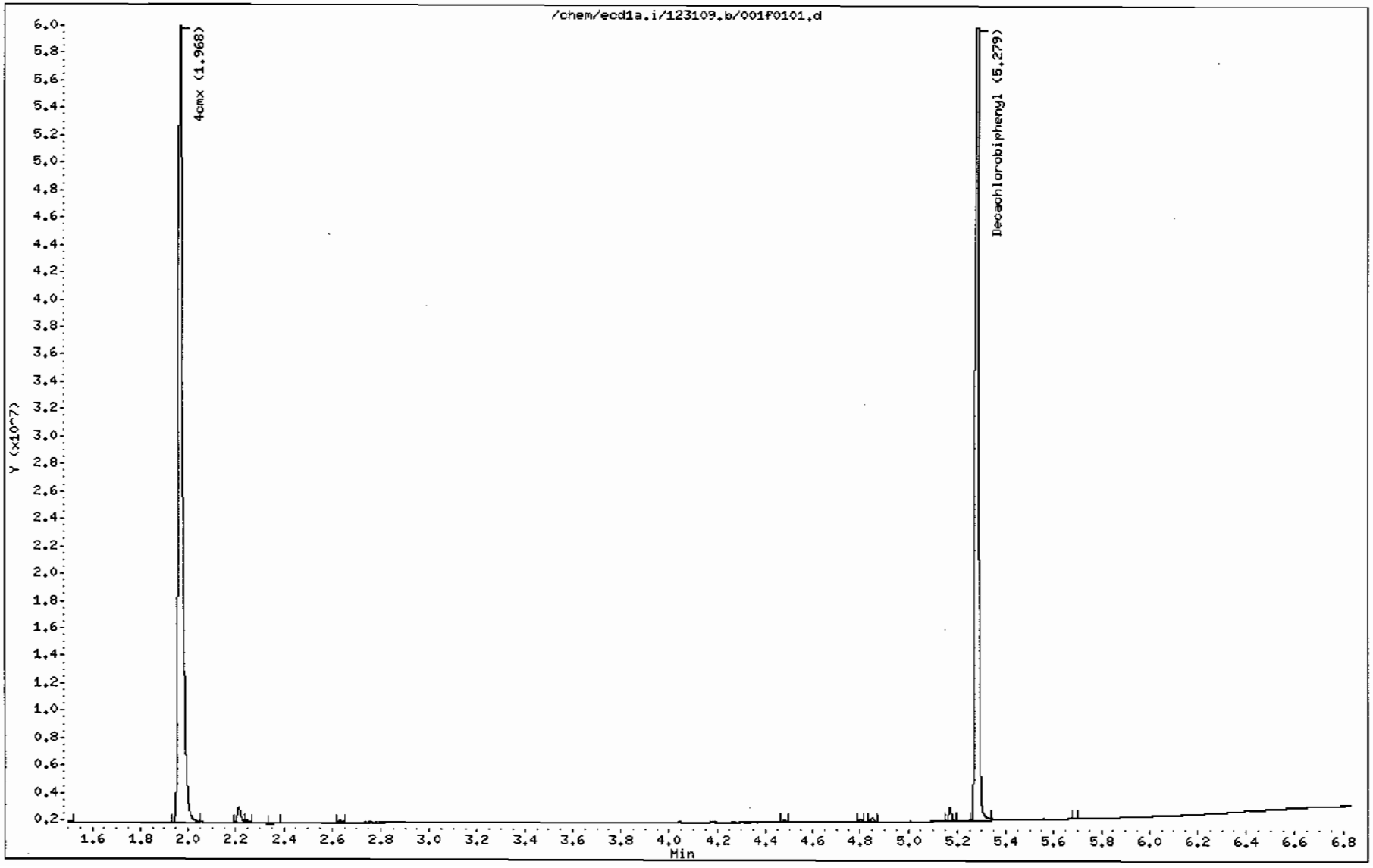

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/011b1101.d
Lab Smp Id: WAR091130-99 02 Client Smp ID: PIBLK02
Inj Date : 31-DEC-2009 09:26
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |WAR091130-99 02
Misc Info :
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 11:54 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 11 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	63031563	210.087	210	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.953	5.947	0.006	54187802	232.339	232	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd1a.i/123109.b/011b1101.d

Date : 31-DEC-2009 09:26

Client ID: PIBLK02

Sample Info: IWAR091130-99 02

Column phase: CLP2

Instrument: ecd1a.i

Operator: JAOC

Column diameter: 0.25

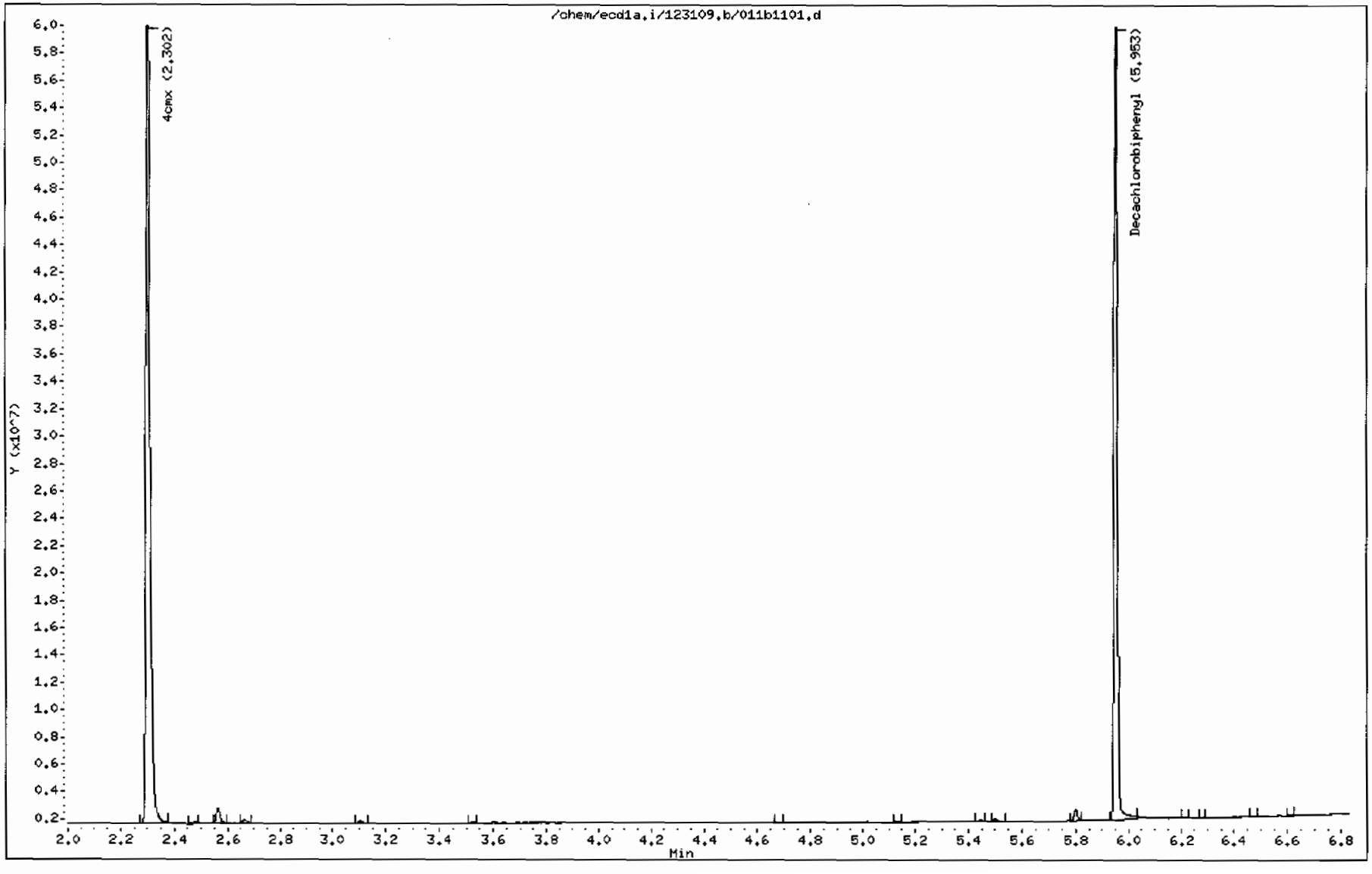

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/123109.b/011f1101.d
Lab Smp Id: WAR091130-99 02 Client Smp ID: PIBLK02
Inj Date : 31-DEC-2009 09:26
Operator : JAOC Inst ID: ecdla.i
Smp Info : |WAR091130-99 02
Misc Info :
Comment :
Method : /chem/ecdla.i/123109.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 11:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 11 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.970	0.002	80369515	213.937	214	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.293	5.283	0.010	73490426	231.436	231	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd1a.i/123109.b/011f1101.d
Date : 31-DEC-2009 09:26
Client ID: PIBLK02
Sample Info: |WAR091130-99 02

Column phase: CLP1

Instrument: ecd1a.i

Operator: JAOC
Column diameter: 0.25

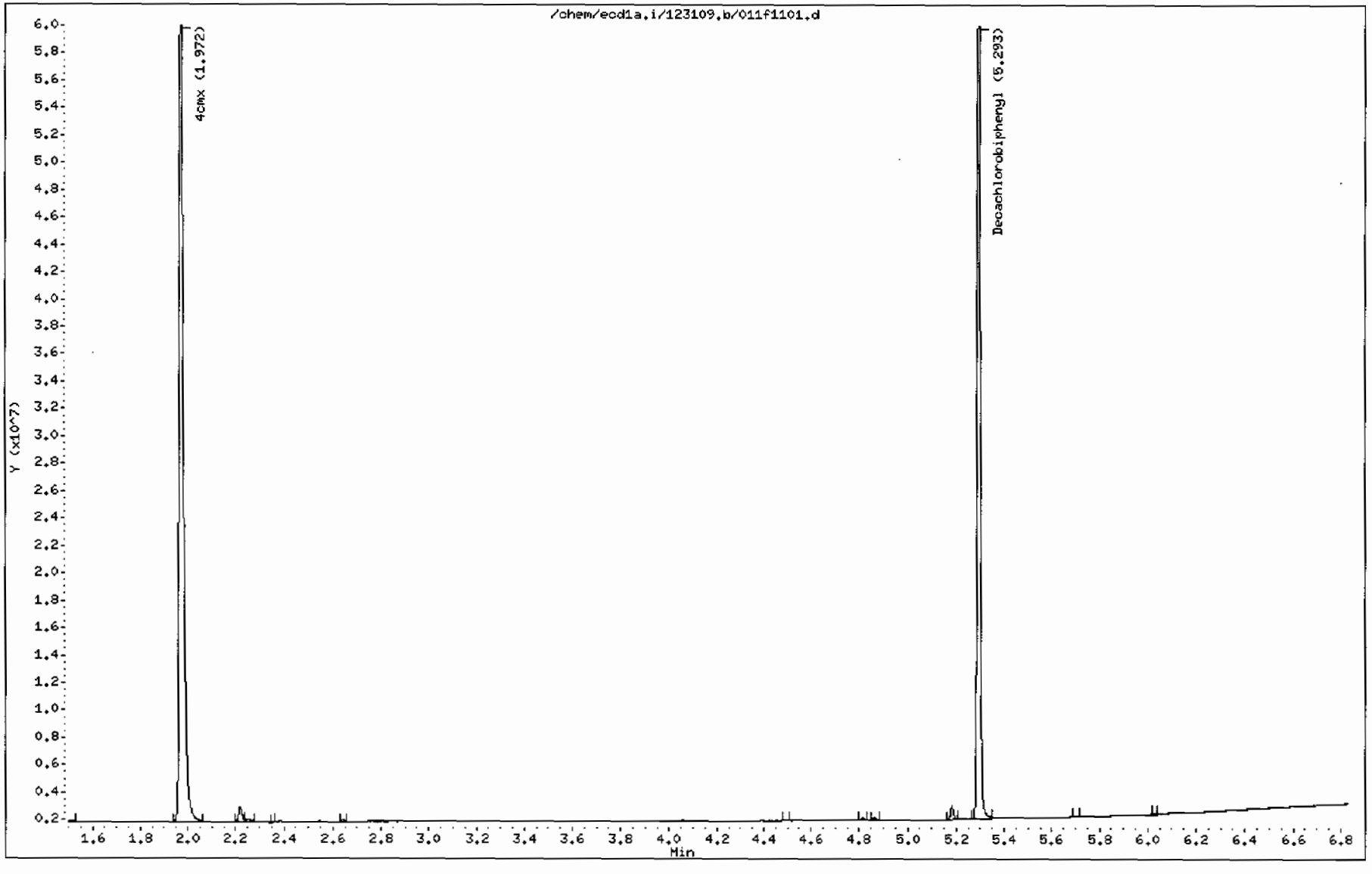

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/019b1901.d
Lab Smp Id: 1202005822 Client Smp ID: WSTR47-10-8863MS
Inj Date : 31-DEC-2009 10:50
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202005822|1|
Misc Info : |ECD82P_1L|937373|SVA|QC A|WATER|MS|||
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 11:54 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 19 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1052.sub
Target Version: 3.50 Sample Matrix: Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	34533715	115.102	0.12	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.947	0.002	25569520	109.634	0.11	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.200	3.199	0.001	8752038	693.971	0.69	80.00- 120.00	100.00
3.283	3.282	0.001	5910593	633.648	0.63	48.26- 88.26	67.53
3.346	3.346	0.000	3525553	651.515	0.65	22.68- 62.68	40.28
3.573	3.572	0.001	4780950	677.968	0.68	33.84- 73.84	54.63
3.649	3.647	0.002	4497066	686.498	0.69	29.40- 69.40	51.38

Average of Peak Concentrations = 0.67

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.340	4.337	0.003	12343164	902.276	0.90	80.00- 120.00	100.00
4.464	4.462	0.002	11817770	737.273	0.74	103.30- 143.30	95.74
4.731	4.728	0.003	8646137	688.171	0.69	74.47- 114.47	70.05
4.903	4.902	0.001	9360776	730.735	0.73	77.95- 117.95	75.84
5.051	5.049	0.002	20534902	736.079	0.74	204.02- 244.02	166.37
		Average of Peak Concentrations =			0.76		

Data File: /chem/ecd1a.i/123109.b/019b1901.d

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Date : 31-DEC-2009 10:50

Client ID: WSTR47-10-8863MS

Instrument: ecd1a.i

Sample Info: |1202005822|1|

Volume Injected (uL): 1.0

Operator: JADC

Column phase: CLP2

Column diameter: 0.25

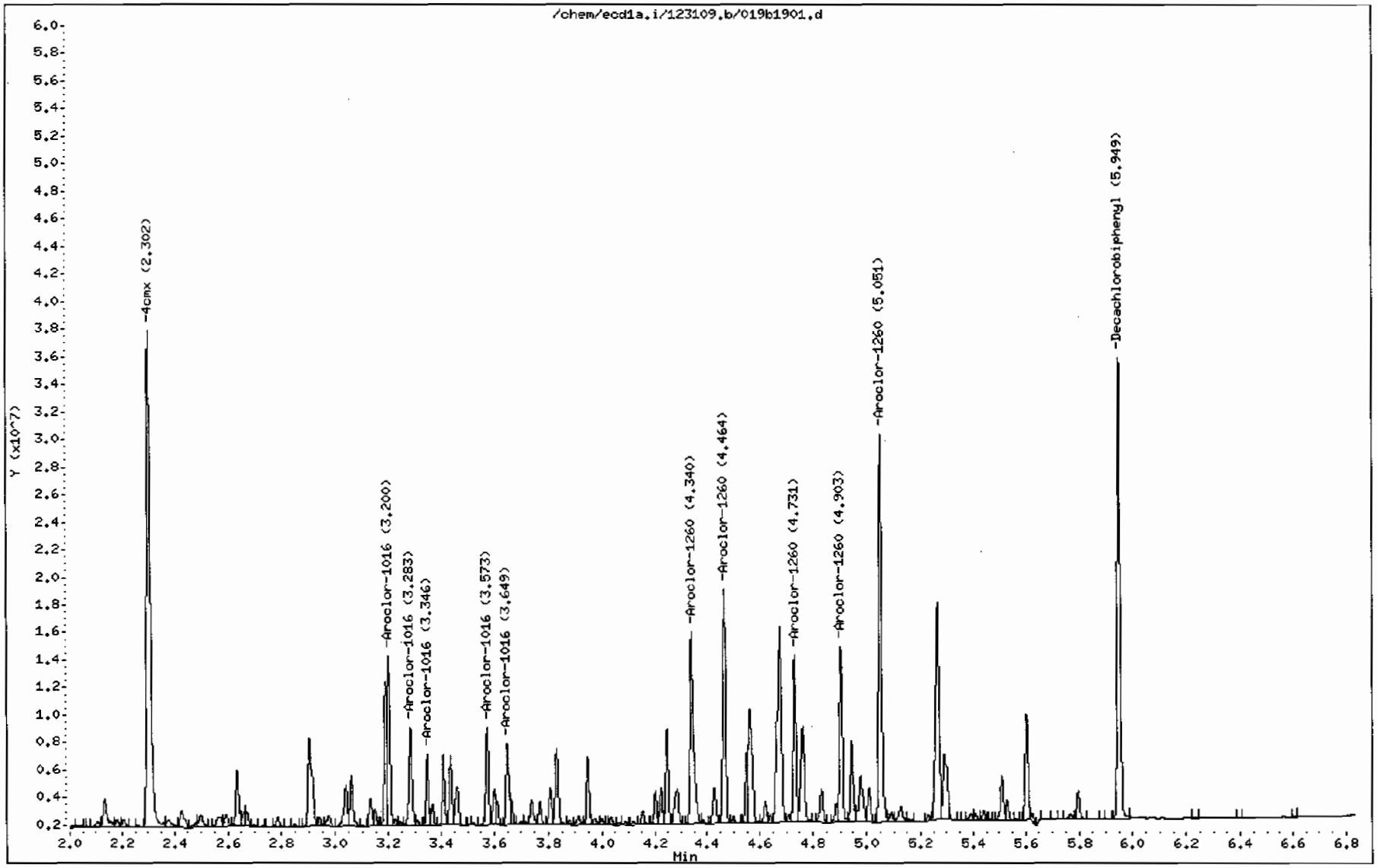

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/019f1901.d
Lab Smp Id: 1202005822 Client Smp ID: WSTR47-10-8863MS
Inj Date : 31-DEC-2009 10:50
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202005822|1|
Misc Info : |ECD82P_1L|937373|SVA|QC A|WATER|MS|||
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 11:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 19 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1052.sub
Target Version: 3.50 Sample Matrix: Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.971	1.970	0.001	43995659	117.113	0.12	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.285	5.283	0.002	30497539	96.0430	0.096	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.427	2.426	0.001	9387222	676.953	0.68	80.00- 120.00	100.00
2.705	2.703	0.002	6974416	690.692	0.69	62.82- 102.82	74.30
2.797	2.795	0.002	7989455	679.548	0.68	66.35- 106.35	85.11
2.835	2.833	0.002	4821442	730.631	0.73	31.97- 71.97	51.36
3.046	3.044	0.002	6191739	713.877	0.71	46.60- 86.60	65.96

Average of Peak Concentrations = 0.70

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.772	3.770	0.002	12737975	760.379	0.76	80.00- 120.00	100.00
3.935	3.932	0.003	19326764	781.113	0.78	134.32- 174.32	151.73
4.165	4.162	0.003	11010969	749.691	0.75	72.26- 112.26	86.44
4.307	4.306	0.001	11843060	779.943	0.78	76.95- 116.95	92.97
4.487	4.485	0.002	24004799	698.821	0.70	204.56- 244.56	188.45

Average of Peak Concentrations = 0.75

Data File: /chem/ecdia.i/123109.b/019f1901.d
Date : 31-DEC-2009 10:50
Client ID: WSTR47-10-8863MS
Sample Info: 1120200658221|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecdia.i
Operator: JAOC
Column diameter: 0.25

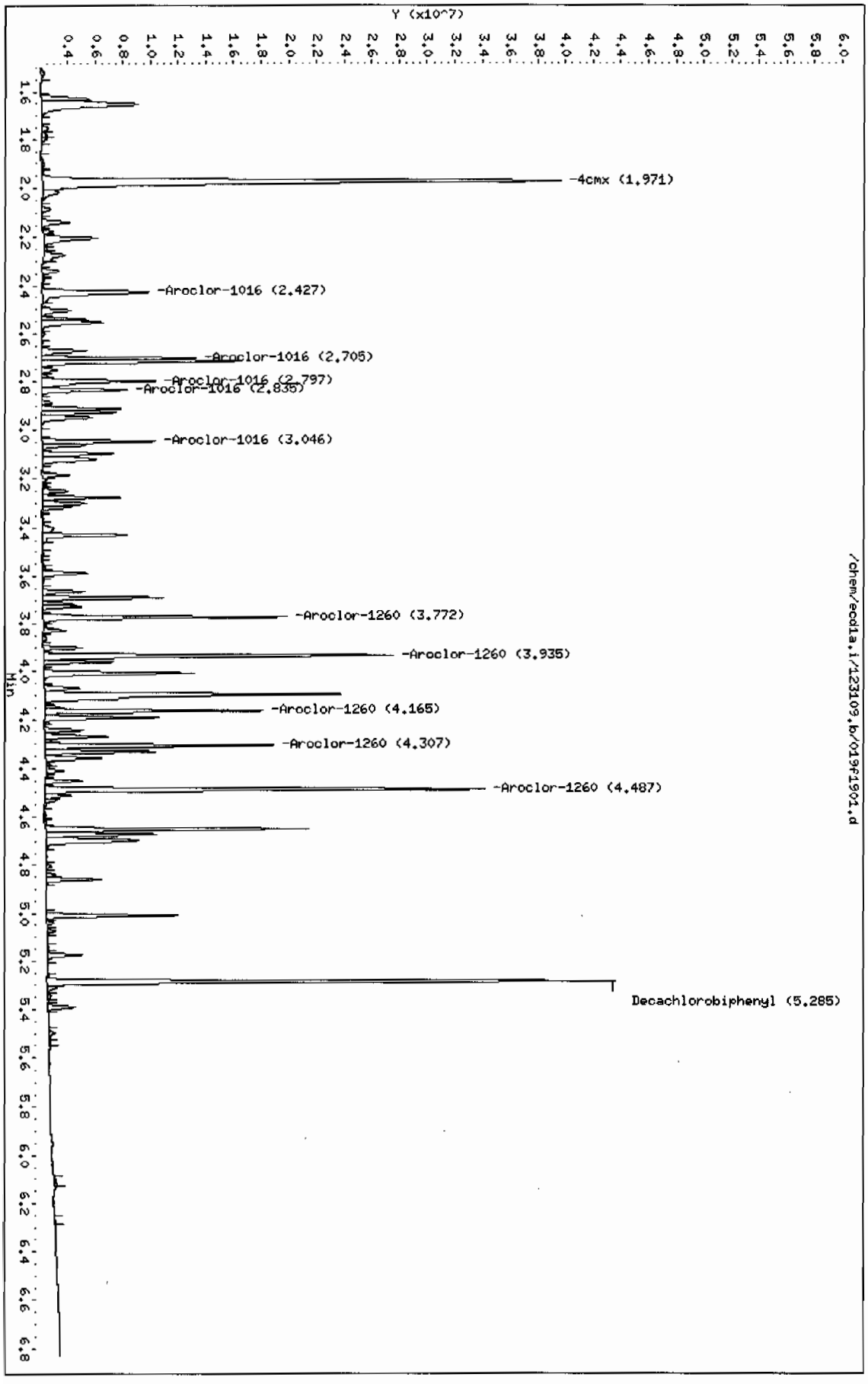

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GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/020b2001.d
Lab Smp Id: 1202005823 Client Smp ID: WSTR47-10-8863MSD
Inj Date : 31-DEC-2009 11:00
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202005823|1|
Misc Info : |ECD82P_1L|937373|SVA|QC A|WATER|MSD|||
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-B-8082-121409.m
Meth Date : 31-Dec-2009 11:54 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 12:16 Cal File: 044b4401.d
Als bottle: 20 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1052.sub
Target Version: 3.50 Sample Matrix: Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.302	2.302	0.000	30843162	102.802	0.10	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.949	5.947	0.002	25235058	108.200	0.11	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.199	3.199	0.000	8238664	653.264	0.65	80.00- 120.00	100.00
3.283	3.282	0.001	5594380	599.749	0.60	48.26- 88.26	67.90
3.346	3.346	0.000	3306853	611.100	0.61	22.68- 62.68	40.14
3.573	3.572	0.001	4431759	628.451	0.63	33.84- 73.84	53.79
3.649	3.647	0.002	5038407	769.136	0.77	29.40- 69.40	61.16

Average of Peak Concentrations = 0.65

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.339	4.337	0.002	11787077	861.627	0.86	80.00- 120.00	100.00
4.464	4.462	0.002	11140099	694.996	0.69	103.30- 143.30	94.51
4.729	4.728	0.001	8289067	659.751	0.66	74.47- 114.47	70.32
4.903	4.902	0.001	8892105	694.149	0.69	77.95- 117.95	75.44
5.049	5.049	0.000	19478600	698.216	0.70	204.02- 244.02	165.25
Average of Peak Concentrations =					0.72		

Data File: /chem/ecdia.i/123109.b/020b2001.d
Date : 31-DEC-2009 11:00
Client ID: WSTR47-10-8863MSD
Sample Info: !120200582311!
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecdia.i
Operator: JADC
Column diameter: 0.25

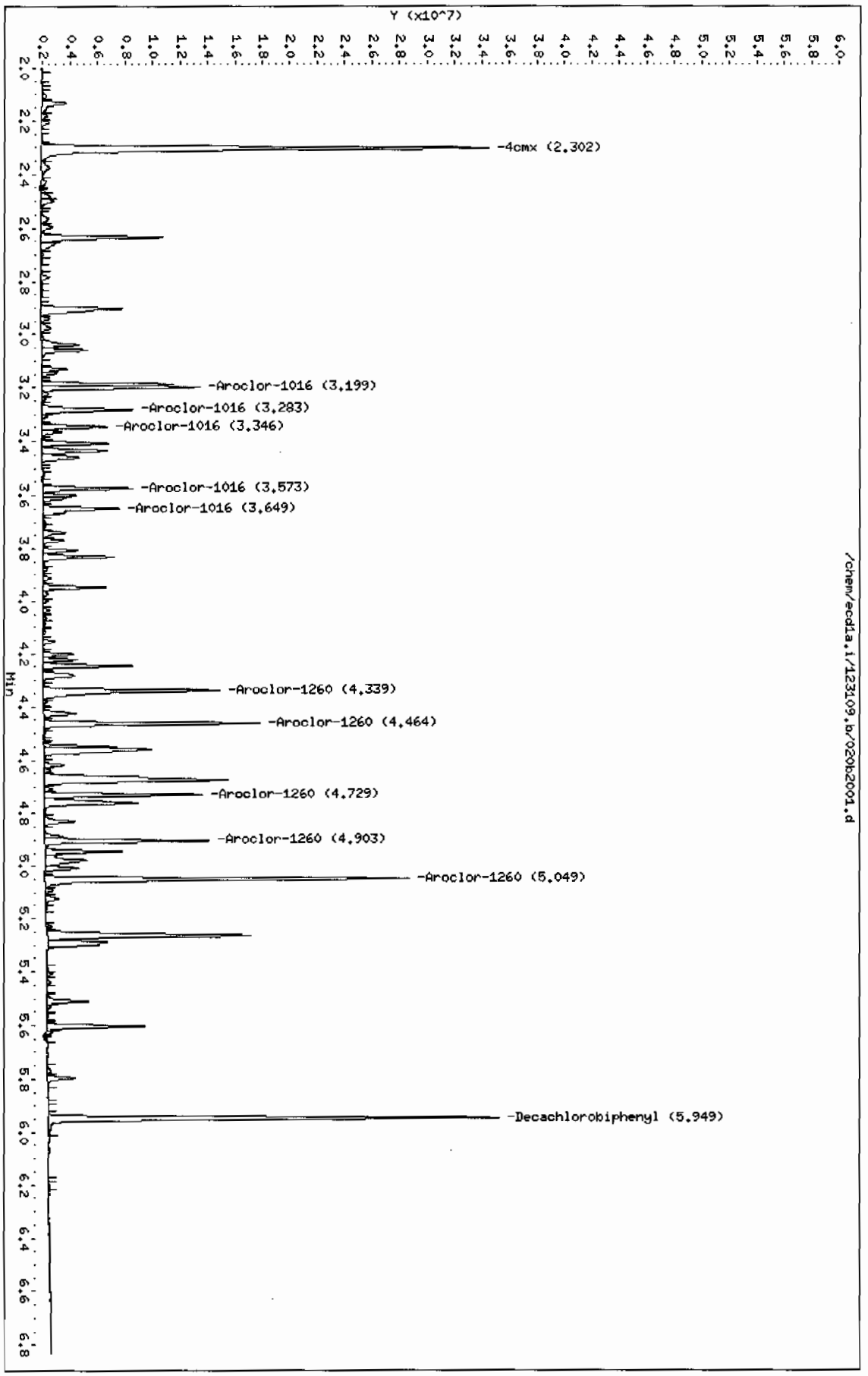

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GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/123109.b/020f2001.d
Lab Smp Id: 1202005823 Client Smp ID: WSTR47-10-8863MSD
Inj Date : 31-DEC-2009 11:00
Operator : JAOC Inst ID: ecd1a.i
Smp Info : |1202005823|1|
Misc Info : |ECD82P_1L|937373|SVA|QC A|WATER|MSD|||
Comment :
Method : /chem/ecd1a.i/123109.b/ECD1-F-8082-121409.m
Meth Date : 31-Dec-2009 11:44 jen01212 Quant Type: ESTD
Cal Date : 14-DEC-2009 11:34 Cal File: 040f4001.d
Als bottle: 20 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-1052.sub
Target Version: 3.50 Sample Matrix: Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.972	1.970	0.002	39684450	105.637	0.10	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.285	5.283	0.002	30846313	97.1413	0.097	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.427	2.426	0.001	8271117	596.466	0.60	80.00- 120.00	100.00
2.704	2.703	0.001	6337854	627.652	0.63	62.82- 102.82	76.63
2.797	2.795	0.002	7337713	624.113	0.62	66.35- 106.35	88.71
2.834	2.833	0.001	4541930	688.274	0.69	31.97- 71.97	54.91
3.045	3.044	0.001	5823272	671.394	0.67	46.60- 86.60	70.40

Average of Peak Concentrations = 0.64

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.772	3.770	0.002	12044947	719.009	0.72	80.00- 120.00	100.00
3.934	3.932	0.002	18281898	738.883	0.74	134.32- 174.32	151.78
4.164	4.162	0.002	10427121	709.939	0.71	72.26- 112.26	86.57
4.307	4.306	0.001	11201432	737.687	0.74	76.95- 116.95	93.00
4.486	4.485	0.001	25792839	750.874	0.75	204.56- 244.56	214.14
			Average of Peak Concentrations =		0.73		

Data File: /chem/ecd1a.i/123109.b/020f2001.d
Date : 31-DEC-2009 11:00
Client ID: WSTR47-10-8863MSD
Sample Info: 1120200582311
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: JAOC
Column diameter: 0.25

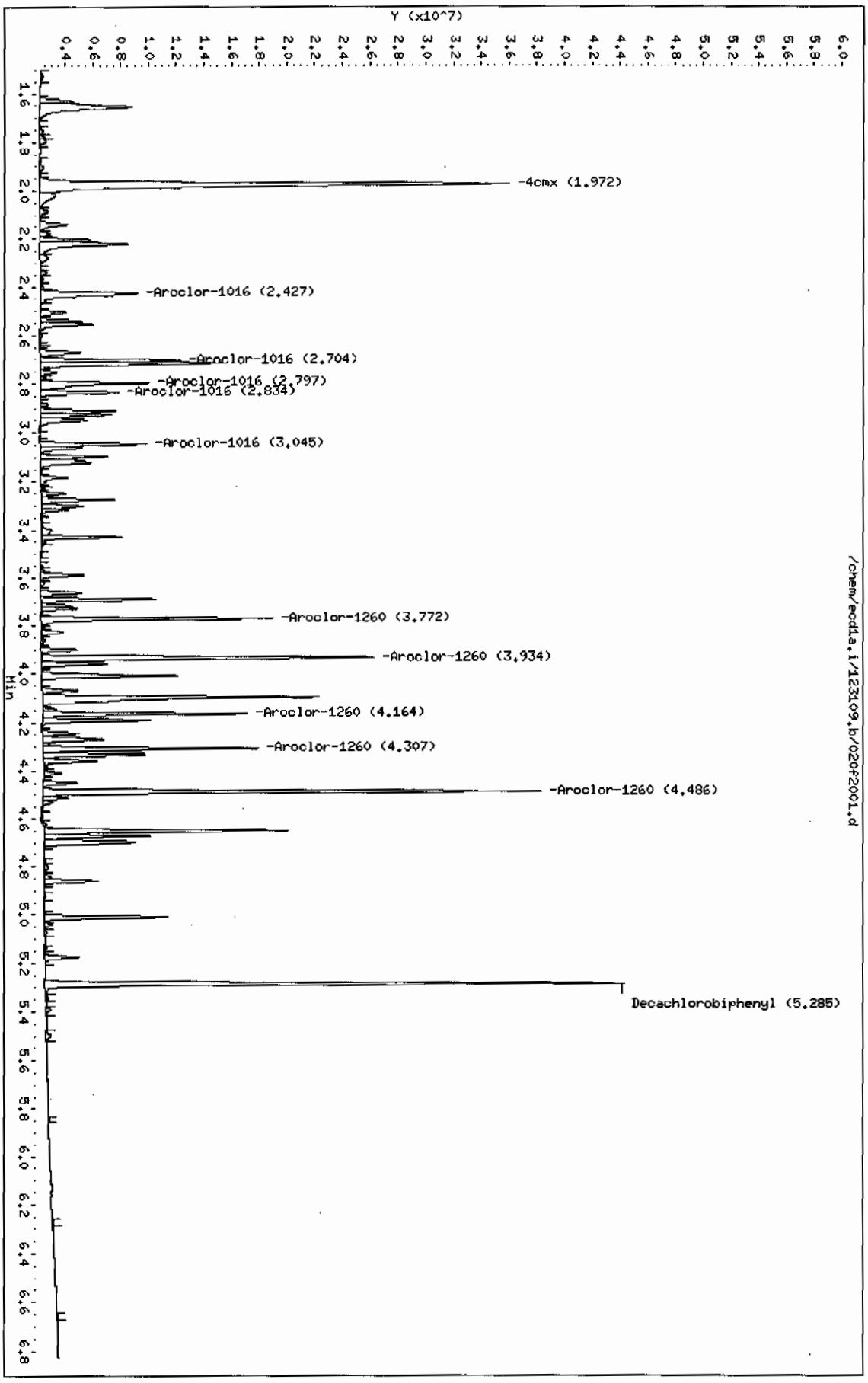

Page 1

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 937372 **Verified by:** _____

Analyst: Jesse Craig

Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202005820 MB	30-DEC-2009 15:41:29	1000	5	5	H2SO4/KMi2		2	8	1	0.001
1202005821 LCS	30-DEC-2009 15:41:29	1000	5	5	H2SO4/KMi2		2	8	1	0.001
243401004	30-DEC-2009 15:41:29	935	6	6	H2SO4/KMi2		2	8	1	0.00107
243401008	30-DEC-2009 15:41:29	950	6	6	H2SO4/KMi2		2	8	1	0.00105
243458004	30-DEC-2009 15:41:29	950	6	6	H2SO4/KMi2		2	8	1	0.00105
243460002	30-DEC-2009 15:41:29	920	6	6	H2SO4/KMi2		2	8	1	0.00109
243469003	30-DEC-2009 15:41:29	905	6	6	H2SO4/KMi2		2	8	1	0.0011
1202005822 MS (243469003)	30-DEC-2009 15:41:29	500	6	6	H2SO4/KMi2		2	8	0.5	0.001
1202005823 MSD (243469003)	30-DEC-2009 15:41:29	500	6	6	H2SO4/KMi2		2	8	0.5	0.001

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202005821	PCB Laboratory Control	WE091210-07	1	mL
MS	1202005822	PCB Laboratory Control	WE091210-07	.5	mL
MSD	1202005823	PCB Laboratory Control	WE091210-07	.5	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE091130-15	.5	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE091130-15	1	mL
REGNT	All	Hexane	1241300-B2	5	mL
REGNT	All	Methylene Chloride	1245620-D	180	mL
REGNT	All	Sulfuric Acid Sol., 1:1	1245641	5	mL
REGNT	All	5% Potassium Permanganate	B1202457-F	5	mL
SOURC	All	SODIUM SULFATE	1248200	30	g

Comments:

Sample 243460002 was emulsive during the extraction.
No additional CH2Cl2 was necessary to break the emulsion.

Clean up Date: 30-DEC-2009

Clean up Initials: JAC

Verified By: RLC

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-037

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-1020

Method/Analysis Information

Product: **Carbon, Total Organic**

Analytical Batch: 936193 **Method:** SW846 9060

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9060:

Sample ID	Client ID
243401006	CAPA-10-6823
243401010	CAPA-10-6824
1202003192	Method Blank (MB)
1202003193	243401010(CAPA-10-6824) Sample Duplicate (DUP)
1202003194	243401010(CAPA-10-6824) Post Spike (PS)
1202003195	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-093 REV# 9.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Carbon analysis was performed on a O-I Analytical Model 1010 Total Organic Carbon Analyzer.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 243401010 (CAPA-10-6824).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recovery for this sample set was within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the

laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Total Kjeldahl Nitrogen**		
Analytical Batch:	936391	**Method:**	EPA 351.2
Prep Batch :	936390	**Method:**	EPA 351.2 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 351.2:

Sample ID	Client ID
243401006	CAPA-10-6823
243401010	CAPA-10-6824
1202003554	Method Blank (MB)
1202003555	243401006(CAPA-10-6823) Sample Duplicate (DUP)
1202003556	243401006(CAPA-10-6823) Matrix Spike (MS)
1202003557	243401006(CAPA-10-6823) Matrix Spike Duplicate (MSD)
1202003558	Laboratory Control Sample (LCS)
1202004546	243475001(50FWC-09-2843) Sample Duplicate (DUP)
1202004547	243475001(50FWC-09-2843) Matrix Spike (MS)
1202004548	243475001(50FWC-09-2843) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-104 REV# 8.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 243401006 (CAPA-10-6823) and 243475001 (50FWC-09-2843).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202003556 (CAPA-10-6823) and 1202004547 (50FWC-09-2843).

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202003557 (CAPA-10-6823).

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202003555 (CAPA-10-6823).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
The following NCR was generated for this SDG: 774722 1202003556 (CAPA-10-6823), 1202003557 (CAPA-10-6823) and 1202004547 (50FWC-09-2843).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 20Jan10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-1020 GEL Work Order: 243401

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Tom Lewis, Jr.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 4, 2010

Client SDG: 10-1020

Client Sample ID:	CAPA-10-6824	Project:	ESHL01000
Sample ID:	243401010	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	18-DEC-09 12:00		
Receive Date:	22-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis											
SW 9060 Total Organic Carbon "As Received"											
Total Organic Carbon Average	U	ND	0.330	1.00	mg/L	1	TSM	12/23/09	1343	936193	1
Nutrient Analysis											
Nitrogen, Total Kjeldahl (TKN) "As Received"											
Nitrogen, Total Kjeldahl	U	ND	0.033	0.100	mg/L	1	AXH3	12/29/09	0610	936391	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 351.2 Prep	EPA 351.2 Total Kjeldahl Nitrogen Prep	SXJ1	12/28/09	1000	936390

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9060	
2	EPA 351.2	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 4, 2010

Client SDG: 10-1020

Client Sample ID: CAPA-10-6823
Sample ID: 243401006
Matrix: Ground Water
Collect Date: 18-DEC-09 12:00
Receive Date: 22-DEC-09
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis											
SW 9060 Total Organic Carbon "As Received"											
Total Organic Carbon Average		1.16	0.330	1.00	mg/L	1	TSM	12/23/09	1310	936193	1
Nutrient Analysis											
Nitrogen, Total Kjeldahl (TKN) "As Received"											
Nitrogen, Total Kjeldahl	U	ND	0.033	0.100	mg/L	1	AXH3	12/29/09	0607	936391	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 351.2 Prep	EPA 351.2 Total Kjeldahl Nitrogen Prep	SXJ1	12/28/09	1000	936390

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9060	
2	EPA 351.2	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: January 4, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 243401

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Carbon Analysis											
Batch 936193											
QC1202003193 243401010 DUP											
Total Organic Carbon Average		U	ND	J	0.360	mg/L	200		(+/-1.00)	TSM	12/23/09 14:17
QC1202003195 LCS											
Total Organic Carbon Average	10.0				9.46	mg/L		94.6	(85%-115%)		12/23/09 13:01
QC1202003192 MB											
Total Organic Carbon Average				U	ND	mg/L					12/23/09 12:52
QC1202003194 243401010 PS											
Total Organic Carbon Average	10.0	U	ND		9.36	mg/L		90.6	(65%-121%)		12/23/09 14:37
Nutrient Analysis											
Batch 936391											
QC1202003555 243401006 DUP											
Nitrogen, Total Kjeldahl		U	ND	U	ND	mg/L	N/A			AXH3	12/29/09 06:08
QC1202004546 243475001 DUP											
Nitrogen, Total Kjeldahl			2.28		2.25	mg/L	1.50		(0%-20%)		12/29/09 06:13
QC1202003558 LCS											
Nitrogen, Total Kjeldahl	1.00				0.988	mg/L		98.8	(90%-110%)		12/29/09 06:06
QC1202003554 MB											
Nitrogen, Total Kjeldahl				J	0.045	mg/L					12/29/09 06:05
QC1202003556 243401006 MS											
Nitrogen, Total Kjeldahl	1.00	U	ND		0.886	mg/L		88.6*	(90%-110%)		12/29/09 06:09
QC1202004547 243475001 MS											
Nitrogen, Total Kjeldahl	1.00		2.28		3.40	mg/L		112*	(90%-110%)		12/29/09 06:17
QC1202003557 243401006 MSD											
Nitrogen, Total Kjeldahl	1.00	U	ND		0.849	mg/L	4.27	84.9*	(0%-20%)		12/29/09 06:09
QC1202004548 243475001 MSD											
Nitrogen, Total Kjeldahl	1.00		2.28		3.21	mg/L	5.69	92.9	(0%-20%)		12/29/09 06:18

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value

QC Summary

Workorder: 243401

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time

H	Analytical holding time was exceeded
J	Value is estimated
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 04-JAN-2010 15:25

GEL Laboratories LLC

Contract: **ESHL01000**

SDG #: **10-1020**

Carbon Analysis

Method: SW846 9060 Concentration Units:mg/L

Instrument: O-I Analytical Model 1010 Total Organic Carbon Analyzer

Parmname: Total Organic Carbon
Average

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**23-DEC-2009 10:40:00**	**XN141.rlt**	**10.174**	**10**	**102**	**(90%-110%)**	**Yes**
CCV	23-DEC-2009 12:34:00	XN144.rlt	9.045	10	91	(90%-110%)	Yes
CCV	23-DEC-2009 15:40:00	XN155.rlt	10.028	10	100	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**23-DEC-2009 10:49:00**	**XN142.rlt**	**-0.004**	**1**	**Yes**
CCB	23-DEC-2009 12:43:00	XN145.rlt	-0.193	1	Yes
CCB	23-DEC-2009 15:49:00	XN156.rlt	-0.146	1	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 04-JAN-2010 15:25

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-1020

Nutrient Analysis

Method: EPA 351.2 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Nitrogen, Total Kjeldahl

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**29-DEC-2009 06:01:55**	**OM_12-29-2009_05-52-26**	**0.954**	**1**	**95**	**(90%-110%)**	**Yes**
CCV	29-DEC-2009 06:14:04	OM_12-29-2009_05-52-26	1.06	1	106	(90%-110%)	Yes
CCV	29-DEC-2009 06:20:35	OM_12-29-2009_05-52-26	1.055	1	106	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**29-DEC-2009 06:03:52**	**OM_12-29-2009_05-52-26**	**-0.031**	**0.1**	**Yes**
CCB	29-DEC-2009 06:16:00	OM_12-29-2009_05-52-26	-0.031	0.1	Yes
CCB	29-DEC-2009 06:22:30	OM_12-29-2009_05-52-26	-0.038	0.1	Yes

Carbon, Total Organic

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
ICAL-01		1	TSM	23-Dec-09 9:54	XN136.rlt
ICAL-02		1	TSM	23-Dec-09 10:04	XN137.rlt
ICAL-03		1	TSM	23-Dec-09 10:13	XN138.rlt
ICAL-04		1	TSM	23-Dec-09 10:22	XN139.rlt
ICAL-05		1	TSM	23-Dec-09 10:31	XN140.rlt
ICV		1	TSM	23-Dec-09 10:40	XN141.rlt
ICB		1	TSM	23-Dec-09 10:49	XN142.rlt
TIC	936193	1	TSM	23-Dec-09 10:59	XN143.rlt
CCV		1	TSM	23-Dec-09 12:34	XN144.rlt
CCB		1	TSM	23-Dec-09 12:43	XN145.rlt
1202003192	936193	1	TSM	23-Dec-09 12:52	XN146.rlt
1202003195	936193	1	TSM	23-Dec-09 13:01	XN147.rlt
243401006	936193	1	TSM	23-Dec-09 13:10	XN148.rlt
243401010	936193	1	TSM	23-Dec-09 13:43	XN149.rlt
1202003193	936193	1	TSM	23-Dec-09 14:17	XN150.rlt
1202003194	936193	1	TSM	23-Dec-09 14:37	XN151.rlt
243423001	936193	1	TSM	23-Dec-09 14:45	XN152.rlt
243423002	936193	1	TSM	23-Dec-09 15:03	XN153.rlt
243423003	936193	5	TSM	23-Dec-09 15:21	XN154.rlt
CCV		1	TSM	23-Dec-09 15:40	XN155.rlt
CCB		1	TSM	23-Dec-09 15:49	XN156.rlt

```
*********************************************************************
**                          CONFIGURATION                          **
*********************************************************************

Analysis Mode:  TOC          Spl Intro:  Autosampler 53
Remote Start :  OFF

Loop Size:  5 mL        Actual Volume  1mL   5mL   10mL   25mL
                        -------------  ----  ----  -----  -----
                         Loop A (uL):  1000  4900  10000  25000
                         Loop B (uL):  1000  4900  10000  25000

Tray Type:              53 Vial  Vial Option:                  Neither
Needle Depth:           97 %     Preacid Volume (uL):              200
Wash Needle Depth:      94 %     Preacid Purge Time (min:sec):    0:30

            TIC    TOC    TC
Blank      ----   ----   ----            Linearization Coeff:  53000
 Average:   183    939    511

                         Sample Transfer Times (sec)
          Initial Fill          |        Loop Fill        | Sample Inject
     Non-AS    AS  AS w/Sep | Non-AS    AS  AS w/Sep |    (all)
     ------  ----- -------- | ------  ----- -------- | -------------
1mL:    6.0    4.5      3.5 |    1.2    1.2      1.0 |       4.5
5mL:    8.1    7.0      8.0 |    5.1    3.0      5.5 |      10.3
10mL:  14.2   12.2     11.0 |   10.5   10.5     11.0 |      16.5
25mL:  35.0   35.0     32.0 |    n/a    n/a      n/a |      38.0

Analog Concentration Signal indicates TOC
Analog Conc. Signal Timer is OFF, Timer duration (h:m:s): 00:00:00
Min Signal Range:   0.000 ppmC,  Max Signal Range:   0.000 ppmC

Alarms DISABLED
Alarm Relay Timer is OFF, Timer duration (h:m:s): 00:00:00
       Conc. Alarm Setpoints (ppm C)
          Low       |    High
      ----------    | ----------
TIC:      0.000          0.000
TOC:      0.000          0.000
TC:       0.000          0.000
```

```
*********************************************************************
**                          CALIBRATION                            **
*********************************************************************
```

12/23/09 Wed Dec 23 10:31:01 2009

Std. #	Used	Conc. (ppm)	Volume (mL)
1	Yes	20.000	5.000
2	Yes	10.000	5.000
3	Yes	1.000	5.000
4	Yes	0.200	5.000
5	Yes	0.000	5.000

RF (ugC/k-cts):	1.149
R-Squared:	0.9999
Offset (cts):	2139
Offset (ugC):	-2.459
Calibration Mode:	TOC
Allow Editing:	No

Rep	Std. 1	Std. 2	Std. 3	Std. 4	Std. 5
1	87539	44471	6756	3037	1916
2	-	-	-	-	-
3	-	-	-	-	-
4	-	-	-	-	-
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	-
9	-	-	-	-	-
10	-	-	-	-	-

(* = unused)

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
1	Blk	1	23Dec2009	09:24	-	-	-	715	-	-	-	-	-
1	Blk	2	23Dec2009	09:30	-	-	-	879	-	-	-	-	-
1	Blk	3	23Dec2009	09:37	-	-	-	2022	-	-	-	-	-
1	Blk	4	23Dec2009	09:46	-	-	-	975	-	-	-	-	-

** Std1 Name: ICAL-01 Data File: XN136
Remarks: 936193|1|1| WTC091223-01 ID:TOC267

1	Std1	1	23Dec2009	09:54	-	-	-	87539	98.000	20.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.136
R-Squared: 1.0000
Offset (cts): 0
Offset (ugC): 0.000

** Std2 Name: ICAL-02 Data File: XN137
Remarks: 936193|1|1| WTC091223-02 ID:TOC267

2	Std2	1	23Dec2009	10:04	-	-	-	44471	49.000	10.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.138
R-Squared: 1.0000
Offset (cts): 1402
Offset (ugC): -1.596

** Std3 Name: ICAL-03 Data File: XN138
Remarks: 936193|1|1| WTC091223-03 ID:TOC267

3	Std3	1	23Dec2009	10:13	-	-	-	6756	4.900	1.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.152
R-Squared: 0.9999
Offset (cts): 2307
Offset (ugC): -2.659

** Std4 Name: ICAL-04 Data File: XN139
Remarks: 936193|1|1| WTC091223-04 ID:TOC267

4	Std4	1	23Dec2009	10:22	-	-	-	3037	0.980	0.200	-	-	-

** Calibration:
RF (ugC/k-cts): 1.151
R-Squared: 1.0000
Offset (cts): 2249
Offset (ugC): -2.589

** Std5 Name: ICAL-05 Data File: XN140
Remarks: 936193|1|1| ID:TOC267

5	Std5	1	23Dec2009	10:31	-	-	-	1916	0.000	0.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.149
R-Squared: 0.9999
Offset (cts): 2139
Offset (ugC): -2.459

```
** Chk2      Name:    ICV                          Data File: XN141
             Remarks: 936193|1|1| WTC091223-05 ID:TOC267

6    Chk2    1 23Dec2009 10:40      -       -          -     45518  49.855     10.174      -       -          -

** Chk5      Name:    ICB                          Data File: XN142
             Remarks: 936193|1|1| ID:TOC267

7    Chk5    1 23Dec2009 10:49      -       -          -      2124  -0.018     -0.004      .       -          -

** Spl       Name:    TIC                          Data File: XN143
             Remarks: 936193|1|1| WIC091223-01 ID:TOC267

8    Spl     1 23Dec2009 10:59      -       -          -      1984   0.795      0.162      -       -          -
```

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Chk2		Name: CCV					Data File: XN144						
		Remarks: 936193|1|1| WTC091223-02 ID:TOC267											
9	Chk2	1	23Dec2009	12:34	-	-	-	40701	44.318	9.045	-	-	-
** Chk5		Name: CCB					Data File: XN145						
		Remarks: 936193|1|1| ID:TOC267											
10	Chk5	1	23Dec2009	12:43	-	-	-	1317	-0.946	-0.193	-	-	-
** Chk5		Name: 1202003192					Data File: XN146						
		Remarks: 936193|1|1|MB ID:TOC267											
11	Chk5	1	23Dec2009	12:52	-	-	-	1521	-0.711	-0.145	-	-	-
** Chk2		Name: 1202003195					Data File: XN147						
		Remarks: 936193|1|1|WTC091223-05:LCS ID:TOC267											
12	Chk2	1	23Dec2009	13:01	-	-	-	42490	46.375	9.464	-	-	-
** Spl		Name: 243401006					Data File: XN148						
		Remarks: 936193|1|1| ID:TOC267											
13	Spl	1	23Dec2009	13:10	-	-	-	5565	4.911	1.002	-	-	-
13	Spl	2	23Dec2009	13:17	-	-	-	6719	6.237	1.273	-	-	-
13	Spl	3	23Dec2009	13:25	-	-	-	6357	5.821	1.188	-	-	-
13	Spl	4	23Dec2009	13:35	-	-	-	6342	5.804	1.184	-	-	-
13	Spl	Avg						6245	5.693	1.162			
13	Spl	SDev						486.150					
13	Spl	%RSD						7.78					
** Spl		Name: 243401010					Data File: XN149						
		Remarks: 936193|1|1| ID:TOC267											
14	Spl	1	23Dec2009	13:43	-	-	-	2487	1.373	0.280	-	-	-
14	Spl	2	23Dec2009	13:51	-	-	-	2942	1.896	0.387	-	-	-
14	Spl	3	23Dec2009	13:59	-	-	-	2465	1.348	0.275	-	-	-
14	Spl	4	23Dec2009	14:08	-	-	-	2466	1.349	0.275	-	-	-
14	Spl	Avg						2590	1.492	0.304			
14	Spl	SDev						234.886					
14	Spl	%RSD						9.07					
** Spl		Name: 1202003193					Data File: XN150						
		Remarks: 936193|1|1|243401010:DUP ID:TOC267											
15	Spl	1	23Dec2009	14:17	-	-	-	2519	1.410	0.288	-	-	-
15	Spl	2	23Dec2009	14:26	-	-	-	3137	2.120	0.433	-	-	-
15	Spl	Avg						2828	1.765	0.360			
15	Spl	SDev						436.992					
15	Spl	%RSD						15.45					
** Spl		Name: 1202003194					Data File: XN151						
		Remarks: 936193|1|1|243401010:PS ID:TOC267											

16	Spl	1 23Dec2009 14:37	-	-	-	41215	45.884	9.364	-	-	-

** Spl Name: 243423001 Data File: XN152
Remarks: 936193|1|1| ID:TOC267

17	Spl	1 23Dec2009 14:45	-	-	-	27846	30.519	6.228	-	-	-
17	Spl	2 23Dec2009 14:55	-	-	-	32635	36.023	7.352	-	-	-
17	Spl	Avg				30240	33.271	6.790			
17	Spl	SDev				3386.334					
17	Spl	%RSD				11.20					

** Spl Name: 243423002 Data File: XN153
Remarks: 936193|1|1| ID:TOC267

18	Spl	1 23Dec2009 15:03	-	-	-	27186	29.760	6.074	-	-	-
18	Spl	2 23Dec2009 15:13	-	-	-	31803	35.066	7.156	-	-	-
18	Spl	Avg				29494	32.413	6.615			
18	Spl	SDev				3264.712					
18	Spl	%RSD				11.07					

** Spl Name: 243423003 Data File: XN154
Remarks: 936193|5|1| ID:TOC267

19	Spl	1 23Dec2009 15:21	-	-	-	31122	34.284	6.997	-	-	-
19	Spl	2 23Dec2009 15:31	-	-	-	34720	38.419	7.841	-	-	-
19	Spl	Avg				32921	36.351	7.419			
19	Spl	SDev				2544.170					
19	Spl	%RSD				7.73					

** Chk2 Name: CCV Data File: XN155
Remarks: 936193|1|1|WTC091223-02 ID:TOC267

20	Chk2	1 23Dec2009 15:40	-	-	-	44894	49.138	10.028	-	-	-

** Chk5 Name: CCB Data File: XN156
Remarks: 936193|1|1| ID:TOC267

21	Chk5	1 23Dec2009 15:49	-	-	-	1519	-0.714	-0.146	-	-	-

Total Kjeldahl Nitrogen

Prep LogBook

Analyst: SXJ1 Verified by:_____

Batch: 936390

Lab SOP: GL-GC-E-071 REV# 10

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202003558	UTR1169166-01	.2	mL
MS	1202003556	UTR1169166-01	.2	mL
MS	1202004547	UTR1169166-01	.2	mL
MSD	1202003557	UTR1169166-01	.2	mL
MSD	1202004548	UTR1169166-01	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202003554		EPA 351.2 Prep	28-DEC-2009 10:00	<2	20 mL	20 mL	1	GROUND WATER
LCS	1202003558		EPA 351.2 Prep	28-DEC-2009 10:00	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243401006		EPA 351.2 Prep	28-DEC-2009 10:00	<2	20 mL	20 mL	1	GROUND WATER
DUP	1202003555	243401006	EPA 351.2 Prep	28-DEC-2009 10:00	<2	20 mL	20 mL	1	GROUND WATER
MS	1202003556	243401006	EPA 351.2 Prep	28-DEC-2009 10:00	<2	20 mL	20 mL	1	GROUND WATER
MSD	1202003557	243401006	EPA 351.2 Prep	28-DEC-2009 10:00	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243401010		EPA 351.2 Prep	28-DEC-2009 10:00	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243460004		EPA 351.2 Prep	28-DEC-2009 10:00	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243475001		EPA 351.2 Prep	28-DEC-2009 10:00	<2	20 mL	20 mL	1	WASTE WATER
DUP	1202004546	243475001	EPA 351.2 Prep	28-DEC-2009 10:00	<2	20 mL	20 mL	1	WASTE WATER
MS	1202004547	243475001	EPA 351.2 Prep	28-DEC-2009 10:00	<2	20 mL	20 mL	1	WASTE WATER
MSD	1202004548	243475001	EPA 351.2 Prep	28-DEC-2009 10:00	<2	20 mL	20 mL	1	WASTE WATER

Reagent/Solvent Lot ID	Amount	Description
1246594-C	4 mL	TKN/PO4 Digestion Solution

Comments

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
5.0 ppm Std.		1	axh3	12/29/2009 5:55:51	OM_12-29-2009_05-52-26
3.0 ppm Std.		1	axh3	12/29/2009 5:56:39	OM_12-29-2009_05-52-26
1.0 ppm Std.		1	axh3	12/29/2009 5:57:28	OM_12-29-2009_05-52-26
0.5 ppm Std		1	axh3	12/29/2009 5:58:17	OM_12-29-2009_05-52-26
0.1 ppm Std		1	axh3	12/29/2009 5:59:07	OM_12-29-2009_05-52-26
ICAL-00		1	axh3	12/29/2009 5:59:59	OM_12-29-2009_05-52-26
ICV		1	axh3	12/29/2009 6:01:55	OM_12-29-2009_05-52-26
ICB		1	axh3	12/29/2009 6:03:52	OM_12-29-2009_05-52-26
1202003554	936391	1	axh3	12/29/2009 6:05:46	OM_12-29-2009_05-52-26
1202003558	936391	1	axh3	12/29/2009 6:06:37	OM_12-29-2009_05-52-26
243401006	936391	1	axh3	12/29/2009 6:07:28	OM_12-29-2009_05-52-26
1202003555	936391	1	axh3	12/29/2009 6:08:19	OM_12-29-2009_05-52-26
1202003556	936391	1	axh3	12/29/2009 6:09:09	OM_12-29-2009_05-52-26
1202003557	936391	1	axh3	12/29/2009 6:09:59	OM_12-29-2009_05-52-26
243401010	936391	1	axh3	12/29/2009 6:10:48	OM_12-29-2009_05-52-26
243460004	936391	1	axh3	12/29/2009 6:11:38	OM_12-29-2009_05-52-26
243475001	936391	1	axh3	12/29/2009 6:12:27	OM_12-29-2009_05-52-26
1202004546	936391	1	axh3	12/29/2009 6:13:15	OM_12-29-2009_05-52-26
CCV		1	axh3	12/29/2009 6:14:04	OM_12-29-2009_05-52-26
CCB		1	axh3	12/29/2009 6:16:00	OM_12-29-2009_05-52-26
1202004547	936391	1	axh3	12/29/2009 6:17:53	OM_12-29-2009_05-52-26
1202004548	936391	1	axh3	12/29/2009 6:18:41	OM_12-29-2009_05-52-26
CCV		1	axh3	12/29/2009 6:20:35	OM_12-29-2009_05-52-26
CCB		1	axh3	12/29/2009 6:22:30	OM_12-29-2009_05-52-26

Author: axh3 Date : 12/29/2009

Original Run Filename: OM_12-29-2009_05-52-26.OMN created 12/29/2009 5:52:26
Original Run Author's Signature: [axh3]
Current Run Filename: OM_12-29-2009_05-52-26.OMN last modified 12/29/2009 6:23:41
Current Run Author's Signature: [axh3]
Description: TKN EPA Method 351.2 GEL SOP: GL-GC-E-104
Detection 660 nM
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TKN Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR091229-12	1	S1	5.000	9.655	12/29/2009@5:55:51			5.0 ppm Std.
WTR091229-13	1	S2	3.000	5.869	12/29/2009@5:56:39			3.0 ppm Std.
WTR091229-14	1	S3	1.000	1.956	12/29/2009@5:57:28			1.0 ppm Std.
WTR091229-15	1	S4	0.500	0.981	12/29/2009@5:58:17			0.5 ppm Std
WTR091229-16	1	S5	0.100	0.226	12/29/2009@5:59:07			0.1 ppm Std
WTR091229-19 0.0 ppm	1	S7	0.000	0.010	12/29/2009@5:59:59			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99998 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR091229-18 ICV	1	S8	0.954	1.869	12/29/2009@6:01:55			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	0.954 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.954 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR091229-19 ICB	1	S7	-0.031	-0.034	12/29/2009@6:03:52			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.031 < 0.100					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.031 > -0.100					
		Message	ICB Passed					
		Action	Continue					
1202003554|936391|MB	1	1	0.045	0.112	12/29/2009@6:05:46			
1202003558||LCS	1	2	0.988	1.934	12/29/2009@6:06:37			
243401006	1	3	-0.067	-0.104	12/29/2009@6:07:28			
1202003555||DUP	1	4	-0.051	-0.074	12/29/2009@6:08:19			
1202003556||MS	1	5	0.886	1.737	12/29/2009@6:09:09			
1202003557||MSD	1	6	0.849	1.665	12/29/2009@6:09:59			
243401010	1	7	0.020	0.065	12/29/2009@6:10:48			
243460004	1	8	0.058	0.137	12/29/2009@6:11:38			
243475001	1	9	2.280	4.429	12/29/2009@6:12:27			
1202004546||DUP	1	10	2.246	4.363	12/29/2009@6:13:15			
WTR091229-14 CCV	1	S3	1.060	2.074	12/29/2009@6:14:04			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.060 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.060 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091229-19 CCB	1	S7	-0.031	-0.034	12/29/2009@6:16:00			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.031 < 0.099					

		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-0.031 > -0.100					
		Message	CCB Passed					
		Action	Continue					
1202004547||MS	1	11	3.397	6.588	12/29/2009@6:17:53			
1202004548||MSD	1	12	3.209	6.225	12/29/2009@6:18:41			
WTR091229-14 CCV	1	S3	1.055	2.063	12/29/2009@6:20:35			CCV
		Known Conc:	1.000					
		DQM Test: > + Concentration Limit						
		Result:	1.055 < 1.104					
		Message	CCV Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	1.055 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091229-19 CCB	1	S7	-0.038	-0.048	12/29/2009@6:22:30			CCB
		Known Conc:	0.000					
		DQM Test: > + Concentration Limit						
		Result:	-0.038 < 0.099					
		Message	CCB Passed					
		Action	Continue					
		DQM Test: < - Concentration Limit						
		Result:	-0.038 > -0.100					
		Message	CCB Passed					
		Action	Continue					

Channel 1 (TKN) : Current View

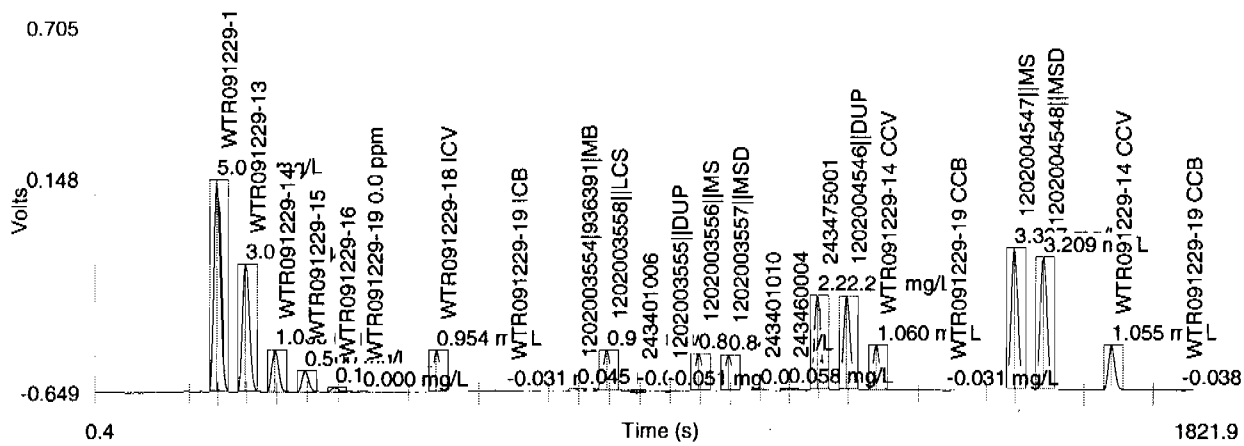

Table 1: TKN

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	5.000	1	9.655	0.783	0.3	12/29/2009	5:57:00
2	3.000	1	5.869	0.474	-0.8	12/29/2009	5:57:47
3	1.000	1	1.956	0.158	0.1	12/29/2009	5:58:36
4	0.500	1	0.981	0.079	1.0	12/29/2009	5:59:25
5	0.100	1	0.226	0.017	-3.0	12/29/2009	6:00:16
6	0.000	1	0.010	6.644e-4		12/29/2009	6:01:07

Author: axh3

Date : 12/29/2009

Figure 1: TKN

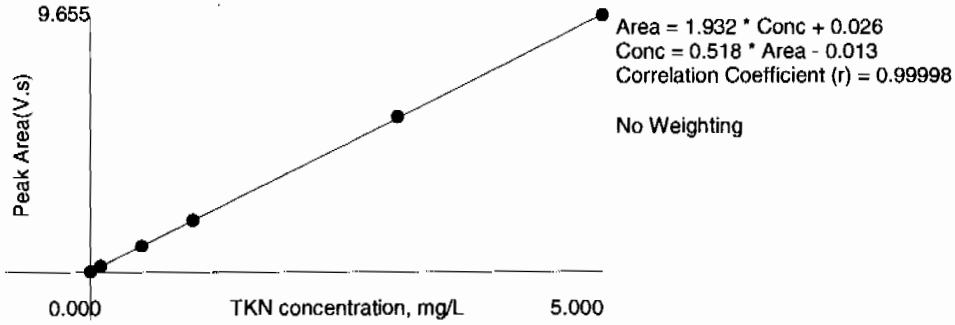

Miscellaneous

NCR Report No.: 774722
Revision No.: 2

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
29-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 351.2	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
936391	See Below		

Potentially affected work order(s)(SDG): 243401(10-1020),243460(10-1049),243475(10-1063)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS/MSD: QC 1202003556MS,1202004547MS, 1202003557MSD	1. The spike recoveries fall outside of the GEL acceptance limits but within the client specified limits.

Originator's Name:

Aubrey Kingsbury 29-DEC-09

Data Validator/Group Leader:

Elzbieta Szulc 29-DEC-09

Monday, December 21, 2009

REQUEST NUMBER: 10-1019

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Mike Franks

Severn Trent Laboraties, Inc., St. Louis

13715 Rider Trail N.

Earth City, MO 63045

These Samples are on:

LANL Request Number:10-1019

Per Agreement Number:126310021

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/21/2009

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8330	1	CAPA-10-6823	WG	12/18/2009	
		2	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		2	CAPA-10-6824	WG	12/18/2009	

Final Page of REQUEST NUMBER 10-1019

Monday, December 21, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1019

REQUEST NUMBER: 10-1019

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Mike Franks

Severn Trent Laboraties, Inc., St. Louis

13715 Rider Trail N.

Earth City, MO 63045

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6823	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-6823	2	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-6824	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-6824	2	AMBER GLASS	WSP-HEXMOD	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
Joseph Cy		12/21/09	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6820 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1458	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	RSI	
LOCATION ID:	R-37		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P1A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
~~2~~ 1	1 IW 12/18/09	WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2

SAMPLE DESC: QC Sample of CAPA-10-6823

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D. Wooly, K Crawford, J Berryhill **REVIEWED BY (PRINT)** J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Wooly	12/18/09	(Printed Name) S. MARCZAK	12/18/09
(Signature) D. Wooly	1615	(Signature)	1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6821 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1458	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	RSI	
LOCATION ID:	R-37		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	PIA		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH < 2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH < 2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

See CAPA-10-6823

COLLECTED BY (PRINT) J Berryhill, K Crawford, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09	(Printed Name) S. MARCZAK	12/18/09
(Signature) D. Woody	1615	(Signature)	1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6822 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1458	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:		
LOCATION ID:	R-37		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P1A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of CAPA-10-6823

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, D. Woody, K Crawford

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09 1615	(Printed Name) S. MARCZAK	12/18/09 1615
(Signature) D. Woody		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6823 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1458	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	RSI	
LOCATION ID:	R-37		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P1A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
3		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
3		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH <2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
3		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH >12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	pH <2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2
1		Ra226+228	1 GAL POLY	Nitric Acid	Y	pH <2

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH (SU)	T (°C)	SC (µS/cm)	DO (mg/L)	Turb (NTU)	ORP (mV)	Q (gpm)
7.50	17.10	229	3.43	0.97	171.4	.625

COLLECTED BY (PRINT) J Berryhill, K Crawford, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09	(Printed Name) S. MARCTAU	12/18/09
(Signature) D Woody	1615	(Signature)	1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6824 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0922	SUB-MEDIA:	UA	
PRS ID:	C-00-011		SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-37		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
3		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
3		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
3		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH>12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH<2
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	pH<2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH<2
1		Ra226+228	1 GAL POLY	Nitric Acid	Y	pH<2

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH (STU)	T (°C)	SC (µS/cm)	DO (mg/L)	Turb (NTU)	ORP (mV)	Q (gpm)
7.79	21.05	215	5.39	2.20	271.5	9.1

COLLECTED BY (PRINT) J Berryhill, D. Woody, K Crawford

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09	(Printed Name) S. MARTIN	12/18/09
(Signature) D. Woody	1615	(Signature)	1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6825 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0922	SUB-MEDIA:	UA	
PRS ID:	C-00-011		SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-37		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2	1w 12/18/09	WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	1HCL

SAMPLE DESC: QC Sample of CAPA-10-6824

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, K Crawford, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09	(Printed Name) S. MARCZAK	12/18/09
(Signature) D. Woody	1615	(Signature)	1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6826 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0922	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-37		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	OC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH <2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of CAPA-10-6824

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J berryhill, D Woody, K Crawford

REVIEWED BY (PRINT) J berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody (Signature) D. Woody	12/18/09 1615	(Printed Name) S. MARIZAN (Signature)	12/18/09 1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6827 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0922	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-37		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / (NA)		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / (NA)

BOREHOLE: YES / NO / (NA) BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

See CAPA-10-6824

COLLECTED BY (PRINT) J Berryhill, D. Woody, L Crawford

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09 1615	(Printed Name) S. MARCZAK	12/18/09 1615
(Signature) D. Woody		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5117-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1019 VALIDATION DATE: 01/21/10 LAB CODE: STSL

CONTRACT LABORATORY NAME: TestAmerica Laboratories, Inc. - St. Louis

VALIDATOR: Kevin A. Lambert ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☒ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☐ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The CCV %D for DNX was >15%. The associated sample results were NDs and, thus, were qualified UJ,H7c.

Reviewed by: Allison Felix Level: 1 Date: 1/22/10

VALIDATOR'S SIGNATURE: Kevin A Lambert DATE: 01/21/10

HIGH EXPLOSIVE (HE) ANALYTICAL DATA VALIDATION CHECKLIST

5117-2

High Explosive (HE) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, H9	J-, H9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, H9a	J-, H9a
☐	☒	☐	3. The affected analytes are regarded as Rejected because the analytical holding time was exceeded.	R, H9b	R, H9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, H7	J, H7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multi-point calibration correlation coefficient is <0.995.	UJ, H7a	J, H7a
☒	☐	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method limits.	UJ, H7c	J, H7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, H7d	J, H7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, H7f	R, H7f
☐	☒	☐	9. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, H4	N/A
☐	☒	☐	10. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, H4a
☐	☐	☒	11. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, H4d	N/A
☐	☒	☐	12. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H4e	R, H4e

HIGH EXPLOSIVE (HE) ANALYTICAL DATA VALIDATION CHECKLIST	
5117-2 **High Explosive (HE) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, H0	J, H0
☐	☐	☒	14. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided (hexp – diode array detector).	N/A	J, H0a
☐	☒	☐	15. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H0b	R, H0b
☐	☒	☐	16. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, H3	J-, H3
☐	☒	☐	17. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, H3a	J-, H3a
☐	☒	☐	18. The surrogate %R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	N/A	J+, H3b
☐	☐	☒	19. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, H3c	J, H3c
☐	☒	☐	20. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H3d	R, H3d
☐	☒	☐	21. The LCS percent recover was <10%. Follow the external laboratory limits located within the associated data package.	R, H12	J-, H12
☐	☒	☐	22. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, H12a	J-, H12a

HIGH EXPLOSIVE (HE) ANALYTICAL DATA VALIDATION CHECKLIST	
5117-2 **High Explosive (HE) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, H12b
☐	☒	☐	24. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H12c	R, H12c
☐	☐	☒	25. The analyte was not confirmed on a second dissimilar column.	N/A	R, H8
☐	☐	☒	26. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H8a	R, H8a
☐	☒	☐	27. Duplicate, dilution, or reanalysis.	UJ, H88	J, H88
☐	☐	☒	28. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for cleanup or matrix interference.	UJ, R, H15	R, H15
☒	☐	☐	29. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, H19	J, R, H19

Los Alamos National Laboratory

Client Sample ID: CAPA-10-6823

HPLC

Lot-Sample #...: F9L220451-001 **Work Order #...:** LRG231AC **Matrix.....:** WATER
Date Sampled...: 12/18/09 **Date Received..:** 12/22/09
Prep Date.....: 12/23/09 **Analysis Date..:** 01/04/10
Prep Batch #...: 9357328 **Analysis Time..:** 10:26
Dilution Factor: 1

Method.....: SW846 8330

PARAMETER		RESULT	REPORTING LIMIT	UNITS
MNX		ND	0.50	ug/L
DNX	UJ,H7c	ND	0.50	ug/L
TNX		ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	84	(56 - 131)

KAL
01/21/10

Los Alamos National Laboratory

Client Sample ID: CAPA-10-6824

HPLC

Lot-Sample #...: F9L220451-002 **Work Order #...:** LRG271AC **Matrix.....:** WATER
Date Sampled...: 12/18/09 **Date Received..:** 12/22/09
Prep Date.....: 12/23/09 **Analysis Date..:** 01/04/10
Prep Batch #...: 9357328 **Analysis Time..:** 11:08
Dilution Factor: 1

Method.....: SW846 8330

PARAMETER		RESULT	REPORTING LIMIT	UNITS
MNX		ND	0.50	ug/L
DNX	UJ,H7c	ND	0.50	ug/L
TNX		ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	77	(56 - 131)

KAL
01/21/10

cur 458

Monday, December 21, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1019

REQUEST NUMBER: 10-1019

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Mike Franks

Severn Trent Laboratories, Inc., St. Louis

13715 Rider Trail N.

Earth City, MO 63045

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6823	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-6823	2	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-6824	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-6824	2	AMBER GLASS	WSP-HEXMOD	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
		12/21/09	1400			12-22-09	9:30
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Monday, December 21, 2009

REQUEST NUMBER: 10-1019

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Mike Franks
Severn Trent Laboraties, Inc., St. Louis
13715 Rider Trail N.
Earth City, MO 63045

These Samples are on:
LANL Request Number:10-1019
Per Agreement Number:126310021
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/21/2009
TURNAROUND/REPORT DUE: 1/20/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8330	1	CAPA-10-6823	WG	12/18/2009	
		2	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		2	CAPA-10-6824	WG	12/18/2009	

Final Page of REQUEST NUMBER 10-1019

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 10-1019

Los Alamos RAD

Lot #: F9L220451

Joylene Valdez or Keith Greene

Los Alamos National Laboratory
SMO TA-00 Bldg 1237
DP: 03U; MS: 707
Los Alamos, NM 87545

TESTAMERICA LABORATORIES, INC.

Michael C. Franks
Project Manager

January 11, 2010

13715 Rider Trail North Earth City, MO 63045 tel 314 298 8566 fax 314 298 8757 www.testamericainc.com

TABLE OF CONTENTS - LOT # F9L220451

COVER PAGE 1
CLIENT CHAIN OF CUSTODY 4
HPLC 16

TOTAL # OF PAGES IN PACKAGE 102

Case Narrative
LOT NUMBER: **F9L220451**
LANL Request Number: **10-1019**

This report contains the analytical results for the two samples received under chain of custody number 10-1019 by TestAmerica St. Louis on December 22, 2009. These samples are associated with your Los Alamos RAD project.

All applicable quality control procedures met method-specified acceptance criteria except as noted in the following case narrative.

This report shall not be reproduced, except in full, without the written approval of the laboratory.

This report is incomplete without the case narrative. All chemical analysis results are based upon dry weight correction as required per the statement of work. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Sample Receiving

Samples were received at 6 °C. No problems were noted at the time of sample receipt.

Explosives Method 8330

In accordance with method 8330, samples are air dried under normal laboratory conditions for a period of time prior to extraction. Explosive results for soil samples, requesting results reported on a dry weight, will be adjusted for the % moisture result.

QC Batch: 9357328
The Method Blank shows no contamination above the reporting limit. Surrogate recovery is within laboratory stated limits.

The LCS is within stated limits.

The Batch QC Matrix Spike and Matrix Spike Duplicate were performed on F9L220451-001 (this request). The Matrix Spike and Matrix Spike Duplicate recoveries and RPD values are within stated limits. Surrogate is in control for both the MS and MSD.

The CCV recovery was outside the upper QC limit (greater than 20% RSD) for DNX indicating a potential high bias for this analyte in the samples associated with this CCV. This analyte was not detected above the reporting limit in the associated samples.
Affected Samples:
F9L220451 (1): CAPA-10-6823
F9L220451 (2): CAPA-10-6824

I certify that this data is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the signature on the front page, has authorized release of the data contained in this hardcopy.

F9L220451

CLIENT ANALYSIS SUMMARY

Storage Loc: 2-77

Date Received: 2009-12-22

Analytical Due Date: 2010-01-12

Report Due Date: 2010-01-18

Project Manager: MCF Quote #: 75496 SDG: F9L220451

Project: 10-1019 Los Alamos RAD

PO#: 37954-001-06 Report to: Joylene Valdez or Keith

Client: 108581 Los Alamos National Laboratory #SMPS in LOT: 0

Report Type: D Expanded Deliverable

EDD Code: 99

Sample Receiving: LOS ALAMOS CLIENT REQUIREMENTS Enter COC NUMBER in the COC Field; SDG = "Lot Number" Project Name = "Request number"

LOG QC AS DETAILED BELOW FOR EACH DEPT. EXCEPT RAD ********** METALS AND WETCHEMISTRY ********** Can batch multiple Lots together and report Client sp

Batch QC: Matrix Spike and Sample Duplicate Met Prep: GFAA Spike Level and Standard Spike Level Sb spike at 100 ppb

Pb - Spike Solids at 100 ppb, spike Waters at 20 - Perform analytical spike when matrix spike is swamped with indigenous analyte.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	I
1	CAPA-10-6823			2009-12-18 / 0	LRG23	WATER

SAMPLE COMMENTS:

	XX	A0	SW846 8330	WATER, 8330, HEXPMOD (MNX/DNX/TNX)	20	EXTRACTION, SOLID PHASE	9Q	ORG FLAGS FOR INORG; STANDARD	PROT: O	WRK LOC	06
	XX	ZV	RAD SCREEN	WATER, RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
D	XX	A0	SW846 8330	WATER, 8330, HEXPMOD (MNX/DNX/TNX)	20	EXTRACTION, SOLID PHASE	9Q	ORG FLAGS FOR INORG; STANDARD	PROT: O	WRK LOC	06
S	XX	A0	SW846 8330	WATER, 8330, HEXPMOD (MNX/DNX/TNX)	20	EXTRACTION, SOLID PHASE	9Q	ORG FLAGS FOR INORG; STANDARD	PROT: O	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	I
2	CAPA-10-6824			2009-12-18 / 0	LRG27	WATER

SAMPLE COMMENTS:

	XX	A0	SW846 8330	WATER, 8330, HEXPMOD (MNX/DNX/TNX)	20	EXTRACTION, SOLID PHASE	9Q	ORG FLAGS FOR INORG; STANDARD	PROT: O	WRK LOC	06
	XX	ZV	RAD SCREEN	WATER, RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06

cur 458

Monday, December 21, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1019

REQUEST NUMBER: 10-1019

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Mike Franks

Severn Trent Laboraties, Inc., St. Louis

13715 Rider Trail N.

Earth City, MO 63045

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6823	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-6823	2	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-6824	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-6824	2	AMBER GLASS	WSP-HEXMOD	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/21/09	1400	[illegible]	[illegible]	12-22-09	9:30
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Monday, December 21, 2009

REQUEST NUMBER: 10-1019

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Mike Franks
Severn Trent Laboraties, Inc., St. Louis
13715 Rider Trail N.
Earth City, MO 63045

These Samples are on:
LANL Request Number:10-1019
Per Agreement Number:126310021
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/21/2009
TURNAROUND/REPORT DUE: 1/20/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8330	1	CAPA-10-6823	WG	12/18/2009	
		2	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		2	CAPA-10-6824	WG	12/18/2009	

Final Page of REQUEST NUMBER 10-1019

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): F9L220451 TESTAMERICA ST. LOUIS

CONDITION UPON RECEIPT FORM

Client: LANL

Quote No: 75496

COC/RFA No: 10-1019

458

Initiated By: AB Date: 12-22-09 Time: 9:30

Shipping Information

Shipper: (FedEx) UPS DHL Courier Client Other: _____ Multiple Packages: Y (N)

Shipping # (s):*		Sample Temperature (s):**	
1. 7209 7849 3192	6.	1. 0	6.
2.	7.	2.	7.
3.	8.	3.	8.
4.	9.	4.	9.
5.	10.	5.	10.

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	(Y) N	Are there custody seals present on the cooler?	8.	(Y) N	Are there custody seals present on bottles?
2.	Y (N) N/A	Do custody seals on cooler appear to be tampered with?	9.	Y (N) N/A	Do custody seals on bottles appear to be tampered with?
3.	(Y) N	Were contents of cooler frisked after opening, but before unpacking?	10.	(Y) N N/A	Was sample received with proper pH[1]? (If not, make note below)
4.	(Y) N	Sample received with Chain of Custody?	11.	(Y) N	Sample received in proper containers?
5.	(Y) N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	Y N (N/A)	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6.	Y (N)	Was sample received broken?	13.	Y N (N/A)	Was Internal COC/Workshare received?
7.	(Y) N	Is sample volume sufficient for analysis?	14.	Y N (N/A)	Was pH taken by original TestAmerica lab?

[1] For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:

Corrective Action:

☐ Client Contact Name: _____ Informed by: _____

☐ Sample(s) processed "as is"

☐ Sample(s) on hold until: _____ If released, notify: _____

Project Management Review: [signature] Date: 12-24-09

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004, REVISED 10/21/08 \\Slsvr01\QA\FORMS\ST-LOUIS\ADMIN\Admin004 rev11.doc

METHODS SUMMARY

F9L220451

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Nitroaromatics and Nitramines by HPLC	SW846 8330	SW846 3535

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

F9L220451

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LRG23	001	CAPA-10-6823	12/18/09	
LRG27	002	CAPA-10-6824	12/18/09	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

QC DATA ASSOCIATION SUMMARY

F9L220451

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	SW846 8330		9357328	9357196
002	WATER	SW846 8330		9357328	9357196

Los Alamos National Laboratory

Client Sample ID: CAPA-10-6823

HPLC

Lot-Sample #...: F9L220451-001 **Work Order #...:** LRG231AC **Matrix.....:** WATER
Date Sampled...: 12/18/09 **Date Received..:** 12/22/09
Prep Date.....: 12/23/09 **Analysis Date..:** 01/04/10
Prep Batch #...: 9357328 **Analysis Time..:** 10:26
Dilution Factor: 1
Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
MNX	ND	0.50	ug/L
DNX	ND	0.50	ug/L
TNX	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	84	(56 - 131)

Los Alamos National Laboratory

Client Sample ID: CAPA-10-6824

HPLC

Lot-Sample #...: F9L220451-002 **Work Order #...:** LRG271AC **Matrix.....:** WATER
Date Sampled...: 12/18/09 **Date Received..:** 12/22/09
Prep Date.....: 12/23/09 **Analysis Date..:** 01/04/10
Prep Batch #...: 9357328 **Analysis Time..:** 11:08
Dilution Factor: 1

Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
MNX	ND	0.50	ug/L
DNX	ND	0.50	ug/L
TNX	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	77	(56 - 131)

METHOD BLANK REPORT

HPLC

Client Lot #...: F9L220451 **Work Order #...:** LRJ3P1AA **Matrix.....:** WATER
MB Lot-Sample #: F9L230000-328
Prep Date.....: 12/23/09 **Analysis Time..:** 09:58
Analysis Date..: 01/04/10 **Prep Batch #...:** 9357328
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
MNX	ND	0.50	ug/L	SW846 8330
DNX	ND	0.50	ug/L	SW846 8330
TNX	ND	0.50	ug/L	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	84	(56 - 131)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: F9L220451 **Work Order #...:** LRJ3P1AC **Matrix.....:** WATER
LCS Lot-Sample#: F9L230000-328
Prep Date.....: 12/23/09 **Analysis Date..:** 01/04/10
Prep Batch #...: 9357328 **Analysis Time..:** 10:12
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
TNX	**70**	**(40 - 104)**	**SW846 8330**
MNX	**82**	**(49 - 115)**	**SW846 8330**
DNX	**73**	**(53 - 107)**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	89	(59 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: F9L220451 **Work Order #...:** LRG231AD-MS **Matrix.....:** WATER
MS Lot-Sample #: F9L220451-001 LRG231AE-MSD
Date Sampled...: 12/18/09 **Date Received..:** 12/22/09
Prep Date.....: 12/23/09 **Analysis Date..:** 01/04/10
Prep Batch #...: 9357328 **Analysis Time..:** 10:40
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
MNX	**83**	**(25 - 150)**			**SW846 8330**
	90	**(25 - 150)**	**6.9**	**(0-20)**	**SW846 8330**
DNX	**72**	**(27 - 150)**			**SW846 8330**
	78	**(27 - 150)**	**7.1**	**(0-20)**	**SW846 8330**
TNX	**72**	**(27 - 131)**			**SW846 8330**
	78	**(27 - 131)**	**7.0**	**(0-30)**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	106	(56 - 131)
	91	(56 - 131)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

HPLC SAMPLE AND QC DATA

Form I (s)

Explosives

Los Alamos National Laboratory

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F9L220451

Matrix: (soil/water) WATER Lab Sample ID:F9L220451 001
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 501.1 / mL Date Received: 12/22/09
Work Order: LRG231AC Date Extracted:12/23/09
Dilution factor: 1 Date Analyzed: 01/04/10
Moisture %:NA

QC Batch: 9357328

Client Sample Id: CAPA-10-6823

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.50	U
80251-29-2	DNX	0.50	U
13980-04-6	TNX	0.50	U

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	84	(56 - 131)

FORM I

Los Alamos National Laboratory

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F9L220451

Matrix: (soil/water) WATER Lab Sample ID:F9L220451 002
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 517.2 / mL Date Received: 12/22/09
Work Order: LRG271AC Date Extracted:12/23/09
Dilution factor: 1 Date Analyzed: 01/04/10
Moisture %:NA

QC Batch: 9357328

Client Sample Id: CAPA-10-6824

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.50	U
80251-29-2	DNX	0.50	U
13980-04-6	TNX	0.50	U

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	77	(56 - 131)

FORM I

Los Alamos National Laboratory
METHOD BLANK COMPOUNDS

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F9L220451

Matrix: (soil/water) WATER Lab Sample ID:F9L230000 328
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 500 / mL Date Received: 12/22/09
Work Order: LRJ3P1AA Date Extracted:12/23/09
Dilution factor: 1 Date Analyzed: 01/04/10
Moisture %:NA
QC Batch: 9357328

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.50	U
80251-29-2	DNX	0.50	U
13980-04-6	TNX	0.50	U

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	84	(56 - 131)

FORM I

Los Alamos National Laboratory
CHECK SAMPLE COMPOUNDS

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F9L220451

Matrix: (soil/water) WATER Lab Sample ID:F9L230000 328
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 500 / mL Date Received: 12/22/09
Work Order: LRJ3P1AC Date Extracted:12/23/09
Dilution factor: 1 Date Analyzed: 01/04/10
Moisture %:NA
QC Batch: 9357328

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.600	
80251-29-2	DNX	0.425	
13980-04-6	TNX	0.578	

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	89	(59 - 140)

FORM I

Los Alamos National Laboratory
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F9L220451

Matrix: (soil/water) WATER Lab Sample ID:F9L220451 001
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 508.7 / mL Date Received: 12/22/09
Work Order: LRG231AE Date Extracted:12/23/09
Dilution factor: 1 Date Analyzed: 01/04/10
Moisture %:NA

QC Batch: 9357328

Client Sample Id: CAPA-10-6823

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.647	
80251-29-2	DNX	0.447	
13980-04-6	TNX	0.636	

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	91	(56 - 131)

FORM I

Los Alamos National Laboratory
MATRIX SPIKE COMPOUNDS

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F9L220451

Matrix: (soil/water) WATER Lab Sample ID:F9L220451 001
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 503.5 / mL Date Received: 12/22/09
Work Order: LRG231AD Date Extracted:12/23/09
Dilution factor: 1 Date Analyzed: 01/04/10
Moisture %:NA

QC Batch: 9357328

Client Sample Id: CAPA-10-6823

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.604	
80251-29-2	DNX	0.416	
13980-04-6	TNX	0.593	

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	106	(56 - 131)

FORM I

HPLC ADDITIONAL FORMS

SW846 8330 SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Los Alamos National Laboratory

Lab Code: TALSTL SDG No: F9L220451

Lot #: F9L220451

Extraction: XXI20A09Q

	CLIENT ID.	SRG01	TOT OUT
01	CAPA-10-6823	84	00
02	CAPA-10-6824	77	00
03	METHOD BLK. LRJ3P1AA	84	00
04	LCS LRJ3P1AC	89	00
05	CAPA-10-6823 D	91	00
06	CAPA-10-6823 S	106	00

SURROGATES	QC LIMITS
SRG01 = 1,2-Dinitrobenzene	(56-131)

Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8330 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Los Alamos National Laboratory

Lab Code: TALSTL SDG No: F9L220451

Matrix Spike ID: CAPA-10-6823

Lot #: F9L220451 WO #: LRG231AD
BATCH: 9357328

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	MS CONCENT. (ug/L)	MS % REC	LIMITS REC	QUAL
MNX	0.724	ND	0.604	83	25- 150	
DNX	0.576	ND	0.416	72	27- 150	
TNX	0.824	ND	0.593	72	27- 131	

NOTES(S):

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 3 outside limits

COMMENTS:

FORM III

SW846 8330 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Los Alamos National Laboratory

Lab Code: TALSTL SDG No: F9L220451

Matrix Spike ID: CAPA-10-6823

Lot #: F9L220451 WO #: LRG231AE
BATCH: 9357328

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENT. (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
MNX	0.717	0.647	90	6.9	20	25- 150	
DNX	0.570	0.447	78	7.1	20	27- 150	
TNX	0.815	0.636	78	7.0	30	27- 131	

NOTES(S):

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 3 outside limits
Spike Recovery: 0 out of 3 outside limits

COMMENTS:

FORM III

SW846 8330 CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Los Alamos National Laboratory

Lab Code: TALSTL SDG No: F9L220451

Lot #: F9L230000 WO #: LRJ3P1AC
BATCH: 9357328

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
TNX	0.830	0.578	70	40- 104	
MNX	0.730	0.600	82	49- 115	
DNX	0.580	0.425	73	53- 107	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 3 outside limits

COMMENTS:

FORM III

BLANK WORKORDER NO.

LRJ3P1AA

SW846 8330 METHOD BLANK SUMMARY

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALSTL

SDG Number:F9L220451

Lab File ID: NBLK1806

Lot Number: F9L220451

Date Analyzed: 01/04/10

Time Analyzed: 09:58

Matrix: WATER

Date Extracted:12/23/09

GC Column: C-18 ID: 4.60

Extraction Method: 3535

Instrument ID: LCN

Level:(low/med)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CAPA-10-6823	LRG231AC	NSMP1808	01/04/10	10:26
02	CAPA-10-6823	LRG231AD S	NSMP1809	01/04/10	10:40
03	CAPA-10-6823	LRG231AE D	NSMP1810	01/04/10	10:54
04	CAPA-10-6824	LRG271AC	NSMP1811	01/04/10	11:08
05	CHECK SAMPLE	LRJ3P1AC C	NLCS1807	01/04/10	10:12
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IV

HPLC STANDARDS DATA

INITIAL CALIBRATION DATA

CALIBRATION VERIFICATION DATA

Report Date : 02-Dec-2009 13:00

TestAmerica St. Louis

INITIAL CALIBRATION DATA

Start Cal Date : 25-NOV-2009 10:16
End Cal Date : 25-NOV-2009 11:26
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Last Edit : 01-Dec-2009 11:37 hanw
Curve Type : Average

Calibration File Names:
Level 3: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1314.D
Level 4: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1315.D
Level 5: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1316.D
Level 6: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1317.D
Level 7: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1318.D
Level 8: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1319.D

Compound	25.000 Level 3	50.000 Level 4	125.000 Level 5	250.000 Level 6	500.000 Level 7	1000.000 Level 8	RRF	% RSD
1 TNX	598	625	647	678	664	670	647	4.705
2 DNX	690	619	613	637	608	613	630	4.970
3 MNX	522	500	474	499	481	484	493	3.537
$ 4 1,2-Dinitrobenzene	535	519	510	520	510	512	518	1.844

Report Date : 02-Dec-2009 15:37

TestAmerica St. Louis

COMPOUND LISTING

Method file : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Quant Method : ESTD Target Version : 4.14
Last Update : 01-Dec-2009 11:37 Number of Cpnds : 4
Data Type : LC DATA

Global Integrator : HP Genie

Chromat Events	Values
Initial:Thresh Units	5.000000
Initial:Peak Width	0.100000
Initial:Area Reject	20.000000
Initial:Solvent Slope	100000.000000
Initial:Split Solvent	2000.000000

	Compound	RT	RT Window	RF
	1 TNX	3.838	3.738-3.938	6.47e+002
	2 DNX	4.324	4.224-4.424	6.30e+002
	3 MNX	5.239	5.139-5.339	4.93e+002
$	4 1,2-Dinitrobenzene	8.707	8.607-8.807	5.18e+002

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1314.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1314.D
Lab Smp Id: 8330 ICAL-3 Client Smp ID: 8330 ICAL-3
Inj Date : 25-NOV-2009 10:16
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-3
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.860	3.837	0.023	12042	20.1213	18.61
2 DNX	4.360	4.324	0.036	9507	13.7700	15.09(M)
3 MNX	4.360	5.239	-0.879	9507	18.1975	19.26(M)
$ 4 1,2-Dinitrobenzene	8.833	8.706	0.127	13376	25.0000	25.84(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Slsvr01\HPLC\Lcn,i\N112509,b\NICL1314.D
Date : 25-NOV-2009 10:16
Client ID: 8330 ICAL-3
Sample Info: 8330 ICAL-3
Purge Volume: 500.0
Column phase: C18

Instrument: Lcn,i
Operator: WH
Column diameter: 4.60

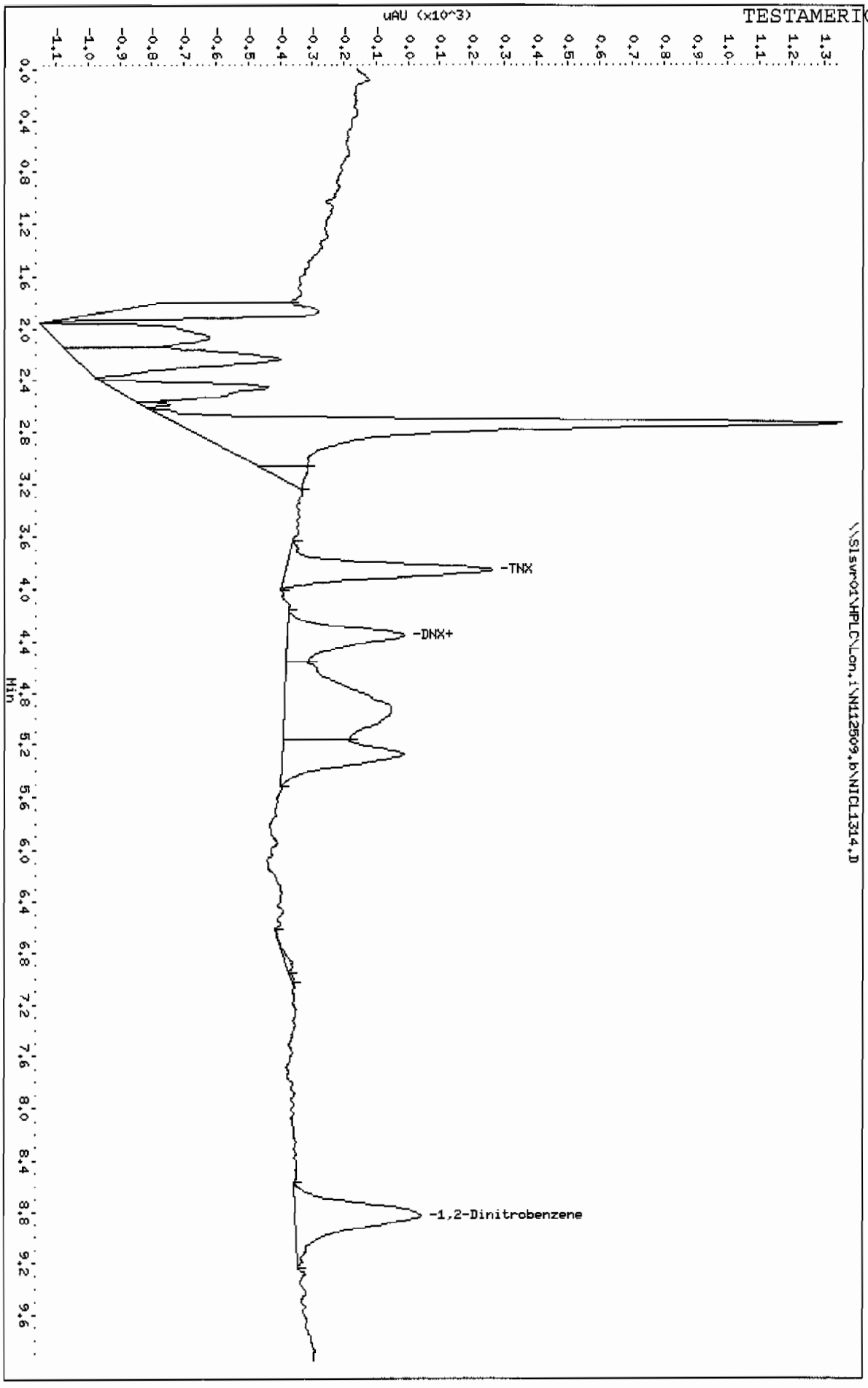

Data File Name: NICL1314.D
Inj. Date and Time: 25-NOV-2009 10:16
Instrument ID: Lcn.i
Client ID: 8330 ICAL-3
Compound Name: DNX
CAS #:

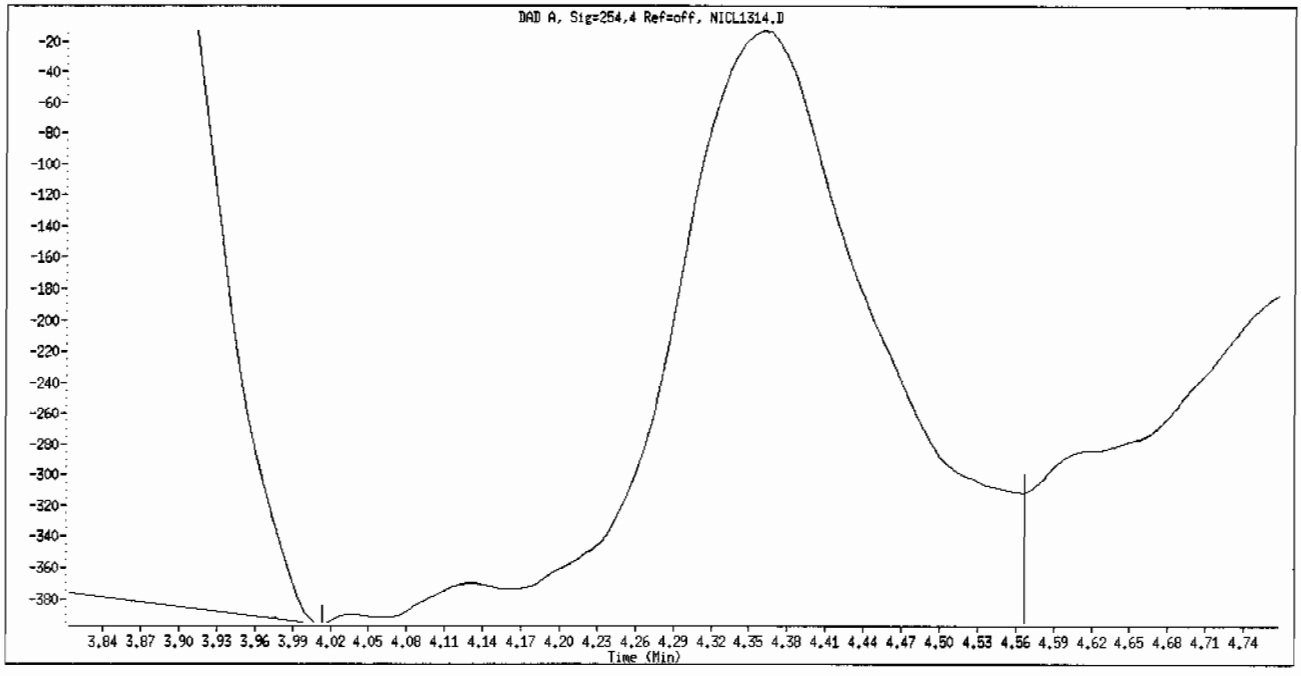

Original Integration

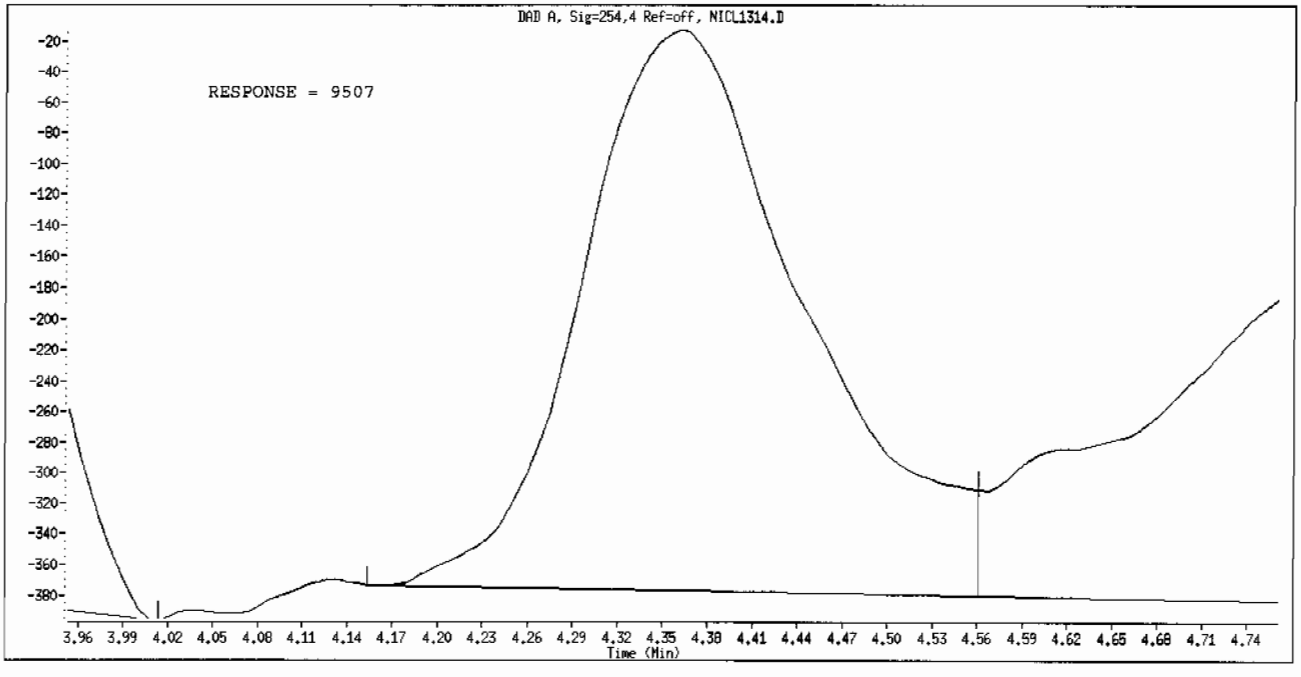

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1314.D
Inj. Date and Time: 25-NOV-2009 10:16
Instrument ID: Lcn.i
Client ID: 8330 ICAL-3
Compound Name: MNX
CAS #:

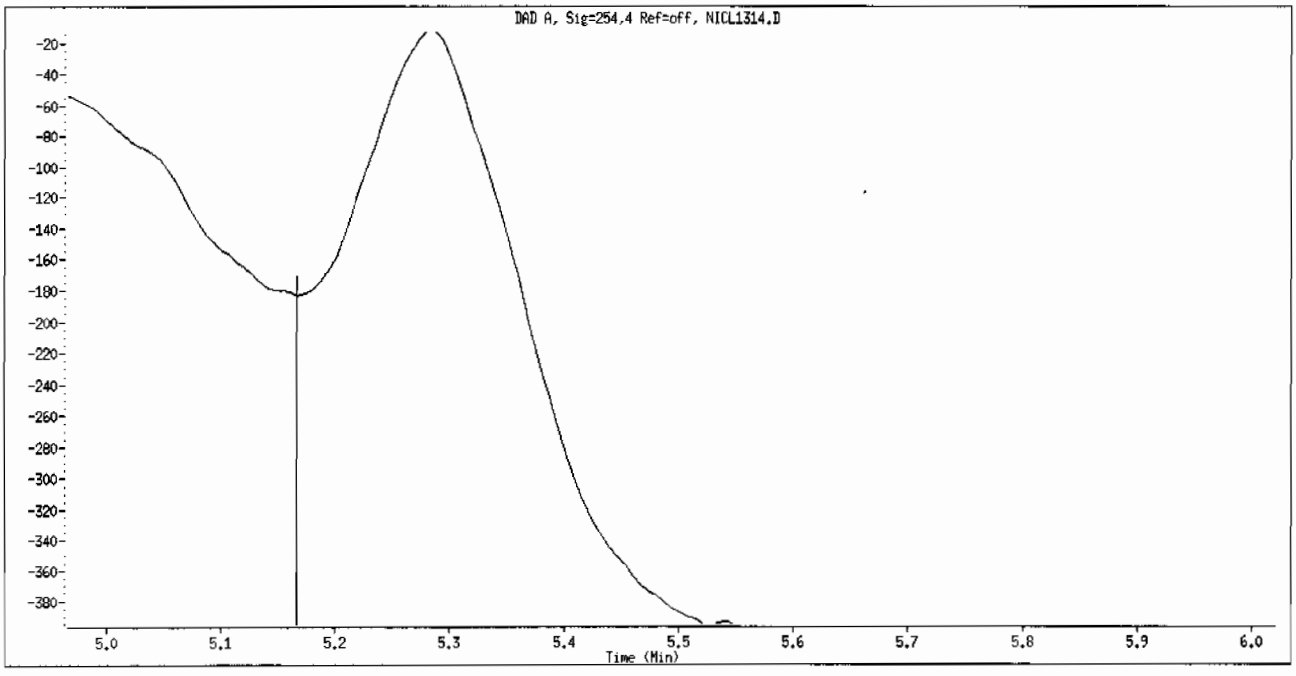

Original Integration

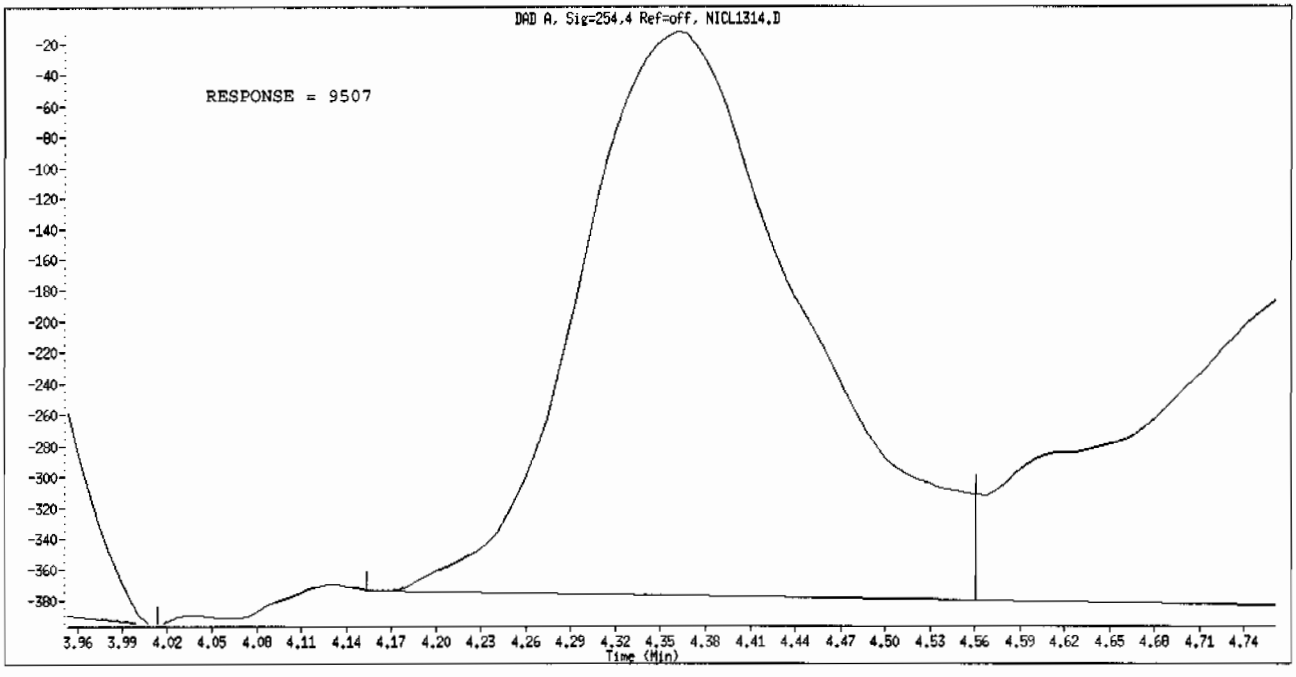

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1314.D
Inj. Date and Time: 25-NOV-2009 10:16
Instrument ID: Lcn.i
Client ID: 8330 ICAL-3
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

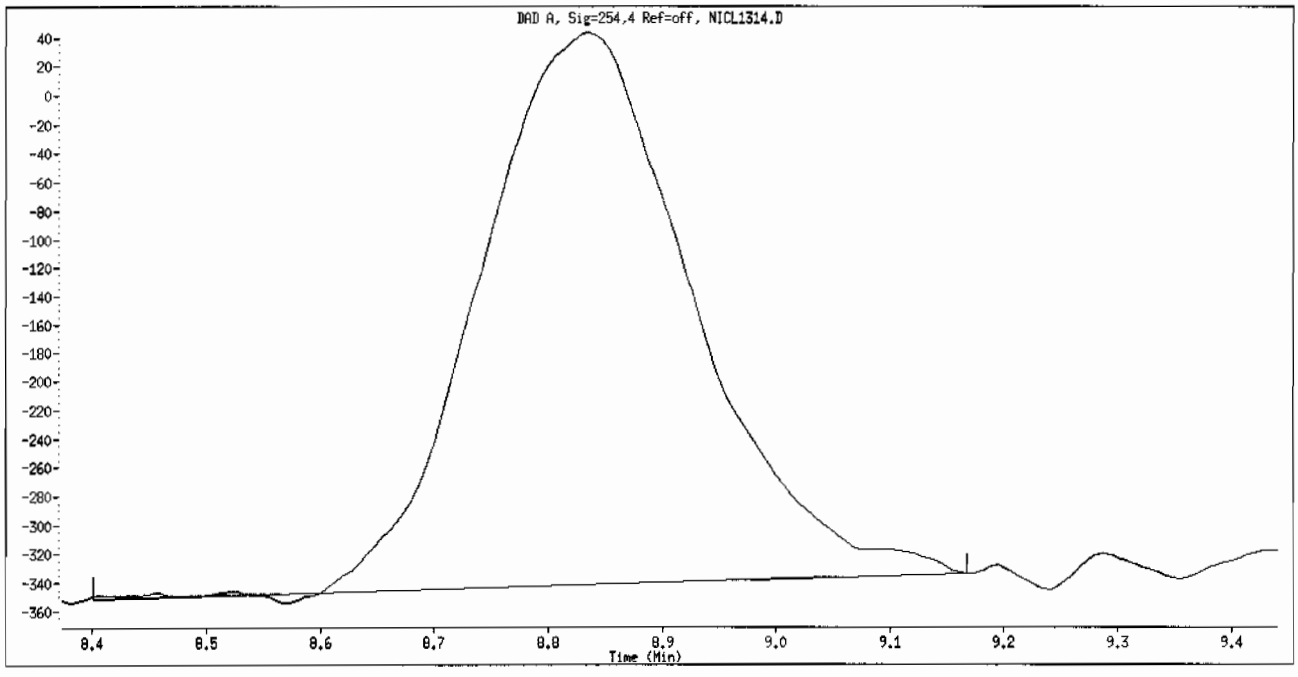

Original Integration

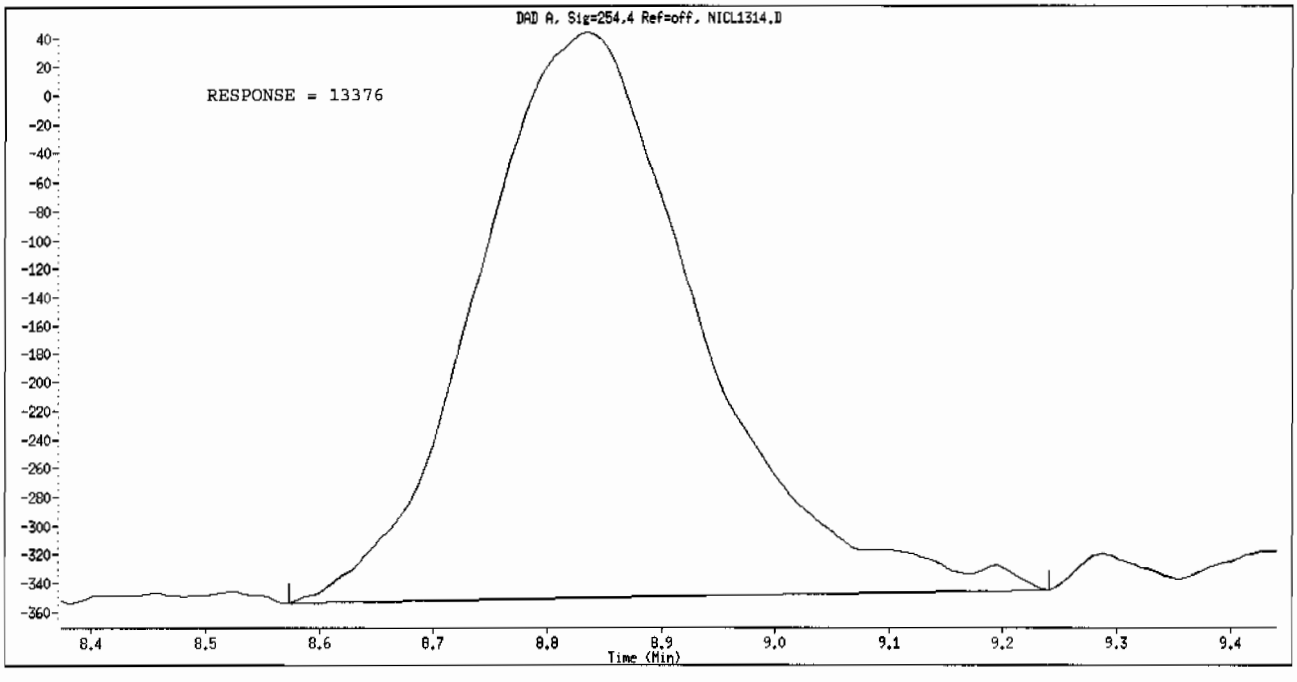

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1315.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1315.D
Lab Smp Id: 8330 ICAL-4 Client Smp ID: 8330 ICAL-4
Inj Date : 25-NOV-2009 10:30
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-4
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.832	3.837	-0.005	25142	40.2425	38.86(M)
2 DNX	4.319	4.324	-0.005	17047	27.5400	27.06(M)
3 MNX	5.232	5.239	-0.007	18212	36.3950	36.90(M)
$ 4 1,2-Dinitrobenzene	8.692	8.706	-0.014	25936	50.0000	50.09(M)

QC Flag Legend

M - Compound response manually integrated.

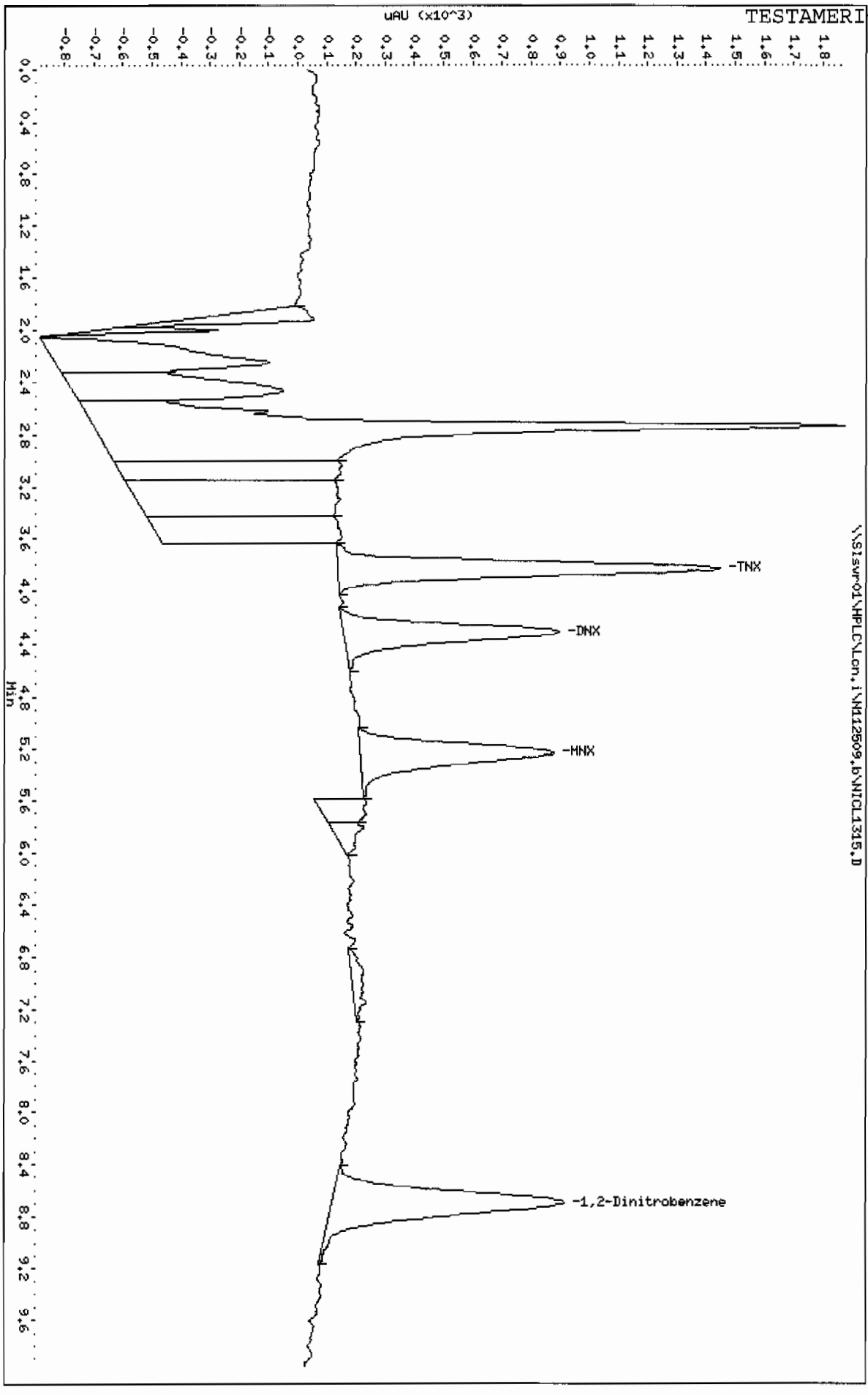
Data File: \\Slsvr01\HPLC\Lcn.i\M112509.b\NICL1315.D
Date : 25-NOV-2009 10:30
Client ID: 8330 ICAL-4
Sample Info: 8330 ICAL-4
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn.i
Operator: WH
Column diameter: 4.60
\\Slsvr01\HPLC\Lcn.i\M112509.b\NICL1315.D
uAU (x10^3)
-TNX
-DNX
-MNX
-1,2-Dinitrobenzene
Min

Data File Name: NICL1315.D
Inj. Date and Time: 25-NOV-2009 10:30
Instrument ID: Lcn.i
Client ID: 8330 ICAL-4
Compound Name: TNX
CAS #:

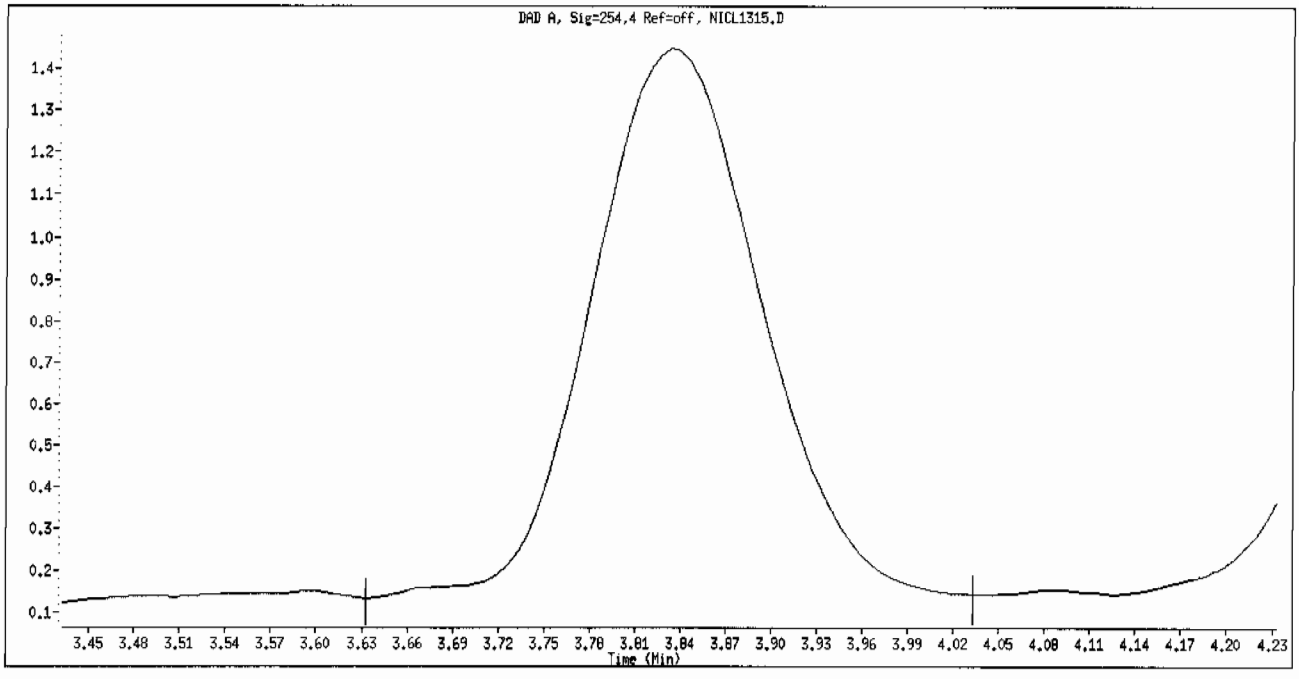

Original Integration

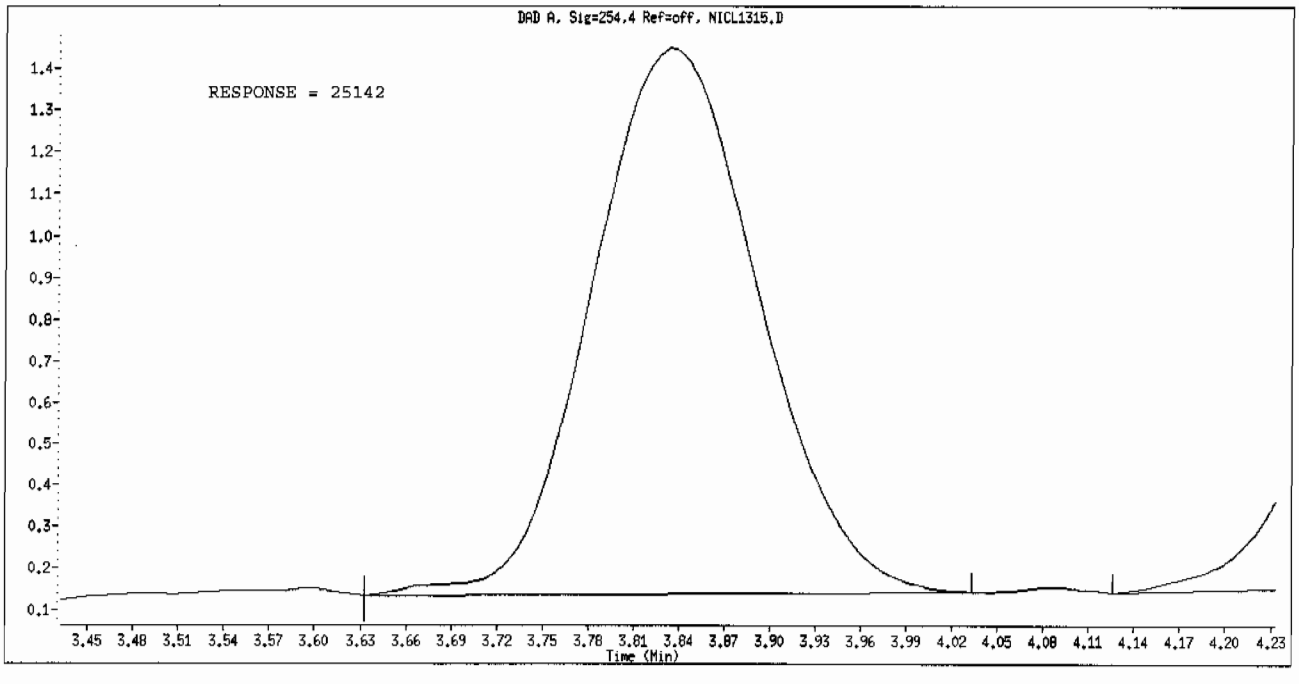

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1315.D

Inj. Date and Time: 25-NOV-2009 10:30

Instrument ID: Lcn.i

Client ID: 8330 ICAL-4

Compound Name: DNX

CAS #:

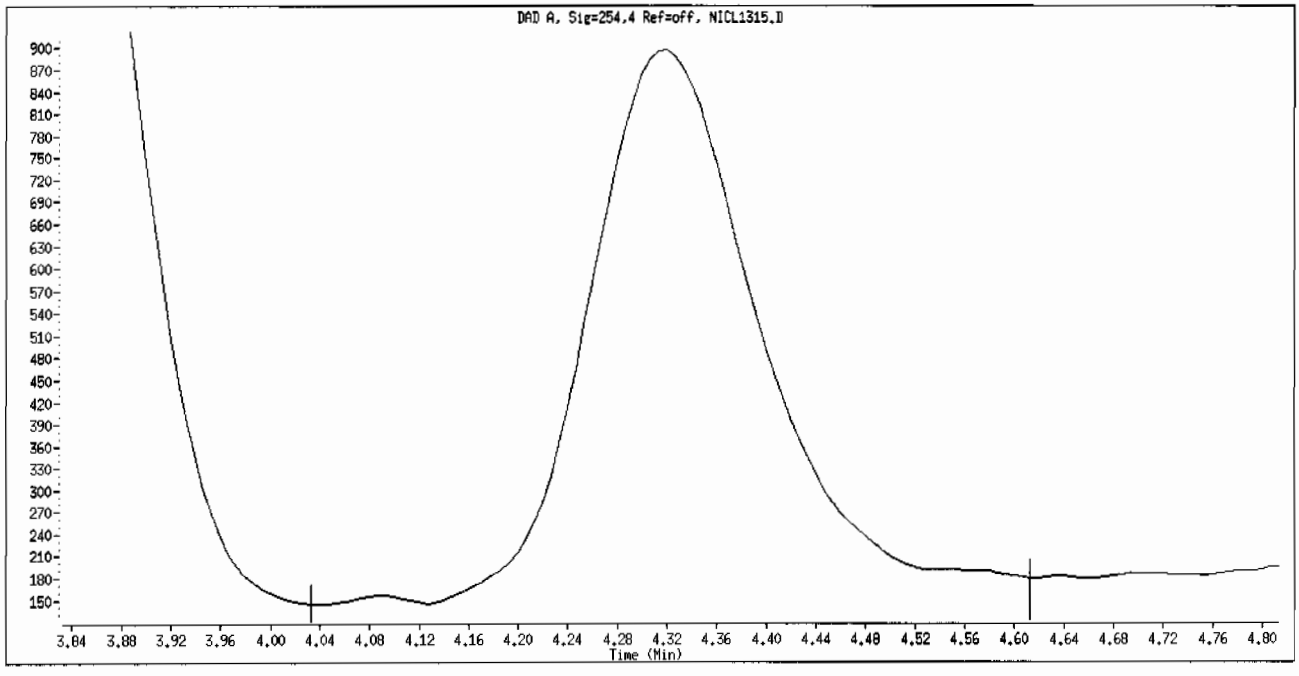

Original Integration

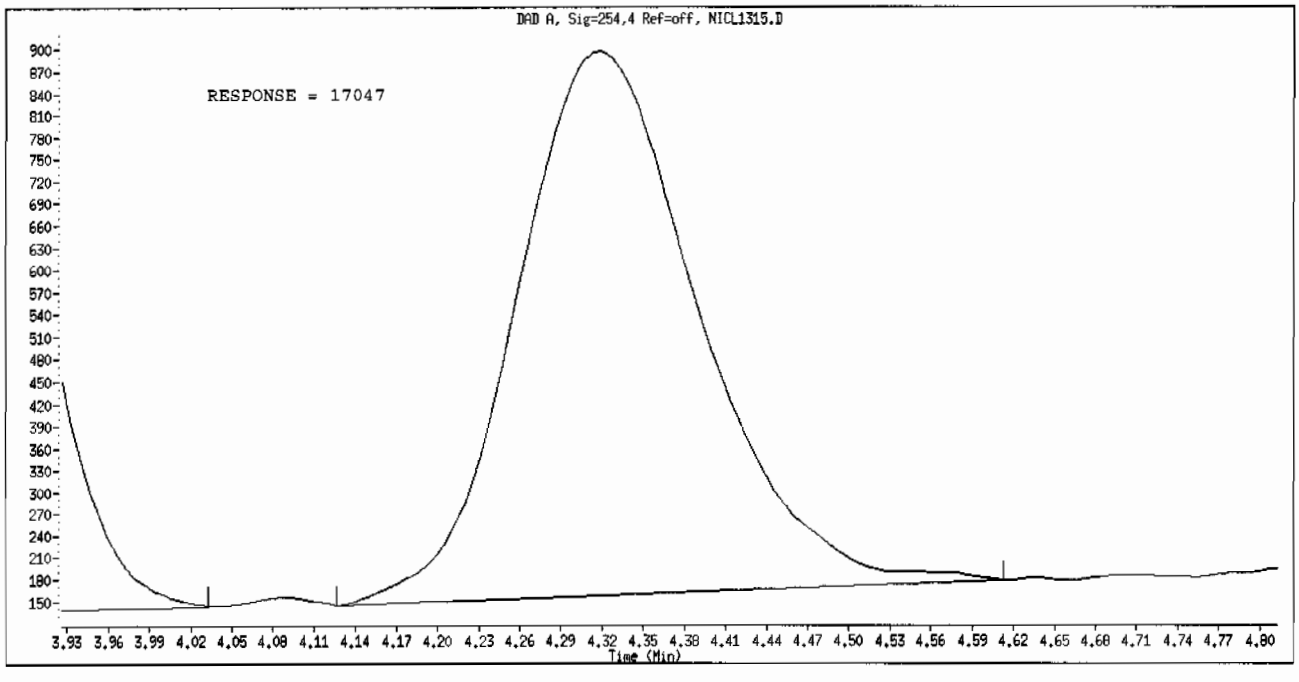

Manual Integration

Manually Integrated By: hanw

Manual Integration Reason: Baseline Event

Data File Name: NICL1315.D
Inj. Date and Time: 25-NOV-2009 10:30
Instrument ID: Lcn.i
Client ID: 8330 ICAL-4
Compound Name: MNX
CAS #:

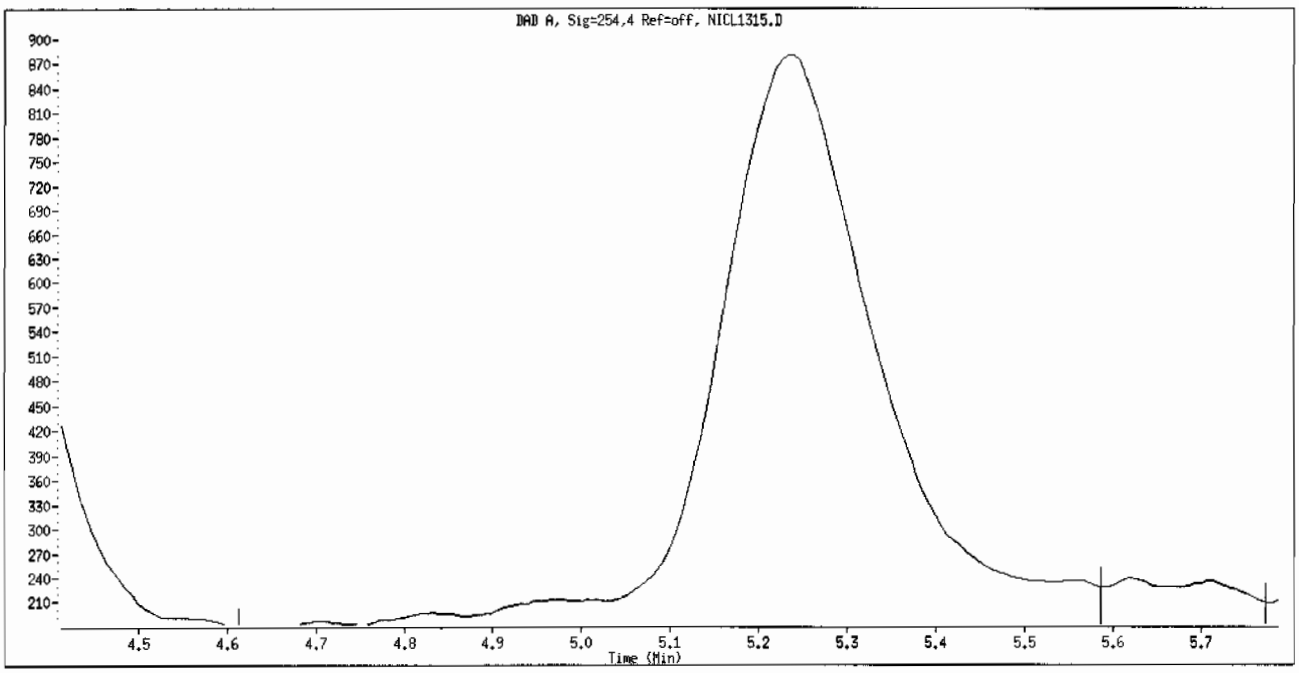

Original Integration

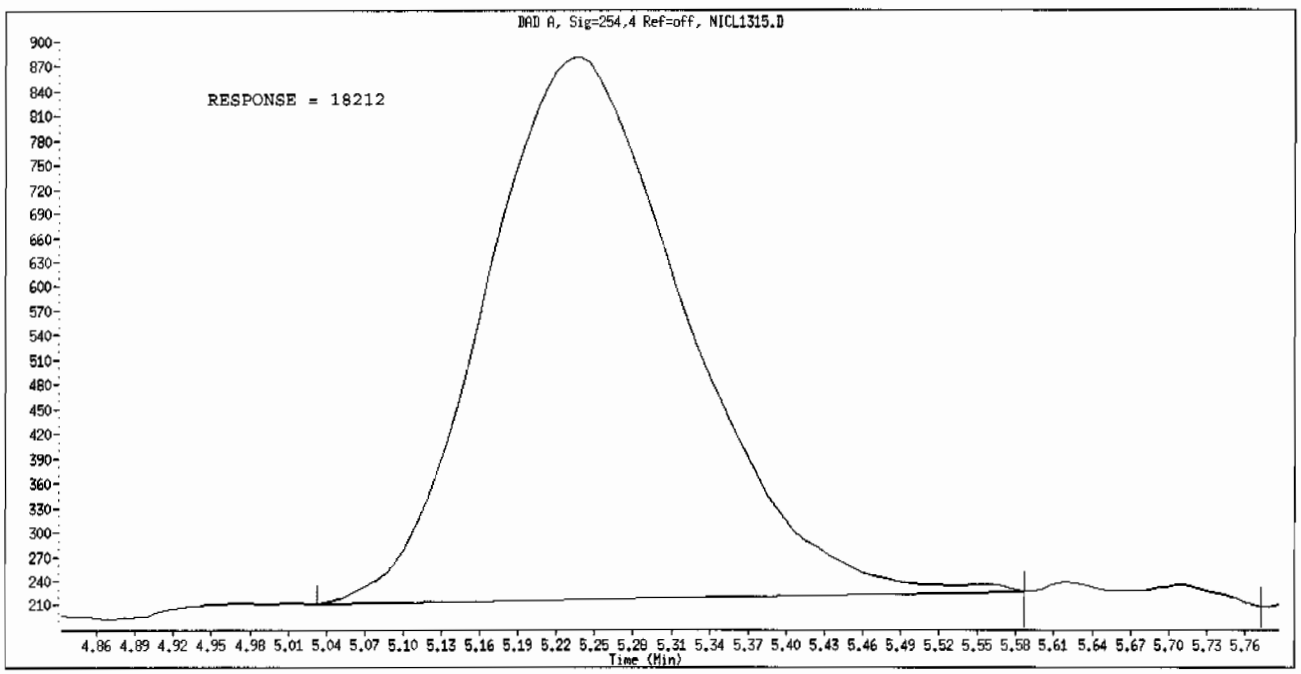

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1315.D
Inj. Date and Time: 25-NOV-2009 10:30
Instrument ID: Lcn.i
Client ID: 8330 ICAL-4
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

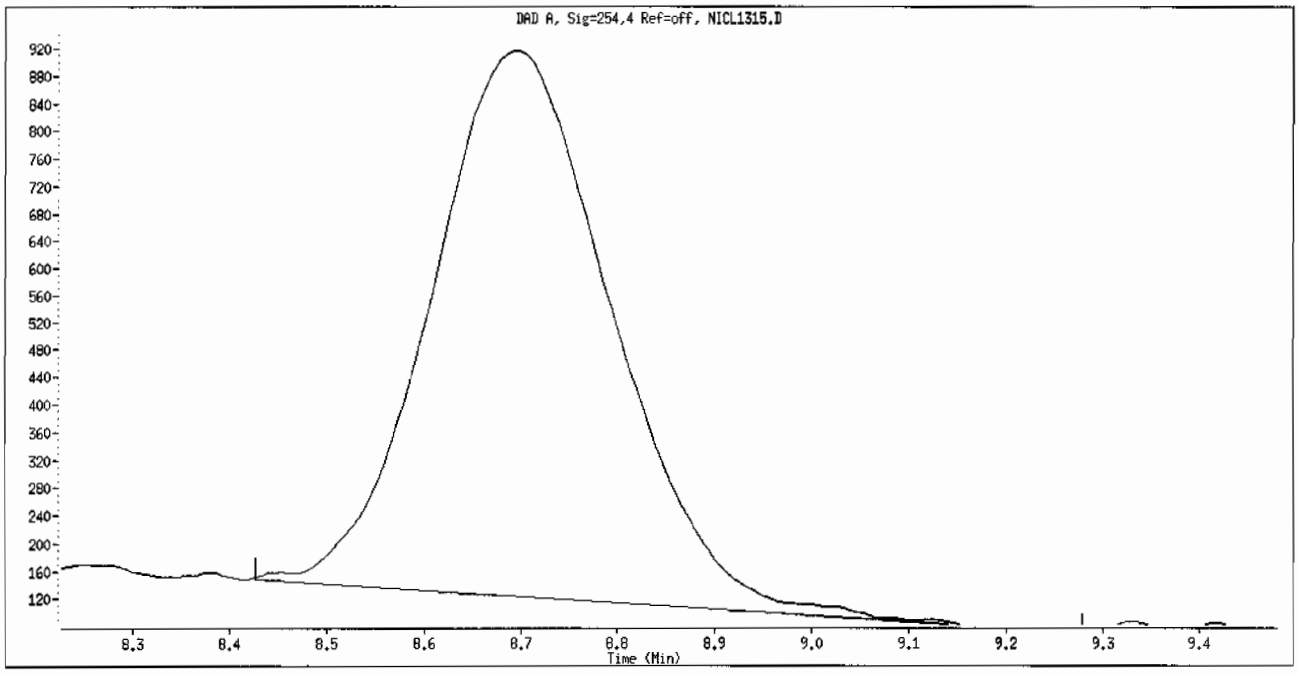

Original Integration

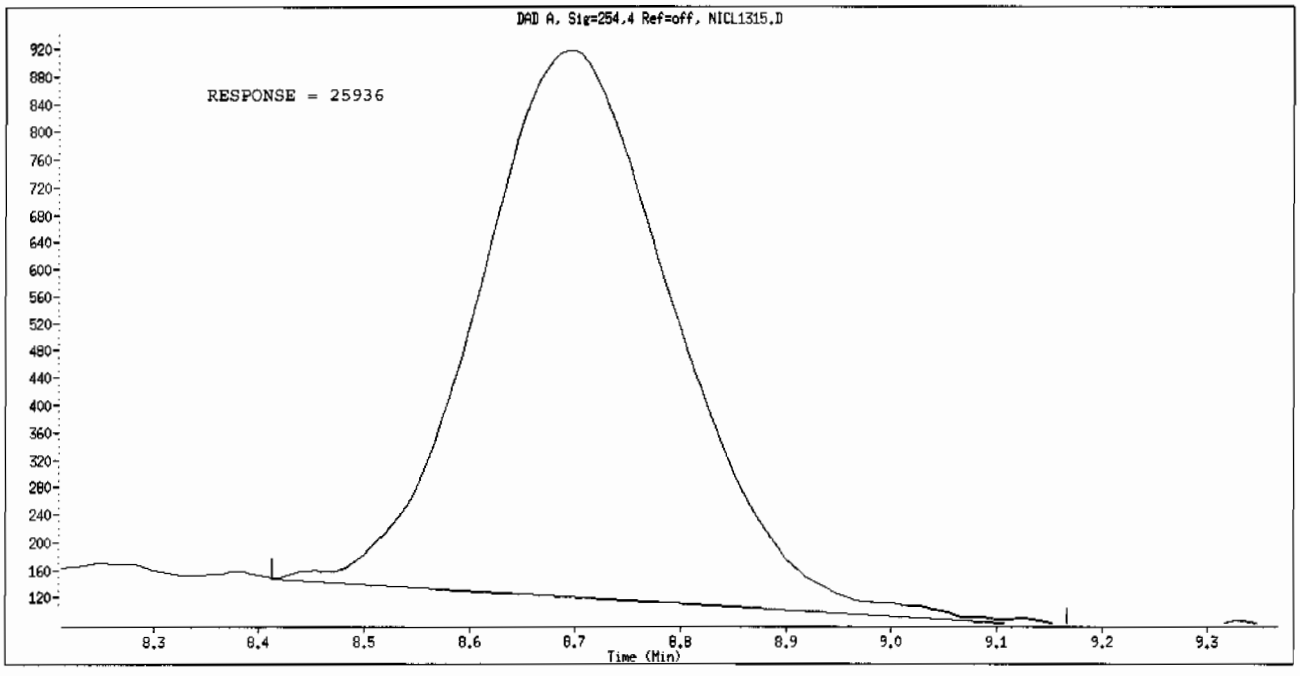

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1316.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1316.D
Lab Smp Id: 8330 ICAL-5 Client Smp ID: 8330 ICAL-5
Inj Date : 25-NOV-2009 10:44
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-5
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.828	3.837	-0.009	65101	100.606	100.6(M)
2 DNX	4.315	4.324	-0.009	42178	68.8500	66.95(M)
3 MNX	5.228	5.239	-0.011	43167	90.9875	87.47(M)
$ 4 1,2-Dinitrobenzene	8.688	8.706	-0.018	63701	125.000	123.0(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1316.D
Date : 25-NOV-2009 10:44
Client ID: 8330 ICAL-5
Sample Info: 8330 ICAL-5
Purge Volume: 500.0
Column phase: C18

Instrument: Lcn.i
Operator: WH
Column diameter: 4.60

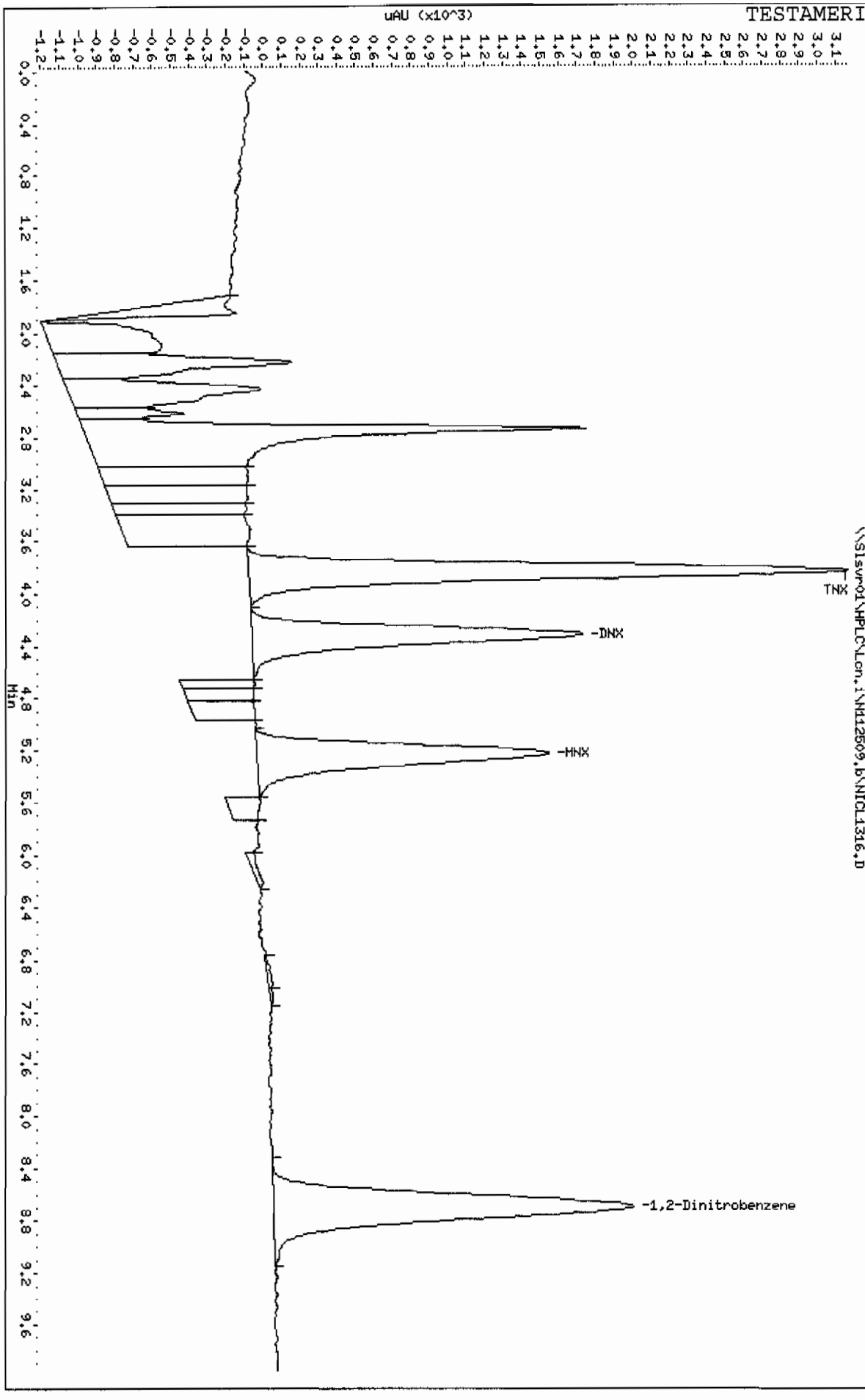

Data File Name: NICL1316.D
Inj. Date and Time: 25-NOV-2009 10:44
Instrument ID: Lcn.i
Client ID: 8330 ICAL-5
Compound Name: TNX
CAS #:

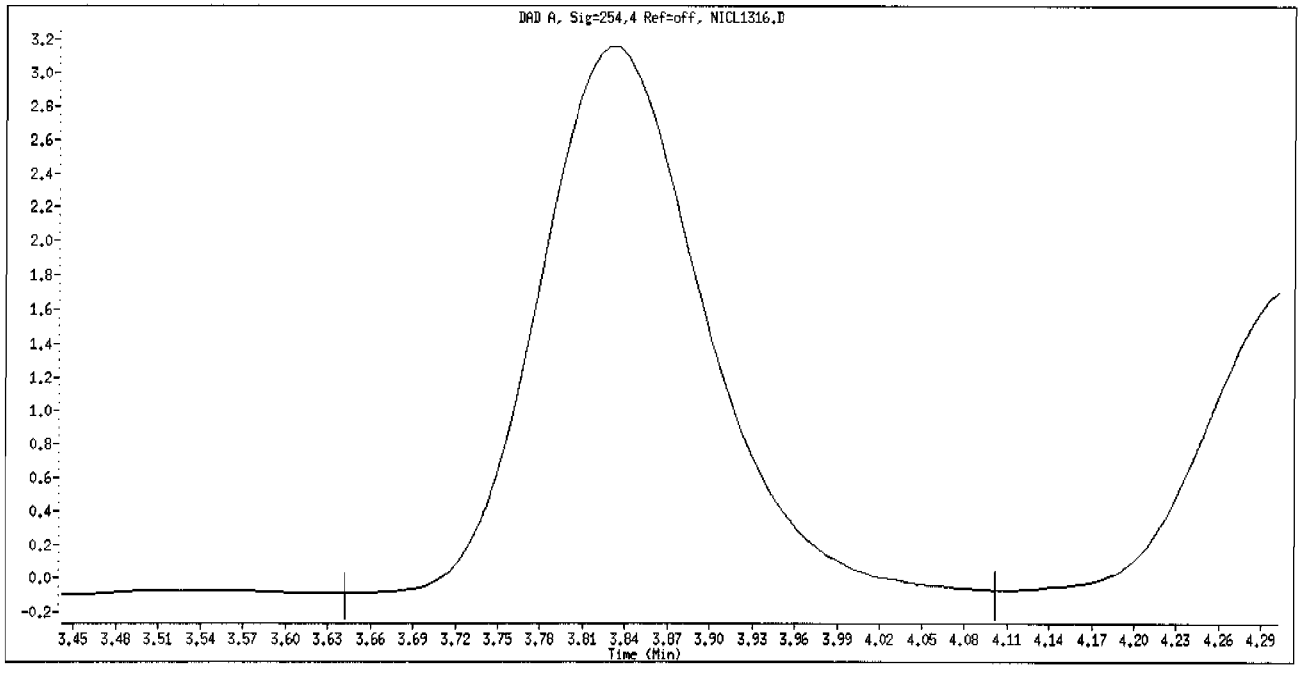

Original Integration

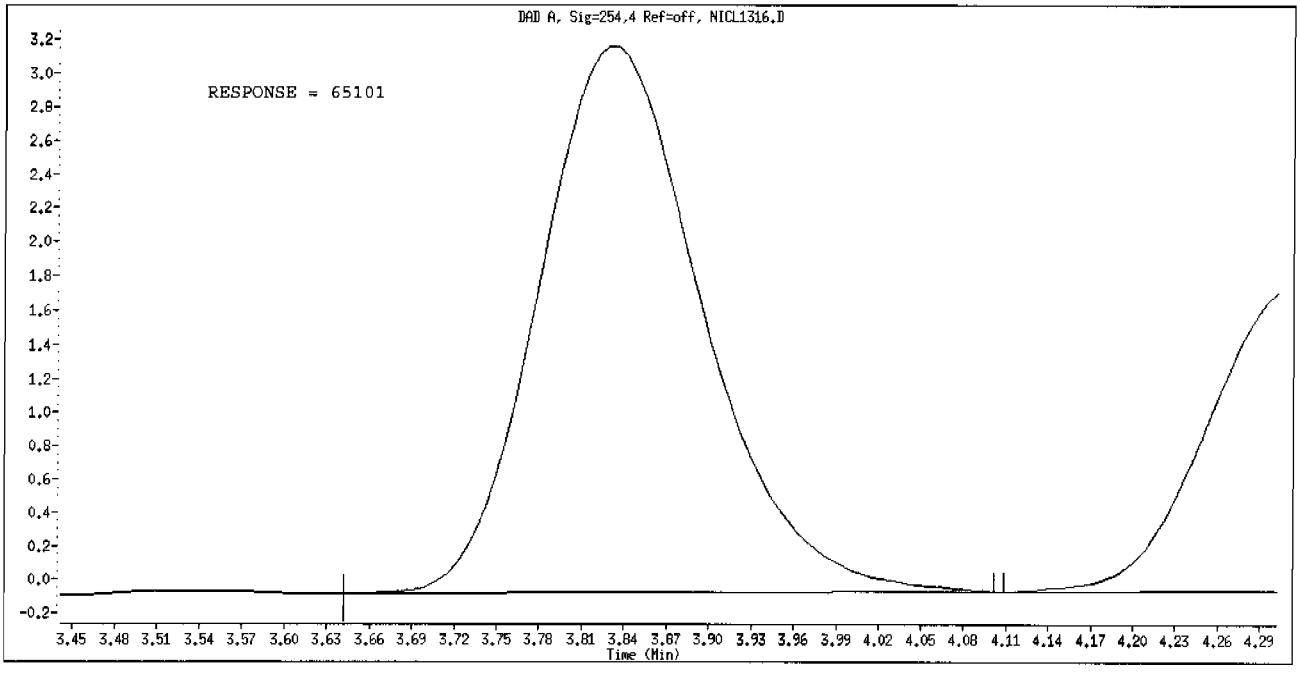

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1316.D
Inj. Date and Time: 25-NOV-2009 10:44
Instrument ID: Lcn.i
Client ID: 8330 ICAL-5
Compound Name: DNX
CAS #:

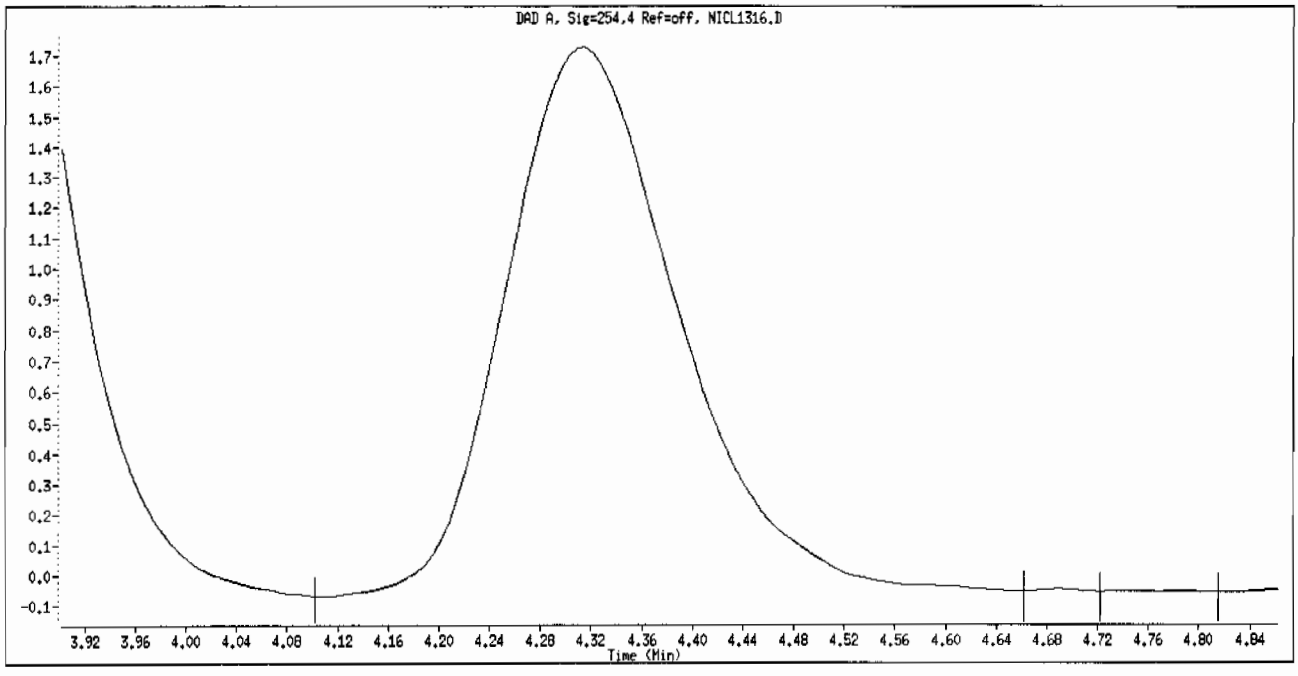

Original Integration

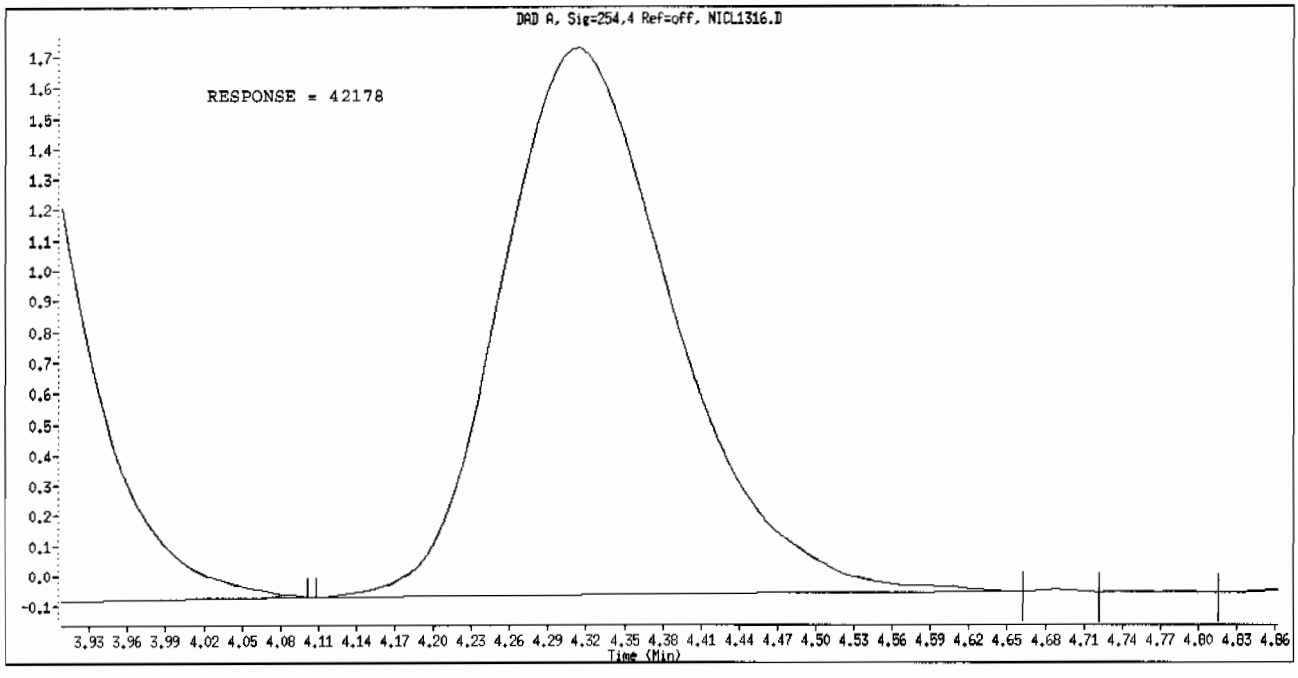

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1316.D
Inj. Date and Time: 25-NOV-2009 10:44
Instrument ID: Lcn.i
Client ID: 8330 ICAL-5
Compound Name: MNX
CAS #:

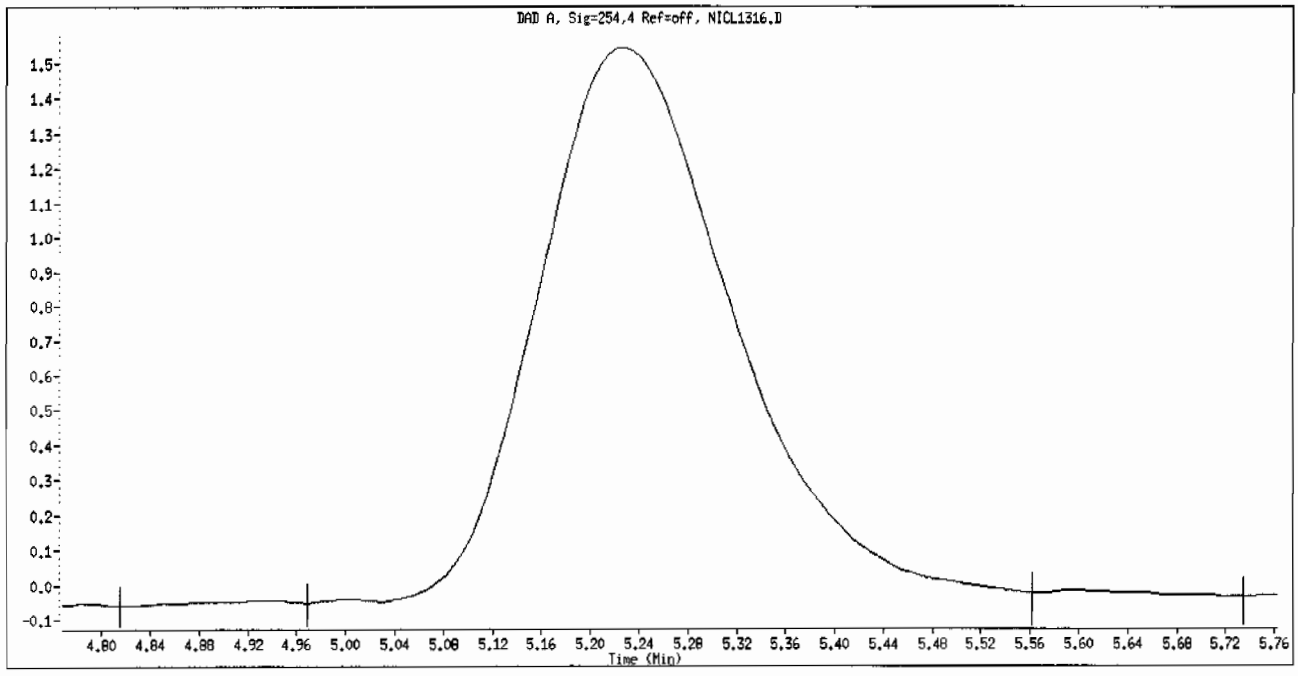

Original Integration

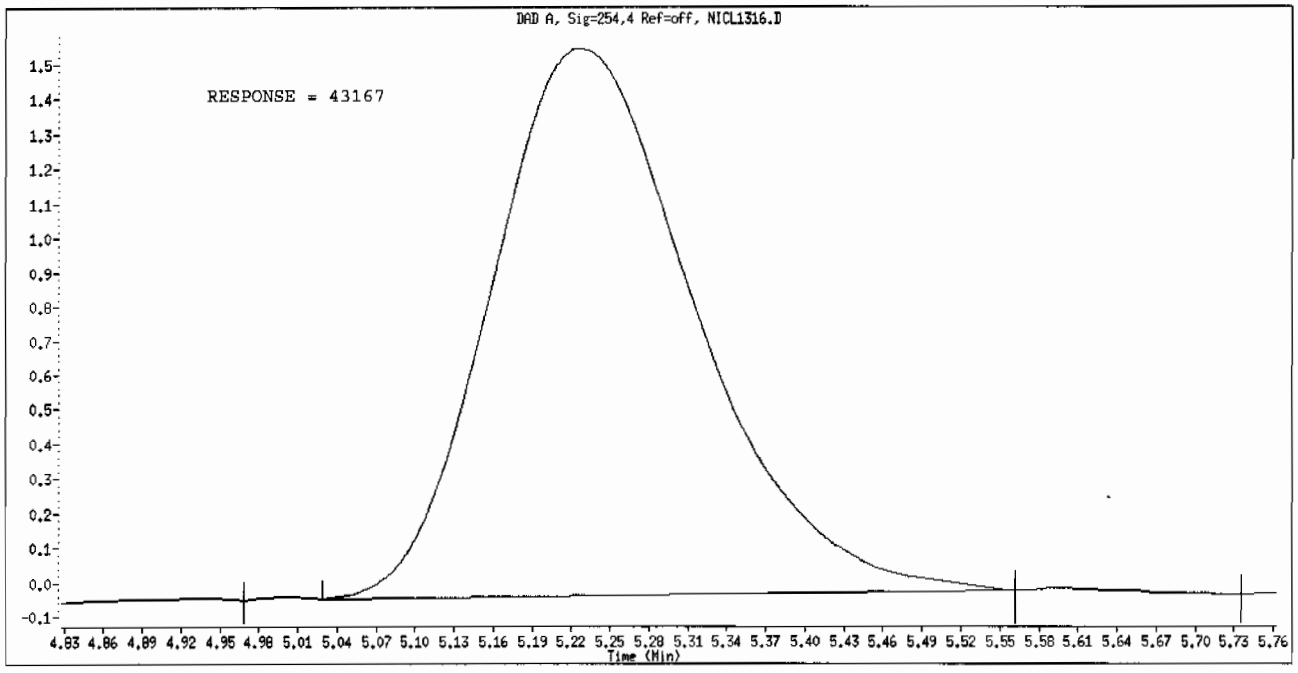

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1316.D
Inj. Date and Time: 25-NOV-2009 10:44
Instrument ID: Lcn.i
Client ID: 8330 ICAL-5
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

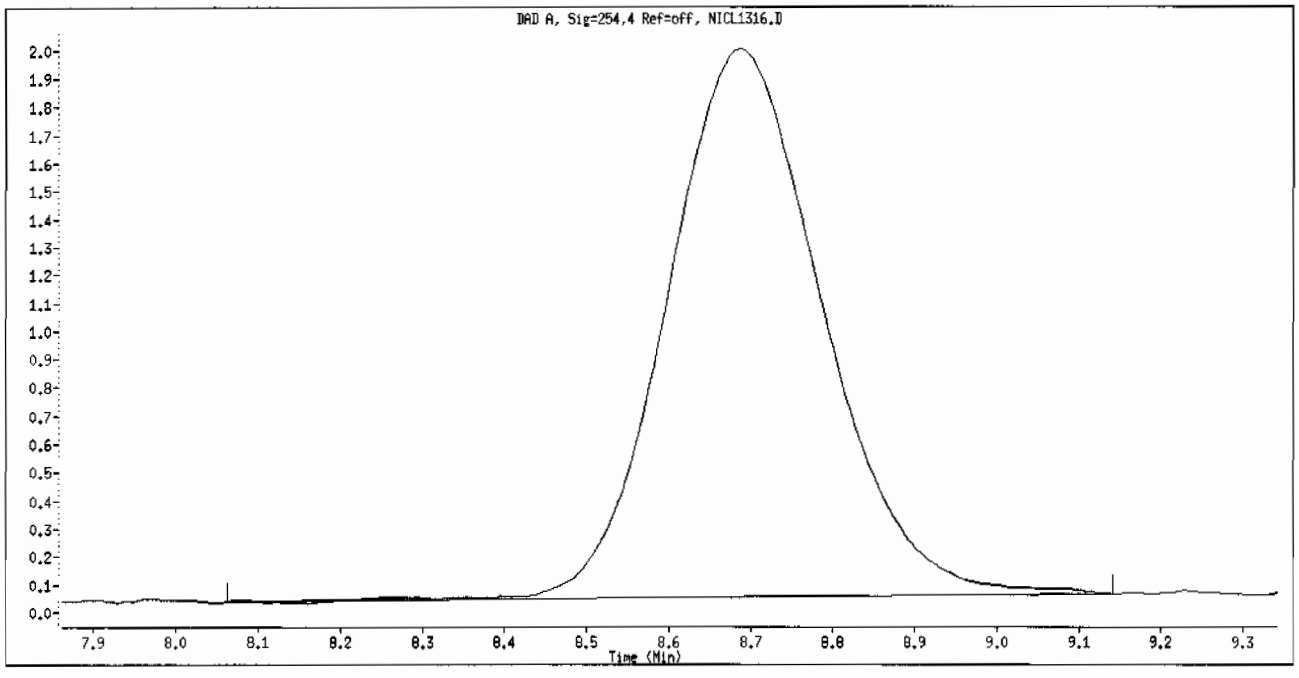

Original Integration

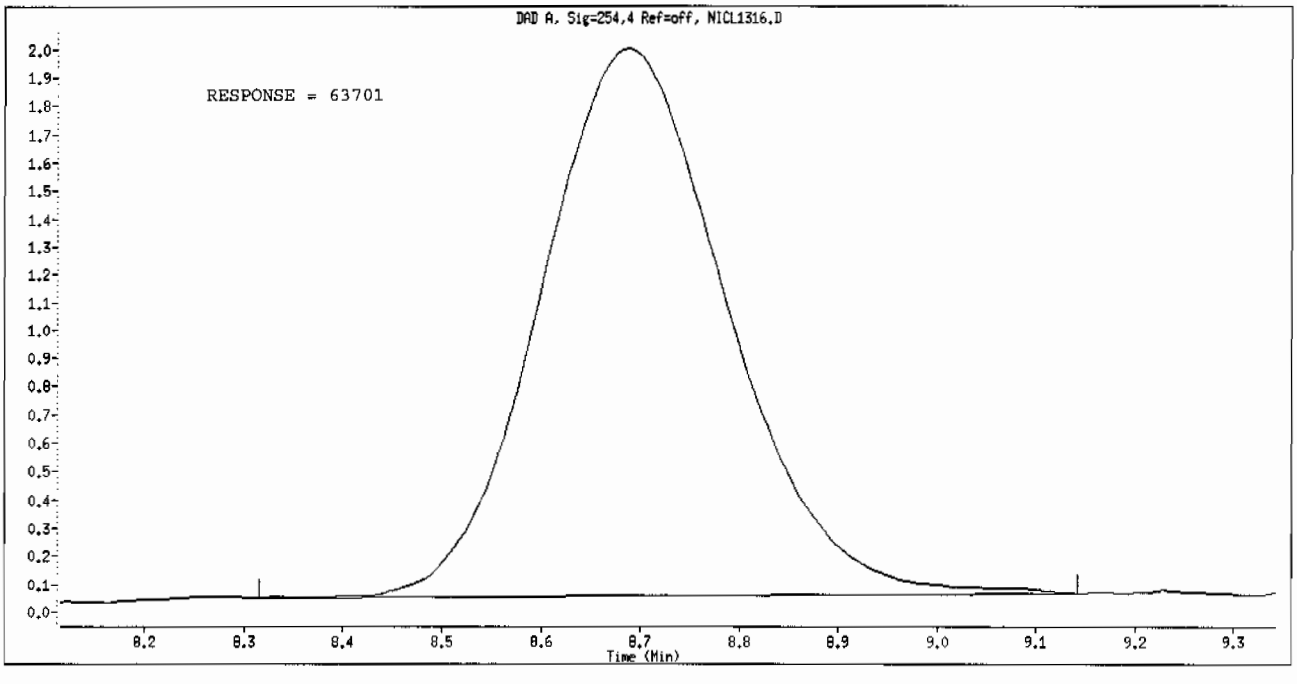

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1317.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1317.D
Lab Smp Id: 8330 ICAL-6 Client Smp ID: 8330 ICAL-6
Inj Date : 25-NOV-2009 10:58
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-6
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.833	3.837	-0.004	136444	201.213	210.9
2 DNX	4.315	4.324	-0.009	87699	137.700	139.2
3 MNX	5.232	5.239	-0.007	90745	181.975	183.9
$ 4 1,2-Dinitrobenzene	8.711	8.706	0.005	130071	250.000	251.2(M)

QC Flag Legend

M - Compound response manually integrated.

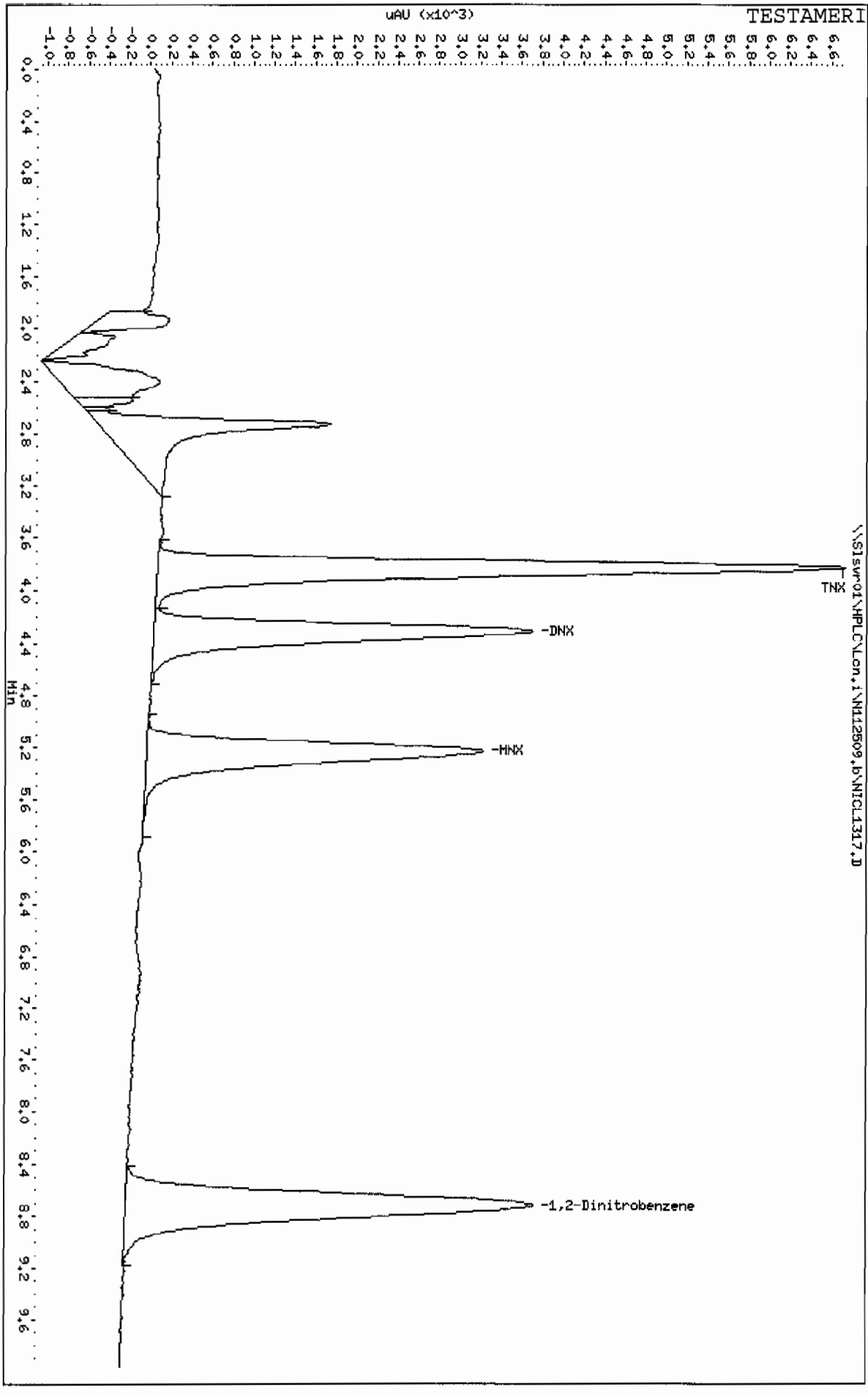
Data File: \\Slsvr01\HPLC\Lcn,i\N112509,b\NICL1317,D
Date : 25-NOV-2009 10:58
Client ID: 8330 ICAL-6
Sample Info: 8330 ICAL-6
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn,i
Operator: WH
Column diameter: 4.60
uAU (x10^3)
\\Slsvr01\HPLC\Lcn,i\N112509,b\NICL1317,D
TNX
-DNX
-HMX
-1,2-Dinitrobenzene
Min

Data File Name: NICL1317.D
Inj. Date and Time: 25-NOV-2009 10:58
Instrument ID: Lcn.i
Client ID: 8330 ICAL-6
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

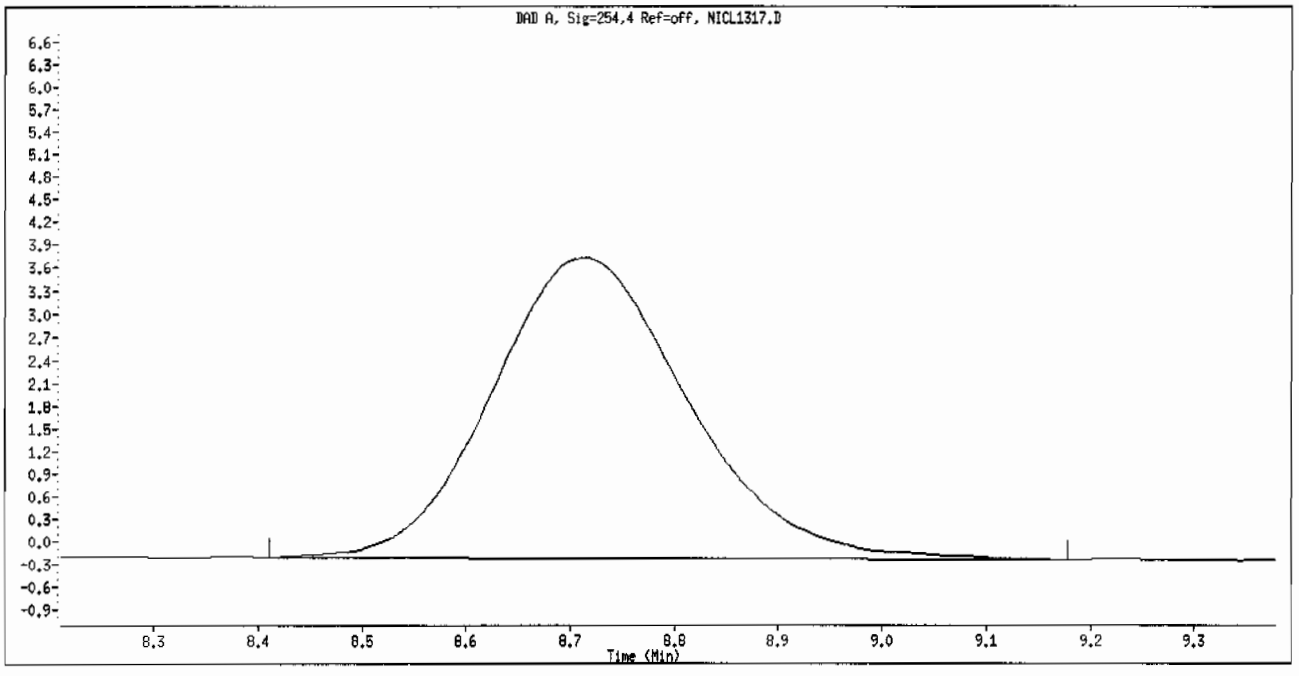

Original Integration

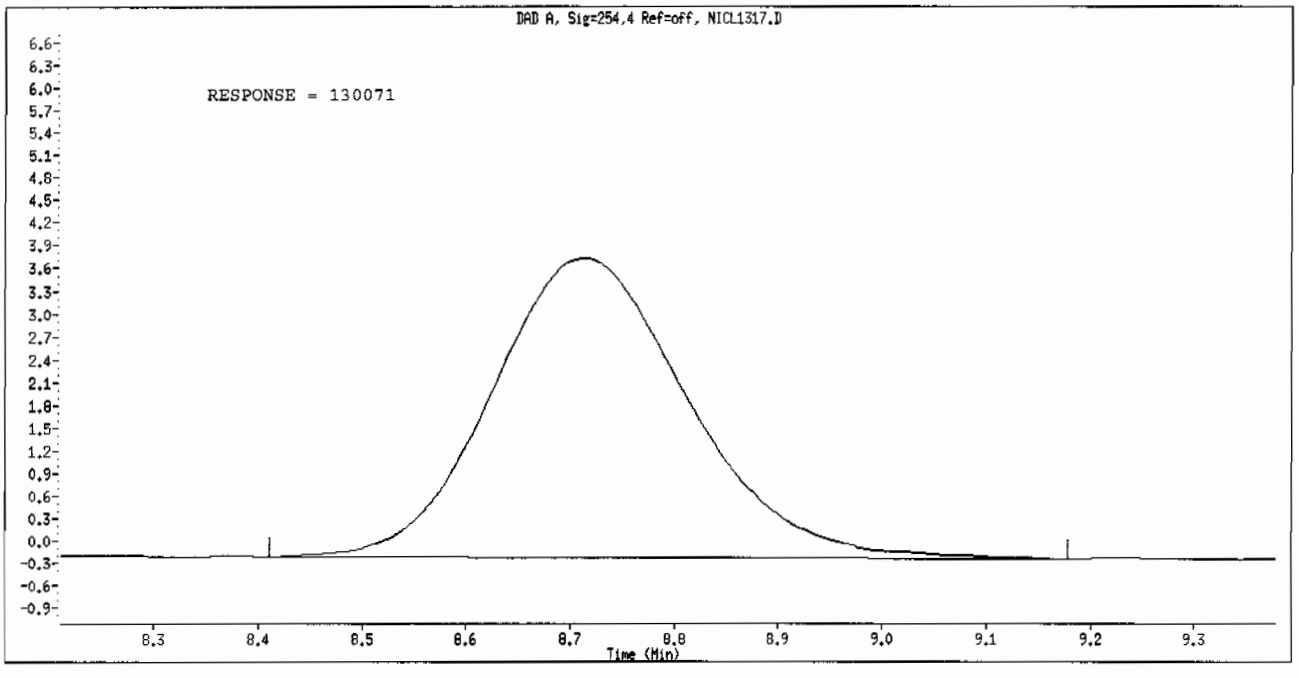

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1318.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1318.D
Lab Smp Id: 8330 ICAL-7 Client Smp ID: 8330 ICAL-7
Inj Date : 25-NOV-2009 11:12
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-7
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.831	3.837	-0.006	267028	402.425	412.7(M)
2 DNX	4.318	4.324	-0.006	167438	275.400	265.8(M)
3 MNX	5.231	5.239	-0.008	174954	363.950	354.5(M)
$ 4 1,2-Dinitrobenzene	8.704	8.706	-0.002	255155	500.000	492.8(M)

QC Flag Legend

M - Compound response manually integrated.

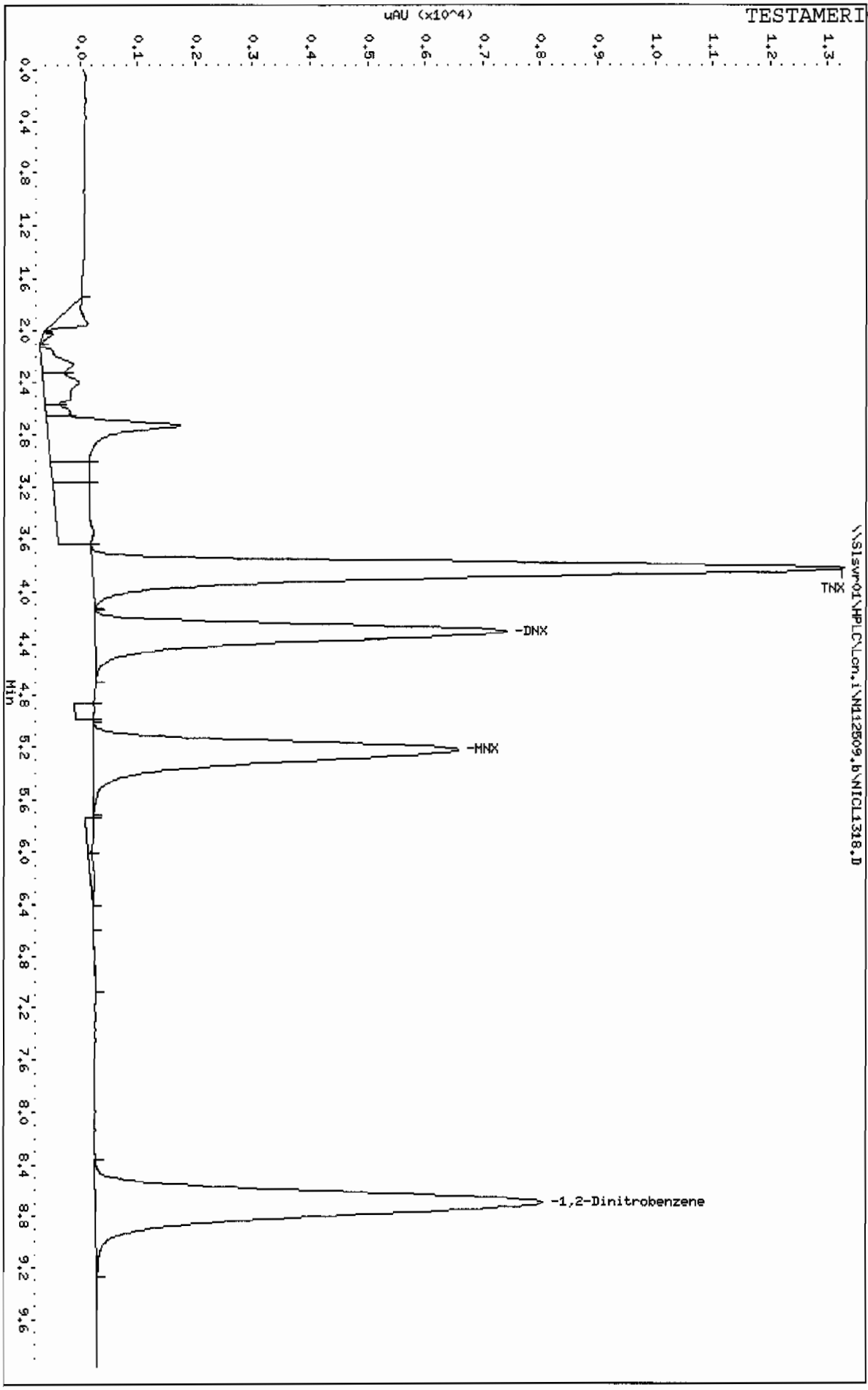
Data File: \\Slsvr01\HPLC\Lcn,i\M112509,b\NICL1318,D
Date : 25-NOV-2009 11:12
Client ID: 8330 ICAL-7
Sample Info: 8330 ICAL-7
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn,i
Operator: WH
Column diameter: 4.60
uAU (x10^4)
\\Slsvr01\HPLC\Lcn,i\M112509,b\NICL1318,D
TNX
-DNX
-HNX
-1,2-Dinitrobenzene
Min

Data File Name: NICL1318.D
Inj. Date and Time: 25-NOV-2009 11:12
Instrument ID: Lcn.i
Client ID: 8330 ICAL-7
Compound Name: TNX
CAS #:

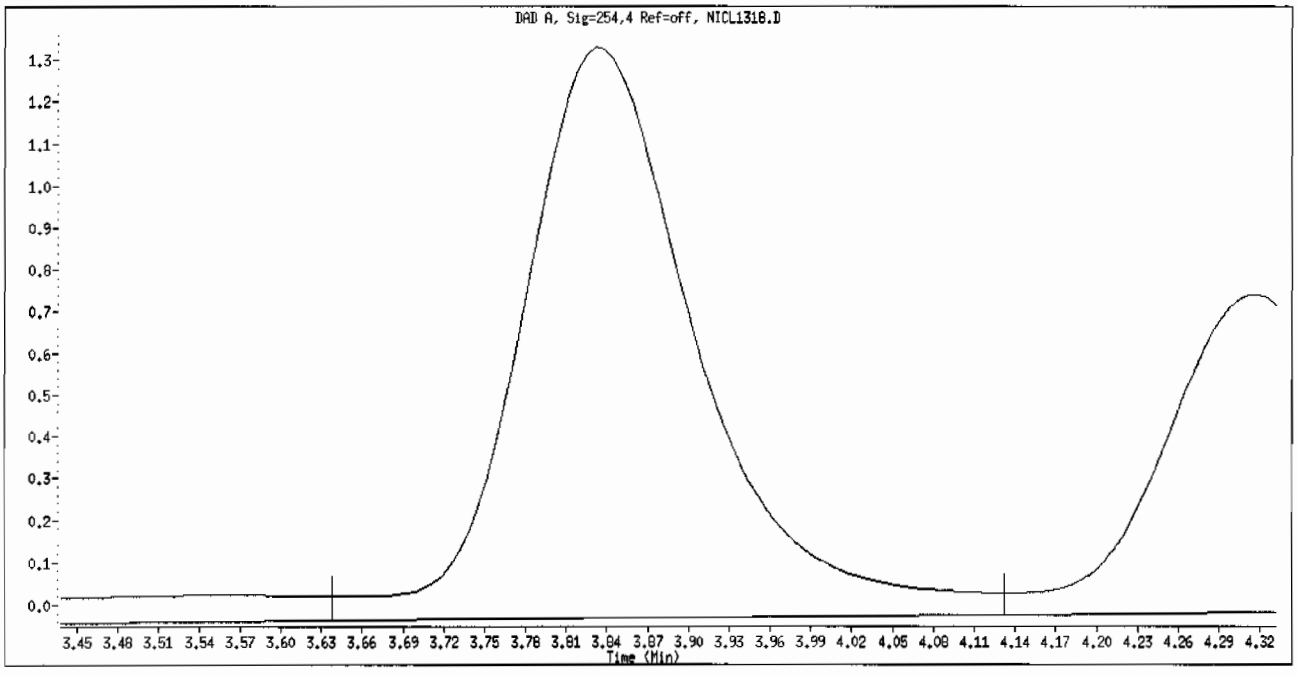

Original Integration

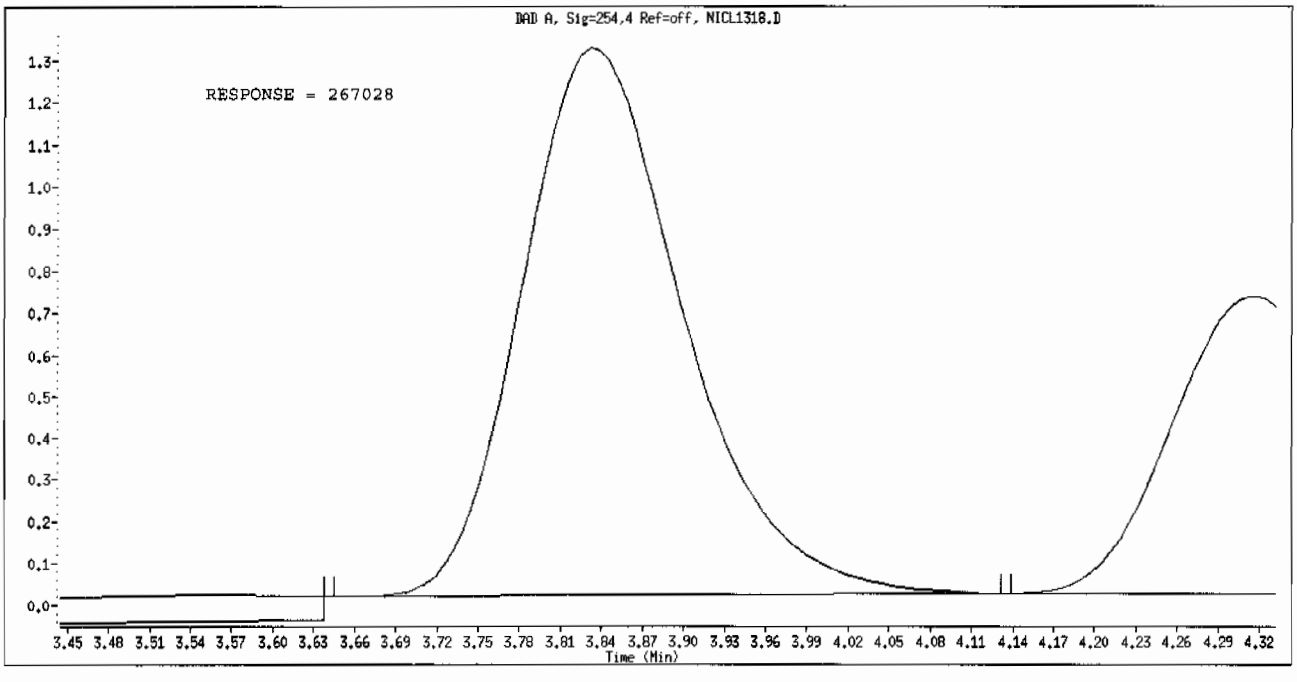

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1318.D

Inj. Date and Time: 25-NOV-2009 11:12

Instrument ID: Lcn.i

Client ID: 8330 ICAL-7

Compound Name: DNX

CAS #:

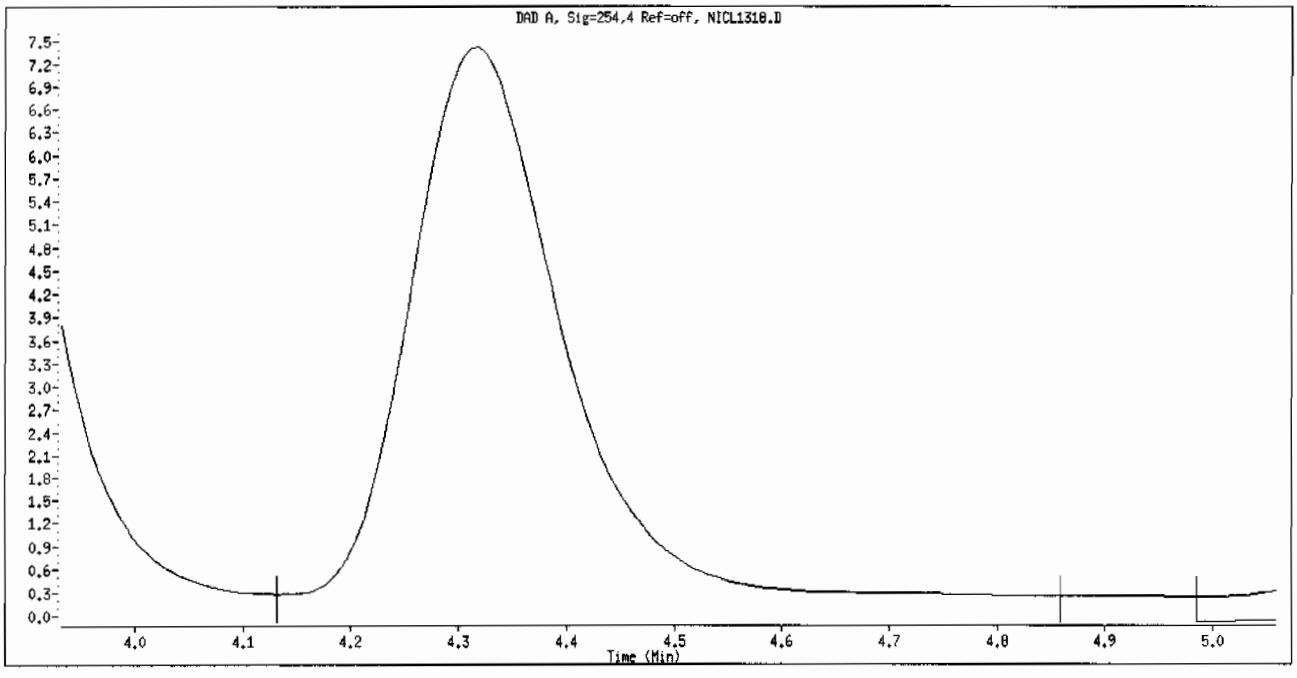

Original Integration

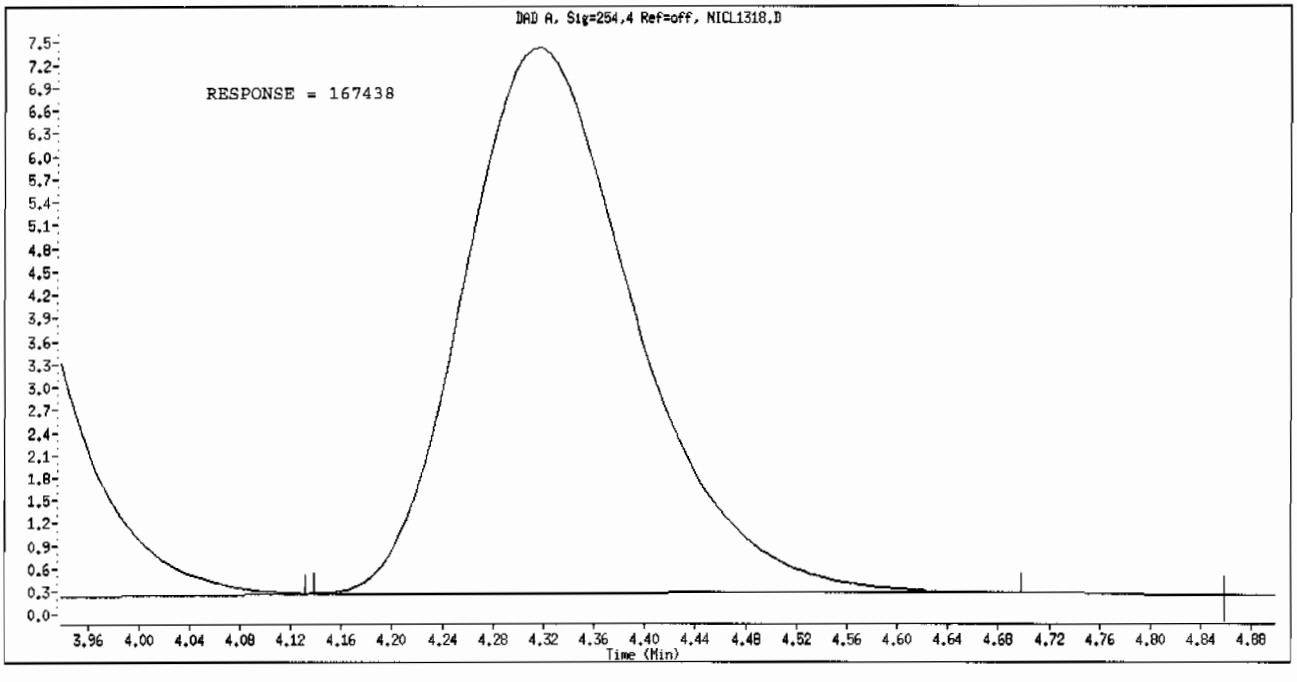

Manual Integration

Manually Integrated By: hanw

Manual Integration Reason: Baseline Event

Data File Name: NICL1318.D
Inj. Date and Time: 25-NOV-2009 11:12
Instrument ID: Lcn.i
Client ID: 8330 ICAL-7
Compound Name: MNX
CAS #:

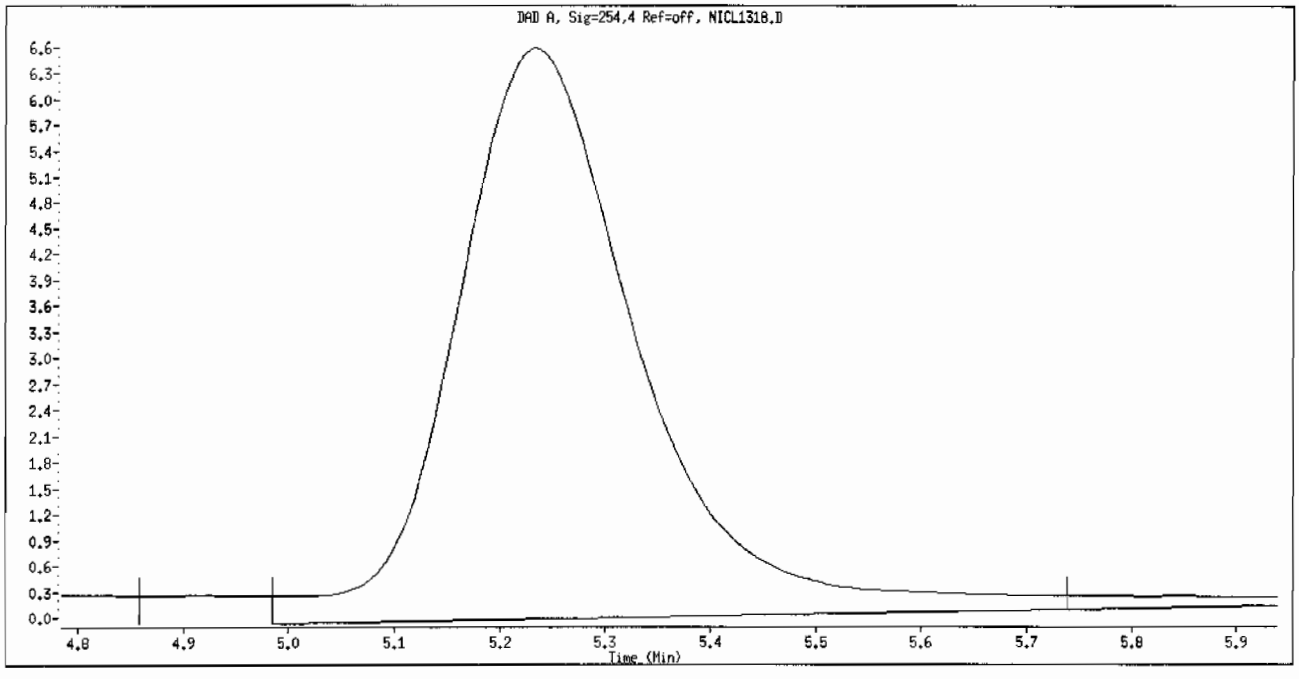

Original Integration

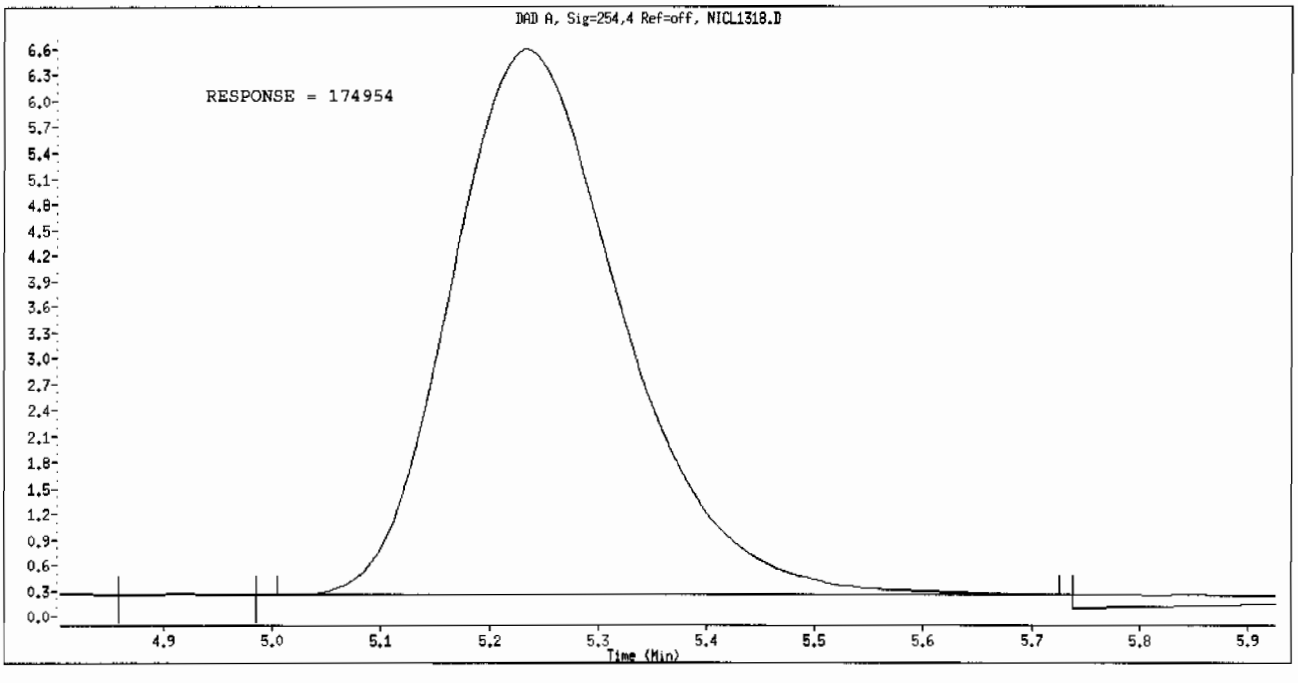

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1318.D
Inj. Date and Time: 25-NOV-2009 11:12
Instrument ID: Lcn.i
Client ID: 8330 ICAL-7
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

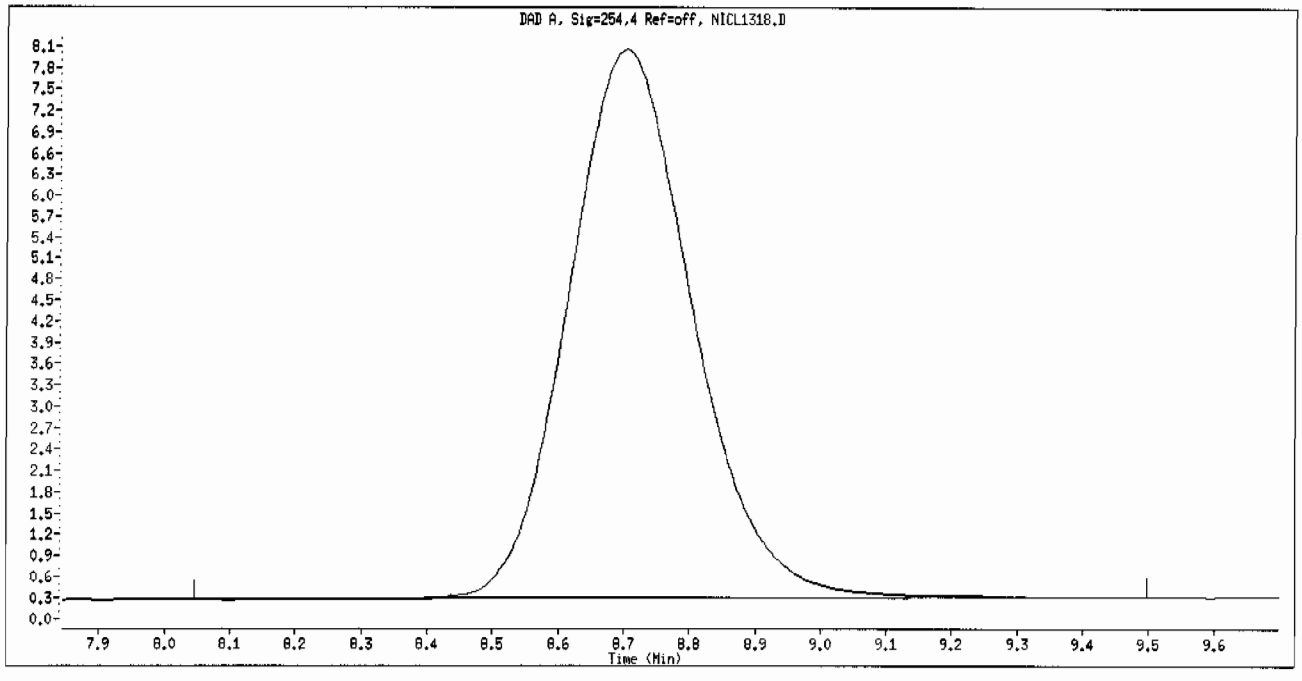

Original Integration

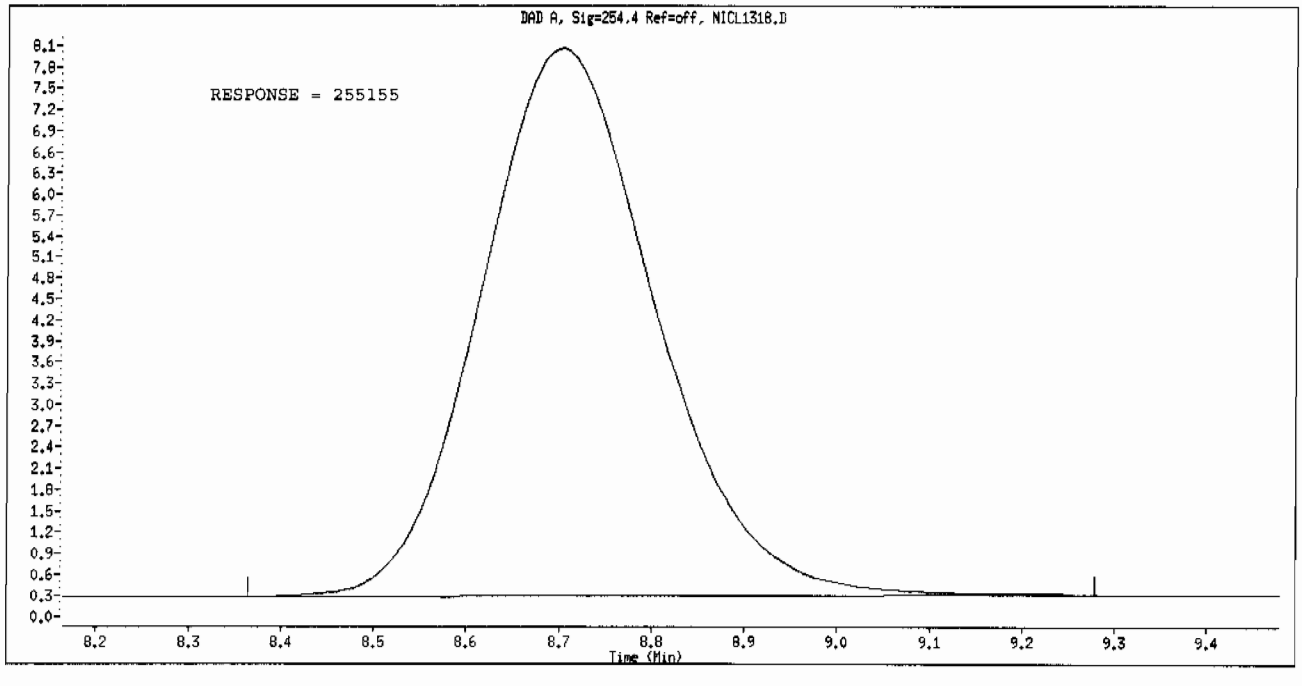

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1319.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1319.D
Lab Smp Id: 8330 ICAL-8 Client Smp ID: 8330 ICAL-8
Inj Date : 25-NOV-2009 11:26
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-8
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.838	3.837	0.001	539495	804.850	833.8(M)
2 DNX	4.318	4.324	-0.006	337552	550.800	535.8(M)
3 MNX	5.238	5.239	-0.001	352540	727.900	714.4(M)
$ 4 1,2-Dinitrobenzene	8.715	8.706	0.009	512457	1000.00	989.8(M)

QC Flag Legend

M - Compound response manually integrated.

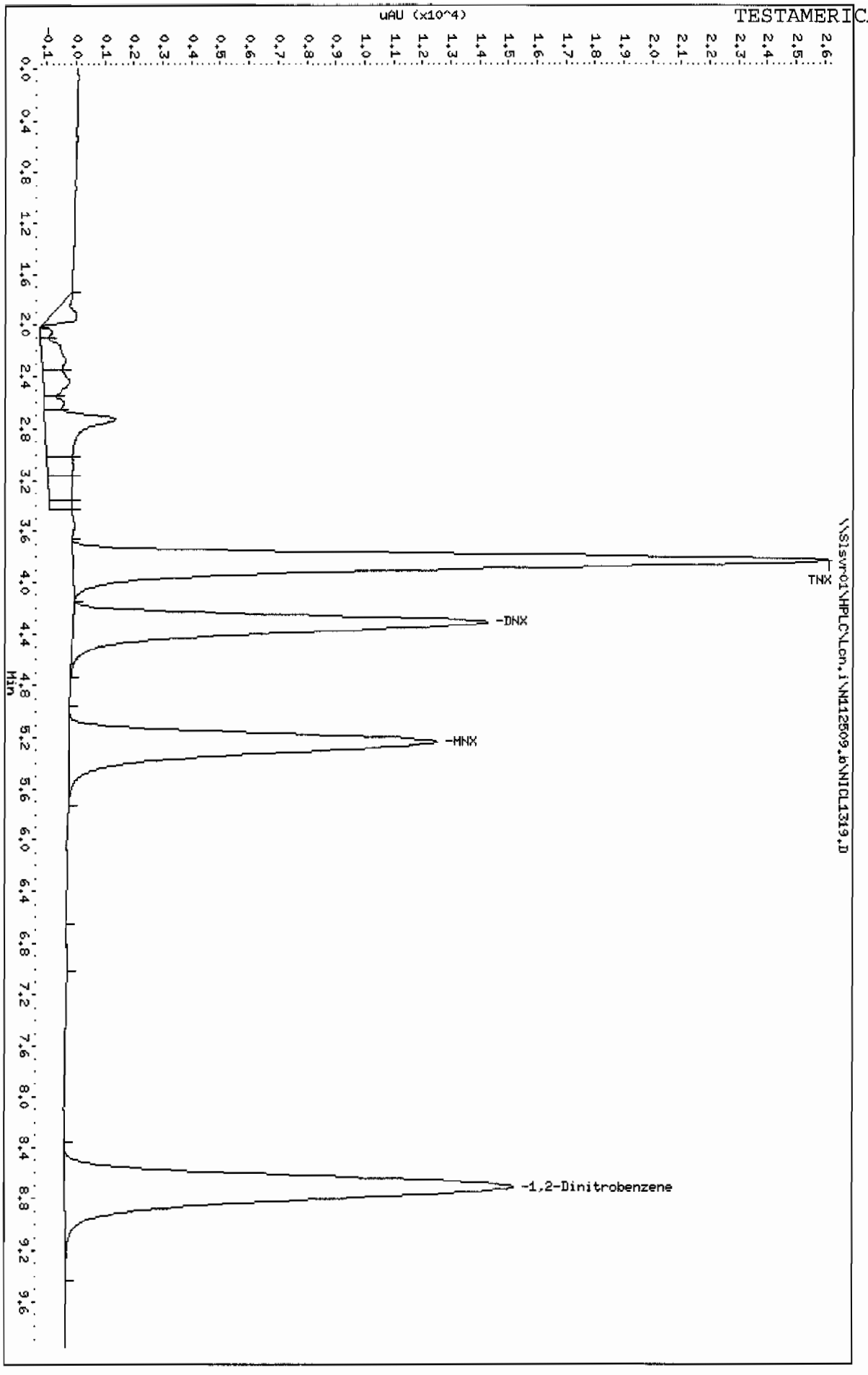
Data File: \\Slsvr01\HPLC\Lon,i\N112509,b\NICL1319,D
Date : 25-NOV-2009 11:26
Client ID: 8330 ICAL-8
Sample Info: 8330 ICAL-8
Purge Volume: 500.0
Column phase: C18
Instrument: Lon,i
Operator: WH
Column diameter: 4.60
uAU (x10^4)
\\Slsvr01\HPLC\Lon,i\N112509,b\NICL1319,D
TNX
-DNX
-MNX
-1,2-Dinitrobenzene
Min

Data File Name: NICL1319.D
Inj. Date and Time: 25-NOV-2009 11:26
Instrument ID: Lcn.i
Client ID: 8330 ICAL-8
Compound Name: TNX
CAS #:

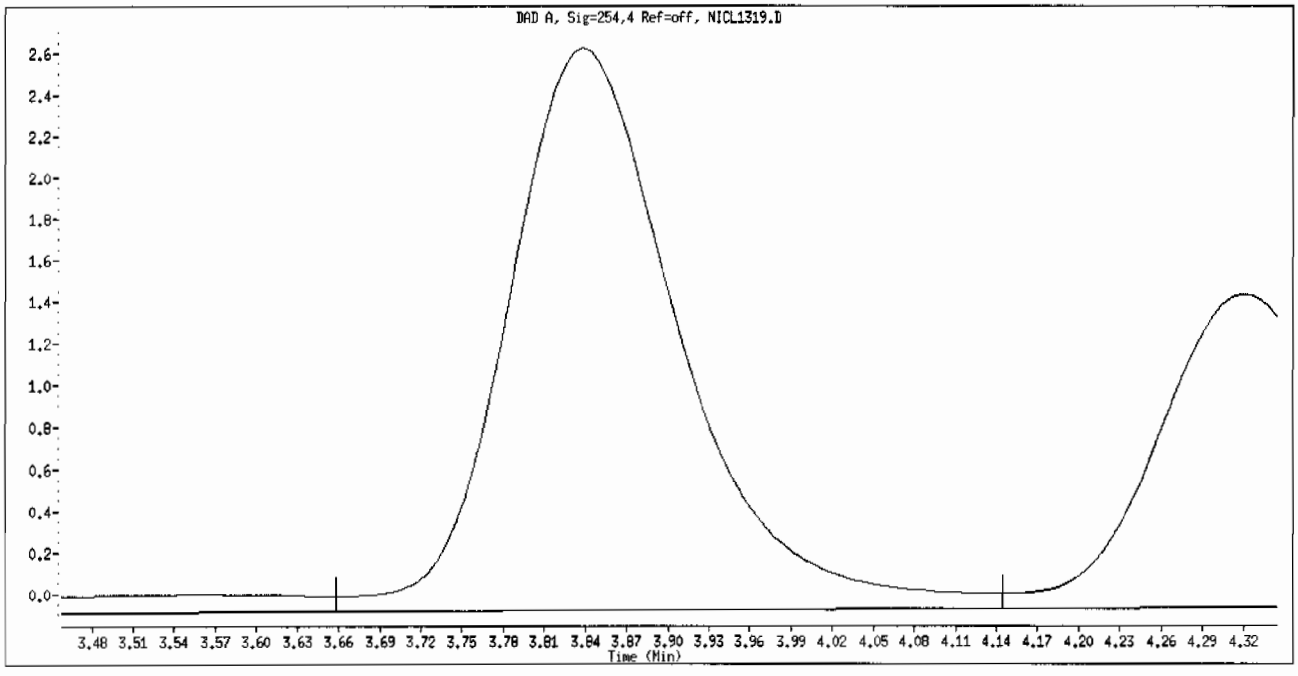

Original Integration

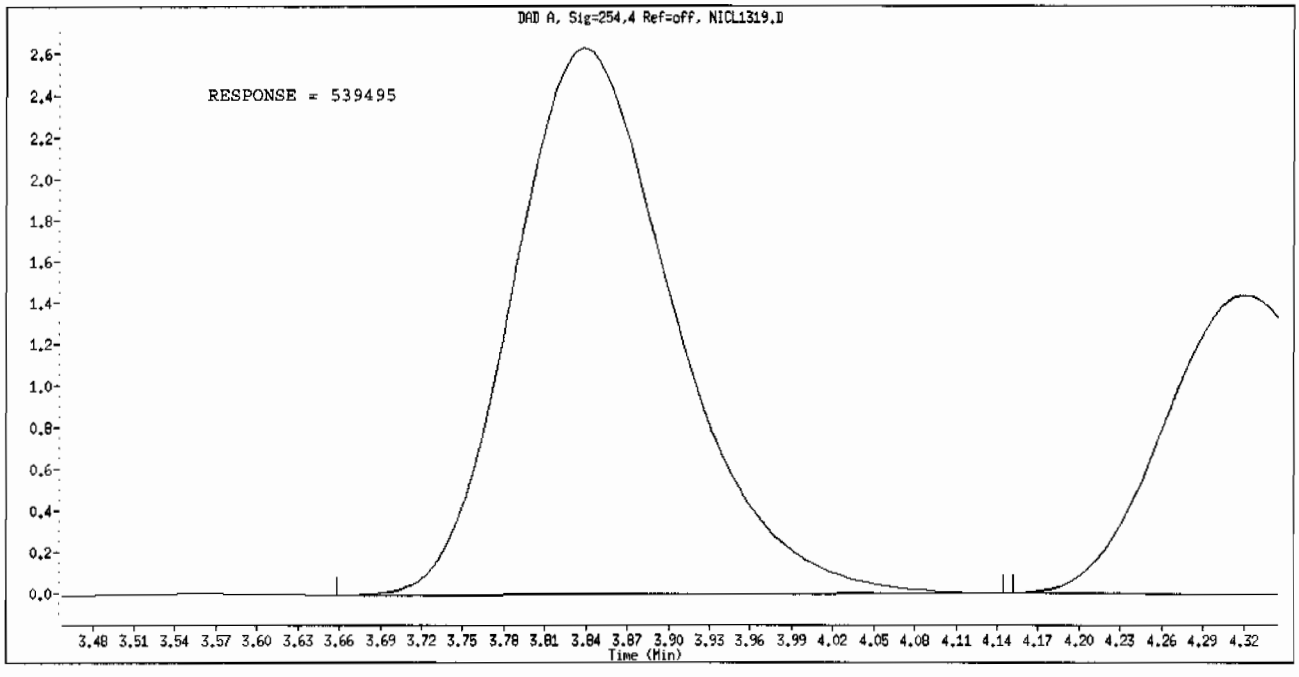

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1319.D
Inj. Date and Time: 25-NOV-2009 11:26
Instrument ID: Lcn.i
Client ID: 8330 ICAL-8
Compound Name: DNX
CAS #:

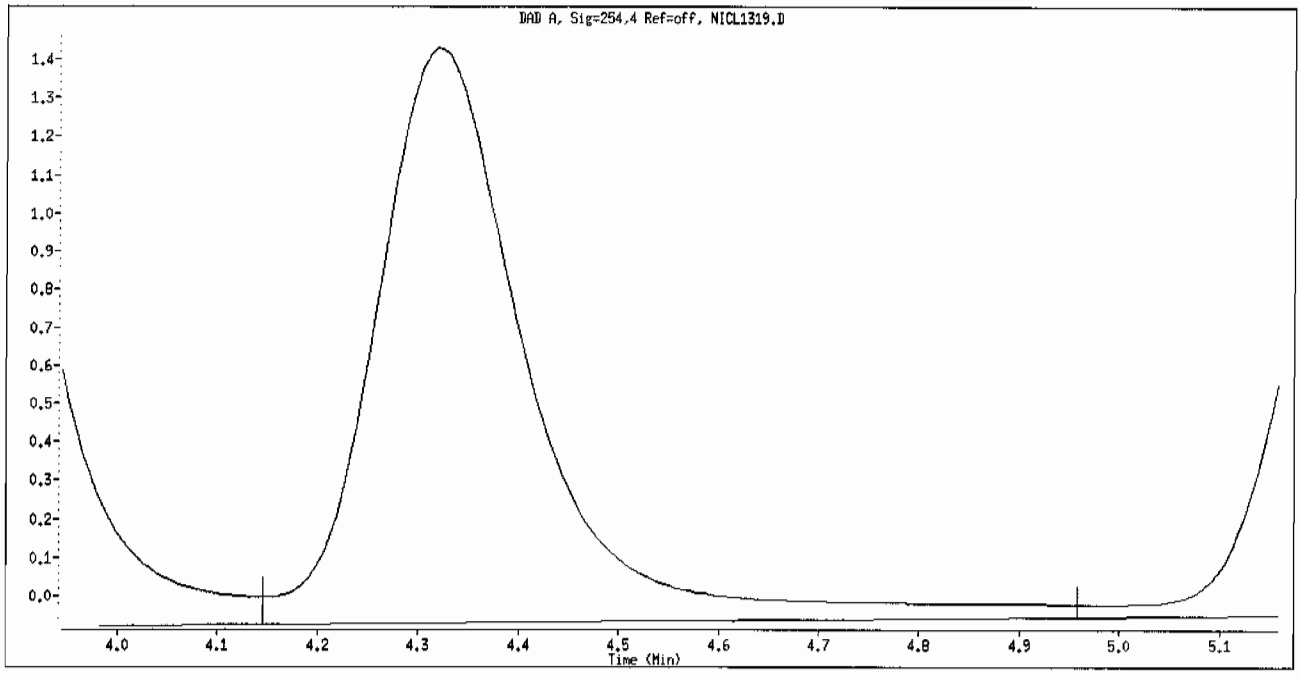

Original Integration

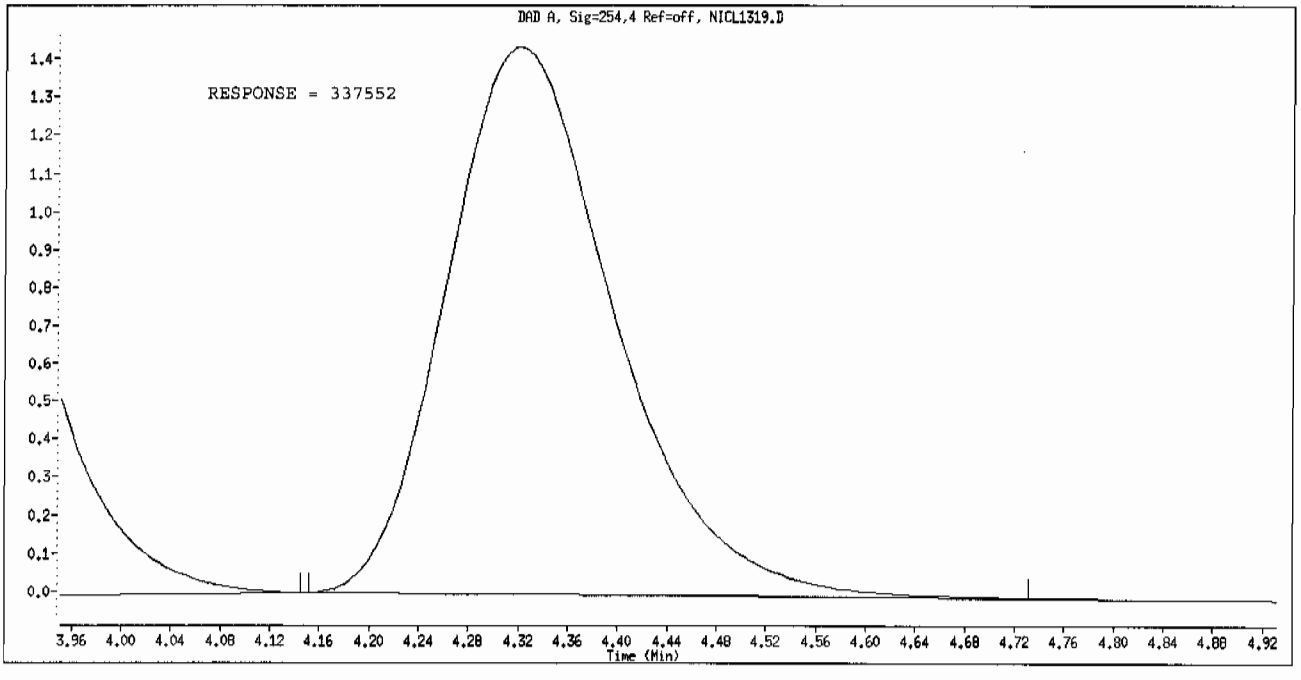

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1319.D
Inj. Date and Time: 25-NOV-2009 11:26
Instrument ID: Lcn.i
Client ID: 8330 ICAL-8
Compound Name: MNX
CAS #:

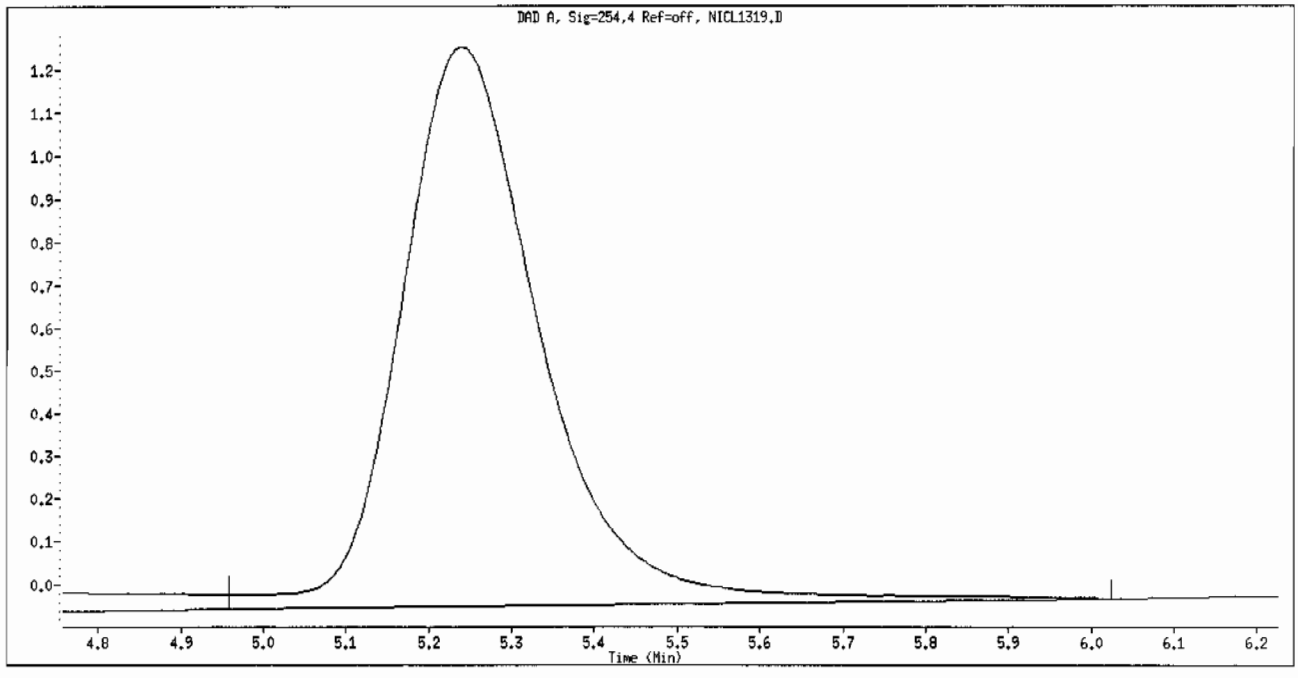

Original Integration

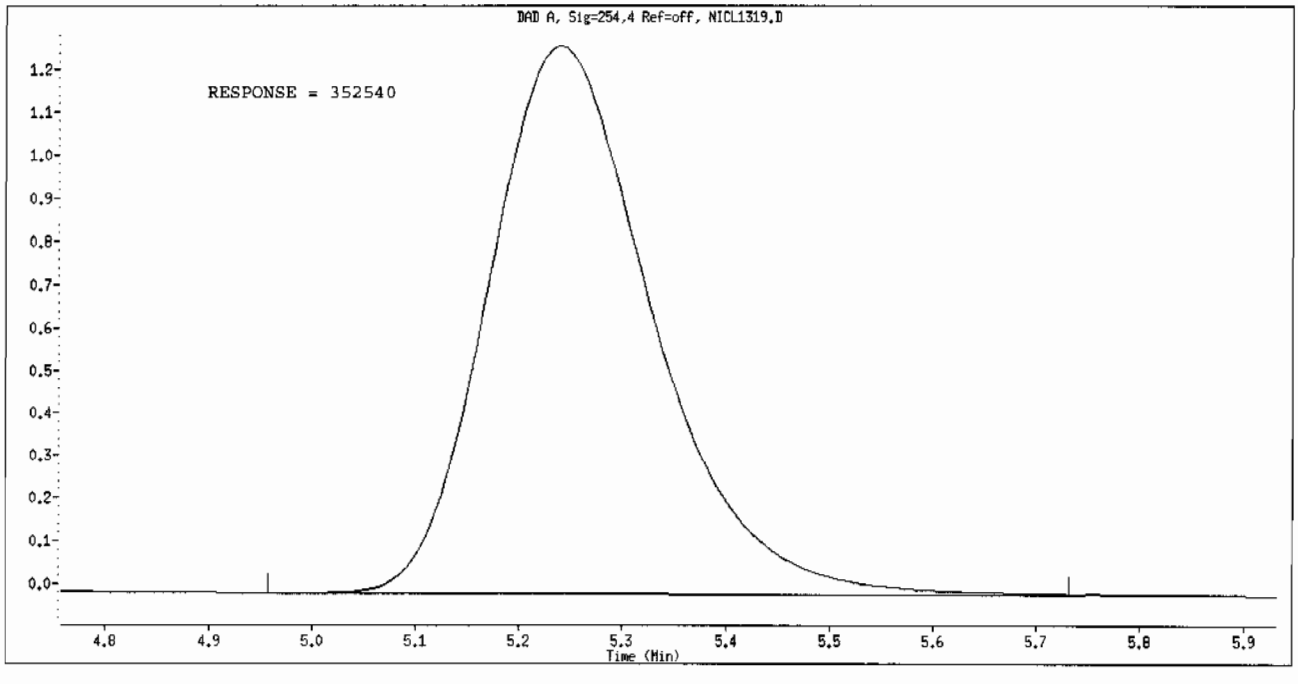

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1319.D
Inj. Date and Time: 25-NOV-2009 11:26
Instrument ID: Lcn.i
Client ID: 8330 ICAL-8
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

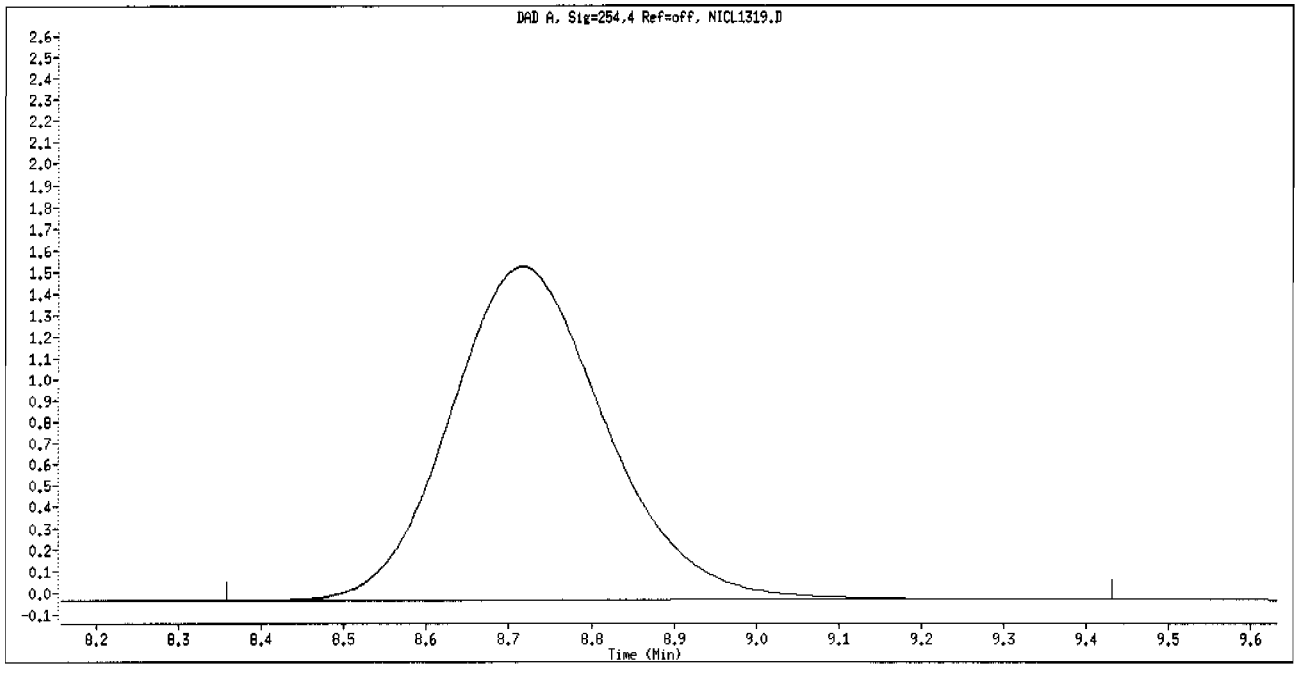

Original Integration

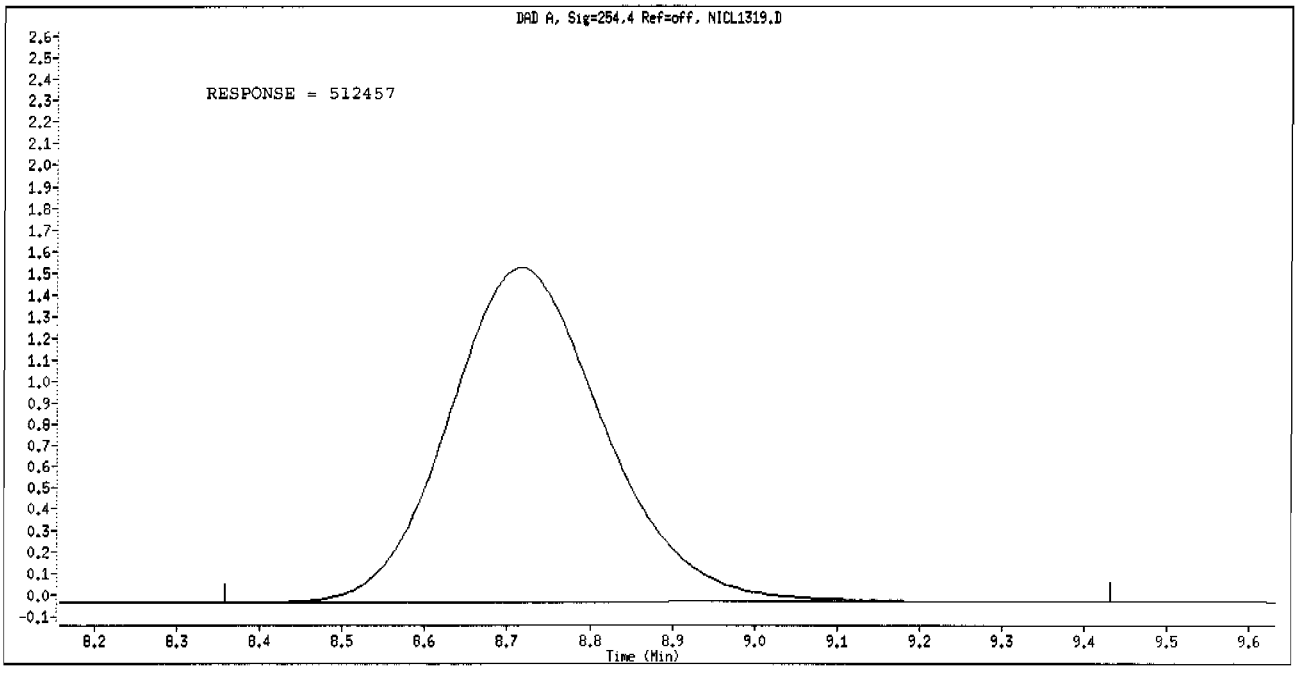

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICV1320.D
Report Date: 02-Dec-2009 16:06

TestAmerica St. Louis

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Lcn.i Injection Date: 25-NOV-2009 11:40
Lab File ID: NICV1320.D Init. Cal. Date(s): 25-NOV-2009 25-NOV-2009
Analysis Type: WATER Init. Cal. Times: 10:16 11:26
Lab Sample ID: XNX ICV Quant Type: ESTD
Method: \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m

COMPOUND	RRF / AMOUNT	RF125	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 TNX	647	687	0.010	-6.21077	20.00000	Averaged
2 DNX	630	652	0.010	-3.51780	20.00000	Averaged
3 MNX	493	518	0.010	-5.04045	20.00000	Averaged

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICV1320.D
Report Date: 02-Dec-2009 16:06

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICV1320.D
Lab Smp Id: XNX ICV Client Smp ID: XNX ICV
Inj Date : 25-NOV-2009 11:40
Operator : WH Inst ID: Lcn.i
Smp Info : XNX ICV
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:06 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.834	3.837	-0.003	69140	100.606	106.8
2 DNX	4.318	4.324	-0.006	44898	68.8500	71.27
3 MNX	5.239	5.239	0.000	47165	90.9875	95.57(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Slsvr01\HPLC\Lcn,i\N112509,b\NICV1320,D
Date : 25-NOV-2009 11:40
Client ID: XNX ICV
Sample Info: XNX ICV
Purge Volume: 500.0
Column phase: C18

Instrument: Lcn,i
Operator: WH
Column diameter: 4.60

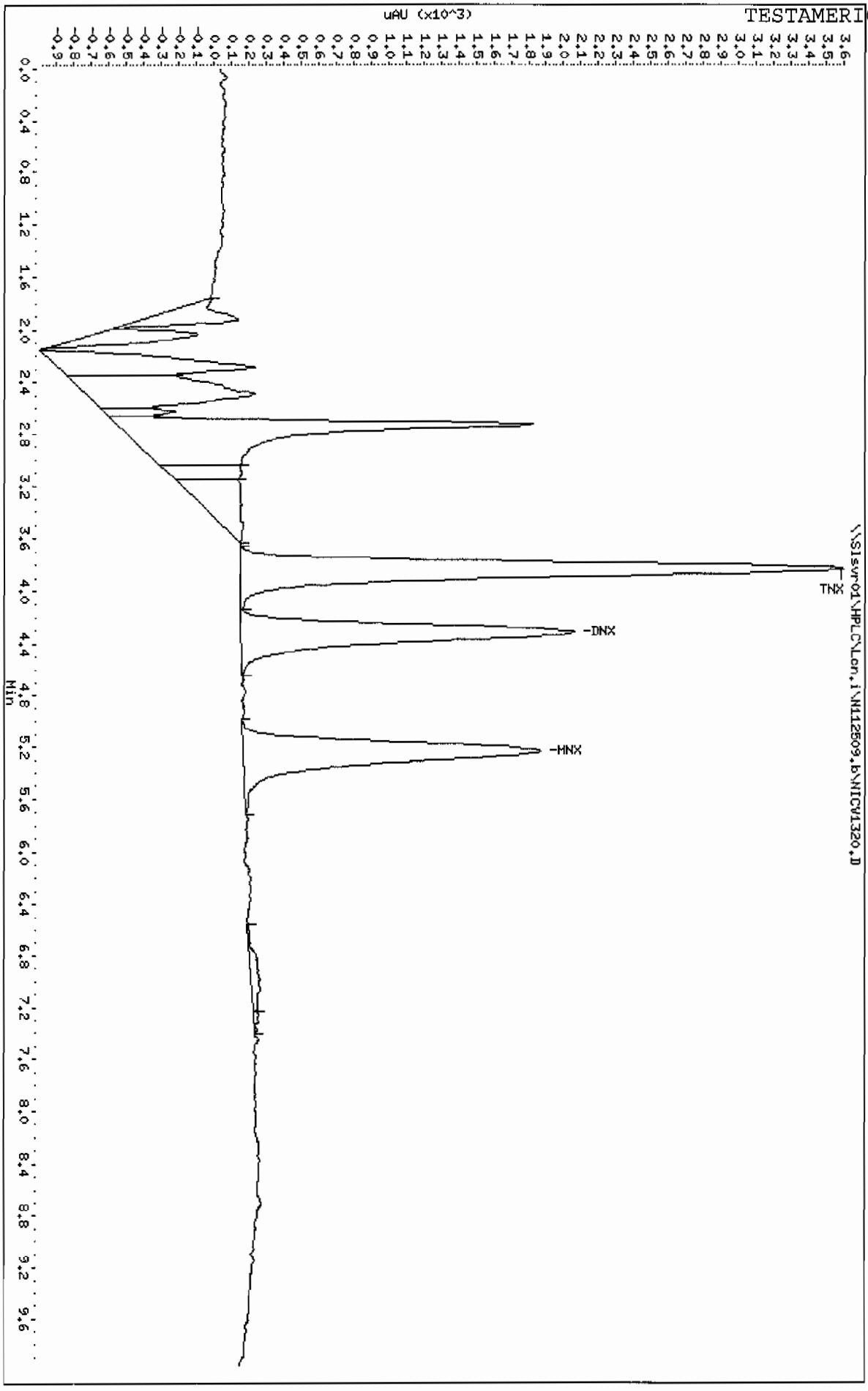

Data File Name: NICV1320.D
Inj. Date and Time: 25-NOV-2009 11:40
Instrument ID: Lcn.i
Client ID: XNX ICV
Compound Name: MNX
CAS #:

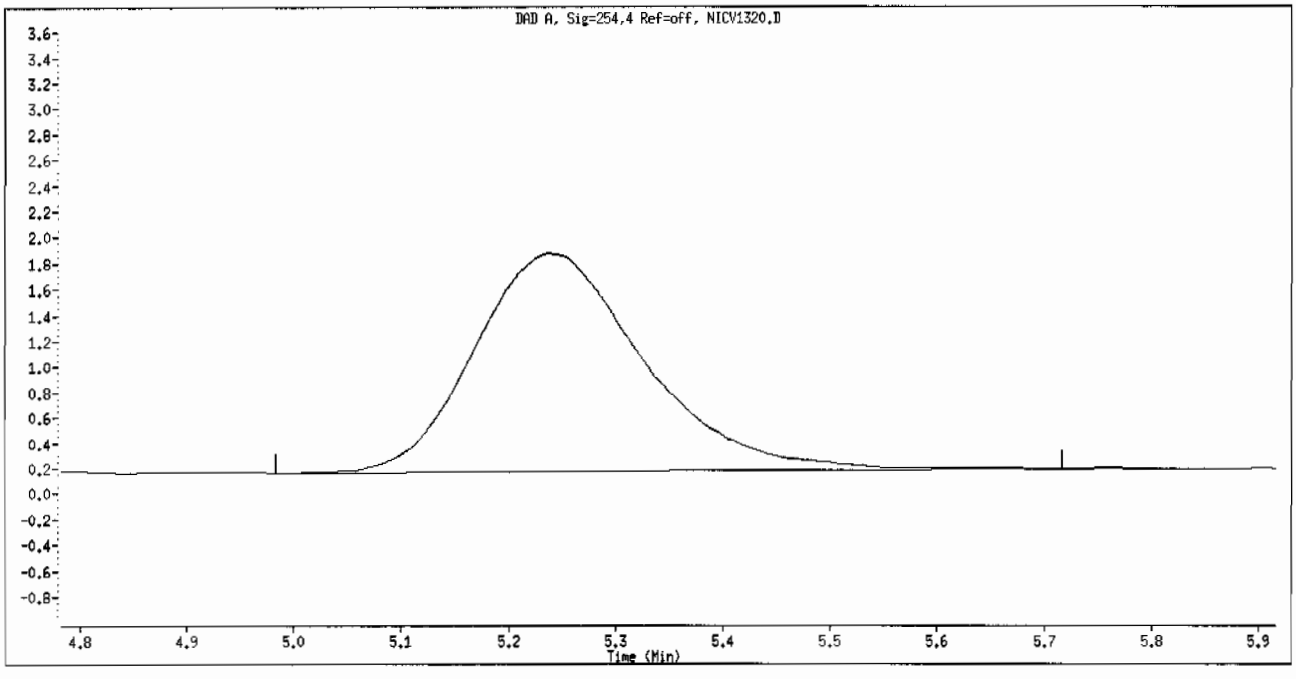

Original Integration

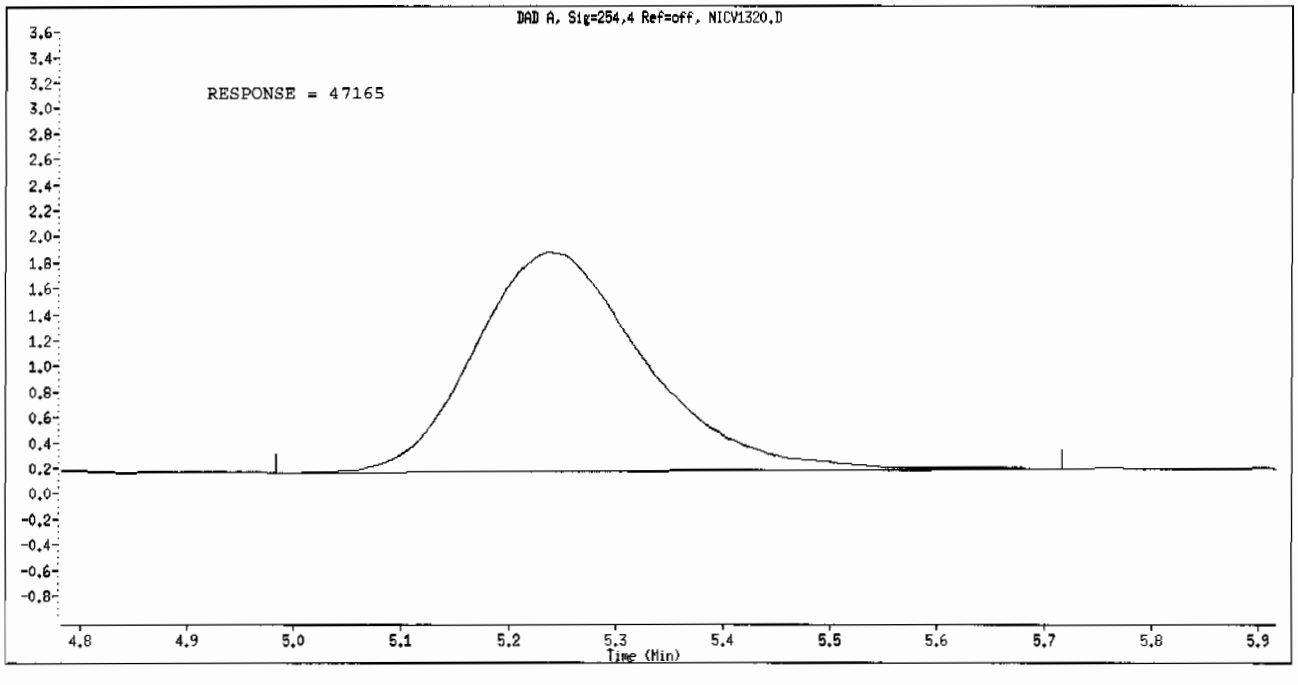

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N010410.b\NCAL1805.D
Report Date: 08-Jan-2010 12:34

TestAmerica St. Louis

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Lcn.i Injection Date: 04-JAN-2010 09:44
Lab File ID: NCAL1805.D Init. Cal. Date(s): 25-NOV-2009 25-NOV-2009
Analysis Type: WATER Init. Cal. Times: 10:16 11:26
Lab Sample ID: XNX CCAL Quant Type: ESTD
Method: \\slsvr01\HPLC\Lcn.i\N010410.b\C18XNX.m

COMPOUND	RRF / AMOUNT	RF125	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
1 TNX	647	674	0.010	-4.21989	20.00000	Averaged	
2 DNX	630	1120	0.010	-77.82338	20.00000	Averaged	<-
3 MNX	493	523	0.010	-5.96914	20.00000	Averaged	
$ 4 1,2-Dinitrobenzene	518	492	0.010	5.02505	20.00000	Averaged	

Data File: \\slsvr01\HPLC\Lcn.i\N010410.b\NCAL1805.D
Report Date: 08-Jan-2010 12:34

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N010410.b\NCAL1805.D
Lab Smp Id: XNX CCAL Client Smp ID: XNX CCAL
Inj Date : 04-JAN-2010 09:44
Operator : AF Inst ID: Lcn.i
Smp Info : XNX CCAL
Misc Info :
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N010410.b\C18XNX.m
Meth Date : 08-Jan-2010 12:33 flakera Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.834	3.837	-0.003	67844	100.606	104.8
2 DNX	4.323	4.324	-0.001	77126	68.8500	122.4
3 MNX	5.234	5.239	-0.005	47582	90.9875	96.42
$ 4 1,2-Dinitrobenzene	8.708	8.706	0.002	61465	125.000	118.7

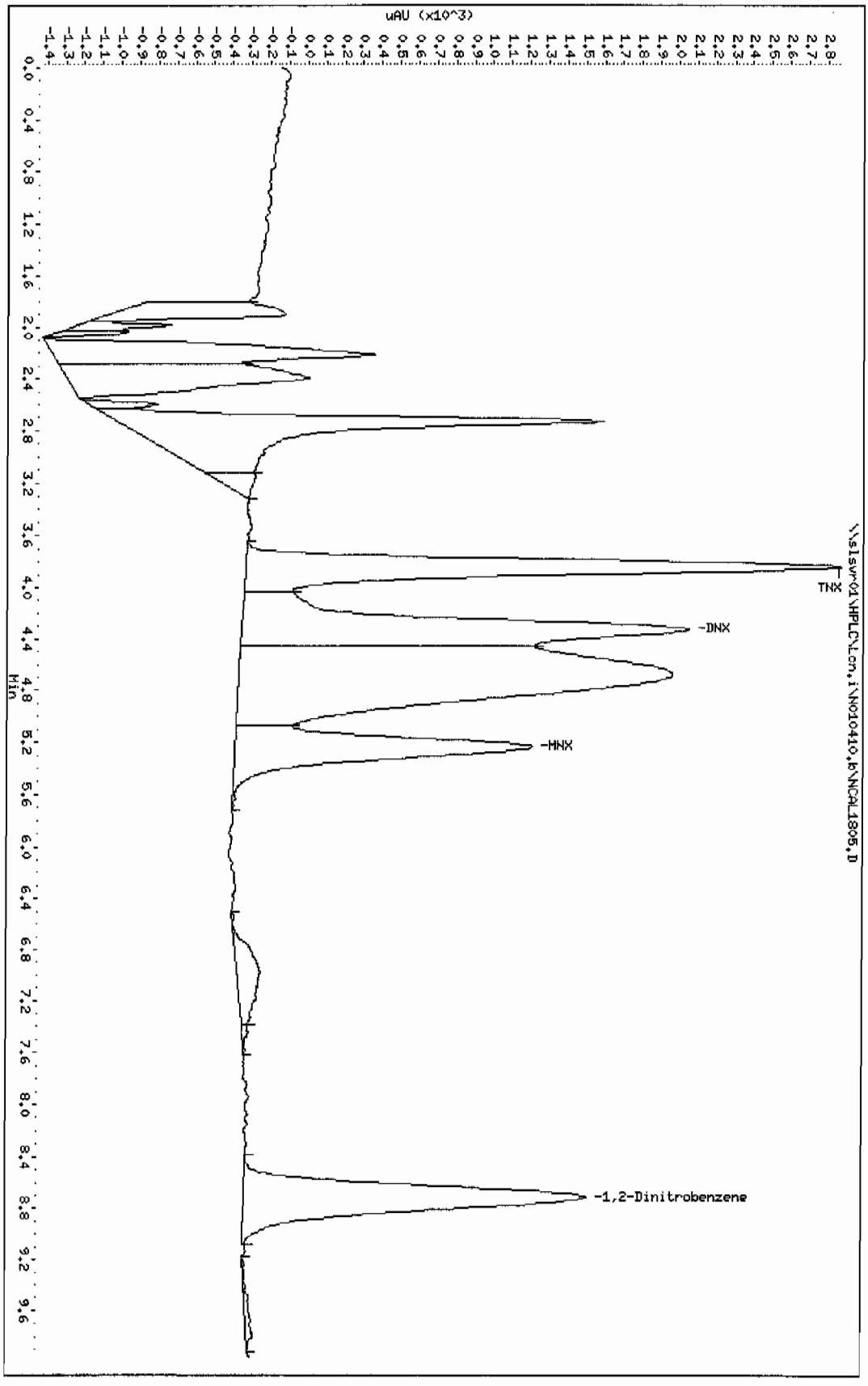
Data File: \\slsvr01\HPLC\Lon.i\N010410.b\NCAL1805.D
Date : 04-JAN-2010 09:44
Client ID: XNX CCAL
Sample Info: XNX CCAL
Purge Volume: 500.0
Column Phase: C18
Instrument: Lon.i
Operator: AF
Column diameter: 4.60
\\slsvr01\HPLC\Lon.i\N010410.b\NCAL1805.D
uAU (x10^3)
TNX
-DNX
-HNX
-1,2-Dinitrobenzene
Min

Data File: \\slsvr01\HPLC\Lcn.i\N010410.b\NCAL1816.D
Report Date: 08-Jan-2010 14:50

TestAmerica St. Louis

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Lcn.i Injection Date: 04-JAN-2010 12:18
Lab File ID: NCAL1816.D Init. Cal. Date(s): 25-NOV-2009 25-NOV-2009
Analysis Type: WATER Init. Cal. Times: 10:16 11:26
Lab Sample ID: XNX CCAL Quant Type: ESTD
Method: \\slsvr01\HPLC\Lcn.i\N010410.b\C18XNX.m

COMPOUND	RRF / AMOUNT	RF125	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 TNX	647	687	0.010	-6.24456	20.00000	Averaged
2 DNX	630	629	0.010	0.21730	20.00000	Averaged
3 MNX	493	491	0.010	0.47159	20.00000	Averaged
$ 4 1,2-Dinitrobenzene	518	499	0.010	3.71318	20.00000	Averaged

Data File: \\slsvr01\HPLC\Lcn.i\N010410.b\NCAL1816.D
Report Date: 08-Jan-2010 14:50

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N010410.b\NCAL1816.D
Lab Smp Id: XNX CCAL Client Smp ID: XNX CCAL
Inj Date : 04-JAN-2010 12:18
Operator : AF Inst ID: Lcn.i
Smp Info : XNX CCAL
Misc Info :
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N010410.b\C18XNX.m
Meth Date : 08-Jan-2010 14:50 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.851	3.837	0.014	69162	100.606	106.9(M)
2 DNX	4.338	4.324	0.014	43278	68.8500	68.70(M)
3 MNX	5.271	5.239	0.032	44690	90.9875	90.56(M)
$ 4 1,2-Dinitrobenzene	8.782	8.706	0.076	62314	125.000	120.4

QC Flag Legend

M - Compound response manually integrated.

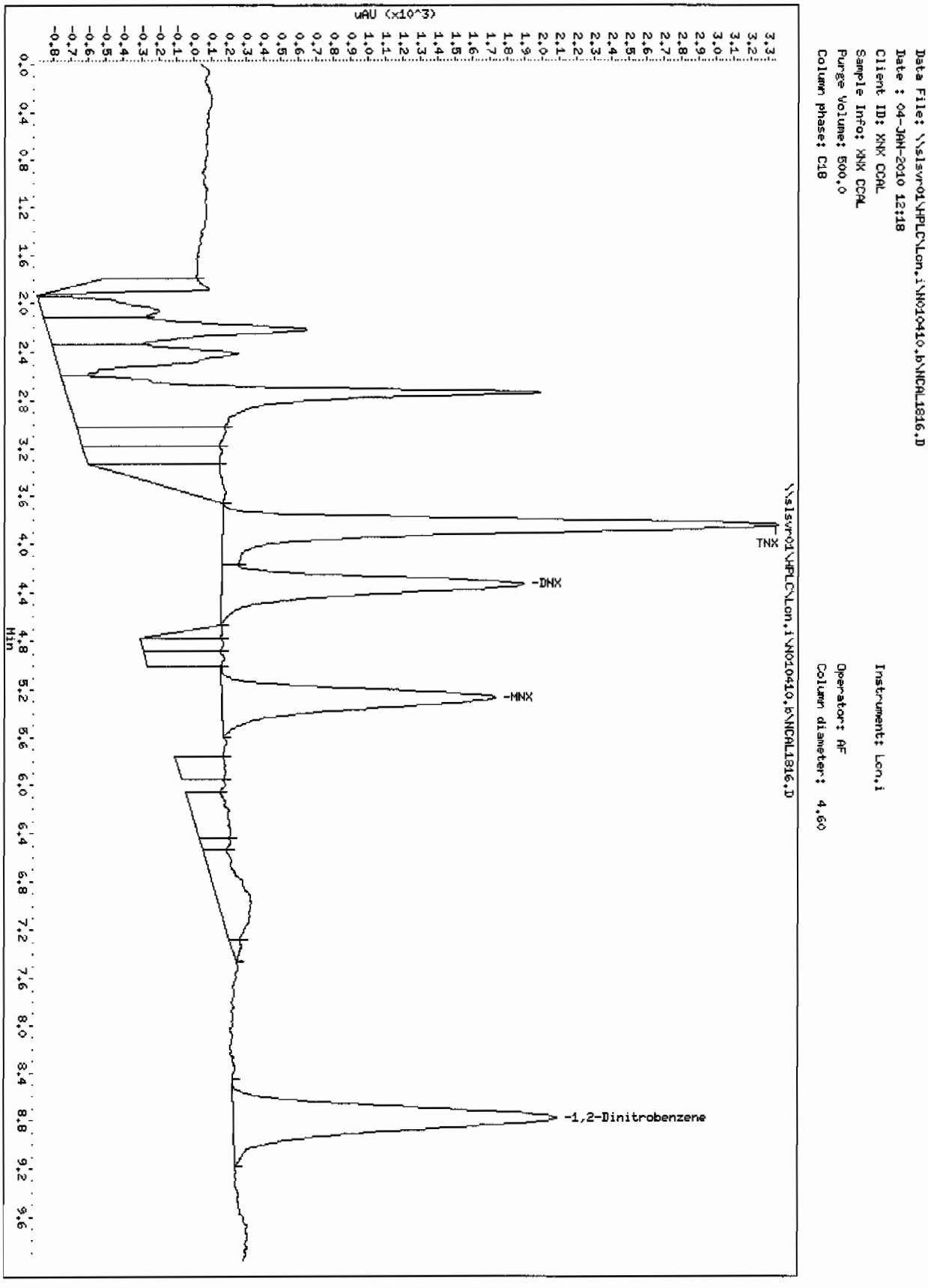
Data File: \\slsvr01\HPLC\Lcn.i\N010410.b\NCAL1816.D
Date : 04-JAN-2010 12:18
Client ID: XNX CCAL
Sample Info: XNX CCAL
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn.i
Operator: AF
Column diameter: 4.60
uAU (x10^3)
Min
\\slsvr01\HPLC\Lcn.i\N010410.b\NCAL1816.D
TNX
-DNX
-MNX
-1,2-Dinitrobenzene

Data File Name: NCAL1816.D
Inj. Date and Time: 04-JAN-2010 12:18
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: TNX
CAS #:

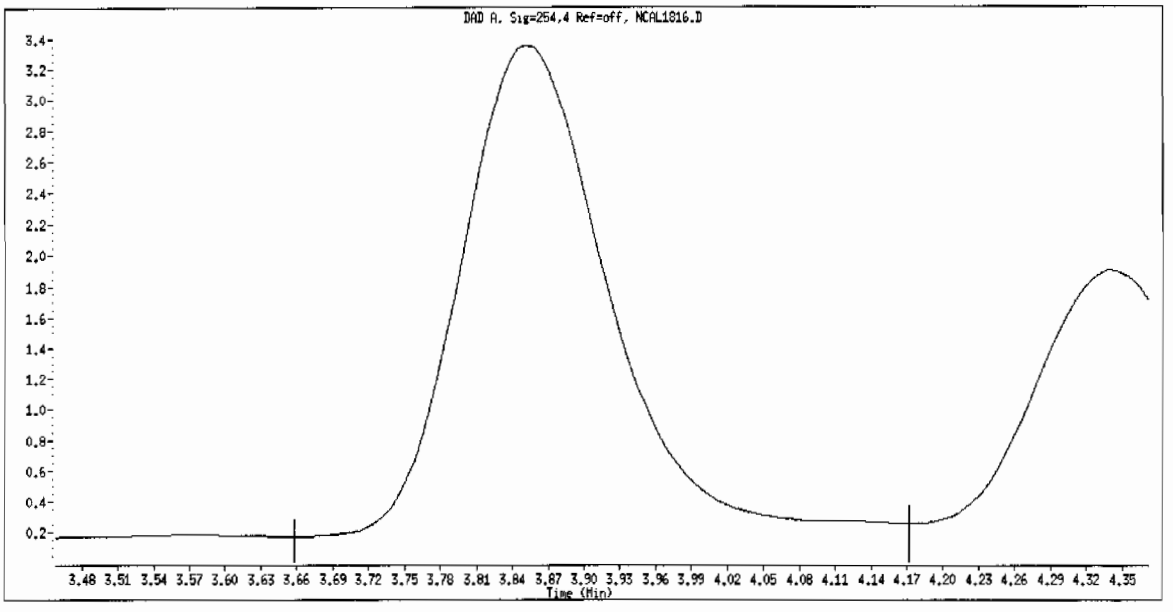

Original Integration

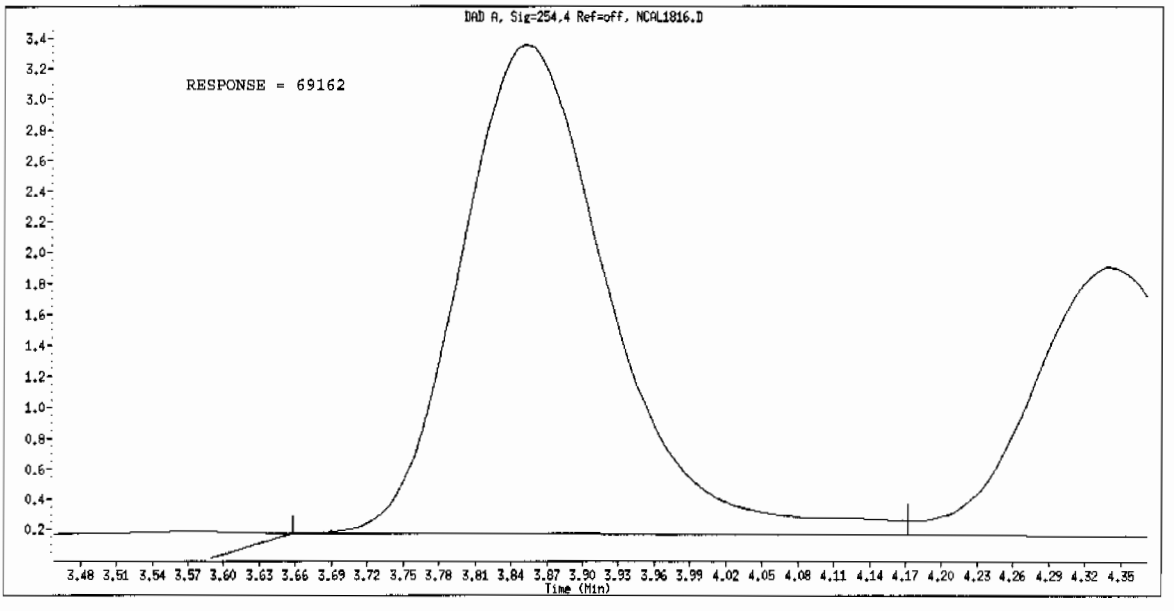

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NCAL1816.D
Inj. Date and Time: 04-JAN-2010 12:18
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: DNX
CAS #:

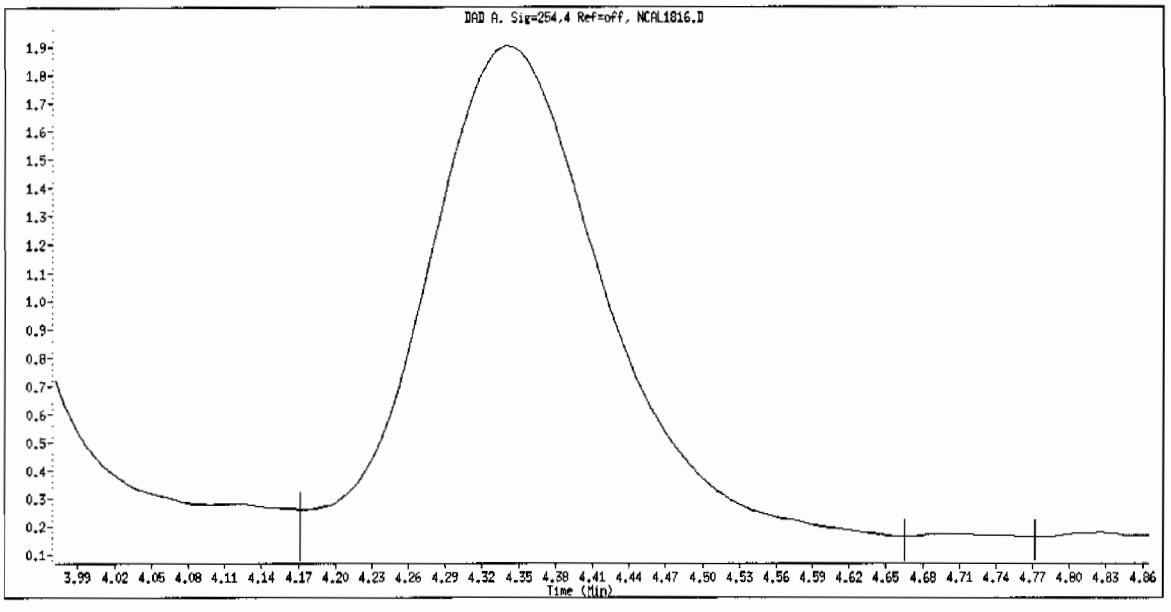

Original Integration

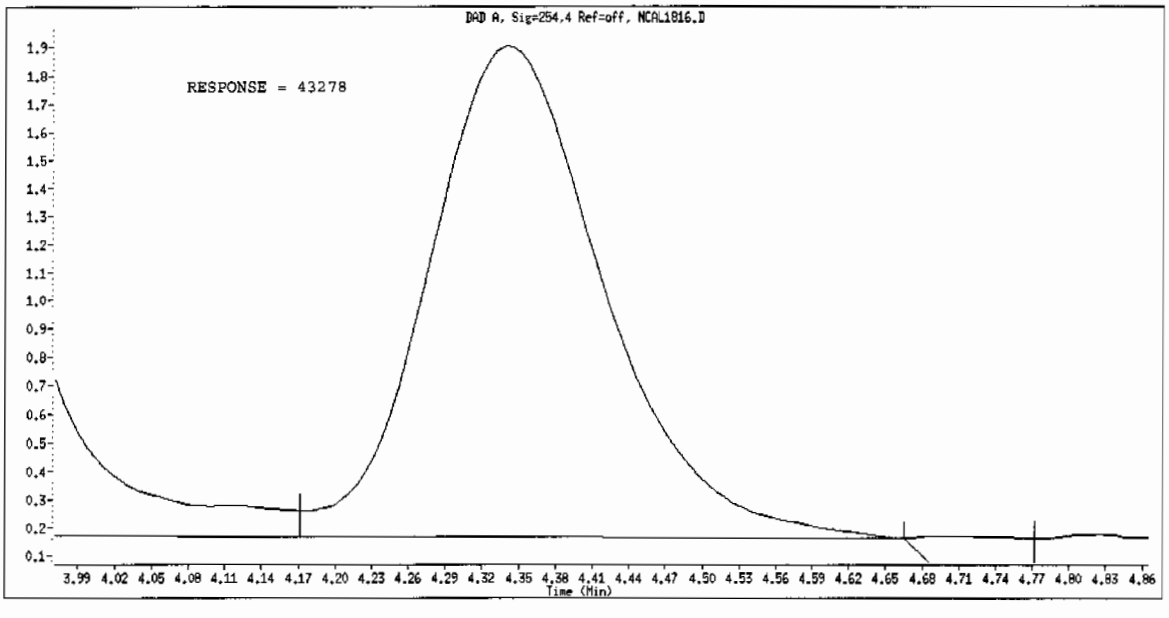

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NCAL1816.D
Inj. Date and Time: 04-JAN-2010 12:18
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: MNX
CAS #:

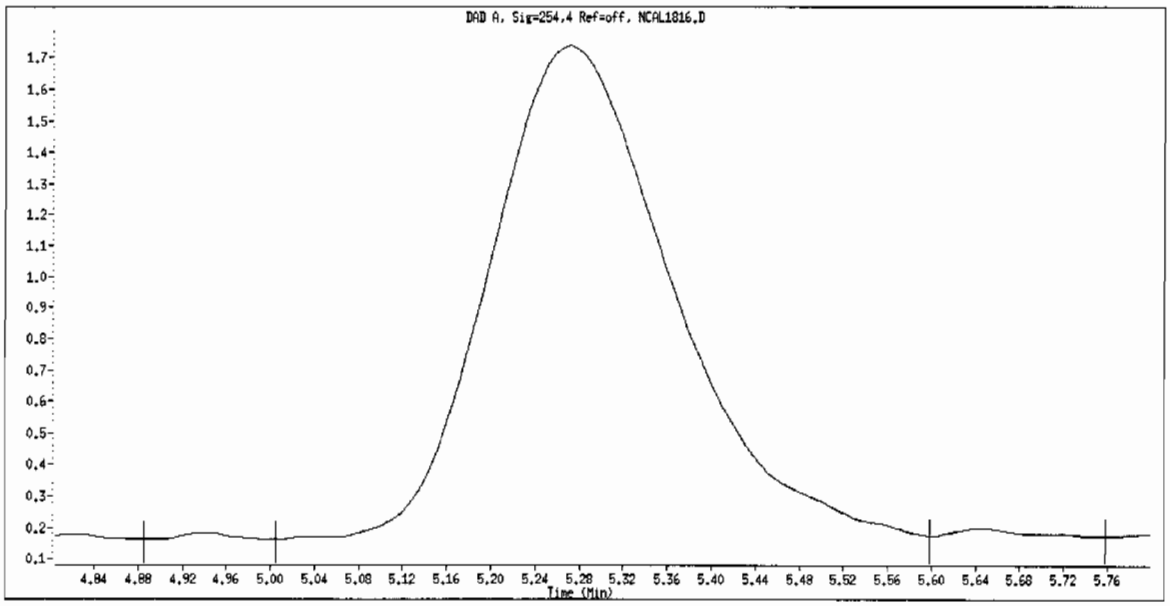

Original Integration

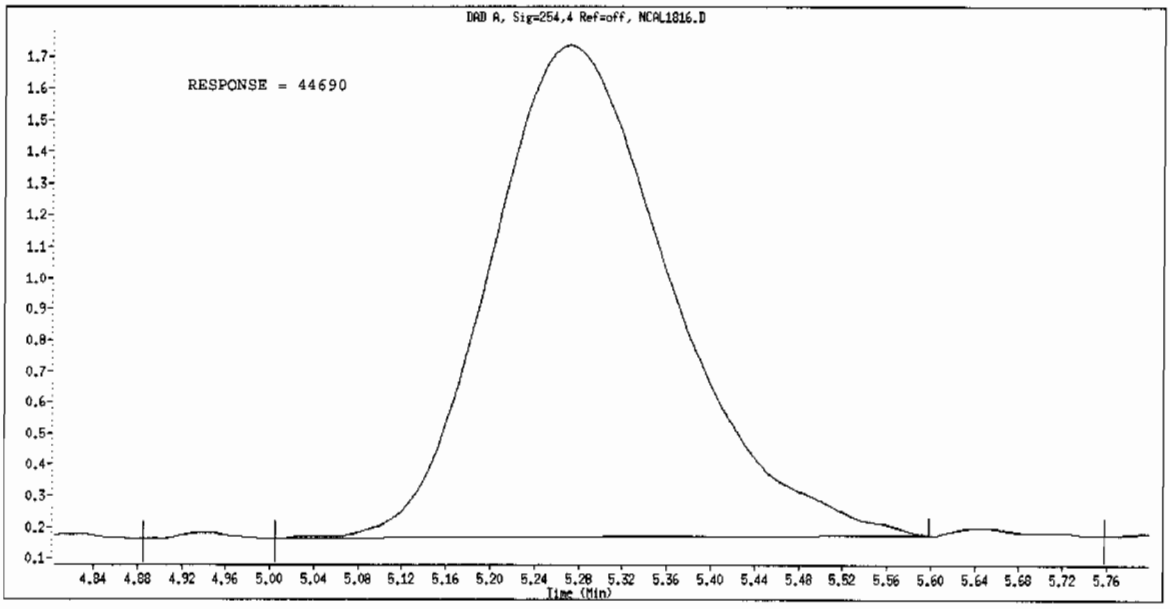

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

HPLC RAW SAMPLE DATA

Data File: \\slsvr01\HPLC\Lcn.i\N010410.b\NSMP1808.D
Report Date: 07-Jan-2010 11:12

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N010410.b\NSMP1808.D
Lab Smp Id: LRG231AC Client Smp ID: CAPA-10-6823
Inj Date : 04-JAN-2010 10:26
Operator : AF Inst ID: Lcn.i
Smp Info : LRG231AC
Misc Info : F9L220451-001
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N010410.b\C18XNX.m
Meth Date : 04-Jan-2010 13:52 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	501.100	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
$ 4 1,2-Dinitrobenzene	8.745	8.706	0.039	347243	670.694	6.692

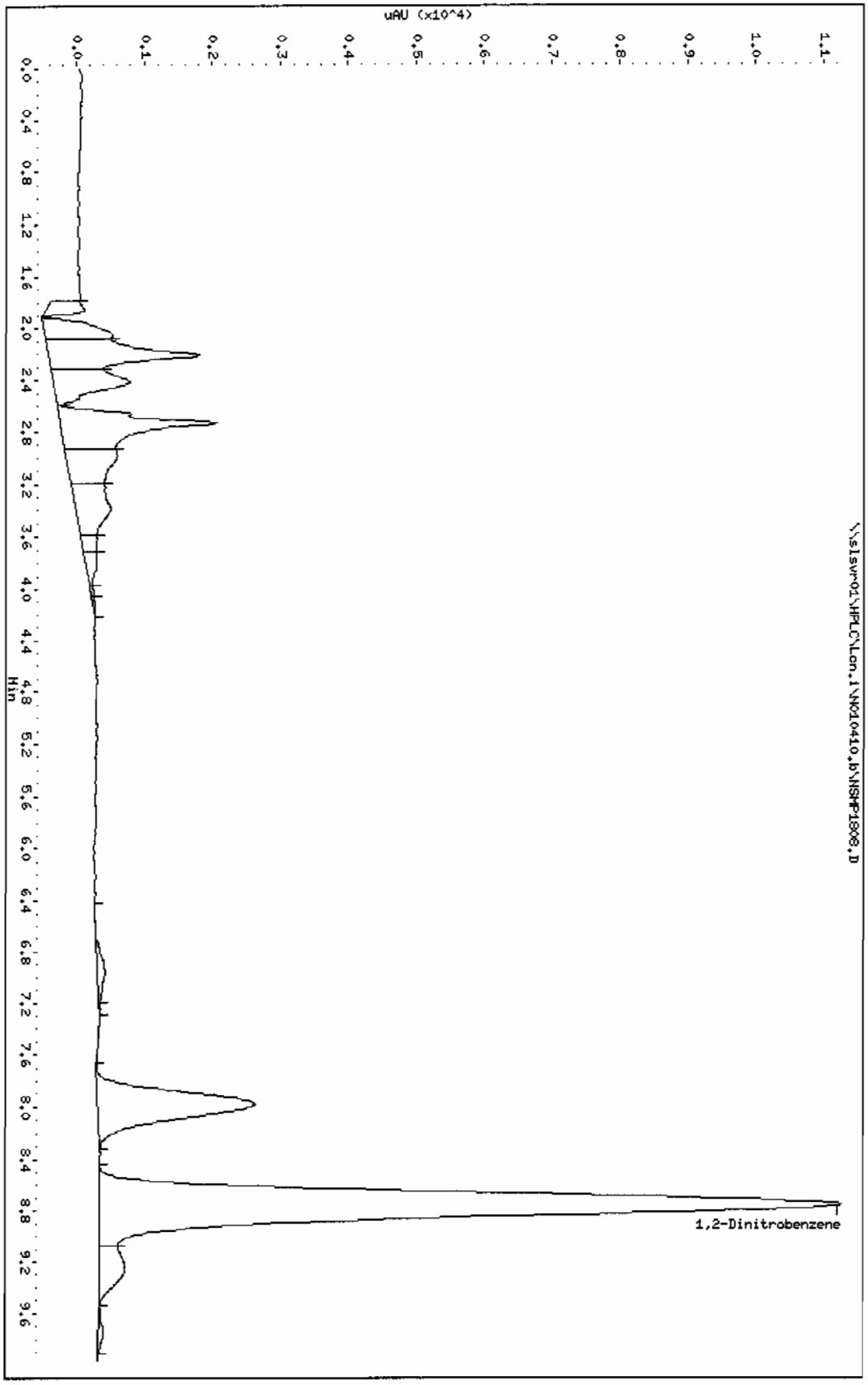
Data File: \\slsvr01\HPLC\Lcn.i\N010410.b\NSHP1808.D
Date : 04-JAN-2010 10:26
Client ID: CAPA-10-6823
Sample Info: LRC231AC
Purge Volume: 501.1
Column phase: C18
Instrument: Lcn.i
Operator: AF
Column diameter: 4.60
\\slsvr01\HPLC\Lcn.i\N010410.b\NSHP1808.D
uAU (x10^4)
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Min
0.0 0.4 0.8 1.2 1.6 2.0 2.4 2.8 3.2 3.6 4.0 4.4 4.8 5.2 5.6 6.0 6.4 6.8 7.2 7.6 8.0 8.4 8.8 9.2 9.6
1,2-Dinitrobenzene

Data File: \\slsvr01\HPLC\Lcn.i\N010410.b\NSMP1811.D
Report Date: 07-Jan-2010 11:14

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N010410.b\NSMP1811.D
Lab Smp Id: LRG271AC Client Smp ID: CAPA-10-6824
Inj Date : 04-JAN-2010 11:08
Operator : AF Inst ID: Lcn.i
Smp Info : LRG271AC
Misc Info : F9L220451-002
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N010410.b\C18XNX.m
Meth Date : 04-Jan-2010 13:52 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	517.200	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
$ 4 1,2-Dinitrobenzene	8.768	8.706	0.062	318116	614.436	5.940

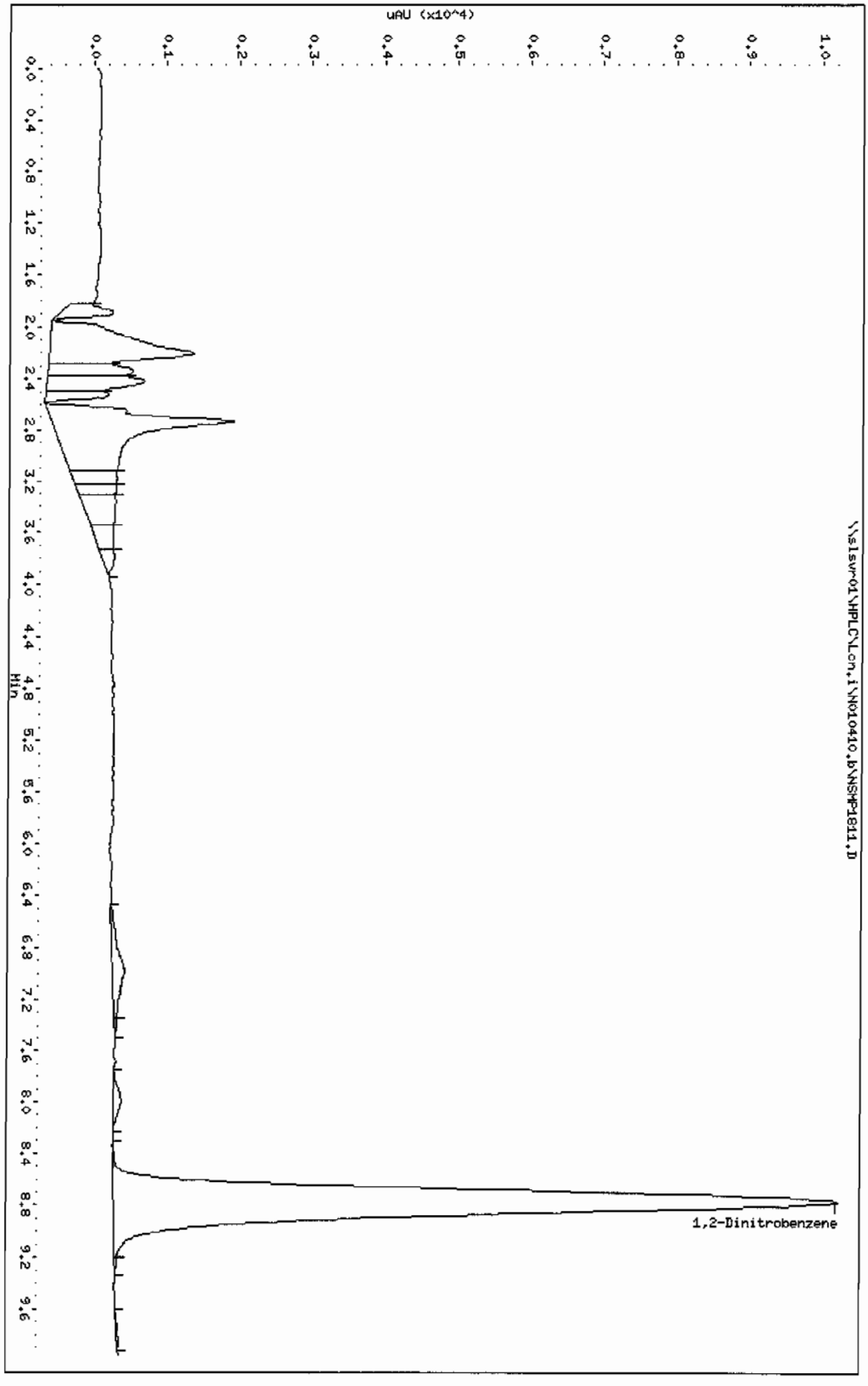
Data File: \\slsvr01\HPLC\Lcn.i\N010410.b\NSMP1811.D
Date : 04-JAN-2010 11:08
Client ID: CAFA-10-6824
Sample Info: LRC271AC
Purge Volume: 517.2
Column phase: C18
Instrument: Lcn.i
Operator: AF
Column diameter: 4.60
\\slsvr01\HPLC\Lcn.i\N010410.b\NSMP1811.D
uAU (x10^4)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0.0 0.4 0.8 1.2 1.6 2.0 2.4 2.8 3.2 3.6 4.0 4.4 4.8 5.2 5.6 6.0 6.4 6.8 7.2 7.6 8.0 8.4 8.8 9.2 9.6
Min
1,2-Dinitrobenzene

HPLC RAW QC DATA

Data File: \\slsvr01\HPLC\Lcn.i\N010410.b\NBLK1806.D
Report Date: 07-Jan-2010 11:09

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N010410.b\NBLK1806.D
Lab Smp Id: LRJ3P1AA Client Smp ID: LAB BLANK
Inj Date : 04-JAN-2010 09:58
Operator : AF Inst ID: Lcn.i
Smp Info : LRJ3P1AA
Misc Info : F9L230000-328B
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N010410.b\C18XNX.m
Meth Date : 04-Jan-2010 13:52 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
$ 4 1,2-Dinitrobenzene	8.730	8.706	0.024	348040	672.234	6.722

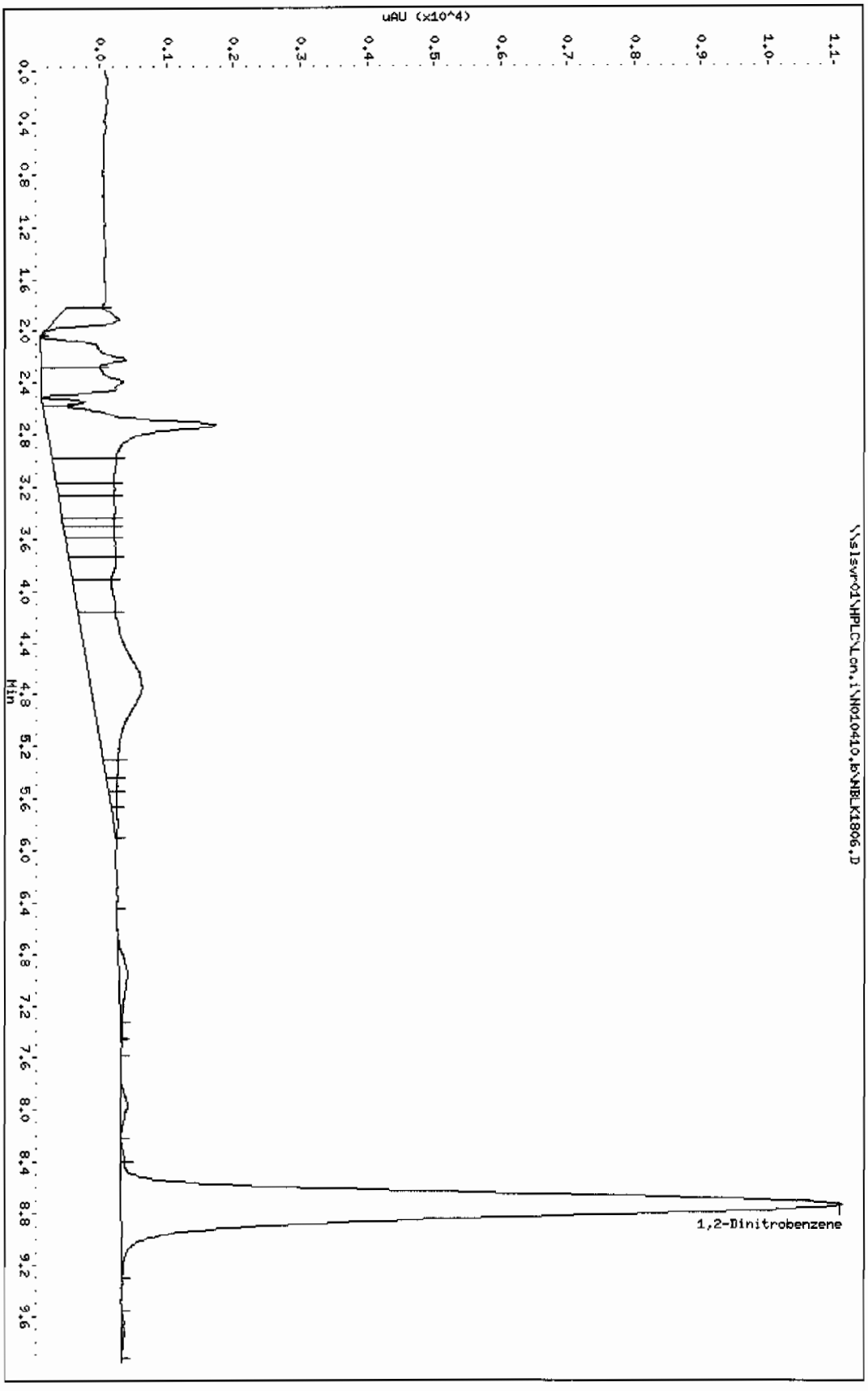
Data File: \\slsvr01\HPLC\Lcn.i\N010410.b\NBLK1806.D
Date : 04-JAN-2010 09:59
Client ID: LAB BLANK
Sample Info: LRJ3P1AA
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn.i
Operator: AF
Column diameter: 4.60
\\slsvr01\HPLC\Lcn.i\N010410.b\NBLK1806.D
uAU (x10^4)
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
Min
0.0 0.4 0.8 1.2 1.6 2.0 2.4 2.8 3.2 3.6 4.0 4.4 4.8 5.2 5.6 6.0 6.4 6.8 7.2 7.6 8.0 8.4 8.8 9.2 9.6
1,2-Dinitrobenzene

Data File: \\slsvr01\HPLC\Lcn.i\N010410.b\NLCS1807.D
Report Date: 07-Jan-2010 11:12

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N010410.b\NLCS1807.D
Lab Smp Id: LRJ3P1AC Client Smp ID: LAB CHECK
Inj Date : 04-JAN-2010 10:12
Operator : AF Inst ID: Lcn.i
Smp Info : LRJ3P1AC
Misc Info : F9L230000-238C
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N010410.b\C18XNX.m
Meth Date : 04-Jan-2010 13:52 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 TNX	3.842	3.837	0.005	37402	57.8041	0.5780(M)
2 DNX	4.322	4.324	-0.002	26789	42.5254	0.4252(M)
3 MNX	5.249	5.239	0.010	29628	60.0373	0.6004(M)
$ 4 1,2-Dinitrobenzene	8.738	8.706	0.032	369118	712.946	7.129

QC Flag Legend

M - Compound response manually integrated.

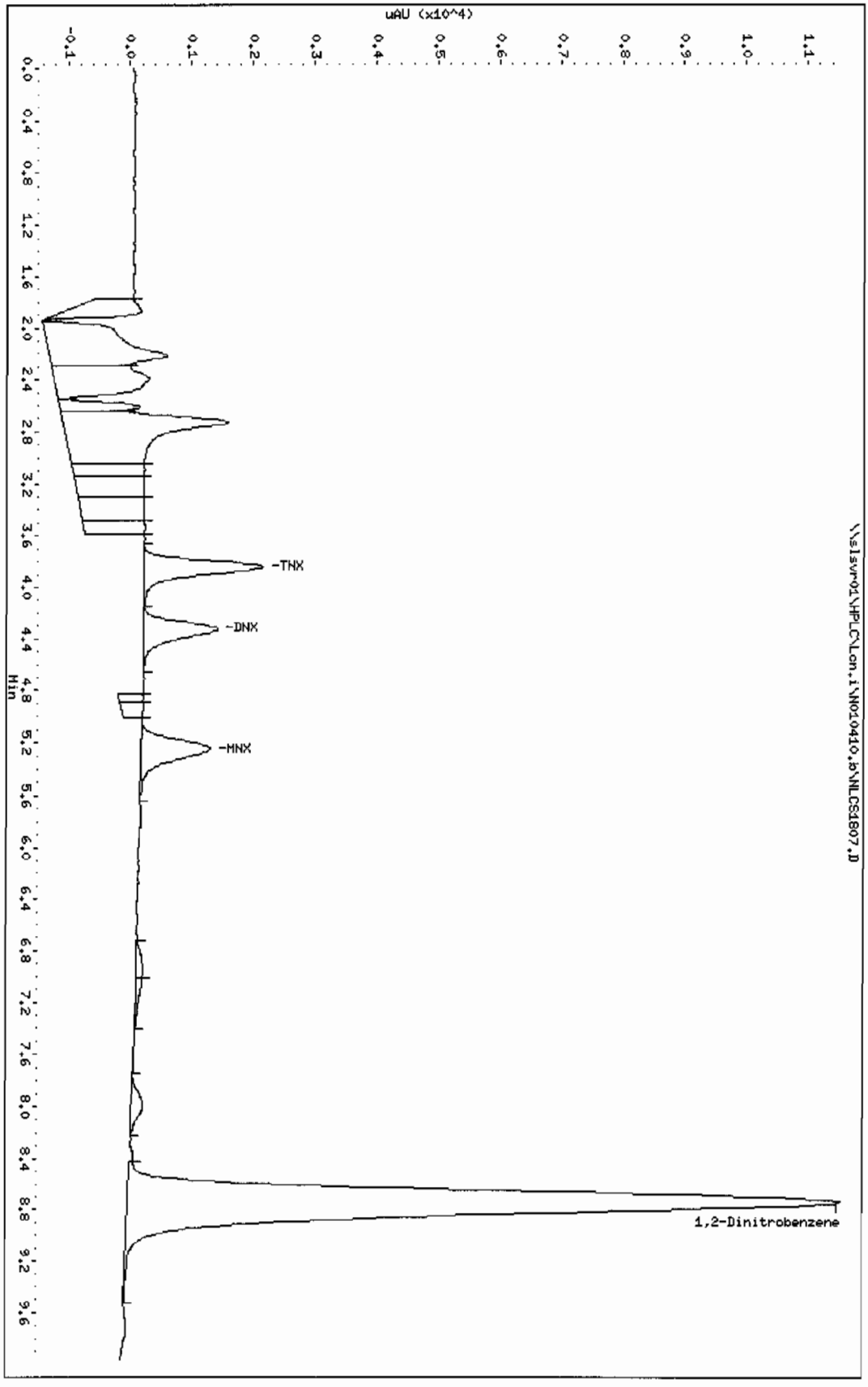
Data File: \\slsvr01\HPLC\Lcn.i\N010410.b\NLCS1807.D
Date : 04-JAN-2010 10:12
Client ID: LAB CHECK
Sample Info: LRJ3P1AC
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn.i
Operator: AF
Column diameter: 4.60
\\slsvr01\HPLC\Lcn.i\N010410.b\NLCS1807.D
uAU (x10^4)
Min
-TNX
-DNX
-MNX
1,2-Dinitrobenzene

Data File Name: NLCS1807.D
Inj. Date and Time: 04-JAN-2010 10:12
Instrument ID: Lcn.i
Client ID: LAB CHECK
Compound Name: TNX
CAS #:

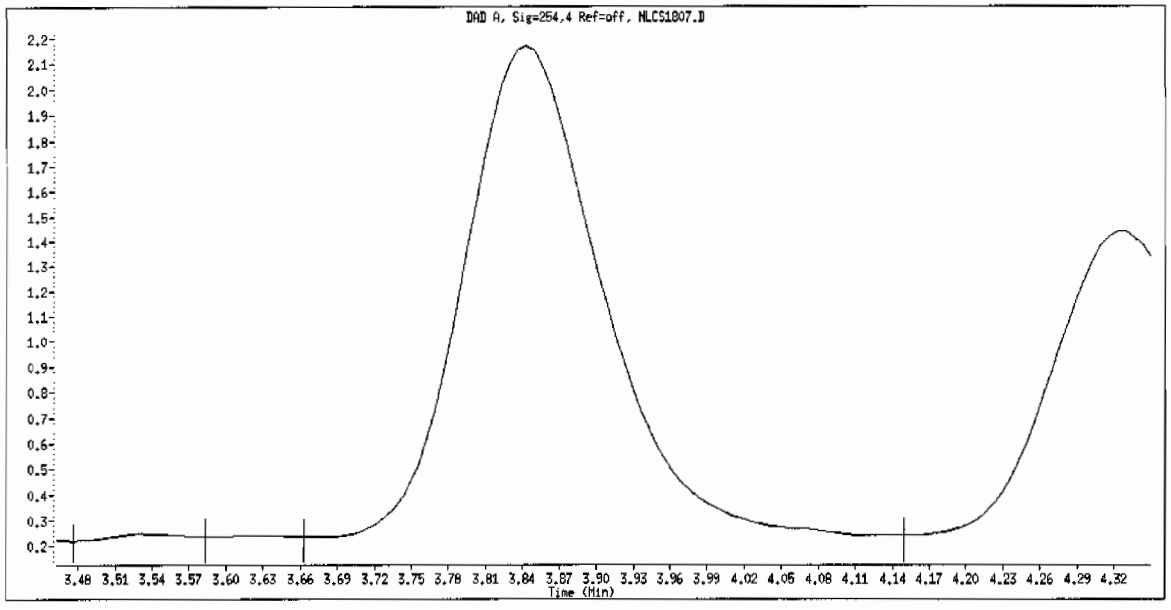

Original Integration

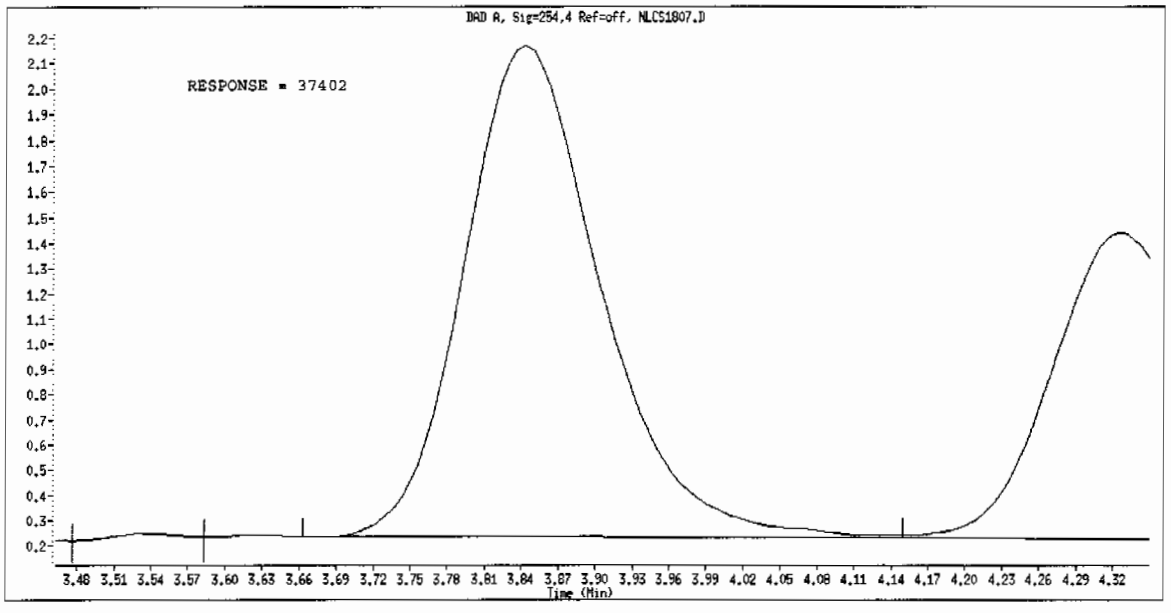

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NLCS1807.D
Inj. Date and Time: 04-JAN-2010 10:12
Instrument ID: Lcn.i
Client ID: LAB CHECK
Compound Name: DNX
CAS #:

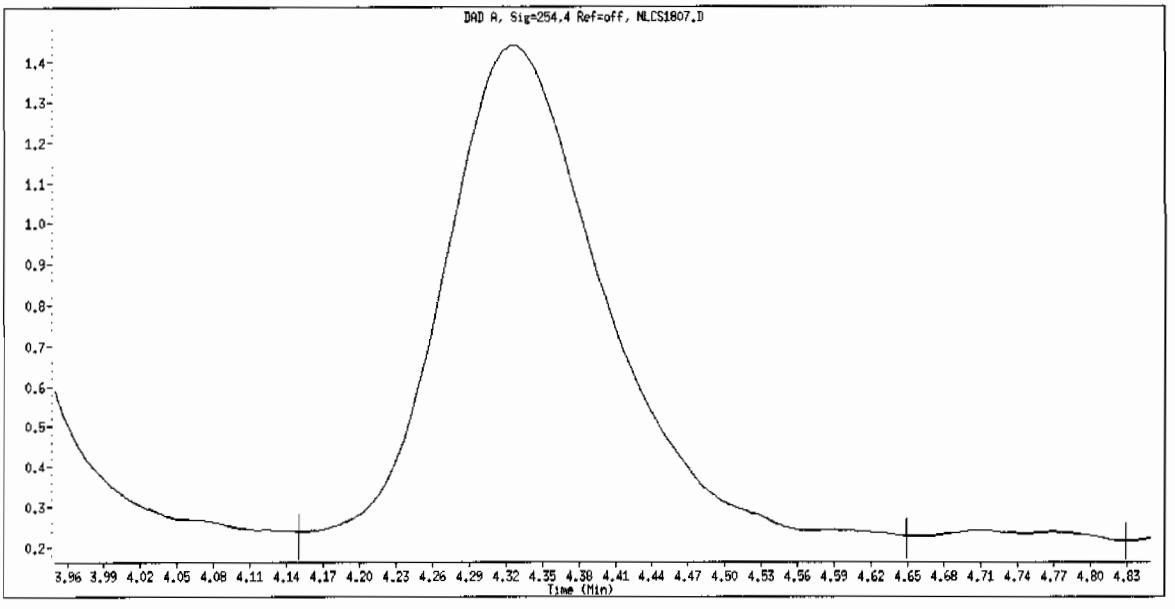

Original Integration

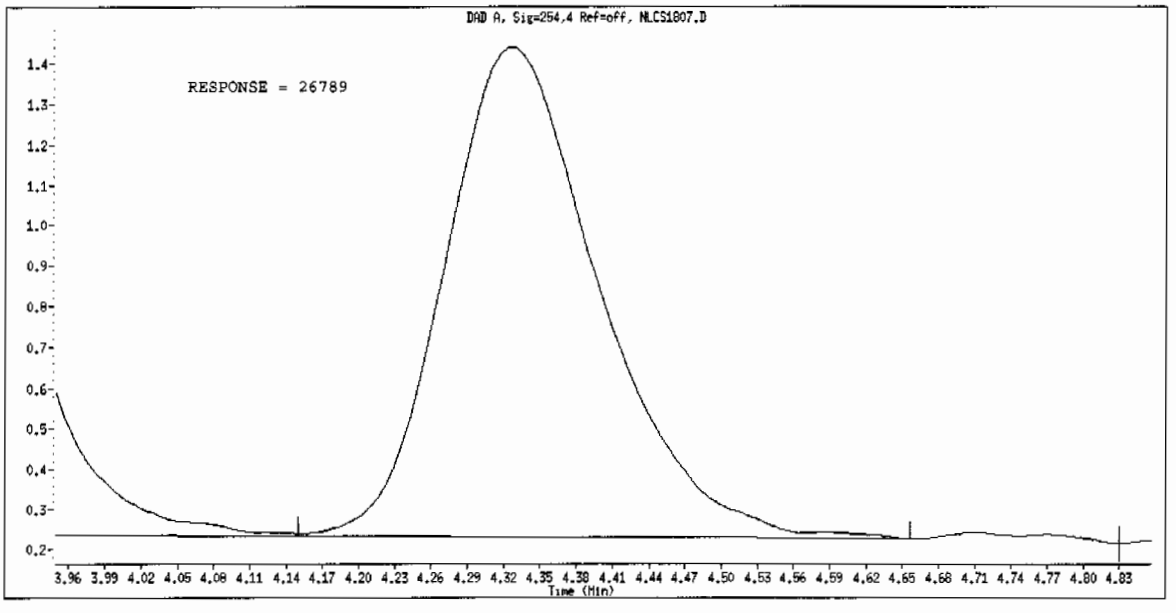

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NLCS1807.D
Inj. Date and Time: 04-JAN-2010 10:12
Instrument ID: Lcn.i
Client ID: LAB CHECK
Compound Name: MNX
CAS #:

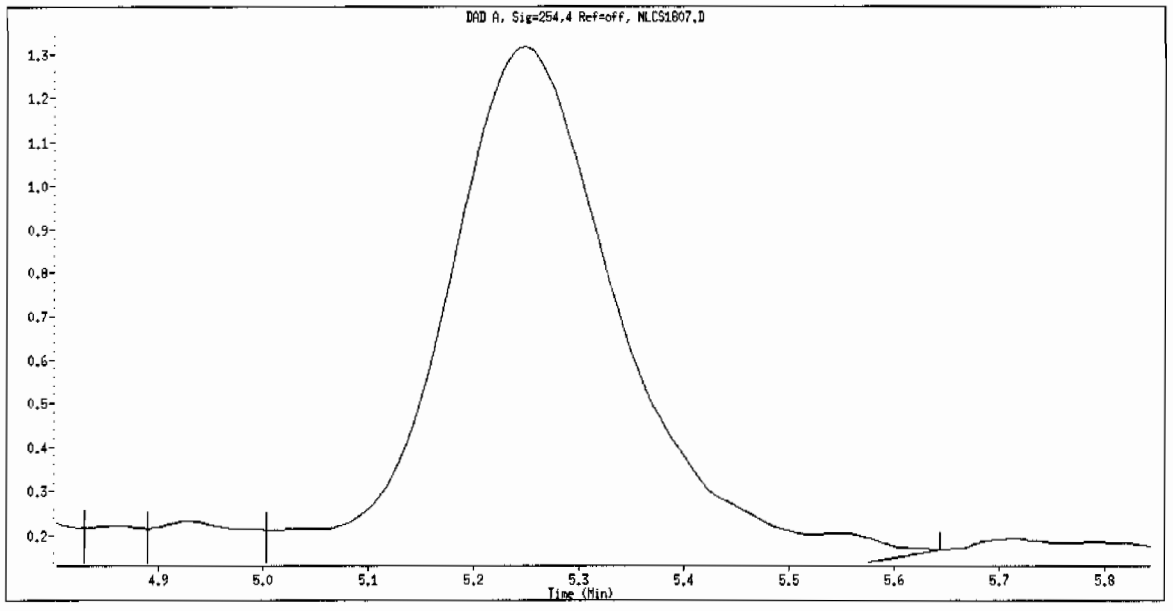

Original Integration

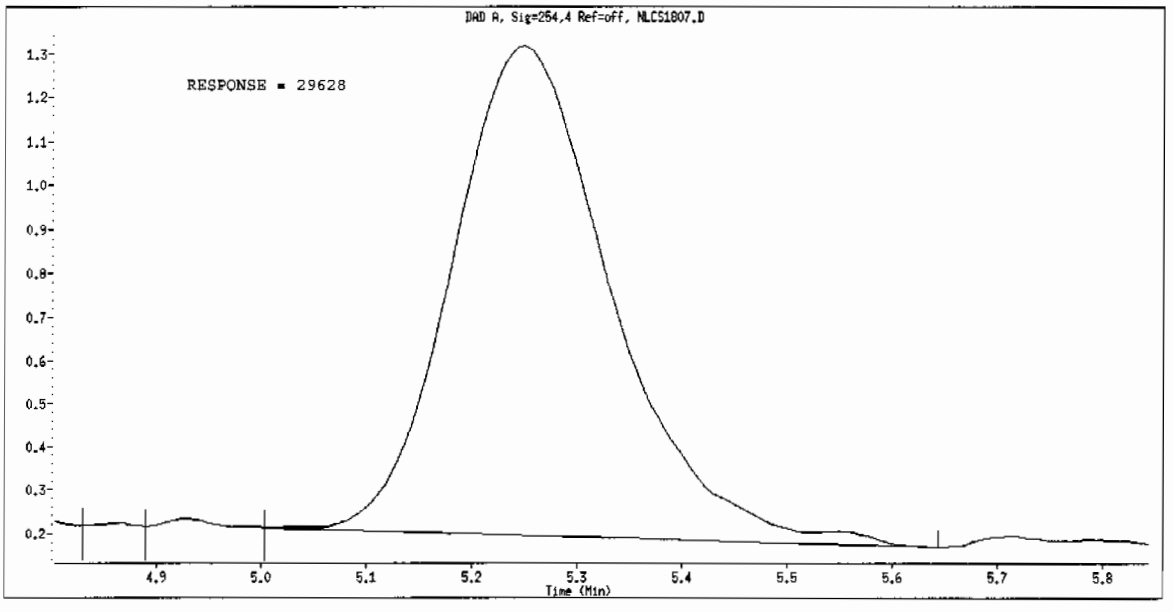

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N010410.b\NSMP1809.D
Report Date: 07-Jan-2010 11:13

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N010410.b\NSMP1809.D
Lab Smp Id: LRG231AD Client Smp ID: CAPA-10-6823S
Inj Date : 04-JAN-2010 10:40
Operator : AF Inst ID: Lcn.i
Smp Info : LRG231AD
Misc Info : F9L220451-001S
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N010410.b\C18XNX.m
Meth Date : 04-Jan-2010 13:52 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	503.500	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 TNX	3.848	3.837	0.011	38638	59.7144	0.5930(M)
2 DNX	4.335	4.324	0.011	26410	41.9238	0.4163(M)
3 MNX	5.255	5.239	0.016	30019	60.8296	0.6041(M)
$ 4 1,2-Dinitrobenzene	8.743	8.706	0.037	439541	848.967	8.431

QC Flag Legend

M - Compound response manually integrated.

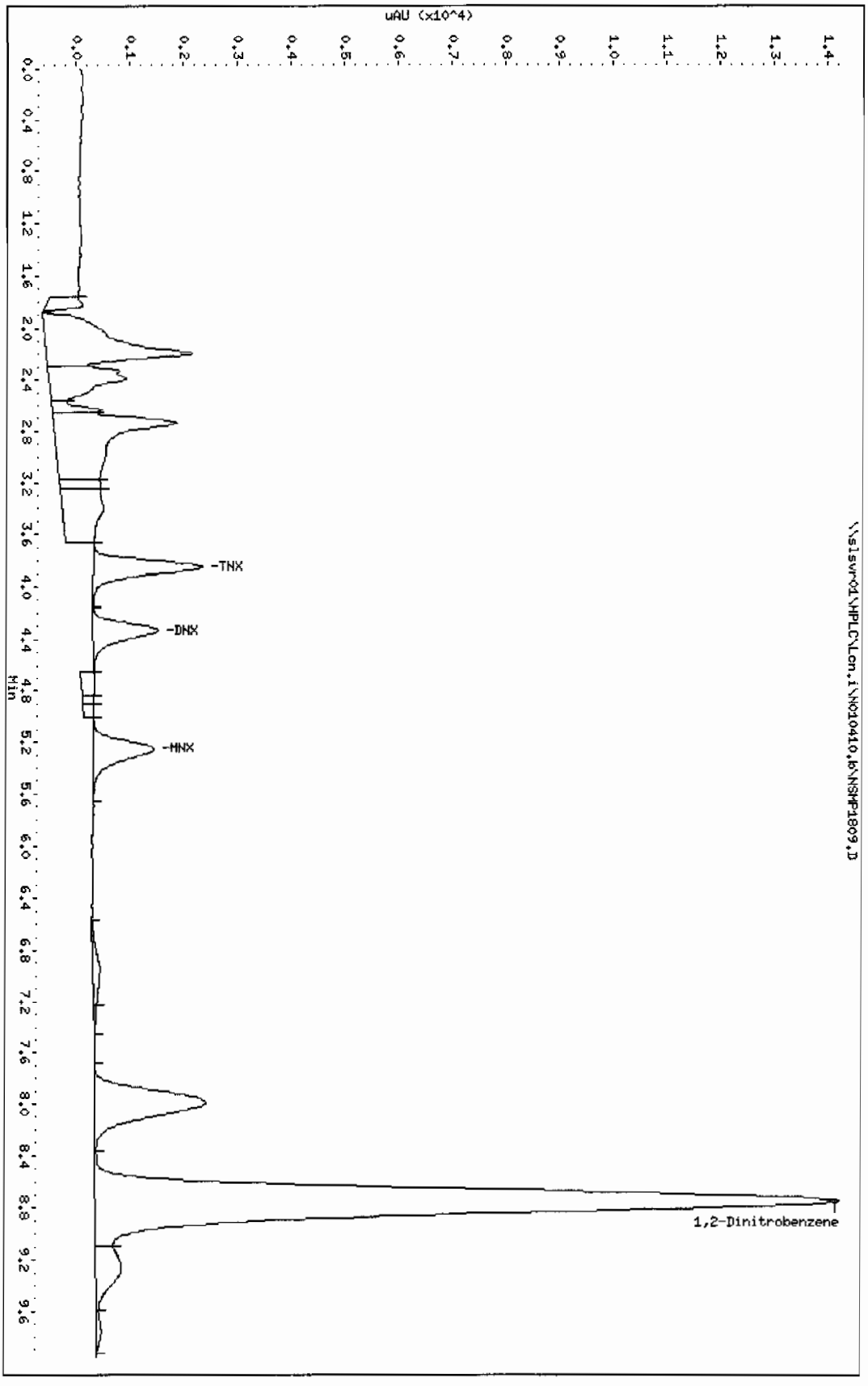
Data File: \\slsvr01\HPLC\Lcn.i\N010410.b\NSMP1809.D
Date : 04-JAN-2010 10:40
Client ID: CAPA-10-6823S
Sample Info: LRG2314AD
Purge Volume: 503.5
Column phase: C18
Instrument: Lcn.i
Operator: AF
Column diameter: 4.60
\\slsvr01\HPLC\Lcn.i\N010410.b\NSMP1809.D
uAU (x10^4)
-TNX
-DNX
-MNX
1,2-Dinitrobenzene
Min

Data File Name: NSMP1809.D
Inj. Date and Time: 04-JAN-2010 10:40
Instrument ID: Lcn.i
Client ID: CAPA-10-6823S
Compound Name: TNX
CAS #:

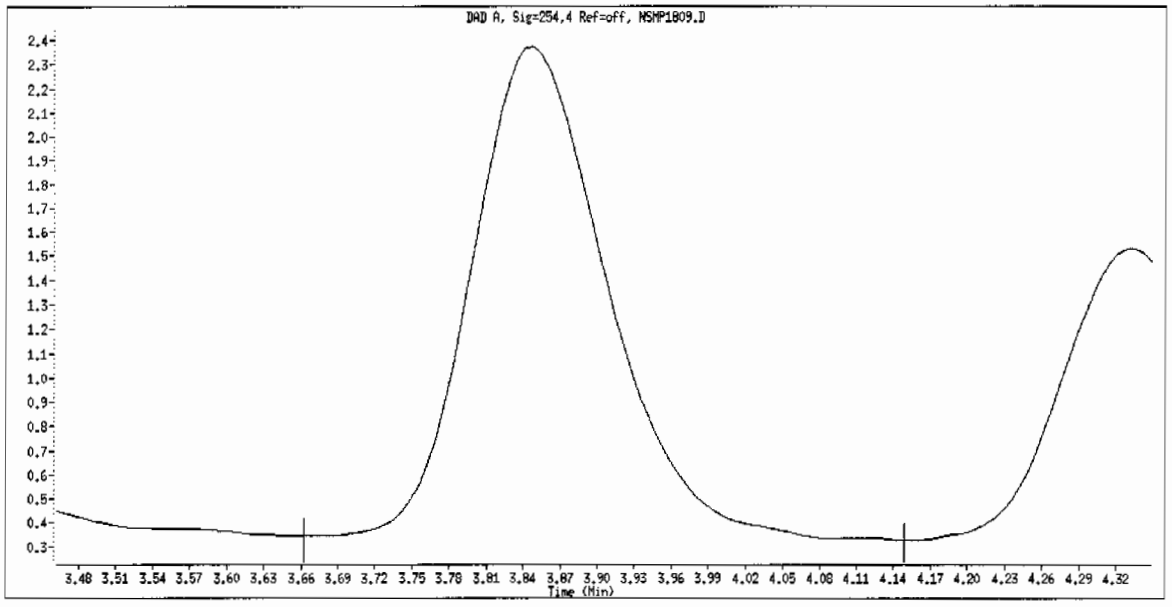

Original Integration

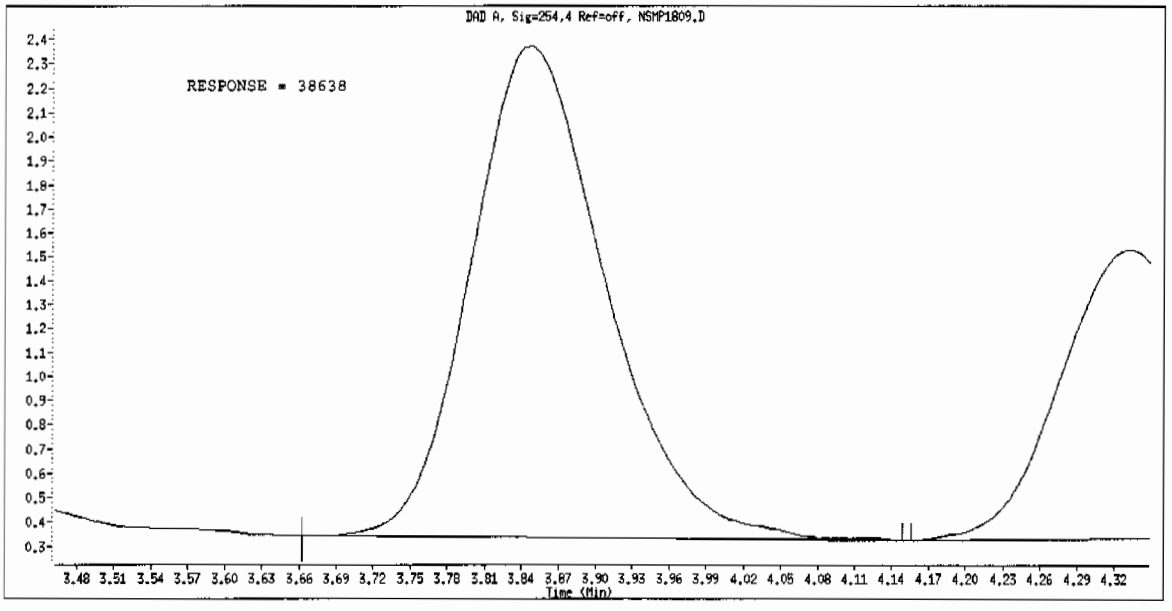

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NSMP1809.D
Inj. Date and Time: 04-JAN-2010 10:40
Instrument ID: Lcn.i
Client ID: CAPA-10-6823S
Compound Name: DNX
CAS #:

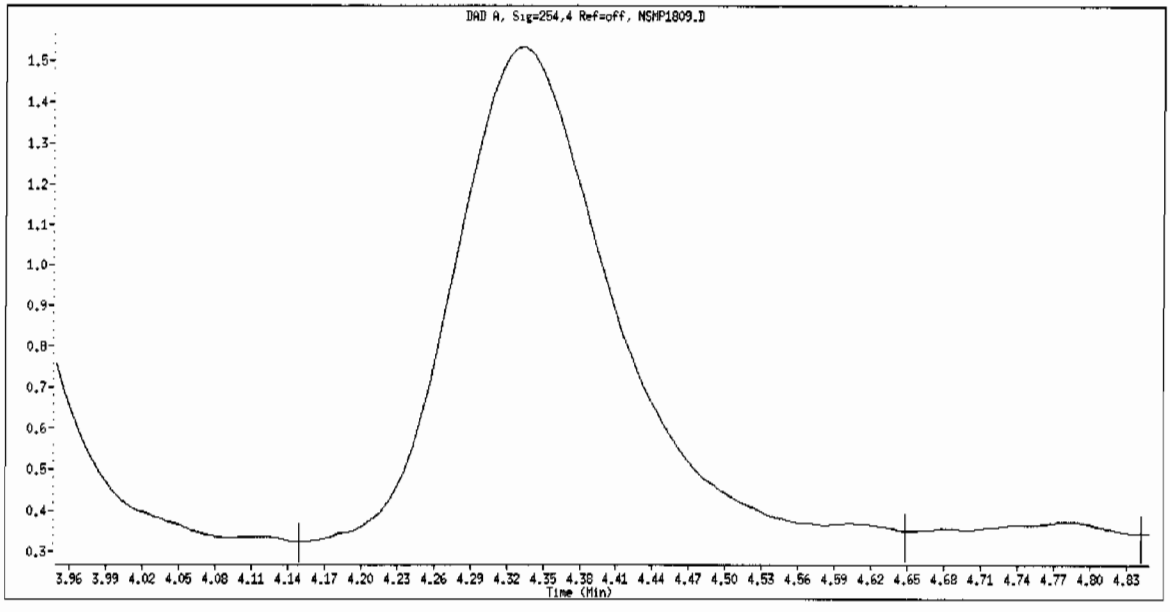

Original Integration

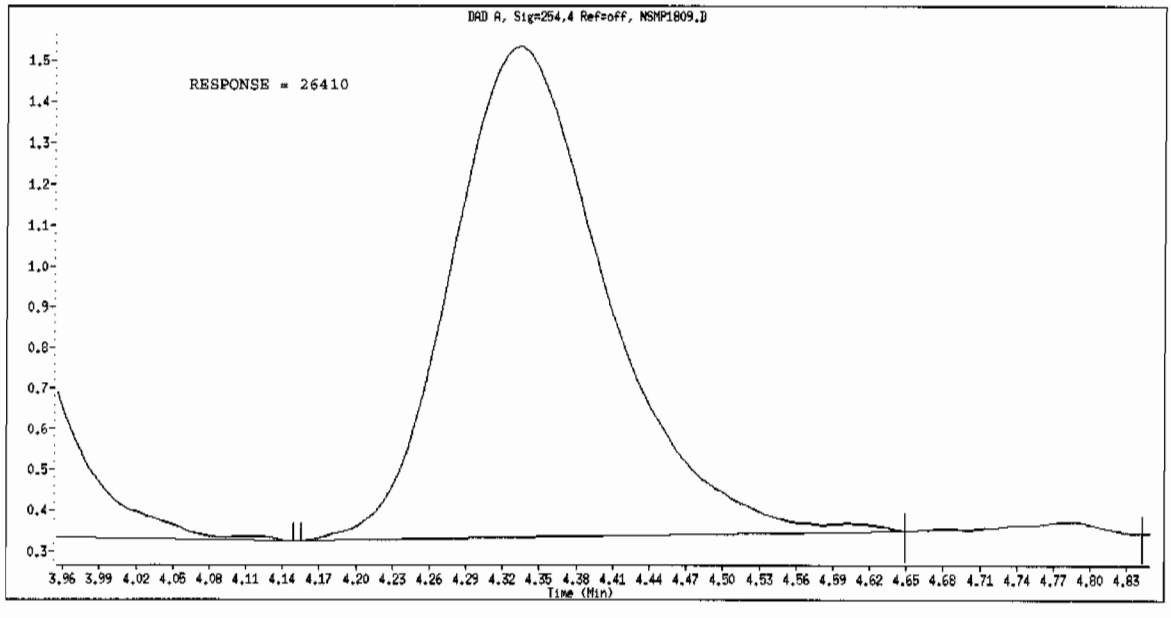

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NSMP1809.D
Inj. Date and Time: 04-JAN-2010 10:40
Instrument ID: Lcn.i
Client ID: CAPA-10-6823S
Compound Name: MNX
CAS #:

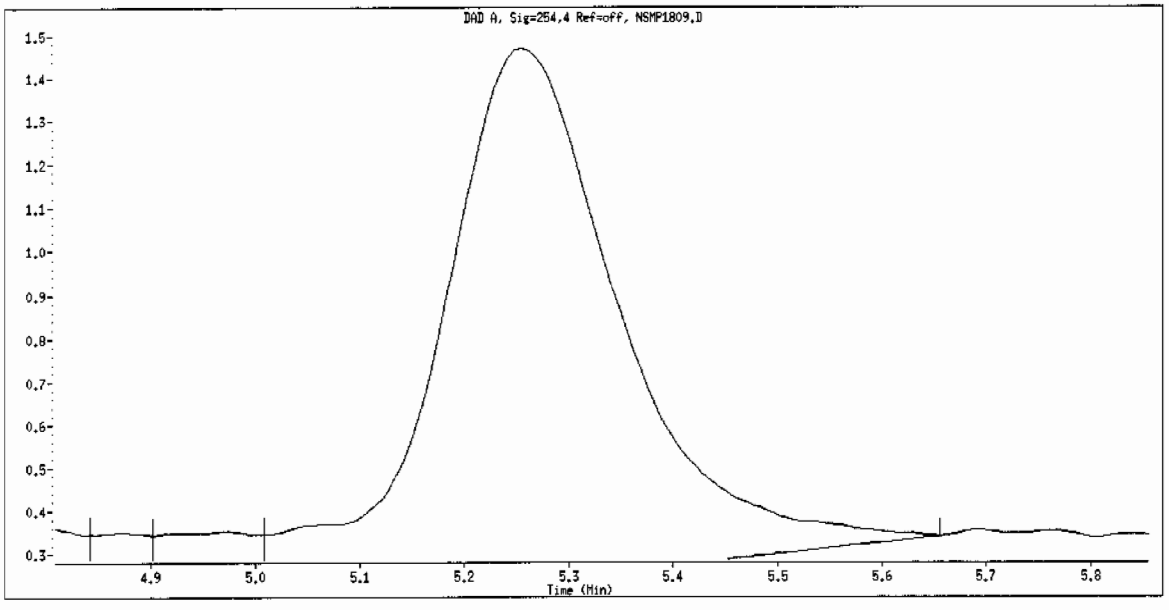

Original Integration

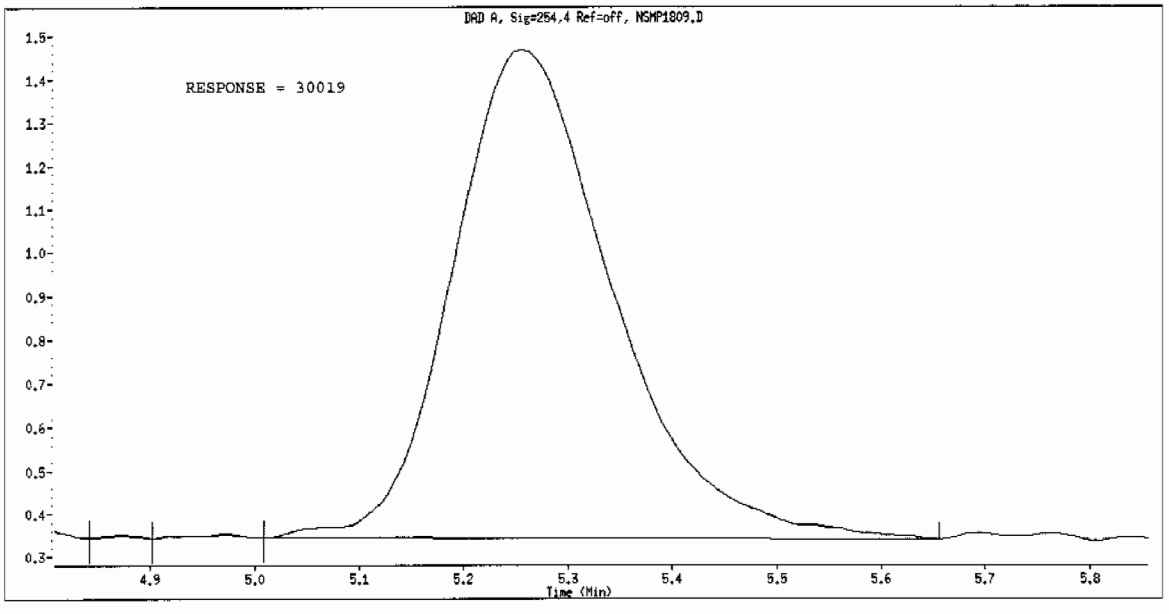

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N010410.b\NSMP1810.D
Report Date: 07-Jan-2010 11:14

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N010410.b\NSMP1810.D
Lab Smp Id: LRG231AE Client Smp ID: CAPA-10-6823D
Inj Date : 04-JAN-2010 10:54
Operator : AF Inst ID: Lcn.i
Smp Info : LRG231AE
Misc Info : F9L220451-001D
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N010410.b\C18XNX.m
Meth Date : 04-Jan-2010 13:52 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	508.700	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 TNX	3.857	3.837	0.020	41865	64.7016	0.6360(M)
2 DNX	4.344	4.324	0.020	28652	45.4828	0.4470(M)
3 MNX	5.266	5.239	0.027	32488	65.8327	0.6471
$ 4 1,2-Dinitrobenzene	8.760	8.706	0.054	376680	727.552	7.151

QC Flag Legend

M - Compound response manually integrated.

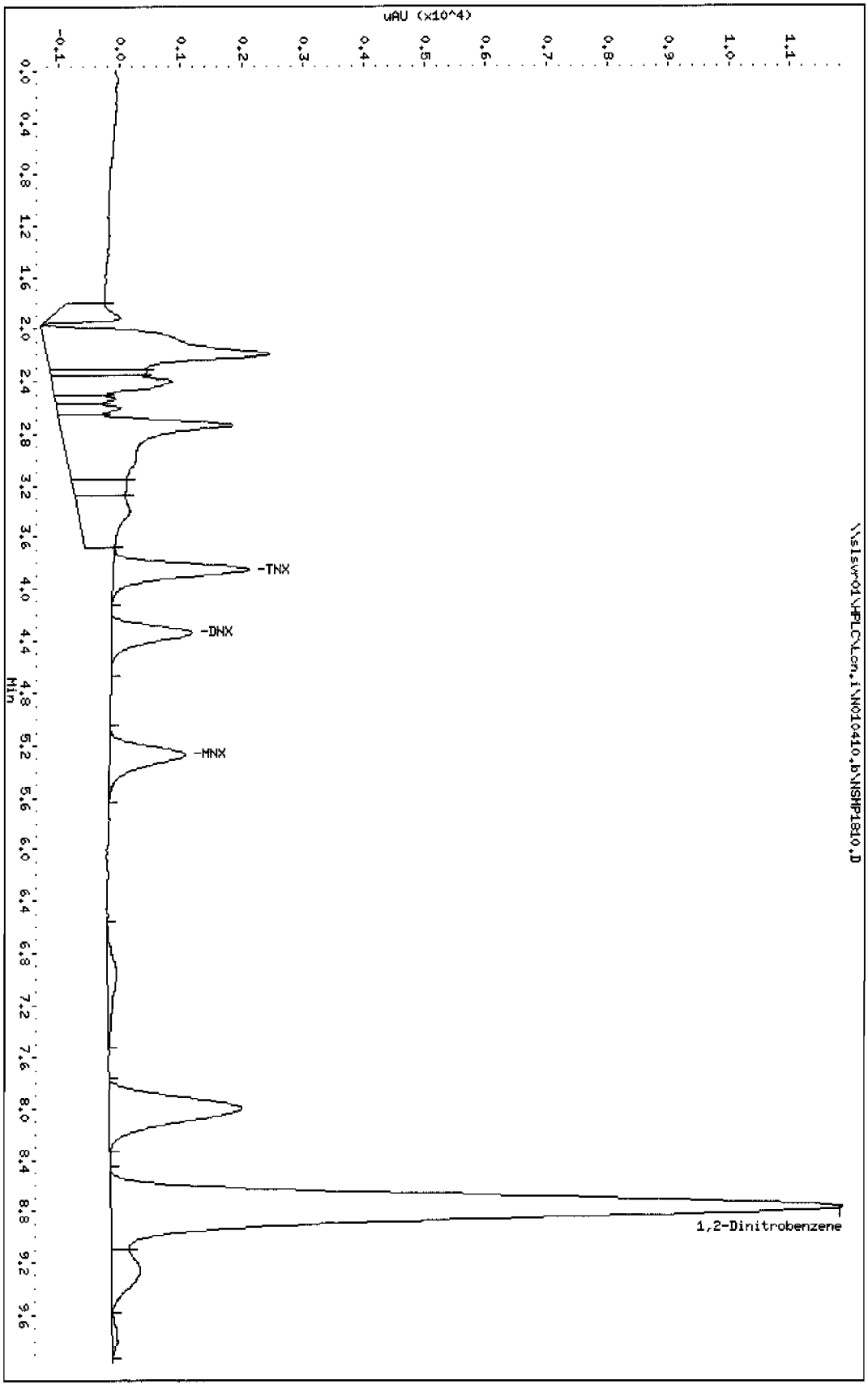
Data File: \\slsvr01\HPLC\Lcn.i\N010410.b\NSMP1810.D
Date : 04-JAN-2010 10:54
Client ID: CAPA-10-6823D
Sample Info: LRQ231AE
Purge Volume: 508.7
Column phase: C18
Instrument: Lcn.i
Operator: AF
Column diameter: 4.60
\\slsvr01\HPLC\Lcn.i\N010410.b\NSMP1810.D
uAU (x10^4)
-TNX
-DNX
-MNX
1,2-Dinitrobenzene
Min

Data File Name: NSMP1810.D
Inj. Date and Time: 04-JAN-2010 10:54
Instrument ID: Lcn.i
Client ID: CAPA-10-6823D
Compound Name: TNX
CAS #:

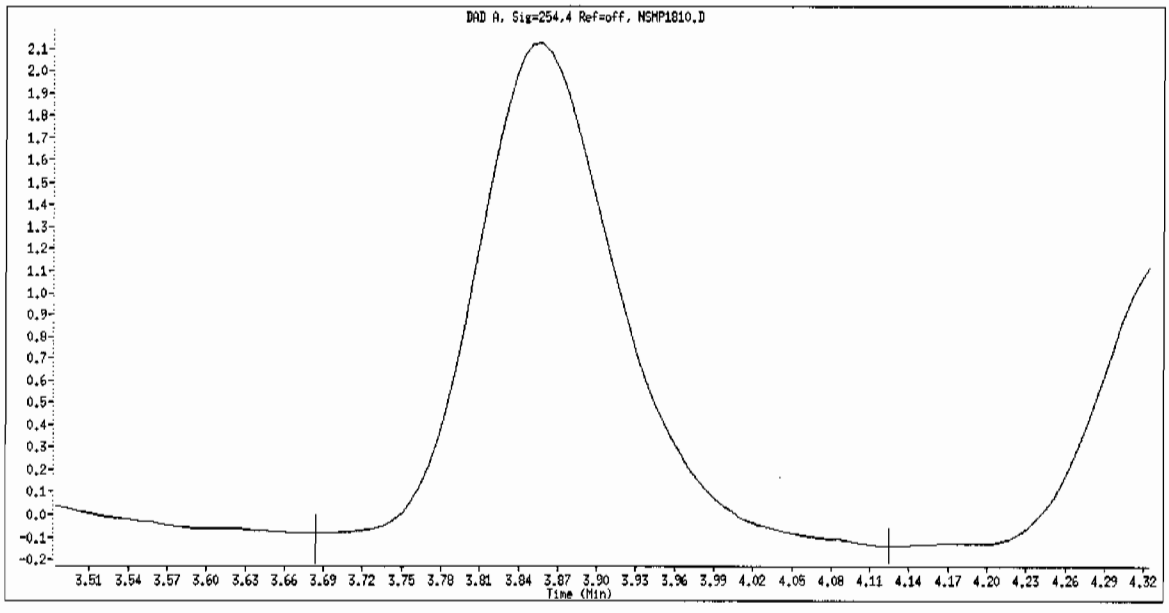

Original Integration

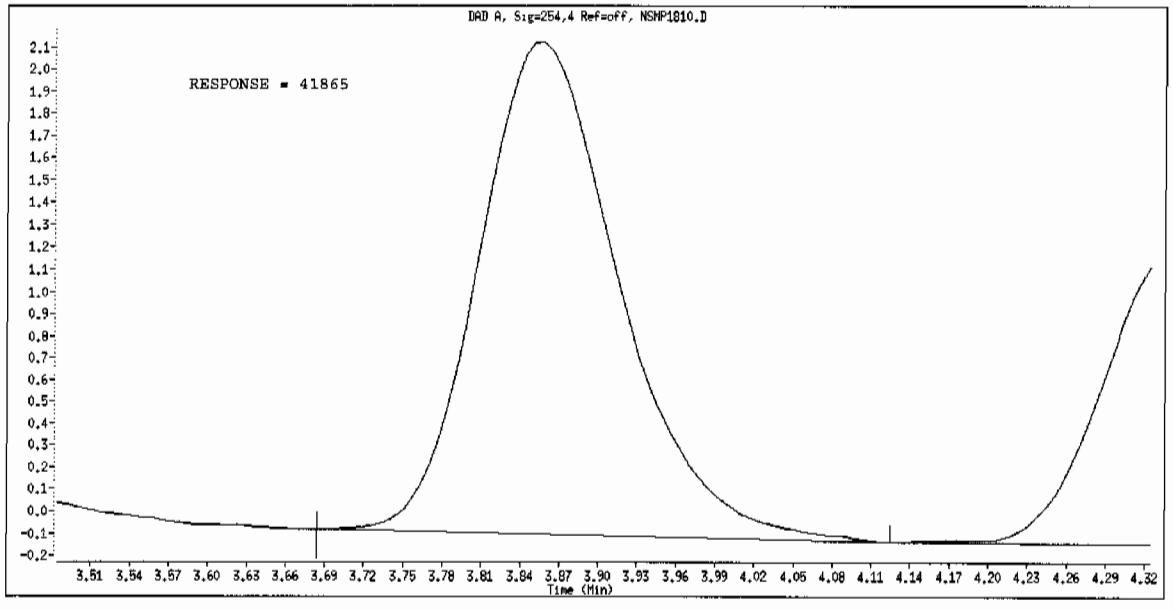

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NSMP1810.D
Inj. Date and Time: 04-JAN-2010 10:54
Instrument ID: Lcn.i
Client ID: CAPA-10-6823D
Compound Name: DNX
CAS #:

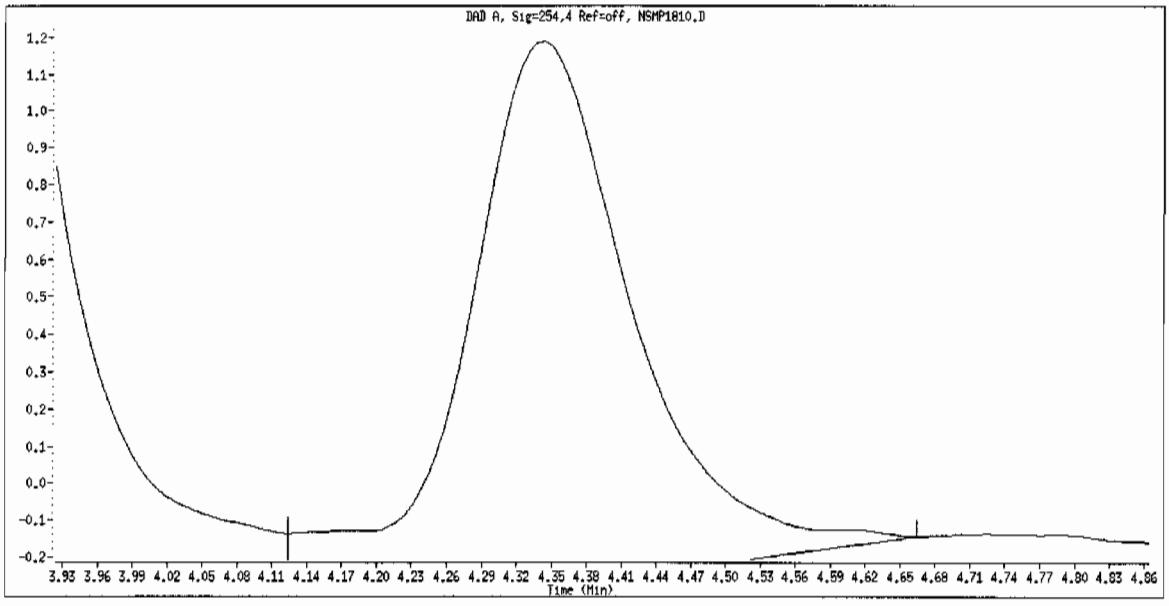

Original Integration

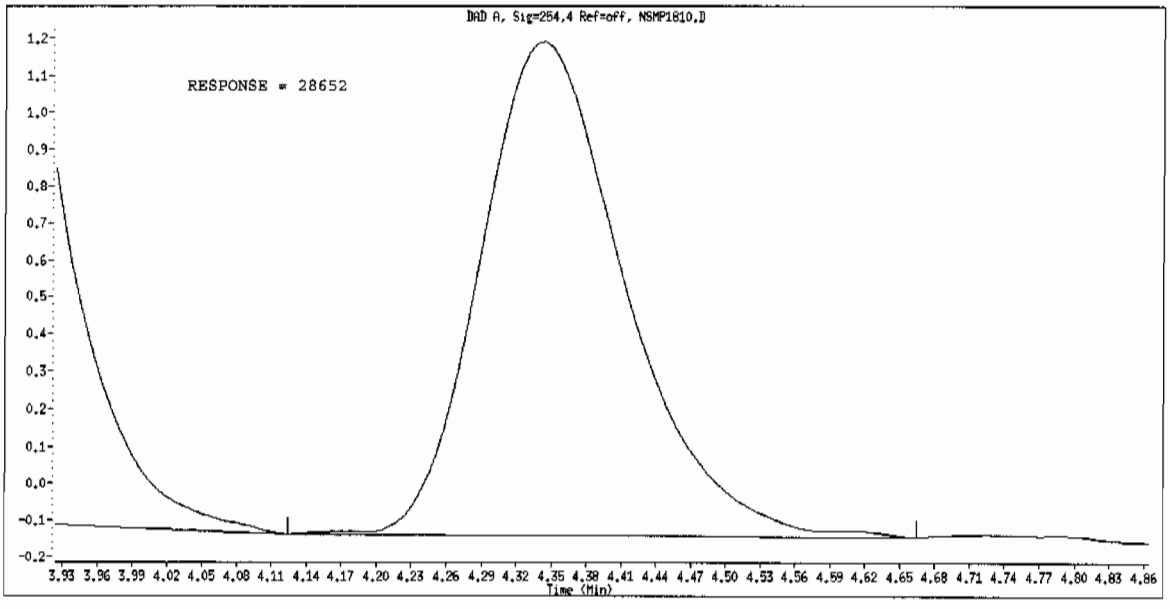

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

HPLC MISCELLANEOUS DATA

LOT # F9L220451

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Organic Prep Report for Batch # 9357328

N010410

TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045

Prep Method: SW-846 3535

Prep Description: EXTRACTION, SOLID PHASE

SOP Number: ST-OP-0008

Matrix: WATER

Extraction Date: 12/23/2009

			Initials: SB				Initials: SB		Initials:		Initials:	
							Concentration 1		Cleanup 1		Cleanup 2	
Lot Number	WorkOrder No	AnalDueDate	Wt/Vol	pH 1	pH 2	Extr Unit	Volume	Date 12/23/09	Method	Date	Method	Date
F9L220451 - 001	LRG231AC	01/12/2010	501.1 mL				2.5 mL					
F9L220451 - 001D	LRG231AE	01/12/2010	508.7 mL				2.5 mL					
F9L220451 - 001S	LRG231AD	01/12/2010	503.5 mL				2.5 mL					
F9L220451 - 002	LRG271AC	01/12/2010	517.2 mL				2.5 mL					
F9L230000 - 328B	LRJ3P1AA		500 mL				2.5 mL					
F9L230000 - 328C	LRJ3P1AC		500 mL				2.5 mL					

Spike Information

Name	Standard ID	Exp Date	Vol Added
XNX Prep Spike	GC0420-09	1/22/2010	250 uL
8330 Surrogate	OP2029-09	1/16/2010	100 uL

Spiking verified by: MPM

Miscellaneous Information

Start: Stop:

Extr 1:

Extr 2:

Conc Method:

Conc Temp C:

Chemical Lot Information

Chemical	Lot Number
Acetonitrile	G50343
RDX Columns	P2755

Comments:

Custody Information

Relinquished By: SB

Review/Received By: AF

Date of Transfer: 12/23/09

QC Suffix: B=reagent blank, C=lab control sample, L=lab control sample duplicate, X=sample duplicate, S=matrix spike, D=matrix spike duplicate

PrepSheet Generator 1.26, updated 11/14/2008

TESTAMERICA ST. LOUIS

100 102

Logbook No.: 3311 | Instrument ID No.: LCN

TestAmerica St. Louis
HPLC Runlog

#	Data File	Clock	Lab I.D.	Dil.	STD#	Date	Oper.	Matrix	Method
1	NLCS 1303	N112309	LNQGFIAC		GC0384-09	11/25/09	WH/AF	TEL/W 8011L	8330
2	NCAL 1304		8330 CCAL		↓				
3	NSBK 1305	↓	FLUSH		—		↓	↓	↓
4	1306								
5	1307								
6	1308								
7	1309								
8	1310								
9	1311								
10	NSBK 1312	N112509							
11	NSBK 1313								
12	NICL 1314		XNX-ICAL-3		GC0387-09		WH/AF	W	XNX
13	1315		-4						
14	1316		-5						
15	1317		-6						
16	1318		-7						
17	1319		-8						
18	NICV 1320		XNX ICV		GC0382-09				
19	NCAL 1321		XNX CCAL		GC0387-09				
20	NBLK 1322		LPJT8IAAB			12-2-09			
21	NLCS 1323		IACC						
22	NSMP 1324		LN84NIAC						
23	1325		IAD						
24	1326		IAE						
25	1327		LN84RIAC						
26	1328		LPH6MIAC						
27	1329		LPH6PIAC						
28	NBLK 1330		LN8EJIAA						
29	NSBK 1331		SBK						
30	NCAL 1332		XNX CCAL		GC0387-09				
31	NBLK 1333		LN8EJIAA			11/27/09			
32	NLCS 1334		IAC						
33	NSMP 1335		LN0N6IAC						
34	1336		IAF						
35	1337	↓	IAG			↓	↓	↓	↓

Review documented on next page.

Form: SL-ORG-0008, Rev. 1/4/05

QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Control Sample Duplicate; S = Matrix Spike; D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard.

SOP References: STL-GC-0017 Rev 11

Logbook No.: 3311 | Instrument ID No.: LCN

TestAmerica St. Louis
HPLC Runlog

Batch #	Comments		#
9307388	F9K030000 - 388 C	OK	1
		OK	2
		—	3
			4
			5
			6
			7
			8
			9
		—	10
		OK	11
	XNX ICAL	OK	12
		OK	13
		OK	14
		OK	15
		OK	16
		OK	17
	XNX ICV	OK	18
		OK	19
9320111	F9K160000 - 111B AF ~~File # duplicated~~	OK	20
	- 111C File# duplicated	OK	21
	F9K110519 - 001	OK	22
	-001 S	OK	23
	-001 D	OK	24
	-002	OK	25
	F9K140506 - 001	OK	26
	-002	OK	27
9315181	F9K110000 - 181 B Not Needed	~~OK~~	28
		—	29
		OK	30
9315181	F9K116000 -181B	OK	31
	-181C	OK	32
	F9K060412 - 001 MNY C	OK	33
	-001S	OK	34
	-001D	OK	35

Reviewed By: Lamis Hinzelin 12/1/09 11/30/09

Form: SL-ORG-0008, Rev. 1/4/05

QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Control Sample Duplicate; S = Matrix Spike; D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard.

SOP References: STL-GC-0017 Rev 11

Logbook No.: 3311 | Instrument ID No.: LCN

TestAmerica St. Louis
HPLC Runlog

#	Data File	Clock	Lab I.D.	Dil.	STD#	Date	Oper.	Matrix	Method
1	NSBK 1804	N010410	conditioning			01-04-10	AF		XNX
2	NCAL 1805		XNX CCAL	16x	GC428-09			W	
3	NBLK 1806		LR03P1AA						
4	NLCS 1807		↓ 1AC						
5	NSMP 1808		LRG231AC						
6	1809		1AD						
7	1810		↓ 1AE						
8	1811		LRG271AC						
9	NBLK 1812		LRMP11AA						
10	NLCS 1813		↓ 1AC						
11	NSMP 1814		LRKC1AC						
12	NSMP 1815		↓ 1AD						
13	NCAL 1816		XNX CCAL	16x	GC428-09				
14	NSMP 1817		LRKC1AE						
15	NCAL 1818		XNX CCAL	16X	GC428-09				
16	NSBK 1819	↓	Flush			↓	↓	↓	↓
17	NSBK 1820	N010510	~~XNX CCAL~~ conditioning		GC428-09	1-5-10	AF	W	XNX
18	NCAL 1821		XNX CCAL	16x	GC428-09		AF	W	XNX
19	NSMP 1822		LRCR01AC						
20	NSMP 1823		LRCR91AC						
21	NCAL 1824		XNX CCAL	16X	GC428-09				
22	NCAL 1825		8330 CCAL	2X	GC425-09				8330
23	NBLK 1826		LRAGM2AA						
24	NSMP 1827		LNN3A AA						
25	1828		H AA						
26	1829		J AA						
27	1830		M AA						
28	1831		N AA						
29	1832		P AA						
30	1833		Q AA						
31	1834		T AA						
32	NCAL 1835		8330 CCAL	2X	GC425-09				
33	NSBK 1836	↓	Flush			↓	↓	↓	↓
34									
35			AF 1-6-10						

Review documented on next page.

Form: SL-ORG-0008, Rev. 1/4/05

QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Control Sample Duplicate; S = Matrix Spike; D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard.

SOP References: STL-GC-0017, current revisions.

Logbook No.: 3311 | Instrument ID No.: LCN

TestAmerica St. Louis
HPLC Runlog

Batch #	Comments			#
				1
	CCAL		OK	2
93557328	F9L230000-328B		OK	3
	-328C		OK	4
	F9L220451-001		OK	5
	-001S		OK	6
	-001D		OK	7
	-002		OK	8
93620057	F9L280000-057B		OK	9
	-057C		OK	10
	F9L230516-001		OK	11
	-001S		OK	12
	CCAL		OK	13
	F9L230516-001D		OK	14
	CCAL		OK	15
				16
	CCAL		OK	17
	CCAL	not needed	DNR	18
93556248	F9L180535-002	surro ↓ RE.	DNR	19
	-003	surro ↓ RE.	DNR	20
	CCAL		OK	21
	CCAL		OK	22
93552180	F9L180000-180B			23
	F9K020447-001			24
	-002			25
	-003			26
	-004			27
	-005			28
	-006			29
	-007			30
	-008			31
	CCAL		OK	32
				33
				34
	AF 1-6-10			35

Reviewed By: [signature] 1/8/10

Form: SL-ORG-0008, Rev. 1/4/05

QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Control Sample Duplicate; S = Matrix Spike; D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard.

SOP References: STL-GC-0017, current revisions.

Monday, December 21, 2009

REQUEST NUMBER: 10-1018

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Martha Maier

Alta Analytical Lab Incorporated
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

These Samples are on:
LANL Request Number:10-1018
Per Agreement Number:176450010
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/21/2009
TURNAROUND/REPORT DUE: 1/20/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8290	1	CAPA-10-6823	WG	12/18/2009	
		2	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		2	CAPA-10-6824	WG	12/18/2009	

Final Page of REQUEST NUMBER 10-1018

Monday, December 21, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1018

REQUEST NUMBER: 10-1018

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Martha Maier

Alta Analytical Lab Incorporated

5070 Robert J. Mathews Parkway

El Dorado Hills, CA 95762

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6823	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6823	2	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6824	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6824	2	AMBER GLASS	WSP-8290-D/F	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		12/21/09	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6820 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OY
TIME COLLECTED (HH:MM)		1458	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	RSI	
LOCATION ID:	R-37		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P1A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2	1 gw 12/18/09	WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	1HC2

SAMPLE DESC: QC Sample of CAPA-10-6823

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D. Wooly, K Crawford, J Berryhill **REVIEWED BY (PRINT)** J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Wooly	12/18/09	(Printed Name) S. MARCZ AL	12/18/09
(Signature) D. Wooly	1615	(Signature)	1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6821 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1458	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	RSI	
LOCATION ID:	R-37		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	P1A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH < 2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH < 2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

See CAPA-10-6823

COLLECTED BY (PRINT) J Berryhill, K Crawford, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09	(Printed Name) S. MARCZAK	12/18/09
(Signature) D. Woody	1615	(Signature)	1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6822 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1458	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:		
LOCATION ID:	R-37		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P1A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of CAPA-10-6823

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, D. Woody, K Crawford

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09 1615	(Printed Name) S. MARCZAK	12/18/09 1615
(Signature) D. Woody		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6823 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/19/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1458	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	RSP	
LOCATION ID:	R-37		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P1A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
3		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
3		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH <2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
3		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH >12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	pH <2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2
1		Ra226+228	1 GAL POLY	Nitric Acid	Y	pH <2

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH (STU)	T (°C)	SC (µS/cm)	DO (mg/L)	Turb (NTU)	ORP (mV)	Q (gpm)
7.50	17.10	229	3.43	0.97	171.4	.625

COLLECTED BY (PRINT) J Berryhill, K Crawford, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09	(Printed Name) S. MARCIAL	12/18/09
(Signature) D Woody	1615	(Signature)	1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6824 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0922	SUB-MEDIA:	UA	
PRS ID:	C-00-011		SAMPLE TECH CODE:	GS1	
LOCATION ID:	R-37		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
3		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
3		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
3		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH>12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH<2
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	pH<2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH<2
1		Ra226+228	1 GAL POLY	Nitric Acid	Y	pH<2

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH (STU)	T (°C)	SC (µS/cm)	DO (mg/L)	Turb (NTU)	ORP (mV)	Q (gpm)
7.79	21.05	215	5.39	2.20	271.5	9.1

COLLECTED BY (PRINT) J Berryhill, D. Woody, K Crawford

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09	(Printed Name) S. MARTIN	12/18/09
(Signature) D. Woody	1615	(Signature)	1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6825 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0922	SUB-MEDIA:	UA	
PRS ID:	C-00-011		SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-37		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2	1w 12/18/09	WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	1HCL

SAMPLE DESC: QC Sample of CAPA-10-6824

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, K Crawford, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09	(Printed Name) S. MARCZAK	12/18/09
(Signature) D. Woody	1615	(Signature)	1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6826 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0922	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-37		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of CAPA-10-6824

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J berryhill, B Woody, K Crawford **REVIEWED BY (PRINT)** J berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) B. Woody (Signature) B. Woody	12/18/09 1615	(Printed Name) S. MARIZAN (Signature) [signature]	12/18/09 1615
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6827 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/18/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0922	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-37		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

See CAPA-10-6824

COLLECTED BY (PRINT) J Berryhill, D. Woody, K Crawford

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/18/09 1615	(Printed Name) S. MARCZAK	12/18/09 1615
(Signature) D. Woody		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5123-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-1018 VALIDATION DATE: 02/08/10 LAB CODE: ALTC

CONTRACT LABORATORY NAME: Vista Analytical Laboratory

VALIDATOR: Maryann Jordan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☒ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. 1,2,3,4,6,7,8-HpCDD; OCDD and Total HpCDD were detected in the MB. 1,2,3,4,6,7,8-HpCDD; OCDD and Total HpCDD were detected in sample CAPA-10-6823, and OCDD was detected in sample -6824 at concentrations ≤5X the blank concentrations and, thus, were qualified U,DF4.
2. It should be noted that laboratory ion abundance limits were used for evaluation of the PeCDD compounds since the laboratory uses an alternate ion for these masses due to interferences.
3. MS/MSD analyses were not performed with the samples from this RN. No sample results were qualified.
4. Precision analysis was not performed with the samples from this RN. No sample results were qualified.
5. The samples were received by the laboratory at temperatures of 0.8° C and -0.3° C. No sample results were qualified.

Reviewed by: Allison Felix Level: 1 Date: 2/9/10

VALIDATOR'S SIGNATURE: [signature] DATE: 02/08/10

DIOXIN/FURAN ANALYTICAL DATA VALIDATION CHECKLIST

5123-2

Dioxin/Furan Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time and qualitative criteria for target compound identification were not met.	R, DF0	R, DF0
☐	☒	☐	2. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF0b	R, DF0b
☐	☒	☐	3. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF1d	R, DF1d
☒	☐	☐	4. The sample result is ≤5 times the concentration of the related analyte in the method blank.	N/A	U, DF4
☐	☒	☐	5. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, DF4a
☐	☐	☒	6. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	N/A	U, DF4d
☐	☒	☐	7. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF4e	R, DF4e
☐	☒	☐	8. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, DF7	J, DF7
☐	☒	☐	9. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria.	UJ, R, DF7a	J, DF7a
☐	☒	☐	10. The affected analytes were analyzed with an out of range ion abundance in the initial calibration and/or CCV.	R, DF7b	R, DF7b
☐	☒	☐	11. The ICV and/or CCV were recovered outside the method specific limits.	UJ, R, DF7c	J, R, DF7c
☐	☒	☐	12. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, DF7d	J, DF7d

DIOXIN/FURAN ANALYTICAL DATA VALIDATION CHECKLIST

5123-2

Dioxin/Furan Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, DF7f	R, DF7f
☐	☒	☐	14. The affected analyte is considered rejected because the ion abundances did not meet specifications.	N/A	R, DF8
☐	☒	☐	15. The ion abundance documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF8a	R, DF8a
☐	☒	☐	16. If GC column performance was not evaluated at the required frequency or if method criteria were not met, qualify all associated detects as J and all associated non-detects as UJ.	UJ, DF8b	J, DF8b
☐	☐	☒	17. If 2, 3, 7, 8-TCDF was detected in a sample and the result was not confirmed on a second column with successful analysis of the GC column performance mix, qualify all associated detects as U.	N/A	U, DF8c
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, DF9	J-, DF9
☐	☒	☐	19. The holding time was >2 times the applicable holding time requirement.	R, DF9a	J-, DF9a
☐	☒	☐	20. The LCS percent recovery was <10%.	R, DF12	J-, DF12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, DF12a	J-, DF12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, DF12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF12c	R, DF12c

DIOXIN/FURAN ANALYTICAL DATA VALIDATION CHECKLIST	
5123-2 Dioxin/Furan Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	24. The MS/MSD percent recovery was <10%.	R, DF12d	R, DF12d
☐	☐	☒	25. The MS/MSD percent recovery was >10% but <70%.	UJ, DF12e	J, DF12e
☐	☐	☒	26. The MS/MSD percent recovery was >70%	N/A	J+, DF12f
☐	☐	☒	27. The MS/MSD relative percent difference was >30%.	UJ, DF12g	J, DF12g
☐	☒	☐	28. The fortification sample percent recovery was <10%.	R, DF12h	J-, DF12h
☐	☒	☐	29. The fortification sample percent recovery was <40% but >10%	UJ, DF12i	J-, DF12i
☐	☒	☐	30. The fortification sample percent recovery was >135%.	N/A	J+, DF12j
☐	☒	☐	31. The fortification sample documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF12k	R, DF12k
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference.	R, DF15	UJ, DF15
☐	☐	☒	33. Sample clean-up was not performed. If run log notations, spectral data and/or internal standard or labeled compound recoveries indicate interferences and extract cleanup was not performed, qualify all associated detects as J and all non-detects as UJ.	RJ, DF15a	J, DF15a
☐	☐	☒	34. The instrument performance sample did not pass method acceptance criteria.	R, DF16	R, DF16
☐	☐	☒	35. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, DF16c	R, DF16c

DIOXIN/FURAN ANALYTICAL DATA VALIDATION CHECKLIST	
5123-2 **Dioxin/Furan Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	**36. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.**	**UJ, R, DF19**	**J, R, DR19**
☐	☒	☐	**37. Duplicate, dilution, or reanalysis.**	**UJ, DF88**	**J, DF88**

Sample ID: CAPA-10-6823 **EPA Method 8290**

Client Data		Sample Data		Laboratory Data			
Name:	Los Alamos National Laboratory	Matrix:	Aqueous	Lab Sample:	32321-001	Date Received:	22-Dec-09
Project:	10-1018	Sample Size:	0.900 L	QC Batch No.:	2725	Date Extracted:	12-Jan-10
Date Collected:	18-Dec-09			Date Analyzed DB-5:	19-Jan-10	Date Analyzed DB-225:	NA
Time Collected:	1458						

Analyte	Conc. (pg/L)		DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND		0.457		
1,2,3,7,8-PeCDD	ND		0.820		
1,2,3,4,7,8-HxCDD	ND		1.33		
1,2,3,6,7,8-HxCDD	ND		1.35		
1,2,3,7,8,9-HxCDD	ND		1.35		
1,2,3,4,6,7,8-HpCDD	2.45	U,DF4			J,B
OCDD	41.4	U,DF4			J,B
2,3,7,8-TCDF	ND		0.440		
1,2,3,7,8-PeCDF	ND		0.546		
2,3,4,7,8-PeCDF	ND		0.484		
1,2,3,4,7,8-HxCDF	ND		0.649		
1,2,3,6,7,8-HxCDF	ND		0.703		
2,3,4,6,7,8-HxCDF	ND		0.779		
1,2,3,7,8,9-HxCDF	ND		1.10		
1,2,3,4,6,7,8-HpCDF	ND		1.18		
1,2,3,4,7,8,9-HpCDF	ND		1.27		
OCDF	2.57				J

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	92.4	40 - 135	
	13C-1,2,3,7,8-PeCDD	88.3	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	78.0	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	78.2	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	76.2	40 - 135	
	13C-OCDD	78.1	40 - 135	
	13C-2,3,7,8-TCDF	82.0	40 - 135	
	13C-1,2,3,7,8-PeCDF	79.8	40 - 135	
	13C-2,3,4,7,8-PeCDF	85.1	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	81.7	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	81.8	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	80.5	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	80.4	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	78.4	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	73.7	40 - 135	
	13C-OCDF	79.1	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	94.3	40 - 135	

Totals				
Total TCDD	ND		0.457	
Total PeCDD	ND		0.820	
Total HxCDD	ND		1.34	
Total HpCDD	2.45	U,DF4		B
Total TCDF	ND		0.440	
Total PeCDF	ND		0.515	
Total HxCDF	ND		0.808	
Total HpCDF	ND		1.22	

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): **0.0685**

a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Method detection limit.
d. Lower control limit - upper control limit.
e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: WJL

Approved By: Martha M. Maier 20-Jan-2010 11:46

MJ
02/08/10

Sample ID: CAPA-10-6824 **EPA Method 8290**

Client Data		Sample Data		Laboratory Data			
Name:	Los Alamos National Laboratory	Matrix:	Aqueous	Lab Sample:	32321-002	Date Received:	22-Dec-09
Project:	10-1018	Sample Size:	0.898 L	QC Batch No.:	2725	Date Extracted:	12-Jan-10
Date Collected:	18-Dec-09			Date Analyzed DB-5:	19-Jan-10	Date Analyzed DB-225:	NA
Time Collected:	0922						

Analyte	Conc. (pg/L)		DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND		0.537		
1,2,3,7,8-PeCDD	ND		1.14		
1,2,3,4,7,8-HxCDD	ND		1.37		
1,2,3,6,7,8-HxCDD	ND		1.48		
1,2,3,7,8,9-HxCDD	ND		1.46		
1,2,3,4,6,7,8-HpCDD	ND		1.92		
OCDD	21.3	U,DF4			J,B
2,3,7,8-TCDF	ND		0.444		
1,2,3,7,8-PeCDF	ND		0.584		
2,3,4,7,8-PeCDF	ND		0.530		
1,2,3,4,7,8-HxCDF	ND		0.637		
1,2,3,6,7,8-HxCDF	ND		0.695		
2,3,4,6,7,8-HxCDF	ND		0.799		
1,2,3,7,8,9-HxCDF	ND		1.12		
1,2,3,4,6,7,8-HpCDF	ND		1.24		
1,2,3,4,7,8,9-HpCDF	ND		1.27		
OCDF	ND		1.29		

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	93.4	40 - 135	
	13C-1,2,3,7,8-PeCDD	82.2	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	75.1	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	76.5	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	73.3	40 - 135	
	13C-OCDD	71.2	40 - 135	
	13C-2,3,7,8-TCDF	82.2	40 - 135	
	13C-1,2,3,7,8-PeCDF	75.1	40 - 135	
	13C-2,3,4,7,8-PeCDF	81.0	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	81.6	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	81.7	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	79.5	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	74.4	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	75.4	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	70.7	40 - 135	
	13C-OCDF	72.7	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	97.5	40 - 135	

Totals		
Total TCDD	ND	0.537
Total PeCDD	ND	1.14
Total HxCDD	ND	1.44
Total HpCDD	ND	1.92
Total TCDF	ND	0.444
Total PeCDF	ND	0.557
Total HxCDF	ND	0.813
Total HpCDF	ND	1.26

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): 0.0213

a. Sample specific estimated detection limit.

b. Estimated maximum possible concentration.

c. Method detection limit.

d. Lower control limit - upper control limit.

e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: WJL

Approved By: Martha M. Maier 20-Jan-2010 11:46

MJ
02/08/10

Monday, December 21, 2009

REQUEST NUMBER: 10-1018

32321

-0.3°C, 0.8°C

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Martha Maier
Alta Analytical Lab Incorporated
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

These Samples are on:
LANL Request Number:10-1018
Per Agreement Number:176450010
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/21/2009
TURNAROUND/REPORT DUE: 1/20/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8290	1	CAPA-10-6823	WG	12/18/2009	
		2	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		2	CAPA-10-6824	WG	12/18/2009	

Final Page of REQUEST NUMBER 10-1018

Monday, December 21, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1018

REQUEST NUMBER: 10-1018

32321

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Martha Maier

Alta Analytical Lab Incorporated

5070 Robert J. Mathews Parkway

El Dorado Hills, CA 95762

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6823	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6823	2	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6824	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6824	2	AMBER GLASS	WSP-8290-D/F	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		12/21/09	1400	B. Benedict	[illegible]	12/23/09	1108
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Vista
Analytical Laboratory

January 20, 2010

Vista Project I.D.: 32321

Mr. Keith Greene
Los Alamos National Laboratory
ER Sample Management Office
TA-3, Building 271, DP O1-U
Los Alamos, NM 87545

Dear Mr. Greene,

Enclosed are the results for the two aqueous samples received at Vista Analytical Laboratory on December 22, 2009 under your Project Name "10-1018". These samples were extracted and analyzed using EPA Method 8290 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

The following report consists of a Sample Inventory (Section I), Analytical Results (Section II) and the Appendix, which contains the chain-of-custody, a list of data qualifiers and abbreviations, Vista's current certifications, and copies of the raw data (if requested).

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com. Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier

Martha M. Maier
Laboratory Director

Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAC for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista Analytical Laboratory.

Vista

Section I: Sample Inventory Report

Date Received: **12/22/2009**

Vista Lab. ID	Client Sample ID
32321-001	CAPA-10-6823
32321-002	CAPA-10-6824

SECTION II

Vista

Method Blank **EPA Method 8290**

Matrix:	Aqueous	QC Batch No.:	2725	Lab Sample:	0-MB001
Sample Size:	1.00 L	Date Extracted:	12-Jan-10	Date Analyzed DB-5:	19-Jan-10
				Date Analyzed DB-225:	NA

Analyte	Conc. (pg/L)	DL [a]	EMPC [b]	Qualifiers
2,3,7,8-TCDD	ND	0.525		
1,2,3,7,8-PeCDD	ND	1.19		
1,2,3,4,7,8-HxCDD	ND	1.33		
1,2,3,6,7,8-HxCDD	ND	1.40		
1,2,3,7,8,9-HxCDD	ND	1.35		
1,2,3,4,6,7,8-HpCDD	3.51			J
OCDD	29.8			J
2,3,7,8-TCDF	ND	0.368		
1,2,3,7,8-PeCDF	ND	0.559		
2,3,4,7,8-PeCDF	ND	0.503		
1,2,3,4,7,8-HxCDF	ND	0.606		
1,2,3,6,7,8-HxCDF	ND	0.678		
2,3,4,6,7,8-HxCDF	ND	0.775		
1,2,3,7,8,9-HxCDF	ND	1.05		
1,2,3,4,6,7,8-HpCDF	ND	1.28		
1,2,3,4,7,8,9-HpCDF	ND	1.25		
OCDF	ND		3.05	

	Labeled Standard	%R	LCL-UCL [d]	Qualifiers
IS	13C-2,3,7,8-TCDD	85.9	40 - 135	
	13C-1,2,3,7,8-PeCDD	82.5	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	71.7	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	74.7	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	67.5	40 - 135	
	13C-OCDD	65.8	40 - 135	
	13C-2,3,7,8-TCDF	80.9	40 - 135	
	13C-1,2,3,7,8-PeCDF	78.2	40 - 135	
	13C-2,3,4,7,8-PeCDF	84.3	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	78.0	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	79.7	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	74.9	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	75.0	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	70.0	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	66.9	40 - 135	
	13C-OCDF	65.8	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	89.6	40 - 135	

Totals

Total TCDD	ND	0.525
Total PeCDD	ND	1.19
Total HxCDD	ND	1.36
Total HpCDD	3.51	
Total TCDF	ND	0.368
Total PeCDF	ND	0.531
Total HxCDF	ND	0.777
Total HpCDF	ND	1.26

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): 0.0649

a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Method detection limit.
d. Lower control limit - upper control limit.
e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: WJL

Approved By: Martha M. Maier 20-Jan-2010 11:46

Vista

OPR Results **EPA Method 8290**

Matrix:	Aqueous	QC Batch No.:	2725	Lab Sample:	0-OPR001		
Sample Size:	1.00 L	Date Extracted:	12-Jan-10	Date Analyzed DB-5:	19-Jan-10	Date Analyzed DB-225:	NA

Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits		Labeled Standard	%R	LCL-UCL	Qualifier
2,3,7,8-TCDD	10.0	9.88	7 - 13	IS	13C-2,3,7,8-TCDD	92.4	40 - 135	
1,2,3,7,8-PeCDD	50.0	50.9	35 - 65		13C-1,2,3,7,8-PeCDD	87.6	40 - 135	
1,2,3,4,7,8-HxCDD	50.0	49.4	35 - 65		13C-1,2,3,4,7,8-HxCDD	75.4	40 - 135	
1,2,3,6,7,8-HxCDD	50.0	50.7	35 - 65		13C-1,2,3,6,7,8-HxCDD	75.2	40 - 135	
1,2,3,7,8,9-HxCDD	50.0	50.2	35 - 65		13C-1,2,3,4,6,7,8-HpCDD	69.7	40 - 135	
1,2,3,4,6,7,8-HpCDD	50.0	49.0	35 - 65		13C-OCDD	68.5	40 - 135	
OCDD	100	99.2	70 - 130		13C-2,3,7,8-TCDF	86.6	40 - 135	
2,3,7,8-TCDF	10.0	9.68	7 - 13		13C-1,2,3,7,8-PeCDF	81.2	40 - 135	
1,2,3,7,8-PeCDF	50.0	46.8	35 - 65		13C-2,3,4,7,8-PeCDF	86.8	40 - 135	
2,3,4,7,8-PeCDF	50.0	46.6	35 - 65		13C-1,2,3,4,7,8-HxCDF	80.7	40 - 135	
1,2,3,4,7,8-HxCDF	50.0	46.6	35 - 65		13C-1,2,3,6,7,8-HxCDF	80.9	40 - 135	
1,2,3,6,7,8-HxCDF	50.0	47.4	35 - 65		13C-2,3,4,6,7,8-HxCDF	78.0	40 - 135	
2,3,4,6,7,8-HxCDF	50.0	46.8	35 - 65		13C-1,2,3,7,8,9-HxCDF	76.3	40 - 135	
1,2,3,7,8,9-HxCDF	50.0	47.1	35 - 65		13C-1,2,3,4,6,7,8-HpCDF	71.9	40 - 135	
1,2,3,4,6,7,8-HpCDF	50.0	46.7	35 - 65		13C-1,2,3,4,7,8,9-HpCDF	69.9	40 - 135	
1,2,3,4,7,8,9-HpCDF	50.0	46.3	35 - 65		13C-OCDF	70.8	40 - 135	
OCDF	100	93.4	70 - 130	CRS	37Cl-2,3,7,8-TCDD	95.7	40 - 135	

Analyst: WJL

Approved By: Martha M. Maier 20-Jan-2010 11:46

Vista

Sample ID: **CAPA-10-6823** **EPA Method 8290**

Client Data		Sample Data		Laboratory Data			
Name:	Los Alamos National Laboratory	Matrix:	Aqueous	Lab Sample:	32321-001	Date Received:	22-Dec-09
Project:	10-1018	Sample Size:	0.900 L	QC Batch No.:	2725	Date Extracted:	12-Jan-10
Date Collected:	18-Dec-09			Date Analyzed DB-5:	19-Jan-10	Date Analyzed DB-225:	NA
Time Collected:	1458						

Analyte	Conc. (pg/L)	DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND	0.457		
1,2,3,7,8-PeCDD	ND	0.820		
1,2,3,4,7,8-HxCDD	ND	1.33		
1,2,3,6,7,8-HxCDD	ND	1.35		
1,2,3,7,8,9-HxCDD	ND	1.35		
1,2,3,4,6,7,8-HpCDD	2.45			J,B
OCDD	41.4			J,B
2,3,7,8-TCDF	ND	0.440		
1,2,3,7,8-PeCDF	ND	0.546		
2,3,4,7,8-PeCDF	ND	0.484		
1,2,3,4,7,8-HxCDF	ND	0.649		
1,2,3,6,7,8-HxCDF	ND	0.703		
2,3,4,6,7,8-HxCDF	ND	0.779		
1,2,3,7,8,9-HxCDF	ND	1.10		
1,2,3,4,6,7,8-HpCDF	ND	1.18		
1,2,3,4,7,8,9-HpCDF	ND	1.27		
OCDF	2.57			J

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	92.4	40 - 135	
	13C-1,2,3,7,8-PeCDD	88.3	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	78.0	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	78.2	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	76.2	40 - 135	
	13C-OCDD	78.1	40 - 135	
	13C-2,3,7,8-TCDF	82.0	40 - 135	
	13C-1,2,3,7,8-PeCDF	79.8	40 - 135	
	13C-2,3,4,7,8-PeCDF	85.1	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	81.7	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	81.8	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	80.5	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	80.4	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	78.4	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	73.7	40 - 135	
	13C-OCDF	79.1	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	94.3	40 - 135	

Totals			
Total TCDD	ND	0.457	
Total PeCDD	ND	0.820	
Total HxCDD	ND	1.34	
Total HpCDD	2.45		B
Total TCDF	ND	0.440	
Total PeCDF	ND	0.515	
Total HxCDF	ND	0.808	
Total HpCDF	ND	1.22	

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): **0.0685**

a. Sample specific estimated detection limit.

b. Estimated maximum possible concentration.

c. Method detection limit.

d. Lower control limit - upper control limit.

e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: WJL

Approved By: Martha M. Maier 20-Jan-2010 11:46

Vista

Sample ID: CAPA-10-6824 **EPA Method 8290**

Client Data		Sample Data		Laboratory Data			
Name:	Los Alamos National Laboratory	Matrix:	Aqueous	Lab Sample:	32321-002	Date Received:	22-Dec-09
Project:	10-1018	Sample Size:	0.898 L	QC Batch No.:	2725	Date Extracted:	12-Jan-10
Date Collected:	18-Dec-09			Date Analyzed DB-5:	19-Jan-10	Date Analyzed DB-225:	NA
Time Collected:	0922						

Analyte	Conc. (pg/L)	DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND	0.537		
1,2,3,7,8-PeCDD	ND	1.14		
1,2,3,4,7,8-HxCDD	ND	1.37		
1,2,3,6,7,8-HxCDD	ND	1.48		
1,2,3,7,8,9-HxCDD	ND	1.46		
1,2,3,4,6,7,8-HpCDD	ND	1.92		
OCDD	21.3			J,B
2,3,7,8-TCDF	ND	0.444		
1,2,3,7,8-PeCDF	ND	0.584		
2,3,4,7,8-PeCDF	ND	0.530		
1,2,3,4,7,8-HxCDF	ND	0.637		
1,2,3,6,7,8-HxCDF	ND	0.695		
2,3,4,6,7,8-HxCDF	ND	0.799		
1,2,3,7,8,9-HxCDF	ND	1.12		
1,2,3,4,6,7,8-HpCDF	ND	1.24		
1,2,3,4,7,8,9-HpCDF	ND	1.27		
OCDF	ND	1.29		

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	93.4	40 - 135	
	13C-1,2,3,7,8-PeCDD	82.2	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	75.1	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	76.5	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	73.3	40 - 135	
	13C-OCDD	71.2	40 - 135	
	13C-2,3,7,8-TCDF	82.2	40 - 135	
	13C-1,2,3,7,8-PeCDF	75.1	40 - 135	
	13C-2,3,4,7,8-PeCDF	81.0	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	81.6	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	81.7	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	79.5	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	74.4	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	75.4	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	70.7	40 - 135	
	13C-OCDF	72.7	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	97.5	40 - 135	

Totals		
Total TCDD	ND	0.537
Total PeCDD	ND	1.14
Total HxCDD	ND	1.44
Total HpCDD	ND	1.92
Total TCDF	ND	0.444
Total PeCDF	ND	0.557
Total HxCDF	ND	0.813
Total HpCDF	ND	1.26

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): 0.0213

a. Sample specific estimated detection limit.

b. Estimated maximum possible concentration.

c. Method detection limit.

d. Lower control limit - upper control limit.

e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: WJL

Approved By: Martha M. Maier 20-Jan-2010 11:46

APPENDIX

DATA QUALIFIERS & ABBREVIATIONS

B	**This compound was also detected in the method blank.**
D	**Dilution**
E	**The amount detected is above the High Calibration Limit.**
P	**The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.**
H	**Recovery was outside laboratory acceptance limits.**
I	**Chemical Interference**
J	**The amount detected is below the Low Calibration Limit.**
*****	**See Cover Letter**
Conc.	**Concentration**
DL	**Sample-specific estimated detection limit**
MDL	**The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in the matrix tested.**
EMPC	**Estimated Maximum Possible Concentration**
NA	**Not applicable**
RL	**Reporting Limit – concentrations that correspond to low calibration point**
ND	**Not Detected**
TEQ	**Toxic Equivalency**

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
State of Alaska, DEC	CA413-2008
State of Arizona	AZ0639
State of Arkansas, DEQ	08-043-0
State of Arkansas, DOH	Reciprocity through CA
State of California – NELAP Primary AA	02102CA
State of Colorado	N/A
State of Connecticut	PH-0182
State of Florida, DEP	E87777
State of Indiana Department of Health	C-CA-02
Commonwealth of Kentucky	90063
State of Louisiana, Health and Hospitals	LA08000
State of Louisiana, DEQ	01977
State of Maine	2008024
State of Michigan	9932
State of Mississippi	Reciprocity through CA
Naval Facilities Engineering Service Center	NFESC413
State of Nevada	CA004132007A
State of New Jersey	CA003
State of New Mexico	Reciprocity through CA
State of New York, DOH	11411
State of North Carolina	06700
State of North Dakota, DOH	R-078
State of Oklahoma	D9919
State of Oregon	CA200001-006
State of Pennsylvania	68-00490
State of South Carolina	87002001
State of Tennessee	TN02996
State of Texas	T104704189-08-TX
U.S. Army Corps of Engineers	N/A
State of Utah	CA16400
Commonwealth of Virginia	00013
State of Washington	C1285
State of Wisconsin	998036160
State of Wyoming	8TMS-Q

Monday, December 21, 2009

REQUEST NUMBER: 10-1018

32321

-0.3°C, 0.8°C

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Martha Maier
Alta Analytical Lab Incorporated
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

These Samples are on:
LANL Request Number:10-1018
Per Agreement Number:176450010
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/21/2009
TURNAROUND/REPORT DUE: 1/20/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8290	1	CAPA-10-6823	WG	12/18/2009	
		2	CAPA-10-6823	WG	12/18/2009	
		1	CAPA-10-6824	WG	12/18/2009	
		2	CAPA-10-6824	WG	12/18/2009	

Final Page of REQUEST NUMBER 10-1018

Monday, December 21, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-1018

LOS ALAMOS

NATIONAL LABORATORY

REQUEST NUMBER: 10-1018

32321

ATTN: Martha Maier

Alta Analytical Lab Incorporated

5070 Robert J. Mathews Parkway

El Dorado Hills, CA 95762

TURNAROUND/REPORT DUE: 1/20/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6823	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6823	2	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6824	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6824	2	AMBER GLASS	WSP-8290-D/F	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
		12/21/09	1400	B. Benedict		12/23/09	1108
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE LOG-IN CHECKLIST

Vista Analytical Laboratory

Vista Project #: 32321 TAT 30

Samples Arrival:	**Date/Time** 12/22/09 0913	**Initials:** [illegible]	**Location:** WR-2 **Shelf/Rack:** N/A
Logged In:	**Date/Time** 12/23/09 1108	**Initials:** [illegible]	**Location:** WR-2 **Shelf/Rack:** C6

Delivered By:	FedEx	UPS	Cal	DHL	Hand Delivered	Other
Preservation:	Ice	Blue Ice	Dry Ice	None		
Temp °C −0.3°C	**Time:** 0919	**Thermometer ID:** IR-1				

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill Trk # 7209 7849 3170	✓		
Sample Container Intact?	✓		
Sample Custody Seals Intact?	✓		
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?		✓	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

$Na_2S_2O_3$ Preservation Documented?	COC	Sample Container	None		
Shipping Container	Vista	Client	Retain	Return	Dispose

Comments:

	date	time	
CAPA-10-6824	12/18/09	0922	B bottle ✓
CAPA-10-6823	12/18/09	1458	

Sample Login 3/2007 rmh

SAMPLE LOG-IN CHECKLIST

Vista Analytical Laboratory

Vista Project #: 32321 TAT 30

	Date/Time	Initials:	Location: WR-2
Samples Arrival:	12/22/09 0913	UBSB	Shelf/Rack: N/A
Logged In:	12/23/09 1108	UBSB	Location: WR-2 Shelf/Rack: C 6

Delivered By:	FedEx	UPS	Cal	DHL	Hand Delivered	Other
Preservation:	Ice	Blue Ice	Dry Ice	None		
Temp °C 0.8	Time: 0921	Thermometer ID: IR-1				

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill Trk # 7209 7349 3181	✓		
Sample Container Intact?	✓		
Sample Custody Seals Intact?	✓		
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?		✓	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

$Na_2S_2O_3$ Preservation Documented?	COC	Sample Container	None

Shipping Container	Vista	Client	Retain	Return	Dispose

Comments:

	date	time	
CAPA-10-6824	12/18/09	0922	A bottle
CAPA-10-6823	↓	1458	↓

Sample Login 3/2007 rmh

EXTRACTION INFORMATION

PROCESS SHEET

Project No.-AR: 32321-1 of 1

Prep Due: 1/7/2010

Hold Due: 1/17/2010

Client: Los Alamos National Laboratory(LOANM01F

Client Manager: Martha M. Maier

Method: EPA Method 8290 | PCDD/F (Tetra - Octa)

Project Due: 1/19/2010

TAT: 28

Split Type: 2725

Matrix: Aqueous

LabID	Recon	Client-ID	Description	Date Received	SLoc	Shelf
001	☑	CAPA-10-6823 "A"		12/22/2009	WR-2	C-6
002	☑	CAPA-10-6824 ↓		12/22/2009	WR-2	C-6

Instructions:

Report Options

Report Level:

EDD Type:

Report Group: Dioxins NoMDL

TEQ Type: EPA(Default) : Min

Samples Reconciled By: CJ 1/12/10

Vial Box ID: And Dave

Project 32321

Date Requested 1/5/2010

HRMSTENAR.rpt

Percent Solids

Vista Analytical Laboratory

Project: 32321-1

Sample ID	Chemist/Date CJ 1/12/10		Chemist/Date CJ 1/13/10	Chemist/Date CJ 1/12/10		
	Boat Wt.	Sample + Boat Wt.	Residue + Boat Wt.	pH before	pH* after	Cl⁻
1	1.33	9.01	1.33	6	NA	0
2	1.31	12.79	1.31	6	↓	↓

Procedure:

- Tare the balance.
- Record Boat Weight.
- Add 2 - 10 g of sample.
- Record Wet Wt. + Boat Wt.
- Dry in oven overnight at 107°C.
- Tare the balance.
- Record Residue + Boat Wt.

Notes:

- *Methods 8280, 613, 1613, 8290, 1614 – pH <9*
- *Methods 1668/PCN – pH 2-3*
- *NCASI 551 – pH 1*

%Solids rmh 10/2009

Aqueous Sample Size Determination

Vista Analytical Laboratory

Project: 32321-1

	Chemist/Date	Chemist/Date	
	CJ 1/12/10	CJ 1/13/10	
Sample ID	**Container Weight (g)**		**Sample Wt (g)**
	Full	***Empty***	
1	1288.62	388.85	899.77
2	1287.26	389.08	898.18

Procedure:

- Tare the balance.
- Record weight of bottle/cap and sample.
- If all of the sample is used, drain overnight.
- Tare the balance.
- Record weight of empty bottle/cap.
- Enter Sample Weight in HALs and on the Extraction Sheet*.

* *Record in 'Liters', rounded to 3 decimal places; assumes density of 1 g/mL*

Notes:

AqWt 3/2007 rmh

Project: 32321

Extraction Set: 2725

Chemist: Christina Vreekure 1/12/10

Method(s): EPA Method 8290 | PCDD/F (Tetra - Octa)

C	ALTA Sample ID	G Eqv	Sample Amt. (L)	IS/NS CHEM/ WIT DATE	CRS CHEM/WIT DATE	AP CHEM/Date	ABSG CHEM/Date	AA CHEM/Date	Florisil CHEM/Date	RS CHEM/WIT DATE
☐	0_2725_MB001	N/A	(1.00)	CJ FEB 1/12/10	CJ 1/13/10	N/A	CJ 1/13/10	CJ 1/13/10	CJ 1/13/10	CJ 1/13/10
☐	0_2725_OPR001	↓	↓	↓	↓	↓	↓	↓	↓	↓
☐	32321_2725_001	↓	0.900	↓	↓	↓	↓	↓	↓	↓
☐	32321_2725_002	↓	0.898	↓	↓	↓	↓	↓	↓	↓

IS Name	NS Name	CRS Name	RS Name
PCDD/F 081104A 10 µl	PCDD/F 090972A 10 µl	PCDD/F 090972B 10 µl	PCDD/F 090972C 10 µl
PCB	PCB	PCB	PCB
PAH	PAH	PAH	PAH

Cycle Time 1/12 Start: 1620 1/13 Stop: 0915

APP.: SEFUN SOX SDS

SOLV: toluene

Other: SPE

Final Volume(s): 20 µl CH

Check Out: Chemist: CJ 1/12/10

Check-In: Chemist: empty ↓

Comments:

SAMPLE DATA

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-4.qld

Last Altered: Wednesday, January 20, 2010 10:15:45 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 10:16:50 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

1	2,3,7,8-TCDD			NO	0.965	1.000					0.525	
2	1,2,3,7,8-PeCDD			NO	0.869	1.000					1.19	
3	1,2,3,4,7,8-HxCDD			NO	0.873	1.000					1.33	
4	1,2,3,6,7,8-HxCDD			NO	0.940	1.000					1.40	
5	1,2,3,7,8,9-HxCDD			NO	0.882	1.000					1.35	
6	1,2,3,4,6,7,8-HpCDD	8.41e2	1.01	NO	0.965	1.000	37.92	1.000	3.5134		2.22	~~3.5134~~
7	OCDD	6.65e3	0.88	NO	1.05	1.000	41.26	1.001	29.846		3.70	~~29.846~~
8	2,3,7,8-TCDF			NO	0.952	1.000					0.368	
9	1,2,3,7,8-PeCDF			NO	0.994	1.000					0.559	
10	2,3,4,7,8-PeCDF			NO	0.977	1.000					0.503	
11	1,2,3,4,7,8-HxCDF			NO	1.31	1.000					0.606	
12	1,2,3,6,7,8-HxCDF			NO	1.15	1.000					0.678	
13	2,3,4,6,7,8-HxCDF			NO	1.20	1.000					0.775	
14	1,2,3,7,8,9-HxCDF			NO	1.20	1.000					1.05	
15	1,2,3,4,6,7,8-HpCDF			NO	1.49	1.000					1.28	
16	1,2,3,4,7,8,9-HpCDF			NO	1.44	1.000					1.25	
17	OCDF	9.18e2	1.09	YES	1.02	1.000	41.51	1.001	~~3.3669~~		1.59	3.0502
18	13C-2,3,7,8-TCDD	1.02e6	0.78	NO	1.02	1.000	26.03	1.022	1718.0	85.9	1.93	
19	13C-1,2,3,7,8-PeCDD	7.68e5	0.62	NO	0.806	1.000	30.60	1.202	1650.1	82.5	2.67	
20	13C-1,2,3,4,7,8-HxCDD	6.36e5	1.24	NO	1.07	1.000	33.98	1.014	1433.7	71.7	2.90	
21	13C-1,2,3,6,7,8-HxCDD	5.97e5	1.23	NO	0.968	1.000	34.09	1.018	1493.4	74.7	3.22	
22	13C-1,2,3,7,8,9-HxCDD	6.64e5	1.23	NO	1.13	1.000	34.39	1.027	1415.6	70.8	2.74	
23	13C-1,2,3,4,6,7,8-HpCDD	4.96e5	1.05	NO	0.888	1.000	37.91	1.132	1350.8	67.5	4.47	
24	13C-OCDD	8.52e5	0.91	NO	0.783	1.000	41.22	1.231	2632.9	65.8	3.75	
25	13C-2,3,7,8-TCDF	1.24e6	0.77	NO	1.03	1.000	25.25	0.992	1618.8	80.9	2.91	
26	13C-1,2,3,7,8-PeCDF	1.02e6	1.54	NO	0.880	1.000	29.41	1.155	1563.6	78.2	5.57	
27	13C-2,3,4,7,8-PeCDF	1.09e6	1.53	NO	0.867	1.000	30.33	1.191	1685.3	84.3	5.65	
28	13C-1,2,3,4,7,8-HxCDF	7.65e5	0.52	NO	1.19	1.000	33.08	0.988	1559.5	78.0	4.11	
29	13C-1,2,3,6,7,8-HxCDF	8.58e5	0.52	NO	1.30	1.000	33.20	0.991	1594.4	79.7	3.75	
30	13C-2,3,4,6,7,8-HxCDF	7.20e5	0.52	NO	1.16	1.000	33.81	1.009	1498.5	74.9	4.20	

4/20/10

1/20/10

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-4.qld

Last Altered: Wednesday, January 20, 2010 10:15:45 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 10:16:50 AM Pacific Standard Time

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

31	13C-1,2,3,7,8,9-HxCDF	6.36e5	0.52	NO	1.03	1.000	34.78	1.038	1499.7	75.0	4.76	
32	13C-1,2,3,4,6,7,8-HpCDF	5.25e5	0.45	NO	0.909	1.000	36.63	1.093	1399.1	70.0	5.21	
33	13C-1,2,3,4,7,8,9-HpCDF	4.59e5	0.44	NO	0.830	1.000	38.47	1.148	1337.7	66.9	5.71	
34	13C-OCDF	1.07e6	0.89	NO	0.982	1.000	41.45	1.237	2633.3	65.8	2.95	
35	37Cl-2,3,7,8-TCDD	2.49e5			0.602	1.000	26.05	1.023	716.63	89.6	0.869	
36	13C-1,2,3,4-TCDD	1.16e6	0.79	NO	1.00	1.000	25.46	0.000	2000.0	100	1.98	
37	13C-1,2,3,4-TCDF	1.49e6	0.77	NO	1.00	1.000	24.04	0.000	2000.0	100	2.99	
38	13C-1,2,3,4,6,9-HxCDF	8.26e5	0.52	NO	1.00	1.000	33.50	0.000	2000.0	100	4.88	
39	Total Tetra-Dioxins				0.965	1.000					0.223	
40	Total Penta-Dioxins				0.869	1.000					0.489	
41	Total Hexa-Dioxins				0.940	1.000					0.772	
42	Total Hepta-Dioxins				0.965	1.000			3.5134		2.22	~~3.5134~~
43	Total Tetra-Furans				0.952	1.000					0.164	
44	1st Func. Penta-Furans				0.994	1.000					0.173	
45	Total Penta-Furans				0.994	1.000					0.264	
46	Total Hexa-Furans				1.20	1.000					0.420	
47	Total Hepta-Furans				1.49	1.000					0.668	

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-4.qld

Last Altered: Wednesday, January 20, 2010 10:15:45 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 10:16:50 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

Tetra-Dioxins

Penta-Dioxins

Hexa-Dioxins

Hepta-Dioxins

1,2,3,4,6,7,8-HpCDD	37.92	5.936e3	1.045e4	4.226e2	4.183e2	1.01	NO	8.409e2	3.5134	3.5134	2.22

Tetra-Furans

Penta-Furans function 1

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-4.qld

Last Altered: Wednesday, January 20, 2010 10:15:45 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 10:16:50 AM Pacific Standard Time

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

Penta-Furans

Hexa-Furans

Hepta-Furans

Vista Analytical Laboratory VG-10

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:43:11 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:43:25 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

2,3,7,8-TCDD

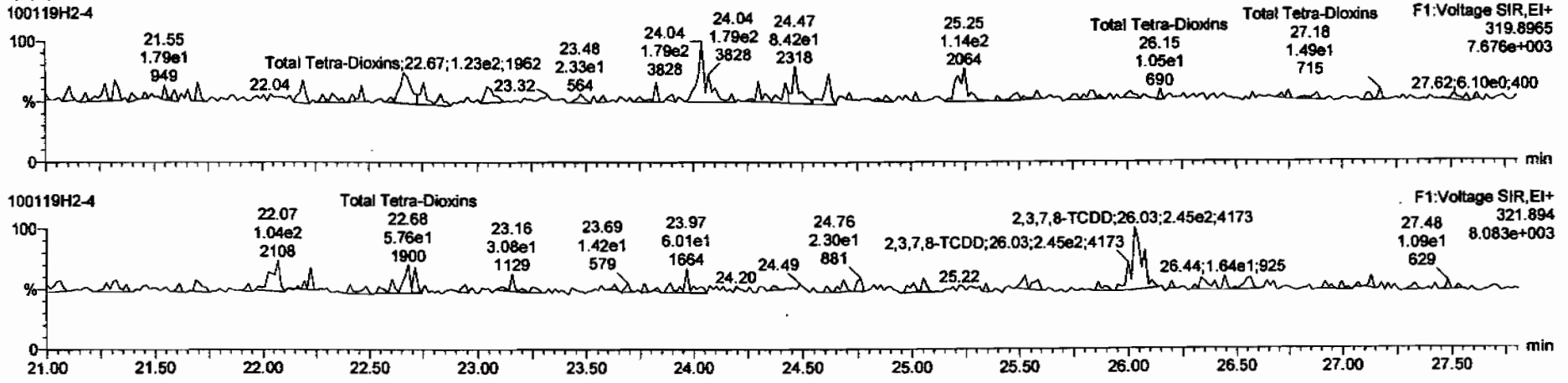

13C-2,3,7,8-TCDD

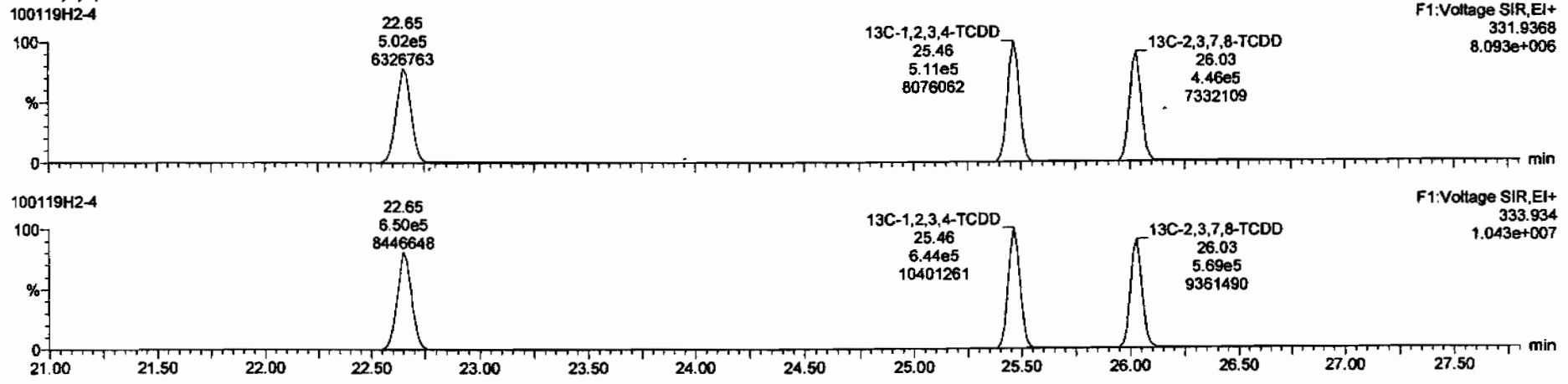

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:43:11 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:43:25 AM Pacific Standard Time

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

37Cl-2,3,7,8-TCDD

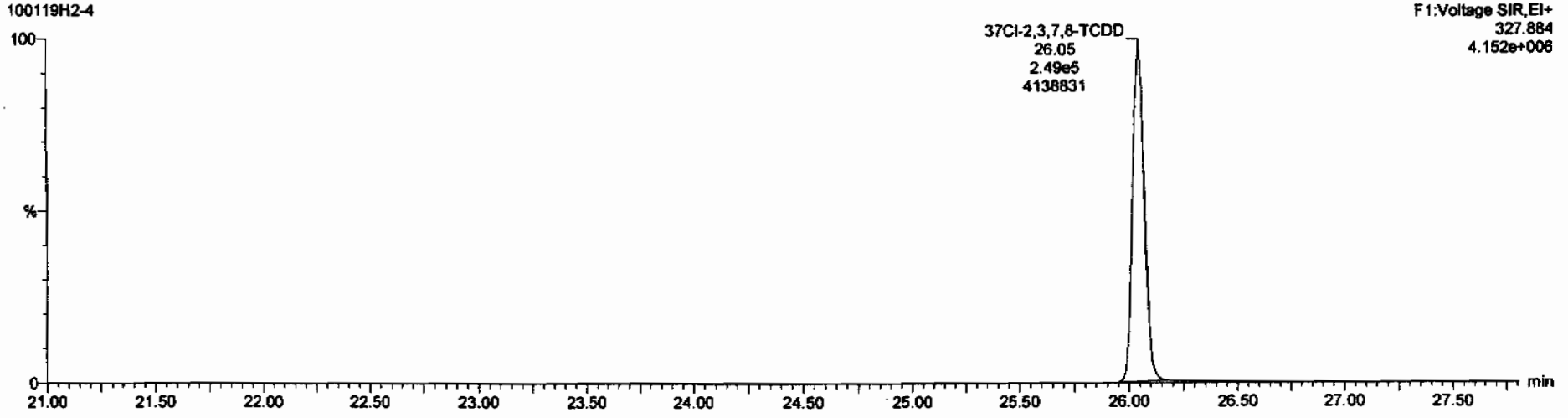

13C-1,2,3,4-TCDD

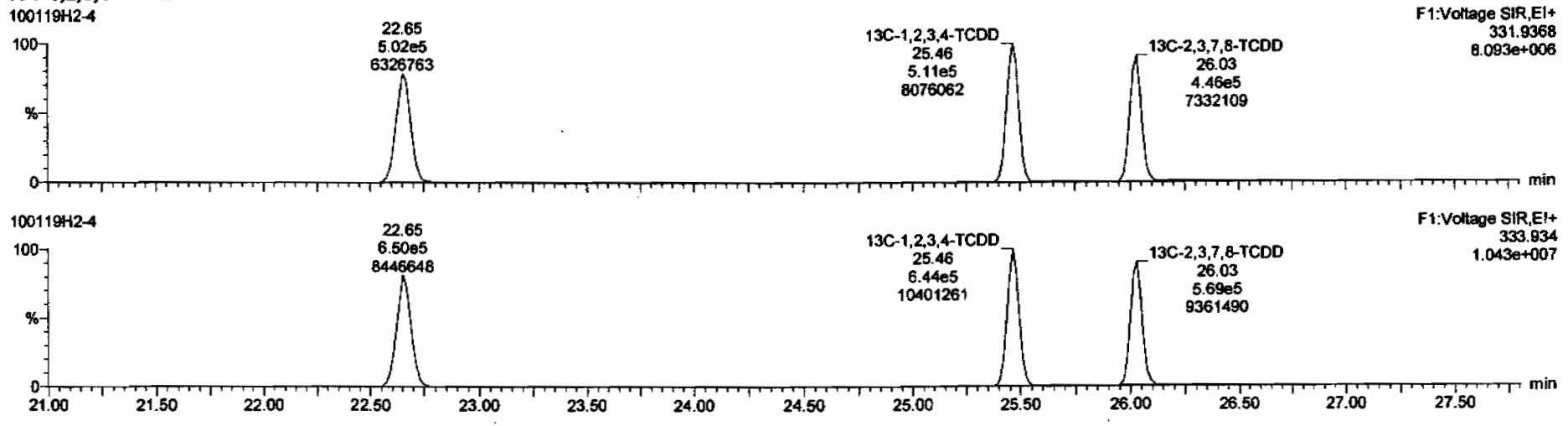

Dataset: Untitled

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Printed: Wednesday, January 20, 2010 8:43:25 AM Pacific Standard Time

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

1,2,3,7,8-PeCDD

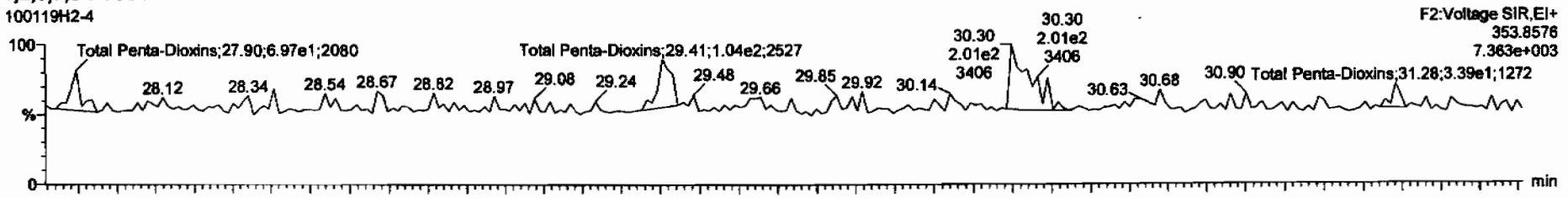

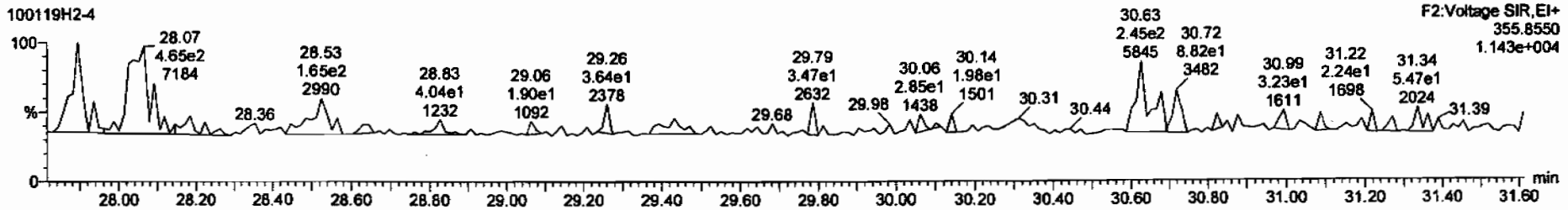

13C-1,2,3,7,8-PeCDD

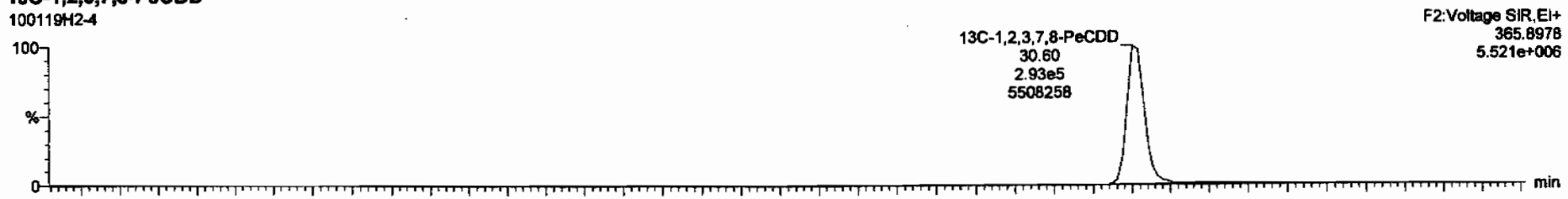

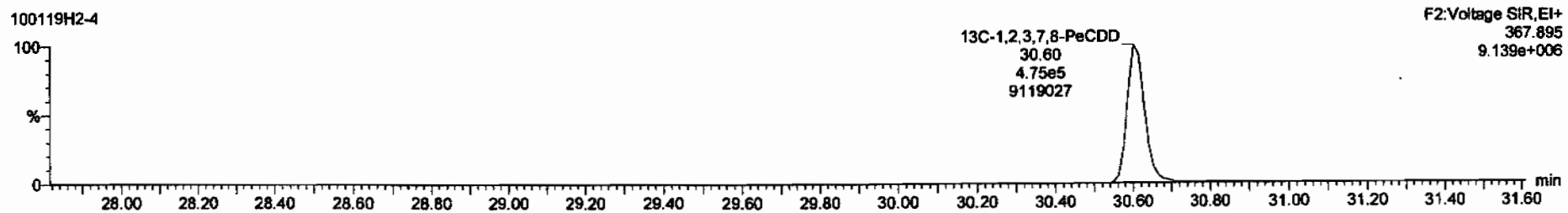

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:43:11 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:43:25 AM Pacific Standard Time

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

1,2,3,4,7,8-HxCDD

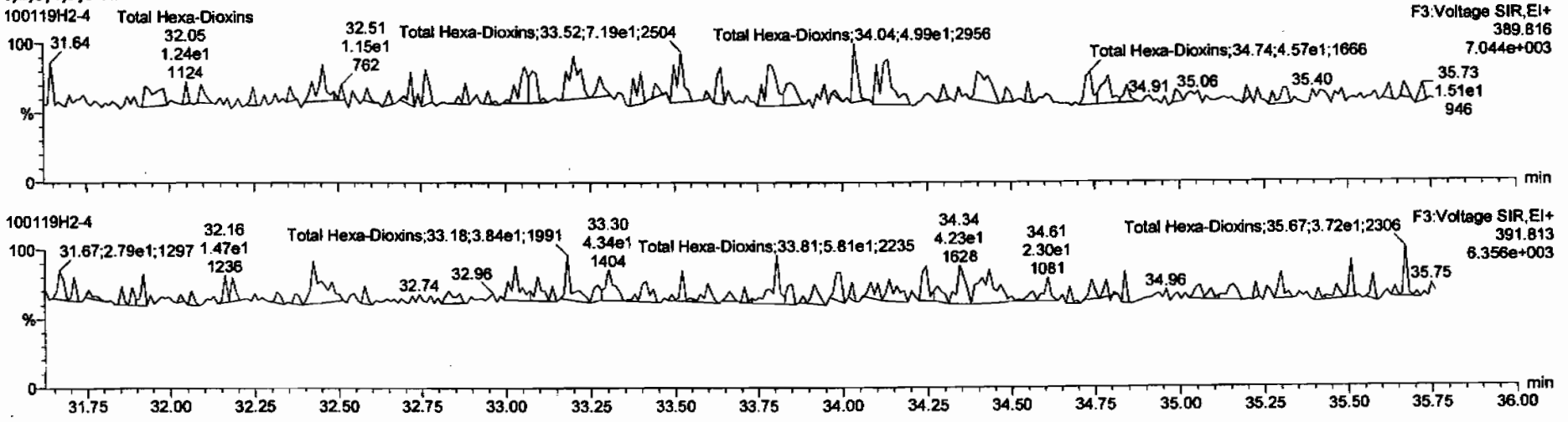

13C-1,2,3,4,7,8-HxCDD

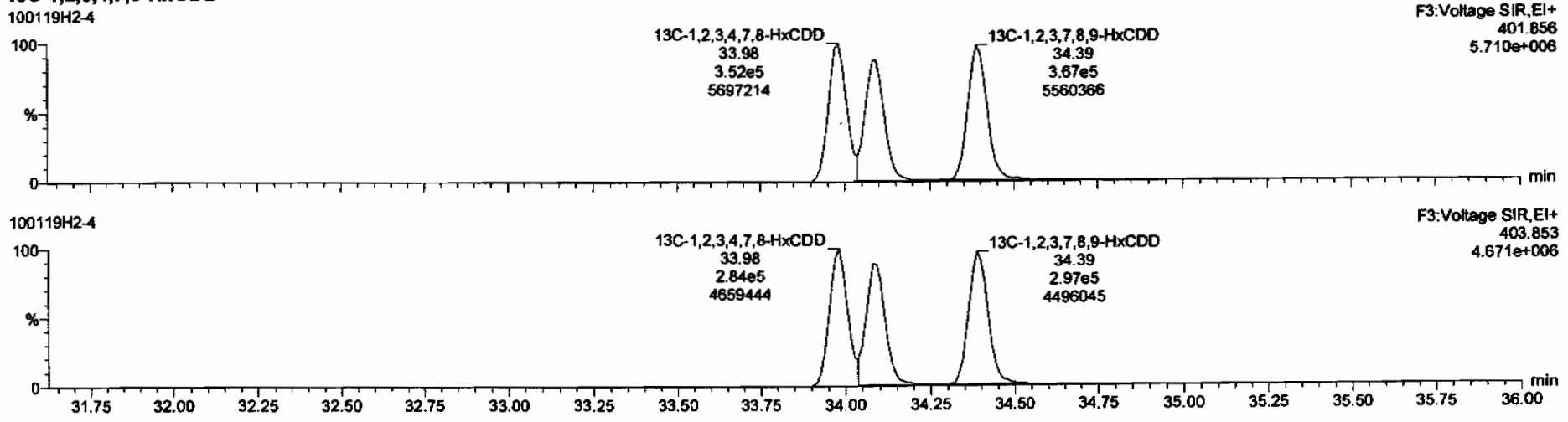

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:43:11 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:43:25 AM Pacific Standard Time

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

1,2,3,4,6,7,8-HpCDD

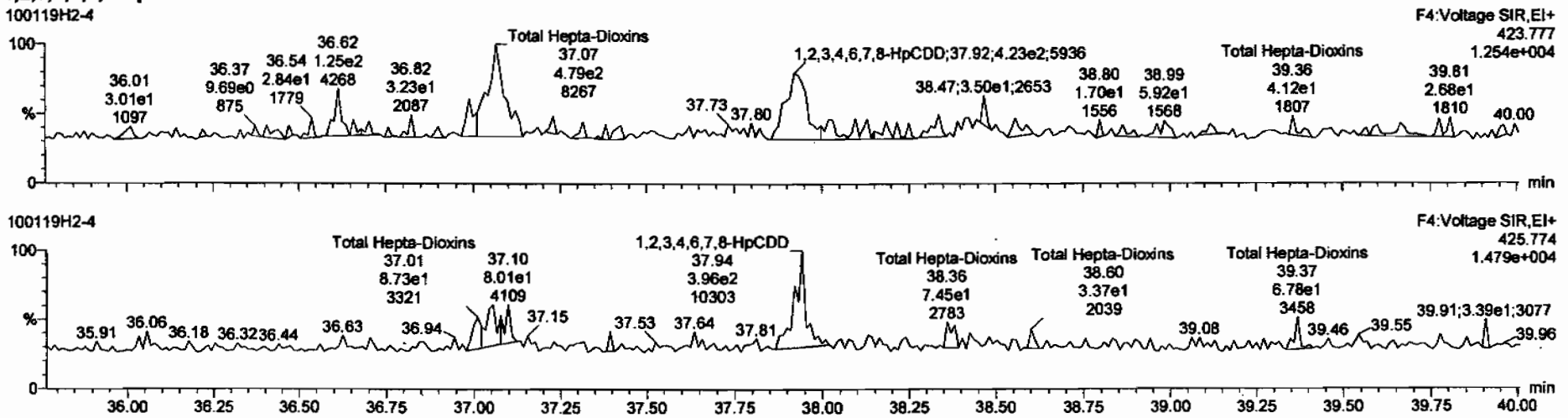

13C-1,2,3,4,6,7,8-HpCDD

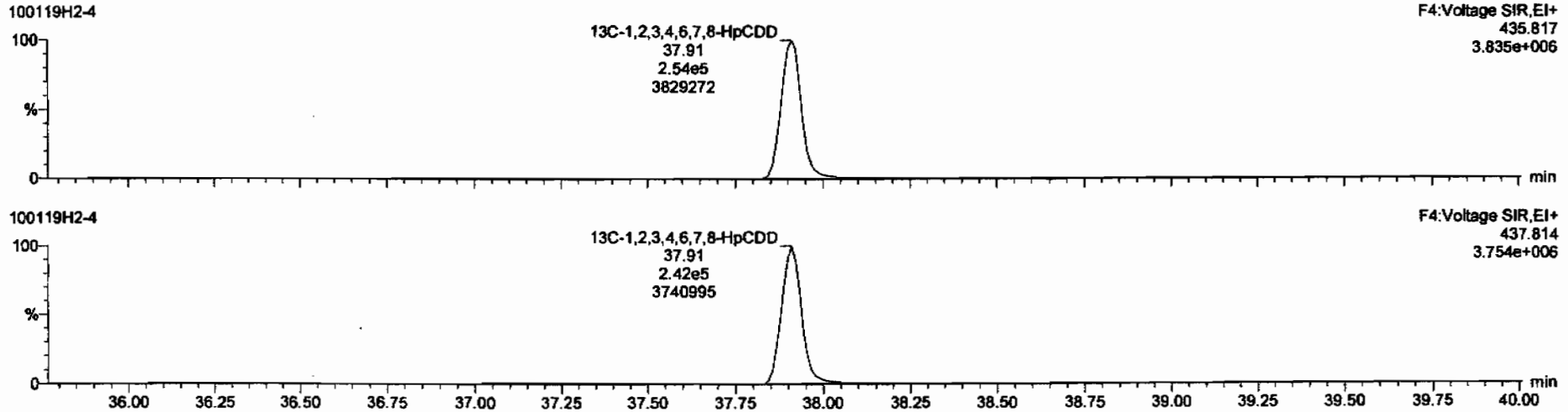

TargetLynx - 100119H2-4.qld * - [Chromatogram]

File Edit View Display Processing Window Help

100119H2-4 - 0_2725_MB001 - 0_2725_MB001

	Name*				RRF							
38	Total Tetra-Dioxins				0.97	1.000					0.223	
40	Total Penta-Dioxins				0.87	1.000					0.469	
41	Total Hexa-Dioxins				0.94	1.000					0.772	
42	[illegible]											
43	Total Tetra-Furans				0.95	1.000			0.135		0.368	1.60
44	1st Func. Penta-Furans				0.99	1.000			0.204		0.361	2.52
45	Total Penta-Furans				0.99	1.000			0.352		0.526	1.41
46	Total Hexa-Furans				1.20	1.000			0.616		0.769	1.71

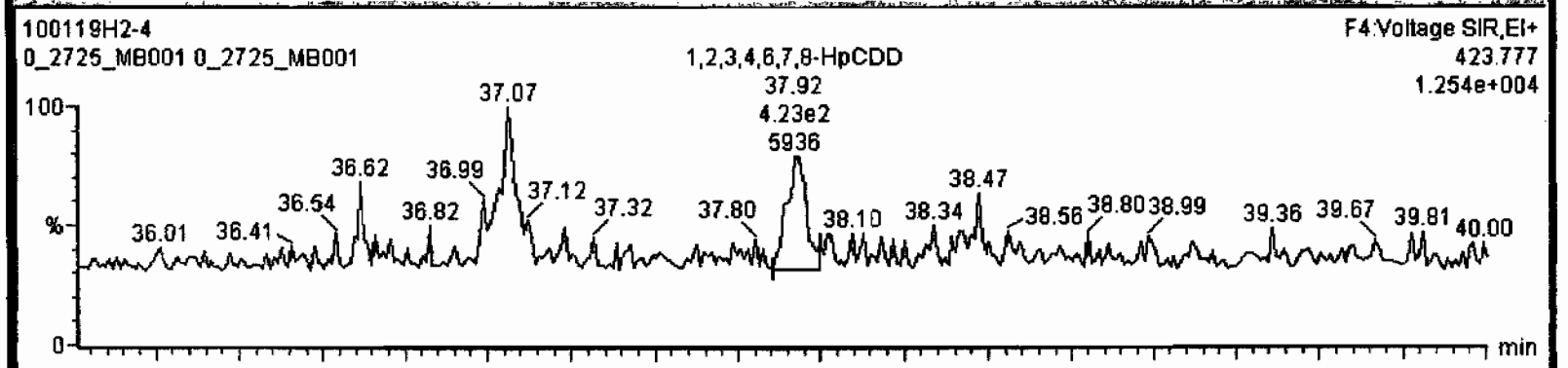

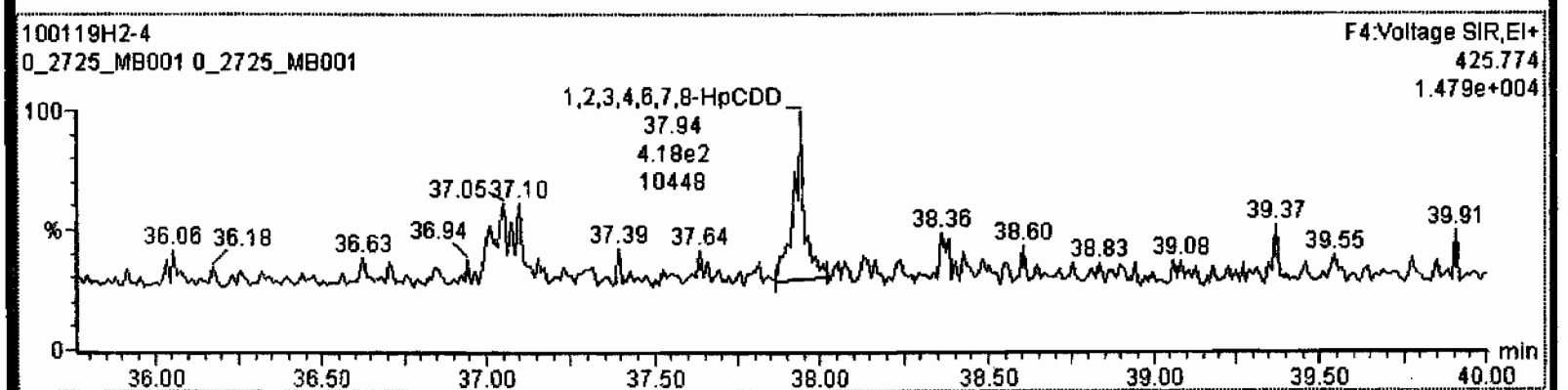

Ready 100119H2-4 NUM

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:43:11 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:43:25 AM Pacific Standard Time

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

OCDD

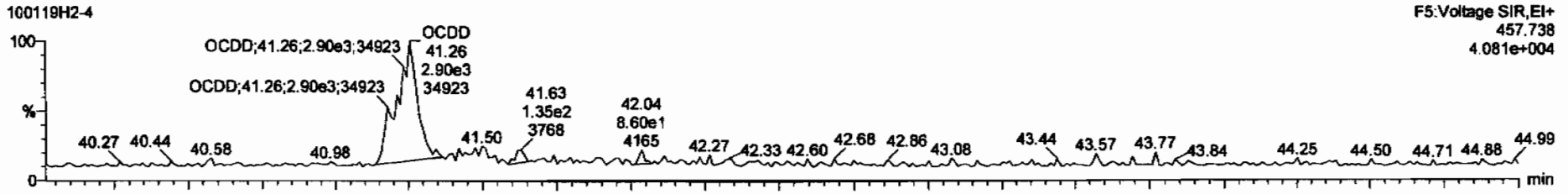

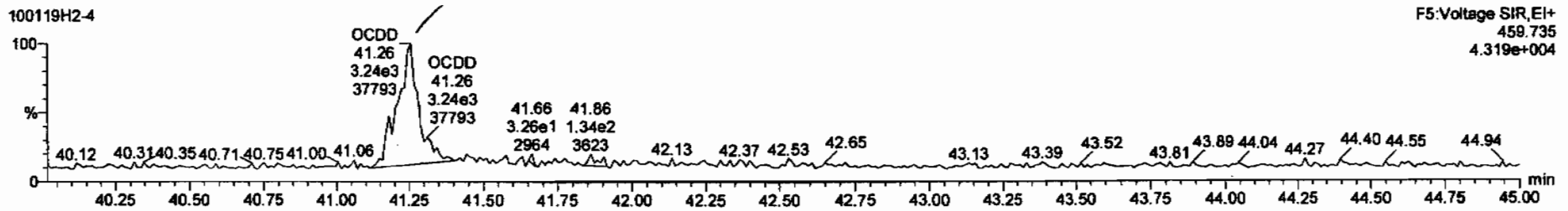

13C-OCDD

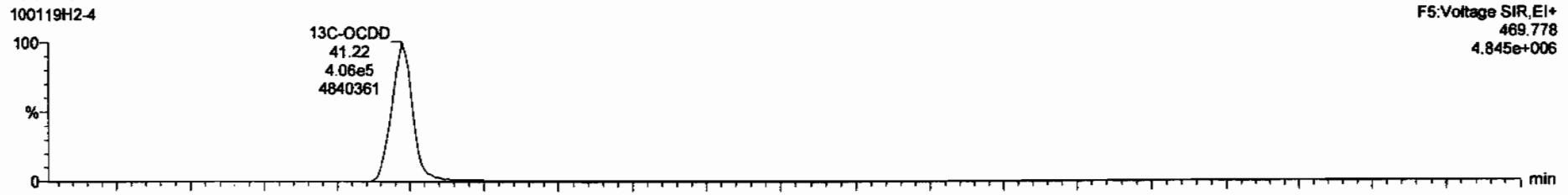

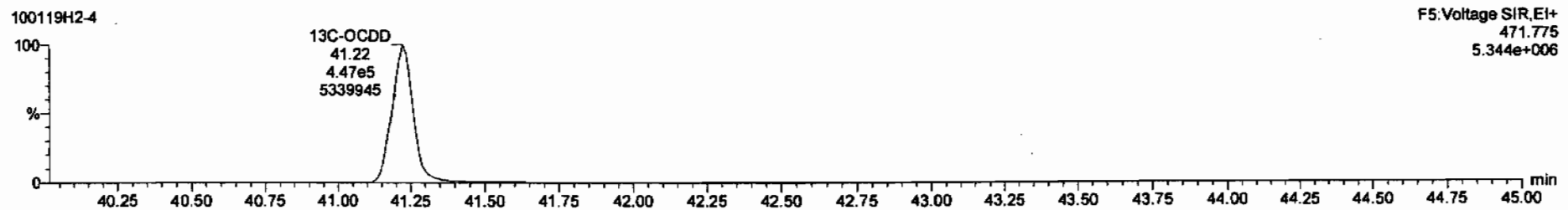

TargetLynx - 100119H2-4.qld * - [Chromatogram]

File Edit View Display Processing Window Help

100119H2-4 - 0_2725_MB001 - 0_2725_MB001

Name											
1,2,3,4,6,7,8-HpCDD	8.41e2	1.01	NO	0.97	1.000	37.92	1.000	3.51		2.22	3.51
2,3,7,8-TCDF			NO	0.95	1.000					0.368	
1,2,3,7,8-PeCDF			NO	0.99	1.000					0.559	
2,3,4,7,8-PeCDF			NO	0.98	1.000					0.503	
1,2,3,4,7,8-HxCDF			NO	1.31	1.000					0.606	
1,2,3,6,7,8-HxCDF			NO	1.15	1.000					0.678	
2,3,4,6,7,8-HxCDF			NO	1.20	1.000					0.775	

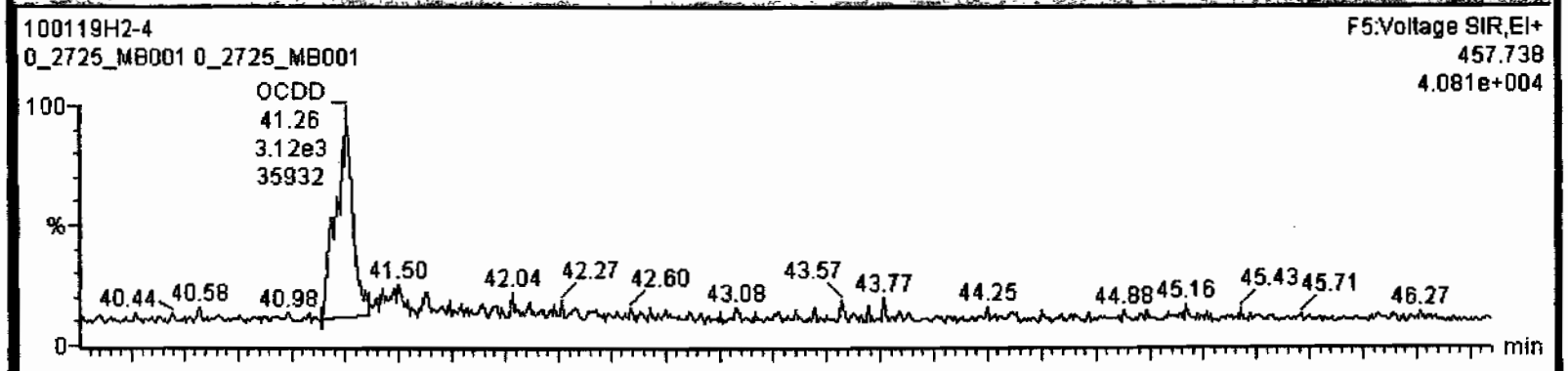

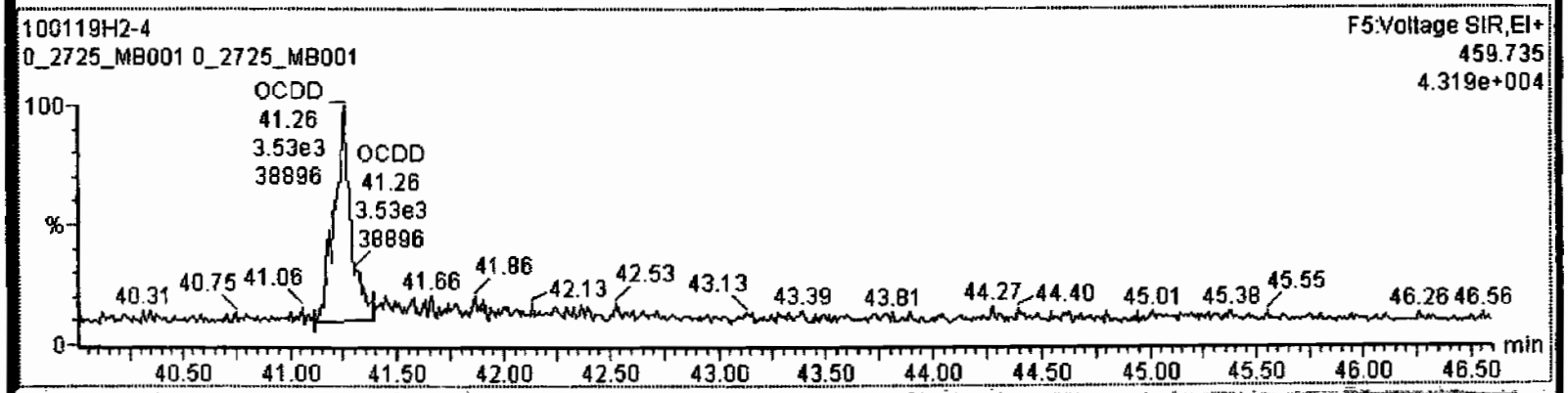

Ready 100119H2-4 NUM

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:43:11 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:43:25 AM Pacific Standard Time

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

2,3,7,8-TCDF

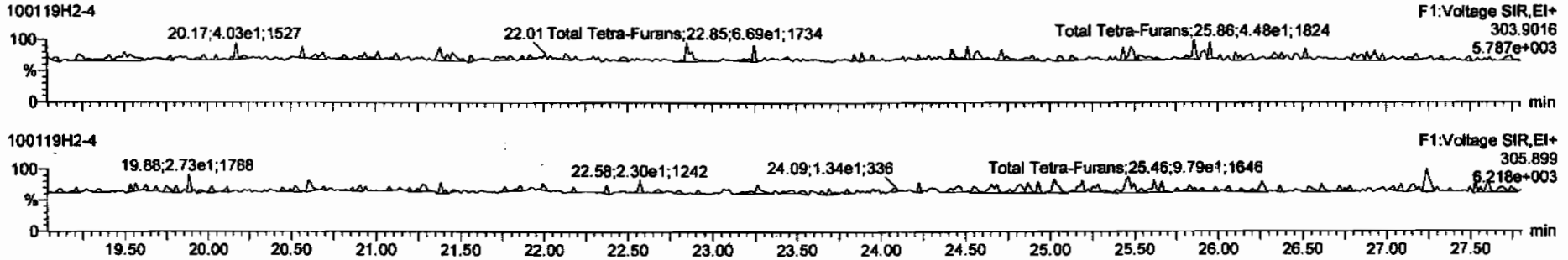

13C-2,3,7,8-TCDF

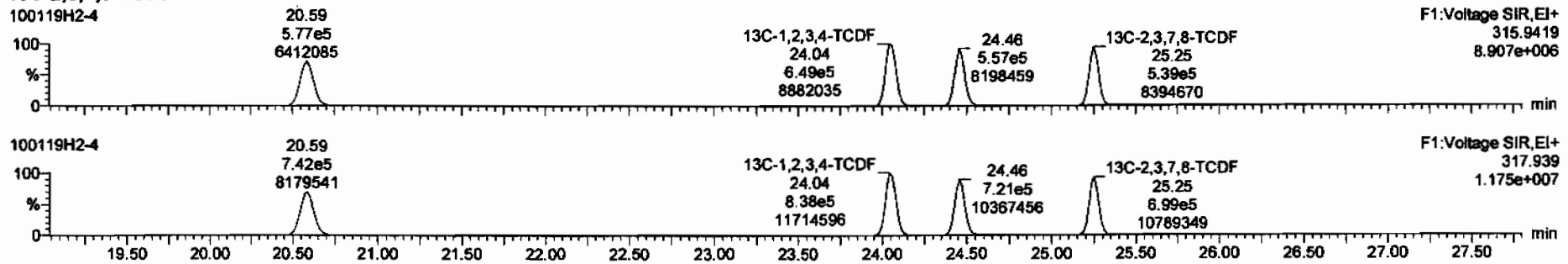

DPE1

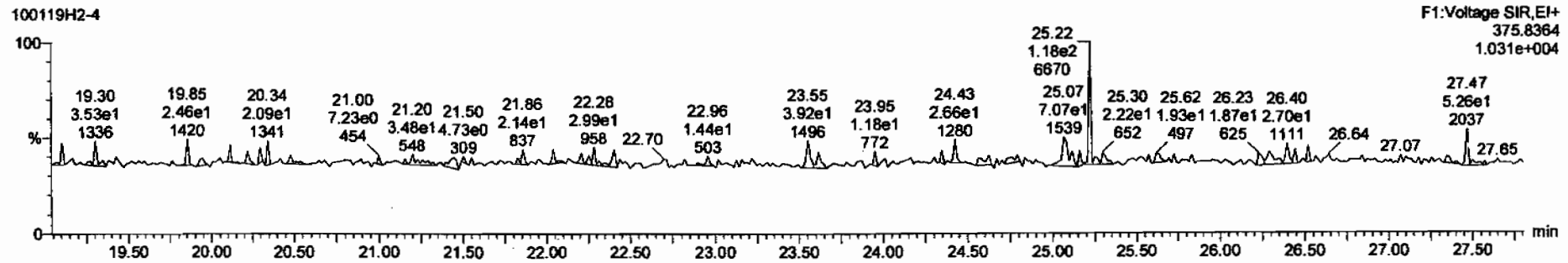

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:43:11 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:43:25 AM Pacific Standard Time

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

1st Func. Penta-Furans

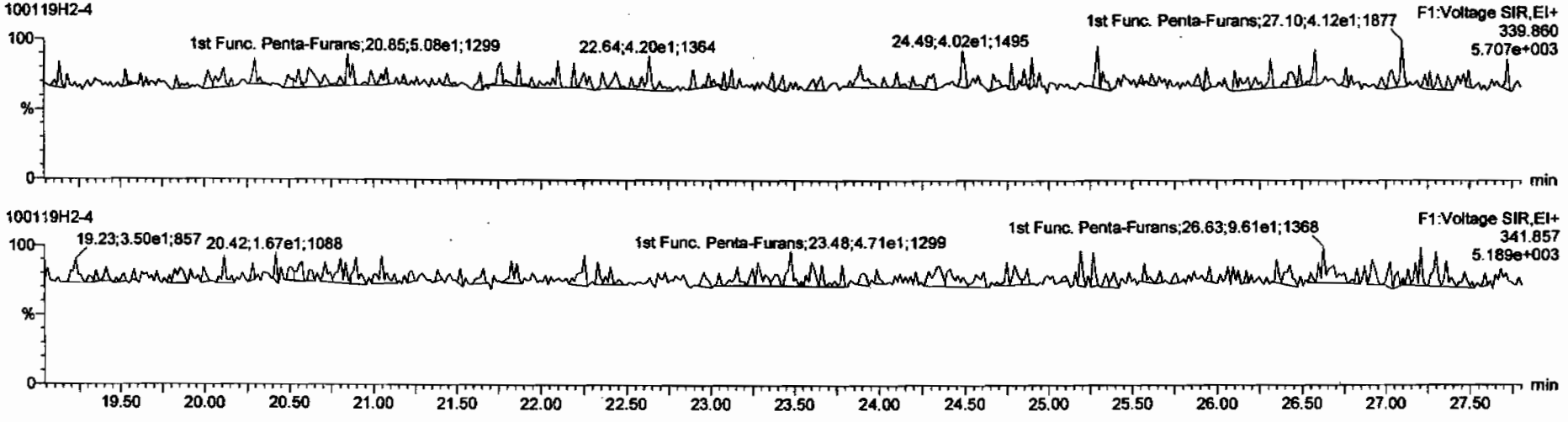

DPE6

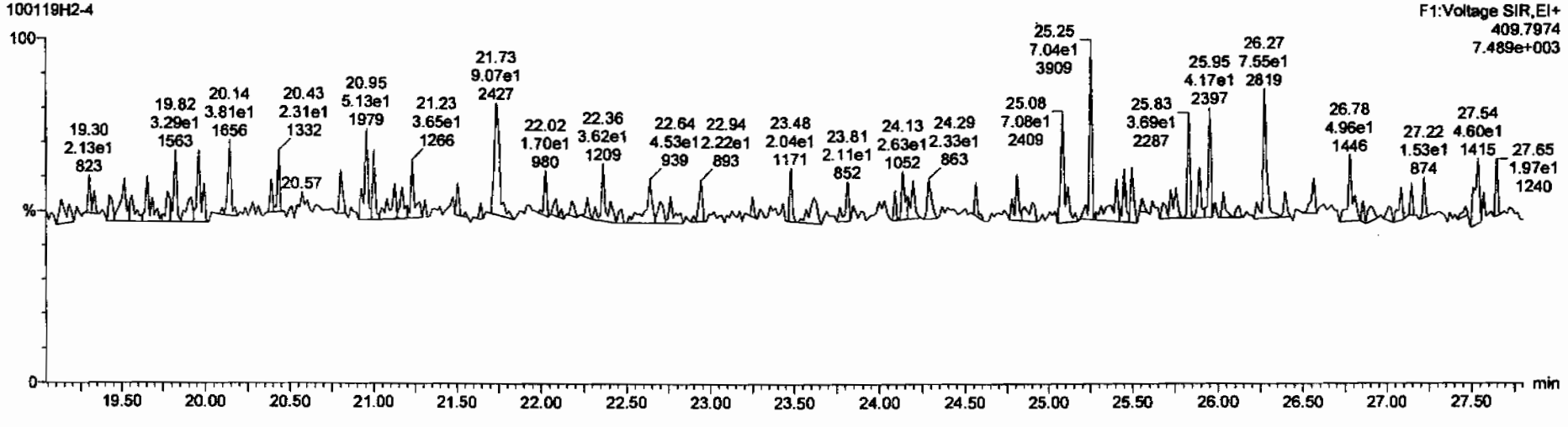

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:43:11 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:43:25 AM Pacific Standard Time

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1,2,3,7,8-PeCDF

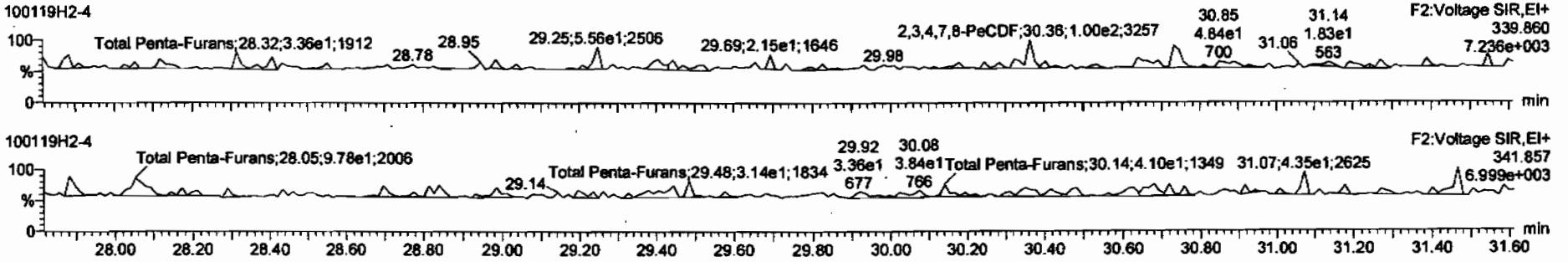

13C-1,2,3,7,8-PeCDF

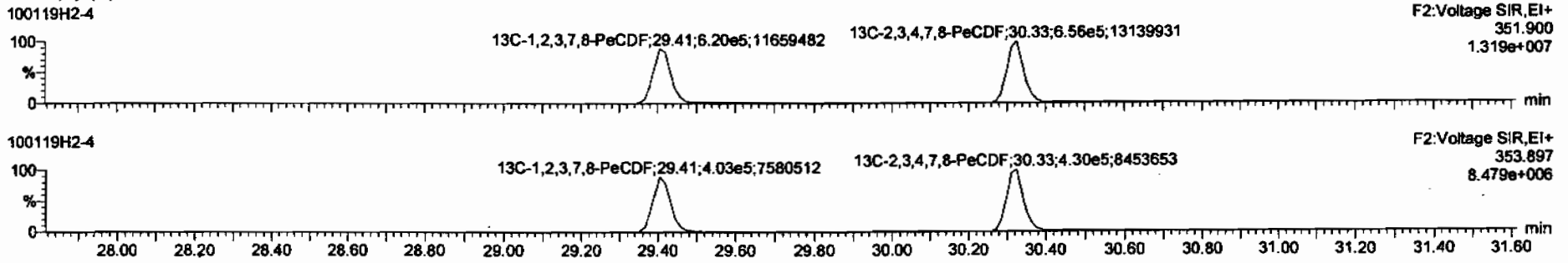

DPE2

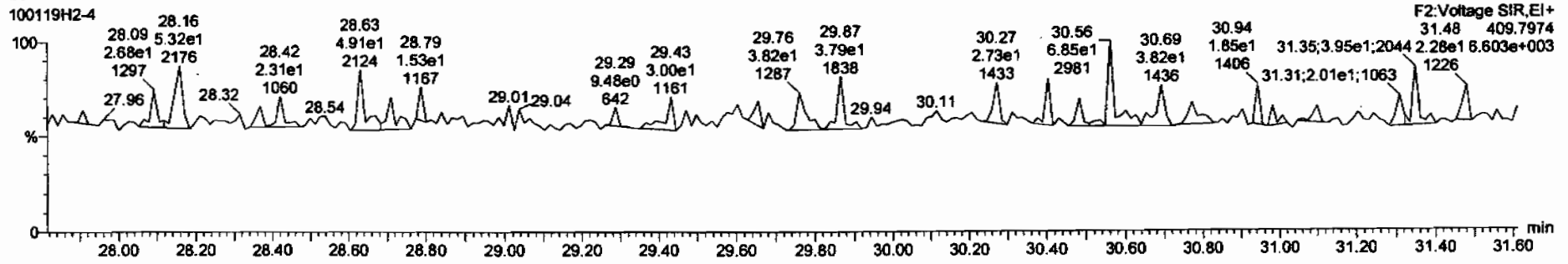

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Last Altered: Wednesday, January 20, 2010 8:43:11 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:43:25 AM Pacific Standard Time

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

1,2,3,4,7,8-HxCDF

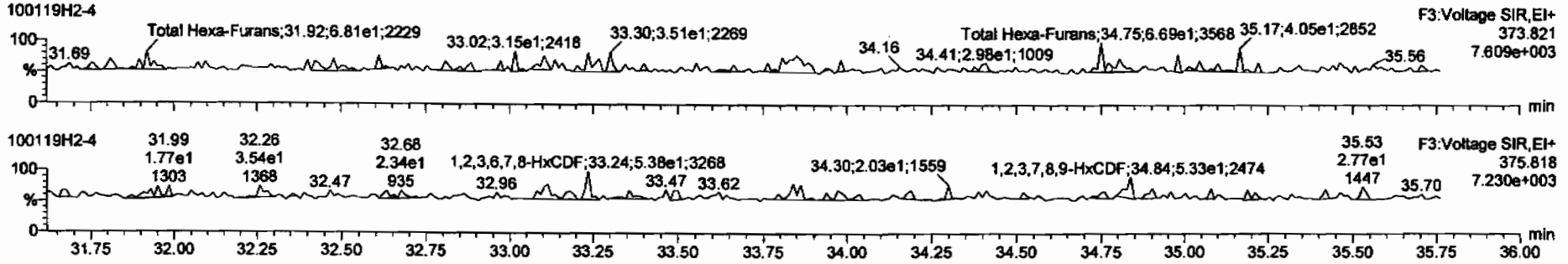

13C-1,2,3,4,7,8-HxCDF

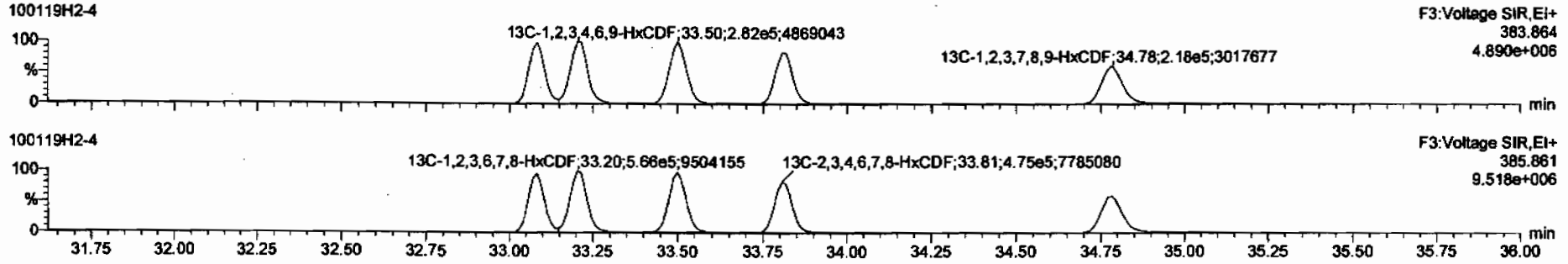

DPE3

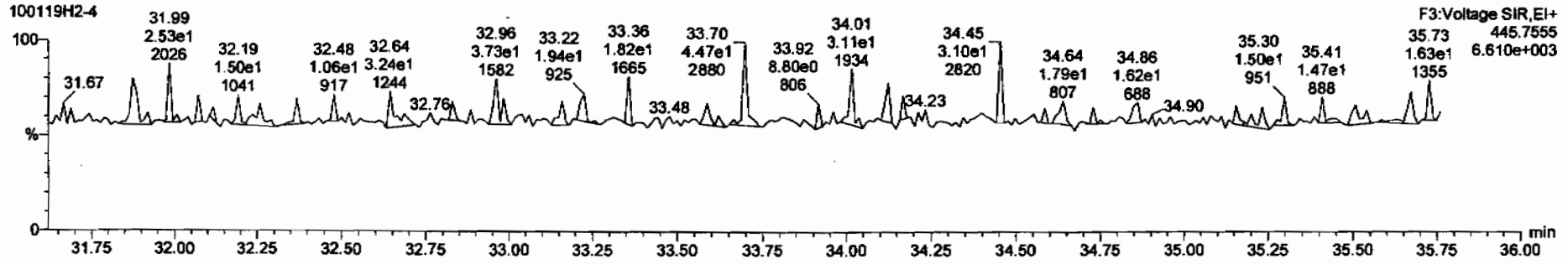

Dataset: Untitled

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Printed: Wednesday, January 20, 2010 8:43:25 AM Pacific Standard Time

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1,2,3,4,6,7,8-HpCDF

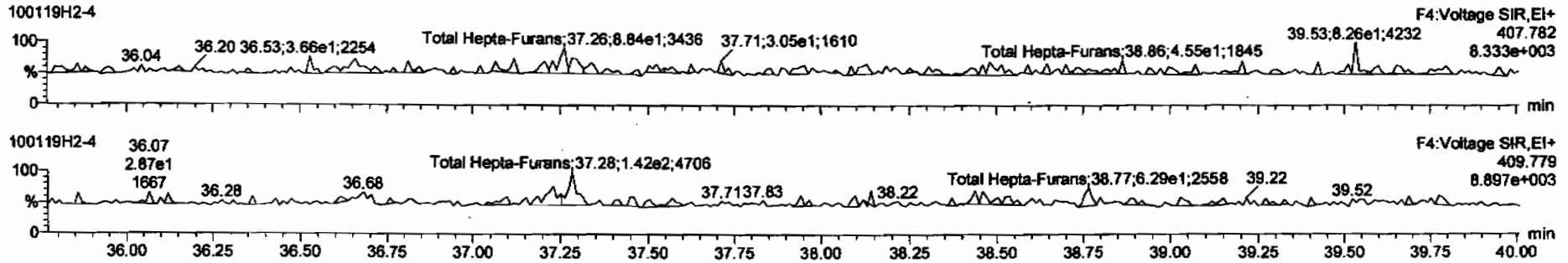

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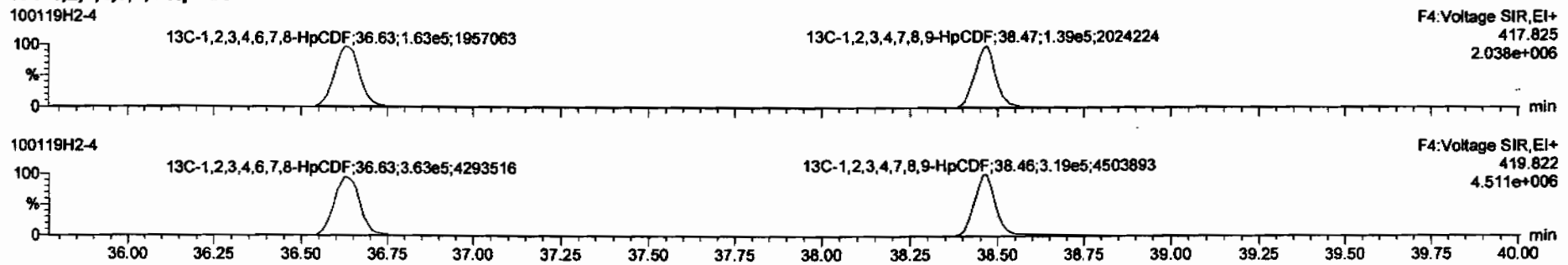

DPE4

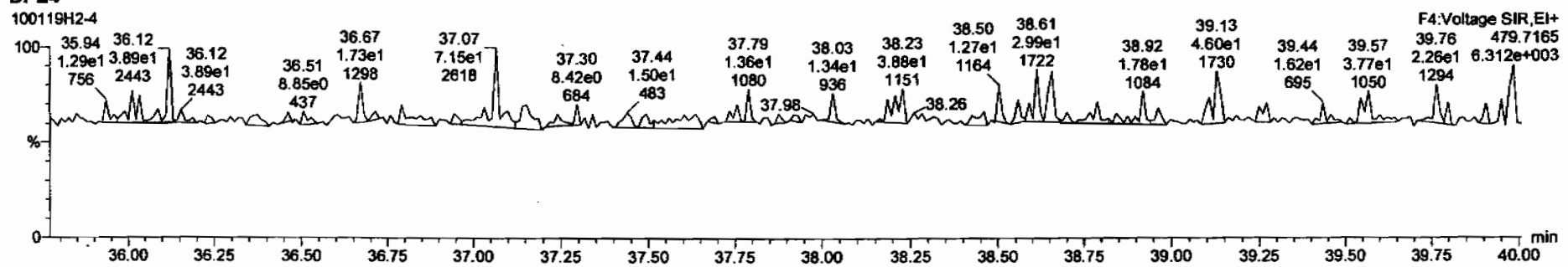

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:43:11 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:43:25 AM Pacific Standard Time

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

OCDF

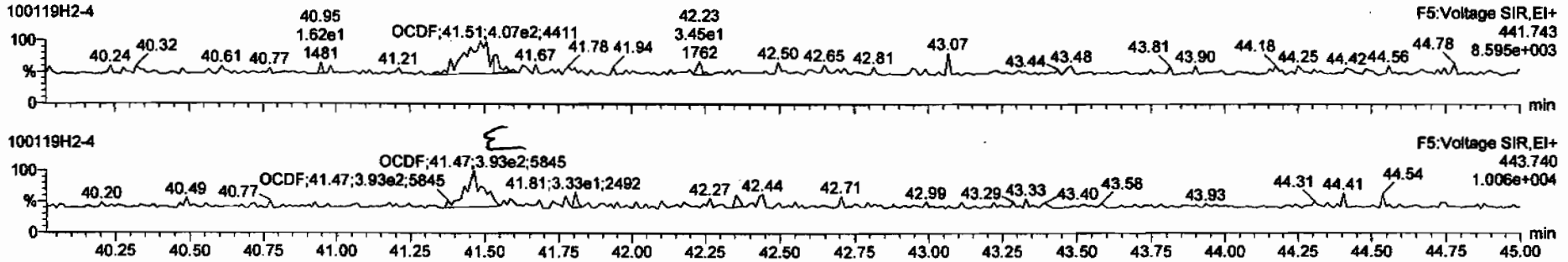

13C-OCDF

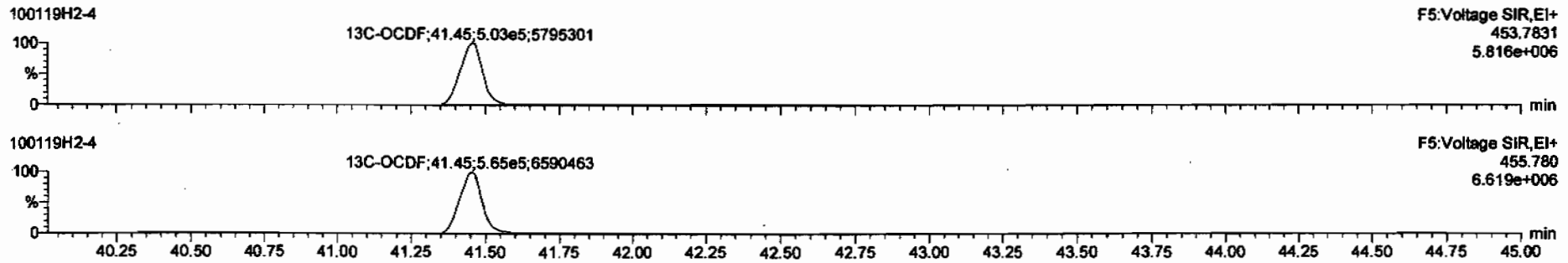

DPE5

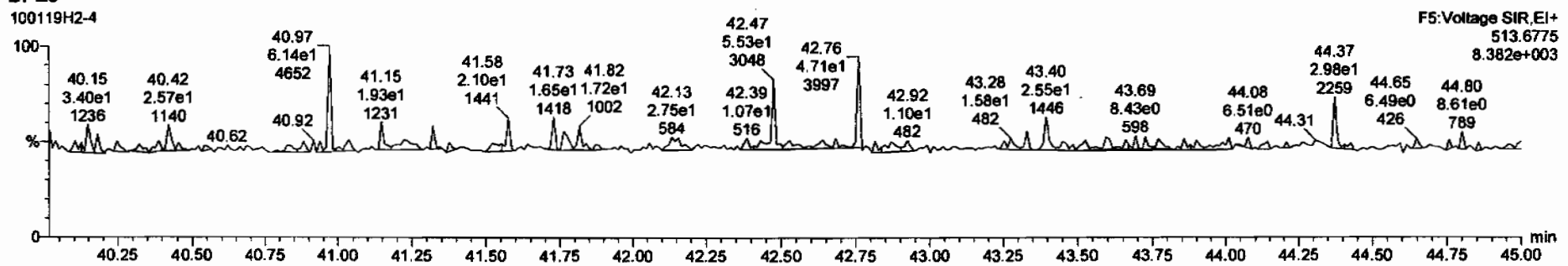

TargetLynx - 100119H2-4.qld * - [Chromatogram]

File Edit View Display Processing Window Help

100119H2-4 - 0_2725_MB001 - 0_2725_MB001

	Name											
	1,2,3,4,7,8,9-HpCDF			NO	1.44	1.000					1.25	
	13C-2,3,7,8-TCDD	1.02e6	0.78	NO	1.02	1.000	26.03	1.022	1720	85.9	1.93	
	13C-1,2,3,7,8-PeCDD	7.68e5	0.62	NO	0.81	1.000	30.60	1.202	1650	82.5	2.67	
	13C-1,2,3,4,7,8-HxCDD	6.36e5	1.24	NO	1.07	1.000	33.98	1.014	1430	71.7	2.90	
	13C-1,2,3,6,7,8-HxCDD	5.97e5	1.23	NO	0.97	1.000	34.09	1.018	1490	74.7	3.22	
	13C-1,2,3,7,8,9-HxCDD	6.64e5	1.23	NO	1.13	1.000	34.39	1.027	1420	70.8	2.74	
	13C-1,2,3,4,6,7,8-HpCDD	4.96e5	1.05	NO	0.89	1.000	37.91	1.132	1350	67.5	4.47	

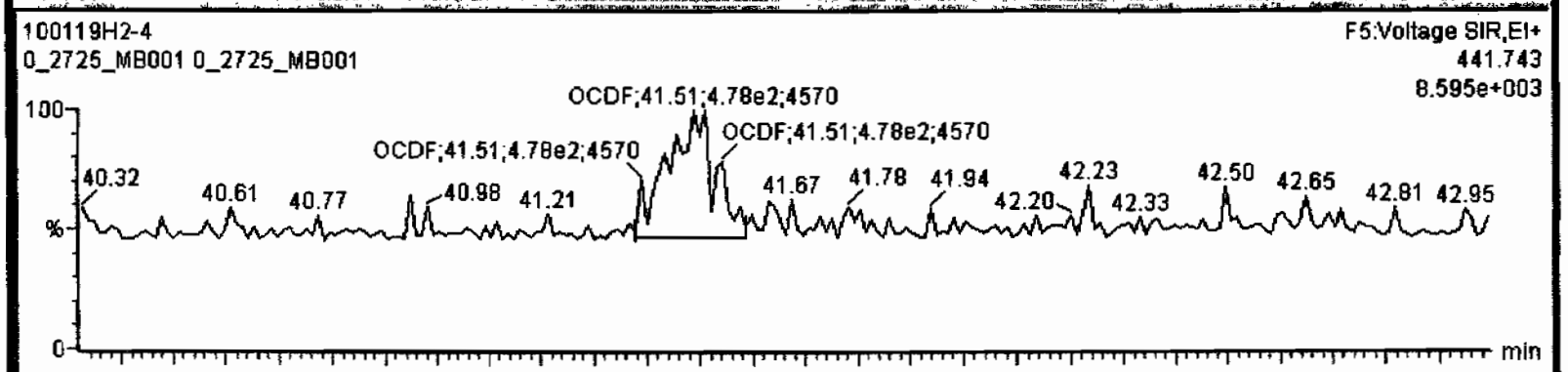

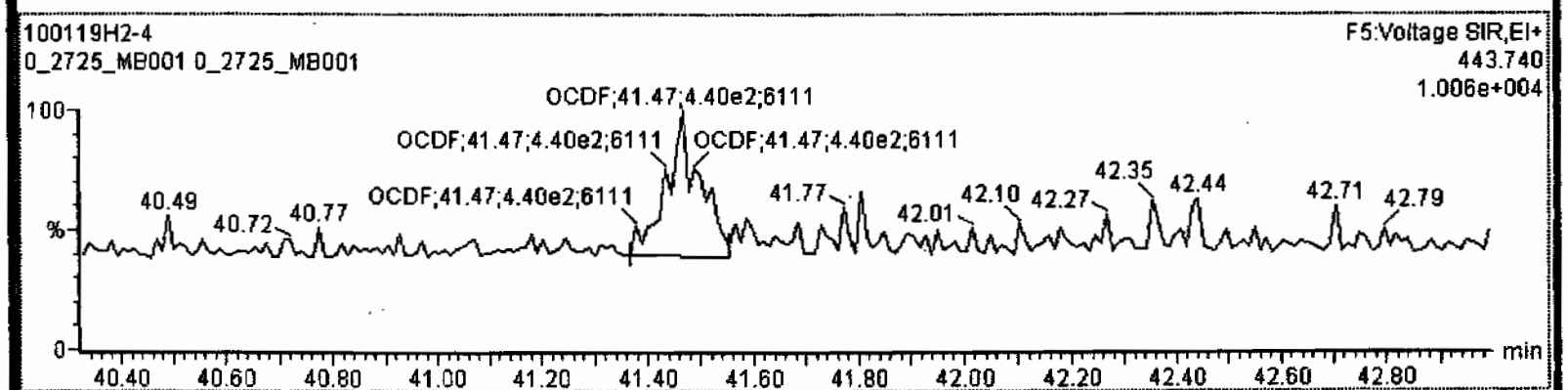

Ready 100119H2-4 NUM

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 8:43:11 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:43:25 AM Pacific Standard Time

Name: 100119H2-4, Date: 19-Jan-2010, Time: 11:54:19, ID: 0_2725_MB001, Description: 0_2725_MB001

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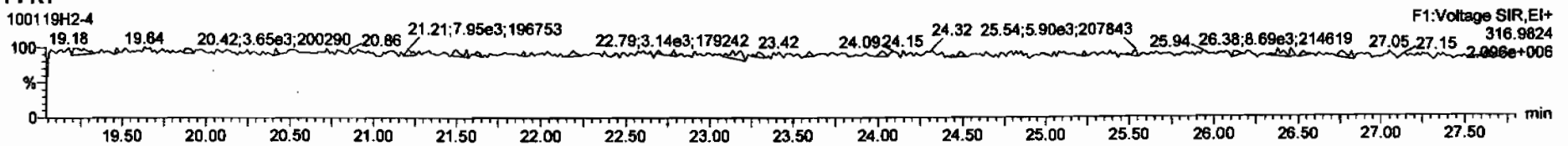

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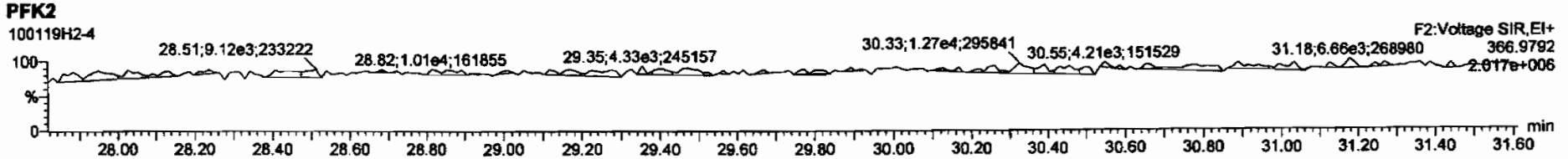

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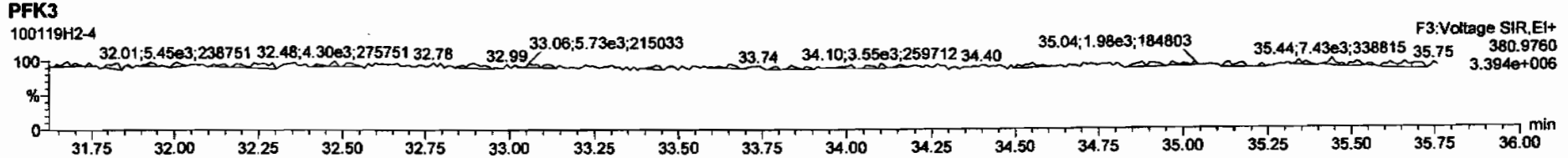

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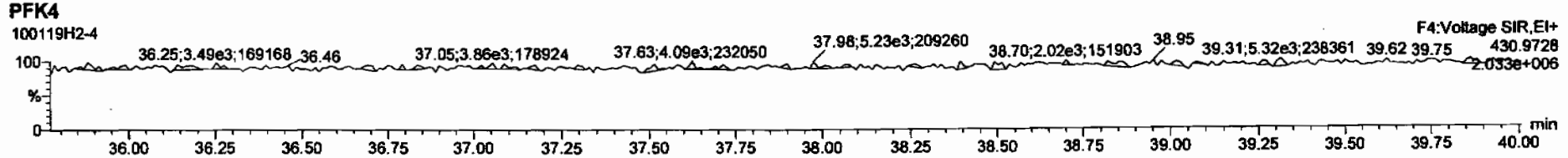

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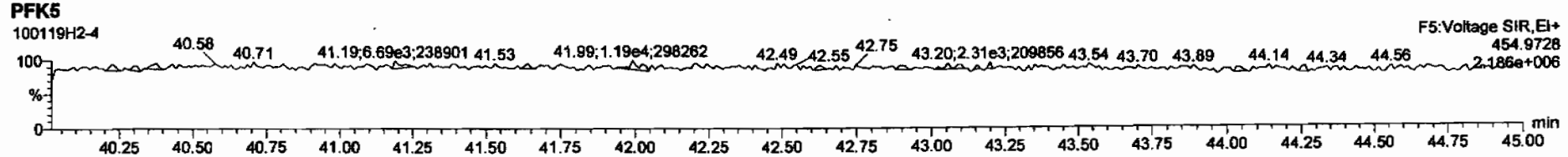

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-2.qld

Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:40:10 AM Pacific Standard Time

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Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

1	2,3,7,8-TCDD	9.59e4	0.75	NO	0.965	1.000	26.05	1.001	9.8840	98.8	0.0321	9.8840
2	1,2,3,7,8-PeCDD	3.32e5	0.61	NO	0.869	1.000	30.61	1.000	50.900	102	0.0869	50.900
3	1,2,3,4,7,8-HxCDD	2.66e5	1.24	NO	0.873	1.000	33.98	1.000	49.391	98.8	0.170	49.391
4	1,2,3,6,7,8-HxCDD	2.64e5	1.25	NO	0.940	1.000	34.09	1.000	50.734	101	0.186	50.734
5	1,2,3,7,8,9-HxCDD	2.78e5	1.23	NO	0.882	1.000	34.40	1.001	50.246	100	0.185	50.246
6	1,2,3,4,6,7,8-HpCDD	2.23e5	1.04	NO	0.965	1.000	37.91	1.000	48.995	98.0	0.179	48.995
7	OCDD	4.24e5	0.89	NO	1.05	1.000	41.24	1.001	99.154	99.2	0.298	99.154
8	2,3,7,8-TCDF	1.15e5	0.77	NO	0.952	1.000	25.27	1.001	9.6753	96.8	0.0266	9.6753
9	1,2,3,7,8-PeCDF	4.65e5	1.58	NO	0.994	1.000	29.42	1.000	46.781	93.6	0.0842	46.781
10	2,3,4,7,8-PeCDF	4.80e5	1.57	NO	0.977	1.000	30.33	1.000	46.576	93.2	0.0767	46.576
11	1,2,3,4,7,8-HxCDF	4.46e5	1.25	NO	1.31	1.000	33.08	1.000	46.649	93.3	0.111	46.649
12	1,2,3,6,7,8-HxCDF	4.36e5	1.27	NO	1.15	1.000	33.21	1.000	47.361	94.7	0.128	47.361
13	2,3,4,6,7,8-HxCDF	3.87e5	1.26	NO	1.20	1.000	33.82	1.001	46.814	93.6	0.146	46.814
14	1,2,3,7,8,9-HxCDF	3.37e5	1.30	NO	1.20	1.000	34.78	1.000	47.082	94.2	0.203	47.082
15	1,2,3,4,6,7,8-HpCDF	3.46e5	1.05	NO	1.49	1.000	36.64	1.001	46.724	93.4	0.214	46.724
16	1,2,3,4,7,8,9-HpCDF	2.95e5	1.04	NO	1.44	1.000	38.47	1.000	46.297	92.6	0.225	46.297
17	OCDF	5.05e5	0.92	NO	1.02	1.000	41.47	1.001	93.361	93.4	0.207	93.361
18	13C-2,3,7,8-TCDD	1.01e6	0.77	NO	1.02	1.000	26.02	1.022	92.402	92.4	0.125	
19	13C-1,2,3,7,8-PeCDD	7.50e5	0.63	NO	0.806	1.000	30.60	1.202	87.553	87.6	0.171	
20	13C-1,2,3,4,7,8-HxCDD	6.18e5	1.25	NO	1.07	1.000	33.97	1.014	75.448	75.4	0.210	
21	13C-1,2,3,6,7,8-HxCDD	5.55e5	1.24	NO	0.968	1.000	34.08	1.018	75.184	75.2	0.234	
22	13C-1,2,3,7,8,9-HxCDD	6.27e5	1.23	NO	1.13	1.000	34.38	1.027	72.489	72.5	0.199	
23	13C-1,2,3,4,6,7,8-HpCDD	4.72e5	1.05	NO	0.888	1.000	37.90	1.132	69.674	69.7	0.211	
24	13C-OCDD	8.18e5	0.88	NO	0.783	1.000	41.21	1.231	136.91	68.5	0.234	
25	13C-2,3,7,8-TCDF	1.25e6	0.76	NO	1.03	1.000	25.24	0.991	86.561	86.6	0.142	
26	13C-1,2,3,7,8-PeCDF	1.00e6	1.55	NO	0.880	1.000	29.41	1.155	81.168	81.2	0.230	
27	13C-2,3,4,7,8-PeCDF	1.05e6	1.56	NO	0.867	1.000	30.31	1.190	86.830	86.8	0.233	
28	13C-1,2,3,4,7,8-HxCDF	7.31e5	0.51	NO	1.19	1.000	33.07	0.988	80.743	80.7	0.241	
29	13C-1,2,3,6,7,8-HxCDF	8.03e5	0.52	NO	1.30	1.000	33.20	0.991	80.865	80.9	0.220	
30	13C-2,3,4,6,7,8-HxCDF	6.91e5	0.52	NO	1.16	1.000	33.80	1.009	77.974	78.0	0.246	

1/20/10

1/20/10

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-2.qld

Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:40:10 AM Pacific Standard Time

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

31	13C-1,2,3,7,8,9-HxCDF	5.97e5	0.51	NO	1.03	1.000	34.77	1.038	76.315	76.3	0.279	
32	13C-1,2,3,4,6,7,8-HpCDF	4.98e5	0.44	NO	0.909	1.000	36.62	1.093	71.908	71.9	0.473	
33	13C-1,2,3,4,7,8,9-HpCDF	4.42e5	0.45	NO	0.830	1.000	38.46	1.148	69.872	69.9	0.518	
34	13C-OCDF	1.06e6	0.88	NO	0.982	1.000	41.44	1.238	141.54	70.8	0.337	
35	37Cl-2,3,7,8-TCDD	2.45e5			0.602	1.000	26.03	1.022	38.284	95.7	0.0368	
36	13C-1,2,3,4-TCDD	1.06e6	0.78	NO	1.00	1.000	25.46	0.000	100.00	100	0.128	
37	13C-1,2,3,4-TCDF	1.40e6	0.77	NO	1.00	1.000	24.04	0.000	100.00	100	0.146	
38	13C-1,2,3,4,6,9-HxCDF	7.62e5	0.52	NO	1.00	1.000	33.49	0.000	100.00	100	0.286	
39	Total Tetra-Dioxins				0.965	1.000			9.8840		0.0321	9.9064
40	Total Penta-Dioxins				0.869	1.000			50.900		0.0869	50.966
41	Total Hexa-Dioxins				0.940	1.000			150.37		0.172	150.43
42	Total Hepta-Dioxins				0.965	1.000			49.452		0.179	49.452
43	Total Tetra-Furans				0.952	1.000			9.8212		0.0266	9.8428
44	1st Func. Penta-Furans				0.994	1.000			0.024767		0.0201	0.11552
45	Total Penta-Furans				0.994	1.000			94.362		0.0796	94.362
46	Total Hexa-Furans				1.20	1.000			188.05		0.145	188.18
47	Total Hepta-Furans				1.49	1.000			93.021		0.216	93.155

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-2.qld

Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:39:40 AM Pacific Standard Time

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Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

2,3,7,8-TCDD

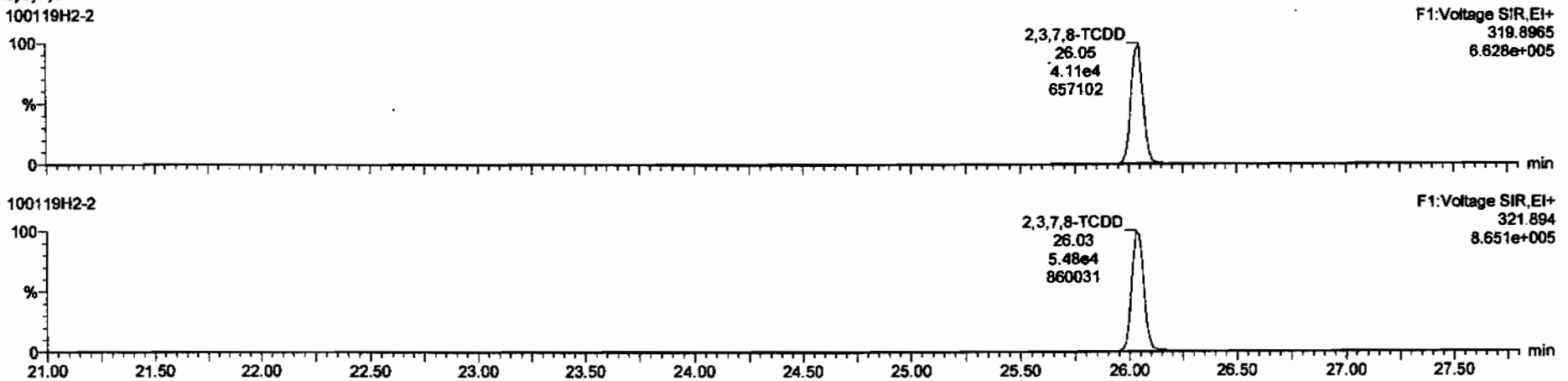

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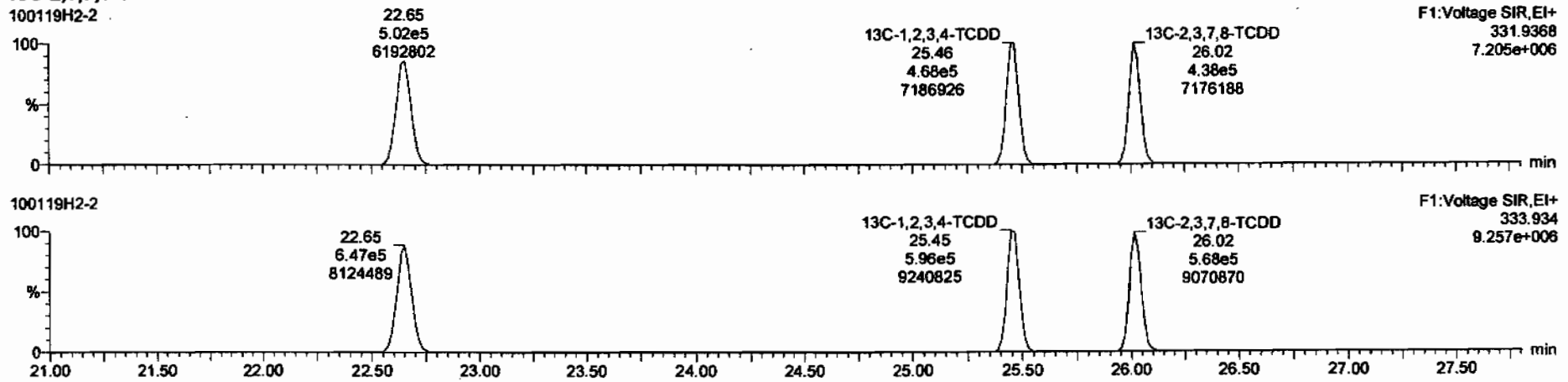

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Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:39:40 AM Pacific Standard Time

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

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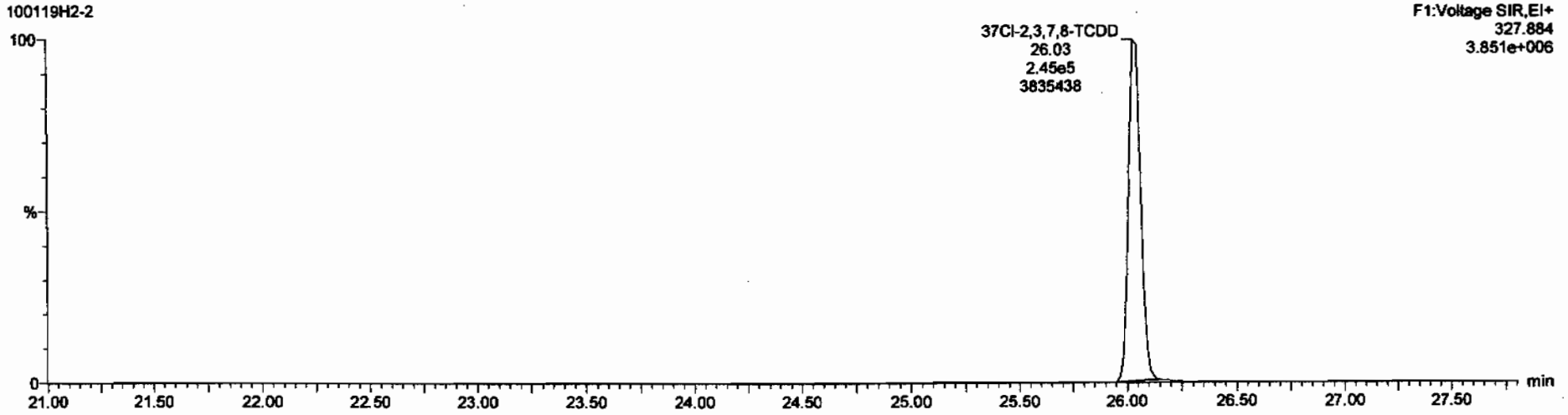

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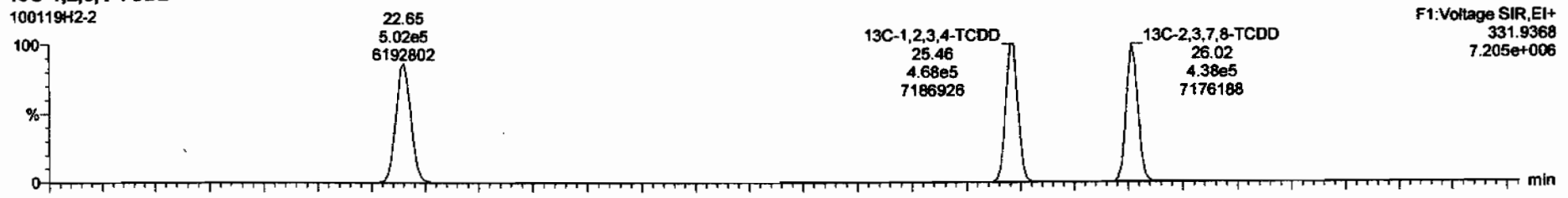

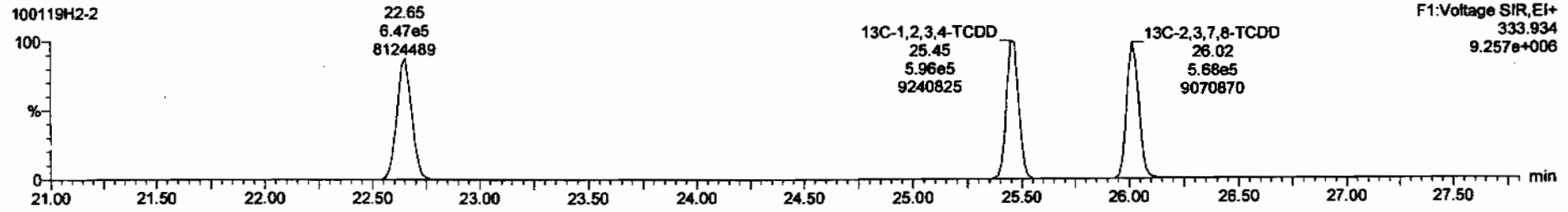

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Printed: Wednesday, January 20, 2010 8:39:40 AM Pacific Standard Time

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

1,2,3,7,8-PeCDD

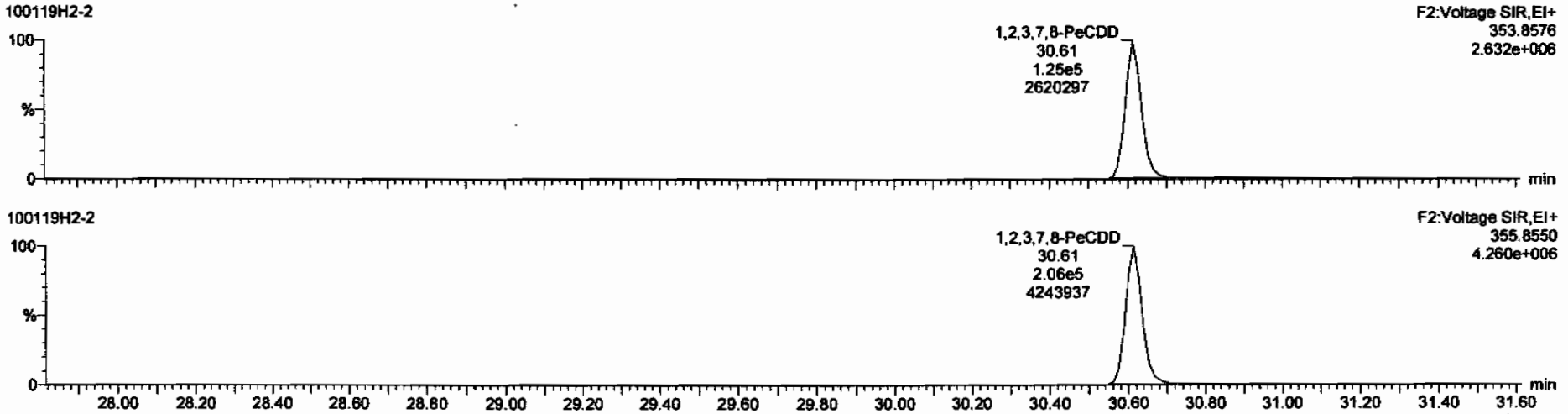

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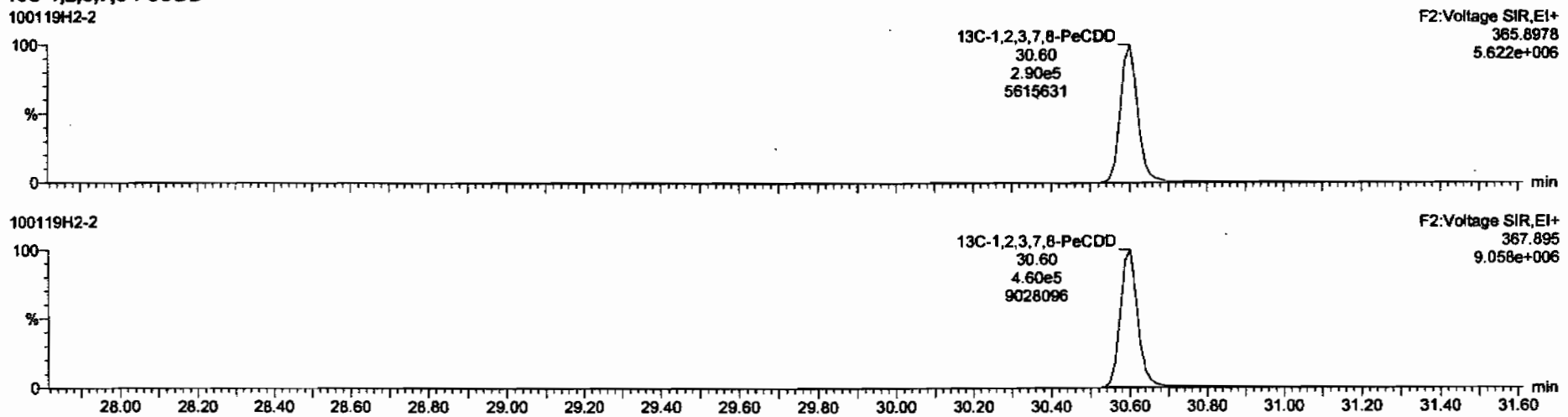

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Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:39:40 AM Pacific Standard Time

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

1,2,3,4,7,8-HxCDD

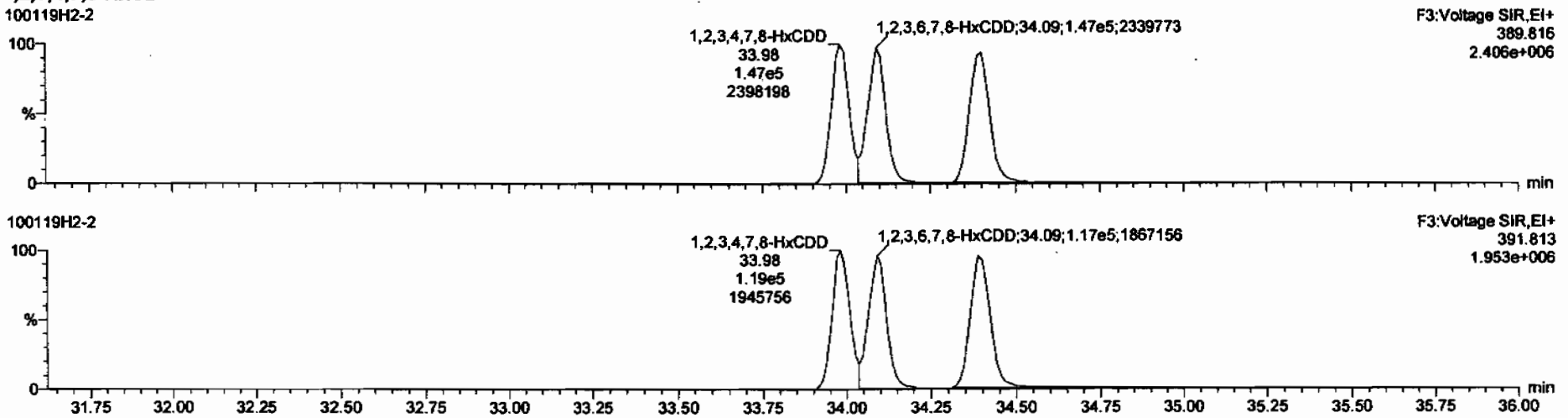

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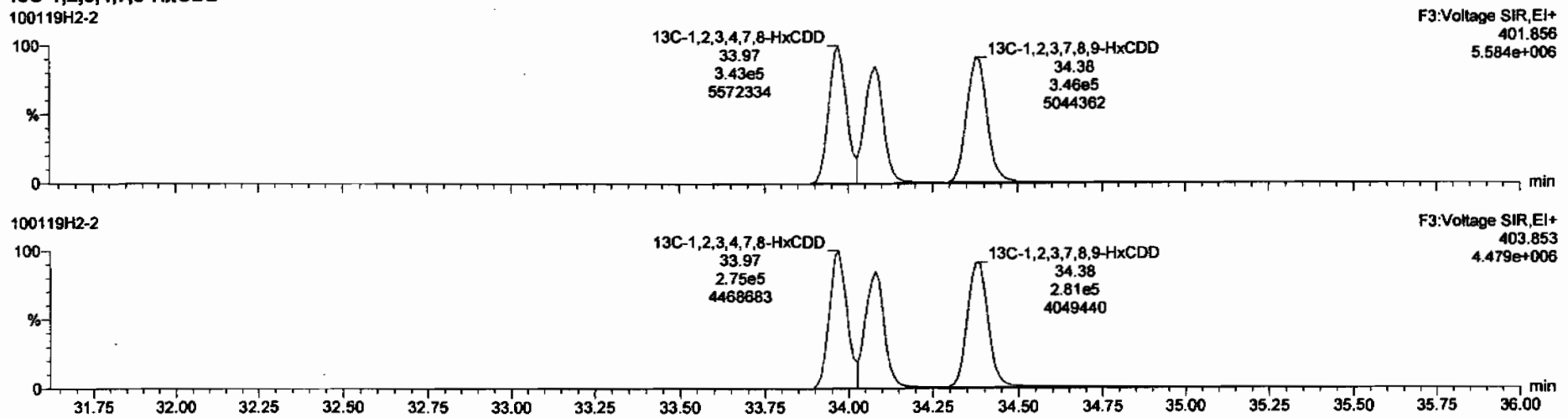

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Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:39:40 AM Pacific Standard Time

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

1,2,3,4,6,7,8-HpCDD

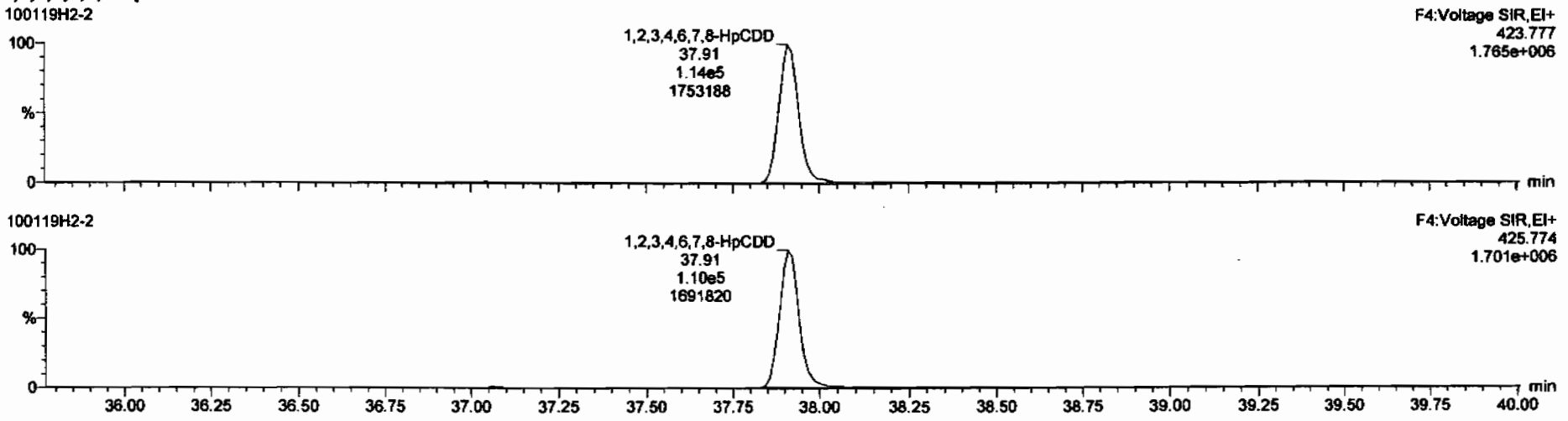

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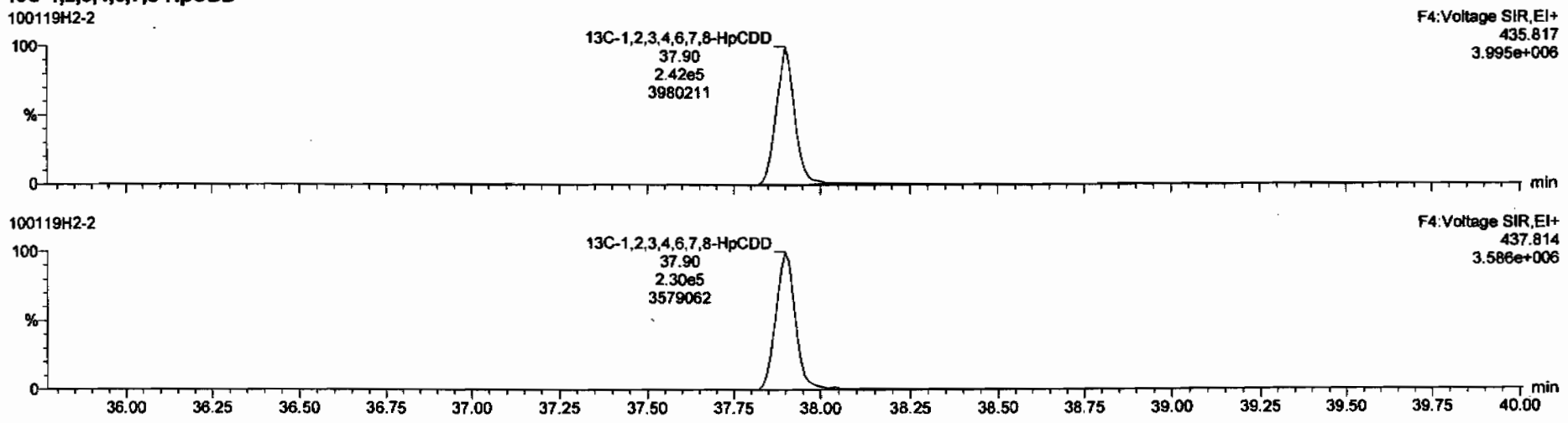

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-2.qld

Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:39:40 AM Pacific Standard Time

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

OCDD

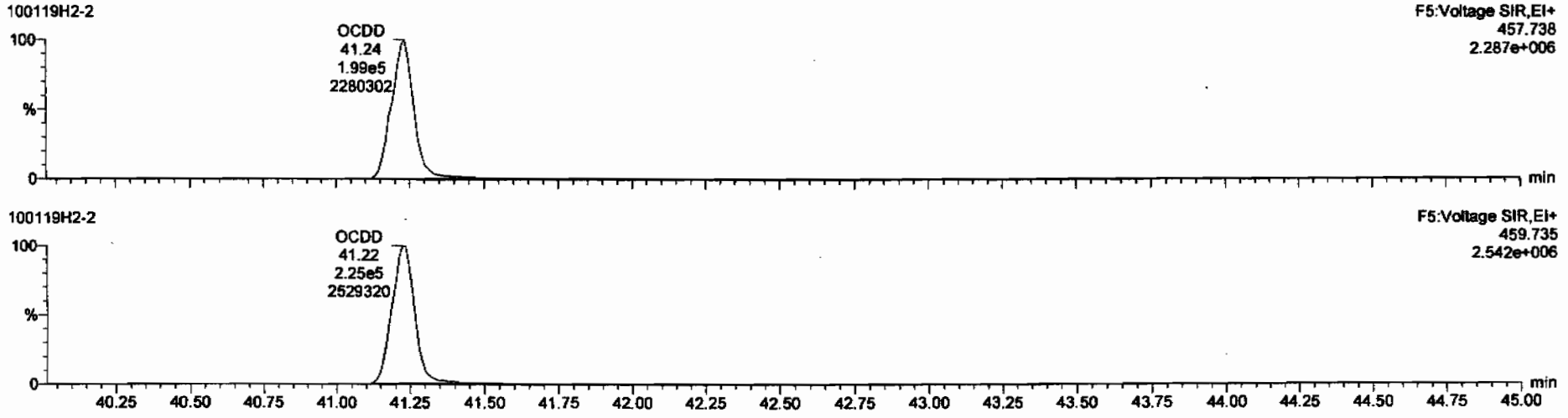

13C-OCDD

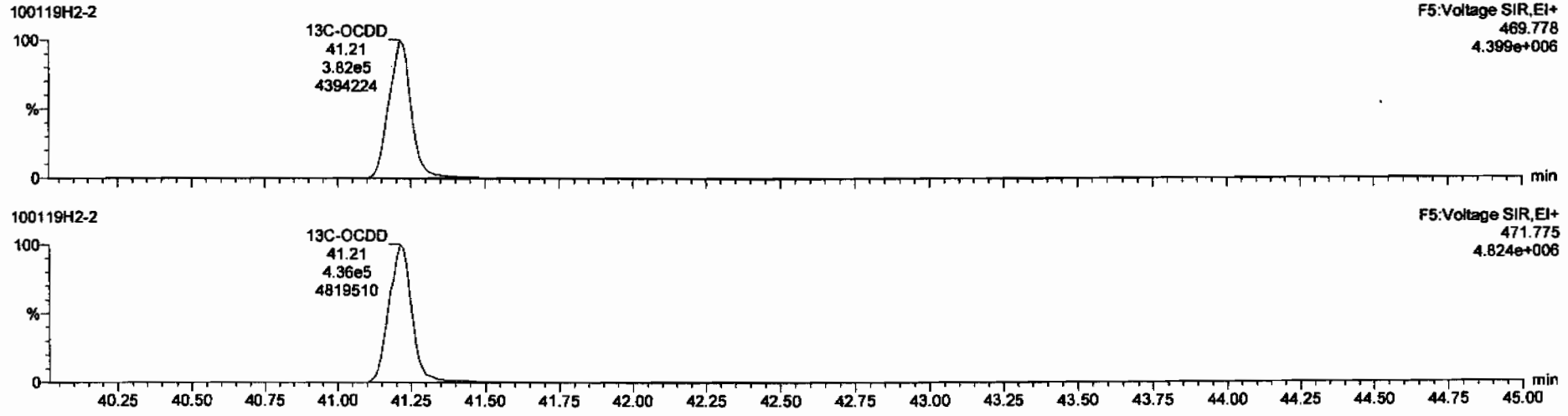

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-2.qld

Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:39:40 AM Pacific Standard Time

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

2,3,7,8-TCDF

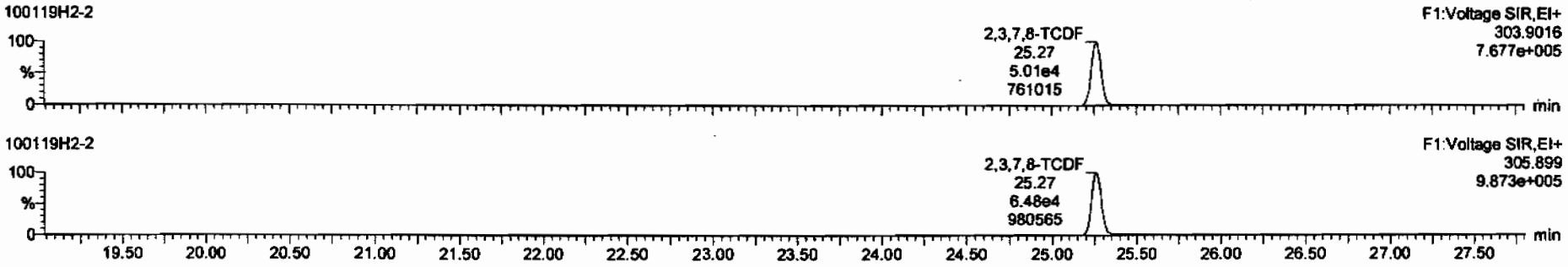

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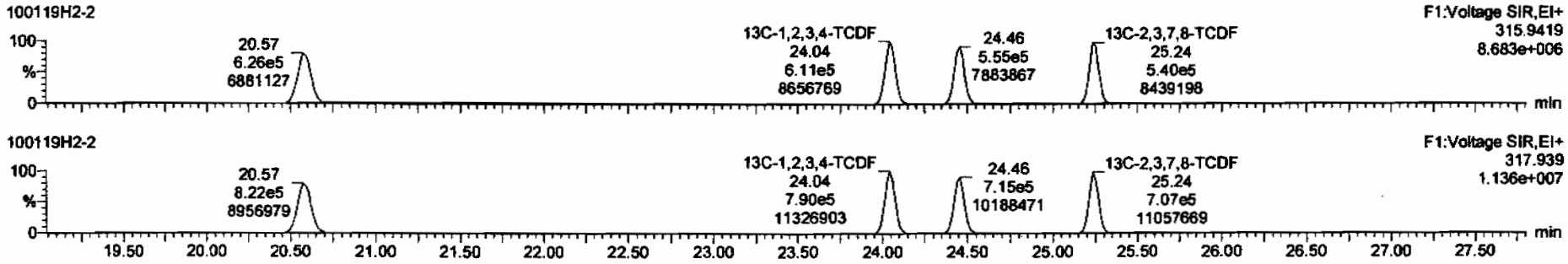

DPE1

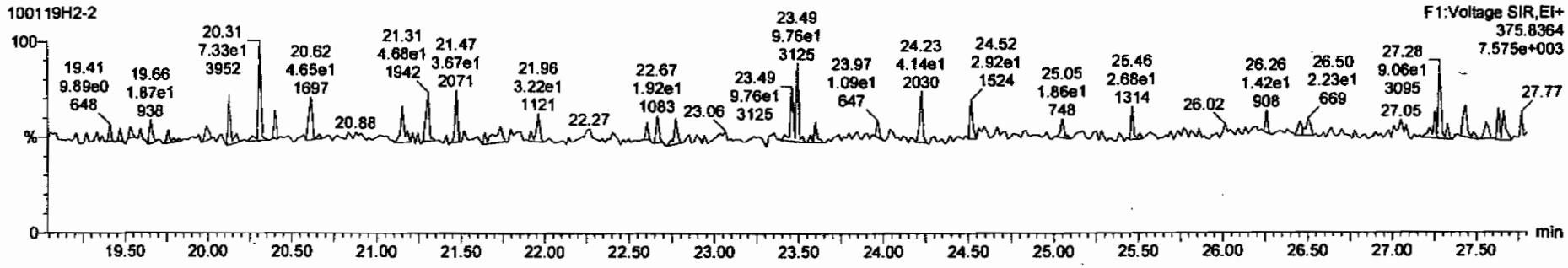

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Printed: Wednesday, January 20, 2010 8:39:40 AM Pacific Standard Time

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

1st Func. Penta-Furans

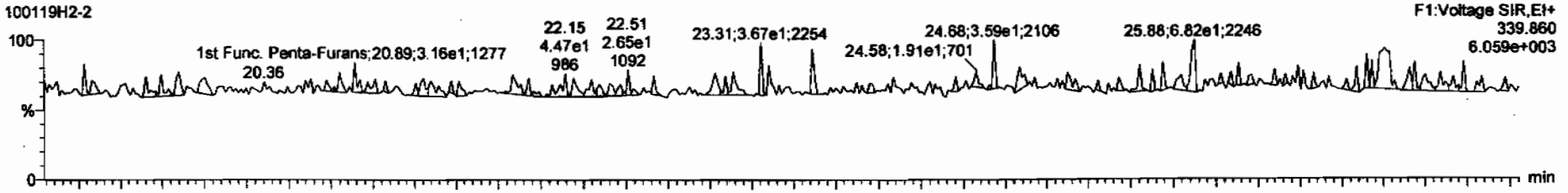

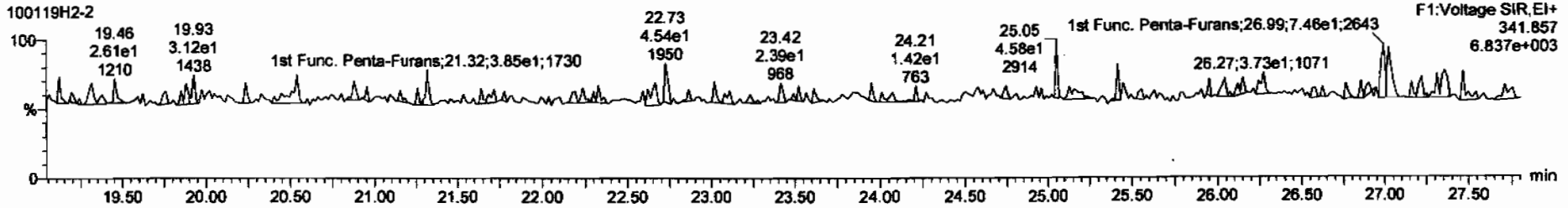

DPE6

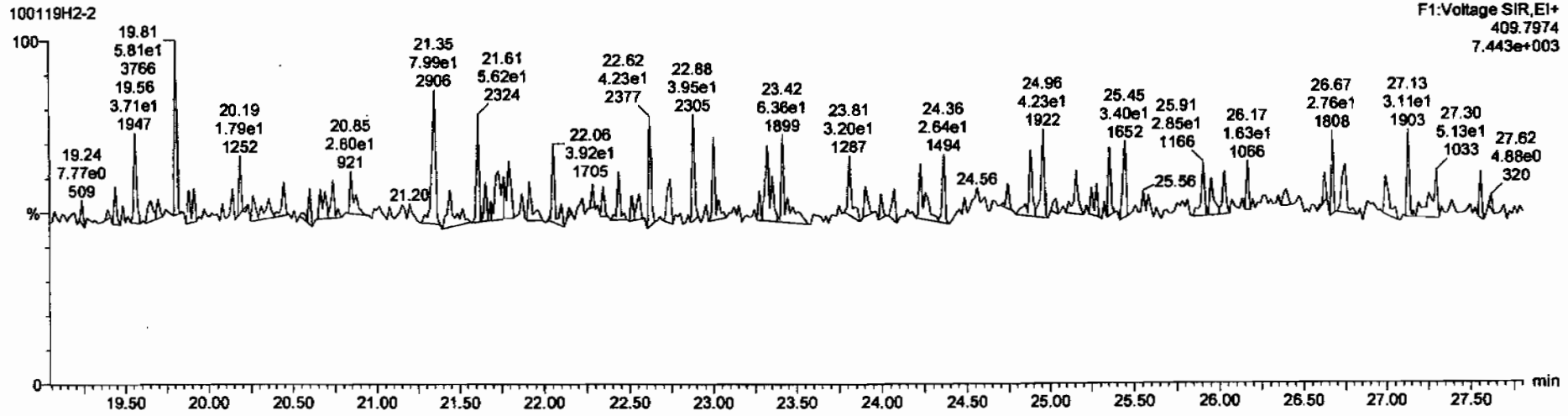

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-2.qld

Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:39:40 AM Pacific Standard Time

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

1,2,3,7,8-PeCDF

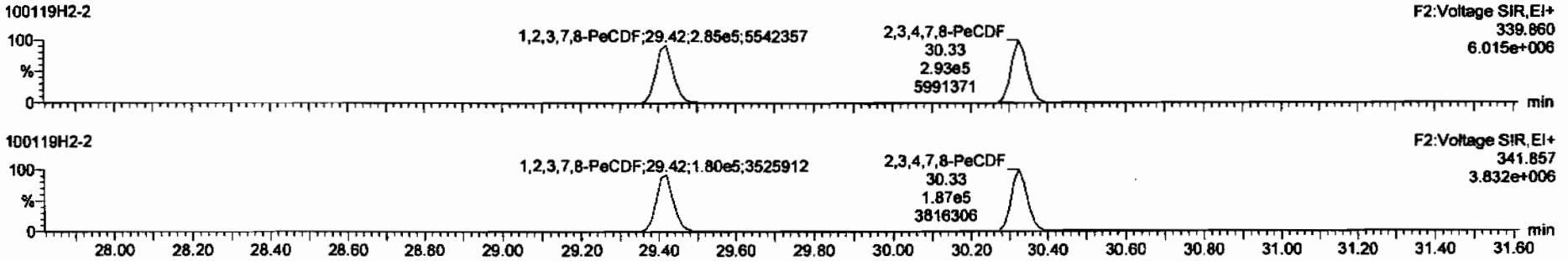

13C-1,2,3,7,8-PeCDF

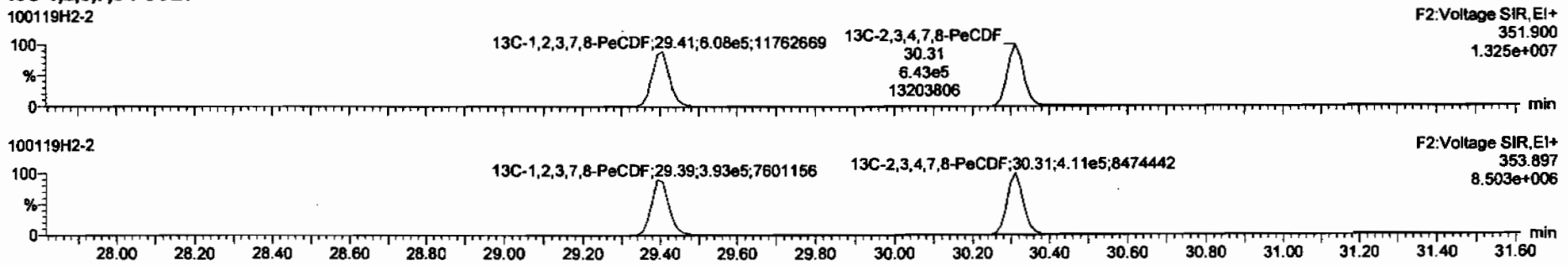

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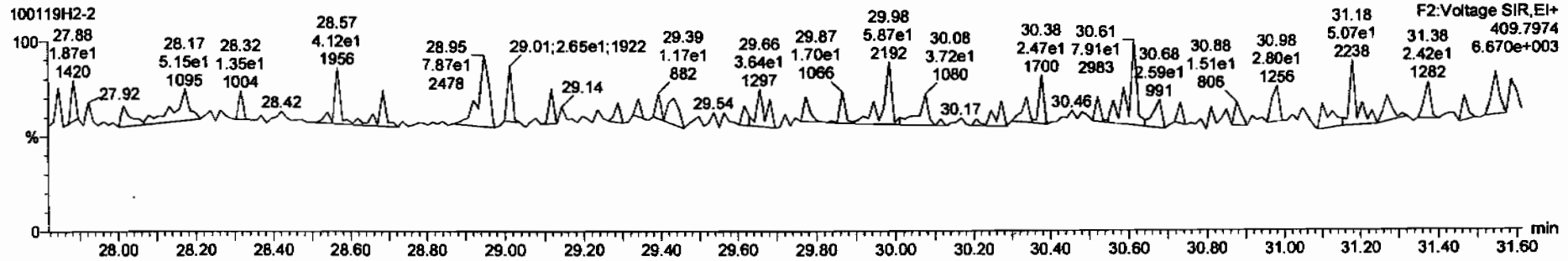

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Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:39:40 AM Pacific Standard Time

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

1,2,3,4,7,8-HxCDF

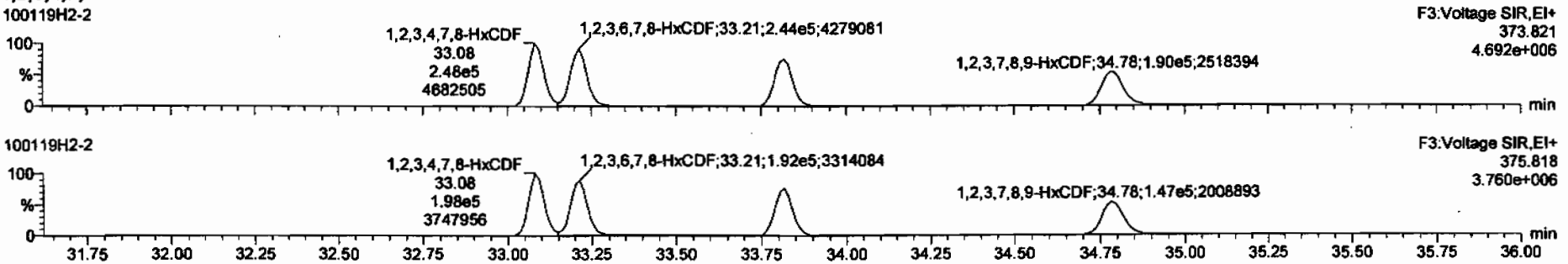

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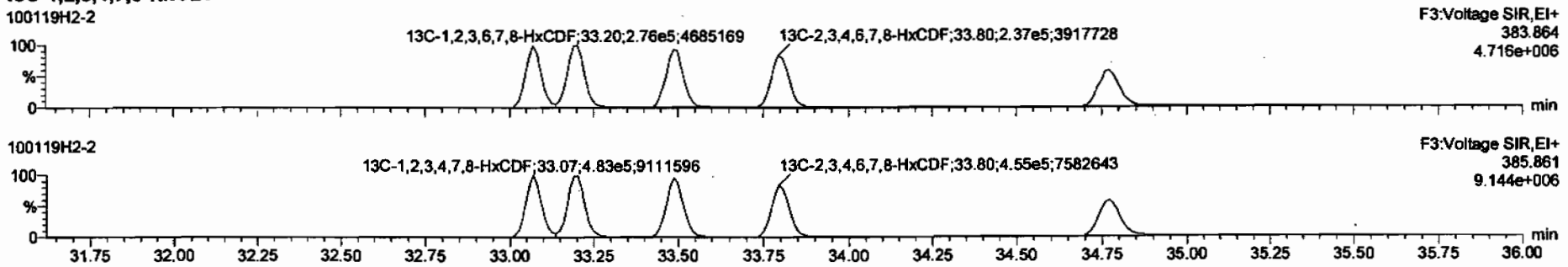

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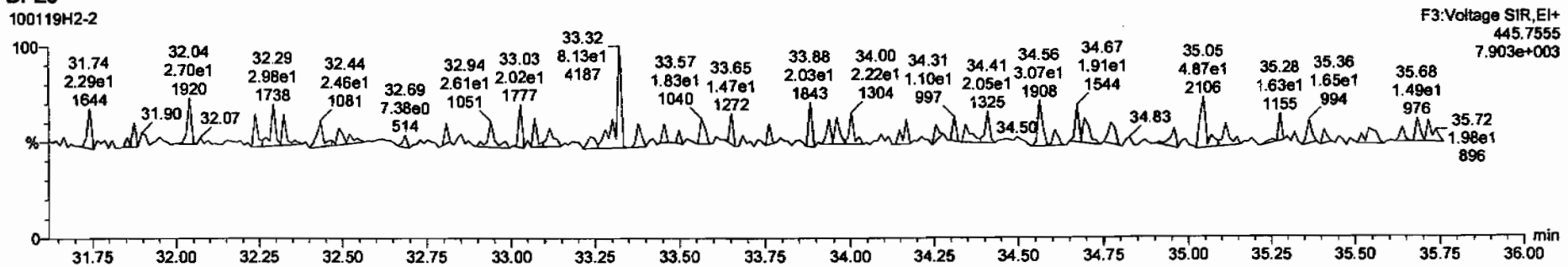

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-2.qld

Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:39:40 AM Pacific Standard Time

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

1,2,3,4,6,7,8-HpCDF

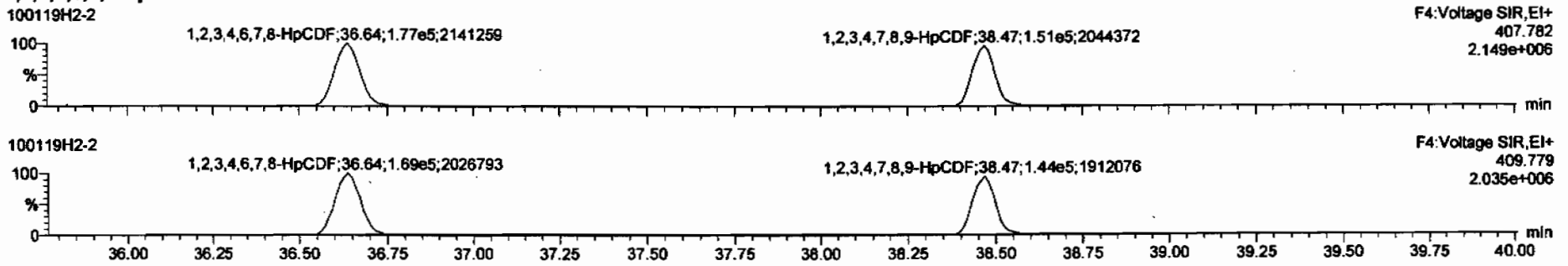

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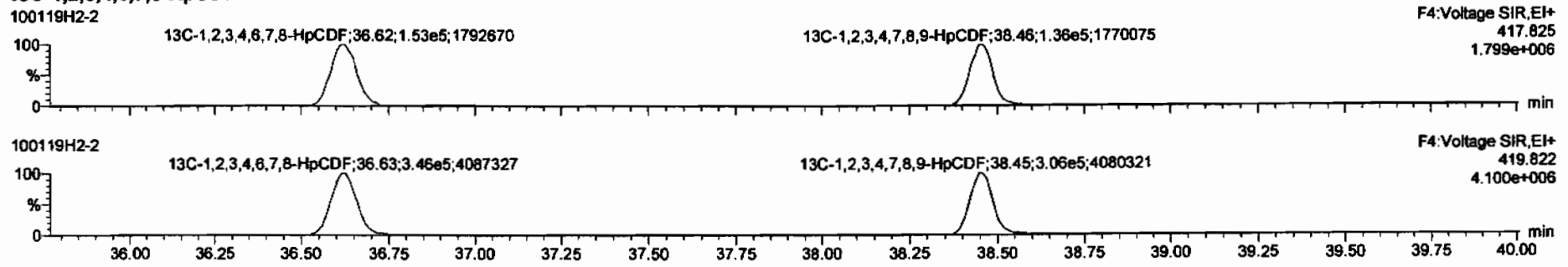

DPE4

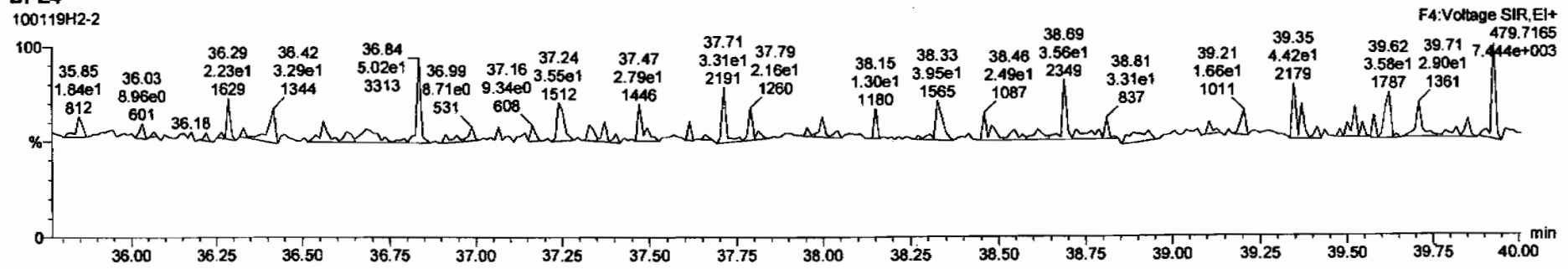

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Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:39:40 AM Pacific Standard Time

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

OCDF

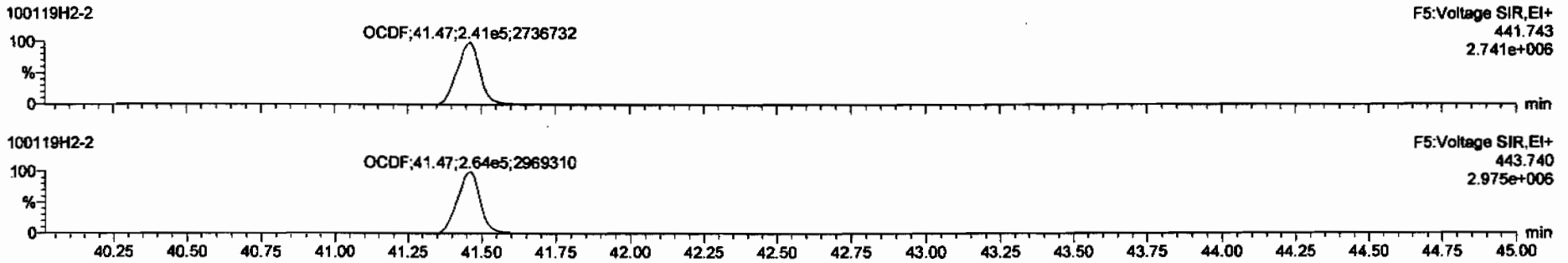

13C-OCDF

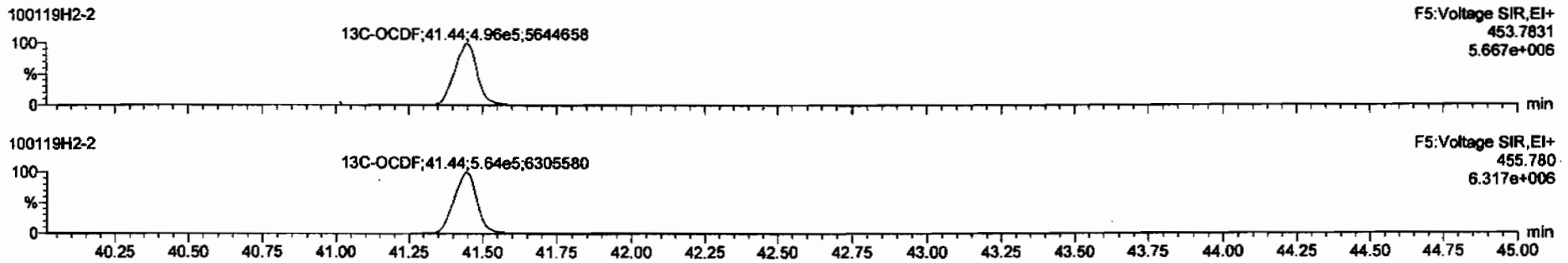

DPE5

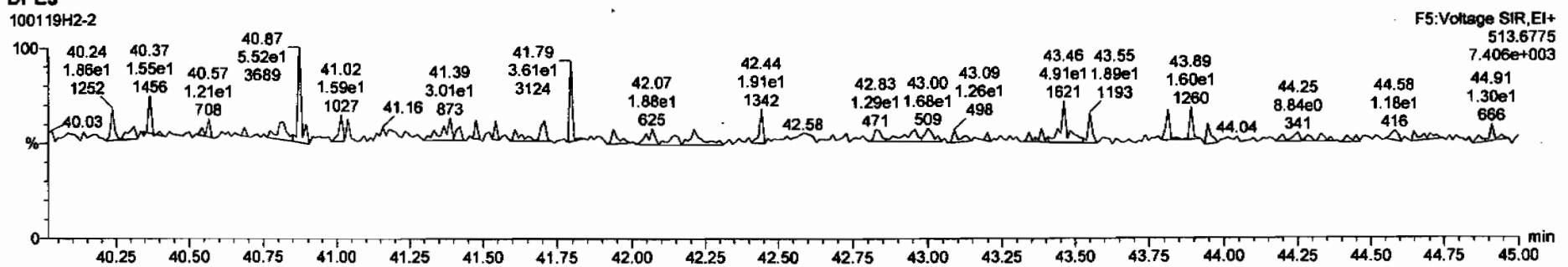

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-2.qld

Last Altered: Wednesday, January 20, 2010 8:38:46 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 8:39:40 AM Pacific Standard Time

Name: 100119H2-2, Date: 19-Jan-2010, Time: 10:15:16, ID: 0_2725_OPR001, Description: 0_2725_OPR001

PFK1

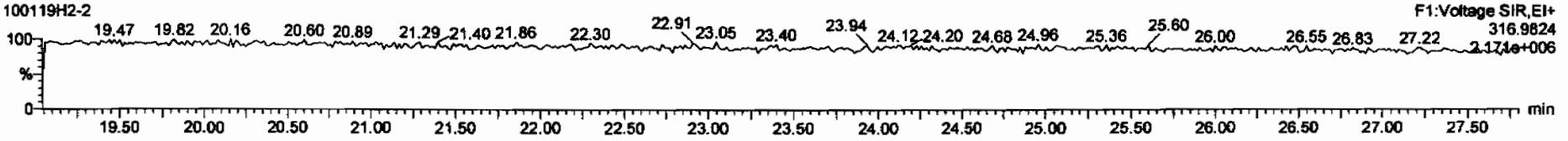

PFK2

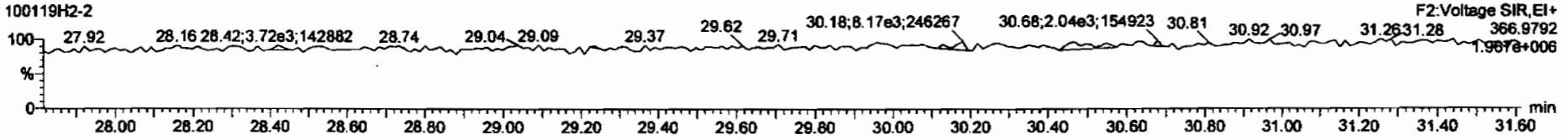

PFK3

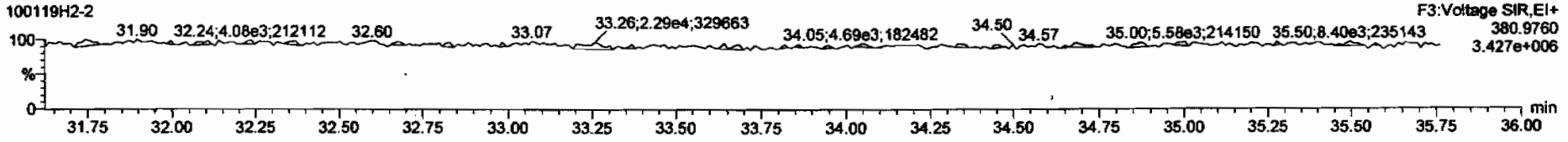

PFK4

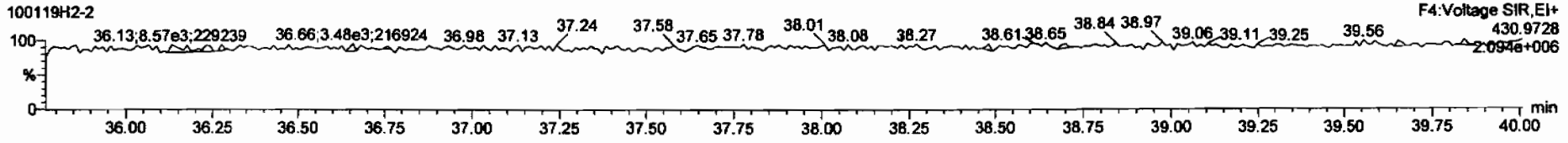

PFK5

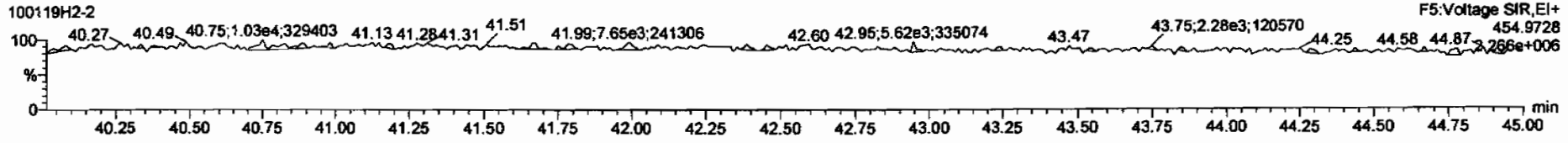

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-9.qld

Last Altered: Wednesday, January 20, 2010 7:22:12 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:23:15 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-9, Date: 19-Jan-2010, Time: 16:01:54, ID: 32321_2725_001 CAPA-10-6823 .9, Description: CAPA-10-6823

1	2,3,7,8-TCDD			NO	0.965	0.900					0.457	
2	1,2,3,7,8-PeCDD			NO	0.869	0.900					0.820	
3	1,2,3,4,7,8-HxCDD			NO	0.873	0.900					1.33	
4	1,2,3,6,7,8-HxCDD			NO	0.940	0.900					1.35	
5	1,2,3,7,8,9-HxCDD			NO	0.882	0.900					1.35	
6	1,2,3,4,6,7,8-HpCDD	6.19e2	0.93	NO	0.965	0.900	37.92	1.000	2.4453		2.02	~~2.4453~~
7	OCDD	1.03e4	0.87	NO	1.05	0.900	41.25	1.001	41.403		2.33	~~41.403~~
8	2,3,7,8-TCDF			NO	0.952	0.900					0.440	
9	1,2,3,7,8-PeCDF			NO	0.994	0.900					0.546	
10	2,3,4,7,8-PeCDF			NO	0.977	0.900					0.484	
11	1,2,3,4,7,8-HxCDF			NO	1.31	0.900					0.649	
12	1,2,3,6,7,8-HxCDF			NO	1.15	0.900					0.703	
13	2,3,4,6,7,8-HxCDF			NO	1.20	0.900					0.779	
14	1,2,3,7,8,9-HxCDF			NO	1.20	0.900					1.10	
15	1,2,3,4,6,7,8-HpCDF			NO	1.49	0.900					1.18	
16	1,2,3,4,7,8,9-HpCDF			NO	1.44	0.900					1.27	
17	OCDF	7.90e2	0.81	NO	1.02	0.900	41.49	1.001	2.5726		1.06	~~2.5726~~
18	13C-2,3,7,8-TCDD	1.13e6	0.78	NO	1.02	0.900	26.03	1.022	2052.4	92.4	2.53	
19	13C-1,2,3,7,8-PeCDD	8.47e5	0.62	NO	0.806	0.900	30.61	1.202	1962.5	88.3	2.97	
20	13C-1,2,3,4,7,8-HxCDD	7.21e5	1.25	NO	1.07	0.900	33.98	1.014	1732.7	78.0	3.34	
21	13C-1,2,3,6,7,8-HxCDD	6.52e5	1.23	NO	0.968	0.900	34.09	1.018	1738.7	78.2	3.71	
22	13C-1,2,3,7,8,9-HxCDD	7.51e5	1.21	NO	1.13	0.900	34.39	1.027	1708.6	76.9	3.16	
23	13C-1,2,3,4,6,7,8-HpCDD	5.83e5	1.05	NO	0.888	0.900	37.91	1.132	1692.7	76.2	5.26	
24	13C-OCDD	1.05e6	0.91	NO	0.783	0.900	41.22	1.231	3471.0	78.1	3.09	
25	13C-2,3,7,8-TCDF	1.34e6	0.78	NO	1.03	0.900	25.25	0.992	1822.8	82.0	3.17	
26	13C-1,2,3,7,8-PeCDF	1.12e6	1.55	NO	0.880	0.900	29.41	1.155	1774.2	79.8	6.12	
27	13C-2,3,4,7,8-PeCDF	1.17e6	1.54	NO	0.867	0.900	30.33	1.191	1892.0	85.1	6.22	
28	13C-1,2,3,4,7,8-HxCDF	8.35e5	0.52	NO	1.19	0.900	33.08	0.988	1814.6	81.7	5.79	
29	13C-1,2,3,6,7,8-HxCDF	9.18e5	0.52	NO	1.30	0.900	33.20	0.991	1817.9	81.8	5.28	
30	13C-2,3,4,6,7,8-HxCDF	8.06e5	0.52	NO	1.16	0.900	33.81	1.009	1788.7	80.5	5.92	

1/20/10

1/20/10

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-9.qld

Last Altered: Wednesday, January 20, 2010 7:22:12 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:23:15 AM Pacific Standard Time

Name: 100119H2-9, Date: 19-Jan-2010, Time: 16:01:54, ID: 32321_2725_001 CAPA-10-6823 .9, Description: CAPA-10-6823

31 13C-1,2,3,7,8,9-HxCDF	7.11e5	0.51	NO	1.03	0.900	34.78	1.038	1786.5	80.4	6.70	
32 13C-1,2,3,4,6,7,8-HpCDF	6.13e5	0.44	NO	0.909	0.900	36.64	1.094	1741.5	78.4	6.16	
33 13C-1,2,3,4,7,8,9-HpCDF	5.27e5	0.44	NO	0.830	0.900	38.47	1.148	1638.9	73.7	6.75	
34 13C-OCDF	1.34e6	0.90	NO	0.982	0.900	41.46	1.237	3514.8	79.1	3.31	
35 37Cl-2,3,7,8-TCDD	2.70e5			0.602	0.900	26.05	1.023	837.84	94.3	0.992	
36 13C-1,2,3,4-TCDD	1.19e6	0.79	NO	1.00	0.900	25.46	0.000	2222.2	100	2.59	
37 13C-1,2,3,4-TCDF	1.59e6	0.78	NO	1.00	0.900	24.06	0.000	2222.2	100	3.26	
38 13C-1,2,3,4,6,9-HxCDF	8.61e5	0.51	NO	1.00	0.900	33.50	0.000	2222.2	100	6.88	
39 Total Tetra-Dioxins				0.965	0.900					0.222	
40 Total Penta-Dioxins				0.869	0.900					0.322	
41 Total Hexa-Dioxins				0.940	0.900					0.766	
42 Total Hepta-Dioxins				0.965	0.900			2.4453		2.02	~~2.4453~~
43 Total Tetra-Furans				0.952	0.900					0.191	
44 1st Func. Penta-Furans				0.994	0.900					0.194	
45 Total Penta-Furans				0.994	0.900					0.190	
46 Total Hexa-Furans				1.20	0.900					0.479	
47 Total Hepta-Furans				1.49	0.900					0.626	

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-9.qld

Last Altered: Wednesday, January 20, 2010 7:22:12 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:23:15 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-9, Date: 19-Jan-2010, Time: 16:01:54, ID: 32321_2725_001 CAPA-10-6823 .9, Description: CAPA-10-6823

Tetra-Dioxins

Penta-Dioxins

Hexa-Dioxins

Hepta-Dioxins

Name	RT	Height	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	Qly	Resp	Conc	Limit	DL
1,2,3,4,6,7,8-HpCDD	37.92	7.079e3	6.907e3	2.976e2	3.214e2	0.93	NO	6.191e2	2.4453	2.4453		2.02

Tetra-Furans

Penta-Furans function 1

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-9.qld

Last Altered: Wednesday, January 20, 2010 7:22:12 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:23:15 AM Pacific Standard Time

Name: 100119H2-9, Date: 19-Jan-2010, Time: 16:01:54, ID: 32321_2725_001 CAPA-10-6823 .9, Description: CAPA-10-6823

Penta-Furans

Hexa-Furans

Hepta-Furans

Vista Analytical Laboratory VG-10

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 7:13:08 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:13:34 AM Pacific Standard Time

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Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-9, Date: 19-Jan-2010, Time: 16:01:54, ID: 32321_2725_001 CAPA-10-6823 .9, Description: CAPA-10-6823

2,3,7,8-TCDD

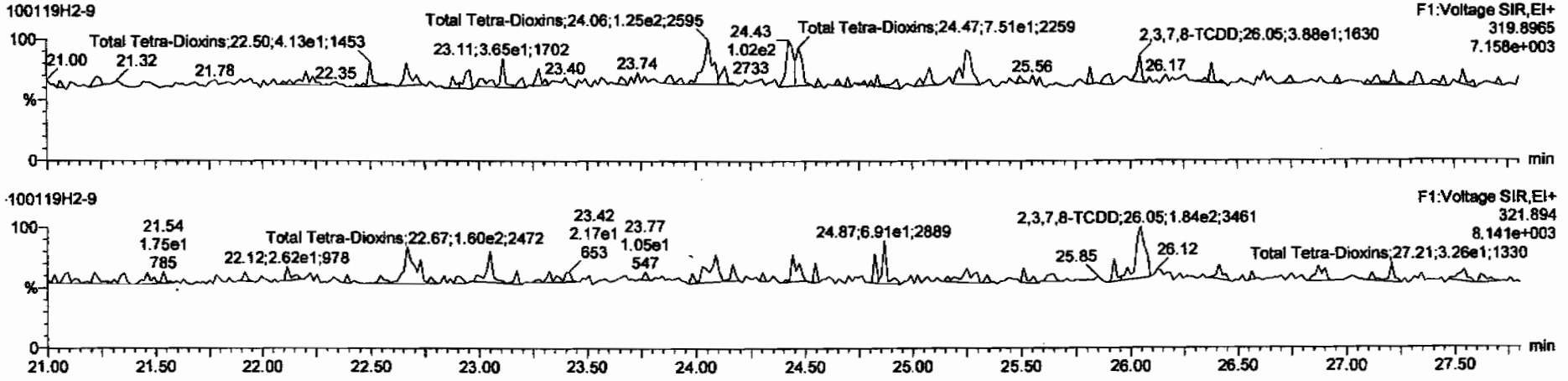

13C-2,3,7,8-TCDD

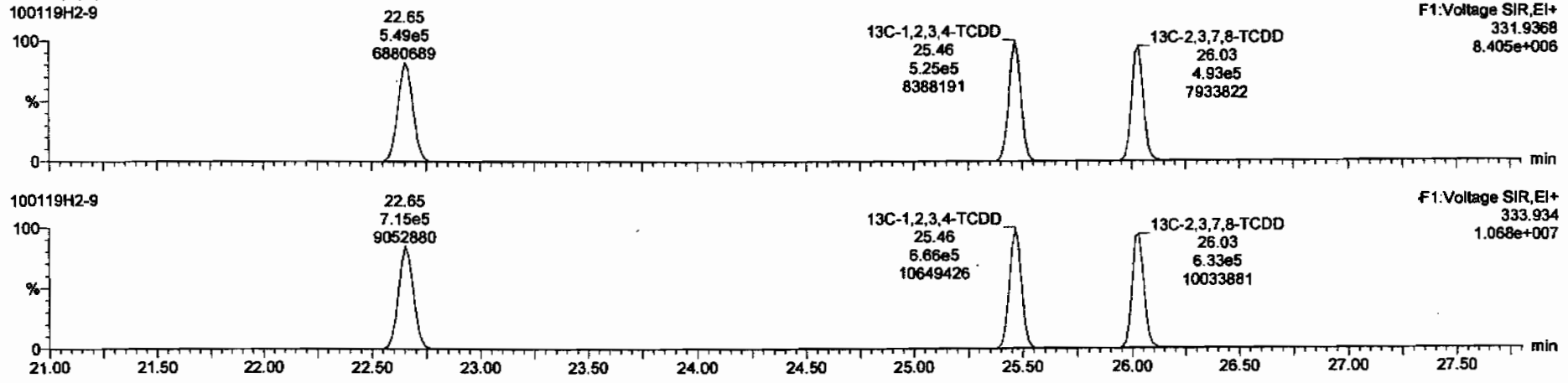

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 7:13:08 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:13:34 AM Pacific Standard Time

Name: 100119H2-9, Date: 19-Jan-2010, Time: 16:01:54, ID: 32321_2725_001 CAPA-10-6823 .9, Description: CAPA-10-6823

37Cl-2,3,7,8-TCDD

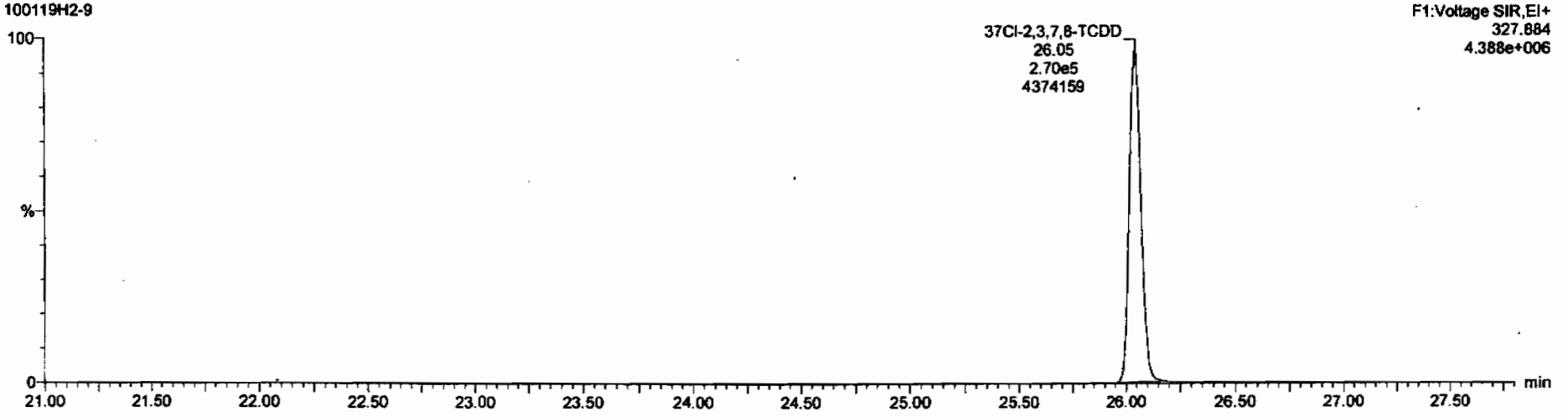

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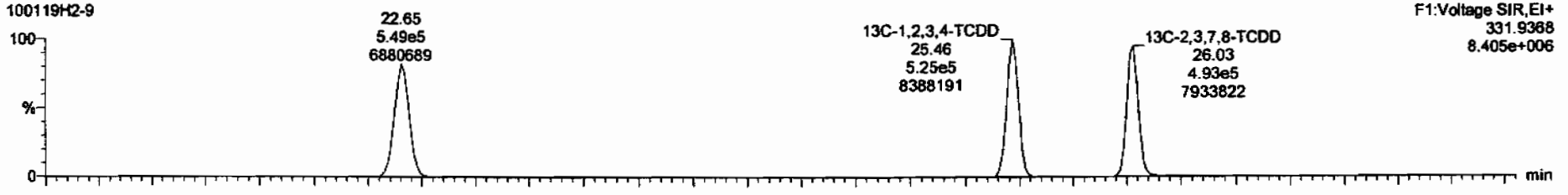

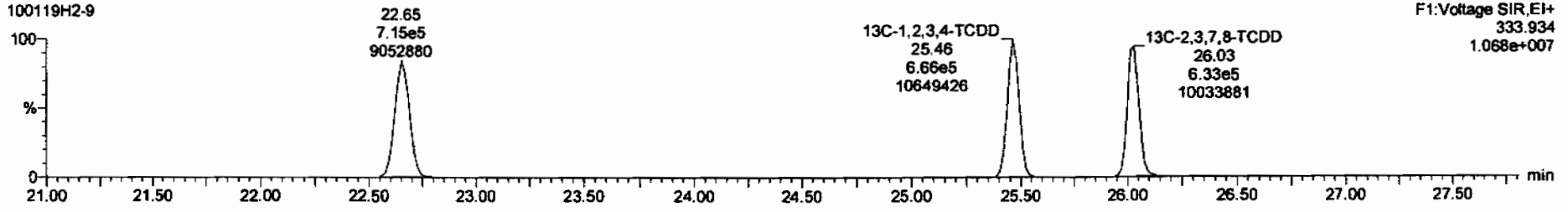

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Last Altered: Wednesday, January 20, 2010 7:13:08 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:13:34 AM Pacific Standard Time

Name: 100119H2-9, Date: 19-Jan-2010, Time: 16:01:54, ID: 32321_2725_001 CAPA-10-6823 .9, Description: CAPA-10-6823

1,2,3,7,8-PeCDD

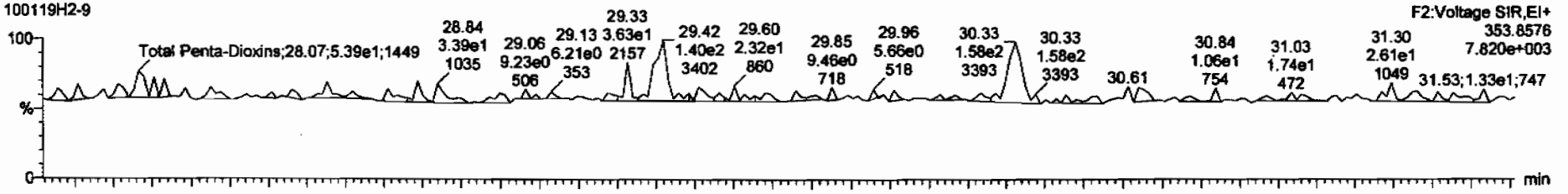

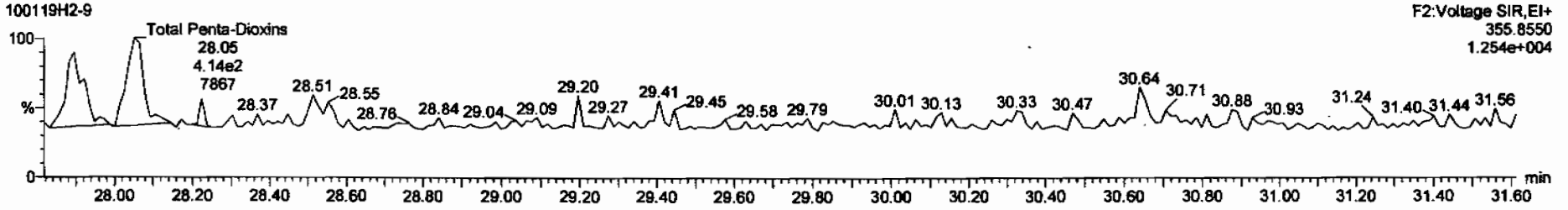

13C-1,2,3,7,8-PeCDD

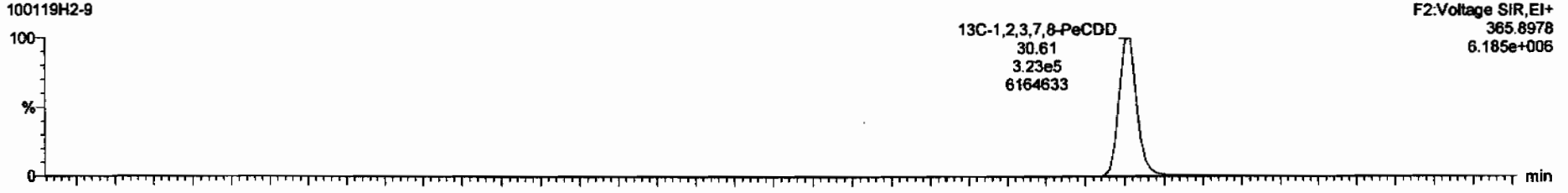

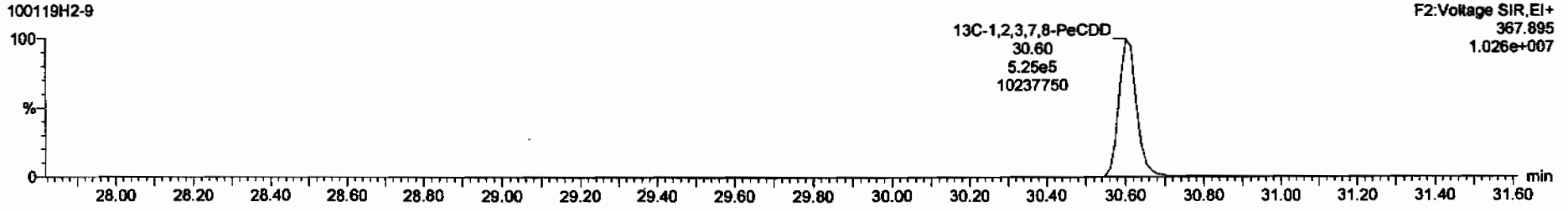

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Last Altered: Wednesday, January 20, 2010 7:13:08 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:13:34 AM Pacific Standard Time

Name: 100119H2-9, Date: 19-Jan-2010, Time: 16:01:54, ID: 32321_2725_001 CAPA-10-6823 .9, Description: CAPA-10-6823

1,2,3,4,7,8-HxCDD

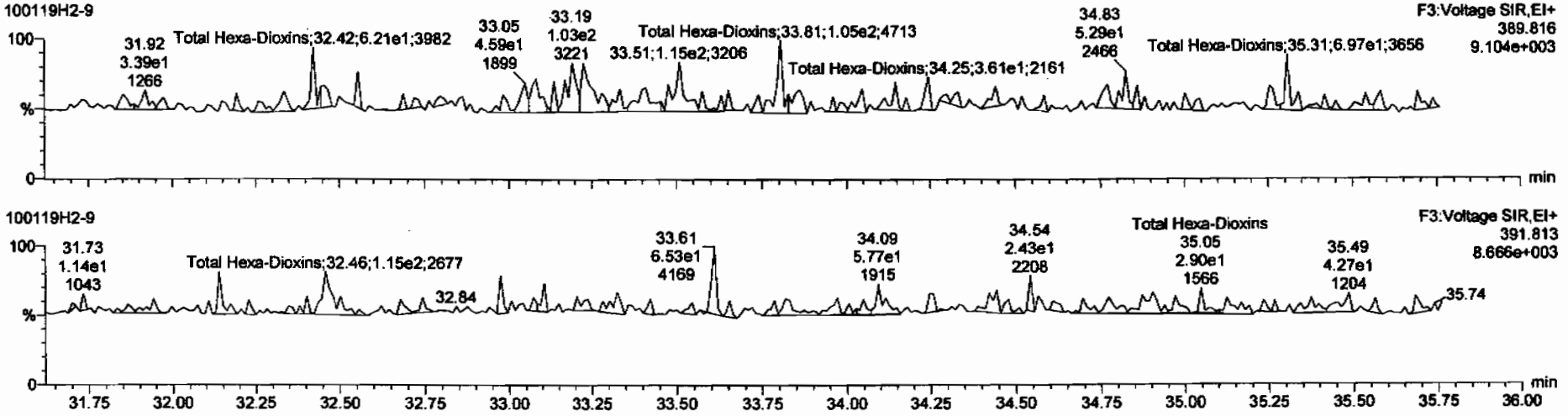

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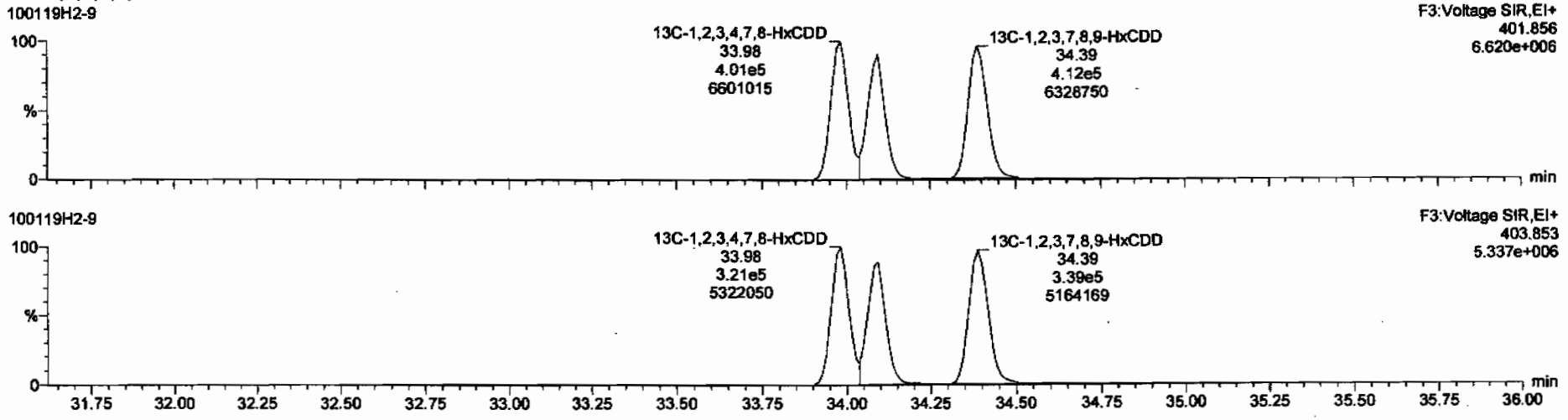

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Name: 100119H2-9, Date: 19-Jan-2010, Time: 16:01:54, ID: 32321_2725_001 CAPA-10-6823 .9, Description: CAPA-10-6823

1,2,3,4,6,7,8-HpCDD

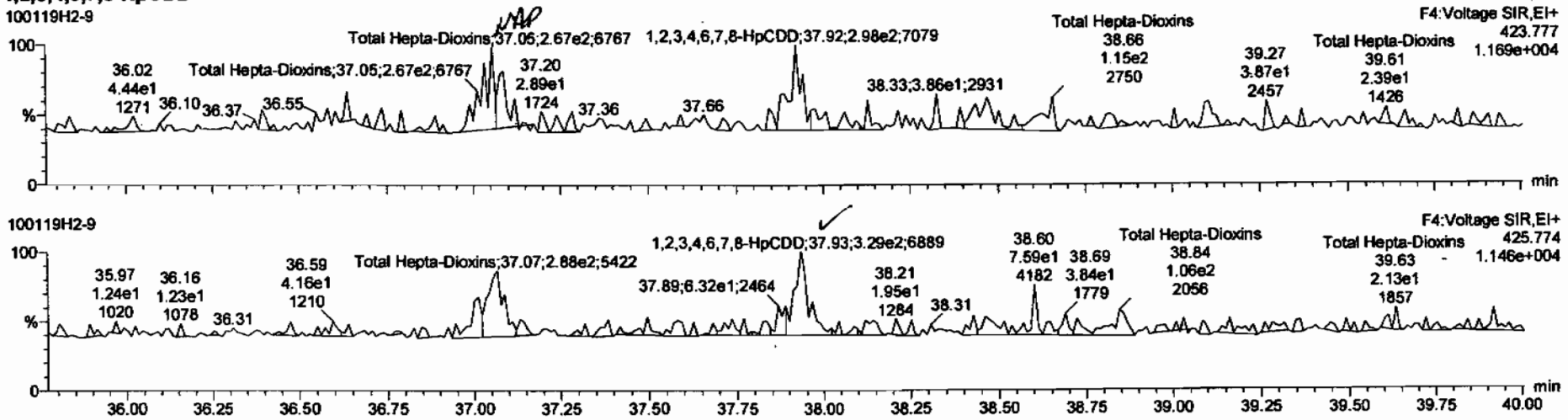

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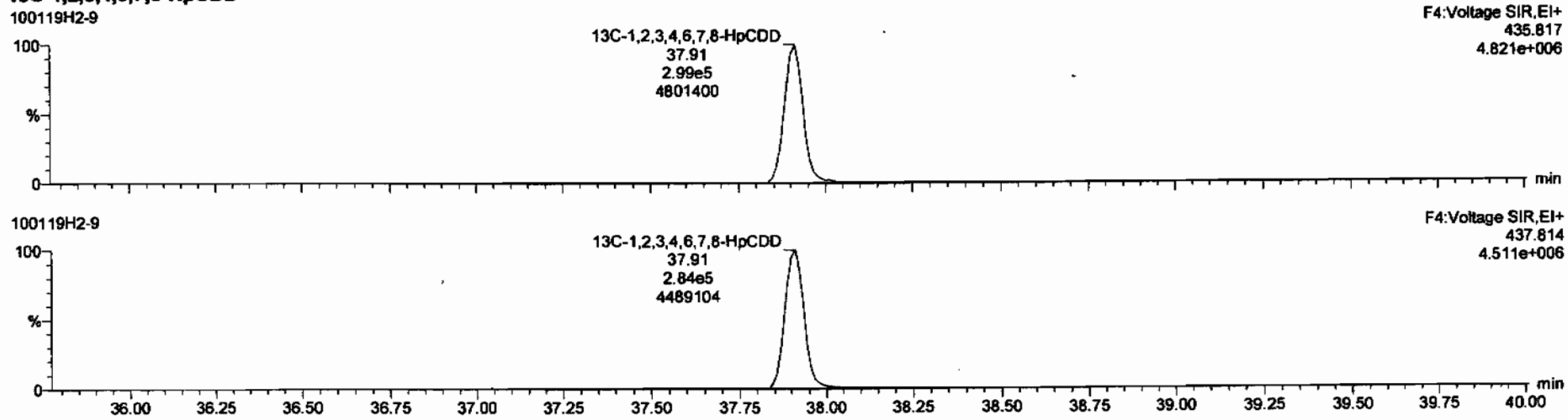

TargetLynx - untitled * - [Chromatogram]

File Edit View Display Processing Window Help

100119H2-9 - 32321_2725_001 CAPA-10-6823 .9 - CAPA-10-6823

Name	RT	Area	Height	S/N	Flag	Conc.	Resp.
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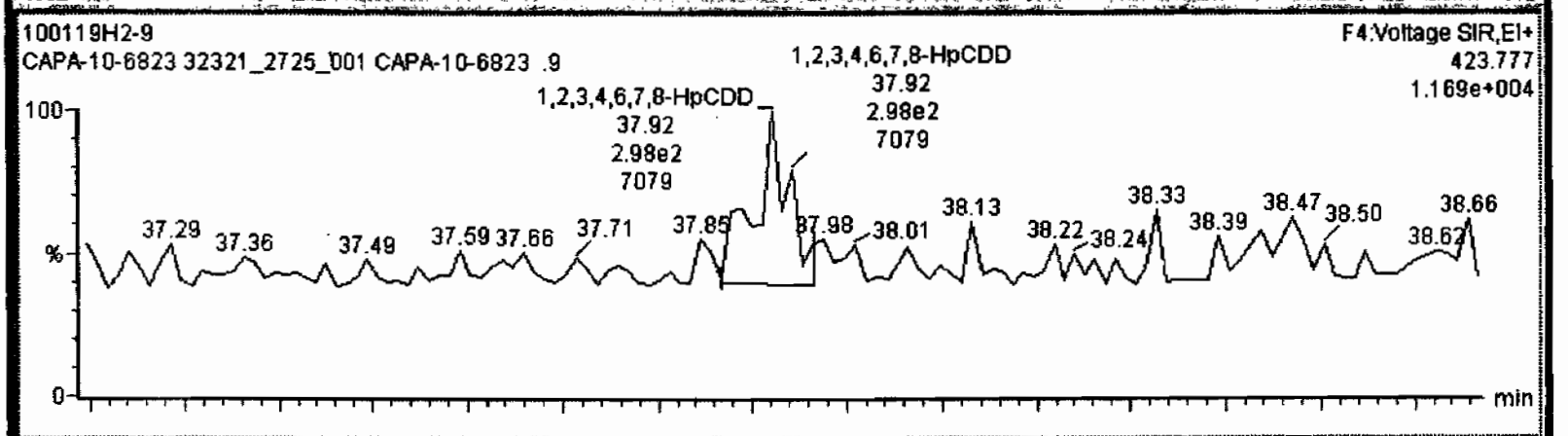

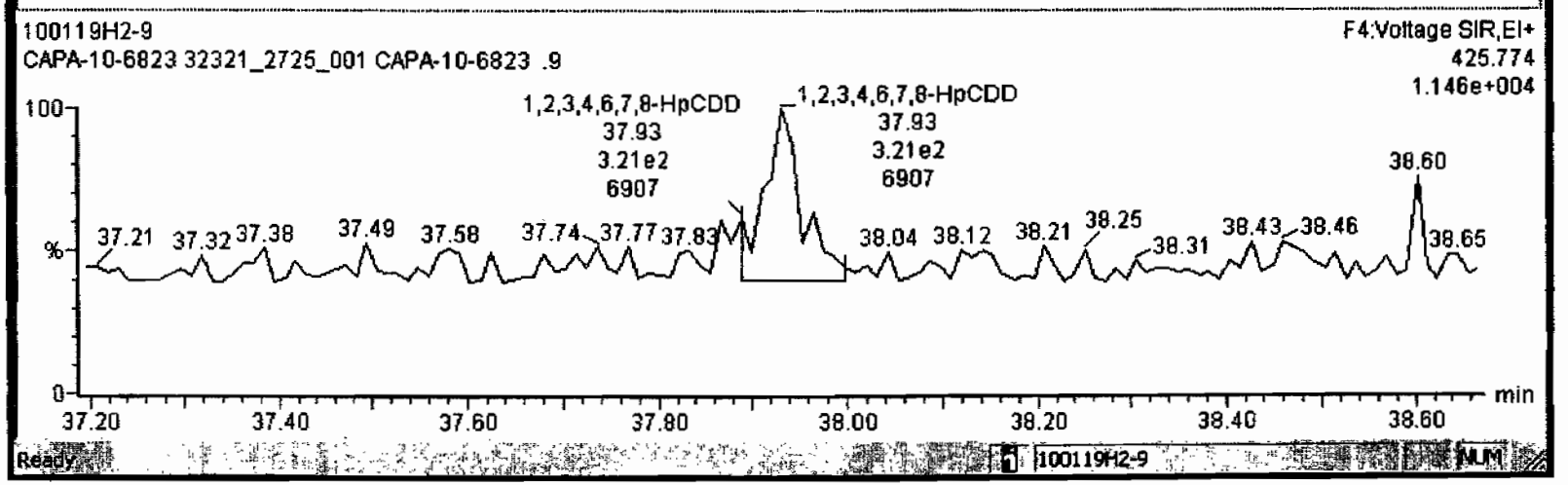

Ready 100119H2-9 NUM

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 7:13:08 AM Pacific Standard Time
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Name: 100119H2-9, Date: 19-Jan-2010, Time: 16:01:54, ID: 32321_2725_001 CAPA-10-6823 .9, Description: CAPA-10-6823

OCDD

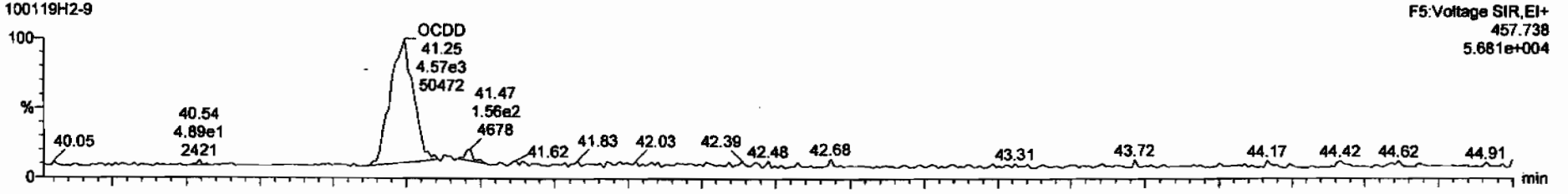

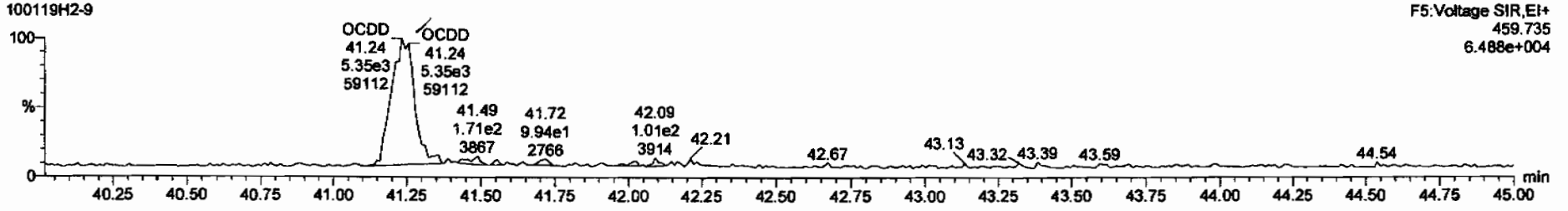

13C-OCDD

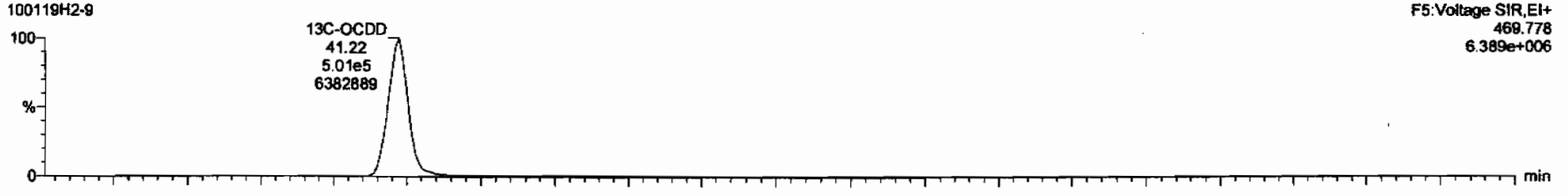

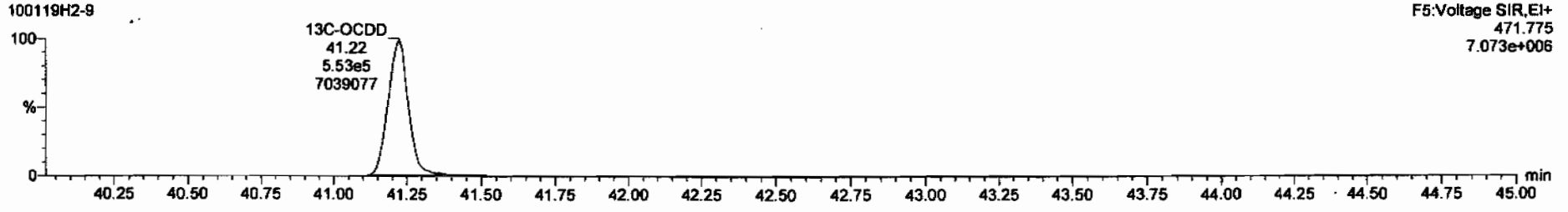

TargetLynx - untitled * - [Chromatogram]

File Edit View Display Processing Window Help

100119H2-9 - 32321_2725_001 CAPA-10-6823 .9 - CAPA-10-6823

	Name											
5	1,2,3,7,8,9-HxCDD			NO	0.88	0.900					1.35	
6	1,2,3,4,6,7,8-HpCDD	6.19e2	0.93	NO	0.97	0.900	37.92	1.000	2.45		2.02	2.45
8	2,3,7,8-TCDF			NO	0.95	0.900					0.440	
9	1,2,3,7,8-PeCDF			NO	0.99	0.900					0.546	
10	2,3,4,7,8-PeCDF			NO	0.98	0.900					0.484	
11	1,2,3,4,7,8-HxCDF			NO	1.31	0.900					0.649	
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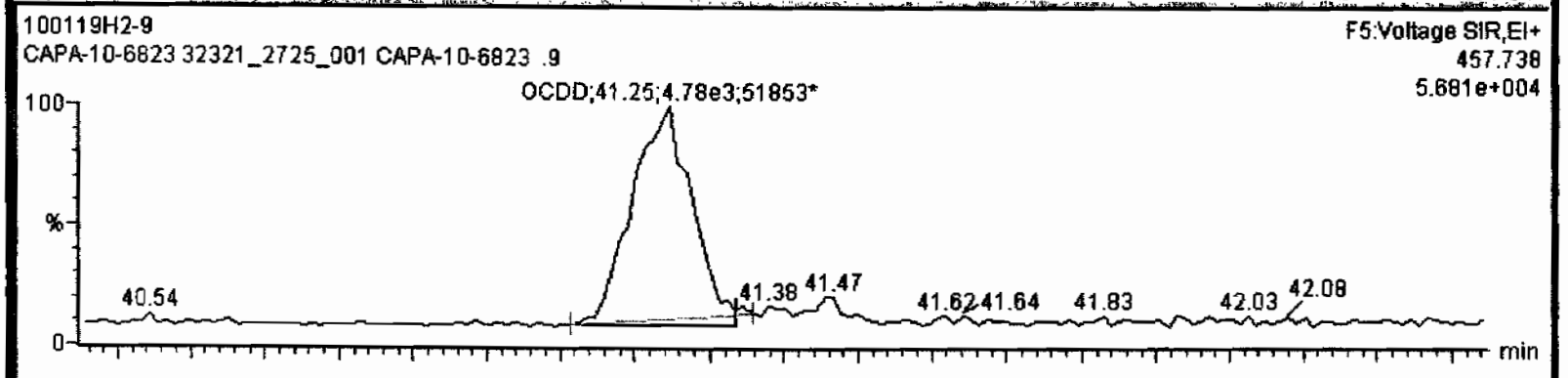

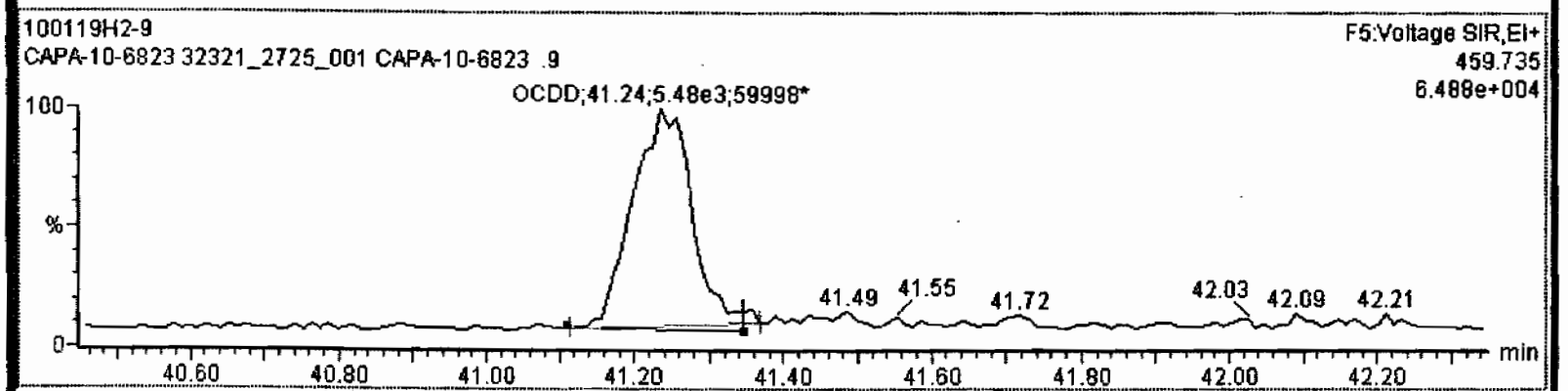

Ready 100119H2-9 NUM

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Last Altered: Wednesday, January 20, 2010 7:13:08 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:13:34 AM Pacific Standard Time

Name: 100119H2-9, Date: 19-Jan-2010, Time: 16:01:54, ID: 32321_2725_001 CAPA-10-6823 .9, Description: CAPA-10-6823

2,3,7,8-TCDF

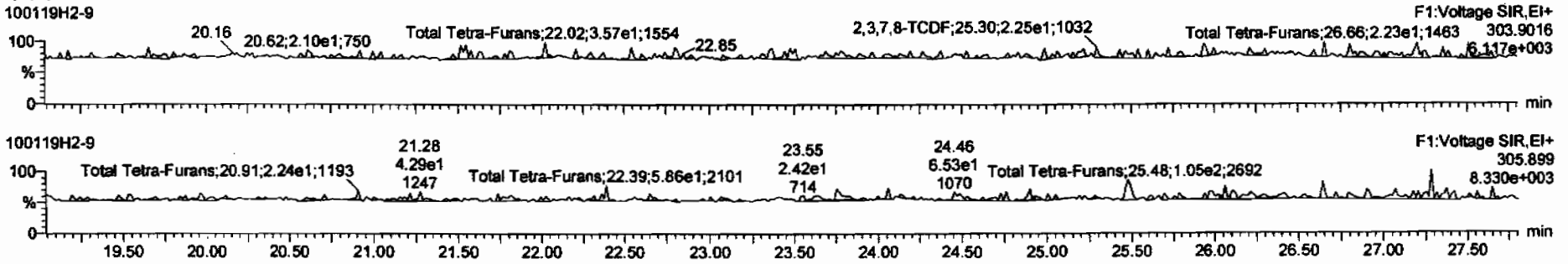

13C-2,3,7,8-TCDF

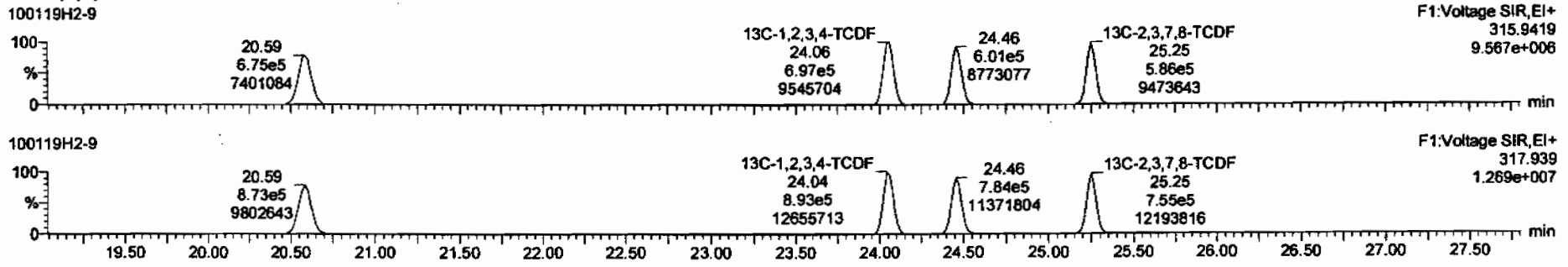

DPE1

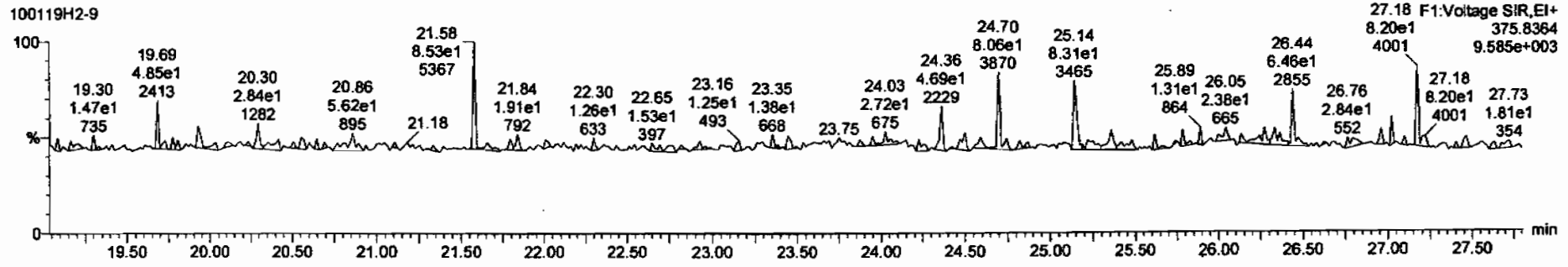

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Last Altered: Wednesday, January 20, 2010 7:13:08 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:13:34 AM Pacific Standard Time

Name: 100119H2-9, Date: 19-Jan-2010, Time: 16:01:54, ID: 32321_2725_001 CAPA-10-6823 .9, Description: CAPA-10-6823

1st Func. Penta-Furans

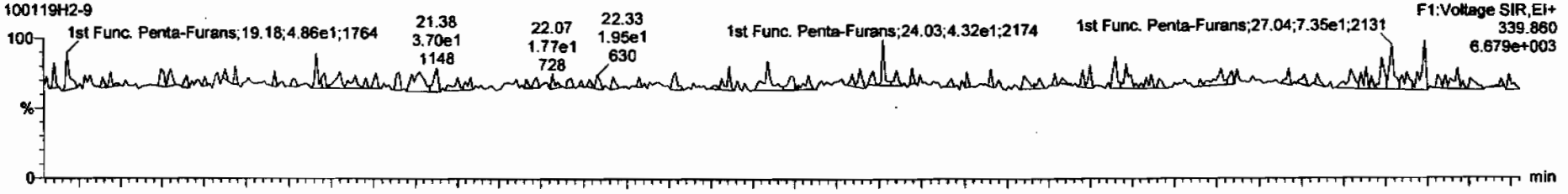

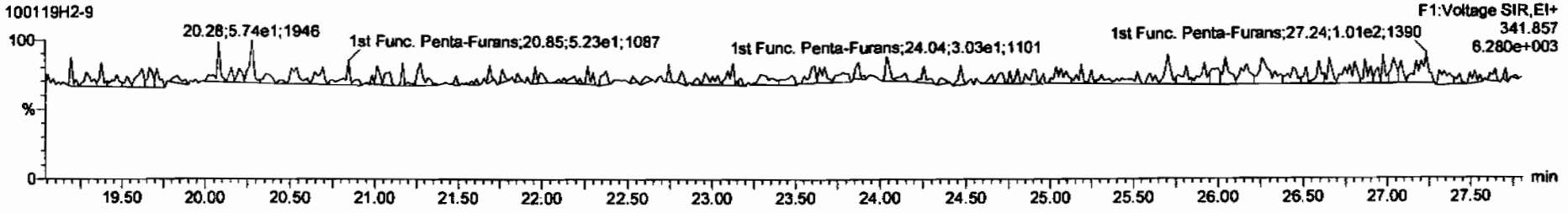

DPE6

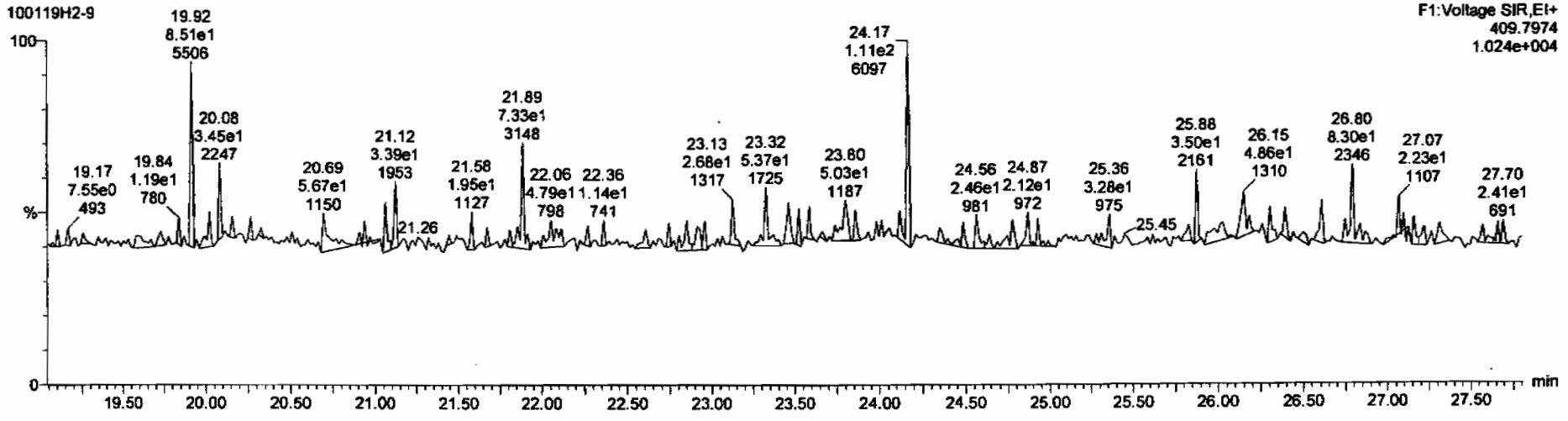

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Name: 100119H2-9, Date: 19-Jan-2010, Time: 16:01:54, ID: 32321_2725_001 CAPA-10-6823 .9, Description: CAPA-10-6823

1,2,3,7,8-PeCDF

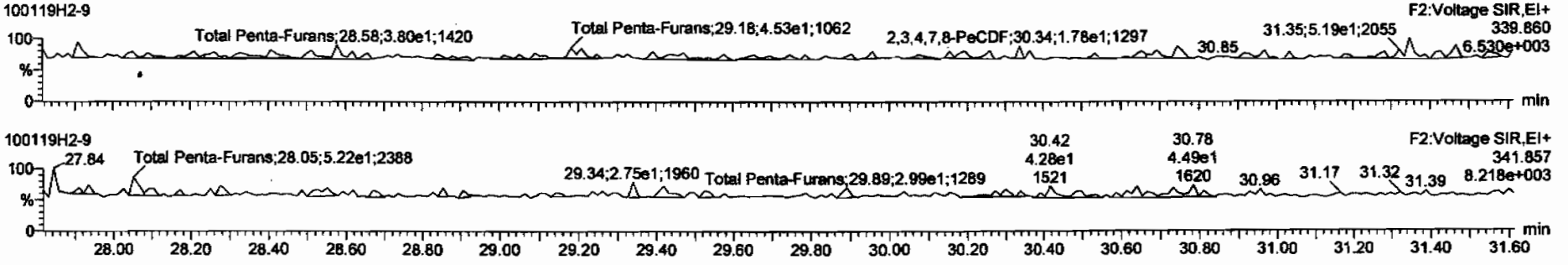

13C-1,2,3,7,8-PeCDF

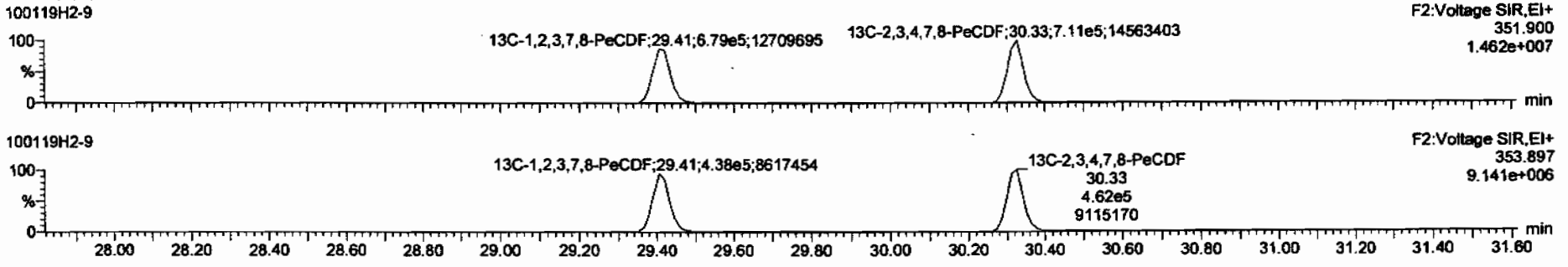

DPE2

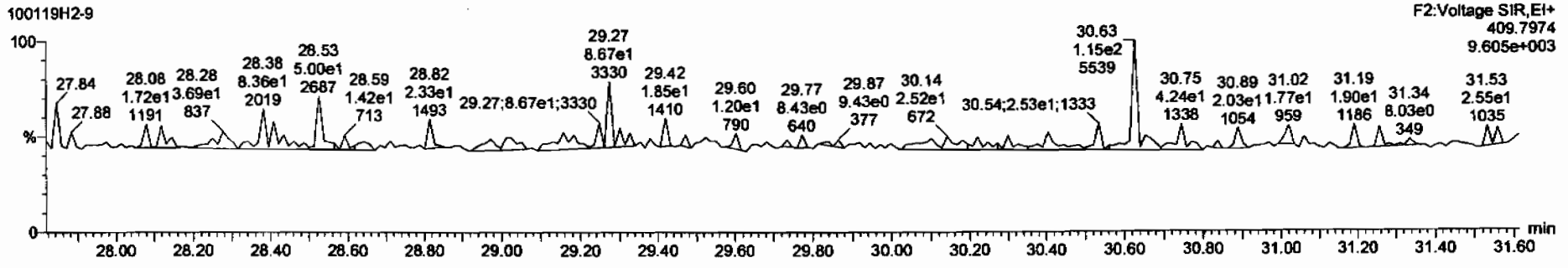

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Printed: Wednesday, January 20, 2010 7:13:34 AM Pacific Standard Time

Name: 100119H2-9, Date: 19-Jan-2010, Time: 16:01:54, ID: 32321_2725_001 CAPA-10-6823 .9, Description: CAPA-10-6823

1,2,3,4,7,8-HxCDF

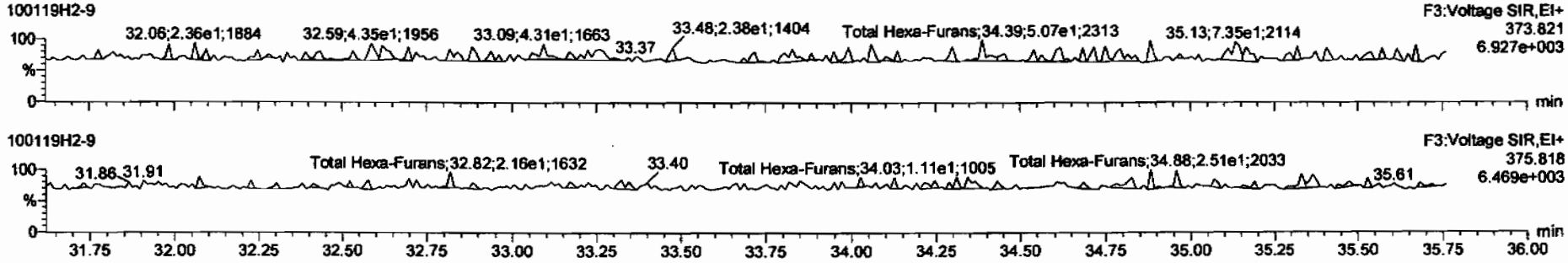

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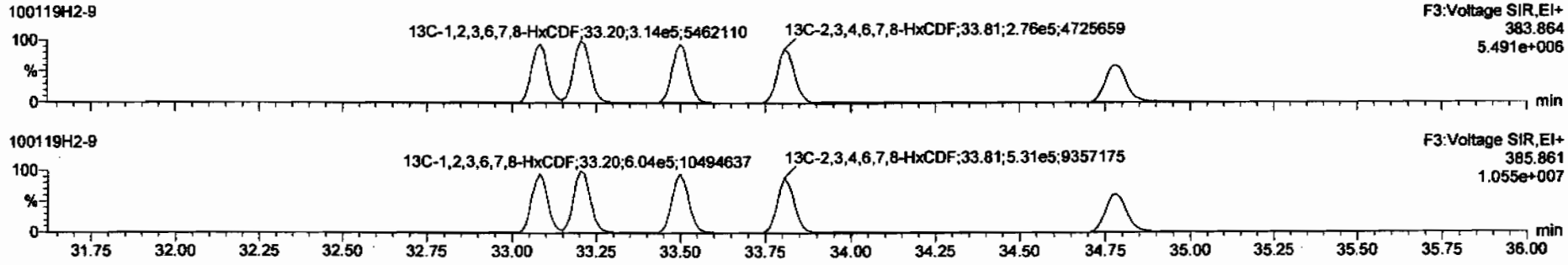

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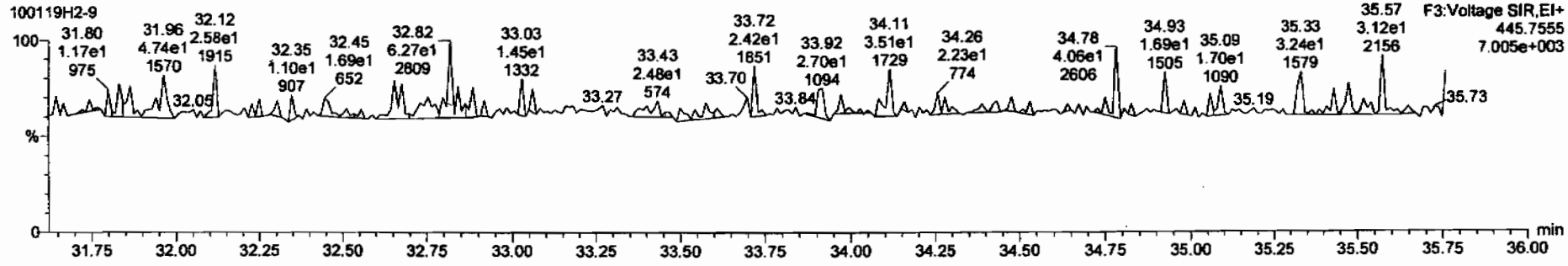

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1,2,3,4,6,7,8-HpCDF

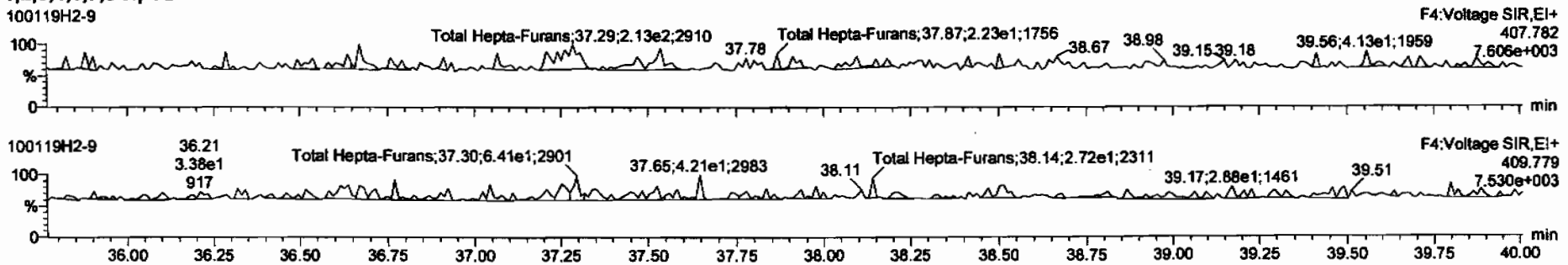

13C-1,2,3,4,6,7,8-HpCDF

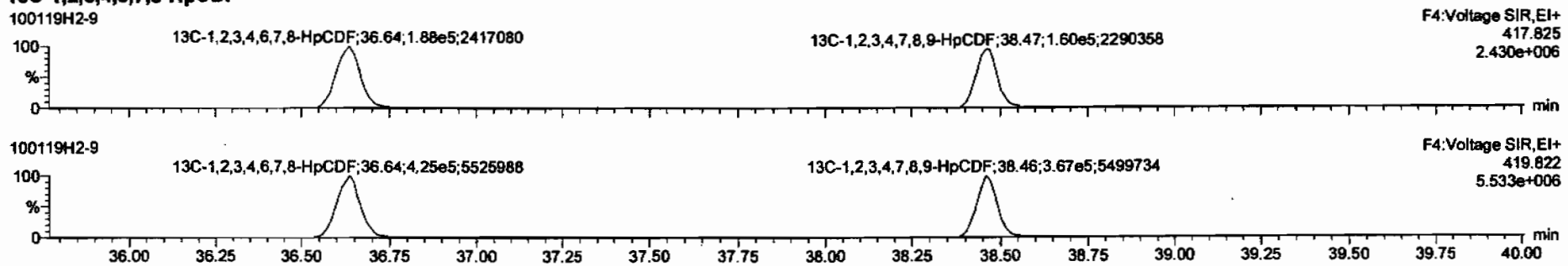

DPE4

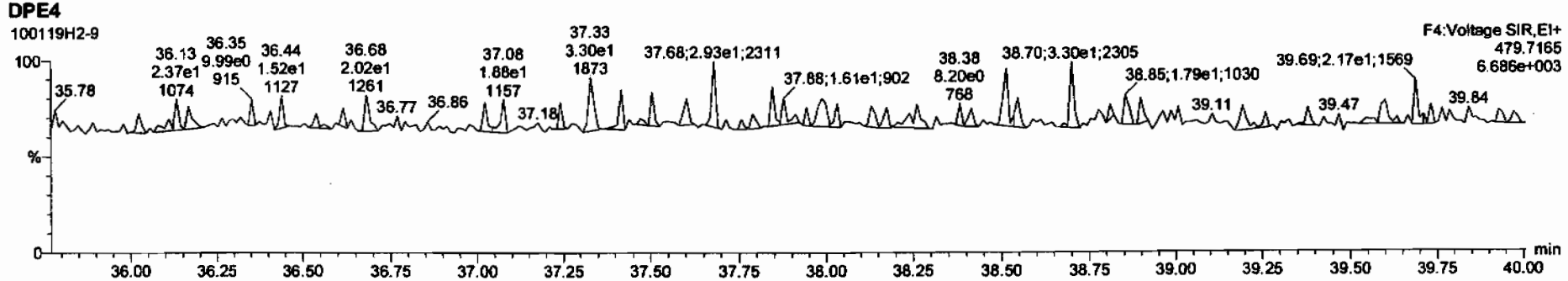

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OCDF

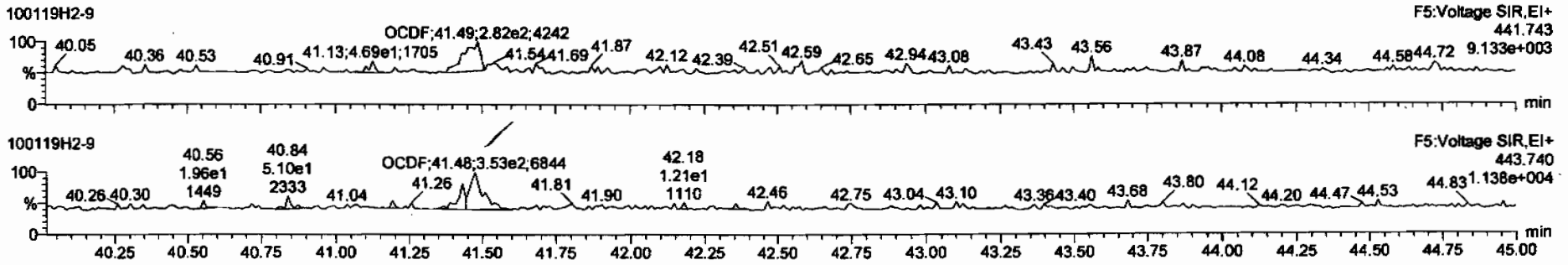

13C-OCDF

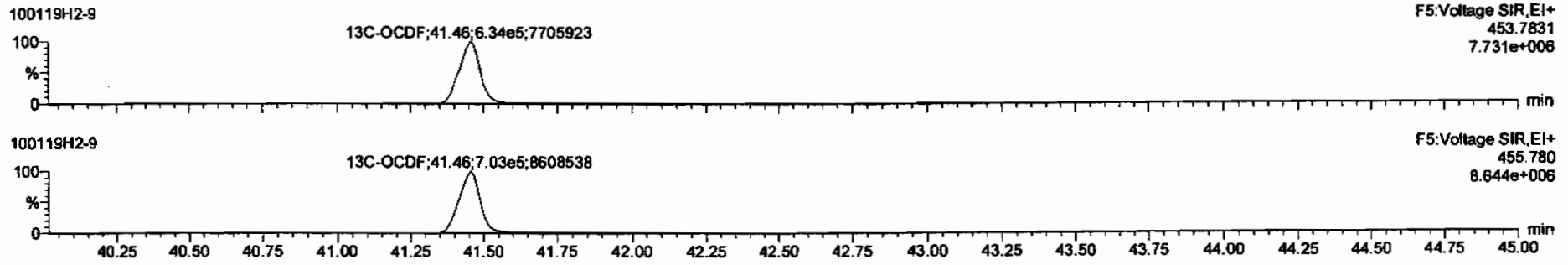

DPE5

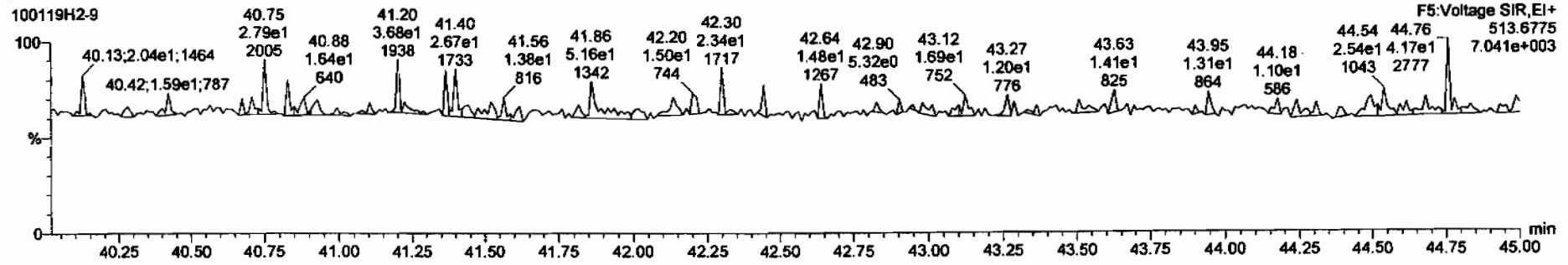

TargetLynx - 100119H2-9.qld - [Chromatogram]

File Edit View Display Processing Window Help

100119H2-9 - 32321_2725_001 CAPA-10-6823 .9 - CAPA-10-6823

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	1,2,3,6,7,8-HxCDF			NO	1.15	0.900					0.703	
	2,3,4,6,7,8-HxCDF			NO	1.20	0.900					0.779	
	1,2,3,7,8,9-HxCDF			NO	1.20	0.900					1.10	
	1,2,3,4,6,7,8-HpCDF			NO	1.49	0.900					1.18	
	1,2,3,4,7,8,9-HpCDF			NO	1.44	0.900					1.27	
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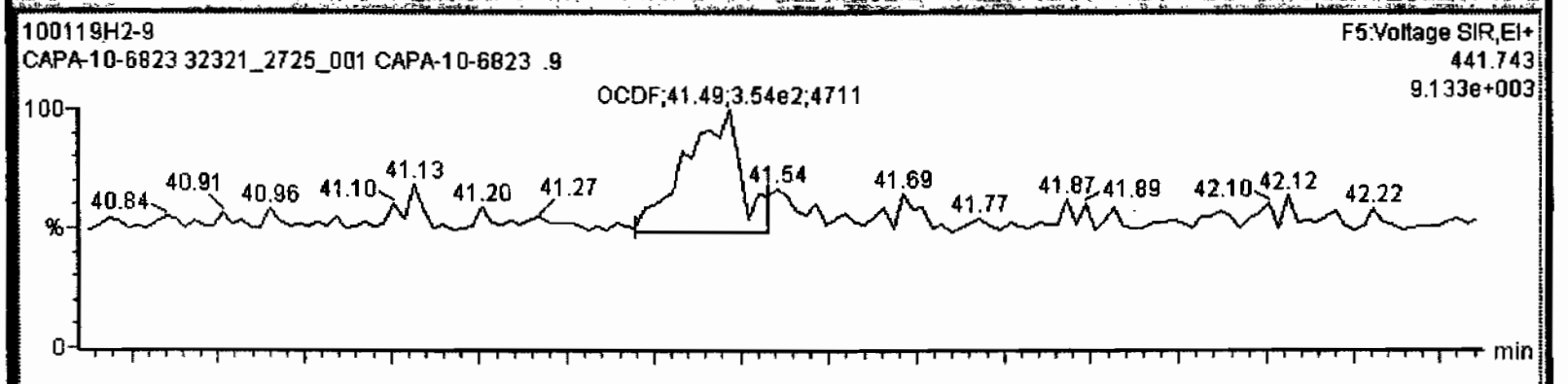

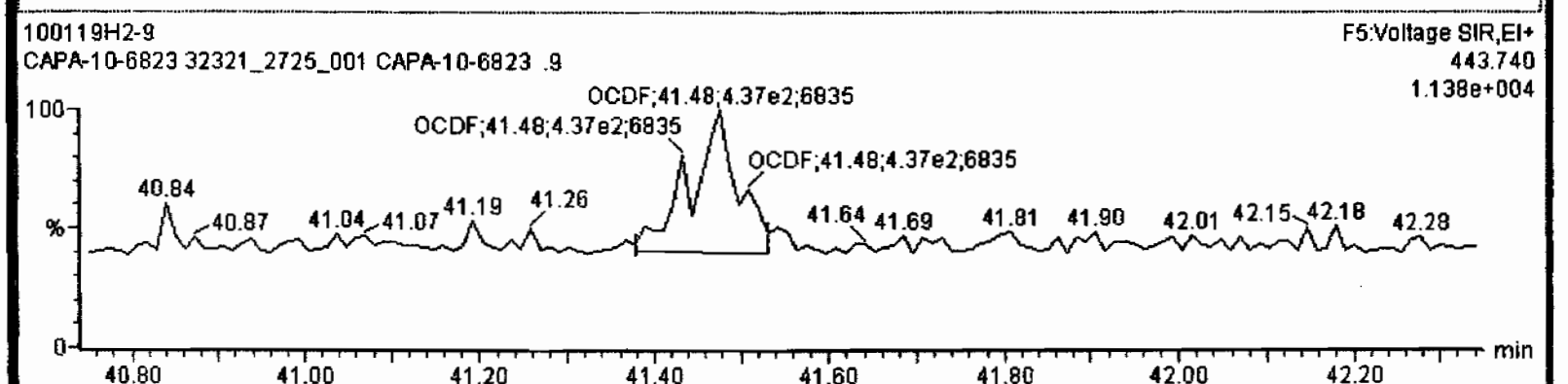

Ready 100119H2-9 NUM

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Last Altered: Wednesday, January 20, 2010 7:13:08 AM Pacific Standard Time
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Name: 100119H2-9, Date: 19-Jan-2010, Time: 16:01:54, ID: 32321_2725_001 CAPA-10-6823 .9, Description: CAPA-10-6823

PFK1

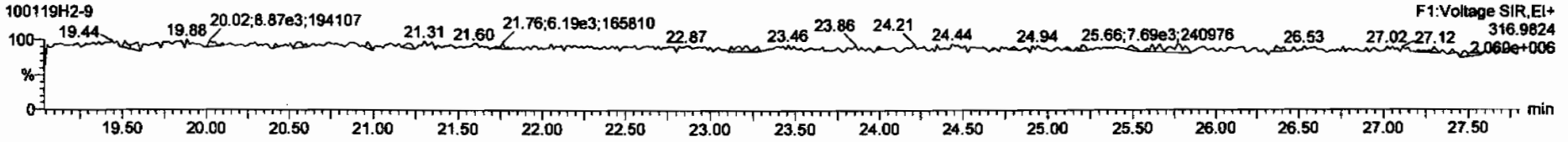

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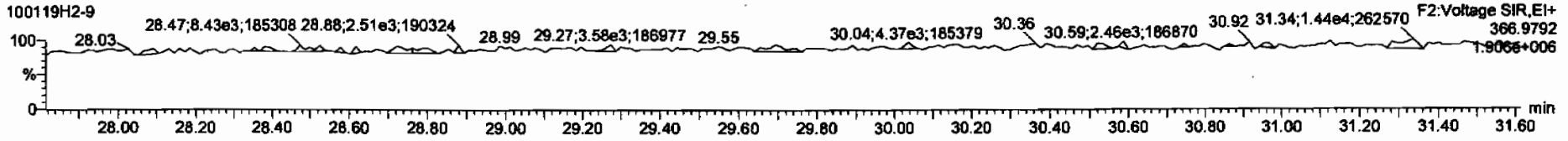

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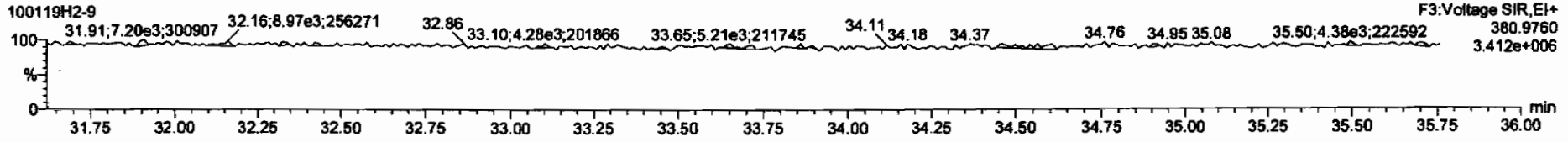

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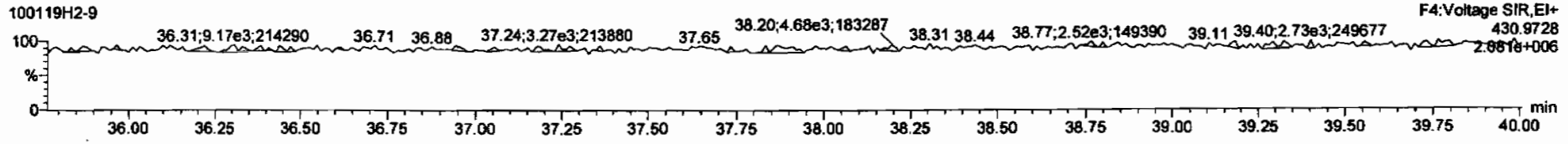

PFK5

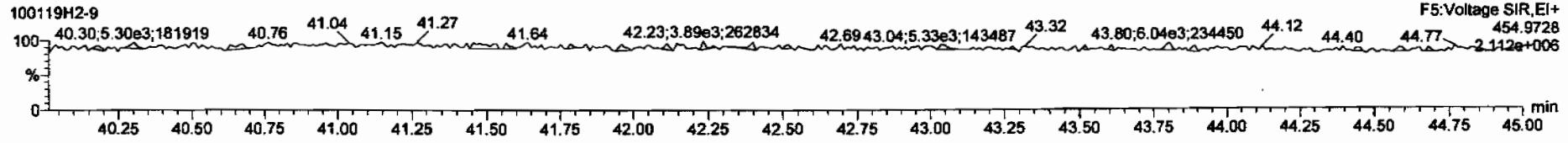

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Last Altered: Wednesday, January 20, 2010 7:31:30 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:32:23 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-10, Date: 19-Jan-2010, Time: 16:51:25, ID: 32321_2725_002 CAPA-10-6824 .898, Description: CAPA-10-6824

1	2,3,7,8-TCDD			NO	0.965	0.898					0.537	
2	1,2,3,7,8-PeCDD			NO	0.869	0.898					1.14	
3	1,2,3,4,7,8-HxCDD			NO	0.873	0.898					1.37	
4	1,2,3,6,7,8-HxCDD			NO	0.940	0.898					1.48	
5	1,2,3,7,8,9-HxCDD			NO	0.882	0.898					1.46	
6	1,2,3,4,6,7,8-HpCDD			NO	0.965	0.898					1.92	
7	OCDD	5.09e3	0.95	NO	1.05	0.898	41.26	1.001	21.337		5.16	21.337
8	2,3,7,8-TCDF			NO	0.952	0.898					0.444	
9	1,2,3,7,8-PeCDF			NO	0.994	0.898					0.584	
10	2,3,4,7,8-PeCDF			NO	0.977	0.898					0.530	
11	1,2,3,4,7,8-HxCDF			NO	1.31	0.898					0.637	
12	1,2,3,6,7,8-HxCDF			NO	1.15	0.898					0.695	
13	2,3,4,6,7,8-HxCDF			NO	1.20	0.898					0.799	
14	1,2,3,7,8,9-HxCDF			NO	1.20	0.898					1.12	
15	1,2,3,4,6,7,8-HpCDF			NO	1.49	0.898					1.24	
16	1,2,3,4,7,8,9-HpCDF			NO	1.44	0.898					1.27	
17	OCDF			NO	1.02	0.898					1.29	
18	13C-2,3,7,8-TCDD	1.21e6	0.77	NO	1.02	0.898	26.03	1.022	2079.7	93.4	2.17	
19	13C-1,2,3,7,8-PeCDD	8.42e5	0.62	NO	0.806	0.898	30.60	1.202	1831.0	82.2	3.04	
20	13C-1,2,3,4,7,8-HxCDD	7.35e5	1.25	NO	1.07	0.898	33.97	1.014	1673.2	75.1	5.14	
21	13C-1,2,3,6,7,8-HxCDD	6.74e5	1.22	NO	0.968	0.898	34.08	1.018	1704.1	76.5	5.71	
22	13C-1,2,3,7,8,9-HxCDD	7.63e5	1.23	NO	1.13	0.898	34.39	1.027	1644.0	73.8	4.87	
23	13C-1,2,3,4,6,7,8-HpCDD	5.94e5	1.05	NO	0.888	0.898	37.90	1.132	1633.3	73.3	4.82	
24	13C-OCDD	1.02e6	0.89	NO	0.783	0.898	41.22	1.231	3170.3	71.2	4.88	
25	13C-2,3,7,8-TCDF	1.42e6	0.78	NO	1.03	0.898	25.25	0.992	1829.9	82.2	2.25	
26	13C-1,2,3,7,8-PeCDF	1.11e6	1.54	NO	0.880	0.898	29.41	1.155	1672.8	75.1	3.65	
27	13C-2,3,4,7,8-PeCDF	1.18e6	1.57	NO	0.867	0.898	30.31	1.190	1804.1	81.0	3.70	
28	13C-1,2,3,4,7,8-HxCDF	8.83e5	0.52	NO	1.19	0.898	33.07	0.988	1818.1	81.6	4.93	
29	13C-1,2,3,6,7,8-HxCDF	9.69e5	0.52	NO	1.30	0.898	33.20	0.991	1818.6	81.7	4.50	
30	13C-2,3,4,6,7,8-HxCDF	8.42e5	0.52	NO	1.16	0.898	33.81	1.010	1771.2	79.5	5.04	

1/20/10

1/20/10

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-10.qld

Last Altered: Wednesday, January 20, 2010 7:31:30 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:32:23 AM Pacific Standard Time

Name: 100119H2-10, Date: 19-Jan-2010, Time: 16:51:25, ID: 32321_2725_002 CAPA-10-6824 .898, Description: CAPA-10-6824

31	13C-1,2,3,7,8,9-HxCDF	6.95e5	0.52	NO	1.03	0.898	34.77	1.038	1655.9	74.3	5.71
32	13C-1,2,3,4,6,7,8-HpCDF	6.24e5	0.45	NO	0.909	0.898	36.63	1.094	1678.2	75.4	6.31
33	13C-1,2,3,4,7,8,9-HpCDF	5.34e5	0.44	NO	0.830	0.898	38.46	1.148	1575.1	70.7	6.91
34	13C-OCDF	1.30e6	0.88	NO	0.982	0.898	41.45	1.238	3236.4	72.7	2.86
35	37Cl-2,3,7,8-TCDD	2.98e5			0.602	0.898	26.05	1.023	868.22	97.5	0.691
36	13C-1,2,3,4-TCDD	1.27e6	0.78	NO	1.00	0.898	25.46	0.000	2227.2	100	2.22
37	13C-1,2,3,4-TCDF	1.68e6	0.77	NO	1.00	0.898	24.06	0.000	2227.2	100	2.31
38	13C-1,2,3,4,6,9-HxCDF	9.11e5	0.52	NO	1.00	0.898	33.49	0.000	2227.2	100	5.86
39	Total Tetra-Dioxins				0.965	0.898					0.279
40	Total Penta-Dioxins				0.869	0.898					0.268
41	Total Hexa-Dioxins				0.940	0.898					0.773
42	Total Hepta-Dioxins				0.965	0.898					1.05
43	Total Tetra-Furans				0.952	0.898					0.205
44	1st Func. Penta-Furans				0.994	0.898					0.160
45	Total Penta-Furans				0.994	0.898					0.239
46	Total Hexa-Furans				1.20	0.898					0.476
47	Total Hepta-Furans				1.49	0.898					0.690

Quantify Totals Report MassLynx 4.1
Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-10.qld

Last Altered: Wednesday, January 20, 2010 7:31:30 AM Pacific Standard Time
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Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-10, Date: 19-Jan-2010, Time: 16:51:25, ID: 32321_2725_002 CAPA-10-6824 .898, Description: CAPA-10-6824

Tetra-Dioxins

Penta-Dioxins

Hexa-Dioxins

Hepta-Dioxins

Tetra-Furans

Penta-Furans function 1

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-10.qld

Last Altered: Wednesday, January 20, 2010 7:31:30 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:32:23 AM Pacific Standard Time

Name: 100119H2-10, Date: 19-Jan-2010, Time: 16:51:25, ID: 32321_2725_002 CAPA-10-6824 .898, Description: CAPA-10-6824

Penta-Furans

Hexa-Furans

Hepta-Furans

Vista Analytical Laboratory VG-10

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 7:25:36 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:26:00 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-10, Date: 19-Jan-2010, Time: 16:51:25, ID: 32321_2725_002 CAPA-10-6824 .898, Description: CAPA-10-6824

2,3,7,8-TCDD

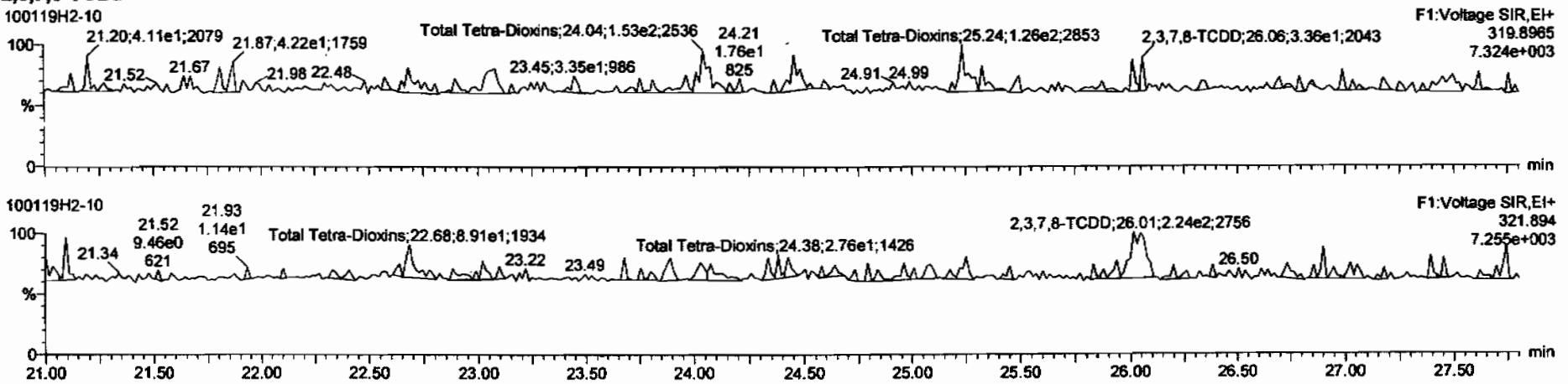

13C-2,3,7,8-TCDD

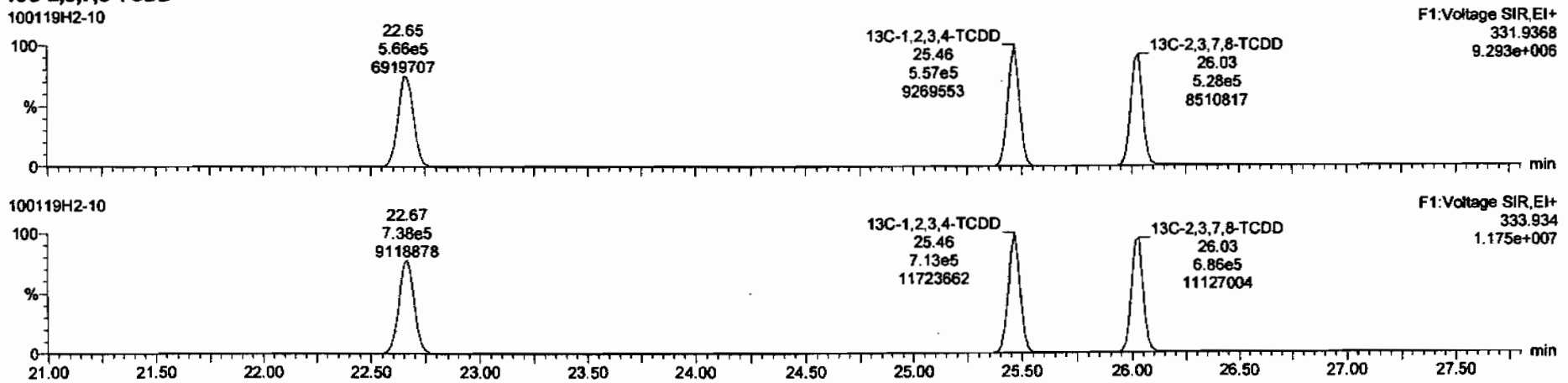

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 7:25:36 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:26:00 AM Pacific Standard Time

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37Cl-2,3,7,8-TCDD

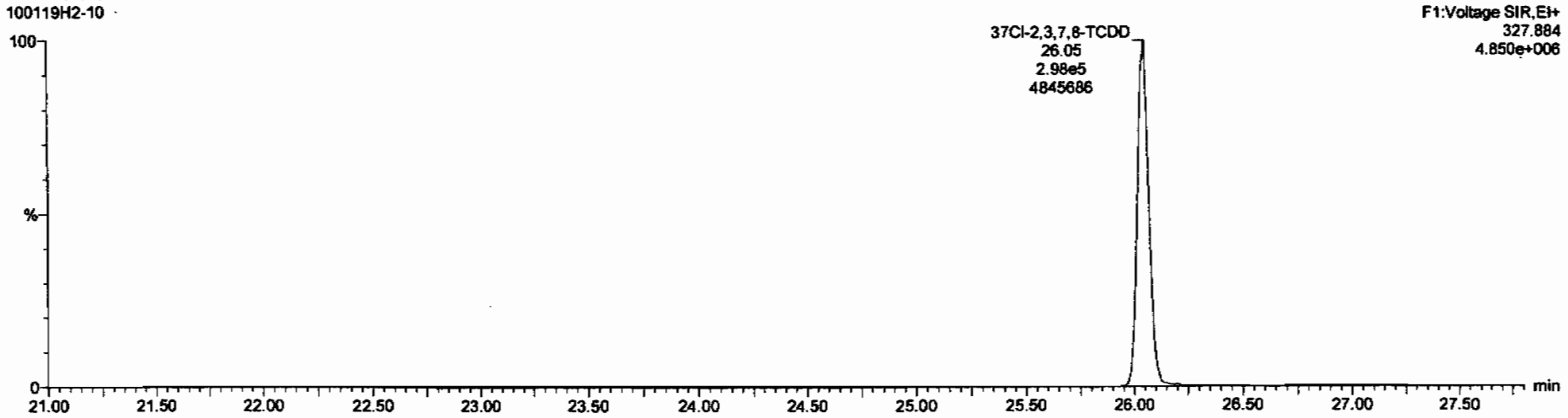

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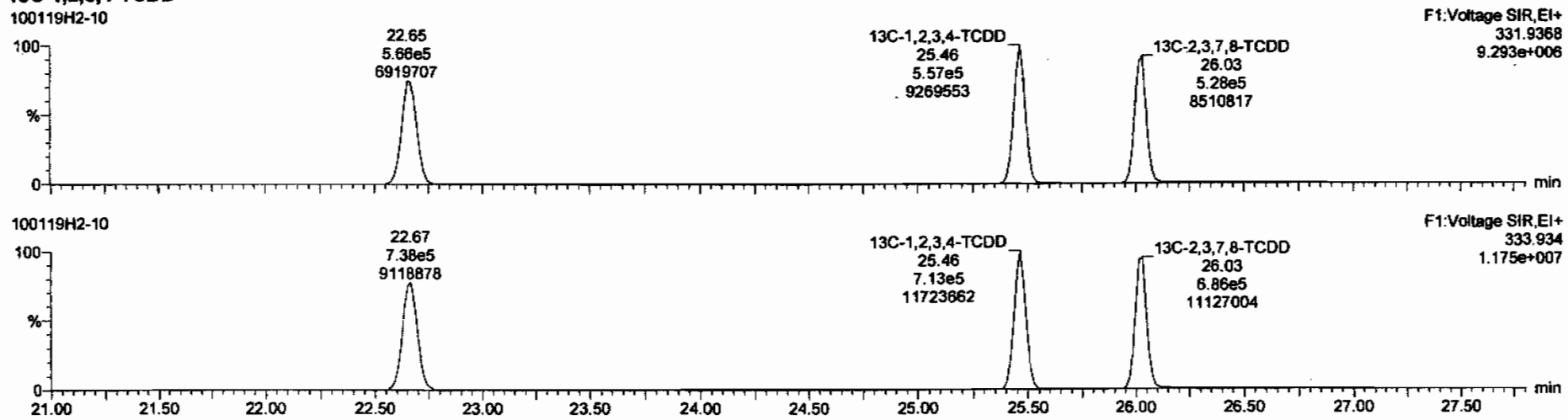

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Name: 100119H2-10, Date: 19-Jan-2010, Time: 16:51:25, ID: 32321_2725_002 CAPA-10-6824 .898, Description: CAPA-10-6824

1,2,3,7,8-PeCDD

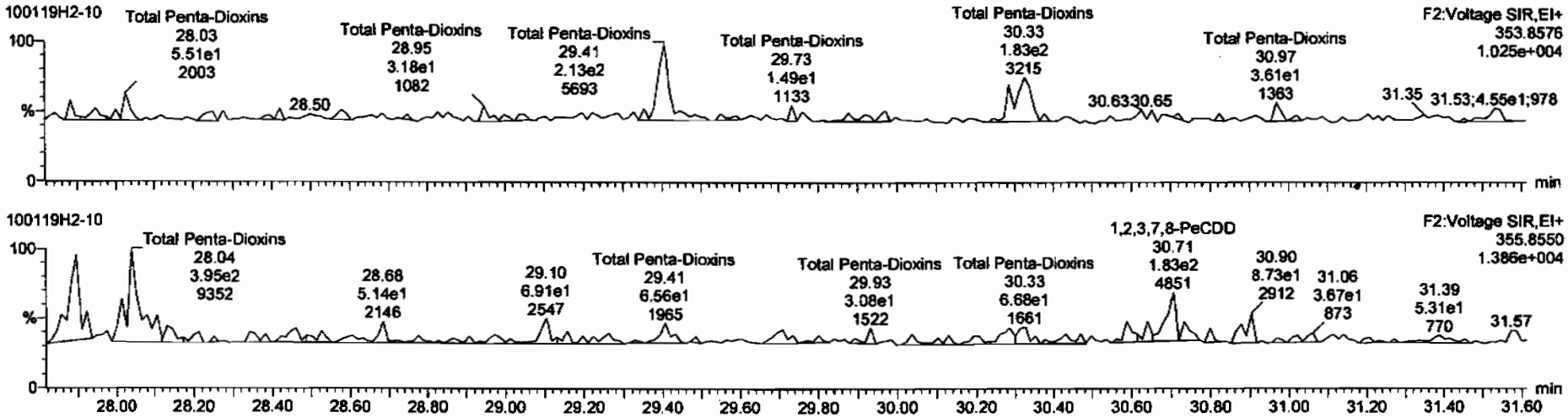

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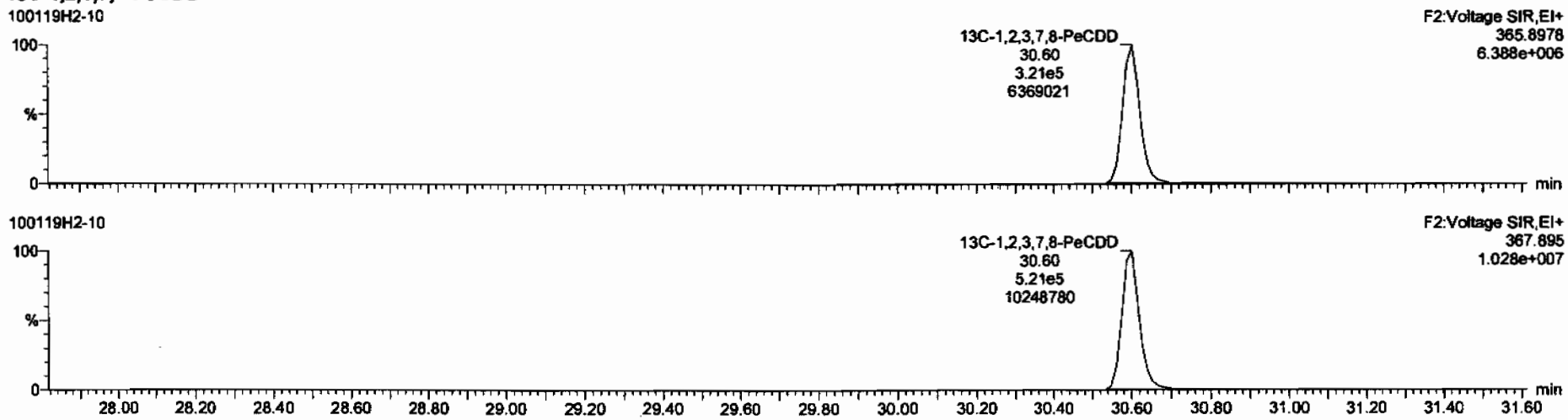

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Name: 100119H2-10, Date: 19-Jan-2010, Time: 16:51:25, ID: 32321_2725_002 CAPA-10-6824 .898, Description: CAPA-10-6824

1,2,3,4,7,8-HxCDD

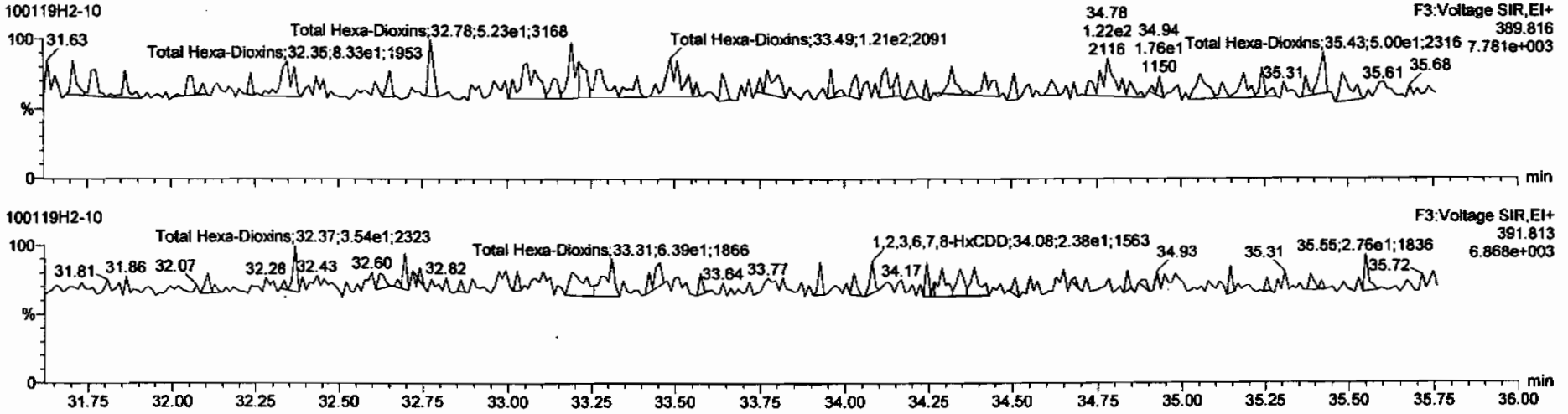

13C-1,2,3,4,7,8-HxCDD

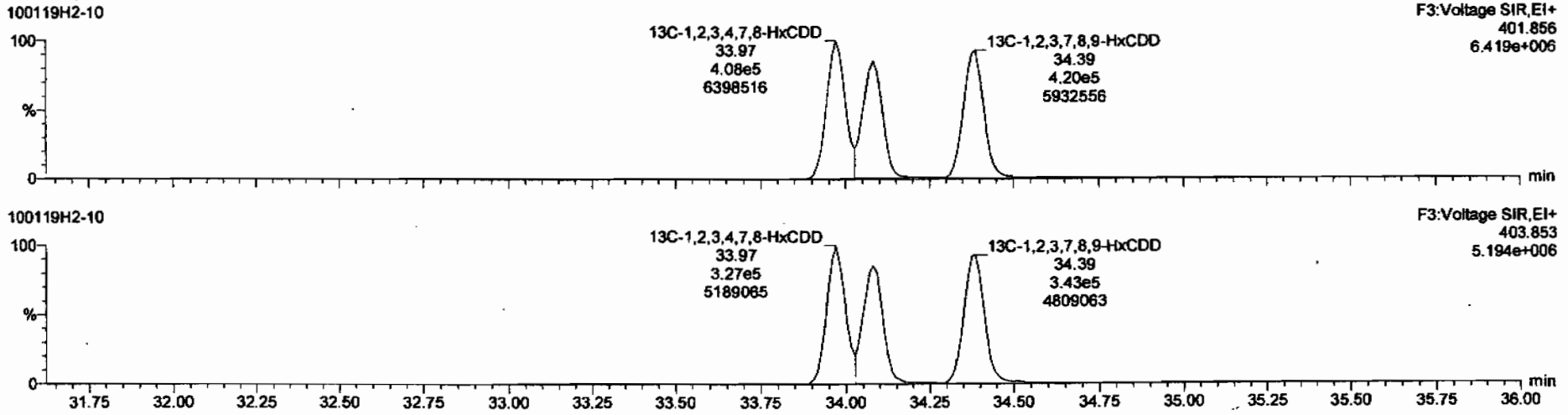

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Name: 100119H2-10, Date: 19-Jan-2010, Time: 16:51:25, ID: 32321_2725_002 CAPA-10-6824 .898, Description: CAPA-10-6824

1,2,3,4,6,7,8-HpCDD

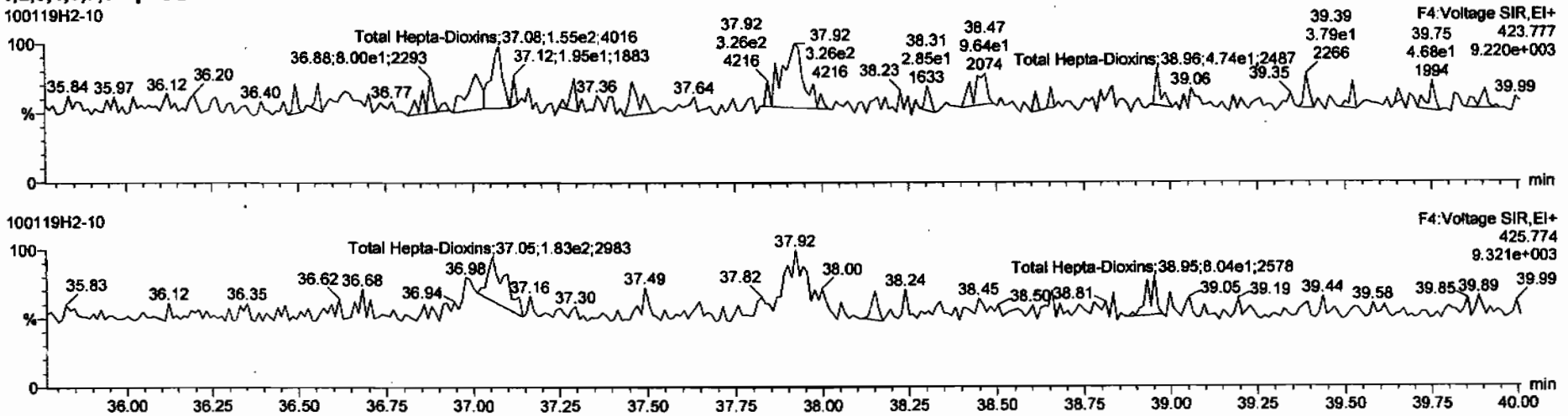

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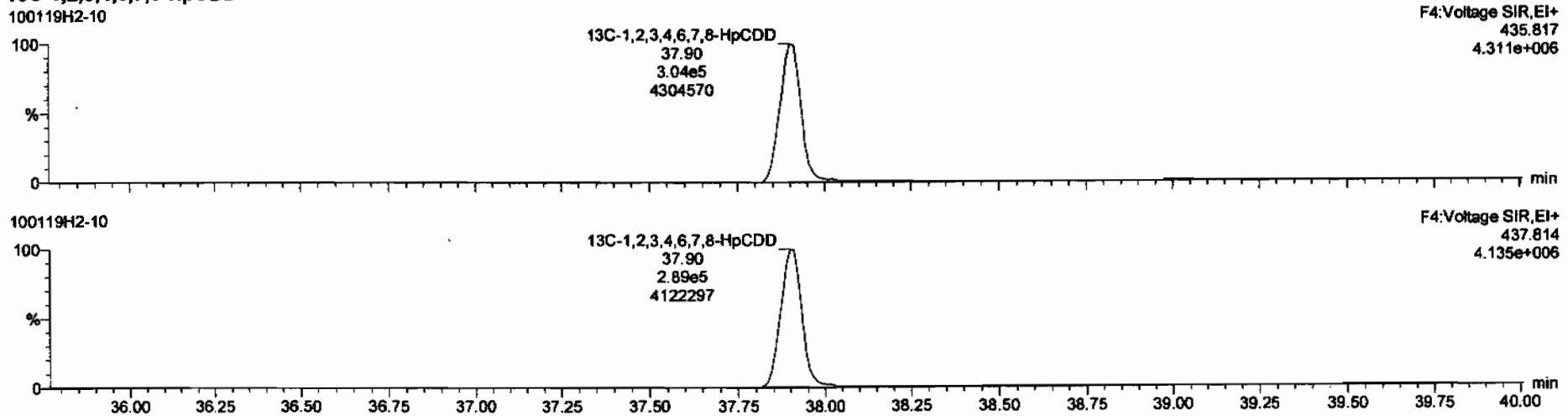

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Name: 100119H2-10, Date: 19-Jan-2010, Time: 16:51:25, ID: 32321_2725_002 CAPA-10-6824 .898, Description: CAPA-10-6824

OCDD

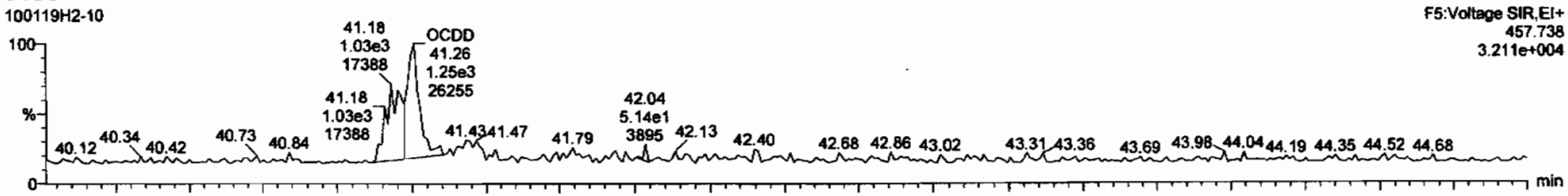

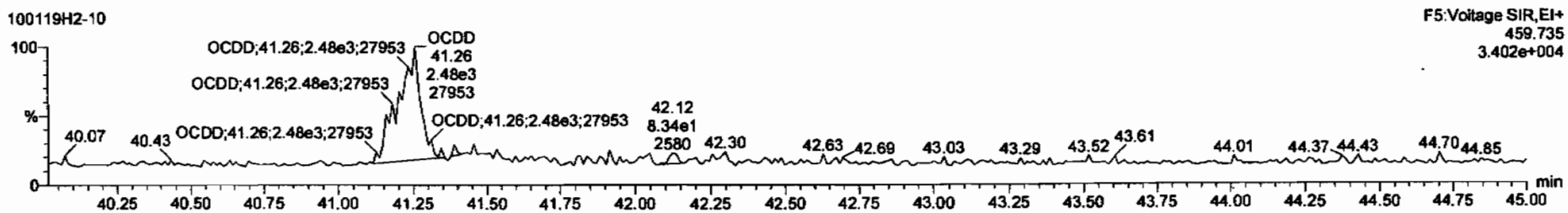

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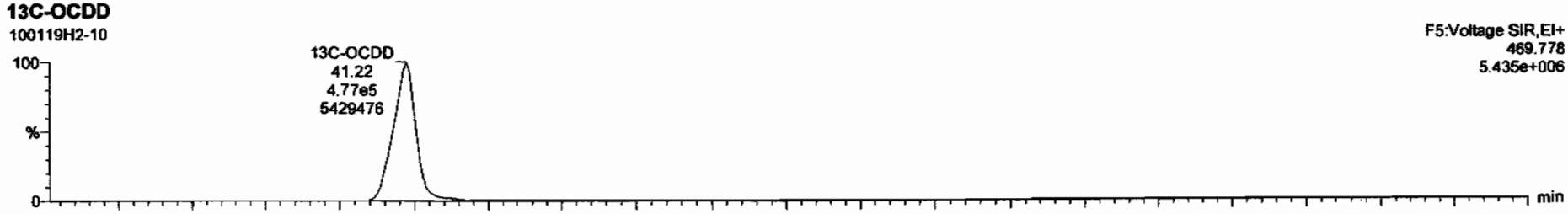

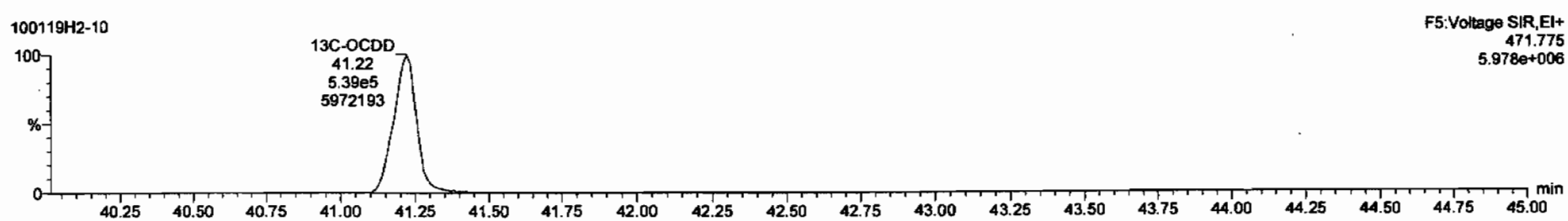

TargetLynx - 100119H2-10.qld - [Chromatogram]

File Edit View Display Processing Window Help

100119H2-10 - 32321_2725_002 CAPA-10-6824 .898 - CAPA-10-6824

	Name				Type	Rt	Area		RRT				
	2,3,7,8-TCDD				NO	0.97	0.898					0.537	
	1,2,3,7,8-PeCDD				NO	0.87	0.898					1.14	
	1,2,3,4,7,8-HxCDD				NO	0.87	0.898					1.37	
	1,2,3,6,7,8-HxCDD				NO	0.94	0.898					1.48	
	1,2,3,7,8,9-HxCDD				NO	0.88	0.898					1.46	
	1,2,3,4,6,7,8-HpCDD				NO	0.97	0.898					1.92	
	2,3,7,8-TCDF				NO	0.95	0.898					0.444	

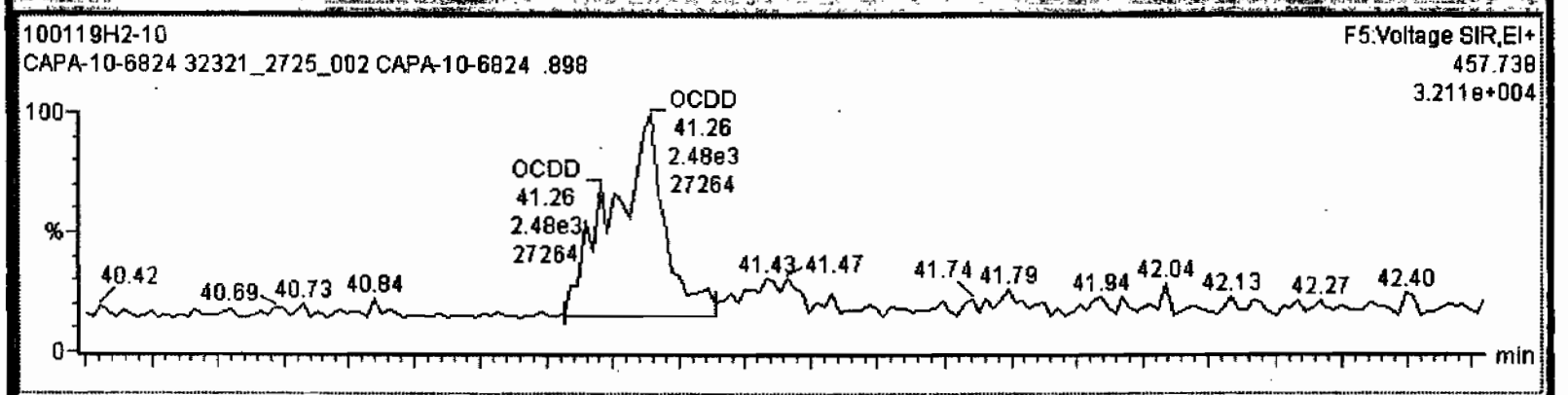

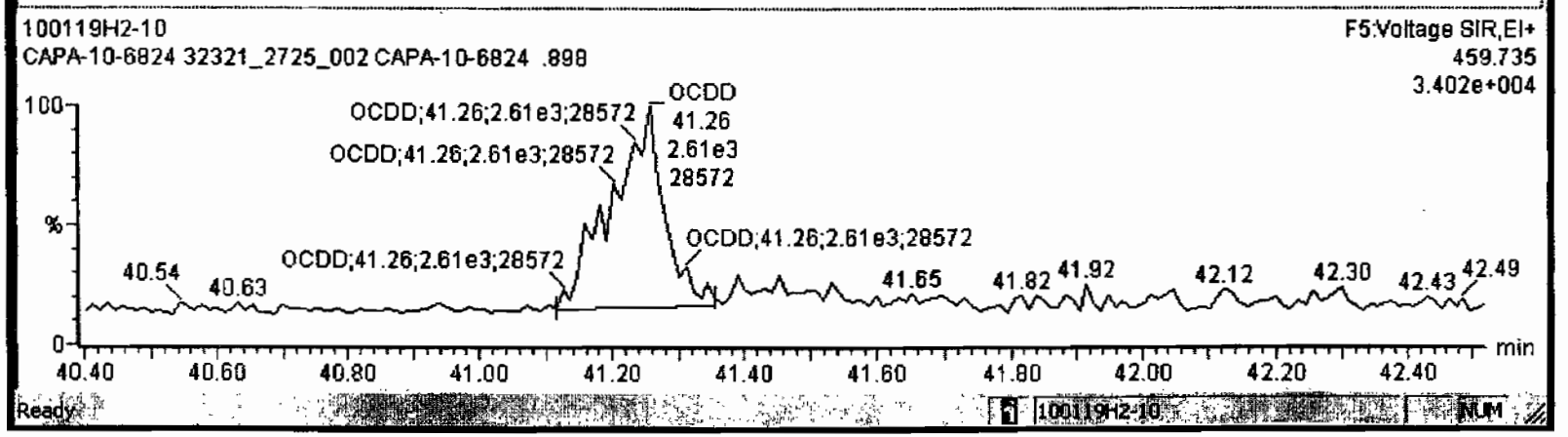

Ready 100119H2-10 NUM

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Last Altered: Wednesday, January 20, 2010 7:25:36 AM Pacific Standard Time
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Name: 100119H2-10, Date: 19-Jan-2010, Time: 16:51:25, ID: 32321_2725_002 CAPA-10-6824 .898, Description: CAPA-10-6824

2,3,7,8-TCDF

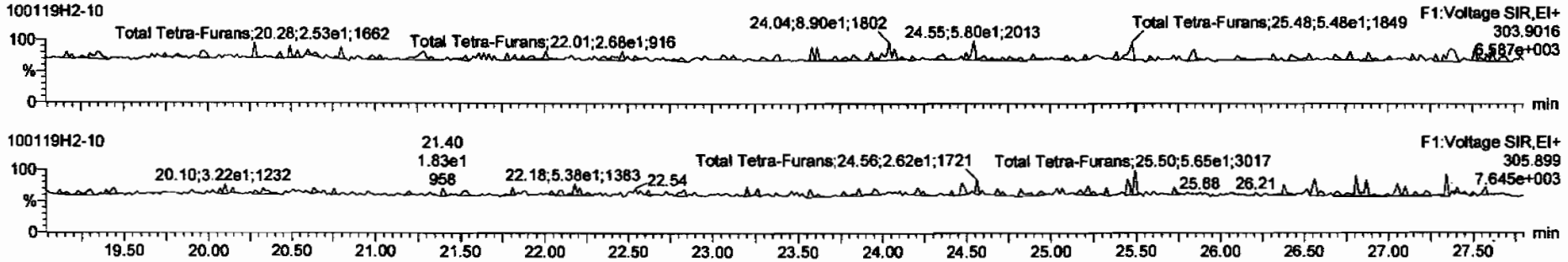

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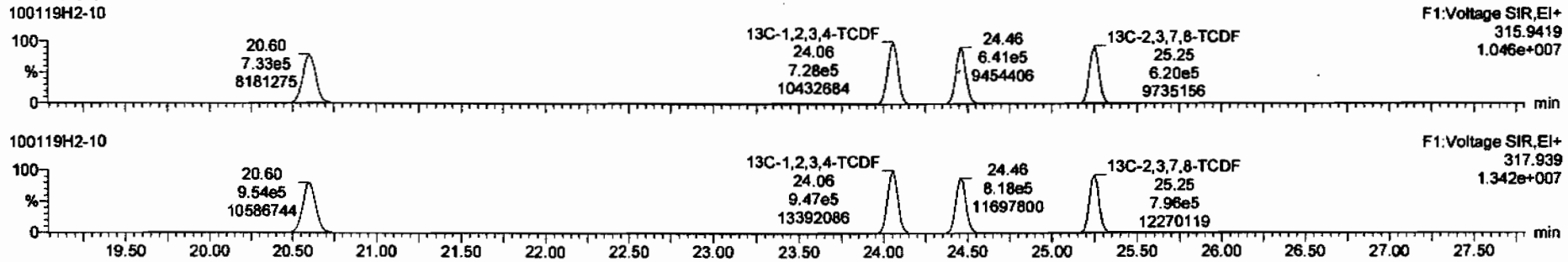

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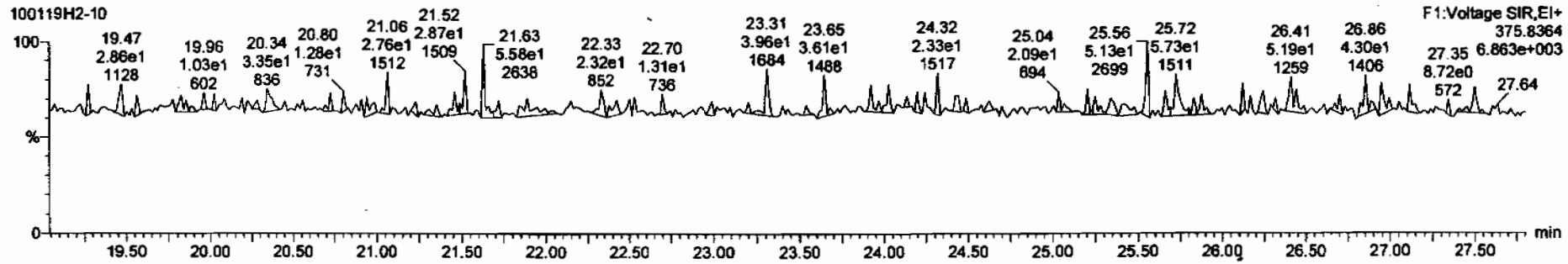

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Name: 100119H2-10, Date: 19-Jan-2010, Time: 16:51:25, ID: 32321_2725_002 CAPA-10-6824 .898, Description: CAPA-10-6824

1st Func. Penta-Furans

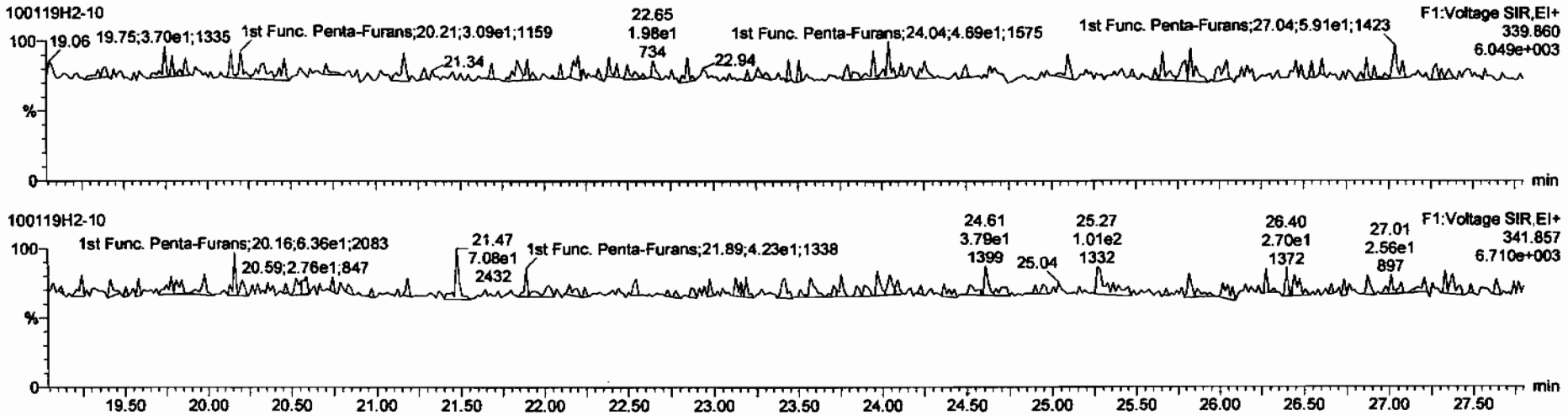

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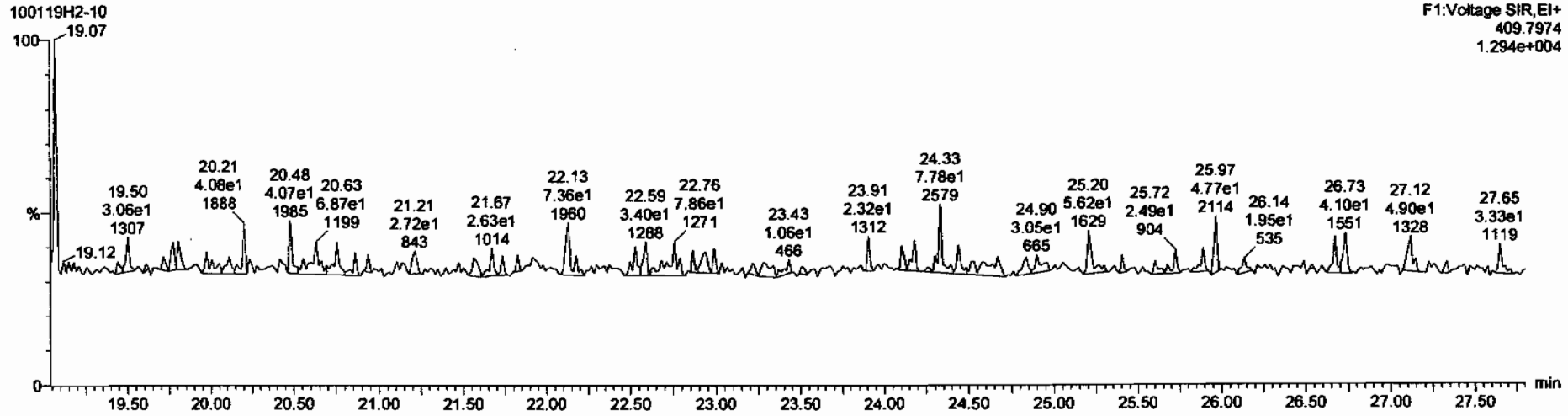

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Name: 100119H2-10, Date: 19-Jan-2010, Time: 16:51:25, ID: 32321_2725_002 CAPA-10-6824 .898, Description: CAPA-10-6824

1,2,3,7,8-PeCDF

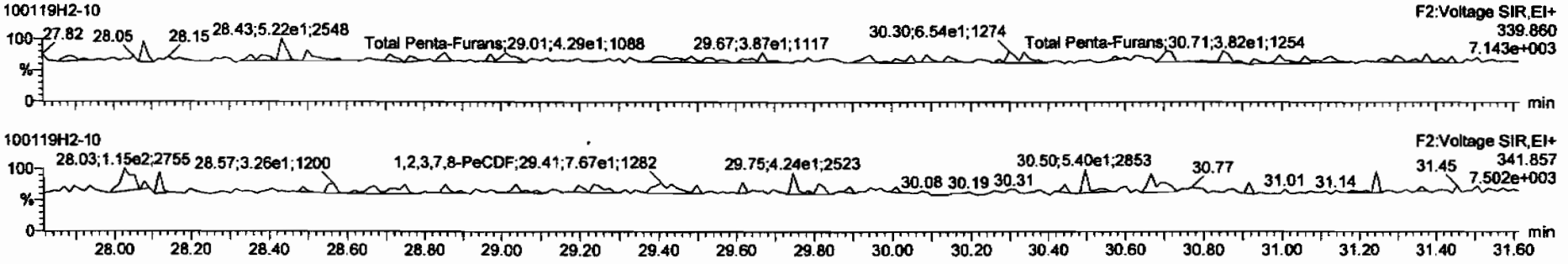

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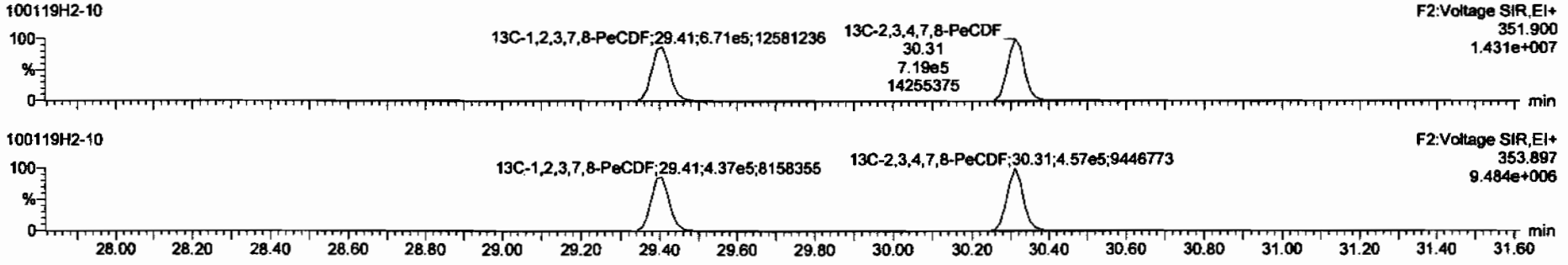

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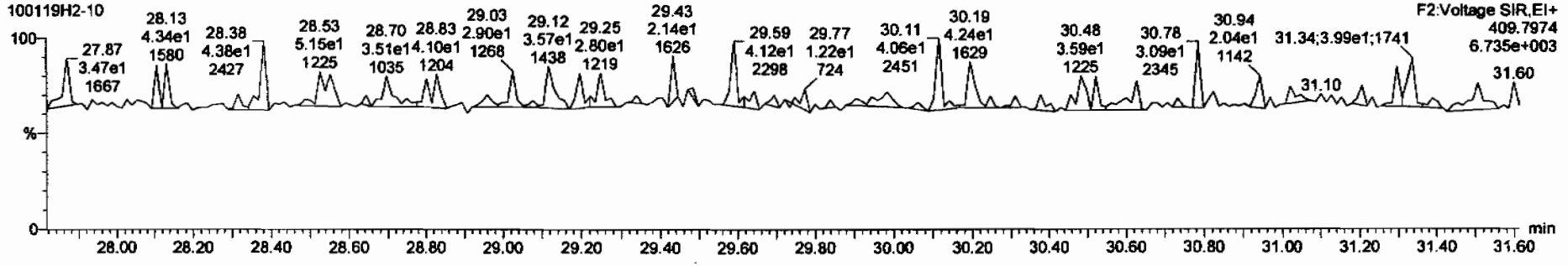

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1,2,3,4,7,8-HxCDF

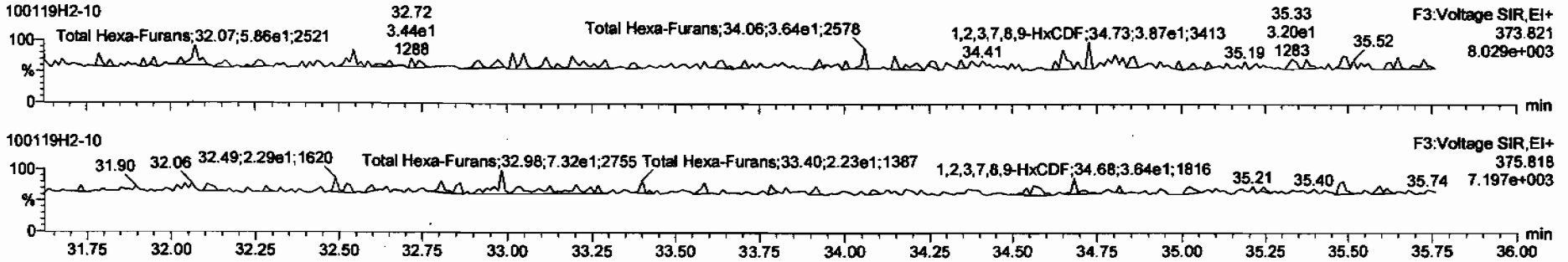

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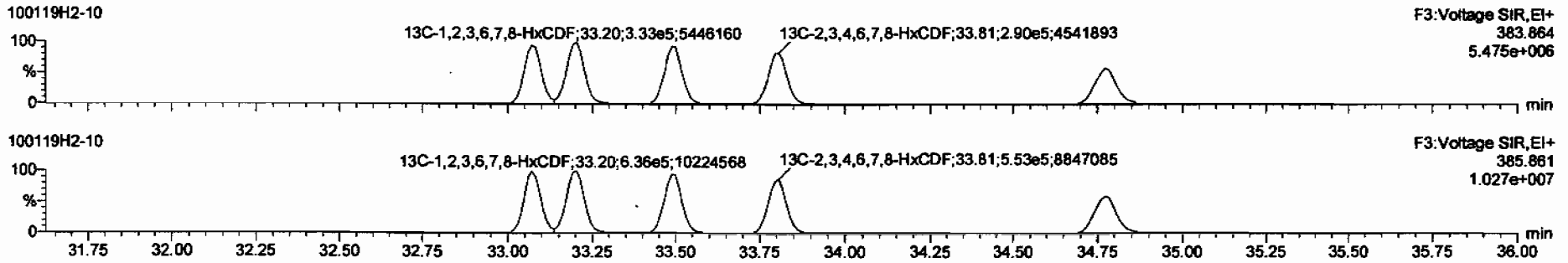

DPE3

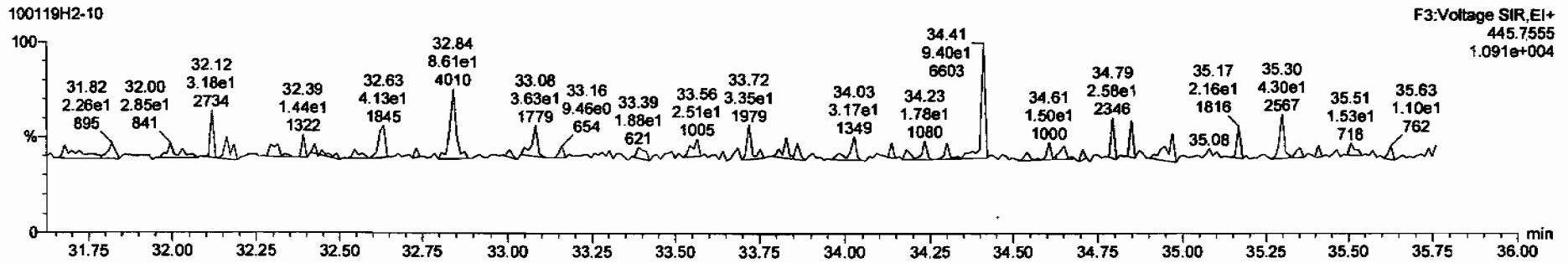

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Printed: Wednesday, January 20, 2010 7:26:00 AM Pacific Standard Time

Name: 100119H2-10, Date: 19-Jan-2010, Time: 16:51:25, ID: 32321_2725_002 CAPA-10-6824 .898, Description: CAPA-10-6824

1,2,3,4,6,7,8-HpCDF

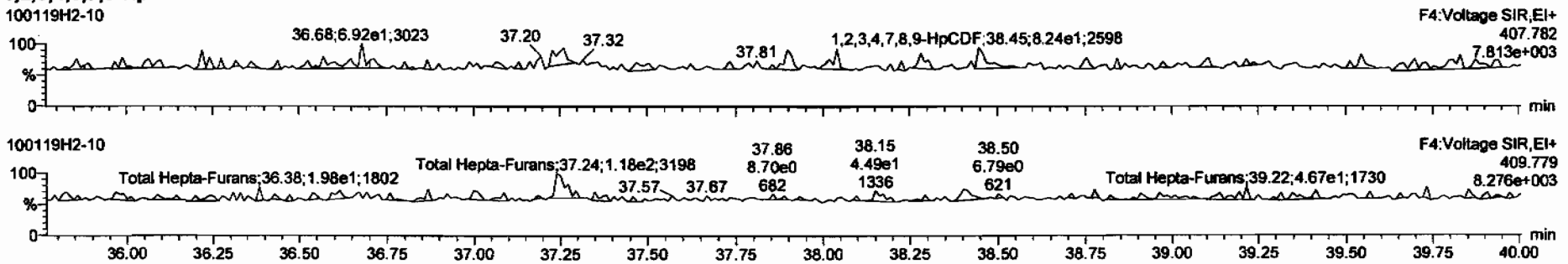

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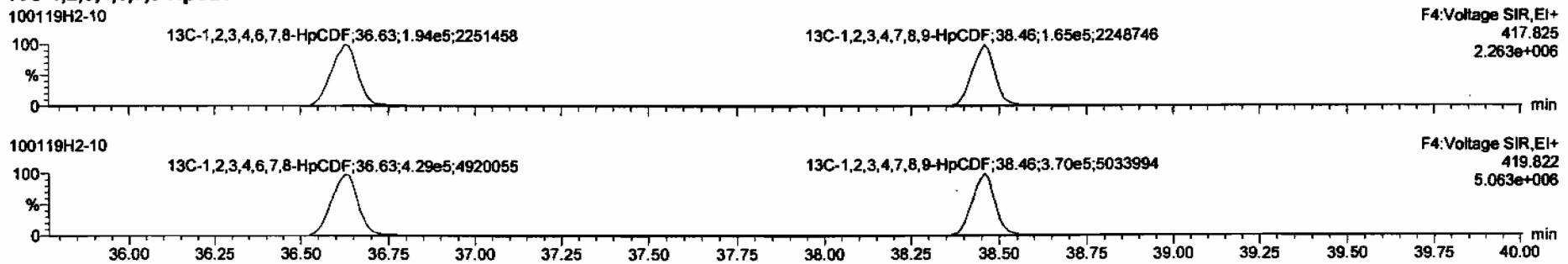

DPE4

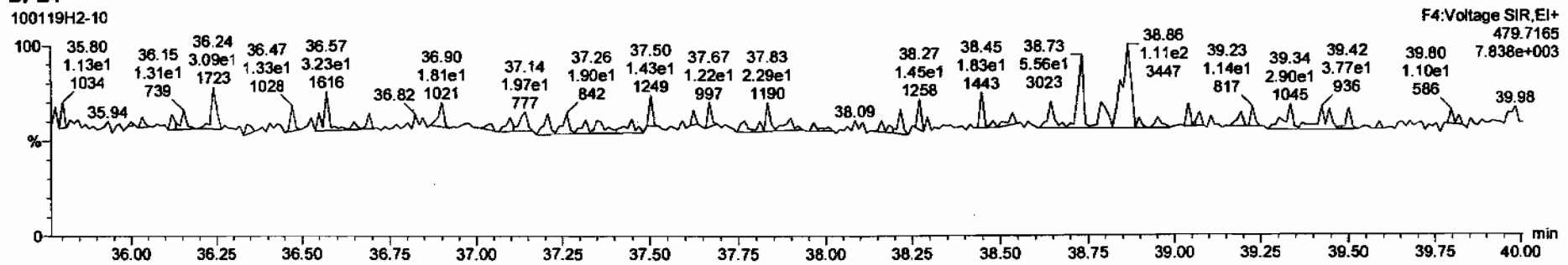

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 7:25:36 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 7:26:00 AM Pacific Standard Time

Name: 100119H2-10, Date: 19-Jan-2010, Time: 16:51:25, ID: 32321_2725_002 CAPA-10-6824 .898, Description: CAPA-10-6824

OCDF

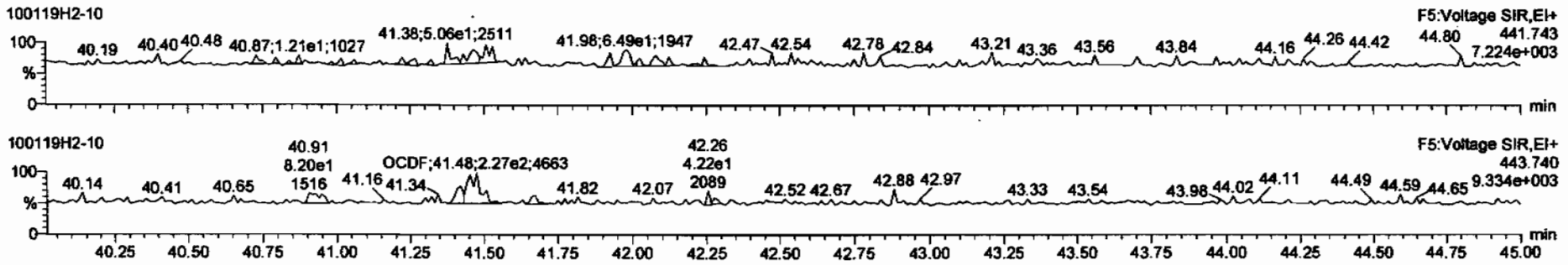

13C-OCDF

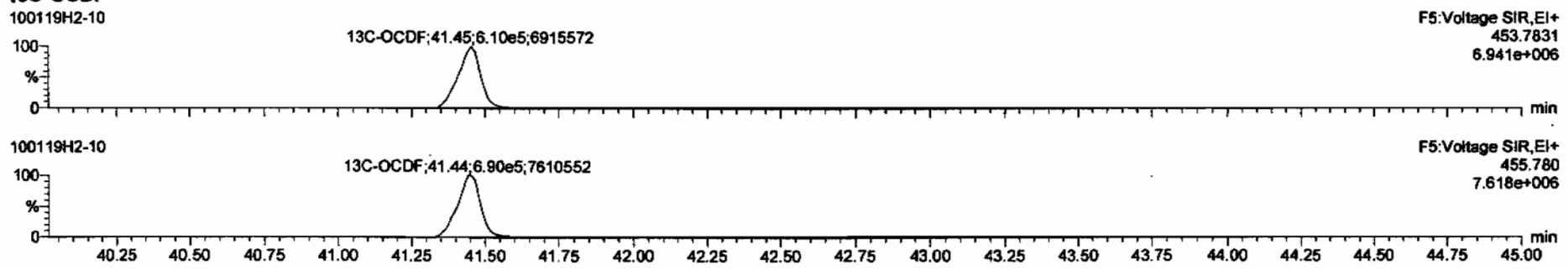

DPE5

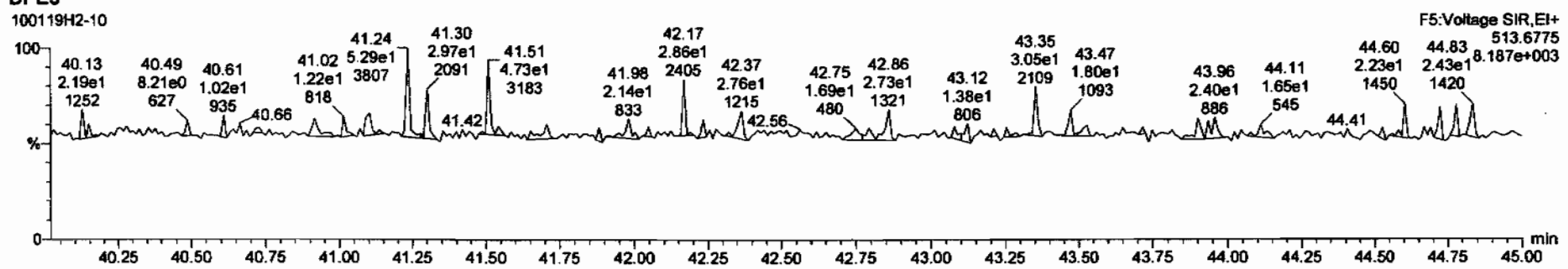

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Printed: Wednesday, January 20, 2010 7:26:00 AM Pacific Standard Time

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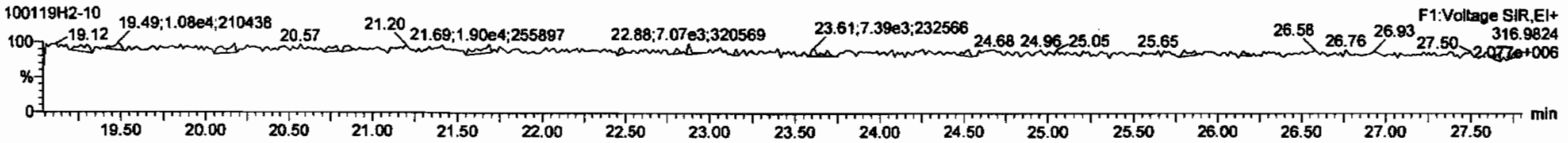

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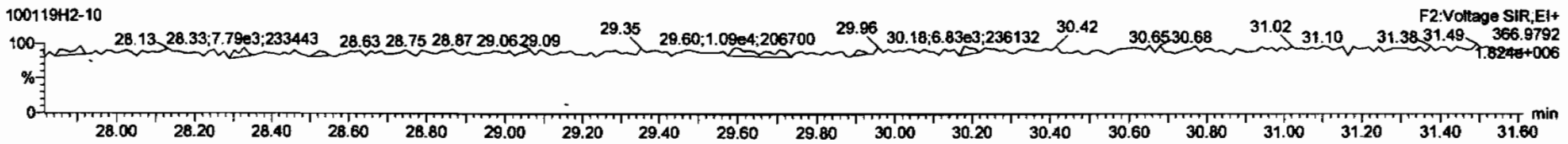

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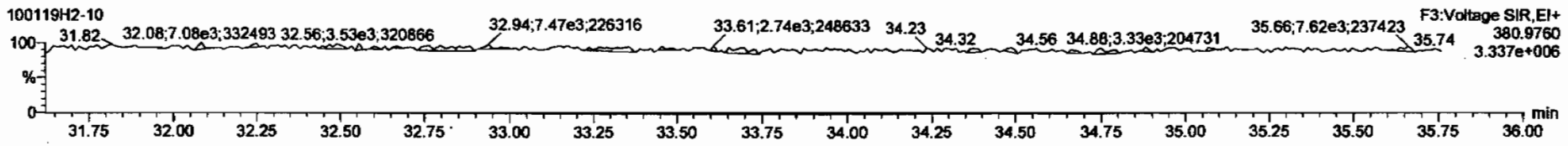

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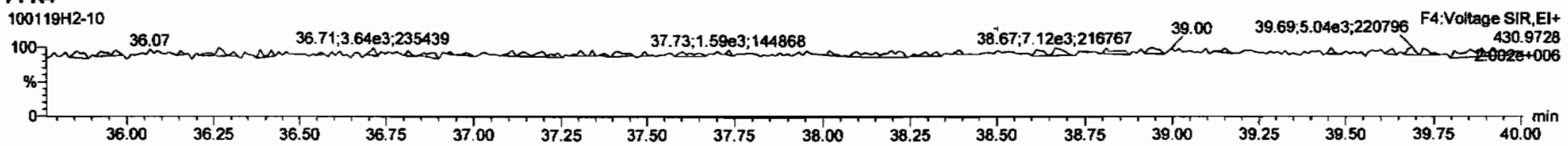

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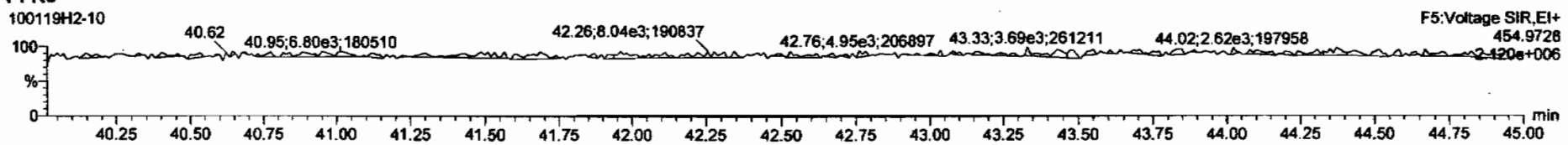

CALIBRATION DATA

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Vista Analytical Laboratory
Initial Calibration Date: 10/29/2009
Instrument ID: VG10
VER Data file name: 100119H2-1

CCAL ID: ST100119H2-1

GC Column ID: DB-5
Analysis Date: 19-Jan-10 Analysis Time: 09:25:44

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
2,3,7,8-TCDD	M/M+2	0.77	0.65-0.89	NO	10.3	7.8 8.2	12.9 12.3 (4)	Yes	8.00	12.0	Yes
1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	NO	51.9	39.0	65.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	50.5	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	51.7	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDD	M+2/M+4	1.23	1.05-1.43	NO	50.5	41.0	61.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	NO	49.9	43.0	58.0	Yes	40.0	60.0	Yes
OCDD	M+2/M+4	0.88	0.76-1.02	NO	104	79.0	126.0	Yes	80.0	120.0	Yes
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	NO	9.97	8.4 8.6	12.0 11.6 (4)	Yes	8.00	12.0	Yes
1,2,3,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	NO	47.8	41.0	60.0	Yes	40.0	60.0	Yes
2,3,4,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	NO	47.8	41.0	60.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	NO	47.7	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	NO	47.5	44.0	57.0	Yes	40.0	60.0	Yes
2,3,4,6,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	NO	46.3	44.0	57.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDF	M+2/M+4	1.28	1.05-1.43	NO	47.6	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.06	0.88-1.20	NO	47.2	45.0	55.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.08	0.88-1.20	NO	47.7	43.0	58.0	Yes	40.0	60.0	Yes
OCDF	M+2/M+4	0.91	0.76-1.02	NO	97.1	63.0	159.0	Yes	80.0	120.0	Yes

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [signature]
Date: 1/19/10

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Vista Analytical Laboratory
Initial Calibration Date: 10/29/2009
Instrument ID: VG10
VER Data file name: 100119H2-1

CCAL ID: ST100119H2-1

GC Column ID: DB-5
Analysis Date: 19-Jan-10 Analysis Time: 09:25:44

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
13C-2,3,7,8-TCDD	M+2/M+4	0.78	0.65-0.89	NO	100	82.0	121.0	Yes	70.0	130.0	Yes
						85.0	117.0 (5)				
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	NO	98.5	62.0	160.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	NO	89.8	85.0	117.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	NO	93.3	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.21	1.05-1.43	NO	89.6	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.03	0.88-1.20	NO	81.8	72.0	138.0	Yes	70.0	130.0	Yes
13C-OCDD	M+2/M+4	0.89	0.76-1.02	NO	157	96.0	415.0	Yes	140.0	260.0	Yes
13C-2,3,7,8-TCDF	M/M+2	0.78	0.65-0.89	NO	96.8	71.0	140.0	Yes	70.0	130.0	Yes
						76.0	131.0 (5)				
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	NO	95.8	76.0	130.0	Yes	70.0	130.0	Yes
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	NO	98.6	77.0	130.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.53	0.43-0.59	NO	100	76.0	131.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.53	0.43-0.59	NO	102	70.0	143.0	Yes	70.0	130.0	Yes
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.53	0.43-0.59	NO	97.0	73.0	137.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.52	0.43-0.59	NO	91.6	74.0	135.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.44	0.37-0.51	NO	84.1	78.0	129.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.46	0.37-0.51	NO	79.5	77.0	129.0	Yes	70.0	130.0	Yes
13C-OCDF	M+2/M+4	0.89	0.76-1.02	NO	160	96.0	415.0	Yes	140.0	260.0	Yes
CLEANUP STANDARD (4)											
37Cl-2,3,7,8-TCDD					9.77	7.9	12.7	Yes	7.0	13.0	Yes
						8.3	12.1 (5)				

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) No ion abundance ratio; report concentration found
(5) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [signature]

Date: 1/19/10

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

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Printed: Tuesday, January 19, 2010 10:34:40 AM Pacific Standard Time

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Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

	Name	
1	1,3,6,8-TCDD (First)	22.68
2	1,2,8,9-TCDD (Last)	26.92
3	1,2,4,7,9-PeCDD (First)	28.54
4	1,2,3,8,9-PeCDD (Last)	31.01
5	12,4,6,7,9-HxCDD (First)	32.45
6	1,2,3,7,8,9-HxCDD (Last)	34.41
7	1,2,3,4,6,7,9-HpCDD (First)	37.05
8	1,2,3,4,6,7,8-HpCDD (Last)	37.92
9	1,3,6,8-TCDF (First)	20.60
10	1,2,8,9-TCDF (Last)	27.07
11	1,3,4,6,8-PeCDF (First)	27.01
12	1,2,3,8,9-PeCDF (Last)	31.26
13	1,2,3,4,6,8-HxCDF (First)	31.90
14	1,2,3,4,8,9-HxCDF (Last)	34.80
15	1,2,3,4,6,7,8-HpCDF (First)	36.66
16	1,2,3,4,7,8,9-HpCDF (Last)	38.48

11/18/10

FORM 6A

PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory

CCAL ID: ST100119H2-1

Initial Calibration Date: 10/29/2009

Instrument ID: VG10

GC Column ID: DB-5

VER Data file name: 100119H2-1

Analysis Date: 19-Jan-10

Analysis Time: 09:25:44

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999	1.002	Yes
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.000	0.999	1.002	Yes
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999	1.003	Yes
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999	1.002	Yes
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999	1.002	Yes
LABELED COMPOUNDS					
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.976	1.043	Yes
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.202	1.000	1.567	Yes
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.992	0.923	1.103	Yes
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.155	1.000	1.425	Yes
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.191	1.011	1.526	Yes
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.023	0.989	1.052	Yes

Analyst: _____

Date: 1/19/10

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory
Initial Calibration Date: 10/29/2009
Instrument ID: VG10
VER Data file name: 100119H2-1

CCAL ID: ST100119H2-1

GC Column ID: DB-5
Analysis Date: 19-Jan-10

Analysis Time: 09:25:44

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999	1.001	Yes
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998	1.004	Yes
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.000	0.998	1.004	Yes
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999	1.001	Yes
OCDD	13C-OCDD	1.000	0.999	1.001	Yes
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.001	0.999	1.001	Yes
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	0.997	1.005	Yes
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.000	0.999	1.001	Yes
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999	1.001	Yes
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.001	0.999	1.001	Yes
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999	1.001	Yes
OCDF	13C-OCDF	1.000	0.999	1.001	Yes
LABELED COMPOUNDS					
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.014	1.002	1.026	Yes
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.018	1.007	1.029	Yes
13C-1,2,3,7,8,9-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.027	1.014	1.038	Yes
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,9-HxCDF	1.132	1.117	1.141	Yes
13C-OCDD	13C-1,2,3,4,6,9-HxCDF	1.231	1.085	1.365	Yes
13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.988	0.975	1.001	Yes
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.991	0.979	1.005	Yes
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.009	1.001	1.020	Yes
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.038	1.002	1.072	Yes
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.094	1.069	1.111	Yes
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.148	1.098	1.192	Yes
13C-OCDF	13C-1,2,3,4,6,9-HxCDF	1.238	1.091	1.371	Yes

Analyst: [signature]

Date: 1/19/10

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-1.qld

Last Altered: Tuesday, January 19, 2010 10:30:01 AM Pacific Standard Time
Printed: Tuesday, January 19, 2010 10:31:29 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

	Name	Resp		IO	RT			RRT	Conc	%Rec	DL	C
1	2,3,7,8-TCDD	1.15e5	0.77	NO	0.965	1.000	26.05	1.001	10.300	103	0.0407	10.300
2	1,2,3,7,8-PeCDD	4.03e5	0.62	NO	0.869	1.000	30.63	1.000	51.949	104	0.0965	51.949
3	1,2,3,4,7,8-HxCDD	3.52e5	1.24	NO	0.873	1.000	33.99	1.000	50.477	101	0.135	50.477
4	1,2,3,6,7,8-HxCDD	3.63e5	1.25	NO	0.940	1.000	34.10	1.000	51.680	103	0.146	51.680
5	1,2,3,7,8,9-HxCDD	3.75e5	1.23	NO	0.882	1.000	34.41	1.000	50.484	101	0.146	50.484
6	1,2,3,4,6,7,8-HpCDD	2.90e5	1.05	NO	0.965	1.000	37.92	1.000	49.900	99.8	0.207	49.900
7	OCDD	5.56e5	0.88	NO	1.05	1.000	41.25	1.000	104.12	104	0.217	104.12
8	2,3,7,8-TCDF	1.37e5	0.77	NO	0.952	1.000	25.27	1.001	9.9677	99.7	0.0470	9.9677
9	1,2,3,7,8-PeCDF	5.80e5	1.56	NO	0.994	1.000	29.43	1.000	47.819	95.6	0.0781	47.819
10	2,3,4,7,8-PeCDF	5.78e5	1.58	NO	0.977	1.000	30.34	1.000	47.827	95.7	0.0757	47.827
11	1,2,3,4,7,8-HxCDF	6.14e5	1.26	NO	1.31	1.000	33.10	1.001	47.687	95.4	0.110	47.687
12	1,2,3,6,7,8-HxCDF	6.02e5	1.22	NO	1.15	1.000	33.22	1.000	47.504	95.0	0.124	47.504
13	2,3,4,6,7,8-HxCDF	5.18e5	1.25	NO	1.20	1.000	33.83	1.000	46.296	92.6	0.141	46.296
14	1,2,3,7,8,9-HxCDF	4.45e5	1.28	NO	1.20	1.000	34.80	1.001	47.645	95.3	0.205	47.645
15	1,2,3,4,6,7,8-HpCDF	4.44e5	1.06	NO	1.49	1.000	36.66	1.001	47.236	94.5	0.212	47.236
16	1,2,3,4,7,8,9-HpCDF	3.75e5	1.08	NO	1.44	1.000	38.48	1.000	47.671	95.3	0.234	47.671
17	OCDF	6.47e5	0.91	NO	1.02	1.000	41.48	1.000	97.146	97.1	0.136	97.146
18	13C-2,3,7,8-TCDD	1.15e6	0.78	NO	1.02	1.000	26.03	1.022	100.11	100	0.123	
19	13C-1,2,3,7,8-PeCDD	8.93e5	0.62	NO	0.806	1.000	30.61	1.202	98.485	98.5	0.144	
20	13C-1,2,3,4,7,8-HxCDD	7.99e5	1.23	NO	1.07	1.000	33.98	1.014	89.808	89.8	0.207	
21	13C-1,2,3,6,7,8-HxCDD	7.47e5	1.23	NO	0.968	1.000	34.09	1.018	93.264	93.3	0.230	
22	13C-1,2,3,7,8,9-HxCDD	8.42e5	1.21	NO	1.13	1.000	34.40	1.027	89.562	89.6	0.196	
23	13C-1,2,3,4,6,7,8-HpCDD	6.02e5	1.03	NO	0.888	1.000	37.91	1.132	81.825	81.8	0.241	
24	13C-OCDD	1.02e6	0.89	NO	0.783	1.000	41.23	1.231	157.46	78.7	0.192	
25	13C-2,3,7,8-TCDF	1.44e6	0.78	NO	1.03	1.000	25.25	0.992	96.826	96.8	0.144	
26	13C-1,2,3,7,8-PeCDF	1.22e6	1.55	NO	0.880	1.000	29.42	1.155	95.824	95.8	0.269	
27	13C-2,3,4,7,8-PeCDF	1.24e6	1.56	NO	0.867	1.000	30.33	1.191	98.564	98.6	0.273	
28	13C-1,2,3,4,7,8-HxCDF	9.84e5	0.53	NO	1.19	1.000	33.08	0.988	100.03	100	0.221	
29	13C-1,2,3,6,7,8-HxCDF	1.10e6	0.53	NO	1.30	1.000	33.21	0.991	102.30	102	0.201	
30	13C-2,3,4,6,7,8-HxCDF	9.35e5	0.53	NO	1.16	1.000	33.82	1.009	97.046	97.0	0.225	

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-1.qld

Last Altered: Tuesday, January 19, 2010 10:30:01 AM Pacific Standard Time
Printed: Tuesday, January 19, 2010 10:31:29 AM Pacific Standard Time

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

31	13C-1,2,3,7,8,9-HxCDF	7.79e5	0.52	NO	1.03	1.000	34.78	1.038	91.590	91.6	0.255	
32	13C-1,2,3,4,6,7,8-HpCDF	6.33e5	0.44	NO	0.909	1.000	36.64	1.094	84.073	84.1	0.319	
33	13C-1,2,3,4,7,8,9-HpCDF	5.47e5	0.46	NO	0.830	1.000	38.47	1.148	79.537	79.5	0.350	
34	13C-OCDF	1.30e6	0.89	NO	0.982	1.000	41.47	1.238	160.40	80.2	0.253	
35	37Cl-2,3,7,8-TCDD	6.62e4			0.602	1.000	26.05	1.023	9.7657	97.7	0.0448	
36	13C-1,2,3,4-TCDD	1.13e6	0.79	NO	1.00	1.000	25.46	0.000	100.00	100	0.126	
37	13C-1,2,3,4-TCDF	1.45e6	0.78	NO	1.00	1.000	24.06	0.000	100.00	100	0.149	
38	13C-1,2,3,4,6,9-HxCDF	8.28e5	0.53	NO	1.00	1.000	33.50	0.000	100.00	100	0.262	
39	Total Tetra-Dioxins				0.965	1.000			58.911		0.0407	59.134
40	Total Penta-Dioxins				0.869	1.000			159.61		0.0965	159.73
41	Total Hexa-Dioxins				0.940	1.000			202.17		0.136	202.22
42	Total Hepta-Dioxins				0.965	1.000			132.81		0.207	132.81
43	Total Tetra-Furans				0.952	1.000			33.739		0.0470	33.859
44	1st Func. Penta-Furans				0.994	1.000			69.667		0.0205	69.695
45	Total Penta-Furans				0.994	1.000			149.11		0.0762	149.13
46	Total Hexa-Furans				1.20	1.000			238.51		0.142	238.51
47	Total Hepta-Furans				1.49	1.000			95.273		0.219	95.609

Quantify Compound Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 5:12:04 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 5:12:28 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Compound name: 1,3,6,8-TCDD (First)

	ID		
100119H2-1	ST100119H2-1 1613 CS3 090922G	19-Jan-10	09:25:44
100119H2-2	0_2725_OPR001	19-Jan-10	10:15:16
100119H2-3	SOLVENT BLANK	19-Jan-10	11:04:48
100119H2-4	0_2725_MB001	19-Jan-10	11:54:19
100119H2-5	32320_2678_013 EQ/K0911818 1.019	19-Jan-10	12:43:50
100119H2-6	32326_2678_013 EQ/K0911819 1.016	19-Jan-10	13:33:21
100119H2-7	32327_2678_017 EQ/K0911809 1.015	19-Jan-10	14:22:51
100119H2-8	32328_2678_021 EQ/K0911808 1.014	19-Jan-10	15:12:21
100119H2-9	32321_2725_001 CAPA-10-6823 .9	19-Jan-10	16:01:54
100119H2-10	32321_2725_002 CAPA-10-6824 .898	19-Jan-10	16:51:25
100119H2-11	32322_2725_001 CAPA-10-6390 .809	19-Jan-10	17:40:58
100119H2-12	32322_2725_002 CAPA-10-6745 .899	19-Jan-10	18:30:30
100119H2-13	32322_2725_003 CAPA-10-6746 .894	19-Jan-10	19:20:02
100119H2-14	32322_2725_004 CAPA-10-6793 .886	19-Jan-10	20:09:36
100119H2-15	32337_2725_001 CAWA-10-6910 .881	19-Jan-10	20:59:09
100119H2-16	SOLVENT BLANK	19-Jan-10	21:48:40
100119H2-17	ST100119H2-2 1613 CS3 090922G	19-Jan-10	22:38:11

CALIBRATION STANDARDS REVIEW CHECKLIST

Vista Analytical Laboratory

Beg. Calibration ID: ST100119H2-1

End Calibration ID: ST100119H2-2

	Beg.	End
Ion abundance within QC limits?	✓	✓
Concentration within range?	✓	✓*
First and last eluters present?	✓	✓
Retention Times within criteria?	✓	✓
Verification Std. named correctly? (ST-Year-Month-Day-VG ID)	✓	✓
Forms signed and dated?	✓	✓
Correct ICAL referenced?	✓	✓
Run Log:		
-Data file matches Conc Cal ID?	✓	✓
-Correct instrument listed?	✓	✓
-Samples within 12-hour clock?	y	n

	Beg.	End
Mass resolution > 10,000? ▪ Method 1614 > 5,000; CARB 429 > 8,000	✓	✓
TCDD/TCDF valleys < 25%?	✓	✓
Peaks integrated correctly?	✓	
Manual integrations included?	NA	
8280 CS1 Ending Standard		
-Ratios within limits		NA
-S/N > 2.5:1		✓
-CS1 within 12-hour clock		✓

Comments: * PC - OCDD out in end Std (8290 limits) OK - native is in

Reviewed by: MM 1/20/10
Initials & Date

* *Ending standard criteria applicable to 8290 only.*

Vista Analytical Laboratory
El Dorado Hills, CA 95762

Calib.Stds.Review 12/2009 rmh

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed: Tuesday, January 19, 2010 09:19:45 Pacific Standard Time

M 292.9824 R 11899

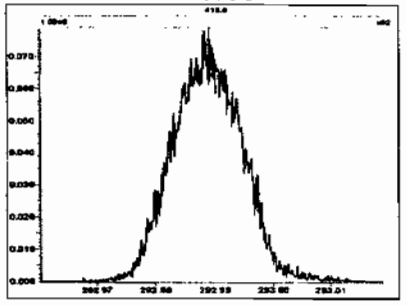

M 304.9824 R 12193

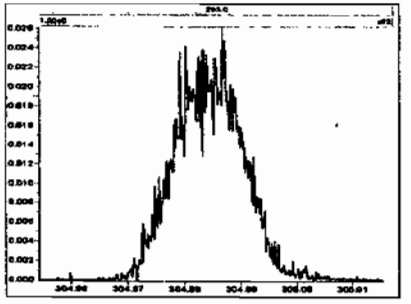

M 318.9792 R 13300

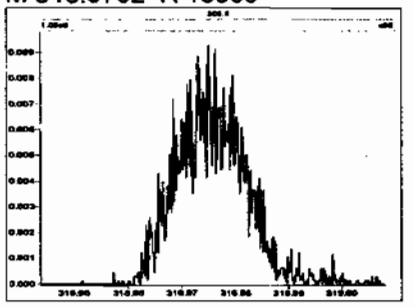

M 330.9792 R 11682

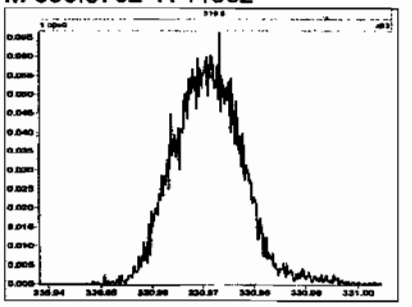

M 342.9792 R 11902

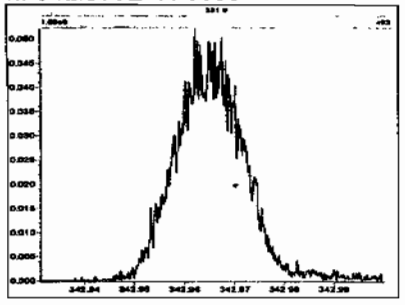

M 354.9792 R 13159

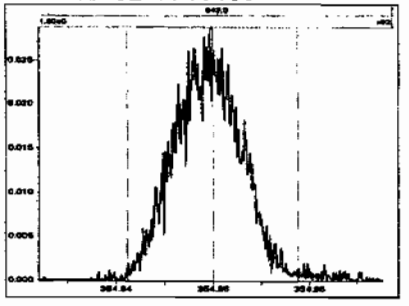

M 366.9792 R 11791

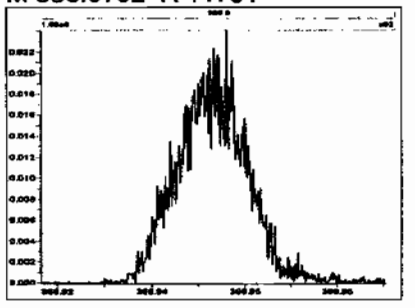

M 380.9760 R 11902

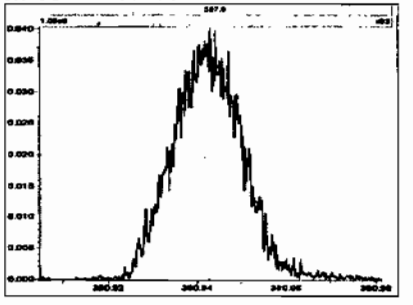

M 392.9760 R 12438

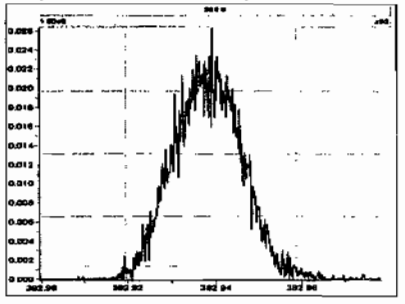

M 404.9760 R 12076

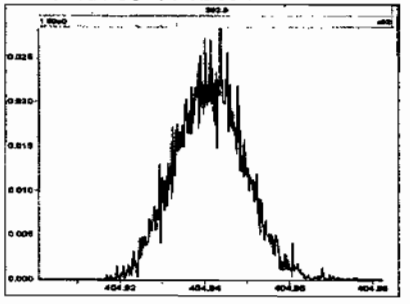

M 416.9760 R 11629

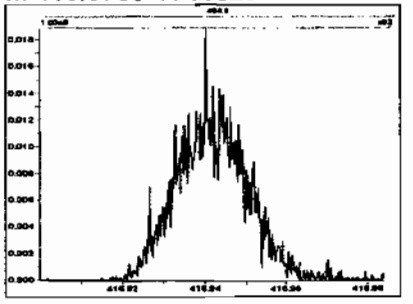

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed: Tuesday, January 19, 2010 09:20:12 Pacific Standard Time

M 330.9792 R 11468

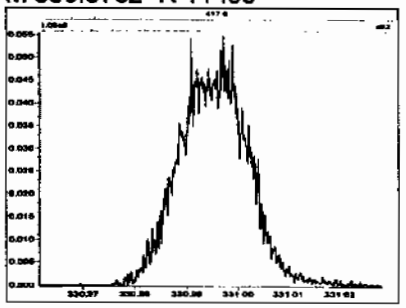

M 342.9792 R 11681

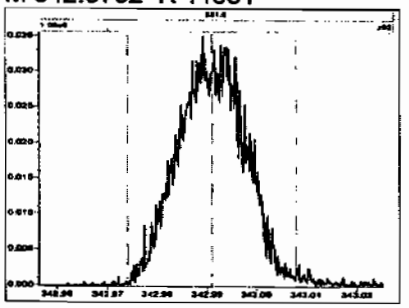

M 354.9792 R 11958

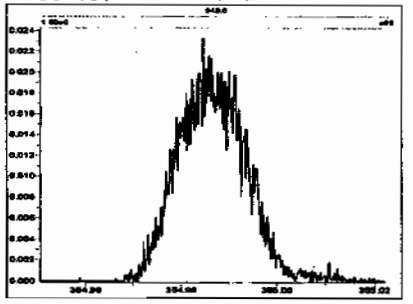

M 366.9792 R 12750

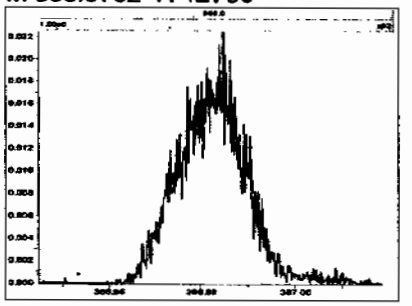

M 380.9760 R 12253

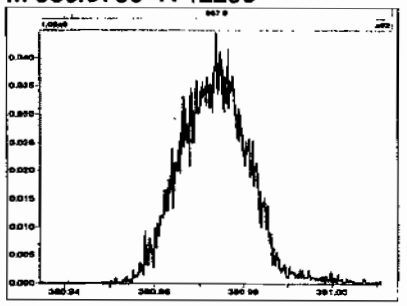

M 392.9760 R 12822

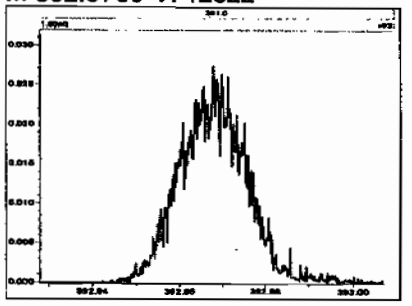

M 404.9760 R 11467

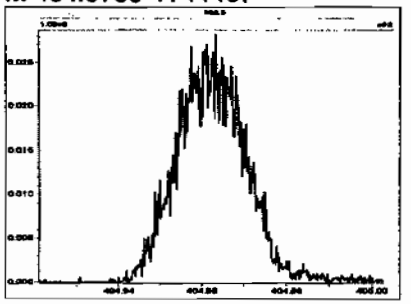

M 416.9760 R 13225

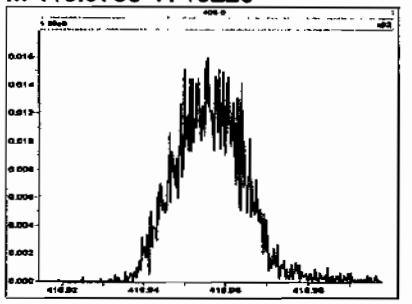

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed: Tuesday, January 19, 2010 09:20:29 Pacific Standard Time

M 330.9792 R 11416

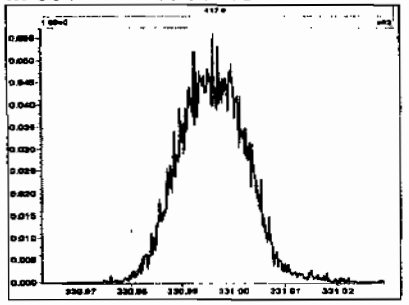

M 342.9792 R 11847

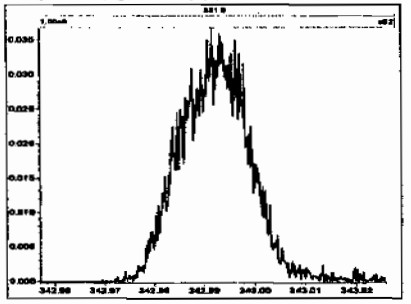

M 354.9792 R 12317

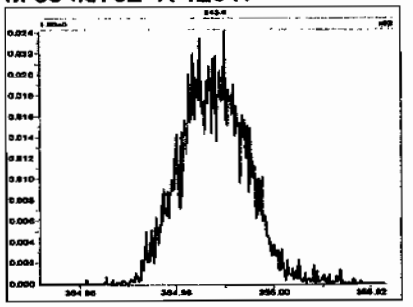

M 366.9792 R 12315

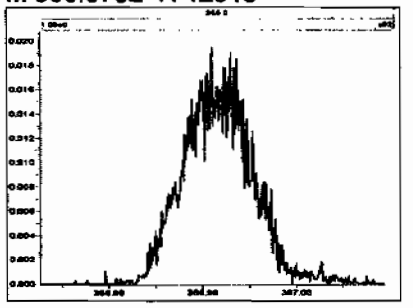

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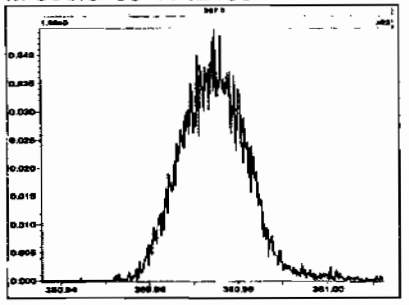

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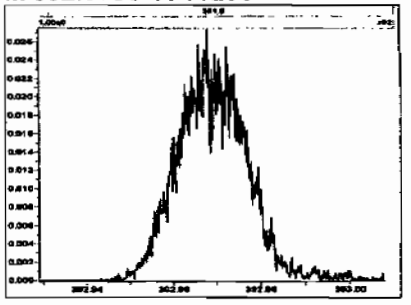

M 404.9760 R 12254

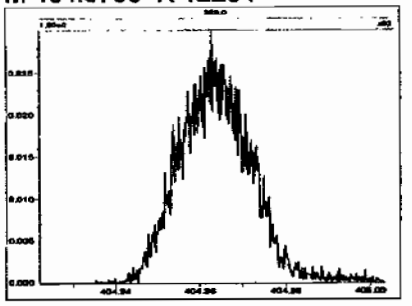

M 416.9760 R 12440

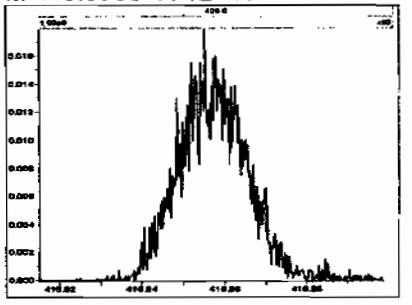

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed: Tuesday, January 19, 2010 09:20:54 Pacific Standard Time

M 366.9792 R 12687

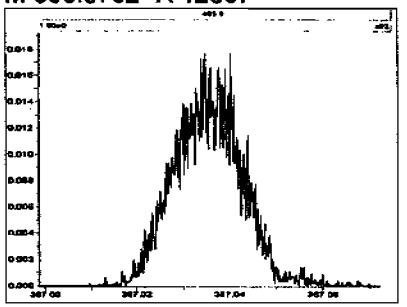

M 380.9760 R 12315

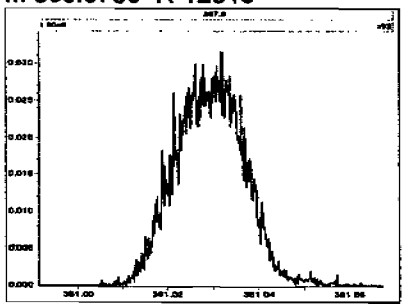

M 392.9760 R 12253

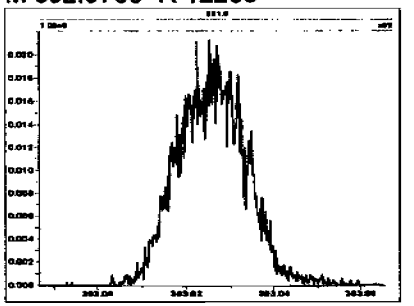

M 404.9760 R 12078

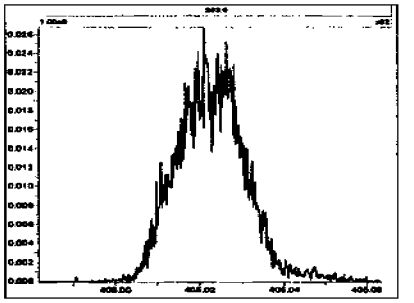

M 416.9760 R 13025

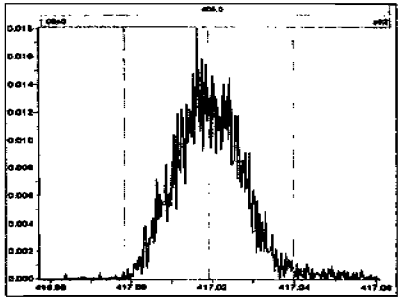

M 430.9728 R 11259

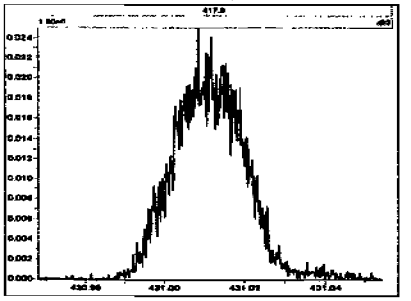

M 442.9728 R 11629

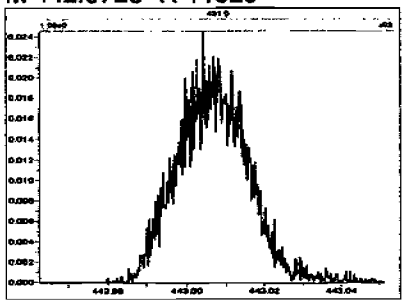

M 454.9728 R 11627

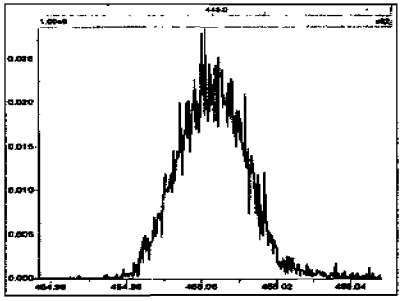

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed: Tuesday, January 19, 2010 09:21:17 Pacific Standard Time

M 404.9760 R 12138

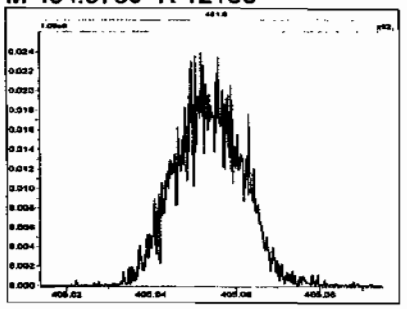

M 416.9760 R 13158

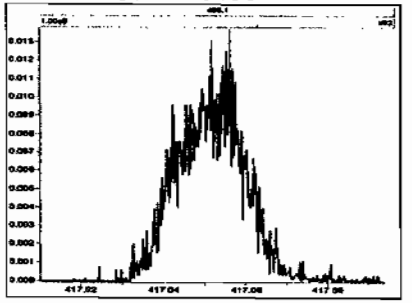

M 430.9728 R 13088

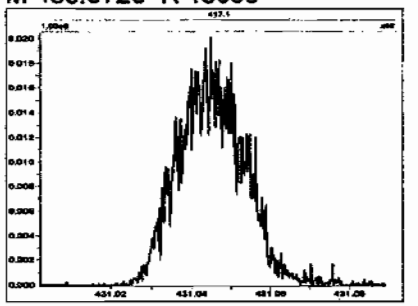

M 442.9728 R 12951

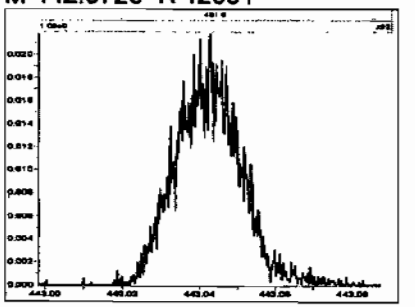

M 454.9728 R 12077

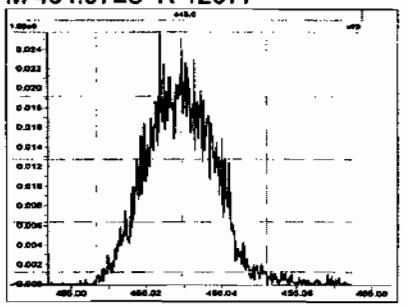

M 466.9728 R 13019

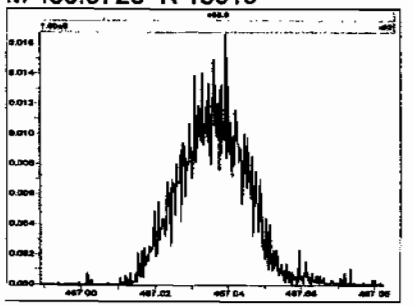

M 480.9696 R 12951

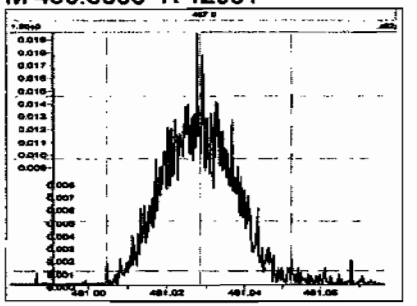

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed: Tuesday, January 19, 2010 09:21:46 Pacific Standard Time

M 430.9728 R 12756

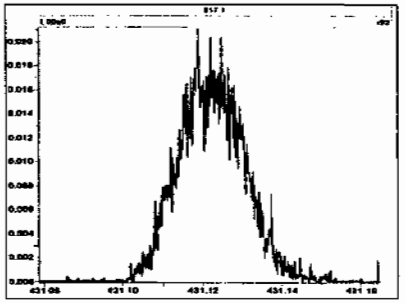

M 442.9728 R 12690

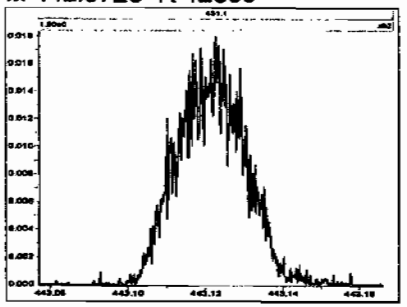

M 454.9728 R 12075

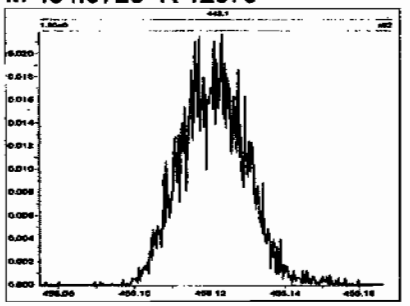

M 466.9728 R 12821

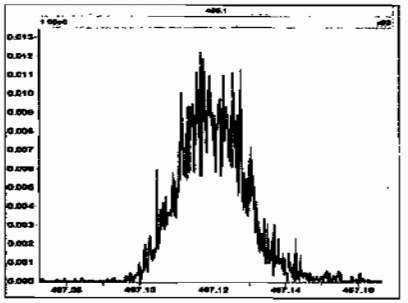

M 480.9696 R 11628

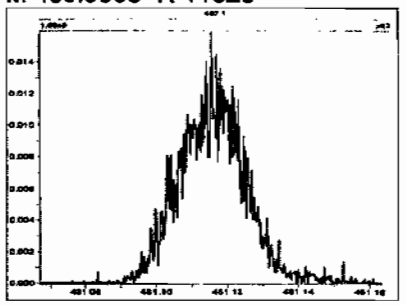

M 492.9696 R 12689

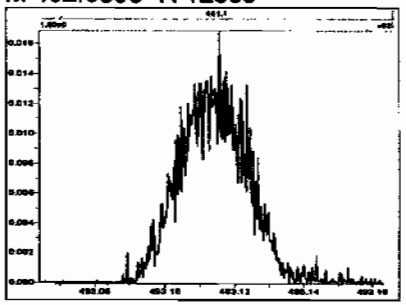

M 504.9696 R 12687

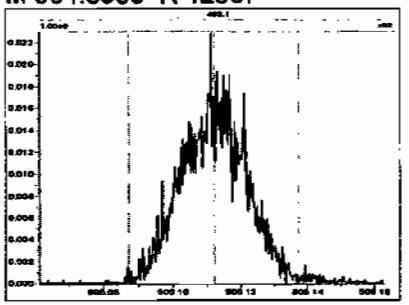

M 516.9697 R 11163

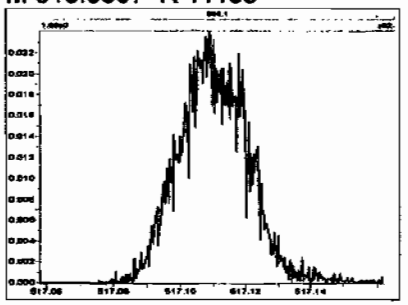

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Tuesday, January 19, 2010 10:34:13 AM Pacific Standard Time
Printed: Tuesday, January 19, 2010 10:34:40 AM Pacific Standard Time

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Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

1,3,6,8-TCDD (First)

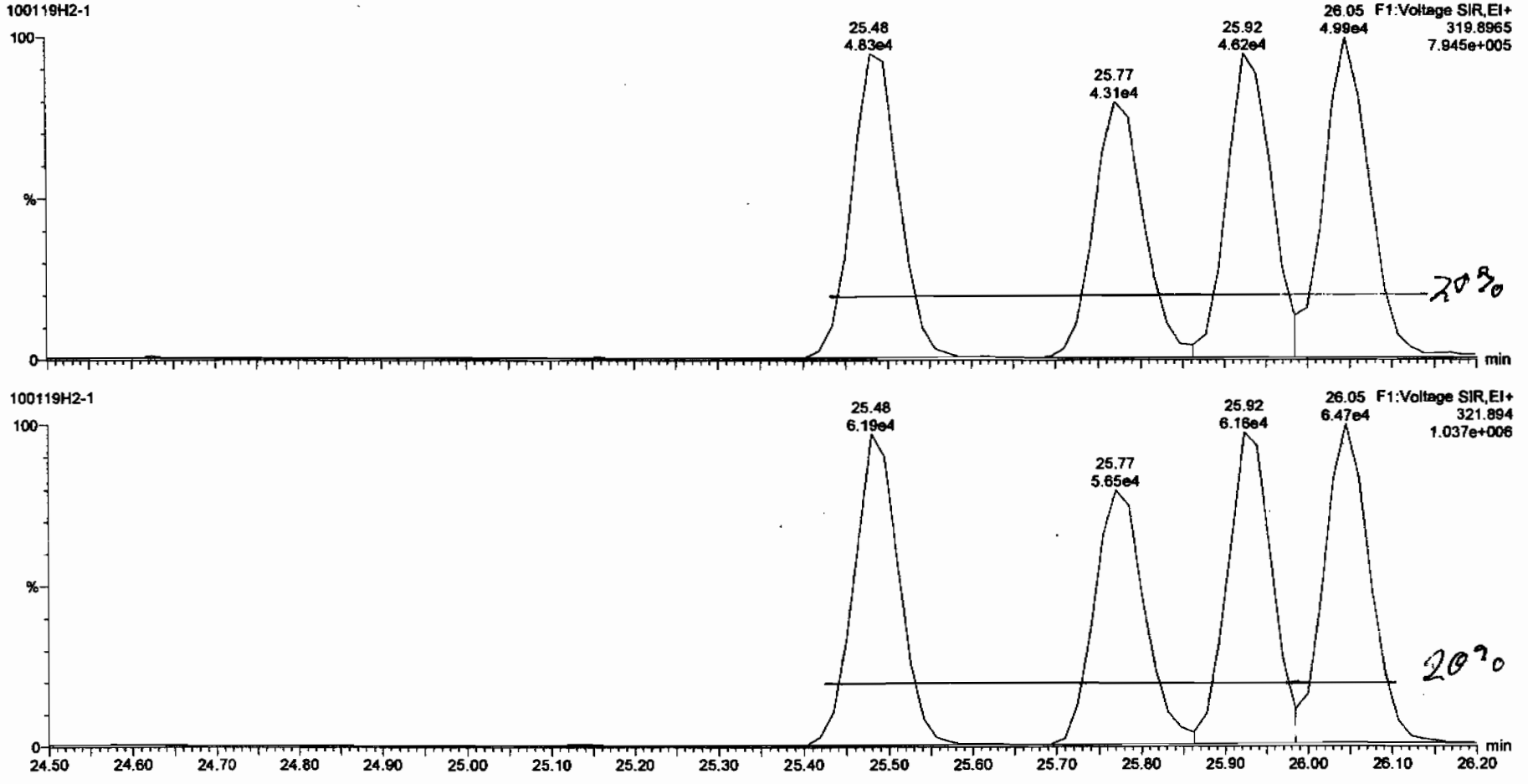

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-1.qld

Last Altered: Tuesday, January 19, 2010 10:30:01 AM Pacific Standard Time
Printed: Tuesday, January 19, 2010 10:30:53 AM Pacific Standard Time

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Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

2,3,7,8-TCDD

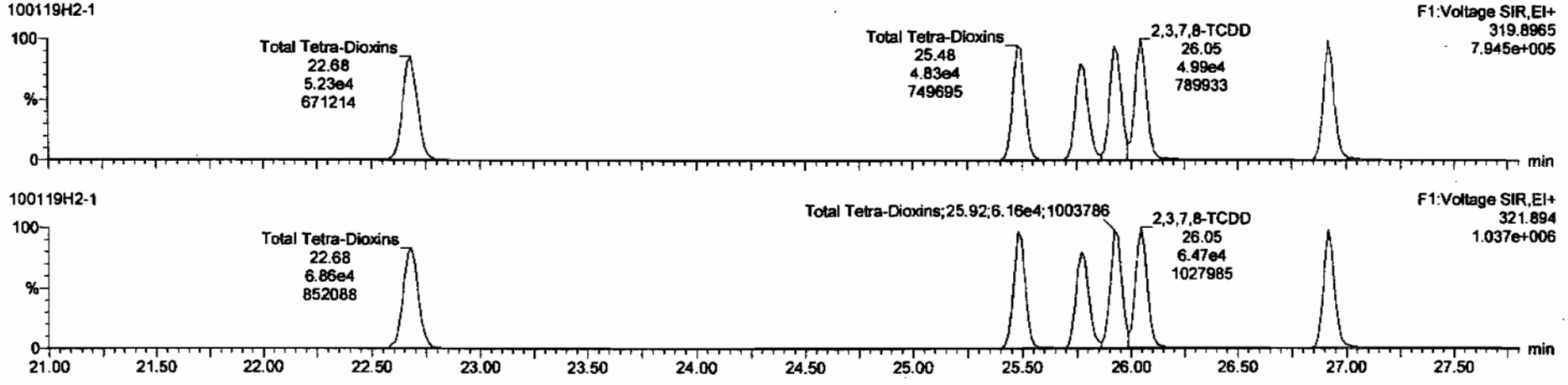

13C-2,3,7,8-TCDD

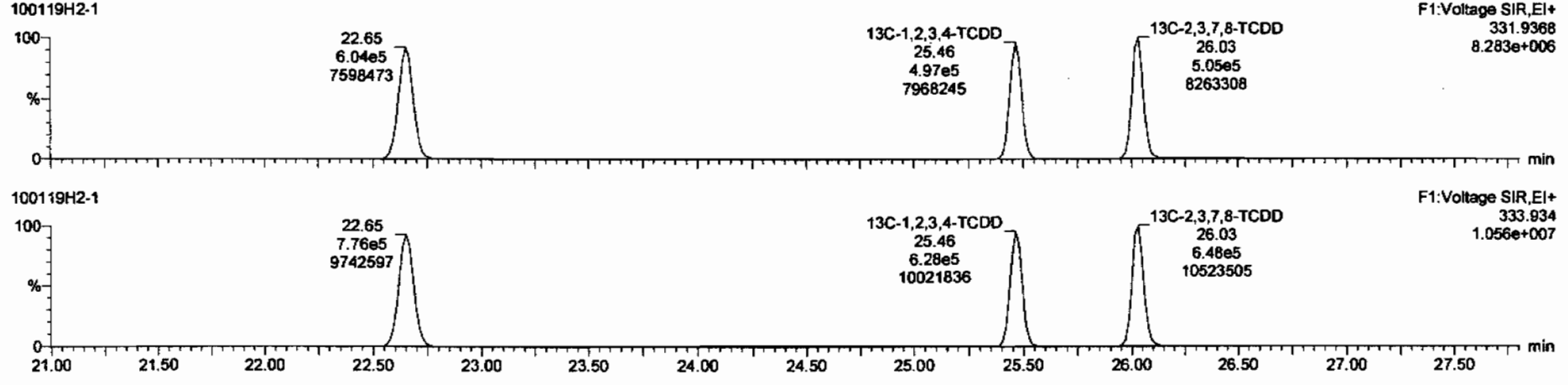

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Last Altered: Tuesday, January 19, 2010 10:30:01 AM Pacific Standard Time
Printed: Tuesday, January 19, 2010 10:30:53 AM Pacific Standard Time

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

37Cl-2,3,7,8-TCDD

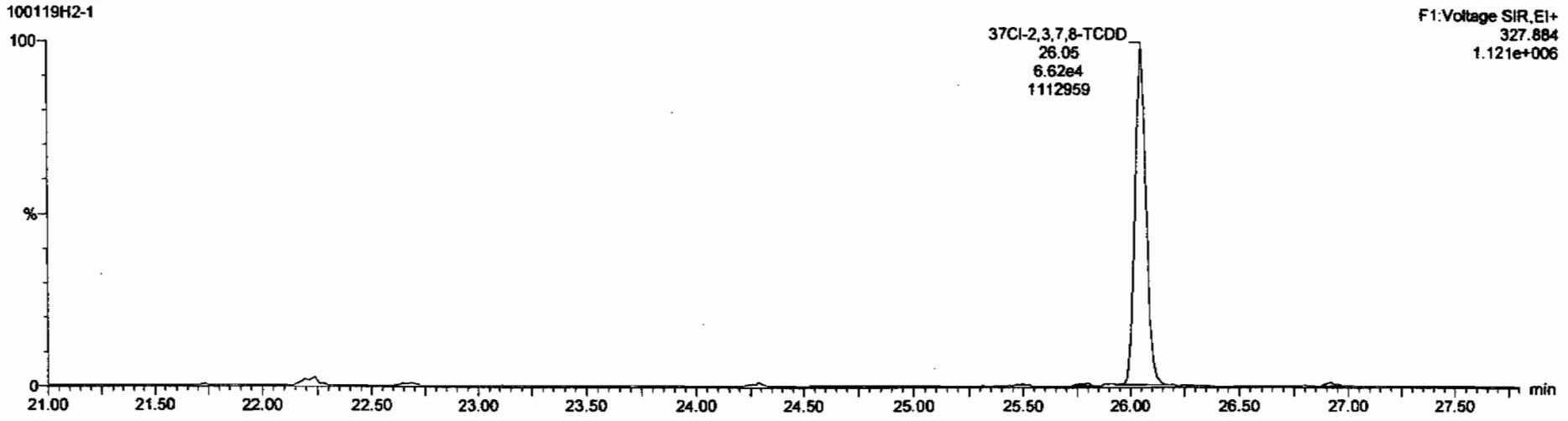

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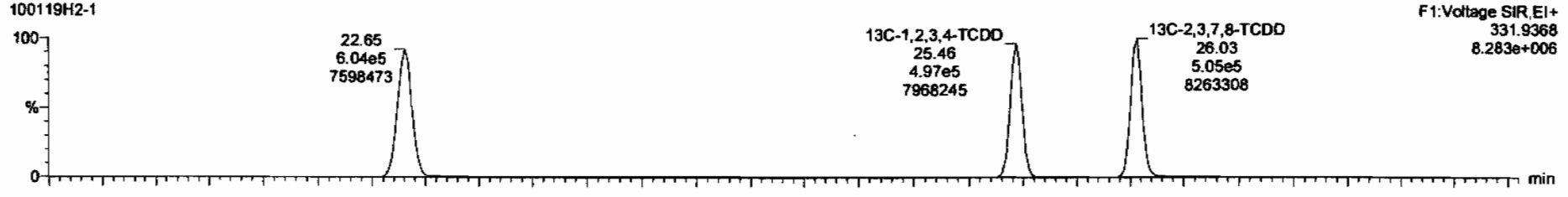

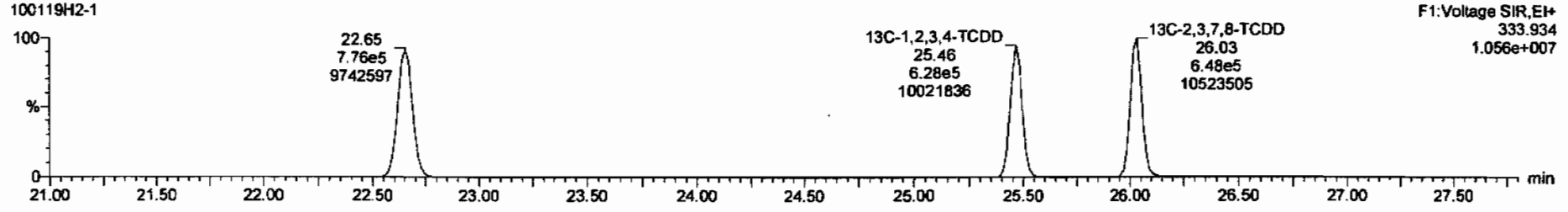

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Printed: Tuesday, January 19, 2010 10:30:53 AM Pacific Standard Time

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

1,2,3,7,8-PeCDD

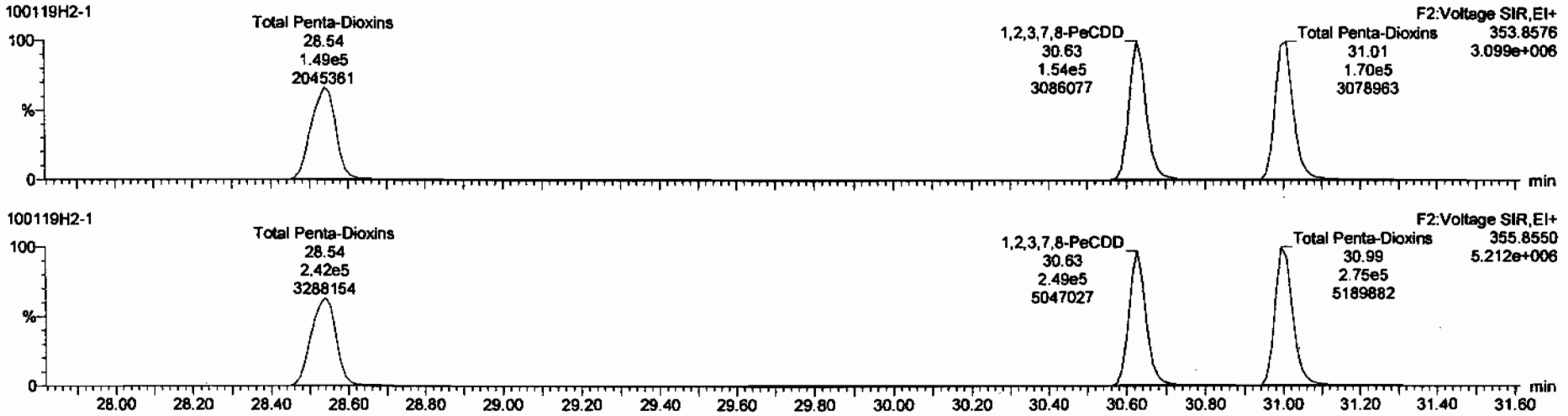

13C-1,2,3,7,8-PeCDD

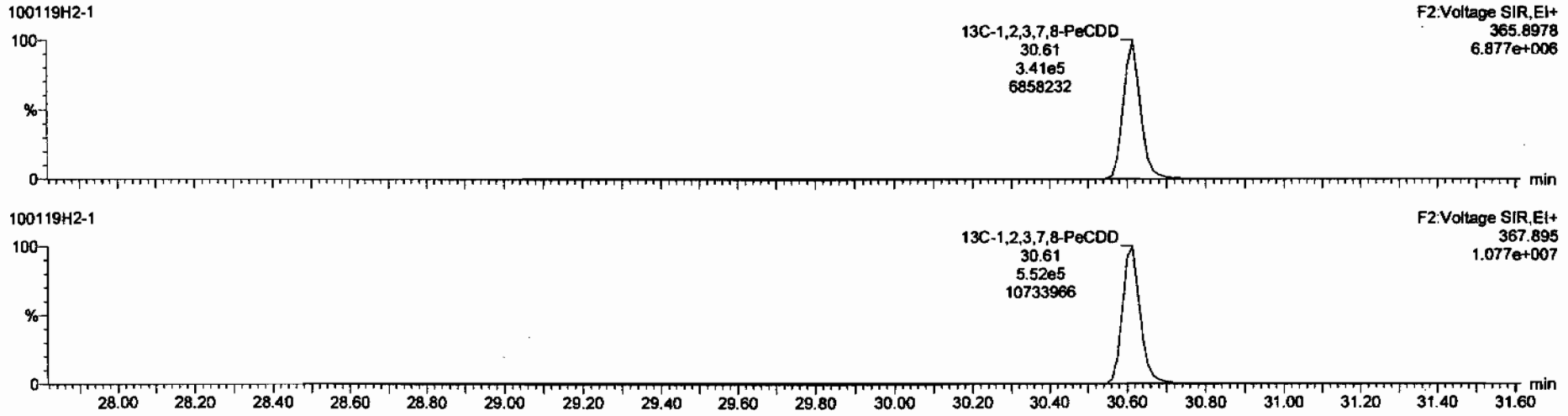

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Printed: Tuesday, January 19, 2010 10:30:53 AM Pacific Standard Time

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

1,2,3,4,7,8-HxCDD

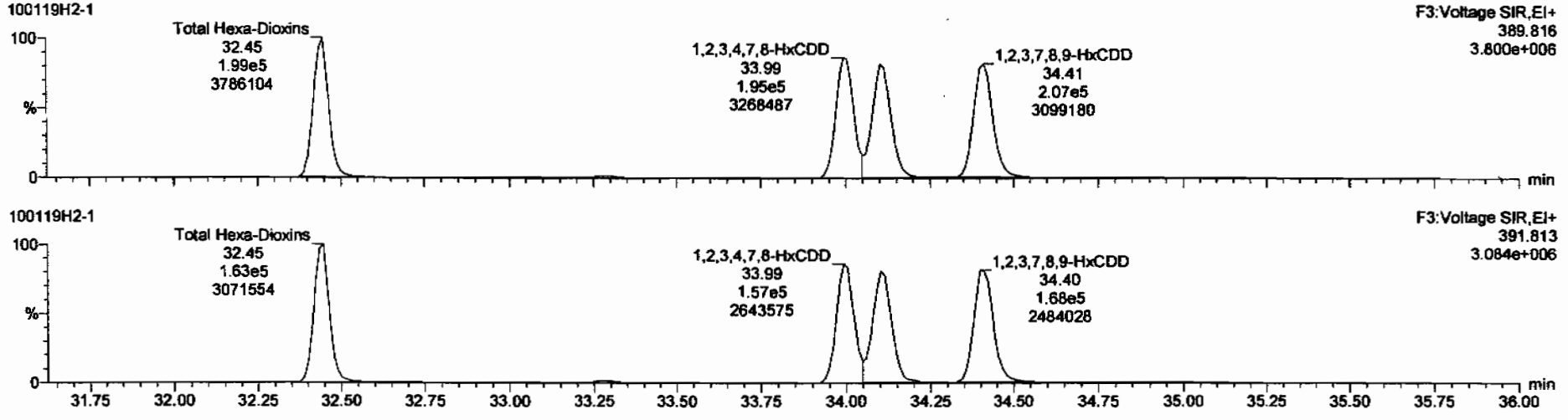

13C-1,2,3,4,7,8-HxCDD

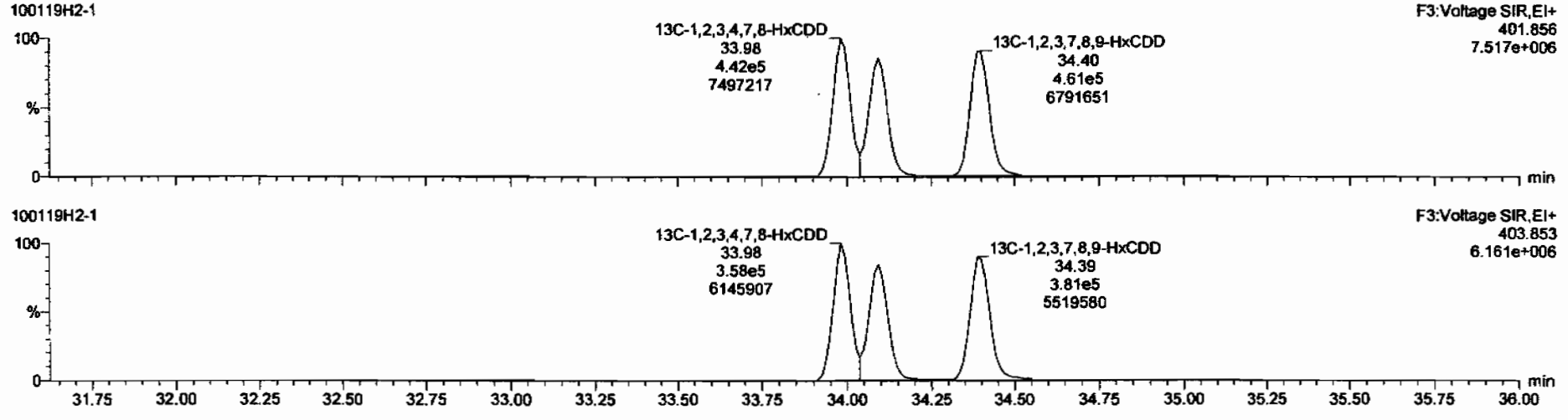

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Last Altered: Tuesday, January 19, 2010 10:30:01 AM Pacific Standard Time
Printed: Tuesday, January 19, 2010 10:30:53 AM Pacific Standard Time

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

1,2,3,4,6,7,8-HpCDD

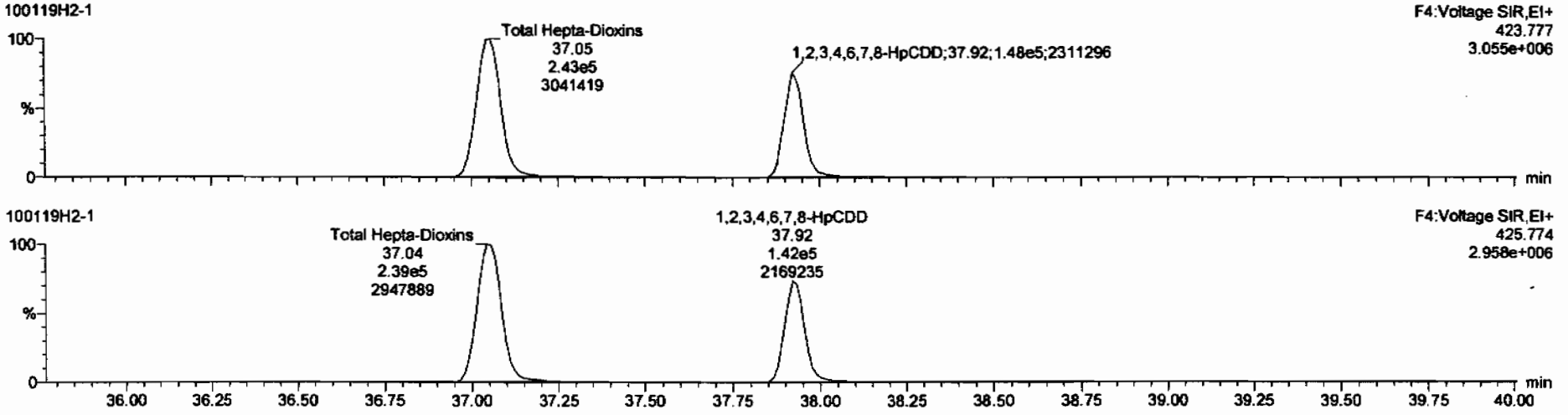

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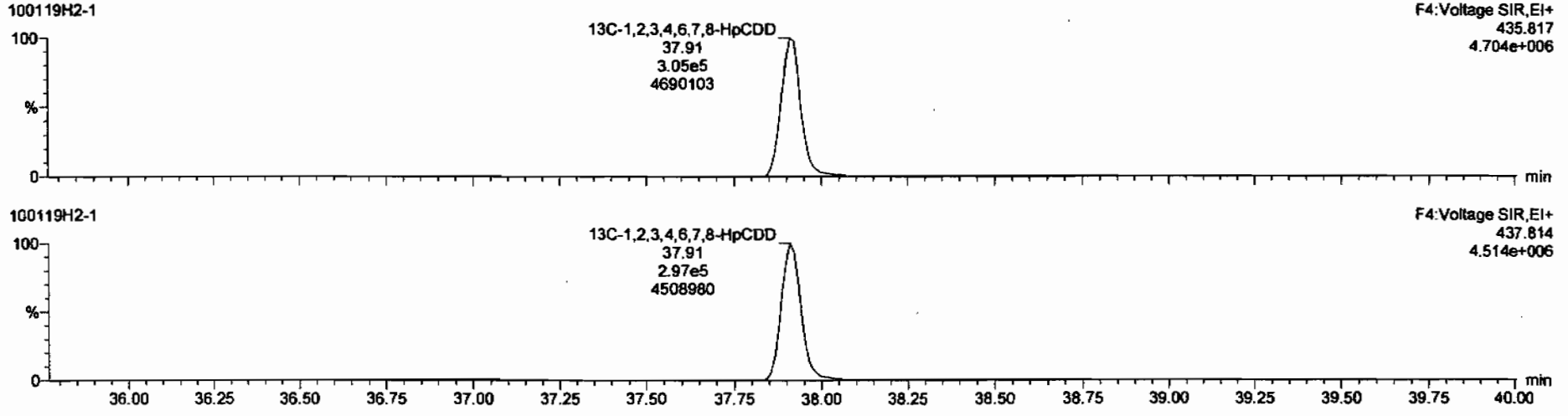

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OCDD

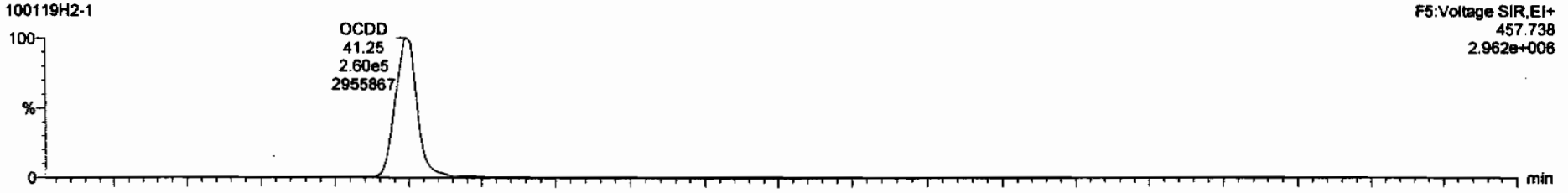

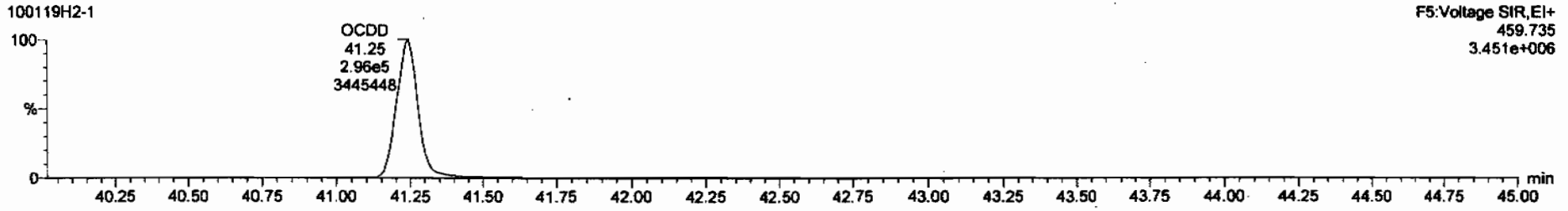

13C-OCDD

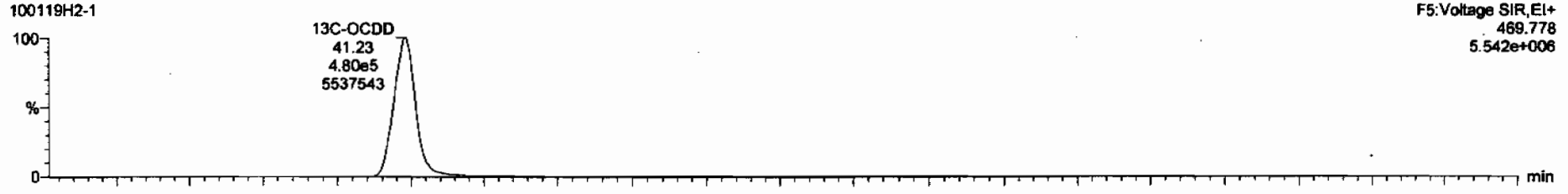

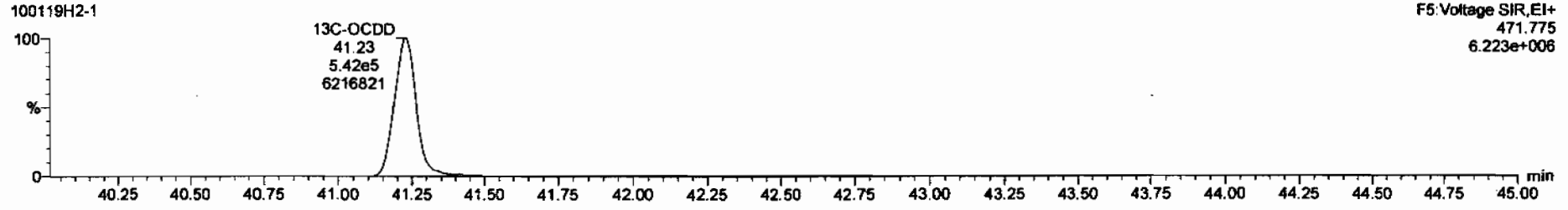

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Last Altered: Tuesday, January 19, 2010 10:30:01 AM Pacific Standard Time
Printed: Tuesday, January 19, 2010 10:30:53 AM Pacific Standard Time

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

2,3,7,8-TCDF

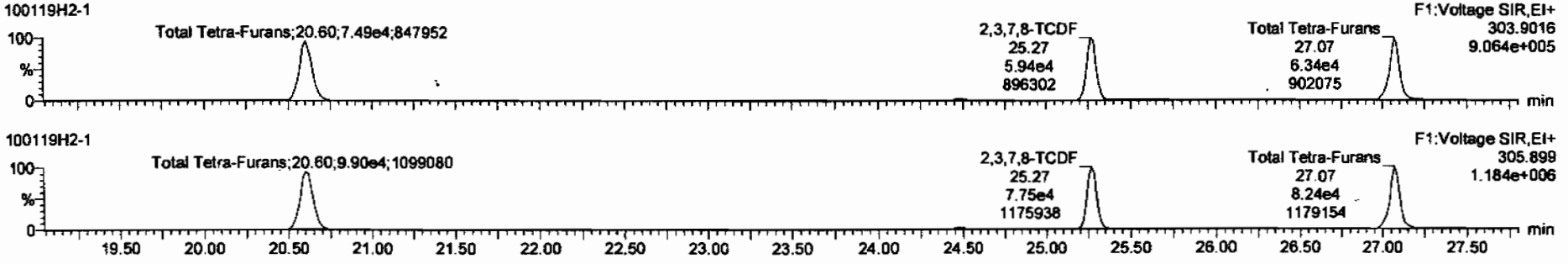

13C-2,3,7,8-TCDF

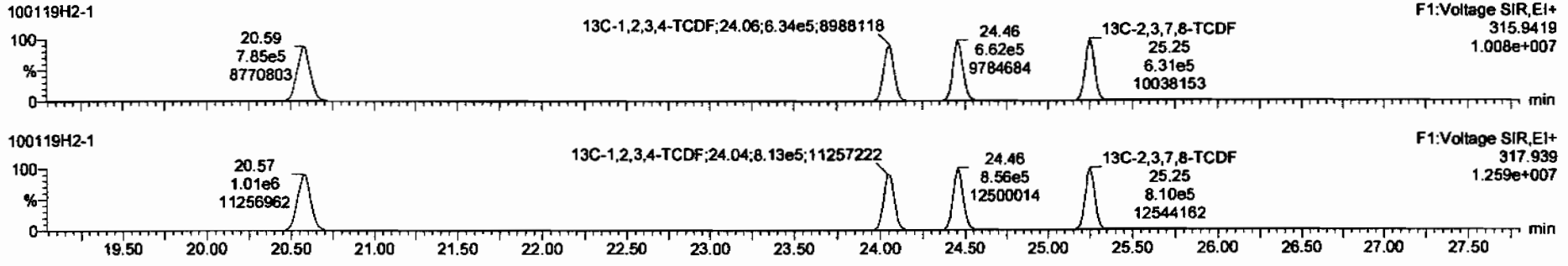

DPE1

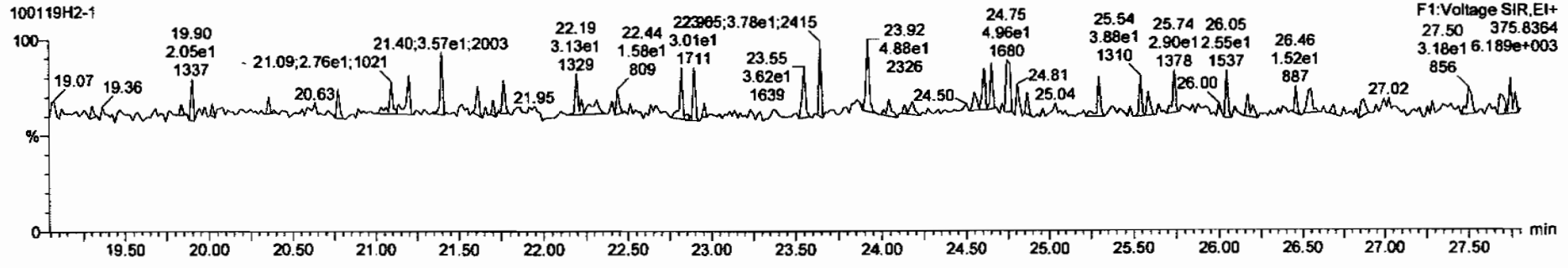

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Last Altered: Tuesday, January 19, 2010 10:30:01 AM Pacific Standard Time
Printed: Tuesday, January 19, 2010 10:30:53 AM Pacific Standard Time

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

1st Func. Penta-Furans

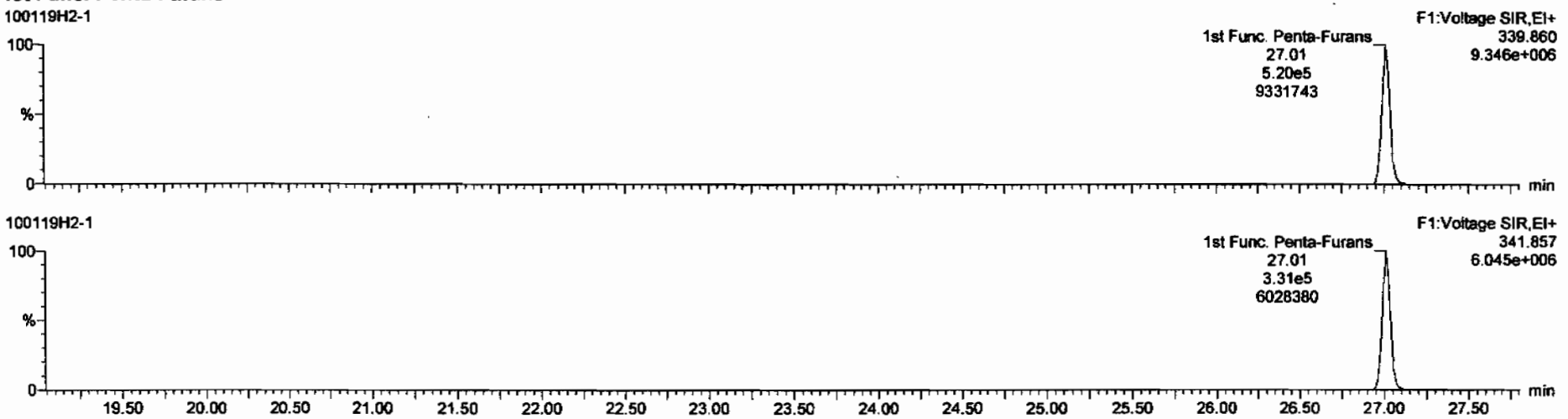

DPE6

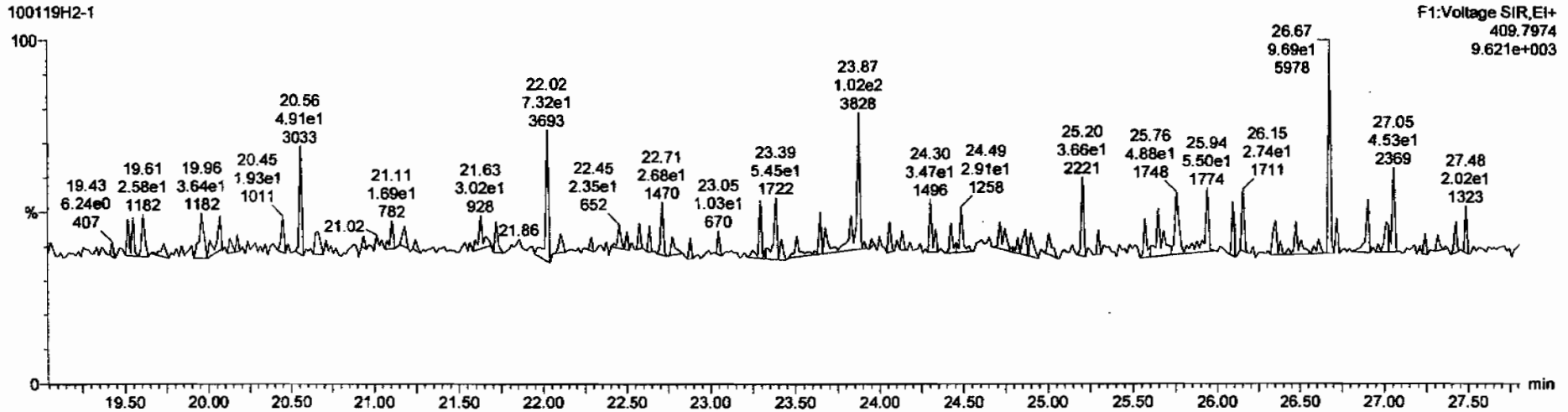

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-1.qld

Last Altered: Tuesday, January 19, 2010 10:30:01 AM Pacific Standard Time
Printed: Tuesday, January 19, 2010 10:30:53 AM Pacific Standard Time

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

1,2,3,7,8-PeCDF

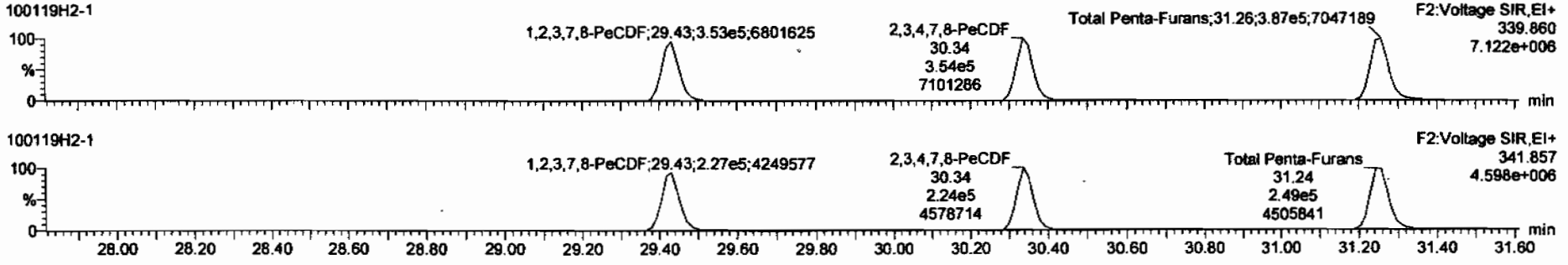

13C-1,2,3,7,8-PeCDF

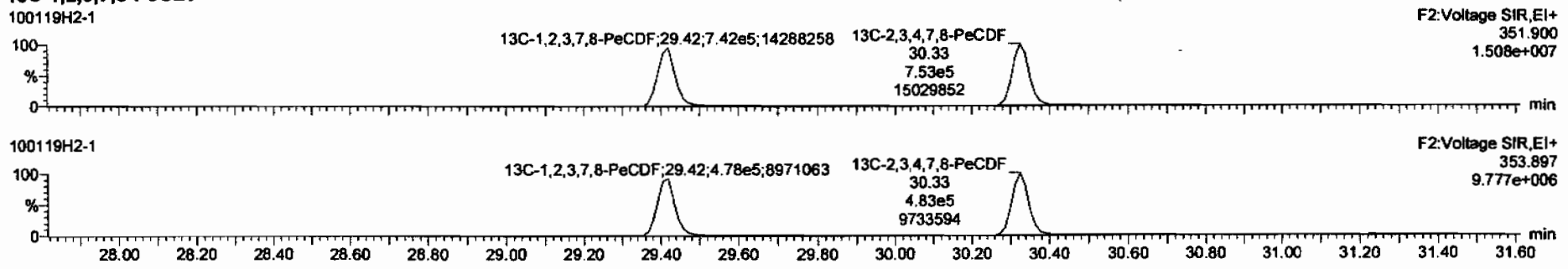

DPE2

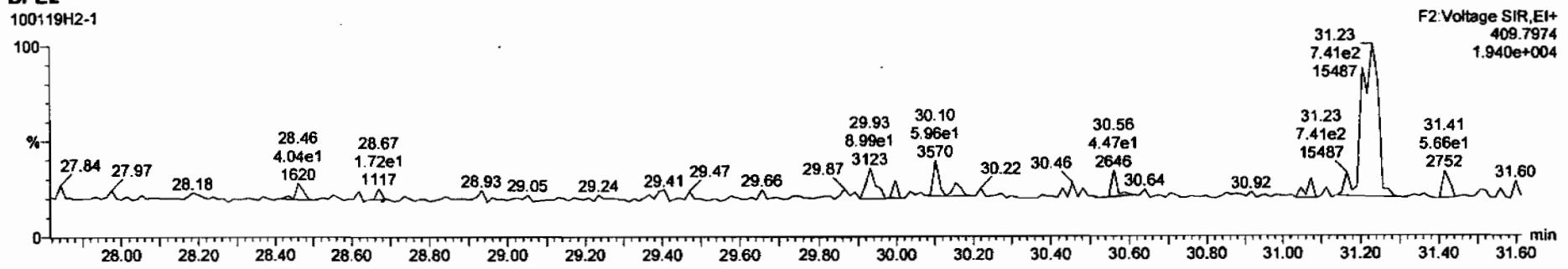

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Printed: Tuesday, January 19, 2010 10:30:53 AM Pacific Standard Time

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

1,2,3,4,7,8-HxCDF

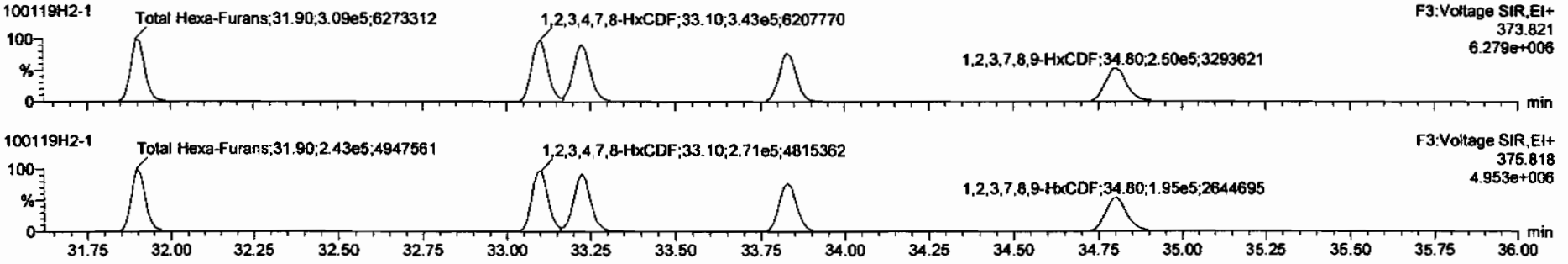

13C-1,2,3,4,7,8-HxCDF

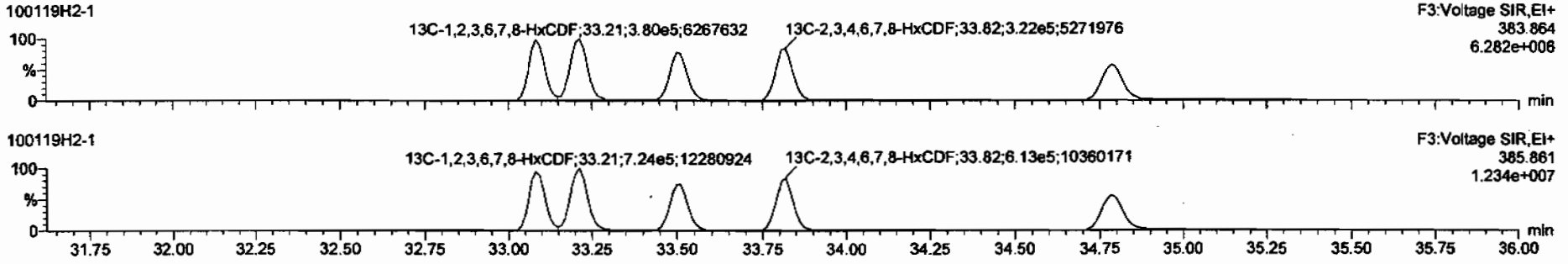

DPE3

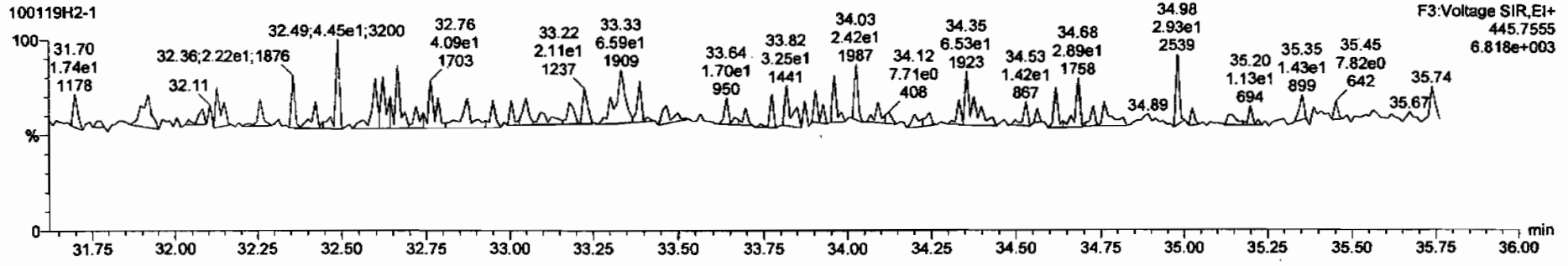

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Last Altered: Tuesday, January 19, 2010 10:30:01 AM Pacific Standard Time
Printed: Tuesday, January 19, 2010 10:30:53 AM Pacific Standard Time

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

1,2,3,4,6,7,8-HpCDF

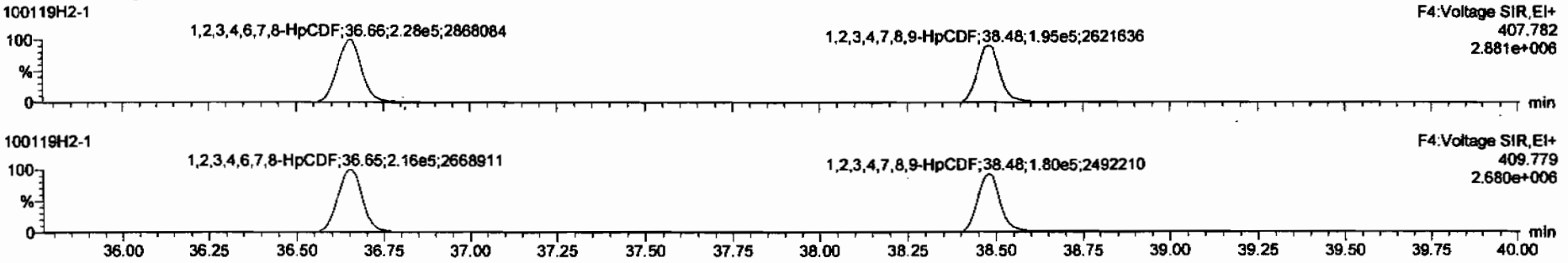

13C-1,2,3,4,6,7,8-HpCDF

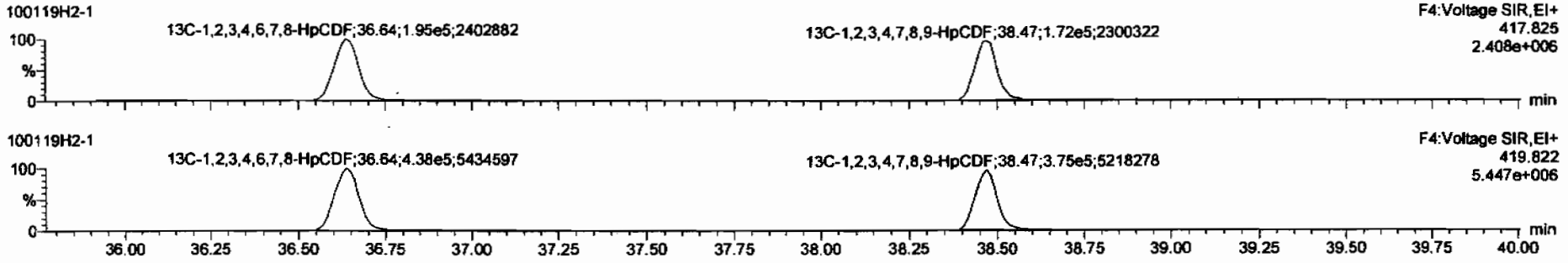

DPE4

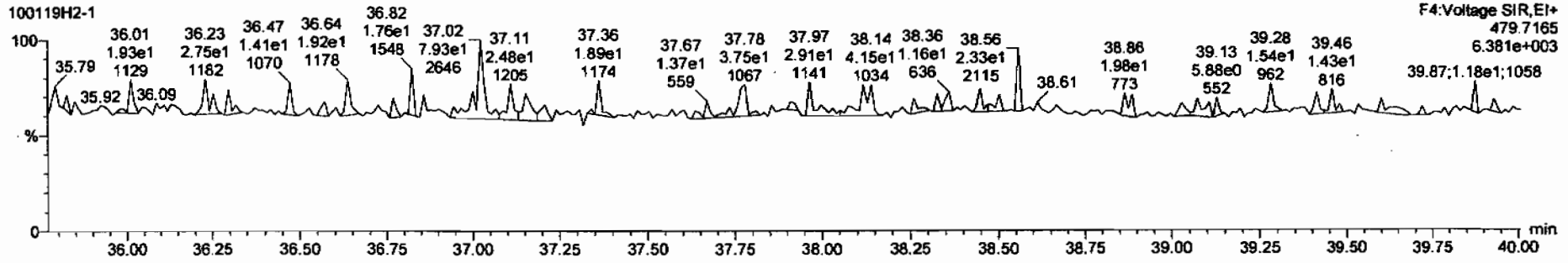

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-1.qld

Last Altered: Tuesday, January 19, 2010 10:30:01 AM Pacific Standard Time
Printed: Tuesday, January 19, 2010 10:30:53 AM Pacific Standard Time

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

OCDF

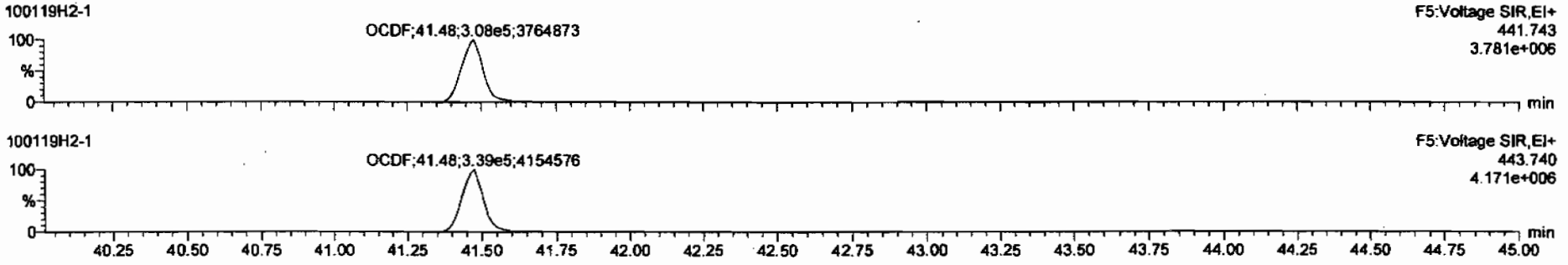

13C-OCDF

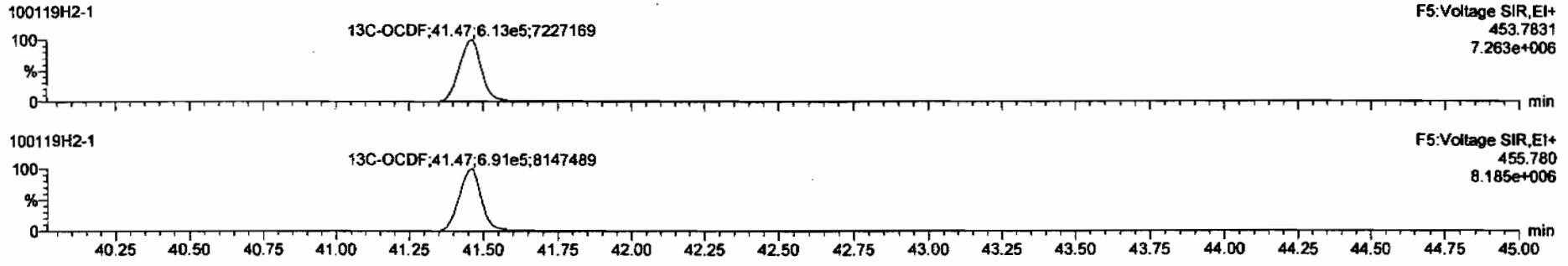

DPE5

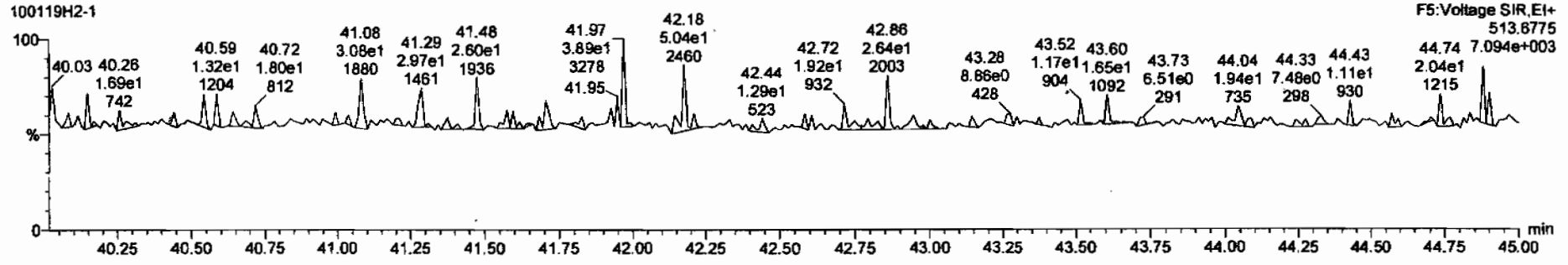

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-1.qld

Last Altered: Tuesday, January 19, 2010 10:30:01 AM Pacific Standard Time
Printed: Tuesday, January 19, 2010 10:30:53 AM Pacific Standard Time

Name: 100119H2-1, Date: 19-Jan-2010, Time: 09:25:44, ID: ST100119H2-1 1613 CS3 090922G, Description: 1612 CS3 090922G

PFK1

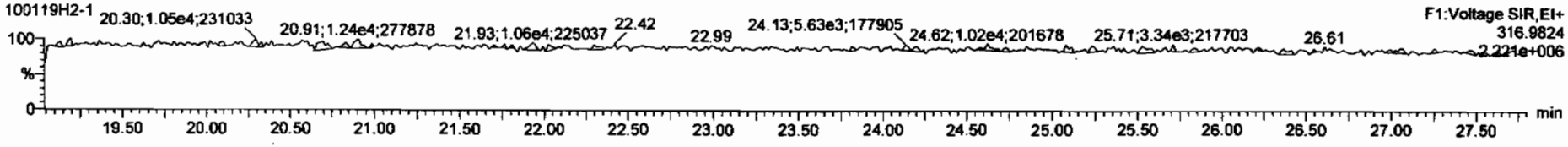

PFK2

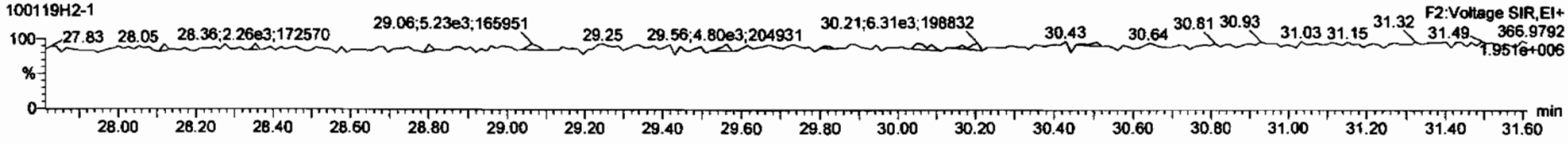

PFK3

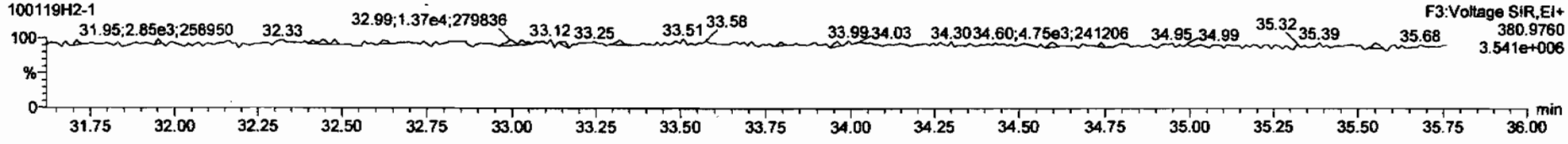

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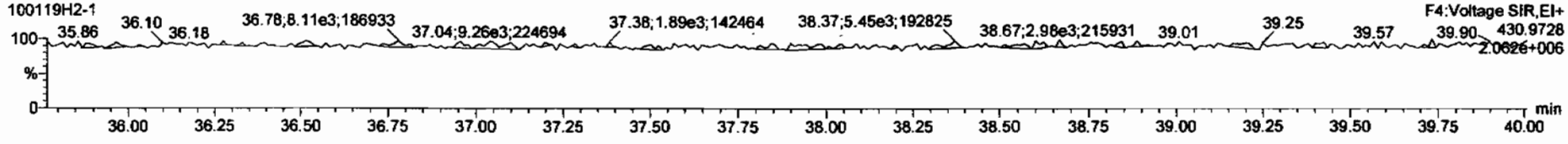

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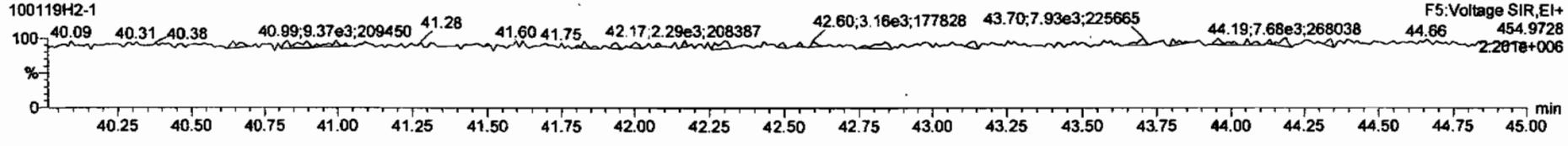

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION
CCAL ID: ST100119H2-2

Vista Analytical Laboratory
Initial Calibration Date: 10/29/2009
Instrument ID: VG10
VER Data file name: 100119H2-17

GC Column ID: DB-5
Analysis Date: 19-Jan-10 Analysis Time: 22:38:11

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
2,3,7,8-TCDD	M/M+2	0.75	0.65-0.89	NO	10.1	7.8	12.9	Yes	8.00	12.0	Yes
						8.2	12.3 (4)				
1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	NO	52.8	39.0	65.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	50.9	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	NO	51.0	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	51.9	41.0	61.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	NO	49.3	43.0	58.0	Yes	40.0	60.0	Yes
OCDD	M+2/M+4	0.85	0.76-1.02	NO	104	79.0	126.0	Yes	80.0	120.0	Yes
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	NO	10.0	8.4	12.0	Yes	8.00	12.0	Yes
						8.6	11.6 (4)				
1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	NO	47.8	41.0	60.0	Yes	40.0	60.0	Yes
2,3,4,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	NO	47.4	41.0	60.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	NO	47.5	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	NO	46.8	44.0	57.0	Yes	40.0	60.0	Yes
2,3,4,6,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	NO	47.1	44.0	57.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDF	M+2/M+4	1.25	1.05-1.43	NO	46.8	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.06	0.88-1.20	NO	46.9	45.0	55.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.09	0.88-1.20	NO	47.9	43.0	58.0	Yes	40.0	60.0	Yes
OCDF	M+2/M+4	0.96	0.76-1.02	NO	99.0	63.0	159.0	Yes	80.0	120.0	Yes

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [signature]
Date: 1/20/10

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Vista Analytical Laboratory
Initial Calibration Date: 10/29/2009
Instrument ID: VG10
VER Data file name: 100119H2-17

CCAL ID: ST100119H2-2

GC Column ID: DB-5
Analysis Date: 19-Jan-10 Analysis Time: 22:38:11

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3). (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
13C-2,3,7,8-TCDD	M+2/M+4	0.79	0.65-0.89	NO	101	82.0	121.0	Yes	70.0	130.0	Yes
						85.0	117.0 (5)				
13C-1,2,3,7,8-PeCDD	M/M+2	0.61	0.54-0.72	NO	101	62.0	160.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	NO	90.6	85.0	117.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	93.7	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	89.3	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.09	0.88-1.20	NO	82.7	72.0	138.0	Yes	70.0	130.0	Yes
13C-OCDD	M+2/M+4	0.84	0.76-1.02	NO	125	96.0	415.0	Yes	140.0	260.0	No
13C-2,3,7,8-TCDF	M/M+2	0.78	0.65-0.89	NO	97.0	71.0	140.0	Yes	70.0	130.0	Yes
						76.0	131.0 (5)				
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.52	1.32-1.78	NO	94.3	76.0	130.0	Yes	70.0	130.0	Yes
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.52	1.32-1.78	NO	100	77.0	130.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	103	76.0	131.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.51	0.43-0.59	NO	105	70.0	143.0	Yes	70.0	130.0	Yes
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	97.5	73.0	137.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.52	0.43-0.59	NO	95.5	74.0	135.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.44	0.37-0.51	NO	86.5	78.0	129.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.45	0.37-0.51	NO	81.1	77.0	129.0	Yes	70.0	130.0	Yes
13C-OCDF	M+2/M+4	0.86	0.76-1.02	NO	140	96.0	415.0	Yes	140.0	260.0	Yes
CLEANUP STANDARD (4)											
37Cl-2,3,7,8-TCDD					9.80	7.9	12.7	Yes	7.0	13.0	Yes
						8.3	12.1 (5)				

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) No ion abundance ratio; report concentration found
(5) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [illegible]

Date: 1/20/10

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 5:10:42 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 5:11:35 AM Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-17, Date: 19-Jan-2010, Time: 22:38:11, ID: ST100119H2-2 1613 CS3 090922G, Description: 1612 CS3 090922G

1	1,3,6,8-TCDD (First)	22.67
2	1,2,8,9-TCDD (Last)	26.90
3	1,2,4,7,9-PeCDD (First)	28.53
4	1,2,3,8,9-PeCDD (Last)	30.99
5	12,4,6,7,9-HxCDD (First)	32.42
6	1,2,3,7,8,9-HxCDD (Last)	34.40
7	1,2,3,4,6,7,9-HpCDD (First)	37.03
8	1,2,3,4,6,7,8-HpCDD (Last)	37.92
9	1,3,6,8-TCDF (First)	20.59
10	1,2,8,9-TCDF (Last)	27.07
11	1,3,4,6,8-PeCDF (First)	27.01
12	1,2,3,8,9-PeCDF (Last)	31.24
13	1,2,3,4,6,8-HxCDF (First)	31.89
14	1,2,3,4,8,9-HxCDF (Last)	34.79
15	1,2,3,4,6,7,8-HpCDF (First)	36.65
16	1,2,3,4,7,8,9-HpCDF (Last)	38.47

1/20/10

FORM 6A

PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory

CCAL ID: ST100119H2-2

Initial Calibration Date: 10/29/2009

Instrument ID: VG10

GC Column ID: DB-5

VER Data file name: 100119H2-17

Analysis Date: 19-Jan-10

Analysis Time: 22:38:11

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999	1.002	Yes
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.000	0.999	1.002	Yes
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999	1.003	Yes
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999	1.002	Yes
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999	1.002	Yes
LABELED COMPOUNDS					
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.976	1.043	Yes
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.202	1.000	1.567	Yes
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.992	0.923	1.103	Yes
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.155	1.000	1.425	Yes
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.191	1.011	1.526	Yes
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.023	0.989	1.052	Yes

Analyst: [signature]

Date: 1/20/10

FORM 6B

PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory
Initial Calibration Date: 10/29/2009
Instrument ID: VG10
VER Data file name: 100119H2-17

CCAL ID: ST100119H2-2

GC Column ID: DB-5
Analysis Date: 19-Jan-10

Analysis Time: 22:38:11

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.001	0.999	1.001	Yes
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998	1.004	Yes
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.001	0.998	1.004	Yes
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999	1.001	Yes
OCDD	13C-OCDD	1.000	0.999	1.001	Yes
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.001	0.999	1.001	Yes
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	0.997	1.005	Yes
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.000	0.999	1.001	Yes
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999	1.001	Yes
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.001	0.999	1.001	Yes
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999	1.001	Yes
OCDF	13C-OCDF	1.000	0.999	1.001	Yes
LABELED COMPOUNDS					
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.014	1.002	1.026	Yes
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.017	1.007	1.029	Yes
13C-1,2,3,7,8,9-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.026	1.014	1.038	Yes
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,9-HxCDF	1.132	1.117	1.141	Yes
13C-OCDD	13C-1,2,3,4,6,9-HxCDF	1.231	1.085	1.365	Yes
13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.987	0.975	1.001	Yes
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.991	0.979	1.005	Yes
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.009	1.001	1.020	Yes
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.038	1.002	1.072	Yes
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.093	1.069	1.111	Yes
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.148	1.098	1.192	Yes
13C-OCDF	13C-1,2,3,4,6,9-HxCDF	1.238	1.091	1.371	Yes

Analyst: _____

Date: 1/20/10

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-17.qld

Last Altered: Wednesday, January 20, 2010 5:04:49 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 5:06:49 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-17, Date: 19-Jan-2010, Time: 22:38:11, ID: ST100119H2-2 1613 CS3 090922G, Description: 1612 CS3 090922G

1	2,3,7,8-TCDD	1.18e5	0.75	NO	0.965	1.000	26.05	1.001	10.074	101	0.0378	10.074
2	1,2,3,7,8-PeCDD	4.41e5	0.62	NO	0.869	1.000	30.61	1.000	52.776	106	0.109	52.776
3	1,2,3,4,7,8-HxCDD	3.60e5	1.25	NO	0.873	1.000	33.99	1.001	50.875	102	0.139	50.875
4	1,2,3,6,7,8-HxCDD	3.62e5	1.23	NO	0.940	1.000	34.09	1.000	50.967	102	0.141	50.967
5	1,2,3,7,8,9-HxCDD	3.87e5	1.25	NO	0.882	1.000	34.40	1.001	51.890	104	0.143	51.890
6	1,2,3,4,6,7,8-HpCDD	2.92e5	1.05	NO	0.965	1.000	37.92	1.000	49.337	98.7	0.171	49.337
7	OCDD	4.45e5	0.85	NO	1.05	1.000	41.24	1.000	103.93	104	0.207	103.93
8	2,3,7,8-TCDF	1.47e5	0.77	NO	0.952	1.000	25.27	1.001	10.045	100	0.0392	10.045
9	1,2,3,7,8-PeCDF	6.07e5	1.57	NO	0.994	1.000	29.42	1.000	47.810	95.6	0.0967	47.810
10	2,3,4,7,8-PeCDF	6.19e5	1.55	NO	0.977	1.000	30.33	1.000	47.441	94.9	0.0889	47.441
11	1,2,3,4,7,8-HxCDF	6.35e5	1.26	NO	1.31	1.000	33.09	1.001	47.537	95.1	0.0879	47.537
12	1,2,3,6,7,8-HxCDF	6.13e5	1.25	NO	1.15	1.000	33.21	1.000	46.836	93.7	0.0946	46.836
13	2,3,4,6,7,8-HxCDF	5.33e5	1.25	NO	1.20	1.000	33.82	1.000	47.105	94.2	0.114	47.105
14	1,2,3,7,8,9-HxCDF	4.58e5	1.25	NO	1.20	1.000	34.79	1.001	46.812	93.6	0.165	46.812
15	1,2,3,4,6,7,8-HpCDF	4.56e5	1.06	NO	1.49	1.000	36.65	1.001	46.882	93.8	0.157	46.882
16	1,2,3,4,7,8,9-HpCDF	3.88e5	1.09	NO	1.44	1.000	38.47	1.000	47.943	95.9	0.169	47.943
17	OCDF	5.80e5	0.96	NO	1.02	1.000	41.47	1.000	98.961	99.0	0.109	98.961
18	13C-2,3,7,8-TCDD	1.22e6	0.79	NO	1.02	1.000	26.02	1.022	101.14	101	0.109	
19	13C-1,2,3,7,8-PeCDD	9.62e5	0.61	NO	0.806	1.000	30.60	1.202	101.41	101	0.156	
20	13C-1,2,3,4,7,8-HxCDD	8.12e5	1.23	NO	1.07	1.000	33.97	1.014	90.599	90.6	0.162	
21	13C-1,2,3,6,7,8-HxCDD	7.56e5	1.25	NO	0.968	1.000	34.08	1.017	93.658	93.7	0.180	
22	13C-1,2,3,7,8,9-HxCDD	8.45e5	1.25	NO	1.13	1.000	34.38	1.026	89.321	89.3	0.154	
23	13C-1,2,3,4,6,7,8-HpCDD	6.13e5	1.09	NO	0.888	1.000	37.91	1.132	82.720	82.7	0.225	
24	13C-OCDD	8.18e5	0.84	NO	0.783	1.000	41.22	1.231	125.23	62.6	0.139	
25	13C-2,3,7,8-TCDF	1.53e6	0.78	NO	1.03	1.000	25.24	0.992	96.998	97.0	0.143	
26	13C-1,2,3,7,8-PeCDF	1.28e6	1.52	NO	0.880	1.000	29.41	1.155	94.282	94.3	0.279	
27	13C-2,3,4,7,8-PeCDF	1.34e6	1.52	NO	0.867	1.000	30.31	1.191	100.23	100	0.284	
28	13C-1,2,3,4,7,8-HxCDF	1.02e6	0.52	NO	1.19	1.000	33.07	0.987	103.22	103	0.247	
29	13C-1,2,3,6,7,8-HxCDF	1.14e6	0.51	NO	1.30	1.000	33.20	0.991	104.99	105	0.225	
30	13C-2,3,4,6,7,8-HxCDF	9.45e5	0.52	NO	1.16	1.000	33.81	1.009	97.474	97.5	0.252	

GW
1/20/10

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-17.qld

Last Altered: Wednesday, January 20, 2010 5:04:49 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 5:06:49 AM Pacific Standard Time

Name: 100119H2-17, Date: 19-Jan-2010, Time: 22:38:11, ID: ST100119H2-2 1613 CS3 090922G, Description: 1612 CS3 090922G

31	13C-1,2,3,7,8,9-HxCDF	8.17e5	0.52	NO	1.03	1.000	34.77	1.038	95.468	95.5	0.286
32	13C-1,2,3,4,6,7,8-HpCDF	6.55e5	0.44	NO	0.909	1.000	36.63	1.093	86.456	86.5	0.234
33	13C-1,2,3,4,7,8,9-HpCDF	5.61e5	0.45	NO	0.830	1.000	38.46	1.148	81.137	81.1	0.256
34	13C-OCDF	1.15e6	0.86	NO	0.982	1.000	41.47	1.238	140.31	70.2	0.116
35	37Cl-2,3,7,8-TCDD	6.94e4			0.602	1.000	26.03	1.023	9.7982	98.0	0.0361
36	13C-1,2,3,4-TCDD	1.18e6	0.79	NO	1.00	1.000	25.45	0.000	100.00	100	0.112
37	13C-1,2,3,4-TCDF	1.54e6	0.78	NO	1.00	1.000	24.04	0.000	100.00	100	0.147
38	13C-1,2,3,4,6,9-HxCDF	8.34e5	0.53	NO	1.00	1.000	33.50	0.000	100.00	100	0.294

Quantify Compound Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 5:12:04 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 5:12:22 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Compound name: 1,3,6,8-TCDD (First)

	ID			
100119H2-1	ST100119H2-1 1613 CS3 090922G		19-Jan-10	09:25:44
100119H2-2	0_2725_OPR001		19-Jan-10	10:15:16
100119H2-3	SOLVENT BLANK		19-Jan-10	11:04:48
100119H2-4	0_2725_MB001		19-Jan-10	11:54:19
100119H2-5	32320_2678_013 EQ/K0911818	1.019	19-Jan-10	12:43:50
100119H2-6	32326_2678_013 EQ/K0911819	1.016	19-Jan-10	13:33:21
100119H2-7	32327_2678_017 EQ/K0911809	1.015	19-Jan-10	14:22:51
100119H2-8	32328_2678_021 EQ/K0911808	1.014	19-Jan-10	15:12:21
100119H2-9	32321_2725_001 CAPA-10-6823	.9	19-Jan-10	16:01:54
100119H2-10	32321_2725_002 CAPA-10-6824	.898	19-Jan-10	16:51:25
100119H2-11	32322_2725_001 CAPA-10-6390	.809	19-Jan-10	17:40:58
100119H2-12	32322_2725_002 CAPA-10-6745	.899	19-Jan-10	18:30:30
100119H2-13	32322_2725_003 CAPA-10-6746	.894	19-Jan-10	19:20:02
100119H2-14	32322_2725_004 CAPA-10-6793	.886	19-Jan-10	20:09:36
100119H2-15	32337_2725_001 CAWA-10-6910	.881	19-Jan-10	20:59:09
100119H2-16	SOLVENT BLANK		19-Jan-10	21:48:40
100119H2-17	ST100119H2-2 1613 CS3 090922G		19-Jan-10	22:38:11

Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, January 20, 2010 5:10:42 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 5:11:35 AM Pacific Standard Time

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Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-17, Date: 19-Jan-2010, Time: 22:38:11, ID: ST100119H2-2 1613 CS3 090922G, Description: 1612 CS3 090922G

1,3,6,8-TCDD (First)

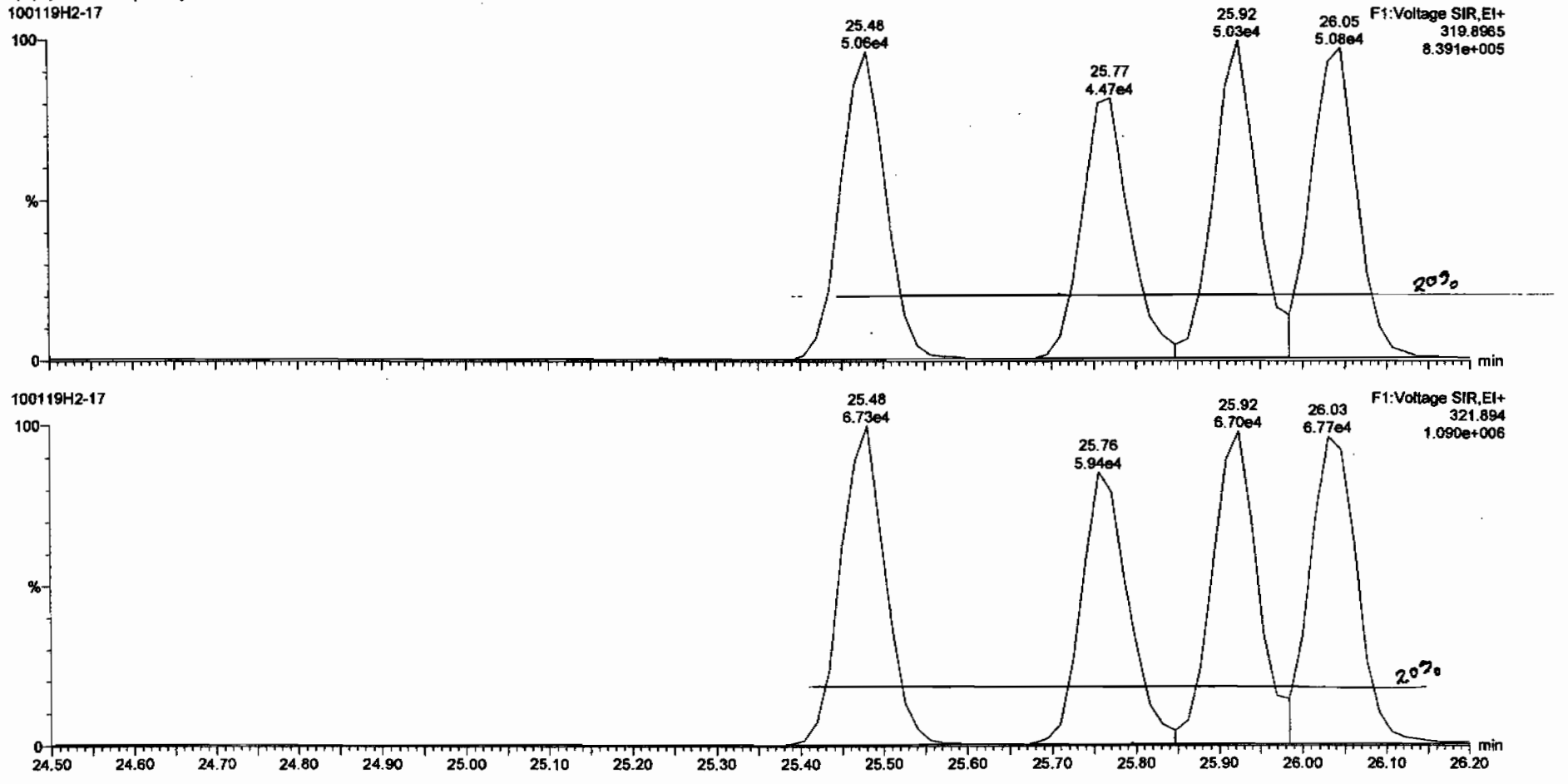

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-17.qld

Last Altered: Wednesday, January 20, 2010 5:04:49 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 5:06:00 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Name: 100119H2-17, Date: 19-Jan-2010, Time: 22:38:11, ID: ST100119H2-2 1613 CS3 090922G, Description: 1612 CS3 090922G

2,3,7,8-TCDD

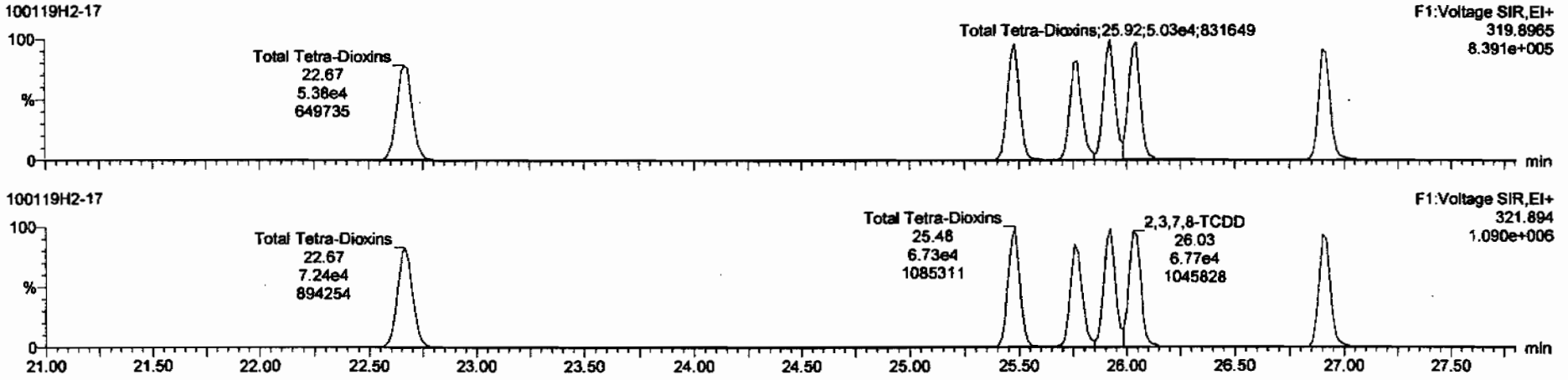

13C-2,3,7,8-TCDD

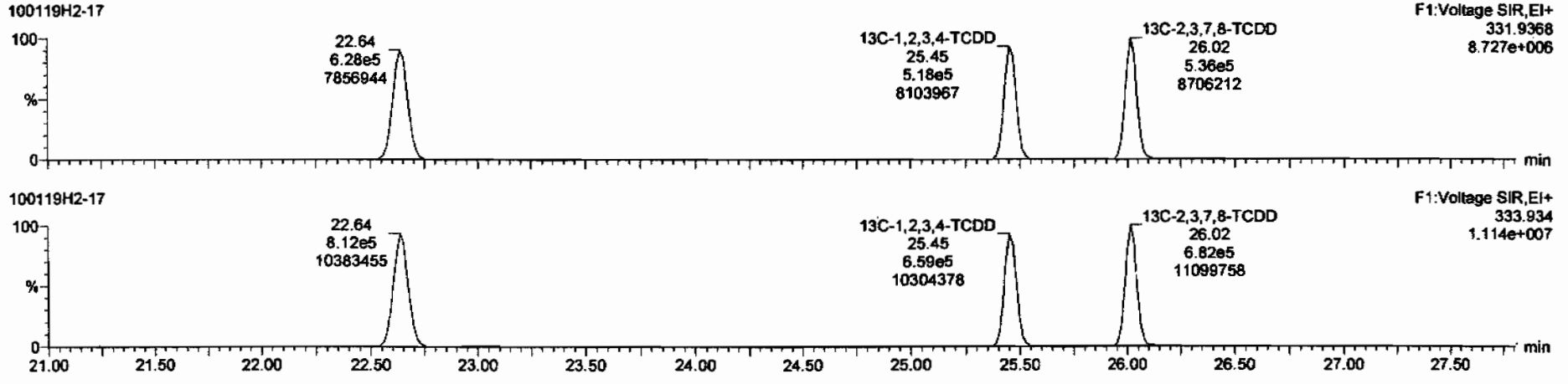

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-17.qld

Last Altered: Wednesday, January 20, 2010 5:04:49 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 5:06:00 AM Pacific Standard Time

Name: 100119H2-17, Date: 19-Jan-2010, Time: 22:38:11, ID: ST100119H2-2 1613 CS3 090922G, Description: 1612 CS3 090922G

37Cl-2,3,7,8-TCDD

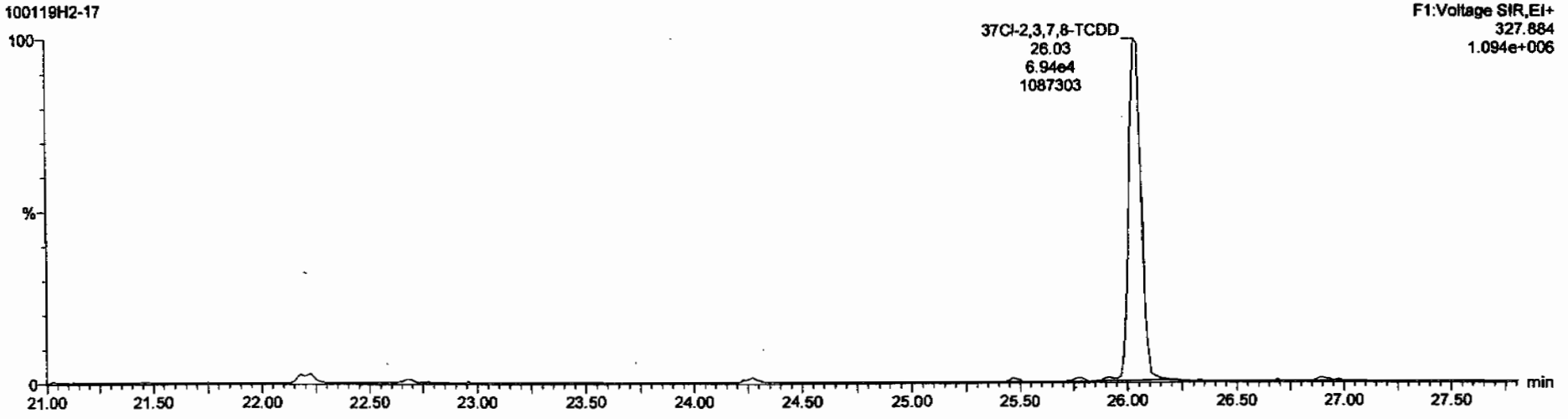

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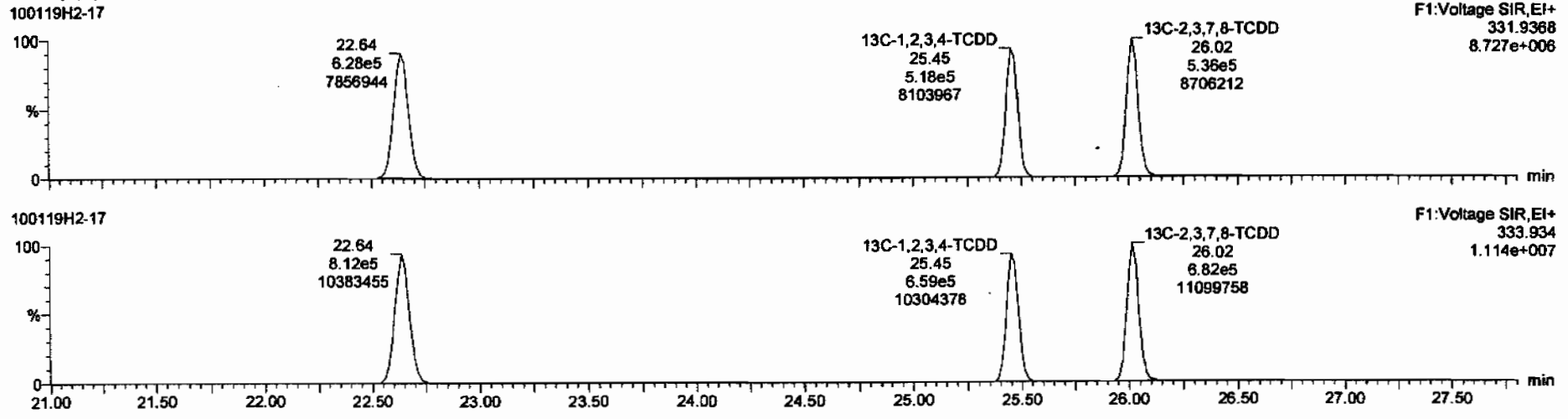

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-17.qld

Last Altered: Wednesday, January 20, 2010 5:04:49 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 5:06:00 AM Pacific Standard Time

Name: 100119H2-17, Date: 19-Jan-2010, Time: 22:38:11, ID: ST100119H2-2 1613 CS3 090922G, Description: 1612 CS3 090922G

1,2,3,7,8-PeCDD

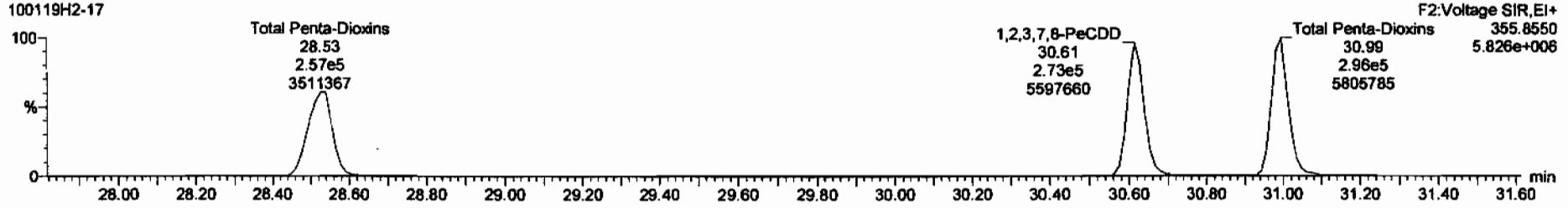

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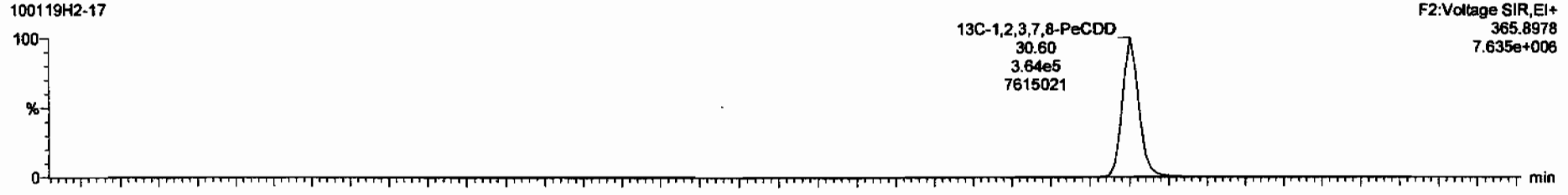

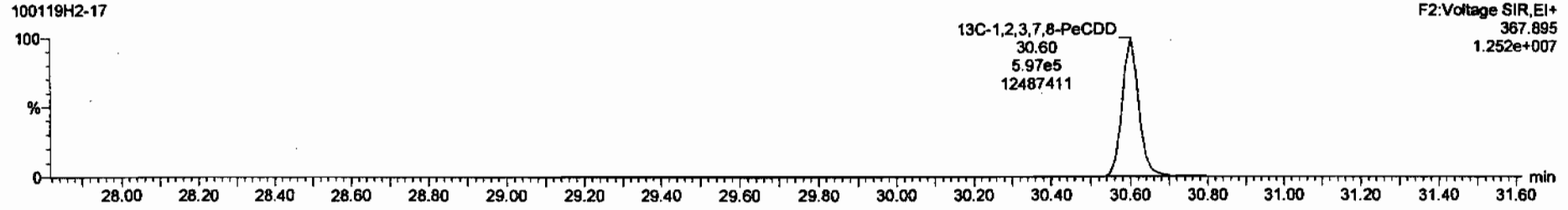

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-17.qld

Last Altered: Wednesday, January 20, 2010 5:04:49 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 5:06:00 AM Pacific Standard Time

Name: 100119H2-17, Date: 19-Jan-2010, Time: 22:38:11, ID: ST100119H2-2 1613 CS3 090922G, Description: 1612 CS3 090922G

1,2,3,4,7,8-HxCDD

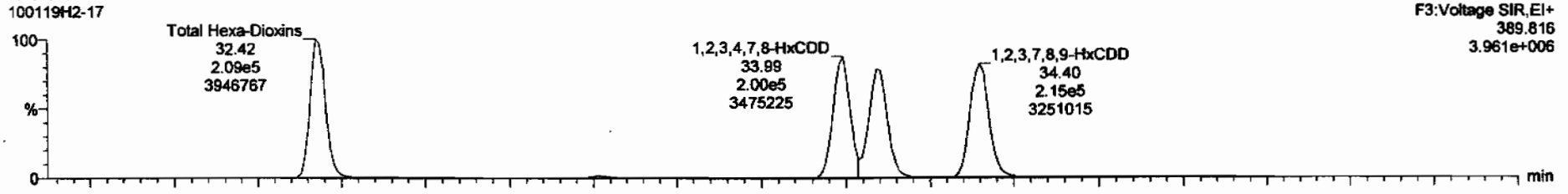

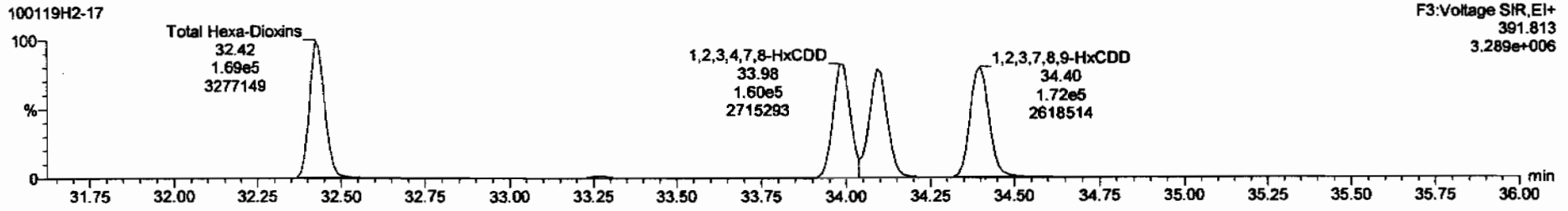

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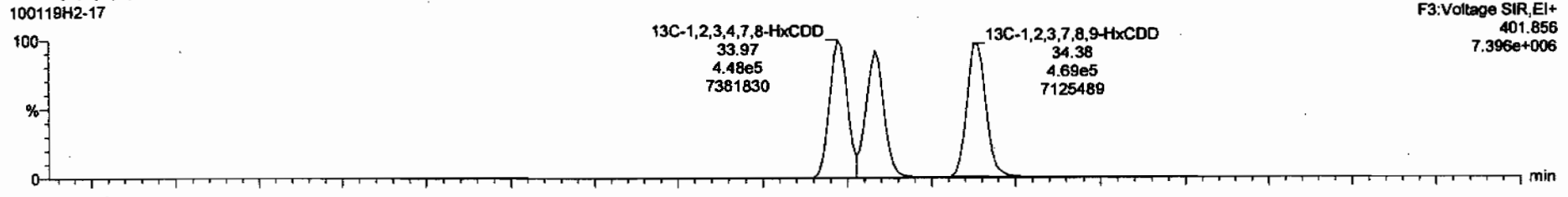

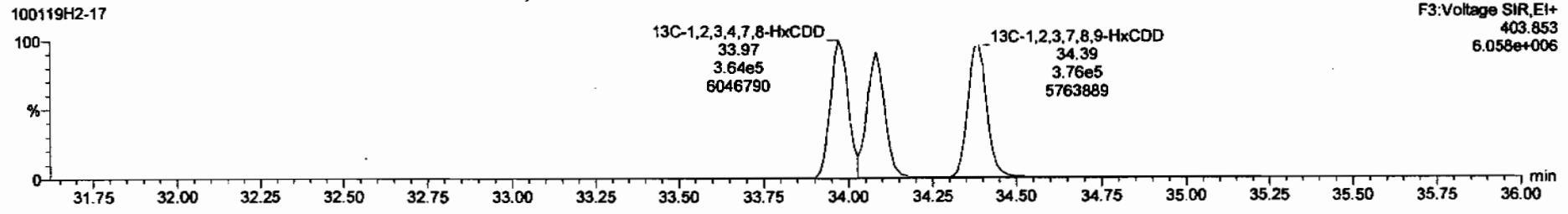

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100119H2-17.qld

Last Altered: Wednesday, January 20, 2010 5:04:49 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 5:06:00 AM Pacific Standard Time

Name: 100119H2-17, Date: 19-Jan-2010, Time: 22:38:11, ID: ST100119H2-2 1613 CS3 090922G, Description: 1612 CS3 090922G

1,2,3,4,6,7,8-HpCDD

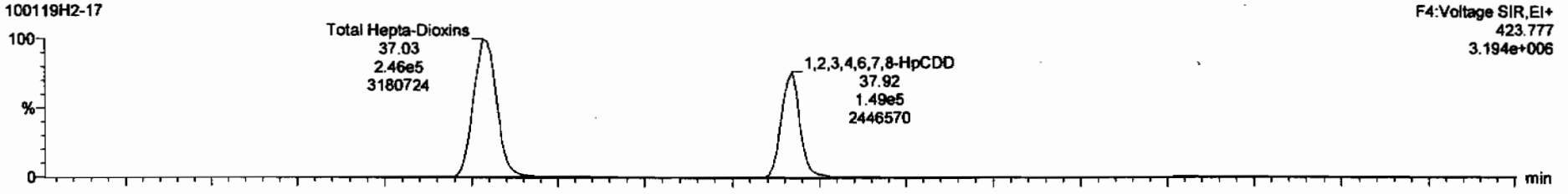

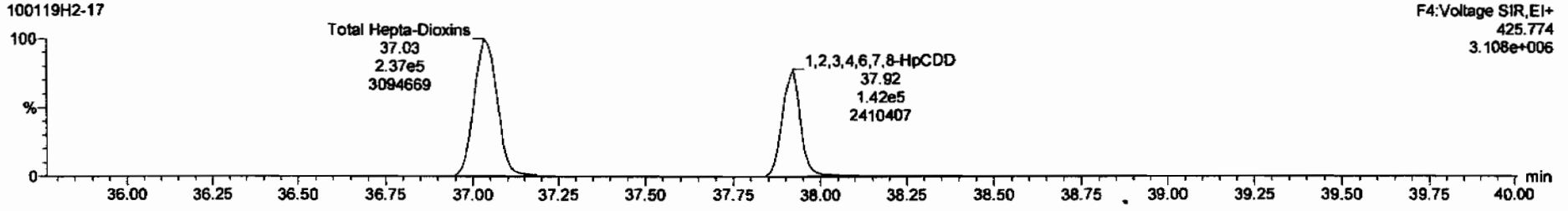

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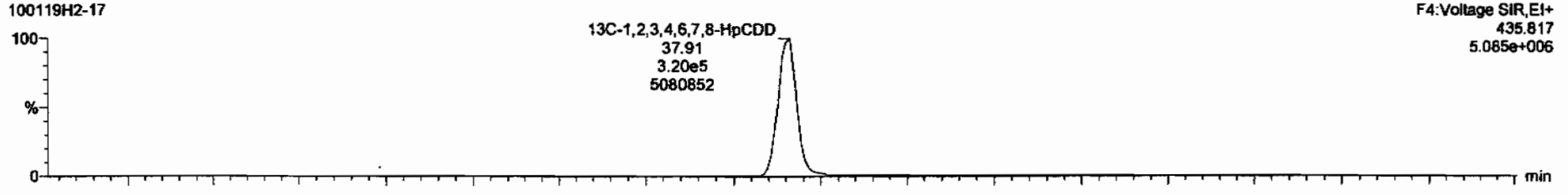

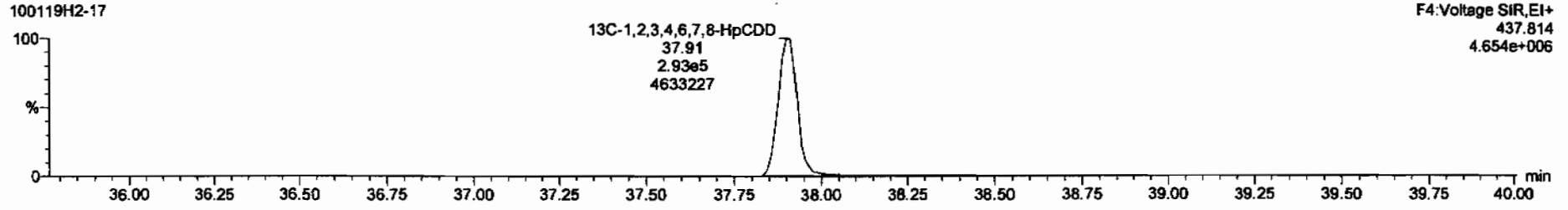

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Last Altered: Wednesday, January 20, 2010 5:04:49 AM Pacific Standard Time
Printed: Wednesday, January 20, 2010 5:06:00 AM Pacific Standard Time

Name: 100119H2-17, Date: 19-Jan-2010, Time: 22:38:11, ID: ST100119H2-2 1613 CS3 090922G, Description: 1612 CS3 090922G

OCDD

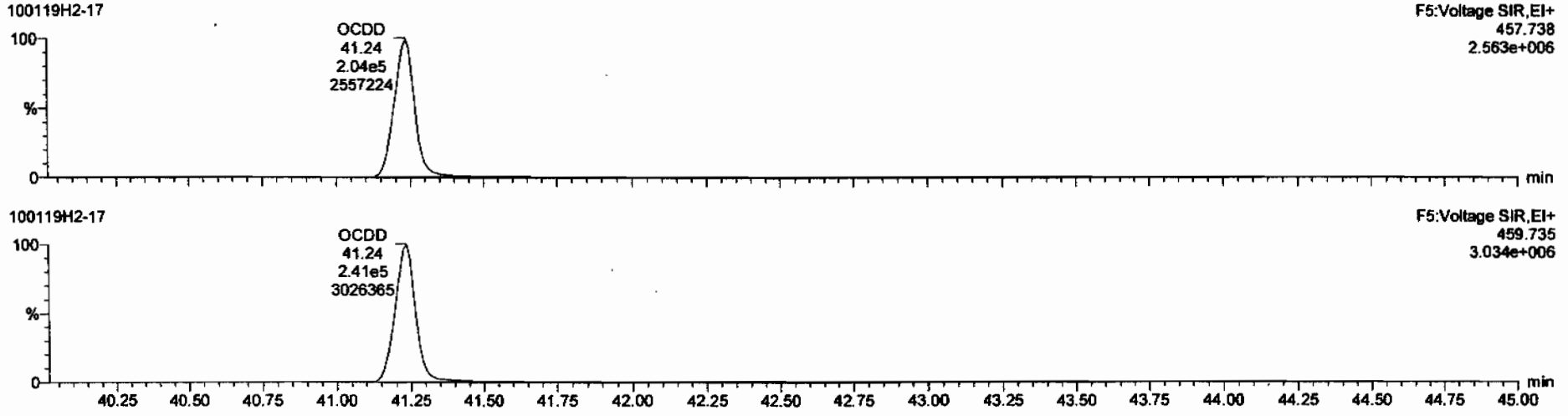

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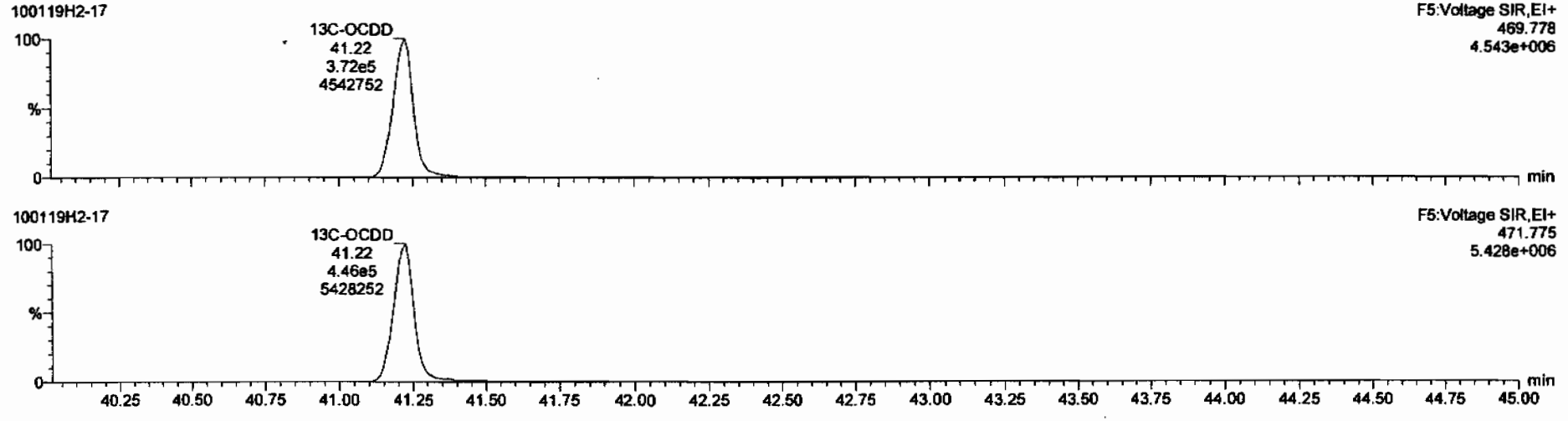

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2,3,7,8-TCDF

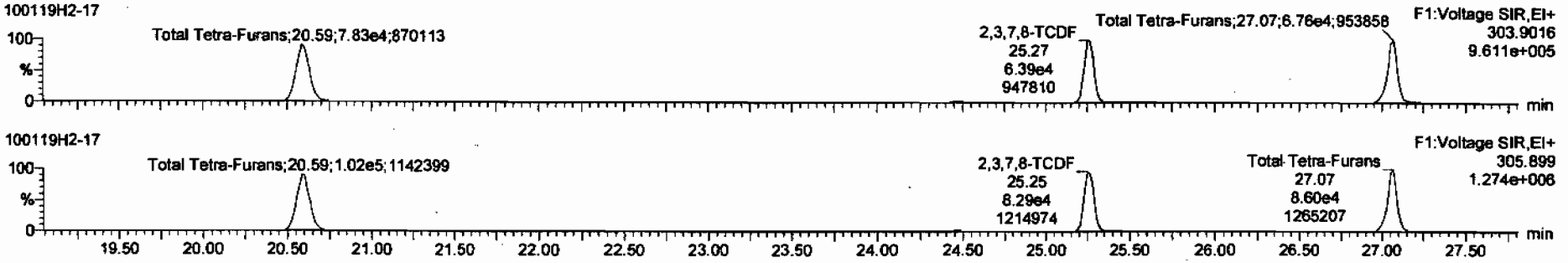

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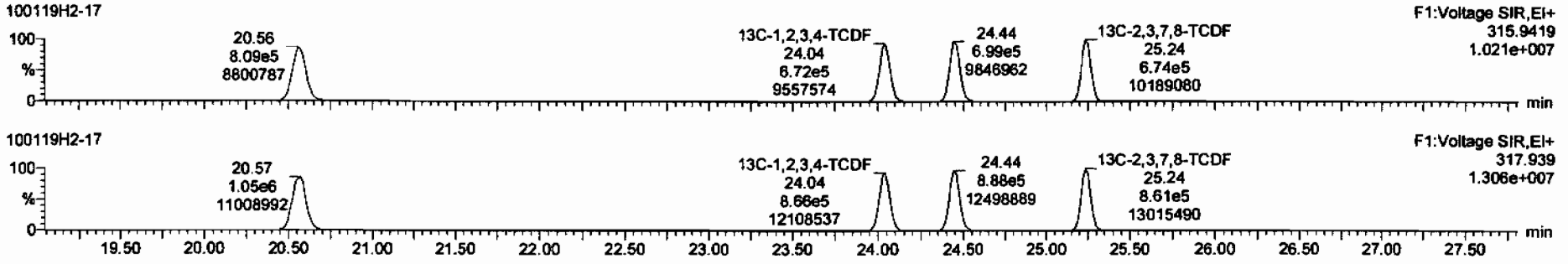

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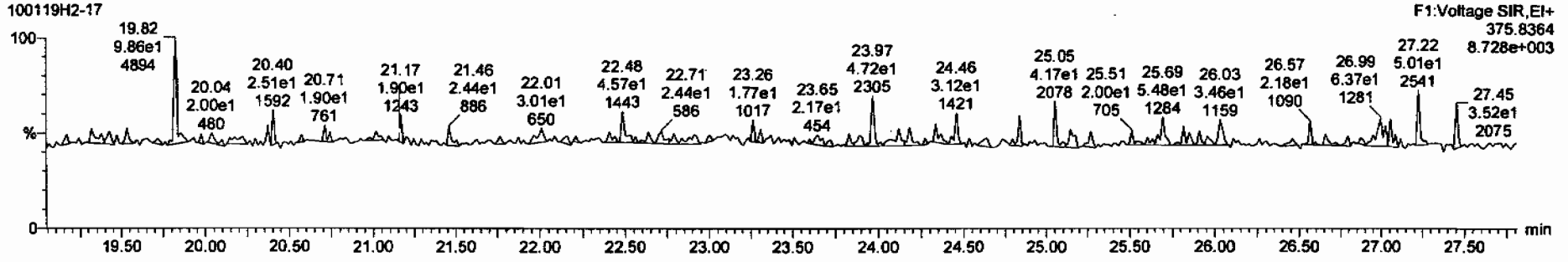

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Name: 100119H2-17, Date: 19-Jan-2010, Time: 22:38:11, ID: ST100119H2-2 1613 CS3 090922G, Description: 1612 CS3 090922G

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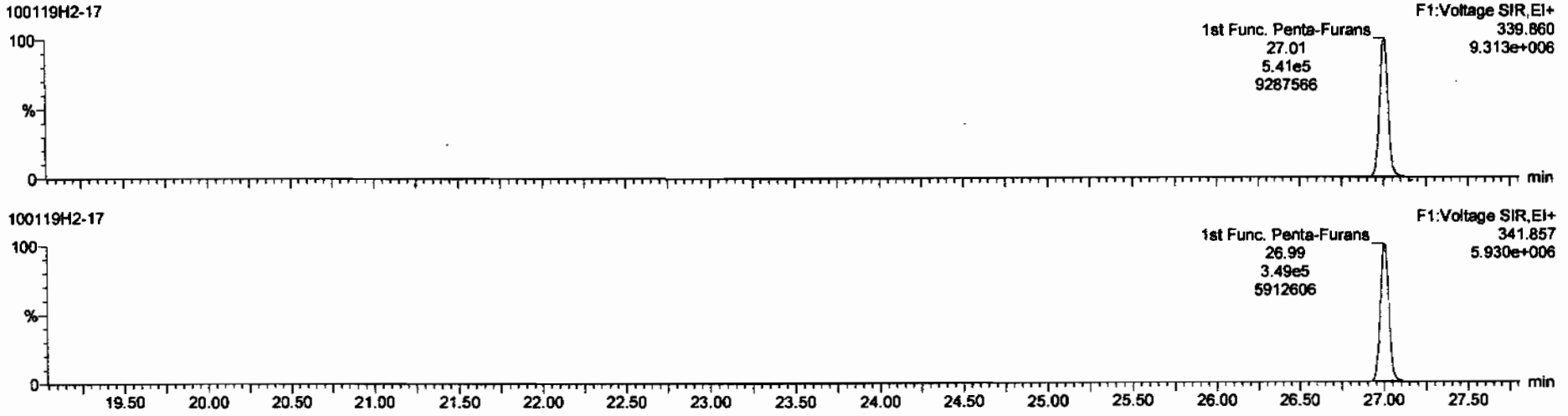

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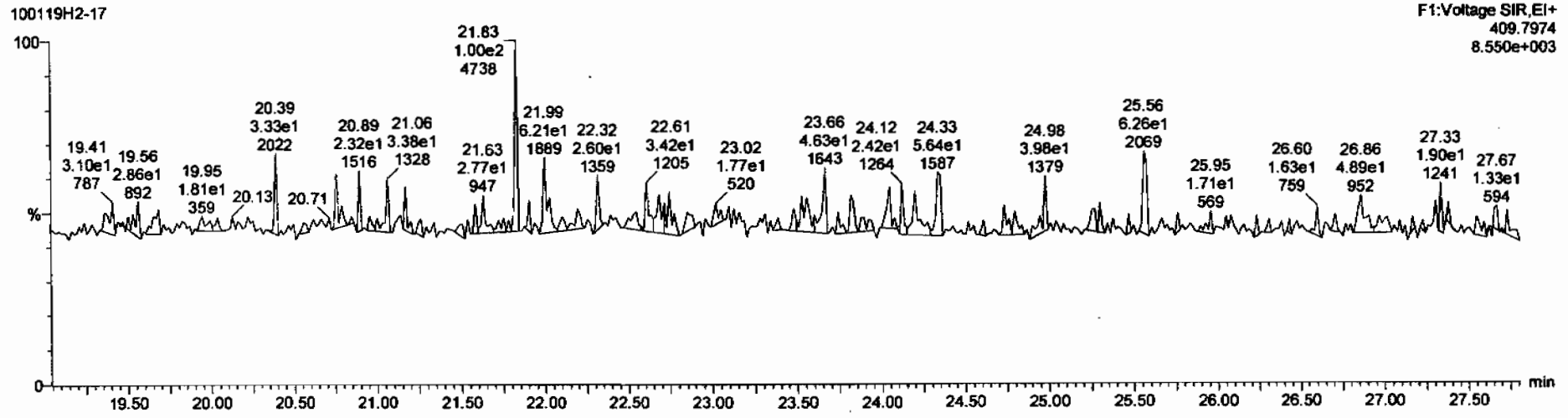

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1,2,3,7,8-PeCDF

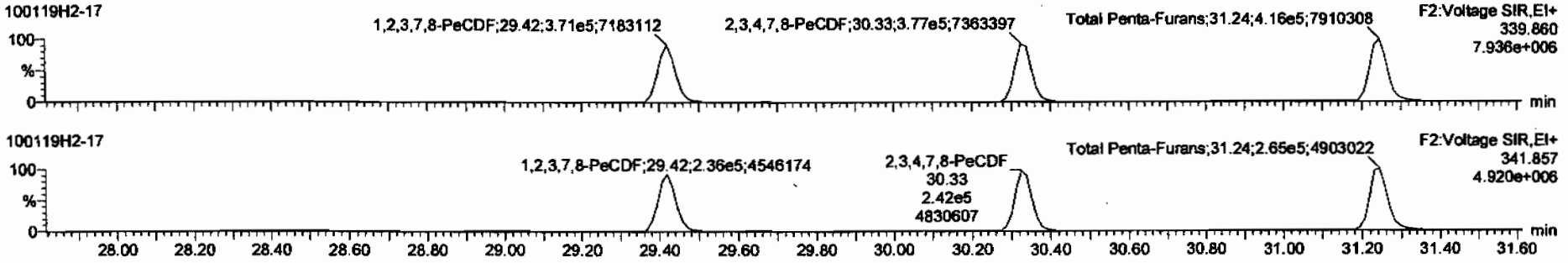

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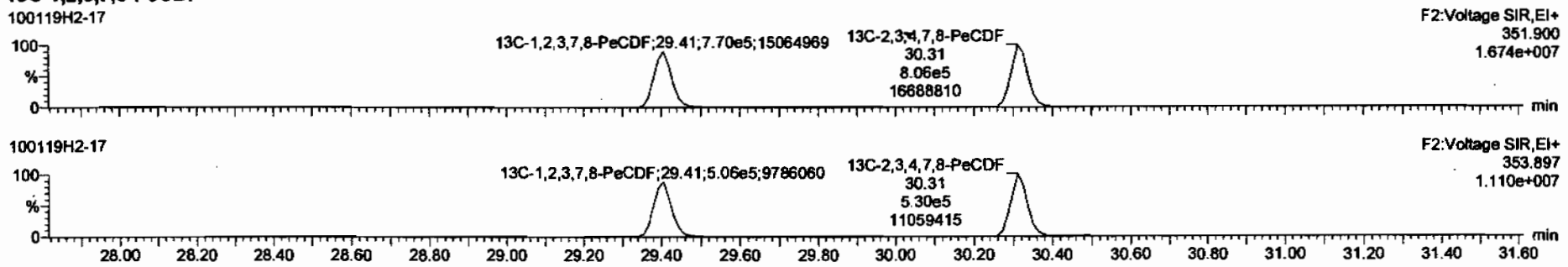

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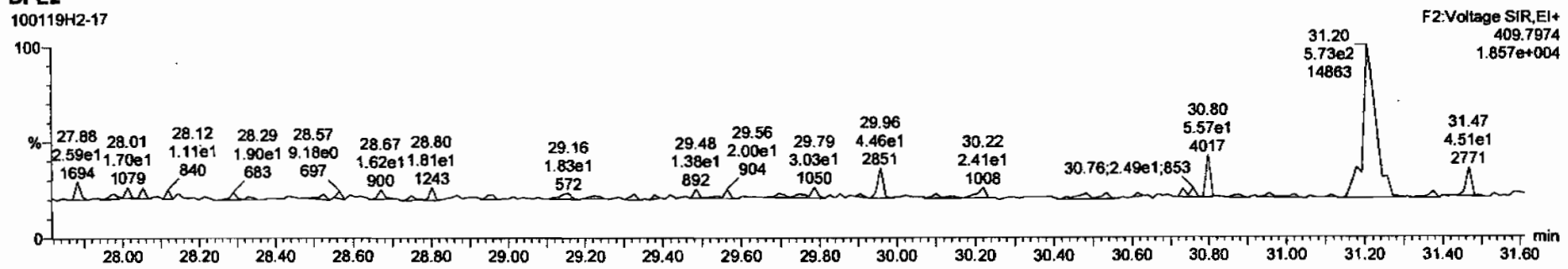

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1,2,3,4,7,8-HxCDF

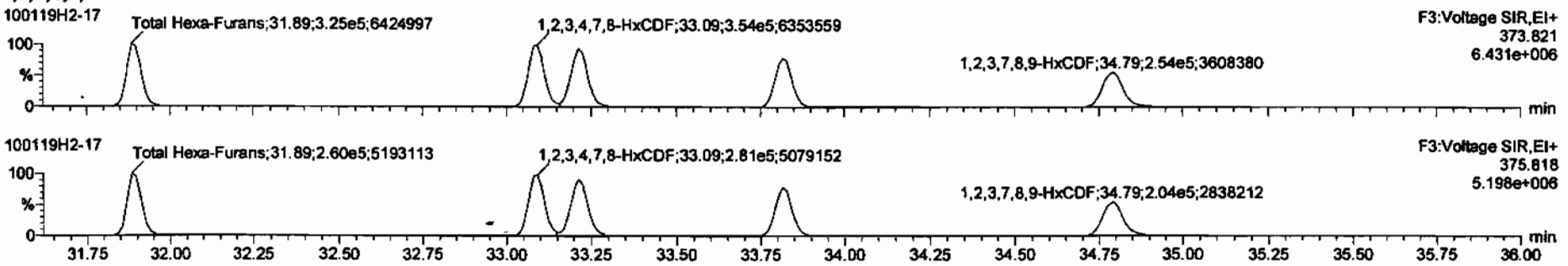

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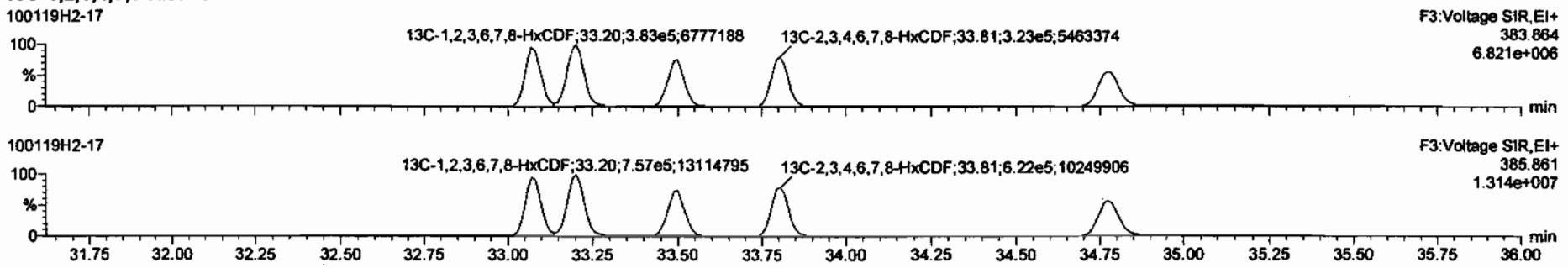

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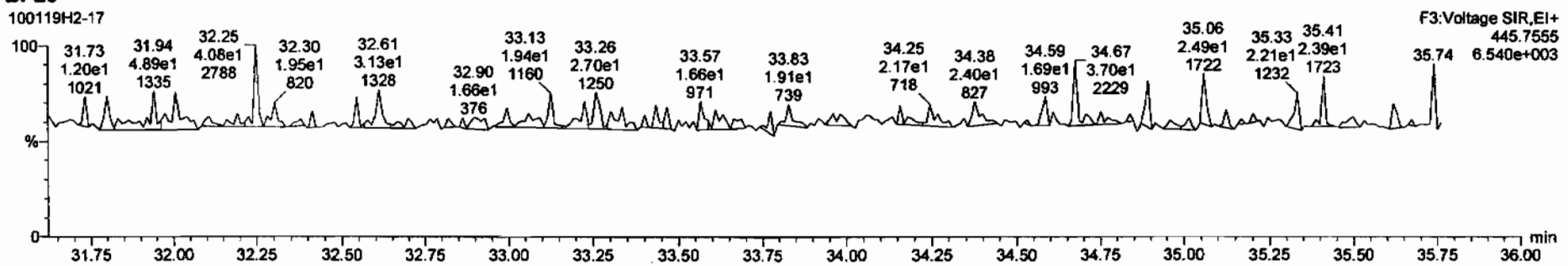

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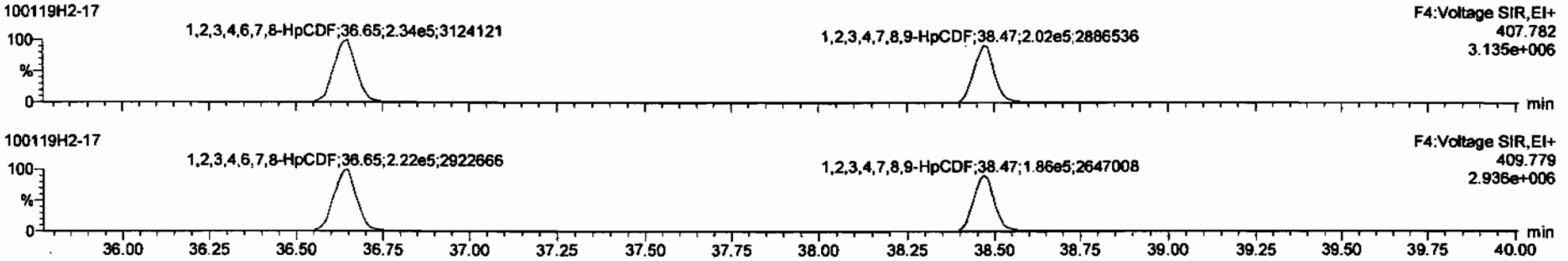

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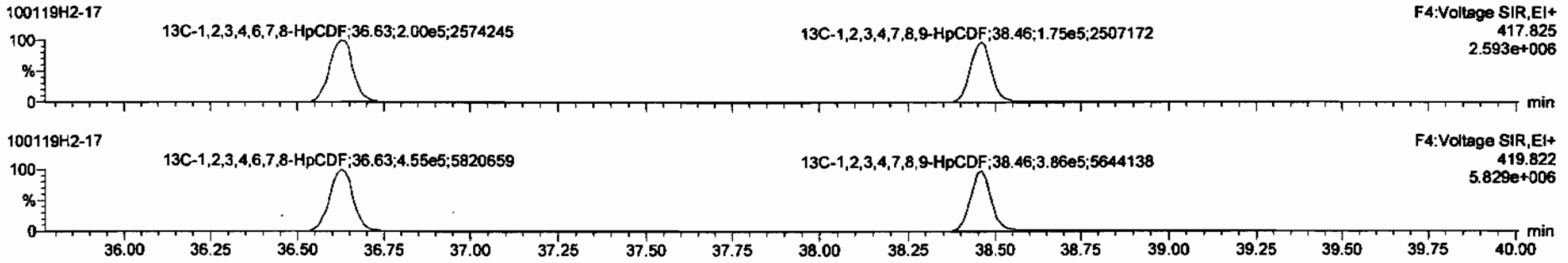

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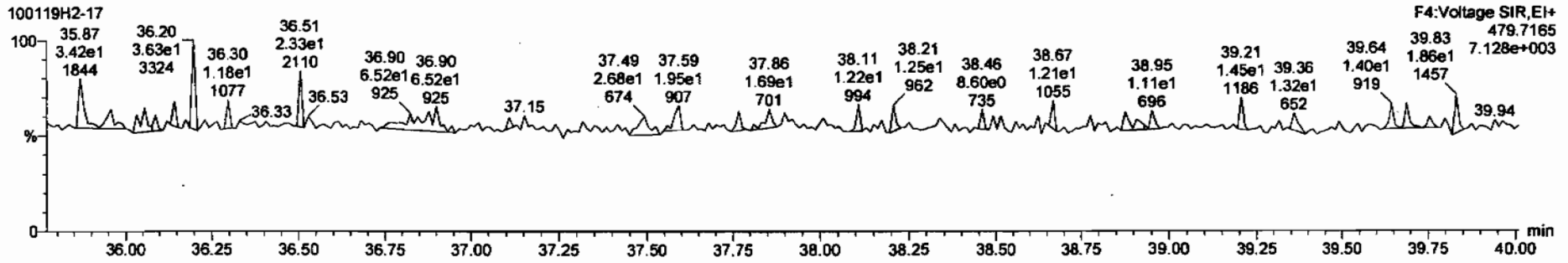

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OCDF

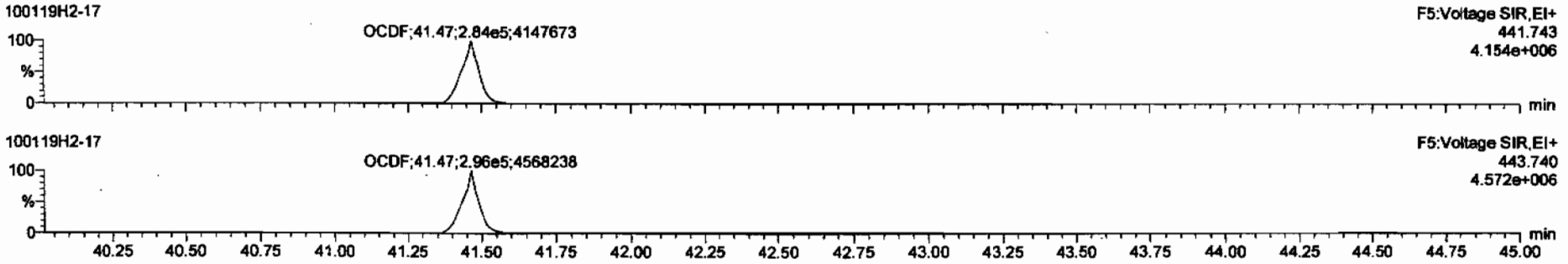

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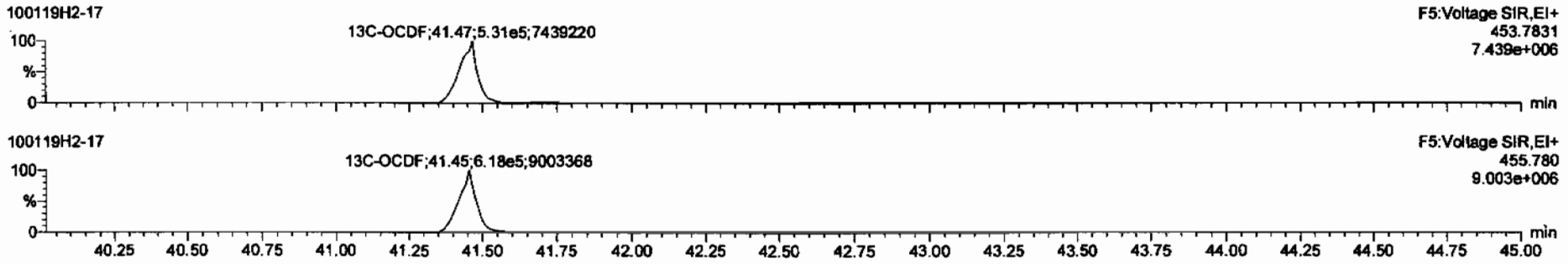

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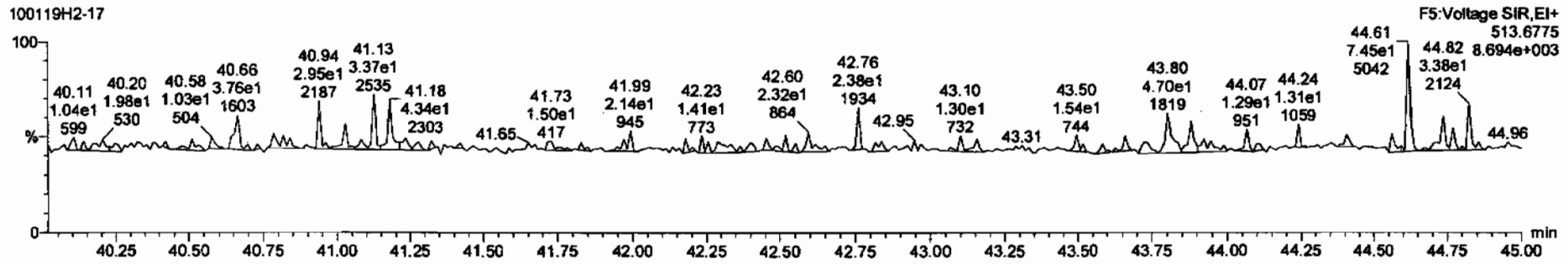

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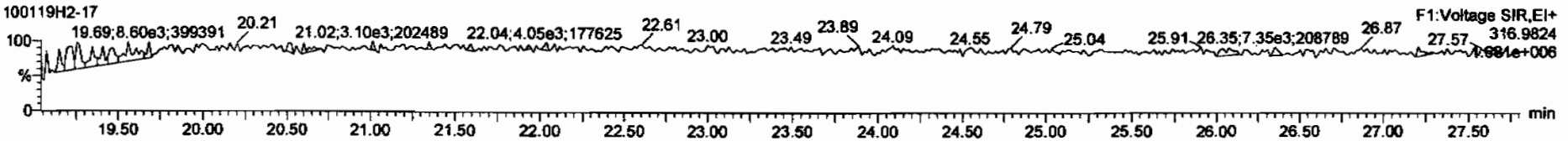

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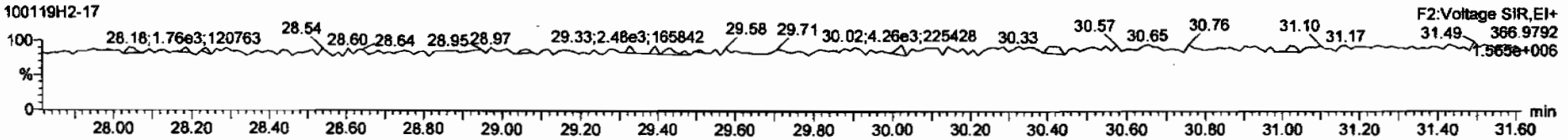

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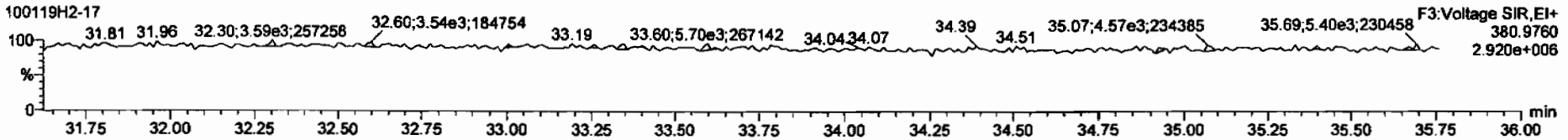

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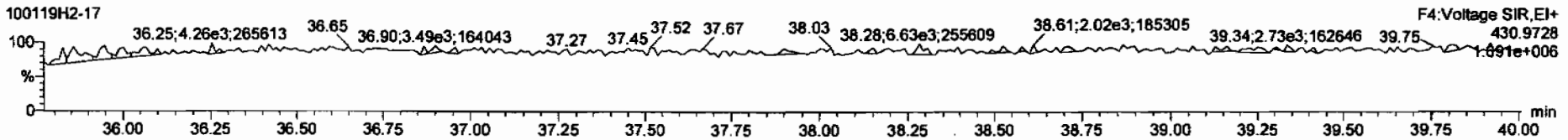

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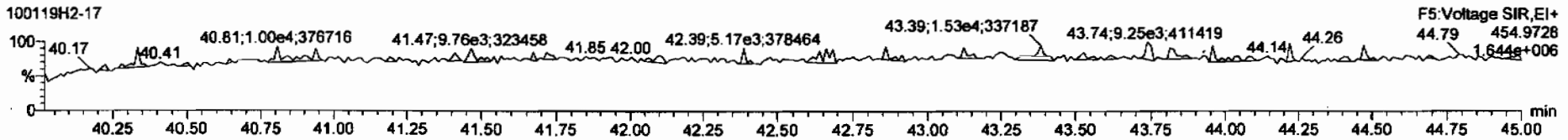

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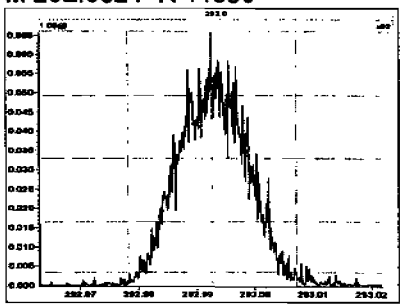

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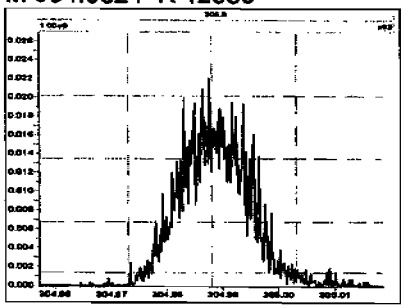

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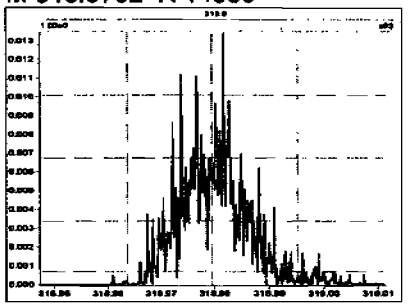

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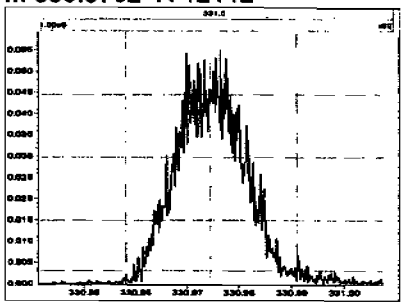

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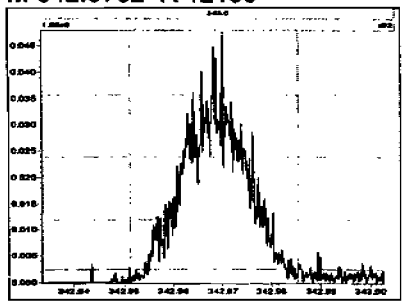

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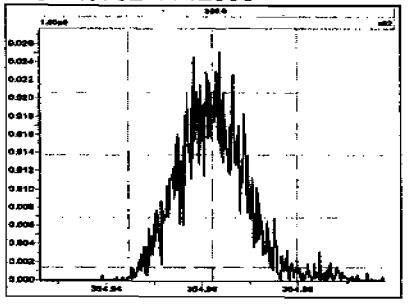

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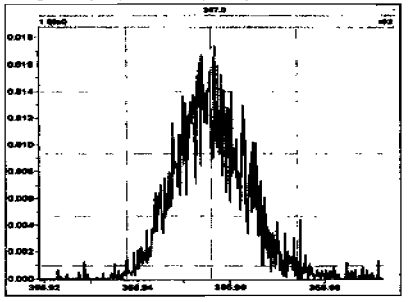

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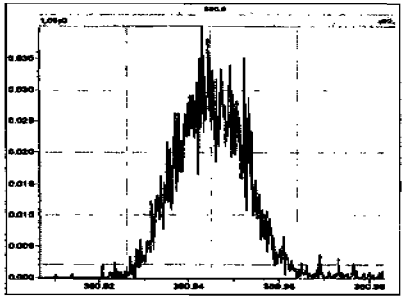

M 392.9760 R 12470

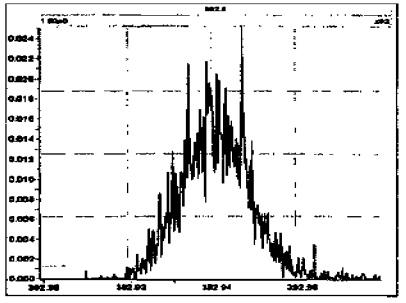

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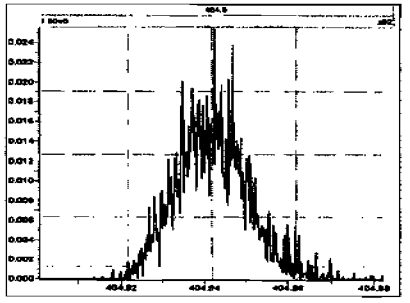

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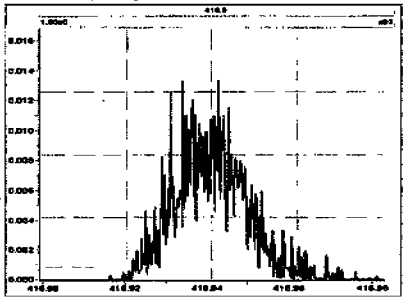

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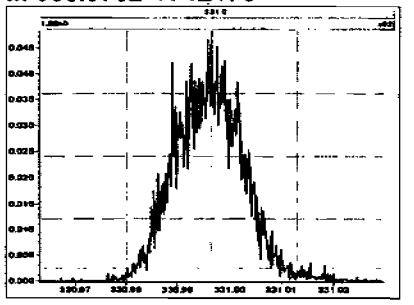

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M 342.9792 R 12204

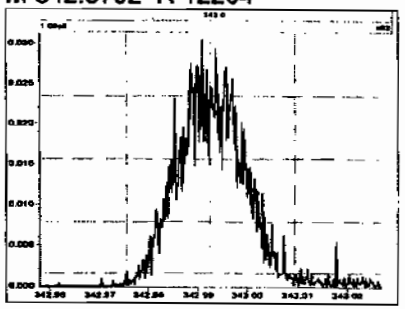

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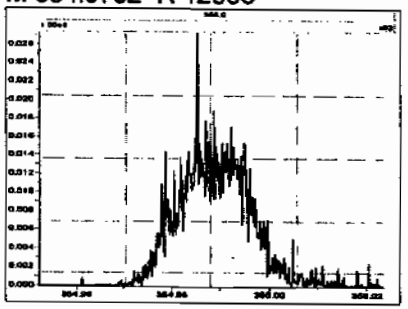

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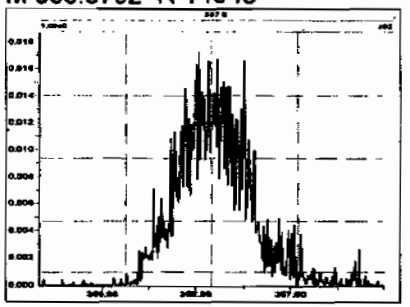

M 380.9760 R 12136

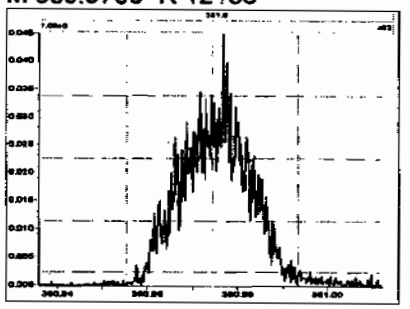

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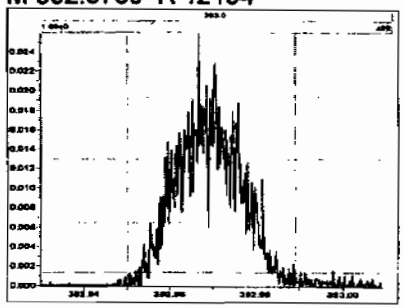

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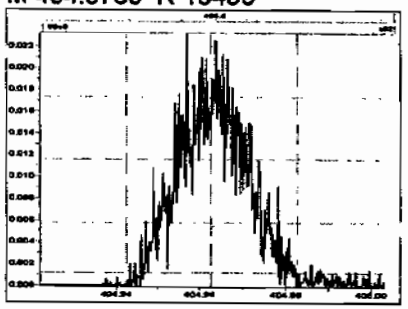

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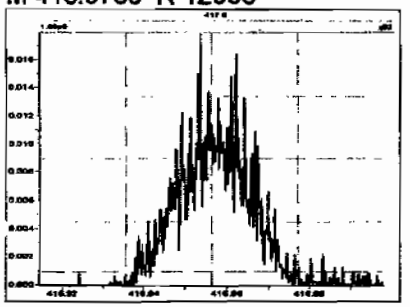

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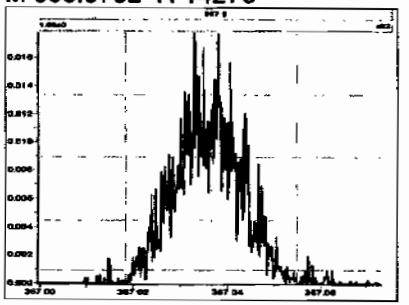

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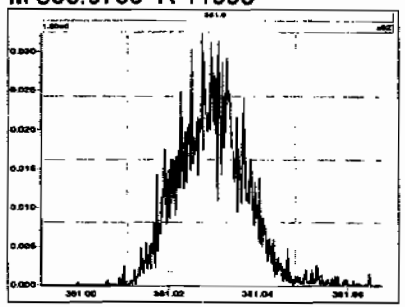

M 392.9760 R 14036

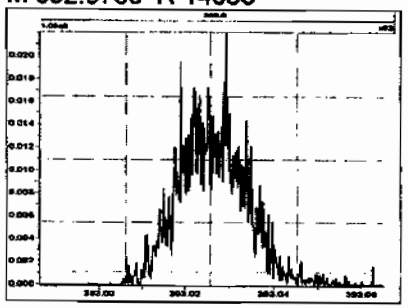

M 404.9760 R 13090

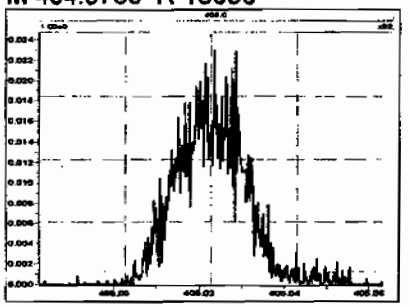

M 416.9760 R 14164

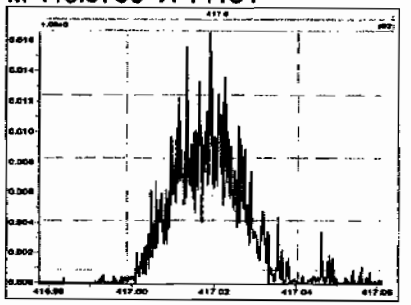

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M 430.9728 R 12794

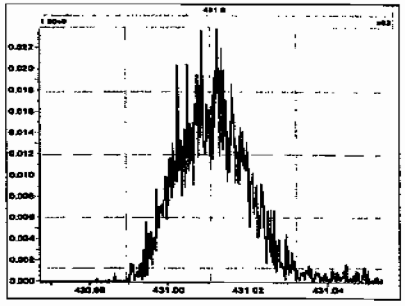

M 442.9728 R 13021

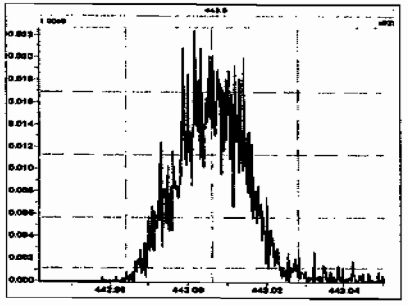

M 454.9728 R 12563

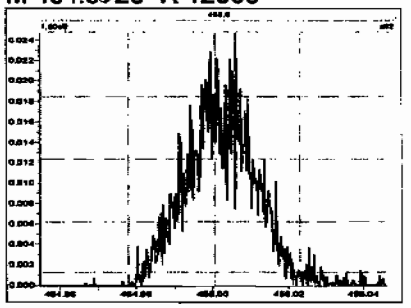

M 404.9760 R 14340

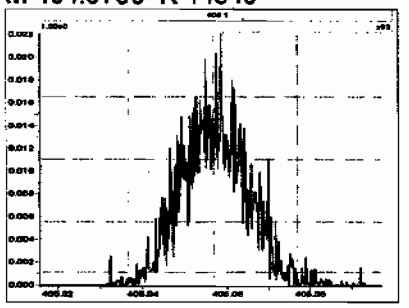

M 416.9760 R 14097

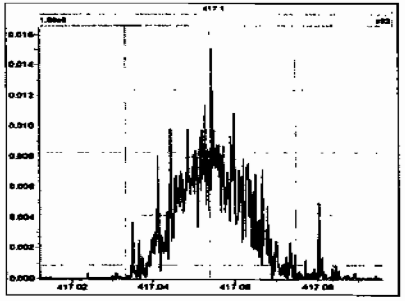

M 430.9728 R 12577

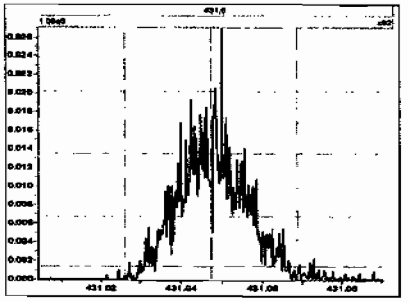

M 442.9728 R 13596

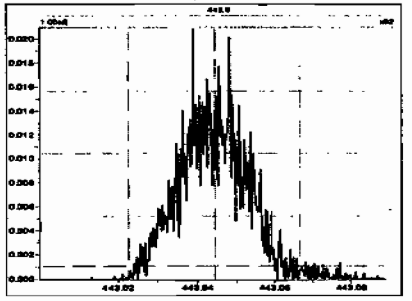

M 454.9728 R 13368

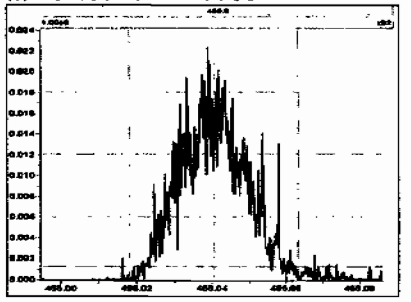

M 466.9728 R 14051

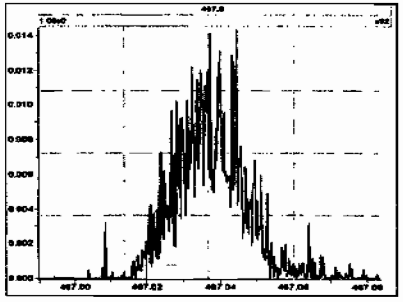

M 480.9696 R 13987

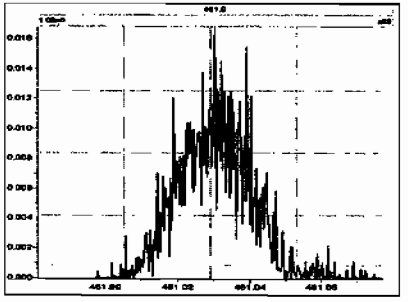

M 430.9728 R 12345

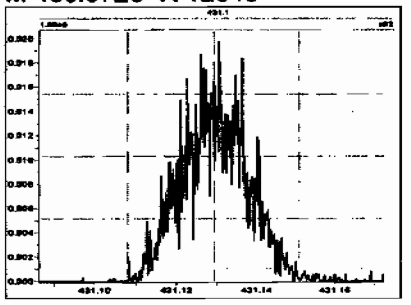

M 442.9728 R 13307

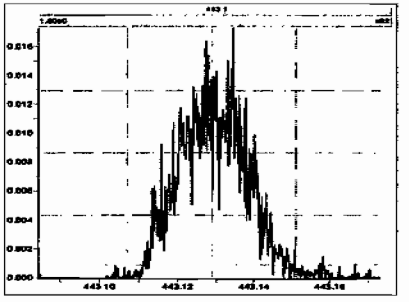

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M 454.9728 R 13160

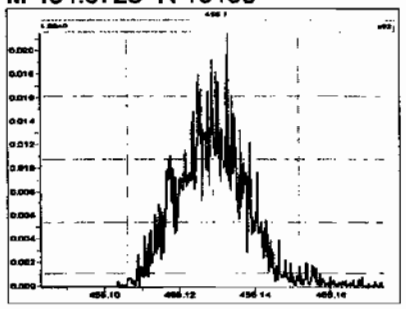

M 466.9728 R 13606

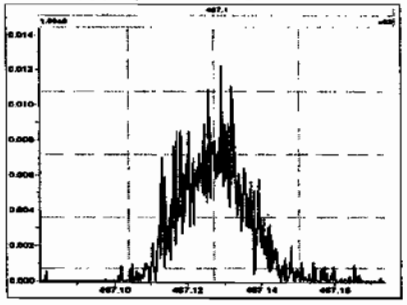

M 480.9696 R 14409

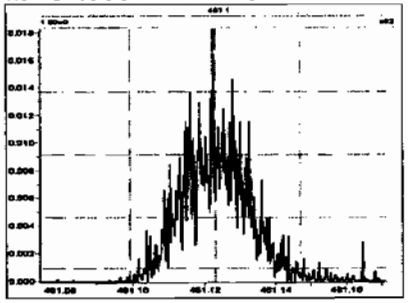

M 492.9696 R 13465

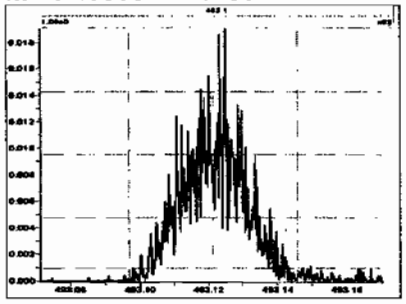

M 504.9696 R 13337

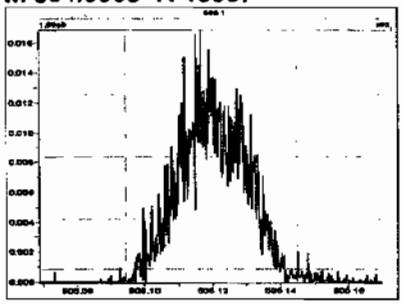

M 516.9697 R 13333

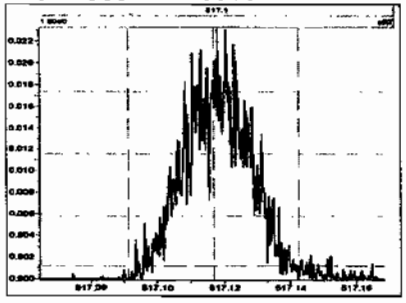

ICAL

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qid

Last Altered: Friday, October 30, 2009 08:35:54 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 21 Oct 2009 08:49:07
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 08:35:54

Compound name: 2,3,7,8-TCDD
Response Factor: 0.965178
RRF SD: 0.0384904, Relative SD: 3.98791
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	10.0	0.76	NO	25.80	1.001	2.70e5	2.89e6	9.66	-3.4	0.933
2	091029H1_3	0.250	0.84	NO	25.80	1.001	7.61e3	3.01e6	0.262	4.7	1.01
3	091029H1_4	0.500	0.78	NO	25.79	1.001	1.50e4	3.00e6	0.518	3.6	1.00
4	091029H1_5	2.00	0.77	NO	25.80	1.001	5.37e4	2.95e6	1.89	-5.7	0.910
5	091029H1_6	40.0	0.76	NO	25.80	1.001	1.19e6	3.08e6	40.0	0.1	0.966
6	091029H1_7	200	0.76	NO	25.80	1.001	4.94e6	2.54e6	202	0.8	0.972

Compound name: 1,2,3,7,8-PeCDD
Response Factor: 0.869202
RRF SD: 0.0185487, Relative SD: 2.134
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	0.61	NO	30.60	1.000	9.93e5	2.30e6	49.6	-0.7	0.863
2	091029H1_3	1.25	0.63	NO	30.61	1.001	2.55e4	2.34e6	1.25	0.1	0.870
3	091029H1_4	2.50	0.61	NO	30.60	1.000	5.19e4	2.32e6	2.57	2.9	0.894
4	091029H1_5	10.0	0.61	NO	30.60	1.001	1.90e5	2.27e6	9.64	-3.6	0.838
5	091029H1_6	200	0.61	NO	30.60	1.000	4.25e6	2.42e6	202	1.0	0.878
6	091029H1_7	1000	0.62	NO	30.60	1.000	1.81e7	2.08e6	1000	0.3	0.872

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on MS 10/30/09

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

Last Altered: Friday, October 30, 2009 08:35:54 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

Compound name: 1,2,3,4,7,8-HxCDD
Response Factor: 0.872922
RRF SD: 0.0286881, Relative SD: 3.28645
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	1.25	NO	33.95	1.000	8.67e5	2.05e6	48.5	-3.1	0.846
2	091029H1_3	1.25	1.23	NO	33.96	1.000	2.29e4	2.06e6	1.28	2.3	0.893
3	091029H1_4	2.50	1.22	NO	33.95	1.000	4.70e4	2.07e6	2.60	4.2	0.909
4	091029H1_5	10.0	1.24	NO	33.95	1.000	1.73e5	2.07e6	9.57	-4.3	0.835
5	091029H1_6	200	1.24	NO	33.95	1.000	3.76e6	2.17e6	199	-0.7	0.867
6	091029H1_7	1000	1.24	NO	33.96	1.000	1.66e7	1.87e6	1020	1.7	0.887

Compound name: 1,2,3,6,7,8-HxCDD
Response Factor: 0.939623
RRF SD: 0.0239863, Relative SD: 2.55276
Response type: Internal Std (Ref 21), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	1.24	NO	34.06	1.000	8.55e5	1.85e6	49.2	-1.6	0.925
2	091029H1_3	1.25	1.26	NO	34.07	1.000	2.21e4	1.84e6	1.28	2.3	0.961
3	091029H1_4	2.50	1.26	NO	34.06	1.000	4.55e4	1.87e6	2.58	3.4	0.971
4	091029H1_5	10.0	1.25	NO	34.06	1.001	1.67e5	1.84e6	9.67	-3.3	0.909
5	091029H1_6	200	1.24	NO	34.06	1.000	3.70e6	1.95e6	201	0.7	0.946
6	091029H1_7	1000	1.23	NO	34.07	1.001	1.58e7	1.70e6	986	-1.4	0.926

Compound name: 1,2,3,7,8,9-HxCDD
Response Factor: 0.882337
RRF SD: 0.0216134, Relative SD: 2.44956
Response type: Internal Std (Ref 22), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	1.23	NO	34.34	1.000	9.40e5	2.17e6	49.0	-1.9	0.866
2	091029H1_3	1.25	1.22	NO	34.35	1.000	2.45e4	2.14e6	1.30	3.8	0.916

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

Last Altered: Friday, October 30, 2009 08:35:54 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

Compound name: 1,2,3,7,8,9-HxCDD

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
3	091029H1_4	2.50	1.26	NO	34.34	1.000	4.93e4	2.19e6	2.55	2.0	0.900
4	091029H1_5	10.0	1.20	NO	34.33	1.000	1.84e5	2.14e6	9.76	-2.4	0.861
5	091029H1_6	200	1.24	NO	34.34	1.000	4.03e6	2.29e6	200	-0.1	0.881
6	091029H1_7	1000	1.23	NO	34.35	1.001	1.76e7	2.03e6	986	-1.4	0.870

Compound name: 1,2,3,4,6,7,8-HpCDD
Response Factor: 0.965318
RRF SD: 0.0196816, Relative SD: 2.03887
Response type: Internal Std (Ref 23), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	1.05	NO	37.92	1.001	8.08e5	1.69e6	49.5	-1.0	0.956
2	091029H1_3	1.25	1.02	NO	37.92	1.000	2.07e4	1.68e6	1.28	2.1	0.986
3	091029H1_4	2.50	1.05	NO	37.91	1.000	4.26e4	1.73e6	2.55	2.1	0.986
4	091029H1_5	10.0	1.04	NO	37.91	1.000	1.59e5	1.70e6	9.68	-3.2	0.934
5	091029H1_6	200	1.04	NO	37.91	1.000	3.42e6	1.78e6	199	-0.5	0.960
6	091029H1_7	1000	1.04	NO	37.91	1.000	1.53e7	1.57e6	1000	0.5	0.970

Compound name: OCDD
Response Factor: 1.04577
RRF SD: 0.0303372, Relative SD: 2.90094
Response type: Internal Std (Ref 24), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.87	NO	41.15	1.000	1.55e6	3.02e6	98.0	-2.0	1.02
2	091029H1_3	2.50	0.86	NO	41.15	1.000	3.84e4	2.89e6	2.55	1.9	1.07
3	091029H1_4	5.00	0.93	NO	41.14	1.000	8.10e4	2.96e6	5.23	4.6	1.09
4	091029H1_5	20.0	0.88	NO	41.14	1.000	2.97e5	2.94e6	19.3	-3.6	1.01
5	091029H1_6	400	0.88	NO	41.15	1.000	6.48e6	3.10e6	399	-0.1	1.04
6	091029H1_7	2000	0.88	NO	41.14	1.000	3.06e7	2.95e6	1990	-0.7	1.04

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

Last Altered: Friday, October 30, 2009 08:35:54 Pacific Daylight Time
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Compound name: 2,3,7,8-TCDF
Response Factor: 0.95224
RRF SD: 0.0234343, Relative SD: 2.46097
Response type: Internal Std (Ref 25), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	10.0	0.76	NO	24.98	1.001	3.23e5	3.43e6	9.89	-1.1	0.941
2	091029H1_3	0.250	0.73	NO	24.99	1.001	8.53e3	3.60e6	0.249	-0.5	0.948
3	091029H1_4	0.500	0.80	NO	24.98	1.001	1.77e4	3.62e6	0.513	2.7	0.978
4	091029H1_5	2.00	0.81	NO	24.96	1.001	6.47e4	3.54e6	1.92	-4.1	0.913
5	091029H1_6	40.0	0.77	NO	24.98	1.001	1.42e6	3.66e6	40.8	2.0	0.971
6	091029H1_7	200	0.78	NO	24.98	1.001	5.86e6	3.05e6	202	1.0	0.962

Compound name: 1,2,3,7,8-PeCDF
Response Factor: 0.994347
RRF SD: 0.034594, Relative SD: 3.47907
Response type: Internal Std (Ref 26), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	1.59	NO	29.35	1.000	1.51e6	3.14e6	48.5	-3.0	0.965
2	091029H1_3	1.25	1.63	NO	29.37	1.000	3.84e4	2.95e6	1.31	4.8	1.04
3	091029H1_4	2.50	1.61	NO	29.35	1.000	7.77e4	3.04e6	2.57	2.8	1.02
4	091029H1_5	10.0	1.59	NO	29.35	1.001	2.83e5	2.98e6	9.54	-4.6	0.949
5	091029H1_6	200	1.58	NO	29.35	1.000	6.12e6	3.08e6	200	0.0	0.995
6	091029H1_7	1000	1.58	NO	29.37	1.001	2.65e7	2.67e6	999	-0.1	0.993

Compound name: 2,3,4,7,8-PeCDF
Response Factor: 0.976655
RRF SD: 0.0326115, Relative SD: 3.3391
Response type: Internal Std (Ref 27), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	1.60	NO	30.31	1.000	1.41e6	2.94e6	49.1	-1.9	0.958
2	091029H1_3	1.25	1.55	NO	30.33	1.000	3.79e4	2.99e6	1.30	3.9	1.01

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

Last Altered: Friday, October 30, 2009 08:35:54 Pacific Daylight Time
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Compound name: 2,3,4,7,8-PeCDF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
3	091029H1_4	2.50	1.66	NO	30.31	1.000	7.57e4	2.98e6	2.60	4.2	1.02
4	091029H1_5	10.0	1.58	NO	30.31	1.000	2.72e5	2.91e6	9.57	-4.3	0.935
5	091029H1_6	200	1.57	NO	30.31	1.000	6.03e6	3.11e6	198	-0.8	0.969
6	091029H1_7	1000	1.58	NO	30.33	1.001	2.57e7	2.66e6	989	-1.1	0.966

Compound name: 1,2,3,4,7,8-HxCDF
Response Factor: 1.30821
RRF SD: 0.0290667, Relative SD: 2.22186
Response type: Internal Std (Ref 28), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	1.27	NO	33.07	1.000	1.57e6	2.43e6	49.5	-1.0	1.30
2	091029H1_3	1.25	1.26	NO	33.08	1.000	3.69e4	2.21e6	1.28	2.2	1.34
3	091029H1_4	2.50	1.22	NO	33.07	1.000	7.86e4	2.34e6	2.57	2.9	1.35
4	091029H1_5	10.0	1.26	NO	33.07	1.001	2.85e5	2.25e6	9.68	-3.2	1.27
5	091029H1_6	200	1.27	NO	33.07	1.000	6.04e6	2.32e6	199	-0.4	1.30
6	091029H1_7	1000	1.27	NO	33.08	1.000	2.65e7	2.04e6	995	-0.5	1.30

Compound name: 1,2,3,6,7,8-HxCDF
Response Factor: 1.14729
RRF SD: 0.0278692, Relative SD: 2.42914
Response type: Internal Std (Ref 29), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	1.26	NO	33.20	1.001	1.43e6	2.51e6	49.5	-0.9	1.14
2	091029H1_3	1.25	1.33	NO	33.20	1.000	3.60e4	2.48e6	1.27	1.2	1.16
3	091029H1_4	2.50	1.29	NO	33.19	1.000	7.53e4	2.52e6	2.61	4.3	1.20
4	091029H1_5	10.0	1.26	NO	33.19	1.000	2.76e5	2.46e6	9.75	-2.5	1.12
5	091029H1_6	200	1.26	NO	33.20	1.001	5.98e6	2.63e6	198	-0.9	1.14
6	091029H1_7	1000	1.26	NO	33.20	1.000	2.59e7	2.29e6	987	-1.3	1.13

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Compound name: 2,3,4,6,7,8-HxCDF
Response Factor: 1.19708
RRF SD: 0.0396654, Relative SD: 3.3135
Response type: Internal Std (Ref 30), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	1.27	NO	33.80	1.001	1.32e6	2.22e6	49.5	-1.1	1.18
2	091029H1_3	1.25	1.26	NO	33.81	1.001	3.32e4	2.22e6	1.25	0.1	1.20
3	091029H1_4	2.50	1.27	NO	33.80	1.001	7.11e4	2.24e6	2.65	6.0	1.27
4	091029H1_5	10.0	1.27	NO	33.78	1.000	2.56e5	2.23e6	9.59	-4.1	1.15
5	091029H1_6	200	1.27	NO	33.80	1.001	5.58e6	2.35e6	198	-0.8	1.19
6	091029H1_7	1000	1.27	NO	33.79	1.000	2.43e7	2.04e6	999	-0.1	1.20

Compound name: 1,2,3,7,8,9-HxCDF
Response Factor: 1.19871
RRF SD: 0.0279161, Relative SD: 2.32883
Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	1.27	NO	34.73	1.001	1.15e6	1.94e6	49.7	-0.5	1.19
2	091029H1_3	1.25	1.25	NO	34.73	1.000	2.93e4	1.93e6	1.26	1.0	1.21
3	091029H1_4	2.50	1.24	NO	34.73	1.001	6.20e4	1.99e6	2.59	3.8	1.24
4	091029H1_5	10.0	1.30	NO	34.72	1.000	2.26e5	1.95e6	9.67	-3.3	1.16
5	091029H1_6	200	1.28	NO	34.73	1.001	4.92e6	2.06e6	199	-0.4	1.19
6	091029H1_7	1000	1.27	NO	34.73	1.000	2.20e7	1.84e6	994	-0.6	1.19

Compound name: 1,2,3,4,6,7,8-HpCDF
Response Factor: 1.48578
RRF SD: 0.0448674, Relative SD: 3.01978
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	1.06	NO	36.51	1.001	1.24e6	1.70e6	49.1	-1.8	1.46
2	091029H1_3	1.25	1.00	NO	36.52	1.001	3.26e4	1.73e6	1.27	1.7	1.51

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Compound name: 1,2,3,4,6,7,8-HpCDF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
3	091029H1_4	2.50	1.09	NO	36.51	1.001	6.96e4	1.79e6	2.62	4.9	1.56
4	091029H1_5	10.0	1.04	NO	36.49	1.000	2.49e5	1.74e6	9.63	-3.7	1.43
5	091029H1_6	200	1.06	NO	36.51	1.000	5.42e6	1.82e6	200	0.2	1.49
6	091029H1_7	1000	1.06	NO	36.51	1.001	2.36e7	1.61e6	987	-1.3	1.47

Compound name: 1,2,3,4,7,8,9-HpCDF
Response Factor: 1.44071
RRF SD: 0.0446827, Relative SD: 3.10143
Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0	1.06	NO	38.47	1.000	1.14e6	1.61e6	49.2	-1.5	1.42
2	091029H1_3	1.25	1.12	NO	38.47	1.000	2.90e4	1.54e6	1.30	4.2	1.50
3	091029H1_4	2.50	1.06	NO	38.47	1.000	5.94e4	1.60e6	2.58	3.3	1.49
4	091029H1_5	10.0	1.05	NO	38.47	1.001	2.18e5	1.57e6	9.63	-3.7	1.39
5	091029H1_6	200	1.05	NO	38.47	1.000	4.72e6	1.65e6	198	-1.0	1.43
6	091029H1_7	1000	1.06	NO	38.47	1.000	2.13e7	1.50e6	987	-1.3	1.42

Compound name: OCDF
Response Factor: 1.02107
RRF SD: 0.0213676, Relative SD: 2.09268
Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.92	NO	41.37	1.000	1.92e6	3.79e6	99.1	-0.9	1.01
2	091029H1_3	2.50	0.90	NO	41.38	1.000	4.60e4	3.58e6	2.52	0.8	1.03
3	091029H1_4	5.00	0.89	NO	41.36	1.000	9.75e4	3.70e6	5.17	3.3	1.05
4	091029H1_5	20.0	0.91	NO	41.36	1.000	3.62e5	3.65e6	19.4	-3.0	0.991
5	091029H1_6	400	0.92	NO	41.37	1.000	7.97e6	3.88e6	402	0.5	1.03
6	091029H1_7	2000	0.92	NO	41.37	1.000	3.82e7	3.77e6	1990	-0.6	1.01

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Compound name: 13C-2,3,7,8-TCDD
Response Factor: 1.02322
RRF SD: 0.0171503, Relative SD: 1.67611
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	m/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.78	NO	25.79	1.025	2.89e6	2.83e6	99.8	-0.2	1.02
2	091029H1_3	100	0.77	NO	25.79	1.024	3.01e6	2.98e6	98.9	-1.1	1.01
3	091029H1_4	100	0.77	NO	25.77	1.024	3.00e6	2.98e6	98.2	-1.8	1.00
4	091029H1_5	100	0.78	NO	25.77	1.024	2.95e6	2.89e6	99.8	-0.2	1.02
5	091029H1_6	100	0.77	NO	25.77	1.024	3.08e6	3.00e6	100	0.3	1.03
6	091029H1_7	100	0.77	NO	25.79	1.025	2.54e6	2.41e6	103	3.1	1.05

Compound name: 13C-1,2,3,7,8-PeCDD
Response Factor: 0.805681
RRF SD: 0.0305278, Relative SD: 3.78907
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	m/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.62	NO	30.59	1.216	2.30e6	2.83e6	101	0.9	0.813
2	091029H1_3	100	0.61	NO	30.59	1.215	2.34e6	2.98e6	97.7	-2.3	0.787
3	091029H1_4	100	0.62	NO	30.59	1.216	2.32e6	2.98e6	96.7	-3.3	0.779
4	091029H1_5	100	0.63	NO	30.57	1.215	2.27e6	2.89e6	97.4	-2.6	0.785
5	091029H1_6	100	0.61	NO	30.59	1.216	2.42e6	3.00e6	100	0.4	0.809
6	091029H1_7	100	0.62	NO	30.59	1.216	2.08e6	2.41e6	107	6.9	0.861

Compound name: 13C-1,2,3,4,7,8-HxCDD
Response Factor: 1.07437
RRF SD: 0.0525525, Relative SD: 4.89147
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	m/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	1.24	NO	33.94	1.014	2.05e6	1.94e6	98.4	-1.6	1.06
2	091029H1_3	100	1.24	NO	33.95	1.014	2.06e6	1.97e6	97.3	-2.7	1.05

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Compound name: 13C-1,2,3,4,7,8-HxCDD

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
3	091029H1_4	100	1.25	NO	33.94	1.014	2.07e6	2.00e6	96.2	-3.8	1.03
4	091029H1_5	100	1.26	NO	33.94	1.014	2.07e6	1.95e6	98.7	-1.3	1.06
5	091029H1_6	100	1.25	NO	33.94	1.014	2.17e6	2.03e6	99.5	-0.5	1.07
6	091029H1_7	100	1.25	NO	33.95	1.014	1.87e6	1.59e6	110	9.7	1.18

Compound name: 13C-1,2,3,6,7,8-HxCDD
Response Factor: 0.967557
RRF SD: 0.0516769, Relative SD: 5.34097
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	1.23	NO	34.05	1.017	1.85e6	1.94e6	98.7	-1.3	0.955
2	091029H1_3	100	1.24	NO	34.06	1.017	1.84e6	1.97e6	96.7	-3.3	0.936
3	091029H1_4	100	1.24	NO	34.05	1.017	1.87e6	2.00e6	96.7	-3.3	0.936
4	091029H1_5	100	1.19	NO	34.04	1.017	1.84e6	1.95e6	97.8	-2.2	0.946
5	091029H1_6	100	1.25	NO	34.05	1.017	1.95e6	2.03e6	99.5	-0.5	0.963
6	091029H1_7	100	1.24	NO	34.05	1.017	1.70e6	1.59e6	111	10.7	1.07

Compound name: 13C-1,2,3,7,8,9-HxCDD
Response Factor: 1.13478
RRF SD: 0.0706211, Relative SD: 6.22336
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	1.22	NO	34.33	1.026	2.17e6	1.94e6	98.8	-1.2	1.12
2	091029H1_3	100	1.22	NO	34.34	1.026	2.14e6	1.97e6	96.1	-3.9	1.09
3	091029H1_4	100	1.24	NO	34.33	1.026	2.19e6	2.00e6	96.5	-3.5	1.09
4	091029H1_5	100	1.24	NO	34.33	1.026	2.14e6	1.95e6	96.9	-3.1	1.10
5	091029H1_6	100	1.24	NO	34.33	1.026	2.29e6	2.03e6	99.3	-0.7	1.13
6	091029H1_7	100	1.22	NO	34.33	1.026	2.03e6	1.59e6	112	12.4	1.28

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Compound name: 13C-1,2,3,4,6,7,8-HpCDD
Response Factor: 0.888498
RRF SD: 0.0503922, Relative SD: 5.67162
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	1.04	NO	37.90	1.133	1.69e6	1.94e6	98.2	-1.8	0.873
2	091029H1_3	100	1.04	NO	37.91	1.132	1.68e6	1.97e6	96.1	-3.9	0.854
3	091029H1_4	100	1.05	NO	37.90	1.133	1.73e6	2.00e6	97.3	-2.7	0.864
4	091029H1_5	100	1.04	NO	37.90	1.133	1.70e6	1.95e6	98.2	-1.8	0.873
5	091029H1_6	100	1.05	NO	37.90	1.133	1.78e6	2.03e6	98.8	-1.2	0.877
6	091029H1_7	100	1.04	NO	37.90	1.132	1.57e6	1.59e6	111	11.4	0.990

Compound name: 13C-OCDD
Response Factor: 0.783435
RRF SD: 0.0723055, Relative SD: 9.22929
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	200	0.88	NO	41.14	1.229	3.02e6	1.94e6	199	-0.4	0.780
2	091029H1_3	200	0.88	NO	41.14	1.229	2.89e6	1.97e6	187	-6.3	0.734
3	091029H1_4	200	0.89	NO	41.13	1.229	2.96e6	2.00e6	189	-5.5	0.740
4	091029H1_5	200	0.88	NO	41.11	1.229	2.94e6	1.95e6	193	-3.5	0.756
5	091029H1_6	200	0.88	NO	41.13	1.229	3.10e6	2.03e6	195	-2.5	0.764
6	091029H1_7	200	0.88	NO	41.13	1.229	2.95e6	1.59e6	237	18.3	0.927

Compound name: 13C-2,3,7,8-TCDF
Response Factor: 1.02888
RRF SD: 0.0172818, Relative SD: 1.67967
Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.78	NO	24.94	0.992	3.43e6	3.38e6	98.7	-1.3	1.02
2	091029H1_3	100	0.77	NO	24.96	0.992	3.60e6	3.51e6	99.8	-0.2	1.03

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Compound name: 13C-2,3,7,8-TCDF

	Name	Std. Conc.	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
3	091029H1_4	100	0.77	NO	24.94	0.992	3.62e6	3.56e6	98.9	-1.1	1.02
4	091029H1_5	100	0.78	NO	24.94	0.992	3.54e6	3.45e6	99.8	-0.2	1.03
5	091029H1_6	100	0.78	NO	24.94	0.992	3.66e6	3.58e6	99.4	-0.6	1.02
6	091029H1_7	100	0.78	NO	24.94	0.992	3.05e6	2.87e6	103	3.3	1.06

Compound name: 13C-1,2,3,7,8-PeCDF
Response Factor: 0.880151
RRF SD: 0.0392659, Relative SD: 4.46127
Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	1.56	NO	29.34	1.166	3.14e6	3.38e6	106	5.5	0.929
2	091029H1_3	100	1.55	NO	29.35	1.166	2.95e6	3.51e6	95.6	-4.4	0.841
3	091029H1_4	100	1.55	NO	29.34	1.166	3.04e6	3.56e6	97.1	-2.9	0.854
4	091029H1_5	100	1.54	NO	29.33	1.166	2.98e6	3.45e6	98.3	-1.7	0.865
5	091029H1_6	100	1.57	NO	29.34	1.166	3.08e6	3.58e6	97.8	-2.2	0.861
6	091029H1_7	100	1.56	NO	29.34	1.166	2.67e6	2.87e6	106	5.7	0.931

Compound name: 13C-2,3,4,7,8-PeCDF
Response Factor: 0.866826
RRF SD: 0.0333378, Relative SD: 3.84596
Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	1.56	NO	30.30	1.204	2.94e6	3.38e6	100	0.4	0.870
2	091029H1_3	100	1.55	NO	30.31	1.204	2.99e6	3.51e6	98.2	-1.8	0.851
3	091029H1_4	100	1.56	NO	30.30	1.204	2.98e6	3.56e6	96.5	-3.5	0.837
4	091029H1_5	100	1.55	NO	30.30	1.204	2.91e6	3.45e6	97.3	-2.7	0.844
5	091029H1_6	100	1.56	NO	30.30	1.204	3.11e6	3.58e6	100	0.5	0.871
6	091029H1_7	100	1.55	NO	30.30	1.204	2.66e6	2.87e6	107	7.1	0.929

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Compound name: 13C-1,2,3,4,7,8-HxCDF
Response Factor: 1.18709
RRF SD: 0.0641312, Relative SD: 5.4024
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.52	NO	33.06	0.988	2.43e6	1.94e6	105	5.4	1.25
2	091029H1_3	100	0.52	NO	33.07	0.988	2.21e6	1.97e6	94.7	-5.3	1.12
3	091029H1_4	100	0.53	NO	33.06	0.988	2.34e6	2.00e6	98.4	-1.6	1.17
4	091029H1_5	100	0.52	NO	33.05	0.988	2.25e6	1.95e6	97.3	-2.7	1.16
5	091029H1_6	100	0.52	NO	33.06	0.988	2.32e6	2.03e6	96.1	-3.9	1.14
6	091029H1_7	100	0.52	NO	33.07	0.988	2.04e6	1.59e6	108	8.0	1.28

Compound name: 13C-1,2,3,6,7,8-HxCDF
Response Factor: 1.30285
RRF SD: 0.0694571, Relative SD: 5.33117
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.53	NO	33.18	0.992	2.51e6	1.94e6	99.5	-0.5	1.30
2	091029H1_3	100	0.52	NO	33.19	0.992	2.48e6	1.97e6	96.9	-3.1	1.26
3	091029H1_4	100	0.52	NO	33.18	0.992	2.52e6	2.00e6	96.5	-3.5	1.26
4	091029H1_5	100	0.53	NO	33.18	0.992	2.46e6	1.95e6	97.1	-2.9	1.26
5	091029H1_6	100	0.53	NO	33.18	0.992	2.63e6	2.03e6	99.4	-0.6	1.30
6	091029H1_7	100	0.52	NO	33.19	0.992	2.29e6	1.59e6	111	10.6	1.44

Compound name: 13C-2,3,4,6,7,8-HxCDF
Response Factor: 1.16297
RRF SD: 0.0593969, Relative SD: 5.10735
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.52	NO	33.77	1.009	2.22e6	1.94e6	98.5	-1.5	1.15
2	091029H1_3	100	0.53	NO	33.78	1.009	2.22e6	1.97e6	97.0	-3.0	1.13

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

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Compound name: 13C-2,3,4,6,7,8-HxCDF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
3	091029H1_4	100	0.52	NO	33.77	1.009	2.24e6	2.00e6	96.3	-3.7	1.12
4	091029H1_5	100	0.52	NO	33.77	1.009	2.23e6	1.95e6	98.5	-1.5	1.15
5	091029H1_6	100	0.53	NO	33.77	1.009	2.35e6	2.03e6	99.6	-0.4	1.16
6	091029H1_7	100	0.52	NO	33.78	1.009	2.04e6	1.59e6	110	10.1	1.28

Compound name: 13C-1,2,3,7,8,9-HxCDF
Response Factor: 1.02651
RRF SD: 0.0663203, Relative SD: 6.46078
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.53	NO	34.71	1.037	1.94e6	1.94e6	97.3	-2.7	0.999
2	091029H1_3	100	0.52	NO	34.72	1.037	1.93e6	1.97e6	95.9	-4.1	0.984
3	091029H1_4	100	0.51	NO	34.71	1.037	1.99e6	2.00e6	97.1	-2.9	0.997
4	091029H1_5	100	0.53	NO	34.71	1.037	1.95e6	1.95e6	97.7	-2.3	1.00
5	091029H1_6	100	0.52	NO	34.71	1.037	2.06e6	2.03e6	98.9	-1.1	1.02
6	091029H1_7	100	0.53	NO	34.72	1.037	1.84e6	1.59e6	113	13.0	1.16

Compound name: 13C-1,2,3,4,6,7,8-HpCDF
Response Factor: 0.908728
RRF SD: 0.0517927, Relative SD: 5.69947
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.45	NO	36.48	1.090	1.70e6	1.94e6	96.4	-3.6	0.876
2	091029H1_3	100	0.45	NO	36.49	1.090	1.73e6	1.97e6	96.7	-3.3	0.879
3	091029H1_4	100	0.46	NO	36.48	1.090	1.79e6	2.00e6	98.2	-1.8	0.892
4	091029H1_5	100	0.45	NO	36.48	1.090	1.74e6	1.95e6	98.5	-1.5	0.895
5	091029H1_6	100	0.45	NO	36.49	1.090	1.82e6	2.03e6	98.7	-1.3	0.897
6	091029H1_7	100	0.45	NO	36.48	1.090	1.61e6	1.59e6	111	11.5	1.01

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

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Compound name: 13C-1,2,3,4,7,8,9-HpCDF
Response Factor: 0.829637
RRF SD: 0.0571689, Relative SD: 6.89083
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.46	NO	38.46	1.149	1.61e6	1.94e6	99.8	-0.2	0.828
2	091029H1_3	100	0.45	NO	38.47	1.149	1.54e6	1.97e6	94.6	-5.4	0.785
3	091029H1_4	100	0.44	NO	38.46	1.149	1.60e6	2.00e6	96.2	-3.8	0.798
4	091029H1_5	100	0.45	NO	38.45	1.149	1.57e6	1.95e6	97.5	-2.5	0.809
5	091029H1_6	100	0.46	NO	38.46	1.149	1.65e6	2.03e6	98.3	-1.7	0.815
6	091029H1_7	100	0.45	NO	38.46	1.149	1.50e6	1.59e6	114	13.6	0.942

Compound name: 13C-OCDF
Response Factor: 0.981924
RRF SD: 0.102634, Relative SD: 10.4524
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	200	0.89	NO	41.36	1.236	3.79e6	1.94e6	199	-0.4	0.978
2	091029H1_3	200	0.89	NO	41.37	1.236	3.58e6	1.97e6	185	-7.3	0.910
3	091029H1_4	200	0.90	NO	41.35	1.235	3.70e6	2.00e6	188	-5.9	0.924
4	091029H1_5	200	0.90	NO	41.35	1.235	3.65e6	1.95e6	191	-4.5	0.938
5	091029H1_6	200	0.90	NO	41.36	1.236	3.88e6	2.03e6	195	-2.6	0.956
6	091029H1_7	200	0.90	NO	41.35	1.235	3.77e6	1.59e6	242	20.8	1.19

Compound name: 37Cl-2,3,7,8-TCDD
Response Factor: 0.602231
RRF SD: 0.0238218, Relative SD: 3.95559
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	10.0			25.80	1.026	1.61e5	2.83e6	9.42	-5.8	0.568
2	091029H1_3	0.250			25.80	1.025	4.37e3	2.98e6	0.244	-2.5	0.587

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

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Compound name: 37Cl-2,3,7,8-TCDD

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
3	091029H1_4	0.500			25.80	1.026	9.11e3	2.98e6	0.507	1.4	0.611
4	091029H1_5	2.00			25.79	1.025	3.58e4	2.89e6	2.06	3.0	0.620
5	091029H1_6	40.0			25.80	1.026	7.13e5	3.00e6	39.5	-1.2	0.595
6	091029H1_7	200			25.80	1.026	3.05e6	2.41e6	210	5.1	0.633

Compound name: 13C-1,2,3,4-TCDD
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.78	NO	25.16	0.000	2.83e6	2.83e6	100	0.0	1.00
2	091029H1_3	100	0.78	NO	25.17	0.000	2.98e6	2.98e6	100	0.0	1.00
3	091029H1_4	100	0.78	NO	25.16	0.000	2.98e6	2.98e6	100	0.0	1.00
4	091029H1_5	100	0.77	NO	25.16	0.000	2.89e6	2.89e6	100	0.0	1.00
5	091029H1_6	100	0.79	NO	25.16	0.000	3.00e6	3.00e6	100	0.0	1.00
6	091029H1_7	100	0.77	NO	25.16	0.000	2.41e6	2.41e6	100	0.0	1.00

Compound name: 13C-1,2,3,4-TCDF
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.77	NO	23.61	0.000	3.38e6	3.38e6	100	0.0	1.00
2	091029H1_3	100	0.77	NO	23.61	0.000	3.51e6	3.51e6	100	0.0	1.00
3	091029H1_4	100	0.77	NO	23.60	0.000	3.56e6	3.56e6	100	0.0	1.00
4	091029H1_5	100	0.77	NO	23.60	0.000	3.45e6	3.45e6	100	0.0	1.00
5	091029H1_6	100	0.77	NO	23.60	0.000	3.58e6	3.58e6	100	0.0	1.00
6	091029H1_7	100	0.76	NO	23.60	0.000	2.87e6	2.87e6	100	0.0	1.00

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

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Compound name: 13C-1,2,3,4,6,9-HxCDF
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	100	0.52	NO	33.47	0.000	1.94e6	1.94e6	100	0.0	1.00
2	091029H1_3	100	0.52	NO	33.48	0.000	1.97e6	1.97e6	100	0.0	1.00
3	091029H1_4	100	0.51	NO	33.47	0.000	2.00e6	2.00e6	100	0.0	1.00
4	091029H1_5	100	0.53	NO	33.47	0.000	1.95e6	1.95e6	100	0.0	1.00
5	091029H1_6	100	0.52	NO	33.47	0.000	2.03e6	2.03e6	100	0.0	1.00
6	091029H1_7	100	0.52	NO	33.48	0.000	1.59e6	1.59e6	100	0.0	1.00

Compound name: Total Tetra-Dioxins
Response Factor: 0.965178
RRF SD: 0.0384904, Relative SD: 3.98791
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	10.0						2.89e6	58.2		
2	091029H1_3	0.250						3.01e6	0.262		
3	091029H1_4	0.500						3.00e6	0.518		
4	091029H1_5	2.00						2.95e6	1.89		
5	091029H1_6	40.0						3.08e6	40.1		
6	091029H1_7	200						2.54e6	202		

Compound name: Total Penta-Dioxins
Response Factor: 0.869202
RRF SD: 0.0185487, Relative SD: 2.134
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0						2.30e6	154		
2	091029H1_3	1.25						2.34e6	1.27		

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Compound name: Total Penta-Dioxins

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
3	091029H1_4	2.50						2.32e6	2.57		
4	091029H1_5	10.0						2.27e6	9.64		
5	091029H1_6	200						2.42e6	202		
6	091029H1_7	1000						2.08e6	1000		

Compound name: Total Hexa-Dioxins
Response Factor: 0.939623
RRF SD: 0.0239863, Relative SD: 2.55276
Response type: Internal Std (Ref 21), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0						0.00e0	191		
2	091029H1_3	1.25						0.00e0	3.85		
3	091029H1_4	2.50						0.00e0	7.74		
4	091029H1_5	10.0						0.00e0	29.0		
5	091029H1_6	200						0.00e0	600		
6	091029H1_7	1000						0.00e0	2990		

Compound name: Total Hepta-Dioxins
Response Factor: 0.965318
RRF SD: 0.0196816, Relative SD: 2.03887
Response type: Internal Std (Ref 23), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0						1.69e6	127		
2	091029H1_3	1.25						1.68e6	1.33		
3	091029H1_4	2.50						1.73e6	2.61		
4	091029H1_5	10.0						1.70e6	9.68		
5	091029H1_6	200						1.78e6	200		
6	091029H1_7	1000						1.57e6	1010		

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Compound name: Total Tetra-Furans
Response Factor: 0.95224
RRF SD: 0.0234343, Relative SD: 2.46097
Response type: Internal Std (Ref 25), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	10.0						3.43e6	32.5		
2	091029H1_3	0.250						3.60e6	0.249		
3	091029H1_4	0.500						3.62e6	0.517		
4	091029H1_5	2.00						3.54e6	1.94		
5	091029H1_6	40.0						3.66e6	41.2		
6	091029H1_7	200						3.05e6	204		

Compound name: 1st Func. Penta-Furans
Response Factor: 0.994347
RRF SD: 0.034594, Relative SD: 3.47907
Response type: Internal Std (Ref 26), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0						0.00e0	76.5		
2	091029H1_3	1.25						0.00e0	0.000		
3	091029H1_4	2.50						0.00e0	0.00302		
4	091029H1_5	10.0						0.00e0	0.000		
5	091029H1_6	200						0.00e0	0.00217		
6	091029H1_7	1000						0.00e0	0.00670		

Compound name: Total Penta-Furans
Response Factor: 0.994347
RRF SD: 0.034594, Relative SD: 3.47907
Response type: Internal Std (Ref 26), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0						0.00e0	151		
2	091029H1_3	1.25						0.00e0	2.61		

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Compound name: Total Penta-Furans

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
3	091029H1_4	2.50						0.00e0	5.20		
4	091029H1_5	10.0						0.00e0	19.3		
5	091029H1_6	200						0.00e0	404		
6	091029H1_7	1000						0.00e0	2010		

Compound name: Total Hexa-Furans
Response Factor: 1.19708
RRF SD: 0.0396654, Relative SD: 3.3135
Response type: Internal Std (Ref 30), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0						0.00e0	248		
2	091029H1_3	1.25						0.00e0	5.06		
3	091029H1_4	2.50						0.00e0	10.4		
4	091029H1_5	10.0						0.00e0	38.7		
5	091029H1_6	200						0.00e0	796		
6	091029H1_7	1000						0.00e0	3980		

Compound name: Total Hepta-Furans
Response Factor: 1.48578
RRF SD: 0.0448674, Relative SD: 3.01978
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	50.0						0.00e0	98.5		
2	091029H1_3	1.25						0.00e0	2.57		
3	091029H1_4	2.50						0.00e0	5.21		
4	091029H1_5	10.0						0.00e0	19.3		
5	091029H1_6	200						0.00e0	400		
6	091029H1_7	1000						0.00e0	1980		

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Compound name: PFK1
No Calibration
Response type: External Std, Area
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	1.00									
2	091029H1_3	1.00									
3	091029H1_4	1.00									
4	091029H1_5	1.00									
5	091029H1_6	1.00									
6	091029H1_7	1.00									

Compound name: PFK2
No Calibration
Response type: External Std, Area
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	1.00									
2	091029H1_3	1.00									
3	091029H1_4	1.00									
4	091029H1_5	1.00									
5	091029H1_6	1.00									
6	091029H1_7	1.00									

Compound name: PFK3
No Calibration
Response type: External Std, Area
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	1.00									
2	091029H1_3	1.00									
3	091029H1_4	1.00									
4	091029H1_5	1.00									

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

Last Altered: Friday, October 30, 2009 08:35:54 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

Compound name: PFK3

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
5	091029H1_6	1.00									
6	091029H1_7	1.00									

Compound name: PFK4
No Calibration
Response type: External Std, Area
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	1.00									
2	091029H1_3	1.00									
3	091029H1_4	1.00									
4	091029H1_5	1.00									
5	091029H1_6	1.00									
6	091029H1_7	1.00									

Compound name: PFK5
No Calibration
Response type: External Std, Area
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	1.00									
2	091029H1_3	1.00									
3	091029H1_4	1.00									
4	091029H1_5	1.00									
5	091029H1_6	1.00									
6	091029H1_7	1.00									

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

Last Altered: Friday, October 30, 2009 08:35:54 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

Compound name: DPE1
No Calibration
Response type: External Std, Area
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	1.00									
2	091029H1_3	1.00									
3	091029H1_4	1.00									
4	091029H1_5	1.00									
5	091029H1_6	1.00									
6	091029H1_7	1.00									

Compound name: DPE2
No Calibration
Response type: External Std, Area
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	1.00									
2	091029H1_3	1.00									
3	091029H1_4	1.00									
4	091029H1_5	1.00									
5	091029H1_6	1.00									
6	091029H1_7	1.00									

Compound name: DPE3
No Calibration
Response type: External Std, Area
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	1.00									
2	091029H1_3	1.00									
3	091029H1_4	1.00									
4	091029H1_5	1.00									

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

Last Altered: Friday, October 30, 2009 08:35:54 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

Compound name: DPE3

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
5	091029H1_6	1.00									
6	091029H1_7	1.00									

Compound name: DPE4
No Calibration
Response type: External Std, Area
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	1.00									
2	091029H1_3	1.00									
3	091029H1_4	1.00									
4	091029H1_5	1.00									
5	091029H1_6	1.00									
6	091029H1_7	1.00									

Compound name: DPE5
No Calibration
Response type: External Std, Area
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	1.00									
2	091029H1_3	1.00									
3	091029H1_4	1.00									
4	091029H1_5	1.00									
5	091029H1_6	1.00									
6	091029H1_7	1.00									

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

Last Altered: Friday, October 30, 2009 08:35:54 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

Compound name: DPE6
No Calibration
Response type: External Std, Area
Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF
1	091029H1_1	1.00									
2	091029H1_3	1.00									
3	091029H1_4	1.00									
4	091029H1_5	1.00									
5	091029H1_6	1.00									
6	091029H1_7	1.00									

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Vista Analytical Laboratory
Initial Calibration Date: 10/29/2009
Instrument ID: VG10
VER Data file name: 091029H1_1

CCAL ID: ST091029H1-1

GC Column ID: DB-5
Analysis Date: 29-Oct-09 Analysis Time: 12:26:55

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
2,3,7,8-TCDD	M/M+2	0.76	0.65-0.89	NO	9.66	7.8	12.9	Yes	8.00	12.0	Yes
						8.2	12.3 (4)				
1,2,3,7,8-PeCDD	M/M+2	0.61	0.54-0.72	NO	49.6	39.0	65.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	48.5	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	49.2	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDD	M+2/M+4	1.23	1.05-1.43	NO	49.0	41.0	61.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	NO	49.5	43.0	58.0	Yes	40.0	60.0	Yes
OCDD	M+2/M+4	0.87	0.76-1.02	NO	98.0	79.0	126.0	Yes	80.0	120.0	Yes
2,3,7,8-TCDF	M/M+2	0.76	0.65-0.89	NO	9.89	8.4	12.0	Yes	8.00	12.0	Yes
						8.6	11.6 (4)				
1,2,3,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78	NO	48.5	41.0	60.0	Yes	40.0	60.0	Yes
2,3,4,7,8-PeCDF	M+2/M+4	1.60	1.32-1.78	NO	49.1	41.0	60.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDF	M+2/M+4	1.27	1.05-1.43	NO	49.5	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	NO	49.5	44.0	57.0	Yes	40.0	60.0	Yes
2,3,4,6,7,8-HxCDF	M+2/M+4	1.27	1.05-1.43	NO	49.5	44.0	57.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDF	M+2/M+4	1.27	1.05-1.43	NO	49.7	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.06	0.88-1.20	NO	49.1	45.0	55.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.06	0.88-1.20	NO	49.2	43.0	58.0	Yes	40.0	60.0	Yes
OCDF	M+2/M+4	0.92	0.76-1.02	NO	99.1	63.0	159.0	Yes	80.0	120.0	Yes

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [signature]
Date: 10/30/09

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Vista Analytical Laboratory
Initial Calibration Date: 10/29/2009
Instrument ID: VG10
VER Data file name: 091029H1_1

CCAL ID: ST091029H1-1

GC Column ID: DB-5
Analysis Date: 29-Oct-09
Analysis Time: 12:26:55

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
13C-2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	NO	99.8	82.0	121.0	Yes	70.0	130.0	Yes
						85.0	117.0 (5)				
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	NO	101	62.0	160.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	98.4	85.0	117.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	NO	98.7	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.22	1.05-1.43	NO	98.8	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.04	0.88-1.20	NO	98.2	72.0	138.0	Yes	70.0	130.0	Yes
13C-OCDD	M+2/M+4	0.88	0.76-1.02	NO	199	96.0	415.0	Yes	140.0	260.0	Yes
13C-2,3,7,8-TCDF	M/M+2	0.78	0.65-0.89	NO	98.7	71.0	140.0	Yes	70.0	130.0	Yes
						76.0	131.0 (5)				
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	NO	106	76.0	130.0	Yes	70.0	130.0	Yes
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	NO	100	77.0	130.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	105	76.0	131.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.53	0.43-0.59	NO	99.5	70.0	143.0	Yes	70.0	130.0	Yes
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	98.5	73.0	137.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.53	0.43-0.59	NO	97.3	74.0	135.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.45	0.37-0.51	NO	96.4	78.0	129.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.46	0.37-0.51	NO	99.8	77.0	129.0	Yes	70.0	130.0	Yes
13C-OCDF	M+2/M+4	0.89	0.76-1.02	NO	199	96.0	415.0	Yes	140.0	260.0	Yes
CLEANUP STANDARD (4)											
37Cl-2,3,7,8-TCDD					9.42	7.9	12.7	Yes	7.0	13.0	Yes
						8.3	12.1 (5)				

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) No ion abundance ratio; report concentration found
(5) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [signature]
Date: 10/30/09

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, October 30, 2009 8:32:58 AM Pacific Daylight Time
Printed: Friday, October 30, 2009 8:33:22 AM Pacific Daylight Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\cpsm.mdb 26 Oct 2009 09:08:22
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-9-25-09.cdb 25 Sep 2009 14:50:28

Name: 091029H1_1, Date: 29-Oct-2009, Time: 12:26:55, ID: ST091029H1-1 1613 CS3 090922G, Description: 1613 CS3 090922G

	#	Name	RT
1	1	1,3,6,8-TCDD (First)	22.07
2	2	1,2,8,9-TCDD (Last)	26.73
3	3	1,2,4,7,9-PeCDD (First)	28.43
4	4	1,2,3,8,9-PeCDD (Last)	30.98
5	5	12,4,6,7,9-HxCDD (First)	32.44
6	6	1,2,3,7,8,9-HxCDD (Last)	34.34
7	7	1,2,3,4,6,7,9-HpCDD (First)	36.90
8	8	1,2,3,4,6,7,8-HpCDD (Last)	37.92
9	9	1,3,6,8-TCDF (First)	19.95
10	10	1,2,8,9-TCDF (Last)	26.89
11	11	1,3,4,6,8-PeCDF (First)	26.81
12	12	1,2,3,8,9-PeCDF (Last)	31.23
13	13	1,2,3,4,6,8-HxCDF (First)	31.90
14	14	1,2,3,4,8,9-HxCDF (Last)	34.73
15	15	1,2,3,4,6,7,8-HpCDF (First)	36.51
16	16	1,2,3,4,7,8,9-HpCDF (Last)	38.47

10/30/09

FORM 6A

PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory

CCAL ID: ST091029H1-1

Initial Calibration Date: 10/29/2009

Instrument ID: VG10

GC Column ID: DB-5

VER Data file name: 091029H1_1

Analysis Date: 29-Oct-09

Analysis Time: 12:26:55

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999	1.002	Yes
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.000	0.999	1.002	Yes
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999	1.003	Yes
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999	1.002	Yes
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999	1.002	Yes
LABELED COMPOUNDS					
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.025	0.976	1.043	Yes
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.216	1.000	1.567	Yes
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.992	0.923	1.103	Yes
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.166	1.000	1.425	Yes
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.204	1.011	1.526	Yes
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.026	0.989	1.052	Yes

(1) Contract required limits for Relative Retention Times (RRT) as specified in Table2, Method 1613. 10/94

Analyst: _____

Date: 10/30/09

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory
Initial Calibration Date: 10/29/2009
Instrument ID: VG10
VER Data file name: 091029H1_1

CCAL ID: ST091029H1-1

GC Column ID: DB-5
Analysis Date: 29-Oct-09

Analysis Time: 12:26:55

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999	1.001	Yes
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998	1.004	Yes
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.000	1.000	1.019	Yes
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.001	0.999	1.001	Yes
OCDD	13C-OCDD	1.000	0.999	1.001	Yes
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.000	0.999	1.001	Yes
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.001	0.997	1.005	Yes
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.001	0.999	1.001	Yes
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999	1.001	Yes
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.001	0.999	1.001	Yes
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999	1.001	Yes
OCDF	13C-OCDF	1.000	0.999	1.001	Yes
LABELED COMPOUNDS					
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.014	1.002	1.026	Yes
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.017	1.007	1.029	Yes
13C-1,2,3,7,8,9-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.026	1.014	1.038	Yes
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,9-HxCDF	1.133	1.117	1.141	Yes
13C-OCDD	13C-1,2,3,4,6,9-HxCDF	1.229	1.085	1.365	Yes
13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.988	0.975	1.001	Yes
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.992	0.979	1.005	Yes
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.009	1.001	1.020	Yes
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.037	1.002	1.072	Yes
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.090	1.069	1.111	Yes
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.149	1.098	1.192	Yes
13C-OCDF	13C-1,2,3,4,6,9-HxCDF	1.236	1.091	1.371	Yes

(1) Contract required limits for Relative Retention Times (RRT) as specified in Table2, Method 1613. 10/94

Analyst: _____

Date: 10/30/09

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

Last Altered: Friday, October 30, 2009 08:35:54 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:51:57 Pacific Daylight Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 21 Oct 2009 08:49:07
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 08:35:54

Name: 091029H1_1, Date: 29-Oct-2009, Time: 12:26:55, ID: ST091029H1-1 1613 CS3 090922G, Description: 1613 CS3 090922G

	#	Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
1	1	2,3,7,8-TCDD	2.70e5	0.76	NO	0.965	1.000	25.80	1.001	9.6644	96.6	0.0243	9.6640
2	2	1,2,3,7,8-PeCDD	9.93e5	0.61	NO	0.869	1.000	30.60	1.000	49.628	99.3	0.0409	49.628
3	3	1,2,3,4,7,8-HxCDD	8.67e5	1.25	NO	0.873	1.000	33.95	1.000	48.463	96.9	0.0656	48.463
4	4	1,2,3,6,7,8-HxCDD	8.55e5	1.24	NO	0.940	1.000	34.06	1.000	49.198	98.4	0.0706	49.198
5	5	1,2,3,7,8,9-HxCDD	9.40e5	1.23	NO	0.882	1.000	34.34	1.000	49.050	98.1	0.0649	49.050
6	6	1,2,3,4,6,7,8-HpCDD	8.08e5	1.05	NO	0.965	1.000	37.92	1.001	49.497	99.0	0.120	49.497
7	7	OCDD	1.55e6	0.87	NO	1.05	1.000	41.15	1.000	97.965	98.0	0.0583	97.965
8	8	2,3,7,8-TCDF	3.23e5	0.76	NO	0.952	1.000	24.98	1.001	9.8865	98.9	0.0245	9.8870
9	9	1,2,3,7,8-PeCDF	1.51e6	1.59	NO	0.994	1.000	29.35	1.000	48.522	97.0	0.0409	48.522
10	10	2,3,4,7,8-PeCDF	1.41e6	1.60	NO	0.977	1.000	30.31	1.000	49.068	98.1	0.0404	49.068
11	11	1,2,3,4,7,8-HxCDF	1.57e6	1.27	NO	1.31	1.000	33.07	1.000	49.523	99.0	0.0519	49.523
12	12	1,2,3,6,7,8-HxCDF	1.43e6	1.26	NO	1.15	1.000	33.20	1.001	49.536	99.1	0.0624	49.536
13	13	2,3,4,6,7,8-HxCDF	1.32e6	1.27	NO	1.20	1.000	33.80	1.001	49.474	98.9	0.0707	49.474
14	14	1,2,3,7,8,9-HxCDF	1.15e6	1.27	NO	1.20	1.000	34.73	1.001	49.747	99.5	0.0916	49.747
15	15	1,2,3,4,6,7,8-HpCDF	1.24e6	1.06	NO	1.49	1.000	36.51	1.001	49.078	98.2	0.0958	49.078
16	16	1,2,3,4,7,8,9-HpCDF	1.14e6	1.06	NO	1.44	1.000	38.47	1.000	49.232	98.5	0.0905	49.232
17	17	OCDF	1.92e6	0.92	NO	1.02	1.000	41.37	1.000	99.055	99.1	0.0469	99.055
18	18	13C-2,3,7,8-TCDD	2.89e6	0.78	NO	1.02	1.000	25.79	1.025	99.758	99.8	0.0877	
19	19	13C-1,2,3,7,8-PeCDD	2.30e6	0.62	NO	0.806	1.000	30.59	1.216	100.92	101	0.0578	
20	20	13C-1,2,3,4,7,8-HxCDD	2.05e6	1.24	NO	1.07	1.000	33.94	1.014	98.436	98.4	0.0845	
21	21	13C-1,2,3,6,7,8-HxCDD	1.85e6	1.23	NO	0.968	1.000	34.05	1.017	98.652	98.7	0.0938	
22	22	13C-1,2,3,7,8,9-HxCDD	2.17e6	1.22	NO	1.13	1.000	34.33	1.026	98.777	98.8	0.0800	
23	23	13C-1,2,3,4,6,7,8-HpCDD	1.69e6	1.04	NO	0.888	1.000	37.90	1.133	98.246	98.2	0.149	
24	24	13C-OCDD	3.02e6	0.88	NO	0.783	1.000	41.14	1.229	199.12	99.6	0.0892	
25	25	13C-2,3,7,8-TCDF	3.43e6	0.78	NO	1.03	1.000	24.94	0.992	98.718	98.7	0.0890	
26	26	13C-1,2,3,7,8-PeCDF	3.14e6	1.56	NO	0.880	1.000	29.34	1.166	105.53	106	0.145	
27	27	13C-2,3,4,7,8-PeCDF	2.94e6	1.56	NO	0.867	1.000	30.30	1.204	100.36	100	0.147	
28	28	13C-1,2,3,4,7,8-HxCDF	2.43e6	0.52	NO	1.19	1.000	33.06	0.988	105.42	105	0.120	
29	29	13C-1,2,3,6,7,8-HxCDF	2.51e6	0.53	NO	1.30	1.000	33.18	0.992	99.492	99.5	0.109	
30	30	13C-2,3,4,6,7,8-HxCDF	2.22e6	0.52	NO	1.16	1.000	33.77	1.009	98.540	98.5	0.123	

10/30/09

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

Last Altered: Friday, October 30, 2009 08:35:54 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:51:57 Pacific Daylight Time

Name: 091029H1_1, Date: 29-Oct-2009, Time: 12:26:55, ID: ST091029H1-1 1613 CS3 090922G, Description: 1613 CS3 090922G

	# Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
31	31 13C-1,2,3,7,8,9-HxCDF	1.94e6	0.53	NO	1.03	1.000	34.71	1.037	97.319	97.3	0.139	
32	32 13C-1,2,3,4,6,7,8-HpCDF	1.70e6	0.45	NO	0.909	1.000	36.48	1.090	96.396	96.4	0.185	
33	33 13C-1,2,3,4,7,8,9-HpCDF	1.61e6	0.46	NO	0.830	1.000	38.46	1.149	99.838	99.8	0.202	
34	34 13C-OCDF	3.79e6	0.89	NO	0.982	1.000	41.36	1.236	199.14	99.6	0.0726	
35	35 37Cl-2,3,7,8-TCDD	1.61e5			0.602	1.000	25.80	1.026	9.4233	94.2	0.0293	
36	36 13C-1,2,3,4-TCDD	2.83e6	0.78	NO	1.00	1.000	25.16	0.000	100.00	100	0.0897	
37	37 13C-1,2,3,4-TCDF	3.38e6	0.77	NO	1.00	1.000	23.61	0.000	100.00	100	0.0916	
38	38 13C-1,2,3,4,6,9-HxCDF	1.94e6	0.52	NO	1.00	1.000	33.47	0.000	100.00	100	0.143	

Quantify Compound Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, October 30, 2009 7:42:15 AM Pacific Daylight Time
Printed: Friday, October 30, 2009 8:32:41 AM Pacific Daylight Time

Method: C:\MassLynx\Default.pro\Methdb\cpsm.mdb 26 Oct 2009 09:08:22
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-9-25-09.cdb 25 Sep 2009 14:50:28

Compound name: 1,3,6,8-TCDD (First)

	Name	ID	Acq Date	Acq Time
1	091029H1_1	ST091029H1-1 1613 CS3 090922G	29-Oct-09	12:26:55
2	091029H1_2	solvent blank	29-Oct-09	13:16:27
3	091029H1_3	ST091029H1-2 1613 CS0 090922D	29-Oct-09	14:05:59
4	091029H1_4	ST091029H1-3 1613 CS1 090922E	29-Oct-09	14:55:29
5	091029H1_5	ST091029H1-4 1613 CS2 090922F	29-Oct-09	15:45:05
6	091029H1_6	ST091029H1-5 1613 CS4 090922H	29-Oct-09	16:34:36
7	091029H1_7	ST091029H1-6 1613 CS5 090922I	29-Oct-09	17:24:08
8	091029H1_8	solvent blank	29-Oct-09	18:13:39
9	091029H1_9	SSS091029H1-1 Sec Src Std 090219C	29-Oct-09	19:02:56

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed: Thursday, October 29, 2009 12:24:42 Pacific Daylight Time

M 292.9824 R 13964

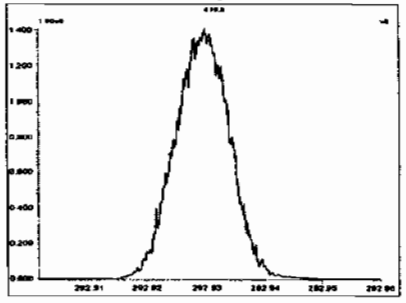

M 304.9824 R 14622

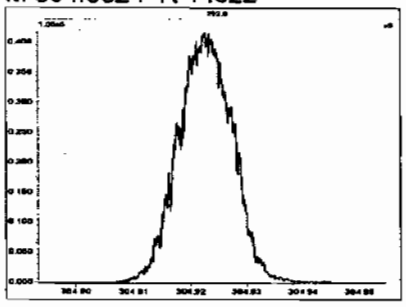

M 318.9792 R 14204

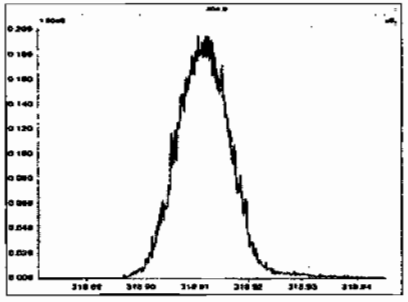

M 330.9792 R 14128

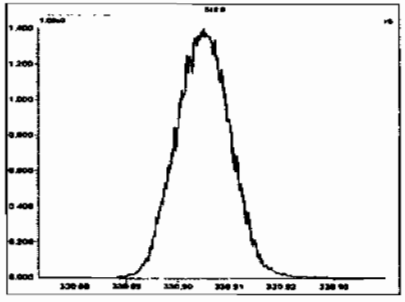

M 342.9792 R 13662

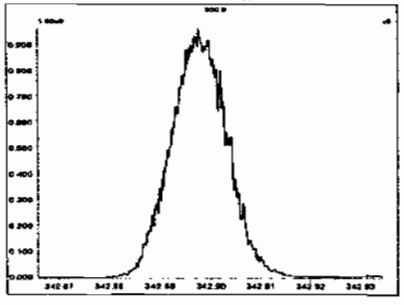

M 354.9792 R 13585

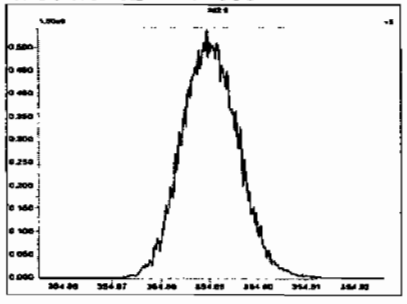

M 366.9792 R 13091

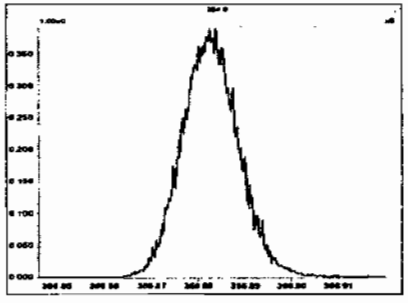

M 380.9760 R 13021

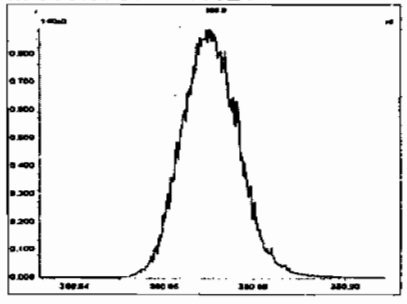

M 392.9760 R 12624

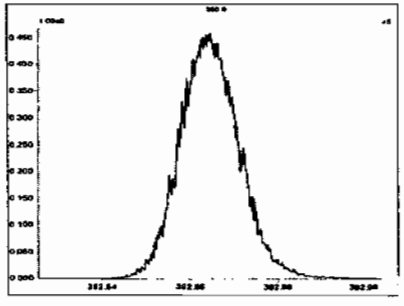

M 404.9760 R 12691

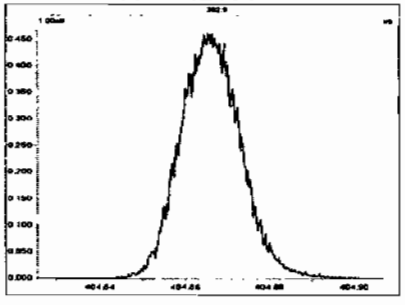

M 416.9760 R 12437

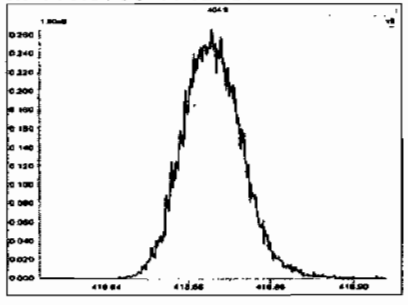

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed: Thursday, October 29, 2009 12:25:09 Pacific Daylight Time

M 330.9792 R 14366

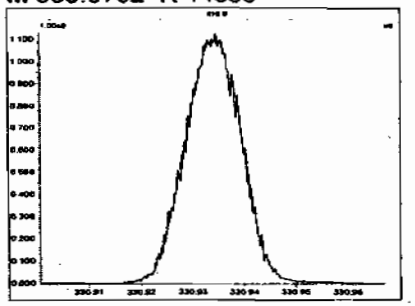

M 342.9792 R 14966

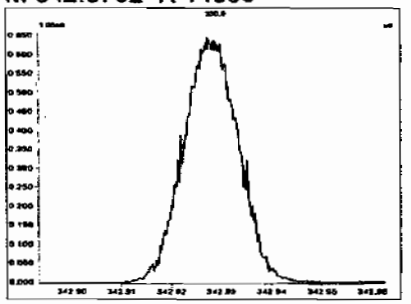

M 354.9792 R 14619

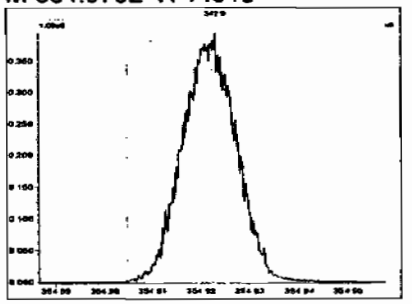

M 366.9792 R 14365

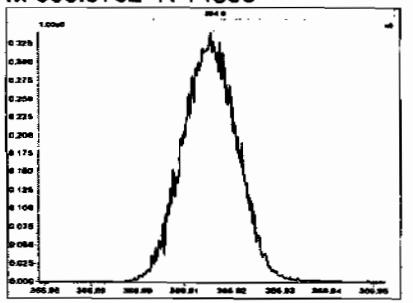

M 380.9760 R 13515

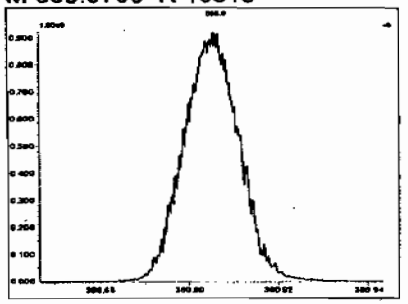

M 392.9760 R 13586

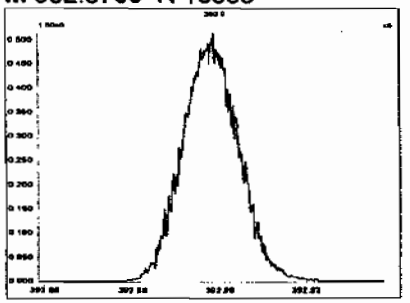

M 404.9760 R 13295

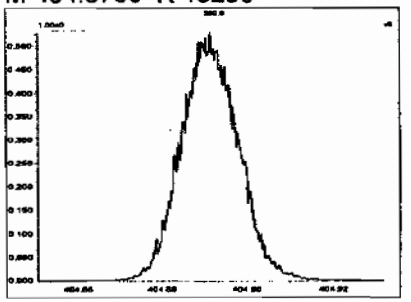

M 416.9760 R 12953

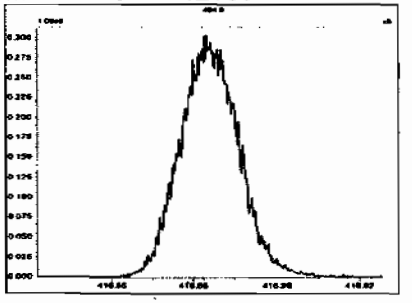

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed: Thursday, October 29, 2009 12:25:39 Pacific Daylight Time

M 366.9792 R 14124

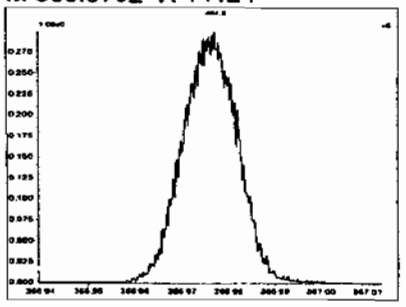

M 380.9760 R 14284

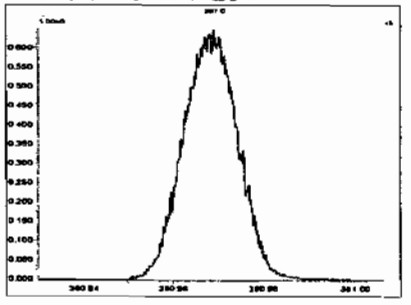

M 392.9760 R 14369

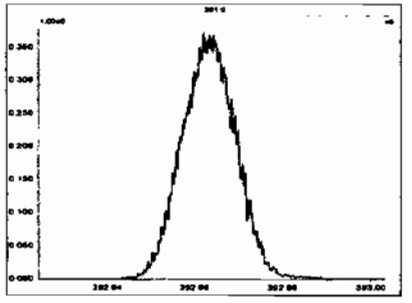

M 404.9760 R 14049

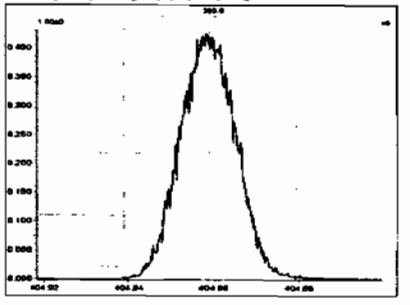

M 416.9760 R 14283

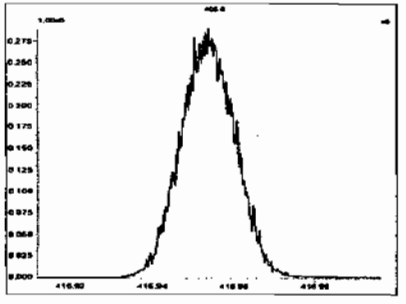

M 430.9728 R 13437

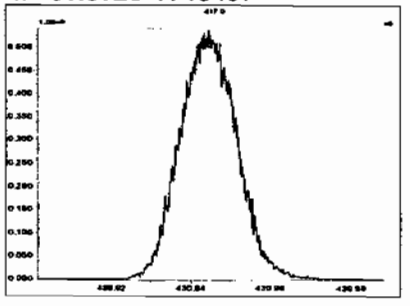

M 442.9728 R 13660

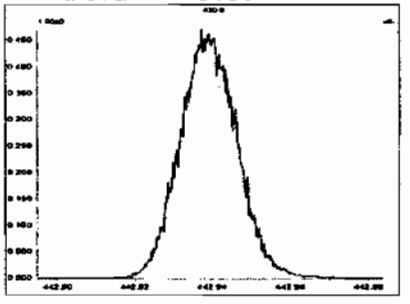

M 454.9728 R 13022

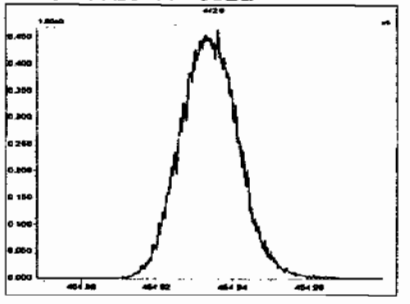

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed: Thursday, October 29, 2009 12:25:57 Pacific Daylight Time

M 404.9760 R 14971

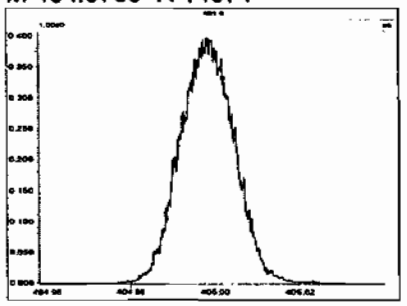

M 416.9760 R 14123

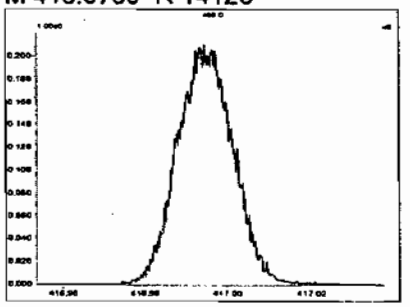

M 430.9728 R 14283

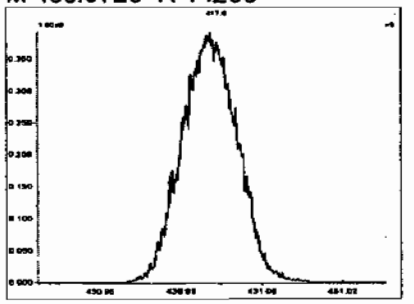

M 442.9728 R 14124

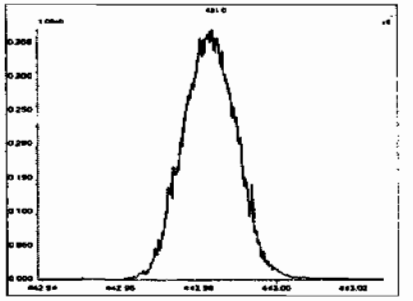

M 454.9728 R 13965

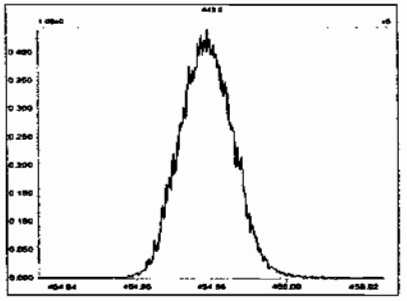

M 466.9728 R 13963

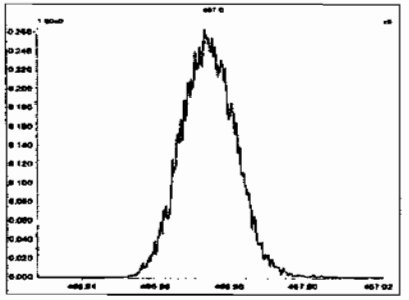

M 480.9696 R 13227

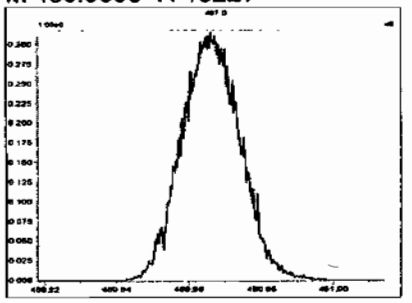

Experiment Calibration Report **MassLynx 4.1**

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed: Thursday, October 29, 2009 12:26:22 Pacific Daylight Time

M 430.9728 R 14124

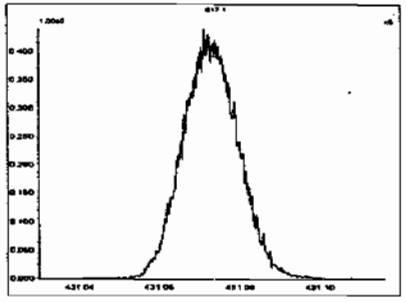

M 442.9728 R 13810

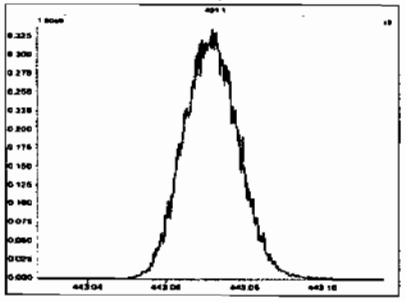

M 454.9728 R 13588

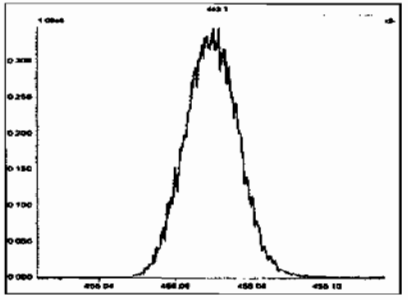

M 466.9728 R 13966

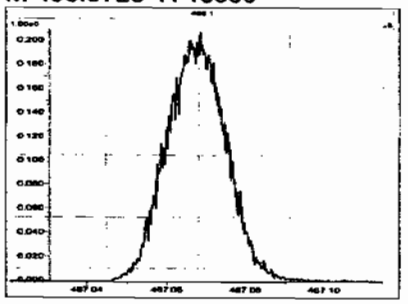

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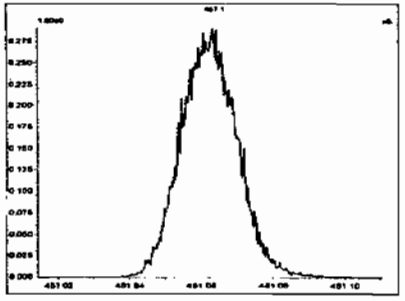

M 492.9696 R 13967

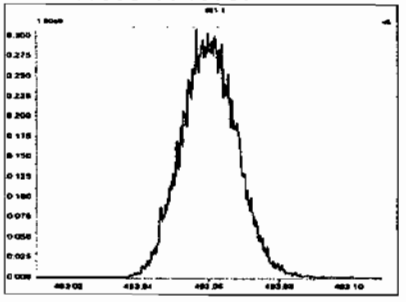

M 504.9696 R 12886

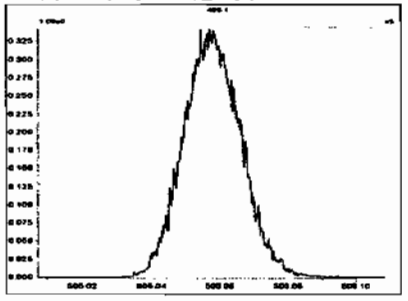

M 516.9697 R 12888

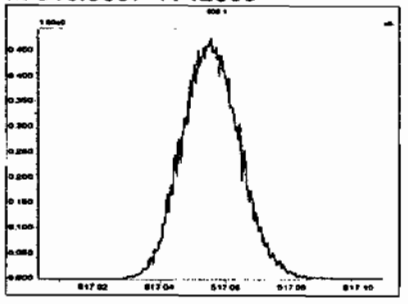

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Printed: Friday, October 30, 2009 8:33:22 AM Pacific Daylight Time

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Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-9-25-09.cdb 25 Sep 2009 14:50:28

Name: 091029H1_1, Date: 29-Oct-2009, Time: 12:26:55, ID: ST091029H1-1 1613 CS3 090922G, Description: 1613 CS3 090922G

1,3,6,8-TCDD (First)

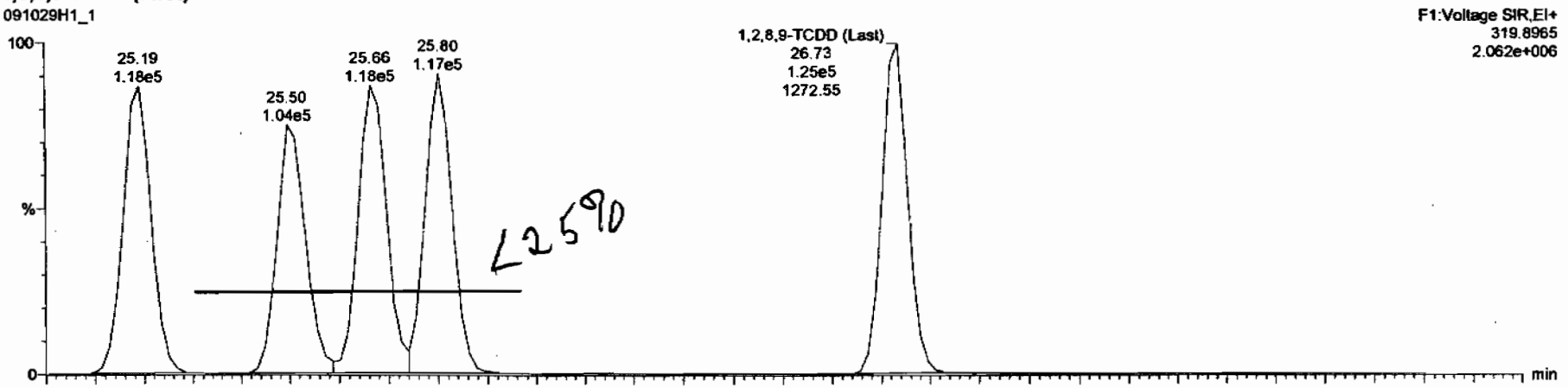

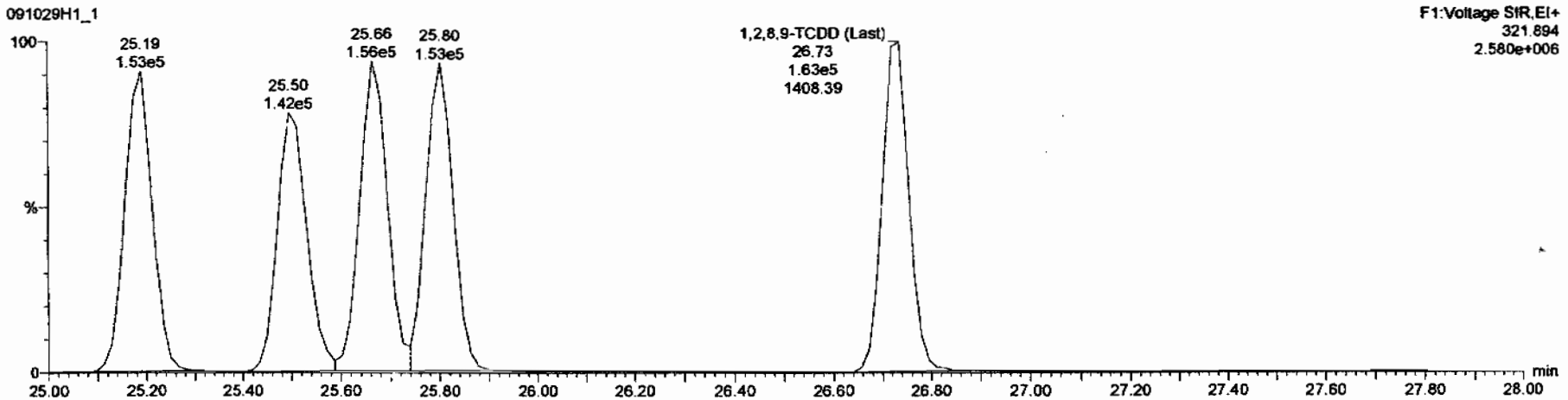

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-crv.qld

Last Altered: Friday, October 30, 2009 08:35:54 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

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2,3,7,8-TCDD

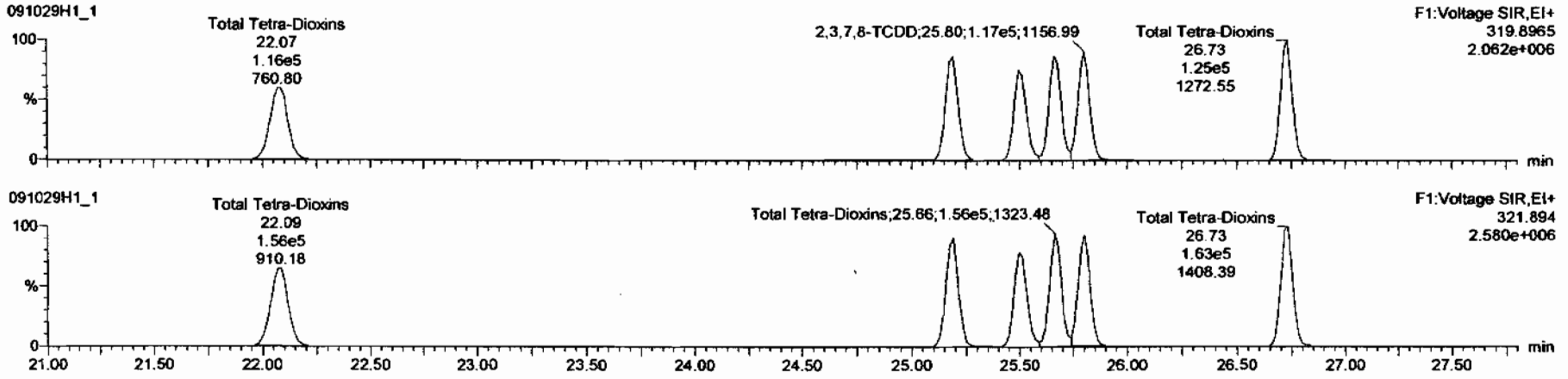

13C-2,3,7,8-TCDD

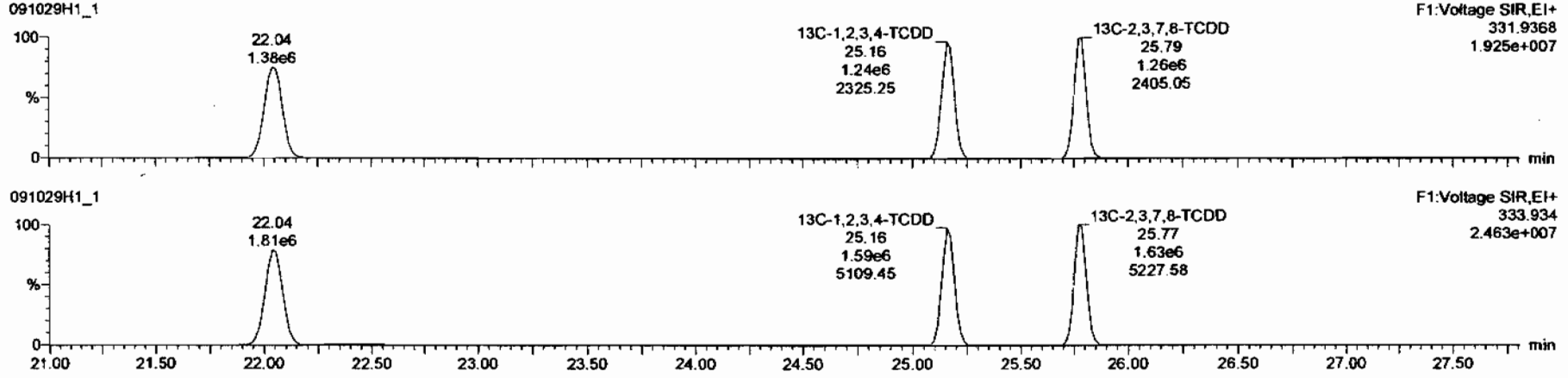

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Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

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37Cl-2,3,7,8-TCDD

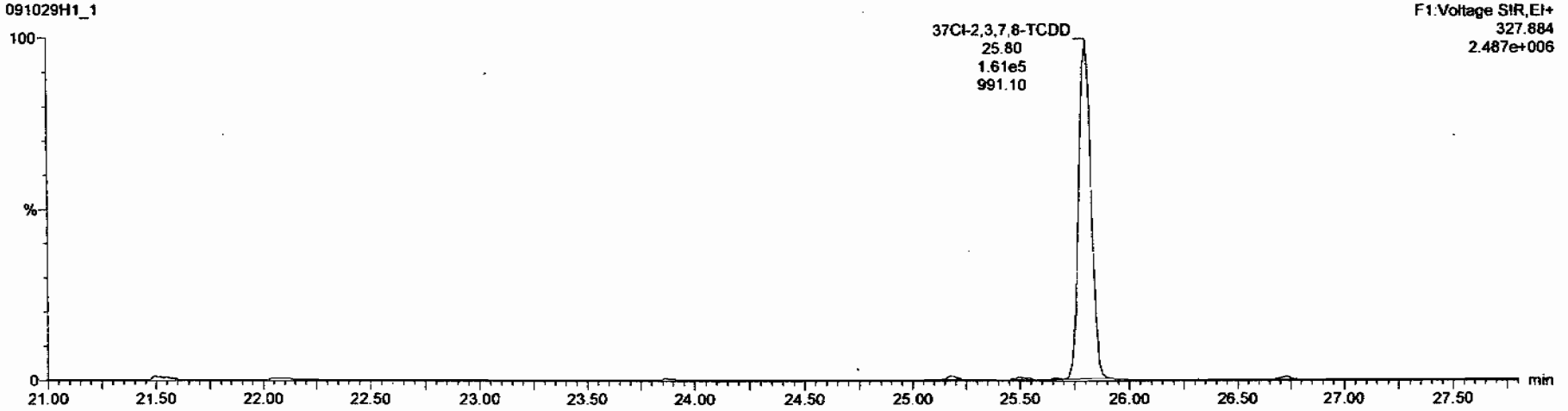

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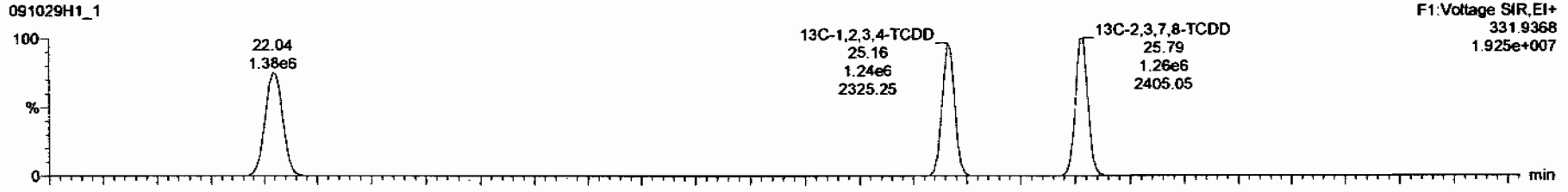

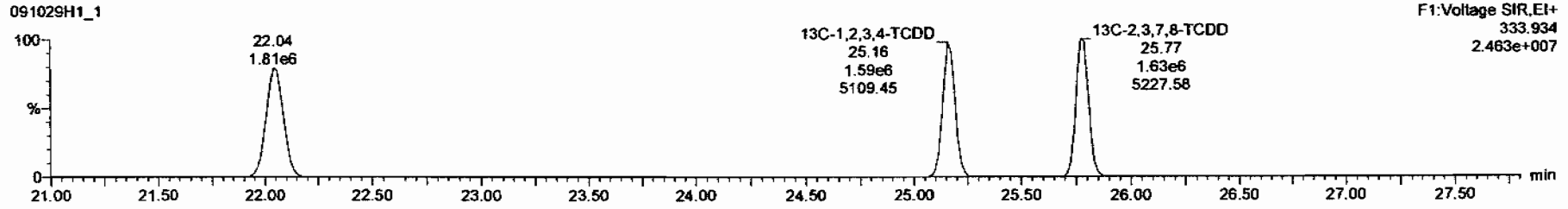

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1,2,3,7,8-PeCDD

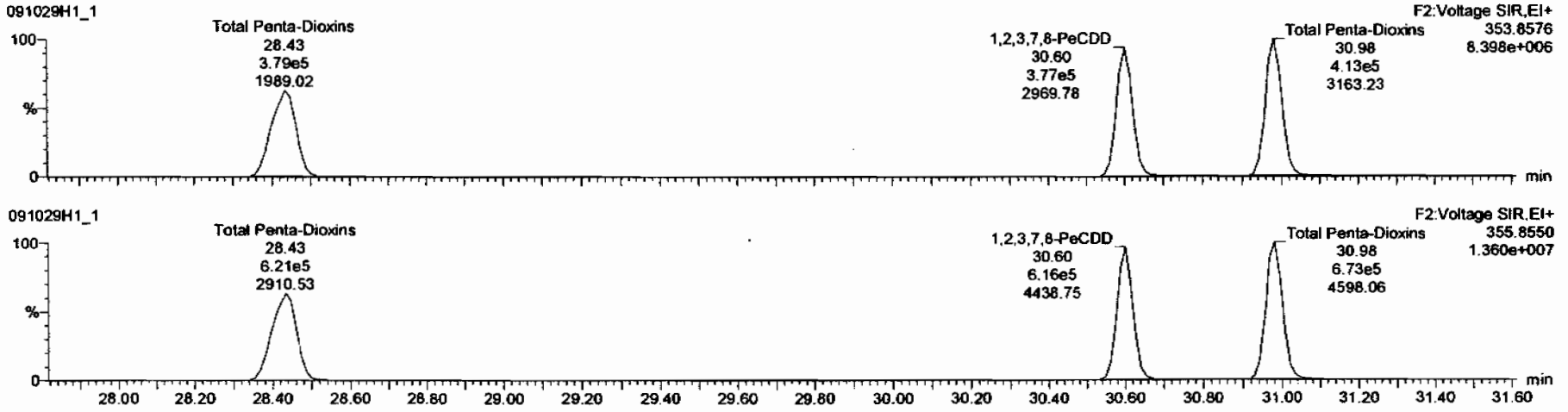

13C-1,2,3,7,8-PeCDD

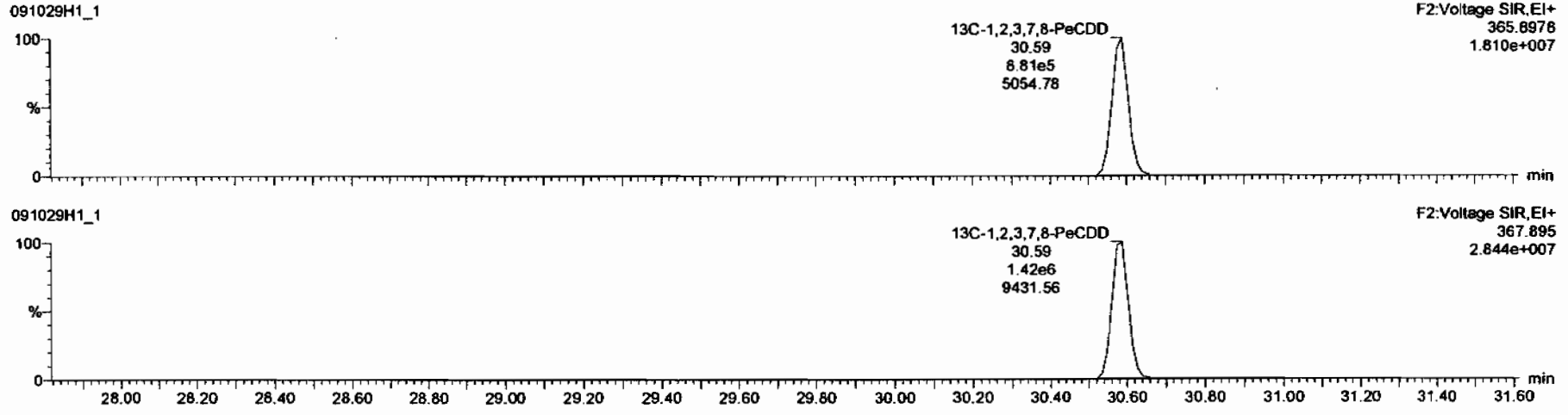

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1,2,3,4,7,8-HxCDD

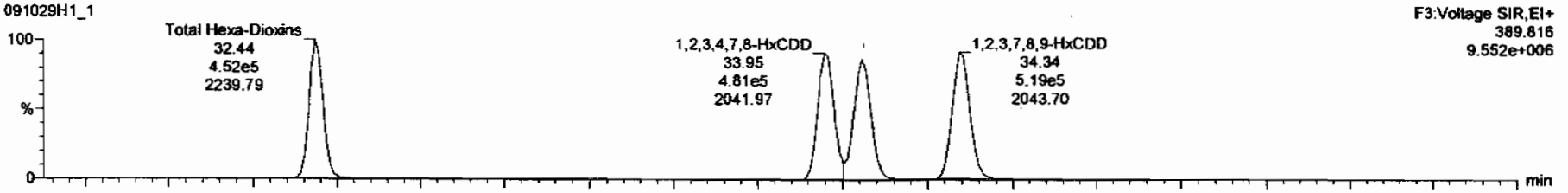

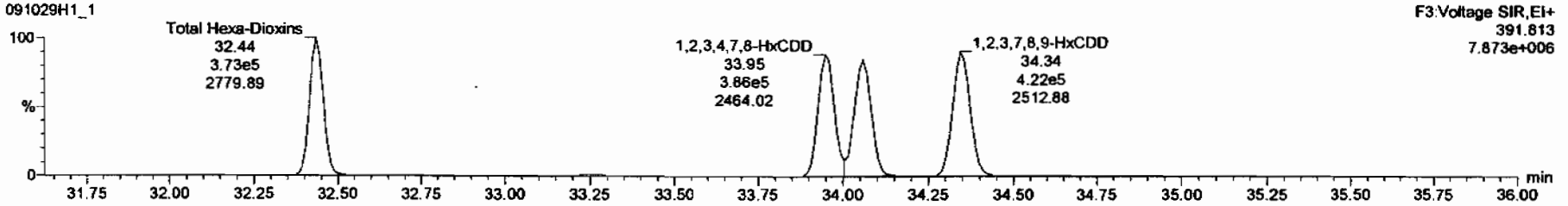

13C-1,2,3,4,7,8-HxCDD

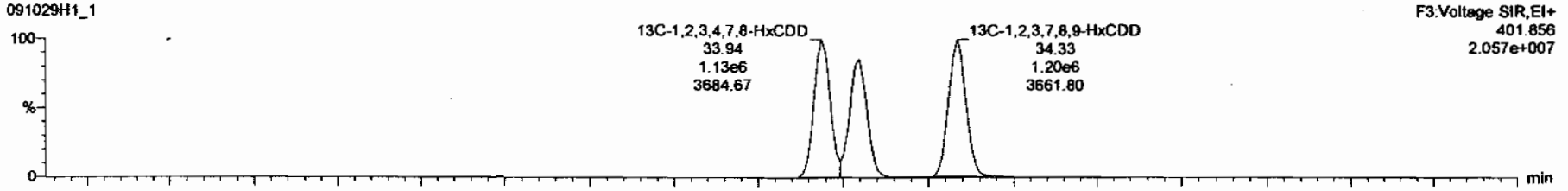

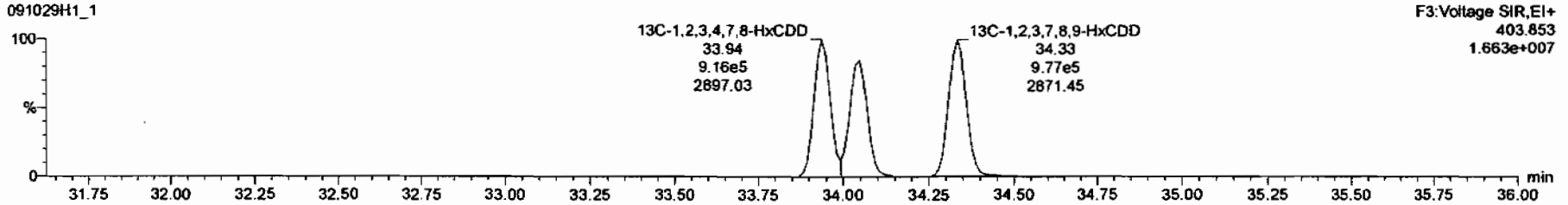

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1,2,3,4,6,7,8-HpCDD

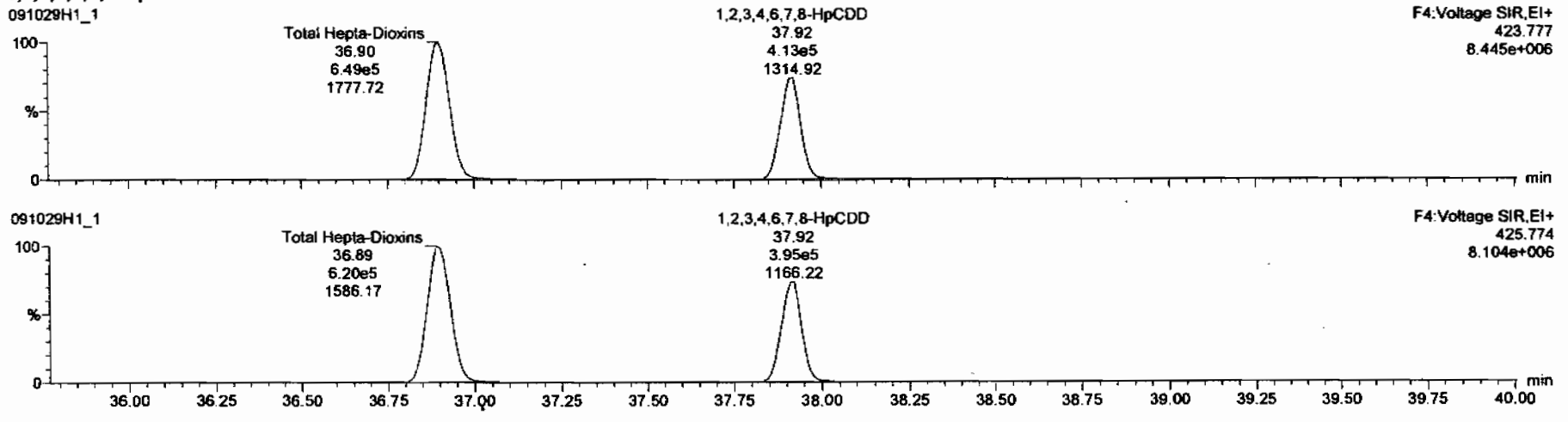

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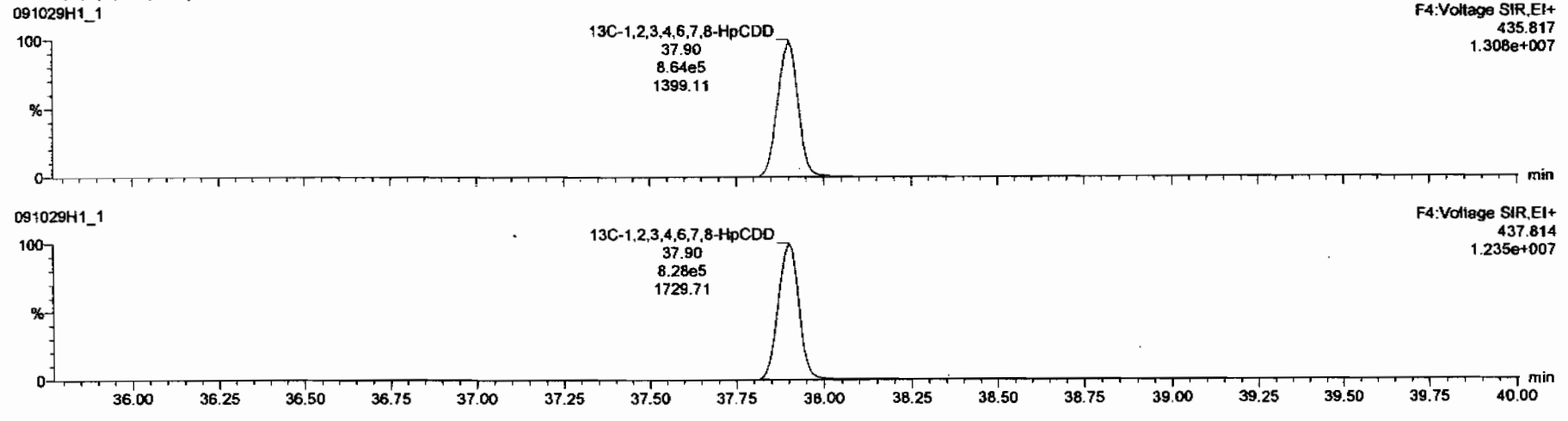

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Name: 091029H1_1, Date: 29-Oct-2009, Time: 12:26:55, ID: ST091029H1-1 1613 CS3 090922G, Description: 1613 CS3 090922G

OCDD

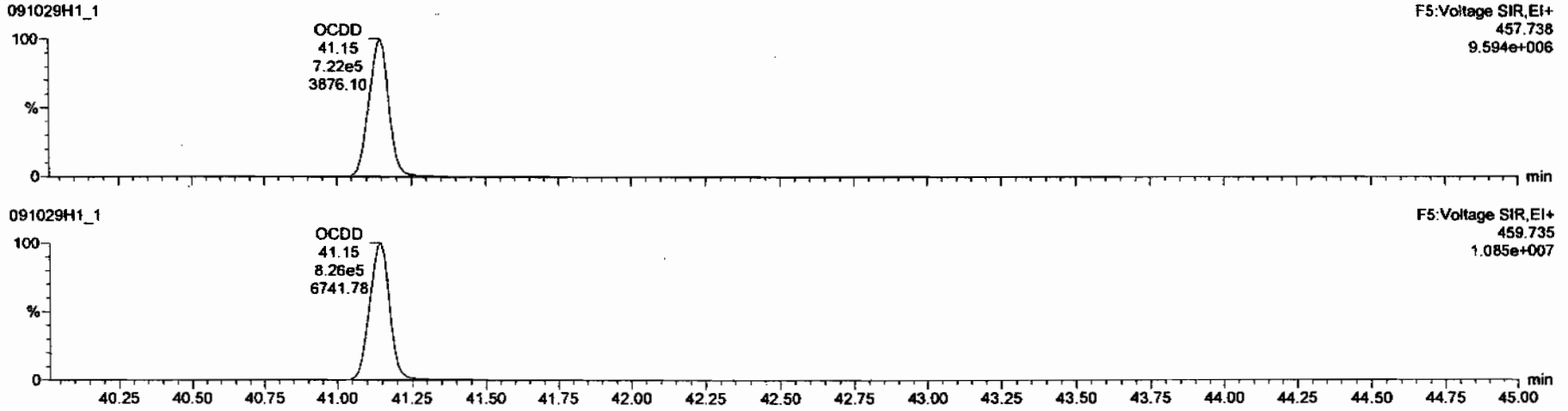

13C-OCDD

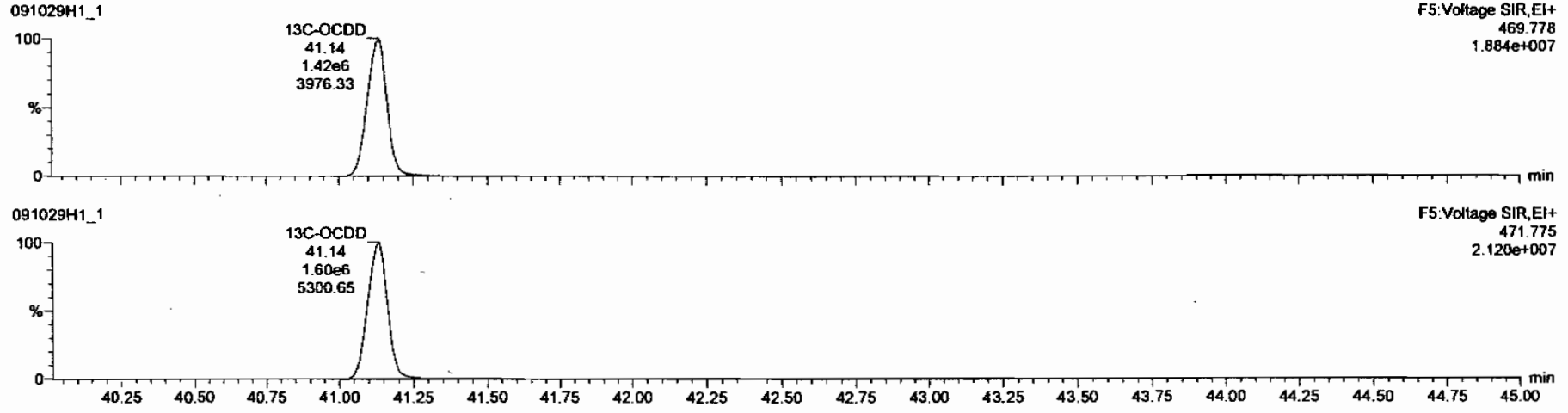

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Name: 091029H1_1, Date: 29-Oct-2009, Time: 12:26:55, ID: ST091029H1-1 1613 CS3 090922G, Description: 1613 CS3 090922G

2,3,7,8-TCDF

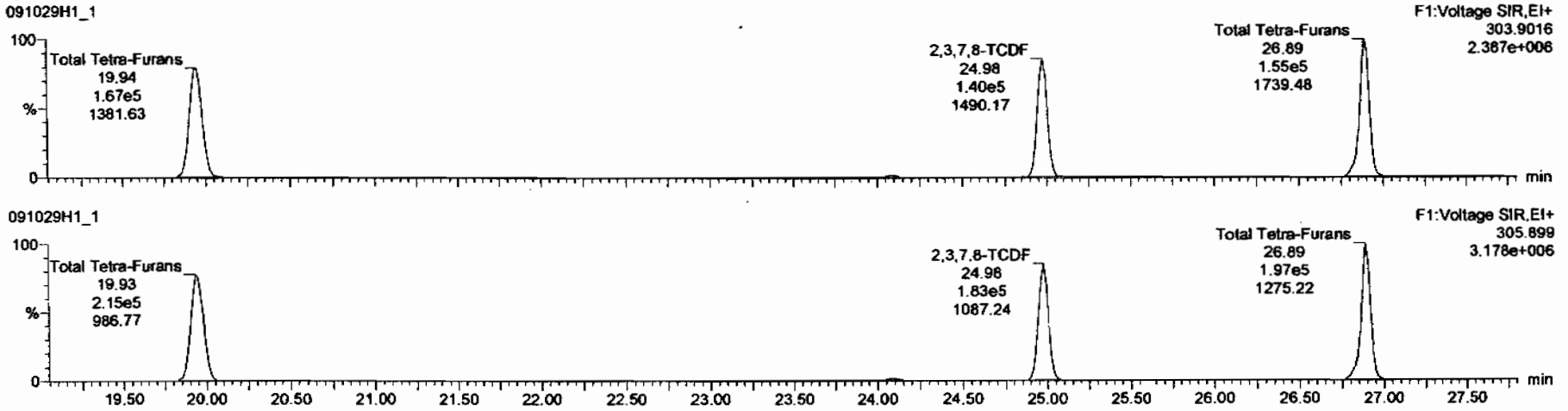

13C-2,3,7,8-TCDF

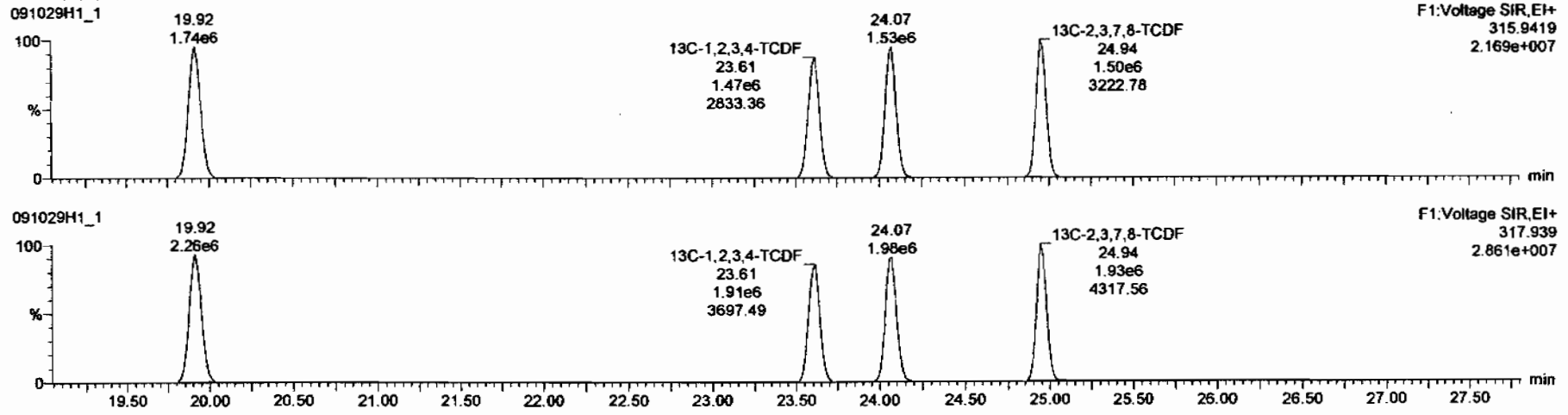

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Name: 091029H1_1, Date: 29-Oct-2009, Time: 12:26:55, ID: ST091029H1-1 1613 CS3 090922G, Description: 1613 CS3 090922G

1st Func. Penta-Furans

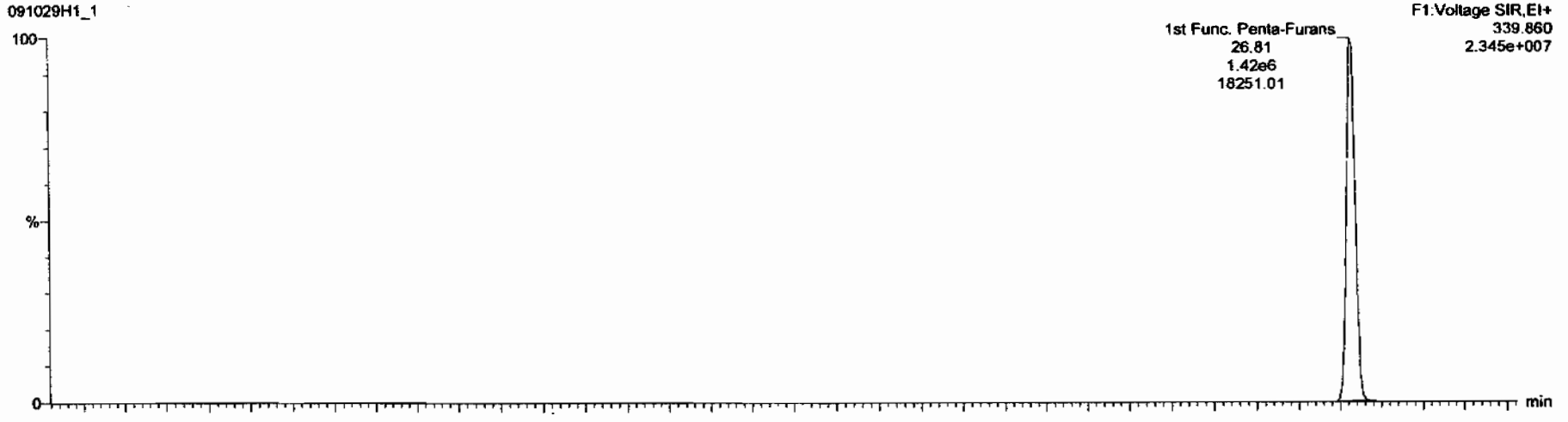

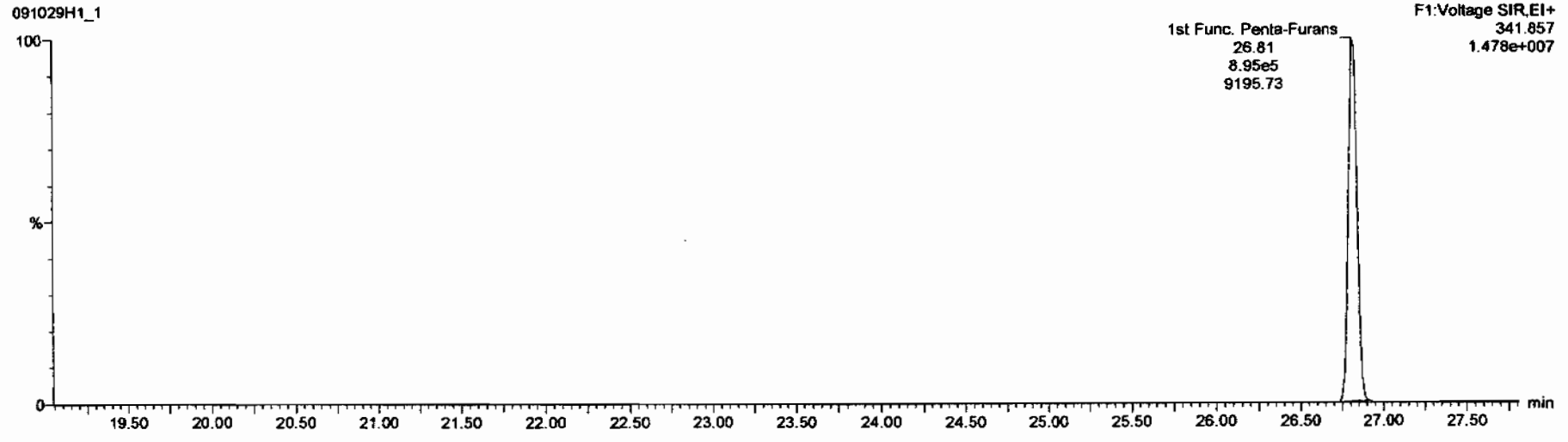

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Name: 091029H1_1, Date: 29-Oct-2009, Time: 12:26:55, ID: ST091029H1-1 1613 CS3 090922G, Description: 1613 CS3 090922G

1,2,3,7,8-PeCDF

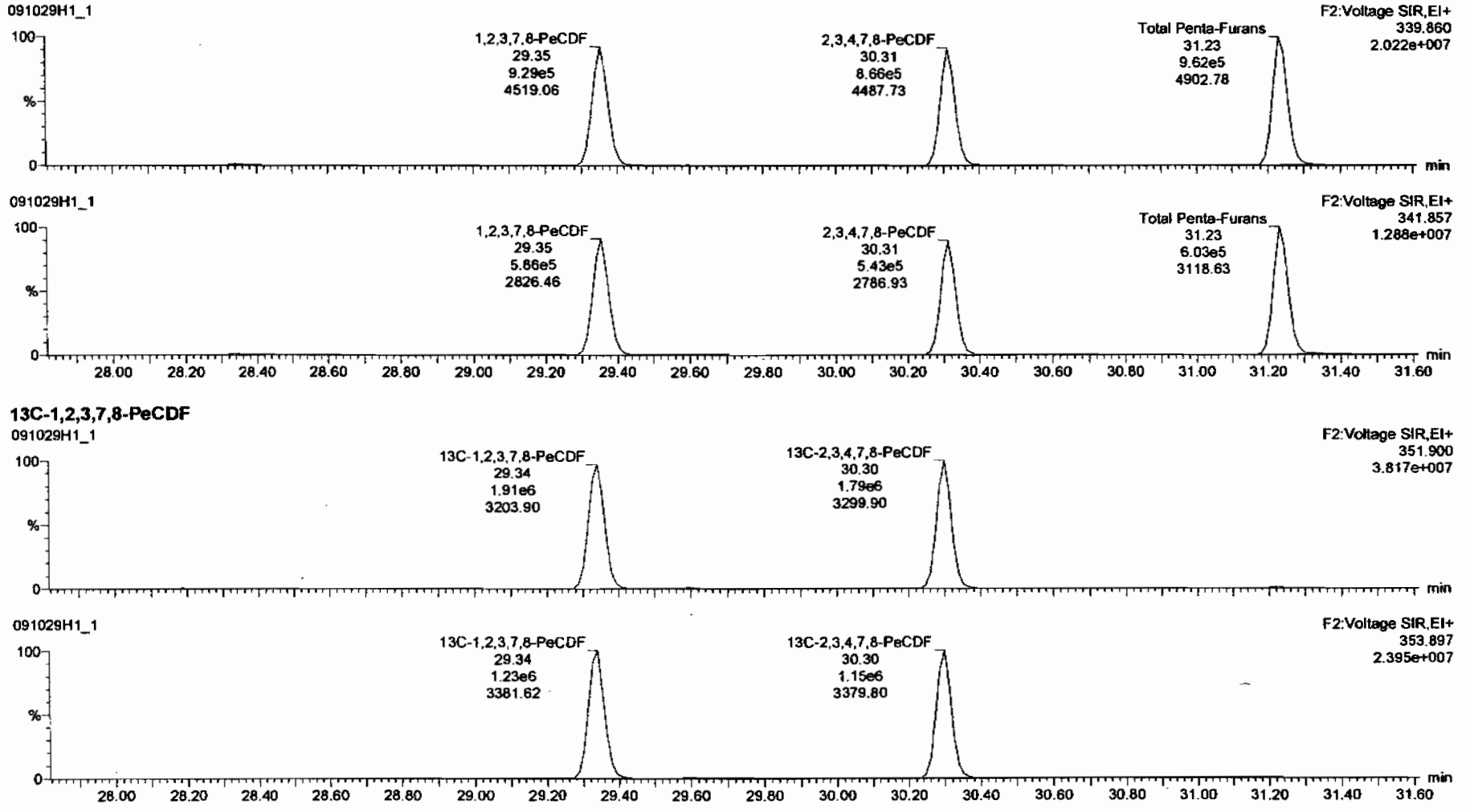

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1,2,3,4,7,8-HxCDF

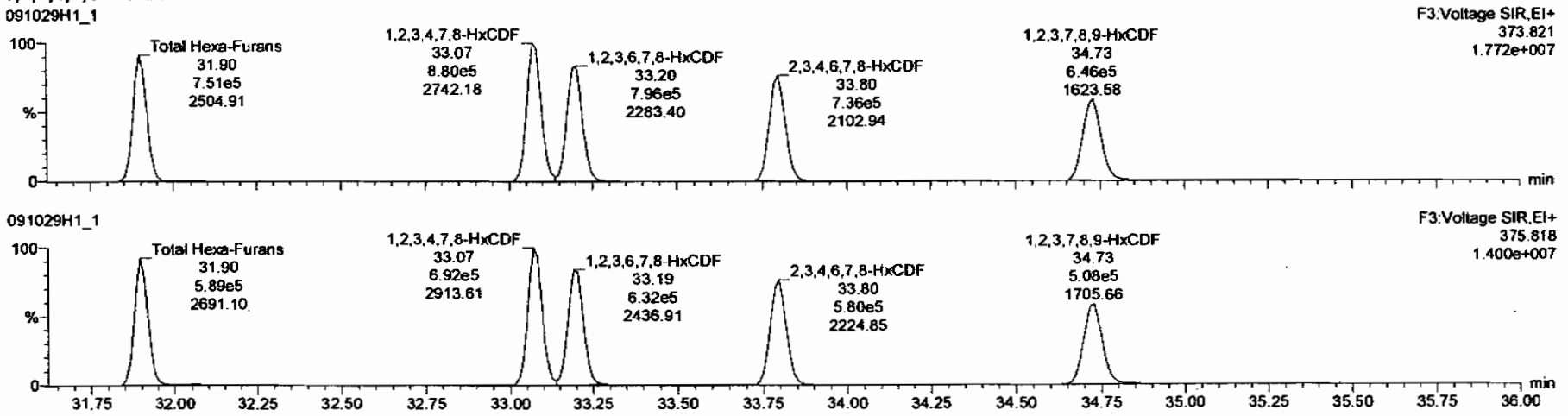

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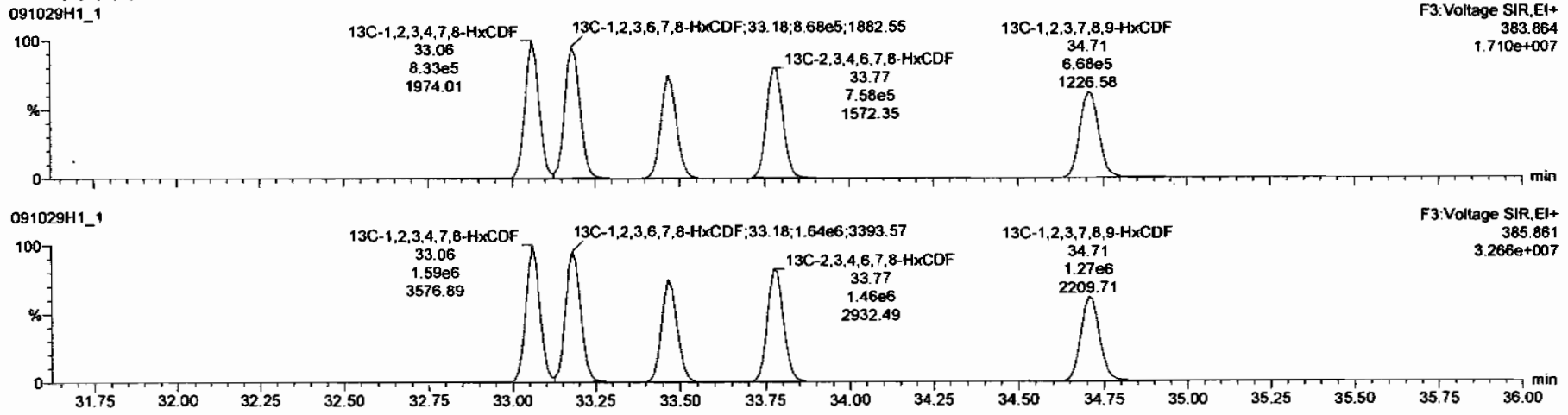

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1,2,3,4,6,7,8-HpCDF

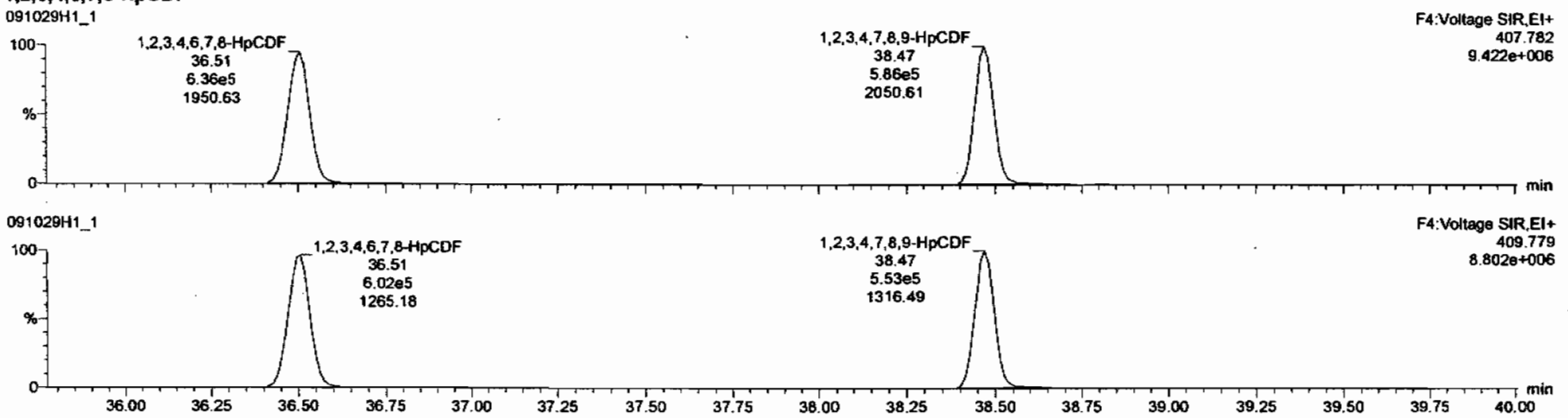

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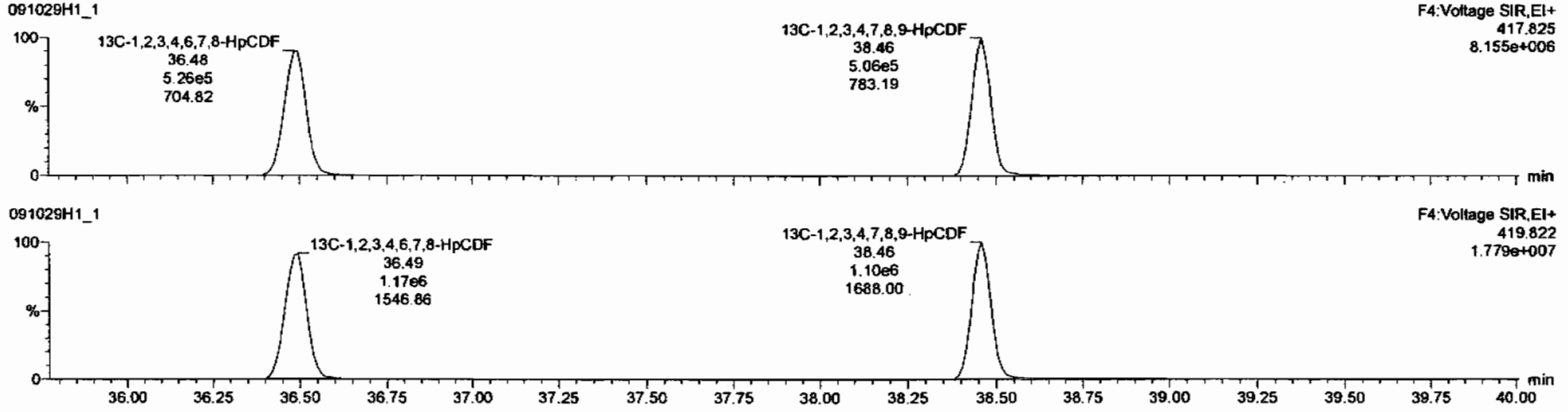

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OCDF

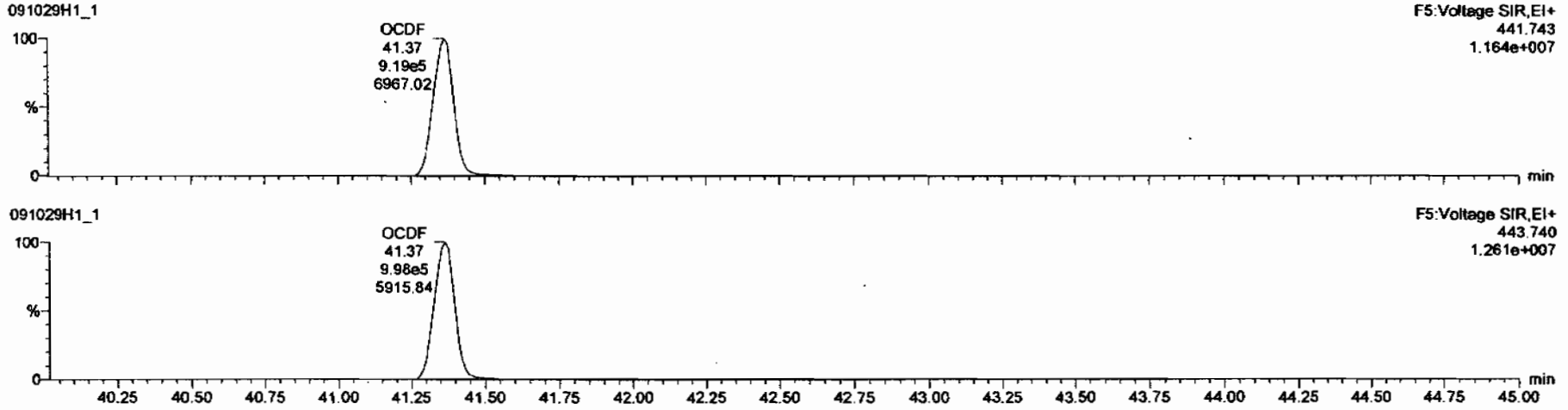

13C-OCDF

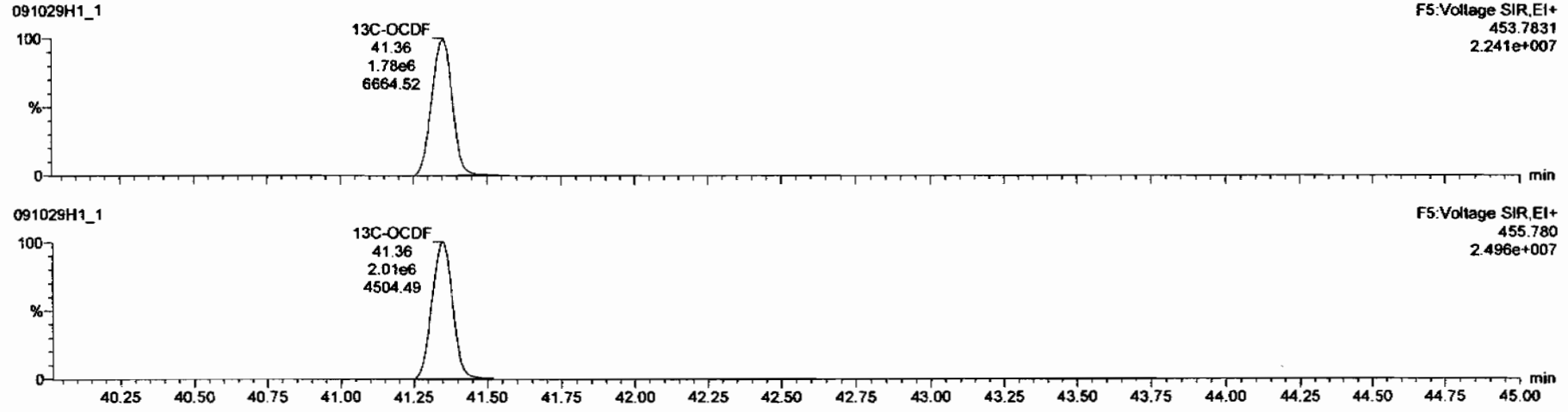

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PFK1

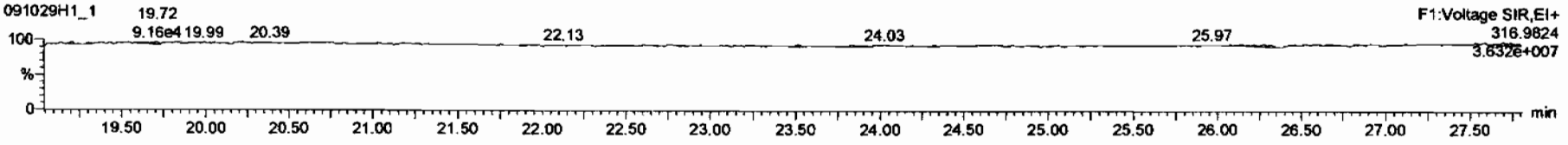

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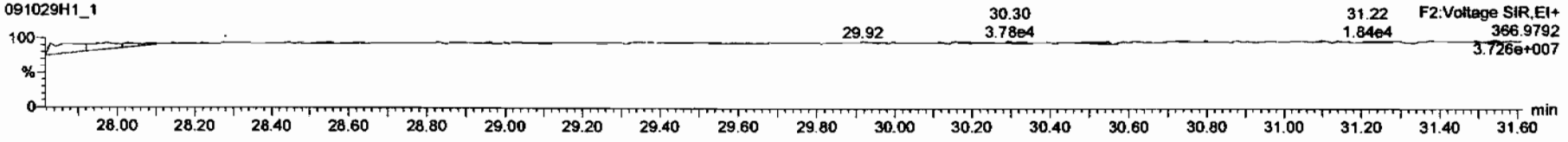

PFK3

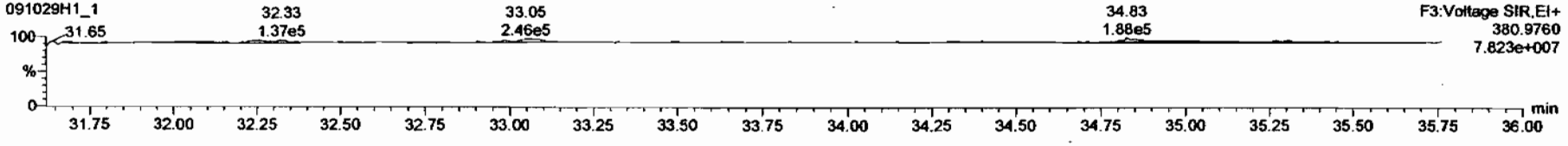

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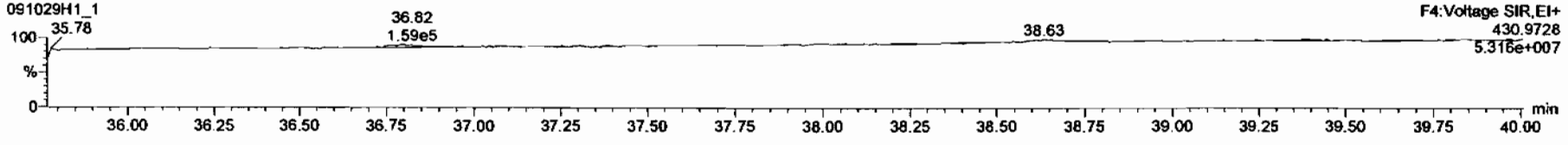

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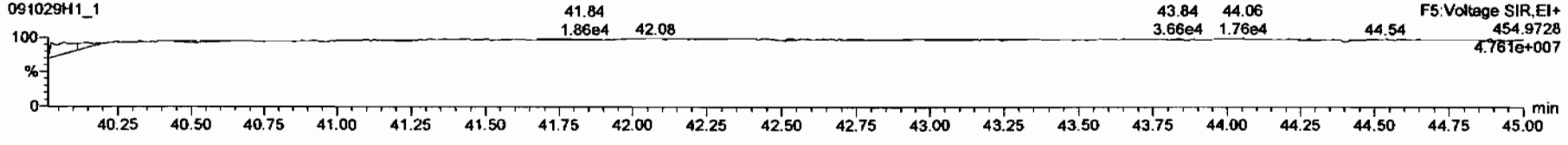

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Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

Name: 091029H1_1, Date: 29-Oct-2009, Time: 12:26:55, ID: ST091029H1-1 1613 CS3 090922G, Description: 1613 CS3 090922G

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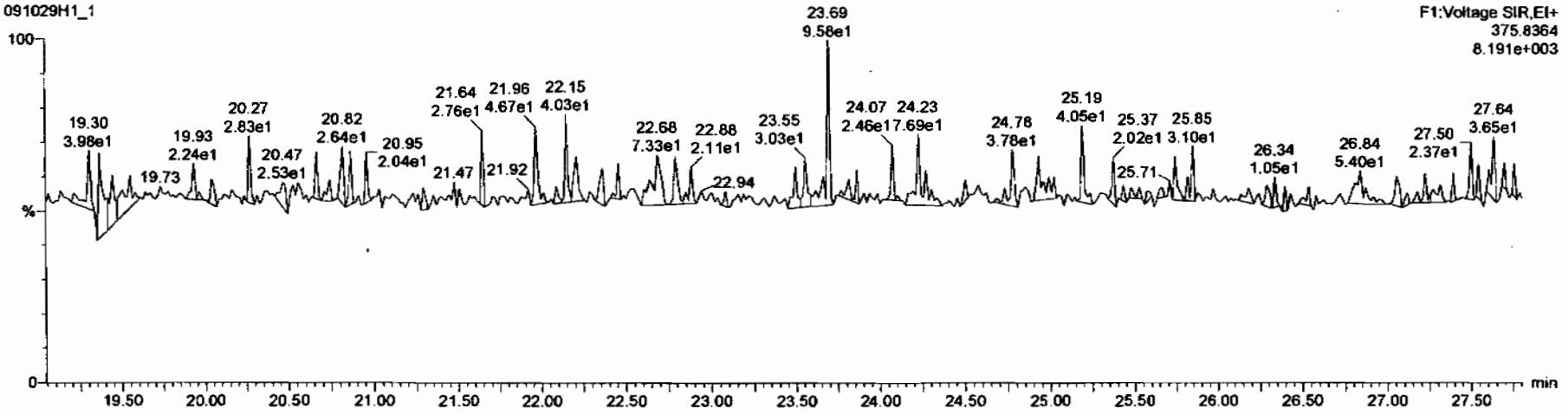

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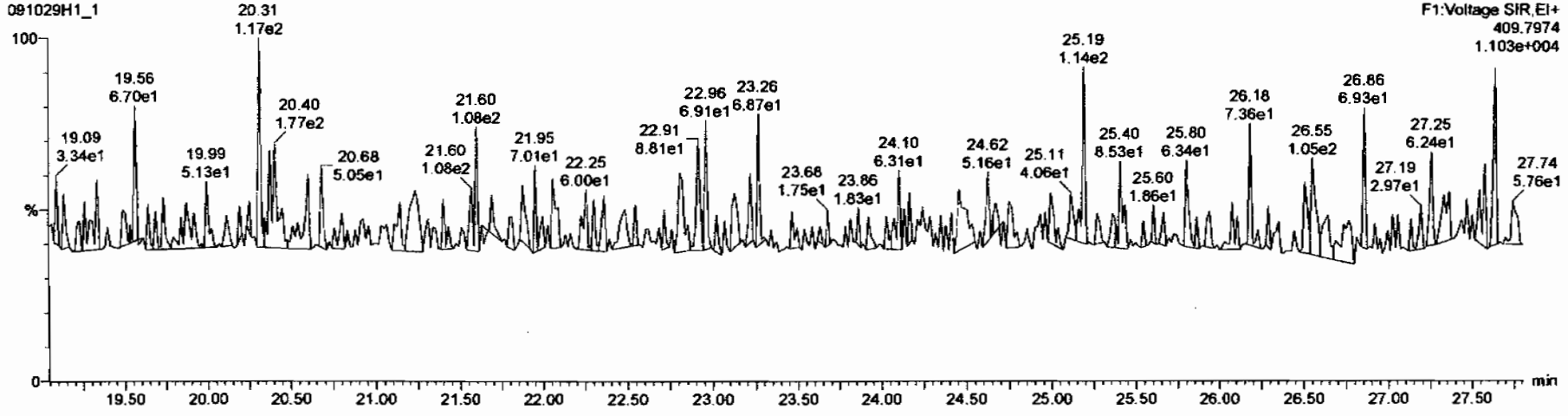

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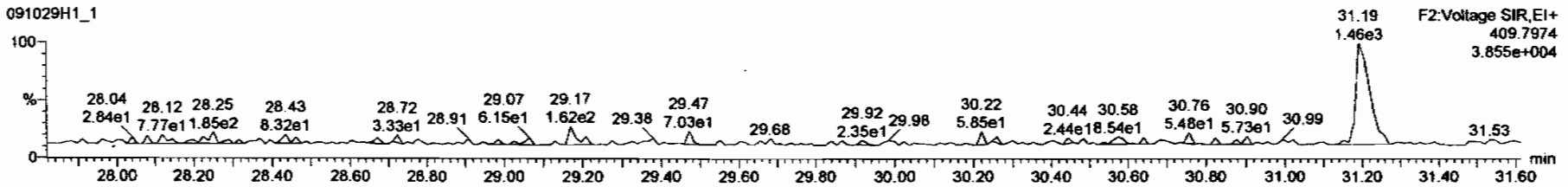

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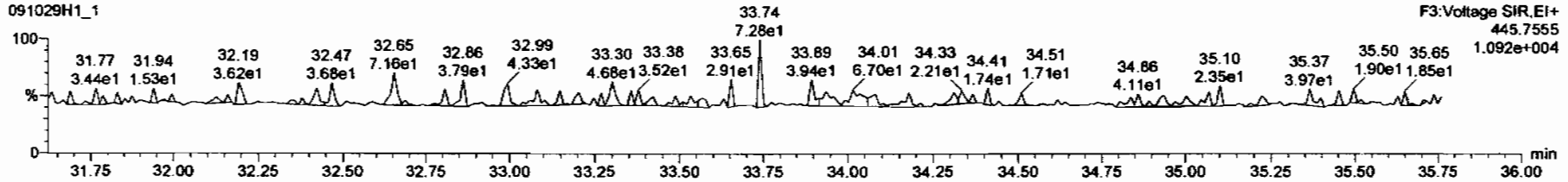

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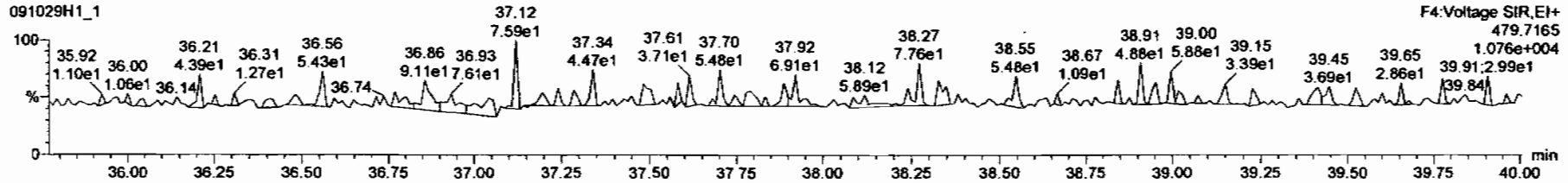

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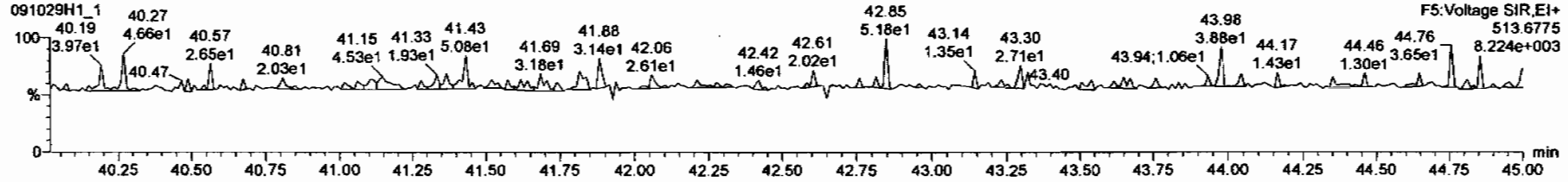

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Name: 091029H1_3, Date: 29-Oct-2009, Time: 14:05:59, ID: ST091029H1-2 1613 CS0 090922D, Description: 1613 CS0 090922D

2,3,7,8-TCDD

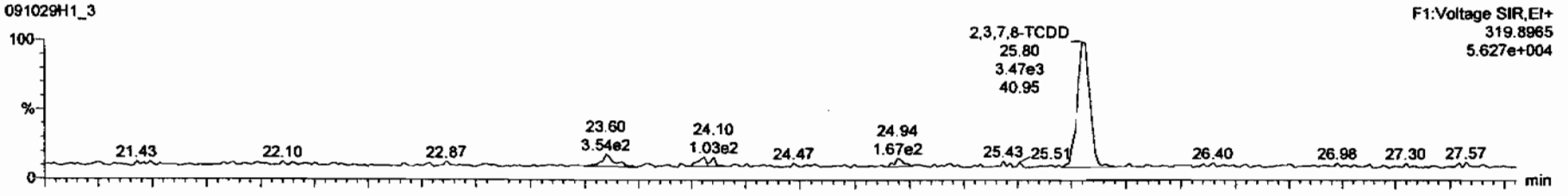

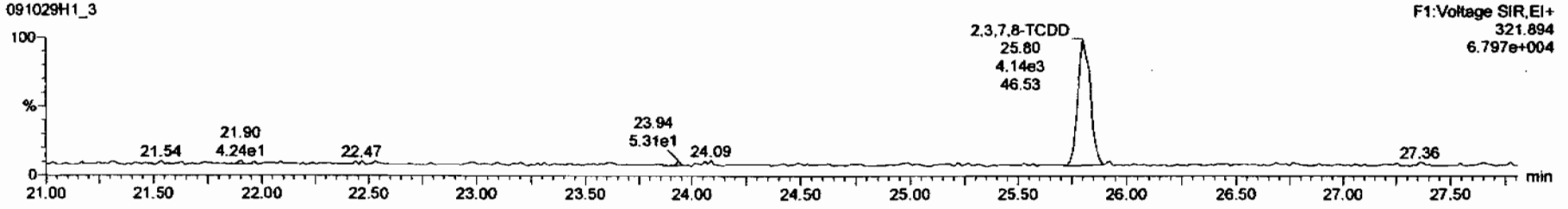

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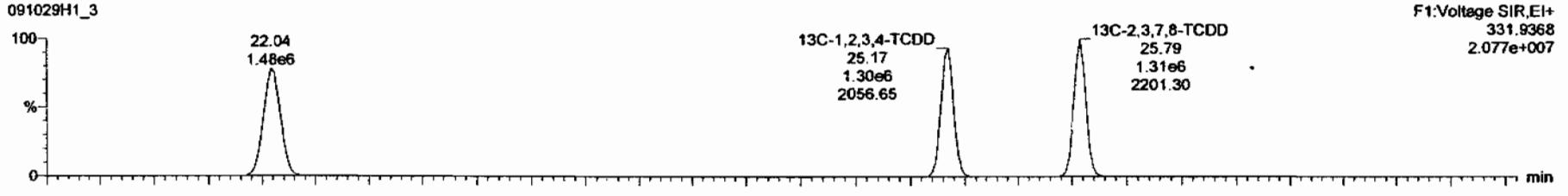

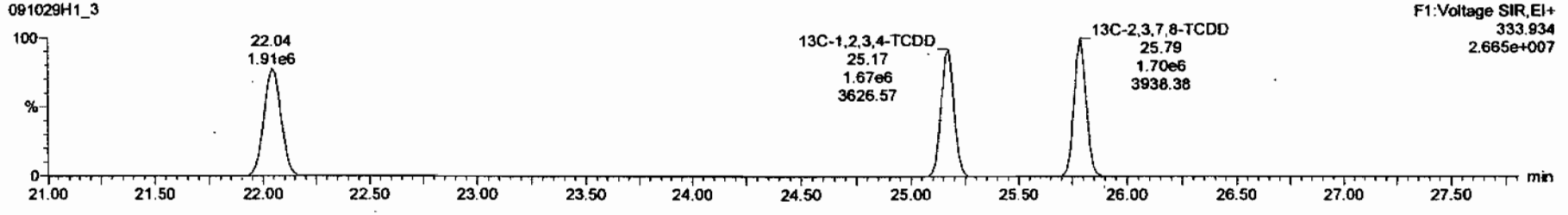

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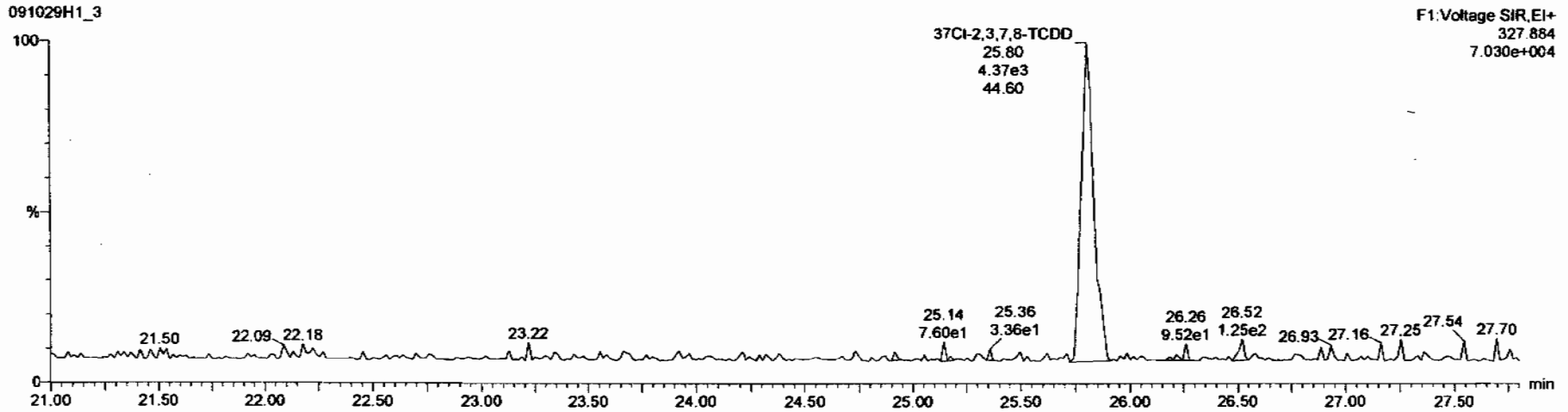

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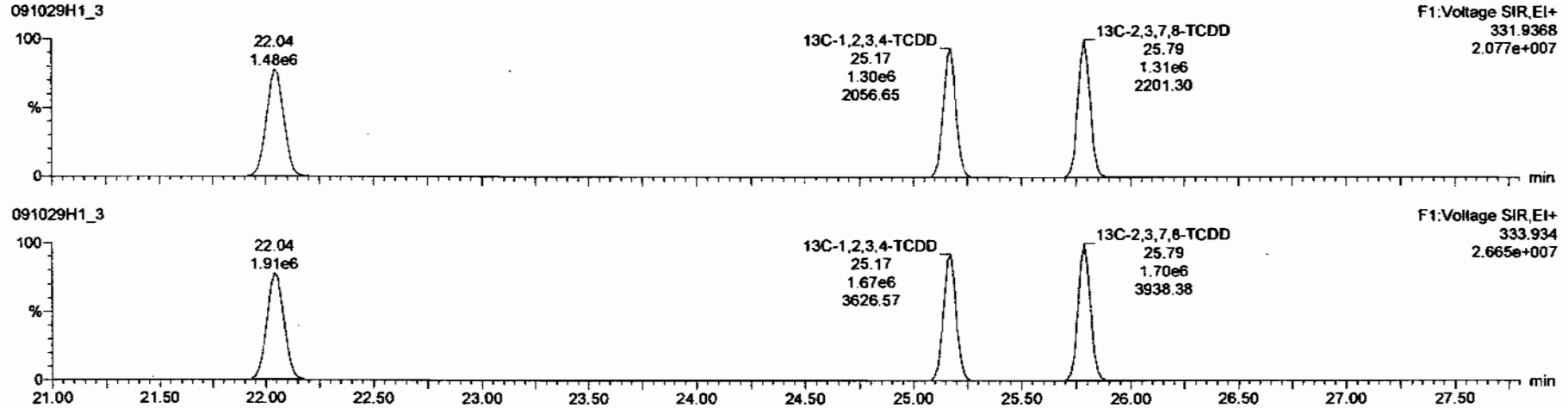

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1,2,3,7,8-PeCDD

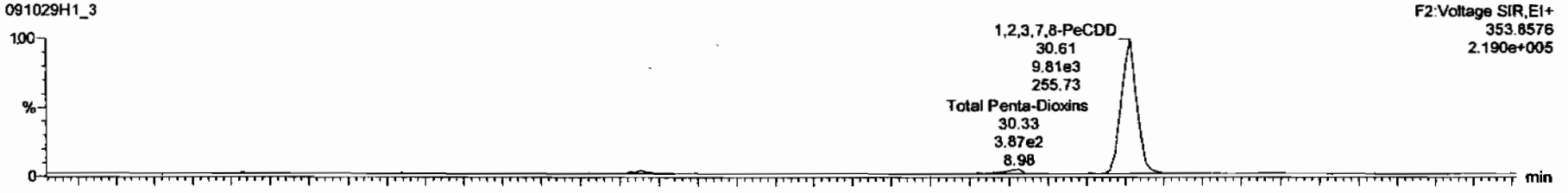

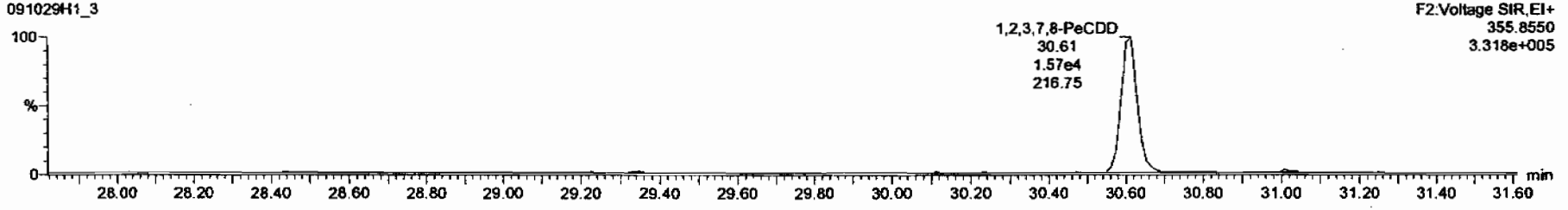

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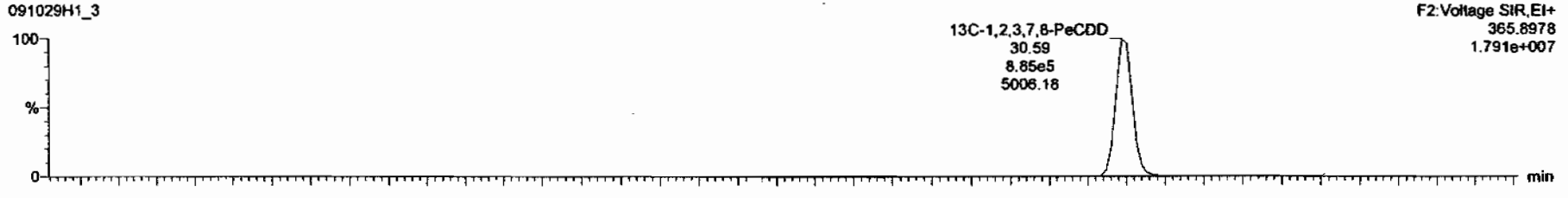

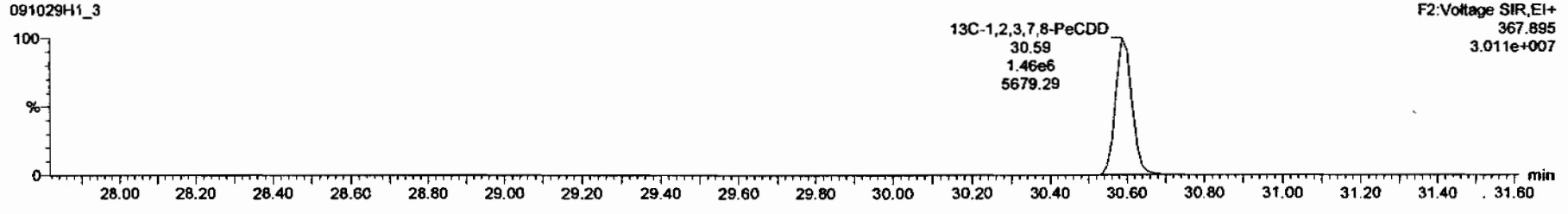

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1,2,3,4,7,8-HxCDD

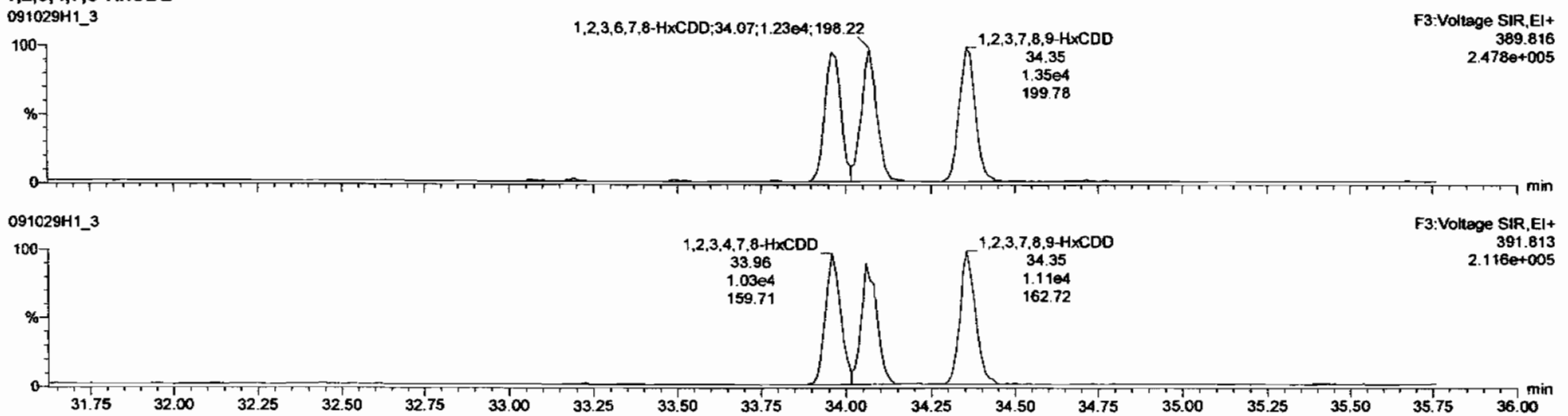

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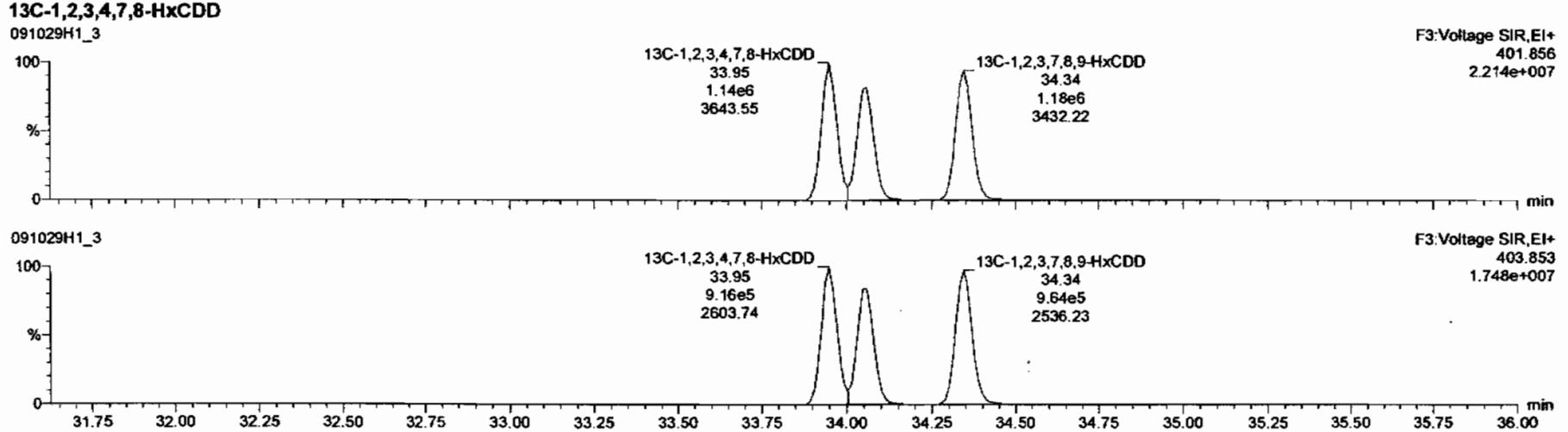

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1,2,3,4,6,7,8-HpCDD

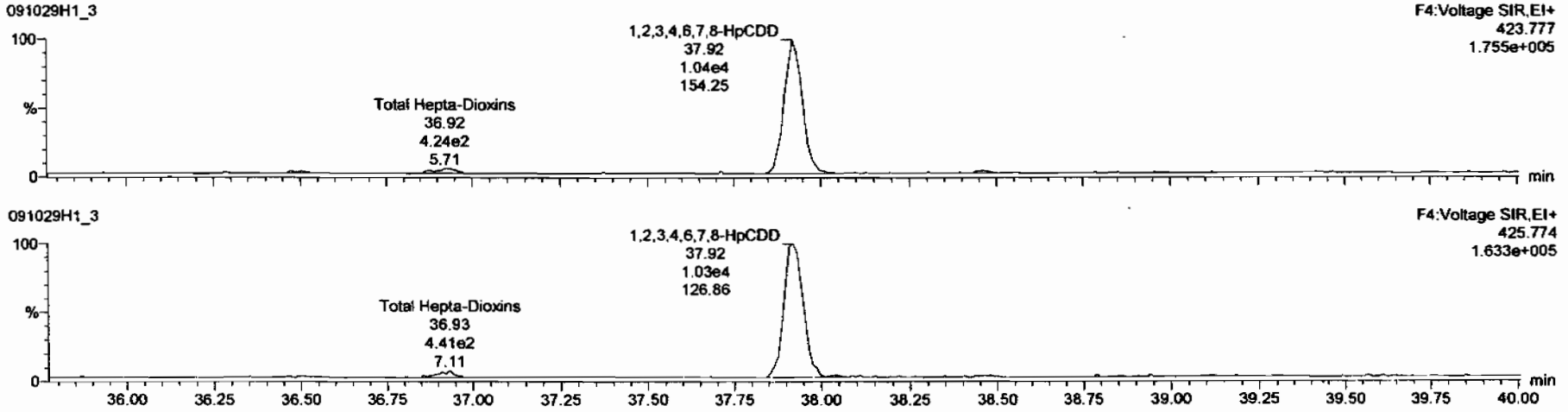

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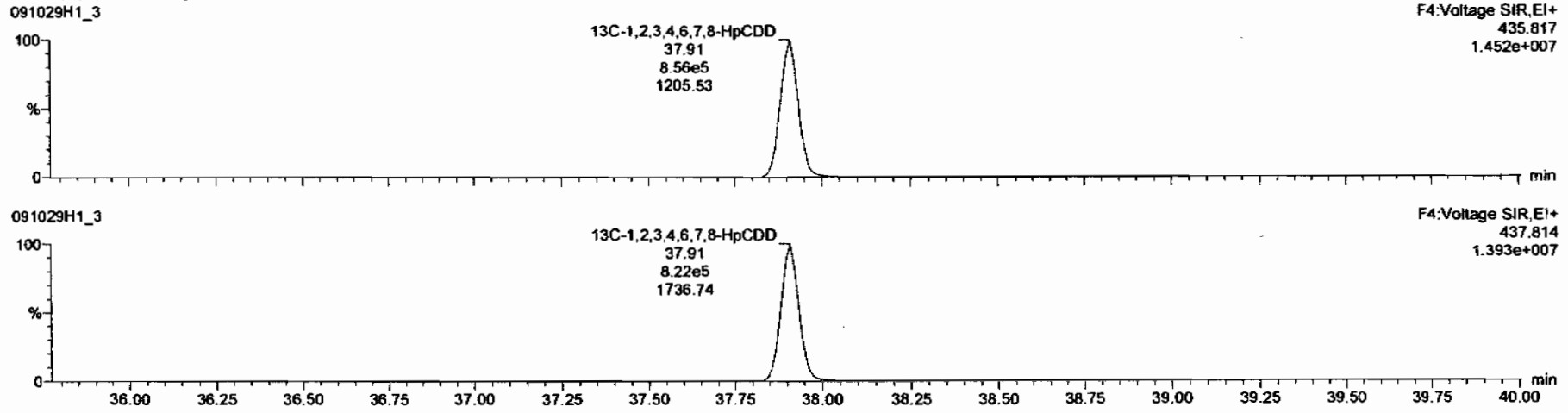

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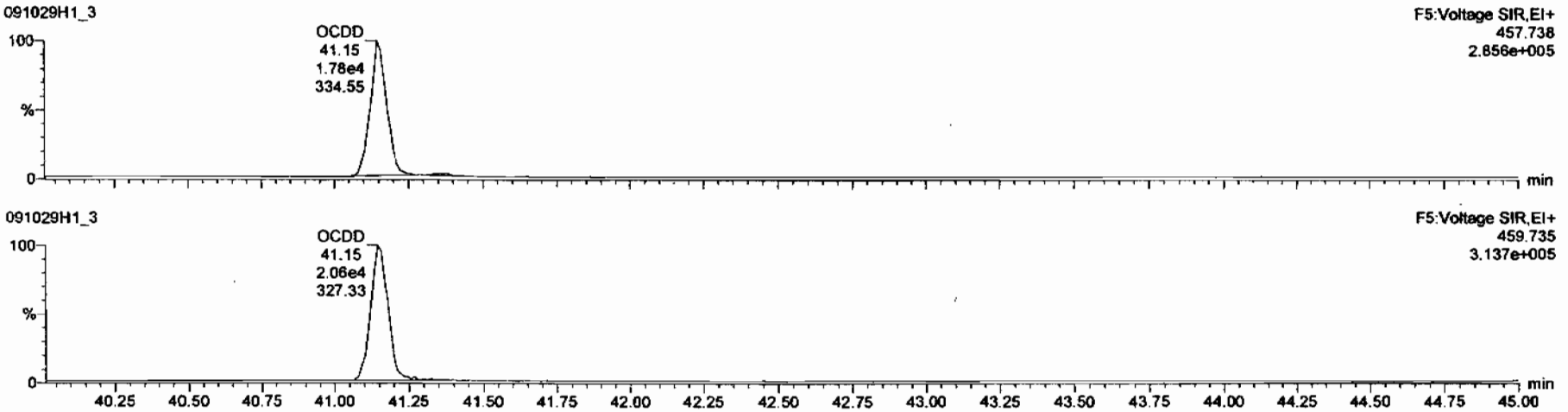

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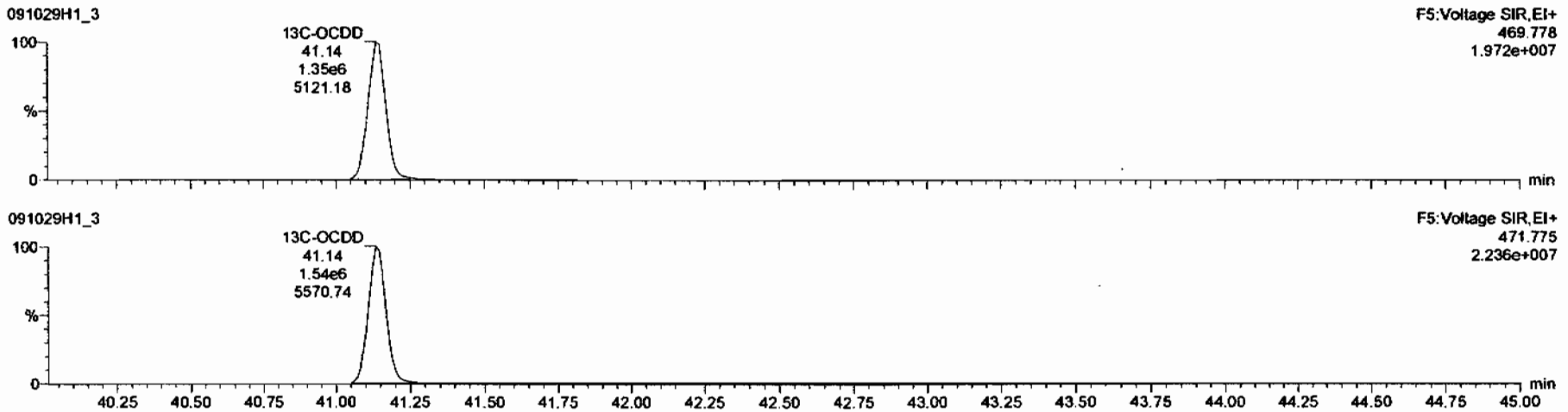

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2,3,7,8-TCDF

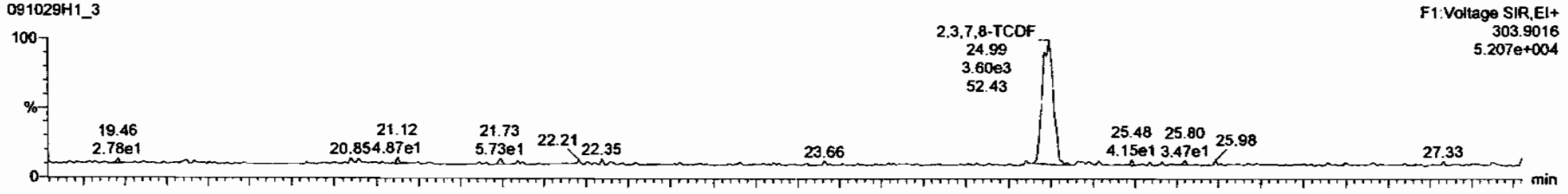

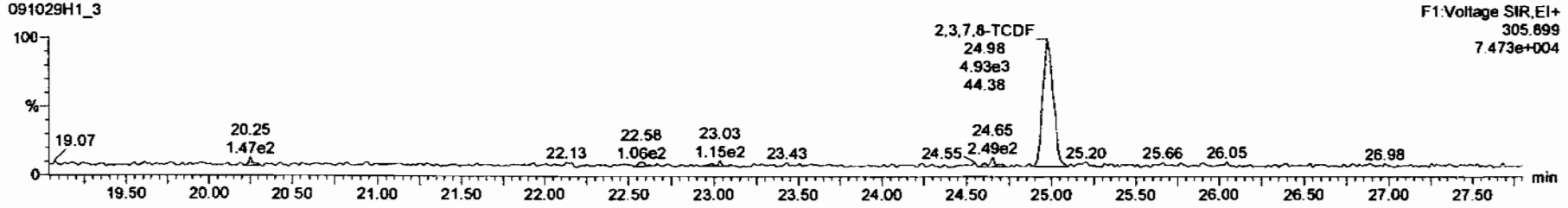

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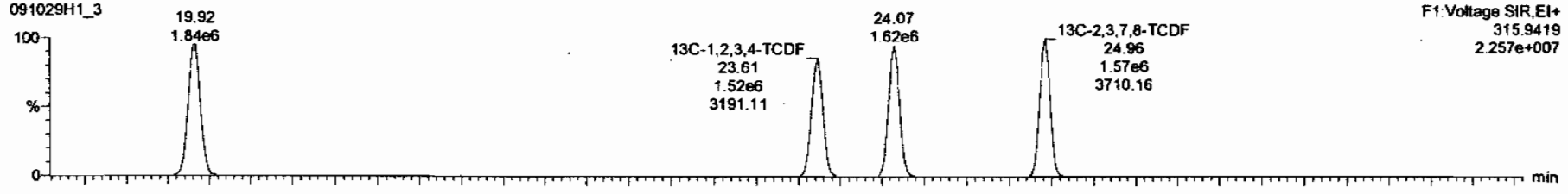

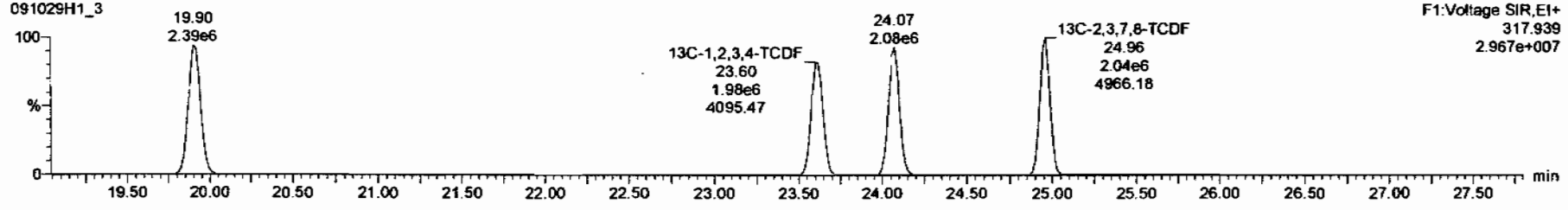

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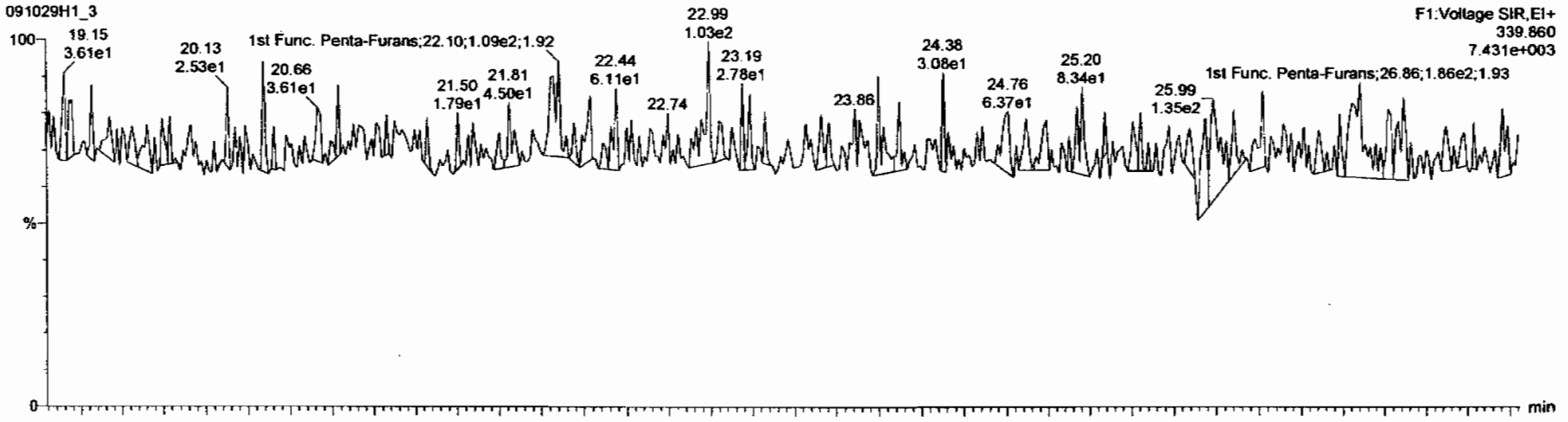

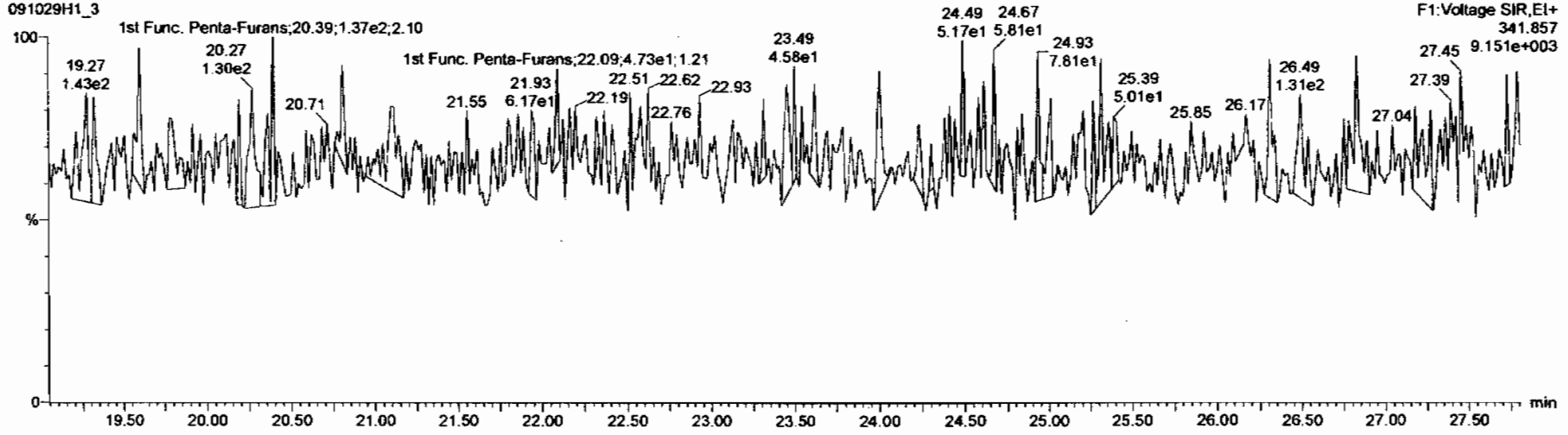

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1,2,3,7,8-PeCDF

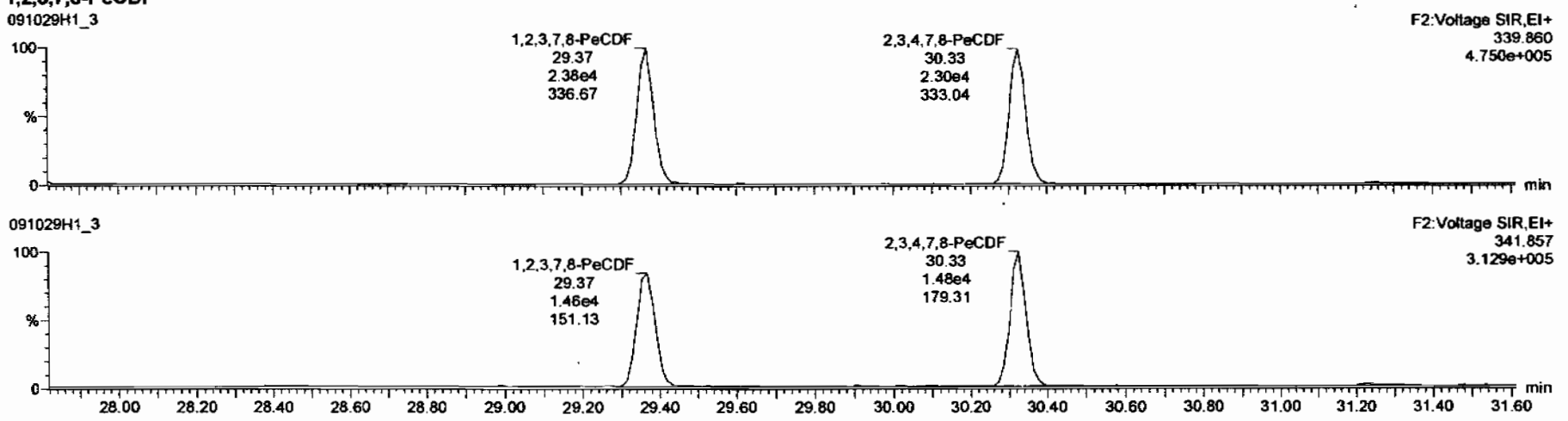

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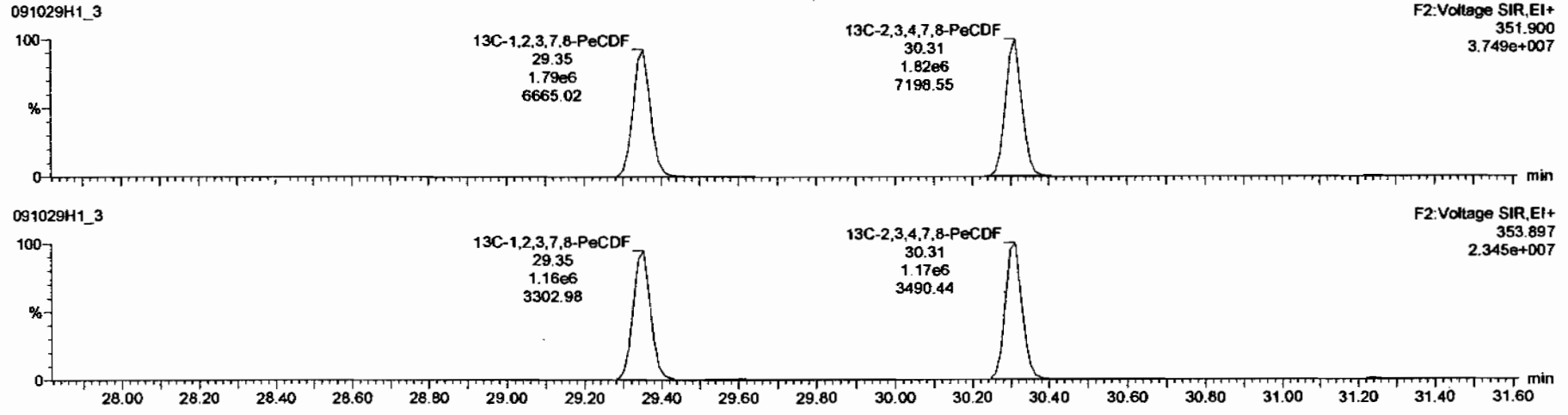

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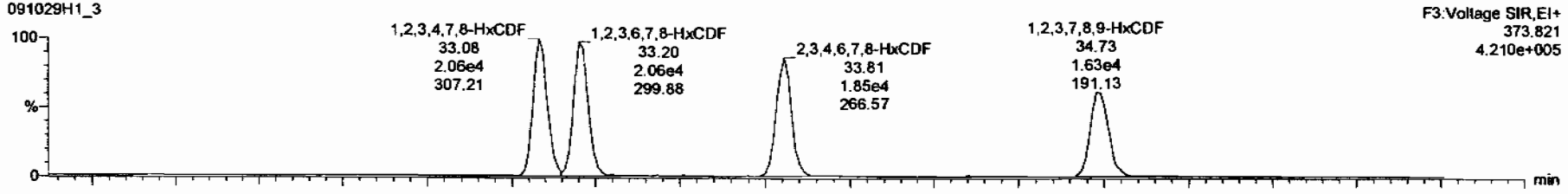

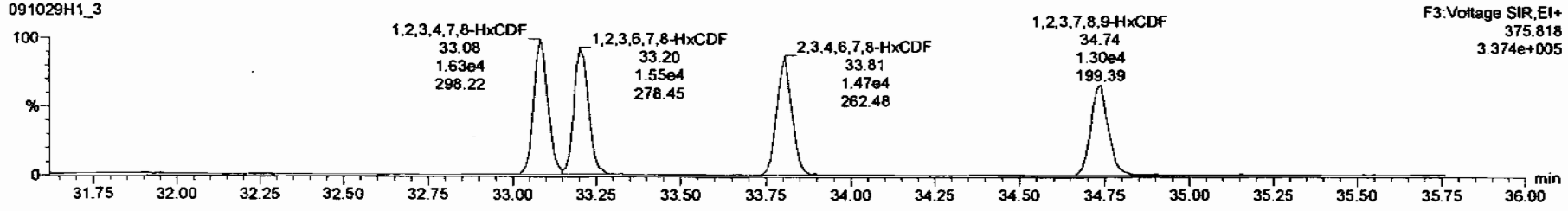

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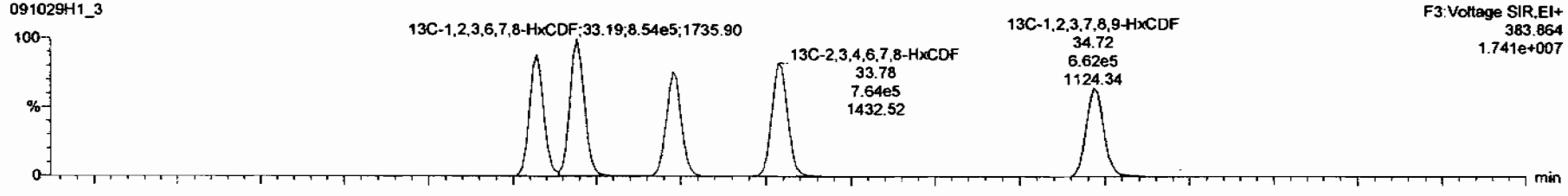

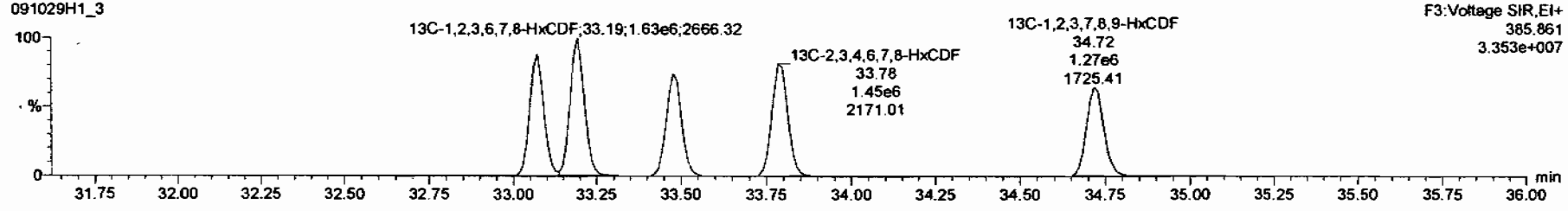

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1,2,3,4,6,7,8-HpCDF

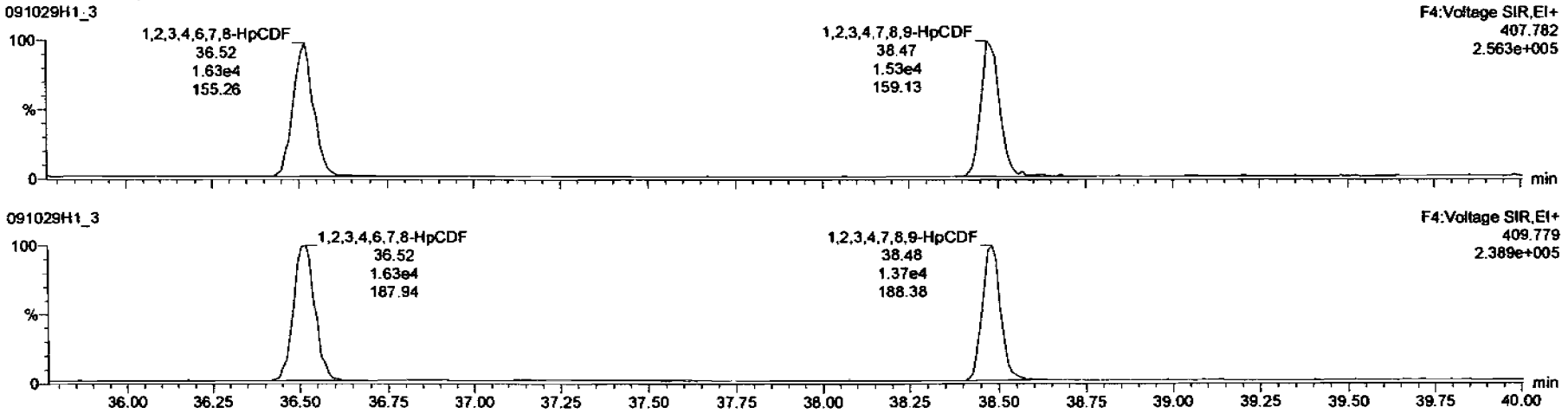

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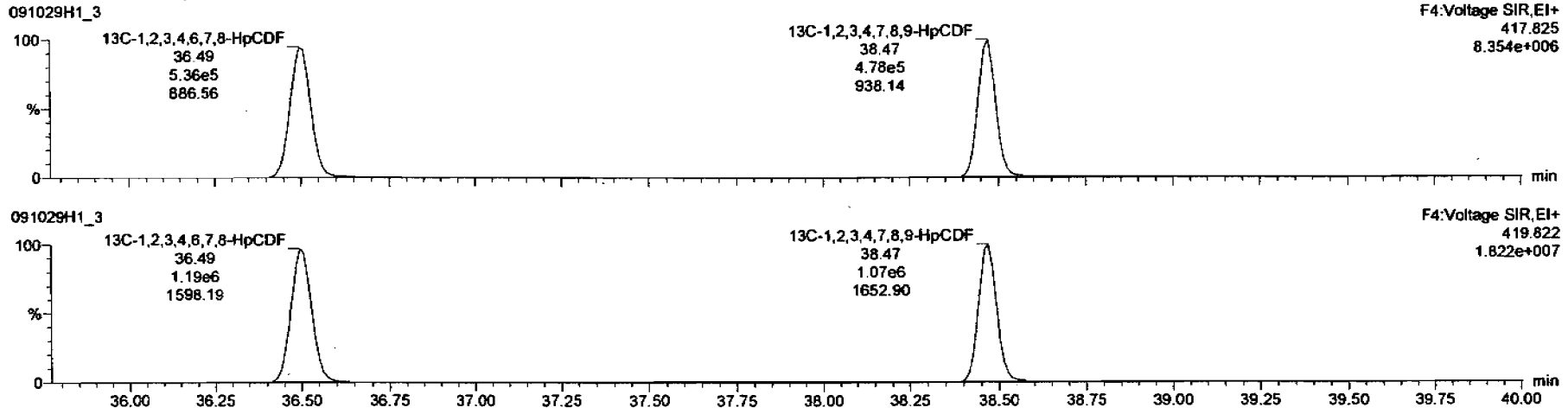

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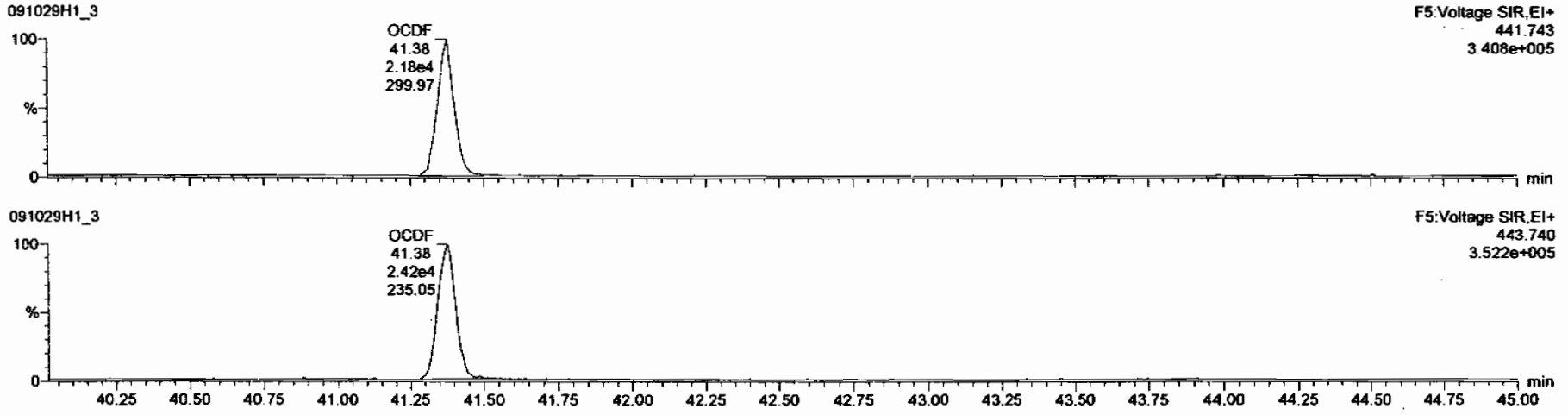

13C-OCDF

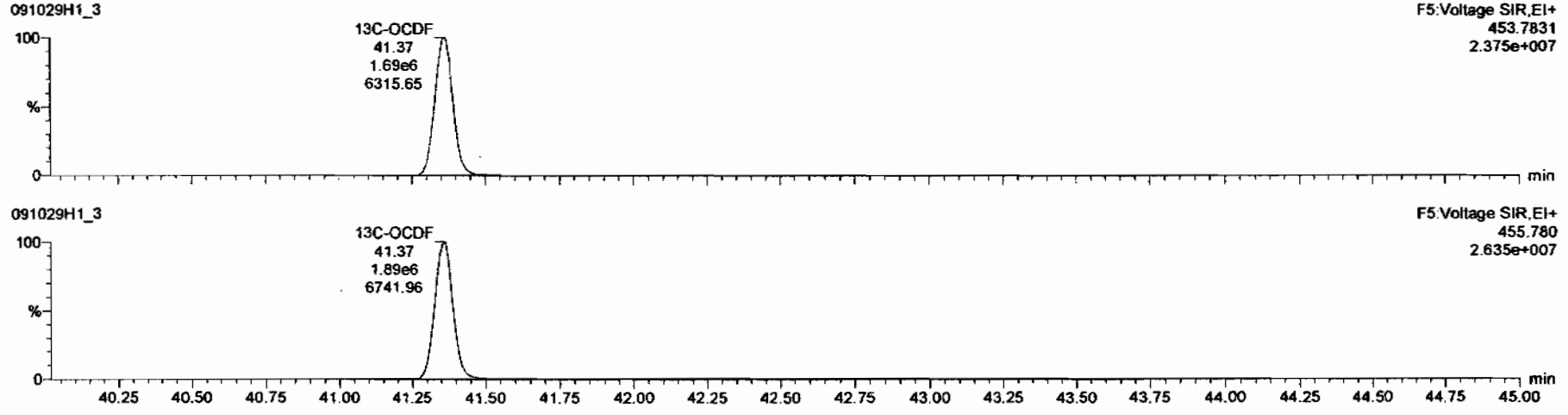

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Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

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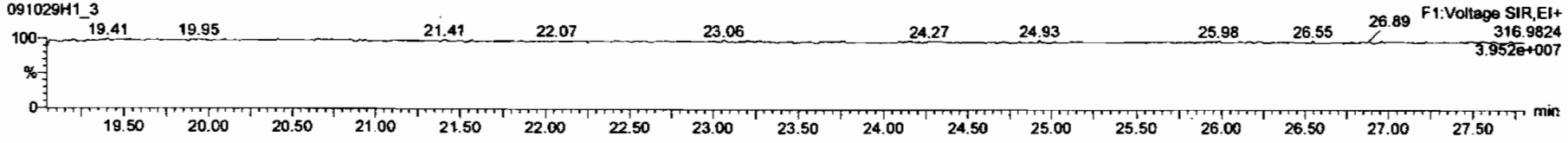

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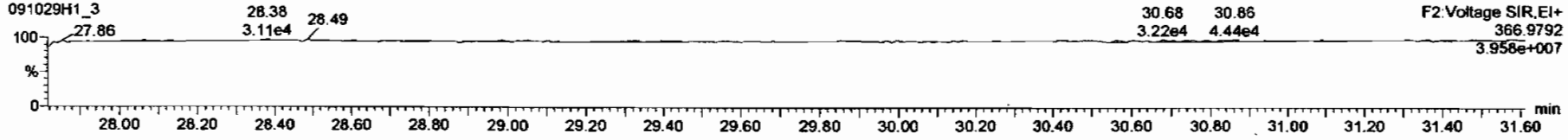

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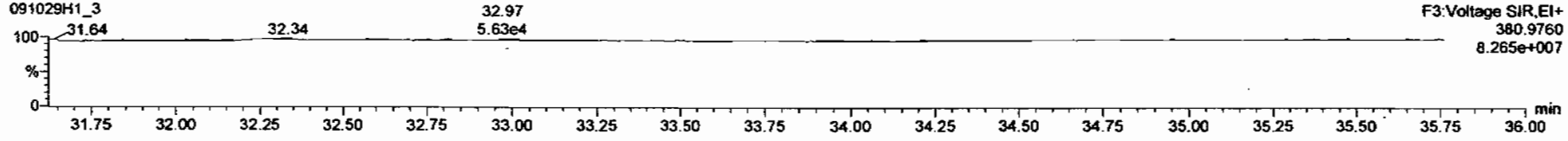

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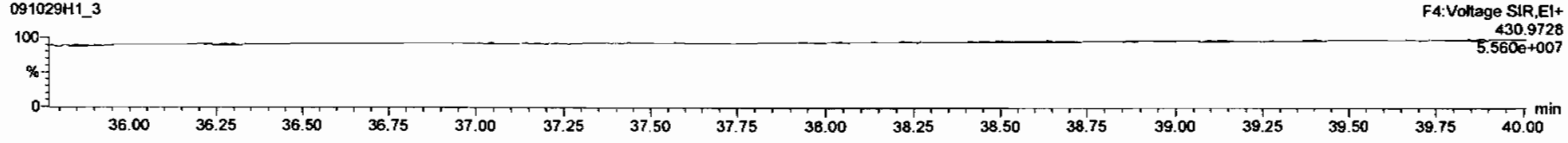

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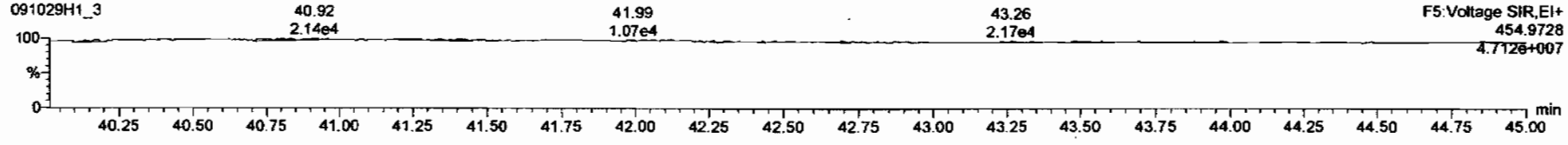

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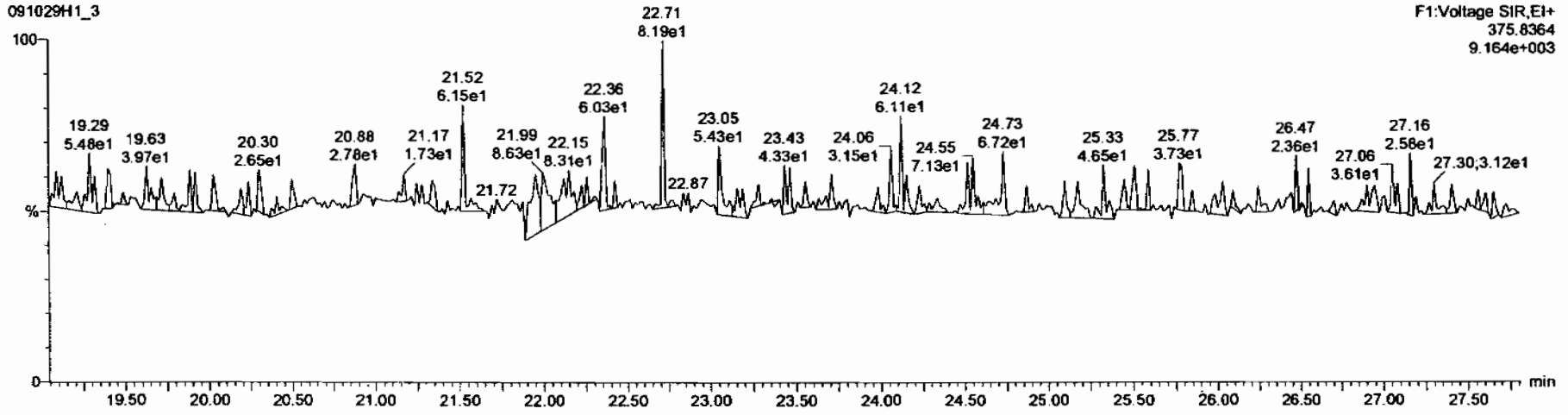

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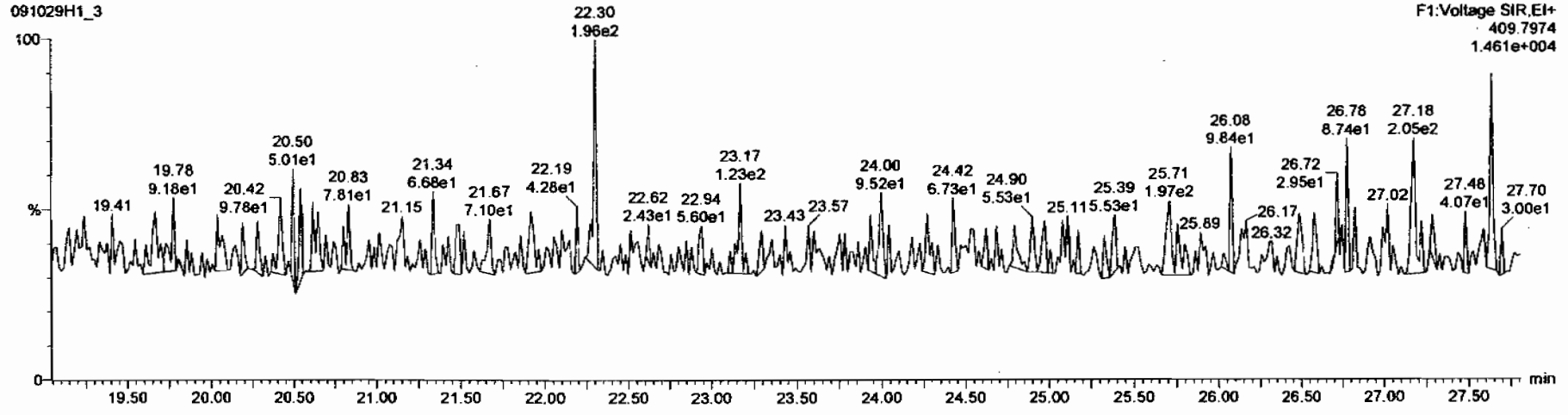

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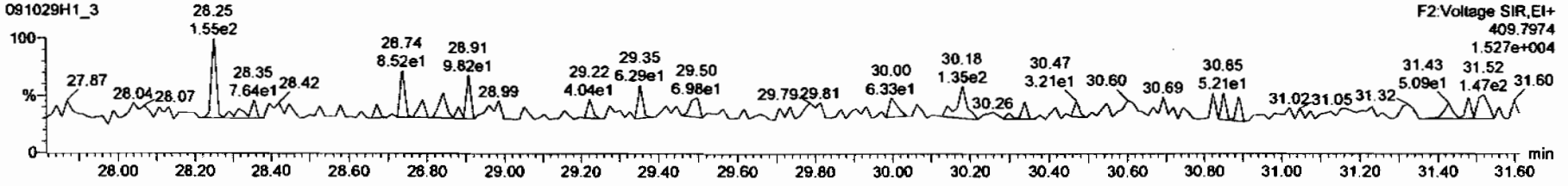

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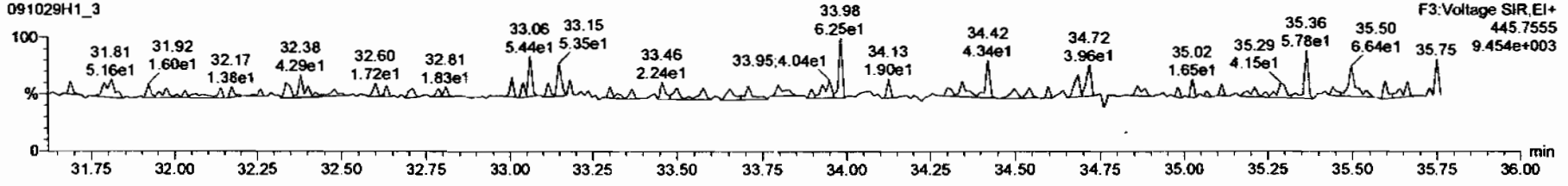

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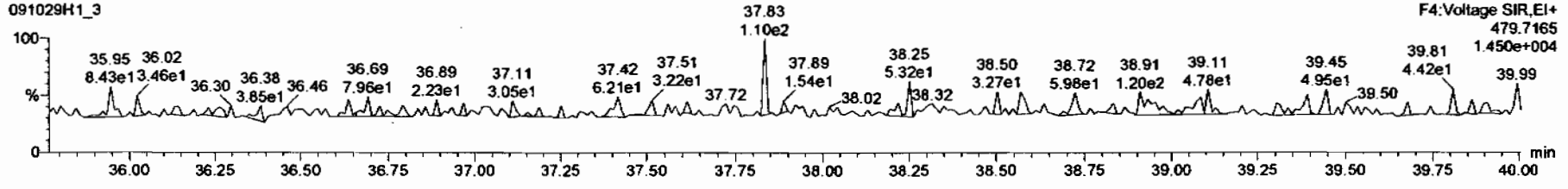

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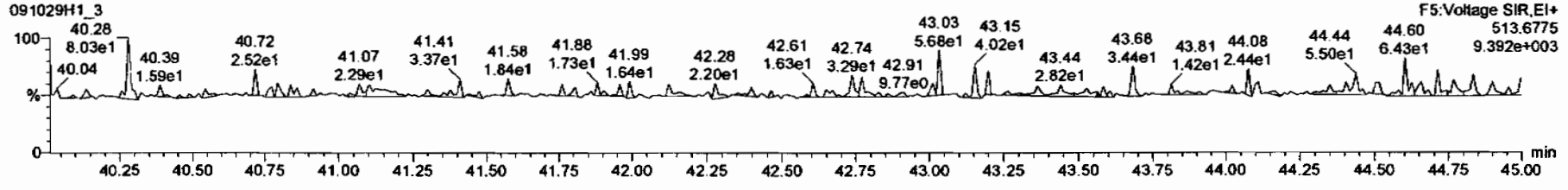

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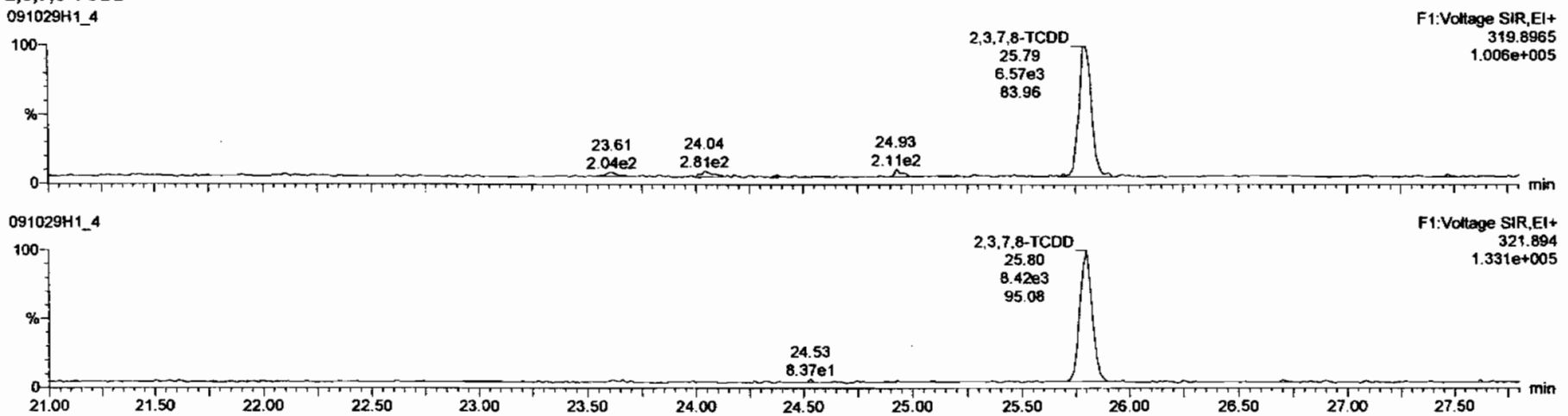

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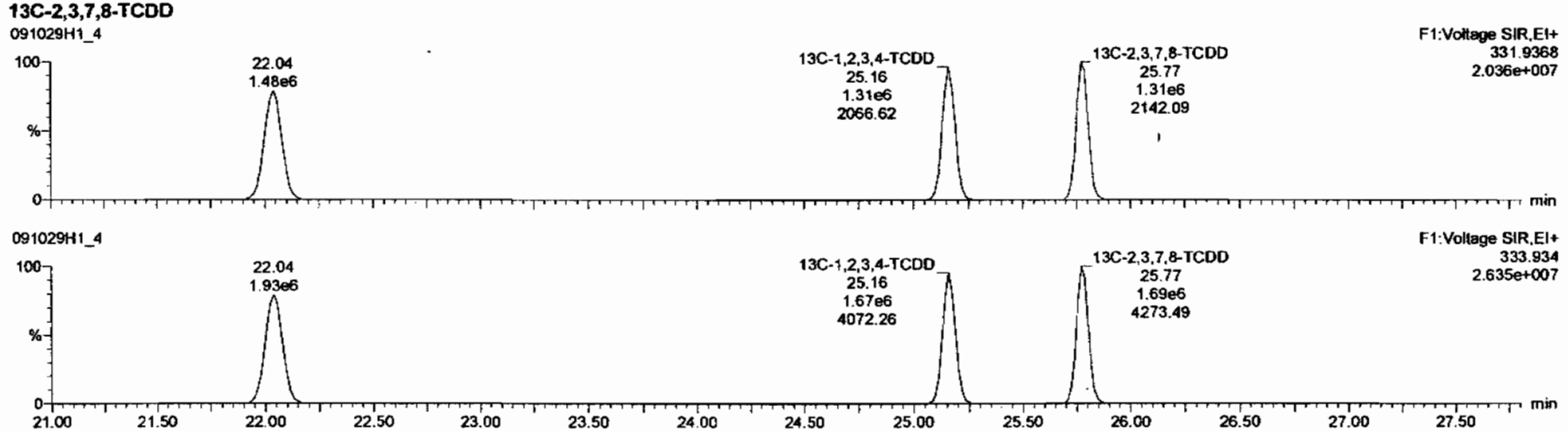

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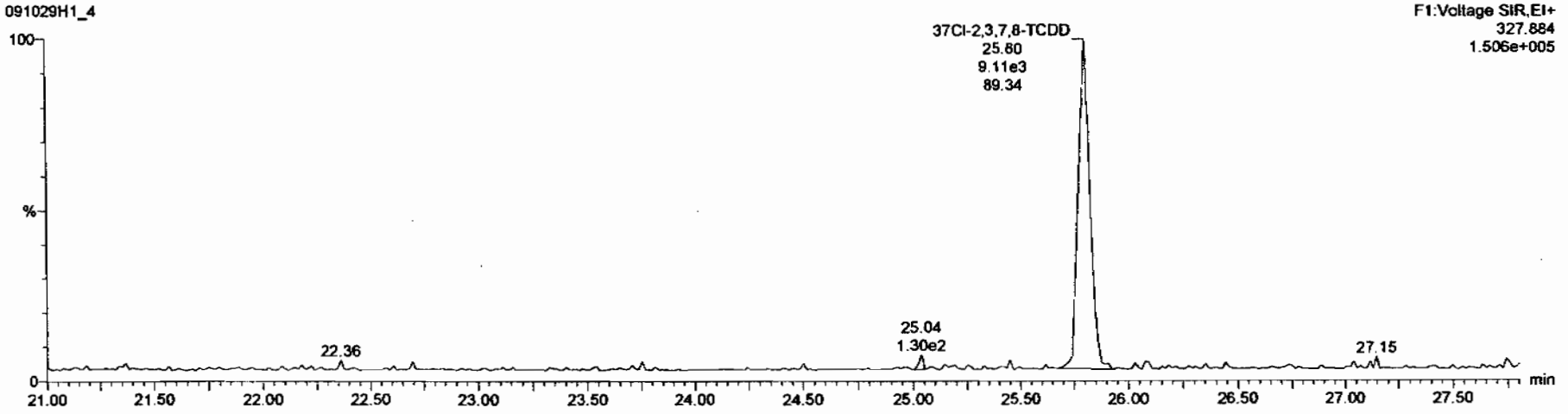

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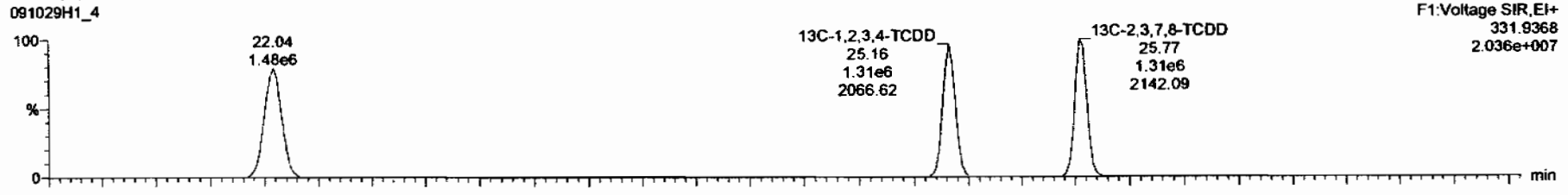

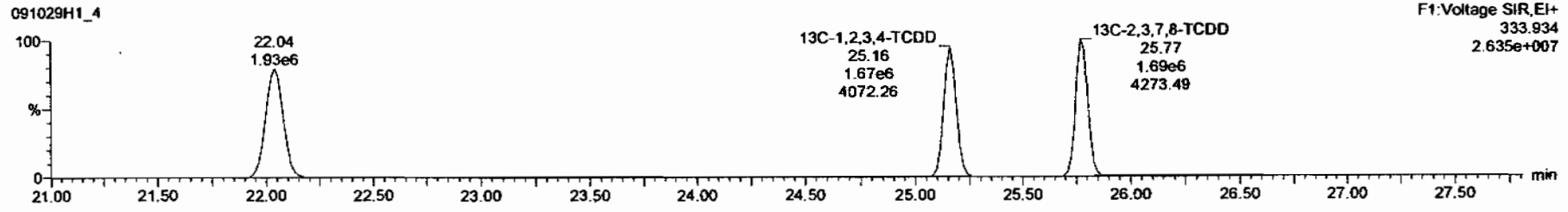

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1,2,3,7,8-PeCDD

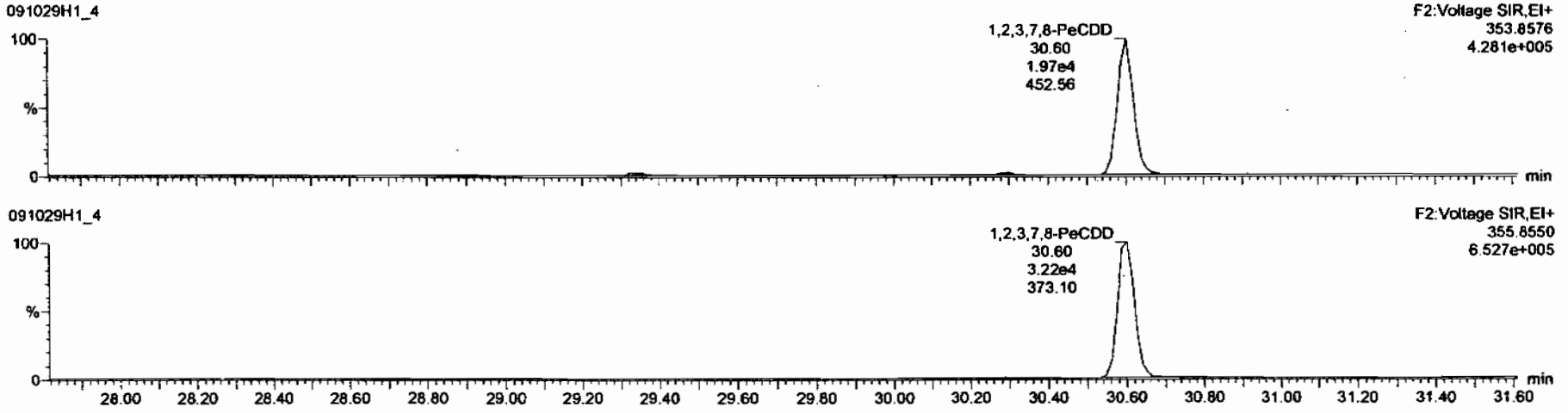

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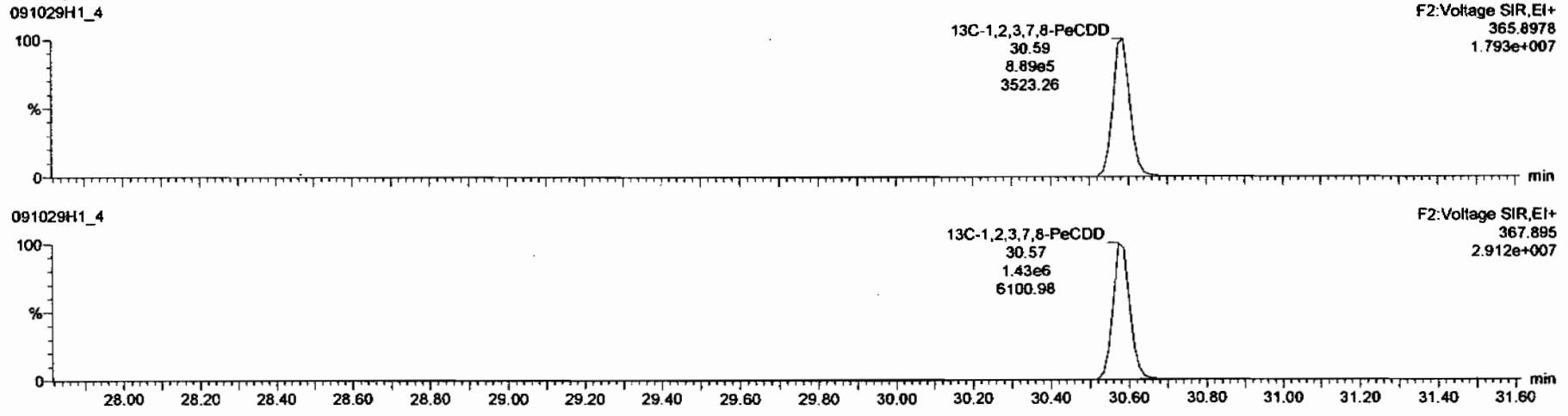

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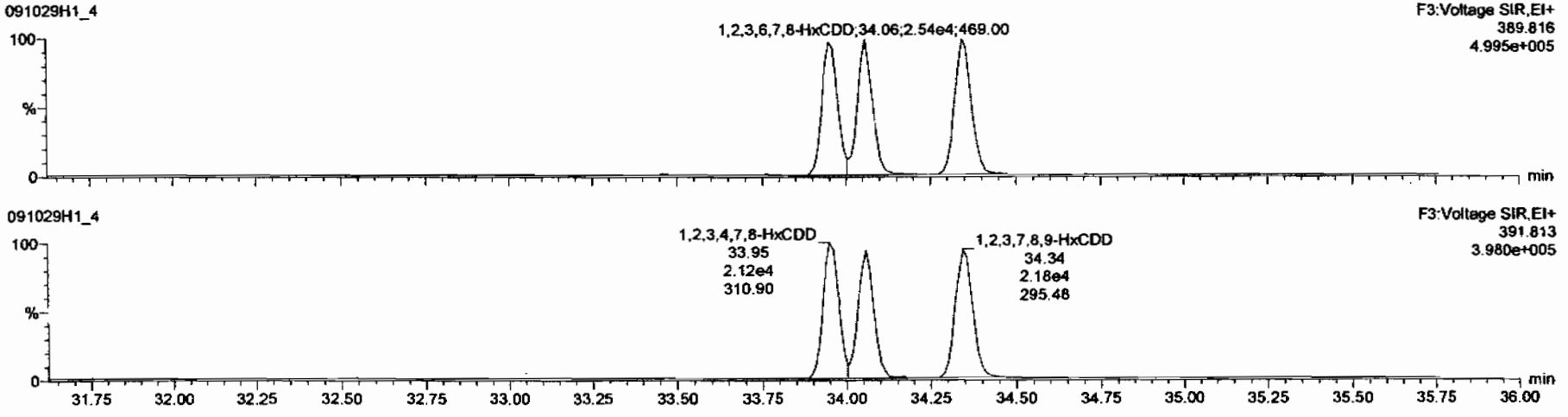

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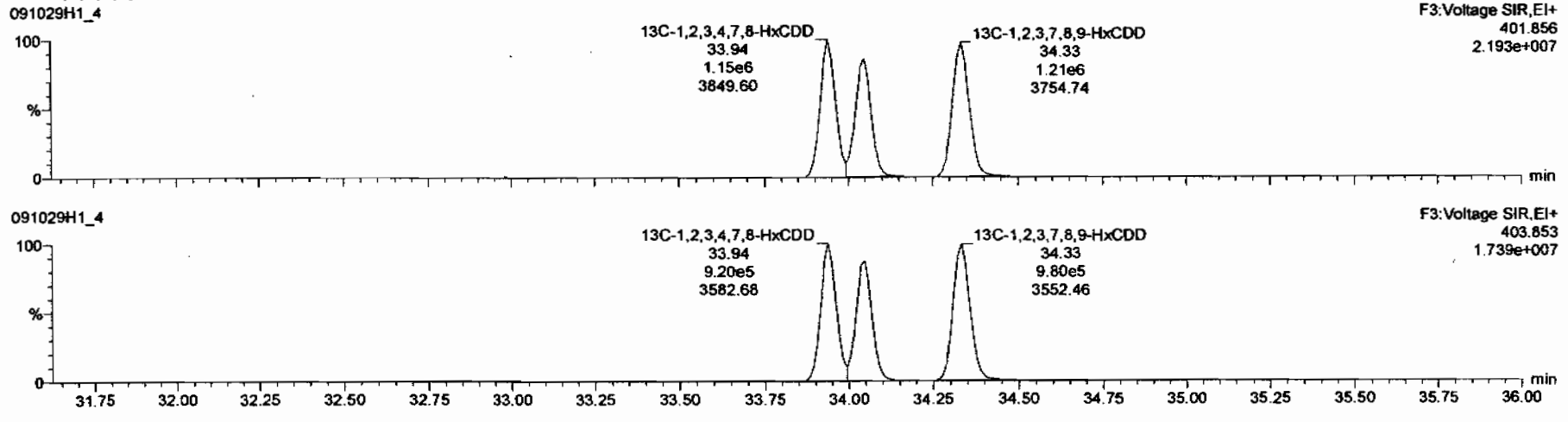

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1,2,3,4,6,7,8-HpCDD

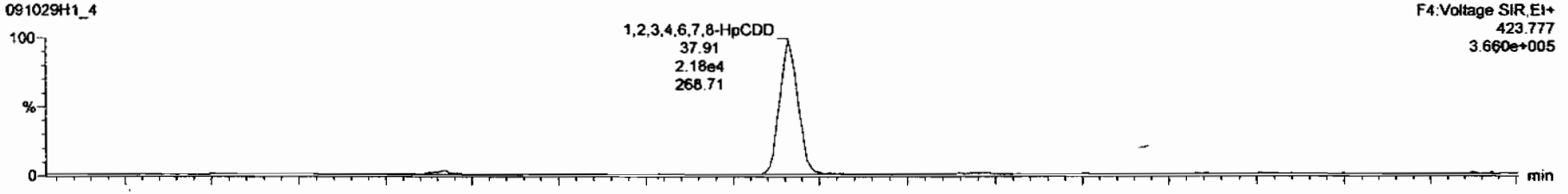

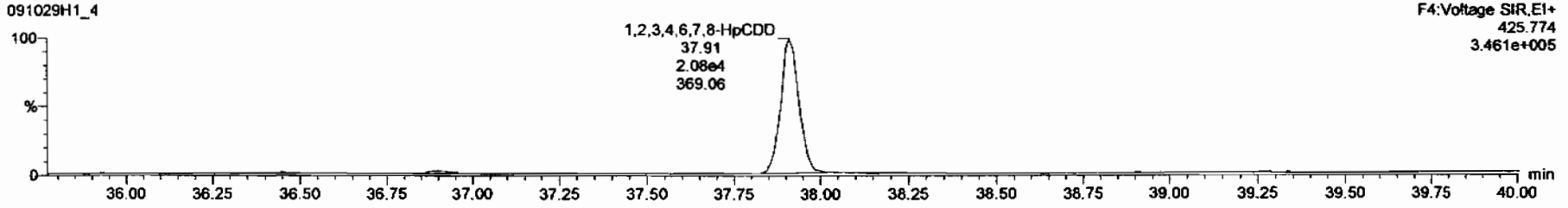

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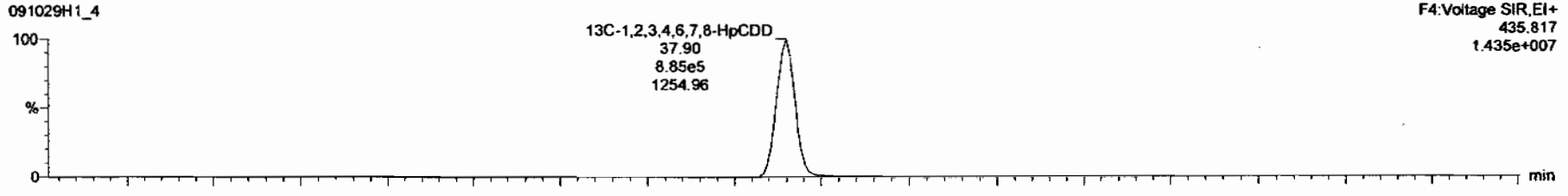

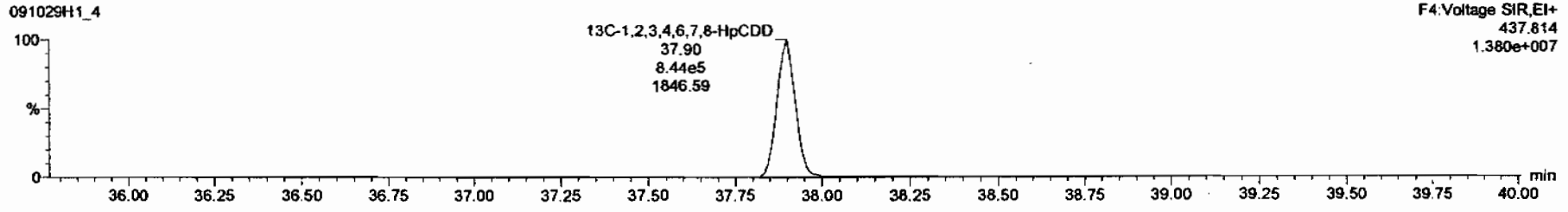

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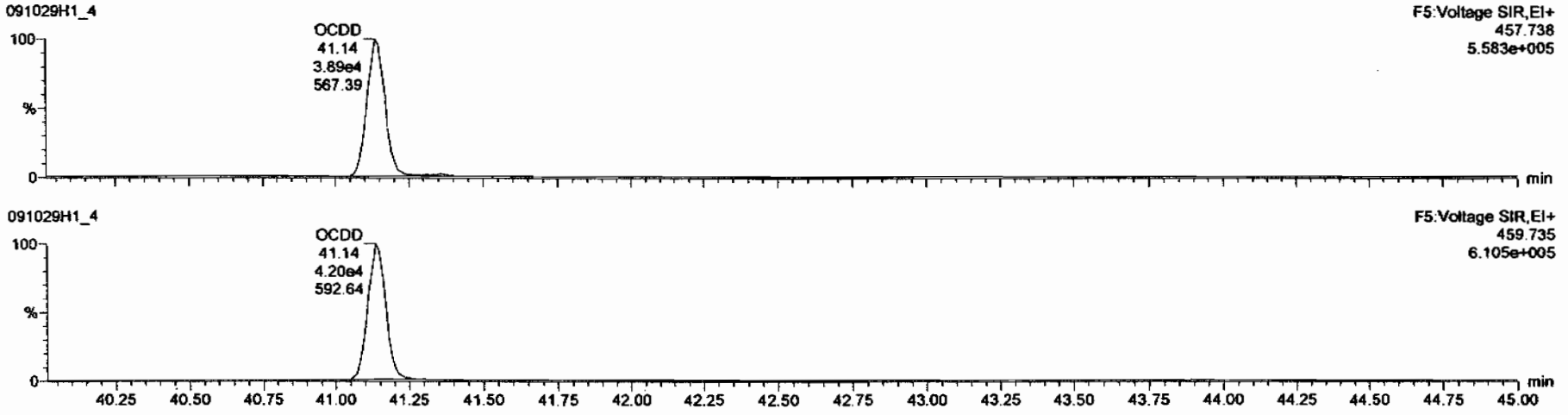

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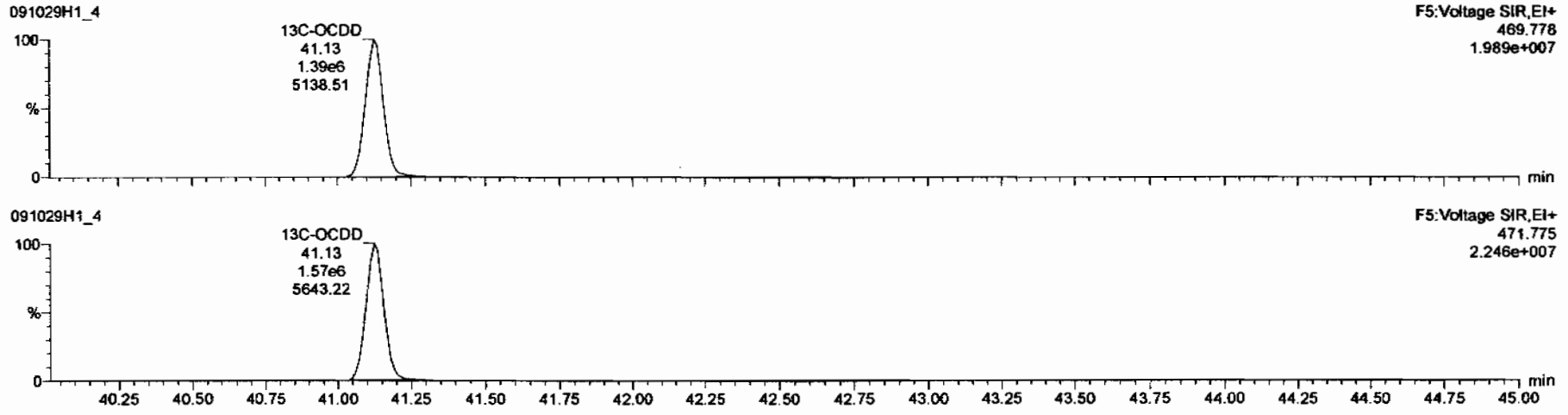

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2,3,7,8-TCDF

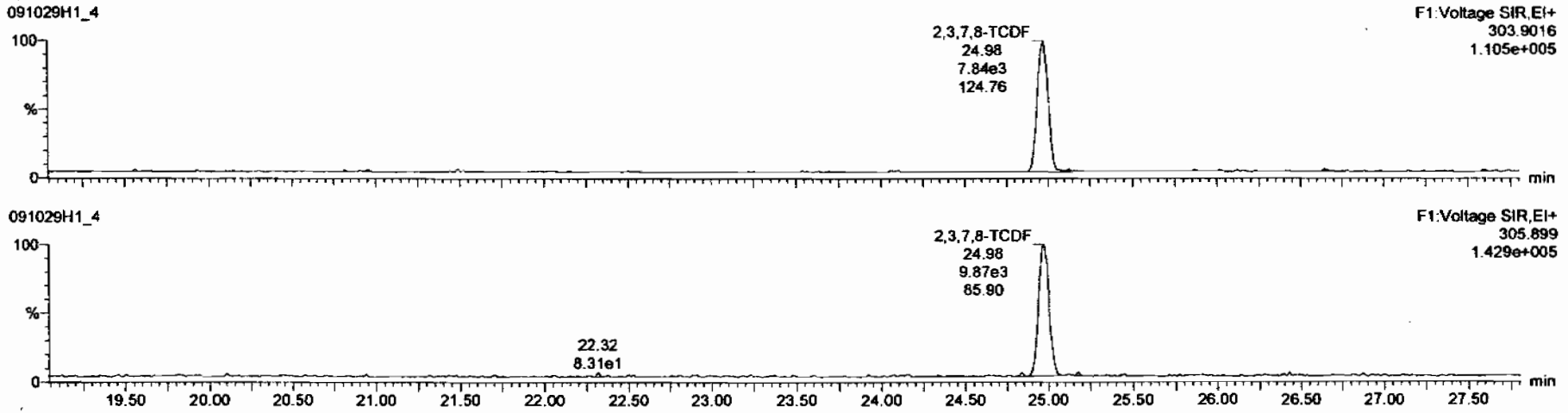

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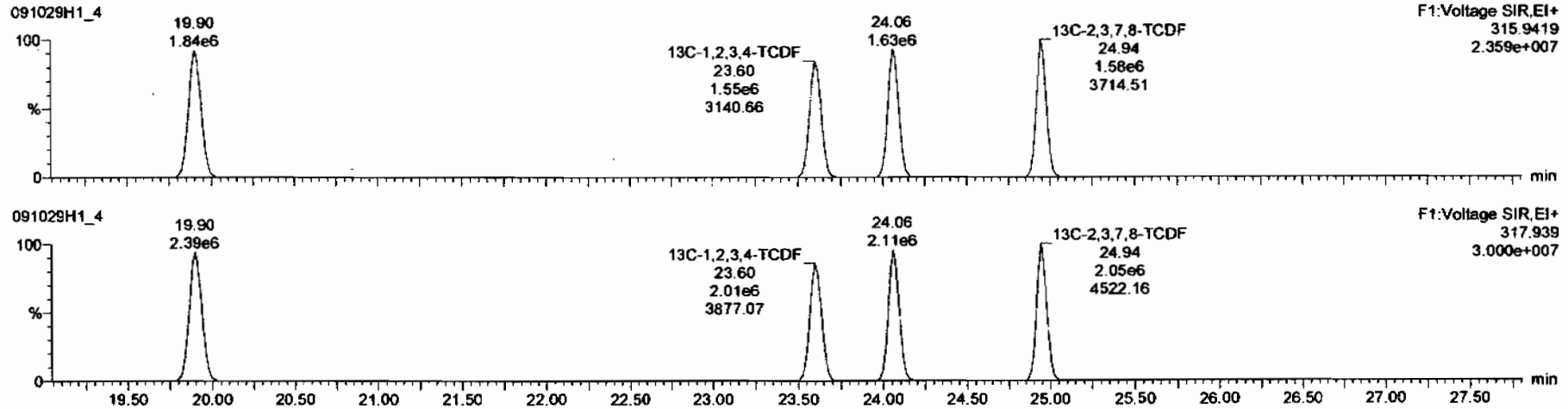

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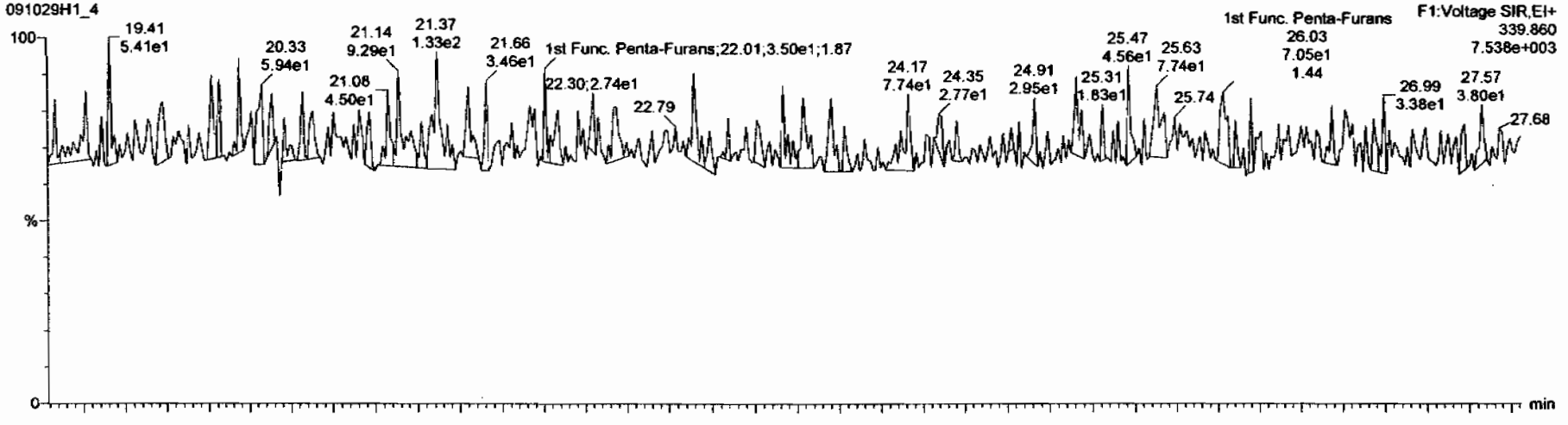

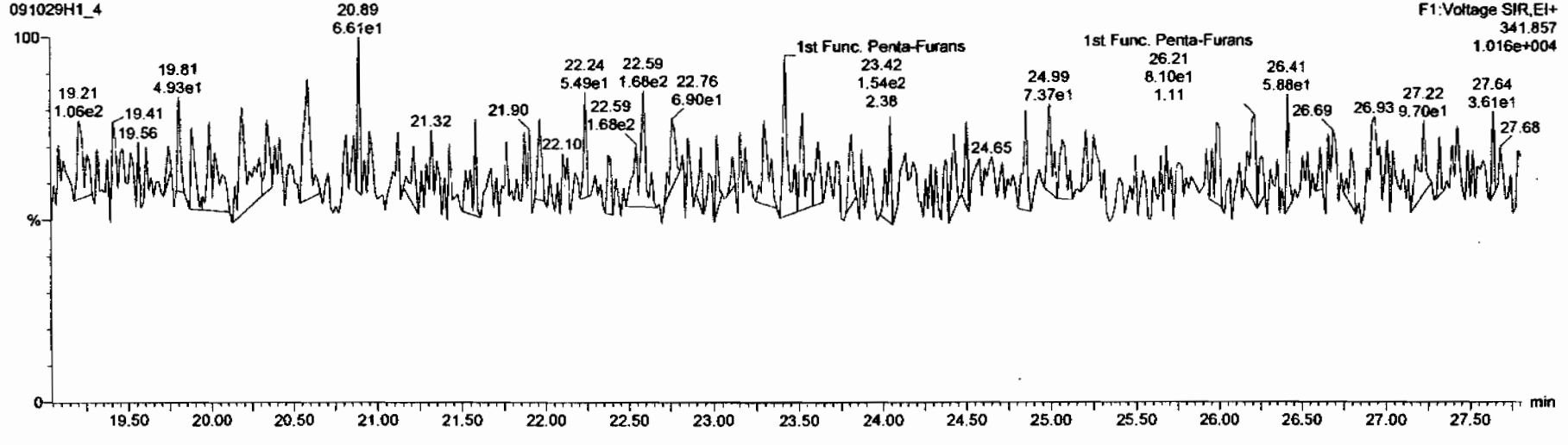

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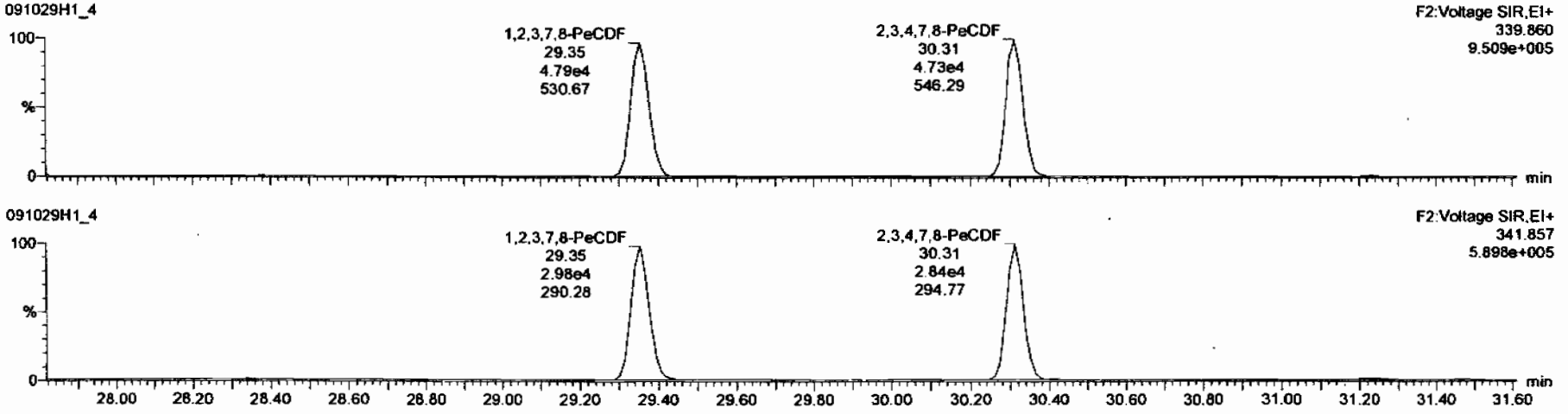

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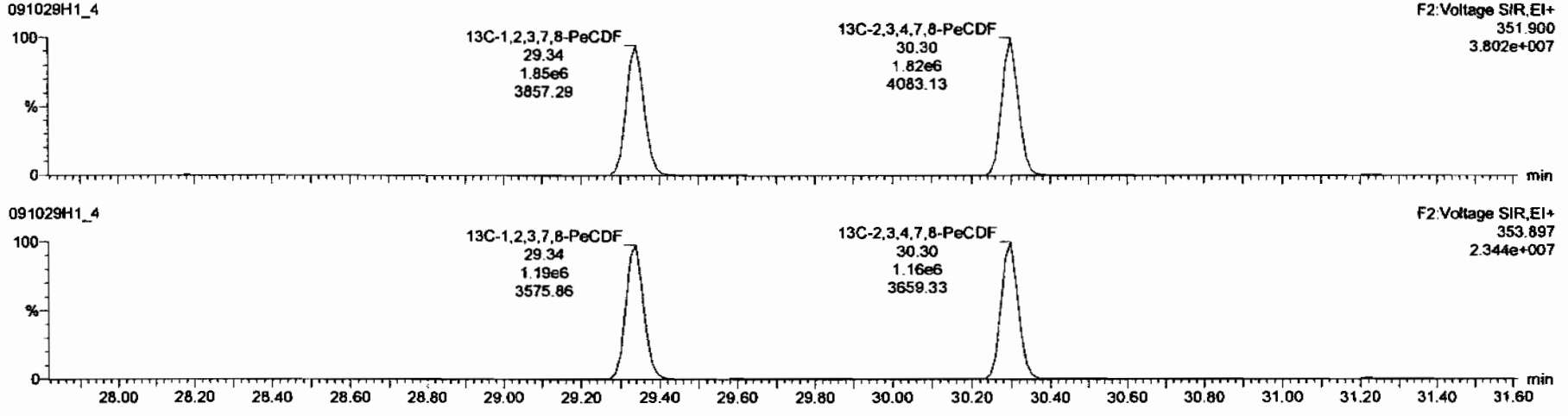

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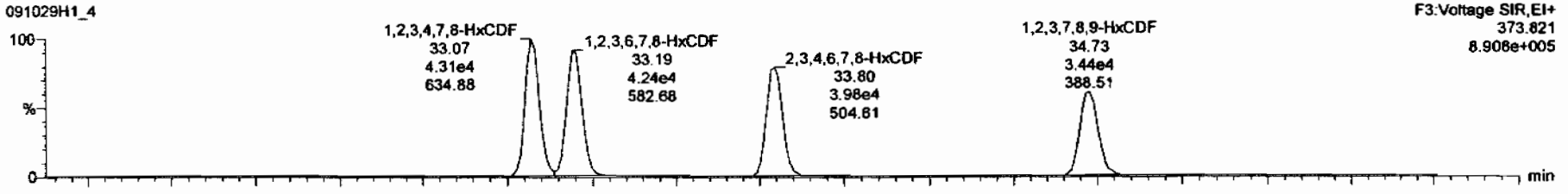

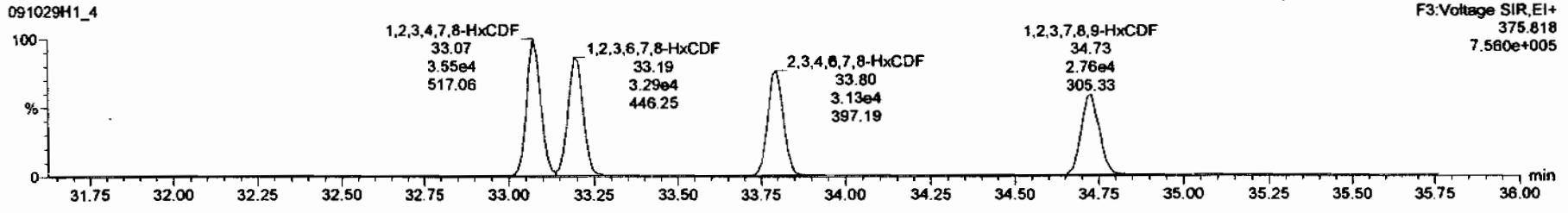

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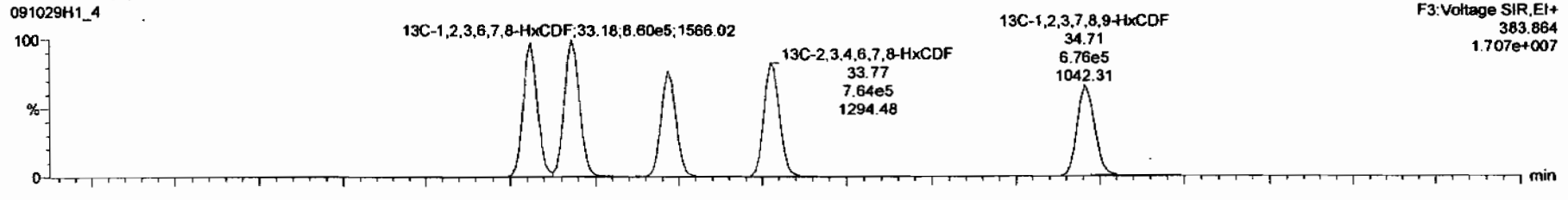

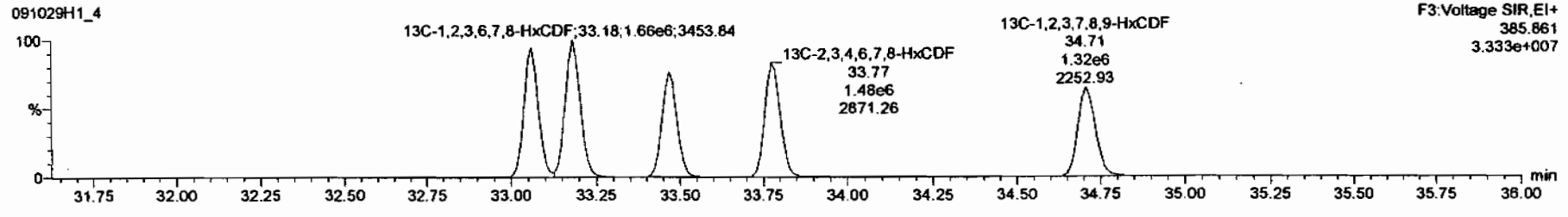

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1,2,3,4,6,7,8-HpCDF

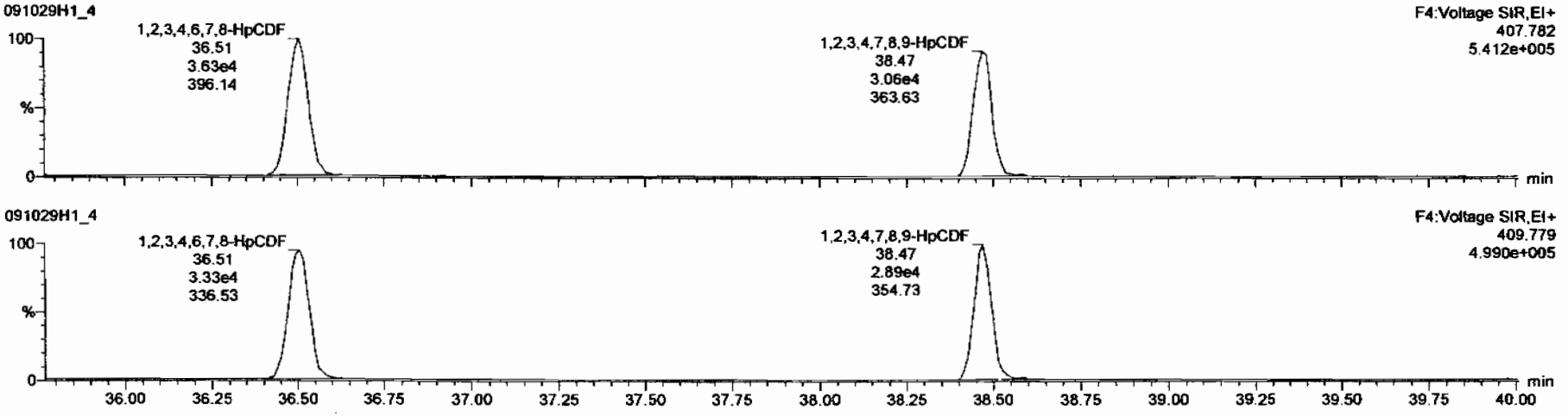

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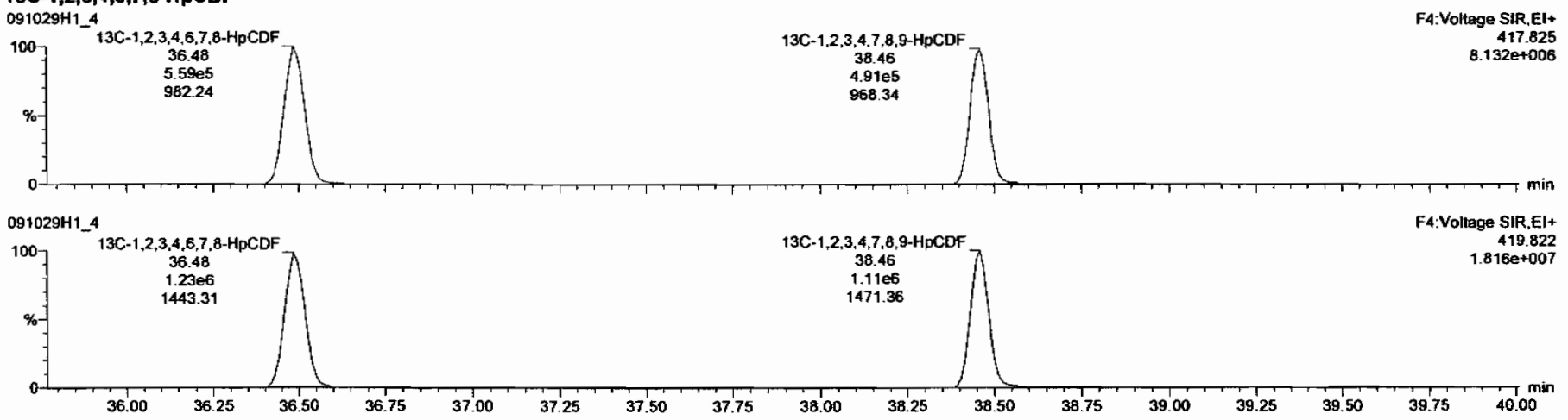

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OCDF

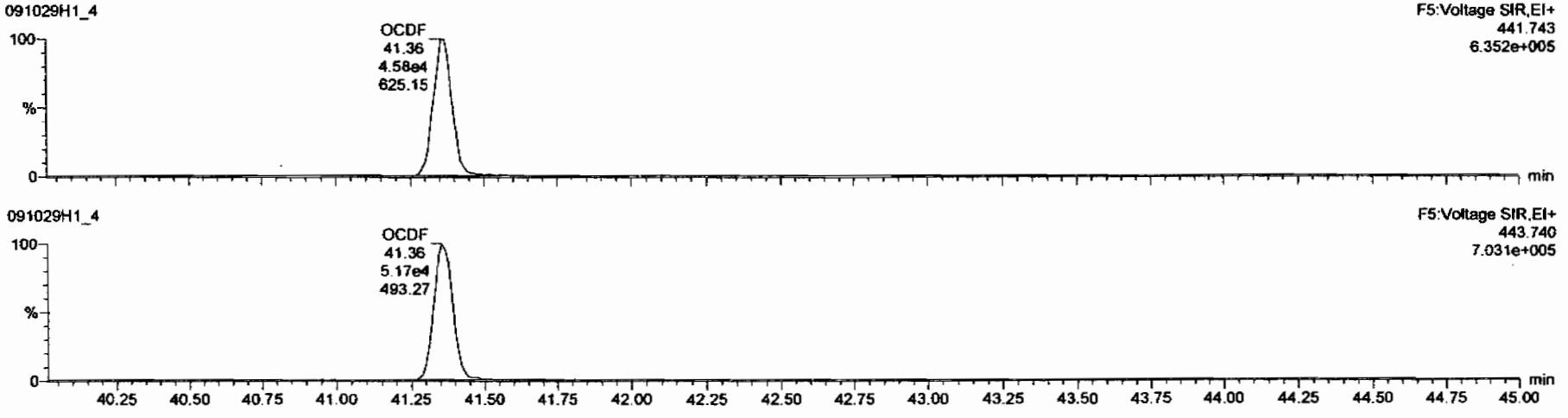

13C-OCDF

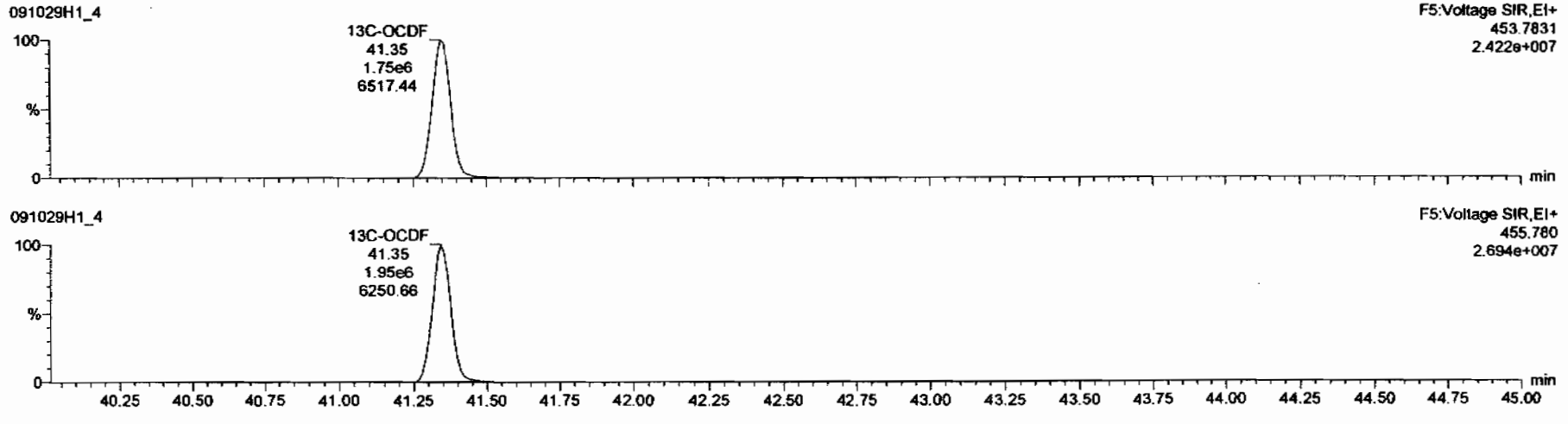

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Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

Name: 091029H1_4, Date: 29-Oct-2009, Time: 14:55:29, ID: ST091029H1-3 1613 CS1 090922E, Description: 1613 CS1 090922E

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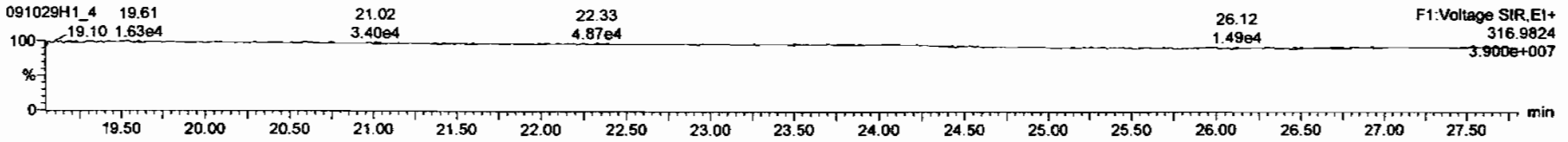

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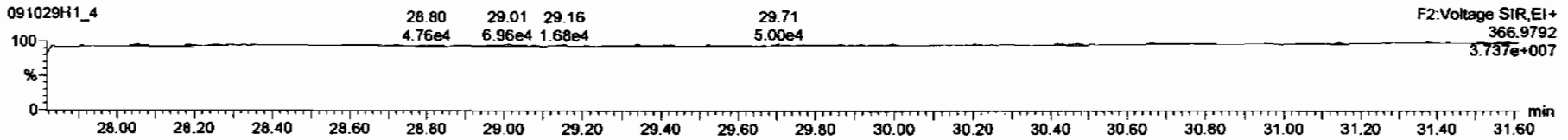

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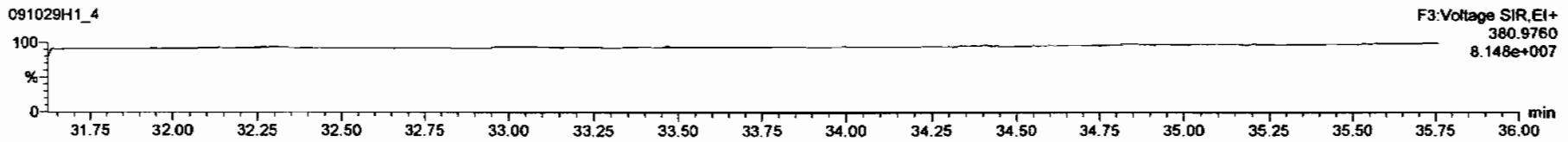

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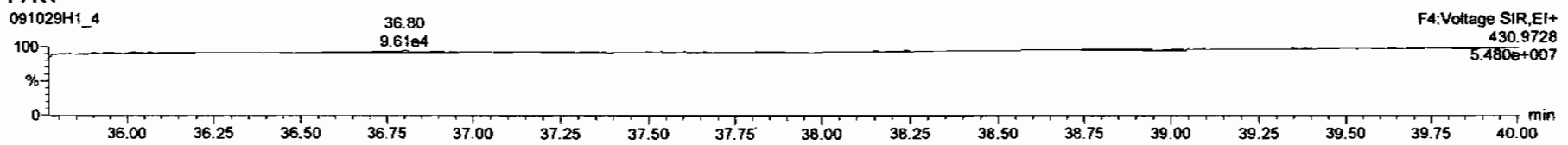

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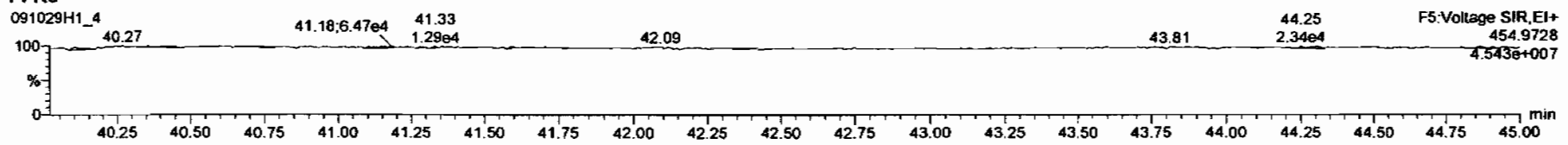

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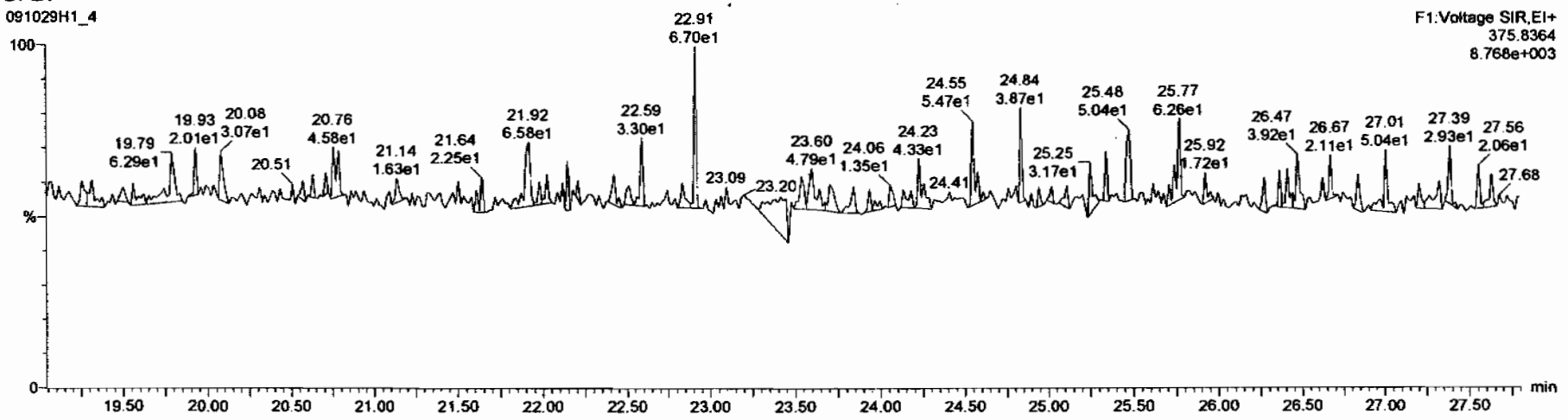

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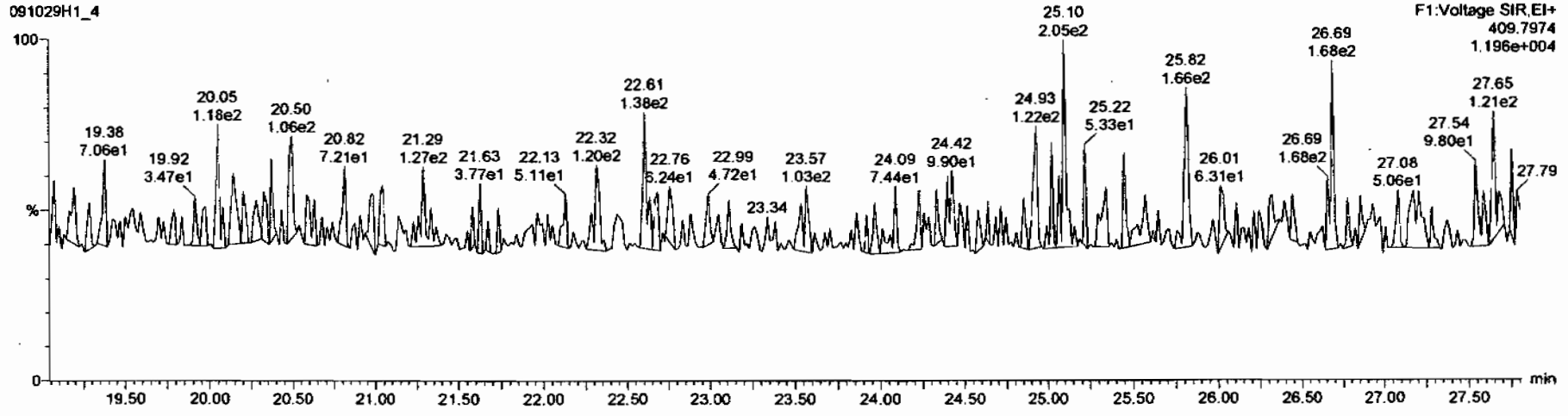

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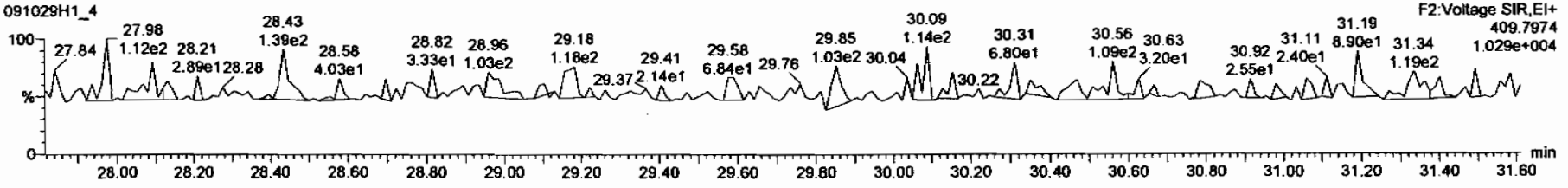

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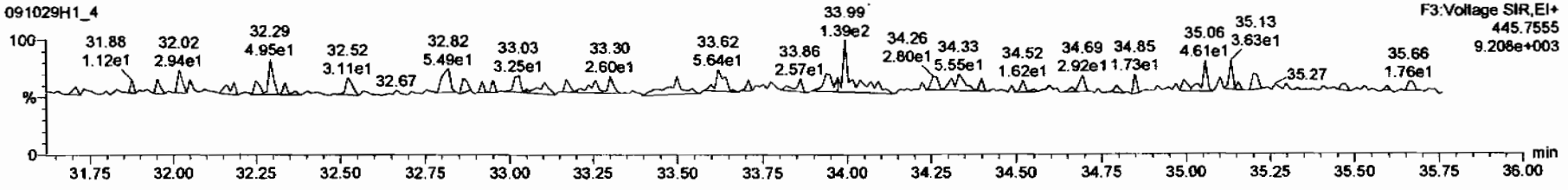

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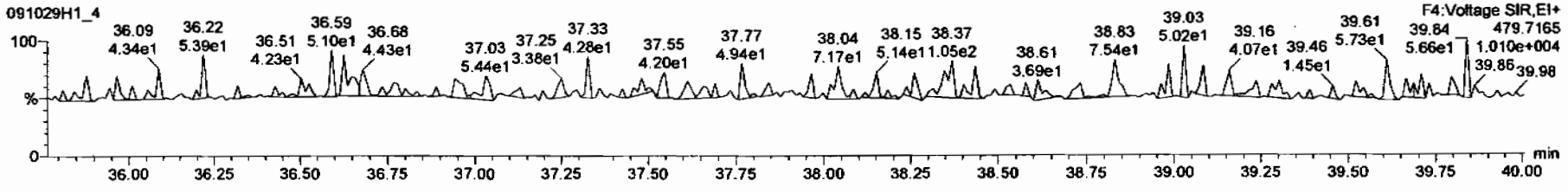

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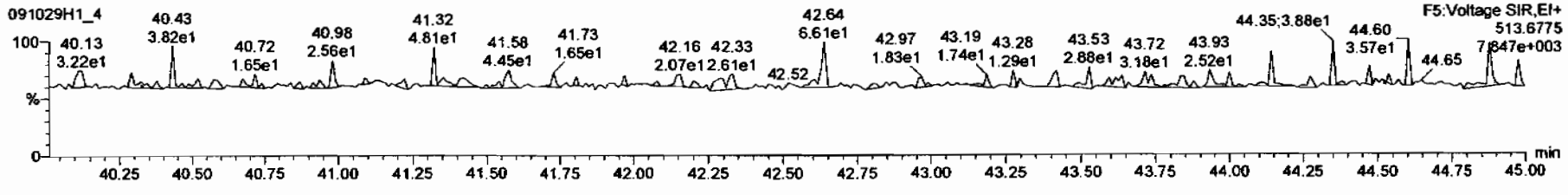

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Name: 091029H1_5, Date: 29-Oct-2009, Time: 15:45:05, ID: ST091029H1-4 1613 CS2 090922F, Description: 1613 CS2 090922F

2,3,7,8-TCDD

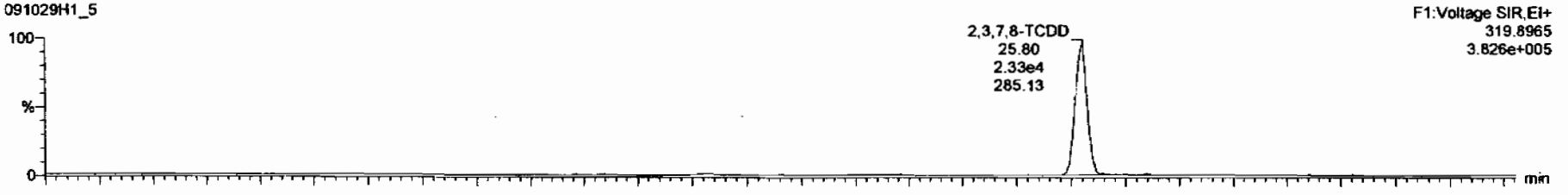

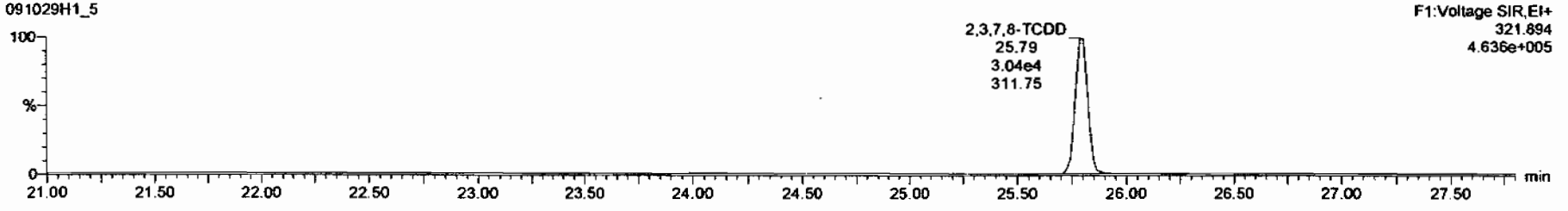

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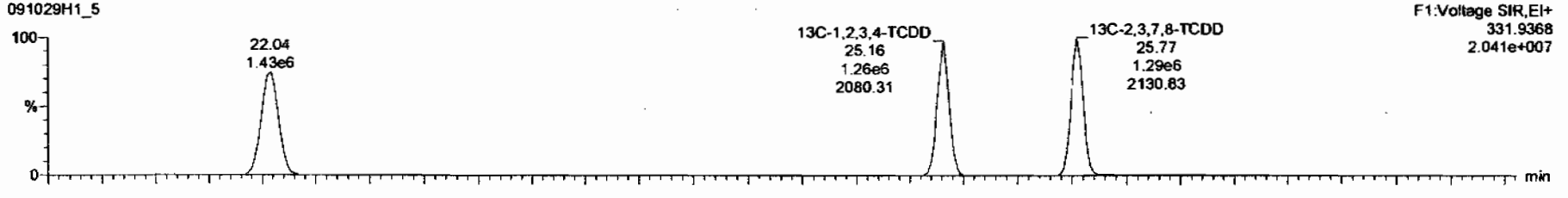

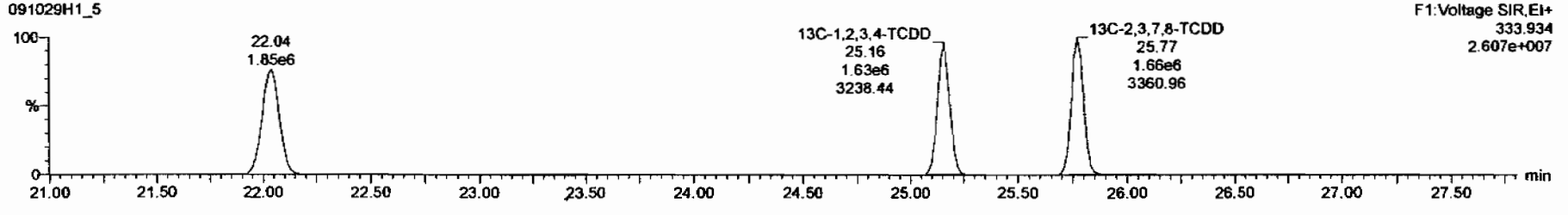

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37Cl-2,3,7,8-TCDD

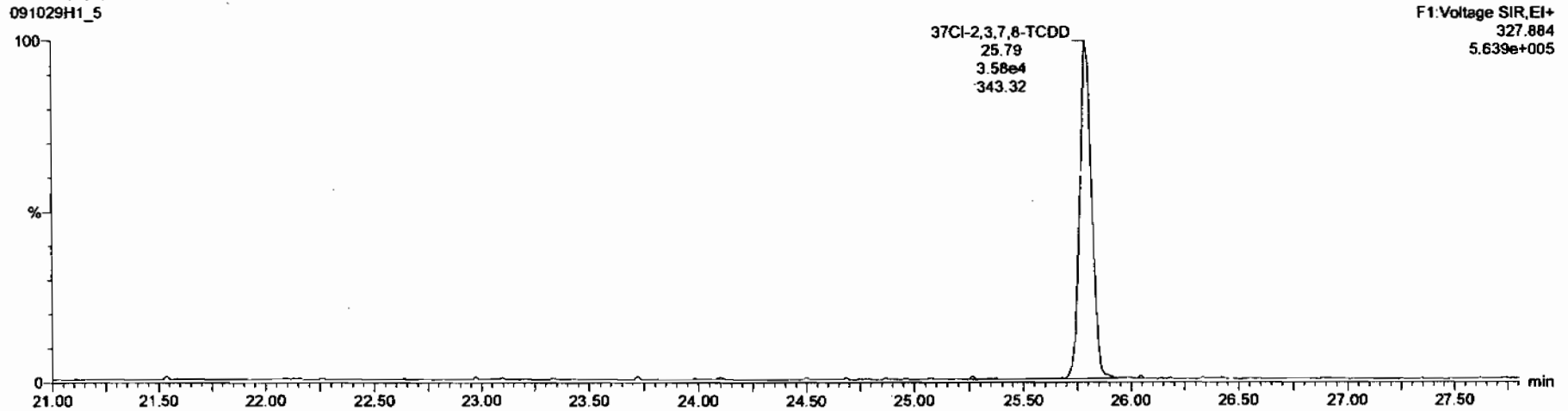

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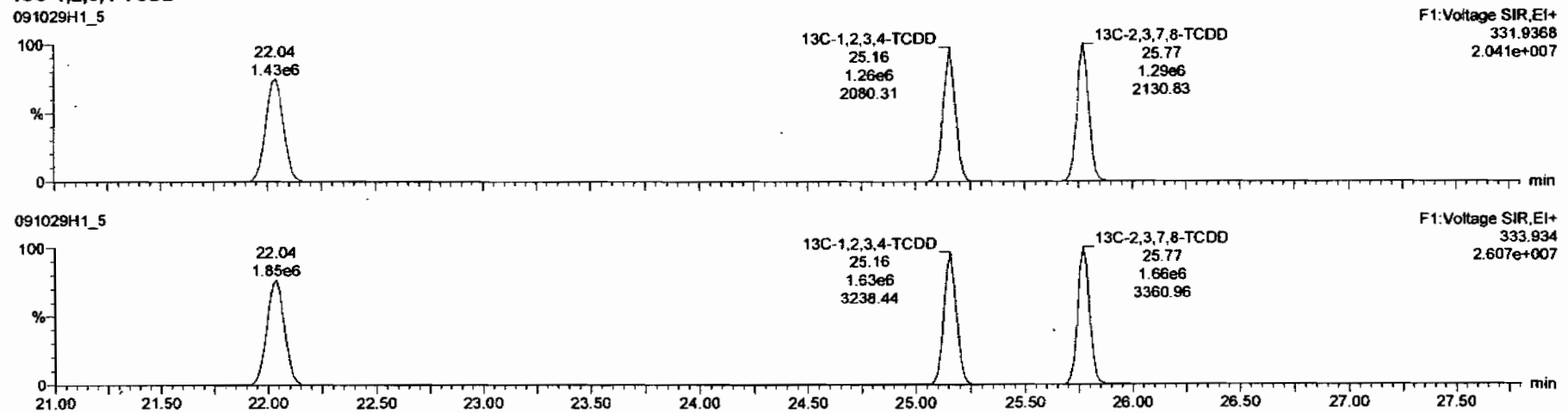

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1,2,3,7,8-PeCDD

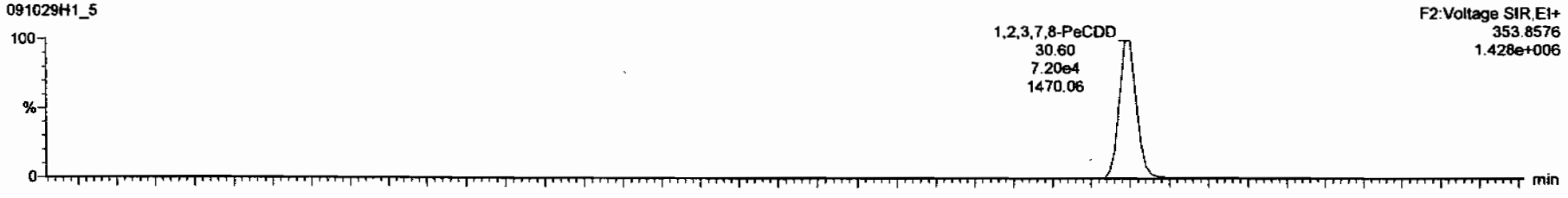

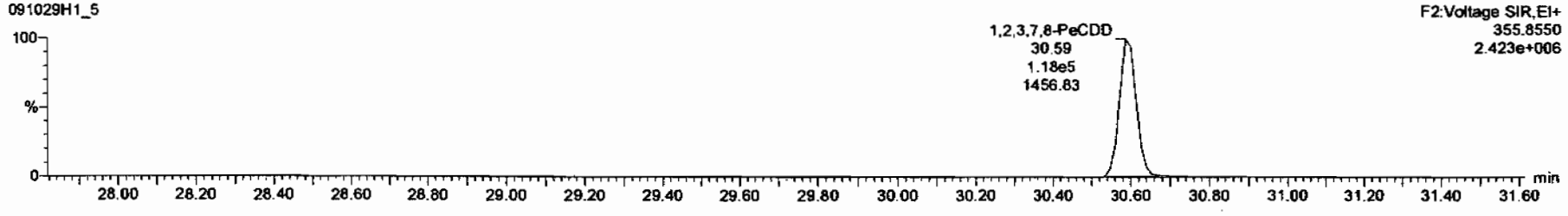

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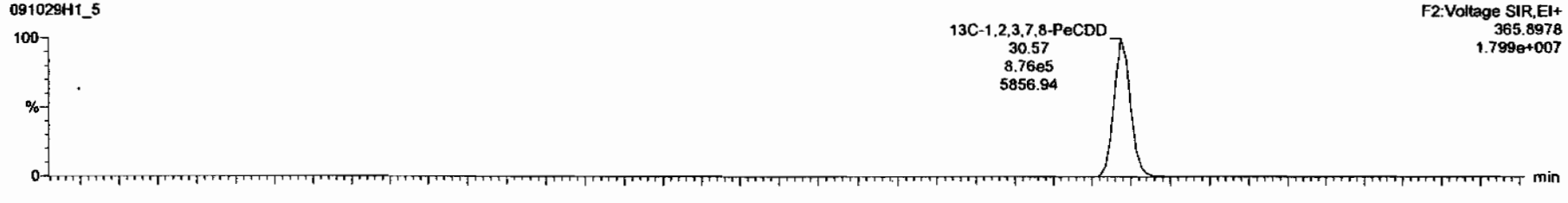

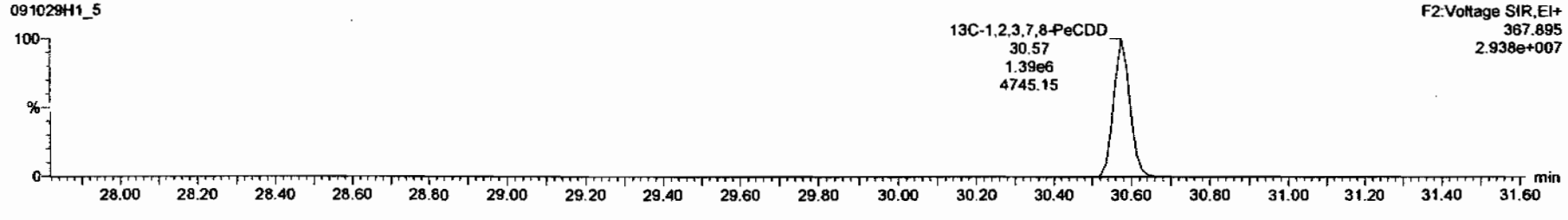

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1,2,3,4,7,8-HxCDD

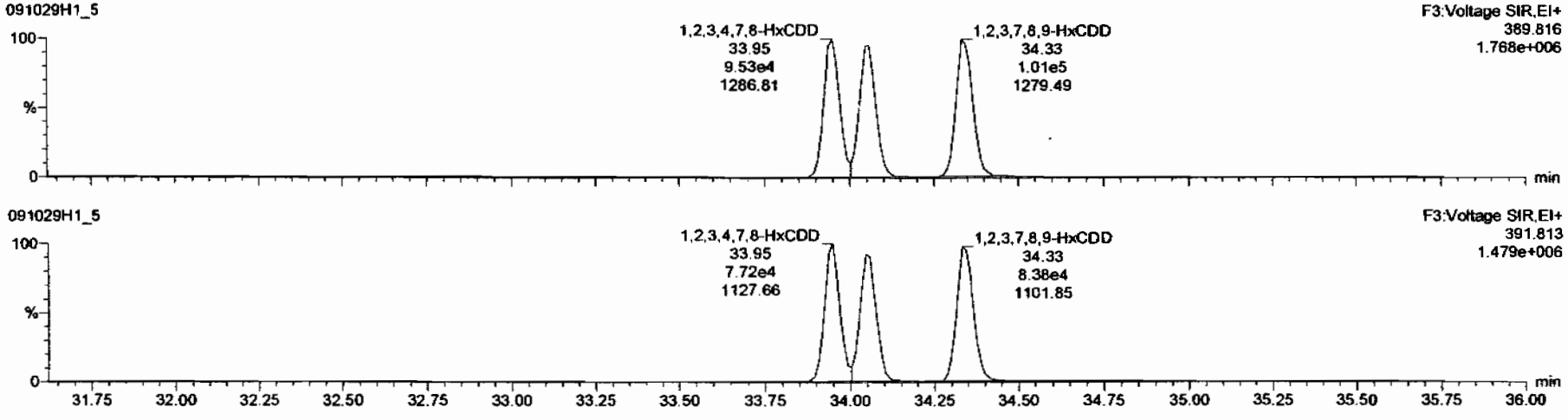

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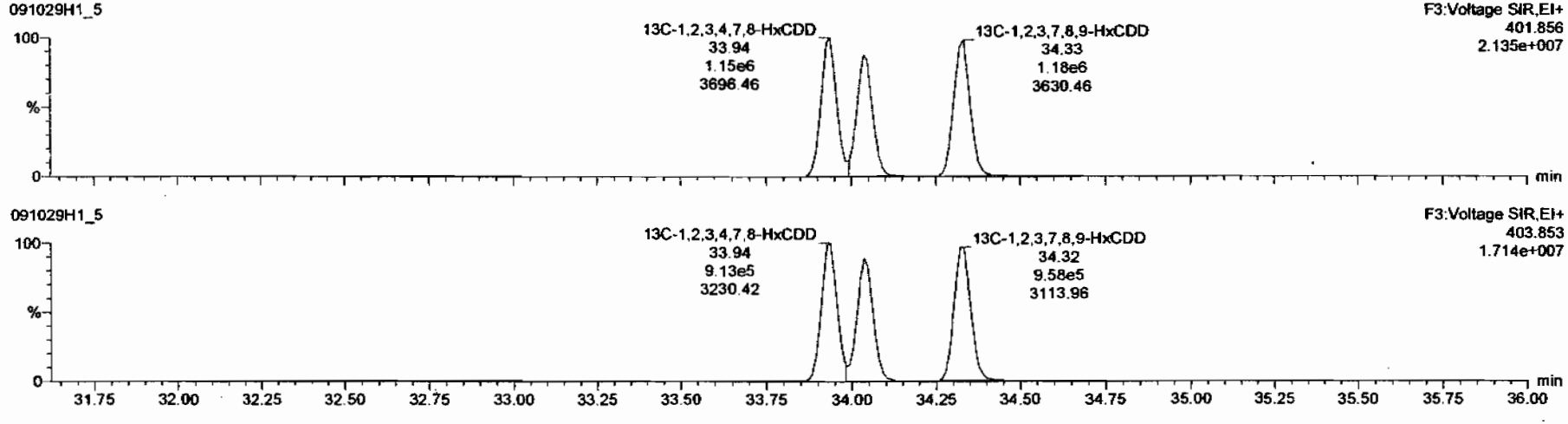

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1,2,3,4,6,7,8-HpCDD

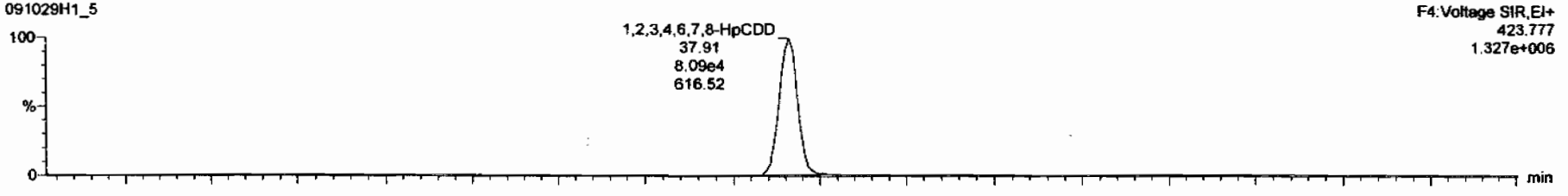

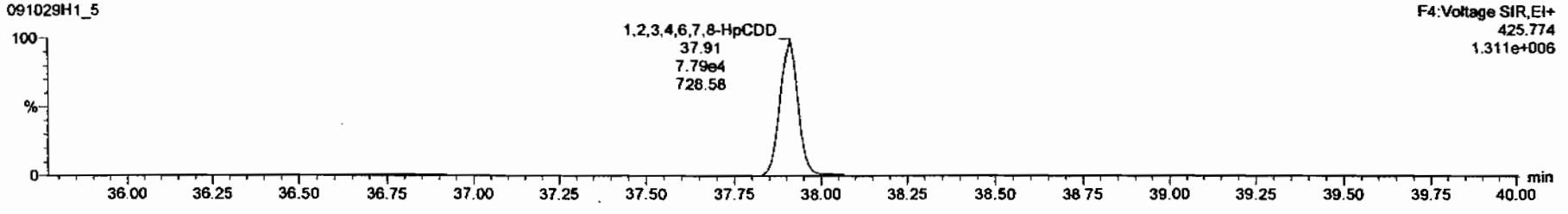

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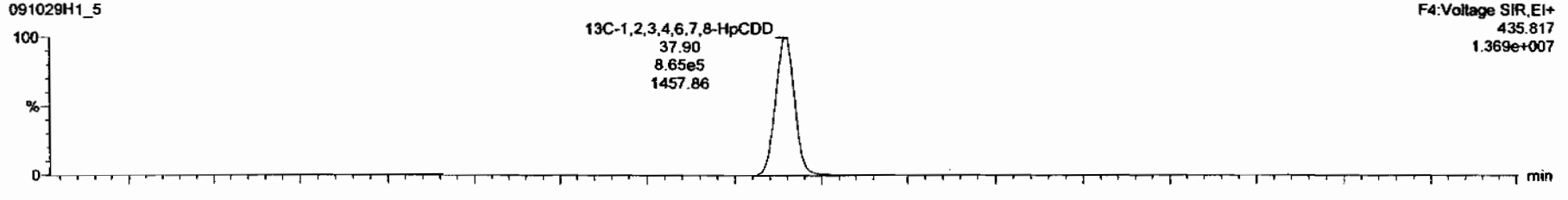

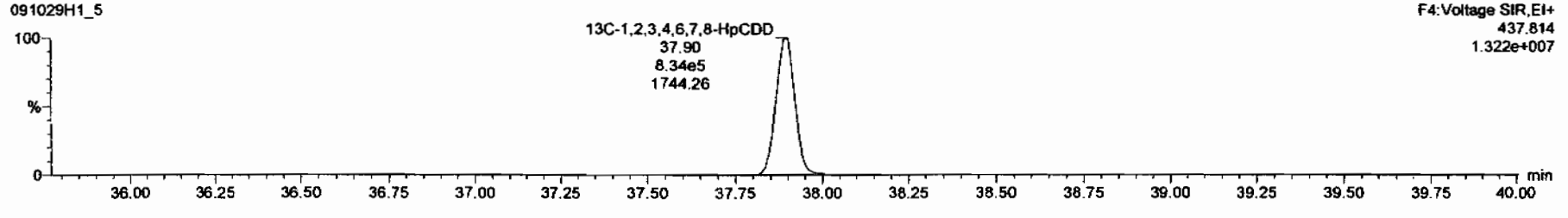

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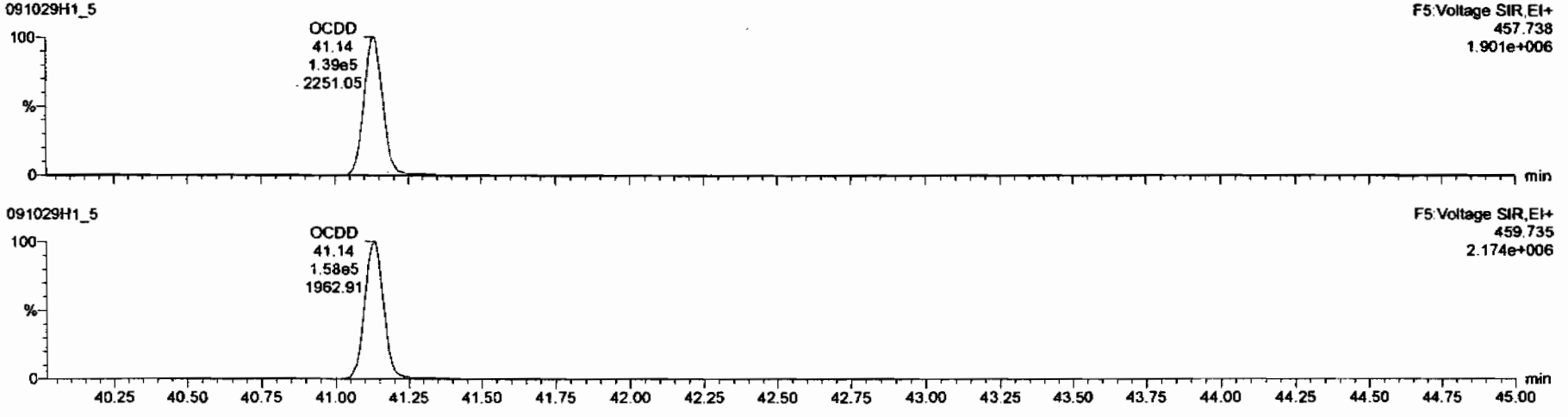

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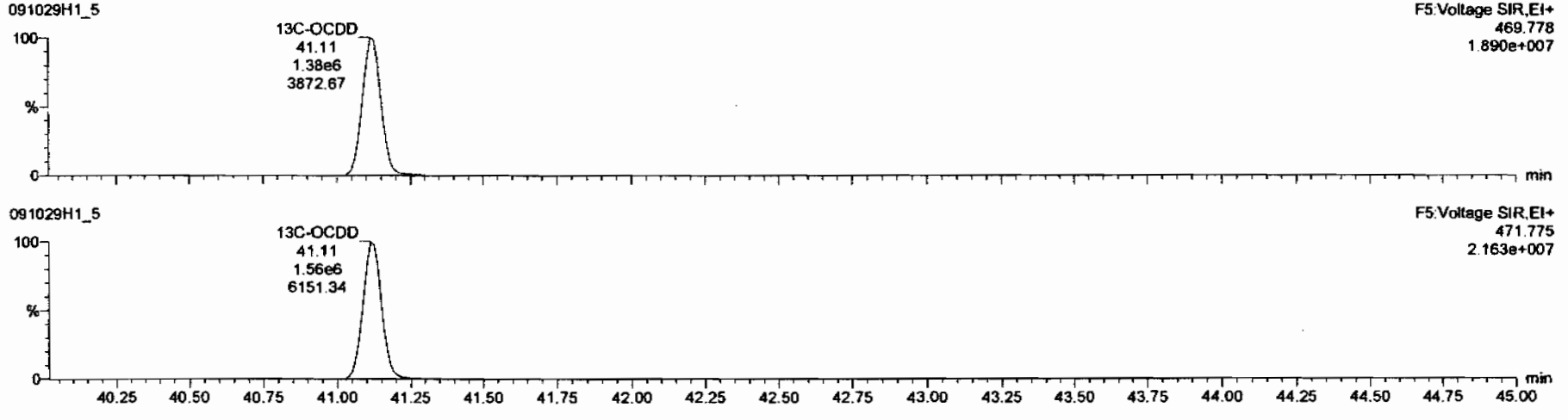

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2,3,7,8-TCDF

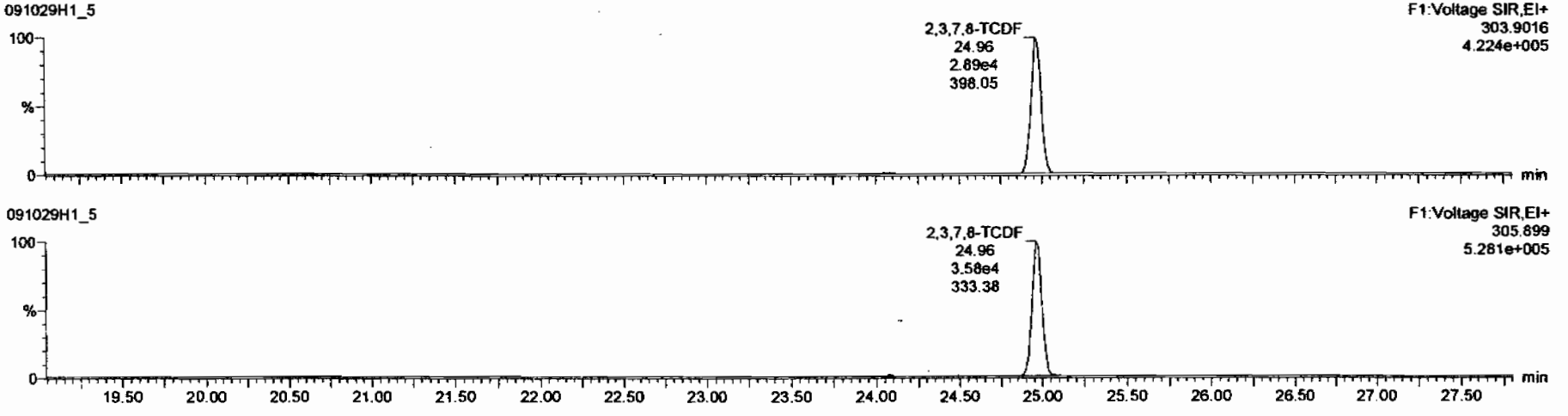

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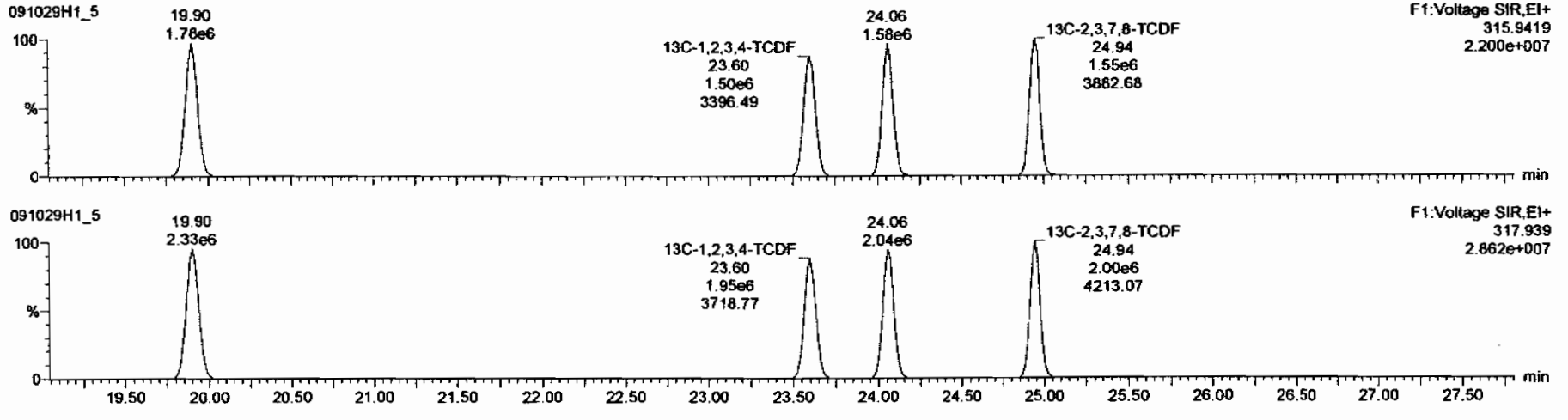

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Name: 091029H1_5, Date: 29-Oct-2009, Time: 15:45:05, ID: ST091029H1-4 1613 CS2 090922F, Description: 1613 CS2 090922F

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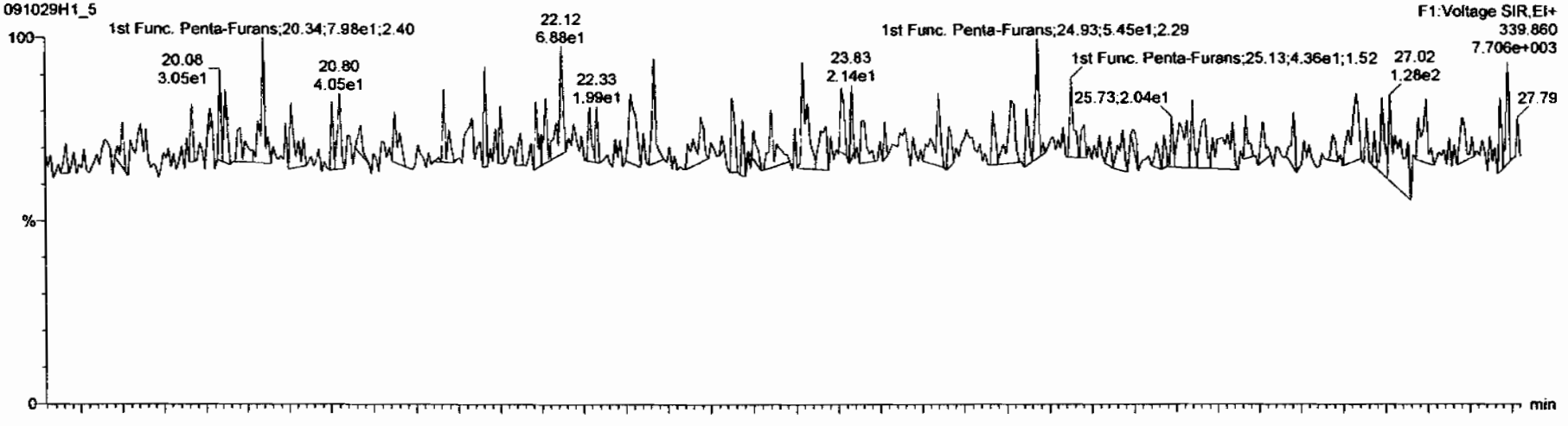

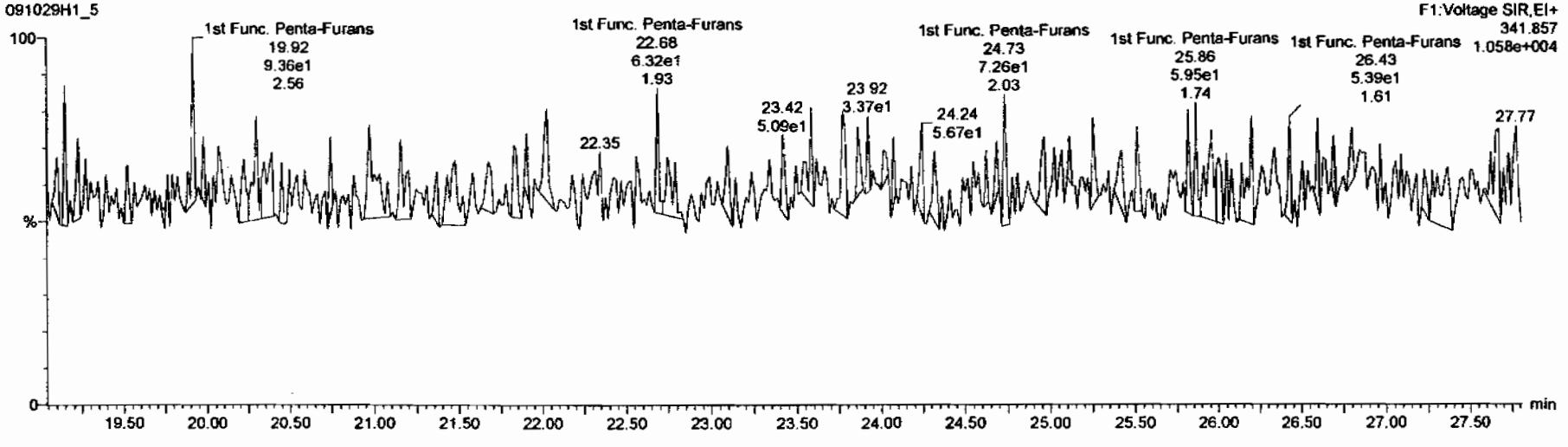

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1,2,3,7,8-PeCDF

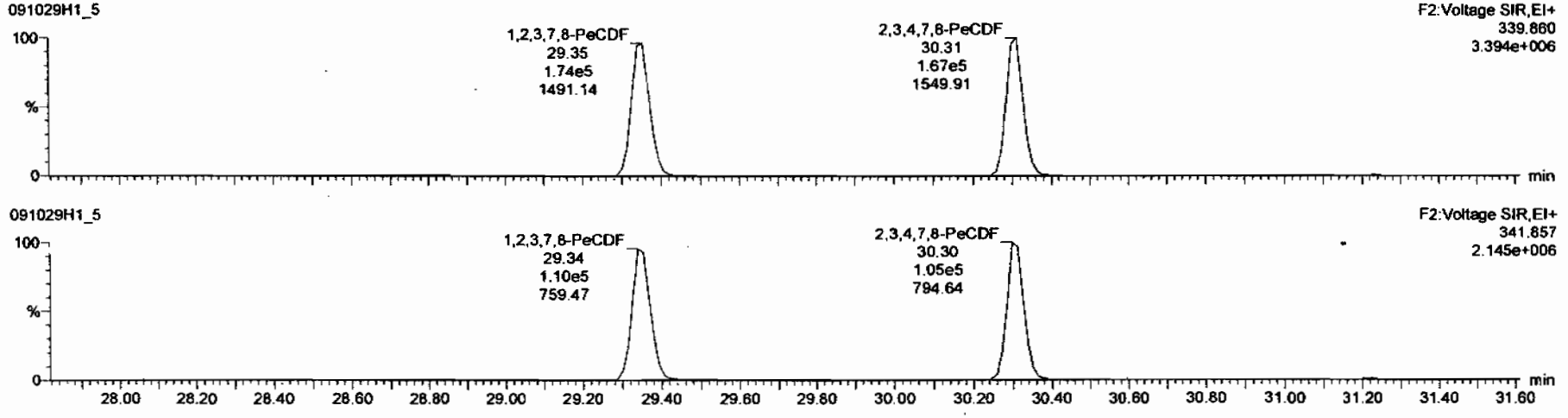

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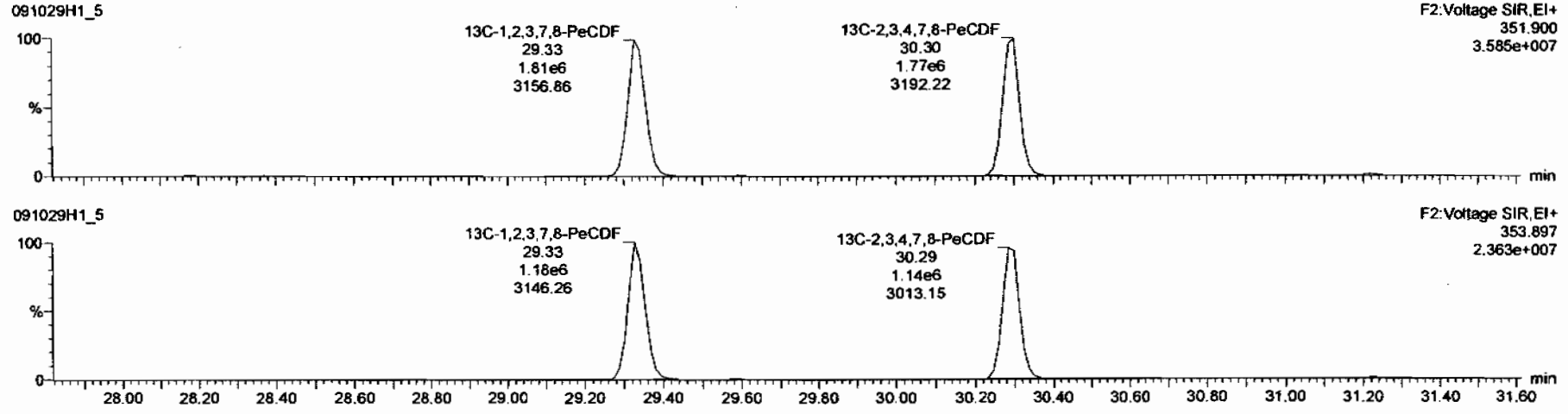

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1,2,3,4,7,8-HxCDF

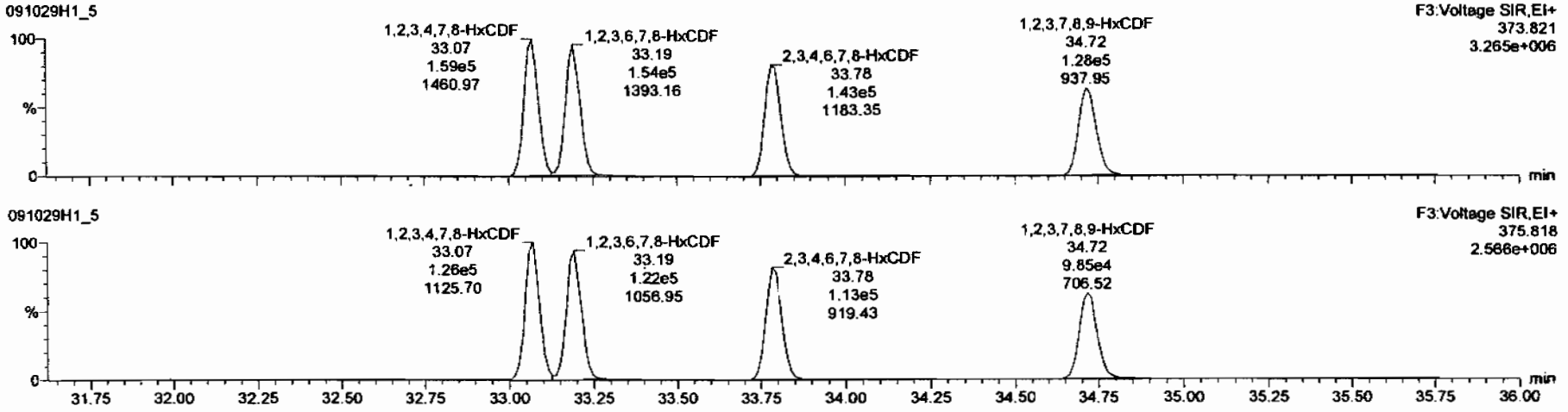

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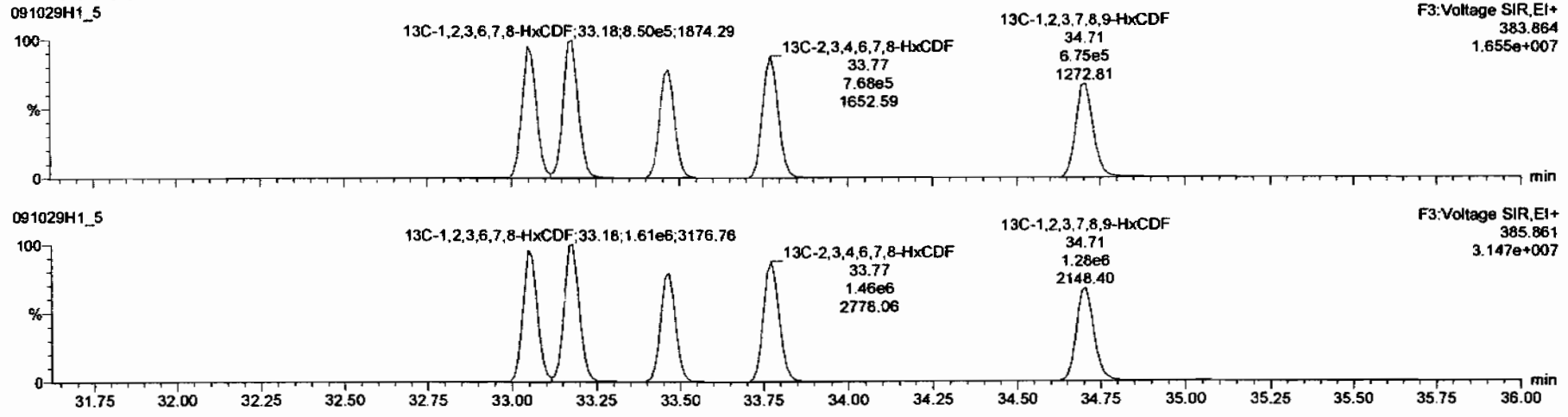

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1,2,3,4,6,7,8-HpCDF

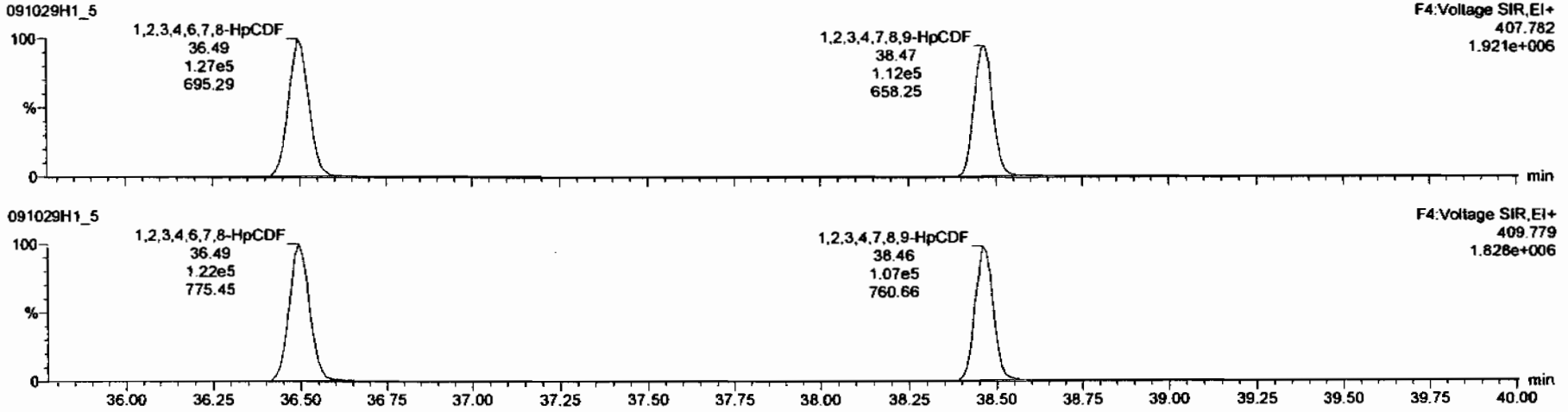

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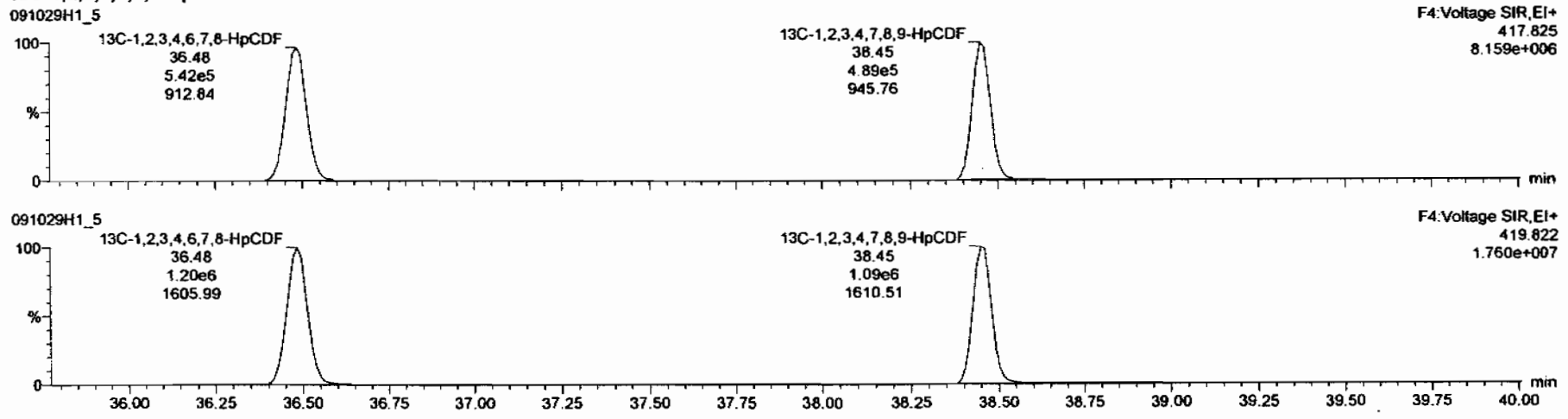

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Last Altered: Friday, October 30, 2009 08:35:54 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

Name: 091029H1_5, Date: 29-Oct-2009, Time: 15:45:05, ID: ST091029H1-4 1613 CS2 090922F, Description: 1613 CS2 090922F

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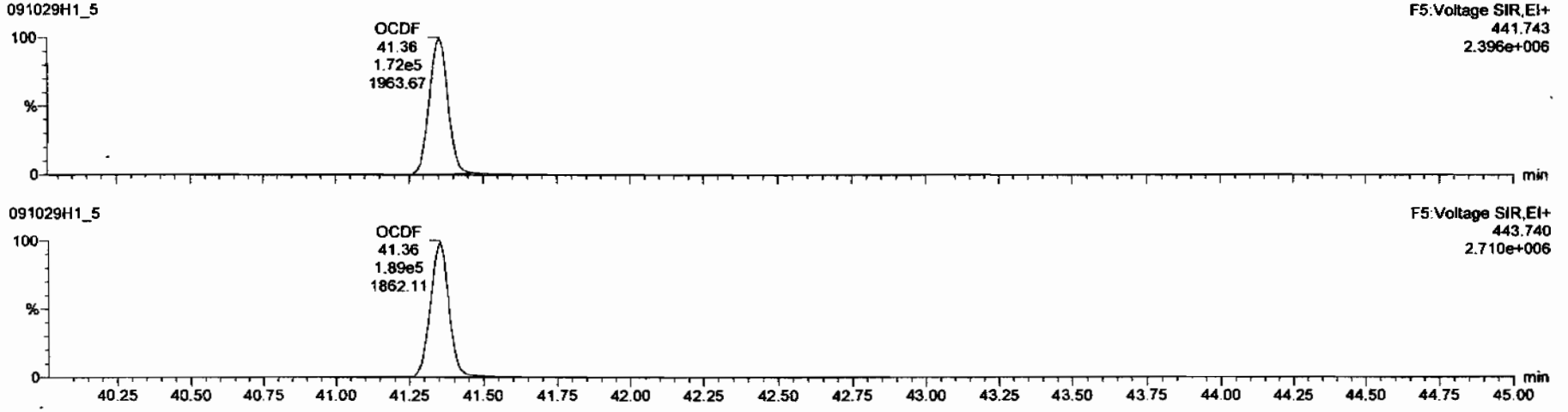

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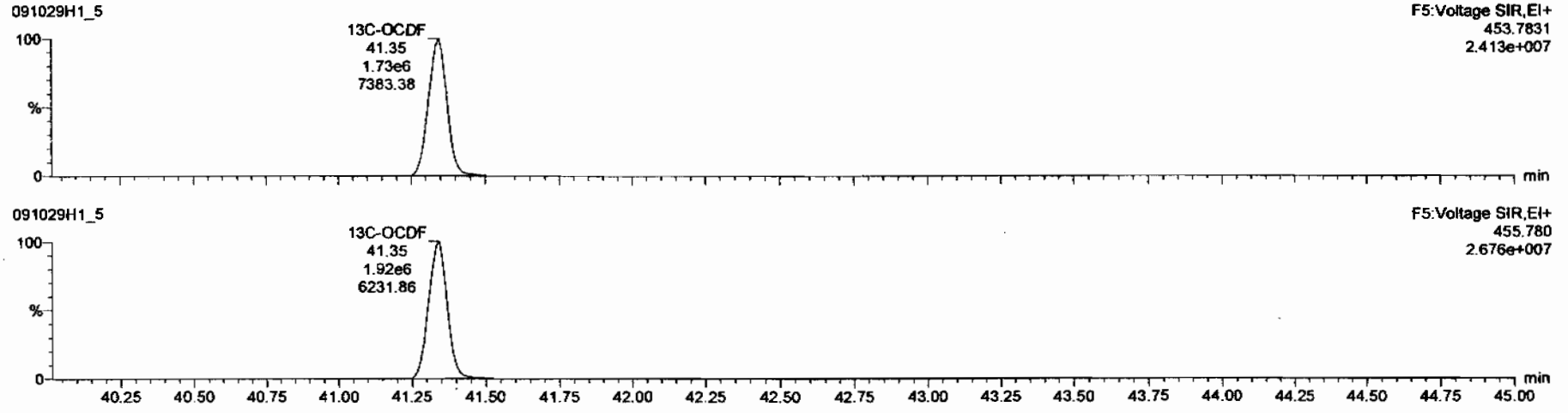

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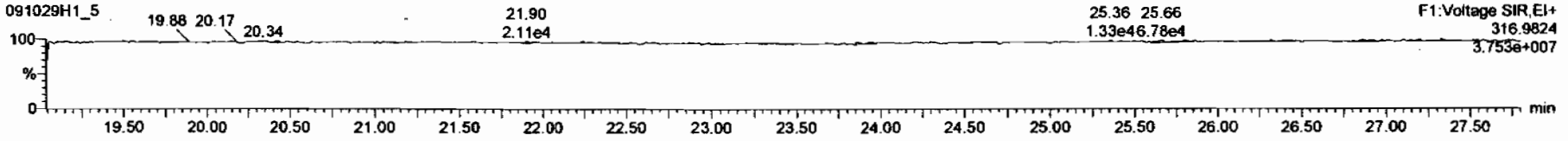

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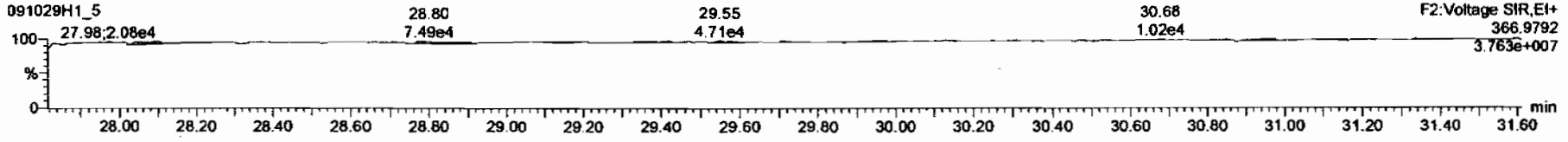

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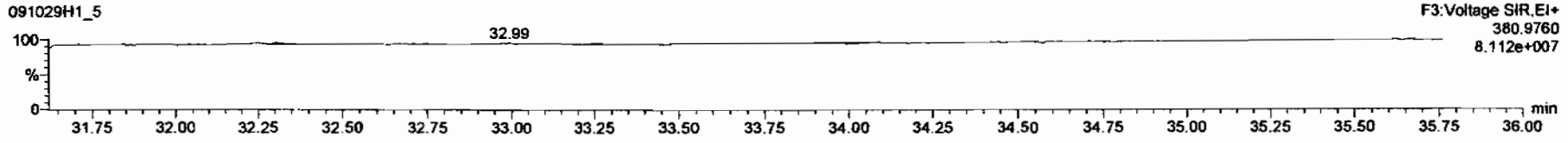

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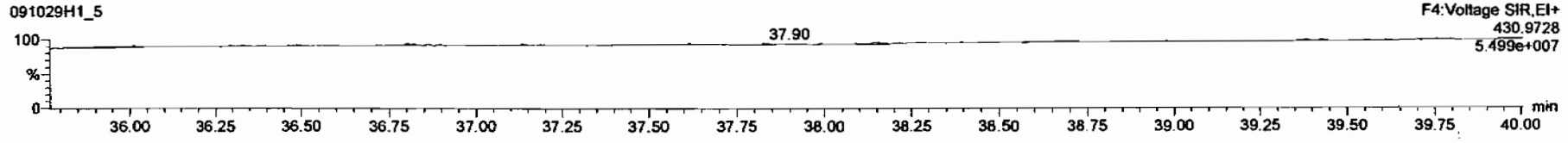

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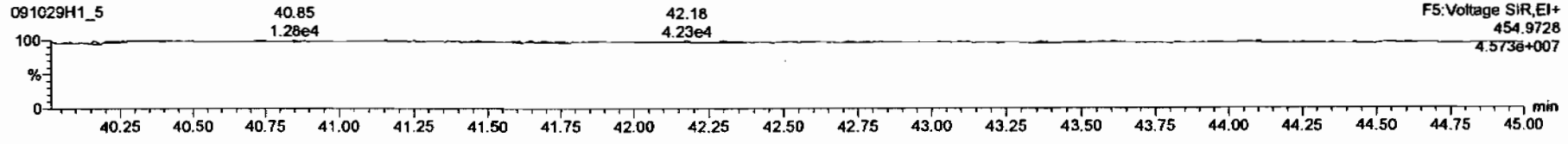

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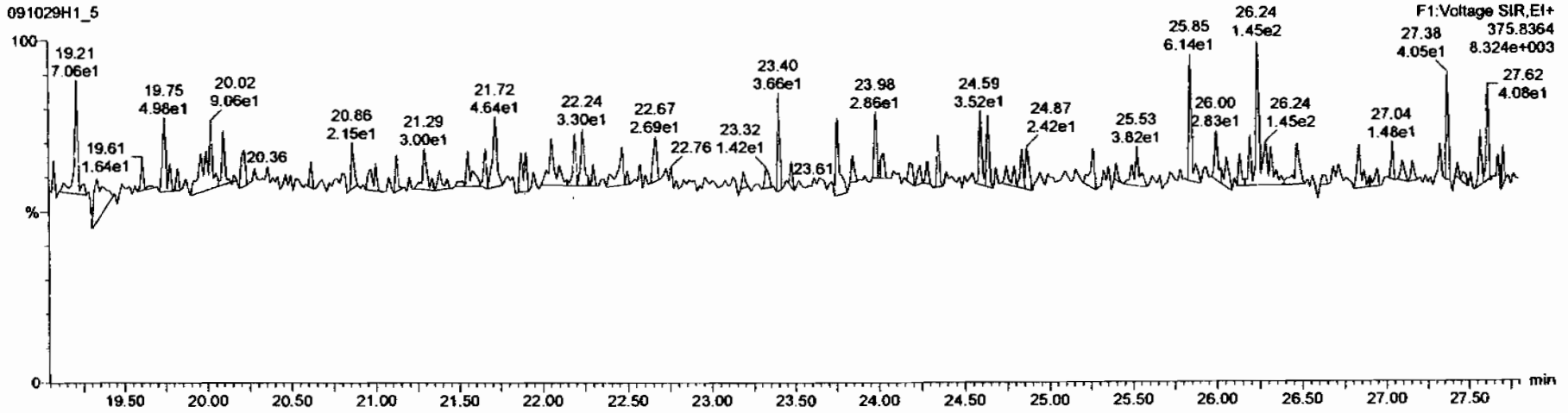

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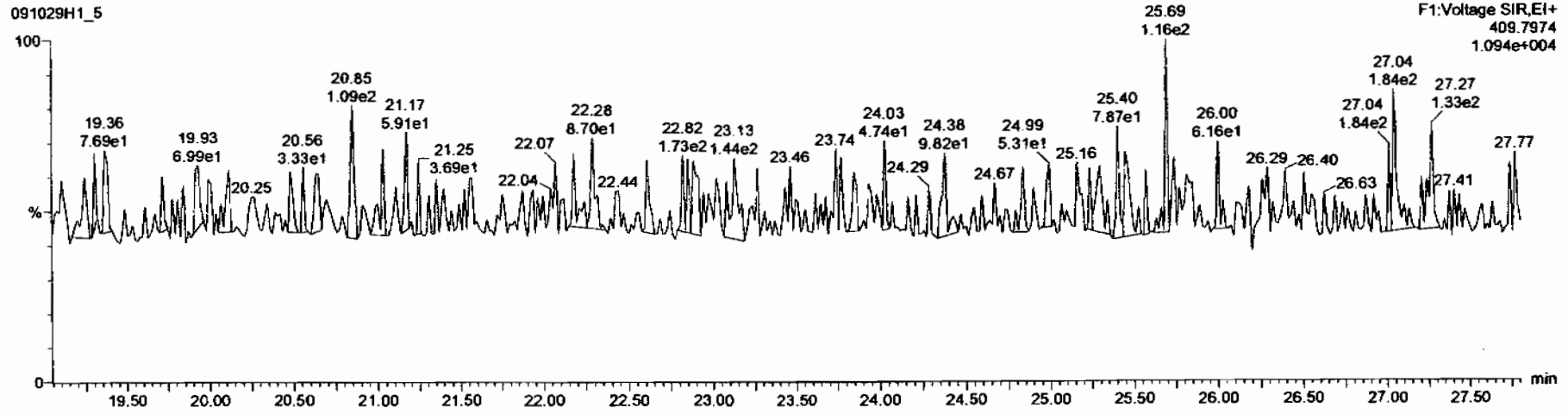

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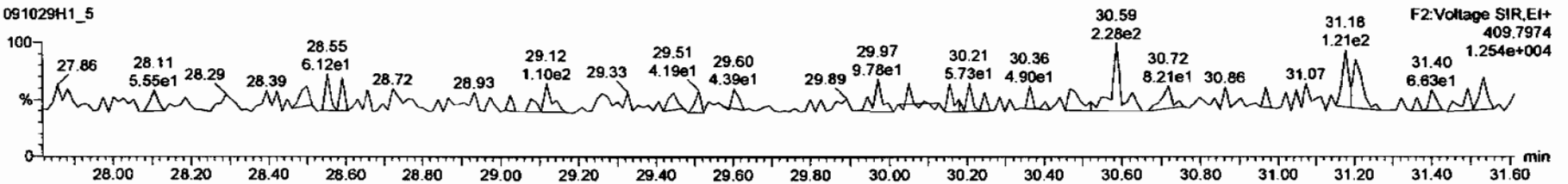

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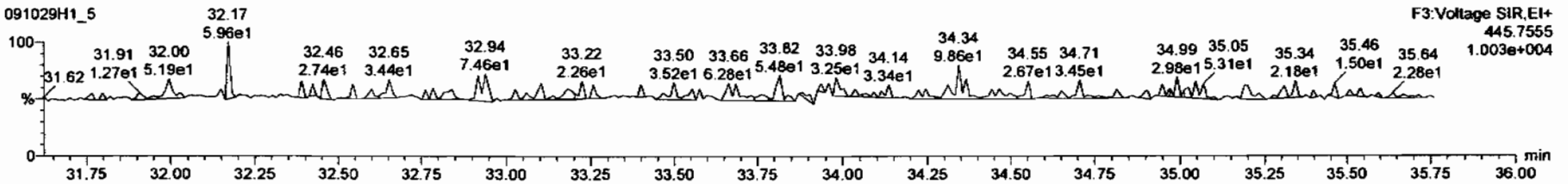

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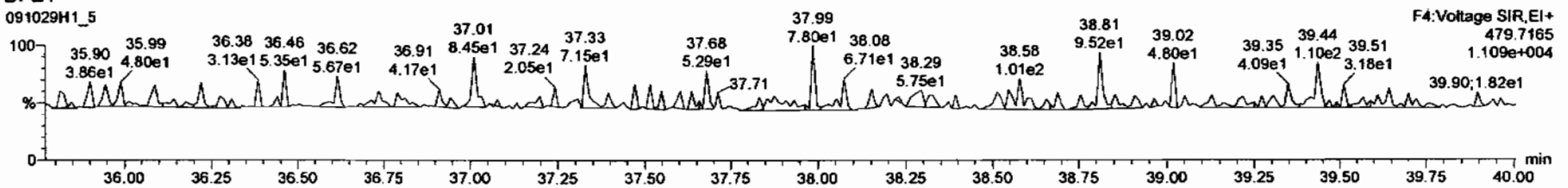

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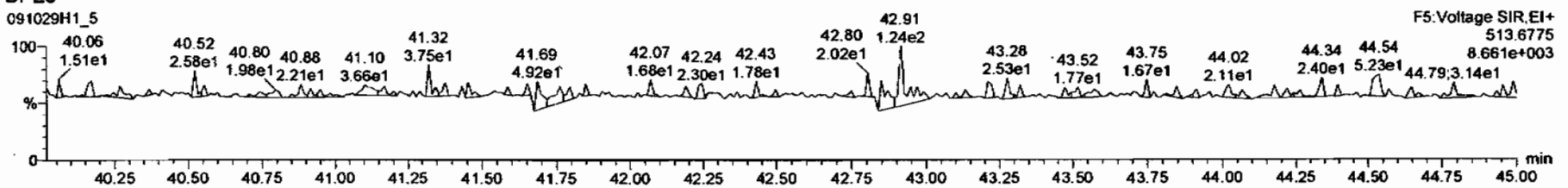

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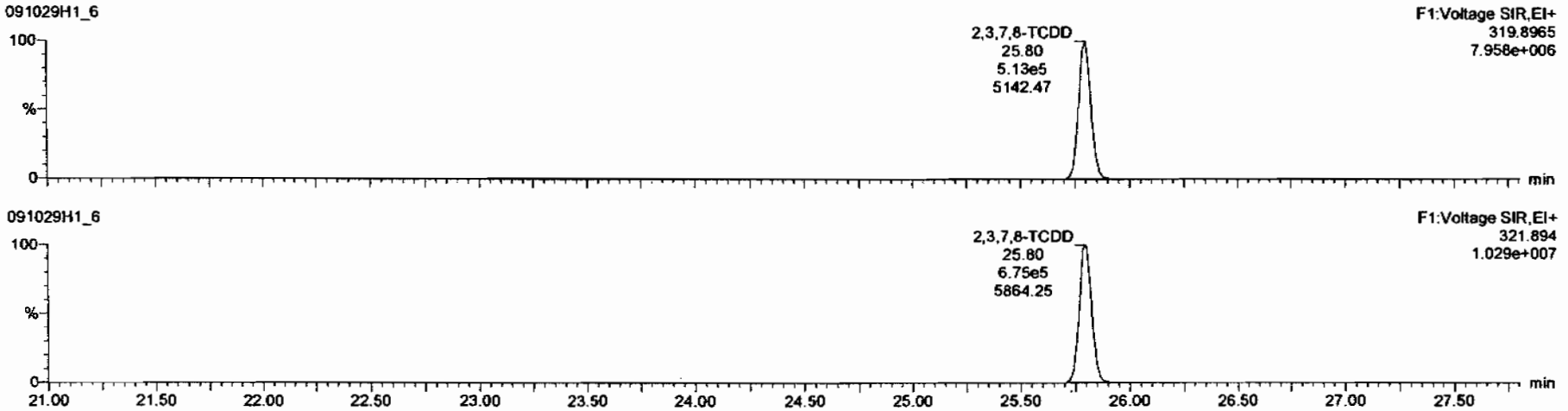

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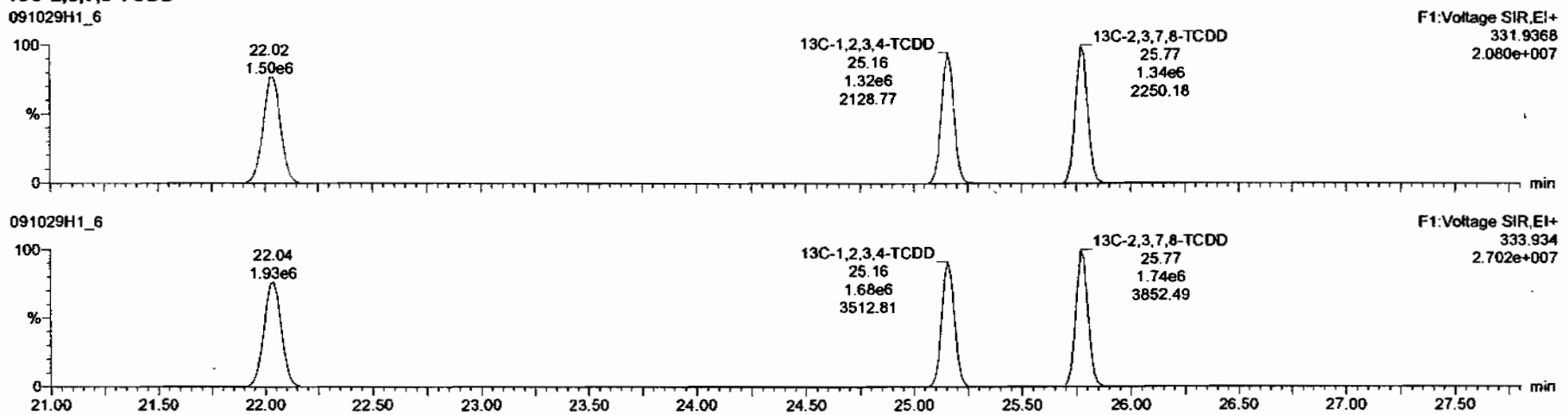

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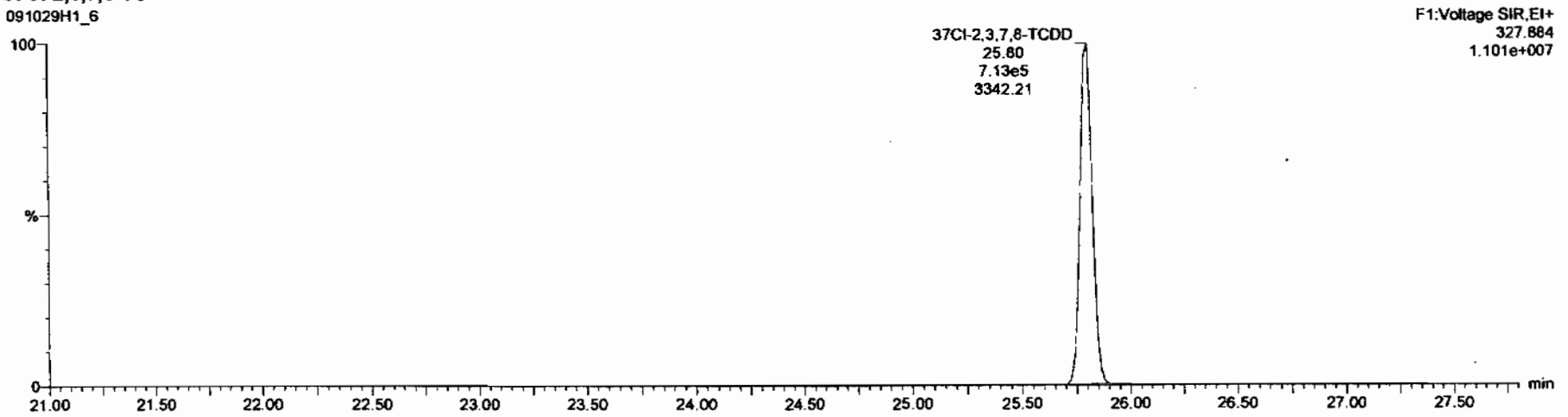

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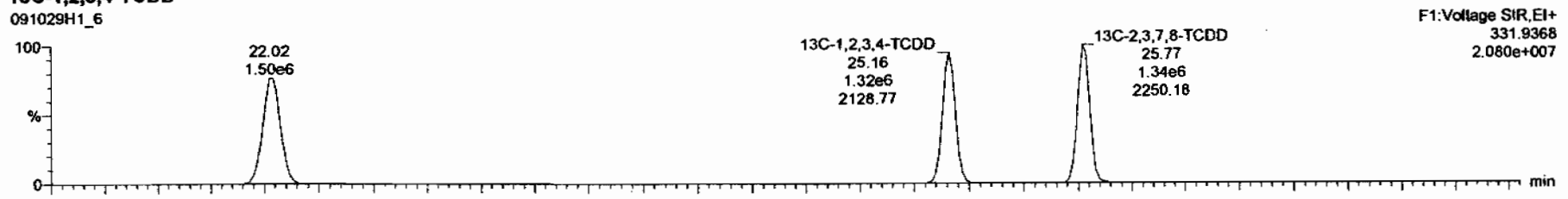

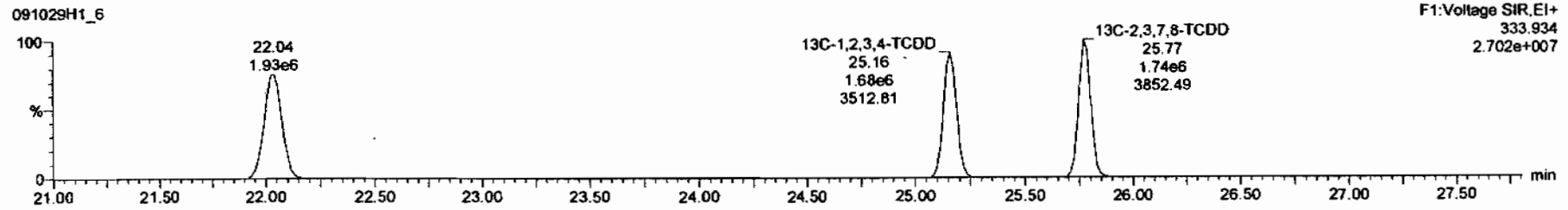

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1,2,3,7,8-PeCDD

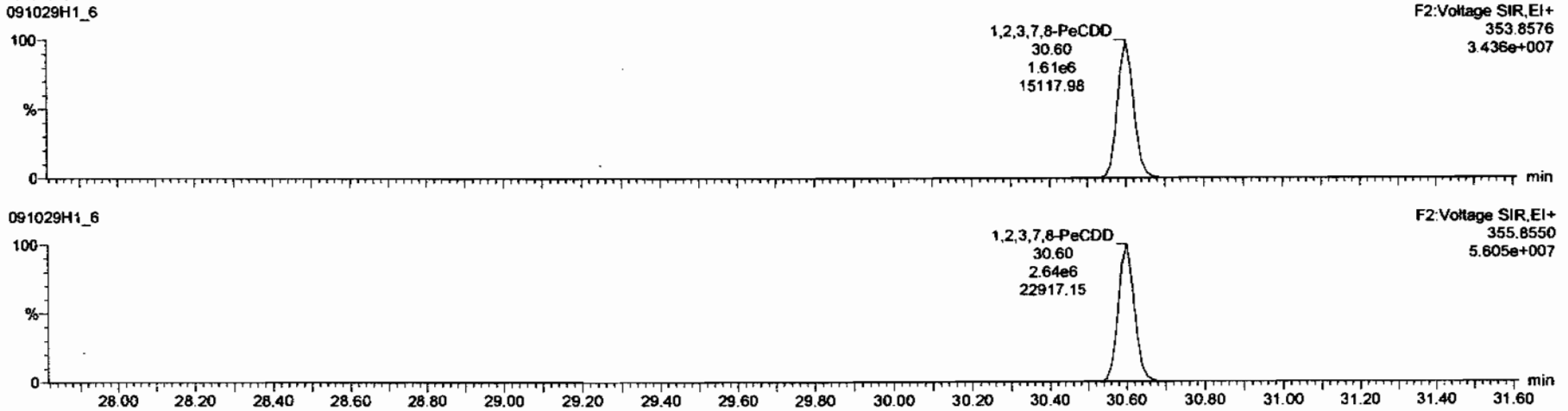

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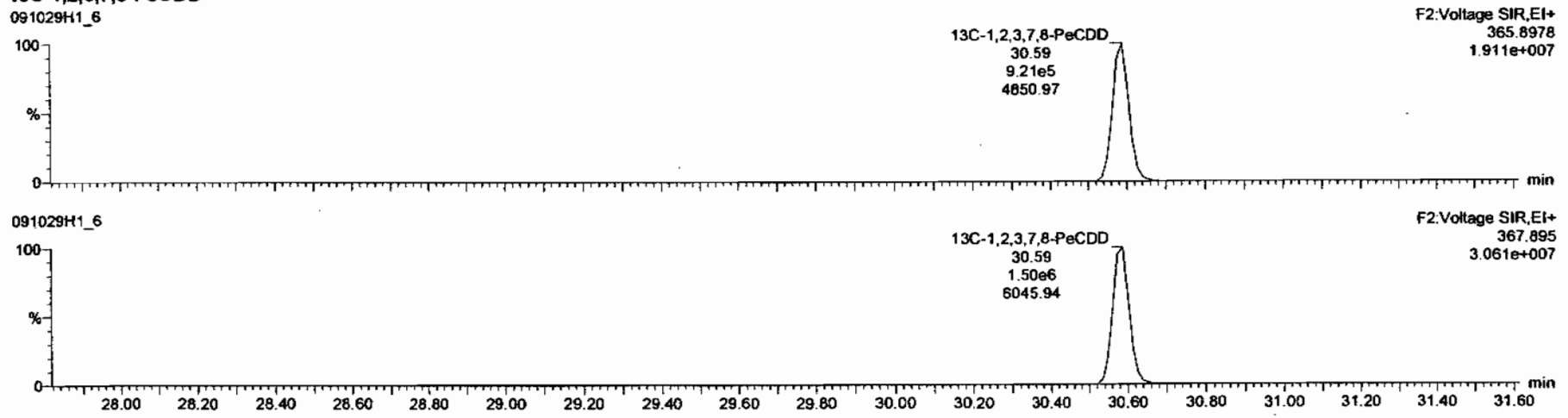

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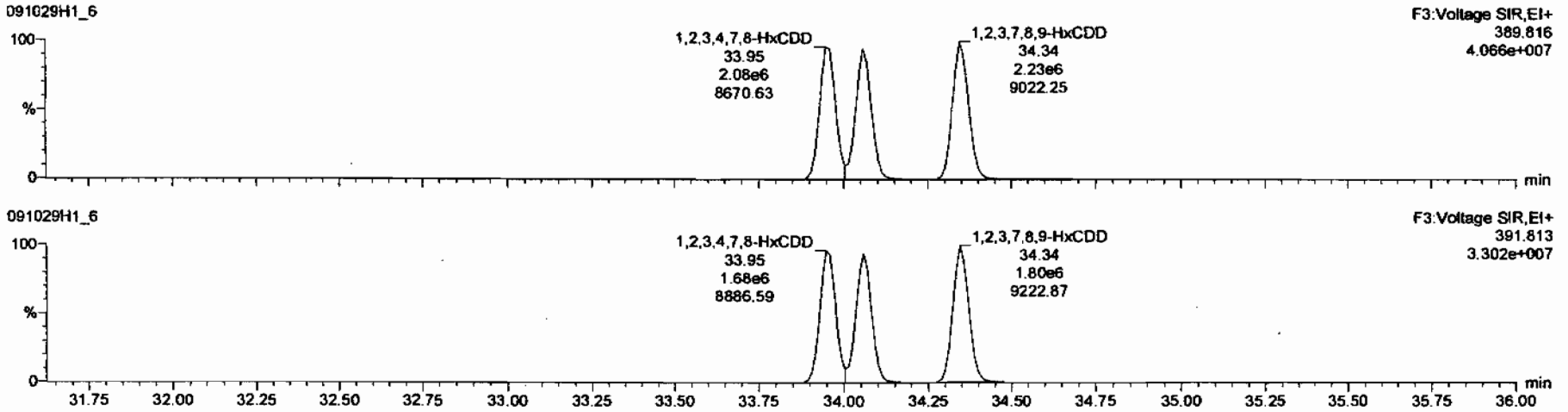

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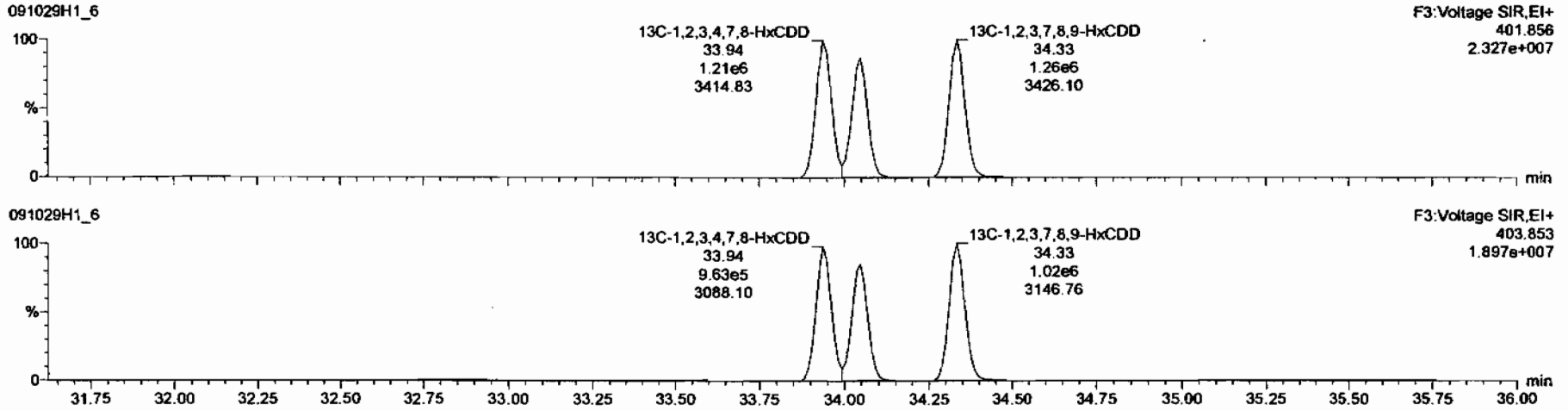

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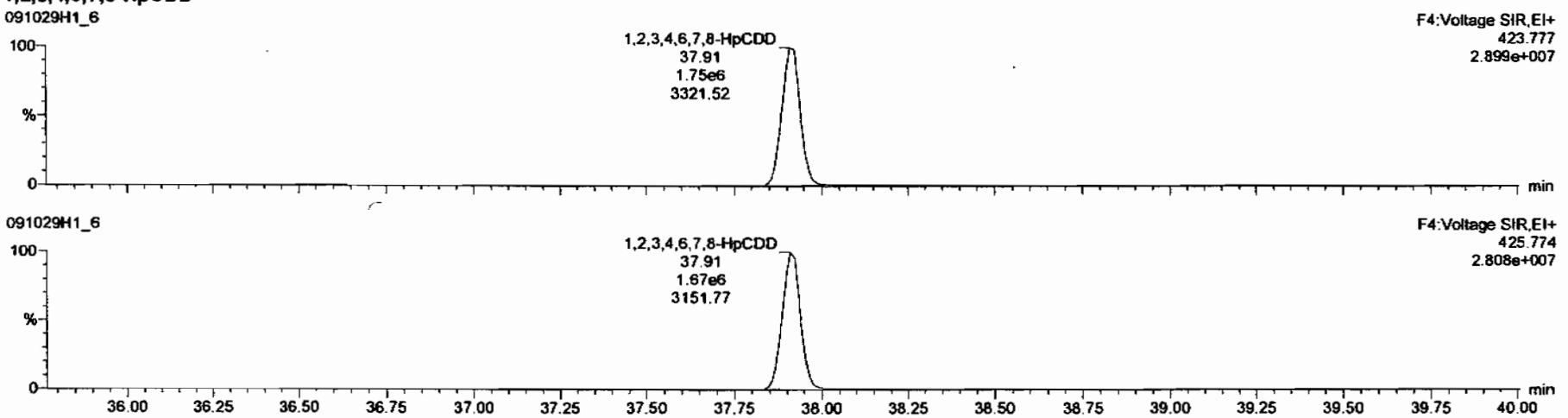

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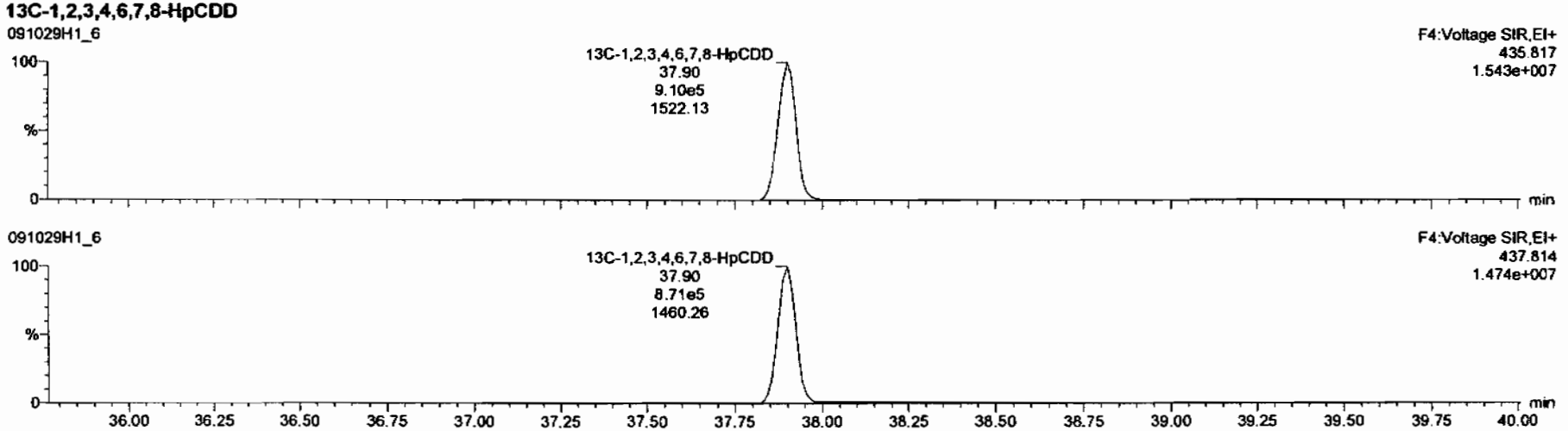

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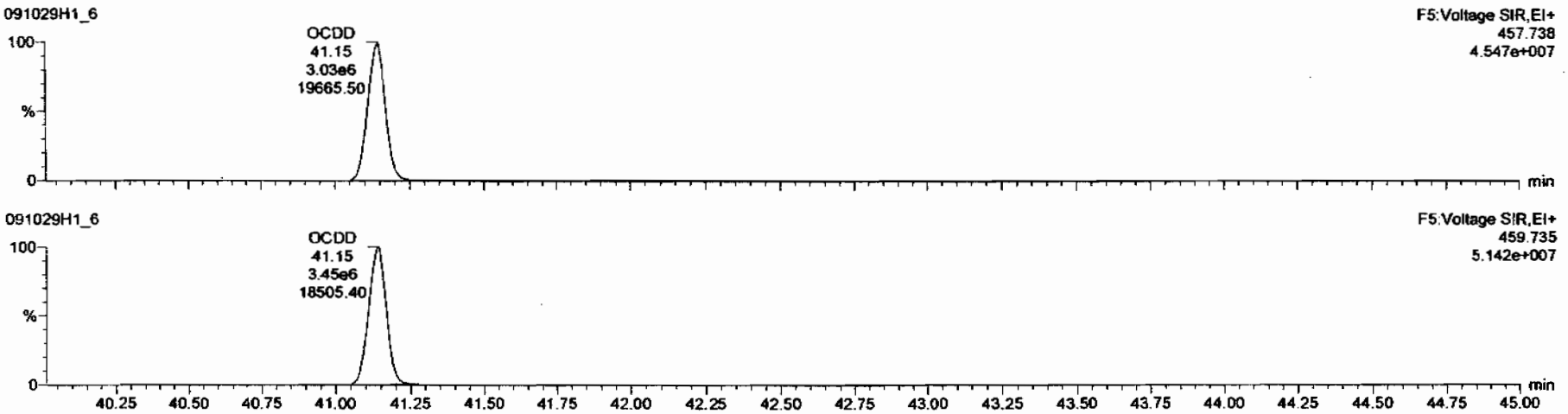

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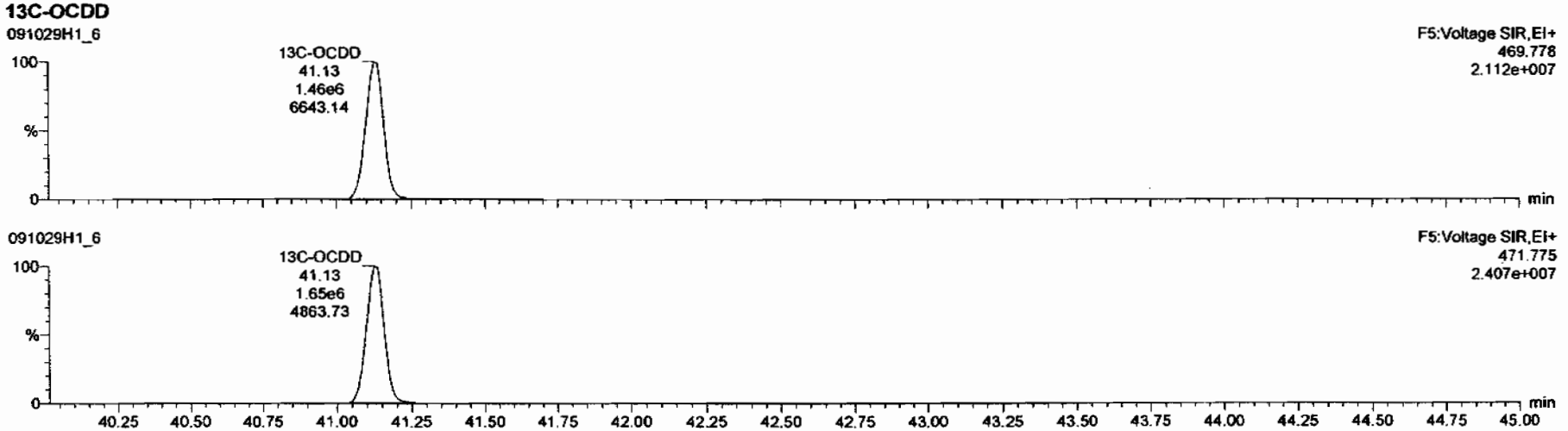

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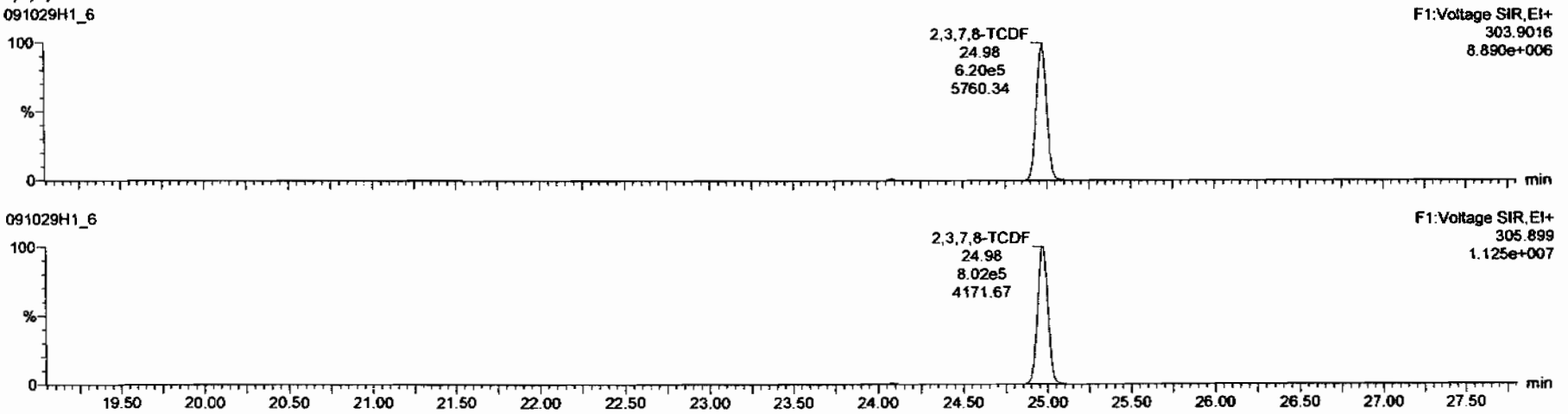

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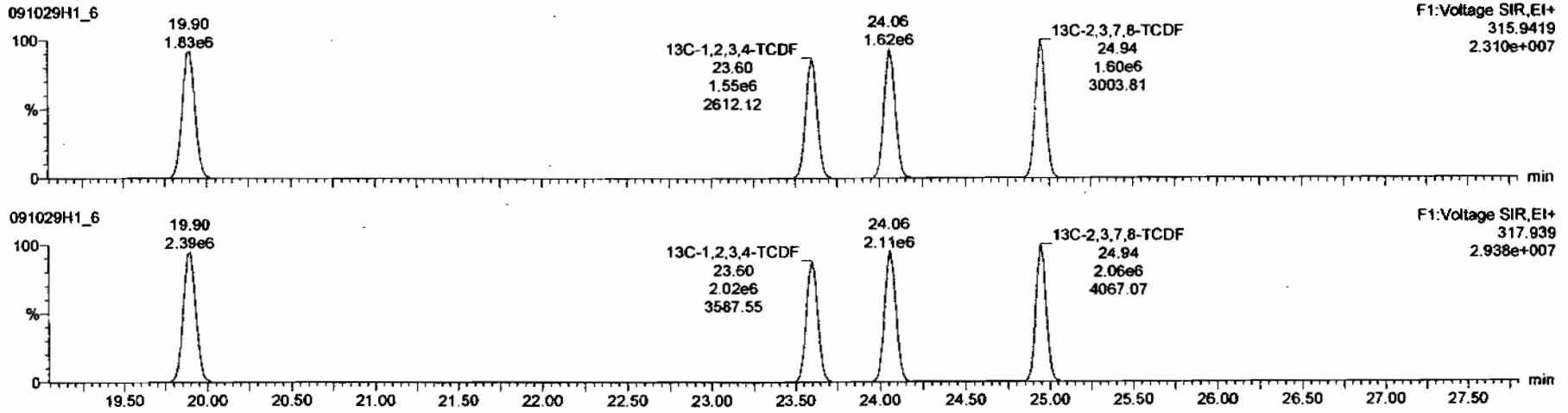

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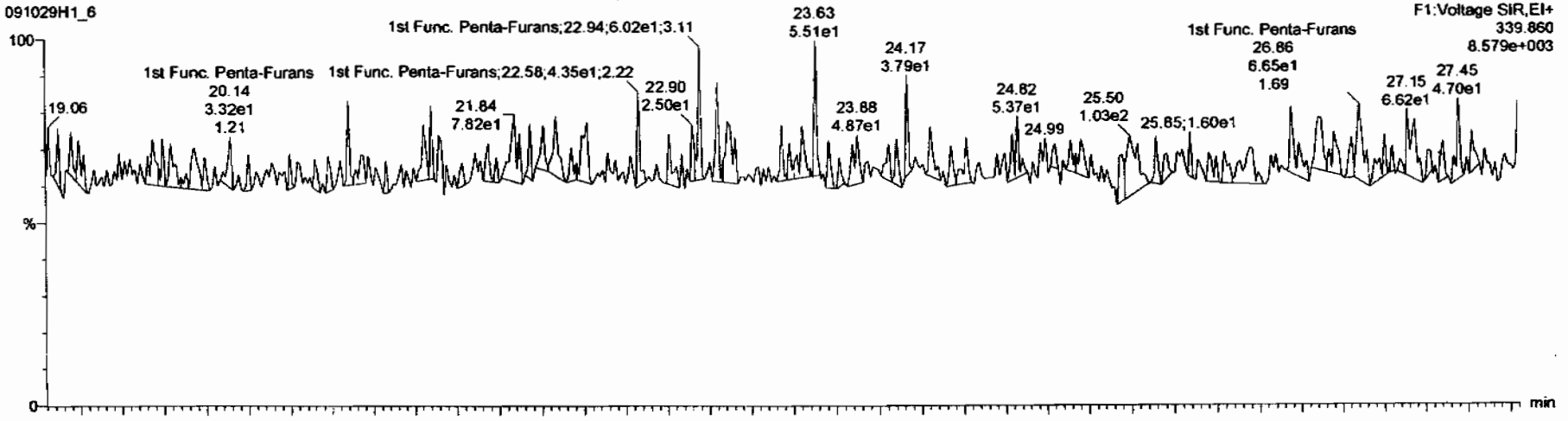

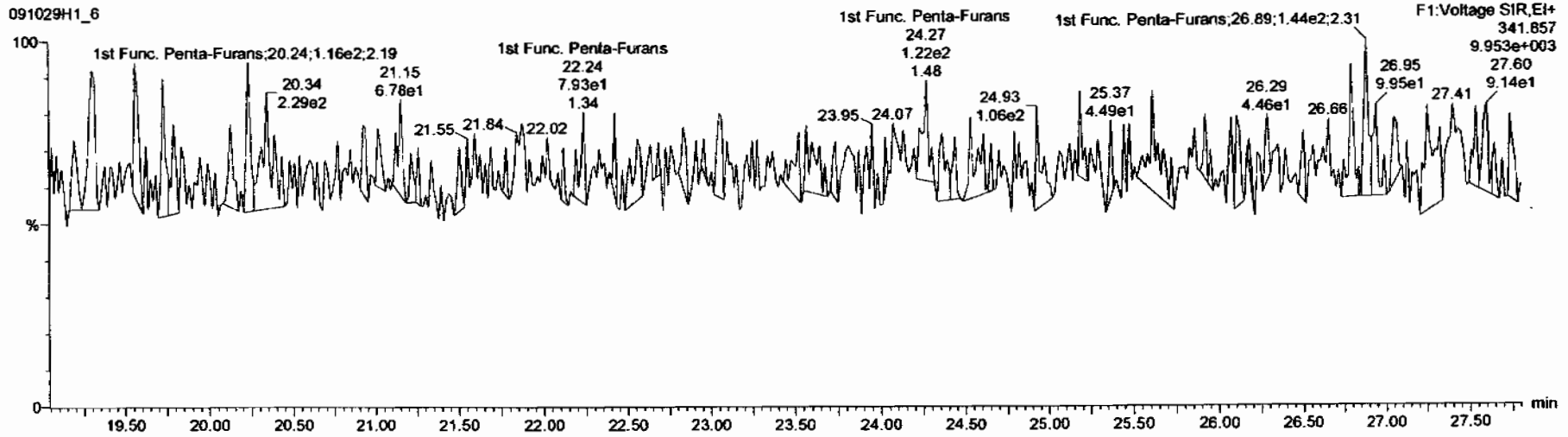

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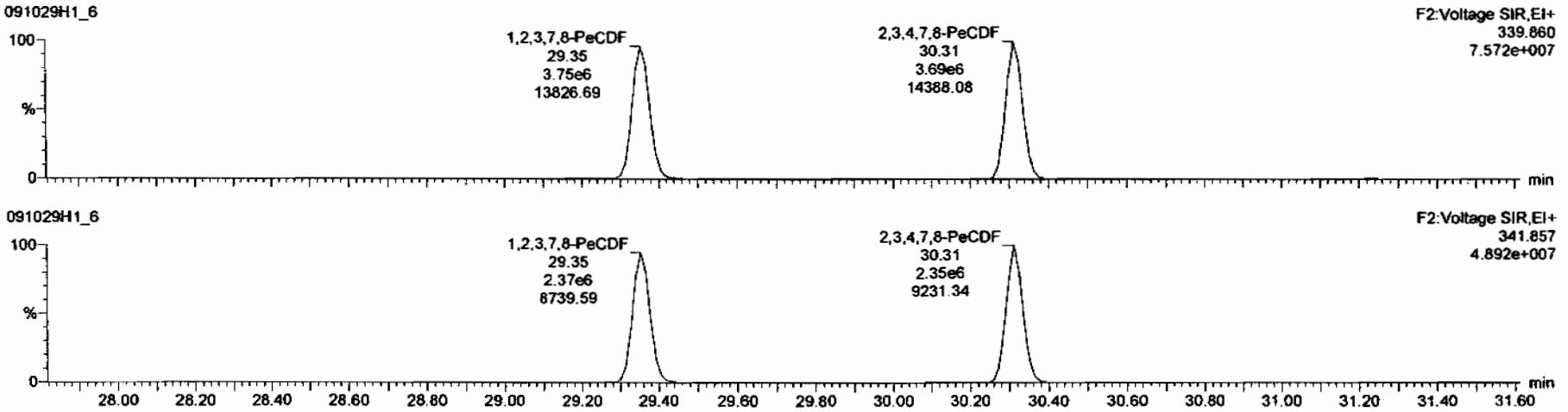

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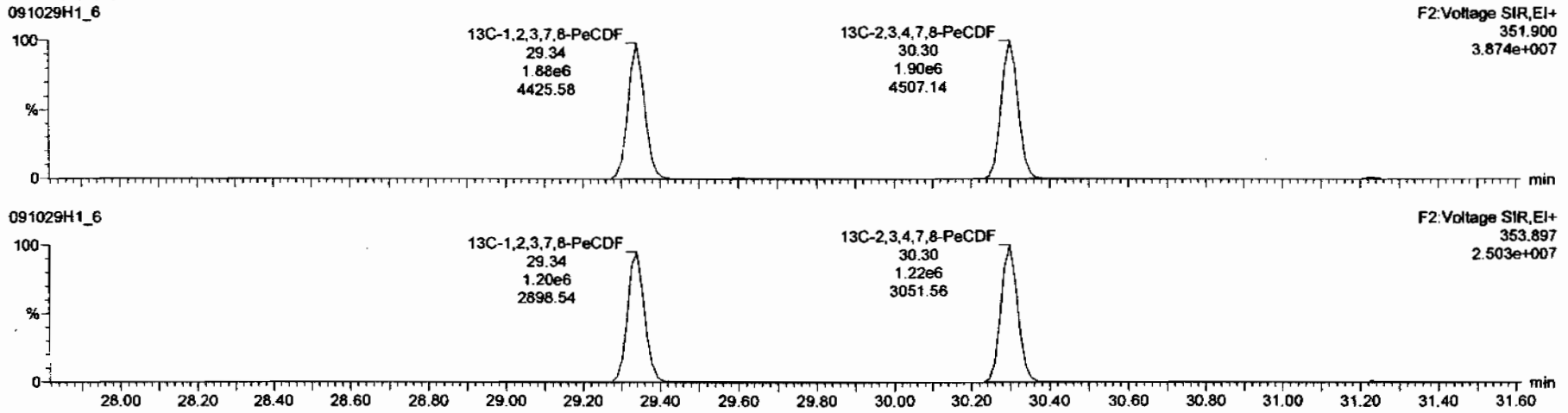

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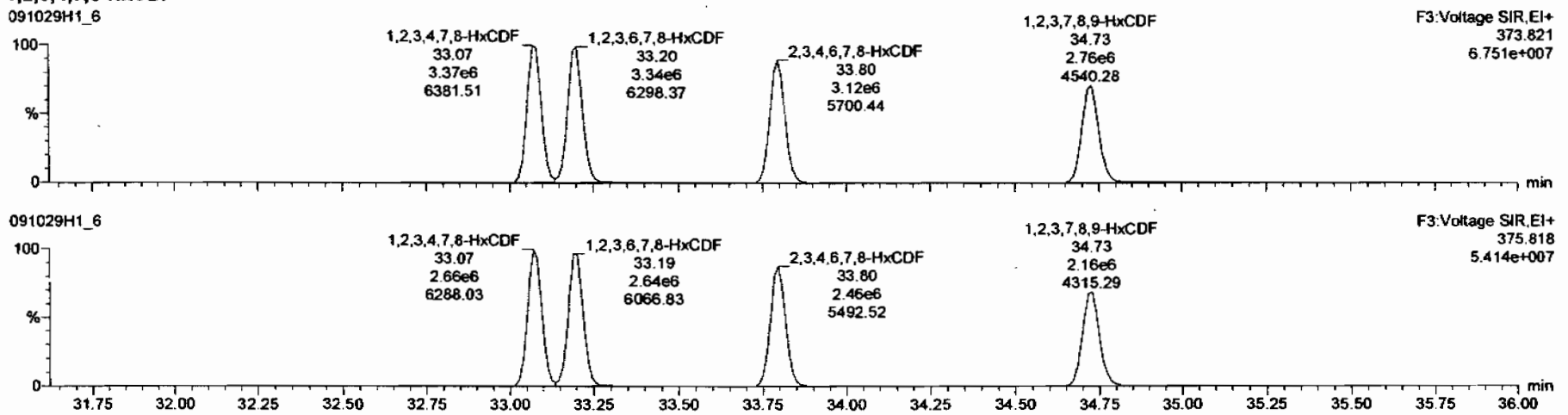

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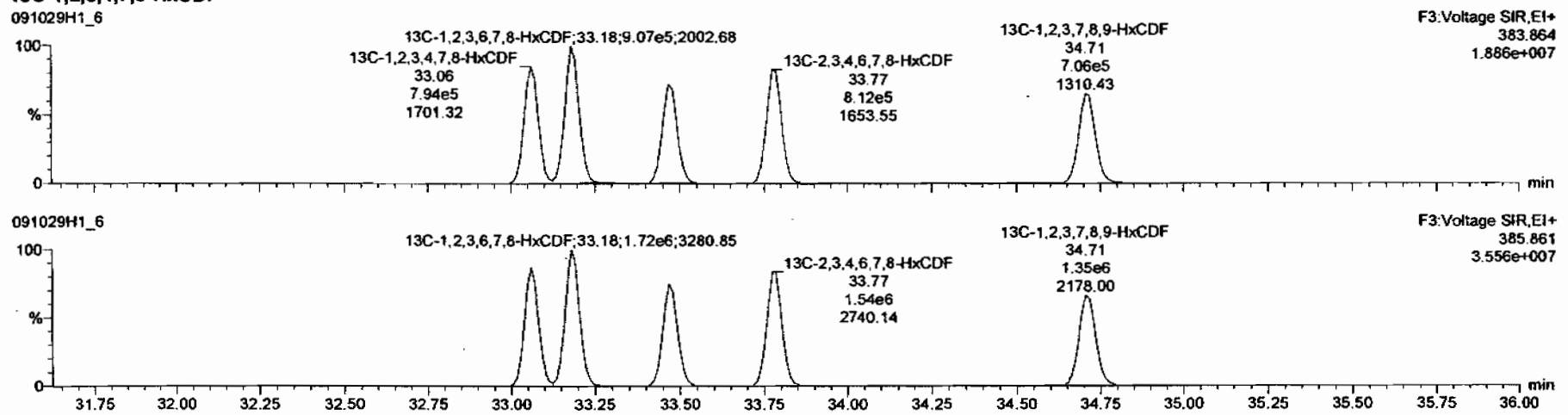

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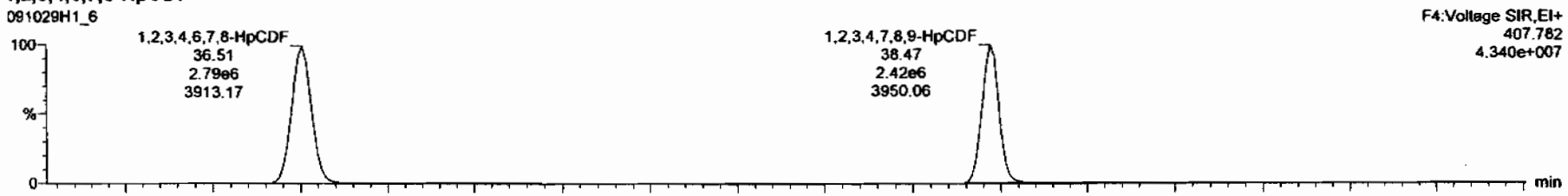

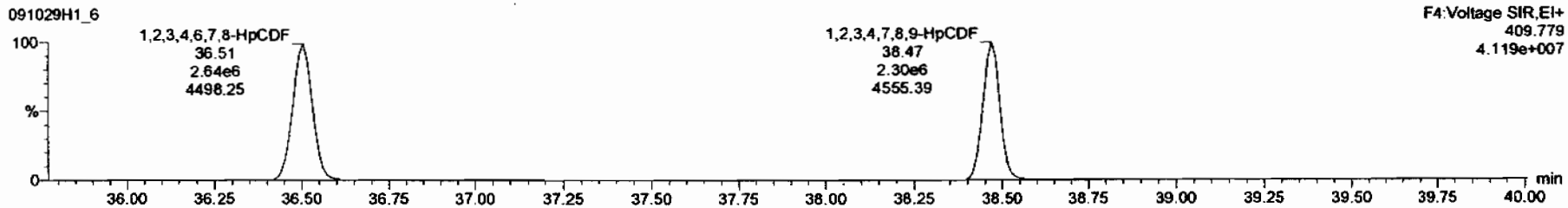

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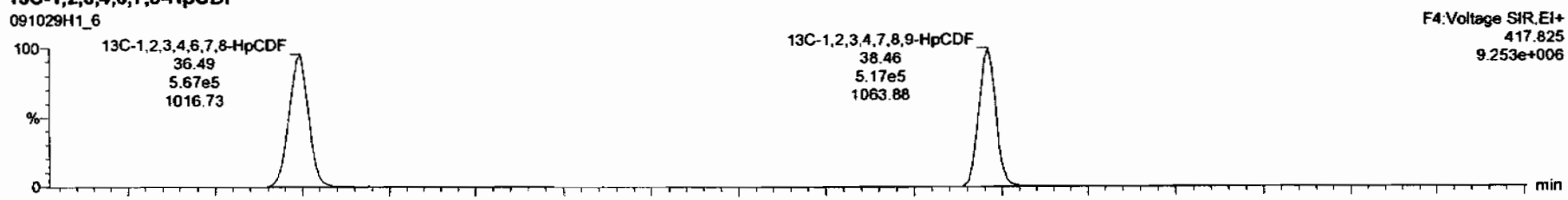

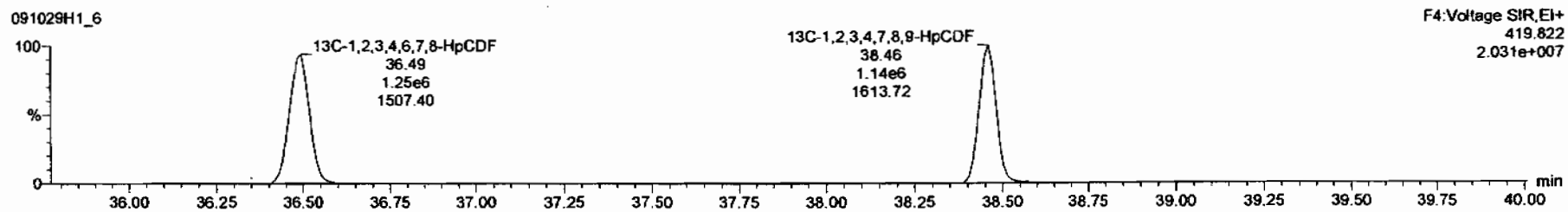

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OCDF

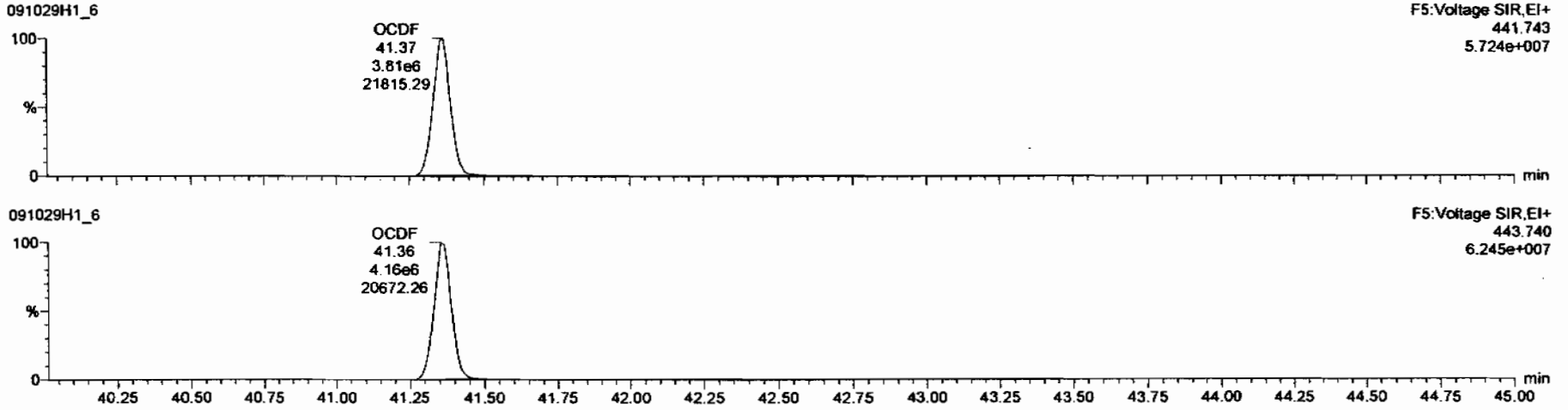

13C-OCDF

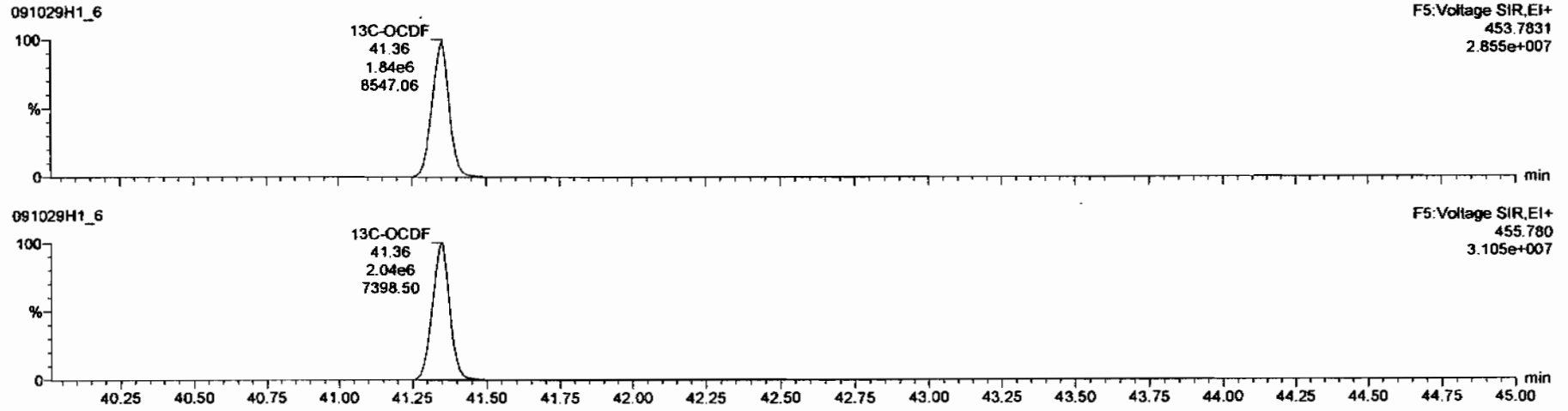

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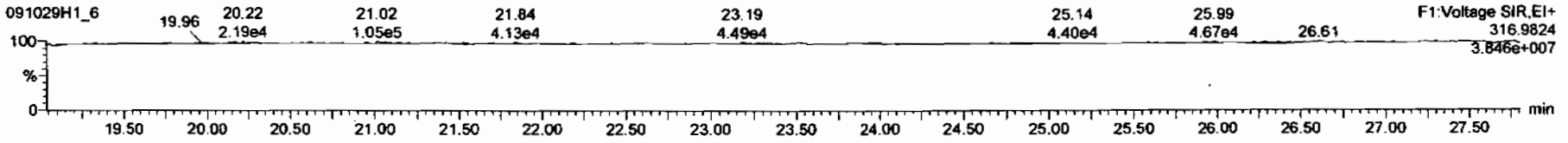

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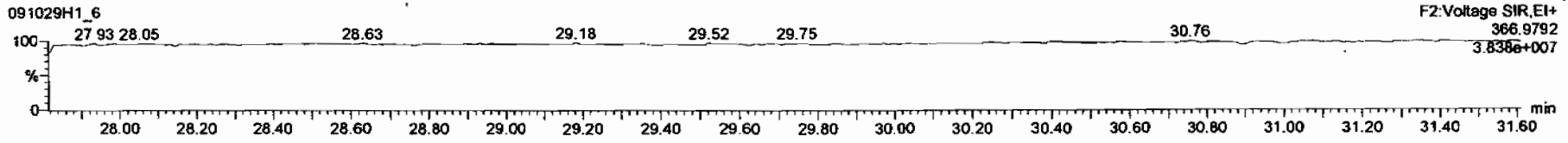

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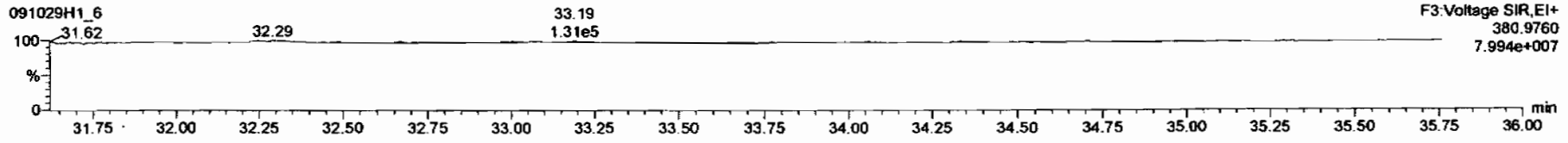

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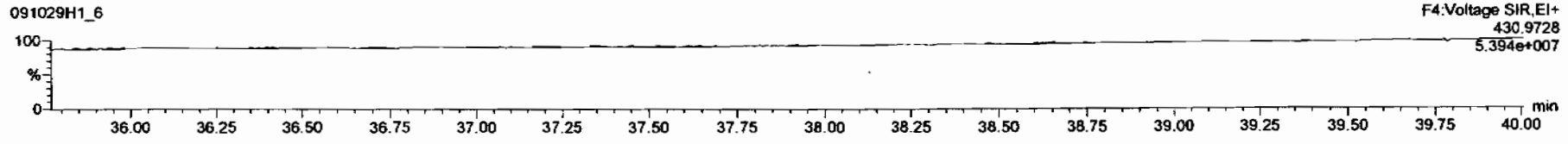

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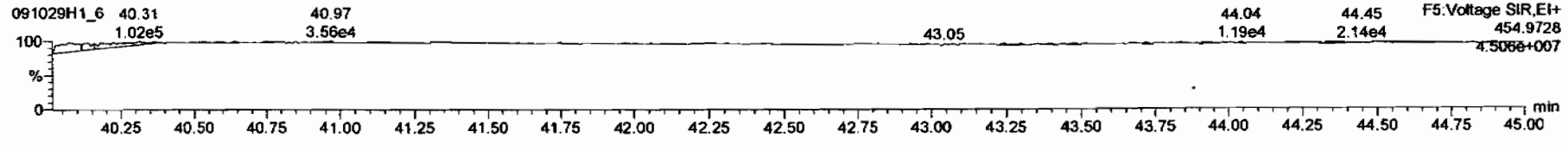

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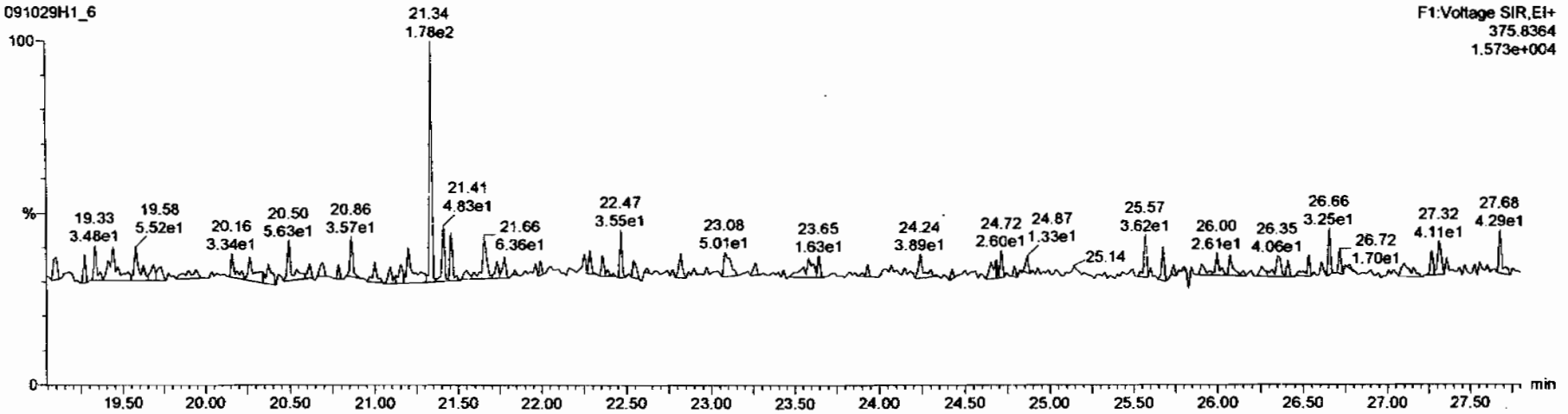

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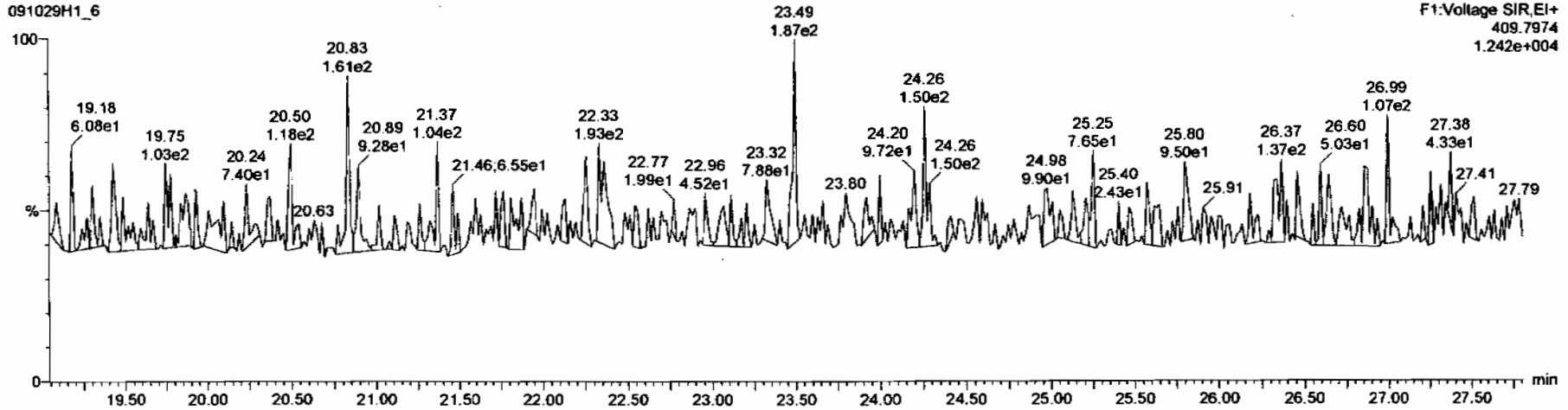

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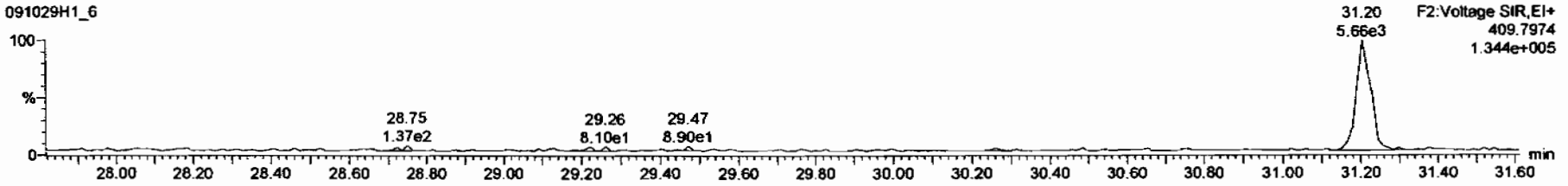

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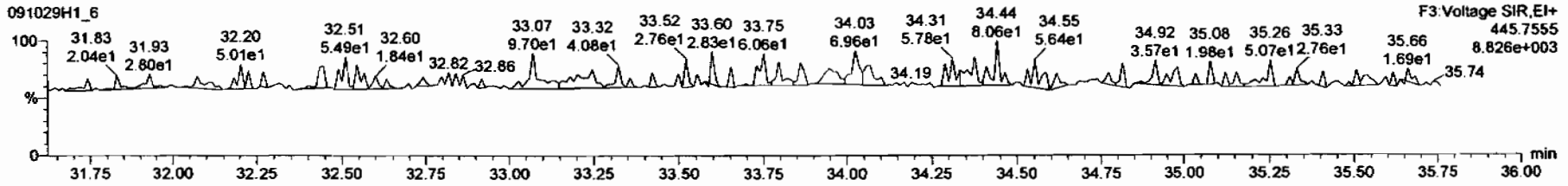

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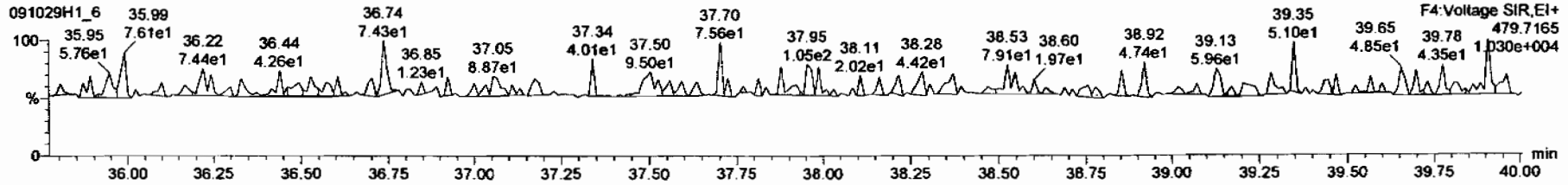

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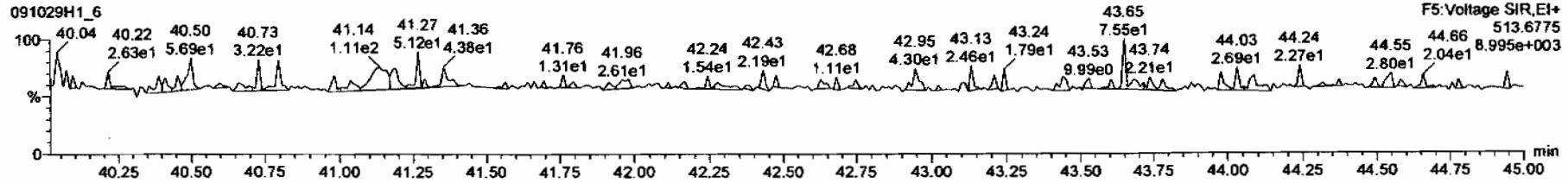

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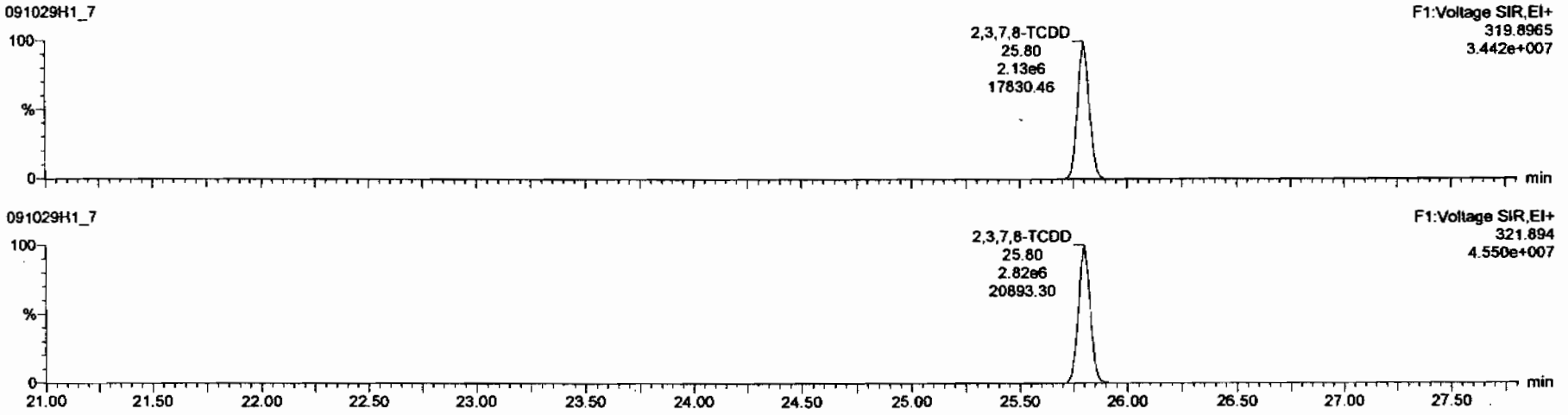

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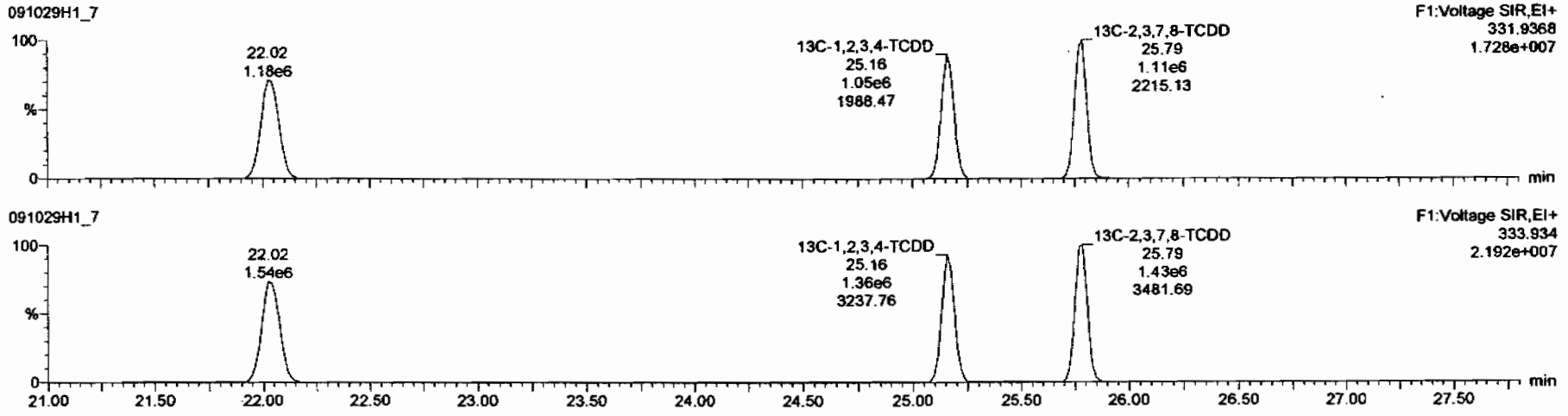

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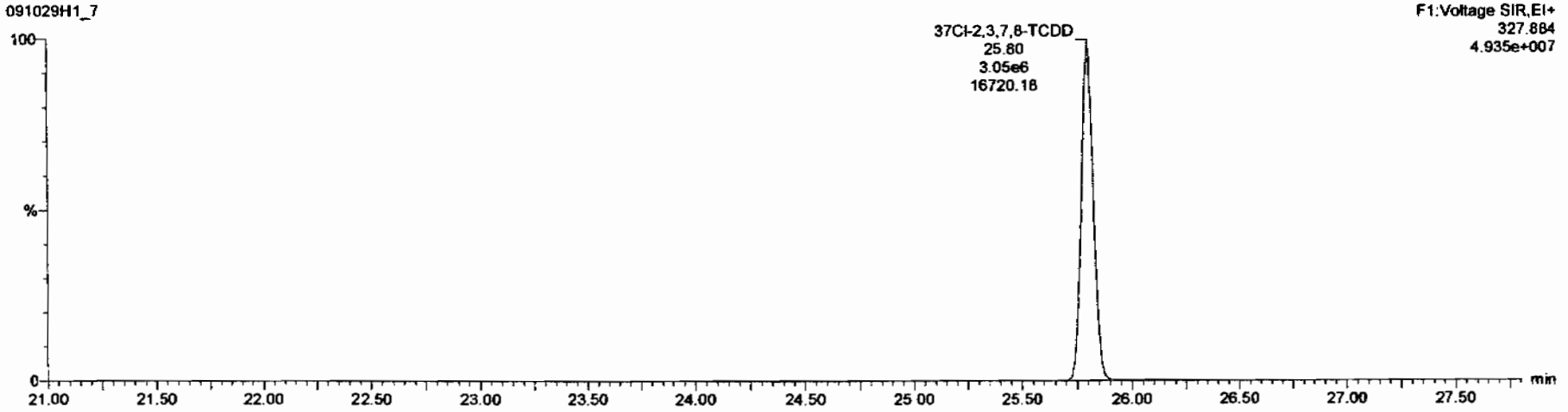

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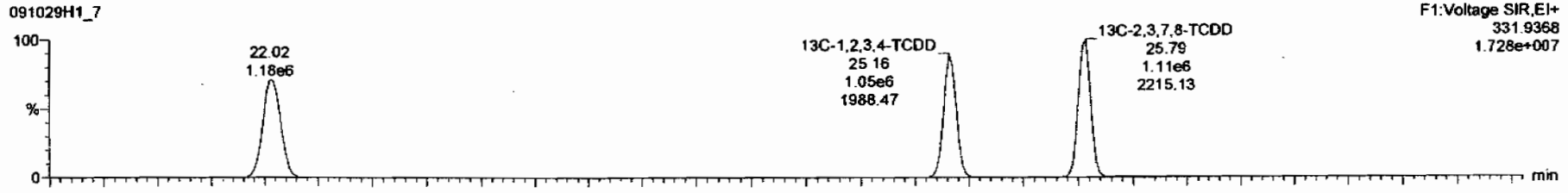

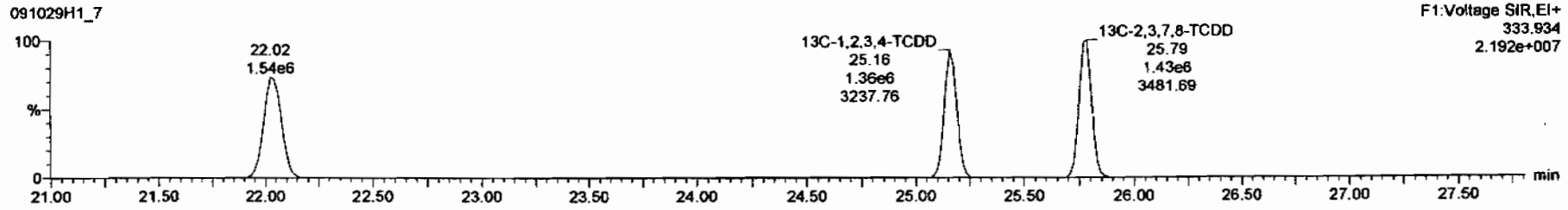

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1,2,3,7,8-PeCDD

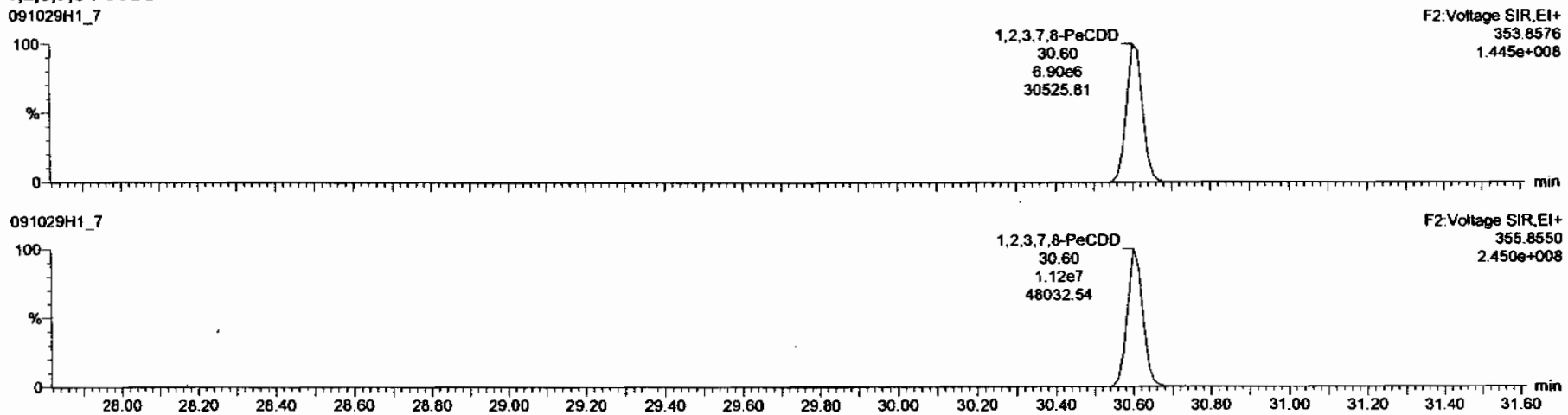

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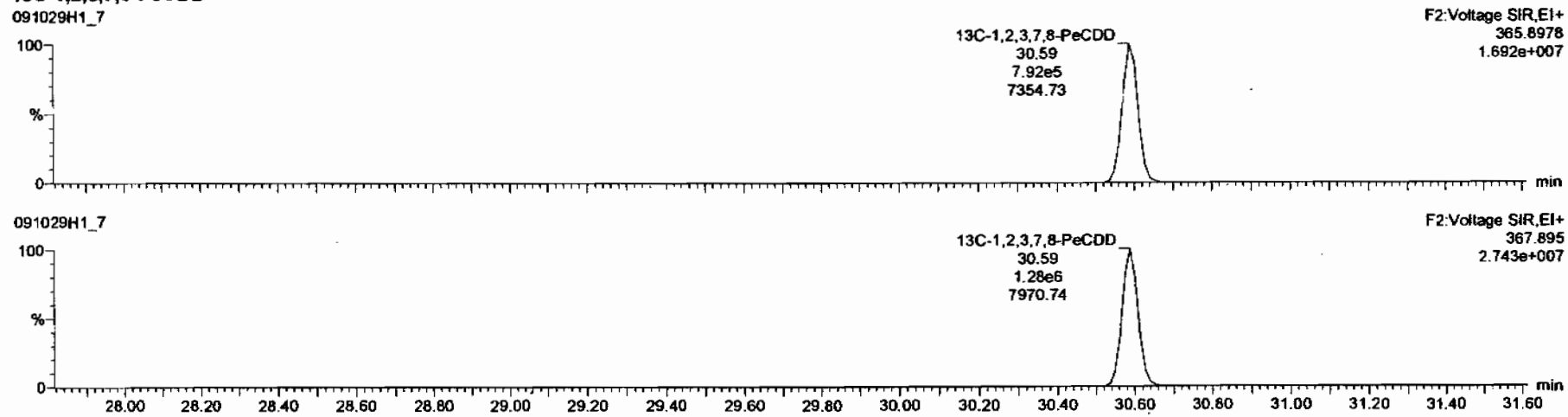

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1,2,3,4,7,8-HxCDD

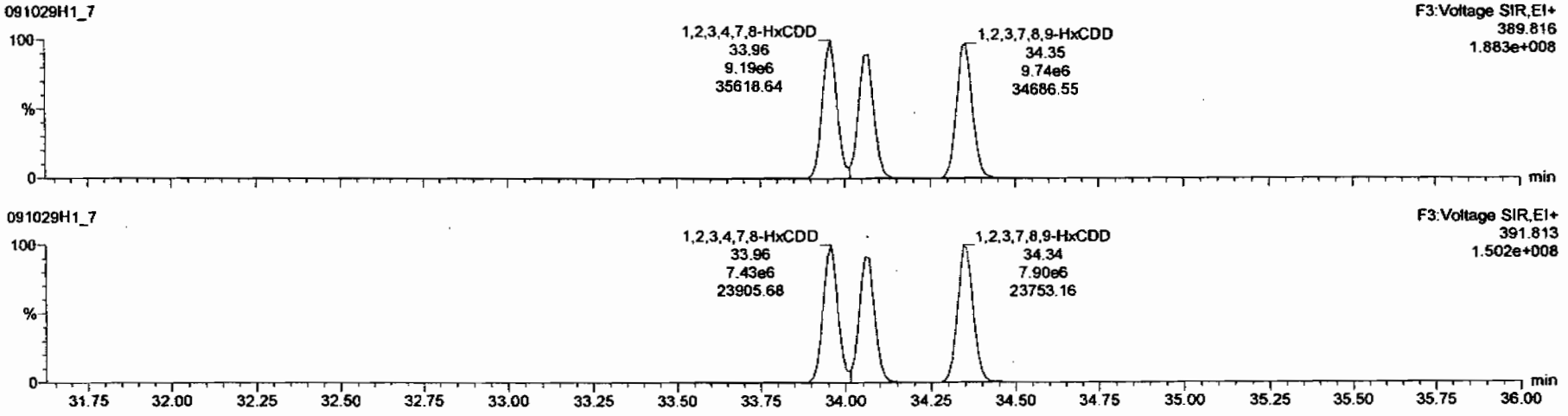

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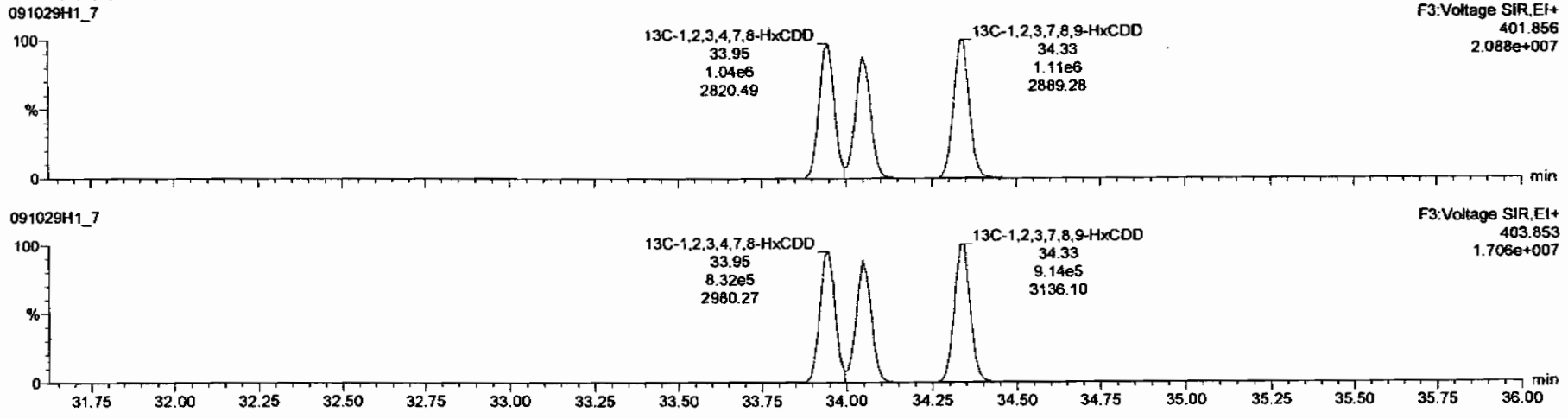

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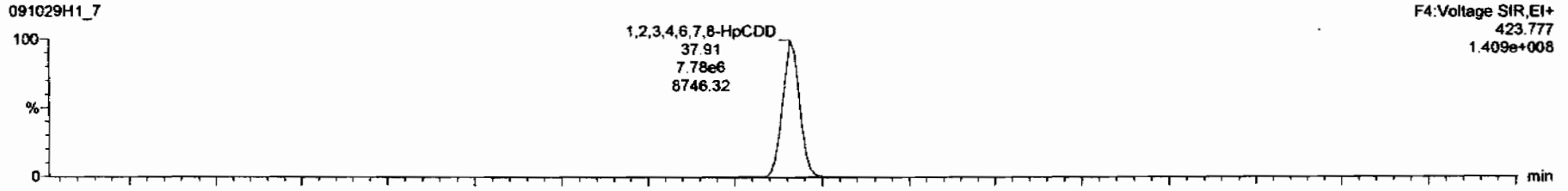

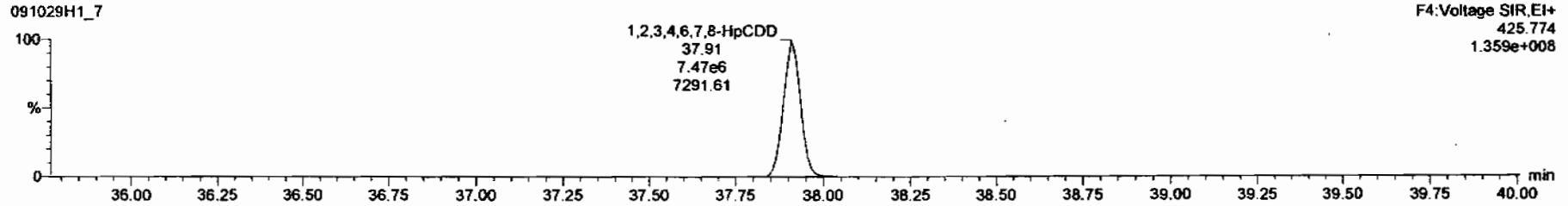

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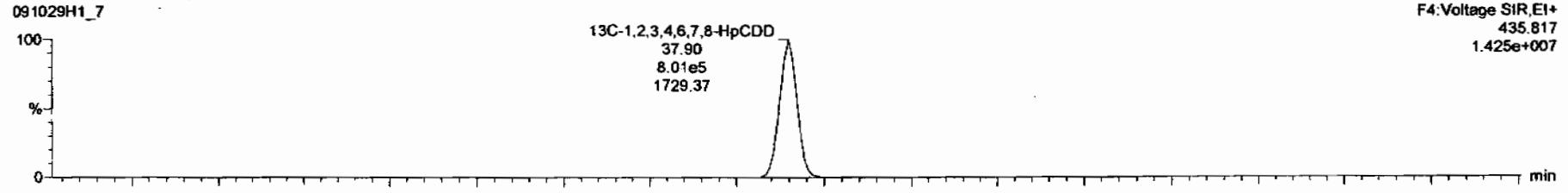

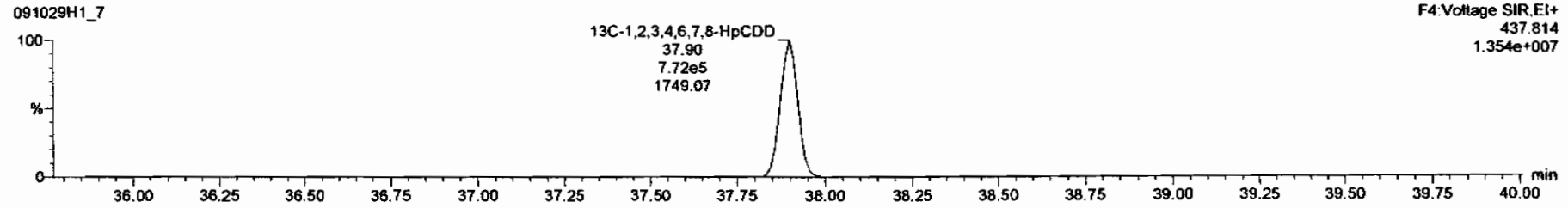

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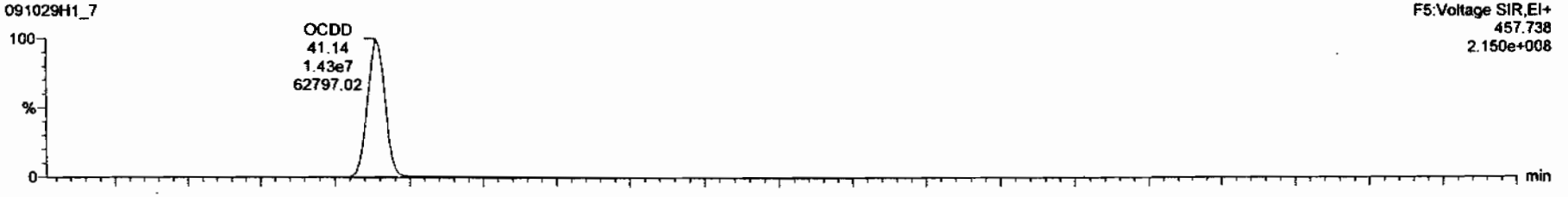

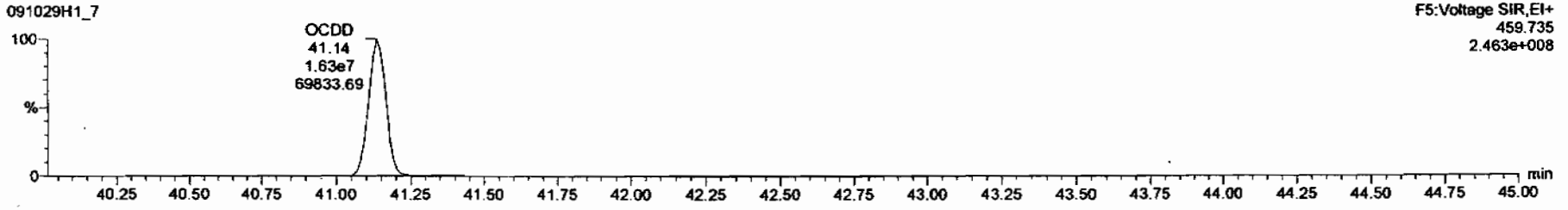

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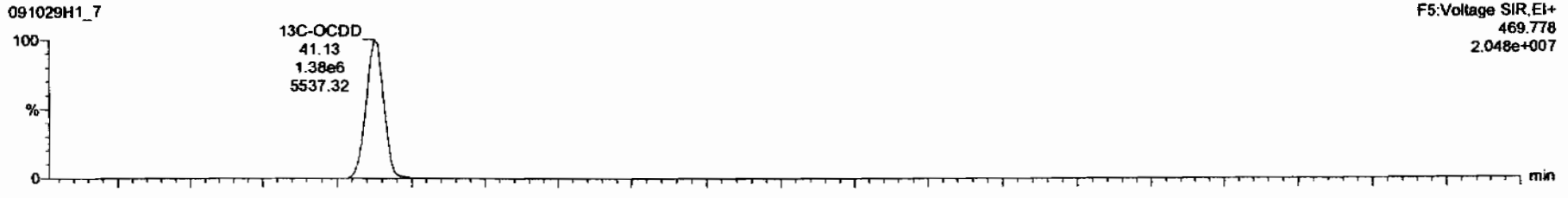

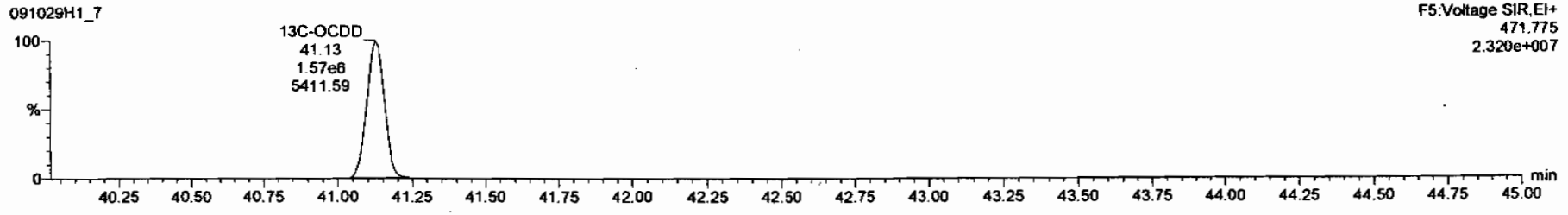

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2,3,7,8-TCDF

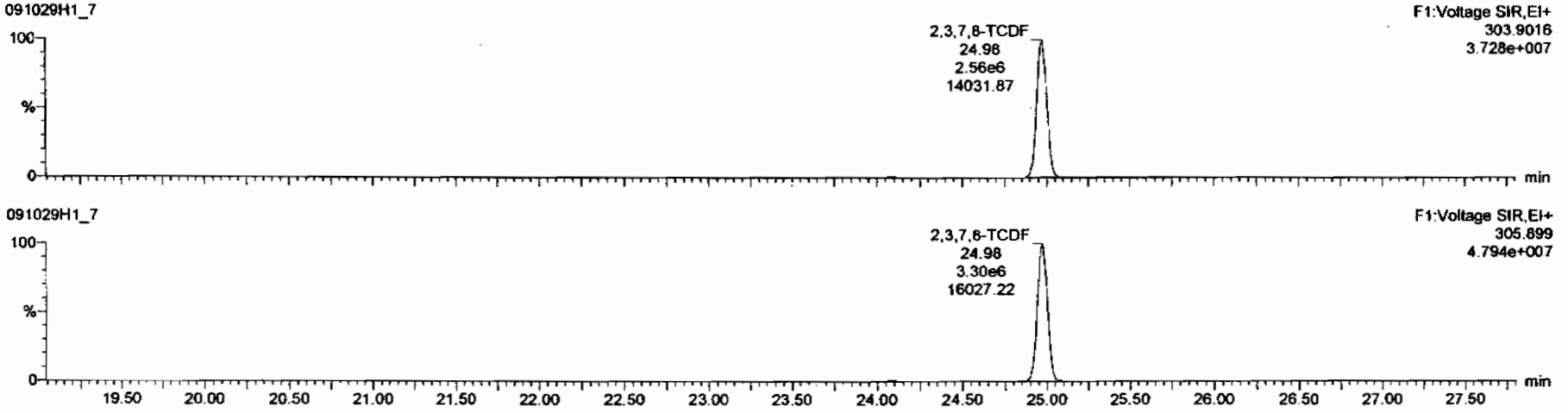

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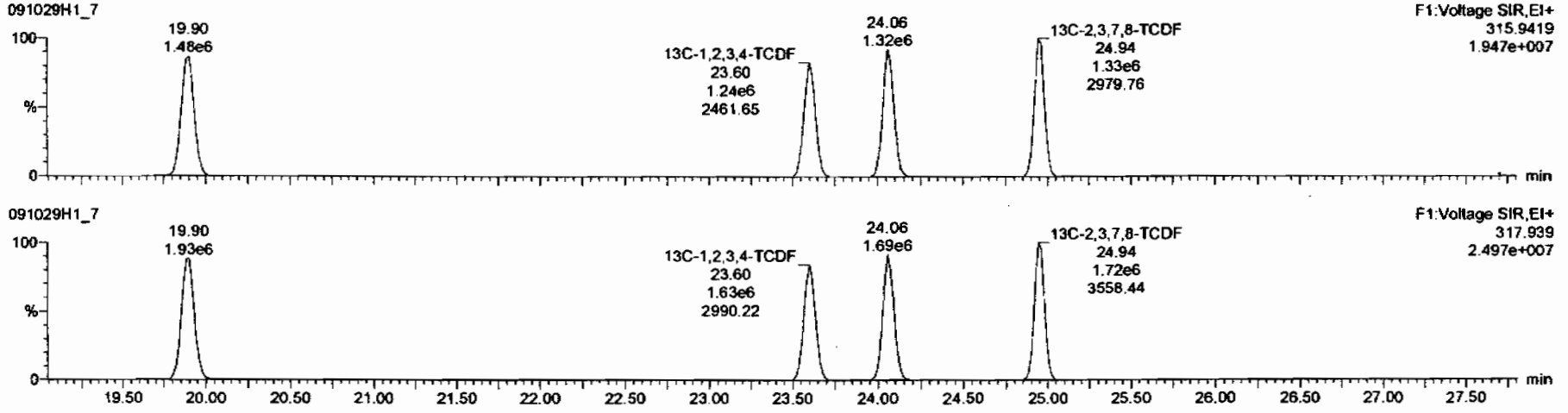

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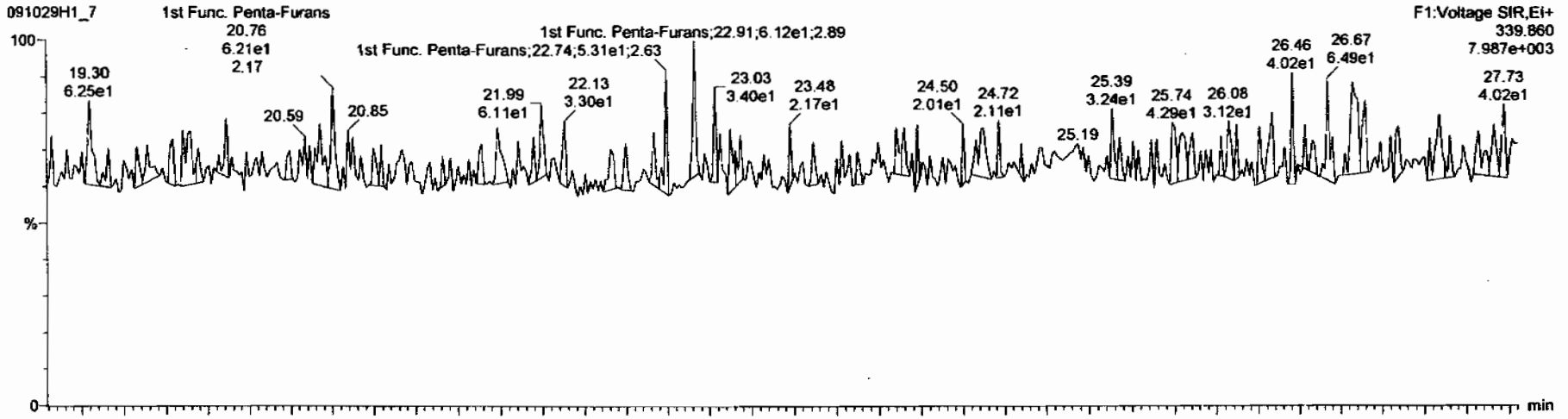

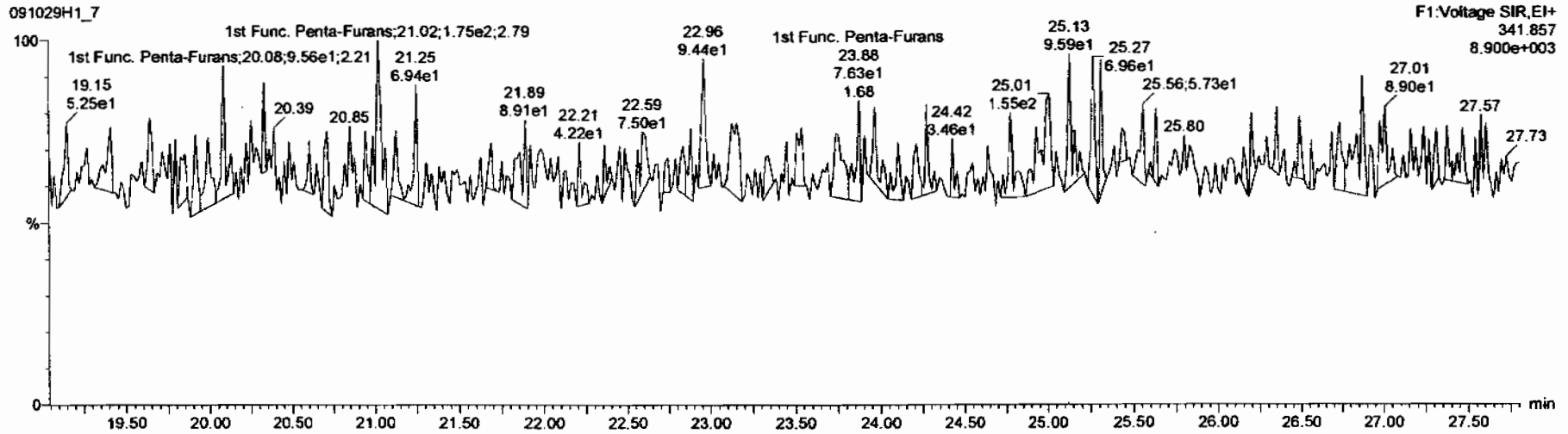

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1,2,3,7,8-PeCDF

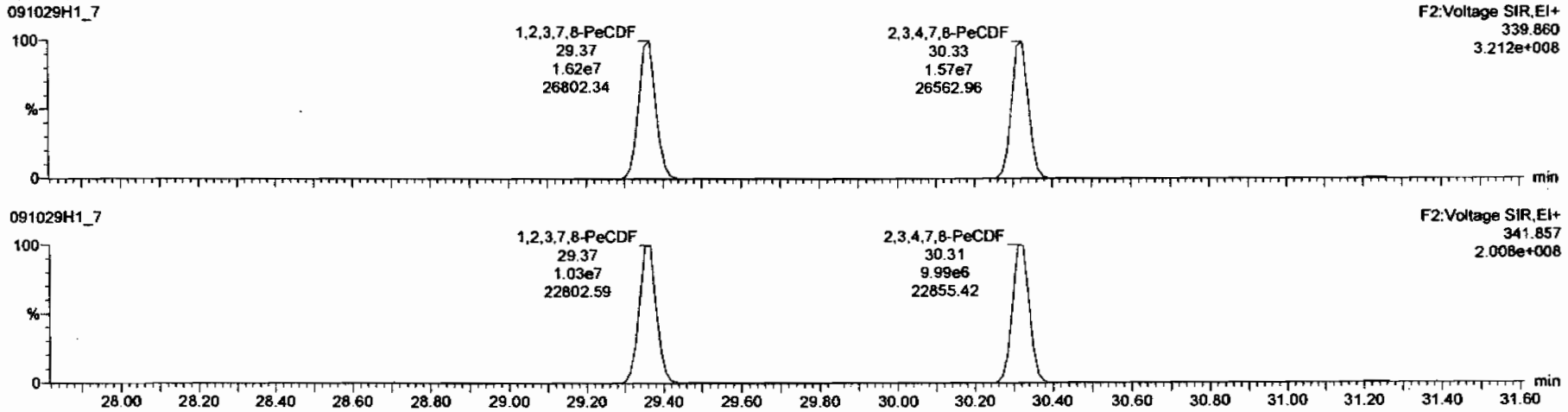

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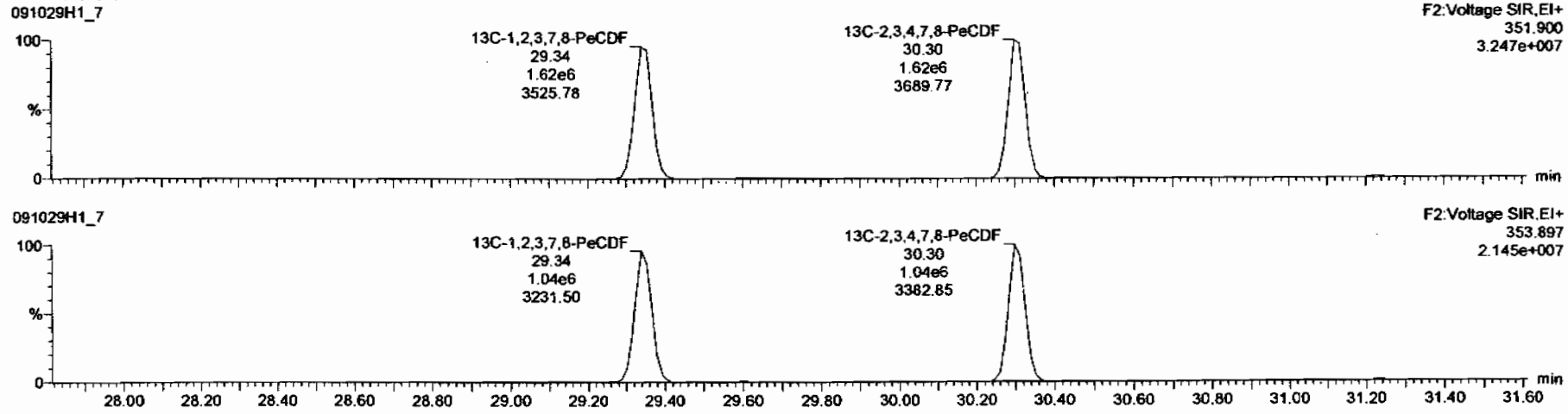

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1,2,3,4,7,8-HxCDF

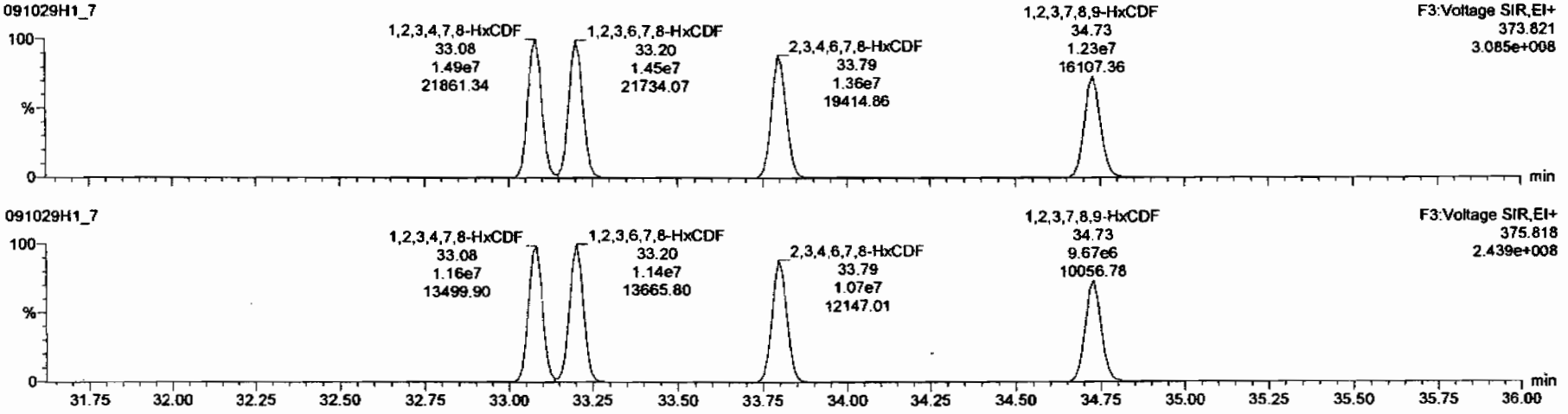

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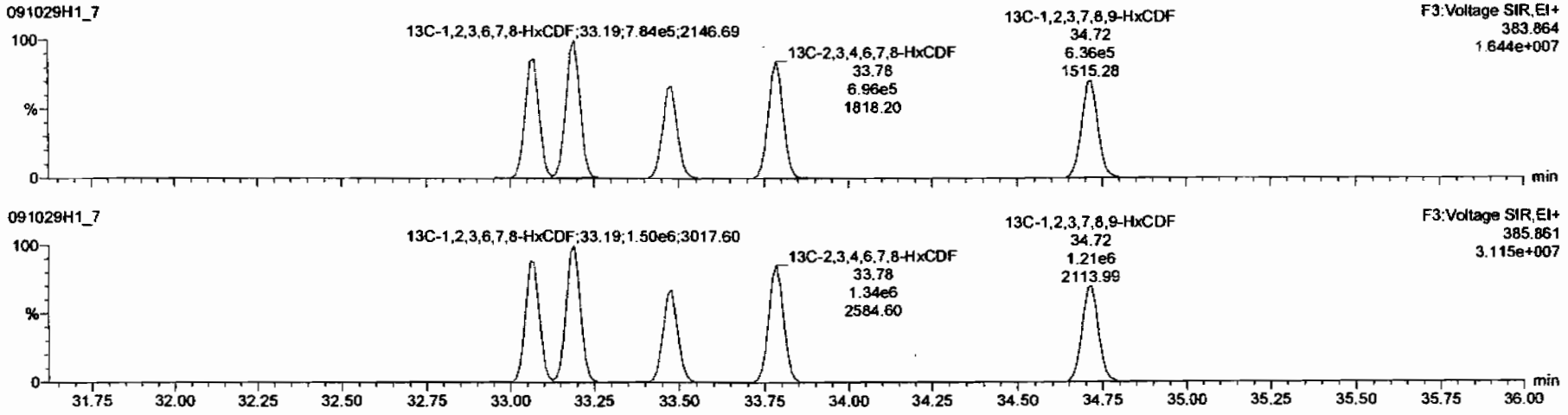

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1,2,3,4,6,7,8-HpCDF

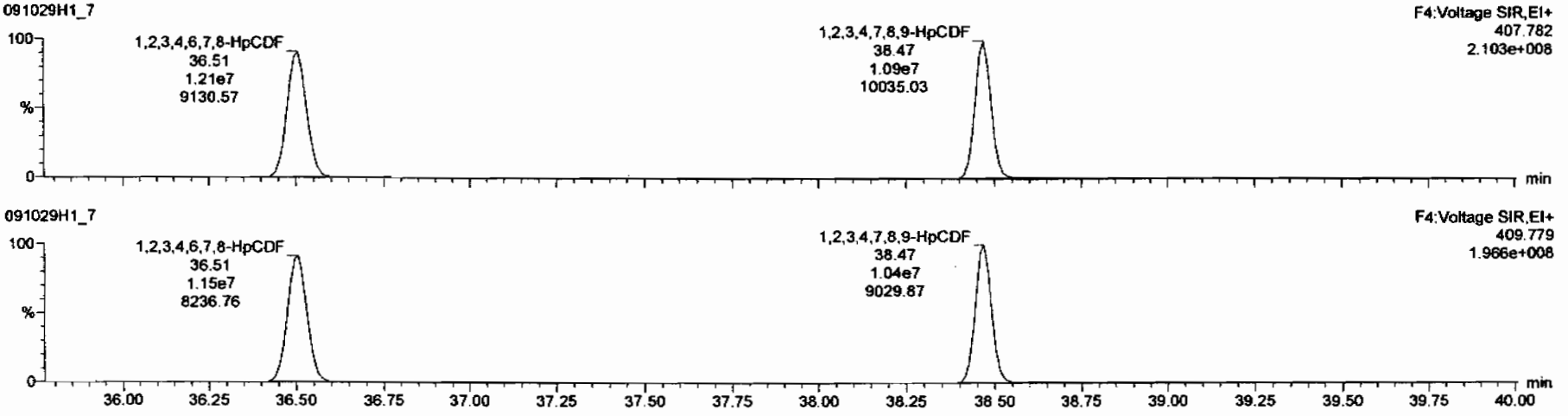

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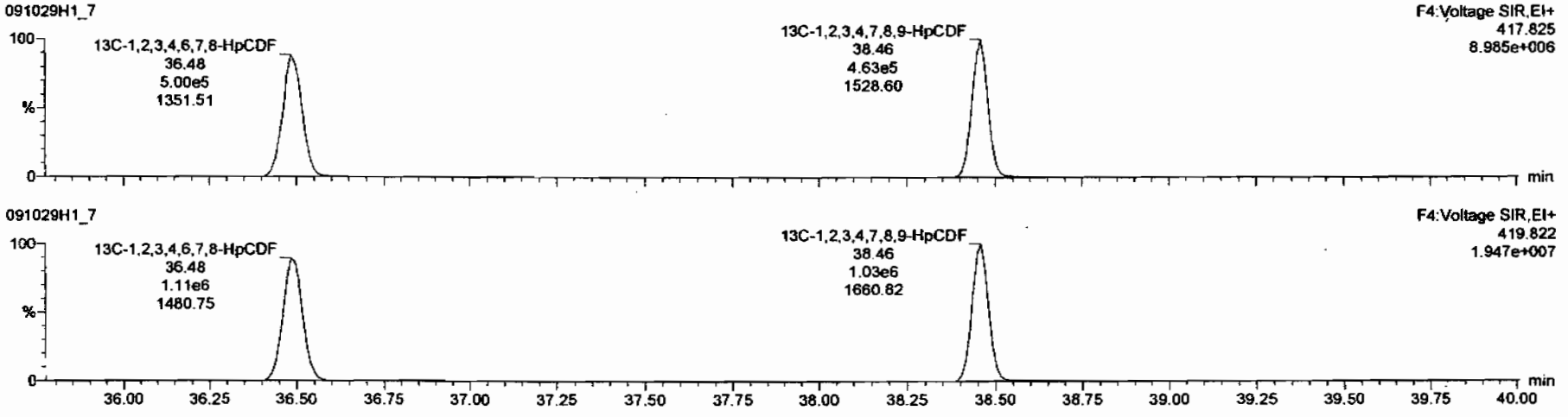

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OCDF

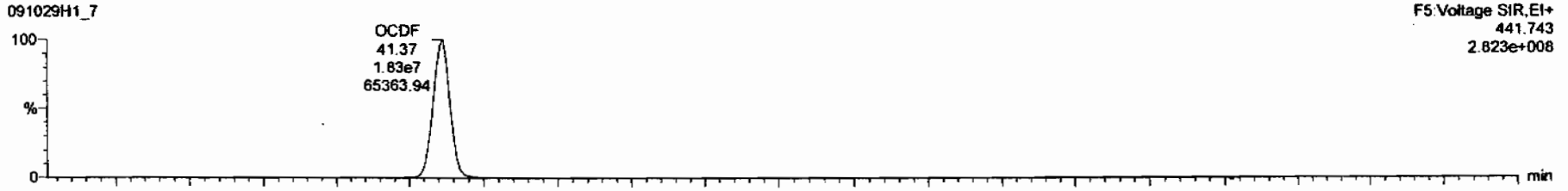

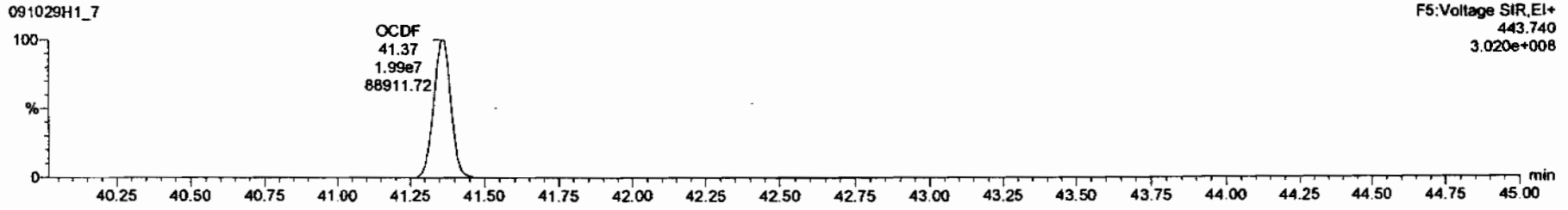

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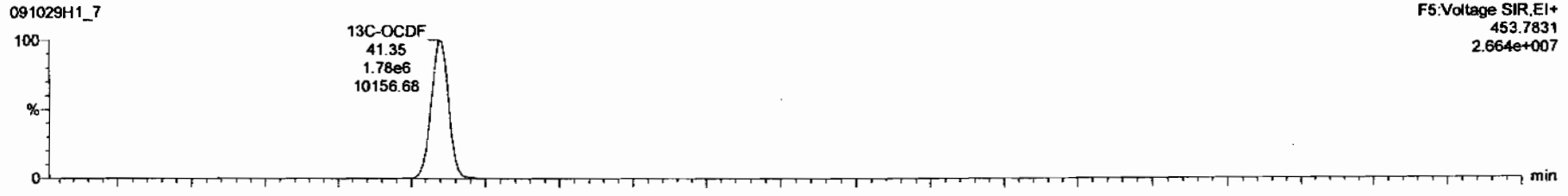

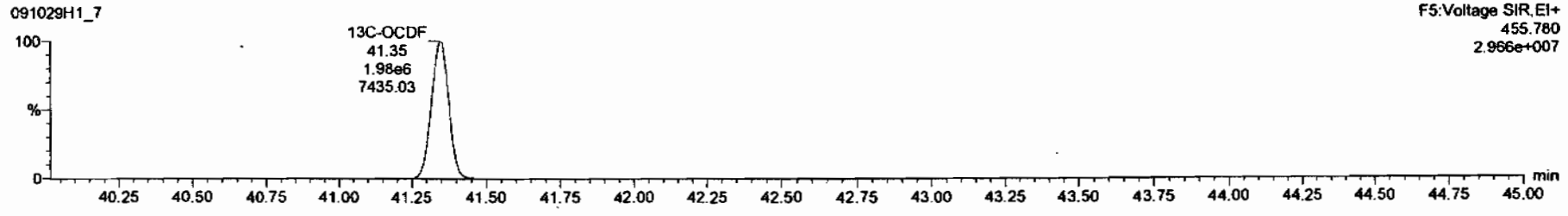

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Printed: Friday, October 30, 2009 08:50:02 Pacific Daylight Time

Name: 091029H1_7, Date: 29-Oct-2009, Time: 17:24:08, ID: ST091029H1-6 1613 CS5 090922I, Description: 1613 CS5 090922I

PFK1

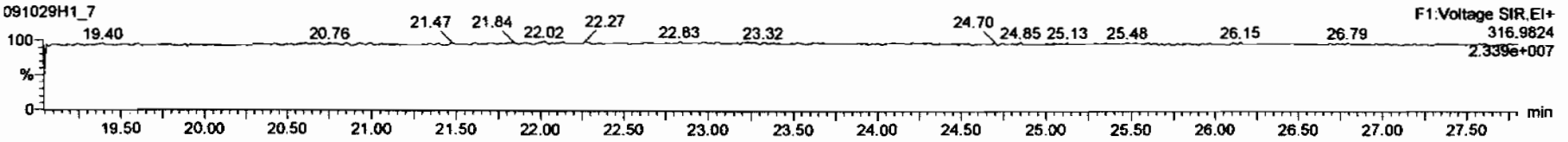

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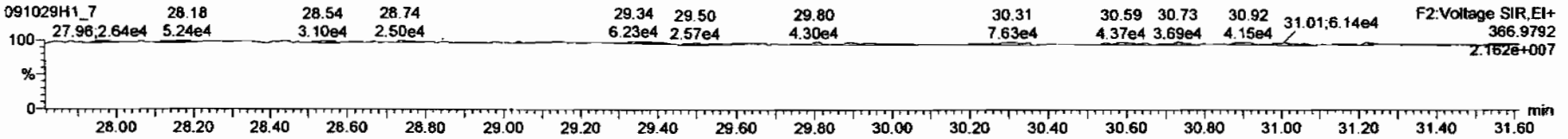

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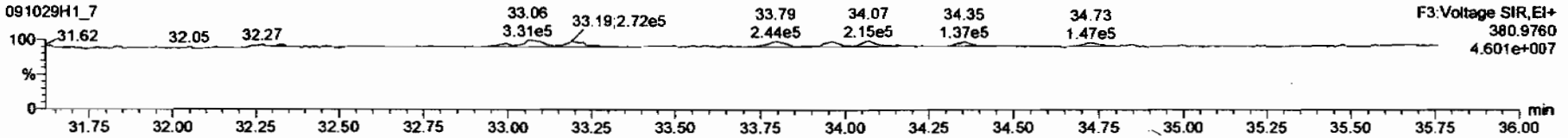

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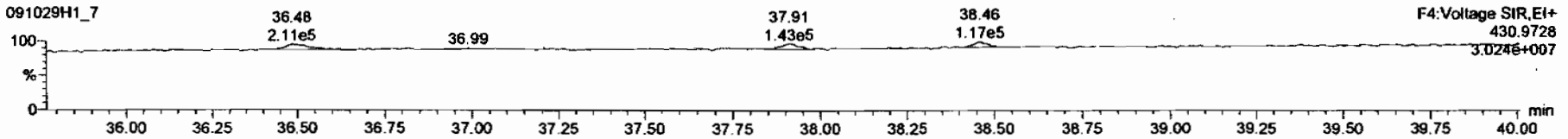

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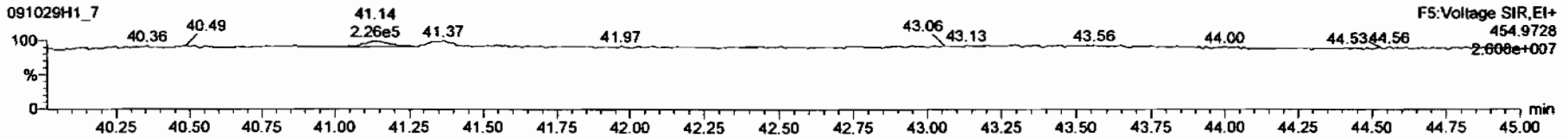

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Name: 091029H1_7, Date: 29-Oct-2009, Time: 17:24:08, ID: ST091029H1-6 1613 CS5 090922I, Description: 1613 CS5 090922I

DPE1

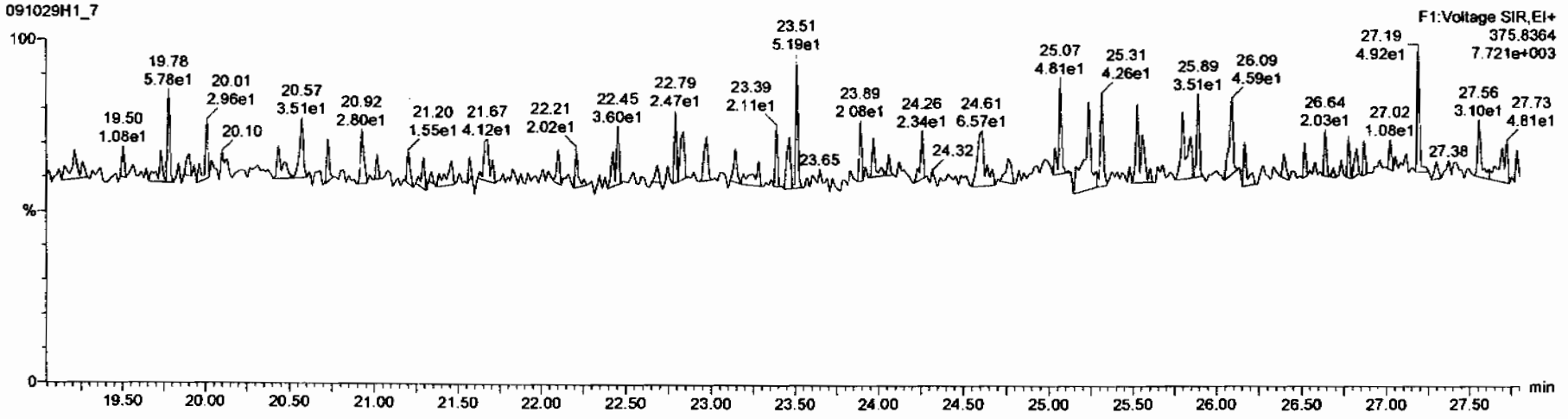

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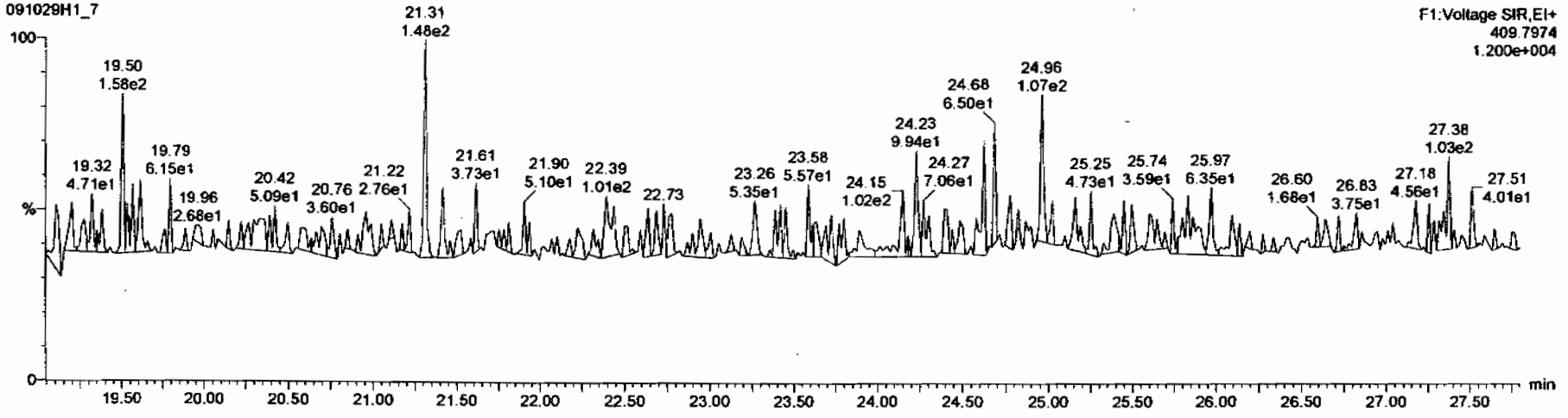

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Name: 091029H1_7, Date: 29-Oct-2009, Time: 17:24:08, ID: ST091029H1-6 1613 CS5 090922I, Description: 1613 CS5 090922I

DPE2

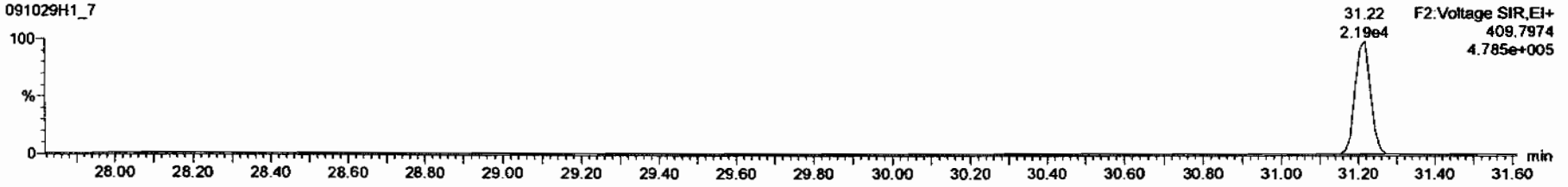

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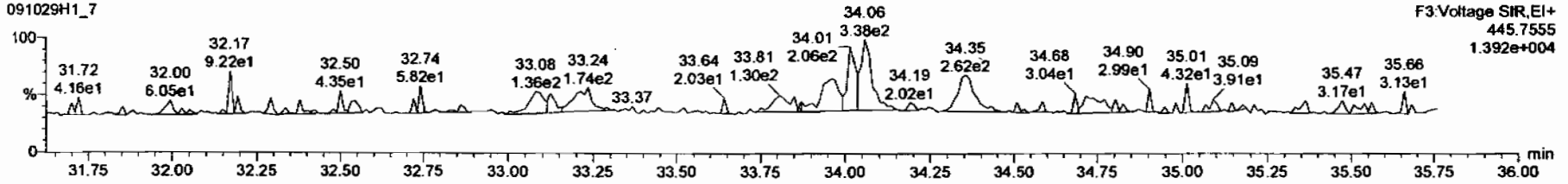

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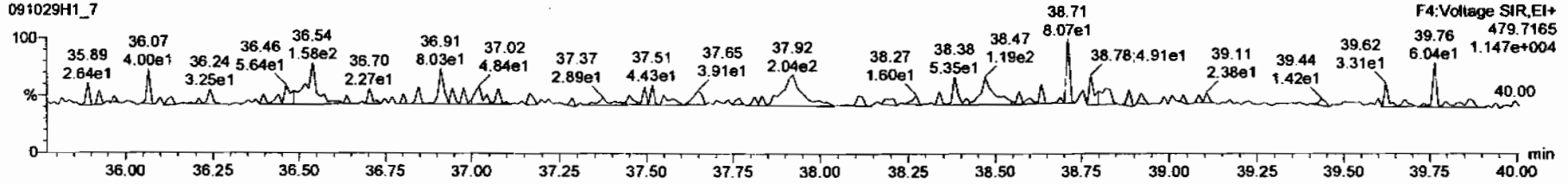

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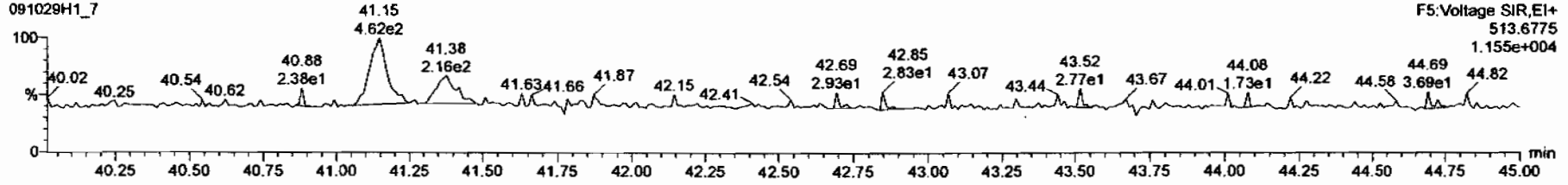

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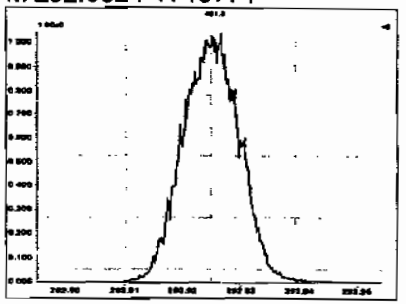

M 304.9824 R 13945

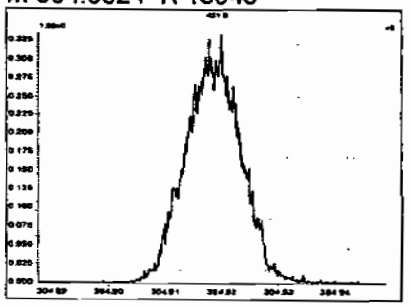

M 318.9792 R 13786

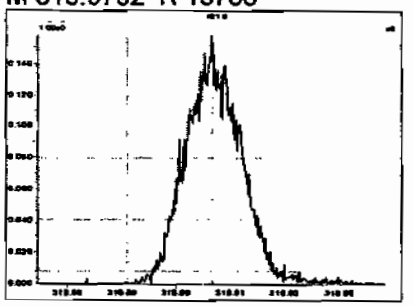

M 330.9792 R 13736

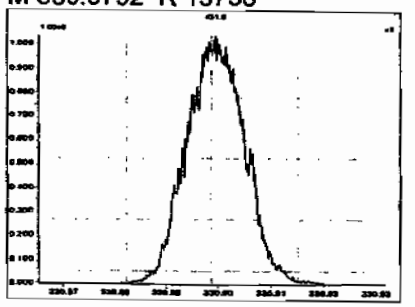

M 342.9792 R 13333

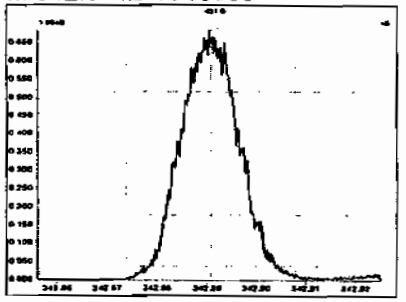

M 354.9792 R 13264

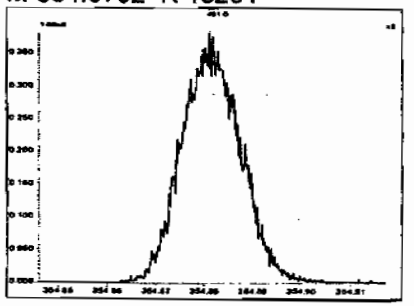

M 366.9792 R 13227

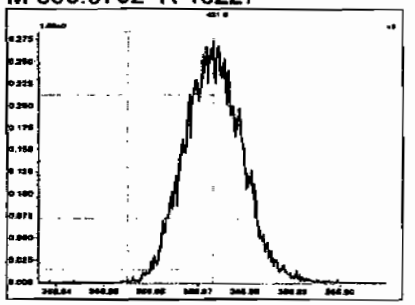

M 380.9760 R 12986

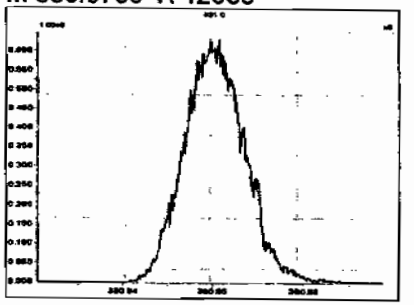

M 392.9760 R 12821

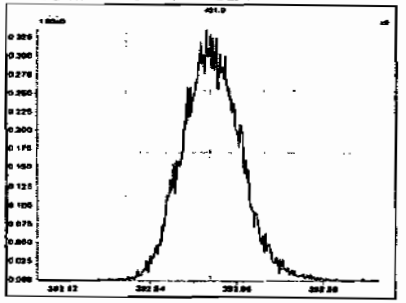

M 404.9760 R 12507

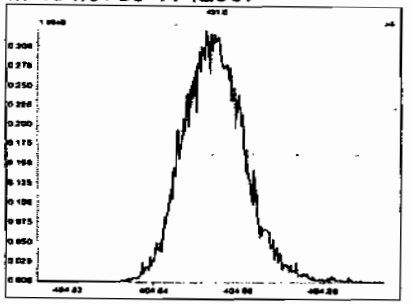

M 416.9760 R 12383

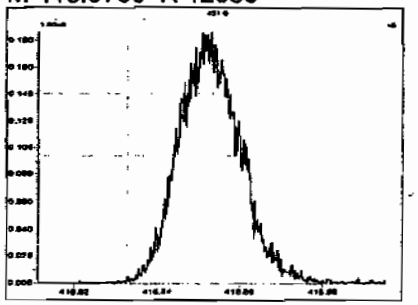

M 330.9792 R 13588

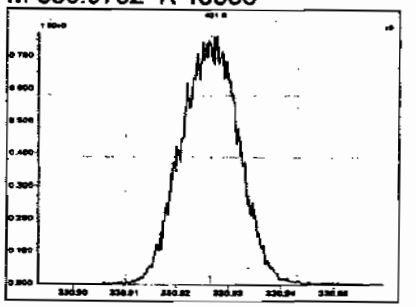

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M 342.9792 R 14048

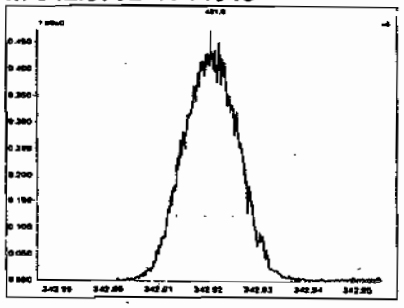

M 354.9792 R 14245

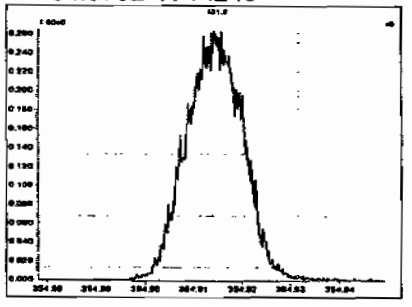

M 366.9792 R 14454

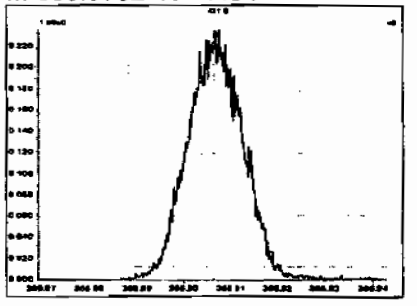

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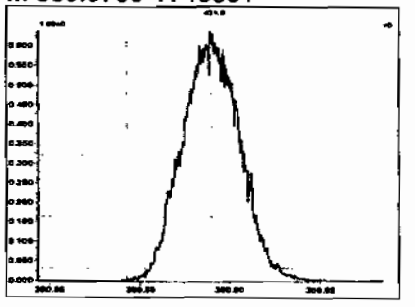

M 392.9760 R 13157

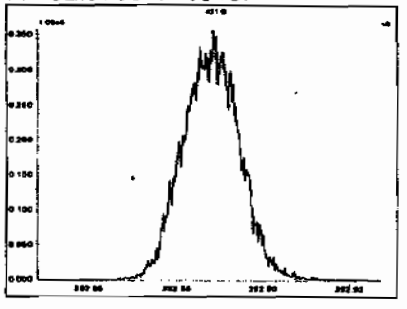

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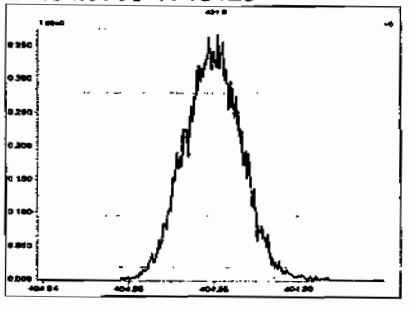

M 416.9760 R 13157

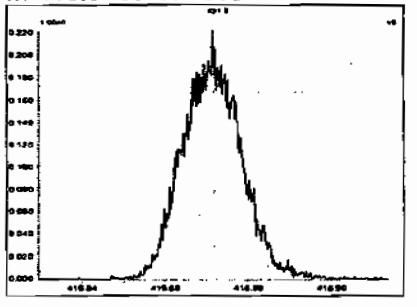

M 366.9792 R 13945

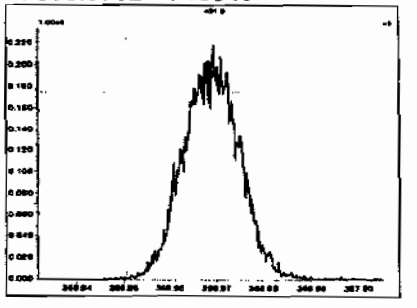

M 380.9760 R 14125

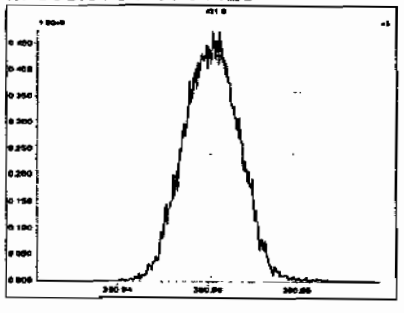

M 392.9760 R 14547

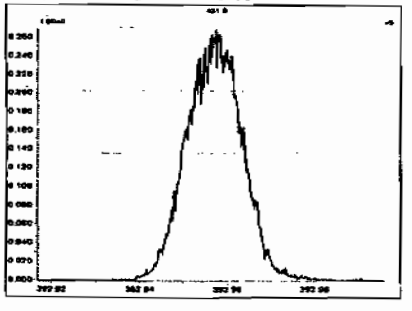

M 404.9760 R 14247

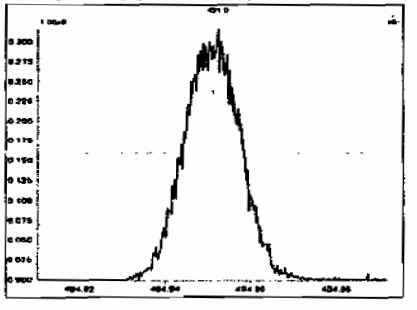

M 416.9760 R 13776

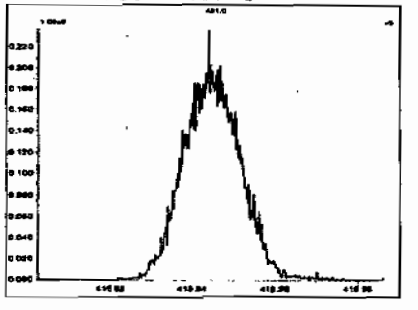

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M 430.9728 R 13481

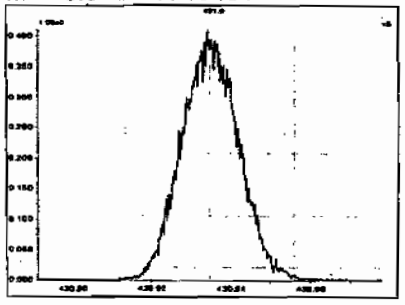

M 442.9728 R 12997

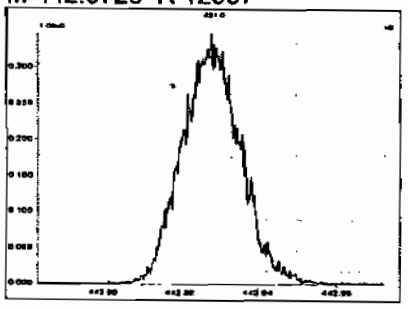

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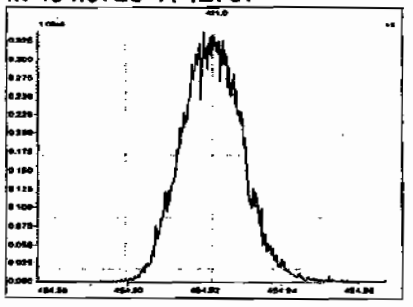

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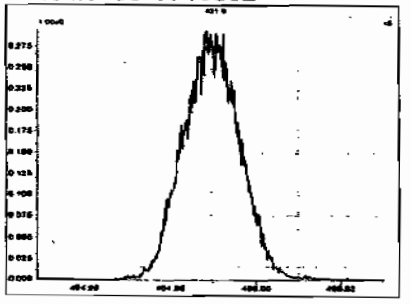

M 416.9760 R 14418

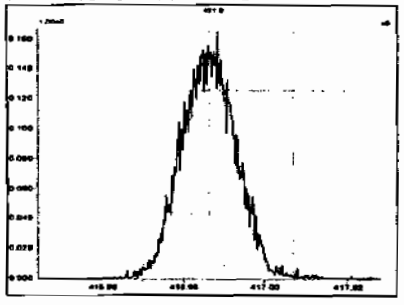

M 430.9728 R 13404

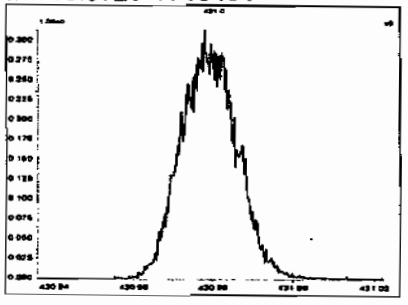

M 442.9728 R 14006

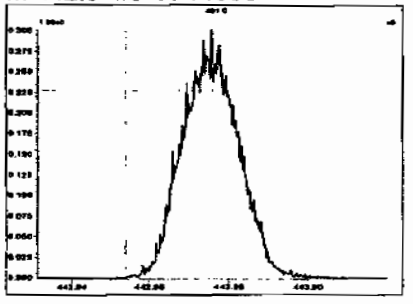

M 454.9728 R 13493

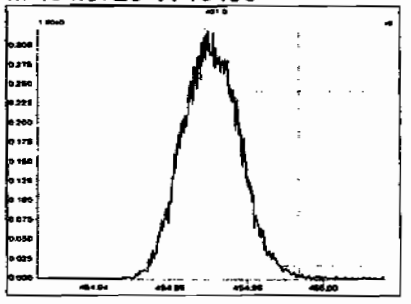

M 466.9728 R 13737

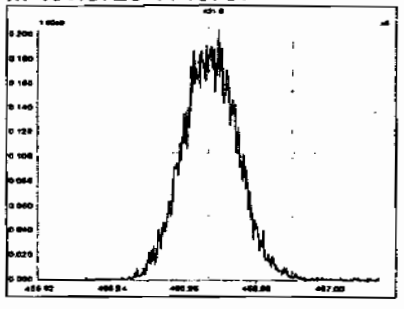

M 480.9696 R 12789

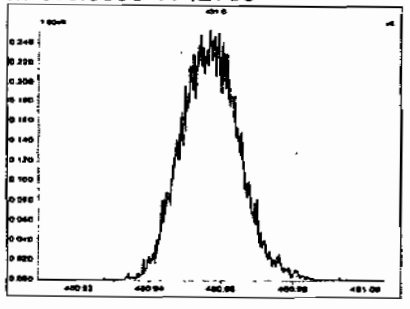

M 430.9728 R 13298

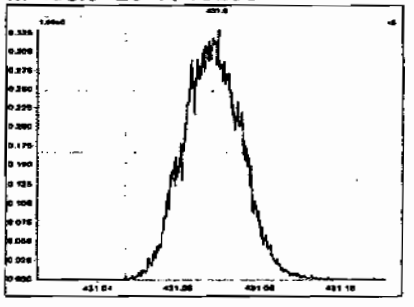

M 442.9728 R 13332

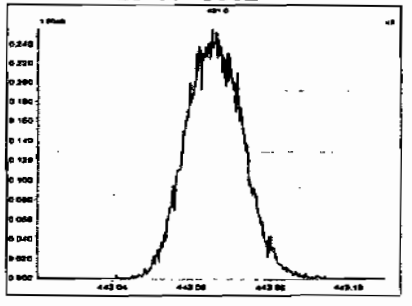

Printed: Thursday, October 29, 2009 20:00:54 Pacific Daylight Time

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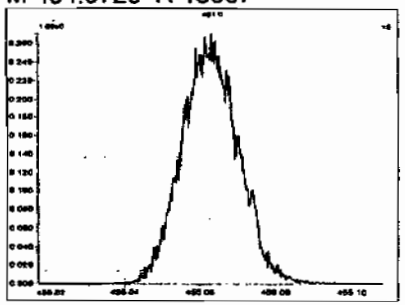

M 466.9728 R 13932

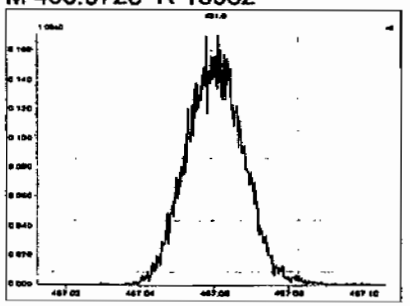

M 480.9696 R 13301

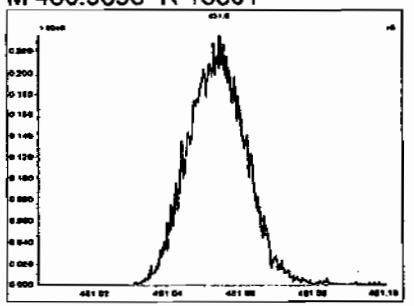

M 492.9696 R 13404

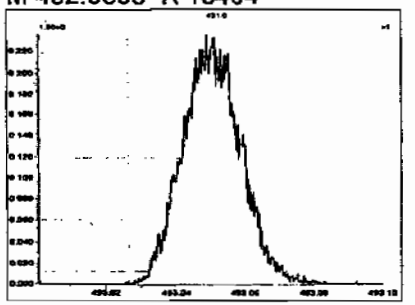

M 504.9696 R 12722

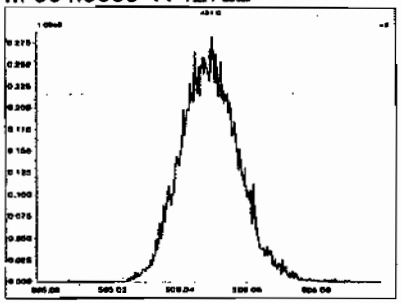

M 516.9697 R 12724

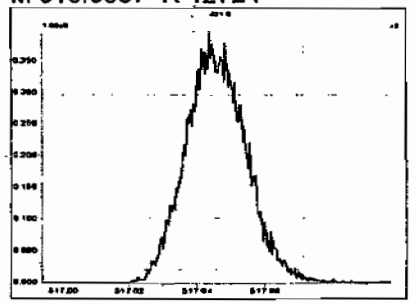

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-sss.qld

Last Altered: Friday, October 30, 2009 08:54:03 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:55:35 Pacific Daylight Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 21 Oct 2009 08:49:07
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 08:35:54

Name: 091029H1_9, Date: 29-Oct-2009, Time: 19:02:56, ID: SSS091029H1-1 Sec Src Std 090219C, Description: Sec Src Std 090219C

	#	Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
1	1	2,3,7,8-TCDD	2.20e5	0.74	NO	0.965	1.000	25.80	1.001	8.9542		0.0194	8.9542
2	2	1,2,3,7,8-PeCDD	8.20e5	0.61	NO	0.869	1.000	30.60	1.001	51.562		0.0338	51.562
3	3	1,2,3,4,7,8-HxCDD	7.49e5	1.22	NO	0.873	1.000	33.95	1.000	52.570		0.0678	52.570
4	4	1,2,3,6,7,8-HxCDD	7.34e5	1.24	NO	0.940	1.000	34.06	1.001	46.213		0.0624	46.213
5	5	1,2,3,7,8,9-HxCDD	7.47e5	1.23	NO	0.882	1.000	34.34	1.000	50.326		0.0709	50.326
6	6	1,2,3,4,6,7,8-HpCDD	6.53e5	1.04	NO	0.965	1.000	37.90	1.000	50.325		0.138	50.325
7	7	OCDD	1.24e6	0.88	NO	1.05	1.000	41.14	1.000	91.851		0.0675	91.851
8	8	2,3,7,8-TCDF	2.83e5	0.78	NO	0.952	1.000	24.98	1.001	9.2593		0.0220	9.2593
9	9	1,2,3,7,8-PeCDF	1.23e6	1.57	NO	0.994	1.000	29.35	1.000	46.837		0.0450	46.837
10	10	2,3,4,7,8-PeCDF	1.22e6	1.57	NO	0.977	1.000	30.31	1.000	50.447		0.0450	50.447
11	11	1,2,3,4,7,8-HxCDF	1.17e6	1.26	NO	1.31	1.000	33.07	1.000	46.658		0.0474	46.658
12	12	1,2,3,6,7,8-HxCDF	1.15e6	1.27	NO	1.15	1.000	33.19	1.000	50.530		0.0560	50.530
13	13	2,3,4,6,7,8-HxCDF	1.11e6	1.26	NO	1.20	1.000	33.78	1.000	48.619		0.0572	48.619
14	14	1,2,3,7,8,9-HxCDF	9.31e5	1.27	NO	1.20	1.000	34.72	1.000	47.744		0.0757	47.744
15	15	1,2,3,4,6,7,8-HpCDF	1.10e6	1.05	NO	1.49	1.000	36.49	1.001	47.847		0.0999	47.847
16	16	1,2,3,4,7,8,9-HpCDF	9.07e5	1.06	NO	1.44	1.000	38.47	1.001	49.900		0.107	49.900
17	17	OCDF	1.53e6	0.91	NO	1.02	1.000	41.36	1.000	95.096		0.0566	95.096
18	18	13C-2,3,7,8-TCDD	2.54e6	0.77	NO	1.02	1.000	25.77	1.024	105.30	105	0.120	
19	19	13C-1,2,3,7,8-PeCDD	1.83e6	0.61	NO	0.806	1.000	30.57	1.215	96.298	96.3	0.104	
20	20	13C-1,2,3,4,7,8-HxCDD	1.63e6	1.24	NO	1.07	1.000	33.94	1.014	84.095	84.1	0.105	
21	21	13C-1,2,3,6,7,8-HxCDD	1.69e6	1.23	NO	0.968	1.000	34.04	1.017	96.802	96.8	0.117	
22	22	13C-1,2,3,7,8,9-HxCDD	1.68e6	1.23	NO	1.13	1.000	34.33	1.026	82.080	82.1	0.0996	
23	23	13C-1,2,3,4,6,7,8-HpCDD	1.34e6	1.06	NO	0.888	1.000	37.90	1.132	83.786	83.8	0.182	
24	24	13C-OCDD	2.58e6	0.88	NO	0.783	1.000	41.13	1.229	182.07	91.0	0.0712	
25	25	13C-2,3,7,8-TCDF	3.21e6	0.77	NO	1.03	1.000	24.94	0.991	99.856	99.9	0.109	
26	26	13C-1,2,3,7,8-PeCDF	2.63e6	1.56	NO	0.880	1.000	29.34	1.166	95.649	95.6	0.113	
27	27	13C-2,3,4,7,8-PeCDF	2.48e6	1.56	NO	0.867	1.000	30.30	1.204	91.618	91.6	0.115	
28	28	13C-1,2,3,4,7,8-HxCDF	1.91e6	0.52	NO	1.19	1.000	33.06	0.988	89.149	89.1	0.149	
29	29	13C-1,2,3,6,7,8-HxCDF	1.99e6	0.52	NO	1.30	1.000	33.18	0.991	84.559	84.6	0.136	
30	30	13C-2,3,4,6,7,8-HxCDF	1.90e6	0.52	NO	1.16	1.000	33.77	1.009	90.573	90.6	0.152	

JS 10/30/09

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-sss.qld

Last Altered: Friday, October 30, 2009 08:54:03 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:55:35 Pacific Daylight Time

Name: 091029H1_9, Date: 29-Oct-2009, Time: 19:02:56, ID: SSS091029H1-1 Sec Src Std 090219C, Description: Sec Src Std 090219C

	#	Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
31	31	13C-1,2,3,7,8,9-HxCDF	1.63e6	0.52	NO	1.03	1.000	34.71	1.037	87.728	87.7	0.172	
32	32	13C-1,2,3,4,6,7,8-HpCDF	1.55e6	0.45	NO	0.909	1.000	36.47	1.090	94.485	94.5	0.183	
33	33	13C-1,2,3,4,7,8,9-HpCDF	1.26e6	0.45	NO	0.830	1.000	38.45	1.149	84.220	84.2	0.201	
34	34	13C-OCDF	3.14e6	0.89	NO	0.982	1.000	41.35	1.235	177.29	88.6	0.0779	
35	35	37Cl-2,3,7,8-TCDD	2.46e5			0.602	1.000	25.80	1.026	17.315	173	0.0270	
36	36	13C-1,2,3,4-TCDD	2.36e6	0.77	NO	1.00	1.000	25.16	0.000	100.00	100	0.122	
37	37	13C-1,2,3,4-TCDF	3.12e6	0.77	NO	1.00	1.000	23.60	0.000	100.00	100	0.112	
38	38	13C-1,2,3,4,6,9-HxCDF	1.81e6	0.52	NO	1.00	1.000	33.47	0.000	100.00	100	0.177	

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\091029h1\091029h1-sss.qld

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Printed: Friday, October 30, 2009 08:55:22 Pacific Daylight Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 21 Oct 2009 08:49:07
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Name: 091029H1_9, Date: 29-Oct-2009, Time: 19:02:56, ID: SSS091029H1-1 Sec Src Std 090219C, Description: Sec Src Std 090219C

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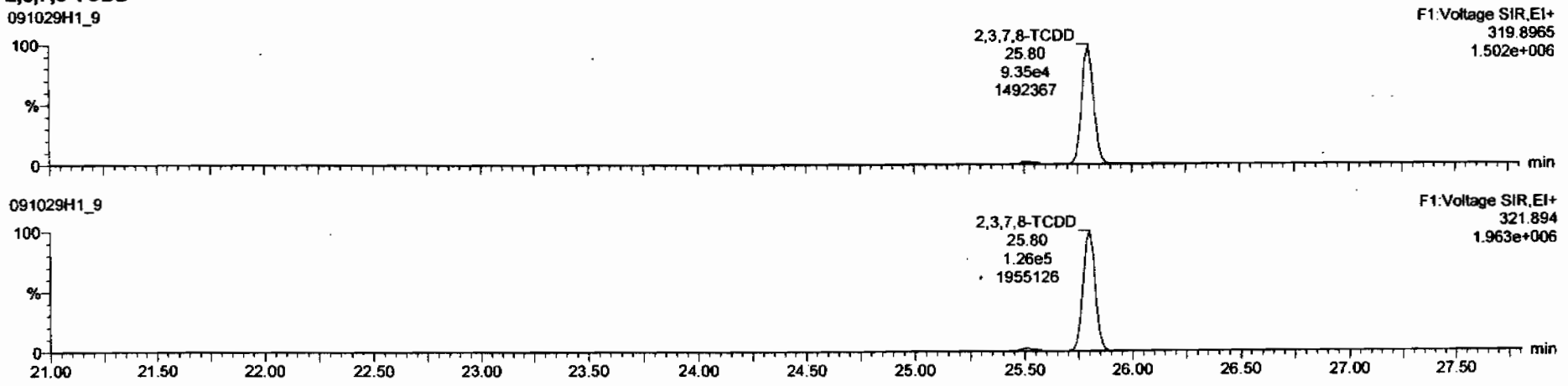

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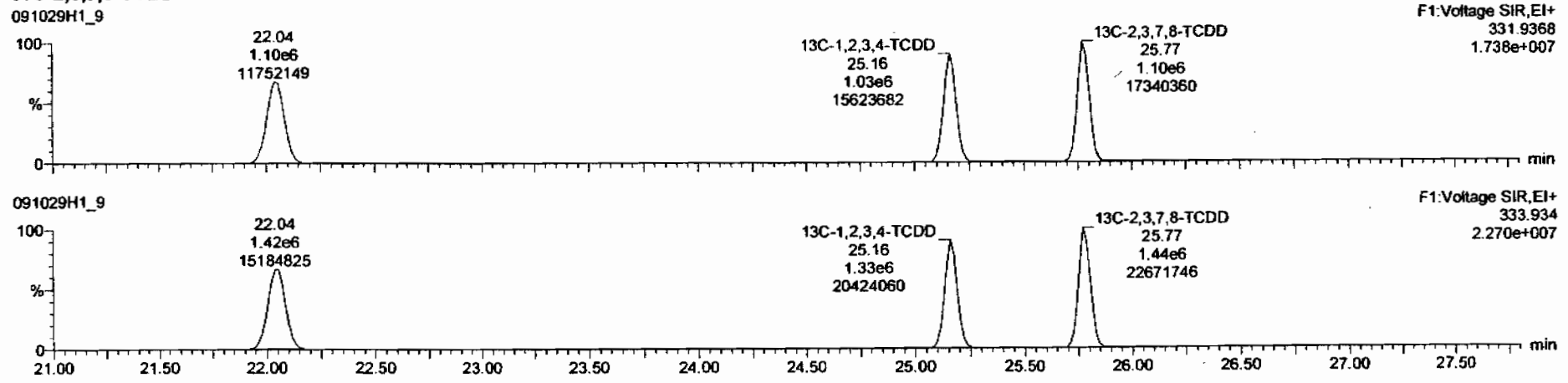

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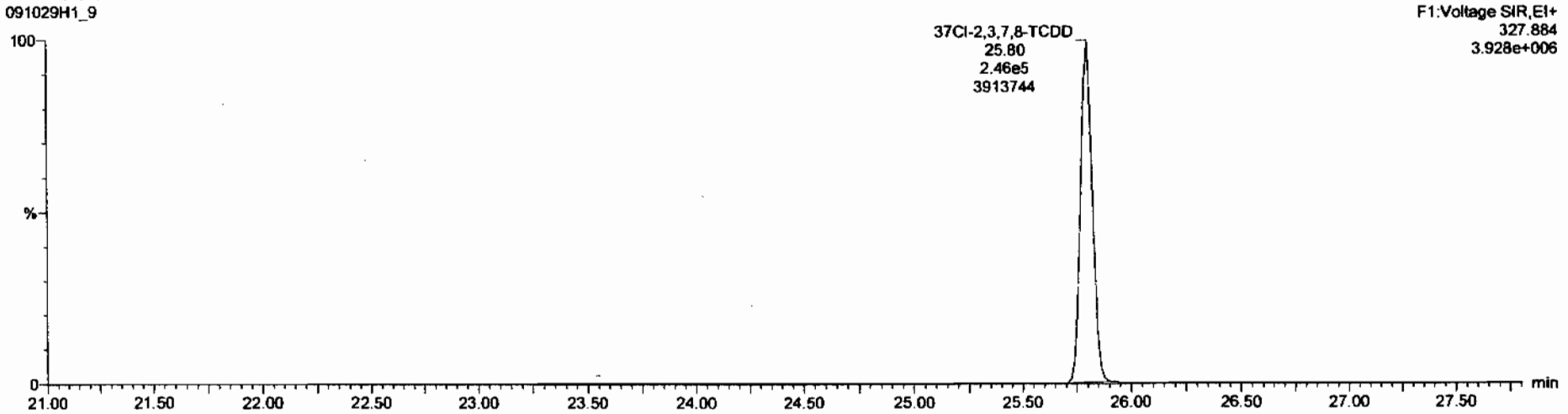

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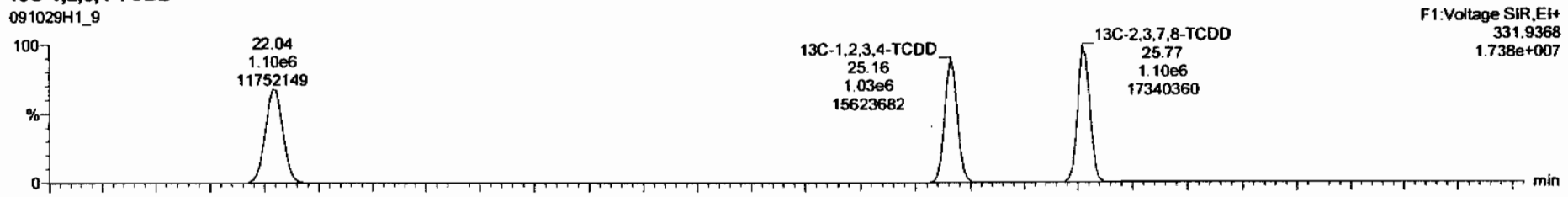

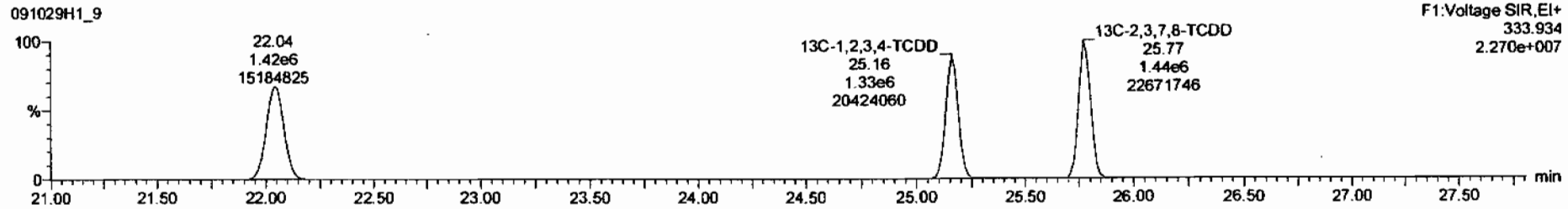

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Printed: Friday, October 30, 2009 08:55:22 Pacific Daylight Time

Name: 091029H1_9, Date: 29-Oct-2009, Time: 19:02:56, ID: SSS091029H1-1 Sec Src Std 090219C, Description: Sec Src Std 090219C

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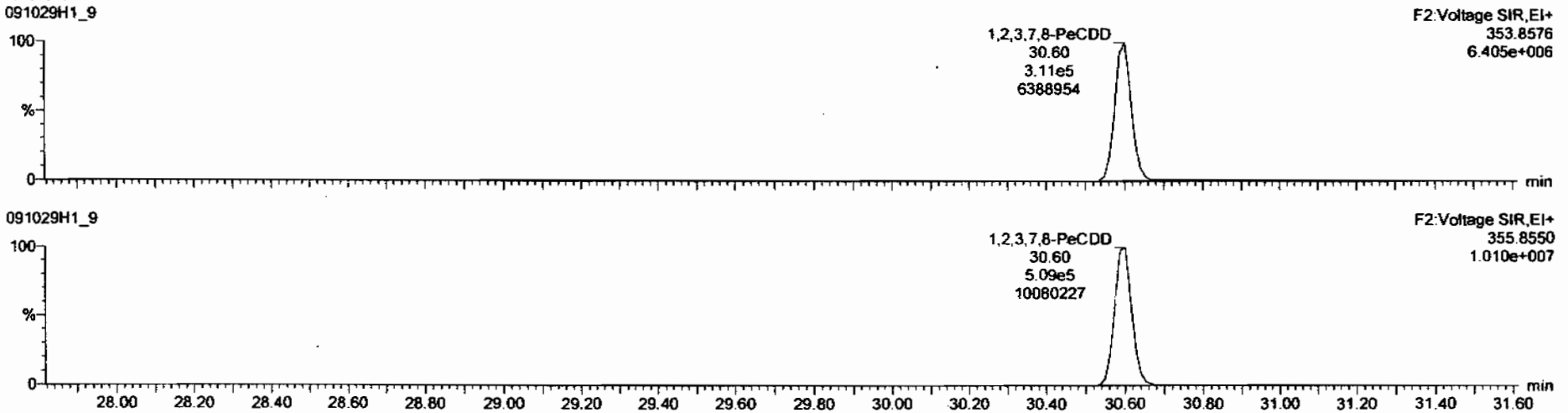

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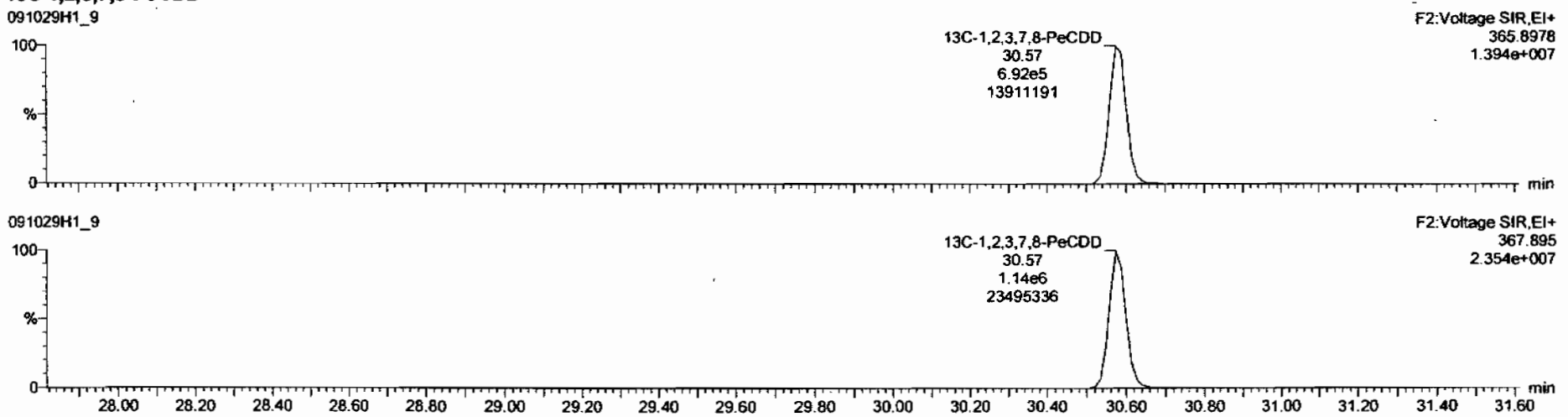

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Printed: Friday, October 30, 2009 08:55:22 Pacific Daylight Time

Name: 091029H1_9, Date: 29-Oct-2009, Time: 19:02:56, ID: SSS091029H1-1 Sec Src Std 090219C, Description: Sec Src Std 090219C

1,2,3,4,7,8-HxCDD

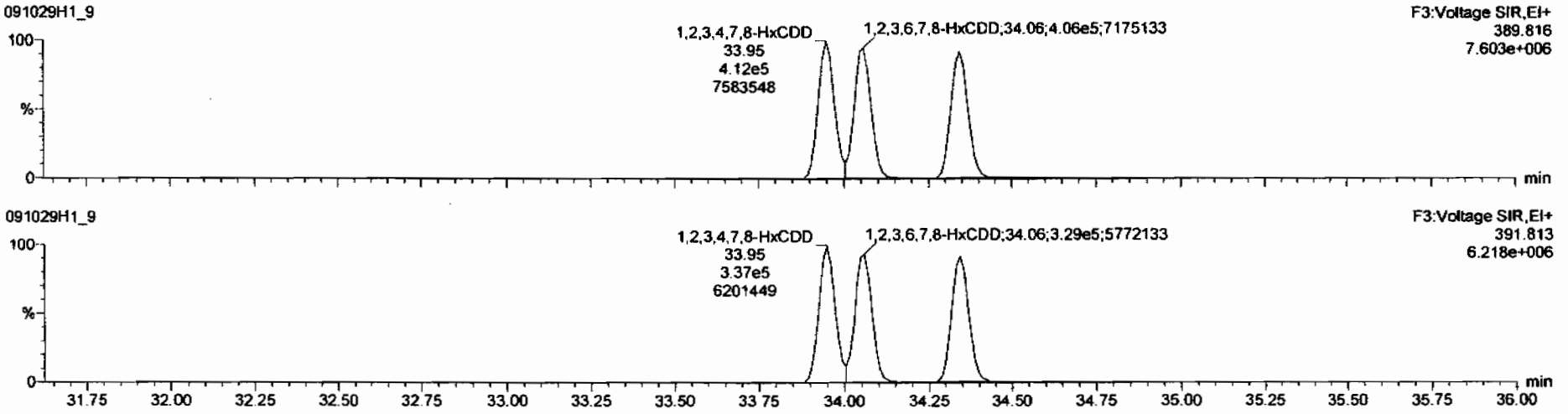

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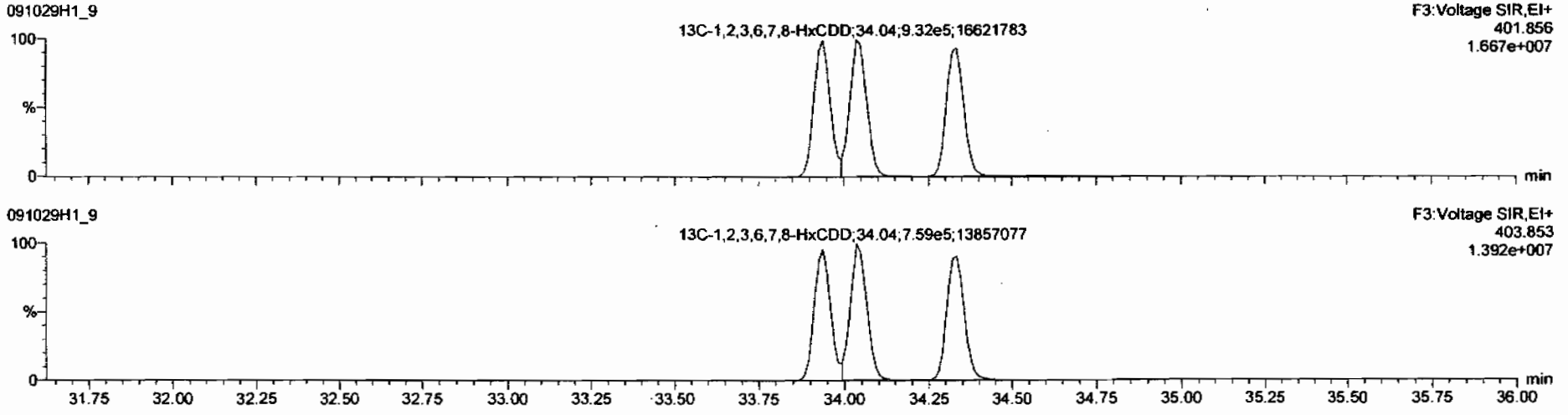

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Printed: Friday, October 30, 2009 08:55:22 Pacific Daylight Time

Name: 091029H1_9, Date: 29-Oct-2009, Time: 19:02:56, ID: SSS091029H1-1 Sec Src Std 090219C, Description: Sec Src Std 090219C

1,2,3,4,6,7,8-HpCDD

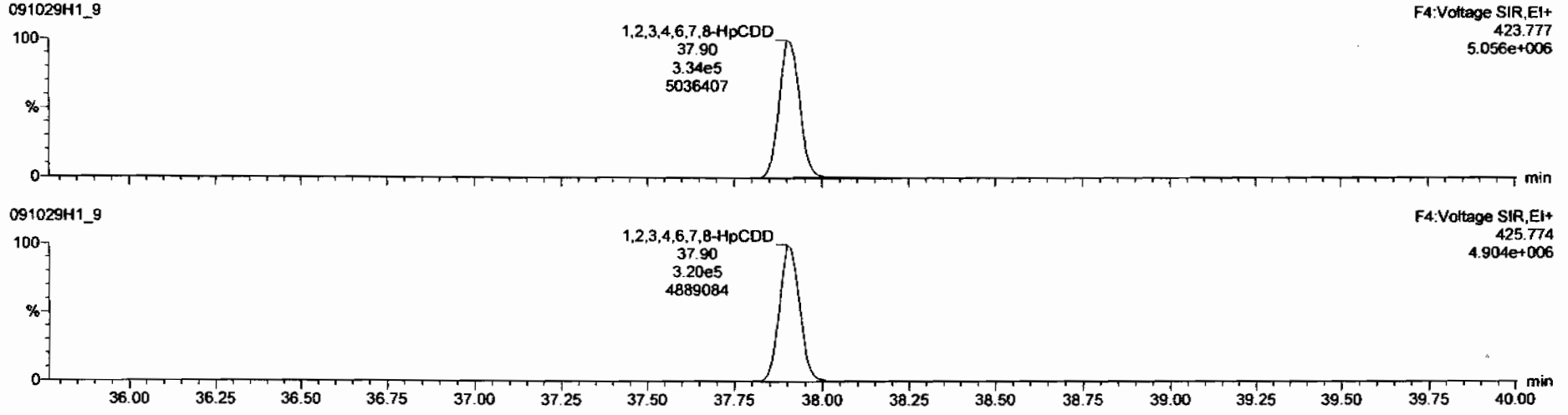

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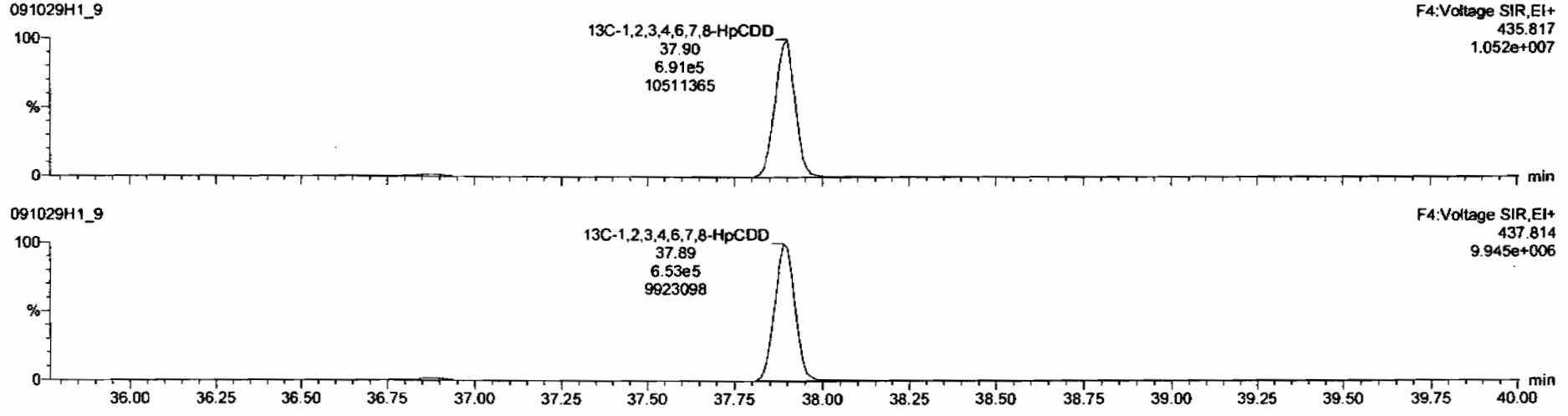

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Printed: Friday, October 30, 2009 08:55:22 Pacific Daylight Time

Name: 091029H1_9, Date: 29-Oct-2009, Time: 19:02:56, ID: SSS091029H1-1 Sec Src Std 090219C, Description: Sec Src Std 090219C

OCDD

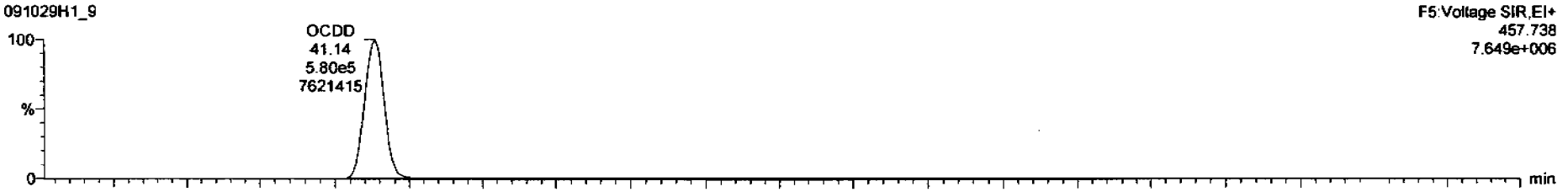

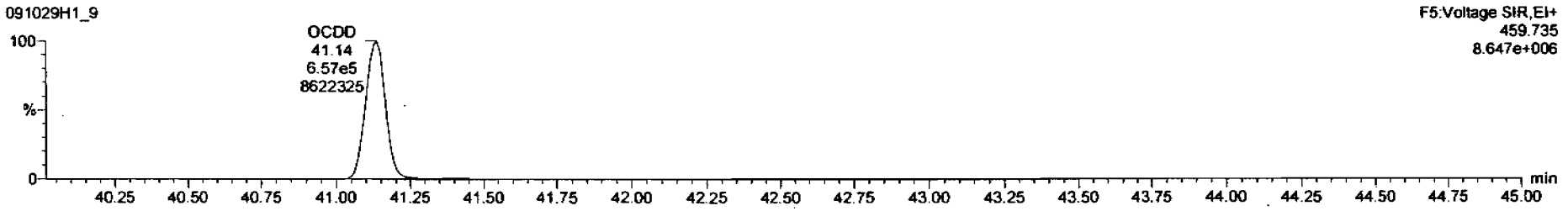

13C-OCDD

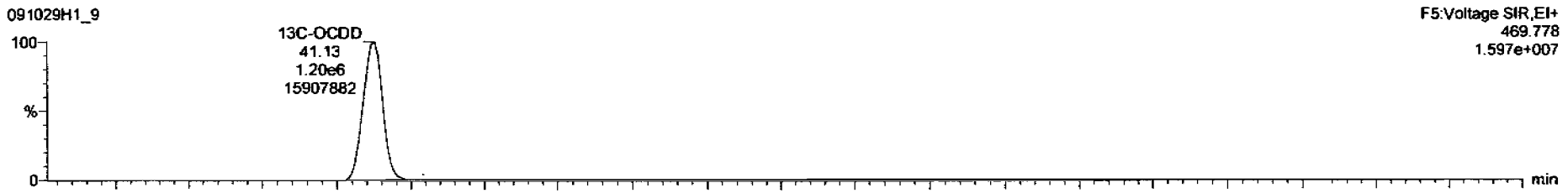

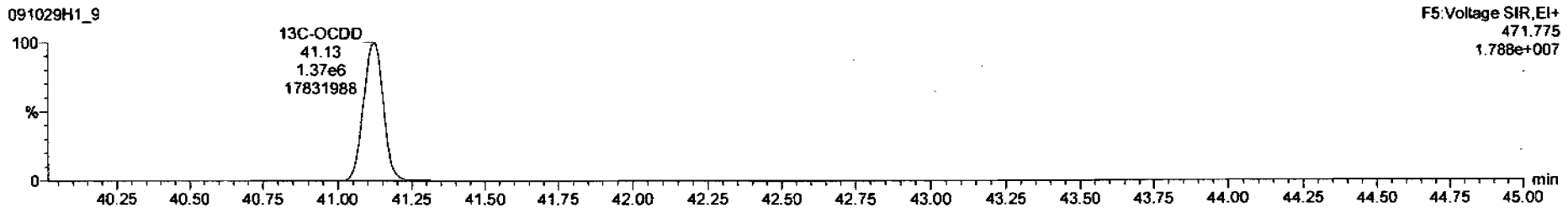

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Name: 091029H1_9, Date: 29-Oct-2009, Time: 19:02:56, ID: SSS091029H1-1 Sec Src Std 090219C, Description: Sec Src Std 090219C

2,3,7,8-TCDF

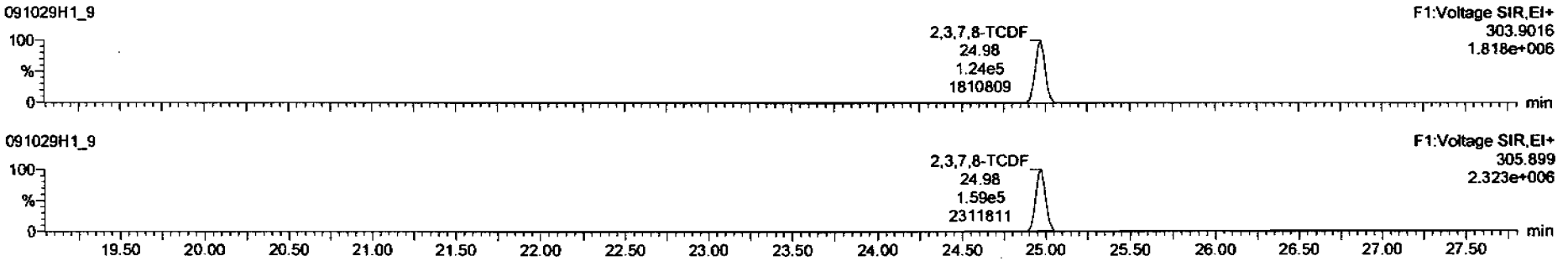

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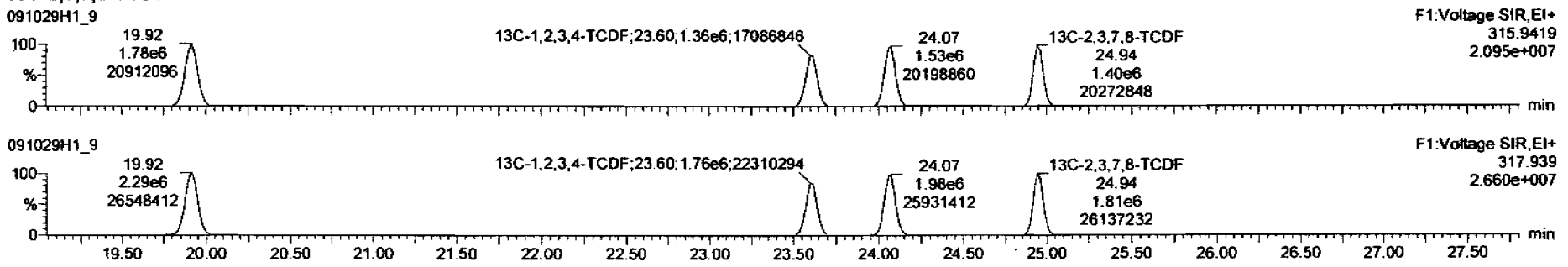

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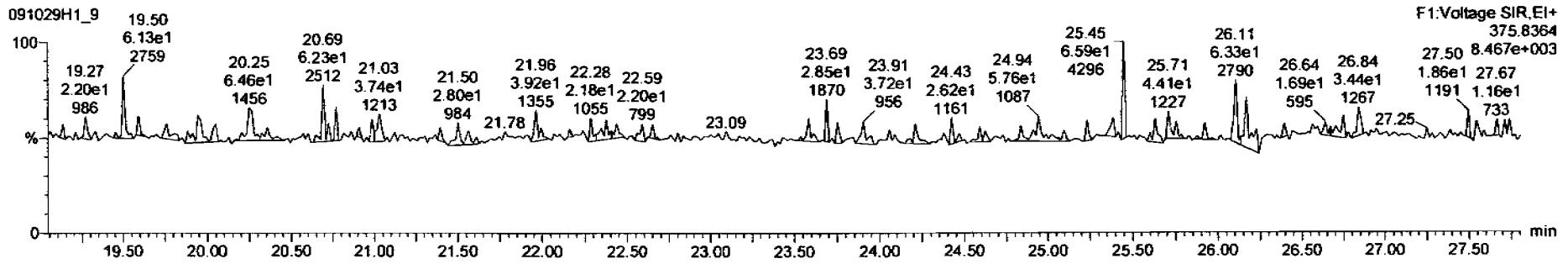

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Printed: Friday, October 30, 2009 08:55:22 Pacific Daylight Time

Name: 091029H1_9, Date: 29-Oct-2009, Time: 19:02:56, ID: SSS091029H1-1 Sec Src Std 090219C, Description: Sec Src Std 090219C

1st Func. Penta-Furans

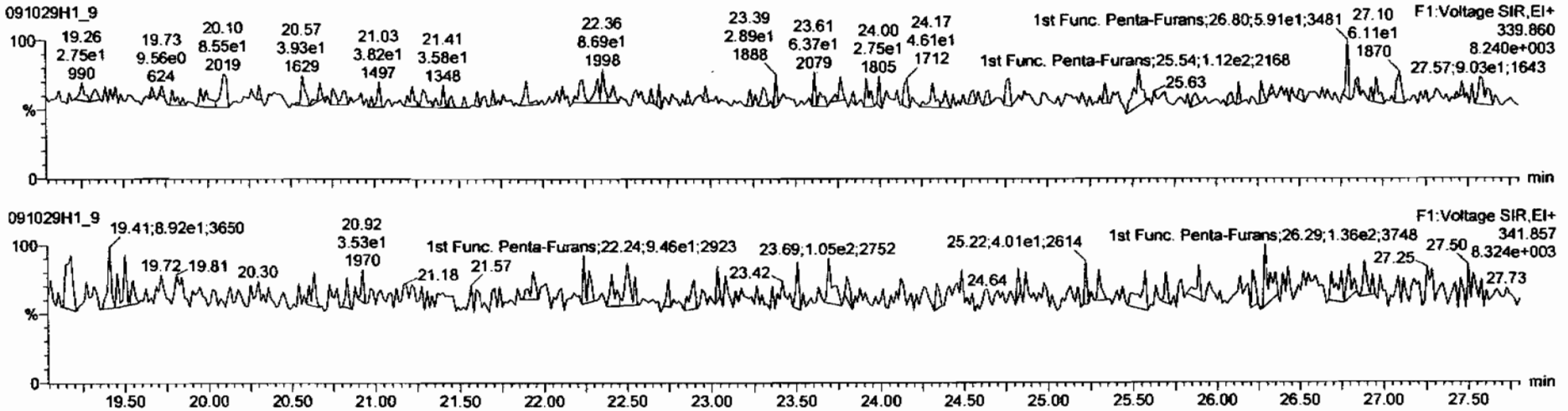

DPE6

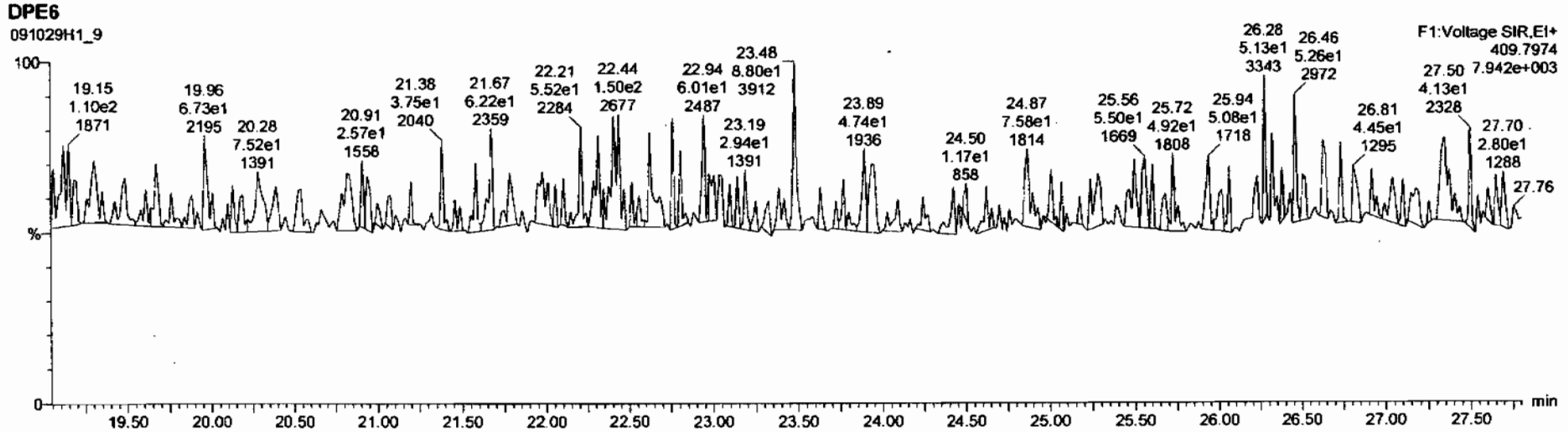

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Printed: Friday, October 30, 2009 08:55:22 Pacific Daylight Time

Name: 091029H1_9, Date: 29-Oct-2009, Time: 19:02:56, ID: SSS091029H1-1 Sec Src Std 090219C, Description: Sec Src Std 090219C

1,2,3,7,8-PeCDF

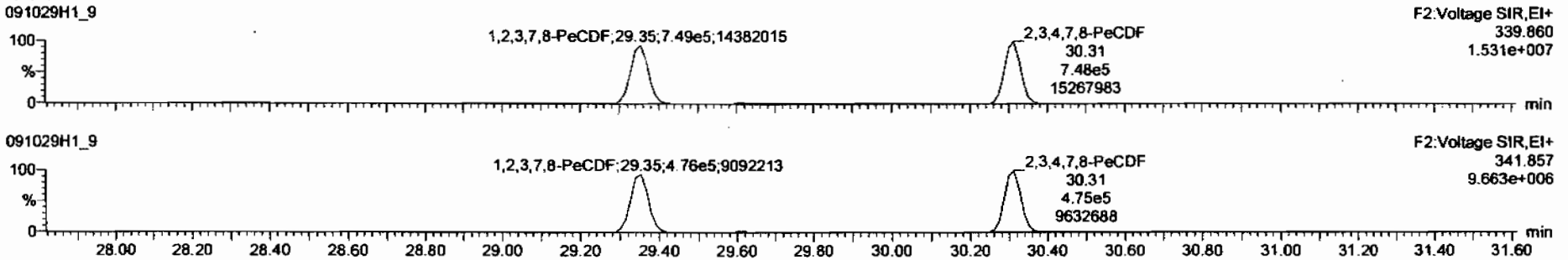

13C-1,2,3,7,8-PeCDF

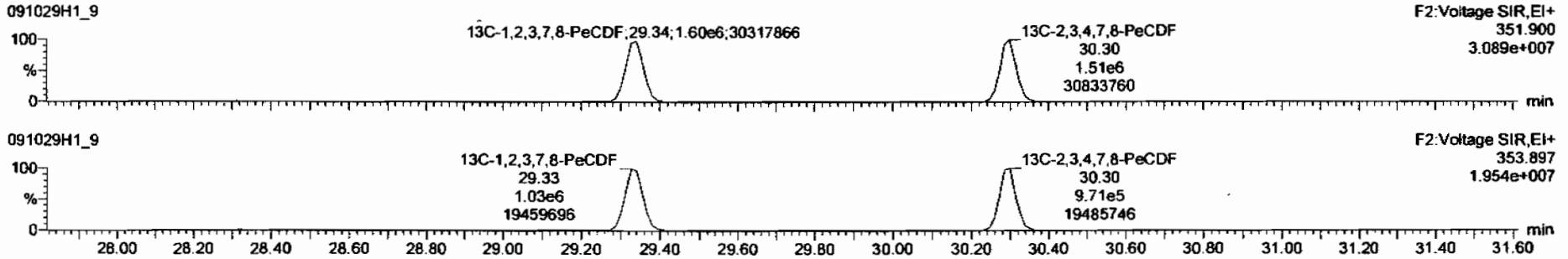

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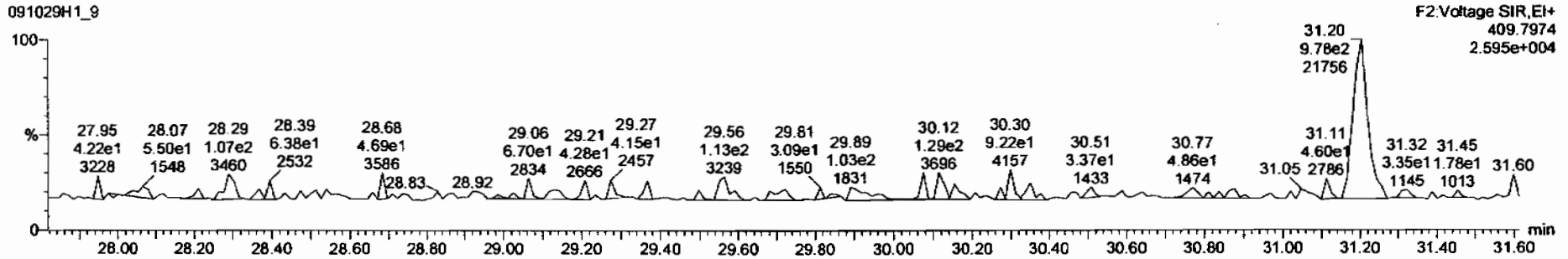

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Last Altered: Friday, October 30, 2009 08:54:03 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:55:22 Pacific Daylight Time

Name: 091029H1_9, Date: 29-Oct-2009, Time: 19:02:56, ID: SSS091029H1-1 Sec Src Std 090219C, Description: Sec Src Std 090219C

1,2,3,4,7,8-HxCDF

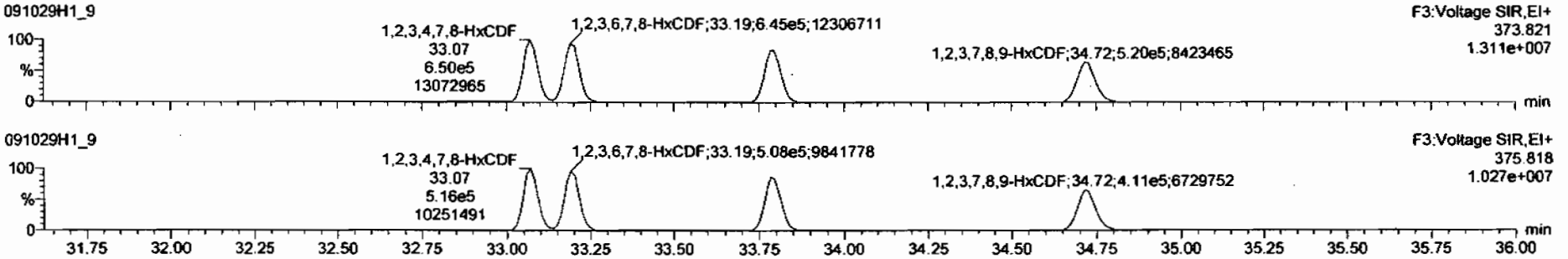

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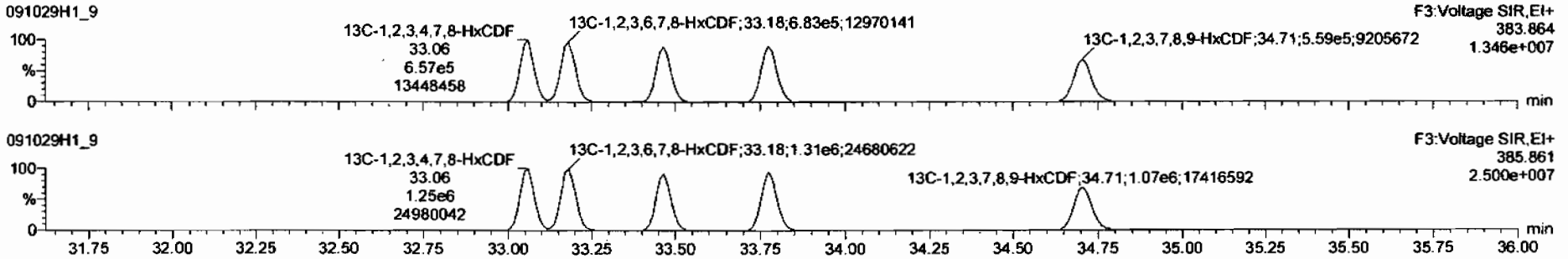

DPE3

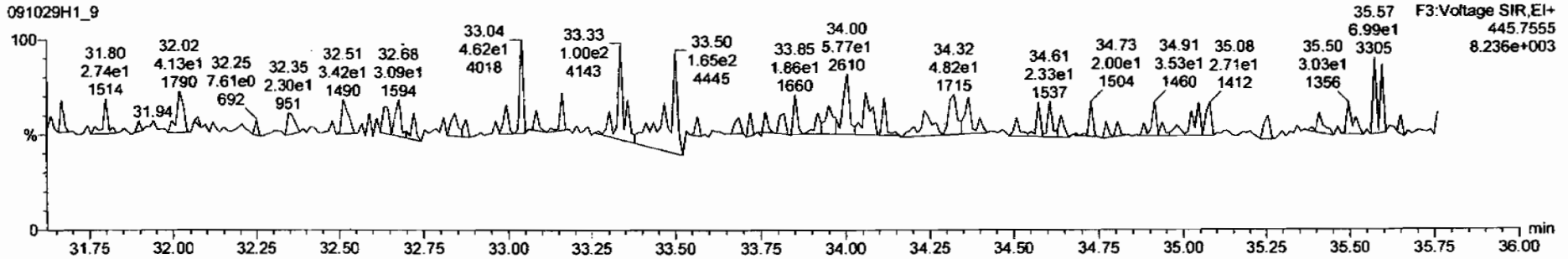

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Last Altered: Friday, October 30, 2009 08:54:03 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:55:22 Pacific Daylight Time

Name: 091029H1_9, Date: 29-Oct-2009, Time: 19:02:56, ID: SSS091029H1-1 Sec Src Std 090219C, Description: Sec Src Std 090219C

1,2,3,4,6,7,8-HpCDF

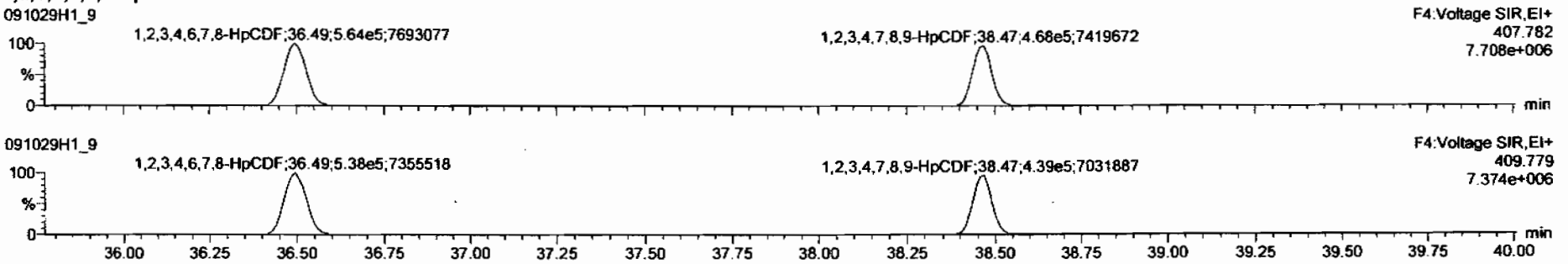

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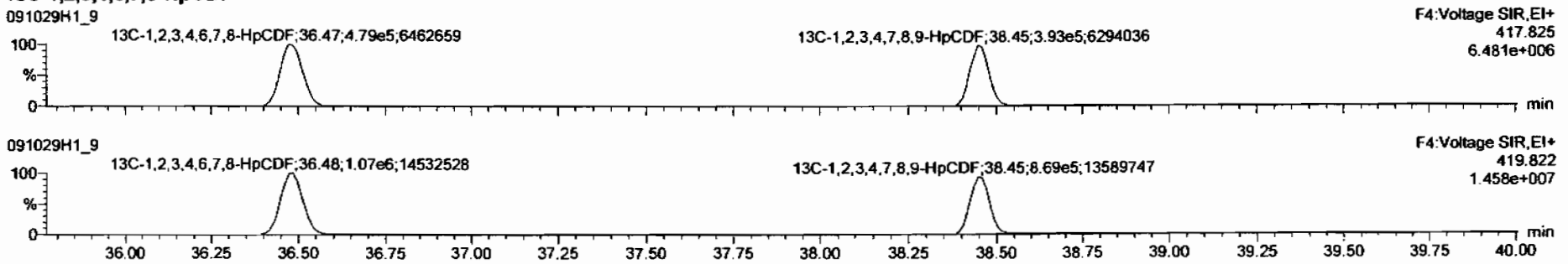

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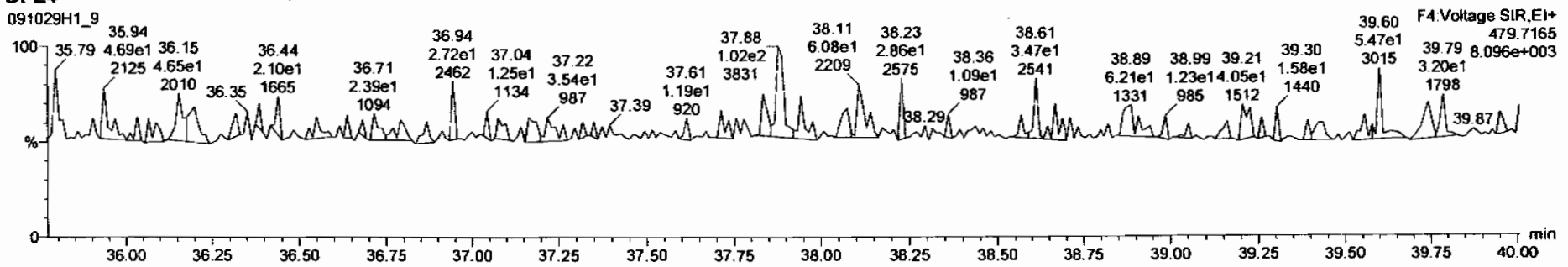

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Last Altered: Friday, October 30, 2009 08:54:03 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:55:22 Pacific Daylight Time

Name: 091029H1_9, Date: 29-Oct-2009, Time: 19:02:56, ID: SSS091029H1-1 Sec Src Std 090219C, Description: Sec Src Std 090219C

OCDF

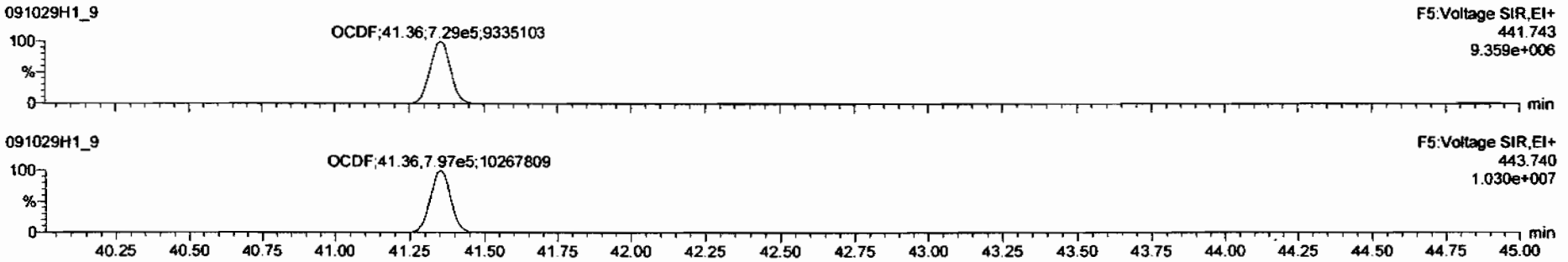

13C-OCDF

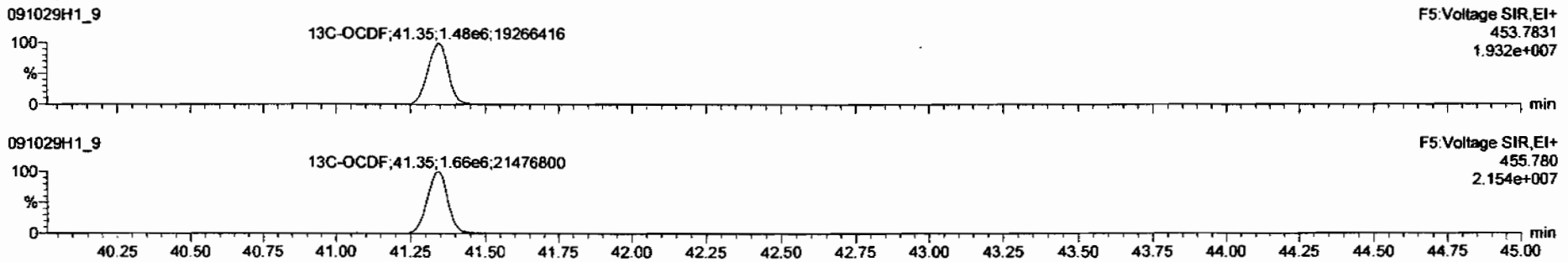

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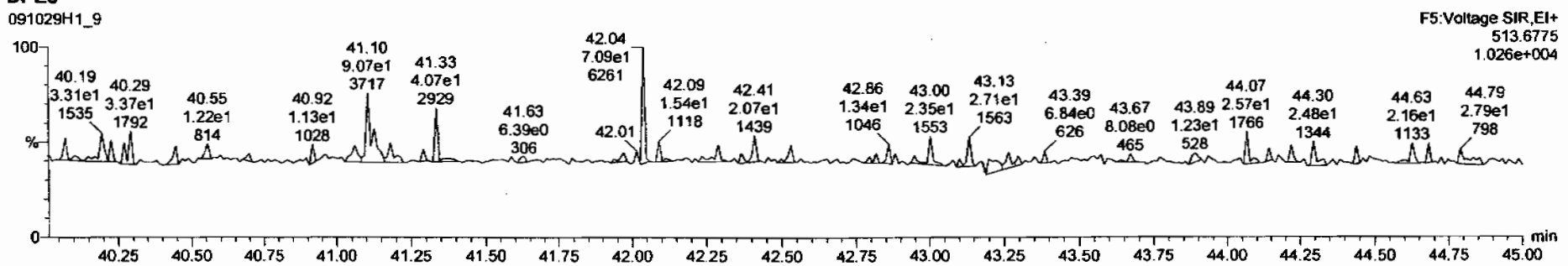

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Last Altered: Friday, October 30, 2009 08:54:03 Pacific Daylight Time
Printed: Friday, October 30, 2009 08:55:22 Pacific Daylight Time

Name: 091029H1_9, Date: 29-Oct-2009, Time: 19:02:56, ID: SSS091029H1-1 Sec Src Std 090219C, Description: Sec Src Std 090219C

PFK1

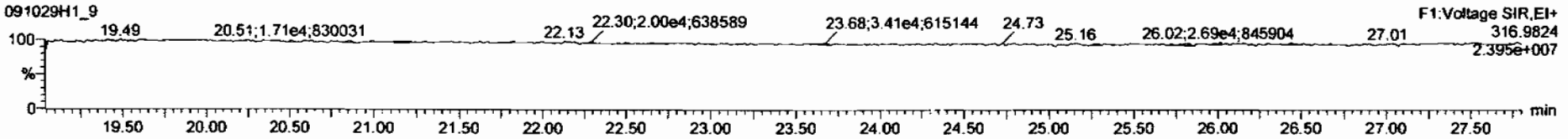

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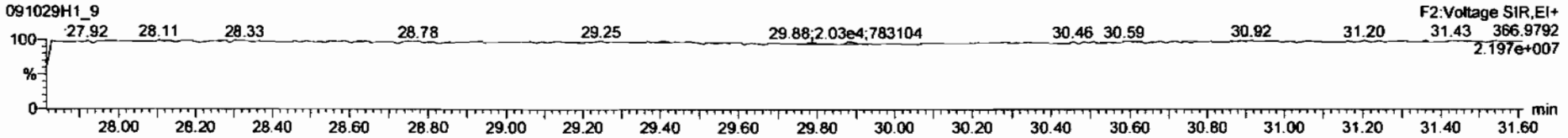

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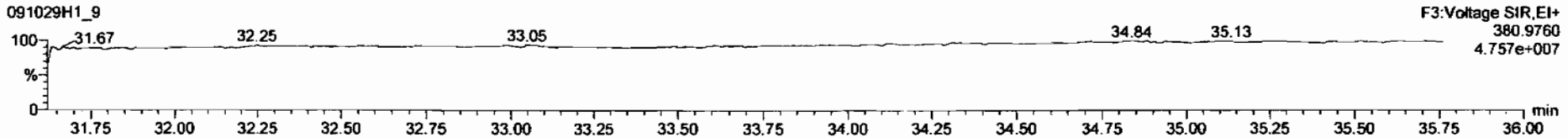

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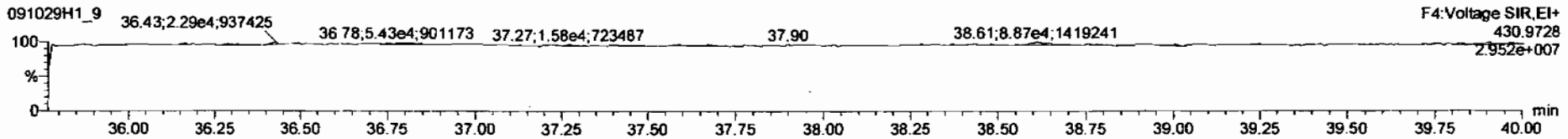

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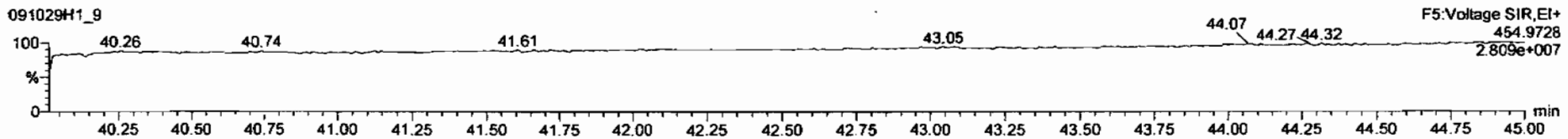

Friday, December 18, 2009

REQUEST NUMBER: 10-999

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Mike Franks

Severn Trent Laboraties, Inc., St. Louis

13715 Rider Trail N.

Earth City, MO 63045

These Samples are on:

LANL Request Number:10-999

Per Agreement Number:126310021

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/18/2009

TURNAROUND/REPORT DUE: 1/17/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8330	1	CAPA-10-6390	WG	12/17/2009	
		2	CAPA-10-6390	WG	12/17/2009	
		1	CAPA-10-6746	WG	12/17/2009	
		1	CAPA-10-6793	WG	12/17/2009	
		2	CAPA-10-6793	WG	12/17/2009	

Final Page of REQUEST NUMBER 10-999

Friday, December 18, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-999

REQUEST NUMBER: 10-999

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Mike Franks

Severn Trent Laboraties, Inc., St. Louis

13715 Rider Trail N.

Earth City, MO 63045

TURNAROUND/REPORT DUE: 1/17/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6390	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-6390	2	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-6746	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-6793	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-6793	2	AMBER GLASS	WSP-HEXMOD	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		12/18/09	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6390 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/17/09	MEDIA:	WGA	OK
TIME COLLECTED (HH:MM)		1312	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	BP	
LOCATION ID:	PCAO-5		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		

FIELD MATRIX: WG EXCAVATED: YES / NO / NA

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2 ~~3~~	as 12/17/09	WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
2 ~~3~~		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	
2 ~~3~~		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
2 ~~3~~		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	

SAMPLE DESC: NA

SAMPLE COMMENTS: 4th full suite sample.
Floaters in the filtered 40 mL and 500 mL; Also floaters in 500 mL unfiltered

LOCATION DESC: NA

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

Time	pH	T °C	Cond µS/cm	DO mg/L	Turb (NTU)	ORP mV	Q gpm
1301	8.00	11.08	701	0.28	1.04	3483	0.16

COLLECTED BY (PRINT) H. Wershow

REVIEWED BY (PRINT) W. Shaw

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) W. William Shaw (Signature)	12/17/09 1543	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/17/09 1543
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6793 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/17/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1257	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-38		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2	DW 12/17/09	WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
2	DW 12/17/09	WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH <2
2	DW 12/17/09	WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
2	DW 12/17/09	WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH >12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	pH <2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2
1		WSP-H-3	250 ML AMBER GLASS	Ice	Y	Analysis by direct count with 10-day turnaround.

SAMPLE DESC:

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH (SU)	Temp (°C)	SC (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mV)	Q (gpm)
~~7.38~~ 7.32	18.18	152	6.47	1.29	89.2	2.5

BW 12/17/09

COLLECTED BY (PRINT) J Berryhill, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/17/09	(Printed Name) Sherri Sherwood	12/17/09
(Signature) D. Woody	1430	(Signature) Sherri Sherwood	1430
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6746 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/17/2009	MEDIA:	WGA	OK
TIME COLLECTED (HH:MM)		1312	SUB-MEDIA:	UA	
PRS ID:	C-00-011		SAMPLE TECH CODE:	BP	
LOCATION ID:	PCAO-5		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		

FIELD MATRIX: WG **EXCAVATED:** YES / NO / NA

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:**

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 ~~5~~	ws 12/14/09	WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
1 ~~2~~		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	
1 ~~5~~		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
1 ~~2~~		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
1 ~~5~~		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
1 ~~2~~		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	

SAMPLE DESC: QC Sample of CAPA-10-6390

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

see CAPA-10-6390

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

See CAPA-10-6340

COLLECTED BY (PRINT) H. Vershow **REVIEWED BY (PRINT)** William Shaw

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) W. Williamshaw (Signature)	12/17/09 1543	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	12/17/09 1543
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

DATA VALIDATION COVER SHEET

5117-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-999 VALIDATION DATE: 02/11/10 LAB CODE: STSL

CONTRACT LABORATORY NAME: TestAmerica Laboratories, Inc. - St. Louis

VALIDATOR: Kevin A. Lambert ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☒ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN. Since MS/MSD analyses are not required for HE, no sample data were qualified.

Reviewed by: Allison Felix Level: 1 Date: 2/12/10

VALIDATOR'S SIGNATURE: Kevin A Lambert DATE: 02/11/10

HIGH EXPLOSIVE (HE) ANALYTICAL DATA VALIDATION CHECKLIST

5117-2

High Explosive (HE) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, H9	J-, H9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, H9a	J-, H9a
☐	☒	☐	3. The affected analytes are regarded as Rejected because the analytical holding time was exceeded.	R, H9b	R, H9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, H7	J, H7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multi-point calibration correlation coefficient is <0.995.	UJ, H7a	J, H7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method limits.	UJ, H7c	J, H7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, H7d	J, H7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, H7f	R, H7f
☐	☒	☐	9. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, H4	N/A
☐	☒	☐	10. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, H4a
☐	☐	☒	11. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, H4d	N/A
☐	☒	☐	12. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H4e	R, H4e

HIGH EXPLOSIVE (HE) ANALYTICAL DATA VALIDATION CHECKLIST	
5117-2 **High Explosive (HE) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, H0	J, H0
☐	☐	☒	14. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided (hexp – diode array detector).	N/A	J, H0a
☐	☒	☐	15. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H0b	R, H0b
☐	☒	☐	16. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, H3	J-, H3
☐	☒	☐	17. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, H3a	J-, H3a
☐	☒	☐	18. The surrogate %R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	N/A	J+, H3b
☐	☐	☒	19. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, H3c	J, H3c
☐	☒	☐	20. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H3d	R, H3d
☐	☒	☐	21. The LCS percent recover was <10%. Follow the external laboratory limits located within the associated data package.	R, H12	J-, H12
☐	☒	☐	22. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, H12a	J-, H12a

HIGH EXPLOSIVE (HE) ANALYTICAL DATA VALIDATION CHECKLIST

5117-2

High Explosive (HE) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, H12b
☐	☒	☐	24. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H12c	R, H12c
☐	☐	☒	25. The analyte was not confirmed on a second dissimilar column.	N/A	R, H8
☐	☐	☒	26. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H8a	R, H8a
☐	☒	☐	27. Duplicate, dilution, or reanalysis.	UJ, H88	J, H88
☐	☐	☒	28. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for cleanup or matrix interference.	UJ, R, H15	R, H15
☒	☐	☐	29. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, H19	J, R, H19

Los Alamos National Laboratory

Client Sample ID: CAPA-10-6390

HPLC

Lot-Sample #...: F9L190478-001 **Work Order #...:** LREE91AC **Matrix.....:** WATER
Date Sampled...: 12/17/09 **Date Received..:** 12/19/09
Prep Date.....: 12/22/09 **Analysis Date..:** 12/29/09
Prep Batch #...: 9356248 **Analysis Time..:** 13:15
Dilution Factor: 1

Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
MNX	ND	0.50	ug/L
DNX	ND	0.50	ug/L
TNX	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	73	(56 - 131)

KAL
02/11/10

Los Alamos National Laboratory

Client Sample ID: CAPA-10-6746

HPLC

Lot-Sample #...:	F9L190478-002	**Work Order #...:**	LREFD1AC	**Matrix.....:**	WATER
Date Sampled...:	12/17/09	**Date Received..:**	12/19/09		
Prep Date.....:	12/22/09	**Analysis Date..:**	12/29/09		
Prep Batch #...:	9356248	**Analysis Time..:**	13:29		
Dilution Factor:	1				
		Method.....:	SW846 8330		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
MNX	ND	0.50	ug/L
DNX	ND	0.50	ug/L
TNX	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	82	(56 - 131)

KAL
02/11/10

Los Alamos National Laboratory

Client Sample ID: CAPA-10-6793

HPLC

Lot-Sample #...:	F9L190478-003	**Work Order #...:**	LREFE1AC	**Matrix.....:**	WATER
Date Sampled...:	12/17/09	**Date Received..:**	12/19/09		
Prep Date.....:	12/22/09	**Analysis Date..:**	12/29/09		
Prep Batch #...:	9356248	**Analysis Time..:**	13:43		
Dilution Factor:	1				
		Method.....:	SW846 8330		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
MNX	ND	0.50	ug/L
DNX	ND	0.50	ug/L
TNX	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	78	(56 - 131)

KAL
02/11/10

Friday, December 18, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-999

REQUEST NUMBER: 10-999

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Mike Franks

Severn Trent Laboraties, Inc., St. Louis
13715 Rider Trail N.
Earth City, MO 63045

TURNAROUND/REPORT DUE: 1/17/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6390	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-6390	2	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-6746	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-6793	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-6793	2	AMBER GLASS	WSP-HEXMOD	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		12/18/09	1400	[illegible]		~~12.18.09~~ 12.19.09	8:20
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Friday, December 18, 2009

REQUEST NUMBER: 10-999

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Mike Franks
Severn Trent Laboraties, Inc., St. Louis
13715 Rider Trail N.
Earth City, MO 63045

These Samples are on:
LANL Request Number:10-999
Per Agreement Number:126310021
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/18/2009
TURNAROUND/REPORT DUE: 1/17/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8330	1	CAPA-10-6390	WG	12/17/2009	
		2	CAPA-10-6390	WG	12/17/2009	
		1	CAPA-10-6746	WG	12/17/2009	
		1	CAPA-10-6793	WG	12/17/2009	
		2	CAPA-10-6793	WG	12/17/2009	

Final Page of REQUEST NUMBER 10-999

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 10-999

Los Alamos RAD

Lot #: F9L190478

Joylene Valdez or Keith Greene

Los Alamos National Laboratory
SMO TA-00 Bldg 1237
DP: 03U; MS: 707
Los Alamos, NM 87545

TESTAMERICA LABORATORIES, INC.

Michael C. Franks
Project Manager

January 8, 2010

13715 Rider Trail North, Earth City, MO 63045, tel 314.298.8566, fax 314.298.8757, www.testamericainc.com

TABLE OF CONTENTS - LOT # F9L190478

COVER PAGE 1
CLIENT CHAIN OF CUSTODY 3
HPLC 16

TOTAL # OF PAGES IN PACKAGE 120

F9L190478

CLIENT ANALYSIS SUMMARY

Storage Loc: 2-72

Project Manager: MCF | Quote #: 75496 | SDG: F9L190478 ✓

Date Received: 2009-12-19

Project: 10-999 ✓ | Los Alamos RAD

Analytical Due Date: 2010-01-08 ✓

PO#: 37954-001-06 | Report to: Joylene Valdez or Keith

Report Due Date: 2010-01-12 ✓

Client: 108581 Los Alamos National Laboratory

Report Type: D ✓ Expanded Deliverable

#SMPS in LOT: 0 | EDD Code: 99

Sample Receiving: LOS ALAMOS CLIENT REQUIREMENTS Enter COC NUMBER in the COC Field; SDG = "Lot Number" Project Name = "Request number"

LOG QC AS DETAILED BELOW FOR EACH DEPT. EXCEPT RAD ********** METALS AND WETCHEMISTRY ********** Can batch multiple Lots together and report Client sp splits

Batch QC: Matrix Spike and Sample Duplicate Met Prep: GFAA Spike Level and Standard Spike Level Sb spike at 100 ppb

Pb - Spike Solids at 100 ppb, spike Waters at 20 - Perform analytical spike when matrix spike is swamped with indigenous analyte.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	I
1	CAPA-10-6390 ✓			2009-12-17 / 0 ✓	LREE9	WATER

SAMPLE COMMENTS:

	XX	A0	SW846 8330	WATER, 8330, HEXPMOD (MNX/DNX/TNX) ✓	20	EXTRACTION, SOLID PHASE	9Q	ORG FLAGS FOR INORG; STANDARD	PROT: O	WRK LOC	06
	XX	ZV	RAD SCREEN	WATER, RAD SCREEN ✓	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
D	XX	A0	SW846 8330	WATER, 8330, HEXPMOD (MNX/DNX/TNX) ✓	20	EXTRACTION, SOLID PHASE	9Q	ORG FLAGS FOR INORG; STANDARD	PROT: O	WRK LOC	06
S	XX	A0	SW846 8330	WATER, 8330, HEXPMOD (MNX/DNX/TNX) ✓	20	EXTRACTION, SOLID PHASE	9Q	ORG FLAGS FOR INORG; STANDARD	PROT: O	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	I
2	CAPA-10-6746 ✓			2009-12-17 / 0 ✓	LREFD	WATER

SAMPLE COMMENTS:

	XX	A0	SW846 8330	WATER, 8330, HEXPMOD (MNX/DNX/TNX) ✓	20	EXTRACTION, SOLID PHASE	9Q	ORG FLAGS FOR INORG; STANDARD	PROT: O	WRK LOC	06
	XX	ZV	RAD SCREEN	WATER, RAD SCREEN ✓	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	I
3	CAPA-10-6793 ✓			2009-12-17 / 0 ✓	LREFE	WATER

SAMPLE COMMENTS:

	XX	A0	SW846 8330	WATER, 8330, HEXPMOD (MNX/DNX/TNX) ✓	20	EXTRACTION, SOLID PHASE	9Q	ORG FLAGS FOR INORG; STANDARD	PROT: O	WRK LOC	06
	XX	ZV	RAD SCREEN	WATER, RAD SCREEN ✓	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06

Friday, December 18, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-999

REQUEST NUMBER: 10-999

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Mike Franks

Severn Trent Laboraties, Inc., St. Louis

13715 Rider Trail N.

Earth City, MO 63045

TURNAROUND/REPORT DUE: 1/17/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6390	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-6390	2	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-6746	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-6793	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-6793	2	AMBER GLASS	WSP-HEXMOD	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		12/18/09	1400	[illegible]		12.18.09	8:20
Printed Name	Signature			Printed Name	Signature	12.19.09	[illegible]
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Printed Name	Signature		

Friday, December 18, 2009

REQUEST NUMBER: 10-999

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Mike Franks
Severn Trent Laboraties, Inc., St. Louis
13715 Rider Trail N.
Earth City, MO 63045

These Samples are on:
LANL Request Number:10-999
Per Agreement Number:126310021
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/18/2009
TURNAROUND/REPORT DUE: 1/17/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8330	1	CAPA-10-6390	WG	12/17/2009	
		2	CAPA-10-6390	WG	12/17/2009	
		1	CAPA-10-6746	WG	12/17/2009	
		1	CAPA-10-6793	WG	12/17/2009	
		2	CAPA-10-6793	WG	12/17/2009	

Final Page of REQUEST NUMBER 10-999

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): F9L190478

CONDITION UPON RECEIPT FORM

Client: Los Alamos
Quote No: 75496
COC/RFA No: 10-999

445

Initiated By: [signature] Date: 12.19.09 Time: 8:20

Shipping Information

Shipper: FedEx UPS DHL Courier Client Other: _____ Multiple Packages: Y N

Shipping # (s):* 7209 7849 2987

Sample Temperature (s):**

1.	6.	1. 4	6.
2.	7.	2.	7.
3.	8.	3.	8.
4.	9.	4.	9.
5.	10.	5.	10.

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	Y N	Are there custody seals present on the cooler?	8.	Y N	Are there custody seals present on bottles?
2.	Y N N/A	Do custody seals on cooler appear to be tampered with?	9.	Y N N/A	Do custody seals on bottles appear to be tampered with?
3.	Y N	Were contents of cooler frisked after opening, but before unpacking?	10.	Y N N/A	Was sample received with proper pH[1]? (If not, make note below)
4.	Y N	Sample received with Chain of Custody?	11.	Y N	Sample received in proper containers?
5.	Y N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	Y N N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6.	Y N	Was sample received broken?	13.	Y N N/A	Was Internal COC/Workshare received?
7.	Y N	Is sample volume sufficient for analysis?	14.	Y N N/A	Was pH taken by original TestAmerica lab?

[1] For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:

Corrective Action:
☐ Client Contact Name: _____ Informed by: _____
☐ Sample(s) processed "as is"
☐ Sample(s) on hold until: _____ If released, notify: _____
Project Management Review: [signature] Date: 12-22-09

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004, REVISED 10/21/08 \\Slsvr01\QA\FORMS\ST-LOUIS\ADMIN\Admin004 rev11.doc

METHODS SUMMARY

F9L190478

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Nitroaromatics and Nitramines by HPLC	SW846 8330	SW846 3535

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

F9L190478

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LREE9	001	CAPA-10-6390	12/17/09	
LREFD	002	CAPA-10-6746	12/17/09	
LREFE	003	CAPA-10-6793	12/17/09	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

QC DATA ASSOCIATION SUMMARY

F9L190478

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	SW846 8330		9356248	9356137
002	WATER	SW846 8330		9356248	9356137
003	WATER	SW846 8330		9356248	9356137

Los Alamos National Laboratory

Client Sample ID: CAPA-10-6390

HPLC

Lot-Sample #...: F9L190478-001 **Work Order #...:** LREE91AC **Matrix.....:** WATER
Date Sampled...: 12/17/09 **Date Received..:** 12/19/09
Prep Date.....: 12/22/09 **Analysis Date..:** 12/29/09
Prep Batch #...: 9356248 **Analysis Time..:** 13:15
Dilution Factor: 1
Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
MNX	ND	0.50	ug/L
DNX	ND	0.50	ug/L
TNX	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	73	(56 - 131)

Los Alamos National Laboratory

Client Sample ID: CAPA-10-6746

HPLC

Lot-Sample #...: F9L190478-002 **Work Order #...:** LREFD1AC **Matrix.....:** WATER
Date Sampled...: 12/17/09 **Date Received..:** 12/19/09
Prep Date.....: 12/22/09 **Analysis Date..:** 12/29/09
Prep Batch #...: 9356248 **Analysis Time..:** 13:29
Dilution Factor: 1
Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
MNX	ND	0.50	ug/L
DNX	ND	0.50	ug/L
TNX	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	82	(56 - 131)

Los Alamos National Laboratory

Client Sample ID: CAPA-10-6793

HPLC

Lot-Sample #...: F9L190478-003 **Work Order #...:** LREFE1AC **Matrix.....:** WATER
Date Sampled...: 12/17/09 **Date Received..:** 12/19/09
Prep Date.....: 12/22/09 **Analysis Date..:** 12/29/09
Prep Batch #...: 9356248 **Analysis Time..:** 13:43
Dilution Factor: 1

Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
MNX	ND	0.50	ug/L
DNX	ND	0.50	ug/L
TNX	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	78	(56 - 131)

METHOD BLANK REPORT

HPLC

Client Lot #...: F9L190478 **Work Order #...:** LRGV91AA **Matrix.....:** WATER
MB Lot-Sample #: F9L220000-248
Prep Date.....: 12/22/09 **Analysis Time..:** 10:27
Analysis Date..: 12/29/09 **Prep Batch #...:** 9356248
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
MNX	ND	0.50	ug/L	SW846 8330
DNX	ND	0.50	ug/L	SW846 8330
TNX	ND	0.50	ug/L	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	63	(56 - 131)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: F9L190478 **Work Order #...:** LRGV91AC **Matrix.....:** WATER
LCS Lot-Sample#: F9L220000-248
Prep Date.....: 12/22/09 **Analysis Date..:** 12/29/09
Prep Batch #...: 9356248 **Analysis Time..:** 10:41
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
TNX	**72**	**(40 - 104)**	**SW846 8330**
MNX	**72**	**(49 - 115)**	**SW846 8330**
DNX	**72**	**(53 - 107)**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	73	(59 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: F9L190478 **Work Order #...:** LRCRQ1AD-MS **Matrix.....:** WATER
MS Lot-Sample #: F9L180535-001 LRCRQ1AE-MSD
Date Sampled...: 12/16/09 **Date Received..:** 12/18/09
Prep Date.....: 12/22/09 **Analysis Date..:** 12/29/09
Prep Batch #...: 9356248 **Analysis Time..:** 11:51
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
MNX	**84**	**(25 - 150)**			**SW846 8330**
	90	**(25 - 150)**	**5.1**	**(0-20)**	**SW846 8330**
DNX	**79**	**(27 - 150)**			**SW846 8330**
	84	**(27 - 150)**	**5.5**	**(0-20)**	**SW846 8330**
TNX	**82**	**(27 - 131)**			**SW846 8330**
	89	**(27 - 131)**	**6.8**	**(0-30)**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	86	(56 - 131)
	88	(56 - 131)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

HPLC SAMPLE AND QC DATA

Form I (s)

Explosives

Los Alamos National Laboratory

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F9L190478

Matrix: (soil/water) WATER Lab Sample ID:F9L180535 001
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 510.6 / mL Date Received: 12/18/09
Work Order: LRCRQ1AC Date Extracted:12/22/09
Dilution factor: 1 Date Analyzed: 12/29/09
Moisture %:NA

QC Batch: 9356248

Client Sample Id: INTRA-LAB QC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.50	U
80251-29-2	DNX	0.50	U
13980-04-6	TNX	0.50	U

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	83	(56 - 131)

FORM I

Los Alamos National Laboratory

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F9L190478

Matrix: (soil/water) WATER Lab Sample ID:F9L190478 001
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 507.9 / mL Date Received: 12/19/09
Work Order: LREE91AC Date Extracted:12/22/09
Dilution factor: 1 Date Analyzed: 12/29/09
Moisture %:NA

QC Batch: 9356248

Client Sample Id: CAPA-10-6390

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.50	U
80251-29-2	DNX	0.50	U
13980-04-6	TNX	0.50	U

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	73	(56 - 131)

FORM I

Los Alamos National Laboratory

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F9L190478

Matrix: (soil/water) WATER Lab Sample ID:F9L190478 002
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 510.4 / mL Date Received: 12/19/09
Work Order: LREFD1AC Date Extracted:12/22/09
Dilution factor: 1 Date Analyzed: 12/29/09
Moisture %:NA

QC Batch: 9356248

Client Sample Id: CAPA-10-6746

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.50	U
80251-29-2	DNX	0.50	U
13980-04-6	TNX	0.50	U

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	82	(56 - 131)

FORM I

Los Alamos National Laboratory

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F9L190478

Matrix: (soil/water) WATER Lab Sample ID:F9L190478 003
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 505.6 / mL Date Received: 12/19/09
Work Order: LREFE1AC Date Extracted:12/22/09
Dilution factor: 1 Date Analyzed: 12/29/09
Moisture %:NA

QC Batch: 9356248

Client Sample Id: CAPA-10-6793

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.50	U
80251-29-2	DNX	0.50	U
13980-04-6	TNX	0.50	U

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	78	(56 - 131)

FORM I

Los Alamos National Laboratory
METHOD BLANK COMPOUNDS

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F9L190478

Matrix: (soil/water) WATER Lab Sample ID:F9L220000 248
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 500 / mL Date Received: 12/11/09
Work Order: LRGV91AA Date Extracted:12/22/09
Dilution factor: 1 Date Analyzed: 12/29/09
Moisture %:NA

QC Batch: 9356248

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.50	U
80251-29-2	DNX	0.50	U
13980-04-6	TNX	0.50	U

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	63	(56 - 131)

FORM I

Los Alamos National Laboratory
CHECK SAMPLE COMPOUNDS

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F9L190478

Matrix: (soil/water) WATER Lab Sample ID:F9L220000 248
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 500 / mL Date Received: 12/11/09
Work Order: LRGV91AC Date Extracted:12/22/09
Dilution factor: 1 Date Analyzed: 12/29/09
Moisture %:NA

QC Batch: 9356248

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.526	
80251-29-2	DNX	0.415	
13980-04-6	TNX	0.599	

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	73	(59 - 140)

FORM I

Los Alamos National Laboratory
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F9L190478

Matrix: (soil/water) WATER Lab Sample ID:F9L180535 001
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 514 / mL Date Received: 12/18/09
Work Order: LRCRQ1AE Date Extracted:12/22/09
Dilution factor: 1 Date Analyzed: 12/29/09
Moisture %:NA
QC Batch: 9356248

Client Sample Id: LAB MS/MSD

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.638	
80251-29-2	DNX	0.474	
13980-04-6	TNX	0.716	

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	88	(56 - 131)

FORM I

Los Alamos National Laboratory
MATRIX SPIKE COMPOUNDS

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F9L190478

Matrix: (soil/water) WATER Lab Sample ID:F9L180535 001
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 507.9 / mL Date Received: 12/18/09
Work Order: LRCRQ1AD Date Extracted:12/22/09
Dilution factor: 1 Date Analyzed: 12/29/09
Moisture %:NA

QC Batch: 9356248

Client Sample Id: LAB MS/MSD

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.606	
80251-29-2	DNX	0.449	
13980-04-6	TNX	0.668	

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	86	(56 - 131)

FORM I

HPLC ADDITIONAL FORMS

SW846 8330 SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Los Alamos National Laboratory

Lab Code: TALSTL SDG No: F9L190478

Lot #: F9L190478

Extraction: XXI20A09Q

	CLIENT ID.	SRG01	TOT OUT
01	INTRA-LAB QC	83	00
02	CAPA-10-6390	73	00
03	CAPA-10-6746	82	00
04	CAPA-10-6793	78	00
05	METHOD BLK. LRGV91AA	63	00
06	LCS LRGV91AC	73	00
07	LAB MS/MSD D	88	00
08	LAB MS/MSD S	86	00

SURROGATES		QC LIMITS
SRG01	= 1,2-Dinitrobenzene	(56-131)

\# Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8330 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Los Alamos National Laboratory

Lab Code: TALSTL SDG No: F9L190478

Matrix Spike ID: LAB MS/MSD

Lot #: F9L180535 WO #: LRCRQ1AD
BATCH: 9356248

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	MS CONCENT. (ug/L)	MS % REC	LIMITS REC	QUAL
MNX	0.718	ND	0.606	84	25- 150	
DNX	0.571	ND	0.449	79	27- 150	
TNX	0.817	ND	0.668	82	27- 131	

NOTES(S):

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 3 outside limits

COMMENTS:

FORM III

SW846 8330 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Los Alamos National Laboratory

Lab Code: TALSTL SDG No: F9L190478

Matrix Spike ID: LAB MS/MSD

Lot #: F9L180535 WO #: LRCRQ1AE
BATCH: 9356248

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENT. (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
MNX	0.710	0.638	90	5.1	20	25- 150	
DNX	0.564	0.474	84	5.5	20	27- 150	
TNX	0.807	0.716	89	6.8	30	27- 131	

NOTES(S):

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 3 outside limits
Spike Recovery: 0 out of 3 outside limits

COMMENTS:

FORM III

SW846 8330 CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Los Alamos National Laboratory

Lab Code: TALSTL SDG No: F9L190478

Lot #: F9L220000 WO #: LRGV91AC
BATCH: 9356248

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
TNX	0.830	0.599	72	40- 104	
MNX	0.730	0.526	72	49- 115	
DNX	0.580	0.415	72	53- 107	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 3 outside limits

COMMENTS:

FORM III

BLANK WORKORDER NO.

LRGV91AA

SW846 8330 METHOD BLANK SUMMARY

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALSTL

SDG Number:F9L190478

Lab File ID: NBLK1775

Lot Number: F9L190478

Date Analyzed: 12/29/09

Time Analyzed: 10:27

Matrix: WATER

Date Extracted:12/22/09

GC Column: C-18 ID: 4.60

Extraction Method: 3535

Instrument ID: LCN

Level:(low/med)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	INTRA-LAB QC	LRCRQ1AC	NSMP1780	12/29/09	11:37
02	LAB MS/MSD	LRCRQ1AD S	NSMP1781	12/29/09	11:51
03	LAB MS/MSD	LRCRQ1AE D	NSMP1782	12/29/09	12:05
04	CAPA-10-6390	LREE91AC	NSMP1787	12/29/09	13:15
05	CAPA-10-6746	LREFD1AC	NSMP1788	12/29/09	13:29
06	CAPA-10-6793	LREFE1AC	NSMP1789	12/29/09	13:43
07	CHECK SAMPLE	LRGV91AC C	NLCS1776	12/29/09	10:41
08					
09					
10					
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25					
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27					
28					
29					
30					

COMMENTS:

FORM IV

HPLC STANDARDS DATA

INITIAL CALIBRATION DATA

CALIBRATION VERIFICATION DATA

Report Date : 02-Dec-2009 13:00

TestAmerica St. Louis

INITIAL CALIBRATION DATA

Start Cal Date : 25-NOV-2009 10:16
End Cal Date : 25-NOV-2009 11:26
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Last Edit : 01-Dec-2009 11:37 hanw
Curve Type : Average

Calibration File Names:
Level 3: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1314.D
Level 4: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1315.D
Level 5: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1316.D
Level 6: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1317.D
Level 7: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1318.D
Level 8: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1319.D

Compound	25.000 Level 3	50.000 Level 4	125.000 Level 5	250.000 Level 6	500.000 Level 7	1000.000 Level 8	$\overline{RRF}$	% RSD
1 TNX	598	625	647	678	664	670	647	4.705
2 DNX	690	619	613	637	608	613	630	4.970
3 MNX	522	500	474	499	481	484	493	3.537
$ 4 1,2-Dinitrobenzene	535	519	510	520	510	512	518	1.844

Report Date : 02-Dec-2009 15:37

TestAmerica St. Louis

COMPOUND LISTING

Method file : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Quant Method : ESTD Target Version : 4.14
Last Update : 01-Dec-2009 11:37 Number of Cpnds : 4
Data Type : LC DATA

Global Integrator : HP Genie

Chromat Events	Values
Initial:Thresh Units	5.000000
Initial:Peak Width	0.100000
Initial:Area Reject	20.000000
Initial:Solvent Slope	100000.000000
Initial:Split Solvent	2000.000000

	Compound	RT	RT Window	RF
	1 TNX	3.838	3.738-3.938	6.47e+002
	2 DNX	4.324	4.224-4.424	6.30e+002
	3 MNX	5.239	5.139-5.339	4.93e+002
$	4 1,2-Dinitrobenzene	8.707	8.607-8.807	5.18e+002

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1314.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1314.D
Lab Smp Id: 8330 ICAL-3 Client Smp ID: 8330 ICAL-3
Inj Date : 25-NOV-2009 10:16
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-3
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.860	3.837	0.023	12042	20.1213	18.61
2 DNX	4.360	4.324	0.036	9507	13.7700	15.09(M)
3 MNX	4.360	5.239	-0.879	9507	18.1975	19.26(M)
$ 4 1,2-Dinitrobenzene	8.833	8.706	0.127	13376	25.0000	25.84(M)

QC Flag Legend

M - Compound response manually integrated.

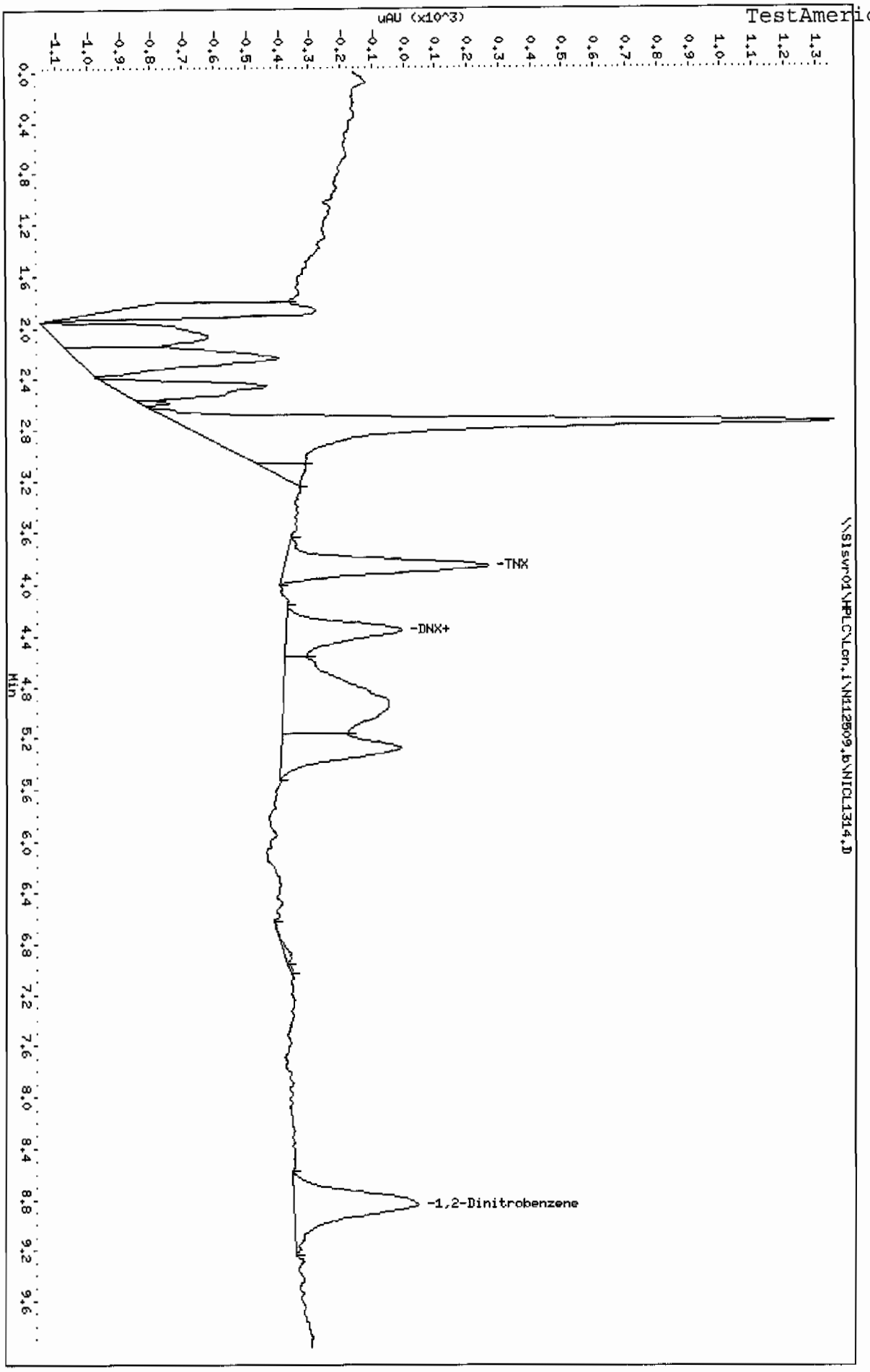
Data File: \\Slsvr01\HPLC\Lcn,i\N112509,b\NICL1314.D
Date : 25-NOV-2009 10:16
Client ID: 8330 ICAL-3
Sample Info: 8330 ICAL-3
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn,i
Operator: WH
Column diameter: 4.60
\\Slsvr01\HPLC\Lcn,i\N112509,b\NICL1314.D
uAU (x10^3)
-TNX
-DNX+
-1,2-Dinitrobenzene
Min

Data File Name: NICL1314.D
Inj. Date and Time: 25-NOV-2009 10:16
Instrument ID: Lcn.i
Client ID: 8330 ICAL-3
Compound Name: DNX
CAS #:

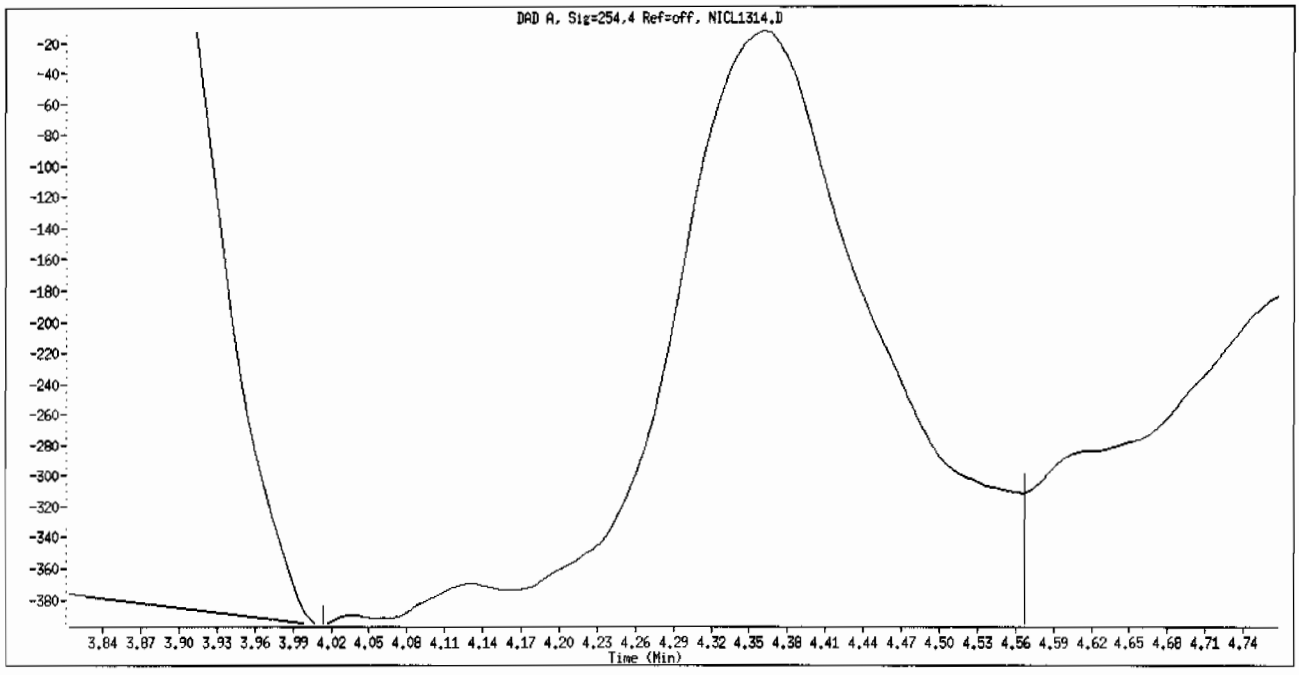

Original Integration

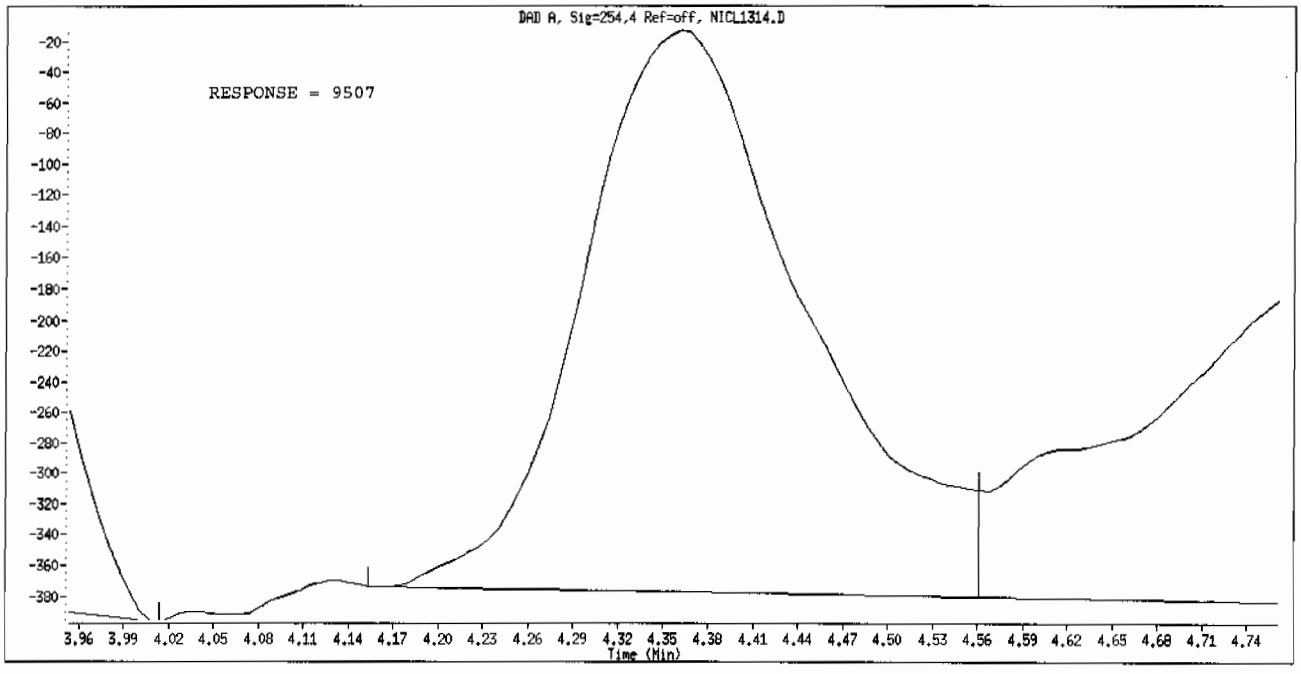

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1314.D
Inj. Date and Time: 25-NOV-2009 10:16
Instrument ID: Lcn.i
Client ID: 8330 ICAL-3
Compound Name: MNX
CAS #:

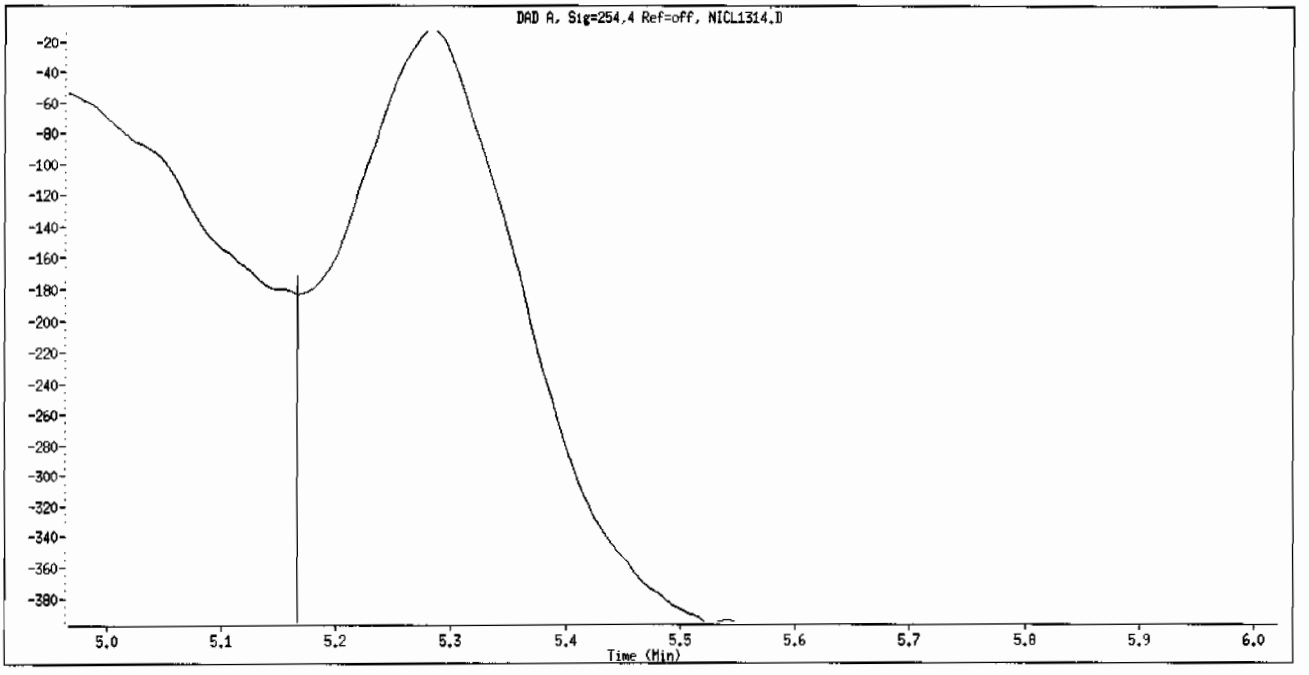

Original Integration

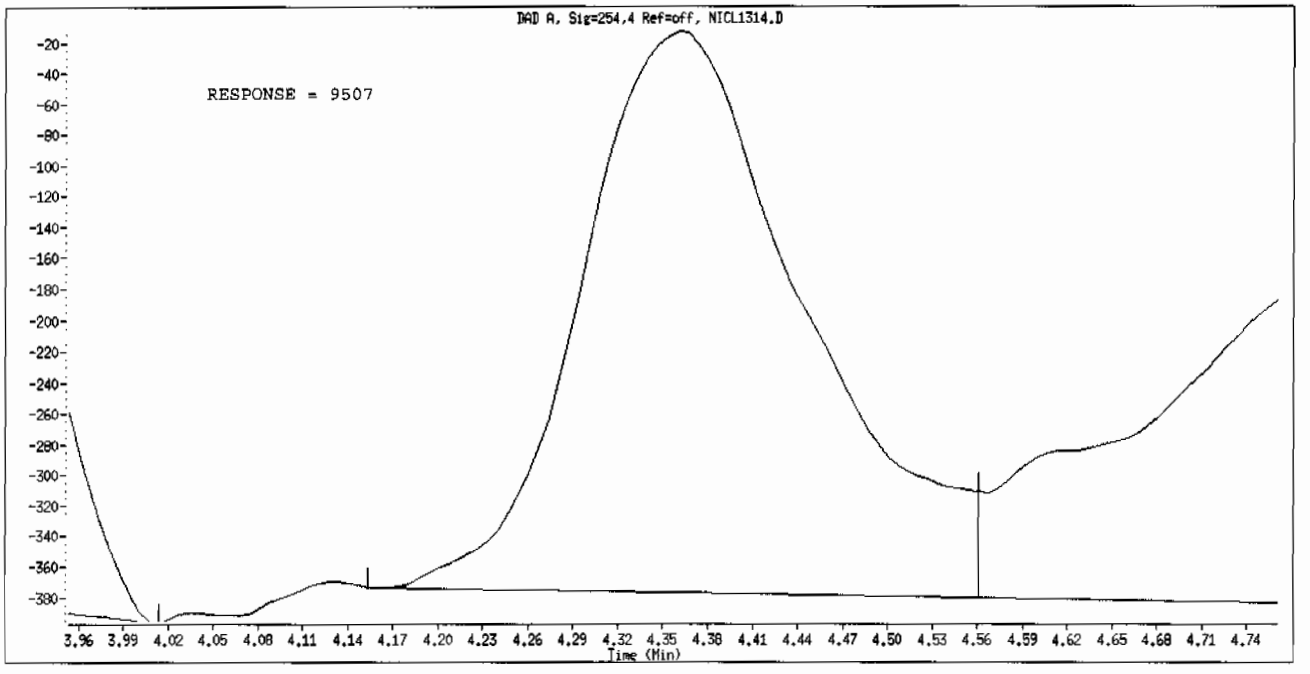

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1314.D
Inj. Date and Time: 25-NOV-2009 10:16
Instrument ID: Lcn.i
Client ID: 8330 ICAL-3
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

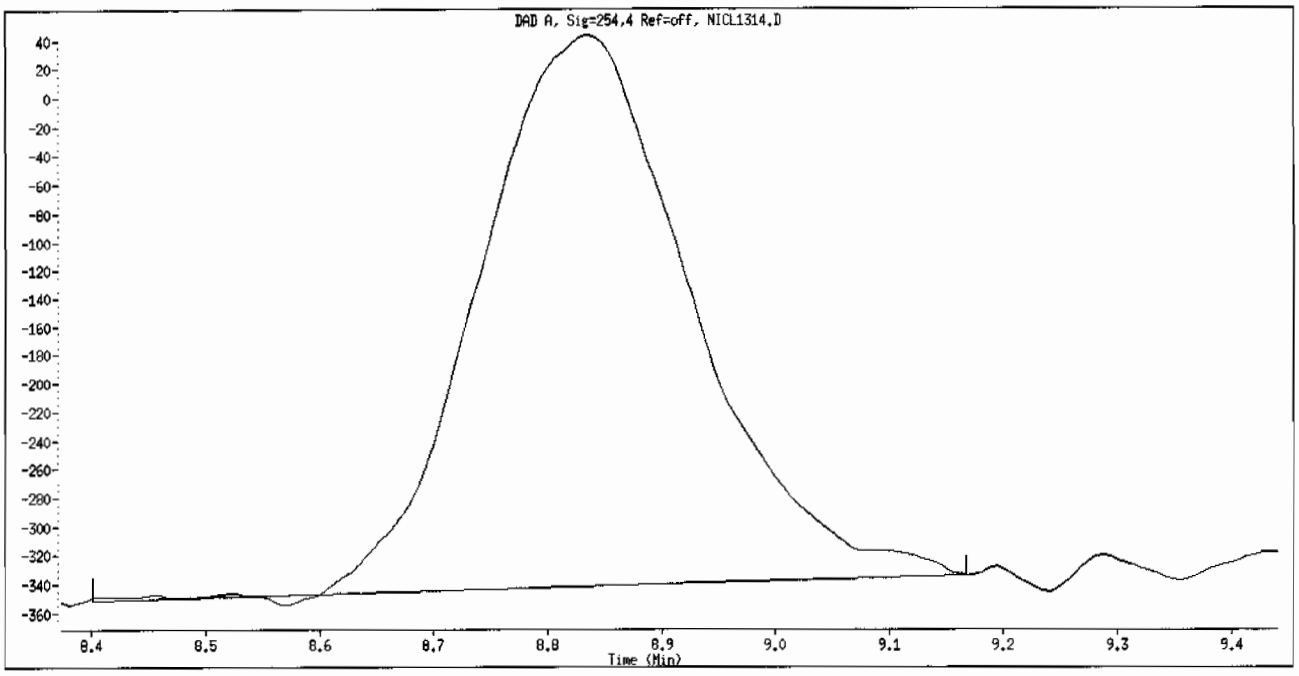

Original Integration

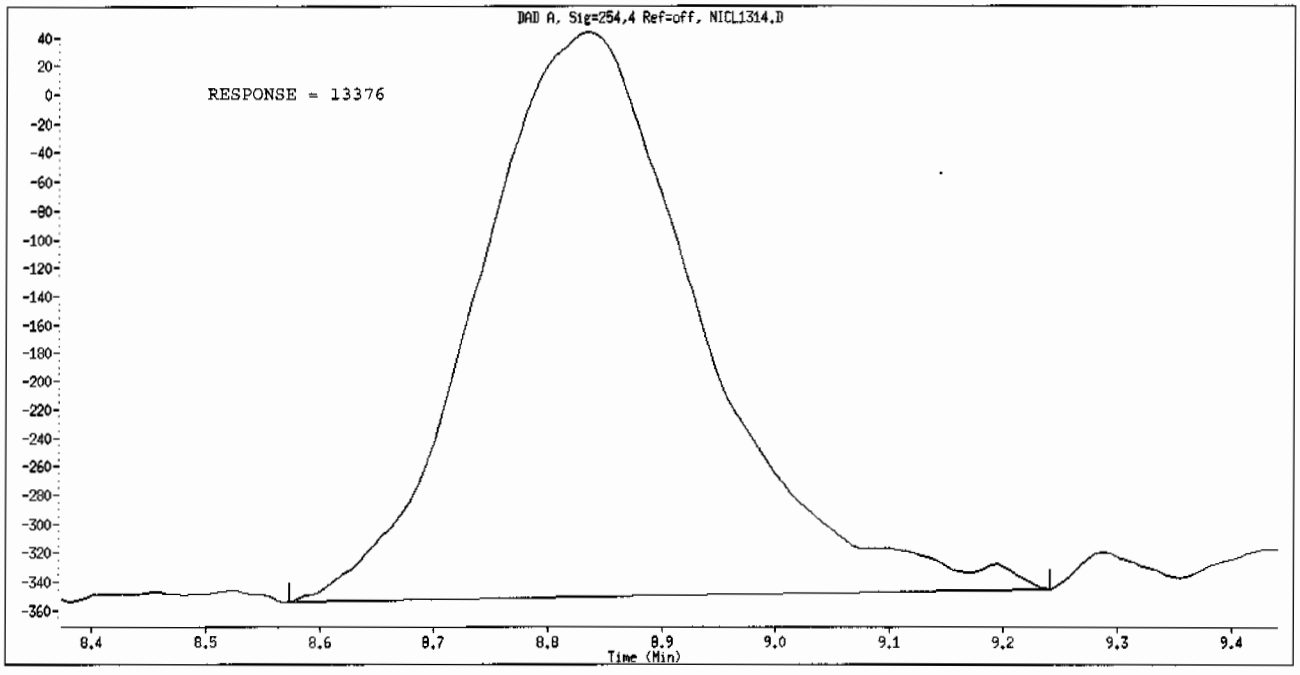

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1315.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1315.D
Lab Smp Id: 8330 ICAL-4 Client Smp ID: 8330 ICAL-4
Inj Date : 25-NOV-2009 10:30
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-4
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.832	3.837	-0.005	25142	40.2425	38.86(M)
2 DNX	4.319	4.324	-0.005	17047	27.5400	27.06(M)
3 MNX	5.232	5.239	-0.007	18212	36.3950	36.90(M)
$ 4 1,2-Dinitrobenzene	8.692	8.706	-0.014	25936	50.0000	50.09(M)

QC Flag Legend

M - Compound response manually integrated.

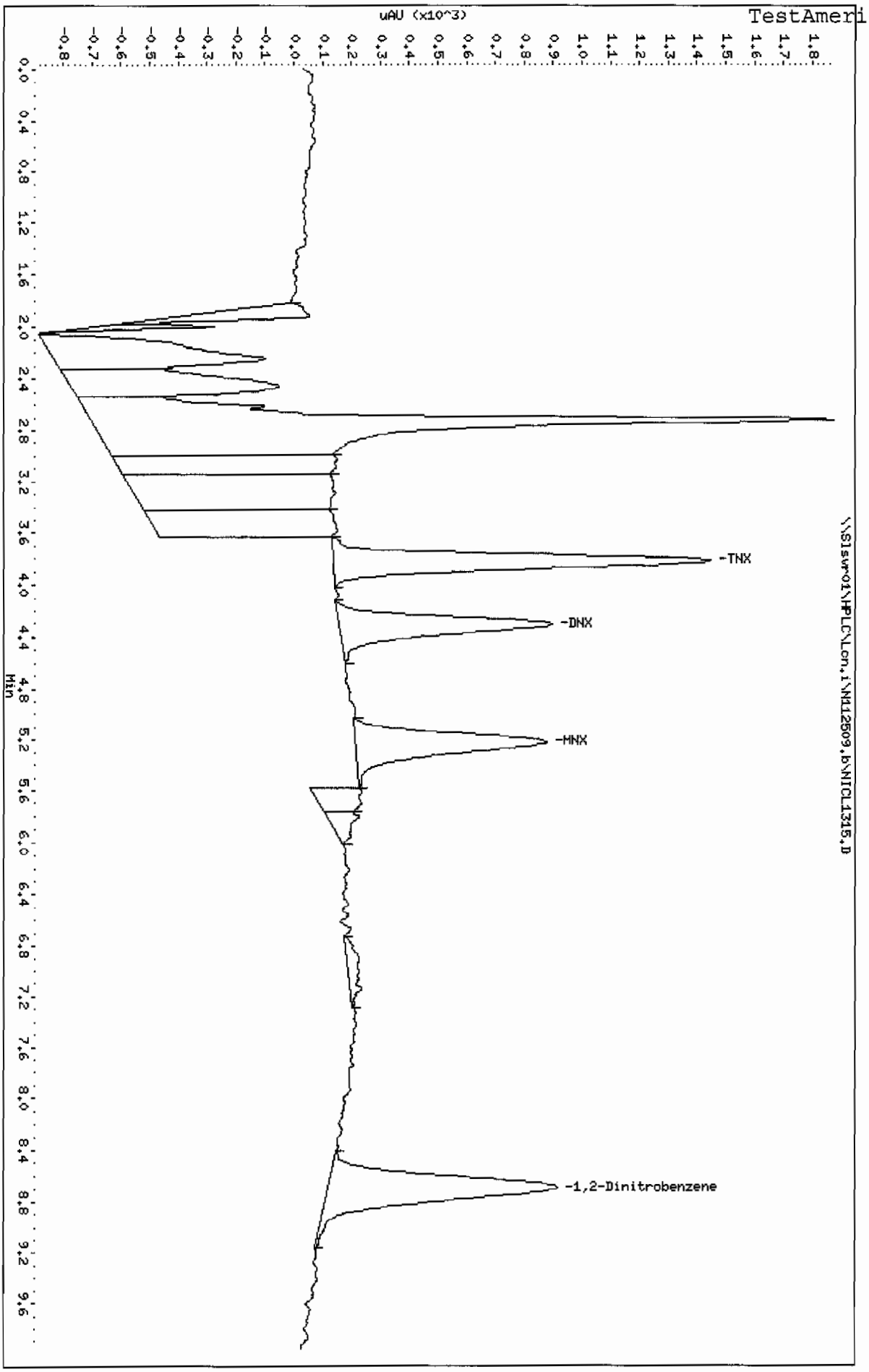
Data File: \\Slsvr01\HPLC\Lon,i\N112509,b\NICL1315.D
Date : 25-NOV-2009 10:30
Client ID: 8330 ICAL-4
Sample Info: 8330 ICAL-4
Purge Volume: 500.0
Column phase: C18
Instrument: Lon,i
Operator: WH
Column diameter: 4.60
\\Slsvr01\HPLC\Lon,i\N112509,b\NICL1315.D
uAU (x10^3)
-TNX
-DNX
-MNX
-1,2-Dinitrobenzene
Min

Data File Name: NICL1315.D
Inj. Date and Time: 25-NOV-2009 10:30
Instrument ID: Lcn.i
Client ID: 8330 ICAL-4
Compound Name: TNX
CAS #:

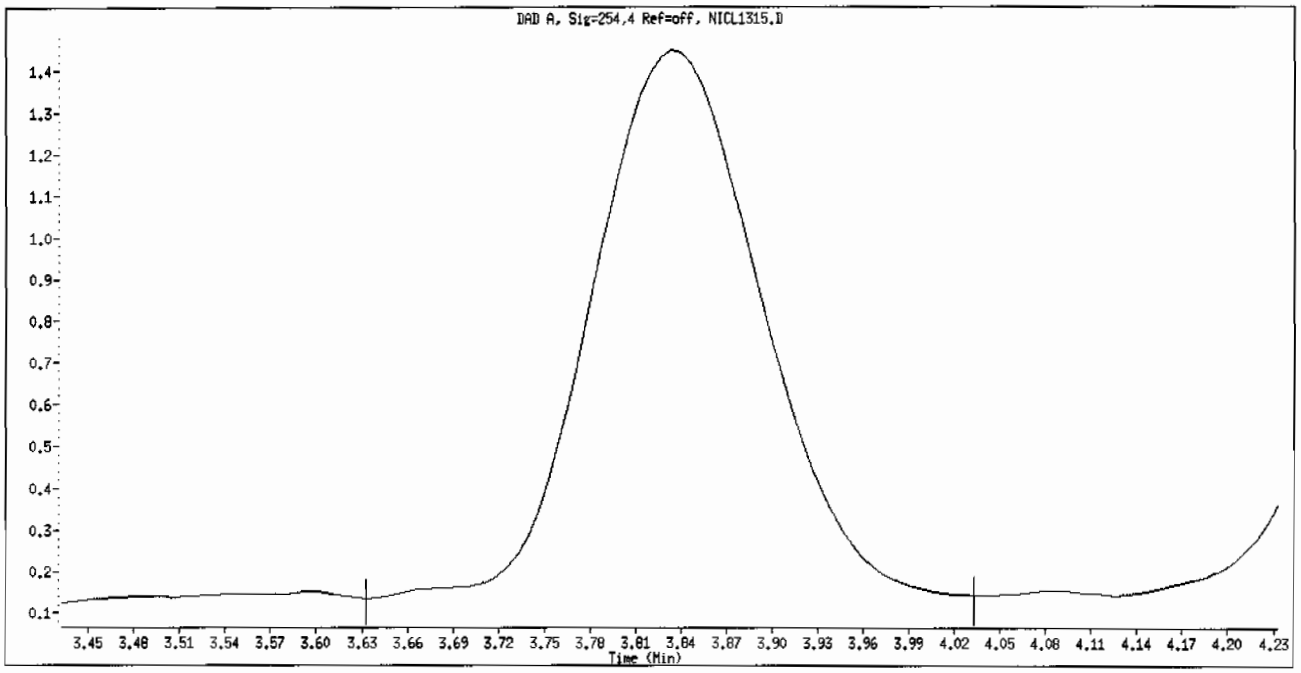

Original Integration

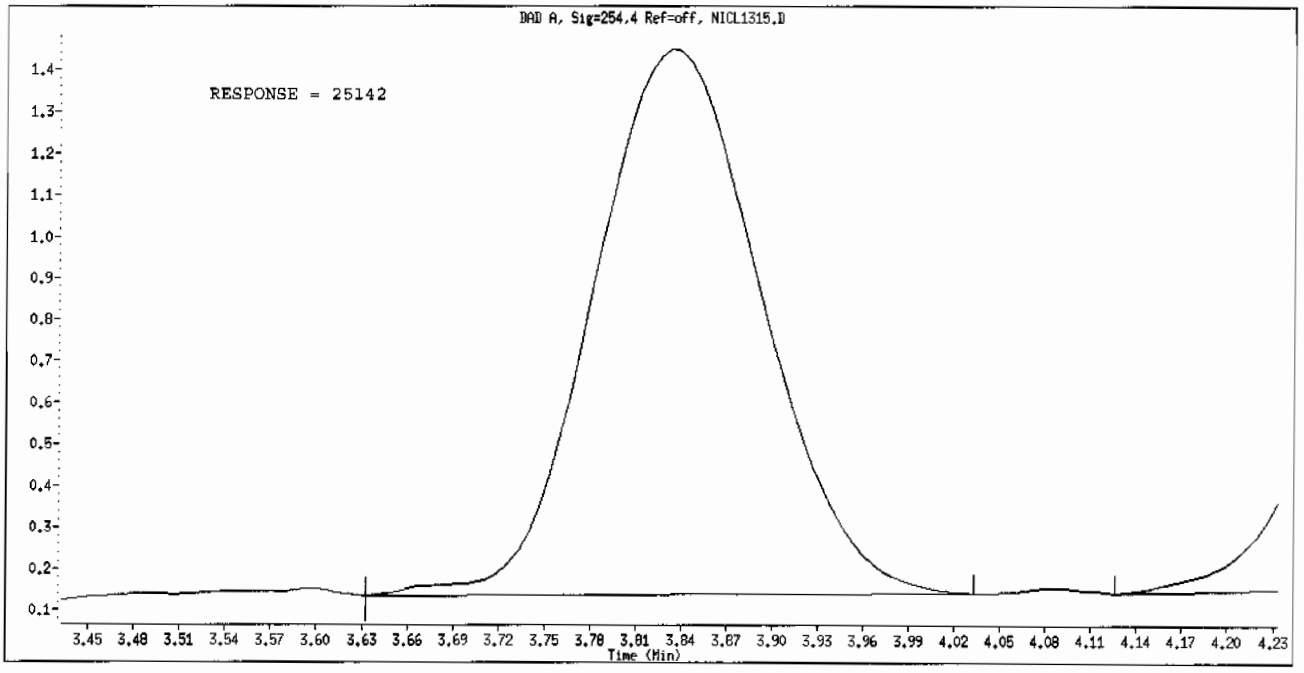

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1315.D
Inj. Date and Time: 25-NOV-2009 10:30
Instrument ID: Lcn.i
Client ID: 8330 ICAL-4
Compound Name: DNX
CAS #:

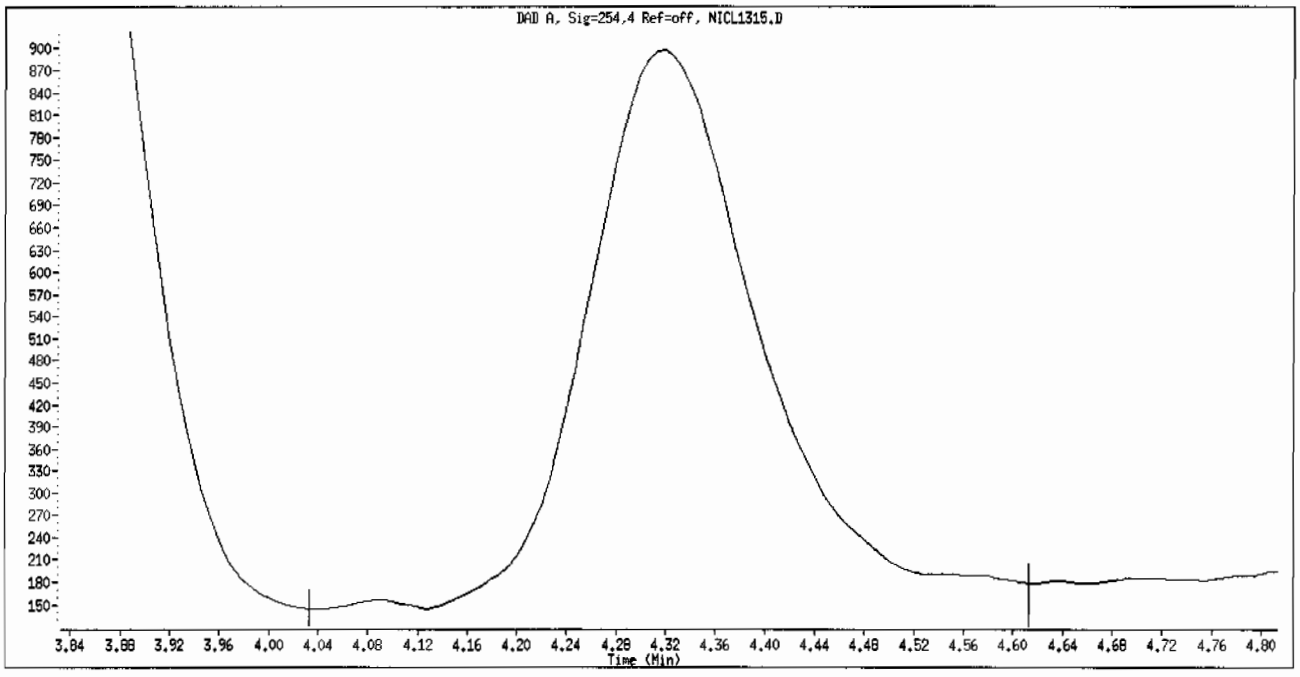

Original Integration

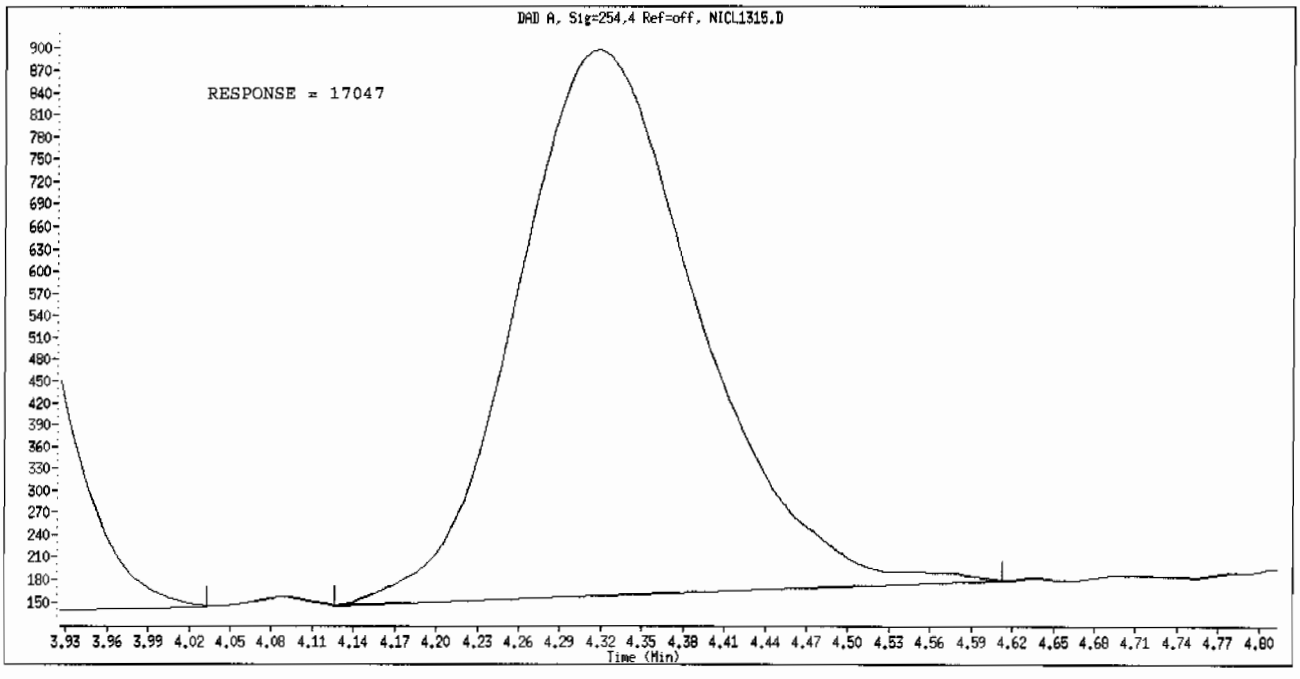

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1315.D

Inj. Date and Time: 25-NOV-2009 10:30

Instrument ID: Lcn.i

Client ID: 8330 ICAL-4

Compound Name: MNX

CAS #:

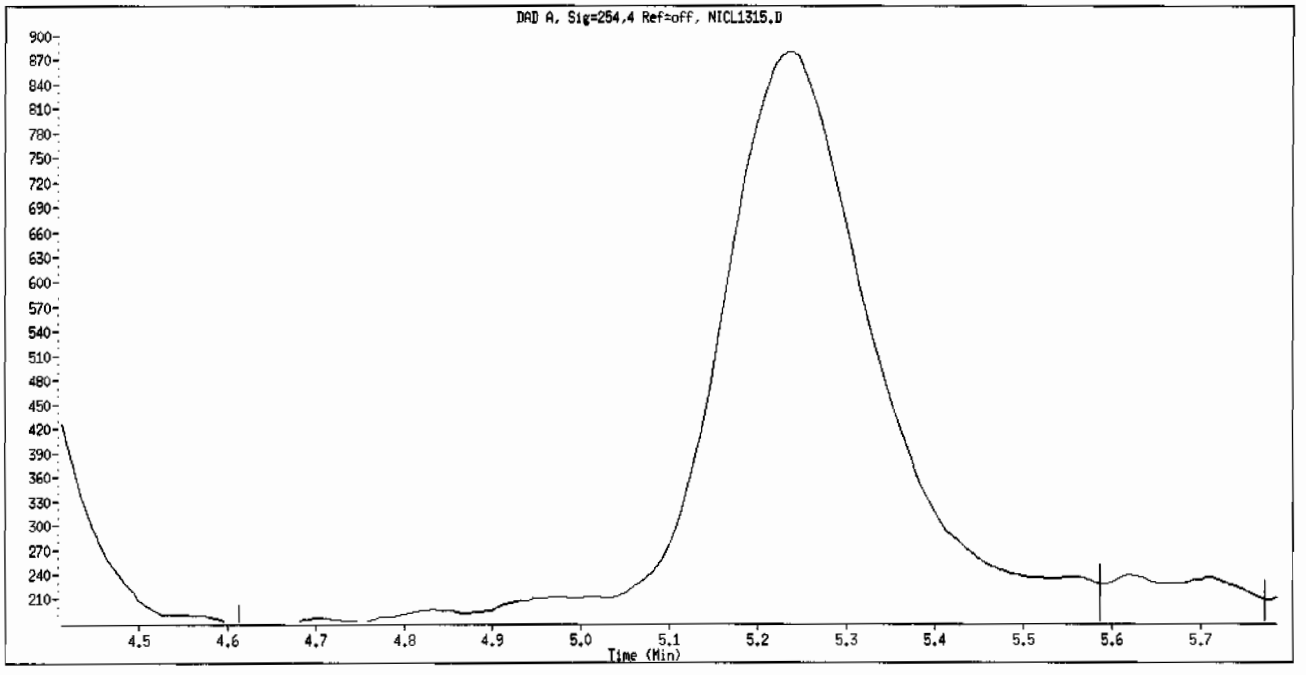

Original Integration

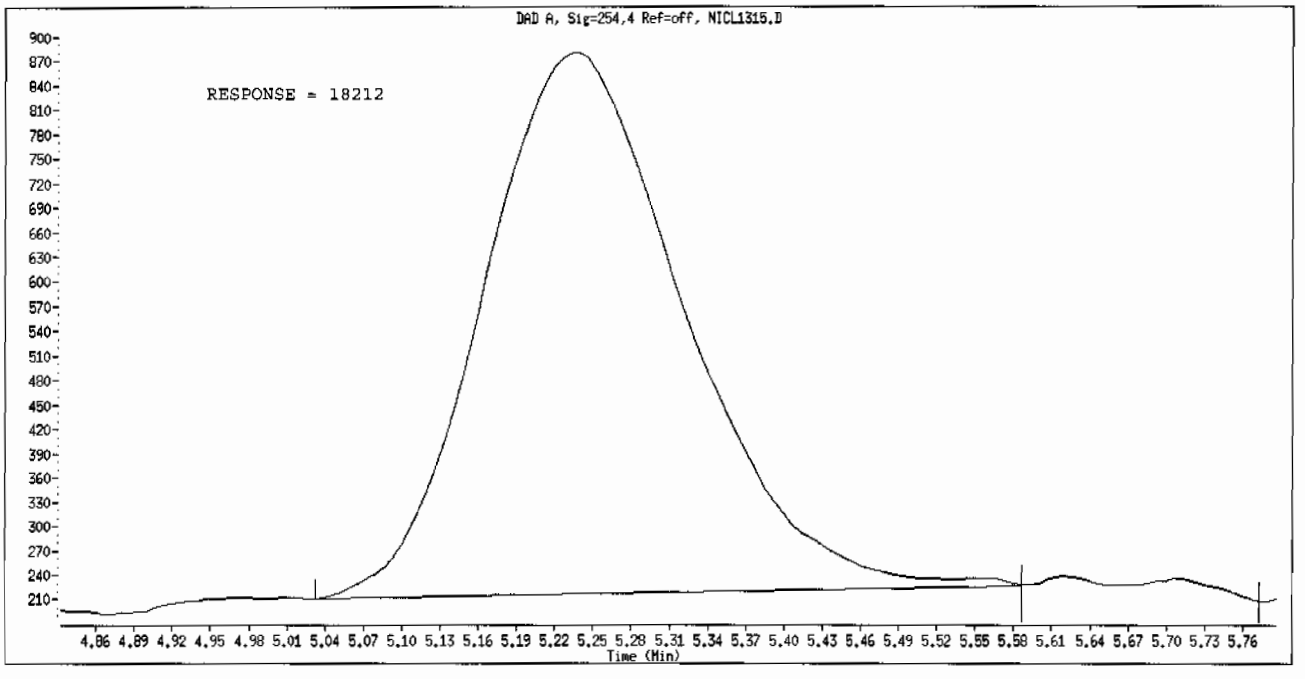

Manual Integration

Manually Integrated By: hanw

Manual Integration Reason: Baseline Event

Data File Name: NICL1315.D
Inj. Date and Time: 25-NOV-2009 10:30
Instrument ID: Lcn.i
Client ID: 8330 ICAL-4
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

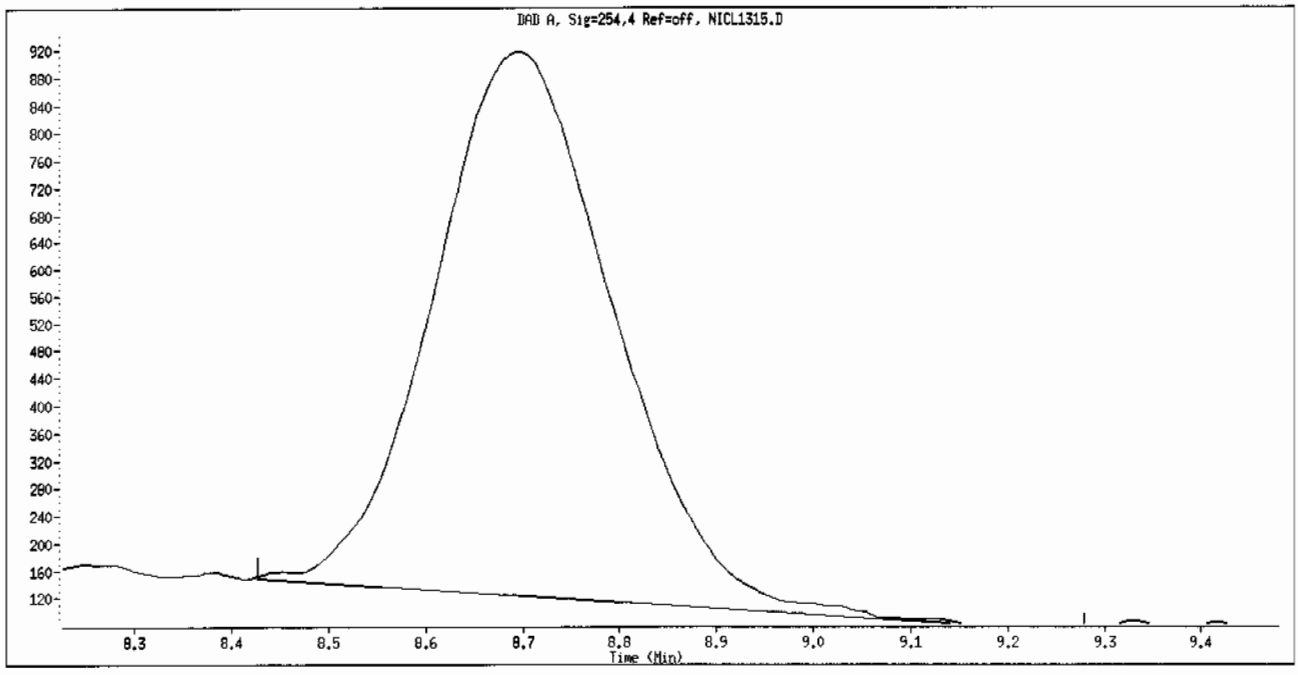

Original Integration

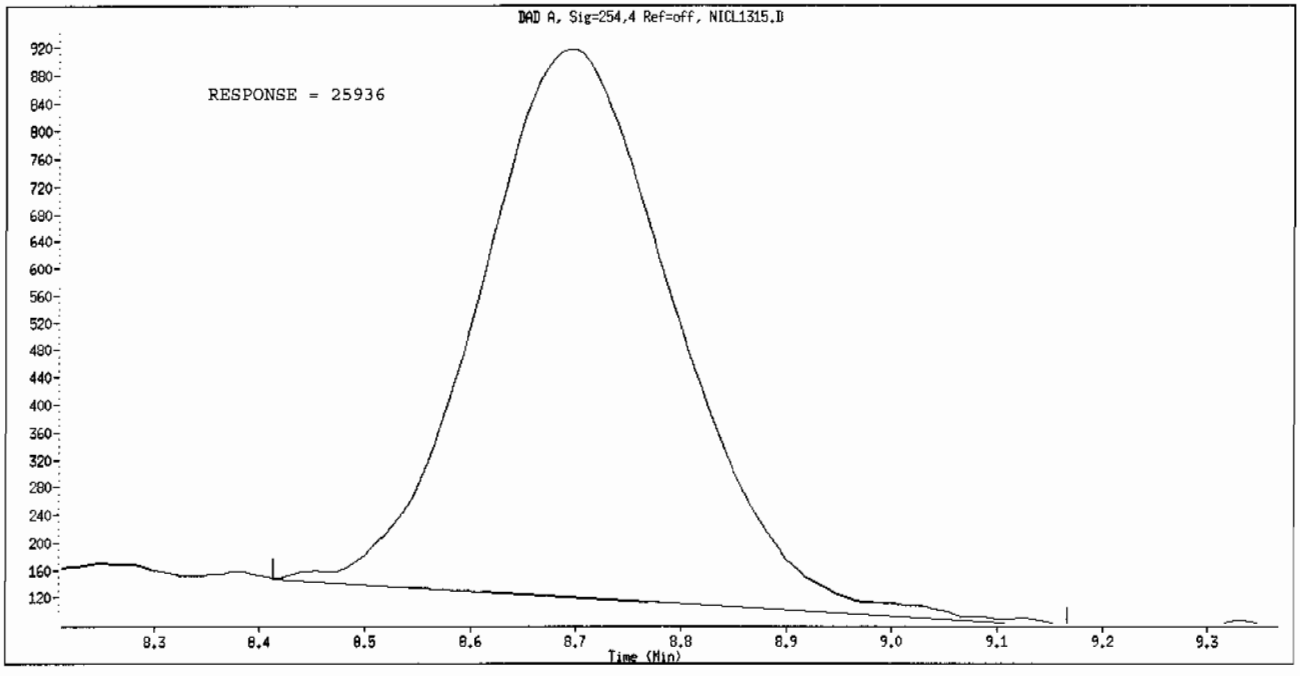

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1316.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1316.D
Lab Smp Id: 8330 ICAL-5 Client Smp ID: 8330 ICAL-5
Inj Date : 25-NOV-2009 10:44
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-5
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.828	3.837	-0.009	65101	100.606	100.6(M)
2 DNX	4.315	4.324	-0.009	42178	68.8500	66.95(M)
3 MNX	5.228	5.239	-0.011	43167	90.9875	87.47(M)
$ 4 1,2-Dinitrobenzene	8.688	8.706	-0.018	63701	125.000	123.0(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1316.D
Date : 25-NOV-2009 10:44
Client ID: 8330 ICAL-5
Sample Info: 8330 ICAL-5
Purge Volume: 500.0
Column phase: C18

Instrument: Lcn.i
Operator: WH
Column diameter: 4.60

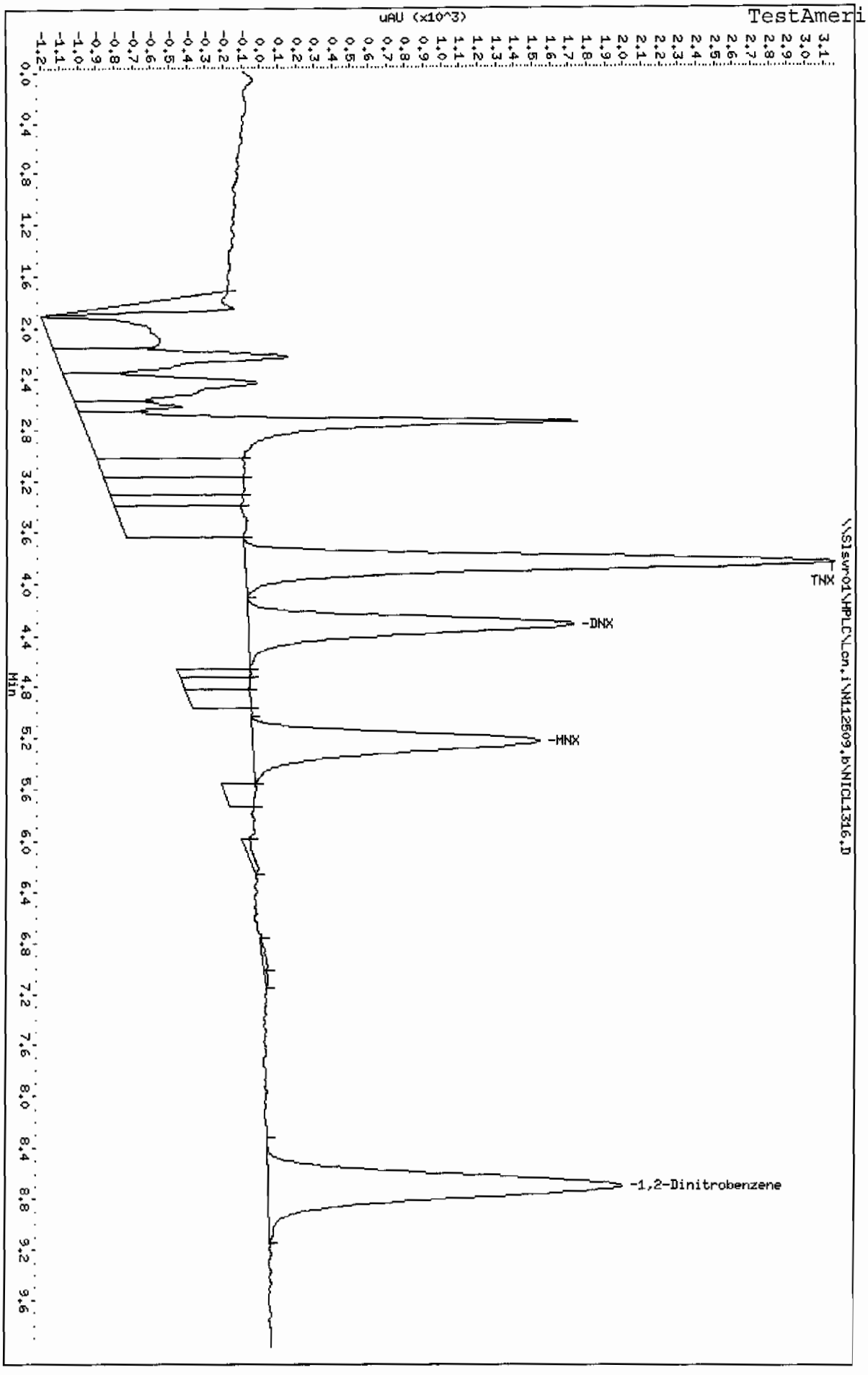

Data File Name: NICL1316.D
Inj. Date and Time: 25-NOV-2009 10:44
Instrument ID: Lcn.i
Client ID: 8330 ICAL-5
Compound Name: TNX
CAS #:

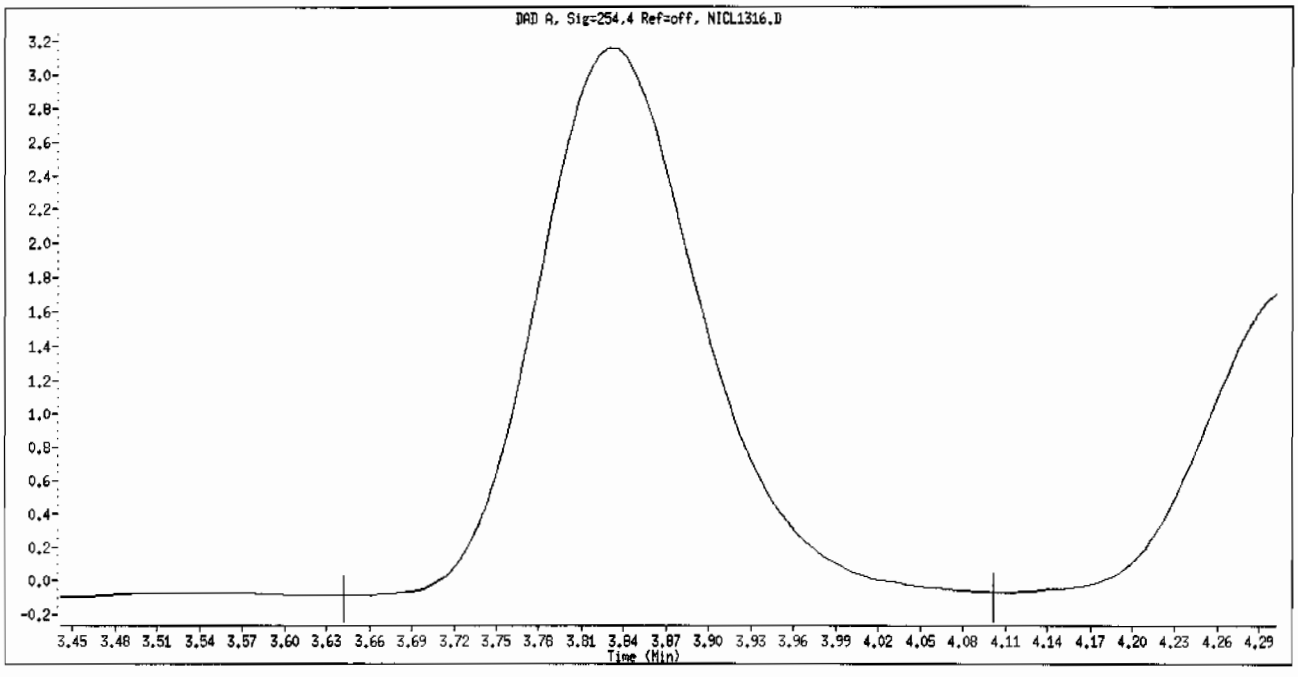

Original Integration

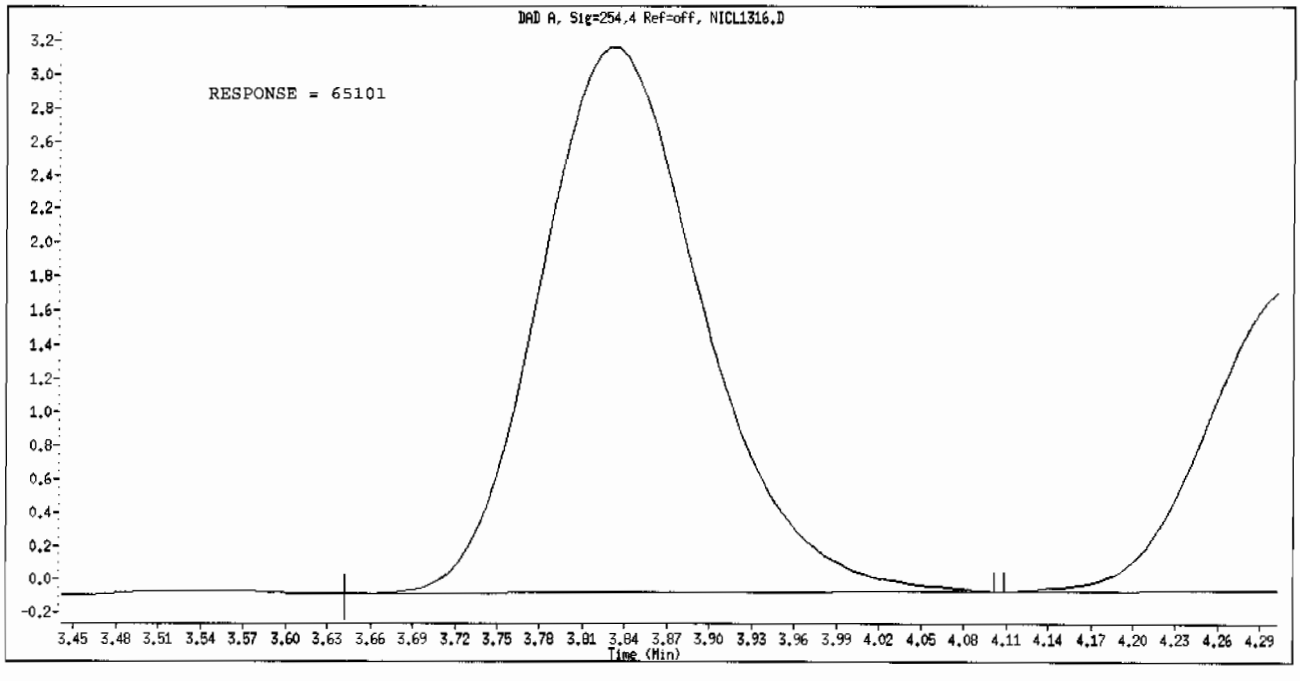

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1316.D
Inj. Date and Time: 25-NOV-2009 10:44
Instrument ID: Lcn.i
Client ID: 8330 ICAL-5
Compound Name: DNX
CAS #:

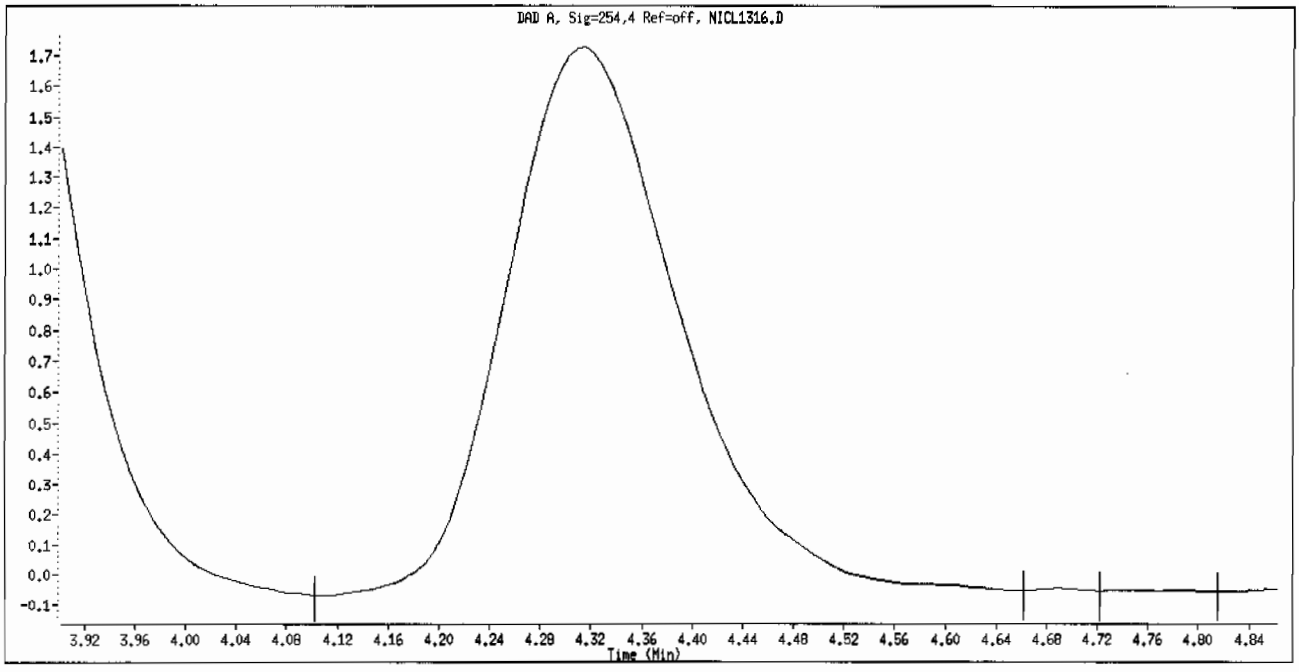

Original Integration

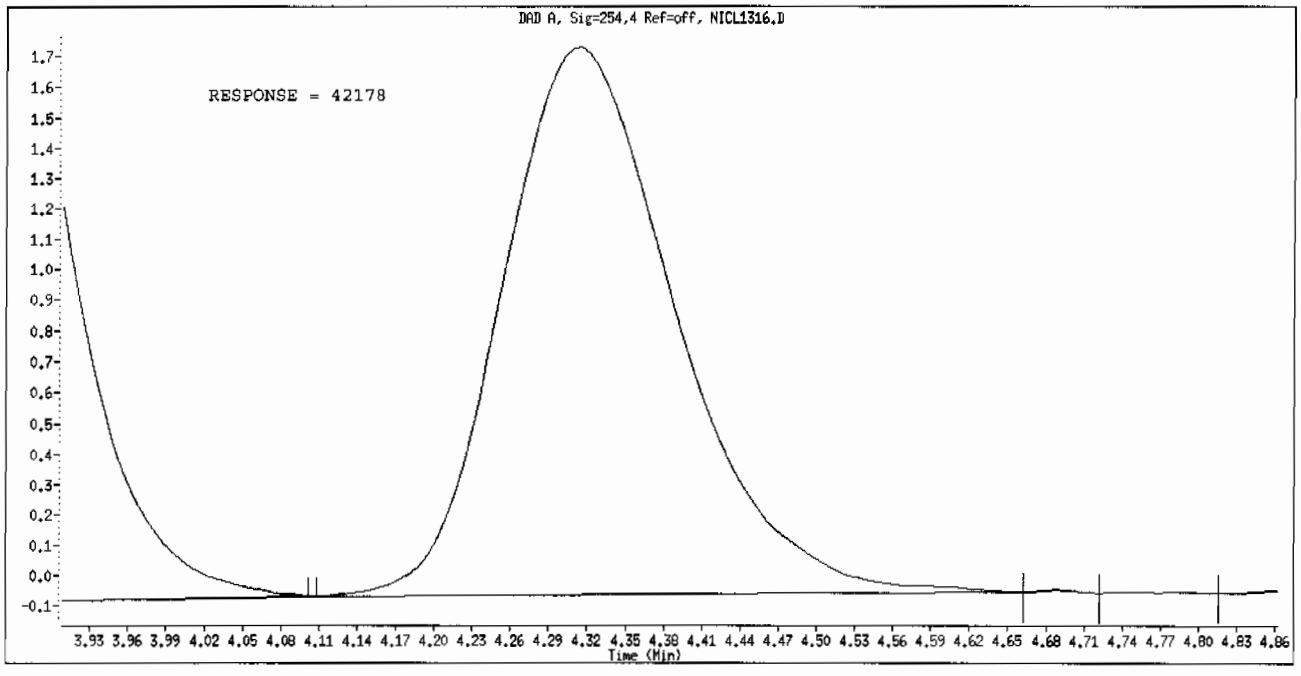

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1316.D
Inj. Date and Time: 25-NOV-2009 10:44
Instrument ID: Lcn.i
Client ID: 8330 ICAL-5
Compound Name: MNX
CAS #:

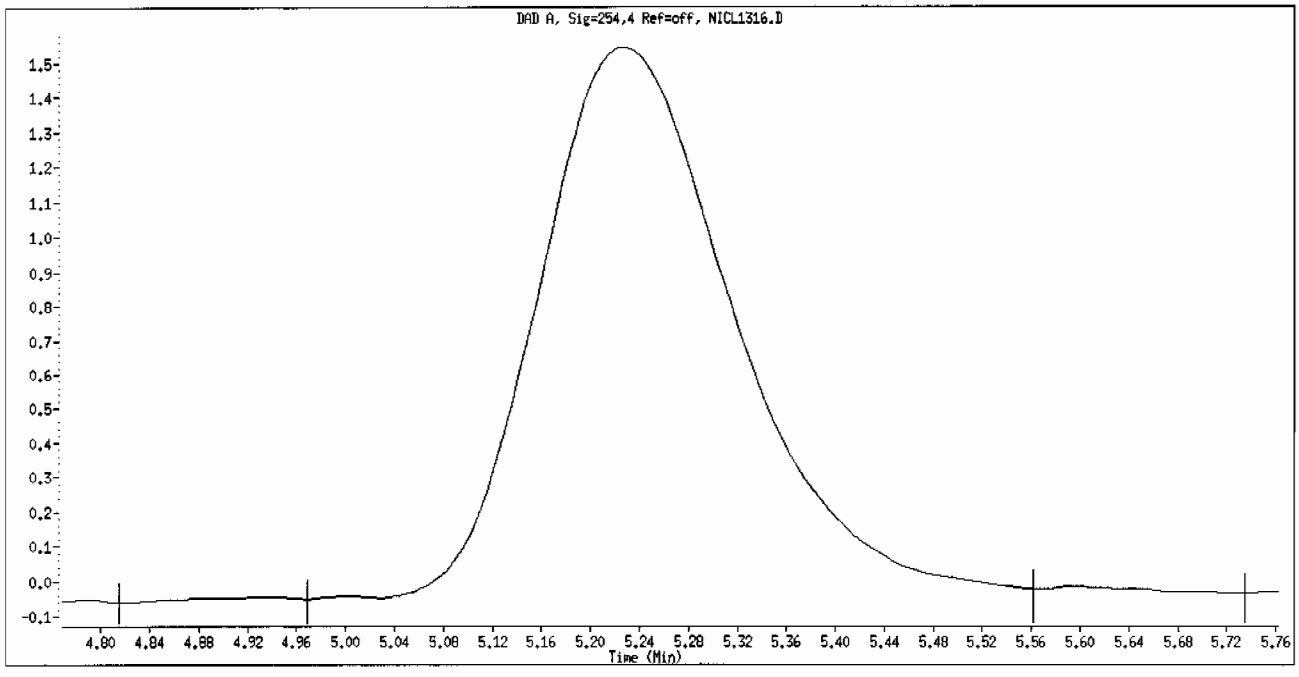

Original Integration

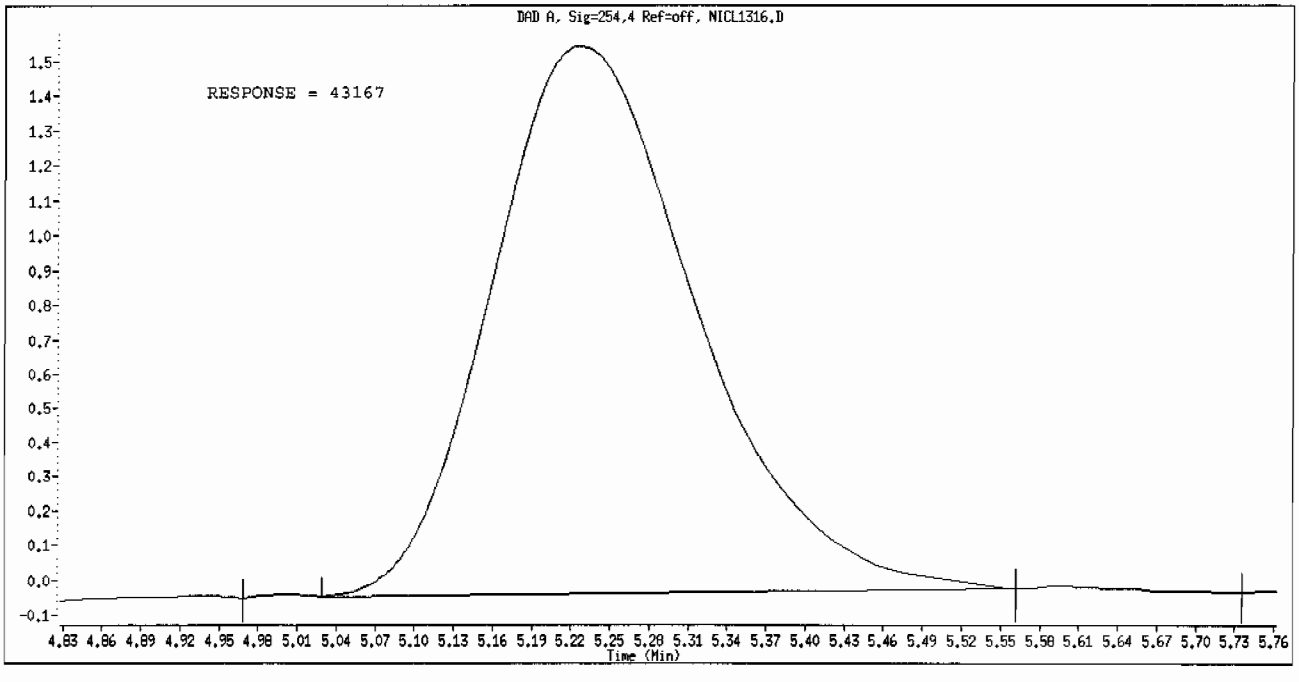

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1316.D
Inj. Date and Time: 25-NOV-2009 10:44
Instrument ID: Lcn.i
Client ID: 8330 ICAL-5
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

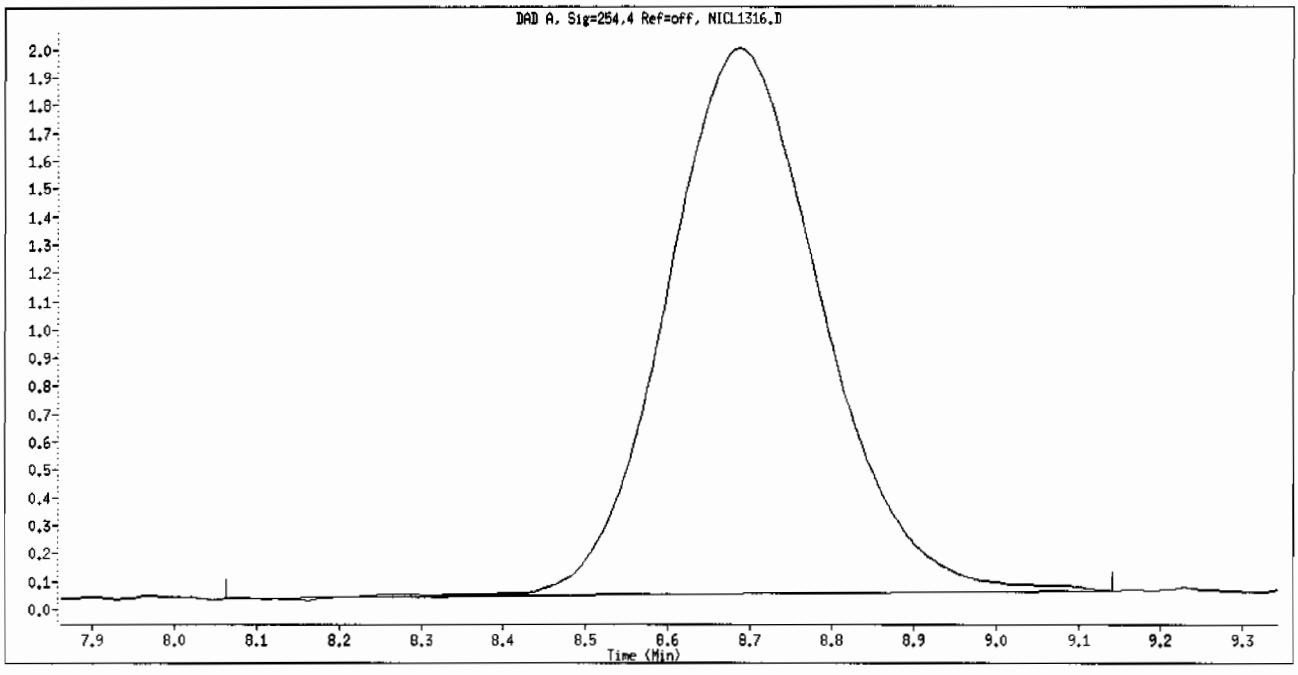

Original Integration

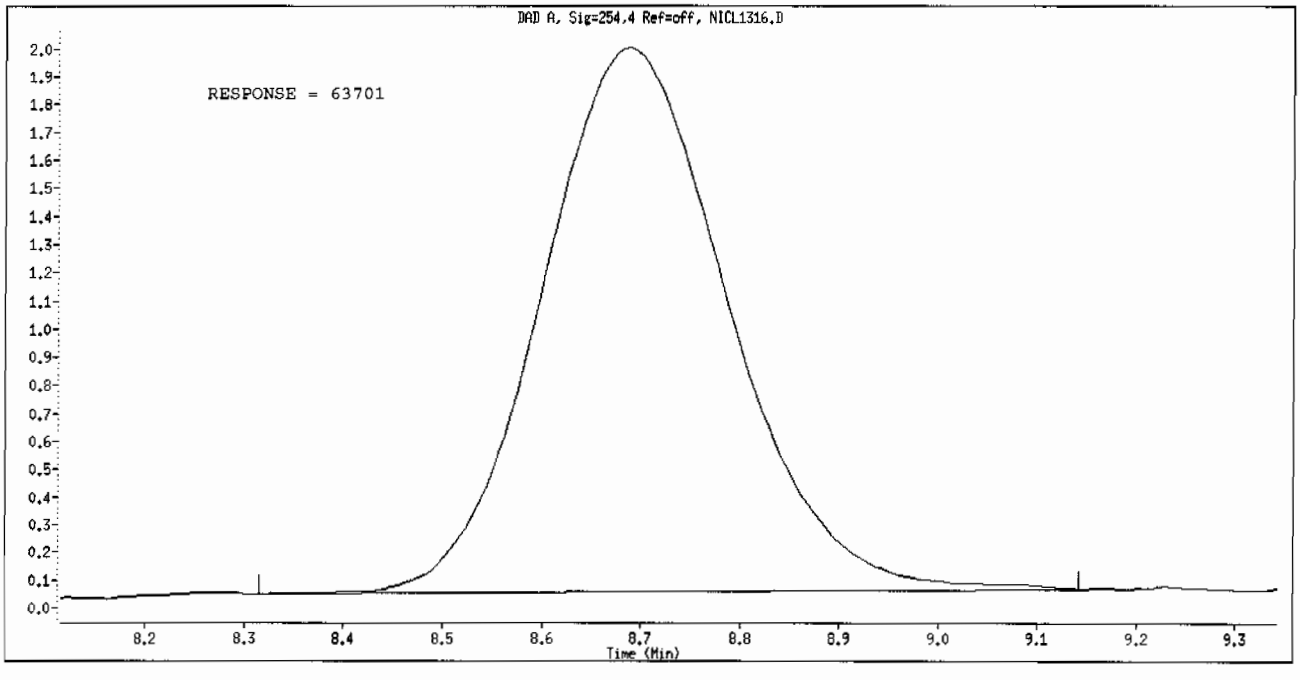

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1317.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1317.D
Lab Smp Id: 8330 ICAL-6 Client Smp ID: 8330 ICAL-6
Inj Date : 25-NOV-2009 10:58
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-6
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.833	3.837	-0.004	136444	201.213	210.9
2 DNX	4.315	4.324	-0.009	87699	137.700	139.2
3 MNX	5.232	5.239	-0.007	90745	181.975	183.9
$ 4 1,2-Dinitrobenzene	8.711	8.706	0.005	130071	250.000	251.2(M)

QC Flag Legend

M - Compound response manually integrated.

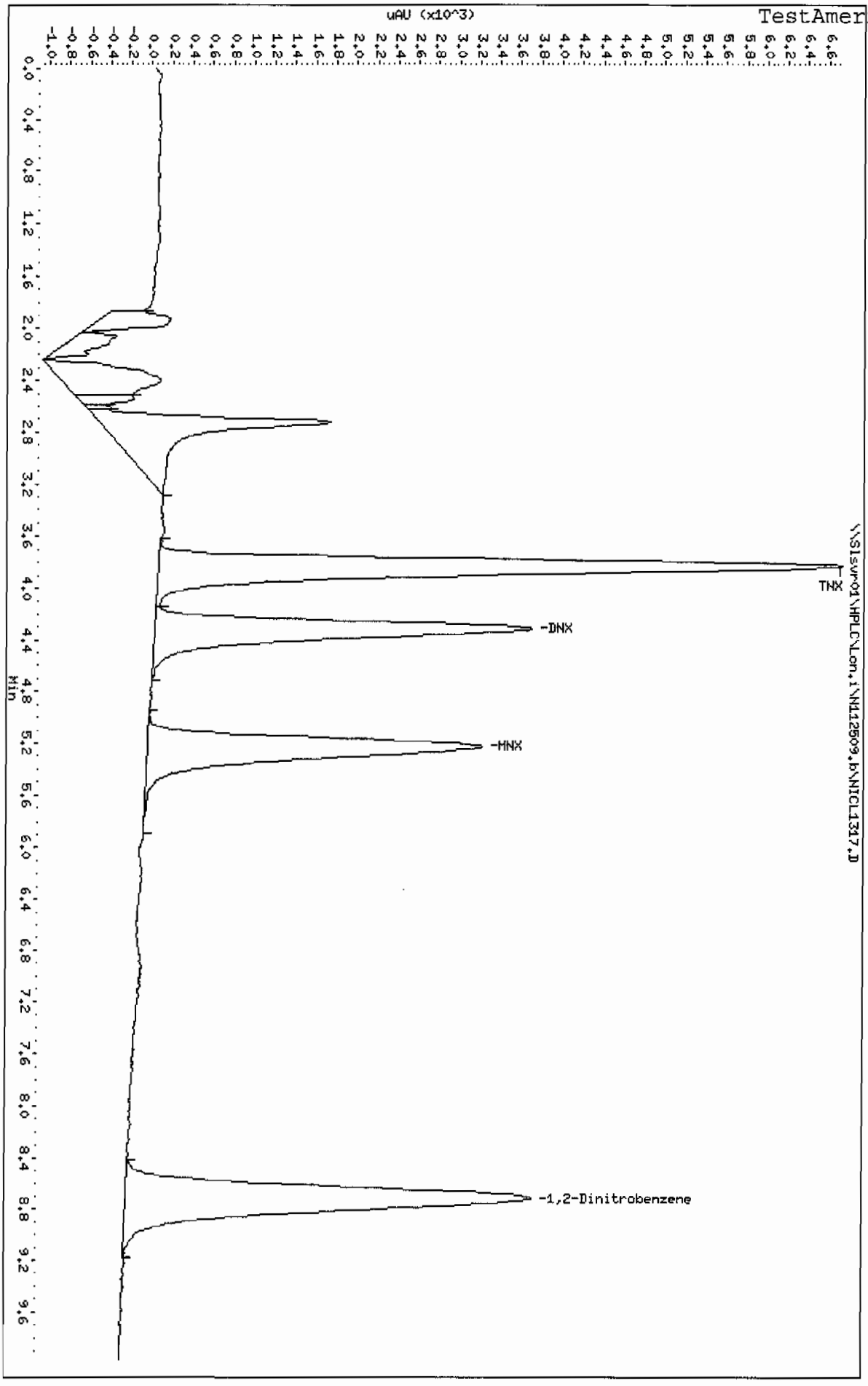
Data File: \\Slsvr01\HPLC\Lcn,i\N112609,b\NICL1317,D
Date : 25-NOV-2009 10:58
Client ID: 8330 ICAL-6
Sample Info: 8330 ICAL-6
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn,i
Operator: WH
Column diameter: 4.60
uAU (x10^3)
\\Slsvr01\HPLC\Lcn,i\N112609,b\NICL1317,D
TNX
-DNX
-MNX
-1,2-Dinitrobenzene
Min

Data File Name: NICL1317.D

Inj. Date and Time: 25-NOV-2009 10:58

Instrument ID: Lcn.i

Client ID: 8330 ICAL-6

Compound Name: 1,2-Dinitrobenzene

CAS #: 528-29-0

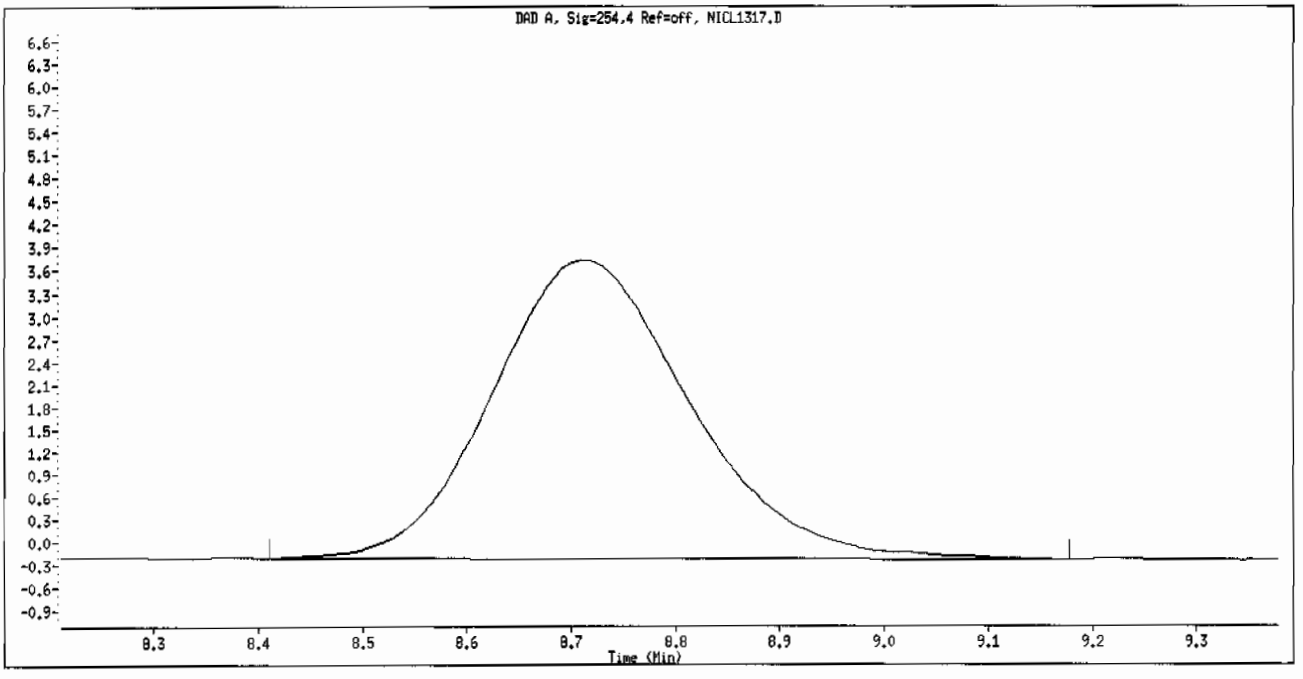

Original Integration

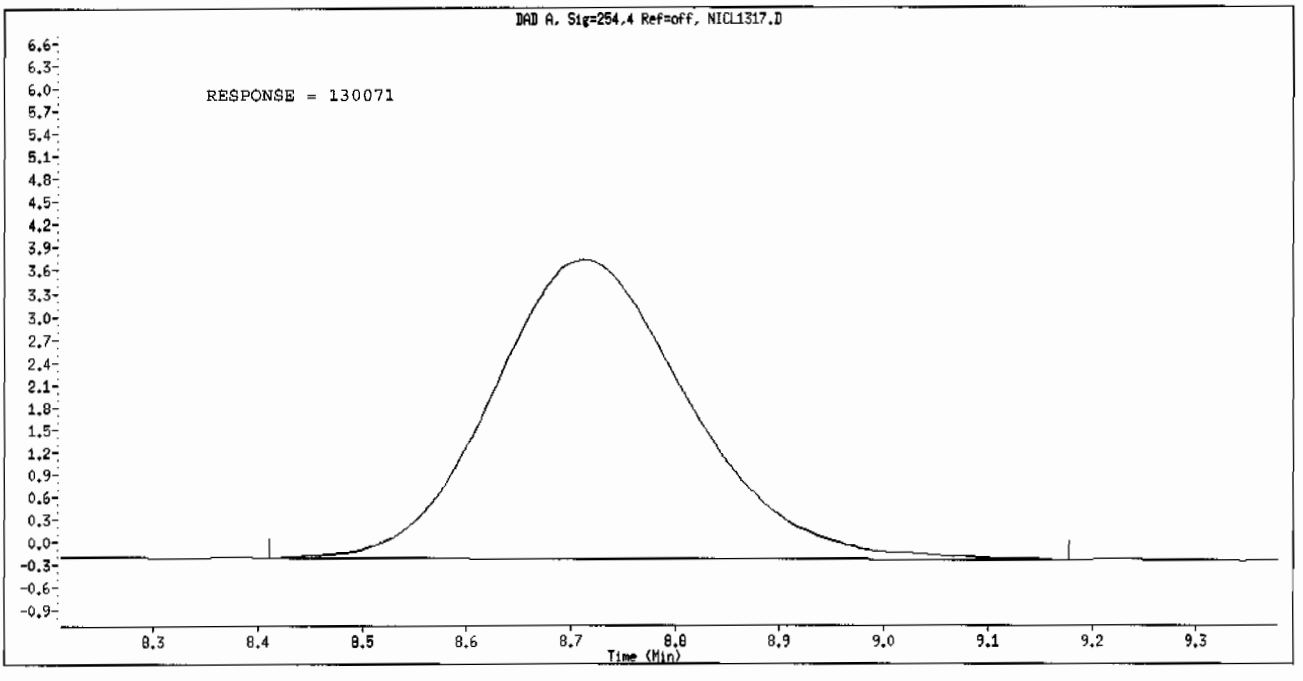

Manual Integration

Manually Integrated By: hanw

Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1318.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1318.D
Lab Smp Id: 8330 ICAL-7 Client Smp ID: 8330 ICAL-7
Inj Date : 25-NOV-2009 11:12
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-7
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.831	3.837	-0.006	267028	402.425	412.7(M)
2 DNX	4.318	4.324	-0.006	167438	275.400	265.8(M)
3 MNX	5.231	5.239	-0.008	174954	363.950	354.5(M)
$ 4 1,2-Dinitrobenzene	8.704	8.706	-0.002	255155	500.000	492.8(M)

QC Flag Legend

M - Compound response manually integrated.

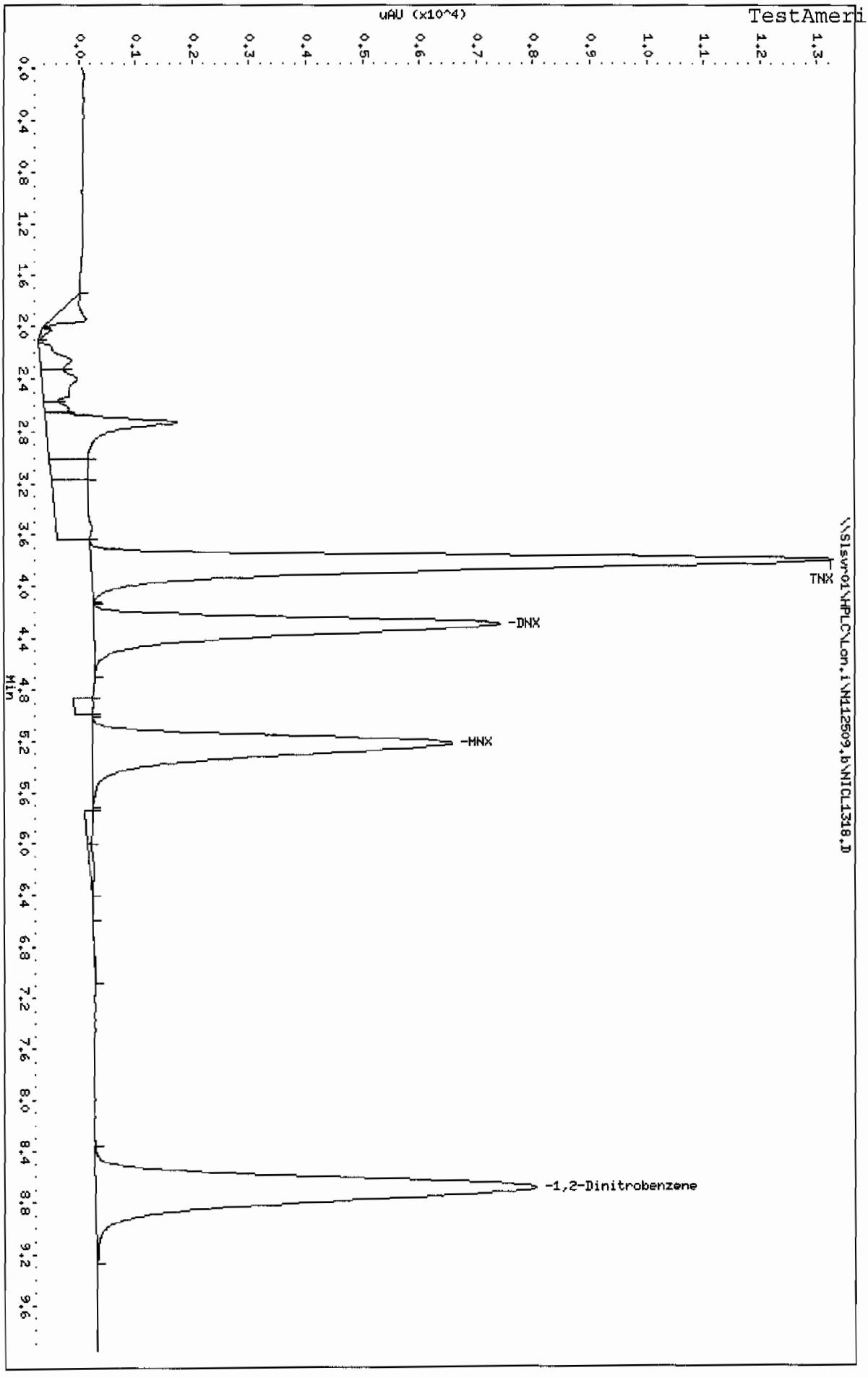
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Date : 25-NOV-2009 11:12
Client ID: 8330 ICAL-7
Sample Info: 8330 ICAL-7
Purge Volume: 500.0
Column phase: C18
Instrument: Lon.i
Operator: WH
Column diameter: 4.60
uAU (x10^4)
\\Slsvr01\HPLC\Lon.i\N112509.b\NICL1318.D
TNX
-DNX
-HNX
-1,2-Dinitrobenzene
Min

Data File Name: NICL1318.D
Inj. Date and Time: 25-NOV-2009 11:12
Instrument ID: Lcn.i
Client ID: 8330 ICAL-7
Compound Name: TNX
CAS #:

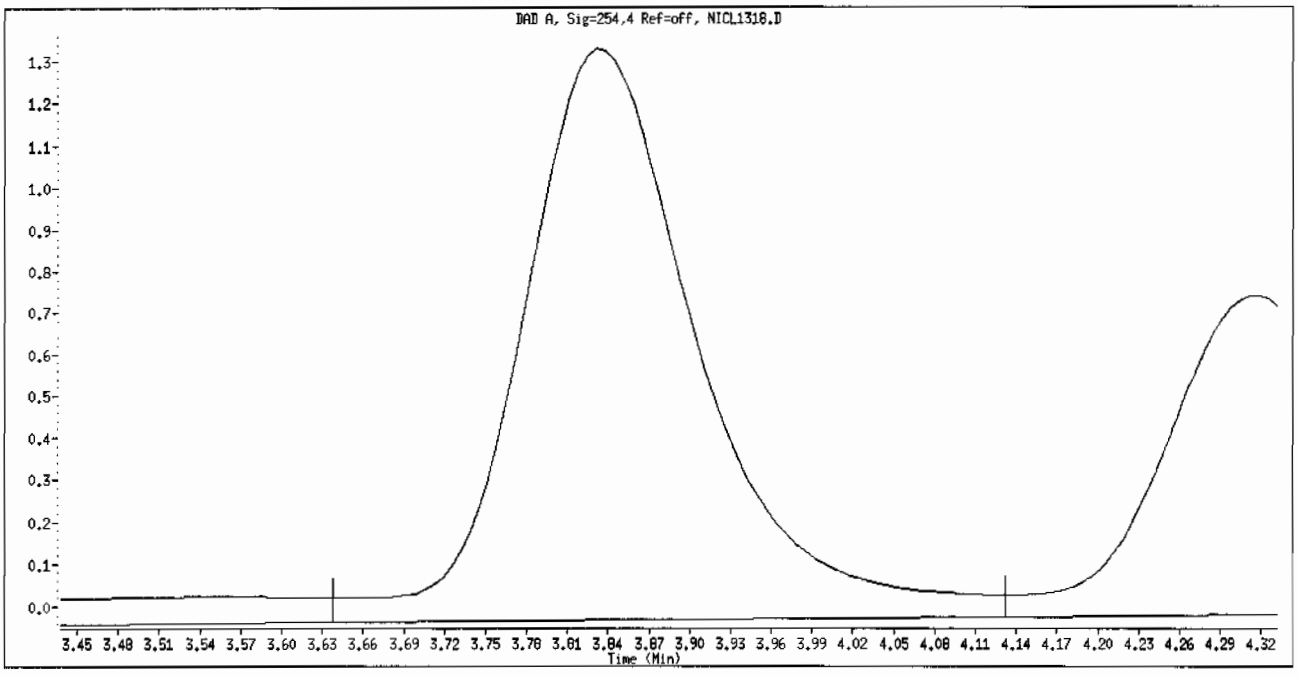

Original Integration

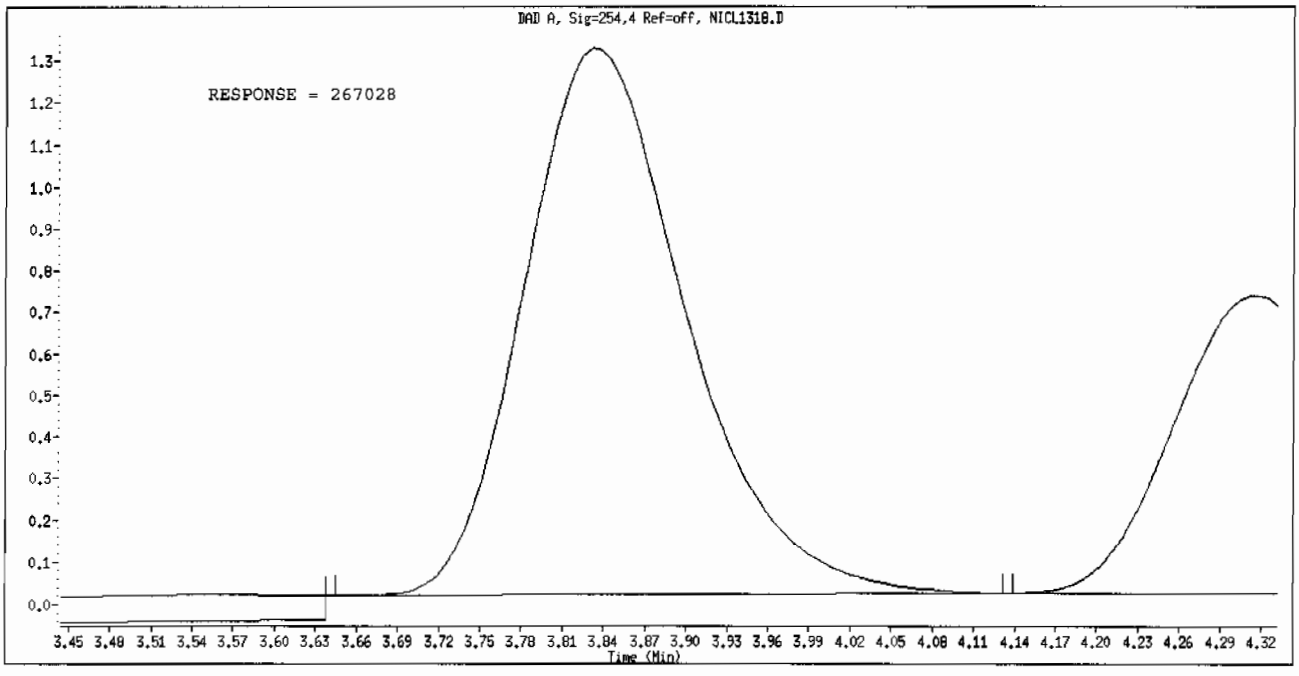

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1318.D
Inj. Date and Time: 25-NOV-2009 11:12
Instrument ID: Lcn.i
Client ID: 8330 ICAL-7
Compound Name: DNX
CAS #:

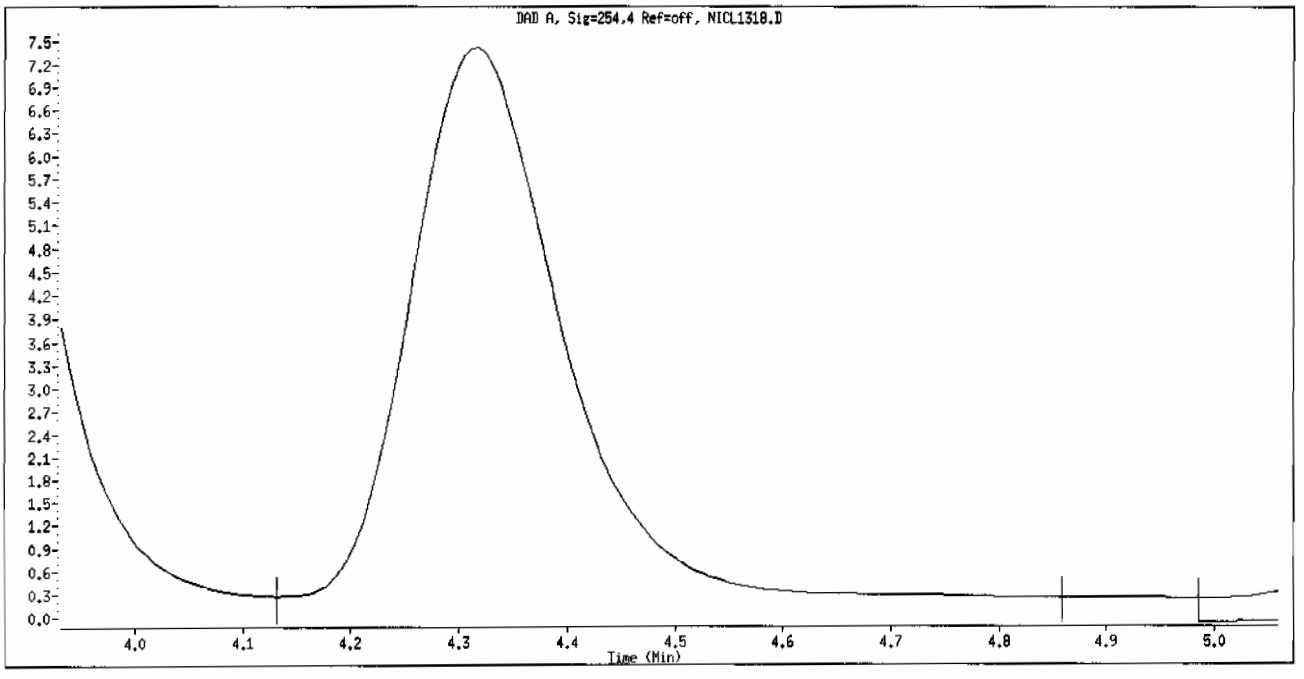

Original Integration

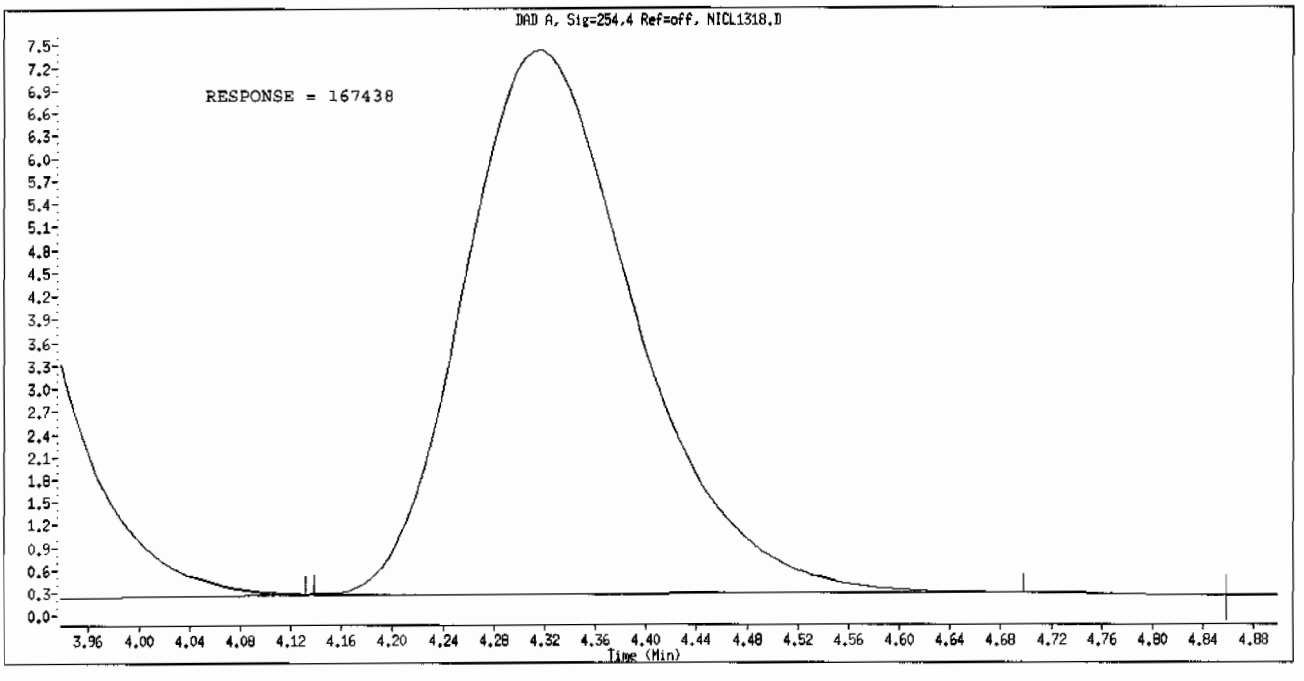

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1318.D
Inj. Date and Time: 25-NOV-2009 11:12
Instrument ID: Lcn.i
Client ID: 8330 ICAL-7
Compound Name: MNX
CAS #:

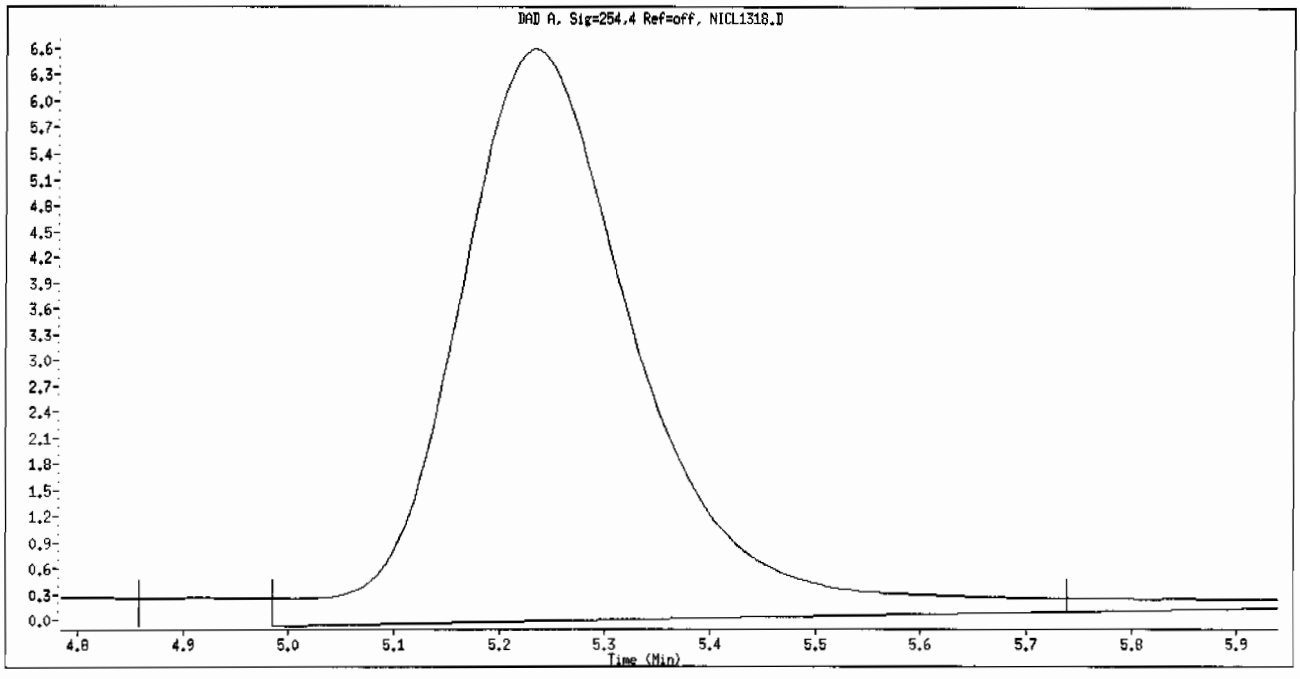

Original Integration

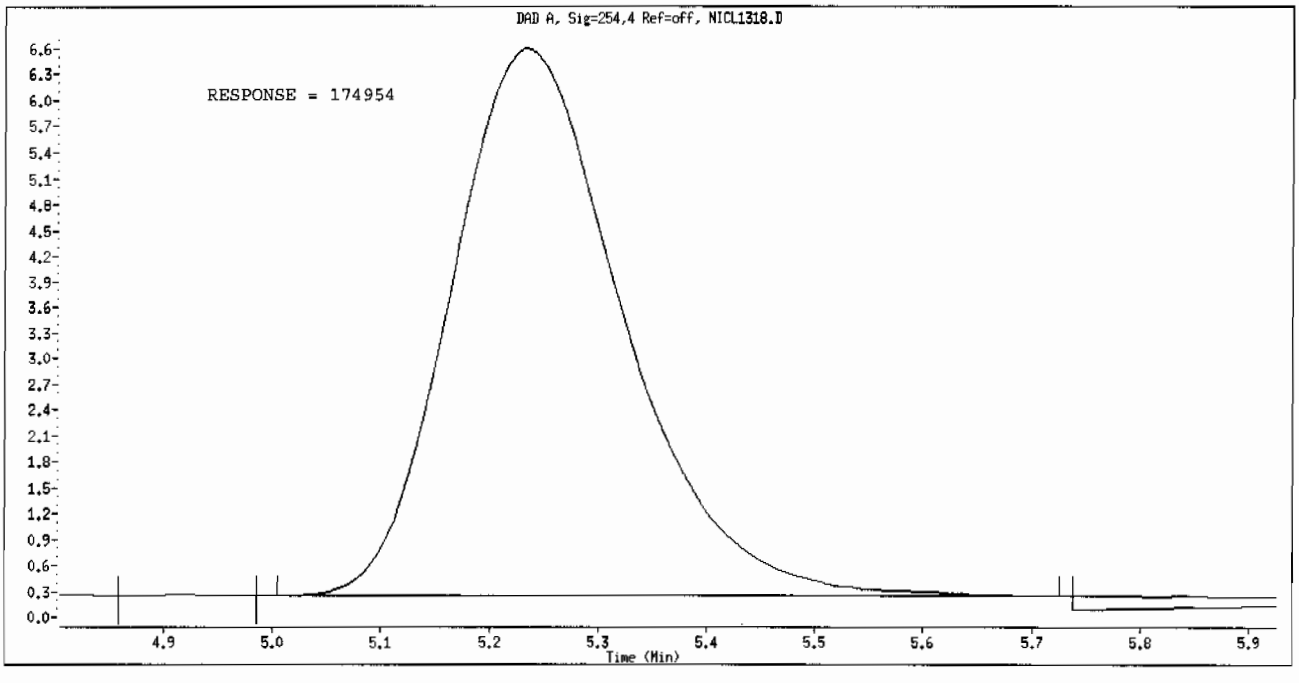

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1318.D
Inj. Date and Time: 25-NOV-2009 11:12
Instrument ID: Lcn.i
Client ID: 8330 ICAL-7
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

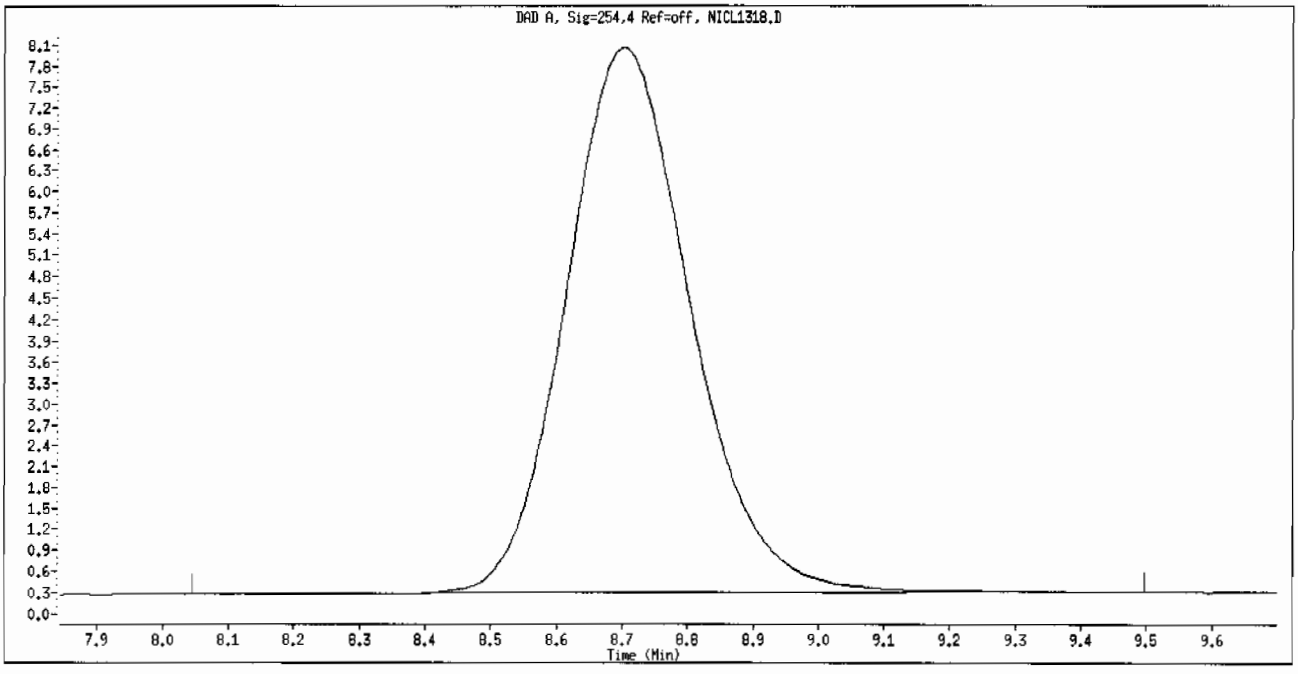

Original Integration

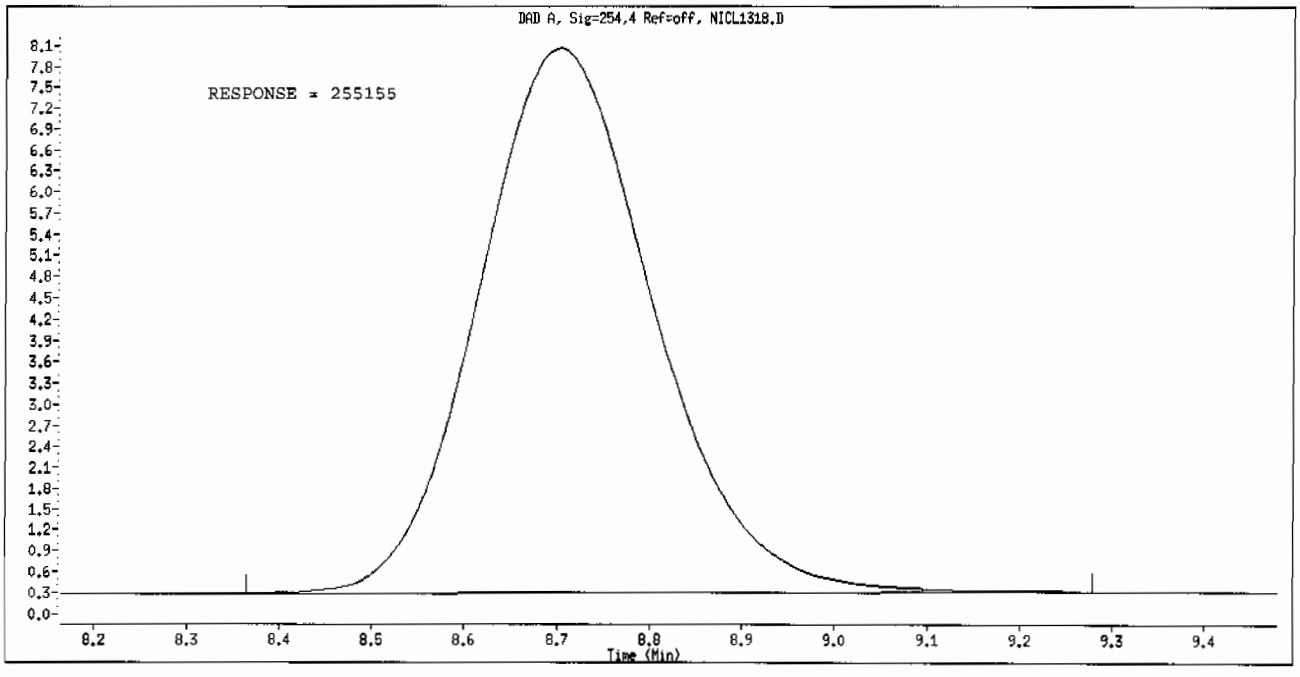

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1319.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1319.D
Lab Smp Id: 8330 ICAL-8 Client Smp ID: 8330 ICAL-8
Inj Date : 25-NOV-2009 11:26
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-8
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.838	3.837	0.001	539495	804.850	833.8(M)
2 DNX	4.318	4.324	-0.006	337552	550.800	535.8(M)
3 MNX	5.238	5.239	-0.001	352540	727.900	714.4(M)
$ 4 1,2-Dinitrobenzene	8.715	8.706	0.009	512457	1000.00	989.8(M)

QC Flag Legend

M - Compound response manually integrated.

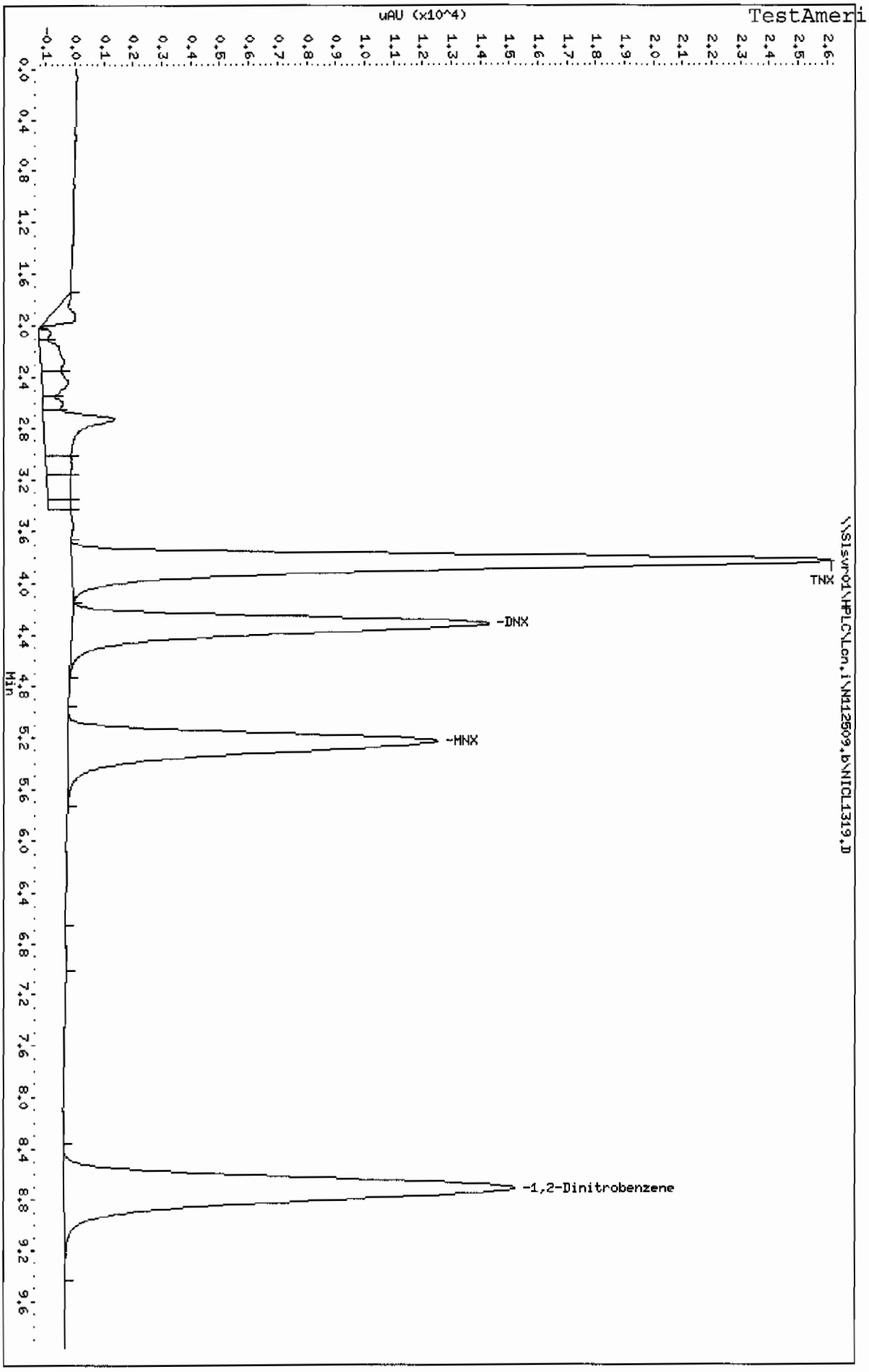
Data File: \\Slsvr01\HPLC\Lon,i\N112509,b\NICL1319,D
Date : 25-NOV-2009 11:26
Client ID: 8330 ICAL-8
Sample Info: 8330 ICAL-8
Purge Volume: 500.0
Column phase: C18
Instrument: Lon,i
Operator: WH
Column diameter: 4.60
uAU (x10^4)
\\Slsvr01\HPLC\Lon,i\N112509,b\NICL1319,D
TNX
-DNX
-MNX
-1,2-Dinitrobenzene
Min

Data File Name: NICL1319.D

Inj. Date and Time: 25-NOV-2009 11:26

Instrument ID: Lcn.i

Client ID: 8330 ICAL-8

Compound Name: TNX

CAS #:

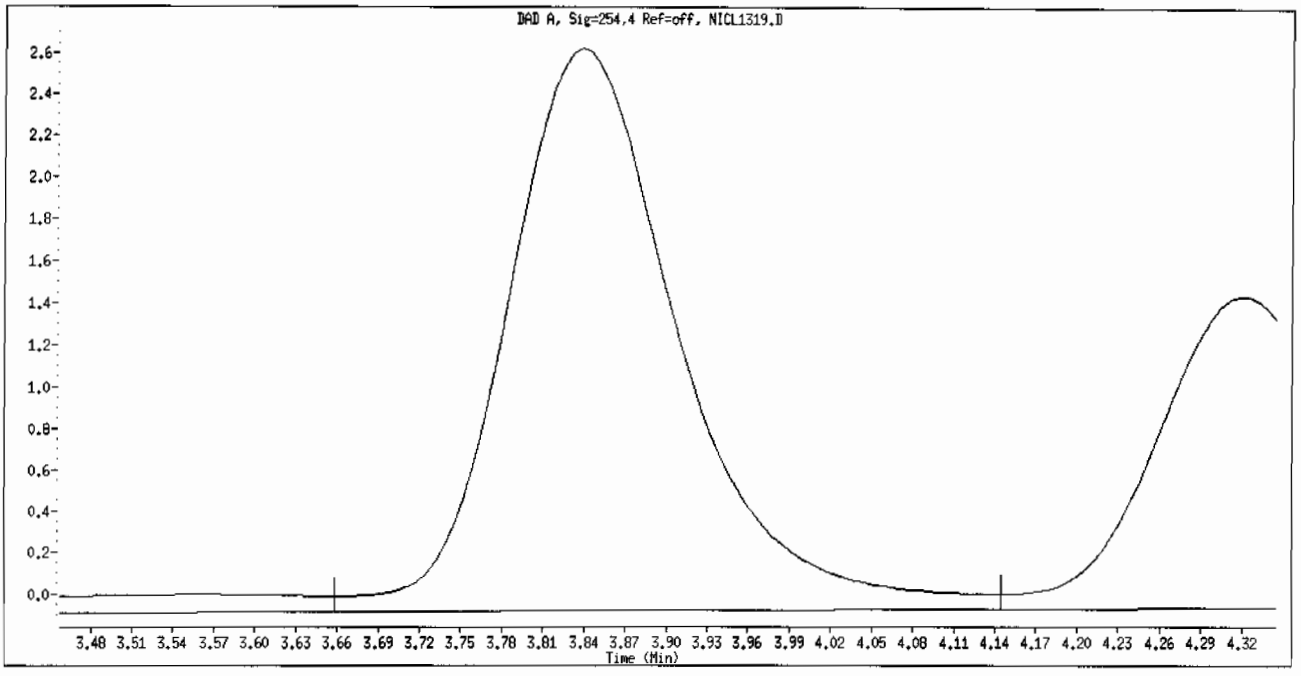

Original Integration

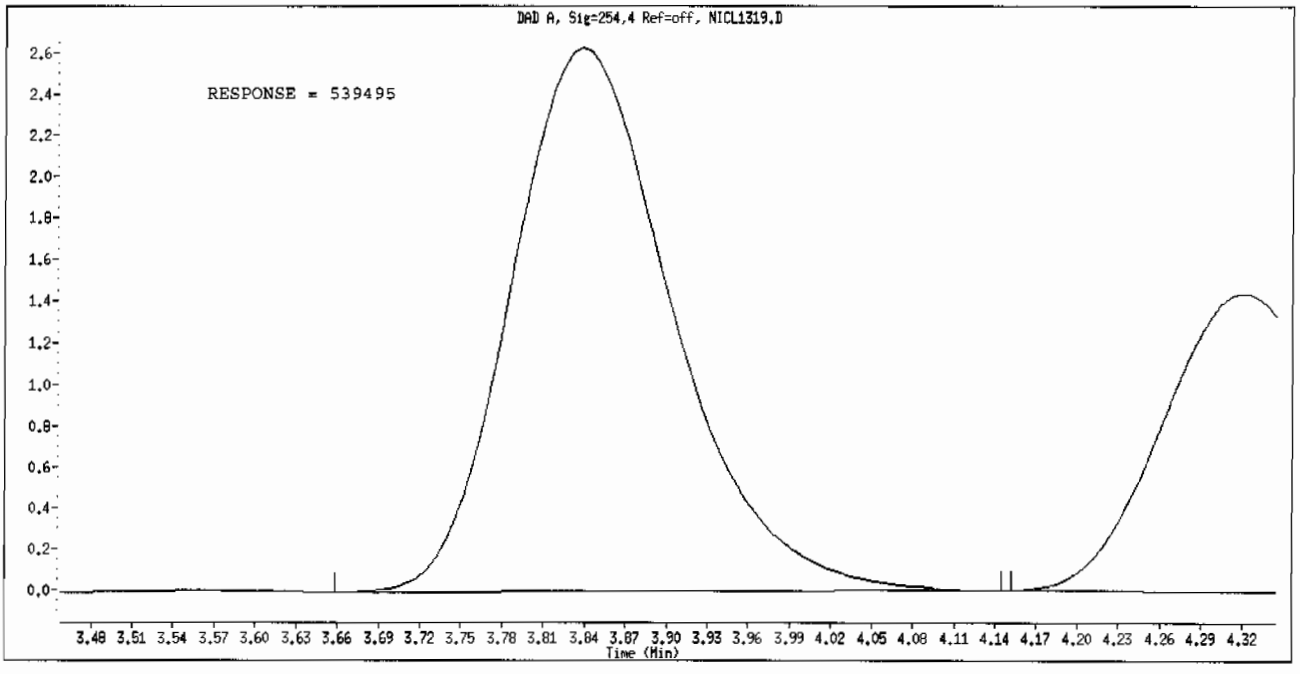

Manual Integration

Manually Integrated By: hanw

Manual Integration Reason: Baseline Event

Data File Name: NICL1319.D
Inj. Date and Time: 25-NOV-2009 11:26
Instrument ID: Lcn.i
Client ID: 8330 ICAL-8
Compound Name: DNX
CAS #:

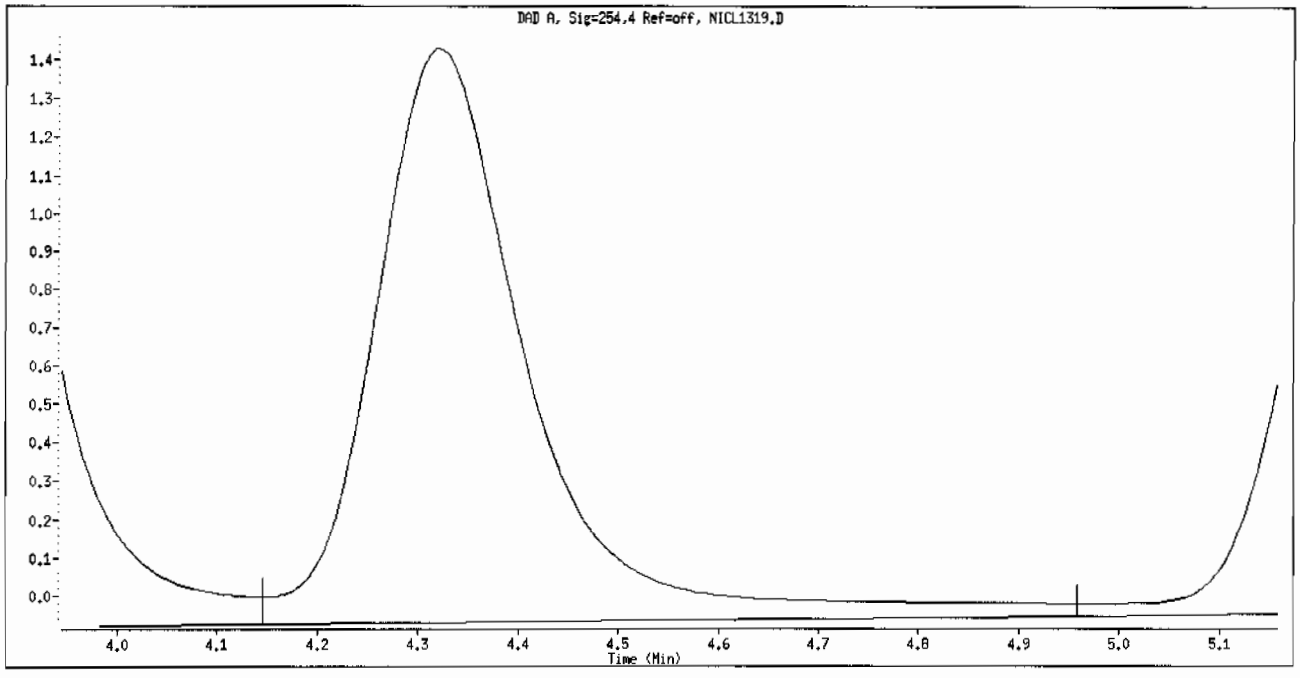

Original Integration

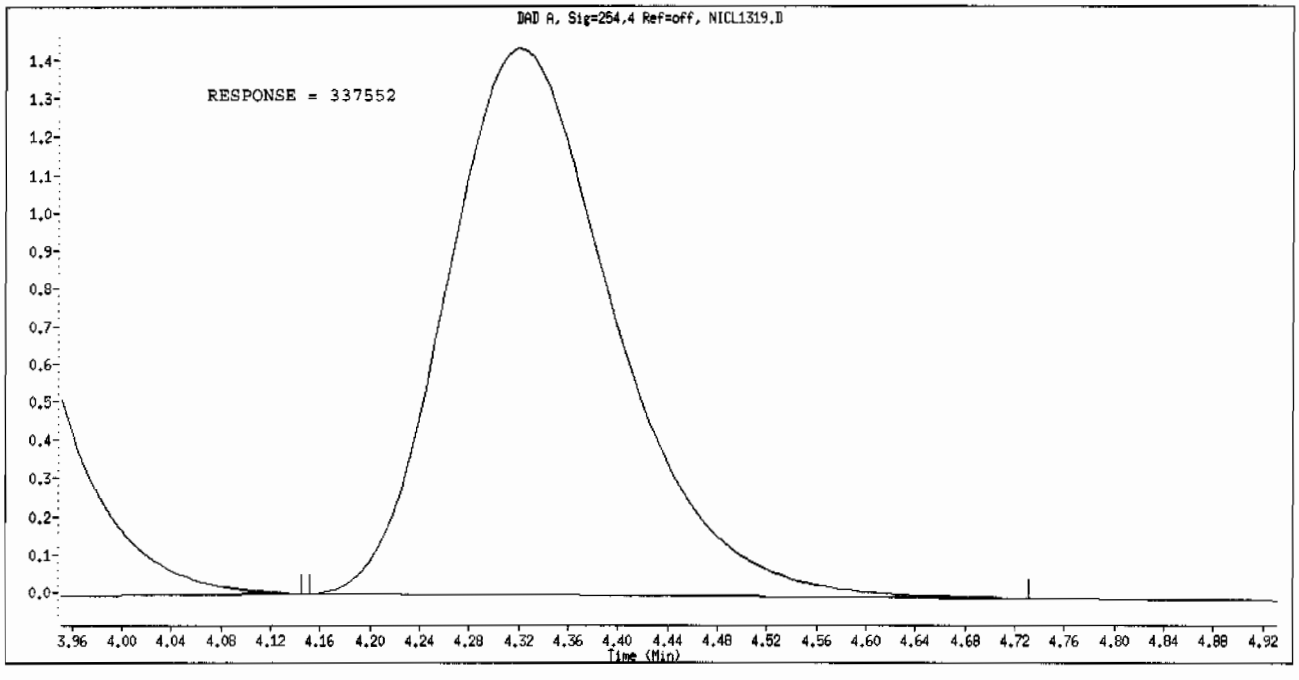

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1319.D
Inj. Date and Time: 25-NOV-2009 11:26
Instrument ID: Lcn.i
Client ID: 8330 ICAL-8
Compound Name: MNX
CAS #:

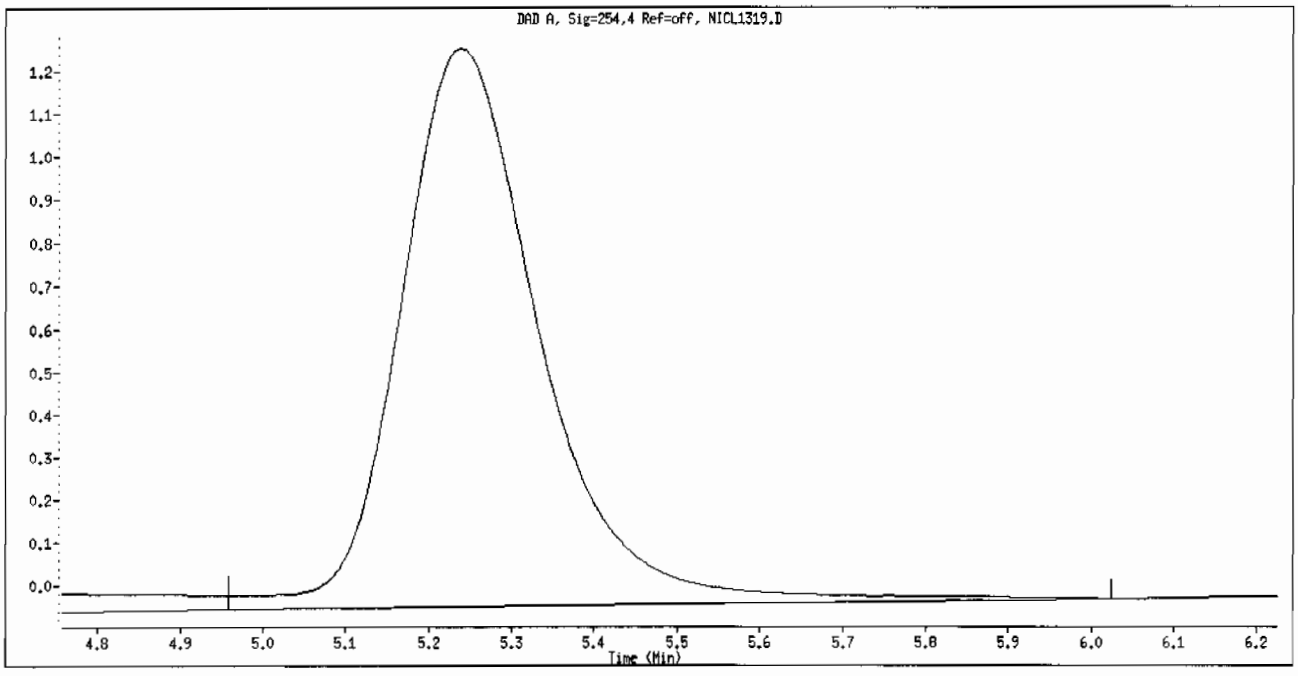

Original Integration

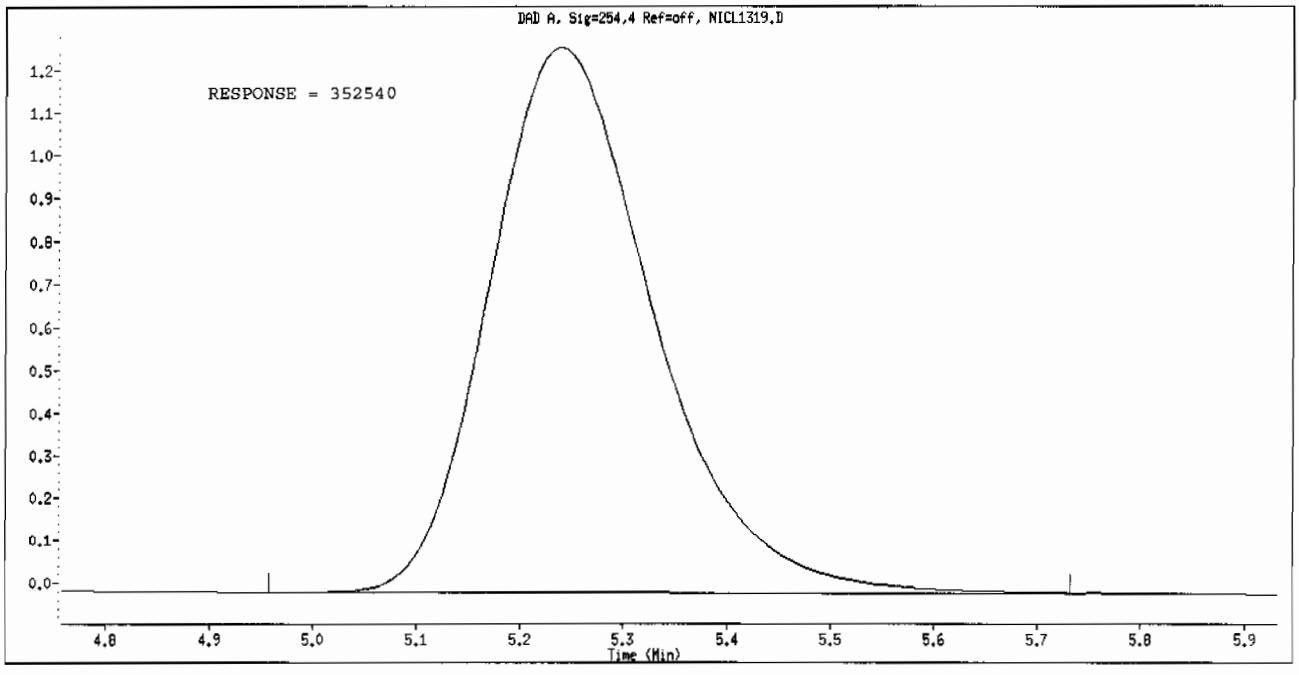

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1319.D
Inj. Date and Time: 25-NOV-2009 11:26
Instrument ID: Lcn.i
Client ID: 8330 ICAL-8
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

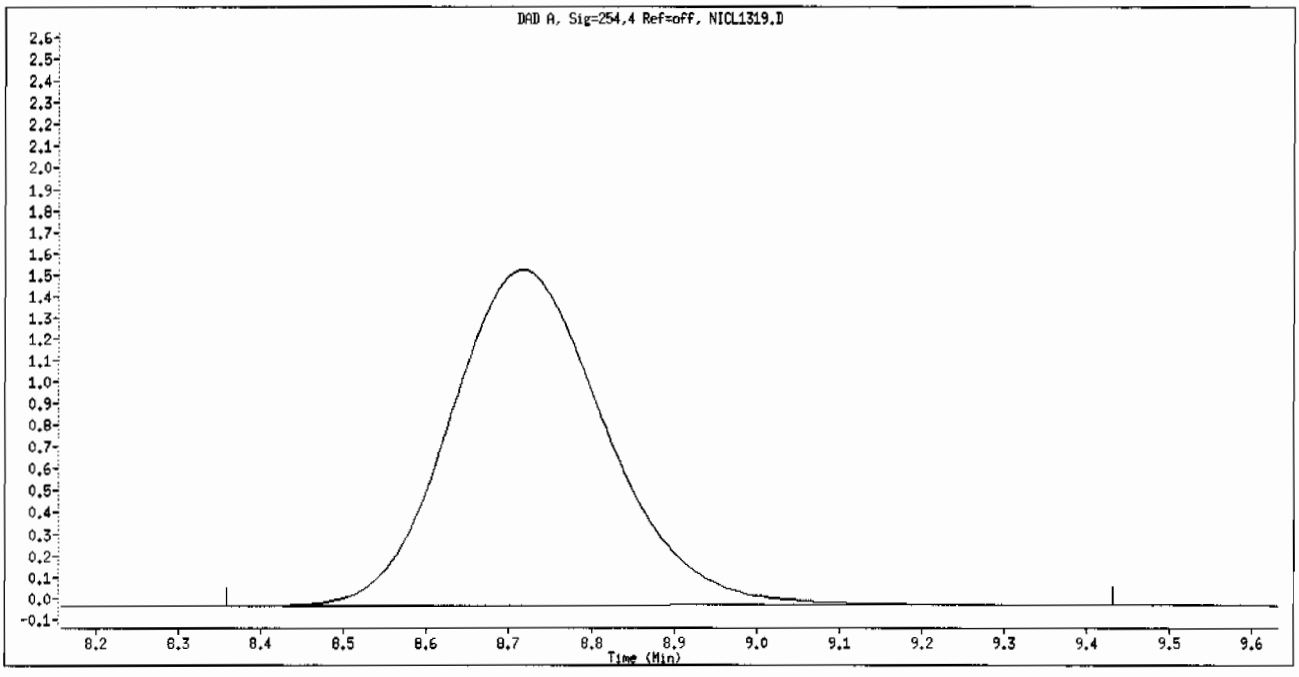

Original Integration

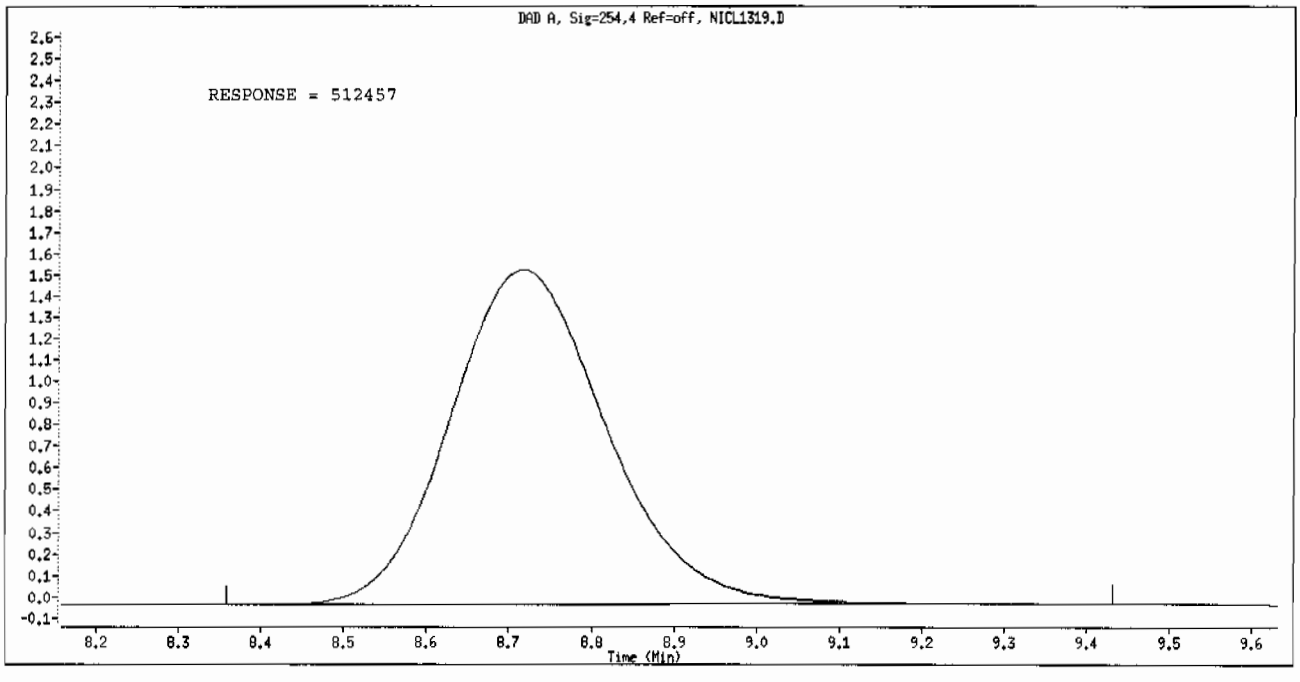

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICV1320.D
Report Date: 02-Dec-2009 16:06

TestAmerica St. Louis

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Lcn.i Injection Date: 25-NOV-2009 11:40
Lab File ID: NICV1320.D Init. Cal. Date(s): 25-NOV-2009 25-NOV-2009
Analysis Type: WATER Init. Cal. Times: 10:16 11:26
Lab Sample ID: XNX ICV Quant Type: ESTD
Method: \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m

COMPOUND	RRF / AMOUNT	RF125	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 TNX	647	687	0.010	-6.21077	20.00000	Averaged
2 DNX	630	652	0.010	-3.51780	20.00000	Averaged
3 MNX	493	518	0.010	-5.04045	20.00000	Averaged

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICV1320.D
Report Date: 02-Dec-2009 16:06

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICV1320.D
Lab Smp Id: XNX ICV Client Smp ID: XNX ICV
Inj Date : 25-NOV-2009 11:40
Operator : WH Inst ID: Lcn.i
Smp Info : XNX ICV
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:06 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.834	3.837	-0.003	69140	100.606	106.8
2 DNX	4.318	4.324	-0.006	44898	68.8500	71.27
3 MNX	5.239	5.239	0.000	47165	90.9875	95.57(M)

QC Flag Legend

M - Compound response manually integrated.

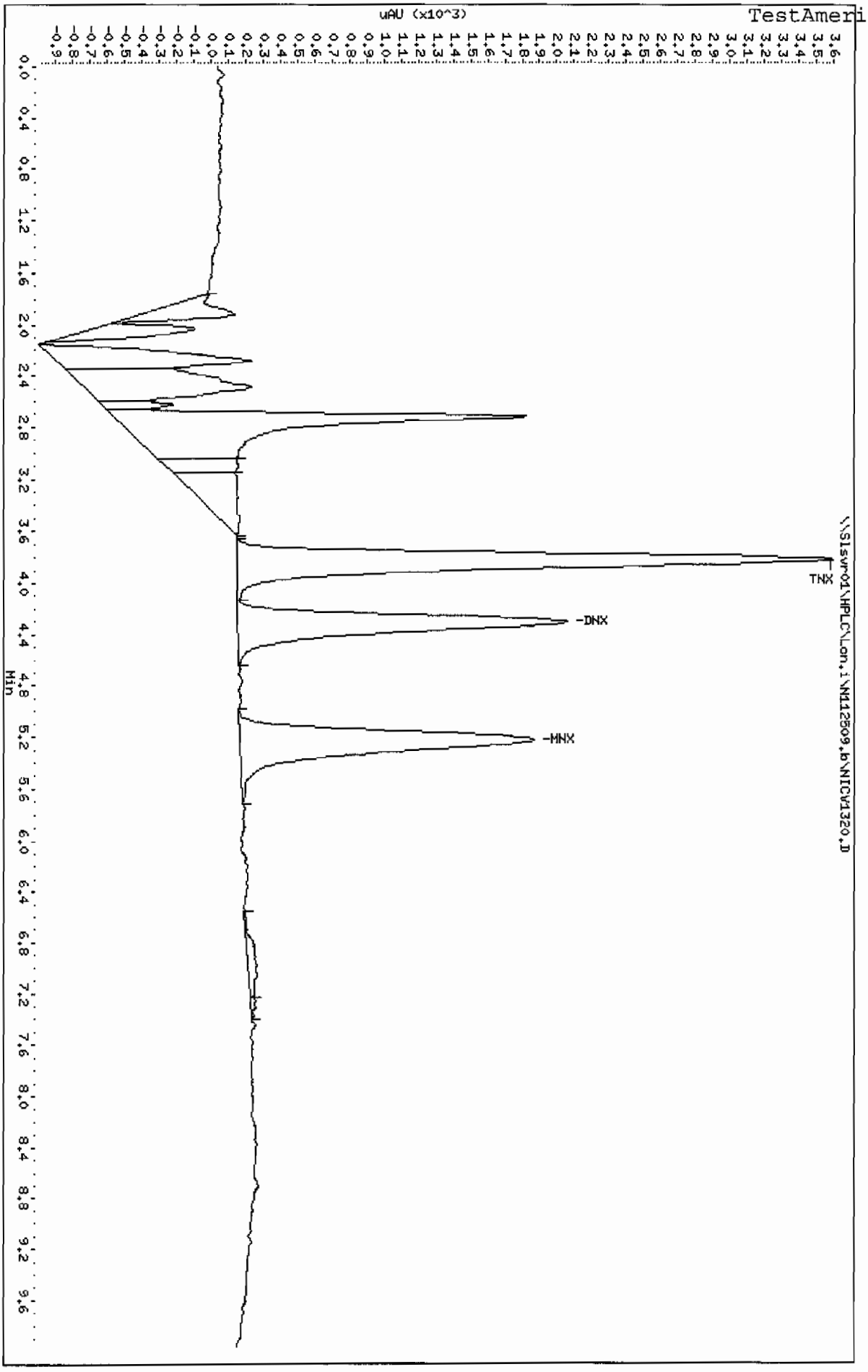
Data File: \\Slsvr01\HPLC\Lon.i\N112509.b\NICV1320.D
Date : 25-NOV-2009 11:40
Client ID: XNX ICV
Sample Info: XNX ICV
Purge Volume: 500.0
Column phase: C18
Instrument: Lon.i
Operator: WH
Column diameter: 4.60
uAU (x10^3)
\\Slsvr01\HPLC\Lon.i\N112509.b\NICV1320.D
TNX
-DNX
-MNX
Min

Data File Name: NICV1320.D
Inj. Date and Time: 25-NOV-2009 11:40
Instrument ID: Lcn.i
Client ID: XNX ICV
Compound Name: MNX
CAS #:

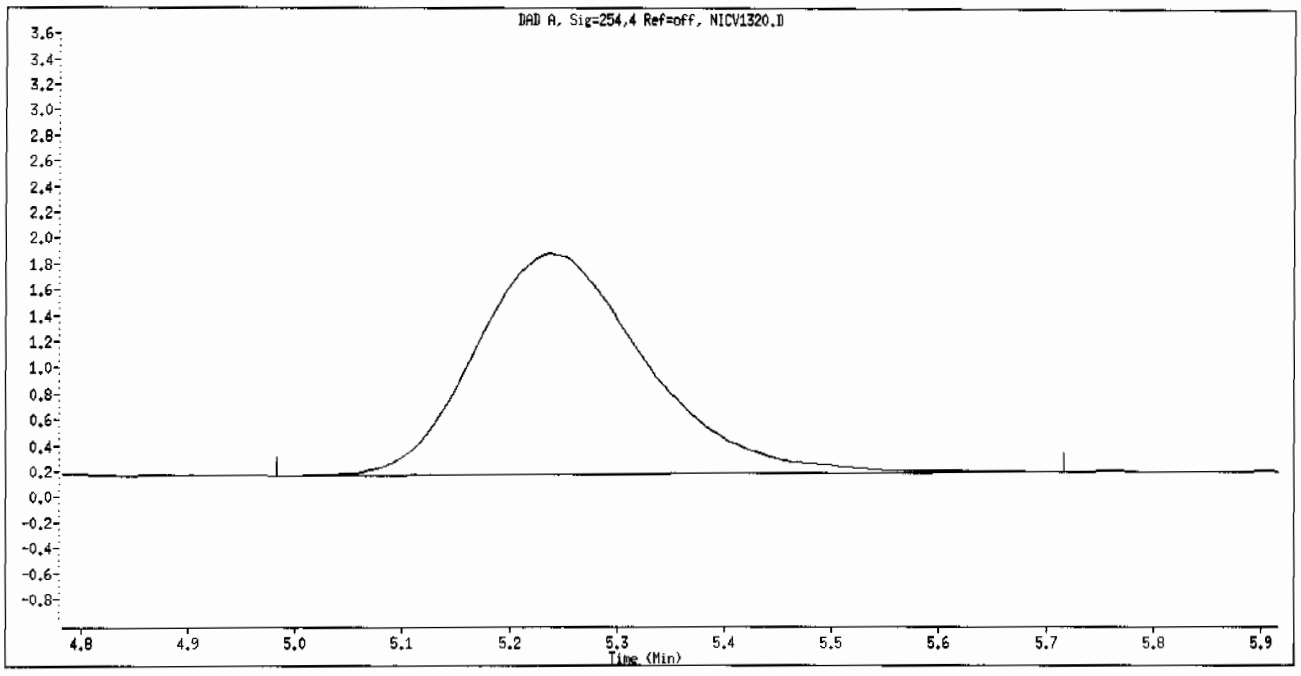

Original Integration

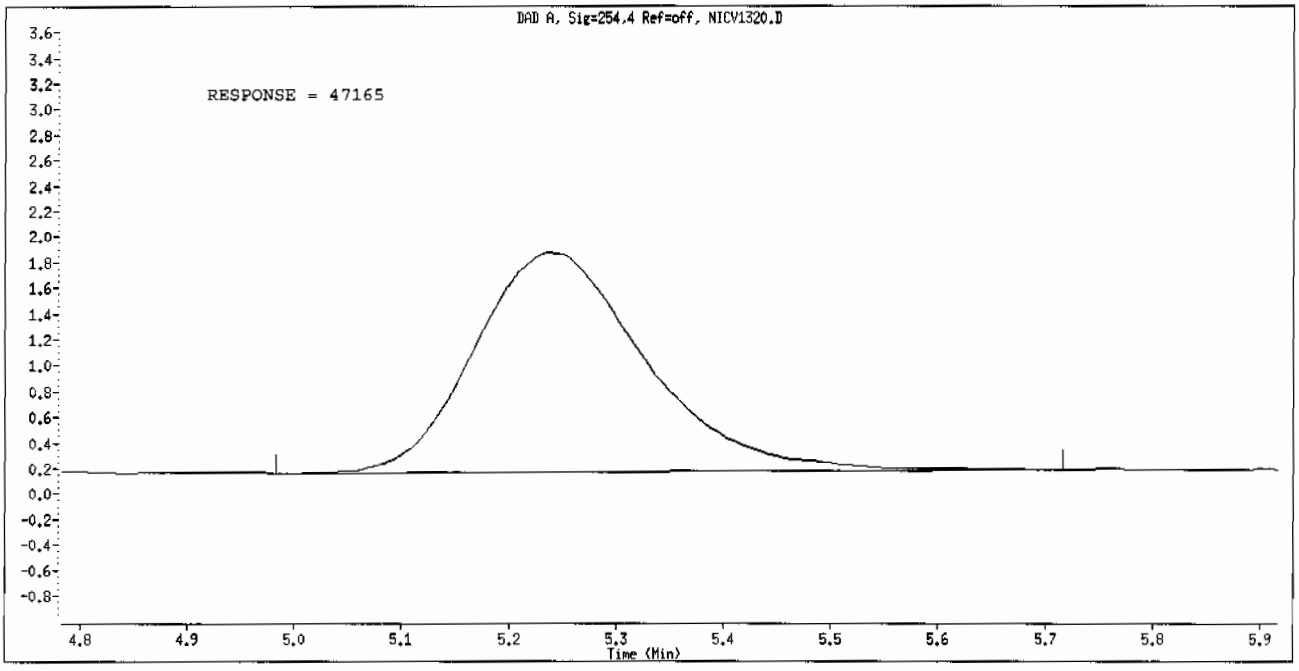

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NCAL1774.D
Report Date: 05-Jan-2010 13:10

TestAmerica St. Louis

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Lcn.i Injection Date: 29-DEC-2009 10:13
Lab File ID: NCAL1774.D Init. Cal. Date(s): 25-NOV-2009 25-NOV-2009
Analysis Type: WATER Init. Cal. Times: 10:16 11:26
Lab Sample ID: XNX CCAL Quant Type: ESTD
Method: \\slsvr01\HPLC\Lcn.i\N122909B.b\C18XNX.m

COMPOUND	RRF / AMOUNT	RF125	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 TNX	647	663	0.010	-2.41182	20.00000	Averaged
2 DNX	630	611	0.010	3.02555	20.00000	Averaged
3 MNX	493	495	0.010	-0.34130	20.00000	Averaged
$ 4 1,2-Dinitrobenzene	518	491	0.010	5.22283	20.00000	Averaged

Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NCAL1774.D
Report Date: 05-Jan-2010 13:10

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N122909B.b\NCAL1774.D
Lab Smp Id: XNX CCAL Client Smp ID: XNX CCAL
Inj Date : 29-DEC-2009 10:13
Operator : WH Inst ID: Lcn.i
Smp Info : XNX CCAL
Misc Info :
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N122909B.b\C18XNX.m
Meth Date : 04-Jan-2010 13:52 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.846	3.837	0.009	66667	100.606	103.0
2 DNX	4.331	4.324	0.007	42060	68.8500	66.77
3 MNX	5.257	5.239	0.018	45055	90.9875	91.30
$ 4 1,2-Dinitrobenzene	8.756	8.706	0.050	61337	125.000	118.5

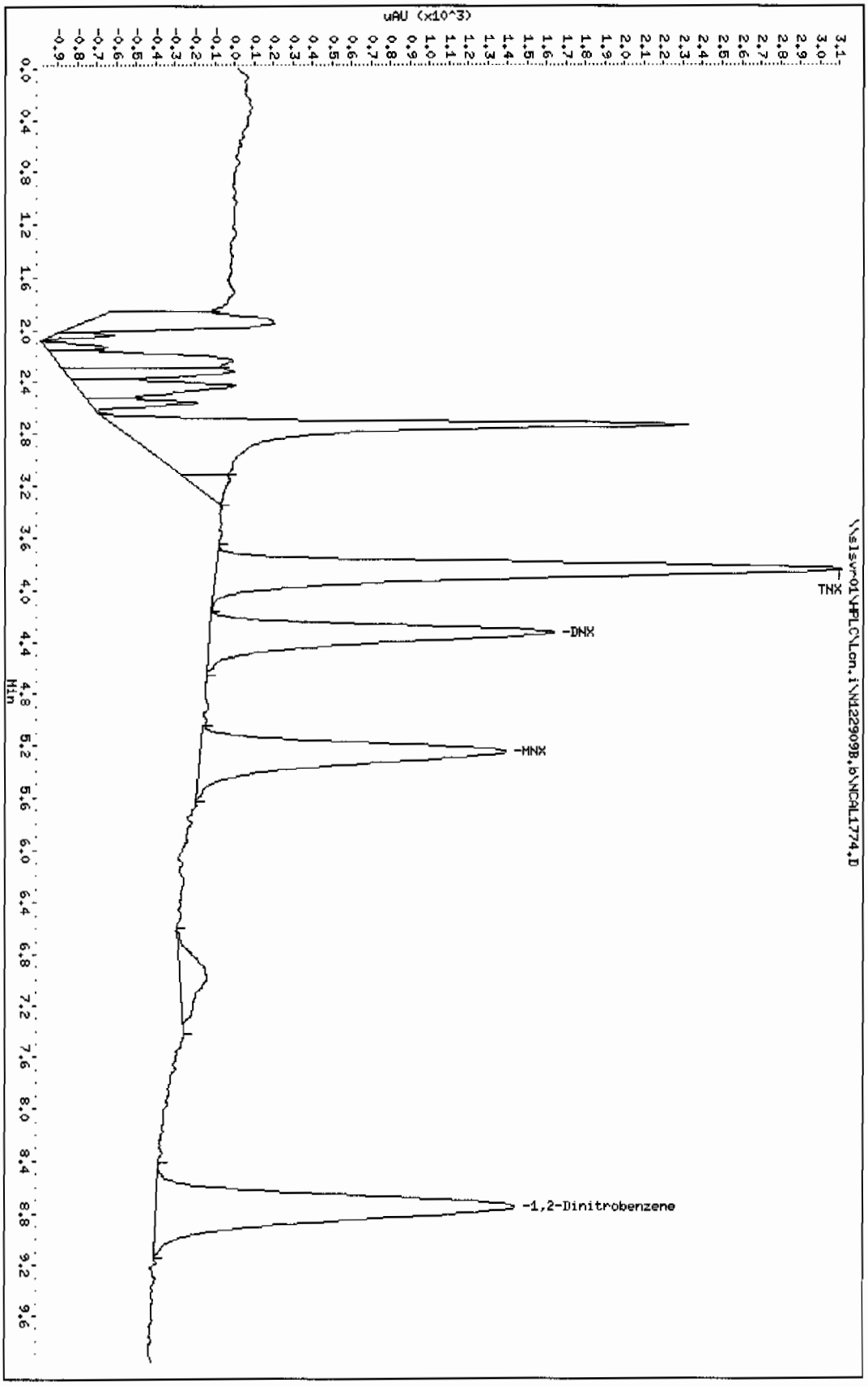
Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NCAL1774.D
Date : 29-DEC-2009 10:13
Client ID: NNX CCAL
Sample Info: NNX CCAL
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn.i
Operator: WH
Column diameter: 4.60
uAU (x10^3)
\\slsvr01\HPLC\Lcn.i\N122909B.b\NCAL1774.D
TNX
-DNX
-MNX
-1,2-Dinitrobenzene
Min

Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NCAL1785.D
Report Date: 04-Jan-2010 14:00

TestAmerica St. Louis

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Lcn.i Injection Date: 29-DEC-2009 12:47
Lab File ID: NCAL1785.D Init. Cal. Date(s): 25-NOV-2009 25-NOV-2009
Analysis Type: WATER Init. Cal. Times: 10:16 11:26
Lab Sample ID: XNX CCAL Quant Type: ESTD
Method: \\slsvr01\HPLC\Lcn.i\N122909B.b\C18XNX.m

COMPOUND	RRF / AMOUNT	RF125	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 TNX	647	664	0.010	-2.68526	20.00000	Averaged
2 DNX	630	620	0.010	1.54995	20.00000	Averaged
3 MNX	493	499	0.010	-1.11633	20.00000	Averaged
$ 4 1,2-Dinitrobenzene	518	501	0.010	3.22954	20.00000	Averaged

Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NCAL1785.D
Report Date: 04-Jan-2010 14:00

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N122909B.b\NCAL1785.D
Lab Smp Id: XNX CCAL Client Smp ID: XNX CCAL
Inj Date : 29-DEC-2009 12:47
Operator : WH Inst ID: Lcn.i
Smp Info : XNX CCAL
Misc Info :
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N122909B.b\C18XNX.m
Meth Date : 04-Jan-2010 13:52 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.852	3.837	0.015	66845	100.606	103.3(M)
2 DNX	4.332	4.324	0.008	42700	68.8500	67.78(M)
3 MNX	5.265	5.239	0.026	45403	90.9875	92.00(M)
$ 4 1,2-Dinitrobenzene	8.765	8.706	0.059	62627	125.000	121.0

QC Flag Legend

M - Compound response manually integrated.

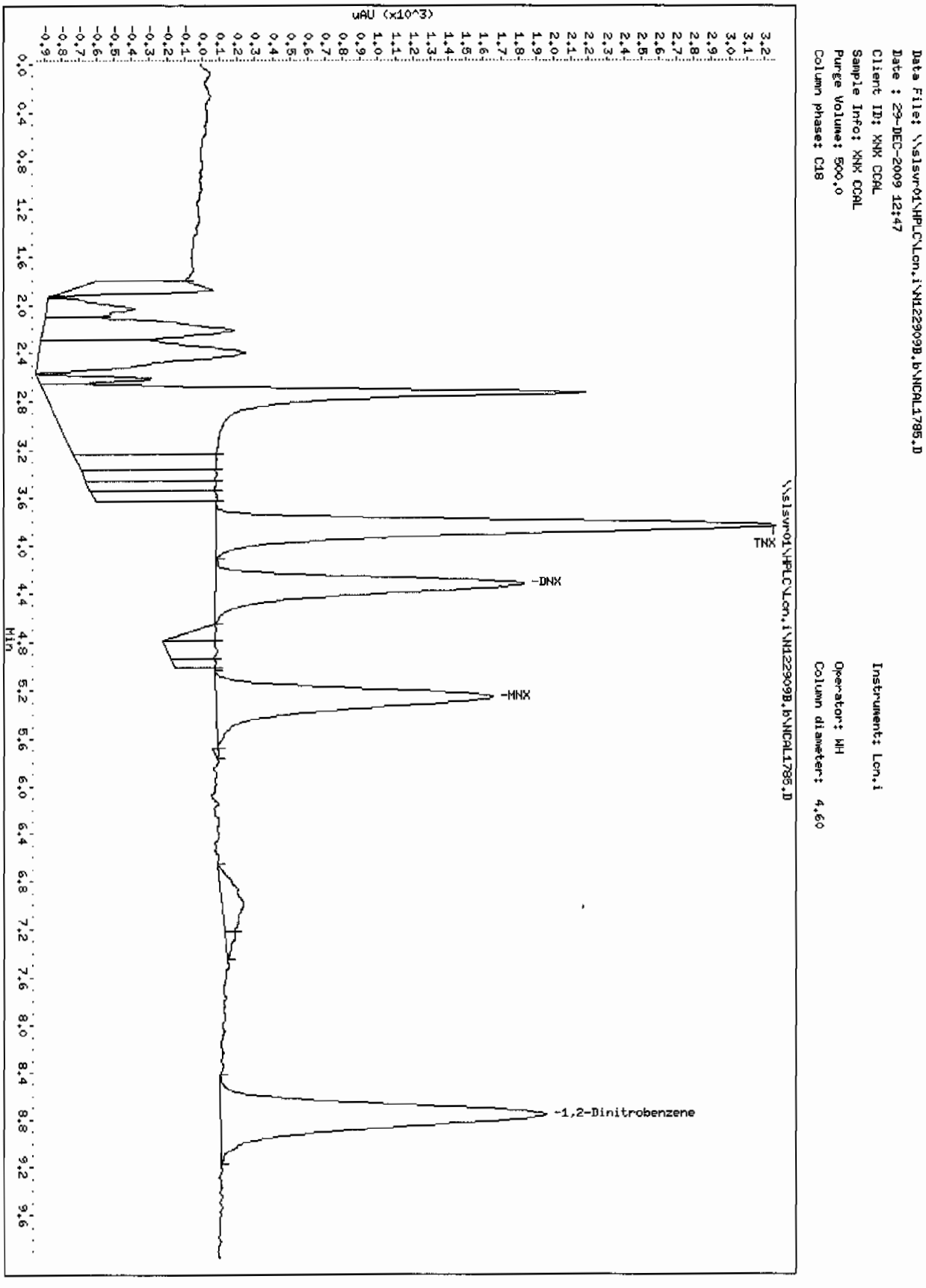
Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NCAL1785.D
Date : 29-DEC-2009 12:47
Client ID: XNX CCAL
Sample Info: XNX CCAL
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn.i
Operator: WH
Column diameter: 4.60
uAU (x10^3)
\\slsvr01\HPLC\Lcn.i\N122909B.b\NCAL1785.D
TNX
-DNX
-HNX
-1,2-Dinitrobenzene
Min

Data File Name: NCAL1785.D
Inj. Date and Time: 29-DEC-2009 12:47
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: TNX
CAS #:

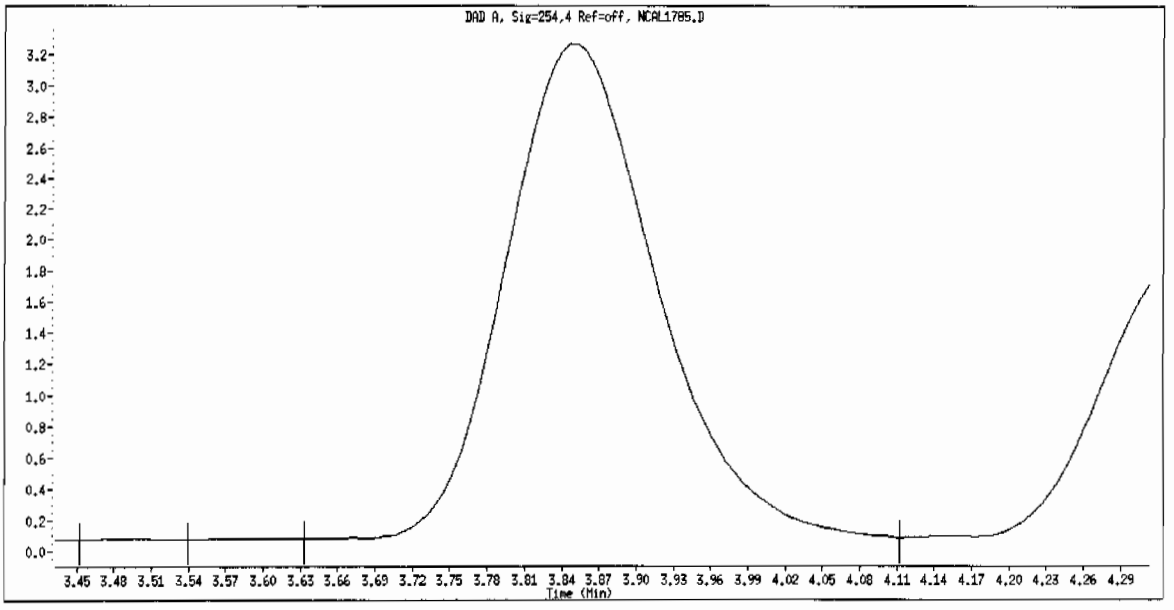

Original Integration

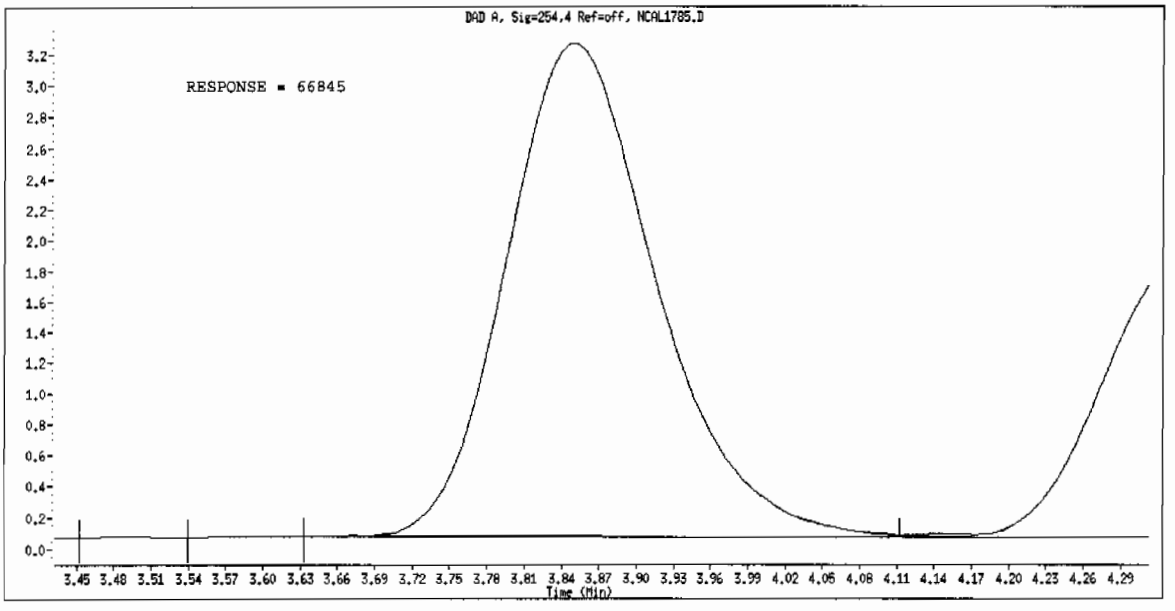

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NCAL1785.D
Inj. Date and Time: 29-DEC-2009 12:47
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: DNX
CAS #:

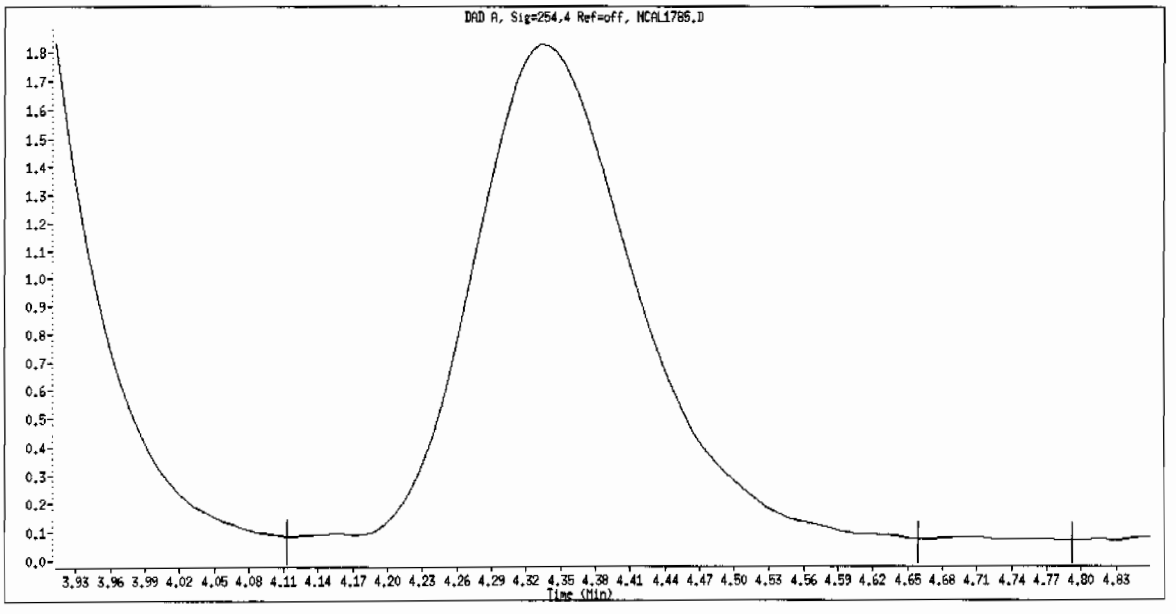

Original Integration

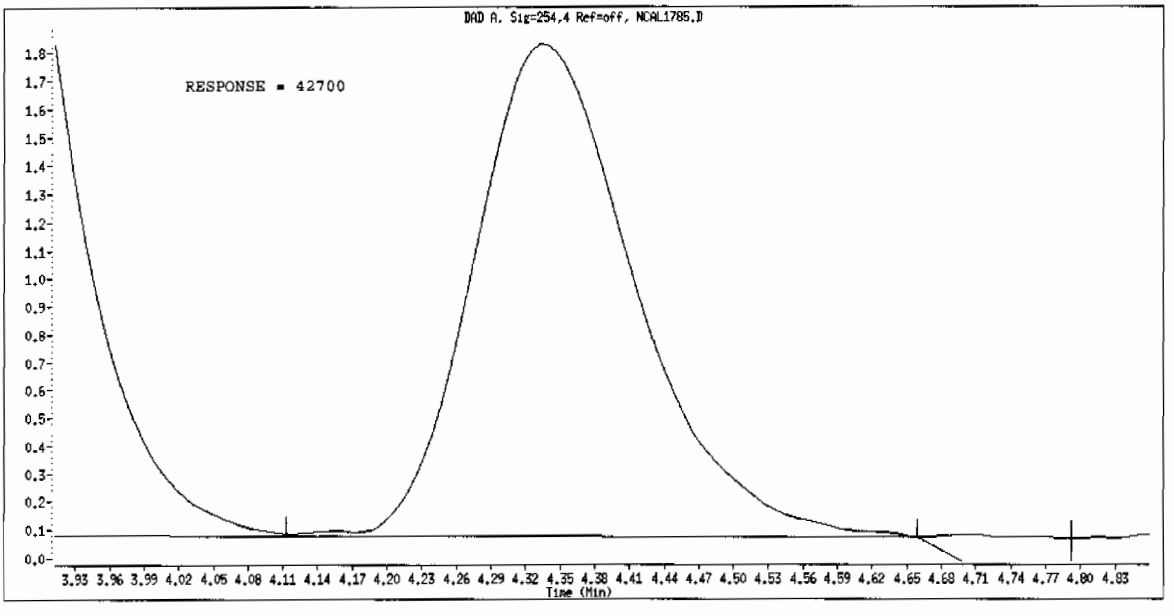

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NCAL1785.D
Inj. Date and Time: 29-DEC-2009 12:47
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: MNX
CAS #:

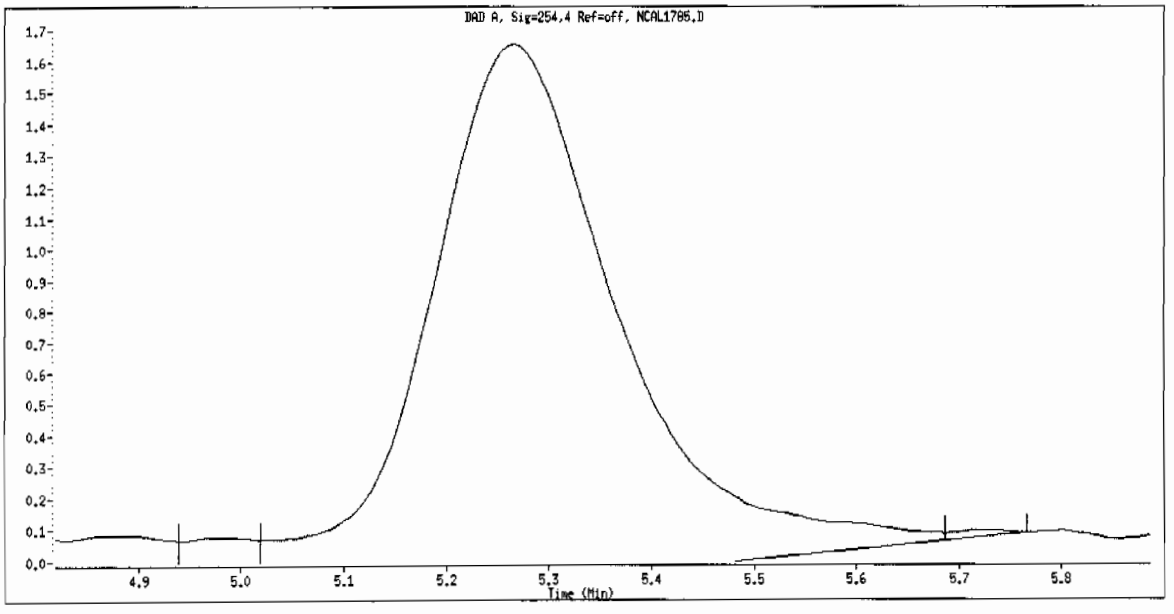

Original Integration

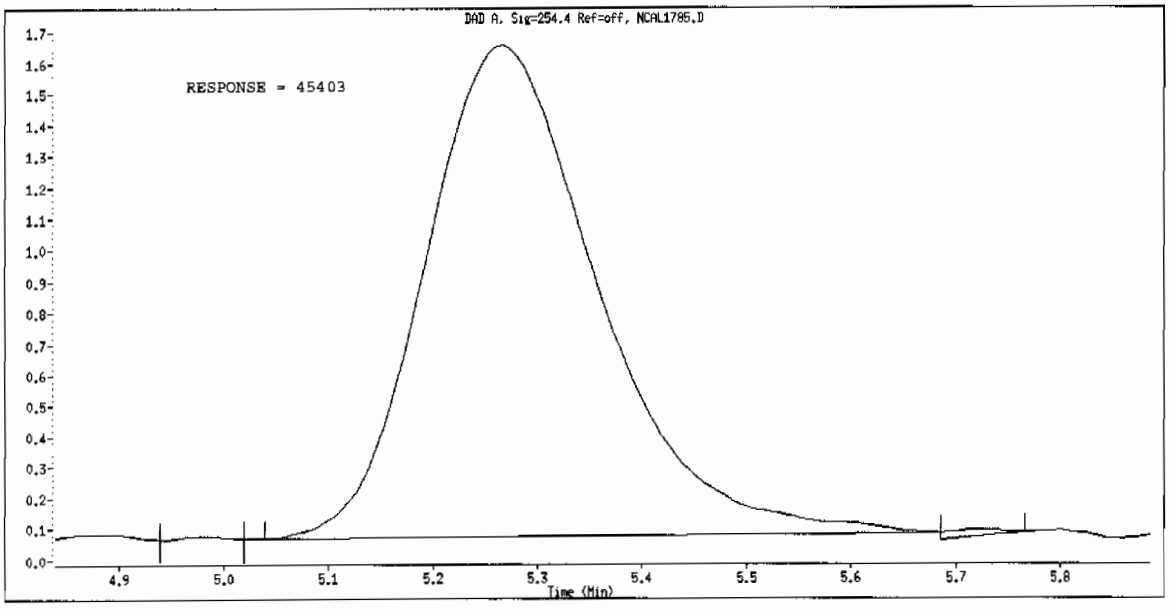

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NCAL1795.D
Report Date: 04-Jan-2010 13:52

TestAmerica St. Louis

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Lcn.i Injection Date: 29-DEC-2009 15:07
Lab File ID: NCAL1795.D Init. Cal. Date(s): 25-NOV-2009 25-NOV-2009
Analysis Type: WATER Init. Cal. Times: 10:16 11:26
Lab Sample ID: XNX CCAL Quant Type: ESTD
Method: \\slsvr01\HPLC\Lcn.i\N122909B.b\C18XNX.m

COMPOUND	RRF / AMOUNT	RF125	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 TNX	647	669	0.010	-3.35195	20.00000	Averaged
2 DNX	630	617	0.010	2.01800	20.00000	Averaged
3 MNX	493	489	0.010	0.93482	20.00000	Averaged
$ 4 1,2-Dinitrobenzene	518	492	0.010	5.02350	20.00000	Averaged

Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NCAL1795.D
Report Date: 04-Jan-2010 13:52

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N122909B.b\NCAL1795.D
Lab Smp Id: XNX CCAL Client Smp ID: XNX CCAL
Inj Date : 29-DEC-2009 15:07
Operator : WH Inst ID: Lcn.i
Smp Info : XNX CCAL
Misc Info :
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N122909B.b\C18XNX.m
Meth Date : 04-Jan-2010 13:52 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.851	3.837	0.014	67279	100.606	104.0(M)
2 DNX	4.337	4.324	0.013	42497	68.8500	67.46(M)
3 MNX	5.271	5.239	0.032	44482	90.9875	90.14(M)
$ 4 1,2-Dinitrobenzene	8.773	8.706	0.067	61466	125.000	118.7

QC Flag Legend

M - Compound response manually integrated.

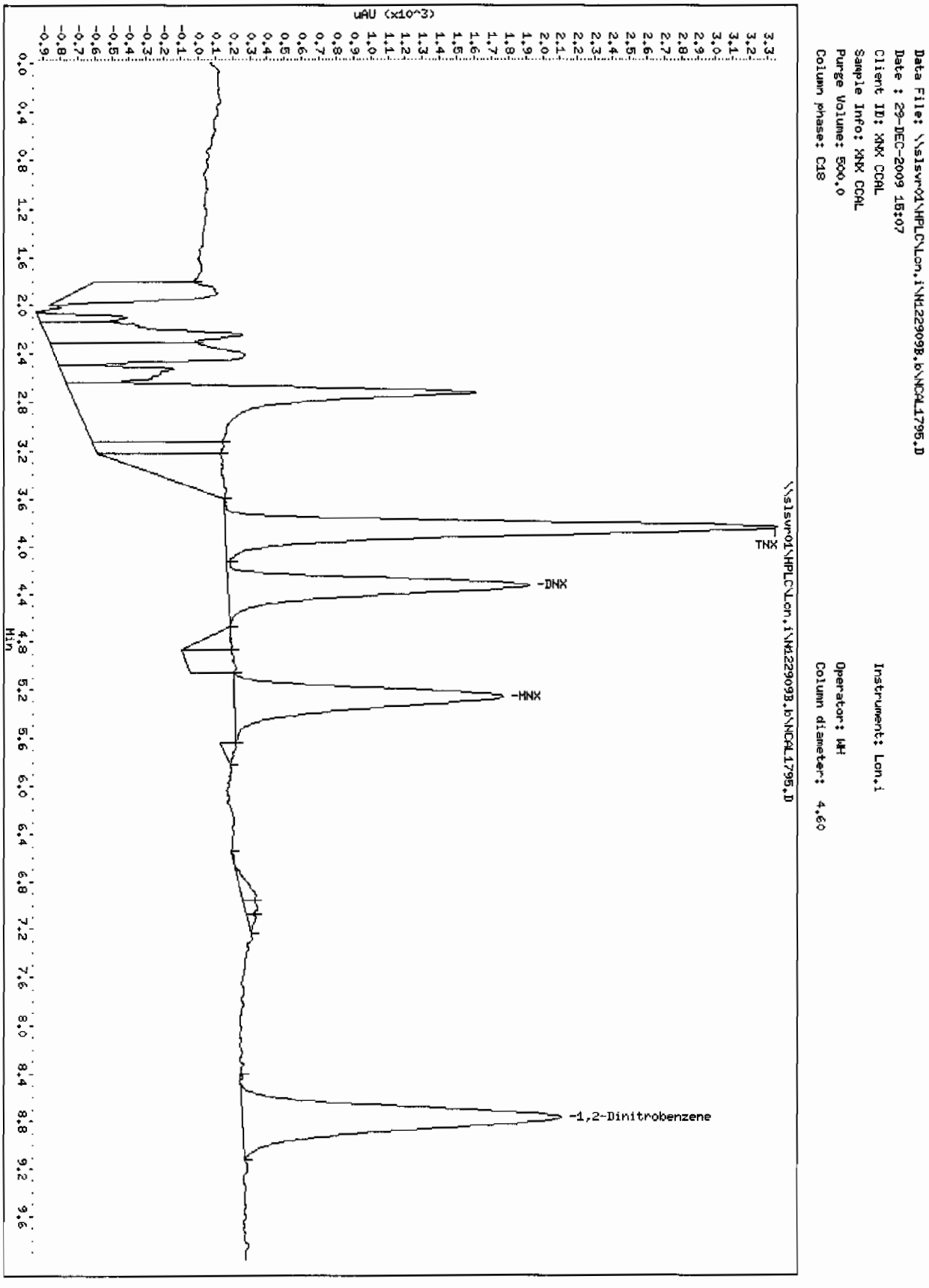
Data File: \\slsvr01\HPLC\Lcm,i\M122909B,b\NCAL1795,D
Date : 29-DEC-2009 16:07
Client ID: XNX CCAL
Sample Info: XNX CCAL
Purge Volume: 500.0
Column phase: C18
Instrument: Lcm,i
Operator: MH
Column diameter: 4.60
uAU (x10^3)
\\slsvr01\HPLC\Lcm,i\M122909B,b\NCAL1795,D
TNX
-DNX
-HNX
-1,2-Dinitrobenzene
Min

Data File Name: NCAL1795.D
Inj. Date and Time: 29-DEC-2009 15:07
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: TNX
CAS #:

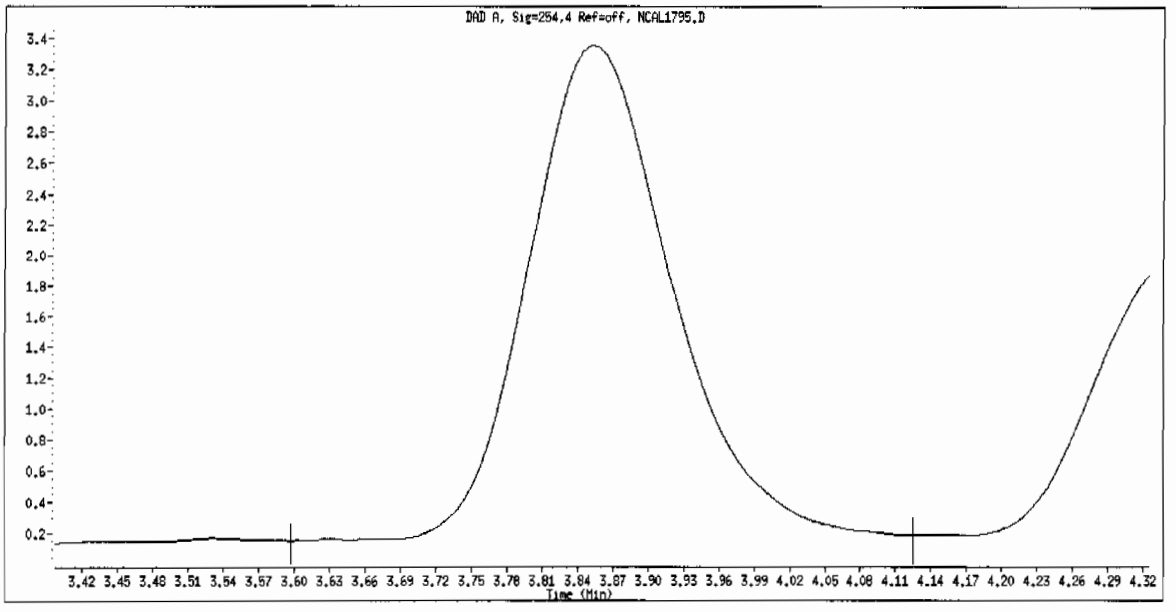

Original Integration

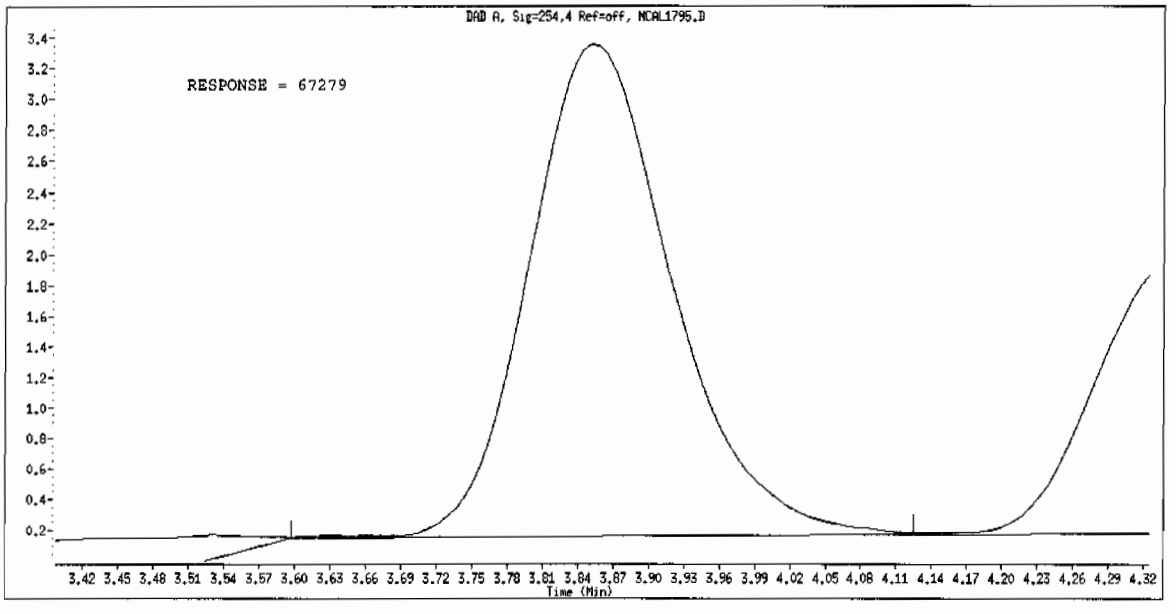

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NCAL1795.D
Inj. Date and Time: 29-DEC-2009 15:07
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: DNX
CAS #:

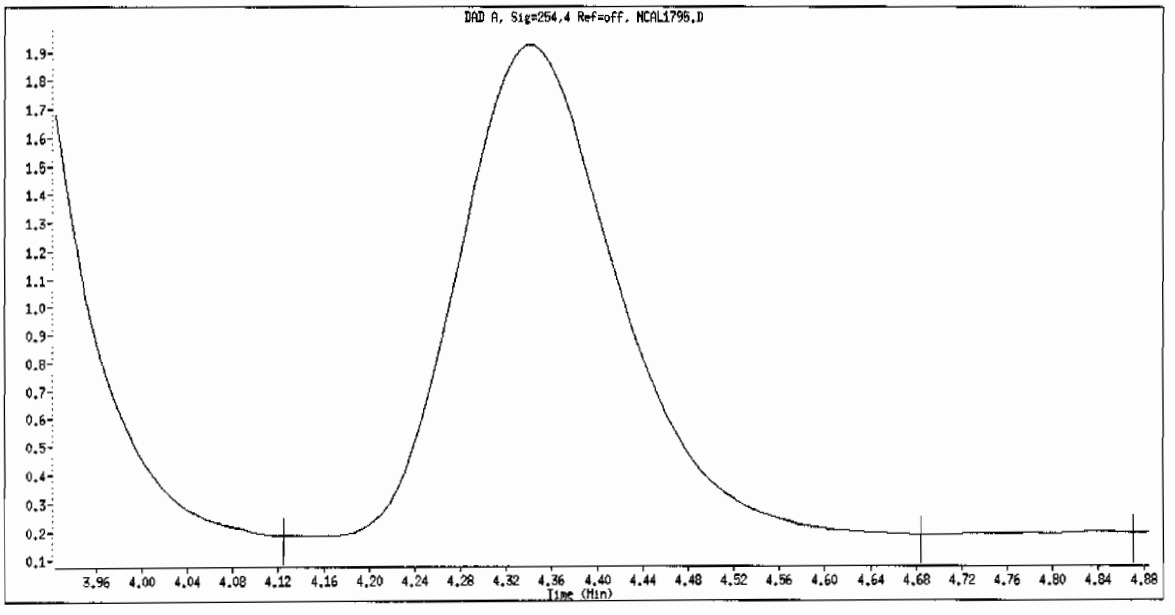

Original Integration

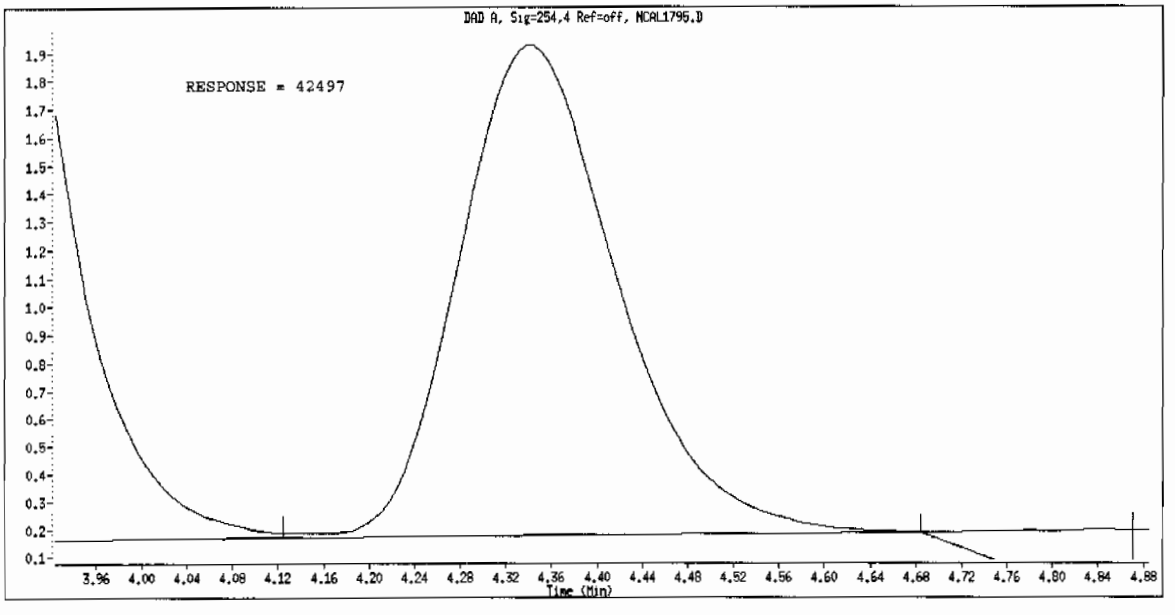

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NCAL1795.D
Inj. Date and Time: 29-DEC-2009 15:07
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: MNX
CAS #:

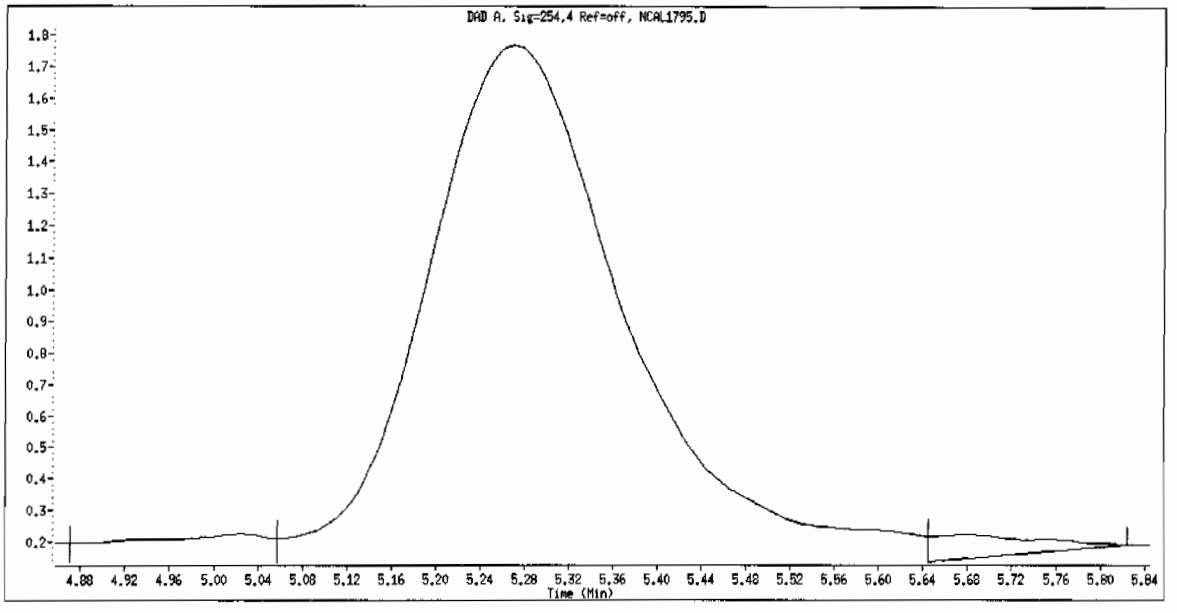

Original Integration

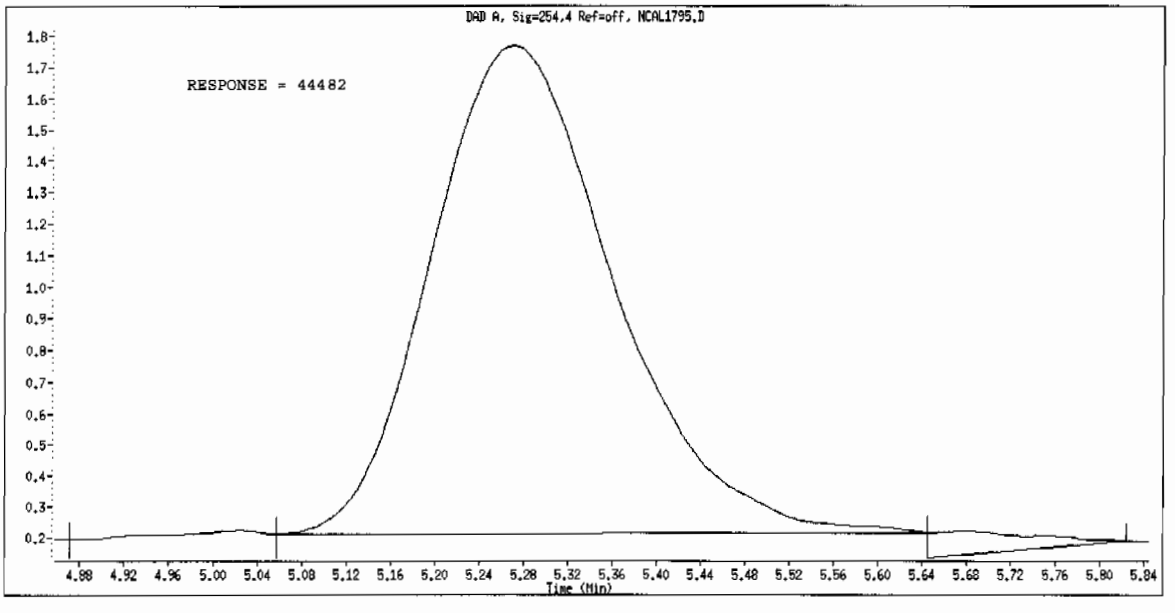

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

HPLC RAW SAMPLE DATA

Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NSMP1780.D
Report Date: 05-Jan-2010 13:08

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N122909B.b\NSMP1780.D
Lab Smp Id: LRCRQ1AC Client Smp ID: CAPA-10-6173
Inj Date : 29-DEC-2009 11:37
Operator : WH Inst ID: Lcn.i
Smp Info : LRCRQ1AC
Misc Info : F9L180535-001
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N122909B.b\C18XNX.m
Meth Date : 04-Jan-2010 13:52 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	510.600	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
$ 4 1,2-Dinitrobenzene	8.784	8.706	0.078	341988	660.545	6.468

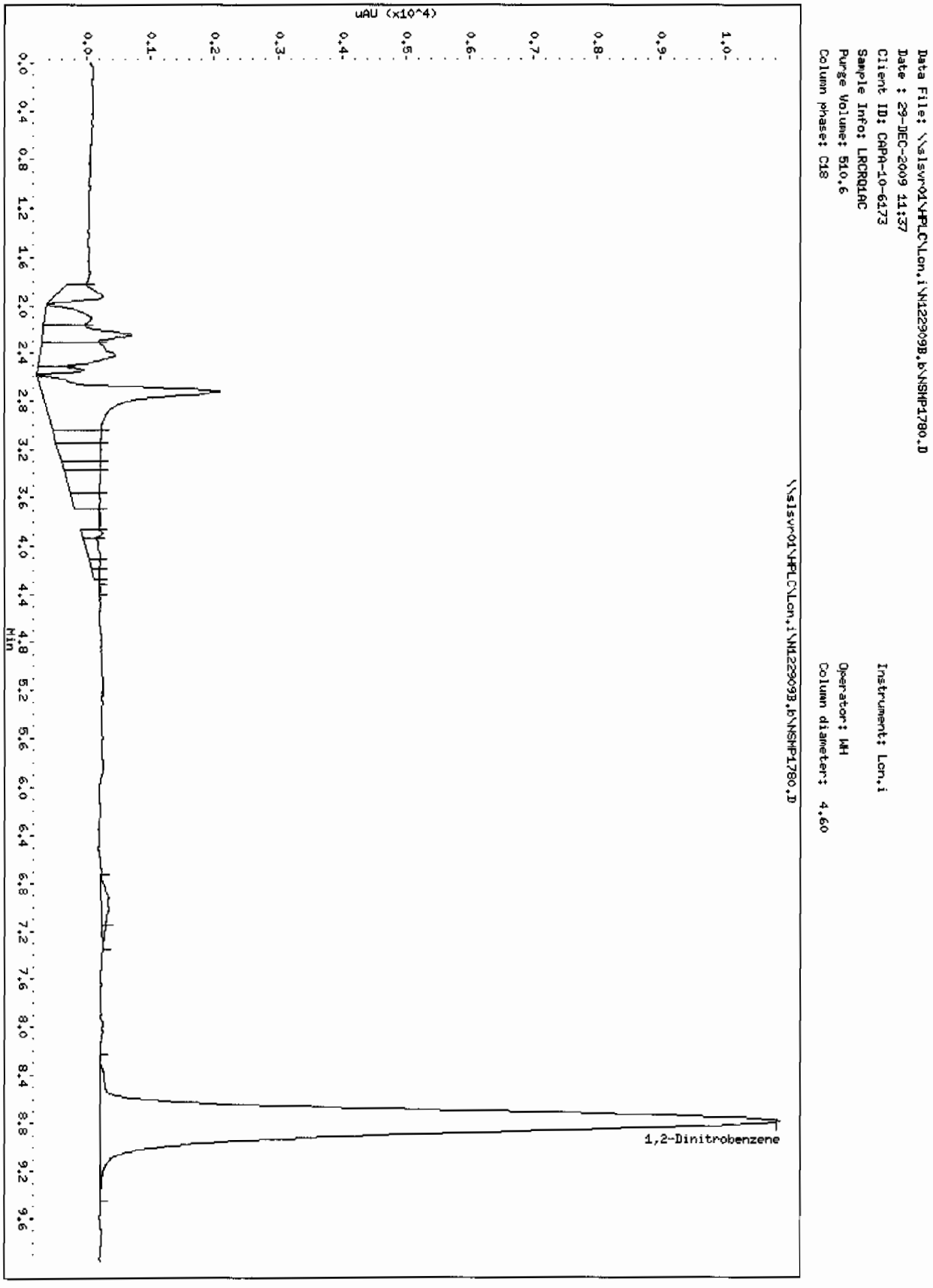
Data File: \\slsvr01\HPLC\Lon.i\M122909B.b\NSMP1780.D
Date : 29-DEC-2009 11:37
Client ID: CAPA-10-6173
Sample Info: LRCRQ1AC
Purge Volume: 510.6
Column phase: C18
Instrument: Lon.i
Operator: MH
Column diameter: 4.60
\\slsvr01\HPLC\Lon.i\M122909B.b\NSMP1780.D
uAU (x10^4)
1,2-Dinitrobenzene
Min

Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NSMP1787.D
Report Date: 05-Jan-2010 13:33

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N122909B.b\NSMP1787.D
Lab Smp Id: LREE91AC Client Smp ID: CAPA-10-6390
Inj Date : 29-DEC-2009 13:15
Operator : WH Inst ID: Lcn.i
Smp Info : LREE91AC
Misc Info : F9L190478-001
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N122909B.b\C18XNX.m
Meth Date : 04-Jan-2010 13:52 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	507.900	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
$ 4 1,2-Dinitrobenzene	8.787	8.706	0.081	303998	587.167	5.780(M)

QC Flag Legend

M - Compound response manually integrated.

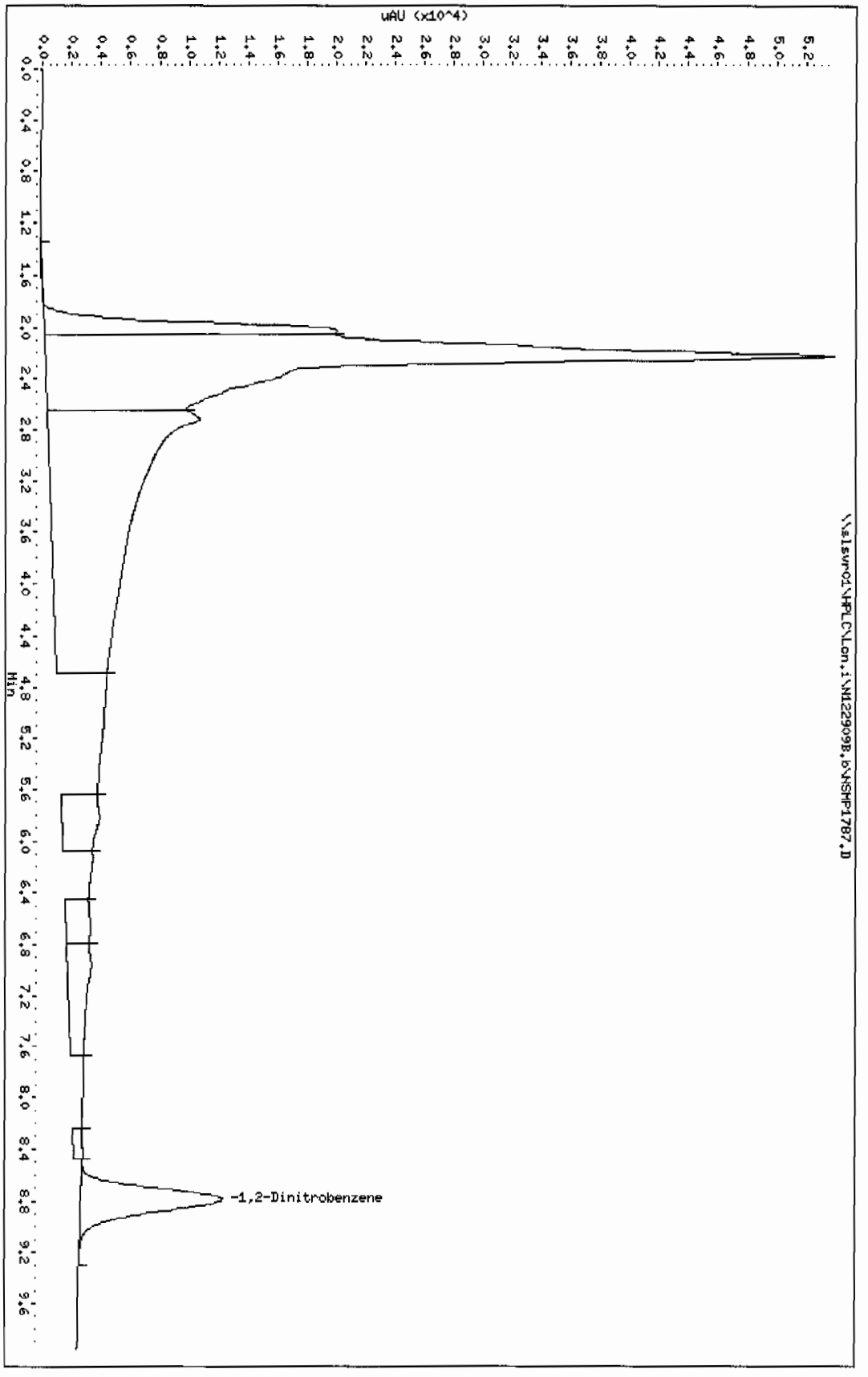
Data File: \\slsvr01\HPLC\Lcn.i\M122909B.b\NSHP1787.D
Date : 29-DEC-2009 13:15
Client ID: CAPB-10-6390
Sample Info: LREE91AC
Purge Volume: 507.9
Column phase: C18
Instrument: Lcn.i
Operator: WH
Column diameter: 4.60
\\slsvr01\HPLC\Lcn.i\M122909B.b\NSHP1787.D
uAU (x10^4)
Min
-1,2-Dinitrobenzene

Data File Name: NSMP1787.D
Inj. Date and Time: 29-DEC-2009 13:15
Instrument ID: Lcn.i
Client ID: CAPA-10-6390
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

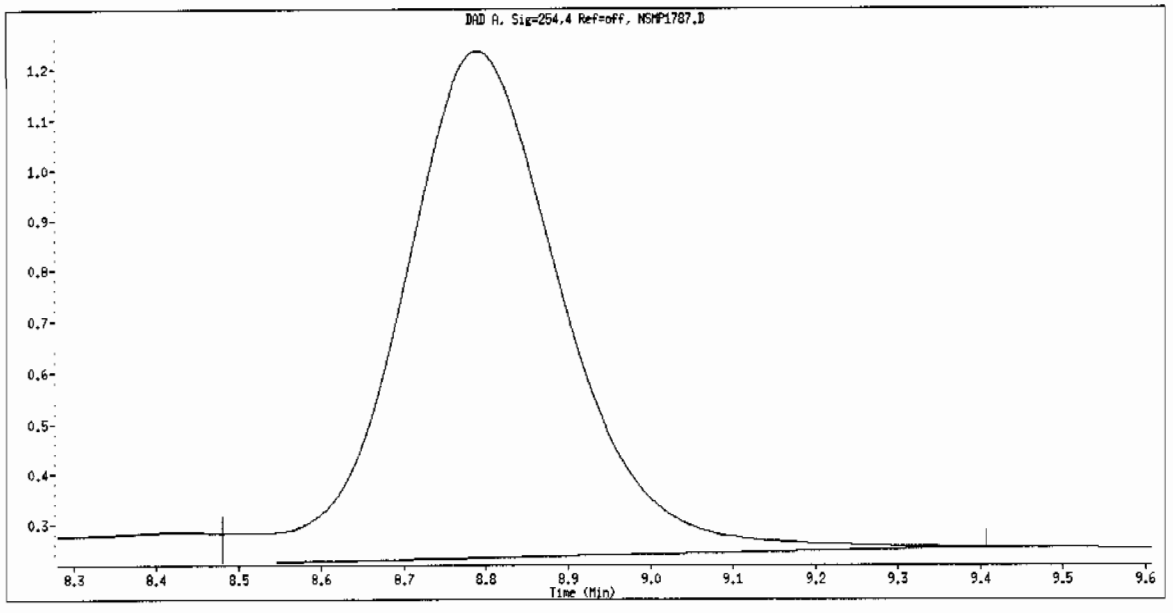

Original Integration

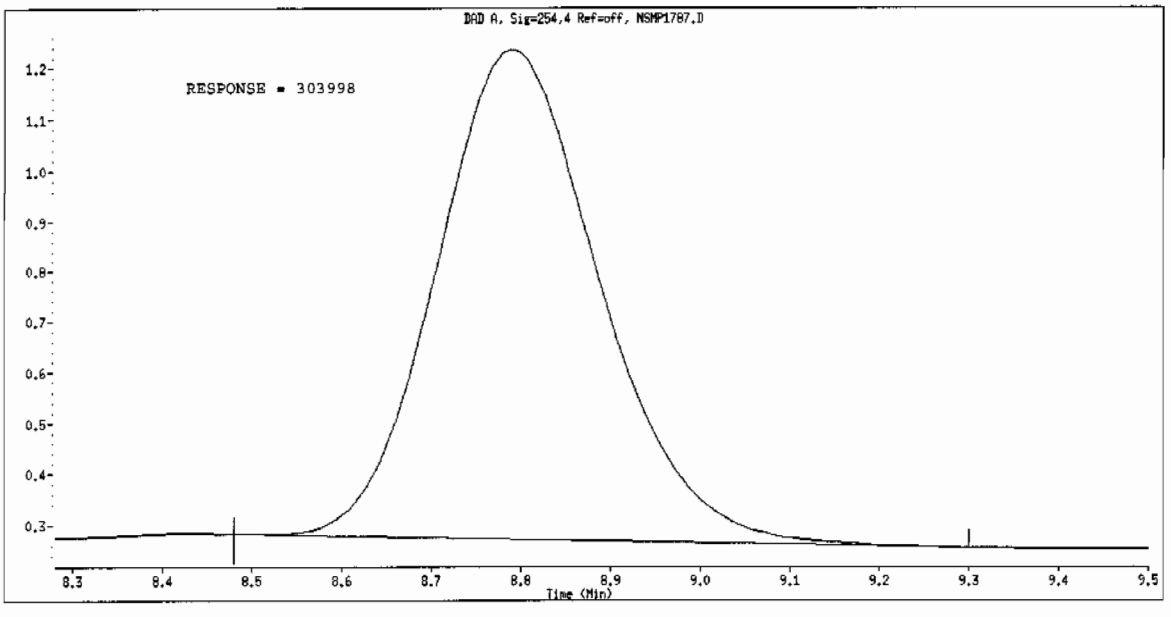

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NSMP1788.D
Report Date: 05-Jan-2010 13:33

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N122909B.b\NSMP1788.D
Lab Smp Id: LREFD1AC Client Smp ID: CAPA-10-6746
Inj Date : 29-DEC-2009 13:29
Operator : WH Inst ID: Lcn.i
Smp Info : LREFD1AC
Misc Info : F9L190478-002
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N122909B.b\C18XNX.m
Meth Date : 04-Jan-2010 13:52 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	510.400	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
$ 4 1,2-Dinitrobenzene	8.777	8.706	0.071	339652	656.033	6.427(M)

QC Flag Legend

M - Compound response manually integrated.

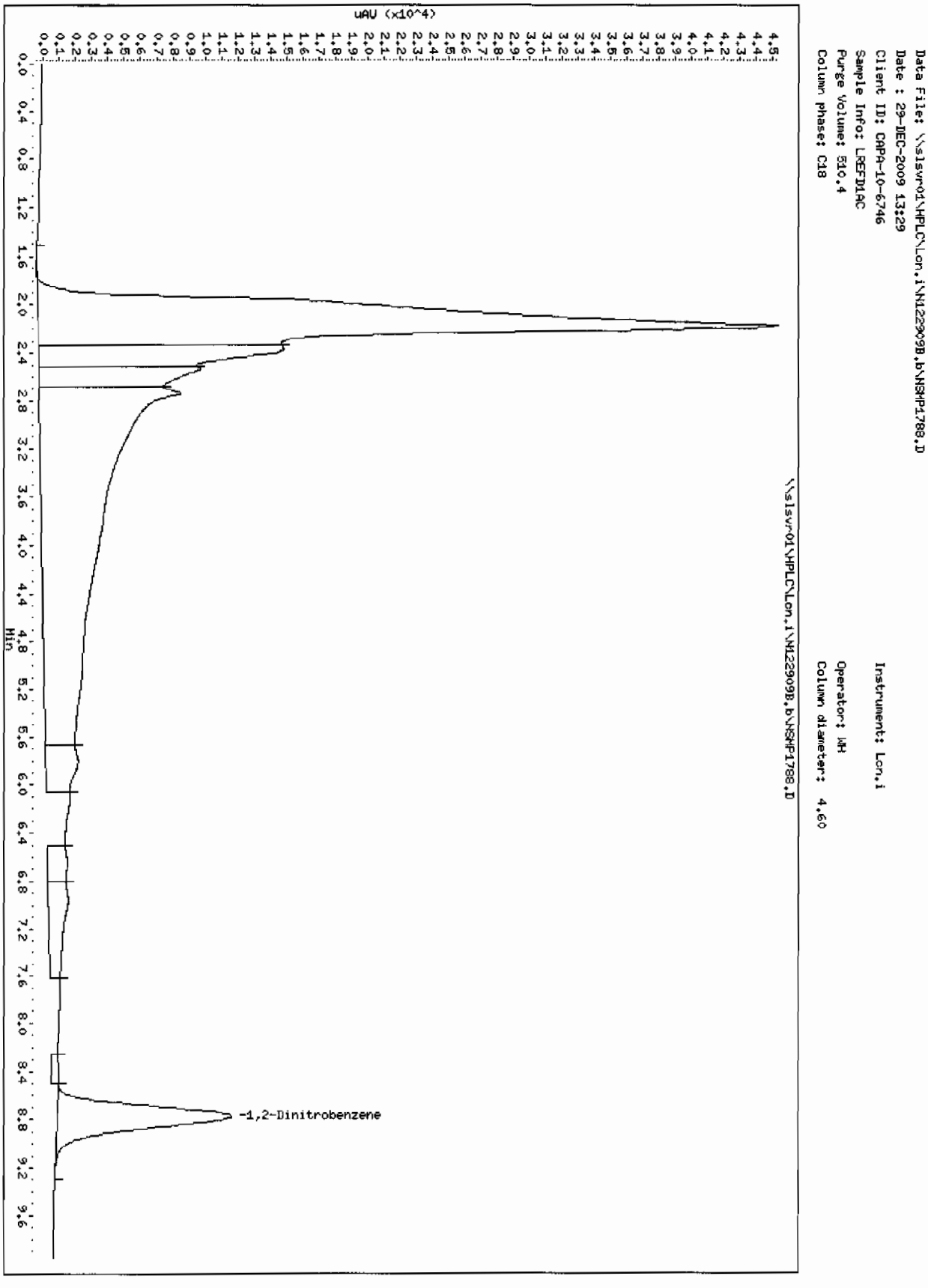
Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NSMP1788.D
Date : 29-DEC-2009 13:29
Client ID: CAPA-10-6746
Sample Info: LREFDIAC
Purge Volume: 510.4
Column phase: C18
Instrument: Lcn.i
Operator: WH
Column diameter: 4.60
uAU (x10^4)
\\slsvr01\HPLC\Lcn.i\N122909B.b\NSMP1788.D
-1,2-Dinitrobenzene
Min

Data File Name: NSMP1788.D
Inj. Date and Time: 29-DEC-2009 13:29
Instrument ID: Lcn.i
Client ID: CAPA-10-6746
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

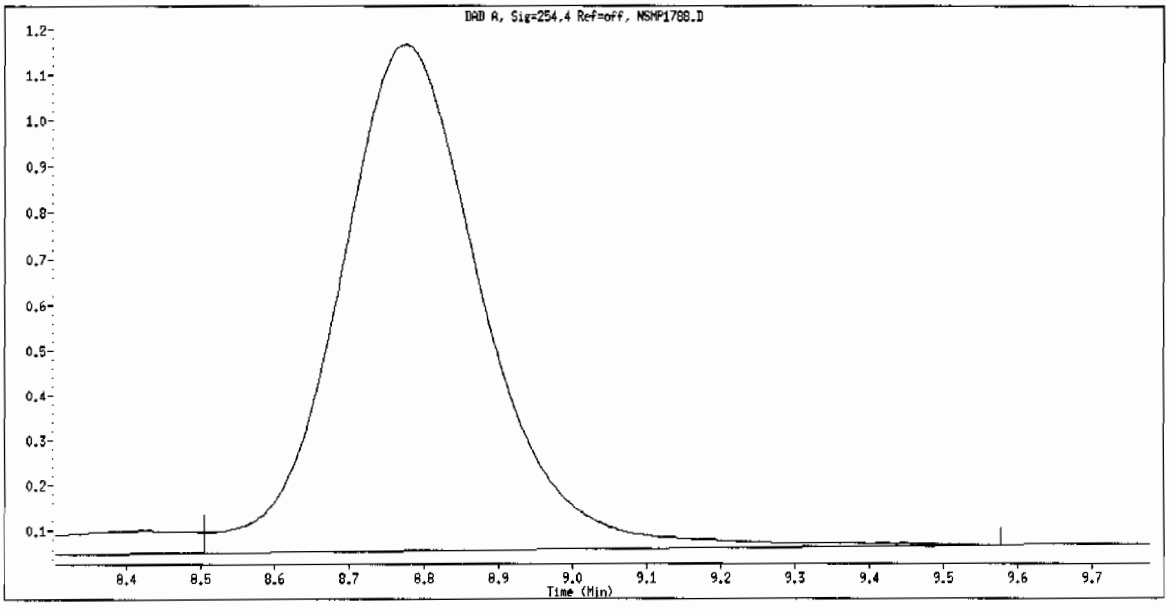

Original Integration

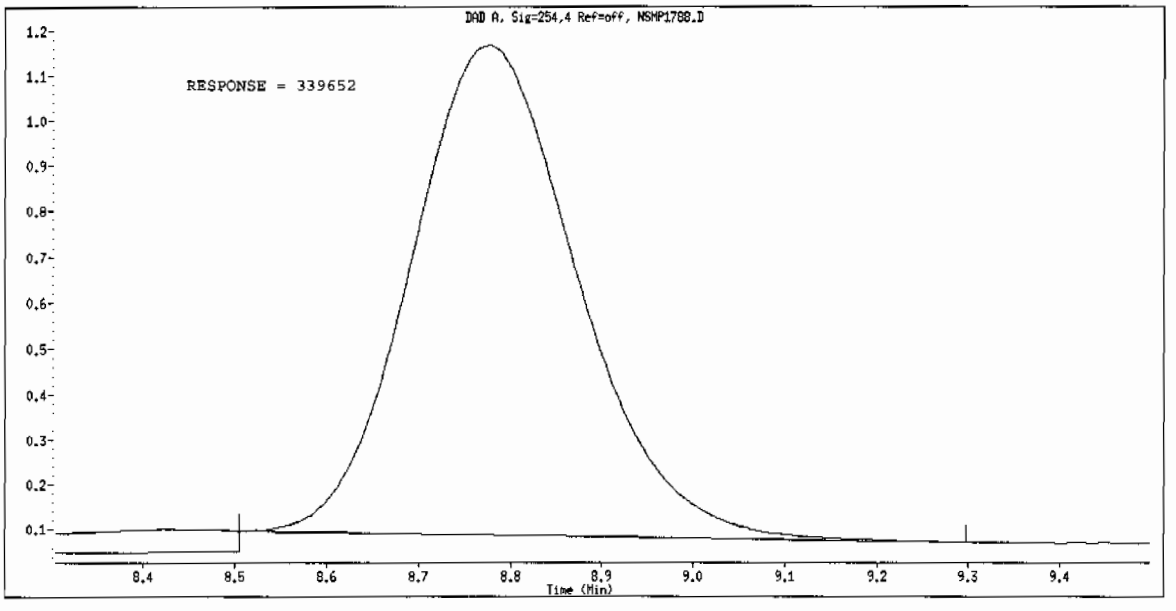

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NSMP1789.D
Report Date: 05-Jan-2010 13:33

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N122909B.b\NSMP1789.D
Lab Smp Id: LREFE1AC Client Smp ID: CAPA-10-6793
Inj Date : 29-DEC-2009 13:43
Operator : WH Inst ID: Lcn.i
Smp Info : LREFE1AC
Misc Info : F9L190478-003
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N122909B.b\C18XNX.m
Meth Date : 04-Jan-2010 13:52 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	505.600	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
$ 4 1,2-Dinitrobenzene	8.787	8.706	0.081	322073	622.079	6.152(M)

QC Flag Legend

M - Compound response manually integrated.

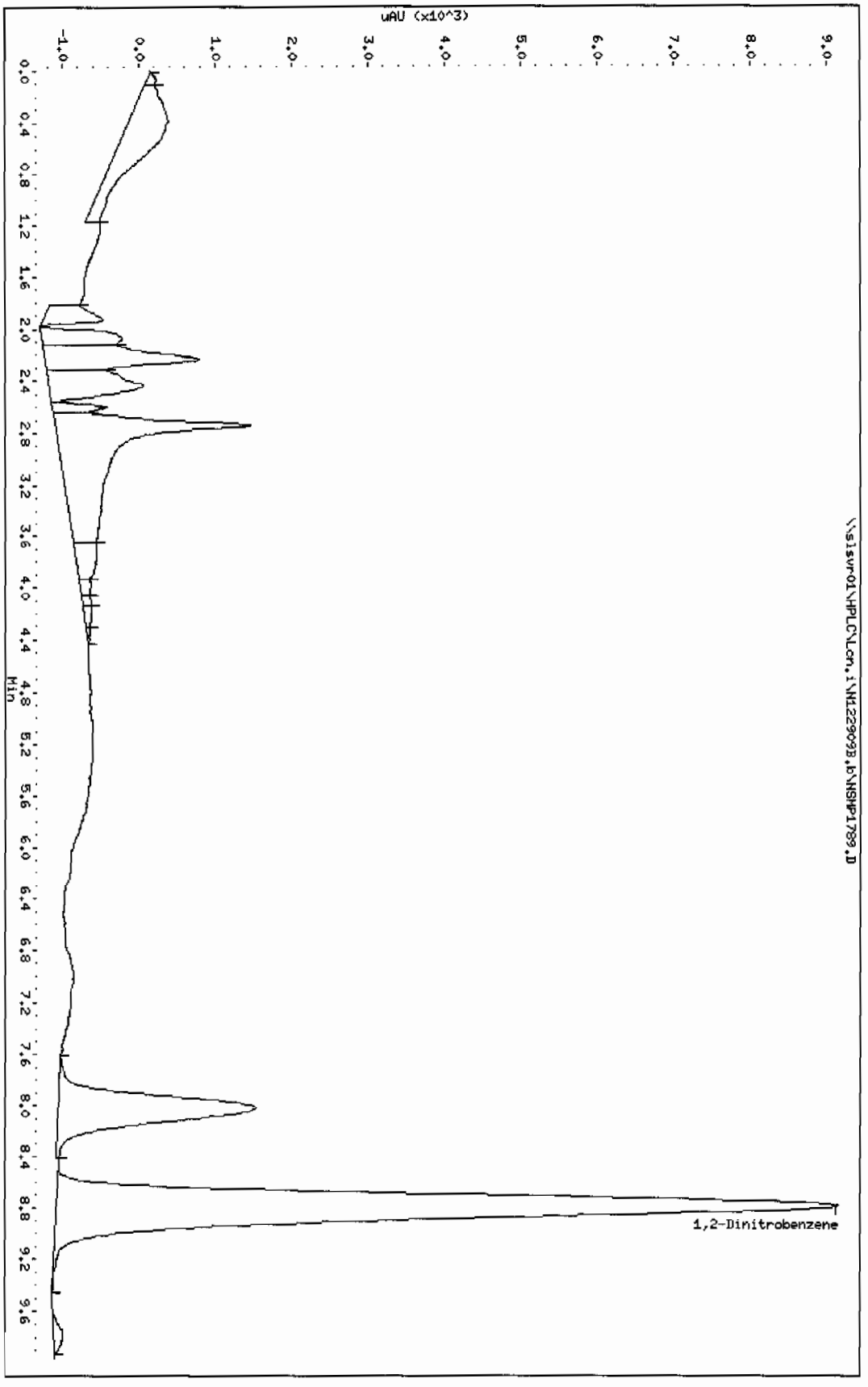
Data File: \\slsvr01\HPLC\Lon.i\M122909B.b\NSMP1789.D
Date : 29-DEC-2009 13:43
Client ID: CAPA-10-6793
Sample Info: LREFE1AC
Purge Volume: 505.6
Column phase: C18
Instrument: Lon.i
Operator: WH
Column diameter: 4.60
\\slsvr01\HPLC\Lon.i\M122909B.b\NSMP1789.D
uAU (x10^3)
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
-1.0
0.0 0.4 0.8 1.2 1.6 2.0 2.4 2.8 3.2 3.6 4.0 4.4 4.8 5.2 5.6 6.0 6.4 6.8 7.2 7.6 8.0 8.4 8.8 9.2 9.6
Min
1,2-Dinitrobenzene

Data File Name: NSMP1789.D
Inj. Date and Time: 29-DEC-2009 13:43
Instrument ID: Lcn.i
Client ID: CAPA-10-6793
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

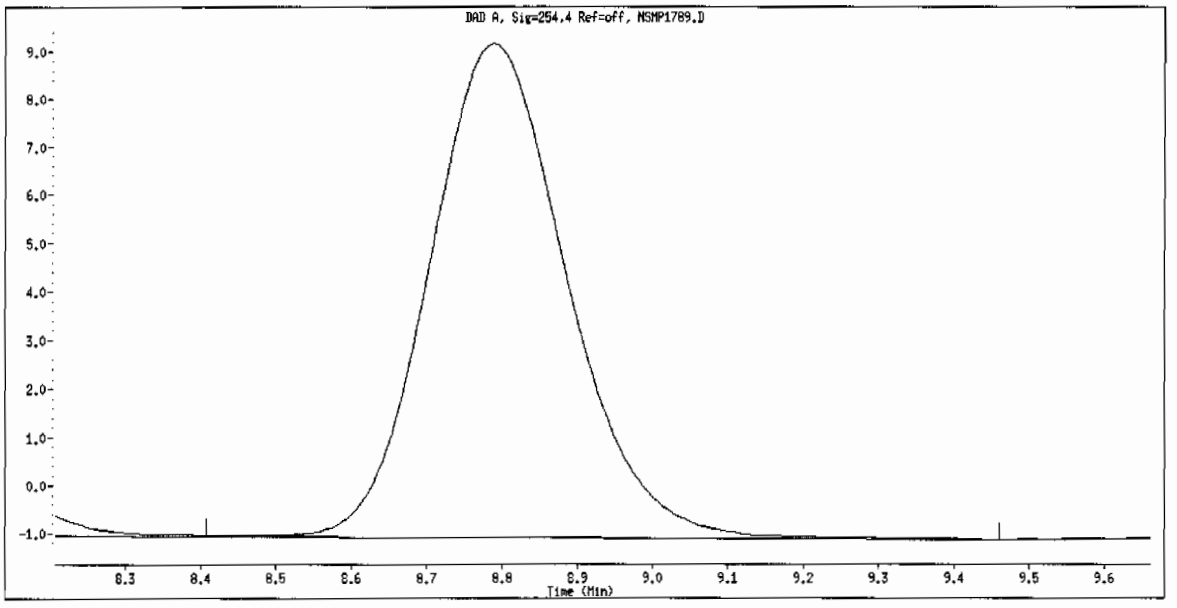

Original Integration

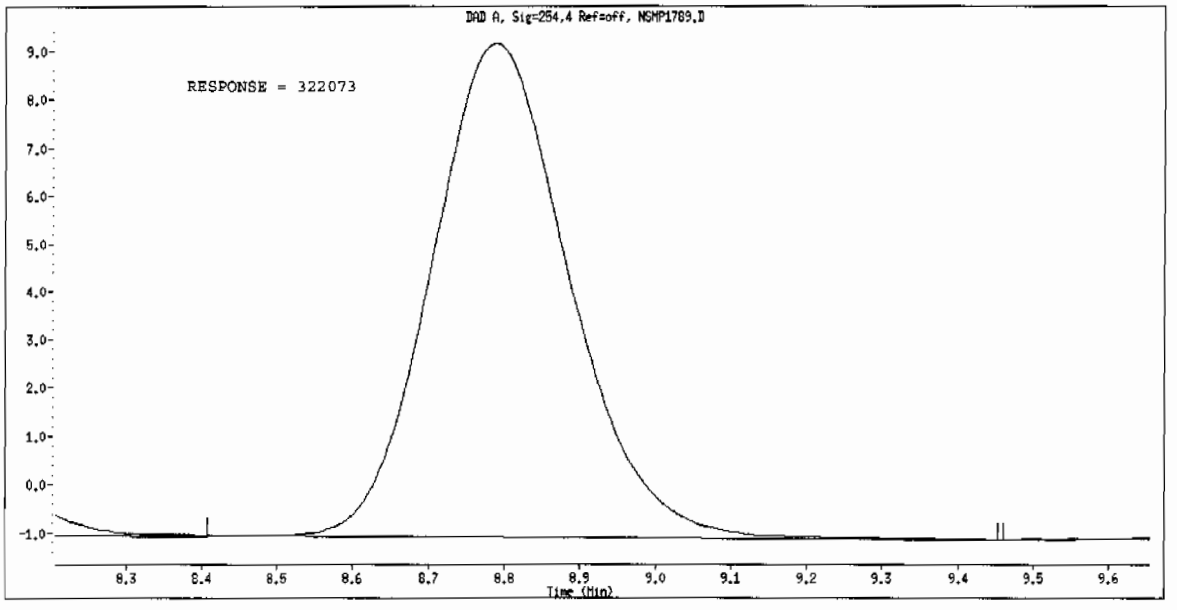

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

HPLC RAW QC DATA

Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NBLK1775.D
Report Date: 30-Dec-2009 09:28

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N122909B.b\NBLK1775.D
Lab Smp Id: LRGV91AA Client Smp ID: LAB BLANK
Inj Date : 29-DEC-2009 10:27
Operator : WH Inst ID: Lcn.i
Smp Info : LRGV91AA
Misc Info : F9L220000-248B
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N122909B.b\C18XNX.m
Meth Date : 30-Dec-2009 09:08 flakera Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
$ 4 1,2-Dinitrobenzene	8.767	8.706	0.061	262835	507.662	5.077

Data File: \\slsvr01\HPLC\Lon.i\M122909B.b\NBLK1775.D
Date : 29-DEC-2009 10:27
Client ID: LAB BLANK
Sample Info: LRGV91AA
Purge Volume: 500.0
Column phase: C18

Instrument: Lon.i
Operator: MH
Column diameter: 4.60

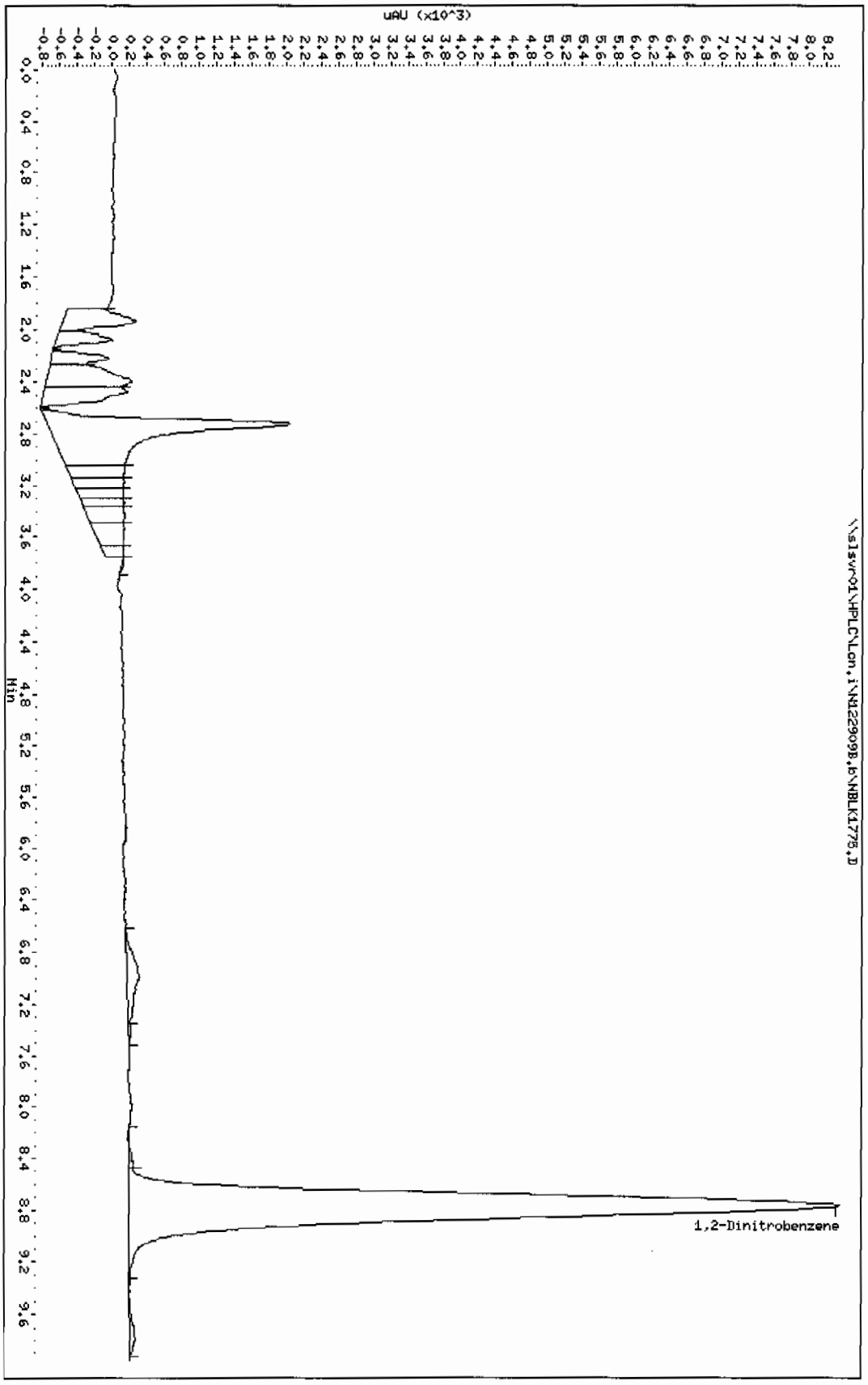

Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NLCS1776.D
Report Date: 04-Jan-2010 09:37

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N122909B.b\NLCS1776.D
Lab Smp Id: LRGV91AC Client Smp ID: LAB CHECK
Inj Date : 29-DEC-2009 10:41
Operator : WH Inst ID: Lcn.i
Smp Info : LRGV91AC
Misc Info : F9L220000-248C
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N122909B.b\C18XNX.m
Meth Date : 30-Dec-2009 09:08 flakera Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 TNX	3.849	3.837	0.012	38756	59.8967	0.5990(M)
2 DNX	4.336	4.324	0.012	26129	41.4777	0.4148(M)
3 MNX	5.263	5.239	0.024	25960	52.6045	0.5260(M)
$ 4 1,2-Dinitrobenzene	8.753	8.706	0.047	302613	584.492	5.845

QC Flag Legend

M - Compound response manually integrated.

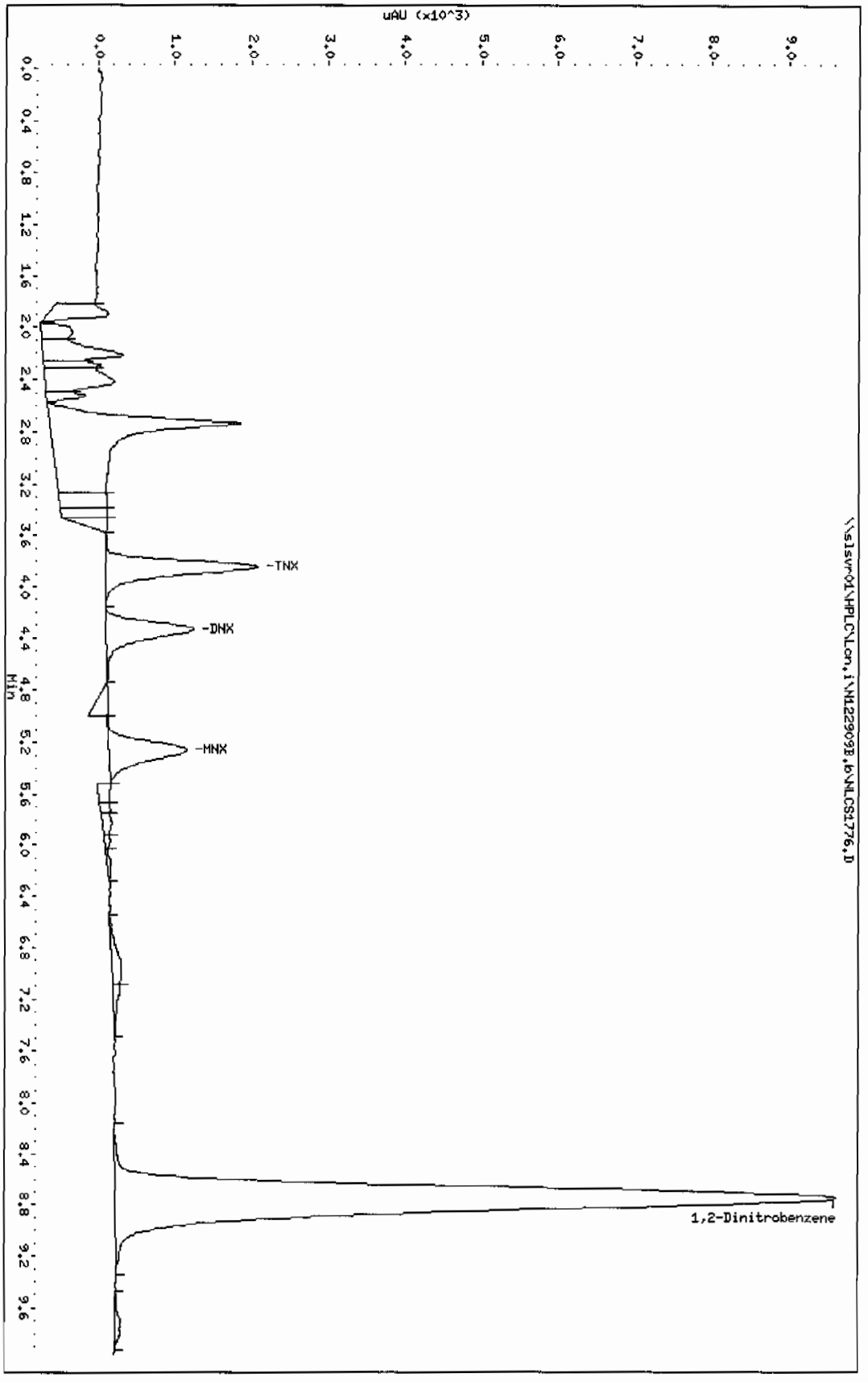
Data File: \\slsvr01\HPLC\Lon.i\M122909B.b\MLCS1776.D
Date : 29-DEC-2009 10:41
Client ID: LAB CHECK
Sample Info: LRGV91AC
Purge Volume: 500.0
Column phase: C18
Instrument: Lon.i
Operator: WH
Column diameter: 4.60
\\slsvr01\HPLC\Lon.i\M122909B.b\MLCS1776.D
uAU (x10^3)
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
-TNX
-DNX
-MNX
1,2-Dinitrobenzene
Min
0.0 0.4 0.8 1.2 1.6 2.0 2.4 2.8 3.2 3.6 4.0 4.4 4.8 5.2 5.6 6.0 6.4 6.8 7.2 7.6 8.0 8.4 8.8 9.2 9.6

Data File Name: NLCS1776.D
Inj. Date and Time: 29-DEC-2009 10:41
Instrument ID: Lcn.i
Client ID: LAB CHECK
Compound Name: TNX
CAS #:

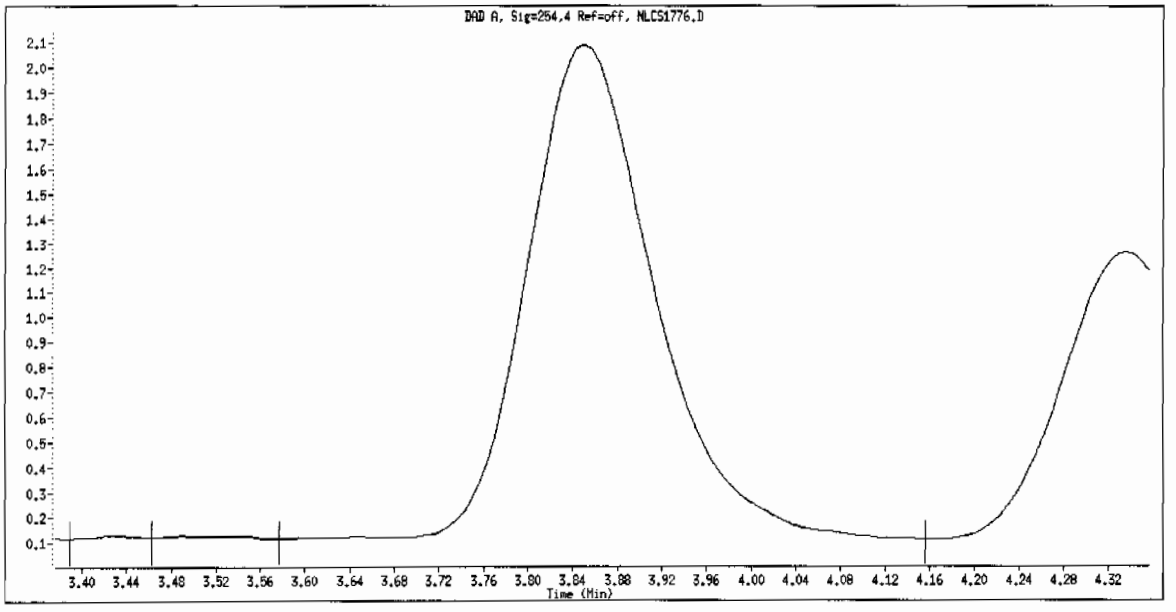

Original Integration

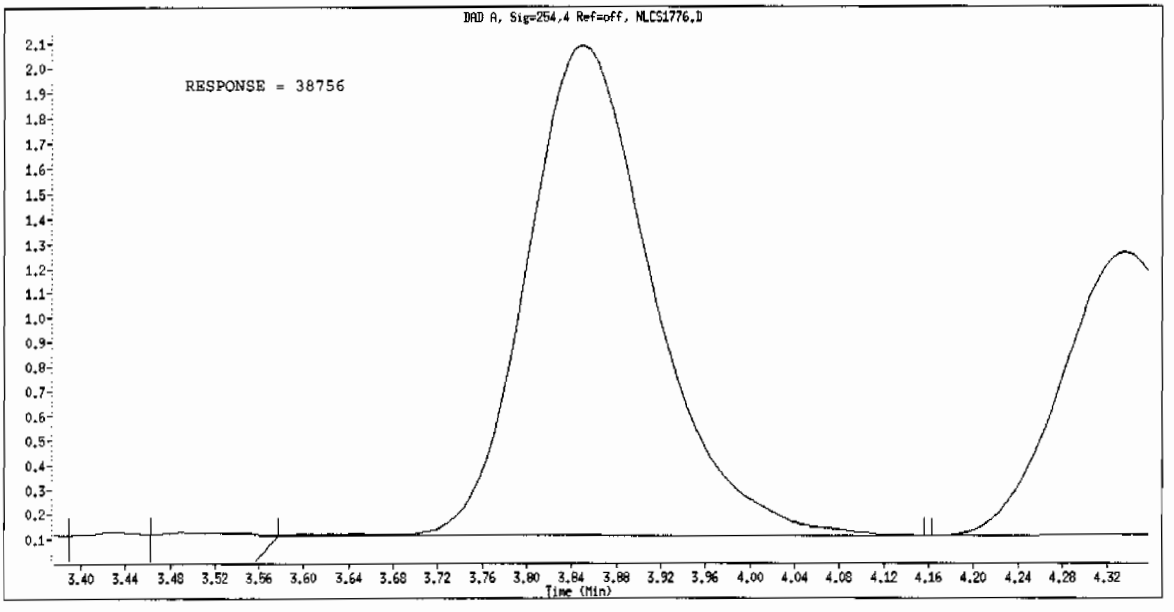

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NLCS1776.D
Inj. Date and Time: 29-DEC-2009 10:41
Instrument ID: Lcn.i
Client ID: LAB CHECK
Compound Name: DNX
CAS #:

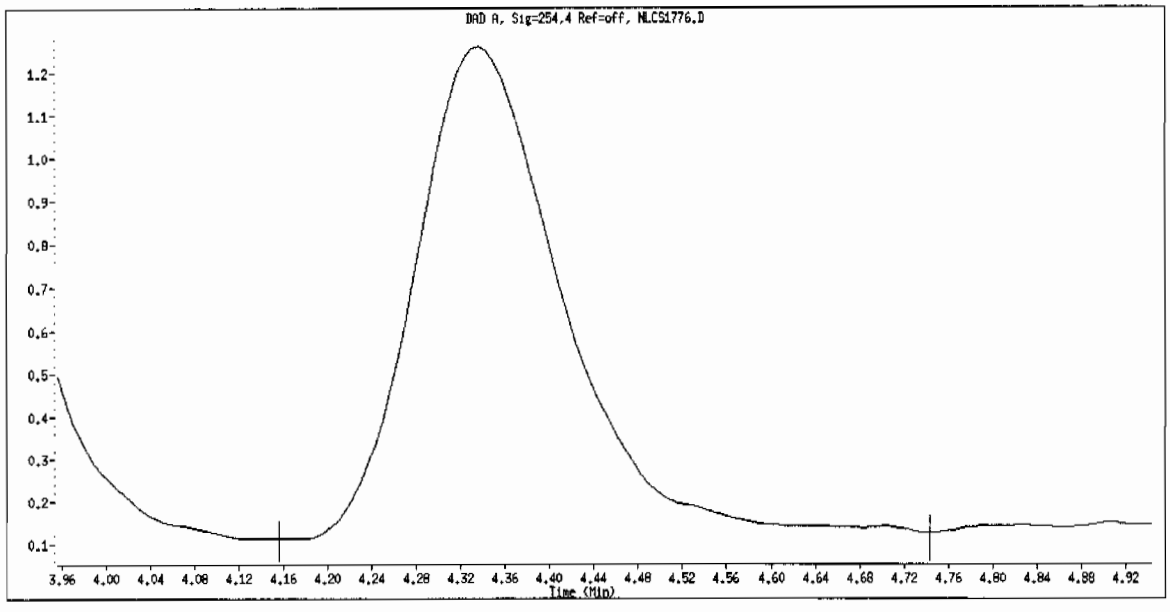

Original Integration

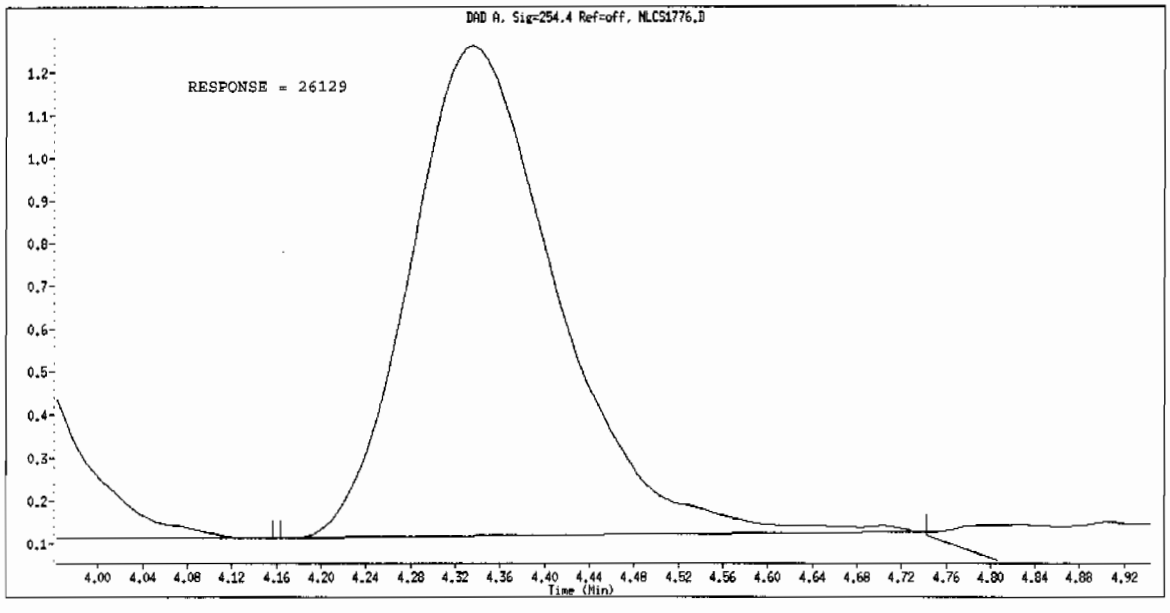

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NLCS1776.D
Inj. Date and Time: 29-DEC-2009 10:41
Instrument ID: Lcn.i
Client ID: LAB CHECK
Compound Name: MNX
CAS #:

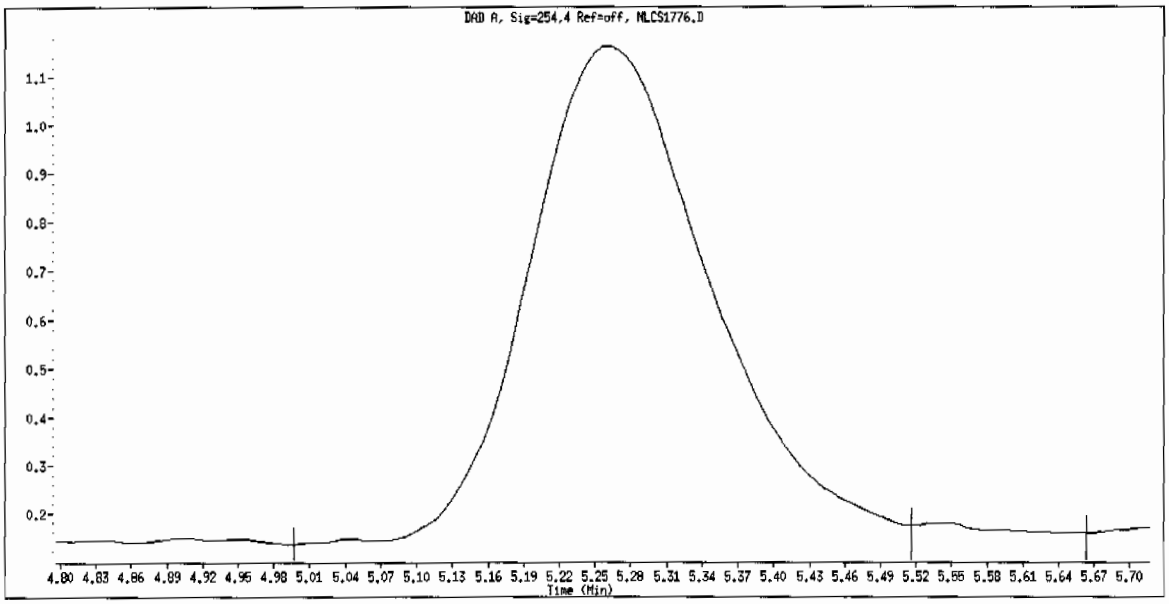

Original Integration

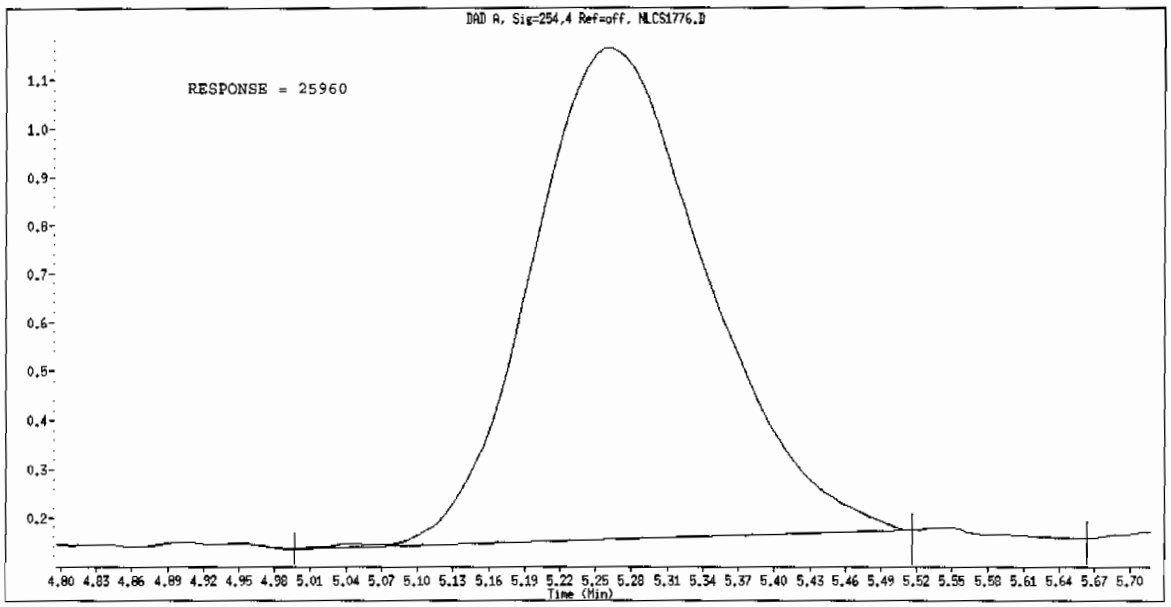

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NSMP1781.D
Report Date: 05-Jan-2010 13:42

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N122909B.b\NSMP1781.D
Lab Smp Id: LRCRQ1AD Client Smp ID: CAPA-10-6173S
Inj Date : 29-DEC-2009 11:51
Operator : WH Inst ID: Lcn.i
Smp Info : LRCRQ1AD
Misc Info : F9L180535-001S
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N122909B.b\C18XNX.m
Meth Date : 04-Jan-2010 13:52 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	507.900	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 TNX	3.858	3.837	0.021	43934	67.8992	0.6684(M)
2 DNX	4.344	4.324	0.020	28715	45.5828	0.4487(M)
3 MNX	5.271	5.239	0.032	30374	61.5489	0.6059(M)
$ 4 1,2-Dinitrobenzene	8.778	8.706	0.072	356214	688.022	6.773(M)

QC Flag Legend

M - Compound response manually integrated.

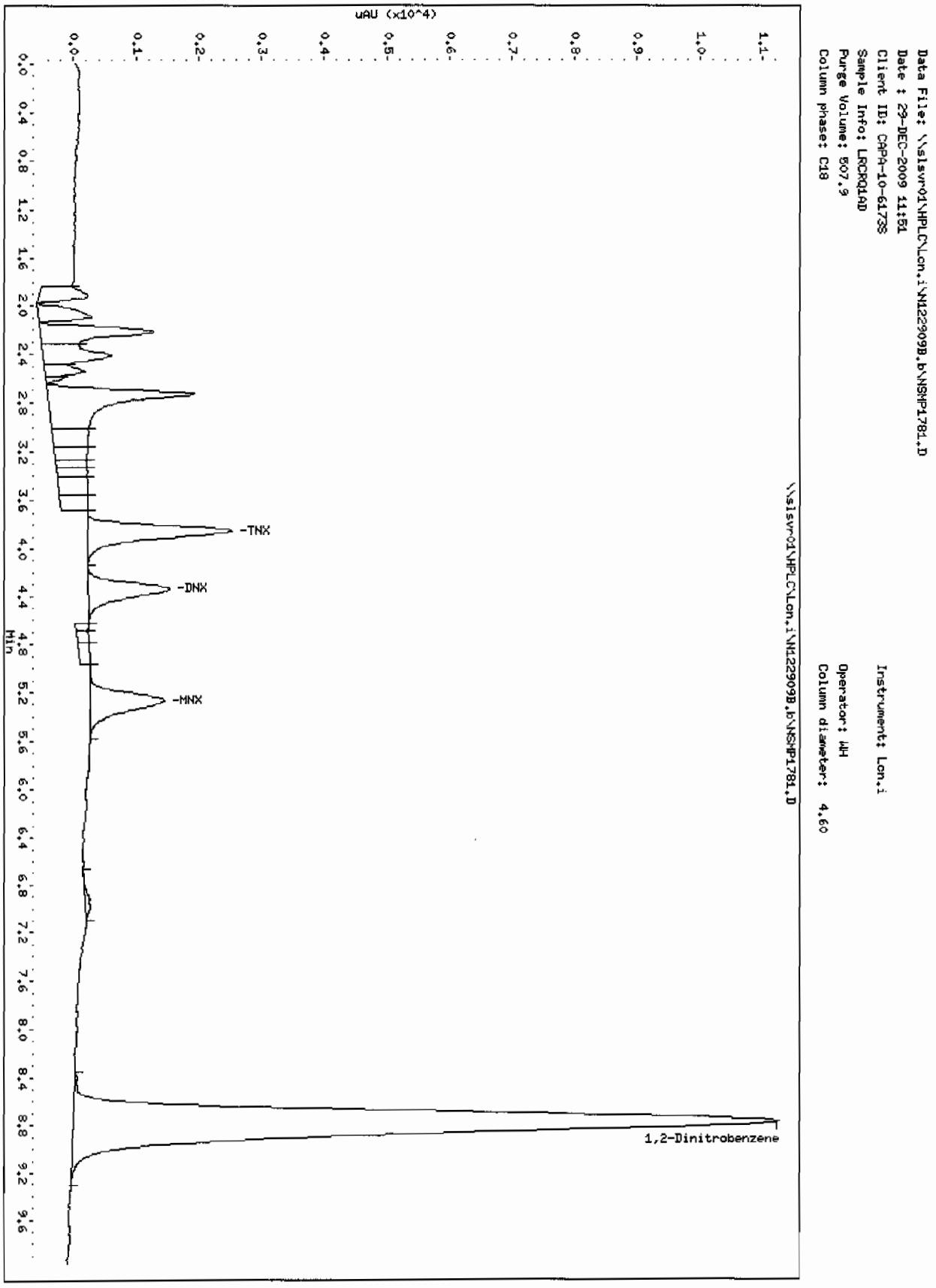
Data File: \\slsvr01\HPLC\Lcm.i\M122909B.b\NSMP1781.D
Date : 29-DEC-2009 11:51
Client ID: CAPA-10-6173S
Sample Info: LRCRQ1AD
Purge Volume: 507.9
Column phase: C18
Instrument: Lcm.i
Operator: WH
Column diameter: 4.60
\\slsvr01\HPLC\Lcm.i\M122909B.b\NSMP1781.D
uAU (x10^4)
-TNX
-DNX
-MNX
1,2-Dinitrobenzene
Min

Data File Name: NSMP1781.D
Inj. Date and Time: 29-DEC-2009 11:51
Instrument ID: Lcn.i
Client ID: CAPA-10-6173S
Compound Name: TNX
CAS #:

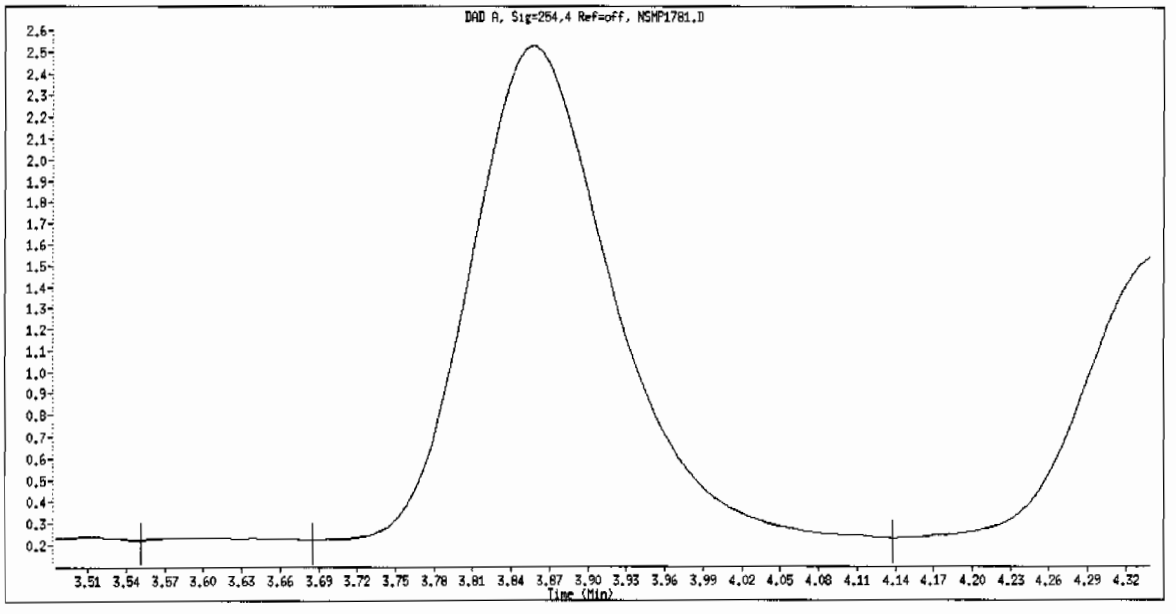

Original Integration

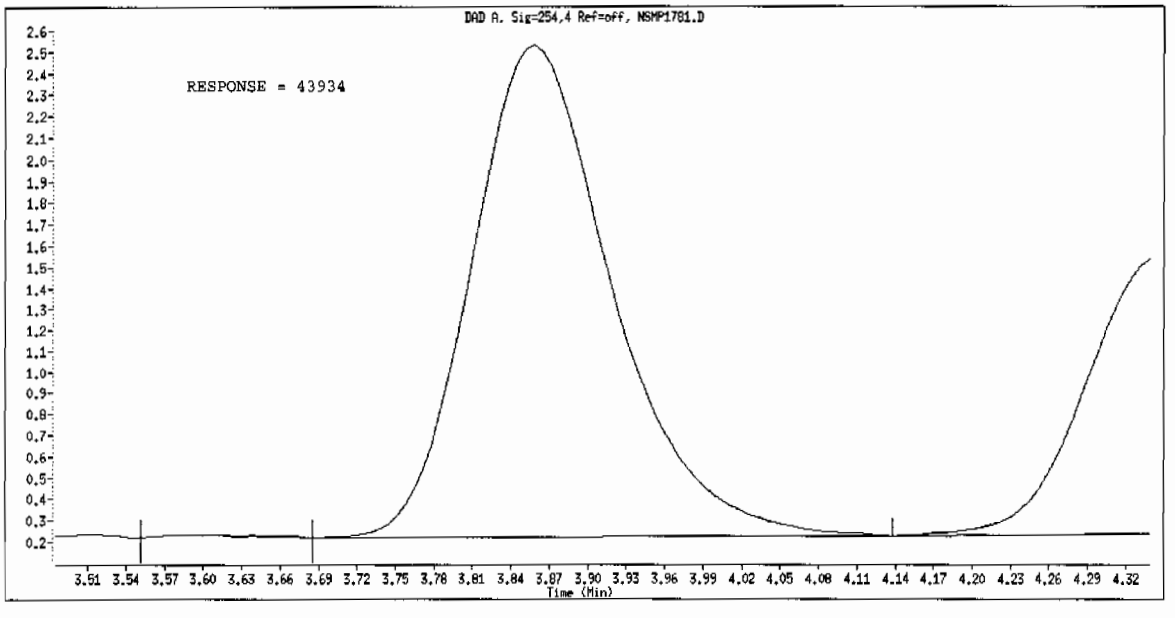

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NSMP1781.D
Inj. Date and Time: 29-DEC-2009 11:51
Instrument ID: Lcn.i
Client ID: CAPA-10-6173S
Compound Name: DNX
CAS #:

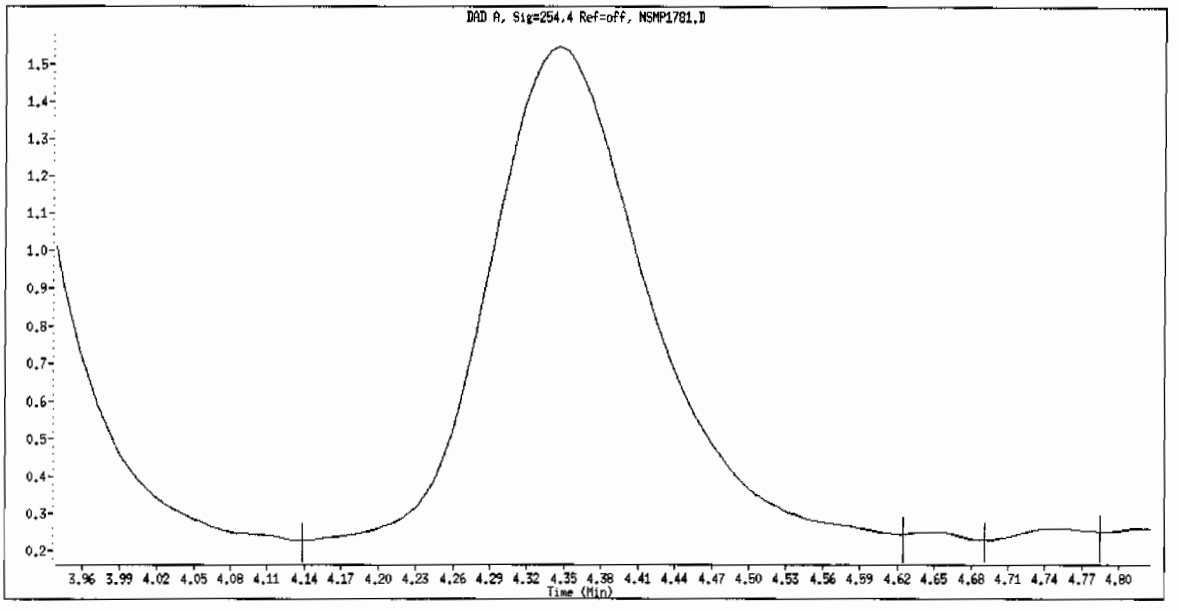

Original Integration

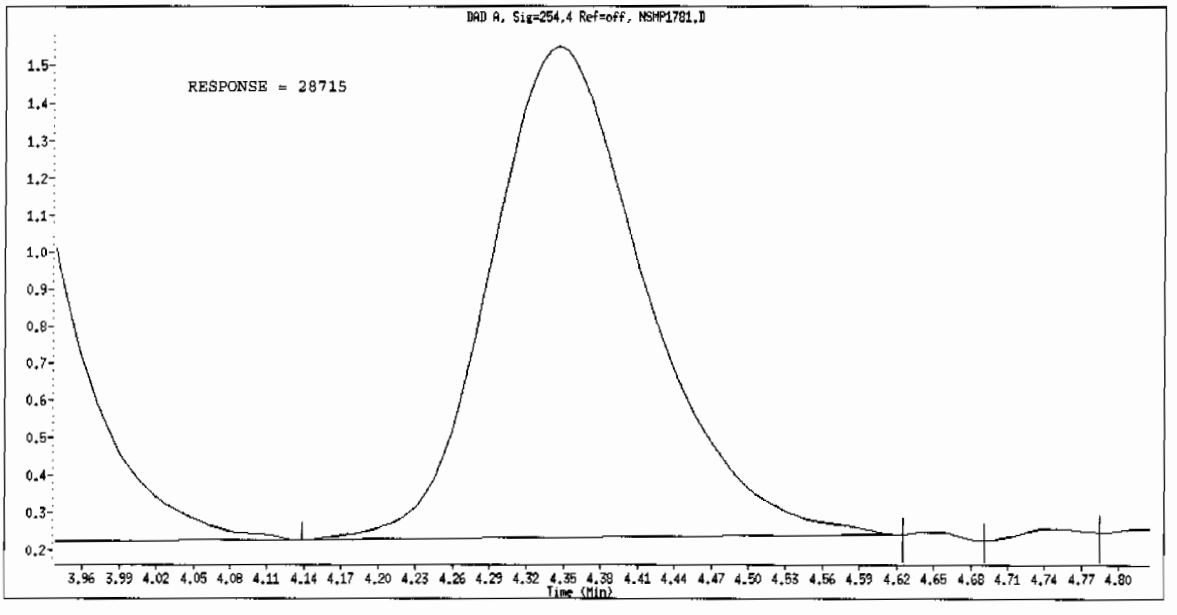

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NSMP1781.D
Inj. Date and Time: 29-DEC-2009 11:51
Instrument ID: Lcn.i
Client ID: CAPA-10-6173S
Compound Name: MNX
CAS #:

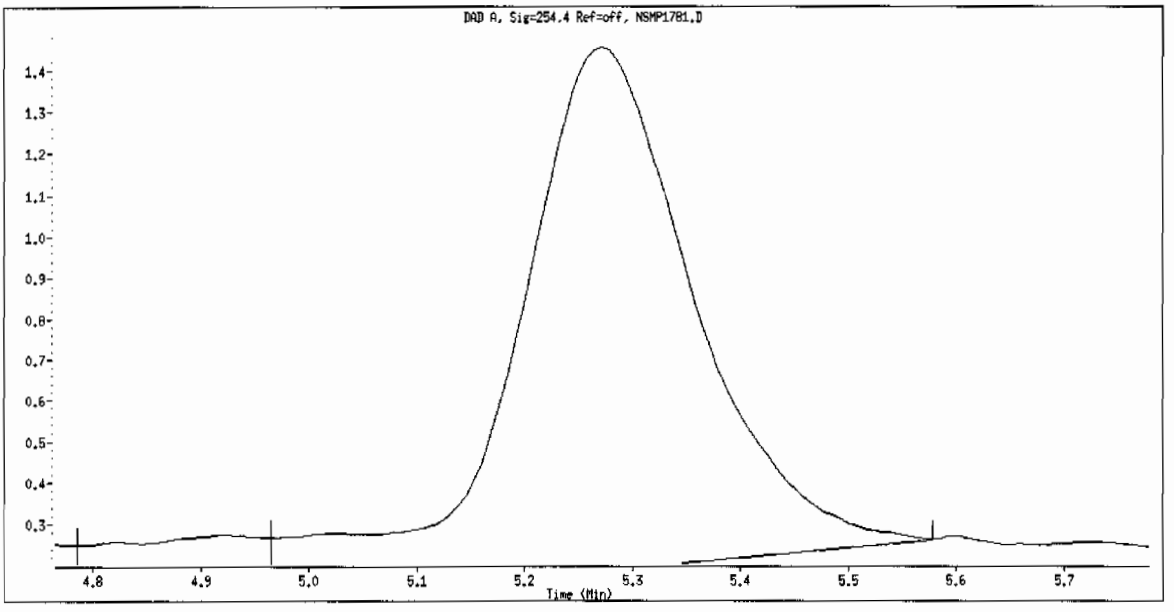

Original Integration

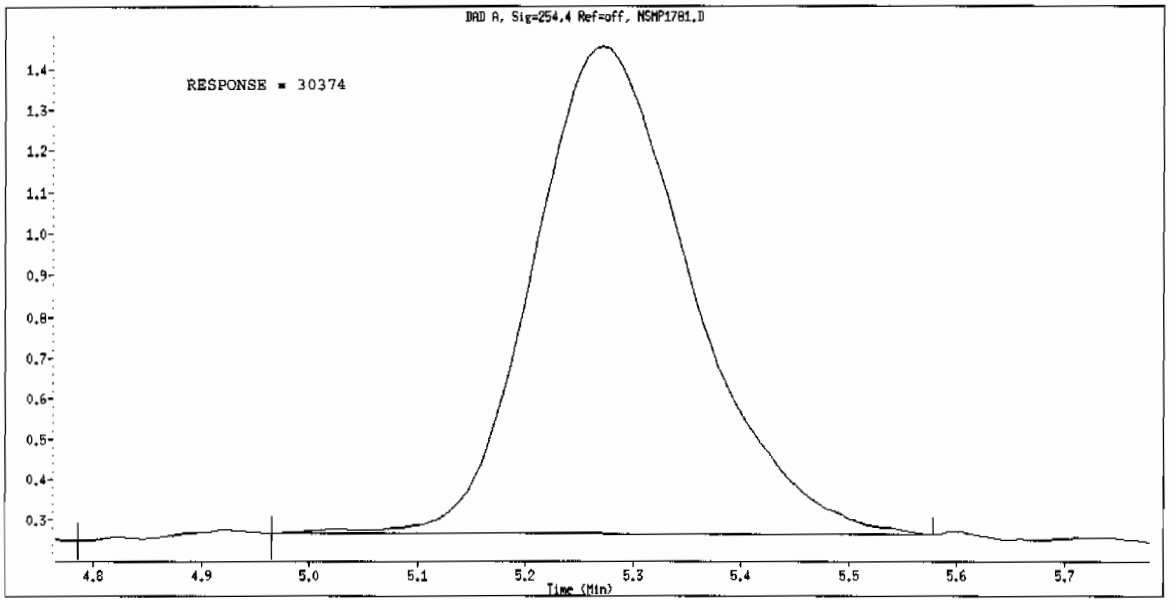

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NSMP1781.D
Inj. Date and Time: 29-DEC-2009 11:51
Instrument ID: Lcn.i
Client ID: CAPA-10-6173S
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

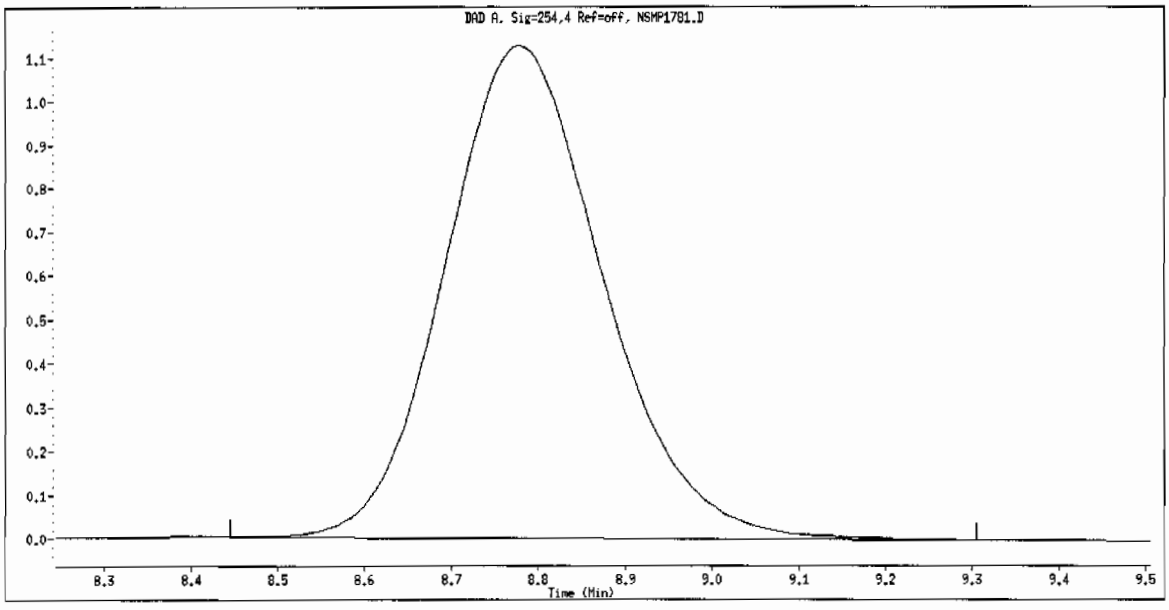

Original Integration

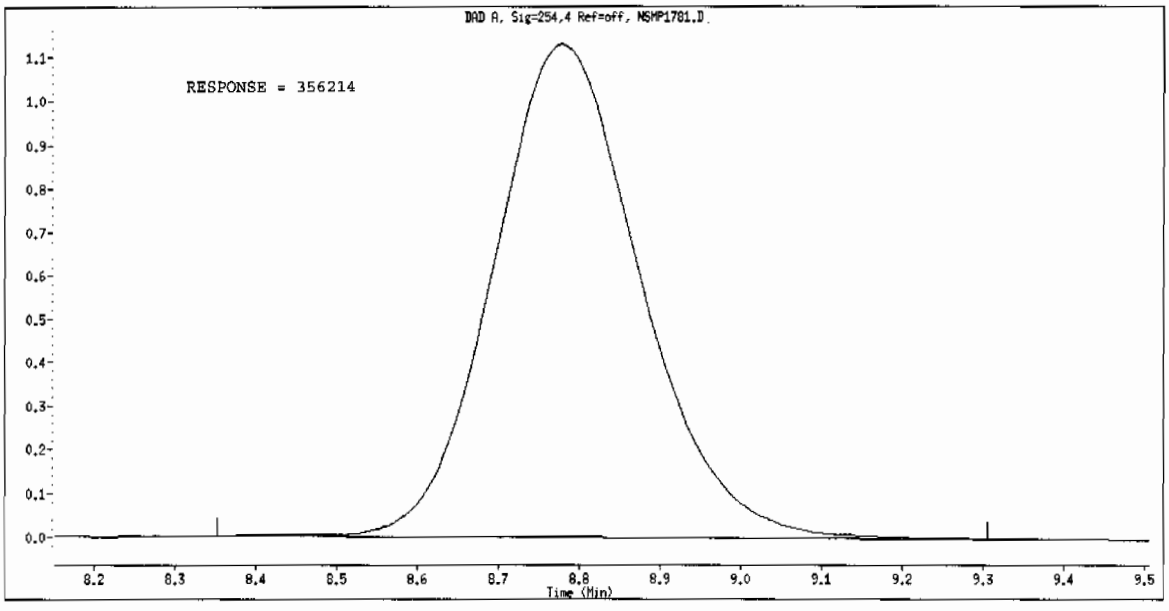

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NSMP1782.D
Report Date: 05-Jan-2010 13:33

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N122909B.b\NSMP1782.D
Lab Smp Id: LRCRQ1AE Client Smp ID: CAPA-10-6173D
Inj Date : 29-DEC-2009 12:05
Operator : WH Inst ID: Lcn.i
Smp Info : LRCRQ1AE
Misc Info : F9L180535-001D
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N122909B.b\C18XNX.m
Meth Date : 04-Jan-2010 13:52 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	514.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 TNX	3.861	3.837	0.024	47591	73.5511	0.7155(M)
2 DNX	4.348	4.324	0.024	30717	48.7608	0.4743(M)
3 MNX	5.281	5.239	0.042	32354	65.5611	0.6378(M)
$ 4 1,2-Dinitrobenzene	8.787	8.706	0.081	364641	704.298	6.851

QC Flag Legend

M - Compound response manually integrated.

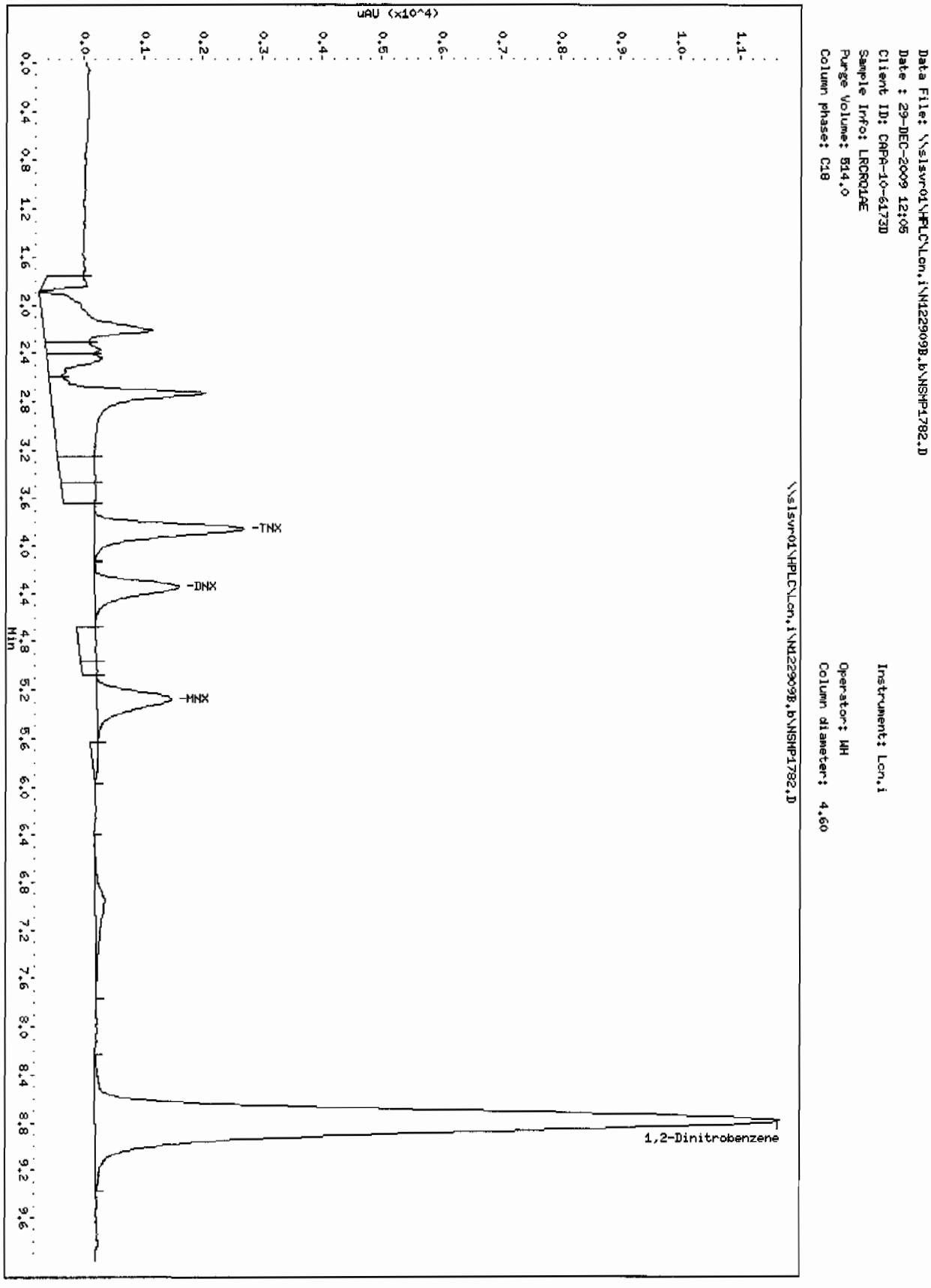
Data File: \\slsvr01\HPLC\Lcn,i\N122909B,b\NSHP1782.D
Date : 29-DEC-2009 12:05
Client ID: CAPA-10-6173D
Sample Info: LRCRQ1AE
Purge Volume: 514.0
Column phase: C18
Instrument: Lcn,i
Operator: WH
Column diameter: 4.60
\\slsvr01\HPLC\Lcn,i\N122909B,b\NSHP1782.D
uAU (x10^4)
-TNX
-DNX
-MNX
1,2-Dinitrobenzene
Min

Data File Name: NSMP1782.D
Inj. Date and Time: 29-DEC-2009 12:05
Instrument ID: Lcn.i
Client ID: CAPA-10-6173D
Compound Name: TNX
CAS #:

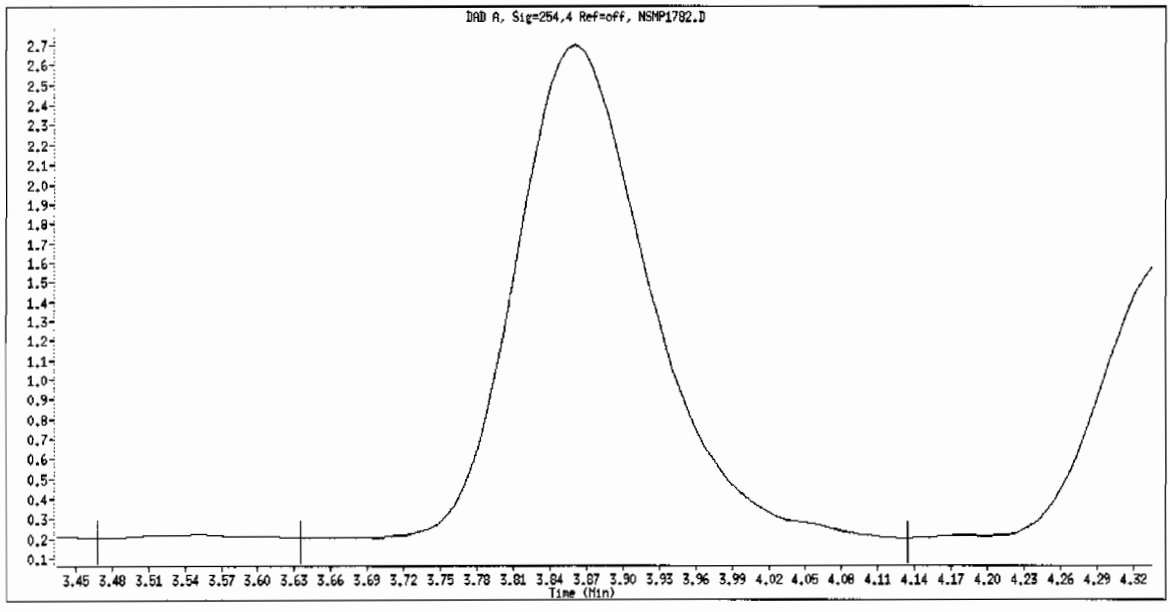

Original Integration

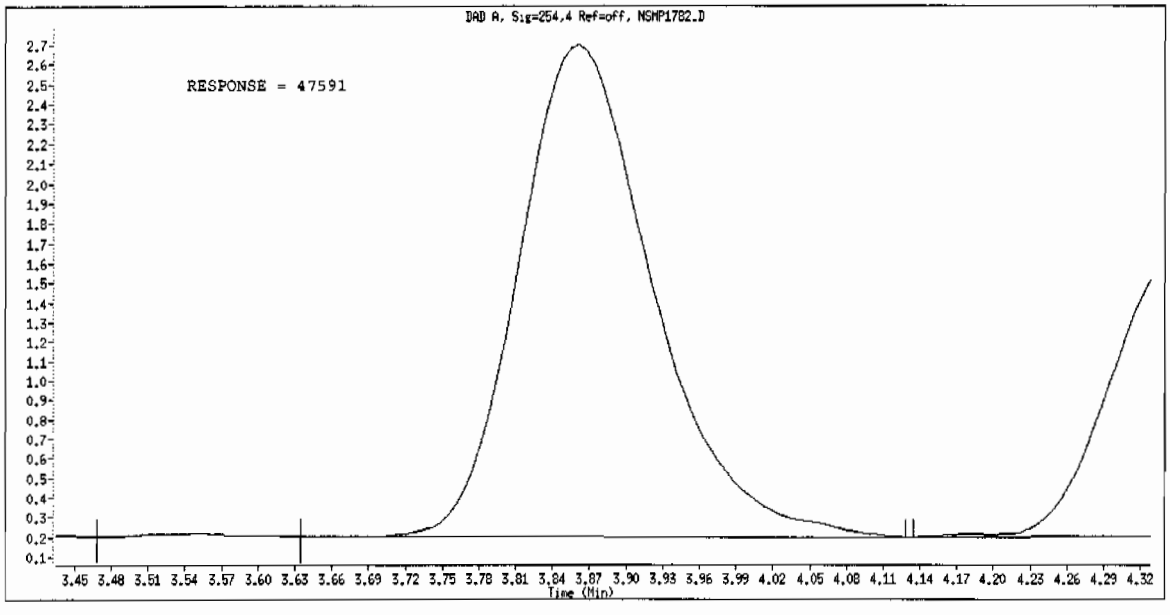

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NSMP1782.D
Inj. Date and Time: 29-DEC-2009 12:05
Instrument ID: Lcn.i
Client ID: CAPA-10-6173D
Compound Name: DNX
CAS #:

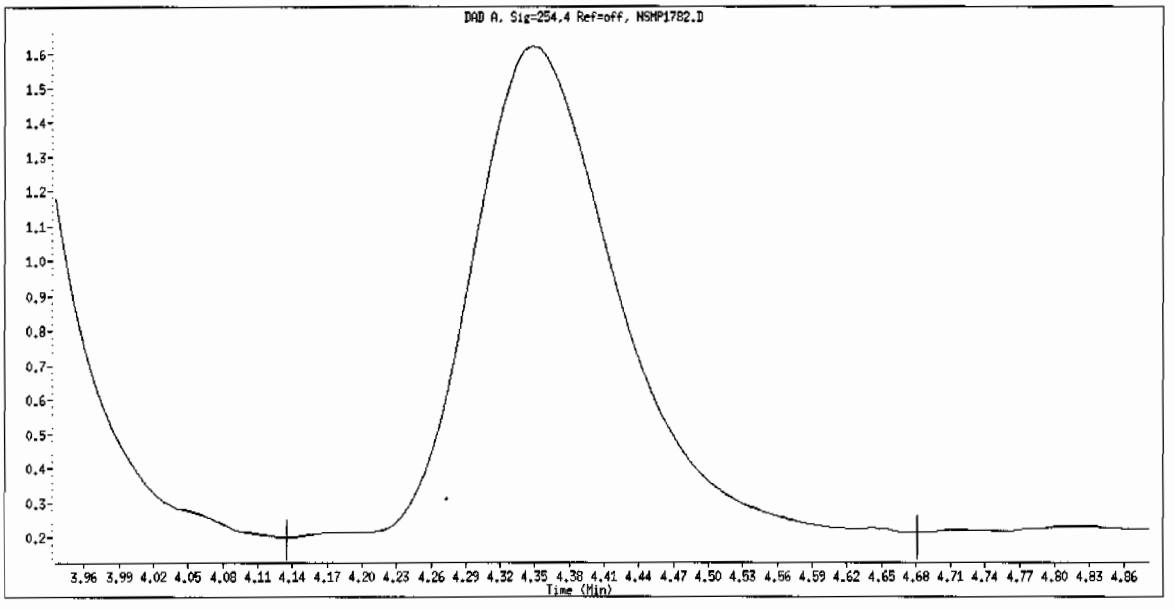

Original Integration

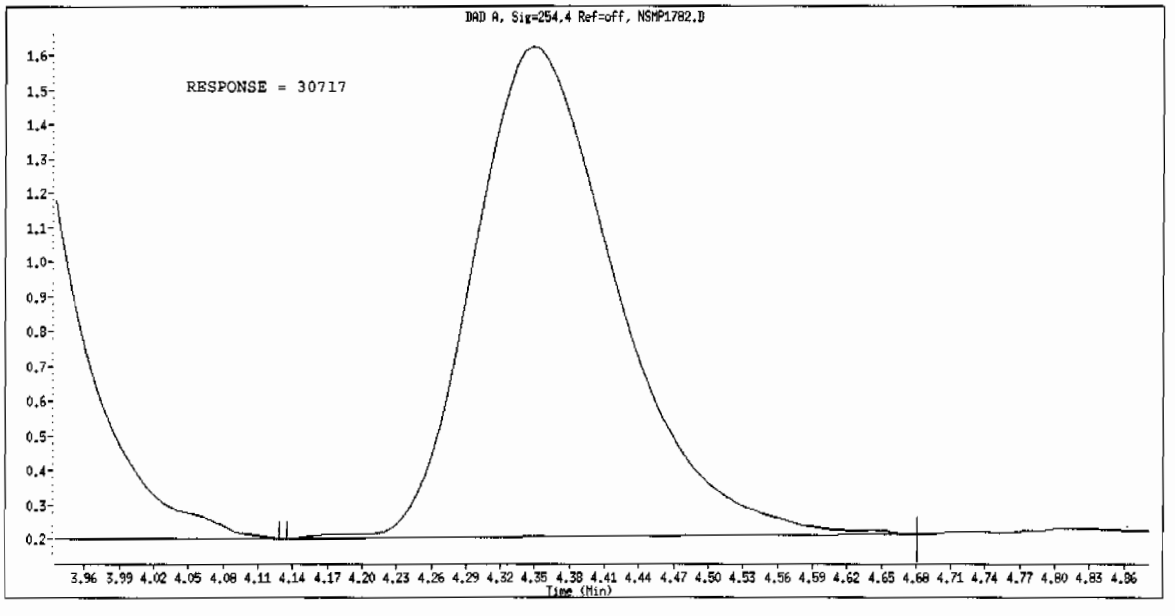

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NSMP1782.D
Inj. Date and Time: 29-DEC-2009 12:05
Instrument ID: Lcn.i
Client ID: CAPA-10-6173D
Compound Name: MNX
CAS #:

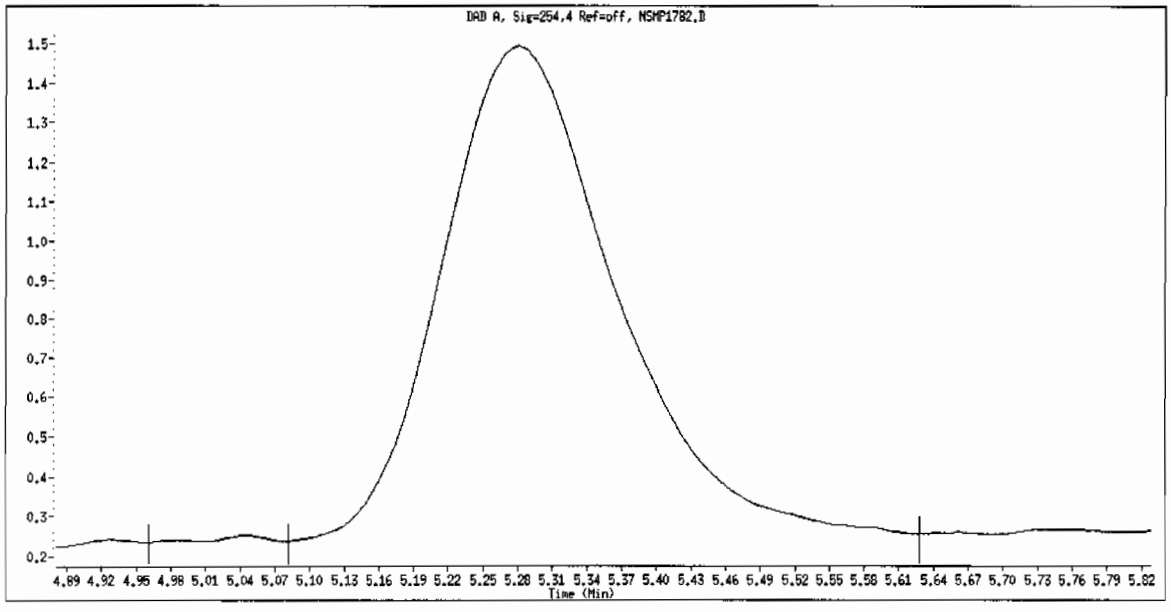

Original Integration

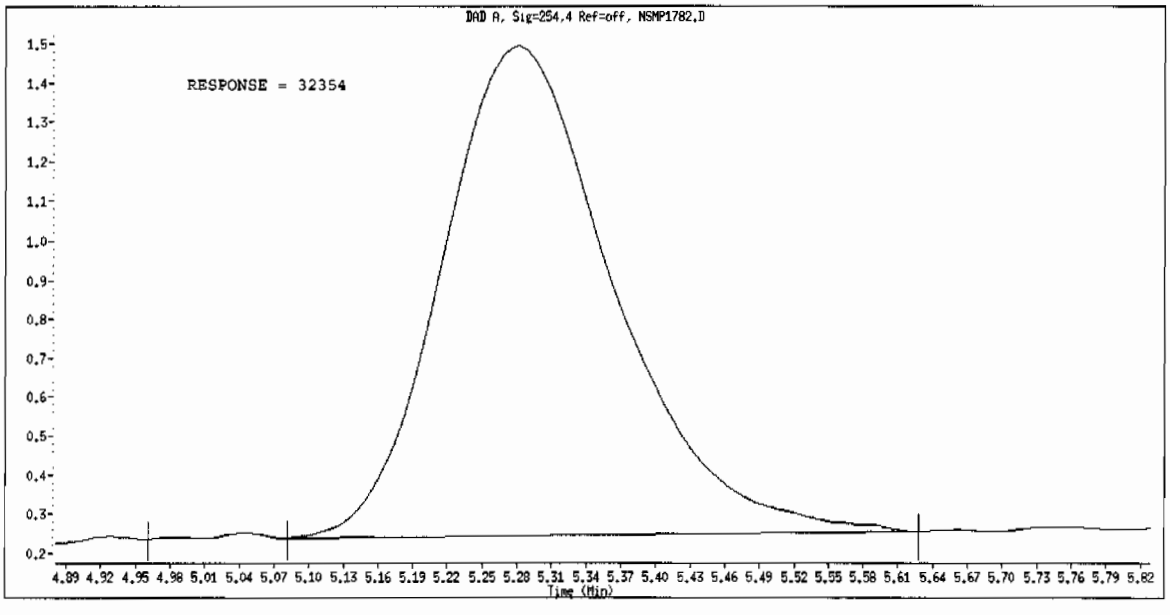

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

HPLC MISCELLANEOUS DATA

LOT # F9L190478

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Organic Prep Report for Batch # 9356248

TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045

N122909B

Prep Method: SW-846 3535

SOP Number: ST-OP-0008

Matrix: WATER

Prep Description: EXTRACTION, SOLID PHASE

Extraction Date: 12/22/2009

			Initials: SB				Initials: SB		Initials:		Initials:	
							Concentration 1		Cleanup 1		Cleanup 2	
Lot Number	WorkOrder No	AnalDueDate	Wt/Vol	pH 1	pH 2	Extr Unit	Volume	Date 12/22/09	Method	Date	Method	Date
F9L110568 - 001	LQ0NR2AC	01/04/2010	504.4 mL				2.5 mL					
F9L110568 - 002	LQ0NV2AC	01/04/2010	507.6 mL				2.5 mL					
F9L110568 - 003	LQ0N02AC	01/04/2010	504.1 mL				2.5 mL					
F9L180535 - 001	LRCRQ1AC	01/08/2010	510.6 mL				2.5 mL					
F9L180535 - 001D	LRCRQ1AE	01/08/2010	514 mL				2.5 mL					
F9L180535 - 001S	LRCRQ1AD	01/08/2010	507.9 mL				2.5 mL					
F9L180535 - 002	LRCR01AC	01/08/2010	489.5 mL				2.5 mL					
F9L180535 - 003	LRCR91AC	01/08/2010	515 mL				2.5 mL					
F9L180535 - 004	LRCTA1AC	01/08/2010	512.2 mL				2.5 mL					
F9L190478 - 001	LREE91AC	01/08/2010	507.9 mL				2.5 mL					
F9L190478 - 002	LREFD1AC	01/08/2010	510.4 mL				2.5 mL					
F9L190478 - 003	LREFE1AC	01/08/2010	505.6 mL				2.5 mL					
F9L220000 - 248B	LRGV91AA		500 mL				2.5 mL					
F9L220000 - 248C	LRGV91AC		500 mL				2.5 mL					

QC Suffix: B=reagent blank, C=lab control sample, L=lab control sample duplicate, X=sample duplicate, S=matrix spike, D=matrix spike duplicate

PrepSheet Generator 1.26, updated 11/14/2008

TestAmerica St. Louis

LOT # 9120718

Spike Information

Name	Standard ID	Exp Date	Vol Added
XNX Prep Spike	GC0420-09	1/22/2010	250 uL
8330 Surrogate	OP2029-09	1/16/2010	100 uL

Spiking verified by: CAL

Miscellaneous Information

Start: **Stop:**

Extr 1:

Extr 2:

Conc Method:

Conc Temp C:

Chemical Lot Information

Chemical	Lot Number
Acetonitrile	G50343
RDX Columns	P2755

Comments:

Custody Information

Relinquished By: SB **Review/Received By:** AF **Date of Transfer:** 12/22/09

QC Suffix: B=reagent blank, C=lab control sample, L=lab control sample duplicate, X=sample duplicate, S=matrix spike, D=matrix spike duplicate

PrepSheet Generator 1.26, updated 11/14/2008

TestAmerica St. Louis

LOT # 9

Logbook No.: 3311 | Instrument ID No.: LCN

TestAmerica St. Louis
HPLC Runlog

#	Data File	Clock	Lab I.D.	Dil.	STD#	Date	Oper.	Matrix	Method
1	NLCS 1303	N112309	LNQGFIAC		GC0384-09	11/25/09	WH/AF	~~AF~~ W S011L	8330
2	NCAL 1304		8330 CCAL		↓				
3	NSBK 1305	↓	FLUSH		—		↓	↓	↓
4	1306								
5	1307								
6	1308								
7	1309								
8	1310								
9	1311								
10	NSBK 1312	N112509			—				
11	NSBK 1313				—				
12	NICL 1314		XNX-ICAL-3		GC0387-09		WH/AF	W	XNX
13	1315		-4						
14	1316		-5						
15	1317		-6						
16	1318		-7						
17	1319		-8						
18	NICV 1320		XNX ICV		GC0382-09				
19	NCAL 1321		XNX CCAL		GC0387-09				
20	NBLK 1322		LPJT8IAAB		—	12-2-09			
21	NLCS 1323		IACC						
22	NSMP 1324		LN84NIAC						
23	1325		IAD						
24	1326		IAE						
25	1327		LN84RIAC						
26	1328		LPH6MIAC						
27	1329		LPH6PIAC						
28	NBLK 1330		LN8EJIAA						
29	NSBK 1330		SBK		—				
30	NCAL 1331		XNX CCAL		GC0387-09				
31	NBLK 1332		LN8EJIAA		—	11/27/09			
32	NLCS 1333		IAC						
33	NSMP 1334		LN0N6IAC						
34	1335		IAF						
35	1336	↓	IAG		—	↓	↓	↓	↓

Review documented on next page.

Form: SL-ORG-0008, Rev. 1/4/05

QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Control Sample Duplicate; S = Matrix Spike; D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard.

SOP References: STL-GC-0017 Rev 11

Logbook No.: 3311 | Instrument ID No.: LCN

TestAmerica St. Louis
HPLC Runlog

Batch #	Comments		#
9307388	F9K030000 - 388 C	OK	1
		OK	2
		—	3
			4
			5
			6
			7
			8
			9
		—	10
		OK	11
	XNX ICAL	OK	12
		OK	13
		OK	14
		OK	15
		OK	16
		OK	17
	XNX ICV	OK	18
		OK	19
9320111	F9K160000 - 111B ~~AF File # duplicated~~	OK	20
	- 111C File# duplicated	OK	21
	F9K110519 - 001	OK	22
	-001 S	OK	23
	-001 D	OK	24
	-002	OK	25
	F9K140506 - 001	OK	26
	-002	OK	27
9315181	F9K110000 - 181 B Not Needed	~~NO~~ OK	28
		—	29
		OK	30
9315181	F9K110000 -181 B	OK	31
	-181 C	OK	32
	F9K060412 - 001 MNY C	OK	33
	-001 S	OK	34
	-001 D	OK	35

Reviewed By: Lamis Hinzelin 12/1/09 12/7/09

Form: SL-ORG-0008, Rev. 1/4/05

QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Control Sample Duplicate; S = Matrix Spike; D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard.

SOP References: STL-GC-0017 Rev 11

TestAmerica St. Louis

Logbook No.: 3311 — Instrument ID No.: LCN

TestAmerica St. Louis
HPLC Runlog

	Data File	Clock	Lab I.D.	Dil.	STD#	Date	Oper.	Matrix	Method
1	NSMP 1780	N122909	LQQN02AC			12/29/09	AF	W	XNX
2	1781		LRCR0IAC						
3	NCAL 1782	N122909	XNX CCAL	16x	GC428-09	12/29/09	AF	W	XNX
4	NBLK 1783		LRGV9IAA						
5	NLCS 1784		LRGV9IAC						
6	NSMP 1785		LQONR2AC						
7	1786		LQONV2AC						
8	1787		LQON02AC						
9	1788		LRCR0IAC						
10	1789		IAD						
11	1790		IAE						
12	1791		LRCR0IAC						
13	1792		LRCR9IAC						
14	NCAL 1793		XNX CCAL	16x	GC428-09				
15	NSMP 1794		LRCTAIAC						
16	1795		LREE9IAC						
17	1796		LREFDIAC						
18	1797		LREFEIAC						
19	NBLK 1798		LRAQNIAA						
20	NLCS 1799		IAC						
21	NSMP 1800		LQ8X0IAC						
22	1801		IAD						
23	1802		IAE						
24	NCAL 1803		XNX CCAL	16x	GC428-09				
25	NSBK 1804		Flush						
26	NSBK 1805	N123109	SBK						
27	NCAL 1806		8330 CCAL	2x	GC 425-09	12/31/09	AF	W	8330
28	NBLK 1807		LRRWWIAA						
29	NSMP 1808		LNN3TIAA						
30	NSMP 1809		LNN3T2AA						
31	NCAL 1810		8330 CCAL	2x	GC425-09				
32	NSBK 1811		Flush						
33									
34									
35			AF 1-4-10						

Review documented on next page.
QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Control Sample Duplicate; S = Matrix Spike; D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard.

Form: SL-ORG-0008, Rev. 1/4/05 — 91
SOP References: STL-GC-0017, current revisions.

Logbook No.: 3311 — Instrument ID No.: LCN

TestAmerica St. Louis
HPLC Runlog

Batch #	Comments		#
9356248	F9L110568-003 } data file duplicated	RR, DNR	1
	F9L180535-001 }	RR, DNR	2
	CCAL	OK	3
9356248	~~F9L220248B~~ F9L220000-248B	OK	4
	F9L220000-248C	OK	5
	F9L110568-001 confirmation only, Rep 1AA	DNR	6
	-002 " " "	DNR	7
	-003 " " "	DNR	8
	F9L180535-001	OK	9
	-001S	OK	10
	-001D	OK	11
	-002	OK	12
	-003	OK	13
	CCAL	OK	14
	F9L180535-004	OK	15
	F9L190478-001	OK	16
	-002	OK	17
	-003	OK	18
9352181	F9L180000-181B	OK	19
	-181C	OK	20
	F9L170499-001	OK	21
	-001S	OK	22
	-001D	OK	23
	CCAL	OK	24
		—	25
		—	26
		OK	27
9365259	F9L310000-257B	OK	28
	F9K020447-008 spiked at 25ul	OK	29
	-008 " " 50ul	OK	30
		OK	31
		—	32
			33
			34
	AF 1-4-10		35

Reviewed By: [signature] 1/4/10
QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Control Sample Duplicate; S = Matrix Spike; D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard.

Form: SL-ORG-0008, Rev. 1/4/05 — 92
SOP References: STL-GC-0017, current revisions.

TestAmerica St. Louis

Friday, December 18, 2009

REQUEST NUMBER: 10-995

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-995

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/18/2009

TURNAROUND/REPORT DUE: 1/17/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-6794	WG	12/17/2009	
	EPA:150.1	1	CAPA-10-6794	WG	12/17/2009	
	EPA:160.1	1	CAPA-10-6794	WG	12/17/2009	
	EPA:245.2	1	CAPA-10-6793	WG	12/17/2009	
		1	CAPA-10-6794	WG	12/17/2009	
	EPA:300.0	1	CAPA-10-6794	WG	12/17/2009	
	EPA:310.1	1	CAPA-10-6794	WG	12/17/2009	
	EPA:335.3	1	CAPA-10-6793	WG	12/17/2009	
	EPA:350.1	1	CAPA-10-6794	WG	12/17/2009	

Friday, December 18, 2009

REQUEST NUMBER: 10-995

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:353.2	1	CAPA-10-6794	WG	12/17/2009	
	EPA:365.4	1	CAPA-10-6794	WG	12/17/2009	
	EPA:900	1	CAPA-10-6793	WG	12/17/2009	
	EPA:901.1	1	CAPA-10-6793	WG	12/17/2009	
	EPA:905.0	1	CAPA-10-6793	WG	12/17/2009	
	EPA:906.0	1	CAPA-10-6793	WG	12/17/2009	Analysis by direct count with 10-day turnaround.
	HASL-300:AM-241	1	CAPA-10-6793	WG	12/17/2009	
	HASL-300:ISOPU	1	CAPA-10-6793	WG	12/17/2009	
	HASL-300:ISOU	1	CAPA-10-6793	WG	12/17/2009	
	SM:A2340B	1	CAPA-10-6793	WG	12/17/2009	
		1	CAPA-10-6794	WG	12/17/2009	
	SW-846:6010B	1	CAPA-10-6793	WG	12/17/2009	
		1	CAPA-10-6794	WG	12/17/2009	
	SW-846:6020	1	CAPA-10-6793	WG	12/17/2009	
		1	CAPA-10-6794	WG	12/17/2009	
	SW-846:6850	1	CAPA-10-6794	WG	12/17/2009	

Final Page of REQUEST NUMBER 10-995

Friday, December 18, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-995

REQUEST NUMBER: 10-995

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/17/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6793	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6793	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-6793	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6793	1	POLY	WSP-RAD	Nitric Acid	WG
CAPA-10-6794	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6794	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6794	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6793	1	AMBER GLASS	WSP-H-3	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/18/09	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6793 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/17/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1257	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-38		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2	DW 12/17/09	WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
2	DW 12/17/09	WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH <2
2	DW 12/17/09	WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
2	DW 12/17/09	WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH >12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	pH <2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2
1		WSP-H-3	250 ML AMBER GLASS	Ice	Y	Analysis by direct count with 10-day turnaround.

SAMPLE DESC:

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH (STV)	Temp (°C)	SC (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mV)	Q (gpm)
~~1.38~~ 7.32	18.18	152	6.47	1.29	89.2	2.5

DW 12/17/09

COLLECTED BY (PRINT) J Berryhill, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/17/09	(Printed Name) Sherri Sherwood	12/17/09
(Signature) D. Woody	1430	(Signature) Sherri Sherwood	1430
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6794 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/17/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1257	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-38		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / (NA)

BOREHOLE: YES / NO / (NA) **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH<2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC:

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

See ~~Samp Dec 12/0~~ CAPA-10-6793
JW 12/17/09

COLLECTED BY (PRINT) J Berryhill, D Worly

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Worly	12/17/09	(Printed Name) Sherri Sherwood	12/17/09
(Signature) D. Worly	1430	(Signature) Sherri Sherwood	1430
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6795 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/17/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1257	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-38		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / (NA)		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / (NA)

BOREHOLE: YES / NO / (NA) **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2

SAMPLE DESC: QC Sample of CAPA-10-6793

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, D. Wooly **REVIEWED BY (PRINT)** J. Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Wooly	12/17/09	(Printed Name) Sherri Sherwood	12/17/09
(Signature) D. Wooly	1430	(Signature) Sherri Sherwood	1430
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-995 VALIDATION DATE: 2/12/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN and that the raw data for the parent sample was not included in the data package. No sample results were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/12/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 2/12/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below if Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☒	☐	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☒	☐	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 936065

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6794

Date Received: 19-DEC-09

GEL Job No (SDG): 10-995

GEL Sample ID: 243285002

Date Filtered: 29-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.353	ug/L		1	29-DEC-09 20:14	per1229059a
	Perchlorate Isotope Ratio			3.02			1	29-DEC-09 20:14	per1229059a
14797-73-0	Perchlorate-101	.05	.2	0.355	ug/L		1	29-DEC-09 20:14	per1229059a
	Perchlorate-O(18)			0.498	ug/L		1	29-DEC-09 20:14	per1229059a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

AMF 2/12/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-995 VALIDATION DATE: 2/12/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. Sb and Mo were detected in the MB. The associated Sb sample results were detects ≤5X the MB concentration and, thus, were qualified U,I4. The associated Mo sample results were detects >5X but ≤50X the MB concentration and, thus, were qualified J,I4a.
2. Sb and Tl were detected in the ICB/CCBs. The associated Sb sample results were detects ≤5X the greatest blank concentration and, thus, were qualified U,I4b. The associated Tl sample results were NDs and, thus, were not qualified.
3. It should be noted that all matrix QC analyses were performed on LANL sample from other RNs and that the parent samples for ICP-AES and ICP-MS were not included in the data package. No sample results were qualified.
4. Some results for the filtered sample were slightly > the corresponding results for the unfiltered sample. No sample data were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/12/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 2/12/10

DATA VALIDATION COVER SHEET	
5118-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943
Form 5118-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2 Metals Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☐	☒	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST	
5118-2 **Metals Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-995 **METHOD TYPE:** EPA

SAMPLE ID: 243285001 **CLIENT ID:** CAPA-10-6793

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 19-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte		Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury		0.066	ug/L	U		AV	0.066	1	HG3	010610W1-15
7429-90-5	Aluminum		68	ug/L	U		P	68	1	OPTIMA3	010610A-1
7440-36-0	Antimony	U,I4	0.739	ug/L	J		MS	0.5	1	ICPMS3	091222-3
7440-38-2	Arsenic		1.5	ug/L	U		MS	1.5	1	ICPMS5	091223-4
7440-39-3	Barium		31.6	ug/L			P	1	1	OPTIMA3	010610A-1
7440-41-7	Beryllium		1	ug/L	U		P	1	1	OPTIMA3	010610A-1
7440-42-8	Boron		15	ug/L	U		P	15	1	OPTIMA3	010610A-1
7440-43-9	Cadmium		0.11	ug/L	U		MS	0.11	1	ICPMS3	091222-3
7440-70-2	Calcium		13200	ug/L			P	50	1	OPTIMA3	010610A-1
7440-47-3	Chromium		6.16	ug/L	J		MS	2.5	1	ICPMS3	091222-3
7440-48-4	Cobalt		1	ug/L	U		P	1	1	OPTIMA3	010610A-1
7440-50-8	Copper		3	ug/L	U		P	3	1	OPTIMA3	010610A-1
7439-89-6	Iron		30	ug/L	U		P	30	1	OPTIMA3	010610A-1
7439-92-1	Lead		0.5	ug/L	U		MS	0.5	1	ICPMS3	091222-3
7439-95-4	Magnesium		3710	ug/L			P	85	1	OPTIMA3	010610A-1
7439-96-5	Manganese		6.42	ug/L	J		P	2	1	OPTIMA3	010610A-1
7439-98-7	Molybdenum	J,I4a	1.95	ug/L			MS	0.1	1	ICPMS3	091222-3
7440-02-0	Nickel		13.2	ug/L			MS	0.5	1	ICPMS3	091222-3
7440-09-7	Potassium		1550	ug/L			P	50	1	OPTIMA3	010610A-1
7782-49-2	Selenium		1	ug/L	U		MS	1	1	ICPMS3	091222-3
7440-22-4	Silver		0.2	ug/L	U		MS	0.2	1	ICPMS3	091222-3
7440-23-5	Sodium		11100	ug/L			P	100	1	OPTIMA3	010610A-1
7440-24-6	Strontium		53.7	ug/L			P	1	1	OPTIMA3	010610A-1
7440-28-0	Thallium		0.3	ug/L	U		MS	0.3	1	ICPMS3	091222-3
7440-31-5	Tin		12.5	ug/L	U		P	12.5	5	OPTIMA3	010710-2
7440-61-1	Uranium		0.424	ug/L			MS	0.05	1	ICPMS3	091222-3

AMF
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METALS
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INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-995 **METHOD TYPE:** EPA

SAMPLE ID: 243285001 **CLIENT ID:** CAPA-10-6793

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 19-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	5.01	ug/L			P	1	1	OPTIMA3	010610A-1
7440-66-6	Zinc	21.7	ug/L			P	3.3	1	OPTIMA3	010610A-1
	Hardness as CaCO3	48.3	mg/L				0.35	1	CALC001	

AMF
2/12/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-995 **METHOD TYPE:** EPA

SAMPLE ID: 243285002 **CLIENT ID:** CAPA-10-6794

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 19-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte		Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury		0.066	ug/L	U		AV	0.066	1	HG3	010610W1-15
7631-86-9	Silica		69.4	mg/L			P	0.053	1	OPTIMA3	010610A-1
7429-90-5	Aluminum		68	ug/L	U		P	68	1	OPTIMA3	010610A-1
7440-36-0	Antimony	U,I4	0.707	ug/L	J		MS	0.5	1	ICPMS3	091222-3
7440-38-2	Arsenic		1.5	ug/L	U		MS	1.5	1	ICPMS5	091223-4
7440-39-3	Barium		31.1	ug/L			P	1	1	OPTIMA3	010610A-1
7440-41-7	Beryllium		1	ug/L	U		P	1	1	OPTIMA3	010610A-1
7440-42-8	Boron		15	ug/L	U		P	15	1	OPTIMA3	010610A-1
7440-43-9	Cadmium		0.11	ug/L	U		MS	0.11	1	ICPMS3	091222-3
7440-70-2	Calcium		13300	ug/L			P	50	1	OPTIMA3	010610A-1
7440-47-3	Chromium		4.95	ug/L	J		MS	2.5	1	ICPMS3	091222-3
7440-48-4	Cobalt		1	ug/L	U		P	1	1	OPTIMA3	010610A-1
7440-50-8	Copper		3	ug/L	U		P	3	1	OPTIMA3	010610A-1
7439-89-6	Iron		30	ug/L	U		P	30	1	OPTIMA3	010610A-1
7439-92-1	Lead		0.5	ug/L	U		MS	0.5	1	ICPMS3	091222-3
7439-95-4	Magnesium		3770	ug/L			P	85	1	OPTIMA3	010610A-1
7439-96-5	Manganese		5.48	ug/L	J		P	2	1	OPTIMA3	010610A-1
7439-98-7	Molybdenum	J,I4a	1.93	ug/L			MS	0.1	1	ICPMS3	091222-3
7440-02-0	Nickel		10.6	ug/L			MS	0.5	1	ICPMS3	091222-3
7440-09-7	Potassium		1570	ug/L			P	50	1	OPTIMA3	010610A-1
7782-49-2	Selenium		1	ug/L	U		MS	1	1	ICPMS3	091222-3
7440-22-4	Silver		0.2	ug/L	U		MS	0.2	1	ICPMS3	091222-3
7440-23-5	Sodium		11200	ug/L			P	100	1	OPTIMA3	010610A-1
7440-24-6	Strontium		53.9	ug/L			P	1	1	OPTIMA3	010610A-1
7440-28-0	Thallium		0.3	ug/L	U		MS	0.3	1	ICPMS3	091222-3
7440-31-5	Tin		12.5	ug/L	U		P	12.5	5	OPTIMA3	010710-2

AMF
2/12/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-995 **METHOD TYPE:** EPA

SAMPLE ID: 243285002 **CLIENT ID:** CAPA-10-6794

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 19-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	0.421	ug/L			MS	0.05	1	ICPMS3	091222-3
7440-62-2	Vanadium	4.67	ug/L	J		P	1	1	OPTIMA3	010610A-1
7440-66-6	Zinc	19.3	ug/L			P	3.3	1	OPTIMA3	010610A-1
	Hardness as CaCO3	48.8	mg/L				0.35	1	CALC001	

AMF
2/12/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-995 VALIDATION DATE: 2/12/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. Total P was detected in the MB. The associated sample result was a detect ≤5X the MB concentration and, thus, was qualified U,I4.
2. The MS %R for Total P was < the laboratory LAL but ≥10%. The associated sample result was qualified ND and, thus, was qualified UJ,I6a. The MS %R for Cl was > the laboratory UAL. The associated sample result was a detect and, thus, was qualified J+,I6b.
3. The analysis of pH was performed >2X past the method specified holding time. The associated sample result was qualified J-,I9a, based on professional judgment.
4. It should be noted that all matrix QC analyses except those for NO_3/NO_2 were performed on LANL samples from other RNs. No sample data were qualified. Some analyses included multiple matrix QC samples. For each batch, the QC sample most comparable to the matrix of this RN was selected for data validation purposes, and the extraneous QC samples were not evaluated.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/12/10

DATA VALIDATION COVER SHEET

5120-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

VALIDATOR'S SIGNATURE: Allison Felix DATE: 2/12/10

Form 5120-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☒	☐	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☒	☐	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2 General Chemistry Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 5, 2010

Client SDG: 10-995

Client Sample ID:	CAPA-10-6793	Project:	ESHL01000
Sample ID:	243285001	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	17-DEC-09 12:00		
Receive Date:	19-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
EPA 335.4 Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/22/09	1708	935209	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	12/22/09	1414	935207

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

AMF
2/12/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 5, 2010

Client SDG: 10-995

Client Sample ID:	CAPA-10-6794	Project:	ESHL01000
Sample ID:	243285002	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	17-DEC-09 12:00		
Receive Date:	19-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Conductivity Analysis												
EPA120.1 Specific Conductivity "As Received"												
Conductivity		137		1.00	1.00	umhos/cm	1	TXT1	12/22/09	1555	935817	1
Electrode Analysis												
EPA 150.1 pH Federal "As Received"												
pH at Temp 16.7C	H	7.65	J-,I9a	0.010	0.100	SU	1	LXA1	12/22/09	1113	935860	2
Ion Chromatography												
EPA 300.0 Anions Liquid 28 day "As Received"												
Bromide	U	ND		0.066	0.200	mg/L	1	VH1	12/22/09	0939	935518	3
Chloride		2.42	J+,I6b	0.066	0.200	mg/L	1					
Fluoride		0.507		0.033	0.100	mg/L	1					
Sulfate		2.95		0.100	0.400	mg/L	1					
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia L "As Received"												
Nitrogen, Ammonia	U	ND		0.016	0.050	mg/L	1	AXH3	12/22/09	1555	935259	4
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite		0.590		0.050	0.250	mg/L	5	AXH3	12/21/09	1155	935263	5
EPA 365.4 Phosphorus, Total in "As Received"												
Phosphorus, Total as P	J	0.038	U,I4	0.015	0.050	mg/L	1	AXH3	12/22/09	1056	934824	6
Solids Analysis												
EPA 160.1 Solids, Dissolved-F "As Received"												
Total Dissolved Solids		145		2.38	10.0	mg/L		SDS	12/21/09	1122	934796	7
Titration Analysis												
EPA 310.1 Total Alkalinity Federal "As Received"												
Alkalinity, Total as CaCO3		62.4		0.725	1.00	mg/L		LXA1	12/22/09	1604	936028	8
Carbonate alkalinity (CaCO3)	U	ND		0.725	1.00	mg/L						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	SXJ1	12/22/09	1455	935258
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	SXJ1	12/21/09	1015	934823

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 120.1	

AMF
2/12/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-995 VALIDATION DATE: 2/12/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. Gross gamma was detected in the MB. The associated sample result was an ND and, thus, was not qualified.
2. It should be noted that all matrix QC analyses except those for tritium were performed on LANL samples from other RNs. No sample data were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/12/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 2/12/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☐	☒	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☒	☐	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☒	☐	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☒	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: January 8, 2010

Client Sample ID:	CAPA-10-6793	Project:	ESHL01000
Sample ID:	243285001	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	17-DEC-09		
Receive Date:	19-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
Alphaspec Am241 Liquid "As Received"												
Americium-241	U	-0.0134	0.0385	+/-0.0111	0.050	pCi/L		MXA1	12/31/09	0749	935840	1
Alphaspec Pu, Liquid "As Received"												
Plutonium-238	U	0.00842	0.0309	+/-0.0107	0.050	pCi/L		MXA1	12/31/09	0749	935841	2
Plutonium-239/240	U	0.0021	0.0332	+/-0.00365	0.050	pCi/L						
Alphaspec U, Liquid "As Received"												
Uranium-234		0.262	0.0819	+/-0.0318	1.00	pCi/L		MXA1	12/31/09	1657	935842	3
Uranium-235/236	U	0.0247	0.0428	+/-0.0108	1.00	pCi/L						
Uranium-238		0.122	0.0512	+/-0.0195	0.500	pCi/L						
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Liquid "As Received"												
Cesium-137	U	0.443	2.97	+/-0.871	8.00	pCi/L		KXG3	12/30/09	2241	935338	4
Cobalt-60	U	1.10	3.18	+/-0.897	8.00	pCi/L						
Gross Gamma	U	33.9	65.8	+/-43.4	120	pCi/L						
Neptunium-237	U	9.63	24.9	+/-7.44	10.0	pCi/L						
Potassium-40	U	-1.53	40.4	+/-13.1	10.0	pCi/L						
Sodium-22	U	-0.485	2.52	+/-0.789	10.0	pCi/L						
Rad Gas Flow Proportional Counting												
GFPC, Gross A/B, liquid "As Received"												
Beta		3.55	3.24	+/-1.13	3.00	pCi/L		DXB5	12/28/09	1024	935330	5
Alpha	U	-0.342	2.45	+/-0.452	3.00	pCi/L		DXB5	12/29/09	1224	935330	6
GFPC, Sr90, liquid "As Received"												
Strontium-90	U	0.363	0.404	+/-0.132	0.500	pCi/L		MXB1	01/07/10	2003	937917	7
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid "As Received"												
Tritium	U	14.9	176	+/-51.9	200	pCi/L		EXK2	12/23/09	1513	935220	9

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified

AMF
2/12/10

Friday, December 18, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-995

REQUEST NUMBER: 10-995

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/17/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 243285%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6793	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6793	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-6793	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6793	1	POLY	WSP-RAD	Nitric Acid	WG
CAPA-10-6794	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6794	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6794	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6793	1	AMBER GLASS	WSP-H-3	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/18/09	1400	Greg Tyler	[illegible]	12-19-09	0905
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Friday, December 18, 2009

REQUEST NUMBER: 10-995

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-995
Per Agreement Number:126310011
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/18/2009
TURNAROUND/REPORT DUE: 1/17/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-6794	WG	12/17/2009	
	EPA:150.1	1	CAPA-10-6794	WG	12/17/2009	
	EPA:160.1	1	CAPA-10-6794	WG	12/17/2009	
	EPA:245.2	1	CAPA-10-6793	WG	12/17/2009	
		1	CAPA-10-6794	WG	12/17/2009	
	EPA:300.0	1	CAPA-10-6794	WG	12/17/2009	
	EPA:310.1	1	CAPA-10-6794	WG	12/17/2009	
	EPA:335.3	1	CAPA-10-6793	WG	12/17/2009	
	EPA:350.1	1	CAPA-10-6794	WG	12/17/2009	

Friday, December 18, 2009

REQUEST NUMBER: 10-995

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:353.2	1	CAPA-10-6794	WG	12/17/2009	
	EPA:365.4	1	CAPA-10-6794	WG	12/17/2009	
	EPA:900	1	CAPA-10-6793	WG	12/17/2009	
	EPA:901.1	1	CAPA-10-6793	WG	12/17/2009	
	EPA:905.0	1	CAPA-10-6793	WG	12/17/2009	
	EPA:906.0	1	CAPA-10-6793	WG	12/17/2009	Analysis by direct count with 10-day turnaround.
	HASL-300:AM-241	1	CAPA-10-6793	WG	12/17/2009	
	HASL-300:ISOPU	1	CAPA-10-6793	WG	12/17/2009	
	HASL-300:ISOU	1	CAPA-10-6793	WG	12/17/2009	
	SM:A2340B	1	CAPA-10-6793	WG	12/17/2009	
		1	CAPA-10-6794	WG	12/17/2009	
	SW-846:8010B	1	CAPA-10-6793	WG	12/17/2009	
		1	CAPA-10-6794	WG	12/17/2009	
	SW-846:6020	1	CAPA-10-6793	WG	12/17/2009	
		1	CAPA-10-6794	WG	12/17/2009	
	SW-846:6850	1	CAPA-10-6794	WG	12/17/2009	

Final Page of REQUEST NUMBER 10-995

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

January 04, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL-WQH Water Samples
Work Order: 243285
SDG: 10-995

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 19, 2009, and analyzed for General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for Francis

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-995
Enclosures

problem solved

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 243285
SDG # : 10-995

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 243285
SDG # : 10-995

January 04, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 19, 2009 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. The Gross A/B container was preserved prior to analysis. . The containers for radiochemistry were received at 14C temperature. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
243285001	CAPA-10-6793
243285002	CAPA-10-6794

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for Valerie Davis

Valerie Davis

Project Manager

List of current GEL Certifications as of 04 January 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Friday, December 18, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-995

REQUEST NUMBER: 10-995

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/17/2010
TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 243285%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6793	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6793	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-6793	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6793	1	POLY	WSP-RAD	Nitric Acid	WG
CAPA-10-6794	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6794	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6794	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6793	1	AMBER GLASS	WSP-H-3	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/18/09	1400	Greg Tyler	[illegible]	12-19-09	0905
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: Date Time

Printed Name Signature

Remarks:

Friday, December 18, 2009

REQUEST NUMBER: 10-995

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-995
Per Agreement Number:126310011
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 12/18/2009
TURNAROUND/REPORT DUE: 1/17/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-6794	WG	12/17/2009	
	EPA:150.1	1	CAPA-10-6794	WG	12/17/2009	
	EPA:160.1	1	CAPA-10-6794	WG	12/17/2009	
	EPA:245.2	1	CAPA-10-6793	WG	12/17/2009	
		1	CAPA-10-6794	WG	12/17/2009	
	EPA:300.0	1	CAPA-10-6794	WG	12/17/2009	
	EPA:310.1	1	CAPA-10-6794	WG	12/17/2009	
	EPA:335.3	1	CAPA-10-6793	WG	12/17/2009	
	EPA:350.1	1	CAPA-10-6794	WG	12/17/2009	

Friday, December 18, 2009

REQUEST NUMBER: 10-995

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:353.2	1	CAPA-10-6794	WG	12/17/2009	
	EPA:365.4	1	CAPA-10-6794	WG	12/17/2009	
	EPA:900	1	CAPA-10-6793	WG	12/17/2009	
	EPA:901.1	1	CAPA-10-6793	WG	12/17/2009	
	EPA:905.0	1	CAPA-10-6793	WG	12/17/2009	
	EPA:906.0	1	CAPA-10-6793	WG	12/17/2009	Analysis by direct count with 10-day turnaround.
	HASL-300:AM-241	1	CAPA-10-6793	WG	12/17/2009	
	HASL-300:ISOPU	1	CAPA-10-6793	WG	12/17/2009	
	HASL-300:ISOU	1	CAPA-10-6793	WG	12/17/2009	
	SM:A2340B	1	CAPA-10-6793	WG	12/17/2009	
		1	CAPA-10-6794	WG	12/17/2009	
	SW-846:6010B	1	CAPA-10-6793	WG	12/17/2009	
		1	CAPA-10-6794	WG	12/17/2009	
	SW-846:6020	1	CAPA-10-6793	WG	12/17/2009	
		1	CAPA-10-6794	WG	12/17/2009	
	SW-846:6850	1	CAPA-10-6794	WG	12/17/2009	

Final Page of REQUEST NUMBER 10-995

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-995**
Received By: Greg Tyler	**Date Received: 12/19/09**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: 60cpm
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other 1,4C 14C
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?			X	Sample ID's, containers affected and observed pH: **CAPA-10-6793 Gross A/B** If Preservation added, Lot#: **H20053**
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers
7209 7849 2932 1C
7209 7849 2954 4C
7209 7849 2943 4C
7209 7849 2921 14C

PM (or PMA) review: Initials P. W-N. Date 12-21-09

Subject: Sample Receipt for 12/19/09
From: Dionne Francis <Dionne.Francis@gel.com>
Date: Tue, 22 Dec 2009 09:33:28 -0500
To: "Keith R. Greene" <kgreene@lanl.gov>, Joylene Valdez <joylenev@lanl.gov>, Valerie Davis <vsd@gel.com>

Keith,

RN 10-995 and 998: the Gross A/B container was preserved prior to analysis.

Thanks,
Dionne

--
Dionne Francis
Project Manager Assistant
GEL Laboratories, LLC
2040 Savage Road
Charleston, SC (USA) 29407
Direct: 843.769.7376 Ext. 4432
Main: 843.556.8171
Fax: 843.766.1178
E-mail: daf@gel.com
Web: www.gel.com

Let the Bible fill the memory, rule the heart, and guide the feet.

GIN ID: SAFA (505)665-9968
LENE VALDEZ
ALAMOS NATL LAB.
0 BLDG 1237 DPU 03

ALAMOS, NM 87545
TED STATES US

SHIP DATE: 18DEC09
ACTWGT: 55.0 LB MAN
CAD: 0014175/CAFE2434

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

HARLESTON SC 29407
43)556-8171
EF: 6B01AMR1A015AGWMO

1°

FedEx Express

2 of 3 ### SATURDAY ### A1
PRIORITY OVERNIGHT
TRK# 7209 7849 2932
Matr# 7209 7849 2921 0201

X0 CHSA
29407
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CHS

ITED STATES US

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

HARLESTON SC 29407
843)556-8171
EF: 6B01AMR1A015AGWMO

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1 of 2 ### SATURDAY ### A1
PRIORITY OVERNIGHT
TRK# 7209 7849 2954
0201
MASTER

X0 CHSA
29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA03 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 18DEC09
ACTWGT: 55.0 LB MAN
CAD: 0014175/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B01AMR1A015AGWMO

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3 of 3 ### SATURDAY ### A1
PRIORITY OVERNIGHT
MPS# 7209 7849 2943
0263
Matr# 7209 7849 2921 0201

X0 CHSA
29407
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CHS

Part # 156148-434 NRIT V3 08-09

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
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REF: 6B01AMR1A015AGWMO

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1 of 3 ### SATURDAY ### A1
PRIORITY OVERNIGHT
TRK# 7209 7849 2921
0201
MASTER

X0 CHSA
29407
SC-US
CHS

DATA REVIEW QUALIFIER FLAG DEFINITION SHEET

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-995

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	936066
Prep Batch Number:	936065

Sample Analysis

Sample ID	Client ID
243285002	CAPA-10-6794
1202002920	Interference Check Sample (ICS)
1202002916	Method Blank (MB)
1202002917	Laboratory Control Sample (LCS)
1202002918	243286004(CAPA-10-6747) Matrix Spike (MS)
1202002919	243286004(CAPA-10-6747) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

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CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Client sample 243286004 (CAPA-10-6747) from SDG 10-998 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

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Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Nonconformance (NCR) Documentation
Nonconformance reports (NCRs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The sample in this SDG was not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

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System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Heather Meus **Date:** 01/08/10

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SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 936065

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6794

Date Received: 19-DEC-09

GEL Job No (SDG): 10-995

GEL Sample ID: 243285002

Date Filtered: 29-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.353	ug/L		1	29-DEC-09 20:14	per1229059a
	Perchlorate Isotope Ratio			3.02			1	29-DEC-09 20:14	per1229059a
14797-73-0	Perchlorate-101	.05	.2	0.355	ug/L		1	29-DEC-09 20:14	per1229059a
	Perchlorate-O(18)			0.498	ug/L		1	29-DEC-09 20:14	per1229059a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–995

Extract Batch Code: 936065

Date Filtered: 29–DEC–09

Matrix: GROUND WATER

Sample ID: 1202002917

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.183	ug/L	91.5		85 – 115
Perchlorate Isotope Ratio		3.02				–
Perchlorate–101	0.200	.184	ug/L	92.2		85 – 115
Perchlorate–O(18)		.463	ug/L			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–995

Extract Batch Code: 936065

Date Filtered: 29–DEC–09

Matrix: GROUND WATER

Sample ID: 1202002920

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.199	ug/L	99.6		70 – 130
Perchlorate Isotope Ratio		2.97				
Perchlorate–101	0.200	.204	ug/L	102		70 – 130
Perchlorate–O(18)		.546	ug/L			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229058a
Date: 29-Dec-2009
Time: 20:07:03
ID: 1202002920
Vial: 2:4,C

| LANL | 936066 | LIQ | IC8 | 1 |

MAP 12/30/09

Perchlorate

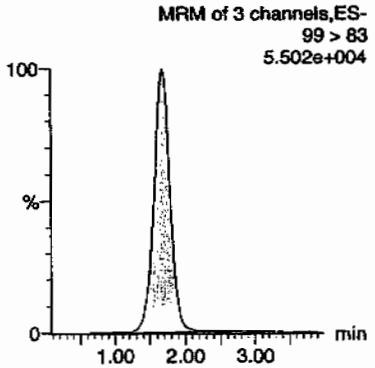

Perchlorate

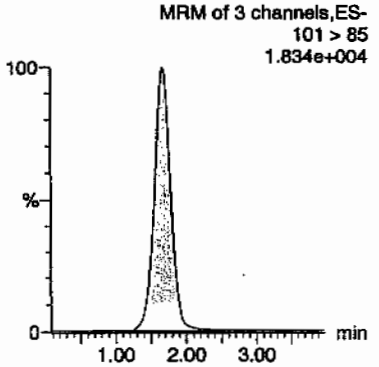

Perchlorate-101

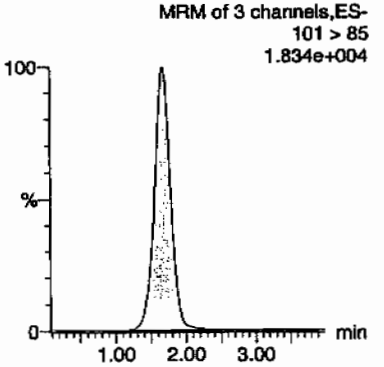

Perchlorate-O(18)

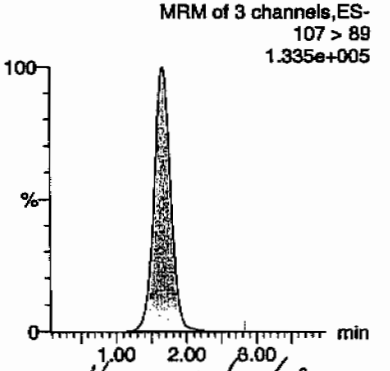

AMM 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202002920	Perchlorate	99 > 83	1.68	14811.310	14811.310	bb			0.1993	99.63	-0.37	723.005	2.97
1202002920	Perchlorate-101	101 > 85	1.67	4987.850	4987.850	bb			0.2038	101.92	1.92	1557.5...	
1202002920	Perchlorate-O(18)	107 > 89	1.67	36368.996	36368.996	bb			0.5463	109.27	9.27	6107.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–995

Extract Batch Code: 936065

Date Extracted: 29–DEC–09

GEL MS/PS ID: 1202002918

Client ID: CAPA–10–6747

GEL MSD/PSD ID: 1202002919

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	0.200	0.00175	ug/L	0.192	95	.199	98.9	3.97	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		3.07		2.99		0		–
Perchlorate–101	0.200	0.00226	ug/L	0.190	93.9	.202	100	6.35	30	75 – 125
Perchlorate–O(18)	0	0.532	ug/L	0.477		.553		14.8		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-995

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	29-DEC-09	per1229001a	IPB001
Perchlorate-101	0.00	0	NA	29-DEC-09	per1229001a	IPB001
Perchlorate	0.00	0	NA	29-DEC-09	per1229002a	IPB001
Perchlorate-101	0.00	0	NA	29-DEC-09	per1229002a	IPB001

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per122909a.mdb 29 Dec 2009 14:36:05
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per122909a.cdb 30 Dec 2009 06:51:17

Name: per1229001a
Date: 29-Dec-2009
Time: 13:24:44
ID: IPB001
Vial: 1:1,A

MMT 12/30/09

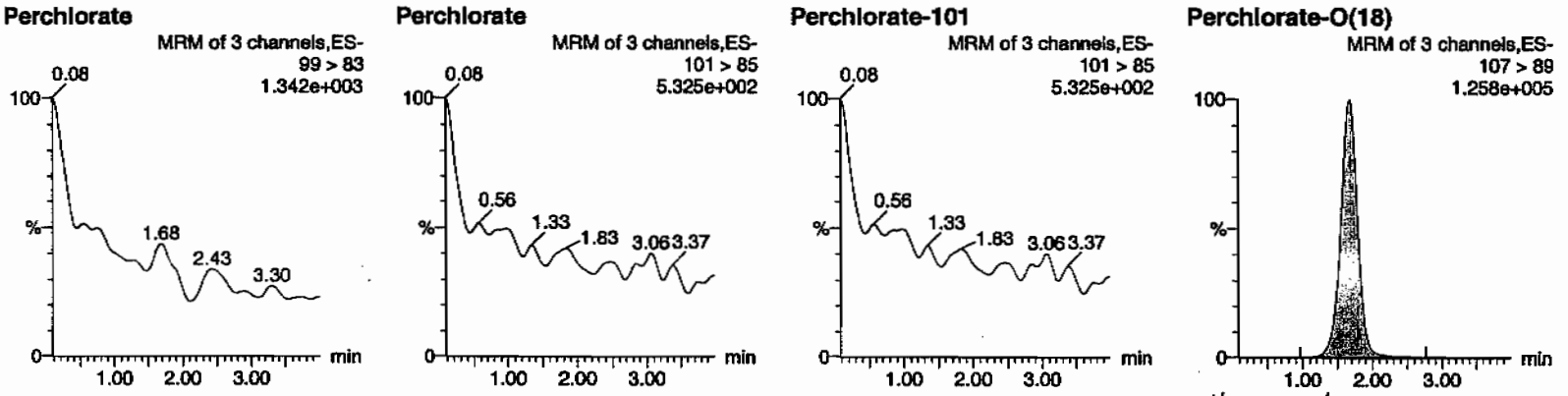

Hnm 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	1.67	35086.422	35086.422	bb			0.5271	105.42	5.42	10266....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229002a
Date: 29-Dec-2009
Time: 13:31:57
ID: IPB001
Vial: 1:1,A

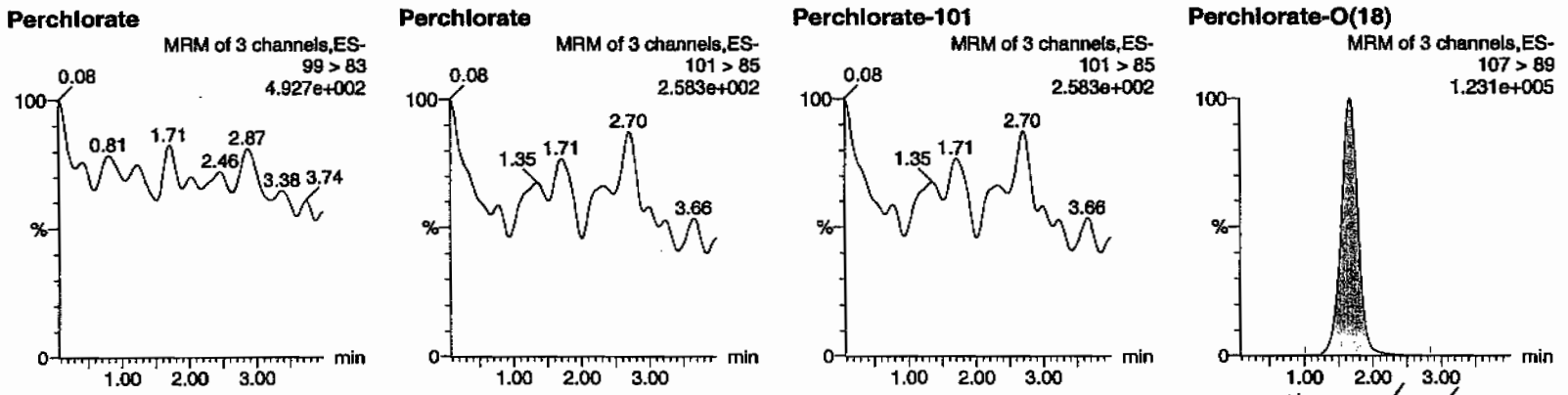

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	1.67	34490.836	34490.836	bb			0.5181	103.63	3.63	3293.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–995

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	29–DEC–09	per1229008a	IPB002
Perchlorate–101	0.00	0	NA	29–DEC–09	per1229008a	IPB002
Perchlorate	0.00	0	NA	29–DEC–09	per1229010a	IPB003
Perchlorate–101	0.00	0	NA	29–DEC–09	per1229010a	IPB003
Perchlorate	0.00	0	NA	29–DEC–09	per1229023a	IPB004
Perchlorate–101	0.00	0	NA	29–DEC–09	per1229023a	IPB004
Perchlorate	0.00	0	NA	29–DEC–09	per1229030a	IPB005
Perchlorate–101	0.00	0	NA	29–DEC–09	per1229030a	IPB005
Perchlorate	0.00	0	NA	29–DEC–09	per1229043a	IPB006
Perchlorate–101	0.00	0	NA	29–DEC–09	per1229043a	IPB006
Perchlorate	0.00	0	NA	29–DEC–09	per1229054a	IPB007
Perchlorate–101	0.00	0	NA	29–DEC–09	per1229054a	IPB007
Perchlorate	0.00	0	NA	29–DEC–09	per1229066a	IPB008

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–995

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate–101	0.00	0	NA	29–DEC–09	per1229066a	IPB008

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229008a
Date: 29-Dec-2009
Time: 14:14:07
ID: IPB002
Vial: 1:1,A

MM 12/29/09

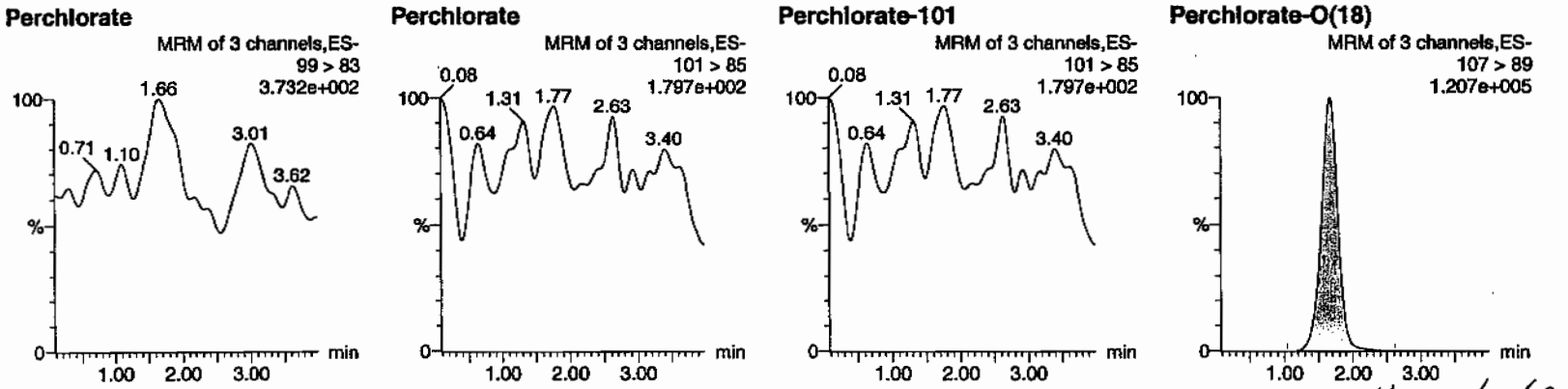

Hnm 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	1.67	33924.273	33924.273	bb			0.5096	101.92	1.92	7224.2...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229010a
Date: 29-Dec-2009
Time: 14:28:12
ID: IPB003
Vial: 1:1,A

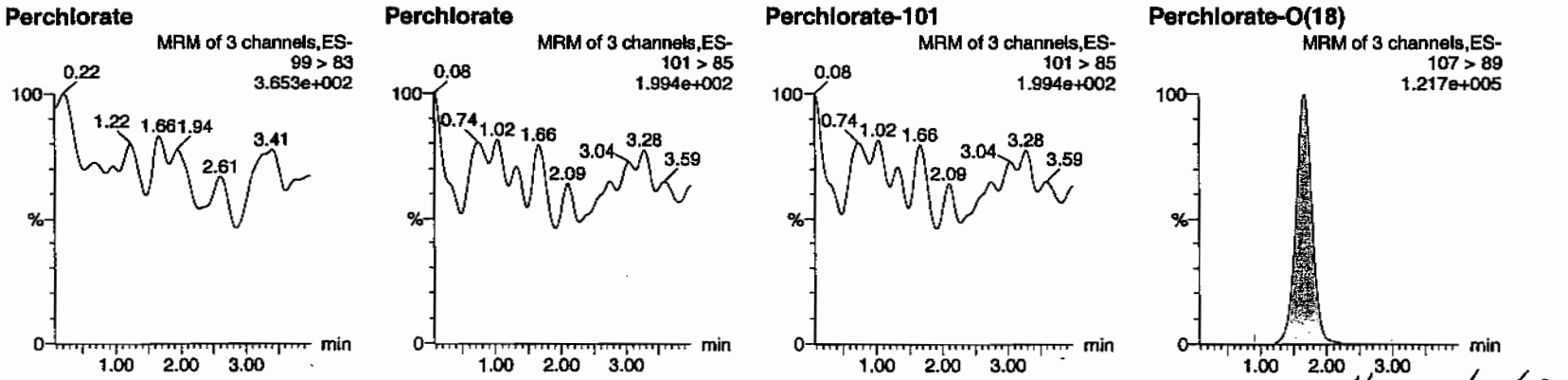

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	1.67	34074.816	34074.816	bb			0.5119	102.38	2.38	3513.1...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229023a
Date: 29-Dec-2009
Time: 15:59:47
ID: IPB004
Vial: 1:1,A

MMT 12/30/09

Perchlorate

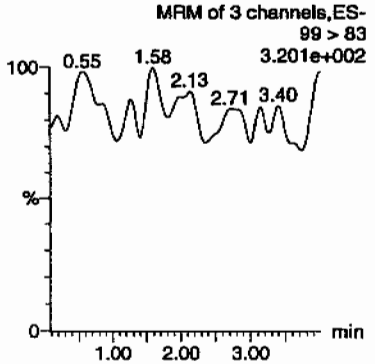

Perchlorate

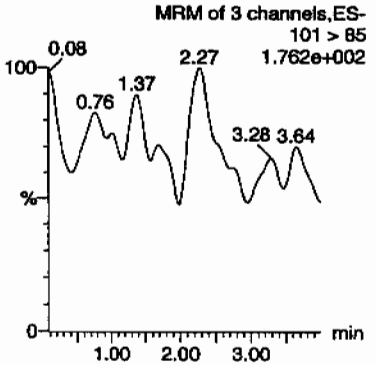

Perchlorate-101

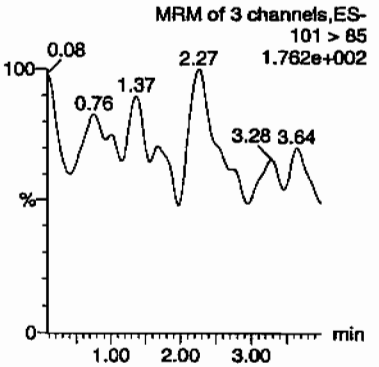

Perchlorate-O(18)

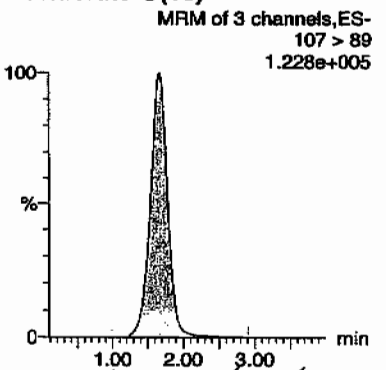

Hmm 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	1.67	34397.980	34397.980	bb			0.5167	103.35	3.35	5102.0...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229030a
Date: 29-Dec-2009
Time: 16:49:06
ID: IPB005
Vial: 1:1,A

MMT 12/30/09

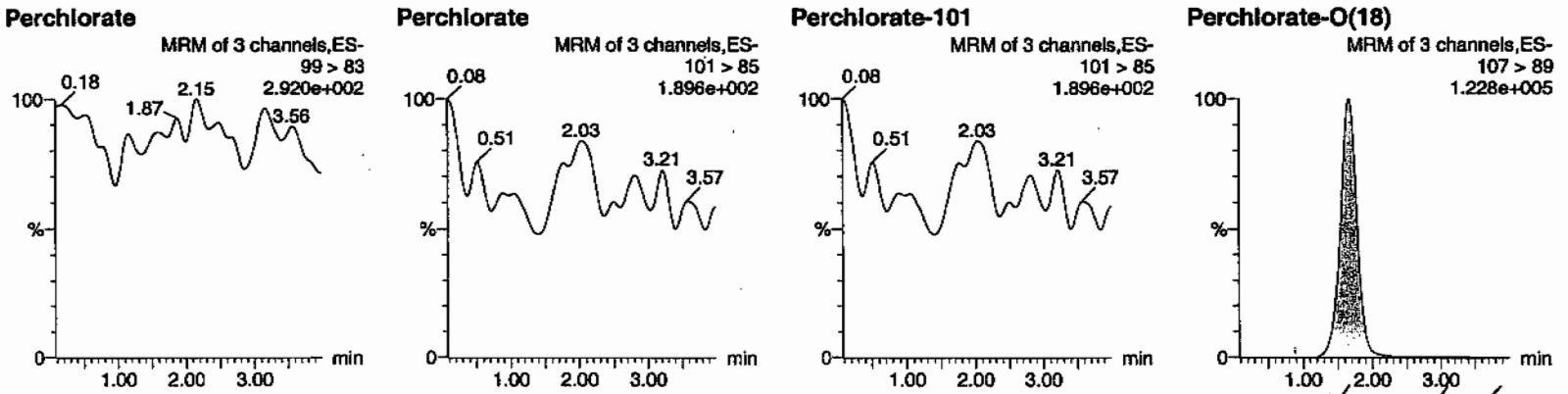

HMM 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83											0.00
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	1.67	34324.867	34324.867	bb			0.5156	103.13	3.13	20032....	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229043a
Date: 29-Dec-2009
Time: 18:20:54
ID: IPB006
Vial: 1:1,A

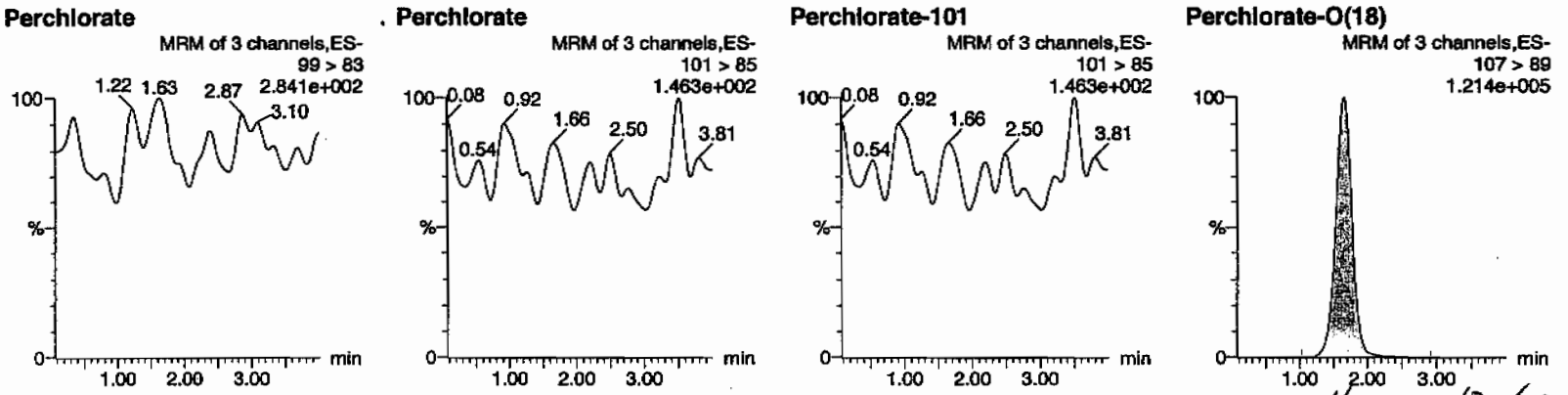

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB006	Perchlorate	99 > 83											0.00
IPB006	Perchlorate-101	101 > 85											
IPB006	Perchlorate-O(18)	107 > 89	1.66	33675.824	33675.824	bb			0.5059	101.18	1.18	6382.0...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229054a
Date: 29-Dec-2009
Time: 19:38:41
ID: IPB007
Vial: 1:1,A

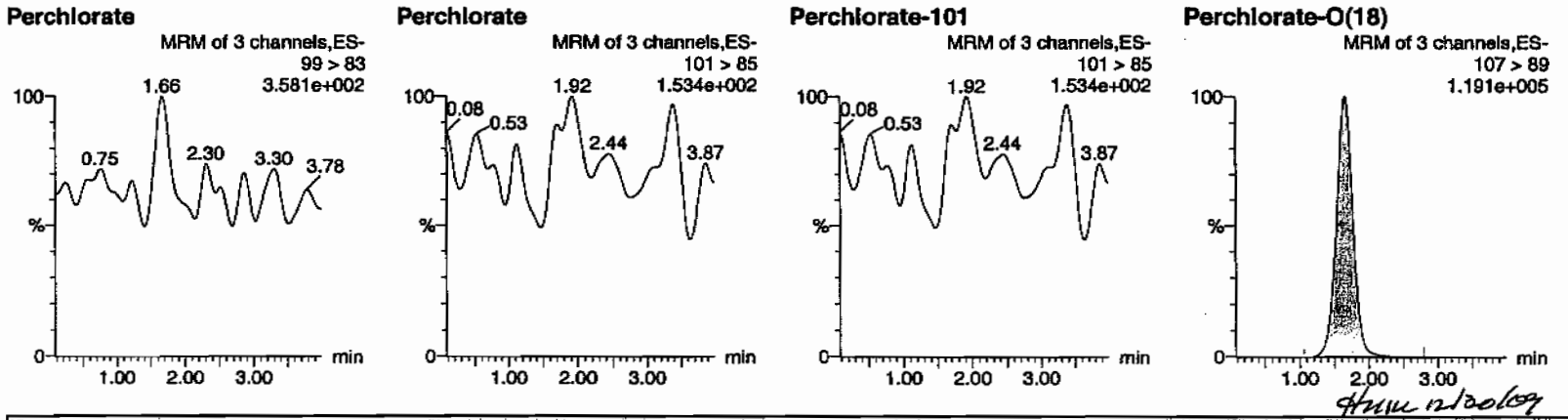

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec.	%Dev	S/N	Ion Ratio
IPB007	Perchlorate	99 > 83											0.00
IPB007	Perchlorate-101	101 > 85											
IPB007	Perchlorate-O(18)	107 > 89	1.66	32852.363	32852.363	bb			0.4935	98.70	-1.30	3290.1...	

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229066a
Date: 29-Dec-2009
Time: 21:03:40
ID: IPB008
Vial: 1:1,A

MATT 12/30/09

Perchlorate

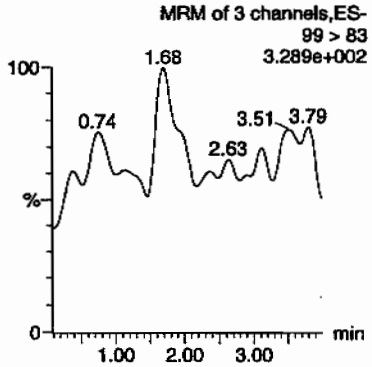

Perchlorate

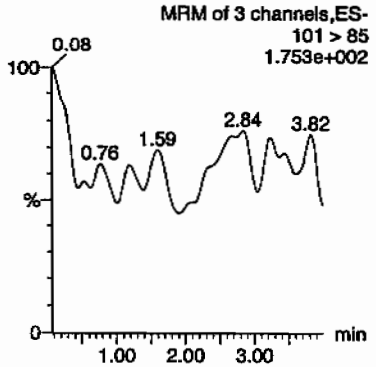

Perchlorate-101

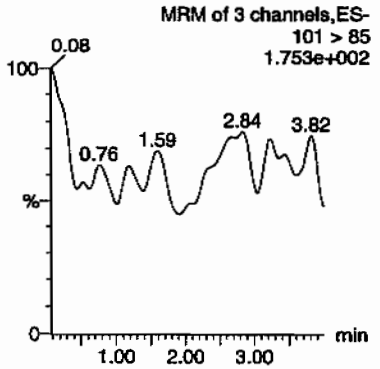

Perchlorate-O(18)

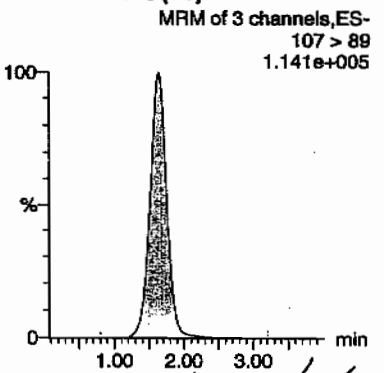

Hmm-bolog

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB008	Perchlorate	99 > 83											0.00
IPB008	Perchlorate-101	101 > 85											
IPB008	Perchlorate-O(18)	107 > 89	1.63	31623.988	31623.988	bb			0.4751	95.01	-4.99	16903....	

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWW 01-09-08

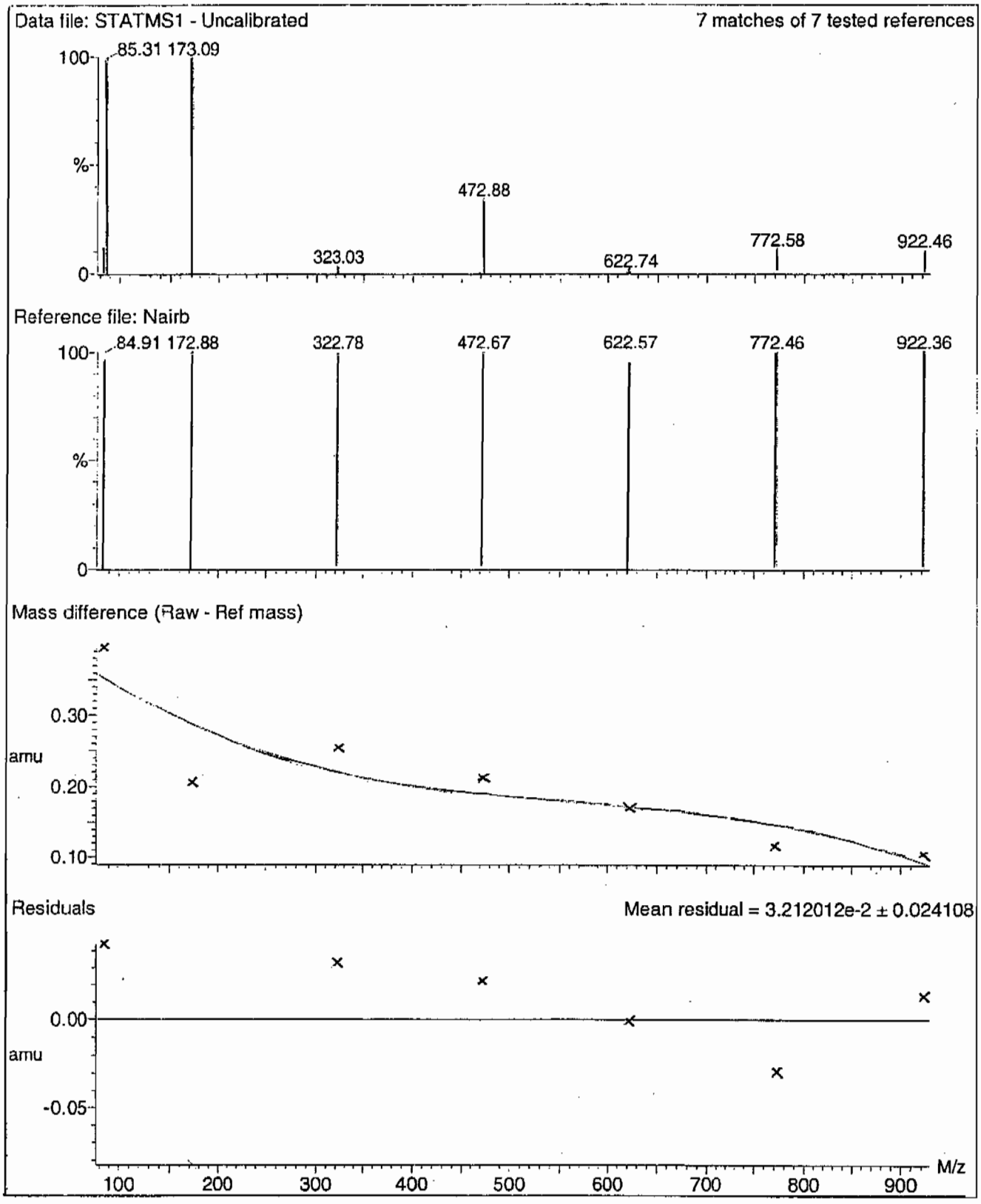

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Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

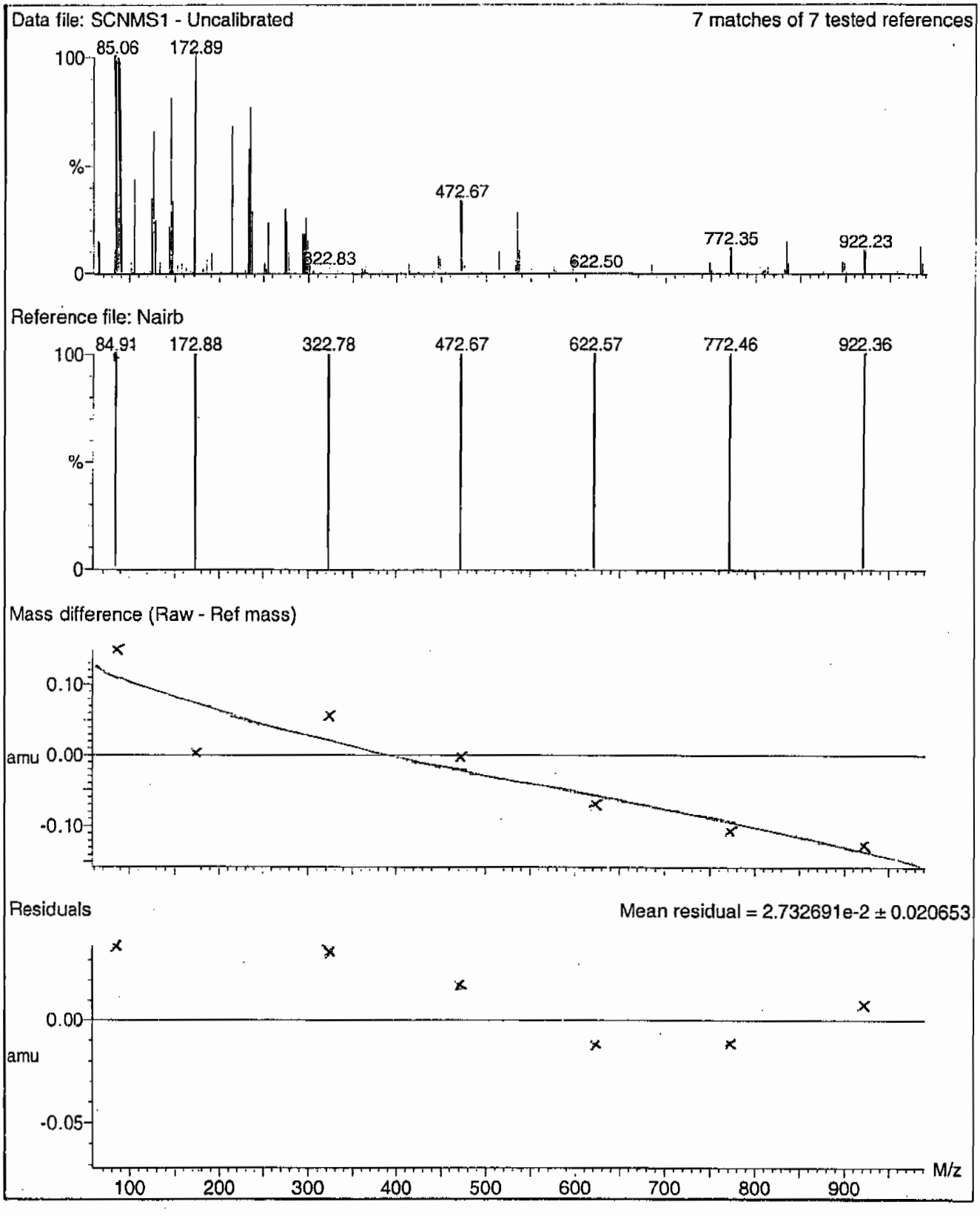

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Printed: Tue Jan 08 12:21:04 2008

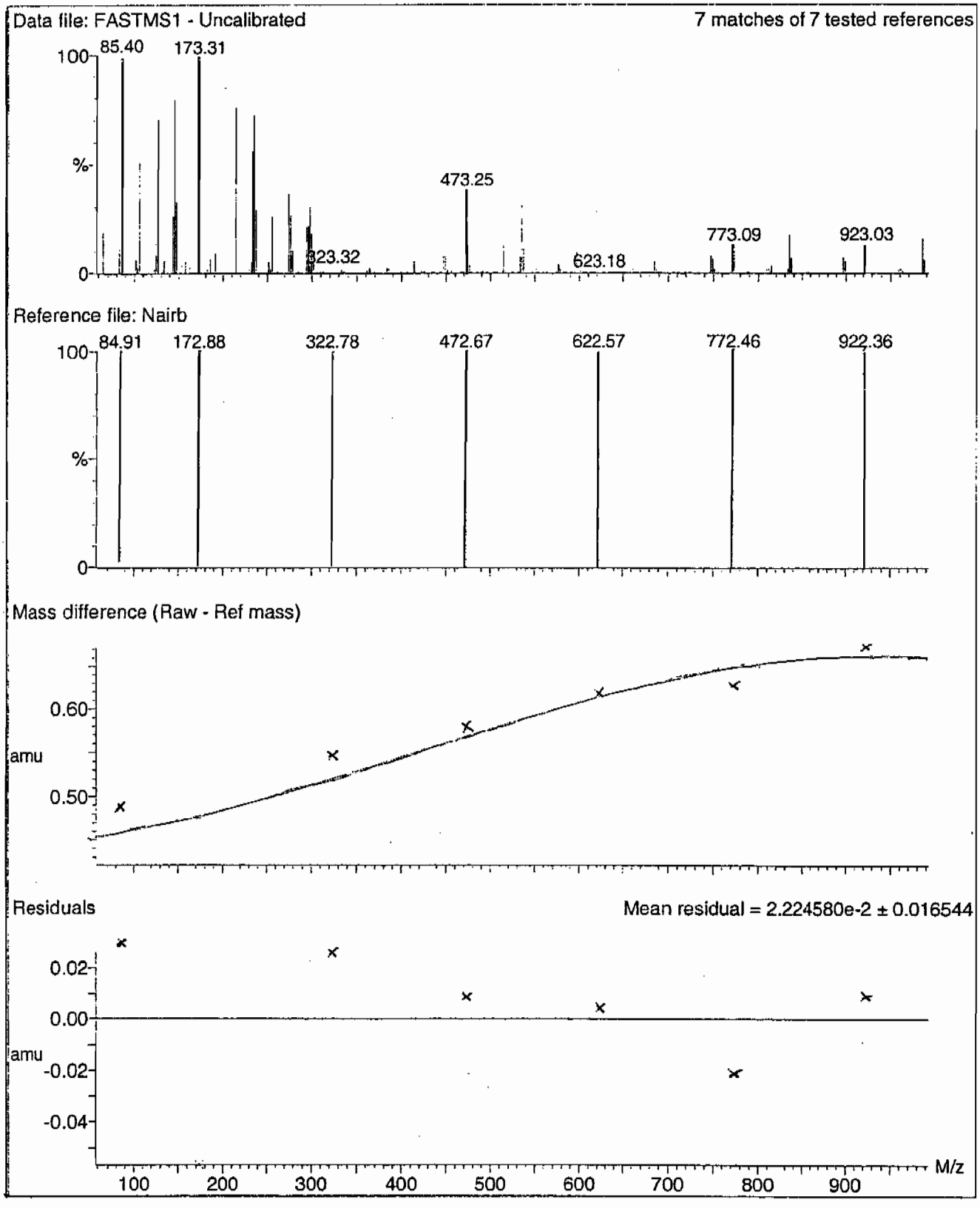

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Printed: Tue Jan 08 12:21:59 2008

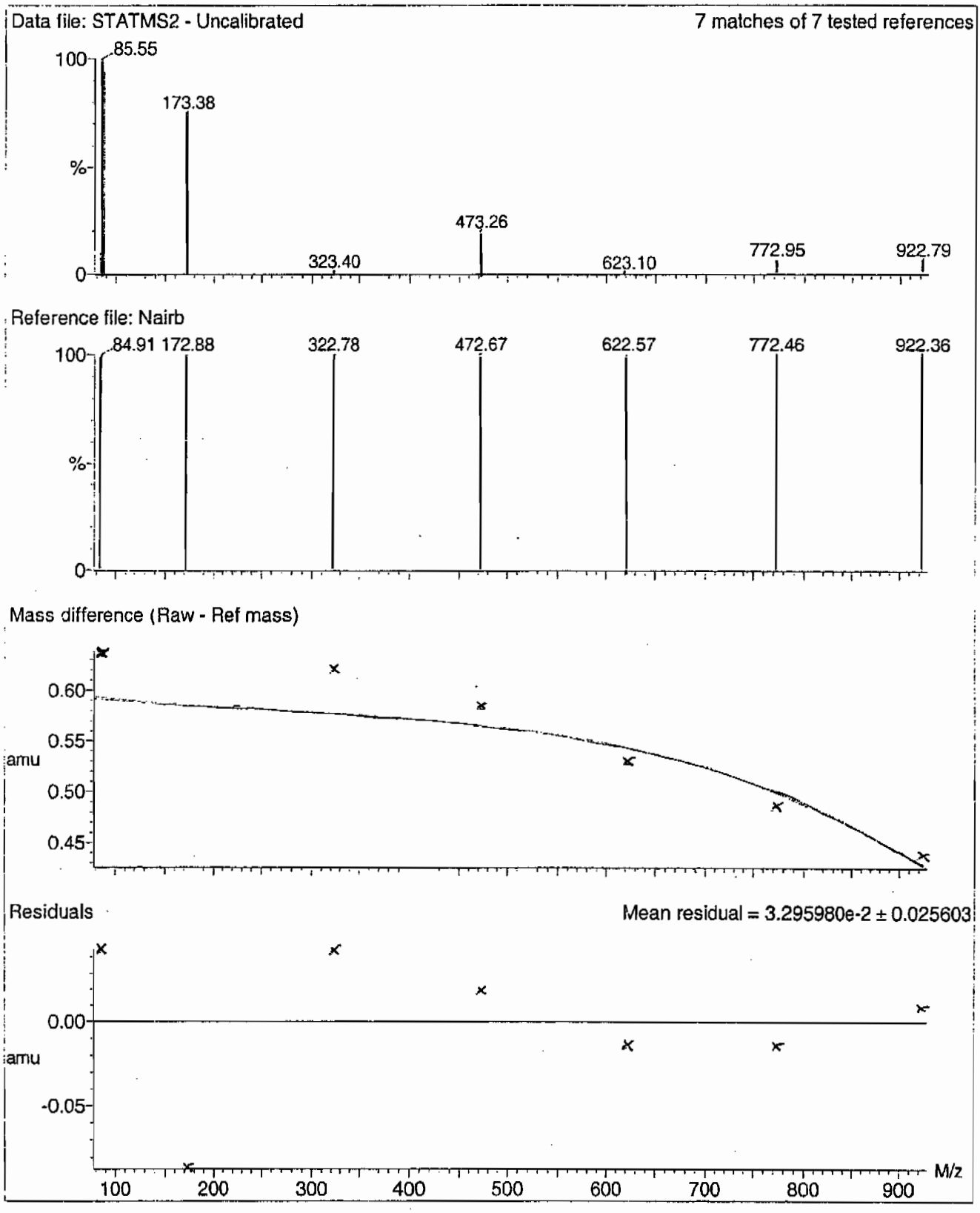

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Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

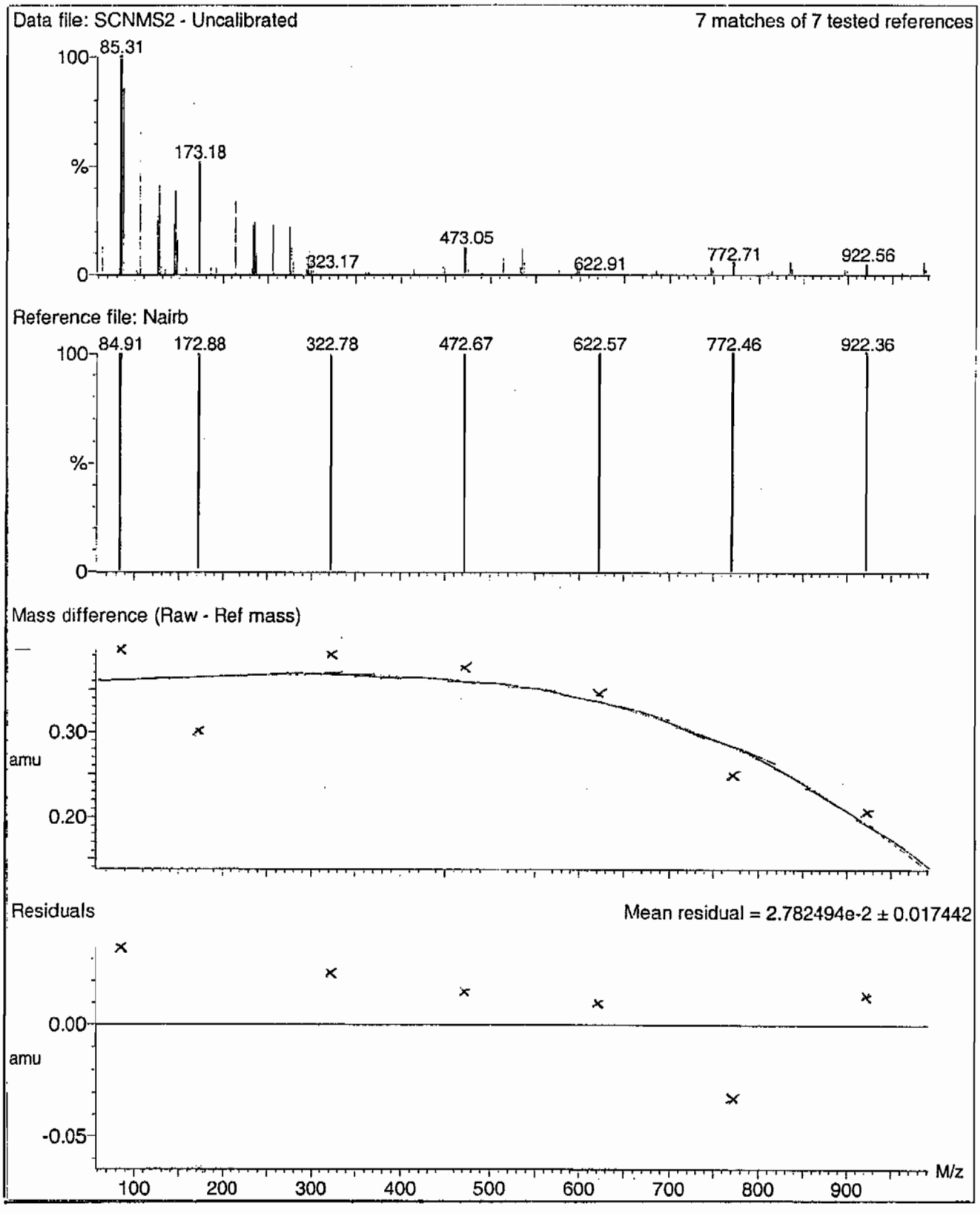

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Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

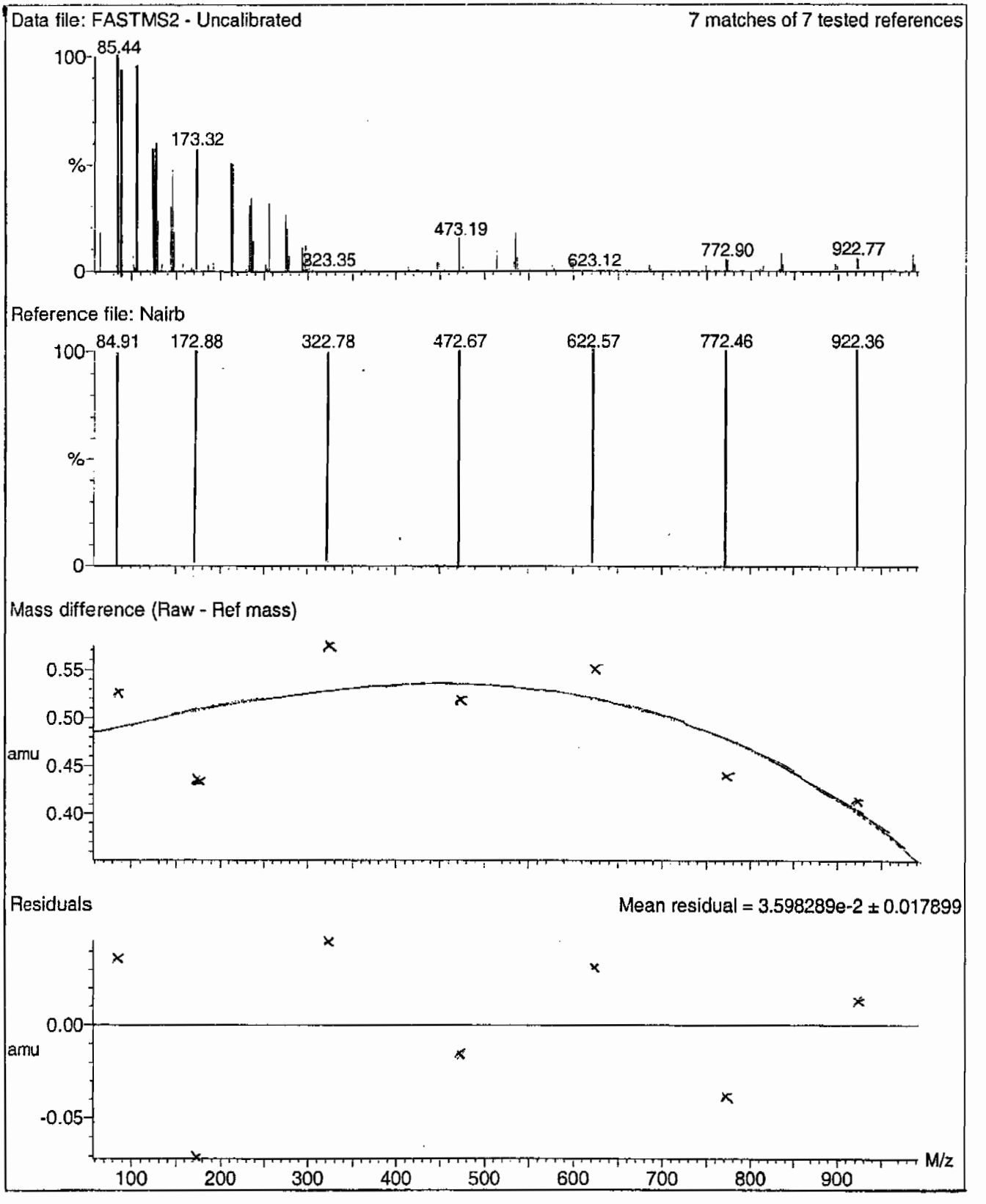

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File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Tuesday, December 29, 2009 13:23:13 Eastern Standard Time

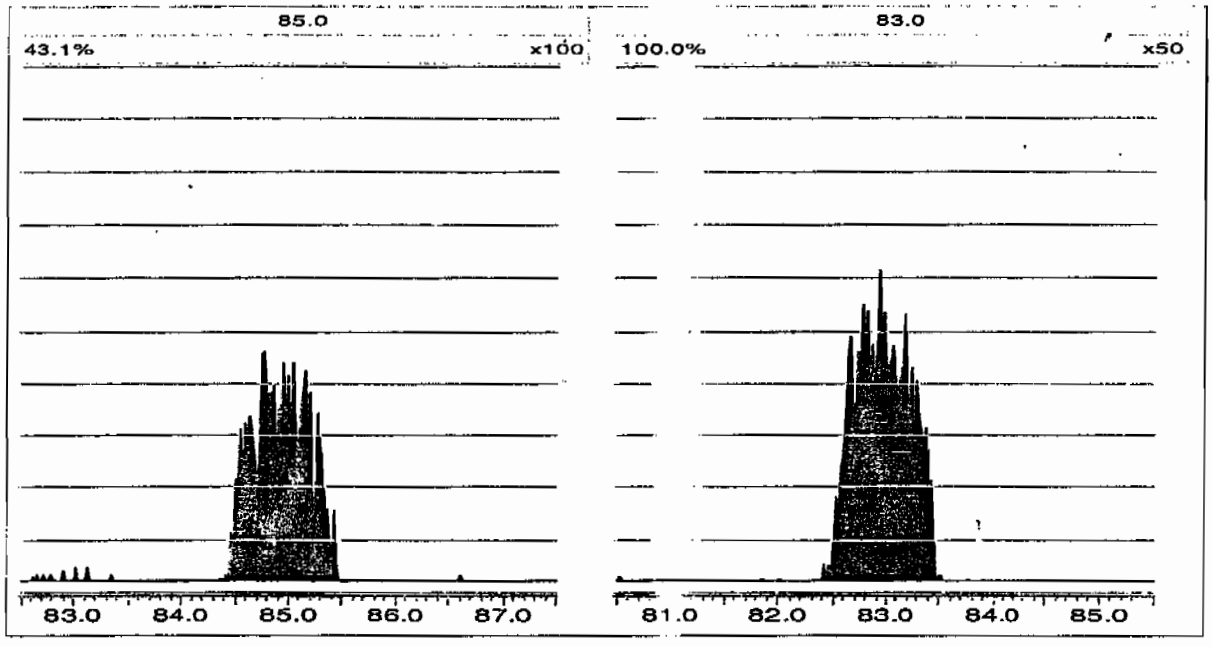

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–995

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per1229006a**	**29–DEC–09**	**33335.8**				
Lower Area Limit			**16667.9**				
Upper Area Limit			**66671.6**				
1202002916	per1229056a	29–DEC–09 19:52	31050.6	1.66	1.64433	.991	
1202002917	per1229057a	29–DEC–09 20:00	30836.8	1.64	1.65668	1.01	
1202002920	per1229058a	29–DEC–09 20:07	36369	1.67	1.68162	1.007	
243285002	per1229059a	29–DEC–09 20:14	33172.5	1.66	1.66917	1.006	

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SAMPLE
DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 936065

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6794

Date Received: 19-DEC-09

GEL Job No (SDG): 10-995

GEL Sample ID: 243285002

Date Filtered: 29-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.353	ug/L		1	29-DEC-09 20:14	per1229059a
	Perchlorate Isotope Ratio			3.02			1	29-DEC-09 20:14	per1229059a
14797-73-0	Perchlorate-101	.05	.2	0.355	ug/L		1	29-DEC-09 20:14	per1229059a
	Perchlorate-O(18)			0.498	ug/L		1	29-DEC-09 20:14	per1229059a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229059a
Date: 29-Dec-2009
Time: 20:14:06
ID: 243285002 | LAW | 936066 | LCQ | 1 |
Vial: 2:4,D

MAT 12/30/09

Perchlorate

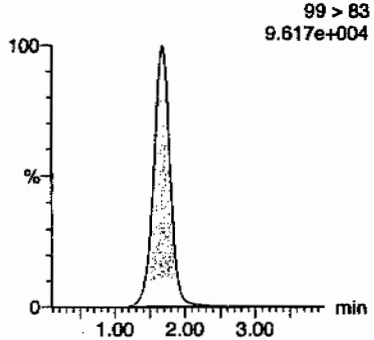

Perchlorate

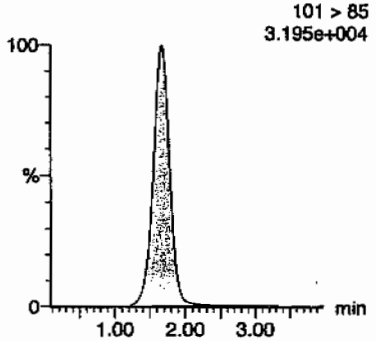

Perchlorate-101

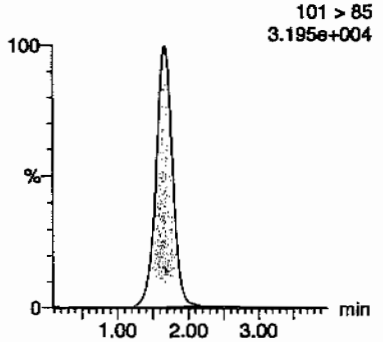

Perchlorate-O(18)

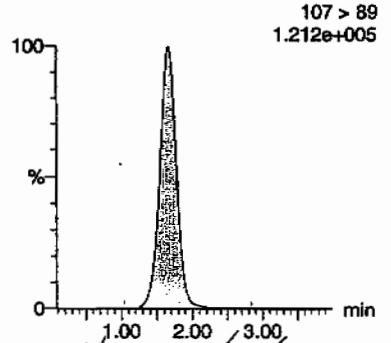

HMW 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243285002	Perchlorate	99 > 83	1.67	26276.475	26276.475	bb			0.3535			2479.0...	3.02
243285002	Perchlorate-101	101 > 85	1.67	8691.978	8691.978	bb			0.3552			2516.3...	
243285002	Perchlorate-O(18)	107 > 89	1.66	33172.473	33172.473	bb			0.4983	99.66	-0.34	6667.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–995

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 29–DEC–09

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 74334.32

Response Type: External Standard

Curve Type: RF

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Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-995

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 29-DEC-09

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate-101

Coefficient of Determination:

Calibration Curve: 24468.6

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per122909a.mdb 29 Dec 2009 14:36:05
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per122909a.cdb 30 Dec 2009 06:51:17

Compound name: Perchlorate
Response Factor: 74334.3
RRF SD: 1798.79, % Relative SD: 2.41986
Response type: External Std, Area
Curve type: RF

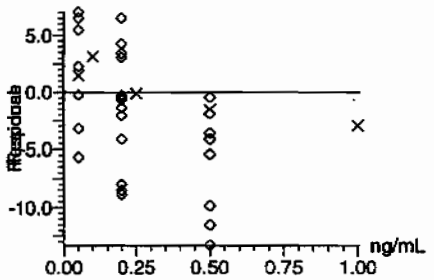

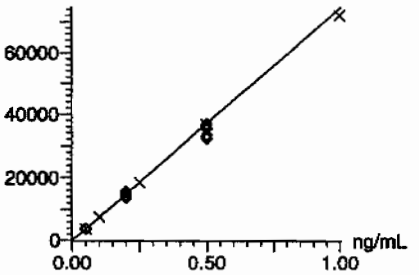

MMT 12/30/09

Compound name: Perchlorate-101
Response Factor: 24468.6
RRF SD: 542.853, % Relative SD: 2.21857
Response type: External Std, Area
Curve type: RF

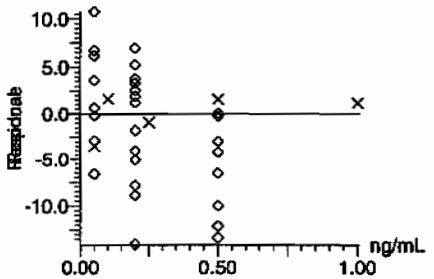

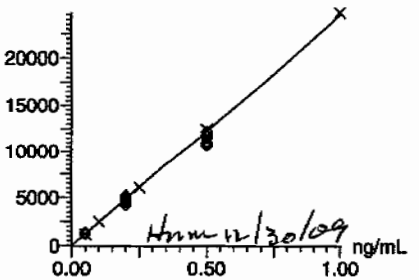

Hmm 12/30/09

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Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 66568.2
RRF SD: 652.618, % Relative SD: 0.980376
Response type: External Std, Area
Curve type: RF

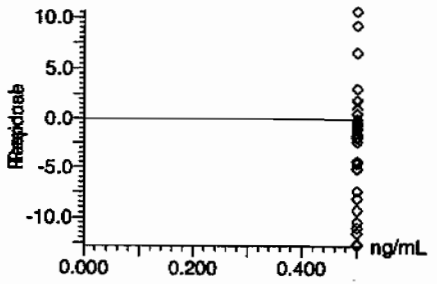

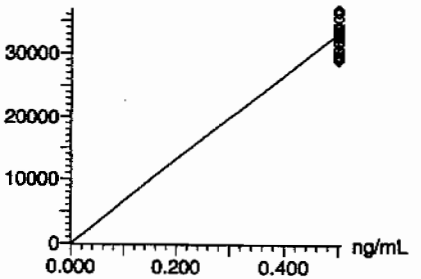

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229003a
Date: 29-Dec-2009
Time: 13:39:00
ID: WCL091218-01
Vial: 1:1,B

MMT 12/30/09

Perchlorate

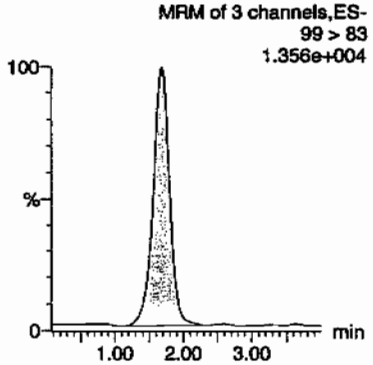

Perchlorate

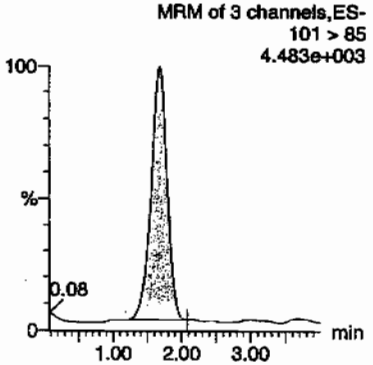

Perchlorate-101

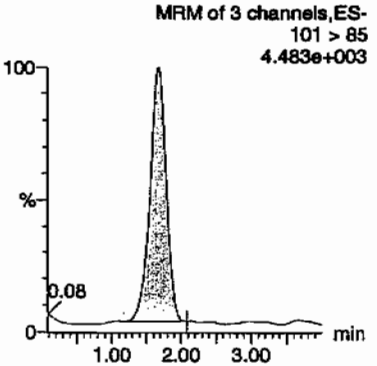

Perchlorate-O(18)

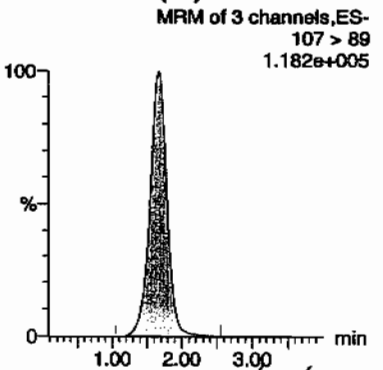

hmm 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-01	Perchlorate	99 > 83	1.68	3771.588	3771.588	bb			0.0507	101.48	1.48	450.468	3.19
WCL091218-01	Perchlorate-101	101 > 85	1.68	1180.657	1180.657	bb			0.0483	96.50	-3.50	210.807	
WCL091218-01	Perchlorate-O(18)	107 > 89	1.67	33110.020	33110.020	bb			0.4974	99.48	-0.52	6693.5...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229004a
Date: 29-Dec-2009
Time: 13:46:02
ID: WCL091218-02
Vial: 1:1,C

MAT 12/30/09

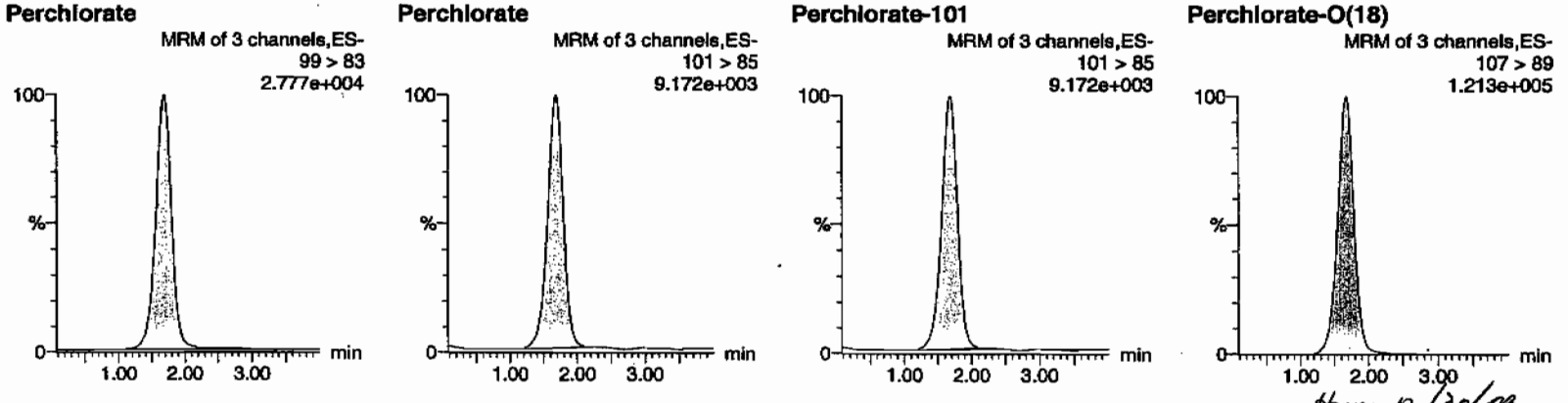

Hum 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-02	Perchlorate	99 > 83	1.68	7668.577	7668.577	bb			0.1032	103.16	3.16	1374.8...	3.08
WCL091218-02	Perchlorate-101	101 > 85	1.68	2486.694	2486.694	bb			0.1016	101.63	1.63	741.270	
WCL091218-02	Perchlorate-O(18)	107 > 89	1.67	33792.953	33792.953	bb			0.5076	101.53	1.53	17014....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229005a
Date: 29-Dec-2009
Time: 13:53:04
ID: WCL091218-03
Vial: 1:1,D

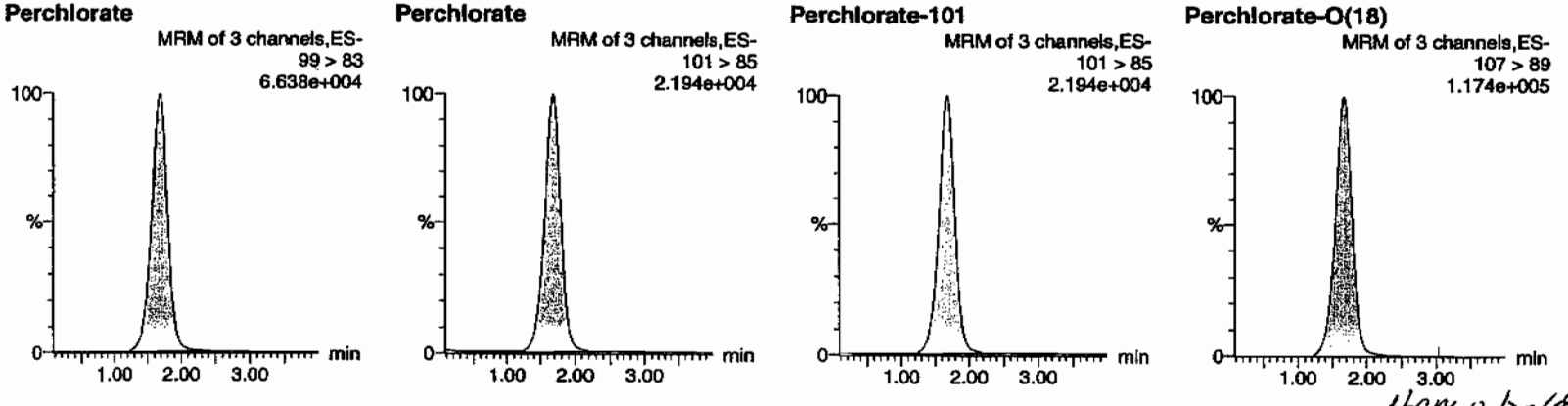

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-03	Perchlorate	99 > 83	1.68	18561.600	18561.600	bb			0.2497	99.88	-0.12	4032.4...	3.06
WCL091218-03	Perchlorate-101	101 > 85	1.68	6060.991	6060.991	bb			0.2477	99.08	-0.92	1501.4...	
WCL091218-03	Perchlorate-O(18)	107 > 89	1.67	32918.648	32918.648	bb			0.4945	98.90	-1.10	5005.5...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229006a
Date: 29-Dec-2009
Time: 14:00:05
ID: WCL091218-04
Vial: 1:1,E

MTT 12/30/09

Perchlorate

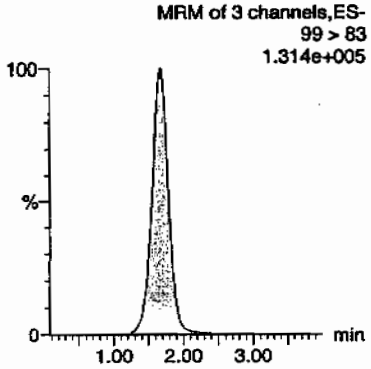

Perchlorate

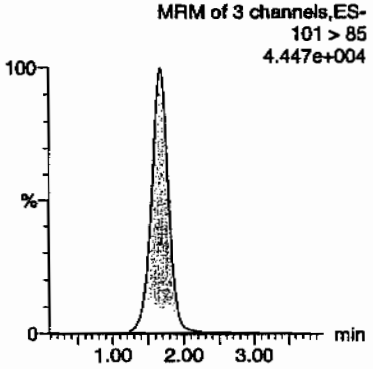

Perchlorate-101

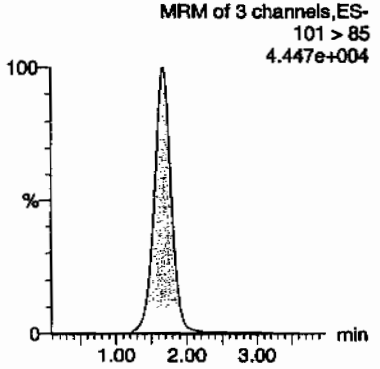

Perchlorate-O(18)

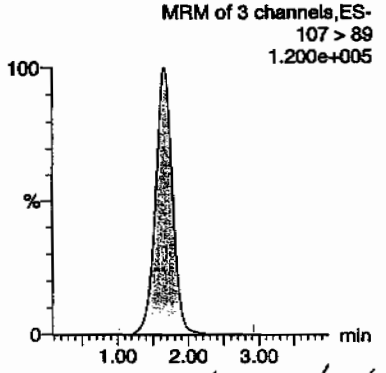

HMM 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-04	Perchlorate	99 > 83	1.67	36589.797	36589.797	bb			0.4922	98.45	-1.55	6796.6...	2.94
WCL091218-04	Perchlorate-101	101 > 85	1.67	12430.750	12430.750	bb			0.5080	101.61	1.61	3370.9...	
WCL091218-04	Perchlorate-O(18)	107 > 89	1.67	33335.816	33335.816	bb			0.5008	100.16	0.16	4296.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229007a
Date: 29-Dec-2009
Time: 14:07:06
ID: WCL091218-05
Vial: 1:1,F

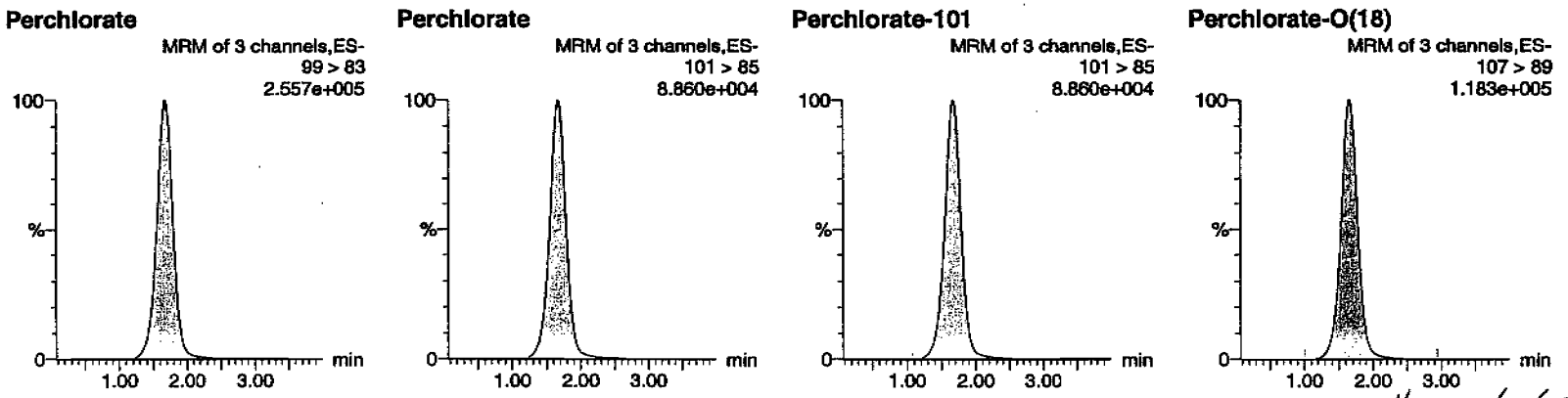

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-05	Perchlorate	99 > 83	1.67	72128.023	72128.023	bb			0.9703	97.03	-2.97	7494.7...	2.91
WCL091218-05	Perchlorate-101	101 > 85	1.67	24757.455	24757.455	bb			1.0118	101.18	1.18	4919.8...	
WCL091218-05	Perchlorate-O(18)	107 > 89	1.66	33262.992	33262.992	bb			0.4997	99.94	-0.06	1635.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–995

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	99.53	29–DEC–09 14:21	per1229009a
Perchlorate Isotope Ratio		3.02		29–DEC–09 14:21	per1229009a
Perchlorate–101	.5	.5	100.07	29–DEC–09 14:21	per1229009a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229009a
Date: 29-Dec-2009
Time: 14:21:09
ID: WCL091218-06ICV
Vial: 1:2,A

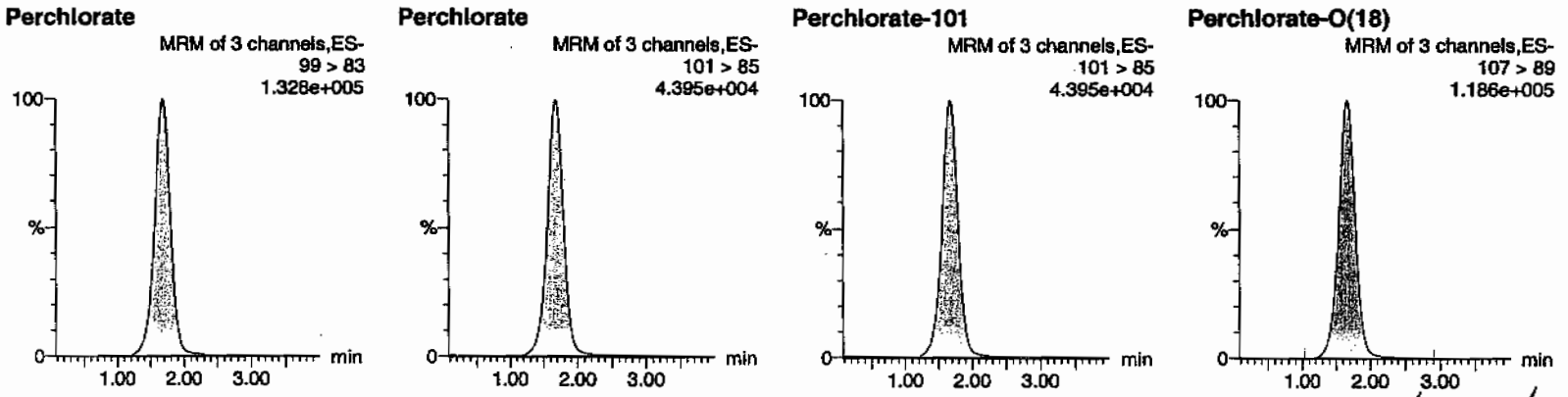

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-06ICV	Perchlorate	99 > 83	1.68	36993.602	36993.602	bb			0.4977	99.53	-0.47	3237.0...	3.02
WCL091218-06ICV	Perchlorate-101	101 > 85	1.67	12242.883	12242.883	bb			0.5004	100.07	0.07	2677.3...	
WCL091218-06ICV	Perchlorate-O(18)	107 > 89	1.67	33292.156	33292.156	bb			0.5001	100.02	0.02	9403.9...	

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–995

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.49	98.1	29–DEC–09 15:52	per1229022a
Perchlorate Isotope Ratio		2.99		29–DEC–09 15:52	per1229022a
Perchlorate–101	.5	.5	99.76	29–DEC–09 15:52	per1229022a
Perchlorate	.5	.48	96.39	29–DEC–09 16:42	per1229029a
Perchlorate Isotope Ratio		3.06		29–DEC–09 16:42	per1229029a
Perchlorate–101	.5	.48	95.84	29–DEC–09 16:42	per1229029a
Perchlorate	.5	.48	95.84	29–DEC–09 18:13	per1229042a
Perchlorate Isotope Ratio		3		29–DEC–09 18:13	per1229042a
Perchlorate–101	.5	.49	97.07	29–DEC–09 18:13	per1229042a
Perchlorate	.5	.47	94.57	29–DEC–09 19:31	per1229053a
Perchlorate Isotope Ratio		3.07		29–DEC–09 19:31	per1229053a
Perchlorate–101	.5	.47	93.48	29–DEC–09 19:31	per1229053a
Perchlorate	.5	.45	90.16	29–DEC–09 20:56	per1229065a

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–995

Lab Code: GEL

Reporting Units: ug/L

Perchlorate Isotope Ratio		3.04		29–DEC–09 20:56	per1229065a
Perchlorate–101	.5	.45	90.08	29–DEC–09 20:56	per1229065a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229022a
Date: 29-Dec-2009
Time: 15:52:44
ID: WCL091218-06CCV
Vial: 1:2,A

MATT 12/30/09

Perchlorate

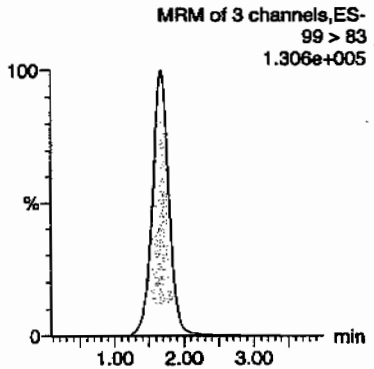

Perchlorate

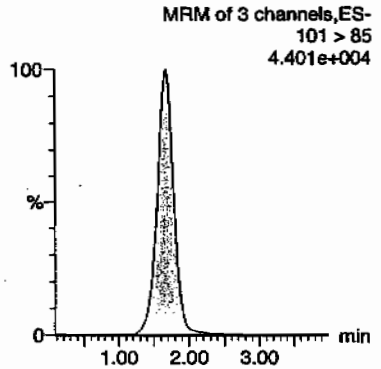

Perchlorate-101

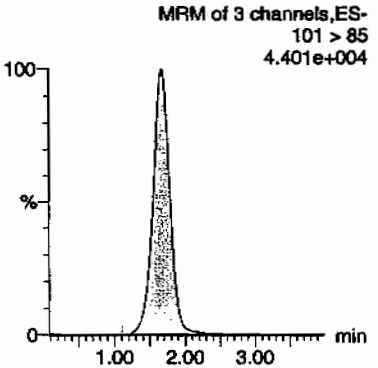

Perchlorate-O(18)

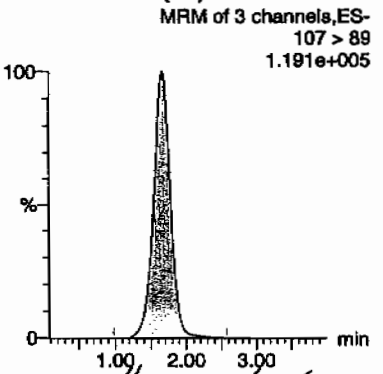

HMM 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-06CCV	Perchlorate	99 > 83	1.68	36461.191	36461.191	bb			0.4905	98.10	-1.90	3999.9...	2.99
WCL091218-06CCV	Perchlorate-101	101 > 85	1.67	12204.641	12204.641	bb			0.4988	99.76	-0.24	3695.9...	
WCL091218-06CCV	Perchlorate-O(18)	107 > 89	1.67	32995.398	32995.398	bb			0.4957	99.13	-0.87	10703....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229029a
Date: 29-Dec-2009
Time: 16:42:03
ID: WCL091218-06CCV
Vial: 1:2,A

MAP 12/30/09

Perchlorate

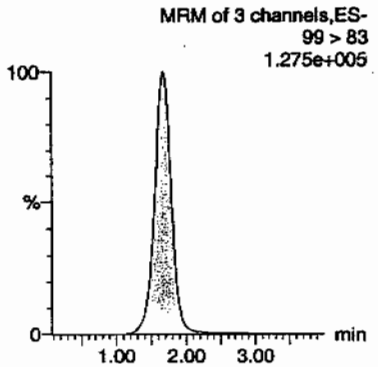

Perchlorate

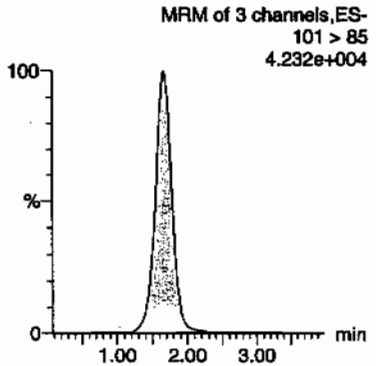

Perchlorate-101

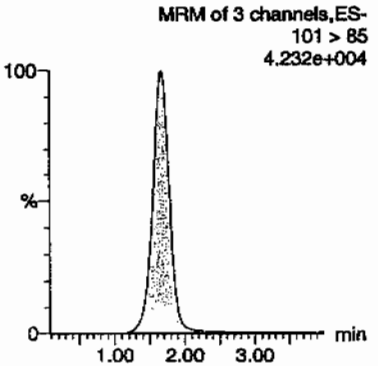

Perchlorate-O(18)

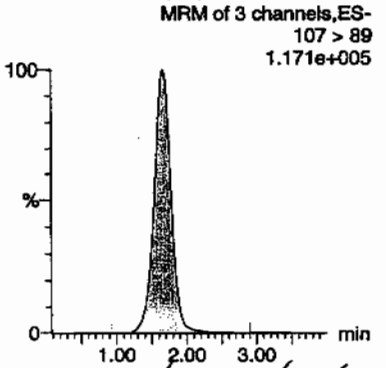

Anne 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-06CCV	Perchlorate	99 > 83	1.67	35824.668	35824.668	bb			0.4819	96.39	-3.61	5571.2...	3.06
WCL091218-06CCV	Perchlorate-101	101 > 85	1.67	11724.945	11724.945	bb			0.4792	95.84	-4.16	2980.9...	
WCL091218-06CCV	Perchlorate-O(18)	107 > 89	1.66	32661.146	32661.146	bb			0.4906	98.13	-1.87	5311.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229042a
Date: 29-Dec-2009
Time: 18:13:37
ID: WCL091218-06CCV
Vial: 1:2,A

MMT 12/30/09

Perchlorate

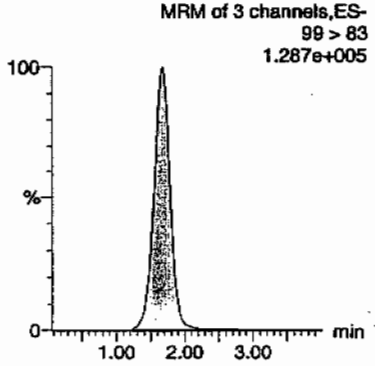

Perchlorate

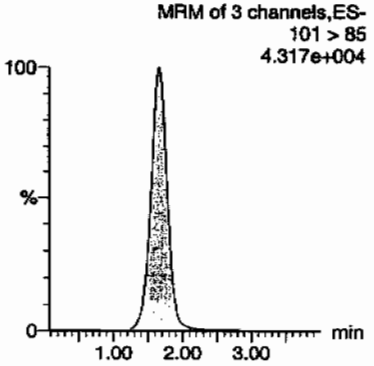

Perchlorate-101

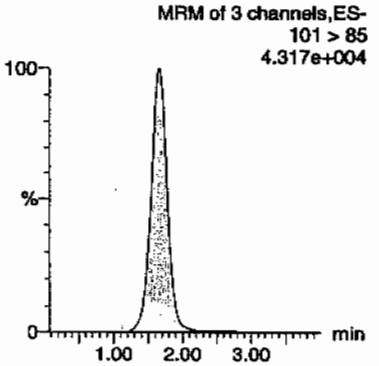

Perchlorate-O(18)

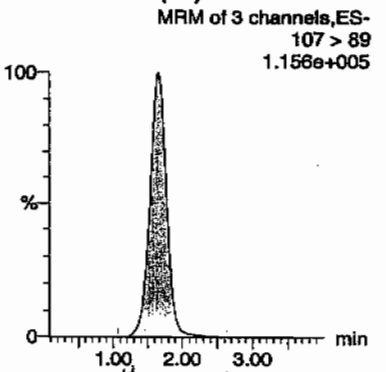

Hmc 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-06CCV	Perchlorate	99 > 83	1.67	35622.629	35622.629	bb			0.4792	95.84	-4.16	4705.1...	3.00
WCL091218-06CCV	Perchlorate-101	101 > 85	1.66	11875.902	11875.902	bb			0.4854	97.07	-2.93	3464.2...	
WCL091218-06CCV	Perchlorate-O(18)	107 > 89	1.66	31837.980	31837.980	bb			0.4783	95.66	-4.34	2223.5...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229053a
Date: 29-Dec-2009
Time: 19:31:24
ID: WCL091218-06CCV
Vial: 1:2,A

MMP 12/30/09

Perchlorate

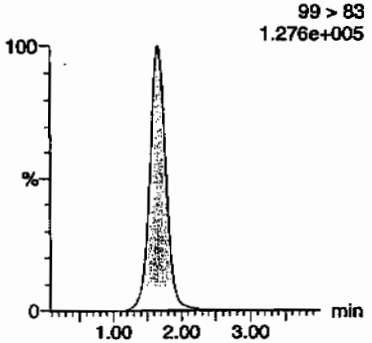

Perchlorate

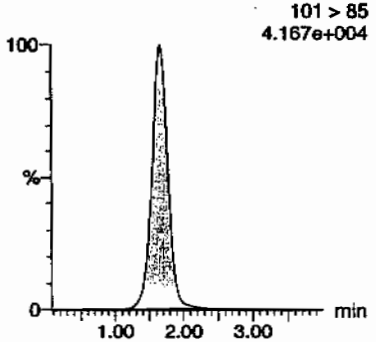

Perchlorate-101

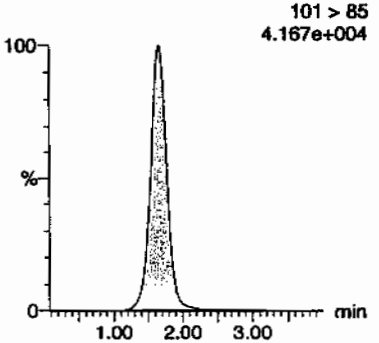

Perchlorate-O(18)

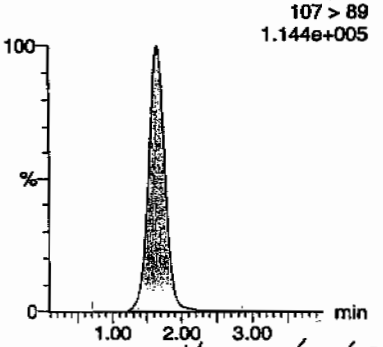

Hmc 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-06CCV	Perchlorate	99 > 83	1.66	35149.563	35149.563	bb			0.4729	94.57	-5.43	4413.5...	3.07
WCL091218-06CCV	Perchlorate-101	101 > 85	1.66	11436.879	11436.879	bb			0.4674	93.48	-6.52	1527.3...	
WCL091218-06CCV	Perchlorate-O(18)	107 > 89	1.64	31572.385	31572.385	bb			0.4743	94.86	-5.14	9724.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229065a
Date: 29-Dec-2009
Time: 20:56:23
ID: WCL091218-06CCV
Vial: 1:2,A

MMT 12/30/09

Perchlorate

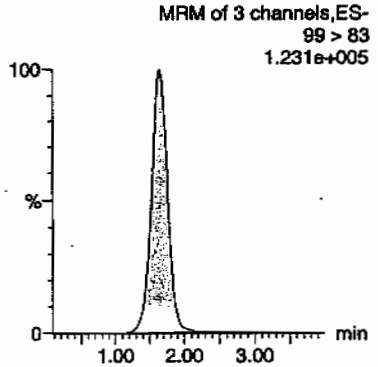

Perchlorate

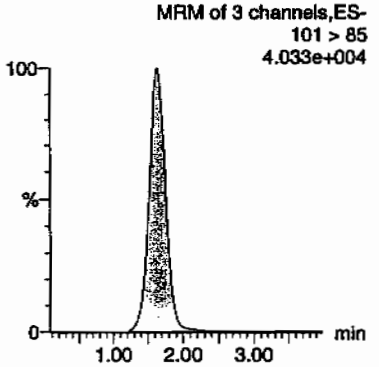

Perchlorate-101

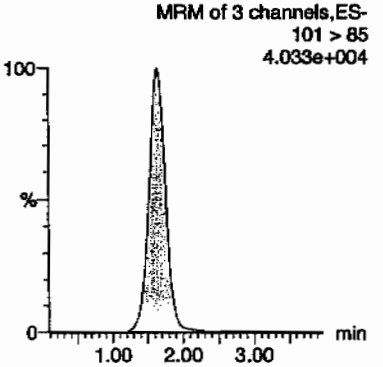

Perchlorate-O(18)

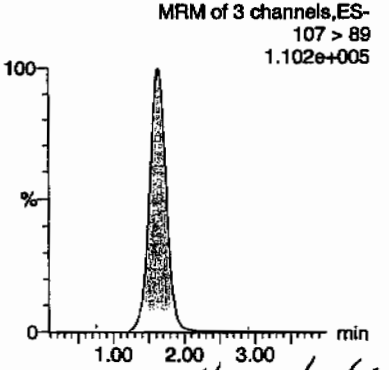

dmm 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-06CCV	Perchlorate	99 > 83	1.64	33508.137	33508.137	bb			0.4508	90.16	-9.84	2316.7...	3.04
WCL091218-06CCV	Perchlorate-101	101 > 85	1.64	11020.529	11020.529	bb			0.4504	90.08	-9.92	2074.1...	
WCL091218-06CCV	Perchlorate-O(18)	107 > 89	1.63	30210.842	30210.842	bb			0.4538	90.77	-9.23	4885.1...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–995

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	106.51	29–DEC–09 14:35	per1229011a
Perchlorate Isotope Ratio		3.12		29–DEC–09 14:35	per1229011a
Perchlorate–101	.05	.05	103.65	29–DEC–09 14:35	per1229011a
Perchlorate	.05	.05	102.28	29–DEC–09 16:06	per1229024a
Perchlorate Isotope Ratio		2.8		29–DEC–09 16:06	per1229024a
Perchlorate–101	.05	.06	110.81	29–DEC–09 16:06	per1229024a
Perchlorate	.05	.05	107.05	29–DEC–09 16:56	per1229031a
Perchlorate Isotope Ratio		3.05		29–DEC–09 16:56	per1229031a
Perchlorate–101	.05	.05	106.72	29–DEC–09 16:56	per1229031a
Perchlorate	.05	.05	105.47	29–DEC–09 18:27	per1229044a
Perchlorate Isotope Ratio		3.02		29–DEC–09 18:27	per1229044a

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–995

Lab Code: GEL

Reporting Units: ug/L

Perchlorate–101	.05	.05	106.16	29–DEC–09 18:27	per1229044a
Perchlorate	.05	.05	99.78	29–DEC–09 19:45	per1229055a
Perchlorate Isotope Ratio		3.01		29–DEC–09 19:45	per1229055a
Perchlorate–101	.05	.05	100.67	29–DEC–09 19:45	per1229055a
Perchlorate	.05	.05	94.36	29–DEC–09 21:10	per1229067a
Perchlorate Isotope Ratio		2.95		29–DEC–09 21:10	per1229067a
Perchlorate–101	.05	.05	97.14	29–DEC–09 21:10	per1229067a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229011a
Date: 29-Dec-2009
Time: 14:35:14
ID: WCL091218-07CRI
Vial: 1:2,B

MMT 12/30/09

Perchlorate

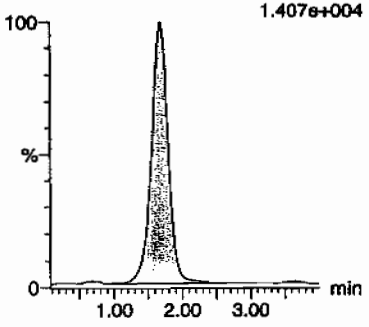

Perchlorate

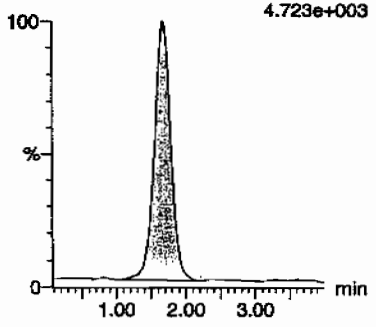

Perchlorate-101

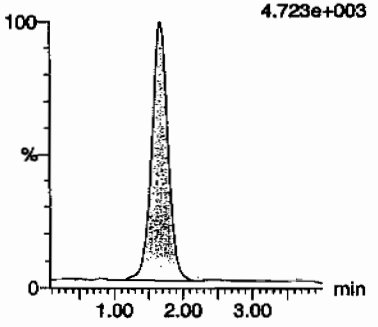

Perchlorate-O(18)

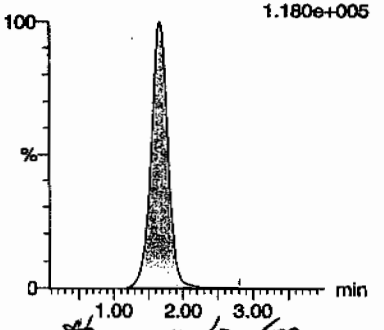

AMM 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-07CRI	Perchlorate	99 > 83	1.68	3958.786	3958.786	bb			0.0533	106.51	6.51	363.360	3.12
WCL091218-07CRI	Perchlorate-101	101 > 85	1.67	1268.100	1268.100	bb			0.0518	103.65	3.65	235.884	
WCL091218-07CRI	Perchlorate-O(18)	107 > 89	1.67	33050.422	33050.422	bb			0.4965	99.30	-0.70	5866.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229024a
Date: 29-Dec-2009
Time: 16:06:49
ID: WCL091218-07CRI
Vial: 1:2,B

MM 12/30/09

Perchlorate

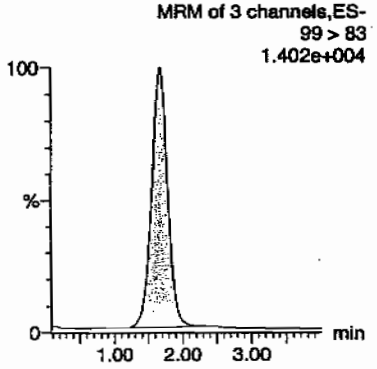

Perchlorate

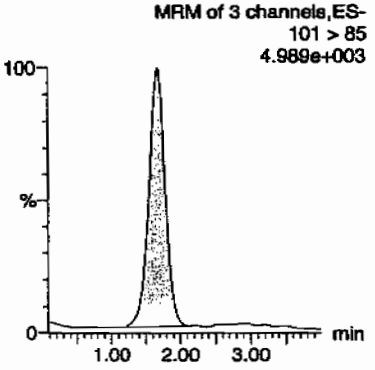

Perchlorate-101

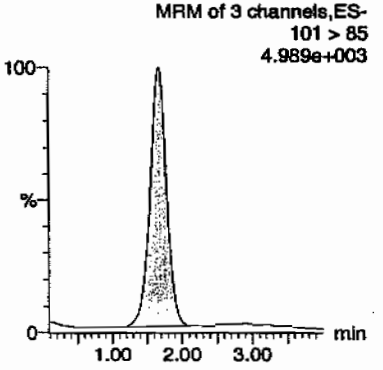

Perchlorate-O(18)

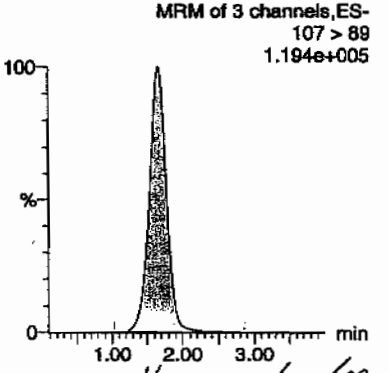

HMW 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-07CRI	Perchlorate	99 > 83	1.67	3801.353	3801.353	bb			0.0511	102.28	2.28	372.962	2.80
WCL091218-07CRI	Perchlorate-101	101 > 85	1.67	1355.651	1355.651	bb			0.0554	110.81	10.81	171.230	
WCL091218-07CRI	Perchlorate-O(18)	107 > 89	1.66	33458.375	33458.375	bb			0.5026	100.52	0.52	8206.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229031a
Date: 29-Dec-2009
Time: 16:56:08
ID: WCL091218-07CRI
Vial: 1:2,B

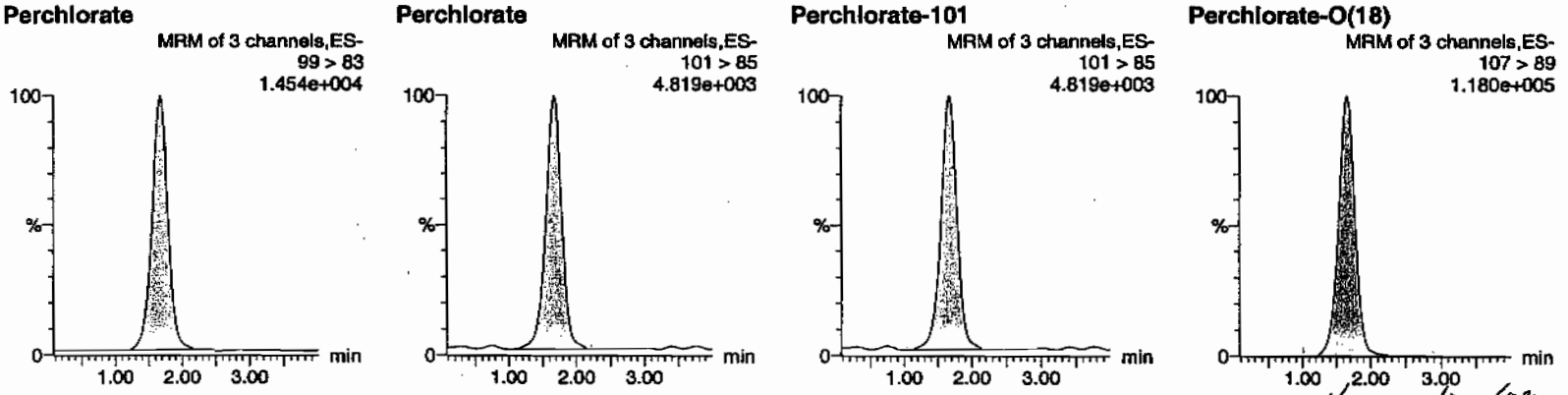

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-07CRI	Perchlorate	99 > 83	1.67	3978.753	3978.753	bb			0.0535	107.05	7.05	1632.9...	3.05
WCL091218-07CRI	Perchlorate-101	101 > 85	1.67	1305.628	1305.628	bb			0.0534	106.72	6.72	556.260	
WCL091218-07CRI	Perchlorate-O(18)	107 > 89	1.66	32789.859	32789.859	bb			0.4926	98.52	-1.48	4096.5...	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229044a
Date: 29-Dec-2009
Time: 18:27:56
ID: WCL091218-07CRI
Vial: 1:2,B

MMT 12/30/09

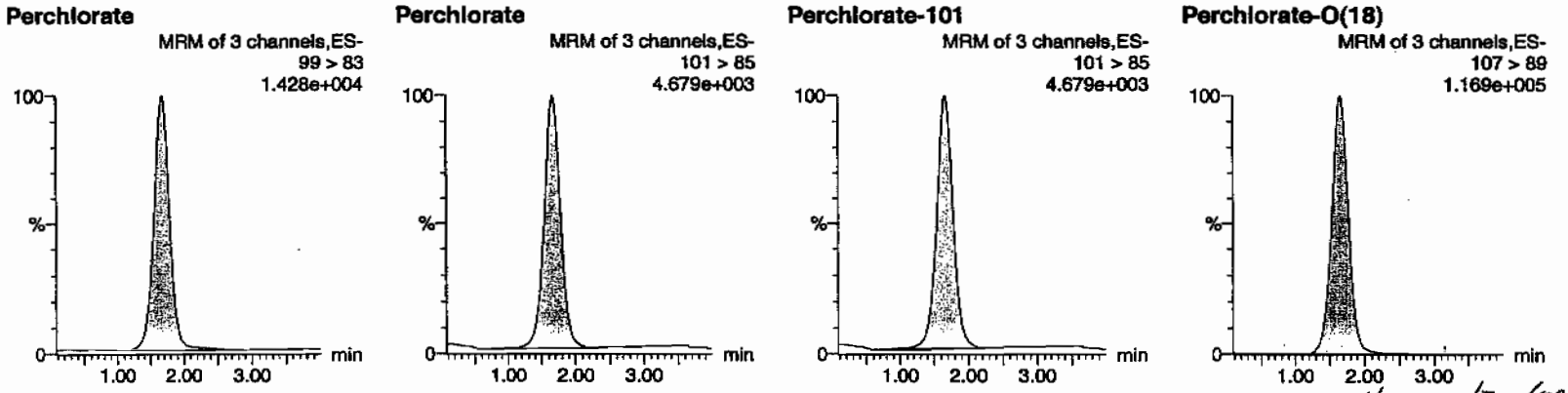

Hmm 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	IonRatio
WCL091218-07CRI	Perchlorate	99 > 83	1.67	3920.063	3920.063	bb			0.0527	105.47	5.47	653.754	3.02
WCL091218-07CRI	Perchlorate-101	101 > 85	1.67	1298.797	1298.797	bb			0.0531	106.16	6.16	251.043	
WCL091218-07CRI	Perchlorate-O(18)	107 > 89	1.66	32513.240	32513.240	bb			0.4884	97.68	-2.32	2527.9...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229055a
Date: 29-Dec-2009
Time: 19:45:43
ID: WCL091218-07CRI
Vial: 1:2,B

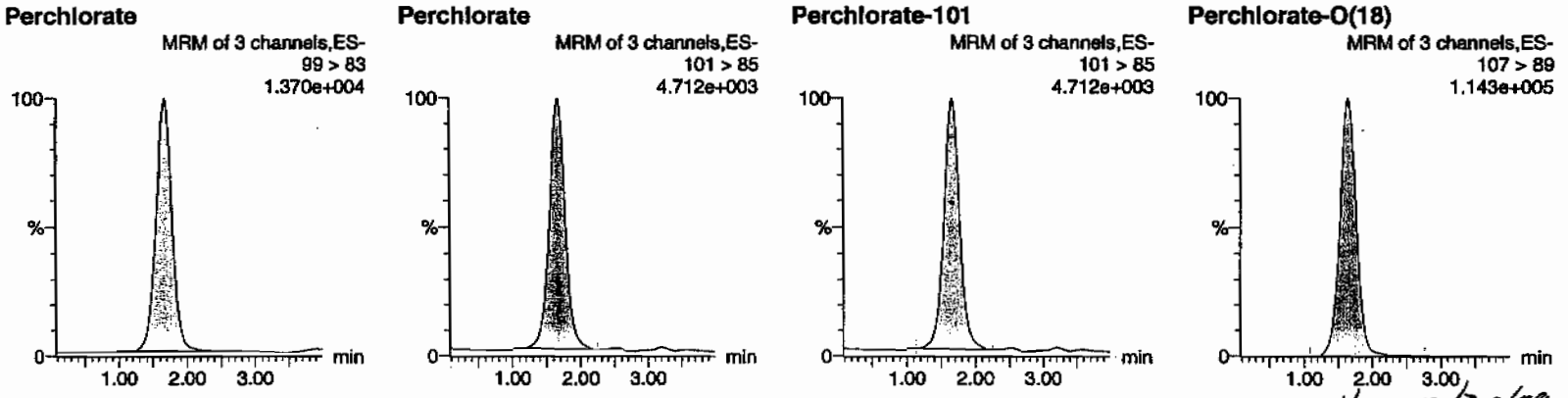

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-07CRI	Perchlorate	99 > 83	1.67	3708.720	3708.720	bb			0.0499	99.78	-0.22	588.082	3.01
WCL091218-07CRI	Perchlorate-101	101 > 85	1.66	1231.665	1231.665	bb			0.0503	100.67	0.67	180.729	
WCL091218-07CRI	Perchlorate-O(18)	107 > 89	1.66	31600.350	31600.350	bb			0.4747	94.94	-5.06	6698.1...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229067a
Date: 29-Dec-2009
Time: 21:10:42
ID: WCL091218-07CRI
Vial: 1:2,B

MMT 12/30/09

Perchlorate

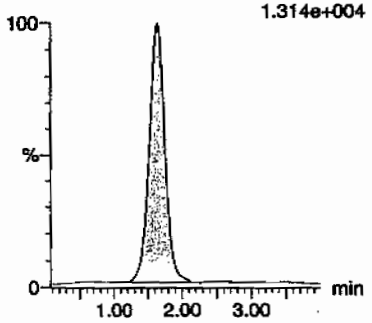

Perchlorate

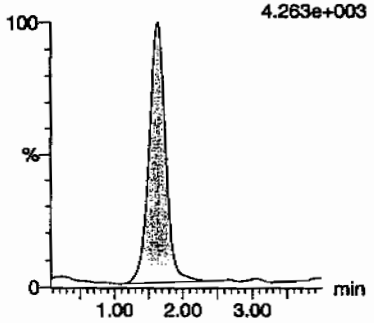

Perchlorate-101

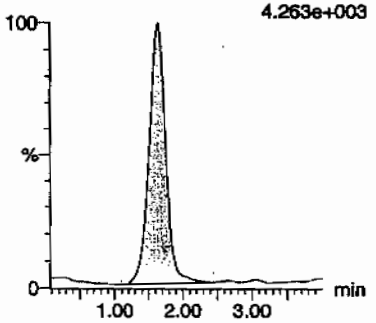

Perchlorate-O(18)

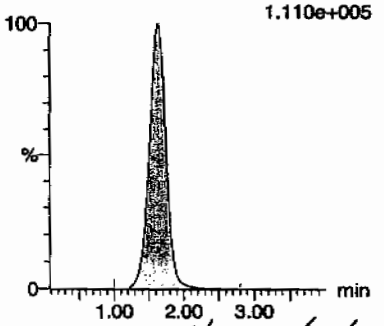

Hmxc 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-07CRI	Perchlorate	99 > 83	1.64	3507.066	3507.066	bb			0.0472	94.36	-5.64	669.069	2.95
WCL091218-07CRI	Perchlorate-101	101 > 85	1.63	1188.469	1188.469	bb			0.0486	97.14	-2.86	224.189	
WCL091218-07CRI	Perchlorate-O(18)	107 > 89	1.63	30583.959	30583.959	bb			0.4594	91.89	-8.11	4818.5...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 936065

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
MB

Date Received: 29-DEC-09

GEL Job No (SDG): 10-995

GEL Sample ID: 1202002916

Date Filtered: 29-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	29-DEC-09 19:52	per1229056a
	Perchlorate Isotope Ratio						1	29-DEC-09 19:52	per1229056a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	29-DEC-09 19:52	per1229056a
	Perchlorate-O(18)			0.466	ug/L		1	29-DEC-09 19:52	per1229056a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229056a
Date: 29-Dec-2009
Time: 19:52:47
ID: 1202002916 | LANL | 936066 | LIQ | MB | 1 |
Vial: 2:4,A

MAT 12/30/09

Perchlorate

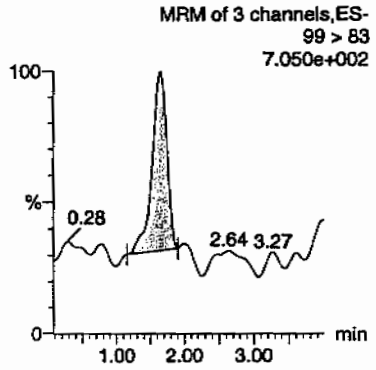

Perchlorate

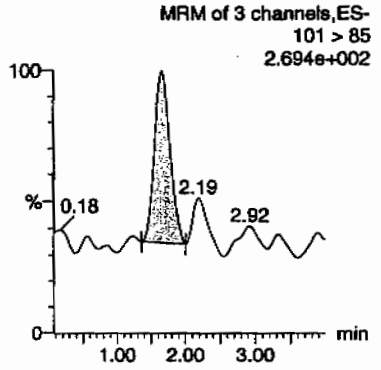

Perchlorate-101

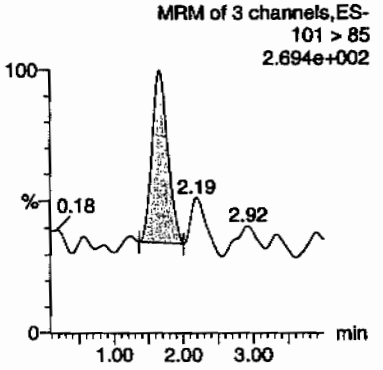

Perchlorate-O(18)

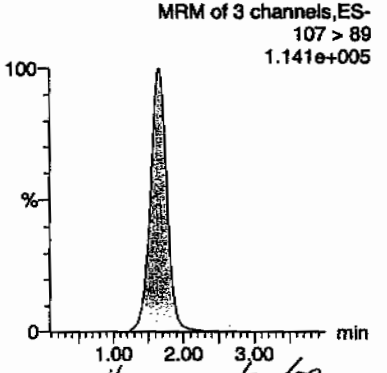

dhm 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202002916	Perchlorate	99 > 83	1.64	122.341	122.341	bb			0.0016			16.810	2.62
1202002916	Perchlorate-101	101 > 85	1.66	46.639	46.639	bb			0.0019			6.498	
1202002916	Perchlorate-O(18)	107 > 89	1.66	31050.627	31050.627	bb			0.4664	93.29	-6.71	3575.2...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 936065

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
LCS

Date Received: 29-DEC-09

GEL Job No (SDG): 10-995

GEL Sample ID: 1202002917

Date Filtered: 29-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.183	ug/L	J	1	29-DEC-09 20:00	per1229057a
	Perchlorate Isotope Ratio			3.02			1	29-DEC-09 20:00	per1229057a
14797-73-0	Perchlorate-101	.05	.2	0.184	ug/L	J	1	29-DEC-09 20:00	per1229057a
	Perchlorate-O(18)			0.463	ug/L		1	29-DEC-09 20:00	per1229057a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229057a
Date: 29-Dec-2009
Time: 20:00:00
ID: 1202002917 | LANL | 936066 | LCS | LCS | 1 |
Vial: 2:4,B

MAP 12/30/09

Perchlorate

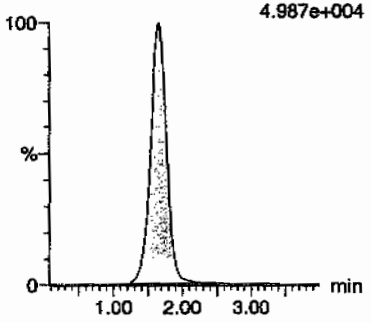

Perchlorate

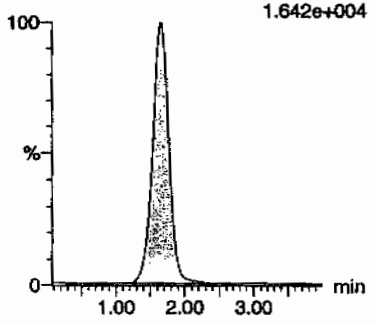

Perchlorate-101

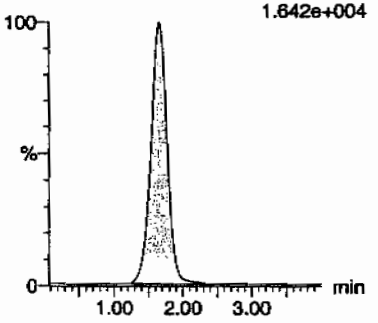

Perchlorate-O(18)

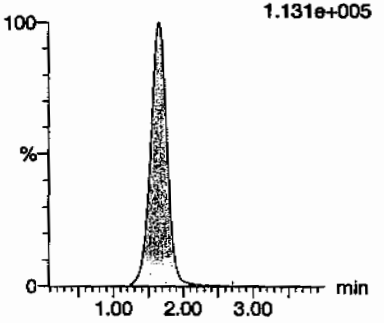

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202002917	Perchlorate	99 > 83	1.66	13602.565	13602.565	bb			0.1830	91.50	-8.50	1408.8...	3.02
1202002917	Perchlorate-101	101 > 85	1.66	4510.471	4510.471	bb			0.1843	92.17	-7.83	506.288	
1202002917	Perchlorate-O(18)	107 > 89	1.64	30836.791	30836.791	bb			0.4632	92.65	-7.35	4099.3...	

$$\frac{13602.565}{74334.3} = 0.1830$$

HMK 12/30/09

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 936065 **Verified by:** _____

Analyst: Lynne Russell

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202002916 MB	29-DEC-2009 15:24:56	10	10	1
1202002917 LCS	29-DEC-2009 15:24:56	10	10	1
243285002	29-DEC-2009 15:24:56	10	10	1
243286001	29-DEC-2009 15:24:56	10	10	1
243286004	29-DEC-2009 15:24:56	10	10	1
1202002918 MS (243286004)	29-DEC-2009 15:24:56	10	10	1
1202002919 MSD (243286004)	29-DEC-2009 15:24:56	10	10	1
243386001	29-DEC-2009 15:24:56	10	10	1
1202002920 ICS	29-DEC-2009 15:24:56	10	10	1
243396001	29-DEC-2009 15:24:56	10	10	1
1202003536 MS (243396001)	29-DEC-2009 15:24:56	10	10	1
1202003537 MSD (243396001)	29-DEC-2009 15:24:56	10	10	1
243400001	29-DEC-2009 15:24:56	10	10	1
243400004	29-DEC-2009 15:24:56	10	10	1
243405001	29-DEC-2009 15:24:56	10	10	1
243459001	29-DEC-2009 15:24:56	10	10	1
243459002	29-DEC-2009 15:24:56	10	10	1
243461002	29-DEC-2009 15:24:56	10	10	1
243466001	29-DEC-2009 15:24:56	10	10	1
243466002	29-DEC-2009 15:24:56	10	10	1
243493001	29-DEC-2009 15:24:56	10	10	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202002920	10 ug/L ICV/CCV Second Source	UCL091201-01.1	.2	mL
LCS	1202002917	10 ug/L ICV/CCV Second Source	UCL091201-01.1	.2	mL
MS	1202002918	10 ug/L ICV/CCV Second Source	UCL091201-01.1	.2	mL
MS	1202003536	10 ug/L ICV/CCV Second Source	UCL091201-01.1	.2	mL
MSD	1202002919	10 ug/L ICV/CCV Second Source	UCL091201-01.1	.2	mL
MSD	1202003537	10 ug/L ICV/CCV Second Source	UCL091201-01.1	.2	mL
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1236492	10	mL

Comments:

De-salting cartridges used: 090403-1-Ba and 091029-1-H.

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#2

Date: 12/29/09
Extr. Injection Volume: 20uL
Sequence Number: per122909a
Initial Calibration Date: 12/29/09

Method: EPA 6850-Modified
Int. Std.: UCL091019-03.2
Mobile Phase Lot#: 1233781, 1233976
Standard-Samp Reagent Lot#:: 1233976

Reviewed BY: [illegible]
Date: 12/30/09
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL091218-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per1229001a	IPB001	MAP	12/29/2009 13:24			1		USE	B
per1229002a	IPB001	MAP	12/29/2009 13:31			1		USE	B
per1229003a	WCLICAL-01	MAP	12/29/2009 13:39			1		USE	I
per1229004a	WCLICAL-02	MAP	12/29/2009 13:46			1		USE	I
per1229005a	WCLICAL-03	MAP	12/29/2009 13:53			1		USE	I
per1229006a	WCLICAL-04	MAP	12/29/2009 14:00			1		USE	I
per1229007a	WCLICAL-05	MAP	12/29/2009 14:07			1		USE	I
per1229008a	IPB002	MAP	12/29/2009 14:14			1		USE	B
per1229009a	WCLICV	MAP	12/29/2009 14:21			1		USE	C
per1229010a	IPB003	MAP	12/29/2009 14:28			1		USE	B
per1229011a	WCLCRI	MAP	12/29/2009 14:35			1		USE	C
per1229012a	1202004322	MAP	12/29/2009 14:42	936761	Various	1	LANL	USE	S
per1229013a	1202004325	MAP	12/29/2009 14:49	936761	Various	1	LANL	USE	S
per1229014a	1202004326	MAP	12/29/2009 14:56	936761	Various	1	LANL	USE	S
per1229015a	243506001	MAP	12/29/2009 15:03	936761	10-1066-1	1	LANL	USE	S
per1229016a	1202004323	MAP	12/29/2009 15:10	936761	10-1066-1	1	LANL	USE	S
per1229017a	1202004324	MAP	12/29/2009 15:17	936761	10-1066-1	1	LANL	USE	S
per1229018a	243513001	MAP	12/29/2009 15:24	936761	10-1071	1	LANL	USE	S
per1229019a	243513002	MAP	12/29/2009 15:31	936761	10-1071	1	LANL	USE	S
per1229020a	243539001	MAP	12/29/2009 15:38	936761	10-1079	1	LANL	USE	S
per1229021a	243539002	MAP	12/29/2009 15:45	936761	10-1079	1	LANL	USE	S
per1229022a	WCLCCV	MAP	12/29/2009 15:52			1		USE	C
per1229023a	IPB004	MAP	12/29/2009 15:59			1		USE	B
per1229024a	WCLCRI	MAP	12/29/2009 16:06			1		USE	C
per1229025a	243554001	MAP	12/29/2009 16:13	936761	10-1087-1	1	LANL	USE	S
per1229026a	243554002	MAP	12/29/2009 16:20	936761	10-1087-1	1	LANL	USE	S
per1229027a	243554003	MAP	12/29/2009 16:27	936761	10-1087-1	1	LANL	USE	S
per1229028a	243554004	MAP	12/29/2009 16:34	936761	10-1087-1	1	LANL	USE	S
per1229029a	WCLCCV	MAP	12/29/2009 16:42			1		USE	C

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per1229030a	IPB005	MAP	12/29/2009 16:49			1		USE	B
per1229031a	WCLCRI	MAP	12/29/2009 16:56			1		USE	C
per1229032a	1202004143	MAP	12/29/2009 17:03	936669	Various	1	LANL	USE	S
per1229033a	1202004144	MAP	12/29/2009 17:10	936669	Various	1	LANL	USE	S
per1229034a	1202004147	MAP	12/29/2009 17:17	936669	Various	1	LANL	USE	S
per1229035a	243407001	MAP	12/29/2009 17:24	936669	10-1012-1	1	LANL	USE	S
per1229036a	243407002	MAP	12/29/2009 17:31	936669	10-1012-1	1	LANL	USE	S
per1229037a	243407003	MAP	12/29/2009 17:38	936669	10-1012-1	1	LANL	USE	S
per1229038a	243407004	MAP	12/29/2009 17:45	936669	10-1012-1	1	LANL	USE	S
per1229039a	243407005	MAP	12/29/2009 17:52	936669	10-1012-1	1	LANL	USE	S
per1229040a	243407006	MAP	12/29/2009 17:59	936669	10-1012-1	1	LANL	USE	S
per1229041a	243407007	MAP	12/29/2009 18:06	936669	10-1012-1	1	LANL	USE	S
per1229042a	WCLCCV	MAP	12/29/2009 18:13			1		USE	C
per1229043a	IPB006	MAP	12/29/2009 18:20			1		USE	B
per1229044a	WCLCRI	MAP	12/29/2009 18:27			1		USE	C
per1229045a	243407008	MAP	12/29/2009 18:34	936669	10-1012-1	1	LANL	USE	S
per1229046a	243407009	MAP	12/29/2009 18:42	936669	10-1012-1	1	LANL	USE	S
per1229047a	243457001	MAP	12/29/2009 18:49	936669	10-1038	1	LANL	USE	S
per1229048a	1202004145	MAP	12/29/2009 18:56	936669	10-1038	1	LANL	USE	S
per1229049a	1202004146	MAP	12/29/2009 19:03	936669	10-1038	1	LANL	USE	S
per1229050a	243457002	MAP	12/29/2009 19:10	936669	10-1038	1	LANL	USE	S
per1229051a	243457003	MAP	12/29/2009 19:17	936669	10-1038	1	LANL	USE	S
per1229052a	243457004	MAP	12/29/2009 19:24	936669	10-1038	1	LANL	USE	S
per1229053a	WCLCCV	MAP	12/29/2009 19:31			1		USE	C
per1229054a	IPB007	MAP	12/29/2009 19:38			1		USE	B
per1229055a	WCLCRI	MAP	12/29/2009 19:45			1		USE	C
per1229056a	1202002916	MAP	12/29/2009 19:52	936066	Various	1	LANL	USE	S
per1229057a	1202002917	MAP	12/29/2009 20:00	936066	Various	1	LANL	USE	S
per1229058a	1202002920	MAP	12/29/2009 20:07	936066	Various	1	LANL	USE	S
per1229059a	243285002	MAP	12/29/2009 20:14	936066	10-995	1	LANL	USE	S
per1229060a	243286001	MAP	12/29/2009 20:21	936066	10-998	1	LANL	USE	S
per1229061a	243286004	MAP	12/29/2009 20:28	936066	10-998	1	LANL	USE	S
per1229062a	1202002918	MAP	12/29/2009 20:35	936066	10-998	1	LANL	USE	S
per1229063a	1202002919	MAP	12/29/2009 20:42	936066	10-998	1	LANL	USE	S
per1229064a	243386001	MAP	12/29/2009 20:49	936066	10-1032-1	1	LANL	USE	S
per1229065a	WCLCCV	MAP	12/29/2009 20:56			1		USE	C
per1229066a	IPB008	MAP	12/29/2009 21:03			1		USE	B

per1229067a	WCLCRI	MAP	12/29/2009 21:10			1		USE	C
per1229068a	243396001	MAP	12/29/2009 21:17	936066	10-1010	1	LANL	USE	S
per1229069a	1202003536	MAP	12/29/2009 21:24	936066	10-1010	1	LANL	USE	S
per1229070a	1202003537	MAP	12/29/2009 21:31	936066	10-1010	1	LANL	USE	S
per1229071a	243400001	MAP	12/29/2009 21:39	936066	10-1021	1	LANL	USE	S
per1229072a	243400004	MAP	12/29/2009 21:46	936066	10-1021	1	LANL	USE	S
per1229073a	243405001	MAP	12/29/2009 21:53	936066	10-1012	1	LANL	USE	S
per1229074a	243459001	MAP	12/29/2009 22:00	936066	10-1045	1	LANL	USE	S
per1229075a	243459002	MAP	12/29/2009 22:07	936066	10-1045	1	LANL	USE	S
per1229076a	243461002	MAP	12/29/2009 22:14	936066	10-1050	1	LANL	USE	S
per1229077a	WCLCCV	MAP	12/29/2009 22:21			1		USE	C
per1229078a	IPB009	MAP	12/29/2009 22:28			1		USE	B
per1229079a	WCLCRI	MAP	12/29/2009 22:35			1		USE	C
per1229080a	243466001	MAP	12/29/2009 22:42	936066	10-1056	1	LANL	DUSE-DL	S
per1229081a	243466002	MAP	12/29/2009 22:49	936066	10-1056	1	LANL	DUSE-DL	S
per1229082a	243493001	MAP	12/29/2009 22:56	936066	10-1037-1	1	LANL	USE	S
per1229083a	WCLCCV	MAP	12/29/2009 23:04			1		USE	C
per1229084a	IPB010	MAP	12/29/2009 23:11			1		USE	B
per1229085a	WCLCRI	MAP	12/29/2009 23:18			1		USE	C

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229062a
Date: 29-Dec-2009
Time: 20:35:13
ID: 1202002918 | LANL | 936066 | LIQ | 2432860004MS | 1 |
Vial: 2:5,A

MMP 12/30/09

Perchlorate

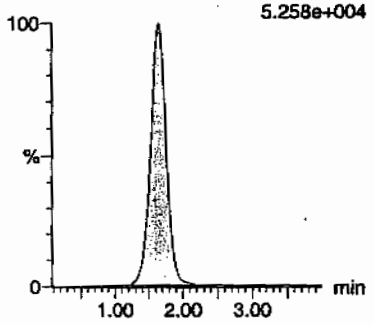

Perchlorate

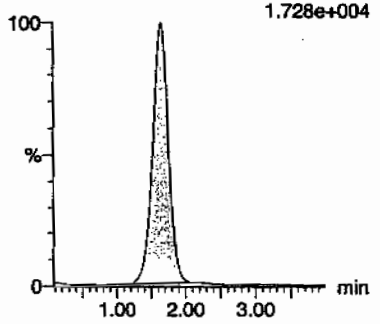

Perchlorate-101

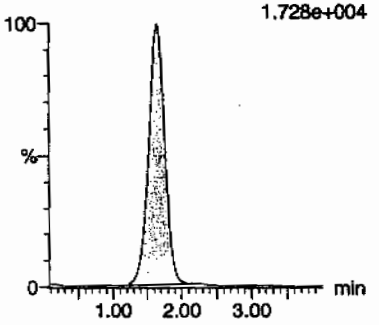

Perchlorate-O(18)

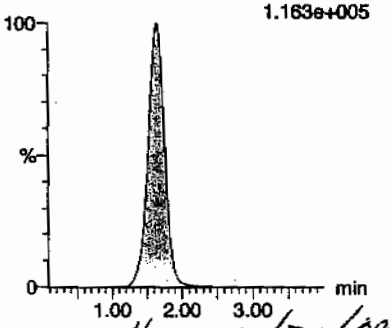

HMM 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202002918	Perchlorate	99 > 83	1.64	14251.141	14251.141	bb			0.1917	95.86	-4.14	491.034	3.07
1202002918	Perchlorate-101	101 > 85	1.64	4648.628	4648.628	bb			0.1900	94.99	-5.01	728.489	
1202002918	Perchlorate-O(18)	107 > 89	1.63	31749.266	31749.266	bb			0.4769	95.39	-4.61	4516.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122909a.qld

Last Altered: Wednesday, December 30, 2009 6:51:18 AM Eastern Standard Time
Printed: Wednesday, December 30, 2009 6:56:40 AM Eastern Standard Time

Name: per1229063a
Date: 29-Dec-2009
Time: 20:42:17
ID: 1202002919 | LANL | 936066 | LCD | 243286004MSD | 1 |
Vial: 2:5,B

MAP 12/30/09

Perchlorate

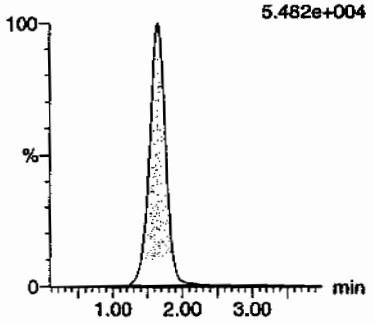

Perchlorate

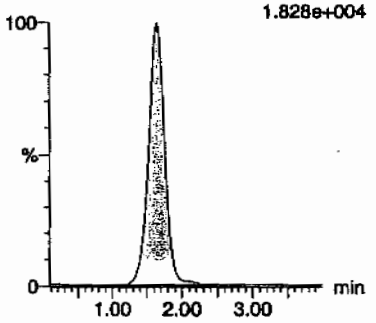

Perchlorate-101

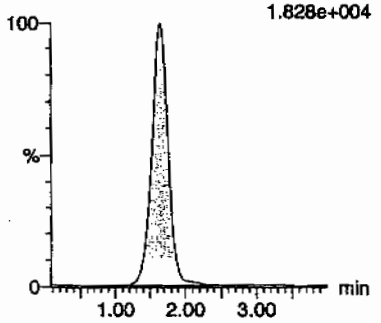

Perchlorate-O(18)

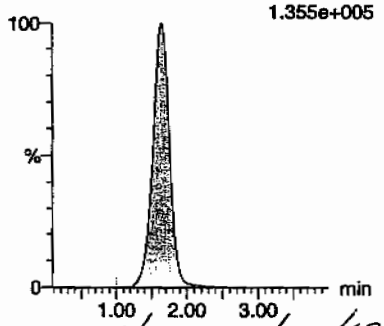

dmm 12/30/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202002919	Perchlorate	99 > 83	1.64	14827.767	14827.767	bb			0.1995	99.74	-0.26	2454.5...	2.99
1202002919	Perchlorate-101	101 > 85	1.64	4953.448	4953.448	bb			0.2024	101.22	1.22	1031.5...	
1202002919	Perchlorate-O(18)	107 > 89	1.64	36840.254	36840.254	bb			0.5534	110.68	10.68	22394....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-995

Sample Analysis

Sample ID	**Client ID**
243285001	CAPA-10-6793
243285002	CAPA-10-6794
1202001500	Method Blank (MB) **ICP**
1202001501	Laboratory Control Sample (LCS)
1202001504	243286001(CAPA-10-6389L) Serial Dilution (SD)
1202001502	243286001(CAPA-10-6389D) Sample Duplicate (DUP)
1202001503	243286001(CAPA-10-6389S) Matrix Spike (MS)
1202001514	Method Blank (MB) **ICP-MS**
1202001515	Laboratory Control Sample (LCS)
1202001518	243286002(CAPA-10-6390L) Serial Dilution (SD)
1202001516	243286002(CAPA-10-6390D) Sample Duplicate (DUP)
1202001517	243286002(CAPA-10-6390S) Matrix Spike (MS)
1202002084	Method Blank (MB) **CVAA**
1202002085	Laboratory Control Sample (LCS)
1202002088	243286001(CAPA-10-6389L) Serial Dilution (SD)
1202002086	243286001(CAPA-10-6389D) Sample Duplicate (DUP)
1202002087	243286001(CAPA-10-6389S) Matrix Spike (MS)

Method/Analysis Information

Analytical Batch:	935389, 935396, 935681 and 940613
Prep Batch :	935386, 935394 and 935680
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21, GL-MA-E-010 REV# 23 and GL-GC-E-107 REV# 5
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 DOE-AL, EPA 245.1/245.2 and SM 2340 B
Prep Method :	SW846 3005A and EPA 245.1/245.2 Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Hardness as CaCO3 is calculated from Calcium and Magnesium results.

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits with the exception of magnesium, which recovered outside of the advisory limits of 70-130%.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 243286001 and 243286002.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. Dilutions were required for this SDG in order to minimize tin suppression due to matrix interferences.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Total Hardness by Calculation is determined using the results of Total Calcium (Ca) and Total Magnesium (Mg) determined by ICP or ICP-MS.

Hardness = 2.497 (Ca) + 4.118 (Mg)

Please refer to the Total Ca and Total Mg data to validate results appearing on the Hardness Summary sheet. Both results are in the Inorganic/metals section of the package. There is no Batch QC for calculated results, and thus no QC Summary for the Hardness by Calculation Batch. The MDLs and PQLs are calculated using the higher of the two calculated values of Ca or Mg.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 1/15/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-995 **METHOD TYPE:** EPA

SAMPLE ID: 243285001 **CLIENT ID:** CAPA-10-6793

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 19-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	010610W1-15
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	010610A-1
7440-36-0	Antimony	0.739	ug/L	J		MS	0.5	1	ICPMS3	091222-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	091223-4
7440-39-3	Barium	31.6	ug/L			P	1	1	OPTIMA3	010610A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	010610A-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	010610A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS3	091222-3
7440-70-2	Calcium	13200	ug/L			P	50	1	OPTIMA3	010610A-1
7440-47-3	Chromium	6.16	ug/L	J		MS	2.5	1	ICPMS3	091222-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	010610A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	010610A-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA3	010610A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS3	091222-3
7439-95-4	Magnesium	3710	ug/L			P	85	1	OPTIMA3	010610A-1
7439-96-5	Manganese	6.42	ug/L	J		P	2	1	OPTIMA3	010610A-1
7439-98-7	Molybdenum	1.95	ug/L			MS	0.1	1	ICPMS3	091222-3
7440-02-0	Nickel	13.2	ug/L			MS	0.5	1	ICPMS3	091222-3
7440-09-7	Potassium	1550	ug/L			P	50	1	OPTIMA3	010610A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS3	091222-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS3	091222-3
7440-23-5	Sodium	11100	ug/L			P	100	1	OPTIMA3	010610A-1
7440-24-6	Strontium	53.7	ug/L			P	1	1	OPTIMA3	010610A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS3	091222-3
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	010710-2
7440-61-1	Uranium	0.424	ug/L			MS	0.05	1	ICPMS3	091222-3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-995 **METHOD TYPE:** EPA

SAMPLE ID: 243285001 **CLIENT ID:** CAPA-10-6793

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 19-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	5.01	ug/L			P	1	1	OPTIMA3	010610A-1
7440-66-6	Zinc	21.7	ug/L			P	3.3	1	OPTIMA3	010610A-1
	Hardness as CaCO3	48.3	mg/L				0.35	1	CALC001	

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-995 **METHOD TYPE:** EPA

SAMPLE ID: 243285002 **CLIENT ID:** CAPA-10-6794

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 19-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	010610W1-15
7631-86-9	Silica	69.4	mg/L			P	0.053	1	OPTIMA3	010610A-1
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	010610A-1
7440-36-0	Antimony	0.707	ug/L	J		MS	0.5	1	ICPMS3	091222-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	091223-4
7440-39-3	Barium	31.1	ug/L			P	1	1	OPTIMA3	010610A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	010610A-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	010610A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS3	091222-3
7440-70-2	Calcium	13300	ug/L			P	50	1	OPTIMA3	010610A-1
7440-47-3	Chromium	4.95	ug/L	J		MS	2.5	1	ICPMS3	091222-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	010610A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	010610A-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA3	010610A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS3	091222-3
7439-95-4	Magnesium	3770	ug/L			P	85	1	OPTIMA3	010610A-1
7439-96-5	Manganese	5.48	ug/L	J		P	2	1	OPTIMA3	010610A-1
7439-98-7	Molybdenum	1.93	ug/L			MS	0.1	1	ICPMS3	091222-3
7440-02-0	Nickel	10.6	ug/L			MS	0.5	1	ICPMS3	091222-3
7440-09-7	Potassium	1570	ug/L			P	50	1	OPTIMA3	010610A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS3	091222-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS3	091222-3
7440-23-5	Sodium	11200	ug/L			P	100	1	OPTIMA3	010610A-1
7440-24-6	Strontium	53.9	ug/L			P	1	1	OPTIMA3	010610A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS3	091222-3
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	010710-2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-995 **METHOD TYPE:** EPA

SAMPLE ID: 243285002 **CLIENT ID:** CAPA-10-6794

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 19-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	0.421	ug/L			MS	0.05	1	ICPMS3	091222-3
7440-62-2	Vanadium	4.67	ug/L	J		P	1	1	OPTIMA3	010610A-1
7440-66-6	Zinc	19.3	ug/L			P	3.3	1	OPTIMA3	010610A-1
	Hardness as CaCO3	48.8	mg/L				0.35	1	CALC001	

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–995

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Antimony	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	22–DEC–09 23:00	091222–3
	Cadmium	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	22–DEC–09 23:00	091222–3
	Chromium	47.8	ug/L	50	ug/L	95.7	90.0 – 110.0	MS	22–DEC–09 23:00	091222–3
	Lead	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	22–DEC–09 23:00	091222–3
	Molybdenum	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	22–DEC–09 23:00	091222–3
	Nickel	48.9	ug/L	50	ug/L	97.8	90.0 – 110.0	MS	22–DEC–09 23:00	091222–3
	Selenium	49.6	ug/L	50	ug/L	99.2	90.0 – 110.0	MS	22–DEC–09 23:00	091222–3
	Silver	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	22–DEC–09 23:00	091222–3
	Thallium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	22–DEC–09 23:00	091222–3
	Uranium	54.5	ug/L	50	ug/L	109	90.0 – 110.0	MS	22–DEC–09 23:00	091222–3
	Arsenic	47.7	ug/L	50	ug/L	95.3	90.0 – 110.0	MS	23–DEC–09 21:50	091223–4
	Mercury	5.03	ug/L	5	ug/L	100.5	90.0 – 110.0	AV	06–JAN–10 09:27	010610W1–15
	Aluminum	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Barium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Beryllium	260	ug/L	250	ug/L	104.1	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Boron	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Calcium	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Cobalt	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Copper	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Iron	5140	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Magnesium	5280	ug/L	5000	ug/L	105.6	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Manganese	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Potassium	2480	ug/L	2500	ug/L	99.2	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Silica	10100	ug/L	10700	ug/L	94.5	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Sodium	2590	ug/L	2500	ug/L	103.5	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Strontium	533	ug/L	500	ug/L	106.7	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Tin	530	ug/L	500	ug/L	106	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Vanadium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Zinc	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	06–JAN–10 10:37	010610A–1
	Manganese	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	07–JAN–10 11:30	010710–2

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-995

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	2420	ug/L	2500	ug/L	96.8	90.0 – 110.0	P	07-JAN-10 11:30	010710-2
	Tin	531	ug/L	500	ug/L	106.1	90.0 – 110.0	P	07-JAN-10 11:30	010710-2
CCV01										
	Antimony	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	22-DEC-09 23:29	091222-3
	Cadmium	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	22-DEC-09 23:29	091222-3
	Chromium	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	22-DEC-09 23:29	091222-3
	Lead	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	22-DEC-09 23:29	091222-3
	Molybdenum	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	22-DEC-09 23:29	091222-3
	Nickel	54	ug/L	50	ug/L	108.1	90.0 – 110.0	MS	22-DEC-09 23:29	091222-3
	Selenium	50.1	ug/L	50	ug/L	100.2	90.0 – 110.0	MS	22-DEC-09 23:29	091222-3
	Silver	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	22-DEC-09 23:29	091222-3
	Thallium	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	22-DEC-09 23:29	091222-3
	Uranium	54.5	ug/L	50	ug/L	108.9	90.0 – 110.0	MS	22-DEC-09 23:29	091222-3
	Arsenic	49.5	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	23-DEC-09 22:03	091223-4
	Mercury	5.36	ug/L	5	ug/L	107.1	80.0 – 120.0	AV	06-JAN-10 09:33	010610W1-15
	Aluminum	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Barium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Beryllium	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Boron	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Calcium	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Cobalt	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Copper	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Iron	4940	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Magnesium	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Manganese	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Potassium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Silica	5180	ug/L	5350	ug/L	96.9	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Sodium	9660	ug/L	10000	ug/L	96.6	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Strontium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Tin	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-995

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Zinc	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	06-JAN-10 11:40	010610A-1
	Manganese	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	07-JAN-10 12:14	010710-2
	Potassium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	07-JAN-10 12:14	010710-2
	Tin	485	ug/L	500	ug/L	97	90.0 – 110.0	P	07-JAN-10 12:14	010710-2
CCV02										
	Antimony	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	22-DEC-09 23:46	091222-3
	Cadmium	51.5	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	22-DEC-09 23:46	091222-3
	Chromium	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	22-DEC-09 23:46	091222-3
	Lead	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	22-DEC-09 23:46	091222-3
	Molybdenum	50.8	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	22-DEC-09 23:46	091222-3
	Nickel	52.2	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	22-DEC-09 23:46	091222-3
	Selenium	49.1	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	22-DEC-09 23:46	091222-3
	Silver	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	22-DEC-09 23:46	091222-3
	Thallium	50.4	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	22-DEC-09 23:46	091222-3
	Uranium	53.4	ug/L	50	ug/L	106.8	90.0 – 110.0	MS	22-DEC-09 23:46	091222-3
	Arsenic	54.5	ug/L	50	ug/L	108.9	90.0 – 110.0	MS	23-DEC-09 22:25	091223-4
	Mercury	5.26	ug/L	5	ug/L	105.2	80.0 – 120.0	AV	06-JAN-10 09:56	010610W1-15
	Aluminum	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Barium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Beryllium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Boron	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Calcium	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Cobalt	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Copper	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Iron	4840	ug/L	5000	ug/L	96.8	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Magnesium	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Manganese	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Potassium	4810	ug/L	5000	ug/L	96.2	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1
	Silica	5410	ug/L	5350	ug/L	101.1	90.0 – 110.0	P	06-JAN-10 13:00	010610A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-995

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	9970	ug/L	10000	ug/L	99.7	90.0 - 110.0	P	06-JAN-10 13:00	010610A-1
	Strontium	500	ug/L	500	ug/L	100	90.0 - 110.0	P	06-JAN-10 13:00	010610A-1
	Tin	503	ug/L	500	ug/L	100.7	90.0 - 110.0	P	06-JAN-10 13:00	010610A-1
	Vanadium	507	ug/L	500	ug/L	101.4	90.0 - 110.0	P	06-JAN-10 13:00	010610A-1
	Zinc	499	ug/L	500	ug/L	99.9	90.0 - 110.0	P	06-JAN-10 13:00	010610A-1
	Manganese	496	ug/L	500	ug/L	99.3	90.0 - 110.0	P	07-JAN-10 13:22	010710-2
	Potassium	5100	ug/L	5000	ug/L	102	90.0 - 110.0	P	07-JAN-10 13:22	010710-2
	Tin	488	ug/L	500	ug/L	97.5	90.0 - 110.0	P	07-JAN-10 13:22	010710-2
CCV03										
	Antimony	48.4	ug/L	50	ug/L	96.8	90.0 - 110.0	MS	23-DEC-09 00:38	091222-3
	Cadmium	51.4	ug/L	50	ug/L	102.7	90.0 - 110.0	MS	23-DEC-09 00:38	091222-3
	Chromium	50.8	ug/L	50	ug/L	101.7	90.0 - 110.0	MS	23-DEC-09 00:38	091222-3
	Lead	51.9	ug/L	50	ug/L	103.8	90.0 - 110.0	MS	23-DEC-09 00:38	091222-3
	Molybdenum	50.5	ug/L	50	ug/L	100.9	90.0 - 110.0	MS	23-DEC-09 00:38	091222-3
	Nickel	50.6	ug/L	50	ug/L	101.1	90.0 - 110.0	MS	23-DEC-09 00:38	091222-3
	Selenium	50.9	ug/L	50	ug/L	101.8	90.0 - 110.0	MS	23-DEC-09 00:38	091222-3
	Silver	49.9	ug/L	50	ug/L	99.7	90.0 - 110.0	MS	23-DEC-09 00:38	091222-3
	Thallium	49.2	ug/L	50	ug/L	98.4	90.0 - 110.0	MS	23-DEC-09 00:38	091222-3
	Uranium	54.4	ug/L	50	ug/L	108.8	90.0 - 110.0	MS	23-DEC-09 00:38	091222-3
	Arsenic	48.8	ug/L	50	ug/L	97.7	90.0 - 110.0	MS	23-DEC-09 22:48	091223-4
	Aluminum	5110	ug/L	5000	ug/L	102.3	90.0 - 110.0	P	06-JAN-10 14:17	010610A-1
	Barium	501	ug/L	500	ug/L	100.3	90.0 - 110.0	P	06-JAN-10 14:17	010610A-1
	Beryllium	504	ug/L	500	ug/L	100.7	90.0 - 110.0	P	06-JAN-10 14:17	010610A-1
	Boron	491	ug/L	500	ug/L	98.2	90.0 - 110.0	P	06-JAN-10 14:17	010610A-1
	Calcium	5090	ug/L	5000	ug/L	101.7	90.0 - 110.0	P	06-JAN-10 14:17	010610A-1
	Cobalt	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	06-JAN-10 14:17	010610A-1
	Copper	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	06-JAN-10 14:17	010610A-1
	Iron	4910	ug/L	5000	ug/L	98.3	90.0 - 110.0	P	06-JAN-10 14:17	010610A-1
	Magnesium	5170	ug/L	5000	ug/L	103.5	90.0 - 110.0	P	06-JAN-10 14:17	010610A-1
	Manganese	505	ug/L	500	ug/L	101	90.0 - 110.0	P	06-JAN-10 14:17	010610A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-995

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	4940	ug/L	5000	ug/L	98.9	90.0 - 110.0	P	06-JAN-10 14:17	010610A-1
	Silica	5310	ug/L	5350	ug/L	99.2	90.0 - 110.0	P	06-JAN-10 14:17	010610A-1
	Sodium	9880	ug/L	10000	ug/L	98.8	90.0 - 110.0	P	06-JAN-10 14:17	010610A-1
	Strontium	509	ug/L	500	ug/L	101.8	90.0 - 110.0	P	06-JAN-10 14:17	010610A-1
	Tin	497	ug/L	500	ug/L	99.5	90.0 - 110.0	P	06-JAN-10 14:17	010610A-1
	Vanadium	503	ug/L	500	ug/L	100.7	90.0 - 110.0	P	06-JAN-10 14:17	010610A-1
	Zinc	496	ug/L	500	ug/L	99.3	90.0 - 110.0	P	06-JAN-10 14:17	010610A-1
	Manganese	494	ug/L	500	ug/L	98.7	90.0 - 110.0	P	07-JAN-10 14:28	010710-2
	Potassium	5160	ug/L	5000	ug/L	103.3	90.0 - 110.0	P	07-JAN-10 14:28	010710-2
	Tin	487	ug/L	500	ug/L	97.5	90.0 - 110.0	P	07-JAN-10 14:28	010710-2
CCV04										
	Antimony	49.4	ug/L	50	ug/L	98.9	90.0 - 110.0	MS	23-DEC-09 01:30	091222-3
	Cadmium	51.2	ug/L	50	ug/L	102.3	90.0 - 110.0	MS	23-DEC-09 01:30	091222-3
	Chromium	50.6	ug/L	50	ug/L	101.1	90.0 - 110.0	MS	23-DEC-09 01:30	091222-3
	Lead	52.1	ug/L	50	ug/L	104.2	90.0 - 110.0	MS	23-DEC-09 01:30	091222-3
	Molybdenum	50.2	ug/L	50	ug/L	100.5	90.0 - 110.0	MS	23-DEC-09 01:30	091222-3
	Nickel	51.3	ug/L	50	ug/L	102.5	90.0 - 110.0	MS	23-DEC-09 01:30	091222-3
	Selenium	48.9	ug/L	50	ug/L	97.8	90.0 - 110.0	MS	23-DEC-09 01:30	091222-3
	Silver	50.2	ug/L	50	ug/L	100.3	90.0 - 110.0	MS	23-DEC-09 01:30	091222-3
	Thallium	46.7	ug/L	50	ug/L	93.5	90.0 - 110.0	MS	23-DEC-09 01:30	091222-3
	Uranium	54.4	ug/L	50	ug/L	108.8	90.0 - 110.0	MS	23-DEC-09 01:30	091222-3
	Arsenic	49.1	ug/L	50	ug/L	98.1	90.0 - 110.0	MS	23-DEC-09 23:08	091223-4
	Aluminum	5170	ug/L	5000	ug/L	103.4	90.0 - 110.0	P	06-JAN-10 14:45	010610A-1
	Barium	505	ug/L	500	ug/L	101	90.0 - 110.0	P	06-JAN-10 14:45	010610A-1
	Beryllium	508	ug/L	500	ug/L	101.5	90.0 - 110.0	P	06-JAN-10 14:45	010610A-1
	Boron	497	ug/L	500	ug/L	99.4	90.0 - 110.0	P	06-JAN-10 14:45	010610A-1
	Calcium	5170	ug/L	5000	ug/L	103.4	90.0 - 110.0	P	06-JAN-10 14:45	010610A-1
	Cobalt	501	ug/L	500	ug/L	100.2	90.0 - 110.0	P	06-JAN-10 14:45	010610A-1
	Copper	504	ug/L	500	ug/L	100.9	90.0 - 110.0	P	06-JAN-10 14:45	010610A-1
	Iron	5020	ug/L	5000	ug/L	100.5	90.0 - 110.0	P	06-JAN-10 14:45	010610A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-995

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Magnesium	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	06-JAN-10 14:45	010610A-1
	Manganese	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	06-JAN-10 14:45	010610A-1
	Potassium	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	06-JAN-10 14:45	010610A-1
	Silica	5380	ug/L	5350	ug/L	100.5	90.0 – 110.0	P	06-JAN-10 14:45	010610A-1
	Sodium	10100	ug/L	10000	ug/L	100.6	90.0 – 110.0	P	06-JAN-10 14:45	010610A-1
	Strontium	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	06-JAN-10 14:45	010610A-1
	Tin	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	06-JAN-10 14:45	010610A-1
	Vanadium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	06-JAN-10 14:45	010610A-1
	Zinc	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	06-JAN-10 14:45	010610A-1
	Manganese	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	07-JAN-10 15:00	010710-2
	Potassium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	07-JAN-10 15:00	010710-2
	Tin	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	07-JAN-10 15:00	010710-2
CCV05										
	Antimony	48.6	ug/L	50	ug/L	97.3	90.0 – 110.0	MS	23-DEC-09 02:28	091222-3
	Cadmium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	23-DEC-09 02:28	091222-3
	Chromium	50.2	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	23-DEC-09 02:28	091222-3
	Lead	51.5	ug/L	50	ug/L	103	90.0 – 110.0	MS	23-DEC-09 02:28	091222-3
	Molybdenum	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	23-DEC-09 02:28	091222-3
	Nickel	51	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	23-DEC-09 02:28	091222-3
	Selenium	50.3	ug/L	50	ug/L	100.7	90.0 – 110.0	MS	23-DEC-09 02:28	091222-3
	Silver	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	23-DEC-09 02:28	091222-3
	Thallium	48.9	ug/L	50	ug/L	97.7	90.0 – 110.0	MS	23-DEC-09 02:28	091222-3
	Uranium	54.8	ug/L	50	ug/L	109.6	90.0 – 110.0	MS	23-DEC-09 02:28	091222-3
	Aluminum	5210	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	06-JAN-10 15:54	010610A-1
	Barium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	06-JAN-10 15:54	010610A-1
	Beryllium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	06-JAN-10 15:54	010610A-1
	Boron	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	06-JAN-10 15:54	010610A-1
	Calcium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	06-JAN-10 15:54	010610A-1
	Cobalt	500	ug/L	500	ug/L	100	90.0 – 110.0	P	06-JAN-10 15:54	010610A-1
	Copper	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	06-JAN-10 15:54	010610A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–995

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	4870	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Magnesium	5130	ug/L	5000	ug/L	102.6	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Manganese	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Potassium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Silica	5390	ug/L	5350	ug/L	100.7	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Sodium	9610	ug/L	10000	ug/L	96.1	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Strontium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Tin	500	ug/L	500	ug/L	100	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Zinc	500	ug/L	500	ug/L	100	90.0 – 110.0	P	06–JAN–10 15:54	010610A–1
	Manganese	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	07–JAN–10 16:02	010710–2
	Potassium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	07–JAN–10 16:02	010710–2
	Tin	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	07–JAN–10 16:02	010710–2
CCV06										
	Aluminum	5190	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Barium	513	ug/L	500	ug/L	102.5	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Beryllium	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Boron	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Calcium	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Cobalt	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Copper	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Iron	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Magnesium	5240	ug/L	5000	ug/L	104.7	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Manganese	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Potassium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Silica	5480	ug/L	5350	ug/L	102.4	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Sodium	10600	ug/L	10000	ug/L	105.5	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Strontium	528	ug/L	500	ug/L	105.6	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Tin	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Vanadium	515	ug/L	500	ug/L	102.9	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–995

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Zinc	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	06–JAN–10 16:55	010610A–1
	Manganese	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	07–JAN–10 17:11	010710–2
	Potassium	5050	ug/L	5000	ug/L	101	90.0 – 110.0	P	07–JAN–10 17:11	010710–2
	Tin	495	ug/L	500	ug/L	99	90.0 – 110.0	P	07–JAN–10 17:11	010710–2
CCV07										
	Aluminum	5140	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	06–JAN–10 17:59	010610A–1
	Barium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	06–JAN–10 17:59	010610A–1
	Beryllium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	06–JAN–10 17:59	010610A–1
	Boron	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	06–JAN–10 17:59	010610A–1
	Calcium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	06–JAN–10 17:59	010610A–1
	Cobalt	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	06–JAN–10 17:59	010610A–1
	Copper	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	06–JAN–10 17:59	010610A–1
	Iron	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	06–JAN–10 17:59	010610A–1
	Magnesium	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	06–JAN–10 17:59	010610A–1
	Manganese	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	06–JAN–10 17:59	010610A–1
	Potassium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	06–JAN–10 17:59	010610A–1
	Silica	5340	ug/L	5350	ug/L	99.9	90.0 – 110.0	P	06–JAN–10 17:59	010610A–1
	Sodium	10400	ug/L	10000	ug/L	104	90.0 – 110.0	P	06–JAN–10 17:59	010610A–1
	Strontium	523	ug/L	500	ug/L	104.6	90.0 – 110.0	P	06–JAN–10 17:59	010610A–1
	Tin	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	06–JAN–10 17:59	010610A–1
	Vanadium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	06–JAN–10 17:59	010610A–1
	Zinc	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	06–JAN–10 17:59	010610A–1
	Manganese	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	07–JAN–10 18:26	010710–2
	Potassium	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	07–JAN–10 18:26	010710–2
	Tin	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	07–JAN–10 18:26	010710–2
CCV08										
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	07–JAN–10 19:48	010710–2
	Potassium	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	07–JAN–10 19:48	010710–2
	Tin	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	07–JAN–10 19:48	010710–2

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-995

Contract: ESHL01000 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Lead	2.21	ug/L	2	ug/L	110.5	70.0 – 130.0	MS	22-DEC-09 23:12	091222-3
	Nickel	2.2	ug/L	2	ug/L	110	70.0 – 130.0	MS	22-DEC-09 23:12	091222-3
	Silver	1.05	ug/L	1	ug/L	104.6	70.0 – 130.0	MS	22-DEC-09 23:12	091222-3
	Antimony	3.29	ug/L	3	ug/L	109.6	70.0 – 130.0	MS	22-DEC-09 23:12	091222-3
	Chromium	10.6	ug/L	10	ug/L	105.5	70.0 – 130.0	MS	22-DEC-09 23:12	091222-3
	Molybdenum	.574	ug/L	.5	ug/L	114.8	70.0 – 130.0	MS	22-DEC-09 23:12	091222-3
	Uranium	.228	ug/L	.2	ug/L	114	70.0 – 130.0	MS	22-DEC-09 23:12	091222-3
	Selenium	5.18	ug/L	5	ug/L	103.6	70.0 – 130.0	MS	22-DEC-09 23:12	091222-3
	Cadmium	1.16	ug/L	1	ug/L	115.5	70.0 – 130.0	MS	22-DEC-09 23:12	091222-3
	Thallium	1.06	ug/L	1	ug/L	105.9	70.0 – 130.0	MS	22-DEC-09 23:12	091222-3
	Arsenic	5.62	ug/L	5	ug/L	112.4	70.0 – 130.0	MS	23-DEC-09 21:55	091223-4
	Mercury	.219	ug/L	.2	ug/L	109.5	70.0 – 130.0	AV	06-JAN-10 09:31	010610W1-15
PQL01										
	Silica	217	ug/L	213	ug/L	101.9	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Manganese	10.5	ug/L	10	ug/L	105.1	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Sodium	308	ug/L	300	ug/L	102.6	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Beryllium	5.03	ug/L	5	ug/L	100.5	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Copper	10.6	ug/L	10	ug/L	106.3	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Strontium	4.84	ug/L	5	ug/L	96.8	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Tin	10.2	ug/L	10	ug/L	102.3	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Boron	51	ug/L	50	ug/L	102.1	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Calcium	210	ug/L	200	ug/L	104.8	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Zinc	10.6	ug/L	10	ug/L	106.4	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Vanadium	5.42	ug/L	5	ug/L	108.4	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Cobalt	4.75	ug/L	5	ug/L	95	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Barium	5.23	ug/L	5	ug/L	104.6	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Potassium	147	ug/L	150	ug/L	98.2	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Magnesium	395	ug/L	300	ug/L	131.5	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Aluminum	214	ug/L	200	ug/L	107.1	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1
	Iron	104	ug/L	100	ug/L	103.8	70.0 – 130.0	P	06-JAN-10 10:51	010610A-1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–995

Contract: ESHL01000 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
	Tin	9.92	ug/L	10	ug/L	99.2	70.0 – 130.0	P	07–JAN–10 11:43	010710–2
	Manganese	10.1	ug/L	10	ug/L	100.8	70.0 – 130.0	P	07–JAN–10 11:43	010710–2
	Potassium	160	ug/L	150	ug/L	106.9	70.0 – 130.0	P	07–JAN–10 11:43	010710–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–995

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Antimony	0.607	+/–3	J	0.5	3.0	LIQ	MS	22–DEC–09 23:06	091222–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	22–DEC–09 23:06	091222–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	22–DEC–09 23:06	091222–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	22–DEC–09 23:06	091222–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	22–DEC–09 23:06	091222–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	22–DEC–09 23:06	091222–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	22–DEC–09 23:06	091222–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	22–DEC–09 23:06	091222–3
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	22–DEC–09 23:06	091222–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	22–DEC–09 23:06	091222–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	23–DEC–09 21:53	091223–4
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	06–JAN–10 09:29	010610W1–15
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	06–JAN–10 10:44	010610A–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 10:44	010610A–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 10:44	010610A–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	06–JAN–10 10:44	010610A–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	06–JAN–10 10:44	010610A–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 10:44	010610A–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	06–JAN–10 10:44	010610A–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	06–JAN–10 10:44	010610A–1
	Magnesium	121.5	+/–300	J	85.0	300	LIQ	P	06–JAN–10 10:44	010610A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	06–JAN–10 10:44	010610A–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	06–JAN–10 10:44	010610A–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	06–JAN–10 10:44	010610A–1
	Sodium	100	+/–300	U	100	300	LIQ	P	06–JAN–10 10:44	010610A–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 10:44	010610A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	06–JAN–10 10:44	010610A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 10:44	010610A–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	06–JAN–10 10:44	010610A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	07–JAN–10 11:36	010710–2
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	07–JAN–10 11:36	010710–2

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-995

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	07-JAN-10 11:36	010710-2
CCB01										
	Antimony	0.5	+/-3	U	0.5	3.0	LIQ	MS	22-DEC-09 23:35	091222-3
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	22-DEC-09 23:35	091222-3
	Chromium	2.5	+/-10	U	2.5	10.0	LIQ	MS	22-DEC-09 23:35	091222-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	22-DEC-09 23:35	091222-3
	Molybdenum	0.165	+/-.5	J	0.1	0.5	LIQ	MS	22-DEC-09 23:35	091222-3
	Nickel	0.5	+/-2	U	0.5	2.0	LIQ	MS	22-DEC-09 23:35	091222-3
	Selenium	1.0	+/-5	U	1.0	5.0	LIQ	MS	22-DEC-09 23:35	091222-3
	Silver	0.2	+/-1	U	0.2	1.0	LIQ	MS	22-DEC-09 23:35	091222-3
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	22-DEC-09 23:35	091222-3
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	22-DEC-09 23:35	091222-3
	Arsenic	1.5	+/-5	U	1.5	5.0	LIQ	MS	23-DEC-09 22:05	091223-4
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	06-JAN-10 09:35	010610W1-15
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	06-JAN-10 11:47	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 11:47	010610A-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 11:47	010610A-1
	Boron	16.45	+/-50	J	15.0	50.0	LIQ	P	06-JAN-10 11:47	010610A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	06-JAN-10 11:47	010610A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 11:47	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	06-JAN-10 11:47	010610A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	06-JAN-10 11:47	010610A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	06-JAN-10 11:47	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	06-JAN-10 11:47	010610A-1
	Potassium	88.07	+/-150	J	50.0	150	LIQ	P	06-JAN-10 11:47	010610A-1
	Silica	53.0	+/-213	U	53.0	213	LIQ	P	06-JAN-10 11:47	010610A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	06-JAN-10 11:47	010610A-1
	Strontium	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 11:47	010610A-1
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	06-JAN-10 11:47	010610A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 11:47	010610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	06-JAN-10 11:47	010610A-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-995

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	07-JAN-10 12:21	010710-2
	Potassium	134.87	+/-150	J	50.0	150	LIQ	P	07-JAN-10 12:21	010710-2
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	07-JAN-10 12:21	010710-2
CCB02										
	Antimony	1.02	+/-3	J	0.5	3.0	LIQ	MS	22-DEC-09 23:52	091222-3
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	22-DEC-09 23:52	091222-3
	Chromium	2.5	+/-10	U	2.5	10.0	LIQ	MS	22-DEC-09 23:52	091222-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	22-DEC-09 23:52	091222-3
	Molybdenum	0.233	+/-.5	J	0.1	0.5	LIQ	MS	22-DEC-09 23:52	091222-3
	Nickel	0.5	+/-2	U	0.5	2.0	LIQ	MS	22-DEC-09 23:52	091222-3
	Selenium	1.0	+/-5	U	1.0	5.0	LIQ	MS	22-DEC-09 23:52	091222-3
	Silver	0.2	+/-1	U	0.2	1.0	LIQ	MS	22-DEC-09 23:52	091222-3
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	22-DEC-09 23:52	091222-3
	Uranium	0.067	+/-.2	J	0.05	0.2	LIQ	MS	22-DEC-09 23:52	091222-3
	Arsenic	1.5	+/-5	U	1.5	5.0	LIQ	MS	23-DEC-09 22:28	091223-4
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	06-JAN-10 09:58	010610W1-15
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	06-JAN-10 13:06	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 13:06	010610A-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 13:06	010610A-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	06-JAN-10 13:06	010610A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	06-JAN-10 13:06	010610A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 13:06	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	06-JAN-10 13:06	010610A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	06-JAN-10 13:06	010610A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	06-JAN-10 13:06	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	06-JAN-10 13:06	010610A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	06-JAN-10 13:06	010610A-1
	Silica	53.0	+/-213	U	53.0	213	LIQ	P	06-JAN-10 13:06	010610A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	06-JAN-10 13:06	010610A-1
	Strontium	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 13:06	010610A-1
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	06-JAN-10 13:06	010610A-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10-995

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 13:06	010610A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	06-JAN-10 13:06	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	07-JAN-10 13:29	010710-2
	Potassium	86.19	+/-150	J	50.0	150	LIQ	P	07-JAN-10 13:29	010710-2
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	07-JAN-10 13:29	010710-2
CCB03										
	Antimony	0.5	+/-3	U	0.5	3.0	LIQ	MS	23-DEC-09 00:44	091222-3
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	23-DEC-09 00:44	091222-3
	Chromium	2.5	+/-10	U	2.5	10.0	LIQ	MS	23-DEC-09 00:44	091222-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	23-DEC-09 00:44	091222-3
	Molybdenum	0.1	+/-.5	U	0.1	0.5	LIQ	MS	23-DEC-09 00:44	091222-3
	Nickel	0.5	+/-2	U	0.5	2.0	LIQ	MS	23-DEC-09 00:44	091222-3
	Selenium	1.0	+/-5	U	1.0	5.0	LIQ	MS	23-DEC-09 00:44	091222-3
	Silver	0.2	+/-1	U	0.2	1.0	LIQ	MS	23-DEC-09 00:44	091222-3
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	23-DEC-09 00:44	091222-3
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	23-DEC-09 00:44	091222-3
	Arsenic	1.5	+/-5	U	1.5	5.0	LIQ	MS	23-DEC-09 22:50	091223-4
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	06-JAN-10 14:24	010610A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 14:24	010610A-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 14:24	010610A-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	06-JAN-10 14:24	010610A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	06-JAN-10 14:24	010610A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 14:24	010610A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	06-JAN-10 14:24	010610A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	06-JAN-10 14:24	010610A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	06-JAN-10 14:24	010610A-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	06-JAN-10 14:24	010610A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	06-JAN-10 14:24	010610A-1
	Silica	53.0	+/-213	U	53.0	213	LIQ	P	06-JAN-10 14:24	010610A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	06-JAN-10 14:24	010610A-1
	Strontium	1.0	+/-5	U	1.0	5.0	LIQ	P	06-JAN-10 14:24	010610A-1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–995

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	06–JAN–10 14:24	010610A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 14:24	010610A–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	06–JAN–10 14:24	010610A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	07–JAN–10 14:35	010710–2
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	07–JAN–10 14:35	010710–2
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	07–JAN–10 14:35	010710–2
CCB04										
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	23–DEC–09 01:36	091222–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	23–DEC–09 01:36	091222–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	23–DEC–09 01:36	091222–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	23–DEC–09 01:36	091222–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	23–DEC–09 01:36	091222–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	23–DEC–09 01:36	091222–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	23–DEC–09 01:36	091222–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	23–DEC–09 01:36	091222–3
	Thallium	0.474	+/–1	J	0.3	1.0	LIQ	MS	23–DEC–09 01:36	091222–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	23–DEC–09 01:36	091222–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	23–DEC–09 23:11	091223–4
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	06–JAN–10 14:52	010610A–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 14:52	010610A–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 14:52	010610A–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	06–JAN–10 14:52	010610A–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	06–JAN–10 14:52	010610A–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 14:52	010610A–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	06–JAN–10 14:52	010610A–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	06–JAN–10 14:52	010610A–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	06–JAN–10 14:52	010610A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	06–JAN–10 14:52	010610A–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	06–JAN–10 14:52	010610A–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	06–JAN–10 14:52	010610A–1
	Sodium	100	+/–300	U	100	300	LIQ	P	06–JAN–10 14:52	010610A–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–995

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 14:52	010610A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	06–JAN–10 14:52	010610A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 14:52	010610A–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	06–JAN–10 14:52	010610A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	07–JAN–10 15:07	010710–2
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	07–JAN–10 15:07	010710–2
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	07–JAN–10 15:07	010710–2
CCB05										
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	23–DEC–09 02:33	091222–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	23–DEC–09 02:33	091222–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	23–DEC–09 02:33	091222–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	23–DEC–09 02:33	091222–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	23–DEC–09 02:33	091222–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	23–DEC–09 02:33	091222–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	23–DEC–09 02:33	091222–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	23–DEC–09 02:33	091222–3
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	23–DEC–09 02:33	091222–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	23–DEC–09 02:33	091222–3
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	06–JAN–10 16:00	010610A–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 16:00	010610A–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 16:00	010610A–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	06–JAN–10 16:00	010610A–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	06–JAN–10 16:00	010610A–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 16:00	010610A–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	06–JAN–10 16:00	010610A–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	06–JAN–10 16:00	010610A–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	06–JAN–10 16:00	010610A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	06–JAN–10 16:00	010610A–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	06–JAN–10 16:00	010610A–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	06–JAN–10 16:00	010610A–1
	Sodium	100	+/–300	U	100	300	LIQ	P	06–JAN–10 16:00	010610A–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–995

Contract: ESHL01000 **Lab Code: GEL**

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 16:00	010610A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	06–JAN–10 16:00	010610A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 16:00	010610A–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	06–JAN–10 16:00	010610A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	07–JAN–10 16:09	010710–2
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	07–JAN–10 16:09	010710–2
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	07–JAN–10 16:09	010710–2
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	06–JAN–10 17:02	010610A–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 17:02	010610A–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 17:02	010610A–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	06–JAN–10 17:02	010610A–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	06–JAN–10 17:02	010610A–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 17:02	010610A–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	06–JAN–10 17:02	010610A–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	06–JAN–10 17:02	010610A–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	06–JAN–10 17:02	010610A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	06–JAN–10 17:02	010610A–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	06–JAN–10 17:02	010610A–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	06–JAN–10 17:02	010610A–1
	Sodium	100	+/–300	U	100	300	LIQ	P	06–JAN–10 17:02	010610A–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 17:02	010610A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	06–JAN–10 17:02	010610A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 17:02	010610A–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	06–JAN–10 17:02	010610A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	07–JAN–10 17:18	010710–2
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	07–JAN–10 17:18	010710–2
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	07–JAN–10 17:18	010710–2
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	06–JAN–10 18:06	010610A–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 18:06	010610A–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–995

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 18:06	010610A–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	06–JAN–10 18:06	010610A–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	06–JAN–10 18:06	010610A–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 18:06	010610A–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	06–JAN–10 18:06	010610A–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	06–JAN–10 18:06	010610A–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	06–JAN–10 18:06	010610A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	06–JAN–10 18:06	010610A–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	06–JAN–10 18:06	010610A–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	06–JAN–10 18:06	010610A–1
	Sodium	100	+/–300	U	100	300	LIQ	P	06–JAN–10 18:06	010610A–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 18:06	010610A–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	06–JAN–10 18:06	010610A–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	06–JAN–10 18:06	010610A–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	06–JAN–10 18:06	010610A–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	07–JAN–10 18:33	010710–2
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	07–JAN–10 18:33	010710–2
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	07–JAN–10 18:33	010710–2
CCB08										
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	07–JAN–10 19:54	010710–2
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	07–JAN–10 19:54	010710–2
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	07–JAN–10 19:54	010710–2

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10--995
Contract: ESHL01000
Matrix: GROUND WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202001500								
	Boron	15	ug/L	+/–50	U	P	15	50
	Calcium	50	ug/L	+/–200	U	P	50	200
	Cobalt	1	ug/L	+/–5	U	P	1	5
	Copper	3	ug/L	+/–10	U	P	3	10
	Iron	30	ug/L	+/–100	U	P	30	100
	Magnesium	85	ug/L	+/–300	U	P	85	300
	Manganese	2	ug/L	+/–10	U	P	2	10
	Potassium	50	ug/L	+/–150	U	P	50	150
	Silica	0.053	mg/L	+/–0.213	U	P	0.053	0.213
	Beryllium	1	ug/L	+/–5	U	P	1	5
	Barium	1	ug/L	+/–5	U	P	1	5
	Aluminum	68	ug/L	+/–200	U	P	68	200
	Sodium	100	ug/L	+/–300	U	P	100	300
	Strontium	1	ug/L	+/–5	U	P	1	5
	Tin	2.5	ug/L	+/–10	U	P	2.5	10
	Vanadium	1	ug/L	+/–5	U	P	1	5
	Zinc	3.3	ug/L	+/–10	U	P	3.3	10
1202001514								
	Antimony	0.641	ug/L	+/–3	J	MS	0.5	3
	Arsenic	1.5	ug/L	+/–5	U	MS	1.5	5
	Cadmium	0.11	ug/L	+/–1	U	MS	0.11	1
	Chromium	2.5	ug/L	+/–10	U	MS	2.5	10
	Lead	0.5	ug/L	+/–2	U	MS	0.5	2
	Molybdenum	0.12	ug/L	+/–0.5	J	MS	0.1	0.5
	Nickel	0.5	ug/L	+/–2	U	MS	0.5	2
	Selenium	1	ug/L	+/–5	U	MS	1	5
	Silver	0.2	ug/L	+/–1	U	MS	0.2	1
	Thallium	0.3	ug/L	+/–1	U	MS	0.3	1
	Uranium	0.05	ug/L	+/–0.2	U	MS	0.05	0.2
1202002084								
	Mercury	0.066	ug/L	+/–0.2	U	AV	0.066	0.2

METALS
–4–
Interference Check Sample

SDG No: 10–995

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	524000	ug/L	500000	ug/L	105	80.0 – 120.0	06–JAN–10 10:58	010610A–1
	Barium	–1.32	ug/L					06–JAN–10 10:58	010610A–1
	Beryllium	–0.205	ug/L					06–JAN–10 10:58	010610A–1
	Boron	–9.98	ug/L					06–JAN–10 10:58	010610A–1
	Calcium	490000	ug/L	500000	ug/L	98.1	80.0 – 120.0	06–JAN–10 10:58	010610A–1
	Cobalt	–1.75	ug/L					06–JAN–10 10:58	010610A–1
	Copper	0.788	ug/L					06–JAN–10 10:58	010610A–1
	Iron	191000	ug/L	200000	ug/L	95.6	80.0 – 120.0	06–JAN–10 10:58	010610A–1
	Magnesium	494000	ug/L	500000	ug/L	98.9	80.0 – 120.0	06–JAN–10 10:58	010610A–1
	Manganese	8.64	ug/L					06–JAN–10 10:58	010610A–1
	Potassium	–8.89	ug/L					06–JAN–10 10:58	010610A–1
	Silica	–0.469	ug/L					06–JAN–10 10:58	010610A–1
	Sodium	7.21	ug/L					06–JAN–10 10:58	010610A–1
	Strontium	–0.771	ug/L					06–JAN–10 10:58	010610A–1
	Tin	–15.9	ug/L					06–JAN–10 10:58	010610A–1
	Vanadium	–2.85	ug/L					06–JAN–10 10:58	010610A–1
	Zinc	–0.463	ug/L					06–JAN–10 10:58	010610A–1
ICSAB01									
	Aluminum	513000	ug/L	500000	ug/L	103	80.0 – 120.0	06–JAN–10 11:04	010610A–1
	Barium	501	ug/L	500	ug/L	100	80.0 – 120.0	06–JAN–10 11:04	010610A–1
	Beryllium	248	ug/L	250	ug/L	99.1	80.0 – 120.0	06–JAN–10 11:04	010610A–1
	Boron	507	ug/L	500	ug/L	101	80.0 – 120.0	06–JAN–10 11:04	010610A–1
	Calcium	481000	ug/L	500000	ug/L	96.2	80.0 – 120.0	06–JAN–10 11:04	010610A–1
	Cobalt	463	ug/L	500	ug/L	92.5	80.0 – 120.0	06–JAN–10 11:04	010610A–1
	Copper	565	ug/L	500	ug/L	113	80.0 – 120.0	06–JAN–10 11:04	010610A–1
	Iron	186000	ug/L	200000	ug/L	92.9	80.0 – 120.0	06–JAN–10 11:04	010610A–1
	Magnesium	482000	ug/L	500000	ug/L	96.3	80.0 – 120.0	06–JAN–10 11:04	010610A–1
	Manganese	504	ug/L	500	ug/L	101	80.0 – 120.0	06–JAN–10 11:04	010610A–1
	Potassium	5350	ug/L	5000	ug/L	107	80.0 – 120.0	06–JAN–10 11:04	010610A–1

METALS
–4–
Interference Check Sample

SDG No: 10–995

Contract: ESHL01000 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Silica	11100	ug/L	10700	ug/L	104	80.0 – 120.0	06–JAN–10 11:04	010610A–1
	Sodium	5430	ug/L	5000	ug/L	109	80.0 – 120.0	06–JAN–10 11:04	010610A–1
	Strontium	499	ug/L	500	ug/L	99.7	80.0 – 120.0	06–JAN–10 11:04	010610A–1
	Tin	479	ug/L	500	ug/L	95.8	80.0 – 120.0	06–JAN–10 11:04	010610A–1
	Vanadium	508	ug/L	500	ug/L	102	80.0 – 120.0	06–JAN–10 11:04	010610A–1
	Zinc	488	ug/L	500	ug/L	97.6	80.0 – 120.0	06–JAN–10 11:04	010610A–1

METALS
–4–
Interference Check Sample

SDG No: 10–995

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Manganese	7.95	ug/L					07–JAN–10 11:50	010710–2
	Potassium	–21.1	ug/L					07–JAN–10 11:50	010710–2
	Tin	–15.0	ug/L					07–JAN–10 11:50	010710–2
ICSAB01									
	Manganese	492	ug/L	500	ug/L	98.3	80.0 – 120.0	07–JAN–10 11:56	010710–2
	Potassium	5350	ug/L	5000	ug/L	107	80.0 – 120.0	07–JAN–10 11:56	010710–2
	Tin	470	ug/L	500	ug/L	94	80.0 – 120.0	07–JAN–10 11:56	010710–2

METALS
–4–
Interference Check Sample

SDG No: 10–995

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.132	ug/L					22–DEC–09 23:17	091222–3
	Cadmium	0.55	ug/L					22–DEC–09 23:17	091222–3
	Chromium	2.46	ug/L					22–DEC–09 23:17	091222–3
	Lead	0.177	ug/L					22–DEC–09 23:17	091222–3
	Molybdenum	2010	ug/L	2000	ug/L	100	80.0 – 120.0	22–DEC–09 23:17	091222–3
	Nickel	2.48	ug/L					22–DEC–09 23:17	091222–3
	Selenium	–0.574	ug/L					22–DEC–09 23:17	091222–3
	Silver	0.05	ug/L					22–DEC–09 23:17	091222–3
	Thallium	0.017	ug/L					22–DEC–09 23:17	091222–3
	Uranium	–0.004	ug/L					22–DEC–09 23:17	091222–3
ICSAB01									
	Antimony	21.8	ug/L	20.1	ug/L	109	80.0 – 120.0	22–DEC–09 23:23	091222–3
	Cadmium	21.1	ug/L	20.4	ug/L	103	80.0 – 120.0	22–DEC–09 23:23	091222–3
	Chromium	21.9	ug/L	23.7	ug/L	92.5	80.0 – 120.0	22–DEC–09 23:23	091222–3
	Lead	20.2	ug/L	20.5	ug/L	98.4	80.0 – 120.0	22–DEC–09 23:23	091222–3
	Molybdenum	2030	ug/L	2000	ug/L	102	80.0 – 120.0	22–DEC–09 23:23	091222–3
	Nickel	22.5	ug/L	22.7	ug/L	98.9	80.0 – 120.0	22–DEC–09 23:23	091222–3
	Selenium	20.1	ug/L	20	ug/L	101	80.0 – 120.0	22–DEC–09 23:23	091222–3
	Silver	20.6	ug/L	20	ug/L	103	80.0 – 120.0	22–DEC–09 23:23	091222–3
	Thallium	19.4	ug/L	20	ug/L	97	80.0 – 120.0	22–DEC–09 23:23	091222–3
	Uranium	22.0	ug/L	20	ug/L	110	80.0 – 120.0	22–DEC–09 23:23	091222–3

METALS
–4–
Interference Check Sample

SDG No: 10–995

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Arsenic	–0.12	ug/L					23–DEC–09 21:58	091223–4
ICSAB01									
	Arsenic	20.7	ug/L	20	ug/L	104	80.0 – 120.0	23–DEC–09 22:00	091223–4

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–995 **Client ID:** CAPA–10–6389S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 243286001 **Spike ID:** 1202001503

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Tin	ug/L	75–125	430		25	U	500	86		P
Vanadium	ug/L	75–125	527		1	U	500	105		P
Zinc	ug/L	75–125	508		5.84	J	500	100		P
Aluminum	ug/L	75–125	5330		68	U	5000	106		P
Barium	ug/L	75–125	1010		505		500	102		P
Beryllium	ug/L	75–125	525		1	U	500	105		P
Boron	ug/L	75–125	544		28.4	J	500	103		P
Calcium	ug/L		78000		74100		5000	77.3	N/A	P
Cobalt	ug/L	75–125	524		26.5		500	99.5		P
Copper	ug/L	75–125	536		3	U	500	107		P
Iron	ug/L		25300		20800		5000	89	N/A	P
Magnesium	ug/L	75–125	21200		16300		5000	97		P
Manganese	ug/L		13700		13300		500	79.6	N/A	P
Potassium	ug/L	75–125	13800		9270		5000	91		P
Silica	mg/L	75–125	49		38.6		10.7	97.5		P
Sodium	ug/L		27400		23600		5000	75.7	N/A	P
Strontium	ug/L	75–125	1030		518		500	102		P

METALS
-5a-

Matrix Spike Summary

SDG NO. 10-995 **Client ID** CAPA-10-6390S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 243286002 **Spike ID:** 1202001517

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75-125	215		0.5	U	200	107		MS
Arsenic	ug/L	75-125	81.2		3.56	J	80	97.1		MS
Cadmium	ug/L	75-125	10.5		0.11	U	10	104		MS
Chromium	ug/L	75-125	48.6		2.5	U	50	94		MS
Lead	ug/L	75-125	41		0.5	U	40	102		MS
Molybdenum	ug/L	75-125	61.5		10.3		50	102		MS
Nickel	ug/L	75-125	56.3		10.8		50	91		MS
Selenium	ug/L	75-125	20.2		1	U	20	98.2		MS
Silver	ug/L	75-125	50.5		0.2	U	50	101		MS
Thallium	ug/L	75-125	95.2		0.47	J	100	94.7		MS
Uranium	ug/L	75-125	58.9		3.91		50	110		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–995 **Client ID:** CAPA–10–6389S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 243286001 **Spike ID:** 1202002087

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75–125	1.82		0.066	U	2	90.7		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–995

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAPA–10–6389D

Sample ID: 243286001 **Duplicate ID:** 1202001502 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		68	U	68	U			P
Barium	ug/L	+/–20%	505		503		.323		P
Beryllium	ug/L		1	U	1	U			P
Boron	ug/L	+/–50	28.4	J	29.3	J	3.29		P
Calcium	ug/L	+/–20%	74100		72500		2.26		P
Cobalt	ug/L	+/–20%	26.5		25.9		2.33		P
Copper	ug/L		3	U	3	U			P
Iron	ug/L	+/–20%	20800		19900		4.47		P
Magnesium	ug/L	+/–20%	16300		15900		3.08		P
Manganese	ug/L	+/–20%	13300		13000		2.55		P
Potassium	ug/L	+/–20%	9270		9120		1.65		P
Silica	mg/L	+/–20%	38.6		38		1.47		P
Sodium	ug/L	+/–20%	23600		21900		7.46		P
Strontium	ug/L	+/–20%	518		496		4.36		P
Tin	ug/L		25	U	25	U			P
Vanadium	ug/L		1	U	1	U			P
Zinc	ug/L	+/–10	5.84	J	5.97	J	2.17		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–995

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAPA–10–6390D

Sample ID: 243286002 **Duplicate ID:** 1202001516 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		0.5	U	0.5	U			MS
Arsenic	ug/L	+/–5	3.56	J	3.54	J	.423		MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Chromium	ug/L		2.5	U	2.5	U			MS
Lead	ug/L		0.5	U	0.5	U			MS
Molybdenum	ug/L	+/–20%	10.3		10		3		MS
Nickel	ug/L	+/–20%	10.8		10.6		1.15		MS
Selenium	ug/L		1	U	1	U			MS
Silver	ug/L		0.2	U	0.2	U			MS
Thallium	ug/L	+/–1	0.47	J	0.48	J	2.11		MS
Uranium	ug/L	+/–20%	3.91		3.87		1		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–995

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAPA–10–6389D

Sample ID: 243286001 **Duplicate ID:** 1202002086 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–995

Contract: ESHL01000

Aqueous LCS Source: OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202001501								
	Aluminum	ug/L	5000	5400		108	80–120	P
	Barium	ug/L	500	528		106	80–120	P
	Beryllium	ug/L	500	519		104	80–120	P
	Boron	ug/L	500	505		101	80–120	P
	Calcium	ug/L	5000	5280		106	80–120	P
	Cobalt	ug/L	500	505		101	80–120	P
	Copper	ug/L	500	526		105	80–120	P
	Iron	ug/L	5000	5120		102	80–120	P
	Magnesium	ug/L	5000	5270		105	80–120	P
	Manganese	ug/L	500	530		106	80–120	P
	Potassium	ug/L	5000	5140		103	80–120	P
	Silica	mg/L	10.7	10.9		102	80–120	P
	Sodium	ug/L	5000	5180		104	80–120	P
	Strontium	ug/L	500	532		106	80–120	P
	Tin	ug/L	500	525		105	80–120	P
	Vanadium	ug/L	500	527		105	80–120	P
	Zinc	ug/L	500	506		101	80–120	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–995

Contract: ESHL01000

Aqueous LCS Source:O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202001515								
	Antimony	ug/L	50	52.7		105	80–120	MS
	Arsenic	ug/L	50	49.4		98.9	80–120	MS
	Cadmium	ug/L	50	51		102	80–120	MS
	Chromium	ug/L	50	53.2		106	80–120	MS
	Lead	ug/L	50	51.5		103	80–120	MS
	Molybdenum	ug/L	50	50.8		102	80–120	MS
	Nickel	ug/L	50	53.6		107	80–120	MS
	Selenium	ug/L	50	50.8		102	80–120	MS
	Silver	ug/L	50	51.8		104	80–120	MS
	Thallium	ug/L	50	48.5		97	80–120	MS
	Uranium	ug/L	50	54.2		108	80–120	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-995

Contract: ESHL01000

Aqueous LCS Source:GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202002085								
	Mercury	ug/L	2	2.14		107	85-115	AV

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–995 **Client ID** CAPA–10–6389L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 243286001 **Serial Dilution ID:** 1202001504

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	68	U	340	U				P
Barium	505		489		3.17		10	P
Beryllium	1	U	5	U				P
Boron	28.4	J	75	U	100			P
Calcium	74100		73000		1.48		10	P
Cobalt	26.5		25.2		5.09			P
Copper	3	U	15	U				P
Iron	20800		20200		2.88		10	P
Magnesium	16300		16400		.613		10	P
Manganese	1330		1420		6.77		10	P
Potassium	927		855		7.77			P
Silica	38600		36400		5.7		10	P
Sodium	23600		23400		.847		10	P
Strontium	518		505		2.51		10	P
Tin	2.5	U	12.5	U				P
Vanadium	1	U	5	U				P
Zinc	5.84	J	16.5	U	100			P

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-995 **Client ID** CAPA-10-6390L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 243286002 **Serial Dilution ID:** 1202001518

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	.5	U	2.5	U				MS
Arsenic	3.56	J	7.5	U	100			MS
Cadmium	.11	U	.55	U				MS
Chromium	2.5	U	12.5	U				MS
Lead	.5	U	2.5	U				MS
Molybdenum	10.3		10.3		0		10	MS
Nickel	10.8		10.4		3.7			MS
Selenium	1	U	5	U				MS
Silver	.2	U	1	U				MS
Thallium	.47	J	4.46	J	849			MS
Uranium	3.91		3.84		1.92			MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-995 **Client ID** CAPA-10-6389L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 243286001 **Serial Dilution ID:** 1202002088

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–995 **Method Type:** P

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	935386						
1202001500	MB for batch 935386	MB	G	22–DEC–09	50mL	50mL	
1202001501	LCS for batch 935386	LCS	G	22–DEC–09	50mL	50mL	
1202001503	CAPA–10–6389S	MS	G	22–DEC–09	50mL	50mL	
1202001502	CAPA–10–6389D	DUP	G	22–DEC–09	50mL	50mL	
243285001	CAPA–10–6793	SAMPLE	G	22–DEC–09	50mL	50mL	
243285002	CAPA–10–6794	SAMPLE	G	22–DEC–09	50mL	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–995 **Method Type:** MS

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 935394							
1202001514	MB for batch 935394	MB	G	22–DEC–09	50mL	50mL	
1202001515	LCS for batch 935394	LCS	G	22–DEC–09	50mL	50mL	
1202001517	CAPA–10–6390S	MS	G	22–DEC–09	50mL	50mL	
1202001516	CAPA–10–6390D	DUP	G	22–DEC–09	50mL	50mL	
243285001	CAPA–10–6793	SAMPLE	G	22–DEC–09	50mL	50mL	
243285002	CAPA–10–6794	SAMPLE	G	22–DEC–09	50mL	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–995 **Method Type:** AV

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 935680							
1202002084	MB for batch 935680	MB	G	05–JAN–10	20mL	20mL	
1202002085	LCS for batch 935680	LCS	G	05–JAN–10	20mL	20mL	
1202002087	CAPA–10–6389S	MS	G	05–JAN–10	20mL	20mL	
1202002086	CAPA–10–6389D	DUP	G	05–JAN–10	20mL	20mL	
243285001	CAPA–10–6793	SAMPLE	G	05–JAN–10	20mL	20mL	
243285002	CAPA–10–6794	SAMPLE	G	05–JAN–10	20mL	20mL	

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 23–DEC–09 **End Date:** 23–DEC–09

Client Sdg: 10–995
Method MS
Data File: 091223–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	21:43			X																											
S10	1	21:45			X																											
S100	1	21:48			X																											
ICV01	1	21:50			X																											
ICB01	1	21:53			X																											
CRDL01	1	21:55			X																											
ICSA01	1	21:58			X																											
ICSAB01	1	22:00			X																											
CCV01	1	22:03			X																											
CCB01	1	22:05			X																											
1202001514	1	22:08			X																											
1202001515	1	22:10			X																											
ZZZZZZ	1	22:13																														
ZZZZZZ	1	22:15																														
ZZZZZZ	1	22:18																														
ZZZZZZ	1	22:20																														
ZZZZZZ	1	22:23																														
CCV02	1	22:25			X																											
CCB02	1	22:28			X																											
ZZZZZZ	1	22:30																														
ZZZZZZ	1	22:33																														
ZZZZZZ	1	22:35																														
ZZZZZZ	1	22:38																														
ZZZZZZ	1	22:40																														
ZZZZZZ	1	22:43																														
243285001	1	22:45			X																											
CCV03	1	22:48			X																											
CCB03	1	22:50			X																											
243285002	1	22:53			X																											
ZZZZZZ	1	22:55																														
ZZZZZZ	1	22:58																														
1202001516	1	23:00			X																											
1202001517	1	23:03			X																											
1202001518	5	23:06			X																											
CCV04	1	23:08			X																											
CCB04	1	23:11			X																											

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 06–JAN–10 **End Date:** 06–JAN–10

Client Sdg: 10–995
Method P
Data File: 010610A–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	10:05	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
S0.1	1	10:12				X	X	X				X	X					X				X		X			X		X		X	X
S0.5	1	10:18	X			X	X	X		X		X	X				X	X				X		X			X		X		X	X
SCAL	1	10:25	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
S10	1	10:32	X							X					X		X									X						
ICV01	1	10:37	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ICB01	1	10:44	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
PQL01	1	10:51	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ICSA01	1	10:58	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ICSAB01	1	11:04	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
LR01	1	11:09	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
LR02	1	11:15	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	11:22																														
ZZZZZZ	1	11:29																														
CCV01	1	11:40	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB01	1	11:47	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	11:56																														
ZZZZZZ	1	12:03																														
ZZZZZZ	1	12:11																														
ZZZZZZ	1	12:18																														
ZZZZZZ	1	12:25																														
ZZZZZZ	1	12:32																														
ZZZZZZ	1	12:39																														
ZZZZZZ	1	12:46																														
ZZZZZZ	1	12:53																														
CCV02	1	13:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB02	1	13:06	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	2	13:16																														
ZZZZZZ	2	13:23																														
ZZZZZZ	2	13:29																														
ZZZZZZ	2	13:36																														
ZZZZZZ	10	13:43																														
ZZZZZZ	2	13:50																														
ZZZZZZ	2	13:57																														
ZZZZZZ	2	14:03																														
ZZZZZZ	2	14:10																														
CCV03	1	14:17	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB03	1	14:24	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCV04	1	14:45	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB04	1	14:52	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																														
1202001500	1	14:59	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
1202001501	1	15:06	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	15:13																														
ZZZZZZ	1	15:19																														
ZZZZZZ	1	15:26																														
ZZZZZZ	1	15:33																														
ZZZZZZ	1	15:40																														
ZZZZZZ	1	15:47																														
CCV05	1	15:54	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB05	1	16:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	16:07																														
ZZZZZZ	1	16:14																														
ZZZZZZ	1	16:21																														
ZZZZZZ	1	16:28																														
ZZZZZZ	1	16:35																														
243285001	1	16:42	X			X	X	X		X		X	X		X		X	X				X				X	X				X	X
243285002	1	16:48	X			X	X	X		X		X	X		X		X	X				X		X		X	X				X	X
CCV06	1	16:55	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB06	1	17:02	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	17:09																														
1202001502	1	17:16	X			X	X	X		X		X	X		X		X							X		X	X				X	X
1202001503	1	17:23	X			X	X	X		X		X	X		X		X							X		X	X				X	X
1202001504	5	17:30	X			X	X	X		X		X	X		X		X							X		X	X				X	X
ZZZZZZ	1	17:38																														
ZZZZZZ	1	17:45																														
ZZZZZZ	1	17:52																														
CCV07	1	17:59	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB07	1	18:06	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 07–JAN–10 **End Date:** 07–JAN–10

Client Sdg: 10–995
Method P
Data File: 010710–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	10:57																X				X							X			
S0.1	1	11:04																X				X							X			
S0.5	1	11:10																X				X							X			
SCAL	1	11:17																X				X							X			
S10	1	11:24																														
ICV01	1	11:30																X				X							X			
ICB01	1	11:36																X				X							X			
PQL01	1	11:43																X				X							X			
ICSA01	1	11:50																X				X							X			
ICSAB01	1	11:56																X				X							X			
LR01	1	12:01																X				X							X			
LR02	1	12:07																X				X							X			
CCV01	1	12:14																X				X							X			
CCB01	1	12:21																X				X							X			
ZZZZZZ	1	12:34																														
ZZZZZZ	1	12:41																														
ZZZZZZ	1	12:48																														
ZZZZZZ	1	12:55																														
ZZZZZZ	1	13:01																														
ZZZZZZ	1	13:08																														
ZZZZZZ	5	13:15																														
CCV02	1	13:22																X				X							X			
CCB02	1	13:29																X				X							X			
ZZZZZZ	1	13:39																														
ZZZZZZ	1	13:46																														
ZZZZZZ	1	13:53																														
ZZZZZZ	1	14:00																														
ZZZZZZ	1	14:07																														
ZZZZZZ	1	14:14																														
ZZZZZZ	5	14:21																														
CCV03	1	14:28																X				X							X			
CCB03	1	14:35																X				X							X			
CCV04	1	15:00																X				X							X			
CCB04	1	15:07																X				X							X			
ZZZZZZ	1	15:13																														
ZZZZZZ	1	15:20																														
ZZZZZZ	1	15:27																														
ZZZZZZ	1	15:34																														
ZZZZZZ	1	15:41																														
ZZZZZZ	1	15:48																														

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																														
ZZZZZZ	5	15:55																														
CCV05	1	16:02															X				X							X				
CCB05	1	16:09															X				X							X				
ZZZZZZ	1	16:16																														
ZZZZZZ	1	16:23																														
ZZZZZZ	1	16:30																														
ZZZZZZ	1	16:37																														
ZZZZZZ	1	16:44																														
ZZZZZZ	1	16:51																														
ZZZZZZ	1	16:58																														
ZZZZZZ	1	17:04																														
CCV06	1	17:11															X				X							X				
CCB06	1	17:18															X				X							X				
ZZZZZZ	5	17:25																														
ZZZZZZ	5	17:32																														
ZZZZZZ	5	17:39																														
ZZZZZZ	5	17:45																														
ZZZZZZ	5	17:52																														
ZZZZZZ	5	17:59																														
ZZZZZZ	5	18:06																														
ZZZZZZ	5	18:13																														
ZZZZZZ	5	18:19																														
CCV07	1	18:26															X				X							X				
CCB07	1	18:33															X				X							X				
ZZZZZZ	5	18:40																														
243285001	5	18:46																										X				
243285002	5	18:53																										X				
ZZZZZZ	10	19:00																														
1202001502	10	19:07															X				X							X				
1202001503	10	19:14															X				X							X				
1202001504	50	19:21															X				X							X				
ZZZZZZ	10	19:27																														
ZZZZZZ	10	19:34																														
ZZZZZZ	10	19:41																														
CCV08	1	19:48															X				X							X				
CCB08	1	19:54															X				X							X				

Metals
-14-
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: HG3
Start Date: 06-JAN-10 **End Date:** 06-JAN-10

Client Sdg: 10-995
Method AV
Data File: 010610W1-15

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	09:16																	X													
S0.2	1	09:18																	X													
S0.5	1	09:20																	X													
S2.0	1	09:22																	X													
S5.0	1	09:24																	X													
S10.0	1	09:26																	X													
ICV01	1	09:27																	X													
ICB01	1	09:29																	X													
CRDL01	1	09:31																	X													
CCV01	1	09:33																	X													
CCB01	1	09:35																	X													
1202002084	1	09:37																	X													
1202002085	1	09:39																	X													
243285001	1	09:41																	X													
243285002	1	09:43																	X													
ZZZZZZ	1	09:45																														
1202002086	1	09:47																	X													
1202002087	1	09:49																	X													
1202002088	5	09:51																	X													
ZZZZZZ	1	09:52																														
ZZZZZZ	1	09:54																														
CCV02	1	09:56																	X													
CCB02	1	09:58																	X													

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: ICPMS3
Start Date: 22–DEC–09 **End Date:** 23–DEC–09

Client Sdg: 10–995
Method MS
Data File: 091222–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	22:43		X					X		X					X				X	X		X		X			X		X		
S10	1	22:49		X					X		X					X				X	X		X		X			X		X		
S100	1	22:55		X					X		X					X				X	X		X		X			X		X		
ICV01	1	23:00		X					X		X					X				X	X		X		X			X		X		
ICB01	1	23:06		X					X		X					X				X	X		X		X			X		X		
CRDL01	1	23:12		X					X		X					X				X	X		X		X			X		X		
ICSA01	1	23:17		X					X		X					X				X	X		X		X			X		X		
ICSAB01	1	23:23		X					X		X					X				X	X		X		X			X		X		
CCV01	1	23:29		X					X		X					X				X	X		X		X			X		X		
CCB01	1	23:35		X					X		X					X				X	X		X		X			X		X		
LR01	1	23:40		X					X		X					X				X	X		X		X			X		X		
CCV02	1	23:46		X					X		X					X				X	X		X		X			X		X		
CCB02	1	23:52		X					X		X					X				X	X		X		X			X		X		
1202001514	1	23:58		X					X		X					X				X	X		X		X			X		X		
1202001515	1	00:03		X					X		X					X				X	X		X		X			X		X		
ZZZZZZ	1	00:09																														
ZZZZZZ	1	00:15																														
ZZZZZZ	1	00:21																														
ZZZZZZ	1	00:26																														
ZZZZZZ	1	00:32																														
CCV03	1	00:38		X					X		X					X				X	X		X		X			X		X		
CCB03	1	00:44		X					X		X					X				X	X		X		X			X		X		
ZZZZZZ	1	00:49																														
ZZZZZZ	1	00:55																														
ZZZZZZ	1	01:01																														
ZZZZZZ	1	01:07																														
ZZZZZZ	1	01:13																														
ZZZZZZ	1	01:18																														
243285001	1	01:24		X					X		X					X				X	X		X		X			X		X		
CCV04	1	01:30		X					X		X					X				X	X		X		X			X		X		
CCB04	1	01:36		X					X		X					X				X	X		X		X			X		X		
243285002	1	01:41		X					X		X					X				X	X		X		X			X		X		
ZZZZZZ	1	01:47																														
ZZZZZZ	1	01:53																														
1202001516	1	01:59		X					X		X					X				X	X		X		X			X		X		
1202001517	1	02:05		X					X		X					X				X	X		X		X			X		X		
1202001518	5	02:10		X					X		X					X				X	X		X		X			X		X		
ZZZZZZ	1	02:16																														
ZZZZZZ	1	02:22																														
CCV05	1	02:28		X					X		X					X				X	X		X		X			X		X		

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																														
CCB05	1	02:33		X					X		X					X				X	X		X		X			X		X		

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–995

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01–FEB–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		10.0	30
	Antimony		0.5	3
	Arsenic		1.5	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.11	1
	Calcium		20.0	200
	Chromium		2.5	10
	Cobalt		0.1	1
	Copper		0.3	1
	Iron		10.0	100
	Lead		0.5	2
	Magnesium		5.0	15
	Manganese		1.0	5
	Molybdenum		0.1	.5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Strontium		2.0	10
	Thallium		0.3	1
	Tin		1.0	5
	Uranium		0.05	.2
	Vanadium		3.0	10
	Zinc		2.6	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-995

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

MERCURY	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Mercury		0.066	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–995

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	15.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Molybdenum	202.031	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silica		53.0	213
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Strontium	421.552	1.0	5
	Thallium	190.801	5.0	20
	Tin	189.927	2.5	10
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
–11–
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10–995
Contract: ESHL01000
Instrument: OPTIMA3 **Effective Dates:** 01–NOV–09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02738	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	–0.44940	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	–0.22121	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	–0.33886	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	–0.13648	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	–0.05571	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.19671	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	–0.02739	0.00000	0.00000	0.00000	0.00000
Tin	189.927	–0.00058	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
–11–
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10–995
Contract: ESHL01000
Instrument: OPTIMA3 **Effective Dates:** 01–NOV–09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	24.5549	0.00000	0.00000
Arsenic	188.979	0.52529	0.00000	–0.67113	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.54031	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.38952	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	–31.5465	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.78023
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.63859	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	160.41
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.22870	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.35099	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.93161	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.39273	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.19810

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-995
Contract: ESHL01000
Instrument: OPTIMA3 **Effective Dates:** 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	42.8126
Antimony	206.836	-0.01635	0.00000	0.00000	0.00000	-22.2146
Arsenic	188.979	-0.21271	0.00000	0.00000	0.00000	1.34645
Barium	233.527	-0.03709	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.13266	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.09998	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01788	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01425	0.00000	0.00000	0.00000	-2.64232
Copper	324.752	-0.05101	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09069	0.00000	0.00000	0.00000	-2.44485
Magnesium	279.077	0.85543	0.00000	0.00000	0.00000	-20.2401
Manganese	257.61	-0.09972	0.00000	0.01862	0.00000	0.00000
Molybdenum	202.031	-0.07094	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80633	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.03176	0.00000	0.01823	12.4291	-3.60863
Selenium	196.026	-3.00009	0.00000	0.00000	0.00000	-3.17982
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.4444
Silver	328.068	-0.31825	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-5.85948	0.00000
Tin	189.927	-0.01337	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.12581	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.15211	0.00000	-0.02256	0.00000	-14.2921
Zinc	213.857	0.09548	0.00000	0.03423	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-995
Effective Dates: 01-NOV-09

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silicon
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.64279	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.44040	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.33191	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.38465	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-995
Contract: ESHL01000
Instrument: OPTIMA3
Effective Dates: 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Silver	Strontium	Sulfur	Thallium	Tin
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-17.4077
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	-13.8713
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	3.10491
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
GEL Job No: 10-995
Contract: ESHL01000
Instrument: OPTIMA3
Effective Dates: 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	2.73145	0.00000	-2.31857	0.00000
Arsenic	188.979	-8.38419	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	-2.24883	0.00000
Beryllium	313.107	-1.96555	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.32181	-1.76281	0.00000
Cobalt	228.616	2.12623	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.85359	-3.92851	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-7.67419	0.00000	2.18873	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.44145	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	1.10141	-1.94183	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–995

Contract: ESHL01000 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Arsenic	1000	1000	ug/L	01–NOV–09
Barium	1000	1000	ug/L	01–NOV–09
Beryllium	1000	1000	ug/L	01–NOV–09
Boron	1000	200	ug/L	01–NOV–09
Cadmium	1000	1000	ug/L	01–NOV–09
Calcium	500	50000	ug/L	01–NOV–09
Chromium	1000	1000	ug/L	01–NOV–09
Cobalt	1000	1000	ug/L	01–NOV–09
Copper	1000	1000	ug/L	01–NOV–09
Iron	500	50000	ug/L	01–NOV–09
Lead	1000	5000	ug/L	01–NOV–09
Magnesium	1	50000	ug/L	01–NOV–09
Manganese	1000	1000	ug/L	01–NOV–09
Molybdenum	1000	1000	ug/L	01–NOV–09
Nickel	1000	1000	ug/L	01–NOV–09
Potassium	1	50000	ug/L	01–NOV–09
Selenium	1000	500	ug/L	01–NOV–09
Silver	1000	250	ug/L	01–NOV–09
Sodium	1	50000	ug/L	01–NOV–09
Strontium	1000	1000	ug/L	01–NOV–09
Thallium	1000	500	ug/L	01–NOV–09
Tin	1000	1000	ug/L	01–NOV–09
Uranium	1000	5000	ug/L	01–NOV–09
Vanadium	1000	100	ug/L	01–NOV–09
Zinc	1000	2500	ug/L	01–NOV–09
Aluminum	1	50000	ug/L	01–NOV–09
Antimony	1000	250	ug/L	01–NOV–09

METALS
–12–
Linear Ranges

SDG NO. 10–995

Contract: ESHL01000 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–NOV–09
Antimony	20	10000	ug/L	01–NOV–09
Arsenic	20	10000	ug/L	01–NOV–09
Barium	20	15000	ug/L	01–NOV–09
Beryllium	20	3000	ug/L	01–NOV–09
Boron	20	5000	ug/L	01–NOV–09
Cadmium	20	10000	ug/L	01–NOV–09
Calcium	20	500000	ug/L	01–NOV–09
Chromium	20	25000	ug/L	01–NOV–09
Cobalt	20	10000	ug/L	01–NOV–09
Copper	20	20000	ug/L	01–NOV–09
Iron	20	500000	ug/L	01–NOV–09
Lead	20	25000	ug/L	01–NOV–09
Magnesium	20	500000	ug/L	01–NOV–09
Manganese	20	10000	ug/L	01–NOV–09
Molybdenum	20	10000	ug/L	01–NOV–09
Nickel	20	10000	ug/L	01–NOV–09
Potassium	20	300000	ug/L	01–NOV–09
Selenium	20	10000	ug/L	01–NOV–09
Silica	20	107000	ug/L	01–NOV–09
Silver	20	1000	ug/L	01–NOV–09
Sodium	20	500000	ug/L	01–NOV–09
Strontium	20	10000	ug/L	01–NOV–09
Thallium	20	10000	ug/L	01–NOV–09
Tin	20	10000	ug/L	01–NOV–09
Uranium	20	15000	ug/L	01–NOV–09
Vanadium	20	10000	ug/L	01–NOV–09
Zinc	20	15000	ug/L	01–NOV–09

METALS
–12–
Linear Ranges

SDG NO. 10–995

Contract: ESHL01000 **Lab Code: GEL**

Instrument ID ICPMS3

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–NOV–09
Antimony	1000	250	ug/L	01–NOV–09
Arsenic	1000	1000	ug/L	01–NOV–09
Barium	1000	1000	ug/L	01–NOV–09
Beryllium	1000	1000	ug/L	01–NOV–09
Boron	1000	200	ug/L	01–NOV–09
Cadmium	1000	1000	ug/L	01–NOV–09
Calcium	500	50000	ug/L	01–NOV–09
Chromium	1000	1000	ug/L	01–NOV–09
Cobalt	1000	1000	ug/L	01–NOV–09
Copper	1000	1000	ug/L	01–NOV–09
Iron	500	50000	ug/L	01–NOV–09
Lead	1000	5000	ug/L	01–NOV–09
Magnesium	1	50000	ug/L	01–NOV–09
Manganese	1000	1000	ug/L	01–NOV–09
Molybdenum	1000	1000	ug/L	01–NOV–09
Nickel	1000	1000	ug/L	01–NOV–09
Potassium	1	50000	ug/L	01–NOV–09
Selenium	1000	500	ug/L	01–NOV–09
Silver	1000	250	ug/L	01–NOV–09
Sodium	1	50000	ug/L	01–NOV–09
Strontium	1000	1000	ug/L	01–NOV–09
Thallium	1000	500	ug/L	01–NOV–09
Tin	1000	1000	ug/L	01–NOV–09
Uranium	1000	5000	ug/L	01–NOV–09
Vanadium	1000	100	ug/L	01–NOV–09
Zinc	1000	2500	ug/L	01–NOV–09

Raw Data

Calculation Data Logbook

Report run on: January 12, 2010 7:11 AM

Batch Id: 940613 **Sop:** GL-GC-E-107
Employee: Octavia Doster
Instrument: No instrument-calculation method

Samp Id	Sample Type	Parmname	Run Date	Calcium mg/L	Magnesium mg/L	Result	Units
243255001	SAMPLE	Hardness as CaCO3	12-JAN-2010 06:28	17.3	3.78	58.8	mg/L
243255002	SAMPLE	Hardness as CaCO3	12-JAN-2010 06:28	17.2	3.81	58.6	mg/L
243255003	SAMPLE	Hardness as CaCO3	12-JAN-2010 06:28	12.7	4.34	49.5	mg/L
243255004	SAMPLE	Hardness as CaCO3	12-JAN-2010 06:28	12.2	4.24	47.9	mg/L
243255005	SAMPLE	Hardness as CaCO3	12-JAN-2010 06:28	13.2	4.50	51.5	mg/L
243255006	SAMPLE	Hardness as CaCO3	12-JAN-2010 06:28	12.6	4.38	49.5	mg/L
243257001	SAMPLE	Hardness as CaCO3	12-JAN-2010 06:28	10.0	2.89	36.9	mg/L
243257003	SAMPLE	Hardness as CaCO3	12-JAN-2010 06:28	10.5	3.04	38.7	mg/L
243257005	SAMPLE	Hardness as CaCO3	12-JAN-2010 06:28	9.17	2.88	34.8	mg/L
243257006	SAMPLE	Hardness as CaCO3	12-JAN-2010 06:28	9.46	3.05	36.2	mg/L
243285001	SAMPLE	Hardness as CaCO3	12-JAN-2010 06:28	13.2	3.71	48.3	mg/L
243285002	SAMPLE	Hardness as CaCO3	12-JAN-2010 06:28	13.3	3.77	48.8	mg/L
243286001	SAMPLE	Hardness as CaCO3	12-JAN-2010 06:28	74.1	16.3	252	mg/L
243286002	SAMPLE	Hardness as CaCO3	12-JAN-2010 06:28	74.0	15.9	250	mg/L
243286003	SAMPLE	Hardness as CaCO3	12-JAN-2010 06:28	71.9	15.9	245	mg/L
243286004	SAMPLE	Hardness as CaCO3	12-JAN-2010 06:28	73.4	16.1	249	mg/L

Calculation: **(2.497 * Calcium) + (4.118 * Magnesium)**

Method: Hg_ReAlign
Result: 011110

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

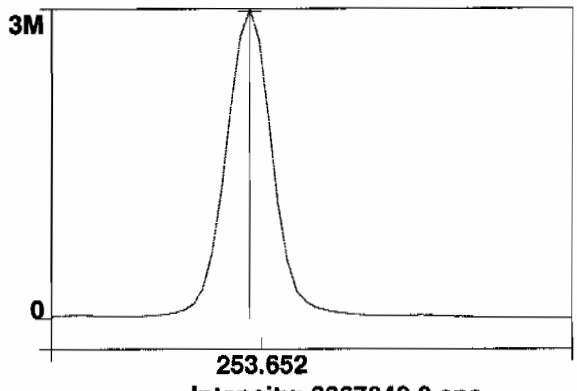

Intensity: 3367842.8 cps
Conc:

1

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Reprocessing Begun
Logged In Analyst: Optima3 **Technique: ICP Continuous**

Results Data Set (original): 010610
Results Library (original): C:\pe\Optima3\Results\Results.mdb
Results Data Set (reprocessed): 010610A
Results Library (reprocessed): C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 1/6/2010 11:54:05**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 1/6/2010 10:05:16**
Analyst: **Data Type: Reprocessed on 1/6/2010 11:55:25**
Logged In Analyst (Original) : Optima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	884204.5	884204.5	99.729	%	10:08:26
1	Sc Radial	4647.0	4647.0	99.6	%	10:07:09
1	Y 371.029	760145.0	760145.0	99.788	%	10:08:26
1	Y RADIAL	4888.3	4888.3	99.10	%	10:07:09
1	Ag 328.068†	383.7	384.7	[0.00]	ug/L	10:08:31

1	Al 396.153Radial†	-35.8	-36.0	[0.00]	ug/L	10:07:09
1	As 188.979†	-40.4	-40.5	[0.00]	ug/L	10:08:51
1	B 249.677†	-622.0	-623.7	[0.00]	ug/L	10:08:31
1	Ba 233.527†	18.5	18.5	[0.00]	ug/L	10:08:51
1	Be 313.107†	-4379.0	-4390.9	[0.00]	ug/L	10:08:31
1	Ca 317.933Radial†	10.1	10.2	[0.00]	ug/L	10:07:29
1	Cd 226.502†	-233.2	-233.9	[0.00]	ug/L	10:08:51
1	Co 228.616†	-82.3	-82.5	[0.00]	ug/L	10:08:51
1	Cr 267.716†	129.2	129.6	[0.00]	ug/L	10:08:31
1	Cu 324.752†	8059.5	8081.4	[0.00]	ug/L	10:08:31
1	Fe 238.204 Radial†	13.7	13.7	[0.00]	ug/L	10:07:29
1	K 766.490 Radial†	3438.5	3453.7	[0.00]	ug/L	10:07:09
1	Mg 279.077 IEC†	2.0	2.0	[0.00]	ug/L	10:07:29
1	Mn 257.610†	555.5	557.0	[0.00]	ug/L	10:08:31
1	Mo 202.031†	22.3	22.3	[0.00]	ug/L	10:08:51
1	Na 589.592 Radial†	-1748.6	-1756.4	[0.00]	ug/L	10:07:09
1	Ni 231.604†	114.8	115.1	[0.00]	ug/L	10:08:51
1	P 214.914†	248.4	249.1	[0.00]	ug/L	10:08:51
1	Pb 220.353†	-93.7	-94.0	[0.00]	ug/L	10:08:51
1	S 181.975 Axial†	53.6	53.8	[0.00]	ug/L	10:08:51
1	Sb 206.836†	40.2	40.3	[0.00]	ug/L	10:08:51
1	Se 196.026†	-36.2	-36.3	[0.00]	ug/L	10:08:51
1	Si 251.611†	623.9	625.6	[0.00]	ug/L	10:08:51
1	Sn 189.927†	3.5	3.5	[0.00]	ug/L	10:08:51
1	Sr 421.552†	33.7	33.8	[0.00]	ug/L	10:07:09
1	Ti 334.940†	-1810.6	-1815.5	[0.00]	ug/L	10:08:31
1	Tl 190.801†	-47.9	-48.0	[0.00]	ug/L	10:08:51
1	U 409.014†	-2556.5	-2563.4	[0.00]	ug/L	10:08:26
1	V 292.402†	-1786.0	-1790.8	[0.00]	ug/L	10:08:31
1	Zn 213.857†	844.0	846.3	[0.00]	ug/L	10:08:51
1	SiO2†	616.3	618.0	[0.00]	ug/L	10:09:57
2	Sc 361.383	888077.5	888077.5	100.17	%	10:08:56
2	Sc Radial	4701.9	4701.9	101	%	10:07:34
2	Y 371.029	762915.3	762915.3	100.15	%	10:08:56
2	Y RADIAL	4987.9	4987.9	101.1	%	10:07:34
2	Ag 328.068†	601.4	600.4	[0.00]	ug/L	10:09:01
2	Al 396.153Radial†	-6.8	-6.8	[0.00]	ug/L	10:07:34
2	As 188.979†	-32.7	-32.6	[0.00]	ug/L	10:09:21
2	B 249.677†	-682.2	-681.0	[0.00]	ug/L	10:09:01
2	Ba 233.527†	-2.0	-1.9	[0.00]	ug/L	10:09:21
2	Be 313.107†	-4308.2	-4301.1	[0.00]	ug/L	10:09:01
2	Ca 317.933Radial†	14.5	14.4	[0.00]	ug/L	10:07:54
2	Cd 226.502†	-234.7	-234.3	[0.00]	ug/L	10:09:21
2	Co 228.616†	-75.6	-75.4	[0.00]	ug/L	10:09:21
2	Cr 267.716†	138.6	138.4	[0.00]	ug/L	10:09:01
2	Cu 324.752†	7960.6	7947.4	[0.00]	ug/L	10:09:01
2	Fe 238.204 Radial†	12.8	12.7	[0.00]	ug/L	10:07:54
2	K 766.490 Radial†	3279.2	3255.3	[0.00]	ug/L	10:07:34
2	Mg 279.077 IEC†	2.5	2.5	[0.00]	ug/L	10:07:54
2	Mn 257.610†	504.7	503.9	[0.00]	ug/L	10:09:01
2	Mo 202.031†	7.4	7.4	[0.00]	ug/L	10:09:21
2	Na 589.592 Radial†	-1789.0	-1775.9	[0.00]	ug/L	10:07:34
2	Ni 231.604†	139.5	139.3	[0.00]	ug/L	10:09:21
2	P 214.914†	244.1	243.7	[0.00]	ug/L	10:09:21
2	Pb 220.353†	-73.5	-73.4	[0.00]	ug/L	10:09:21
2	S 181.975 Axial†	64.8	64.7	[0.00]	ug/L	10:09:21
2	Sb 206.836†	33.6	33.5	[0.00]	ug/L	10:09:21
2	Se 196.026†	-33.5	-33.5	[0.00]	ug/L	10:09:21
2	Si 251.611†	597.2	596.2	[0.00]	ug/L	10:09:21
2	Sn 189.927†	6.0	6.0	[0.00]	ug/L	10:09:21
2	Sr 421.552†	25.1	24.9	[0.00]	ug/L	10:07:34
2	Ti 334.940†	-1812.8	-1809.8	[0.00]	ug/L	10:09:01
2	Tl 190.801†	-65.1	-65.0	[0.00]	ug/L	10:09:21
2	U 409.014†	-2701.8	-2697.3	[0.00]	ug/L	10:08:56
2	V 292.402†	-1773.9	-1771.0	[0.00]	ug/L	10:09:01
2	Zn 213.857†	830.2	828.8	[0.00]	ug/L	10:09:21
2	SiO2†	650.9	649.9	[0.00]	ug/L	10:10:02
3	Sc 361.383	887546.5	887546.5	100.11	%	10:09:27
3	Sc Radial	4653.8	4653.8	99.7	%	10:07:59
3	Y 371.029	762209.6	762209.6	100.06	%	10:09:27
3	Y RADIAL	4922.5	4922.5	99.79	%	10:07:59

3	Ag 328.068†	552.4	551.9	[0.00]	ug/L	10:09:32
3	Al 396.153Radial†	-37.3	-37.4	[0.00]	ug/L	10:07:59
3	As 188.979†	-27.2	-27.2	[0.00]	ug/L	10:09:52
3	B 249.677†	-693.6	-692.8	[0.00]	ug/L	10:09:32
3	Ba 233.527†	6.0	6.0	[0.00]	ug/L	10:09:52
3	Be 313.107†	-4367.1	-4362.5	[0.00]	ug/L	10:09:32
3	Ca 317.933Radial†	13.0	13.1	[0.00]	ug/L	10:08:19
3	Cd 226.502†	-247.2	-247.0	[0.00]	ug/L	10:09:52
3	Co 228.616†	-94.0	-93.9	[0.00]	ug/L	10:09:52
3	Cr 267.716†	44.2	44.1	[0.00]	ug/L	10:09:32
3	Cu 324.752†	7976.6	7968.2	[0.00]	ug/L	10:09:32
3	Fe 238.204 Radial†	15.1	15.2	[0.00]	ug/L	10:08:19
3	K 766.490 Radial†	3291.4	3301.2	[0.00]	ug/L	10:07:59
3	Mg 279.077 IEC†	0.4	0.4	[0.00]	ug/L	10:08:19
3	Mn 257.610†	488.9	488.4	[0.00]	ug/L	10:09:32
3	Mo 202.031†	30.1	30.1	[0.00]	ug/L	10:09:52
3	Na 589.592 Radial†	-1712.9	-1718.0	[0.00]	ug/L	10:07:59
3	Ni 231.604†	121.0	120.8	[0.00]	ug/L	10:09:52
3	P 214.914†	253.1	252.8	[0.00]	ug/L	10:09:52
3	Pb 220.353†	-66.0	-65.9	[0.00]	ug/L	10:09:52
3	S 181.975 Axial†	61.3	61.2	[0.00]	ug/L	10:09:52
3	Sb 206.836†	37.5	37.5	[0.00]	ug/L	10:09:52
3	Se 196.026†	-30.1	-30.0	[0.00]	ug/L	10:09:52
3	Si 251.611†	628.5	627.8	[0.00]	ug/L	10:09:52
3	Sn 189.927†	0.7	0.7	[0.00]	ug/L	10:09:52
3	Sr 421.552†	-10.8	-10.8	[0.00]	ug/L	10:07:59
3	Ti 334.940†	-1828.6	-1826.7	[0.00]	ug/L	10:09:32
3	Tl 190.801†	-47.3	-47.2	[0.00]	ug/L	10:09:52
3	U 409.014†	-2748.3	-2745.4	[0.00]	ug/L	10:09:27
3	V 292.402†	-1845.7	-1843.7	[0.00]	ug/L	10:09:32
3	Zn 213.857†	820.8	820.0	[0.00]	ug/L	10:09:52
3	SiO2†	640.9	640.3	[0.00]	ug/L	10:10:07

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	886609.5	2099.64	0.24%	100.00	%
Sc Radial	4667.6	29.96	0.64%	100	%
Y 371.029	761756.6	1439.64	0.19%	100.00	%
Y RADIAL	4932.9	50.59	1.03%	100.0	%
Ag 328.068†	512.3	113.13	22.08%	[0.00]	ug/L
Al 396.153Radial†	-26.7	17.27	64.64%	[0.00]	ug/L
As 188.979†	-33.4	6.69	20.02%	[0.00]	ug/L
B 249.677†	-665.8	37.00	5.56%	[0.00]	ug/L
Ba 233.527†	7.5	10.31	137.44%	[0.00]	ug/L
Be 313.107†	-4351.5	45.91	1.06%	[0.00]	ug/L
Ca 317.933Radial†	12.6	2.15	17.15%	[0.00]	ug/L
Cd 226.502†	-238.4	7.44	3.12%	[0.00]	ug/L
Co 228.616†	-84.0	9.33	11.12%	[0.00]	ug/L
Cr 267.716†	104.0	52.08	50.06%	[0.00]	ug/L
Cu 324.752†	7999.0	72.12	0.90%	[0.00]	ug/L
Fe 238.204 Radial†	13.9	1.22	8.80%	[0.00]	ug/L
K 766.490 Radial†	3336.7	103.88	3.11%	[0.00]	ug/L
Mg 279.077 IEC†	1.6	1.09	66.14%	[0.00]	ug/L
Mn 257.610†	516.4	35.95	6.96%	[0.00]	ug/L
Mo 202.031†	19.9	11.55	57.98%	[0.00]	ug/L
Na 589.592 Radial†	-1750.1	29.46	1.68%	[0.00]	ug/L
Ni 231.604†	125.1	12.63	10.10%	[0.00]	ug/L
P 214.914†	248.6	4.57	1.84%	[0.00]	ug/L
Pb 220.353†	-77.8	14.53	18.68%	[0.00]	ug/L
S 181.975 Axial†	59.9	5.58	9.32%	[0.00]	ug/L
Sb 206.836†	37.1	3.40	9.17%	[0.00]	ug/L
Se 196.026†	-33.3	3.12	9.39%	[0.00]	ug/L
Si 251.611†	616.6	17.63	2.86%	[0.00]	ug/L
Sn 189.927†	3.4	2.63	77.27%	[0.00]	ug/L
Sr 421.552†	16.0	23.64	147.88%	[0.00]	ug/L
Ti 334.940†	-1817.4	8.59	0.47%	[0.00]	ug/L
Tl 190.801†	-53.4	10.02	18.78%	[0.00]	ug/L
U 409.014†	-2668.7	94.31	3.53%	[0.00]	ug/L
V 292.402†	-1801.8	37.61	2.09%	[0.00]	ug/L

Zn 213.857†	831.7	13.39	1.61%	[0.00] ug/L
SiO2†	636.0	16.37	2.57%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 1/6/2010 10:12:18
Data Type: Reprocessed on 1/6/2010 11:55:26

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	858980.9	858980.9	96.884	%	10:14:42
1	Sc Radial	4680.0	4680.0	100	%	10:14:15
1	Y 371.029	737496.5	737496.5	96.815	%	10:14:42
1	Y RADIAL	4959.7	4959.7	100.5	%	10:14:15
1	Ag 328.068†	23297.9	23534.9	[100]	ug/L	10:14:42
1	As 188.979†	245.5	286.8	[100]	ug/L	10:15:02
1	B 249.677†	3857.1	4647.0	[100]	ug/L	10:14:42
1	Ba 233.527†	13535.2	13963.1	[100]	ug/L	10:14:42
1	Be 313.107†	285272.4	298799.6	[100]	ug/L	10:14:42
1	Cd 226.502†	9981.9	10541.4	[100]	ug/L	10:15:02
1	Co 228.616†	5125.3	5374.1	[100]	ug/L	10:15:02
1	Cr 267.716†	9927.5	10142.7	[100]	ug/L	10:14:42
1	Cu 324.752†	40691.6	34001.4	[100]	ug/L	10:14:42
1	K 766.490 Radial†	8407.9	5048.9	[1000]	ug/L	10:14:10
1	Mn 257.610†	95334.8	97884.8	[100]	ug/L	10:14:42
1	Mo 202.031†	1605.3	1637.0	[100]	ug/L	10:15:02
1	Ni 231.604†	4633.5	4657.5	[100]	ug/L	10:15:02
1	P 214.914†	1254.4	1046.2	[500]	ug/L	10:15:02
1	Pb 220.353†	853.5	958.8	[100]	ug/L	10:15:02
1	S 181.975 Axial†	233.2	180.8	[200]	ug/L	10:15:02
1	Sb 206.836†	367.3	342.0	[100]	ug/L	10:15:02
1	Se 196.026†	151.8	190.0	[100]	ug/L	10:15:02
1	Si 251.611†	17526.4	17473.5	[500]	ug/L	10:14:42
1	Sn 189.927†	662.1	680.0	[100]	ug/L	10:15:02
1	Sr 421.552†	13727.0	13674.7	[100]	ug/L	10:14:15
1	Ti 334.940†	60372.6	64131.8	[100]	ug/L	10:14:42
1	Tl 190.801†	306.6	369.9	[100]	ug/L	10:15:02
1	U 409.014†	488.3	3172.7	[100]	ug/L	10:14:42
1	V 292.402†	13700.9	15943.5	[100]	ug/L	10:14:42
1	Zn 213.857†	12421.0	11988.8	[100]	ug/L	10:15:02
1	SiO2†	17631.3	17562.4	[1069.5]	ug/L	10:15:58
2	Sc 361.383	855417.8	855417.8	96.482	%	10:15:07
2	Sc Radial	4654.0	4654.0	99.7	%	10:14:25
2	Y 371.029	735371.7	735371.7	96.536	%	10:15:07
2	Y RADIAL	4912.1	4912.1	99.58	%	10:14:25
2	Ag 328.068†	22993.6	23319.8	[100]	ug/L	10:15:07
2	As 188.979†	244.4	286.7	[100]	ug/L	10:15:27
2	B 249.677†	3820.7	4625.8	[100]	ug/L	10:15:07
2	Ba 233.527†	13432.1	13914.4	[100]	ug/L	10:15:07
2	Be 313.107†	283600.2	298292.9	[100]	ug/L	10:15:07
2	Cd 226.502†	9983.4	10585.8	[100]	ug/L	10:15:27
2	Co 228.616†	5125.5	5396.4	[100]	ug/L	10:15:27
2	Cr 267.716†	9891.3	10148.0	[100]	ug/L	10:15:07
2	Cu 324.752†	40378.4	33851.7	[100]	ug/L	10:15:07
2	K 766.490 Radial†	8231.9	4919.2	[1000]	ug/L	10:14:20
2	Mn 257.610†	94787.7	97727.6	[100]	ug/L	10:15:07
2	Mo 202.031†	1588.4	1626.4	[100]	ug/L	10:15:27
2	Ni 231.604†	4613.6	4656.7	[100]	ug/L	10:15:27
2	P 214.914†	1234.6	1031.1	[500]	ug/L	10:15:27
2	Pb 220.353†	854.4	963.3	[100]	ug/L	10:15:27
2	S 181.975 Axial†	222.7	170.9	[200]	ug/L	10:15:27
2	Sb 206.836†	368.9	345.2	[100]	ug/L	10:15:27
2	Se 196.026†	149.3	188.0	[100]	ug/L	10:15:27
2	Si 251.611†	17335.2	17350.7	[500]	ug/L	10:15:07
2	Sn 189.927†	671.0	692.0	[100]	ug/L	10:15:27
2	Sr 421.552†	13682.9	13706.8	[100]	ug/L	10:14:25
2	Ti 334.940†	60014.8	64020.5	[100]	ug/L	10:15:07
2	Tl 190.801†	307.2	371.8	[100]	ug/L	10:15:27

2	U 409.014†	295.8	2975.3	[100]	ug/L	10:15:07
2	V 292.402†	13528.2	15823.3	[100]	ug/L	10:15:07
2	Zn 213.857†	12466.1	12089.0	[100]	ug/L	10:15:27
2	SiO2†	17384.6	17382.5	[1069.5]	ug/L	10:16:03
3	Sc 361.383	859958.1	859958.1	96.994	%	10:15:33
3	Sc Radial	4766.0	4766.0	102	%	10:14:35
3	Y 371.029	739304.7	739304.7	97.053	%	10:15:33
3	Y RADIAL	5003.2	5003.2	101.4	%	10:14:35
3	Ag 328.068†	23212.3	23419.4	[100]	ug/L	10:15:33
3	As 188.979†	253.6	294.9	[100]	ug/L	10:15:53
3	B 249.677†	3961.8	4750.4	[100]	ug/L	10:15:33
3	Ba 233.527†	13535.7	13947.7	[100]	ug/L	10:15:33
3	Be 313.107†	285383.3	298579.3	[100]	ug/L	10:15:33
3	Cd 226.502†	9988.9	10536.8	[100]	ug/L	10:15:53
3	Co 228.616†	5127.3	5370.2	[100]	ug/L	10:15:53
3	Cr 267.716†	9938.8	10142.8	[100]	ug/L	10:15:33
3	Cu 324.752†	40815.8	34081.7	[100]	ug/L	10:15:33
3	K 766.490 Radial†	8372.8	4863.1	[1000]	ug/L	10:14:30
3	Mn 257.610†	95438.6	97880.0	[100]	ug/L	10:15:33
3	Mo 202.031†	1597.4	1627.0	[100]	ug/L	10:15:53
3	Ni 231.604†	4590.6	4607.8	[100]	ug/L	10:15:53
3	P 214.914†	1236.1	1025.8	[500]	ug/L	10:15:53
3	Pb 220.353†	853.0	957.2	[100]	ug/L	10:15:53
3	S 181.975 Axial†	215.4	162.1	[200]	ug/L	10:15:53
3	Sb 206.836†	363.9	338.1	[100]	ug/L	10:15:53
3	Se 196.026†	147.6	185.4	[100]	ug/L	10:15:53
3	Si 251.611†	17460.2	17384.8	[500]	ug/L	10:15:33
3	Sn 189.927†	668.8	686.1	[100]	ug/L	10:15:53
3	Sr 421.552†	13921.0	13617.4	[100]	ug/L	10:14:35
3	Ti 334.940†	60486.7	64178.6	[100]	ug/L	10:15:33
3	Tl 190.801†	311.4	374.4	[100]	ug/L	10:15:53
3	U 409.014†	310.2	2988.5	[100]	ug/L	10:15:33
3	V 292.402†	13652.1	15877.1	[100]	ug/L	10:15:33
3	Zn 213.857†	12472.9	12027.8	[100]	ug/L	10:15:53
3	SiO2†	17487.2	17393.2	[1069.5]	ug/L	10:16:08

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	858118.9	2389.74	0.28%	96.787	%
Sc Radial	4700.0	58.64	1.25%	101	%
Y 371.029	737391.0	1968.61	0.27%	96.801	%
Y RADIAL	4958.3	45.59	0.92%	100.5	%
Ag 328.068†	23424.7	107.68	0.46%	[100]	ug/L
As 188.979†	289.5	4.67	1.61%	[100]	ug/L
B 249.677†	4674.4	66.66	1.43%	[100]	ug/L
Ba 233.527†	13941.7	24.90	0.18%	[100]	ug/L
Be 313.107†	298557.2	254.08	0.09%	[100]	ug/L
Cd 226.502†	10554.7	27.08	0.26%	[100]	ug/L
Co 228.616†	5380.2	14.13	0.26%	[100]	ug/L
Cr 267.716†	10144.5	2.99	0.03%	[100]	ug/L
Cu 324.752†	33978.3	116.72	0.34%	[100]	ug/L
K 766.490 Radial†	4943.7	95.30	1.93%	[1000]	ug/L
Mn 257.610†	97830.8	89.39	0.09%	[100]	ug/L
Mo 202.031†	1630.1	5.97	0.37%	[100]	ug/L
Ni 231.604†	4640.7	28.47	0.61%	[100]	ug/L
P 214.914†	1034.4	10.58	1.02%	[500]	ug/L
Pb 220.353†	959.8	3.20	0.33%	[100]	ug/L
S 181.975 Axial†	171.3	9.35	5.46%	[200]	ug/L
Sb 206.836†	341.8	3.59	1.05%	[100]	ug/L
Se 196.026†	187.8	2.27	1.21%	[100]	ug/L
Si 251.611†	17403.0	63.40	0.36%	[500]	ug/L
Sn 189.927†	686.0	6.02	0.88%	[100]	ug/L
Sr 421.552†	13666.3	45.28	0.33%	[100]	ug/L
Ti 334.940†	64110.3	81.19	0.13%	[100]	ug/L
Tl 190.801†	372.0	2.28	0.61%	[100]	ug/L
U 409.014†	3045.5	110.39	3.62%	[100]	ug/L
V 292.402†	15881.3	60.18	0.38%	[100]	ug/L
Zn 213.857†	12035.2	50.50	0.42%	[100]	ug/L
SiO2†	17446.0	100.94	0.58%	[1069.5]	ug/L

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Sequence No.: 3
Sample ID: S0.5
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 1/6/2010 10:18:19
Data Type: Reprocessed on 1/6/2010 11:55:28

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	883512.7	883512.7	99.651	%	10:21:31
1	Sc Radial	4601.8	4601.8	98.6	%	10:20:12
1	Y 371.029	752079.9	752079.9	98.730	%	10:21:31
1	Y RADIAL	4817.5	4817.5	97.66	%	10:20:12
1	Ag 328.068†	114385.8	114274.4	[500]	ug/L	10:21:31
1	Al 396.153Radial†	5563.1	5669.3	[5000]	ug/L	10:20:12
1	As 188.979†	1380.3	1418.6	[500]	ug/L	10:21:51
1	B 249.677†	22915.8	23661.9	[500]	ug/L	10:21:31
1	Ba 233.527†	67394.6	67623.3	[500]	ug/L	10:21:31
1	Be 313.107†	1463962.1	1473445.0	[500]	ug/L	10:21:31
1	Ca 317.933Radial†	3026.4	3057.1	[5000]	ug/L	10:20:32
1	Cd 226.502†	52091.1	52512.1	[500]	ug/L	10:21:31
1	Co 228.616†	25883.0	26057.7	[500]	ug/L	10:21:51
1	Cr 267.716†	49100.1	49168.1	[500]	ug/L	10:21:31
1	Cu 324.752†	173485.5	166094.6	[500]	ug/L	10:21:31
1	K 766.490 Radial†	28039.4	25103.4	[5000]	ug/L	10:20:12
1	Mg 279.077 IEC†	160.2	160.9	[5000]	ug/L	10:20:32
1	Mn 257.610†	471058.4	472193.1	[500]	ug/L	10:21:31
1	Mo 202.031†	7928.7	7936.5	[500]	ug/L	10:21:51
1	Ni 231.604†	22462.4	22416.0	[500]	ug/L	10:21:51
1	P 214.914†	5312.3	5082.3	[2500]	ug/L	10:21:51
1	Pb 220.353†	4719.2	4813.5	[500]	ug/L	10:21:51
1	S 181.975 Axial†	934.0	877.4	[1000]	ug/L	10:21:51
1	Sb 206.836†	1674.2	1643.0	[500]	ug/L	10:21:51
1	Se 196.026†	933.0	969.5	[500]	ug/L	10:21:51
1	Si 251.611†	86137.1	85822.4	[2500]	ug/L	10:21:31
1	Sn 189.927†	3339.3	3347.7	[500]	ug/L	10:21:51
1	Sr 421.552†	68394.0	69355.4	[500]	ug/L	10:20:12
1	Ti 334.940†	312108.2	315019.5	[500]	ug/L	10:21:31
1	Tl 190.801†	1747.5	1807.0	[500]	ug/L	10:21:51
1	U 409.014†	13304.8	16020.2	[500]	ug/L	10:21:31
1	V 292.402†	76303.3	78372.6	[500]	ug/L	10:21:31
1	Zn 213.857†	60967.6	60349.6	[500]	ug/L	10:21:31
1	SiO2†	86414.0	86080.9	[5347.5]	ug/L	10:22:51
2	Sc 361.383	887225.8	887225.8	100.07	%	10:21:58
2	Sc Radial	4740.4	4740.4	102	%	10:20:37
2	Y 371.029	754809.6	754809.6	99.088	%	10:21:58
2	Y RADIAL	4960.4	4960.4	100.6	%	10:20:37
2	Ag 328.068†	115157.8	114565.5	[500]	ug/L	10:21:58
2	Al 396.153Radial†	5682.9	5622.3	[5000]	ug/L	10:20:37
2	As 188.979†	1369.6	1402.0	[500]	ug/L	10:22:18
2	B 249.677†	23171.9	23821.6	[500]	ug/L	10:21:58
2	Ba 233.527†	67955.3	67900.6	[500]	ug/L	10:21:58
2	Be 313.107†	1474743.7	1478070.7	[500]	ug/L	10:21:58
2	Ca 317.933Radial†	3029.9	2970.9	[5000]	ug/L	10:20:57
2	Cd 226.502†	52500.4	52702.3	[500]	ug/L	10:21:58
2	Co 228.616†	25759.0	25825.1	[500]	ug/L	10:22:18
2	Cr 267.716†	49400.6	49262.3	[500]	ug/L	10:21:58
2	Cu 324.752†	174589.1	166468.8	[500]	ug/L	10:21:58
2	K 766.490 Radial†	28831.9	25052.4	[5000]	ug/L	10:20:37
2	Mg 279.077 IEC†	165.0	160.9	[5000]	ug/L	10:20:57
2	Mn 257.610†	474451.9	473605.9	[500]	ug/L	10:21:58
2	Mo 202.031†	7868.6	7843.2	[500]	ug/L	10:22:18
2	Ni 231.604†	22362.2	22221.6	[500]	ug/L	10:22:18
2	P 214.914†	5271.4	5019.2	[2500]	ug/L	10:22:18
2	Pb 220.353†	4679.9	4754.4	[500]	ug/L	10:22:18
2	S 181.975 Axial†	927.7	867.1	[1000]	ug/L	10:22:18
2	Sb 206.836†	1664.7	1626.5	[500]	ug/L	10:22:18

2	Se 196.026†	938.7	971.3	[500]	ug/L	10:22:18
2	Si 251.611†	86879.3	86202.4	[2500]	ug/L	10:21:58
2	Sn 189.927†	3327.1	3321.4	[500]	ug/L	10:22:18
2	Sr 421.552†	70252.9	69158.0	[500]	ug/L	10:20:37
2	Ti 334.940†	313954.4	315553.7	[500]	ug/L	10:21:58
2	Tl 190.801†	1748.5	1800.6	[500]	ug/L	10:22:18
2	U 409.014†	13260.1	15919.6	[500]	ug/L	10:21:58
2	V 292.402†	76752.0	78500.6	[500]	ug/L	10:21:58
2	Zn 213.857†	61417.5	60543.2	[500]	ug/L	10:21:58
2	SiO2†	85934.5	85238.8	[5347.5]	ug/L	10:22:56
3	Sc 361.383	884330.4	884330.4	99.743	%	10:22:26
3	Sc Radial	4562.7	4562.7	97.8	%	10:21:02
3	Y 371.029	752217.8	752217.8	98.748	%	10:22:26
3	Y RADIAL	4788.6	4788.6	97.07	%	10:21:02
3	Ag 328.068†	114779.6	114563.1	[500]	ug/L	10:22:26
3	Al 396.153Radial†	5525.6	5679.3	[5000]	ug/L	10:21:02
3	As 188.979†	1366.0	1403.0	[500]	ug/L	10:22:46
3	B 249.677†	22910.0	23634.9	[500]	ug/L	10:22:26
3	Ba 233.527†	67647.5	67814.4	[500]	ug/L	10:22:26
3	Be 313.107†	1467958.9	1476093.6	[500]	ug/L	10:22:26
3	Ca 317.933Radial†	3015.8	3072.5	[5000]	ug/L	10:21:22
3	Cd 226.502†	52364.8	52738.1	[500]	ug/L	10:22:26
3	Co 228.616†	25760.2	25910.5	[500]	ug/L	10:22:46
3	Cr 267.716†	49276.5	49299.5	[500]	ug/L	10:22:26
3	Cu 324.752†	173800.1	166249.0	[500]	ug/L	10:22:26
3	K 766.490 Radial†	28001.8	25308.7	[5000]	ug/L	10:21:02
3	Mg 279.077 IEC†	162.2	164.3	[5000]	ug/L	10:21:22
3	Mn 257.610†	472600.3	473301.9	[500]	ug/L	10:22:26
3	Mo 202.031†	7885.0	7885.4	[500]	ug/L	10:22:46
3	Ni 231.604†	22342.5	22275.0	[500]	ug/L	10:22:46
3	P 214.914†	5269.3	5034.3	[2500]	ug/L	10:22:46
3	Pb 220.353†	4660.7	4750.4	[500]	ug/L	10:22:46
3	S 181.975 Axial†	923.8	866.3	[1000]	ug/L	10:22:46
3	Sb 206.836†	1679.2	1646.4	[500]	ug/L	10:22:46
3	Se 196.026†	930.9	966.5	[500]	ug/L	10:22:46
3	Si 251.611†	86364.9	85970.9	[2500]	ug/L	10:22:26
3	Sn 189.927†	3331.4	3336.5	[500]	ug/L	10:22:46
3	Sr 421.552†	68237.4	69789.8	[500]	ug/L	10:21:02
3	Ti 334.940†	312680.8	315304.0	[500]	ug/L	10:22:26
3	Tl 190.801†	1748.9	1806.8	[500]	ug/L	10:22:46
3	U 409.014†	13013.2	15715.4	[500]	ug/L	10:22:26
3	V 292.402†	76468.7	78467.6	[500]	ug/L	10:22:26
3	Zn 213.857†	61087.2	60413.0	[500]	ug/L	10:22:26
3	SiO2†	86458.6	86045.4	[5347.5]	ug/L	10:23:02

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	885023.0	1951.07	0.22%	99.821	%
Sc Radial	4635.0	93.36	2.01%	99.3	%
Y 371.029	753035.8	1537.71	0.20%	98.855	%
Y RADIAL	4855.5	92.01	1.89%	98.43	%
Ag 328.068†	114467.6	167.37	0.15%	[500]	ug/L
Al 396.153Radial†	5657.0	30.41	0.54%	[5000]	ug/L
As 188.979†	1407.9	9.28	0.66%	[500]	ug/L
B 249.677†	23706.2	100.93	0.43%	[500]	ug/L
Ba 233.527†	67779.4	141.90	0.21%	[500]	ug/L
Be 313.107†	1475869.8	2320.96	0.16%	[500]	ug/L
Ca 317.933Radial†	3033.5	54.79	1.81%	[5000]	ug/L
Cd 226.502†	52650.8	121.47	0.23%	[500]	ug/L
Co 228.616†	25931.1	117.66	0.45%	[500]	ug/L
Cr 267.716†	49243.3	67.70	0.14%	[500]	ug/L
Cu 324.752†	166270.8	188.05	0.11%	[500]	ug/L
K 766.490 Radial†	25154.8	135.66	0.54%	[5000]	ug/L
Mg 279.077 IEC†	162.0	1.99	1.23%	[5000]	ug/L
Mn 257.610†	473033.6	743.59	0.16%	[500]	ug/L
Mo 202.031†	7888.4	46.74	0.59%	[500]	ug/L
Ni 231.604†	22304.2	100.46	0.45%	[500]	ug/L
P 214.914†	5045.3	32.96	0.65%	[2500]	ug/L
Pb 220.353†	4772.8	35.35	0.74%	[500]	ug/L

S 181.975 Axial†	870.3	6.18	0.71%	[1000]	ug/L
Sb 206.836†	1638.6	10.67	0.65%	[500]	ug/L
Se 196.026†	969.1	2.40	0.25%	[500]	ug/L
Si 251.611†	85998.6	191.49	0.22%	[2500]	ug/L
Sn 189.927†	3335.2	13.17	0.39%	[500]	ug/L
Sr 421.552†	69434.4	323.18	0.47%	[500]	ug/L
Ti 334.940†	315292.4	267.26	0.08%	[500]	ug/L
Tl 190.801†	1804.8	3.61	0.20%	[500]	ug/L
U 409.014†	15885.1	155.29	0.98%	[500]	ug/L
V 292.402†	78446.9	66.45	0.08%	[500]	ug/L
Zn 213.857†	60435.3	98.69	0.16%	[500]	ug/L
SiO2†	85788.4	476.26	0.56%	[5347.5]	ug/L

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Sequence No.: 4
Sample ID: SCAL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 1/6/2010 10:25:12
Data Type: Reprocessed on 1/6/2010 11:55:29

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	854575.1	854575.1	96.387	%	10:28:28
1	Sc Radial	4579.0	4579.0	98.1	%	10:27:25
1	Y 371.029	728537.8	728537.8	95.639	%	10:28:28
1	Y RADIAL	4758.3	4758.3	96.46	%	10:27:25
1	Ag 328.068†	225908.9	233865.0	[1000]	ug/L	10:28:28
1	Al 396.153Radial†	10920.1	11158.0	[10000]	ug/L	10:27:05
1	As 188.979†	2738.1	2874.1	[1000]	ug/L	10:28:49
1	B 249.677†	46350.1	48753.4	[1000]	ug/L	10:28:28
1	Ba 233.527†	132639.6	137604.2	[1000]	ug/L	10:28:28
1	Be 313.107†	2851071.1	2962297.1	[1000]	ug/L	10:28:23
1	Ca 317.933Radial†	5910.2	6011.9	[10000]	ug/L	10:27:25
1	Cd 226.502†	102524.3	106605.9	[1000]	ug/L	10:28:28
1	Co 228.616†	51547.3	53563.6	[1000]	ug/L	10:28:28
1	Cr 267.716†	96715.8	100237.2	[1000]	ug/L	10:28:28
1	Cu 324.752†	334819.6	339371.6	[1000]	ug/L	10:28:28
1	Fe 238.204 Radial†	1132.1	1140.1	[10000]	ug/L	10:27:25
1	K 766.490 Radial†	52192.2	49864.5	[10000]	ug/L	10:27:05
1	Mg 279.077 IEC†	320.5	325.0	[10000]	ug/L	10:27:25
1	Mn 257.610†	916466.8	950304.8	[1000]	ug/L	10:28:23
1	Mo 202.031†	15444.9	16003.9	[1000]	ug/L	10:28:49
1	Na 589.592 Radial†	30756.6	33101.3	[10000]	ug/L	10:27:05
1	Ni 231.604†	44283.7	45818.7	[1000]	ug/L	10:28:28
1	P 214.914†	10191.8	10325.2	[5000]	ug/L	10:28:49
1	Pb 220.353†	9273.6	9699.0	[1000]	ug/L	10:28:49
1	S 181.975 Axial†	1777.1	1783.8	[2000]	ug/L	10:28:49
1	Sb 206.836†	3289.2	3375.4	[1000]	ug/L	10:28:49
1	Se 196.026†	1867.2	1970.5	[1000]	ug/L	10:28:49
1	Si 251.611†	169164.9	174889.6	[5000]	ug/L	10:28:28
1	Sn 189.927†	6538.0	6779.7	[1000]	ug/L	10:28:49
1	Sr 421.552†	132173.6	134713.1	[1000]	ug/L	10:27:05
1	Ti 334.940†	605418.2	629930.1	[1000]	ug/L	10:28:28
1	Tl 190.801†	3494.5	3678.9	[1000]	ug/L	10:28:49
1	U 409.014†	30337.2	34143.1	[1000]	ug/L	10:28:28
1	V 292.402†	152445.1	159961.5	[1000]	ug/L	10:28:28
1	Zn 213.857†	118494.0	122104.1	[1000]	ug/L	10:28:28
1	SiO2†	169704.7	175430.1	[10695]	ug/L	10:29:57
2	Sc 361.383	858196.3	858196.3	96.795	%	10:29:00
2	Sc Radial	4524.0	4524.0	96.9	%	10:27:50
2	Y 371.029	732256.6	732256.6	96.127	%	10:29:00
2	Y RADIAL	4715.6	4715.6	95.59	%	10:27:50
2	Ag 328.068†	226859.1	233857.6	[1000]	ug/L	10:29:00
2	Al 396.153Radial†	10942.0	11316.0	[10000]	ug/L	10:27:30
2	As 188.979†	2707.6	2830.6	[1000]	ug/L	10:29:20
2	B 249.677†	46591.3	48799.7	[1000]	ug/L	10:29:00
2	Ba 233.527†	133100.4	137499.6	[1000]	ug/L	10:29:00
2	Be 313.107†	2844083.0	2942596.8	[1000]	ug/L	10:28:54
2	Ca 317.933Radial†	5868.1	6041.8	[10000]	ug/L	10:27:50
2	Cd 226.502†	102682.4	106320.4	[1000]	ug/L	10:29:00
2	Co 228.616†	51719.3	53515.6	[1000]	ug/L	10:29:00
2	Cr 267.716†	96914.5	100019.1	[1000]	ug/L	10:29:00
2	Cu 324.752†	336569.7	339713.9	[1000]	ug/L	10:29:00
2	Fe 238.204 Radial†	1122.1	1143.9	[10000]	ug/L	10:27:50
2	K 766.490 Radial†	52429.8	50757.1	[10000]	ug/L	10:27:30
2	Mg 279.077 IEC†	314.1	322.4	[10000]	ug/L	10:27:50
2	Mn 257.610†	914632.9	944398.2	[1000]	ug/L	10:28:54
2	Mo 202.031†	15333.9	15821.6	[1000]	ug/L	10:29:20
2	Na 589.592 Radial†	30925.2	33656.9	[10000]	ug/L	10:27:30
2	Ni 231.604†	44461.0	45808.0	[1000]	ug/L	10:29:00

2	P 214.914†	10085.9	10171.2	[5000]	ug/L	10:29:20
2	Pb 220.353†	9186.3	9568.2	[1000]	ug/L	10:29:20
2	S 181.975 Axial†	1757.9	1756.2	[2000]	ug/L	10:29:20
2	Sb 206.836†	3244.2	3314.5	[1000]	ug/L	10:29:20
2	Se 196.026†	1837.0	1931.0	[1000]	ug/L	10:29:20
2	Si 251.611†	170090.1	175104.9	[5000]	ug/L	10:29:00
2	Sn 189.927†	6497.8	6709.5	[1000]	ug/L	10:29:20
2	Sr 421.552†	132770.8	136968.8	[1000]	ug/L	10:27:30
2	Ti 334.940†	608846.1	630821.2	[1000]	ug/L	10:29:00
2	Tl 190.801†	3461.5	3629.5	[1000]	ug/L	10:29:20
2	U 409.014†	30543.7	34223.7	[1000]	ug/L	10:29:00
2	V 292.402†	152968.7	159835.0	[1000]	ug/L	10:29:00
2	Zn 213.857†	118722.7	121821.7	[1000]	ug/L	10:29:00
2	SiO2†	170248.2	175248.8	[10695]	ug/L	10:30:02
3	Sc 361.383	848819.7	848819.7	95.738	%	10:29:32
3	Sc Radial	4499.1	4499.1	96.4	%	10:28:16
3	Y 371.029	724197.9	724197.9	95.069	%	10:29:32
3	Y RADIAL	4687.7	4687.7	95.03	%	10:28:16
3	Ag 328.068†	224046.8	233509.2	[1000]	ug/L	10:29:32
3	Al 396.153Radial†	10912.2	11347.6	[10000]	ug/L	10:27:56
3	As 188.979†	2741.3	2896.8	[1000]	ug/L	10:29:52
3	B 249.677†	46090.8	48808.7	[1000]	ug/L	10:29:32
3	Ba 233.527†	131592.1	137443.1	[1000]	ug/L	10:29:32
3	Be 313.107†	2844415.3	2975401.5	[1000]	ug/L	10:29:26
3	Ca 317.933Radial†	5826.7	6032.3	[10000]	ug/L	10:28:16
3	Cd 226.502†	101521.4	106279.5	[1000]	ug/L	10:29:32
3	Co 228.616†	51116.9	53476.7	[1000]	ug/L	10:29:32
3	Cr 267.716†	95939.3	100106.5	[1000]	ug/L	10:29:32
3	Cu 324.752†	331317.2	338068.6	[1000]	ug/L	10:29:32
3	Fe 238.204 Radial†	1112.8	1140.6	[10000]	ug/L	10:28:16
3	K 766.490 Radial†	51979.0	50588.9	[10000]	ug/L	10:27:56
3	Mg 279.077 IEC†	309.4	319.3	[10000]	ug/L	10:28:16
3	Mn 257.610†	913765.8	953930.6	[1000]	ug/L	10:29:26
3	Mo 202.031†	15519.8	16190.8	[1000]	ug/L	10:29:52
3	Na 589.592 Radial†	30476.4	33367.8	[10000]	ug/L	10:27:56
3	Ni 231.604†	43886.2	45715.0	[1000]	ug/L	10:29:32
3	P 214.914†	10188.8	10393.9	[5000]	ug/L	10:29:52
3	Pb 220.353†	9282.8	9773.9	[1000]	ug/L	10:29:52
3	S 181.975 Axial†	1773.5	1792.6	[2000]	ug/L	10:29:52
3	Sb 206.836†	3297.2	3406.9	[1000]	ug/L	10:29:52
3	Se 196.026†	1859.1	1975.1	[1000]	ug/L	10:29:52
3	Si 251.611†	167775.3	174628.2	[5000]	ug/L	10:29:32
3	Sn 189.927†	6568.9	6858.0	[1000]	ug/L	10:29:52
3	Sr 421.552†	131436.1	136342.3	[1000]	ug/L	10:27:56
3	Ti 334.940†	600971.6	629544.5	[1000]	ug/L	10:29:32
3	Tl 190.801†	3500.4	3709.6	[1000]	ug/L	10:29:52
3	U 409.014†	30036.8	34042.8	[1000]	ug/L	10:29:32
3	V 292.402†	151366.7	159907.4	[1000]	ug/L	10:29:32
3	Zn 213.857†	117155.4	121539.5	[1000]	ug/L	10:29:32
3	SiO2†	167148.2	173953.7	[10695]	ug/L	10:30:08

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	853863.7	4728.60	0.55%	96.307	%
Sc Radial	4534.0	40.91	0.90%	97.1	%
Y 371.029	728330.8	4033.35	0.55%	95.612	%
Y RADIAL	4720.6	35.55	0.75%	95.70	%
Ag 328.068†	233743.9	203.34	0.09%	[1000]	ug/L
Al 396.153Radial†	11273.9	101.59	0.90%	[10000]	ug/L
As 188.979†	2867.2	33.62	1.17%	[1000]	ug/L
B 249.677†	48787.3	29.65	0.06%	[1000]	ug/L
Ba 233.527†	137515.6	81.75	0.06%	[1000]	ug/L
Be 313.107†	2960098.5	16512.52	0.56%	[1000]	ug/L
Ca 317.933Radial†	6028.6	15.28	0.25%	[10000]	ug/L
Cd 226.502†	106401.9	177.79	0.17%	[1000]	ug/L
Co 228.616†	53518.6	43.54	0.08%	[1000]	ug/L
Cr 267.716†	100120.9	109.77	0.11%	[1000]	ug/L
Cu 324.752†	339051.3	868.12	0.26%	[1000]	ug/L
Fe 238.204 Radial†	1141.5	2.02	0.18%	[10000]	ug/L

K 766.490 Radial†	50403.5	474.29	0.94%	[10000]	ug/L
Mg 279.077 IEC†	322.3	2.85	0.88%	[10000]	ug/L
Mn 257.610†	949544.6	4811.46	0.51%	[1000]	ug/L
Mo 202.031†	16005.4	184.60	1.15%	[1000]	ug/L
Na 589.592 Radial†	33375.3	277.85	0.83%	[10000]	ug/L
Ni 231.604†	45780.5	57.00	0.12%	[1000]	ug/L
P 214.914†	10296.8	114.02	1.11%	[5000]	ug/L
Pb 220.353†	9680.4	104.09	1.08%	[1000]	ug/L
S 181.975 Axial†	1777.5	19.00	1.07%	[2000]	ug/L
Sb 206.836†	3365.6	46.99	1.40%	[1000]	ug/L
Se 196.026†	1958.9	24.22	1.24%	[1000]	ug/L
Si 251.611†	174874.3	238.73	0.14%	[5000]	ug/L
Sn 189.927†	6782.4	74.28	1.10%	[1000]	ug/L
Sr 421.552†	136008.0	1164.39	0.86%	[1000]	ug/L
Ti 334.940†	630098.6	654.84	0.10%	[1000]	ug/L
Tl 190.801†	3672.7	40.46	1.10%	[1000]	ug/L
U 409.014†	34136.5	90.64	0.27%	[1000]	ug/L
V 292.402†	159901.3	63.47	0.04%	[1000]	ug/L
Zn 213.857†	121821.8	282.30	0.23%	[1000]	ug/L
SiO2†	174877.5	805.17	0.46%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 1/6/2010 10:32:18
Data Type: Reprocessed on 1/6/2010 11:55:30

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	861751.7	861751.7	97.196	%	10:35:29
1	Sc Radial	4571.4	4571.4	97.9	%	10:34:32
1	Y 371.029	729816.8	729816.8	95.807	%	10:35:29
1	Y RADIAL	4793.7	4793.7	97.18	%	10:34:32
1	Al 396.153Radial†	54896.5	56078.0	[50000]	ug/L	10:34:12
1	Ca 317.933Radial†	29031.6	29629.7	[50000]	ug/L	10:34:12
1	Fe 238.204 Radial†	2245.0	2278.4	[20000]	ug/L	10:34:32
1	Mg 279.077 IEC†	1543.0	1573.8	[50000]	ug/L	10:34:32
1	Na 589.592 Radial†	62736.0	65805.8	[20000]	ug/L	10:34:12
2	Sc 361.383	845745.1	845745.1	95.391	%	10:35:34
2	Sc Radial	4549.2	4549.2	97.5	%	10:34:57
2	Y 371.029	716040.3	716040.3	93.999	%	10:35:34
2	Y RADIAL	4774.2	4774.2	96.78	%	10:34:57
2	Al 396.153Radial†	54557.8	56003.9	[50000]	ug/L	10:34:37
2	Ca 317.933Radial†	28909.0	29648.5	[50000]	ug/L	10:34:37
2	Fe 238.204 Radial†	2233.3	2277.5	[20000]	ug/L	10:34:57
2	Mg 279.077 IEC†	1522.9	1560.9	[50000]	ug/L	10:34:57
2	Na 589.592 Radial†	62157.3	65524.6	[20000]	ug/L	10:34:37
3	Sc 361.383	859471.0	859471.0	96.939	%	10:35:40
3	Sc Radial	4549.1	4549.1	97.5	%	10:35:22
3	Y 371.029	728245.3	728245.3	95.601	%	10:35:40
3	Y RADIAL	4768.4	4768.4	96.66	%	10:35:22
3	Al 396.153Radial†	55563.5	57036.8	[50000]	ug/L	10:35:02
3	Ca 317.933Radial†	29433.3	30187.0	[50000]	ug/L	10:35:02
3	Fe 238.204 Radial†	2223.3	2267.3	[20000]	ug/L	10:35:22
3	Mg 279.077 IEC†	1511.5	1549.2	[50000]	ug/L	10:35:22
3	Na 589.592 Radial†	63482.8	66885.7	[20000]	ug/L	10:35:02

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	855655.9	8658.47	1.01%	96.509	%
Sc Radial	4556.6	12.84	0.28%	97.6	%
Y 371.029	724700.8	7541.27	1.04%	95.135	%
Y RADIAL	4778.7	13.24	0.28%	96.87	%
Al 396.153Radial†	56372.9	576.17	1.02%	[50000]	ug/L
Ca 317.933Radial†	29821.8	316.47	1.06%	[50000]	ug/L
Fe 238.204 Radial†	2274.4	6.14	0.27%	[20000]	ug/L
Mg 279.077 IEC†	1561.3	12.27	0.79%	[50000]	ug/L
Na 589.592 Radial†	66072.1	718.58	1.09%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	232.8	0.00000	0.999966	
Al 396.153Radial	3	Lin Thru 0	0.0	1.127	0.00000	1.000000	
As 188.979	3	Lin Thru 0	0.0	2.857	0.00000	0.999974	
B 249.677	3	Lin Thru 0	0.0	48.50	0.00000	0.999931	
Ba 233.527	3	Lin Thru 0	0.0	137.1	0.00000	0.999983	
Be 313.107	3	Lin Thru 0	0.0	2959	0.00000	0.999999	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5968	0.00000	0.999997	
Cd 226.502	3	Lin Thru 0	0.0	106.2	0.00000	0.999991	
Co 228.616	3	Lin Thru 0	0.0	53.19	0.00000	0.999923	
Cr 267.716	3	Lin Thru 0	0.0	99.81	0.00000	0.999978	
Cu 324.752	3	Lin Thru 0	0.0	337.8	0.00000	0.999970	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1138	0.00000	0.999999	

K 766.490 Radial	3	Lin Thru 0	0.0	5.038	0.00000	0.999998
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0313	0.00000	0.999975
Mn 257.610	3	Lin Thru 0	0.0	949.1	0.00000	0.999995
Mo 202.031	3	Lin Thru 0	0.0	15.96	0.00000	0.999982
Na 589.592 Radia	2	Lin Thru 0	0.0	3.310	0.00000	0.999992
Ni 231.604	3	Lin Thru 0	0.0	45.55	0.00000	0.999946
P 214.914	3	Lin Thru 0	0.0	2.051	0.00000	0.999968
Pb 220.353	3	Lin Thru 0	0.0	9.653	0.00000	0.999984
S 181.975 Axial	3	Lin Thru 0	0.0	0.8848	0.00000	0.999961
Sb 206.836	3	Lin Thru 0	0.0	3.348	0.00000	0.999943
Se 196.026	3	Lin Thru 0	0.0	1.954	0.00000	0.999985
Si 251.611	3	Lin Thru 0	0.0	34.86	0.00000	0.999978
Sn 189.927	3	Lin Thru 0	0.0	6.761	0.00000	0.999977
Sr 421.552	3	Lin Thru 0	0.0	136.6	0.00000	0.999965
Ti 334.940	3	Lin Thru 0	0.0	630.3	0.00000	0.999999
Tl 190.801	3	Lin Thru 0	0.0	3.661	0.00000	0.999975
U 409.014	3	Lin Thru 0	0.0	33.64	0.00000	0.999572
V 292.402	3	Lin Thru 0	0.0	159.3	0.00000	0.999972
Zn 213.857	3	Lin Thru 0	0.0	121.6	0.00000	0.999995
SiO2	3	Lin Thru 0	0.0	16.29	0.00000	0.999972

Sequence No.: 6
Sample ID: ICV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 1/6/2010 10:37:51
Data Type: Reprocessed on 1/6/2010 11:55:31

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	875249.9	875249.9	98.719	%			10:41:01
1	Sc Radial	4611.4	4611.4	98.8	%			10:39:44
1	Y 371.029	746029.3	746029.3	97.935	%			10:41:01
1	Y RADIAL	4861.5	4861.5	98.55	%			10:39:44
1	Ag 328.068†	58592.2	58840.3	255.97	ug/L	255.97	ppb	10:41:01
1	Al 396.153Radial†	5658.3	5754.0	5080.5	ug/L	5080.5	ppb	10:39:44
1	As 188.979†	1300.3	1350.6	477.00	ug/L	477.00	ppb	10:41:21
1	B 249.677†	23792.7	24767.3	508.73	ug/L	508.73	ppb	10:41:01
1	Ba 233.527†	68181.7	69059.1	504.81	ug/L	504.81	ppb	10:41:01
1	Be 313.107†	750258.5	764347.5	259.32	ug/L	259.32	ppb	10:41:01
1	Ca 317.933Radial†	2964.6	2988.2	5007.2	ug/L	5007.2	ppb	10:40:04
1	Cd 226.502†	51645.3	52554.0	494.77	ug/L	494.77	ppb	10:41:01
1	Co 228.616†	26107.0	26529.8	499.07	ug/L	499.07	ppb	10:41:21
1	Cr 267.716†	47678.5	48193.3	483.68	ug/L	483.68	ppb	10:41:01
1	Cu 324.752†	174605.9	168873.0	500.23	ug/L	500.23	ppb	10:41:01
1	Fe 238.204 Radial†	594.9	588.3	5184.9	ug/L	5184.9	ppb	10:40:04
1	K 766.490 Radial†	15727.6	12582.4	2492.3	ug/L	2492.3	ppb	10:39:44
1	Mg 279.077 IEC†	164.0	164.4	5262.6	ug/L	5262.6	ppb	10:40:04
1	Mn 257.610†	479368.3	485073.5	511.51	ug/L	511.51	ppb	10:41:01
1	Mo 202.031†	8416.8	8506.1	533.38	ug/L	533.38	ppb	10:41:21
1	Na 589.592 Radial†	6799.8	8632.7	2607.8	ug/L	2607.8	ppb	10:39:44
1	Ni 231.604†	22404.2	22569.9	495.15	ug/L	495.15	ppb	10:41:21
1	P 214.914†	5293.0	5113.1	2417.4	ug/L	2417.4	ppb	10:41:21
1	Pb 220.353†	4662.5	4800.8	498.97	ug/L	498.97	ppb	10:41:21
1	S 181.975 Axial†	2212.8	2181.6	2464.5	ug/L	2464.5	ppb	10:41:21
1	Sb 206.836†	1689.6	1674.4	509.06	ug/L	509.06	ppb	10:41:21
1	Se 196.026†	4904.6	5001.5	2577.8	ug/L	2577.8	ppb	10:41:21
1	Si 251.611†	164206.4	165721.0	4742.2	ug/L	4742.2	ppb	10:41:01
1	Sn 189.927†	3563.3	3606.1	533.98	ug/L	533.98	ppb	10:41:21
1	Sr 421.552†	72600.4	73468.6	537.87	ug/L	537.87	ppb	10:39:44
1	Ti 334.940†	306956.3	312757.6	496.10	ug/L	496.10	ppb	10:41:01
1	Tl 190.801†	1835.3	1912.5	525.70	ug/L	525.70	ppb	10:41:21
1	U 409.014†	13384.3	16226.8	480.81	ug/L	480.81	ppb	10:41:01
1	V 292.402†	76997.8	79799.0	508.10	ug/L	508.10	ppb	10:41:01
1	Zn 213.857†	61557.9	61525.2	501.66	ug/L	501.66	ppb	10:41:01
1	SiO2†	163209.8	164692.0	10085	ug/L	10085	ppb	10:42:19
2	Sc 361.383	875752.3	875752.3	98.775	%			10:41:27
2	Sc Radial	4643.7	4643.7	99.5	%			10:40:09
2	Y 371.029	745923.5	745923.5	97.922	%			10:41:27
2	Y RADIAL	4862.5	4862.5	98.57	%			10:40:09
2	Ag 328.068†	58994.0	59213.1	257.54	ug/L	257.54	ppb	10:41:27
2	Al 396.153Radial†	5570.1	5625.5	4966.6	ug/L	4966.6	ppb	10:40:09
2	As 188.979†	1303.5	1353.1	477.90	ug/L	477.90	ppb	10:41:47
2	B 249.677†	24003.0	24966.4	512.85	ug/L	512.85	ppb	10:41:27
2	Ba 233.527†	68768.7	69613.7	508.87	ug/L	508.87	ppb	10:41:27
2	Be 313.107†	757527.9	771271.0	261.67	ug/L	261.67	ppb	10:41:27
2	Ca 317.933Radial†	2967.9	2970.6	4977.8	ug/L	4977.8	ppb	10:40:29
2	Cd 226.502†	51932.9	52815.1	497.24	ug/L	497.24	ppb	10:41:27
2	Co 228.616†	26075.2	26482.4	498.17	ug/L	498.17	ppb	10:41:47
2	Cr 267.716†	48078.8	48570.9	487.47	ug/L	487.47	ppb	10:41:27
2	Cu 324.752†	176133.4	170318.0	504.51	ug/L	504.51	ppb	10:41:27
2	Fe 238.204 Radial†	587.9	577.0	5086.0	ug/L	5086.0	ppb	10:40:29
2	K 766.490 Radial†	15626.5	12370.1	2450.1	ug/L	2450.1	ppb	10:40:09
2	Mg 279.077 IEC†	163.2	162.4	5197.8	ug/L	5197.8	ppb	10:40:29
2	Mn 257.610†	483197.1	488671.2	515.30	ug/L	515.30	ppb	10:41:27
2	Mo 202.031†	8421.6	8506.1	533.37	ug/L	533.37	ppb	10:41:47
2	Na 589.592 Radial†	6730.1	8514.8	2572.2	ug/L	2572.2	ppb	10:40:09
2	Ni 231.604†	22358.8	22511.0	493.85	ug/L	493.85	ppb	10:41:47

2	P 214.914†	5291.5	5108.5	2414.5	ug/L	2414.5 ppb	10:41:47
2	Pb 220.353†	4645.7	4781.1	496.91	ug/L	496.91 ppb	10:41:47
2	S 181.975 Axial†	2208.4	2175.9	2458.1	ug/L	2458.1 ppb	10:41:47
2	Sb 206.836†	1662.2	1645.7	500.33	ug/L	500.33 ppb	10:41:47
2	Se 196.026†	4899.9	4993.9	2573.6	ug/L	2573.6 ppb	10:41:47
2	Si 251.611†	165602.3	167038.8	4780.0	ug/L	4780.0 ppb	10:41:27
2	Sn 189.927†	3536.1	3576.5	529.60	ug/L	529.60 ppb	10:41:47
2	Sr 421.552†	71798.5	72151.8	528.23	ug/L	528.23 ppb	10:40:09
2	Ti 334.940†	309702.6	315359.5	500.22	ug/L	500.22 ppb	10:41:27
2	Tl 190.801†	1842.0	1918.3	527.32	ug/L	527.32 ppb	10:41:47
2	U 409.014†	13830.5	16670.7	494.02	ug/L	494.02 ppb	10:41:27
2	V 292.402†	77815.0	80581.6	513.04	ug/L	513.04 ppb	10:41:27
2	Zn 213.857†	62091.2	62029.3	505.82	ug/L	505.82 ppb	10:41:27
2	SiO2†	164649.5	166054.7	10168	ug/L	10168 ppb	10:42:24
3	Sc 361.383	876292.2	876292.2	98.836	%		10:41:53
3	Sc Radial	4648.7	4648.7	99.6	%		10:40:34
3	Y 371.029	748097.3	748097.3	98.207	%		10:41:53
3	Y RADIAL	4889.0	4889.0	99.11	%		10:40:34
3	Ag 328.068†	58712.7	58891.7	256.18	ug/L	256.18 ppb	10:41:53
3	Al 396.153Radial†	5662.3	5712.0	5043.4	ug/L	5043.4 ppb	10:40:34
3	As 188.979†	1287.3	1335.9	471.85	ug/L	471.85 ppb	10:42:13
3	B 249.677†	23901.6	24848.9	510.43	ug/L	510.43 ppb	10:41:53
3	Ba 233.527†	68267.4	69063.7	504.85	ug/L	504.85 ppb	10:41:53
3	Be 313.107†	752113.5	765320.3	259.65	ug/L	259.65 ppb	10:41:53
3	Ca 317.933Radial†	2982.5	2982.1	4997.0	ug/L	4997.0 ppb	10:40:54
3	Cd 226.502†	51696.0	52543.0	494.66	ug/L	494.66 ppb	10:41:53
3	Co 228.616†	25907.2	26296.2	494.67	ug/L	494.67 ppb	10:42:13
3	Cr 267.716†	47758.4	48216.6	483.92	ug/L	483.92 ppb	10:41:53
3	Cu 324.752†	174915.4	168975.9	500.54	ug/L	500.54 ppb	10:41:53
3	Fe 238.204 Radial†	596.9	585.4	5159.8	ug/L	5159.8 ppb	10:40:54
3	K 766.490 Radial†	15874.5	12602.1	2496.2	ug/L	2496.2 ppb	10:40:34
3	Mg 279.077 IEC†	169.1	168.1	5381.8	ug/L	5381.8 ppb	10:40:54
3	Mn 257.610†	479775.8	484908.2	511.34	ug/L	511.34 ppb	10:41:53
3	Mo 202.031†	8365.9	8444.5	529.52	ug/L	529.52 ppb	10:42:13
3	Na 589.592 Radial†	6779.6	8557.2	2585.0	ug/L	2585.0 ppb	10:40:34
3	Ni 231.604†	22192.2	22328.4	489.85	ug/L	489.85 ppb	10:42:13
3	P 214.914†	5264.0	5077.4	2399.9	ug/L	2399.9 ppb	10:42:13
3	Pb 220.353†	4633.2	4765.5	495.30	ug/L	495.30 ppb	10:42:13
3	S 181.975 Axial†	2187.9	2153.8	2433.1	ug/L	2433.1 ppb	10:42:13
3	Sb 206.836†	1651.0	1633.3	496.56	ug/L	496.56 ppb	10:42:13
3	Se 196.026†	4863.7	4954.2	2553.5	ug/L	2553.5 ppb	10:42:13
3	Si 251.611†	164437.9	165757.4	4743.3	ug/L	4743.3 ppb	10:41:53
3	Sn 189.927†	3512.5	3550.4	525.74	ug/L	525.74 ppb	10:42:13
3	Sr 421.552†	72663.7	72942.4	534.01	ug/L	534.01 ppb	10:40:34
3	Ti 334.940†	307375.9	312812.2	496.18	ug/L	496.18 ppb	10:41:53
3	Tl 190.801†	1835.3	1910.3	525.13	ug/L	525.13 ppb	10:42:13
3	U 409.014†	13660.4	16490.0	488.64	ug/L	488.64 ppb	10:41:53
3	V 292.402†	77277.5	79989.2	509.26	ug/L	509.26 ppb	10:41:53
3	Zn 213.857†	61683.6	61578.2	502.13	ug/L	502.13 ppb	10:41:53
3	SiO2†	163090.9	164375.0	10065	ug/L	10065 ppb	10:42:30

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	875764.8	98.777	%	0.0588				0.06%
Sc Radial	4634.6	99.3	%	0.43				0.44%
Y 371.029	746683.4	98.021	%	0.1609				0.16%
Y RADIAL	4871.0	98.75	%	0.316				0.32%
Ag 328.068†	58981.7	256.56	ug/L	0.856	256.56	ppb	0.856	0.33%
QC value within limits for Ag 328.068 Recovery = 102.63%								
Al 396.153Radial†	5697.1	5030.2	ug/L	58.13	5030.2	ppb	58.13	1.16%
QC value within limits for Al 396.153Radial Recovery = 100.60%								
As 188.979†	1346.5	475.58	ug/L	3.265	475.58	ppb	3.265	0.69%
QC value within limits for As 188.979 Recovery = 95.12%								
B 249.677†	24860.9	510.67	ug/L	2.071	510.67	ppb	2.071	0.41%
QC value within limits for B 249.677 Recovery = 102.13%								
Ba 233.527†	69245.5	506.18	ug/L	2.330	506.18	ppb	2.330	0.46%
QC value within limits for Ba 233.527 Recovery = 101.24%								
Be 313.107†	766979.6	260.21	ug/L	1.271	260.21	ppb	1.271	0.49%
QC value within limits for Be 313.107 Recovery = 104.08%								

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Ca 317.933Radial†        2980.3      4994.0 ug/L        14.95      4994.0 ppb        14.95   0.30%
   QC value within limits for Ca 317.933Radial  Recovery = 99.88%
Cd 226.502†             52637.4      495.56 ug/L        1.456      495.56 ppb        1.456   0.29%
   QC value within limits for Cd 226.502  Recovery = 99.11%
Co 228.616†             26436.1      497.30 ug/L        2.326      497.30 ppb        2.326   0.47%
   QC value within limits for Co 228.616  Recovery = 99.46%
Cr 267.716†             48326.9      485.02 ug/L        2.122      485.02 ppb        2.122   0.44%
   QC value within limits for Cr 267.716  Recovery = 97.00%
Cu 324.752†            169389.0      501.76 ug/L        2.384      501.76 ppb        2.384   0.48%
   QC value within limits for Cu 324.752  Recovery = 100.35%
Fe 238.204 Radial†        583.6      5143.6 ug/L        51.43      5143.6 ppb        51.43   1.00%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.87%
K 766.490 Radial†       12518.2      2479.5 ug/L        25.56      2479.5 ppb        25.56   1.03%
   QC value within limits for K 766.490 Radial  Recovery = 99.18%
Mg 279.077 IEC†           165.0      5280.7 ug/L        93.33      5280.7 ppb        93.33   1.77%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.61%
Mn 257.610†            486217.6      512.72 ug/L        2.237      512.72 ppb        2.237   0.44%
   QC value within limits for Mn 257.610  Recovery = 102.54%
Mo 202.031†              8485.6      532.09 ug/L        2.226      532.09 ppb        2.226   0.42%
   QC value within limits for Mo 202.031  Recovery = 106.42%
Na 589.592 Radial†       8568.3      2588.3 ug/L        18.04      2588.3 ppb        18.04   0.70%
   QC value within limits for Na 589.592 Radial  Recovery = 103.53%
Ni 231.604†             22469.8      492.95 ug/L        2.762      492.95 ppb        2.762   0.56%
   QC value within limits for Ni 231.604  Recovery = 98.59%
P 214.914†               5099.7      2410.6 ug/L         9.41      2410.6 ppb         9.41   0.39%
   QC value within limits for P 214.914  Recovery = 96.42%
Pb 220.353†              4782.5      497.06 ug/L        1.840      497.06 ppb        1.840   0.37%
   QC value within limits for Pb 220.353  Recovery = 99.41%
S 181.975 Axial†         2170.4      2451.9 ug/L        16.61      2451.9 ppb        16.61   0.68%
   QC value within limits for S 181.975 Axial  Recovery = 98.08%
Sb 206.836†              1651.1      501.98 ug/L        6.414      501.98 ppb        6.414   1.28%
   QC value within limits for Sb 206.836  Recovery = 100.40%
Se 196.026†              4983.2      2568.3 ug/L        12.98      2568.3 ppb        12.98   0.51%
   QC value within limits for Se 196.026  Recovery = 102.73%
Si 251.611†            166172.4      4755.2 ug/L        21.52      4755.2 ppb        21.52   0.45%
   QC value within limits for Si 251.611  Recovery = 95.10%
Sn 189.927†              3577.7      529.77 ug/L        4.123      529.77 ppb        4.123   0.78%
   QC value within limits for Sn 189.927  Recovery = 105.95%
Sr 421.552†             72854.3      533.37 ug/L        4.852      533.37 ppb        4.852   0.91%
   QC value within limits for Sr 421.552  Recovery = 106.67%
Ti 334.940†            313643.1      497.50 ug/L        2.355      497.50 ppb        2.355   0.47%
   QC value within limits for Ti 334.940  Recovery = 99.50%
Tl 190.801†              1913.7      526.05 ug/L        1.138      526.05 ppb        1.138   0.22%
   QC value within limits for Tl 190.801  Recovery = 105.21%
U 409.014†              16462.5      487.82 ug/L        6.639      487.82 ppb        6.639   1.36%
   QC value within limits for U 409.014  Recovery = 97.56%
V 292.402†              80123.3      510.13 ug/L        2.587      510.13 ppb        2.587   0.51%
   QC value within limits for V 292.402  Recovery = 102.03%
Zn 213.857†             61710.9      503.21 ug/L        2.277      503.21 ppb        2.277   0.45%
   QC value within limits for Zn 213.857  Recovery = 100.64%
SiO2†                  165040.6       10106 ug/L         54.7       10106 ppb         54.7   0.54%
   QC value within limits for SiO2  Recovery = 94.49%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 1/6/2010 10:44:40
Data Type: Reprocessed on 1/6/2010 11:55:32

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	887280.4	887280.4	100.08	%			10:47:50
1	Sc Radial	4700.6	4700.6	101	%			10:46:33
1	Y 371.029	762353.6	762353.6	100.08	%			10:47:50
1	Y RADIAL	4975.1	4975.1	100.9	%			10:46:33
1	Ag 328.068†	578.7	66.0	0.2835	ug/L	0.2835	ppb	10:47:55
1	Al 396.153Radial†	6.3	33.0	29.215	ug/L	29.215	ppb	10:46:33
1	As 188.979†	-34.7	-1.2	-0.4330	ug/L	-0.4330	ppb	10:48:15
1	B 249.677†	-414.0	252.1	5.2003	ug/L	5.2003	ppb	10:47:55
1	Ba 233.527†	32.2	24.6	0.1800	ug/L	0.1800	ppb	10:48:15
1	Be 313.107†	-4259.0	95.7	0.0324	ug/L	0.0324	ppb	10:47:55
1	Ca 317.933Radial†	23.7	11.0	18.355	ug/L	18.355	ppb	10:46:53
1	Cd 226.502†	-236.8	1.8	0.0179	ug/L	0.0179	ppb	10:48:15
1	Co 228.616†	-93.5	-9.5	-0.1754	ug/L	-0.1754	ppb	10:48:15
1	Cr 267.716†	169.9	65.7	0.6597	ug/L	0.6597	ppb	10:47:55
1	Cu 324.752†	7947.1	-57.9	-0.1719	ug/L	-0.1719	ppb	10:47:55
1	Fe 238.204 Radial†	12.8	-1.1	-9.8464	ug/L	-9.8464	ppb	10:46:53
1	K 766.490 Radial†	3328.9	-31.3	-6.2120	ug/L	-6.2120	ppb	10:46:33
1	Mg 279.077 IEC†	5.2	3.5	111.29	ug/L	111.29	ppb	10:46:53
1	Mn 257.610†	576.1	59.3	0.0594	ug/L	0.0594	ppb	10:47:55
1	Mo 202.031†	34.6	14.6	0.9162	ug/L	0.9162	ppb	10:48:15
1	Na 589.592 Radial†	-1693.2	68.9	20.802	ug/L	20.802	ppb	10:46:33
1	Ni 231.604†	154.8	29.6	0.6495	ug/L	0.6495	ppb	10:48:15
1	P 214.914†	270.5	21.7	10.641	ug/L	10.641	ppb	10:48:15
1	Pb 220.353†	-87.1	-9.2	-0.9477	ug/L	-0.9477	ppb	10:48:15
1	S 181.975 Axial†	57.7	-2.3	-2.5814	ug/L	-2.5814	ppb	10:48:15
1	Sb 206.836†	46.0	8.9	2.6823	ug/L	2.6823	ppb	10:48:15
1	Se 196.026†	-28.9	4.4	2.2057	ug/L	2.2057	ppb	10:48:15
1	Si 251.611†	668.3	51.3	1.4538	ug/L	1.4538	ppb	10:48:15
1	Sn 189.927†	9.4	6.0	0.8890	ug/L	0.8890	ppb	10:48:15
1	Sr 421.552†	31.7	15.5	0.1132	ug/L	0.1132	ppb	10:46:33
1	Ti 334.940†	-1819.0	-0.3	0.0015	ug/L	0.0015	ppb	10:47:55
1	Tl 190.801†	-44.2	9.2	2.5136	ug/L	2.5136	ppb	10:48:15
1	U 409.014†	-2765.4	-94.6	-2.8110	ug/L	-2.8110	ppb	10:47:50
1	V 292.402†	-1751.4	51.8	0.3365	ug/L	0.3365	ppb	10:47:55
1	Zn 213.857†	904.4	72.0	0.5850	ug/L	0.5850	ppb	10:48:15
1	SiO2†	710.9	74.3	4.5260	ug/L	4.5260	ppb	10:49:21
2	Sc 361.383	883890.9	883890.9	99.693	%			10:48:20
2	Sc Radial	4679.7	4679.7	100	%			10:46:58
2	Y 371.029	758461.0	758461.0	99.567	%			10:48:20
2	Y RADIAL	4921.0	4921.0	99.76	%			10:46:58
2	Ag 328.068†	470.6	-40.3	-0.1638	ug/L	-0.1638	ppb	10:48:25
2	Al 396.153Radial†	-17.6	9.1	8.0671	ug/L	8.0671	ppb	10:46:58
2	As 188.979†	-29.7	3.6	1.2519	ug/L	1.2519	ppb	10:48:45
2	B 249.677†	-379.8	284.8	5.8698	ug/L	5.8698	ppb	10:48:25
2	Ba 233.527†	-1.7	-9.3	-0.0668	ug/L	-0.0668	ppb	10:48:45
2	Be 313.107†	-4371.6	-33.6	-0.0115	ug/L	-0.0115	ppb	10:48:25
2	Ca 317.933Radial†	27.7	15.1	25.290	ug/L	25.290	ppb	10:47:18
2	Cd 226.502†	-245.6	-8.0	-0.0772	ug/L	-0.0772	ppb	10:48:45
2	Co 228.616†	-81.3	2.5	0.0475	ug/L	0.0475	ppb	10:48:45
2	Cr 267.716†	72.3	-31.5	-0.3142	ug/L	-0.3142	ppb	10:48:25
2	Cu 324.752†	8005.0	30.6	0.0918	ug/L	0.0918	ppb	10:48:25
2	Fe 238.204 Radial†	16.5	2.5	22.405	ug/L	22.405	ppb	10:47:18
2	K 766.490 Radial†	3266.9	-78.2	-15.531	ug/L	-15.531	ppb	10:46:58
2	Mg 279.077 IEC†	6.2	4.6	146.57	ug/L	146.57	ppb	10:47:18
2	Mn 257.610†	547.8	33.1	0.0344	ug/L	0.0344	ppb	10:48:25
2	Mo 202.031†	28.2	8.4	0.5288	ug/L	0.5288	ppb	10:48:45
2	Na 589.592 Radial†	-1736.9	17.6	5.3292	ug/L	5.3292	ppb	10:46:58
2	Ni 231.604†	122.0	-2.7	-0.0600	ug/L	-0.0600	ppb	10:48:45

2	P 214.914†	252.5	4.7	2.2638	ug/L	2.2638 ppb	10:48:45
2	Pb 220.353†	-87.6	-10.1	-1.0474	ug/L	-1.0474 ppb	10:48:45
2	S 181.975 Axial†	60.1	0.4	0.4845	ug/L	0.4845 ppb	10:48:45
2	Sb 206.836†	44.0	7.0	2.1190	ug/L	2.1190 ppb	10:48:45
2	Se 196.026†	-31.9	1.3	0.7134	ug/L	0.7134 ppb	10:48:45
2	Si 251.611†	664.7	50.2	1.4339	ug/L	1.4339 ppb	10:48:45
2	Sn 189.927†	6.7	3.3	0.4945	ug/L	0.4945 ppb	10:48:45
2	Sr 421.552†	19.9	3.9	0.0283	ug/L	0.0283 ppb	10:46:58
2	Ti 334.940†	-1853.3	-41.7	-0.0638	ug/L	-0.0638 ppb	10:48:25
2	Tl 190.801†	-47.7	5.6	1.5221	ug/L	1.5221 ppb	10:48:45
2	U 409.014†	-2732.6	-72.2	-2.1498	ug/L	-2.1498 ppb	10:48:20
2	V 292.402†	-1788.5	7.8	0.0523	ug/L	0.0523 ppb	10:48:25
2	Zn 213.857†	890.3	61.4	0.4990	ug/L	0.4990 ppb	10:48:45
2	SiO2†	656.1	22.1	1.3473	ug/L	1.3473 ppb	10:49:26
3	Sc 361.383	881844.3	881844.3	99.463	%		10:48:51
3	Sc Radial	4730.7	4730.7	101	%		10:47:23
3	Y 371.029	757223.1	757223.1	99.405	%		10:48:51
3	Y RADIAL	4981.0	4981.0	101.0	%		10:47:23
3	Ag 328.068†	598.1	89.0	0.3682	ug/L	0.3682 ppb	10:48:56
3	Al 396.153Radial†	-39.0	-11.7	-10.402	ug/L	-10.402 ppb	10:47:23
3	As 188.979†	-23.7	9.6	3.3395	ug/L	3.3395 ppb	10:49:16
3	B 249.677†	-385.7	278.1	5.7395	ug/L	5.7395 ppb	10:48:56
3	Ba 233.527†	2.2	-5.2	-0.0390	ug/L	-0.0390 ppb	10:49:16
3	Be 313.107†	-4297.4	30.9	0.0105	ug/L	0.0105 ppb	10:48:56
3	Ca 317.933Radial†	17.4	4.6	7.6932	ug/L	7.6932 ppb	10:47:43
3	Cd 226.502†	-225.4	11.7	0.1141	ug/L	0.1141 ppb	10:49:16
3	Co 228.616†	-92.2	-8.7	-0.1625	ug/L	-0.1625 ppb	10:49:16
3	Cr 267.716†	121.8	18.4	0.1828	ug/L	0.1828 ppb	10:48:56
3	Cu 324.752†	8074.5	119.1	0.3507	ug/L	0.3507 ppb	10:48:56
3	Fe 238.204 Radial†	9.9	-4.1	-36.031	ug/L	-36.031 ppb	10:47:43
3	K 766.490 Radial†	3300.1	-80.7	-16.033	ug/L	-16.033 ppb	10:47:23
3	Mg 279.077 IEC†	5.0	3.3	106.65	ug/L	106.65 ppb	10:47:43
3	Mn 257.610†	527.8	14.3	0.0095	ug/L	0.0095 ppb	10:48:56
3	Mo 202.031†	25.2	5.4	0.3373	ug/L	0.3373 ppb	10:49:16
3	Na 589.592 Radial†	-1666.8	105.5	31.869	ug/L	31.869 ppb	10:47:23
3	Ni 231.604†	115.1	-9.3	-0.2042	ug/L	-0.2042 ppb	10:49:16
3	P 214.914†	245.4	-1.8	-0.9247	ug/L	-0.9247 ppb	10:49:16
3	Pb 220.353†	-100.2	-23.0	-2.3814	ug/L	-2.3814 ppb	10:49:16
3	S 181.975 Axial†	55.0	-4.6	-5.1525	ug/L	-5.1525 ppb	10:49:16
3	Sb 206.836†	58.9	22.1	6.6083	ug/L	6.6083 ppb	10:49:16
3	Se 196.026†	-24.7	8.4	4.1781	ug/L	4.1781 ppb	10:49:16
3	Si 251.611†	670.0	57.0	1.6361	ug/L	1.6361 ppb	10:49:16
3	Sn 189.927†	1.5	-1.9	-0.2812	ug/L	-0.2812 ppb	10:49:16
3	Sr 421.552†	-14.3	-30.1	-0.2203	ug/L	-0.2203 ppb	10:47:23
3	Ti 334.940†	-1775.1	32.6	0.0509	ug/L	0.0509 ppb	10:48:56
3	Tl 190.801†	-51.0	2.1	0.5852	ug/L	0.5852 ppb	10:49:16
3	U 409.014†	-2560.8	94.1	2.8018	ug/L	2.8018 ppb	10:48:51
3	V 292.402†	-1781.6	10.6	0.0843	ug/L	0.0843 ppb	10:48:56
3	Zn 213.857†	874.0	47.1	0.3862	ug/L	0.3862 ppb	10:49:16
3	SiO2†	736.2	104.1	6.3943	ug/L	6.3943 ppb	10:49:31

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	884338.5	99.744	%	0.3097				0.31%
Sc Radial	4703.7	101	%	0.5				0.55%
Y 371.029	759345.9	99.684	%	0.3515				0.35%
Y RADIAL	4959.1	100.5	%	0.67				0.67%
Ag 328.068†	38.2	0.1626	ug/L	0.28587	0.1626	ppb	0.28587	175.79%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.1	8.9600	ug/L	19.82374	8.9600	ppb	19.82374	221.25%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.0	1.3861	ug/L	1.88986	1.3861	ppb	1.88986	136.34%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	271.7	5.6032	ug/L	0.35498	5.6032	ppb	0.35498	6.34%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	3.4	0.0247	ug/L	0.13521	0.0247	ppb	0.13521	546.69%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	31.0	0.0105	ug/L	0.02191	0.0105	ppb	0.02191	209.31%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          10.2      17.113 ug/L        8.8641      17.113 ppb        8.8641  51.80%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 1.8       0.0183 ug/L       0.09567       0.0183 ppb      0.09567 523.59%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -5.2      -0.0968 ug/L       0.12513      -0.0968 ppb      0.12513 129.26%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                17.5       0.1761 ug/L       0.48700       0.1761 ppb      0.48700 276.53%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                30.6       0.0902 ug/L       0.26132       0.0902 ppb      0.26132 289.73%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.9      -7.8241 ug/L      29.27009      -7.8241 ppb     29.27009 374.10%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -63.4     -12.592 ug/L        5.5311     -12.592 ppb        5.5311  43.92%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             3.8      121.50 ug/L       21.831       121.50 ppb       21.831  17.97%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                35.5       0.0344 ug/L       0.02496       0.0344 ppb      0.02496  72.55%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 9.5       0.5941 ug/L       0.29489       0.5941 ppb      0.29489  49.64%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         64.0      19.333 ug/L       13.3307      19.333 ppb       13.3307  68.95%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 5.8       0.1284 ug/L       0.45698       0.1284 ppb      0.45698 355.80%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  8.2       3.9933 ug/L       5.97360       3.9933 ppb      5.97360 149.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -14.1      -1.4589 ug/L       0.80054      -1.4589 ppb      0.80054  54.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.1      -2.4165 ug/L       2.82211      -2.4165 ppb      2.82211 116.79%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                12.7       3.8032 ug/L       2.44553       3.8032 ppb      2.44553  64.30%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 4.7       2.3657 ug/L       1.73788       2.3657 ppb      1.73788  73.46%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                52.8       1.5080 ug/L       0.11146       1.5080 ppb      0.11146   7.39%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.5       0.3674 ug/L       0.59538       0.3674 ppb      0.59538 162.04%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -3.6      -0.0263 ug/L       0.17334      -0.0263 ppb      0.17334 659.55%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                -3.1      -0.0038 ug/L       0.05750      -0.0038 ppb      0.05750 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.6       1.5403 ug/L       0.96431       1.5403 ppb      0.96431  62.60%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -24.2      -0.7197 ug/L       3.06754      -0.7197 ppb      3.06754 426.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 23.4       0.1577 ug/L       0.15568       0.1577 ppb      0.15568  98.71%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                60.2       0.4901 ug/L       0.09967       0.4901 ppb      0.09967  20.34%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      66.9       4.0892 ug/L       2.55169       4.0892 ppb      2.55169  62.40%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 1/6/2010 10:51:42
Data Type: Reprocessed on 1/6/2010 11:55:33

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	864890.2	864890.2	97.550	%			10:54:52
1	Sc Radial	4615.5	4615.5	98.9	%			10:53:35
1	Y 371.029	744403.8	744403.8	97.722	%			10:54:52
1	Y RADIAL	4870.5	4870.5	98.73	%			10:53:35
1	Ag 328.068†	1666.1	1195.6	5.1487	ug/L	5.1487	ppb	10:54:52
1	Al 396.153Radial†	219.5	248.7	220.16	ug/L	220.16	ppb	10:53:35
1	As 188.979†	48.9	83.6	29.265	ug/L	29.265	ppb	10:55:12
1	B 249.677†	1786.7	2497.4	51.469	ug/L	51.469	ppb	10:55:12
1	Ba 233.527†	713.3	723.7	5.2911	ug/L	5.2911	ppb	10:55:12
1	Be 313.107†	10181.7	14788.9	5.0087	ug/L	5.0087	ppb	10:54:52
1	Ca 317.933Radial†	139.5	128.5	215.32	ug/L	215.32	ppb	10:53:55
1	Cd 226.502†	270.6	515.8	4.8513	ug/L	4.8513	ppb	10:55:12
1	Co 228.616†	165.6	253.7	4.7842	ug/L	4.7842	ppb	10:55:12
1	Cr 267.716†	602.9	514.0	5.1464	ug/L	5.1464	ppb	10:55:12
1	Cu 324.752†	11320.6	3605.9	10.681	ug/L	10.681	ppb	10:54:52
1	Fe 238.204 Radial†	24.7	11.1	97.487	ug/L	97.487	ppb	10:53:55
1	K 766.490 Radial†	4010.4	718.9	142.49	ug/L	142.49	ppb	10:53:35
1	Mg 279.077 IEC†	12.5	11.0	351.81	ug/L	351.81	ppb	10:53:55
1	Mn 257.610†	10207.6	9947.6	10.484	ug/L	10.484	ppb	10:54:52
1	Mo 202.031†	173.7	158.1	9.9167	ug/L	9.9167	ppb	10:55:12
1	Na 589.592 Radial†	-812.7	928.3	280.42	ug/L	280.42	ppb	10:53:35
1	Ni 231.604†	359.3	243.3	5.3375	ug/L	5.3375	ppb	10:55:12
1	P 214.914†	560.6	326.1	157.39	ug/L	157.39	ppb	10:55:12
1	Pb 220.353†	11.0	89.0	9.2802	ug/L	9.2802	ppb	10:55:12
1	S 181.975 Axial†	145.2	88.9	100.43	ug/L	100.43	ppb	10:55:12
1	Sb 206.836†	76.5	41.3	12.599	ug/L	12.599	ppb	10:55:12
1	Se 196.026†	34.9	69.1	35.713	ug/L	35.713	ppb	10:55:12
1	Si 251.611†	4048.3	3533.4	101.11	ug/L	101.11	ppb	10:55:12
1	Sn 189.927†	66.4	64.7	9.5959	ug/L	9.5959	ppb	10:55:12
1	Sr 421.552†	681.4	673.1	4.9260	ug/L	4.9260	ppb	10:53:35
1	Ti 334.940†	1405.7	3258.4	5.1599	ug/L	5.1599	ppb	10:54:52
1	Tl 190.801†	23.8	77.8	21.321	ug/L	21.321	ppb	10:55:12
1	U 409.014†	-1169.6	1469.8	43.672	ug/L	43.672	ppb	10:54:52
1	V 292.402†	-943.7	834.4	5.4501	ug/L	5.4501	ppb	10:55:12
1	Zn 213.857†	2094.7	1315.6	10.754	ug/L	10.754	ppb	10:55:12
1	SiO2†	4055.3	3521.1	215.61	ug/L	215.61	ppb	10:56:08
2	Sc 361.383	862681.9	862681.9	97.301	%			10:55:18
2	Sc Radial	4754.1	4754.1	102	%			10:54:00
2	Y 371.029	742521.1	742521.1	97.475	%			10:55:18
2	Y RADIAL	5002.0	5002.0	101.4	%			10:54:00
2	Ag 328.068†	1578.1	1109.5	4.7828	ug/L	4.7828	ppb	10:55:18
2	Al 396.153Radial†	210.6	233.5	206.60	ug/L	206.60	ppb	10:54:00
2	As 188.979†	48.6	83.4	29.197	ug/L	29.197	ppb	10:55:38
2	B 249.677†	1770.5	2485.5	51.222	ug/L	51.222	ppb	10:55:38
2	Ba 233.527†	700.4	712.3	5.2089	ug/L	5.2089	ppb	10:55:38
2	Be 313.107†	10220.4	14855.4	5.0311	ug/L	5.0311	ppb	10:55:18
2	Ca 317.933Radial†	134.8	119.8	200.76	ug/L	200.76	ppb	10:54:20
2	Cd 226.502†	289.3	535.7	5.0374	ug/L	5.0374	ppb	10:55:38
2	Co 228.616†	167.8	256.4	4.8384	ug/L	4.8384	ppb	10:55:38
2	Cr 267.716†	566.5	478.2	4.7880	ug/L	4.7880	ppb	10:55:38
2	Cu 324.752†	11291.1	3605.3	10.680	ug/L	10.680	ppb	10:55:18
2	Fe 238.204 Radial†	26.8	12.5	109.61	ug/L	109.61	ppb	10:54:20
2	K 766.490 Radial†	4121.7	710.0	140.70	ug/L	140.70	ppb	10:54:00
2	Mg 279.077 IEC†	14.7	12.8	410.58	ug/L	410.58	ppb	10:54:20
2	Mn 257.610†	10171.1	9936.8	10.473	ug/L	10.473	ppb	10:55:18
2	Mo 202.031†	193.2	178.6	11.199	ug/L	11.199	ppb	10:55:38
2	Na 589.592 Radial†	-664.3	1097.9	331.66	ug/L	331.66	ppb	10:54:00
2	Ni 231.604†	359.6	244.5	5.3646	ug/L	5.3646	ppb	10:55:38

2	P 214.914†	540.0	306.4	147.80 ug/L	147.80 ppb	10:55:38
2	Pb 220.353†	-4.4	73.3	7.6473 ug/L	7.6473 ppb	10:55:38
2	S 181.975 Axial†	153.9	98.2	110.96 ug/L	110.96 ppb	10:55:38
2	Sb 206.836†	82.6	47.8	14.571 ug/L	14.571 ppb	10:55:38
2	Se 196.026†	23.0	56.9	29.508 ug/L	29.508 ppb	10:55:38
2	Si 251.611†	4055.7	3551.6	101.61 ug/L	101.61 ppb	10:55:38
2	Sn 189.927†	69.5	68.0	10.077 ug/L	10.077 ppb	10:55:38
2	Sr 421.552†	680.6	652.3	4.7737 ug/L	4.7737 ppb	10:54:00
2	Ti 334.940†	1359.5	3214.5	5.0894 ug/L	5.0894 ppb	10:55:18
2	Tl 190.801†	32.2	86.5	23.700 ug/L	23.700 ppb	10:55:38
2	U 409.014†	-1144.5	1492.5	44.347 ug/L	44.347 ppb	10:55:18
2	V 292.402†	-926.4	849.7	5.5654 ug/L	5.5654 ppb	10:55:38
2	Zn 213.857†	2085.8	1312.0	10.721 ug/L	10.721 ppb	10:55:38
2	SiO2†	4086.4	3563.7	218.18 ug/L	218.18 ppb	10:56:13
3	Sc 361.383	872526.3	872526.3	98.412 %		10:55:43
3	Sc Radial	4661.1	4661.1	99.9 %		10:54:26
3	Y 371.029	750241.4	750241.4	98.488 %		10:55:43
3	Y RADIAL	4937.4	4937.4	100.1 %		10:54:26
3	Ag 328.068†	1623.4	1137.3	4.9014 ug/L	4.9014 ppb	10:55:43
3	Al 396.153Radial†	216.7	243.8	215.75 ug/L	215.75 ppb	10:54:26
3	As 188.979†	47.1	81.3	28.469 ug/L	28.469 ppb	10:56:03
3	B 249.677†	1751.4	2445.5	50.399 ug/L	50.399 ppb	10:56:03
3	Ba 233.527†	706.2	710.1	5.1916 ug/L	5.1916 ppb	10:56:03
3	Be 313.107†	10363.1	14881.9	5.0399 ug/L	5.0399 ppb	10:55:43
3	Ca 317.933Radial†	139.2	126.9	212.59 ug/L	212.59 ppb	10:54:46
3	Cd 226.502†	272.7	515.5	4.8480 ug/L	4.8480 ppb	10:56:03
3	Co 228.616†	158.4	245.0	4.6209 ug/L	4.6209 ppb	10:56:03
3	Cr 267.716†	576.9	482.2	4.8283 ug/L	4.8283 ppb	10:56:03
3	Cu 324.752†	11366.5	3551.0	10.518 ug/L	10.518 ppb	10:55:43
3	Fe 238.204 Radial†	25.7	11.8	104.23 ug/L	104.23 ppb	10:54:46
3	K 766.490 Radial†	4132.4	801.4	158.86 ug/L	158.86 ppb	10:54:26
3	Mg 279.077 IEC†	14.8	13.2	421.14 ug/L	421.14 ppb	10:54:46
3	Mn 257.610†	10368.6	10019.5	10.560 ug/L	10.560 ppb	10:55:43
3	Mo 202.031†	183.5	166.6	10.445 ug/L	10.445 ppb	10:56:03
3	Na 589.592 Radial†	-719.9	1029.2	310.91 ug/L	310.91 ppb	10:54:26
3	Ni 231.604†	357.1	237.8	5.2178 ug/L	5.2178 ppb	10:56:03
3	P 214.914†	529.6	289.5	139.61 ug/L	139.61 ppb	10:56:03
3	Pb 220.353†	1.8	79.6	8.3021 ug/L	8.3021 ppb	10:56:03
3	S 181.975 Axial†	142.6	85.0	96.017 ug/L	96.017 ppb	10:56:03
3	Sb 206.836†	69.5	33.5	10.312 ug/L	10.312 ppb	10:56:03
3	Se 196.026†	31.2	64.9	33.613 ug/L	33.613 ppb	10:56:03
3	Si 251.611†	4006.5	3454.6	98.832 ug/L	98.832 ppb	10:56:03
3	Sn 189.927†	76.4	74.3	11.010 ug/L	11.010 ppb	10:56:03
3	Sr 421.552†	673.2	658.2	4.8171 ug/L	4.8171 ppb	10:54:26
3	Ti 334.940†	1360.9	3200.2	5.0685 ug/L	5.0685 ppb	10:55:43
3	Tl 190.801†	31.5	85.3	23.387 ug/L	23.387 ppb	10:56:03
3	U 409.014†	-1259.2	1389.2	41.277 ug/L	41.277 ppb	10:55:43
3	V 292.402†	-985.6	800.3	5.2394 ug/L	5.2394 ppb	10:56:03
3	Zn 213.857†	2075.9	1277.8	10.440 ug/L	10.440 ppb	10:56:03
3	SiO2†	4122.9	3553.4	217.55 ug/L	217.55 ppb	10:56:18

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	866699.4	97.754	%	0.5826				0.60%
Sc Radial	4676.9	100	%	1.5				1.51%
Y 371.029	745722.1	97.895	%	0.5284				0.54%
Y RADIAL	4936.6	100.1	%	1.33				1.33%
Ag 328.068†	1147.5	4.9443	ug/L	0.18669	4.9443	ppb	0.18669	3.78%
QC value within limits for Ag 328.068 Recovery = 98.89%								
Al 396.153Radial†	242.0	214.17	ug/L	6.917	214.17	ppb	6.917	3.23%
QC value within limits for Al 396.153Radial Recovery = 107.09%								
As 188.979†	82.7	28.977	ug/L	0.4416	28.977	ppb	0.4416	1.52%
QC value within limits for As 188.979 Recovery = 96.59%								
B 249.677†	2476.1	51.030	ug/L	0.5600	51.030	ppb	0.5600	1.10%
QC value within limits for B 249.677 Recovery = 102.06%								
Ba 233.527†	715.4	5.2305	ug/L	0.05318	5.2305	ppb	0.05318	1.02%
QC value within limits for Ba 233.527 Recovery = 104.61%								
Be 313.107†	14842.1	5.0266	ug/L	0.01610	5.0266	ppb	0.01610	0.32%
QC value within limits for Be 313.107 Recovery = 100.53%								

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Ca 317.933Radial†        125.1      209.56 ug/L        7.740      209.56 ppb        7.740   3.69%
   QC value within limits for Ca 317.933Radial  Recovery = 104.78%
Cd 226.502†              522.3      4.9122 ug/L      0.10842      4.9122 ppb      0.10842   2.21%
   QC value within limits for Cd 226.502  Recovery = 98.24%
Co 228.616†              251.7      4.7478 ug/L      0.11318      4.7478 ppb      0.11318   2.38%
   QC value within limits for Co 228.616  Recovery = 94.96%
Cr 267.716†              491.4      4.9209 ug/L      0.19632      4.9209 ppb      0.19632   3.99%
   QC value within limits for Cr 267.716  Recovery = 98.42%
Cu 324.752†             3587.4      10.626 ug/L       0.0933      10.626 ppb       0.0933   0.88%
   QC value within limits for Cu 324.752  Recovery = 106.26%
Fe 238.204 Radial†        11.8      103.78 ug/L        6.074      103.78 ppb        6.074   5.85%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.78%
K 766.490 Radial†        743.5      147.35 ug/L       10.005      147.35 ppb       10.005   6.79%
   QC value within limits for K 766.490 Radial  Recovery = 98.23%
Mg 279.077 IEC†           12.3      394.51 ug/L       37.353      394.51 ppb       37.353   9.47%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 131.50%
Mn 257.610†             9968.0      10.506 ug/L       0.0470      10.506 ppb       0.0470   0.45%
   QC value within limits for Mn 257.610  Recovery = 105.06%
Mo 202.031†              167.8      10.520 ug/L       0.6446      10.520 ppb       0.6446   6.13%
   QC value within limits for Mo 202.031  Recovery = 105.20%
Na 589.592 Radial†      1018.5      307.66 ug/L       25.776      307.66 ppb       25.776   8.38%
   QC value within limits for Na 589.592 Radial  Recovery = 102.55%
Ni 231.604†              241.9      5.3066 ug/L      0.07809      5.3066 ppb      0.07809   1.47%
   QC value within limits for Ni 231.604  Recovery = 106.13%
P 214.914†               307.4      148.27 ug/L        8.897      148.27 ppb        8.897   6.00%
   QC value within limits for P 214.914  Recovery = 98.84%
Pb 220.353†               80.6      8.4099 ug/L      0.82175      8.4099 ppb      0.82175   9.77%
   QC value within limits for Pb 220.353  Recovery = 84.10%
S 181.975 Axial†          90.7      102.47 ug/L        7.681      102.47 ppb        7.681   7.50%
   QC value within limits for S 181.975 Axial  Recovery = 102.47%
Sb 206.836†               40.9      12.494 ug/L       2.1317      12.494 ppb       2.1317  17.06%
   QC value within limits for Sb 206.836  Recovery = 124.94%
Se 196.026†               63.6      32.945 ug/L       3.1563      32.945 ppb       3.1563   9.58%
   QC value within limits for Se 196.026  Recovery = 109.82%
Si 251.611†             3513.2      100.52 ug/L        1.482      100.52 ppb        1.482   1.47%
   QC value within limits for Si 251.611  Recovery = 100.52%
Sn 189.927†               69.0      10.228 ug/L       0.7190      10.228 ppb       0.7190   7.03%
   QC value within limits for Sn 189.927  Recovery = 102.28%
Sr 421.552†              661.2      4.8389 ug/L      0.07843      4.8389 ppb      0.07843   1.62%
   QC value within limits for Sr 421.552  Recovery = 96.78%
Ti 334.940†             3224.4      5.1059 ug/L      0.04787      5.1059 ppb      0.04787   0.94%
   QC value within limits for Ti 334.940  Recovery = 102.12%
Tl 190.801†               83.2      22.803 ug/L       1.2930      22.803 ppb       1.2930   5.67%
   QC value within limits for Tl 190.801  Recovery = 114.01%
U 409.014†              1450.5      43.099 ug/L       1.6133      43.099 ppb       1.6133   3.74%
   QC value within limits for U 409.014  Recovery = 86.20%
V 292.402†               828.1      5.4183 ug/L      0.16533      5.4183 ppb      0.16533   3.05%
   QC value within limits for V 292.402  Recovery = 108.37%
Zn 213.857†             1301.8      10.638 ug/L       0.1721      10.638 ppb       0.1721   1.62%
   QC value within limits for Zn 213.857  Recovery = 106.38%
SiO2†                   3546.1      217.11 ug/L        1.338      217.11 ppb        1.338   0.62%
   QC value within limits for SiO2  Recovery = 101.93%
QC Failed.  Continue with analysis.
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Sequence No.: 9
Sample ID: ICSA
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 1/6/2010 10:58:30
Data Type: Reprocessed on 1/6/2010 11:55:34
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	753202.5	753202.5	84.953	%			11:00:55
1	Sc Radial	4258.7	4258.7	91.2	%			11:00:28
1	Y 371.029	636756.7	636756.7	83.591	%			11:00:55
1	Y RADIAL	4458.6	4458.6	90.39	%			11:00:28
1	Ag 328.068†	-10379.9	-12730.8	1.7815	ug/L	1.7815	ppb	11:00:55
1	Al 396.153Radial†	543336.5	595526.4	528190	ug/L	528190	ppb	11:00:23
1	As 188.979†	-110.8	-97.0	-4.7044	ug/L	-4.7044	ppb	11:01:15
1	B 249.677†	4.9	671.6	-11.419	ug/L	-11.419	ppb	11:00:55
1	Ba 233.527†	-722.9	-858.4	-1.4244	ug/L	-1.4244	ppb	11:01:15
1	Be 313.107†	-4139.1	-520.6	-0.2187	ug/L	-0.2187	ppb	11:00:55
1	Ca 317.933Radial†	268839.9	294637.4	493710	ug/L	493710	ppb	11:00:23
1	Cd 226.502†	1292.9	1760.3	-2.4583	ug/L	-2.4583	ppb	11:01:15
1	Co 228.616†	-10.0	72.2	-1.3635	ug/L	-1.3635	ppb	11:01:15
1	Cr 267.716†	-61.3	-176.2	1.6644	ug/L	1.6644	ppb	11:01:15
1	Cu 324.752†	4196.3	-3059.4	0.6567	ug/L	0.6567	ppb	11:00:55
1	Fe 238.204 Radial†	19787.2	21673.0	190440	ug/L	190440	ppb	11:00:28
1	K 766.490 Radial†	2915.0	-141.9	-12.209	ug/L	-12.209	ppb	11:00:23
1	Mg 279.077 IEC†	14063.0	15411.5	492600	ug/L	492600	ppb	11:00:28
1	Mn 257.610†	-569.1	-1186.3	8.5667	ug/L	8.5667	ppb	11:00:55
1	Mo 202.031†	-238.4	-300.6	-0.5758	ug/L	-0.5758	ppb	11:01:15
1	Na 589.592 Radial†	-1538.9	63.5	19.169	ug/L	19.169	ppb	11:00:28
1	Ni 231.604†	227.1	142.3	3.1234	ug/L	3.1234	ppb	11:01:15
1	P 214.914†	231.9	24.4	37.831	ug/L	37.831	ppb	11:01:15
1	Pb 220.353†	-995.9	-1094.5	-10.525	ug/L	-10.525	ppb	11:01:15
1	S 181.975 Axial†	83.4	38.2	-60.693	ug/L	-60.693	ppb	11:01:15
1	Sb 206.836†	61.5	35.3	-2.2838	ug/L	-2.2838	ppb	11:01:15
1	Se 196.026†	-1144.8	-1314.3	-4.4475	ug/L	-4.4475	ppb	11:01:15
1	Si 251.611†	537.0	15.6	0.9976	ug/L	0.9976	ppb	11:01:15
1	Sn 189.927†	-390.5	-463.1	-14.397	ug/L	-14.397	ppb	11:01:15
1	Sr 421.552†	470.2	499.4	-0.9197	ug/L	-0.9197	ppb	11:00:28
1	Ti 334.940†	-13182.1	-13699.6	4.0139	ug/L	4.0139	ppb	11:00:55
1	Tl 190.801†	-107.0	-72.6	-5.5819	ug/L	-5.5819	ppb	11:01:15
1	U 409.014†	-1998.0	316.8	-14.537	ug/L	-14.537	ppb	11:00:55
1	V 292.402†	565.4	2467.3	-2.5903	ug/L	-2.5903	ppb	11:01:15
1	Zn 213.857†	3443.4	3221.6	-0.2562	ug/L	-0.2562	ppb	11:01:15
1	SiO2†	550.4	11.8	1.9222	ug/L	1.9222	ppb	11:02:12
2	Sc 361.383	759275.0	759275.0	85.638	%			11:01:21
2	Sc Radial	4214.5	4214.5	90.3	%			11:00:38
2	Y 371.029	641859.3	641859.3	84.260	%			11:01:21
2	Y RADIAL	4476.8	4476.8	90.75	%			11:00:38
2	Ag 328.068†	-10380.1	-12633.2	2.5928	ug/L	2.5928	ppb	11:01:21
2	Al 396.153Radial†	526541.1	583169.3	517230	ug/L	517230	ppb	11:00:33
2	As 188.979†	-100.8	-84.3	-0.1464	ug/L	-0.1464	ppb	11:01:41
2	B 249.677†	87.7	768.3	-9.5295	ug/L	-9.5295	ppb	11:01:21
2	Ba 233.527†	-705.8	-831.7	-1.2098	ug/L	-1.2098	ppb	11:01:41
2	Be 313.107†	-4067.1	-397.7	-0.1780	ug/L	-0.1780	ppb	11:01:21
2	Ca 317.933Radial†	261146.2	289206.0	484610	ug/L	484610	ppb	11:00:33
2	Cd 226.502†	1288.6	1743.1	-2.7001	ug/L	-2.7001	ppb	11:01:41
2	Co 228.616†	-36.7	41.2	-1.9559	ug/L	-1.9559	ppb	11:01:41
2	Cr 267.716†	-60.1	-174.2	1.6951	ug/L	1.6951	ppb	11:01:41
2	Cu 324.752†	4267.8	-3015.4	0.8279	ug/L	0.8279	ppb	11:01:21
2	Fe 238.204 Radial†	19664.5	21764.5	191240	ug/L	191240	ppb	11:00:38
2	K 766.490 Radial†	2915.7	-107.6	-5.9274	ug/L	-5.9274	ppb	11:00:33
2	Mg 279.077 IEC†	13981.2	15482.5	494870	ug/L	494870	ppb	11:00:38
2	Mn 257.610†	-551.4	-1160.3	8.6320	ug/L	8.6320	ppb	11:01:21
2	Mo 202.031†	-236.8	-296.4	-0.2373	ug/L	-0.2373	ppb	11:01:41
2	Na 589.592 Radial†	-1549.5	34.1	10.299	ug/L	10.299	ppb	11:00:38
2	Ni 231.604†	257.1	175.1	3.8435	ug/L	3.8435	ppb	11:01:41

2	P 214.914†	255.3	49.5	45.646 ug/L	45.646 ppb	11:01:41
2	Pb 220.353†	-991.5	-1080.0	-11.551 ug/L	-11.551 ppb	11:01:41
2	S 181.975 Axial†	88.3	43.2	-52.950 ug/L	-52.950 ppb	11:01:41
2	Sb 206.836†	77.5	53.4	3.4112 ug/L	3.4112 ppb	11:01:41
2	Se 196.026†	-1139.5	-1297.3	5.0374 ug/L	5.0374 ppb	11:01:41
2	Si 251.611†	573.3	52.9	2.0679 ug/L	2.0679 ppb	11:01:41
2	Sn 189.927†	-407.9	-479.7	-17.799 ug/L	-17.799 ppb	11:01:41
2	Sr 421.552†	452.7	485.4	-0.9382 ug/L	-0.9382 ppb	11:00:38
2	Ti 334.940†	-13537.0	-13989.8	3.0739 ug/L	3.0739 ppb	11:01:21
2	Tl 190.801†	-114.3	-80.1	-7.9393 ug/L	-7.9393 ppb	11:01:41
2	U 409.014†	-1707.5	674.9	-3.9930 ug/L	-3.9930 ppb	11:01:21
2	V 292.402†	546.7	2440.3	-2.8065 ug/L	-2.8065 ppb	11:01:41
2	Zn 213.857†	3441.4	3186.9	-0.6655 ug/L	-0.6655 ppb	11:01:41
2	SiO2†	505.9	-45.3	-1.5806 ug/L	-1.5806 ppb	11:02:17
3	Sc 361.383	751186.8	751186.8	84.726 %		11:01:46
3	Sc Radial	4186.9	4186.9	89.7 %		11:00:49
3	Y 371.029	635002.1	635002.1	83.360 %		11:01:46
3	Y RADIAL	4447.4	4447.4	90.16 %		11:00:49
3	Ag 328.068†	-10460.2	-12858.3	1.7968 ug/L	1.7968 ppb	11:01:46
3	Al 396.153Radial†	532654.5	593833.3	526690 ug/L	526690 ppb	11:00:44
3	As 188.979†	-114.1	-101.3	-5.9524 ug/L	-5.9524 ppb	11:02:06
3	B 249.677†	113.1	799.4	-9.0024 ug/L	-9.0024 ppb	11:01:46
3	Ba 233.527†	-713.1	-849.2	-1.3160 ug/L	-1.3160 ppb	11:02:06
3	Be 313.107†	-4125.4	-517.6	-0.2177 ug/L	-0.2177 ppb	11:01:46
3	Ca 317.933Radial†	263738.1	294004.4	492650 ug/L	492650 ppb	11:00:44
3	Cd 226.502†	1283.9	1753.7	-2.6857 ug/L	-2.6857 ppb	11:02:06
3	Co 228.616†	-34.4	43.3	-1.9279 ug/L	-1.9279 ppb	11:02:06
3	Cr 267.716†	-93.5	-214.4	1.3088 ug/L	1.3088 ppb	11:02:06
3	Cu 324.752†	4225.0	-3012.4	0.8806 ug/L	0.8806 ppb	11:01:46
3	Fe 238.204 Radial†	19622.8	21861.8	192100 ug/L	192100 ppb	11:00:49
3	K 766.490 Radial†	2882.8	-123.0	-8.5384 ug/L	-8.5384 ppb	11:00:44
3	Mg 279.077 IEC†	13916.3	15512.4	495830 ug/L	495830 ppb	11:00:49
3	Mn 257.610†	-533.9	-1146.5	8.7140 ug/L	8.7140 ppb	11:01:46
3	Mo 202.031†	-233.8	-295.9	-0.1250 ug/L	-0.1250 ppb	11:02:06
3	Na 589.592 Radial†	-1593.1	-25.9	-7.8365 ug/L	-7.8365 ppb	11:00:49
3	Ni 231.604†	234.5	151.7	3.3293 ug/L	3.3293 ppb	11:02:06
3	P 214.914†	250.9	47.5	47.212 ug/L	47.212 ppb	11:02:06
3	Pb 220.353†	-1005.0	-1108.4	-12.435 ug/L	-12.435 ppb	11:02:06
3	S 181.975 Axial†	96.9	54.5	-42.024 ug/L	-42.024 ppb	11:02:06
3	Sb 206.836†	74.2	50.4	2.3042 ug/L	2.3042 ppb	11:02:06
3	Se 196.026†	-1143.4	-1316.3	-0.5904 ug/L	-0.5904 ppb	11:02:06
3	Si 251.611†	593.1	83.5	2.9418 ug/L	2.9418 ppb	11:02:06
3	Sn 189.927†	-395.6	-470.4	-15.565 ug/L	-15.565 ppb	11:02:06
3	Sr 421.552†	518.1	561.7	-0.4542 ug/L	-0.4542 ppb	11:00:49
3	Ti 334.940†	-13154.2	-13708.3	3.9422 ug/L	3.9422 ppb	11:01:46
3	Tl 190.801†	-98.0	-62.3	-2.8132 ug/L	-2.8132 ppb	11:02:06
3	U 409.014†	-1817.7	523.3	-8.6066 ug/L	-8.6066 ppb	11:01:46
3	V 292.402†	510.1	2403.8	-3.1522 ug/L	-3.1522 ppb	11:02:06
3	Zn 213.857†	3432.7	3219.8	-0.4685 ug/L	-0.4685 ppb	11:02:06
3	SiO2†	498.3	-47.9	-1.7492 ug/L	-1.7492 ppb	11:02:22

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	754554.8	85.106	%	0.4749				0.56%
Sc Radial	4220.0	90.4	%	0.78				0.86%
Y 371.029	637872.7	83.737	%	0.4676				0.56%
Y RADIAL	4461.0	90.43	%	0.300				0.33%
Ag 328.068†	-12740.8	2.0571	ug/L	0.46404	2.0571	ppb	0.46404	22.56%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	590843.0	524030	ug/L	5941.8	524030	ppb	5941.8	1.13%
QC value within limits for Al 396.153Radial Recovery = 104.81%								
As 188.979†	-94.2	-3.6010	ug/L	3.05620	-3.6010	ppb	3.05620	84.87%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	746.4	-9.9835	ug/L	1.27043	-9.9835	ppb	1.27043	12.73%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-846.4	-1.3167	ug/L	0.10732	-1.3167	ppb	0.10732	8.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-478.7	-0.2048	ug/L	0.02319	-0.2048	ppb	0.02319	11.32%
QC value within limits for Be 313.107 Recovery = Not calculated								

```
Ca 317.933Radial†     292615.9      490330 ug/L        4976.7      490330 ppb        4976.7   1.01%
   QC value within limits for Ca 317.933Radial  Recovery = 98.07%
Cd 226.502†             1752.4     -2.6147 ug/L       0.13567     -2.6147 ppb       0.13567   5.19%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               52.2     -1.7491 ug/L       0.33421     -1.7491 ppb       0.33421  19.11%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -188.3      1.5561 ug/L       0.21472      1.5561 ppb       0.21472  13.80%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -3029.1      0.7884 ug/L       0.11705      0.7884 ppb       0.11705  14.85%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     21766.4      191260 ug/L         829.5      191260 ppb         829.5   0.43%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.63%
K 766.490 Radial†       -124.2     -8.8918 ug/L       3.15589     -8.8918 ppb       3.15589  35.49%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        15468.8      494430 ug/L        1657.1      494430 ppb        1657.1   0.34%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.89%
Mn 257.610†            -1164.4      8.6375 ug/L       0.07379      8.6375 ppb       0.07379   0.85%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -297.6     -0.3127 ug/L       0.23467     -0.3127 ppb       0.23467  75.05%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        23.9      7.2102 ug/L      13.76491      7.2102 ppb      13.76491 190.91%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              156.4      3.4321 ug/L       0.37090      3.4321 ppb       0.37090  10.81%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                40.5      43.563 ug/L        5.0252      43.563 ppb        5.0252  11.54%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -1094.3     -11.504 ug/L        0.9561     -11.504 ppb        0.9561   8.31%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          45.3     -51.889 ug/L        9.3800     -51.889 ppb        9.3800  18.08%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               46.4      1.1439 ug/L       3.01962      1.1439 ppb       3.01962 263.98%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -1309.3     -0.0001 ug/L       4.76989     -0.0001 ppb       4.76989 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               50.6      2.0024 ug/L       0.97379      2.0024 ppb       0.97379  48.63%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -471.0     -15.920 ug/L        1.7286     -15.920 ppb        1.7286  10.86%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              515.5     -0.7707 ug/L       0.27428     -0.7707 ppb       0.27428  35.59%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           -13799.2      3.6767 ug/L       0.52321      3.6767 ppb       0.52321  14.23%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -71.7     -5.4448 ug/L       2.56579     -5.4448 ppb       2.56579  47.12%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               505.0     -9.0456 ug/L       5.28573     -9.0456 ppb       5.28573  58.43%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              2437.2     -2.8497 ug/L       0.28341     -2.8497 ppb       0.28341   9.95%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             3209.4     -0.4634 ug/L       0.20471     -0.4634 ppb       0.20471  44.18%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -27.1     -0.4692 ug/L       2.07277     -0.4692 ppb       2.07277 441.76%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 1/6/2010 11:04:33
Data Type: Reprocessed on 1/6/2010 11:55:35

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	779127.1	779127.1	87.877	%			11:06:59
1	Sc Radial	4454.4	4454.4	95.4	%			11:06:31
1	Y 371.029	656369.1	656369.1	86.165	%			11:06:59
1	Y RADIAL	4717.2	4717.2	95.63	%			11:06:31
1	Ag 328.068†	44700.6	50354.8	271.57	ug/L	271.57	ppb	11:06:59
1	Al 396.153Radial†	542854.2	568858.2	504510	ug/L	504510	ppb	11:06:26
1	As 188.979†	1186.0	1383.0	515.64	ug/L	515.64	ppb	11:07:04
1	B 249.677†	22144.7	25865.5	508.09	ug/L	508.09	ppb	11:06:59
1	Ba 233.527†	59785.3	68025.3	501.76	ug/L	501.76	ppb	11:06:59
1	Be 313.107†	638883.9	731370.9	248.18	ug/L	248.18	ppb	11:06:59
1	Ca 317.933Radial†	269440.5	282321.5	473080	ug/L	473080	ppb	11:06:26
1	Cd 226.502†	44934.9	51372.1	466.00	ug/L	466.00	ppb	11:07:04
1	Co 228.616†	21546.0	24602.3	460.14	ug/L	460.14	ppb	11:07:04
1	Cr 267.716†	41176.3	46752.7	472.42	ug/L	472.42	ppb	11:07:04
1	Cu 324.752†	172238.2	187999.8	565.85	ug/L	565.85	ppb	11:06:59
1	Fe 238.204 Radial†	19710.1	20639.4	181370	ug/L	181370	ppb	11:06:31
1	K 766.490 Radial†	28330.7	26349.7	5238.8	ug/L	5238.8	ppb	11:06:26
1	Mg 279.077 IEC†	14049.6	14720.3	470520	ug/L	470520	ppb	11:06:31
1	Mn 257.610†	413808.4	470377.9	504.94	ug/L	504.94	ppb	11:06:59
1	Mo 202.031†	6539.3	7421.5	482.32	ug/L	482.32	ppb	11:07:04
1	Na 589.592 Radial†	15160.6	17636.2	5327.5	ug/L	5327.5	ppb	11:06:31
1	Ni 231.604†	18561.1	20996.6	460.63	ug/L	460.63	ppb	11:07:04
1	P 214.914†	4828.3	5245.8	2498.8	ug/L	2498.8	ppb	11:07:04
1	Pb 220.353†	3022.4	3517.1	463.40	ug/L	463.40	ppb	11:07:04
1	S 181.975 Axial†	2097.2	2326.6	2530.2	ug/L	2530.2	ppb	11:07:04
1	Sb 206.836†	1597.3	1780.5	526.98	ug/L	526.98	ppb	11:07:04
1	Se 196.026†	3327.7	3820.0	2592.9	ug/L	2592.9	ppb	11:07:04
1	Si 251.611†	162299.0	184072.0	5269.3	ug/L	5269.3	ppb	11:06:59
1	Sn 189.927†	2534.0	2880.2	477.84	ug/L	477.84	ppb	11:07:04
1	Sr 421.552†	64399.4	67465.1	489.57	ug/L	489.57	ppb	11:06:26
1	Ti 334.940†	273893.2	313494.8	521.66	ug/L	521.66	ppb	11:06:59
1	Tl 190.801†	1424.0	1673.8	474.24	ug/L	474.24	ppb	11:07:04
1	U 409.014†	13388.8	17904.5	508.55	ug/L	508.55	ppb	11:06:59
1	V 292.402†	71020.6	82619.9	508.63	ug/L	508.63	ppb	11:06:59
1	Zn 213.857†	55652.9	62498.7	484.76	ug/L	484.76	ppb	11:07:04
1	SiO2†	160345.8	181829.9	11138	ug/L	11138	ppb	11:07:31
2	Sc 361.383	782551.7	782551.7	88.263	%			11:07:10
2	Sc Radial	4310.7	4310.7	92.4	%			11:06:41
2	Y 371.029	659175.2	659175.2	86.534	%			11:07:10
2	Y RADIAL	4569.4	4569.4	92.63	%			11:06:41
2	Ag 328.068†	44733.5	50169.5	271.97	ug/L	271.97	ppb	11:07:10
2	Al 396.153Radial†	524292.2	567719.1	503500	ug/L	503500	ppb	11:06:36
2	As 188.979†	1190.8	1382.6	516.02	ug/L	516.02	ppb	11:07:15
2	B 249.677†	22208.8	25827.8	506.84	ug/L	506.84	ppb	11:07:10
2	Ba 233.527†	59710.0	67642.3	499.05	ug/L	499.05	ppb	11:07:10
2	Be 313.107†	638538.1	727797.6	246.96	ug/L	246.96	ppb	11:07:10
2	Ca 317.933Radial†	260192.9	281718.8	472070	ug/L	472070	ppb	11:06:36
2	Cd 226.502†	45076.0	51308.3	465.04	ug/L	465.04	ppb	11:07:15
2	Co 228.616†	21732.6	24706.4	462.06	ug/L	462.06	ppb	11:07:15
2	Cr 267.716†	41362.7	46758.8	472.54	ug/L	472.54	ppb	11:07:15
2	Cu 324.752†	172268.0	187175.8	563.59	ug/L	563.59	ppb	11:07:10
2	Fe 238.204 Radial†	19447.4	21043.4	184920	ug/L	184920	ppb	11:06:41
2	K 766.490 Radial†	27448.6	26384.1	5245.5	ug/L	5245.5	ppb	11:06:36
2	Mg 279.077 IEC†	13853.6	14998.7	479420	ug/L	479420	ppb	11:06:41
2	Mn 257.610†	413221.7	467652.3	502.25	ug/L	502.25	ppb	11:07:10
2	Mo 202.031†	6615.2	7474.9	486.01	ug/L	486.01	ppb	11:07:15
2	Na 589.592 Radial†	14817.5	17794.2	5375.3	ug/L	5375.3	ppb	11:06:41
2	Ni 231.604†	18668.1	21025.4	461.26	ug/L	461.26	ppb	11:07:15

2	P 214.914†	4811.7	5202.9	2474.9 ug/L	2474.9 ppb		11:07:15
2	Pb 220.353†	3019.9	3499.2	461.03 ug/L	461.03 ppb		11:07:15
2	S 181.975 Axial†	2128.5	2351.6	2558.6 ug/L	2558.6 ppb		11:07:15
2	Sb 206.836†	1622.3	1800.9	533.15 ug/L	533.15 ppb		11:07:15
2	Se 196.026†	3297.2	3768.9	2577.5 ug/L	2577.5 ppb		11:07:15
2	Si 251.611†	162156.2	183101.9	5241.4 ug/L	5241.4 ppb		11:07:10
2	Sn 189.927†	2516.2	2847.4	472.92 ug/L	472.92 ppb		11:07:15
2	Sr 421.552†	62261.9	67399.9	489.10 ug/L	489.10 ppb		11:06:36
2	Ti 334.940†	273884.8	312121.3	519.44 ug/L	519.44 ppb		11:07:10
2	Tl 190.801†	1448.5	1694.4	479.82 ug/L	479.82 ppb		11:07:15
2	U 409.014†	13235.3	17663.9	500.95 ug/L	500.95 ppb		11:07:10
2	V 292.402†	70906.1	82136.5	505.30 ug/L	505.30 ppb		11:07:10
2	Zn 213.857†	56331.5	62990.4	488.31 ug/L	488.31 ppb		11:07:15
2	SiO2†	158587.0	179038.7	10966 ug/L	10966 ppb		11:07:36
3	Sc 361.383	775657.2	775657.2	87.486 %			11:07:21
3	Sc Radial	4197.2	4197.2	89.9 %			11:06:52
3	Y 371.029	654106.3	654106.3	85.868 %			11:07:21
3	Y RADIAL	4453.0	4453.0	90.27 %			11:06:52
3	Ag 328.068†	44493.8	50346.0	274.39 ug/L	274.39 ppb		11:07:21
3	Al 396.153Radial†	539688.6	600202.2	532310 ug/L	532310 ppb		11:06:47
3	As 188.979†	1204.7	1410.4	526.71 ug/L	526.71 ppb		11:07:26
3	B 249.677†	22061.1	25882.7	507.15 ug/L	507.15 ppb		11:07:21
3	Ba 233.527†	59567.4	68080.6	502.41 ug/L	502.41 ppb		11:07:21
3	Be 313.107†	635782.5	731078.2	248.08 ug/L	248.08 ppb		11:07:21
3	Ca 317.933Radial†	267429.2	297389.5	498320 ug/L	498320 ppb		11:06:47
3	Cd 226.502†	45046.1	51728.0	468.39 ug/L	468.39 ppb		11:07:26
3	Co 228.616†	21698.9	24886.7	465.37 ug/L	465.37 ppb		11:07:26
3	Cr 267.716†	41445.2	47269.6	477.77 ug/L	477.77 ppb		11:07:26
3	Cu 324.752†	171054.1	187523.2	564.93 ug/L	564.93 ppb		11:07:21
3	Fe 238.204 Radial†	19560.0	21738.4	191030 ug/L	191030 ppb		11:06:52
3	K 766.490 Radial†	28206.6	28031.2	5573.4 ug/L	5573.4 ppb		11:06:47
3	Mg 279.077 IEC†	13930.5	15490.2	495130 ug/L	495130 ppb		11:06:52
3	Mn 257.610†	411428.3	469763.8	504.79 ug/L	504.79 ppb		11:07:21
3	Mo 202.031†	6618.5	7545.3	491.00 ug/L	491.00 ppb		11:07:26
3	Na 589.592 Radial†	15048.5	18485.2	5584.0 ug/L	5584.0 ppb		11:06:52
3	Ni 231.604†	18707.8	21258.7	466.38 ug/L	466.38 ppb		11:07:26
3	P 214.914†	4808.0	5247.2	2501.4 ug/L	2501.4 ppb		11:07:26
3	Pb 220.353†	2979.3	3483.2	465.35 ug/L	465.35 ppb		11:07:26
3	S 181.975 Axial†	2148.9	2396.4	2603.6 ug/L	2603.6 ppb		11:07:26
3	Sb 206.836†	1590.7	1781.1	526.70 ug/L	526.70 ppb		11:07:26
3	Se 196.026†	3309.9	3816.6	2625.3 ug/L	2625.3 ppb		11:07:26
3	Si 251.611†	161445.6	183922.7	5264.7 ug/L	5264.7 ppb		11:07:21
3	Sn 189.927†	2557.6	2920.1	486.49 ug/L	486.49 ppb		11:07:26
3	Sr 421.552†	64130.0	71301.5	517.43 ug/L	517.43 ppb		11:06:47
3	Ti 334.940†	272561.7	313367.1	522.78 ug/L	522.78 ppb		11:07:21
3	Tl 190.801†	1491.8	1758.5	498.12 ug/L	498.12 ppb		11:07:26
3	U 409.014†	13359.2	17938.9	508.35 ug/L	508.35 ppb		11:07:21
3	V 292.402†	70827.0	82760.2	508.71 ug/L	508.71 ppb		11:07:21
3	Zn 213.857†	56121.4	63317.5	490.12 ug/L	490.12 ppb		11:07:26
3	SiO2†	161991.9	184527.6	11303 ug/L	11303 ppb		11:07:42

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	779112.0	87.875	%	0.3888				0.44%
Sc Radial	4320.8	92.6	%	2.76				2.98%
Y 371.029	656550.2	86.189	%	0.3333				0.39%
Y RADIAL	4579.9	92.84	%	2.683				2.89%
Ag 328.068†	50290.1	272.65	ug/L	1.527	272.65	ppb	1.527	0.56%
QC value within limits for Ag 328.068 Recovery = 109.06%								
Al 396.153Radial†	578926.5	513440	ug/L	16349.5	513440	ppb	16349.5	3.18%
QC value within limits for Al 396.153Radial Recovery = 102.69%								
As 188.979†	1392.0	519.46	ug/L	6.281	519.46	ppb	6.281	1.21%
QC value within limits for As 188.979 Recovery = 103.89%								
B 249.677†	25858.6	507.36	ug/L	0.652	507.36	ppb	0.652	0.13%
QC value within limits for B 249.677 Recovery = 101.47%								
Ba 233.527†	67916.1	501.07	ug/L	1.782	501.07	ppb	1.782	0.36%
QC value within limits for Ba 233.527 Recovery = 100.21%								
Be 313.107†	730082.2	247.74	ug/L	0.673	247.74	ppb	0.673	0.27%
QC value within limits for Be 313.107 Recovery = 99.10%								

Ca 317.933Radial†	287143.3	481160 ug/L	14877.5	481160 ppb	14877.5	3.09%
QC value within limits for Ca 317.933Radial Recovery = 96.23%						
Cd 226.502†	51469.4	466.48 ug/L	1.723	466.48 ppb	1.723	0.37%
QC value within limits for Cd 226.502 Recovery = 93.30%						
Co 228.616†	24731.8	462.53 ug/L	2.645	462.53 ppb	2.645	0.57%
QC value within limits for Co 228.616 Recovery = 92.51%						
Cr 267.716†	46927.0	474.24 ug/L	3.056	474.24 ppb	3.056	0.64%
QC value within limits for Cr 267.716 Recovery = 94.85%						
Cu 324.752†	187566.3	564.79 ug/L	1.136	564.79 ppb	1.136	0.20%
QC value within limits for Cu 324.752 Recovery = 112.96%						
Fe 238.204 Radial†	21140.4	185770 ug/L	4884.4	185770 ppb	4884.4	2.63%
QC value within limits for Fe 238.204 Radial Recovery = 92.89%						
K 766.490 Radial†	26921.7	5352.6 ug/L	191.29	5352.6 ppb	191.29	3.57%
QC value within limits for K 766.490 Radial Recovery = 107.05%						
Mg 279.077 IEC†	15069.7	481690 ug/L	12459.7	481690 ppb	12459.7	2.59%
QC value within limits for Mg 279.077 IEC Recovery = 96.34%						
Mn 257.610†	469264.6	503.99 ug/L	1.510	503.99 ppb	1.510	0.30%
QC value within limits for Mn 257.610 Recovery = 100.80%						
Mo 202.031†	7480.6	486.44 ug/L	4.356	486.44 ppb	4.356	0.90%
QC value within limits for Mo 202.031 Recovery = 97.29%						
Na 589.592 Radial†	17971.9	5428.9 ug/L	136.40	5428.9 ppb	136.40	2.51%
QC value within limits for Na 589.592 Radial Recovery = 108.58%						
Ni 231.604†	21093.6	462.76 ug/L	3.154	462.76 ppb	3.154	0.68%
QC value within limits for Ni 231.604 Recovery = 92.55%						
P 214.914†	5232.0	2491.7 ug/L	14.56	2491.7 ppb	14.56	0.58%
QC value within limits for P 214.914 Recovery = 99.67%						
Pb 220.353†	3499.9	463.26 ug/L	2.165	463.26 ppb	2.165	0.47%
QC value within limits for Pb 220.353 Recovery = 92.65%						
S 181.975 Axial†	2358.2	2564.1 ug/L	37.04	2564.1 ppb	37.04	1.44%
QC value within limits for S 181.975 Axial Recovery = 102.57%						
Sb 206.836†	1787.5	528.94 ug/L	3.648	528.94 ppb	3.648	0.69%
QC value within limits for Sb 206.836 Recovery = 105.79%						
Se 196.026†	3801.8	2598.5 ug/L	24.38	2598.5 ppb	24.38	0.94%
QC value within limits for Se 196.026 Recovery = 103.94%						
Si 251.611†	183698.9	5258.4 ug/L	14.95	5258.4 ppb	14.95	0.28%
QC value within limits for Si 251.611 Recovery = 105.17%						
Sn 189.927†	2882.5	479.08 ug/L	6.874	479.08 ppb	6.874	1.43%
QC value within limits for Sn 189.927 Recovery = 95.82%						
Sr 421.552†	68722.2	498.70 ug/L	16.219	498.70 ppb	16.219	3.25%
QC value within limits for Sr 421.552 Recovery = 99.74%						
Ti 334.940†	312994.4	521.29 ug/L	1.701	521.29 ppb	1.701	0.33%
QC value within limits for Ti 334.940 Recovery = 104.26%						
Tl 190.801†	1708.9	484.06 ug/L	12.491	484.06 ppb	12.491	2.58%
QC value within limits for Tl 190.801 Recovery = 96.81%						
U 409.014†	17835.8	505.95 ug/L	4.330	505.95 ppb	4.330	0.86%
QC value within limits for U 409.014 Recovery = 101.19%						
V 292.402†	82505.5	507.55 ug/L	1.950	507.55 ppb	1.950	0.38%
QC value within limits for V 292.402 Recovery = 101.51%						
Zn 213.857†	62935.5	487.73 ug/L	2.725	487.73 ppb	2.725	0.56%
QC value within limits for Zn 213.857 Recovery = 97.55%						
SiO2†	181798.7	11136 ug/L	168.2	11136 ppb	168.2	1.51%
QC value within limits for SiO2 Recovery = 104.12%						

All analyte(s) passed QC.

Sequence No.: 11
Sample ID: LR1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 1/6/2010 11:09:52
Data Type: Reprocessed on 1/6/2010 11:55:36

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	757190.3	757190.3	85.403	%			11:12:18
1	Sc Radial	4069.5	4069.5	87.2	%			11:11:50
1	Y 371.029	639627.2	639627.2	83.967	%			11:12:18
1	Y RADIAL	4307.8	4307.8	87.33	%			11:11:50
1	Ag 328.068†	-25114.7	-29919.6	3.2743	ug/L	3.2743	ppb	11:12:18
1	Al 396.153Radial†	510246.3	585257.6	519080	ug/L	519080	ppb	11:11:45
1	As 188.979†	-226.9	-232.3	-11.379	ug/L	-11.379	ppb	11:12:38
1	B 249.677†	930.6	1755.6	-23.986	ug/L	-23.986	ppb	11:12:18
1	Ba 233.527†	-1963.0	-2306.0	-5.3258	ug/L	-5.3258	ppb	11:12:38
1	Be 313.107†	-10999.8	-8528.4	-2.9251	ug/L	-2.9251	ppb	11:12:18
1	Ca 317.933Radial†	255686.9	293249.5	491390	ug/L	491390	ppb	11:11:45
1	Cd 226.502†	3401.1	4220.8	-5.5906	ug/L	-5.5906	ppb	11:12:38
1	Co 228.616†	183.2	298.5	-0.9238	ug/L	-0.9238	ppb	11:12:38
1	Cr 267.716†	44.1	-52.4	2.8440	ug/L	2.8440	ppb	11:12:38
1	Cu 324.752†	557.6	-7346.1	1.3885	ug/L	1.3885	ppb	11:12:18
1	Fe 238.204 Radial†	45017.9	51619.7	453570	ug/L	453570	ppb	11:11:50
1	K 766.490 Radial†	3444.5	613.9	-90.690	ug/L	-90.690	ppb	11:11:45
1	Mg 279.077 IEC†	13372.4	15335.9	489960	ug/L	489960	ppb	11:11:50
1	Mn 257.610†	-26979.7	-32107.5	2.2724	ug/L	2.2724	ppb	11:12:18
1	Mo 202.031†	-544.9	-658.0	2.2543	ug/L	2.2543	ppb	11:12:18
1	Na 589.592 Radial†	1546860.8	1775933.7	536470	ug/L	536470	ppb	11:11:45
1	Ni 231.604†	305.8	233.0	5.1111	ug/L	5.1111	ppb	11:12:38
1	P 214.914†	643.8	505.2	58.913	ug/L	58.913	ppb	11:12:38
1	Pb 220.353†	-720.0	-765.3	-0.1074	ug/L	-0.1074	ppb	11:12:38
1	S 181.975 Axial†	91.6	47.4	-48.518	ug/L	-48.518	ppb	11:12:38
1	Sb 206.836†	64.7	38.7	2.6602	ug/L	2.6602	ppb	11:12:38
1	Se 196.026†	-2673.6	-3097.3	-109.20	ug/L	-109.20	ppb	11:12:38
1	Si 251.611†	-394.3	-1078.3	-30.022	ug/L	-30.022	ppb	11:12:38
1	Sn 189.927†	-428.8	-505.5	-17.410	ug/L	-17.410	ppb	11:12:38
1	Sr 421.552†	654.3	734.5	0.8228	ug/L	0.8228	ppb	11:11:50
1	Ti 334.940†	-13218.6	-13660.6	-2.6075	ug/L	-2.6075	ppb	11:12:18
1	Tl 190.801†	-112.2	-78.0	-7.5455	ug/L	-7.5455	ppb	11:12:38
1	U 409.014†	424989.0	500297.0	14816	ug/L	14816	ppb	11:12:18
1	V 292.402†	1846.6	3964.0	-4.7330	ug/L	-4.7330	ppb	11:12:18
1	Zn 213.857†	6309.6	6556.3	13.614	ug/L	13.614	ppb	11:12:38
1	SiO2†	-467.6	-1183.5	-70.679	ug/L	-70.679	ppb	11:13:35
2	Sc 361.383	747932.4	747932.4	84.359	%			11:12:44
2	Sc Radial	4162.5	4162.5	89.2	%			11:12:00
2	Y 371.029	631266.1	631266.1	82.870	%			11:12:44
2	Y RADIAL	4406.2	4406.2	89.32	%			11:12:00
2	Ag 328.068†	-24896.5	-30025.0	2.7957	ug/L	2.7957	ppb	11:12:44
2	Al 396.153Radial†	513742.4	576099.8	510960	ug/L	510960	ppb	11:11:55
2	As 188.979†	-230.4	-239.8	-14.056	ug/L	-14.056	ppb	11:13:04
2	B 249.677†	877.2	1705.6	-24.970	ug/L	-24.970	ppb	11:12:44
2	Ba 233.527†	-1965.8	-2337.8	-5.5667	ug/L	-5.5667	ppb	11:13:04
2	Be 313.107†	-10971.6	-8654.3	-2.9684	ug/L	-2.9684	ppb	11:12:44
2	Ca 317.933Radial†	256858.8	288010.2	482610	ug/L	482610	ppb	11:11:55
2	Cd 226.502†	3363.5	4225.5	-5.5103	ug/L	-5.5103	ppb	11:13:04
2	Co 228.616†	225.5	351.3	0.0756	ug/L	0.0756	ppb	11:13:04
2	Cr 267.716†	11.6	-90.3	2.4440	ug/L	2.4440	ppb	11:13:04
2	Cu 324.752†	691.5	-7179.3	1.8641	ug/L	1.8641	ppb	11:12:44
2	Fe 238.204 Radial†	46010.4	51578.8	453210	ug/L	453210	ppb	11:12:00
2	K 766.490 Radial†	3371.7	444.0	-120.26	ug/L	-120.26	ppb	11:11:55
2	Mg 279.077 IEC†	13639.9	15293.2	488600	ug/L	488600	ppb	11:12:00
2	Mn 257.610†	-26627.6	-32081.1	2.2899	ug/L	2.2899	ppb	11:12:44
2	Mo 202.031†	-533.2	-652.0	2.5949	ug/L	2.5949	ppb	11:12:44
2	Na 589.592 Radial†	1553333.5	1743544.6	526690	ug/L	526690	ppb	11:11:55
2	Ni 231.604†	303.3	234.4	5.1418	ug/L	5.1418	ppb	11:13:04

2	P 214.914†	620.8	487.3	47.656	ug/L	47.656 ppb	11:13:04
2	Pb 220.353†	-807.2	-879.1	-13.693	ug/L	-13.693 ppb	11:13:04
2	S 181.975 Axial†	115.8	77.4	-13.020	ug/L	-13.020 ppb	11:13:04
2	Sb 206.836†	71.1	47.2	5.4744	ug/L	5.4744 ppb	11:13:04
2	Se 196.026†	-2683.9	-3148.3	-137.67	ug/L	-137.67 ppb	11:13:04
2	Si 251.611†	-403.6	-1095.0	-30.500	ug/L	-30.500 ppb	11:13:04
2	Sn 189.927†	-418.3	-499.2	-17.395	ug/L	-17.395 ppb	11:13:04
2	Sr 421.552†	692.7	760.8	1.0971	ug/L	1.0971 ppb	11:12:00
2	Ti 334.940†	-13250.4	-13889.9	-3.4473	ug/L	-3.4473 ppb	11:12:44
2	Tl 190.801†	-129.1	-99.7	-13.698	ug/L	-13.698 ppb	11:13:04
2	U 409.014†	420957.2	501677.2	14857	ug/L	14857 ppb	11:12:44
2	V 292.402†	1835.9	3978.1	-4.5353	ug/L	-4.5353 ppb	11:12:44
2	Zn 213.857†	6334.6	6677.4	14.674	ug/L	14.674 ppb	11:13:04
2	SiO2†	-393.1	-1102.1	-65.675	ug/L	-65.675 ppb	11:13:40
3	Sc 361.383	755624.4	755624.4	85.226	%		11:13:10
3	Sc Radial	4203.6	4203.6	90.1	%		11:12:11
3	Y 371.029	637710.9	637710.9	83.716	%		11:13:10
3	Y RADIAL	4489.0	4489.0	91.00	%		11:12:11
3	Ag 328.068†	-24986.3	-29829.9	2.9540	ug/L	2.9540 ppb	11:13:10
3	Al 396.153Radial†	523842.6	581687.2	515910	ug/L	515910 ppb	11:12:06
3	As 188.979†	-238.1	-245.9	-16.509	ug/L	-16.509 ppb	11:13:30
3	B 249.677†	950.0	1780.5	-23.167	ug/L	-23.167 ppb	11:13:10
3	Ba 233.527†	-1897.4	-2233.8	-4.8555	ug/L	-4.8555 ppb	11:13:30
3	Be 313.107†	-10926.8	-8469.5	-2.9039	ug/L	-2.9039 ppb	11:13:10
3	Ca 317.933Radial†	261514.2	290365.6	486560	ug/L	486560 ppb	11:12:06
3	Cd 226.502†	3385.8	4211.0	-5.4515	ug/L	-5.4515 ppb	11:13:30
3	Co 228.616†	222.9	345.5	-0.0118	ug/L	-0.0118 ppb	11:13:30
3	Cr 267.716†	23.1	-76.9	2.5547	ug/L	2.5547 ppb	11:13:30
3	Cu 324.752†	722.6	-7151.2	1.8478	ug/L	1.8478 ppb	11:13:10
3	Fe 238.204 Radial†	46264.7	51357.2	451270	ug/L	451270 ppb	11:12:11
3	K 766.490 Radial†	3543.4	597.7	-92.508	ug/L	-92.508 ppb	11:12:06
3	Mg 279.077 IEC†	13726.0	15239.3	486870	ug/L	486870 ppb	11:12:11
3	Mn 257.610†	-26793.1	-31954.0	2.2617	ug/L	2.2617 ppb	11:13:10
3	Mo 202.031†	-566.7	-684.9	0.3482	ug/L	0.3482 ppb	11:13:10
3	Na 589.592 Radial†	1588770.3	1765877.1	533430	ug/L	533430 ppb	11:12:06
3	Ni 231.604†	321.7	252.4	5.5371	ug/L	5.5371 ppb	11:13:30
3	P 214.914†	641.1	503.6	58.829	ug/L	58.829 ppb	11:13:30
3	Pb 220.353†	-758.3	-811.9	-5.4667	ug/L	-5.4667 ppb	11:13:30
3	S 181.975 Axial†	105.2	63.5	-29.686	ug/L	-29.686 ppb	11:13:30
3	Sb 206.836†	58.4	31.4	0.5209	ug/L	0.5209 ppb	11:13:30
3	Se 196.026†	-2673.4	-3103.6	-119.97	ug/L	-119.97 ppb	11:13:30
3	Si 251.611†	-378.8	-1061.0	-29.495	ug/L	-29.495 ppb	11:13:30
3	Sn 189.927†	-428.5	-506.2	-18.044	ug/L	-18.044 ppb	11:13:30
3	Sr 421.552†	720.4	783.9	1.2299	ug/L	1.2299 ppb	11:12:11
3	Ti 334.940†	-12836.6	-13244.5	-2.2045	ug/L	-2.2045 ppb	11:13:10
3	Tl 190.801†	-138.0	-108.6	-15.974	ug/L	-15.974 ppb	11:13:30
3	U 409.014†	424448.1	500693.5	14828	ug/L	14828 ppb	11:13:10
3	V 292.402†	1986.5	4132.7	-3.3948	ug/L	-3.3948 ppb	11:13:10
3	Zn 213.857†	6330.3	6595.9	14.161	ug/L	14.161 ppb	11:13:30
3	SiO2†	-463.9	-1180.3	-70.415	ug/L	-70.415 ppb	11:13:45

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	753582.4	84.996	%	0.5589				0.66%
Sc Radial	4145.2	88.8	%	1.47				1.66%
Y 371.029	636201.4	83.518	%	0.5750				0.69%
Y RADIAL	4401.0	89.22	%	1.839				2.06%
Ag 328.068†	-29924.8	3.0080	ug/L	0.24381	3.0080	ppb	0.24381	8.11%
Al 396.153Radial†	581014.9	515320	ug/L	4093.8	515320	ppb	4093.8	0.79%
QC value within limits for Al 396.153Radial Recovery = 103.06%								
As 188.979†	-239.3	-13.981	ug/L	2.5661	-13.981	ppb	2.5661	18.35%
B 249.677†	1747.2	-24.041	ug/L	0.9025	-24.041	ppb	0.9025	3.75%
Ba 233.527†	-2292.5	-5.2493	ug/L	0.36169	-5.2493	ppb	0.36169	6.89%
Be 313.107†	-8550.7	-2.9325	ug/L	0.03287	-2.9325	ppb	0.03287	1.12%
Ca 317.933Radial†	290541.7	486850	ug/L	4397.1	486850	ppb	4397.1	0.90%
QC value within limits for Ca 317.933Radial Recovery = 97.37%								
Cd 226.502†	4219.1	-5.5175	ug/L	0.06982	-5.5175	ppb	0.06982	1.27%
Co 228.616†	331.8	-0.2866	ug/L	0.55349	-0.2866	ppb	0.55349	193.09%
Cr 267.716†	-73.2	2.6142	ug/L	0.20654	2.6142	ppb	0.20654	7.90%

Cu 324.752†	-7225.5	1.7001	ug/L	0.26998	1.7001	ppb	0.26998	15.88%
Fe 238.204 Radial†	51518.6	452680	ug/L	1240.8	452680	ppb	1240.8	0.27%
QC value within limits for Fe 238.204 Radial Recovery = 90.54%								
K 766.490 Radial†	551.9	-101.15	ug/L	16.572	-101.15	ppb	16.572	16.38%
Mg 279.077 IEC†	15289.5	488480	ug/L	1547.1	488480	ppb	1547.1	0.32%
QC value within limits for Mg 279.077 IEC Recovery = 97.70%								
Mn 257.610†	-32047.5	2.2747	ug/L	0.01421	2.2747	ppb	0.01421	0.62%
Mo 202.031†	-665.0	1.7325	ug/L	1.21083	1.7325	ppb	1.21083	69.89%
Na 589.592 Radial†	1761785.1	532200	ug/L	5007.8	532200	ppb	5007.8	0.94%
QC value within limits for Na 589.592 Radial Recovery = 106.44%								
Ni 231.604†	239.9	5.2633	ug/L	0.23757	5.2633	ppb	0.23757	4.51%
P 214.914†	498.7	55.133	ug/L	6.4747	55.133	ppb	6.4747	11.74%
Pb 220.353†	-818.8	-6.4224	ug/L	6.84309	-6.4224	ppb	6.84309	106.55%
S 181.975 Axial†	62.8	-30.408	ug/L	17.7598	-30.408	ppb	17.7598	58.40%
Sb 206.836†	39.1	2.8852	ug/L	2.48438	2.8852	ppb	2.48438	86.11%
Se 196.026†	-3116.4	-122.28	ug/L	14.375	-122.28	ppb	14.375	11.76%
Si 251.611†	-1078.1	-30.006	ug/L	0.5029	-30.006	ppb	0.5029	1.68%
Sn 189.927†	-503.7	-17.617	ug/L	0.3704	-17.617	ppb	0.3704	2.10%
Sr 421.552†	759.7	1.0499	ug/L	0.20764	1.0499	ppb	0.20764	19.78%
Ti 334.940†	-13598.3	-2.7531	ug/L	0.63406	-2.7531	ppb	0.63406	23.03%
Tl 190.801†	-95.4	-12.406	ug/L	4.3601	-12.406	ppb	4.3601	35.15%
U 409.014†	500889.3	14834	ug/L	21.1	14834	ppb	21.1	0.14%
QC value within limits for U 409.014 Recovery = 98.89%								
V 292.402†	4024.9	-4.2210	ug/L	0.72230	-4.2210	ppb	0.72230	17.11%
Zn 213.857†	6609.9	14.150	ug/L	0.5302	14.150	ppb	0.5302	3.75%
SiO2†	-1155.3	-68.923	ug/L	2.8164	-68.923	ppb	2.8164	4.09%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 1/6/2010 11:15:55
Data Type: Reprocessed on 1/6/2010 11:55:37

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	855143.5	855143.5	96.451	%			11:19:29
1	Sc Radial	4532.6	4532.6	97.1	%			11:17:52
1	Y 371.029	719027.8	719027.8	94.391	%			11:19:29
1	Y RADIAL	4745.9	4745.9	96.21	%			11:17:52
1	Ag 328.068†	-7632.1	-8425.2	3.0535	ug/L	3.0535	ppb	11:19:35
1	Al 396.153Radial†	509.7	551.6	74.517	ug/L	74.517	ppb	11:17:52
1	As 188.979†	27888.2	28947.8	10215	ug/L	10215	ppb	11:19:35
1	B 249.677†	235236.7	244558.4	5018.7	ug/L	5018.7	ppb	11:19:29
1	Ba 233.527†	1893929.7	1963611.5	14341	ug/L	14341	ppb	11:19:29
1	Be 313.107†	8254992.6	8563096.1	2913.7	ug/L	2913.7	ppb	11:19:23
1	Ca 317.933Radial†	29.4	17.7	29.623	ug/L	29.623	ppb	11:18:12
1	Cd 226.502†	994256.1	1031079.3	9717.3	ug/L	9717.3	ppb	11:19:29
1	Co 228.616†	483605.0	501483.8	9429.4	ug/L	9429.4	ppb	11:19:35
1	Cr 267.716†	2313418.7	2398439.6	24048	ug/L	24048	ppb	11:19:29
1	Cu 324.752†	6593986.3	6828620.7	20217	ug/L	20217	ppb	11:19:23
1	Fe 238.204 Radial†	-18.7	-33.1	6.3256	ug/L	6.3256	ppb	11:18:12
1	K 766.490 Radial†	1422221.0	1461231.3	289970	ug/L	289970	ppb	11:17:47
1	Mg 279.077 IEC†	0.5	-1.2	158.74	ug/L	158.74	ppb	11:18:12
1	Mn 257.610†	8734405.4	9055281.5	9541.1	ug/L	9541.1	ppb	11:19:23
1	Mo 202.031†	149158.2	154626.7	9686.9	ug/L	9686.9	ppb	11:19:35
1	Na 589.592 Radial†	-946.1	775.9	234.37	ug/L	234.37	ppb	11:17:52
1	Ni 231.604†	433885.0	449725.2	9866.6	ug/L	9866.6	ppb	11:19:29
1	P 214.914†	35103.9	36147.0	14522	ug/L	14522	ppb	11:19:35
1	Pb 220.353†	225385.4	233756.5	24224	ug/L	24224	ppb	11:19:35
1	S 181.975 Axial†	43781.0	45332.1	51232	ug/L	51232	ppb	11:19:35
1	Sb 206.836†	33207.8	34392.6	10072	ug/L	10072	ppb	11:19:35
1	Se 196.026†	19445.2	20194.0	10364	ug/L	10364	ppb	11:19:35
1	Si 251.611†	1634255.5	1693773.3	48292	ug/L	48292	ppb	11:19:29
1	Sn 189.927†	67140.8	69607.9	10296	ug/L	10296	ppb	11:19:35
1	Sr 421.552†	1283469.1	1321668.7	9676.8	ug/L	9676.8	ppb	11:17:47
1	Ti 334.940†	6020668.2	6244023.1	9898.3	ug/L	9898.3	ppb	11:19:23
1	Tl 190.801†	34515.2	35838.6	9851.2	ug/L	9851.2	ppb	11:19:35
1	U 409.014†	-1575.9	1034.8	-15.619	ug/L	-15.619	ppb	11:19:35
1	V 292.402†	1537981.1	1596374.8	10140	ug/L	10140	ppb	11:19:29
1	Zn 213.857†	1663348.7	1723721.9	14086	ug/L	14086	ppb	11:19:29
1	SiO2†	1661507.8	1722008.9	105060	ug/L	105060	ppb	11:20:22
2	Sc 361.383	852719.5	852719.5	96.178	%			11:19:49
2	Sc Radial	4559.9	4559.9	97.7	%			11:18:22
2	Y 371.029	717455.3	717455.3	94.184	%			11:19:49
2	Y RADIAL	4799.5	4799.5	97.30	%			11:18:22
2	Ag 328.068†	-7539.2	-8351.2	3.3458	ug/L	3.3458	ppb	11:19:54
2	Al 396.153Radial†	529.3	568.5	92.510	ug/L	92.510	ppb	11:18:22
2	As 188.979†	27510.7	28637.5	10106	ug/L	10106	ppb	11:19:54
2	B 249.677†	234879.8	244880.5	5025.5	ug/L	5025.5	ppb	11:19:49
2	Ba 233.527†	1886474.8	1961442.2	14325	ug/L	14325	ppb	11:19:49
2	Be 313.107†	8221762.2	8552874.5	2910.2	ug/L	2910.2	ppb	11:19:43
2	Ca 317.933Radial†	27.6	15.7	26.326	ug/L	26.326	ppb	11:18:43
2	Cd 226.502†	990836.2	1030453.7	9711.4	ug/L	9711.4	ppb	11:19:49
2	Co 228.616†	479786.7	498939.0	9381.4	ug/L	9381.4	ppb	11:19:54
2	Cr 267.716†	2306239.8	2397793.6	24042	ug/L	24042	ppb	11:19:49
2	Cu 324.752†	6556528.0	6809107.7	20159	ug/L	20159	ppb	11:19:43
2	Fe 238.204 Radial†	-21.7	-36.1	-20.921	ug/L	-20.921	ppb	11:18:43
2	K 766.490 Radial†	1435740.8	1466307.3	290980	ug/L	290980	ppb	11:18:17
2	Mg 279.077 IEC†	-6.1	-7.8	-55.841	ug/L	-55.841	ppb	11:18:43
2	Mn 257.610†	8690389.9	9035259.1	9520.0	ug/L	9520.0	ppb	11:19:43
2	Mo 202.031†	147648.8	153497.0	9616.1	ug/L	9616.1	ppb	11:19:54
2	Na 589.592 Radial†	-1022.3	703.7	212.57	ug/L	212.57	ppb	11:18:22
2	Ni 231.604†	432587.9	449655.4	9865.1	ug/L	9865.1	ppb	11:19:49

2	P 214.914†	34621.3	35748.7	14337 ug/L	14337 ppb		11:19:54
2	Pb 220.353†	223665.0	232632.0	24107 ug/L	24107 ppb		11:19:54
2	S 181.975 Axial†	43159.2	44814.6	50647 ug/L	50647 ppb		11:19:54
2	Sb 206.836†	32939.0	34211.0	10015 ug/L	10015 ppb		11:19:54
2	Se 196.026†	19215.5	20012.5	10271 ug/L	10271 ppb		11:19:54
2	Si 251.611†	1630656.6	1694847.8	48323 ug/L	48323 ppb		11:19:49
2	Sn 189.927†	66660.2	69306.1	10251 ug/L	10251 ppb		11:19:54
2	Sr 421.552†	1293913.8	1324452.0	9697.2 ug/L	9697.2 ppb		11:18:17
2	Ti 334.940†	5988704.5	6228533.4	9873.7 ug/L	9873.7 ppb		11:19:43
2	Tl 190.801†	34232.4	35646.3	9798.7 ug/L	9798.7 ppb		11:19:54
2	U 409.014†	-1574.4	1031.7	-15.694 ug/L	-15.694 ppb		11:19:54
2	V 292.402†	1532941.9	1595668.1	10134 ug/L	10134 ppb		11:19:49
2	Zn 213.857†	1658548.0	1723632.6	14085 ug/L	14085 ppb		11:19:49
2	SiO2†	1655031.2	1720171.7	104950 ug/L	104950 ppb		11:20:29
3	Sc 361.383	857798.8	857798.8	96.750 %			11:20:09
3	Sc Radial	4449.0	4449.0	95.3 %			11:18:53
3	Y 371.029	721549.0	721549.0	94.722 %			11:20:09
3	Y RADIAL	4659.1	4659.1	94.45 %			11:18:53
3	Ag 328.068†	-7591.1	-8358.3	3.2878 ug/L	3.2878 ppb		11:20:14
3	Al 396.153Radial†	549.6	603.3	121.01 ug/L	121.01 ppb		11:18:53
3	As 188.979†	27884.6	28854.6	10183 ug/L	10183 ppb		11:20:14
3	B 249.677†	236512.7	245122.2	5030.4 ug/L	5030.4 ppb		11:20:09
3	Ba 233.527†	1897433.0	1961154.3	14323 ug/L	14323 ppb		11:20:09
3	Be 313.107†	8335052.1	8619351.9	2932.9 ug/L	2932.9 ppb		11:20:02
3	Ca 317.933Radial†	32.4	21.4	35.884 ug/L	35.884 ppb		11:19:13
3	Cd 226.502†	994033.2	1027658.0	9685.1 ug/L	9685.1 ppb		11:20:09
3	Co 228.616†	484126.0	500470.3	9410.2 ug/L	9410.2 ppb		11:20:14
3	Cr 267.716†	2315895.2	2393574.8	24000 ug/L	24000 ppb		11:20:09
3	Cu 324.752†	6658558.7	6874199.8	20352 ug/L	20352 ppb		11:20:02
3	Fe 238.204 Radial†	-19.0	-33.8	0.0691 ug/L	0.0691 ppb		11:19:13
3	K 766.490 Radial†	1453148.7	1521214.6	301880 ug/L	301880 ppb		11:18:48
3	Mg 279.077 IEC†	-5.4	-7.3	-36.118 ug/L	-36.118 ppb		11:19:13
3	Mn 257.610†	8805381.2	9100610.0	9588.8 ug/L	9588.8 ppb		11:20:02
3	Mo 202.031†	149382.4	154379.7	9671.4 ug/L	9671.4 ppb		11:20:14
3	Na 589.592 Radial†	-1048.5	650.1	196.38 ug/L	196.38 ppb		11:18:53
3	Ni 231.604†	434754.6	449231.6	9855.7 ug/L	9855.7 ppb		11:20:09
3	P 214.914†	35004.0	35931.1	14395 ug/L	14395 ppb		11:20:14
3	Pb 220.353†	225554.5	233207.9	24167 ug/L	24167 ppb		11:20:14
3	S 181.975 Axial†	43866.1	45279.5	51173 ug/L	51173 ppb		11:20:14
3	Sb 206.836†	33327.1	34409.3	10077 ug/L	10077 ppb		11:20:14
3	Se 196.026†	19458.9	20145.7	10339 ug/L	10339 ppb		11:20:14
3	Si 251.611†	1642305.9	1696849.3	48376 ug/L	48376 ppb		11:20:09
3	Sn 189.927†	67120.8	69371.7	10261 ug/L	10261 ppb		11:20:14
3	Sr 421.552†	1310935.2	1375334.0	10070 ug/L	10070 ppb		11:18:48
3	Ti 334.940†	6074754.7	6280604.0	9956.3 ug/L	9956.3 ppb		11:20:02
3	Tl 190.801†	34481.6	35693.1	9812.4 ug/L	9812.4 ppb		11:20:14
3	U 409.014†	-1695.1	916.7	-19.035 ug/L	-19.035 ppb		11:20:14
3	V 292.402†	1540635.9	1594182.9	10126 ug/L	10126 ppb		11:20:09
3	Zn 213.857†	1666183.8	1721314.0	14066 ug/L	14066 ppb		11:20:09
3	SiO2†	1649310.9	1704070.0	103950 ug/L	103950 ppb		11:20:36

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	855220.6	96.460	%	0.2865				0.30%
Sc Radial	4513.8	96.7	%	1.24				1.28%
Y 371.029	719344.0	94.432	%	0.2711				0.29%
Y RADIAL	4734.8	95.98	%	1.437				1.50%
Ag 328.068†	-8378.2	3.2290	ug/L	0.15473	3.2290	ppb	0.15473	4.79%
Al 396.153Radial†	574.5	96.012	ug/L	23.4424	96.012	ppb	23.4424	24.42%
As 188.979†	28813.3	10168	ug/L	55.9	10168	ppb	55.9	0.55%
QC value within limits for As 188.979 Recovery = 101.68%								
B 249.677†	244853.7	5024.9	ug/L	5.86	5024.9	ppb	5.86	0.12%
QC value within limits for B 249.677 Recovery = 100.50%								
Ba 233.527†	1962069.3	14329	ug/L	9.8	14329	ppb	9.8	0.07%
QC value within limits for Ba 233.527 Recovery = 95.53%								
Be 313.107†	8578440.8	2918.9	ug/L	12.18	2918.9	ppb	12.18	0.42%
QC value within limits for Be 313.107 Recovery = 97.30%								
Ca 317.933Radial†	18.3	30.611	ug/L	4.8545	30.611	ppb	4.8545	15.86%
Cd 226.502†	1029730.3	9704.6	ug/L	17.16	9704.6	ppb	17.16	0.18%

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   QC value within limits for Cd 226.502  Recovery = 97.05%
Co 228.616†          500297.7      9407.0 ug/L        24.15      9407.0 ppb        24.15   0.26%
   QC value within limits for Co 228.616  Recovery = 94.07%
Cr 267.716†         2396602.7       24030 ug/L         26.5       24030 ppb         26.5   0.11%
   QC value within limits for Cr 267.716  Recovery = 96.12%
Cu 324.752†         6837309.4       20243 ug/L         98.9       20243 ppb         98.9   0.49%
   QC value within limits for Cu 324.752  Recovery = 101.21%
Fe 238.204 Radial†      -34.3     -4.8420 ug/L      14.27150     -4.8420 ppb     14.27150 294.75%
K 766.490 Radial†   1482917.8      294280 ug/L       6602.4      294280 ppb       6602.4   2.24%
   QC value within limits for K 766.490 Radial  Recovery = 98.09%
Mg 279.077 IEC†          -5.4      22.261 ug/L     118.6075      22.261 ppb     118.6075 532.79%
Mn 257.610†         9063716.9      9549.9 ug/L        35.28      9549.9 ppb        35.28   0.37%
   QC value within limits for Mn 257.610  Recovery = 95.50%
Mo 202.031†          154167.8      9658.1 ug/L        37.21      9658.1 ppb        37.21   0.39%
   QC value within limits for Mo 202.031  Recovery = 96.58%
Na 589.592 Radial†       709.9      214.44 ug/L       19.065      214.44 ppb       19.065   8.89%
Ni 231.604†          449537.4      9862.5 ug/L         5.86      9862.5 ppb         5.86   0.06%
   QC value within limits for Ni 231.604  Recovery = 98.62%
P 214.914†            35942.3       14418 ug/L         94.9       14418 ppb         94.9   0.66%
   QC value within limits for P 214.914  Recovery = 96.12%
Pb 220.353†          233198.8       24166 ug/L         58.3       24166 ppb         58.3   0.24%
   QC value within limits for Pb 220.353  Recovery = 96.66%
S 181.975 Axial†      45142.1       51017 ug/L        321.9       51017 ppb        321.9   0.63%
   QC value within limits for S 181.975 Axial  Recovery = 102.03%
Sb 206.836†           34337.6       10055 ug/L         34.1       10055 ppb         34.1   0.34%
   QC value within limits for Sb 206.836  Recovery = 100.55%
Se 196.026†           20117.4       10325 ug/L         48.3       10325 ppb         48.3   0.47%
   QC value within limits for Se 196.026  Recovery = 103.25%
Si 251.611†         1695156.8       48330 ug/L         42.8       48330 ppb         42.8   0.09%
   QC value within limits for Si 251.611  Recovery = 96.66%
Sn 189.927†           69428.6       10269 ug/L         23.5       10269 ppb         23.5   0.23%
   QC value within limits for Sn 189.927  Recovery = 102.69%
Sr 421.552†         1340484.9      9814.6 ug/L       221.20      9814.6 ppb       221.20   2.25%
   QC value within limits for Sr 421.552  Recovery = 98.15%
Ti 334.940†         6251053.5      9909.4 ug/L        42.43      9909.4 ppb        42.43   0.43%
   QC value within limits for Ti 334.940  Recovery = 99.09%
Tl 190.801†           35726.0      9820.7 ug/L        27.28      9820.7 ppb        27.28   0.28%
   QC value within limits for Tl 190.801  Recovery = 98.21%
U 409.014†              994.4    -16.782 ug/L       1.9508    -16.782 ppb       1.9508  11.62%
V 292.402†          1595408.6       10133 ug/L          7.1       10133 ppb          7.1   0.07%
   QC value within limits for V 292.402  Recovery = 101.33%
Zn 213.857†         1722889.5       14079 ug/L         11.3       14079 ppb         11.3   0.08%
   QC value within limits for Zn 213.857  Recovery = 93.86%
SiO2†               1715416.9      104650 ug/L        611.0      104650 ppb        611.0   0.58%
   QC value within limits for SiO2  Recovery = 97.81%
All analyte(s) passed QC.
```

Sequence No.: 15
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/6/2010 11:40:15
Data Type: Reprocessed on 1/6/2010 11:55:41

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	880607.9	880607.9	99.323	%			11:43:26
1	Sc Radial	4577.3	4577.3	98.1	%			11:42:07
1	Y 371.029	748816.6	748816.6	98.301	%			11:43:26
1	Y RADIAL	4817.1	4817.1	97.65	%			11:42:07
1	Ag 328.068†	113728.4	113991.1	492.76	ug/L	492.76	ppb	11:43:26
1	Al 396.153Radial†	5558.8	5695.1	5030.1	ug/L	5030.1	ppb	11:42:07
1	As 188.979†	1375.6	1418.4	500.79	ug/L	500.79	ppb	11:43:46
1	B 249.677†	23608.4	24435.1	501.95	ug/L	501.95	ppb	11:43:26
1	Ba 233.527†	66877.5	67325.8	492.14	ug/L	492.14	ppb	11:43:26
1	Be 313.107†	1452961.5	1467215.3	496.89	ug/L	496.89	ppb	11:43:26
1	Ca 317.933Radial†	2960.6	3006.4	5037.8	ug/L	5037.8	ppb	11:42:27
1	Cd 226.502†	51692.2	52282.8	492.23	ug/L	492.23	ppb	11:43:26
1	Co 228.616†	25597.3	25855.7	486.28	ug/L	486.28	ppb	11:43:46
1	Cr 267.716†	48593.4	48820.6	489.95	ug/L	489.95	ppb	11:43:26
1	Cu 324.752†	172560.6	165737.6	490.94	ug/L	490.94	ppb	11:43:26
1	Fe 238.204 Radial†	564.9	562.2	4955.2	ug/L	4955.2	ppb	11:42:27
1	K 766.490 Radial†	28441.4	25665.3	5086.2	ug/L	5086.2	ppb	11:42:07
1	Mg 279.077 IEC†	156.3	157.8	5049.8	ug/L	5049.8	ppb	11:42:27
1	Mn 257.610†	467681.0	470352.0	495.98	ug/L	495.98	ppb	11:43:26
1	Mo 202.031†	7795.0	7828.2	490.89	ug/L	490.89	ppb	11:43:46
1	Na 589.592 Radial†	29691.6	32027.0	9674.7	ug/L	9674.7	ppb	11:42:07
1	Ni 231.604†	22169.3	22195.3	486.93	ug/L	486.93	ppb	11:43:46
1	P 214.914†	5231.3	5018.4	2372.3	ug/L	2372.3	ppb	11:43:46
1	Pb 220.353†	4637.7	4747.1	493.32	ug/L	493.32	ppb	11:43:46
1	S 181.975 Axial†	914.5	860.8	971.85	ug/L	971.85	ppb	11:43:46
1	Sb 206.836†	1672.4	1646.7	498.92	ug/L	498.92	ppb	11:43:46
1	Se 196.026†	933.3	972.9	515.40	ug/L	515.40	ppb	11:43:46
1	Si 251.611†	85554.9	85521.4	2441.6	ug/L	2441.6	ppb	11:43:26
1	Sn 189.927†	3296.8	3315.9	491.05	ug/L	491.05	ppb	11:43:46
1	Sr 421.552†	65973.1	67257.6	492.39	ug/L	492.39	ppb	11:42:07
1	Ti 334.940†	309958.2	313888.0	497.89	ug/L	497.89	ppb	11:43:26
1	Tl 190.801†	1738.9	1804.1	496.11	ug/L	496.11	ppb	11:43:46
1	U 409.014†	13104.2	15862.3	469.99	ug/L	469.99	ppb	11:43:26
1	V 292.402†	75644.0	77961.4	495.96	ug/L	495.96	ppb	11:43:26
1	Zn 213.857†	60403.7	59983.7	489.07	ug/L	489.07	ppb	11:43:26
1	SiO2†	84375.4	84314.4	5150.3	ug/L	5150.3	ppb	11:44:46
2	Sc 361.383	881660.6	881660.6	99.442	%			11:43:54
2	Sc Radial	4591.0	4591.0	98.4	%			11:42:32
2	Y 371.029	749459.3	749459.3	98.386	%			11:43:54
2	Y RADIAL	4873.5	4873.5	98.80	%			11:42:32
2	Ag 328.068†	113707.1	113833.1	492.09	ug/L	492.09	ppb	11:43:54
2	Al 396.153Radial†	5586.7	5706.6	5040.2	ug/L	5040.2	ppb	11:42:32
2	As 188.979†	1370.8	1411.9	498.49	ug/L	498.49	ppb	11:44:14
2	B 249.677†	23565.3	24363.4	500.46	ug/L	500.46	ppb	11:43:54
2	Ba 233.527†	67254.5	67624.5	494.32	ug/L	494.32	ppb	11:43:54
2	Be 313.107†	1456068.8	1468593.5	497.35	ug/L	497.35	ppb	11:43:54
2	Ca 317.933Radial†	2992.2	3029.6	5076.6	ug/L	5076.6	ppb	11:42:52
2	Cd 226.502†	52002.1	52532.3	494.58	ug/L	494.58	ppb	11:43:54
2	Co 228.616†	25716.5	25944.8	487.96	ug/L	487.96	ppb	11:44:14
2	Cr 267.716†	48785.1	48954.9	491.30	ug/L	491.30	ppb	11:43:54
2	Cu 324.752†	172808.2	165779.2	491.06	ug/L	491.06	ppb	11:43:54
2	Fe 238.204 Radial†	569.0	564.6	4976.5	ug/L	4976.5	ppb	11:42:52
2	K 766.490 Radial†	28423.4	25560.6	5065.4	ug/L	5065.4	ppb	11:42:32
2	Mg 279.077 IEC†	156.7	157.7	5047.7	ug/L	5047.7	ppb	11:42:52
2	Mn 257.610†	469471.6	471590.5	497.29	ug/L	497.29	ppb	11:43:54
2	Mo 202.031†	7836.0	7860.0	492.88	ug/L	492.88	ppb	11:44:14
2	Na 589.592 Radial†	29774.4	32020.9	9672.9	ug/L	9672.9	ppb	11:42:32
2	Ni 231.604†	22217.9	22217.6	487.42	ug/L	487.42	ppb	11:44:14

2	P 214.914†	5265.1	5046.1	2385.8	ug/L	2385.8	ppb	11:44:14
2	Pb 220.353†	4670.1	4774.1	496.12	ug/L	496.12	ppb	11:44:14
2	S 181.975 Axial†	924.2	869.5	981.68	ug/L	981.68	ppb	11:44:14
2	Sb 206.836†	1678.1	1650.4	500.03	ug/L	500.03	ppb	11:44:14
2	Se 196.026†	922.1	960.5	509.14	ug/L	509.14	ppb	11:44:14
2	Si 251.611†	85834.1	85699.4	2446.6	ug/L	2446.6	ppb	11:43:54
2	Sn 189.927†	3300.3	3315.5	490.99	ug/L	490.99	ppb	11:44:14
2	Sr 421.552†	66332.7	67422.8	493.60	ug/L	493.60	ppb	11:42:32
2	Ti 334.940†	310595.5	314156.3	498.32	ug/L	498.32	ppb	11:43:54
2	Tl 190.801†	1745.4	1808.6	497.34	ug/L	497.34	ppb	11:44:14
2	U 409.014†	12971.1	15712.6	465.54	ug/L	465.54	ppb	11:43:54
2	V 292.402†	75758.6	77985.7	496.13	ug/L	496.13	ppb	11:43:54
2	Zn 213.857†	60678.4	60187.3	490.74	ug/L	490.74	ppb	11:43:54
2	SiO2†	85279.4	85122.1	5199.8	ug/L	5199.8	ppb	11:44:52
3	Sc 361.383	875525.0	875525.0	98.750	%			11:44:21
3	Sc Radial	4595.9	4595.9	98.5	%			11:42:57
3	Y 371.029	743592.4	743592.4	97.615	%			11:44:21
3	Y RADIAL	4837.2	4837.2	98.06	%			11:42:57
3	Ag 328.068†	113388.1	114311.3	494.11	ug/L	494.11	ppb	11:44:21
3	Al 396.153Radial†	5602.4	5716.4	5048.8	ug/L	5048.8	ppb	11:42:57
3	As 188.979†	1373.1	1423.9	502.68	ug/L	502.68	ppb	11:44:41
3	B 249.677†	23651.1	24616.4	505.68	ug/L	505.68	ppb	11:44:21
3	Ba 233.527†	66854.7	67693.6	494.82	ug/L	494.82	ppb	11:44:21
3	Be 313.107†	1447710.5	1470390.7	497.96	ug/L	497.96	ppb	11:44:21
3	Ca 317.933Radial†	2982.6	3016.6	5054.7	ug/L	5054.7	ppb	11:43:17
3	Cd 226.502†	51693.2	52586.0	495.10	ug/L	495.10	ppb	11:44:21
3	Co 228.616†	25676.6	26085.7	490.61	ug/L	490.61	ppb	11:44:41
3	Cr 267.716†	48536.4	49046.9	492.21	ug/L	492.21	ppb	11:44:21
3	Cu 324.752†	171989.4	166167.9	492.21	ug/L	492.21	ppb	11:44:21
3	Fe 238.204 Radial†	558.0	552.8	4873.3	ug/L	4873.3	ppb	11:43:17
3	K 766.490 Radial†	28341.4	25446.5	5042.8	ug/L	5042.8	ppb	11:42:57
3	Mg 279.077 IEC†	160.4	161.3	5161.7	ug/L	5161.7	ppb	11:43:17
3	Mn 257.610†	467425.0	472826.5	498.58	ug/L	498.58	ppb	11:44:21
3	Mo 202.031†	7819.0	7898.1	495.26	ug/L	495.26	ppb	11:44:41
3	Na 589.592 Radial†	29641.6	31853.8	9622.4	ug/L	9622.4	ppb	11:42:57
3	Ni 231.604†	22160.8	22316.3	489.58	ug/L	489.58	ppb	11:44:41
3	P 214.914†	5238.5	5056.3	2390.7	ug/L	2390.7	ppb	11:44:41
3	Pb 220.353†	4658.3	4795.0	498.31	ug/L	498.31	ppb	11:44:41
3	S 181.975 Axial†	919.0	870.7	983.04	ug/L	983.04	ppb	11:44:41
3	Sb 206.836†	1680.5	1664.7	504.38	ug/L	504.38	ppb	11:44:41
3	Se 196.026†	919.7	964.6	510.91	ug/L	510.91	ppb	11:44:41
3	Si 251.611†	85447.2	85912.4	2452.7	ug/L	2452.7	ppb	11:44:21
3	Sn 189.927†	3298.3	3336.7	494.12	ug/L	494.12	ppb	11:44:41
3	Sr 421.552†	66374.7	67393.4	493.39	ug/L	493.39	ppb	11:42:57
3	Ti 334.940†	309182.0	314913.7	499.52	ug/L	499.52	ppb	11:44:21
3	Tl 190.801†	1756.6	1832.2	503.78	ug/L	503.78	ppb	11:44:41
3	U 409.014†	13124.0	15958.8	472.87	ug/L	472.87	ppb	11:44:21
3	V 292.402†	75255.1	78009.7	496.34	ug/L	496.34	ppb	11:44:21
3	Zn 213.857†	60325.0	60257.1	491.30	ug/L	491.30	ppb	11:44:21
3	SiO2†	84657.8	85093.6	5198.0	ug/L	5198.0	ppb	11:44:57

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	879264.5	99.172	%	0.3701				0.37%
Sc Radial	4588.1	98.3	%	0.21				0.21%
Y 371.029	747289.4	98.101	%	0.4224				0.43%
Y RADIAL	4842.6	98.17	%	0.580				0.59%
Ag 328.068†	114045.2	492.99	ug/L	1.026	492.99	ppb	1.026	0.21%
QC value within limits for Ag 328.068 Recovery = 98.60%								
Al 396.153Radial†	5706.0	5039.7	ug/L	9.37	5039.7	ppb	9.37	0.19%
QC value within limits for Al 396.153Radial Recovery = 100.79%								
As 188.979†	1418.1	500.65	ug/L	2.096	500.65	ppb	2.096	0.42%
QC value within limits for As 188.979 Recovery = 100.13%								
B 249.677†	24471.6	502.70	ug/L	2.691	502.70	ppb	2.691	0.54%
QC value within limits for B 249.677 Recovery = 100.54%								
Ba 233.527†	67548.0	493.76	ug/L	1.425	493.76	ppb	1.425	0.29%
QC value within limits for Ba 233.527 Recovery = 98.75%								
Be 313.107†	1468733.2	497.40	ug/L	0.540	497.40	ppb	0.540	0.11%
QC value within limits for Be 313.107 Recovery = 99.48%								

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Ca 317.933Radial†        3017.5      5056.4 ug/L         19.44      5056.4 ppb          19.44   0.38%
   QC value within limits for Ca 317.933Radial  Recovery = 101.13%
Cd 226.502†             52467.1      493.97 ug/L          1.527      493.97 ppb          1.527   0.31%
   QC value within limits for Cd 226.502  Recovery = 98.79%
Co 228.616†             25962.1      488.28 ug/L          2.184      488.28 ppb          2.184   0.45%
   QC value within limits for Co 228.616  Recovery = 97.66%
Cr 267.716†             48940.8      491.15 ug/L          1.140      491.15 ppb          1.140   0.23%
   QC value within limits for Cr 267.716  Recovery = 98.23%
Cu 324.752†            165894.9      491.40 ug/L          0.700      491.40 ppb          0.700   0.14%
   QC value within limits for Cu 324.752  Recovery = 98.28%
Fe 238.204 Radial†        559.9      4935.0 ug/L         54.52      4935.0 ppb          54.52   1.10%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.70%
K 766.490 Radial†       25557.5      5064.8 ug/L         21.73      5064.8 ppb          21.73   0.43%
   QC value within limits for K 766.490 Radial  Recovery = 101.30%
Mg 279.077 IEC†           158.9      5086.4 ug/L         65.22      5086.4 ppb          65.22   1.28%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.73%
Mn 257.610†            471589.6      497.29 ug/L          1.298      497.29 ppb          1.298   0.26%
   QC value within limits for Mn 257.610  Recovery = 99.46%
Mo 202.031†              7862.1      493.01 ug/L          2.187      493.01 ppb          2.187   0.44%
   QC value within limits for Mo 202.031  Recovery = 98.60%
Na 589.592 Radial†      31967.3      9656.6 ug/L         29.69      9656.6 ppb          29.69   0.31%
   QC value within limits for Na 589.592 Radial  Recovery = 96.57%
Ni 231.604†             22243.0      487.98 ug/L          1.412      487.98 ppb          1.412   0.29%
   QC value within limits for Ni 231.604  Recovery = 97.60%
P 214.914†               5040.3      2383.0 ug/L          9.52      2383.0 ppb           9.52   0.40%
   QC value within limits for P 214.914  Recovery = 95.32%
Pb 220.353†              4772.1      495.91 ug/L          2.500      495.91 ppb          2.500   0.50%
   QC value within limits for Pb 220.353  Recovery = 99.18%
S 181.975 Axial†          867.0      978.86 ug/L          6.106      978.86 ppb          6.106   0.62%
   QC value within limits for S 181.975 Axial  Recovery = 97.89%
Sb 206.836†              1653.9      501.11 ug/L          2.885      501.11 ppb          2.885   0.58%
   QC value within limits for Sb 206.836  Recovery = 100.22%
Se 196.026†               966.0      511.82 ug/L          3.226      511.82 ppb          3.226   0.63%
   QC value within limits for Se 196.026  Recovery = 102.36%
Si 251.611†             85711.1      2447.0 ug/L          5.58      2447.0 ppb           5.58   0.23%
   QC value within limits for Si 251.611  Recovery = 97.88%
Sn 189.927†              3322.7      492.06 ug/L          1.792      492.06 ppb          1.792   0.36%
   QC value within limits for Sn 189.927  Recovery = 98.41%
Sr 421.552†             67357.9      493.13 ug/L          0.645      493.13 ppb          0.645   0.13%
   QC value within limits for Sr 421.552  Recovery = 98.63%
Ti 334.940†            314319.4      498.58 ug/L          0.843      498.58 ppb          0.843   0.17%
   QC value within limits for Ti 334.940  Recovery = 99.72%
Tl 190.801†              1815.0      499.07 ug/L          4.120      499.07 ppb          4.120   0.83%
   QC value within limits for Tl 190.801  Recovery = 99.81%
U 409.014†              15844.6      469.47 ug/L          3.694      469.47 ppb          3.694   0.79%
   QC value within limits for U 409.014  Recovery = 93.89%
V 292.402†              77985.6      496.14 ug/L          0.192      496.14 ppb          0.192   0.04%
   QC value within limits for V 292.402  Recovery = 99.23%
Zn 213.857†             60142.7      490.37 ug/L          1.160      490.37 ppb          1.160   0.24%
   QC value within limits for Zn 213.857  Recovery = 98.07%
SiO2†                   84843.4      5182.7 ug/L         28.07      5182.7 ppb          28.07   0.54%
   QC value within limits for SiO2  Recovery = 96.92%
All analyte(s) passed QC.
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Sequence No.: 16
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/6/2010 11:47:06
Data Type: Reprocessed on 1/6/2010 11:55:42

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	853425.9	853425.9	96.257	%			11:50:16
1	Sc Radial	4639.9	4639.9	99.4	%			11:48:59
1	Y 371.029	734376.1	734376.1	96.406	%			11:50:16
1	Y RADIAL	4904.2	4904.2	99.42	%			11:48:59
1	Ag 328.068†	487.6	-5.7	-0.0153	ug/L	-0.0153	ppb	11:50:16
1	Al 396.153Radial†	0.7	27.4	24.328	ug/L	24.328	ppb	11:48:59
1	As 188.979†	-20.0	12.6	4.4098	ug/L	4.4098	ppb	11:50:36
1	B 249.677†	138.9	810.2	16.706	ug/L	16.706	ppb	11:50:16
1	Ba 233.527†	2.4	-5.0	-0.0370	ug/L	-0.0370	ppb	11:50:36
1	Be 313.107†	-4320.5	-137.0	-0.0464	ug/L	-0.0464	ppb	11:50:16
1	Ca 317.933Radial†	11.6	-0.9	-1.5441	ug/L	-1.5441	ppb	11:49:19
1	Cd 226.502†	-209.8	20.4	0.1926	ug/L	0.1926	ppb	11:50:36
1	Co 228.616†	-98.8	-18.6	-0.3493	ug/L	-0.3493	ppb	11:50:36
1	Cr 267.716†	104.7	4.7	0.0501	ug/L	0.0501	ppb	11:50:16
1	Cu 324.752†	8033.0	346.3	1.0255	ug/L	1.0255	ppb	11:50:16
1	Fe 238.204 Radial†	14.2	0.4	3.1714	ug/L	3.1714	ppb	11:49:19
1	K 766.490 Radial†	3805.5	491.5	97.544	ug/L	97.544	ppb	11:48:59
1	Mg 279.077 IEC†	0.6	-1.0	-33.016	ug/L	-33.016	ppb	11:49:19
1	Mn 257.610†	560.9	66.3	0.0707	ug/L	0.0707	ppb	11:50:16
1	Mo 202.031†	24.3	5.3	0.3311	ug/L	0.3311	ppb	11:50:36
1	Na 589.592 Radial†	-1577.7	163.0	49.249	ug/L	49.249	ppb	11:48:59
1	Ni 231.604†	151.8	32.7	0.7176	ug/L	0.7176	ppb	11:50:36
1	P 214.914†	245.6	6.6	3.0816	ug/L	3.0816	ppb	11:50:36
1	Pb 220.353†	-75.7	-0.9	-0.0843	ug/L	-0.0843	ppb	11:50:36
1	S 181.975 Axial†	57.4	-0.3	-0.3460	ug/L	-0.3460	ppb	11:50:36
1	Sb 206.836†	59.7	24.9	7.4621	ug/L	7.4621	ppb	11:50:36
1	Se 196.026†	-38.5	-6.7	-3.4348	ug/L	-3.4348	ppb	11:50:36
1	Si 251.611†	660.5	69.6	1.9575	ug/L	1.9575	ppb	11:50:36
1	Sn 189.927†	6.2	3.0	0.4452	ug/L	0.4452	ppb	11:50:36
1	Sr 421.552†	31.8	16.0	0.1172	ug/L	0.1172	ppb	11:48:59
1	Ti 334.940†	-1772.5	-24.1	-0.0337	ug/L	-0.0337	ppb	11:50:16
1	Tl 190.801†	-44.0	7.7	2.1129	ug/L	2.1129	ppb	11:50:36
1	U 409.014†	-2905.4	-349.7	-10.395	ug/L	-10.395	ppb	11:50:16
1	V 292.402†	-1761.0	-27.7	-0.1902	ug/L	-0.1902	ppb	11:50:16
1	Zn 213.857†	885.4	88.2	0.7201	ug/L	0.7201	ppb	11:50:36
1	SiO2†	691.8	82.7	4.9899	ug/L	4.9899	ppb	11:51:32
2	Sc 361.383	869080.1	869080.1	98.023	%			11:50:41
2	Sc Radial	4769.4	4769.4	102	%			11:49:24
2	Y 371.029	747962.0	747962.0	98.189	%			11:50:41
2	Y RADIAL	5060.7	5060.7	102.6	%			11:49:24
2	Ag 328.068†	532.8	31.3	0.1537	ug/L	0.1537	ppb	11:50:41
2	Al 396.153Radial†	-14.9	12.1	10.712	ug/L	10.712	ppb	11:49:24
2	As 188.979†	-17.2	15.8	5.5311	ug/L	5.5311	ppb	11:51:01
2	B 249.677†	127.0	795.4	16.399	ug/L	16.399	ppb	11:50:41
2	Ba 233.527†	23.8	16.8	0.1239	ug/L	0.1239	ppb	11:51:01
2	Be 313.107†	-4341.0	-77.1	-0.0263	ug/L	-0.0263	ppb	11:50:41
2	Ca 317.933Radial†	15.1	2.2	3.7179	ug/L	3.7179	ppb	11:49:44
2	Cd 226.502†	-221.8	12.1	0.1116	ug/L	0.1116	ppb	11:51:01
2	Co 228.616†	-104.7	-22.9	-0.4282	ug/L	-0.4282	ppb	11:51:01
2	Cr 267.716†	85.2	-17.2	-0.1670	ug/L	-0.1670	ppb	11:50:41
2	Cu 324.752†	8191.6	357.8	1.0606	ug/L	1.0606	ppb	11:50:41
2	Fe 238.204 Radial†	17.0	2.8	24.255	ug/L	24.255	ppb	11:49:44
2	K 766.490 Radial†	3825.8	407.3	80.820	ug/L	80.820	ppb	11:49:24
2	Mg 279.077 IEC†	4.7	3.0	94.742	ug/L	94.742	ppb	11:49:44
2	Mn 257.610†	530.5	24.7	0.0267	ug/L	0.0267	ppb	11:50:41
2	Mo 202.031†	29.1	9.8	0.6168	ug/L	0.6168	ppb	11:51:01
2	Na 589.592 Radial†	-1515.3	267.2	80.710	ug/L	80.710	ppb	11:49:24
2	Ni 231.604†	126.0	3.5	0.0763	ug/L	0.0763	ppb	11:51:01

2	P 214.914†	258.5	15.2	7.2242 ug/L	7.2242 ppb	11:51:01
2	Pb 220.353†	-78.5	-2.3	-0.2359 ug/L	-0.2359 ppb	11:51:01
2	S 181.975 Axial†	57.2	-1.5	-1.6884 ug/L	-1.6884 ppb	11:51:01
2	Sb 206.836†	66.5	30.8	9.2191 ug/L	9.2191 ppb	11:51:01
2	Se 196.026†	-40.1	-7.6	-3.8284 ug/L	-3.8284 ppb	11:51:01
2	Si 251.611†	656.8	53.5	1.4953 ug/L	1.4953 ppb	11:51:01
2	Sn 189.927†	6.6	3.3	0.4884 ug/L	0.4884 ppb	11:51:01
2	Sr 421.552†	30.0	13.3	0.0976 ug/L	0.0976 ppb	11:49:24
2	Ti 334.940†	-1843.9	-63.8	-0.0958 ug/L	-0.0958 ppb	11:50:41
2	Tl 190.801†	-38.8	13.8	3.7753 ug/L	3.7753 ppb	11:51:01
2	U 409.014†	-2996.6	-388.3	-11.548 ug/L	-11.548 ppb	11:50:41
2	V 292.402†	-1708.0	59.3	0.3575 ug/L	0.3575 ppb	11:50:41
2	Zn 213.857†	895.7	82.1	0.6691 ug/L	0.6691 ppb	11:51:01
2	SiO2†	718.4	96.9	5.8610 ug/L	5.8610 ppb	11:51:37
3	Sc 361.383	855687.9	855687.9	96.512 %		11:51:07
3	Sc Radial	4706.5	4706.5	101 %		11:49:49
3	Y 371.029	736491.2	736491.2	96.683 %		11:51:07
3	Y RADIAL	4963.4	4963.4	100.6 %		11:49:49
3	Ag 328.068†	448.2	-47.9	-0.2025 ug/L	-0.2025 ppb	11:51:07
3	Al 396.153Radial†	-29.2	-2.2	-2.0198 ug/L	-2.0198 ppb	11:49:49
3	As 188.979†	-17.7	15.1	5.2772 ug/L	5.2772 ppb	11:51:27
3	B 249.677†	117.7	787.8	16.244 ug/L	16.244 ppb	11:51:07
3	Ba 233.527†	7.8	0.5	0.0028 ug/L	0.0028 ppb	11:51:27
3	Be 313.107†	-4264.9	-67.5	-0.0227 ug/L	-0.0227 ppb	11:51:07
3	Ca 317.933Radial†	14.7	2.0	3.3743 ug/L	3.3743 ppb	11:50:09
3	Cd 226.502†	-208.0	22.8	0.2144 ug/L	0.2144 ppb	11:51:27
3	Co 228.616†	-108.7	-28.6	-0.5356 ug/L	-0.5356 ppb	11:51:27
3	Cr 267.716†	93.3	-7.4	-0.0731 ug/L	-0.0731 ppb	11:51:07
3	Cu 324.752†	8026.2	317.2	0.9391 ug/L	0.9391 ppb	11:51:07
3	Fe 238.204 Radial†	14.2	0.2	1.8112 ug/L	1.8112 ppb	11:50:09
3	K 766.490 Radial†	3800.7	432.5	85.837 ug/L	85.837 ppb	11:49:49
3	Mg 279.077 IEC†	3.1	1.4	45.216 ug/L	45.216 ppb	11:50:09
3	Mn 257.610†	551.8	55.3	0.0576 ug/L	0.0576 ppb	11:51:07
3	Mo 202.031†	35.1	16.4	1.0303 ug/L	1.0303 ppb	11:51:27
3	Na 589.592 Radial†	-1580.0	183.2	55.348 ug/L	55.348 ppb	11:49:49
3	Ni 231.604†	110.5	-10.5	-0.2312 ug/L	-0.2312 ppb	11:51:27
3	P 214.914†	242.8	3.0	1.3094 ug/L	1.3094 ppb	11:51:27
3	Pb 220.353†	-101.4	-27.3	-2.8273 ug/L	-2.8273 ppb	11:51:27
3	S 181.975 Axial†	56.1	-1.7	-1.9684 ug/L	-1.9684 ppb	11:51:27
3	Sb 206.836†	52.3	17.1	5.1370 ug/L	5.1370 ppb	11:51:27
3	Se 196.026†	-37.0	-5.1	-2.5822 ug/L	-2.5822 ppb	11:51:27
3	Si 251.611†	671.7	79.4	2.2299 ug/L	2.2299 ppb	11:51:27
3	Sn 189.927†	4.4	1.2	0.1772 ug/L	0.1772 ppb	11:51:27
3	Sr 421.552†	3.4	-12.6	-0.0920 ug/L	-0.0920 ppb	11:49:49
3	Ti 334.940†	-1711.2	44.3	0.0730 ug/L	0.0730 ppb	11:51:07
3	Tl 190.801†	-46.9	4.8	1.3094 ug/L	1.3094 ppb	11:51:27
3	U 409.014†	-2756.2	-187.0	-5.5607 ug/L	-5.5607 ppb	11:51:07
3	V 292.402†	-1813.5	-77.2	-0.4800 ug/L	-0.4800 ppb	11:51:07
3	Zn 213.857†	870.5	70.2	0.5763 ug/L	0.5763 ppb	11:51:27
3	SiO2†	683.0	71.6	4.2941 ug/L	4.2941 ppb	11:51:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	859398.0	96.931	%	0.9543				0.98%
Sc Radial	4705.3	101	%	1.4				1.38%
Y 371.029	739609.8	97.093	%	0.9596				0.99%
Y RADIAL	4976.1	100.9	%	1.60				1.59%
Ag 328.068†	-7.5	-0.0214	ug/L	0.17817	-0.0214	ppb	0.17817	833.12%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.4	11.007	ug/L	13.1764	11.007	ppb	13.1764	119.71%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	14.5	5.0727	ug/L	0.58799	5.0727	ppb	0.58799	11.59%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	797.8	16.450	ug/L	0.2350	16.450	ppb	0.2350	1.43%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.1	0.0299	ug/L	0.08381	0.0299	ppb	0.08381	280.45%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-93.9	-0.0318	ug/L	0.01279	-0.0318	ppb	0.01279	40.26%
QC value within limits for Be 313.107 Recovery = Not calculated								

```
Ca 317.933Radial†          1.1      1.8494 ug/L       2.94383      1.8494 ppb        2.94383 159.18%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†               18.4      0.1729 ug/L       0.05420      0.1729 ppb        0.05420  31.35%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -23.4     -0.4377 ug/L       0.09355     -0.4377 ppb        0.09355  21.37%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -6.6     -0.0634 ug/L       0.10892     -0.0634 ppb        0.10892 171.93%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              340.4      1.0084 ug/L       0.06251      1.0084 ppb        0.06251   6.20%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.1      9.7460 ug/L      12.58394      9.7460 ppb       12.58394 129.12%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        443.8     88.067 ug/L        8.5823     88.067 ppb         8.5823   9.75%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.1     35.647 ug/L       64.4140     35.647 ppb        64.4140 180.70%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               48.8      0.0517 ug/L       0.02260      0.0517 ppb        0.02260  43.71%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               10.5      0.6594 ug/L       0.35156      0.6594 ppb        0.35156  53.31%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       204.5     61.769 ug/L       16.6847     61.769 ppb        16.6847  27.01%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                8.5      0.1876 ug/L       0.48411      0.1876 ppb        0.48411 258.07%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 8.3      3.8717 ug/L       3.03553      3.8717 ppb        3.03553  78.40%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -10.2     -1.0492 ug/L       1.54178     -1.0492 ppb        1.54178 146.95%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.2     -1.3343 ug/L       0.86725     -1.3343 ppb        0.86725  65.00%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               24.3      7.2727 ug/L       2.04763      7.2727 ppb        2.04763  28.16%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -6.5     -3.2818 ug/L       0.63701     -3.2818 ppb        0.63701  19.41%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               67.5      1.8942 ug/L       0.37137      1.8942 ppb        0.37137  19.60%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.5      0.3703 ug/L       0.16858      0.3703 ppb        0.16858  45.53%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                5.6      0.0409 ug/L       0.11554      0.0409 ppb        0.11554 282.26%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -14.5     -0.0189 ug/L       0.08539     -0.0189 ppb        0.08539 452.74%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                8.8      2.3992 ug/L       1.25764      2.3992 ppb        1.25764  52.42%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -308.3     -9.1679 ug/L       3.17654     -9.1679 ppb        3.17654  34.65%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -15.2     -0.1042 ug/L       0.42535     -0.1042 ppb        0.42535 408.06%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               80.2      0.6552 ug/L       0.07293      0.6552 ppb        0.07293  11.13%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     83.7      5.0483 ug/L       0.78506      5.0483 ppb        0.78506  15.55%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/6/2010 13:00:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4856.0	4856.0	104	%			13:01:59
1	Y RADIAL	5121.0	5121.0	103.8	%			13:01:59
1	Al 396.153Radial†	5697.4	5503.1	4858.6	ug/L	4858.6	ppb	13:01:59
1	Ca 317.933Radial†	3059.6	2928.3	4906.9	ug/L	4906.9	ppb	13:02:19
1	Fe 238.204 Radial†	578.8	542.4	4782.6	ug/L	4782.6	ppb	13:02:19
1	K 766.490 Radial†	28302.2	23867.6	4729.0	ug/L	4729.0	ppb	13:01:59
1	Mg 279.077 IEC†	164.4	156.4	5006.5	ug/L	5006.5	ppb	13:02:19
1	Na 589.592 Radial†	31958.0	32468.4	9808.0	ug/L	9808.0	ppb	13:01:59
1	Sr 421.552†	69958.6	67228.8	492.18	ug/L	492.18	ppb	13:01:59
1	Sc 361.383	842039.2	842039.2	94.973	%			13:03:18
1	Y 371.029	715710.2	715710.2	93.955	%			13:03:18
1	Ag 328.068†	114518.0	120067.2	518.88	ug/L	518.88	ppb	13:03:18
1	As 188.979†	1365.3	1471.0	519.37	ug/L	519.37	ppb	13:03:38
1	B 249.677†	22939.8	24819.9	509.82	ug/L	509.82	ppb	13:03:18
1	Ba 233.527†	67506.8	71072.5	519.52	ug/L	519.52	ppb	13:03:18
1	Be 313.107†	1460375.3	1542026.6	522.23	ug/L	522.23	ppb	13:03:18
1	Cd 226.502†	51942.2	54929.9	517.20	ug/L	517.20	ppb	13:03:18
1	Co 228.616†	25997.5	27457.5	516.41	ug/L	516.41	ppb	13:03:38
1	Cr 267.716†	48970.5	51458.5	516.41	ug/L	516.41	ppb	13:03:18
1	Cu 324.752†	173918.9	175125.7	518.73	ug/L	518.73	ppb	13:03:18
1	Mn 257.610†	471957.9	496422.9	523.44	ug/L	523.44	ppb	13:03:18
1	Mo 202.031†	7903.7	8302.2	520.56	ug/L	520.56	ppb	13:03:38
1	Ni 231.604†	22421.0	23482.7	515.17	ug/L	515.17	ppb	13:03:38
1	P 214.914†	5291.9	5323.4	2517.0	ug/L	2517.0	ppb	13:03:38
1	Pb 220.353†	4699.1	5025.6	522.20	ug/L	522.20	ppb	13:03:38
1	S 181.975 Axial†	932.7	922.2	1041.3	ug/L	1041.3	ppb	13:03:38
1	Sb 206.836†	1677.4	1729.1	523.96	ug/L	523.96	ppb	13:03:38
1	Se 196.026†	933.1	1015.8	536.88	ug/L	536.88	ppb	13:03:38
1	Si 251.611†	86436.0	90394.6	2580.9	ug/L	2580.9	ppb	13:03:18
1	Sn 189.927†	3316.2	3488.3	516.54	ug/L	516.54	ppb	13:03:38
1	Ti 334.940†	313158.3	331551.6	525.89	ug/L	525.89	ppb	13:03:18
1	Tl 190.801†	1738.2	1883.6	517.98	ug/L	517.98	ppb	13:03:38
1	U 409.014†	13404.7	16783.0	497.34	ug/L	497.34	ppb	13:03:18
1	V 292.402†	76181.2	82015.4	521.87	ug/L	521.87	ppb	13:03:18
1	Zn 213.857†	60758.2	63142.5	514.84	ug/L	514.84	ppb	13:03:18
1	SiO2†	86463.8	90404.4	5523.1	ug/L	5523.1	ppb	13:04:39
2	Sc Radial	4805.7	4805.7	103	%			13:02:24
2	Y RADIAL	5062.2	5062.2	102.6	%			13:02:24
2	Al 396.153Radial†	5749.5	5611.0	4955.1	ug/L	4955.1	ppb	13:02:24
2	Ca 317.933Radial†	3033.6	2933.9	4916.2	ug/L	4916.2	ppb	13:02:44
2	Fe 238.204 Radial†	577.5	547.0	4822.3	ug/L	4822.3	ppb	13:02:44
2	K 766.490 Radial†	28602.5	24443.8	4843.6	ug/L	4843.6	ppb	13:02:24
2	Mg 279.077 IEC†	163.4	157.0	5027.1	ug/L	5027.1	ppb	13:02:44
2	Na 589.592 Radial†	32358.7	33178.9	10023	ug/L	10023	ppb	13:02:24
2	Sr 421.552†	70895.8	68842.4	504.00	ug/L	504.00	ppb	13:02:24
2	Sc 361.383	874072.2	874072.2	98.586	%			13:03:46
2	Y 371.029	742675.6	742675.6	97.495	%			13:03:46
2	Ag 328.068†	112980.0	114088.2	493.13	ug/L	493.13	ppb	13:03:46
2	As 188.979†	1374.2	1427.3	503.90	ug/L	503.90	ppb	13:04:06
2	B 249.677†	22603.2	23593.2	484.58	ug/L	484.58	ppb	13:03:46
2	Ba 233.527†	66392.4	67337.2	492.22	ug/L	492.22	ppb	13:03:46
2	Be 313.107†	1437065.2	1462029.4	495.14	ug/L	495.14	ppb	13:03:46
2	Cd 226.502†	50968.4	51937.9	489.00	ug/L	489.00	ppb	13:03:46
2	Co 228.616†	25908.2	26363.8	495.85	ug/L	495.85	ppb	13:04:06
2	Cr 267.716†	48182.3	48769.4	489.43	ug/L	489.43	ppb	13:03:46
2	Cu 324.752†	171662.5	166125.8	492.08	ug/L	492.08	ppb	13:03:46
2	Mn 257.610†	464646.5	470794.8	496.44	ug/L	496.44	ppb	13:03:46
2	Mo 202.031†	7877.6	7970.6	499.80	ug/L	499.80	ppb	13:04:06
2	Ni 231.604†	22351.7	22547.2	494.65	ug/L	494.65	ppb	13:04:06

2	P 214.914†	5282.5	5109.7	2416.9 ug/L	2416.9 ppb	13:04:06
2	Pb 220.353†	4655.9	4800.4	498.86 ug/L	498.86 ppb	13:04:06
2	S 181.975 Axial†	925.7	879.1	992.57 ug/L	992.57 ppb	13:04:06
2	Sb 206.836†	1683.0	1670.0	506.21 ug/L	506.21 ppb	13:04:06
2	Se 196.026†	942.5	989.3	523.42 ug/L	523.42 ppb	13:04:06
2	Si 251.611†	85091.3	85695.2	2446.4 ug/L	2446.4 ppb	13:03:46
2	Sn 189.927†	3322.8	3367.1	498.60 ug/L	498.60 ppb	13:04:06
2	Ti 334.940†	308868.6	315116.3	499.84 ug/L	499.84 ppb	13:03:46
2	Tl 190.801†	1762.5	1841.2	506.21 ug/L	506.21 ppb	13:04:06
2	U 409.014†	13158.3	16015.7	474.57 ug/L	474.57 ppb	13:03:46
2	V 292.402†	75003.8	77881.4	495.61 ug/L	495.61 ppb	13:03:46
2	Zn 213.857†	59690.5	59715.0	486.82 ug/L	486.82 ppb	13:03:46
2	SiO2†	87595.3	88215.7	5389.6 ug/L	5389.6 ppb	13:04:44
3	Sc Radial	4717.8	4717.8	101 %		13:02:50
3	Y RADIAL	4979.5	4979.5	100.9 %		13:02:50
3	Al 396.153Radial†	5700.2	5666.2	5004.1 ug/L	5004.1 ppb	13:02:50
3	Ca 317.933Radial†	3031.7	2986.8	5005.0 ug/L	5005.0 ppb	13:03:10
3	Fe 238.204 Radial†	577.5	557.4	4913.7 ug/L	4913.7 ppb	13:03:10
3	K 766.490 Radial†	28171.1	24534.3	4861.4 ug/L	4861.4 ppb	13:02:50
3	Mg 279.077 IEC†	161.3	157.9	5056.0 ug/L	5056.0 ppb	13:03:10
3	Na 589.592 Radial†	31937.2	33347.1	10073 ug/L	10073 ppb	13:02:50
3	Sr 421.552†	69652.2	68894.3	504.37 ug/L	504.37 ppb	13:02:50
3	Sc 361.383	873987.6	873987.6	98.576 %		13:04:13
3	Y 371.029	742146.3	742146.3	97.426 %		13:04:13
3	Ag 328.068†	114711.1	115855.4	500.78 ug/L	500.78 ppb	13:04:13
3	As 188.979†	1371.9	1425.1	503.21 ug/L	503.21 ppb	13:04:33
3	B 249.677†	23028.3	24026.7	493.50 ug/L	493.50 ppb	13:04:13
3	Ba 233.527†	67698.4	68668.6	501.95 ug/L	501.95 ppb	13:04:13
3	Be 313.107†	1463549.1	1489036.8	504.28 ug/L	504.28 ppb	13:04:13
3	Cd 226.502†	52057.4	53047.6	499.44 ug/L	499.44 ppb	13:04:13
3	Co 228.616†	25979.4	26438.6	497.24 ug/L	497.24 ppb	13:04:33
3	Cr 267.716†	48922.0	49524.5	497.01 ug/L	497.01 ppb	13:04:13
3	Cu 324.752†	174448.1	168968.4	500.50 ug/L	500.50 ppb	13:04:13
3	Mn 257.610†	472896.4	479209.5	505.31 ug/L	505.31 ppb	13:04:13
3	Mo 202.031†	7888.3	7982.3	500.54 ug/L	500.54 ppb	13:04:33
3	Ni 231.604†	22358.9	22556.8	494.86 ug/L	494.86 ppb	13:04:33
3	P 214.914†	5279.2	5106.9	2414.0 ug/L	2414.0 ppb	13:04:33
3	Pb 220.353†	4680.4	4825.8	501.48 ug/L	501.48 ppb	13:04:33
3	S 181.975 Axial†	927.0	880.5	994.10 ug/L	994.10 ppb	13:04:33
3	Sb 206.836†	1676.1	1663.2	503.95 ug/L	503.95 ppb	13:04:33
3	Se 196.026†	926.0	972.6	515.15 ug/L	515.15 ppb	13:04:33
3	Si 251.611†	86441.6	87073.4	2486.0 ug/L	2486.0 ppb	13:04:13
3	Sn 189.927†	3297.2	3341.5	494.83 ug/L	494.83 ppb	13:04:33
3	Ti 334.940†	313960.0	320311.5	508.08 ug/L	508.08 ppb	13:04:13
3	Tl 190.801†	1765.9	1844.8	507.28 ug/L	507.28 ppb	13:04:33
3	U 409.014†	13331.1	16192.3	479.80 ug/L	479.80 ppb	13:04:13
3	V 292.402†	76340.9	79245.2	504.17 ug/L	504.17 ppb	13:04:13
3	Zn 213.857†	60884.5	60932.1	496.81 ug/L	496.81 ppb	13:04:13
3	SiO2†	86336.1	86946.9	5311.7 ug/L	5311.7 ppb	13:04:49

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	863366.3	97.378	%	2.0832				2.14%
Sc Radial	4793.2	103	%	1.5				1.46%
Y 371.029	733510.7	96.292	%	2.0240				2.10%
Y RADIAL	5054.2	102.5	%	1.44				1.41%
Ag 328.068†	116670.3	504.27	ug/L	13.225	504.27	ppb	13.225	2.62%
QC value within limits for Ag 328.068 Recovery = 100.85%								
Al 396.153Radial†	5593.4	4939.3	ug/L	74.04	4939.3	ppb	74.04	1.50%
QC value within limits for Al 396.153Radial Recovery = 98.79%								
As 188.979†	1441.2	508.83	ug/L	9.142	508.83	ppb	9.142	1.80%
QC value within limits for As 188.979 Recovery = 101.77%								
B 249.677†	24146.6	495.97	ug/L	12.802	495.97	ppb	12.802	2.58%
QC value within limits for B 249.677 Recovery = 99.19%								
Ba 233.527†	69026.1	504.56	ug/L	13.833	504.56	ppb	13.833	2.74%
QC value within limits for Ba 233.527 Recovery = 100.91%								
Be 313.107†	1497697.6	507.22	ug/L	13.781	507.22	ppb	13.781	2.72%
QC value within limits for Be 313.107 Recovery = 101.44%								
Ca 317.933Radial†	2949.7	4942.7	ug/L	54.14	4942.7	ppb	54.14	1.10%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.85%
Cd 226.502†            53305.1      501.88 ug/L        14.256      501.88 ppb        14.256   2.84%
   QC value within limits for Cd 226.502  Recovery = 100.38%
Co 228.616†            26753.3      503.17 ug/L        11.492      503.17 ppb        11.492   2.28%
   QC value within limits for Co 228.616  Recovery = 100.63%
Cr 267.716†            49917.5      500.95 ug/L        13.915      500.95 ppb        13.915   2.78%
   QC value within limits for Cr 267.716  Recovery = 100.19%
Cu 324.752†           170073.3      503.77 ug/L        13.619      503.77 ppb        13.619   2.70%
   QC value within limits for Cu 324.752  Recovery = 100.75%
Fe 238.204 Radial†       549.0      4839.5 ug/L         67.25      4839.5 ppb         67.25   1.39%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.79%
K 766.490 Radial†      24281.9      4811.3 ug/L         71.85      4811.3 ppb         71.85   1.49%
   QC value within limits for K 766.490 Radial  Recovery = 96.23%
Mg 279.077 IEC†          157.1      5029.8 ug/L         24.85      5029.8 ppb         24.85   0.49%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.60%
Mn 257.610†           482142.4      508.40 ug/L        13.761      508.40 ppb        13.761   2.71%
   QC value within limits for Mn 257.610  Recovery = 101.68%
Mo 202.031†             8085.0      506.97 ug/L        11.782      506.97 ppb        11.782   2.32%
   QC value within limits for Mo 202.031  Recovery = 101.39%
Na 589.592 Radial†     32998.1      9968.1 ug/L        140.90      9968.1 ppb        140.90   1.41%
   QC value within limits for Na 589.592 Radial  Recovery = 99.68%
Ni 231.604†            22862.2      501.56 ug/L        11.789      501.56 ppb        11.789   2.35%
   QC value within limits for Ni 231.604  Recovery = 100.31%
P 214.914†              5180.0      2449.3 ug/L         58.67      2449.3 ppb         58.67   2.40%
   QC value within limits for P 214.914  Recovery = 97.97%
Pb 220.353†             4883.9      507.51 ug/L        12.786      507.51 ppb        12.786   2.52%
   QC value within limits for Pb 220.353  Recovery = 101.50%
S 181.975 Axial†         893.9      1009.3 ug/L         27.69      1009.3 ppb         27.69   2.74%
   QC value within limits for S 181.975 Axial  Recovery = 100.93%
Sb 206.836†             1687.5      511.38 ug/L        10.959      511.38 ppb        10.959   2.14%
   QC value within limits for Sb 206.836  Recovery = 102.28%
Se 196.026†              992.6      525.15 ug/L        10.969      525.15 ppb        10.969   2.09%
   QC value within limits for Se 196.026  Recovery = 105.03%
Si 251.611†            87721.1      2504.4 ug/L         69.09      2504.4 ppb         69.09   2.76%
   QC value within limits for Si 251.611  Recovery = 100.18%
Sn 189.927†             3399.0      503.33 ug/L        11.602      503.33 ppb        11.602   2.31%
   QC value within limits for Sn 189.927  Recovery = 100.67%
Sr 421.552†            68321.8      500.18 ug/L         6.933      500.18 ppb         6.933   1.39%
   QC value within limits for Sr 421.552  Recovery = 100.04%
Ti 334.940†           322326.5      511.27 ug/L        13.318      511.27 ppb        13.318   2.60%
   QC value within limits for Ti 334.940  Recovery = 102.25%
Tl 190.801†             1856.5      510.49 ug/L         6.510      510.49 ppb         6.510   1.28%
   QC value within limits for Tl 190.801  Recovery = 102.10%
U 409.014†             16330.3      483.90 ug/L        11.923      483.90 ppb        11.923   2.46%
   QC value within limits for U 409.014  Recovery = 96.78%
V 292.402†             79714.0      507.22 ug/L        13.392      507.22 ppb        13.392   2.64%
   QC value within limits for V 292.402  Recovery = 101.44%
Zn 213.857†            61263.2      499.49 ug/L        14.202      499.49 ppb        14.202   2.84%
   QC value within limits for Zn 213.857  Recovery = 99.90%
SiO2†                  88522.3      5408.1 ug/L        106.94      5408.1 ppb        106.94   1.98%
   QC value within limits for SiO2  Recovery = 101.13%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/6/2010 13:06:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4723.3	4723.3	101	%			13:08:51
1	Y RADIAL	4994.7	4994.7	101.3	%			13:08:51
1	Al 396.153Radial†	-28.6	-1.5	-1.3680	ug/L	-1.3680	ppb	13:08:51
1	Ca 317.933Radial†	13.3	0.6	1.0280	ug/L	1.0280	ppb	13:09:11
1	Fe 238.204 Radial†	10.5	-3.5	-30.742	ug/L	-30.742	ppb	13:09:11
1	K 766.490 Radial†	3481.9	104.1	20.621	ug/L	20.621	ppb	13:08:51
1	Mg 279.077 IEC†	1.9	0.2	7.1369	ug/L	7.1369	ppb	13:09:11
1	Na 589.592 Radial†	-1480.5	287.1	86.728	ug/L	86.728	ppb	13:08:51
1	Sr 421.552†	-36.2	-51.8	-0.3789	ug/L	-0.3789	ppb	13:08:51
1	Sc 361.383	861858.8	861858.8	97.208	%			13:10:08
1	Y 371.029	740906.7	740906.7	97.263	%			13:10:08
1	Ag 328.068†	518.8	21.3	0.0925	ug/L	0.0925	ppb	13:10:08
1	As 188.979†	-30.5	2.0	0.6959	ug/L	0.6959	ppb	13:10:28
1	B 249.677†	-522.9	127.9	2.6417	ug/L	2.6417	ppb	13:10:08
1	Ba 233.527†	-0.1	-7.6	-0.0555	ug/L	-0.0555	ppb	13:10:28
1	Be 313.107†	-4357.5	-131.2	-0.0441	ug/L	-0.0441	ppb	13:10:08
1	Cd 226.502†	-245.3	-14.0	-0.1287	ug/L	-0.1287	ppb	13:10:28
1	Co 228.616†	-86.0	-4.5	-0.0828	ug/L	-0.0828	ppb	13:10:28
1	Cr 267.716†	103.7	2.7	0.0306	ug/L	0.0306	ppb	13:10:08
1	Cu 324.752†	8041.2	273.1	0.8070	ug/L	0.8070	ppb	13:10:08
1	Mn 257.610†	590.9	91.4	0.0931	ug/L	0.0931	ppb	13:10:08
1	Mo 202.031†	33.1	14.1	0.8822	ug/L	0.8822	ppb	13:10:28
1	Ni 231.604†	114.2	-7.6	-0.1660	ug/L	-0.1660	ppb	13:10:28
1	P 214.914†	245.4	3.8	1.7810	ug/L	1.7810	ppb	13:10:28
1	Pb 220.353†	-73.6	2.0	0.2157	ug/L	0.2157	ppb	13:10:28
1	S 181.975 Axial†	59.9	1.7	1.9633	ug/L	1.9633	ppb	13:10:28
1	Sb 206.836†	49.1	13.5	4.0644	ug/L	4.0644	ppb	13:10:28
1	Se 196.026†	-39.0	-6.8	-3.5885	ug/L	-3.5885	ppb	13:10:28
1	Si 251.611†	654.5	56.7	1.5997	ug/L	1.5997	ppb	13:10:28
1	Sn 189.927†	12.2	9.1	1.3525	ug/L	1.3525	ppb	13:10:28
1	Ti 334.940†	-1683.9	85.1	0.1401	ug/L	0.1401	ppb	13:10:08
1	Tl 190.801†	-40.6	11.7	3.1853	ug/L	3.1853	ppb	13:10:28
1	U 409.014†	-2971.5	-388.1	-11.533	ug/L	-11.533	ppb	13:10:08
1	V 292.402†	-1701.2	51.8	0.3202	ug/L	0.3202	ppb	13:10:08
1	Zn 213.857†	814.7	6.4	0.0545	ug/L	0.0545	ppb	13:10:28
1	SiO2†	659.4	42.3	2.5374	ug/L	2.5374	ppb	13:11:24
2	Sc Radial	4629.7	4629.7	99.2	%			13:09:16
2	Y RADIAL	4889.1	4889.1	99.11	%			13:09:16
2	Al 396.153Radial†	-12.2	14.4	12.777	ug/L	12.777	ppb	13:09:16
2	Ca 317.933Radial†	18.1	5.7	9.5745	ug/L	9.5745	ppb	13:09:36
2	Fe 238.204 Radial†	12.8	-1.0	-8.4932	ug/L	-8.4932	ppb	13:09:36
2	K 766.490 Radial†	3521.1	213.2	42.283	ug/L	42.283	ppb	13:09:16
2	Mg 279.077 IEC†	2.8	1.2	39.321	ug/L	39.321	ppb	13:09:36
2	Na 589.592 Radial†	-1484.5	253.5	76.571	ug/L	76.571	ppb	13:09:16
2	Sr 421.552†	13.6	-2.2	-0.0164	ug/L	-0.0164	ppb	13:09:16
2	Sc 361.383	857375.9	857375.9	96.703	%			13:10:33
2	Y 371.029	736432.9	736432.9	96.676	%			13:10:33
2	Ag 328.068†	421.8	-76.1	-0.3214	ug/L	-0.3214	ppb	13:10:33
2	As 188.979†	-38.3	-6.2	-2.1704	ug/L	-2.1704	ppb	13:10:53
2	B 249.677†	-592.2	53.5	1.1047	ug/L	1.1047	ppb	13:10:33
2	Ba 233.527†	13.0	6.0	0.0447	ug/L	0.0447	ppb	13:10:53
2	Be 313.107†	-4316.0	-111.6	-0.0375	ug/L	-0.0375	ppb	13:10:33
2	Cd 226.502†	-226.8	3.9	0.0377	ug/L	0.0377	ppb	13:10:53
2	Co 228.616†	-93.4	-12.6	-0.2350	ug/L	-0.2350	ppb	13:10:53
2	Cr 267.716†	115.9	15.8	0.1616	ug/L	0.1616	ppb	13:10:33
2	Cu 324.752†	7932.6	204.0	0.6036	ug/L	0.6036	ppb	13:10:33
2	Mn 257.610†	576.2	79.5	0.0822	ug/L	0.0822	ppb	13:10:33
2	Mo 202.031†	28.0	9.0	0.5658	ug/L	0.5658	ppb	13:10:53
2	Ni 231.604†	140.4	20.1	0.4414	ug/L	0.4414	ppb	13:10:53

2	P 214.914†	256.3	16.5	7.9317	ug/L	7.9317 ppb	13:10:53
2	Pb 220.353†	-74.4	0.8	0.0874	ug/L	0.0874 ppb	13:10:53
2	S 181.975 Axial†	63.5	5.8	6.5329	ug/L	6.5329 ppb	13:10:53
2	Sb 206.836†	36.8	1.0	0.2943	ug/L	0.2943 ppb	13:10:53
2	Se 196.026†	-31.0	1.2	0.5889	ug/L	0.5889 ppb	13:10:53
2	Si 251.611†	653.3	59.1	1.6711	ug/L	1.6711 ppb	13:10:53
2	Sn 189.927†	1.1	-2.3	-0.3399	ug/L	-0.3399 ppb	13:10:53
2	Ti 334.940†	-1676.8	83.4	0.1358	ug/L	0.1358 ppb	13:10:33
2	Tl 190.801†	-43.1	8.8	2.4144	ug/L	2.4144 ppb	13:10:53
2	U 409.014†	-2807.1	-234.1	-6.9582	ug/L	-6.9582 ppb	13:10:33
2	V 292.402†	-1642.6	103.3	0.6448	ug/L	0.6448 ppb	13:10:33
2	Zn 213.857†	830.1	26.7	0.2152	ug/L	0.2152 ppb	13:10:53
2	SiO2†	675.5	62.5	3.7868	ug/L	3.7868 ppb	13:11:29
3	Sc Radial	4641.1	4641.1	99.4	%		13:09:41
3	Y RADIAL	4899.8	4899.8	99.33	%		13:09:41
3	Al 396.153Radial†	-37.6	-11.0	-9.8208	ug/L	-9.8208 ppb	13:09:41
3	Ca 317.933Radial†	17.1	4.6	7.7157	ug/L	7.7157 ppb	13:10:01
3	Fe 238.204 Radial†	8.5	-5.3	-46.933	ug/L	-46.933 ppb	13:10:01
3	K 766.490 Radial†	3545.5	229.0	45.418	ug/L	45.418 ppb	13:09:41
3	Mg 279.077 IEC†	0.1	-1.5	-48.406	ug/L	-48.406 ppb	13:10:01
3	Na 589.592 Radial†	-1461.4	280.3	84.676	ug/L	84.676 ppb	13:09:41
3	Sr 421.552†	-10.5	-26.5	-0.1943	ug/L	-0.1943 ppb	13:09:41
3	Sc 361.383	852049.0	852049.0	96.102	%		13:10:59
3	Y 371.029	732328.1	732328.1	96.137	%		13:10:59
3	Ag 328.068†	417.5	-77.9	-0.3474	ug/L	-0.3474 ppb	13:10:59
3	As 188.979†	-30.8	1.4	0.4873	ug/L	0.4873 ppb	13:11:19
3	B 249.677†	-557.3	85.9	1.7791	ug/L	1.7791 ppb	13:10:59
3	Ba 233.527†	-8.4	-16.2	-0.1204	ug/L	-0.1204 ppb	13:11:19
3	Be 313.107†	-4302.7	-125.7	-0.0424	ug/L	-0.0424 ppb	13:10:59
3	Cd 226.502†	-241.3	-12.7	-0.1148	ug/L	-0.1148 ppb	13:11:19
3	Co 228.616†	-96.6	-16.5	-0.3092	ug/L	-0.3092 ppb	13:11:19
3	Cr 267.716†	96.2	-3.9	-0.0387	ug/L	-0.0387 ppb	13:10:59
3	Cu 324.752†	8069.9	398.2	1.1765	ug/L	1.1765 ppb	13:10:59
3	Mn 257.610†	541.9	47.5	0.0462	ug/L	0.0462 ppb	13:10:59
3	Mo 202.031†	26.7	7.9	0.4875	ug/L	0.4875 ppb	13:11:19
3	Ni 231.604†	125.1	5.1	0.1124	ug/L	0.1124 ppb	13:11:19
3	P 214.914†	242.2	3.5	1.5427	ug/L	1.5427 ppb	13:11:19
3	Pb 220.353†	-74.8	-0.0	-0.0013	ug/L	-0.0013 ppb	13:11:19
3	S 181.975 Axial†	57.9	0.3	0.3542	ug/L	0.3542 ppb	13:11:19
3	Sb 206.836†	37.5	1.9	0.5855	ug/L	0.5855 ppb	13:11:19
3	Se 196.026†	-45.3	-13.9	-7.2614	ug/L	-7.2614 ppb	13:11:19
3	Si 251.611†	670.6	81.2	2.3048	ug/L	2.3048 ppb	13:11:19
3	Sn 189.927†	5.0	1.8	0.2708	ug/L	0.2708 ppb	13:11:19
3	Ti 334.940†	-1707.3	40.8	0.0676	ug/L	0.0676 ppb	13:10:59
3	Tl 190.801†	-36.7	15.2	4.1554	ug/L	4.1554 ppb	13:11:19
3	U 409.014†	-2740.6	-183.0	-5.4354	ug/L	-5.4354 ppb	13:10:59
3	V 292.402†	-1786.4	-57.1	-0.3558	ug/L	-0.3558 ppb	13:10:59
3	Zn 213.857†	831.9	33.9	0.2811	ug/L	0.2811 ppb	13:11:19
3	SiO2†	702.8	95.3	5.7935	ug/L	5.7935 ppb	13:11:34

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	857094.6	96.671	%	0.5539				0.57%
Sc Radial	4664.7	99.9	%	1.09				1.09%
Y 371.029	736555.9	96.692	%	0.5633				0.58%
Y RADIAL	4927.9	99.90	%	1.178				1.18%
Ag 328.068†	-44.2	-0.1921	ug/L	0.24681	-0.1921	ppb	0.24681	128.49%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.6	0.5294	ug/L	11.41775	0.5294	ppb	11.41775	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.9	-0.3291	ug/L	1.59804	-0.3291	ppb	1.59804	485.61%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	89.1	1.8418	ug/L	0.77039	1.8418	ppb	0.77039	41.83%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.0	-0.0437	ug/L	0.08313	-0.0437	ppb	0.08313	190.09%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-122.8	-0.0413	ug/L	0.00343	-0.0413	ppb	0.00343	8.29%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.6	6.1061	ug/L	4.49484	6.1061	ppb	4.49484	73.61%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -7.6     -0.0686 ug/L       0.09233     -0.0686 ppb        0.09233 134.52%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†             -11.2     -0.2090 ug/L       0.11545     -0.2090 ppb        0.11545  55.24%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               4.9      0.0511 ug/L       0.10175      0.0511 ppb        0.10175 198.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             291.8      0.8624 ug/L       0.29040      0.8624 ppb        0.29040  33.67%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -3.3     -28.723 ug/L      19.2994     -28.723 ppb       19.2994  67.19%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       182.1      36.107 ug/L      13.5031      36.107 ppb       13.5031  37.40%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.0     -0.6497 ug/L      44.37884     -0.6497 ppb       44.37884 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              72.8      0.0738 ug/L       0.02453      0.0738 ppb        0.02453  33.22%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              10.3      0.6451 ug/L       0.20898      0.6451 ppb        0.20898  32.39%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      273.6      82.658 ug/L        5.3706      82.658 ppb         5.3706   6.50%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               5.9      0.1293 ug/L       0.30403      0.1293 ppb        0.30403 235.19%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                7.9      3.7518 ug/L       3.62188      3.7518 ppb        3.62188  96.54%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               0.9      0.1006 ug/L       0.10913      0.1006 ppb        0.10913 108.46%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.6      2.9501 ug/L       3.20539      2.9501 ppb        3.20539 108.65%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               5.5      1.6481 ug/L       2.09765      1.6481 ppb        2.09765 127.28%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -6.5     -3.4203 ug/L       3.92786     -3.4203 ppb        3.92786 114.84%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              65.6      1.8586 ug/L       0.38813      1.8586 ppb        0.38813  20.88%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.9      0.4278 ug/L       0.85708      0.4278 ppb        0.85708 200.34%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -26.8     -0.1965 ug/L       0.18125     -0.1965 ppb        0.18125  92.22%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              69.8      0.1145 ug/L       0.04068      0.1145 ppb        0.04068  35.53%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              11.9      3.2517 ug/L       0.87238      3.2517 ppb        0.87238  26.83%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             -268.4     -7.9756 ug/L       3.17367     -7.9756 ppb        3.17367  39.79%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               32.7      0.2030 ug/L       0.51048      0.2030 ppb        0.51048 251.43%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              22.4      0.1836 ug/L       0.11656      0.1836 ppb        0.11656  63.50%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    66.7      4.0392 ug/L       1.64266      4.0392 ppb        1.64266  40.67%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/6/2010 14:17:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4592.5	4592.5	98.4	%			14:19:36
1	Y RADIAL	4852.6	4852.6	98.37	%			14:19:36
1	Al 396.153Radial†	5729.8	5850.3	5167.5	ug/L	5167.5	ppb	14:19:36
1	Ca 317.933Radial†	3052.6	3090.0	5177.8	ug/L	5177.8	ppb	14:19:56
1	Fe 238.204 Radial†	574.3	569.8	5022.3	ug/L	5022.3	ppb	14:19:56
1	K 766.490 Radial†	28029.9	25151.6	4984.0	ug/L	4984.0	ppb	14:19:36
1	Mg 279.077 IEC†	164.0	165.0	5282.6	ug/L	5282.6	ppb	14:19:56
1	Na 589.592 Radial†	30800.6	33054.4	9985.0	ug/L	9985.0	ppb	14:19:36
1	Sr 421.552†	69088.6	70202.4	513.95	ug/L	513.95	ppb	14:19:36
1	Sc 361.383	885650.2	885650.2	99.892	%			14:20:55
1	Y 371.029	752424.8	752424.8	98.775	%			14:20:55
1	Ag 328.068†	116247.1	115860.7	500.83	ug/L	500.83	ppb	14:20:55
1	As 188.979†	1379.3	1414.2	499.40	ug/L	499.40	ppb	14:21:15
1	B 249.677†	23245.0	23936.0	491.63	ug/L	491.63	ppb	14:20:55
1	Ba 233.527†	68409.4	68475.9	500.55	ug/L	500.55	ppb	14:20:55
1	Be 313.107†	1479870.7	1485825.2	503.20	ug/L	503.20	ppb	14:20:55
1	Cd 226.502†	52556.5	52851.8	497.59	ug/L	497.59	ppb	14:20:55
1	Co 228.616†	26140.4	26252.7	493.74	ug/L	493.74	ppb	14:21:15
1	Cr 267.716†	49405.5	49354.9	495.31	ug/L	495.31	ppb	14:20:55
1	Cu 324.752†	177080.3	169273.1	501.41	ug/L	501.41	ppb	14:20:55
1	Mn 257.610†	478357.6	478359.3	504.42	ug/L	504.42	ppb	14:20:55
1	Mo 202.031†	7931.5	7920.2	496.66	ug/L	496.66	ppb	14:21:15
1	Ni 231.604†	22494.4	22393.7	491.28	ug/L	491.28	ppb	14:21:15
1	P 214.914†	5320.3	5077.5	2399.5	ug/L	2399.5	ppb	14:21:15
1	Pb 220.353†	4684.6	4767.4	495.46	ug/L	495.46	ppb	14:21:15
1	S 181.975 Axial†	934.2	875.3	988.18	ug/L	988.18	ppb	14:21:15
1	Sb 206.836†	1689.0	1653.7	501.05	ug/L	501.05	ppb	14:21:15
1	Se 196.026†	940.8	975.1	516.77	ug/L	516.77	ppb	14:21:15
1	Si 251.611†	87812.4	87291.0	2492.2	ug/L	2492.2	ppb	14:20:55
1	Sn 189.927†	3340.8	3341.0	494.79	ug/L	494.79	ppb	14:21:15
1	Ti 334.940†	317990.4	320152.2	507.83	ug/L	507.83	ppb	14:20:55
1	Tl 190.801†	1767.5	1822.8	501.28	ug/L	501.28	ppb	14:21:15
1	U 409.014†	13653.6	16337.1	484.09	ug/L	484.09	ppb	14:20:55
1	V 292.402†	77148.4	79033.8	502.78	ug/L	502.78	ppb	14:20:55
1	Zn 213.857†	61487.9	60722.9	495.10	ug/L	495.10	ppb	14:20:55
1	SiO2†	86806.3	86264.3	5269.8	ug/L	5269.8	ppb	14:22:15
2	Sc Radial	4715.5	4715.5	101	%			14:20:01
2	Y RADIAL	4946.8	4946.8	100.3	%			14:20:01
2	Al 396.153Radial†	5764.9	5733.1	5063.3	ug/L	5063.3	ppb	14:20:01
2	Ca 317.933Radial†	3087.8	3043.9	5100.6	ug/L	5100.6	ppb	14:20:21
2	Fe 238.204 Radial†	579.6	559.8	4934.6	ug/L	4934.6	ppb	14:20:21
2	K 766.490 Radial†	28482.0	24856.0	4925.4	ug/L	4925.4	ppb	14:20:01
2	Mg 279.077 IEC†	163.1	159.8	5115.5	ug/L	5115.5	ppb	14:20:21
2	Na 589.592 Radial†	31145.2	32578.9	9841.4	ug/L	9841.4	ppb	14:20:01
2	Sr 421.552†	69861.8	69136.3	506.15	ug/L	506.15	ppb	14:20:01
2	Sc 361.383	880318.0	880318.0	99.290	%			14:21:22
2	Y 371.029	747710.7	747710.7	98.156	%			14:21:22
2	Ag 328.068†	115510.3	115823.5	500.65	ug/L	500.65	ppb	14:21:22
2	As 188.979†	1389.6	1432.9	505.94	ug/L	505.94	ppb	14:21:42
2	B 249.677†	23035.9	23866.4	490.19	ug/L	490.19	ppb	14:21:22
2	Ba 233.527†	68015.6	68494.2	500.68	ug/L	500.68	ppb	14:21:22
2	Be 313.107†	1472331.7	1487205.9	503.66	ug/L	503.66	ppb	14:21:22
2	Cd 226.502†	52450.5	53063.8	499.60	ug/L	499.60	ppb	14:21:22
2	Co 228.616†	26315.5	26587.6	500.05	ug/L	500.05	ppb	14:21:42
2	Cr 267.716†	49356.1	49604.8	497.82	ug/L	497.82	ppb	14:21:22
2	Cu 324.752†	175642.7	168899.0	500.30	ug/L	500.30	ppb	14:21:22
2	Mn 257.610†	476045.3	478931.2	505.02	ug/L	505.02	ppb	14:21:22
2	Mo 202.031†	7994.2	8031.4	503.62	ug/L	503.62	ppb	14:21:42
2	Ni 231.604†	22605.3	22641.8	496.72	ug/L	496.72	ppb	14:21:42

2	P 214.914†	5351.2	5140.8	2430.7 ug/L	2430.7 ppb	14:21:42
2	Pb 220.353†	4713.5	4824.9	501.42 ug/L	501.42 ppb	14:21:42
2	S 181.975 Axial†	941.9	888.7	1003.3 ug/L	1003.3 ppb	14:21:42
2	Sb 206.836†	1703.9	1679.0	508.79 ug/L	508.79 ppb	14:21:42
2	Se 196.026†	944.2	984.2	521.17 ug/L	521.17 ppb	14:21:42
2	Si 251.611†	87094.2	87100.1	2486.7 ug/L	2486.7 ppb	14:21:22
2	Sn 189.927†	3353.9	3374.5	499.72 ug/L	499.72 ppb	14:21:42
2	Ti 334.940†	316021.8	320097.7	507.74 ug/L	507.74 ppb	14:21:22
2	Tl 190.801†	1776.8	1842.8	506.73 ug/L	506.73 ppb	14:21:42
2	U 409.014†	13442.9	16207.7	480.25 ug/L	480.25 ppb	14:21:22
2	V 292.402†	76778.3	79128.8	503.48 ug/L	503.48 ppb	14:21:22
2	Zn 213.857†	61323.0	60929.6	496.78 ug/L	496.78 ppb	14:21:22
2	SiO2†	87671.6	87662.2	5355.4 ug/L	5355.4 ppb	14:22:20
3	Sc Radial	4757.6	4757.6	102 %		14:20:26
3	Y RADIAL	5031.5	5031.5	102.0 %		14:20:26
3	Al 396.153Radial†	5867.2	5782.9	5107.6 ug/L	5107.6 ppb	14:20:26
3	Ca 317.933Radial†	3043.8	2973.7	4982.9 ug/L	4982.9 ppb	14:20:46
3	Fe 238.204 Radial†	567.4	542.8	4785.3 ug/L	4785.3 ppb	14:20:46
3	K 766.490 Radial†	28726.1	24845.7	4923.4 ug/L	4923.4 ppb	14:20:26
3	Mg 279.077 IEC†	164.8	160.1	5124.6 ug/L	5124.6 ppb	14:20:46
3	Na 589.592 Radial†	31346.5	32503.4	9818.6 ug/L	9818.6 ppb	14:20:26
3	Sr 421.552†	70530.9	69180.1	506.47 ug/L	506.47 ppb	14:20:26
3	Sc 361.383	878142.6	878142.6	99.045 %		14:21:50
3	Y 371.029	745386.1	745386.1	97.851 %		14:21:50
3	Ag 328.068†	115438.8	116039.5	501.52 ug/L	501.52 ppb	14:21:50
3	As 188.979†	1368.9	1415.5	499.84 ug/L	499.84 ppb	14:22:10
3	B 249.677†	23054.6	23942.7	491.79 ug/L	491.79 ppb	14:21:50
3	Ba 233.527†	68095.0	68744.0	502.50 ug/L	502.50 ppb	14:21:50
3	Be 313.107†	1469882.8	1488406.7	504.07 ug/L	504.07 ppb	14:21:50
3	Cd 226.502†	52261.3	53003.6	499.04 ug/L	499.04 ppb	14:21:50
3	Co 228.616†	26129.8	26465.7	497.75 ug/L	497.75 ppb	14:22:10
3	Cr 267.716†	49223.9	49594.4	497.71 ug/L	497.71 ppb	14:21:50
3	Cu 324.752†	175650.8	169345.4	501.61 ug/L	501.61 ppb	14:21:50
3	Mn 257.610†	475845.0	479916.6	506.04 ug/L	506.04 ppb	14:21:50
3	Mo 202.031†	7924.1	7980.6	500.42 ug/L	500.42 ppb	14:22:10
3	Ni 231.604†	22536.5	22628.7	496.44 ug/L	496.44 ppb	14:22:10
3	P 214.914†	5322.2	5124.9	2422.8 ug/L	2422.8 ppb	14:22:10
3	Pb 220.353†	4710.1	4833.3	502.30 ug/L	502.30 ppb	14:22:10
3	S 181.975 Axial†	939.2	888.3	1002.9 ug/L	1002.9 ppb	14:22:10
3	Sb 206.836†	1699.8	1679.1	508.70 ug/L	508.70 ppb	14:22:10
3	Se 196.026†	929.6	971.9	514.40 ug/L	514.40 ppb	14:22:10
3	Si 251.611†	87007.8	87230.2	2490.4 ug/L	2490.4 ppb	14:21:50
3	Sn 189.927†	3330.7	3359.4	497.48 ug/L	497.48 ppb	14:22:10
3	Ti 334.940†	315828.6	320691.1	508.68 ug/L	508.68 ppb	14:21:50
3	Tl 190.801†	1771.1	1841.6	506.41 ug/L	506.41 ppb	14:22:10
3	U 409.014†	13590.6	16390.4	485.70 ug/L	485.70 ppb	14:21:50
3	V 292.402†	76580.9	79121.1	503.42 ug/L	503.42 ppb	14:21:50
3	Zn 213.857†	61222.0	60980.6	497.20 ug/L	497.20 ppb	14:21:50
3	SiO2†	86439.4	86636.8	5292.6 ug/L	5292.6 ppb	14:22:25

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	881370.2	99.409	%	0.4357				0.44%
Sc Radial	4688.5	100	%	1.8				1.83%
Y 371.029	748507.2	98.261	%	0.4708				0.48%
Y RADIAL	4943.6	100.2	%	1.81				1.81%
Ag 328.068†	115907.9	501.00	ug/L	0.462	501.00	ppb	0.462	0.09%
QC value within limits for Ag 328.068 Recovery = 100.20%								
Al 396.153Radial†	5788.7	5112.8	ug/L	52.31	5112.8	ppb	52.31	1.02%
QC value within limits for Al 396.153Radial Recovery = 102.26%								
As 188.979†	1420.9	501.73	ug/L	3.653	501.73	ppb	3.653	0.73%
QC value within limits for As 188.979 Recovery = 100.35%								
B 249.677†	23915.0	491.20	ug/L	0.881	491.20	ppb	0.881	0.18%
QC value within limits for B 249.677 Recovery = 98.24%								
Ba 233.527†	68571.4	501.24	ug/L	1.090	501.24	ppb	1.090	0.22%
QC value within limits for Ba 233.527 Recovery = 100.25%								
Be 313.107†	1487145.9	503.64	ug/L	0.437	503.64	ppb	0.437	0.09%
QC value within limits for Be 313.107 Recovery = 100.73%								
Ca 317.933Radial†	3035.9	5087.1	ug/L	98.14	5087.1	ppb	98.14	1.93%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.74%
Cd 226.502†            52973.1      498.74 ug/L         1.038      498.74 ppb          1.038   0.21%
   QC value within limits for Cd 226.502  Recovery = 99.75%
Co 228.616†            26435.3      497.18 ug/L         3.196      497.18 ppb          3.196   0.64%
   QC value within limits for Co 228.616  Recovery = 99.44%
Cr 267.716†            49518.1      496.94 ug/L         1.416      496.94 ppb          1.416   0.28%
   QC value within limits for Cr 267.716  Recovery = 99.39%
Cu 324.752†           169172.5      501.11 ug/L         0.708      501.11 ppb          0.708   0.14%
   QC value within limits for Cu 324.752  Recovery = 100.22%
Fe 238.204 Radial†       557.5      4914.1 ug/L        119.83      4914.1 ppb         119.83   2.44%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.28%
K 766.490 Radial†      24951.1      4944.2 ug/L         34.43      4944.2 ppb          34.43   0.70%
   QC value within limits for K 766.490 Radial  Recovery = 98.88%
Mg 279.077 IEC†          161.6      5174.2 ug/L         93.94      5174.2 ppb          93.94   1.82%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.48%
Mn 257.610†           479069.0      505.16 ug/L         0.819      505.16 ppb          0.819   0.16%
   QC value within limits for Mn 257.610  Recovery = 101.03%
Mo 202.031†             7977.4      500.23 ug/L         3.485      500.23 ppb          3.485   0.70%
   QC value within limits for Mo 202.031  Recovery = 100.05%
Na 589.592 Radial†     32712.2      9881.7 ug/L         90.23      9881.7 ppb          90.23   0.91%
   QC value within limits for Na 589.592 Radial  Recovery = 98.82%
Ni 231.604†            22554.8      494.82 ug/L         3.063      494.82 ppb          3.063   0.62%
   QC value within limits for Ni 231.604  Recovery = 98.96%
P 214.914†              5114.4      2417.7 ug/L         16.21      2417.7 ppb          16.21   0.67%
   QC value within limits for P 214.914  Recovery = 96.71%
Pb 220.353†             4808.6      499.72 ug/L         3.721      499.72 ppb          3.721   0.74%
   QC value within limits for Pb 220.353  Recovery = 99.94%
S 181.975 Axial†         884.1      998.15 ug/L         8.636      998.15 ppb          8.636   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 99.81%
Sb 206.836†             1670.6      506.18 ug/L         4.439      506.18 ppb          4.439   0.88%
   QC value within limits for Sb 206.836  Recovery = 101.24%
Se 196.026†              977.0      517.45 ug/L         3.437      517.45 ppb          3.437   0.66%
   QC value within limits for Se 196.026  Recovery = 103.49%
Si 251.611†            87207.1      2489.8 ug/L          2.85      2489.8 ppb           2.85   0.11%
   QC value within limits for Si 251.611  Recovery = 99.59%
Sn 189.927†             3358.3      497.33 ug/L         2.470      497.33 ppb          2.470   0.50%
   QC value within limits for Sn 189.927  Recovery = 99.47%
Sr 421.552†            69506.3      508.85 ug/L         4.416      508.85 ppb          4.416   0.87%
   QC value within limits for Sr 421.552  Recovery = 101.77%
Ti 334.940†           320313.7      508.08 ug/L         0.515      508.08 ppb          0.515   0.10%
   QC value within limits for Ti 334.940  Recovery = 101.62%
Tl 190.801†             1835.7      504.81 ug/L         3.057      504.81 ppb          3.057   0.61%
   QC value within limits for Tl 190.801  Recovery = 100.96%
U 409.014†             16311.7      483.35 ug/L         2.800      483.35 ppb          2.800   0.58%
   QC value within limits for U 409.014  Recovery = 96.67%
V 292.402†             79094.6      503.23 ug/L         0.386      503.23 ppb          0.386   0.08%
   QC value within limits for V 292.402  Recovery = 100.65%
Zn 213.857†            60877.7      496.36 ug/L         1.112      496.36 ppb          1.112   0.22%
   QC value within limits for Zn 213.857  Recovery = 99.27%
SiO2†                  86854.4      5305.9 ug/L         44.32      5305.9 ppb          44.32   0.84%
   QC value within limits for SiO2  Recovery = 99.22%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/6/2010 14:24:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4727.8	4727.8	101	%			14:26:29
1	Y RADIAL	4998.0	4998.0	101.3	%			14:26:29
1	Al 396.153Radial†	-12.7	14.2	12.590	ug/L	12.590	ppb	14:26:29
1	Ca 317.933Radial†	15.3	2.5	4.2105	ug/L	4.2105	ppb	14:26:49
1	Fe 238.204 Radial†	13.6	-0.4	-3.7059	ug/L	-3.7059	ppb	14:26:49
1	K 766.490 Radial†	3317.7	-61.3	-12.198	ug/L	-12.198	ppb	14:26:29
1	Mg 279.077 IEC†	4.3	2.6	84.467	ug/L	84.467	ppb	14:26:49
1	Na 589.592 Radial†	-1563.1	206.9	62.509	ug/L	62.509	ppb	14:26:29
1	Sr 421.552†	7.9	-8.2	-0.0597	ug/L	-0.0597	ppb	14:26:29
1	Sc 361.383	857544.5	857544.5	96.722	%			14:27:46
1	Y 371.029	736530.3	736530.3	96.688	%			14:27:46
1	Ag 328.068†	545.4	51.6	0.2217	ug/L	0.2217	ppb	14:27:46
1	As 188.979†	-28.2	4.3	1.4983	ug/L	1.4983	ppb	14:28:06
1	B 249.677†	-600.7	44.8	0.9257	ug/L	0.9257	ppb	14:27:46
1	Ba 233.527†	-8.1	-15.8	-0.1159	ug/L	-0.1159	ppb	14:28:06
1	Be 313.107†	-4328.8	-124.1	-0.0418	ug/L	-0.0418	ppb	14:27:46
1	Cd 226.502†	-226.8	3.9	0.0371	ug/L	0.0371	ppb	14:28:06
1	Co 228.616†	-99.9	-19.4	-0.3627	ug/L	-0.3627	ppb	14:28:06
1	Cr 267.716†	93.9	-6.9	-0.0689	ug/L	-0.0689	ppb	14:27:46
1	Cu 324.752†	8037.3	310.7	0.9197	ug/L	0.9197	ppb	14:27:46
1	Mn 257.610†	497.2	-2.3	-0.0044	ug/L	-0.0044	ppb	14:27:46
1	Mo 202.031†	27.3	8.3	0.5181	ug/L	0.5181	ppb	14:28:06
1	Ni 231.604†	119.0	-2.0	-0.0439	ug/L	-0.0439	ppb	14:28:06
1	P 214.914†	263.9	24.3	11.674	ug/L	11.674	ppb	14:28:06
1	Pb 220.353†	-95.4	-20.8	-2.1542	ug/L	-2.1542	ppb	14:28:06
1	S 181.975 Axial†	63.8	6.1	6.8789	ug/L	6.8789	ppb	14:28:06
1	Sb 206.836†	63.5	28.6	8.5365	ug/L	8.5365	ppb	14:28:06
1	Se 196.026†	-30.8	1.4	0.7324	ug/L	0.7324	ppb	14:28:06
1	Si 251.611†	670.9	77.1	2.2085	ug/L	2.2085	ppb	14:27:46
1	Sn 189.927†	-2.1	-5.6	-0.8234	ug/L	-0.8234	ppb	14:28:06
1	Ti 334.940†	-1712.2	47.2	0.0761	ug/L	0.0761	ppb	14:27:46
1	Tl 190.801†	-47.5	4.3	1.1835	ug/L	1.1835	ppb	14:28:06
1	U 409.014†	-2659.5	-80.9	-2.4057	ug/L	-2.4057	ppb	14:27:46
1	V 292.402†	-1763.3	-21.2	-0.1279	ug/L	-0.1279	ppb	14:27:46
1	Zn 213.857†	811.9	7.7	0.0602	ug/L	0.0602	ppb	14:28:06
1	SiO2†	717.6	105.9	6.4981	ug/L	6.4981	ppb	14:29:02
2	Sc Radial	4670.3	4670.3	100	%			14:26:54
2	Y RADIAL	4958.9	4958.9	100.5	%			14:26:54
2	Al 396.153Radial†	-5.7	21.0	18.641	ug/L	18.641	ppb	14:26:54
2	Ca 317.933Radial†	17.9	5.3	8.8644	ug/L	8.8644	ppb	14:27:14
2	Fe 238.204 Radial†	12.6	-1.3	-11.025	ug/L	-11.025	ppb	14:27:14
2	K 766.490 Radial†	3352.0	13.3	2.6138	ug/L	2.6138	ppb	14:26:54
2	Mg 279.077 IEC†	2.4	0.8	24.302	ug/L	24.302	ppb	14:27:14
2	Na 589.592 Radial†	-1527.7	223.3	67.441	ug/L	67.441	ppb	14:26:54
2	Sr 421.552†	59.8	43.8	0.3207	ug/L	0.3207	ppb	14:26:54
2	Sc 361.383	853085.6	853085.6	96.219	%			14:28:11
2	Y 371.029	733488.7	733488.7	96.289	%			14:28:11
2	Ag 328.068†	363.1	-135.0	-0.5779	ug/L	-0.5779	ppb	14:28:11
2	As 188.979†	-40.7	-8.9	-3.1054	ug/L	-3.1054	ppb	14:28:31
2	B 249.677†	-585.0	57.9	1.1953	ug/L	1.1953	ppb	14:28:11
2	Ba 233.527†	8.4	1.2	0.0082	ug/L	0.0082	ppb	14:28:31
2	Be 313.107†	-4328.3	-146.9	-0.0500	ug/L	-0.0500	ppb	14:28:11
2	Cd 226.502†	-237.4	-8.3	-0.0774	ug/L	-0.0774	ppb	14:28:31
2	Co 228.616†	-91.3	-10.9	-0.2043	ug/L	-0.2043	ppb	14:28:31
2	Cr 267.716†	118.6	19.2	0.1942	ug/L	0.1942	ppb	14:28:11
2	Cu 324.752†	7858.7	168.5	0.4983	ug/L	0.4983	ppb	14:28:11
2	Mn 257.610†	507.4	10.9	0.0099	ug/L	0.0099	ppb	14:28:11
2	Mo 202.031†	20.9	1.8	0.1094	ug/L	0.1094	ppb	14:28:31
2	Ni 231.604†	114.8	-5.8	-0.1266	ug/L	-0.1266	ppb	14:28:31

2	P 214.914†	254.2	15.6	7.5464	ug/L	7.5464 ppb	14:28:31
2	Pb 220.353†	-70.8	4.2	0.4400	ug/L	0.4400 ppb	14:28:31
2	S 181.975 Axial†	54.8	-2.9	-3.2738	ug/L	-3.2738 ppb	14:28:31
2	Sb 206.836†	37.6	2.0	0.6052	ug/L	0.6052 ppb	14:28:31
2	Se 196.026†	-41.6	-9.9	-5.1201	ug/L	-5.1201 ppb	14:28:31
2	Si 251.611†	690.0	100.5	2.8790	ug/L	2.8790 ppb	14:28:11
2	Sn 189.927†	6.0	2.8	0.4188	ug/L	0.4188 ppb	14:28:31
2	Ti 334.940†	-1841.8	-96.9	-0.1498	ug/L	-0.1498 ppb	14:28:11
2	Tl 190.801†	-51.8	-0.5	-0.1335	ug/L	-0.1335 ppb	14:28:31
2	U 409.014†	-2823.8	-266.0	-7.9072	ug/L	-7.9072 ppb	14:28:11
2	V 292.402†	-1770.1	-37.8	-0.2487	ug/L	-0.2487 ppb	14:28:11
2	Zn 213.857†	824.7	25.5	0.2094	ug/L	0.2094 ppb	14:28:31
2	SiO2†	703.8	95.4	5.8467	ug/L	5.8467 ppb	14:29:07
3	Sc Radial	4835.9	4835.9	104	%		14:27:19
3	Y RADIAL	5152.0	5152.0	104.4	%		14:27:19
3	Al 396.153Radial†	-3.8	23.0	20.400	ug/L	20.400 ppb	14:27:19
3	Ca 317.933Radial†	21.9	8.6	14.379	ug/L	14.379 ppb	14:27:39
3	Fe 238.204 Radial†	12.6	-1.7	-14.736	ug/L	-14.736 ppb	14:27:39
3	K 766.490 Radial†	3441.7	-14.7	-2.9570	ug/L	-2.9570 ppb	14:27:19
3	Mg 279.077 IEC†	4.8	3.0	94.870	ug/L	94.870 ppb	14:27:39
3	Na 589.592 Radial†	-1584.9	220.3	66.562	ug/L	66.562 ppb	14:27:19
3	Sr 421.552†	23.7	6.9	0.0506	ug/L	0.0506 ppb	14:27:19
3	Sc 361.383	859018.9	859018.9	96.888	%		14:28:36
3	Y 371.029	738418.3	738418.3	96.936	%		14:28:36
3	Ag 328.068†	431.9	-66.5	-0.2880	ug/L	-0.2880 ppb	14:28:36
3	As 188.979†	-36.0	-3.8	-1.3286	ug/L	-1.3286 ppb	14:28:57
3	B 249.677†	-600.6	45.9	0.9490	ug/L	0.9490 ppb	14:28:36
3	Ba 233.527†	-3.8	-11.4	-0.0846	ug/L	-0.0846 ppb	14:28:57
3	Be 313.107†	-4383.5	-172.8	-0.0583	ug/L	-0.0583 ppb	14:28:36
3	Cd 226.502†	-248.7	-18.3	-0.1713	ug/L	-0.1713 ppb	14:28:57
3	Co 228.616†	-92.9	-11.9	-0.2228	ug/L	-0.2228 ppb	14:28:57
3	Cr 267.716†	100.6	-0.2	-0.0014	ug/L	-0.0014 ppb	14:28:36
3	Cu 324.752†	7878.8	132.8	0.3926	ug/L	0.3926 ppb	14:28:36
3	Mn 257.610†	513.3	13.3	0.0108	ug/L	0.0108 ppb	14:28:36
3	Mo 202.031†	24.8	5.7	0.3554	ug/L	0.3554 ppb	14:28:57
3	Ni 231.604†	92.1	-30.0	-0.6589	ug/L	-0.6589 ppb	14:28:57
3	P 214.914†	251.7	11.3	5.4331	ug/L	5.4331 ppb	14:28:57
3	Pb 220.353†	-97.8	-23.2	-2.3983	ug/L	-2.3983 ppb	14:28:57
3	S 181.975 Axial†	59.6	1.6	1.7976	ug/L	1.7976 ppb	14:28:57
3	Sb 206.836†	44.7	9.1	2.7018	ug/L	2.7018 ppb	14:28:57
3	Se 196.026†	-24.0	8.5	4.2973	ug/L	4.2973 ppb	14:28:57
3	Si 251.611†	630.8	34.5	0.9880	ug/L	0.9880 ppb	14:28:36
3	Sn 189.927†	-2.0	-5.4	-0.8006	ug/L	-0.8006 ppb	14:28:57
3	Ti 334.940†	-1728.1	33.8	0.0565	ug/L	0.0565 ppb	14:28:36
3	Tl 190.801†	-65.3	-14.0	-3.8321	ug/L	-3.8321 ppb	14:28:57
3	U 409.014†	-2748.9	-168.5	-5.0077	ug/L	-5.0077 ppb	14:28:36
3	V 292.402†	-1798.1	-54.0	-0.3394	ug/L	-0.3394 ppb	14:28:36
3	Zn 213.857†	826.3	21.2	0.1755	ug/L	0.1755 ppb	14:28:57
3	SiO2†	675.6	61.3	3.7578	ug/L	3.7578 ppb	14:29:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	856549.7	96.610	%	0.3484				0.36%
Sc Radial	4744.6	102	%	1.8				1.77%
Y 371.029	736145.7	96.638	%	0.3265				0.34%
Y RADIAL	5036.3	102.1	%	2.07				2.03%
Ag 328.068†	-50.0	-0.2147	ug/L	0.40481	-0.2147	ppb	0.40481	188.54%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	19.4	17.210	ug/L	4.0970	17.210	ppb	4.0970	23.81%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.8	-0.9786	ug/L	2.32173	-0.9786	ppb	2.32173	237.25%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	49.5	1.0233	ug/L	0.14939	1.0233	ppb	0.14939	14.60%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-8.7	-0.0641	ug/L	0.06453	-0.0641	ppb	0.06453	100.69%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-147.9	-0.0500	ug/L	0.00825	-0.0500	ppb	0.00825	16.50%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.5	9.1514	ug/L	5.09049	9.1514	ppb	5.09049	55.63%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -7.6     -0.0705 ug/L       0.10436     -0.0705 ppb        0.10436 147.99%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†             -14.1     -0.2632 ug/L       0.08659     -0.2632 ppb        0.08659  32.89%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               4.0      0.0413 ug/L       0.13667      0.0413 ppb        0.13667 331.04%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             204.0      0.6035 ug/L       0.27890      0.6035 ppb        0.27890  46.21%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -1.1     -9.8222 ug/L       5.61255     -9.8222 ppb        5.61255  57.14%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -20.9     -4.1805 ug/L       7.48155     -4.1805 ppb        7.48155 178.96%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.1      67.880 ug/L      38.0964      67.880 ppb       38.0964  56.12%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               7.3      0.0054 ug/L       0.00854      0.0054 ppb        0.00854 156.73%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               5.2      0.3276 ug/L       0.20579      0.3276 ppb        0.20579  62.81%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      216.8      65.504 ug/L        2.6308     65.504 ppb         2.6308   4.02%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -12.6     -0.2765 ug/L       0.33378     -0.2765 ppb        0.33378 120.73%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               17.0      8.2178 ug/L       3.17405      8.2178 ppb        3.17405  38.62%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -13.3     -1.3708 ug/L       1.57300     -1.3708 ppb        1.57300 114.75%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.6      1.8009 ug/L       5.07638      1.8009 ppb        5.07638 281.88%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              13.2      3.9479 ug/L       4.10984      3.9479 ppb        4.10984 104.10%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -0.0     -0.0301 ug/L       4.75477     -0.0301 ppb        4.75477 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              70.7      2.0252 ug/L       0.95875      2.0252 ppb        0.95875  47.34%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -2.7     -0.4017 ug/L       0.71068     -0.4017 ppb        0.71068 176.90%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              14.2      0.1039 ug/L       0.19573      0.1039 ppb        0.19573 188.45%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -5.3     -0.0057 ug/L       0.12517     -0.0057 ppb        0.12517 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -3.4     -0.9274 ug/L       2.60033     -0.9274 ppb        2.60033 280.40%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†            -171.8     -5.1069 ug/L       2.75210     -5.1069 ppb        2.75210  53.89%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -37.7     -0.2387 ug/L       0.10613     -0.2387 ppb        0.10613  44.47%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              18.1      0.1484 ug/L       0.07822      0.1484 ppb        0.07822  52.72%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    87.5      5.3675 ug/L       1.43162      5.3675 ppb        1.43162  26.67%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Analysis Begun

Start Time: 1/6/2010 14:45:21
Logged In Analyst: Optima3
Spectrometer Model: Optima 5300 DV, S/N 077C7090601
Plasma On Time: 1/4/2010 06:33:21
Technique: ICP Continuous
Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\010610A.sif
Batch ID:
Results Data Set: 010610A
Results Library: C:\pe\Optima3\Results\Results.mdb

Sequence No.: 1
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:
Autosampler Location: 7
Date Collected: 1/6/2010 14:45:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4631.7	4631.7	99.2	%			14:47:14
1	Y RADIAL	4827.6	4827.6	97.87	%			14:47:14
1	Al 396.153Radial†	5764.3	5835.7	5153.6	ug/L	5153.6	ppb	14:47:14
1	Ca 317.933Radial†	3059.5	3070.6	5145.3	ug/L	5145.3	ppb	14:47:34
1	Fe 238.204 Radial†	578.5	569.1	5016.8	ug/L	5016.8	ppb	14:47:34
1	K 766.490 Radial†	28220.7	25102.3	4974.1	ug/L	4974.1	ppb	14:47:14
1	Mg 279.077 IEC†	165.8	165.4	5295.0	ug/L	5295.0	ppb	14:47:34
1	Na 589.592 Radial†	31223.4	33215.1	10034	ug/L	10034	ppb	14:47:14
1	Sr 421.552†	69786.8	70310.8	514.75	ug/L	514.75	ppb	14:47:14
1	Sc 361.383	852867.4	852867.4	96.194	%			14:48:33
1	Y 371.029	724458.9	724458.9	95.104	%			14:48:33
1	Ag 328.068†	115532.9	119591.4	516.91	ug/L	516.91	ppb	14:48:33
1	As 188.979†	1384.1	1472.3	519.83	ug/L	519.83	ppb	14:48:53
1	B 249.677†	23216.3	24800.7	509.40	ug/L	509.40	ppb	14:48:33
1	Ba 233.527†	68094.1	70780.6	517.39	ug/L	517.39	ppb	14:48:33
1	Be 313.107†	1473090.9	1535722.5	520.09	ug/L	520.09	ppb	14:48:33
1	Cd 226.502†	52381.1	54691.8	514.93	ug/L	514.93	ppb	14:48:33
1	Co 228.616†	26229.5	27351.2	514.41	ug/L	514.41	ppb	14:48:53
1	Cr 267.716†	49382.6	51232.3	514.15	ug/L	514.15	ppb	14:48:33
1	Cu 324.752†	175601.5	174549.9	517.03	ug/L	517.03	ppb	14:48:33
1	Mn 257.610†	476449.4	494782.8	521.73	ug/L	521.73	ppb	14:48:33
1	Mo 202.031†	7962.7	8257.8	517.81	ug/L	517.81	ppb	14:48:53
1	Ni 231.604†	22587.4	23356.0	512.39	ug/L	512.39	ppb	14:48:53
1	P 214.914†	5347.0	5310.0	2510.7	ug/L	2510.7	ppb	14:48:53
1	Pb 220.353†	4744.7	5010.2	520.64	ug/L	520.64	ppb	14:48:53
1	S 181.975 Axial†	937.4	914.6	1032.6	ug/L	1032.6	ppb	14:48:53
1	Sb 206.836†	1708.9	1739.4	527.04	ug/L	527.04	ppb	14:48:53
1	Se 196.026†	938.0	1008.4	533.85	ug/L	533.85	ppb	14:48:53
1	Si 251.611†	86985.0	89809.8	2564.1	ug/L	2564.1	ppb	14:48:33
1	Sn 189.927†	3358.9	3488.4	516.57	ug/L	516.57	ppb	14:48:53
1	Ti 334.940†	316344.6	330677.6	524.52	ug/L	524.52	ppb	14:48:33
1	Tl 190.801†	1771.2	1894.6	520.99	ug/L	520.99	ppb	14:48:53
1	U 409.014†	13595.8	16802.4	497.89	ug/L	497.89	ppb	14:48:33
1	V 292.402†	76932.1	81777.6	520.31	ug/L	520.31	ppb	14:48:33
1	Zn 213.857†	61321.7	62916.1	512.98	ug/L	512.98	ppb	14:48:33
1	SiO2†	87277.5	90094.4	5504.0	ug/L	5504.0	ppb	14:49:53
2	Sc Radial	4588.5	4588.5	98.3	%			14:47:39
2	Y RADIAL	4834.4	4834.4	98.00	%			14:47:39
2	Al 396.153Radial†	5697.7	5822.6	5142.9	ug/L	5142.9	ppb	14:47:39
2	Ca 317.933Radial†	3058.3	3098.5	5192.0	ug/L	5192.0	ppb	14:47:59
2	Fe 238.204 Radial†	576.2	572.3	5043.9	ug/L	5043.9	ppb	14:47:59
2	K 766.490 Radial†	28150.6	25299.1	5013.3	ug/L	5013.3	ppb	14:47:39
2	Mg 279.077 IEC†	163.8	165.0	5282.0	ug/L	5282.0	ppb	14:47:59
2	Na 589.592 Radial†	30769.2	33049.6	9983.6	ug/L	9983.6	ppb	14:47:39
2	Sr 421.552†	68620.8	69787.6	510.91	ug/L	510.91	ppb	14:47:39
2	Sc 361.383	881754.7	881754.7	99.452	%			14:49:00
2	Y 371.029	749059.9	749059.9	98.333	%			14:49:00

2	Ag 328.068†	115775.5	115900.6	501.01 ug/L	501.01 ppb	14:49:00
2	As 188.979†	1382.0	1423.0	502.47 ug/L	502.47 ppb	14:49:20
2	B 249.677†	23161.7	23955.0	492.02 ug/L	492.02 ppb	14:49:00
2	Ba 233.527†	68039.7	68406.8	500.04 ug/L	500.04 ppb	14:49:00
2	Be 313.107†	1470557.3	1483005.6	502.24 ug/L	502.24 ppb	14:49:00
2	Cd 226.502†	52216.8	52742.7	496.56 ug/L	496.56 ppb	14:49:00
2	Co 228.616†	26025.3	26252.5	493.74 ug/L	493.74 ppb	14:49:20
2	Cr 267.716†	49295.5	49462.9	496.39 ug/L	496.39 ppb	14:49:00
2	Cu 324.752†	175708.6	168677.0	499.65 ug/L	499.65 ppb	14:49:00
2	Mn 257.610†	475829.3	477932.7	503.98 ug/L	503.98 ppb	14:49:00
2	Mo 202.031†	7921.7	7945.3	498.24 ug/L	498.24 ppb	14:49:20
2	Ni 231.604†	22418.7	22417.1	491.80 ug/L	491.80 ppb	14:49:20
2	P 214.914†	5304.9	5085.6	2403.7 ug/L	2403.7 ppb	14:49:20
2	Pb 220.353†	4664.0	4767.5	495.46 ug/L	495.46 ppb	14:49:20
2	S 181.975 Axial†	930.0	875.2	988.13 ug/L	988.13 ppb	14:49:20
2	Sb 206.836†	1691.7	1664.0	504.11 ug/L	504.11 ppb	14:49:20
2	Se 196.026†	948.2	986.7	522.80 ug/L	522.80 ppb	14:49:20
2	Si 251.611†	86963.1	86825.3	2478.9 ug/L	2478.9 ppb	14:49:00
2	Sn 189.927†	3319.5	3334.4	493.80 ug/L	493.80 ppb	14:49:20
2	Ti 334.940†	316088.2	319645.9	507.03 ug/L	507.03 ppb	14:49:00
2	Tl 190.801†	1751.8	1814.8	499.09 ug/L	499.09 ppb	14:49:20
2	U 409.014†	13521.7	16264.9	481.94 ug/L	481.94 ppb	14:49:00
2	V 292.402†	76774.6	78999.1	502.58 ug/L	502.58 ppb	14:49:00
2	Zn 213.857†	61183.5	60688.7	494.82 ug/L	494.82 ppb	14:49:00
2	SiO2†	86679.9	86521.1	5285.5 ug/L	5285.5 ppb	14:49:58
3	Sc Radial	4618.4	4618.4	98.9 %		14:48:04
3	Y RADIAL	4874.8	4874.8	98.82 %		14:48:04
3	Al 396.153Radial†	5816.5	5905.2	5216.1 ug/L	5216.1 ppb	14:48:04
3	Ca 317.933Radial†	3068.9	3089.1	5176.2 ug/L	5176.2 ppb	14:48:24
3	Fe 238.204 Radial†	575.8	568.1	5007.1 ug/L	5007.1 ppb	14:48:24
3	K 766.490 Radial†	28566.3	25533.9	5059.9 ug/L	5059.9 ppb	14:48:04
3	Mg 279.077 IEC†	162.4	162.5	5200.9 ug/L	5200.9 ppb	14:48:24
3	Na 589.592 Radial†	31558.3	33644.7	10163 ug/L	10163 ppb	14:48:04
3	Sr 421.552†	70538.0	71273.7	521.79 ug/L	521.79 ppb	14:48:04
3	Sc 361.383	885196.0	885196.0	99.841 %		14:49:28
3	Y 371.029	751922.4	751922.4	98.709 %		14:49:28
3	Ag 328.068†	115568.4	115240.6	498.15 ug/L	498.15 ppb	14:49:28
3	As 188.979†	1373.4	1409.0	497.54 ug/L	497.54 ppb	14:49:48
3	B 249.677†	23145.2	23848.0	489.81 ug/L	489.81 ppb	14:49:28
3	Ba 233.527†	68027.1	68128.2	498.00 ug/L	498.00 ppb	14:49:28
3	Be 313.107†	1472124.0	1478826.2	500.82 ug/L	500.82 ppb	14:49:28
3	Cd 226.502†	52405.8	52727.9	496.42 ug/L	496.42 ppb	14:49:28
3	Co 228.616†	26210.0	26335.9	495.31 ug/L	495.31 ppb	14:49:48
3	Cr 267.716†	49262.6	49237.2	494.13 ug/L	494.13 ppb	14:49:28
3	Cu 324.752†	175315.5	167596.4	496.45 ug/L	496.45 ppb	14:49:28
3	Mn 257.610†	475877.2	476120.7	502.06 ug/L	502.06 ppb	14:49:28
3	Mo 202.031†	7959.3	7952.1	498.65 ug/L	498.65 ppb	14:49:48
3	Ni 231.604†	22564.4	22475.3	493.07 ug/L	493.07 ppb	14:49:48
3	P 214.914†	5344.4	5104.4	2413.4 ug/L	2413.4 ppb	14:49:48
3	Pb 220.353†	4701.2	4786.5	497.45 ug/L	497.45 ppb	14:49:48
3	S 181.975 Axial†	932.8	874.4	987.15 ug/L	987.15 ppb	14:49:48
3	Sb 206.836†	1706.8	1672.4	506.69 ug/L	506.69 ppb	14:49:48
3	Se 196.026†	942.4	977.2	517.80 ug/L	517.80 ppb	14:49:48
3	Si 251.611†	86836.5	86358.6	2465.4 ug/L	2465.4 ppb	14:49:28
3	Sn 189.927†	3331.1	3333.0	493.59 ug/L	493.59 ppb	14:49:48
3	Ti 334.940†	315842.5	318164.2	504.68 ug/L	504.68 ppb	14:49:28
3	Tl 190.801†	1766.3	1822.5	501.16 ug/L	501.16 ppb	14:49:48
3	U 409.014†	13483.6	16173.8	479.24 ug/L	479.24 ppb	14:49:28
3	V 292.402†	76631.4	78555.6	499.80 ug/L	499.80 ppb	14:49:28
3	Zn 213.857†	61215.3	60481.4	493.11 ug/L	493.11 ppb	14:49:28
3	SiO2†	87913.0	87417.4	5340.5 ug/L	5340.5 ppb	14:50:03

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	873272.7	98.496	%	2.0026				2.03%
Sc Radial	4612.9	98.8	%	0.47				0.48%
Y 371.029	741813.8	97.382	%	1.9820				2.04%
Y RADIAL	4845.6	98.23	%	0.517				0.53%
Ag 328.068†	116910.9	505.36	ug/L	10.106	505.36	ppb	10.106	2.00%

```
   QC value within limits for Ag 328.068  Recovery = 101.07%
Al 396.153Radial†       5854.5      5170.9 ug/L        39.54      5170.9 ppb        39.54   0.76%
   QC value within limits for Al 396.153Radial  Recovery = 103.42%
As 188.979†             1434.7      506.61 ug/L       11.709      506.61 ppb       11.709   2.31%
   QC value within limits for As 188.979  Recovery = 101.32%
B 249.677†             24201.2      497.08 ug/L       10.732      497.08 ppb       10.732   2.16%
   QC value within limits for B 249.677  Recovery = 99.42%
Ba 233.527†            69105.2      505.15 ug/L       10.653      505.15 ppb       10.653   2.11%
   QC value within limits for Ba 233.527  Recovery = 101.03%
Be 313.107†          1499184.8      507.72 ug/L       10.740      507.72 ppb       10.740   2.12%
   QC value within limits for Be 313.107  Recovery = 101.54%
Ca 317.933Radial†       3086.0      5171.2 ug/L        23.74      5171.2 ppb        23.74   0.46%
   QC value within limits for Ca 317.933Radial  Recovery = 103.42%
Cd 226.502†            53387.5      502.64 ug/L       10.647      502.64 ppb       10.647   2.12%
   QC value within limits for Cd 226.502  Recovery = 100.53%
Co 228.616†            26646.5      501.15 ug/L       11.507      501.15 ppb       11.507   2.30%
   QC value within limits for Co 228.616  Recovery = 100.23%
Cr 267.716†            49977.5      501.56 ug/L       10.962      501.56 ppb       10.962   2.19%
   QC value within limits for Cr 267.716  Recovery = 100.31%
Cu 324.752†           170274.4      504.38 ug/L       11.078      504.38 ppb       11.078   2.20%
   QC value within limits for Cu 324.752  Recovery = 100.88%
Fe 238.204 Radial†       569.8      5022.6 ug/L        19.03      5022.6 ppb        19.03   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.45%
K 766.490 Radial†      25311.8      5015.7 ug/L        42.95      5015.7 ppb        42.95   0.86%
   QC value within limits for K 766.490 Radial  Recovery = 100.31%
Mg 279.077 IEC†          164.3      5259.3 ug/L        50.98      5259.3 ppb        50.98   0.97%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.19%
Mn 257.610†           482945.4      509.26 ug/L       10.843      509.26 ppb       10.843   2.13%
   QC value within limits for Mn 257.610  Recovery = 101.85%
Mo 202.031†             8051.7      504.90 ug/L       11.180      504.90 ppb       11.180   2.21%
   QC value within limits for Mo 202.031  Recovery = 100.98%
Na 589.592 Radial†     33303.1       10060 ug/L         92.8       10060 ppb         92.8   0.92%
   QC value within limits for Na 589.592 Radial  Recovery = 100.60%
Ni 231.604†            22749.5      499.09 ug/L       11.541      499.09 ppb       11.541   2.31%
   QC value within limits for Ni 231.604  Recovery = 99.82%
P 214.914†              5166.7      2442.6 ug/L        59.15      2442.6 ppb        59.15   2.42%
   QC value within limits for P 214.914  Recovery = 97.70%
Pb 220.353†             4854.7      504.52 ug/L       13.999      504.52 ppb       13.999   2.77%
   QC value within limits for Pb 220.353  Recovery = 100.90%
S 181.975 Axial†         888.1      1002.6 ug/L        25.98      1002.6 ppb        25.98   2.59%
   QC value within limits for S 181.975 Axial  Recovery = 100.26%
Sb 206.836†             1691.9      512.61 ug/L       12.561      512.61 ppb       12.561   2.45%
   QC value within limits for Sb 206.836  Recovery = 102.52%
Se 196.026†              990.7      524.81 ug/L        8.210      524.81 ppb        8.210   1.56%
   QC value within limits for Se 196.026  Recovery = 104.96%
Si 251.611†            87664.6      2502.8 ug/L        53.49      2502.8 ppb        53.49   2.14%
   QC value within limits for Si 251.611  Recovery = 100.11%
Sn 189.927†             3385.2      501.32 ug/L       13.207      501.32 ppb       13.207   2.63%
   QC value within limits for Sn 189.927  Recovery = 100.26%
Sr 421.552†            70457.4      515.82 ug/L        5.519      515.82 ppb        5.519   1.07%
   QC value within limits for Sr 421.552  Recovery = 103.16%
Ti 334.940†           322829.2      512.08 ug/L       10.838      512.08 ppb       10.838   2.12%
   QC value within limits for Ti 334.940  Recovery = 102.42%
Tl 190.801†             1844.0      507.08 ug/L       12.094      507.08 ppb       12.094   2.39%
   QC value within limits for Tl 190.801  Recovery = 101.42%
U 409.014†             16413.7      486.36 ug/L       10.078      486.36 ppb       10.078   2.07%
   QC value within limits for U 409.014  Recovery = 97.27%
V 292.402†             79777.4      507.57 ug/L       11.126      507.57 ppb       11.126   2.19%
   QC value within limits for V 292.402  Recovery = 101.51%
Zn 213.857†            61362.1      500.30 ug/L       11.011      500.30 ppb       11.011   2.20%
   QC value within limits for Zn 213.857  Recovery = 100.06%
SiO2†                  88011.0      5376.7 ug/L       113.65      5376.7 ppb       113.65   2.11%
   QC value within limits for SiO2  Recovery = 100.55%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/6/2010 14:52:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4699.0	4699.0	101	%			14:54:06
1	Y RADIAL	4994.2	4994.2	101.2	%			14:54:06
1	Al 396.153Radial†	12.0	38.7	34.261	ug/L	34.261	ppb	14:54:06
1	Ca 317.933Radial†	9.8	-2.8	-4.7727	ug/L	-4.7727	ppb	14:54:26
1	Fe 238.204 Radial†	15.3	1.3	11.641	ug/L	11.641	ppb	14:54:26
1	K 766.490 Radial†	3303.6	-55.3	-10.995	ug/L	-10.995	ppb	14:54:06
1	Mg 279.077 IEC†	2.8	1.1	36.529	ug/L	36.529	ppb	14:54:26
1	Na 589.592 Radial†	-1496.5	263.6	79.638	ug/L	79.638	ppb	14:54:06
1	Sr 421.552†	-3.3	-19.3	-0.1410	ug/L	-0.1410	ppb	14:54:06
1	Sc 361.383	873450.3	873450.3	98.516	%			14:55:23
1	Y 371.029	749517.9	749517.9	98.393	%			14:55:23
1	Ag 328.068†	552.9	48.9	0.2189	ug/L	0.2189	ppb	14:55:28
1	As 188.979†	-37.3	-4.4	-1.5408	ug/L	-1.5408	ppb	14:55:48
1	B 249.677†	-609.9	46.7	0.9619	ug/L	0.9619	ppb	14:55:28
1	Ba 233.527†	4.1	-3.3	-0.0240	ug/L	-0.0240	ppb	14:55:48
1	Be 313.107†	-4356.1	-70.2	-0.0234	ug/L	-0.0234	ppb	14:55:28
1	Cd 226.502†	-218.7	16.3	0.1528	ug/L	0.1528	ppb	14:55:48
1	Co 228.616†	-83.9	-1.2	-0.0198	ug/L	-0.0198	ppb	14:55:48
1	Cr 267.716†	123.3	21.1	0.2136	ug/L	0.2136	ppb	14:55:28
1	Cu 324.752†	7938.3	58.9	0.1750	ug/L	0.1750	ppb	14:55:28
1	Mn 257.610†	575.2	67.4	0.0715	ug/L	0.0715	ppb	14:55:28
1	Mo 202.031†	36.1	16.8	1.0506	ug/L	1.0506	ppb	14:55:48
1	Ni 231.604†	119.4	-3.9	-0.0854	ug/L	-0.0854	ppb	14:55:48
1	P 214.914†	256.5	11.8	5.7007	ug/L	5.7007	ppb	14:55:48
1	Pb 220.353†	-89.5	-13.1	-1.3475	ug/L	-1.3475	ppb	14:55:48
1	S 181.975 Axial†	61.4	2.4	2.7237	ug/L	2.7237	ppb	14:55:48
1	Sb 206.836†	43.2	6.8	2.0386	ug/L	2.0386	ppb	14:55:48
1	Se 196.026†	-37.6	-4.9	-2.4450	ug/L	-2.4450	ppb	14:55:48
1	Si 251.611†	655.2	48.5	1.3772	ug/L	1.3772	ppb	14:55:48
1	Sn 189.927†	1.5	-1.9	-0.2765	ug/L	-0.2765	ppb	14:55:48
1	Ti 334.940†	-1674.7	117.4	0.1883	ug/L	0.1883	ppb	14:55:28
1	Tl 190.801†	-46.3	6.4	1.7545	ug/L	1.7545	ppb	14:55:48
1	U 409.014†	-2809.2	-182.8	-5.4370	ug/L	-5.4370	ppb	14:55:23
1	V 292.402†	-1767.3	7.9	0.0530	ug/L	0.0530	ppb	14:55:28
1	Zn 213.857†	823.0	3.7	0.0289	ug/L	0.0289	ppb	14:55:48
1	SiO2†	599.5	-27.5	-1.7151	ug/L	-1.7151	ppb	14:56:54
2	Sc Radial	4763.0	4763.0	102	%			14:54:31
2	Y RADIAL	5079.6	5079.6	103.0	%			14:54:31
2	Al 396.153Radial†	-29.2	-1.9	-1.6765	ug/L	-1.6765	ppb	14:54:31
2	Ca 317.933Radial†	19.3	6.4	10.715	ug/L	10.715	ppb	14:54:51
2	Fe 238.204 Radial†	12.0	-2.1	-18.328	ug/L	-18.328	ppb	14:54:51
2	K 766.490 Radial†	3351.4	-52.5	-10.453	ug/L	-10.453	ppb	14:54:31
2	Mg 279.077 IEC†	3.6	1.9	59.456	ug/L	59.456	ppb	14:54:51
2	Na 589.592 Radial†	-1499.0	281.1	84.926	ug/L	84.926	ppb	14:54:31
2	Sr 421.552†	-24.3	-39.8	-0.2912	ug/L	-0.2912	ppb	14:54:31
2	Sc 361.383	882928.9	882928.9	99.585	%			14:55:53
2	Y 371.029	756625.8	756625.8	99.326	%			14:55:53
2	Ag 328.068†	407.8	-102.8	-0.4499	ug/L	-0.4499	ppb	14:55:58
2	As 188.979†	-32.6	0.6	0.2208	ug/L	0.2208	ppb	14:56:18
2	B 249.677†	-558.6	104.9	2.1653	ug/L	2.1653	ppb	14:55:58
2	Ba 233.527†	6.5	-1.0	-0.0074	ug/L	-0.0074	ppb	14:56:18
2	Be 313.107†	-4349.1	-15.7	-0.0050	ug/L	-0.0050	ppb	14:55:58
2	Cd 226.502†	-228.8	8.6	0.0831	ug/L	0.0831	ppb	14:56:18
2	Co 228.616†	-93.0	-9.5	-0.1767	ug/L	-0.1767	ppb	14:56:18
2	Cr 267.716†	63.9	-39.8	-0.4002	ug/L	-0.4002	ppb	14:55:58
2	Cu 324.752†	8110.3	145.1	0.4288	ug/L	0.4288	ppb	14:55:58
2	Mn 257.610†	553.7	39.6	0.0388	ug/L	0.0388	ppb	14:55:58
2	Mo 202.031†	25.0	5.2	0.3247	ug/L	0.3247	ppb	14:56:18
2	Ni 231.604†	144.0	19.6	0.4299	ug/L	0.4299	ppb	14:56:18

2	P 214.914†	247.7	0.2	0.0416	ug/L	0.0416 ppb	14:56:18
2	Pb 220.353†	-72.1	5.4	0.5571	ug/L	0.5571 ppb	14:56:18
2	S 181.975 Axial†	64.3	4.6	5.2272	ug/L	5.2272 ppb	14:56:18
2	Sb 206.836†	41.7	4.7	1.4361	ug/L	1.4361 ppb	14:56:18
2	Se 196.026†	-36.3	-3.1	-1.6645	ug/L	-1.6645 ppb	14:56:18
2	Si 251.611†	640.5	26.6	0.7611	ug/L	0.7611 ppb	14:56:18
2	Sn 189.927†	4.1	0.7	0.1054	ug/L	0.1054 ppb	14:56:18
2	Ti 334.940†	-1717.0	93.2	0.1470	ug/L	0.1470 ppb	14:55:58
2	Tl 190.801†	-37.0	16.2	4.4240	ug/L	4.4240 ppb	14:56:18
2	U 409.014†	-2538.6	119.5	3.5556	ug/L	3.5556 ppb	14:55:53
2	V 292.402†	-1754.1	40.4	0.2694	ug/L	0.2694 ppb	14:55:58
2	Zn 213.857†	847.2	19.1	0.1526	ug/L	0.1526 ppb	14:56:18
2	SiO2†	663.7	30.4	1.8632	ug/L	1.8632 ppb	14:56:59
3	Sc Radial	4767.2	4767.2	102	%		14:54:56
3	Y RADIAL	5044.2	5044.2	102.3	%		14:54:56
3	Al 396.153Radial†	-32.4	-5.0	-4.5001	ug/L	-4.5001 ppb	14:54:56
3	Ca 317.933Radial†	20.2	7.3	12.151	ug/L	12.151 ppb	14:55:16
3	Fe 238.204 Radial†	11.2	-3.0	-25.930	ug/L	-25.930 ppb	14:55:16
3	K 766.490 Radial†	3252.3	-152.4	-30.293	ug/L	-30.293 ppb	14:54:56
3	Mg 279.077 IEC†	-0.3	-1.9	-61.489	ug/L	-61.489 ppb	14:55:16
3	Na 589.592 Radial†	-1508.3	273.4	82.577	ug/L	82.577 ppb	14:54:56
3	Sr 421.552†	-20.6	-36.1	-0.2646	ug/L	-0.2646 ppb	14:54:56
3	Sc 361.383	876040.7	876040.7	98.808	%		14:56:23
3	Y 371.029	751385.5	751385.5	98.639	%		14:56:23
3	Ag 328.068†	529.1	23.1	0.0905	ug/L	0.0905 ppb	14:56:28
3	As 188.979†	-33.0	-0.0	-0.0166	ug/L	-0.0166 ppb	14:56:49
3	B 249.677†	-556.9	102.2	2.1112	ug/L	2.1112 ppb	14:56:28
3	Ba 233.527†	2.6	-4.9	-0.0355	ug/L	-0.0355 ppb	14:56:49
3	Be 313.107†	-4400.1	-101.6	-0.0343	ug/L	-0.0343 ppb	14:56:28
3	Cd 226.502†	-248.1	-12.7	-0.1173	ug/L	-0.1173 ppb	14:56:49
3	Co 228.616†	-96.7	-13.9	-0.2588	ug/L	-0.2588 ppb	14:56:49
3	Cr 267.716†	85.3	-17.8	-0.1782	ug/L	-0.1782 ppb	14:56:28
3	Cu 324.752†	8040.9	138.9	0.4099	ug/L	0.4099 ppb	14:56:28
3	Mn 257.610†	526.6	16.5	0.0159	ug/L	0.0159 ppb	14:56:28
3	Mo 202.031†	29.4	9.9	0.6166	ug/L	0.6166 ppb	14:56:49
3	Ni 231.604†	119.1	-4.5	-0.0993	ug/L	-0.0993 ppb	14:56:49
3	P 214.914†	249.4	3.9	1.8566	ug/L	1.8566 ppb	14:56:49
3	Pb 220.353†	-75.9	1.0	0.1027	ug/L	0.1027 ppb	14:56:49
3	S 181.975 Axial†	58.1	-1.1	-1.2274	ug/L	-1.2274 ppb	14:56:49
3	Sb 206.836†	62.8	26.4	7.9282	ug/L	7.9282 ppb	14:56:49
3	Se 196.026†	-46.7	-14.0	-7.2285	ug/L	-7.2285 ppb	14:56:49
3	Si 251.611†	653.0	44.4	1.2684	ug/L	1.2684 ppb	14:56:49
3	Sn 189.927†	10.8	7.5	1.1112	ug/L	1.1112 ppb	14:56:49
3	Ti 334.940†	-1783.1	12.7	0.0202	ug/L	0.0202 ppb	14:56:28
3	Tl 190.801†	-39.5	13.4	3.6613	ug/L	3.6613 ppb	14:56:49
3	U 409.014†	-2579.5	58.1	1.7305	ug/L	1.7305 ppb	14:56:23
3	V 292.402†	-1721.1	60.0	0.3912	ug/L	0.3912 ppb	14:56:28
3	Zn 213.857†	835.2	13.6	0.1157	ug/L	0.1157 ppb	14:56:49
3	SiO2†	680.9	53.1	3.2490	ug/L	3.2490 ppb	14:57:04

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	877473.3	98.970	%	0.5526				0.56%
Sc Radial	4743.1	102	%	0.8				0.81%
Y 371.029	752509.7	98.786	%	0.4837				0.49%
Y RADIAL	5039.4	102.2	%	0.87				0.85%
Ag 328.068†	-10.2	-0.0468	ug/L	0.35496	-0.0468	ppb	0.35496	758.28%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.6	9.3613	ug/L	21.60954	9.3613	ppb	21.60954	230.84%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.3	-0.4455	ug/L	0.95591	-0.4455	ppb	0.95591	214.57%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	84.6	1.7461	ug/L	0.67970	1.7461	ppb	0.67970	38.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.1	-0.0223	ug/L	0.01416	-0.0223	ppb	0.01416	63.51%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-62.5	-0.0209	ug/L	0.01480	-0.0209	ppb	0.01480	70.82%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.6	6.0310	ug/L	9.38382	6.0310	ppb	9.38382	155.59%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 4.1      0.0395 ug/L       0.14019      0.0395 ppb        0.14019 354.87%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -8.2     -0.1518 ug/L       0.12142     -0.1518 ppb        0.12142  79.99%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -12.2     -0.1216 ug/L       0.31079     -0.1216 ppb        0.31079 255.60%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               114.3      0.3379 ug/L       0.14138      0.3379 ppb        0.14138  41.84%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.2     -10.872 ug/L       19.8644     -10.872 ppb        19.8644 182.71%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -86.7     -17.247 ug/L       11.3017     -17.247 ppb        11.3017  65.53%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.4      11.499 ug/L       64.2404      11.499 ppb        64.2404 558.68%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                41.2      0.0421 ug/L       0.02792      0.0421 ppb        0.02792  66.34%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                10.6      0.6640 ug/L       0.36524      0.6640 ppb        0.36524  55.01%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        272.7      82.380 ug/L        2.6498      82.380 ppb         2.6498   3.22%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 3.7      0.0817 ug/L       0.30159      0.0817 ppb        0.30159 369.01%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  5.3      2.5330 ug/L       2.88953      2.5330 ppb        2.88953 114.08%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -2.3     -0.2292 ug/L       0.99477     -0.2292 ppb        0.99477 433.93%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            2.0      2.2412 ug/L       3.25423      2.2412 ppb        3.25423 145.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                12.7      3.8010 ug/L       3.58697      3.8010 ppb        3.58697  94.37%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -7.3     -3.7793 ug/L       3.01246     -3.7793 ppb        3.01246  79.71%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                39.8      1.1356 ug/L       0.32884      1.1356 ppb        0.32884  28.96%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.1      0.3133 ug/L       0.71685      0.3133 ppb        0.71685 228.78%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -31.7     -0.2323 ug/L       0.08015     -0.2323 ppb        0.08015  34.51%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                74.4      0.1185 ug/L       0.08763      0.1185 ppb        0.08763  73.96%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                12.0      3.2799 ug/L       1.37498      3.2799 ppb        1.37498  41.92%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 -1.7     -0.0503 ug/L       4.75343     -0.0503 ppb        4.75343 >999.9%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 36.1      0.2379 ug/L       0.17128      0.2379 ppb        0.17128  72.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                12.1      0.0991 ug/L       0.06351      0.0991 ppb        0.06351  64.12%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      18.7      1.1324 ug/L       2.56147      1.1324 ppb        2.56147 226.21%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: 1202001500|935389|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 17
Date Collected: 1/6/2010 14:59:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202001500|935389|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4876.6	4876.6	104	%			15:01:07
1	Y RADIAL	5158.2	5158.2	104.6	%			15:01:07
1	Al 396.153Radial†	-5.0	21.9	19.427	ug/L	19.427	ppb	15:01:07
1	Ca 317.933Radial†	17.2	3.9	6.4903	ug/L	6.4903	ppb	15:01:27
1	Fe 238.204 Radial†	10.9	-3.5	-30.453	ug/L	-30.453	ppb	15:01:27
1	K 766.490 Radial†	3235.1	-240.3	-47.740	ug/L	-47.740	ppb	15:01:07
1	Mg 279.077 IEC†	3.2	1.5	46.790	ug/L	46.790	ppb	15:01:27
1	Na 589.592 Radial†	-1457.7	354.9	107.22	ug/L	107.22	ppb	15:01:07
1	Sr 421.552†	5.0	-11.2	-0.0818	ug/L	-0.0818	ppb	15:01:07
1	Sc 361.383	883785.9	883785.9	99.682	%			15:02:23
1	Y 371.029	757905.6	757905.6	99.494	%			15:02:23
1	Ag 328.068†	484.9	-25.8	-0.1256	ug/L	-0.1256	ppb	15:02:28
1	As 188.979†	-37.6	-4.3	-1.4965	ug/L	-1.4965	ppb	15:02:48
1	B 249.677†	-646.3	17.5	0.3661	ug/L	0.3661	ppb	15:02:28
1	Ba 233.527†	-16.2	-23.7	-0.1728	ug/L	-0.1728	ppb	15:02:48
1	Be 313.107†	-4358.3	-20.8	-0.0063	ug/L	-0.0063	ppb	15:02:28
1	Cd 226.502†	-245.4	-7.9	-0.0708	ug/L	-0.0708	ppb	15:02:48
1	Co 228.616†	-98.6	-14.9	-0.2789	ug/L	-0.2789	ppb	15:02:48
1	Cr 267.716†	130.1	26.5	0.2630	ug/L	0.2630	ppb	15:02:28
1	Cu 324.752†	7982.4	8.9	0.0248	ug/L	0.0248	ppb	15:02:28
1	Mn 257.610†	673.6	159.3	0.1639	ug/L	0.1639	ppb	15:02:28
1	Mo 202.031†	32.9	13.0	0.8141	ug/L	0.8141	ppb	15:02:48
1	Ni 231.604†	132.4	7.7	0.1699	ug/L	0.1699	ppb	15:02:48
1	P 214.914†	266.5	18.8	9.1820	ug/L	9.1820	ppb	15:02:48
1	Pb 220.353†	-102.2	-24.8	-2.5596	ug/L	-2.5596	ppb	15:02:48
1	S 181.975 Axial†	55.7	-4.0	-4.5556	ug/L	-4.5556	ppb	15:02:48
1	Sb 206.836†	39.0	2.0	0.6123	ug/L	0.6123	ppb	15:02:48
1	Se 196.026†	-40.7	-7.6	-3.9801	ug/L	-3.9801	ppb	15:02:48
1	Si 251.611†	1078.5	465.4	13.351	ug/L	13.351	ppb	15:02:48
1	Sn 189.927†	6.9	3.5	0.5226	ug/L	0.5226	ppb	15:02:48
1	Ti 334.940†	-1581.6	230.7	0.3631	ug/L	0.3631	ppb	15:02:28
1	Tl 190.801†	-51.2	2.0	0.5612	ug/L	0.5612	ppb	15:02:48
1	U 409.014†	-2416.9	244.1	7.2608	ug/L	7.2608	ppb	15:02:23
1	V 292.402†	-1721.7	74.6	0.4992	ug/L	0.4992	ppb	15:02:28
1	Zn 213.857†	978.6	150.1	1.2329	ug/L	1.2329	ppb	15:02:48
1	SiO2†	1163.0	530.7	32.580	ug/L	32.580	ppb	15:03:54
2	Sc Radial	4800.0	4800.0	103	%			15:01:32
2	Y RADIAL	5071.9	5071.9	102.8	%			15:01:32
2	Al 396.153Radial†	-19.0	8.3	7.2992	ug/L	7.2992	ppb	15:01:32
2	Ca 317.933Radial†	22.7	9.5	16.001	ug/L	16.001	ppb	15:01:52
2	Fe 238.204 Radial†	16.4	2.0	17.944	ug/L	17.944	ppb	15:01:52
2	K 766.490 Radial†	3220.4	-205.1	-40.756	ug/L	-40.756	ppb	15:01:32
2	Mg 279.077 IEC†	2.9	1.2	37.196	ug/L	37.196	ppb	15:01:52
2	Na 589.592 Radial†	-1523.0	269.1	81.303	ug/L	81.303	ppb	15:01:32
2	Sr 421.552†	-37.6	-52.5	-0.3846	ug/L	-0.3846	ppb	15:01:32
2	Sc 361.383	886836.1	886836.1	100.03	%			15:02:54
2	Y 371.029	760536.4	760536.4	99.840	%			15:02:54
2	Ag 328.068†	502.8	-9.7	-0.0372	ug/L	-0.0372	ppb	15:02:59
2	As 188.979†	-33.7	-0.3	-0.0869	ug/L	-0.0869	ppb	15:03:19
2	B 249.677†	-597.1	68.9	1.4194	ug/L	1.4194	ppb	15:02:59
2	Ba 233.527†	7.3	-0.2	0.0005	ug/L	0.0005	ppb	15:03:19
2	Be 313.107†	-4409.3	-56.6	-0.0184	ug/L	-0.0184	ppb	15:02:59
2	Cd 226.502†	-253.8	-15.4	-0.1464	ug/L	-0.1464	ppb	15:03:19
2	Co 228.616†	-97.6	-13.6	-0.2536	ug/L	-0.2536	ppb	15:03:19
2	Cr 267.716†	97.6	-6.4	-0.0644	ug/L	-0.0644	ppb	15:02:59
2	Cu 324.752†	8076.3	75.2	0.2236	ug/L	0.2236	ppb	15:02:59
2	Mn 257.610†	648.8	132.2	0.1404	ug/L	0.1404	ppb	15:02:59
2	Mo 202.031†	35.4	15.5	0.9733	ug/L	0.9733	ppb	15:03:19
2	Ni 231.604†	121.2	-3.9	-0.0853	ug/L	-0.0853	ppb	15:03:19

2	P 214.914†	253.5	4.8	2.3318 ug/L	2.3318 ppb	15:03:19
2	Pb 220.353†	-105.0	-27.2	-2.8125 ug/L	-2.8125 ppb	15:03:19
2	S 181.975 Axial†	64.5	4.6	5.1839 ug/L	5.1839 ppb	15:03:19
2	Sb 206.836†	54.4	17.3	5.2225 ug/L	5.2225 ppb	15:03:19
2	Se 196.026†	-32.6	0.7	0.4012 ug/L	0.4012 ppb	15:03:19
2	Si 251.611†	1071.7	454.8	13.041 ug/L	13.041 ppb	15:03:19
2	Sn 189.927†	11.2	7.8	1.1615 ug/L	1.1615 ppb	15:03:19
2	Ti 334.940†	-1571.7	246.1	0.3891 ug/L	0.3891 ppb	15:02:59
2	Tl 190.801†	-43.7	9.7	2.6615 ug/L	2.6615 ppb	15:03:19
2	U 409.014†	-2500.3	169.0	5.0228 ug/L	5.0228 ppb	15:02:54
2	V 292.402†	-1684.1	118.2	0.7633 ug/L	0.7633 ppb	15:02:59
2	Zn 213.857†	958.8	126.9	1.0417 ug/L	1.0417 ppb	15:03:19
2	SiO2†	1126.9	490.6	30.103 ug/L	30.103 ppb	15:03:59
3	Sc Radial	4872.3	4872.3	104 %		15:01:57
3	Y RADIAL	5170.3	5170.3	104.8 %		15:01:57
3	Al 396.153Radial†	-9.3	17.8	15.744 ug/L	15.744 ppb	15:01:57
3	Ca 317.933Radial†	24.9	11.3	18.942 ug/L	18.942 ppb	15:02:17
3	Fe 238.204 Radial†	9.4	-4.9	-42.959 ug/L	-42.959 ppb	15:02:17
3	K 766.490 Radial†	3229.1	-243.3	-48.338 ug/L	-48.338 ppb	15:01:57
3	Mg 279.077 IEC†	0.1	-1.5	-48.595 ug/L	-48.595 ppb	15:02:17
3	Na 589.592 Radial†	-1452.0	359.1	108.47 ug/L	108.47 ppb	15:01:57
3	Sr 421.552†	16.6	-0.0	-0.0005 ug/L	-0.0005 ppb	15:01:57
3	Sc 361.383	899774.2	899774.2	101.48 %		15:03:24
3	Y 371.029	771540.6	771540.6	101.28 %		15:03:24
3	Ag 328.068†	380.7	-137.2	-0.6044 ug/L	-0.6044 ppb	15:03:29
3	As 188.979†	-36.0	-2.1	-0.7403 ug/L	-0.7403 ppb	15:03:49
3	B 249.677†	-694.0	-18.0	-0.3665 ug/L	-0.3665 ppb	15:03:29
3	Ba 233.527†	8.7	1.1	0.0093 ug/L	0.0093 ppb	15:03:49
3	Be 313.107†	-4311.3	103.3	0.0356 ug/L	0.0356 ppb	15:03:29
3	Cd 226.502†	-243.3	-1.3	-0.0086 ug/L	-0.0086 ppb	15:03:49
3	Co 228.616†	-81.5	3.7	0.0707 ug/L	0.0707 ppb	15:03:49
3	Cr 267.716†	198.3	91.4	0.9149 ug/L	0.9149 ppb	15:03:29
3	Cu 324.752†	8097.8	-19.7	-0.0606 ug/L	-0.0606 ppb	15:03:29
3	Mn 257.610†	611.1	85.7	0.0869 ug/L	0.0869 ppb	15:03:29
3	Mo 202.031†	32.2	11.8	0.7378 ug/L	0.7378 ppb	15:03:49
3	Ni 231.604†	107.0	-19.7	-0.4319 ug/L	-0.4319 ppb	15:03:49
3	P 214.914†	260.9	8.5	4.2136 ug/L	4.2136 ppb	15:03:49
3	Pb 220.353†	-82.9	-3.9	-0.3967 ug/L	-0.3967 ppb	15:03:49
3	S 181.975 Axial†	67.4	6.5	7.3118 ug/L	7.3118 ppb	15:03:49
3	Sb 206.836†	42.8	5.1	1.5233 ug/L	1.5233 ppb	15:03:49
3	Se 196.026†	-38.3	-4.5	-2.4334 ug/L	-2.4334 ppb	15:03:49
3	Si 251.611†	1076.7	444.4	12.750 ug/L	12.750 ppb	15:03:49
3	Sn 189.927†	6.0	2.5	0.3707 ug/L	0.3707 ppb	15:03:49
3	Ti 334.940†	-1606.4	234.4	0.3699 ug/L	0.3699 ppb	15:03:29
3	Tl 190.801†	-46.5	7.6	2.0783 ug/L	2.0783 ppb	15:03:49
3	U 409.014†	-2503.7	201.6	5.9980 ug/L	5.9980 ppb	15:03:24
3	V 292.402†	-1641.0	184.9	1.1874 ug/L	1.1874 ppb	15:03:29
3	Zn 213.857†	955.9	110.2	0.9132 ug/L	0.9132 ppb	15:03:49
3	SiO2†	1102.4	450.2	27.642 ug/L	27.642 ppb	15:04:05

Mean Data: 1202001500|935389|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	890132.1	100.40	%	0.957				0.95%
Sc Radial	4849.6	104	%	0.9				0.89%
Y 371.029	763327.5	100.21	%	0.950				0.95%
Y RADIAL	5133.5	104.1	%	1.09				1.04%
Ag 328.068†	-57.6	-0.2557	ug/L	0.30519	-0.2557	ppb	0.30519	119.34%
Al 396.153Radial†	16.0	14.157	ug/L	6.2176	14.157	ppb	6.2176	43.92%
As 188.979†	-2.2	-0.7746	ug/L	0.70541	-0.7746	ppb	0.70541	91.07%
B 249.677†	22.8	0.4730	ug/L	0.89772	0.4730	ppb	0.89772	189.79%
Ba 233.527†	-7.6	-0.0543	ug/L	0.10267	-0.0543	ppb	0.10267	189.05%
Be 313.107†	8.6	0.0037	ug/L	0.02835	0.0037	ppb	0.02835	774.92%
Ca 317.933Radial†	8.2	13.811	ug/L	6.5082	13.811	ppb	6.5082	47.12%
Cd 226.502†	-8.2	-0.0753	ug/L	0.06903	-0.0753	ppb	0.06903	91.68%
Co 228.616†	-8.3	-0.1540	ug/L	0.19493	-0.1540	ppb	0.19493	126.62%
Cr 267.716†	37.1	0.3711	ug/L	0.49854	0.3711	ppb	0.49854	134.32%
Cu 324.752†	21.5	0.0626	ug/L	0.14581	0.0626	ppb	0.14581	232.92%
Fe 238.204 Radial†	-2.1	-18.489	ug/L	32.1660	-18.489	ppb	32.1660	173.97%
K 766.490 Radial†	-229.6	-45.611	ug/L	4.2154	-45.611	ppb	4.2154	9.24%

Mg 279.077 IEC†	0.4	11.797	ug/L	52.5205	11.797	ppb	52.5205 445.21%
Mn 257.610†	125.7	0.1304	ug/L	0.03946	0.1304	ppb	0.03946 30.26%
Mo 202.031†	13.5	0.8417	ug/L	0.12017	0.8417	ppb	0.12017 14.28%
Na 589.592 Radial†	327.7	98.996	ug/L	15.3351	98.996	ppb	15.3351 15.49%
Ni 231.604†	-5.3	-0.1158	ug/L	0.30205	-0.1158	ppb	0.30205 260.92%
P 214.914†	10.7	5.2425	ug/L	3.53913	5.2425	ppb	3.53913 67.51%
Pb 220.353†	-18.6	-1.9229	ug/L	1.32783	-1.9229	ppb	1.32783 69.05%
S 181.975 Axial†	2.3	2.6467	ug/L	6.32746	2.6467	ppb	6.32746 239.07%
Sb 206.836†	8.1	2.4527	ug/L	2.44154	2.4527	ppb	2.44154 99.54%
Se 196.026†	-3.8	-2.0041	ug/L	2.22198	-2.0041	ppb	2.22198 110.87%
Si 251.611†	454.9	13.047	ug/L	0.3006	13.047	ppb	0.3006 2.30%
Sn 189.927†	4.6	0.6849	ug/L	0.41967	0.6849	ppb	0.41967 61.27%
Sr 421.552†	-21.2	-0.1556	ug/L	0.20242	-0.1556	ppb	0.20242 130.09%
Ti 334.940†	237.1	0.3740	ug/L	0.01348	0.3740	ppb	0.01348 3.61%
Tl 190.801†	6.5	1.7670	ug/L	1.08422	1.7670	ppb	1.08422 61.36%
U 409.014†	204.9	6.0939	ug/L	1.12209	6.0939	ppb	1.12209 18.41%
V 292.402†	125.9	0.8166	ug/L	0.34719	0.8166	ppb	0.34719 42.52%
Zn 213.857†	129.1	1.0626	ug/L	0.16084	1.0626	ppb	0.16084 15.14%
SiO2†	490.5	30.109	ug/L	2.4687	30.109	ppb	2.4687 8.20%

Sequence No.: 4
Sample ID: 1202001501|935389|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 18
Date Collected: 1/6/2010 15:06:14
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202001501|935389|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4641.2	4641.2	99.4	%			15:08:07
1	Y RADIAL	4929.7	4929.7	99.93	%			15:08:07
1	Al 396.153Radial†	6052.1	6113.3	5400.1	ug/L	5400.1	ppb	15:08:07
1	Ca 317.933Radial†	3164.9	3170.3	5312.4	ug/L	5312.4	ppb	15:08:27
1	Fe 238.204 Radial†	593.3	582.8	5136.7	ug/L	5136.7	ppb	15:08:27
1	K 766.490 Radial†	29105.3	25934.1	5141.2	ug/L	5141.2	ppb	15:08:07
1	Mg 279.077 IEC†	167.2	166.5	5329.7	ug/L	5329.7	ppb	15:08:27
1	Na 589.592 Radial†	15336.2	17173.5	5187.8	ug/L	5187.8	ppb	15:08:07
1	Sr 421.552†	72338.0	72733.3	532.48	ug/L	532.48	ppb	15:08:07
1	Sc 361.383	884854.8	884854.8	99.802	%			15:09:26
1	Y 371.029	752383.6	752383.6	98.770	%			15:09:26
1	Ag 328.068†	119309.6	119033.8	514.55	ug/L	514.55	ppb	15:09:26
1	As 188.979†	1415.9	1452.2	512.88	ug/L	512.88	ppb	15:09:46
1	B 249.677†	23799.2	24512.3	503.46	ug/L	503.46	ppb	15:09:26
1	Ba 233.527†	72124.2	72259.7	528.19	ug/L	528.19	ppb	15:09:26
1	Be 313.107†	1527893.8	1535275.2	519.95	ug/L	519.95	ppb	15:09:26
1	Cd 226.502†	54116.6	54462.3	512.76	ug/L	512.76	ppb	15:09:26
1	Co 228.616†	26856.2	26993.4	507.66	ug/L	507.66	ppb	15:09:46
1	Cr 267.716†	51407.7	51405.6	515.89	ug/L	515.89	ppb	15:09:26
1	Cu 324.752†	185079.9	177447.9	525.62	ug/L	525.62	ppb	15:09:26
1	Mn 257.610†	502067.5	502546.7	529.92	ug/L	529.92	ppb	15:09:26
1	Mo 202.031†	8180.1	8176.4	512.72	ug/L	512.72	ppb	15:09:46
1	Ni 231.604†	23526.9	23448.5	514.43	ug/L	514.43	ppb	15:09:46
1	P 214.914†	1458.7	1213.1	512.14	ug/L	512.14	ppb	15:09:46
1	Pb 220.353†	4918.9	5006.4	520.27	ug/L	520.27	ppb	15:09:46
1	S 181.975 Axial†	4605.5	4554.7	5146.5	ug/L	5146.5	ppb	15:09:46
1	Sb 206.836†	1775.2	1741.6	527.74	ug/L	527.74	ppb	15:09:46
1	Se 196.026†	963.7	998.9	529.40	ug/L	529.40	ppb	15:09:46
1	Si 251.611†	178206.3	177943.1	5092.3	ug/L	5092.3	ppb	15:09:26
1	Sn 189.927†	3565.0	3568.6	528.47	ug/L	528.47	ppb	15:09:46
1	Ti 334.940†	331783.7	334258.9	530.20	ug/L	530.20	ppb	15:09:26
1	Tl 190.801†	1838.6	1895.6	521.38	ug/L	521.38	ppb	15:09:46
1	U 409.014†	15010.9	17709.3	524.83	ug/L	524.83	ppb	15:09:26
1	V 292.402†	80827.6	82789.7	526.62	ug/L	526.62	ppb	15:09:26
1	Zn 213.857†	62815.0	62107.9	506.30	ug/L	506.30	ppb	15:09:26
1	SiO2†	179470.8	179190.6	10973	ug/L	10973	ppb	15:10:46
2	Sc Radial	4748.2	4748.2	102	%			15:08:32
2	Y RADIAL	5032.8	5032.8	102.0	%			15:08:32
2	Al 396.153Radial†	6187.3	6109.0	5396.6	ug/L	5396.6	ppb	15:08:32
2	Ca 317.933Radial†	3198.0	3131.2	5246.8	ug/L	5246.8	ppb	15:08:52
2	Fe 238.204 Radial†	601.4	577.3	5088.5	ug/L	5088.5	ppb	15:08:52
2	K 766.490 Radial†	29818.1	25975.2	5149.4	ug/L	5149.4	ppb	15:08:32
2	Mg 279.077 IEC†	167.1	162.6	5206.2	ug/L	5206.2	ppb	15:08:52
2	Na 589.592 Radial†	15658.6	17142.9	5178.5	ug/L	5178.5	ppb	15:08:32
2	Sr 421.552†	74079.9	72806.3	533.02	ug/L	533.02	ppb	15:08:32
2	Sc 361.383	892313.3	892313.3	100.64	%			15:09:53
2	Y 371.029	757345.3	757345.3	99.421	%			15:09:53
2	Ag 328.068†	119945.7	118666.7	512.96	ug/L	512.96	ppb	15:09:53
2	As 188.979†	1396.4	1420.9	501.91	ug/L	501.91	ppb	15:10:13
2	B 249.677†	24163.1	24674.5	506.83	ug/L	506.83	ppb	15:09:53
2	Ba 233.527†	72774.5	72301.8	528.50	ug/L	528.50	ppb	15:09:53
2	Be 313.107†	1538183.2	1532702.5	519.08	ug/L	519.08	ppb	15:09:53
2	Cd 226.502†	54486.1	54376.2	511.95	ug/L	511.95	ppb	15:09:53
2	Co 228.616†	26736.8	26649.8	501.18	ug/L	501.18	ppb	15:10:13
2	Cr 267.716†	51755.6	51320.7	515.03	ug/L	515.03	ppb	15:09:53
2	Cu 324.752†	186441.7	177251.0	525.03	ug/L	525.03	ppb	15:09:53
2	Mn 257.610†	506040.5	502289.4	529.65	ug/L	529.65	ppb	15:09:53
2	Mo 202.031†	8126.5	8054.6	505.08	ug/L	505.08	ppb	15:10:13
2	Ni 231.604†	23403.6	23128.9	507.42	ug/L	507.42	ppb	15:10:13

2	P 214.914†	1435.7	1177.9	495.05 ug/L	495.05 ppb	15:10:13
2	Pb 220.353†	4872.2	4918.8	511.19 ug/L	511.19 ppb	15:10:13
2	S 181.975 Axial†	4584.4	4495.2	5079.1 ug/L	5079.1 ppb	15:10:13
2	Sb 206.836†	1768.1	1719.7	520.92 ug/L	520.92 ppb	15:10:13
2	Se 196.026†	940.9	968.1	513.47 ug/L	513.47 ppb	15:10:13
2	Si 251.611†	179701.5	177936.2	5092.3 ug/L	5092.3 ppb	15:09:53
2	Sn 189.927†	3551.1	3525.0	522.00 ug/L	522.00 ppb	15:10:13
2	Ti 334.940†	334292.2	333972.7	529.74 ug/L	529.74 ppb	15:09:53
2	Tl 190.801†	1827.6	1869.3	514.23 ug/L	514.23 ppb	15:10:13
2	U 409.014†	15390.2	17960.5	532.31 ug/L	532.31 ppb	15:09:53
2	V 292.402†	81540.5	82821.1	526.73 ug/L	526.73 ppb	15:09:53
2	Zn 213.857†	63202.0	61966.4	505.19 ug/L	505.19 ppb	15:09:53
2	SiO2†	178789.6	177010.7	10840 ug/L	10840 ppb	15:10:52
3	Sc Radial	4676.4	4676.4	100 %		15:08:57
3	Y RADIAL	4950.3	4950.3	100.4 %		15:08:57
3	Al 396.153Radial†	6084.5	6099.8	5388.2 ug/L	5388.2 ppb	15:08:57
3	Ca 317.933Radial†	3176.5	3157.9	5291.6 ug/L	5291.6 ppb	15:09:17
3	Fe 238.204 Radial†	596.5	581.5	5125.6 ug/L	5125.6 ppb	15:09:17
3	K 766.490 Radial†	29206.6	25814.7	5117.5 ug/L	5117.5 ppb	15:08:57
3	Mg 279.077 IEC†	166.8	164.8	5276.2 ug/L	5276.2 ppb	15:09:17
3	Na 589.592 Radial†	15388.5	17109.6	5168.4 ug/L	5168.4 ppb	15:08:57
3	Sr 421.552†	72506.3	72353.4	529.70 ug/L	529.70 ppb	15:08:57
3	Sc 361.383	892585.7	892585.7	100.67 %		15:10:21
3	Y 371.029	758701.5	758701.5	99.599 %		15:10:21
3	Ag 328.068†	120175.5	118858.5	513.80 ug/L	513.80 ppb	15:10:21
3	As 188.979†	1413.5	1437.5	507.74 ug/L	507.74 ppb	15:10:41
3	B 249.677†	24091.2	24595.7	505.19 ug/L	505.19 ppb	15:10:21
3	Ba 233.527†	72760.9	72266.3	528.24 ug/L	528.24 ppb	15:10:21
3	Be 313.107†	1539320.8	1533366.1	519.31 ug/L	519.31 ppb	15:10:21
3	Cd 226.502†	54329.2	54203.8	510.32 ug/L	510.32 ppb	15:10:21
3	Co 228.616†	26955.7	26859.2	505.13 ug/L	505.13 ppb	15:10:41
3	Cr 267.716†	51786.8	51336.0	515.19 ug/L	515.19 ppb	15:10:21
3	Cu 324.752†	186797.6	177547.9	525.91 ug/L	525.91 ppb	15:10:21
3	Mn 257.610†	505899.9	501996.3	529.34 ug/L	529.34 ppb	15:10:21
3	Mo 202.031†	8207.9	8133.0	510.00 ug/L	510.00 ppb	15:10:41
3	Ni 231.604†	23597.9	23314.8	511.50 ug/L	511.50 ppb	15:10:41
3	P 214.914†	1445.4	1187.2	499.43 ug/L	499.43 ppb	15:10:41
3	Pb 220.353†	4898.6	4943.6	513.76 ug/L	513.76 ppb	15:10:41
3	S 181.975 Axial†	4618.0	4527.2	5115.3 ug/L	5115.3 ppb	15:10:41
3	Sb 206.836†	1768.9	1719.9	521.17 ug/L	521.17 ppb	15:10:41
3	Se 196.026†	946.4	973.3	516.25 ug/L	516.25 ppb	15:10:41
3	Si 251.611†	179828.0	178007.4	5094.2 ug/L	5094.2 ppb	15:10:21
3	Sn 189.927†	3575.4	3548.0	525.42 ug/L	525.42 ppb	15:10:41
3	Ti 334.940†	334951.5	334526.3	530.62 ug/L	530.62 ppb	15:10:21
3	Tl 190.801†	1841.5	1882.5	517.81 ug/L	517.81 ppb	15:10:41
3	U 409.014†	15337.6	17903.6	530.61 ug/L	530.61 ppb	15:10:21
3	V 292.402†	81709.2	82964.0	527.69 ug/L	527.69 ppb	15:10:21
3	Zn 213.857†	63238.4	61983.3	505.30 ug/L	505.30 ppb	15:10:21
3	SiO2†	178017.3	176189.4	10789 ug/L	10789 ppb	15:10:57

Mean Data: 1202001501|935389|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	889917.9	100.37	%	0.495				0.49%
Sc Radial	4688.6	100	%	1.2				1.16%
Y 371.029	756143.5	99.263	%	0.4366				0.44%
Y RADIAL	4970.9	100.8	%	1.11				1.10%
Ag 328.068†	118853.0	513.77	ug/L	0.799	513.77	ppb	0.799	0.16%
Al 396.153Radial†	6107.3	5395.0	ug/L	6.09	5395.0	ppb	6.09	0.11%
As 188.979†	1436.8	507.51	ug/L	5.484	507.51	ppb	5.484	1.08%
B 249.677†	24594.2	505.16	ug/L	1.684	505.16	ppb	1.684	0.33%
Ba 233.527†	72275.9	528.31	ug/L	0.164	528.31	ppb	0.164	0.03%
Be 313.107†	1533781.3	519.45	ug/L	0.452	519.45	ppb	0.452	0.09%
Ca 317.933Radial†	3153.1	5283.6	ug/L	33.52	5283.6	ppb	33.52	0.63%
Cd 226.502†	54347.5	511.68	ug/L	1.240	511.68	ppb	1.240	0.24%
Co 228.616†	26834.1	504.66	ug/L	3.264	504.66	ppb	3.264	0.65%
Cr 267.716†	51354.1	515.37	ug/L	0.455	515.37	ppb	0.455	0.09%
Cu 324.752†	177415.6	525.52	ug/L	0.448	525.52	ppb	0.448	0.09%
Fe 238.204 Radial†	580.5	5116.9	ug/L	25.25	5116.9	ppb	25.25	0.49%
K 766.490 Radial†	25908.0	5136.0	ug/L	16.55	5136.0	ppb	16.55	0.32%

Mg 279.077 IEC†	164.7	5270.7	ug/L	61.94	5270.7	ppb	61.94	1.18%
Mn 257.610†	502277.5	529.63	ug/L	0.290	529.63	ppb	0.290	0.05%
Mo 202.031†	8121.3	509.27	ug/L	3.870	509.27	ppb	3.870	0.76%
Na 589.592 Radial†	17142.0	5178.2	ug/L	9.66	5178.2	ppb	9.66	0.19%
Ni 231.604†	23297.4	511.11	ug/L	3.521	511.11	ppb	3.521	0.69%
P 214.914†	1192.7	502.21	ug/L	8.874	502.21	ppb	8.874	1.77%
Pb 220.353†	4956.3	515.08	ug/L	4.682	515.08	ppb	4.682	0.91%
S 181.975 Axial†	4525.7	5113.6	ug/L	33.70	5113.6	ppb	33.70	0.66%
Sb 206.836†	1727.1	523.28	ug/L	3.871	523.28	ppb	3.871	0.74%
Se 196.026†	980.1	519.71	ug/L	8.506	519.71	ppb	8.506	1.64%
Si 251.611†	177962.3	5092.9	ug/L	1.12	5092.9	ppb	1.12	0.02%
Sn 189.927†	3547.2	525.30	ug/L	3.233	525.30	ppb	3.233	0.62%
Sr 421.552†	72631.0	531.73	ug/L	1.781	531.73	ppb	1.781	0.33%
Ti 334.940†	334252.6	530.18	ug/L	0.441	530.18	ppb	0.441	0.08%
Tl 190.801†	1882.5	517.81	ug/L	3.576	517.81	ppb	3.576	0.69%
U 409.014†	17857.8	529.25	ug/L	3.919	529.25	ppb	3.919	0.74%
V 292.402†	82858.3	527.01	ug/L	0.587	527.01	ppb	0.587	0.11%
Zn 213.857†	62019.2	505.60	ug/L	0.613	505.60	ppb	0.613	0.12%
SiO2†	177463.6	10868	ug/L	95.1	10868	ppb	95.1	0.88%

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/6/2010 15:54:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4610.7	4610.7	98.8	%			15:55:56
1	Y RADIAL	4870.6	4870.6	98.74	%			15:55:56
1	Al 396.153Radial†	5819.9	5918.4	5227.5	ug/L	5227.5	ppb	15:55:56
1	Ca 317.933Radial†	3067.3	3092.6	5182.2	ug/L	5182.2	ppb	15:56:16
1	Fe 238.204 Radial†	569.7	562.9	4961.7	ug/L	4961.7	ppb	15:56:16
1	K 766.490 Radial†	28492.3	25507.1	5054.7	ug/L	5054.7	ppb	15:55:56
1	Mg 279.077 IEC†	162.8	163.1	5222.0	ug/L	5222.0	ppb	15:56:16
1	Na 589.592 Radial†	29865.7	31984.3	9661.8	ug/L	9661.8	ppb	15:55:56
1	Sr 421.552†	68509.5	69338.7	507.63	ug/L	507.63	ppb	15:55:56
1	Sc 361.383	871692.2	871692.2	98.317	%			15:57:15
1	Y 371.029	739460.9	739460.9	97.073	%			15:57:15
1	Ag 328.068†	115237.2	116696.9	504.41	ug/L	504.41	ppb	15:57:15
1	As 188.979†	1375.1	1432.0	505.65	ug/L	505.65	ppb	15:57:35
1	B 249.677†	22960.3	24019.1	493.32	ug/L	493.32	ppb	15:57:15
1	Ba 233.527†	67903.3	69057.8	504.80	ug/L	504.80	ppb	15:57:15
1	Be 313.107†	1466976.1	1496432.2	506.79	ug/L	506.79	ppb	15:57:15
1	Cd 226.502†	52206.4	53338.1	502.18	ug/L	502.18	ppb	15:57:15
1	Co 228.616†	26201.3	26733.7	502.80	ug/L	502.80	ppb	15:57:35
1	Cr 267.716†	49145.9	49882.9	500.60	ug/L	500.60	ppb	15:57:15
1	Cu 324.752†	175299.0	170299.9	504.45	ug/L	504.45	ppb	15:57:15
1	Mn 257.610†	474924.7	482535.7	508.82	ug/L	508.82	ppb	15:57:15
1	Mo 202.031†	7973.8	8090.3	507.31	ug/L	507.31	ppb	15:57:35
1	Ni 231.604†	22584.3	22845.7	501.20	ug/L	501.20	ppb	15:57:35
1	P 214.914†	5345.1	5188.0	2453.1	ug/L	2453.1	ppb	15:57:35
1	Pb 220.353†	4710.4	4868.8	506.00	ug/L	506.00	ppb	15:57:35
1	S 181.975 Axial†	934.8	890.9	1005.8	ug/L	1005.8	ppb	15:57:35
1	Sb 206.836†	1708.0	1700.2	515.17	ug/L	515.17	ppb	15:57:35
1	Se 196.026†	946.2	995.7	527.16	ug/L	527.16	ppb	15:57:35
1	Si 251.611†	86888.1	87758.5	2505.4	ug/L	2505.4	ppb	15:57:15
1	Sn 189.927†	3343.6	3397.4	503.12	ug/L	503.12	ppb	15:57:35
1	Ti 334.940†	315337.5	322551.2	511.64	ug/L	511.64	ppb	15:57:15
1	Tl 190.801†	1776.1	1859.9	511.41	ug/L	511.41	ppb	15:57:35
1	U 409.014†	13585.4	16486.6	488.53	ug/L	488.53	ppb	15:57:15
1	V 292.402†	76496.7	79607.6	506.55	ug/L	506.55	ppb	15:57:15
1	Zn 213.857†	61213.1	61429.0	500.84	ug/L	500.84	ppb	15:57:15
1	SiO2†	88513.0	89391.7	5461.3	ug/L	5461.3	ppb	15:58:35
2	Sc Radial	4658.7	4658.7	99.8	%			15:56:21
2	Y RADIAL	4940.4	4940.4	100.2	%			15:56:21
2	Al 396.153Radial†	5876.7	5914.7	5224.4	ug/L	5224.4	ppb	15:56:21
2	Ca 317.933Radial†	3039.5	3032.7	5081.8	ug/L	5081.8	ppb	15:56:41
2	Fe 238.204 Radial†	562.1	549.3	4842.0	ug/L	4842.0	ppb	15:56:41
2	K 766.490 Radial†	28726.0	25443.9	5042.2	ug/L	5042.2	ppb	15:56:21
2	Mg 279.077 IEC†	160.8	159.5	5105.2	ug/L	5105.2	ppb	15:56:41
2	Na 589.592 Radial†	29943.3	31750.4	9591.1	ug/L	9591.1	ppb	15:56:21
2	Sr 421.552†	68755.8	68870.7	504.20	ug/L	504.20	ppb	15:56:21
2	Sc 361.383	882734.5	882734.5	99.563	%			15:57:42
2	Y 371.029	748832.0	748832.0	98.303	%			15:57:42
2	Ag 328.068†	116732.5	116732.6	504.53	ug/L	504.53	ppb	15:57:42
2	As 188.979†	1368.2	1407.6	497.09	ug/L	497.09	ppb	15:58:02
2	B 249.677†	23390.7	24159.2	496.24	ug/L	496.24	ppb	15:57:42
2	Ba 233.527†	68796.2	69090.7	505.03	ug/L	505.03	ppb	15:57:42
2	Be 313.107†	1489275.4	1500164.5	508.05	ug/L	508.05	ppb	15:57:42
2	Cd 226.502†	53023.9	53495.0	503.67	ug/L	503.67	ppb	15:57:42
2	Co 228.616†	26234.5	26433.6	497.14	ug/L	497.14	ppb	15:58:02
2	Cr 267.716†	49848.0	49962.8	501.40	ug/L	501.40	ppb	15:57:42
2	Cu 324.752†	177814.3	170595.8	505.32	ug/L	505.32	ppb	15:57:42
2	Mn 257.610†	481552.2	483149.7	509.46	ug/L	509.46	ppb	15:57:42
2	Mo 202.031†	7973.8	7988.8	500.94	ug/L	500.94	ppb	15:58:02
2	Ni 231.604†	22612.4	22586.6	495.52	ug/L	495.52	ppb	15:58:02

2	P 214.914†	5343.8	5118.7	2419.2 ug/L	2419.2 ppb	15:58:02
2	Pb 220.353†	4724.9	4823.4	501.29 ug/L	501.29 ppb	15:58:02
2	S 181.975 Axial†	946.1	890.3	1005.2 ug/L	1005.2 ppb	15:58:02
2	Sb 206.836†	1706.3	1676.7	507.89 ug/L	507.89 ppb	15:58:02
2	Se 196.026†	941.4	978.8	518.12 ug/L	518.12 ppb	15:58:02
2	Si 251.611†	88021.2	87791.0	2506.5 ug/L	2506.5 ppb	15:57:42
2	Sn 189.927†	3344.6	3355.9	496.97 ug/L	496.97 ppb	15:58:02
2	Ti 334.940†	319711.3	322932.1	512.24 ug/L	512.24 ppb	15:57:42
2	Tl 190.801†	1774.8	1835.9	504.91 ug/L	504.91 ppb	15:58:02
2	U 409.014†	13601.1	16329.6	483.88 ug/L	483.88 ppb	15:57:42
2	V 292.402†	77456.4	79598.2	506.40 ug/L	506.40 ppb	15:57:42
2	Zn 213.857†	61933.9	61374.1	500.44 ug/L	500.44 ppb	15:57:42
2	SiO2†	87490.1	87238.1	5329.4 ug/L	5329.4 ppb	15:58:40
3	Sc Radial	4682.1	4682.1	100 %		15:56:46
3	Y RADIAL	4927.4	4927.4	99.89 %		15:56:46
3	Al 396.153Radial†	5863.9	5872.5	5186.9 ug/L	5186.9 ppb	15:56:46
3	Ca 317.933Radial†	3029.4	3007.5	5039.6 ug/L	5039.6 ppb	15:57:06
3	Fe 238.204 Radial†	559.5	543.9	4794.8 ug/L	4794.8 ppb	15:57:06
3	K 766.490 Radial†	28786.4	25360.5	5025.6 ug/L	5025.6 ppb	15:56:46
3	Mg 279.077 IEC†	160.4	158.2	5064.8 ug/L	5064.8 ppb	15:57:06
3	Na 589.592 Radial†	30032.5	31689.5	9572.8 ug/L	9572.8 ppb	15:56:46
3	Sr 421.552†	68944.6	68715.0	503.06 ug/L	503.06 ppb	15:56:46
3	Sc 361.383	879347.8	879347.8	99.181 %		15:58:10
3	Y 371.029	745662.1	745662.1	97.887 %		15:58:10
3	Ag 328.068†	116194.7	116641.9	504.12 ug/L	504.12 ppb	15:58:10
3	As 188.979†	1378.7	1423.5	502.65 ug/L	502.65 ppb	15:58:30
3	B 249.677†	23325.2	24183.7	496.75 ug/L	496.75 ppb	15:58:10
3	Ba 233.527†	68467.3	69025.2	504.55 ug/L	504.55 ppb	15:58:10
3	Be 313.107†	1478139.4	1494697.4	506.20 ug/L	506.20 ppb	15:58:10
3	Cd 226.502†	52658.2	53331.4	502.13 ug/L	502.13 ppb	15:58:10
3	Co 228.616†	26293.9	26595.0	500.18 ug/L	500.18 ppb	15:58:30
3	Cr 267.716†	49557.0	49862.2	500.39 ug/L	500.39 ppb	15:58:10
3	Cu 324.752†	176820.5	170281.7	504.39 ug/L	504.39 ppb	15:58:10
3	Mn 257.610†	478645.0	482081.2	508.33 ug/L	508.33 ppb	15:58:10
3	Mo 202.031†	7984.1	8030.1	503.52 ug/L	503.52 ppb	15:58:30
3	Ni 231.604†	22632.2	22694.0	497.87 ug/L	497.87 ppb	15:58:30
3	P 214.914†	5378.1	5174.0	2446.3 ug/L	2446.3 ppb	15:58:30
3	Pb 220.353†	4745.2	4862.2	505.31 ug/L	505.31 ppb	15:58:30
3	S 181.975 Axial†	943.5	891.4	1006.4 ug/L	1006.4 ppb	15:58:30
3	Sb 206.836†	1704.7	1681.7	509.53 ug/L	509.53 ppb	15:58:30
3	Se 196.026†	943.4	984.4	520.86 ug/L	520.86 ppb	15:58:30
3	Si 251.611†	87498.9	87604.9	2501.1 ug/L	2501.1 ppb	15:58:10
3	Sn 189.927†	3350.0	3374.3	499.69 ug/L	499.69 ppb	15:58:30
3	Ti 334.940†	318120.6	322565.0	511.65 ug/L	511.65 ppb	15:58:10
3	Tl 190.801†	1764.5	1832.4	503.93 ug/L	503.93 ppb	15:58:30
3	U 409.014†	13682.2	16463.9	487.88 ug/L	487.88 ppb	15:58:10
3	V 292.402†	77016.9	79454.7	505.55 ug/L	505.55 ppb	15:58:10
3	Zn 213.857†	61569.7	61246.4	499.38 ug/L	499.38 ppb	15:58:10
3	SiO2†	87953.1	88043.4	5378.7 ug/L	5378.7 ppb	15:58:45

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	877924.8	99.020	%	0.6381				0.64%
Sc Radial	4650.5	99.6	%	0.78				0.78%
Y 371.029	744651.7	97.755	%	0.6257				0.64%
Y RADIAL	4912.8	99.59	%	0.753				0.76%
Ag 328.068†	116690.5	504.35	ug/L	0.212	504.35	ppb	0.212	0.04%
QC value within limits for Ag 328.068 Recovery = 100.87%								
Al 396.153Radial†	5901.9	5212.9	ug/L	22.59	5212.9	ppb	22.59	0.43%
QC value within limits for Al 396.153Radial Recovery = 104.26%								
As 188.979†	1421.0	501.80	ug/L	4.342	501.80	ppb	4.342	0.87%
QC value within limits for As 188.979 Recovery = 100.36%								
B 249.677†	24120.7	495.44	ug/L	1.848	495.44	ppb	1.848	0.37%
QC value within limits for B 249.677 Recovery = 99.09%								
Ba 233.527†	69057.9	504.79	ug/L	0.240	504.79	ppb	0.240	0.05%
QC value within limits for Ba 233.527 Recovery = 100.96%								
Be 313.107†	1497098.0	507.01	ug/L	0.945	507.01	ppb	0.945	0.19%
QC value within limits for Be 313.107 Recovery = 101.40%								
Ca 317.933Radial†	3044.3	5101.2	ug/L	73.28	5101.2	ppb	73.28	1.44%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.02%
Cd 226.502†            53388.2      502.66 ug/L         0.872      502.66 ppb          0.872   0.17%
   QC value within limits for Cd 226.502  Recovery = 100.53%
Co 228.616†            26587.4      500.04 ug/L         2.832      500.04 ppb          2.832   0.57%
   QC value within limits for Co 228.616  Recovery = 100.01%
Cr 267.716†            49902.6      500.80 ug/L         0.533      500.80 ppb          0.533   0.11%
   QC value within limits for Cr 267.716  Recovery = 100.16%
Cu 324.752†           170392.5      504.72 ug/L         0.521      504.72 ppb          0.521   0.10%
   QC value within limits for Cu 324.752  Recovery = 100.94%
Fe 238.204 Radial†       552.0      4866.2 ug/L        86.00      4866.2 ppb         86.00   1.77%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.32%
K 766.490 Radial†      25437.1      5040.8 ug/L        14.58      5040.8 ppb         14.58   0.29%
   QC value within limits for K 766.490 Radial  Recovery = 100.82%
Mg 279.077 IEC†          160.3      5130.7 ug/L        81.61      5130.7 ppb         81.61   1.59%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.61%
Mn 257.610†           482588.9      508.87 ug/L         0.566      508.87 ppb          0.566   0.11%
   QC value within limits for Mn 257.610  Recovery = 101.77%
Mo 202.031†             8036.4      503.92 ug/L         3.202      503.92 ppb          3.202   0.64%
   QC value within limits for Mo 202.031  Recovery = 100.78%
Na 589.592 Radial†     31808.1      9608.6 ug/L        47.00      9608.6 ppb         47.00   0.49%
   QC value within limits for Na 589.592 Radial  Recovery = 96.09%
Ni 231.604†            22708.8      498.19 ug/L         2.856      498.19 ppb          2.856   0.57%
   QC value within limits for Ni 231.604  Recovery = 99.64%
P 214.914†              5160.2      2439.5 ug/L        17.94      2439.5 ppb         17.94   0.74%
   QC value within limits for P 214.914  Recovery = 97.58%
Pb 220.353†             4851.5      504.20 ug/L         2.543      504.20 ppb          2.543   0.50%
   QC value within limits for Pb 220.353  Recovery = 100.84%
S 181.975 Axial†         890.9      1005.8 ug/L         0.61      1005.8 ppb          0.61   0.06%
   QC value within limits for S 181.975 Axial  Recovery = 100.58%
Sb 206.836†             1686.2      510.86 ug/L         3.821      510.86 ppb          3.821   0.75%
   QC value within limits for Sb 206.836  Recovery = 102.17%
Se 196.026†              986.3      522.05 ug/L         4.636      522.05 ppb          4.636   0.89%
   QC value within limits for Se 196.026  Recovery = 104.41%
Si 251.611†            87718.1      2504.3 ug/L         2.85      2504.3 ppb          2.85   0.11%
   QC value within limits for Si 251.611  Recovery = 100.17%
Sn 189.927†             3375.9      499.93 ug/L         3.081      499.93 ppb          3.081   0.62%
   QC value within limits for Sn 189.927  Recovery = 99.99%
Sr 421.552†            68974.8      504.96 ug/L         2.376      504.96 ppb          2.376   0.47%
   QC value within limits for Sr 421.552  Recovery = 100.99%
Ti 334.940†           322682.8      511.84 ug/L         0.343      511.84 ppb          0.343   0.07%
   QC value within limits for Ti 334.940  Recovery = 102.37%
Tl 190.801†             1842.7      506.75 ug/L         4.067      506.75 ppb          4.067   0.80%
   QC value within limits for Tl 190.801  Recovery = 101.35%
U 409.014†             16426.7      486.76 ug/L         2.520      486.76 ppb          2.520   0.52%
   QC value within limits for U 409.014  Recovery = 97.35%
V 292.402†             79553.5      506.17 ug/L         0.537      506.17 ppb          0.537   0.11%
   QC value within limits for V 292.402  Recovery = 101.23%
Zn 213.857†            61349.8      500.22 ug/L         0.757      500.22 ppb          0.757   0.15%
   QC value within limits for Zn 213.857  Recovery = 100.04%
SiO2†                  88224.4      5389.8 ug/L        66.65      5389.8 ppb         66.65   1.24%
   QC value within limits for SiO2  Recovery = 100.79%
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/6/2010 16:00:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4715.1	4715.1	101	%			16:02:50
1	Y RADIAL	5003.8	5003.8	101.4	%			16:02:50
1	Al 396.153Radial†	-15.7	11.2	9.8883	ug/L	9.8883	ppb	16:02:50
1	Ca 317.933Radial†	15.8	3.1	5.2356	ug/L	5.2356	ppb	16:03:10
1	Fe 238.204 Radial†	12.6	-1.4	-12.456	ug/L	-12.456	ppb	16:03:10
1	K 766.490 Radial†	3502.3	130.3	25.820	ug/L	25.820	ppb	16:02:50
1	Mg 279.077 IEC†	6.2	4.5	144.87	ug/L	144.87	ppb	16:03:10
1	Na 589.592 Radial†	-1444.3	320.3	96.767	ug/L	96.767	ppb	16:02:50
1	Sr 421.552†	38.3	21.9	0.1603	ug/L	0.1603	ppb	16:02:50
1	Sc 361.383	863596.1	863596.1	97.404	%			16:04:07
1	Y 371.029	741696.3	741696.3	97.367	%			16:04:07
1	Ag 328.068†	539.1	41.2	0.1824	ug/L	0.1824	ppb	16:04:07
1	As 188.979†	-19.8	13.1	4.5942	ug/L	4.5942	ppb	16:04:27
1	B 249.677†	-631.3	17.7	0.3674	ug/L	0.3674	ppb	16:04:07
1	Ba 233.527†	-0.3	-7.8	-0.0563	ug/L	-0.0563	ppb	16:04:27
1	Be 313.107†	-4376.2	-141.3	-0.0477	ug/L	-0.0477	ppb	16:04:07
1	Cd 226.502†	-240.3	-8.3	-0.0771	ug/L	-0.0771	ppb	16:04:27
1	Co 228.616†	-89.1	-7.5	-0.1412	ug/L	-0.1412	ppb	16:04:27
1	Cr 267.716†	71.2	-31.0	-0.3065	ug/L	-0.3065	ppb	16:04:07
1	Cu 324.752†	8123.6	341.1	1.0092	ug/L	1.0092	ppb	16:04:07
1	Mn 257.610†	551.5	49.7	0.0485	ug/L	0.0485	ppb	16:04:07
1	Mo 202.031†	21.2	1.8	0.1131	ug/L	0.1131	ppb	16:04:27
1	Ni 231.604†	118.8	-3.1	-0.0686	ug/L	-0.0686	ppb	16:04:27
1	P 214.914†	259.6	17.9	8.6069	ug/L	8.6069	ppb	16:04:27
1	Pb 220.353†	-77.5	-1.8	-0.1873	ug/L	-0.1873	ppb	16:04:27
1	S 181.975 Axial†	58.0	-0.4	-0.4488	ug/L	-0.4488	ppb	16:04:27
1	Sb 206.836†	50.1	14.4	4.3200	ug/L	4.3200	ppb	16:04:27
1	Se 196.026†	-42.0	-9.8	-5.0618	ug/L	-5.0618	ppb	16:04:27
1	Si 251.611†	656.9	57.9	1.6457	ug/L	1.6457	ppb	16:04:27
1	Sn 189.927†	10.6	7.4	1.0995	ug/L	1.0995	ppb	16:04:27
1	Ti 334.940†	-1754.9	15.7	0.0295	ug/L	0.0295	ppb	16:04:07
1	Tl 190.801†	-43.7	8.5	2.3191	ug/L	2.3191	ppb	16:04:27
1	U 409.014†	-2911.1	-320.0	-9.5103	ug/L	-9.5103	ppb	16:04:07
1	V 292.402†	-1687.0	69.8	0.4269	ug/L	0.4269	ppb	16:04:07
1	Zn 213.857†	834.5	25.0	0.2006	ug/L	0.2006	ppb	16:04:27
1	SiO2†	684.1	66.3	4.0362	ug/L	4.0362	ppb	16:05:23
2	Sc Radial	4652.0	4652.0	99.7	%			16:03:15
2	Y RADIAL	4959.3	4959.3	100.5	%			16:03:15
2	Al 396.153Radial†	1.1	27.8	24.619	ug/L	24.619	ppb	16:03:15
2	Ca 317.933Radial†	20.2	7.8	13.006	ug/L	13.006	ppb	16:03:35
2	Fe 238.204 Radial†	14.4	0.5	4.6528	ug/L	4.6528	ppb	16:03:35
2	K 766.490 Radial†	3343.8	18.3	3.5918	ug/L	3.5918	ppb	16:03:15
2	Mg 279.077 IEC†	3.5	1.9	61.332	ug/L	61.332	ppb	16:03:35
2	Na 589.592 Radial†	-1462.4	282.8	85.440	ug/L	85.440	ppb	16:03:15
2	Sr 421.552†	6.9	-9.0	-0.0663	ug/L	-0.0663	ppb	16:03:15
2	Sc 361.383	860872.1	860872.1	97.097	%			16:04:32
2	Y 371.029	738933.4	738933.4	97.004	%			16:04:32
2	Ag 328.068†	437.2	-62.0	-0.2565	ug/L	-0.2565	ppb	16:04:32
2	As 188.979†	-27.8	4.7	1.6627	ug/L	1.6627	ppb	16:04:52
2	B 249.677†	-684.5	-39.1	-0.8045	ug/L	-0.8045	ppb	16:04:32
2	Ba 233.527†	-3.7	-11.3	-0.0821	ug/L	-0.0821	ppb	16:04:52
2	Be 313.107†	-4387.5	-167.1	-0.0562	ug/L	-0.0562	ppb	16:04:32
2	Cd 226.502†	-234.4	-3.0	-0.0287	ug/L	-0.0287	ppb	16:04:52
2	Co 228.616†	-124.3	-44.1	-0.8279	ug/L	-0.8279	ppb	16:04:52
2	Cr 267.716†	133.9	33.9	0.3432	ug/L	0.3432	ppb	16:04:32
2	Cu 324.752†	8102.1	345.3	1.0227	ug/L	1.0227	ppb	16:04:32
2	Mn 257.610†	554.1	54.2	0.0564	ug/L	0.0564	ppb	16:04:32
2	Mo 202.031†	24.7	5.5	0.3462	ug/L	0.3462	ppb	16:04:52
2	Ni 231.604†	125.8	4.5	0.0997	ug/L	0.0997	ppb	16:04:52

2	P 214.914†	255.7	14.8	7.0644	ug/L	7.0644 ppb	16:04:52
2	Pb 220.353†	-90.3	-15.2	-1.5683	ug/L	-1.5683 ppb	16:04:52
2	S 181.975 Axial†	63.3	5.2	5.9237	ug/L	5.9237 ppb	16:04:52
2	Sb 206.836†	40.9	5.0	1.5161	ug/L	1.5161 ppb	16:04:52
2	Se 196.026†	-45.0	-13.1	-6.6924	ug/L	-6.6924 ppb	16:04:52
2	Si 251.611†	681.7	85.5	2.4431	ug/L	2.4431 ppb	16:04:52
2	Sn 189.927†	7.4	4.3	0.6319	ug/L	0.6319 ppb	16:04:52
2	Ti 334.940†	-1680.5	86.7	0.1421	ug/L	0.1421 ppb	16:04:32
2	Tl 190.801†	-45.3	6.8	1.8576	ug/L	1.8576 ppb	16:04:52
2	U 409.014†	-2889.2	-306.9	-9.1246	ug/L	-9.1246 ppb	16:04:32
2	V 292.402†	-1721.2	29.1	0.1705	ug/L	0.1705 ppb	16:04:32
2	Zn 213.857†	839.3	32.7	0.2648	ug/L	0.2648 ppb	16:04:52
2	SiO2†	684.9	69.4	4.2385	ug/L	4.2385 ppb	16:05:28
3	Sc Radial	4651.2	4651.2	99.6	%		16:03:40
3	Y RADIAL	4941.9	4941.9	100.2	%		16:03:40
3	Al 396.153Radial†	-45.6	-19.1	-16.940	ug/L	-16.940 ppb	16:03:40
3	Ca 317.933Radial†	21.0	8.5	14.323	ug/L	14.323 ppb	16:04:00
3	Fe 238.204 Radial†	13.0	-0.8	-7.4234	ug/L	-7.4234 ppb	16:04:00
3	K 766.490 Radial†	3406.8	82.0	16.256	ug/L	16.256 ppb	16:03:40
3	Mg 279.077 IEC†	-0.2	-1.9	-60.201	ug/L	-60.201 ppb	16:04:00
3	Na 589.592 Radial†	-1533.2	211.5	63.903	ug/L	63.903 ppb	16:03:40
3	Sr 421.552†	-6.2	-22.2	-0.1628	ug/L	-0.1628 ppb	16:03:40
3	Sc 361.383	865258.0	865258.0	97.592	%		16:04:58
3	Y 371.029	743166.3	743166.3	97.560	%		16:04:58
3	Ag 328.068†	430.2	-71.5	-0.3062	ug/L	-0.3062 ppb	16:04:58
3	As 188.979†	-22.4	10.5	3.6605	ug/L	3.6605 ppb	16:05:18
3	B 249.677†	-647.9	2.0	0.0433	ug/L	0.0433 ppb	16:04:58
3	Ba 233.527†	2.8	-4.6	-0.0336	ug/L	-0.0336 ppb	16:05:18
3	Be 313.107†	-4335.5	-90.9	-0.0305	ug/L	-0.0305 ppb	16:04:58
3	Cd 226.502†	-255.4	-23.4	-0.2195	ug/L	-0.2195 ppb	16:05:18
3	Co 228.616†	-109.7	-28.4	-0.5316	ug/L	-0.5316 ppb	16:05:18
3	Cr 267.716†	117.1	15.9	0.1607	ug/L	0.1607 ppb	16:04:58
3	Cu 324.752†	8024.4	223.4	0.6612	ug/L	0.6612 ppb	16:04:58
3	Mn 257.610†	565.7	63.3	0.0670	ug/L	0.0670 ppb	16:04:58
3	Mo 202.031†	32.5	13.4	0.8398	ug/L	0.8398 ppb	16:05:18
3	Ni 231.604†	117.9	-4.2	-0.0923	ug/L	-0.0923 ppb	16:05:18
3	P 214.914†	245.7	3.2	1.4791	ug/L	1.4791 ppb	16:05:18
3	Pb 220.353†	-93.2	-17.7	-1.8348	ug/L	-1.8348 ppb	16:05:18
3	S 181.975 Axial†	68.3	10.1	11.416	ug/L	11.416 ppb	16:05:18
3	Sb 206.836†	52.9	17.1	5.1747	ug/L	5.1747 ppb	16:05:18
3	Se 196.026†	-29.8	2.7	1.3526	ug/L	1.3526 ppb	16:05:18
3	Si 251.611†	655.1	54.7	1.5406	ug/L	1.5406 ppb	16:05:18
3	Sn 189.927†	18.6	15.7	2.3215	ug/L	2.3215 ppb	16:05:18
3	Ti 334.940†	-1697.8	77.7	0.1256	ug/L	0.1256 ppb	16:04:58
3	Tl 190.801†	-46.7	5.5	1.5073	ug/L	1.5073 ppb	16:05:18
3	U 409.014†	-2731.4	-130.1	-3.8677	ug/L	-3.8677 ppb	16:04:58
3	V 292.402†	-1737.3	21.6	0.1397	ug/L	0.1397 ppb	16:04:58
3	Zn 213.857†	831.4	20.3	0.1690	ug/L	0.1690 ppb	16:05:18
3	SiO2†	676.5	57.2	3.4497	ug/L	3.4497 ppb	16:05:33

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	863242.1	97.364	%	0.2497				0.26%
Sc Radial	4672.8	100	%	0.8				0.78%
Y 371.029	741265.4	97.310	%	0.2821				0.29%
Y RADIAL	4968.3	100.7	%	0.65				0.64%
Ag 328.068†	-30.8	-0.1268	ug/L	0.26892	-0.1268	ppb	0.26892	212.13%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.6	5.8557	ug/L	21.07064	5.8557	ppb	21.07064	359.83%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	9.4	3.3058	ug/L	1.49760	3.3058	ppb	1.49760	45.30%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-6.5	-0.1312	ug/L	0.60515	-0.1312	ppb	0.60515	461.14%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-7.9	-0.0573	ug/L	0.02425	-0.0573	ppb	0.02425	42.31%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-133.1	-0.0448	ug/L	0.01310	-0.0448	ppb	0.01310	29.25%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.5	10.855	ug/L	4.9108	10.855	ppb	4.9108	45.24%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -11.6     -0.1084 ug/L       0.09918     -0.1084 ppb        0.09918  91.47%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -26.7     -0.5002 ug/L       0.34442     -0.5002 ppb        0.34442  68.85%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                6.3      0.0658 ug/L       0.33509      0.0658 ppb        0.33509 509.25%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              303.3      0.8977 ug/L       0.20495      0.8977 ppb        0.20495  22.83%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.6     -5.0755 ug/L       8.79264     -5.0755 ppb        8.79264 173.24%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         76.9      15.223 ug/L      11.1502      15.223 ppb        11.1502  73.25%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.5      48.666 ug/L     103.1194      48.666 ppb       103.1194 211.89%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               55.7      0.0573 ug/L       0.00931      0.0573 ppb        0.00931  16.25%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                6.9      0.4330 ug/L       0.37102      0.4330 ppb        0.37102  85.68%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       271.6      82.037 ug/L      16.6944      82.037 ppb        16.6944  20.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -0.9     -0.0204 ug/L       0.10470     -0.0204 ppb        0.10470 513.57%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                12.0      5.7168 ug/L       3.75011      5.7168 ppb        3.75011  65.60%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -11.6     -1.1968 ug/L       0.88433     -1.1968 ppb        0.88433  73.89%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           5.0      5.6303 ug/L       5.93777      5.6303 ppb        5.93777 105.46%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               12.2      3.6703 ug/L       1.91389      3.6703 ppb        1.91389  52.15%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -6.7     -3.4672 ug/L       4.25296     -3.4672 ppb        4.25296 122.66%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               66.0      1.8765 ug/L       0.49350      1.8765 ppb        0.49350  26.30%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                9.1      1.3509 ug/L       0.87244      1.3509 ppb        0.87244  64.58%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -3.1     -0.0229 ug/L       0.16583     -0.0229 ppb        0.16583 723.07%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               60.0      0.0991 ug/L       0.06079      0.0991 ppb        0.06079  61.35%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                6.9      1.8947 ug/L       0.40716      1.8947 ppb        0.40716  21.49%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -252.3     -7.5008 ug/L       3.15234     -7.5008 ppb        3.15234  42.03%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                40.2      0.2457 ug/L       0.15766      0.2457 ppb        0.15766  64.16%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               26.0      0.2115 ug/L       0.04880      0.2115 ppb        0.04880  23.08%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     64.3      3.9081 ug/L       0.40971      3.9081 ppb        0.40971  10.48%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: 243285001|935389|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 30
Date Collected: 1/6/2010 16:42:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243285001|935389|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4652.3	4652.3	99.7	%			16:43:55
1	Y RADIAL	4892.2	4892.2	99.17	%			16:43:55
1	Al 396.153Radial†	15.2	42.0	37.197	ug/L	37.197	ppb	16:43:55
1	Ca 317.933Radial†	7874.9	7888.3	13218	ug/L	13218	ppb	16:43:55
1	Fe 238.204 Radial†	15.4	1.6	13.923	ug/L	13.923	ppb	16:44:15
1	K 766.490 Radial†	11258.6	7958.9	1573.4	ug/L	1573.4	ppb	16:43:55
1	Mg 279.077 IEC†	115.4	114.1	3649.3	ug/L	3649.3	ppb	16:44:15
1	Na 589.592 Radial†	34887.9	36752.9	11102	ug/L	11102	ppb	16:43:55
1	Sr 421.552†	7390.7	7399.1	54.051	ug/L	54.051	ppb	16:43:55
1	Sc 361.383	888491.0	888491.0	100.21	%			16:45:12
1	Y 371.029	755021.9	755021.9	99.116	%			16:45:12
1	Ag 328.068†	480.9	-32.4	-0.3127	ug/L	-0.3127	ppb	16:45:12
1	As 188.979†	-36.2	-2.7	-0.9418	ug/L	-0.9418	ppb	16:45:32
1	B 249.677†	-231.7	434.6	8.9593	ug/L	8.9593	ppb	16:45:32
1	Ba 233.527†	4346.2	4329.5	31.581	ug/L	31.581	ppb	16:45:32
1	Be 313.107†	-4405.0	-44.1	-0.0170	ug/L	-0.0170	ppb	16:45:12
1	Cd 226.502†	-234.1	4.7	0.0515	ug/L	0.0515	ppb	16:45:32
1	Co 228.616†	-76.5	7.7	0.1629	ug/L	0.1629	ppb	16:45:32
1	Cr 267.716†	605.4	500.1	5.0179	ug/L	5.0179	ppb	16:45:32
1	Cu 324.752†	8581.4	564.3	1.6713	ug/L	1.6713	ppb	16:45:12
1	Mn 257.610†	6657.2	6126.7	6.3889	ug/L	6.3889	ppb	16:45:32
1	Mo 202.031†	45.2	25.2	1.5786	ug/L	1.5786	ppb	16:45:32
1	Ni 231.604†	717.6	591.1	12.975	ug/L	12.975	ppb	16:45:32
1	P 214.914†	311.2	62.0	29.741	ug/L	29.741	ppb	16:45:32
1	Pb 220.353†	-89.6	-11.6	-1.1929	ug/L	-1.1929	ppb	16:45:32
1	S 181.975 Axial†	959.0	897.1	1013.8	ug/L	1013.8	ppb	16:45:32
1	Sb 206.836†	43.1	5.9	1.4270	ug/L	1.4270	ppb	16:45:32
1	Se 196.026†	-22.1	11.2	5.7978	ug/L	5.7978	ppb	16:45:32
1	Si 251.611†	1125604.8	1122604.6	32203	ug/L	32203	ppb	16:45:12
1	Sn 189.927†	-103.0	-106.1	-14.329	ug/L	-14.329	ppb	16:45:32
1	Ti 334.940†	-2486.3	-663.7	-0.3674	ug/L	-0.3674	ppb	16:45:12
1	Tl 190.801†	-45.2	8.2	2.2718	ug/L	2.2718	ppb	16:45:32
1	U 409.014†	-2514.2	159.9	4.7414	ug/L	4.7414	ppb	16:45:12
1	V 292.402†	-1004.8	799.1	5.1279	ug/L	5.1279	ppb	16:45:32
1	Zn 213.857†	3516.0	2676.9	21.799	ug/L	21.799	ppb	16:45:32
1	SiO2†	1134182.3	1131144.5	69438	ug/L	69438	ppb	16:46:30
2	Sc Radial	4776.1	4776.1	102	%			16:44:20
2	Y RADIAL	5032.9	5032.9	102.0	%			16:44:20
2	Al 396.153Radial†	-6.1	20.7	18.248	ug/L	18.248	ppb	16:44:20
2	Ca 317.933Radial†	8093.3	7896.9	13233	ug/L	13233	ppb	16:44:20
2	Fe 238.204 Radial†	18.0	3.7	32.571	ug/L	32.571	ppb	16:44:40
2	K 766.490 Radial†	11253.0	7660.6	1514.2	ug/L	1514.2	ppb	16:44:20
2	Mg 279.077 IEC†	117.5	113.1	3617.7	ug/L	3617.7	ppb	16:44:40
2	Na 589.592 Radial†	35940.7	36874.4	11139	ug/L	11139	ppb	16:44:20
2	Sr 421.552†	7531.6	7344.6	53.652	ug/L	53.652	ppb	16:44:20
2	Sc 361.383	891296.2	891296.2	100.53	%			16:45:38
2	Y 371.029	758029.9	758029.9	99.511	%			16:45:38
2	Ag 328.068†	451.9	-62.8	-0.4333	ug/L	-0.4333	ppb	16:45:38
2	As 188.979†	-30.8	2.8	0.9774	ug/L	0.9774	ppb	16:45:58
2	B 249.677†	-227.5	439.5	9.0590	ug/L	9.0590	ppb	16:45:58
2	Ba 233.527†	4335.5	4305.2	31.404	ug/L	31.404	ppb	16:45:58
2	Be 313.107†	-4440.6	-65.7	-0.0240	ug/L	-0.0240	ppb	16:45:38
2	Cd 226.502†	-228.8	10.8	0.1071	ug/L	0.1071	ppb	16:45:58
2	Co 228.616†	-89.9	-5.4	-0.0809	ug/L	-0.0809	ppb	16:45:58
2	Cr 267.716†	586.7	479.5	4.8139	ug/L	4.8139	ppb	16:45:58
2	Cu 324.752†	8560.3	516.2	1.5300	ug/L	1.5300	ppb	16:45:38
2	Mn 257.610†	6702.4	6150.8	6.4166	ug/L	6.4166	ppb	16:45:58
2	Mo 202.031†	65.9	45.6	2.8593	ug/L	2.8593	ppb	16:45:58
2	Ni 231.604†	728.0	599.1	13.151	ug/L	13.151	ppb	16:45:58

2	P 214.914†	304.1	53.9	25.783	ug/L	25.783 ppb	16:45:58
2	Pb 220.353†	-101.6	-23.3	-2.4078	ug/L	-2.4078 ppb	16:45:58
2	S 181.975 Axial†	959.3	894.4	1010.8	ug/L	1010.8 ppb	16:45:58
2	Sb 206.836†	41.3	4.0	0.8364	ug/L	0.8364 ppb	16:45:58
2	Se 196.026†	-35.7	-2.3	-1.0494	ug/L	-1.0494 ppb	16:45:58
2	Si 251.611†	1127048.3	1120505.4	32143	ug/L	32143 ppb	16:45:38
2	Sn 189.927†	-115.3	-118.1	-16.092	ug/L	-16.092 ppb	16:45:58
2	Ti 334.940†	-2406.7	-576.6	-0.2261	ug/L	-0.2261 ppb	16:45:38
2	Tl 190.801†	-56.5	-2.8	-0.7499	ug/L	-0.7499 ppb	16:45:58
2	U 409.014†	-2703.7	-20.7	-0.6293	ug/L	-0.6293 ppb	16:45:38
2	V 292.402†	-1044.8	762.5	4.9022	ug/L	4.9022 ppb	16:45:58
2	Zn 213.857†	3493.4	2643.4	21.523	ug/L	21.523 ppb	16:45:58
2	SiO2†	1141820.5	1135180.4	69686	ug/L	69686 ppb	16:46:35
3	Sc Radial	4745.9	4745.9	102	%		16:44:45
3	Y RADIAL	5008.5	5008.5	101.5	%		16:44:45
3	Al 396.153Radial†	6.9	33.5	29.663	ug/L	29.663 ppb	16:44:45
3	Ca 317.933Radial†	8025.5	7880.5	13205	ug/L	13205 ppb	16:44:45
3	Fe 238.204 Radial†	16.6	2.4	21.268	ug/L	21.268 ppb	16:45:05
3	K 766.490 Radial†	11416.7	7891.6	1560.1	ug/L	1560.1 ppb	16:44:45
3	Mg 279.077 IEC†	124.8	121.1	3871.5	ug/L	3871.5 ppb	16:45:05
3	Na 589.592 Radial†	35413.6	36579.3	11050	ug/L	11050 ppb	16:44:45
3	Sr 421.552†	7440.2	7301.5	53.337	ug/L	53.337 ppb	16:44:45
3	Sc 361.383	888447.7	888447.7	100.21	%		16:46:03
3	Y 371.029	755213.3	755213.3	99.141	%		16:46:03
3	Ag 328.068†	406.1	-107.1	-0.6278	ug/L	-0.6278 ppb	16:46:03
3	As 188.979†	-35.0	-1.6	-0.5517	ug/L	-0.5517 ppb	16:46:23
3	B 249.677†	-208.7	457.6	9.4326	ug/L	9.4326 ppb	16:46:23
3	Ba 233.527†	4375.4	4358.8	31.795	ug/L	31.795 ppb	16:46:23
3	Be 313.107†	-4480.6	-119.8	-0.0426	ug/L	-0.0426 ppb	16:46:03
3	Cd 226.502†	-213.1	25.7	0.2488	ug/L	0.2488 ppb	16:46:23
3	Co 228.616†	-91.7	-7.5	-0.1232	ug/L	-0.1232 ppb	16:46:23
3	Cr 267.716†	611.6	506.3	5.0814	ug/L	5.0814 ppb	16:46:23
3	Cu 324.752†	8662.3	645.4	1.9117	ug/L	1.9117 ppb	16:46:03
3	Mn 257.610†	6721.1	6190.8	6.4530	ug/L	6.4530 ppb	16:46:23
3	Mo 202.031†	44.1	24.1	1.5099	ug/L	1.5099 ppb	16:46:23
3	Ni 231.604†	733.6	607.0	13.325	ug/L	13.325 ppb	16:46:23
3	P 214.914†	300.2	51.0	24.334	ug/L	24.334 ppb	16:46:23
3	Pb 220.353†	-119.7	-41.7	-4.3103	ug/L	-4.3103 ppb	16:46:23
3	S 181.975 Axial†	974.7	912.8	1031.6	ug/L	1031.6 ppb	16:46:23
3	Sb 206.836†	46.5	9.3	2.4148	ug/L	2.4148 ppb	16:46:23
3	Se 196.026†	-25.6	7.7	4.0150	ug/L	4.0150 ppb	16:46:23
3	Si 251.611†	1124608.8	1121665.4	32176	ug/L	32176 ppb	16:46:03
3	Sn 189.927†	-112.1	-115.2	-15.672	ug/L	-15.672 ppb	16:46:23
3	Ti 334.940†	-2486.8	-664.3	-0.3673	ug/L	-0.3673 ppb	16:46:03
3	Tl 190.801†	-41.2	12.3	3.3719	ug/L	3.3719 ppb	16:46:23
3	U 409.014†	-2646.7	27.5	0.8061	ug/L	0.8061 ppb	16:46:03
3	V 292.402†	-1022.6	781.3	5.0112	ug/L	5.0112 ppb	16:46:23
3	Zn 213.857†	3523.2	2684.2	21.850	ug/L	21.850 ppb	16:46:23
3	SiO2†	1128289.9	1125319.4	69080	ug/L	69080 ppb	16:46:41

Mean Data: 243285001|935389|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	889411.7	100.32	%	0.184				0.18%
Sc Radial	4724.7	101	%	1.4				1.37%
Y 371.029	756088.4	99.256	%	0.2211				0.22%
Y RADIAL	4977.9	100.9	%	1.52				1.51%
Ag 328.068†	-67.4	-0.4579	ug/L	0.15901	-0.4579	ppb	0.15901	34.72%
Al 396.153Radial†	32.1	28.369	ug/L	9.5404	28.369	ppb	9.5404	33.63%
As 188.979†	-0.5	-0.1720	ug/L	1.01435	-0.1720	ppb	1.01435	589.72%
B 249.677†	443.9	9.1503	ug/L	0.24950	9.1503	ppb	0.24950	2.73%
Ba 233.527†	4331.2	31.593	ug/L	0.1958	31.593	ppb	0.1958	0.62%
Be 313.107†	-76.6	-0.0279	ug/L	0.01322	-0.0279	ppb	0.01322	47.44%
Ca 317.933Radial†	7888.6	13219	ug/L	13.8	13219	ppb	13.8	0.10%
Cd 226.502†	13.8	0.1358	ug/L	0.10174	0.1358	ppb	0.10174	74.92%
Co 228.616†	-1.8	-0.0137	ug/L	0.15441	-0.0137	ppb	0.15441	>999.9%
Cr 267.716†	495.3	4.9710	ug/L	0.13975	4.9710	ppb	0.13975	2.81%
Cu 324.752†	575.3	1.7043	ug/L	0.19300	1.7043	ppb	0.19300	11.32%
Fe 238.204 Radial†	2.6	22.587	ug/L	9.3934	22.587	ppb	9.3934	41.59%
K 766.490 Radial†	7837.1	1549.2	ug/L	31.07	1549.2	ppb	31.07	2.01%

Mg 279.077 IEC†	116.1	3712.8	ug/L	138.28	3712.8	ppb	138.28	3.72%
Mn 257.610†	6156.1	6.4195	ug/L	0.03216	6.4195	ppb	0.03216	0.50%
Mo 202.031†	31.6	1.9826	ug/L	0.76002	1.9826	ppb	0.76002	38.33%
Na 589.592 Radial†	36735.5	11097	ug/L	44.8	11097	ppb	44.8	0.40%
Ni 231.604†	599.0	13.150	ug/L	0.1748	13.150	ppb	0.1748	1.33%
P 214.914†	55.7	26.619	ug/L	2.7985	26.619	ppb	2.7985	10.51%
Pb 220.353†	-25.5	-2.6370	ug/L	1.57132	-2.6370	ppb	1.57132	59.59%
S 181.975 Axial†	901.4	1018.7	ug/L	11.26	1018.7	ppb	11.26	1.11%
Sb 206.836†	6.4	1.5594	ug/L	0.79747	1.5594	ppb	0.79747	51.14%
Se 196.026†	5.6	2.9211	ug/L	3.55224	2.9211	ppb	3.55224	121.61%
Si 251.611†	1121591.8	32174	ug/L	30.2	32174	ppb	30.2	0.09%
Sn 189.927†	-113.2	-15.364	ug/L	0.9211	-15.364	ppb	0.9211	6.00%
Sr 421.552†	7348.4	53.680	ug/L	0.3580	53.680	ppb	0.3580	0.67%
Ti 334.940†	-634.9	-0.3203	ug/L	0.08156	-0.3203	ppb	0.08156	25.47%
Tl 190.801†	5.9	1.6313	ug/L	2.13424	1.6313	ppb	2.13424	130.83%
U 409.014†	55.6	1.6394	ug/L	2.78066	1.6394	ppb	2.78066	169.61%
V 292.402†	781.0	5.0138	ug/L	0.11285	5.0138	ppb	0.11285	2.25%
Zn 213.857†	2668.2	21.724	ug/L	0.1757	21.724	ppb	0.1757	0.81%
SiO2†	1130548.1	69401	ug/L	304.3	69401	ppb	304.3	0.44%

Sequence No.: 19
Sample ID: 243285002|935389|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 31
Date Collected: 1/6/2010 16:48:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243285002|935389|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4582.6	4582.6	98.2	%			16:50:45
1	Y RADIAL	4854.8	4854.8	98.42	%			16:50:45
1	Al 396.153Radial†	23.2	50.3	44.549	ug/L	44.549	ppb	16:50:45
1	Ca 317.933Radial†	7860.6	7993.7	13395	ug/L	13395	ppb	16:50:45
1	Fe 238.204 Radial†	15.5	1.9	16.738	ug/L	16.738	ppb	16:51:05
1	K 766.490 Radial†	11048.9	7917.0	1565.0	ug/L	1565.0	ppb	16:50:45
1	Mg 279.077 IEC†	119.5	120.0	3838.5	ug/L	3838.5	ppb	16:51:05
1	Na 589.592 Radial†	34915.7	37312.9	11271	ug/L	11271	ppb	16:50:45
1	Sr 421.552†	7272.8	7391.6	53.995	ug/L	53.995	ppb	16:50:45
1	Sc 361.383	877860.5	877860.5	99.013	%			16:52:02
1	Y 371.029	746792.6	746792.6	98.036	%			16:52:02
1	Ag 328.068†	440.1	-67.9	-0.4657	ug/L	-0.4657	ppb	16:52:02
1	As 188.979†	-33.7	-0.7	-0.2421	ug/L	-0.2421	ppb	16:52:22
1	B 249.677†	-246.2	417.2	8.6005	ug/L	8.6005	ppb	16:52:22
1	Ba 233.527†	4223.2	4257.8	31.057	ug/L	31.057	ppb	16:52:22
1	Be 313.107†	-4415.6	-108.1	-0.0390	ug/L	-0.0390	ppb	16:52:02
1	Cd 226.502†	-206.3	30.0	0.2880	ug/L	0.2880	ppb	16:52:22
1	Co 228.616†	-88.8	-5.7	-0.0882	ug/L	-0.0882	ppb	16:52:22
1	Cr 267.716†	443.1	343.5	3.4496	ug/L	3.4496	ppb	16:52:22
1	Cu 324.752†	8022.0	102.9	0.3056	ug/L	0.3056	ppb	16:52:02
1	Mn 257.610†	5683.4	5223.6	5.4341	ug/L	5.4341	ppb	16:52:22
1	Mo 202.031†	46.7	27.2	1.7063	ug/L	1.7063	ppb	16:52:22
1	Ni 231.604†	627.3	508.5	11.162	ug/L	11.162	ppb	16:52:22
1	P 214.914†	292.4	46.7	22.475	ug/L	22.475	ppb	16:52:22
1	Pb 220.353†	-103.6	-26.9	-2.7724	ug/L	-2.7724	ppb	16:52:22
1	S 181.975 Axial†	950.9	900.5	1017.7	ug/L	1017.7	ppb	16:52:22
1	Sb 206.836†	33.3	-3.5	-1.3979	ug/L	-1.3979	ppb	16:52:22
1	Se 196.026†	-41.2	-8.3	-4.1864	ug/L	-4.1864	ppb	16:52:22
1	Si 251.611†	1114678.3	1125171.0	32277	ug/L	32277	ppb	16:52:02
1	Sn 189.927†	-123.7	-128.3	-17.584	ug/L	-17.584	ppb	16:52:22
1	Ti 334.940†	-2598.7	-807.2	-0.5841	ug/L	-0.5841	ppb	16:52:02
1	Tl 190.801†	-63.6	-10.9	-2.9582	ug/L	-2.9582	ppb	16:52:22
1	U 409.014†	-2581.5	61.5	1.8185	ug/L	1.8185	ppb	16:52:02
1	V 292.402†	-1057.3	734.0	4.7199	ug/L	4.7199	ppb	16:52:22
1	Zn 213.857†	3171.3	2371.2	19.293	ug/L	19.293	ppb	16:52:22
1	SiO2†	1128614.2	1139226.4	69934	ug/L	69934	ppb	16:53:19
2	Sc Radial	4731.9	4731.9	101	%			16:51:10
2	Y RADIAL	5032.9	5032.9	102.0	%			16:51:10
2	Al 396.153Radial†	2.7	29.4	25.997	ug/L	25.997	ppb	16:51:10
2	Ca 317.933Radial†	8077.2	7954.7	13329	ug/L	13329	ppb	16:51:10
2	Fe 238.204 Radial†	14.7	0.6	5.5585	ug/L	5.5585	ppb	16:51:30
2	K 766.490 Radial†	11463.2	7970.5	1575.7	ug/L	1575.7	ppb	16:51:10
2	Mg 279.077 IEC†	120.1	116.9	3736.4	ug/L	3736.4	ppb	16:51:30
2	Na 589.592 Radial†	35797.4	37060.5	11195	ug/L	11195	ppb	16:51:10
2	Sr 421.552†	7535.7	7417.2	54.183	ug/L	54.183	ppb	16:51:10
2	Sc 361.383	882283.3	882283.3	99.512	%			16:52:27
2	Y 371.029	751116.0	751116.0	98.603	%			16:52:27
2	Ag 328.068†	432.9	-77.3	-0.5079	ug/L	-0.5079	ppb	16:52:27
2	As 188.979†	-34.7	-1.4	-0.5133	ug/L	-0.5133	ppb	16:52:47
2	B 249.677†	-274.8	389.7	8.0351	ug/L	8.0351	ppb	16:52:47
2	Ba 233.527†	4239.0	4252.3	31.017	ug/L	31.017	ppb	16:52:47
2	Be 313.107†	-4428.5	-98.8	-0.0361	ug/L	-0.0361	ppb	16:52:27
2	Cd 226.502†	-216.0	21.3	0.2071	ug/L	0.2071	ppb	16:52:47
2	Co 228.616†	-79.9	3.7	0.0886	ug/L	0.0886	ppb	16:52:47
2	Cr 267.716†	449.5	347.7	3.4915	ug/L	3.4915	ppb	16:52:47
2	Cu 324.752†	8153.3	194.2	0.5753	ug/L	0.5753	ppb	16:52:27
2	Mn 257.610†	5763.9	5275.8	5.4898	ug/L	5.4898	ppb	16:52:47
2	Mo 202.031†	43.8	24.1	1.5095	ug/L	1.5095	ppb	16:52:47
2	Ni 231.604†	635.8	513.9	11.281	ug/L	11.281	ppb	16:52:47

2	P 214.914†	302.8	55.7	26.844	ug/L	26.844 ppb	16:52:47
2	Pb 220.353†	-78.1	-0.8	-0.0711	ug/L	-0.0711 ppb	16:52:47
2	S 181.975 Axial†	958.3	903.1	1020.6	ug/L	1020.6 ppb	16:52:47
2	Sb 206.836†	45.1	8.3	2.1266	ug/L	2.1266 ppb	16:52:47
2	Se 196.026†	-30.3	2.8	1.4793	ug/L	1.4793 ppb	16:52:47
2	Si 251.611†	1118285.3	1123152.1	32219	ug/L	32219 ppb	16:52:27
2	Sn 189.927†	-113.5	-117.5	-15.993	ug/L	-15.993 ppb	16:52:47
2	Ti 334.940†	-2683.8	-879.6	-0.7015	ug/L	-0.7015 ppb	16:52:27
2	Tl 190.801†	-52.0	1.1	0.3232	ug/L	0.3232 ppb	16:52:47
2	U 409.014†	-2652.7	3.0	0.0822	ug/L	0.0822 ppb	16:52:27
2	V 292.402†	-1084.0	712.5	4.5781	ug/L	4.5781 ppb	16:52:47
2	Zn 213.857†	3177.4	2361.3	19.214	ug/L	19.214 ppb	16:52:47
2	SiO2†	1109885.4	1114691.6	68428	ug/L	68428 ppb	16:53:25
3	Sc Radial	4741.4	4741.4	102	%		16:51:35
3	Y RADIAL	4985.6	4985.6	101.1	%		16:51:35
3	Al 396.153Radial†	10.6	37.2	32.916	ug/L	32.916 ppb	16:51:35
3	Ca 317.933Radial†	8021.3	7883.9	13211	ug/L	13211 ppb	16:51:35
3	Fe 238.204 Radial†	13.7	-0.4	-3.3478	ug/L	-3.3478 ppb	16:51:55
3	K 766.490 Radial†	11416.1	7901.7	1562.1	ug/L	1562.1 ppb	16:51:35
3	Mg 279.077 IEC†	120.7	117.2	3747.8	ug/L	3747.8 ppb	16:51:55
3	Na 589.592 Radial†	35578.7	36774.9	11109	ug/L	11109 ppb	16:51:35
3	Sr 421.552†	7463.9	7331.8	53.558	ug/L	53.558 ppb	16:51:35
3	Sc 361.383	876134.3	876134.3	98.819	%		16:52:53
3	Y 371.029	745122.4	745122.4	97.816	%		16:52:53
3	Ag 328.068†	484.7	-21.9	-0.2695	ug/L	-0.2695 ppb	16:52:53
3	As 188.979†	-25.2	7.9	2.7407	ug/L	2.7407 ppb	16:53:13
3	B 249.677†	-265.4	397.3	8.1926	ug/L	8.1926 ppb	16:53:13
3	Ba 233.527†	4227.6	4270.7	31.151	ug/L	31.151 ppb	16:53:13
3	Be 313.107†	-4403.2	-104.4	-0.0378	ug/L	-0.0378 ppb	16:52:53
3	Cd 226.502†	-206.6	29.3	0.2829	ug/L	0.2829 ppb	16:53:13
3	Co 228.616†	-99.7	-16.9	-0.2983	ug/L	-0.2983 ppb	16:53:13
3	Cr 267.716†	447.0	348.3	3.4979	ug/L	3.4979 ppb	16:53:13
3	Cu 324.752†	8025.9	122.8	0.3635	ug/L	0.3635 ppb	16:52:53
3	Mn 257.610†	5739.2	5291.4	5.5051	ug/L	5.5051 ppb	16:53:13
3	Mo 202.031†	46.4	27.1	1.6953	ug/L	1.6953 ppb	16:53:13
3	Ni 231.604†	616.6	498.9	10.952	ug/L	10.952 ppb	16:53:13
3	P 214.914†	295.2	50.2	24.155	ug/L	24.155 ppb	16:53:13
3	Pb 220.353†	-98.2	-21.6	-2.2256	ug/L	-2.2256 ppb	16:53:13
3	S 181.975 Axial†	967.3	919.0	1038.6	ug/L	1038.6 ppb	16:53:13
3	Sb 206.836†	30.3	-6.4	-2.2778	ug/L	-2.2778 ppb	16:53:13
3	Se 196.026†	-27.7	5.3	2.6928	ug/L	2.6928 ppb	16:53:13
3	Si 251.611†	1111103.4	1123771.4	32237	ug/L	32237 ppb	16:52:53
3	Sn 189.927†	-118.6	-123.4	-16.879	ug/L	-16.879 ppb	16:53:13
3	Ti 334.940†	-2607.6	-821.5	-0.6149	ug/L	-0.6149 ppb	16:52:53
3	Tl 190.801†	-42.6	10.2	2.8146	ug/L	2.8146 ppb	16:53:13
3	U 409.014†	-2675.6	-38.9	-1.1615	ug/L	-1.1615 ppb	16:52:53
3	V 292.402†	-1055.8	733.4	4.7111	ug/L	4.7111 ppb	16:53:13
3	Zn 213.857†	3159.1	2365.2	19.249	ug/L	19.249 ppb	16:53:13
3	SiO2†	1124129.9	1136934.2	69793	ug/L	69793 ppb	16:53:31

Mean Data: 243285002|935389|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	878759.4	99.115	%	0.3577				0.36%
Sc Radial	4685.3	100	%	1.9				1.90%
Y 371.029	747677.0	98.152	%	0.4060				0.41%
Y RADIAL	4957.8	100.5	%	1.87				1.86%
Ag 328.068†	-55.7	-0.4144	ug/L	0.12720	-0.4144	ppb	0.12720	30.70%
Al 396.153Radial†	39.0	34.487	ug/L	9.3750	34.487	ppb	9.3750	27.18%
As 188.979†	1.9	0.6618	ug/L	1.80552	0.6618	ppb	1.80552	272.82%
B 249.677†	401.4	8.2761	ug/L	0.29180	8.2761	ppb	0.29180	3.53%
Ba 233.527†	4260.3	31.075	ug/L	0.0687	31.075	ppb	0.0687	0.22%
Be 313.107†	-103.7	-0.0377	ug/L	0.00147	-0.0377	ppb	0.00147	3.91%
Ca 317.933Radial†	7944.1	13312	ug/L	93.3	13312	ppb	93.3	0.70%
Cd 226.502†	26.8	0.2593	ug/L	0.04532	0.2593	ppb	0.04532	17.48%
Co 228.616†	-6.3	-0.0993	ug/L	0.19367	-0.0993	ppb	0.19367	195.03%
Cr 267.716†	346.5	3.4796	ug/L	0.02621	3.4796	ppb	0.02621	0.75%
Cu 324.752†	140.0	0.4148	ug/L	0.14200	0.4148	ppb	0.14200	34.23%
Fe 238.204 Radial†	0.7	6.3163	ug/L	10.06437	6.3163	ppb	10.06437	159.34%
K 766.490 Radial†	7929.7	1567.6	ug/L	7.16	1567.6	ppb	7.16	0.46%

Mg 279.077 IEC†	118.0	3774.2	ug/L	55.93	3774.2	ppb	55.93	1.48%
Mn 257.610†	5263.6	5.4763	ug/L	0.03740	5.4763	ppb	0.03740	0.68%
Mo 202.031†	26.1	1.6370	ug/L	0.11059	1.6370	ppb	0.11059	6.76%
Na 589.592 Radial†	37049.5	11192	ug/L	81.3	11192	ppb	81.3	0.73%
Ni 231.604†	507.1	11.132	ug/L	0.1668	11.132	ppb	0.1668	1.50%
P 214.914†	50.9	24.491	ug/L	2.2035	24.491	ppb	2.2035	9.00%
Pb 220.353†	-16.4	-1.6897	ug/L	1.42818	-1.6897	ppb	1.42818	84.52%
S 181.975 Axial†	907.5	1025.6	ug/L	11.33	1025.6	ppb	11.33	1.10%
Sb 206.836†	-0.5	-0.5164	ug/L	2.33080	-0.5164	ppb	2.33080	451.38%
Se 196.026†	-0.1	-0.0048	ug/L	3.67189	-0.0048	ppb	3.67189	>999.9%
Si 251.611†	1124031.5	32244	ug/L	29.7	32244	ppb	29.7	0.09%
Sn 189.927†	-123.1	-16.819	ug/L	0.7973	-16.819	ppb	0.7973	4.74%
Sr 421.552†	7380.2	53.912	ug/L	0.3205	53.912	ppb	0.3205	0.59%
Ti 334.940†	-836.1	-0.6335	ug/L	0.06088	-0.6335	ppb	0.06088	9.61%
Tl 190.801†	0.2	0.0598	ug/L	2.89541	0.0598	ppb	2.89541	>999.9%
U 409.014†	8.5	0.2464	ug/L	1.49677	0.2464	ppb	1.49677	607.47%
V 292.402†	726.6	4.6697	ug/L	0.07948	4.6697	ppb	0.07948	1.70%
Zn 213.857†	2365.9	19.252	ug/L	0.0393	19.252	ppb	0.0393	0.20%
SiO2†	1130284.1	69385	ug/L	831.9	69385	ppb	831.9	1.20%

Sequence No.: 20
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/6/2010 16:55:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4685.0	4685.0	100	%			16:57:33
1	Y RADIAL	4955.4	4955.4	100.5	%			16:57:33
1	Al 396.153Radial†	5814.4	5819.6	5139.1	ug/L	5139.1	ppb	16:57:33
1	Ca 317.933Radial†	3117.0	3092.8	5182.6	ug/L	5182.6	ppb	16:57:53
1	Fe 238.204 Radial†	593.1	577.0	5086.2	ug/L	5086.2	ppb	16:57:53
1	K 766.490 Radial†	28822.6	25378.9	5028.8	ug/L	5028.8	ppb	16:57:33
1	Mg 279.077 IEC†	164.1	161.9	5181.3	ug/L	5181.3	ppb	16:57:53
1	Na 589.592 Radial†	33244.0	34870.8	10534	ug/L	10534	ppb	16:57:33
1	Sr 421.552†	72111.5	71828.0	525.85	ug/L	525.85	ppb	16:57:33
1	Sc 361.383	857176.8	857176.8	96.680	%			16:58:52
1	Y 371.029	728322.0	728322.0	95.611	%			16:58:52
1	Ag 328.068†	115653.5	119112.3	514.87	ug/L	514.87	ppb	16:58:52
1	As 188.979†	1405.8	1487.4	525.14	ug/L	525.14	ppb	16:59:12
1	B 249.677†	22967.5	24421.9	501.57	ug/L	501.57	ppb	16:58:52
1	Ba 233.527†	68336.5	70675.5	516.62	ug/L	516.62	ppb	16:58:52
1	Be 313.107†	1479643.0	1534800.8	519.78	ug/L	519.78	ppb	16:58:52
1	Cd 226.502†	52746.4	54795.9	515.91	ug/L	515.91	ppb	16:58:52
1	Co 228.616†	26578.7	27575.3	518.64	ug/L	518.64	ppb	16:59:12
1	Cr 267.716†	49613.5	51213.0	513.95	ug/L	513.95	ppb	16:58:52
1	Cu 324.752†	175417.8	173442.0	513.76	ug/L	513.76	ppb	16:58:52
1	Mn 257.610†	478024.5	493921.9	520.83	ug/L	520.83	ppb	16:58:52
1	Mo 202.031†	8075.9	8333.3	522.54	ug/L	522.54	ppb	16:59:12
1	Ni 231.604†	22919.8	23581.7	517.35	ug/L	517.35	ppb	16:59:12
1	P 214.914†	5429.4	5367.3	2539.1	ug/L	2539.1	ppb	16:59:12
1	Pb 220.353†	4811.9	5054.9	525.28	ug/L	525.28	ppb	16:59:12
1	S 181.975 Axial†	957.0	929.9	1049.9	ug/L	1049.9	ppb	16:59:12
1	Sb 206.836†	1731.6	1754.0	531.57	ug/L	531.57	ppb	16:59:12
1	Se 196.026†	965.2	1031.6	545.97	ug/L	545.97	ppb	16:59:12
1	Si 251.611†	87126.8	89501.9	2555.1	ug/L	2555.1	ppb	16:58:52
1	Sn 189.927†	3402.0	3515.4	520.57	ug/L	520.57	ppb	16:59:12
1	Ti 334.940†	316863.5	329560.9	522.75	ug/L	522.75	ppb	16:58:52
1	Tl 190.801†	1795.1	1910.1	525.18	ug/L	525.18	ppb	16:59:12
1	U 409.014†	13418.0	16547.4	490.30	ug/L	490.30	ppb	16:58:52
1	V 292.402†	76945.0	81388.9	517.91	ug/L	517.91	ppb	16:58:52
1	Zn 213.857†	61564.8	62847.1	512.38	ug/L	512.38	ppb	16:58:52
1	SiO2†	88135.8	90526.1	5530.2	ug/L	5530.2	ppb	17:00:12
2	Sc Radial	4610.4	4610.4	98.8	%			16:57:58
2	Y RADIAL	4911.2	4911.2	99.56	%			16:57:58
2	Al 396.153Radial†	5771.4	5869.8	5184.1	ug/L	5184.1	ppb	16:57:58
2	Ca 317.933Radial†	3107.7	3133.7	5251.0	ug/L	5251.0	ppb	16:58:18
2	Fe 238.204 Radial†	590.3	583.7	5145.0	ug/L	5145.0	ppb	16:58:18
2	K 766.490 Radial†	28366.4	25381.8	5029.4	ug/L	5029.4	ppb	16:57:58
2	Mg 279.077 IEC†	166.4	166.9	5341.2	ug/L	5341.2	ppb	16:58:18
2	Na 589.592 Radial†	32735.8	34892.2	10540	ug/L	10540	ppb	16:57:58
2	Sr 421.552†	71284.3	72153.0	528.23	ug/L	528.23	ppb	16:57:58
2	Sc 361.383	872076.0	872076.0	98.361	%			16:59:20
2	Y 371.029	740502.4	740502.4	97.210	%			16:59:20
2	Ag 328.068†	116471.3	117900.1	509.66	ug/L	509.66	ppb	16:59:20
2	As 188.979†	1394.1	1450.7	512.26	ug/L	512.26	ppb	16:59:40
2	B 249.677†	23265.8	24319.3	499.48	ug/L	499.48	ppb	16:59:20
2	Ba 233.527†	68743.0	69881.2	510.82	ug/L	510.82	ppb	16:59:20
2	Be 313.107†	1488841.1	1518004.9	514.09	ug/L	514.09	ppb	16:59:20
2	Cd 226.502†	52993.7	54115.3	509.48	ug/L	509.48	ppb	16:59:20
2	Co 228.616†	26444.5	26969.2	507.22	ug/L	507.22	ppb	16:59:40
2	Cr 267.716†	49825.3	50551.6	507.32	ug/L	507.32	ppb	16:59:20
2	Cu 324.752†	177131.3	172084.3	509.74	ug/L	509.74	ppb	16:59:20
2	Mn 257.610†	481075.7	488576.6	515.20	ug/L	515.20	ppb	16:59:20
2	Mo 202.031†	8053.4	8167.7	512.17	ug/L	512.17	ppb	16:59:40
2	Ni 231.604†	22808.2	23063.3	505.97	ug/L	505.97	ppb	16:59:40

2	P 214.914†	5394.5	5235.9	2475.5 ug/L	2475.5 ppb	16:59:40
2	Pb 220.353†	4806.7	4964.6	515.91 ug/L	515.91 ppb	16:59:40
2	S 181.975 Axial†	945.6	901.5	1017.8 ug/L	1017.8 ppb	16:59:40
2	Sb 206.836†	1728.2	1719.9	521.11 ug/L	521.11 ppb	16:59:40
2	Se 196.026†	956.6	1005.8	532.93 ug/L	532.93 ppb	16:59:40
2	Si 251.611†	87867.7	88715.5	2532.8 ug/L	2532.8 ppb	16:59:20
2	Sn 189.927†	3383.9	3436.9	508.97 ug/L	508.97 ppb	16:59:40
2	Ti 334.940†	319168.4	326304.8	517.59 ug/L	517.59 ppb	16:59:20
2	Tl 190.801†	1783.9	1867.0	513.41 ug/L	513.41 ppb	16:59:40
2	U 409.014†	13563.6	16458.3	487.66 ug/L	487.66 ppb	16:59:20
2	V 292.402†	77499.4	80592.8	512.77 ug/L	512.77 ppb	16:59:20
2	Zn 213.857†	62029.5	62231.6	507.39 ug/L	507.39 ppb	16:59:20
2	SiO2†	87821.2	88648.8	5415.5 ug/L	5415.5 ppb	17:00:18
3	Sc Radial	4676.5	4676.5	100 %		16:58:23
3	Y RADIAL	4937.4	4937.4	100.1 %		16:58:23
3	Al 396.153Radial†	5908.0	5923.5	5231.9 ug/L	5231.9 ppb	16:58:23
3	Ca 317.933Radial†	3119.4	3101.0	5196.2 ug/L	5196.2 ppb	16:58:43
3	Fe 238.204 Radial†	591.5	576.5	5081.9 ug/L	5081.9 ppb	16:58:43
3	K 766.490 Radial†	28875.7	25484.1	5049.7 ug/L	5049.7 ppb	16:58:23
3	Mg 279.077 IEC†	163.9	161.9	5184.0 ug/L	5184.0 ppb	16:58:43
3	Na 589.592 Radial†	33359.1	35045.9	10587 ug/L	10587 ppb	16:58:23
3	Sr 421.552†	72459.8	72306.3	529.35 ug/L	529.35 ppb	16:58:23
3	Sc 361.383	867285.2	867285.2	97.820 %		16:59:47
3	Y 371.029	736080.6	736080.6	96.629 %		16:59:47
3	Ag 328.068†	115988.3	118060.4	510.33 ug/L	510.33 ppb	16:59:47
3	As 188.979†	1378.7	1442.8	509.49 ug/L	509.49 ppb	17:00:07
3	B 249.677†	23195.5	24378.2	500.70 ug/L	500.70 ppb	16:59:47
3	Ba 233.527†	68328.6	69843.6	510.54 ug/L	510.54 ppb	16:59:47
3	Be 313.107†	1480737.9	1518082.3	514.12 ug/L	514.12 ppb	16:59:47
3	Cd 226.502†	52612.7	54023.4	508.62 ug/L	508.62 ppb	16:59:47
3	Co 228.616†	26248.1	26916.9	506.24 ug/L	506.24 ppb	17:00:07
3	Cr 267.716†	49577.7	50578.3	507.59 ug/L	507.59 ppb	16:59:47
3	Cu 324.752†	176226.0	172153.5	509.94 ug/L	509.94 ppb	16:59:47
3	Mn 257.610†	478107.7	488244.2	514.85 ug/L	514.85 ppb	16:59:47
3	Mo 202.031†	7975.5	8133.3	510.02 ug/L	510.02 ppb	17:00:07
3	Ni 231.604†	22675.8	23056.0	505.81 ug/L	505.81 ppb	17:00:07
3	P 214.914†	5348.0	5218.6	2467.1 ug/L	2467.1 ppb	17:00:07
3	Pb 220.353†	4759.1	4942.9	513.67 ug/L	513.67 ppb	17:00:07
3	S 181.975 Axial†	942.5	903.6	1020.2 ug/L	1020.2 ppb	17:00:07
3	Sb 206.836†	1697.2	1698.0	514.49 ug/L	514.49 ppb	17:00:07
3	Se 196.026†	945.8	1000.1	529.82 ug/L	529.82 ppb	17:00:07
3	Si 251.611†	87458.4	88790.5	2535.0 ug/L	2535.0 ppb	16:59:47
3	Sn 189.927†	3357.4	3428.8	507.77 ug/L	507.77 ppb	17:00:07
3	Ti 334.940†	317274.1	326160.8	517.36 ug/L	517.36 ppb	16:59:47
3	Tl 190.801†	1752.8	1845.3	507.48 ug/L	507.48 ppb	17:00:07
3	U 409.014†	13499.4	16468.9	487.98 ug/L	487.98 ppb	16:59:47
3	V 292.402†	77117.7	80637.8	513.02 ug/L	513.02 ppb	16:59:47
3	Zn 213.857†	61578.1	62118.5	506.47 ug/L	506.47 ppb	16:59:47
3	SiO2†	88484.3	89819.8	5487.4 ug/L	5487.4 ppb	17:00:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	865512.7	97.621	%	0.8579				0.88%
Sc Radial	4657.3	99.8	%	0.87				0.88%
Y 371.029	734968.4	96.483	%	0.8094				0.84%
Y RADIAL	4934.7	100.0	%	0.45				0.45%
Ag 328.068†	118357.6	511.62	ug/L	2.832	511.62	ppb	2.832	0.55%
QC value within limits for Ag 328.068 Recovery = 102.32%								
Al 396.153Radial†	5871.0	5185.1	ug/L	46.39	5185.1	ppb	46.39	0.89%
QC value within limits for Al 396.153Radial Recovery = 103.70%								
As 188.979†	1460.3	515.63	ug/L	8.351	515.63	ppb	8.351	1.62%
QC value within limits for As 188.979 Recovery = 103.13%								
B 249.677†	24373.2	500.59	ug/L	1.052	500.59	ppb	1.052	0.21%
QC value within limits for B 249.677 Recovery = 100.12%								
Ba 233.527†	70133.4	512.66	ug/L	3.432	512.66	ppb	3.432	0.67%
QC value within limits for Ba 233.527 Recovery = 102.53%								
Be 313.107†	1523629.3	516.00	ug/L	3.276	516.00	ppb	3.276	0.63%
QC value within limits for Be 313.107 Recovery = 103.20%								
Ca 317.933Radial†	3109.2	5209.9	ug/L	36.22	5209.9	ppb	36.22	0.70%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.20%
Cd 226.502†            54311.5      511.34 ug/L        3.980      511.34 ppb        3.980   0.78%
   QC value within limits for Cd 226.502  Recovery = 102.27%
Co 228.616†            27153.8      510.70 ug/L        6.891      510.70 ppb        6.891   1.35%
   QC value within limits for Co 228.616  Recovery = 102.14%
Cr 267.716†            50781.0      509.62 ug/L        3.755      509.62 ppb        3.755   0.74%
   QC value within limits for Cr 267.716  Recovery = 101.92%
Cu 324.752†           172559.9      511.15 ug/L        2.263      511.15 ppb        2.263   0.44%
   QC value within limits for Cu 324.752  Recovery = 102.23%
Fe 238.204 Radial†       579.1      5104.4 ug/L       35.24      5104.4 ppb        35.24   0.69%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.09%
K 766.490 Radial†      25414.9      5035.9 ug/L       11.90      5035.9 ppb        11.90   0.24%
   QC value within limits for K 766.490 Radial  Recovery = 100.72%
Mg 279.077 IEC†          163.6      5235.5 ug/L       91.55      5235.5 ppb        91.55   1.75%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.71%
Mn 257.610†           490247.6      516.96 ug/L        3.357      516.96 ppb        3.357   0.65%
   QC value within limits for Mn 257.610  Recovery = 103.39%
Mo 202.031†             8211.4      514.91 ug/L        6.696      514.91 ppb        6.696   1.30%
   QC value within limits for Mo 202.031  Recovery = 102.98%
Na 589.592 Radial†     34936.3       10554 ug/L         28.9       10554 ppb         28.9   0.27%
   QC value within limits for Na 589.592 Radial  Recovery = 105.54%
Ni 231.604†            23233.6      509.71 ug/L        6.613      509.71 ppb        6.613   1.30%
   QC value within limits for Ni 231.604  Recovery = 101.94%
P 214.914†              5273.9      2493.9 ug/L       39.37      2493.9 ppb        39.37   1.58%
   QC value within limits for P 214.914  Recovery = 99.76%
Pb 220.353†             4987.4      518.28 ug/L        6.159      518.28 ppb        6.159   1.19%
   QC value within limits for Pb 220.353  Recovery = 103.66%
S 181.975 Axial†         911.7      1029.3 ug/L       17.91      1029.3 ppb        17.91   1.74%
   QC value within limits for S 181.975 Axial  Recovery = 102.93%
Sb 206.836†             1724.0      522.39 ug/L        8.613      522.39 ppb        8.613   1.65%
   QC value within limits for Sb 206.836  Recovery = 104.48%
Se 196.026†             1012.5      536.24 ug/L        8.568      536.24 ppb        8.568   1.60%
   QC value within limits for Se 196.026  Recovery = 107.25%
Si 251.611†            89002.7      2541.0 ug/L       12.32      2541.0 ppb        12.32   0.48%
   QC value within limits for Si 251.611  Recovery = 101.64%
Sn 189.927†             3460.4      512.44 ug/L        7.070      512.44 ppb        7.070   1.38%
   QC value within limits for Sn 189.927  Recovery = 102.49%
Sr 421.552†            72095.8      527.81 ug/L        1.788      527.81 ppb        1.788   0.34%
   QC value within limits for Sr 421.552  Recovery = 105.56%
Ti 334.940†           327342.2      519.23 ug/L        3.048      519.23 ppb        3.048   0.59%
   QC value within limits for Ti 334.940  Recovery = 103.85%
Tl 190.801†             1874.1      515.36 ug/L        9.012      515.36 ppb        9.012   1.75%
   QC value within limits for Tl 190.801  Recovery = 103.07%
U 409.014†             16491.6      488.65 ug/L        1.442      488.65 ppb        1.442   0.30%
   QC value within limits for U 409.014  Recovery = 97.73%
V 292.402†             80873.1      514.57 ug/L        2.900      514.57 ppb        2.900   0.56%
   QC value within limits for V 292.402  Recovery = 102.91%
Zn 213.857†            62399.1      508.75 ug/L        3.181      508.75 ppb        3.181   0.63%
   QC value within limits for Zn 213.857  Recovery = 101.75%
SiO2†                  89664.9      5477.7 ug/L       58.00      5477.7 ppb        58.00   1.06%
   QC value within limits for SiO2  Recovery = 102.44%
All analyte(s) passed QC.
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Sequence No.: 21
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/6/2010 17:02:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4706.9	4706.9	101	%			17:04:25
1	Y RADIAL	4979.2	4979.2	100.9	%			17:04:25
1	Al 396.153Radial†	-2.9	23.9	21.147	ug/L	21.147	ppb	17:04:25
1	Ca 317.933Radial†	16.4	3.7	6.2530	ug/L	6.2530	ppb	17:04:45
1	Fe 238.204 Radial†	13.5	-0.5	-3.9863	ug/L	-3.9863	ppb	17:04:45
1	K 766.490 Radial†	3334.7	-29.9	-5.9609	ug/L	-5.9609	ppb	17:04:25
1	Mg 279.077 IEC†	-1.0	-2.6	-82.826	ug/L	-82.826	ppb	17:04:45
1	Na 589.592 Radial†	-1520.3	242.5	73.254	ug/L	73.254	ppb	17:04:25
1	Sr 421.552†	9.7	-6.3	-0.0464	ug/L	-0.0464	ppb	17:04:25
1	Sc 361.383	886072.0	886072.0	99.939	%			17:05:42
1	Y 371.029	759683.3	759683.3	99.728	%			17:05:42
1	Ag 328.068†	540.0	28.0	0.1129	ug/L	0.1129	ppb	17:05:47
1	As 188.979†	-29.8	3.6	1.2429	ug/L	1.2429	ppb	17:06:07
1	B 249.677†	-607.3	58.2	1.2002	ug/L	1.2002	ppb	17:05:47
1	Ba 233.527†	2.1	-5.4	-0.0396	ug/L	-0.0396	ppb	17:06:07
1	Be 313.107†	-4281.0	67.9	0.0232	ug/L	0.0232	ppb	17:05:47
1	Cd 226.502†	-241.6	-3.4	-0.0318	ug/L	-0.0318	ppb	17:06:07
1	Co 228.616†	-87.2	-3.3	-0.0602	ug/L	-0.0602	ppb	17:06:07
1	Cr 267.716†	50.5	-53.5	-0.5382	ug/L	-0.5382	ppb	17:05:47
1	Cu 324.752†	8143.5	149.4	0.4422	ug/L	0.4422	ppb	17:05:47
1	Mn 257.610†	520.1	4.0	0.0054	ug/L	0.0054	ppb	17:05:47
1	Mo 202.031†	32.0	12.1	0.7581	ug/L	0.7581	ppb	17:06:07
1	Ni 231.604†	97.3	-27.7	-0.6087	ug/L	-0.6087	ppb	17:06:07
1	P 214.914†	259.2	10.8	5.1901	ug/L	5.1901	ppb	17:06:07
1	Pb 220.353†	-97.4	-19.7	-2.0349	ug/L	-2.0349	ppb	17:06:07
1	S 181.975 Axial†	65.4	5.5	6.2130	ug/L	6.2130	ppb	17:06:07
1	Sb 206.836†	38.3	1.3	0.4209	ug/L	0.4209	ppb	17:06:07
1	Se 196.026†	-38.4	-5.2	-2.6718	ug/L	-2.6718	ppb	17:06:07
1	Si 251.611†	675.6	59.4	1.6909	ug/L	1.6909	ppb	17:06:07
1	Sn 189.927†	7.7	4.3	0.6391	ug/L	0.6391	ppb	17:06:07
1	Ti 334.940†	-1724.0	92.3	0.1438	ug/L	0.1438	ppb	17:05:47
1	Tl 190.801†	-39.7	13.7	3.7364	ug/L	3.7364	ppb	17:06:07
1	U 409.014†	-2424.8	242.5	7.2094	ug/L	7.2094	ppb	17:05:42
1	V 292.402†	-1792.6	8.1	0.0745	ug/L	0.0745	ppb	17:05:47
1	Zn 213.857†	833.9	2.8	0.0292	ug/L	0.0292	ppb	17:06:07
1	SiO2†	704.4	68.8	4.1969	ug/L	4.1969	ppb	17:07:13
2	Sc Radial	4402.0	4402.0	94.3	%			17:04:50
2	Y RADIAL	4656.6	4656.6	94.40	%			17:04:50
2	Al 396.153Radial†	-12.6	13.3	11.791	ug/L	11.791	ppb	17:04:50
2	Ca 317.933Radial†	18.3	6.8	11.402	ug/L	11.402	ppb	17:05:10
2	Fe 238.204 Radial†	13.1	0.1	0.5926	ug/L	0.5926	ppb	17:05:10
2	K 766.490 Radial†	3385.7	253.2	50.250	ug/L	50.250	ppb	17:04:50
2	Mg 279.077 IEC†	1.2	-0.3	-10.798	ug/L	-10.798	ppb	17:05:10
2	Na 589.592 Radial†	-1515.0	143.7	43.422	ug/L	43.422	ppb	17:04:50
2	Sr 421.552†	18.4	3.5	0.0258	ug/L	0.0258	ppb	17:04:50
2	Sc 361.383	876925.8	876925.8	98.908	%			17:06:12
2	Y 371.029	752304.2	752304.2	98.759	%			17:06:12
2	Ag 328.068†	562.4	56.3	0.2414	ug/L	0.2414	ppb	17:06:17
2	As 188.979†	-27.2	6.0	2.0842	ug/L	2.0842	ppb	17:06:37
2	B 249.677†	-672.6	-14.2	-0.2933	ug/L	-0.2933	ppb	17:06:17
2	Ba 233.527†	-4.6	-12.2	-0.0883	ug/L	-0.0883	ppb	17:06:37
2	Be 313.107†	-4363.8	-60.5	-0.0205	ug/L	-0.0205	ppb	17:06:17
2	Cd 226.502†	-244.2	-8.5	-0.0805	ug/L	-0.0805	ppb	17:06:37
2	Co 228.616†	-83.0	0.1	0.0030	ug/L	0.0030	ppb	17:06:37
2	Cr 267.716†	83.6	-19.5	-0.1953	ug/L	-0.1953	ppb	17:06:17
2	Cu 324.752†	8037.2	127.0	0.3759	ug/L	0.3759	ppb	17:06:17
2	Mn 257.610†	475.7	-35.5	-0.0371	ug/L	-0.0371	ppb	17:06:17
2	Mo 202.031†	27.8	8.2	0.5141	ug/L	0.5141	ppb	17:06:37
2	Ni 231.604†	117.3	-6.5	-0.1426	ug/L	-0.1426	ppb	17:06:37

2	P 214.914†	242.8	-3.1	-1.5662 ug/L	-1.5662 ppb	17:06:37
2	Pb 220.353†	-93.9	-17.1	-1.7709 ug/L	-1.7709 ppb	17:06:37
2	S 181.975 Axial†	61.1	1.9	2.1724 ug/L	2.1724 ppb	17:06:37
2	Sb 206.836†	33.9	-2.8	-0.8123 ug/L	-0.8123 ppb	17:06:37
2	Se 196.026†	-37.0	-4.1	-2.1082 ug/L	-2.1082 ppb	17:06:37
2	Si 251.611†	652.6	43.2	1.2151 ug/L	1.2151 ppb	17:06:37
2	Sn 189.927†	2.9	-0.5	-0.0727 ug/L	-0.0727 ppb	17:06:37
2	Ti 334.940†	-1806.2	-8.8	-0.0142 ug/L	-0.0142 ppb	17:06:17
2	Tl 190.801†	-49.8	3.1	0.8415 ug/L	0.8415 ppb	17:06:37
2	U 409.014†	-2573.7	66.6	1.9804 ug/L	1.9804 ppb	17:06:12
2	V 292.402†	-1734.5	48.2	0.3134 ug/L	0.3134 ppb	17:06:17
2	Zn 213.857†	846.5	24.2	0.1994 ug/L	0.1994 ppb	17:06:37
2	SiO2†	699.4	71.1	4.3074 ug/L	4.3074 ppb	17:07:18
3	Sc Radial	4626.0	4626.0	99.1 %		17:05:15
3	Y RADIAL	4914.5	4914.5	99.63 %		17:05:15
3	Al 396.153Radial†	-16.5	10.0	8.8864 ug/L	8.8864 ppb	17:05:15
3	Ca 317.933Radial†	21.1	8.7	14.579 ug/L	14.579 ppb	17:05:35
3	Fe 238.204 Radial†	10.7	-3.0	-26.696 ug/L	-26.696 ppb	17:05:35
3	K 766.490 Radial†	3443.7	138.0	27.358 ug/L	27.358 ppb	17:05:15
3	Mg 279.077 IEC†	0.0	-1.6	-51.916 ug/L	-51.916 ppb	17:05:35
3	Na 589.592 Radial†	-1483.7	253.0	76.436 ug/L	76.436 ppb	17:05:15
3	Sr 421.552†	-22.5	-38.7	-0.2832 ug/L	-0.2832 ppb	17:05:15
3	Sc 361.383	886977.7	886977.7	100.04 %		17:06:42
3	Y 371.029	760417.0	760417.0	99.824 %		17:06:42
3	Ag 328.068†	480.1	-32.5	-0.1464 ug/L	-0.1464 ppb	17:06:47
3	As 188.979†	-22.7	10.7	3.7513 ug/L	3.7513 ppb	17:07:07
3	B 249.677†	-697.4	-31.2	-0.6403 ug/L	-0.6403 ppb	17:06:47
3	Ba 233.527†	-8.8	-16.3	-0.1181 ug/L	-0.1181 ppb	17:07:07
3	Be 313.107†	-4350.2	3.1	0.0011 ug/L	0.0011 ppb	17:06:47
3	Cd 226.502†	-258.9	-20.4	-0.1898 ug/L	-0.1898 ppb	17:07:07
3	Co 228.616†	-92.3	-8.3	-0.1551 ug/L	-0.1551 ppb	17:07:07
3	Cr 267.716†	77.6	-26.5	-0.2651 ug/L	-0.2651 ppb	17:06:47
3	Cu 324.752†	7905.5	-96.8	-0.2880 ug/L	-0.2880 ppb	17:06:47
3	Mn 257.610†	527.2	10.5	0.0094 ug/L	0.0094 ppb	17:06:47
3	Mo 202.031†	25.0	5.0	0.3129 ug/L	0.3129 ppb	17:07:07
3	Ni 231.604†	116.3	-8.8	-0.1923 ug/L	-0.1923 ppb	17:07:07
3	P 214.914†	256.2	7.6	3.7652 ug/L	3.7652 ppb	17:07:07
3	Pb 220.353†	-69.9	7.9	0.8237 ug/L	0.8237 ppb	17:07:07
3	S 181.975 Axial†	70.1	10.2	11.501 ug/L	11.501 ppb	17:07:07
3	Sb 206.836†	54.5	17.4	5.2316 ug/L	5.2316 ppb	17:07:07
3	Se 196.026†	-33.0	0.2	0.0453 ug/L	0.0453 ppb	17:07:07
3	Si 251.611†	658.4	41.6	1.1755 ug/L	1.1755 ppb	17:07:07
3	Sn 189.927†	9.6	6.2	0.9136 ug/L	0.9136 ppb	17:07:07
3	Ti 334.940†	-1814.0	4.1	0.0072 ug/L	0.0072 ppb	17:06:47
3	Tl 190.801†	-46.2	7.2	1.9728 ug/L	1.9728 ppb	17:07:07
3	U 409.014†	-2654.3	15.5	0.4659 ug/L	0.4659 ppb	17:06:42
3	V 292.402†	-1699.4	103.1	0.6558 ug/L	0.6558 ppb	17:06:47
3	Zn 213.857†	848.8	16.7	0.1422 ug/L	0.1422 ppb	17:07:07
3	SiO2†	634.3	-2.0	-0.1608 ug/L	-0.1608 ppb	17:07:23

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	883325.2	99.630	%	0.6272				0.63%
Sc Radial	4578.3	98.1	%	3.38				3.45%
Y 371.029	757468.2	99.437	%	0.5891				0.59%
Y RADIAL	4850.1	98.32	%	3.459				3.52%
Ag 328.068†	17.3	0.0693	ug/L	0.19754	0.0693	ppb	0.19754	285.15%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	15.7	13.941	ug/L	6.4067	13.941	ppb	6.4067	45.96%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	6.7	2.3594	ug/L	1.27665	2.3594	ppb	1.27665	54.11%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	4.2	0.0889	ug/L	0.97798	0.0889	ppb	0.97798	>999.9%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-11.3	-0.0820	ug/L	0.03958	-0.0820	ppb	0.03958	48.28%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	3.5	0.0013	ug/L	0.02186	0.0013	ppb	0.02186	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.4	10.745	ug/L	4.2019	10.745	ppb	4.2019	39.11%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -10.8     -0.1007 ug/L       0.08093     -0.1007 ppb        0.08093  80.36%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -3.8     -0.0708 ug/L       0.07956     -0.0708 ppb        0.07956 112.39%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -33.2     -0.3329 ug/L       0.18120     -0.3329 ppb        0.18120  54.44%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               59.9      0.1767 ug/L       0.40378      0.1767 ppb        0.40378 228.49%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -1.1     -10.030 ug/L       14.6139     -10.030 ppb        14.6139 145.70%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        120.4      23.882 ug/L       28.2660      23.882 ppb        28.2660 118.36%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.5     -48.514 ug/L       36.1343     -48.514 ppb        36.1343  74.48%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -7.0     -0.0074 ug/L       0.02577     -0.0074 ppb        0.02577 345.87%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                8.4      0.5284 ug/L       0.22294      0.5284 ppb        0.22294  42.19%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       213.1      64.371 ug/L       18.2116      64.371 ppb        18.2116  28.29%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -14.3     -0.3145 ug/L       0.25592     -0.3145 ppb        0.25592  81.36%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 5.1      2.4631 ug/L       3.56139      2.4631 ppb        3.56139 144.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -9.6     -0.9940 ug/L       1.57975     -0.9940 ppb        1.57975 158.92%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           5.9      6.6289 ug/L       4.67831      6.6289 ppb        4.67831  70.57%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.3      1.6134 ug/L       3.19355      1.6134 ppb        3.19355 197.94%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.0     -1.5782 ug/L       1.43398     -1.5782 ppb        1.43398  90.86%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               48.1      1.3605 ug/L       0.28681      1.3605 ppb        0.28681  21.08%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.3      0.4933 ug/L       0.50904      0.4933 ppb        0.50904 103.18%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -13.8     -0.1013 ug/L       0.16166     -0.1013 ppb        0.16166 159.62%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               29.2      0.0456 ug/L       0.08571      0.0456 ppb        0.08571 187.98%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                8.0      2.1836 ug/L       1.45894      2.1836 ppb        1.45894  66.81%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               108.2      3.2186 ug/L       3.53814      3.2186 ppb        3.53814 109.93%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                53.1      0.3479 ug/L       0.29219      0.3479 ppb        0.29219  83.99%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               14.6      0.1236 ug/L       0.08660      0.1236 ppb        0.08660  70.05%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     46.0      2.7812 ug/L       2.54842      2.7812 ppb        2.54842  91.63%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 23
Sample ID: 1202001502|935389|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 33
Date Collected: 1/6/2010 17:16:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202001502|935389|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4522.9	4522.9	96.9	%			17:18:53
1	Y RADIAL	4749.9	4749.9	96.29	%			17:18:53
1	Al 396.153Radial†	29.2	56.8	50.148	ug/L	50.148	ppb	17:18:53
1	Ca 317.933Radial†	41862.8	43189.0	72370	ug/L	72370	ppb	17:18:33
1	Fe 238.204 Radial†	2219.5	2276.6	20005	ug/L	20005	ppb	17:18:53
1	K 766.490 Radial†	47328.4	45505.1	8859.3	ug/L	8859.3	ppb	17:18:33
1	Mg 279.077 IEC†	488.6	502.6	16054	ug/L	16054	ppb	17:18:53
1	Na 589.592 Radial†	68493.3	72433.7	21881	ug/L	21881	ppb	17:18:33
1	Sr 421.552†	65586.1	67667.4	494.77	ug/L	494.77	ppb	17:18:33
1	Sc 361.383	849843.9	849843.9	95.853	%			17:19:56
1	Y 371.029	721772.2	721772.2	94.751	%			17:19:56
1	Ag 328.068†	-315.9	-841.9	2.0258	ug/L	2.0258	ppb	17:19:56
1	As 188.979†	-24.4	8.0	5.7945	ug/L	5.7945	ppb	17:20:16
1	B 249.677†	818.1	1519.3	28.609	ug/L	28.609	ppb	17:19:56
1	Ba 233.527†	65340.2	68159.4	497.51	ug/L	497.51	ppb	17:19:56
1	Be 313.107†	-4371.0	-208.6	-0.0858	ug/L	-0.0858	ppb	17:19:56
1	Cd 226.502†	-55.5	180.5	-0.2934	ug/L	-0.2934	ppb	17:20:16
1	Co 228.616†	1235.0	1372.4	25.768	ug/L	25.768	ppb	17:20:16
1	Cr 267.716†	681.8	607.3	6.4496	ug/L	6.4496	ppb	17:19:56
1	Cu 324.752†	7477.1	-198.5	0.4328	ug/L	0.4328	ppb	17:19:56
1	Mn 257.610†	11458645.2	11953849.0	12597	ug/L	12597	ppb	17:19:50
1	Mo 202.031†	110.7	95.6	7.9054	ug/L	7.9054	ppb	17:20:16
1	Ni 231.604†	583.5	483.7	10.602	ug/L	10.602	ppb	17:20:16
1	P 214.914†	434.6	204.9	83.234	ug/L	83.234	ppb	17:20:16
1	Pb 220.353†	-83.6	-9.4	-2.5934	ug/L	-2.5934	ppb	17:20:16
1	S 181.975 Axial†	1383.4	1383.4	1563.4	ug/L	1563.4	ppb	17:20:16
1	Sb 206.836†	46.3	11.2	2.9245	ug/L	2.9245	ppb	17:20:16
1	Se 196.026†	-136.2	-108.9	5.8243	ug/L	5.8243	ppb	17:20:16
1	Si 251.611†	584219.1	608876.8	17464	ug/L	17464	ppb	17:19:56
1	Sn 189.927†	-283.2	-298.8	-36.424	ug/L	-36.424	ppb	17:20:16
1	Ti 334.940†	-6438.3	-4899.4	-3.9966	ug/L	-3.9966	ppb	17:19:56
1	Tl 190.801†	-336.1	-297.3	-7.6021	ug/L	-7.6021	ppb	17:20:16
1	U 409.014†	-2849.3	-303.9	-11.562	ug/L	-11.562	ppb	17:19:56
1	V 292.402†	-1374.5	367.8	-0.2972	ug/L	-0.2972	ppb	17:19:56
1	Zn 213.857†	1666.2	906.6	5.8004	ug/L	5.8004	ppb	17:20:16
1	SiO2†	596058.2	621208.7	38128	ug/L	38128	ppb	17:21:25
2	Sc Radial	4527.2	4527.2	97.0	%			17:19:18
2	Y RADIAL	4766.1	4766.1	96.62	%			17:19:18
2	Al 396.153Radial†	-1.4	25.2	22.081	ug/L	22.081	ppb	17:19:18
2	Ca 317.933Radial†	41799.7	43083.1	72193	ug/L	72193	ppb	17:18:58
2	Fe 238.204 Radial†	2216.6	2271.5	19960	ug/L	19960	ppb	17:19:18
2	K 766.490 Radial†	47339.9	45471.0	8854.3	ug/L	8854.3	ppb	17:18:58
2	Mg 279.077 IEC†	478.6	491.8	15707	ug/L	15707	ppb	17:19:18
2	Na 589.592 Radial†	68445.9	72318.2	21846	ug/L	21846	ppb	17:18:58
2	Sr 421.552†	65640.3	67659.5	494.71	ug/L	494.71	ppb	17:18:58
2	Sc 361.383	860336.1	860336.1	97.037	%			17:20:28
2	Y 371.029	731500.3	731500.3	96.028	%			17:20:28
2	Ag 328.068†	-337.6	-860.3	1.9344	ug/L	1.9344	ppb	17:20:28
2	As 188.979†	-28.8	3.7	4.2912	ug/L	4.2912	ppb	17:20:48
2	B 249.677†	885.6	1578.5	29.835	ug/L	29.835	ppb	17:20:28
2	Ba 233.527†	66061.8	68071.7	496.87	ug/L	496.87	ppb	17:20:28
2	Be 313.107†	-4385.4	-167.8	-0.0718	ug/L	-0.0718	ppb	17:20:28
2	Cd 226.502†	-56.9	179.7	-0.2960	ug/L	-0.2960	ppb	17:20:48
2	Co 228.616†	1248.6	1370.7	25.739	ug/L	25.739	ppb	17:20:48
2	Cr 267.716†	746.7	665.4	7.0311	ug/L	7.0311	ppb	17:20:28
2	Cu 324.752†	7474.4	-296.3	0.1409	ug/L	0.1409	ppb	17:20:28
2	Mn 257.610†	11466906.6	11816573.2	12452	ug/L	12452	ppb	17:20:22
2	Mo 202.031†	130.0	114.1	9.0585	ug/L	9.0585	ppb	17:20:48
2	Ni 231.604†	582.5	475.2	10.415	ug/L	10.415	ppb	17:20:48

2	P 214.914†	439.5	204.4	83.100	ug/L	83.100 ppb	17:20:48
2	Pb 220.353†	-73.0	2.5	-1.3559	ug/L	-1.3559 ppb	17:20:48
2	S 181.975 Axial†	1410.4	1393.6	1575.0	ug/L	1575.0 ppb	17:20:48
2	Sb 206.836†	37.4	1.4	0.0345	ug/L	0.0345 ppb	17:20:48
2	Se 196.026†	-135.7	-106.6	6.8618	ug/L	6.8618 ppb	17:20:48
2	Si 251.611†	590287.7	607697.6	17430	ug/L	17430 ppb	17:20:28
2	Sn 189.927†	-276.2	-288.0	-34.845	ug/L	-34.845 ppb	17:20:48
2	Ti 334.940†	-6469.2	-4849.4	-3.9281	ug/L	-3.9281 ppb	17:20:28
2	Tl 190.801†	-332.2	-289.0	-6.1874	ug/L	-6.1874 ppb	17:20:48
2	U 409.014†	-2779.8	-196.0	-8.3505	ug/L	-8.3505 ppb	17:20:28
2	V 292.402†	-1291.5	470.9	0.3715	ug/L	0.3715 ppb	17:20:28
2	Zn 213.857†	1675.7	895.2	5.7229	ug/L	5.7229 ppb	17:20:48
2	SiO2†	589682.1	607054.1	37259	ug/L	37259 ppb	17:21:31
3	Sc Radial	4570.0	4570.0	97.9	%		17:19:43
3	Y RADIAL	4799.9	4799.9	97.30	%		17:19:43
3	Al 396.153Radial†	22.6	49.8	43.825	ug/L	43.825 ppb	17:19:43
3	Ca 317.933Radial†	42583.3	43479.8	72858	ug/L	72858 ppb	17:19:23
3	Fe 238.204 Radial†	2219.1	2252.6	19794	ug/L	19794 ppb	17:19:43
3	K 766.490 Radial†	48307.6	46002.1	8952.2	ug/L	8952.2 ppb	17:19:23
3	Mg 279.077 IEC†	485.7	494.4	15791	ug/L	15791 ppb	17:19:43
3	Na 589.592 Radial†	69591.7	72827.4	22000	ug/L	22000 ppb	17:19:23
3	Sr 421.552†	66740.5	68149.3	498.29	ug/L	498.29 ppb	17:19:23
3	Sc 361.383	831215.7	831215.7	93.752	%		17:20:59
3	Y 371.029	705697.2	705697.2	92.641	%		17:20:59
3	Ag 328.068†	-270.6	-801.0	2.1243	ug/L	2.1243 ppb	17:20:59
3	As 188.979†	-23.3	8.6	5.9812	ug/L	5.9812 ppb	17:21:19
3	B 249.677†	840.5	1562.3	29.522	ug/L	29.522 ppb	17:20:59
3	Ba 233.527†	66168.3	70570.4	515.08	ug/L	515.08 ppb	17:20:59
3	Be 313.107†	-4227.9	-158.1	-0.0689	ug/L	-0.0689 ppb	17:20:59
3	Cd 226.502†	-54.4	180.3	-0.2732	ug/L	-0.2732 ppb	17:21:19
3	Co 228.616†	1225.4	1391.1	26.134	ug/L	26.134 ppb	17:21:19
3	Cr 267.716†	762.1	708.9	7.4635	ug/L	7.4635 ppb	17:20:59
3	Cu 324.752†	7375.6	-131.8	0.6193	ug/L	0.6193 ppb	17:20:59
3	Mn 257.610†	11608474.2	12381568.8	13048	ug/L	13048 ppb	17:20:54
3	Mo 202.031†	124.1	112.4	8.9412	ug/L	8.9412 ppb	17:21:19
3	Ni 231.604†	589.9	504.2	11.051	ug/L	11.051 ppb	17:21:19
3	P 214.914†	441.3	222.2	91.800	ug/L	91.800 ppb	17:21:19
3	Pb 220.353†	-77.7	-5.1	-2.1272	ug/L	-2.1272 ppb	17:21:19
3	S 181.975 Axial†	1371.8	1403.3	1586.0	ug/L	1586.0 ppb	17:21:19
3	Sb 206.836†	46.4	12.4	3.2477	ug/L	3.2477 ppb	17:21:19
3	Se 196.026†	-144.5	-120.9	-0.9592	ug/L	-0.9592 ppb	17:21:19
3	Si 251.611†	589643.5	628322.0	18021	ug/L	18021 ppb	17:20:59
3	Sn 189.927†	-282.5	-304.7	-37.246	ug/L	-37.246 ppb	17:21:19
3	Ti 334.940†	-6341.6	-4946.8	-4.0456	ug/L	-4.0456 ppb	17:20:59
3	Tl 190.801†	-340.9	-310.3	-8.5140	ug/L	-8.5140 ppb	17:21:19
3	U 409.014†	-2864.2	-386.4	-13.991	ug/L	-13.991 ppb	17:20:59
3	V 292.402†	-1406.0	302.2	-0.6732	ug/L	-0.6732 ppb	17:20:59
3	Zn 213.857†	1693.8	975.0	6.3801	ug/L	6.3801 ppb	17:21:19
3	SiO2†	590796.9	629532.7	38639	ug/L	38639 ppb	17:21:36

Mean Data: 1202001502|935389|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	847131.9	95.547	%	1.6635				1.74%
Sc Radial	4540.1	97.3	%	0.56				0.57%
Y 371.029	719656.6	94.473	%	1.7107				1.81%
Y RADIAL	4772.0	96.74	%	0.517				0.53%
Ag 328.068†	-834.4	2.0282	ug/L	0.09498	2.0282	ppb	0.09498	4.68%
Al 396.153Radial†	43.9	38.685	ug/L	14.7226	38.685	ppb	14.7226	38.06%
As 188.979†	6.8	5.3556	ug/L	0.92658	5.3556	ppb	0.92658	17.30%
B 249.677†	1553.4	29.322	ug/L	0.6371	29.322	ppb	0.6371	2.17%
Ba 233.527†	68933.8	503.15	ug/L	10.336	503.15	ppb	10.336	2.05%
Be 313.107†	-178.2	-0.0755	ug/L	0.00902	-0.0755	ppb	0.00902	11.95%
Ca 317.933Radial†	43250.6	72474	ug/L	344.2	72474	ppb	344.2	0.47%
Cd 226.502†	180.2	-0.2875	ug/L	0.01250	-0.2875	ppb	0.01250	4.35%
Co 228.616†	1378.0	25.880	ug/L	0.2199	25.880	ppb	0.2199	0.85%
Cr 267.716†	660.5	6.9814	ug/L	0.50877	6.9814	ppb	0.50877	7.29%
Cu 324.752†	-208.9	0.3977	ug/L	0.24117	0.3977	ppb	0.24117	60.65%
Fe 238.204 Radial†	2266.9	19920	ug/L	111.3	19920	ppb	111.3	0.56%
K 766.490 Radial†	45659.4	8888.6	ug/L	55.14	8888.6	ppb	55.14	0.62%

Mg 279.077 IEC†	496.3	15851	ug/L	180.6	15851	ppb	180.6	1.14%
Mn 257.610†	12050663.7	12699	ug/L	310.5	12699	ppb	310.5	2.44%
Mo 202.031†	107.4	8.6351	ug/L	0.63458	8.6351	ppb	0.63458	7.35%
Na 589.592 Radial†	72526.4	21909	ug/L	80.6	21909	ppb	80.6	0.37%
Ni 231.604†	487.7	10.690	ug/L	0.3267	10.690	ppb	0.3267	3.06%
P 214.914†	210.5	86.045	ug/L	4.9845	86.045	ppb	4.9845	5.79%
Pb 220.353†	-4.0	-2.0255	ug/L	0.62495	-2.0255	ppb	0.62495	30.85%
S 181.975 Axial†	1393.4	1574.8	ug/L	11.27	1574.8	ppb	11.27	0.72%
Sb 206.836†	8.4	2.0689	ug/L	1.76922	2.0689	ppb	1.76922	85.52%
Se 196.026†	-112.1	3.9090	ug/L	4.24770	3.9090	ppb	4.24770	108.67%
Si 251.611†	614965.5	17638	ug/L	332.2	17638	ppb	332.2	1.88%
Sn 189.927†	-297.2	-36.171	ug/L	1.2203	-36.171	ppb	1.2203	3.37%
Sr 421.552†	67825.4	495.92	ug/L	2.051	495.92	ppb	2.051	0.41%
Ti 334.940†	-4898.6	-3.9901	ug/L	0.05901	-3.9901	ppb	0.05901	1.48%
Tl 190.801†	-298.8	-7.4345	ug/L	1.17230	-7.4345	ppb	1.17230	15.77%
U 409.014†	-295.4	-11.301	ug/L	2.8291	-11.301	ppb	2.8291	25.03%
V 292.402†	380.3	-0.1996	ug/L	0.52911	-0.1996	ppb	0.52911	265.05%
Zn 213.857†	925.6	5.9678	ug/L	0.35915	5.9678	ppb	0.35915	6.02%
SiO2†	619265.2	38009	ug/L	697.6	38009	ppb	697.6	1.84%

Sequence No.: 24
Sample ID: 1202001503|935389|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 34
Date Collected: 1/6/2010 17:23:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202001503|935389|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4510.3	4510.3	96.6	%			17:25:59
1	Y RADIAL	4726.9	4726.9	95.82	%			17:25:59
1	Al 396.153Radial†	5843.8	6074.3	5365.0	ug/L	5365.0	ppb	17:25:39
1	Ca 317.933Radial†	45269.4	46835.7	78481	ug/L	78481	ppb	17:25:39
1	Fe 238.204 Radial†	2787.8	2871.1	25245	ug/L	25245	ppb	17:25:59
1	K 766.490 Radial†	73431.4	72655.6	14240	ug/L	14240	ppb	17:25:39
1	Mg 279.077 IEC†	642.3	663.0	21189	ug/L	21189	ppb	17:25:59
1	Na 589.592 Radial†	86569.6	91338.8	27592	ug/L	27592	ppb	17:25:39
1	Sr 421.552†	136992.6	141754.3	1037.2	ug/L	1037.2	ppb	17:25:39
1	Sc 361.383	849311.6	849311.6	95.793	%			17:27:04
1	Y 371.029	718462.7	718462.7	94.317	%			17:27:04
1	Ag 328.068†	114854.2	119385.7	521.74	ug/L	521.74	ppb	17:27:04
1	As 188.979†	1416.1	1511.7	536.69	ug/L	536.69	ppb	17:27:24
1	B 249.677†	24832.0	26588.4	543.54	ug/L	543.54	ppb	17:27:04
1	Ba 233.527†	132784.8	138608.7	1012.5	ug/L	1012.5	ppb	17:27:04
1	Be 313.107†	1481199.0	1550598.1	525.12	ug/L	525.12	ppb	17:27:04
1	Cd 226.502†	51073.2	53554.5	502.20	ug/L	502.20	ppb	17:27:04
1	Co 228.616†	26885.8	28150.5	529.40	ug/L	529.40	ppb	17:27:24
1	Cr 267.716†	49277.9	51338.0	515.58	ug/L	515.58	ppb	17:27:04
1	Cu 324.752†	180855.9	180799.2	536.57	ug/L	536.57	ppb	17:27:04
1	Mn 257.610†	12054752.0	12583626.2	13261	ug/L	13261	ppb	17:26:57
1	Mo 202.031†	8052.9	8386.6	527.82	ug/L	527.82	ppb	17:27:24
1	Ni 231.604†	22656.1	23526.0	516.12	ug/L	516.12	ppb	17:27:24
1	P 214.914†	1611.8	1434.0	601.57	ug/L	601.57	ppb	17:27:24
1	Pb 220.353†	4670.6	4953.5	513.16	ug/L	513.16	ppb	17:27:24
1	S 181.975 Axial†	5936.6	6137.4	6935.1	ug/L	6935.1	ppb	17:27:24
1	Sb 206.836†	1736.5	1775.7	538.01	ug/L	538.01	ppb	17:27:24
1	Se 196.026†	827.0	896.6	538.89	ug/L	538.89	ppb	17:27:24
1	Si 251.611†	757551.5	790203.2	22653	ug/L	22653	ppb	17:27:04
1	Sn 189.927†	3213.4	3351.1	504.15	ug/L	504.15	ppb	17:27:24
1	Ti 334.940†	313209.0	328781.0	525.33	ug/L	525.33	ppb	17:27:04
1	Tl 190.801†	1450.2	1567.3	506.08	ug/L	506.08	ppb	17:27:24
1	U 409.014†	13851.3	17128.3	505.03	ug/L	505.03	ppb	17:27:04
1	V 292.402†	78094.9	83326.4	527.45	ug/L	527.45	ppb	17:27:04
1	Zn 213.857†	60653.1	62485.0	507.79	ug/L	507.79	ppb	17:27:04
1	SiO2†	773966.5	807319.6	49526	ug/L	49526	ppb	17:28:37
2	Sc Radial	4541.9	4541.9	97.3	%			17:26:24
2	Y RADIAL	4767.6	4767.6	96.65	%			17:26:24
2	Al 396.153Radial†	5843.8	6032.2	5327.8	ug/L	5327.8	ppb	17:26:04
2	Ca 317.933Radial†	45430.8	46675.6	78213	ug/L	78213	ppb	17:26:04
2	Fe 238.204 Radial†	2814.2	2878.2	25307	ug/L	25307	ppb	17:26:24
2	K 766.490 Radial†	73530.4	72228.6	14156	ug/L	14156	ppb	17:26:04
2	Mg 279.077 IEC†	646.3	662.6	21174	ug/L	21174	ppb	17:26:24
2	Na 589.592 Radial†	86809.8	90962.4	27478	ug/L	27478	ppb	17:26:04
2	Sr 421.552†	137450.7	141238.7	1033.4	ug/L	1033.4	ppb	17:26:04
2	Sc 361.383	849875.4	849875.4	95.857	%			17:27:38
2	Y 371.029	718515.3	718515.3	94.323	%			17:27:38
2	Ag 328.068†	114955.4	119411.8	521.88	ug/L	521.88	ppb	17:27:38
2	As 188.979†	1404.8	1498.9	532.26	ug/L	532.26	ppb	17:27:58
2	B 249.677†	24871.0	26611.9	544.03	ug/L	544.03	ppb	17:27:38
2	Ba 233.527†	133224.2	138975.0	1015.2	ug/L	1015.2	ppb	17:27:38
2	Be 313.107†	1482138.9	1550552.8	525.10	ug/L	525.10	ppb	17:27:38
2	Cd 226.502†	51135.6	53584.2	502.47	ug/L	502.47	ppb	17:27:38
2	Co 228.616†	26652.9	27888.8	524.47	ug/L	524.47	ppb	17:27:58
2	Cr 267.716†	49325.8	51353.8	515.74	ug/L	515.74	ppb	17:27:38
2	Cu 324.752†	180979.9	180803.4	536.58	ug/L	536.58	ppb	17:27:38
2	Mn 257.610†	12029665.5	12549106.9	13224	ug/L	13224	ppb	17:27:31
2	Mo 202.031†	8017.5	8344.1	525.16	ug/L	525.16	ppb	17:27:58
2	Ni 231.604†	22476.0	23322.4	511.65	ug/L	511.65	ppb	17:27:58

2	P 214.914†	1590.9	1411.1	590.25	ug/L	590.25 ppb	17:27:58
2	Pb 220.353†	4647.6	4926.3	510.32	ug/L	510.32 ppb	17:27:58
2	S 181.975 Axial†	5873.1	6067.1	6855.7	ug/L	6855.7 ppb	17:27:58
2	Sb 206.836†	1729.0	1766.7	535.16	ug/L	535.16 ppb	17:27:58
2	Se 196.026†	825.7	894.6	538.07	ug/L	538.07 ppb	17:27:58
2	Si 251.611†	759156.7	791353.1	22686	ug/L	22686 ppb	17:27:38
2	Sn 189.927†	3177.1	3311.0	498.19	ug/L	498.19 ppb	17:27:58
2	Ti 334.940†	314374.4	329780.0	526.90	ug/L	526.90 ppb	17:27:38
2	Tl 190.801†	1465.7	1582.4	510.04	ug/L	510.04 ppb	17:27:58
2	U 409.014†	13920.4	17190.8	506.88	ug/L	506.88 ppb	17:27:38
2	V 292.402†	78167.8	83348.3	527.55	ug/L	527.55 ppb	17:27:38
2	Zn 213.857†	60764.5	62559.2	508.43	ug/L	508.43 ppb	17:27:38
2	SiO2†	768119.8	800684.2	49119	ug/L	49119 ppb	17:28:42
3	Sc Radial	4548.2	4548.2	97.4	%		17:26:50
3	Y RADIAL	4796.0	4796.0	97.22	%		17:26:50
3	Al 396.153Radial†	5825.0	6004.7	5303.6	ug/L	5303.6 ppb	17:26:30
3	Ca 317.933Radial†	44958.6	46126.3	77292	ug/L	77292 ppb	17:26:30
3	Fe 238.204 Radial†	2816.4	2876.5	25292	ug/L	25292 ppb	17:26:50
3	K 766.490 Radial†	72854.9	71430.7	13999	ug/L	13999 ppb	17:26:30
3	Mg 279.077 IEC†	648.9	664.3	21229	ug/L	21229 ppb	17:26:50
3	Na 589.592 Radial†	85706.2	89706.3	27098	ug/L	27098 ppb	17:26:30
3	Sr 421.552†	135495.8	139036.9	1017.3	ug/L	1017.3 ppb	17:26:30
3	Sc 361.383	860224.9	860224.9	97.024	%		17:28:11
3	Y 371.029	727097.6	727097.6	95.450	%		17:28:11
3	Ag 328.068†	116146.3	119196.4	520.95	ug/L	520.95 ppb	17:28:11
3	As 188.979†	1379.6	1455.3	516.98	ug/L	516.98 ppb	17:28:31
3	B 249.677†	25184.4	26622.7	544.27	ug/L	544.27 ppb	17:28:11
3	Ba 233.527†	134296.4	138408.0	1011.0	ug/L	1011.0 ppb	17:28:11
3	Be 313.107†	1495018.0	1545224.3	523.30	ug/L	523.30 ppb	17:28:11
3	Cd 226.502†	51528.7	53347.5	500.24	ug/L	500.24 ppb	17:28:11
3	Co 228.616†	26632.9	27533.8	517.78	ug/L	517.78 ppb	17:28:31
3	Cr 267.716†	49808.2	51231.9	514.52	ug/L	514.52 ppb	17:28:11
3	Cu 324.752†	182526.6	180126.0	534.58	ug/L	534.58 ppb	17:28:11
3	Mn 257.610†	12070622.8	12440333.4	13110	ug/L	13110 ppb	17:28:04
3	Mo 202.031†	8017.2	8243.2	518.83	ug/L	518.83 ppb	17:28:31
3	Ni 231.604†	22445.6	23009.0	504.77	ug/L	504.77 ppb	17:28:31
3	P 214.914†	1589.2	1389.4	579.97	ug/L	579.97 ppb	17:28:31
3	Pb 220.353†	4614.2	4833.5	500.69	ug/L	500.69 ppb	17:28:31
3	S 181.975 Axial†	5856.2	5975.9	6752.6	ug/L	6752.6 ppb	17:28:31
3	Sb 206.836†	1727.3	1743.2	527.99	ug/L	527.99 ppb	17:28:31
3	Se 196.026†	811.9	870.1	525.46	ug/L	525.46 ppb	17:28:31
3	Si 251.611†	765146.8	787998.7	22590	ug/L	22590 ppb	17:28:11
3	Sn 189.927†	3196.2	3290.8	495.12	ug/L	495.12 ppb	17:28:31
3	Ti 334.940†	316655.8	328185.5	524.32	ug/L	524.32 ppb	17:28:11
3	Tl 190.801†	1432.7	1530.0	495.07	ug/L	495.07 ppb	17:28:31
3	U 409.014†	14103.5	17204.8	507.30	ug/L	507.30 ppb	17:28:11
3	V 292.402†	78930.7	83153.5	526.24	ug/L	526.24 ppb	17:28:11
3	Zn 213.857†	61314.8	62363.7	506.87	ug/L	506.87 ppb	17:28:11
3	SiO2†	765629.6	788476.8	48370	ug/L	48370 ppb	17:28:48

Mean Data: 1202001503|935389|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	853137.3	96.225	%	0.6930				0.72%
Sc Radial	4533.4	97.1	%	0.44				0.45%
Y 371.029	721358.5	94.697	%	0.6525				0.69%
Y RADIAL	4763.5	96.57	%	0.704				0.73%
Ag 328.068†	119331.3	521.52	ug/L	0.498	521.52	ppb	0.498	0.10%
Al 396.153Radial†	6037.1	5332.1	ug/L	30.92	5332.1	ppb	30.92	0.58%
As 188.979†	1488.6	528.64	ug/L	10.342	528.64	ppb	10.342	1.96%
B 249.677†	26607.6	543.95	ug/L	0.372	543.95	ppb	0.372	0.07%
Ba 233.527†	138663.9	1012.9	ug/L	2.10	1012.9	ppb	2.10	0.21%
Be 313.107†	1548791.8	524.51	ug/L	1.046	524.51	ppb	1.046	0.20%
Ca 317.933Radial†	46545.9	77995	ug/L	623.4	77995	ppb	623.4	0.80%
Cd 226.502†	53495.4	501.64	ug/L	1.218	501.64	ppb	1.218	0.24%
Co 228.616†	27857.7	523.88	ug/L	5.830	523.88	ppb	5.830	1.11%
Cr 267.716†	51307.9	515.28	ug/L	0.666	515.28	ppb	0.666	0.13%
Cu 324.752†	180576.2	535.91	ug/L	1.154	535.91	ppb	1.154	0.22%
Fe 238.204 Radial†	2875.3	25281	ug/L	32.1	25281	ppb	32.1	0.13%
K 766.490 Radial†	72105.0	14132	ug/L	122.3	14132	ppb	122.3	0.87%

Mg 279.077 IEC†	663.3	21197	ug/L	28.1	21197	ppb	28.1	0.13%
Mn 257.610†	12524355.5	13198	ug/L	78.8	13198	ppb	78.8	0.60%
Mo 202.031†	8324.6	523.94	ug/L	4.615	523.94	ppb	4.615	0.88%
Na 589.592 Radial†	90669.2	27389	ug/L	258.2	27389	ppb	258.2	0.94%
Ni 231.604†	23285.8	510.85	ug/L	5.713	510.85	ppb	5.713	1.12%
P 214.914†	1411.5	590.60	ug/L	10.804	590.60	ppb	10.804	1.83%
Pb 220.353†	4904.4	508.06	ug/L	6.537	508.06	ppb	6.537	1.29%
S 181.975 Axial†	6060.1	6847.8	ug/L	91.50	6847.8	ppb	91.50	1.34%
Sb 206.836†	1761.8	533.72	ug/L	5.163	533.72	ppb	5.163	0.97%
Se 196.026†	887.1	534.14	ug/L	7.531	534.14	ppb	7.531	1.41%
Si 251.611†	789851.7	22643	ug/L	48.8	22643	ppb	48.8	0.22%
Sn 189.927†	3317.6	499.15	ug/L	4.592	499.15	ppb	4.592	0.92%
Sr 421.552†	140676.6	1029.3	ug/L	10.56	1029.3	ppb	10.56	1.03%
Ti 334.940†	328915.5	525.52	ug/L	1.299	525.52	ppb	1.299	0.25%
Tl 190.801†	1559.9	503.73	ug/L	7.755	503.73	ppb	7.755	1.54%
U 409.014†	17174.6	506.40	ug/L	1.208	506.40	ppb	1.208	0.24%
V 292.402†	83276.0	527.08	ug/L	0.729	527.08	ppb	0.729	0.14%
Zn 213.857†	62469.3	507.70	ug/L	0.786	507.70	ppb	0.786	0.15%
SiO2†	798826.9	49005	ug/L	586.4	49005	ppb	586.4	1.20%

Sequence No.: 25
Sample ID: 1202001504|935389|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 35
Date Collected: 1/6/2010 17:30:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202001504|935389|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4715.8	4715.8	101	%			17:32:51
1	Y RADIAL	5033.1	5033.1	102.0	%			17:32:51
1	Al 396.153Radial†	-33.1	-6.0	-5.4291	ug/L	-5.4291	ppb	17:32:51
1	Ca 317.933Radial†	8809.6	8706.8	14590	ug/L	14590	ppb	17:32:51
1	Fe 238.204 Radial†	482.4	463.6	4073.9	ug/L	4073.9	ppb	17:33:11
1	K 766.490 Radial†	12670.0	9203.6	1790.6	ug/L	1790.6	ppb	17:32:51
1	Mg 279.077 IEC†	107.1	104.4	3334.0	ug/L	3334.0	ppb	17:33:11
1	Na 589.592 Radial†	13929.3	15536.8	4693.3	ug/L	4693.3	ppb	17:32:51
1	Sr 421.552†	14009.5	13850.2	101.27	ug/L	101.27	ppb	17:32:51
1	Sc 361.383	881174.4	881174.4	99.387	%			17:34:08
1	Y 371.029	749425.2	749425.2	98.381	%			17:34:08
1	Ag 328.068†	282.3	-228.3	0.1859	ug/L	0.1859	ppb	17:34:14
1	As 188.979†	-29.7	3.6	1.8561	ug/L	1.8561	ppb	17:34:34
1	B 249.677†	-296.4	367.6	7.0275	ug/L	7.0275	ppb	17:34:34
1	Ba 233.527†	13448.5	13523.9	98.718	ug/L	98.718	ppb	17:34:14
1	Be 313.107†	-4226.4	99.1	0.0304	ug/L	0.0304	ppb	17:34:14
1	Cd 226.502†	-202.8	34.4	-0.0820	ug/L	-0.0820	ppb	17:34:34
1	Co 228.616†	182.3	267.4	5.0198	ug/L	5.0198	ppb	17:34:34
1	Cr 267.716†	240.1	137.6	1.4585	ug/L	1.4585	ppb	17:34:34
1	Cu 324.752†	7837.3	-113.4	-0.1279	ug/L	-0.1279	ppb	17:34:14
1	Mn 257.610†	2490005.1	2504847.1	2639.6	ug/L	2639.6	ppb	17:34:08
1	Mo 202.031†	46.9	27.2	2.0959	ug/L	2.0959	ppb	17:34:34
1	Ni 231.604†	242.3	118.7	2.6032	ug/L	2.6032	ppb	17:34:34
1	P 214.914†	296.8	50.1	20.915	ug/L	20.915	ppb	17:34:34
1	Pb 220.353†	-92.3	-15.1	-1.8997	ug/L	-1.8997	ppb	17:34:34
1	S 181.975 Axial†	326.9	269.1	304.07	ug/L	304.07	ppb	17:34:34
1	Sb 206.836†	36.7	-0.1	-0.2812	ug/L	-0.2812	ppb	17:34:34
1	Se 196.026†	-52.3	-19.4	2.6100	ug/L	2.6100	ppb	17:34:34
1	Si 251.611†	120054.4	120178.3	3446.9	ug/L	3446.9	ppb	17:34:14
1	Sn 189.927†	-121.3	-125.5	-16.993	ug/L	-16.993	ppb	17:34:34
1	Ti 334.940†	-2777.2	-977.0	-0.7828	ug/L	-0.7828	ppb	17:34:14
1	Tl 190.801†	-104.9	-52.2	1.1749	ug/L	1.1749	ppb	17:34:34
1	U 409.014†	-3156.2	-506.9	-15.585	ug/L	-15.585	ppb	17:34:14
1	V 292.402†	-1556.5	235.7	0.9317	ug/L	0.9317	ppb	17:34:34
1	Zn 213.857†	1041.9	216.6	1.4395	ug/L	1.4395	ppb	17:34:34
1	SiO2†	118720.1	118816.3	7292.6	ug/L	7292.6	ppb	17:35:41
2	Sc Radial	4715.6	4715.6	101	%			17:33:16
2	Y RADIAL	4980.8	4980.8	101.0	%			17:33:16
2	Al 396.153Radial†	-14.9	11.9	10.555	ug/L	10.555	ppb	17:33:16
2	Ca 317.933Radial†	8777.7	8675.8	14538	ug/L	14538	ppb	17:33:16
2	Fe 238.204 Radial†	476.3	457.6	4020.6	ug/L	4020.6	ppb	17:33:36
2	K 766.490 Radial†	12525.1	9060.8	1762.2	ug/L	1762.2	ppb	17:33:16
2	Mg 279.077 IEC†	103.8	101.2	3230.8	ug/L	3230.8	ppb	17:33:36
2	Na 589.592 Radial†	13810.9	15420.4	4658.2	ug/L	4658.2	ppb	17:33:16
2	Sr 421.552†	13836.7	13679.8	100.02	ug/L	100.02	ppb	17:33:16
2	Sc 361.383	890453.9	890453.9	100.43	%			17:34:39
2	Y 371.029	757184.4	757184.4	99.400	%			17:34:39
2	Ag 328.068†	314.4	-199.2	0.2950	ug/L	0.2950	ppb	17:34:44
2	As 188.979†	-29.2	4.4	2.1406	ug/L	2.1406	ppb	17:35:04
2	B 249.677†	-311.6	355.6	6.7861	ug/L	6.7861	ppb	17:35:04
2	Ba 233.527†	13535.4	13469.5	98.319	ug/L	98.319	ppb	17:34:44
2	Be 313.107†	-4329.3	40.9	0.0111	ug/L	0.0111	ppb	17:34:44
2	Cd 226.502†	-178.0	61.1	0.1754	ug/L	0.1754	ppb	17:35:04
2	Co 228.616†	191.1	274.3	5.1477	ug/L	5.1477	ppb	17:35:04
2	Cr 267.716†	243.5	138.4	1.4664	ug/L	1.4664	ppb	17:35:04
2	Cu 324.752†	7960.2	-73.2	-0.0116	ug/L	-0.0116	ppb	17:34:44
2	Mn 257.610†	2518823.8	2507432.7	2642.3	ug/L	2642.3	ppb	17:34:39
2	Mo 202.031†	32.5	12.4	1.1637	ug/L	1.1637	ppb	17:35:04
2	Ni 231.604†	231.4	105.3	2.3087	ug/L	2.3087	ppb	17:35:04

2	P 214.914†	307.1	57.2	24.391	ug/L	24.391 ppb	17:35:04
2	Pb 220.353†	-87.6	-9.4	-1.3034	ug/L	-1.3034 ppb	17:35:04
2	S 181.975 Axial†	324.8	263.5	297.76	ug/L	297.76 ppb	17:35:04
2	Sb 206.836†	46.2	8.9	2.3673	ug/L	2.3673 ppb	17:35:04
2	Se 196.026†	-51.6	-18.1	3.0855	ug/L	3.0855 ppb	17:35:04
2	Si 251.611†	120909.3	119770.7	3435.3	ug/L	3435.3 ppb	17:34:44
2	Sn 189.927†	-130.3	-133.1	-18.131	ug/L	-18.131 ppb	17:35:04
2	Ti 334.940†	-2713.9	-884.8	-0.6384	ug/L	-0.6384 ppb	17:34:44
2	Tl 190.801†	-102.2	-48.4	2.2289	ug/L	2.2289 ppb	17:35:04
2	U 409.014†	-3264.0	-581.2	-17.786	ug/L	-17.786 ppb	17:34:44
2	V 292.402†	-1591.1	217.6	0.8060	ug/L	0.8060 ppb	17:35:04
2	Zn 213.857†	1061.2	224.9	1.5158	ug/L	1.5158 ppb	17:35:04
2	SiO2†	120012.6	118858.4	7295.3	ug/L	7295.3 ppb	17:35:46
3	Sc Radial	4700.1	4700.1	101	%		17:33:42
3	Y RADIAL	4965.2	4965.2	100.7	%		17:33:42
3	Al 396.153Radial†	-8.8	18.0	15.922	ug/L	15.922 ppb	17:33:42
3	Ca 317.933Radial†	8782.0	8708.7	14593	ug/L	14593 ppb	17:33:42
3	Fe 238.204 Radial†	476.8	459.6	4038.7	ug/L	4038.7 ppb	17:34:02
3	K 766.490 Radial†	12374.7	8952.4	1740.8	ug/L	1740.8 ppb	17:33:42
3	Mg 279.077 IEC†	105.2	102.9	3285.3	ug/L	3285.3 ppb	17:34:02
3	Na 589.592 Radial†	13821.5	15476.0	4675.0	ug/L	4675.0 ppb	17:33:42
3	Sr 421.552†	13840.9	13729.2	100.39	ug/L	100.39 ppb	17:33:42
3	Sc 361.383	896260.5	896260.5	101.09	%		17:35:10
3	Y 371.029	762040.9	762040.9	100.04	%		17:35:10
3	Ag 328.068†	291.5	-223.9	0.1947	ug/L	0.1947 ppb	17:35:15
3	As 188.979†	-36.0	-2.2	-0.1501	ug/L	-0.1501 ppb	17:35:35
3	B 249.677†	-306.4	362.8	6.9318	ug/L	6.9318 ppb	17:35:35
3	Ba 233.527†	13349.0	13197.8	96.339	ug/L	96.339 ppb	17:35:15
3	Be 313.107†	-4213.7	183.2	0.0592	ug/L	0.0592 ppb	17:35:15
3	Cd 226.502†	-182.8	57.5	0.1395	ug/L	0.1395 ppb	17:35:35
3	Co 228.616†	181.1	263.1	4.9372	ug/L	4.9372 ppb	17:35:35
3	Cr 267.716†	236.9	130.3	1.3863	ug/L	1.3863 ppb	17:35:35
3	Cu 324.752†	7747.2	-335.3	-0.7866	ug/L	-0.7866 ppb	17:35:15
3	Mn 257.610†	2527713.3	2499978.4	2634.4	ug/L	2634.4 ppb	17:35:10
3	Mo 202.031†	33.7	13.5	1.2306	ug/L	1.2306 ppb	17:35:35
3	Ni 231.604†	227.3	99.8	2.1867	ug/L	2.1867 ppb	17:35:35
3	P 214.914†	300.2	48.4	20.234	ug/L	20.234 ppb	17:35:35
3	Pb 220.353†	-103.9	-25.1	-2.9210	ug/L	-2.9210 ppb	17:35:35
3	S 181.975 Axial†	324.6	261.2	295.15	ug/L	295.15 ppb	17:35:35
3	Sb 206.836†	39.0	1.5	0.1736	ug/L	0.1736 ppb	17:35:35
3	Se 196.026†	-47.3	-13.5	5.5028	ug/L	5.5028 ppb	17:35:35
3	Si 251.611†	118995.1	117097.2	3358.6	ug/L	3358.6 ppb	17:35:15
3	Sn 189.927†	-129.1	-131.1	-17.818	ug/L	-17.818 ppb	17:35:35
3	Ti 334.940†	-2728.1	-881.4	-0.6296	ug/L	-0.6296 ppb	17:35:15
3	Tl 190.801†	-104.7	-50.2	1.6908	ug/L	1.6908 ppb	17:35:35
3	U 409.014†	-3316.1	-611.7	-18.695	ug/L	-18.695 ppb	17:35:15
3	V 292.402†	-1613.6	205.6	0.7285	ug/L	0.7285 ppb	17:35:35
3	Zn 213.857†	1065.6	222.5	1.4946	ug/L	1.4946 ppb	17:35:35
3	SiO2†	120240.4	118309.6	7261.6	ug/L	7261.6 ppb	17:35:51

Mean Data: 1202001504|935389|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	889296.3	100.30	%	0.858				0.86%
Sc Radial	4710.5	101	%	0.2				0.19%
Y 371.029	756216.8	99.273	%	0.8353				0.84%
Y RADIAL	4993.0	101.2	%	0.72				0.71%
Ag 328.068†	-217.1	0.2252	ug/L	0.06063	0.2252	ppb	0.06063	26.93%
Al 396.153Radial†	8.0	7.0159	ug/L	11.10670	7.0159	ppb	11.10670	158.31%
As 188.979†	1.9	1.2822	ug/L	1.24855	1.2822	ppb	1.24855	97.37%
B 249.677†	362.0	6.9151	ug/L	0.12154	6.9151	ppb	0.12154	1.76%
Ba 233.527†	13397.1	97.792	ug/L	1.2743	97.792	ppb	1.2743	1.30%
Be 313.107†	107.7	0.0336	ug/L	0.02420	0.0336	ppb	0.02420	72.10%
Ca 317.933Radial†	8697.1	14573	ug/L	31.0	14573	ppb	31.0	0.21%
Cd 226.502†	51.0	0.0776	ug/L	0.13942	0.0776	ppb	0.13942	179.61%
Co 228.616†	268.3	5.0349	ug/L	0.10607	5.0349	ppb	0.10607	2.11%
Cr 267.716†	135.4	1.4371	ug/L	0.04410	1.4371	ppb	0.04410	3.07%
Cu 324.752†	-174.0	-0.3087	ug/L	0.41790	-0.3087	ppb	0.41790	135.37%
Fe 238.204 Radial†	460.3	4044.4	ug/L	27.10	4044.4	ppb	27.10	0.67%
K 766.490 Radial†	9072.3	1764.5	ug/L	24.97	1764.5	ppb	24.97	1.42%

Mg 279.077 IEC†	102.8	3283.4	ug/L	51.66	3283.4	ppb	51.66	1.57%
Mn 257.610†	2504086.1	2638.8	ug/L	3.99	2638.8	ppb	3.99	0.15%
Mo 202.031†	17.7	1.4967	ug/L	0.51996	1.4967	ppb	0.51996	34.74%
Na 589.592 Radial†	15477.7	4675.5	ug/L	17.59	4675.5	ppb	17.59	0.38%
Ni 231.604†	107.9	2.3662	ug/L	0.21414	2.3662	ppb	0.21414	9.05%
P 214.914†	51.9	21.846	ug/L	2.2294	21.846	ppb	2.2294	10.20%
Pb 220.353†	-16.5	-2.0413	ug/L	0.81803	-2.0413	ppb	0.81803	40.07%
S 181.975 Axial†	264.6	298.99	ug/L	4.588	298.99	ppb	4.588	1.53%
Sb 206.836†	3.4	0.7533	ug/L	1.41622	0.7533	ppb	1.41622	188.01%
Se 196.026†	-17.0	3.7328	ug/L	1.55124	3.7328	ppb	1.55124	41.56%
Si 251.611†	119015.4	3413.6	ug/L	48.00	3413.6	ppb	48.00	1.41%
Sn 189.927†	-129.9	-17.647	ug/L	0.5878	-17.647	ppb	0.5878	3.33%
Sr 421.552†	13753.1	100.56	ug/L	0.641	100.56	ppb	0.641	0.64%
Ti 334.940†	-914.4	-0.6836	ug/L	0.08604	-0.6836	ppb	0.08604	12.59%
Tl 190.801†	-50.2	1.6982	ug/L	0.52702	1.6982	ppb	0.52702	31.03%
U 409.014†	-566.6	-17.355	ug/L	1.5995	-17.355	ppb	1.5995	9.22%
V 292.402†	219.7	0.8221	ug/L	0.10253	0.8221	ppb	0.10253	12.47%
Zn 213.857†	221.3	1.4833	ug/L	0.03941	1.4833	ppb	0.03941	2.66%
SiO2†	118661.4	7283.2	ug/L	18.73	7283.2	ppb	18.73	0.26%

Sequence No.: 29
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/6/2010 17:59:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4799.3	4799.3	103	%			18:01:19
1	Y RADIAL	5073.0	5073.0	102.8	%			18:01:19
1	Al 396.153Radial†	5861.1	5726.9	5058.0	ug/L	5058.0	ppb	18:01:19
1	Ca 317.933Radial†	3105.1	3007.4	5039.4	ug/L	5039.4	ppb	18:01:39
1	Fe 238.204 Radial†	588.8	558.7	4925.2	ug/L	4925.2	ppb	18:01:39
1	K 766.490 Radial†	28792.3	24665.5	4887.3	ug/L	4887.3	ppb	18:01:19
1	Mg 279.077 IEC†	164.2	158.1	5060.2	ug/L	5060.2	ppb	18:01:39
1	Na 589.592 Radial†	33099.6	33941.4	10253	ug/L	10253	ppb	18:01:19
1	Sr 421.552†	72304.5	70304.3	514.70	ug/L	514.70	ppb	18:01:19
1	Sc 361.383	886340.9	886340.9	99.970	%			18:02:38
1	Y 371.029	752822.2	752822.2	98.827	%			18:02:38
1	Ag 328.068†	117838.2	117361.5	507.27	ug/L	507.27	ppb	18:02:38
1	As 188.979†	1389.3	1423.2	502.58	ug/L	502.58	ppb	18:02:58
1	B 249.677†	23516.1	24189.1	496.85	ug/L	496.85	ppb	18:02:38
1	Ba 233.527†	69415.8	69429.4	507.51	ug/L	507.51	ppb	18:02:38
1	Be 313.107†	1505478.4	1510286.1	511.48	ug/L	511.48	ppb	18:02:38
1	Cd 226.502†	53419.8	53674.4	505.35	ug/L	505.35	ppb	18:02:38
1	Co 228.616†	26285.1	26377.0	496.07	ug/L	496.07	ppb	18:02:58
1	Cr 267.716†	50319.5	50230.7	504.09	ug/L	504.09	ppb	18:02:38
1	Cu 324.752†	179261.6	171316.9	507.46	ug/L	507.46	ppb	18:02:38
1	Mn 257.610†	485811.0	485441.7	511.88	ug/L	511.88	ppb	18:02:38
1	Mo 202.031†	7985.6	7968.1	499.65	ug/L	499.65	ppb	18:02:58
1	Ni 231.604†	22668.5	22550.3	494.72	ug/L	494.72	ppb	18:02:58
1	P 214.914†	5364.3	5117.4	2418.1	ug/L	2418.1	ppb	18:02:58
1	Pb 220.353†	4730.4	4809.6	499.81	ug/L	499.81	ppb	18:02:58
1	S 181.975 Axial†	943.4	883.8	997.81	ug/L	997.81	ppb	18:02:58
1	Sb 206.836†	1714.4	1677.8	508.19	ug/L	508.19	ppb	18:02:58
1	Se 196.026†	947.6	981.1	519.55	ug/L	519.55	ppb	18:02:58
1	Si 251.611†	88711.7	88122.0	2516.0	ug/L	2516.0	ppb	18:02:38
1	Sn 189.927†	3376.2	3373.8	499.62	ug/L	499.62	ppb	18:02:58
1	Ti 334.940†	322428.6	324343.7	514.47	ug/L	514.47	ppb	18:02:38
1	Tl 190.801†	1774.2	1828.1	502.80	ug/L	502.80	ppb	18:02:58
1	U 409.014†	13816.7	16489.6	488.62	ug/L	488.62	ppb	18:02:38
1	V 292.402†	78337.4	80163.0	509.92	ug/L	509.92	ppb	18:02:38
1	Zn 213.857†	62533.2	61720.5	503.29	ug/L	503.29	ppb	18:02:38
1	SiO2†	88196.5	87587.2	5350.9	ug/L	5350.9	ppb	18:03:59
2	Sc Radial	4622.8	4622.8	99.0	%			18:01:44
2	Y RADIAL	4877.6	4877.6	98.88	%			18:01:44
2	Al 396.153Radial†	5784.0	5866.8	5181.7	ug/L	5181.7	ppb	18:01:44
2	Ca 317.933Radial†	3105.7	3123.3	5233.6	ug/L	5233.6	ppb	18:02:04
2	Fe 238.204 Radial†	587.4	579.2	5105.4	ug/L	5105.4	ppb	18:02:04
2	K 766.490 Radial†	28645.8	25586.7	5070.1	ug/L	5070.1	ppb	18:01:44
2	Mg 279.077 IEC†	166.4	166.3	5324.7	ug/L	5324.7	ppb	18:02:04
2	Na 589.592 Radial†	32647.2	34713.7	10486	ug/L	10486	ppb	18:01:44
2	Sr 421.552†	71351.6	72027.0	527.31	ug/L	527.31	ppb	18:01:44
2	Sc 361.383	876653.7	876653.7	98.877	%			18:03:06
2	Y 371.029	745175.8	745175.8	97.823	%			18:03:06
2	Ag 328.068†	116367.2	117176.4	506.53	ug/L	506.53	ppb	18:03:06
2	As 188.979†	1403.7	1453.0	513.04	ug/L	513.04	ppb	18:03:26
2	B 249.677†	23245.2	24175.0	496.52	ug/L	496.52	ppb	18:03:06
2	Ba 233.527†	68746.0	69519.2	508.17	ug/L	508.17	ppb	18:03:06
2	Be 313.107†	1484837.8	1506052.1	510.04	ug/L	510.04	ppb	18:03:06
2	Cd 226.502†	52836.4	53674.8	505.34	ug/L	505.34	ppb	18:03:06
2	Co 228.616†	26373.7	26757.2	503.24	ug/L	503.24	ppb	18:03:26
2	Cr 267.716†	49744.4	50205.3	503.84	ug/L	503.84	ppb	18:03:06
2	Cu 324.752†	176976.9	170987.8	506.49	ug/L	506.49	ppb	18:03:06
2	Mn 257.610†	479927.8	484861.8	511.28	ug/L	511.28	ppb	18:03:06
2	Mo 202.031†	8030.6	8101.8	508.04	ug/L	508.04	ppb	18:03:26
2	Ni 231.604†	22788.2	22921.9	502.87	ug/L	502.87	ppb	18:03:26

2	P 214.914†	5378.6	5191.1	2454.1 ug/L	2454.1 ppb	18:03:26
2	Pb 220.353†	4761.0	4892.8	508.47 ug/L	508.47 ppb	18:03:26
2	S 181.975 Axial†	948.4	899.3	1015.3 ug/L	1015.3 ppb	18:03:26
2	Sb 206.836†	1709.3	1691.6	512.58 ug/L	512.58 ppb	18:03:26
2	Se 196.026†	947.3	991.3	525.38 ug/L	525.38 ppb	18:03:26
2	Si 251.611†	87763.7	88143.8	2516.5 ug/L	2516.5 ppb	18:03:06
2	Sn 189.927†	3371.5	3406.4	504.46 ug/L	504.46 ppb	18:03:26
2	Ti 334.940†	318447.9	323881.7	513.75 ug/L	513.75 ppb	18:03:06
2	Tl 190.801†	1784.4	1858.1	510.94 ug/L	510.94 ppb	18:03:26
2	U 409.014†	13696.1	16520.4	489.51 ug/L	489.51 ppb	18:03:06
2	V 292.402†	77480.6	80162.3	510.02 ug/L	510.02 ppb	18:03:06
2	Zn 213.857†	61783.9	61653.8	502.67 ug/L	502.67 ppb	18:03:06
2	SiO2†	87710.1	88070.2	5380.1 ug/L	5380.1 ppb	18:04:04
3	Sc Radial	4655.4	4655.4	99.7 %		18:02:09
3	Y RADIAL	4936.1	4936.1	100.1 %		18:02:09
3	Al 396.153Radial†	5839.5	5881.5	5194.7 ug/L	5194.7 ppb	18:02:09
3	Ca 317.933Radial†	3111.5	3107.1	5206.5 ug/L	5206.5 ppb	18:02:30
3	Fe 238.204 Radial†	587.1	574.7	5066.0 ug/L	5066.0 ppb	18:02:30
3	K 766.490 Radial†	28586.5	25324.6	5018.1 ug/L	5018.1 ppb	18:02:09
3	Mg 279.077 IEC†	164.1	162.9	5214.8 ug/L	5214.8 ppb	18:02:30
3	Na 589.592 Radial†	32791.2	34627.1	10460 ug/L	10460 ppb	18:02:09
3	Sr 421.552†	71844.1	72016.1	527.23 ug/L	527.23 ppb	18:02:09
3	Sc 361.383	878593.1	878593.1	99.096 %		18:03:33
3	Y 371.029	746219.3	746219.3	97.960 %		18:03:33
3	Ag 328.068†	116532.8	117083.7	506.12 ug/L	506.12 ppb	18:03:33
3	As 188.979†	1397.1	1443.3	509.63 ug/L	509.63 ppb	18:03:53
3	B 249.677†	23376.3	24255.4	498.18 ug/L	498.18 ppb	18:03:33
3	Ba 233.527†	68831.6	69452.1	507.68 ug/L	507.68 ppb	18:03:33
3	Be 313.107†	1490600.0	1508552.0	510.89 ug/L	510.89 ppb	18:03:33
3	Cd 226.502†	53080.8	53803.5	506.55 ug/L	506.55 ppb	18:03:33
3	Co 228.616†	26397.0	26721.8	502.57 ug/L	502.57 ppb	18:03:53
3	Cr 267.716†	49890.7	50241.8	504.21 ug/L	504.21 ppb	18:03:33
3	Cu 324.752†	176862.0	170476.7	504.98 ug/L	504.98 ppb	18:03:33
3	Mn 257.610†	481678.3	485556.8	512.01 ug/L	512.01 ppb	18:03:33
3	Mo 202.031†	8040.0	8093.5	507.52 ug/L	507.52 ppb	18:03:53
3	Ni 231.604†	22805.5	22888.5	502.14 ug/L	502.14 ppb	18:03:53
3	P 214.914†	5381.3	5181.8	2449.9 ug/L	2449.9 ppb	18:03:53
3	Pb 220.353†	4766.8	4888.0	507.98 ug/L	507.98 ppb	18:03:53
3	S 181.975 Axial†	938.4	887.0	1001.4 ug/L	1001.4 ppb	18:03:53
3	Sb 206.836†	1713.3	1691.9	512.62 ug/L	512.62 ppb	18:03:53
3	Se 196.026†	960.3	1002.3	530.86 ug/L	530.86 ppb	18:03:53
3	Si 251.611†	87908.3	88093.9	2515.0 ug/L	2515.0 ppb	18:03:33
3	Sn 189.927†	3370.4	3397.7	503.17 ug/L	503.17 ppb	18:03:53
3	Ti 334.940†	319041.2	323769.6	513.57 ug/L	513.57 ppb	18:03:33
3	Tl 190.801†	1768.8	1838.3	505.54 ug/L	505.54 ppb	18:03:53
3	U 409.014†	13626.6	16419.6	486.52 ug/L	486.52 ppb	18:03:33
3	V 292.402†	77656.5	80166.8	510.04 ug/L	510.04 ppb	18:03:33
3	Zn 213.857†	61955.7	61689.3	502.97 ug/L	502.97 ppb	18:03:33
3	SiO2†	86645.9	86800.4	5302.2 ug/L	5302.2 ppb	18:04:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	880529.2	99.314	%	0.5781				0.58%
Sc Radial	4692.5	101	%	2.0				2.00%
Y 371.029	748072.4	98.204	%	0.5443				0.55%
Y RADIAL	4962.2	100.6	%	2.03				2.02%
Ag 328.068†	117207.2	506.64	ug/L	0.581	506.64	ppb	0.581	0.11%
QC value within limits for Ag 328.068 Recovery = 101.33%								
Al 396.153Radial†	5825.1	5144.8	ug/L	75.45	5144.8	ppb	75.45	1.47%
QC value within limits for Al 396.153Radial Recovery = 102.90%								
As 188.979†	1439.8	508.42	ug/L	5.335	508.42	ppb	5.335	1.05%
QC value within limits for As 188.979 Recovery = 101.68%								
B 249.677†	24206.5	497.18	ug/L	0.882	497.18	ppb	0.882	0.18%
QC value within limits for B 249.677 Recovery = 99.44%								
Ba 233.527†	69466.9	507.79	ug/L	0.343	507.79	ppb	0.343	0.07%
QC value within limits for Ba 233.527 Recovery = 101.56%								
Be 313.107†	1508296.7	510.80	ug/L	0.720	510.80	ppb	0.720	0.14%
QC value within limits for Be 313.107 Recovery = 102.16%								
Ca 317.933Radial†	3079.3	5159.8	ug/L	105.19	5159.8	ppb	105.19	2.04%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.20%
Cd 226.502†            53717.6      505.75 ug/L        0.699      505.75 ppb        0.699   0.14%
   QC value within limits for Cd 226.502  Recovery = 101.15%
Co 228.616†            26618.7      500.62 ug/L        3.961      500.62 ppb        3.961   0.79%
   QC value within limits for Co 228.616  Recovery = 100.12%
Cr 267.716†            50225.9      504.05 ug/L        0.188      504.05 ppb        0.188   0.04%
   QC value within limits for Cr 267.716  Recovery = 100.81%
Cu 324.752†           170927.1      506.31 ug/L        1.250      506.31 ppb        1.250   0.25%
   QC value within limits for Cu 324.752  Recovery = 101.26%
Fe 238.204 Radial†       570.9      5032.2 ug/L       94.72      5032.2 ppb       94.72   1.88%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.64%
K 766.490 Radial†      25192.2      4991.8 ug/L       94.18      4991.8 ppb       94.18   1.89%
   QC value within limits for K 766.490 Radial  Recovery = 99.84%
Mg 279.077 IEC†          162.4      5199.9 ug/L      132.91      5199.9 ppb      132.91   2.56%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.00%
Mn 257.610†           485286.8      511.73 ug/L        0.389      511.73 ppb        0.389   0.08%
   QC value within limits for Mn 257.610  Recovery = 102.35%
Mo 202.031†             8054.5      505.07 ug/L        4.701      505.07 ppb        4.701   0.93%
   QC value within limits for Mo 202.031  Recovery = 101.01%
Na 589.592 Radial†     34427.4       10400 ug/L      127.8        10400 ppb      127.8   1.23%
   QC value within limits for Na 589.592 Radial  Recovery = 104.00%
Ni 231.604†            22786.9      499.91 ug/L        4.511      499.91 ppb        4.511   0.90%
   QC value within limits for Ni 231.604  Recovery = 99.98%
P 214.914†              5163.4      2440.7 ug/L       19.69      2440.7 ppb       19.69   0.81%
   QC value within limits for P 214.914  Recovery = 97.63%
Pb 220.353†             4863.5      505.42 ug/L        4.863      505.42 ppb        4.863   0.96%
   QC value within limits for Pb 220.353  Recovery = 101.08%
S 181.975 Axial†         890.0      1004.8 ug/L        9.23      1004.8 ppb        9.23   0.92%
   QC value within limits for S 181.975 Axial  Recovery = 100.48%
Sb 206.836†             1687.1      511.13 ug/L        2.546      511.13 ppb        2.546   0.50%
   QC value within limits for Sb 206.836  Recovery = 102.23%
Se 196.026†              991.6      525.26 ug/L        5.658      525.26 ppb        5.658   1.08%
   QC value within limits for Se 196.026  Recovery = 105.05%
Si 251.611†            88119.9      2515.9 ug/L        0.72      2515.9 ppb        0.72   0.03%
   QC value within limits for Si 251.611  Recovery = 100.63%
Sn 189.927†             3392.6      502.42 ug/L        2.508      502.42 ppb        2.508   0.50%
   QC value within limits for Sn 189.927  Recovery = 100.48%
Sr 421.552†            71449.1      523.08 ug/L        7.258      523.08 ppb        7.258   1.39%
   QC value within limits for Sr 421.552  Recovery = 104.62%
Ti 334.940†           323998.3      513.93 ug/L        0.477      513.93 ppb        0.477   0.09%
   QC value within limits for Ti 334.940  Recovery = 102.79%
Tl 190.801†             1841.5      506.43 ug/L        4.142      506.43 ppb        4.142   0.82%
   QC value within limits for Tl 190.801  Recovery = 101.29%
U 409.014†             16476.5      488.22 ug/L        1.535      488.22 ppb        1.535   0.31%
   QC value within limits for U 409.014  Recovery = 97.64%
V 292.402†             80164.1      509.99 ug/L        0.062      509.99 ppb        0.062   0.01%
   QC value within limits for V 292.402  Recovery = 102.00%
Zn 213.857†            61687.9      502.97 ug/L        0.309      502.97 ppb        0.309   0.06%
   QC value within limits for Zn 213.857  Recovery = 100.59%
SiO2†                  87485.9      5344.4 ug/L       39.35      5344.4 ppb       39.35   0.74%
   QC value within limits for SiO2  Recovery = 99.94%
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/6/2010 18:06:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4627.9	4627.9	99.1	%			18:08:11
1	Y RADIAL	4901.2	4901.2	99.36	%			18:08:11
1	Al 396.153Radial†	13.5	40.4	35.767	ug/L	35.767	ppb	18:08:11
1	Ca 317.933Radial†	20.5	8.1	13.579	ug/L	13.579	ppb	18:08:31
1	Fe 238.204 Radial†	12.1	-1.7	-14.998	ug/L	-14.998	ppb	18:08:31
1	K 766.490 Radial†	3482.3	175.4	34.792	ug/L	34.792	ppb	18:08:11
1	Mg 279.077 IEC†	-1.0	-2.7	-84.902	ug/L	-84.902	ppb	18:08:31
1	Na 589.592 Radial†	-1508.7	228.5	69.030	ug/L	69.030	ppb	18:08:11
1	Sr 421.552†	40.8	25.2	0.1841	ug/L	0.1841	ppb	18:08:11
1	Sc 361.383	857563.6	857563.6	96.724	%			18:09:28
1	Y 371.029	736898.6	736898.6	96.737	%			18:09:28
1	Ag 328.068†	502.2	6.9	0.0332	ug/L	0.0332	ppb	18:09:28
1	As 188.979†	-37.7	-5.6	-1.9582	ug/L	-1.9582	ppb	18:09:48
1	B 249.677†	-643.5	0.5	0.0125	ug/L	0.0125	ppb	18:09:28
1	Ba 233.527†	12.3	5.2	0.0373	ug/L	0.0373	ppb	18:09:48
1	Be 313.107†	-4321.5	-116.3	-0.0395	ug/L	-0.0395	ppb	18:09:28
1	Cd 226.502†	-226.6	4.1	0.0403	ug/L	0.0403	ppb	18:09:48
1	Co 228.616†	-79.1	2.2	0.0443	ug/L	0.0443	ppb	18:09:48
1	Cr 267.716†	111.6	11.3	0.1163	ug/L	0.1163	ppb	18:09:28
1	Cu 324.752†	8083.6	358.3	1.0602	ug/L	1.0602	ppb	18:09:28
1	Mn 257.610†	559.4	61.9	0.0653	ug/L	0.0653	ppb	18:09:28
1	Mo 202.031†	30.8	11.9	0.7443	ug/L	0.7443	ppb	18:09:48
1	Ni 231.604†	119.6	-1.4	-0.0318	ug/L	-0.0318	ppb	18:09:48
1	P 214.914†	238.7	-1.8	-1.0226	ug/L	-1.0226	ppb	18:09:48
1	Pb 220.353†	-83.9	-9.0	-0.9243	ug/L	-0.9243	ppb	18:09:48
1	S 181.975 Axial†	65.9	8.2	9.2691	ug/L	9.2691	ppb	18:09:48
1	Sb 206.836†	53.6	18.3	5.4663	ug/L	5.4663	ppb	18:09:48
1	Se 196.026†	-31.8	0.4	0.1519	ug/L	0.1519	ppb	18:09:48
1	Si 251.611†	680.5	87.0	2.4721	ug/L	2.4721	ppb	18:09:48
1	Sn 189.927†	1.2	-2.2	-0.3255	ug/L	-0.3255	ppb	18:09:48
1	Ti 334.940†	-1806.1	-49.9	-0.0735	ug/L	-0.0735	ppb	18:09:28
1	Tl 190.801†	-48.2	3.6	0.9717	ug/L	0.9717	ppb	18:09:48
1	U 409.014†	-2950.6	-381.8	-11.348	ug/L	-11.348	ppb	18:09:28
1	V 292.402†	-1776.9	-35.2	-0.2320	ug/L	-0.2320	ppb	18:09:28
1	Zn 213.857†	843.2	40.1	0.3324	ug/L	0.3324	ppb	18:09:48
1	SiO2†	650.5	36.5	2.1879	ug/L	2.1879	ppb	18:10:44
2	Sc Radial	4743.7	4743.7	102	%			18:08:36
2	Y RADIAL	5010.2	5010.2	101.6	%			18:08:36
2	Al 396.153Radial†	-26.9	0.3	0.2372	ug/L	0.2372	ppb	18:08:36
2	Ca 317.933Radial†	20.0	7.1	11.869	ug/L	11.869	ppb	18:08:56
2	Fe 238.204 Radial†	12.2	-1.9	-16.636	ug/L	-16.636	ppb	18:08:56
2	K 766.490 Radial†	3422.6	31.0	6.1060	ug/L	6.1060	ppb	18:08:36
2	Mg 279.077 IEC†	0.7	-0.9	-30.337	ug/L	-30.337	ppb	18:08:56
2	Na 589.592 Radial†	-1491.8	282.2	85.248	ug/L	85.248	ppb	18:08:36
2	Sr 421.552†	-21.0	-36.7	-0.2687	ug/L	-0.2687	ppb	18:08:36
2	Sc 361.383	868954.8	868954.8	98.009	%			18:09:53
2	Y 371.029	746739.3	746739.3	98.029	%			18:09:53
2	Ag 328.068†	408.2	-95.8	-0.4105	ug/L	-0.4105	ppb	18:09:53
2	As 188.979†	-26.3	6.6	2.3055	ug/L	2.3055	ppb	18:10:13
2	B 249.677†	-665.7	-13.4	-0.2729	ug/L	-0.2729	ppb	18:09:53
2	Ba 233.527†	23.2	16.1	0.1191	ug/L	0.1191	ppb	18:10:13
2	Be 313.107†	-4328.4	-64.8	-0.0220	ug/L	-0.0220	ppb	18:09:53
2	Cd 226.502†	-216.4	17.6	0.1670	ug/L	0.1670	ppb	18:10:13
2	Co 228.616†	-88.0	-5.8	-0.1092	ug/L	-0.1092	ppb	18:10:13
2	Cr 267.716†	74.6	-27.9	-0.2770	ug/L	-0.2770	ppb	18:09:53
2	Cu 324.752†	8200.1	367.7	1.0878	ug/L	1.0878	ppb	18:09:53
2	Mn 257.610†	599.8	95.5	0.0996	ug/L	0.0996	ppb	18:09:53
2	Mo 202.031†	19.5	-0.0	-0.0036	ug/L	-0.0036	ppb	18:10:13
2	Ni 231.604†	119.7	-2.9	-0.0636	ug/L	-0.0636	ppb	18:10:13

2	P 214.914†	255.1	11.7	5.5564 ug/L	5.5564 ppb	18:10:13
2	Pb 220.353†	-90.7	-14.8	-1.5344 ug/L	-1.5344 ppb	18:10:13
2	S 181.975 Axial†	66.5	7.9	8.9678 ug/L	8.9678 ppb	18:10:13
2	Sb 206.836†	48.4	12.2	3.6766 ug/L	3.6766 ppb	18:10:13
2	Se 196.026†	-42.7	-10.3	-5.3063 ug/L	-5.3063 ppb	18:10:13
2	Si 251.611†	636.9	33.3	0.9506 ug/L	0.9506 ppb	18:10:13
2	Sn 189.927†	7.6	4.4	0.6494 ug/L	0.6494 ppb	18:10:13
2	Ti 334.940†	-1801.9	-21.1	-0.0308 ug/L	-0.0308 ppb	18:09:53
2	Tl 190.801†	-38.1	14.5	3.9700 ug/L	3.9700 ppb	18:10:13
2	U 409.014†	-2765.9	-153.4	-4.5580 ug/L	-4.5580 ppb	18:09:53
2	V 292.402†	-1644.8	123.6	0.7688 ug/L	0.7688 ppb	18:09:53
2	Zn 213.857†	837.7	23.0	0.1902 ug/L	0.1902 ppb	18:10:13
2	SiO2†	654.3	31.6	1.9284 ug/L	1.9284 ppb	18:10:49
3	Sc Radial	4996.5	4996.5	107 %		18:09:01
3	Y RADIAL	5294.0	5294.0	107.3 %		18:09:01
3	Al 396.153Radial†	-0.5	26.2	23.242 ug/L	23.242 ppb	18:09:01
3	Ca 317.933Radial†	17.4	3.7	6.2637 ug/L	6.2637 ppb	18:09:21
3	Fe 238.204 Radial†	13.2	-1.5	-13.248 ug/L	-13.248 ppb	18:09:21
3	K 766.490 Radial†	3465.2	-99.6	-19.819 ug/L	-19.819 ppb	18:09:01
3	Mg 279.077 IEC†	3.8	2.0	62.468 ug/L	62.468 ppb	18:09:21
3	Na 589.592 Radial†	-1521.2	329.1	99.400 ug/L	99.400 ppb	18:09:01
3	Sr 421.552†	11.2	-5.5	-0.0402 ug/L	-0.0402 ppb	18:09:01
3	Sc 361.383	860563.0	860563.0	97.062 %		18:10:19
3	Y 371.029	739491.7	739491.7	97.077 %		18:10:19
3	Ag 328.068†	409.5	-90.5	-0.3878 ug/L	-0.3878 ppb	18:10:19
3	As 188.979†	-33.8	-1.4	-0.4963 ug/L	-0.4963 ppb	18:10:39
3	B 249.677†	-640.7	5.7	0.1208 ug/L	0.1208 ppb	18:10:19
3	Ba 233.527†	8.7	1.4	0.0096 ug/L	0.0096 ppb	18:10:39
3	Be 313.107†	-4300.2	-78.8	-0.0264 ug/L	-0.0264 ppb	18:10:19
3	Cd 226.502†	-233.0	-1.7	-0.0148 ug/L	-0.0148 ppb	18:10:39
3	Co 228.616†	-96.1	-15.1	-0.2808 ug/L	-0.2808 ppb	18:10:39
3	Cr 267.716†	141.0	41.2	0.4145 ug/L	0.4145 ppb	18:10:19
3	Cu 324.752†	8020.2	264.0	0.7808 ug/L	0.7808 ppb	18:10:19
3	Mn 257.610†	663.0	166.7	0.1731 ug/L	0.1731 ppb	18:10:19
3	Mo 202.031†	33.6	14.7	0.9198 ug/L	0.9198 ppb	18:10:39
3	Ni 231.604†	116.5	-5.1	-0.1109 ug/L	-0.1109 ppb	18:10:39
3	P 214.914†	258.7	18.0	8.6659 ug/L	8.6659 ppb	18:10:39
3	Pb 220.353†	-89.9	-14.9	-1.5350 ug/L	-1.5350 ppb	18:10:39
3	S 181.975 Axial†	58.5	0.4	0.4326 ug/L	0.4326 ppb	18:10:39
3	Sb 206.836†	52.0	16.5	4.9479 ug/L	4.9479 ppb	18:10:39
3	Se 196.026†	-41.0	-9.0	-4.6236 ug/L	-4.6236 ppb	18:10:39
3	Si 251.611†	655.7	59.0	1.6807 ug/L	1.6807 ppb	18:10:39
3	Sn 189.927†	7.0	3.8	0.5579 ug/L	0.5579 ppb	18:10:39
3	Ti 334.940†	-1702.8	63.0	0.1034 ug/L	0.1034 ppb	18:10:19
3	Tl 190.801†	-49.9	2.0	0.5561 ug/L	0.5561 ppb	18:10:39
3	U 409.014†	-2834.8	-251.9	-7.4873 ug/L	-7.4873 ppb	18:10:19
3	V 292.402†	-1792.0	-44.5	-0.2773 ug/L	-0.2773 ppb	18:10:19
3	Zn 213.857†	858.1	52.4	0.4289 ug/L	0.4289 ppb	18:10:39
3	SiO2†	707.2	92.6	5.6596 ug/L	5.6596 ppb	18:10:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	862360.5	97.265	%	0.6660				0.68%
Sc Radial	4789.4	103	%	4.0				3.94%
Y 371.029	741043.2	97.281	%	0.6696				0.69%
Y RADIAL	5068.5	102.7	%	4.11				4.00%
Ag 328.068†	-59.8	-0.2550	ug/L	0.24991	-0.2550	ppb	0.24991	97.99%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	22.3	19.749	ug/L	18.0206	19.749	ppb	18.0206	91.25%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.1	-0.0496	ug/L	2.16666	-0.0496	ppb	2.16666	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-2.4	-0.0465	ug/L	0.20338	-0.0465	ppb	0.20338	437.09%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.6	0.0553	ug/L	0.05692	0.0553	ppb	0.05692	102.86%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-86.6	-0.0293	ug/L	0.00909	-0.0293	ppb	0.00909	31.04%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	6.3	10.570	ug/L	3.8266	10.570	ppb	3.8266	36.20%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                6.7      0.0642 ug/L       0.09324      0.0642 ppb        0.09324 145.29%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -6.2     -0.1152 ug/L       0.16259     -0.1152 ppb        0.16259 141.11%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                8.2      0.0846 ug/L       0.34683      0.0846 ppb        0.34683 409.92%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              330.0      0.9763 ug/L       0.16984      0.9763 ppb        0.16984  17.40%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -1.7    -14.961 ug/L        1.6942    -14.961 ppb         1.6942  11.32%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         35.6      7.0266 ug/L      27.31713      7.0266 ppb       27.31713 388.77%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.6    -17.590 ug/L       74.5072    -17.590 ppb        74.5072 423.57%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              108.0      0.1127 ug/L       0.05511      0.1127 ppb        0.05511  48.92%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                8.9      0.5535 ug/L       0.49036      0.5535 ppb        0.49036  88.59%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       279.9     84.559 ug/L       15.1967     84.559 ppb        15.1967  17.97%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -3.1     -0.0687 ug/L       0.03979     -0.0687 ppb        0.03979  57.88%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 9.3      4.3999 ug/L       4.94675      4.3999 ppb        4.94675 112.43%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -12.9     -1.3312 ug/L       0.35246     -1.3312 ppb        0.35246  26.48%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           5.5      6.2232 ug/L       5.01703      6.2232 ppb        5.01703  80.62%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               15.7      4.6969 ug/L       0.92084      4.6969 ppb        0.92084  19.61%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -6.3     -3.2594 ug/L       2.97385     -3.2594 ppb        2.97385  91.24%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               59.8      1.7011 ug/L       0.76097      1.7011 ppb        0.76097  44.73%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.0      0.2939 ug/L       0.53840      0.2939 ppb        0.53840 183.17%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -5.7     -0.0416 ug/L       0.22642     -0.0416 ppb        0.22642 543.80%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -2.7     -0.0003 ug/L       0.09233     -0.0003 ppb        0.09233 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                6.7      1.8326 ug/L       1.86270      1.8326 ppb        1.86270 101.64%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -262.4     -7.7979 ug/L       3.40575     -7.7979 ppb        3.40575  43.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                14.6      0.0865 ug/L       0.59132      0.0865 ppb        0.59132 683.68%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               38.5      0.3171 ug/L       0.12009      0.3171 ppb        0.12009  37.87%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     53.5      3.2586 ug/L       2.08333      3.2586 ppb        2.08333  63.93%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

1/7/2010 10:55:17 Hg ReAlign... Actual peak offset (nm): -0.009
Drift (nm): 0.000 Slit adjustment: -2

Analysis Begun

Start Time: 1/7/2010 10:57:45 **Plasma On Time: 1/4/2010 06:33:21**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\010710.sif
Batch ID:
Results Data Set: 010710
Results Library: C:\pe\Optima3\Results\Results.mdb

Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 1/6/2010 11:54:05**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 1/7/2010 10:57:47**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

	Net	Corrected	Calib.	Analysis

Repl#	Analyte	Intensity	Intensity	Conc.	Units	Time
1	Sc Radial	4621.2	4621.2	99.9	%	10:59:40
1	Y RADIAL	4884.3	4884.3	99.78	%	10:59:40
1	Al 396.153Radial†	-13.0	-13.0	[0.00]	ug/L	10:59:40
1	Ca 317.933Radial†	13.9	14.0	[0.00]	ug/L	11:00:00
1	Fe 238.204 Radial†	11.6	11.7	[0.00]	ug/L	11:00:00
1	K 766.490 Radial†	3182.9	3187.5	[0.00]	ug/L	10:59:40
1	Mg 279.077 IEC†	0.4	0.4	[0.00]	ug/L	11:00:00
1	Na 589.592 Radial†	-1745.3	-1747.9	[0.00]	ug/L	10:59:40
1	Sr 421.552†	2.9	2.9	[0.00]	ug/L	10:59:40
1	Sc 361.383	868411.4	868411.4	99.435	%	11:00:57
1	Y 371.029	745122.7	745122.7	99.439	%	11:00:57
1	Ag 328.068†	455.1	457.7	[0.00]	ug/L	11:00:57
1	As 188.979†	-34.1	-34.3	[0.00]	ug/L	11:01:17
1	B 249.677†	-786.4	-790.9	[0.00]	ug/L	11:00:57
1	Ba 233.527†	16.1	16.2	[0.00]	ug/L	11:01:17
1	Be 313.107†	-4371.2	-4396.1	[0.00]	ug/L	11:00:57
1	Cd 226.502†	-247.3	-248.7	[0.00]	ug/L	11:01:17
1	Co 228.616†	-102.7	-103.3	[0.00]	ug/L	11:01:17
1	Cr 267.716†	55.8	56.1	[0.00]	ug/L	11:00:57
1	Cu 324.752†	8094.2	8140.2	[0.00]	ug/L	11:00:57
1	Mn 257.610†	1290.8	1298.2	[0.00]	ug/L	11:00:57
1	Mo 202.031†	29.4	29.6	[0.00]	ug/L	11:01:17
1	Ni 231.604†	109.7	110.3	[0.00]	ug/L	11:01:17
1	P 214.914†	236.0	237.4	[0.00]	ug/L	11:01:17
1	Pb 220.353†	-102.5	-103.1	[0.00]	ug/L	11:01:17
1	S 181.975 Axial†	59.0	59.4	[0.00]	ug/L	11:01:17
1	Sb 206.836†	41.3	41.5	[0.00]	ug/L	11:01:17
1	Se 196.026†	-43.7	-43.9	[0.00]	ug/L	11:01:17
1	Si 251.611†	624.5	628.0	[0.00]	ug/L	11:01:17
1	Sn 189.927†	6.1	6.1	[0.00]	ug/L	11:01:17
1	Ti 334.940†	-1670.1	-1679.6	[0.00]	ug/L	11:00:57
1	Tl 190.801†	-49.7	-50.0	[0.00]	ug/L	11:01:17
1	U 409.014†	-2860.9	-2877.1	[0.00]	ug/L	11:00:57
1	V 292.402†	-1871.5	-1882.2	[0.00]	ug/L	11:00:57
1	Zn 213.857†	843.0	847.8	[0.00]	ug/L	11:01:17
1	SiO2†	659.9	663.6	[0.00]	ug/L	11:02:13
2	Sc Radial	4679.3	4679.3	101	%	11:00:05
2	Y RADIAL	4949.1	4949.1	101.1	%	11:00:05
2	Al 396.153Radial†	-29.4	-29.1	[0.00]	ug/L	11:00:05
2	Ca 317.933Radial†	15.2	15.0	[0.00]	ug/L	11:00:25
2	Fe 238.204 Radial†	12.8	12.7	[0.00]	ug/L	11:00:25
2	K 766.490 Radial†	3248.1	3212.5	[0.00]	ug/L	11:00:05
2	Mg 279.077 IEC†	2.6	2.6	[0.00]	ug/L	11:00:25
2	Na 589.592 Radial†	-1718.4	-1699.5	[0.00]	ug/L	11:00:05
2	Sr 421.552†	-3.8	-3.8	[0.00]	ug/L	11:00:05
2	Sc 361.383	873621.9	873621.9	100.03	%	11:01:22
2	Y 371.029	749911.3	749911.3	100.08	%	11:01:22
2	Ag 328.068†	482.2	482.0	[0.00]	ug/L	11:01:22
2	As 188.979†	-32.1	-32.0	[0.00]	ug/L	11:01:42
2	B 249.677†	-756.6	-756.3	[0.00]	ug/L	11:01:22
2	Ba 233.527†	11.1	11.1	[0.00]	ug/L	11:01:42
2	Be 313.107†	-4351.2	-4349.8	[0.00]	ug/L	11:01:22
2	Cd 226.502†	-253.1	-253.0	[0.00]	ug/L	11:01:42
2	Co 228.616†	-102.4	-102.4	[0.00]	ug/L	11:01:42
2	Cr 267.716†	105.1	105.0	[0.00]	ug/L	11:01:22
2	Cu 324.752†	8072.1	8069.5	[0.00]	ug/L	11:01:22
2	Mn 257.610†	1330.3	1329.9	[0.00]	ug/L	11:01:22
2	Mo 202.031†	22.3	22.3	[0.00]	ug/L	11:01:42
2	Ni 231.604†	118.4	118.4	[0.00]	ug/L	11:01:42
2	P 214.914†	278.7	278.6	[0.00]	ug/L	11:01:42
2	Pb 220.353†	-117.9	-117.9	[0.00]	ug/L	11:01:42
2	S 181.975 Axial†	51.9	51.9	[0.00]	ug/L	11:01:42
2	Sb 206.836†	51.8	51.8	[0.00]	ug/L	11:01:42
2	Se 196.026†	-35.1	-35.1	[0.00]	ug/L	11:01:42
2	Si 251.611†	633.5	633.3	[0.00]	ug/L	11:01:42
2	Sn 189.927†	2.8	2.8	[0.00]	ug/L	11:01:42
2	Ti 334.940†	-1736.4	-1735.9	[0.00]	ug/L	11:01:22
2	Tl 190.801†	-37.9	-37.9	[0.00]	ug/L	11:01:42
2	U 409.014†	-2928.2	-2927.2	[0.00]	ug/L	11:01:22
2	V 292.402†	-1781.9	-1781.3	[0.00]	ug/L	11:01:22

2	Zn 213.857†	861.3	861.0	[0.00]	ug/L	11:01:42
2	SiO2†	640.3	640.1	[0.00]	ug/L	11:02:18
3	Sc Radial	4583.5	4583.5	99.0	%	11:00:30
3	Y RADIAL	4851.3	4851.3	99.11	%	11:00:30
3	Al 396.153Radial†	-20.3	-20.5	[0.00]	ug/L	11:00:30
3	Ca 317.933Radial†	12.9	13.0	[0.00]	ug/L	11:00:50
3	Fe 238.204 Radial†	13.7	13.8	[0.00]	ug/L	11:00:50
3	K 766.490 Radial†	3256.2	3287.8	[0.00]	ug/L	11:00:30
3	Mg 279.077 IEC†	1.6	1.6	[0.00]	ug/L	11:00:50
3	Na 589.592 Radial†	-1844.8	-1862.7	[0.00]	ug/L	11:00:30
3	Sr 421.552†	34.4	34.8	[0.00]	ug/L	11:00:30
3	Sc 361.383	877993.9	877993.9	100.53	%	11:01:47
3	Y 371.029	752947.1	752947.1	100.48	%	11:01:47
3	Ag 328.068†	535.9	533.0	[0.00]	ug/L	11:01:47
3	As 188.979†	-28.3	-28.2	[0.00]	ug/L	11:02:08
3	B 249.677†	-753.2	-749.2	[0.00]	ug/L	11:01:47
3	Ba 233.527†	28.6	28.4	[0.00]	ug/L	11:02:08
3	Be 313.107†	-4417.9	-4394.5	[0.00]	ug/L	11:01:47
3	Cd 226.502†	-258.6	-257.2	[0.00]	ug/L	11:02:08
3	Co 228.616†	-92.3	-91.8	[0.00]	ug/L	11:02:08
3	Cr 267.716†	110.3	109.7	[0.00]	ug/L	11:01:47
3	Cu 324.752†	8144.4	8101.3	[0.00]	ug/L	11:01:47
3	Mn 257.610†	1297.8	1290.9	[0.00]	ug/L	11:01:47
3	Mo 202.031†	28.4	28.2	[0.00]	ug/L	11:02:08
3	Ni 231.604†	120.4	119.8	[0.00]	ug/L	11:02:08
3	P 214.914†	243.2	241.9	[0.00]	ug/L	11:02:08
3	Pb 220.353†	-83.4	-83.0	[0.00]	ug/L	11:02:08
3	S 181.975 Axial†	62.1	61.8	[0.00]	ug/L	11:02:08
3	Sb 206.836†	45.5	45.3	[0.00]	ug/L	11:02:08
3	Se 196.026†	-37.4	-37.2	[0.00]	ug/L	11:02:08
3	Si 251.611†	632.2	628.8	[0.00]	ug/L	11:02:08
3	Sn 189.927†	5.3	5.3	[0.00]	ug/L	11:02:08
3	Ti 334.940†	-1854.7	-1844.9	[0.00]	ug/L	11:01:47
3	Tl 190.801†	-49.4	-49.1	[0.00]	ug/L	11:02:08
3	U 409.014†	-2936.9	-2921.3	[0.00]	ug/L	11:01:47
3	V 292.402†	-1765.1	-1755.7	[0.00]	ug/L	11:01:47
3	Zn 213.857†	855.0	850.4	[0.00]	ug/L	11:02:08
3	SiO2†	645.8	642.4	[0.00]	ug/L	11:02:23

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	873342.4	4797.36	0.55%	100.00	%
Sc Radial	4628.0	48.26	1.04%	100	%
Y 371.029	749327.0	3944.80	0.53%	100.00	%
Y RADIAL	4894.9	49.75	1.02%	100.00	%
Ag 328.068†	490.9	38.44	7.83%	[0.00]	ug/L
Al 396.153Radial†	-20.9	8.06	38.66%	[0.00]	ug/L
As 188.979†	-31.5	3.09	9.82%	[0.00]	ug/L
B 249.677†	-765.5	22.30	2.91%	[0.00]	ug/L
Ba 233.527†	18.6	8.91	48.03%	[0.00]	ug/L
Be 313.107†	-4380.1	26.28	0.60%	[0.00]	ug/L
Ca 317.933Radial†	14.0	1.02	7.26%	[0.00]	ug/L
Cd 226.502†	-253.0	4.26	1.68%	[0.00]	ug/L
Co 228.616†	-99.2	6.39	6.44%	[0.00]	ug/L
Cr 267.716†	90.3	29.69	32.89%	[0.00]	ug/L
Cu 324.752†	8103.7	35.40	0.44%	[0.00]	ug/L
Fe 238.204 Radial†	12.7	1.08	8.48%	[0.00]	ug/L
K 766.490 Radial†	3229.3	52.22	1.62%	[0.00]	ug/L
Mg 279.077 IEC†	1.5	1.11	73.03%	[0.00]	ug/L
Mn 257.610†	1306.3	20.71	1.59%	[0.00]	ug/L
Mo 202.031†	26.7	3.85	14.42%	[0.00]	ug/L
Na 589.592 Radial†	-1770.0	83.80	4.73%	[0.00]	ug/L
Ni 231.604†	116.1	5.12	4.41%	[0.00]	ug/L
P 214.914†	252.6	22.64	8.96%	[0.00]	ug/L
Pb 220.353†	-101.3	17.51	17.29%	[0.00]	ug/L
S 181.975 Axial†	57.7	5.18	8.98%	[0.00]	ug/L
Sb 206.836†	46.2	5.19	11.24%	[0.00]	ug/L
Se 196.026†	-38.8	4.58	11.82%	[0.00]	ug/L
Si 251.611†	630.0	2.84	0.45%	[0.00]	ug/L

Sn 189.927†	4.7	1.73	36.63%	[0.00]	ug/L
Sr 421.552†	11.3	20.60	182.33%	[0.00]	ug/L
Ti 334.940†	-1753.4	84.03	4.79%	[0.00]	ug/L
Tl 190.801†	-45.7	6.73	14.74%	[0.00]	ug/L
U 409.014†	-2908.6	27.38	0.94%	[0.00]	ug/L
V 292.402†	-1806.4	66.85	3.70%	[0.00]	ug/L
Zn 213.857†	853.1	6.97	0.82%	[0.00]	ug/L
SiO2†	648.7	12.96	2.00%	[0.00]	ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 1/7/2010 11:04:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4805.9	4805.9	104	%	11:06:31
1	Y RADIAL	5039.6	5039.6	103.0	%	11:06:31
1	K 766.490 Radial†	8190.2	4657.8	[1000]	ug/L	11:06:26
1	Sr 421.552†	13647.5	13131.1	[100]	ug/L	11:06:31
1	Sc 361.383	894270.4	894270.4	102.40	%	11:06:58
1	Y 371.029	762962.4	762962.4	101.82	%	11:06:58
1	Ag 328.068†	23423.9	22384.8	[100]	ug/L	11:06:58
1	As 188.979†	254.9	280.4	[100]	ug/L	11:07:18
1	B 249.677†	3899.1	4573.4	[100]	ug/L	11:06:58
1	Ba 233.527†	13666.9	13328.5	[100]	ug/L	11:06:58
1	Be 313.107†	290199.3	287788.1	[100]	ug/L	11:06:58
1	Cd 226.502†	10066.0	10083.4	[100]	ug/L	11:07:18
1	Co 228.616†	5165.4	5143.8	[100]	ug/L	11:07:18
1	Cr 267.716†	9993.0	9668.9	[100]	ug/L	11:06:58
1	Cu 324.752†	41012.6	31949.1	[100]	ug/L	11:06:58
1	Mn 257.610†	97132.3	93552.9	[100]	ug/L	11:06:58
1	Mo 202.031†	1600.4	1536.2	[100]	ug/L	11:07:18
1	Ni 231.604†	4618.0	4393.8	[100]	ug/L	11:07:18
1	P 214.914†	1259.7	977.6	[500]	ug/L	11:07:18
1	Pb 220.353†	867.9	948.9	[100]	ug/L	11:07:18
1	S 181.975 Axial†	218.9	156.1	[200]	ug/L	11:07:18
1	Sb 206.836†	361.0	306.4	[100]	ug/L	11:07:18
1	Se 196.026†	158.9	193.9	[100]	ug/L	11:07:18
1	Si 251.611†	17667.4	16623.9	[500]	ug/L	11:06:58
1	Sn 189.927†	670.5	650.1	[100]	ug/L	11:07:18
1	Ti 334.940†	61039.3	61364.3	[100]	ug/L	11:06:58
1	Tl 190.801†	318.1	356.4	[100]	ug/L	11:07:18
1	U 409.014†	572.7	3467.9	[100]	ug/L	11:06:58
1	V 292.402†	13754.4	15238.9	[100]	ug/L	11:06:58
1	Zn 213.857†	12917.5	11762.2	[100]	ug/L	11:06:58
1	SiO2†	17625.1	16563.9	[1069.5]	ug/L	11:08:15
2	Sc Radial	4709.5	4709.5	102	%	11:06:41
2	Y RADIAL	5002.0	5002.0	102.2	%	11:06:41
2	K 766.490 Radial†	7991.9	4624.2	[1000]	ug/L	11:06:36
2	Sr 421.552†	13619.0	13371.9	[100]	ug/L	11:06:41
2	Sc 361.383	888071.4	888071.4	101.69	%	11:07:24
2	Y 371.029	757165.4	757165.4	101.05	%	11:07:24
2	Ag 328.068†	23314.3	22436.7	[100]	ug/L	11:07:24
2	As 188.979†	255.0	282.2	[100]	ug/L	11:07:44
2	B 249.677†	3931.4	4631.7	[100]	ug/L	11:07:24
2	Ba 233.527†	13612.5	13368.2	[100]	ug/L	11:07:24
2	Be 313.107†	289232.8	288815.9	[100]	ug/L	11:07:24
2	Cd 226.502†	10082.9	10168.6	[100]	ug/L	11:07:44
2	Co 228.616†	5187.4	5200.6	[100]	ug/L	11:07:44
2	Cr 267.716†	9871.4	9617.4	[100]	ug/L	11:07:24
2	Cu 324.752†	41010.2	32226.4	[100]	ug/L	11:07:24
2	Mn 257.610†	97936.0	95005.4	[100]	ug/L	11:07:24
2	Mo 202.031†	1604.8	1551.5	[100]	ug/L	11:07:44
2	Ni 231.604†	4620.8	4428.0	[100]	ug/L	11:07:44
2	P 214.914†	1273.9	1000.1	[500]	ug/L	11:07:44
2	Pb 220.353†	877.4	964.2	[100]	ug/L	11:07:44
2	S 181.975 Axial†	233.5	171.9	[200]	ug/L	11:07:44
2	Sb 206.836†	362.0	309.8	[100]	ug/L	11:07:44
2	Se 196.026†	153.4	189.7	[100]	ug/L	11:07:44
2	Si 251.611†	17621.0	16698.7	[500]	ug/L	11:07:24
2	Sn 189.927†	666.2	650.4	[100]	ug/L	11:07:44
2	Ti 334.940†	61006.5	61748.1	[100]	ug/L	11:07:24
2	Tl 190.801†	319.2	359.6	[100]	ug/L	11:07:44
2	U 409.014†	583.0	3481.9	[100]	ug/L	11:07:24

2	V 292.402†	13703.1	15282.2	[100]	ug/L	11:07:24
2	Zn 213.857†	12899.0	11832.0	[100]	ug/L	11:07:24
2	SiO2†	17887.7	16942.3	[1069.5]	ug/L	11:08:21
3	Sc Radial	4622.3	4622.3	99.9	%	11:06:51
3	Y RADIAL	4894.1	4894.1	99.98	%	11:06:51
3	K 766.490 Radial†	8065.0	4845.6	[1000]	ug/L	11:06:46
3	Sr 421.552†	13400.9	13406.1	[100]	ug/L	11:06:51
3	Sc 361.383	891029.5	891029.5	102.03	%	11:07:50
3	Y 371.029	760209.7	760209.7	101.45	%	11:07:50
3	Ag 328.068†	23530.2	22572.2	[100]	ug/L	11:07:50
3	As 188.979†	248.9	275.4	[100]	ug/L	11:08:10
3	B 249.677†	3922.0	4609.6	[100]	ug/L	11:07:50
3	Ba 233.527†	13671.7	13381.8	[100]	ug/L	11:07:50
3	Be 313.107†	291403.0	289998.7	[100]	ug/L	11:07:50
3	Cd 226.502†	10107.8	10160.1	[100]	ug/L	11:08:10
3	Co 228.616†	5214.1	5209.8	[100]	ug/L	11:08:10
3	Cr 267.716†	10027.3	9738.0	[100]	ug/L	11:07:50
3	Cu 324.752†	41204.4	32282.8	[100]	ug/L	11:07:50
3	Mn 257.610†	97563.2	94320.3	[100]	ug/L	11:07:50
3	Mo 202.031†	1616.6	1557.8	[100]	ug/L	11:08:10
3	Ni 231.604†	4644.7	4436.4	[100]	ug/L	11:08:10
3	P 214.914†	1270.7	992.9	[500]	ug/L	11:08:10
3	Pb 220.353†	865.6	949.7	[100]	ug/L	11:08:10
3	S 181.975 Axial†	227.8	165.6	[200]	ug/L	11:08:10
3	Sb 206.836†	358.6	305.3	[100]	ug/L	11:08:10
3	Se 196.026†	155.6	191.3	[100]	ug/L	11:08:10
3	Si 251.611†	17708.6	16727.0	[500]	ug/L	11:07:50
3	Sn 189.927†	687.1	668.8	[100]	ug/L	11:08:10
3	Ti 334.940†	61349.7	61885.3	[100]	ug/L	11:07:50
3	Tl 190.801†	311.1	350.6	[100]	ug/L	11:08:10
3	U 409.014†	833.0	3725.0	[100]	ug/L	11:07:50
3	V 292.402†	13772.6	15305.6	[100]	ug/L	11:07:50
3	Zn 213.857†	12967.7	11857.2	[100]	ug/L	11:07:50
3	SiO2†	17823.5	16821.0	[1069.5]	ug/L	11:08:26

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	891123.8	3100.60	0.35%	102.04	%
Sc Radial	4712.6	91.81	1.95%	102	%
Y 371.029	760112.5	2899.74	0.38%	101.44	%
Y RADIAL	4978.6	75.54	1.52%	101.7	%
Ag 328.068†	22464.6	96.77	0.43%	[100]	ug/L
As 188.979†	279.4	3.50	1.25%	[100]	ug/L
B 249.677†	4604.9	29.46	0.64%	[100]	ug/L
Ba 233.527†	13359.5	27.68	0.21%	[100]	ug/L
Be 313.107†	288867.6	1106.19	0.38%	[100]	ug/L
Cd 226.502†	10137.4	46.95	0.46%	[100]	ug/L
Co 228.616†	5184.7	35.78	0.69%	[100]	ug/L
Cr 267.716†	9674.7	60.50	0.63%	[100]	ug/L
Cu 324.752†	32152.8	178.62	0.56%	[100]	ug/L
K 766.490 Radial†	4709.2	119.32	2.53%	[1000]	ug/L
Mn 257.610†	94292.8	726.65	0.77%	[100]	ug/L
Mo 202.031†	1548.5	11.11	0.72%	[100]	ug/L
Ni 231.604†	4419.4	22.58	0.51%	[100]	ug/L
P 214.914†	990.2	11.51	1.16%	[500]	ug/L
Pb 220.353†	954.2	8.61	0.90%	[100]	ug/L
S 181.975 Axial†	164.6	7.95	4.83%	[200]	ug/L
Sb 206.836†	307.2	2.35	0.76%	[100]	ug/L
Se 196.026†	191.6	2.17	1.13%	[100]	ug/L
Si 251.611†	16683.2	53.30	0.32%	[500]	ug/L
Sn 189.927†	656.4	10.69	1.63%	[100]	ug/L
Sr 421.552†	13303.0	149.89	1.13%	[100]	ug/L
Ti 334.940†	61665.9	270.05	0.44%	[100]	ug/L
Tl 190.801†	355.5	4.54	1.28%	[100]	ug/L
U 409.014†	3558.3	144.59	4.06%	[100]	ug/L
V 292.402†	15275.6	33.84	0.22%	[100]	ug/L
Zn 213.857†	11817.1	49.23	0.42%	[100]	ug/L
SiO2†	16775.7	193.25	1.15%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 1/7/2010 11:10:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4514.9	4514.9	97.6	%	11:12:28
1	Y RADIAL	4740.2	4740.2	96.84	%	11:12:28
1	Al 396.153Radial†	5854.8	6022.3	[5000]	ug/L	11:12:28
1	Ca 317.933Radial†	2958.8	3018.9	[5000]	ug/L	11:12:48
1	K 766.490 Radial†	27581.7	25043.1	[5000]	ug/L	11:12:28
1	Mg 279.077 IEC†	157.3	159.8	[5000]	ug/L	11:12:48
1	Sr 421.552†	67765.7	69451.5	[500]	ug/L	11:12:28
1	Sc 361.383	890716.5	890716.5	101.99	%	11:13:47
1	Y 371.029	753305.7	753305.7	100.53	%	11:13:47
1	Ag 328.068†	116030.7	113276.6	[500]	ug/L	11:13:47
1	As 188.979†	1409.1	1413.1	[500]	ug/L	11:14:07
1	B 249.677†	23521.4	23828.1	[500]	ug/L	11:13:47
1	Ba 233.527†	68940.5	67577.2	[500]	ug/L	11:13:47
1	Be 313.107†	1504233.5	1479272.5	[500]	ug/L	11:13:47
1	Cd 226.502†	53326.0	52538.8	[500]	ug/L	11:13:47
1	Co 228.616†	26364.3	25949.2	[500]	ug/L	11:14:07
1	Cr 267.716†	49990.5	48925.1	[500]	ug/L	11:13:47
1	Cu 324.752†	177870.5	166297.3	[500]	ug/L	11:13:47
1	Mn 257.610†	483981.8	473235.1	[500]	ug/L	11:13:47
1	Mo 202.031†	7937.4	7755.9	[500]	ug/L	11:14:07
1	Ni 231.604†	22769.7	22209.4	[500]	ug/L	11:14:07
1	P 214.914†	5433.0	5074.4	[2500]	ug/L	11:14:07
1	Pb 220.353†	4790.9	4798.7	[500]	ug/L	11:14:07
1	S 181.975 Axial†	948.7	872.5	[1000]	ug/L	11:14:07
1	Sb 206.836†	1692.6	1613.4	[500]	ug/L	11:14:07
1	Se 196.026†	970.4	990.3	[500]	ug/L	11:14:07
1	Si 251.611†	87967.6	85621.7	[2500]	ug/L	11:13:47
1	Sn 189.927†	3361.4	3291.1	[500]	ug/L	11:14:07
1	Ti 334.940†	316255.4	311840.1	[500]	ug/L	11:13:47
1	Tl 190.801†	1783.1	1794.0	[500]	ug/L	11:14:07
1	U 409.014†	13481.4	16127.0	[500]	ug/L	11:13:47
1	V 292.402†	77632.6	77924.7	[500]	ug/L	11:13:47
1	Zn 213.857†	62728.5	60651.9	[500]	ug/L	11:13:47
1	SiO2†	86520.9	84184.6	[5347.5]	ug/L	11:15:08
2	Sc Radial	4539.5	4539.5	98.1	%	11:12:53
2	Y RADIAL	4783.3	4783.3	97.72	%	11:12:53
2	Al 396.153Radial†	5744.3	5877.1	[5000]	ug/L	11:12:53
2	Ca 317.933Radial†	2950.2	2993.7	[5000]	ug/L	11:13:13
2	K 766.490 Radial†	27350.5	24654.0	[5000]	ug/L	11:12:53
2	Mg 279.077 IEC†	152.7	154.1	[5000]	ug/L	11:13:13
2	Sr 421.552†	66796.4	68086.4	[500]	ug/L	11:12:53
2	Sc 361.383	883776.7	883776.7	101.19	%	11:14:15
2	Y 371.029	748804.6	748804.6	99.930	%	11:14:15
2	Ag 328.068†	115127.3	113277.2	[500]	ug/L	11:14:15
2	As 188.979†	1407.6	1422.5	[500]	ug/L	11:14:35
2	B 249.677†	23397.3	23886.5	[500]	ug/L	11:14:15
2	Ba 233.527†	68283.0	67458.3	[500]	ug/L	11:14:15
2	Be 313.107†	1490220.1	1477006.0	[500]	ug/L	11:14:15
2	Cd 226.502†	52771.6	52401.5	[500]	ug/L	11:14:15
2	Co 228.616†	26457.2	26244.0	[500]	ug/L	11:14:35
2	Cr 267.716†	49571.3	48895.8	[500]	ug/L	11:14:15
2	Cu 324.752†	176118.4	165935.4	[500]	ug/L	11:14:15
2	Mn 257.610†	479325.9	472360.5	[500]	ug/L	11:14:15
2	Mo 202.031†	7967.8	7847.1	[500]	ug/L	11:14:35
2	Ni 231.604†	22859.3	22473.2	[500]	ug/L	11:14:35
2	P 214.914†	5438.8	5122.0	[2500]	ug/L	11:14:35
2	Pb 220.353†	4803.9	4848.4	[500]	ug/L	11:14:35
2	S 181.975 Axial†	952.7	883.8	[1000]	ug/L	11:14:35
2	Sb 206.836†	1698.9	1632.6	[500]	ug/L	11:14:35

2	Se 196.026†	970.9	998.2	[500]	ug/L	11:14:35
2	Si 251.611†	87193.6	85534.1	[2500]	ug/L	11:14:15
2	Sn 189.927†	3370.3	3325.8	[500]	ug/L	11:14:35
2	Ti 334.940†	313853.3	311901.2	[500]	ug/L	11:14:15
2	Tl 190.801†	1810.9	1835.2	[500]	ug/L	11:14:35
2	U 409.014†	13364.5	16115.3	[500]	ug/L	11:14:15
2	V 292.402†	77087.3	77983.5	[500]	ug/L	11:14:15
2	Zn 213.857†	62104.1	60517.8	[500]	ug/L	11:14:15
2	SiO2†	86448.9	84779.5	[5347.5]	ug/L	11:15:13
3	Sc Radial	4540.0	4540.0	98.1	%	11:13:18
3	Y RADIAL	4799.3	4799.3	98.05	%	11:13:18
3	Al 396.153Radial†	5775.4	5908.2	[5000]	ug/L	11:13:18
3	Ca 317.933Radial†	2945.3	2988.4	[5000]	ug/L	11:13:38
3	K 766.490 Radial†	27294.5	24594.4	[5000]	ug/L	11:13:18
3	Mg 279.077 IEC†	153.5	154.9	[5000]	ug/L	11:13:38
3	Sr 421.552†	66815.6	68099.9	[500]	ug/L	11:13:18
3	Sc 361.383	910281.2	910281.2	104.23	%	11:14:42
3	Y 371.029	770360.4	770360.4	102.81	%	11:14:42
3	Ag 328.068†	115198.7	110033.1	[500]	ug/L	11:14:42
3	As 188.979†	1401.4	1376.1	[500]	ug/L	11:15:02
3	B 249.677†	23445.1	23259.2	[500]	ug/L	11:14:42
3	Ba 233.527†	68372.5	65579.4	[500]	ug/L	11:14:42
3	Be 313.107†	1491712.4	1435559.5	[500]	ug/L	11:14:42
3	Cd 226.502†	52894.8	51001.3	[500]	ug/L	11:14:42
3	Co 228.616†	26223.7	25258.8	[500]	ug/L	11:15:02
3	Cr 267.716†	49460.7	47363.4	[500]	ug/L	11:14:42
3	Cu 324.752†	176364.1	161103.6	[500]	ug/L	11:14:42
3	Mn 257.610†	479902.8	459122.2	[500]	ug/L	11:14:42
3	Mo 202.031†	7906.6	7559.1	[500]	ug/L	11:15:02
3	Ni 231.604†	22673.2	21637.0	[500]	ug/L	11:15:02
3	P 214.914†	5400.5	4928.7	[2500]	ug/L	11:15:02
3	Pb 220.353†	4767.9	4675.7	[500]	ug/L	11:15:02
3	S 181.975 Axial†	925.8	830.5	[1000]	ug/L	11:15:02
3	Sb 206.836†	1679.8	1565.5	[500]	ug/L	11:15:02
3	Se 196.026†	958.0	957.9	[500]	ug/L	11:15:02
3	Si 251.611†	87364.3	83189.0	[2500]	ug/L	11:14:42
3	Sn 189.927†	3329.9	3190.0	[500]	ug/L	11:15:02
3	Ti 334.940†	313754.1	302775.5	[500]	ug/L	11:14:42
3	Tl 190.801†	1787.4	1760.5	[500]	ug/L	11:15:02
3	U 409.014†	13400.3	15765.1	[500]	ug/L	11:14:42
3	V 292.402†	76981.8	75664.3	[500]	ug/L	11:14:42
3	Zn 213.857†	62087.2	58714.6	[500]	ug/L	11:14:42
3	SiO2†	89030.6	84769.1	[5347.5]	ug/L	11:15:18

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	894924.8	13744.28	1.54%	102.47	%
Sc Radial	4531.5	14.34	0.32%	97.9	%
Y 371.029	757490.3	11370.84	1.50%	101.09	%
Y RADIAL	4774.3	30.52	0.64%	97.54	%
Ag 328.068†	112195.6	1872.82	1.67%	[500]	ug/L
Al 396.153Radial†	5935.9	76.46	1.29%	[5000]	ug/L
As 188.979†	1403.9	24.55	1.75%	[500]	ug/L
B 249.677†	23657.9	346.56	1.46%	[500]	ug/L
Ba 233.527†	66871.6	1120.67	1.68%	[500]	ug/L
Be 313.107†	1463946.0	24609.51	1.68%	[500]	ug/L
Ca 317.933Radial†	3000.3	16.32	0.54%	[5000]	ug/L
Cd 226.502†	51980.6	850.79	1.64%	[500]	ug/L
Co 228.616†	25817.3	505.71	1.96%	[500]	ug/L
Cr 267.716†	48394.8	893.35	1.85%	[500]	ug/L
Cu 324.752†	164445.4	2899.74	1.76%	[500]	ug/L
K 766.490 Radial†	24763.9	243.68	0.98%	[5000]	ug/L
Mg 279.077 IEC†	156.3	3.04	1.94%	[5000]	ug/L
Mn 257.610†	468239.3	7907.68	1.69%	[500]	ug/L
Mo 202.031†	7720.7	147.20	1.91%	[500]	ug/L
Ni 231.604†	22106.5	427.50	1.93%	[500]	ug/L
P 214.914†	5041.7	100.71	2.00%	[2500]	ug/L
Pb 220.353†	4774.3	88.90	1.86%	[500]	ug/L
S 181.975 Axial†	862.3	28.07	3.26%	[1000]	ug/L

Sb 206.836†	1603.8	34.59	2.16%	[500]	ug/L
Se 196.026†	982.1	21.35	2.17%	[500]	ug/L
Si 251.611†	84781.6	1379.93	1.63%	[2500]	ug/L
Sn 189.927†	3269.0	70.52	2.16%	[500]	ug/L
Sr 421.552†	68545.9	784.26	1.14%	[500]	ug/L
Ti 334.940†	308838.9	5251.15	1.70%	[500]	ug/L
Tl 190.801†	1796.6	37.42	2.08%	[500]	ug/L
U 409.014†	16002.5	205.65	1.29%	[500]	ug/L
V 292.402†	77190.9	1322.35	1.71%	[500]	ug/L
Zn 213.857†	59961.4	1081.84	1.80%	[500]	ug/L
SiO2†	84577.7	340.50	0.40%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 1/7/2010 11:17:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4502.5	4502.5	97.3	%	11:19:41
1	Y RADIAL	4714.2	4714.2	96.31	%	11:19:41
1	Al 396.153Radial†	11488.8	11830.0	[10000]	ug/L	11:19:21
1	Ca 317.933Radial†	5746.2	5892.4	[10000]	ug/L	11:19:41
1	Fe 238.204 Radial†	1051.8	1068.4	[10000]	ug/L	11:19:41
1	K 766.490 Radial†	51674.7	49885.9	[10000]	ug/L	11:19:21
1	Mg 279.077 IEC†	298.4	305.2	[10000]	ug/L	11:19:41
1	Na 589.592 Radial†	28497.5	31062.0	[10000]	ug/L	11:19:21
1	Sr 421.552†	133154.3	136855.0	[1000]	ug/L	11:19:21
1	Sc 361.383	860939.3	860939.3	98.580	%	11:20:44
1	Y 371.029	732914.2	732914.2	97.810	%	11:20:44
1	Ag 328.068†	228827.0	231632.7	[1000]	ug/L	11:20:44
1	As 188.979†	2782.4	2854.0	[1000]	ug/L	11:21:04
1	B 249.677†	47016.0	48458.8	[1000]	ug/L	11:20:44
1	Ba 233.527†	134387.8	136305.3	[1000]	ug/L	11:20:44
1	Be 313.107†	2877210.5	2923041.1	[1000]	ug/L	11:20:39
1	Cd 226.502†	103532.6	105277.1	[1000]	ug/L	11:20:44
1	Co 228.616†	52265.0	53117.2	[1000]	ug/L	11:20:44
1	Cr 267.716†	97534.1	98849.0	[1000]	ug/L	11:20:44
1	Cu 324.752†	340721.5	337526.4	[1000]	ug/L	11:20:44
1	Mn 257.610†	924111.3	936118.1	[1000]	ug/L	11:20:39
1	Mo 202.031†	15587.5	15785.4	[1000]	ug/L	11:21:04
1	Ni 231.604†	44843.8	45373.7	[1000]	ug/L	11:20:44
1	P 214.914†	10289.0	10184.6	[5000]	ug/L	11:21:04
1	Pb 220.353†	9329.3	9565.0	[1000]	ug/L	11:21:04
1	S 181.975 Axial†	1799.0	1767.2	[2000]	ug/L	11:21:04
1	Sb 206.836†	3320.3	3322.0	[1000]	ug/L	11:21:04
1	Se 196.026†	1890.7	1956.7	[1000]	ug/L	11:21:04
1	Si 251.611†	171875.4	173721.5	[5000]	ug/L	11:20:44
1	Sn 189.927†	6601.7	6692.1	[1000]	ug/L	11:21:04
1	Ti 334.940†	615414.3	626033.7	[1000]	ug/L	11:20:44
1	Tl 190.801†	3519.4	3615.8	[1000]	ug/L	11:21:04
1	U 409.014†	30541.0	33889.6	[1000]	ug/L	11:20:44
1	V 292.402†	154361.2	158391.4	[1000]	ug/L	11:20:44
1	Zn 213.857†	120274.7	121154.4	[1000]	ug/L	11:20:44
1	SiO2†	170151.6	171954.1	[10695]	ug/L	11:22:13
2	Sc Radial	4515.3	4515.3	97.6	%	11:20:06
2	Y RADIAL	4734.3	4734.3	96.72	%	11:20:06
2	Al 396.153Radial†	11454.5	11761.1	[10000]	ug/L	11:19:46
2	Ca 317.933Radial†	5751.6	5881.1	[10000]	ug/L	11:20:06
2	Fe 238.204 Radial†	1059.4	1073.1	[10000]	ug/L	11:20:06
2	K 766.490 Radial†	51379.1	49431.5	[10000]	ug/L	11:19:46
2	Mg 279.077 IEC†	298.3	304.2	[10000]	ug/L	11:20:06
2	Na 589.592 Radial†	28177.2	30650.2	[10000]	ug/L	11:19:46
2	Sr 421.552†	132208.5	135495.3	[1000]	ug/L	11:19:46
2	Sc 361.383	854441.2	854441.2	97.836	%	11:21:16
2	Y 371.029	726048.1	726048.1	96.893	%	11:21:16
2	Ag 328.068†	227553.5	232096.4	[1000]	ug/L	11:21:16
2	As 188.979†	2774.2	2867.1	[1000]	ug/L	11:21:36
2	B 249.677†	46735.6	48534.9	[1000]	ug/L	11:21:16
2	Ba 233.527†	133778.7	136719.5	[1000]	ug/L	11:21:16
2	Be 313.107†	2923939.4	2993000.4	[1000]	ug/L	11:21:10
2	Cd 226.502†	102949.4	105479.7	[1000]	ug/L	11:21:16
2	Co 228.616†	52127.5	53379.8	[1000]	ug/L	11:21:16
2	Cr 267.716†	97096.3	99153.9	[1000]	ug/L	11:21:16
2	Cu 324.752†	338393.6	337775.6	[1000]	ug/L	11:21:16
2	Mn 257.610†	938666.3	958124.4	[1000]	ug/L	11:21:10
2	Mo 202.031†	15655.3	15974.9	[1000]	ug/L	11:21:36
2	Ni 231.604†	44582.5	45452.6	[1000]	ug/L	11:21:16

2	P 214.914†	10310.3	10285.7	[5000]	ug/L	11:21:36
2	Pb 220.353†	9366.8	9675.3	[1000]	ug/L	11:21:36
2	S 181.975 Axial†	1810.5	1792.9	[2000]	ug/L	11:21:36
2	Sb 206.836†	3320.3	3347.6	[1000]	ug/L	11:21:36
2	Se 196.026†	1903.0	1983.9	[1000]	ug/L	11:21:36
2	Si 251.611†	170992.6	174145.1	[5000]	ug/L	11:21:16
2	Sn 189.927†	6628.6	6770.5	[1000]	ug/L	11:21:36
2	Ti 334.940†	611788.9	627075.9	[1000]	ug/L	11:21:16
2	Tl 190.801†	3553.6	3677.9	[1000]	ug/L	11:21:36
2	U 409.014†	30621.0	34206.9	[1000]	ug/L	11:21:16
2	V 292.402†	153540.2	158743.0	[1000]	ug/L	11:21:16
2	Zn 213.857†	119432.1	121221.0	[1000]	ug/L	11:21:16
2	SiO2†	171871.0	175024.3	[10695]	ug/L	11:22:18
3	Sc Radial	4514.5	4514.5	97.5	%	11:20:31
3	Y RADIAL	4731.8	4731.8	96.67	%	11:20:31
3	Al 396.153Radial†	11296.6	11601.3	[10000]	ug/L	11:20:11
3	Ca 317.933Radial†	5732.5	5862.6	[10000]	ug/L	11:20:31
3	Fe 238.204 Radial†	1054.5	1068.2	[10000]	ug/L	11:20:31
3	K 766.490 Radial†	50697.9	48742.5	[10000]	ug/L	11:20:11
3	Mg 279.077 IEC†	296.1	302.0	[10000]	ug/L	11:20:31
3	Na 589.592 Radial†	27716.3	30182.7	[10000]	ug/L	11:20:11
3	Sr 421.552†	130630.1	133901.2	[1000]	ug/L	11:20:11
3	Sc 361.383	849037.4	849037.4	97.217	%	11:21:47
3	Y 371.029	722399.3	722399.3	96.406	%	11:21:47
3	Ag 328.068†	225126.2	231079.8	[1000]	ug/L	11:21:47
3	As 188.979†	2757.0	2867.4	[1000]	ug/L	11:22:07
3	B 249.677†	46236.2	48325.2	[1000]	ug/L	11:21:47
3	Ba 233.527†	132295.6	136064.3	[1000]	ug/L	11:21:47
3	Be 313.107†	2929465.7	3017706.2	[1000]	ug/L	11:21:42
3	Cd 226.502†	101889.3	105059.0	[1000]	ug/L	11:21:47
3	Co 228.616†	51581.4	53157.1	[1000]	ug/L	11:21:47
3	Cr 267.716†	96112.1	98773.2	[1000]	ug/L	11:21:47
3	Cu 324.752†	334449.4	335919.8	[1000]	ug/L	11:21:47
3	Mn 257.610†	940008.1	965610.9	[1000]	ug/L	11:21:42
3	Mo 202.031†	15525.0	15942.7	[1000]	ug/L	11:22:07
3	Ni 231.604†	44123.4	45270.3	[1000]	ug/L	11:21:47
3	P 214.914†	10226.7	10266.8	[5000]	ug/L	11:22:07
3	Pb 220.353†	9278.0	9644.9	[1000]	ug/L	11:22:07
3	S 181.975 Axial†	1786.0	1779.4	[2000]	ug/L	11:22:07
3	Sb 206.836†	3297.0	3345.2	[1000]	ug/L	11:22:07
3	Se 196.026†	1868.8	1961.0	[1000]	ug/L	11:22:07
3	Si 251.611†	169025.8	173234.4	[5000]	ug/L	11:21:47
3	Sn 189.927†	6564.6	6747.8	[1000]	ug/L	11:22:07
3	Ti 334.940†	605876.6	624974.1	[1000]	ug/L	11:21:47
3	Tl 190.801†	3522.2	3668.7	[1000]	ug/L	11:22:07
3	U 409.014†	29915.1	33680.0	[1000]	ug/L	11:21:47
3	V 292.402†	152183.3	158346.1	[1000]	ug/L	11:21:47
3	Zn 213.857†	118232.5	120764.0	[1000]	ug/L	11:21:47
3	SiO2†	171445.5	175704.7	[10695]	ug/L	11:22:23

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	854806.0	5959.31	0.70%	97.878	%
Sc Radial	4510.8	7.21	0.16%	97.5	%
Y 371.029	727120.5	5338.84	0.73%	97.036	%
Y RADIAL	4726.8	10.95	0.23%	96.57	%
Ag 328.068†	231603.0	508.92	0.22%	[1000]	ug/L
Al 396.153Radial†	11730.8	117.30	1.00%	[10000]	ug/L
As 188.979†	2862.8	7.68	0.27%	[1000]	ug/L
B 249.677†	48439.6	106.13	0.22%	[1000]	ug/L
Ba 233.527†	136363.0	331.39	0.24%	[1000]	ug/L
Be 313.107†	2977915.9	49102.19	1.65%	[1000]	ug/L
Ca 317.933Radial†	5878.7	15.06	0.26%	[10000]	ug/L
Cd 226.502†	105271.9	210.39	0.20%	[1000]	ug/L
Co 228.616†	53218.0	141.50	0.27%	[1000]	ug/L
Cr 267.716†	98925.4	201.55	0.20%	[1000]	ug/L
Cu 324.752†	337073.9	1007.23	0.30%	[1000]	ug/L
Fe 238.204 Radial†	1069.9	2.76	0.26%	[10000]	ug/L
K 766.490 Radial†	49353.3	575.72	1.17%	[10000]	ug/L

Mg 279.077 IEC†	303.8	1.66	0.55%	[10000]	ug/L
Mn 257.610†	953284.5	15330.51	1.61%	[1000]	ug/L
Mo 202.031†	15901.0	101.40	0.64%	[1000]	ug/L
Na 589.592 Radial†	30631.6	439.91	1.44%	[10000]	ug/L
Ni 231.604†	45365.5	91.41	0.20%	[1000]	ug/L
P 214.914†	10245.7	53.76	0.52%	[5000]	ug/L
Pb 220.353†	9628.4	56.93	0.59%	[1000]	ug/L
S 181.975 Axial†	1779.8	12.83	0.72%	[2000]	ug/L
Sb 206.836†	3338.2	14.16	0.42%	[1000]	ug/L
Se 196.026†	1967.2	14.60	0.74%	[1000]	ug/L
Si 251.611†	173700.3	455.72	0.26%	[5000]	ug/L
Sn 189.927†	6736.8	40.35	0.60%	[1000]	ug/L
Sr 421.552†	135417.2	1478.47	1.09%	[1000]	ug/L
Ti 334.940†	626027.9	1050.88	0.17%	[1000]	ug/L
Tl 190.801†	3654.1	33.50	0.92%	[1000]	ug/L
U 409.014†	33925.5	265.28	0.78%	[1000]	ug/L
V 292.402†	158493.5	217.25	0.14%	[1000]	ug/L
Zn 213.857†	121046.5	246.84	0.20%	[1000]	ug/L
SiO2†	174227.7	1998.14	1.15%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 1/7/2010 11:24:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4554.3	4554.3	98.4	%	11:26:48
1	Y RADIAL	4800.1	4800.1	98.06	%	11:26:48
1	Al 396.153Radial†	56625.5	57563.0	[50000]	ug/L	11:26:28
1	Ca 317.933Radial†	28268.1	28711.7	[50000]	ug/L	11:26:28
1	Fe 238.204 Radial†	2042.4	2062.7	[20000]	ug/L	11:26:48
1	Mg 279.077 IEC†	1440.4	1462.2	[50000]	ug/L	11:26:48
1	Na 589.592 Radial†	54968.5	57628.3	[20000]	ug/L	11:26:28
1	Sc 361.383	883070.5	883070.5	101.11	%	11:27:45
1	Y 371.029	745063.9	745063.9	99.431	%	11:27:45
2	Sc Radial	4487.7	4487.7	97.0	%	11:27:13
2	Y RADIAL	4733.3	4733.3	96.70	%	11:27:13
2	Al 396.153Radial†	56753.2	58548.7	[50000]	ug/L	11:26:53
2	Ca 317.933Radial†	28292.1	29162.8	[50000]	ug/L	11:26:53
2	Fe 238.204 Radial†	2030.0	2080.7	[20000]	ug/L	11:27:13
2	Mg 279.077 IEC†	1422.8	1465.8	[50000]	ug/L	11:27:13
2	Na 589.592 Radial†	54803.6	58287.3	[20000]	ug/L	11:26:53
2	Sc 361.383	861070.7	861070.7	98.595	%	11:27:51
2	Y 371.029	726473.7	726473.7	96.950	%	11:27:51
3	Sc Radial	4532.6	4532.6	97.9	%	11:27:38
3	Y RADIAL	4777.3	4777.3	97.60	%	11:27:38
3	Al 396.153Radial†	56875.9	58093.8	[50000]	ug/L	11:27:18
3	Ca 317.933Radial†	28315.9	28897.9	[50000]	ug/L	11:27:18
3	Fe 238.204 Radial†	2041.5	2071.8	[20000]	ug/L	11:27:38
3	Mg 279.077 IEC†	1436.4	1465.1	[50000]	ug/L	11:27:38
3	Na 589.592 Radial†	54885.5	57810.6	[20000]	ug/L	11:27:18
3	Sc 361.383	864117.6	864117.6	98.944	%	11:27:56
3	Y 371.029	729013.9	729013.9	97.289	%	11:27:56

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	869419.6	11919.78	1.37%	99.551	%
Sc Radial	4524.8	33.97	0.75%	97.8	%
Y 371.029	733517.2	10080.12	1.37%	97.890	%
Y RADIAL	4770.2	33.94	0.71%	97.45	%
Al 396.153Radial†	58068.5	493.33	0.85%	[50000]	ug/L
Ca 317.933Radial†	28924.1	226.69	0.78%	[50000]	ug/L
Fe 238.204 Radial†	2071.8	9.00	0.43%	[20000]	ug/L
Mg 279.077 IEC†	1464.4	1.90	0.13%	[50000]	ug/L
Na 589.592 Radial†	57908.7	340.25	0.59%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	230.1	0.00000	0.999920	
Al 396.153Radial	3	Lin Thru 0	0.0	1.162	0.00000	0.999996	
As 188.979	3	Lin Thru 0	0.0	2.851	0.00000	0.999969	
B 249.677	3	Lin Thru 0	0.0	48.20	0.00000	0.999949	
Ba 233.527	3	Lin Thru 0	0.0	135.8	0.00000	0.999969	
Be 313.107	3	Lin Thru 0	0.0	2967	0.00000	0.999975	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5790	0.00000	0.999989	
Cd 226.502	3	Lin Thru 0	0.0	105.0	0.00000	0.999983	
Co 228.616	3	Lin Thru 0	0.0	52.89	0.00000	0.999927	
Cr 267.716	3	Lin Thru 0	0.0	98.48	0.00000	0.999961	
Cu 324.752	3	Lin Thru 0	0.0	335.3	0.00000	0.999946	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1043	0.00000	0.999915	
K 766.490 Radial	3	Lin Thru 0	0.0	4.937	0.00000	0.999990	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0293	0.00000	0.999954
Mn 257.610	3	Lin Thru 0	0.0	949.9	0.00000	0.999975
Mo 202.031	3	Lin Thru 0	0.0	15.81	0.00000	0.999931
Na 589.592 Radia	2	Lin Thru 0	0.0	2.929	0.00000	0.999738
Ni 231.604	3	Lin Thru 0	0.0	45.13	0.00000	0.999947
P 214.914	3	Lin Thru 0	0.0	2.042	0.00000	0.999976
Pb 220.353	3	Lin Thru 0	0.0	9.612	0.00000	0.999994
S 181.975 Axial	3	Lin Thru 0	0.0	0.8839	0.00000	0.999903
Sb 206.836	3	Lin Thru 0	0.0	3.310	0.00000	0.999856
Se 196.026	3	Lin Thru 0	0.0	1.966	0.00000	0.999997
Si 251.611	3	Lin Thru 0	0.0	34.56	0.00000	0.999950
Sn 189.927	3	Lin Thru 0	0.0	6.696	0.00000	0.999928
Sr 421.552	3	Lin Thru 0	0.0	135.7	0.00000	0.999986
Ti 334.940	3	Lin Thru 0	0.0	624.3	0.00000	0.999985
Tl 190.801	3	Lin Thru 0	0.0	3.641	0.00000	0.999976
U 409.014	3	Lin Thru 0	0.0	33.56	0.00000	0.999726
V 292.402	3	Lin Thru 0	0.0	157.6	0.00000	0.999942
Zn 213.857	3	Lin Thru 0	0.0	120.8	0.00000	0.999991
SiO2	3	Lin Thru 0	0.0	16.19	0.00000	0.999928

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 1/7/2010 11:30:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4721.0	4721.0	102	%			11:32:00
1	Y RADIAL	4975.1	4975.1	101.6	%			11:32:00
1	Al 396.153Radial†	5968.8	5872.1	5030.3	ug/L	5030.3	ppb	11:32:00
1	Ca 317.933Radial†	2877.9	2807.3	4848.1	ug/L	4848.1	ppb	11:32:20
1	Fe 238.204 Radial†	528.9	505.7	4865.8	ug/L	4865.8	ppb	11:32:20
1	K 766.490 Radial†	15428.4	11895.2	2404.2	ug/L	2404.2	ppb	11:32:00
1	Mg 279.077 IEC†	156.5	151.9	5183.3	ug/L	5183.3	ppb	11:32:20
1	Na 589.592 Radial†	5567.0	7227.4	2467.5	ug/L	2467.5	ppb	11:32:00
1	Sr 421.552†	69303.1	67926.7	500.41	ug/L	500.41	ppb	11:32:00
1	Sc 361.383	888226.6	888226.6	101.70	%			11:33:18
1	Y 371.029	754365.4	754365.4	100.67	%			11:33:18
1	Ag 328.068†	59850.7	58356.8	256.69	ug/L	256.69	ppb	11:33:18
1	As 188.979†	1341.6	1350.6	477.93	ug/L	477.93	ppb	11:33:38
1	B 249.677†	24239.4	24598.7	508.46	ug/L	508.46	ppb	11:33:18
1	Ba 233.527†	69568.0	68383.7	504.73	ug/L	504.73	ppb	11:33:18
1	Be 313.107†	769791.7	761272.3	257.53	ug/L	257.53	ppb	11:33:18
1	Cd 226.502†	52552.2	51924.5	494.44	ug/L	494.44	ppb	11:33:18
1	Co 228.616†	26718.3	26369.7	498.87	ug/L	498.87	ppb	11:33:38
1	Cr 267.716†	48427.0	47525.3	483.38	ug/L	483.38	ppb	11:33:18
1	Cu 324.752†	178572.5	167476.5	499.69	ug/L	499.69	ppb	11:33:18
1	Mn 257.610†	490228.1	480707.0	506.47	ug/L	506.47	ppb	11:33:18
1	Mo 202.031†	8612.1	8441.0	534.49	ug/L	534.49	ppb	11:33:38
1	Ni 231.604†	22820.5	22322.0	494.32	ug/L	494.32	ppb	11:33:38
1	P 214.914†	5438.9	5095.2	2420.1	ug/L	2420.1	ppb	11:33:38
1	Pb 220.353†	4758.2	4779.8	498.93	ug/L	498.93	ppb	11:33:38
1	S 181.975 Axial†	2270.7	2175.0	2459.6	ug/L	2459.6	ppb	11:33:38
1	Sb 206.836†	1713.0	1638.1	503.88	ug/L	503.88	ppb	11:33:38
1	Se 196.026†	5034.7	4989.1	2554.8	ug/L	2554.8	ppb	11:33:38
1	Si 251.611†	167991.8	164546.7	4748.7	ug/L	4748.7	ppb	11:33:18
1	Sn 189.927†	3623.0	3557.6	531.87	ug/L	531.87	ppb	11:33:38
1	Ti 334.940†	313777.8	310273.2	496.86	ug/L	496.86	ppb	11:33:18
1	Tl 190.801†	1895.2	1909.1	527.51	ug/L	527.51	ppb	11:33:38
1	U 409.014†	13995.2	16669.2	495.19	ug/L	495.19	ppb	11:33:18
1	V 292.402†	78527.9	79018.4	508.52	ug/L	508.52	ppb	11:33:18
1	Zn 213.857†	62907.9	61000.7	500.78	ug/L	500.78	ppb	11:33:18
1	SiO2†	166743.5	163300.6	10060	ug/L	10060	ppb	11:34:36
2	Sc Radial	4631.9	4631.9	100	%			11:32:25
2	Y RADIAL	4861.7	4861.7	99.32	%			11:32:25
2	Al 396.153Radial†	5848.8	5864.7	5024.2	ug/L	5024.2	ppb	11:32:25
2	Ca 317.933Radial†	2896.9	2880.4	4974.5	ug/L	4974.5	ppb	11:32:45
2	Fe 238.204 Radial†	528.1	515.0	4954.5	ug/L	4954.5	ppb	11:32:45
2	K 766.490 Radial†	15152.8	11910.8	2407.3	ug/L	2407.3	ppb	11:32:25
2	Mg 279.077 IEC†	155.8	154.2	5259.4	ug/L	5259.4	ppb	11:32:45
2	Na 589.592 Radial†	5254.6	7020.2	2396.8	ug/L	2396.8	ppb	11:32:25
2	Sr 421.552†	67756.1	67687.8	498.65	ug/L	498.65	ppb	11:32:25
2	Sc 361.383	896827.3	896827.3	102.69	%			11:33:44
2	Y 371.029	761131.6	761131.6	101.58	%			11:33:44
2	Ag 328.068†	60261.3	58192.3	256.01	ug/L	256.01	ppb	11:33:44
2	As 188.979†	1329.2	1325.9	469.27	ug/L	469.27	ppb	11:34:04
2	B 249.677†	24580.7	24702.5	510.61	ug/L	510.61	ppb	11:33:44
2	Ba 233.527†	70219.1	68361.7	504.57	ug/L	504.57	ppb	11:33:44
2	Be 313.107†	776063.6	760121.2	257.14	ug/L	257.14	ppb	11:33:44
2	Cd 226.502†	53003.5	51868.5	493.90	ug/L	493.90	ppb	11:33:44
2	Co 228.616†	26730.8	26130.0	494.33	ug/L	494.33	ppb	11:34:04
2	Cr 267.716†	48834.5	47465.4	482.77	ug/L	482.77	ppb	11:33:44
2	Cu 324.752†	180522.9	167692.0	500.34	ug/L	500.34	ppb	11:33:44
2	Mn 257.610†	494903.8	480637.6	506.40	ug/L	506.40	ppb	11:33:44
2	Mo 202.031†	8612.0	8359.8	529.36	ug/L	529.36	ppb	11:34:04
2	Ni 231.604†	22793.5	22080.4	488.97	ug/L	488.97	ppb	11:34:04

2	P 214.914†	5446.2	5051.0	2398.1 ug/L	2398.1 ppb	11:34:04
2	Pb 220.353†	4767.1	4743.6	495.14 ug/L	495.14 ppb	11:34:04
2	S 181.975 Axial†	2275.4	2158.1	2440.6 ug/L	2440.6 ppb	11:34:04
2	Sb 206.836†	1708.8	1617.9	497.55 ug/L	497.55 ppb	11:34:04
2	Se 196.026†	5045.6	4952.2	2536.3 ug/L	2536.3 ppb	11:34:04
2	Si 251.611†	169657.0	164584.2	4749.9 ug/L	4749.9 ppb	11:33:44
2	Sn 189.927†	3606.5	3507.3	524.38 ug/L	524.38 ppb	11:34:04
2	Ti 334.940†	316915.0	310369.5	497.02 ug/L	497.02 ppb	11:33:44
2	Tl 190.801†	1903.0	1898.8	524.71 ug/L	524.71 ppb	11:34:04
2	U 409.014†	13937.3	16480.9	489.57 ug/L	489.57 ppb	11:33:44
2	V 292.402†	79374.0	79101.9	508.96 ug/L	508.96 ppb	11:33:44
2	Zn 213.857†	63492.5	60976.8	500.61 ug/L	500.61 ppb	11:33:44
2	SiO2†	170964.9	165839.2	10217 ug/L	10217 ppb	11:34:41
3	Sc Radial	4586.9	4586.9	99.1 %		11:32:51
3	Y RADIAL	4847.7	4847.7	99.04 %		11:32:51
3	Al 396.153Radial†	5835.1	5908.2	5061.1 ug/L	5061.1 ppb	11:32:51
3	Ca 317.933Radial†	2926.7	2939.0	5075.5 ug/L	5075.5 ppb	11:33:11
3	Fe 238.204 Radial†	533.7	525.8	5058.7 ug/L	5058.7 ppb	11:33:11
3	K 766.490 Radial†	15216.2	12123.2	2450.4 ug/L	2450.4 ppb	11:32:51
3	Mg 279.077 IEC†	160.7	160.6	5479.4 ug/L	5479.4 ppb	11:33:11
3	Na 589.592 Radial†	5276.0	7093.3	2421.8 ug/L	2421.8 ppb	11:32:51
3	Sr 421.552†	67792.8	68388.8	503.81 ug/L	503.81 ppb	11:32:51
3	Sc 361.383	876511.8	876511.8	100.36 %		11:34:10
3	Y 371.029	744788.1	744788.1	99.394 %		11:34:10
3	Ag 328.068†	58968.7	58264.6	256.36 ug/L	256.36 ppb	11:34:10
3	As 188.979†	1336.2	1362.9	482.26 ug/L	482.26 ppb	11:34:30
3	B 249.677†	24004.7	24683.4	510.18 ug/L	510.18 ppb	11:34:10
3	Ba 233.527†	68744.6	68477.4	505.43 ug/L	505.43 ppb	11:34:10
3	Be 313.107†	760542.2	762172.3	257.84 ug/L	257.84 ppb	11:34:10
3	Cd 226.502†	51985.6	52050.6	495.63 ug/L	495.63 ppb	11:34:10
3	Co 228.616†	26675.6	26678.3	504.72 ug/L	504.72 ppb	11:34:30
3	Cr 267.716†	47929.7	47666.1	484.82 ug/L	484.82 ppb	11:34:10
3	Cu 324.752†	176145.4	167404.8	499.49 ug/L	499.49 ppb	11:34:10
3	Mn 257.610†	484502.9	481444.6	507.26 ug/L	507.26 ppb	11:34:10
3	Mo 202.031†	8598.2	8540.4	540.79 ug/L	540.79 ppb	11:34:30
3	Ni 231.604†	22796.0	22597.4	500.42 ug/L	500.42 ppb	11:34:30
3	P 214.914†	5432.9	5160.6	2452.1 ug/L	2452.1 ppb	11:34:30
3	Pb 220.353†	4748.6	4832.7	504.44 ug/L	504.44 ppb	11:34:30
3	S 181.975 Axial†	2272.2	2206.3	2495.1 ug/L	2495.1 ppb	11:34:30
3	Sb 206.836†	1699.0	1646.7	506.64 ug/L	506.64 ppb	11:34:30
3	Se 196.026†	5052.6	5073.0	2598.2 ug/L	2598.2 ppb	11:34:30
3	Si 251.611†	166043.9	164813.4	4756.3 ug/L	4756.3 ppb	11:34:10
3	Sn 189.927†	3600.6	3582.9	535.67 ug/L	535.67 ppb	11:34:30
3	Ti 334.940†	310127.7	310759.8	497.65 ug/L	497.65 ppb	11:34:10
3	Tl 190.801†	1888.8	1927.7	532.59 ug/L	532.59 ppb	11:34:30
3	U 409.014†	13657.6	16516.8	490.62 ug/L	490.62 ppb	11:34:10
3	V 292.402†	77755.0	79280.2	510.24 ug/L	510.24 ppb	11:34:10
3	Zn 213.857†	62222.1	61144.0	501.91 ug/L	501.91 ppb	11:34:10
3	SiO2†	168340.4	167083.0	10293 ug/L	10293 ppb	11:34:46

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	887188.6	101.59	%	1.168				1.15%
Sc Radial	4646.6	100	%	1.5				1.47%
Y 371.029	753428.4	100.55	%	1.096				1.09%
Y RADIAL	4894.8	100.00	%	1.428				1.43%
Ag 328.068†	58271.2	256.36	ug/L	0.340	256.36	ppb	0.340	0.13%
QC value within limits for Ag 328.068 Recovery = 102.54%								
Al 396.153Radial†	5881.7	5038.5	ug/L	19.80	5038.5	ppb	19.80	0.39%
QC value within limits for Al 396.153Radial Recovery = 100.77%								
As 188.979†	1346.5	476.49	ug/L	6.614	476.49	ppb	6.614	1.39%
QC value within limits for As 188.979 Recovery = 95.30%								
B 249.677†	24661.5	509.75	ug/L	1.138	509.75	ppb	1.138	0.22%
QC value within limits for B 249.677 Recovery = 101.95%								
Ba 233.527†	68407.6	504.91	ug/L	0.456	504.91	ppb	0.456	0.09%
QC value within limits for Ba 233.527 Recovery = 100.98%								
Be 313.107†	761188.6	257.50	ug/L	0.347	257.50	ppb	0.347	0.13%
QC value within limits for Be 313.107 Recovery = 103.00%								
Ca 317.933Radial†	2875.6	4966.0	ug/L	113.96	4966.0	ppb	113.96	2.29%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.32%
Cd 226.502†            51947.9      494.66 ug/L         0.885      494.66 ppb          0.885   0.18%
   QC value within limits for Cd 226.502  Recovery = 98.93%
Co 228.616†            26392.7      499.31 ug/L         5.210      499.31 ppb          5.210   1.04%
   QC value within limits for Co 228.616  Recovery = 99.86%
Cr 267.716†            47552.3      483.66 ug/L         1.049      483.66 ppb          1.049   0.22%
   QC value within limits for Cr 267.716  Recovery = 96.73%
Cu 324.752†           167524.4      499.84 ug/L         0.444      499.84 ppb          0.444   0.09%
   QC value within limits for Cu 324.752  Recovery = 99.97%
Fe 238.204 Radial†       515.5      4959.7 ug/L        96.53      4959.7 ppb         96.53   1.95%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.19%
K 766.490 Radial†      11976.4      2420.6 ug/L        25.81      2420.6 ppb         25.81   1.07%
   QC value within limits for K 766.490 Radial  Recovery = 96.82%
Mg 279.077 IEC†          155.6      5307.4 ug/L       153.75      5307.4 ppb        153.75   2.90%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.15%
Mn 257.610†           480929.7      506.71 ug/L         0.476      506.71 ppb          0.476   0.09%
   QC value within limits for Mn 257.610  Recovery = 101.34%
Mo 202.031†            8447.1      534.88 ug/L         5.729      534.88 ppb          5.729   1.07%
   QC value within limits for Mo 202.031  Recovery = 106.98%
Na 589.592 Radial†     7113.6      2428.7 ug/L        35.87      2428.7 ppb         35.87   1.48%
   QC value within limits for Na 589.592 Radial  Recovery = 97.15%
Ni 231.604†           22333.3      494.57 ug/L         5.728      494.57 ppb          5.728   1.16%
   QC value within limits for Ni 231.604  Recovery = 98.91%
P 214.914†             5102.3      2423.4 ug/L        27.12      2423.4 ppb         27.12   1.12%
   QC value within limits for P 214.914  Recovery = 96.94%
Pb 220.353†            4785.4      499.51 ug/L         4.677      499.51 ppb          4.677   0.94%
   QC value within limits for Pb 220.353  Recovery = 99.90%
S 181.975 Axial†       2179.8      2465.1 ug/L        27.64      2465.1 ppb         27.64   1.12%
   QC value within limits for S 181.975 Axial  Recovery = 98.60%
Sb 206.836†            1634.3      502.69 ug/L         4.664      502.69 ppb          4.664   0.93%
   QC value within limits for Sb 206.836  Recovery = 100.54%
Se 196.026†            5004.8      2563.1 ug/L        31.73      2563.1 ppb         31.73   1.24%
   QC value within limits for Se 196.026  Recovery = 102.52%
Si 251.611†          164648.1      4751.7 ug/L         4.07      4751.7 ppb          4.07   0.09%
   QC value within limits for Si 251.611  Recovery = 95.03%
Sn 189.927†            3549.2      530.64 ug/L         5.748      530.64 ppb          5.748   1.08%
   QC value within limits for Sn 189.927  Recovery = 106.13%
Sr 421.552†           68001.1      500.95 ug/L         2.625      500.95 ppb          2.625   0.52%
   QC value within limits for Sr 421.552  Recovery = 100.19%
Ti 334.940†          310467.5      497.18 ug/L         0.419      497.18 ppb          0.419   0.08%
   QC value within limits for Ti 334.940  Recovery = 99.44%
Tl 190.801†            1911.9      528.27 ug/L         3.994      528.27 ppb          3.994   0.76%
   QC value within limits for Tl 190.801  Recovery = 105.65%
U 409.014†            16555.6      491.80 ug/L         2.988      491.80 ppb          2.988   0.61%
   QC value within limits for U 409.014  Recovery = 98.36%
V 292.402†            79133.5      509.24 ug/L         0.894      509.24 ppb          0.894   0.18%
   QC value within limits for V 292.402  Recovery = 101.85%
Zn 213.857†           61040.5      501.10 ug/L         0.706      501.10 ppb          0.706   0.14%
   QC value within limits for Zn 213.857  Recovery = 100.22%
SiO2†                165407.6       10190 ug/L         119.0       10190 ppb          119.0   1.17%
   QC value within limits for SiO2  Recovery = 95.28%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 1/7/2010 11:36:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4566.0	4566.0	98.7	%			11:38:50
1	Y RADIAL	4848.9	4848.9	99.06	%			11:38:50
1	Al 396.153Radial†	4.1	25.0	21.481	ug/L	21.481	ppb	11:38:50
1	Ca 317.933Radial†	8.5	-5.4	-9.2794	ug/L	-9.2794	ppb	11:39:10
1	Fe 238.204 Radial†	13.0	0.5	4.3310	ug/L	4.3310	ppb	11:39:10
1	K 766.490 Radial†	3206.2	20.4	4.1462	ug/L	4.1462	ppb	11:38:50
1	Mg 279.077 IEC†	1.8	0.3	9.9254	ug/L	9.9254	ppb	11:39:10
1	Na 589.592 Radial†	-1754.8	-8.6	-2.9235	ug/L	-2.9235	ppb	11:38:50
1	Sr 421.552†	0.7	-10.6	-0.0780	ug/L	-0.0780	ppb	11:38:50
1	Sc 361.383	842859.9	842859.9	96.510	%			11:40:07
1	Y 371.029	735953.7	735953.7	98.215	%			11:40:07
1	Ag 328.068†	504.5	31.8	0.1405	ug/L	0.1405	ppb	11:40:07
1	As 188.979†	-30.9	-0.5	-0.1795	ug/L	-0.1795	ppb	11:40:27
1	B 249.677†	-494.0	253.6	5.2619	ug/L	5.2619	ppb	11:40:07
1	Ba 233.527†	7.5	-10.8	-0.0810	ug/L	-0.0810	ppb	11:40:27
1	Be 313.107†	-4308.3	-84.0	-0.0288	ug/L	-0.0288	ppb	11:40:07
1	Cd 226.502†	-237.2	7.2	0.0681	ug/L	0.0681	ppb	11:40:27
1	Co 228.616†	-94.3	1.5	0.0294	ug/L	0.0294	ppb	11:40:27
1	Cr 267.716†	90.8	3.9	0.0393	ug/L	0.0393	ppb	11:40:07
1	Cu 324.752†	8099.7	289.0	0.8620	ug/L	0.8620	ppb	11:40:07
1	Mn 257.610†	1170.6	-93.4	-0.0980	ug/L	-0.0980	ppb	11:40:07
1	Mo 202.031†	28.2	2.5	0.1591	ug/L	0.1591	ppb	11:40:27
1	Ni 231.604†	129.8	18.3	0.4055	ug/L	0.4055	ppb	11:40:27
1	P 214.914†	232.7	-11.5	-5.7811	ug/L	-5.7811	ppb	11:40:27
1	Pb 220.353†	-89.7	8.4	0.8761	ug/L	0.8761	ppb	11:40:27
1	S 181.975 Axial†	66.4	11.1	12.543	ug/L	12.543	ppb	11:40:27
1	Sb 206.836†	41.3	-3.4	-1.0322	ug/L	-1.0322	ppb	11:40:27
1	Se 196.026†	-43.1	-5.9	-2.9690	ug/L	-2.9690	ppb	11:40:27
1	Si 251.611†	679.8	74.3	2.1485	ug/L	2.1485	ppb	11:40:27
1	Sn 189.927†	-0.1	-4.8	-0.7237	ug/L	-0.7237	ppb	11:40:27
1	Ti 334.940†	-1836.7	-149.7	-0.2387	ug/L	-0.2387	ppb	11:40:07
1	Tl 190.801†	-46.1	-2.1	-0.5875	ug/L	-0.5875	ppb	11:40:27
1	U 409.014†	-2916.3	-113.2	-3.3754	ug/L	-3.3754	ppb	11:40:07
1	V 292.402†	-1834.7	-94.7	-0.6051	ug/L	-0.6051	ppb	11:40:07
1	Zn 213.857†	860.1	38.2	0.3117	ug/L	0.3117	ppb	11:40:27
1	SiO2†	708.1	85.0	5.2474	ug/L	5.2474	ppb	11:41:23
2	Sc Radial	4783.5	4783.5	103	%			11:39:15
2	Y RADIAL	5055.9	5055.9	103.3	%			11:39:15
2	Al 396.153Radial†	41.6	61.1	52.581	ug/L	52.581	ppb	11:39:15
2	Ca 317.933Radial†	9.1	-5.2	-8.9326	ug/L	-8.9326	ppb	11:39:35
2	Fe 238.204 Radial†	11.5	-1.6	-15.279	ug/L	-15.279	ppb	11:39:35
2	K 766.490 Radial†	3298.5	-38.0	-7.7177	ug/L	-7.7177	ppb	11:39:15
2	Mg 279.077 IEC†	-0.3	-1.8	-61.842	ug/L	-61.842	ppb	11:39:35
2	Na 589.592 Radial†	-1648.2	175.4	59.876	ug/L	59.876	ppb	11:39:15
2	Sr 421.552†	12.0	0.3	0.0025	ug/L	0.0025	ppb	11:39:15
2	Sc 361.383	849394.9	849394.9	97.258	%			11:40:32
2	Y 371.029	744334.1	744334.1	99.334	%			11:40:32
2	Ag 328.068†	491.6	14.6	0.0586	ug/L	0.0586	ppb	11:40:32
2	As 188.979†	-27.8	2.9	0.9974	ug/L	0.9974	ppb	11:40:52
2	B 249.677†	-430.6	322.7	6.6975	ug/L	6.6975	ppb	11:40:32
2	Ba 233.527†	5.9	-12.5	-0.0916	ug/L	-0.0916	ppb	11:40:52
2	Be 313.107†	-4412.2	-156.5	-0.0531	ug/L	-0.0531	ppb	11:40:32
2	Cd 226.502†	-240.6	5.6	0.0550	ug/L	0.0550	ppb	11:40:52
2	Co 228.616†	-88.8	7.9	0.1507	ug/L	0.1507	ppb	11:40:52
2	Cr 267.716†	89.3	1.5	0.0156	ug/L	0.0156	ppb	11:40:32
2	Cu 324.752†	8203.4	331.0	0.9863	ug/L	0.9863	ppb	11:40:32
2	Mn 257.610†	1518.8	255.3	0.2684	ug/L	0.2684	ppb	11:40:32
2	Mo 202.031†	35.6	9.9	0.6250	ug/L	0.6250	ppb	11:40:52
2	Ni 231.604†	121.6	8.9	0.1971	ug/L	0.1971	ppb	11:40:52

2	P 214.914†	250.1	4.6	2.0947 ug/L	2.0947 ppb	11:40:52
2	Pb 220.353†	-111.4	-13.2	-1.3630 ug/L	-1.3630 ppb	11:40:52
2	S 181.975 Axial†	59.8	3.8	4.3442 ug/L	4.3442 ppb	11:40:52
2	Sb 206.836†	37.5	-7.6	-2.2894 ug/L	-2.2894 ppb	11:40:52
2	Se 196.026†	-29.7	8.3	4.1652 ug/L	4.1652 ppb	11:40:52
2	Si 251.611†	674.1	63.0	1.8173 ug/L	1.8173 ppb	11:40:52
2	Sn 189.927†	1.3	-3.4	-0.5080 ug/L	-0.5080 ppb	11:40:52
2	Ti 334.940†	-1817.7	-115.5	-0.1859 ug/L	-0.1859 ppb	11:40:32
2	Tl 190.801†	-52.6	-8.4	-2.3037 ug/L	-2.3037 ppb	11:40:52
2	U 409.014†	-2804.6	24.9	0.7431 ug/L	0.7431 ppb	11:40:32
2	V 292.402†	-1719.6	38.3	0.2543 ug/L	0.2543 ppb	11:40:32
2	Zn 213.857†	834.0	4.4	0.0367 ug/L	0.0367 ppb	11:40:52
2	SiO2†	683.8	54.4	3.3456 ug/L	3.3456 ppb	11:41:28
3	Sc Radial	4507.0	4507.0	97.4 %		11:39:40
3	Y RADIAL	4794.4	4794.4	97.95 %		11:39:40
3	Al 396.153Radial†	-24.2	-4.0	-3.4559 ug/L	-3.4559 ppb	11:39:40
3	Ca 317.933Radial†	10.2	-3.5	-6.0539 ug/L	-6.0539 ppb	11:40:00
3	Fe 238.204 Radial†	13.4	1.0	9.7076 ug/L	9.7076 ppb	11:40:00
3	K 766.490 Radial†	3320.0	179.8	36.439 ug/L	36.439 ppb	11:39:40
3	Mg 279.077 IEC†	1.1	-0.4	-12.670 ug/L	-12.670 ppb	11:40:00
3	Na 589.592 Radial†	-1765.8	-43.2	-14.732 ug/L	-14.732 ppb	11:39:40
3	Sr 421.552†	-22.7	-34.6	-0.2548 ug/L	-0.2548 ppb	11:39:40
3	Sc 361.383	853130.5	853130.5	97.686 %		11:40:58
3	Y 371.029	748510.4	748510.4	99.891 %		11:40:58
3	Ag 328.068†	473.0	-6.7	-0.0277 ug/L	-0.0277 ppb	11:40:58
3	As 188.979†	-34.4	-3.7	-1.3092 ug/L	-1.3092 ppb	11:41:18
3	B 249.677†	-463.5	291.0	6.0352 ug/L	6.0352 ppb	11:40:58
3	Ba 233.527†	15.4	-2.8	-0.0207 ug/L	-0.0207 ppb	11:41:18
3	Be 313.107†	-4342.4	-65.2	-0.0223 ug/L	-0.0223 ppb	11:40:58
3	Cd 226.502†	-236.5	10.8	0.1022 ug/L	0.1022 ppb	11:41:18
3	Co 228.616†	-94.0	2.9	0.0566 ug/L	0.0566 ppb	11:41:18
3	Cr 267.716†	97.5	9.6	0.0966 ug/L	0.0966 ppb	11:40:58
3	Cu 324.752†	8143.9	233.1	0.6958 ug/L	0.6958 ppb	11:40:58
3	Mn 257.610†	1118.8	-161.0	-0.1683 ug/L	-0.1683 ppb	11:40:58
3	Mo 202.031†	31.4	5.4	0.3440 ug/L	0.3440 ppb	11:41:18
3	Ni 231.604†	116.9	3.5	0.0772 ug/L	0.0772 ppb	11:41:18
3	P 214.914†	238.1	-8.8	-4.4627 ug/L	-4.4627 ppb	11:41:18
3	Pb 220.353†	-115.6	-17.0	-1.7708 ug/L	-1.7708 ppb	11:41:18
3	S 181.975 Axial†	58.9	2.6	2.9451 ug/L	2.9451 ppb	11:41:18
3	Sb 206.836†	44.9	-0.2	-0.0712 ug/L	-0.0712 ppb	11:41:18
3	Se 196.026†	-31.5	6.5	3.3180 ug/L	3.3180 ppb	11:41:18
3	Si 251.611†	627.4	12.2	0.3384 ug/L	0.3384 ppb	11:41:18
3	Sn 189.927†	-1.3	-6.0	-0.9032 ug/L	-0.9032 ppb	11:41:18
3	Ti 334.940†	-1817.9	-107.5	-0.1731 ug/L	-0.1731 ppb	11:40:58
3	Tl 190.801†	-55.8	-11.4	-3.1400 ug/L	-3.1400 ppb	11:41:18
3	U 409.014†	-2799.6	42.6	1.2678 ug/L	1.2678 ppb	11:40:58
3	V 292.402†	-1797.7	-33.9	-0.2091 ug/L	-0.2091 ppb	11:40:58
3	Zn 213.857†	827.1	-6.4	-0.0543 ug/L	-0.0543 ppb	11:41:18
3	SiO2†	663.3	30.3	1.8374 ug/L	1.8374 ppb	11:41:33

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	848461.8	97.151	%	0.5952				0.61%
Sc Radial	4618.8	99.8	%	3.15				3.15%
Y 371.029	742932.7	99.147	%	0.8534				0.86%
Y RADIAL	4899.7	100.1	%	2.82				2.82%
Ag 328.068†	13.2	0.0571	ug/L	0.08413	0.0571	ppb	0.08413	147.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	27.4	23.535	ug/L	28.0746	23.535	ppb	28.0746	119.29%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.5	-0.1638	ug/L	1.15335	-0.1638	ppb	1.15335	704.31%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	289.1	5.9982	ug/L	0.71850	5.9982	ppb	0.71850	11.98%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-8.7	-0.0644	ug/L	0.03821	-0.0644	ppb	0.03821	59.33%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-101.9	-0.0347	ug/L	0.01624	-0.0347	ppb	0.01624	46.76%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-4.7	-8.0887	ug/L	1.77064	-8.0887	ppb	1.77064	21.89%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 7.9      0.0751 ug/L       0.02437      0.0751 ppb        0.02437  32.44%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 4.1      0.0789 ug/L       0.06367      0.0789 ppb        0.06367  80.70%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 5.0      0.0505 ug/L       0.04161      0.0505 ppb        0.04161  82.39%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               284.4      0.8480 ug/L       0.14574      0.8480 ppb        0.14574  17.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.0     -0.4133 ug/L      13.15137     -0.4133 ppb       13.15137 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          54.1      10.956 ug/L       22.8526      10.956 ppb        22.8526 208.59%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.6     -21.529 ug/L       36.6949     -21.529 ppb        36.6949 170.44%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 0.3      0.0007 ug/L       0.23451      0.0007 ppb        0.23451 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.9      0.3760 ug/L       0.23463      0.3760 ppb        0.23463  62.39%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         41.2      14.073 ug/L       40.1032      14.073 ppb        40.1032 284.96%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                10.2      0.2266 ug/L       0.16610      0.2266 ppb        0.16610  73.30%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -5.3     -2.7164 ug/L       4.21835     -2.7164 ppb        4.21835 155.29%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -7.3     -0.7526 ug/L       1.42513     -0.7526 ppb        1.42513 189.37%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            5.8      6.6108 ug/L       5.18496      6.6108 ppb        5.18496  78.43%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -3.7     -1.1309 ug/L       1.11241     -1.1309 ppb        1.11241  98.36%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.0      1.5047 ug/L       3.89745      1.5047 ppb        3.89745 259.01%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                49.9      1.4347 ug/L       0.96381      1.4347 ppb        0.96381  67.18%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -4.8     -0.7116 ug/L       0.19789     -0.7116 ppb        0.19789  27.81%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -15.0     -0.1101 ug/L       0.13164     -0.1101 ppb        0.13164 119.57%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -124.2     -0.1992 ug/L       0.03478     -0.1992 ppb        0.03478  17.46%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -7.3     -2.0104 ug/L       1.30125     -2.0104 ppb        1.30125  64.73%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -15.3     -0.4548 ug/L       2.54285     -0.4548 ppb        2.54285 559.06%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -30.1     -0.1866 ug/L       0.43009     -0.1866 ppb        0.43009 230.43%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                12.0      0.0980 ug/L       0.19054      0.0980 ppb        0.19054 194.37%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      56.6      3.4768 ug/L       1.70877      3.4768 ppb        1.70877  49.15%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 1/7/2010 11:43:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4642.7	4642.7	100	%			11:45:38
1	Y RADIAL	4943.5	4943.5	101.0	%			11:45:38
1	Al 396.153Radial†	226.9	247.1	212.18	ug/L	212.18	ppb	11:45:38
1	Ca 317.933Radial†	137.7	123.3	212.95	ug/L	212.95	ppb	11:45:58
1	Fe 238.204 Radial†	20.7	7.9	76.008	ug/L	76.008	ppb	11:45:58
1	K 766.490 Radial†	4005.8	763.8	154.47	ug/L	154.47	ppb	11:45:38
1	Mg 279.077 IEC†	11.1	9.6	326.69	ug/L	326.69	ppb	11:45:58
1	Na 589.592 Radial†	-790.7	981.8	335.20	ug/L	335.20	ppb	11:45:38
1	Sr 421.552†	686.6	673.2	4.9575	ug/L	4.9575	ppb	11:45:38
1	Sc 361.383	877705.4	877705.4	100.50	%			11:46:55
1	Y 371.029	750151.2	750151.2	100.11	%			11:46:55
1	Ag 328.068†	1634.6	1135.6	4.9277	ug/L	4.9277	ppb	11:46:55
1	As 188.979†	57.5	88.7	31.129	ug/L	31.129	ppb	11:47:15
1	B 249.677†	1781.2	2537.9	52.632	ug/L	52.632	ppb	11:47:15
1	Ba 233.527†	696.6	674.6	4.9801	ug/L	4.9801	ppb	11:47:15
1	Be 313.107†	10550.7	14878.4	5.0241	ug/L	5.0241	ppb	11:46:55
1	Cd 226.502†	259.6	511.3	4.8666	ug/L	4.8666	ppb	11:47:15
1	Co 228.616†	174.7	273.0	5.1764	ug/L	5.1764	ppb	11:47:15
1	Cr 267.716†	579.4	486.3	4.9297	ug/L	4.9297	ppb	11:47:15
1	Cu 324.752†	11547.9	3386.9	10.104	ug/L	10.104	ppb	11:46:55
1	Mn 257.610†	11047.7	9686.5	10.199	ug/L	10.199	ppb	11:46:55
1	Mo 202.031†	187.7	160.1	10.134	ug/L	10.134	ppb	11:47:15
1	Ni 231.604†	373.7	255.7	5.6619	ug/L	5.6619	ppb	11:47:15
1	P 214.914†	554.5	299.1	144.97	ug/L	144.97	ppb	11:47:15
1	Pb 220.353†	-2.9	98.4	10.296	ug/L	10.296	ppb	11:47:15
1	S 181.975 Axial†	137.9	79.5	89.894	ug/L	89.894	ppb	11:47:15
1	Sb 206.836†	91.0	44.3	13.653	ug/L	13.653	ppb	11:47:15
1	Se 196.026†	20.4	59.1	30.361	ug/L	30.361	ppb	11:47:15
1	Si 251.611†	4085.9	3435.6	99.138	ug/L	99.138	ppb	11:47:15
1	Sn 189.927†	67.9	62.9	9.4121	ug/L	9.4121	ppb	11:47:15
1	Ti 334.940†	1421.6	3168.0	5.0584	ug/L	5.0584	ppb	11:46:55
1	Tl 190.801†	19.9	65.5	18.055	ug/L	18.055	ppb	11:47:15
1	U 409.014†	-982.9	1930.5	57.509	ug/L	57.509	ppb	11:46:55
1	V 292.402†	-1011.9	799.5	5.3166	ug/L	5.3166	ppb	11:47:15
1	Zn 213.857†	2065.8	1202.4	9.8902	ug/L	9.8902	ppb	11:47:15
1	SiO2†	4093.5	3424.5	210.93	ug/L	210.93	ppb	11:48:12
2	Sc Radial	4742.5	4742.5	102	%			11:46:03
2	Y RADIAL	5000.0	5000.0	102.1	%			11:46:03
2	Al 396.153Radial†	205.0	220.9	189.67	ug/L	189.67	ppb	11:46:03
2	Ca 317.933Radial†	135.7	118.4	204.49	ug/L	204.49	ppb	11:46:23
2	Fe 238.204 Radial†	19.5	6.3	60.630	ug/L	60.630	ppb	11:46:23
2	K 766.490 Radial†	4021.4	695.0	140.54	ug/L	140.54	ppb	11:46:03
2	Mg 279.077 IEC†	8.7	7.0	237.08	ug/L	237.08	ppb	11:46:23
2	Na 589.592 Radial†	-804.8	984.7	336.20	ug/L	336.20	ppb	11:46:03
2	Sr 421.552†	668.2	640.7	4.7187	ug/L	4.7187	ppb	11:46:03
2	Sc 361.383	882838.6	882838.6	101.09	%			11:47:20
2	Y 371.029	754284.8	754284.8	100.66	%			11:47:20
2	Ag 328.068†	1707.8	1198.5	5.1960	ug/L	5.1960	ppb	11:47:20
2	As 188.979†	49.2	80.1	28.113	ug/L	28.113	ppb	11:47:41
2	B 249.677†	1772.0	2518.4	52.230	ug/L	52.230	ppb	11:47:41
2	Ba 233.527†	710.7	684.5	5.0535	ug/L	5.0535	ppb	11:47:41
2	Be 313.107†	10437.9	14705.7	4.9662	ug/L	4.9662	ppb	11:47:20
2	Cd 226.502†	262.1	512.2	4.8765	ug/L	4.8765	ppb	11:47:41
2	Co 228.616†	174.0	271.4	5.1448	ug/L	5.1448	ppb	11:47:41
2	Cr 267.716†	598.5	501.8	5.0868	ug/L	5.0868	ppb	11:47:41
2	Cu 324.752†	11383.3	3157.2	9.4184	ug/L	9.4184	ppb	11:47:20
2	Mn 257.610†	10827.2	9404.4	9.9024	ug/L	9.9024	ppb	11:47:20
2	Mo 202.031†	183.6	154.9	9.8082	ug/L	9.8082	ppb	11:47:41
2	Ni 231.604†	350.8	230.9	5.1125	ug/L	5.1125	ppb	11:47:41

2	P 214.914†	561.2	302.5	146.79 ug/L	146.79 ppb	11:47:41
2	Pb 220.353†	5.2	106.5	11.132 ug/L	11.132 ppb	11:47:41
2	S 181.975 Axial†	147.4	88.1	99.669 ug/L	99.669 ppb	11:47:41
2	Sb 206.836†	79.9	32.9	10.203 ug/L	10.203 ppb	11:47:41
2	Se 196.026†	22.2	60.7	31.122 ug/L	31.122 ppb	11:47:41
2	Si 251.611†	4081.5	3407.5	98.335 ug/L	98.335 ppb	11:47:41
2	Sn 189.927†	72.1	66.6	9.9654 ug/L	9.9654 ppb	11:47:41
2	Ti 334.940†	1502.7	3240.0	5.1722 ug/L	5.1722 ppb	11:47:20
2	Tl 190.801†	31.5	76.8	21.164 ug/L	21.164 ppb	11:47:41
2	U 409.014†	-909.2	2009.1	59.853 ug/L	59.853 ppb	11:47:20
2	V 292.402†	-956.4	860.3	5.7022 ug/L	5.7022 ppb	11:47:41
2	Zn 213.857†	2088.3	1212.7	9.9838 ug/L	9.9838 ppb	11:47:41
2	SiO2†	4179.8	3486.1	214.76 ug/L	214.76 ppb	11:48:17
3	Sc Radial	4540.4	4540.4	98.1 %		11:46:28
3	Y RADIAL	4811.0	4811.0	98.29 %		11:46:28
3	Al 396.153Radial†	236.1	261.5	224.62 ug/L	224.62 ppb	11:46:28
3	Ca 317.933Radial†	131.6	120.1	207.47 ug/L	207.47 ppb	11:46:48
3	Fe 238.204 Radial†	24.3	12.0	115.51 ug/L	115.51 ppb	11:46:48
3	K 766.490 Radial†	4069.5	918.7	185.85 ug/L	185.85 ppb	11:46:28
3	Mg 279.077 IEC†	13.6	12.3	420.48 ug/L	420.48 ppb	11:46:48
3	Na 589.592 Radial†	-828.7	925.3	315.93 ug/L	315.93 ppb	11:46:28
3	Sr 421.552†	639.7	640.7	4.7185 ug/L	4.7185 ppb	11:46:28
3	Sc 361.383	876850.8	876850.8	100.40 %		11:47:46
3	Y 371.029	749753.1	749753.1	100.06 %		11:47:46
3	Ag 328.068†	1636.5	1139.0	4.9500 ug/L	4.9500 ppb	11:47:46
3	As 188.979†	55.6	86.9	30.485 ug/L	30.485 ppb	11:48:06
3	B 249.677†	1790.2	2548.5	52.847 ug/L	52.847 ppb	11:48:06
3	Ba 233.527†	703.6	682.2	5.0373 ug/L	5.0373 ppb	11:48:06
3	Be 313.107†	10620.7	14958.4	5.0511 ug/L	5.0511 ppb	11:47:46
3	Cd 226.502†	278.0	529.9	5.0395 ug/L	5.0395 ppb	11:48:06
3	Co 228.616†	177.1	275.6	5.2235 ug/L	5.2235 ppb	11:48:06
3	Cr 267.716†	604.8	512.1	5.1904 ug/L	5.1904 ppb	11:48:06
3	Cu 324.752†	11580.7	3430.7	10.237 ug/L	10.237 ppb	11:47:46
3	Mn 257.610†	10987.3	9637.0	10.149 ug/L	10.149 ppb	11:47:46
3	Mo 202.031†	180.8	153.4	9.7170 ug/L	9.7170 ppb	11:48:06
3	Ni 231.604†	364.5	246.9	5.4684 ug/L	5.4684 ppb	11:48:06
3	P 214.914†	552.2	297.3	144.08 ug/L	144.08 ppb	11:48:06
3	Pb 220.353†	-2.6	98.7	10.323 ug/L	10.323 ppb	11:48:06
3	S 181.975 Axial†	143.4	85.2	96.308 ug/L	96.308 ppb	11:48:06
3	Sb 206.836†	62.5	16.1	5.1241 ug/L	5.1241 ppb	11:48:06
3	Se 196.026†	19.4	58.1	29.985 ug/L	29.985 ppb	11:48:06
3	Si 251.611†	4117.7	3471.2	100.16 ug/L	100.16 ppb	11:48:06
3	Sn 189.927†	74.4	69.4	10.385 ug/L	10.385 ppb	11:48:06
3	Ti 334.940†	1431.9	3179.6	5.0735 ug/L	5.0735 ppb	11:47:46
3	Tl 190.801†	31.3	76.9	21.178 ug/L	21.178 ppb	11:48:06
3	U 409.014†	-735.9	2175.6	64.809 ug/L	64.809 ppb	11:47:46
3	V 292.402†	-1002.8	807.6	5.3723 ug/L	5.3723 ppb	11:48:06
3	Zn 213.857†	2076.1	1214.7	9.9882 ug/L	9.9882 ppb	11:48:06
3	SiO2†	4200.4	3534.9	217.74 ug/L	217.74 ppb	11:48:22

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	879131.6	100.66	%	0.371				0.37%
Sc Radial	4641.9	100	%	2.2				2.18%
Y 371.029	751396.4	100.28	%	0.335				0.33%
Y RADIAL	4918.2	100.5	%	1.98				1.97%
Ag 328.068†	1157.7	5.0246	ug/L	0.14885	5.0246	ppb	0.14885	2.96%
QC value within limits for Ag 328.068 Recovery = 100.49%								
Al 396.153Radial†	243.2	208.82	ug/L	17.716	208.82	ppb	17.716	8.48%
QC value within limits for Al 396.153Radial Recovery = 104.41%								
As 188.979†	85.2	29.909	ug/L	1.5883	29.909	ppb	1.5883	5.31%
QC value within limits for As 188.979 Recovery = 99.70%								
B 249.677†	2534.9	52.570	ug/L	0.3129	52.570	ppb	0.3129	0.60%
QC value within limits for B 249.677 Recovery = 105.14%								
Ba 233.527†	680.4	5.0236	ug/L	0.03856	5.0236	ppb	0.03856	0.77%
QC value within limits for Ba 233.527 Recovery = 100.47%								
Be 313.107†	14847.5	5.0138	ug/L	0.04341	5.0138	ppb	0.04341	0.87%
QC value within limits for Be 313.107 Recovery = 100.28%								
Ca 317.933Radial†	120.6	208.30	ug/L	4.292	208.30	ppb	4.292	2.06%

```
   QC value within limits for Ca 317.933Radial  Recovery = 104.15%
Cd 226.502†              517.8      4.9275 ug/L       0.09709      4.9275 ppb        0.09709   1.97%
   QC value within limits for Cd 226.502  Recovery = 98.55%
Co 228.616†              273.3      5.1816 ug/L       0.03961      5.1816 ppb        0.03961   0.76%
   QC value within limits for Co 228.616  Recovery = 103.63%
Cr 267.716†              500.1      5.0690 ug/L       0.13123      5.0690 ppb        0.13123   2.59%
   QC value within limits for Cr 267.716  Recovery = 101.38%
Cu 324.752†             3324.9      9.9197 ug/L       0.43916      9.9197 ppb        0.43916   4.43%
   QC value within limits for Cu 324.752  Recovery = 99.20%
Fe 238.204 Radial†        8.7      84.050 ug/L       28.3113      84.050 ppb        28.3113  33.68%
   QC value within limits for Fe 238.204 Radial  Recovery = 84.05%
K 766.490 Radial†        792.5      160.29 ug/L        23.210      160.29 ppb         23.210  14.48%
   QC value within limits for K 766.490 Radial  Recovery = 106.86%
Mg 279.077 IEC†            9.6      328.08 ug/L        91.709      328.08 ppb         91.709  27.95%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.36%
Mn 257.610†             9576.0      10.084 ug/L        0.1589      10.084 ppb         0.1589   1.58%
   QC value within limits for Mn 257.610  Recovery = 100.84%
Mo 202.031†              156.1      9.8863 ug/L       0.21911      9.8863 ppb        0.21911   2.22%
   QC value within limits for Mo 202.031  Recovery = 98.86%
Na 589.592 Radial†       963.9      329.11 ug/L        11.426      329.11 ppb         11.426   3.47%
   QC value within limits for Na 589.592 Radial  Recovery = 109.70%
Ni 231.604†              244.5      5.4142 ug/L       0.27867      5.4142 ppb        0.27867   5.15%
   QC value within limits for Ni 231.604  Recovery = 108.28%
P 214.914†               299.6      145.28 ug/L         1.382      145.28 ppb          1.382   0.95%
   QC value within limits for P 214.914  Recovery = 96.85%
Pb 220.353†              101.2      10.584 ug/L        0.4753      10.584 ppb         0.4753   4.49%
   QC value within limits for Pb 220.353  Recovery = 105.84%
S 181.975 Axial†          84.3      95.291 ug/L        4.9663      95.291 ppb         4.9663   5.21%
   QC value within limits for S 181.975 Axial  Recovery = 95.29%
Sb 206.836†               31.1      9.6602 ug/L       4.29049      9.6602 ppb        4.29049  44.41%
   QC value within limits for Sb 206.836  Recovery = 96.60%
Se 196.026†               59.3      30.490 ug/L        0.5795      30.490 ppb         0.5795   1.90%
   QC value within limits for Se 196.026  Recovery = 101.63%
Si 251.611†             3438.1      99.211 ug/L        0.9151      99.211 ppb         0.9151   0.92%
   QC value within limits for Si 251.611  Recovery = 99.21%
Sn 189.927†               66.3      9.9209 ug/L       0.48815      9.9209 ppb        0.48815   4.92%
   QC value within limits for Sn 189.927  Recovery = 99.21%
Sr 421.552†              651.5      4.7982 ug/L       0.13792      4.7982 ppb        0.13792   2.87%
   QC value within limits for Sr 421.552  Recovery = 95.96%
Ti 334.940†             3195.8      5.1014 ug/L       0.06183      5.1014 ppb        0.06183   1.21%
   QC value within limits for Ti 334.940  Recovery = 102.03%
Tl 190.801†               73.1      20.132 ug/L        1.7990      20.132 ppb         1.7990   8.94%
   QC value within limits for Tl 190.801  Recovery = 100.66%
U 409.014†              2038.4      60.724 ug/L        3.7269      60.724 ppb         3.7269   6.14%
   QC value within limits for U 409.014  Recovery = 121.45%
V 292.402†               822.5      5.4637 ug/L       0.20839      5.4637 ppb        0.20839   3.81%
   QC value within limits for V 292.402  Recovery = 109.27%
Zn 213.857†             1210.0      9.9541 ug/L       0.05533      9.9541 ppb        0.05533   0.56%
   QC value within limits for Zn 213.857  Recovery = 99.54%
SiO2†                   3481.8      214.48 ug/L         3.411      214.48 ppb          3.411   1.59%
   QC value within limits for SiO2  Recovery = 100.69%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 1/7/2010 11:50:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4137.4	4137.4	89.4	%			11:52:31
1	Y RADIAL	4389.0	4389.0	89.67	%			11:52:31
1	Al 396.153Radial†	537443.7	601186.2	517350	ug/L	517350	ppb	11:52:26
1	Ca 317.933Radial†	253484.2	283524.4	489640	ug/L	489640	ppb	11:52:26
1	Fe 238.204 Radial†	17746.6	19838.0	190260	ug/L	190260	ppb	11:52:31
1	K 766.490 Radial†	2725.9	-180.2	-21.542	ug/L	-21.542	ppb	11:52:26
1	Mg 279.077 IEC†	12843.5	14364.8	489310	ug/L	489310	ppb	11:52:31
1	Na 589.592 Radial†	-1479.1	115.5	39.442	ug/L	39.442	ppb	11:52:31
1	Sr 421.552†	468.8	513.1	-0.7581	ug/L	-0.7581	ppb	11:52:31
1	Sc 361.383	771134.2	771134.2	88.297	%			11:52:58
1	Y 371.029	648217.7	648217.7	86.507	%			11:52:58
1	Ag 328.068†	-10261.0	-12111.9	3.8200	ug/L	3.8200	ppb	11:52:58
1	As 188.979†	-88.7	-68.9	5.0464	ug/L	5.0464	ppb	11:53:18
1	B 249.677†	83.1	859.6	-7.4085	ug/L	-7.4085	ppb	11:52:58
1	Ba 233.527†	-707.5	-819.8	-1.2083	ug/L	-1.2083	ppb	11:53:18
1	Be 313.107†	-4187.9	-362.9	-0.1645	ug/L	-0.1645	ppb	11:52:58
1	Cd 226.502†	1316.1	1743.5	-2.4108	ug/L	-2.4108	ppb	11:53:18
1	Co 228.616†	-26.5	69.2	-1.4148	ug/L	-1.4148	ppb	11:53:18
1	Cr 267.716†	-30.1	-124.3	2.1584	ug/L	2.1584	ppb	11:53:18
1	Cu 324.752†	4149.2	-3404.6	-0.4475	ug/L	-0.4475	ppb	11:52:58
1	Mn 257.610†	-419.6	-1781.5	7.9848	ug/L	7.9848	ppb	11:52:58
1	Mo 202.031†	-260.9	-322.2	-2.1492	ug/L	-2.1492	ppb	11:53:18
1	Ni 231.604†	260.0	178.3	3.9500	ug/L	3.9500	ppb	11:53:18
1	P 214.914†	216.1	-7.9	18.739	ug/L	18.739	ppb	11:53:18
1	Pb 220.353†	-1012.2	-1045.0	-8.2825	ug/L	-8.2825	ppb	11:53:18
1	S 181.975 Axial†	84.0	37.5	-59.336	ug/L	-59.336	ppb	11:53:18
1	Sb 206.836†	81.7	46.3	1.4527	ug/L	1.4527	ppb	11:53:18
1	Se 196.026†	-1159.0	-1273.8	18.050	ug/L	18.050	ppb	11:53:18
1	Si 251.611†	538.0	-20.7	-0.0264	ug/L	-0.0264	ppb	11:53:18
1	Sn 189.927†	-387.4	-443.5	-12.569	ug/L	-12.569	ppb	11:53:18
1	Ti 334.940†	-13398.5	-13420.9	4.0340	ug/L	4.0340	ppb	11:52:58
1	Tl 190.801†	-96.3	-63.4	-3.4471	ug/L	-3.4471	ppb	11:53:18
1	U 409.014†	-1932.6	719.8	-2.4850	ug/L	-2.4850	ppb	11:52:58
1	V 292.402†	390.0	2248.1	-3.8644	ug/L	-3.8644	ppb	11:53:18
1	Zn 213.857†	3446.4	3050.1	-1.3780	ug/L	-1.3780	ppb	11:53:18
1	SiO2†	630.9	65.8	5.3138	ug/L	5.3138	ppb	11:54:15
2	Sc Radial	4066.0	4066.0	87.9	%			11:52:41
2	Y RADIAL	4326.6	4326.6	88.39	%			11:52:41
2	Al 396.153Radial†	543889.4	619086.9	532750	ug/L	532750	ppb	11:52:36
2	Ca 317.933Radial†	256049.4	291426.6	503290	ug/L	503290	ppb	11:52:36
2	Fe 238.204 Radial†	17543.5	19955.7	191390	ug/L	191390	ppb	11:52:41
2	K 766.490 Radial†	2850.4	15.1	18.653	ug/L	18.653	ppb	11:52:36
2	Mg 279.077 IEC†	12671.2	14421.2	491230	ug/L	491230	ppb	11:52:41
2	Na 589.592 Radial†	-1461.0	107.1	36.550	ug/L	36.550	ppb	11:52:41
2	Sr 421.552†	448.4	499.1	-0.9880	ug/L	-0.9880	ppb	11:52:41
2	Sc 361.383	775426.4	775426.4	88.788	%			11:53:24
2	Y 371.029	652272.5	652272.5	87.048	%			11:53:24
2	Ag 328.068†	-10612.3	-12443.3	2.5530	ug/L	2.5530	ppb	11:53:24
2	As 188.979†	-98.2	-79.1	1.6504	ug/L	1.6504	ppb	11:53:44
2	B 249.677†	6.8	773.2	-9.3506	ug/L	-9.3506	ppb	11:53:24
2	Ba 233.527†	-666.1	-768.8	-0.8048	ug/L	-0.8048	ppb	11:53:44
2	Be 313.107†	-4139.4	-282.0	-0.1377	ug/L	-0.1377	ppb	11:53:24
2	Cd 226.502†	1266.0	1678.9	-3.1395	ug/L	-3.1395	ppb	11:53:44
2	Co 228.616†	-25.2	70.8	-1.3981	ug/L	-1.3981	ppb	11:53:44
2	Cr 267.716†	-56.0	-153.3	1.8827	ug/L	1.8827	ppb	11:53:44
2	Cu 324.752†	4301.9	-3258.6	0.0455	ug/L	0.0455	ppb	11:53:24
2	Mn 257.610†	-441.0	-1803.0	8.0389	ug/L	8.0389	ppb	11:53:24
2	Mo 202.031†	-260.2	-319.7	-1.8811	ug/L	-1.8811	ppb	11:53:44
2	Ni 231.604†	266.5	184.0	4.0763	ug/L	4.0763	ppb	11:53:44

2	P 214.914†	242.2	20.2	36.676 ug/L	36.676 ppb	11:53:44
2	Pb 220.353†	-992.3	-1016.3	-1.9333 ug/L	-1.9333 ppb	11:53:44
2	S 181.975 Axial†	84.3	37.3	-62.595 ug/L	-62.595 ppb	11:53:44
2	Sb 206.836†	54.4	15.1	-8.4184 ug/L	-8.4184 ppb	11:53:44
2	Se 196.026†	-1142.2	-1247.7	37.229 ug/L	37.229 ppb	11:53:44
2	Si 251.611†	603.9	50.1	2.0156 ug/L	2.0156 ppb	11:53:44
2	Sn 189.927†	-404.5	-460.3	-13.644 ug/L	-13.644 ppb	11:53:44
2	Ti 334.940†	-13588.3	-13550.7	4.5362 ug/L	4.5362 ppb	11:53:24
2	Tl 190.801†	-92.6	-58.7	-1.7314 ug/L	-1.7314 ppb	11:53:44
2	U 409.014†	-1825.4	852.7	1.3345 ug/L	1.3345 ppb	11:53:24
2	V 292.402†	364.9	2217.3	-4.1776 ug/L	-4.1776 ppb	11:53:44
2	Zn 213.857†	3459.6	3043.4	-1.5592 ug/L	-1.5592 ppb	11:53:44
2	SiO2†	585.5	10.7	1.8900 ug/L	1.8900 ppb	11:54:20
3	Sc Radial	4298.7	4298.7	92.9 %		11:52:52
3	Y RADIAL	4535.0	4535.0	92.65 %		11:52:52
3	Al 396.153Radial†	540215.2	581621.4	500510 ug/L	500510 ppb	11:52:47
3	Ca 317.933Radial†	254682.4	274179.4	473500 ug/L	473500 ppb	11:52:47
3	Fe 238.204 Radial†	18327.8	19719.2	189120 ug/L	189120 ppb	11:52:52
3	K 766.490 Radial†	2656.6	-369.2	-60.342 ug/L	-60.342 ppb	11:52:47
3	Mg 279.077 IEC†	13233.7	14246.1	485270 ug/L	485270 ppb	11:52:52
3	Na 589.592 Radial†	-1481.8	174.7	59.630 ug/L	59.630 ppb	11:52:52
3	Sr 421.552†	486.1	512.0	-0.6165 ug/L	-0.6165 ppb	11:52:52
3	Sc 361.383	769777.4	769777.4	88.142 %		11:53:49
3	Y 371.029	647388.0	647388.0	86.396 %		11:53:49
3	Ag 328.068†	-10483.5	-12384.9	2.4812 ug/L	2.4812 ppb	11:53:49
3	As 188.979†	-106.4	-89.2	-2.2267 ug/L	-2.2267 ppb	11:54:09
3	B 249.677†	-9.4	754.8	-9.4310 ug/L	-9.4310 ppb	11:53:49
3	Ba 233.527†	-713.5	-828.0	-1.2972 ug/L	-1.2972 ppb	11:54:09
3	Be 313.107†	-4106.8	-279.2	-0.1365 ug/L	-0.1365 ppb	11:53:49
3	Cd 226.502†	1287.3	1713.4	-2.5841 ug/L	-2.5841 ppb	11:54:09
3	Co 228.616†	-20.4	76.0	-1.2643 ug/L	-1.2643 ppb	11:54:09
3	Cr 267.716†	-31.7	-126.2	2.1154 ug/L	2.1154 ppb	11:54:09
3	Cu 324.752†	4176.7	-3365.0	-0.3876 ug/L	-0.3876 ppb	11:53:49
3	Mn 257.610†	-507.9	-1882.5	7.8401 ug/L	7.8401 ppb	11:53:49
3	Mo 202.031†	-236.9	-295.4	-0.5635 ug/L	-0.5635 ppb	11:54:09
3	Ni 231.604†	235.2	150.6	3.3373 ug/L	3.3373 ppb	11:54:09
3	P 214.914†	220.6	-2.4	16.568 ug/L	16.568 ppb	11:54:09
3	Pb 220.353†	-975.2	-1005.1	-7.8098 ug/L	-7.8098 ppb	11:54:09
3	S 181.975 Axial†	87.3	41.4	-51.611 ug/L	-51.611 ppb	11:54:09
3	Sb 206.836†	75.9	40.0	-0.0547 ug/L	-0.0547 ppb	11:54:09
3	Se 196.026†	-1136.0	-1250.1	24.005 ug/L	24.005 ppb	11:54:09
3	Si 251.611†	566.6	12.8	0.9401 ug/L	0.9401 ppb	11:54:09
3	Sn 189.927†	-413.7	-474.1	-18.841 ug/L	-18.841 ppb	11:54:09
3	Ti 334.940†	-13430.5	-13484.0	3.0867 ug/L	3.0867 ppb	11:53:49
3	Tl 190.801†	-102.4	-70.5	-5.8572 ug/L	-5.8572 ppb	11:54:09
3	U 409.014†	-1630.9	1058.2	7.7434 ug/L	7.7434 ppb	11:53:49
3	V 292.402†	403.5	2264.2	-3.6364 ug/L	-3.6364 ppb	11:54:09
3	Zn 213.857†	3480.9	3096.1	-0.7961 ug/L	-0.7961 ppb	11:54:09
3	SiO2†	614.5	48.4	4.2325 ug/L	4.2325 ppb	11:54:25

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	772112.7	88.409	%	0.3376				0.38%
Sc Radial	4167.4	90.0	%	2.58				2.86%
Y 371.029	649292.7	86.650	%	0.3488				0.40%
Y RADIAL	4416.9	90.23	%	2.185				2.42%
Ag 328.068†	-12313.4	2.9514	ug/L	0.75312	2.9514	ppb	0.75312	25.52%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	600631.5	516870	ug/L	16125.6	516870	ppb	16125.6	3.12%
QC value within limits for Al 396.153Radial Recovery = 103.37%								
As 188.979†	-79.1	1.4900	ug/L	3.63921	1.4900	ppb	3.63921	244.24%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	795.9	-8.7301	ug/L	1.14518	-8.7301	ppb	1.14518	13.12%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-805.6	-1.1034	ug/L	0.26246	-1.1034	ppb	0.26246	23.79%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-308.0	-0.1463	ug/L	0.01584	-0.1463	ppb	0.01584	10.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	283043.5	488810	ug/L	14910.2	488810	ppb	14910.2	3.05%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.76%
Cd 226.502†            1711.9     -2.7115 ug/L       0.38069     -2.7115 ppb        0.38069  14.04%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              72.0     -1.3591 ug/L       0.08252     -1.3591 ppb        0.08252   6.07%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†            -134.6      2.0521 ug/L       0.14833      2.0521 ppb        0.14833   7.23%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -3342.7     -0.2632 ug/L       0.26900     -0.2632 ppb        0.26900 102.20%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    19837.6      190260 ug/L        1134.0      190260 ppb         1134.0   0.60%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.13%
K 766.490 Radial†       -178.1     -21.077 ug/L       39.4996     -21.077 ppb        39.4996 187.41%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       14344.0      488600 ug/L        3044.5      488600 ppb         3044.5   0.62%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.72%
Mn 257.610†           -1822.3      7.9546 ug/L       0.10275      7.9546 ppb        0.10275   1.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -312.5     -1.5313 ug/L       0.84874     -1.5313 ppb        0.84874  55.43%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       132.4      45.208 ug/L       12.5740      45.208 ppb        12.5740  27.81%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              171.0      3.7879 ug/L       0.39530      3.7879 ppb        0.39530  10.44%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 3.3      23.994 ug/L       11.0361      23.994 ppb        11.0361  45.99%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†           -1022.1     -6.0085 ug/L       3.53713     -6.0085 ppb        3.53713  58.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         38.7     -57.847 ug/L        5.6414     -57.847 ppb         5.6414   9.75%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              33.8     -2.3401 ug/L       5.31764     -2.3401 ppb        5.31764 227.24%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†           -1257.2      26.428 ug/L        9.8166      26.428 ppb         9.8166  37.14%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              14.1      0.9764 ug/L       1.02148      0.9764 ppb        1.02148 104.61%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -459.3     -15.018 ug/L        3.3538     -15.018 ppb         3.3538  22.33%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             508.1     -0.7875 ug/L       0.18751     -0.7875 ppb        0.18751  23.81%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -13485.2      3.8856 ug/L       0.73609      3.8856 ppb        0.73609  18.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -64.2     -3.6786 ug/L       2.07262     -3.6786 ppb        2.07262  56.34%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               876.9      2.1976 ug/L       5.16854      2.1976 ppb        5.16854 235.19%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              2243.2     -3.8928 ug/L       0.27170     -3.8928 ppb        0.27170   6.98%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             3063.2     -1.2444 ug/L       0.39869     -1.2444 ppb        0.39869  32.04%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    41.7      3.8121 ug/L       1.75022      3.8121 ppb        1.75022  45.91%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 1/7/2010 11:56:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4175.1	4175.1	90.2	%			11:58:34
1	Y RADIAL	4423.5	4423.5	90.37	%			11:58:34
1	Al 396.153Radial†	530261.5	587806.0	505810	ug/L	505810	ppb	11:58:29
1	Ca 317.933Radial†	249233.4	276256.7	477090	ug/L	477090	ppb	11:58:29
1	Fe 238.204 Radial†	17493.4	19378.3	185870	ug/L	185870	ppb	11:58:34
1	K 766.490 Radial†	26339.8	25967.9	5268.1	ug/L	5268.1	ppb	11:58:29
1	Mg 279.077 IEC†	12680.5	14054.6	478750	ug/L	478750	ppb	11:58:34
1	Na 589.592 Radial†	12374.7	15487.1	5287.6	ug/L	5287.6	ppb	11:58:34
1	Sr 421.552†	58713.0	65071.0	474.99	ug/L	474.99	ppb	11:58:29
1	Sc 361.383	771439.1	771439.1	88.332	%			11:59:02
1	Y 371.029	647937.9	647937.9	86.469	%			11:59:02
1	Ag 328.068†	44162.7	49505.4	271.82	ug/L	271.82	ppb	11:59:02
1	As 188.979†	1202.9	1393.3	520.87	ug/L	520.87	ppb	11:59:07
1	B 249.677†	21752.0	25390.9	500.97	ug/L	500.97	ppb	11:59:02
1	Ba 233.527†	58696.3	66431.3	494.94	ug/L	494.94	ppb	11:59:02
1	Be 313.107†	631337.7	719114.5	243.31	ug/L	243.31	ppb	11:59:02
1	Cd 226.502†	44973.3	51167.0	469.11	ug/L	469.11	ppb	11:59:07
1	Co 228.616†	21722.1	24690.7	464.39	ug/L	464.39	ppb	11:59:07
1	Cr 267.716†	41237.4	46594.4	477.17	ug/L	477.17	ppb	11:59:07
1	Cu 324.752†	169880.7	184217.5	558.85	ug/L	558.85	ppb	11:59:02
1	Mn 257.610†	407146.0	459621.7	493.50	ug/L	493.50	ppb	11:59:02
1	Mo 202.031†	6621.1	7469.0	490.34	ug/L	490.34	ppb	11:59:07
1	Ni 231.604†	18676.7	21027.6	465.66	ug/L	465.66	ppb	11:59:07
1	P 214.914†	4801.5	5183.1	2477.3	ug/L	2477.3	ppb	11:59:07
1	Pb 220.353†	3022.4	3523.0	465.51	ug/L	465.51	ppb	11:59:07
1	S 181.975 Axial†	2133.8	2358.0	2568.2	ug/L	2568.2	ppb	11:59:07
1	Sb 206.836†	1540.6	1698.0	508.14	ug/L	508.14	ppb	11:59:07
1	Se 196.026†	3283.8	3756.3	2562.6	ug/L	2562.6	ppb	11:59:07
1	Si 251.611†	159646.1	180104.6	5199.3	ug/L	5199.3	ppb	11:59:02
1	Sn 189.927†	2477.8	2800.4	470.52	ug/L	470.52	ppb	11:59:07
1	Ti 334.940†	269659.9	307034.1	516.30	ug/L	516.30	ppb	11:59:02
1	Tl 190.801†	1475.0	1715.6	488.05	ug/L	488.05	ppb	11:59:07
1	U 409.014†	12916.4	17531.2	498.12	ug/L	498.12	ppb	11:59:02
1	V 292.402†	69736.0	80754.2	501.87	ug/L	501.87	ppb	11:59:02
1	Zn 213.857†	56122.3	62682.7	489.24	ug/L	489.24	ppb	11:59:07
1	SiO2†	161400.9	182072.5	11220	ug/L	11220	ppb	11:59:34
2	Sc Radial	4174.4	4174.4	90.2	%			11:58:44
2	Y RADIAL	4457.7	4457.7	91.07	%			11:58:44
2	Al 396.153Radial†	540235.5	598964.4	515410	ug/L	515410	ppb	11:58:39
2	Ca 317.933Radial†	254206.3	281817.2	486690	ug/L	486690	ppb	11:58:39
2	Fe 238.204 Radial†	17724.7	19638.1	188360	ug/L	188360	ppb	11:58:44
2	K 766.490 Radial†	26806.6	26490.5	5374.1	ug/L	5374.1	ppb	11:58:39
2	Mg 279.077 IEC†	12896.6	14296.5	487000	ug/L	487000	ppb	11:58:44
2	Na 589.592 Radial†	12674.6	15822.0	5401.9	ug/L	5401.9	ppb	11:58:44
2	Sr 421.552†	59735.1	66215.3	483.33	ug/L	483.33	ppb	11:58:39
2	Sc 361.383	783747.4	783747.4	89.741	%			11:59:13
2	Y 371.029	658116.8	658116.8	87.828	%			11:59:13
2	Ag 328.068†	44487.9	49082.6	270.66	ug/L	270.66	ppb	11:59:13
2	As 188.979†	1160.2	1324.3	497.07	ug/L	497.07	ppb	11:59:18
2	B 249.677†	21957.7	25233.2	497.40	ug/L	497.40	ppb	11:59:13
2	Ba 233.527†	59198.8	65947.7	491.44	ug/L	491.44	ppb	11:59:13
2	Be 313.107†	637753.5	715039.2	241.93	ug/L	241.93	ppb	11:59:13
2	Cd 226.502†	44507.6	49848.6	456.30	ug/L	456.30	ppb	11:59:18
2	Co 228.616†	21402.2	23948.0	450.28	ug/L	450.28	ppb	11:59:18
2	Cr 267.716†	40694.5	45256.3	463.62	ug/L	463.62	ppb	11:59:18
2	Cu 324.752†	171213.8	182682.7	554.40	ug/L	554.40	ppb	11:59:13
2	Mn 257.610†	411212.8	456914.8	490.74	ug/L	490.74	ppb	11:59:13
2	Mo 202.031†	6462.7	7174.7	471.96	ug/L	471.96	ppb	11:59:18
2	Ni 231.604†	18452.8	20446.1	452.78	ug/L	452.78	ppb	11:59:18

2	P 214.914†	4825.7	5124.7	2450.6	ug/L	2450.6 ppb	11:59:18
2	Pb 220.353†	2905.9	3339.4	448.32	ug/L	448.32 ppb	11:59:18
2	S 181.975 Axial†	2135.0	2321.4	2524.9	ug/L	2524.9 ppb	11:59:18
2	Sb 206.836†	1587.5	1722.9	515.21	ug/L	515.21 ppb	11:59:18
2	Se 196.026†	3247.4	3657.4	2521.4	ug/L	2521.4 ppb	11:59:18
2	Si 251.611†	160944.9	178713.5	5159.4	ug/L	5159.4 ppb	11:59:13
2	Sn 189.927†	2465.4	2742.5	462.90	ug/L	462.90 ppb	11:59:18
2	Ti 334.940†	271910.2	304747.4	513.14	ug/L	513.14 ppb	11:59:13
2	Tl 190.801†	1426.0	1634.7	466.15	ug/L	466.15 ppb	11:59:18
2	U 409.014†	13220.3	17640.2	501.09	ug/L	501.09 ppb	11:59:13
2	V 292.402†	70320.3	80165.4	497.69	ug/L	497.69 ppb	11:59:13
2	Zn 213.857†	55437.9	60922.3	474.34	ug/L	474.34 ppb	11:59:18
2	SiO2†	161350.0	179146.2	11040	ug/L	11040 ppb	11:59:39
3	Sc Radial	4162.1	4162.1	89.9	%		11:58:55
3	Y RADIAL	4407.2	4407.2	90.04	%		11:58:55
3	Al 396.153Radial†	542645.0	603412.9	519240	ug/L	519240 ppb	11:58:50
3	Ca 317.933Radial†	254530.7	283010.4	488750	ug/L	488750 ppb	11:58:50
3	Fe 238.204 Radial†	17985.2	19985.9	191690	ug/L	191690 ppb	11:58:55
3	K 766.490 Radial†	26834.6	26609.3	5398.4	ug/L	5398.4 ppb	11:58:50
3	Mg 279.077 IEC†	13050.3	14509.7	494260	ug/L	494260 ppb	11:58:55
3	Na 589.592 Radial†	12870.8	16081.7	5490.5	ug/L	5490.5 ppb	11:58:55
3	Sr 421.552†	60170.2	66894.7	488.32	ug/L	488.32 ppb	11:58:50
3	Sc 361.383	789060.3	789060.3	90.349	%		11:59:24
3	Y 371.029	662562.6	662562.6	88.421	%		11:59:24
3	Ag 328.068†	44954.6	49265.4	272.55	ug/L	272.55 ppb	11:59:24
3	As 188.979†	1150.2	1304.6	490.63	ug/L	490.63 ppb	11:59:29
3	B 249.677†	22149.6	25281.0	497.94	ug/L	497.94 ppb	11:59:24
3	Ba 233.527†	59507.6	65845.2	490.77	ug/L	490.77 ppb	11:59:24
3	Be 313.107†	641170.3	714035.9	241.60	ug/L	241.60 ppb	11:59:24
3	Cd 226.502†	45319.4	50413.1	461.34	ug/L	461.34 ppb	11:59:29
3	Co 228.616†	21792.3	24219.1	455.38	ug/L	455.38 ppb	11:59:29
3	Cr 267.716†	41404.9	45737.2	468.57	ug/L	468.57 ppb	11:59:29
3	Cu 324.752†	172817.7	183173.2	556.03	ug/L	556.03 ppb	11:59:24
3	Mn 257.610†	413643.9	456520.2	490.52	ug/L	490.52 ppb	11:59:24
3	Mo 202.031†	6654.5	7338.6	482.65	ug/L	482.65 ppb	11:59:29
3	Ni 231.604†	18779.5	20669.3	457.73	ug/L	457.73 ppb	11:59:29
3	P 214.914†	4865.9	5133.0	2453.1	ug/L	2453.1 ppb	11:59:29
3	Pb 220.353†	3056.3	3484.0	463.97	ug/L	463.97 ppb	11:59:29
3	S 181.975 Axial†	2171.3	2345.5	2551.4	ug/L	2551.4 ppb	11:59:29
3	Sb 206.836†	1562.4	1683.1	503.48	ug/L	503.48 ppb	11:59:29
3	Se 196.026†	3324.1	3717.9	2563.0	ug/L	2563.0 ppb	11:59:29
3	Si 251.611†	162170.3	178862.2	5163.5	ug/L	5163.5 ppb	11:59:24
3	Sn 189.927†	2562.8	2831.8	476.50	ug/L	476.50 ppb	11:59:29
3	Ti 334.940†	273579.0	304554.3	512.94	ug/L	512.94 ppb	11:59:24
3	Tl 190.801†	1483.3	1687.4	480.69	ug/L	480.69 ppb	11:59:29
3	U 409.014†	13085.8	17392.1	493.27	ug/L	493.27 ppb	11:59:24
3	V 292.402†	70753.0	80116.8	497.17	ug/L	497.17 ppb	11:59:24
3	Zn 213.857†	56493.1	61674.3	480.11	ug/L	480.11 ppb	11:59:29
3	SiO2†	158464.7	174742.1	10768	ug/L	10768 ppb	11:59:45

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	781415.6	89.474	%	1.0350				1.16%
Sc Radial	4170.5	90.1	%	0.16				0.18%
Y 371.029	656205.8	87.573	%	1.0005				1.14%
Y RADIAL	4429.5	90.49	%	0.527				0.58%
Ag 328.068†	49284.5	271.68	ug/L	0.951	271.68	ppb	0.951	0.35%
QC value within limits for Ag 328.068 Recovery = 108.67%								
Al 396.153Radial†	596727.8	513490	ug/L	6919.2	513490	ppb	6919.2	1.35%
QC value within limits for Al 396.153Radial Recovery = 102.70%								
As 188.979†	1340.7	502.86	ug/L	15.930	502.86	ppb	15.930	3.17%
QC value within limits for As 188.979 Recovery = 100.57%								
B 249.677†	25301.7	498.77	ug/L	1.922	498.77	ppb	1.922	0.39%
QC value within limits for B 249.677 Recovery = 99.75%								
Ba 233.527†	66074.7	492.38	ug/L	2.243	492.38	ppb	2.243	0.46%
QC value within limits for Ba 233.527 Recovery = 98.48%								
Be 313.107†	716063.2	242.28	ug/L	0.911	242.28	ppb	0.911	0.38%
QC value within limits for Be 313.107 Recovery = 96.91%								
Ca 317.933Radial†	280361.4	484180	ug/L	6225.0	484180	ppb	6225.0	1.29%

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   QC value within limits for Ca 317.933Radial  Recovery = 96.84%
Cd 226.502†            50476.2      462.25 ug/L         6.456      462.25 ppb          6.456   1.40%
   QC value within limits for Cd 226.502  Recovery = 92.45%
Co 228.616†            24286.0      456.69 ug/L         7.147      456.69 ppb          7.147   1.56%
   QC value within limits for Co 228.616  Recovery = 91.34%
Cr 267.716†            45862.6      469.79 ug/L         6.857      469.79 ppb          6.857   1.46%
   QC value within limits for Cr 267.716  Recovery = 93.96%
Cu 324.752†           183357.8      556.43 ug/L         2.251      556.43 ppb          2.251   0.40%
   QC value within limits for Cu 324.752  Recovery = 111.29%
Fe 238.204 Radial†     19667.5      188640 ug/L        2923.4      188640 ppb         2923.4   1.55%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.32%
K 766.490 Radial†      26355.9      5346.8 ug/L         69.29      5346.8 ppb          69.29   1.30%
   QC value within limits for K 766.490 Radial  Recovery = 106.94%
Mg 279.077 IEC†        14286.9      486670 ug/L        7757.4      486670 ppb         7757.4   1.59%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.33%
Mn 257.610†           457685.6      491.59 ug/L         1.657      491.59 ppb          1.657   0.34%
   QC value within limits for Mn 257.610  Recovery = 98.32%
Mo 202.031†             7327.4      481.65 ug/L         9.228      481.65 ppb          9.228   1.92%
   QC value within limits for Mo 202.031  Recovery = 96.33%
Na 589.592 Radial†     15796.9      5393.3 ug/L        101.76      5393.3 ppb         101.76   1.89%
   QC value within limits for Na 589.592 Radial  Recovery = 107.87%
Ni 231.604†            20714.3      458.72 ug/L         6.496      458.72 ppb          6.496   1.42%
   QC value within limits for Ni 231.604  Recovery = 91.74%
P 214.914†              5146.9      2460.3 ug/L         14.73      2460.3 ppb          14.73   0.60%
   QC value within limits for P 214.914  Recovery = 98.41%
Pb 220.353†             3448.8      459.27 ug/L         9.511      459.27 ppb          9.511   2.07%
   QC value within limits for Pb 220.353  Recovery = 91.85%
S 181.975 Axial†        2341.6      2548.2 ug/L         21.83      2548.2 ppb          21.83   0.86%
   QC value within limits for S 181.975 Axial  Recovery = 101.93%
Sb 206.836†             1701.3      508.94 ug/L         5.906      508.94 ppb          5.906   1.16%
   QC value within limits for Sb 206.836  Recovery = 101.79%
Se 196.026†             3710.6      2549.0 ug/L         23.93      2549.0 ppb          23.93   0.94%
   QC value within limits for Se 196.026  Recovery = 101.96%
Si 251.611†           179226.7      5174.1 ug/L         21.97      5174.1 ppb          21.97   0.42%
   QC value within limits for Si 251.611  Recovery = 103.48%
Sn 189.927†             2791.6      469.97 ug/L         6.816      469.97 ppb          6.816   1.45%
   QC value within limits for Sn 189.927  Recovery = 93.99%
Sr 421.552†            66060.4      482.21 ug/L         6.734      482.21 ppb          6.734   1.40%
   QC value within limits for Sr 421.552  Recovery = 96.44%
Ti 334.940†           305445.3      514.12 ug/L         1.884      514.12 ppb          1.884   0.37%
   QC value within limits for Ti 334.940  Recovery = 102.82%
Tl 190.801†             1679.2      478.30 ug/L        11.142      478.30 ppb         11.142   2.33%
   QC value within limits for Tl 190.801  Recovery = 95.66%
U 409.014†             17521.2      497.49 ug/L         3.948      497.49 ppb          3.948   0.79%
   QC value within limits for U 409.014  Recovery = 99.50%
V 292.402†             80345.5      498.91 ug/L         2.576      498.91 ppb          2.576   0.52%
   QC value within limits for V 292.402  Recovery = 99.78%
Zn 213.857†            61759.7      481.23 ug/L         7.511      481.23 ppb          7.511   1.56%
   QC value within limits for Zn 213.857  Recovery = 96.25%
SiO2†                 178653.6       11009 ug/L         227.8       11009 ppb          227.8   2.07%
   QC value within limits for SiO2  Recovery = 102.94%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 1/7/2010 12:01:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4045.2	4045.2	87.4	%			12:03:52
1	Y RADIAL	4293.6	4293.6	87.72	%			12:03:52
1	Al 396.153Radial†	521147.4	596249.8	513100	ug/L	513100	ppb	12:03:47
1	Ca 317.933Radial†	247139.4	282730.7	488270	ug/L	488270	ppb	12:03:47
1	Fe 238.204 Radial†	40995.6	46889.1	449700	ug/L	449700	ppb	12:03:52
1	K 766.490 Radial†	2955.3	151.8	-176.30	ug/L	-176.30	ppb	12:03:47
1	Mg 279.077 IEC†	12371.7	14152.6	481860	ug/L	481860	ppb	12:03:52
1	Na 589.592 Radial†	1337214.6	1531636.7	522920	ug/L	522920	ppb	12:03:47
1	Sr 421.552†	639.1	719.8	0.7776	ug/L	0.7776	ppb	12:03:52
1	Sc 361.383	757679.3	757679.3	86.756	%			12:04:20
1	Y 371.029	638146.7	638146.7	85.163	%			12:04:20
1	Ag 328.068†	-25181.3	-29516.2	2.4670	ug/L	2.4670	ppb	12:04:20
1	As 188.979†	-228.2	-231.5	-11.885	ug/L	-11.885	ppb	12:04:40
1	B 249.677†	941.1	1850.3	-21.284	ug/L	-21.284	ppb	12:04:20
1	Ba 233.527†	-1937.1	-2251.3	-5.1872	ug/L	-5.1872	ppb	12:04:40
1	Be 313.107†	-10869.5	-8148.7	-2.7880	ug/L	-2.7880	ppb	12:04:20
1	Cd 226.502†	3385.1	4154.8	-5.3790	ug/L	-5.3790	ppb	12:04:40
1	Co 228.616†	213.3	345.1	0.0429	ug/L	0.0429	ppb	12:04:40
1	Cr 267.716†	50.2	-32.4	3.0398	ug/L	3.0398	ppb	12:04:40
1	Cu 324.752†	678.0	-7322.2	1.1038	ug/L	1.1038	ppb	12:04:20
1	Mn 257.610†	-27348.8	-32830.1	1.3042	ug/L	1.3042	ppb	12:04:20
1	Mo 202.031†	-545.4	-655.4	1.6438	ug/L	1.6438	ppb	12:04:40
1	Ni 231.604†	292.9	221.4	4.9025	ug/L	4.9025	ppb	12:04:40
1	P 214.914†	625.6	468.4	43.092	ug/L	43.092	ppb	12:04:40
1	Pb 220.353†	-756.2	-770.3	-1.9974	ug/L	-1.9974	ppb	12:04:40
1	S 181.975 Axial†	109.9	69.0	-22.876	ug/L	-22.876	ppb	12:04:40
1	Sb 206.836†	68.2	32.5	0.9893	ug/L	0.9893	ppb	12:04:40
1	Se 196.026†	-2691.3	-3063.4	-95.073	ug/L	-95.073	ppb	12:04:40
1	Si 251.611†	-385.1	-1074.0	-30.121	ug/L	-30.121	ppb	12:04:40
1	Sn 189.927†	-438.9	-510.7	-19.283	ug/L	-19.283	ppb	12:04:40
1	Ti 334.940†	-13054.5	-13293.9	-2.2930	ug/L	-2.2930	ppb	12:04:20
1	Tl 190.801†	-119.0	-91.5	-11.517	ug/L	-11.517	ppb	12:04:40
1	U 409.014†	424047.0	491688.2	14595	ug/L	14595	ppb	12:04:20
1	V 292.402†	1676.4	3738.7	-5.9260	ug/L	-5.9260	ppb	12:04:20
1	Zn 213.857†	6363.2	6481.5	13.840	ug/L	13.840	ppb	12:04:40
1	SiO2†	-448.6	-1165.8	-69.936	ug/L	-69.936	ppb	12:05:37
2	Sc Radial	4119.8	4119.8	89.0	%			12:04:03
2	Y RADIAL	4368.0	4368.0	89.24	%			12:04:03
2	Al 396.153Radial†	519615.6	583734.4	502330	ug/L	502330	ppb	12:03:58
2	Ca 317.933Radial†	246656.6	277069.3	478490	ug/L	478490	ppb	12:03:58
2	Fe 238.204 Radial†	41705.6	46837.5	449200	ug/L	449200	ppb	12:04:03
2	K 766.490 Radial†	3093.1	245.4	-153.21	ug/L	-153.21	ppb	12:03:58
2	Mg 279.077 IEC†	12569.0	14117.9	480680	ug/L	480680	ppb	12:04:03
2	Na 589.592 Radial†	1335018.7	1501472.0	512630	ug/L	512630	ppb	12:03:58
2	Sr 421.552†	635.3	702.4	0.7395	ug/L	0.7395	ppb	12:04:03
2	Sc 361.383	758254.9	758254.9	86.822	%			12:04:46
2	Y 371.029	638234.4	638234.4	85.174	%			12:04:46
2	Ag 328.068†	-25079.9	-29377.5	3.0337	ug/L	3.0337	ppb	12:04:46
2	As 188.979†	-223.1	-225.5	-9.8474	ug/L	-9.8474	ppb	12:05:06
2	B 249.677†	801.5	1688.7	-24.570	ug/L	-24.570	ppb	12:04:46
2	Ba 233.527†	-1946.4	-2260.4	-5.2673	ug/L	-5.2673	ppb	12:05:06
2	Be 313.107†	-11042.3	-8338.2	-2.8533	ug/L	-2.8533	ppb	12:04:46
2	Cd 226.502†	3422.4	4194.8	-4.9476	ug/L	-4.9476	ppb	12:05:06
2	Co 228.616†	205.4	335.8	-0.1219	ug/L	-0.1219	ppb	12:05:06
2	Cr 267.716†	52.1	-30.3	3.0467	ug/L	3.0467	ppb	12:05:06
2	Cu 324.752†	787.6	-7196.5	1.4536	ug/L	1.4536	ppb	12:04:46
2	Mn 257.610†	-27459.9	-32934.0	1.1674	ug/L	1.1674	ppb	12:04:46
2	Mo 202.031†	-533.3	-641.0	2.5076	ug/L	2.5076	ppb	12:05:06
2	Ni 231.604†	326.1	259.4	5.7439	ug/L	5.7439	ppb	12:05:06

2	P 214.914†	613.3	453.8	32.651 ug/L	32.651 ppb	12:05:06
2	Pb 220.353†	-709.9	-716.4	1.2425 ug/L	1.2425 ppb	12:05:06
2	S 181.975 Axial†	103.2	61.2	-29.541 ug/L	-29.541 ppb	12:05:06
2	Sb 206.836†	59.2	22.0	-1.8037 ug/L	-1.8037 ppb	12:05:06
2	Se 196.026†	-2721.4	-3095.6	-114.66 ug/L	-114.66 ppb	12:05:06
2	Si 251.611†	-450.2	-1148.6	-32.312 ug/L	-32.312 ppb	12:05:06
2	Sn 189.927†	-419.9	-488.4	-16.976 ug/L	-16.976 ppb	12:05:06
2	Ti 334.940†	-13457.5	-13746.6	-3.5348 ug/L	-3.5348 ppb	12:04:46
2	Tl 190.801†	-138.3	-113.6	-17.908 ug/L	-17.908 ppb	12:05:06
2	U 409.014†	424800.3	492184.8	14610 ug/L	14610 ppb	12:04:46
2	V 292.402†	1630.2	3684.0	-6.1821 ug/L	-6.1821 ppb	12:04:46
2	Zn 213.857†	6370.2	6483.9	13.920 ug/L	13.920 ppb	12:05:06
2	SiO2†	-265.7	-954.8	-56.978 ug/L	-56.978 ppb	12:05:42
3	Sc Radial	4192.9	4192.9	90.6 %		12:04:13
3	Y RADIAL	4420.4	4420.4	90.31 %		12:04:13
3	Al 396.153Radial†	523634.4	577990.5	497390 ug/L	497390 ppb	12:04:08
3	Ca 317.933Radial†	248512.1	274285.1	473690 ug/L	473690 ppb	12:04:08
3	Fe 238.204 Radial†	42367.5	46751.0	448370 ug/L	448370 ppb	12:04:13
3	K 766.490 Radial†	3015.4	99.0	-179.99 ug/L	-179.99 ppb	12:04:08
3	Mg 279.077 IEC†	12789.4	14115.0	480580 ug/L	480580 ppb	12:04:13
3	Na 589.592 Radial†	1340360.4	1481213.7	505710 ug/L	505710 ppb	12:04:08
3	Sr 421.552†	667.2	725.1	0.9520 ug/L	0.9520 ppb	12:04:13
3	Sc 361.383	760474.2	760474.2	87.076 %		12:05:12
3	Y 371.029	639482.7	639482.7	85.341 %		12:05:12
3	Ag 328.068†	-25175.1	-29402.5	2.7246 ug/L	2.7246 ppb	12:05:12
3	As 188.979†	-211.2	-211.1	-4.9251 ug/L	-4.9251 ppb	12:05:32
3	B 249.677†	932.1	1835.9	-21.405 ug/L	-21.405 ppb	12:05:12
3	Ba 233.527†	-1966.1	-2276.5	-5.4073 ug/L	-5.4073 ppb	12:05:32
3	Be 313.107†	-11075.4	-8339.1	-2.8537 ug/L	-2.8537 ppb	12:05:12
3	Cd 226.502†	3401.9	4159.8	-5.1987 ug/L	-5.1987 ppb	12:05:32
3	Co 228.616†	200.3	329.2	-0.2347 ug/L	-0.2347 ppb	12:05:32
3	Cr 267.716†	34.2	-51.0	2.8234 ug/L	2.8234 ppb	12:05:32
3	Cu 324.752†	674.0	-7329.7	1.0140 ug/L	1.0140 ppb	12:05:12
3	Mn 257.610†	-27538.6	-32932.2	1.0886 ug/L	1.0886 ppb	12:05:12
3	Mo 202.031†	-536.0	-642.3	2.3444 ug/L	2.3444 ppb	12:05:32
3	Ni 231.604†	312.7	243.0	5.3801 ug/L	5.3801 ppb	12:05:32
3	P 214.914†	619.4	458.7	34.102 ug/L	34.102 ppb	12:05:32
3	Pb 220.353†	-740.6	-749.2	-3.2127 ug/L	-3.2127 ppb	12:05:32
3	S 181.975 Axial†	102.3	59.9	-30.113 ug/L	-30.113 ppb	12:05:32
3	Sb 206.836†	67.5	31.3	1.1175 ug/L	1.1175 ppb	12:05:32
3	Se 196.026†	-2701.6	-3063.8	-101.78 ug/L	-101.78 ppb	12:05:32
3	Si 251.611†	-376.0	-1061.8	-29.791 ug/L	-29.791 ppb	12:05:32
3	Sn 189.927†	-422.4	-489.9	-17.711 ug/L	-17.711 ppb	12:05:32
3	Ti 334.940†	-13507.9	-13759.3	-3.8017 ug/L	-3.8017 ppb	12:05:12
3	Tl 190.801†	-100.8	-70.0	-6.0673 ug/L	-6.0673 ppb	12:05:32
3	U 409.014†	425775.8	491877.3	14601 ug/L	14601 ppb	12:05:12
3	V 292.402†	1580.2	3621.2	-6.4758 ug/L	-6.4758 ppb	12:05:12
3	Zn 213.857†	6330.1	6416.5	13.411 ug/L	13.411 ppb	12:05:32
3	SiO2†	-503.7	-1227.2	-73.773 ug/L	-73.773 ppb	12:05:47

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	758802.8	86.885	%	0.1690				0.19%
Sc Radial	4119.3	89.0	%	1.60				1.79%
Y 371.029	638621.3	85.226	%	0.0997				0.12%
Y RADIAL	4360.7	89.09	%	1.302				1.46%
Ag 328.068†	-29432.0	2.7418	ug/L	0.28378	2.7418	ppb	0.28378	10.35%
Al 396.153Radial†	585991.6	504270	ug/L	8034.5	504270	ppb	8034.5	1.59%
QC value within limits for Al 396.153Radial Recovery = 100.85%								
As 188.979†	-222.7	-8.8858	ug/L	3.57822	-8.8858	ppb	3.57822	40.27%
B 249.677†	1791.6	-22.419	ug/L	1.8635	-22.419	ppb	1.8635	8.31%
Ba 233.527†	-2262.7	-5.2872	ug/L	0.11140	-5.2872	ppb	0.11140	2.11%
Be 313.107†	-8275.3	-2.8317	ug/L	0.03779	-2.8317	ppb	0.03779	1.33%
Ca 317.933Radial†	278028.4	480150	ug/L	7432.4	480150	ppb	7432.4	1.55%
QC value within limits for Ca 317.933Radial Recovery = 96.03%								
Cd 226.502†	4169.8	-5.1751	ug/L	0.21667	-5.1751	ppb	0.21667	4.19%
Co 228.616†	336.7	-0.1046	ug/L	0.13964	-0.1046	ppb	0.13964	133.52%
Cr 267.716†	-37.9	2.9700	ug/L	0.12696	2.9700	ppb	0.12696	4.27%
Cu 324.752†	-7282.8	1.1905	ug/L	0.23224	1.1905	ppb	0.23224	19.51%

Fe 238.204 Radial†	46825.9	449090	ug/L	669.2	449090	ppb	669.2	0.15%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 89.82%								
K 766.490 Radial†	165.4	-169.84	ug/L	14.512	-169.84	ppb	14.512	8.54%
Mg 279.077 IEC†	14128.5	481040	ug/L	712.1	481040	ppb	712.1	0.15%
QC value within limits for Mg 279.077 IEC Recovery = 96.21%								
Mn 257.610†	-32898.8	1.1867	ug/L	0.10913	1.1867	ppb	0.10913	9.20%
Mo 202.031†	-646.2	2.1653	ug/L	0.45891	2.1653	ppb	0.45891	21.19%
Na 589.592 Radial†	1504774.1	513750	ug/L	8662.8	513750	ppb	8662.8	1.69%
QC value within limits for Na 589.592 Radial Recovery = 102.75%								
Ni 231.604†	241.3	5.3422	ug/L	0.42199	5.3422	ppb	0.42199	7.90%
P 214.914†	460.3	36.615	ug/L	5.6562	36.615	ppb	5.6562	15.45%
Pb 220.353†	-745.3	-1.3226	ug/L	2.30302	-1.3226	ppb	2.30302	174.13%
S 181.975 Axial†	63.4	-27.510	ug/L	4.0233	-27.510	ppb	4.0233	14.62%
Sb 206.836†	28.6	0.1010	ug/L	1.65080	0.1010	ppb	1.65080	>999.9%
Se 196.026†	-3074.3	-103.84	ug/L	9.957	-103.84	ppb	9.957	9.59%
Si 251.611†	-1094.8	-30.741	ug/L	1.3701	-30.741	ppb	1.3701	4.46%
Sn 189.927†	-496.3	-17.990	ug/L	1.1782	-17.990	ppb	1.1782	6.55%
Sr 421.552†	715.8	0.8230	ug/L	0.11329	0.8230	ppb	0.11329	13.76%
Ti 334.940†	-13599.9	-3.2098	ug/L	0.80511	-3.2098	ppb	0.80511	25.08%
Tl 190.801†	-91.7	-11.831	ug/L	5.9267	-11.831	ppb	5.9267	50.10%
U 409.014†	491916.8	14602	ug/L	7.5	14602	ppb	7.5	0.05%
QC value within limits for U 409.014 Recovery = 97.35%								
V 292.402†	3681.3	-6.1946	ug/L	0.27507	-6.1946	ppb	0.27507	4.44%
Zn 213.857†	6460.6	13.724	ug/L	0.2736	13.724	ppb	0.2736	1.99%
SiO2†	-1115.9	-66.896	ug/L	8.8010	-66.896	ppb	8.8010	13.16%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 1/7/2010 12:07:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4190.9	4190.9	90.6	%			12:10:16
1	Y RADIAL	4618.3	4618.3	94.35	%			12:09:56
1	Al 396.153Radial†	551.4	629.8	93.135	ug/L	93.135	ppb	12:09:56
1	Ca 317.933Radial†	28.5	17.5	30.215	ug/L	30.215	ppb	12:10:16
1	Fe 238.204 Radial†	-20.0	-34.8	-13.217	ug/L	-13.217	ppb	12:10:16
1	K 766.490 Radial†	1368972.6	1508531.2	305470	ug/L	305470	ppb	12:09:50
1	Mg 279.077 IEC†	-5.8	-7.9	-56.157	ug/L	-56.157	ppb	12:10:16
1	Na 589.592 Radial†	-1055.3	604.7	206.45	ug/L	206.45	ppb	12:09:56
1	Sr 421.552†	1205877.8	1331643.1	9810.9	ug/L	9810.9	ppb	12:09:50
1	Sc 361.383	789179.4	789179.4	90.363	%			12:11:33
1	Y 371.029	660812.0	660812.0	88.187	%			12:11:33
1	Ag 328.068†	-7479.3	-8767.8	4.4450	ug/L	4.4450	ppb	12:11:38
1	As 188.979†	27901.7	30908.8	10929	ug/L	10929	ppb	12:11:38
1	B 249.677†	236301.1	262267.2	5415.7	ug/L	5415.7	ppb	12:11:33
1	Ba 233.527†	1895685.4	2097834.5	15470	ug/L	15470	ppb	12:11:33
1	Be 313.107†	8206687.1	9086279.1	3083.0	ug/L	3083.0	ppb	12:11:26
1	Cd 226.502†	993382.8	1099576.2	10481	ug/L	10481	ppb	12:11:33
1	Co 228.616†	485748.9	537651.3	10167	ug/L	10167	ppb	12:11:38
1	Cr 267.716†	2321650.1	2569154.9	26106	ug/L	26106	ppb	12:11:33
1	Cu 324.752†	6546042.5	7236049.3	21579	ug/L	21579	ppb	12:11:26
1	Mn 257.610†	8645747.7	9566477.4	10071	ug/L	10071	ppb	12:11:26
1	Mo 202.031†	149753.5	165697.4	10483	ug/L	10483	ppb	12:11:38
1	Ni 231.604†	435659.9	482005.2	10674	ug/L	10674	ppb	12:11:33
1	P 214.914†	34998.1	38477.8	15535	ug/L	15535	ppb	12:11:38
1	Pb 220.353†	225359.1	249494.1	25966	ug/L	25966	ppb	12:11:38
1	S 181.975 Axial†	44105.5	48751.5	55155	ug/L	55155	ppb	12:11:38
1	Sb 206.836†	33381.9	36895.8	10929	ug/L	10929	ppb	12:11:38
1	Se 196.026†	19630.6	21762.9	11101	ug/L	11101	ppb	12:11:38
1	Si 251.611†	1644585.8	1819344.6	52317	ug/L	52317	ppb	12:11:33
1	Sn 189.927†	67403.1	74586.6	11139	ug/L	11139	ppb	12:11:38
1	Ti 334.940†	5967191.8	6605323.6	10571	ug/L	10571	ppb	12:11:26
1	Tl 190.801†	34584.7	38318.7	10587	ug/L	10587	ppb	12:11:38
1	U 409.014†	-1242.2	1533.9	-4.6383	ug/L	-4.6383	ppb	12:11:38
1	V 292.402†	1546514.6	1713250.9	10997	ug/L	10997	ppb	12:11:33
1	Zn 213.857†	1670041.6	1847292.1	15198	ug/L	15198	ppb	12:11:33
1	SiO2†	1640195.9	1814467.8	111360	ug/L	111360	ppb	12:12:25
2	Sc Radial	4174.8	4174.8	90.2	%			12:10:46
2	Y RADIAL	4587.3	4587.3	93.72	%			12:10:26
2	Al 396.153Radial†	537.4	616.6	113.35	ug/L	113.35	ppb	12:10:26
2	Ca 317.933Radial†	24.5	13.2	22.774	ug/L	22.774	ppb	12:10:46
2	Fe 238.204 Radial†	-16.4	-30.9	2.8401	ug/L	2.8401	ppb	12:10:46
2	K 766.490 Radial†	1378393.9	1524806.8	308770	ug/L	308770	ppb	12:10:21
2	Mg 279.077 IEC†	-8.0	-10.4	-155.96	ug/L	-155.96	ppb	12:10:46
2	Na 589.592 Radial†	-1177.8	464.3	158.53	ug/L	158.53	ppb	12:10:26
2	Sr 421.552†	1218000.6	1350218.8	9947.8	ug/L	9947.8	ppb	12:10:21
2	Sc 361.383	837765.8	837765.8	95.926	%			12:11:53
2	Y 371.029	702693.4	702693.4	93.777	%			12:11:53
2	Ag 328.068†	-7363.7	-8167.3	3.4658	ug/L	3.4658	ppb	12:11:58
2	As 188.979†	27620.2	28824.6	10193	ug/L	10193	ppb	12:11:58
2	B 249.677†	229614.0	240130.3	4958.2	ug/L	4958.2	ppb	12:11:53
2	Ba 233.527†	1845376.3	1923723.7	14186	ug/L	14186	ppb	12:11:53
2	Be 313.107†	8211470.3	8564559.6	2905.9	ug/L	2905.9	ppb	12:11:46
2	Cd 226.502†	967606.6	1008950.0	9617.1	ug/L	9617.1	ppb	12:11:53
2	Co 228.616†	480581.1	501088.7	9475.2	ug/L	9475.2	ppb	12:11:58
2	Cr 267.716†	2257509.9	2353287.3	23913	ug/L	23913	ppb	12:11:53
2	Cu 324.752†	6548764.9	6818761.7	20335	ug/L	20335	ppb	12:11:46
2	Mn 257.610†	8663634.9	9030239.3	9506.8	ug/L	9506.8	ppb	12:11:46
2	Mo 202.031†	147801.8	154051.6	9746.1	ug/L	9746.1	ppb	12:11:58
2	Ni 231.604†	423334.5	441195.7	9770.6	ug/L	9770.6	ppb	12:11:53

2	P 214.914†	34616.2	35833.6	14429	ug/L	14429	ppb	12:11:58
2	Pb 220.353†	223012.0	232583.7	24206	ug/L	24206	ppb	12:11:58
2	S 181.975 Axial†	43464.9	45253.0	51197	ug/L	51197	ppb	12:11:58
2	Sb 206.836†	32995.9	34350.9	10183	ug/L	10183	ppb	12:11:58
2	Se 196.026†	19290.1	20148.0	10277	ug/L	10277	ppb	12:11:58
2	Si 251.611†	1598241.2	1665482.2	47879	ug/L	47879	ppb	12:11:53
2	Sn 189.927†	66492.5	69311.5	10351	ug/L	10351	ppb	12:11:58
2	Ti 334.940†	5971232.7	6226561.1	9965.3	ug/L	9965.3	ppb	12:11:46
2	Tl 190.801†	34266.5	35767.3	9883.8	ug/L	9883.8	ppb	12:11:58
2	U 409.014†	-1611.3	1228.8	-9.5003	ug/L	-9.5003	ppb	12:11:58
2	V 292.402†	1502804.0	1568428.6	10069	ug/L	10069	ppb	12:11:53
2	Zn 213.857†	1627295.6	1695547.5	13949	ug/L	13949	ppb	12:11:53
2	SiO2†	1623327.2	1691614.8	103810	ug/L	103810	ppb	12:12:33
3	Sc Radial	4185.1	4185.1	90.4	%			12:11:17
3	Y RADIAL	4579.8	4579.8	93.56	%			12:10:56
3	Al 396.153Radial†	492.3	565.2	74.996	ug/L	74.996	ppb	12:10:56
3	Ca 317.933Radial†	23.6	12.1	20.882	ug/L	20.882	ppb	12:11:17
3	Fe 238.204 Radial†	-19.5	-34.2	-33.779	ug/L	-33.779	ppb	12:11:17
3	K 766.490 Radial†	1387747.5	1531371.2	310100	ug/L	310100	ppb	12:10:51
3	Mg 279.077 IEC†	-5.1	-7.2	-50.445	ug/L	-50.445	ppb	12:11:17
3	Na 589.592 Radial†	-1158.4	489.1	166.98	ug/L	166.98	ppb	12:10:56
3	Sr 421.552†	1223766.3	1353255.3	9970.2	ug/L	9970.2	ppb	12:10:51
3	Sc 361.383	851474.1	851474.1	97.496	%			12:12:13
3	Y 371.029	713161.6	713161.6	95.174	%			12:12:13
3	Ag 328.068†	-7333.1	-8012.4	4.0058	ug/L	4.0058	ppb	12:12:18
3	As 188.979†	27749.1	28493.2	10076	ug/L	10076	ppb	12:12:18
3	B 249.677†	233652.0	240418.3	4964.5	ug/L	4964.5	ppb	12:12:13
3	Ba 233.527†	1870648.9	1918674.1	14149	ug/L	14149	ppb	12:12:13
3	Be 313.107†	8219798.2	8435286.7	2862.1	ug/L	2862.1	ppb	12:12:06
3	Cd 226.502†	980672.4	1006111.9	9590.1	ug/L	9590.1	ppb	12:12:13
3	Co 228.616†	481411.3	493874.5	9338.8	ug/L	9338.8	ppb	12:12:18
3	Cr 267.716†	2286175.2	2344800.6	23826	ug/L	23826	ppb	12:12:13
3	Cu 324.752†	6569087.2	6729696.8	20069	ug/L	20069	ppb	12:12:06
3	Mn 257.610†	8666608.4	8887885.8	9356.9	ug/L	9356.9	ppb	12:12:06
3	Mo 202.031†	148117.2	151894.6	9609.6	ug/L	9609.6	ppb	12:12:18
3	Ni 231.604†	429446.8	440360.1	9752.2	ug/L	9752.2	ppb	12:12:13
3	P 214.914†	34571.6	35206.9	14163	ug/L	14163	ppb	12:12:18
3	Pb 220.353†	223632.3	229477.2	23882	ug/L	23882	ppb	12:12:18
3	S 181.975 Axial†	43560.9	44622.0	50483	ug/L	50483	ppb	12:12:18
3	Sb 206.836†	32970.9	33771.6	10005	ug/L	10005	ppb	12:12:18
3	Se 196.026†	19398.6	19935.6	10169	ug/L	10169	ppb	12:12:18
3	Si 251.611†	1622891.0	1663941.6	47837	ug/L	47837	ppb	12:12:13
3	Sn 189.927†	66584.4	68289.7	10199	ug/L	10199	ppb	12:12:18
3	Ti 334.940†	5983532.5	6138960.4	9825.0	ug/L	9825.0	ppb	12:12:06
3	Tl 190.801†	34356.2	35284.2	9749.9	ug/L	9749.9	ppb	12:12:18
3	U 409.014†	-1525.9	1343.5	-5.9139	ug/L	-5.9139	ppb	12:12:18
3	V 292.402†	1522709.2	1563623.2	10037	ug/L	10037	ppb	12:12:13
3	Zn 213.857†	1647815.6	1689283.2	13898	ug/L	13898	ppb	12:12:13
3	SiO2†	1626637.3	1667765.4	102340	ug/L	102340	ppb	12:12:40

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	826139.8	94.595	%	3.7482				3.96%
Sc Radial	4183.6	90.4	%	0.18				0.20%
Y 371.029	692222.4	92.379	%	3.6968				4.00%
Y RADIAL	4595.1	93.88	%	0.417				0.44%
Ag 328.068†	-8315.8	3.9722	ug/L	0.49045	3.9722	ppb	0.49045	12.35%
Al 396.153Radial†	603.9	93.827	ug/L	19.1867	93.827	ppb	19.1867	20.45%
As 188.979†	29408.9	10399	ug/L	462.7	10399	ppb	462.7	4.45%
QC value within limits for As 188.979 Recovery = 103.99%								
B 249.677†	247605.3	5112.8	ug/L	262.36	5112.8	ppb	262.36	5.13%
QC value within limits for B 249.677 Recovery = 102.26%								
Ba 233.527†	1980077.4	14602	ug/L	752.3	14602	ppb	752.3	5.15%
QC value within limits for Ba 233.527 Recovery = 97.34%								
Be 313.107†	8695375.1	2950.3	ug/L	116.93	2950.3	ppb	116.93	3.96%
QC value within limits for Be 313.107 Recovery = 98.34%								
Ca 317.933Radial†	14.3	24.624	ug/L	4.9337	24.624	ppb	4.9337	20.04%
Cd 226.502†	1038212.7	9896.0	ug/L	506.73	9896.0	ppb	506.73	5.12%
QC value within limits for Cd 226.502 Recovery = 98.96%								

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Co 228.616†          510871.5      9660.3 ug/L        443.97      9660.3 ppb        443.97   4.60%
   QC value within limits for Co 228.616  Recovery = 96.60%
Cr 267.716†         2422414.3       24615 ug/L        1292.0       24615 ppb        1292.0   5.25%
   QC value within limits for Cr 267.716  Recovery = 98.46%
Cu 324.752†         6928169.3       20661 ug/L         806.2       20661 ppb         806.2   3.90%
   QC value within limits for Cu 324.752  Recovery = 103.30%
Fe 238.204 Radial†       -33.3     -14.719 ug/L       18.3558     -14.719 ppb       18.3558 124.71%
K 766.490 Radial†    1521569.8      308110 ug/L        2384.8      308110 ppb        2384.8   0.77%
   QC value within limits for K 766.490 Radial  Recovery = 102.70%
Mg 279.077 IEC†          -8.5     -87.521 ug/L       59.3397     -87.521 ppb       59.3397  67.80%
Mn 257.610†         9161534.2      9645.0 ug/L        376.73      9645.0 ppb        376.73   3.91%
   QC value within limits for Mn 257.610  Recovery = 96.45%
Mo 202.031†          157214.5      9946.2 ug/L        469.75      9946.2 ppb        469.75   4.72%
   QC value within limits for Mo 202.031  Recovery = 99.46%
Na 589.592 Radial†       519.4      177.32 ug/L        25.576      177.32 ppb        25.576  14.42%
Ni 231.604†          454520.3       10066 ug/L         527.3       10066 ppb         527.3   5.24%
   QC value within limits for Ni 231.604  Recovery = 100.66%
P 214.914†            36506.1       14709 ug/L         727.8       14709 ppb         727.8   4.95%
   QC value within limits for P 214.914  Recovery = 98.06%
Pb 220.353†          237185.0       24685 ug/L        1121.3       24685 ppb        1121.3   4.54%
   QC value within limits for Pb 220.353  Recovery = 98.74%
S 181.975 Axial†      46208.9       52278 ug/L        2516.6       52278 ppb        2516.6   4.81%
   QC value within limits for S 181.975 Axial  Recovery = 104.56%
Sb 206.836†           35006.1       10372 ug/L         490.1       10372 ppb         490.1   4.72%
   QC value within limits for Sb 206.836  Recovery = 103.72%
Se 196.026†           20615.5       10516 ug/L         509.7       10516 ppb         509.7   4.85%
   QC value within limits for Se 196.026  Recovery = 105.16%
Si 251.611†         1716256.1       49344 ug/L        2574.1       49344 ppb        2574.1   5.22%
   QC value within limits for Si 251.611  Recovery = 98.69%
Sn 189.927†           70729.3       10563 ug/L         504.7       10563 ppb         504.7   4.78%
   QC value within limits for Sn 189.927  Recovery = 105.63%
Sr 421.552†         1345039.1      9909.6 ug/L         86.20      9909.6 ppb         86.20   0.87%
   QC value within limits for Sr 421.552  Recovery = 99.10%
Ti 334.940†         6323615.0       10121 ug/L         396.6       10121 ppb         396.6   3.92%
   QC value within limits for Ti 334.940  Recovery = 101.21%
Tl 190.801†           36456.8       10074 ug/L         449.5       10074 ppb         449.5   4.46%
   QC value within limits for Tl 190.801  Recovery = 100.74%
U 409.014†             1368.7     -6.6842 ug/L       2.52086     -6.6842 ppb       2.52086  37.71%
V 292.402†          1615100.9       10367 ug/L         545.2       10367 ppb         545.2   5.26%
   QC value within limits for V 292.402  Recovery = 103.67%
Zn 213.857†         1744040.9       14348 ug/L         736.3       14348 ppb         736.3   5.13%
   QC value within limits for Zn 213.857  Recovery = 95.66%
SiO2†               1724616.0      105840 ug/L        4842.5      105840 ppb        4842.5   4.58%
   QC value within limits for SiO2  Recovery = 98.91%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/7/2010 12:14:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4561.5	4561.5	98.6	%			12:16:41
1	Y RADIAL	4818.4	4818.4	98.44	%			12:16:41
1	Al 396.153Radial†	5634.6	5737.6	4916.6	ug/L	4916.6	ppb	12:16:41
1	Ca 317.933Radial†	2903.6	2931.9	5063.4	ug/L	5063.4	ppb	12:17:01
1	Fe 238.204 Radial†	538.8	533.9	5135.5	ug/L	5135.5	ppb	12:17:01
1	K 766.490 Radial†	28292.5	25475.3	5151.4	ug/L	5151.4	ppb	12:16:41
1	Mg 279.077 IEC†	153.9	154.6	5274.1	ug/L	5274.1	ppb	12:17:01
1	Na 589.592 Radial†	27740.9	29915.0	10213	ug/L	10213	ppb	12:16:41
1	Sr 421.552†	64713.8	65645.1	483.60	ug/L	483.60	ppb	12:16:41
1	Sc 361.383	893556.6	893556.6	102.31	%			12:18:00
1	Y 371.029	755927.1	755927.1	100.88	%			12:18:00
1	Ag 328.068†	114709.5	111623.6	488.22	ug/L	488.22	ppb	12:18:00
1	As 188.979†	1454.6	1453.1	513.96	ug/L	513.96	ppb	12:18:20
1	B 249.677†	24780.2	24985.1	516.48	ug/L	516.48	ppb	12:18:00
1	Ba 233.527†	68035.4	66477.8	490.67	ug/L	490.67	ppb	12:18:00
1	Be 313.107†	1487079.8	1457819.1	492.27	ug/L	492.27	ppb	12:18:00
1	Cd 226.502†	52735.9	51795.8	493.18	ug/L	493.18	ppb	12:18:00
1	Co 228.616†	26141.7	25649.5	485.12	ug/L	485.12	ppb	12:18:20
1	Cr 267.716†	49263.9	48059.2	488.78	ug/L	488.78	ppb	12:18:00
1	Cu 324.752†	176315.9	164223.6	490.00	ug/L	490.00	ppb	12:18:00
1	Mn 257.610†	477728.6	465615.1	490.60	ug/L	490.60	ppb	12:18:00
1	Mo 202.031†	7878.0	7673.1	485.93	ug/L	485.93	ppb	12:18:20
1	Ni 231.604†	22522.3	21896.7	484.91	ug/L	484.91	ppb	12:18:20
1	P 214.914†	5356.3	4982.5	2365.5	ug/L	2365.5	ppb	12:18:20
1	Pb 220.353†	4724.2	4718.6	492.41	ug/L	492.41	ppb	12:18:20
1	S 181.975 Axial†	945.7	866.6	979.51	ug/L	979.51	ppb	12:18:20
1	Sb 206.836†	1700.5	1615.9	495.15	ug/L	495.15	ppb	12:18:20
1	Se 196.026†	968.0	984.9	518.96	ug/L	518.96	ppb	12:18:20
1	Si 251.611†	87144.7	84543.3	2434.2	ug/L	2434.2	ppb	12:18:00
1	Sn 189.927†	3335.2	3255.0	486.71	ug/L	486.71	ppb	12:18:20
1	Ti 334.940†	312950.0	307623.8	492.64	ug/L	492.64	ppb	12:18:00
1	Tl 190.801†	1775.3	1780.8	492.27	ug/L	492.27	ppb	12:18:20
1	U 409.014†	13368.0	15974.1	474.43	ug/L	474.43	ppb	12:18:00
1	V 292.402†	76625.8	76698.8	493.04	ug/L	493.04	ppb	12:18:00
1	Zn 213.857†	62068.1	59810.9	490.99	ug/L	490.99	ppb	12:18:00
1	SiO2†	86510.1	83904.3	5156.5	ug/L	5156.5	ppb	12:19:21
2	Sc Radial	4636.6	4636.6	100	%			12:17:06
2	Y RADIAL	4843.6	4843.6	98.95	%			12:17:06
2	Al 396.153Radial†	5631.5	5641.9	4834.2	ug/L	4834.2	ppb	12:17:06
2	Ca 317.933Radial†	2924.4	2904.9	5016.7	ug/L	5016.7	ppb	12:17:26
2	Fe 238.204 Radial†	544.5	530.8	5105.7	ug/L	5105.7	ppb	12:17:26
2	K 766.490 Radial†	28426.4	25144.3	5084.4	ug/L	5084.4	ppb	12:17:06
2	Mg 279.077 IEC†	156.4	154.6	5274.6	ug/L	5274.6	ppb	12:17:26
2	Na 589.592 Radial†	28036.7	29754.6	10159	ug/L	10159	ppb	12:17:06
2	Sr 421.552†	65002.5	64870.3	477.89	ug/L	477.89	ppb	12:17:06
2	Sc 361.383	895585.4	895585.4	102.55	%			12:18:28
2	Y 371.029	758020.0	758020.0	101.16	%			12:18:28
2	Ag 328.068†	115177.8	111826.3	489.10	ug/L	489.10	ppb	12:18:28
2	As 188.979†	1454.0	1449.3	512.62	ug/L	512.62	ppb	12:18:48
2	B 249.677†	25007.9	25152.3	519.95	ug/L	519.95	ppb	12:18:28
2	Ba 233.527†	68499.4	66779.6	492.90	ug/L	492.90	ppb	12:18:28
2	Be 313.107†	1493159.3	1460455.0	493.16	ug/L	493.16	ppb	12:18:28
2	Cd 226.502†	52967.5	51905.0	494.23	ug/L	494.23	ppb	12:18:28
2	Co 228.616†	26259.9	25706.9	486.21	ug/L	486.21	ppb	12:18:48
2	Cr 267.716†	49464.8	48146.0	489.67	ug/L	489.67	ppb	12:18:28
2	Cu 324.752†	176822.4	164327.2	490.31	ug/L	490.31	ppb	12:18:28
2	Mn 257.610†	480131.7	466900.7	491.95	ug/L	491.95	ppb	12:18:28
2	Mo 202.031†	7922.3	7698.8	487.56	ug/L	487.56	ppb	12:18:48
2	Ni 231.604†	22623.2	21945.1	485.98	ug/L	485.98	ppb	12:18:48

2	P 214.914†	5373.8	4987.7	2368.0 ug/L	2368.0 ppb	12:18:48
2	Pb 220.353†	4746.2	4729.6	493.54 ug/L	493.54 ppb	12:18:48
2	S 181.975 Axial†	954.5	873.1	986.81 ug/L	986.81 ppb	12:18:48
2	Sb 206.836†	1727.0	1638.0	501.83 ug/L	501.83 ppb	12:18:48
2	Se 196.026†	966.2	981.0	516.87 ug/L	516.87 ppb	12:18:48
2	Si 251.611†	87534.9	84730.8	2439.7 ug/L	2439.7 ppb	12:18:28
2	Sn 189.927†	3341.3	3253.6	486.49 ug/L	486.49 ppb	12:18:48
2	Ti 334.940†	314057.0	308010.4	493.25 ug/L	493.25 ppb	12:18:28
2	Tl 190.801†	1787.6	1788.8	494.46 ug/L	494.46 ppb	12:18:48
2	U 409.014†	13148.3	15730.3	467.17 ug/L	467.17 ppb	12:18:28
2	V 292.402†	76921.7	76817.6	493.80 ug/L	493.80 ppb	12:18:28
2	Zn 213.857†	62259.9	59860.5	491.40 ug/L	491.40 ppb	12:18:28
2	SiO2†	86302.1	83510.0	5132.1 ug/L	5132.1 ppb	12:19:26
3	Sc Radial	4635.1	4635.1	100 %		12:17:32
3	Y RADIAL	4864.0	4864.0	99.37 %		12:17:32
3	Al 396.153Radial†	5668.7	5680.8	4867.9 ug/L	4867.9 ppb	12:17:32
3	Ca 317.933Radial†	2900.8	2882.3	4977.7 ug/L	4977.7 ppb	12:17:52
3	Fe 238.204 Radial†	541.1	527.5	5074.5 ug/L	5074.5 ppb	12:17:52
3	K 766.490 Radial†	28588.7	25315.5	5119.1 ug/L	5119.1 ppb	12:17:32
3	Mg 279.077 IEC†	153.0	151.2	5158.4 ug/L	5158.4 ppb	12:17:52
3	Na 589.592 Radial†	27996.5	29723.5	10148 ug/L	10148 ppb	12:17:32
3	Sr 421.552†	65049.4	64938.1	478.39 ug/L	478.39 ppb	12:17:32
3	Sc 361.383	901048.9	901048.9	103.17 %		12:18:55
3	Y 371.029	762848.3	762848.3	101.80 %		12:18:55
3	Ag 328.068†	115223.6	111189.7	486.31 ug/L	486.31 ppb	12:18:55
3	As 188.979†	1458.2	1444.8	511.03 ug/L	511.03 ppb	12:19:15
3	B 249.677†	24908.3	24907.9	514.89 ug/L	514.89 ppb	12:18:55
3	Ba 233.527†	68625.4	66496.7	490.81 ug/L	490.81 ppb	12:18:55
3	Be 313.107†	1495543.2	1453936.6	490.96 ug/L	490.96 ppb	12:18:55
3	Cd 226.502†	52990.3	51613.8	491.45 ug/L	491.45 ppb	12:18:55
3	Co 228.616†	26180.9	25475.0	481.82 ug/L	481.82 ppb	12:19:15
3	Cr 267.716†	49535.2	47921.7	487.39 ug/L	487.39 ppb	12:18:55
3	Cu 324.752†	177432.1	163872.5	488.95 ug/L	488.95 ppb	12:18:55
3	Mn 257.610†	481978.4	465851.6	490.85 ug/L	490.85 ppb	12:18:55
3	Mo 202.031†	7909.7	7639.8	483.82 ug/L	483.82 ppb	12:19:15
3	Ni 231.604†	22581.1	21770.6	482.12 ug/L	482.12 ppb	12:19:15
3	P 214.914†	5370.0	4952.2	2350.9 ug/L	2350.9 ppb	12:19:15
3	Pb 220.353†	4726.8	4682.8	488.67 ug/L	488.67 ppb	12:19:15
3	S 181.975 Axial†	944.2	857.5	969.13 ug/L	969.13 ppb	12:19:15
3	Sb 206.836†	1702.5	1604.0	491.46 ug/L	491.46 ppb	12:19:15
3	Se 196.026†	959.6	968.9	510.63 ug/L	510.63 ppb	12:19:15
3	Si 251.611†	87684.7	84358.4	2428.9 ug/L	2428.9 ppb	12:18:55
3	Sn 189.927†	3329.6	3222.5	481.84 ug/L	481.84 ppb	12:19:15
3	Ti 334.940†	314992.5	307060.2	491.73 ug/L	491.73 ppb	12:18:55
3	Tl 190.801†	1795.8	1786.3	493.76 ug/L	493.76 ppb	12:19:15
3	U 409.014†	13435.6	15931.0	473.16 ug/L	473.16 ppb	12:18:55
3	V 292.402†	77070.0	76506.6	491.79 ug/L	491.79 ppb	12:18:55
3	Zn 213.857†	62324.8	59555.3	488.90 ug/L	488.90 ppb	12:18:55
3	SiO2†	86160.5	82862.4	5092.3 ug/L	5092.3 ppb	12:19:31

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	896730.3	102.68	%	0.444				0.43%
Sc Radial	4611.1	99.6	%	0.93				0.93%
Y 371.029	758931.8	101.28	%	0.474				0.47%
Y RADIAL	4842.0	98.92	%	0.466				0.47%
Ag 328.068†	111546.5	487.87	ug/L	1.426	487.87	ppb	1.426	0.29%
QC value within limits for Ag 328.068 Recovery = 97.57%								
Al 396.153Radial†	5686.7	4872.9	ug/L	41.43	4872.9	ppb	41.43	0.85%
QC value within limits for Al 396.153Radial Recovery = 97.46%								
As 188.979†	1449.1	512.54	ug/L	1.468	512.54	ppb	1.468	0.29%
QC value within limits for As 188.979 Recovery = 102.51%								
B 249.677†	25015.1	517.10	ug/L	2.586	517.10	ppb	2.586	0.50%
QC value within limits for B 249.677 Recovery = 103.42%								
Ba 233.527†	66584.7	491.46	ug/L	1.246	491.46	ppb	1.246	0.25%
QC value within limits for Ba 233.527 Recovery = 98.29%								
Be 313.107†	1457403.5	492.13	ug/L	1.107	492.13	ppb	1.107	0.22%
QC value within limits for Be 313.107 Recovery = 98.43%								
Ca 317.933Radial†	2906.4	5019.3	ug/L	42.91	5019.3	ppb	42.91	0.85%

```
   QC value within limits for Ca 317.933Radial  Recovery = 100.39%
Cd 226.502†            51771.5      492.95 ug/L         1.400      492.95 ppb          1.400   0.28%
   QC value within limits for Cd 226.502  Recovery = 98.59%
Co 228.616†            25610.5      484.39 ug/L         2.286      484.39 ppb          2.286   0.47%
   QC value within limits for Co 228.616  Recovery = 96.88%
Cr 267.716†            48042.3      488.61 ug/L         1.151      488.61 ppb          1.151   0.24%
   QC value within limits for Cr 267.716  Recovery = 97.72%
Cu 324.752†           164141.1      489.76 ug/L         0.712      489.76 ppb          0.712   0.15%
   QC value within limits for Cu 324.752  Recovery = 97.95%
Fe 238.204 Radial†       530.7      5105.2 ug/L         30.52      5105.2 ppb          30.52   0.60%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.10%
K 766.490 Radial†      25311.7      5118.3 ug/L         33.53      5118.3 ppb          33.53   0.66%
   QC value within limits for K 766.490 Radial  Recovery = 102.37%
Mg 279.077 IEC†          153.5      5235.7 ug/L         66.94      5235.7 ppb          66.94   1.28%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.71%
Mn 257.610†           466122.5      491.13 ug/L         0.719      491.13 ppb          0.719   0.15%
   QC value within limits for Mn 257.610  Recovery = 98.23%
Mo 202.031†             7670.6      485.77 ug/L         1.875      485.77 ppb          1.875   0.39%
   QC value within limits for Mo 202.031  Recovery = 97.15%
Na 589.592 Radial†     29797.7       10173 ug/L          35.1       10173 ppb           35.1   0.35%
   QC value within limits for Na 589.592 Radial  Recovery = 101.73%
Ni 231.604†            21870.8      484.33 ug/L         1.995      484.33 ppb          1.995   0.41%
   QC value within limits for Ni 231.604  Recovery = 96.87%
P 214.914†              4974.1      2361.5 ug/L          9.28      2361.5 ppb           9.28   0.39%
   QC value within limits for P 214.914  Recovery = 94.46%
Pb 220.353†             4710.3      491.54 ug/L         2.548      491.54 ppb          2.548   0.52%
   QC value within limits for Pb 220.353  Recovery = 98.31%
S 181.975 Axial†         865.7      978.48 ug/L         8.883      978.48 ppb          8.883   0.91%
   QC value within limits for S 181.975 Axial  Recovery = 97.85%
Sb 206.836†             1619.3      496.15 ug/L         5.257      496.15 ppb          5.257   1.06%
   QC value within limits for Sb 206.836  Recovery = 99.23%
Se 196.026†              978.2      515.49 ug/L         4.333      515.49 ppb          4.333   0.84%
   QC value within limits for Se 196.026  Recovery = 103.10%
Si 251.611†            84544.2      2434.3 ug/L          5.35      2434.3 ppb           5.35   0.22%
   QC value within limits for Si 251.611  Recovery = 97.37%
Sn 189.927†             3243.7      485.02 ug/L         2.750      485.02 ppb          2.750   0.57%
   QC value within limits for Sn 189.927  Recovery = 97.00%
Sr 421.552†            65151.2      479.96 ug/L         3.161      479.96 ppb          3.161   0.66%
   QC value within limits for Sr 421.552  Recovery = 95.99%
Ti 334.940†           307564.8      492.54 ug/L         0.767      492.54 ppb          0.767   0.16%
   QC value within limits for Ti 334.940  Recovery = 98.51%
Tl 190.801†             1785.3      493.50 ug/L         1.123      493.50 ppb          1.123   0.23%
   QC value within limits for Tl 190.801  Recovery = 98.70%
U 409.014†             15878.5      471.59 ug/L         3.878      471.59 ppb          3.878   0.82%
   QC value within limits for U 409.014  Recovery = 94.32%
V 292.402†             76674.3      492.88 ug/L         1.015      492.88 ppb          1.015   0.21%
   QC value within limits for V 292.402  Recovery = 98.58%
Zn 213.857†            59742.2      490.43 ug/L         1.339      490.43 ppb          1.339   0.27%
   QC value within limits for Zn 213.857  Recovery = 98.09%
SiO2†                  83425.6      5127.0 ug/L         32.41      5127.0 ppb          32.41   0.63%
   QC value within limits for SiO2  Recovery = 95.88%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/7/2010 12:21:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4551.7	4551.7	98.4	%			12:23:33
1	Y RADIAL	4774.4	4774.4	97.54	%			12:23:33
1	Al 396.153Radial†	7.9	28.9	24.852	ug/L	24.852	ppb	12:23:33
1	Ca 317.933Radial†	14.5	0.8	1.3319	ug/L	1.3319	ppb	12:23:53
1	Fe 238.204 Radial†	14.8	2.3	22.197	ug/L	22.197	ppb	12:23:53
1	K 766.490 Radial†	3834.1	669.1	135.49	ug/L	135.49	ppb	12:23:33
1	Mg 279.077 IEC†	2.9	1.4	48.508	ug/L	48.508	ppb	12:23:53
1	Na 589.592 Radial†	-1454.6	291.1	99.376	ug/L	99.376	ppb	12:23:33
1	Sr 421.552†	10.3	-0.8	-0.0062	ug/L	-0.0062	ppb	12:23:33
1	Sc 361.383	903216.3	903216.3	103.42	%			12:24:50
1	Y 371.029	771331.8	771331.8	102.94	%			12:24:50
1	Ag 328.068†	631.7	119.9	0.5223	ug/L	0.5223	ppb	12:24:55
1	As 188.979†	0.5	31.9	11.189	ug/L	11.189	ppb	12:25:15
1	B 249.677†	288.5	1044.4	21.666	ug/L	21.666	ppb	12:24:55
1	Ba 233.527†	-6.8	-25.1	-0.1820	ug/L	-0.1820	ppb	12:25:15
1	Be 313.107†	-4343.3	180.4	0.0612	ug/L	0.0612	ppb	12:24:55
1	Cd 226.502†	-202.9	56.8	0.5388	ug/L	0.5388	ppb	12:25:15
1	Co 228.616†	-76.7	25.0	0.4732	ug/L	0.4732	ppb	12:25:15
1	Cr 267.716†	121.1	26.8	0.2706	ug/L	0.2706	ppb	12:24:55
1	Cu 324.752†	8268.4	-108.7	-0.3232	ug/L	-0.3232	ppb	12:24:55
1	Mn 257.610†	1120.7	-222.7	-0.2332	ug/L	-0.2332	ppb	12:24:55
1	Mo 202.031†	37.6	9.6	0.6109	ug/L	0.6109	ppb	12:25:15
1	Ni 231.604†	146.0	25.0	0.5537	ug/L	0.5537	ppb	12:25:15
1	P 214.914†	238.1	-22.4	-10.898	ug/L	-10.898	ppb	12:25:15
1	Pb 220.353†	-89.6	14.7	1.5332	ug/L	1.5332	ppb	12:25:15
1	S 181.975 Axial†	62.7	2.9	3.3140	ug/L	3.3140	ppb	12:25:15
1	Sb 206.836†	44.8	-2.9	-0.8464	ug/L	-0.8464	ppb	12:25:15
1	Se 196.026†	-33.6	6.3	3.2646	ug/L	3.2646	ppb	12:25:15
1	Si 251.611†	755.0	100.0	2.8355	ug/L	2.8355	ppb	12:25:15
1	Sn 189.927†	9.8	4.7	0.7023	ug/L	0.7023	ppb	12:25:15
1	Ti 334.940†	-1694.5	115.0	0.1790	ug/L	0.1790	ppb	12:24:55
1	Tl 190.801†	-49.7	-2.3	-0.6455	ug/L	-0.6455	ppb	12:25:15
1	U 409.014†	-2600.0	394.6	11.755	ug/L	11.755	ppb	12:24:50
1	V 292.402†	-1705.7	157.1	1.0257	ug/L	1.0257	ppb	12:24:55
1	Zn 213.857†	900.0	17.1	0.1360	ug/L	0.1360	ppb	12:25:15
1	SiO2†	738.2	65.1	3.8911	ug/L	3.8911	ppb	12:26:21
2	Sc Radial	4695.6	4695.6	101	%			12:23:58
2	Y RADIAL	4935.0	4935.0	100.8	%			12:23:58
2	Al 396.153Radial†	-25.9	-4.7	-4.0840	ug/L	-4.0840	ppb	12:23:58
2	Ca 317.933Radial†	17.4	3.1	5.3760	ug/L	5.3760	ppb	12:24:18
2	Fe 238.204 Radial†	10.2	-2.7	-25.566	ug/L	-25.566	ppb	12:24:18
2	K 766.490 Radial†	3826.8	542.4	109.83	ug/L	109.83	ppb	12:23:58
2	Mg 279.077 IEC†	2.6	1.0	34.653	ug/L	34.653	ppb	12:24:18
2	Na 589.592 Radial†	-1519.2	272.7	93.095	ug/L	93.095	ppb	12:23:58
2	Sr 421.552†	16.3	4.8	0.0351	ug/L	0.0351	ppb	12:23:58
2	Sc 361.383	897774.1	897774.1	102.80	%			12:25:20
2	Y 371.029	765862.1	765862.1	102.21	%			12:25:20
2	Ag 328.068†	556.8	50.8	0.2010	ug/L	0.2010	ppb	12:25:25
2	As 188.979†	16.1	47.1	16.518	ug/L	16.518	ppb	12:25:46
2	B 249.677†	232.3	991.5	20.574	ug/L	20.574	ppb	12:25:25
2	Ba 233.527†	16.5	-2.5	-0.0191	ug/L	-0.0191	ppb	12:25:46
2	Be 313.107†	-4489.1	13.2	0.0047	ug/L	0.0047	ppb	12:25:25
2	Cd 226.502†	-209.1	49.5	0.4743	ug/L	0.4743	ppb	12:25:46
2	Co 228.616†	-83.3	18.2	0.3472	ug/L	0.3472	ppb	12:25:46
2	Cr 267.716†	137.6	43.6	0.4380	ug/L	0.4380	ppb	12:25:25
2	Cu 324.752†	8364.0	32.8	0.0964	ug/L	0.0964	ppb	12:25:25
2	Mn 257.610†	1058.6	-276.6	-0.2944	ug/L	-0.2944	ppb	12:25:25
2	Mo 202.031†	47.8	19.7	1.2468	ug/L	1.2468	ppb	12:25:46
2	Ni 231.604†	129.0	9.4	0.2077	ug/L	0.2077	ppb	12:25:46

2	P 214.914†	248.3	-11.1	-5.3975	ug/L	-5.3975	ppb	12:25:46
2	Pb 220.353†	-75.3	28.0	2.9176	ug/L	2.9176	ppb	12:25:46
2	S 181.975 Axial†	62.1	2.7	3.0502	ug/L	3.0502	ppb	12:25:46
2	Sb 206.836†	69.8	21.8	6.6100	ug/L	6.6100	ppb	12:25:46
2	Se 196.026†	-34.8	4.9	2.3987	ug/L	2.3987	ppb	12:25:46
2	Si 251.611†	778.8	127.6	3.6299	ug/L	3.6299	ppb	12:25:46
2	Sn 189.927†	12.0	7.0	1.0417	ug/L	1.0417	ppb	12:25:46
2	Ti 334.940†	-1722.4	78.0	0.1192	ug/L	0.1192	ppb	12:25:25
2	Tl 190.801†	-37.3	9.4	2.5670	ug/L	2.5670	ppb	12:25:46
2	U 409.014†	-2540.2	437.5	13.039	ug/L	13.039	ppb	12:25:20
2	V 292.402†	-1850.7	6.1	0.0859	ug/L	0.0859	ppb	12:25:25
2	Zn 213.857†	916.0	38.0	0.3131	ug/L	0.3131	ppb	12:25:46
2	SiO2†	783.0	113.0	6.8411	ug/L	6.8411	ppb	12:26:26
3	Sc Radial	4529.2	4529.2	97.9	%			12:24:23
3	Y RADIAL	4770.5	4770.5	97.46	%			12:24:23
3	Al 396.153Radial†	-8.4	12.2	10.513	ug/L	10.513	ppb	12:24:23
3	Ca 317.933Radial†	18.4	4.8	8.3327	ug/L	8.3327	ppb	12:24:44
3	Fe 238.204 Radial†	11.4	-1.0	-9.8412	ug/L	-9.8412	ppb	12:24:44
3	K 766.490 Radial†	3930.2	786.6	159.31	ug/L	159.31	ppb	12:24:23
3	Mg 279.077 IEC†	3.1	1.6	55.631	ug/L	55.631	ppb	12:24:44
3	Na 589.592 Radial†	-1564.3	171.6	58.601	ug/L	58.601	ppb	12:24:23
3	Sr 421.552†	4.8	-6.4	-0.0474	ug/L	-0.0474	ppb	12:24:23
3	Sc 361.383	885034.6	885034.6	101.34	%			12:25:51
3	Y 371.029	755287.8	755287.8	100.80	%			12:25:51
3	Ag 328.068†	502.3	4.8	0.0115	ug/L	0.0115	ppb	12:25:56
3	As 188.979†	7.0	38.4	13.458	ug/L	13.458	ppb	12:26:16
3	B 249.677†	243.2	1005.4	20.863	ug/L	20.863	ppb	12:25:56
3	Ba 233.527†	-1.2	-19.8	-0.1447	ug/L	-0.1447	ppb	12:26:16
3	Be 313.107†	-4425.1	13.5	0.0047	ug/L	0.0047	ppb	12:25:56
3	Cd 226.502†	-204.8	50.9	0.4857	ug/L	0.4857	ppb	12:26:16
3	Co 228.616†	-119.8	-19.0	-0.3588	ug/L	-0.3588	ppb	12:26:16
3	Cr 267.716†	146.5	54.3	0.5489	ug/L	0.5489	ppb	12:25:56
3	Cu 324.752†	8254.5	41.8	0.1240	ug/L	0.1240	ppb	12:25:56
3	Mn 257.610†	1122.0	-199.2	-0.2117	ug/L	-0.2117	ppb	12:25:56
3	Mo 202.031†	36.1	8.9	0.5604	ug/L	0.5604	ppb	12:26:16
3	Ni 231.604†	108.9	-8.6	-0.1914	ug/L	-0.1914	ppb	12:26:16
3	P 214.914†	260.3	4.2	2.0892	ug/L	2.0892	ppb	12:26:16
3	Pb 220.353†	-95.0	7.6	0.7937	ug/L	0.7937	ppb	12:26:16
3	S 181.975 Axial†	72.2	13.6	15.383	ug/L	15.383	ppb	12:26:16
3	Sb 206.836†	55.7	8.8	2.6840	ug/L	2.6840	ppb	12:26:16
3	Se 196.026†	-40.4	-1.1	-0.5750	ug/L	-0.5750	ppb	12:26:16
3	Si 251.611†	737.3	97.5	2.7537	ug/L	2.7537	ppb	12:26:16
3	Sn 189.927†	14.3	9.4	1.4053	ug/L	1.4053	ppb	12:26:16
3	Ti 334.940†	-1741.0	35.4	0.0530	ug/L	0.0530	ppb	12:25:56
3	Tl 190.801†	-27.3	18.7	5.1398	ug/L	5.1398	ppb	12:26:16
3	U 409.014†	-2636.5	306.9	9.1447	ug/L	9.1447	ppb	12:25:51
3	V 292.402†	-1750.3	79.2	0.5307	ug/L	0.5307	ppb	12:25:56
3	Zn 213.857†	915.3	50.2	0.4149	ug/L	0.4149	ppb	12:26:16
3	SiO2†	795.1	135.9	8.2443	ug/L	8.2443	ppb	12:26:31

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	895341.7	102.52	%	1.069				1.04%
Sc Radial	4592.1	99.2	%	1.95				1.97%
Y 371.029	764160.6	101.98	%	1.088				1.07%
Y RADIAL	4826.6	98.61	%	1.917				1.94%
Ag 328.068†	58.5	0.2450	ug/L	0.25823	0.2450	ppb	0.25823	105.42%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.2	10.427	ug/L	14.4684	10.427	ppb	14.4684	138.76%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	39.2	13.722	ug/L	2.6747	13.722	ppb	2.6747	19.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1013.8	21.034	ug/L	0.5657	21.034	ppb	0.5657	2.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-15.8	-0.1153	ug/L	0.08533	-0.1153	ppb	0.08533	74.02%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	69.0	0.0235	ug/L	0.03262	0.0235	ppb	0.03262	138.75%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.9	5.0135	ug/L	3.51448	5.0135	ppb	3.51448	70.10%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                52.4      0.4996 ug/L       0.03441      0.4996 ppb        0.03441   6.89%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 8.0      0.1538 ug/L       0.44844      0.1538 ppb        0.44844 291.53%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                41.6      0.4192 ug/L       0.14006      0.4192 ppb        0.14006  33.41%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -11.4     -0.0342 ug/L       0.25060     -0.0342 ppb        0.25060 732.07%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.5     -4.4032 ug/L      24.34159     -4.4032 ppb       24.34159 552.82%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         666.0      134.87 ug/L        24.746      134.87 ppb         24.746  18.35%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.4      46.264 ug/L       10.6677      46.264 ppb        10.6677  23.06%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -232.8     -0.2464 ug/L       0.04289     -0.2464 ppb        0.04289  17.41%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                12.7      0.8060 ug/L       0.38258      0.8060 ppb        0.38258  47.46%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        245.1      83.691 ug/L       21.9545      83.691 ppb        21.9545  26.23%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 8.6      0.1900 ug/L       0.37288      0.1900 ppb        0.37288 196.27%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -9.7     -4.7353 ug/L       6.51862     -4.7353 ppb        6.51862 137.66%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                16.8      1.7482 ug/L       1.07814      1.7482 ppb        1.07814  61.67%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            6.4      7.2492 ug/L       7.04565      7.2492 ppb        7.04565  97.19%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 9.2      2.8159 ug/L       3.72994      2.8159 ppb        3.72994 132.46%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.4      1.6961 ug/L       2.01392      1.6961 ppb        2.01392 118.74%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               108.4      3.0730 ug/L       0.48401      3.0730 ppb        0.48401  15.75%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 7.0      1.0498 ug/L       0.35155      1.0498 ppb        0.35155  33.49%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -0.8     -0.0062 ug/L       0.04126     -0.0062 ppb        0.04126 670.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                76.1      0.1171 ug/L       0.06304      0.1171 ppb        0.06304  53.85%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 8.6      2.3537 ug/L       2.89853      2.3537 ppb        2.89853 123.15%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                379.6      11.313 ug/L        1.9843      11.313 ppb         1.9843  17.54%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 80.8      0.5474 ug/L       0.47011      0.5474 ppb        0.47011  85.87%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                35.1      0.2880 ug/L       0.14114      0.2880 ppb        0.14114  49.01%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     104.7      6.3255 ug/L       2.22193      6.3255 ppb        2.22193  35.13%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/7/2010 13:22:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4294.4	4294.4	92.8	%			13:24:09
1	Y RADIAL	4527.0	4527.0	92.48	%			13:24:09
1	Al 396.153Radial†	5472.2	5918.2	5072.0	ug/L	5072.0	ppb	13:24:09
1	Ca 317.933Radial†	2829.3	3035.0	5241.5	ug/L	5241.5	ppb	13:24:29
1	Fe 238.204 Radial†	528.3	556.7	5354.2	ug/L	5354.2	ppb	13:24:29
1	K 766.490 Radial†	26854.9	25711.7	5199.2	ug/L	5199.2	ppb	13:24:09
1	Mg 279.077 IEC†	149.6	159.7	5446.8	ug/L	5446.8	ppb	13:24:29
1	Na 589.592 Radial†	26374.7	30193.6	10309	ug/L	10309	ppb	13:24:09
1	Sr 421.552†	62089.6	66901.6	492.85	ug/L	492.85	ppb	13:24:09
1	Sc 361.383	875760.1	875760.1	100.28	%			13:25:28
1	Y 371.029	741764.8	741764.8	98.991	%			13:25:28
1	Ag 328.068†	113537.1	112732.7	493.12	ug/L	493.12	ppb	13:25:28
1	As 188.979†	1356.7	1384.4	489.94	ug/L	489.94	ppb	13:25:48
1	B 249.677†	23713.6	24413.6	504.58	ug/L	504.58	ppb	13:25:28
1	Ba 233.527†	67356.8	67152.3	495.66	ug/L	495.66	ppb	13:25:28
1	Be 313.107†	1467012.6	1467342.7	495.49	ug/L	495.49	ppb	13:25:28
1	Cd 226.502†	51870.8	51980.6	494.92	ug/L	494.92	ppb	13:25:28
1	Co 228.616†	25748.5	25776.6	487.52	ug/L	487.52	ppb	13:25:48
1	Cr 267.716†	48768.8	48543.9	493.72	ug/L	493.72	ppb	13:25:28
1	Cu 324.752†	174353.1	165768.1	494.62	ug/L	494.62	ppb	13:25:28
1	Mn 257.610†	472803.0	470191.4	495.44	ug/L	495.44	ppb	13:25:28
1	Mo 202.031†	7746.2	7698.1	487.53	ug/L	487.53	ppb	13:25:48
1	Ni 231.604†	22231.8	22054.3	488.40	ug/L	488.40	ppb	13:25:48
1	P 214.914†	5257.8	4990.6	2368.6	ug/L	2368.6	ppb	13:25:48
1	Pb 220.353†	4636.7	4725.2	493.11	ug/L	493.11	ppb	13:25:48
1	S 181.975 Axial†	935.4	875.1	989.06	ug/L	989.06	ppb	13:25:48
1	Sb 206.836†	1632.9	1582.3	484.84	ug/L	484.84	ppb	13:25:48
1	Se 196.026†	931.3	967.5	510.81	ug/L	510.81	ppb	13:25:48
1	Si 251.611†	85919.5	85052.2	2448.9	ug/L	2448.9	ppb	13:25:28
1	Sn 189.927†	3248.9	3235.2	483.77	ug/L	483.77	ppb	13:25:48
1	Ti 334.940†	310275.9	311172.7	498.32	ug/L	498.32	ppb	13:25:28
1	Tl 190.801†	1739.5	1780.4	492.20	ug/L	492.20	ppb	13:25:48
1	U 409.014†	13349.5	16221.2	481.76	ug/L	481.76	ppb	13:25:28
1	V 292.402†	75992.7	77589.3	498.68	ug/L	498.68	ppb	13:25:28
1	Zn 213.857†	61128.9	60107.1	493.40	ug/L	493.40	ppb	13:25:28
1	SiO2†	86113.7	85227.2	5238.1	ug/L	5238.1	ppb	13:26:48
2	Sc Radial	4431.2	4431.2	95.7	%			13:24:34
2	Y RADIAL	4666.4	4666.4	95.33	%			13:24:34
2	Al 396.153Radial†	5545.7	5812.9	4981.0	ug/L	4981.0	ppb	13:24:34
2	Ca 317.933Radial†	2822.0	2933.3	5065.8	ug/L	5065.8	ppb	13:24:54
2	Fe 238.204 Radial†	525.2	535.8	5154.6	ug/L	5154.6	ppb	13:24:54
2	K 766.490 Radial†	27097.6	25071.7	5069.7	ug/L	5069.7	ppb	13:24:34
2	Mg 279.077 IEC†	151.9	157.1	5358.6	ug/L	5358.6	ppb	13:24:54
2	Na 589.592 Radial†	26812.6	29773.3	10165	ug/L	10165	ppb	13:24:34
2	Sr 421.552†	62944.3	65728.1	484.21	ug/L	484.21	ppb	13:24:34
2	Sc 361.383	859269.8	859269.8	98.389	%			13:25:55
2	Y 371.029	728312.9	728312.9	97.196	%			13:25:55
2	Ag 328.068†	112063.2	113407.6	496.00	ug/L	496.00	ppb	13:25:55
2	As 188.979†	1364.0	1417.8	501.63	ug/L	501.63	ppb	13:26:15
2	B 249.677†	23271.7	24418.3	504.69	ug/L	504.69	ppb	13:25:55
2	Ba 233.527†	66403.3	67472.2	498.01	ug/L	498.01	ppb	13:25:55
2	Be 313.107†	1448461.0	1476563.3	498.60	ug/L	498.60	ppb	13:25:55
2	Cd 226.502†	51281.0	52373.8	498.69	ug/L	498.69	ppb	13:25:55
2	Co 228.616†	25728.9	26249.5	496.48	ug/L	496.48	ppb	13:26:15
2	Cr 267.716†	48196.0	48895.1	497.29	ug/L	497.29	ppb	13:25:55
2	Cu 324.752†	171388.3	166091.5	495.57	ug/L	495.57	ppb	13:25:55
2	Mn 257.610†	466542.5	472876.9	498.25	ug/L	498.25	ppb	13:25:55
2	Mo 202.031†	7743.0	7843.1	496.69	ug/L	496.69	ppb	13:26:15
2	Ni 231.604†	22183.0	22430.2	496.72	ug/L	496.72	ppb	13:26:15

2	P 214.914†	5264.7	5098.3	2421.5 ug/L	2421.5 ppb	13:26:15
2	Pb 220.353†	4616.7	4793.6	500.24 ug/L	500.24 ppb	13:26:15
2	S 181.975 Axial†	929.7	887.2	1002.8 ug/L	1002.8 ppb	13:26:15
2	Sb 206.836†	1643.4	1624.2	497.81 ug/L	497.81 ppb	13:26:15
2	Se 196.026†	936.1	990.2	521.79 ug/L	521.79 ppb	13:26:15
2	Si 251.611†	84773.9	85532.2	2462.7 ug/L	2462.7 ppb	13:25:55
2	Sn 189.927†	3260.7	3309.4	494.83 ug/L	494.83 ppb	13:26:15
2	Ti 334.940†	305996.4	312761.3	500.86 ug/L	500.86 ppb	13:25:55
2	Tl 190.801†	1735.5	1809.6	500.19 ug/L	500.19 ppb	13:26:15
2	U 409.014†	12969.1	16090.0	477.87 ug/L	477.87 ppb	13:25:55
2	V 292.402†	74893.8	77926.7	500.97 ug/L	500.97 ppb	13:25:55
2	Zn 213.857†	60240.2	60373.7	495.56 ug/L	495.56 ppb	13:25:55
2	SiO2†	85356.4	86105.6	5292.0 ug/L	5292.0 ppb	13:26:53
3	Sc Radial	4445.0	4445.0	96.0 %		13:24:59
3	Y RADIAL	4631.7	4631.7	94.62 %		13:24:59
3	Al 396.153Radial†	5486.2	5732.9	4912.5 ug/L	4912.5 ppb	13:24:59
3	Ca 317.933Radial†	2828.6	2931.1	5061.9 ug/L	5061.9 ppb	13:25:19
3	Fe 238.204 Radial†	526.8	535.7	5153.5 ug/L	5153.5 ppb	13:25:19
3	K 766.490 Radial†	27002.9	24885.1	5031.9 ug/L	5031.9 ppb	13:24:59
3	Mg 279.077 IEC†	152.3	157.1	5356.9 ug/L	5356.9 ppb	13:25:19
3	Na 589.592 Radial†	26613.1	29478.5	10064 ug/L	10064 ppb	13:24:59
3	Sr 421.552†	62350.8	64905.9	478.15 ug/L	478.15 ppb	13:24:59
3	Sc 361.383	876996.0	876996.0	100.42 %		13:26:23
3	Y 371.029	742334.7	742334.7	99.067 %		13:26:23
3	Ag 328.068†	113873.2	112907.9	493.82 ug/L	493.82 ppb	13:26:23
3	As 188.979†	1364.9	1390.7	492.12 ug/L	492.12 ppb	13:26:43
3	B 249.677†	23695.9	24362.6	503.55 ug/L	503.55 ppb	13:26:23
3	Ba 233.527†	67481.5	67181.8	495.87 ug/L	495.87 ppb	13:26:23
3	Be 313.107†	1469158.5	1467418.1	495.51 ug/L	495.51 ppb	13:26:23
3	Cd 226.502†	51836.2	51873.3	493.92 ug/L	493.92 ppb	13:26:23
3	Co 228.616†	25784.7	25776.5	487.52 ug/L	487.52 ppb	13:26:43
3	Cr 267.716†	48742.4	48449.1	492.75 ug/L	492.75 ppb	13:26:23
3	Cu 324.752†	174746.7	165915.1	495.05 ug/L	495.05 ppb	13:26:23
3	Mn 257.610†	473590.8	470311.5	495.55 ug/L	495.55 ppb	13:26:23
3	Mo 202.031†	7774.3	7715.2	488.59 ug/L	488.59 ppb	13:26:43
3	Ni 231.604†	22222.6	22013.9	487.50 ug/L	487.50 ppb	13:26:43
3	P 214.914†	5260.5	4986.0	2366.4 ug/L	2366.4 ppb	13:26:43
3	Pb 220.353†	4657.5	4739.4	494.57 ug/L	494.57 ppb	13:26:43
3	S 181.975 Axial†	930.5	868.9	982.09 ug/L	982.09 ppb	13:26:43
3	Sb 206.836†	1655.4	1602.3	490.95 ug/L	490.95 ppb	13:26:43
3	Se 196.026†	953.1	987.9	520.56 ug/L	520.56 ppb	13:26:43
3	Si 251.611†	86150.4	85161.4	2452.1 ug/L	2452.1 ppb	13:26:23
3	Sn 189.927†	3255.7	3237.5	484.09 ug/L	484.09 ppb	13:26:43
3	Ti 334.940†	311343.1	311799.5	499.32 ug/L	499.32 ppb	13:26:23
3	Tl 190.801†	1743.1	1781.5	492.50 ug/L	492.50 ppb	13:26:43
3	U 409.014†	13297.0	16150.2	479.67 ug/L	479.67 ppb	13:26:23
3	V 292.402†	76048.5	77538.1	498.40 ug/L	498.40 ppb	13:26:23
3	Zn 213.857†	61110.1	60002.4	492.55 ug/L	492.55 ppb	13:26:23
3	SiO2†	85751.9	84745.9	5208.5 ug/L	5208.5 ppb	13:26:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	870675.3	99.695	%	1.1332				1.14%
Sc Radial	4390.2	94.9	%	1.80				1.90%
Y 371.029	737470.8	98.418	%	1.0591				1.08%
Y RADIAL	4608.4	94.15	%	1.482				1.57%
Ag 328.068†	113016.1	494.31	ug/L	1.503	494.31	ppb	1.503	0.30%
QC value within limits for Ag 328.068 Recovery = 98.86%								
Al 396.153Radial†	5821.3	4988.5	ug/L	80.00	4988.5	ppb	80.00	1.60%
QC value within limits for Al 396.153Radial Recovery = 99.77%								
As 188.979†	1397.6	494.56	ug/L	6.212	494.56	ppb	6.212	1.26%
QC value within limits for As 188.979 Recovery = 98.91%								
B 249.677†	24398.2	504.27	ug/L	0.627	504.27	ppb	0.627	0.12%
QC value within limits for B 249.677 Recovery = 100.85%								
Ba 233.527†	67268.8	496.51	ug/L	1.303	496.51	ppb	1.303	0.26%
QC value within limits for Ba 233.527 Recovery = 99.30%								
Be 313.107†	1470441.4	496.53	ug/L	1.789	496.53	ppb	1.789	0.36%
QC value within limits for Be 313.107 Recovery = 99.31%								
Ca 317.933Radial†	2966.5	5123.1	ug/L	102.55	5123.1	ppb	102.55	2.00%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.46%
Cd 226.502†            52075.9      495.85 ug/L         2.517      495.85 ppb          2.517   0.51%
   QC value within limits for Cd 226.502  Recovery = 99.17%
Co 228.616†            25934.2      490.50 ug/L         5.173      490.50 ppb          5.173   1.05%
   QC value within limits for Co 228.616  Recovery = 98.10%
Cr 267.716†            48629.4      494.58 ug/L         2.388      494.58 ppb          2.388   0.48%
   QC value within limits for Cr 267.716  Recovery = 98.92%
Cu 324.752†           165924.9      495.08 ug/L         0.478      495.08 ppb          0.478   0.10%
   QC value within limits for Cu 324.752  Recovery = 99.02%
Fe 238.204 Radial†       542.7      5220.8 ug/L        115.54      5220.8 ppb         115.54   2.21%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.42%
K 766.490 Radial†      25222.8      5100.3 ug/L         87.77      5100.3 ppb          87.77   1.72%
   QC value within limits for K 766.490 Radial  Recovery = 102.01%
Mg 279.077 IEC†          157.9      5387.4 ug/L         51.44      5387.4 ppb          51.44   0.95%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.75%
Mn 257.610†           471126.6      496.41 ug/L         1.591      496.41 ppb          1.591   0.32%
   QC value within limits for Mn 257.610  Recovery = 99.28%
Mo 202.031†            7752.2      490.94 ug/L         5.008      490.94 ppb          5.008   1.02%
   QC value within limits for Mo 202.031  Recovery = 98.19%
Na 589.592 Radial†     29815.1       10179 ug/L         122.7       10179 ppb          122.7   1.21%
   QC value within limits for Na 589.592 Radial  Recovery = 101.79%
Ni 231.604†            22166.1      490.87 ug/L         5.084      490.87 ppb          5.084   1.04%
   QC value within limits for Ni 231.604  Recovery = 98.17%
P 214.914†              5025.0      2385.5 ug/L         31.17      2385.5 ppb          31.17   1.31%
   QC value within limits for P 214.914  Recovery = 95.42%
Pb 220.353†             4752.7      495.97 ug/L         3.766      495.97 ppb          3.766   0.76%
   QC value within limits for Pb 220.353  Recovery = 99.19%
S 181.975 Axial†         877.1      991.30 ug/L        10.513      991.30 ppb         10.513   1.06%
   QC value within limits for S 181.975 Axial  Recovery = 99.13%
Sb 206.836†             1602.9      491.20 ug/L         6.487      491.20 ppb          6.487   1.32%
   QC value within limits for Sb 206.836  Recovery = 98.24%
Se 196.026†              981.9      517.72 ug/L         6.014      517.72 ppb          6.014   1.16%
   QC value within limits for Se 196.026  Recovery = 103.54%
Si 251.611†            85248.6      2454.6 ug/L          7.19      2454.6 ppb           7.19   0.29%
   QC value within limits for Si 251.611  Recovery = 98.18%
Sn 189.927†             3260.7      487.56 ug/L         6.298      487.56 ppb          6.298   1.29%
   QC value within limits for Sn 189.927  Recovery = 97.51%
Sr 421.552†            65845.2      485.07 ug/L         7.388      485.07 ppb          7.388   1.52%
   QC value within limits for Sr 421.552  Recovery = 97.01%
Ti 334.940†           311911.1      499.50 ug/L         1.278      499.50 ppb          1.278   0.26%
   QC value within limits for Ti 334.940  Recovery = 99.90%
Tl 190.801†             1790.5      494.96 ug/L         4.531      494.96 ppb          4.531   0.92%
   QC value within limits for Tl 190.801  Recovery = 98.99%
U 409.014†             16153.8      479.77 ug/L         1.947      479.77 ppb          1.947   0.41%
   QC value within limits for U 409.014  Recovery = 95.95%
V 292.402†             77684.7      499.35 ug/L         1.411      499.35 ppb          1.411   0.28%
   QC value within limits for V 292.402  Recovery = 99.87%
Zn 213.857†            60161.1      493.84 ug/L         1.554      493.84 ppb          1.554   0.31%
   QC value within limits for Zn 213.857  Recovery = 98.77%
SiO2†                  85359.6      5246.2 ug/L         42.37      5246.2 ppb          42.37   0.81%
   QC value within limits for SiO2  Recovery = 98.11%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/7/2010 13:29:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4241.1	4241.1	91.6	%			13:31:21
1	Y RADIAL	4687.0	4687.0	95.75	%			13:31:01
1	Al 396.153Radial†	-20.8	-1.8	-1.5770	ug/L	-1.5770	ppb	13:31:01
1	Ca 317.933Radial†	18.9	6.6	11.349	ug/L	11.349	ppb	13:31:21
1	Fe 238.204 Radial†	13.1	1.5	14.817	ug/L	14.817	ppb	13:31:21
1	K 766.490 Radial†	3253.7	321.3	65.058	ug/L	65.058	ppb	13:31:01
1	Mg 279.077 IEC†	0.8	-0.7	-22.976	ug/L	-22.976	ppb	13:31:21
1	Na 589.592 Radial†	-1489.6	144.5	49.349	ug/L	49.349	ppb	13:31:01
1	Sr 421.552†	0.7	-10.5	-0.0774	ug/L	-0.0774	ppb	13:31:01
1	Sc 361.383	889003.4	889003.4	101.79	%			13:32:18
1	Y 371.029	760775.6	760775.6	101.53	%			13:32:18
1	Ag 328.068†	595.9	94.5	0.4037	ug/L	0.4037	ppb	13:32:23
1	As 188.979†	-38.6	-6.4	-2.2617	ug/L	-2.2617	ppb	13:32:43
1	B 249.677†	-34.3	731.8	15.180	ug/L	15.180	ppb	13:32:23
1	Ba 233.527†	19.3	0.4	0.0038	ug/L	0.0038	ppb	13:32:43
1	Be 313.107†	-4368.4	88.7	0.0304	ug/L	0.0304	ppb	13:32:23
1	Cd 226.502†	-226.7	30.3	0.2874	ug/L	0.2874	ppb	13:32:43
1	Co 228.616†	-91.3	9.5	0.1796	ug/L	0.1796	ppb	13:32:43
1	Cr 267.716†	141.1	48.4	0.4873	ug/L	0.4873	ppb	13:32:23
1	Cu 324.752†	8082.5	-163.5	-0.4868	ug/L	-0.4868	ppb	13:32:23
1	Mn 257.610†	1208.9	-118.7	-0.1231	ug/L	-0.1231	ppb	13:32:23
1	Mo 202.031†	29.4	2.2	0.1407	ug/L	0.1407	ppb	13:32:43
1	Ni 231.604†	138.5	19.9	0.4414	ug/L	0.4414	ppb	13:32:43
1	P 214.914†	251.4	-5.7	-2.6907	ug/L	-2.6907	ppb	13:32:43
1	Pb 220.353†	-82.5	20.2	2.1012	ug/L	2.1012	ppb	13:32:43
1	S 181.975 Axial†	64.4	5.5	6.2781	ug/L	6.2781	ppb	13:32:43
1	Sb 206.836†	44.2	-2.7	-0.8198	ug/L	-0.8198	ppb	13:32:43
1	Se 196.026†	-30.5	8.8	4.5180	ug/L	4.5180	ppb	13:32:43
1	Si 251.611†	639.1	-2.2	-0.0903	ug/L	-0.0903	ppb	13:32:43
1	Sn 189.927†	11.1	6.1	0.9167	ug/L	0.9167	ppb	13:32:43
1	Ti 334.940†	-1633.7	148.5	0.2318	ug/L	0.2318	ppb	13:32:23
1	Tl 190.801†	-52.7	-6.1	-1.6779	ug/L	-1.6779	ppb	13:32:43
1	U 409.014†	-2453.7	498.1	14.839	ug/L	14.839	ppb	13:32:18
1	V 292.402†	-1801.7	36.5	0.2589	ug/L	0.2589	ppb	13:32:23
1	Zn 213.857†	846.0	-22.0	-0.1844	ug/L	-0.1844	ppb	13:32:43
1	SiO2†	673.1	12.5	0.7108	ug/L	0.7108	ppb	13:33:49
2	Sc Radial	4209.6	4209.6	91.0	%			13:31:46
2	Y RADIAL	4681.8	4681.8	95.65	%			13:31:26
2	Al 396.153Radial†	-10.7	9.1	7.8124	ug/L	7.8124	ppb	13:31:26
2	Ca 317.933Radial†	10.0	-3.1	-5.2721	ug/L	-5.2721	ppb	13:31:46
2	Fe 238.204 Radial†	13.7	2.4	22.652	ug/L	22.652	ppb	13:31:46
2	K 766.490 Radial†	3381.7	488.5	98.923	ug/L	98.923	ppb	13:31:26
2	Mg 279.077 IEC†	-0.6	-2.1	-72.585	ug/L	-72.585	ppb	13:31:46
2	Na 589.592 Radial†	-1450.2	175.7	59.983	ug/L	59.983	ppb	13:31:26
2	Sr 421.552†	4.7	-6.1	-0.0450	ug/L	-0.0450	ppb	13:31:26
2	Sc 361.383	885685.2	885685.2	101.41	%			13:32:48
2	Y 371.029	757488.3	757488.3	101.09	%			13:32:48
2	Ag 328.068†	535.6	37.2	0.1608	ug/L	0.1608	ppb	13:32:53
2	As 188.979†	-34.1	-2.1	-0.7534	ug/L	-0.7534	ppb	13:33:13
2	B 249.677†	-91.9	674.9	13.999	ug/L	13.999	ppb	13:32:53
2	Ba 233.527†	4.1	-14.5	-0.1061	ug/L	-0.1061	ppb	13:33:13
2	Be 313.107†	-4426.4	15.4	0.0055	ug/L	0.0055	ppb	13:32:53
2	Cd 226.502†	-248.9	7.5	0.0694	ug/L	0.0694	ppb	13:33:13
2	Co 228.616†	-86.5	13.9	0.2633	ug/L	0.2633	ppb	13:33:13
2	Cr 267.716†	117.4	25.5	0.2561	ug/L	0.2561	ppb	13:32:53
2	Cu 324.752†	8139.8	-77.3	-0.2293	ug/L	-0.2293	ppb	13:32:53
2	Mn 257.610†	1258.9	-65.0	-0.0648	ug/L	-0.0648	ppb	13:32:53
2	Mo 202.031†	32.3	5.1	0.3250	ug/L	0.3250	ppb	13:33:13
2	Ni 231.604†	118.1	0.3	0.0076	ug/L	0.0076	ppb	13:33:13

2	P 214.914†	261.4	5.1	2.5031	ug/L	2.5031 ppb	13:33:13
2	Pb 220.353†	-71.3	31.0	3.2230	ug/L	3.2230 ppb	13:33:13
2	S 181.975 Axial†	72.3	13.6	15.402	ug/L	15.402 ppb	13:33:13
2	Sb 206.836†	49.0	2.2	0.6549	ug/L	0.6549 ppb	13:33:13
2	Se 196.026†	-34.1	5.2	2.7042	ug/L	2.7042 ppb	13:33:13
2	Si 251.611†	644.1	5.0	0.1085	ug/L	0.1085 ppb	13:33:13
2	Sn 189.927†	2.9	-1.9	-0.2786	ug/L	-0.2786 ppb	13:33:13
2	Ti 334.940†	-1675.1	101.7	0.1577	ug/L	0.1577 ppb	13:32:53
2	Tl 190.801†	-45.6	0.7	0.1999	ug/L	0.1999 ppb	13:33:13
2	U 409.014†	-2578.6	365.9	10.899	ug/L	10.899 ppb	13:32:48
2	V 292.402†	-1807.2	24.4	0.1754	ug/L	0.1754 ppb	13:32:53
2	Zn 213.857†	843.4	-21.4	-0.1760	ug/L	-0.1760 ppb	13:33:13
2	SiO2†	697.3	38.9	2.3182	ug/L	2.3182 ppb	13:33:54
3	Sc Radial	4220.3	4220.3	91.2	%		13:32:11
3	Y RADIAL	4668.7	4668.7	95.38	%		13:31:51
3	Al 396.153Radial†	-21.3	-2.5	-2.1863	ug/L	-2.1863 ppb	13:31:51
3	Ca 317.933Radial†	20.9	8.9	15.383	ug/L	15.383 ppb	13:32:11
3	Fe 238.204 Radial†	11.6	0.0	0.0330	ug/L	0.0330 ppb	13:32:11
3	K 766.490 Radial†	3370.7	467.0	94.574	ug/L	94.574 ppb	13:31:51
3	Mg 279.077 IEC†	0.7	-0.8	-25.682	ug/L	-25.682 ppb	13:32:11
3	Na 589.592 Radial†	-1472.3	155.5	53.097	ug/L	53.097 ppb	13:31:51
3	Sr 421.552†	-6.9	-18.8	-0.1389	ug/L	-0.1389 ppb	13:31:51
3	Sc 361.383	880088.6	880088.6	100.77	%		13:33:19
3	Y 371.029	753711.0	753711.0	100.59	%		13:33:19
3	Ag 328.068†	484.0	-10.6	-0.0540	ug/L	-0.0540 ppb	13:33:24
3	As 188.979†	-37.8	-6.0	-2.1173	ug/L	-2.1173 ppb	13:33:44
3	B 249.677†	-41.5	724.3	15.027	ug/L	15.027 ppb	13:33:24
3	Ba 233.527†	15.9	-2.7	-0.0187	ug/L	-0.0187 ppb	13:33:44
3	Be 313.107†	-4285.7	127.3	0.0433	ug/L	0.0433 ppb	13:33:24
3	Cd 226.502†	-243.1	11.8	0.1125	ug/L	0.1125 ppb	13:33:44
3	Co 228.616†	-94.3	5.6	0.1079	ug/L	0.1079 ppb	13:33:44
3	Cr 267.716†	109.9	18.8	0.1884	ug/L	0.1884 ppb	13:33:24
3	Cu 324.752†	8091.0	-74.7	-0.2228	ug/L	-0.2228 ppb	13:33:24
3	Mn 257.610†	1246.1	-69.8	-0.0730	ug/L	-0.0730 ppb	13:33:24
3	Mo 202.031†	38.8	11.8	0.7463	ug/L	0.7463 ppb	13:33:44
3	Ni 231.604†	141.5	24.3	0.5380	ug/L	0.5380 ppb	13:33:44
3	P 214.914†	247.6	-6.9	-3.3487	ug/L	-3.3487 ppb	13:33:44
3	Pb 220.353†	-109.3	-7.2	-0.7478	ug/L	-0.7478 ppb	13:33:44
3	S 181.975 Axial†	69.6	11.4	12.923	ug/L	12.923 ppb	13:33:44
3	Sb 206.836†	54.3	7.7	2.3287	ug/L	2.3287 ppb	13:33:44
3	Se 196.026†	-37.4	1.6	0.8339	ug/L	0.8339 ppb	13:33:44
3	Si 251.611†	643.1	8.2	0.1945	ug/L	0.1945 ppb	13:33:44
3	Sn 189.927†	-1.0	-5.7	-0.8522	ug/L	-0.8522 ppb	13:33:44
3	Ti 334.940†	-1649.1	117.0	0.1828	ug/L	0.1828 ppb	13:33:24
3	Tl 190.801†	-49.4	-3.4	-0.9314	ug/L	-0.9314 ppb	13:33:44
3	U 409.014†	-2523.8	404.1	12.043	ug/L	12.043 ppb	13:33:19
3	V 292.402†	-1714.5	105.0	0.6993	ug/L	0.6993 ppb	13:33:24
3	Zn 213.857†	845.9	-13.7	-0.1154	ug/L	-0.1154 ppb	13:33:44
3	SiO2†	654.7	1.0	-0.0322	ug/L	-0.0322 ppb	13:33:59

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	884925.7	101.33	%	0.516				0.51%
Sc Radial	4223.6	91.3	%	0.35				0.38%
Y 371.029	757325.0	101.07	%	0.472				0.47%
Y RADIAL	4679.1	95.59	%	0.193				0.20%
Ag 328.068†	40.4	0.1702	ug/L	0.22898	0.1702	ppb	0.22898	134.56%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.6	1.3497	ug/L	5.60516	1.3497	ppb	5.60516	415.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.9	-1.7108	ug/L	0.83231	-1.7108	ppb	0.83231	48.65%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	710.3	14.735	ug/L	0.6425	14.735	ppb	0.6425	4.36%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.6	-0.0404	ug/L	0.05803	-0.0404	ppb	0.05803	143.78%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	77.2	0.0264	ug/L	0.01919	0.0264	ppb	0.01919	72.71%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.1	7.1535	ug/L	10.94828	7.1535	ppb	10.94828	153.05%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              16.5      0.1564 ug/L       0.11545      0.1564 ppb        0.11545  73.80%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               9.7      0.1836 ug/L       0.07777      0.1836 ppb        0.07777  42.36%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              30.9      0.3106 ug/L       0.15671      0.3106 ppb        0.15671  50.45%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -105.2     -0.3130 ug/L       0.15059     -0.3130 ppb        0.15059  48.12%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.3      12.501 ug/L       11.4860      12.501 ppb        11.4860  91.88%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       425.6      86.185 ug/L       18.4254      86.185 ppb        18.4254  21.38%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.2     -40.414 ug/L       27.8932     -40.414 ppb        27.8932  69.02%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -84.5     -0.0870 ug/L       0.03155     -0.0870 ppb        0.03155  36.28%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               6.4      0.4040 ug/L       0.31043      0.4040 ppb        0.31043  76.84%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      158.6      54.143 ug/L        5.3939      54.143 ppb         5.3939   9.96%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              14.9      0.3290 ug/L       0.28250      0.3290 ppb        0.28250  85.87%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -2.5     -1.1788 ug/L       3.20555     -1.1788 ppb        3.20555 271.94%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              14.7      1.5255 ug/L       2.04702      1.5255 ppb        2.04702 134.19%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         10.2      11.534 ug/L        4.7176      11.534 ppb         4.7176  40.90%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               2.4      0.7212 ug/L       1.57526      0.7212 ppb        1.57526 218.41%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               5.2      2.6853 ug/L       1.84210      2.6853 ppb        1.84210  68.60%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               3.7      0.0709 ug/L       0.14605      0.0709 ppb        0.14605 205.97%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.5     -0.0714 ug/L       0.90247     -0.0714 ppb        0.90247 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -11.8     -0.0871 ug/L       0.04770     -0.0871 ppb        0.04770  54.76%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             122.4      0.1908 ug/L       0.03770      0.1908 ppb        0.03770  19.76%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -2.9     -0.8032 ug/L       0.94546     -0.8032 ppb        0.94546 117.72%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              422.7      12.594 ug/L        2.0271      12.594 ppb         2.0271  16.10%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               55.3      0.3778 ug/L       0.28149      0.3778 ppb        0.28149  74.50%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -19.0     -0.1586 ug/L       0.03763     -0.1586 ppb        0.03763  23.73%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    17.4      0.9990 ug/L       1.20140      0.9990 ppb        1.20140 120.27%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/7/2010 14:28:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4379.6	4379.6	94.6	%			14:30:05
1	Y RADIAL	4616.1	4616.1	94.30	%			14:30:05
1	Al 396.153Radial†	5432.0	5760.9	4936.4	ug/L	4936.4	ppb	14:30:05
1	Ca 317.933Radial†	2852.9	3000.8	5182.3	ug/L	5182.3	ppb	14:30:25
1	Fe 238.204 Radial†	534.9	552.5	5314.7	ug/L	5314.7	ppb	14:30:25
1	K 766.490 Radial†	27107.3	25415.5	5139.1	ug/L	5139.1	ppb	14:30:05
1	Mg 279.077 IEC†	150.6	157.6	5375.9	ug/L	5375.9	ppb	14:30:25
1	Na 589.592 Radial†	27459.4	30787.0	10511	ug/L	10511	ppb	14:30:05
1	Sr 421.552†	62631.4	66172.7	487.48	ug/L	487.48	ppb	14:30:05
1	Sc 361.383	872056.7	872056.7	99.853	%			14:31:24
1	Y 371.029	738575.2	738575.2	98.565	%			14:31:24
1	Ag 328.068†	113309.2	112985.3	494.21	ug/L	494.21	ppb	14:31:24
1	As 188.979†	1385.3	1418.8	502.00	ug/L	502.00	ppb	14:31:44
1	B 249.677†	23115.2	23914.8	494.22	ug/L	494.22	ppb	14:31:24
1	Ba 233.527†	67250.3	67330.9	496.97	ug/L	496.97	ppb	14:31:24
1	Be 313.107†	1466409.2	1472951.4	497.38	ug/L	497.38	ppb	14:31:24
1	Cd 226.502†	52036.1	52365.8	498.60	ug/L	498.60	ppb	14:31:24
1	Co 228.616†	26090.6	26228.2	496.07	ug/L	496.07	ppb	14:31:44
1	Cr 267.716†	48781.2	48762.8	495.94	ug/L	495.94	ppb	14:31:24
1	Cu 324.752†	173648.6	165801.0	494.72	ug/L	494.72	ppb	14:31:24
1	Mn 257.610†	471962.8	471352.3	496.66	ug/L	496.66	ppb	14:31:24
1	Mo 202.031†	7828.7	7813.6	494.83	ug/L	494.83	ppb	14:31:44
1	Ni 231.604†	22494.7	22411.7	496.31	ug/L	496.31	ppb	14:31:44
1	P 214.914†	5361.8	5117.0	2430.6	ug/L	2430.6	ppb	14:31:44
1	Pb 220.353†	4703.6	4811.8	502.11	ug/L	502.11	ppb	14:31:44
1	S 181.975 Axial†	928.3	872.0	985.54	ug/L	985.54	ppb	14:31:44
1	Sb 206.836†	1662.3	1618.5	496.07	ug/L	496.07	ppb	14:31:44
1	Se 196.026†	956.3	996.4	525.43	ug/L	525.43	ppb	14:31:44
1	Si 251.611†	85829.0	85325.5	2456.7	ug/L	2456.7	ppb	14:31:24
1	Sn 189.927†	3295.2	3295.4	492.75	ug/L	492.75	ppb	14:31:44
1	Ti 334.940†	309342.3	311551.8	498.93	ug/L	498.93	ppb	14:31:24
1	Tl 190.801†	1757.3	1805.6	499.06	ug/L	499.06	ppb	14:31:44
1	U 409.014†	13305.1	16233.3	482.12	ug/L	482.12	ppb	14:31:24
1	V 292.402†	75772.3	77690.4	499.43	ug/L	499.43	ppb	14:31:24
1	Zn 213.857†	61117.4	60354.4	495.40	ug/L	495.40	ppb	14:31:24
1	SiO2†	87585.6	87066.0	5351.4	ug/L	5351.4	ppb	14:32:44
2	Sc Radial	4389.8	4389.8	94.9	%			14:30:30
2	Y RADIAL	4607.4	4607.4	94.13	%			14:30:30
2	Al 396.153Radial†	5535.7	5856.9	5019.3	ug/L	5019.3	ppb	14:30:30
2	Ca 317.933Radial†	2819.7	2958.7	5109.6	ug/L	5109.6	ppb	14:30:50
2	Fe 238.204 Radial†	526.5	542.3	5216.4	ug/L	5216.4	ppb	14:30:50
2	K 766.490 Radial†	27311.0	25563.4	5169.1	ug/L	5169.1	ppb	14:30:30
2	Mg 279.077 IEC†	150.4	157.1	5357.7	ug/L	5357.7	ppb	14:30:50
2	Na 589.592 Radial†	27749.7	31025.3	10593	ug/L	10593	ppb	14:30:30
2	Sr 421.552†	63449.4	66880.5	492.70	ug/L	492.70	ppb	14:30:30
2	Sc 361.383	888194.7	888194.7	101.70	%			14:31:51
2	Y 371.029	752363.6	752363.6	100.41	%			14:31:51
2	Ag 328.068†	114574.9	112168.1	490.62	ug/L	490.62	ppb	14:31:51
2	As 188.979†	1384.2	1392.5	492.74	ug/L	492.74	ppb	14:32:11
2	B 249.677†	23495.6	23868.1	493.28	ug/L	493.28	ppb	14:31:51
2	Ba 233.527†	68113.6	66956.0	494.21	ug/L	494.21	ppb	14:31:51
2	Be 313.107†	1484636.8	1464191.0	494.42	ug/L	494.42	ppb	14:31:51
2	Cd 226.502†	52565.5	51939.5	494.54	ug/L	494.54	ppb	14:31:51
2	Co 228.616†	26138.5	25800.6	487.97	ug/L	487.97	ppb	14:32:11
2	Cr 267.716†	49260.1	48346.1	491.70	ug/L	491.70	ppb	14:31:51
2	Cu 324.752†	175598.8	164558.8	491.01	ug/L	491.01	ppb	14:31:51
2	Mn 257.610†	477829.7	468533.2	493.68	ug/L	493.68	ppb	14:31:51
2	Mo 202.031†	7844.7	7686.8	486.80	ug/L	486.80	ppb	14:32:11
2	Ni 231.604†	22497.5	22005.1	487.31	ug/L	487.31	ppb	14:32:11

2	P 214.914†	5372.4	5030.0	2388.6 ug/L	2388.6 ppb	14:32:11
2	Pb 220.353†	4709.9	4732.5	493.87 ug/L	493.87 ppb	14:32:11
2	S 181.975 Axial†	943.0	869.5	982.77 ug/L	982.77 ppb	14:32:11
2	Sb 206.836†	1684.1	1609.8	493.21 ug/L	493.21 ppb	14:32:11
2	Se 196.026†	945.1	968.1	510.69 ug/L	510.69 ppb	14:32:11
2	Si 251.611†	86833.6	84751.5	2440.2 ug/L	2440.2 ppb	14:31:51
2	Sn 189.927†	3298.1	3238.2	484.21 ug/L	484.21 ppb	14:32:11
2	Ti 334.940†	313291.1	309805.7	496.13 ug/L	496.13 ppb	14:31:51
2	Tl 190.801†	1763.7	1779.9	492.02 ug/L	492.02 ppb	14:32:11
2	U 409.014†	13475.7	16159.0	479.93 ug/L	479.93 ppb	14:31:51
2	V 292.402†	76810.7	77332.7	497.07 ug/L	497.07 ppb	14:31:51
2	Zn 213.857†	61712.5	59827.5	491.10 ug/L	491.10 ppb	14:31:51
2	SiO2†	88103.2	85981.2	5284.7 ug/L	5284.7 ppb	14:32:49
3	Sc Radial	4345.4	4345.4	93.9 %		14:30:55
3	Y RADIAL	4574.2	4574.2	93.45 %		14:30:55
3	Al 396.153Radial†	5461.0	5837.0	5002.0 ug/L	5002.0 ppb	14:30:55
3	Ca 317.933Radial†	2825.8	2995.6	5173.3 ug/L	5173.3 ppb	14:31:15
3	Fe 238.204 Radial†	528.2	549.8	5288.6 ug/L	5288.6 ppb	14:31:15
3	K 766.490 Radial†	27103.7	25637.1	5184.1 ug/L	5184.1 ppb	14:30:55
3	Mg 279.077 IEC†	152.2	160.6	5478.7 ug/L	5478.7 ppb	14:31:15
3	Na 589.592 Radial†	27220.1	30760.3	10502 ug/L	10502 ppb	14:30:55
3	Sr 421.552†	62758.3	66828.4	492.31 ug/L	492.31 ppb	14:30:55
3	Sc 361.383	892664.1	892664.1	102.21 %		14:32:19
3	Y 371.029	755775.3	755775.3	100.86 %		14:32:19
3	Ag 328.068†	114422.1	111454.5	487.53 ug/L	487.53 ppb	14:32:19
3	As 188.979†	1401.3	1402.4	496.20 ug/L	496.20 ppb	14:32:39
3	B 249.677†	23526.3	23782.6	491.50 ug/L	491.50 ppb	14:32:19
3	Ba 233.527†	68160.3	66666.4	492.07 ug/L	492.07 ppb	14:32:19
3	Be 313.107†	1480986.7	1453310.9	490.75 ug/L	490.75 ppb	14:32:19
3	Cd 226.502†	52466.4	51583.7	491.15 ug/L	491.15 ppb	14:32:19
3	Co 228.616†	26317.8	25847.3	488.87 ug/L	488.87 ppb	14:32:39
3	Cr 267.716†	49199.7	48044.6	488.64 ug/L	488.64 ppb	14:32:19
3	Cu 324.752†	175823.9	163914.5	489.09 ug/L	489.09 ppb	14:32:19
3	Mn 257.610†	476982.1	465351.5	490.34 ug/L	490.34 ppb	14:32:19
3	Mo 202.031†	7922.3	7724.1	489.17 ug/L	489.17 ppb	14:32:39
3	Ni 231.604†	22703.6	22096.0	489.32 ug/L	489.32 ppb	14:32:39
3	P 214.914†	5388.0	5018.8	2383.4 ug/L	2383.4 ppb	14:32:39
3	Pb 220.353†	4763.1	4761.3	496.86 ug/L	496.86 ppb	14:32:39
3	S 181.975 Axial†	953.9	875.5	989.56 ug/L	989.56 ppb	14:32:39
3	Sb 206.836†	1693.8	1611.0	493.71 ug/L	493.71 ppb	14:32:39
3	Se 196.026†	974.7	992.4	523.26 ug/L	523.26 ppb	14:32:39
3	Si 251.611†	86783.9	84275.4	2426.4 ug/L	2426.4 ppb	14:32:19
3	Sn 189.927†	3318.8	3242.2	484.82 ug/L	484.82 ppb	14:32:39
3	Ti 334.940†	312938.0	307917.9	493.11 ug/L	493.11 ppb	14:32:19
3	Tl 190.801†	1783.1	1790.2	494.82 ug/L	494.82 ppb	14:32:39
3	U 409.014†	13536.4	16151.9	479.71 ug/L	479.71 ppb	14:32:19
3	V 292.402†	76650.5	76797.8	493.70 ug/L	493.70 ppb	14:32:19
3	Zn 213.857†	61605.5	59419.0	487.70 ug/L	487.70 ppb	14:32:19
3	SiO2†	86885.5	84356.1	5184.3 ug/L	5184.3 ppb	14:32:54

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	884305.2	101.26	%	1.241				1.23%
Sc Radial	4371.6	94.5	%	0.50				0.53%
Y 371.029	748904.7	99.944	%	1.2153				1.22%
Y RADIAL	4599.2	93.96	%	0.451				0.48%
Ag 328.068†	112202.6	490.79	ug/L	3.344	490.79	ppb	3.344	0.68%
QC value within limits for Ag 328.068 Recovery = 98.16%								
Al 396.153Radial†	5818.3	4985.9	ug/L	43.75	4985.9	ppb	43.75	0.88%
QC value within limits for Al 396.153Radial Recovery = 99.72%								
As 188.979†	1404.6	496.98	ug/L	4.677	496.98	ppb	4.677	0.94%
QC value within limits for As 188.979 Recovery = 99.40%								
B 249.677†	23855.2	493.00	ug/L	1.383	493.00	ppb	1.383	0.28%
QC value within limits for B 249.677 Recovery = 98.60%								
Ba 233.527†	66984.5	494.42	ug/L	2.460	494.42	ppb	2.460	0.50%
QC value within limits for Ba 233.527 Recovery = 98.88%								
Be 313.107†	1463484.4	494.18	ug/L	3.322	494.18	ppb	3.322	0.67%
QC value within limits for Be 313.107 Recovery = 98.84%								
Ca 317.933Radial†	2985.0	5155.0	ug/L	39.63	5155.0	ppb	39.63	0.77%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.10%
Cd 226.502†            51963.0      494.77 ug/L         3.731      494.77 ppb          3.731   0.75%
   QC value within limits for Cd 226.502  Recovery = 98.95%
Co 228.616†            25958.7      490.97 ug/L         4.440      490.97 ppb          4.440   0.90%
   QC value within limits for Co 228.616  Recovery = 98.19%
Cr 267.716†            48384.5      492.09 ug/L         3.667      492.09 ppb          3.667   0.75%
   QC value within limits for Cr 267.716  Recovery = 98.42%
Cu 324.752†           164758.1      491.60 ug/L         2.861      491.60 ppb          2.861   0.58%
   QC value within limits for Cu 324.752  Recovery = 98.32%
Fe 238.204 Radial†       548.2      5273.2 ug/L        50.89      5273.2 ppb          50.89   0.96%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.46%
K 766.490 Radial†      25538.7      5164.1 ug/L        22.88      5164.1 ppb          22.88   0.44%
   QC value within limits for K 766.490 Radial  Recovery = 103.28%
Mg 279.077 IEC†          158.4      5404.1 ug/L        65.28      5404.1 ppb          65.28   1.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.08%
Mn 257.610†           468412.3      493.56 ug/L         3.163      493.56 ppb          3.163   0.64%
   QC value within limits for Mn 257.610  Recovery = 98.71%
Mo 202.031†             7741.5      490.27 ug/L         4.127      490.27 ppb          4.127   0.84%
   QC value within limits for Mo 202.031  Recovery = 98.05%
Na 589.592 Radial†     30857.5       10535 ug/L          49.8       10535 ppb           49.8   0.47%
   QC value within limits for Na 589.592 Radial  Recovery = 105.35%
Ni 231.604†            22170.9      490.98 ug/L         4.726      490.98 ppb          4.726   0.96%
   QC value within limits for Ni 231.604  Recovery = 98.20%
P 214.914†              5055.3      2400.9 ug/L        25.92      2400.9 ppb          25.92   1.08%
   QC value within limits for P 214.914  Recovery = 96.03%
Pb 220.353†             4768.5      497.61 ug/L         4.174      497.61 ppb          4.174   0.84%
   QC value within limits for Pb 220.353  Recovery = 99.52%
S 181.975 Axial†         872.4      985.96 ug/L         3.414      985.96 ppb          3.414   0.35%
   QC value within limits for S 181.975 Axial  Recovery = 98.60%
Sb 206.836†             1613.1      494.33 ug/L         1.528      494.33 ppb          1.528   0.31%
   QC value within limits for Sb 206.836  Recovery = 98.87%
Se 196.026†              985.6      519.79 ug/L         7.959      519.79 ppb          7.959   1.53%
   QC value within limits for Se 196.026  Recovery = 103.96%
Si 251.611†            84784.1      2441.1 ug/L        15.15      2441.1 ppb          15.15   0.62%
   QC value within limits for Si 251.611  Recovery = 97.64%
Sn 189.927†             3258.6      487.26 ug/L         4.766      487.26 ppb          4.766   0.98%
   QC value within limits for Sn 189.927  Recovery = 97.45%
Sr 421.552†            66627.2      490.83 ug/L         2.907      490.83 ppb          2.907   0.59%
   QC value within limits for Sr 421.552  Recovery = 98.17%
Ti 334.940†           309758.5      496.06 ug/L         2.910      496.06 ppb          2.910   0.59%
   QC value within limits for Ti 334.940  Recovery = 99.21%
Tl 190.801†             1791.9      495.30 ug/L         3.546      495.30 ppb          3.546   0.72%
   QC value within limits for Tl 190.801  Recovery = 99.06%
U 409.014†             16181.4      480.59 ug/L         1.333      480.59 ppb          1.333   0.28%
   QC value within limits for U 409.014  Recovery = 96.12%
V 292.402†             77273.6      496.73 ug/L         2.881      496.73 ppb          2.881   0.58%
   QC value within limits for V 292.402  Recovery = 99.35%
Zn 213.857†            59866.9      491.40 ug/L         3.856      491.40 ppb          3.856   0.78%
   QC value within limits for Zn 213.857  Recovery = 98.28%
SiO2†                  85801.1      5273.5 ug/L        84.13      5273.5 ppb          84.13   1.60%
   QC value within limits for SiO2  Recovery = 98.62%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/7/2010 14:35:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4534.9	4534.9	98.0	%			14:36:57
1	Y RADIAL	4824.6	4824.6	98.56	%			14:36:57
1	Al 396.153Radial†	-19.7	0.8	0.6736	ug/L	0.6736	ppb	14:36:57
1	Ca 317.933Radial†	16.5	2.9	4.9587	ug/L	4.9587	ppb	14:37:17
1	Fe 238.204 Radial†	11.3	-1.2	-11.582	ug/L	-11.582	ppb	14:37:17
1	K 766.490 Radial†	3296.8	135.2	27.341	ug/L	27.341	ppb	14:36:57
1	Mg 279.077 IEC†	2.2	0.8	26.559	ug/L	26.559	ppb	14:37:17
1	Na 589.592 Radial†	-1397.4	343.9	117.41	ug/L	117.41	ppb	14:36:57
1	Sr 421.552†	20.5	9.6	0.0710	ug/L	0.0710	ppb	14:36:57
1	Sc 361.383	899157.9	899157.9	102.96	%			14:38:14
1	Y 371.029	768477.8	768477.8	102.56	%			14:38:14
1	Ag 328.068†	496.5	-8.7	-0.0543	ug/L	-0.0543	ppb	14:38:19
1	As 188.979†	-21.7	10.5	3.6613	ug/L	3.6613	ppb	14:38:39
1	B 249.677†	-462.9	315.8	6.5537	ug/L	6.5537	ppb	14:38:19
1	Ba 233.527†	-8.4	-26.7	-0.1946	ug/L	-0.1946	ppb	14:38:39
1	Be 313.107†	-4369.5	136.0	0.0460	ug/L	0.0460	ppb	14:38:19
1	Cd 226.502†	-231.7	27.9	0.2671	ug/L	0.2671	ppb	14:38:39
1	Co 228.616†	-94.5	7.4	0.1396	ug/L	0.1396	ppb	14:38:39
1	Cr 267.716†	132.2	38.1	0.3822	ug/L	0.3822	ppb	14:38:19
1	Cu 324.752†	8147.3	-190.3	-0.5680	ug/L	-0.5680	ppb	14:38:19
1	Mn 257.610†	1215.7	-125.6	-0.1339	ug/L	-0.1339	ppb	14:38:19
1	Mo 202.031†	22.4	-4.9	-0.3114	ug/L	-0.3114	ppb	14:38:39
1	Ni 231.604†	114.7	-4.7	-0.1051	ug/L	-0.1051	ppb	14:38:39
1	P 214.914†	259.0	-1.0	-0.4076	ug/L	-0.4076	ppb	14:38:39
1	Pb 220.353†	-87.6	16.2	1.6896	ug/L	1.6896	ppb	14:38:39
1	S 181.975 Axial†	62.5	3.1	3.4656	ug/L	3.4656	ppb	14:38:39
1	Sb 206.836†	42.7	-4.7	-1.4266	ug/L	-1.4266	ppb	14:38:39
1	Se 196.026†	-43.6	-3.6	-1.8594	ug/L	-1.8594	ppb	14:38:39
1	Si 251.611†	682.5	32.9	0.9479	ug/L	0.9479	ppb	14:38:39
1	Sn 189.927†	5.6	0.7	0.1088	ug/L	0.1088	ppb	14:38:39
1	Ti 334.940†	-1756.0	47.9	0.0684	ug/L	0.0684	ppb	14:38:19
1	Tl 190.801†	-52.8	-5.6	-1.5369	ug/L	-1.5369	ppb	14:38:39
1	U 409.014†	-2333.0	642.5	19.148	ug/L	19.148	ppb	14:38:14
1	V 292.402†	-1702.5	152.7	1.0038	ug/L	1.0038	ppb	14:38:19
1	Zn 213.857†	870.2	-7.9	-0.0641	ug/L	-0.0641	ppb	14:38:39
1	SiO2†	711.8	42.7	2.6262	ug/L	2.6262	ppb	14:39:45
2	Sc Radial	4527.1	4527.1	97.8	%			14:37:22
2	Y RADIAL	4779.7	4779.7	97.65	%			14:37:22
2	Al 396.153Radial†	-23.4	-3.1	-2.6755	ug/L	-2.6755	ppb	14:37:22
2	Ca 317.933Radial†	13.1	-0.6	-1.1006	ug/L	-1.1006	ppb	14:37:42
2	Fe 238.204 Radial†	8.2	-4.3	-41.392	ug/L	-41.392	ppb	14:37:42
2	K 766.490 Radial†	3380.5	226.6	45.831	ug/L	45.831	ppb	14:37:22
2	Mg 279.077 IEC†	3.7	2.3	78.915	ug/L	78.915	ppb	14:37:42
2	Na 589.592 Radial†	-1334.9	405.4	138.41	ug/L	138.41	ppb	14:37:22
2	Sr 421.552†	37.4	26.9	0.1985	ug/L	0.1985	ppb	14:37:22
2	Sc 361.383	899713.6	899713.6	103.02	%			14:38:44
2	Y 371.029	768998.7	768998.7	102.63	%			14:38:44
2	Ag 328.068†	519.2	13.0	0.0331	ug/L	0.0331	ppb	14:38:49
2	As 188.979†	-36.7	-4.2	-1.4646	ug/L	-1.4646	ppb	14:39:09
2	B 249.677†	-381.9	394.8	8.1962	ug/L	8.1962	ppb	14:38:49
2	Ba 233.527†	4.6	-14.1	-0.1045	ug/L	-0.1045	ppb	14:39:09
2	Be 313.107†	-4487.7	24.0	0.0085	ug/L	0.0085	ppb	14:38:49
2	Cd 226.502†	-237.8	22.1	0.2153	ug/L	0.2153	ppb	14:39:09
2	Co 228.616†	-110.8	-8.3	-0.1575	ug/L	-0.1575	ppb	14:39:09
2	Cr 267.716†	99.8	6.6	0.0630	ug/L	0.0630	ppb	14:38:49
2	Cu 324.752†	8077.7	-262.7	-0.7855	ug/L	-0.7855	ppb	14:38:49
2	Mn 257.610†	1200.5	-141.0	-0.1540	ug/L	-0.1540	ppb	14:38:49
2	Mo 202.031†	27.9	0.4	0.0206	ug/L	0.0206	ppb	14:39:09
2	Ni 231.604†	136.2	16.1	0.3563	ug/L	0.3563	ppb	14:39:09

2	P 214.914†	262.4	2.1	1.1733	ug/L	1.1733 ppb	14:39:09
2	Pb 220.353†	-73.4	30.0	3.1272	ug/L	3.1272 ppb	14:39:09
2	S 181.975 Axial†	67.0	7.4	8.3363	ug/L	8.3363 ppb	14:39:09
2	Sb 206.836†	40.8	-6.6	-2.0104	ug/L	-2.0104 ppb	14:39:09
2	Se 196.026†	-35.4	4.4	2.0900	ug/L	2.0900 ppb	14:39:09
2	Si 251.611†	660.3	10.9	0.3021	ug/L	0.3021 ppb	14:39:09
2	Sn 189.927†	-0.0	-4.8	-0.7109	ug/L	-0.7109 ppb	14:39:09
2	Ti 334.940†	-1668.0	134.4	0.2096	ug/L	0.2096 ppb	14:38:49
2	Tl 190.801†	-55.0	-7.7	-2.1211	ug/L	-2.1211 ppb	14:39:09
2	U 409.014†	-2561.5	422.1	12.585	ug/L	12.585 ppb	14:38:44
2	V 292.402†	-1820.4	39.3	0.2821	ug/L	0.2821 ppb	14:38:49
2	Zn 213.857†	853.7	-24.4	-0.2042	ug/L	-0.2042 ppb	14:39:09
2	SiO2†	666.6	-1.7	-0.1349	ug/L	-0.1349 ppb	14:39:50
3	Sc Radial	4629.8	4629.8	100	%		14:37:47
3	Y RADIAL	4838.7	4838.7	98.85	%		14:37:47
3	Al 396.153Radial†	7.1	27.9	23.977	ug/L	23.977 ppb	14:37:47
3	Ca 317.933Radial†	21.0	7.0	12.040	ug/L	12.040 ppb	14:38:07
3	Fe 238.204 Radial†	11.8	-0.9	-8.9852	ug/L	-8.9852 ppb	14:38:07
3	K 766.490 Radial†	3337.1	106.5	21.515	ug/L	21.515 ppb	14:37:47
3	Mg 279.077 IEC†	2.5	1.0	32.667	ug/L	32.667 ppb	14:38:07
3	Na 589.592 Radial†	-1338.6	432.0	147.48	ug/L	147.48 ppb	14:37:47
3	Sr 421.552†	8.6	-2.7	-0.0201	ug/L	-0.0201 ppb	14:37:47
3	Sc 361.383	888038.3	888038.3	101.68	%		14:39:14
3	Y 371.029	758681.6	758681.6	101.25	%		14:39:14
3	Ag 328.068†	420.6	-77.3	-0.3479	ug/L	-0.3479 ppb	14:39:19
3	As 188.979†	-30.6	1.4	0.4756	ug/L	0.4756 ppb	14:39:39
3	B 249.677†	-440.7	332.1	6.8909	ug/L	6.8909 ppb	14:39:19
3	Ba 233.527†	18.1	-0.8	-0.0057	ug/L	-0.0057 ppb	14:39:39
3	Be 313.107†	-4386.7	66.0	0.0222	ug/L	0.0222 ppb	14:39:19
3	Cd 226.502†	-226.2	30.5	0.2919	ug/L	0.2919 ppb	14:39:39
3	Co 228.616†	-100.7	0.1	0.0047	ug/L	0.0047 ppb	14:39:39
3	Cr 267.716†	59.2	-32.1	-0.3292	ug/L	-0.3292 ppb	14:39:19
3	Cu 324.752†	8134.0	-104.2	-0.3113	ug/L	-0.3113 ppb	14:39:19
3	Mn 257.610†	1221.1	-105.4	-0.1125	ug/L	-0.1125 ppb	14:39:19
3	Mo 202.031†	41.5	14.1	0.8917	ug/L	0.8917 ppb	14:39:39
3	Ni 231.604†	123.8	5.6	0.1238	ug/L	0.1238 ppb	14:39:39
3	P 214.914†	253.9	-2.9	-1.3677	ug/L	-1.3677 ppb	14:39:39
3	Pb 220.353†	-90.9	11.9	1.2506	ug/L	1.2506 ppb	14:39:39
3	S 181.975 Axial†	59.8	1.1	1.2314	ug/L	1.2314 ppb	14:39:39
3	Sb 206.836†	28.5	-18.2	-5.4581	ug/L	-5.4581 ppb	14:39:39
3	Se 196.026†	-33.2	6.1	3.0941	ug/L	3.0941 ppb	14:39:39
3	Si 251.611†	670.4	29.3	0.8244	ug/L	0.8244 ppb	14:39:39
3	Sn 189.927†	5.3	0.5	0.0758	ug/L	0.0758 ppb	14:39:39
3	Ti 334.940†	-1790.8	-7.7	-0.0165	ug/L	-0.0165 ppb	14:39:19
3	Tl 190.801†	-37.1	9.2	2.5157	ug/L	2.5157 ppb	14:39:39
3	U 409.014†	-2584.2	367.1	10.941	ug/L	10.941 ppb	14:39:14
3	V 292.402†	-1821.2	15.3	0.1336	ug/L	0.1336 ppb	14:39:19
3	Zn 213.857†	867.7	0.2	0.0010	ug/L	0.0010 ppb	14:39:39
3	SiO2†	683.3	23.2	1.3843	ug/L	1.3843 ppb	14:39:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	895636.6	102.55	%	0.754				0.74%
Sc Radial	4563.9	98.6	%	1.24				1.25%
Y 371.029	765386.0	102.14	%	0.776				0.76%
Y RADIAL	4814.3	98.35	%	0.629				0.64%
Ag 328.068†	-24.3	-0.1230	ug/L	0.19960	-0.1230	ppb	0.19960	162.22%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	8.5	7.3251	ug/L	14.51810	7.3251	ppb	14.51810	198.20%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.6	0.8908	ug/L	2.58804	0.8908	ppb	2.58804	290.54%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	347.5	7.2136	ug/L	0.86751	7.2136	ppb	0.86751	12.03%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-13.9	-0.1016	ug/L	0.09448	-0.1016	ppb	0.09448	92.98%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	75.3	0.0256	ug/L	0.01897	0.0256	ppb	0.01897	74.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.1	5.2992	ug/L	6.57671	5.2992	ppb	6.57671	124.11%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                26.9      0.2581 ug/L       0.03912      0.2581 ppb        0.03912  15.16%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -0.3     -0.0044 ug/L       0.14877     -0.0044 ppb        0.14877 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 4.2      0.0387 ug/L       0.35635      0.0387 ppb        0.35635 921.79%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -185.7     -0.5549 ug/L       0.23737     -0.5549 ppb        0.23737  42.77%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.2     -20.653 ug/L       18.0076     -20.653 ppb        18.0076  87.19%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         156.1      31.562 ug/L       12.6958      31.562 ppb        12.6958  40.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.4      46.047 ug/L       28.6281      46.047 ppb        28.6281  62.17%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -124.0     -0.1334 ug/L       0.02079     -0.1334 ppb        0.02079  15.58%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 3.2      0.2003 ug/L       0.62133      0.2003 ppb        0.62133 310.20%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        393.7      134.43 ug/L        15.424      134.43 ppb         15.424  11.47%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 5.6      0.1250 ug/L       0.23067      0.1250 ppb        0.23067 184.54%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.6     -0.2007 ug/L       1.28307     -0.2007 ppb        1.28307 639.45%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                19.4      2.0225 ug/L       0.98158      2.0225 ppb        0.98158  48.53%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            3.8      4.3444 ug/L       3.63308      4.3444 ppb        3.63308  83.63%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -9.8     -2.9650 ug/L       2.17872     -2.9650 ppb        2.17872  73.48%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.3      1.1082 ug/L       2.61863      1.1082 ppb        2.61863 236.29%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                24.4      0.6914 ug/L       0.34280      0.6914 ppb        0.34280  49.58%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -1.2     -0.1754 ug/L       0.46404     -0.1754 ppb        0.46404 264.51%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                11.3      0.0831 ug/L       0.10983      0.0831 ppb        0.10983 132.13%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                58.2      0.0872 ug/L       0.11419      0.0872 ppb        0.11419 130.99%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -1.4     -0.3807 ug/L       2.52539     -0.3807 ppb        2.52539 663.27%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                477.3      14.224 ug/L        4.3422      14.224 ppb         4.3422  30.53%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 69.1      0.4732 ug/L       0.46551      0.4732 ppb        0.46551  98.38%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -10.7     -0.0891 ug/L       0.10486     -0.0891 ppb        0.10486 117.67%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      21.4      1.2918 ug/L       1.38286      1.2918 ppb        1.38286 107.05%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 1/7/2010 15:00:17 **Plasma On Time: 1/4/2010 06:33:21**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\010710A.sif
Batch ID:
Results Data Set: 010710
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 1/7/2010 15:00:18**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4415.3	4415.3	95.4	%			15:02:10
1	Y RADIAL	4633.1	4633.1	94.65	%			15:02:10
1	Al 396.153Radial†	5462.0	5746.0	4923.5	ug/L	4923.5	ppb	15:02:10
1	Ca 317.933Radial†	2826.1	2948.3	5091.6	ug/L	5091.6	ppb	15:02:30
1	Fe 238.204 Radial†	529.1	541.8	5212.0	ug/L	5212.0	ppb	15:02:30
1	K 766.490 Radial†	27184.3	25264.7	5108.5	ug/L	5108.5	ppb	15:02:10
1	Mg 279.077 IEC†	150.1	155.9	5316.5	ug/L	5316.5	ppb	15:02:30
1	Na 589.592 Radial†	27710.2	30815.3	10521	ug/L	10521	ppb	15:02:10
1	Sr 421.552†	63400.8	66444.1	489.48	ug/L	489.48	ppb	15:02:10
1	Sc 361.383	879377.8	879377.8	100.69	%			15:03:29
1	Y 371.029	744698.6	744698.6	99.382	%			15:03:29
1	Ag 328.068†	115117.4	113836.4	497.89	ug/L	497.89	ppb	15:03:29
1	As 188.979†	1387.2	1409.1	498.64	ug/L	498.64	ppb	15:03:49
1	B 249.677†	23510.2	24114.3	498.37	ug/L	498.37	ppb	15:03:29
1	Ba 233.527†	68523.1	68034.2	502.16	ug/L	502.16	ppb	15:03:29
1	Be 313.107†	1493710.3	1487838.7	502.41	ug/L	502.41	ppb	15:03:29
1	Cd 226.502†	52825.9	52716.3	501.95	ug/L	501.95	ppb	15:03:29
1	Co 228.616†	26276.1	26194.9	495.43	ug/L	495.43	ppb	15:03:49
1	Cr 267.716†	49596.2	49165.6	500.04	ug/L	500.04	ppb	15:03:29
1	Cu 324.752†	176578.4	167262.8	499.07	ug/L	499.07	ppb	15:03:29
1	Mn 257.610†	480773.2	476167.2	501.72	ug/L	501.72	ppb	15:03:29
1	Mo 202.031†	7890.6	7809.7	494.58	ug/L	494.58	ppb	15:03:49
1	Ni 231.604†	22621.2	22349.8	494.94	ug/L	494.94	ppb	15:03:49
1	P 214.914†	5391.7	5102.1	2422.7	ug/L	2422.7	ppb	15:03:49
1	Pb 220.353†	4706.5	4775.5	498.33	ug/L	498.33	ppb	15:03:49
1	S 181.975 Axial†	945.2	881.1	995.80	ug/L	995.80	ppb	15:03:49
1	Sb 206.836†	1667.9	1610.3	493.46	ug/L	493.46	ppb	15:03:49
1	Se 196.026†	969.0	1001.1	527.48	ug/L	527.48	ppb	15:03:49
1	Si 251.611†	87261.7	86032.8	2477.2	ug/L	2477.2	ppb	15:03:29
1	Sn 189.927†	3324.5	3296.9	492.97	ug/L	492.97	ppb	15:03:49
1	Ti 334.940†	315169.2	314759.5	504.06	ug/L	504.06	ppb	15:03:29
1	Tl 190.801†	1760.1	1793.7	495.87	ug/L	495.87	ppb	15:03:49
1	U 409.014†	13392.2	16208.9	481.40	ug/L	481.40	ppb	15:03:29
1	V 292.402†	77133.3	78410.3	504.00	ug/L	504.00	ppb	15:03:29
1	Zn 213.857†	62091.7	60812.5	499.20	ug/L	499.20	ppb	15:03:29
1	SiO2†	88451.4	87195.6	5359.4	ug/L	5359.4	ppb	15:04:50
2	Sc Radial	4407.9	4407.9	95.2	%			15:02:35
2	Y RADIAL	4651.0	4651.0	95.02	%			15:02:35
2	Al 396.153Radial†	5452.0	5745.0	4922.5	ug/L	4922.5	ppb	15:02:35
2	Ca 317.933Radial†	2898.9	3029.7	5232.2	ug/L	5232.2	ppb	15:02:56
2	Fe 238.204 Radial†	542.1	556.4	5352.0	ug/L	5352.0	ppb	15:02:56
2	K 766.490 Radial†	27215.1	25344.5	5124.7	ug/L	5124.7	ppb	15:02:35
2	Mg 279.077 IEC†	153.9	160.1	5460.3	ug/L	5460.3	ppb	15:02:56
2	Na 589.592 Radial†	27562.2	30708.3	10484	ug/L	10484	ppb	15:02:35
2	Sr 421.552†	63049.6	66186.1	487.58	ug/L	487.58	ppb	15:02:35
2	Sc 361.383	873023.6	873023.6	99.963	%			15:03:57
2	Y 371.029	739049.8	739049.8	98.628	%			15:03:57

2	Ag 328.068†	114333.5	113884.4	498.14 ug/L	498.14 ppb	15:03:57
2	As 188.979†	1391.3	1423.3	503.60 ug/L	503.60 ppb	15:04:17
2	B 249.677†	23483.3	24257.4	501.31 ug/L	501.31 ppb	15:03:57
2	Ba 233.527†	68030.7	68037.0	502.18 ug/L	502.18 ppb	15:03:57
2	Be 313.107†	1481817.6	1486739.0	502.03 ug/L	502.03 ppb	15:03:57
2	Cd 226.502†	52604.7	52876.9	503.47 ug/L	503.47 ppb	15:03:57
2	Co 228.616†	26316.7	26425.5	499.80 ug/L	499.80 ppb	15:04:17
2	Cr 267.716†	49265.1	49192.9	500.32 ug/L	500.32 ppb	15:03:57
2	Cu 324.752†	175161.9	167122.2	498.66 ug/L	498.66 ppb	15:03:57
2	Mn 257.610†	477378.3	476246.3	501.81 ug/L	501.81 ppb	15:03:57
2	Mo 202.031†	7910.1	7886.3	499.44 ug/L	499.44 ppb	15:04:17
2	Ni 231.604†	22697.8	22589.9	500.26 ug/L	500.26 ppb	15:04:17
2	P 214.914†	5378.9	5128.2	2435.5 ug/L	2435.5 ppb	15:04:17
2	Pb 220.353†	4734.4	4837.4	504.77 ug/L	504.77 ppb	15:04:17
2	S 181.975 Axial†	942.1	884.8	1000.0 ug/L	1000.0 ppb	15:04:17
2	Sb 206.836†	1693.0	1647.4	504.89 ug/L	504.89 ppb	15:04:17
2	Se 196.026†	969.3	1008.5	531.67 ug/L	531.67 ppb	15:04:17
2	Si 251.611†	86684.0	86085.6	2478.6 ug/L	2478.6 ppb	15:03:57
2	Sn 189.927†	3333.8	3330.3	497.98 ug/L	497.98 ppb	15:04:17
2	Ti 334.940†	312886.5	314754.2	504.06 ug/L	504.06 ppb	15:03:57
2	Tl 190.801†	1774.2	1820.5	503.21 ug/L	503.21 ppb	15:04:17
2	U 409.014†	13476.0	16389.5	486.76 ug/L	486.76 ppb	15:03:57
2	V 292.402†	76606.6	78441.0	504.26 ug/L	504.26 ppb	15:03:57
2	Zn 213.857†	61672.2	60841.7	499.40 ug/L	499.40 ppb	15:03:57
2	SiO2†	86472.7	85855.6	5276.4 ug/L	5276.4 ppb	15:04:55
3	Sc Radial	4475.4	4475.4	96.7 %		15:03:01
3	Y RADIAL	4723.9	4723.9	96.51 %		15:03:01
3	Al 396.153Radial†	5527.7	5737.1	4915.8 ug/L	4915.8 ppb	15:03:01
3	Ca 317.933Radial†	2869.2	2953.0	5099.8 ug/L	5099.8 ppb	15:03:21
3	Fe 238.204 Radial†	534.5	540.0	5194.5 ug/L	5194.5 ppb	15:03:21
3	K 766.490 Radial†	27503.4	25211.8	5097.8 ug/L	5097.8 ppb	15:03:01
3	Mg 279.077 IEC†	149.8	153.4	5233.2 ug/L	5233.2 ppb	15:03:21
3	Na 589.592 Radial†	28196.1	30927.4	10559 ug/L	10559 ppb	15:03:01
3	Sr 421.552†	64389.8	66573.8	490.44 ug/L	490.44 ppb	15:03:01
3	Sc 361.383	888113.7	888113.7	101.69 %		15:04:24
3	Y 371.029	751582.9	751582.9	100.30 %		15:04:24
3	Ag 328.068†	116285.7	113860.7	497.99 ug/L	497.99 ppb	15:04:24
3	As 188.979†	1409.3	1417.4	501.51 ug/L	501.51 ppb	15:04:44
3	B 249.677†	23845.8	24214.7	500.46 ug/L	500.46 ppb	15:04:24
3	Ba 233.527†	69024.1	67857.6	500.86 ug/L	500.86 ppb	15:04:24
3	Be 313.107†	1507852.3	1487153.5	502.17 ug/L	502.17 ppb	15:04:24
3	Cd 226.502†	53376.8	52742.0	502.20 ug/L	502.20 ppb	15:04:24
3	Co 228.616†	26528.4	26186.4	495.27 ug/L	495.27 ppb	15:04:44
3	Cr 267.716†	50039.8	49117.3	499.55 ug/L	499.55 ppb	15:04:24
3	Cu 324.752†	178488.9	167416.6	499.53 ug/L	499.53 ppb	15:04:24
3	Mn 257.610†	484901.2	475529.9	501.05 ug/L	501.05 ppb	15:04:24
3	Mo 202.031†	7968.1	7808.8	494.52 ug/L	494.52 ppb	15:04:44
3	Ni 231.604†	22808.6	22313.1	494.13 ug/L	494.13 ppb	15:04:44
3	P 214.914†	5443.3	5100.1	2421.7 ug/L	2421.7 ppb	15:04:44
3	Pb 220.353†	4778.8	4800.6	500.95 ug/L	500.95 ppb	15:04:44
3	S 181.975 Axial†	945.9	872.5	986.08 ug/L	986.08 ppb	15:04:44
3	Sb 206.836†	1697.0	1622.6	497.20 ug/L	497.20 ppb	15:04:44
3	Se 196.026†	975.6	998.1	525.92 ug/L	525.92 ppb	15:04:44
3	Si 251.611†	88192.0	86095.1	2479.0 ug/L	2479.0 ppb	15:04:24
3	Sn 189.927†	3351.9	3291.4	492.15 ug/L	492.15 ppb	15:04:44
3	Ti 334.940†	317852.2	314319.0	503.35 ug/L	503.35 ppb	15:04:24
3	Tl 190.801†	1800.4	1816.1	502.01 ug/L	502.01 ppb	15:04:44
3	U 409.014†	13499.6	16183.6	480.65 ug/L	480.65 ppb	15:04:24
3	V 292.402†	77885.1	78396.1	503.91 ug/L	503.91 ppb	15:04:24
3	Zn 213.857†	62731.3	60834.8	499.39 ug/L	499.39 ppb	15:04:24
3	SiO2†	87408.6	85306.1	5242.7 ug/L	5242.7 ppb	15:05:00

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	880171.7	100.78	%	0.868				0.86%
Sc Radial	4432.9	95.8	%	0.80				0.84%
Y 371.029	745110.4	99.437	%	0.8376				0.84%
Y RADIAL	4669.3	95.39	%	0.983				1.03%
Ag 328.068†	113860.5	498.01	ug/L	0.125	498.01	ppb	0.125	0.03%

```
   QC value within limits for Ag 328.068  Recovery = 99.60%
Al 396.153Radial†       5742.7      4920.6 ug/L          4.18      4920.6 ppb          4.18   0.08%
   QC value within limits for Al 396.153Radial  Recovery = 98.41%
As 188.979†             1416.6      501.25 ug/L         2.494      501.25 ppb         2.494   0.50%
   QC value within limits for As 188.979  Recovery = 100.25%
B 249.677†             24195.4      500.05 ug/L         1.512      500.05 ppb         1.512   0.30%
   QC value within limits for B 249.677  Recovery = 100.01%
Ba 233.527†            67976.3      501.73 ug/L         0.759      501.73 ppb         0.759   0.15%
   QC value within limits for Ba 233.527  Recovery = 100.35%
Be 313.107†          1487243.7      502.20 ug/L         0.187      502.20 ppb         0.187   0.04%
   QC value within limits for Be 313.107  Recovery = 100.44%
Ca 317.933Radial†       2977.0      5141.2 ug/L         78.91      5141.2 ppb         78.91   1.53%
   QC value within limits for Ca 317.933Radial  Recovery = 102.82%
Cd 226.502†            52778.4      502.54 ug/L         0.815      502.54 ppb         0.815   0.16%
   QC value within limits for Cd 226.502  Recovery = 100.51%
Co 228.616†            26268.9      496.84 ug/L         2.571      496.84 ppb         2.571   0.52%
   QC value within limits for Co 228.616  Recovery = 99.37%
Cr 267.716†            49158.6      499.97 ug/L         0.390      499.97 ppb         0.390   0.08%
   QC value within limits for Cr 267.716  Recovery = 99.99%
Cu 324.752†           167267.2      499.09 ug/L         0.435      499.09 ppb         0.435   0.09%
   QC value within limits for Cu 324.752  Recovery = 99.82%
Fe 238.204 Radial†       546.1      5252.9 ug/L         86.35      5252.9 ppb         86.35   1.64%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.06%
K 766.490 Radial†      25273.7      5110.4 ug/L         13.55      5110.4 ppb         13.55   0.27%
   QC value within limits for K 766.490 Radial  Recovery = 102.21%
Mg 279.077 IEC†          156.5      5336.7 ug/L        114.89      5336.7 ppb        114.89   2.15%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.73%
Mn 257.610†           475981.1      501.53 ug/L         0.417      501.53 ppb         0.417   0.08%
   QC value within limits for Mn 257.610  Recovery = 100.31%
Mo 202.031†            7835.0      496.18 ug/L         2.820      496.18 ppb         2.820   0.57%
   QC value within limits for Mo 202.031  Recovery = 99.24%
Na 589.592 Radial†     30817.0       10521 ug/L          37.4       10521 ppb          37.4   0.36%
   QC value within limits for Na 589.592 Radial  Recovery = 105.21%
Ni 231.604†            22417.6      496.44 ug/L         3.330      496.44 ppb         3.330   0.67%
   QC value within limits for Ni 231.604  Recovery = 99.29%
P 214.914†              5110.1      2426.6 ug/L          7.72      2426.6 ppb          7.72   0.32%
   QC value within limits for P 214.914  Recovery = 97.06%
Pb 220.353†             4804.5      501.35 ug/L         3.240      501.35 ppb         3.240   0.65%
   QC value within limits for Pb 220.353  Recovery = 100.27%
S 181.975 Axial†         879.4      993.97 ug/L         7.157      993.97 ppb         7.157   0.72%
   QC value within limits for S 181.975 Axial  Recovery = 99.40%
Sb 206.836†             1626.8      498.52 ug/L         5.826      498.52 ppb         5.826   1.17%
   QC value within limits for Sb 206.836  Recovery = 99.70%
Se 196.026†             1002.6      528.35 ug/L         2.974      528.35 ppb         2.974   0.56%
   QC value within limits for Se 196.026  Recovery = 105.67%
Si 251.611†            86071.1      2478.2 ug/L          0.95      2478.2 ppb          0.95   0.04%
   QC value within limits for Si 251.611  Recovery = 99.13%
Sn 189.927†             3306.2      494.37 ug/L         3.155      494.37 ppb         3.155   0.64%
   QC value within limits for Sn 189.927  Recovery = 98.87%
Sr 421.552†            66401.3      489.17 ug/L         1.455      489.17 ppb         1.455   0.30%
   QC value within limits for Sr 421.552  Recovery = 97.83%
Ti 334.940†           314610.9      503.82 ug/L         0.406      503.82 ppb         0.406   0.08%
   QC value within limits for Ti 334.940  Recovery = 100.76%
Tl 190.801†             1810.1      500.37 ug/L         3.937      500.37 ppb         3.937   0.79%
   QC value within limits for Tl 190.801  Recovery = 100.07%
U 409.014†             16260.7      482.94 ug/L         3.334      482.94 ppb         3.334   0.69%
   QC value within limits for U 409.014  Recovery = 96.59%
V 292.402†             78415.8      504.06 ug/L         0.180      504.06 ppb         0.180   0.04%
   QC value within limits for V 292.402  Recovery = 100.81%
Zn 213.857†            60829.7      499.33 ug/L         0.112      499.33 ppb         0.112   0.02%
   QC value within limits for Zn 213.857  Recovery = 99.87%
SiO2†                  86119.1      5292.9 ug/L         60.05      5292.9 ppb         60.05   1.13%
   QC value within limits for SiO2  Recovery = 98.98%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/7/2010 15:07:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4349.7	4349.7	94.0	%			15:09:02
1	Y RADIAL	4618.2	4618.2	94.35	%			15:09:02
1	Al 396.153Radial†	-21.9	-2.5	-2.1396	ug/L	-2.1396	ppb	15:09:02
1	Ca 317.933Radial†	18.1	5.3	9.0791	ug/L	9.0791	ppb	15:09:22
1	Fe 238.204 Radial†	13.7	1.8	17.374	ug/L	17.374	ppb	15:09:22
1	K 766.490 Radial†	3266.7	246.5	49.883	ug/L	49.883	ppb	15:09:02
1	Mg 279.077 IEC†	1.4	-0.0	-1.3918	ug/L	-1.3918	ppb	15:09:22
1	Na 589.592 Radial†	-1403.0	277.3	94.664	ug/L	94.664	ppb	15:09:02
1	Sr 421.552†	20.6	10.7	0.0785	ug/L	0.0785	ppb	15:09:02
1	Sc 361.383	844984.7	844984.7	96.753	%			15:10:19
1	Y 371.029	724308.8	724308.8	96.661	%			15:10:19
1	Ag 328.068†	400.5	-77.0	-0.3260	ug/L	-0.3260	ppb	15:10:19
1	As 188.979†	-29.0	1.5	0.5355	ug/L	0.5355	ppb	15:10:39
1	B 249.677†	-495.6	253.2	5.2522	ug/L	5.2522	ppb	15:10:19
1	Ba 233.527†	16.8	-1.2	-0.0087	ug/L	-0.0087	ppb	15:10:39
1	Be 313.107†	-4279.0	-42.5	-0.0144	ug/L	-0.0144	ppb	15:10:19
1	Cd 226.502†	-227.0	18.3	0.1734	ug/L	0.1734	ppb	15:10:39
1	Co 228.616†	-98.3	-2.5	-0.0459	ug/L	-0.0459	ppb	15:10:39
1	Cr 267.716†	90.4	3.2	0.0340	ug/L	0.0340	ppb	15:10:19
1	Cu 324.752†	7967.0	130.8	0.3908	ug/L	0.3908	ppb	15:10:19
1	Mn 257.610†	1085.7	-184.2	-0.1922	ug/L	-0.1922	ppb	15:10:19
1	Mo 202.031†	29.5	3.8	0.2411	ug/L	0.2411	ppb	15:10:39
1	Ni 231.604†	135.6	24.0	0.5313	ug/L	0.5313	ppb	15:10:39
1	P 214.914†	242.7	-1.8	-0.9769	ug/L	-0.9769	ppb	15:10:39
1	Pb 220.353†	-82.9	15.6	1.6210	ug/L	1.6210	ppb	15:10:39
1	S 181.975 Axial†	57.4	1.7	1.8913	ug/L	1.8913	ppb	15:10:39
1	Sb 206.836†	44.4	-0.3	-0.0901	ug/L	-0.0901	ppb	15:10:39
1	Se 196.026†	-27.8	10.0	5.1382	ug/L	5.1382	ppb	15:10:39
1	Si 251.611†	651.3	43.1	1.2262	ug/L	1.2262	ppb	15:10:39
1	Sn 189.927†	2.8	-1.9	-0.2791	ug/L	-0.2791	ppb	15:10:39
1	Ti 334.940†	-1724.4	-28.8	-0.0438	ug/L	-0.0438	ppb	15:10:19
1	Tl 190.801†	-44.6	-0.5	-0.1265	ug/L	-0.1265	ppb	15:10:39
1	U 409.014†	-2956.7	-147.4	-4.3939	ug/L	-4.3939	ppb	15:10:19
1	V 292.402†	-1776.1	-29.3	-0.1936	ug/L	-0.1936	ppb	15:10:19
1	Zn 213.857†	856.3	31.9	0.2597	ug/L	0.2597	ppb	15:10:39
1	SiO2†	664.1	37.7	2.2831	ug/L	2.2831	ppb	15:11:35
2	Sc Radial	4506.8	4506.8	97.4	%			15:09:27
2	Y RADIAL	4747.1	4747.1	96.98	%			15:09:27
2	Al 396.153Radial†	-14.9	5.6	4.7555	ug/L	4.7555	ppb	15:09:27
2	Ca 317.933Radial†	22.9	9.5	16.455	ug/L	16.455	ppb	15:09:47
2	Fe 238.204 Radial†	8.8	-3.7	-35.156	ug/L	-35.156	ppb	15:09:47
2	K 766.490 Radial†	3282.3	141.3	28.570	ug/L	28.570	ppb	15:09:27
2	Mg 279.077 IEC†	2.9	1.5	51.141	ug/L	51.141	ppb	15:09:47
2	Na 589.592 Radial†	-1413.5	318.5	108.75	ug/L	108.75	ppb	15:09:27
2	Sr 421.552†	-4.1	-15.5	-0.1147	ug/L	-0.1147	ppb	15:09:27
2	Sc 361.383	855649.7	855649.7	97.974	%			15:10:44
2	Y 371.029	733359.9	733359.9	97.869	%			15:10:44
2	Ag 328.068†	506.7	26.3	0.1022	ug/L	0.1022	ppb	15:10:44
2	As 188.979†	-32.8	-2.0	-0.7136	ug/L	-0.7136	ppb	15:11:04
2	B 249.677†	-471.5	284.3	5.9025	ug/L	5.9025	ppb	15:10:44
2	Ba 233.527†	-10.2	-29.0	-0.2132	ug/L	-0.2132	ppb	15:11:04
2	Be 313.107†	-4326.9	-36.3	-0.0120	ug/L	-0.0120	ppb	15:10:44
2	Cd 226.502†	-240.0	8.0	0.0796	ug/L	0.0796	ppb	15:11:04
2	Co 228.616†	-94.6	2.6	0.0501	ug/L	0.0501	ppb	15:11:04
2	Cr 267.716†	152.5	65.4	0.6638	ug/L	0.6638	ppb	15:10:44
2	Cu 324.752†	8085.5	149.0	0.4425	ug/L	0.4425	ppb	15:10:44
2	Mn 257.610†	1209.1	-72.2	-0.0805	ug/L	-0.0805	ppb	15:10:44
2	Mo 202.031†	33.6	7.6	0.4777	ug/L	0.4777	ppb	15:11:04
2	Ni 231.604†	132.1	18.6	0.4132	ug/L	0.4132	ppb	15:11:04

2	P 214.914†	267.9	20.8	10.153	ug/L	10.153 ppb	15:11:04
2	Pb 220.353†	-113.9	-14.9	-1.5493	ug/L	-1.5493 ppb	15:11:04
2	S 181.975 Axial†	68.1	11.8	13.403	ug/L	13.403 ppb	15:11:04
2	Sb 206.836†	46.5	1.3	0.4025	ug/L	0.4025 ppb	15:11:04
2	Se 196.026†	-38.4	-0.4	-0.3284	ug/L	-0.3284 ppb	15:11:04
2	Si 251.611†	628.5	11.4	0.3109	ug/L	0.3109 ppb	15:11:04
2	Sn 189.927†	8.5	3.9	0.5892	ug/L	0.5892 ppb	15:11:04
2	Ti 334.940†	-1646.3	73.1	0.1167	ug/L	0.1167 ppb	15:10:44
2	Tl 190.801†	-43.0	1.8	0.5037	ug/L	0.5037 ppb	15:11:04
2	U 409.014†	-2781.8	69.2	2.0665	ug/L	2.0665 ppb	15:10:44
2	V 292.402†	-1701.3	69.9	0.4603	ug/L	0.4603 ppb	15:10:44
2	Zn 213.857†	855.7	20.4	0.1654	ug/L	0.1654 ppb	15:11:04
2	SiO2†	655.2	20.1	1.1951	ug/L	1.1951 ppb	15:11:40
3	Sc Radial	4475.5	4475.5	96.7	%		15:09:52
3	Y RADIAL	4714.7	4714.7	96.32	%		15:09:52
3	Al 396.153Radial†	-3.0	17.7	15.252	ug/L	15.252 ppb	15:09:52
3	Ca 317.933Radial†	10.6	-3.0	-5.1907	ug/L	-5.1907 ppb	15:10:12
3	Fe 238.204 Radial†	13.6	1.3	12.839	ug/L	12.839 ppb	15:10:12
3	K 766.490 Radial†	3255.3	136.9	27.693	ug/L	27.693 ppb	15:09:52
3	Mg 279.077 IEC†	0.7	-0.8	-27.159	ug/L	-27.159 ppb	15:10:12
3	Na 589.592 Radial†	-1402.1	320.2	109.32	ug/L	109.32 ppb	15:09:52
3	Sr 421.552†	-17.8	-29.7	-0.2190	ug/L	-0.2190 ppb	15:09:52
3	Sc 361.383	860260.2	860260.2	98.502	%		15:11:10
3	Y 371.029	736775.4	736775.4	98.325	%		15:11:10
3	Ag 328.068†	426.1	-58.3	-0.2538	ug/L	-0.2538 ppb	15:11:10
3	As 188.979†	-33.8	-2.8	-0.9833	ug/L	-0.9833 ppb	15:11:30
3	B 249.677†	-496.3	261.7	5.4259	ug/L	5.4259 ppb	15:11:10
3	Ba 233.527†	9.1	-9.3	-0.0684	ug/L	-0.0684 ppb	15:11:30
3	Be 313.107†	-4374.8	-61.2	-0.0207	ug/L	-0.0207 ppb	15:11:10
3	Cd 226.502†	-253.2	-4.1	-0.0400	ug/L	-0.0400 ppb	15:11:30
3	Co 228.616†	-74.6	23.5	0.4446	ug/L	0.4446 ppb	15:11:30
3	Cr 267.716†	112.2	23.6	0.2382	ug/L	0.2382 ppb	15:11:10
3	Cu 324.752†	8034.2	52.7	0.1579	ug/L	0.1579 ppb	15:11:10
3	Mn 257.610†	1155.0	-133.7	-0.1390	ug/L	-0.1390 ppb	15:11:10
3	Mo 202.031†	31.7	5.5	0.3491	ug/L	0.3491 ppb	15:11:30
3	Ni 231.604†	131.7	17.6	0.3896	ug/L	0.3896 ppb	15:11:30
3	P 214.914†	261.1	12.4	6.0253	ug/L	6.0253 ppb	15:11:30
3	Pb 220.353†	-108.6	-8.9	-0.9274	ug/L	-0.9274 ppb	15:11:30
3	S 181.975 Axial†	67.5	10.9	12.325	ug/L	12.325 ppb	15:11:30
3	Sb 206.836†	42.1	-3.4	-1.0580	ug/L	-1.0580 ppb	15:11:30
3	Se 196.026†	-32.3	6.0	3.0810	ug/L	3.0810 ppb	15:11:30
3	Si 251.611†	634.3	13.9	0.3906	ug/L	0.3906 ppb	15:11:30
3	Sn 189.927†	-4.2	-9.0	-1.3444	ug/L	-1.3444 ppb	15:11:30
3	Ti 334.940†	-1764.4	-37.8	-0.0632	ug/L	-0.0632 ppb	15:11:10
3	Tl 190.801†	-60.2	-15.4	-4.2440	ug/L	-4.2440 ppb	15:11:30
3	U 409.014†	-2693.6	174.0	5.1821	ug/L	5.1821 ppb	15:11:10
3	V 292.402†	-1786.3	-7.1	-0.0325	ug/L	-0.0325 ppb	15:11:10
3	Zn 213.857†	867.6	27.7	0.2271	ug/L	0.2271 ppb	15:11:30
3	SiO2†	681.1	42.7	2.6156	ug/L	2.6156 ppb	15:11:45

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	853631.5	97.743	%	0.8972				0.92%
Sc Radial	4444.0	96.0	%	1.80				1.87%
Y 371.029	731481.4	97.618	%	0.8597				0.88%
Y RADIAL	4693.3	95.88	%	1.370				1.43%
Ag 328.068†	-36.4	-0.1592	ug/L	0.22921	-0.1592	ppb	0.22921	143.97%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.9	5.9561	ug/L	8.75797	5.9561	ppb	8.75797	147.04%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.1	-0.3872	ug/L	0.81030	-0.3872	ppb	0.81030	209.30%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	266.4	5.5269	ug/L	0.33671	5.5269	ppb	0.33671	6.09%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-13.2	-0.0968	ug/L	0.10515	-0.0968	ppb	0.10515	108.65%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-46.6	-0.0157	ug/L	0.00451	-0.0157	ppb	0.00451	28.73%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.9	6.7812	ug/L	11.00439	6.7812	ppb	11.00439	162.28%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                7.4      0.0710 ug/L       0.10693      0.0710 ppb        0.10693 150.60%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                7.9      0.1496 ug/L       0.25996      0.1496 ppb        0.25996 173.76%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               30.7      0.3120 ug/L       0.32129      0.3120 ppb        0.32129 102.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              110.8      0.3304 ug/L       0.15162      0.3304 ppb        0.15162  45.89%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.2     -1.6474 ug/L      29.10747     -1.6474 ppb       29.10747 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        174.9      35.382 ug/L       12.5659      35.382 ppb        12.5659  35.52%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.2      7.5301 ug/L      39.90493      7.5301 ppb       39.90493 529.94%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -130.1     -0.1372 ug/L       0.05588     -0.1372 ppb        0.05588  40.73%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                5.6      0.3560 ug/L       0.11843      0.3560 ppb        0.11843  33.27%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       305.3      104.25 ug/L         8.303      104.25 ppb          8.303   7.97%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               20.1      0.4447 ug/L       0.07592      0.4447 ppb        0.07592  17.07%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                10.5      5.0671 ug/L       5.62646      5.0671 ppb        5.62646 111.04%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -2.8     -0.2852 ug/L       1.67988     -0.2852 ppb        1.67988 588.94%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           8.1      9.2064 ug/L       6.35798      9.2064 ppb        6.35798  69.06%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -0.8     -0.2486 ug/L       0.74303     -0.2486 ppb        0.74303 298.94%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                5.2      2.6303 ug/L       2.76101      2.6303 ppb        2.76101 104.97%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               22.8      0.6426 ug/L       0.50702      0.6426 ppb        0.50702  78.90%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -2.3     -0.3448 ug/L       0.96850     -0.3448 ppb        0.96850 280.93%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -11.5     -0.0851 ug/L       0.15094     -0.0851 ppb        0.15094 177.46%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                2.2      0.0033 ug/L       0.09875      0.0033 ppb        0.09875 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -4.7     -1.2889 ug/L       2.57851     -1.2889 ppb        2.57851 200.05%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                31.9      0.9516 ug/L       4.88442      0.9516 ppb        4.88442 513.30%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                11.2      0.0781 ug/L       0.34068      0.0781 ppb        0.34068 436.36%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               26.7      0.2174 ug/L       0.04791      0.2174 ppb        0.04791  22.04%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     33.5      2.0313 ug/L       0.74296      2.0313 ppb        0.74296  36.58%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/7/2010 16:02:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4420.4	4420.4	95.5	%			16:04:39
1	Y RADIAL	4638.9	4638.9	94.77	%			16:04:39
1	Al 396.153Radial†	5484.3	5762.7	4937.7	ug/L	4937.7	ppb	16:04:39
1	Ca 317.933Radial†	2927.0	3050.5	5268.1	ug/L	5268.1	ppb	16:04:59
1	Fe 238.204 Radial†	542.8	555.5	5343.7	ug/L	5343.7	ppb	16:04:59
1	K 766.490 Radial†	27102.9	25146.6	5084.6	ug/L	5084.6	ppb	16:04:39
1	Mg 279.077 IEC†	153.2	158.9	5419.5	ug/L	5419.5	ppb	16:04:59
1	Na 589.592 Radial†	27472.2	30532.6	10424	ug/L	10424	ppb	16:04:39
1	Sr 421.552†	63064.1	66014.8	486.32	ug/L	486.32	ppb	16:04:39
1	Sc 361.383	881486.8	881486.8	100.93	%			16:05:58
1	Y 371.029	745806.0	745806.0	99.530	%			16:05:58
1	Ag 328.068†	116695.9	115126.8	503.56	ug/L	503.56	ppb	16:05:58
1	As 188.979†	1418.4	1436.8	508.38	ug/L	508.38	ppb	16:06:18
1	B 249.677†	23999.4	24543.2	507.24	ug/L	507.24	ppb	16:05:58
1	Ba 233.527†	69300.7	68641.8	506.65	ug/L	506.65	ppb	16:05:58
1	Be 313.107†	1515380.7	1505759.6	508.45	ug/L	508.45	ppb	16:05:58
1	Cd 226.502†	53619.8	53377.3	508.24	ug/L	508.24	ppb	16:05:58
1	Co 228.616†	26608.5	26461.9	500.48	ug/L	500.48	ppb	16:06:18
1	Cr 267.716†	50130.5	49577.0	504.23	ug/L	504.23	ppb	16:05:58
1	Cu 324.752†	178923.6	169166.8	504.75	ug/L	504.75	ppb	16:05:58
1	Mn 257.610†	486430.9	480630.3	506.43	ug/L	506.43	ppb	16:05:58
1	Mo 202.031†	7996.4	7895.8	500.04	ug/L	500.04	ppb	16:06:18
1	Ni 231.604†	22963.0	22634.7	501.25	ug/L	501.25	ppb	16:06:18
1	P 214.914†	5467.2	5164.0	2452.1	ug/L	2452.1	ppb	16:06:18
1	Pb 220.353†	4832.5	4889.1	510.16	ug/L	510.16	ppb	16:06:18
1	S 181.975 Axial†	950.3	883.8	998.92	ug/L	998.92	ppb	16:06:18
1	Sb 206.836†	1710.6	1648.6	505.15	ug/L	505.15	ppb	16:06:18
1	Se 196.026†	985.6	1015.3	535.12	ug/L	535.12	ppb	16:06:18
1	Si 251.611†	88985.8	87533.5	2520.5	ug/L	2520.5	ppb	16:05:58
1	Sn 189.927†	3365.3	3329.4	497.85	ug/L	497.85	ppb	16:06:18
1	Ti 334.940†	318947.9	317754.4	508.86	ug/L	508.86	ppb	16:05:58
1	Tl 190.801†	1800.4	1829.5	505.72	ug/L	505.72	ppb	16:06:18
1	U 409.014†	13602.1	16384.9	486.62	ug/L	486.62	ppb	16:05:58
1	V 292.402†	78204.4	79288.2	509.64	ug/L	509.64	ppb	16:05:58
1	Zn 213.857†	62918.3	61483.9	504.70	ug/L	504.70	ppb	16:05:58
1	SiO2†	87159.5	85705.5	5267.2	ug/L	5267.2	ppb	16:07:18
2	Sc Radial	4551.5	4551.5	98.3	%			16:05:04
2	Y RADIAL	4807.2	4807.2	98.21	%			16:05:04
2	Al 396.153Radial†	5574.8	5689.3	4874.6	ug/L	4874.6	ppb	16:05:04
2	Ca 317.933Radial†	2911.8	2946.8	5089.0	ug/L	5089.0	ppb	16:05:24
2	Fe 238.204 Radial†	545.4	541.8	5211.9	ug/L	5211.9	ppb	16:05:24
2	K 766.490 Radial†	27625.0	24860.0	5026.6	ug/L	5026.6	ppb	16:05:04
2	Mg 279.077 IEC†	156.5	157.6	5375.4	ug/L	5375.4	ppb	16:05:24
2	Na 589.592 Radial†	28017.6	30258.5	10331	ug/L	10331	ppb	16:05:04
2	Sr 421.552†	64332.8	65402.6	481.81	ug/L	481.81	ppb	16:05:04
2	Sc 361.383	881361.6	881361.6	100.92	%			16:06:26
2	Y 371.029	746491.0	746491.0	99.622	%			16:06:26
2	Ag 328.068†	116430.0	114879.7	502.44	ug/L	502.44	ppb	16:06:26
2	As 188.979†	1402.1	1420.8	502.76	ug/L	502.76	ppb	16:06:46
2	B 249.677†	24016.9	24563.8	507.69	ug/L	507.69	ppb	16:06:26
2	Ba 233.527†	69148.2	68500.5	505.60	ug/L	505.60	ppb	16:06:26
2	Be 313.107†	1513648.4	1504256.3	507.95	ug/L	507.95	ppb	16:06:26
2	Cd 226.502†	53584.1	53349.5	507.98	ug/L	507.98	ppb	16:06:26
2	Co 228.616†	26532.3	26390.1	499.13	ug/L	499.13	ppb	16:06:46
2	Cr 267.716†	50091.9	49545.9	503.90	ug/L	503.90	ppb	16:06:26
2	Cu 324.752†	178558.3	168830.0	503.74	ug/L	503.74	ppb	16:06:26
2	Mn 257.610†	485207.0	479486.0	505.21	ug/L	505.21	ppb	16:06:26
2	Mo 202.031†	7968.1	7868.9	498.33	ug/L	498.33	ppb	16:06:46
2	Ni 231.604†	22887.5	22563.1	499.67	ug/L	499.67	ppb	16:06:46

2	P 214.914†	5449.0	5146.8	2443.9 ug/L	2443.9 ppb	16:06:46
2	Pb 220.353†	4785.9	4843.7	505.42 ug/L	505.42 ppb	16:06:46
2	S 181.975 Axial†	946.6	880.4	995.03 ug/L	995.03 ppb	16:06:46
2	Sb 206.836†	1701.9	1640.3	502.62 ug/L	502.62 ppb	16:06:46
2	Se 196.026†	963.5	993.5	523.64 ug/L	523.64 ppb	16:06:46
2	Si 251.611†	88553.9	87118.2	2508.5 ug/L	2508.5 ppb	16:06:26
2	Sn 189.927†	3369.7	3334.3	498.56 ug/L	498.56 ppb	16:06:46
2	Ti 334.940†	318245.1	317103.0	507.81 ug/L	507.81 ppb	16:06:26
2	Tl 190.801†	1786.7	1816.2	502.06 ug/L	502.06 ppb	16:06:46
2	U 409.014†	13587.2	16372.2	486.26 ug/L	486.26 ppb	16:06:26
2	V 292.402†	77998.7	79095.4	508.41 ug/L	508.41 ppb	16:06:26
2	Zn 213.857†	63041.6	61614.9	505.81 ug/L	505.81 ppb	16:06:26
2	SiO2†	88138.3	86687.6	5327.9 ug/L	5327.9 ppb	16:07:24
3	Sc Radial	4354.3	4354.3	94.1 %		16:05:29
3	Y RADIAL	4584.0	4584.0	93.65 %		16:05:29
3	Al 396.153Radial†	5475.2	5840.1	5004.5 ug/L	5004.5 ppb	16:05:29
3	Ca 317.933Radial†	2894.2	3062.1	5288.2 ug/L	5288.2 ppb	16:05:49
3	Fe 238.204 Radial†	536.1	557.0	5357.8 ug/L	5357.8 ppb	16:05:49
3	K 766.490 Radial†	27039.5	25509.4	5158.0 ug/L	5158.0 ppb	16:05:29
3	Mg 279.077 IEC†	153.9	162.1	5528.4 ug/L	5528.4 ppb	16:05:49
3	Na 589.592 Radial†	27496.8	30994.8	10582 ug/L	10582 ppb	16:05:29
3	Sr 421.552†	62896.5	66837.8	492.38 ug/L	492.38 ppb	16:05:29
3	Sc 361.383	884362.3	884362.3	101.26 %		16:06:53
3	Y 371.029	747468.3	747468.3	99.752 %		16:06:53
3	Ag 328.068†	116858.0	114911.0	502.62 ug/L	502.62 ppb	16:06:53
3	As 188.979†	1413.0	1426.9	504.92 ug/L	504.92 ppb	16:07:13
3	B 249.677†	24146.7	24611.2	508.66 ug/L	508.66 ppb	16:06:53
3	Ba 233.527†	69490.1	68605.7	506.38 ug/L	506.38 ppb	16:06:53
3	Be 313.107†	1517013.2	1502490.1	507.35 ug/L	507.35 ppb	16:06:53
3	Cd 226.502†	53824.6	53406.9	508.51 ug/L	508.51 ppb	16:06:53
3	Co 228.616†	26475.1	26244.3	496.36 ug/L	496.36 ppb	16:07:13
3	Cr 267.716†	50243.4	49527.1	503.72 ug/L	503.72 ppb	16:06:53
3	Cu 324.752†	179624.7	169282.7	505.10 ug/L	505.10 ppb	16:06:53
3	Mn 257.610†	488010.6	480623.3	506.42 ug/L	506.42 ppb	16:06:53
3	Mo 202.031†	7941.5	7815.9	494.98 ug/L	494.98 ppb	16:07:13
3	Ni 231.604†	22805.3	22405.0	496.16 ug/L	496.16 ppb	16:07:13
3	P 214.914†	5416.7	5096.6	2419.0 ug/L	2419.0 ppb	16:07:13
3	Pb 220.353†	4778.6	4820.4	503.00 ug/L	503.00 ppb	16:07:13
3	S 181.975 Axial†	946.7	877.3	991.51 ug/L	991.51 ppb	16:07:13
3	Sb 206.836†	1681.1	1613.9	494.53 ug/L	494.53 ppb	16:07:13
3	Se 196.026†	976.3	1002.9	528.85 ug/L	528.85 ppb	16:07:13
3	Si 251.611†	89090.4	87350.2	2515.3 ug/L	2515.3 ppb	16:06:53
3	Sn 189.927†	3356.5	3309.9	494.94 ug/L	494.94 ppb	16:07:13
3	Ti 334.940†	320226.4	317989.6	509.24 ug/L	509.24 ppb	16:06:53
3	Tl 190.801†	1787.1	1810.5	500.53 ug/L	500.53 ppb	16:07:13
3	U 409.014†	13752.9	16490.1	489.75 ug/L	489.75 ppb	16:06:53
3	V 292.402†	78466.3	79295.0	509.61 ug/L	509.61 ppb	16:06:53
3	Zn 213.857†	63009.8	61371.6	503.80 ug/L	503.80 ppb	16:06:53
3	SiO2†	88029.2	86283.5	5303.0 ug/L	5303.0 ppb	16:07:29

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	882403.6	101.04	%	0.194				0.19%
Sc Radial	4442.1	96.0	%	2.17				2.26%
Y 371.029	746588.4	99.635	%	0.1115				0.11%
Y RADIAL	4676.7	95.54	%	2.376				2.49%
Ag 328.068†	114972.5	502.87	ug/L	0.600	502.87	ppb	0.600	0.12%
QC value within limits for Ag 328.068 Recovery = 100.57%								
Al 396.153Radial†	5764.1	4938.9	ug/L	64.94	4938.9	ppb	64.94	1.31%
QC value within limits for Al 396.153Radial Recovery = 98.78%								
As 188.979†	1428.1	505.35	ug/L	2.835	505.35	ppb	2.835	0.56%
QC value within limits for As 188.979 Recovery = 101.07%								
B 249.677†	24572.7	507.86	ug/L	0.726	507.86	ppb	0.726	0.14%
QC value within limits for B 249.677 Recovery = 101.57%								
Ba 233.527†	68582.7	506.21	ug/L	0.544	506.21	ppb	0.544	0.11%
QC value within limits for Ba 233.527 Recovery = 101.24%								
Be 313.107†	1504168.7	507.92	ug/L	0.551	507.92	ppb	0.551	0.11%
QC value within limits for Be 313.107 Recovery = 101.58%								
Ca 317.933Radial†	3019.8	5215.1	ug/L	109.66	5215.1	ppb	109.66	2.10%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.30%
Cd 226.502†            53377.9      508.25 ug/L         0.265      508.25 ppb          0.265   0.05%
   QC value within limits for Cd 226.502  Recovery = 101.65%
Co 228.616†            26365.4      498.66 ug/L         2.103      498.66 ppb          2.103   0.42%
   QC value within limits for Co 228.616  Recovery = 99.73%
Cr 267.716†            49550.0      503.95 ug/L         0.257      503.95 ppb          0.257   0.05%
   QC value within limits for Cr 267.716  Recovery = 100.79%
Cu 324.752†           169093.2      504.53 ug/L         0.705      504.53 ppb          0.705   0.14%
   QC value within limits for Cu 324.752  Recovery = 100.91%
Fe 238.204 Radial†       551.4      5304.5 ug/L         80.46      5304.5 ppb          80.46   1.52%
   QC value within limits for Fe 238.204 Radial  Recovery = 106.09%
K 766.490 Radial†      25172.0      5089.7 ug/L         65.85      5089.7 ppb          65.85   1.29%
   QC value within limits for K 766.490 Radial  Recovery = 101.79%
Mg 279.077 IEC†          159.5      5441.1 ug/L         78.70      5441.1 ppb          78.70   1.45%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.82%
Mn 257.610†           480246.5      506.02 ug/L         0.700      506.02 ppb          0.700   0.14%
   QC value within limits for Mn 257.610  Recovery = 101.20%
Mo 202.031†             7860.2      497.78 ug/L         2.573      497.78 ppb          2.573   0.52%
   QC value within limits for Mo 202.031  Recovery = 99.56%
Na 589.592 Radial†     30595.3       10446 ug/L         127.0       10446 ppb          127.0   1.22%
   QC value within limits for Na 589.592 Radial  Recovery = 104.46%
Ni 231.604†            22534.2      499.03 ug/L         2.603      499.03 ppb          2.603   0.52%
   QC value within limits for Ni 231.604  Recovery = 99.81%
P 214.914†              5135.8      2438.3 ug/L         17.24      2438.3 ppb          17.24   0.71%
   QC value within limits for P 214.914  Recovery = 97.53%
Pb 220.353†             4851.0      506.19 ug/L         3.638      506.19 ppb          3.638   0.72%
   QC value within limits for Pb 220.353  Recovery = 101.24%
S 181.975 Axial†         880.5      995.15 ug/L         3.708      995.15 ppb          3.708   0.37%
   QC value within limits for S 181.975 Axial  Recovery = 99.52%
Sb 206.836†             1634.3      500.77 ug/L         5.547      500.77 ppb          5.547   1.11%
   QC value within limits for Sb 206.836  Recovery = 100.15%
Se 196.026†             1003.9      529.20 ug/L         5.750      529.20 ppb          5.750   1.09%
   QC value within limits for Se 196.026  Recovery = 105.84%
Si 251.611†            87334.0      2514.8 ug/L          6.00      2514.8 ppb           6.00   0.24%
   QC value within limits for Si 251.611  Recovery = 100.59%
Sn 189.927†             3324.6      497.12 ug/L         1.922      497.12 ppb          1.922   0.39%
   QC value within limits for Sn 189.927  Recovery = 99.42%
Sr 421.552†            66085.1      486.84 ug/L         5.305      486.84 ppb          5.305   1.09%
   QC value within limits for Sr 421.552  Recovery = 97.37%
Ti 334.940†           317615.7      508.64 ug/L         0.741      508.64 ppb          0.741   0.15%
   QC value within limits for Ti 334.940  Recovery = 101.73%
Tl 190.801†             1818.7      502.77 ug/L         2.666      502.77 ppb          2.666   0.53%
   QC value within limits for Tl 190.801  Recovery = 100.55%
U 409.014†             16415.8      487.54 ug/L         1.923      487.54 ppb          1.923   0.39%
   QC value within limits for U 409.014  Recovery = 97.51%
V 292.402†             79226.2      509.22 ug/L         0.702      509.22 ppb          0.702   0.14%
   QC value within limits for V 292.402  Recovery = 101.84%
Zn 213.857†            61490.2      504.77 ug/L         1.005      504.77 ppb          1.005   0.20%
   QC value within limits for Zn 213.857  Recovery = 100.95%
SiO2†                  86225.5      5299.4 ug/L         30.54      5299.4 ppb          30.54   0.58%
   QC value within limits for SiO2  Recovery = 99.10%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/7/2010 16:09:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4643.3	4643.3	100	%			16:11:31
1	Y RADIAL	4907.4	4907.4	100.3	%			16:11:31
1	Al 396.153Radial†	3.8	24.7	21.201	ug/L	21.201	ppb	16:11:31
1	Ca 317.933Radial†	14.2	0.2	0.2701	ug/L	0.2701	ppb	16:11:51
1	Fe 238.204 Radial†	10.9	-1.8	-17.377	ug/L	-17.377	ppb	16:11:51
1	K 766.490 Radial†	3215.9	-24.0	-4.9024	ug/L	-4.9024	ppb	16:11:31
1	Mg 279.077 IEC†	1.0	-0.5	-17.998	ug/L	-17.998	ppb	16:11:51
1	Na 589.592 Radial†	-1404.3	370.3	126.43	ug/L	126.43	ppb	16:11:31
1	Sr 421.552†	17.0	5.7	0.0419	ug/L	0.0419	ppb	16:11:31
1	Sc 361.383	907588.9	907588.9	103.92	%			16:12:48
1	Y 371.029	775096.1	775096.1	103.44	%			16:12:48
1	Ag 328.068†	483.4	-25.7	-0.1276	ug/L	-0.1276	ppb	16:12:53
1	As 188.979†	-25.8	6.7	2.3379	ug/L	2.3379	ppb	16:13:13
1	B 249.677†	-373.0	406.5	8.4368	ug/L	8.4368	ppb	16:12:53
1	Ba 233.527†	14.9	-4.2	-0.0303	ug/L	-0.0303	ppb	16:13:13
1	Be 313.107†	-4415.5	131.3	0.0447	ug/L	0.0447	ppb	16:12:53
1	Cd 226.502†	-235.0	26.8	0.2570	ug/L	0.2570	ppb	16:13:13
1	Co 228.616†	-102.1	1.0	0.0201	ug/L	0.0201	ppb	16:13:13
1	Cr 267.716†	66.5	-26.2	-0.2704	ug/L	-0.2704	ppb	16:12:53
1	Cu 324.752†	8104.7	-304.7	-0.9097	ug/L	-0.9097	ppb	16:12:53
1	Mn 257.610†	887.6	-452.2	-0.4775	ug/L	-0.4775	ppb	16:12:53
1	Mo 202.031†	39.9	11.7	0.7371	ug/L	0.7371	ppb	16:13:13
1	Ni 231.604†	115.2	-5.3	-0.1172	ug/L	-0.1172	ppb	16:13:13
1	P 214.914†	261.3	-1.2	-0.4315	ug/L	-0.4315	ppb	16:13:13
1	Pb 220.353†	-105.2	0.1	0.0163	ug/L	0.0163	ppb	16:13:13
1	S 181.975 Axial†	56.0	-3.8	-4.2539	ug/L	-4.2539	ppb	16:13:13
1	Sb 206.836†	50.8	2.7	0.8334	ug/L	0.8334	ppb	16:13:13
1	Se 196.026†	-45.8	-5.4	-2.7697	ug/L	-2.7697	ppb	16:13:13
1	Si 251.611†	846.4	184.4	5.3230	ug/L	5.3230	ppb	16:13:13
1	Sn 189.927†	6.5	1.5	0.2289	ug/L	0.2289	ppb	16:13:13
1	Ti 334.940†	-1661.9	154.3	0.2411	ug/L	0.2411	ppb	16:12:53
1	Tl 190.801†	-47.3	0.2	0.0414	ug/L	0.0414	ppb	16:13:13
1	U 409.014†	-2535.0	469.2	13.986	ug/L	13.986	ppb	16:12:48
1	V 292.402†	-1794.2	79.9	0.5469	ug/L	0.5469	ppb	16:12:53
1	Zn 213.857†	890.9	4.2	0.0382	ug/L	0.0382	ppb	16:13:13
1	SiO2†	902.3	219.5	13.531	ug/L	13.531	ppb	16:14:19
2	Sc Radial	4168.5	4168.5	90.1	%			16:11:56
2	Y RADIAL	4412.3	4412.3	90.14	%			16:11:56
2	Al 396.153Radial†	-17.9	1.0	0.8382	ug/L	0.8382	ppb	16:11:56
2	Ca 317.933Radial†	16.1	3.8	6.6187	ug/L	6.6187	ppb	16:12:16
2	Fe 238.204 Radial†	10.8	-0.7	-6.7233	ug/L	-6.7233	ppb	16:12:16
2	K 766.490 Radial†	3353.1	493.4	99.914	ug/L	99.914	ppb	16:11:56
2	Mg 279.077 IEC†	4.7	3.7	124.96	ug/L	124.96	ppb	16:12:16
2	Na 589.592 Radial†	-1402.9	212.5	72.558	ug/L	72.558	ppb	16:11:56
2	Sr 421.552†	15.9	6.4	0.0470	ug/L	0.0470	ppb	16:11:56
2	Sc 361.383	888012.4	888012.4	101.68	%			16:13:18
2	Y 371.029	758844.2	758844.2	101.27	%			16:13:18
2	Ag 328.068†	506.6	7.3	0.0187	ug/L	0.0187	ppb	16:13:23
2	As 188.979†	-39.2	-7.1	-2.4897	ug/L	-2.4897	ppb	16:13:43
2	B 249.677†	-308.9	461.7	9.5812	ug/L	9.5812	ppb	16:13:23
2	Ba 233.527†	16.0	-2.8	-0.0198	ug/L	-0.0198	ppb	16:13:43
2	Be 313.107†	-4412.3	40.8	0.0139	ug/L	0.0139	ppb	16:13:23
2	Cd 226.502†	-243.3	13.7	0.1315	ug/L	0.1315	ppb	16:13:43
2	Co 228.616†	-113.7	-12.6	-0.2380	ug/L	-0.2380	ppb	16:13:43
2	Cr 267.716†	85.4	-6.3	-0.0680	ug/L	-0.0680	ppb	16:13:23
2	Cu 324.752†	8188.5	-50.5	-0.1508	ug/L	-0.1508	ppb	16:13:23
2	Mn 257.610†	923.7	-397.9	-0.4219	ug/L	-0.4219	ppb	16:13:23
2	Mo 202.031†	32.4	5.1	0.3251	ug/L	0.3251	ppb	16:13:43
2	Ni 231.604†	133.1	14.7	0.3270	ug/L	0.3270	ppb	16:13:43

2	P 214.914†	262.6	5.6	2.7882 ug/L	2.7882 ppb	16:13:43
2	Pb 220.353†	-91.1	11.7	1.2162 ug/L	1.2162 ppb	16:13:43
2	S 181.975 Axial†	62.6	3.9	4.3799 ug/L	4.3799 ppb	16:13:43
2	Sb 206.836†	35.9	-10.8	-3.2750 ug/L	-3.2750 ppb	16:13:43
2	Se 196.026†	-32.0	7.3	3.7122 ug/L	3.7122 ppb	16:13:43
2	Si 251.611†	819.5	175.9	5.0524 ug/L	5.0524 ppb	16:13:43
2	Sn 189.927†	0.9	-3.9	-0.5815 ug/L	-0.5815 ppb	16:13:43
2	Ti 334.940†	-1717.4	64.4	0.0970 ug/L	0.0970 ppb	16:13:23
2	Tl 190.801†	-47.2	-0.8	-0.2179 ug/L	-0.2179 ppb	16:13:43
2	U 409.014†	-2450.9	498.1	14.845 ug/L	14.845 ppb	16:13:18
2	V 292.402†	-1756.9	78.6	0.5356 ug/L	0.5356 ppb	16:13:23
2	Zn 213.857†	870.5	3.0	0.0189 ug/L	0.0189 ppb	16:13:43
2	SiO2†	911.6	247.8	15.222 ug/L	15.222 ppb	16:14:24
3	Sc Radial	4420.8	4420.8	95.5 %		16:12:21
3	Y RADIAL	4690.7	4690.7	95.83 %		16:12:21
3	Al 396.153Radial†	23.7	45.7	39.299 ug/L	39.299 ppb	16:12:21
3	Ca 317.933Radial†	17.2	4.0	6.9571 ug/L	6.9571 ppb	16:12:41
3	Fe 238.204 Radial†	10.7	-1.6	-15.000 ug/L	-15.000 ppb	16:12:41
3	K 766.490 Radial†	3277.3	201.7	40.811 ug/L	40.811 ppb	16:12:21
3	Mg 279.077 IEC†	-0.6	-2.1	-71.659 ug/L	-71.659 ppb	16:12:41
3	Na 589.592 Radial†	-1394.0	310.7	106.07 ug/L	106.07 ppb	16:12:21
3	Sr 421.552†	9.1	-1.8	-0.0133 ug/L	-0.0133 ppb	16:12:21
3	Sc 361.383	902477.0	902477.0	103.34 %		16:13:48
3	Y 371.029	771067.0	771067.0	102.90 %		16:13:48
3	Ag 328.068†	548.4	39.8	0.1574 ug/L	0.1574 ppb	16:13:53
3	As 188.979†	-35.3	-2.7	-0.9537 ug/L	-0.9537 ppb	16:14:13
3	B 249.677†	-285.7	489.0	10.148 ug/L	10.148 ppb	16:13:53
3	Ba 233.527†	-14.8	-32.9	-0.2403 ug/L	-0.2403 ppb	16:14:13
3	Be 313.107†	-4351.2	169.4	0.0579 ug/L	0.0579 ppb	16:13:53
3	Cd 226.502†	-229.8	30.5	0.2925 ug/L	0.2925 ppb	16:14:13
3	Co 228.616†	-107.5	-4.9	-0.0922 ug/L	-0.0922 ppb	16:14:13
3	Cr 267.716†	114.8	20.9	0.2080 ug/L	0.2080 ppb	16:13:53
3	Cu 324.752†	8281.7	-89.3	-0.2671 ug/L	-0.2671 ppb	16:13:53
3	Mn 257.610†	845.0	-488.6	-0.5146 ug/L	-0.5146 ppb	16:13:53
3	Mo 202.031†	29.9	2.2	0.1366 ug/L	0.1366 ppb	16:14:13
3	Ni 231.604†	129.6	9.3	0.2060 ug/L	0.2060 ppb	16:14:13
3	P 214.914†	251.8	-8.9	-4.3354 ug/L	-4.3354 ppb	16:14:13
3	Pb 220.353†	-97.2	7.2	0.7619 ug/L	0.7619 ppb	16:14:13
3	S 181.975 Axial†	64.1	4.4	4.9408 ug/L	4.9408 ppb	16:14:13
3	Sb 206.836†	62.6	14.4	4.2996 ug/L	4.2996 ppb	16:14:13
3	Se 196.026†	-45.4	-5.1	-2.6530 ug/L	-2.6530 ppb	16:14:13
3	Si 251.611†	833.0	176.0	5.0848 ug/L	5.0848 ppb	16:14:13
3	Sn 189.927†	-12.2	-16.5	-2.4696 ug/L	-2.4696 ppb	16:14:13
3	Ti 334.940†	-1561.1	242.8	0.3819 ug/L	0.3819 ppb	16:13:53
3	Tl 190.801†	-41.8	5.3	1.4471 ug/L	1.4471 ppb	16:14:13
3	U 409.014†	-2433.7	553.4	16.494 ug/L	16.494 ppb	16:13:48
3	V 292.402†	-1708.9	152.6	1.0024 ug/L	1.0024 ppb	16:13:53
3	Zn 213.857†	888.7	6.9	0.0592 ug/L	0.0592 ppb	16:14:13
3	SiO2†	839.4	163.6	10.084 ug/L	10.084 ppb	16:14:29

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	899359.4	102.98	%	1.163				1.13%
Sc Radial	4410.9	95.3	%	5.13				5.39%
Y 371.029	768335.8	102.54	%	1.129				1.10%
Y RADIAL	4670.1	95.41	%	5.071				5.31%
Ag 328.068†	7.1	0.0162	ug/L	0.14249	0.0162	ppb	0.14249	880.37%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	23.8	20.446	ug/L	19.2414	20.446	ppb	19.2414	94.11%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.0	-0.3685	ug/L	2.46642	-0.3685	ppb	2.46642	669.26%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	452.4	9.3886	ug/L	0.87156	9.3886	ppb	0.87156	9.28%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-13.3	-0.0968	ug/L	0.12439	-0.0968	ppb	0.12439	128.53%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	113.8	0.0388	ug/L	0.02254	0.0388	ppb	0.02254	58.04%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.7	4.6153	ug/L	3.76685	4.6153	ppb	3.76685	81.62%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              23.7      0.2270 ug/L       0.08461      0.2270 ppb        0.08461  37.27%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -5.5     -0.1034 ug/L       0.12941     -0.1034 ppb        0.12941 125.19%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -3.9     -0.0435 ug/L       0.24016     -0.0435 ppb        0.24016 552.33%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -148.2     -0.4425 ug/L       0.40870     -0.4425 ppb        0.40870  92.35%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -1.4     -13.033 ug/L        5.5924     -13.033 ppb         5.5924  42.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       223.7      45.274 ug/L       52.5506      45.274 ppb        52.5506 116.07%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.3      11.767 ug/L      101.6326      11.767 ppb       101.6326 863.69%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†            -446.3     -0.4713 ug/L       0.04665     -0.4713 ppb        0.04665   9.90%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               6.3      0.3996 ug/L       0.30708      0.3996 ppb        0.30708  76.85%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      297.8      101.69 ug/L        27.202      101.69 ppb         27.202  26.75%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               6.3      0.1386 ug/L       0.22965      0.1386 ppb        0.22965 165.68%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -1.5     -0.6596 ug/L       3.56728     -0.6596 ppb        3.56728 540.84%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               6.3      0.6648 ug/L       0.60581      0.6648 ppb        0.60581  91.13%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.5      1.6889 ug/L       5.15430      1.6889 ppb        5.15430 305.18%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               2.1      0.6193 ug/L       3.79180      0.6193 ppb        3.79180 612.24%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.1     -0.5701 ug/L       3.70910     -0.5701 ppb        3.70910 650.57%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             178.8      5.1534 ug/L       0.14775      5.1534 ppb        0.14775   2.87%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -6.3     -0.9407 ug/L       1.38465     -0.9407 ppb        1.38465 147.19%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               3.4      0.0252 ug/L       0.03342      0.0252 ppb        0.03342 132.48%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             153.8      0.2400 ug/L       0.14241      0.2400 ppb        0.14241  59.34%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               1.5      0.4235 ug/L       0.89588      0.4235 ppb        0.89588 211.52%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              506.9      15.108 ug/L        1.2743      15.108 ppb         1.2743   8.43%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              103.7      0.6950 ug/L       0.26629      0.6950 ppb        0.26629  38.32%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               4.7      0.0388 ug/L       0.02014      0.0388 ppb        0.02014  51.95%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   210.3      12.946 ug/L        2.6185      12.946 ppb         2.6185  20.23%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 20
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/7/2010 17:11:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4555.8	4555.8	98.4	%			17:13:40
1	Y RADIAL	4765.6	4765.6	97.36	%			17:13:40
1	Al 396.153Radial†	5696.2	5807.3	4976.2	ug/L	4976.2	ppb	17:13:40
1	Ca 317.933Radial†	2940.1	2972.7	5133.8	ug/L	5133.8	ppb	17:14:00
1	Fe 238.204 Radial†	540.0	535.9	5155.0	ug/L	5155.0	ppb	17:14:00
1	K 766.490 Radial†	27637.2	24845.7	5023.8	ug/L	5023.8	ppb	17:13:40
1	Mg 279.077 IEC†	156.6	157.5	5373.6	ug/L	5373.6	ppb	17:14:00
1	Na 589.592 Radial†	27560.3	29766.9	10163	ug/L	10163	ppb	17:13:40
1	Sr 421.552†	64343.9	65351.8	481.43	ug/L	481.43	ppb	17:13:40
1	Sc 361.383	894809.6	894809.6	102.46	%			17:14:59
1	Y 371.029	757386.1	757386.1	101.08	%			17:14:59
1	Ag 328.068†	117306.3	114001.1	498.59	ug/L	498.59	ppb	17:14:59
1	As 188.979†	1418.4	1415.9	500.99	ug/L	500.99	ppb	17:15:19
1	B 249.677†	23842.6	24036.1	496.76	ug/L	496.76	ppb	17:14:59
1	Ba 233.527†	69506.8	67820.7	500.59	ug/L	500.59	ppb	17:14:59
1	Be 313.107†	1522298.5	1490157.5	503.19	ug/L	503.19	ppb	17:14:59
1	Cd 226.502†	53722.3	52686.4	501.67	ug/L	501.67	ppb	17:14:59
1	Co 228.616†	26783.9	26240.6	496.30	ug/L	496.30	ppb	17:15:19
1	Cr 267.716†	50363.1	49064.6	499.01	ug/L	499.01	ppb	17:14:59
1	Cu 324.752†	180467.4	168034.2	501.37	ug/L	501.37	ppb	17:14:59
1	Mn 257.610†	488246.3	475226.6	500.72	ug/L	500.72	ppb	17:14:59
1	Mo 202.031†	8042.7	7823.1	495.42	ug/L	495.42	ppb	17:15:19
1	Ni 231.604†	23059.9	22390.5	495.84	ug/L	495.84	ppb	17:15:19
1	P 214.914†	5507.6	5122.8	2432.5	ug/L	2432.5	ppb	17:15:19
1	Pb 220.353†	4832.3	4817.7	502.74	ug/L	502.74	ppb	17:15:19
1	S 181.975 Axial†	943.0	862.7	975.08	ug/L	975.08	ppb	17:15:19
1	Sb 206.836†	1712.2	1625.0	497.94	ug/L	497.94	ppb	17:15:19
1	Se 196.026†	991.2	1006.2	529.91	ug/L	529.91	ppb	17:15:19
1	Si 251.611†	88976.0	86211.3	2482.4	ug/L	2482.4	ppb	17:14:59
1	Sn 189.927†	3375.0	3289.3	491.84	ug/L	491.84	ppb	17:15:19
1	Ti 334.940†	320808.9	314865.9	504.23	ug/L	504.23	ppb	17:14:59
1	Tl 190.801†	1818.6	1820.6	503.26	ug/L	503.26	ppb	17:15:19
1	U 409.014†	13807.2	16384.5	486.64	ug/L	486.64	ppb	17:14:59
1	V 292.402†	78590.4	78511.3	504.68	ug/L	504.68	ppb	17:14:59
1	Zn 213.857†	63172.1	60803.4	499.12	ug/L	499.12	ppb	17:14:59
1	SiO2†	89086.4	86300.5	5304.2	ug/L	5304.2	ppb	17:16:19
2	Sc Radial	4416.8	4416.8	95.4	%			17:14:05
2	Y RADIAL	4674.2	4674.2	95.49	%			17:14:05
2	Al 396.153Radial†	5579.8	5867.5	5028.0	ug/L	5028.0	ppb	17:14:05
2	Ca 317.933Radial†	2923.9	3049.7	5266.8	ug/L	5266.8	ppb	17:14:25
2	Fe 238.204 Radial†	538.6	551.6	5306.1	ug/L	5306.1	ppb	17:14:25
2	K 766.490 Radial†	27270.9	25345.8	5125.1	ug/L	5125.1	ppb	17:14:05
2	Mg 279.077 IEC†	155.7	161.7	5514.6	ug/L	5514.6	ppb	17:14:25
2	Na 589.592 Radial†	26936.9	29995.1	10241	ug/L	10241	ppb	17:14:05
2	Sr 421.552†	63108.2	66114.7	487.05	ug/L	487.05	ppb	17:14:05
2	Sc 361.383	891194.5	891194.5	102.04	%			17:15:26
2	Y 371.029	754269.3	754269.3	100.66	%			17:15:26
2	Ag 328.068†	116754.6	113924.9	498.31	ug/L	498.31	ppb	17:15:26
2	As 188.979†	1413.9	1417.1	501.44	ug/L	501.44	ppb	17:15:46
2	B 249.677†	23800.7	24089.4	497.84	ug/L	497.84	ppb	17:15:26
2	Ba 233.527†	69235.7	67830.2	500.66	ug/L	500.66	ppb	17:15:26
2	Be 313.107†	1515425.0	1489448.7	502.95	ug/L	502.95	ppb	17:15:26
2	Cd 226.502†	53387.1	52570.6	500.55	ug/L	500.55	ppb	17:15:26
2	Co 228.616†	26756.1	26319.3	497.79	ug/L	497.79	ppb	17:15:46
2	Cr 267.716†	50084.6	48991.1	498.27	ug/L	498.27	ppb	17:15:26
2	Cu 324.752†	179531.7	167831.8	500.77	ug/L	500.77	ppb	17:15:26
2	Mn 257.610†	486238.1	475191.6	500.70	ug/L	500.70	ppb	17:15:26
2	Mo 202.031†	8033.9	7846.2	496.90	ug/L	496.90	ppb	17:15:46
2	Ni 231.604†	23041.2	22463.5	497.46	ug/L	497.46	ppb	17:15:46

2	P 214.914†	5478.7	5116.3	2429.4	ug/L	2429.4 ppb	17:15:46
2	Pb 220.353†	4839.0	4843.3	505.41	ug/L	505.41 ppb	17:15:46
2	S 181.975 Axial†	958.4	881.6	996.35	ug/L	996.35 ppb	17:15:46
2	Sb 206.836†	1705.9	1625.6	498.22	ug/L	498.22 ppb	17:15:46
2	Se 196.026†	982.2	1001.3	527.91	ug/L	527.91 ppb	17:15:46
2	Si 251.611†	88584.2	86179.7	2481.4	ug/L	2481.4 ppb	17:15:26
2	Sn 189.927†	3381.6	3309.2	494.82	ug/L	494.82 ppb	17:15:46
2	Ti 334.940†	319248.6	314607.0	503.82	ug/L	503.82 ppb	17:15:26
2	Tl 190.801†	1808.7	1818.1	502.56	ug/L	502.56 ppb	17:15:46
2	U 409.014†	13677.5	16312.1	484.47	ug/L	484.47 ppb	17:15:26
2	V 292.402†	78231.7	78470.9	504.42	ug/L	504.42 ppb	17:15:26
2	Zn 213.857†	62884.0	60771.3	498.83	ug/L	498.83 ppb	17:15:26
2	SiO2†	89606.9	87163.2	5357.3	ug/L	5357.3 ppb	17:16:24
3	Sc Radial	4548.2	4548.2	98.3	%		17:14:30
3	Y RADIAL	4806.6	4806.6	98.20	%		17:14:30
3	Al 396.153Radial†	5656.5	5776.6	4949.5	ug/L	4949.5 ppb	17:14:30
3	Ca 317.933Radial†	2948.3	2986.0	5156.7	ug/L	5156.7 ppb	17:14:50
3	Fe 238.204 Radial†	540.0	536.7	5163.3	ug/L	5163.3 ppb	17:14:50
3	K 766.490 Radial†	27482.5	24735.3	5001.5	ug/L	5001.5 ppb	17:14:30
3	Mg 279.077 IEC†	156.0	157.3	5364.2	ug/L	5364.2 ppb	17:14:50
3	Na 589.592 Radial†	27060.9	29305.6	10005	ug/L	10005 ppb	17:14:30
3	Sr 421.552†	63872.9	64982.0	478.71	ug/L	478.71 ppb	17:14:30
3	Sc 361.383	885045.6	885045.6	101.34	%		17:15:54
3	Y 371.029	748474.3	748474.3	99.886	%		17:15:54
3	Ag 328.068†	116086.9	114061.0	498.85	ug/L	498.85 ppb	17:15:54
3	As 188.979†	1424.7	1437.4	508.54	ug/L	508.54 ppb	17:16:14
3	B 249.677†	23679.5	24131.9	498.73	ug/L	498.73 ppb	17:15:54
3	Ba 233.527†	68977.6	68047.0	502.25	ug/L	502.25 ppb	17:15:54
3	Be 313.107†	1509079.1	1493504.3	504.32	ug/L	504.32 ppb	17:15:54
3	Cd 226.502†	53308.1	52856.2	503.29	ug/L	503.29 ppb	17:15:54
3	Co 228.616†	26803.7	26548.4	502.13	ug/L	502.13 ppb	17:16:14
3	Cr 267.716†	49906.2	49156.0	499.94	ug/L	499.94 ppb	17:15:54
3	Cu 324.752†	178470.8	168007.2	501.29	ug/L	501.29 ppb	17:15:54
3	Mn 257.610†	484719.0	477003.2	502.59	ug/L	502.59 ppb	17:15:54
3	Mo 202.031†	8052.0	7918.8	501.48	ug/L	501.48 ppb	17:16:14
3	Ni 231.604†	23073.8	22652.5	501.65	ug/L	501.65 ppb	17:16:14
3	P 214.914†	5478.5	5153.4	2447.6	ug/L	2447.6 ppb	17:16:14
3	Pb 220.353†	4861.5	4898.6	511.16	ug/L	511.16 ppb	17:16:14
3	S 181.975 Axial†	951.1	880.8	995.54	ug/L	995.54 ppb	17:16:14
3	Sb 206.836†	1721.8	1652.9	506.58	ug/L	506.58 ppb	17:16:14
3	Se 196.026†	995.3	1020.9	537.41	ug/L	537.41 ppb	17:16:14
3	Si 251.611†	88212.4	86415.9	2488.2	ug/L	2488.2 ppb	17:15:54
3	Sn 189.927†	3379.5	3330.1	497.93	ug/L	497.93 ppb	17:16:14
3	Ti 334.940†	317989.4	315538.0	505.31	ug/L	505.31 ppb	17:15:54
3	Tl 190.801†	1817.4	1839.1	508.31	ug/L	508.31 ppb	17:16:14
3	U 409.014†	13554.0	16283.3	483.62	ug/L	483.62 ppb	17:15:54
3	V 292.402†	77734.7	78513.2	504.77	ug/L	504.77 ppb	17:15:54
3	Zn 213.857†	62743.5	61060.8	501.21	ug/L	501.21 ppb	17:15:54
3	SiO2†	87312.5	85509.2	5255.0	ug/L	5255.0 ppb	17:16:30

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	890349.9	101.95	%	0.565				0.55%
Sc Radial	4506.9	97.4	%	1.69				1.73%
Y 371.029	753376.6	100.54	%	0.604				0.60%
Y RADIAL	4748.8	97.02	%	1.385				1.43%
Ag 328.068†	113995.6	498.58	ug/L	0.273	498.58	ppb	0.273	0.05%
QC value within limits for Ag 328.068 Recovery = 99.72%								
Al 396.153Radial†	5817.1	4984.6	ug/L	39.90	4984.6	ppb	39.90	0.80%
QC value within limits for Al 396.153Radial Recovery = 99.69%								
As 188.979†	1423.5	503.66	ug/L	4.233	503.66	ppb	4.233	0.84%
QC value within limits for As 188.979 Recovery = 100.73%								
B 249.677†	24085.8	497.77	ug/L	0.987	497.77	ppb	0.987	0.20%
QC value within limits for B 249.677 Recovery = 99.55%								
Ba 233.527†	67899.3	501.17	ug/L	0.942	501.17	ppb	0.942	0.19%
QC value within limits for Ba 233.527 Recovery = 100.23%								
Be 313.107†	1491036.8	503.48	ug/L	0.731	503.48	ppb	0.731	0.15%
QC value within limits for Be 313.107 Recovery = 100.70%								
Ca 317.933Radial†	3002.8	5185.8	ug/L	71.11	5185.8	ppb	71.11	1.37%

```
   QC value within limits for Ca 317.933Radial  Recovery = 103.72%
Cd 226.502†            52704.4      501.84 ug/L         1.376      501.84 ppb          1.376   0.27%
   QC value within limits for Cd 226.502  Recovery = 100.37%
Co 228.616†            26369.4      498.74 ug/L         3.031      498.74 ppb          3.031   0.61%
   QC value within limits for Co 228.616  Recovery = 99.75%
Cr 267.716†            49070.5      499.07 ug/L         0.838      499.07 ppb          0.838   0.17%
   QC value within limits for Cr 267.716  Recovery = 99.81%
Cu 324.752†           167957.7      501.14 ug/L         0.323      501.14 ppb          0.323   0.06%
   QC value within limits for Cu 324.752  Recovery = 100.23%
Fe 238.204 Radial†       541.4      5208.2 ug/L        84.95      5208.2 ppb         84.95   1.63%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.16%
K 766.490 Radial†      24975.6      5050.2 ug/L        65.85      5050.2 ppb         65.85   1.30%
   QC value within limits for K 766.490 Radial  Recovery = 101.00%
Mg 279.077 IEC†          158.8      5417.5 ug/L        84.27      5417.5 ppb         84.27   1.56%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.35%
Mn 257.610†           475807.1      501.34 ug/L         1.088      501.34 ppb          1.088   0.22%
   QC value within limits for Mn 257.610  Recovery = 100.27%
Mo 202.031†             7862.7      497.93 ug/L         3.158      497.93 ppb          3.158   0.63%
   QC value within limits for Mo 202.031  Recovery = 99.59%
Na 589.592 Radial†     29689.2       10136 ug/L       119.9        10136 ppb        119.9   1.18%
   QC value within limits for Na 589.592 Radial  Recovery = 101.36%
Ni 231.604†            22502.2      498.32 ug/L         2.994      498.32 ppb          2.994   0.60%
   QC value within limits for Ni 231.604  Recovery = 99.66%
P 214.914†              5130.9      2436.5 ug/L         9.74      2436.5 ppb          9.74   0.40%
   QC value within limits for P 214.914  Recovery = 97.46%
Pb 220.353†             4853.2      506.44 ug/L         4.303      506.44 ppb          4.303   0.85%
   QC value within limits for Pb 220.353  Recovery = 101.29%
S 181.975 Axial†         875.0      988.99 ug/L        12.055      988.99 ppb         12.055   1.22%
   QC value within limits for S 181.975 Axial  Recovery = 98.90%
Sb 206.836†             1634.5      500.91 ug/L         4.910      500.91 ppb          4.910   0.98%
   QC value within limits for Sb 206.836  Recovery = 100.18%
Se 196.026†             1009.5      531.74 ug/L         5.009      531.74 ppb          5.009   0.94%
   QC value within limits for Se 196.026  Recovery = 106.35%
Si 251.611†            86269.0      2484.0 ug/L         3.67      2484.0 ppb          3.67   0.15%
   QC value within limits for Si 251.611  Recovery = 99.36%
Sn 189.927†             3309.5      494.86 ug/L         3.049      494.86 ppb          3.049   0.62%
   QC value within limits for Sn 189.927  Recovery = 98.97%
Sr 421.552†            65482.8      482.40 ug/L         4.255      482.40 ppb          4.255   0.88%
   QC value within limits for Sr 421.552  Recovery = 96.48%
Ti 334.940†           315003.6      504.45 ug/L         0.768      504.45 ppb          0.768   0.15%
   QC value within limits for Ti 334.940  Recovery = 100.89%
Tl 190.801†             1825.9      504.71 ug/L         3.140      504.71 ppb          3.140   0.62%
   QC value within limits for Tl 190.801  Recovery = 100.94%
U 409.014†             16326.7      484.91 ug/L         1.558      484.91 ppb          1.558   0.32%
   QC value within limits for U 409.014  Recovery = 96.98%
V 292.402†             78498.5      504.62 ug/L         0.181      504.62 ppb          0.181   0.04%
   QC value within limits for V 292.402  Recovery = 100.92%
Zn 213.857†            60878.5      499.72 ug/L         1.300      499.72 ppb          1.300   0.26%
   QC value within limits for Zn 213.857  Recovery = 99.94%
SiO2†                  86324.3      5305.5 ug/L        51.14      5305.5 ppb         51.14   0.96%
   QC value within limits for SiO2  Recovery = 99.21%
All analyte(s) passed QC.
```

Sequence No.: 21
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/7/2010 17:18:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4583.0	4583.0	99.0	%			17:20:32
1	Y RADIAL	4841.4	4841.4	98.91	%			17:20:32
1	Al 396.153Radial†	-36.4	-15.9	-13.739	ug/L	-13.739	ppb	17:20:32
1	Ca 317.933Radial†	13.2	-0.6	-1.1171	ug/L	-1.1171	ppb	17:20:52
1	Fe 238.204 Radial†	11.2	-1.4	-13.710	ug/L	-13.710	ppb	17:20:52
1	K 766.490 Radial†	3361.1	164.9	33.346	ug/L	33.346	ppb	17:20:32
1	Mg 279.077 IEC†	0.8	-0.7	-24.350	ug/L	-24.350	ppb	17:20:52
1	Na 589.592 Radial†	-1415.1	341.0	116.43	ug/L	116.43	ppb	17:20:32
1	Sr 421.552†	25.7	14.6	0.1079	ug/L	0.1079	ppb	17:20:32
1	Sc 361.383	854861.9	854861.9	97.884	%			17:21:49
1	Y 371.029	731844.2	731844.2	97.667	%			17:21:49
1	Ag 328.068†	392.6	-89.9	-0.3998	ug/L	-0.3998	ppb	17:21:49
1	As 188.979†	-33.2	-2.5	-0.8653	ug/L	-0.8653	ppb	17:22:09
1	B 249.677†	-608.5	143.8	2.9860	ug/L	2.9860	ppb	17:21:49
1	Ba 233.527†	-1.6	-20.2	-0.1491	ug/L	-0.1491	ppb	17:22:09
1	Be 313.107†	-4361.3	-75.4	-0.0252	ug/L	-0.0252	ppb	17:21:49
1	Cd 226.502†	-246.0	1.6	0.0170	ug/L	0.0170	ppb	17:22:09
1	Co 228.616†	-99.0	-2.0	-0.0360	ug/L	-0.0360	ppb	17:22:09
1	Cr 267.716†	146.3	59.2	0.5993	ug/L	0.5993	ppb	17:21:49
1	Cu 324.752†	8187.8	261.2	0.7781	ug/L	0.7781	ppb	17:21:49
1	Mn 257.610†	853.3	-434.6	-0.4584	ug/L	-0.4584	ppb	17:21:49
1	Mo 202.031†	35.8	9.9	0.6249	ug/L	0.6249	ppb	17:22:09
1	Ni 231.604†	129.8	16.5	0.3659	ug/L	0.3659	ppb	17:22:09
1	P 214.914†	241.9	-5.5	-2.8246	ug/L	-2.8246	ppb	17:22:09
1	Pb 220.353†	-80.9	18.7	1.9398	ug/L	1.9398	ppb	17:22:09
1	S 181.975 Axial†	64.4	8.1	9.2106	ug/L	9.2106	ppb	17:22:09
1	Sb 206.836†	46.3	1.1	0.3069	ug/L	0.3069	ppb	17:22:09
1	Se 196.026†	-46.0	-8.2	-4.2239	ug/L	-4.2239	ppb	17:22:09
1	Si 251.611†	698.9	84.0	2.4128	ug/L	2.4128	ppb	17:22:09
1	Sn 189.927†	-5.3	-10.1	-1.5095	ug/L	-1.5095	ppb	17:22:09
1	Ti 334.940†	-1659.7	57.8	0.0901	ug/L	0.0901	ppb	17:21:49
1	Tl 190.801†	-56.1	-11.6	-3.1899	ug/L	-3.1899	ppb	17:22:09
1	U 409.014†	-2681.8	168.8	5.0300	ug/L	5.0300	ppb	17:21:49
1	V 292.402†	-1784.3	-16.4	-0.0843	ug/L	-0.0843	ppb	17:21:49
1	Zn 213.857†	872.5	38.3	0.3150	ug/L	0.3150	ppb	17:22:09
1	SiO2†	734.0	101.1	6.2081	ug/L	6.2081	ppb	17:23:05
2	Sc Radial	4529.8	4529.8	97.9	%			17:20:57
2	Y RADIAL	4820.8	4820.8	98.49	%			17:20:57
2	Al 396.153Radial†	1.7	22.6	19.454	ug/L	19.454	ppb	17:20:57
2	Ca 317.933Radial†	19.6	6.0	10.428	ug/L	10.428	ppb	17:21:17
2	Fe 238.204 Radial†	10.3	-2.2	-21.096	ug/L	-21.096	ppb	17:21:17
2	K 766.490 Radial†	3246.4	87.5	17.687	ug/L	17.687	ppb	17:20:57
2	Mg 279.077 IEC†	2.5	1.0	34.136	ug/L	34.136	ppb	17:21:17
2	Na 589.592 Radial†	-1492.8	244.8	83.595	ug/L	83.595	ppb	17:20:57
2	Sr 421.552†	-17.8	-29.4	-0.2170	ug/L	-0.2170	ppb	17:20:57
2	Sc 361.383	885365.2	885365.2	101.38	%			17:22:14
2	Y 371.029	759799.5	759799.5	101.40	%			17:22:14
2	Ag 328.068†	472.5	-24.9	-0.1149	ug/L	-0.1149	ppb	17:22:14
2	As 188.979†	-26.5	5.4	1.8793	ug/L	1.8793	ppb	17:22:34
2	B 249.677†	-581.1	192.2	3.9906	ug/L	3.9906	ppb	17:22:14
2	Ba 233.527†	5.1	-13.5	-0.0982	ug/L	-0.0982	ppb	17:22:34
2	Be 313.107†	-4422.2	17.9	0.0067	ug/L	0.0067	ppb	17:22:14
2	Cd 226.502†	-248.8	7.6	0.0744	ug/L	0.0744	ppb	17:22:34
2	Co 228.616†	-91.7	8.8	0.1667	ug/L	0.1667	ppb	17:22:34
2	Cr 267.716†	147.0	54.7	0.5557	ug/L	0.5557	ppb	17:22:14
2	Cu 324.752†	8246.3	30.7	0.0904	ug/L	0.0904	ppb	17:22:14
2	Mn 257.610†	788.7	-528.4	-0.5590	ug/L	-0.5590	ppb	17:22:14
2	Mo 202.031†	36.6	9.4	0.5916	ug/L	0.5916	ppb	17:22:34
2	Ni 231.604†	134.2	16.2	0.3593	ug/L	0.3593	ppb	17:22:34

2	P 214.914†	255.2	-0.9	-0.4094	ug/L	-0.4094	ppb	17:22:34
2	Pb 220.353†	-92.6	10.0	1.0456	ug/L	1.0456	ppb	17:22:34
2	S 181.975 Axial†	62.8	4.3	4.8156	ug/L	4.8156	ppb	17:22:34
2	Sb 206.836†	36.7	-9.9	-2.9923	ug/L	-2.9923	ppb	17:22:34
2	Se 196.026†	-41.3	-2.0	-1.0854	ug/L	-1.0854	ppb	17:22:34
2	Si 251.611†	692.4	53.0	1.5147	ug/L	1.5147	ppb	17:22:34
2	Sn 189.927†	7.4	2.6	0.3872	ug/L	0.3872	ppb	17:22:34
2	Ti 334.940†	-1569.3	205.4	0.3280	ug/L	0.3280	ppb	17:22:14
2	Tl 190.801†	-41.9	4.3	1.1898	ug/L	1.1898	ppb	17:22:34
2	U 409.014†	-2838.8	108.3	3.2287	ug/L	3.2287	ppb	17:22:14
2	V 292.402†	-1706.3	123.3	0.8004	ug/L	0.8004	ppb	17:22:14
2	Zn 213.857†	871.8	6.9	0.0543	ug/L	0.0543	ppb	17:22:34
2	SiO2†	676.5	18.6	1.1078	ug/L	1.1078	ppb	17:23:10
3	Sc Radial	4489.2	4489.2	97.0	%			17:21:22
3	Y RADIAL	4758.1	4758.1	97.21	%			17:21:22
3	Al 396.153Radial†	9.2	30.3	26.058	ug/L	26.058	ppb	17:21:22
3	Ca 317.933Radial†	19.6	6.2	10.673	ug/L	10.673	ppb	17:21:42
3	Fe 238.204 Radial†	8.2	-4.3	-41.436	ug/L	-41.436	ppb	17:21:42
3	K 766.490 Radial†	3190.3	59.6	12.031	ug/L	12.031	ppb	17:21:22
3	Mg 279.077 IEC†	6.3	5.0	170.26	ug/L	170.26	ppb	17:21:42
3	Na 589.592 Radial†	-1383.8	343.5	117.27	ug/L	117.27	ppb	17:21:22
3	Sr 421.552†	-18.0	-29.9	-0.2204	ug/L	-0.2204	ppb	17:21:22
3	Sc 361.383	871091.3	871091.3	99.742	%			17:22:40
3	Y 371.029	747429.8	747429.8	99.747	%			17:22:40
3	Ag 328.068†	610.8	121.4	0.5116	ug/L	0.5116	ppb	17:22:40
3	As 188.979†	-38.9	-7.5	-2.6283	ug/L	-2.6283	ppb	17:23:00
3	B 249.677†	-509.3	254.9	5.2931	ug/L	5.2931	ppb	17:22:40
3	Ba 233.527†	17.0	-1.5	-0.0125	ug/L	-0.0125	ppb	17:23:00
3	Be 313.107†	-4323.2	45.7	0.0156	ug/L	0.0156	ppb	17:22:40
3	Cd 226.502†	-237.1	15.3	0.1501	ug/L	0.1501	ppb	17:23:00
3	Co 228.616†	-95.5	3.5	0.0672	ug/L	0.0672	ppb	17:23:00
3	Cr 267.716†	152.4	62.6	0.6337	ug/L	0.6337	ppb	17:22:40
3	Cu 324.752†	8170.9	88.4	0.2615	ug/L	0.2615	ppb	17:22:40
3	Mn 257.610†	793.6	-510.6	-0.5449	ug/L	-0.5449	ppb	17:22:40
3	Mo 202.031†	37.1	10.5	0.6621	ug/L	0.6621	ppb	17:23:00
3	Ni 231.604†	138.5	22.8	0.5042	ug/L	0.5042	ppb	17:23:00
3	P 214.914†	247.4	-4.6	-2.2231	ug/L	-2.2231	ppb	17:23:00
3	Pb 220.353†	-102.0	-1.0	-0.0906	ug/L	-0.0906	ppb	17:23:00
3	S 181.975 Axial†	54.1	-3.4	-3.8792	ug/L	-3.8792	ppb	17:23:00
3	Sb 206.836†	43.9	-2.2	-0.6468	ug/L	-0.6468	ppb	17:23:00
3	Se 196.026†	-39.6	-0.9	-0.5865	ug/L	-0.5865	ppb	17:23:00
3	Si 251.611†	694.0	65.8	1.8854	ug/L	1.8854	ppb	17:23:00
3	Sn 189.927†	9.0	4.3	0.6480	ug/L	0.6480	ppb	17:23:00
3	Ti 334.940†	-1688.5	60.6	0.0969	ug/L	0.0969	ppb	17:22:40
3	Tl 190.801†	-52.1	-6.6	-1.8035	ug/L	-1.8035	ppb	17:23:00
3	U 409.014†	-2859.4	41.8	1.2491	ug/L	1.2491	ppb	17:22:40
3	V 292.402†	-1840.5	-38.9	-0.2249	ug/L	-0.2249	ppb	17:22:40
3	Zn 213.857†	877.9	27.0	0.2167	ug/L	0.2167	ppb	17:23:00
3	SiO2†	684.7	37.7	2.2910	ug/L	2.2910	ppb	17:23:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	870439.5	99.668	%	1.7475				1.75%
Sc Radial	4534.0	98.0	%	1.02				1.04%
Y 371.029	746357.8	99.604	%	1.8695				1.88%
Y RADIAL	4806.8	98.20	%	0.886				0.90%
Ag 328.068†	2.2	-0.0010	ug/L	0.46627	-0.0010	ppb	0.46627	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.3	10.591	ug/L	21.3275	10.591	ppb	21.3275	201.38%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.5	-0.5381	ug/L	2.27152	-0.5381	ppb	2.27152	422.14%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	197.0	4.0899	ug/L	1.15675	4.0899	ppb	1.15675	28.28%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-11.7	-0.0866	ug/L	0.06902	-0.0866	ppb	0.06902	79.69%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-3.9	-0.0010	ug/L	0.02148	-0.0010	ppb	0.02148	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.9	6.6613	ug/L	6.73746	6.6613	ppb	6.73746	101.14%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 8.2      0.0805 ug/L       0.06675      0.0805 ppb        0.06675  82.89%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.4      0.0660 ug/L       0.10137      0.0660 ppb        0.10137 153.65%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                58.8      0.5962 ug/L       0.03912      0.5962 ppb        0.03912   6.56%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               126.7      0.3767 ug/L       0.35801      0.3767 ppb        0.35801  95.04%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.7     -25.414 ug/L       14.3584     -25.414 ppb        14.3584  56.50%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         104.0      21.021 ug/L       11.0421      21.021 ppb        11.0421  52.53%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.8      60.016 ug/L       99.8534      60.016 ppb        99.8534 166.38%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -491.2      -0.5208 ug/L       0.05446     -0.5208 ppb        0.05446  10.46%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                9.9       0.6262 ug/L       0.03528      0.6262 ppb        0.03528   5.63%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        309.8      105.76 ug/L        19.204      105.76 ppb         19.204  18.16%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               18.5       0.4098 ug/L       0.08182      0.4098 ppb        0.08182  19.97%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -3.6      -1.8190 ug/L       1.25727     -1.8190 ppb        1.25727  69.12%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                9.2       0.9649 ug/L       1.01763      0.9649 ppb        1.01763 105.46%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           3.0       3.3823 ug/L       6.66155      3.3823 ppb        6.66155 196.95%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -3.7      -1.1107 ug/L       1.69784     -1.1107 ppb        1.69784 152.86%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.7      -1.9653 ug/L       1.97188     -1.9653 ppb        1.97188 100.34%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               67.6       1.9376 ug/L       0.45132      1.9376 ppb        0.45132  23.29%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -1.1      -0.1581 ug/L       1.17756     -0.1581 ppb        1.17756 744.83%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -14.9      -0.1098 ug/L       0.18857     -0.1098 ppb        0.18857 171.73%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               108.0       0.1717 ug/L       0.13542      0.1717 ppb        0.13542  78.89%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -4.6      -1.2679 ug/L       2.23845     -1.2679 ppb        2.23845 176.55%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                106.3       3.1692 ug/L       1.89113      3.1692 ppb        1.89113  59.67%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                22.7       0.1637 ug/L       0.55583      0.1637 ppb        0.55583 339.50%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               24.1       0.1953 ug/L       0.13166      0.1953 ppb        0.13166  67.41%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     52.5       3.2023 ug/L       2.66951      3.2023 ppb        2.66951  83.36%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 31
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/7/2010 18:26:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4546.0	4546.0	98.2	%			18:28:26
1	Y RADIAL	4803.9	4803.9	98.14	%			18:28:26
1	Al 396.153Radial†	5605.5	5727.4	4907.5	ug/L	4907.5	ppb	18:28:26
1	Ca 317.933Radial†	2849.5	2886.8	4985.5	ug/L	4985.5	ppb	18:28:46
1	Fe 238.204 Radial†	521.6	518.2	4986.0	ug/L	4986.0	ppb	18:28:46
1	K 766.490 Radial†	27290.7	24553.4	4964.7	ug/L	4964.7	ppb	18:28:26
1	Mg 279.077 IEC†	150.1	151.3	5161.0	ug/L	5161.0	ppb	18:28:46
1	Na 589.592 Radial†	27229.6	29490.6	10069	ug/L	10069	ppb	18:28:26
1	Sr 421.552†	63356.2	64487.2	475.07	ug/L	475.07	ppb	18:28:26
1	Sc 361.383	888605.5	888605.5	101.75	%			18:29:45
1	Y 371.029	752134.0	752134.0	100.37	%			18:29:45
1	Ag 328.068†	116555.6	114062.7	498.81	ug/L	498.81	ppb	18:29:45
1	As 188.979†	1406.4	1413.7	500.20	ug/L	500.20	ppb	18:30:05
1	B 249.677†	23598.4	23958.6	495.17	ug/L	495.17	ppb	18:29:45
1	Ba 233.527†	69243.7	68035.8	502.17	ug/L	502.17	ppb	18:29:45
1	Be 313.107†	1514116.4	1492489.5	503.97	ug/L	503.97	ppb	18:29:45
1	Cd 226.502†	53489.0	52823.2	502.99	ug/L	502.99	ppb	18:29:45
1	Co 228.616†	26591.6	26234.0	496.18	ug/L	496.18	ppb	18:30:05
1	Cr 267.716†	50043.2	49093.3	499.30	ug/L	499.30	ppb	18:29:45
1	Cu 324.752†	178987.5	167809.4	500.69	ug/L	500.69	ppb	18:29:45
1	Mn 257.610†	485929.1	476276.2	501.81	ug/L	501.81	ppb	18:29:45
1	Mo 202.031†	7974.3	7810.6	494.62	ug/L	494.62	ppb	18:30:05
1	Ni 231.604†	22946.7	22436.4	496.86	ug/L	496.86	ppb	18:30:05
1	P 214.914†	5449.4	5103.1	2423.1	ug/L	2423.1	ppb	18:30:05
1	Pb 220.353†	4815.9	4834.5	504.49	ug/L	504.49	ppb	18:30:05
1	S 181.975 Axial†	949.6	875.6	989.61	ug/L	989.61	ppb	18:30:05
1	Sb 206.836†	1699.7	1624.4	497.77	ug/L	497.77	ppb	18:30:05
1	Se 196.026†	981.0	1002.9	527.72	ug/L	527.72	ppb	18:30:05
1	Si 251.611†	88367.3	86219.4	2482.6	ug/L	2482.6	ppb	18:29:45
1	Sn 189.927†	3367.4	3304.9	494.15	ug/L	494.15	ppb	18:30:05
1	Ti 334.940†	318705.9	314985.1	504.42	ug/L	504.42	ppb	18:29:45
1	Tl 190.801†	1800.3	1815.1	501.74	ug/L	501.74	ppb	18:30:05
1	U 409.014†	13550.8	16226.6	481.96	ug/L	481.96	ppb	18:29:45
1	V 292.402†	78114.7	78579.4	505.11	ug/L	505.11	ppb	18:29:45
1	Zn 213.857†	62831.3	60899.0	499.92	ug/L	499.92	ppb	18:29:45
1	SiO2†	87507.9	85356.1	5245.9	ug/L	5245.9	ppb	18:31:05
2	Sc Radial	4615.6	4615.6	99.7	%			18:28:51
2	Y RADIAL	4855.9	4855.9	99.20	%			18:28:51
2	Al 396.153Radial†	5466.6	5502.2	4713.6	ug/L	4713.6	ppb	18:28:51
2	Ca 317.933Radial†	2939.6	2933.5	5066.1	ug/L	5066.1	ppb	18:29:11
2	Fe 238.204 Radial†	536.9	525.6	5057.0	ug/L	5057.0	ppb	18:29:11
2	K 766.490 Radial†	27003.9	23847.2	4821.8	ug/L	4821.8	ppb	18:28:51
2	Mg 279.077 IEC†	157.4	156.3	5331.5	ug/L	5331.5	ppb	18:29:11
2	Na 589.592 Radial†	26657.2	28498.9	9730.0	ug/L	9730.0	ppb	18:28:51
2	Sr 421.552†	62199.9	62355.9	459.36	ug/L	459.36	ppb	18:28:51
2	Sc 361.383	888518.1	888518.1	101.74	%			18:30:12
2	Y 371.029	753187.6	753187.6	100.52	%			18:30:12
2	Ag 328.068†	116459.9	113979.8	498.46	ug/L	498.46	ppb	18:30:12
2	As 188.979†	1419.8	1427.0	504.87	ug/L	504.87	ppb	18:30:32
2	B 249.677†	23583.9	23946.6	494.91	ug/L	494.91	ppb	18:30:12
2	Ba 233.527†	68942.6	67746.5	500.04	ug/L	500.04	ppb	18:30:12
2	Be 313.107†	1510381.4	1488964.6	502.78	ug/L	502.78	ppb	18:30:12
2	Cd 226.502†	53296.2	52638.9	501.23	ug/L	501.23	ppb	18:30:12
2	Co 228.616†	26654.3	26298.3	497.40	ug/L	497.40	ppb	18:30:32
2	Cr 267.716†	49819.2	48878.0	497.11	ug/L	497.11	ppb	18:30:12
2	Cu 324.752†	178778.4	167621.3	500.13	ug/L	500.13	ppb	18:30:12
2	Mn 257.610†	484257.9	474680.5	500.14	ug/L	500.14	ppb	18:30:12
2	Mo 202.031†	8001.2	7837.9	496.35	ug/L	496.35	ppb	18:30:32
2	Ni 231.604†	22980.6	22471.9	497.65	ug/L	497.65	ppb	18:30:32

2	P 214.914†	5467.9	5121.8	2432.3	ug/L	2432.3 ppb	18:30:32
2	Pb 220.353†	4810.5	4829.6	503.93	ug/L	503.93 ppb	18:30:32
2	S 181.975 Axial†	947.0	873.1	986.86	ug/L	986.86 ppb	18:30:32
2	Sb 206.836†	1713.2	1637.7	501.95	ug/L	501.95 ppb	18:30:32
2	Se 196.026†	990.3	1012.1	532.57	ug/L	532.57 ppb	18:30:32
2	Si 251.611†	88106.6	85971.7	2475.5	ug/L	2475.5 ppb	18:30:12
2	Sn 189.927†	3384.6	3322.1	496.72	ug/L	496.72 ppb	18:30:32
2	Ti 334.940†	317873.8	314198.0	503.16	ug/L	503.16 ppb	18:30:12
2	Tl 190.801†	1790.2	1805.3	499.03	ug/L	499.03 ppb	18:30:32
2	U 409.014†	13576.0	16252.7	482.73	ug/L	482.73 ppb	18:30:12
2	V 292.402†	77904.2	78380.0	503.86	ug/L	503.86 ppb	18:30:12
2	Zn 213.857†	62575.1	60653.2	497.87	ug/L	497.87 ppb	18:30:12
2	SiO2†	87211.7	85073.5	5228.5	ug/L	5228.5 ppb	18:31:10
3	Sc Radial	4474.4	4474.4	96.7	%		18:29:16
3	Y RADIAL	4726.2	4726.2	96.55	%		18:29:16
3	Al 396.153Radial†	5573.9	5786.1	4957.9	ug/L	4957.9 ppb	18:29:16
3	Ca 317.933Radial†	2913.3	2999.3	5179.8	ug/L	5179.8 ppb	18:29:36
3	Fe 238.204 Radial†	527.5	532.8	5126.0	ug/L	5126.0 ppb	18:29:36
3	K 766.490 Radial†	27197.8	24902.4	5035.3	ug/L	5035.3 ppb	18:29:16
3	Mg 279.077 IEC†	155.9	159.8	5449.8	ug/L	5449.8 ppb	18:29:36
3	Na 589.592 Radial†	26902.6	29596.4	10105	ug/L	10105 ppb	18:29:16
3	Sr 421.552†	62856.4	65003.3	478.87	ug/L	478.87 ppb	18:29:16
3	Sc 361.383	886861.0	886861.0	101.55	%		18:30:40
3	Y 371.029	750947.6	750947.6	100.22	%		18:30:40
3	Ag 328.068†	116467.5	114201.2	499.46	ug/L	499.46 ppb	18:30:40
3	As 188.979†	1416.9	1426.8	504.83	ug/L	504.83 ppb	18:31:00
3	B 249.677†	23585.1	23991.1	495.82	ug/L	495.82 ppb	18:30:40
3	Ba 233.527†	69158.8	68086.0	502.54	ug/L	502.54 ppb	18:30:40
3	Be 313.107†	1511540.8	1492880.3	504.11	ug/L	504.11 ppb	18:30:40
3	Cd 226.502†	53369.0	52808.4	502.84	ug/L	502.84 ppb	18:30:40
3	Co 228.616†	26624.2	26317.6	497.76	ug/L	497.76 ppb	18:31:00
3	Cr 267.716†	49945.9	49094.3	499.31	ug/L	499.31 ppb	18:30:40
3	Cu 324.752†	178867.4	168037.3	501.38	ug/L	501.38 ppb	18:30:40
3	Mn 257.610†	484964.1	476265.4	501.81	ug/L	501.81 ppb	18:30:40
3	Mo 202.031†	8001.0	7852.3	497.27	ug/L	497.27 ppb	18:31:00
3	Ni 231.604†	22963.1	22496.9	498.20	ug/L	498.20 ppb	18:31:00
3	P 214.914†	5469.0	5133.0	2437.6	ug/L	2437.6 ppb	18:31:00
3	Pb 220.353†	4796.9	4825.1	503.51	ug/L	503.51 ppb	18:31:00
3	S 181.975 Axial†	959.0	886.7	1002.2	ug/L	1002.2 ppb	18:31:00
3	Sb 206.836†	1711.7	1639.5	502.42	ug/L	502.42 ppb	18:31:00
3	Se 196.026†	975.6	999.5	526.39	ug/L	526.39 ppb	18:31:00
3	Si 251.611†	88258.5	86283.1	2484.4	ug/L	2484.4 ppb	18:30:40
3	Sn 189.927†	3372.4	3316.2	495.86	ug/L	495.86 ppb	18:31:00
3	Ti 334.940†	318281.9	315183.7	504.75	ug/L	504.75 ppb	18:30:40
3	Tl 190.801†	1805.6	1823.8	504.12	ug/L	504.12 ppb	18:31:00
3	U 409.014†	13356.0	16061.0	477.00	ug/L	477.00 ppb	18:30:40
3	V 292.402†	77920.1	78538.8	504.86	ug/L	504.86 ppb	18:30:40
3	Zn 213.857†	62838.3	61027.3	500.96	ug/L	500.96 ppb	18:30:40
3	SiO2†	87683.1	85697.8	5266.8	ug/L	5266.8 ppb	18:31:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	887994.9	101.68	%	0.113				0.11%
Sc Radial	4545.3	98.2	%	1.53				1.55%
Y 371.029	752089.7	100.37	%	0.150				0.15%
Y RADIAL	4795.4	97.97	%	1.334				1.36%
Ag 328.068†	114081.3	498.91	ug/L	0.504	498.91	ppb	0.504	0.10%
QC value within limits for Ag 328.068 Recovery = 99.78%								
Al 396.153Radial†	5671.9	4859.7	ug/L	128.97	4859.7	ppb	128.97	2.65%
QC value within limits for Al 396.153Radial Recovery = 97.19%								
As 188.979†	1422.5	503.30	ug/L	2.682	503.30	ppb	2.682	0.53%
QC value within limits for As 188.979 Recovery = 100.66%								
B 249.677†	23965.4	495.30	ug/L	0.471	495.30	ppb	0.471	0.10%
QC value within limits for B 249.677 Recovery = 99.06%								
Ba 233.527†	67956.1	501.58	ug/L	1.351	501.58	ppb	1.351	0.27%
QC value within limits for Ba 233.527 Recovery = 100.32%								
Be 313.107†	1491444.8	503.62	ug/L	0.728	503.62	ppb	0.728	0.14%
QC value within limits for Be 313.107 Recovery = 100.72%								
Ca 317.933Radial†	2939.9	5077.1	ug/L	97.61	5077.1	ppb	97.61	1.92%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.54%
Cd 226.502†            52756.8      502.35 ug/L         0.976      502.35 ppb          0.976   0.19%
   QC value within limits for Cd 226.502  Recovery = 100.47%
Co 228.616†            26283.3      497.11 ug/L         0.830      497.11 ppb          0.830   0.17%
   QC value within limits for Co 228.616  Recovery = 99.42%
Cr 267.716†            49021.9      498.58 ug/L         1.267      498.58 ppb          1.267   0.25%
   QC value within limits for Cr 267.716  Recovery = 99.72%
Cu 324.752†           167822.7      500.73 ug/L         0.623      500.73 ppb          0.623   0.12%
   QC value within limits for Cu 324.752  Recovery = 100.15%
Fe 238.204 Radial†       525.6      5056.3 ug/L        70.01      5056.3 ppb         70.01   1.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.13%
K 766.490 Radial†      24434.3      4940.6 ug/L       108.80      4940.6 ppb        108.80   2.20%
   QC value within limits for K 766.490 Radial  Recovery = 98.81%
Mg 279.077 IEC†          155.8      5314.1 ug/L       145.23      5314.1 ppb        145.23   2.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.28%
Mn 257.610†           475740.7      501.25 ug/L         0.967      501.25 ppb          0.967   0.19%
   QC value within limits for Mn 257.610  Recovery = 100.25%
Mo 202.031†            7833.6      496.08 ug/L         1.347      496.08 ppb          1.347   0.27%
   QC value within limits for Mo 202.031  Recovery = 99.22%
Na 589.592 Radial†     29195.3      9967.7 ug/L       206.69      9967.7 ppb        206.69   2.07%
   QC value within limits for Na 589.592 Radial  Recovery = 99.68%
Ni 231.604†            22468.4      497.57 ug/L         0.674      497.57 ppb          0.674   0.14%
   QC value within limits for Ni 231.604  Recovery = 99.51%
P 214.914†              5119.3      2431.0 ug/L         7.30      2431.0 ppb          7.30   0.30%
   QC value within limits for P 214.914  Recovery = 97.24%
Pb 220.353†             4829.7      503.98 ug/L         0.490      503.98 ppb          0.490   0.10%
   QC value within limits for Pb 220.353  Recovery = 100.80%
S 181.975 Axial†         878.5      992.88 ug/L         8.171      992.88 ppb          8.171   0.82%
   QC value within limits for S 181.975 Axial  Recovery = 99.29%
Sb 206.836†            1633.9      500.71 ug/L         2.560      500.71 ppb          2.560   0.51%
   QC value within limits for Sb 206.836  Recovery = 100.14%
Se 196.026†            1004.8      528.89 ug/L         3.255      528.89 ppb          3.255   0.62%
   QC value within limits for Se 196.026  Recovery = 105.78%
Si 251.611†           86158.1      2480.8 ug/L         4.73      2480.8 ppb          4.73   0.19%
   QC value within limits for Si 251.611  Recovery = 99.23%
Sn 189.927†            3314.4      495.58 ug/L         1.312      495.58 ppb          1.312   0.26%
   QC value within limits for Sn 189.927  Recovery = 99.12%
Sr 421.552†           63948.8      471.10 ug/L        10.340      471.10 ppb         10.340   2.19%
   QC value within limits for Sr 421.552  Recovery = 94.22%
Ti 334.940†          314788.9      504.11 ug/L         0.837      504.11 ppb          0.837   0.17%
   QC value within limits for Ti 334.940  Recovery = 100.82%
Tl 190.801†            1814.7      501.63 ug/L         2.547      501.63 ppb          2.547   0.51%
   QC value within limits for Tl 190.801  Recovery = 100.33%
U 409.014†            16180.1      480.56 ug/L         3.107      480.56 ppb          3.107   0.65%
   QC value within limits for U 409.014  Recovery = 96.11%
V 292.402†            78499.4      504.61 ug/L         0.659      504.61 ppb          0.659   0.13%
   QC value within limits for V 292.402  Recovery = 100.92%
Zn 213.857†           60859.9      499.58 ug/L         1.569      499.58 ppb          1.569   0.31%
   QC value within limits for Zn 213.857  Recovery = 99.92%
SiO2†                 85375.8      5247.1 ug/L        19.21      5247.1 ppb         19.21   0.37%
   QC value within limits for SiO2  Recovery = 98.12%
All analyte(s) passed QC.
```

Sequence No.: 32
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/7/2010 18:33:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4398.4	4398.4	95.0	%			18:35:17
1	Y RADIAL	4654.2	4654.2	95.08	%			18:35:17
1	Al 396.153Radial†	-32.3	-13.1	-11.268	ug/L	-11.268	ppb	18:35:17
1	Ca 317.933Radial†	14.2	0.9	1.5863	ug/L	1.5863	ppb	18:35:37
1	Fe 238.204 Radial†	11.4	-0.7	-6.8188	ug/L	-6.8188	ppb	18:35:37
1	K 766.490 Radial†	3159.1	94.7	19.138	ug/L	19.138	ppb	18:35:17
1	Mg 279.077 IEC†	0.8	-0.7	-23.673	ug/L	-23.673	ppb	18:35:37
1	Na 589.592 Radial†	-1360.7	338.3	115.50	ug/L	115.50	ppb	18:35:17
1	Sr 421.552†	25.1	15.1	0.1112	ug/L	0.1112	ppb	18:35:17
1	Sc 361.383	871417.0	871417.0	99.780	%			18:36:34
1	Y 371.029	748070.9	748070.9	99.832	%			18:36:34
1	Ag 328.068†	453.3	-36.6	-0.1593	ug/L	-0.1593	ppb	18:36:34
1	As 188.979†	-28.0	3.5	1.2161	ug/L	1.2161	ppb	18:36:54
1	B 249.677†	-699.2	64.7	1.3438	ug/L	1.3438	ppb	18:36:34
1	Ba 233.527†	7.8	-10.7	-0.0783	ug/L	-0.0783	ppb	18:36:54
1	Be 313.107†	-4347.1	23.4	0.0081	ug/L	0.0081	ppb	18:36:34
1	Cd 226.502†	-252.7	-0.3	-0.0023	ug/L	-0.0023	ppb	18:36:54
1	Co 228.616†	-95.4	3.5	0.0676	ug/L	0.0676	ppb	18:36:54
1	Cr 267.716†	98.8	8.8	0.0900	ug/L	0.0900	ppb	18:36:34
1	Cu 324.752†	8252.9	167.5	0.4991	ug/L	0.4991	ppb	18:36:34
1	Mn 257.610†	813.1	-491.4	-0.5176	ug/L	-0.5176	ppb	18:36:34
1	Mo 202.031†	32.6	5.9	0.3743	ug/L	0.3743	ppb	18:36:54
1	Ni 231.604†	135.3	19.5	0.4316	ug/L	0.4316	ppb	18:36:54
1	P 214.914†	262.7	10.7	5.1408	ug/L	5.1408	ppb	18:36:54
1	Pb 220.353†	-92.9	8.2	0.8552	ug/L	0.8552	ppb	18:36:54
1	S 181.975 Axial†	57.6	0.1	0.1090	ug/L	0.1090	ppb	18:36:54
1	Sb 206.836†	53.9	7.8	2.3791	ug/L	2.3791	ppb	18:36:54
1	Se 196.026†	-26.3	12.4	6.3042	ug/L	6.3042	ppb	18:36:54
1	Si 251.611†	653.0	24.4	0.6940	ug/L	0.6940	ppb	18:36:54
1	Sn 189.927†	5.5	0.8	0.1137	ug/L	0.1137	ppb	18:36:54
1	Ti 334.940†	-1691.8	57.9	0.0928	ug/L	0.0928	ppb	18:36:34
1	Tl 190.801†	-54.2	-8.7	-2.3913	ug/L	-2.3913	ppb	18:36:54
1	U 409.014†	-2911.2	-9.1	-0.2700	ug/L	-0.2700	ppb	18:36:34
1	V 292.402†	-1730.0	72.6	0.4658	ug/L	0.4658	ppb	18:36:34
1	Zn 213.857†	836.2	-15.0	-0.1265	ug/L	-0.1265	ppb	18:36:54
1	SiO2†	686.8	39.5	2.4134	ug/L	2.4134	ppb	18:37:50
2	Sc Radial	4443.1	4443.1	96.0	%			18:35:42
2	Y RADIAL	4714.4	4714.4	96.31	%			18:35:42
2	Al 396.153Radial†	1.8	22.8	19.612	ug/L	19.612	ppb	18:35:42
2	Ca 317.933Radial†	18.0	4.8	8.2508	ug/L	8.2508	ppb	18:36:02
2	Fe 238.204 Radial†	8.8	-3.6	-34.049	ug/L	-34.049	ppb	18:36:02
2	K 766.490 Radial†	3063.8	-38.0	-7.7303	ug/L	-7.7303	ppb	18:35:42
2	Mg 279.077 IEC†	2.4	1.0	34.722	ug/L	34.722	ppb	18:36:02
2	Na 589.592 Radial†	-1464.1	245.0	83.641	ug/L	83.641	ppb	18:35:42
2	Sr 421.552†	23.9	13.6	0.1003	ug/L	0.1003	ppb	18:35:42
2	Sc 361.383	867427.4	867427.4	99.323	%			18:36:59
2	Y 371.029	744887.6	744887.6	99.408	%			18:36:59
2	Ag 328.068†	552.4	65.2	0.2686	ug/L	0.2686	ppb	18:36:59
2	As 188.979†	-38.3	-7.0	-2.4720	ug/L	-2.4720	ppb	18:37:19
2	B 249.677†	-723.5	37.0	0.7725	ug/L	0.7725	ppb	18:36:59
2	Ba 233.527†	21.8	3.4	0.0254	ug/L	0.0254	ppb	18:37:19
2	Be 313.107†	-4385.2	-35.0	-0.0116	ug/L	-0.0116	ppb	18:36:59
2	Cd 226.502†	-246.7	4.6	0.0474	ug/L	0.0474	ppb	18:37:19
2	Co 228.616†	-89.1	9.4	0.1784	ug/L	0.1784	ppb	18:37:19
2	Cr 267.716†	92.8	3.2	0.0309	ug/L	0.0309	ppb	18:36:59
2	Cu 324.752†	8263.1	215.8	0.6418	ug/L	0.6418	ppb	18:36:59
2	Mn 257.610†	785.9	-515.0	-0.5463	ug/L	-0.5463	ppb	18:36:59
2	Mo 202.031†	23.8	-2.7	-0.1752	ug/L	-0.1752	ppb	18:37:19
2	Ni 231.604†	116.9	1.5	0.0333	ug/L	0.0333	ppb	18:37:19

2	P 214.914†	242.8	-8.2	-4.0702	ug/L	-4.0702 ppb	18:37:19
2	Pb 220.353†	-87.6	13.1	1.3707	ug/L	1.3707 ppb	18:37:19
2	S 181.975 Axial†	58.0	0.7	0.8161	ug/L	0.8161 ppb	18:37:19
2	Sb 206.836†	45.0	-0.8	-0.2571	ug/L	-0.2571 ppb	18:37:19
2	Se 196.026†	-32.1	6.5	3.1864	ug/L	3.1864 ppb	18:37:19
2	Si 251.611†	621.1	-4.7	-0.1313	ug/L	-0.1313 ppb	18:37:19
2	Sn 189.927†	4.1	-0.6	-0.0837	ug/L	-0.0837 ppb	18:37:19
2	Ti 334.940†	-1674.4	67.7	0.1060	ug/L	0.1060 ppb	18:36:59
2	Tl 190.801†	-50.9	-5.6	-1.5410	ug/L	-1.5410 ppb	18:37:19
2	U 409.014†	-2675.0	215.4	6.4221	ug/L	6.4221 ppb	18:36:59
2	V 292.402†	-1708.8	85.9	0.5610	ug/L	0.5610 ppb	18:36:59
2	Zn 213.857†	822.1	-25.3	-0.2102	ug/L	-0.2102 ppb	18:37:19
2	SiO2†	618.1	-26.4	-1.6189	ug/L	-1.6189 ppb	18:37:55
3	Sc Radial	4563.9	4563.9	98.6	%		18:36:07
3	Y RADIAL	4832.1	4832.1	98.72	%		18:36:07
3	Al 396.153Radial†	7.8	28.7	24.740	ug/L	24.740 ppb	18:36:07
3	Ca 317.933Radial†	8.6	-5.3	-9.0786	ug/L	-9.0786 ppb	18:36:27
3	Fe 238.204 Radial†	10.2	-2.4	-23.110	ug/L	-23.110 ppb	18:36:27
3	K 766.490 Radial†	3164.9	-19.9	-4.0861	ug/L	-4.0861 ppb	18:36:07
3	Mg 279.077 IEC†	2.9	1.4	47.990	ug/L	47.990 ppb	18:36:27
3	Na 589.592 Radial†	-1351.1	400.0	136.57	ug/L	136.57 ppb	18:36:07
3	Sr 421.552†	-14.7	-26.2	-0.1931	ug/L	-0.1931 ppb	18:36:07
3	Sc 361.383	867536.6	867536.6	99.335	%		18:37:25
3	Y 371.029	745653.8	745653.8	99.510	%		18:37:25
3	Ag 328.068†	561.3	74.1	0.3084	ug/L	0.3084 ppb	18:37:25
3	As 188.979†	-25.2	6.1	2.1385	ug/L	2.1385 ppb	18:37:45
3	B 249.677†	-646.3	114.9	2.3875	ug/L	2.3875 ppb	18:37:25
3	Ba 233.527†	23.2	4.8	0.0356	ug/L	0.0356 ppb	18:37:45
3	Be 313.107†	-4385.5	-34.8	-0.0115	ug/L	-0.0115 ppb	18:37:25
3	Cd 226.502†	-234.0	17.4	0.1681	ug/L	0.1681 ppb	18:37:45
3	Co 228.616†	-113.5	-15.0	-0.2849	ug/L	-0.2849 ppb	18:37:45
3	Cr 267.716†	136.4	47.0	0.4747	ug/L	0.4747 ppb	18:37:25
3	Cu 324.752†	8163.5	114.5	0.3402	ug/L	0.3402 ppb	18:37:25
3	Mn 257.610†	847.0	-453.6	-0.4808	ug/L	-0.4808 ppb	18:37:25
3	Mo 202.031†	23.3	-3.2	-0.2075	ug/L	-0.2075 ppb	18:37:45
3	Ni 231.604†	115.7	0.3	0.0070	ug/L	0.0070 ppb	18:37:45
3	P 214.914†	278.9	28.1	13.757	ug/L	13.757 ppb	18:37:45
3	Pb 220.353†	-97.1	3.6	0.3805	ug/L	0.3805 ppb	18:37:45
3	S 181.975 Axial†	65.6	8.4	9.4976	ug/L	9.4976 ppb	18:37:45
3	Sb 206.836†	41.2	-4.7	-1.4415	ug/L	-1.4415 ppb	18:37:45
3	Se 196.026†	-32.6	5.9	2.9533	ug/L	2.9533 ppb	18:37:45
3	Si 251.611†	652.9	27.3	0.7932	ug/L	0.7932 ppb	18:37:45
3	Sn 189.927†	5.9	1.2	0.1733	ug/L	0.1733 ppb	18:37:45
3	Ti 334.940†	-1688.6	53.5	0.0809	ug/L	0.0809 ppb	18:37:25
3	Tl 190.801†	-47.3	-2.0	-0.5379	ug/L	-0.5379 ppb	18:37:45
3	U 409.014†	-2573.0	318.4	9.4894	ug/L	9.4894 ppb	18:37:25
3	V 292.402†	-1719.6	75.3	0.4973	ug/L	0.4973 ppb	18:37:25
3	Zn 213.857†	824.8	-22.8	-0.1897	ug/L	-0.1897 ppb	18:37:45
3	SiO2†	650.9	6.6	0.4158	ug/L	0.4158 ppb	18:38:00

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	868793.6	99.479	%	0.2602				0.26%
Sc Radial	4468.5	96.6	%	1.85				1.92%
Y 371.029	746204.1	99.583	%	0.2217				0.22%
Y RADIAL	4733.6	96.70	%	1.848				1.91%
Ag 328.068†	34.3	0.1392	ug/L	0.25932	0.1392	ppb	0.25932	186.28%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.8	11.028	ug/L	19.4785	11.028	ppb	19.4785	176.63%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.8	0.2942	ug/L	2.43959	0.2942	ppb	2.43959	829.15%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	72.2	1.5013	ug/L	0.81896	1.5013	ppb	0.81896	54.55%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.9	-0.0058	ug/L	0.06300	-0.0058	ppb	0.06300	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-15.4	-0.0050	ug/L	0.01134	-0.0050	ppb	0.01134	226.14%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.1	0.2528	ug/L	8.74134	0.2528	ppb	8.74134	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 7.2      0.0711 ug/L       0.08763      0.0711 ppb        0.08763 123.29%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                -0.7     -0.0130 ug/L       0.24194     -0.0130 ppb        0.24194 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                19.7      0.1985 ug/L       0.24095      0.1985 ppb        0.24095 121.36%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               165.9      0.4937 ug/L       0.15087      0.4937 ppb        0.15087  30.56%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -2.2     -21.326 ug/L       13.7027     -21.326 ppb        13.7027  64.25%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          12.3      2.4404 ug/L      14.57461      2.4404 ppb       14.57461 597.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.6      19.680 ug/L       38.1263      19.680 ppb        38.1263 193.73%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -486.7     -0.5149 ug/L       0.03283     -0.5149 ppb        0.03283   6.38%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -0.0     -0.0028 ug/L       0.32694     -0.0028 ppb        0.32694 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        327.8      111.90 ug/L        26.647      111.90 ppb         26.647  23.81%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 7.1      0.1573 ug/L       0.23792      0.1573 ppb        0.23792 151.25%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 10.2      4.9425 ug/L       8.91524      4.9425 ppb        8.91524 180.38%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 8.3      0.8688 ug/L       0.49522      0.8688 ppb        0.49522  57.00%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            3.1      3.4743 ug/L       5.22836      3.4743 ppb        5.22836 150.49%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.8      0.2268 ug/L       1.95574      0.2268 ppb        1.95574 862.20%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 8.3      4.1479 ug/L       1.87101      4.1479 ppb        1.87101  45.11%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                15.7      0.4519 ug/L       0.50755      0.4519 ppb        0.50755 112.31%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.5      0.0678 ug/L       0.13452      0.0678 ppb        0.13452 198.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 0.8      0.0061 ug/L       0.17265      0.0061 ppb        0.17265 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                59.7      0.0932 ug/L       0.01255      0.0932 ppb        0.01255  13.46%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -5.4     -1.4901 ug/L       0.92776     -1.4901 ppb        0.92776  62.26%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                174.9      5.2138 ug/L       4.99067      5.2138 ppb        4.99067  95.72%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 77.9      0.5080 ug/L       0.04854      0.5080 ppb        0.04854   9.56%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -21.1     -0.1755 ug/L       0.04365     -0.1755 ppb        0.04365  24.88%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       6.6      0.4034 ug/L       2.01620      0.4034 ppb        2.01620 499.78%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 34
Sample ID: 243285001|935389|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 45
Date Collected: 1/7/2010 18:46:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243285001|935389|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4539.1	4539.1	98.1	%			18:48:51
1	Y RADIAL	4809.4	4809.4	98.25	%			18:48:51
1	Al 396.153Radial†	-12.4	8.2	7.0515	ug/L	7.0515	ppb	18:48:51
1	Ca 317.933Radial†	1517.0	1532.7	2646.9	ug/L	2646.9	ppb	18:49:11
1	Fe 238.204 Radial†	10.9	-1.6	-15.451	ug/L	-15.451	ppb	18:49:11
1	K 766.490 Radial†	4675.4	1537.6	310.10	ug/L	310.10	ppb	18:48:51
1	Mg 279.077 IEC†	22.8	21.8	741.89	ug/L	741.89	ppb	18:49:11
1	Na 589.592 Radial†	5015.3	6883.5	2350.1	ug/L	2350.1	ppb	18:48:51
1	Sr 421.552†	1342.3	1357.3	9.9753	ug/L	9.9753	ppb	18:48:51
1	Sc 361.383	905489.8	905489.8	103.68	%			18:50:08
1	Y 371.029	771611.7	771611.7	102.97	%			18:50:08
1	Ag 328.068†	482.6	-25.5	-0.1605	ug/L	-0.1605	ppb	18:50:08
1	As 188.979†	-22.2	10.1	3.5421	ug/L	3.5421	ppb	18:50:28
1	B 249.677†	-663.9	125.1	2.5980	ug/L	2.5980	ppb	18:50:28
1	Ba 233.527†	853.8	804.9	5.9292	ug/L	5.9292	ppb	18:50:28
1	Be 313.107†	-4439.3	98.4	0.0330	ug/L	0.0330	ppb	18:50:08
1	Cd 226.502†	-245.8	15.9	0.1550	ug/L	0.1550	ppb	18:50:28
1	Co 228.616†	-91.2	11.2	0.2149	ug/L	0.2149	ppb	18:50:28
1	Cr 267.716†	216.5	118.5	1.2017	ug/L	1.2017	ppb	18:50:28
1	Cu 324.752†	8233.4	-162.5	-0.4855	ug/L	-0.4855	ppb	18:50:08
1	Mn 257.610†	2052.7	673.5	0.6937	ug/L	0.6937	ppb	18:50:28
1	Mo 202.031†	31.8	4.0	0.2497	ug/L	0.2497	ppb	18:50:28
1	Ni 231.604†	256.1	130.8	2.8988	ug/L	2.8988	ppb	18:50:28
1	P 214.914†	276.5	14.0	6.8939	ug/L	6.8939	ppb	18:50:28
1	Pb 220.353†	-91.1	13.5	1.4053	ug/L	1.4053	ppb	18:50:28
1	S 181.975 Axial†	244.1	177.8	201.14	ug/L	201.14	ppb	18:50:28
1	Sb 206.836†	50.3	2.4	0.5931	ug/L	0.5931	ppb	18:50:28
1	Se 196.026†	-42.7	-2.5	-1.3003	ug/L	-1.3003	ppb	18:50:28
1	Si 251.611†	226942.9	218255.8	6314.3	ug/L	6314.3	ppb	18:50:08
1	Sn 189.927†	-33.5	-37.0	-5.2572	ug/L	-5.2572	ppb	18:50:28
1	Ti 334.940†	-1880.9	-60.7	0.0344	ug/L	0.0344	ppb	18:50:08
1	Tl 190.801†	-45.9	1.4	0.3860	ug/L	0.3860	ppb	18:50:28
1	U 409.014†	-2538.5	460.2	13.713	ug/L	13.713	ppb	18:50:08
1	V 292.402†	-1625.9	238.2	1.5601	ug/L	1.5601	ppb	18:50:08
1	Zn 213.857†	1449.5	544.9	4.4685	ug/L	4.4685	ppb	18:50:28
1	SiO2†	226259.1	217577.6	13437	ug/L	13437	ppb	18:51:25
2	Sc Radial	4600.5	4600.5	99.4	%			18:49:16
2	Y RADIAL	4838.7	4838.7	98.85	%			18:49:16
2	Al 396.153Radial†	27.3	48.3	41.524	ug/L	41.524	ppb	18:49:16
2	Ca 317.933Radial†	1514.7	1509.7	2607.3	ug/L	2607.3	ppb	18:49:36
2	Fe 238.204 Radial†	11.7	-0.9	-8.9032	ug/L	-8.9032	ppb	18:49:36
2	K 766.490 Radial†	4688.6	1487.3	299.92	ug/L	299.92	ppb	18:49:16
2	Mg 279.077 IEC†	23.8	22.4	764.52	ug/L	764.52	ppb	18:49:36
2	Na 589.592 Radial†	5081.4	6881.8	2349.6	ug/L	2349.6	ppb	18:49:16
2	Sr 421.552†	1331.3	1327.9	9.7594	ug/L	9.7594	ppb	18:49:16
2	Sc 361.383	901113.1	901113.1	103.18	%			18:50:34
2	Y 371.029	768269.0	768269.0	102.53	%			18:50:34
2	Ag 328.068†	391.5	-111.4	-0.5305	ug/L	-0.5305	ppb	18:50:34
2	As 188.979†	-29.3	3.1	1.0908	ug/L	1.0908	ppb	18:50:54
2	B 249.677†	-633.4	151.5	3.1453	ug/L	3.1453	ppb	18:50:54
2	Ba 233.527†	863.6	818.4	6.0293	ug/L	6.0293	ppb	18:50:54
2	Be 313.107†	-4391.0	124.4	0.0419	ug/L	0.0419	ppb	18:50:34
2	Cd 226.502†	-257.1	3.8	0.0390	ug/L	0.0390	ppb	18:50:54
2	Co 228.616†	-97.8	4.4	0.0867	ug/L	0.0867	ppb	18:50:54
2	Cr 267.716†	204.5	107.9	1.0944	ug/L	1.0944	ppb	18:50:54
2	Cu 324.752†	8216.8	-140.1	-0.4184	ug/L	-0.4184	ppb	18:50:34
2	Mn 257.610†	2082.6	712.1	0.7346	ug/L	0.7346	ppb	18:50:54
2	Mo 202.031†	37.5	9.6	0.6061	ug/L	0.6061	ppb	18:50:54
2	Ni 231.604†	266.2	141.9	3.1438	ug/L	3.1438	ppb	18:50:54

2	P 214.914†	258.3	-2.3	-1.1024 ug/L	-1.1024 ppb	18:50:54
2	Pb 220.353†	-93.0	11.2	1.1722 ug/L	1.1722 ppb	18:50:54
2	S 181.975 Axial†	239.3	174.3	197.17 ug/L	197.17 ppb	18:50:54
2	Sb 206.836†	54.1	6.2	1.7902 ug/L	1.7902 ppb	18:50:54
2	Se 196.026†	-37.9	2.1	1.0361 ug/L	1.0361 ppb	18:50:54
2	Si 251.611†	225494.7	217915.3	6304.4 ug/L	6304.4 ppb	18:50:34
2	Sn 189.927†	-25.4	-29.3	-4.1116 ug/L	-4.1116 ppb	18:50:54
2	Ti 334.940†	-1827.3	-17.5	0.1016 ug/L	0.1016 ppb	18:50:34
2	Tl 190.801†	-37.4	9.5	2.5989 ug/L	2.5989 ppb	18:50:54
2	U 409.014†	-2533.0	453.6	13.517 ug/L	13.517 ppb	18:50:34
2	V 292.402†	-1592.7	262.8	1.7202 ug/L	1.7202 ppb	18:50:34
2	Zn 213.857†	1447.7	550.0	4.5075 ug/L	4.5075 ppb	18:50:54
2	SiO2†	225740.7	218135.1	13472 ug/L	13472 ppb	18:51:30
3	Sc Radial	4584.5	4584.5	99.1 %		18:49:41
3	Y RADIAL	4827.3	4827.3	98.62 %		18:49:41
3	Al 396.153Radial†	-3.5	17.4	14.924 ug/L	14.924 ppb	18:49:41
3	Ca 317.933Radial†	1535.2	1535.8	2652.2 ug/L	2652.2 ppb	18:50:01
3	Fe 238.204 Radial†	11.9	-0.7	-6.8472 ug/L	-6.8472 ppb	18:50:01
3	K 766.490 Radial†	4538.6	1352.3	272.57 ug/L	272.57 ppb	18:49:41
3	Mg 279.077 IEC†	23.0	21.7	740.20 ug/L	740.20 ppb	18:50:01
3	Na 589.592 Radial†	5063.5	6881.5	2349.4 ug/L	2349.4 ppb	18:49:41
3	Sr 421.552†	1344.5	1345.9	9.8914 ug/L	9.8914 ppb	18:49:41
3	Sc 361.383	901597.5	901597.5	103.24 %		18:50:59
3	Y 371.029	767506.0	767506.0	102.43 %		18:50:59
3	Ag 328.068†	390.3	-112.9	-0.5424 ug/L	-0.5424 ppb	18:50:59
3	As 188.979†	-30.5	1.9	0.6634 ug/L	0.6634 ppb	18:51:19
3	B 249.677†	-657.3	128.8	2.6723 ug/L	2.6723 ppb	18:51:19
3	Ba 233.527†	901.5	854.7	6.2946 ug/L	6.2946 ppb	18:51:19
3	Be 313.107†	-4407.8	110.4	0.0370 ug/L	0.0370 ppb	18:50:59
3	Cd 226.502†	-252.1	8.8	0.0863 ug/L	0.0863 ppb	18:51:19
3	Co 228.616†	-79.4	22.2	0.4246 ug/L	0.4246 ppb	18:51:19
3	Cr 267.716†	231.6	134.1	1.3575 ug/L	1.3575 ppb	18:51:19
3	Cu 324.752†	8311.4	-52.8	-0.1577 ug/L	-0.1577 ppb	18:50:59
3	Mn 257.610†	2071.8	700.5	0.7230 ug/L	0.7230 ppb	18:51:19
3	Mo 202.031†	36.1	8.2	0.5199 ug/L	0.5199 ppb	18:51:19
3	Ni 231.604†	252.8	128.7	2.8527 ug/L	2.8527 ppb	18:51:19
3	P 214.914†	272.8	11.6	5.6411 ug/L	5.6411 ppb	18:51:19
3	Pb 220.353†	-88.4	15.7	1.6358 ug/L	1.6358 ppb	18:51:19
3	S 181.975 Axial†	242.9	177.6	200.97 ug/L	200.97 ppb	18:51:19
3	Sb 206.836†	55.2	7.3	2.1048 ug/L	2.1048 ppb	18:51:19
3	Se 196.026†	-32.1	7.7	3.8844 ug/L	3.8844 ppb	18:51:19
3	Si 251.611†	226437.4	218711.1	6327.4 ug/L	6327.4 ppb	18:50:59
3	Sn 189.927†	-26.8	-30.7	-4.3036 ug/L	-4.3036 ppb	18:51:19
3	Ti 334.940†	-1874.6	-62.4	0.0305 ug/L	0.0305 ppb	18:50:59
3	Tl 190.801†	-52.8	-5.5	-1.5068 ug/L	-1.5068 ppb	18:51:19
3	U 409.014†	-2423.2	561.3	16.725 ug/L	16.725 ppb	18:50:59
3	V 292.402†	-1718.9	141.4	0.9539 ug/L	0.9539 ppb	18:50:59
3	Zn 213.857†	1446.6	548.2	4.4952 ug/L	4.4952 ppb	18:51:19
3	SiO2†	225450.8	217736.6	13447 ug/L	13447 ppb	18:51:35

Mean Data: 243285001|935389|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902733.5	103.37	%	0.275				0.27%
Sc Radial	4574.7	98.8	%	0.69				0.70%
Y 371.029	769128.9	102.64	%	0.291				0.28%
Y RADIAL	4825.1	98.57	%	0.301				0.31%
Ag 328.068†	-83.3	-0.4111	ug/L	0.21712	-0.4111	ppb	0.21712	52.81%
Al 396.153Radial†	24.6	21.166	ug/L	18.0643	21.166	ppb	18.0643	85.34%
As 188.979†	5.0	1.7654	ug/L	1.55341	1.7654	ppb	1.55341	87.99%
B 249.677†	135.2	2.8052	ug/L	0.29687	2.8052	ppb	0.29687	10.58%
Ba 233.527†	826.0	6.0844	ug/L	0.18880	6.0844	ppb	0.18880	3.10%
Be 313.107†	111.1	0.0373	ug/L	0.00446	0.0373	ppb	0.00446	11.96%
Ca 317.933Radial†	1526.1	2635.5	ug/L	24.58	2635.5	ppb	24.58	0.93%
Cd 226.502†	9.5	0.0934	ug/L	0.05832	0.0934	ppb	0.05832	62.43%
Co 228.616†	12.6	0.2421	ug/L	0.17057	0.2421	ppb	0.17057	70.47%
Cr 267.716†	120.2	1.2179	ug/L	0.13226	1.2179	ppb	0.13226	10.86%
Cu 324.752†	-118.5	-0.3538	ug/L	0.17316	-0.3538	ppb	0.17316	48.94%
Fe 238.204 Radial†	-1.1	-10.400	ug/L	4.4930	-10.400	ppb	4.4930	43.20%
K 766.490 Radial†	1459.1	294.20	ug/L	19.408	294.20	ppb	19.408	6.60%

Mg 279.077 IEC†	22.0	748.87	ug/L	13.581	748.87	ppb	13.581	1.81%
Mn 257.610†	695.4	0.7171	ug/L	0.02107	0.7171	ppb	0.02107	2.94%
Mo 202.031†	7.3	0.4586	ug/L	0.18593	0.4586	ppb	0.18593	40.54%
Na 589.592 Radial†	6882.3	2349.7	ug/L	0.37	2349.7	ppb	0.37	0.02%
Ni 231.604†	133.8	2.9651	ug/L	0.15649	2.9651	ppb	0.15649	5.28%
P 214.914†	7.8	3.8109	ug/L	4.30087	3.8109	ppb	4.30087	112.86%
Pb 220.353†	13.4	1.4044	ug/L	0.23176	1.4044	ppb	0.23176	16.50%
S 181.975 Axial†	176.6	199.76	ug/L	2.243	199.76	ppb	2.243	1.12%
Sb 206.836†	5.3	1.4960	ug/L	0.79768	1.4960	ppb	0.79768	53.32%
Se 196.026†	2.4	1.2067	ug/L	2.59658	1.2067	ppb	2.59658	215.17%
Si 251.611†	218294.0	6315.4	ug/L	11.56	6315.4	ppb	11.56	0.18%
Sn 189.927†	-32.3	-4.5574	ug/L	0.61356	-4.5574	ppb	0.61356	13.46%
Sr 421.552†	1343.7	9.8754	ug/L	0.10886	9.8754	ppb	0.10886	1.10%
Ti 334.940†	-46.9	0.0555	ug/L	0.03999	0.0555	ppb	0.03999	72.08%
Tl 190.801†	1.8	0.4927	ug/L	2.05491	0.4927	ppb	2.05491	417.06%
U 409.014†	491.7	14.652	ug/L	1.7985	14.652	ppb	1.7985	12.28%
V 292.402†	214.1	1.4114	ug/L	0.40420	1.4114	ppb	0.40420	28.64%
Zn 213.857†	547.7	4.4904	ug/L	0.01994	4.4904	ppb	0.01994	0.44%
SiO2†	217816.4	13452	ug/L	17.7	13452	ppb	17.7	0.13%

Sequence No.: 35
Sample ID: 243285002|935389|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 46
Date Collected: 1/7/2010 18:53:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243285002|935389|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4245.2	4245.2	91.7	%			18:55:59
1	Y RADIAL	4759.0	4759.0	97.22	%			18:55:39
1	Al 396.153Radial†	-2.2	18.4	15.828	ug/L	15.828	ppb	18:55:39
1	Ca 317.933Radial†	1480.0	1599.4	2762.2	ug/L	2762.2	ppb	18:55:59
1	Fe 238.204 Radial†	10.5	-1.3	-11.991	ug/L	-11.991	ppb	18:55:59
1	K 766.490 Radial†	4668.0	1859.6	375.36	ug/L	375.36	ppb	18:55:39
1	Mg 279.077 IEC†	24.9	25.6	873.93	ug/L	873.93	ppb	18:55:59
1	Na 589.592 Radial†	4416.4	6584.7	2248.1	ug/L	2248.1	ppb	18:55:39
1	Sr 421.552†	1260.1	1362.4	10.012	ug/L	10.012	ppb	18:55:39
1	Sc 361.383	899779.8	899779.8	103.03	%			18:56:56
1	Y 371.029	766341.1	766341.1	102.27	%			18:56:56
1	Ag 328.068†	450.5	-53.7	-0.2836	ug/L	-0.2836	ppb	18:56:56
1	As 188.979†	-31.9	0.6	0.1902	ug/L	0.1902	ppb	18:57:16
1	B 249.677†	-652.6	132.0	2.7402	ug/L	2.7402	ppb	18:57:16
1	Ba 233.527†	868.1	824.1	6.0709	ug/L	6.0709	ppb	18:57:16
1	Be 313.107†	-4330.9	176.5	0.0592	ug/L	0.0592	ppb	18:56:56
1	Cd 226.502†	-229.3	30.4	0.2929	ug/L	0.2929	ppb	18:57:16
1	Co 228.616†	-84.9	16.8	0.3227	ug/L	0.3227	ppb	18:57:16
1	Cr 267.716†	181.1	85.5	0.8665	ug/L	0.8665	ppb	18:57:16
1	Cu 324.752†	8166.3	-177.4	-0.5295	ug/L	-0.5295	ppb	18:56:56
1	Mn 257.610†	1839.3	479.0	0.4868	ug/L	0.4868	ppb	18:57:16
1	Mo 202.031†	40.9	13.0	0.8189	ug/L	0.8189	ppb	18:57:16
1	Ni 231.604†	239.3	116.1	2.5724	ug/L	2.5724	ppb	18:57:16
1	P 214.914†	271.4	10.8	5.3017	ug/L	5.3017	ppb	18:57:16
1	Pb 220.353†	-95.4	8.7	0.9139	ug/L	0.9139	ppb	18:57:16
1	S 181.975 Axial†	241.0	176.3	199.44	ug/L	199.44	ppb	18:57:16
1	Sb 206.836†	39.2	-8.1	-2.5334	ug/L	-2.5334	ppb	18:57:16
1	Se 196.026†	-32.6	7.1	3.5867	ug/L	3.5867	ppb	18:57:16
1	Si 251.611†	224226.6	217008.3	6278.1	ug/L	6278.1	ppb	18:56:56
1	Sn 189.927†	-30.0	-33.8	-4.7666	ug/L	-4.7666	ppb	18:57:16
1	Ti 334.940†	-1897.2	-88.0	-0.0038	ug/L	-0.0038	ppb	18:56:56
1	Tl 190.801†	-49.1	-2.0	-0.5399	ug/L	-0.5399	ppb	18:57:16
1	U 409.014†	-2484.4	497.1	14.814	ug/L	14.814	ppb	18:56:56
1	V 292.402†	-1574.2	278.5	1.8285	ug/L	1.8285	ppb	18:57:16
1	Zn 213.857†	1354.5	461.6	3.7763	ug/L	3.7763	ppb	18:57:16
1	SiO2†	223658.1	216437.8	13367	ug/L	13367	ppb	18:58:13
2	Sc Radial	4248.9	4248.9	91.8	%			18:56:24
2	Y RADIAL	4813.1	4813.1	98.33	%			18:56:04
2	Al 396.153Radial†	-8.1	12.0	10.327	ug/L	10.327	ppb	18:56:04
2	Ca 317.933Radial†	1474.3	1591.9	2749.1	ug/L	2749.1	ppb	18:56:24
2	Fe 238.204 Radial†	10.0	-1.8	-17.509	ug/L	-17.509	ppb	18:56:24
2	K 766.490 Radial†	4704.0	1894.4	382.41	ug/L	382.41	ppb	18:56:04
2	Mg 279.077 IEC†	23.7	24.3	827.00	ug/L	827.00	ppb	18:56:24
2	Na 589.592 Radial†	4433.9	6599.6	2253.2	ug/L	2253.2	ppb	18:56:04
2	Sr 421.552†	1311.9	1417.6	10.419	ug/L	10.419	ppb	18:56:04
2	Sc 361.383	906527.9	906527.9	103.80	%			18:57:22
2	Y 371.029	771803.4	771803.4	103.00	%			18:57:22
2	Ag 328.068†	455.1	-52.4	-0.2789	ug/L	-0.2789	ppb	18:57:22
2	As 188.979†	-37.8	-4.9	-1.7315	ug/L	-1.7315	ppb	18:57:42
2	B 249.677†	-677.4	112.9	2.3451	ug/L	2.3451	ppb	18:57:42
2	Ba 233.527†	849.1	799.5	5.8904	ug/L	5.8904	ppb	18:57:42
2	Be 313.107†	-4362.2	177.6	0.0597	ug/L	0.0597	ppb	18:57:22
2	Cd 226.502†	-234.0	27.6	0.2659	ug/L	0.2659	ppb	18:57:42
2	Co 228.616†	-107.4	-4.2	-0.0755	ug/L	-0.0755	ppb	18:57:42
2	Cr 267.716†	151.9	56.1	0.5679	ug/L	0.5679	ppb	18:57:42
2	Cu 324.752†	8239.8	-165.5	-0.4943	ug/L	-0.4943	ppb	18:57:22
2	Mn 257.610†	1841.6	467.9	0.4754	ug/L	0.4754	ppb	18:57:42
2	Mo 202.031†	39.2	11.1	0.7006	ug/L	0.7006	ppb	18:57:42
2	Ni 231.604†	237.9	113.1	2.5057	ug/L	2.5057	ppb	18:57:42

2	P 214.914†	266.7	4.3	2.1396 ug/L	2.1396 ppb		18:57:42
2	Pb 220.353†	-101.1	3.9	0.4105 ug/L	0.4105 ppb		18:57:42
2	S 181.975 Axial†	236.5	170.1	192.47 ug/L	192.47 ppb		18:57:42
2	Sb 206.836†	42.1	-5.6	-1.7613 ug/L	-1.7613 ppb		18:57:42
2	Se 196.026†	-24.7	14.9	7.5427 ug/L	7.5427 ppb		18:57:42
2	Si 251.611†	226374.3	217457.3	6291.1 ug/L	6291.1 ppb		18:57:22
2	Sn 189.927†	-19.6	-23.6	-3.2422 ug/L	-3.2422 ppb		18:57:42
2	Ti 334.940†	-1873.3	-51.3	0.0545 ug/L	0.0545 ppb		18:57:22
2	Tl 190.801†	-47.7	-0.3	-0.0839 ug/L	-0.0839 ppb		18:57:42
2	U 409.014†	-2504.8	495.4	14.764 ug/L	14.764 ppb		18:57:22
2	V 292.402†	-1551.8	311.4	2.0352 ug/L	2.0352 ppb		18:57:42
2	Zn 213.857†	1351.1	448.6	3.6707 ug/L	3.6707 ppb		18:57:42
2	SiO2†	223515.0	214684.0	13259 ug/L	13259 ppb		18:58:18
3	Sc Radial	4248.3	4248.3	91.8 %			18:56:49
3	Y RADIAL	4747.2	4747.2	96.98 %			18:56:29
3	Al 396.153Radial†	-21.1	-2.2	-1.8500 ug/L	-1.8500 ppb		18:56:29
3	Ca 317.933Radial†	1476.6	1594.5	2753.7 ug/L	2753.7 ppb		18:56:49
3	Fe 238.204 Radial†	9.2	-2.7	-26.073 ug/L	-26.073 ppb		18:56:49
3	K 766.490 Radial†	4677.4	1866.1	376.69 ug/L	376.69 ppb		18:56:29
3	Mg 279.077 IEC†	24.2	24.9	847.05 ug/L	847.05 ppb		18:56:49
3	Na 589.592 Radial†	4328.4	6485.2	2214.1 ug/L	2214.1 ppb		18:56:29
3	Sr 421.552†	1262.8	1364.3	10.026 ug/L	10.026 ppb		18:56:29
3	Sc 361.383	908206.3	908206.3	103.99 %			18:57:48
3	Y 371.029	774713.3	774713.3	103.39 %			18:57:48
3	Ag 328.068†	445.4	-62.6	-0.3240 ug/L	-0.3240 ppb		18:57:48
3	As 188.979†	-39.1	-6.1	-2.1607 ug/L	-2.1607 ppb		18:58:08
3	B 249.677†	-640.5	149.6	3.1068 ug/L	3.1068 ppb		18:58:08
3	Ba 233.527†	852.1	800.8	5.9003 ug/L	5.9003 ppb		18:58:08
3	Be 313.107†	-4367.8	180.0	0.0603 ug/L	0.0603 ppb		18:57:48
3	Cd 226.502†	-244.7	17.6	0.1723 ug/L	0.1723 ppb		18:58:08
3	Co 228.616†	-89.8	12.8	0.2451 ug/L	0.2451 ppb		18:58:08
3	Cr 267.716†	168.3	71.5	0.7256 ug/L	0.7256 ppb		18:58:08
3	Cu 324.752†	8259.9	-160.9	-0.4811 ug/L	-0.4811 ppb		18:57:48
3	Mn 257.610†	1843.0	466.0	0.4722 ug/L	0.4722 ppb		18:58:08
3	Mo 202.031†	27.1	-0.6	-0.0425 ug/L	-0.0425 ppb		18:58:08
3	Ni 231.604†	243.8	118.3	2.6214 ug/L	2.6214 ppb		18:58:08
3	P 214.914†	269.5	6.5	3.2002 ug/L	3.2002 ppb		18:58:08
3	Pb 220.353†	-92.8	12.1	1.2567 ug/L	1.2567 ppb		18:58:08
3	S 181.975 Axial†	237.9	171.1	193.60 ug/L	193.60 ppb		18:58:08
3	Sb 206.836†	34.3	-13.2	-4.0930 ug/L	-4.0930 ppb		18:58:08
3	Se 196.026†	-31.6	8.4	4.1752 ug/L	4.1752 ppb		18:58:08
3	Si 251.611†	226184.5	216871.7	6274.2 ug/L	6274.2 ppb		18:57:48
3	Sn 189.927†	-32.5	-36.0	-5.0857 ug/L	-5.0857 ppb		18:58:08
3	Ti 334.940†	-1929.6	-102.1	-0.0260 ug/L	-0.0260 ppb		18:57:48
3	Tl 190.801†	-57.7	-9.8	-2.6928 ug/L	-2.6928 ppb		18:58:08
3	U 409.014†	-2561.6	445.3	13.271 ug/L	13.271 ppb		18:57:48
3	V 292.402†	-1524.5	340.4	2.2078 ug/L	2.2078 ppb		18:58:08
3	Zn 213.857†	1356.8	451.6	3.6948 ug/L	3.6948 ppb		18:58:08
3	SiO2†	224120.4	214868.2	13270 ug/L	13270 ppb		18:58:24

Mean Data: 243285002|935389|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	904838.0	103.61	%	0.511				0.49%
Sc Radial	4247.5	91.8	%	0.04				0.05%
Y 371.029	770952.6	102.89	%	0.567				0.55%
Y RADIAL	4773.1	97.51	%	0.719				0.74%
Ag 328.068†	-56.3	-0.2955	ug/L	0.02484	-0.2955	ppb	0.02484	8.41%
Al 396.153Radial†	9.4	8.1015	ug/L	9.04652	8.1015	ppb	9.04652	111.67%
As 188.979†	-3.5	-1.2340	ug/L	1.25190	-1.2340	ppb	1.25190	101.45%
B 249.677†	131.5	2.7307	ug/L	0.38095	2.7307	ppb	0.38095	13.95%
Ba 233.527†	808.1	5.9539	ug/L	0.10146	5.9539	ppb	0.10146	1.70%
Be 313.107†	178.0	0.0597	ug/L	0.00058	0.0597	ppb	0.00058	0.96%
Ca 317.933Radial†	1595.3	2755.0	ug/L	6.61	2755.0	ppb	6.61	0.24%
Cd 226.502†	25.2	0.2437	ug/L	0.06328	0.2437	ppb	0.06328	25.97%
Co 228.616†	8.5	0.1641	ug/L	0.21108	0.1641	ppb	0.21108	128.64%
Cr 267.716†	71.1	0.7200	ug/L	0.14939	0.7200	ppb	0.14939	20.75%
Cu 324.752†	-167.9	-0.5017	ug/L	0.02501	-0.5017	ppb	0.02501	4.99%
Fe 238.204 Radial†	-1.9	-18.524	ug/L	7.0960	-18.524	ppb	7.0960	38.31%
K 766.490 Radial†	1873.4	378.15	ug/L	3.747	378.15	ppb	3.747	0.99%

Mg 279.077 IEC†	24.9	849.32	ug/L	23.547	849.32	ppb	23.547	2.77%
Mn 257.610†	470.9	0.4781	ug/L	0.00766	0.4781	ppb	0.00766	1.60%
Mo 202.031†	7.8	0.4923	ug/L	0.46693	0.4923	ppb	0.46693	94.84%
Na 589.592 Radial†	6556.5	2238.5	ug/L	21.23	2238.5	ppb	21.23	0.95%
Ni 231.604†	115.8	2.5665	ug/L	0.05807	2.5665	ppb	0.05807	2.26%
P 214.914†	7.2	3.5472	ug/L	1.60935	3.5472	ppb	1.60935	45.37%
Pb 220.353†	8.2	0.8604	ug/L	0.42565	0.8604	ppb	0.42565	49.47%
S 181.975 Axial†	172.5	195.17	ug/L	3.739	195.17	ppb	3.739	1.92%
Sb 206.836†	-9.0	-2.7959	ug/L	1.18782	-2.7959	ppb	1.18782	42.48%
Se 196.026†	10.1	5.1015	ug/L	2.13449	5.1015	ppb	2.13449	41.84%
Si 251.611†	217112.5	6281.2	ug/L	8.85	6281.2	ppb	8.85	0.14%
Sn 189.927†	-31.1	-4.3649	ug/L	0.98526	-4.3649	ppb	0.98526	22.57%
Sr 421.552†	1381.4	10.152	ug/L	0.2310	10.152	ppb	0.2310	2.27%
Ti 334.940†	-80.5	0.0082	ug/L	0.04158	0.0082	ppb	0.04158	505.38%
Tl 190.801†	-4.0	-1.1056	ug/L	1.39338	-1.1056	ppb	1.39338	126.03%
U 409.014†	479.3	14.283	ug/L	0.8767	14.283	ppb	0.8767	6.14%
V 292.402†	310.1	2.0238	ug/L	0.18989	2.0238	ppb	0.18989	9.38%
Zn 213.857†	454.0	3.7140	ug/L	0.05535	3.7140	ppb	0.05535	1.49%
SiO2†	215330.0	13299	ug/L	59.5	13299	ppb	59.5	0.45%

Sequence No.: 37
Sample ID: 1202001502|935389|10
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 48
Date Collected: 1/7/2010 19:07:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202001502|935389|10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4204.1	4204.1	90.8	%			19:09:16
1	Y RADIAL	4440.8	4440.8	90.72	%			19:09:16
1	Al 396.153Radial†	37.4	62.0	53.344	ug/L	53.344	ppb	19:09:16
1	Ca 317.933Radial†	4213.5	4624.4	7986.2	ug/L	7986.2	ppb	19:09:16
1	Fe 238.204 Radial†	225.7	235.7	2261.0	ug/L	2261.0	ppb	19:09:36
1	K 766.490 Radial†	7514.6	5043.0	1003.4	ug/L	1003.4	ppb	19:09:16
1	Mg 279.077 IEC†	53.4	57.2	1948.0	ug/L	1948.0	ppb	19:09:36
1	Na 589.592 Radial†	5169.0	7460.3	2547.0	ug/L	2547.0	ppb	19:09:16
1	Sr 421.552†	6190.8	6803.8	50.053	ug/L	50.053	ppb	19:09:16
1	Sc 361.383	900980.5	900980.5	103.16	%			19:10:33
1	Y 371.029	767565.1	767565.1	102.43	%			19:10:33
1	Ag 328.068†	327.5	-173.5	-0.1204	ug/L	-0.1204	ppb	19:10:33
1	As 188.979†	-34.1	-1.6	-0.2118	ug/L	-0.2118	ppb	19:10:53
1	B 249.677†	-603.1	180.9	3.4460	ug/L	3.4460	ppb	19:10:53
1	Ba 233.527†	6680.8	6457.3	47.603	ug/L	47.603	ppb	19:10:53
1	Be 313.107†	-4437.7	78.5	0.0253	ug/L	0.0253	ppb	19:10:33
1	Cd 226.502†	-251.2	9.4	-0.1350	ug/L	-0.1350	ppb	19:10:53
1	Co 228.616†	35.8	133.9	2.5226	ug/L	2.5226	ppb	19:10:53
1	Cr 267.716†	160.2	65.0	0.6993	ug/L	0.6993	ppb	19:10:53
1	Cu 324.752†	8244.5	-112.1	-0.2189	ug/L	-0.2189	ppb	19:10:33
1	Mn 257.610†	1270049.2	1229783.5	1294.9	ug/L	1294.9	ppb	19:10:33
1	Mo 202.031†	30.5	2.9	0.4001	ug/L	0.4001	ppb	19:10:53
1	Ni 231.604†	204.6	82.2	1.8200	ug/L	1.8200	ppb	19:10:53
1	P 214.914†	290.1	28.6	12.106	ug/L	12.106	ppb	19:10:53
1	Pb 220.353†	-80.0	23.8	2.3028	ug/L	2.3028	ppb	19:10:53
1	S 181.975 Axial†	196.1	132.4	149.80	ug/L	149.80	ppb	19:10:53
1	Sb 206.836†	43.6	-3.9	-1.3310	ug/L	-1.3310	ppb	19:10:53
1	Se 196.026†	-47.1	-6.9	3.4530	ug/L	3.4530	ppb	19:10:53
1	Si 251.611†	61130.3	58625.1	1695.8	ug/L	1695.8	ppb	19:10:33
1	Sn 189.927†	-68.6	-71.3	-9.7826	ug/L	-9.7826	ppb	19:10:53
1	Ti 334.940†	-2188.8	-368.2	-0.1790	ug/L	-0.1790	ppb	19:10:33
1	Tl 190.801†	-80.3	-32.2	-1.2731	ug/L	-1.2731	ppb	19:10:53
1	U 409.014†	-2558.7	428.4	12.480	ug/L	12.480	ppb	19:10:33
1	V 292.402†	-1622.5	233.6	1.2100	ug/L	1.2100	ppb	19:10:53
1	Zn 213.857†	1027.6	143.0	0.9888	ug/L	0.9888	ppb	19:10:53
1	SiO2†	60525.8	58020.4	3582.7	ug/L	3582.7	ppb	19:11:50
2	Sc Radial	4498.9	4498.9	97.2	%			19:09:41
2	Y RADIAL	4764.4	4764.4	97.33	%			19:09:41
2	Al 396.153Radial†	25.9	47.5	40.827	ug/L	40.827	ppb	19:09:41
2	Ca 317.933Radial†	4149.7	4254.8	7347.9	ug/L	7347.9	ppb	19:09:41
2	Fe 238.204 Radial†	221.4	215.0	2062.3	ug/L	2062.3	ppb	19:10:01
2	K 766.490 Radial†	7366.8	4348.8	862.89	ug/L	862.89	ppb	19:09:41
2	Mg 279.077 IEC†	50.6	50.5	1720.4	ug/L	1720.4	ppb	19:10:01
2	Na 589.592 Radial†	5081.3	6997.1	2388.9	ug/L	2388.9	ppb	19:09:41
2	Sr 421.552†	6108.3	6272.2	46.142	ug/L	46.142	ppb	19:09:41
2	Sc 361.383	896113.3	896113.3	102.61	%			19:10:59
2	Y 371.029	763511.3	763511.3	101.89	%			19:10:59
2	Ag 328.068†	392.9	-108.0	0.1092	ug/L	0.1092	ppb	19:10:59
2	As 188.979†	-32.4	-0.1	0.2630	ug/L	0.2630	ppb	19:11:19
2	B 249.677†	-614.1	166.9	3.1829	ug/L	3.1829	ppb	19:11:19
2	Ba 233.527†	6716.9	6527.7	48.116	ug/L	48.116	ppb	19:11:19
2	Be 313.107†	-4383.2	108.3	0.0348	ug/L	0.0348	ppb	19:10:59
2	Cd 226.502†	-208.7	49.5	0.2669	ug/L	0.2669	ppb	19:11:19
2	Co 228.616†	56.3	154.0	2.9072	ug/L	2.9072	ppb	19:11:19
2	Cr 267.716†	180.9	86.1	0.9100	ug/L	0.9100	ppb	19:11:19
2	Cu 324.752†	8178.8	-132.7	-0.2904	ug/L	-0.2904	ppb	19:10:59
2	Mn 257.610†	1269146.8	1235590.5	1301.0	ug/L	1301.0	ppb	19:10:59
2	Mo 202.031†	34.8	7.3	0.6564	ug/L	0.6564	ppb	19:11:19
2	Ni 231.604†	199.5	78.3	1.7334	ug/L	1.7334	ppb	19:11:19

2	P 214.914†	284.4	24.5	10.262 ug/L	10.262 ppb	19:11:19
2	Pb 220.353†	-107.7	-3.7	-0.5411 ug/L	-0.5411 ppb	19:11:19
2	S 181.975 Axial†	200.1	137.3	155.33 ug/L	155.33 ppb	19:11:19
2	Sb 206.836†	42.5	-4.8	-1.6124 ug/L	-1.6124 ppb	19:11:19
2	Se 196.026†	-39.2	0.5	6.6123 ug/L	6.6123 ppb	19:11:19
2	Si 251.611†	61004.3	58824.1	1701.6 ug/L	1701.6 ppb	19:10:59
2	Sn 189.927†	-72.5	-75.4	-10.468 ug/L	-10.468 ppb	19:11:19
2	Ti 334.940†	-2342.0	-529.1	-0.4687 ug/L	-0.4687 ppb	19:10:59
2	Tl 190.801†	-70.5	-23.0	1.2692 ug/L	1.2692 ppb	19:11:19
2	U 409.014†	-2657.2	318.9	9.2416 ug/L	9.2416 ppb	19:10:59
2	V 292.402†	-1650.1	198.2	1.0081 ug/L	1.0081 ppb	19:11:19
2	Zn 213.857†	1062.7	182.6	1.3350 ug/L	1.3350 ppb	19:11:19
2	SiO2†	59967.2	57794.6	3568.8 ug/L	3568.8 ppb	19:11:55
3	Sc Radial	4517.2	4517.2	97.6 %		19:10:06
3	Y RADIAL	4777.6	4777.6	97.60 %		19:10:06
3	Al 396.153Radial†	14.9	36.2	31.083 ug/L	31.083 ppb	19:10:06
3	Ca 317.933Radial†	4135.1	4222.4	7292.1 ug/L	7292.1 ppb	19:10:06
3	Fe 238.204 Radial†	229.5	222.4	2132.9 ug/L	2132.9 ppb	19:10:26
3	K 766.490 Radial†	7429.0	4381.8	869.59 ug/L	869.59 ppb	19:10:06
3	Mg 279.077 IEC†	52.8	52.5	1788.3 ug/L	1788.3 ppb	19:10:26
3	Na 589.592 Radial†	5073.7	6968.1	2379.0 ug/L	2379.0 ppb	19:10:06
3	Sr 421.552†	6116.8	6255.5	46.020 ug/L	46.020 ppb	19:10:06
3	Sc 361.383	892603.7	892603.7	102.21 %		19:11:24
3	Y 371.029	760650.5	760650.5	101.51 %		19:11:24
3	Ag 328.068†	412.9	-86.9	0.2234 ug/L	0.2234 ppb	19:11:24
3	As 188.979†	-31.9	0.2	0.4088 ug/L	0.4088 ppb	19:11:44
3	B 249.677†	-608.0	170.6	3.2483 ug/L	3.2483 ppb	19:11:44
3	Ba 233.527†	6654.5	6492.4	47.857 ug/L	47.857 ppb	19:11:44
3	Be 313.107†	-4452.4	23.8	0.0068 ug/L	0.0068 ppb	19:11:24
3	Cd 226.502†	-223.0	34.8	0.1190 ug/L	0.1190 ppb	19:11:44
3	Co 228.616†	59.7	157.6	2.9741 ug/L	2.9741 ppb	19:11:44
3	Cr 267.716†	177.1	83.1	0.8800 ug/L	0.8800 ppb	19:11:44
3	Cu 324.752†	8200.7	-79.9	-0.1294 ug/L	-0.1294 ppb	19:11:24
3	Mn 257.610†	1263396.2	1234827.4	1300.2 ug/L	1300.2 ppb	19:11:24
3	Mo 202.031†	37.4	9.8	0.8270 ug/L	0.8270 ppb	19:11:44
3	Ni 231.604†	208.2	87.5	1.9380 ug/L	1.9380 ppb	19:11:44
3	P 214.914†	276.1	17.5	6.7662 ug/L	6.7662 ppb	19:11:44
3	Pb 220.353†	-85.3	17.8	1.6886 ug/L	1.6886 ppb	19:11:44
3	S 181.975 Axial†	196.5	134.6	152.24 ug/L	152.24 ppb	19:11:44
3	Sb 206.836†	36.5	-10.5	-3.3168 ug/L	-3.3168 ppb	19:11:44
3	Se 196.026†	-39.3	0.3	6.7330 ug/L	6.7330 ppb	19:11:44
3	Si 251.611†	60856.5	58913.3	1704.1 ug/L	1704.1 ppb	19:11:24
3	Sn 189.927†	-68.0	-71.2	-9.8531 ug/L	-9.8531 ppb	19:11:44
3	Ti 334.940†	-2194.1	-393.3	-0.2549 ug/L	-0.2549 ppb	19:11:24
3	Tl 190.801†	-77.1	-29.7	-0.5697 ug/L	-0.5697 ppb	19:11:44
3	U 409.014†	-2585.5	378.9	11.021 ug/L	11.021 ppb	19:11:24
3	V 292.402†	-1656.0	186.1	0.9278 ug/L	0.9278 ppb	19:11:44
3	Zn 213.857†	1033.1	157.7	1.1217 ug/L	1.1217 ppb	19:11:44
3	SiO2†	60835.8	58874.3	3635.5 ug/L	3635.5 ppb	19:12:00

Mean Data: 1202001502|935389|10

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	896565.8	102.66	%	0.482				0.47%
Sc Radial	4406.8	95.2	%	3.80				3.99%
Y 371.029	763909.0	101.95	%	0.464				0.45%
Y RADIAL	4660.9	95.22	%	3.897				4.09%
Ag 328.068†	-122.8	0.0707	ug/L	0.17507	0.0707	ppb	0.17507	247.47%
Al 396.153Radial†	48.5	41.752	ug/L	11.1591	41.752	ppb	11.1591	26.73%
As 188.979†	-0.5	0.1533	ug/L	0.32451	0.1533	ppb	0.32451	211.67%
B 249.677†	172.8	3.2924	ug/L	0.13699	3.2924	ppb	0.13699	4.16%
Ba 233.527†	6492.4	47.859	ug/L	0.2564	47.859	ppb	0.2564	0.54%
Be 313.107†	70.2	0.0223	ug/L	0.01428	0.0223	ppb	0.01428	64.00%
Ca 317.933Radial†	4367.2	7542.1	ug/L	385.66	7542.1	ppb	385.66	5.11%
Cd 226.502†	31.2	0.0836	ug/L	0.20329	0.0836	ppb	0.20329	243.06%
Co 228.616†	148.5	2.8013	ug/L	0.24364	2.8013	ppb	0.24364	8.70%
Cr 267.716†	78.1	0.8298	ug/L	0.11394	0.8298	ppb	0.11394	13.73%
Cu 324.752†	-108.2	-0.2129	ug/L	0.08066	-0.2129	ppb	0.08066	37.89%
Fe 238.204 Radial†	224.4	2152.0	ug/L	100.76	2152.0	ppb	100.76	4.68%
K 766.490 Radial†	4591.2	911.98	ug/L	79.286	911.98	ppb	79.286	8.69%

Mg 279.077 IEC†	53.4	1818.9	ug/L	116.85	1818.9	ppb	116.85	6.42%
Mn 257.610†	1233400.4	1298.7	ug/L	3.31	1298.7	ppb	3.31	0.26%
Mo 202.031†	6.7	0.6278	ug/L	0.21486	0.6278	ppb	0.21486	34.22%
Na 589.592 Radial†	7141.8	2438.3	ug/L	94.29	2438.3	ppb	94.29	3.87%
Ni 231.604†	82.7	1.8305	ug/L	0.10269	1.8305	ppb	0.10269	5.61%
P 214.914†	23.5	9.7115	ug/L	2.71232	9.7115	ppb	2.71232	27.93%
Pb 220.353†	12.7	1.1501	ug/L	1.49648	1.1501	ppb	1.49648	130.11%
S 181.975 Axial†	134.8	152.46	ug/L	2.771	152.46	ppb	2.771	1.82%
Sb 206.836†	-6.4	-2.0867	ug/L	1.07448	-2.0867	ppb	1.07448	51.49%
Se 196.026†	-2.0	5.5995	ug/L	1.85989	5.5995	ppb	1.85989	33.22%
Si 251.611†	58787.5	1700.5	ug/L	4.29	1700.5	ppb	4.29	0.25%
Sn 189.927†	-72.6	-10.035	ug/L	0.3773	-10.035	ppb	0.3773	3.76%
Sr 421.552†	6443.8	47.405	ug/L	2.2940	47.405	ppb	2.2940	4.84%
Ti 334.940†	-430.2	-0.3009	ug/L	0.15017	-0.3009	ppb	0.15017	49.91%
Tl 190.801†	-28.3	-0.1912	ug/L	1.31272	-0.1912	ppb	1.31272	686.69%
U 409.014†	375.4	10.914	ug/L	1.6220	10.914	ppb	1.6220	14.86%
V 292.402†	206.0	1.0486	ug/L	0.14537	1.0486	ppb	0.14537	13.86%
Zn 213.857†	161.1	1.1485	ug/L	0.17469	1.1485	ppb	0.17469	15.21%
SiO2†	58229.8	3595.6	ug/L	35.18	3595.6	ppb	35.18	0.98%

Sequence No.: 38
Sample ID: 1202001503|935389|10
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 49
Date Collected: 1/7/2010 19:14:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202001503|935389|10

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4402.1	4402.1	95.1	%			19:16:04
1	Y RADIAL	4654.1	4654.1	95.08	%			19:16:04
1	Al 396.153Radial†	576.9	627.4	537.72	ug/L	537.72	ppb	19:16:04
1	Ca 317.933Radial†	4480.8	4696.8	8111.2	ug/L	8111.2	ppb	19:16:04
1	Fe 238.204 Radial†	281.3	283.0	2716.0	ug/L	2716.0	ppb	19:16:24
1	K 766.490 Radial†	9837.0	7112.6	1421.7	ug/L	1421.7	ppb	19:16:04
1	Mg 279.077 IEC†	68.0	70.0	2384.7	ug/L	2384.7	ppb	19:16:24
1	Na 589.592 Radial†	6569.0	8676.2	2962.2	ug/L	2962.2	ppb	19:16:04
1	Sr 421.552†	12635.1	13272.2	97.708	ug/L	97.708	ppb	19:16:04
1	Sc 361.383	883291.8	883291.8	101.14	%			19:17:21
1	Y 371.029	751632.0	751632.0	100.31	%			19:17:21
1	Ag 328.068†	12358.6	11728.4	51.900	ug/L	51.900	ppb	19:17:21
1	As 188.979†	114.9	145.1	51.678	ug/L	51.678	ppb	19:17:41
1	B 249.677†	1791.6	2536.9	52.138	ug/L	52.138	ppb	19:17:41
1	Ba 233.527†	14045.9	13869.1	102.30	ug/L	102.30	ppb	19:17:21
1	Be 313.107†	151610.7	154283.1	52.096	ug/L	52.096	ppb	19:17:21
1	Cd 226.502†	5233.0	5427.0	51.458	ug/L	51.458	ppb	19:17:41
1	Co 228.616†	2789.6	2857.4	54.034	ug/L	54.034	ppb	19:17:41
1	Cr 267.716†	5184.6	5035.9	51.252	ug/L	51.252	ppb	19:17:41
1	Cu 324.752†	25781.6	17387.5	51.991	ug/L	51.991	ppb	19:17:21
1	Mn 257.610†	1319881.4	1303707.9	1372.7	ug/L	1372.7	ppb	19:17:21
1	Mo 202.031†	841.0	804.8	51.179	ug/L	51.179	ppb	19:17:41
1	Ni 231.604†	2538.5	2393.8	53.010	ug/L	53.010	ppb	19:17:41
1	P 214.914†	405.1	147.9	62.703	ug/L	62.703	ppb	19:17:41
1	Pb 220.353†	427.8	524.3	54.532	ug/L	54.532	ppb	19:17:41
1	S 181.975 Axial†	657.0	591.9	669.58	ug/L	669.58	ppb	19:17:41
1	Sb 206.836†	209.6	161.1	49.272	ug/L	49.272	ppb	19:17:41
1	Se 196.026†	51.9	90.0	54.384	ug/L	54.384	ppb	19:17:41
1	Si 251.611†	79041.6	77521.2	2241.3	ug/L	2241.3	ppb	19:17:21
1	Sn 189.927†	289.5	281.5	42.920	ug/L	42.920	ppb	19:17:41
1	Ti 334.940†	30725.3	32132.6	51.844	ug/L	51.844	ppb	19:17:21
1	Tl 190.801†	106.9	151.4	49.634	ug/L	49.634	ppb	19:17:41
1	U 409.014†	-572.0	2343.0	69.381	ug/L	69.381	ppb	19:17:21
1	V 292.402†	6457.7	8191.4	52.393	ug/L	52.393	ppb	19:17:21
1	Zn 213.857†	7205.2	6270.9	51.288	ug/L	51.288	ppb	19:17:41
1	SiO2†	79698.2	78151.8	4823.4	ug/L	4823.4	ppb	19:18:38
2	Sc Radial	4534.1	4534.1	98.0	%			19:16:29
2	Y RADIAL	4802.0	4802.0	98.10	%			19:16:29
2	Al 396.153Radial†	596.9	630.1	540.07	ug/L	540.07	ppb	19:16:29
2	Ca 317.933Radial†	4521.3	4600.9	7945.7	ug/L	7945.7	ppb	19:16:29
2	Fe 238.204 Radial†	280.8	273.8	2628.0	ug/L	2628.0	ppb	19:16:49
2	K 766.490 Radial†	9840.6	6815.1	1361.5	ug/L	1361.5	ppb	19:16:29
2	Mg 279.077 IEC†	67.3	67.2	2289.0	ug/L	2289.0	ppb	19:16:49
2	Na 589.592 Radial†	6687.9	8596.4	2934.9	ug/L	2934.9	ppb	19:16:29
2	Sr 421.552†	12747.8	13000.5	95.708	ug/L	95.708	ppb	19:16:29
2	Sc 361.383	894493.7	894493.7	102.42	%			19:17:47
2	Y 371.029	761450.4	761450.4	101.62	%			19:17:47
2	Ag 328.068†	12567.5	11779.4	52.099	ug/L	52.099	ppb	19:17:47
2	As 188.979†	117.5	146.2	52.046	ug/L	52.046	ppb	19:18:07
2	B 249.677†	1825.4	2547.7	52.374	ug/L	52.374	ppb	19:18:07
2	Ba 233.527†	14171.4	13817.8	101.92	ug/L	101.92	ppb	19:17:47
2	Be 313.107†	153435.8	154187.8	52.064	ug/L	52.064	ppb	19:17:47
2	Cd 226.502†	5253.9	5382.6	51.044	ug/L	51.044	ppb	19:18:07
2	Co 228.616†	2801.0	2834.0	53.593	ug/L	53.593	ppb	19:18:07
2	Cr 267.716†	5201.2	4988.0	50.766	ug/L	50.766	ppb	19:18:07
2	Cu 324.752†	26010.6	17291.9	51.701	ug/L	51.701	ppb	19:17:47
2	Mn 257.610†	1333870.3	1301023.2	1369.9	ug/L	1369.9	ppb	19:17:47
2	Mo 202.031†	857.6	810.6	51.535	ug/L	51.535	ppb	19:18:07
2	Ni 231.604†	2573.4	2396.4	53.068	ug/L	53.068	ppb	19:18:07

2	P 214.914†	393.2	131.3	54.649 ug/L	54.649 ppb	19:18:07
2	Pb 220.353†	416.9	508.4	52.883 ug/L	52.883 ppb	19:18:07
2	S 181.975 Axial†	673.0	599.4	678.00 ug/L	678.00 ppb	19:18:07
2	Sb 206.836†	214.4	163.1	49.914 ug/L	49.914 ppb	19:18:07
2	Se 196.026†	51.5	89.1	53.629 ug/L	53.629 ppb	19:18:07
2	Si 251.611†	79982.4	77461.1	2239.5 ug/L	2239.5 ppb	19:17:47
2	Sn 189.927†	290.3	278.7	42.476 ug/L	42.476 ppb	19:18:07
2	Ti 334.940†	31303.5	32316.7	52.132 ug/L	52.132 ppb	19:17:47
2	Tl 190.801†	103.4	146.6	48.306 ug/L	48.306 ppb	19:18:07
2	U 409.014†	-671.6	2252.9	66.706 ug/L	66.706 ppb	19:17:47
2	V 292.402†	6636.5	8285.9	53.003 ug/L	53.003 ppb	19:17:47
2	Zn 213.857†	7192.3	6169.2	50.454 ug/L	50.454 ppb	19:18:07
2	SiO2†	79586.6	77056.0	4755.7 ug/L	4755.7 ppb	19:18:43
3	Sc Radial	4520.2	4520.2	97.7 %		19:16:54
3	Y RADIAL	4779.9	4779.9	97.65 %		19:16:54
3	Al 396.153Radial†	606.4	641.7	550.02 ug/L	550.02 ppb	19:16:54
3	Ca 317.933Radial†	4477.3	4570.1	7892.5 ug/L	7892.5 ppb	19:16:54
3	Fe 238.204 Radial†	277.7	271.6	2606.7 ug/L	2606.7 ppb	19:17:14
3	K 766.490 Radial†	9814.4	6819.1	1362.3 ug/L	1362.3 ppb	19:16:54
3	Mg 279.077 IEC†	64.5	64.5	2196.4 ug/L	2196.4 ppb	19:17:14
3	Na 589.592 Radial†	6645.1	8573.6	2927.2 ug/L	2927.2 ppb	19:16:54
3	Sr 421.552†	12728.9	13021.1	95.861 ug/L	95.861 ppb	19:16:54
3	Sc 361.383	896229.0	896229.0	102.62 %		19:18:13
3	Y 371.029	762770.3	762770.3	101.79 %		19:18:13
3	Ag 328.068†	12519.5	11708.9	51.791 ug/L	51.791 ppb	19:18:13
3	As 188.979†	114.7	143.2	51.008 ug/L	51.008 ppb	19:18:33
3	B 249.677†	1833.7	2552.4	52.476 ug/L	52.476 ppb	19:18:33
3	Ba 233.527†	14262.4	13879.6	102.37 ug/L	102.37 ppb	19:18:13
3	Be 313.107†	154097.2	154542.2	52.184 ug/L	52.184 ppb	19:18:13
3	Cd 226.502†	5229.5	5348.9	50.724 ug/L	50.724 ppb	19:18:33
3	Co 228.616†	2781.5	2809.7	53.134 ug/L	53.134 ppb	19:18:33
3	Cr 267.716†	5214.7	4991.3	50.800 ug/L	50.800 ppb	19:18:33
3	Cu 324.752†	25985.4	17218.2	51.480 ug/L	51.480 ppb	19:18:13
3	Mn 257.610†	1340097.6	1304569.8	1373.6 ug/L	1373.6 ppb	19:18:13
3	Mo 202.031†	853.5	805.0	51.181 ug/L	51.181 ppb	19:18:33
3	Ni 231.604†	2561.9	2380.3	52.713 ug/L	52.713 ppb	19:18:33
3	P 214.914†	402.9	139.9	58.969 ug/L	58.969 ppb	19:18:33
3	Pb 220.353†	415.7	506.4	52.682 ug/L	52.682 ppb	19:18:33
3	S 181.975 Axial†	651.2	576.9	652.61 ug/L	652.61 ppb	19:18:33
3	Sb 206.836†	203.7	152.3	46.645 ug/L	46.645 ppb	19:18:33
3	Se 196.026†	53.9	91.2	54.662 ug/L	54.662 ppb	19:18:33
3	Si 251.611†	80283.4	77603.2	2243.7 ug/L	2243.7 ppb	19:18:13
3	Sn 189.927†	298.7	286.3	43.615 ug/L	43.615 ppb	19:18:33
3	Ti 334.940†	31286.4	32240.9	52.010 ug/L	52.010 ppb	19:18:13
3	Tl 190.801†	110.7	153.5	50.228 ug/L	50.228 ppb	19:18:33
3	U 409.014†	-886.9	2044.3	60.494 ug/L	60.494 ppb	19:18:13
3	V 292.402†	6608.1	8245.7	52.733 ug/L	52.733 ppb	19:18:13
3	Zn 213.857†	7207.1	6169.9	50.467 ug/L	50.467 ppb	19:18:33
3	SiO2†	79751.1	77065.8	4756.4 ug/L	4756.4 ppb	19:18:49

Mean Data: 1202001503|935389|10

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	891338.2	102.06	%	0.804				0.79%
Sc Radial	4485.5	96.9	%	1.57				1.62%
Y 371.029	758617.5	101.24	%	0.812				0.80%
Y RADIAL	4745.4	96.95	%	1.630				1.68%
Ag 328.068†	11738.9	51.930	ug/L	0.1564	51.930	ppb	0.1564	0.30%
Al 396.153Radial†	633.1	542.60	ug/L	6.530	542.60	ppb	6.530	1.20%
As 188.979†	144.8	51.577	ug/L	0.5263	51.577	ppb	0.5263	1.02%
B 249.677†	2545.7	52.329	ug/L	0.1731	52.329	ppb	0.1731	0.33%
Ba 233.527†	13855.5	102.20	ug/L	0.243	102.20	ppb	0.243	0.24%
Be 313.107†	154337.7	52.115	ug/L	0.0618	52.115	ppb	0.0618	0.12%
Ca 317.933Radial†	4622.6	7983.1	ug/L	114.08	7983.1	ppb	114.08	1.43%
Cd 226.502†	5386.2	51.075	ug/L	0.3677	51.075	ppb	0.3677	0.72%
Co 228.616†	2833.7	53.587	ug/L	0.4500	53.587	ppb	0.4500	0.84%
Cr 267.716†	5005.1	50.939	ug/L	0.2715	50.939	ppb	0.2715	0.53%
Cu 324.752†	17299.2	51.724	ug/L	0.2561	51.724	ppb	0.2561	0.50%
Fe 238.204 Radial†	276.2	2650.3	ug/L	57.91	2650.3	ppb	57.91	2.19%
K 766.490 Radial†	6915.6	1381.9	ug/L	34.53	1381.9	ppb	34.53	2.50%

Mg 279.077 IEC†	67.2	2290.0	ug/L	94.14	2290.0	ppb	94.14	4.11%
Mn 257.610†	1303100.3	1372.1	ug/L	1.95	1372.1	ppb	1.95	0.14%
Mo 202.031†	806.8	51.298	ug/L	0.2053	51.298	ppb	0.2053	0.40%
Na 589.592 Radial†	8615.4	2941.4	ug/L	18.39	2941.4	ppb	18.39	0.63%
Ni 231.604†	2390.2	52.930	ug/L	0.1907	52.930	ppb	0.1907	0.36%
P 214.914†	139.7	58.774	ug/L	4.0305	58.774	ppb	4.0305	6.86%
Pb 220.353†	513.0	53.365	ug/L	1.0151	53.365	ppb	1.0151	1.90%
S 181.975 Axial†	589.4	666.73	ug/L	12.931	666.73	ppb	12.931	1.94%
Sb 206.836†	158.8	48.610	ug/L	1.7316	48.610	ppb	1.7316	3.56%
Se 196.026†	90.1	54.225	ug/L	0.5342	54.225	ppb	0.5342	0.99%
Si 251.611†	77528.5	2241.5	ug/L	2.07	2241.5	ppb	2.07	0.09%
Sn 189.927†	282.2	43.003	ug/L	0.5742	43.003	ppb	0.5742	1.34%
Sr 421.552†	13097.9	96.426	ug/L	1.1136	96.426	ppb	1.1136	1.15%
Ti 334.940†	32230.1	51.996	ug/L	0.1444	51.996	ppb	0.1444	0.28%
Tl 190.801†	150.5	49.389	ug/L	0.9840	49.389	ppb	0.9840	1.99%
U 409.014†	2213.4	65.527	ug/L	4.5595	65.527	ppb	4.5595	6.96%
V 292.402†	8241.0	52.710	ug/L	0.3060	52.710	ppb	0.3060	0.58%
Zn 213.857†	6203.3	50.736	ug/L	0.4780	50.736	ppb	0.4780	0.94%
SiO2†	77424.5	4778.5	ug/L	38.88	4778.5	ppb	38.88	0.81%

Sequence No.: 39
Sample ID: 1202001504|935389|50
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 50
Date Collected: 1/7/2010 19:21:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202001504|935389|50

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4521.7	4521.7	97.7	%			19:22:53
1	Y RADIAL	4759.4	4759.4	97.23	%			19:22:53
1	Al 396.153Radial†	-4.0	16.8	14.456	ug/L	14.456	ppb	19:22:53
1	Ca 317.933Radial†	842.4	848.2	1464.9	ug/L	1464.9	ppb	19:23:13
1	Fe 238.204 Radial†	51.2	39.6	380.27	ug/L	380.27	ppb	19:23:13
1	K 766.490 Radial†	4114.4	981.8	195.07	ug/L	195.07	ppb	19:22:53
1	Mg 279.077 IEC†	11.9	10.6	361.81	ug/L	361.81	ppb	19:23:13
1	Na 589.592 Radial†	-92.4	1675.5	572.04	ug/L	572.04	ppb	19:22:53
1	Sr 421.552†	1227.8	1245.3	9.1614	ug/L	9.1614	ppb	19:22:53
1	Sc 361.383	880714.9	880714.9	100.84	%			19:24:10
1	Y 371.029	755770.4	755770.4	100.86	%			19:24:10
1	Ag 328.068†	487.8	-7.2	0.0763	ug/L	0.0763	ppb	19:24:10
1	As 188.979†	-40.5	-8.7	-2.9872	ug/L	-2.9872	ppb	19:24:30
1	B 249.677†	-842.7	-70.2	-1.5088	ug/L	-1.5088	ppb	19:24:10
1	Ba 233.527†	1355.0	1325.1	9.7662	ug/L	9.7662	ppb	19:24:30
1	Be 313.107†	-4348.1	68.4	0.0230	ug/L	0.0230	ppb	19:24:10
1	Cd 226.502†	-237.3	17.6	0.1298	ug/L	0.1298	ppb	19:24:30
1	Co 228.616†	-61.6	38.1	0.7198	ug/L	0.7198	ppb	19:24:30
1	Cr 267.716†	78.7	-12.3	-0.1170	ug/L	-0.1170	ppb	19:24:10
1	Cu 324.752†	8334.5	161.1	0.4998	ug/L	0.4998	ppb	19:24:10
1	Mn 257.610†	262398.4	258895.5	272.59	ug/L	272.59	ppb	19:24:10
1	Mo 202.031†	23.9	-3.0	-0.1561	ug/L	-0.1561	ppb	19:24:30
1	Ni 231.604†	127.1	9.9	0.2188	ug/L	0.2188	ppb	19:24:30
1	P 214.914†	272.3	17.4	8.1214	ug/L	8.1214	ppb	19:24:30
1	Pb 220.353†	-100.9	1.3	0.1044	ug/L	0.1044	ppb	19:24:30
1	S 181.975 Axial†	83.6	25.3	28.571	ug/L	28.571	ppb	19:24:30
1	Sb 206.836†	33.6	-12.8	-3.9103	ug/L	-3.9103	ppb	19:24:30
1	Se 196.026†	-41.1	-2.0	0.1515	ug/L	0.1515	ppb	19:24:30
1	Si 251.611†	12704.8	11968.4	346.20	ug/L	346.20	ppb	19:24:10
1	Sn 189.927†	-12.1	-16.7	-2.3370	ug/L	-2.3370	ppb	19:24:30
1	Ti 334.940†	-1791.6	-23.1	0.0400	ug/L	0.0400	ppb	19:24:10
1	Tl 190.801†	-36.8	9.2	4.1122	ug/L	4.1122	ppb	19:24:30
1	U 409.014†	-2978.9	-45.4	-1.3994	ug/L	-1.3994	ppb	19:24:10
1	V 292.402†	-1792.5	28.9	0.1283	ug/L	0.1283	ppb	19:24:10
1	Zn 213.857†	886.9	26.4	0.1845	ug/L	0.1845	ppb	19:24:30
1	SiO2†	12803.6	12047.7	743.95	ug/L	743.95	ppb	19:25:26
2	Sc Radial	4499.3	4499.3	97.2	%			19:23:18
2	Y RADIAL	4790.3	4790.3	97.86	%			19:23:18
2	Al 396.153Radial†	21.1	42.6	36.649	ug/L	36.649	ppb	19:23:18
2	Ca 317.933Radial†	843.8	853.9	1474.7	ug/L	1474.7	ppb	19:23:38
2	Fe 238.204 Radial†	52.1	40.9	392.06	ug/L	392.06	ppb	19:23:38
2	K 766.490 Radial†	3941.6	825.0	163.01	ug/L	163.01	ppb	19:23:18
2	Mg 279.077 IEC†	11.6	10.5	355.91	ug/L	355.91	ppb	19:23:38
2	Na 589.592 Radial†	-139.0	1627.1	555.51	ug/L	555.51	ppb	19:23:18
2	Sr 421.552†	1207.0	1230.2	9.0500	ug/L	9.0500	ppb	19:23:18
2	Sc 361.383	811336.2	811336.2	92.900	%			19:24:35
2	Y 371.029	694227.6	694227.6	92.647	%			19:24:35
2	Ag 328.068†	405.1	-54.9	-0.1273	ug/L	-0.1273	ppb	19:24:35
2	As 188.979†	-30.1	-0.9	-0.2651	ug/L	-0.2651	ppb	19:24:55
2	B 249.677†	-809.4	-105.8	-2.2479	ug/L	-2.2479	ppb	19:24:35
2	Ba 233.527†	1361.0	1446.4	10.658	ug/L	10.658	ppb	19:24:55
2	Be 313.107†	-4307.4	-256.5	-0.0873	ug/L	-0.0873	ppb	19:24:35
2	Cd 226.502†	-231.4	3.9	-0.0018	ug/L	-0.0018	ppb	19:24:55
2	Co 228.616†	-67.1	26.9	0.5089	ug/L	0.5089	ppb	19:24:55
2	Cr 267.716†	127.9	47.4	0.4888	ug/L	0.4888	ppb	19:24:35
2	Cu 324.752†	8198.7	721.6	2.1720	ug/L	2.1720	ppb	19:24:35
2	Mn 257.610†	263600.0	282439.3	297.38	ug/L	297.38	ppb	19:24:35
2	Mo 202.031†	22.5	-2.5	-0.1181	ug/L	-0.1181	ppb	19:24:55
2	Ni 231.604†	140.5	35.1	0.7765	ug/L	0.7765	ppb	19:24:55

2	P 214.914†	269.3	37.2	17.531 ug/L	17.531 ppb	19:24:55
2	Pb 220.353†	-115.7	-23.2	-2.4424 ug/L	-2.4424 ppb	19:24:55
2	S 181.975 Axial†	93.3	42.8	48.423 ug/L	48.423 ppb	19:24:55
2	Sb 206.836†	32.9	-10.8	-3.3334 ug/L	-3.3334 ppb	19:24:55
2	Se 196.026†	-41.3	-5.7	-1.6928 ug/L	-1.6928 ppb	19:24:55
2	Si 251.611†	12819.4	13169.0	380.95 ug/L	380.95 ppb	19:24:35
2	Sn 189.927†	-18.1	-24.2	-3.4564 ug/L	-3.4564 ppb	19:24:55
2	Ti 334.940†	-1873.2	-262.9	-0.3421 ug/L	-0.3421 ppb	19:24:35
2	Tl 190.801†	-59.2	-18.0	-3.2148 ug/L	-3.2148 ppb	19:24:55
2	U 409.014†	-2863.0	-173.2	-5.2119 ug/L	-5.2119 ppb	19:24:35
2	V 292.402†	-1776.6	-106.0	-0.7359 ug/L	-0.7359 ppb	19:24:35
2	Zn 213.857†	883.9	98.4	0.7745 ug/L	0.7745 ppb	19:24:55
2	SiO2†	12578.1	12890.7	796.04 ug/L	796.04 ppb	19:25:31
3	Sc Radial	4543.7	4543.7	98.2 %		19:23:43
3	Y RADIAL	4769.0	4769.0	97.43 %		19:23:43
3	Al 396.153Radial†	-26.4	-6.0	-5.2272 ug/L	-5.2272 ppb	19:23:43
3	Ca 317.933Radial†	845.7	847.4	1463.4 ug/L	1463.4 ppb	19:24:03
3	Fe 238.204 Radial†	50.4	38.6	370.67 ug/L	370.67 ppb	19:24:03
3	K 766.490 Radial†	3934.7	778.4	153.77 ug/L	153.77 ppb	19:23:43
3	Mg 279.077 IEC†	14.4	13.2	447.90 ug/L	447.90 ppb	19:24:03
3	Na 589.592 Radial†	-142.1	1625.3	554.91 ug/L	554.91 ppb	19:23:43
3	Sr 421.552†	1219.4	1230.7	9.0540 ug/L	9.0540 ppb	19:23:43
3	Sc 361.383	850092.8	850092.8	97.338 %		19:25:00
3	Y 371.029	728006.9	728006.9	97.155 %		19:25:00
3	Ag 328.068†	524.8	48.2	0.3171 ug/L	0.3171 ppb	19:25:00
3	As 188.979†	-37.0	-6.5	-2.2233 ug/L	-2.2233 ppb	19:25:21
3	B 249.677†	-842.7	-100.3	-2.1313 ug/L	-2.1313 ppb	19:25:00
3	Ba 233.527†	1343.8	1362.0	10.037 ug/L	10.037 ppb	19:25:21
3	Be 313.107†	-4361.9	-101.1	-0.0340 ug/L	-0.0340 ppb	19:25:00
3	Cd 226.502†	-227.9	18.8	0.1423 ug/L	0.1423 ppb	19:25:21
3	Co 228.616†	-66.2	31.2	0.5903 ug/L	0.5903 ppb	19:25:21
3	Cr 267.716†	87.3	-0.5	0.0031 ug/L	0.0031 ppb	19:25:00
3	Cu 324.752†	8251.4	373.4	1.1325 ug/L	1.1325 ppb	19:25:00
3	Mn 257.610†	262076.4	267937.7	282.11 ug/L	282.11 ppb	19:25:00
3	Mo 202.031†	34.9	9.1	0.6139 ug/L	0.6139 ppb	19:25:21
3	Ni 231.604†	142.4	30.2	0.6680 ug/L	0.6680 ppb	19:25:21
3	P 214.914†	251.5	5.8	2.3142 ug/L	2.3142 ppb	19:25:21
3	Pb 220.353†	-100.0	-1.4	-0.1813 ug/L	-0.1813 ppb	19:25:21
3	S 181.975 Axial†	91.2	36.0	40.753 ug/L	40.753 ppb	19:25:21
3	Sb 206.836†	42.3	-2.7	-0.8533 ug/L	-0.8533 ppb	19:25:21
3	Se 196.026†	-33.3	4.5	3.4432 ug/L	3.4432 ppb	19:25:21
3	Si 251.611†	12731.0	12449.2	360.11 ug/L	360.11 ppb	19:25:00
3	Sn 189.927†	-14.5	-19.6	-2.7731 ug/L	-2.7731 ppb	19:25:21
3	Ti 334.940†	-1703.7	3.1	0.0844 ug/L	0.0844 ppb	19:25:00
3	Tl 190.801†	-49.0	-4.6	0.3746 ug/L	0.3746 ppb	19:25:21
3	U 409.014†	-3060.0	-235.1	-7.0533 ug/L	-7.0533 ppb	19:25:00
3	V 292.402†	-1786.4	-28.8	-0.2346 ug/L	-0.2346 ppb	19:25:00
3	Zn 213.857†	871.3	42.1	0.3082 ug/L	0.3082 ppb	19:25:21
3	SiO2†	12634.9	12331.7	761.49 ug/L	761.49 ppb	19:25:36

Mean Data: 1202001504|935389|50

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	847381.3	97.027	%	3.9811				4.10%
Sc Radial	4521.6	97.7	%	0.48				0.49%
Y 371.029	726001.6	96.887	%	4.1131				4.25%
Y RADIAL	4772.9	97.51	%	0.324				0.33%
Ag 328.068†	-4.6	0.0887	ug/L	0.22247	0.0887	ppb	0.22247	250.75%
Al 396.153Radial†	17.8	15.293	ug/L	20.9505	15.293	ppb	20.9505	137.00%
As 188.979†	-5.4	-1.8252	ug/L	1.40404	-1.8252	ppb	1.40404	76.92%
B 249.677†	-92.1	-1.9627	ug/L	0.39733	-1.9627	ppb	0.39733	20.24%
Ba 233.527†	1377.9	10.154	ug/L	0.4572	10.154	ppb	0.4572	4.50%
Be 313.107†	-96.4	-0.0328	ug/L	0.05514	-0.0328	ppb	0.05514	168.24%
Ca 317.933Radial†	849.8	1467.7	ug/L	6.13	1467.7	ppb	6.13	0.42%
Cd 226.502†	13.4	0.0901	ug/L	0.07984	0.0901	ppb	0.07984	88.60%
Co 228.616†	32.1	0.6063	ug/L	0.10639	0.6063	ppb	0.10639	17.55%
Cr 267.716†	11.5	0.1250	ug/L	0.32075	0.1250	ppb	0.32075	256.66%
Cu 324.752†	418.7	1.2681	ug/L	0.84430	1.2681	ppb	0.84430	66.58%
Fe 238.204 Radial†	39.7	381.00	ug/L	10.713	381.00	ppb	10.713	2.81%
K 766.490 Radial†	861.7	170.62	ug/L	21.674	170.62	ppb	21.674	12.70%

Mg 279.077 IEC†	11.4	388.54	ug/L	51.491	388.54	ppb	51.491 13.25%
Mn 257.610†	269757.5	284.03	ug/L	12.505	284.03	ppb	12.505 4.40%
Mo 202.031†	1.2	0.1132	ug/L	0.43401	0.1132	ppb	0.43401 383.26%
Na 589.592 Radial†	1642.6	560.82	ug/L	9.718	560.82	ppb	9.718 1.73%
Ni 231.604†	25.0	0.5544	ug/L	0.29569	0.5544	ppb	0.29569 53.33%
P 214.914†	20.1	9.3221	ug/L	7.67905	9.3221	ppb	7.67905 82.37%
Pb 220.353†	-7.8	-0.8398	ug/L	1.39522	-0.8398	ppb	1.39522 166.14%
S 181.975 Axial†	34.7	39.249	ug/L	10.0113	39.249	ppb	10.0113 25.51%
Sb 206.836†	-8.8	-2.6990	ug/L	1.62425	-2.6990	ppb	1.62425 60.18%
Se 196.026†	-1.1	0.6340	ug/L	2.60176	0.6340	ppb	2.60176 410.39%
Si 251.611†	12528.9	362.42	ug/L	17.489	362.42	ppb	17.489 4.83%
Sn 189.927†	-20.2	-2.8555	ug/L	0.56424	-2.8555	ppb	0.56424 19.76%
Sr 421.552†	1235.4	9.0885	ug/L	0.06321	9.0885	ppb	0.06321 0.70%
Ti 334.940†	-94.3	-0.0726	ug/L	0.23446	-0.0726	ppb	0.23446 323.11%
Tl 190.801†	-4.5	0.4240	ug/L	3.66377	0.4240	ppb	3.66377 864.06%
U 409.014†	-151.2	-4.5549	ug/L	2.88366	-4.5549	ppb	2.88366 63.31%
V 292.402†	-35.3	-0.2807	ug/L	0.43395	-0.2807	ppb	0.43395 154.59%
Zn 213.857†	55.6	0.4224	ug/L	0.31113	0.4224	ppb	0.31113 73.66%
SiO2†	12423.4	767.16	ug/L	26.503	767.16	ppb	26.503 3.45%

Sequence No.: 43
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 1/7/2010 19:48:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4557.2	4557.2	98.5	%			19:50:00
1	Y RADIAL	4811.2	4811.2	98.29	%			19:50:00
1	Al 396.153Radial†	5624.8	5733.0	4912.0	ug/L	4912.0	ppb	19:50:00
1	Ca 317.933Radial†	2958.9	2990.9	5165.2	ug/L	5165.2	ppb	19:50:20
1	Fe 238.204 Radial†	551.3	547.2	5263.8	ug/L	5263.8	ppb	19:50:20
1	K 766.490 Radial†	27610.4	24809.9	5016.4	ug/L	5016.4	ppb	19:50:00
1	Mg 279.077 IEC†	160.0	161.0	5491.2	ug/L	5491.2	ppb	19:50:20
1	Na 589.592 Radial†	28566.3	30779.9	10509	ug/L	10509	ppb	19:50:00
1	Sr 421.552†	64963.6	65961.2	485.92	ug/L	485.92	ppb	19:50:00
1	Sc 361.383	884301.1	884301.1	101.25	%			19:51:19
1	Y 371.029	749330.9	749330.9	100.00	%			19:51:19
1	Ag 328.068†	117165.4	115222.5	503.95	ug/L	503.95	ppb	19:51:19
1	As 188.979†	1437.7	1451.4	513.48	ug/L	513.48	ppb	19:51:39
1	B 249.677†	23726.1	24197.5	500.07	ug/L	500.07	ppb	19:51:19
1	Ba 233.527†	69507.6	68627.7	506.54	ug/L	506.54	ppb	19:51:19
1	Be 313.107†	1519837.8	1505383.4	508.33	ug/L	508.33	ppb	19:51:19
1	Cd 226.502†	53795.6	53381.9	508.29	ug/L	508.29	ppb	19:51:19
1	Co 228.616†	26876.0	26642.1	503.90	ug/L	503.90	ppb	19:51:39
1	Cr 267.716†	50144.9	49433.3	502.76	ug/L	502.76	ppb	19:51:19
1	Cu 324.752†	179548.2	169219.5	504.91	ug/L	504.91	ppb	19:51:19
1	Mn 257.610†	487302.0	479956.8	505.71	ug/L	505.71	ppb	19:51:19
1	Mo 202.031†	8051.0	7924.5	501.85	ug/L	501.85	ppb	19:51:39
1	Ni 231.604†	23140.3	22737.4	503.53	ug/L	503.53	ppb	19:51:39
1	P 214.914†	5501.8	5181.0	2460.5	ug/L	2460.5	ppb	19:51:39
1	Pb 220.353†	4840.0	4881.3	509.35	ug/L	509.35	ppb	19:51:39
1	S 181.975 Axial†	952.5	883.0	998.03	ug/L	998.03	ppb	19:51:39
1	Sb 206.836†	1728.1	1660.5	508.88	ug/L	508.88	ppb	19:51:39
1	Se 196.026†	978.7	1005.3	529.81	ug/L	529.81	ppb	19:51:39
1	Si 251.611†	88696.5	86967.3	2504.1	ug/L	2504.1	ppb	19:51:19
1	Sn 189.927†	3392.8	3346.0	500.31	ug/L	500.31	ppb	19:51:39
1	Ti 334.940†	319493.3	317287.5	508.11	ug/L	508.11	ppb	19:51:19
1	Tl 190.801†	1820.6	1843.7	509.61	ug/L	509.61	ppb	19:51:39
1	U 409.014†	13800.4	16538.0	491.19	ug/L	491.19	ppb	19:51:19
1	V 292.402†	78448.9	79283.1	509.65	ug/L	509.65	ppb	19:51:19
1	Zn 213.857†	63097.8	61462.8	504.51	ug/L	504.51	ppb	19:51:19
1	SiO2†	88925.0	87174.3	5357.8	ug/L	5357.8	ppb	19:52:40
2	Sc Radial	4561.7	4561.7	98.6	%			19:50:25
2	Y RADIAL	4824.2	4824.2	98.56	%			19:50:25
2	Al 396.153Radial†	5643.6	5746.4	4923.2	ug/L	4923.2	ppb	19:50:25
2	Ca 317.933Radial†	2938.7	2967.4	5124.7	ug/L	5124.7	ppb	19:50:45
2	Fe 238.204 Radial†	541.2	536.3	5159.5	ug/L	5159.5	ppb	19:50:45
2	K 766.490 Radial†	27707.9	24881.0	5030.8	ug/L	5030.8	ppb	19:50:25
2	Mg 279.077 IEC†	156.9	157.6	5377.4	ug/L	5377.4	ppb	19:50:45
2	Na 589.592 Radial†	28819.4	31007.9	10587	ug/L	10587	ppb	19:50:25
2	Sr 421.552†	65344.0	66281.6	488.28	ug/L	488.28	ppb	19:50:25
2	Sc 361.383	877349.3	877349.3	100.46	%			19:51:47
2	Y 371.029	743525.0	743525.0	99.226	%			19:51:47
2	Ag 328.068†	115781.0	114761.3	501.91	ug/L	501.91	ppb	19:51:47
2	As 188.979†	1424.1	1449.0	512.63	ug/L	512.63	ppb	19:52:07
2	B 249.677†	23387.1	24045.8	496.93	ug/L	496.93	ppb	19:51:47
2	Ba 233.527†	68689.9	68357.6	504.55	ug/L	504.55	ppb	19:51:47
2	Be 313.107†	1504894.3	1502401.5	507.32	ug/L	507.32	ppb	19:51:47
2	Cd 226.502†	53180.7	53190.8	506.48	ug/L	506.48	ppb	19:51:47
2	Co 228.616†	26884.3	26860.7	508.05	ug/L	508.05	ppb	19:52:07
2	Cr 267.716†	49717.9	49400.6	502.43	ug/L	502.43	ppb	19:51:47
2	Cu 324.752†	177314.3	168400.8	502.46	ug/L	502.46	ppb	19:51:47
2	Mn 257.610†	482091.3	478583.2	504.25	ug/L	504.25	ppb	19:51:47
2	Mo 202.031†	8100.5	8036.8	508.94	ug/L	508.94	ppb	19:52:07
2	Ni 231.604†	23232.3	23010.0	509.56	ug/L	509.56	ppb	19:52:07

2	P 214.914†	5524.5	5246.6	2493.1 ug/L	2493.1 ppb	19:52:07
2	Pb 220.353†	4858.7	4937.8	515.26 ug/L	515.26 ppb	19:52:07
2	S 181.975 Axial†	957.5	895.4	1012.1 ug/L	1012.1 ppb	19:52:07
2	Sb 206.836†	1726.0	1671.9	512.58 ug/L	512.58 ppb	19:52:07
2	Se 196.026†	978.0	1012.3	533.06 ug/L	533.06 ppb	19:52:07
2	Si 251.611†	87642.1	86611.8	2493.7 ug/L	2493.7 ppb	19:51:47
2	Sn 189.927†	3400.1	3379.9	505.36 ug/L	505.36 ppb	19:52:07
2	Ti 334.940†	316355.9	316664.5	507.11 ug/L	507.11 ppb	19:51:47
2	Tl 190.801†	1804.3	1841.8	509.03 ug/L	509.03 ppb	19:52:07
2	U 409.014†	13463.0	16310.1	484.42 ug/L	484.42 ppb	19:51:47
2	V 292.402†	77704.0	79155.5	508.95 ug/L	508.95 ppb	19:51:47
2	Zn 213.857†	62325.2	61187.5	502.21 ug/L	502.21 ppb	19:51:47
2	SiO2†	88289.3	87237.4	5361.4 ug/L	5361.4 ppb	19:52:45
3	Sc Radial	4535.3	4535.3	98.0 %		19:50:50
3	Y RADIAL	4758.5	4758.5	97.21 %		19:50:50
3	Al 396.153Radial†	5627.8	5763.6	4938.5 ug/L	4938.5 ppb	19:50:50
3	Ca 317.933Radial†	2955.7	3002.1	5184.6 ug/L	5184.6 ppb	19:51:10
3	Fe 238.204 Radial†	552.7	551.3	5302.7 ug/L	5302.7 ppb	19:51:10
3	K 766.490 Radial†	27631.4	24966.6	5048.1 ug/L	5048.1 ppb	19:50:50
3	Mg 279.077 IEC†	159.4	161.2	5497.0 ug/L	5497.0 ppb	19:51:10
3	Na 589.592 Radial†	28567.9	30921.6	10557 ug/L	10557 ppb	19:50:50
3	Sr 421.552†	65005.2	66322.1	488.58 ug/L	488.58 ppb	19:50:50
3	Sc 361.383	890675.0	890675.0	101.98 %		19:52:14
3	Y 371.029	754782.9	754782.9	100.73 %		19:52:14
3	Ag 328.068†	117590.6	114811.3	502.17 ug/L	502.17 ppb	19:52:14
3	As 188.979†	1425.1	1428.8	505.58 ug/L	505.58 ppb	19:52:34
3	B 249.677†	23826.3	24128.2	498.64 ug/L	498.64 ppb	19:52:14
3	Ba 233.527†	69757.0	68380.9	504.72 ug/L	504.72 ppb	19:52:14
3	Be 313.107†	1528343.0	1502981.5	507.52 ug/L	507.52 ppb	19:52:14
3	Cd 226.502†	53946.8	53150.0	506.08 ug/L	506.08 ppb	19:52:14
3	Co 228.616†	26796.8	26374.6	498.83 ug/L	498.83 ppb	19:52:34
3	Cr 267.716†	50399.8	49328.7	501.70 ug/L	501.70 ppb	19:52:14
3	Cu 324.752†	180555.6	168938.4	504.07 ug/L	504.07 ppb	19:52:14
3	Mn 257.610†	489791.0	478953.3	504.66 ug/L	504.66 ppb	19:52:14
3	Mo 202.031†	8057.6	7874.1	498.66 ug/L	498.66 ppb	19:52:34
3	Ni 231.604†	23122.5	22556.4	499.52 ug/L	499.52 ppb	19:52:34
3	P 214.914†	5494.3	5134.7	2437.9 ug/L	2437.9 ppb	19:52:34
3	Pb 220.353†	4850.4	4857.3	506.85 ug/L	506.85 ppb	19:52:34
3	S 181.975 Axial†	953.3	877.0	991.25 ug/L	991.25 ppb	19:52:34
3	Sb 206.836†	1717.3	1637.7	501.85 ug/L	501.85 ppb	19:52:34
3	Se 196.026†	982.3	1001.9	528.19 ug/L	528.19 ppb	19:52:34
3	Si 251.611†	89031.3	86668.7	2495.5 ug/L	2495.5 ppb	19:52:14
3	Sn 189.927†	3389.8	3319.1	496.29 ug/L	496.29 ppb	19:52:34
3	Ti 334.940†	321547.4	317043.6	507.72 ug/L	507.72 ppb	19:52:14
3	Tl 190.801†	1813.3	1823.7	504.13 ug/L	504.13 ppb	19:52:34
3	U 409.014†	13777.1	16417.6	487.60 ug/L	487.60 ppb	19:52:14
3	V 292.402†	78708.2	78982.9	507.69 ug/L	507.69 ppb	19:52:14
3	Zn 213.857†	63289.8	61205.1	502.41 ug/L	502.41 ppb	19:52:14
3	SiO2†	88567.9	86195.7	5297.5 ug/L	5297.5 ppb	19:52:50

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	884108.5	101.23	%	0.763				0.75%
Sc Radial	4551.4	98.3	%	0.31				0.31%
Y 371.029	749212.9	99.985	%	0.7513				0.75%
Y RADIAL	4798.0	98.02	%	0.711				0.73%
Ag 328.068†	114931.7	502.68	ug/L	1.109	502.68	ppb	1.109	0.22%
QC value within limits for Ag 328.068 Recovery = 100.54%								
Al 396.153Radial†	5747.7	4924.6	ug/L	13.28	4924.6	ppb	13.28	0.27%
QC value within limits for Al 396.153Radial Recovery = 98.49%								
As 188.979†	1443.1	510.57	ug/L	4.339	510.57	ppb	4.339	0.85%
QC value within limits for As 188.979 Recovery = 102.11%								
B 249.677†	24123.8	498.55	ug/L	1.575	498.55	ppb	1.575	0.32%
QC value within limits for B 249.677 Recovery = 99.71%								
Ba 233.527†	68455.4	505.27	ug/L	1.104	505.27	ppb	1.104	0.22%
QC value within limits for Ba 233.527 Recovery = 101.05%								
Be 313.107†	1503588.8	507.72	ug/L	0.534	507.72	ppb	0.534	0.11%
QC value within limits for Be 313.107 Recovery = 101.54%								
Ca 317.933Radial†	2986.8	5158.1	ug/L	30.56	5158.1	ppb	30.56	0.59%

```
   QC value within limits for Ca 317.933Radial  Recovery = 103.16%
Cd 226.502†            53240.9      506.95 ug/L         1.179      506.95 ppb          1.179   0.23%
   QC value within limits for Cd 226.502  Recovery = 101.39%
Co 228.616†            26625.8      503.59 ug/L         4.618      503.59 ppb          4.618   0.92%
   QC value within limits for Co 228.616  Recovery = 100.72%
Cr 267.716†            49387.5      502.30 ug/L         0.544      502.30 ppb          0.544   0.11%
   QC value within limits for Cr 267.716  Recovery = 100.46%
Cu 324.752†           168852.9      503.81 ug/L         1.244      503.81 ppb          1.244   0.25%
   QC value within limits for Cu 324.752  Recovery = 100.76%
Fe 238.204 Radial†       544.9      5242.0 ug/L         74.04      5242.0 ppb          74.04   1.41%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.84%
K 766.490 Radial†      24885.8      5031.8 ug/L         15.89      5031.8 ppb          15.89   0.32%
   QC value within limits for K 766.490 Radial  Recovery = 100.64%
Mg 279.077 IEC†          159.9      5455.2 ug/L         67.42      5455.2 ppb          67.42   1.24%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.10%
Mn 257.610†           479164.4      504.87 ug/L         0.751      504.87 ppb          0.751   0.15%
   QC value within limits for Mn 257.610  Recovery = 100.97%
Mo 202.031†            7945.1      503.15 ug/L         5.262      503.15 ppb          5.262   1.05%
   QC value within limits for Mo 202.031  Recovery = 100.63%
Na 589.592 Radial†     30903.1       10551 ug/L          39.3       10551 ppb           39.3   0.37%
   QC value within limits for Na 589.592 Radial  Recovery = 105.51%
Ni 231.604†            22768.0      504.20 ug/L         5.058      504.20 ppb          5.058   1.00%
   QC value within limits for Ni 231.604  Recovery = 100.84%
P 214.914†              5187.5      2463.8 ug/L         27.80      2463.8 ppb          27.80   1.13%
   QC value within limits for P 214.914  Recovery = 98.55%
Pb 220.353†             4892.2      510.49 ug/L         4.321      510.49 ppb          4.321   0.85%
   QC value within limits for Pb 220.353  Recovery = 102.10%
S 181.975 Axial†         885.2      1000.5 ug/L         10.63      1000.5 ppb          10.63   1.06%
   QC value within limits for S 181.975 Axial  Recovery = 100.05%
Sb 206.836†             1656.7      507.77 ug/L         5.447      507.77 ppb          5.447   1.07%
   QC value within limits for Sb 206.836  Recovery = 101.55%
Se 196.026†             1006.5      530.35 ug/L         2.481      530.35 ppb          2.481   0.47%
   QC value within limits for Se 196.026  Recovery = 106.07%
Si 251.611†            86749.3      2497.7 ug/L          5.56      2497.7 ppb           5.56   0.22%
   QC value within limits for Si 251.611  Recovery = 99.91%
Sn 189.927†             3348.3      500.66 ug/L         4.544      500.66 ppb          4.544   0.91%
   QC value within limits for Sn 189.927  Recovery = 100.13%
Sr 421.552†            66188.3      487.60 ug/L         1.457      487.60 ppb          1.457   0.30%
   QC value within limits for Sr 421.552  Recovery = 97.52%
Ti 334.940†           316998.5      507.65 ug/L         0.503      507.65 ppb          0.503   0.10%
   QC value within limits for Ti 334.940  Recovery = 101.53%
Tl 190.801†             1836.4      507.59 ug/L         3.013      507.59 ppb          3.013   0.59%
   QC value within limits for Tl 190.801  Recovery = 101.52%
U 409.014†             16421.9      487.74 ug/L         3.391      487.74 ppb          3.391   0.70%
   QC value within limits for U 409.014  Recovery = 97.55%
V 292.402†             79140.5      508.76 ug/L         0.994      508.76 ppb          0.994   0.20%
   QC value within limits for V 292.402  Recovery = 101.75%
Zn 213.857†            61285.1      503.04 ug/L         1.278      503.04 ppb          1.278   0.25%
   QC value within limits for Zn 213.857  Recovery = 100.61%
SiO2†                  86869.1      5338.9 ug/L         35.90      5338.9 ppb          35.90   0.67%
   QC value within limits for SiO2  Recovery = 99.84%
All analyte(s) passed QC.
```

Sequence No.: 44
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 1/7/2010 19:54:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4555.9	4555.9	98.4	%			19:56:51
1	Y RADIAL	4812.7	4812.7	98.32	%			19:56:51
1	Al 396.153Radial†	23.2	44.5	38.239	ug/L	38.239	ppb	19:56:51
1	Ca 317.933Radial†	14.1	0.3	0.5789	ug/L	0.5789	ppb	19:57:11
1	Fe 238.204 Radial†	10.1	-2.5	-23.702	ug/L	-23.702	ppb	19:57:11
1	K 766.490 Radial†	3203.9	25.3	5.0816	ug/L	5.0816	ppb	19:56:51
1	Mg 279.077 IEC†	3.0	1.5	51.925	ug/L	51.925	ppb	19:57:11
1	Na 589.592 Radial†	-1387.5	360.6	123.11	ug/L	123.11	ppb	19:56:51
1	Sr 421.552†	-22.2	-33.8	-0.2490	ug/L	-0.2490	ppb	19:56:51
1	Sc 361.383	892151.6	892151.6	102.15	%			19:58:08
1	Y 371.029	761981.7	761981.7	101.69	%			19:58:08
1	Ag 328.068†	497.0	-4.4	-0.0367	ug/L	-0.0367	ppb	19:58:13
1	As 188.979†	-32.0	0.2	0.0605	ug/L	0.0605	ppb	19:58:33
1	B 249.677†	-633.7	145.1	3.0136	ug/L	3.0136	ppb	19:58:13
1	Ba 233.527†	-4.5	-22.9	-0.1677	ug/L	-0.1677	ppb	19:58:33
1	Be 313.107†	-4407.4	65.6	0.0224	ug/L	0.0224	ppb	19:58:13
1	Cd 226.502†	-252.6	5.7	0.0565	ug/L	0.0565	ppb	19:58:33
1	Co 228.616†	-99.2	2.1	0.0406	ug/L	0.0406	ppb	19:58:33
1	Cr 267.716†	84.3	-7.7	-0.0821	ug/L	-0.0821	ppb	19:58:13
1	Cu 324.752†	8182.2	-94.0	-0.2814	ug/L	-0.2814	ppb	19:58:13
1	Mn 257.610†	808.4	-515.0	-0.5455	ug/L	-0.5455	ppb	19:58:13
1	Mo 202.031†	32.6	5.3	0.3303	ug/L	0.3303	ppb	19:58:33
1	Ni 231.604†	92.5	-25.6	-0.5664	ug/L	-0.5664	ppb	19:58:33
1	P 214.914†	262.1	4.0	2.0346	ug/L	2.0346	ppb	19:58:33
1	Pb 220.353†	-83.6	19.4	2.0338	ug/L	2.0338	ppb	19:58:33
1	S 181.975 Axial†	58.8	-0.1	-0.1536	ug/L	-0.1536	ppb	19:58:33
1	Sb 206.836†	58.6	11.1	3.3944	ug/L	3.3944	ppb	19:58:33
1	Se 196.026†	-44.9	-5.2	-2.7175	ug/L	-2.7175	ppb	19:58:33
1	Si 251.611†	627.1	-16.1	-0.4778	ug/L	-0.4778	ppb	19:58:33
1	Sn 189.927†	11.9	6.9	1.0360	ug/L	1.0360	ppb	19:58:33
1	Ti 334.940†	-1701.7	87.6	0.1339	ug/L	0.1339	ppb	19:58:13
1	Tl 190.801†	-39.5	7.0	1.9103	ug/L	1.9103	ppb	19:58:33
1	U 409.014†	-2469.2	491.5	14.648	ug/L	14.648	ppb	19:58:08
1	V 292.402†	-1719.4	123.2	0.8195	ug/L	0.8195	ppb	19:58:13
1	Zn 213.857†	823.6	-46.8	-0.3844	ug/L	-0.3844	ppb	19:58:33
1	SiO2†	671.4	8.5	0.5003	ug/L	0.5003	ppb	19:59:39
2	Sc Radial	4481.7	4481.7	96.8	%			19:57:16
2	Y RADIAL	4754.0	4754.0	97.12	%			19:57:16
2	Al 396.153Radial†	-0.7	20.1	17.327	ug/L	17.327	ppb	19:57:16
2	Ca 317.933Radial†	12.0	-1.6	-2.7712	ug/L	-2.7712	ppb	19:57:36
2	Fe 238.204 Radial†	10.9	-1.5	-14.321	ug/L	-14.321	ppb	19:57:36
2	K 766.490 Radial†	3122.2	-5.2	-1.0939	ug/L	-1.0939	ppb	19:57:16
2	Mg 279.077 IEC†	7.7	6.4	219.65	ug/L	219.65	ppb	19:57:36
2	Na 589.592 Radial†	-1441.8	281.2	95.995	ug/L	95.995	ppb	19:57:16
2	Sr 421.552†	-19.7	-31.6	-0.2331	ug/L	-0.2331	ppb	19:57:16
2	Sc 361.383	885306.8	885306.8	101.37	%			19:58:38
2	Y 371.029	757445.6	757445.6	101.08	%			19:58:38
2	Ag 328.068†	460.0	-37.2	-0.1759	ug/L	-0.1759	ppb	19:58:43
2	As 188.979†	-34.8	-2.9	-1.0024	ug/L	-1.0024	ppb	19:59:03
2	B 249.677†	-681.7	93.0	1.9309	ug/L	1.9309	ppb	19:58:43
2	Ba 233.527†	4.3	-14.3	-0.1044	ug/L	-0.1044	ppb	19:59:03
2	Be 313.107†	-4305.0	133.3	0.0451	ug/L	0.0451	ppb	19:58:43
2	Cd 226.502†	-255.8	0.6	0.0070	ug/L	0.0070	ppb	19:59:03
2	Co 228.616†	-103.4	-2.8	-0.0534	ug/L	-0.0534	ppb	19:59:03
2	Cr 267.716†	99.3	7.7	0.0741	ug/L	0.0741	ppb	19:58:43
2	Cu 324.752†	8109.8	-103.5	-0.3093	ug/L	-0.3093	ppb	19:58:43
2	Mn 257.610†	843.6	-474.2	-0.5047	ug/L	-0.5047	ppb	19:58:43
2	Mo 202.031†	24.6	-2.5	-0.1573	ug/L	-0.1573	ppb	19:59:03
2	Ni 231.604†	113.2	-4.4	-0.0983	ug/L	-0.0983	ppb	19:59:03

2	P 214.914†	262.1	5.9	2.9683	ug/L	2.9683 ppb	19:59:03
2	Pb 220.353†	-105.2	-2.4	-0.2486	ug/L	-0.2486 ppb	19:59:03
2	S 181.975 Axial†	61.0	2.5	2.8558	ug/L	2.8558 ppb	19:59:03
2	Sb 206.836†	47.8	1.0	0.3254	ug/L	0.3254 ppb	19:59:03
2	Se 196.026†	-34.9	4.3	2.1638	ug/L	2.1638 ppb	19:59:03
2	Si 251.611†	633.2	-5.4	-0.1573	ug/L	-0.1573 ppb	19:59:03
2	Sn 189.927†	15.6	10.6	1.5868	ug/L	1.5868 ppb	19:59:03
2	Ti 334.940†	-1727.0	49.8	0.0736	ug/L	0.0736 ppb	19:58:43
2	Tl 190.801†	-49.0	-2.6	-0.7289	ug/L	-0.7289 ppb	19:59:03
2	U 409.014†	-2483.3	458.9	13.676	ug/L	13.676 ppb	19:58:38
2	V 292.402†	-1744.5	85.4	0.5733	ug/L	0.5733 ppb	19:58:43
2	Zn 213.857†	811.1	-53.0	-0.4443	ug/L	-0.4443 ppb	19:59:03
2	SiO2†	621.2	-35.9	-2.2219	ug/L	-2.2219 ppb	19:59:44
3	Sc Radial	4459.4	4459.4	96.4	%		19:57:41
3	Y RADIAL	4720.2	4720.2	96.43	%		19:57:41
3	Al 396.153Radial†	-4.0	16.8	14.408	ug/L	14.408 ppb	19:57:41
3	Ca 317.933Radial†	12.0	-1.6	-2.7231	ug/L	-2.7231 ppb	19:58:01
3	Fe 238.204 Radial†	13.4	1.1	11.024	ug/L	11.024 ppb	19:58:01
3	K 766.490 Radial†	3224.7	117.3	23.733	ug/L	23.733 ppb	19:57:41
3	Mg 279.077 IEC†	3.4	2.0	69.239	ug/L	69.239 ppb	19:58:01
3	Na 589.592 Radial†	-1446.1	269.3	91.945	ug/L	91.945 ppb	19:57:41
3	Sr 421.552†	18.1	7.5	0.0553	ug/L	0.0553 ppb	19:57:41
3	Sc 361.383	888469.9	888469.9	101.73	%		19:59:08
3	Y 371.029	759553.9	759553.9	101.36	%		19:59:08
3	Ag 328.068†	440.0	-58.4	-0.2559	ug/L	-0.2559 ppb	19:59:13
3	As 188.979†	-31.3	0.7	0.2441	ug/L	0.2441 ppb	19:59:34
3	B 249.677†	-719.3	58.5	1.2117	ug/L	1.2117 ppb	19:59:13
3	Ba 233.527†	-3.4	-21.9	-0.1605	ug/L	-0.1605 ppb	19:59:34
3	Be 313.107†	-4350.9	103.3	0.0350	ug/L	0.0350 ppb	19:59:13
3	Cd 226.502†	-263.9	-6.5	-0.0624	ug/L	-0.0624 ppb	19:59:34
3	Co 228.616†	-105.2	-4.2	-0.0789	ug/L	-0.0789 ppb	19:59:34
3	Cr 267.716†	73.2	-18.3	-0.1874	ug/L	-0.1874 ppb	19:59:13
3	Cu 324.752†	8196.7	-46.5	-0.1382	ug/L	-0.1382 ppb	19:59:13
3	Mn 257.610†	824.8	-495.5	-0.5219	ug/L	-0.5219 ppb	19:59:13
3	Mo 202.031†	32.4	5.1	0.3266	ug/L	0.3266 ppb	19:59:34
3	Ni 231.604†	132.3	13.9	0.3076	ug/L	0.3076 ppb	19:59:34
3	P 214.914†	265.0	7.9	3.8746	ug/L	3.8746 ppb	19:59:34
3	Pb 220.353†	-91.0	11.8	1.2359	ug/L	1.2359 ppb	19:59:34
3	S 181.975 Axial†	50.2	-8.3	-9.4281	ug/L	-9.4281 ppb	19:59:34
3	Sb 206.836†	52.1	5.0	1.5143	ug/L	1.5143 ppb	19:59:34
3	Se 196.026†	-37.6	1.8	0.9513	ug/L	0.9513 ppb	19:59:34
3	Si 251.611†	624.3	-16.4	-0.4855	ug/L	-0.4855 ppb	19:59:34
3	Sn 189.927†	1.0	-3.7	-0.5544	ug/L	-0.5544 ppb	19:59:34
3	Ti 334.940†	-1713.2	69.4	0.1077	ug/L	0.1077 ppb	19:59:13
3	Tl 190.801†	-49.2	-2.7	-0.7405	ug/L	-0.7405 ppb	19:59:34
3	U 409.014†	-2687.9	266.4	7.9377	ug/L	7.9377 ppb	19:59:08
3	V 292.402†	-1801.8	35.3	0.2437	ug/L	0.2437 ppb	19:59:13
3	Zn 213.857†	805.3	-61.5	-0.5134	ug/L	-0.5134 ppb	19:59:34
3	SiO2†	621.7	-37.6	-2.3474	ug/L	-2.3474 ppb	19:59:49

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	888642.8	101.75	%	0.392				0.39%
Sc Radial	4499.0	97.2	%	1.09				1.12%
Y 371.029	759660.4	101.38	%	0.303				0.30%
Y RADIAL	4762.3	97.29	%	0.957				0.98%
Ag 328.068†	-33.3	-0.1561	ug/L	0.11093	-0.1561	ppb	0.11093	71.04%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	27.1	23.325	ug/L	12.9985	23.325	ppb	12.9985	55.73%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.7	-0.2326	ug/L	0.67297	-0.2326	ppb	0.67297	289.29%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	98.8	2.0521	ug/L	0.90703	2.0521	ppb	0.90703	44.20%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-19.7	-0.1442	ug/L	0.03465	-0.1442	ppb	0.03465	24.03%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	100.8	0.0342	ug/L	0.01137	0.0342	ppb	0.01137	33.27%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.9	-1.6384	ug/L	1.92044	-1.6384	ppb	1.92044	117.21%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -0.1      0.0003 ug/L       0.05971      0.0003 ppb        0.05971 >999.9%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -1.6     -0.0306 ug/L       0.06294     -0.0306 ppb        0.06294 205.70%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -6.1     -0.0651 ug/L       0.13159     -0.0651 ppb        0.13159 202.02%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -81.3     -0.2430 ug/L       0.09179     -0.2430 ppb        0.09179  37.78%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.9     -8.9997 ug/L      17.96425     -8.9997 ppb       17.96425 199.61%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        45.8      9.2403 ug/L      12.92546      9.2403 ppb       12.92546 139.88%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           3.3      113.61 ug/L        92.247      113.61 ppb         92.247  81.20%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†            -494.9     -0.5240 ug/L       0.02048     -0.5240 ppb        0.02048   3.91%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               2.6      0.1665 ug/L       0.28045      0.1665 ppb        0.28045 168.44%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       303.7      103.68 ug/L        16.946      103.68 ppb         16.946  16.34%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -5.4     -0.1191 ug/L       0.43736     -0.1191 ppb        0.43736 367.32%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                5.9      2.9591 ug/L       0.92003      2.9591 ppb        0.92003  31.09%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               9.6      1.0070 ug/L       1.15826      1.0070 ppb        1.15826 115.02%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.0     -2.2420 ug/L       6.40270     -2.2420 ppb        6.40270 285.58%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               5.7      1.7447 ug/L       1.54746      1.7447 ppb        1.54746  88.70%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.3      0.1325 ug/L       2.54154      0.1325 ppb        2.54154 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -12.6     -0.3735 ug/L       0.18731     -0.3735 ppb        0.18731  50.14%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.6      0.6895 ug/L       1.11189      0.6895 ppb        1.11189 161.26%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -19.3     -0.1423 ug/L       0.17126     -0.1423 ppb        0.17126 120.36%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              68.9      0.1050 ug/L       0.03024      0.1050 ppb        0.03024  28.79%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               0.5      0.1470 ug/L       1.52715      0.1470 ppb        1.52715 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              405.6      12.087 ug/L        3.6263      12.087 ppb         3.6263  30.00%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               81.3      0.5455 ug/L       0.28888      0.5455 ppb        0.28888  52.96%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -53.8     -0.4474 ug/L       0.06458     -0.4474 ppb        0.06458  14.43%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -21.7     -1.3563 ug/L       1.60912     -1.3563 ppb        1.60912 118.64%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS#3 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Tuesday, December 22, 2009 18:13:18
Sample Description:
Method File: c:\elandata\Method\daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.5254
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	347.0	347.004	14.934	4.3
	Mg	24.0	2236.8	2236.775	12.014	0.5
	Co	58.9	12680.8	12680.826	71.574	0.6
	Rh	102.9	34833.0	34833.017	270.281	0.8
	In	114.9	47522.9	47522.925	645.248	1.4
	Pb	208.0	37452.4	37452.434	409.042	1.1
⌈>	Ba	137.9	42149.1	42149.109	517.583	1.2
⌊	Ba++	69.0	693.8	0.016	0.001	3.7
⌈>	Ce	139.9	52177.5	52177.515	250.879	0.5
⌊	CeO	155.9	821.5	0.016	0.000	3.1
	Bkgd	220.0	5.4	5.400	1.636	30.3

Current Optimization File Data

Current Value	Description
0.99	Nebulizer Gas Flow
7.50	Lens Voltage
1450.00	ICP RF Power
-1812.00	Analog Stage Voltage
950.00	Pulse Stage Voltage
70.00	Discriminator Threshold
-7.00	AC Rod Offset
60.00	Service DAC 1
0.00	Quadrupole Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	6.8	303.0
Co	59	17	7.8	11968.7
In	115	17	8.8	57502.8

ICPMS#3 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas Peak W
He	3.0	3.0	578	2030	0.688
Be	9.0	9.1	2080	2010	0.736
Mg	24.0	23.9	5708	2090	0.686
Mg	25.0	25.0	5901	2010	0.706
Mg	26.0	26.0	6222	2110	0.667
Co	58.9	58.9	14204	2100	0.676
Rh	102.9	102.9	24912	2150	0.682
In	114.9	114.9	27822	2160	0.690
Ce	139.9	139.9	33913	2200	0.646
Pb	206.0	206.0	50004	2270	0.664
Pb	207.0	207.0	50270	2310	0.647
Pb	208.0	208.0	50486	2290	0.620
U	238.1	238.1	57843	2330	0.658

ICPMS#3 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, December 22, 2009 22:43:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\Blank.476

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		8	
	Be	9		ug/L		5	
	B	11		ug/L		54	
	Na	23		ug/L		2667	
	Mg	24		ug/L		0	
	Al	27		ug/L		0	
	P	31		ug/L		832	
	K	39		ug/L		126899	
	Ca	43		ug/L		62	
>	Sc	45		ug/L		59109	
	Ti	47		ug/L		54	
	V	51		ug/L		1822	
	Cr	52		ug/L		1055	
	Cr	53		ug/L		30978	
	Mn	55		ug/L		247	
	Fe	57		ug/L		1960	
	Co	59		ug/L		137	
	Ni	60		ug/L		131	
	Cu	63		ug/L		149	
	Cu	65		ug/L		119	
	Zn	66		ug/L		40	
	Zn	67		ug/L		1307	
	Zn	68		ug/L		223	
>	Ge	74		ug/L		78915	
	As	75		ug/L		640	
	Se	77		ug/L		1824	
	Se	82		ug/L		4	
	Kr	83		ug/L		27	
	Sr	88		ug/L		40	
	Y	89		ug/L		13	
	Zr	90		ug/L		220	
	Mo	98		ug/L		24	
	Ag	107		ug/L		12	
	Cd	111		ug/L		3	
	Cd	114		ug/L		10	
>	In	115		ug/L		58814	
	Sn	120		ug/L		93	
	Sb	121		ug/L		147	
	Sb	123		ug/L		135	
	Ba	135		ug/L		10	
	Ba	137		ug/L		17	
	Ho	165		ug/L		12	
>	Lu	175		ug/L		117585	
	Tl	205		ug/L		504	
	Pb	208		ug/L		122	
	Th	232		ug/L		339	
	U	238		ug/L		70	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	0.9998
Be	9	Linear Thru Zero	0.9998
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	0.9999
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	0.9998
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	0.9999
V	51	Linear Thru Zero	0.9999
Cr	52	Linear Thru Zero	0.9999
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	0.9999
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	0.9999
Ni	60	Linear Thru Zero	0.9999
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	0.9999
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	0.9999
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, December 22, 2009 22:49:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\Standard 1.477

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	7.720	341	0.006
	Be	9	10.000	ug/L	2.457	333	0.006
	B	11	20.000	ug/L	4.690	491	0.007
	Na	23	1000.000	ug/L	16.493	293369	4.887
	Mg	24	1000.000	ug/L	9.442	225441	3.792
	Al	27	1000.000	ug/L	10.128	409492	6.886
	P	31	1000.000	ug/L	2.947	33363	0.547
	K	39	1000.000	ug/L	7.245	758670	10.612
	Ca	43	1000.000	ug/L	2.770	1363	0.022
>	Sc	45		ug/L		59462	59462.429
	Ti	47	10.000	ug/L	3.799	750	0.012
	V	51	10.000	ug/L	6.909	9481	0.129
	Cr	52	10.000	ug/L	0.806	10482	0.158
	Cr	53		ug/L		32218	0.018
	Mn	55	10.000	ug/L	0.914	16253	0.269
	Fe	57	1000.000	ug/L	1.289	31884	0.503
	Co	59	10.000	ug/L	1.186	10178	0.169
	Ni	60	10.000	ug/L	1.259	2183	0.034
	Cu	63		ug/L		4727	0.077
	Cu	65	10.000	ug/L	1.962	2274	0.036
	Zn	66	10.000	ug/L	3.041	1579	0.019
	Zn	67		ug/L		1557	0.002
	Zn	68		ug/L		1537	0.016
>	Ge	74		ug/L		81845	81845.275
	As	75	10.000	ug/L	4.584	3208	0.031
	Se	77		ug/L		2036	0.002
	Se	82	10.000	ug/L	2.891	212	0.003
	Kr	83		ug/L		25	-0.000
	Sr	88	10.000	ug/L	1.746	25064	0.423
	Y	89		ug/L		16	0.000
	Zr	90	10.000	ug/L	6.151	15869	0.265
	Mo	98	10.000	ug/L	1.735	6984	0.118
	Ag	107	10.000	ug/L	1.539	11960	0.202
	Cd	111	10.000	ug/L	4.459	2946	0.050
	Cd	114		ug/L		7036	0.119
>	In	115		ug/L		59210	59210.279
	Sn	120	10.000	ug/L	1.817	12981	0.218
	Sb	121	10.000	ug/L	1.419	12251	0.204
	Sb	123		ug/L		9515	0.158
	Ba	135		ug/L		3046	0.025
	Ba	137	10.000	ug/L	2.163	5483	0.045
	Ho	165		ug/L		10	-0.000
>	Lu	175		ug/L		120938	120937.966
	Tl	205	10.000	ug/L	2.703	54881	0.450
	Pb	208	10.000	ug/L	0.671	63803	0.527
	Th	232	10.000	ug/L	1.087	74813	0.616
	U	238	10.000	ug/L	2.184	79205	0.654

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, December 22, 2009 22:55:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\Standard 2.478

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	100.012	ug/L	3.987	3466	0.057
	Be	9	99.900	ug/L	0.320	3058	0.050
	B	11	199.911	ug/L	0.336	4345	0.070
	Na	23	9991.853	ug/L	9.370	2755518	45.149
	Mg	24	9976.569	ug/L	6.348	1869601	30.651
	Al	27	9996.284	ug/L	9.704	4047797	66.368
	P	31	9997.524	ug/L	2.448	326533	5.336
	K	39	10001.141	ug/L	6.764	6685219	107.358
	Ca	43	9998.590	ug/L	0.836	13237	0.216
>	Sc	45		ug/L		61056	61055.514
	Ti	47	99.961	ug/L	1.657	6937	0.113
	V	51	100.072	ug/L	1.275	86527	1.387
	Cr	52	99.990	ug/L	1.425	96811	1.568
	Cr	53		ug/L		41752	0.160
	Mn	55	99.976	ug/L	0.630	160649	2.627
	Fe	57	9999.801	ug/L	1.375	308492	5.020
	Co	59	100.005	ug/L	3.122	103662	1.696
	Ni	60	99.969	ug/L	2.104	20548	0.334
	Cu	63		ug/L		45088	0.736
	Cu	65	99.958	ug/L	0.893	21346	0.348
	Zn	66	99.976	ug/L	1.998	15276	0.183
	Zn	67		ug/L		3736	0.028
	Zn	68		ug/L		12916	0.153
>	Ge	74		ug/L		83048	83047.538
	As	75	99.968	ug/L	2.308	25683	0.301
	Se	77		ug/L		3417	0.018
	Se	82	99.947	ug/L	1.634	2010	0.024
	Kr	83		ug/L		33	0.000
	Sr	88	100.008	ug/L	1.762	254291	4.263
	Y	89		ug/L		34	0.000
	Zr	90	99.905	ug/L	2.244	144172	2.414
	Mo	98	100.007	ug/L	1.713	70620	1.184
	Ag	107	100.012	ug/L	1.883	121798	2.043
	Cd	111	100.018	ug/L	1.772	30216	0.507
	Cd	114		ug/L		70996	1.190
>	In	115		ug/L		59634	59634.044
	Sn	120	100.017	ug/L	2.014	132243	2.216
	Sb	121	100.033	ug/L	2.876	126285	2.115
	Sb	123		ug/L		97352	1.630
	Ba	135		ug/L		31783	0.261
	Ba	137	100.005	ug/L	3.555	55253	0.454
	Ho	165		ug/L		16	0.000
>	Lu	175		ug/L		121605	121604.724
	Tl	205	99.998	ug/L	1.684	545939	4.485
	Pb	208	99.994	ug/L	1.705	636162	5.231
	Th	232	100.013	ug/L	1.359	758950	6.239
	U	238	99.991	ug/L	0.718	788845	6.487

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9997
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, December 22, 2009 23:00:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 1.479

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**47.253**	ug/L	15.071	1765	0.027
	Be	9	**49.954**	ug/L	15.064	1648	0.025
	B	11	**101.198**	ug/L	13.781	2398	0.036
	Na	23	**4740.967**	ug/L	11.941	1413311	21.423
	Mg	24	**4931.166**	ug/L	12.998	996238	15.150
	Al	27	**4417.865**	ug/L	12.715	1929413	29.332
	P	31	**4642.010**	ug/L	13.899	163719	2.478
	K	39	**4212.099**	ug/L	14.570	3114047	45.215
	Ca	43	**4705.968**	ug/L	14.373	6738	0.102
>	Sc	45		ug/L		66655	66655.006
	Ti	47	**46.455**	ug/L	13.372	3503	0.052
	V	51	**47.036**	ug/L	13.585	44891	0.652
	Cr	52	**47.843**	ug/L	15.400	50406	0.750
	Cr	53		ug/L		36260	0.030
	Mn	55	**48.448**	ug/L	14.670	83849	1.273
	Fe	57	**4669.610**	ug/L	13.969	156231	2.344
	Co	59	**46.648**	ug/L	14.766	52093	0.791
	Ni	60	**48.874**	ug/L	14.739	10883	0.164
	Cu	63		ug/L		23727	0.358
	Cu	65	**47.885**	ug/L	14.948	11062	0.167
	Zn	66	**52.604**	ug/L	2.520	8186	0.097
	Zn	67		ug/L		2644	0.015
	Zn	68		ug/L		7003	0.080
>	Ge	74		ug/L		84365	84364.558
	As	75	**47.634**	ug/L	1.502	12790	0.143
	Se	77		ug/L		2588	0.008
	Se	82	**49.588**	ug/L	3.467	1015	0.012
	Kr	83		ug/L		26	-0.000
	Sr	88	**51.958**	ug/L	1.013	133365	2.215
	Y	89		ug/L		17	0.000
	Zr	90	**43.697**	ug/L	6.770	63784	1.056
	Mo	98	**50.416**	ug/L	1.832	35950	0.597
	Ag	107	**50.415**	ug/L	1.230	61995	1.030
	Cd	111	**51.889**	ug/L	1.280	15825	0.263
	Cd	114		ug/L		36748	0.610
>	In	115		ug/L		60202	60202.059
	Sn	120	**50.781**	ug/L	1.293	67839	1.125
	Sb	121	**50.191**	ug/L	4.437	64022	1.061
	Sb	123		ug/L		49246	0.816
	Ba	135		ug/L		16228	0.135
	Ba	137	**52.215**	ug/L	1.433	28458	0.237
	Ho	165		ug/L		18	0.000
>	Lu	175		ug/L		119886	119885.828
	Tl	205	**50.513**	ug/L	3.280	272120	2.266
	Pb	208	**52.183**	ug/L	0.402	327417	2.730
	Th	232	**53.032**	ug/L	1.150	396970	3.308
	U	238	**54.476**	ug/L	3.723	423696	3.534

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9997
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	94.506				
	Be	9	99.908				
	B	11	101.198				
	Na	23	94.819				
	Mg	24	98.623				
	Al	27	87.482				
	P	31	92.840				
	K	39	84.242				
	Ca	43	94.119				
>	Sc	45		112.8			
	Ti	47	92.911				
	V	51	94.072				
	Cr	52	95.687				
	Cr	53					
	Mn	55	96.897				
	Fe	57	93.392				
	Co	59	93.296				
	Ni	60	97.747				
	Cu	63					
	Cu	65	95.770				
	Zn	66	105.207				
	Zn	67					
	Zn	68					
>	Ge	74		106.9			
	As	75	95.269				
	Se	77					
	Se	82	99.177				
	Kr	83					
	Sr	88	103.916				
	Y	89					
	Zr	90	87.394				
	Mo	98	100.832				
	Ag	107	100.830				
	Cd	111	103.778				
	Cd	114					
>	In	115		102.4			
	Sn	120	101.563				
	Sb	121	100.381				
	Sb	123					
	Ba	135					
	Ba	137	104.430				
	Ho	165					
>	Lu	175		102.0			
	Tl	205	101.026				
	Pb	208	104.366				
	Th	232	106.063				
	U	238	108.953				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 1	Al	27ICV is out of limits (+/- 10%)
QC Std 1	K	39ICV is out of limits (+/- 10%)
QC Std 1	Zr	90ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, December 22, 2009 23:06:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 2.480

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.035	ug/L	94.325	7	-0.000
	Be	9	-0.016	ug/L	198.369	5	-0.000
	B	11	4.405	ug/L	29.835	149	0.002
	Na	23	1.026	ug/L	717.815	3000	0.005
	Mg	24	0.000	ug/L		0	0.000
	Al	27	2.526	ug/L	173.205	1000	0.017
	P	31	0.918	ug/L	216.962	882	0.000
	K	39	-13.238	ug/L	108.164	121517	-0.142
	Ca	43	0.815	ug/L	297.561	65	0.000
>	Sc	45		ug/L		60605	60604.913
	Ti	47	-0.014	ug/L	525.053	54	-0.000
	V	51	-0.235	ug/L	297.128	1670	-0.003
	Cr	52	-0.150	ug/L	15.092	939	-0.002
	Cr	53		ug/L		30055	-0.028
	Mn	55	-0.007	ug/L	47.082	242	-0.000
	Fe	57	-2.370	ug/L	119.936	1937	-0.001
	Co	59	0.005	ug/L	157.887	146	0.000
	Ni	60	-0.036	ug/L	51.894	127	-0.000
	Cu	63		ug/L		164	0.000
	Cu	65	-0.057	ug/L	38.792	110	-0.000
	Zn	66	-0.044	ug/L	93.047	34	-0.000
	Zn	67		ug/L		1291	-0.001
	Zn	68		ug/L		236	0.000
>	Ge	74		ug/L		81310	81310.218
	As	75	0.398	ug/L	16.026	757	0.001
	Se	77		ug/L		1775	-0.001
	Se	82	0.419	ug/L	39.003	12	0.000
	Kr	83		ug/L		25	-0.000
	Sr	88	0.004	ug/L	59.287	48	0.000
	Y	89		ug/L		11	-0.000
	Zr	90	0.160	ug/L	10.752	438	0.004
	Mo	98	0.078	ug/L	23.892	76	0.001
	Ag	107	0.001	ug/L	552.958	13	0.000
	Cd	111	0.004	ug/L	555.674	4	0.000
	Cd	114		ug/L		11	0.000
>	In	115		ug/L		57654	57654.027
	Sn	120	0.213	ug/L	24.520	362	0.005
	Sb	121	0.607	ug/L	11.985	883	0.013
	Sb	123		ug/L		693	0.010
	Ba	135		ug/L		10	-0.000
	Ba	137	-0.009	ug/L	6.952	13	-0.000
	Ho	165		ug/L		14	0.000
>	Lu	175		ug/L		118625	118624.561
	Tl	205	0.169	ug/L	25.530	1407	0.008
	Pb	208	0.004	ug/L	14.683	148	0.000
	Th	232	0.178	ug/L	11.928	1655	0.011
	U	238	0.009	ug/L	14.397	137	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9997
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		103.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.9			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, December 22, 2009 23:12:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 3.481

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**11.336**	**ug/L**	0.926	396	0.006
	Be	9	**0.713**	**ug/L**	11.368	27	0.000
	B	11	**17.336**	**ug/L**	2.391	424	0.006
	Na	23	**277.791**	**ug/L**	2.081	78549	1.255
	Mg	24	**26.839**	**ug/L**	51.416	5001	0.082
	Al	27	**33.958**	**ug/L**	32.850	13674	0.225
	P	31	**53.852**	**ug/L**	0.903	2587	0.029
	K	39	**304.358**	**ug/L**	3.834	327035	3.267
	Ca	43	**208.712**	**ug/L**	5.424	335	0.005
>	Sc	45		**ug/L**		60421	60421.479
	Ti	47	**9.794**	**ug/L**	4.618	722	0.011
	V	51	**10.691**	**ug/L**	7.417	10821	0.148
	Cr	52	**10.548**	**ug/L**	1.839	11073	0.165
	Cr	53		**ug/L**		31369	-0.005
	Mn	55	**5.732**	**ug/L**	3.694	9349	0.151
	Fe	57	**104.638**	**ug/L**	2.134	5177	0.053
	Co	59	**1.039**	**ug/L**	0.664	1205	0.018
	Ni	60	**2.200**	**ug/L**	4.302	579	0.007
	Cu	63		**ug/L**		688	0.009
	Cu	65	**1.116**	**ug/L**	2.572	356	0.004
	Zn	66	**11.300**	**ug/L**	2.746	1730	0.021
	Zn	67		**ug/L**		1565	0.003
	Zn	68		**ug/L**		1649	0.017
>	Ge	74		**ug/L**		81444	81443.986
	As	75	**5.462**	**ug/L**	21.356	2001	0.016
	Se	77		**ug/L**		1801	-0.001
	Se	82	**5.178**	**ug/L**	20.000	106	0.001
	Kr	83		**ug/L**		25	-0.000
	Sr	88	**11.121**	**ug/L**	2.054	27578	0.474
	Y	89		**ug/L**		17	0.000
	Zr	90	**1.997**	**ug/L**	1.386	3021	0.048
	Mo	98	**0.574**	**ug/L**	2.272	418	0.007
	Ag	107	**1.046**	**ug/L**	5.163	1252	0.021
	Cd	111	**1.155**	**ug/L**	7.586	343	0.006
	Cd	114		**ug/L**		760	0.013
>	In	115		**ug/L**		58099	58098.661
	Sn	120	**5.378**	**ug/L**	1.519	7014	0.119
	Sb	121	**3.287**	**ug/L**	1.279	4183	0.069
	Sb	123		**ug/L**		3119	0.051
	Ba	135		**ug/L**		652	0.005
	Ba	137	**2.125**	**ug/L**	3.595	1163	0.010
	Ho	165		**ug/L**		10	-0.000
>	Lu	175		**ug/L**		118746	118746.283
	Tl	205	**1.059**	**ug/L**	3.354	6150	0.047
	Pb	208	**2.210**	**ug/L**	2.037	13847	0.116
	Th	232	**1.107**	**ug/L**	1.873	8546	0.069
	U	238	**0.228**	**ug/L**	2.031	1823	0.015

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9997
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	113.358				
	Be	9	142.694				
	B	11	115.574				
	Na	23	111.117				
	Mg	24	178.924				
	Al	27	113.195				
	P	31	107.705				
	K	39	101.453				
	Ca	43	104.356				
>	Sc	45		102.2			
	Ti	47	97.938				
	V	51	106.909				
	Cr	52	105.485				
	Cr	53					
	Mn	55	114.647				
	Fe	57	104.638				
	Co	59	103.860				
	Ni	60	110.016				
	Cu	63					
	Cu	65	111.571				
	Zn	66	112.997				
	Zn	67					
	Zn	68					
>	Ge	74		103.2			
	As	75	109.235				
	Se	77					
	Se	82	103.567				
	Kr	83					
	Sr	88	111.213				
	Y	89					
	Zr	90	99.867				
	Mo	98	114.780				
	Ag	107	104.566				
	Cd	111	115.490				
	Cd	114					
>	In	115		98.8			
	Sn	120	107.563				
	Sb	121	109.551				
	Sb	123					
	Ba	135					
	Ba	137	106.259				
	Ho	165					
>	Lu	175		101.0			
	Tl	205	105.883				
	Pb	208	110.498				
	Th	232	110.714				
	U	238	113.801				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 3	Be	9CRDL is out of limits
QC Std 3	Mg	24CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, December 22, 2009 23:17:52
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 4.482

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.124**	**ug/L**	97.807	12	0.000
	Be	9	**0.137**	**ug/L**	110.938	9	0.000
	B	11	**1.965**	**ug/L**	20.643	91	0.001
	Na	23	**96105.450**	**ug/L**	1.857	24586243	434.263
	Mg	24	**100876.310**	**ug/L**	3.403	17538276	309.918
	Al	27	**100328.033**	**ug/L**	9.765	37745974	666.109
	P	31	**99915.879**	**ug/L**	1.751	3018836	53.327
	K	39	**98602.293**	**ug/L**	5.936	60064351	1058.451
	Ca	43	**97516.957**	**ug/L**	1.004	119167	2.104
>	Sc	45		**ug/L**		56605	56605.188
	Ti	47	**1484.805**	**ug/L**	1.961	94787	1.674
	V	51	**-1.615**	**ug/L**	29.848	477	-0.022
	Cr	52	**2.462**	**ug/L**	3.922	3194	0.039
	Cr	53		**ug/L**		26054	-0.063
	Mn	55	**5.986**	**ug/L**	1.824	9139	0.157
	Fe	57	**104068.121**	**ug/L**	2.796	2958231	52.248
	Co	59	**0.238**	**ug/L**	5.388	360	0.004
	Ni	60	**2.480**	**ug/L**	3.792	595	0.008
	Cu	63		**ug/L**		1064	0.016
	Cu	65	**2.795**	**ug/L**	7.104	664	0.010
	Zn	66	**2.746**	**ug/L**	7.469	434	0.005
	Zn	67		**ug/L**		1206	-0.001
	Zn	68		**ug/L**		322	0.001
>	Ge	74		**ug/L**		78254	78253.539
	As	75	**0.022**	**ug/L**	2371.223	641	0.000
	Se	77		**ug/L**		1805	-0.000
	Se	82	**-0.574**	**ug/L**	88.907	-7	-0.000
	Kr	83		**ug/L**		45	0.000
	Sr	88	**1.161**	**ug/L**	1.053	2749	0.049
	Y	89		**ug/L**		79	0.001
	Zr	90	**6.941**	**ug/L**	58.407	9393	0.168
	Mo	98	**2007.124**	**ug/L**	0.610	1302336	23.760
	Ag	107	**0.050**	**ug/L**	28.069	67	0.001
	Cd	111	**0.550**	**ug/L**	47.722	155	0.003
	Cd	114		**ug/L**		1207	0.022
>	In	115		**ug/L**		54810	54809.716
	Sn	120	**0.205**	**ug/L**	14.761	335	0.005
	Sb	121	**0.132**	**ug/L**	6.063	290	0.003
	Sb	123		**ug/L**		251	0.002
	Ba	135		**ug/L**		228	0.002
	Ba	137	**0.685**	**ug/L**	7.196	376	0.003
	Ho	165		**ug/L**		264	0.002
>	Lu	175		**ug/L**		115176	115175.672
	Tl	205	**0.017**	**ug/L**	33.787	582	0.001
	Pb	208	**0.177**	**ug/L**	4.118	1186	0.009
	Th	232	**0.177**	**ug/L**	28.341	1601	0.011
	U	238	**-0.004**	**ug/L**	11.407	36	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9997
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23	96.105				
	Mg	24	100.876				
	Al	27	100.328				
	P	31	99.916				
	K	39	98.602				
	Ca	43	97.517				
>	Sc	45			95.8		
	Ti	47	74.240				
	V	51					
	Cr	52	66.530				
	Cr	53					
	Mn	55	103.210				
	Fe	57	104.068				
	Co	59	95.281				
	Ni	60	91.857				
	Cu	63					
	Cu	65	96.377				
	Zn	66	76.288				
	Zn	67					
	Zn	68					
>	Ge	74			99.2		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	96.741				
	Y	89					
	Zr	90					
	Mo	98	100.356				
	Ag	107					
	Cd	111	137.458				
	Cd	114					
>	In	115			93.2		
	Sn	120					
	Sb	121	131.525				
	Sb	123					
	Ba	135					
	Ba	137	102.222				
	Ho	165					
>	Lu	175			98.0		
	Tl	205					
	Pb	208	88.483				
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 4	Ti	47ICSA is out of limits
QC Std 4	Zr	90ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, December 22, 2009 23:23:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 5.483

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**18.281**	**ug/L**	1.715	598	0.010
	Be	9	**19.006**	**ug/L**	4.369	547	0.010
	B	11	**19.846**	**ug/L**	5.537	450	0.007
	Na	23	**100074.579**	**ug/L**	13.647	25800378	452.198
	Mg	24	**100247.266**	**ug/L**	9.247	17538276	307.985
	Al	27	**93752.747**	**ug/L**	5.666	35451386	622.454
	P	31	**99499.797**	**ug/L**	2.018	3027373	53.105
	K	39	**96095.525**	**ug/L**	5.886	58870229	1031.542
	Ca	43	**97851.677**	**ug/L**	0.356	120427	2.112
>	Sc	45		**ug/L**		57002	57002.442
	Ti	47	**1473.106**	**ug/L**	1.531	94697	1.661
	V	51	**18.386**	**ug/L**	7.848	16268	0.255
	Cr	52	**21.925**	**ug/L**	2.427	20610	0.344
	Cr	53		**ug/L**		27776	-0.036
	Mn	55	**26.655**	**ug/L**	2.718	40145	0.700
	Fe	57	**105924.453**	**ug/L**	3.054	3031807	53.180
	Co	59	**20.631**	**ug/L**	1.494	20076	0.350
	Ni	60	**22.451**	**ug/L**	2.162	4407	0.075
	Cu	63		**ug/L**		9425	0.163
	Cu	65	**22.505**	**ug/L**	0.163	4576	0.078
	Zn	66	**22.064**	**ug/L**	1.705	3241	0.040
	Zn	67		**ug/L**		1691	0.005
	Zn	68		**ug/L**		2685	0.031
>	Ge	74		**ug/L**		79079	79079.450
	As	75	**19.788**	**ug/L**	5.642	5356	0.060
	Se	77		**ug/L**		1996	0.002
	Se	82	**20.136**	**ug/L**	1.590	389	0.005
	Kr	83		**ug/L**		44	0.000
	Sr	88	**22.727**	**ug/L**	1.429	53245	0.969
	Y	89		**ug/L**		75	0.001
	Zr	90	**21.985**	**ug/L**	1.668	29383	0.531
	Mo	98	**2032.888**	**ug/L**	1.233	1321640	24.065
	Ag	107	**20.552**	**ug/L**	3.302	23059	0.420
	Cd	111	**21.080**	**ug/L**	2.532	5867	0.107
	Cd	114		**ug/L**		14567	0.265
>	In	115		**ug/L**		54922	54922.457
	Sn	120	**21.115**	**ug/L**	0.527	25786	0.468
	Sb	121	**21.814**	**ug/L**	1.551	25471	0.461
	Sb	123		**ug/L**		19542	0.353
	Ba	135		**ug/L**		6323	0.055
	Ba	137	**20.972**	**ug/L**	2.106	10994	0.095
	Ho	165		**ug/L**		256	0.002
>	Lu	175		**ug/L**		115200	115200.468
	Tl	205	**19.390**	**ug/L**	1.360	100696	0.870
	Pb	208	**20.177**	**ug/L**	1.512	121724	1.056
	Th	232	**21.271**	**ug/L**	0.838	153211	1.327
	U	238	**22.037**	**ug/L**	1.090	164759	1.430

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9997
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	91.406				
	Be	9	95.031				
	B	11	99.230				
	Na	23	100.075				
	Mg	24	100.247				
	Al	27	93.753				
	P	31	99.500				
	K	39	96.096				
	Ca	43	97.852				
>	Sc	45		96.4			
	Ti	47	73.655				
	V	51	91.932				
	Cr	52	92.511				
	Cr	53					
	Mn	55	103.313				
	Fe	57	105.924				
	Co	59	101.884				
	Ni	60	98.904				
	Cu	63					
	Cu	65	98.276				
	Zn	66	93.493				
	Zn	67					
	Zn	68					
>	Ge	74		100.2			
	As	75	98.939				
	Se	77					
	Se	82	100.680				
	Kr	83					
	Sr	88	107.203				
	Y	89					
	Zr	90	109.927				
	Mo	98	101.644				
	Ag	107	102.762				
	Cd	111	103.335				
	Cd	114					
>	In	115		93.4			
	Sn	120	105.575				
	Sb	121	108.526				
	Sb	123					
	Ba	135					
	Ba	137	101.463				
	Ho	165					
>	Lu	175		98.0			
	Tl	205	96.949				
	Pb	208	99.885				
	Th	232	106.357				
	U	238	110.186				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 5	Tl	47ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, December 22, 2009 23:29:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 6.484

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.984**	**ug/L**	1.192	1792	0.029
	Be	9	**52.072**	**ug/L**	1.251	1585	0.026
	B	11	**100.661**	**ug/L**	3.644	2200	0.035
	Na	23	**4822.157**	**ug/L**	3.999	1323285	21.789
	Mg	24	**5408.735**	**ug/L**	3.842	1007347	16.617
	Al	27	**4911.081**	**ug/L**	8.126	1976860	32.606
	P	31	**5085.536**	**ug/L**	0.374	165371	2.714
	K	39	**5305.138**	**ug/L**	11.760	3582367	56.948
	Ca	43	**5176.822**	**ug/L**	2.686	6835	0.112
>	Sc	45		**ug/L**		60613	60613.257
	Ti	47	**51.836**	**ug/L**	1.772	3597	0.058
	V	51	**49.616**	**ug/L**	2.327	43534	0.687
	Cr	52	**51.585**	**ug/L**	1.219	50115	0.809
	Cr	53		**ug/L**		35327	0.059
	Mn	55	**53.655**	**ug/L**	1.737	85701	1.410
	Fe	57	**5116.815**	**ug/L**	2.701	157711	2.569
	Co	59	**51.380**	**ug/L**	0.981	52965	0.872
	Ni	60	**54.041**	**ug/L**	2.068	11093	0.181
	Cu	63		**ug/L**		23701	0.389
	Cu	65	**52.829**	**ug/L**	0.651	11257	0.184
	Zn	66	**52.130**	**ug/L**	1.712	8105	0.096
	Zn	67		**ug/L**		2558	0.014
	Zn	68		**ug/L**		7037	0.081
>	Ge	74		**ug/L**		84275	84275.387
	As	75	**47.945**	**ug/L**	2.888	12853	0.144
	Se	77		**ug/L**		2345	0.005
	Se	82	**50.094**	**ug/L**	4.552	1024	0.012
	Kr	83		**ug/L**		30	0.000
	Sr	88	**51.696**	**ug/L**	1.139	134471	2.204
	Y	89		**ug/L**		17	0.000
	Zr	90	**38.180**	**ug/L**	10.667	56557	0.923
	Mo	98	**49.908**	**ug/L**	1.058	36070	0.591
	Ag	107	**50.777**	**ug/L**	1.048	63276	1.037
	Cd	111	**51.598**	**ug/L**	1.822	15947	0.261
	Cd	114		**ug/L**		37276	0.611
>	In	115		**ug/L**		61011	61011.127
	Sn	120	**50.988**	**ug/L**	1.403	69021	1.130
	Sb	121	**49.311**	**ug/L**	3.361	63767	1.043
	Sb	123		**ug/L**		48986	0.800
	Ba	135		**ug/L**		16650	0.137
	Ba	137	**52.973**	**ug/L**	1.649	29234	0.241
	Ho	165		**ug/L**		19	0.000
>	Lu	175		**ug/L**		121392	121392.161
	Tl	205	**50.195**	**ug/L**	1.972	273817	2.252
	Pb	208	**52.082**	**ug/L**	0.507	330878	2.725
	Th	232	**53.104**	**ug/L**	1.611	402536	3.313
	U	238	**54.449**	**ug/L**	2.108	428868	3.532

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9997
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	103.969				
	Be	9	104.144				
	B	11	100.661				
	Na	23	96.443				
	Mg	24	108.175				
	Al	27	97.249				
	P	31	101.711				
	K	39	106.103				
	Ca	43	103.536				
>	Sc	45		102.5			
	Ti	47	103.672				
	V	51	99.233				
	Cr	52	103.171				
	Cr	53					
	Mn	55	107.309				
	Fe	57	102.336				
	Co	59	102.760				
	Ni	60	108.083				
	Cu	63					
	Cu	65	105.658				
	Zn	66	104.260				
	Zn	67					
	Zn	68					
>	Ge	74		106.8			
	As	75	95.890				
	Se	77					
	Se	82	100.187				
	Kr	83					
	Sr	88	103.393				
	Y	89					
	Zr	90	76.360				
	Mo	98	99.816				
	Ag	107	101.553				
	Cd	111	103.195				
	Cd	114					
>	In	115		103.7			
	Sn	120	101.975				
	Sb	121	98.622				
	Sb	123					
	Ba	135					
	Ba	137	105.946				
	Ho	165					
>	Lu	175		103.2			
	Tl	205	100.391				
	Pb	208	104.165				
	Th	232	106.208				
	U	238	108.897				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Zr	90CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, December 22, 2009 23:35:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 7.485

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.012	ug/L	539.033	8	-0.000
	Be	9	0.043	ug/L	195.467	7	0.000
	B	11	2.821	ug/L	17.845	114	0.001
	Na	23	-0.103	ug/L	7467.739	2667	-0.000
	Mg	24	0.000	ug/L		0	0.000
	Al	27	0.838	ug/L	173.205	333	0.006
	P	31	0.804	ug/L	115.478	866	0.000
	K	39	10.070	ug/L	74.417	134632	0.108
	Ca	43	-6.180	ug/L	169.676	55	-0.000
>	Sc	45		ug/L		59701	59701.091
	Ti	47	0.432	ug/L	41.130	83	0.000
	V	51	-0.048	ug/L	654.521	1802	-0.001
	Cr	52	-0.402	ug/L	17.299	689	-0.006
	Cr	53		ug/L		29702	-0.026
	Mn	55	-0.012	ug/L	102.573	231	-0.000
	Fe	57	-0.692	ug/L	372.076	1959	-0.000
	Co	59	0.012	ug/L	30.100	151	0.000
	Ni	60	-0.150	ug/L	21.072	102	-0.001
	Cu	63		ug/L		149	-0.000
	Cu	65	-0.102	ug/L	31.616	99	-0.000
	Zn	66	-0.026	ug/L	128.811	37	-0.000
	Zn	67		ug/L		1227	-0.002
	Zn	68		ug/L		227	-0.000
>	Ge	74		ug/L		82052	82051.795
	As	75	-0.106	ug/L	433.101	639	-0.000
	Se	77		ug/L		1509	-0.005
	Se	82	0.364	ug/L	72.276	11	0.000
	Kr	83		ug/L		24	-0.000
	Sr	88	0.001	ug/L	588.849	43	0.000
	Y	89		ug/L		14	0.000
	Zr	90	0.104	ug/L	5.893	375	0.003
	Mo	98	0.165	ug/L	4.580	141	0.002
	Ag	107	0.002	ug/L	217.340	15	0.000
	Cd	111	-0.003	ug/L	63.659	2	-0.000
	Cd	114		ug/L		15	0.000
>	In	115		ug/L		59978	59978.214
	Sn	120	0.161	ug/L	25.954	309	0.004
	Sb	121	0.400	ug/L	14.390	658	0.008
	Sb	123		ug/L		537	0.007
	Ba	135		ug/L		12	0.000
	Ba	137	-0.008	ug/L	42.459	13	-0.000
	Ho	165		ug/L		12	-0.000
>	Lu	175		ug/L		119056	119056.275
	Tl	205	0.138	ug/L	25.113	1248	0.006
	Pb	208	0.002	ug/L	25.112	136	0.000
	Th	232	0.222	ug/L	12.216	1994	0.014
	U	238	0.007	ug/L	25.061	121	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9997
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		104.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.3			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte Mass Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Tuesday, December 22, 2009 23:40:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 10.486

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**981.352**	ug/L	0.805	32257	0.556
	Be	9	**954.518**	ug/L	2.021	27715	0.478
	B	11	**2.121**	ug/L	31.511	96	0.001
	Na	23	**45671.741**	ug/L	11.041	11965874	206.373
	Mg	24	**53212.447**	ug/L	2.171	9482311	163.482
	Al	27	**49477.773**	ug/L	8.386	19045081	328.498
	P	31	**24161.955**	ug/L	2.501	748756	12.896
	K	39	**48252.919**	ug/L	5.590	30211294	517.973
	Ca	43	**48990.073**	ug/L	3.720	61359	1.057
>	Sc	45		ug/L		58025	58024.910
	Ti	47	**35.150**	ug/L	3.267	2351	0.040
	V	51	**963.712**	ug/L	2.370	776438	13.353
	Cr	52	**961.403**	ug/L	3.265	875528	15.077
	Cr	53		ug/L		135209	1.808
	Mn	55	**987.675**	ug/L	2.110	1505626	25.951
	Fe	57	**48935.394**	ug/L	3.196	1426735	24.568
	Co	59	**961.751**	ug/L	2.925	946295	16.313
	Ni	60	**1021.825**	ug/L	3.439	198369	3.418
	Cu	63		ug/L		426355	7.348
	Cu	65	**987.010**	ug/L	1.820	199207	3.432
	Zn	66	**2339.447**	ug/L	0.568	352880	4.293
	Zn	67		ug/L		58078	0.690
	Zn	68		ug/L		285884	3.476
>	Ge	74		ug/L		82188	82187.574
	As	75	**920.826**	ug/L	1.240	228642	2.774
	Se	77		ug/L		9172	0.088
	Se	82	**490.205**	ug/L	2.005	9739	0.118
	Kr	83		ug/L		44	0.000
	Sr	88	**1032.654**	ug/L	1.196	2574896	44.018
	Y	89		ug/L		84	0.001
	Zr	90	**469.562**	ug/L	0.324	663980	11.348
	Mo	98	**998.475**	ug/L	1.227	691370	11.820
	Ag	107	**252.451**	ug/L	0.544	301594	5.156
	Cd	111	**1017.148**	ug/L	1.298	301368	5.152
	Cd	114		ug/L		691375	11.820
>	In	115		ug/L		58494	58493.804
	Sn	120	**973.933**	ug/L	0.758	1262452	21.582
	Sb	121	**246.642**	ug/L	2.698	305234	5.215
	Sb	123		ug/L		235130	4.017
	Ba	135		ug/L		318835	2.603
	Ba	137	**991.832**	ug/L	2.760	551910	4.507
	Ho	165		ug/L		102	0.001
>	Lu	175		ug/L		122487	122487.119
	Tl	205	**500.568**	ug/L	0.971	2750634	22.453
	Pb	208	**5200.648**	ug/L	0.399	33326206	272.078
	Th	232	**2640.825**	ug/L	1.383	20180468	164.746
	U	238	**5540.545**	ug/L	0.927	44028980	359.445

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9997
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	98.135				
	Be	9	95.452				
	B	11					
	Na	23	91.343				
	Mg	24	106.425				
	Al	27	98.956				
	P	31	96.648				
	K	39	96.506				
	Ca	43	97.980				
>	Sc	45		98.2			
	Ti	47					
	V	51	96.371				
	Cr	52	96.140				
	Cr	53					
	Mn	55	98.767				
	Fe	57	97.871				
	Co	59	96.175				
	Ni	60	102.182				
	Cu	63					
	Cu	65	98.701				
	Zn	66	93.578				
	Zn	67					
	Zn	68					
>	Ge	74		104.1			
	As	75	92.083				
	Se	77					
	Se	82	98.041				
	Kr	83					
	Sr	88	103.265				
	Y	89					
	Zr	90	93.912				
	Mo	98	99.847				
	Ag	107	100.980				
	Cd	111	101.715				
	Cd	114					
>	In	115		99.5			
	Sn	120	97.393				
	Sb	121	98.657				
	Sb	123					
	Ba	135					
	Ba	137	99.183				
	Ho	165					
>	Lu	175		104.2			
	Tl	205	100.114				
	Pb	208	104.013				
	Th	232	105.633				
	U	238	110.811				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 10	U	238LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Tuesday, December 22, 2009 23:46:34
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 11.487

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.823**	ug/L	4.195	1794	0.029
	Be	9	**48.841**	ug/L	2.897	1523	0.024
	B	11	**98.012**	ug/L	4.639	2194	0.034
	Na	23	**4998.432**	ug/L	5.727	1403807	22.586
	Mg	24	**5479.404**	ug/L	4.731	1044924	16.834
	Al	27	**4600.603**	ug/L	6.225	1894639	30.545
	P	31	**4976.408**	ug/L	2.541	165691	2.656
	K	39	**5410.258**	ug/L	5.659	3735364	58.077
	Ca	43	**4805.320**	ug/L	3.109	6500	0.104
>	Sc	45		ug/L		62077	62076.916
	Ti	47	**49.873**	ug/L	2.275	3545	0.056
	V	51	**49.618**	ug/L	4.519	44562	0.687
	Cr	52	**50.485**	ug/L	4.275	50224	0.792
	Cr	53		ug/L		35425	0.046
	Mn	55	**52.793**	ug/L	4.900	86305	1.387
	Fe	57	**5066.404**	ug/L	3.220	159878	2.544
	Co	59	**50.326**	ug/L	3.847	53105	0.854
	Ni	60	**52.243**	ug/L	3.467	10981	0.175
	Cu	63		ug/L		23545	0.377
	Cu	65	**52.024**	ug/L	3.619	11349	0.181
	Zn	66	**51.728**	ug/L	1.205	8076	0.095
	Zn	67		ug/L		2611	0.014
	Zn	68		ug/L		6959	0.079
>	Ge	74		ug/L		84633	84633.146
	As	75	**48.665**	ug/L	2.828	13095	0.147
	Se	77		ug/L		2303	0.004
	Se	82	**49.123**	ug/L	2.964	1009	0.012
	Kr	83		ug/L		32	0.000
	Sr	88	**51.630**	ug/L	1.390	134388	2.201
	Y	89		ug/L		19	0.000
	Zr	90	**55.605**	ug/L	6.185	82219	1.344
	Mo	98	**50.757**	ug/L	0.741	36702	0.601
	Ag	107	**50.901**	ug/L	1.138	63468	1.040
	Cd	111	**51.453**	ug/L	2.374	15910	0.261
	Cd	114		ug/L		37553	0.615
>	In	115		ug/L		61044	61044.207
	Sn	120	**53.534**	ug/L	2.482	72510	1.186
	Sb	121	**51.757**	ug/L	1.130	66962	1.094
	Sb	123		ug/L		51762	0.846
	Ba	135		ug/L		16693	0.135
	Ba	137	**51.773**	ug/L	2.744	29033	0.235
	Ho	165		ug/L		16	0.000
>	Lu	175		ug/L		123358	123358.248
	Tl	205	**50.350**	ug/L	0.827	279138	2.258
	Pb	208	**51.377**	ug/L	1.127	331680	2.688
	Th	232	**53.276**	ug/L	1.015	410351	3.324
	U	238	**53.418**	ug/L	1.677	427558	3.466

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9997
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	101.647				
	Be	9	97.683				
	B	11	98.012				
	Na	23	99.969				
	Mg	24	109.588				
	Al	27	91.101				
	P	31	99.528				
	K	39	108.205				
	Ca	43	96.106				
>	Sc	45		105.0			
	Ti	47	99.745				
	V	51	99.235				
	Cr	52	100.970				
	Cr	53					
	Mn	55	105.586				
	Fe	57	101.328				
	Co	59	100.653				
	Ni	60	104.486				
	Cu	63					
	Cu	65	104.047				
	Zn	66	103.456				
	Zn	67					
	Zn	68					
>	Ge	74		107.2			
	As	75	97.330				
	Se	77					
	Se	82	98.246				
	Kr	83					
	Sr	88	103.260				
	Y	89					
	Zr	90	111.211				
	Mo	98	101.514				
	Ag	107	101.803				
	Cd	111	102.905				
	Cd	114					
>	In	115		103.8			
	Sn	120	107.067				
	Sb	121	103.514				
	Sb	123					
	Ba	135					
	Ba	137	103.546				
	Ho	165					
>	Lu	175		104.9			
	Tl	205	100.700				
	Pb	208	102.754				
	Th	232	106.551				
	U	238	106.836				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 11	Zr	90CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Tuesday, December 22, 2009 23:52:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 12.488

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.023**	ug/L	286.202	7	-0.000
	Be	9	**-0.047**	ug/L	71.063	4	-0.000
	B	11	**2.154**	ug/L	43.201	100	0.001
	Na	23	**-2.543**	ug/L	151.510	2000	-0.011
	Mg	24	**3.648**	ug/L	86.643	667	0.011
	Al	27	**4.177**	ug/L	33.179	1667	0.028
	P	31	**1.058**	ug/L	71.512	876	0.001
	K	39	**19.261**	ug/L	122.988	141033	0.207
	Ca	43	**5.670**	ug/L	323.413	70	0.000
>	Sc	45		ug/L		59836	59836.349
	Ti	47	**0.187**	ug/L	18.793	67	0.000
	V	51	**-1.144**	ug/L	137.726	880	-0.016
	Cr	52	**-0.365**	ug/L	5.352	726	-0.006
	Cr	53		ug/L		29580	-0.030
	Mn	55	**0.018**	ug/L	93.542	278	0.000
	Fe	57	**0.095**	ug/L	3507.283	1986	0.000
	Co	59	**0.063**	ug/L	43.818	204	0.001
	Ni	60	**-0.140**	ug/L	13.104	105	-0.000
	Cu	63		ug/L		188	0.001
	Cu	65	**0.010**	ug/L	227.641	123	0.000
	Zn	66	**-0.023**	ug/L	125.159	38	-0.000
	Zn	67		ug/L		1220	-0.002
	Zn	68		ug/L		231	-0.000
>	Ge	74		ug/L		82564	82564.097
	As	75	**0.032**	ug/L	952.330	678	0.000
	Se	77		ug/L		1526	-0.005
	Se	82	**-0.218**	ug/L	254.254	0	-0.000
	Kr	83		ug/L		32	0.000
	Sr	88	**0.007**	ug/L	49.324	58	0.000
	Y	89		ug/L		10	-0.000
	Zr	90	**0.249**	ug/L	10.571	584	0.006
	Mo	98	**0.233**	ug/L	5.767	189	0.003
	Ag	107	**0.005**	ug/L	70.325	19	0.000
	Cd	111	**0.012**	ug/L	43.983	7	0.000
	Cd	114		ug/L		9	-0.000
>	In	115		ug/L		59950	59949.943
	Sn	120	**0.976**	ug/L	9.020	1391	0.022
	Sb	121	**1.019**	ug/L	6.568	1442	0.022
	Sb	123		ug/L		1090	0.016
	Ba	135		ug/L		10	-0.000
	Ba	137	**0.007**	ug/L	78.423	22	0.000
	Ho	165		ug/L		13	0.000
>	Lu	175		ug/L		119411	119410.507
	Tl	205	**0.293**	ug/L	13.351	2079	0.013
	Pb	208	**0.030**	ug/L	32.862	313	0.002
	Th	232	**0.318**	ug/L	9.193	2714	0.020
	U	238	**0.067**	ug/L	11.461	591	0.004

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9997
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		101.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		104.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.6			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202001514
Sample Date/Time: Tuesday, December 22, 2009 23:58:06
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 935396|1|ba|
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1202001514.489

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.114**	ug/L	54.149	12	0.000
	Be	9	**0.070**	ug/L	196.338	8	0.000
	B	11	**0.746**	ug/L	71.946	73	0.000
	Na	23	**3.201**	ug/L	70.021	3667	0.014
	Mg	24	**0.000**	ug/L		0	0.000
	Al	27	**1.640**	ug/L	86.659	667	0.011
	P	31	**1.545**	ug/L	54.476	918	0.001
	K	39	**-1.974**	ug/L	577.887	130931	-0.021
	Ca	43	**22.014**	ug/L	31.860	94	0.000
>	Sc	45		ug/L		61649	61649.066
	Ti	47	**0.374**	ug/L	49.852	82	0.000
	V	51	**-3.185**	ug/L	63.960	-794	-0.044
	Cr	52	**0.862**	ug/L	8.007	1932	0.014
	Cr	53		ug/L		62301	0.486
	Mn	55	**0.199**	ug/L	3.057	580	0.005
	Fe	57	**10.424**	ug/L	17.044	2366	0.005
	Co	59	**0.055**	ug/L	15.313	201	0.001
	Ni	60	**0.068**	ug/L	15.701	151	0.000
	Cu	63		ug/L		228	0.001
	Cu	65	**0.153**	ug/L	28.862	157	0.001
	Zn	66	**1.167**	ug/L	10.088	224	0.002
	Zn	67		ug/L		3084	0.020
	Zn	68		ug/L		546	0.004
>	Ge	74		ug/L		84703	84702.904
	As	75	**3.493**	ug/L	17.397	1578	0.011
	Se	77		ug/L		4483	0.030
	Se	82	**0.165**	ug/L	105.118	8	0.000
	Kr	83		ug/L		28	-0.000
	Sr	88	**0.031**	ug/L	14.592	120	0.001
	Y	89		ug/L		15	0.000
	Zr	90	**1.873**	ug/L	4.121	2913	0.045
	Mo	98	**0.120**	ug/L	13.948	108	0.001
	Ag	107	**0.006**	ug/L	19.464	19	0.000
	Cd	111	**-0.004**	ug/L	884.352	2	-0.000
	Cd	114		ug/L		6	-0.000
>	In	115		ug/L		59443	59442.569
	Sn	120	**2.091**	ug/L	30.861	2853	0.046
	Sb	121	**0.641**	ug/L	9.617	955	0.014
	Sb	123		ug/L		721	0.010
	Ba	135		ug/L		32	0.000
	Ba	137	**0.086**	ug/L	8.504	63	0.000
	Ho	165		ug/L		16	0.000
>	Lu	175		ug/L		117590	117589.829
	Tl	205	**0.083**	ug/L	4.110	941	0.004
	Pb	208	**0.012**	ug/L	32.060	194	0.001
	Th	232	**0.310**	ug/L	14.192	2613	0.019
	U	238	**0.021**	ug/L	7.456	232	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9997
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			104.3		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			107.3		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			101.1		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			100.0		
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202001515
Sample Date/Time: Wednesday, December 23, 2009 00:03:52
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 935396|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1202001515.490

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.157**	ug/L	3.097	1808	0.029
	Be	9	**53.580**	ug/L	3.635	1671	0.027
	B	11	**105.844**	ug/L	4.252	2368	0.037
	Na	23	**1874.570**	ug/L	8.958	529000	8.470
	Mg	24	**2429.634**	ug/L	13.566	463836	7.464
	Al	27	**1905.208**	ug/L	1.269	785695	12.649
	P	31	**2090.665**	ug/L	3.102	70182	1.116
	K	39	**1954.631**	ug/L	3.190	1436848	20.982
	Ca	43	**2036.528**	ug/L	2.194	2795	0.044
>	Sc	45		ug/L		62117	62117.046
	Ti	47	**46.410**	ug/L	2.390	3306	0.052
	V	51	**49.965**	ug/L	5.720	44910	0.692
	Cr	52	**53.231**	ug/L	3.359	52960	0.835
	Cr	53		ug/L		73047	0.652
	Mn	55	**54.039**	ug/L	1.265	88455	1.420
	Fe	57	**2095.679**	ug/L	1.898	67412	1.052
	Co	59	**52.159**	ug/L	3.081	55099	0.885
	Ni	60	**53.591**	ug/L	2.038	11275	0.179
	Cu	63		ug/L		24645	0.394
	Cu	65	**52.491**	ug/L	0.470	11463	0.183
	Zn	66	**50.234**	ug/L	2.121	8122	0.092
	Zn	67		ug/L		4777	0.038
	Zn	68		ug/L		7190	0.079
>	Ge	74		ug/L		87648	87647.979
	As	75	**53.399**	ug/L	1.014	14808	0.161
	Se	77		ug/L		5568	0.040
	Se	82	**50.832**	ug/L	2.132	1081	0.012
	Kr	83		ug/L		33	0.000
	Sr	88	**51.482**	ug/L	2.807	132105	2.194
	Y	89		ug/L		20	0.000
	Zr	90	**53.192**	ug/L	2.620	77592	1.285
	Mo	98	**50.771**	ug/L	2.038	36202	0.601
	Ag	107	**51.848**	ug/L	1.891	63746	1.059
	Cd	111	**51.030**	ug/L	1.955	15562	0.258
	Cd	114		ug/L		36554	0.607
>	In	115		ug/L		60203	60203.498
	Sn	120	**51.637**	ug/L	2.311	68970	1.144
	Sb	121	**52.658**	ug/L	1.265	67180	1.113
	Sb	123		ug/L		51036	0.846
	Ba	135		ug/L		16112	0.133
	Ba	137	**50.291**	ug/L	2.937	27740	0.229
	Ho	165		ug/L		19	0.000
>	Lu	175		ug/L		121365	121365.422
	Tl	205	**48.514**	ug/L	2.296	264533	2.176
	Pb	208	**51.530**	ug/L	1.823	327276	2.696
	Th	232	**51.769**	ug/L	2.130	392241	3.230
	U	238	**54.227**	ug/L	2.244	426886	3.518

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9997
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		105.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		111.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.4			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		103.2			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, December 23, 2009 00:38:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 6.496

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**50.514**	ug/L	2.022	1790	0.029
	Be	9	**52.413**	ug/L	0.756	1639	0.026
	B	11	**97.405**	ug/L	2.699	2190	0.034
	Na	23	**5142.592**	ug/L	5.329	1448984	23.237
	Mg	24	**5888.847**	ug/L	8.885	1125442	18.092
	Al	27	**4421.793**	ug/L	1.822	1827914	29.358
	P	31	**5002.152**	ug/L	1.682	167109	2.670
	K	39	**4693.312**	ug/L	4.472	3270776	50.381
	Ca	43	**4885.011**	ug/L	1.226	6630	0.105
>	Sc	45		ug/L		62278	62278.111
	Ti	47	**49.524**	ug/L	1.898	3533	0.056
	V	51	**50.109**	ug/L	3.638	45152	0.694
	Cr	52	**50.831**	ug/L	0.778	50753	0.797
	Cr	53		ug/L		41767	0.147
	Mn	55	**51.212**	ug/L	1.014	84059	1.346
	Fe	57	**4812.000**	ug/L	0.733	152507	2.416
	Co	59	**48.149**	ug/L	1.770	50997	0.817
	Ni	60	**50.545**	ug/L	0.809	10669	0.169
	Cu	63		ug/L		22886	0.365
	Cu	65	**49.464**	ug/L	2.731	10834	0.172
	Zn	66	**51.206**	ug/L	1.927	7932	0.094
	Zn	67		ug/L		2940	0.018
	Zn	68		ug/L		7039	0.081
>	Ge	74		ug/L		83972	83971.606
	As	75	**47.079**	ug/L	5.078	12589	0.142
	Se	77		ug/L		2875	0.011
	Se	82	**50.906**	ug/L	1.956	1037	0.012
	Kr	83		ug/L		32	0.000
	Sr	88	**51.651**	ug/L	0.640	131614	2.202
	Y	89		ug/L		17	0.000
	Zr	90	**42.612**	ug/L	7.932	61795	1.030
	Mo	98	**50.471**	ug/L	1.614	35725	0.597
	Ag	107	**49.870**	ug/L	1.877	60868	1.018
	Cd	111	**51.356**	ug/L	2.608	15548	0.260
	Cd	114		ug/L		36435	0.609
>	In	115		ug/L		59759	59759.116
	Sn	120	**50.556**	ug/L	2.564	67031	1.120
	Sb	121	**48.412**	ug/L	3.383	61328	1.024
	Sb	123		ug/L		47549	0.793
	Ba	135		ug/L		16219	0.133
	Ba	137	**50.958**	ug/L	2.519	28289	0.232
	Ho	165		ug/L		24	0.000
>	Lu	175		ug/L		122119	122119.395
	Tl	205	**49.214**	ug/L	0.203	270107	2.208
	Pb	208	**51.902**	ug/L	1.907	331670	2.715
	Th	232	**53.447**	ug/L	1.015	407570	3.334
	U	238	**54.404**	ug/L	0.829	431077	3.529

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	0.9997
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	1.0000
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Zr	90Linear Thru Zero	1.0000
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	1.0000
Pb	208Linear Thru Zero	1.0000
Th	232Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	101.028				
	Be	9	104.825				
	B	11	97.405				
	Na	23	102.852				
	Mg	24	117.777				
	Al	27	87.560				
	P	31	100.043				
	K	39	93.866				
	Ca	43	97.700				
>	Sc	45		105.4			
	Ti	47	99.048				
	V	51	100.219				
	Cr	52	101.663				
	Cr	53					
	Mn	55	102.424				
	Fe	57	96.240				
	Co	59	96.299				
	Ni	60	101.090				
	Cu	63					
	Cu	65	98.927				
	Zn	66	102.412				
	Zn	67					
	Zn	68					
>	Ge	74		106.4			
	As	75	94.158				
	Se	77					
	Se	82	101.812				
	Kr	83					
	Sr	88	103.302				
	Y	89					
	Zr	90	85.223				
	Mo	98	100.943				
	Ag	107	99.741				
	Cd	111	102.712				
	Cd	114					
>	In	115		101.6			
	Sn	120	101.113				
	Sb	121	96.823				
	Sb	123					
	Ba	135					
	Ba	137	101.917				
	Ho	165					
>	Lu	175		103.9			
	Tl	205	98.429				
	Pb	208	103.804				
	Th	232	106.894				
	U	238	108.808				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Mg	24CCV is out of limits (+/- 10%)
QC Std 6	Al	27CCV is out of limits (+/- 10%)
QC Std 6	Zr	90CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, December 23, 2009 00:44:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 7.497

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.025	ug/L	438.773	7	-0.000
	Be	9	0.082	ug/L	78.029	8	0.000
	B	11	2.676	ug/L	29.303	113	0.001
	Na	23	2.121	ug/L	259.634	3334	0.010
	Mg	24	1.765	ug/L	173.205	333	0.005
	Al	27	0.817	ug/L	173.205	333	0.005
	P	31	-1.077	ug/L	62.264	821	-0.001
	K	39	-20.224	ug/L	85.572	117485	-0.217
	Ca	43	-2.815	ug/L	459.676	60	-0.000
>	Sc	45		ug/L		60842	60842.239
	Ti	47	0.060	ug/L	170.094	59	0.000
	V	51	0.183	ug/L	346.217	2026	0.003
	Cr	52	0.061	ug/L	108.782	1145	0.001
	Cr	53		ug/L		32820	0.015
	Mn	55	0.004	ug/L	178.198	261	0.000
	Fe	57	-2.505	ug/L	120.133	1941	-0.001
	Co	59	0.011	ug/L	167.992	153	0.000
	Ni	60	-0.137	ug/L	11.040	107	-0.000
	Cu	63		ug/L		170	0.000
	Cu	65	-0.127	ug/L	11.916	96	-0.000
	Zn	66	0.049	ug/L	105.648	49	0.000
	Zn	67		ug/L		1379	0.000
	Zn	68		ug/L		233	0.000
>	Ge	74		ug/L		81951	81951.248
	As	75	0.004	ug/L	6742.396	665	0.000
	Se	77		ug/L		1892	-0.000
	Se	82	0.080	ug/L	616.646	6	0.000
	Kr	83		ug/L		26	-0.000
	Sr	88	0.005	ug/L	33.010	53	0.000
	Y	89		ug/L		14	0.000
	Zr	90	0.146	ug/L	14.337	425	0.004
	Mo	98	0.081	ug/L	24.865	80	0.001
	Ag	107	0.005	ug/L	62.642	18	0.000
	Cd	111	0.007	ug/L	301.192	5	0.000
	Cd	114		ug/L		9	-0.000
>	In	115		ug/L		58552	58552.477
	Sn	120	0.174	ug/L	15.086	318	0.004
	Sb	121	0.428	ug/L	10.019	676	0.009
	Sb	123		ug/L		525	0.007
	Ba	135		ug/L		6	-0.000
	Ba	137	-0.006	ug/L	96.802	14	-0.000
	Ho	165		ug/L		12	-0.000
>	Lu	175		ug/L		118171	118170.937
	Tl	205	0.118	ug/L	36.481	1130	0.005
	Pb	208	0.007	ug/L	24.352	168	0.000
	Th	232	0.165	ug/L	18.109	1555	0.010
	U	238	0.014	ug/L	27.747	174	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9997
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		102.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		103.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.5			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 243285001
Sample Date/Time: Wednesday, December 23, 2009 01:24:38
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 935396|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\243285001.504

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**23.988**	ug/L	2.215	931	0.014
	Be	9	**0.007**	ug/L	1444.119	6	0.000
	B	11	**12.361**	ug/L	5.827	357	0.004
	Na	23	**11124.876**	ug/L	5.584	3413175	50.269
	Mg	24	**3622.367**	ug/L	8.158	754831	11.129
	Al	27	**6.700**	ug/L	59.434	3000	0.044
	P	31	**16.824**	ug/L	2.208	1564	0.009
	K	39	**1438.881**	ug/L	7.328	1193654	15.446
	Ca	43	**11742.519**	ug/L	1.150	17265	0.253
>	Sc	45		ug/L		67860	67859.844
	Ti	47	**4.899**	ug/L	2.510	436	0.006
	V	51	**4.907**	ug/L	32.006	6723	0.068
	Cr	52	**6.156**	ug/L	1.957	7761	0.097
	Cr	53		ug/L		71567	0.531
	Mn	55	**6.212**	ug/L	2.245	11357	0.163
	Fe	57	**62.008**	ug/L	4.546	4362	0.031
	Co	59	**0.471**	ug/L	12.425	699	0.008
	Ni	60	**13.245**	ug/L	2.698	3156	0.044
	Cu	63		ug/L		1153	0.014
	Cu	65	**1.594**	ug/L	8.195	513	0.006
	Zn	66	**22.469**	ug/L	3.482	3446	0.041
	Zn	67		ug/L		4190	0.034
	Zn	68		ug/L		3434	0.039
>	Ge	74		ug/L		82593	82592.574
	As	75	**6.555**	ug/L	8.099	2301	0.020
	Se	77		ug/L		5618	0.045
	Se	82	**0.054**	ug/L	533.511	5	0.000
	Kr	83		ug/L		35	0.000
	Sr	88	**54.391**	ug/L	1.275	133517	2.318
	Y	89		ug/L		42	0.001
	Zr	90	**0.560**	ug/L	9.442	994	0.014
	Mo	98	**1.953**	ug/L	2.636	1354	0.023
	Ag	107	**0.006**	ug/L	28.050	20	0.000
	Cd	111	**0.026**	ug/L	76.676	10	0.000
	Cd	114		ug/L		14	0.000
>	In	115		ug/L		57567	57566.867
	Sn	120	**0.183**	ug/L	4.716	325	0.004
	Sb	121	**0.739**	ug/L	1.918	1043	0.016
	Sb	123		ug/L		827	0.012
	Ba	135		ug/L		9697	0.081
	Ba	137	**31.082**	ug/L	1.591	17010	0.141
	Ho	165		ug/L		9	-0.000
>	Lu	175		ug/L		120324	120324.135
	Tl	205	**-0.050**	ug/L	12.652	245	-0.002
	Pb	208	**0.116**	ug/L	3.748	857	0.006
	Th	232	**-0.015**	ug/L	19.105	236	-0.001
	U	238	**0.424**	ug/L	3.310	3381	0.028

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9997
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		114.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		104.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.3			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, December 23, 2009 01:30:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 6.505

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.287**	**ug/L**	4.381	1768	0.029
	Be	9	**52.859**	**ug/L**	4.579	1609	0.026
	B	11	**100.623**	**ug/L**	3.614	2199	0.035
	Na	23	**5009.459**	**ug/L**	12.148	1374671	22.636
	Mg	24	**5564.209**	**ug/L**	9.420	1035749	17.095
	Al	27	**4839.547**	**ug/L**	7.582	1948488	32.131
	P	31	**5032.624**	**ug/L**	1.540	163655	2.686
	K	39	**4823.967**	**ug/L**	2.716	3268910	51.783
	Ca	43	**4968.039**	**ug/L**	1.481	6560	0.107
>	Sc	45		**ug/L**		60606	60605.903
	Ti	47	**50.101**	**ug/L**	1.708	3478	0.056
	V	51	**51.030**	**ug/L**	0.796	44722	0.707
	Cr	52	**50.562**	**ug/L**	2.171	49138	0.793
	Cr	53		**ug/L**		42100	0.171
	Mn	55	**52.262**	**ug/L**	2.282	83470	1.373
	Fe	57	**5021.131**	**ug/L**	1.796	154799	2.521
	Co	59	**49.613**	**ug/L**	1.534	51149	0.842
	Ni	60	**51.245**	**ug/L**	0.645	10524	0.171
	Cu	63		**ug/L**		23172	0.380
	Cu	65	**50.745**	**ug/L**	3.851	10816	0.176
	Zn	66	**51.310**	**ug/L**	1.761	7902	0.094
	Zn	67		**ug/L**		2845	0.018
	Zn	68		**ug/L**		7071	0.082
>	Ge	74		**ug/L**		83472	83472.330
	As	75	**48.278**	**ug/L**	2.842	12816	0.145
	Se	77		**ug/L**		2812	0.011
	Se	82	**48.884**	**ug/L**	1.115	990	0.012
	Kr	83		**ug/L**		33	0.000
	Sr	88	**51.284**	**ug/L**	2.734	130172	2.186
	Y	89		**ug/L**		18	0.000
	Zr	90	**40.931**	**ug/L**	9.561	59143	0.989
	Mo	98	**50.239**	**ug/L**	2.213	35429	0.595
	Ag	107	**50.156**	**ug/L**	1.653	61012	1.024
	Cd	111	**51.170**	**ug/L**	2.078	15434	0.259
	Cd	114		**ug/L**		36482	0.613
>	In	115		**ug/L**		59544	59544.205
	Sn	120	**50.484**	**ug/L**	1.211	66700	1.119
	Sb	121	**49.433**	**ug/L**	1.596	62382	1.045
	Sb	123		**ug/L**		47782	0.800
	Ba	135		**ug/L**		15864	0.130
	Ba	137	**50.335**	**ug/L**	1.674	27875	0.229
	Ho	165		**ug/L**		21	0.000
>	Lu	175		**ug/L**		121830	121829.650
	Tl	205	**46.733**	**ug/L**	0.923	255924	2.096
	Pb	208	**52.075**	**ug/L**	1.421	331974	2.724
	Th	232	**52.754**	**ug/L**	1.279	401256	3.291
	U	238	**54.418**	**ug/L**	2.479	430050	3.530

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9997
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	102.575				
	Be	9	105.718				
	B	11	100.623				
	Na	23	100.189				
	Mg	24	111.284				
	Al	27	95.833				
	P	31	100.652				
	K	39	96.479				
	Ca	43	99.361				
>	Sc	45		102.5			
	Ti	47	100.203				
	V	51	102.061				
	Cr	52	101.124				
	Cr	53					
	Mn	55	104.525				
	Fe	57	100.423				
	Co	59	99.226				
	Ni	60	102.490				
	Cu	63					
	Cu	65	101.491				
	Zn	66	102.620				
	Zn	67					
	Zn	68					
>	Ge	74		105.8			
	As	75	96.556				
	Se	77					
	Se	82	97.769				
	Kr	83					
	Sr	88	102.568				
	Y	89					
	Zr	90	81.863				
	Mo	98	100.478				
	Ag	107	100.313				
	Cd	111	102.340				
	Cd	114					
>	In	115		101.2			
	Sn	120	100.969				
	Sb	121	98.867				
	Sb	123					
	Ba	135					
	Ba	137	100.671				
	Ho	165					
>	Lu	175		103.6			
	Tl	205	93.467				
	Pb	208	104.150				
	Th	232	105.508				
	U	238	108.837				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Mg	24CCV is out of limits (+/- 10%)
QC Std 6	Zr	90CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, December 23, 2009 01:36:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 7.506

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.051	ug/L	68.469	6	-0.000
	Be	9	0.021	ug/L	158.988	6	0.000
	B	11	1.821	ug/L	42.532	93	0.001
	Na	23	6.053	ug/L	125.964	4334	0.027
	Mg	24	0.000	ug/L		0	0.000
	Al	27	0.000	ug/L		0	0.000
	P	31	-0.524	ug/L	140.644	823	-0.000
	K	39	-11.876	ug/L	136.104	120509	-0.127
	Ca	43	10.986	ug/L	105.018	77	0.000
>	Sc	45		ug/L		59663	59662.594
	Ti	47	0.538	ug/L	32.373	90	0.001
	V	51	-0.080	ug/L	198.538	1774	-0.001
	Cr	52	0.022	ug/L	174.229	1085	0.000
	Cr	53		ug/L		32543	0.021
	Mn	55	0.009	ug/L	138.907	264	0.000
	Fe	57	-1.765	ug/L	145.002	1925	-0.001
	Co	59	-0.002	ug/L	620.862	137	-0.000
	Ni	60	0.001	ug/L	12408.639	132	0.000
	Cu	63		ug/L		179	0.000
	Cu	65	-0.090	ug/L	20.228	101	-0.000
	Zn	66	0.055	ug/L	37.863	48	0.000
	Zn	67		ug/L		1384	0.001
	Zn	68		ug/L		240	0.000
>	Ge	74		ug/L		79978	79978.387
	As	75	0.183	ug/L	655.351	693	0.001
	Se	77		ug/L		1917	0.001
	Se	82	0.223	ug/L	275.493	8	0.000
	Kr	83		ug/L		25	-0.000
	Sr	88	0.004	ug/L	13.479	50	0.000
	Y	89		ug/L		14	0.000
	Zr	90	0.138	ug/L	4.878	409	0.003
	Mo	98	0.066	ug/L	33.113	69	0.001
	Ag	107	0.004	ug/L	70.943	17	0.000
	Cd	111	0.013	ug/L	75.127	7	0.000
	Cd	114		ug/L		6	-0.000
>	In	115		ug/L		57936	57936.266
	Sn	120	0.138	ug/L	11.688	269	0.003
	Sb	121	0.394	ug/L	12.009	628	0.008
	Sb	123		ug/L		490	0.006
	Ba	135		ug/L		10	-0.000
	Ba	137	-0.001	ug/L	620.805	17	-0.000
	Ho	165		ug/L		12	-0.000
>	Lu	175		ug/L		118637	118636.823
	Tl	205	0.474	ug/L	17.023	3030	0.021
	Pb	208	0.010	ug/L	19.178	186	0.001
	Th	232	0.164	ug/L	12.343	1559	0.010
	U	238	0.012	ug/L	20.200	161	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9997
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		101.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.9			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte MassOut of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 243285002
Sample Date/Time: Wednesday, December 23, 2009 01:41:56
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 935396|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\243285002.507

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**24.507**	ug/L	4.244	960	0.014
	Be	9	**0.004**	ug/L	1878.452	6	0.000
	B	11	**11.986**	ug/L	9.944	352	0.004
	Na	23	**10224.907**	ug/L	5.194	3169716	46.202
	Mg	24	**3528.797**	ug/L	7.649	742891	10.841
	Al	27	**3.668**	ug/L	69.575	1667	0.024
	P	31	**12.186**	ug/L	14.541	1410	0.007
	K	39	**1400.682**	ug/L	4.079	1177661	15.036
	Ca	43	**11374.091**	ug/L	1.574	16893	0.245
>	Sc	45		ug/L		68534	68534.016
	Ti	47	**4.622**	ug/L	4.813	419	0.005
	V	51	**3.541**	ug/L	23.300	5476	0.049
	Cr	52	**4.946**	ug/L	5.012	6539	0.078
	Cr	53		ug/L		66986	0.453
	Mn	55	**5.227**	ug/L	0.929	9699	0.137
	Fe	57	**37.162**	ug/L	11.136	3551	0.019
	Co	59	**0.461**	ug/L	7.907	696	0.008
	Ni	60	**10.646**	ug/L	2.291	2593	0.036
	Cu	63		ug/L		498	0.005
	Cu	65	**0.351**	ug/L	22.153	222	0.001
	Zn	66	**18.562**	ug/L	0.959	2872	0.034
	Zn	67		ug/L		3644	0.027
	Zn	68		ug/L		2894	0.032
>	Ge	74		ug/L		83085	83085.411
	As	75	**5.617**	ug/L	11.784	2079	0.017
	Se	77		ug/L		5577	0.044
	Se	82	**0.354**	ug/L	15.233	11	0.000
	Kr	83		ug/L		27	-0.000
	Sr	88	**54.236**	ug/L	2.760	132912	2.312
	Y	89		ug/L		24	0.000
	Zr	90	**3.835**	ug/L	19.606	5531	0.093
	Mo	98	**1.926**	ug/L	1.867	1334	0.023
	Ag	107	**0.023**	ug/L	5.062	39	0.000
	Cd	111	**0.006**	ug/L	234.669	5	0.000
	Cd	114		ug/L		5	-0.000
>	In	115		ug/L		57481	57481.029
	Sn	120	**0.284**	ug/L	17.988	451	0.006
	Sb	121	**0.707**	ug/L	7.772	1003	0.015
	Sb	123		ug/L		820	0.012
	Ba	135		ug/L		9546	0.080
	Ba	137	**31.045**	ug/L	3.001	16896	0.141
	Ho	165		ug/L		14	0.000
>	Lu	175		ug/L		119675	119675.054
	Tl	205	**0.145**	ug/L	1.664	1291	0.006
	Pb	208	**0.021**	ug/L	18.969	255	0.001
	Th	232	**0.130**	ug/L	29.020	1314	0.008
	U	238	**0.421**	ug/L	2.465	3340	0.027

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9997
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		115.9			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		105.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.8			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#3 - Summary Report

Sample ID: 1202001516
Sample Date/Time: Wednesday, December 23, 2009 01:59:19
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 935396|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1202001516.510

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**2.310**	ug/L	18.054	93	0.001
	Be	9	**0.090**	ug/L	107.388	9	0.000
	B	11	**31.794**	ug/L	7.331	777	0.011
	Na	23	**22816.844**	ug/L	8.158	6625575	103.100
	Mg	24	**16818.298**	ug/L	3.203	3322469	51.670
	Al	27	**5.450**	ug/L	22.565	2334	0.036
	P	31	**89.002**	ug/L	4.830	3958	0.048
	K	39	**8292.139**	ug/L	2.051	5860528	89.012
	Ca	43	**65746.358**	ug/L	1.376	91281	1.419
>	Sc	45		ug/L		64305	64305.099
	Ti	47	**3.163**	ug/L	11.271	287	0.004
	V	51	**2.962**	ug/L	60.442	4603	0.041
	Cr	52	**1.451**	ug/L	12.749	2610	0.023
	Cr	53		ug/L		65200	0.490
	Mn	55	**12855.398**	ug/L	3.250	21710618	337.778
	Fe	57	**19079.574**	ug/L	4.723	617723	9.579
	Co	59	**24.814**	ug/L	3.238	27203	0.421
	Ni	60	**10.639**	ug/L	2.906	2430	0.036
	Cu	63		ug/L		435	0.004
	Cu	65	**0.406**	ug/L	14.399	220	0.001
	Zn	66	**3.570**	ug/L	2.666	571	0.007
	Zn	67		ug/L		3738	0.030
	Zn	68		ug/L		2081	0.023
>	Ge	74		ug/L		80910	80910.305
	As	75	**10.916**	ug/L	19.322	3315	0.033
	Se	77		ug/L		5796	0.049
	Se	82	**0.234**	ug/L	116.994	9	0.000
	Kr	83		ug/L		29	0.000
	Sr	88	**481.699**	ug/L	0.408	1166158	20.533
	Y	89		ug/L		1504	0.026
	Zr	90	**1.333**	ug/L	8.002	2043	0.032
	Mo	98	**10.013**	ug/L	1.803	6754	0.119
	Ag	107	**0.012**	ug/L	19.389	26	0.000
	Cd	111	**0.024**	ug/L	227.605	10	0.000
	Cd	114		ug/L		22	0.000
>	In	115		ug/L		56793	56792.949
	Sn	120	**0.109**	ug/L	12.288	227	0.002
	Sb	121	**0.049**	ug/L	18.358	202	0.001
	Sb	123		ug/L		195	0.001
	Ba	135		ug/L		150887	1.264
	Ba	137	**488.727**	ug/L	2.209	265064	2.221
	Ho	165		ug/L		127	0.001
>	Lu	175		ug/L		119375	119374.910
	Tl	205	**0.480**	ug/L	7.400	3083	0.022
	Pb	208	**0.016**	ug/L	8.767	225	0.001
	Th	232	**-0.003**	ug/L	62.052	325	-0.000
	U	238	**3.869**	ug/L	2.279	30041	0.251

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9997
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		108.8			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		102.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.5			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte	Mass	Out of Limits Message
Ca 43 Upper, S, EEICa	43	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEIMn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: 1202001517
Sample Date/Time: Wednesday, December 23, 2009 02:05:05
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 935396|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1202001517.511

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**46.810**	ug/L	5.076	1717	0.027
	Be	9	**50.534**	ug/L	2.633	1635	0.025
	B	11	**129.371**	ug/L	1.534	2989	0.045
	Na	23	**23033.389**	ug/L	5.251	6707782	104.079
	Mg	24	**19512.708**	ug/L	11.587	3865433	59.948
	Al	27	**1762.262**	ug/L	8.698	753429	11.700
	P	31	**2087.349**	ug/L	2.055	72676	1.114
	K	39	**10214.864**	ug/L	8.268	7198318	109.652
	Ca	43	**66742.197**	ug/L	1.412	92867	1.440
>	Sc	45		ug/L		64434	64433.979
	Ti	47	**46.290**	ug/L	2.020	3420	0.052
	V	51	**50.847**	ug/L	8.600	47344	0.705
	Cr	52	**48.603**	ug/L	2.157	50254	0.762
	Cr	53		ug/L		69274	0.551
	Mn	55	**12592.448**	ug/L	1.319	21316852	330.869
	Fe	57	**20878.913**	ug/L	2.965	677365	10.482
	Co	59	**70.290**	ug/L	3.065	76950	1.192
	Ni	60	**56.253**	ug/L	3.588	12265	0.188
	Cu	63		ug/L		22852	0.352
	Cu	65	**46.879**	ug/L	1.161	10632	0.163
	Zn	66	**52.498**	ug/L	2.445	7954	0.096
	Zn	67		ug/L		4994	0.044
	Zn	68		ug/L		8449	0.100
>	Ge	74		ug/L		82144	82143.696
	As	75	**87.438**	ug/L	3.359	22295	0.263
	Se	77		ug/L		5827	0.048
	Se	82	**20.176**	ug/L	2.067	405	0.005
	Kr	83		ug/L		29	0.000
	Sr	88	**527.926**	ug/L	0.607	1267448	22.503
	Y	89		ug/L		1494	0.026
	Zr	90	**53.821**	ug/L	1.994	73464	1.301
	Mo	98	**61.483**	ug/L	1.624	41012	0.728
	Ag	107	**50.481**	ug/L	2.206	58069	1.031
	Cd	111	**10.481**	ug/L	3.990	2993	0.053
	Cd	114		ug/L		6802	0.121
>	In	115		ug/L		56324	56323.533
	Sn	120	**52.075**	ug/L	3.650	65066	1.154
	Sb	121	**214.968**	ug/L	2.438	256115	4.545
	Sb	123		ug/L		195783	3.474
	Ba	135		ug/L		165612	1.378
	Ba	137	**528.449**	ug/L	1.849	288689	2.401
	Ho	165		ug/L		186	0.001
>	Lu	175		ug/L		120229	120229.402
	Tl	205	**95.213**	ug/L	2.034	514060	4.271
	Pb	208	**41.017**	ug/L	0.283	258122	2.146
	Th	232	**53.156**	ug/L	0.164	399037	3.316
	U	238	**58.899**	ug/L	0.238	459472	3.821

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9997
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		109.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		104.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		102.2			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ca 43 Upper, S, EEI	Ca	43	Sample is out of limits (over linear range)
Mn 55 Upper, S, EEI	Mn	55	Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: 1202001518
Sample Date/Time: Wednesday, December 23, 2009 02:10:52
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 935396|5|ba|
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\1202001518.512

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.629**	**ug/L**	27.762	30	0.000
	Be	9	**-0.030**	**ug/L**	516.644	5	-0.000
	B	11	**9.641**	**ug/L**	10.638	266	0.003
	Na	23	**4782.253**	**ug/L**	4.740	1336093	21.609
	Mg	24	**3483.018**	**ug/L**	10.784	659998	10.701
	Al	27	**0.812**	**ug/L**	173.205	333	0.005
	P	31	**19.338**	**ug/L**	3.393	1505	0.010
	K	39	**1682.749**	**ug/L**	4.044	1247215	18.064
	Ca	43	**14135.779**	**ug/L**	1.524	18887	0.305
>	Sc	45		**ug/L**		61709	61708.612
	Ti	47	**0.531**	**ug/L**	22.446	93	0.001
	V	51	**1.055**	**ug/L**	114.508	2801	0.015
	Cr	52	**0.115**	**ug/L**	107.506	1212	0.002
	Cr	53		**ug/L**		41111	0.142
	Mn	55	**2762.646**	**ug/L**	1.503	4479826	72.589
	Fe	57	**4160.167**	**ug/L**	1.136	130925	2.089
	Co	59	**5.285**	**ug/L**	2.260	5675	0.090
	Ni	60	**2.076**	**ug/L**	3.270	565	0.007
	Cu	63		**ug/L**		180	0.000
	Cu	65	**-0.042**	**ug/L**	60.181	115	-0.000
	Zn	66	**0.724**	**ug/L**	13.470	151	0.001
	Zn	67		**ug/L**		1885	0.006
	Zn	68		**ug/L**		640	0.005
>	Ge	74		**ug/L**		82364	82364.263
	As	75	**2.719**	**ug/L**	22.002	1342	0.008
	Se	77		**ug/L**		2650	0.009
	Se	82	**0.270**	**ug/L**	270.912	10	0.000
	Kr	83		**ug/L**		26	-0.000
	Sr	88	**103.355**	**ug/L**	0.598	257877	4.406
	Y	89		**ug/L**		327	0.005
	Zr	90	**0.061**	**ug/L**	14.145	306	0.001
	Mo	98	**2.059**	**ug/L**	3.941	1450	0.024
	Ag	107	**0.000**	**ug/L**	11959.866	12	0.000
	Cd	111	**0.022**	**ug/L**	85.951	10	0.000
	Cd	114		**ug/L**		12	0.000
>	In	115		**ug/L**		58523	58523.328
	Sn	120	**0.027**	**ug/L**	46.766	128	0.001
	Sb	121	**0.316**	**ug/L**	23.802	537	0.007
	Sb	123		**ug/L**		427	0.005
	Ba	135		**ug/L**		30901	0.259
	Ba	137	**101.238**	**ug/L**	2.723	54854	0.460
	Ho	165		**ug/L**		36	0.000
>	Lu	175		**ug/L**		119246	119245.599
	Tl	205	**0.892**	**ug/L**	13.735	5281	0.040
	Pb	208	**0.002**	**ug/L**	92.489	136	0.000
	Th	232	**0.063**	**ug/L**	23.278	814	0.004
	U	238	**0.767**	**ug/L**	0.156	6005	0.050

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9997
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		104.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		104.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		101.4			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type Analyte	MassOut of Limits Message
Mn 55 Upper, S, EEIMn	55Sample is out of limits (over linear range)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, December 23, 2009 02:28:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 6.515

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**49.737**	**ug/L**	2.329	1746	0.028
	Be	9	**54.032**	**ug/L**	3.643	1674	0.027
	B	11	**98.633**	**ug/L**	4.393	2195	0.035
	Na	23	**4957.840**	**ug/L**	6.091	1384781	22.403
	Mg	24	**5651.779**	**ug/L**	12.594	1071050	17.364
	Al	27	**4536.994**	**ug/L**	1.044	1858894	30.123
	P	31	**4983.296**	**ug/L**	0.568	165001	2.660
	K	39	**4853.321**	**ug/L**	7.410	3349140	52.098
	Ca	43	**4918.439**	**ug/L**	1.095	6615	0.106
>	Sc	45		**ug/L**		61713	61713.302
	Ti	47	**50.709**	**ug/L**	0.927	3584	0.057
	V	51	**51.863**	**ug/L**	3.760	46239	0.719
	Cr	52	**50.232**	**ug/L**	1.918	49714	0.788
	Cr	53		**ug/L**		40466	0.132
	Mn	55	**53.455**	**ug/L**	0.836	86937	1.405
	Fe	57	**4858.945**	**ug/L**	2.838	152577	2.439
	Co	59	**48.273**	**ug/L**	0.652	50674	0.819
	Ni	60	**51.024**	**ug/L**	0.310	10671	0.171
	Cu	63		**ug/L**		22936	0.369
	Cu	65	**50.069**	**ug/L**	0.846	10869	0.174
	Zn	66	**52.381**	**ug/L**	1.295	8103	0.096
	Zn	67		**ug/L**		2945	0.019
	Zn	68		**ug/L**		7309	0.084
>	Ge	74		**ug/L**		83855	83855.249
	As	75	**46.636**	**ug/L**	0.679	12460	0.140
	Se	77		**ug/L**		2726	0.009
	Se	82	**50.335**	**ug/L**	1.935	1024	0.012
	Kr	83		**ug/L**		26	-0.000
	Sr	88	**51.926**	**ug/L**	1.520	131865	2.213
	Y	89		**ug/L**		19	0.000
	Zr	90	**39.525**	**ug/L**	8.702	57163	0.955
	Mo	98	**49.759**	**ug/L**	2.489	35103	0.589
	Ag	107	**49.767**	**ug/L**	1.199	60550	1.016
	Cd	111	**50.813**	**ug/L**	2.466	15331	0.257
	Cd	114		**ug/L**		36344	0.610
>	In	115		**ug/L**		59571	59571.017
	Sn	120	**50.743**	**ug/L**	1.806	67061	1.124
	Sb	121	**48.623**	**ug/L**	3.418	61392	1.028
	Sb	123		**ug/L**		46886	0.785
	Ba	135		**ug/L**		15863	0.129
	Ba	137	**49.874**	**ug/L**	0.613	27919	0.227
	Ho	165		**ug/L**		16	0.000
>	Lu	175		**ug/L**		123121	123120.522
	Tl	205	**48.866**	**ug/L**	3.403	270404	2.192
	Pb	208	**51.492**	**ug/L**	1.584	331771	2.694
	Th	232	**52.766**	**ug/L**	3.074	405614	3.292
	U	238	**54.808**	**ug/L**	1.372	437849	3.556

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9997
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7	99.475				
	Be	9	108.064				
	B	11	98.633				
	Na	23	99.157				
	Mg	24	113.036				
	Al	27	89.841				
	P	31	99.666				
	K	39	97.066				
	Ca	43	98.369				
>	Sc	45		104.4			
	Ti	47	101.418				
	V	51	103.726				
	Cr	52	100.465				
	Cr	53					
	Mn	55	106.910				
	Fe	57	97.179				
	Co	59	96.546				
	Ni	60	102.048				
	Cu	63					
	Cu	65	100.138				
	Zn	66	104.761				
	Zn	67					
	Zn	68					
>	Ge	74		106.3			
	As	75	93.272				
	Se	77					
	Se	82	100.669				
	Kr	83					
	Sr	88	103.852				
	Y	89					
	Zr	90	79.051				
	Mo	98	99.518				
	Ag	107	99.534				
	Cd	111	101.626				
	Cd	114					
>	In	115		101.3			
	Sn	120	101.487				
	Sb	121	97.246				
	Sb	123					
	Ba	135					
	Ba	137	99.749				
	Ho	165					
>	Lu	175		104.7			
	Tl	205	97.732				
	Pb	208	102.983				
	Th	232	105.532				
	U	238	109.615				

QC Out Of Limits

Measurement Type	Analyte	MassOut of Limits Message
QC Std 6	Mg	24CCV is out of limits (+/- 10%)
QC Std 6	Al	27CCV is out of limits (+/- 10%)
QC Std 6	Zr	90CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#3 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, December 23, 2009 02:33:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\091220\QC Std 7.516

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.017	ug/L	439.522	8	-0.000
	Be	9	-0.050	ug/L	168.328	4	-0.000
	B	11	2.896	ug/L	7.096	118	0.001
	Na	23	-2.647	ug/L	480.171	2000	-0.012
	Mg	24	0.000	ug/L		0	0.000
	Al	27	1.665	ug/L	173.205	667	0.011
	P	31	0.863	ug/L	219.138	887	0.000
	K	39	-17.298	ug/L	85.345	119836	-0.186
	Ca	43	-3.126	ug/L	111.499	60	-0.000
>	Sc	45		ug/L		61097	61096.662
	Ti	47	-0.142	ug/L	6.266	46	-0.000
	V	51	0.709	ug/L	152.985	2476	0.010
	Cr	52	-0.190	ug/L	37.073	908	-0.003
	Cr	53		ug/L		32024	0.000
	Mn	55	1.392	ug/L	6.540	2490	0.037
	Fe	57	-3.586	ug/L	75.058	1915	-0.002
	Co	59	0.008	ug/L	165.303	150	0.000
	Ni	60	-0.242	ug/L	16.687	86	-0.001
	Cu	63		ug/L		124	-0.000
	Cu	65	-0.087	ug/L	37.324	105	-0.000
	Zn	66	-0.017	ug/L	218.266	39	-0.000
	Zn	67		ug/L		1355	-0.000
	Zn	68		ug/L		235	0.000
>	Ge	74		ug/L		82185	82184.951
	As	75	0.049	ug/L	1548.000	680	0.000
	Se	77		ug/L		1883	-0.000
	Se	82	0.281	ug/L	224.216	10	0.000
	Kr	83		ug/L		25	-0.000
	Sr	88	0.006	ug/L	64.622	55	0.000
	Y	89		ug/L		15	0.000
	Zr	90	0.127	ug/L	14.114	401	0.003
	Mo	98	0.062	ug/L	16.571	67	0.001
	Ag	107	0.007	ug/L	31.743	21	0.000
	Cd	111	0.004	ug/L	369.555	4	0.000
	Cd	114		ug/L		12	0.000
>	In	115		ug/L		58903	58903.114
	Sn	120	0.140	ug/L	5.137	276	0.003
	Sb	121	0.412	ug/L	10.870	661	0.009
	Sb	123		ug/L		513	0.006
	Ba	135		ug/L		12	0.000
	Ba	137	-0.003	ug/L	542.161	16	-0.000
	Ho	165		ug/L		13	0.000
>	Lu	175		ug/L		118479	118478.798
	Tl	205	0.290	ug/L	13.534	2051	0.013
	Pb	208	0.006	ug/L	18.053	163	0.000
	Th	232	0.181	ug/L	13.328	1681	0.011
	U	238	0.011	ug/L	2.079	156	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	0.9997
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Zr	90	Linear Thru Zero	1.0000
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		103.4			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		104.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Zr	90					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.2			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.8			
	Tl	205					
	Pb	208					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, December 23, 2009 12:26:02
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1589
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	5349.4	5349.402	135.539	2.5
	Mg	24.0	52926.7	52926.672	590.570	1.1
	Co	58.9	124214.1	124214.107	932.643	0.8
	Rh	102.9	223598.5	223598.525	1242.440	0.6
	In	114.9	288884.4	288884.362	1949.196	0.7
	Pb	208.0	333111.0	333111.027	3223.695	1.0
⌈>	Ba	137.9	283219.6	283219.638	2581.305	0.9
⌊	Ba++	69.0	6219.6	0.022	0.000	1.6
⌈>	Ce	139.9	348697.6	348697.637	5080.698	1.5
⌊	CeO	155.9	7860.7	0.023	0.001	2.7
	Bkgd	220.0	23.9	23.900	1.673	7.0

Current Optimization File Data

Current Value	Description
0.88	Nebulizer Gas Flow
8.25	Lens Voltage
1450.00	ICP RF Power
-1687.50	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	7.5	7193.5
Co	59	21	8.3	136217.7
In	115	21	9.5	317836.8

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	597	2065	0.571
Be	9.0	9.0	2043	2070	0.622
Mg	24.0	24.0	5693	2070	0.645
Mg	25.0	25.0	5945	2070	0.634
Mg	26.0	26.0	6175	2070	0.639
Co	58.9	58.9	14186	2105	0.621
Rh	102.9	102.9	24877	2165	0.598
In	114.9	114.9	27791	2185	0.613
Ce	139.9	139.9	33863	2200	0.621
Pb	206.0	206.0	49936	2270	0.623
Pb	207.0	207.0	50183	2235	0.675
Pb	208.0	208.0	50427	2260	0.705
U	238.1	238.1	57730	2275	0.712

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Wednesday, December 23, 2009 21:43:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and as.mth
Dataset File: c:\elandata\Dataset\091223\Blank.136

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		20	
>	Sc	45		ug/L		715680	
>	Ge	74		ug/L		540180	
	As	75		ug/L		-185	
	Se	77		ug/L		6824	
	Se	82		ug/L		-23	
	Kr	83		ug/L		142	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Wednesday, December 23, 2009 21:45:53
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and as.mth
Dataset File: c:\elandata\Dataset\091223\Standard 1.137

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	3.574	5356	0.007
>	Sc	45		ug/L		743822	743821.976
>	Ge	74		ug/L		553911	553911.305
	As	75	10.000	ug/L	0.254	16685	0.030
	Se	77		ug/L		8327	0.002
	Se	82	10.000	ug/L	1.734	1645	0.003
	Kr	83		ug/L		129	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Wednesday, December 23, 2009 21:48:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and as.mth
Dataset File: c:\elandata\Dataset\091223\Standard 2.138

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	99.997	ug/L	0.641	53780	0.072
>	Sc	45		ug/L		751494	751493.984
>	Ge	74		ug/L		559509	559508.818
	As	75	99.975	ug/L	1.775	166016	0.297
	Se	77		ug/L		20899	0.025
	Se	82	99.988	ug/L	0.460	16630	0.030
	Kr	83		ug/L		149	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Wednesday, December 23, 2009 21:50:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and as.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 1.139

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.530**	**ug/L**	2.530	28793	0.037
>	Sc	45		**ug/L**		780751	780750.886
>	Ge	74		**ug/L**		573462	573461.925
	As	75	**47.670**	**ug/L**	0.651	81030	0.142
	Se	77		**ug/L**		14974	0.013
	Se	82	**49.465**	**ug/L**	0.655	8420	0.015
	Kr	83		**ug/L**		142	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	103.059				
>	Sc	45		109.1			
>	Ge	74		106.2			
	As	75	95.340				
	Se	77					
	Se	82	98.929				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Wednesday, December 23, 2009 21:53:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and as.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 2.140

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.005	ug/L	205.486	24	0.000
>	Sc	45		ug/L		775084	775084.394
>	Ge	74		ug/L		580446	580446.220
	As	75	0.224	ug/L	99.310	186	0.001
	Se	77		ug/L		9131	0.003
	Se	82	0.098	ug/L	59.660	-8	0.000
	Kr	83		ug/L		148	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		108.3			
>	Ge	74		107.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Wednesday, December 23, 2009 21:55:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and as.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 3.141

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.534**	**ug/L**	7.029	328	0.000
>	Sc	45		**ug/L**		801994	801993.528
>	Ge	74		**ug/L**		583253	583253.381
	As	75	**5.618**	**ug/L**	7.167	9535	0.017
	Se	77		**ug/L**		10117	0.005
	Se	82	**5.549**	**ug/L**	1.047	938	0.002
	Kr	83		**ug/L**		151	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	106.717				
>	Sc	45		112.1			
>	Ge	74		108.0			
	As	75	112.358				
	Se	77					
	Se	82	110.979				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Wednesday, December 23, 2009 21:58:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and as.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 4.142

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.072	ug/L	5.158	55	0.000
>	Sc	45		ug/L		696982	696981.876
>	Ge	74		ug/L		514461	514460.907
	As	75	-0.120	ug/L	265.445	-363	-0.000
	Se	77		ug/L		9124	0.005
	Se	82	-0.871	ug/L	20.276	-156	-0.000
	Kr	83		ug/L		390	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		97.4			
>	Ge	74		95.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Wednesday, December 23, 2009 22:00:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and as.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 5.143

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	18.676	ug/L	2.052	9290	0.013
>	Sc	45		ug/L		694096	694096.435
>	Ge	74		ug/L		510466	510465.888
	As	75	20.707	ug/L	2.260	31234	0.062
	Se	77		ug/L		11111	0.009
	Se	82	19.082	ug/L	3.301	2878	0.006
	Kr	83		ug/L		381	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	93.381				
>	Sc	45		97.0			
>	Ge	74		94.5			
	As	75	103.534				
	Se	77					
	Se	82	95.408				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Wednesday, December 23, 2009 22:03:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and as.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 6.144

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.994**	**ug/L**	2.001	28074	0.038
>	Sc	45		**ug/L**		740046	740045.680
>	Ge	74		**ug/L**		554715	554715.294
	As	75	**49.468**	**ug/L**	1.875	81329	0.147
	Se	77		**ug/L**		14397	0.013
	Se	82	**50.120**	**ug/L**	3.172	8250	0.015
	Kr	83		**ug/L**		141	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	105.989				
>	Sc	45		103.4			
>	Ge	74		102.7			
	As	75	98.936				
	Se	77					
	Se	82	100.241				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Wednesday, December 23, 2009 22:05:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and as.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 7.145

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.003	ug/L	407.388	23	0.000
>	Sc	45		ug/L		769648	769647.797
>	Ge	74		ug/L		573167	573166.925
	As	75	0.103	ug/L	290.982	-16	0.000
	Se	77		ug/L		8751	0.003
	Se	82	0.153	ug/L	32.634	2	0.000
	Kr	83		ug/L		129	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		107.5			
>	Ge	74		106.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202001514
Sample Date/Time: Wednesday, December 23, 2009 22:08:03
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 935396|1|baj
Method File: c:\elandata\Method\be and as.mth
Dataset File: c:\elandata\Dataset\091223\1202001514.146

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.003	ug/L	287.522	20	-0.000
>	Sc	45		ug/L		788678	788678.123
>	Ge	74		ug/L		554336	554336.195
	As	75	-0.510	ug/L	150.971	-1028	-0.002
	Se	77		ug/L		27102	0.036
	Se	82	0.210	ug/L	52.535	11	0.000
	Kr	83		ug/L		128	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		110.2			
>	Ge	74		102.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202001515
Sample Date/Time: Wednesday, December 23, 2009 22:10:35
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 935396|1|baj
Method File: c:\elandata\Method\be and as.mth
Dataset File: c:\elandata\Dataset\091223\1202001515.147

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.743**	**ug/L**	1.879	29461	0.037
>	Sc	45		**ug/L**		795346	795346.162
>	Ge	74		**ug/L**		557832	557831.677
	As	75	**49.442**	**ug/L**	1.725	81754	0.147
	Se	77		**ug/L**		32750	0.046
	Se	82	**52.374**	**ug/L**	1.668	8673	0.016
	Kr	83		**ug/L**		156	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		111.1			
>	Ge	74		103.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Wednesday, December 23, 2009 22:25:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and as.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 8.153

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**63.298**	**ug/L**	8.661	28119	0.045
>	Sc	45		**ug/L**		623686	623686.039
>	Ge	74		**ug/L**		452231	452230.993
	As	75	**54.453**	**ug/L**	10.890	72456	0.162
	Se	77		**ug/L**		14919	0.021
	Se	82	**54.866**	**ug/L**	8.161	7324	0.016
	Kr	83		**ug/L**		169	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Be	9	126.595				
>	Sc	45		87.1			
>	Ge	74		83.7			
	As	75	108.907				
	Se	77					
	Se	82	109.733				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Wednesday, December 23, 2009 22:28:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and as.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 9.154

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.011	ug/L	42.325	25	0.000
>	Sc	45		ug/L		694879	694879.470
>	Ge	74		ug/L		495543	495542.638
	As	75	-0.019	ug/L	1889.165	-197	-0.000
	Se	77		ug/L		8943	0.005
	Se	82	0.038	ug/L	309.327	-16	0.000
	Kr	83		ug/L		132	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		97.1			
>	Ge	74		91.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243285001
Sample Date/Time: Wednesday, December 23, 2009 22:45:49
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 935396|1|baj
Method File: c:\elandata\Method\be and as.mth
Dataset File: c:\elandata\Dataset\091223\243285001.161

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈	Be	9	**0.000**	**ug/L**	818.377	20	0.000
⌊>	Sc	45		**ug/L**		707613	707613.488
⌈>	Ge	74		**ug/L**		451195	451195.034
|	As	75	**0.325**	**ug/L**	157.421	288	0.001
|	Se	77		**ug/L**		20715	0.033
|	Se	82	**0.418**	**ug/L**	55.812	37	0.000
⌊	Kr	83		**ug/L**		133	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈	Be	9					
⌊>	Sc	45		98.9			
⌈>	Ge	74		83.5			
|	As	75					
|	Se	77					
|	Se	82					
⌊	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Wednesday, December 23, 2009 22:48:19
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and as.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 8.162

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	58.339	ug/L	1.514	28813	0.042
>	Sc	45		ug/L		689837	689836.747
>	Ge	74		ug/L		499049	499049.252
	As	75	48.841	ug/L	1.352	72246	0.145
	Se	77		ug/L		13838	0.015
	Se	82	50.213	ug/L	1.231	7438	0.015
	Kr	83		ug/L		133	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	116.678				
>	Sc	45		96.4			
>	Ge	74		92.4			
	As	75	97.682				
	Se	77					
	Se	82	100.427				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Be	9	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Wednesday, December 23, 2009 22:50:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and as.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 9.163

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.015	ug/L	73.882	27	0.000
>	Sc	45		ug/L		689660	689660.096
>	Ge	74		ug/L		493162	493161.770
	As	75	-0.011	ug/L	829.299	-184	-0.000
	Se	77		ug/L		6959	0.001
	Se	82	0.008	ug/L	1135.703	-20	0.000
	Kr	83		ug/L		149	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		96.4			
>	Ge	74		91.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243285002
Sample Date/Time: Wednesday, December 23, 2009 22:53:20
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 935396|1|baj
Method File: c:\elandata\Method\be and as.mth
Dataset File: c:\elandata\Dataset\091223\243285002.164

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.003	ug/L	194.004	18	-0.000
>	Sc	45		ug/L		705027	705026.988
>	Ge	74		ug/L		453945	453945.327
	As	75	0.281	ug/L	141.051	223	0.001
	Se	77		ug/L		20835	0.033
	Se	82	0.390	ug/L	26.998	33	0.000
	Kr	83		ug/L		129	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		98.5			
>	Ge	74		84.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202001516
Sample Date/Time: Wednesday, December 23, 2009 23:00:58
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 935396|1|ba|
Method File: c:\elandata\Method\be and as.mth
Dataset File: c:\elandata\Dataset\091223\1202001516.167

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.043**	**ug/L**	11.606	44	0.000
>	Sc	45		**ug/L**		747292	747292.106
>	Ge	74		**ug/L**		474539	474538.813
	As	75	**3.540**	**ug/L**	32.502	4827	0.011
	Se	77		**ug/L**		32088	0.055
	Se	82	**-0.098**	**ug/L**	193.864	-34	-0.000
	Kr	83		**ug/L**		220	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		104.4			
>	Ge	74		87.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202001517
Sample Date/Time: Wednesday, December 23, 2009 23:03:30
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 935396|1|baj
Method File: c:\elandata\Method\be and as.mth
Dataset File: c:\elandata\Dataset\091223\1202001517.168

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	48.526	ug/L	0.557	25846	0.035
>	Sc	45		ug/L		743895	743894.741
>	Ge	74		ug/L		477831	477831.400
	As	75	81.213	ug/L	2.175	115133	0.241
	Se	77		ug/L		34737	0.060
	Se	82	19.501	ug/L	1.092	2753	0.006
	Kr	83		ug/L		231	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		103.9			
>	Ge	74		88.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202001518
Sample Date/Time: Wednesday, December 23, 2009 23:06:01
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 935396|5|baj
Method File: c:\elandata\Method\be and as.mth
Dataset File: c:\elandata\Dataset\091223\1202001518.169

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	0.002	ug/L	683.236	21	0.000
>	Sc	45		ug/L		714368	714367.784
>	Ge	74		ug/L		502105	502104.614
	As	75	0.920	ug/L	28.457	1200	0.003
	Se	77		ug/L		14862	0.017
	Se	82	0.024	ug/L	741.651	-18	0.000
	Kr	83		ug/L		147	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		99.8			
>	Ge	74		93.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Wednesday, December 23, 2009 23:08:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and as.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 8.170

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**53.787**	**ug/L**	2.885	27516	0.038
>	Sc	45		**ug/L**		714670	714670.329
>	Ge	74		**ug/L**		522430	522429.502
	As	75	**49.068**	**ug/L**	2.003	75981	0.146
	Se	77		**ug/L**		16657	0.019
	Se	82	**49.595**	**ug/L**	2.075	7690	0.015
	Kr	83		**ug/L**		165	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	107.574				
>	Sc	45		99.9			
>	Ge	74		96.7			
	As	75	98.135				
	Se	77					
	Se	82	99.189				
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Wednesday, December 23, 2009 23:11:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\be and as.mth
Dataset File: c:\elandata\Dataset\091223\QC Std 9.171

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.010**	**ug/L**	72.001	26	0.000
>	Sc	45		**ug/L**		730003	730002.504
>	Ge	74		**ug/L**		526055	526055.232
	As	75	**0.062**	**ug/L**	254.644	-79	0.000
	Se	77		**ug/L**		11161	0.009
	Se	82	**0.126**	**ug/L**	7.482	-3	0.000
	Kr	83		**ug/L**		143	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.0			
>	Ge	74		97.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\010610W1.SIF
Batch ID:
Results Data Set: 010610W1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: WATER **Method Last Saved: 12/28/2009 15:47:50**
Method Description: 7470A, 245.2, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 1/6/2010 09:14:50**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0000	-0.0016	0.0000	09:15:52	Yes
2		[0.00]	0.0000	-0.0016	0.0000	09:16:27	Yes
Mean:		[0.00]	0.0000				
SD:		0.00	0.0000				
%RSD:		0.00	9.43				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 1/6/2010 09:16:46**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0019	0.0073	0.0019	09:17:46	Yes
2		[0.2]	0.0019	0.0074	0.0019	09:18:21	Yes
Mean:		[0.2]	0.0019				
SD:		0.0	0.0000				
%RSD:		0.0	0.80				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.00952 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 1/6/2010 09:18:40**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0048	0.0220	0.0049	09:19:42	Yes
2		[0.5]	0.0048	0.0213	0.0048	09:20:16	Yes
Mean:		[0.5]	0.0048				
SD:		0.0	0.0000				
%RSD:		0.0	0.20				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999983 Slope: 0.00965 Intercept: -0.00001

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 1/6/2010 09:20:36**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0195	0.0920	0.0195	09:21:37	Yes
2		[2.0]	0.0194	0.0910	0.0194	09:22:12	Yes
Mean:		[2.0]	0.0194				
SD:		0.0	0.0001				
%RSD:		0.0	0.33				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999997 Slope: 0.00974 Intercept: -0.00003

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 1/6/2010 09:22:32**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0477	0.2255	0.0477	09:23:34	Yes
2		[5.0]	0.0476	0.2248	0.0477	09:24:09	Yes
Mean:		[5.0]	0.0477				
SD:		0.0	0.0000				
%RSD:		0.0	0.08				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999964 Slope: 0.00954 Intercept: 0.00008

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 1/6/2010 09:24:29**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.0969	0.4635	0.0969	09:25:29	Yes
2		[10.0]	0.0963	0.4578	0.0963	09:26:04	Yes
Mean:		[10.0]	0.0966				
SD:		0.0	0.0004				
%RSD:		0.0	0.44				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999976 Slope: 0.00964 Intercept: -0.00004

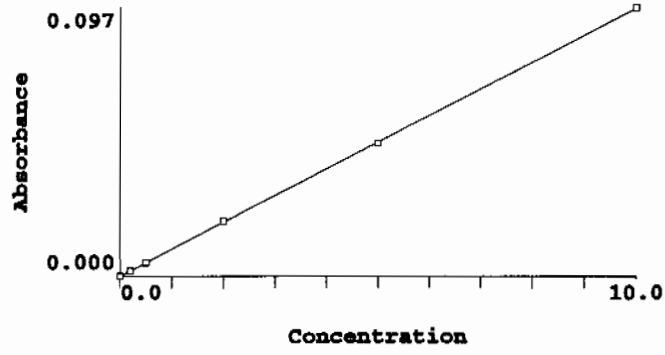

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	0.004	0.00	9.4
S0.2	0.0019	0.2	0.201	0.00	0.8
S0.5	0.0048	0.5	0.504	0.00	0.2
S2.0	0.0194	2.0	2.022	0.00	0.3

S5.0	0.0477	5.0	4.948	0.00	0.1
S10.0	0.0966	10.0	10.022	0.00	0.4

Correlation Coef.: 0.999976 Slope: 0.00964 Intercept: -0.00004

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 1/6/2010 09:26:23**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.040	5.040	0.0485	0.2306	0.0486	09:27:24	Yes
2	5.012	5.012	0.0483	0.2282	0.0483	09:27:59	Yes
Mean:	5.026	5.026	0.0484				
SD:	0.020	0.020	0.0002				
%RSD:	0.392	0.392	0.39				

QC value within limits for Hg 253.7 Recovery = 100.52%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 1/6/2010 09:28:18**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	0.0001	-0.0006	0.0001	09:29:20	Yes
2	0.012	0.012	0.0001	-0.0015	0.0001	09:29:54	Yes
Mean:	0.012	0.012	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	1.894	1.894	2.79				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 1/6/2010 09:30:14**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.223	0.223	0.0021	0.0091	0.0021	09:31:16	Yes
2	0.214	0.214	0.0020	0.0090	0.0021	09:31:50	Yes
Mean:	0.219	0.219	0.0021				
SD:	0.006	0.006	0.0001				
%RSD:	2.903	2.903	2.96				

QC value within limits for Hg 253.7 Recovery = 109.32%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 1/6/2010 09:32:10**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.347	5.347	0.0515	0.2395	0.0515	09:33:11	Yes
2	5.363	5.363	0.0517	0.2394	0.0517	09:33:46	Yes
Mean:	5.355	5.355	0.0516				
SD:	0.011	0.011	0.0001				
%RSD:	0.209	0.209	0.21				

QC value within limits for Hg 253.7 Recovery = 107.10%
All analyte(s) passed QC.

Sequence No.: 11 Autosampler Location: 8
Sample ID: CCB Date Collected: 1/6/2010 09:34:05
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.020	0.020	0.0002	0.0001	0.0002	09:35:05	Yes
2	0.014	0.014	0.0001	-0.0009	0.0001	09:35:40	Yes
Mean:	0.017	0.017	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	24.26	24.26	31.55				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 Autosampler Location: 12
Sample ID: 1202002084|935681|1 Date Collected: 1/6/2010 09:36:00
Analyst: JXL Data Type: Original

Replicate Data: 1202002084|935681|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.018	0.018	0.0001	-0.0003	0.0002	09:37:02	Yes
2	0.018	0.018	0.0001	-0.0002	0.0002	09:37:37	Yes
Mean:	0.018	0.018	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	2.275	2.275	2.90				

Sequence No.: 13 Autosampler Location: 13
Sample ID: 1202002085|935681|1 Date Collected: 1/6/2010 09:37:57
Analyst: JXL Data Type: Original

Replicate Data: 1202002085|935681|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.136	2.136	0.0205	0.0954	0.0206	09:38:59	Yes
2	2.136	2.136	0.0206	0.0952	0.0206	09:39:33	Yes
Mean:	2.136	2.136	0.0206				
SD:	0.000	0.000	0.0000				
%RSD:	0.005	0.005	0.01				

Sequence No.: 14 Autosampler Location: 14
Sample ID: 243285001|935681|1 Date Collected: 1/6/2010 09:39:54
Analyst: JXL Data Type: Original

Replicate Data: 243285001|935681|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	0.0001	-0.0001	0.0001	09:40:55	Yes
2	0.013	0.013	0.0001	0.0002	0.0001	09:41:30	Yes
Mean:	0.013	0.013	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	5.352	5.352	7.67				

Sequence No.: 15 Autosampler Location: 15
Sample ID: 243285002|935681|1 Date Collected: 1/6/2010 09:41:49
Analyst: JXL Data Type: Original

Replicate Data: 243285002|935681|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	0.011	0.011	0.0001	0.0001	0.0001	09:42:49	Yes
2	0.014	0.014	0.0001	0.0002	0.0001	09:43:24	Yes
Mean:	0.013	0.013	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	12.97	12.97	18.69				

==========

Sequence No.: 16 **Autosampler Location: 16**
Sample ID: 243286001|935681|1 **Date Collected: 1/6/2010 09:43:43**
Analyst: JXL **Data Type: Original**

Replicate Data: 243286001|935681|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.009	0.009	0.0000	-0.0002	0.0001	09:44:43	Yes
2	0.010	0.010	0.0001	-0.0001	0.0001	09:45:18	Yes
Mean:	0.009	0.009	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	10.39	10.39	17.61				

==========

Sequence No.: 17 **Autosampler Location: 17**
Sample ID: 1202002086|935681|1 **Date Collected: 1/6/2010 09:45:37**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202002086|935681|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.004	0.004	0.0000	-0.0006	0.0000	09:46:38	Yes
2	0.010	0.010	0.0001	-0.0000	0.0001	09:47:13	Yes
Mean:	0.007	0.007	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	56.57	56.57	126.97				

==========

Sequence No.: 18 **Autosampler Location: 18**
Sample ID: 1202002087|935681|1 **Date Collected: 1/6/2010 09:47:32**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202002087|935681|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.824	1.824	0.0175	0.0867	0.0176	09:48:32	Yes
2	1.821	1.821	0.0175	0.0865	0.0176	09:49:07	Yes
Mean:	1.823	1.823	0.0175				
SD:	0.002	0.002	0.0000				
%RSD:	0.112	0.112	0.11				

==========

Sequence No.: 19 **Autosampler Location: 19**
Sample ID: 1202002088|935681|5 **Date Collected: 1/6/2010 09:49:26**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202002088|935681|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	0.0001	-0.0001	0.0001	09:50:27	Yes
2	0.016	0.016	0.0001	0.0001	0.0001	09:51:01	Yes
Mean:	0.014	0.014	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	19.54	19.54	27.12				

==========

Sequence No.: 20 **Autosampler Location: 20**
Sample ID: 243286002|935681|1 **Date Collected: 1/6/2010 09:51:21**
Analyst: JXL **Data Type: Original**

Replicate Data: 243286002|935681|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.017	0.017	0.0001	0.0005	0.0002	09:52:22	Yes
2	0.016	0.016	0.0001	0.0000	0.0001	09:52:56	Yes
Mean:	0.016	0.016	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	4.370	4.370	5.75				

Sequence No.: 21 Autosampler Location: 21
Sample ID: 243286003|935681|1 Date Collected: 1/6/2010 09:53:16
Analyst: JXL Data Type: Original

Replicate Data: 243286003|935681|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	0.0001	0.0002	0.0001	09:54:17	Yes
2	0.013	0.013	0.0001	0.0002	0.0001	09:54:52	Yes
Mean:	0.013	0.013	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	1.928	1.928	2.79				

Sequence No.: 22 Autosampler Location: 7
Sample ID: CCV Date Collected: 1/6/2010 09:55:11
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.249	5.249	0.0506	0.2340	0.0506	09:56:12	Yes
2	5.274	5.274	0.0508	0.2344	0.0508	09:56:47	Yes
Mean:	5.262	5.262	0.0507				
SD:	0.018	0.018	0.0002				
%RSD:	0.334	0.334	0.33				

QC value within limits for Hg 253.7 Recovery = 105.23%
All analyte(s) passed QC.

Sequence No.: 23 Autosampler Location: 8
Sample ID: CCB Date Collected: 1/6/2010 09:57:05
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.035	0.035	0.0003	0.0024	0.0003	09:58:06	Yes
2	0.040	0.040	0.0004	0.0031	0.0004	09:58:41	Yes
Mean:	0.038	0.038	0.0003				
SD:	0.004	0.004	0.0000				
%RSD:	10.37	10.37	11.56				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 Autosampler Location: 22
Sample ID: 243286004|935681|1 Date Collected: 1/6/2010 09:59:00
Analyst: JXL Data Type: Original

Replicate Data: 243286004|935681|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.028	0.028	0.0002	0.0023	0.0003	10:00:02	Yes
2	0.027	0.027	0.0002	0.0022	0.0003	10:00:36	Yes

Miscellaneous

Prep LogBook

Analyst: TXB3 Verified by:_____

Batch: 935680

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202002085	WHG100105-13	.2	mL
MS	1202002087	WHG100105-13	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202002084		EPA 245.1/245.2 Prep	05-JAN-2010 11:10	<2	20 mL	20 mL	1	GROUND WATER
LCS	1202002085		EPA 245.1/245.2 Prep	05-JAN-2010 11:10	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243285001		EPA 245.1/245.2 Prep	05-JAN-2010 11:10	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243285002		EPA 245.1/245.2 Prep	05-JAN-2010 11:10	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243286001		EPA 245.1/245.2 Prep	05-JAN-2010 11:10	<2	20 mL	20 mL	1	GROUND WATER
DUP	1202002086	243286001	EPA 245.1/245.2 Prep	05-JAN-2010 11:10	<2	20 mL	20 mL	1	GROUND WATER
MS	1202002087	243286001	EPA 245.1/245.2 Prep	05-JAN-2010 11:10	<2	20 mL	20 mL	1	GROUND WATER
SDILT	1202002088	243286001	EPA 245.1/245.2 Prep	05-JAN-2010 11:10	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243286002		EPA 245.1/245.2 Prep	05-JAN-2010 11:10	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243286003		EPA 245.1/245.2 Prep	05-JAN-2010 11:10	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243286004		EPA 245.1/245.2 Prep	05-JAN-2010 11:10	<2	20 mL	20 mL	1	GROUND WATER

Reagent/Solvent Lot ID	Amount	Description
1176183	1 mL	Sulfuric Acid, Concentrated
1240182-1	.5 mL	NITRIC ACID
1234385-C	1.5 mL	5% Potassium Persulfate
1244904-C	3 mL	5% KMnO4 solution
1206350-C	1 mL	Hg reducing agent
WHG100105-06	500 uL	Mercury Working 2nd Source 5.0/ICV
WHG100105-01a	20 uL	Mercury Working 1st Source CAL 0.2/CRA
WHG100105-02	50 mL	Mercury Working 1st Source CAL 0.5
WHG100105-05	1 mL	Mercury Working 1st Source CAL 10.0
WHG100105-03	200 uL	Mercury Working 1st Source CAL 2.0
WHG100105-04	500 uL	Mercury Working 1st Source CAL 5.0/CCV

Comments: Digestion Start Date: 05-JAN-10 11:10
Digestion End Date: 05-JAN-10 13:10

Prep LogBook

Analyst: AXG2 Verified by:_____

Batch: 935386

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202001501	UI091124-01	.25	mL
LCS	1202001501	UI091124-06	.25	mL
MS	1202001503	UI091124-01	.25	mL
MS	1202001503	UI091124-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202001500		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
LCS	1202001501		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243255001		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243255002		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243255003		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243255004		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243255005		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243255006		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243257001		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243257003		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243257005		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243257006		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243272001		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	WATER
SAMPLE	243285001		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243285002		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243286001		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
DUP	1202001502	243286001	SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
MS	1202001503	243286001	SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SDILT	1202001504	243286001	SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243286002		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243286003		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243286004		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER

Reagent/Solvent Lot ID	Amount	Description
1244970	2.5 mL	HYDROCHLORIC ACID
1234886	1 mL	Nitric Acid CONC.

Comments:

Prep LogBook

Analyst: AXG2 Verified by:_____

Batch: 935394

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202001515	UI091124-A00	.5	mL
LCS	1202001515	UI091124-B	.5	mL
MS	1202001517	UI090828-A	.5	mL
MS	1202001517	UI090828-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202001514		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
LCS	1202001515		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243255001		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243255002		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243255003		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243255004		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243255005		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243255006		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243257001		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243257003		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243257005		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243257006		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243272001		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	WATER
SAMPLE	243285001		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243285002		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243286001		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243286002		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
DUP	1202001516	243286002	SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
MS	1202001517	243286002	SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SDILT	1202001518	243286002	SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243286003		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243286004		SW846 3005A	22-DEC-2009 07:15	<2	50 mL	50 mL	1	GROUND WATER

Reagent/Solvent Lot ID	Amount	Description
1244970	2.5 mL	HYDROCHLORIC ACID
1234886	1 mL	Nitric Acid CONC.

Comments:

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Standard Logbook

Serial ID:	UI090701-09	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #1	**Received:**	01-JUL-09	**Catalog Number :**	160044-09-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016477
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Master Soln #1				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID:	UI090701-10	**Opened:**	01-JUL-09	**Amount :**	250 mL
Name:	ICP-MS CRDL Master #2	**Received:**	01-JUL-09	**Catalog Number :**	160044-08-02
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016476
Employee:	Paul Boyd			**Solvent :**	+/- 0.5% IN 2% HNO3
Supplier:	02SI				
Description:	ICPMS CRDL Soln #2				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID:	UI090701-40	**Opened:**	01-JUL-09	**Amount :**	500 mL
Name:	TRACE ICP Stock PQL St	**Received:**	30-JUN-09	**Catalog Number :**	160543-01-03
Type:	Source Material	**Expires:**	01-JUL-10	**Lot Number :**	1016475
Employee:	Helen Camello			**Solvent :**	+/-0.5%in2%HNO3+TrHF
Supplier:	02si				
Description:	TRACE ICP Stock PQL Standard				
Comments:	None				

Analyte	Concentration	Analyte	Concentration

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: O2SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090828-A **Opened:** 28-AUG-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 28-AUG-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE liquid Spike Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L

Analyte	Concentration	Analyte	Concentration
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI090828-B **Opened:** 28-AUG-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 28-AUG-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE

Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091124-01 **Opened:** 24-NOV-09 **Lot Number :** 1017642
Name: METALSPIKE-1 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Standard Logbook

Serial ID: UI091124-06 **Opened:** 24-NOV-09 **Lot Number :** 1017643
Name: METALSPIKE-2 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI091124-A00 **Opened:** 24-NOV-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 24-NOV-09 **Lot Number :** 1017644
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI091124-B **Opened:** 24-NOV-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 24-NOV-09 **Lot Number :** 1017644
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091212-11 **Opened:** 12-DEC-09 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 12-DEC-09 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1015303
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI091212-60 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L

Analyte	Concentration	Analyte	Concentration
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091215-48 **Opened:** 04-JAN-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 18-DEC-09 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 04-JAN-11 **Lot Number :** 1018219
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Standard Logbook

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L

Analyte	Concentration	Analyte	Concentration
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI091228-40 **Opened:** 28-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 21-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-DEC-10 **Lot Number :** 1018160
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Standard Logbook

Serial ID: UI091228-41 **Opened:** 28-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 21-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-DEC-10 **Lot Number :** 1018160
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Standard Logbook

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100105-01 **Opened:** 05-JAN-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 05-JAN-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 06-JAN-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100105-02 **Opened:** 05-JAN-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 05-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Intermediate **Expires:** 06-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100105-01a **Opened:** 05-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 05-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 12-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100105-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Standard Logbook

Serial ID: WHG100105-02 **Opened:** 05-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 05-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 12-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100105-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100105-03 **Opened:** 05-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 05-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 12-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100105-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG100105-04 **Opened:** 05-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 05-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 12-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100105-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100105-05 **Opened:** 05-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 05-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 12-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100105-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Standard Logbook

Serial ID: WHG100105-06 **Opened:** 05-JAN-10 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 05-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 12-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100105-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100105-13 **Opened:** 05-JAN-10 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 05-JAN-10 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 12-JAN-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100106-42 **Opened:** 06-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 07-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1249941
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100106-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100106-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100106-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100106-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100106-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100106-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100106-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100106-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100106-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100106-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100106-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100106-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100106-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100106-43 **Opened:** 06-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 07-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1249941
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100106-44 **Opened:** 06-JAN-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 07-JAN-10 **Solvent :** 3%HCL and 1 %HNO3-1249941
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100106-45 **Opened:** 06-JAN-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 07-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1249941
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100106-46 **Opened:** 06-JAN-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 07-JAN-10 **Solvent :** 3%HCL AND 1%HNO3-1249941
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100106-47 **Opened:** 06-JAN-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 07-JAN-10 **Solvent :** 3%HCL &1%HNO3-1249941
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100107-42 **Opened:** 07-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 08-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1249941
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100107-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100107-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100107-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100107-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100107-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100107-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100107-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100107-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100107-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100107-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100107-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100107-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100107-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100107-43 **Opened:** 07-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 08-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1249941
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100107-44 **Opened:** 07-JAN-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 08-JAN-10 **Solvent :** 3%HCL and 1 %HNO3-1249941
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100107-45 **Opened:** 07-JAN-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 08-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1249941
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100107-46 **Opened:** 07-JAN-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 08-JAN-10 **Solvent :** 3%HCL AND 1%HNO3-1249941
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100107-47 **Opened:** 07-JAN-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 08-JAN-10 **Solvent :** 3%HCL &1%HNO3-1249941
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS091222-04 **Opened:** 22-DEC-09 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 22-DEC-09 **Balance Id :** 4025216
Type: Working **Expires:** 23-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1245333
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS091222-04A **Opened:** 22-DEC-09 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 22-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 23-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091222-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS091222-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091222-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091222-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS091222-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS091222-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS091222-05 **Opened:** 22-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 22-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 23-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS091222-06 **Opened:** 22-DEC-09 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 22-DEC-09 **Pipet Id :** 3820544
Type: Working **Expires:** 23-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS091222-07 **Opened:** 22-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 22-DEC-09 **Lot Number :** 1010773
Type: Working **Expires:** 23-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1245333
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS091222-08 **Opened:** 22-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 22-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 23-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS091222-70 **Opened:** 22-DEC-09 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 22-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 23-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS091223-04 **Opened:** 23-DEC-09 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 23-DEC-09 **Balance Id :** 4025216
Type: Working **Expires:** 24-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1245333
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS091223-04A **Opened:** 23-DEC-09 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 23-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 24-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091223-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS091223-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS091223-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS091223-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS091223-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS091223-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS091223-05 **Opened:** 23-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 23-DEC-09 **Pipet Id :** 3541598
Type: Working **Expires:** 24-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS091223-06 **Opened:** 23-DEC-09 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 23-DEC-09 **Pipet Id :** 3820544
Type: Working **Expires:** 24-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS091223-07 **Opened:** 23-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 23-DEC-09 **Lot Number :** 1010773
Type: Working **Expires:** 24-DEC-09 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1245333
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS091223-08 **Opened:** 23-DEC-09 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 23-DEC-09 **Pipet Id :** 1758088
Type: Working **Expires:** 24-DEC-09 **Solvent :** 2%HNO3/1%HCl - 1245333
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Standard Logbook

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1164796-A **Opened:** 06-AUG-09 **Lot Number :** 49149927
Name: B-NH2OH.HCl-MER **Received:** 06-AUG-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1206350-C **Opened:** 22-OCT-09 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 22-OCT-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1164796-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Standard Logbook

Serial ID: 1234385-C **Opened:** 25-NOV-09 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 25-NOV-09
Type: Reagent/Solvent **Expires:** 25-MAY-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1234886 **Opened:** 27-NOV-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 27-NOV-09
Type: Reagent/Solvent **Expires:** 27-NOV-10
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1238345 **Opened:** 04-DEC-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 04-DEC-09
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1240182-1 **Opened:** 09-DEC-09 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 09-DEC-09 **Lot Number :** H34040
Type: Reagent/Solvent **Expires:** 09-DEC-10
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1244904-C **Opened:** 18-DEC-09 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 18-DEC-09
Type: Reagent/Solvent **Expires:** 18-JUN-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1244970 **Opened:** 18-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 18-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 18-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1245333 **Opened:** 21-DEC-09 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 21-DEC-09
Type: Reagent/Solvent **Expires:** 28-DEC-09
Employee: Elizabeth Janssen
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

Serial ID: 1249941 **Opened:** 04-JAN-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 15-DEC-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 10-JAN-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-995

Method/Analysis Information

Product: **Specific Conductivity**

Analytical Batch: 935817 **Method:** EPA 120.1

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 120.1:

Sample ID	Client ID
243285002	CAPA-10-6794
1202002354	243255002(CAPA-10-6094) Sample Duplicate (DUP)
1202002355	243257001(CAPA-10-6171) Sample Duplicate (DUP)
1202002356	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-009 REV# 9.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Conductivity analysis was performed on a Orion 160 Conductivity Meter.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Calibration Verification Information

All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 243255002 (CAPA-10-6094) and 243257001 (CAPA-10-6171).

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **pH**

Analytical Batch: 935860 **Method:** EPA 150.1

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 150.1:

Sample ID	Client ID
243285002	CAPA-10-6794
1202002477	Laboratory Control Sample (LCS)
1202002478	243286001(CAPA-10-6389) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-008 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Electrode analysis was performed on a PerpHect pH Meter Orion 370.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following sample was selected for QC analysis: 243286001 (CAPA-10-6389).

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
The following sample from this sample group was received by the lab outside of the method specified holding time: 243285002 (CAPA-10-6794).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
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Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	935209	**Method:**	EPA 335.4
Prep Batch :	935207	**Method:**	EPA 335.4

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 335.4:

Sample ID	Client ID
243285001	CAPA-10-6793
1202000926	Method Blank (MB)
1202000927	243108001(RE16-10-225) Sample Duplicate (DUP)
1202000928	243104002(CAPA-10-6818) Sample Duplicate (DUP)
1202000929	243252001(NPDES03A130-10-8672) Sample Duplicate (DUP)
1202000931	243108001(RE16-10-225) Matrix Spike (MS)
1202000932	243104002(CAPA-10-6818) Matrix Spike (MS)
1202000933	243252001(NPDES03A130-10-8672) Matrix Spike (MS)
1202000935	243108001(RE16-10-225) Matrix Spike Duplicate (MSD)
1202000936	243104002(CAPA-10-6818) Matrix Spike Duplicate (MSD)
1202000937	243252001(NPDES03A130-10-8672) Matrix Spike Duplicate (MSD)
1202000939	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 243104002 (CAPA-10-6818), 243108001 (RE16-10-225) and 243252001 (NPDES03A130-10-8672).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202000928 (CAPA-10-6818) and 1202000929 (NPDES03A130-10-8672).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis

The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Ion Chromatography**

Analytical Batch: 935518 **Method:** EPA 300.0

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
243285002	CAPA-10-6794
1202001780	Method Blank (MB)
1202001781	243009001(CAPA-10-6099) Sample Duplicate (DUP)
1202001782	243286001(CAPA-10-6389) Sample Duplicate (DUP)
1202001783	243009001(CAPA-10-6099) Post Spike (PS)
1202001784	243286001(CAPA-10-6389) Post Spike (PS)
1202001785	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-086 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Ion Chromatography analysis was performed on a Dionex ICS-3000 Ion Chromatograph.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 243009001 (CAPA-10-6099) and 243286001 (CAPA-10-6389).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery for Chloride falls outside of the GEL acceptance limits but within the client specified limits. 1202001783 (CAPA-10-6099).

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1202001782 (CAPA-10-6389) and 1202001784 (CAPA-10-6389).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
The following NCR was generated for this SDG: 775582 1202001783 (CAPA-10-6099) and 1202001784 (CAPA-10-6389).

Manual Integrations
Manual integrations were not required for the samples in this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

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Method/Analysis Information

Product:	**Ammonia Nitrogen**		
Analytical Batch:	935259	**Method:**	EPA 350.1
Prep Batch :	935258	**Method:**	EPA 350.2 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 350.1:

Sample ID	Client ID
243285002	CAPA-10-6794
1202001075	Method Blank (MB)
1202001076	243257006(CAPA-10-6176) Sample Duplicate (DUP)
1202001077	243257006(CAPA-10-6176) Matrix Spike (MS)
1202001078	243257006(CAPA-10-6176) Matrix Spike Duplicate (MSD)
1202001079	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-106 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 243257006 (CAPA-10-6176).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recovery for this sample set was within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovery for this sample set was within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202001076 (CAPA-10-6176).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

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Method/Analysis Information

Product: **Nitrate Nitrite by Cadmium Reduction**

Analytical Batch: 935263 **Method:** EPA 353.2

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 353.2:

Sample ID	Client ID
243285002	CAPA-10-6794
1202001088	Method Blank (MB)
1202001089	243285002(CAPA-10-6794) Sample Duplicate (DUP)
1202001090	243285002(CAPA-10-6794) Post Spike (PS)
1202001091	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-128 REV# 5.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8500 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 243285002 (CAPA-10-6794).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recovery for this sample set was within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following samples in this sample group were diluted due to matrix interference: 1202001089 (CAPA-10-6794), 1202001090 (CAPA-10-6794) and 243285002 (CAPA-10-6794).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Total Phosphorus**		
Analytical Batch:	934824	**Method:**	EPA 365.4
Prep Batch :	934823	**Method:**	EPA 365.4 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 365.4:

Sample ID	Client ID
243285002	CAPA-10-6794
1202000072	Method Blank (MB)
1202000073	243104001(CAPA-10-6817) Sample Duplicate (DUP)
1202000074	243104001(CAPA-10-6817) Matrix Spike (MS)
1202000075	243104001(CAPA-10-6817) Matrix Spike Duplicate (MSD)
1202000076	Laboratory Control Sample (LCS)
1202000912	243255002(CAPA-10-6094) Sample Duplicate (DUP)
1202000913	243255002(CAPA-10-6094) Matrix Spike (MS)
1202000914	243255002(CAPA-10-6094) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-103 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 243104001 (CAPA-10-6817) and 243255002 (CAPA-10-6094).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the established acceptance limits due to matrix interference: 1202000074 (CAPA-10-6817).

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the established acceptance limits due to matrix interference: 1202000075 (CAPA-10-6817).

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
One or more of the values for the sample and/or duplicate are less than 5 times the Practical Quantitation Limit (PQL), and the difference is within one PQL value; therefore, the RPD is not applicable. 1202000912 (CAPA-10-6094).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following samples were re-analyzed due to instrument failure: 1202000074 (CAPA-10-6817), 1202000075 (CAPA-10-6817), 1202000912 (CAPA-10-6094), 1202000913 (CAPA-10-6094) and 1202000914 (CAPA-10-6094). The following samples were re-analyzed due to original batch QC failure (LCS): 1202000072 (MB) and 1202000076 (LCS).

Miscellaneous Information

Nonconformance (NCR) Documentation
The following NCR was generated for this SDG: 773383 1202000074 (CAPA-10-6817) and 1202000075 (CAPA-10-6817).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Solids, Total Dissolved**

Analytical Batch: 934796 **Method:** EPA 160.1

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 160.1:

Sample ID	Client ID
243285002	CAPA-10-6794
1202000006	Method Blank (MB)
1202000008	Laboratory Control Sample (LCS)
1202000899	243253001(50FWC-09-2842) Sample Duplicate (DUP)
1202000900	243257006(CAPA-10-6176) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-001 REV# 10.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Solids analysis was performed on a Sartorius Balance BAL216. Solids lab

Initial Calibration

All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 243253001 (50FWC-09-2842) and 243257006 (CAPA-10-6176).

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Sample Aliquot
A sufficient amount of sample was provided by the client for analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Alkalinity**

Analytical Batch: 936028 **Method:** EPA 310.1

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 310.1:

Sample ID	Client ID
243285002	CAPA-10-6794
1202002843	Laboratory Control Sample (LCS)
1202002844	243255002(CAPA-10-6094) Sample Duplicate (DUP)
1202002845	243255002(CAPA-10-6094) Matrix Spike (MS)
1202002852	Method Blank (MB)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-033 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Titration analysis was performed on a manually operated buret.

Initial Standardization

The titrant was properly standardized

Quality Control (QC) Information

Method Blank (MB) Statement

GEL currently has not established reporting criteria for Alkalinity method blank analysis. A study is being performed to determine reasonable reporting criteria. 1202002852 (MB).

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following sample was selected for QC analysis: 243255002 (CAPA-10-6094).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recovery for this sample set was within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 14Jan10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-995 GEL Work Order: 243285

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Tom Lewis, Jr.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 5, 2010

Client SDG: 10-995

Client Sample ID:	CAPA-10-6793	Project:	ESHL01000
Sample ID:	243285001	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	17-DEC-09 12:00		
Receive Date:	19-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
EPA 335.4 Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/22/09	1708	935209	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	12/22/09	1414	935207

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 5, 2010

Client SDG: 10-995

Client Sample ID: CAPA-10-6794
Sample ID: 243285002
Matrix: Ground Water
Collect Date: 17-DEC-09 12:00
Receive Date: 19-DEC-09
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Conductivity Analysis											
EPA120.1 Specific Conductivity "As Received"											
Conductivity		137	1.00	1.00	umhos/cm	1	TXT1	12/22/09	1555	935817	1
Electrode Analysis											
EPA 150.1 pH Federal "As Received"											
pH at Temp 16.7C	H	7.65	0.010	0.100	SU	1	LXA1	12/22/09	1113	935860	2
Ion Chromatography											
EPA 300.0 Anions Liquid 28 day "As Received"											
Bromide	U	ND	0.066	0.200	mg/L	1	VH1	12/22/09	0939	935518	3
Chloride		2.42	0.066	0.200	mg/L	1					
Fluoride		0.507	0.033	0.100	mg/L	1					
Sulfate		2.95	0.100	0.400	mg/L	1					
Nutrient Analysis											
EPA 350.1 Nitrogen, Ammonia L "As Received"											
Nitrogen, Ammonia	U	ND	0.016	0.050	mg/L	1	AXH3	12/22/09	1555	935259	4
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"											
Nitrogen, Nitrate/Nitrite		0.590	0.050	0.250	mg/L	5	AXH3	12/21/09	1155	935263	5
EPA 365.4 Phosphorus, Total in "As Received"											
Phosphorus, Total as P	J	0.038	0.015	0.050	mg/L	1	AXH3	12/22/09	1056	934824	6
Solids Analysis											
EPA 160.1 Solids, Dissolved-F "As Received"											
Total Dissolved Solids		145	2.38	10.0	mg/L		SDS	12/21/09	1122	934796	7
Titration Analysis											
EPA 310.1 Total Alkalinity Federal "As Received"											
Alkalinity, Total as CaCO3		62.4	0.725	1.00	mg/L		LXA1	12/22/09	1604	936028	8
Carbonate alkalinity (CaCO3)	U	ND	0.725	1.00	mg/L						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	SXJ1	12/22/09	1455	935258
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	SXJ1	12/21/09	1015	934823

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 120.1	

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 5, 2010

Client SDG: 10-995

Client Sample ID: CAPA-10-6794
Sample ID: 243285002

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
2	EPA 150.1									
3	EPA 300.0									
4	EPA 350.1									
5	EPA 353.2									
6	EPA 365.4									
7	EPA 160.1									
8	EPA 310.1									

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: January 5, 2010
Page 1 of 4

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 243285

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Conductivity Analysis											
Batch 935817											
QC1202002354 243255002 DUP											
Conductivity			220		220	umhos/cm	0.00		(0%-10%)	TXT1	12/22/09 15:53
QC1202002355 243257001 DUP											
Conductivity			123		121	umhos/cm	1.39		(0%-10%)		12/22/09 15:54
QC1202002356 LCS											
Conductivity	1410				1400	umhos/cm		99.4	(95%-105%)		12/22/09 15:51
Electrode Analysis											
Batch 935860											
QC1202002478 243286001 DUP											
pH		H	6.93	H	6.95	SU	0.288		(0%-10%)	LXA1	12/22/09 11:19
QC1202002477 LCS											
pH	7.00				6.97	SU		99.6	(95%-105%)		12/22/09 10:58
Flow Injection Analysis											
Batch 935209											
QC1202000927 243108001 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A			AXC2	12/22/09 16:34
QC1202000928 243104002 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A				12/22/09 16:30
QC1202000929 243252001 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A				12/22/09 16:45
QC1202000939 LCS											
Cyanide, Total	50.0				49.9	ug/L		99.8	(90%-110%)		12/22/09 16:28
QC1202000926 MB											
Cyanide, Total				U	ND	ug/L					12/22/09 16:27
QC1202000931 243108001 MS											
Cyanide, Total	100	U	ND		96.6	ug/L		96.6	(60%-127%)		12/22/09 16:34
QC1202000932 243104002 MS											
Cyanide, Total	100	U	ND		94.4	ug/L		94.4	(60%-127%)		12/22/09 16:31
QC1202000933 243252001 MS											
Cyanide, Total	100	U	ND		88.9	ug/L		88.2	(60%-127%)		12/22/09 16:46
QC1202000935 243108001 MSD											
Cyanide, Total	100	U	ND		102	ug/L	5.44	102	(0%-20%)		12/22/09 16:35
QC1202000936 243104002 MSD											
Cyanide, Total	100	U	ND		96.3	ug/L	1.99	96.3	(0%-20%)		12/22/09 16:32
QC1202000937 243252001 MSD											
Cyanide, Total	100	U	ND		91.5	ug/L	2.88	90.8	(0%-20%)		12/22/09 16:47
Ion Chromatography											
Batch 935518											
QC1202001781 243009001 DUP											
Bromide		U	ND	U	ND	mg/L	N/A			VH1	12/22/09 04:40
Chloride			18.6		18.5	mg/L	0.477		(0%-20%)		
Fluoride			0.196		0.205	mg/L	4.69 ^		(+/-0.100)		

QC Summary

Workorder: 243285

Parmname	NOM		Sample	Qual	QC	Units	RPD%		REC%	Range	Anlst	Date Time
Ion Chromatography												
Batch 935518												
Sulfate			2.13		2.12	mg/L	0.184			(0%-20%)		
QC1202001782 243286001 DUP												
Bromide		J	0.145	J	0.152	mg/L	4.32	^		(+/-0.200)	VH1	12/22/09 10:39
Chloride			21.3		21.4	mg/L	0.363			(0%-20%)		12/22/09 19:56
Fluoride			0.294		0.340	mg/L	14.5	^		(+/-0.100)		12/22/09 10:39
Sulfate			4.16		4.04	mg/L	2.99			(0%-20%)		
QC1202001785 LCS												
Bromide	2.50				2.42	mg/L			96.8	(90%-110%)		12/22/09 03:40
Chloride	10.0				9.50	mg/L			95	(90%-110%)		
Fluoride	5.00				4.89	mg/L			97.8	(90%-110%)		
Sulfate	20.0				19.3	mg/L			96.5	(90%-110%)		
QC1202001780 MB												
Bromide				U	ND	mg/L						12/22/09 03:10
Chloride				U	ND	mg/L						
Fluoride				U	ND	mg/L						
Sulfate				U	ND	mg/L						
QC1202001783 243009001 PS												
Bromide	2.50	U	ND		2.36	mg/L			94.4	(90%-110%)		12/22/09 05:10
Chloride	10.0		18.6		30.5	mg/L			119*	(90%-110%)		
Fluoride	5.00		0.196		5.03	mg/L			96.7	(90%-110%)		
Sulfate	20.0		2.13		21.4	mg/L			96.2	(90%-110%)		
QC1202001784 243286001 PS												
Bromide	2.50	J	0.145		2.62	mg/L			98.8	(90%-110%)		12/22/09 11:08
Chloride	10.0		4.26		14.7	mg/L			104	(90%-110%)		12/22/09 20:25
Fluoride	5.00		0.294		5.19	mg/L			98	(90%-110%)		12/22/09 11:08
Sulfate	20.0		4.16		23.8	mg/L			98	(90%-110%)		
Nutrient Analysis												
Batch 934824												
QC1202000073 243104001 DUP												
Phosphorus, Total as P			0.069		0.082	mg/L	17.2	^		(+/-0.050)	AXH3	12/22/09 09:31
QC1202000912 243255002 DUP												
Phosphorus, Total as P			0.138		0.090	mg/L	42.1	^		(+/-0.050)		12/22/09 10:45
QC1202000076 LCS												
Phosphorus, Total as P	1.00				1.05	mg/L			105	(90%-118%)		12/22/09 09:28
QC1202000072 MB												
Phosphorus, Total as P				J	0.036	mg/L						12/22/09 09:27
QC1202000074 243104001 MS												
Phosphorus, Total as P	1.00		0.069		0.443	mg/L			37.4*	(71%-131%)		12/22/09 10:42
QC1202000913 243255002 MS												
Phosphorus, Total as P	1.00		0.138		1.17	mg/L			103	(71%-131%)		12/22/09 10:45
QC1202000075 243104001 MSD												
Phosphorus, Total as P	1.00		0.069		0.427	mg/L	3.68		35.8*	(0%-18%)		12/22/09 10:43
QC1202000914 243255002 MSD												
Phosphorus, Total as P	1.00		0.138		1.08	mg/L	8.63		93.7	(0%-18%)		12/22/09 10:46
Batch 935259												

QC Summary

Workorder: 243285

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Nutrient Analysis											
Batch 935259											
QC1202001076 243257006 DUP											
Nitrogen, Ammonia		J	0.019	U	ND	mg/L	200 ^			AXH3	12/22/09 15:49
QC1202001079 LCS											
Nitrogen, Ammonia	1.00				0.958	mg/L		95.8	(90%-110%)		12/22/09 15:47
QC1202001075 MB											
Nitrogen, Ammonia				U	ND	mg/L					12/22/09 15:47
QC1202001077 243257006 MS											
Nitrogen, Ammonia	1.00	J	0.019		0.971	mg/L		95.2	(90%-110%)		12/22/09 15:50
QC1202001078 243257006 MSD											
Nitrogen, Ammonia	1.00	J	0.019		0.958	mg/L	1.35	93.9	(0%-15%)		12/22/09 15:51
Batch 935263											
QC1202001089 243285002 DUP											
Nitrogen, Nitrate/Nitrite			0.590		0.580	mg/L	1.71 ^		(+/-0.250)	AXH3	12/21/09 11:56
QC1202001091 LCS											
Nitrogen, Nitrate/Nitrite	1.00				0.963	mg/L		96.3	(90%-110%)		12/21/09 11:54
QC1202001088 MB											
Nitrogen, Nitrate/Nitrite				U	ND	mg/L					12/21/09 11:53
QC1202001090 243285002 PS											
Nitrogen, Nitrate/Nitrite	1.00		0.118		1.13	mg/L		101	(90%-110%)		12/21/09 11:57
Solids Analysis											
Batch 934796											
QC1202000899 243253001 DUP											
Total Dissolved Solids			46.0		45.0	mg/L	2.20 ^		(+/-10.0)	SDS	12/21/09 11:22
QC1202000900 243257006 DUP											
Total Dissolved Solids			133		140	mg/L	5.13		(0%-10%)		12/21/09 11:22
QC1202000008 LCS											
Total Dissolved Solids	300				293	mg/L		97.7	(95%-105%)		12/21/09 11:22
QC1202000006 MB											
Total Dissolved Solids				U	ND	mg/L					12/21/09 11:22
Titration Analysis											
Batch 936028											
QC1202002844 243255002 DUP											
Alkalinity, Total as CaCO3			56.9		57.9	mg/L	1.74		(0%-20%)	LXA1	12/22/09 15:30
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1202002843 LCS											
Alkalinity, Total as CaCO3	50.0				49.9	mg/L		99.8	(90%-110%)		12/22/09 15:08
QC1202002852 MB											
Alkalinity, Total as CaCO3				U	ND	mg/L					12/22/09 15:08
Carbonate alkalinity (CaCO3)				U	ND	mg/L					
QC1202002845 243255002 MS											
Alkalinity, Total as CaCO3	50.0		56.9		106	mg/L		98.8	(80%-120%)		12/22/09 15:35

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

** Analyte is a surrogate compound

< Result is less than value reported

QC Summary

Workorder: 243285

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 05-JAN-2010 17:35

GEL Laboratories LLC
Contract: ESHL01000
SDG #: 10-995

Flow Injection Analysis
Method: EPA 335.4 Concentration Units:ug/L
Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**22-DEC-2009 15:07:41**	**OM_12-22-2009_14-59-47**	**144**	**150**	**96**	**(90%-110%)**	**Yes**
CCV	22-DEC-2009 16:24:11	OM_12-22-2009_14-59-47	96.3	100	96	(90%-110%)	Yes
CCV	22-DEC-2009 16:36:41	OM_12-22-2009_14-59-47	95.9	100	96	(90%-110%)	Yes
CCV	22-DEC-2009 16:49:08	OM_12-22-2009_14-59-47	95.7	100	96	(90%-110%)	Yes
CCV	22-DEC-2009 17:01:45	OM_12-22-2009_14-59-47	96	100	96	(90%-110%)	Yes
CCV	22-DEC-2009 17:12:30	OM_12-22-2009_14-59-47	95.6	100	96	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**22-DEC-2009 15:09:31**	**OM_12-22-2009_14-59-47**	**-1.08**	**5**	**Yes**
CCB	22-DEC-2009 16:26:01	OM_12-22-2009_14-59-47	-1.39	5	Yes
CCB	22-DEC-2009 16:38:31	OM_12-22-2009_14-59-47	-0.314	5	Yes
CCB	22-DEC-2009 16:50:59	OM_12-22-2009_14-59-47	-0.589	5	Yes
CCB	22-DEC-2009 17:03:34	OM_12-22-2009_14-59-47	-0.817	5	Yes
CCB	22-DEC-2009 17:14:20	OM_12-22-2009_14-59-47	-1.2	5	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 05-JAN-2010 17:35

GEL Laboratories LLC
Contract: ESHL01000
SDG #: 10-995

Ion Chromatography
Method: EPA 300.0 Concentration Units:mg/L
Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Bromide

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**21-DEC-2009 16:42:00**	**091221**	**2.4926**	**2.5**	**100**	**(90%-110%)**	**Yes**
CCV	22-DEC-2009 02:10:00	091221	2.3947	2.5	96	(90%-110%)	Yes
CCV	22-DEC-2009 08:09:00	091221	2.4033	2.5	96	(90%-110%)	Yes
CCV	22-DEC-2009 12:08:00	091221	3.7705	3.75	101	(90%-110%)	Yes
ICV	**22-DEC-2009 14:57:00**	**091222**	**2.4627**	**2.5**	**99**	**(90%-110%)**	**Yes**
CCV	22-DEC-2009 17:56:00	091222	3.7634	3.75	100	(90%-110%)	Yes
CCV	22-DEC-2009 21:25:00	091222	2.4454	2.5	98	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**21-DEC-2009 17:12:00**	**091221**	**0**	**0.2**	**Yes**
CCB	22-DEC-2009 02:40:00	091221	0	0.2	Yes
CCB	22-DEC-2009 08:39:00	091221	0	0.2	Yes
CCB	22-DEC-2009 12:38:00	091221	0	0.2	Yes
ICB	**22-DEC-2009 15:26:00**	**091222**	**0**	**0.2**	**Yes**
CCB	22-DEC-2009 18:26:00	091222	0	0.2	Yes
CCB	22-DEC-2009 21:55:00	091222	0	0.2	Yes

Parmname: Chloride

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**21-DEC-2009 16:42:00**	**091221**	**9.5617**	**10**	**96**	**(90%-110%)**	**Yes**
CCV	22-DEC-2009 02:10:00	091221	9.3486	10	94	(90%-110%)	Yes
CCV	22-DEC-2009 08:09:00	091221	9.4013	10	94	(90%-110%)	Yes
CCV	22-DEC-2009 12:08:00	091221	14.9949	15	100	(90%-110%)	Yes
ICV	**22-DEC-2009 14:57:00**	**091222**	**9.0358**	**10**	**90**	**(90%-110%)**	**Yes**
CCV	22-DEC-2009 17:56:00	091222	14.9167	15	99	(90%-110%)	Yes
CCV	22-DEC-2009 21:25:00	091222	9.5521	10	96	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**21-DEC-2009 17:12:00**	**091221**	**0**	**0.2**	**Yes**
CCB	22-DEC-2009 02:40:00	091221	0	0.2	Yes
CCB	22-DEC-2009 08:39:00	091221	0	0.2	Yes
CCB	22-DEC-2009 12:38:00	091221	0	0.2	Yes
ICB	**22-DEC-2009 15:26:00**	**091222**	**0**	**0.2**	**Yes**
CCB	22-DEC-2009 18:26:00	091222	0	0.2	Yes
CCB	22-DEC-2009 21:55:00	091222	0	0.2	Yes

Parmname: Fluoride

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 05-JAN-2010 17:35

GEL Laboratories LLC

Contract: **ESHL01000**

SDG #: **10-995**

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Fluoride

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**21-DEC-2009 16:42:00**	**091221**	**4.8613**	**5**	**97**	**(90%-110%)**	**Yes**
CCV	22-DEC-2009 02:10:00	091221	4.8498	5	97	(90%-110%)	Yes
CCV	22-DEC-2009 08:09:00	091221	4.8633	5	97	(90%-110%)	Yes
CCV	22-DEC-2009 12:08:00	091221	7.5763	7.5	101	(90%-110%)	Yes
ICV	**22-DEC-2009 14:57:00**	**091222**	**4.6089**	**5**	**92**	**(90%-110%)**	**Yes**
CCV	22-DEC-2009 17:56:00	091222	7.4633	7.5	100	(90%-110%)	Yes
CCV	22-DEC-2009 21:25:00	091222	4.7997	5	96	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**21-DEC-2009 17:12:00**	**091221**	**0**	**0.1**	**Yes**
CCB	22-DEC-2009 02:40:00	091221	0	0.1	Yes
CCB	22-DEC-2009 08:39:00	091221	0	0.1	Yes
CCB	22-DEC-2009 12:38:00	091221	0	0.1	Yes
ICB	**22-DEC-2009 15:26:00**	**091222**	**0**	**0.1**	**Yes**
CCB	22-DEC-2009 18:26:00	091222	0	0.1	Yes
CCB	22-DEC-2009 21:55:00	091222	0	0.1	Yes

Parmname: Sulfate

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**21-DEC-2009 16:42:00**	**091221**	**19.279**	**20**	**96**	**(90%-110%)**	**Yes**
CCV	22-DEC-2009 02:10:00	091221	19.0588	20	95	(90%-110%)	Yes
CCV	22-DEC-2009 08:09:00	091221	19.159	20	96	(90%-110%)	Yes
CCV	22-DEC-2009 12:08:00	091221	30.0137	30	100	(90%-110%)	Yes
ICV	**22-DEC-2009 14:57:00**	**091222**	**18.344**	**20**	**92**	**(90%-110%)**	**Yes**
CCV	22-DEC-2009 17:56:00	091222	29.6907	30	99	(90%-110%)	Yes
CCV	22-DEC-2009 21:25:00	091222	18.8655	20	94	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**21-DEC-2009 17:12:00**	**091221**	**0**	**0.4**	**Yes**
CCB	22-DEC-2009 02:40:00	091221	0	0.4	Yes
CCB	22-DEC-2009 08:39:00	091221	0	0.4	Yes
CCB	22-DEC-2009 12:38:00	091221	0	0.4	Yes
ICB	**22-DEC-2009 15:26:00**	**091222**	**0**	**0.4**	**Yes**
CCB	22-DEC-2009 18:26:00	091222	0	0.4	Yes
CCB	22-DEC-2009 21:55:00	091222	0	0.4	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 05-JAN-2010 17:35

GEL Laboratories LLC

Contract: **ESHL01000**

SDG #: **10-995**

Nutrient Analysis

Method: EPA 350.1 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Nitrogen, Ammonia

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**22-DEC-2009 14:51:24**	**OM_12-22-2009_14-43-46**	**0.95**	**1**	**95**	**(90%-110%)**	**Yes**
CCV	22-DEC-2009 15:40:03	OM_12-22-2009_14-43-46	1.014	1	101	(90%-110%)	Yes
CCV	22-DEC-2009 15:52:03	OM_12-22-2009_14-43-46	1.025	1	103	(90%-110%)	Yes
CCV	22-DEC-2009 16:03:22	OM_12-22-2009_14-43-46	1.007	1	101	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**22-DEC-2009 14:53:15**	**OM_12-22-2009_14-43-46**	**-0.015**	**0.05**	**Yes**
CCB	22-DEC-2009 15:41:53	OM_12-22-2009_14-43-46	-0.007	0.05	Yes
CCB	22-DEC-2009 15:53:54	OM_12-22-2009_14-43-46	-0.011	0.05	Yes
CCB	22-DEC-2009 16:05:12	OM_12-22-2009_14-43-46	-0.003	0.05	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 05-JAN-2010 17:35

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-995

Nutrient Analysis

Method: EPA 353.2 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8500 Series

Parmname: Nitrogen, Nitrate/Nitrite

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**21-DEC-2009 10:53:23**	**OM_12-21-2009_10-43-54**	**0.968**	**1**	**97**	**(90%-110%)**	**Yes**
CCV	21-DEC-2009 11:48:21	OM_12-21-2009_10-43-54	1	1	100	(90%-110%)	Yes
CCV	21-DEC-2009 12:02:41	OM_12-21-2009_10-43-54	0.972	1	97	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**21-DEC-2009 10:55:44**	**OM_12-21-2009_10-43-54**	**0.00039**	**0.05**	**Yes**
CCB	21-DEC-2009 11:50:43	OM_12-21-2009_10-43-54	-0.00084	0.05	Yes
CCB	21-DEC-2009 12:05:03	OM_12-21-2009_10-43-54	-0.00056	0.05	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 05-JAN-2010 17:35

GEL Laboratories LLC

Contract: **ESHL01000**

SDG #: **10-995**

Nutrient Analysis

Method: EPA 365.4 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Phosphorus, Total as P

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**22-DEC-2009 09:07:51**	**OM_12-22-2009_09-00-47**	**1.032**	**1**	**103**	**(90%-110%)**	**Yes**
CCV	22-DEC-2009 09:20:19	OM_12-22-2009_09-00-47	1.071	1	107	(90%-110%)	Yes
CCV	22-DEC-2009 09:32:39	OM_12-22-2009_09-00-47	1.053	1	105	(90%-110%)	Yes
CCV	22-DEC-2009 10:38:26	OM_12-22-2009_10-36-58	1.067	1	107	(90%-110%)	Yes
CCV	22-DEC-2009 10:50:51	OM_12-22-2009_10-36-58	1.066	1	107	(90%-110%)	Yes
CCV	22-DEC-2009 11:00:15	OM_12-22-2009_10-36-58	1.056	1	106	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**22-DEC-2009 09:09:57**	**OM_12-22-2009_09-00-47**	**-0.019**	**0.05**	**Yes**
CCB	22-DEC-2009 09:22:23	OM_12-22-2009_09-00-47	-0.00022	0.05	Yes
CCB	22-DEC-2009 09:34:44	OM_12-22-2009_09-00-47	0.003	0.05	Yes
CCB	22-DEC-2009 10:40:31	OM_12-22-2009_10-36-58	0.001	0.05	Yes
CCB	22-DEC-2009 10:52:55	OM_12-22-2009_10-36-58	0.002	0.05	Yes
CCB	22-DEC-2009 11:02:19	OM_12-22-2009_10-36-58	0.002	0.05	Yes

Alkalinity

Alkalinity LogBook

Analyst: LXA1
Batch: 936028
Lab SOP: GL-GC-E-033 REV# 6
SOP Description: Alkalinity: Total, Bicarbonate, Carbonate, Hydroxide, and Phenolphthalein
Run Date: 22-DEC-2009

Type	Sample Id	Lot Id	Nc(mg/L)	Recovery(%)
LCS	1202002843	IMM090901-ALK	50	99.8
MS	1202002845	IMM090901-ALK	50	98.802

Type	Sample Id	Rpd(%)	Parmname
DUP	1202002844	1.739	Alkalinity, Total as CaCO3
DUP	1202002844	0	Carbonate alkalinity (CaCO3)

Type	Sample id	Parent Sample Id	Time	Ph	Aliquot	Units	Normality H2SO4	H2SO4 Ph 8.3 (mL)	H2SO4 Ph 4.5(mL)	Alkalinity	Bicarbonate	CO2 Dissolved	CO2 Free	CO2 Total	Carbonate	Hydroxide	Phenol phthalein	Units
MB	1202002852		15:08	5.85	100	mL	0.01996	0	0.05	0.49900					0.0000			mg/L
LCS	1202002843		15:08	9.27	100	mL	0.01996	0	5	49.900								mg/L
SAMPLE	243255002		15:17	7.17	100	mL	0.01996	0	5.7	56.886					0.0000			mg/L
DUP	1202002844	243255002	15:30	7.2	100	mL	0.01996	0	5.8	57.884					0.0000			mg/L
MS	1202002845	243255002	15:35	8.9	100	mL	0.01996	0	10.65	106.29								mg/L
SAMPLE	243255003		15:39	6.83	100	mL	0.01996	0	3.55	35.429					0.0000			mg/L
SAMPLE	243255005		15:49	6.98	100	mL	0.01996	0	3.45	34.431					0.0000			mg/L
SAMPLE	243257001		15:58	8.02	100	mL	0.01996	0	5.55	55.389					0.0000			mg/L
SAMPLE	243257006		16:02	8.15	100	mL	0.01996	0	5.3	52.894					0.0000			mg/L
SAMPLE	243285002		16:04	7.78	100	mL	0.01996	0	6.25	62.375					0.0000			mg/L
SAMPLE	243286001		16:07	7.08	100	mL	0.01996	0	27.8	277.44					0.0000			mg/L
SAMPLE	243286004		16:13	7.78	100	mL	0.01996	0	27.5	274.45					0.0000			mg/L

Run Date: 22-DEC-09 10:51
Instrument: PHX370
Analyst: LXA1

Standard	Observed	Theoretical		%Recovery
091222-a	12.05	12	SU	100.42
UPH091222-02c-	2.06	2	SU	103
IMM091222-PH1	4.01	4	SU	100.25
IMM091222-01a	6.99	7	SU	99.857
IMM091222-PH-	6.99	7	SU	99.857
UPH091222-a	9.98	10	SU	99.8

Comments:

Run Date: 11-DEC-2009 23:56
Instrument: TIT001
Analyst: LXA1

Na2CO3 Std. ID	Na2CO3, 0.05 N g Na2C03/L	H2SO4 N (approx.)	NA2CO3 titrated	H2SO4 to pH 3.7	Actual Normality	Normality Average
1071836	2.5035	.02	15	35.4	.01987	.01996
	2.5035	.02	15	35.45	.01999	
	2.5035	.02	15	35.65	.02002	

Alkalinity LogBook

Normality of H_2SO_4 solution
A x B / 53.00 x C
where:
A = grams of Na_2CO_3
B = volume (mL) of the Na_2CO_3 solution
C = Total volume of the 0.02 N H_2SO_4 acid titrant used to reach a pH of 3.7

Total Alkalinity (mg/L)
Vt x N x 50000 / Vs
Where:
Vt = volume (mL) of H_2SO_4 used to reach the pH 4.5 endpoint
N = normality of the H_2SO_4 titrant
Vs = volume (mL) of sample used

Phenolphthalein alkalinity (mg/L)
Vt x N x 50000 / Vs
Where:
Vt = volume (mL) of H_2SO_4 used to reach the pH 8.3 endpoint
N = normality of the H_2SO_4 titrant
Vs = volume (mL) of sample used

Bicarbonate Alkalinity
Relationship Table SM2320B

Carbonate Alkalinity
Relationship Table SM2320B

Hydroxide Alkalinity
Relationship Table SM2320B

Free Carbon Dioxide
mg CO_2/L = 2.0 x B x 10 (6-pH)
Where B = Bicarbonate Alkalinity

Total Carbon Dioxide
mg total CO_2/L = A + 0.44(2B + C)
Where:
A = mg Free CO_2/L
B = Bicarbonate Alkalinity
C = Carbonate Alkalinity

Relationship Table SM2320B

P = 0	then H = 0,	C = 0,	B = T
P < 1/2 T	then H = 0,	C = 2P,	B = T - 2P
P = 1/2 T	then H = 0,	C = 2P,	B = 0
P > 1/2 T	then H = 2P - T,	C = 2(T - P),	B = 0
P = T	then H = T,	C = 0,	B = 0

Ammonia Nitrogen

Prep LogBook

Analyst: SXJ1 Verified by:_____

Batch: 935258

Lab SOP: GL-GC-E-072 REV# 11

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202001079	UTR1169166-01	.25	mL
MS	1202001077	UTR1169166-01	.25	mL
MSD	1202001078	UTR1169166-01	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202001075		EPA 350.2 Prep	22-DEC-2009 14:55	9.5	25 mL	25 mL	1	GROUND WATER
LCS	1202001079		EPA 350.2 Prep	22-DEC-2009 14:55	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	243257006		EPA 350.2 Prep	22-DEC-2009 14:55	9.5	25 mL	25 mL	1	GROUND WATER
DUP	1202001076	243257006	EPA 350.2 Prep	22-DEC-2009 14:55	9.5	25 mL	25 mL	1	GROUND WATER
MS	1202001077	243257006	EPA 350.2 Prep	22-DEC-2009 14:55	9.5	25 mL	25 mL	1	GROUND WATER
MSD	1202001078	243257006	EPA 350.2 Prep	22-DEC-2009 14:55	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	243285002		EPA 350.2 Prep	22-DEC-2009 14:55	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	243286001		EPA 350.2 Prep	22-DEC-2009 14:55	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	243286004		EPA 350.2 Prep	22-DEC-2009 14:55	9.5	25 mL	25 mL	1	GROUND WATER

Reagent/Solvent Lot ID	Amount	Description
1184204-C	1 mL	50% NaOH Solution
1184214-C	1.25 mL	Borate Buffer

Comments:

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
2.0 ppm Std.		1	axh3	12/22/2009 14:45:18	OM_12-22-2009_14-43-46
1.0 ppm Std.		1	axh3	12/22/2009 14:46:07	OM_12-22-2009_14-43-46
0.5 ppm Std		1	axh3	12/22/2009 14:46:57	OM_12-22-2009_14-43-46
0.1 ppm Std		1	axh3	12/22/2009 14:47:49	OM_12-22-2009_14-43-46
0.05 ppm Std		1	axh3	12/22/2009 14:48:41	OM_12-22-2009_14-43-46
ICAL-00		1	axh3	12/22/2009 14:49:33	OM_12-22-2009_14-43-46
ICV		1	axh3	12/22/2009 14:51:24	OM_12-22-2009_14-43-46
ICB		1	axh3	12/22/2009 14:53:15	OM_12-22-2009_14-43-46
1201998890	934272	1	axh3	12/22/2009 14:55:04	OM_12-22-2009_14-43-46
1201998894	934272	1	axh3	12/22/2009 14:55:55	OM_12-22-2009_14-43-46
243009001	934272	1	axh3	12/22/2009 14:56:46	OM_12-22-2009_14-43-46
1201998891	934272	1	axh3	12/22/2009 14:57:36	OM_12-22-2009_14-43-46
1201998892	934272	1	axh3	12/22/2009 14:58:27	OM_12-22-2009_14-43-46
1201998893	934272	1	axh3	12/22/2009 14:59:17	OM_12-22-2009_14-43-46
243009003	934272	1	axh3	12/22/2009 15:00:06	OM_12-22-2009_14-43-46
243014002	934272	1	axh3	12/22/2009 15:00:56	OM_12-22-2009_14-43-46
243075001	934272	1	axh3	12/22/2009 15:01:45	OM_12-22-2009_14-43-46
243104001	934272	1	axh3	12/22/2009 15:02:33	OM_12-22-2009_14-43-46
CCV		1	axh3	12/22/2009 15:03:23	OM_12-22-2009_14-43-46
CCB		1	axh3	12/22/2009 15:05:13	OM_12-22-2009_14-43-46
243200001	934272	1	axh3	12/22/2009 15:07:01	OM_12-22-2009_14-43-46
243223001	934272	1	axh3	12/22/2009 15:07:49	OM_12-22-2009_14-43-46
243223002	934272	1	axh3	12/22/2009 15:08:37	OM_12-22-2009_14-43-46
243223003	934272	1	axh3	12/22/2009 15:09:25	OM_12-22-2009_14-43-46
243223004	934272	1	axh3	12/22/2009 15:10:12	OM_12-22-2009_14-43-46
243223005	934272	1	axh3	12/22/2009 15:11:02	OM_12-22-2009_14-43-46
243223007	934272	1	axh3	12/22/2009 15:11:53	OM_12-22-2009_14-43-46
243223008	934272	1	axh3	12/22/2009 15:12:44	OM_12-22-2009_14-43-46
243223009	934272	1	axh3	12/22/2009 15:13:35	OM_12-22-2009_14-43-46
243223010	934272	1	axh3	12/22/2009 15:14:26	OM_12-22-2009_14-43-46
CCV		1	axh3	12/22/2009 15:15:16	OM_12-22-2009_14-43-46
CCB		1	axh3	12/22/2009 15:17:07	OM_12-22-2009_14-43-46
243253001	934272	1	axh3	12/22/2009 15:18:55	OM_12-22-2009_14-43-46
1202000918*	934272	1	axh3	12/22/2009 15:19:45	OM_12-22-2009_14-43-46
1202000919*	934272	1	axh3	12/22/2009 15:20:35	OM_12-22-2009_14-43-46
1202000920	934272	1	axh3	12/22/2009 15:21:24	OM_12-22-2009_14-43-46
243255002	934272	1	axh3	12/22/2009 15:22:13	OM_12-22-2009_14-43-46
243255003	934272	1	axh3	12/22/2009 15:23:02	OM_12-22-2009_14-43-46
243255005	934272	1	axh3	12/22/2009 15:23:51	OM_12-22-2009_14-43-46
243257001	934272	1	axh3	12/22/2009 15:24:40	OM_12-22-2009_14-43-46
243223002*	934272	25	axh3	12/22/2009 15:25:28	OM_12-22-2009_14-43-46
243223004	934272	5	axh3	12/22/2009 15:26:15	OM_12-22-2009_14-43-46
CCV		1	axh3	12/22/2009 15:27:04	OM_12-22-2009_14-43-46
CCB		1	axh3	12/22/2009 15:28:54	OM_12-22-2009_14-43-46
243223005	934272	5	axh3	12/22/2009 15:30:44	OM_12-22-2009_14-43-46
243223007	934272	5	axh3	12/22/2009 15:31:35	OM_12-22-2009_14-43-46
243223008	934272	5	axh3	12/22/2009 15:32:26	OM_12-22-2009_14-43-46
243223010	934272	5	axh3	12/22/2009 15:33:17	OM_12-22-2009_14-43-46
1202000918	934272	1	axh3	12/22/2009 15:34:08	OM_12-22-2009_14-43-46
1202000919	934272	1	axh3	12/22/2009 15:34:57	OM_12-22-2009_14-43-46
243223002	934272	50	axh3	12/22/2009 15:35:46	OM_12-22-2009_14-43-46
1202001080*	935262	1	axh3	12/22/2009 15:37:34	OM_12-22-2009_14-43-46
1202001084*	935262	1	axh3	12/22/2009 15:38:22	OM_12-22-2009_14-43-46
243182001*	935262	1	axh3	12/22/2009 15:39:12	OM_12-22-2009_14-43-46
CCV		1	axh3	12/22/2009 15:40:03	OM_12-22-2009_14-43-46
CCB		1	axh3	12/22/2009 15:41:53	OM_12-22-2009_14-43-46
1202001080	935262	1	axh3	12/22/2009 15:43:41	OM_12-22-2009_14-43-46
1202001081*	935262	1	axh3	12/22/2009 15:44:30	OM_12-22-2009_14-43-46

1202001082*	935262	1	axh3	12/22/2009	15:45:22	OM_12-22-2009_14-43-46
1202001083*	935262	1	axh3	12/22/2009	15:46:13	OM_12-22-2009_14-43-46
1202001075	935259	1	axh3	12/22/2009	15:47:03	OM_12-22-2009_14-43-46
1202001079	935259	1	axh3	12/22/2009	15:47:54	OM_12-22-2009_14-43-46
243257006	935259	1	axh3	12/22/2009	15:48:45	OM_12-22-2009_14-43-46
1202001076	935259	1	axh3	12/22/2009	15:49:34	OM_12-22-2009_14-43-46
1202001077	935259	1	axh3	12/22/2009	15:50:25	OM_12-22-2009_14-43-46
1202001078	935259	1	axh3	12/22/2009	15:51:14	OM_12-22-2009_14-43-46
CCV		1	axh3	12/22/2009	15:52:03	OM_12-22-2009_14-43-46
CCB		1	axh3	12/22/2009	15:53:54	OM_12-22-2009_14-43-46
243285002	935259	1	axh3	12/22/2009	15:55:42	OM_12-22-2009_14-43-46
243286001	935259	1	axh3	12/22/2009	15:56:32	OM_12-22-2009_14-43-46
243286004	935259	1	axh3	12/22/2009	15:57:20	OM_12-22-2009_14-43-46
1202001084	935262	1	axh3	12/22/2009	15:58:08	OM_12-22-2009_14-43-46
243182001	935262	1	axh3	12/22/2009	15:58:58	OM_12-22-2009_14-43-46
1202001081	935262	1	axh3	12/22/2009	15:59:50	OM_12-22-2009_14-43-46
1202001082	935262	1	axh3	12/22/2009	16:00:41	OM_12-22-2009_14-43-46
1202001083	935262	1	axh3	12/22/2009	16:01:33	OM_12-22-2009_14-43-46
CCV		1	axh3	12/22/2009	16:03:22	OM_12-22-2009_14-43-46
CCB		1	axh3	12/22/2009	16:05:12	OM_12-22-2009_14-43-46

Author: axh3 Date : 12/22/2009

Original Run Filename: OM_12-22-2009_14-43-46.OMN created 12/22/2009 14:43:46
Original Run Author's Signature: [axh3]
Current Run Filename: OM_12-22-2009_14-43-46.OMN last modified 12/22/2009 16:06:18
Current Run Author's Signature: [axh3]
Description: Ammonia EPA Method 350.1 GEL SOP: GL-GC-E-106
Detection Wavelength: 630nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 NH3 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR091222-03	1	S10	2.000	15.959	12/22/2009@14:45:18			2.0 ppm Std.
WTR091222-04	1	S11	1.000	8.232	12/22/2009@14:46:07			1.0 ppm Std.
WTR091222-05	1	S12	0.500	4.295	12/22/2009@14:46:57			0.5 ppm Std
WTR091222-06	1	S13	0.100	0.842	12/22/2009@14:47:49			0.1 ppm Std
WTR091222-07	1	S14	0.050	0.386	12/22/2009@14:48:41			0.05 ppm Std
WTR091222-10 0.0 ppm	1	S15	0.000	0.021	12/22/2009@14:49:33			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99975 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR091222-08 ICV	1	S16	0.950	7.691	12/22/2009@14:51:24			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	0.950 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.950 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR091222-10 ICB	1	S15	-0.015	-0.032	12/22/2009@14:53:15			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.015 < 0.050					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.015 > -0.050					
		Message	ICB Passed					
		Action	Continue					
1201998890|934272|MB	1	1	0.020	0.248	12/22/2009@14:55:04			
1201998894||LCS	1	2	0.953	7.709	12/22/2009@14:55:55			
243009001	1	3	0.026	0.303	12/22/2009@14:56:46			
1201998891||DUP	1	4	0.035	0.374	12/22/2009@14:57:36			
1201998892||MS	1	5	0.956	7.737	12/22/2009@14:58:27			
1201998893||MSD	1	6	0.954	7.719	12/22/2009@14:59:17			
243009003	1	7	0.026	0.302	12/22/2009@15:00:06			
243014002	1	8	0.023	0.279	12/22/2009@15:00:56			
243075001	1	9	0.050	0.493	12/22/2009@15:01:45			
243104001	1	10	0.013	0.194	12/22/2009@15:02:33			
WTR091222-04 CCV	1	S11	1.004	8.123	12/22/2009@15:03:23			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.004 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.004 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-10 CCB	1	S15	-0.024	-0.102	12/22/2009@15:05:13			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.024 < 0.049					

		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.024 > -0.050					
		Message	CCB Passed					
		Action	Continue					
243200001	1	11	0.940	7.607	12/22/2009@15:07:01			
243223001	1	12	0.362	2.986	12/22/2009@15:07:49			
243223002	1	13	20.665	165.325	12/22/2009@15:08:37			
243223003	1	14	0.445	3.654	12/22/2009@15:09:25			
243223004	1	15	5.321	42.641	12/22/2009@15:10:12			
243223005	1	16	3.836	30.760	12/22/2009@15:11:02			
243223007	1	17	2.678	21.506	12/22/2009@15:11:53			
243223008	1	18	4.619	37.028	12/22/2009@15:12:44			
243223009	1	19	1.337	10.778	12/22/2009@15:13:35			
243223010	1	20	2.646	21.248	12/22/2009@15:14:26			
WTR091222-04 CCV	1	S11	1.027	8.300	12/22/2009@15:15:16			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.027 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.027 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-10 CCB	1	S15	-0.006	0.047	12/22/2009@15:17:07			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.006 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.006 > -0.050					
		Message	CCB Passed					
		Action	Continue					
243253001	1	21	1.782	14.340	12/22/2009@15:18:55			
1202000918||DUP	1	22	0.018	0.235	12/22/2009@15:19:45			
1202000919||MS	1	23	1.931	15.534	12/22/2009@15:20:35			
1202000920||MSD	1	24	2.774	22.276	12/22/2009@15:21:24			
243255002	1	25	0.047	0.467	12/22/2009@15:22:13			
243255003	1	26	0.035	0.373	12/22/2009@15:23:02			
243255005	1	27	0.020	0.249	12/22/2009@15:23:51			
243257001	1	28	0.063	0.599	12/22/2009@15:24:40			
243223002	1	13	2.723	21.864	12/22/2009@15:25:28		25.00	
243223004	1	15	1.028	8.308	12/22/2009@15:26:15		5.00	
WTR091222-04 CCV	1	S11	1.018	8.232	12/22/2009@15:27:04			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.018 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.018 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-10 CCB	1	S15	-0.005	0.053	12/22/2009@15:28:54			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.005 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.005 > -0.050					
		Message	CCB Passed					
		Action	Continue					
243223005	1	16	0.766	6.216	12/22/2009@15:30:44		5.00	
243223007	1	17	0.525	4.293	12/22/2009@15:31:35		5.00	

243223008	1	18	0.468	3.835	12/22/2009@15:32:26		5.00	
243223010	1	20	0.522	4.266	12/22/2009@15:33:17		5.00	
1202000918||DUP	1	22	1.773	14.266	12/22/2009@15:34:08			
1202000919||MS	1	23	2.773	22.262	12/22/2009@15:34:57			
243223002	1	13	1.384	11.158	12/22/2009@15:35:46		50.00	
1202001080|935262|MB	1	29	0.062	0.588	12/22/2009@15:37:34			
1202001084||LCS	1	30	0.973	7.869	12/22/2009@15:38:22			
243182001	1	31	0.062	0.588	12/22/2009@15:39:12			
WTR091222-04 CCV	1	S11	1.014	8.203	12/22/2009@15:40:03			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.014 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.014 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-10 CCB	1	S15	-0.007	0.036	12/22/2009@15:41:53			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.007 < 0.049					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.007 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1202001080|935262|MB	1	29	-0.011	0.000	12/22/2009@15:43:41			
1202001081||DUP	1	32	0.053	0.518	12/22/2009@15:44:30			
1202001082||MS	1	33	0.780	6.332	12/22/2009@15:45:22			
1202001083||MSD	1	34	0.380	3.128	12/22/2009@15:46:13			
1202001075|935259|MB	1	35	0.009	0.162	12/22/2009@15:47:03			
1202001079||LCS	1	36	0.958	7.755	12/22/2009@15:47:54			
243257006	1	37	0.019	0.245	12/22/2009@15:48:45			
1202001076||DUP	1	38	0.011	0.181	12/22/2009@15:49:34			
1202001077||MS	1	39	0.971	7.857	12/22/2009@15:50:25			
1202001078||MSD	1	40	0.958	7.750	12/22/2009@15:51:14			
WTR091222-04 CCV	1	S11	1.025	8.289	12/22/2009@15:52:03			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.025 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.025 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-10 CCB	1	S15	-0.011	0.000	12/22/2009@15:53:54			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.011 < 0.049					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.011 > -0.050					
		Message	CCB Passed					
		Action	Continue					
243285002	1	41	0.011	0.180	12/22/2009@15:55:42			
243286001	1	42	0.983	7.949	12/22/2009@15:56:32			
243286004	1	43	1.123	9.074	12/22/2009@15:57:20			
1202001084|935262|LCS	1	30	0.963	7.790	12/22/2009@15:58:08			
243182001	1	31	0.063	0.597	12/22/2009@15:58:58			
1202001081||DUP	1	32	0.052	0.506	12/22/2009@15:59:50			
1202001082||MS	1	33	0.794	6.437	12/22/2009@16:00:41			
1202001083||MSD	1	34	0.783	6.355	12/22/2009@16:01:33			
WTR091222-04 CCV	1	S11	1.007	8.143	12/22/2009@16:03:22			CCV
		Known Conc:	1.000					

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DQM Test: > + Concentration Limit								
Result:			1.007 < 1.104					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			1.007 > 0.895					
Message			CCV Passed					
Action			Continue					
WTR091222-10 CCB	1	S15	-0.003	0.069	12/22/2009@16:05:12			CCB
Known Conc:			0.000					
DQM Test: > + Concentration Limit								
Result:			-0.003 < 0.049					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.003 > -0.050					
Message			CCB Passed					
Action			Continue					

Channel 1 (NH3) : Current View

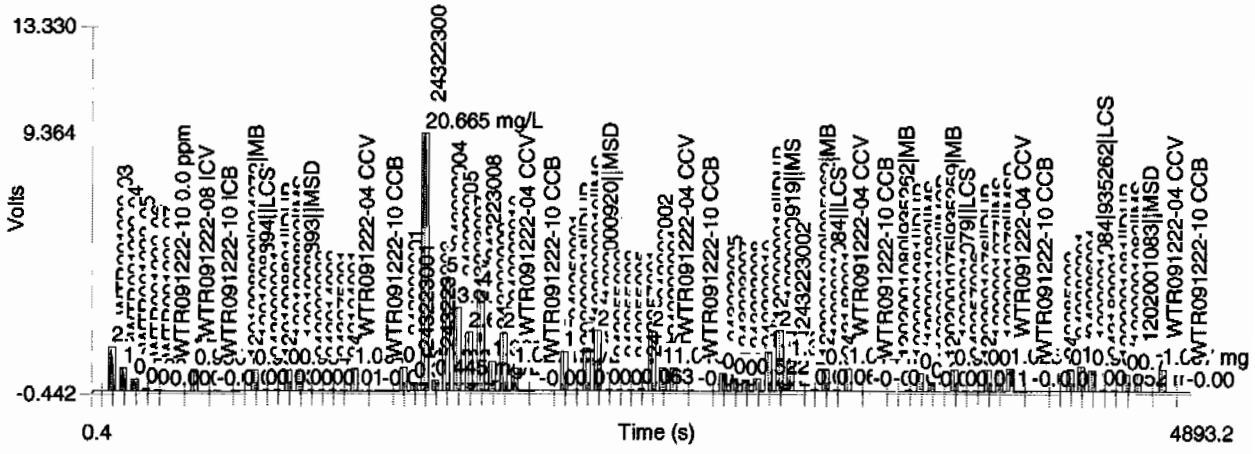

Table 1: NH3

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	2.000	1	15.959	1.601	0.7	12/22/2009	14:46:20
2	1.000	1	8.232	0.830	-1.8	12/22/2009	14:47:10
3	0.500	1	4.295	0.428	-5.0	12/22/2009	14:48:00
4	0.100	1	0.842	0.084	5.8	12/22/2009	14:48:51
5	0.050	1	0.386	0.038	21.8	12/22/2009	14:49:43
6	0.000	1	0.021	0.002		12/22/2009	14:50:36

Author: axh3

Date : 12/22/2009

Figure 1: NH3

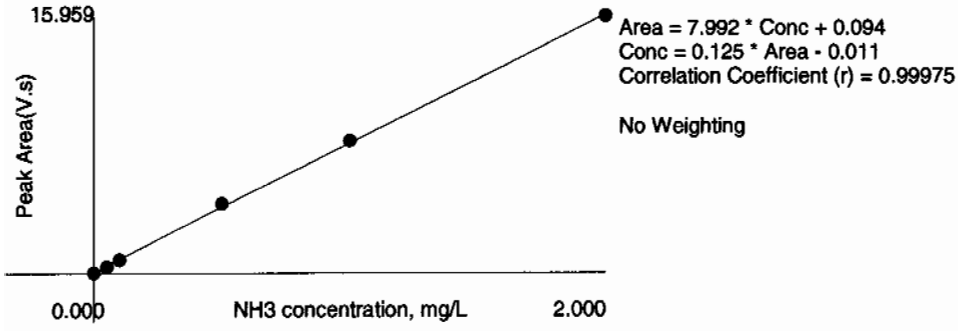

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 935207

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202000939	URF1184831-02	.0125	mL
MS	1202000931	URF1184831-02	.025	mL
MS	1202000932	URF1184831-02	.025	mL
MS	1202000933	URF1184831-02	.025	mL
MS	1202000934	URF1184831-02	.025	mL
MSD	1202000935	URF1184831-02	.025	mL
MSD	1202000936	URF1184831-02	.025	mL
MSD	1202000937	URF1184831-02	.025	mL
MSD	1202000938	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202000926		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WATER
LCS	1202000939		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WATER
SAMPLE	243104002		EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
DUP	1202000928	243104002	EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
MS	1202000932	243104002	EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
MSD	1202000936	243104002	EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243108001		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WATER
DUP	1202000927	243108001	SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WATER
MS	1202000931	243108001	SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WATER
MSD	1202000935	243108001	SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WATER
SAMPLE	243108002		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WATER
SAMPLE	243223014		EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WASTE WATER
SAMPLE	243242001		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WATER
SAMPLE	243242002		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WATER
SAMPLE	243251001		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WATER
SAMPLE	243252001		EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WASTE WATER
DUP	1202000929	243252001	EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WASTE WATER
MS	1202000933	243252001	EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WASTE WATER
MSD	1202000937	243252001	EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WASTE WATER
SAMPLE	243255001		EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243255004		EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243255006		EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243257003		EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243257005		EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 935207

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202000939	URF1184831-02	.0125	mL
MS	1202000931	URF1184831-02	.025	mL
MS	1202000932	URF1184831-02	.025	mL
MS	1202000933	URF1184831-02	.025	mL
MS	1202000934	URF1184831-02	.025	mL
MSD	1202000935	URF1184831-02	.025	mL
MSD	1202000936	URF1184831-02	.025	mL
MSD	1202000937	URF1184831-02	.025	mL
MSD	1202000938	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
SAMPLE	243272001		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WATER
SAMPLE	243281002		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243281003		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243281004		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243281005		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
DUP	1202000930	243281005	SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
MS	1202000934	243281005	SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
MSD	1202000938	243281005	SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243281006		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243285001		EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN091222-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1238146-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	12/22/2009 15:00:33	OM_12-22-2009_14-59-47
150 ppb		1	axc2	12/22/2009 15:01:24	OM_12-22-2009_14-59-47
100 ppb		1	axc2	12/22/2009 15:02:17	OM_12-22-2009_14-59-47
50 ppb		1	axc2	12/22/2009 15:03:10	OM_12-22-2009_14-59-47
10 ppb		1	axc2	12/22/2009 15:04:03	OM_12-22-2009_14-59-47
CRDL 5.0 ppb		1	axc2	12/22/2009 15:04:57	OM_12-22-2009_14-59-47
ICAL-00		1	axc2	12/22/2009 15:05:51	OM_12-22-2009_14-59-47
ICV		1	axc2	12/22/2009 15:07:41	OM_12-22-2009_14-59-47
ICB		1	axc2	12/22/2009 15:09:31	OM_12-22-2009_14-59-47
CRDL		1	axc2	12/22/2009 15:11:21	OM_12-22-2009_14-59-47
1201998913	934285	1	axc2	12/22/2009 15:13:10	OM_12-22-2009_14-59-47
1201998920	934285	25	axc2	12/22/2009 15:14:04	OM_12-22-2009_14-59-47
243007002	934285	1	axc2	12/22/2009 15:14:57	OM_12-22-2009_14-59-47
243030001	934285	1	axc2	12/22/2009 15:15:50	OM_12-22-2009_14-59-47
1201998914	934285	1	axc2	12/22/2009 15:16:43	OM_12-22-2009_14-59-47
1201998916	934285	1	axc2	12/22/2009 15:17:36	OM_12-22-2009_14-59-47
1201998918	934285	1	axc2	12/22/2009 15:18:28	OM_12-22-2009_14-59-47
243030002*	934285	1	axc2	12/22/2009 15:19:20	OM_12-22-2009_14-59-47
1201998915	934285	1	axc2	12/22/2009 15:20:13	OM_12-22-2009_14-59-47
1201998917*	934285	1	axc2	12/22/2009 15:21:05	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009 15:21:57	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009 15:23:48	OM_12-22-2009_14-59-47
1201998919*	934285	1	axc2	12/22/2009 15:25:36	OM_12-22-2009_14-59-47
243030003	934285	1	axc2	12/22/2009 15:26:27	OM_12-22-2009_14-59-47
243030004	934285	1	axc2	12/22/2009 15:27:20	OM_12-22-2009_14-59-47
243030005	934285	1	axc2	12/22/2009 15:28:11	OM_12-22-2009_14-59-47
243030006	934285	1	axc2	12/22/2009 15:29:03	OM_12-22-2009_14-59-47
243030007	934285	1	axc2	12/22/2009 15:29:56	OM_12-22-2009_14-59-47
243030002	934285	1	axc2	12/22/2009 15:30:49	OM_12-22-2009_14-59-47
1201998919	934285	1	axc2	12/22/2009 15:31:41	OM_12-22-2009_14-59-47
1201998917	934285	1	axc2	12/22/2009 15:32:33	OM_12-22-2009_14-59-47
243030008	934285	1	axc2	12/22/2009 15:33:27	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009 15:34:19	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009 15:36:09	OM_12-22-2009_14-59-47
243030009	934285	1	axc2	12/22/2009 15:37:59	OM_12-22-2009_14-59-47
243030010	934285	1	axc2	12/22/2009 15:38:52	OM_12-22-2009_14-59-47
243030011	934285	1	axc2	12/22/2009 15:39:45	OM_12-22-2009_14-59-47
243030012	934285	1	axc2	12/22/2009 15:40:38	OM_12-22-2009_14-59-47
243030013	934285	1	axc2	12/22/2009 15:41:31	OM_12-22-2009_14-59-47
243030014	934285	1	axc2	12/22/2009 15:42:24	OM_12-22-2009_14-59-47
243030015	934285	1	axc2	12/22/2009 15:43:17	OM_12-22-2009_14-59-47
243030016	934285	1	axc2	12/22/2009 15:44:09	OM_12-22-2009_14-59-47
243030017*	934285	1	axc2	12/22/2009 15:45:01	OM_12-22-2009_14-59-47
243042008	934285	1	axc2	12/22/2009 15:45:54	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009 15:46:46	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009 15:48:36	OM_12-22-2009_14-59-47
243042009	934285	1	axc2	12/22/2009 15:50:24	OM_12-22-2009_14-59-47
1201997980	933837	1	axc2	12/22/2009 15:51:16	OM_12-22-2009_14-59-47
1201997984	933837	25	axc2	12/22/2009 15:52:08	OM_12-22-2009_14-59-47
243030016	934285	5	axc2	12/22/2009 15:53:00	OM_12-22-2009_14-59-47
243030017	934285	1	axc2	12/22/2009 15:53:52	OM_12-22-2009_14-59-47
242938001	933837	1	axc2	12/22/2009 15:54:48	OM_12-22-2009_14-59-47
1201997981	933837	1	axc2	12/22/2009 15:55:41	OM_12-22-2009_14-59-47
1201997982	933837	1	axc2	12/22/2009 15:56:35	OM_12-22-2009_14-59-47
1201997983	933837	1	axc2	12/22/2009 15:57:28	OM_12-22-2009_14-59-47
242938002	933837	1	axc2	12/22/2009 15:58:21	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009 15:59:14	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009 16:01:03	OM_12-22-2009_14-59-47

242938003	933837	1	axc2	12/22/2009	16:02:53	OM_12-22-2009_14-59-47
242938004	933837	1	axc2	12/22/2009	16:03:46	OM_12-22-2009_14-59-47
242938005	933837	1	axc2	12/22/2009	16:04:39	OM_12-22-2009_14-59-47
242938006	933837	1	axc2	12/22/2009	16:05:31	OM_12-22-2009_14-59-47
242938007	933837	1	axc2	12/22/2009	16:06:24	OM_12-22-2009_14-59-47
242938008	933837	1	axc2	12/22/2009	16:07:16	OM_12-22-2009_14-59-47
242938009	933837	1	axc2	12/22/2009	16:08:09	OM_12-22-2009_14-59-47
1201993024	931722	1	axc2	12/22/2009	16:09:01	OM_12-22-2009_14-59-47
1201993028	931722	1	axc2	12/22/2009	16:09:53	OM_12-22-2009_14-59-47
242691002	931722	1	axc2	12/22/2009	16:10:45	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	16:11:37	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	16:13:27	OM_12-22-2009_14-59-47
1201993025	931722	1	axc2	12/22/2009	16:15:19	OM_12-22-2009_14-59-47
1201993026	931722	1	axc2	12/22/2009	16:16:12	OM_12-22-2009_14-59-47
1201993027	931722	1	axc2	12/22/2009	16:17:06	OM_12-22-2009_14-59-47
1201998306	933989	1	axc2	12/22/2009	16:18:00	OM_12-22-2009_14-59-47
1201998310	933989	1	axc2	12/22/2009	16:18:53	OM_12-22-2009_14-59-47
242984001	933989	1	axc2	12/22/2009	16:19:47	OM_12-22-2009_14-59-47
1201998307	933989	1	axc2	12/22/2009	16:20:40	OM_12-22-2009_14-59-47
1202001846	933989	1	axc2	12/22/2009	16:21:33	OM_12-22-2009_14-59-47
1202001847	933989	1	axc2	12/22/2009	16:22:26	OM_12-22-2009_14-59-47
242984003	933989	1	axc2	12/22/2009	16:23:18	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	16:24:11	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	16:26:01	OM_12-22-2009_14-59-47
1202000926	935209	1	axc2	12/22/2009	16:27:50	OM_12-22-2009_14-59-47
1202000939	935209	1	axc2	12/22/2009	16:28:43	OM_12-22-2009_14-59-47
243104002	935209	1	axc2	12/22/2009	16:29:36	OM_12-22-2009_14-59-47
1202000928	935209	1	axc2	12/22/2009	16:30:28	OM_12-22-2009_14-59-47
1202000932	935209	1	axc2	12/22/2009	16:31:19	OM_12-22-2009_14-59-47
1202000936	935209	1	axc2	12/22/2009	16:32:13	OM_12-22-2009_14-59-47
243108001	935209	1	axc2	12/22/2009	16:33:08	OM_12-22-2009_14-59-47
1202000927	935209	1	axc2	12/22/2009	16:34:02	OM_12-22-2009_14-59-47
1202000931	935209	1	axc2	12/22/2009	16:34:55	OM_12-22-2009_14-59-47
1202000935	935209	1	axc2	12/22/2009	16:35:50	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	16:36:41	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	16:38:31	OM_12-22-2009_14-59-47
243108002	935209	1	axc2	12/22/2009	16:40:21	OM_12-22-2009_14-59-47
243223014	935209	1	axc2	12/22/2009	16:41:14	OM_12-22-2009_14-59-47
243242001	935209	1	axc2	12/22/2009	16:42:08	OM_12-22-2009_14-59-47
243242002	935209	1	axc2	12/22/2009	16:43:01	OM_12-22-2009_14-59-47
243251001	935209	1	axc2	12/22/2009	16:43:54	OM_12-22-2009_14-59-47
243252001	935209	1	axc2	12/22/2009	16:44:46	OM_12-22-2009_14-59-47
1202000929	935209	1	axc2	12/22/2009	16:45:40	OM_12-22-2009_14-59-47
1202000933	935209	1	axc2	12/22/2009	16:46:32	OM_12-22-2009_14-59-47
1202000937	935209	1	axc2	12/22/2009	16:47:24	OM_12-22-2009_14-59-47
243255001	935209	1	axc2	12/22/2009	16:48:16	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	16:49:08	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	16:50:59	OM_12-22-2009_14-59-47
243255004	935209	1	axc2	12/22/2009	16:52:49	OM_12-22-2009_14-59-47
243255006	935209	1	axc2	12/22/2009	16:53:43	OM_12-22-2009_14-59-47
243257003	935209	1	axc2	12/22/2009	16:54:37	OM_12-22-2009_14-59-47
243257005	935209	1	axc2	12/22/2009	16:55:32	OM_12-22-2009_14-59-47
243272001	935209	1	axc2	12/22/2009	16:56:25	OM_12-22-2009_14-59-47
243281002	935209	1	axc2	12/22/2009	16:57:19	OM_12-22-2009_14-59-47
243281003	935209	1	axc2	12/22/2009	16:58:13	OM_12-22-2009_14-59-47
243281004	935209	1	axc2	12/22/2009	16:59:06	OM_12-22-2009_14-59-47
243281005	935209	1	axc2	12/22/2009	16:59:59	OM_12-22-2009_14-59-47
1202000930	935209	1	axc2	12/22/2009	17:00:52	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	17:01:45	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	17:03:34	OM_12-22-2009_14-59-47

1202000934	935209	1	axc2	12/22/2009	17:05:24	OM_12-22-2009_14-59-47
1202000938	935209	1	axc2	12/22/2009	17:06:16	OM_12-22-2009_14-59-47
243281006	935209	1	axc2	12/22/2009	17:07:09	OM_12-22-2009_14-59-47
243285001	935209	1	axc2	12/22/2009	17:08:02	OM_12-22-2009_14-59-47
1202002259	935758	1	axc2	12/22/2009	17:08:54	OM_12-22-2009_14-59-47
1202002261	935758	250	axc2	12/22/2009	17:09:49	OM_12-22-2009_14-59-47
243330001	935758	1	axc2	12/22/2009	17:10:43	OM_12-22-2009_14-59-47
1202002260	935758	1	axc2	12/22/2009	17:11:37	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	17:12:30	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	17:14:20	OM_12-22-2009_14-59-47

Author: axc2 Date : 12/22/2009

Original Run Filename: OM_12-22-2009_14-59-47.OMN created 12/22/2009 14:59:47
Original Run Author's Signature: [axc2]
Current Run Filename: OM_12-22-2009_14-59-47.OMN last modified 12/22/2009 17:15:25
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN091222-01	1	S1	200	8.25	12/22/2009@15:00:33			200 ppb
WCN091222-02	1	S2	150	6.18	12/22/2009@15:01:24			150 ppb
WCN091222-03	1	S3	100	3.90	12/22/2009@15:02:17			100 ppb
WCN091222-04	1	S4	50.0	2.21	12/22/2009@15:03:10			50 ppb
WCN091222-05	1	S5	10.0	0.487	12/22/2009@15:04:03			10 ppb
WCN091222-06	1	S6	5.00	0.293	12/22/2009@15:04:57			CRDL 5.0 ppb
WCN091222-08	1	S7	0.00	0.0149	12/22/2009@15:05:51			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99941 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN091222-07	1	S8	144	5.91	12/22/2009@15:07:41			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-4.1 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-4.1 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN091222-08	1	S7	-1.08	0.00902	12/22/2009@15:09:31			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.08 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.08 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN091222-06	1	S6	6.03	0.298	12/22/2009@15:11:21			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	6.03 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	6.03 > 2.50					
		Message	Pass					
		Action	None					
1201998913|934285|MB	1	1	-1.36	-0.00257	12/22/2009@15:13:10			
1201998920||LCS	1	2	26.3	1.12	12/22/2009@15:14:04		25.00	
243007002	1	3	2.45	0.152	12/22/2009@15:14:57			
243030001	1	4	18.0	0.785	12/22/2009@15:15:50			
1201998914||DUP	1	5	18.3	0.796	12/22/2009@15:16:43			
1201998916||MS	1	6	92.8	3.83	12/22/2009@15:17:36			
1201998918||MSD	1	7	113	4.67	12/22/2009@15:18:28			
243030002	1	8	102	4.21	12/22/2009@15:19:20			
1201998915||DUP	1	9	3.98	0.215	12/22/2009@15:20:13			
1201998917||MS	1	10	136	5.61	12/22/2009@15:21:05			
WCN091222-03	1	S3	95.1	3.93	12/22/2009@15:21:57			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-4.9 < 10.0					

		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-1.51	-0.00852	12/22/2009@15:23:48			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.51 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.51 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1201998919||MSD	1	11	66.5	2.76	12/22/2009@15:25:36			
243030003	1	12	9.08	0.422	12/22/2009@15:26:27			
243030004	1	13	0.915	0.0900	12/22/2009@15:27:20			
243030005	1	14	2.66	0.161	12/22/2009@15:28:11			
243030006	1	15	11.8	0.534	12/22/2009@15:29:03			
243030007	1	16	3.89	0.211	12/22/2009@15:29:56			
243030002	1	8	-1.87	-0.0232	12/22/2009@15:30:49			
1201998919||MSD	1	11	102	4.20	12/22/2009@15:31:41			
1201998917||MS	1	10	134	5.50	12/22/2009@15:32:33			
243030008	1	17	0.219	0.0617	12/22/2009@15:33:27			
WCN091222-03	1	S3	95.6	3.95	12/22/2009@15:34:19			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-1.49	-0.00787	12/22/2009@15:36:09			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.49 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.49 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243030009	1	18	6.82	0.330	12/22/2009@15:37:59			
243030010	1	19	3.52	0.196	12/22/2009@15:38:52			
243030011	1	20	1.76	0.125	12/22/2009@15:39:45			
243030012	1	21	9.74	0.449	12/22/2009@15:40:38			
243030013	1	22	0.594	0.0770	12/22/2009@15:41:31			
243030014	1	23	2.05	0.136	12/22/2009@15:42:24			
243030015	1	24	9.27	0.430	12/22/2009@15:43:17			
243030016	1	25	271	11.1	12/22/2009@15:44:09			
243030017	1	26	10.7	0.487	12/22/2009@15:45:01			
243042008	1	27	1.24	0.103	12/22/2009@15:45:54			
WCN091222-03	1	S3	95.5	3.94	12/22/2009@15:46:46			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-0.654	0.0262	12/22/2009@15:48:36			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-0.654 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.654 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243042009	1	28	-0.570	0.0296	12/22/2009@15:50:24			
1201997980|933837|MB	1	29	-0.506	0.0322	12/22/2009@15:51:16			
1201997984||LCS	1	30	26.2	1.12	12/22/2009@15:52:08		25.00	
243030016|934285|	1	25	56.2	2.34	12/22/2009@15:53:00		5.00	
243030017	1	26	10.6	0.484	12/22/2009@15:53:52			
242938001|933837|	1	31	0.942	0.0912	12/22/2009@15:54:48			
1201997981||DUP	1	32	1.57	0.117	12/22/2009@15:55:41			
1201997982||MS	1	33	83.1	3.44	12/22/2009@15:56:35			
1201997983||MSD	1	34	94.1	3.88	12/22/2009@15:57:28			
242938002	1	35	0.558	0.0755	12/22/2009@15:58:21			
WCN091222-03	1	S3	95.3	3.93	12/22/2009@15:59:14			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-1.40	-0.00431	12/22/2009@16:01:03			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.40 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.40 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242938003	1	36	1.73	0.123	12/22/2009@16:02:53			
242938004	1	37	0.0245	0.0538	12/22/2009@16:03:46			
242938005	1	38	0.227	0.0621	12/22/2009@16:04:39			
242938006	1	39	0.527	0.0743	12/22/2009@16:05:31			
242938007	1	40	-0.310	0.0402	12/22/2009@16:06:24			
242938008	1	41	2.90	0.171	12/22/2009@16:07:16			
242938009	1	42	-0.658	0.0260	12/22/2009@16:08:09			
1201993024|931722|MB	1	43	0.178	0.0601	12/22/2009@16:09:01			
1201993028||LCS	1	44	46.2	1.93	12/22/2009@16:09:53			
242691002	1	45	-0.488	0.0330	12/22/2009@16:10:45			
WCN091222-03	1	S3	95.6	3.94	12/22/2009@16:11:37			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-4.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-4.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-1.29	2.32e-4	12/22/2009@16:13:27			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.29 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.29 > -5.00					
		Message	CCB Passed					
		Action	Continue					

1201993025||DUP	1	46	-0.576	0.0293	12/22/2009@16:15:19			
1201993026||MS	1	47	97.7	4.03	12/22/2009@16:16:12			
1201993027||MSD	1	48	99.3	4.09	12/22/2009@16:17:06			
1201998306|933989|MB	1	49	-0.762	0.0218	12/22/2009@16:18:00			
1201998310||LCS	1	50	47.0	1.97	12/22/2009@16:18:53			
242984001	1	51	0.125	0.0579	12/22/2009@16:19:47			
1201998307||DUP	1	52	-0.380	0.0373	12/22/2009@16:20:40			
1202001846||MS	1	53	104	4.28	12/22/2009@16:21:33			
1202001847||MSD	1	54	104	4.31	12/22/2009@16:22:26			
242984003	1	55	0.219	0.0617	12/22/2009@16:23:18			
WCN091222-03	1	S3	96.3	3.97	12/22/2009@16:24:11			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:			-3.7 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-3.7 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN091222-08	1	S7	-1.39	-0.00392	12/22/2009@16:26:01			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:			-1.39 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.39 > -5.00					
Message			CCB Passed					
Action			Continue					
1202000926|935209|MB	1	56	-1.11	0.00754	12/22/2009@16:27:50			
1202000939||LCS	1	57	49.9	2.09	12/22/2009@16:28:43			
243104002	1	58	-0.813	0.0197	12/22/2009@16:29:36			
1202000928||DUP	1	59	-1.97	-0.0273	12/22/2009@16:30:28			
1202000932||MS	1	60	94.4	3.89	12/22/2009@16:31:19			
1202000936||MSD	1	61	96.3	3.97	12/22/2009@16:32:13			
243108001	1	62	-0.642	0.0267	12/22/2009@16:33:08			
1202000927||DUP	1	63	-0.764	0.0217	12/22/2009@16:34:02			
1202000931||MS	1	64	96.6	3.99	12/22/2009@16:34:55			
1202000935||MSD	1	65	102	4.20	12/22/2009@16:35:50			
WCN091222-03	1	S3	95.9	3.96	12/22/2009@16:36:41			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:			-4.1 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-4.1 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN091222-08	1	S7	-0.314	0.0400	12/22/2009@16:38:31			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:			-0.314 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.314 > -5.00					
Message			CCB Passed					
Action			Continue					
243108002	1	66	-1.08	0.00876	12/22/2009@16:40:21			
243223014	1	67	3.38	0.190	12/22/2009@16:41:14			
243242001	1	68	-0.593	0.0287	12/22/2009@16:42:08			
243242002	1	69	-1.31	-3.65e-4	12/22/2009@16:43:01			
243251001	1	70	-0.958	0.0138	12/22/2009@16:43:54			
243252001	1	71	0.738	0.0829	12/22/2009@16:44:46			
1202000929||DUP	1	72	0.460	0.0715	12/22/2009@16:45:40			
1202000933||MS	1	73	88.9	3.67	12/22/2009@16:46:32			

1202000937||MSD	1	74	91.5	3.78	12/22/2009@16:47:24			
243255001	1	75	-0.788	0.0207	12/22/2009@16:48:16			
WCN091222-03	1	S3	95.7	3.95	12/22/2009@16:49:08			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-0.589	0.0288	12/22/2009@16:50:59			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.589 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.589 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243255004	1	76	-0.456	0.0342	12/22/2009@16:52:49			
243255006	1	77	-1.35	-0.00197	12/22/2009@16:53:43			
243257003	1	78	-1.26	0.00140	12/22/2009@16:54:37			
243257005	1	79	-1.64	-0.0142	12/22/2009@16:55:32			
243272001	1	80	-0.653	0.0262	12/22/2009@16:56:25			
243281002	1	81	-1.10	0.00789	12/22/2009@16:57:19			
243281003	1	82	-1.28	5.33e-4	12/22/2009@16:58:13			
243281004	1	83	-0.514	0.0319	12/22/2009@16:59:06			
243281005	1	84	-0.685	0.0249	12/22/2009@16:59:59			
1202000930||DUP	1	85	-1.09	0.00856	12/22/2009@17:00:52			
WCN091222-03	1	S3	96.0	3.96	12/22/2009@17:01:45			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-0.817	0.0195	12/22/2009@17:03:34			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.817 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.817 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202000934||MS	1	86	102	4.22	12/22/2009@17:05:24			
1202000938||MSD	1	87	99.3	4.10	12/22/2009@17:06:16			
243281006	1	88	-0.651	0.0263	12/22/2009@17:07:09			
243285001	1	89	-2.29	-0.0403	12/22/2009@17:08:02			
1202002259|935758|MB	1	90	-1.06	0.00979	12/22/2009@17:08:54			
1202002261||LCS	1	91	96.7	3.99	12/22/2009@17:09:49		250.00	
243330001	1	92	-0.968	0.0134	12/22/2009@17:10:43			
1202002260||DUP	1	93	5.00	0.257	12/22/2009@17:11:37			
WCN091222-03	1	S3	95.6	3.94	12/22/2009@17:12:30			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.4 < 10.0					

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		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-1.20	0.00380	12/22/2009@17:14:20			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.20 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.20 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_12-22-2009_14-59-47.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

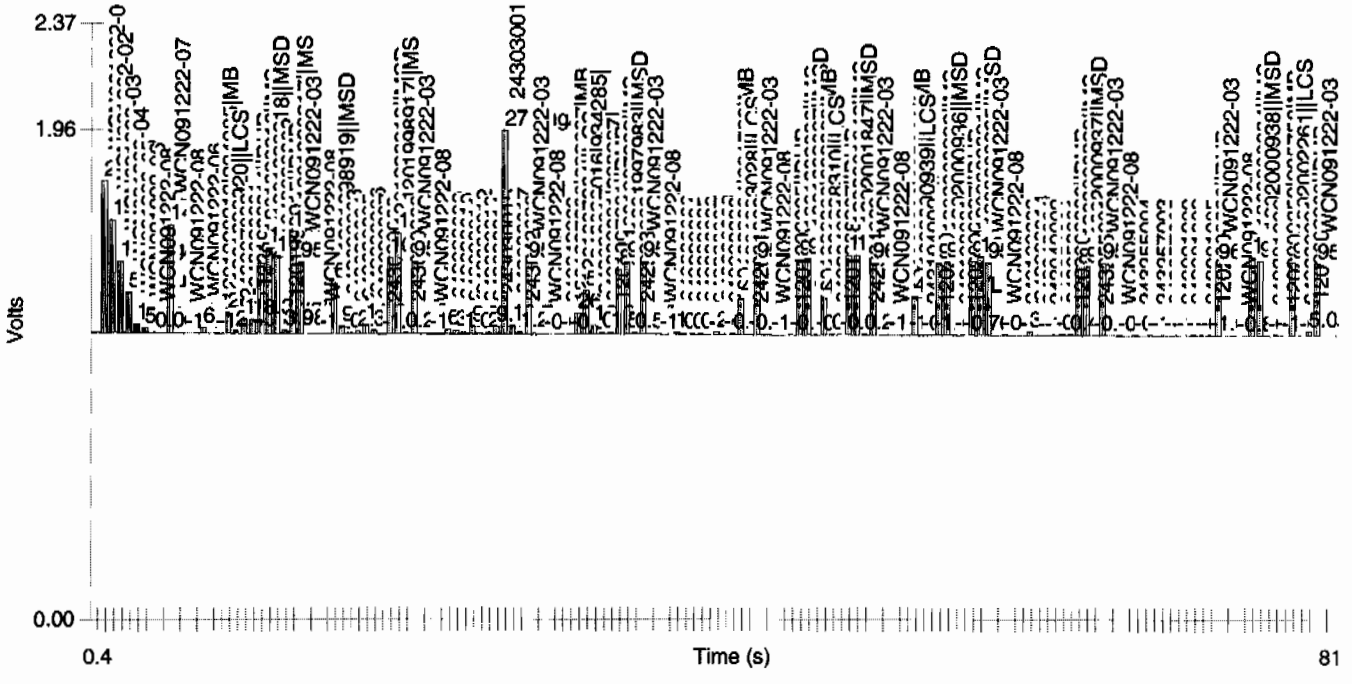

Author: axc2

Date : 12/22/2009

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.25	0.610	-0.7	12/22/2009	15:01:35
2	150	1	6.18	0.454	-0.4	12/22/2009	15:02:27
3	100	1	3.90	0.286	5.4	12/22/2009	15:03:20
4	50.0	1	2.21	0.162	-5.9	12/22/2009	15:04:12
5	10.0	1	0.487	0.0341	-5.1	12/22/2009	15:05:06
6	5.00	1	0.293	0.0212	-12.8	12/22/2009	15:05:59
7	0.00	1	0.0149	0.00280		12/22/2009	15:06:54

Figure 1: TCYANIDE

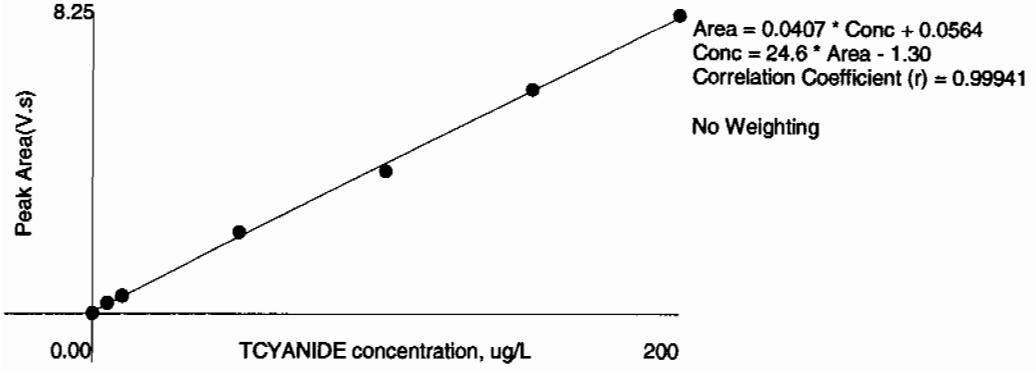

Ion Chromatography

This is runlog for Sequence 100104.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	12/02/09 18:35		1	100104	GXM3
ICAL-06	12/02/09 19:04		1	100104	GXM3
ICAL-05	12/02/09 19:34		1	100104	GXM3
ICAL-04	12/02/09 20:04		1	100104	GXM3
ICAL-03	12/02/09 20:34		1	100104	GXM3
ICAL-02	12/02/09 21:04		1	100104	GXM3
ICAL-01	12/02/09 21:33		1	100104	GXM3
ICAL-07	12/02/09 18:35		1	100104	GXM3
ICAL-06	12/02/09 19:04		1	100104	GXM3
ICAL-05	12/02/09 19:34		1	100104	GXM3
ICAL-04	12/02/09 20:04		1	100104	GXM3
ICAL-03	12/02/09 20:34		1	100104	GXM3
ICAL-02	12/02/09 21:04		1	100104	GXM3
ICAL-01	12/02/09 21:33		1	100104	GXM3

8 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

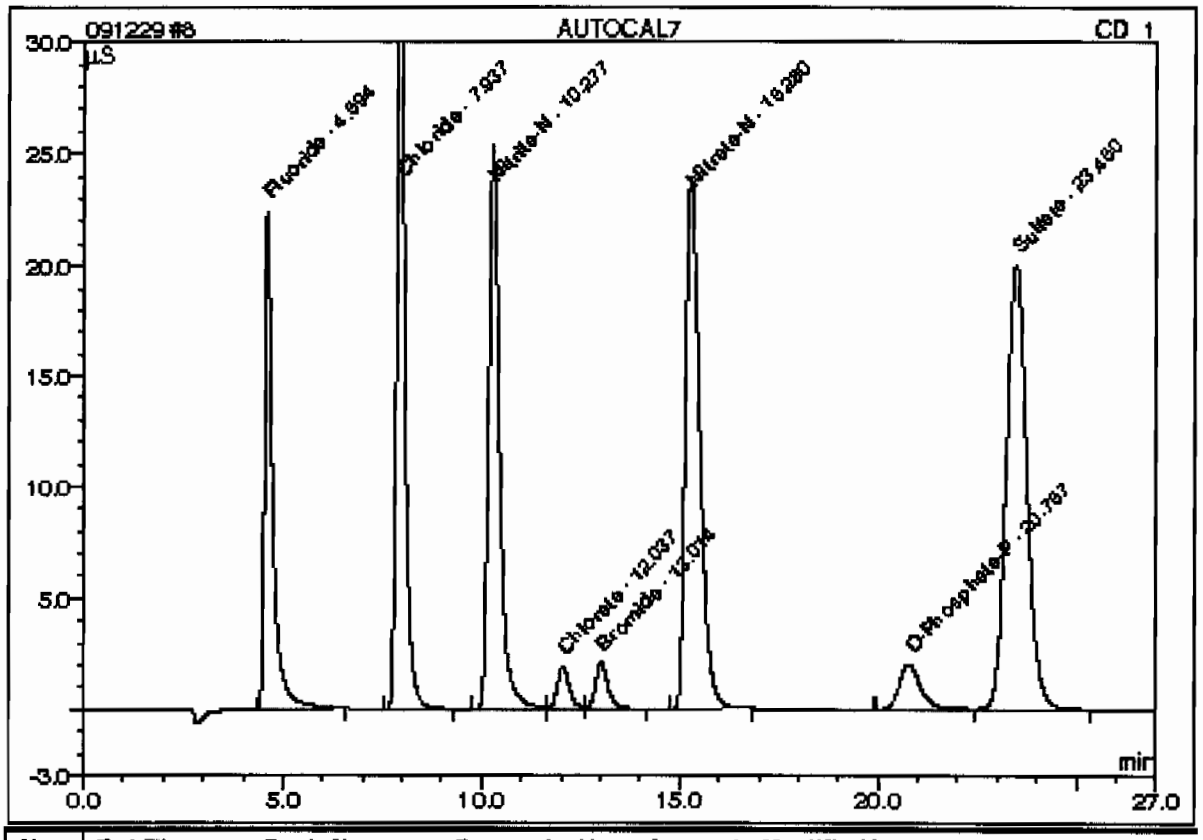

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	10.0000	10.1577		5.35634	11.49
2	7.94	Chloride	20.0000	20.4728		8.55118	18.34
3	10.28	Nitrite-N	10.0000	10.1488		7.97425	17.10
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromide	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2042		10.06854	21.59
7	20.76	O-Phosphate-P	5.0000	5.0829		1.26723	2.72
8	23.46	Sulfate	40.0000	40.7635		11.96232	25.65
Total:				106.9098	0.000	46.636	100.00

1 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

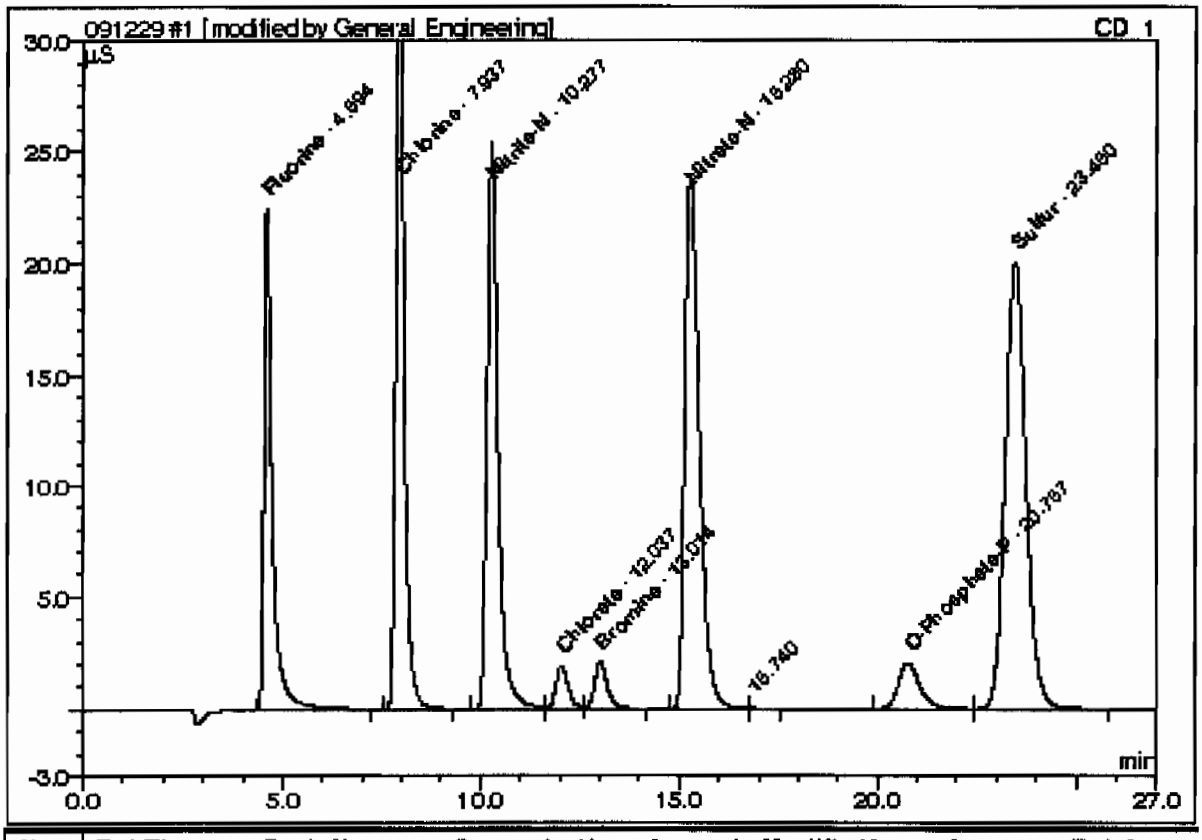

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluorine	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chlorine	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromine	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfur	13.3332	13.5815	*	11.96208	25.60
Total:				79.7299	0.000	46.723	99.98

1 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

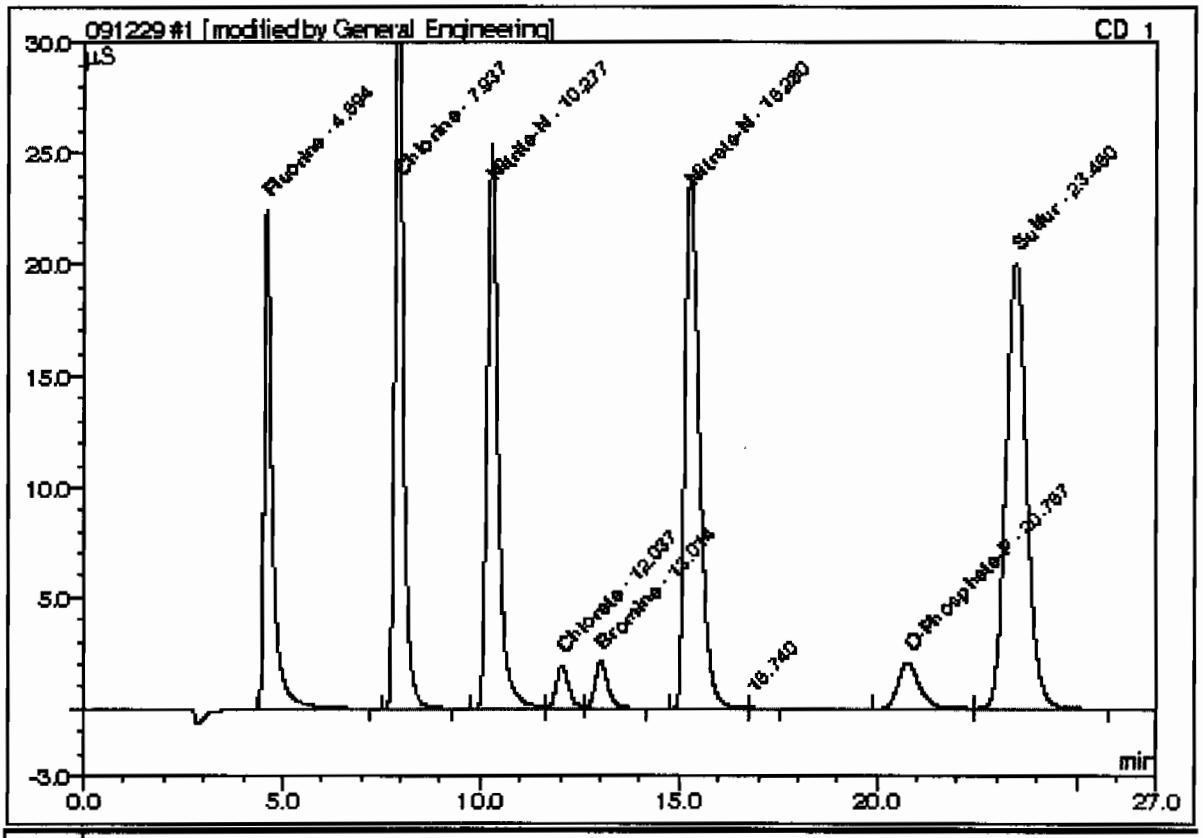

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluorine	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chlorine	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromine	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfur	13.3332	13.5815	*	11.96208	25.60
Total:				79.7299	0.000	46.723	99.98

1 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

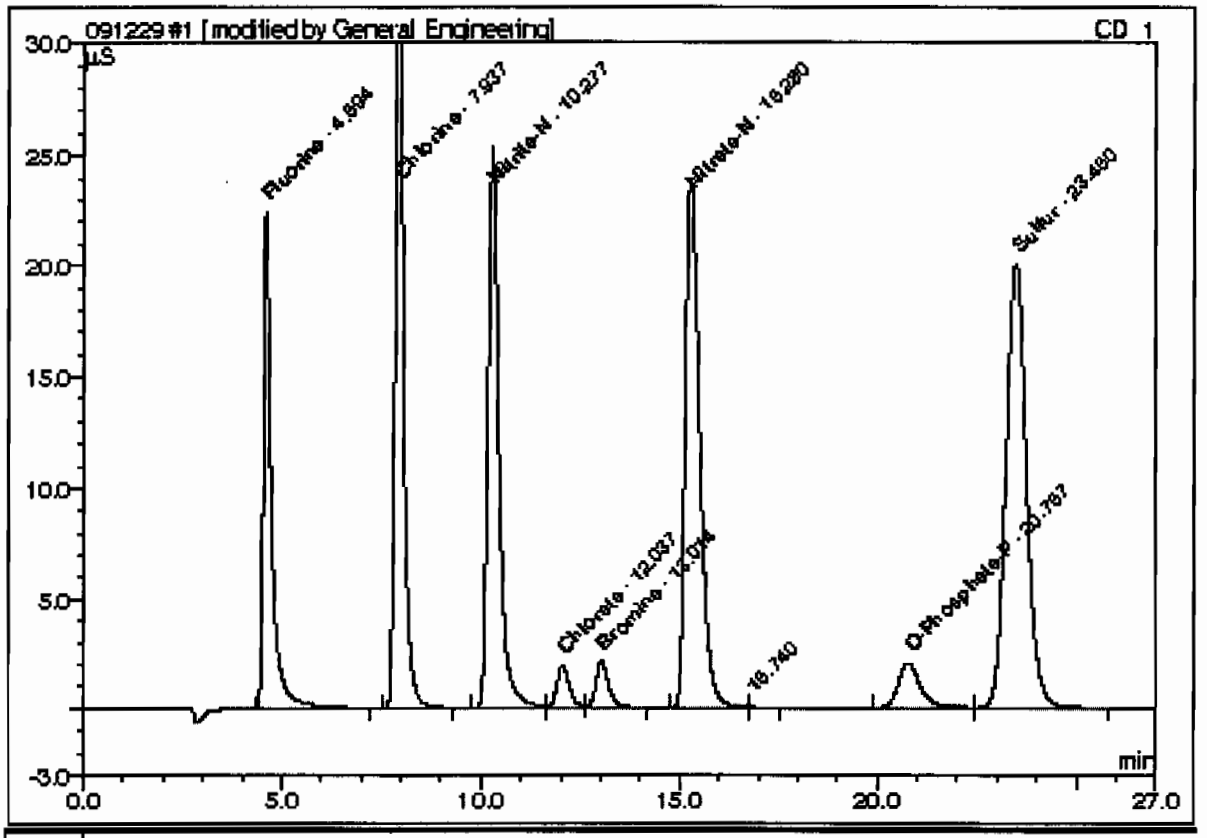

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluorine	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chlorine	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromine	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfur	13.3332	13.5815	*	11.96208	25.60
Total:				79.7299	0.000	46.723	99.98

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

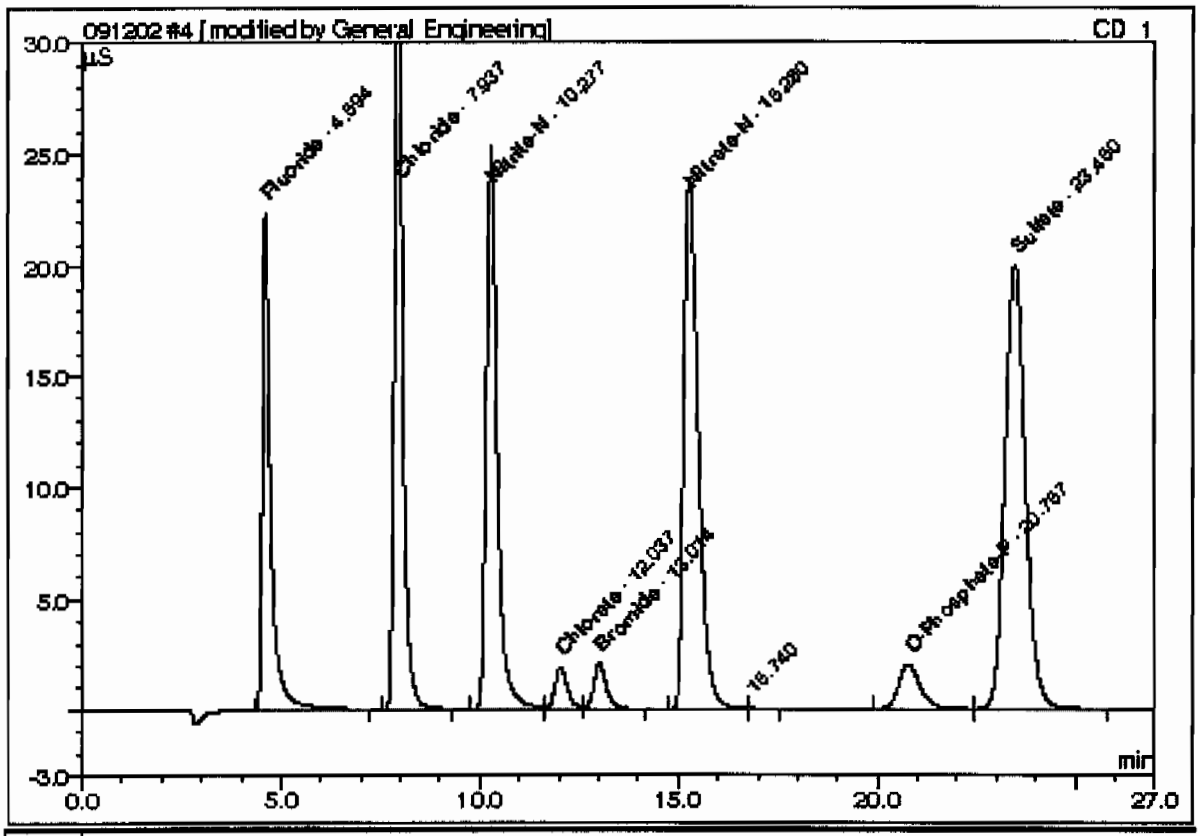

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chloride	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromide	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfate	40.0000	40.7450	*	11.96208	25.60
Total:				106.8933	0.000	46.723	99.98

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

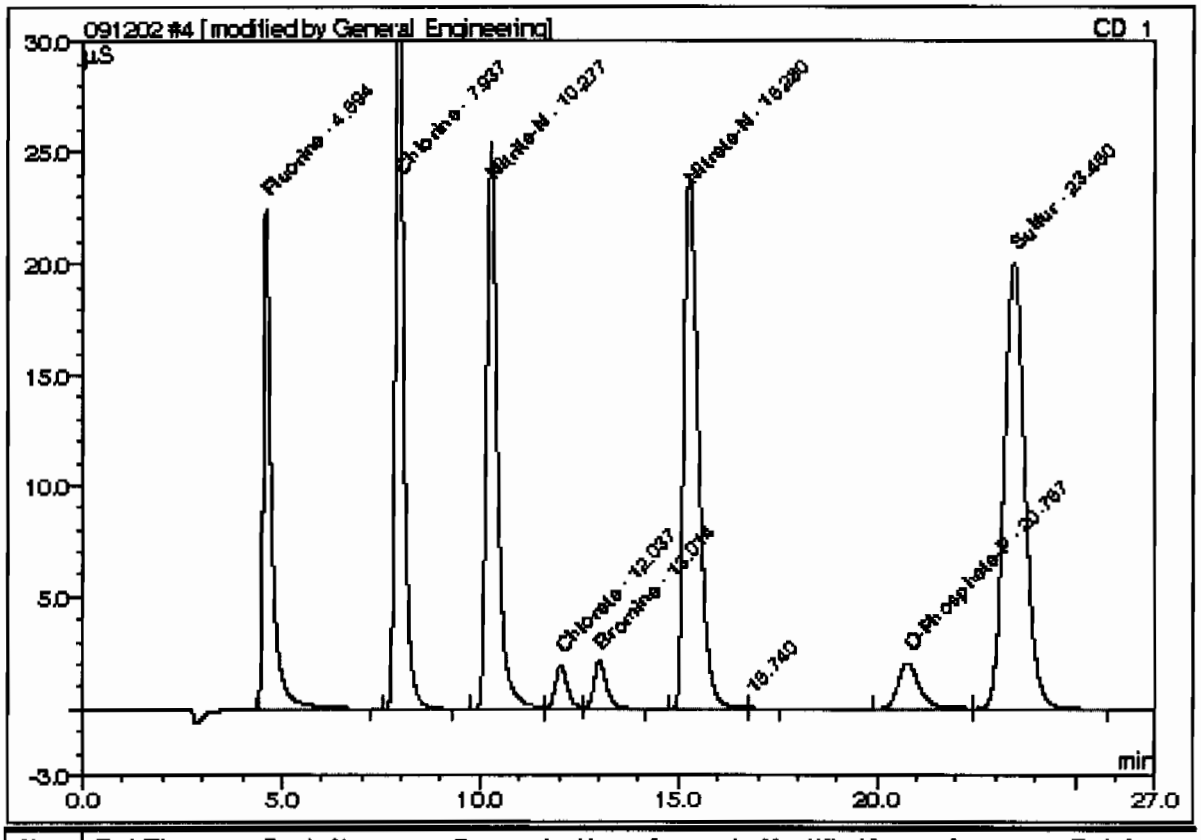

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluorine	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chlorine	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromine	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfur	13.3332	13.5815	*	11.96208	25.60
Total:				79.7299	0.000	46.723	99.98

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

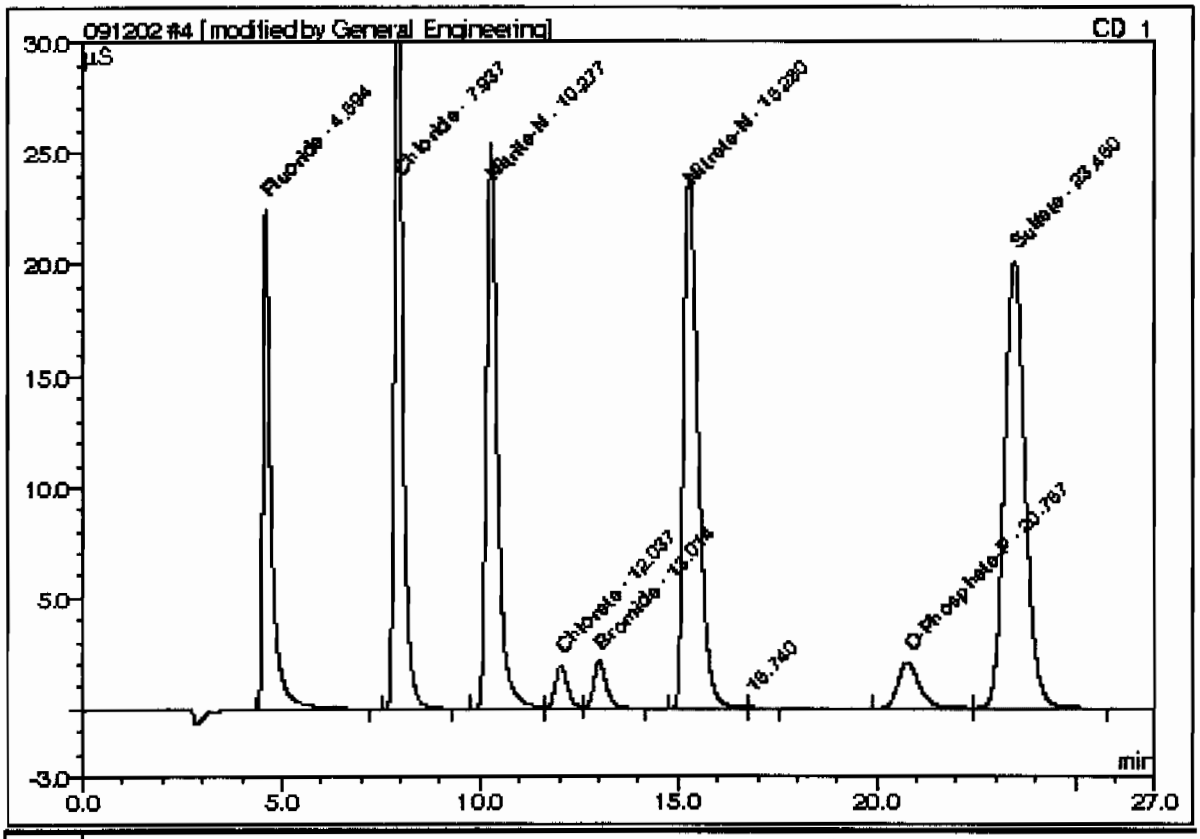

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chloride	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromide	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfate	40.0000	40.7450	*	11.96208	25.60
Total:				106.8933	0.000	46.723	99.98

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

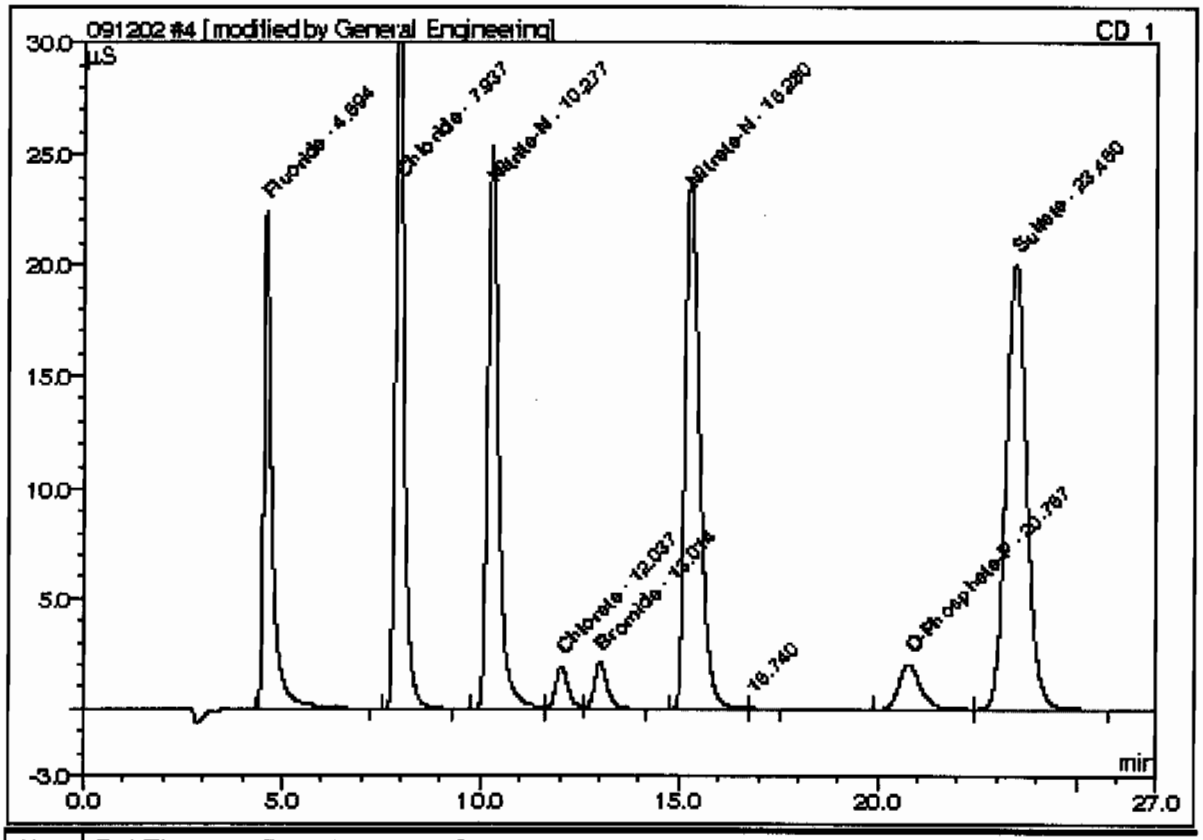

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chloride	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromide	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfate	40.0000	40.7450	*	11.96208	25.60
Total:				106.8933	0.000	46.723	99.98

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

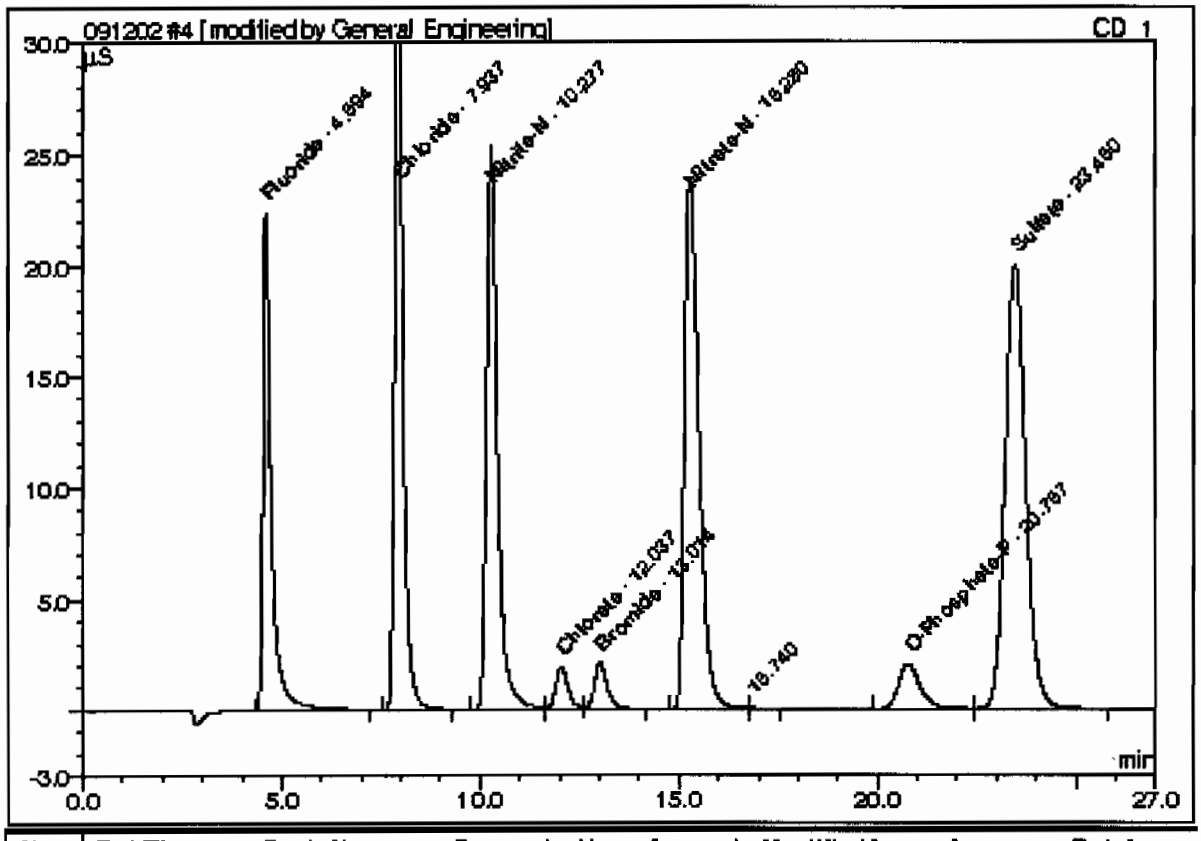

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chloride	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromide	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfate	40.0000	40.7450	*	11.96208	25.60
Total:				106.8933	0.000	46.723	99.98

9 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

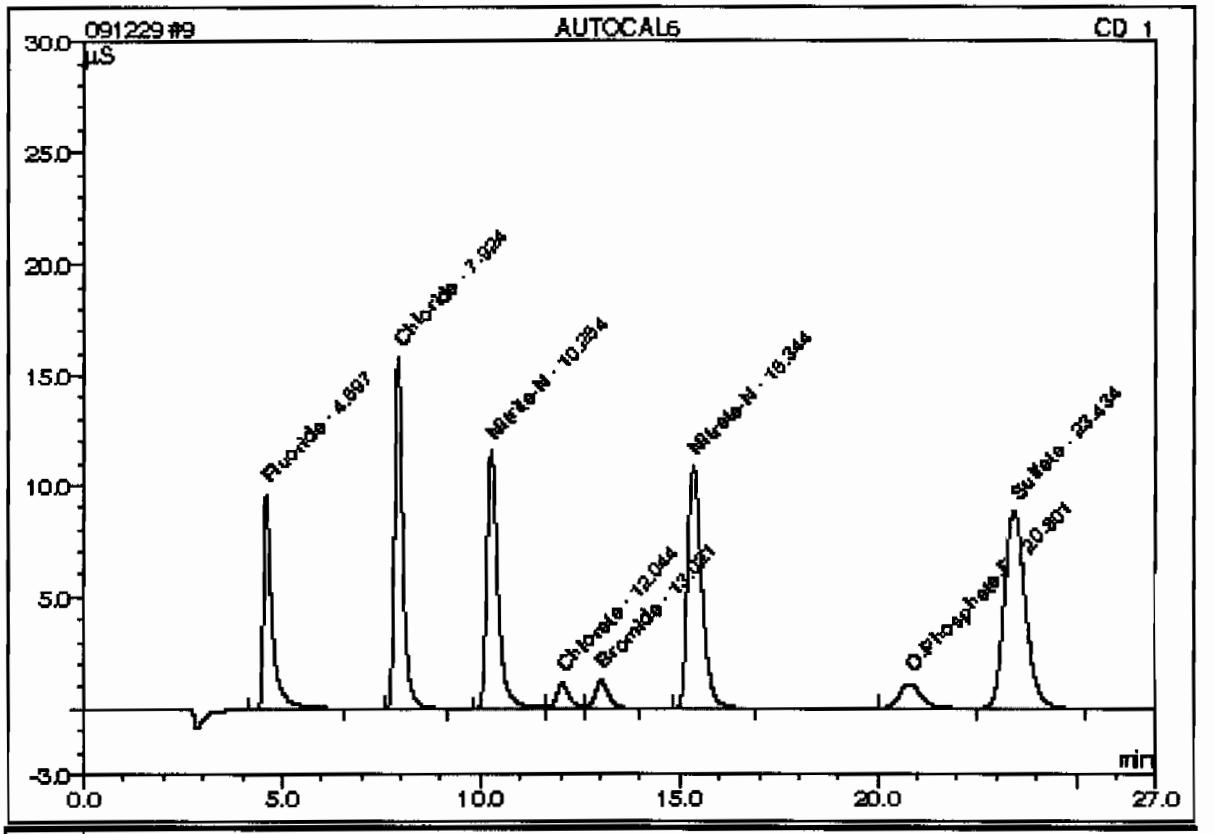

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	5.0000	4.6845		2.45967	11.55
2	7.92	Chloride	10.0000	9.0643		3.76891	17.70
3	10.26	Nitrite-N	5.0000	4.7100		3.66436	17.21
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromide	3.0000	2.9614		0.44868	2.11
6	15.34	Nitrate-N	5.0000	4.5981		4.48040	21.04
7	20.80	O-Phosphate-P	3.0000	2.8969		0.69988	3.29
8	23.43	Sulfate	20.0000	18.4844		5.36918	25.21
Total:				50.3622	0.000	21.294	100.00

2 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

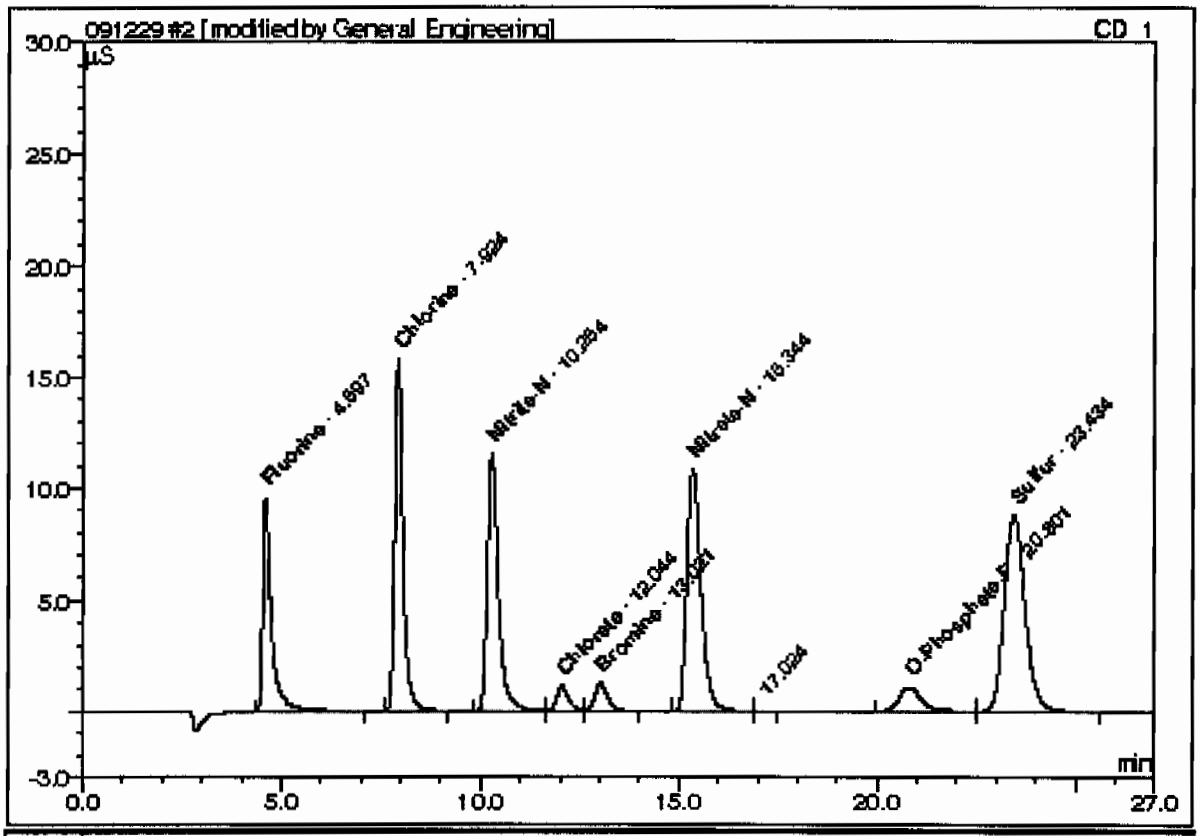

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluorine	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chlorine	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromine	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfur	6.6666	6.1723	*	5.38507	25.22
Total:				38.0531	0.000	21.349	99.99

2 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

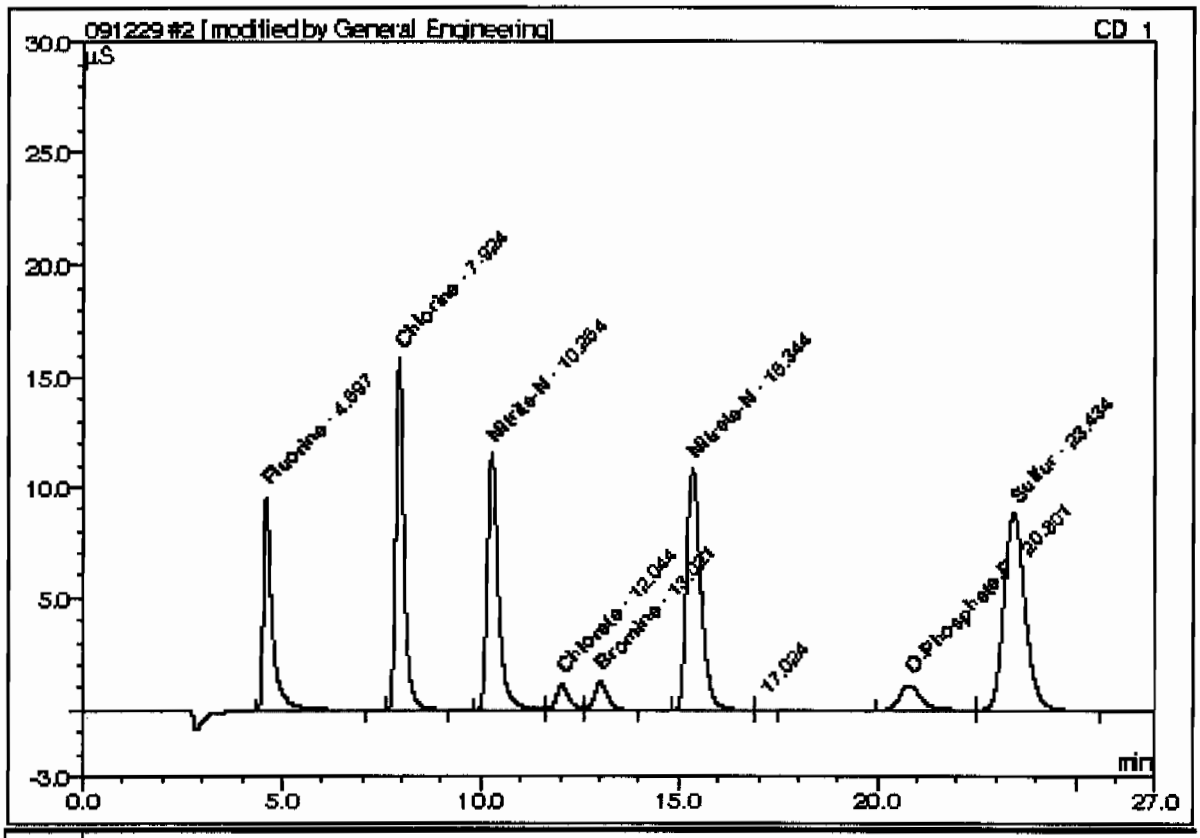

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluorine	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chlorine	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromine	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfur	6.6666	6.1723	*	5.38507	25.22
Total:				38.0531	0.000	21.349	99.99

2 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

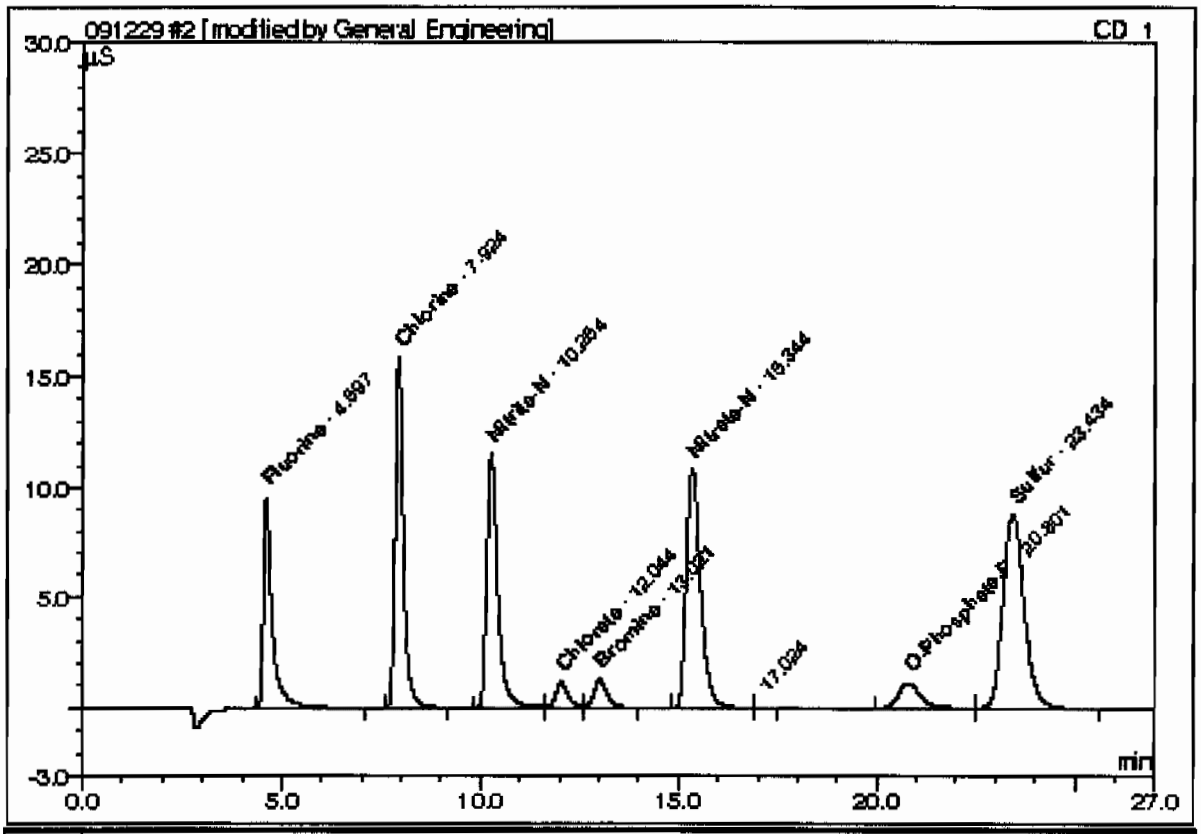

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluorine	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chlorine	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromine	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfur	6.6666	6.1723	*	5.38507	25.22
Total:				38.0531	0.000	21.349	99.99

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

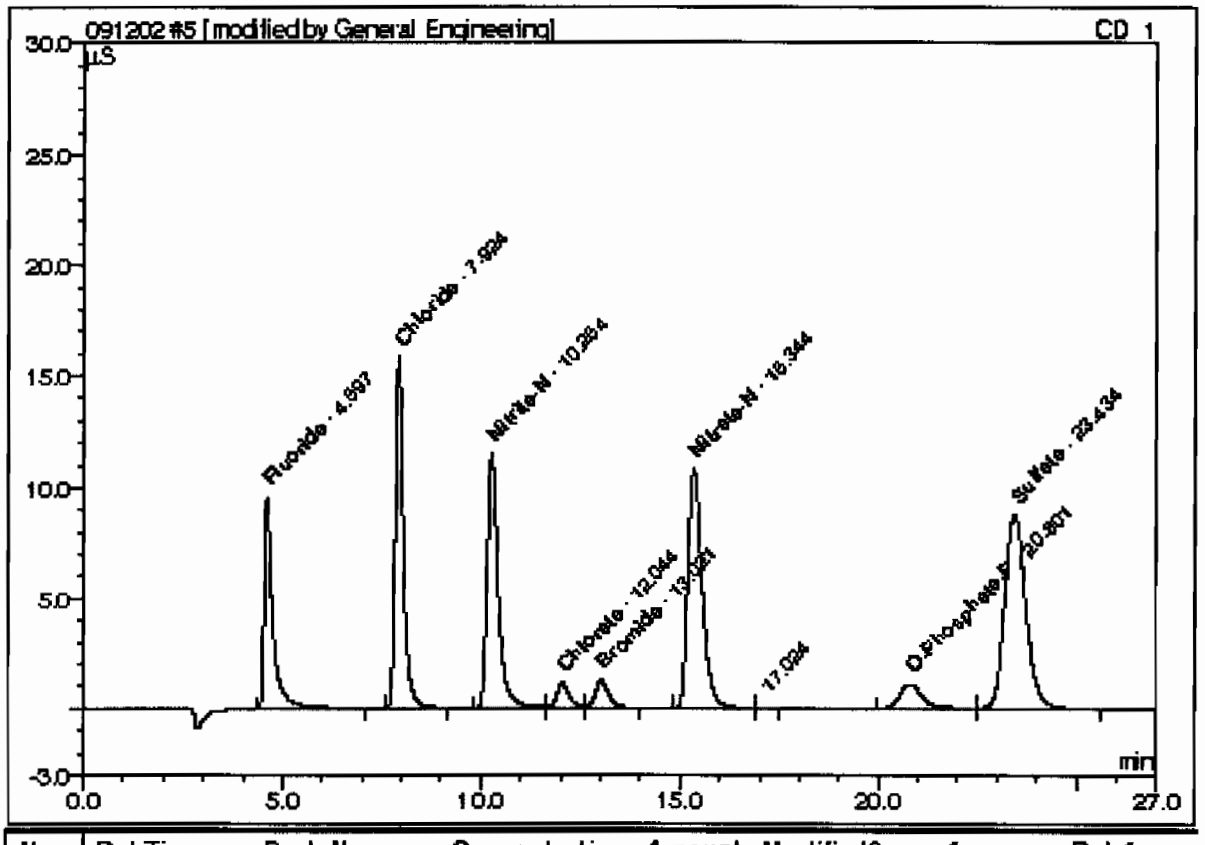

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	5.0000	4.6667	*	2.48163	11.62
2	7.92	Chloride	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromide	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfate	20.0000	18.5172	*	5.38507	25.22
Total:				50.3979	0.000	21.349	99.99

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

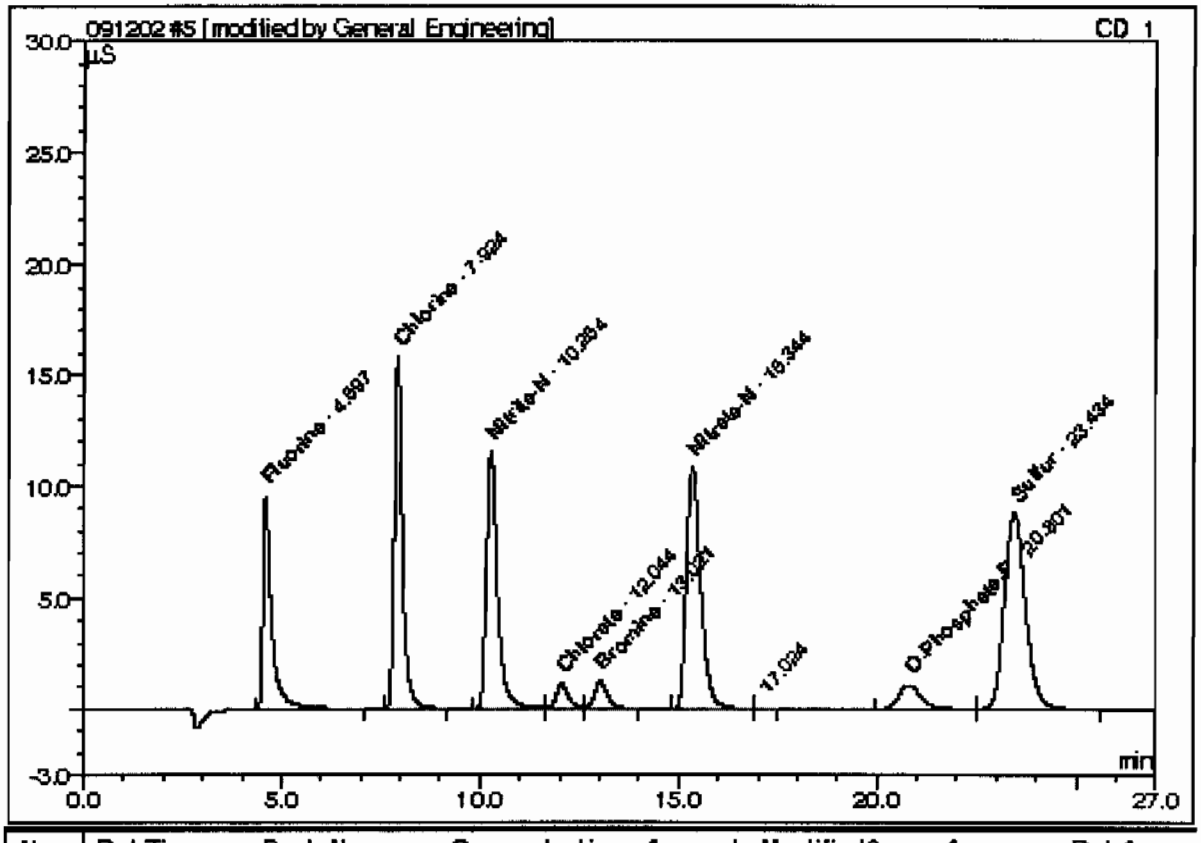

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluorine	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chlorine	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromine	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfur	6.6666	6.1723	*	5.38507	25.22
Total:				38.0531	0.000	21.349	99.99

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

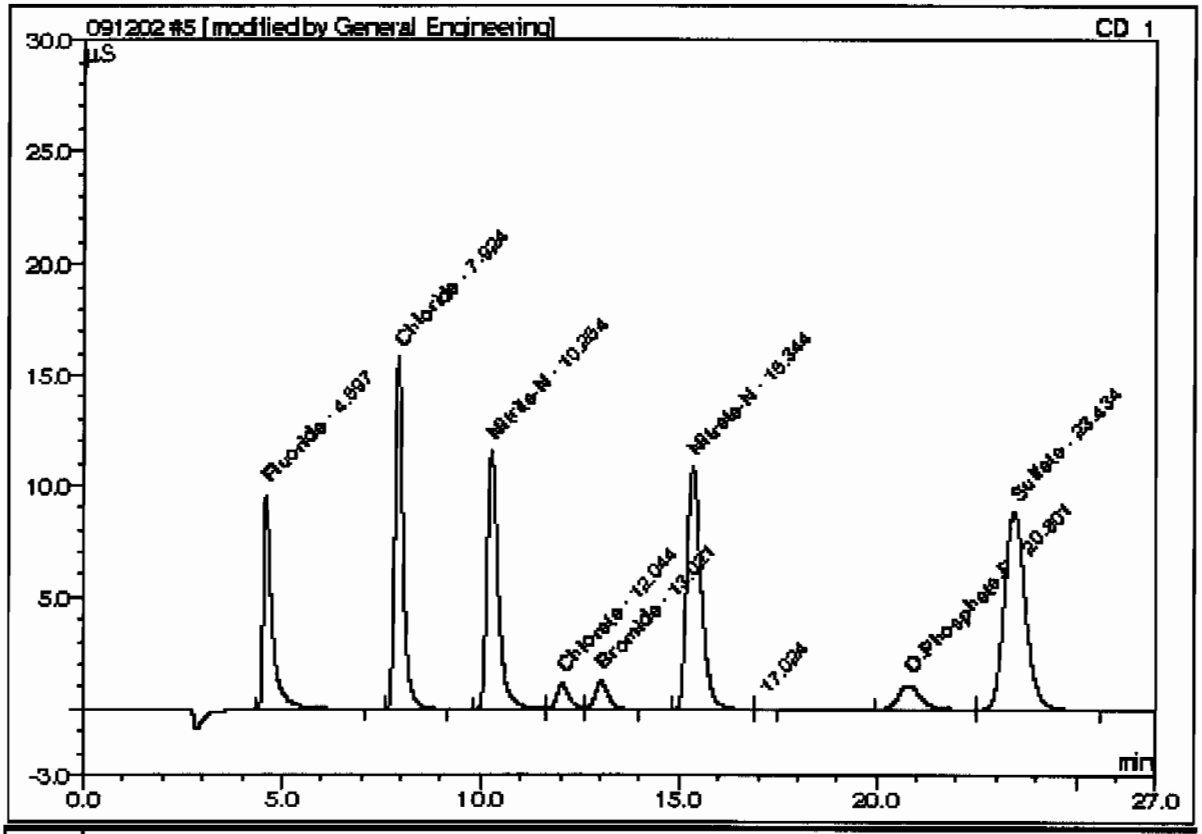

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chloride	10.0000	9.0843		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromide	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfate	20.0000	18.5172	*	5.38507	25.22
Total:				50.3979	0.000	21.349	99.99

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

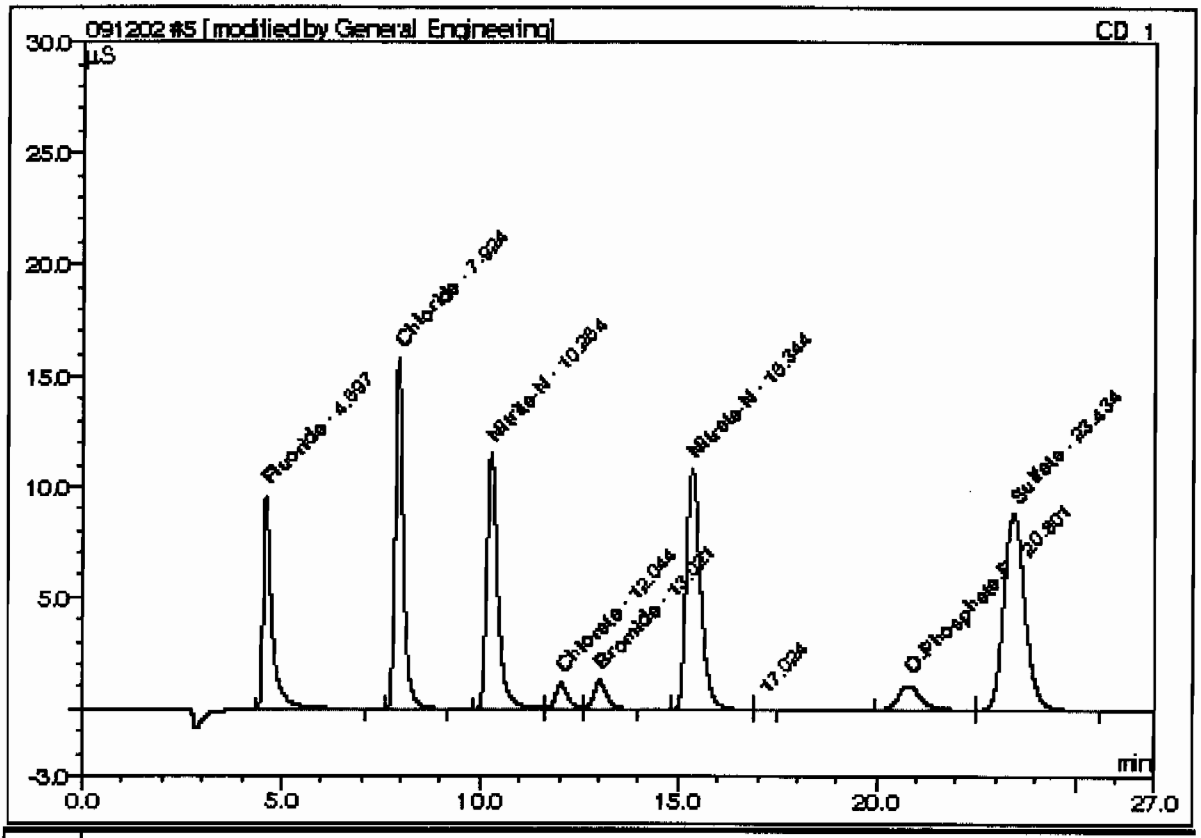

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chloride	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromide	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfate	20.0000	18.5172	*	5.38507	25.22
Total:				50.3979	0.000	21.349	99.99

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

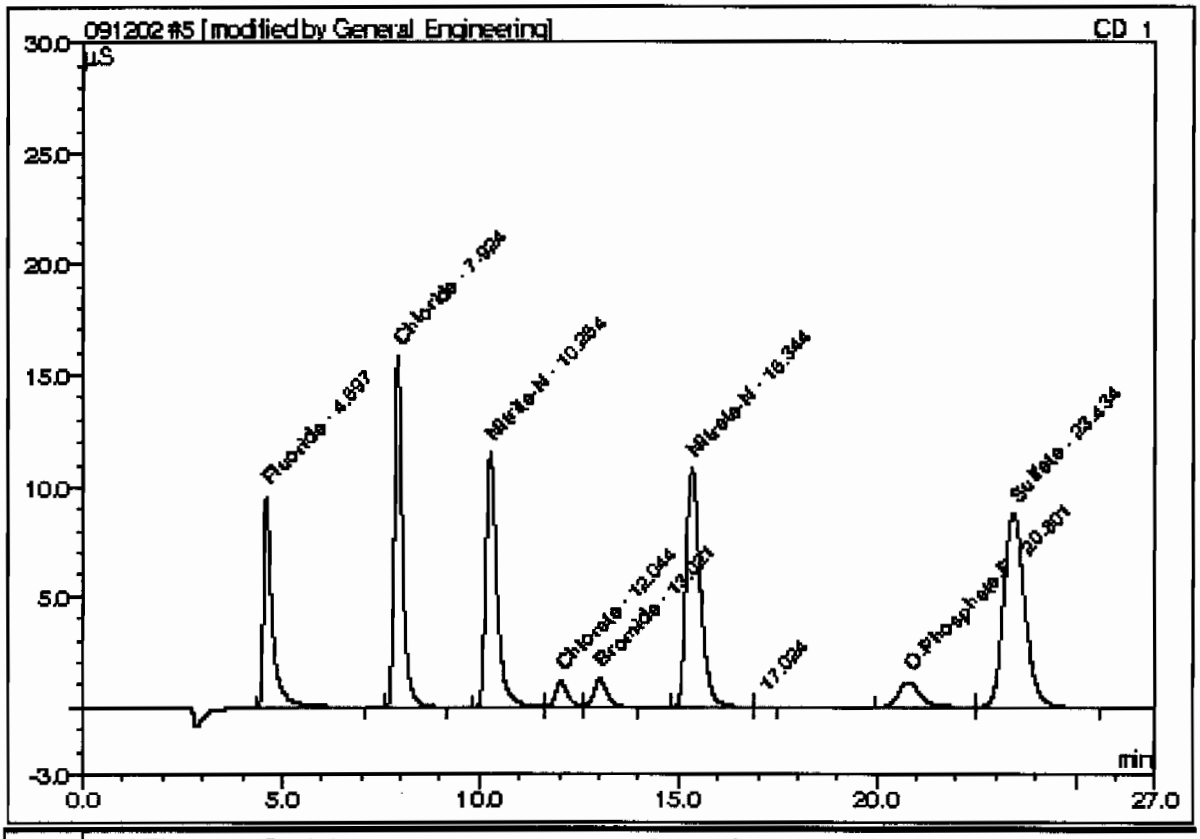

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chloride	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromide	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfate	20.0000	18.5172	*	5.38507	25.22
Total:				50.3979	0.000	21.349	99.99

10 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

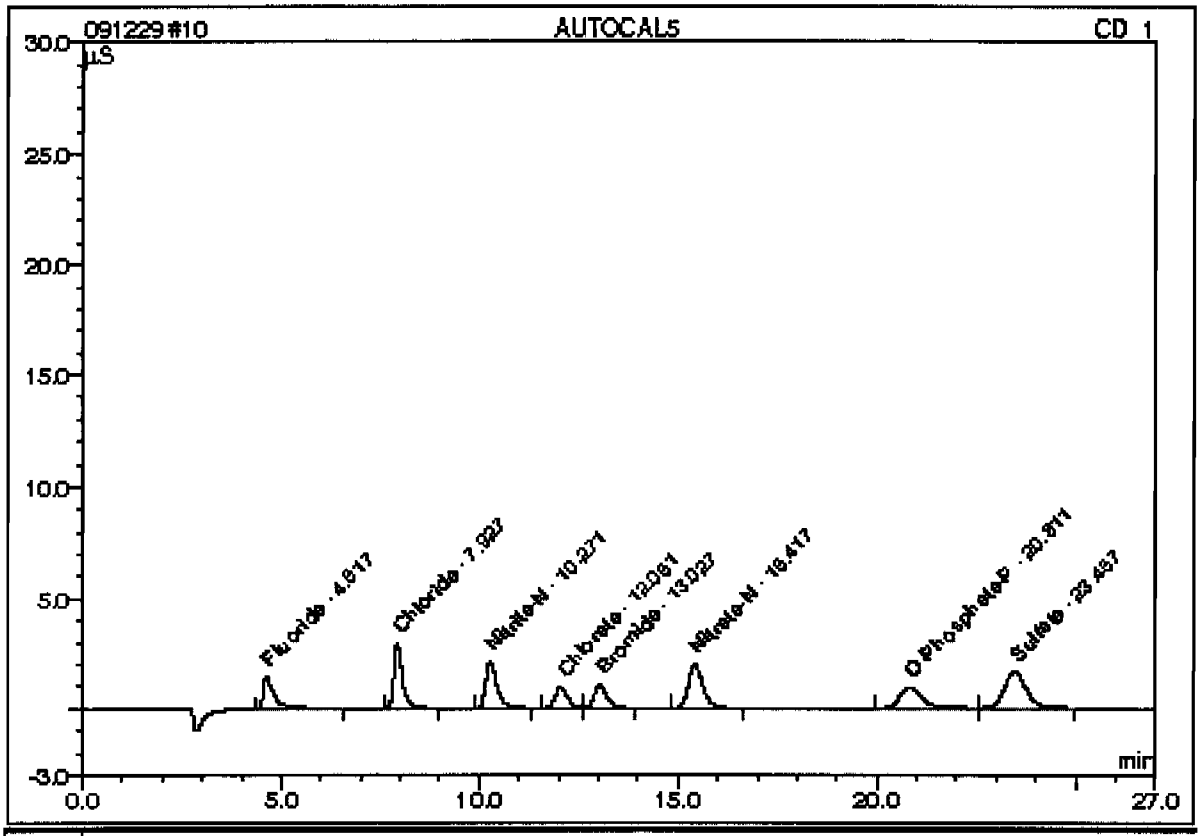

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	1.0000	0.9708		0.49415	9.72
2	7.93	Chloride	2.0000	1.8340		0.73808	14.51
3	10.27	Nitrite-N	1.0000	0.9410		0.67762	13.32
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.55
5	13.03	Bromide	2.5000	2.4949		0.37733	7.42
6	15.42	Nitrate-N	1.0000	0.9364		0.83040	16.33
7	20.81	O-Phosphate-P	2.5000	2.5263		0.60370	11.87
8	23.46	Sulfate	4.0000	3.8252		1.03106	20.27
Total:				15.9820	0.000	5.086	100.00

3 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

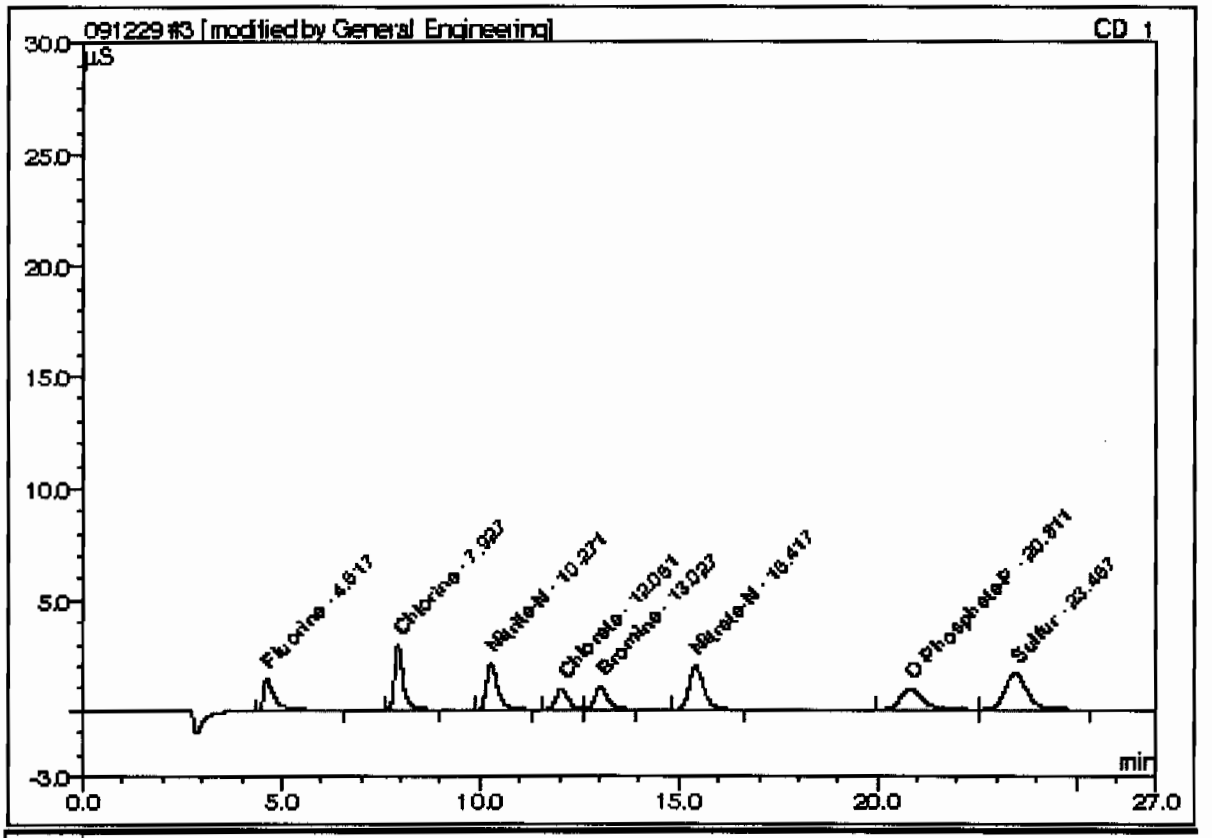

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluorine	1.0000	0.9675		0.49415	9.68
2	7.93	Chlorine	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromine	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129		0.60894	11.93
8	23.46	Sulfur	1.3332	1.2847		1.04645	20.49
Total:				13.4224	0.000	5.106	100.00

3 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

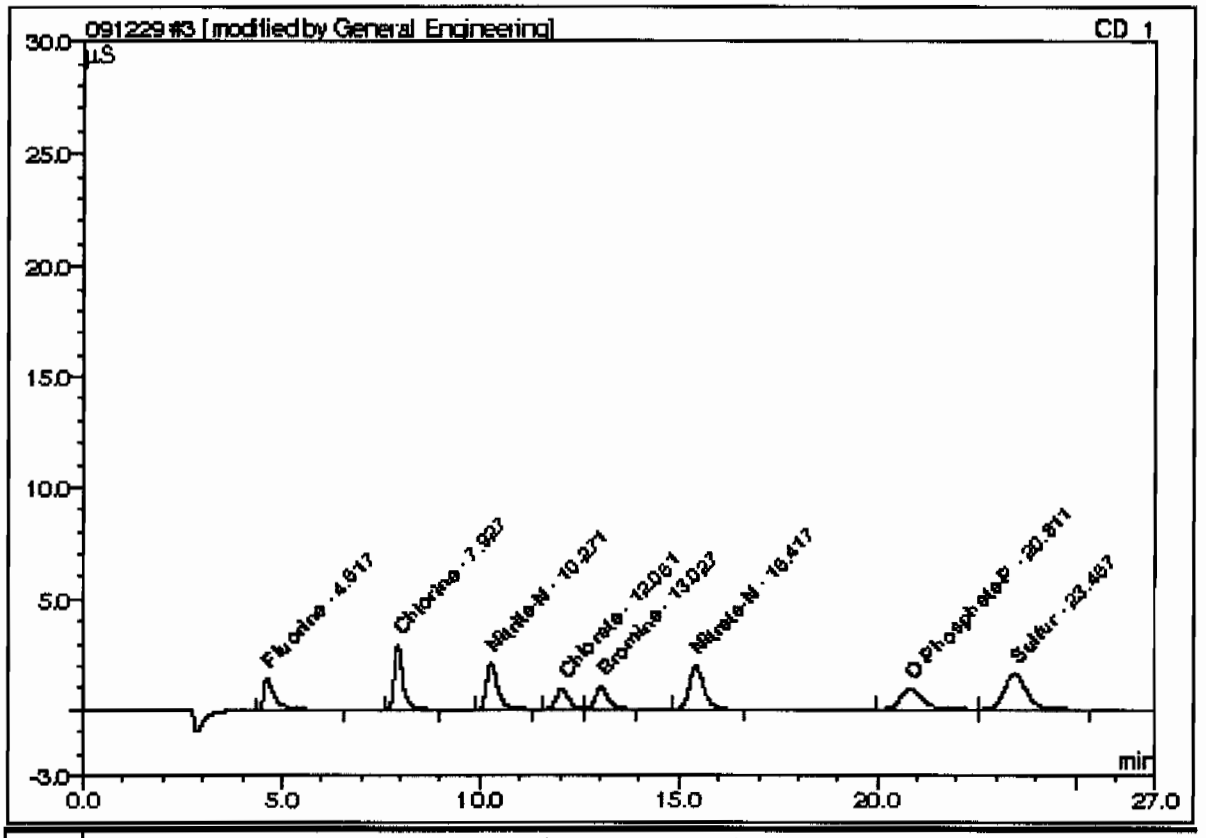

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluorine	1.0000	0.9675		0.49415	9.68
2	7.93	Chlorine	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromine	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	*	0.60894	11.93
8	23.46	Sulfur	1.3332	1.2847	*	1.04645	20.49
Total:				13.4224	0.000	5.106	100.00

3 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC B086;300;9056

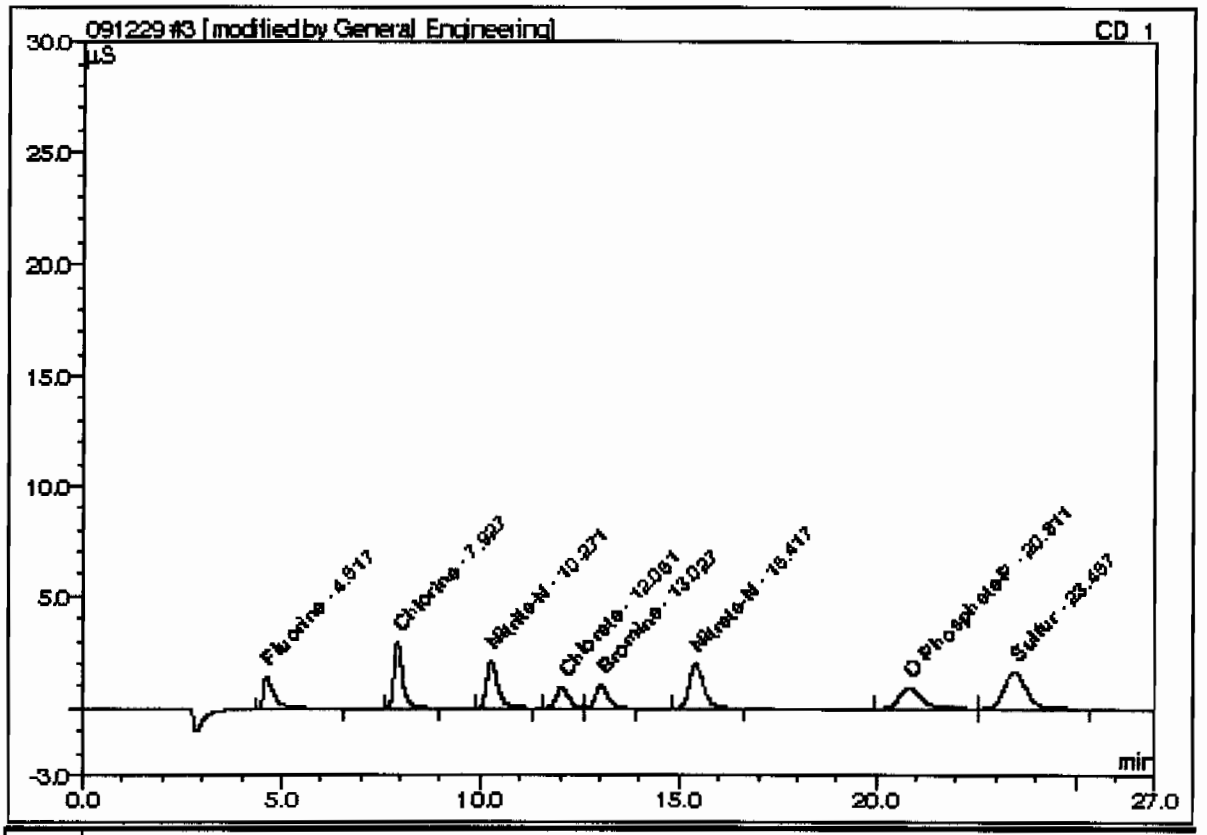

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluorine	1.0000	0.9675		0.49415	9.68
2	7.93	Chlorine	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromine	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	*	0.60894	11.93
8	23.46	Sulfur	1.3332	1.2847	*	1.04645	20.49
Total:				13.4224	0.000	5.106	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

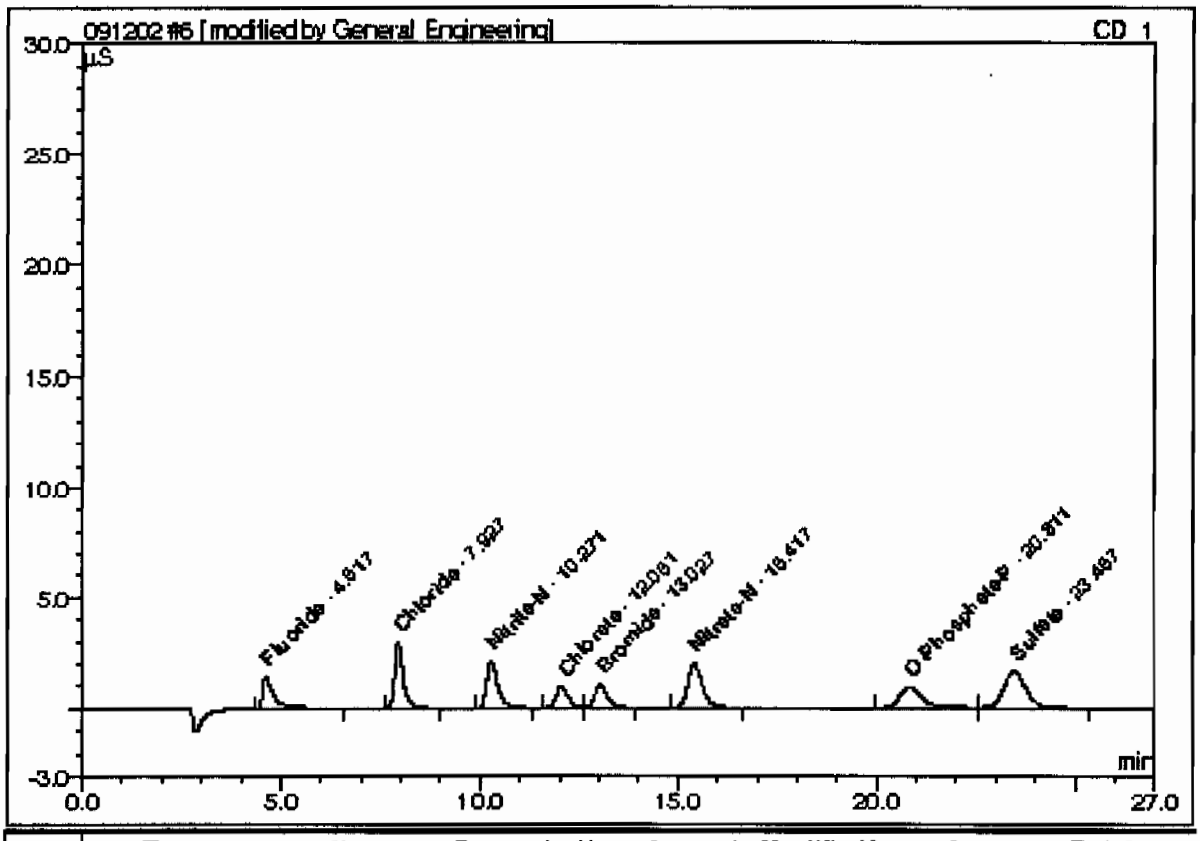

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	1.0000	0.9675		0.49415	9.68
2	7.93	Chloride	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromide	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	*	0.60894	11.93
8	23.46	Sulfate	4.0000	3.8543	*	1.04645	20.49
Total:				15.9920	0.000	5.106	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

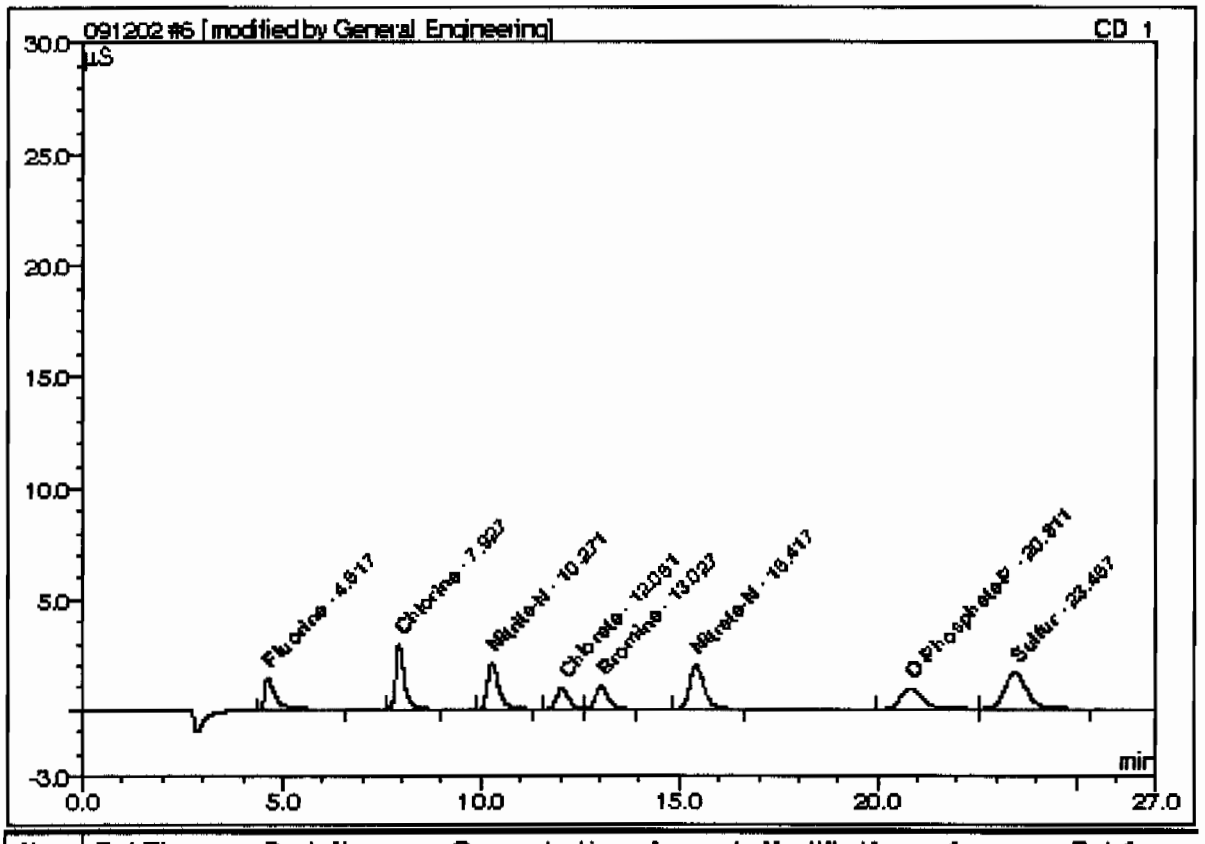

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluorine	1.0000	0.9675		0.49415	9.68
2	7.93	Chlorine	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromine	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	*	0.60894	11.93
8	23.46	Sulfur	1.3332	1.2847	*	1.04645	20.49
Total:				13.4224	0.000	5.106	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

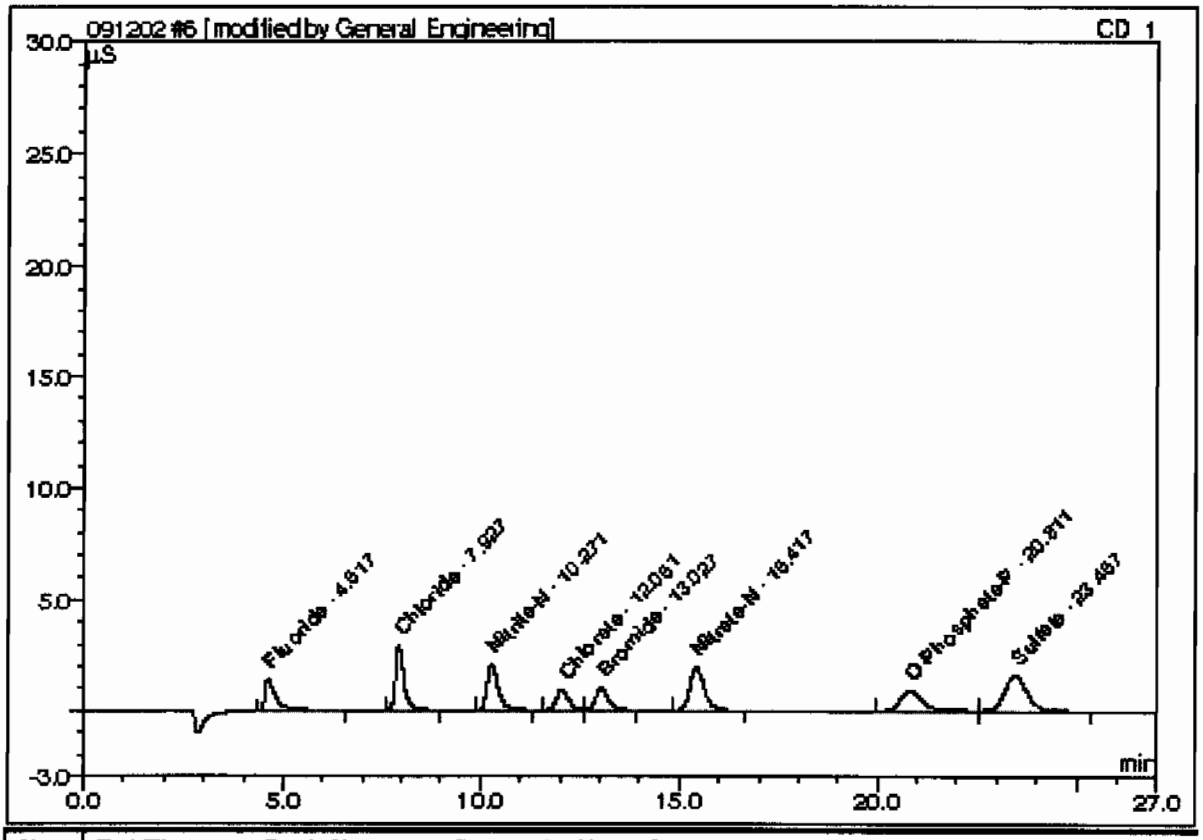

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	1.0000	0.9675		0.49415	9.68
2	7.93	Chloride	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromide	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	*	0.60894	11.93
8	23.46	Sulfate	4.0000	3.8543	*	1.04645	20.49
Total:				15.9920	0.000	5.106	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

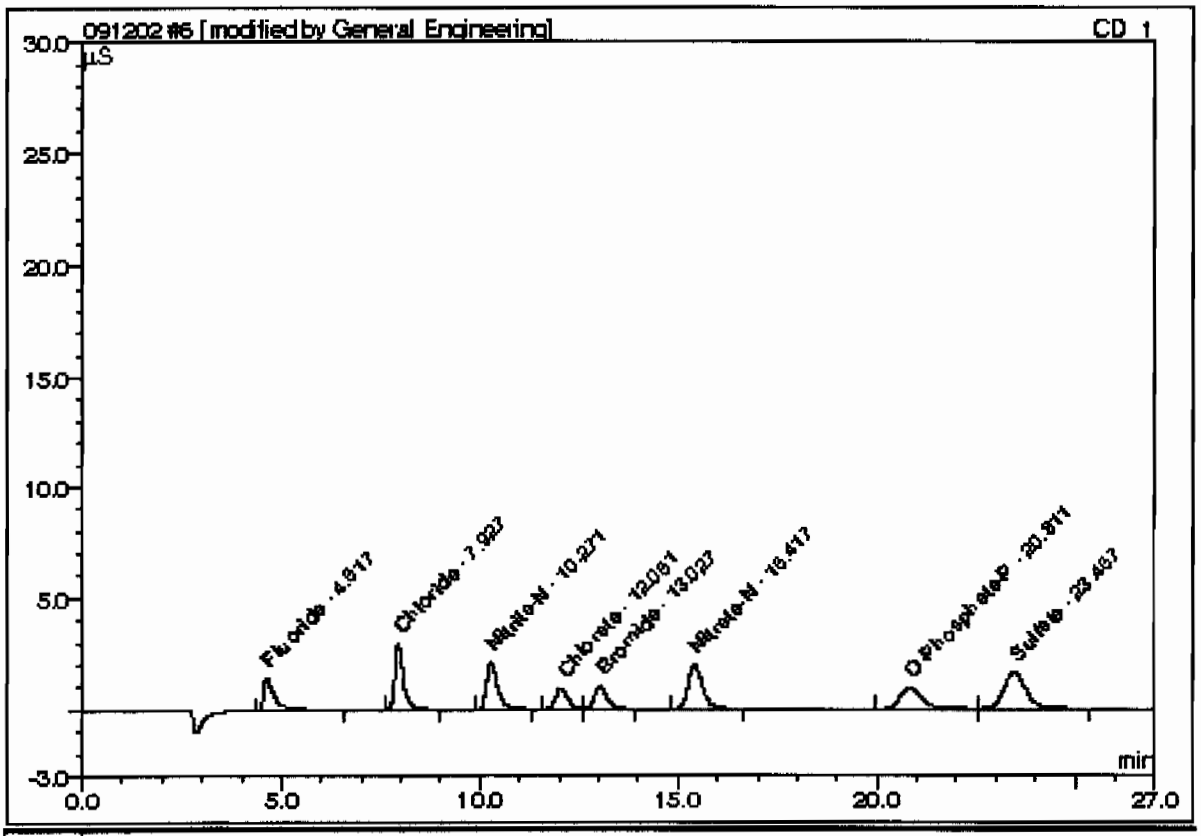

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	1.0000	0.9675		0.49415	9.68
2	7.93	Chloride	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromide	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129		0.60894	11.93
8	23.46	Sulfate	4.0000	3.8543		1.04645	20.49
Total:				15.9920	0.000	5.106	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

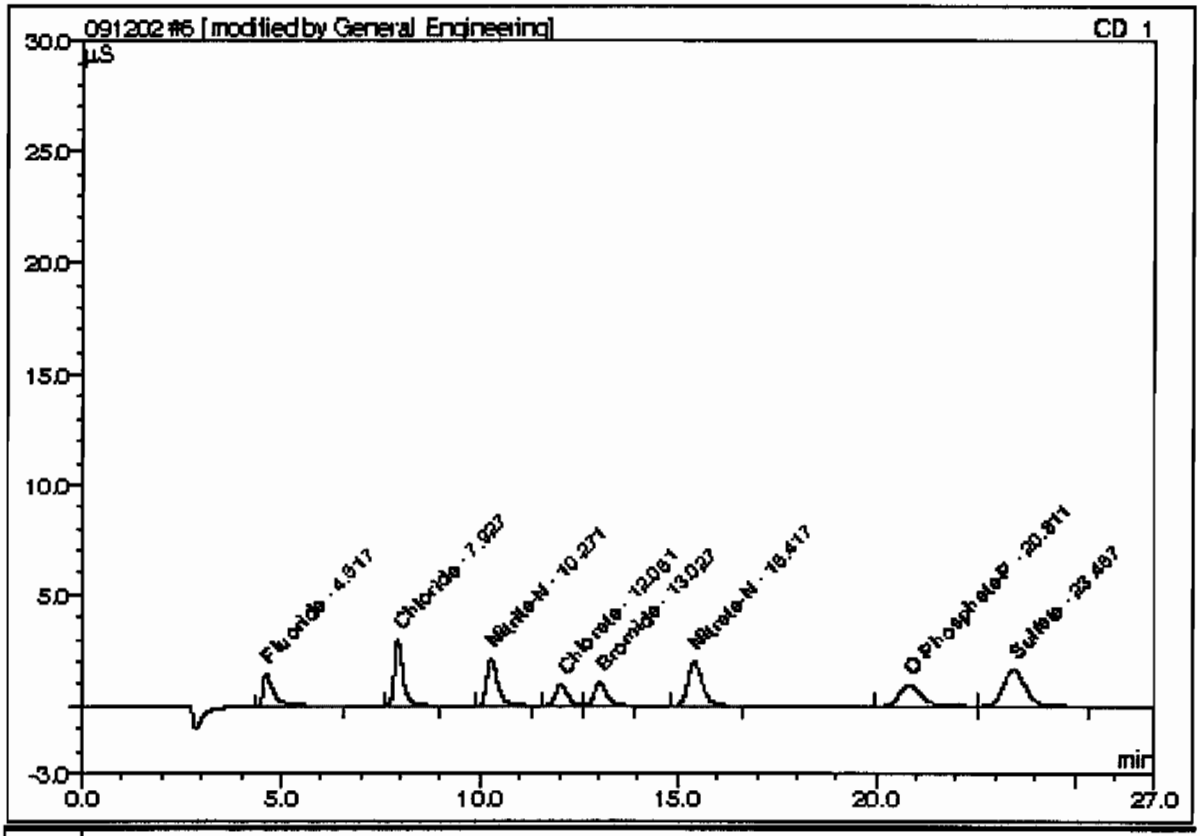

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	1.0000	0.9675		0.49415	9.68
2	7.93	Chloride	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromide	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	*	0.60894	11.93
8	23.46	Sulfate	4.0000	3.8543	*	1.04645	20.49
Total:				15.9920	0.000	5.106	100.00

11 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

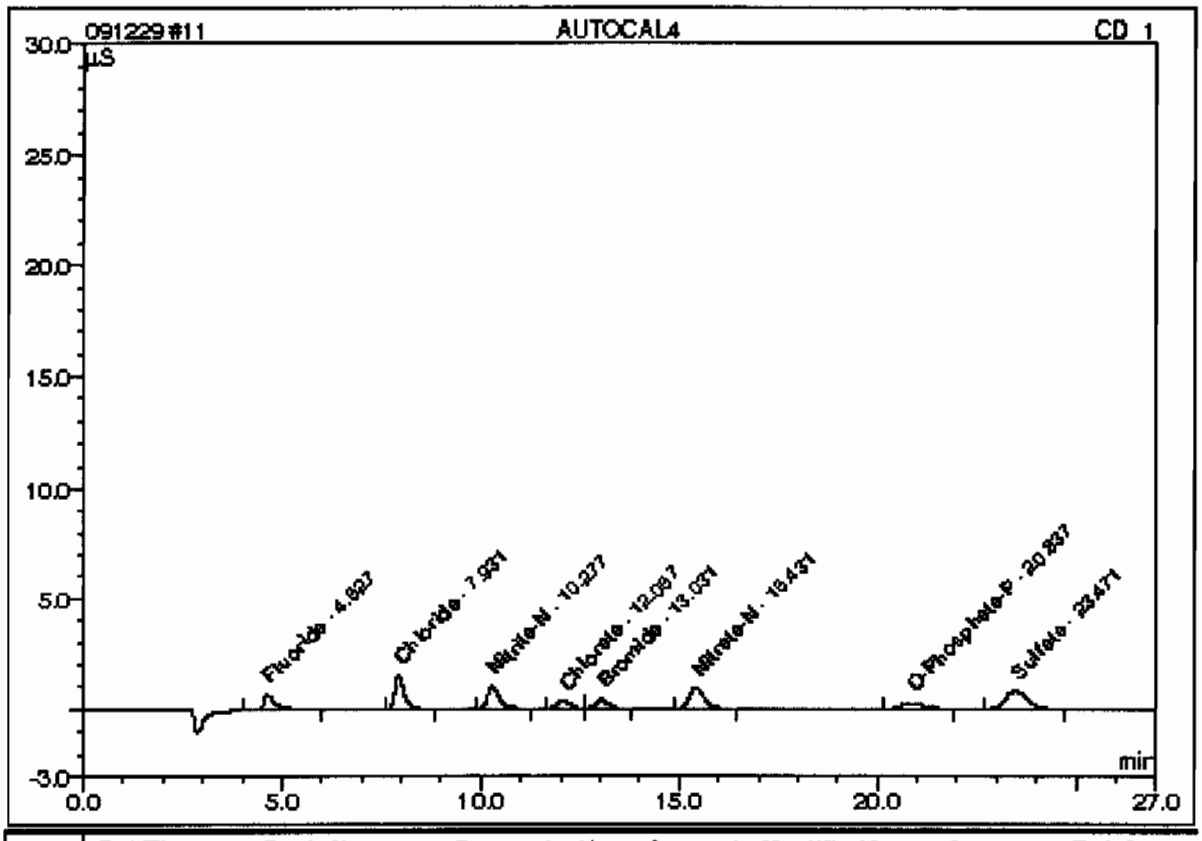

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	0.5000	0.4981		0.24398	10.42
2	7.93	Chloride	1.0000	1.0142		0.39444	16.84
3	10.28	Nitrite-N	0.5000	0.5083		0.33470	14.29
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.49
5	13.03	Bromide	1.0000	0.9854		0.14645	6.25
6	15.43	Nitrate-N	0.5000	0.5157		0.41101	17.55
7	20.84	O-Phosphate-P	1.0000	0.8683		0.17338	7.40
8	23.47	Sulfate	2.0000	2.0626		0.50944	21.75
Total:				7.4221	0.000	2.342	100.00

4 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

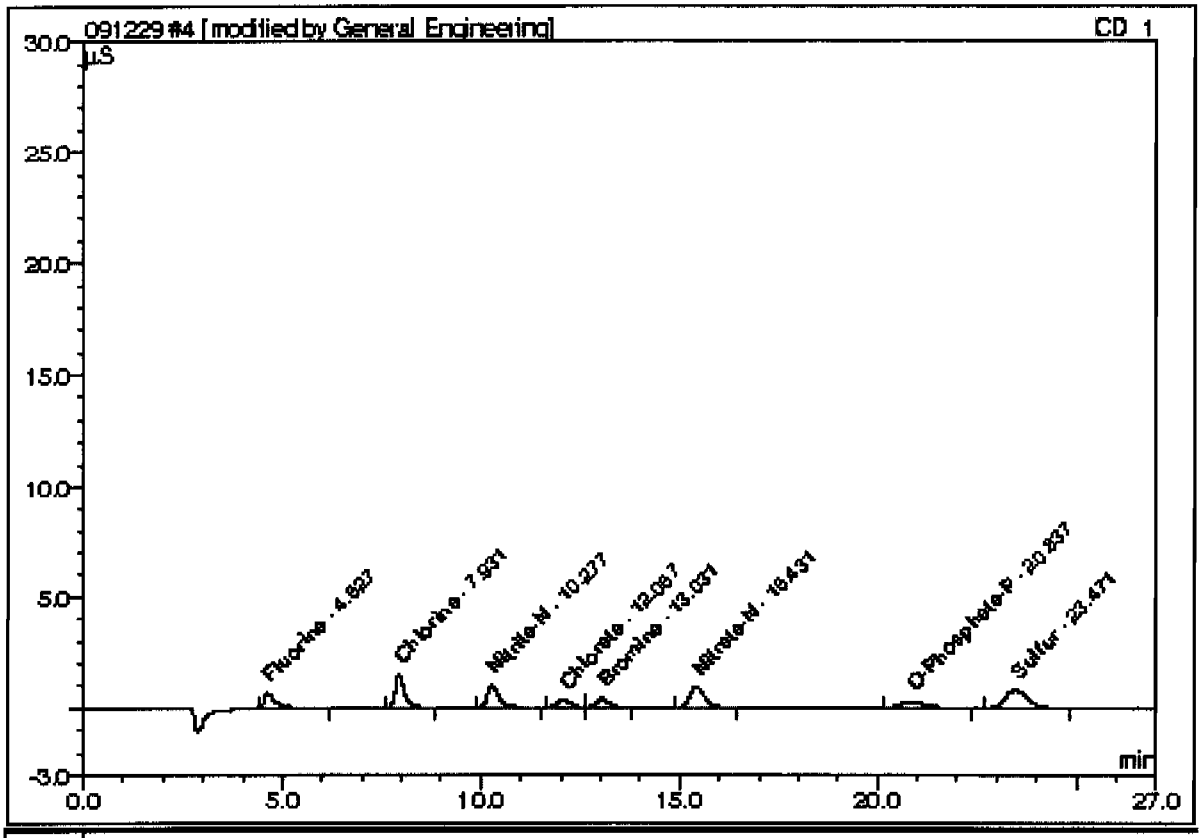

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluorine	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chlorine	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromine	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfur	0.6666	0.6819	*	0.51134	21.72
Total:				6.0576	0.000	2.355	100.00

4 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

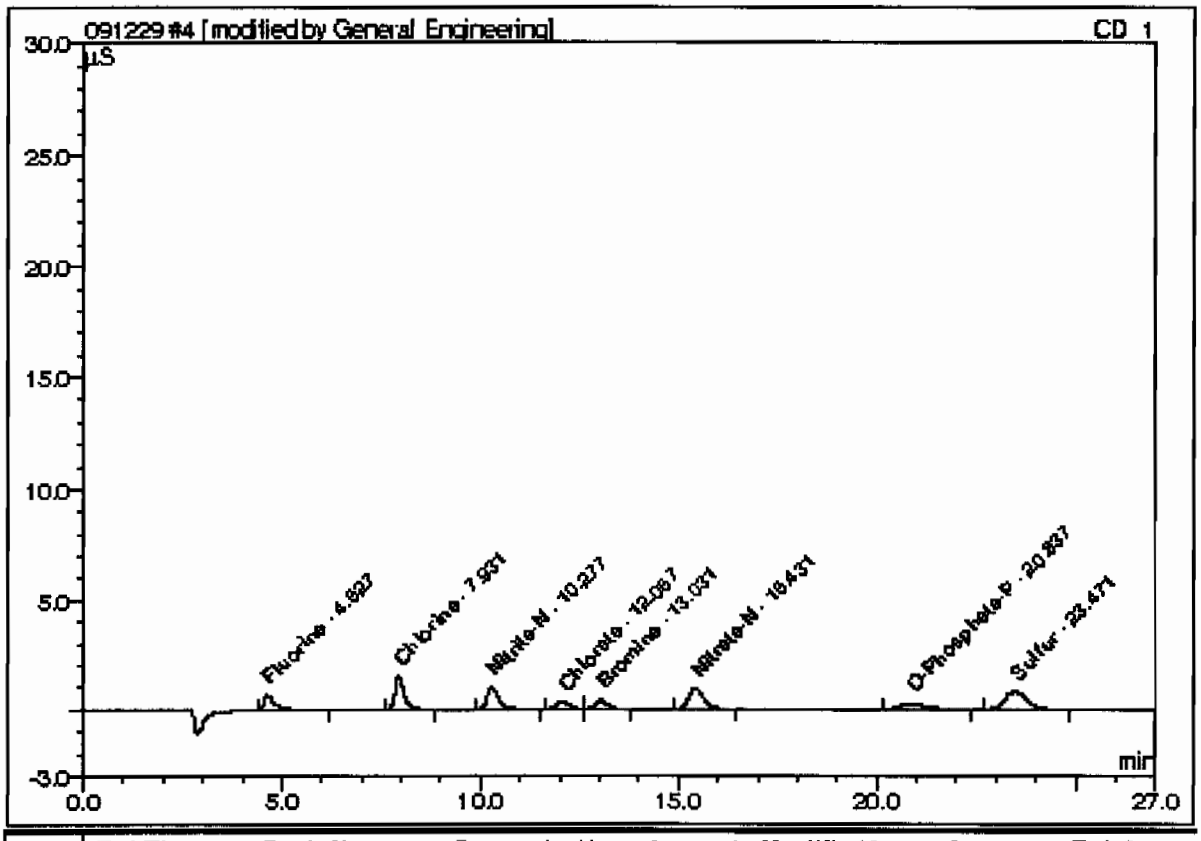

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluorine	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chlorine	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromine	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfur	0.6666	0.6819	*	0.51134	21.72
Total:				6.0576	0.000	2.355	100.00

4 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

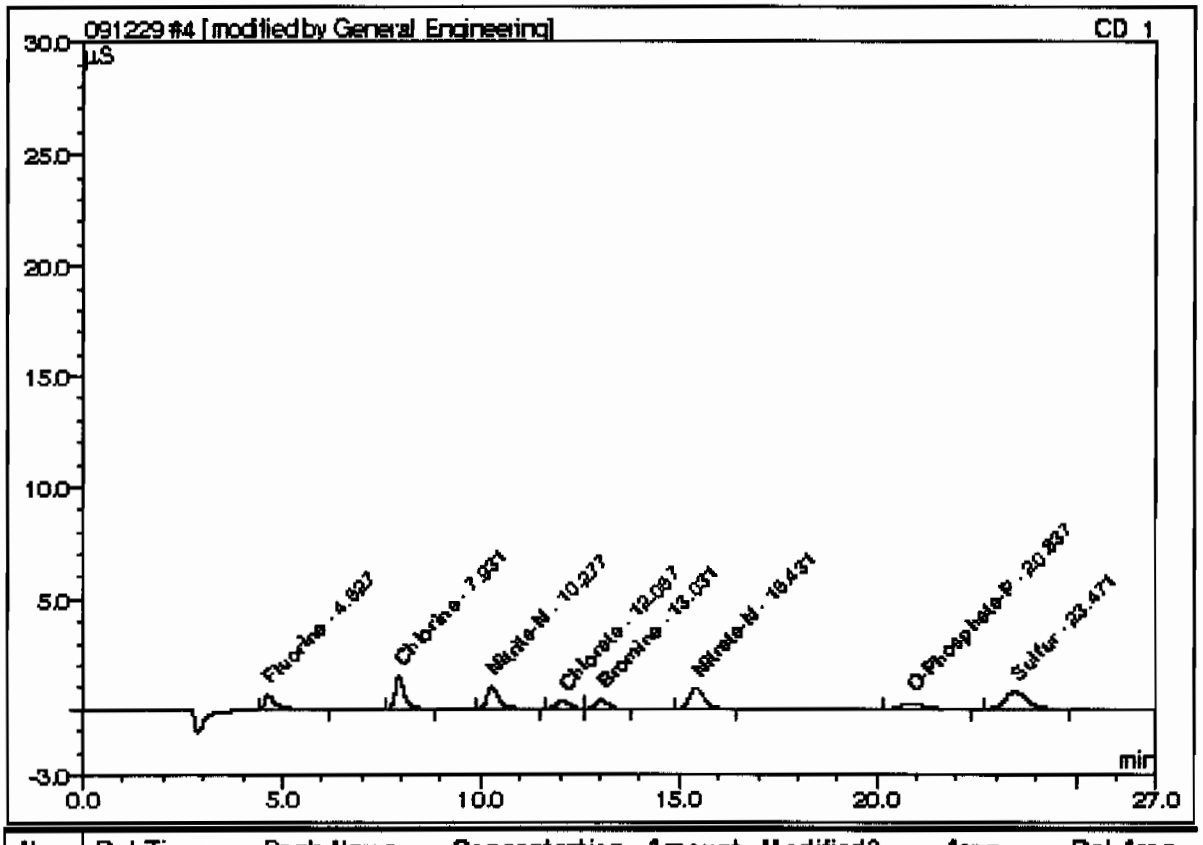

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluorine	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chlorine	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromine	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfur	0.6666	0.6819	*	0.51134	21.72
Total:				6.0576	0.000	2.355	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

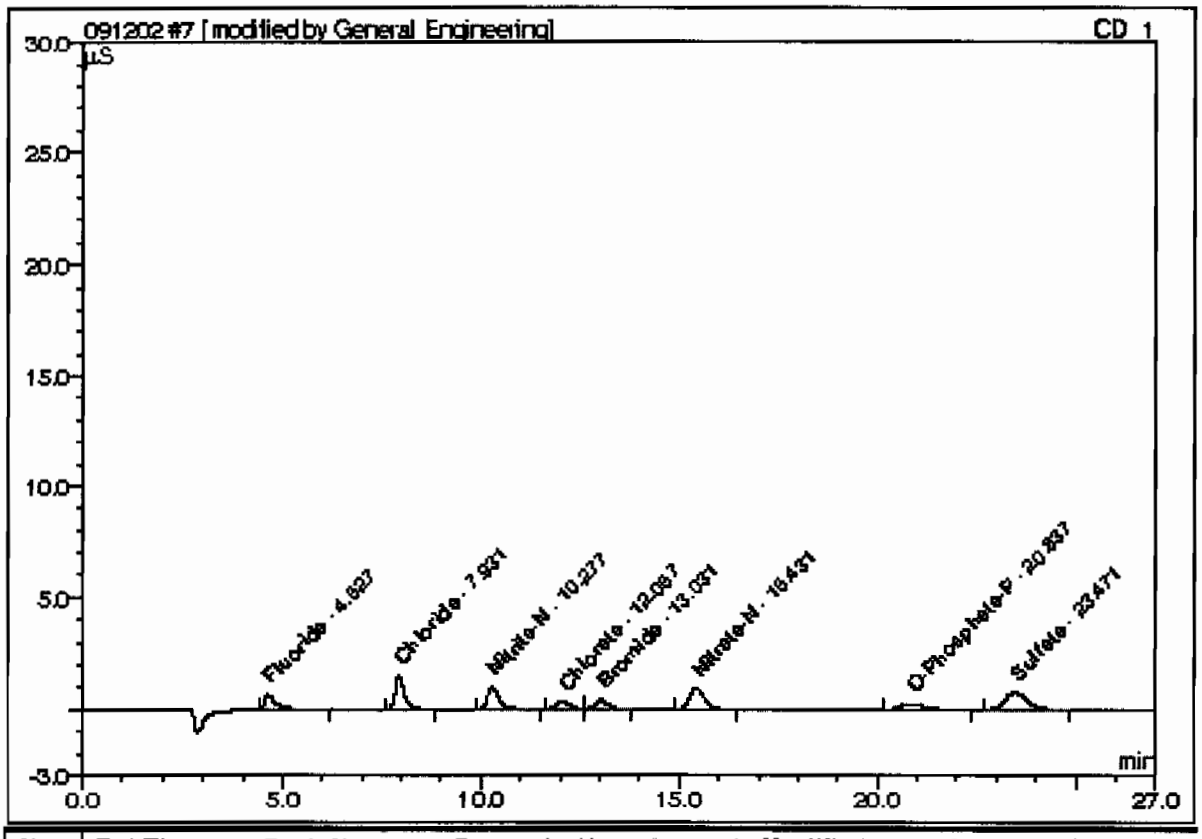

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	0.5000	0.4948	`	0.24155	10.26
2	7.93	Chloride	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	`	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9897		0.12846	5.46
5	13.03	Bromide	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	`	0.18192	7.73
8	23.47	Sulfate	2.0000	2.0458	`	0.51134	21.72
Total:				7.4215	0.000	2.355	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

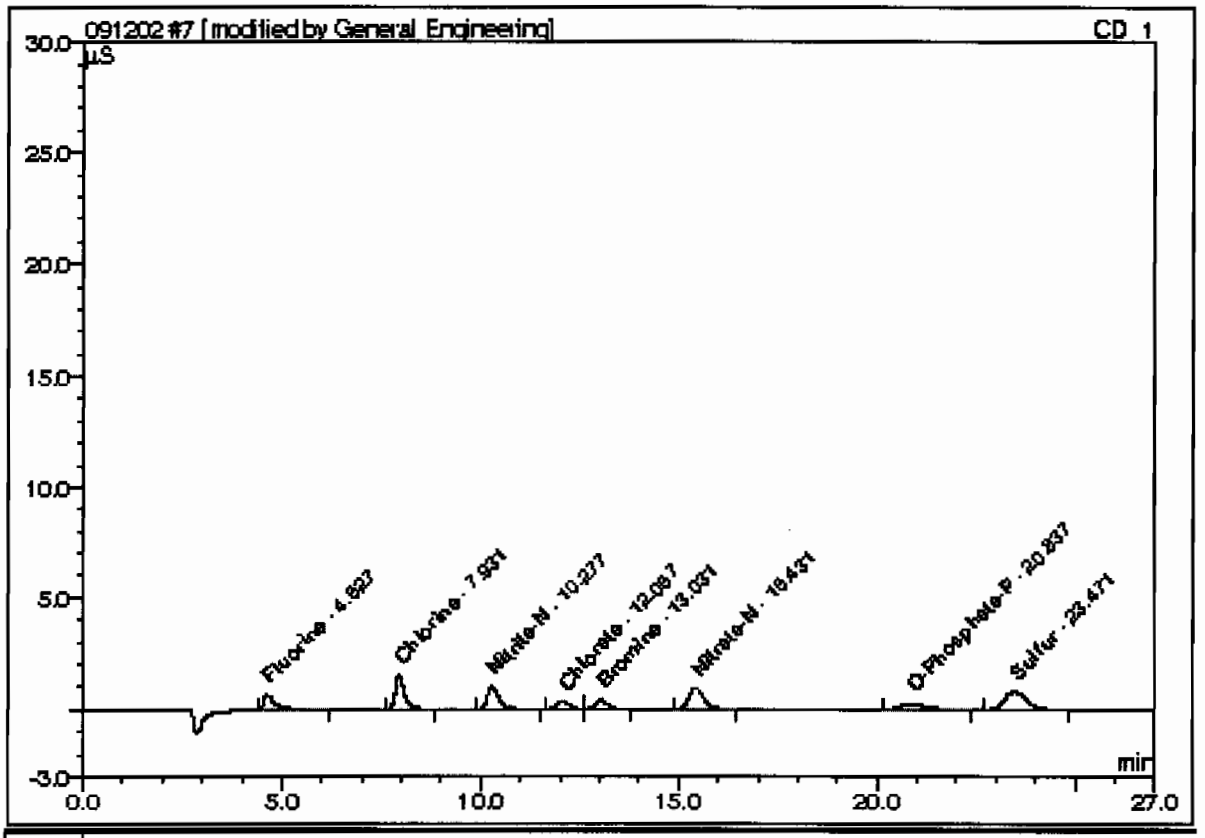

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluorine	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chlorine	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromine	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfur	0.6666	0.6819	*	0.51134	21.72
Total:				6.0576	0.000	2.355	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

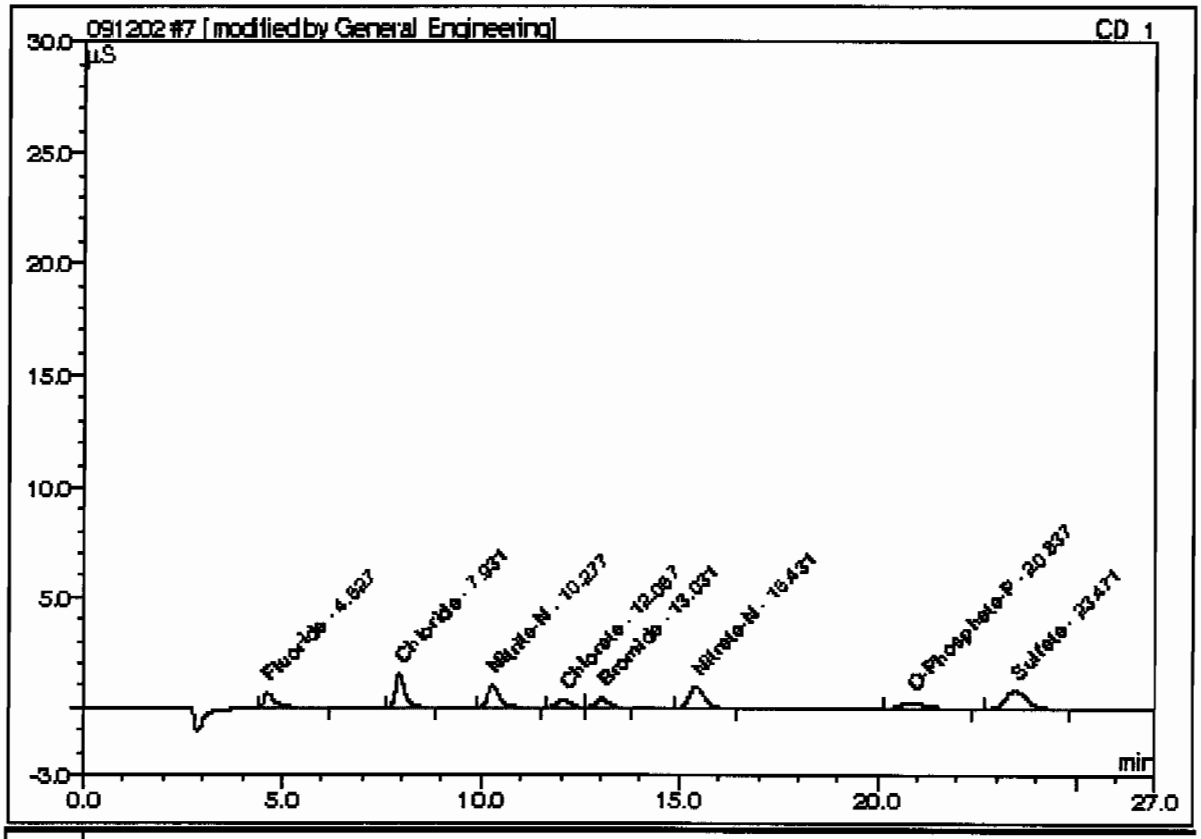

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chloride	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromide	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfate	2.0000	2.0458	*	0.51134	21.72
Total:				7.4215	0.000	2.355	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

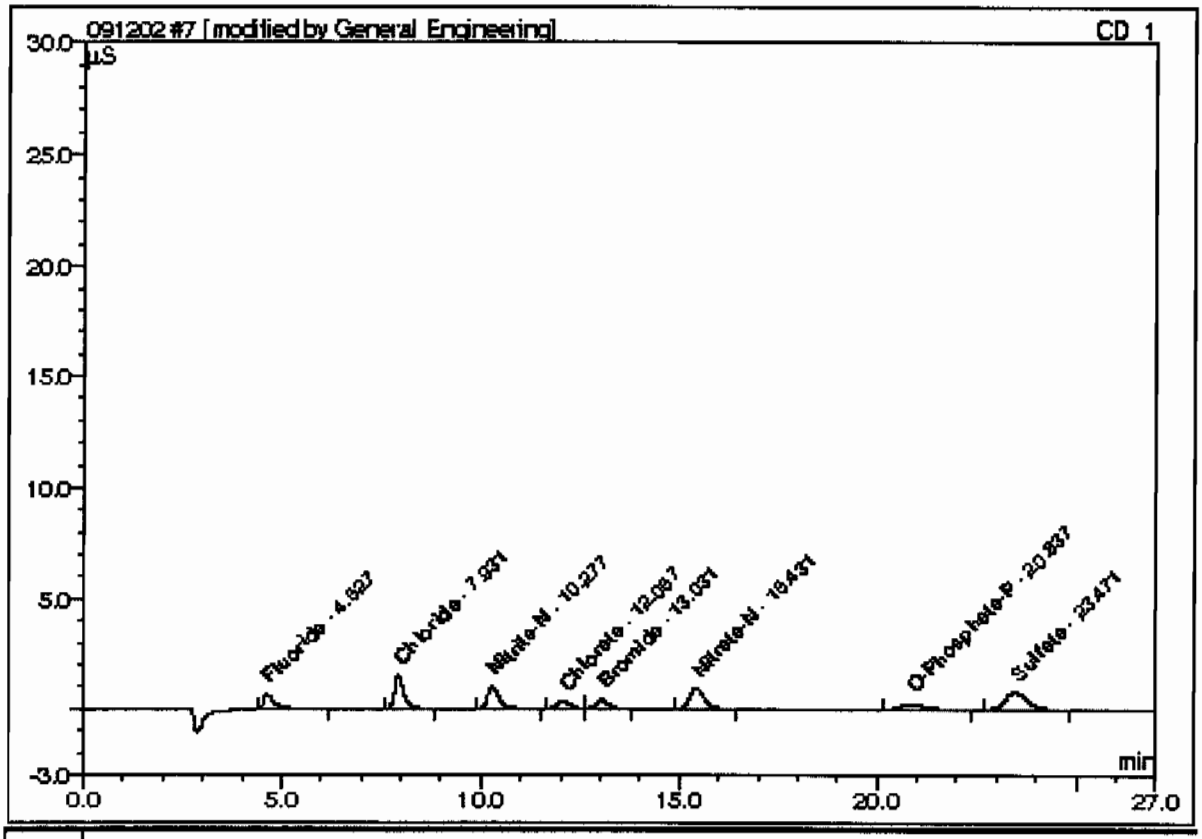

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chloride	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromide	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfate	2.0000	2.0458	*	0.51134	21.72
Total:				7.4215	0.000	2.355	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

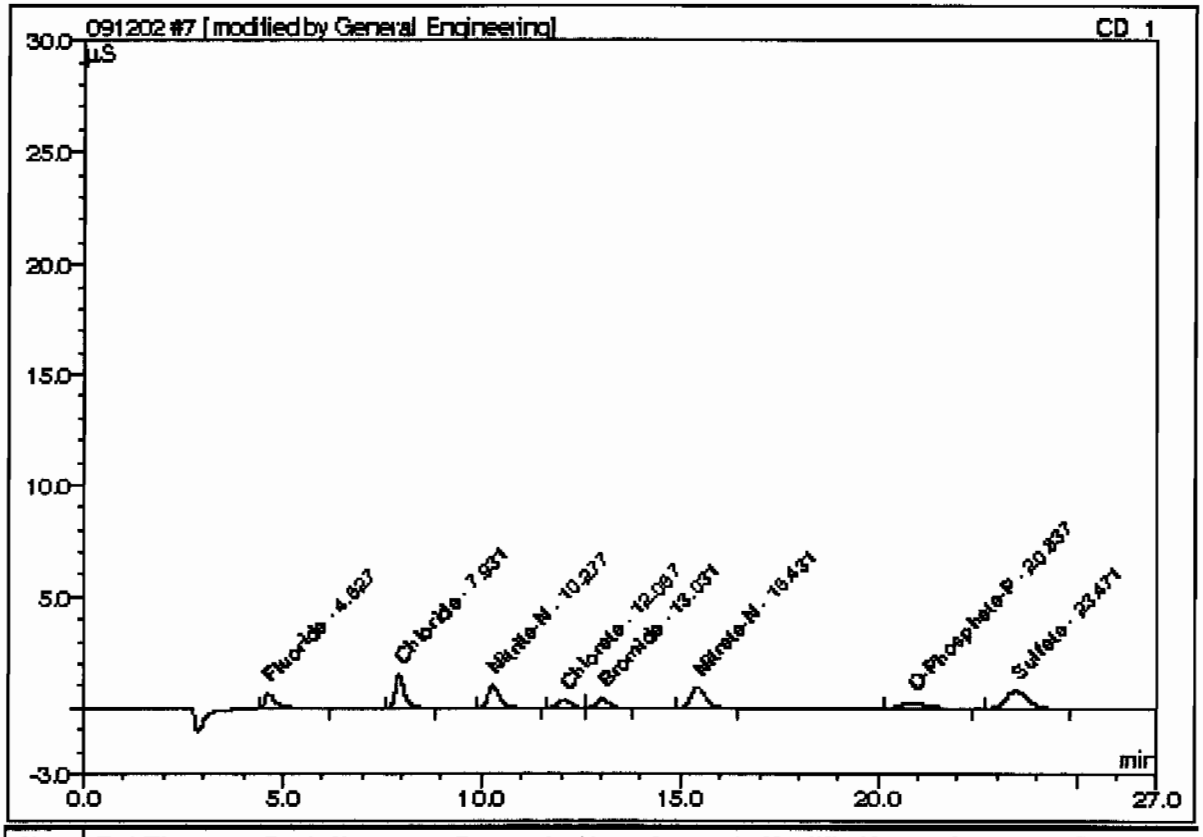

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chloride	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromide	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfate	2.0000	2.0458	*	0.51134	21.72
Total:				7.4215	0.000	2.355	100.00

12 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

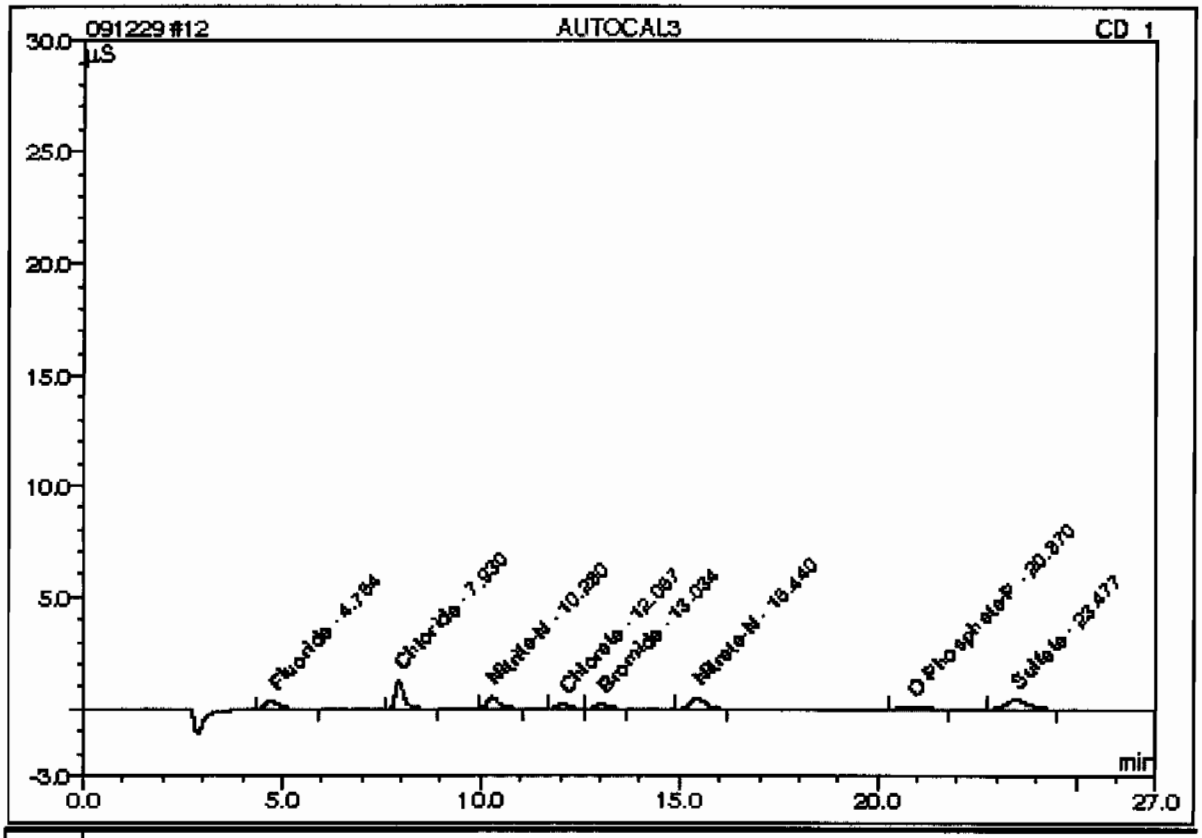

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluoride	0.2500	0.3529		0.16713	12.64
2	7.93	Chloride	0.5000	0.8672		0.33283	25.17
3	10.28	Nitrite-N	0.2500	0.2920		0.16336	12.35
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.79
5	13.03	Bromide	0.5000	0.4916		0.07093	5.36
6	15.44	Nitrate-N	0.2500	0.3094		0.20536	15.53
7	20.87	O-Phosphate-P	0.5000	0.4202		0.05708	4.32
8	23.48	Sulfate	1.0000	1.2280		0.26247	19.85
Total:				4.4590	0.000	1.322	100.00

5 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

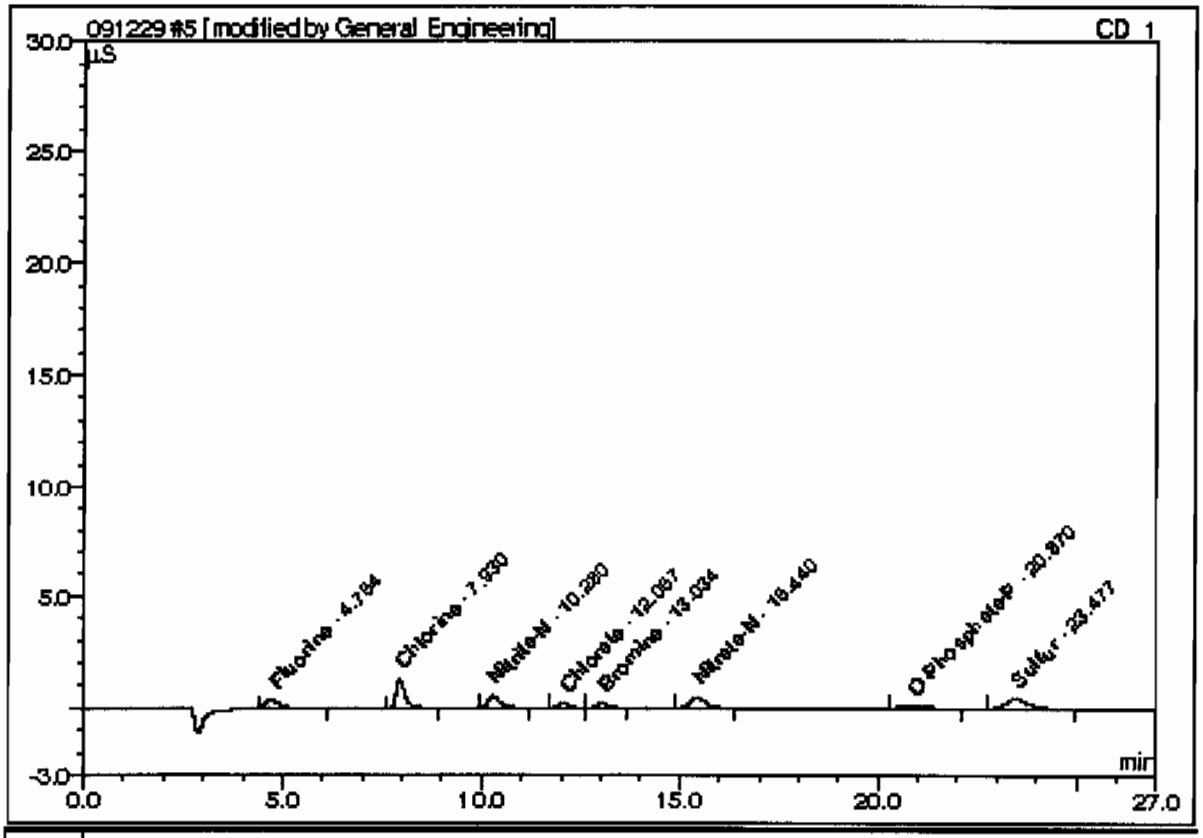

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluorine	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chlorine	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromine	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfur	0.3333	0.4118	*	0.27160	20.29
Total:				3.6484	0.000	1.338	100.00

5 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

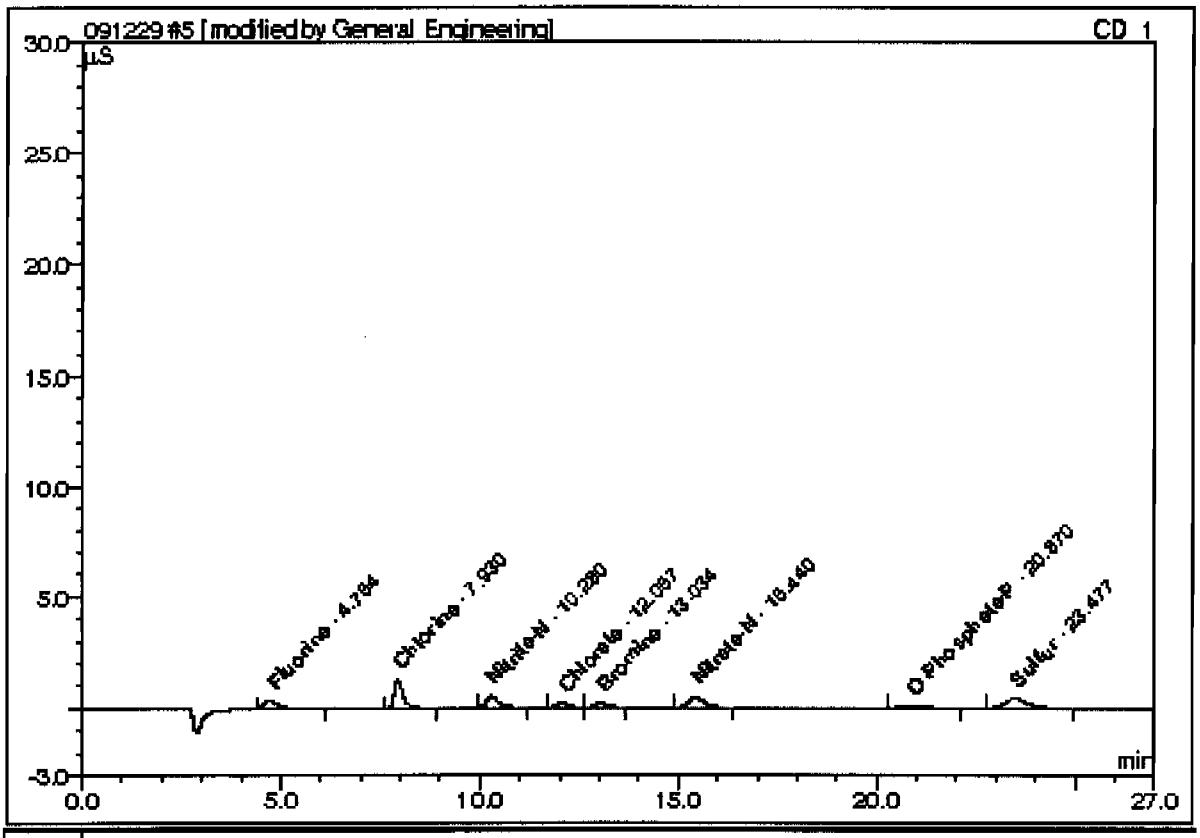

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluorine	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chlorine	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromine	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfur	0.3333	0.4118	*	0.27160	20.29
Total:				3.6484	0.000	1.338	100.00

5 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

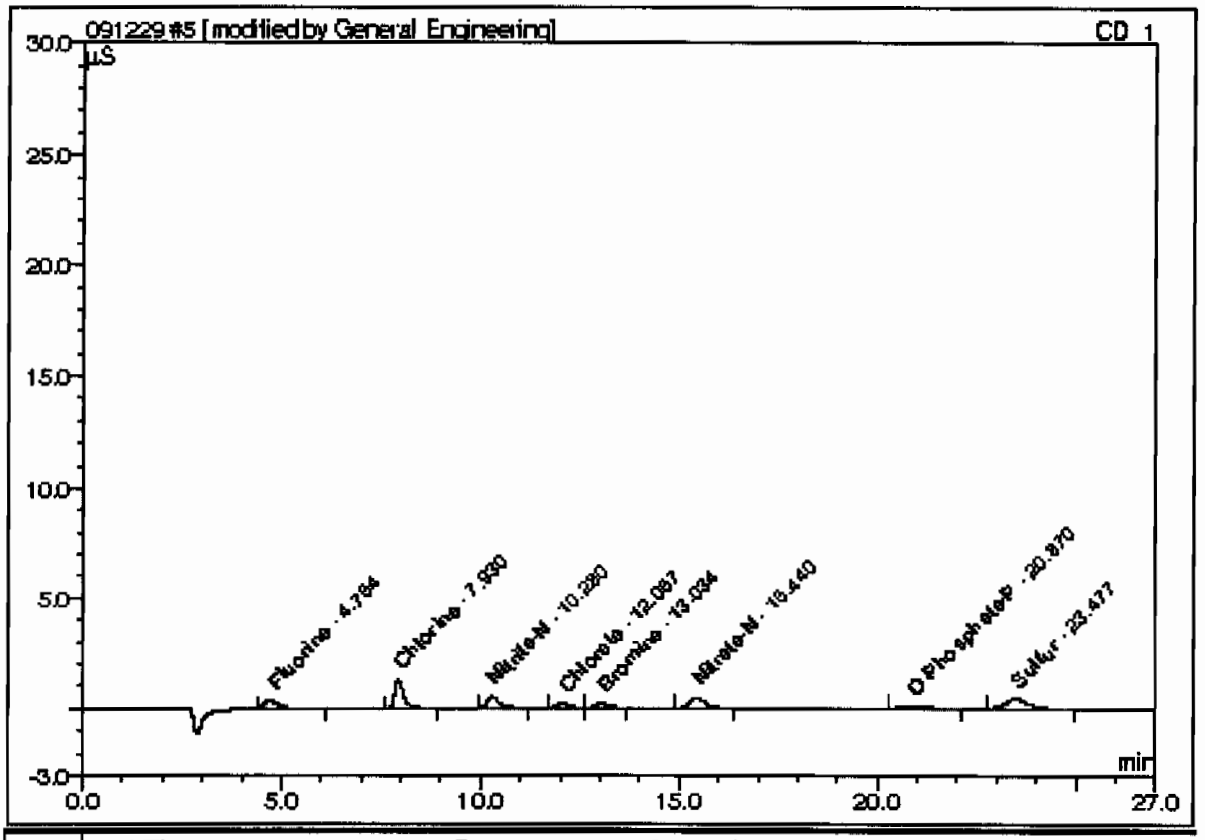

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluorine	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chlorine	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromine	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfur	0.3333	0.4118	*	0.27160	20.29
Total:				3.6484	0.000	1.338	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

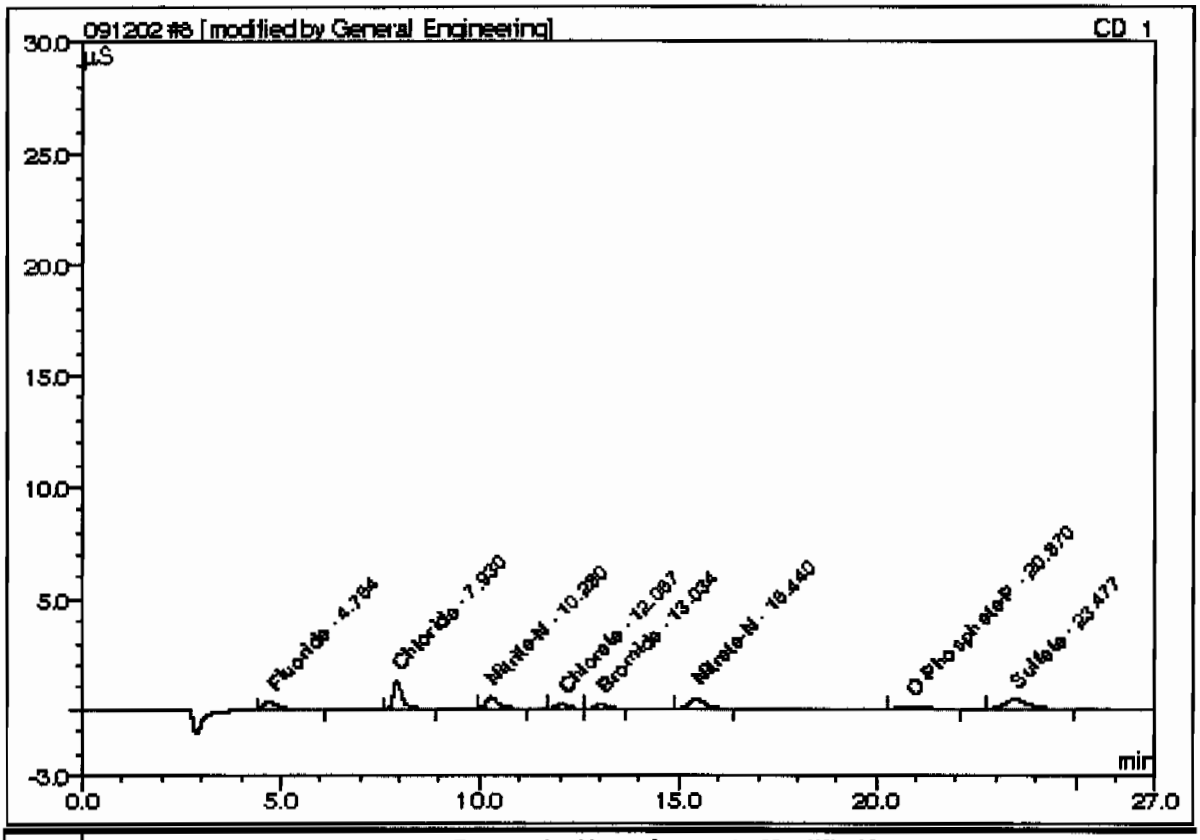

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluoride	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chloride	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromide	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfate	1.0000	1.2356	*	0.27160	20.29
Total:				4.4722	0.000	1.338	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

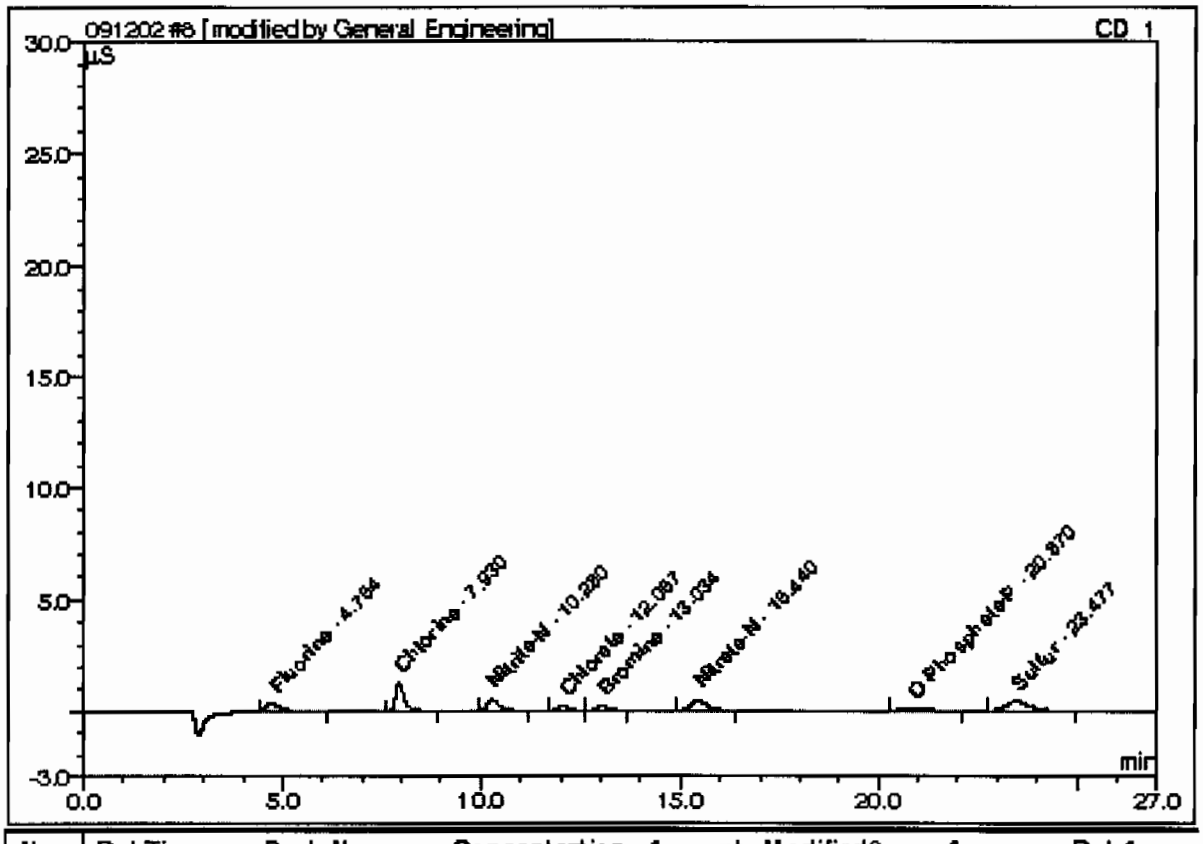

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluorine	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chlorine	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromine	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfur	0.3333	0.4118	*	0.27160	20.29
Total:				3.6484	0.000	1.338	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

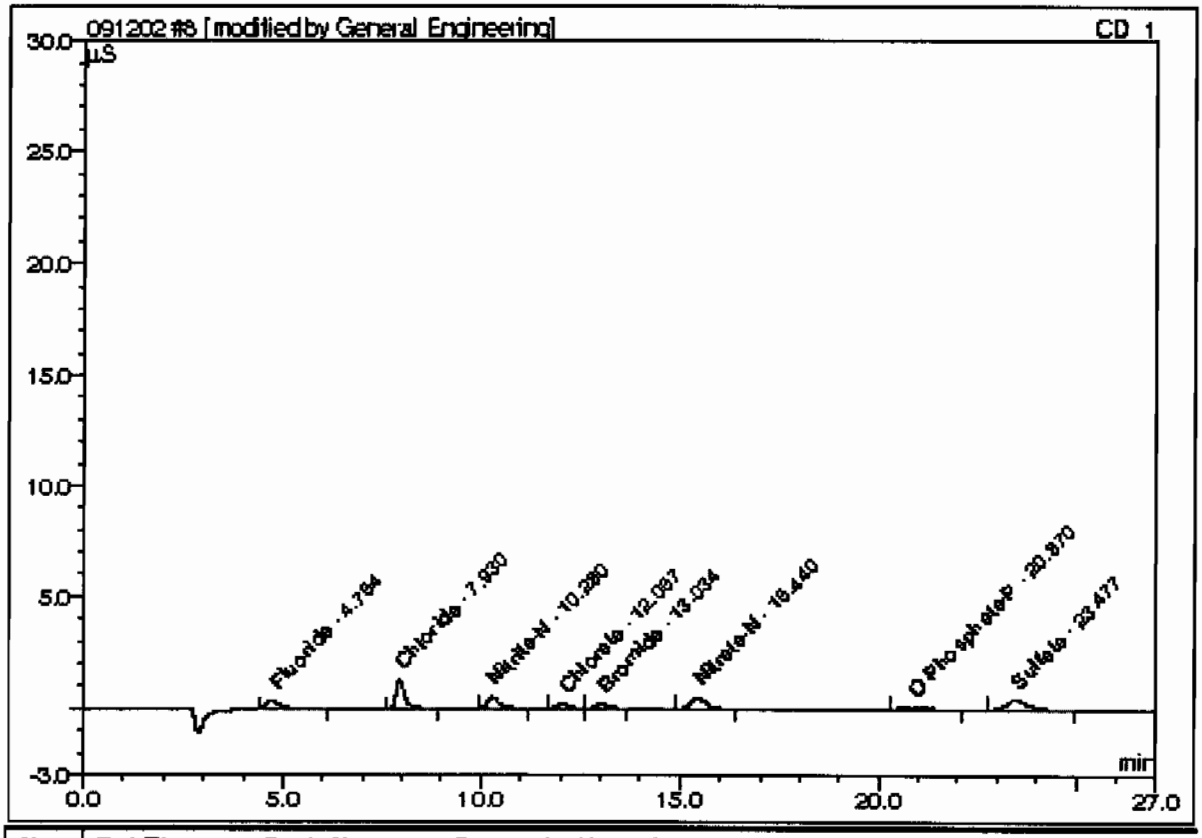

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluoride	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chloride	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromide	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfate	1.0000	1.2356	*	0.27160	20.29
Total:				4.4722	0.000	1.338	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

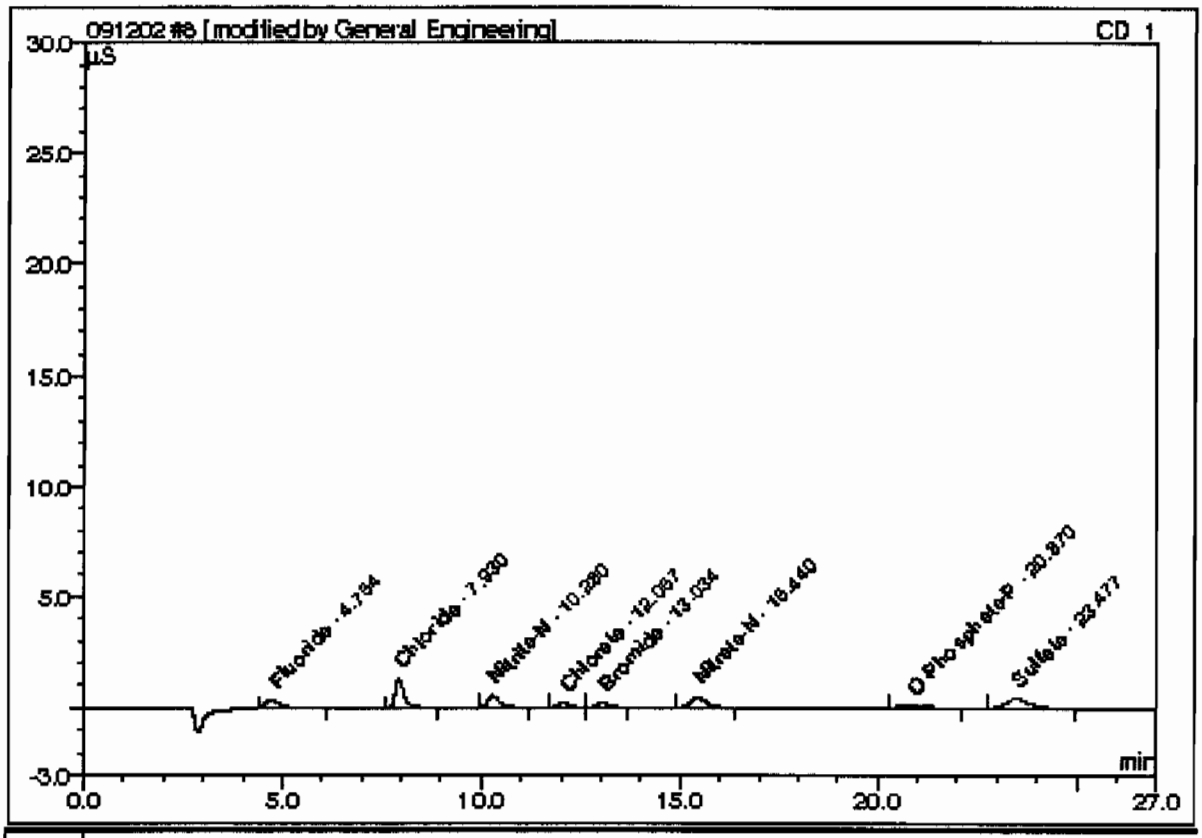

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluoride	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chloride	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromide	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfate	1.0000	1.2356	*	0.27160	20.29
Total:				4.4722	0.000	1.338	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

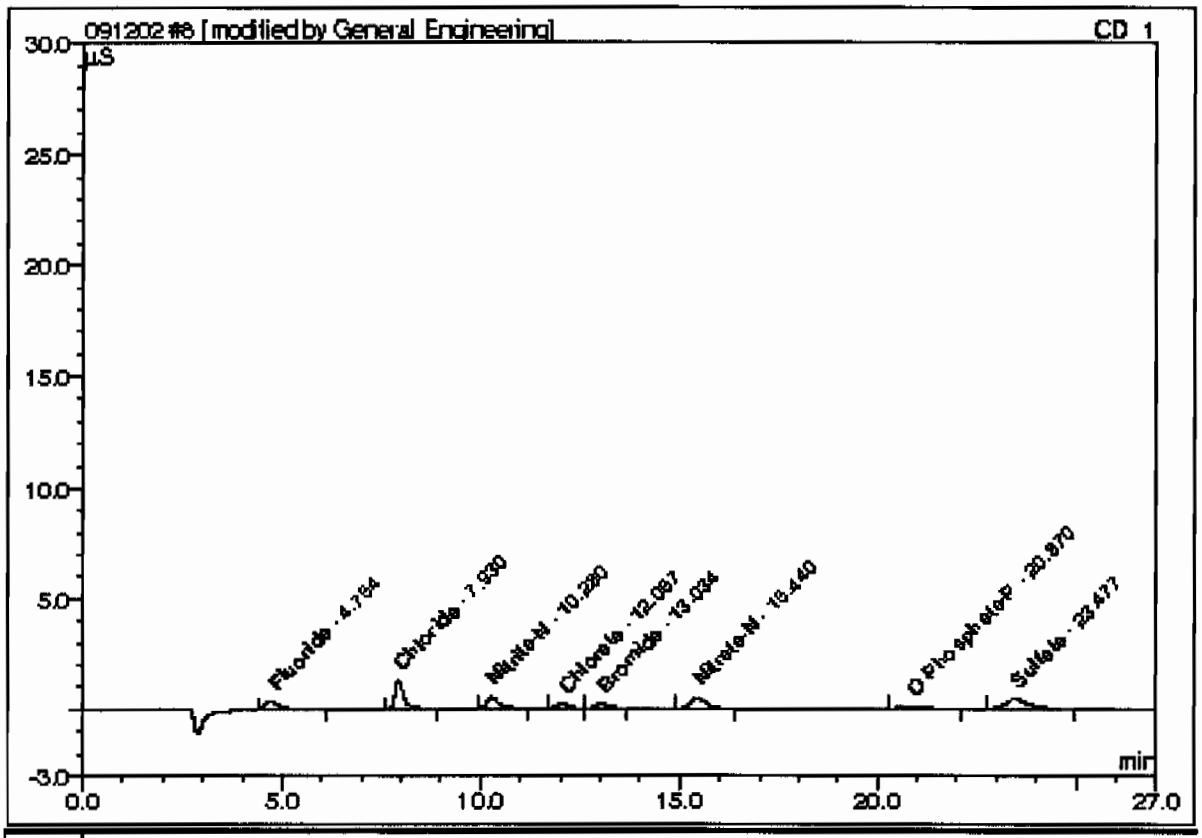

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluoride	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chloride	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromide	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfate	1.0000	1.2356	*	0.27160	20.29
Total:				4.4722	0.000	1.338	100.00

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

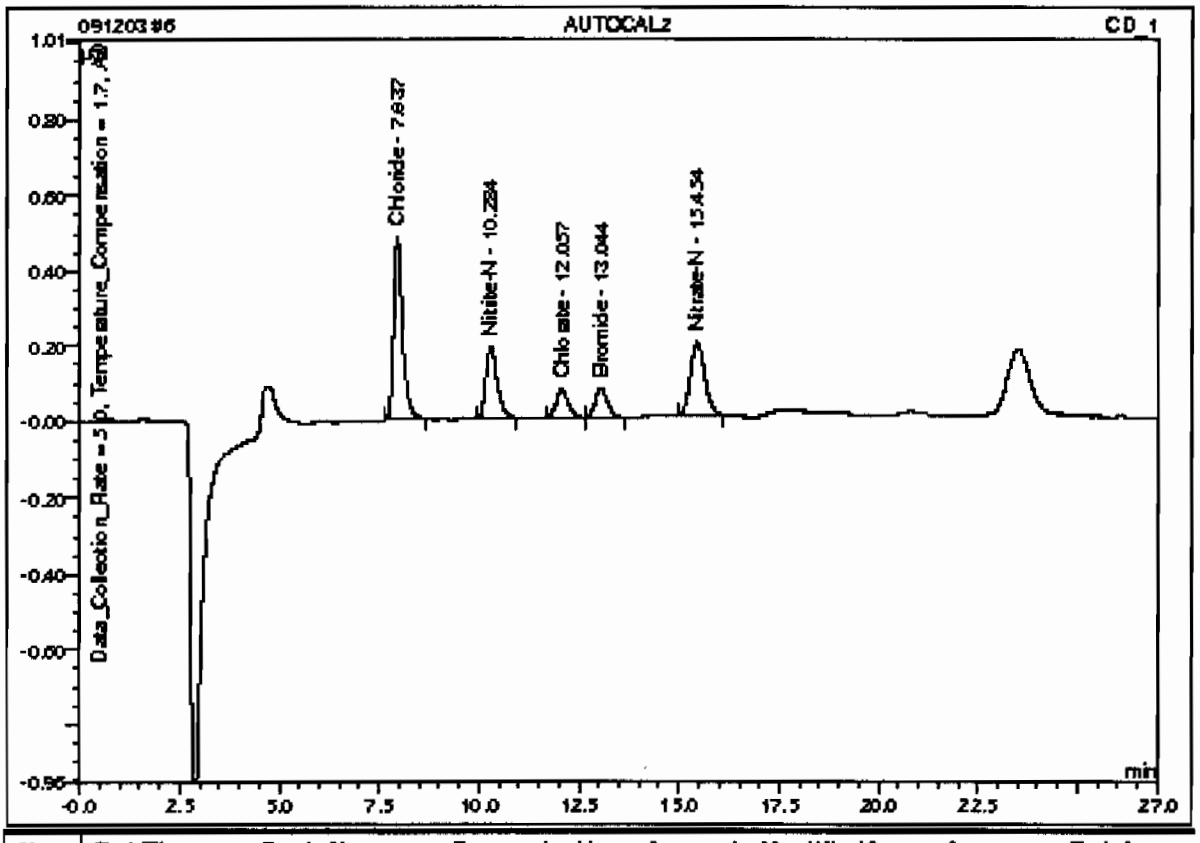

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	0.1000	n.a.	n.a.	n.a.	n.a.
1	7.94	Chloride	0.2000	0.3743		0.12619	39.29
2	10.28	Nitrite-N	0.1000	0.1640		0.06188	19.26
3	12.06	Chlorate	0.2000	0.2270		0.02599	8.09
4	13.04	Bromide	0.2000	0.2098		0.02783	8.66
5	15.45	Nitrate-N	0.1000	0.1829		0.07931	24.69
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.4000	n.a.	n.a.	n.a.	n.a.
Total:				1.1579	0.000	0.321	100.00

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

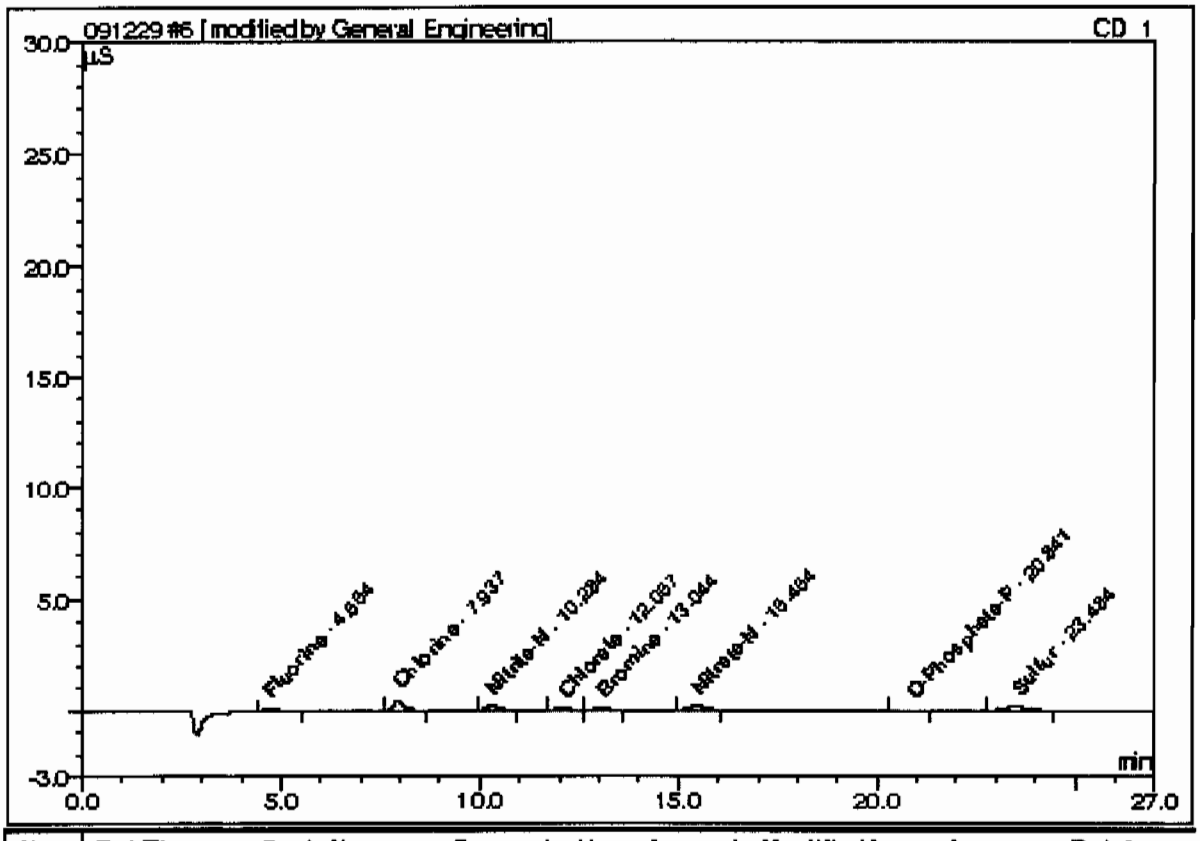

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chlorine	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromine	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfur	0.1333	0.2281	*	0.10850	22.16
Total:				1.7389	0.000	0.490	100.00

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

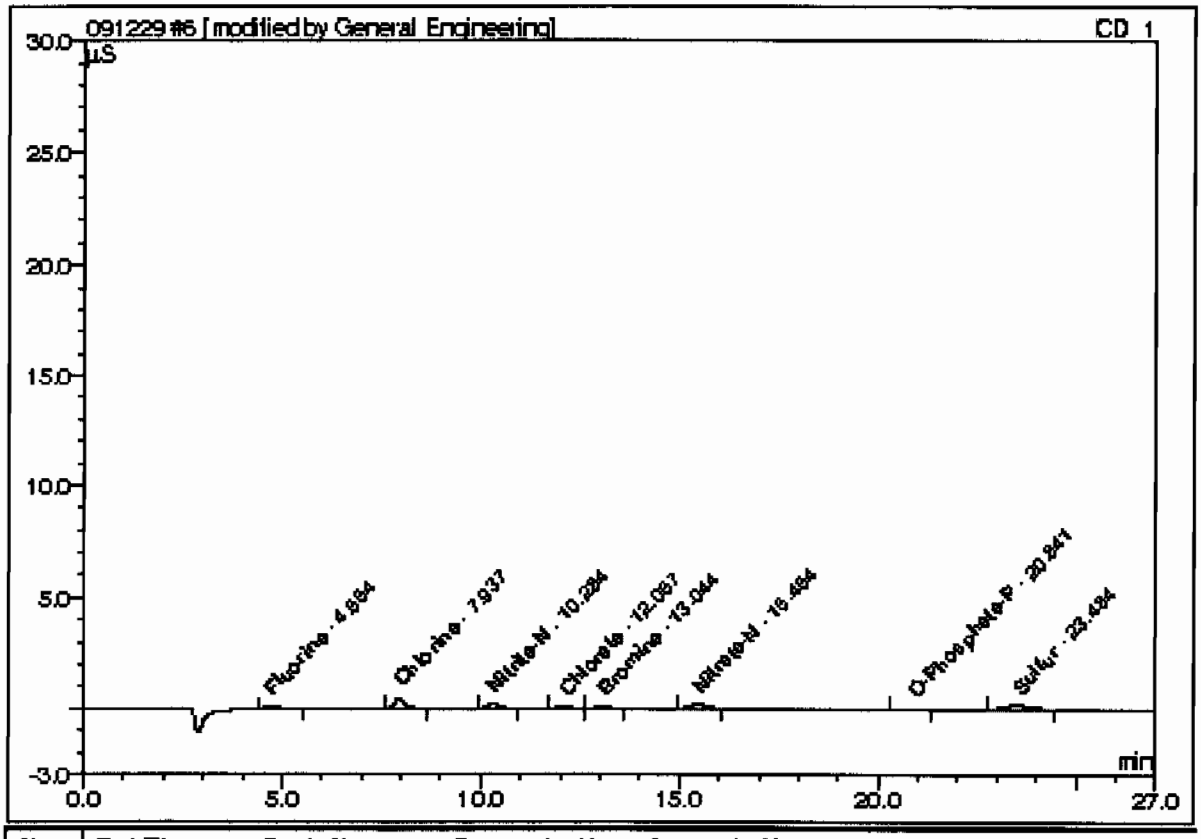

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chlorine	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromine	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfur	0.1333	0.2281	*	0.10850	22.16
Total:				1.7389	0.000	0.490	100.00

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

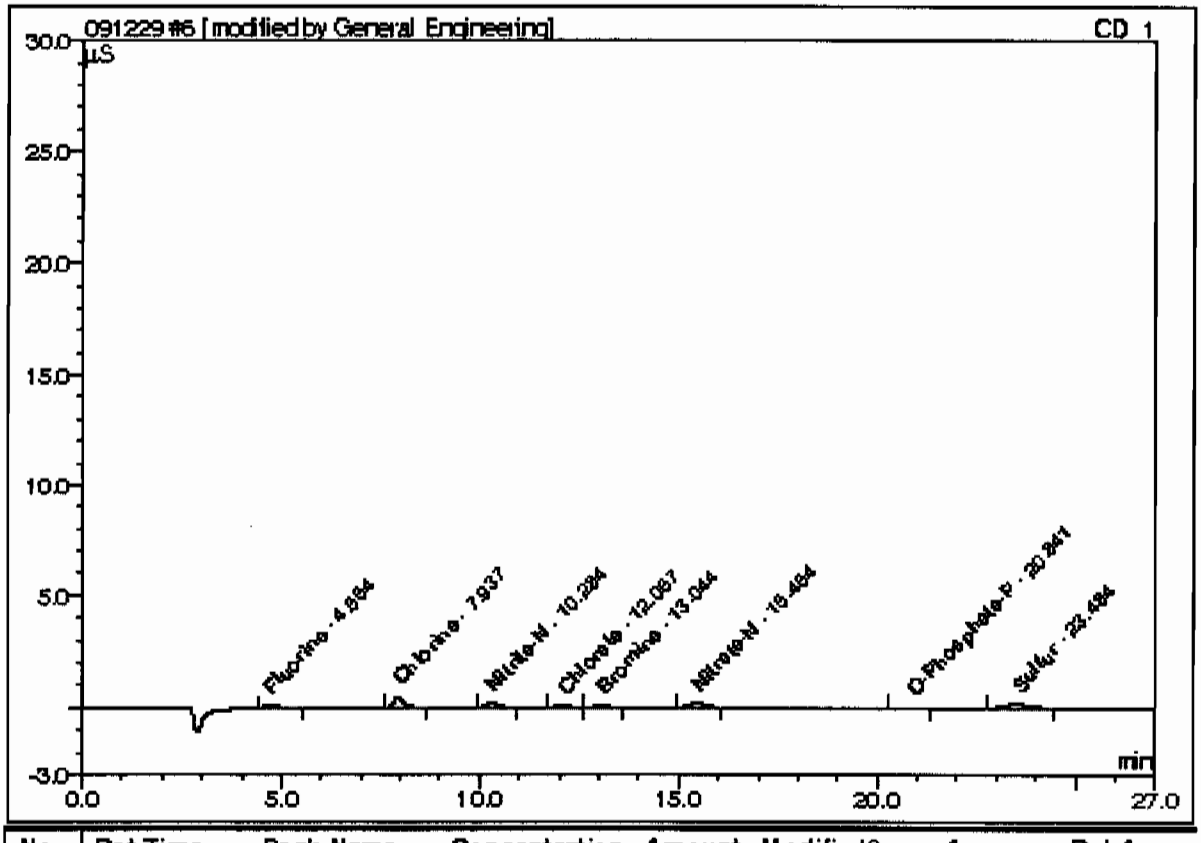

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chlorine	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromine	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1632		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfur	0.1333	0.2281	*	0.10850	22.16
Total:				1.7389	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

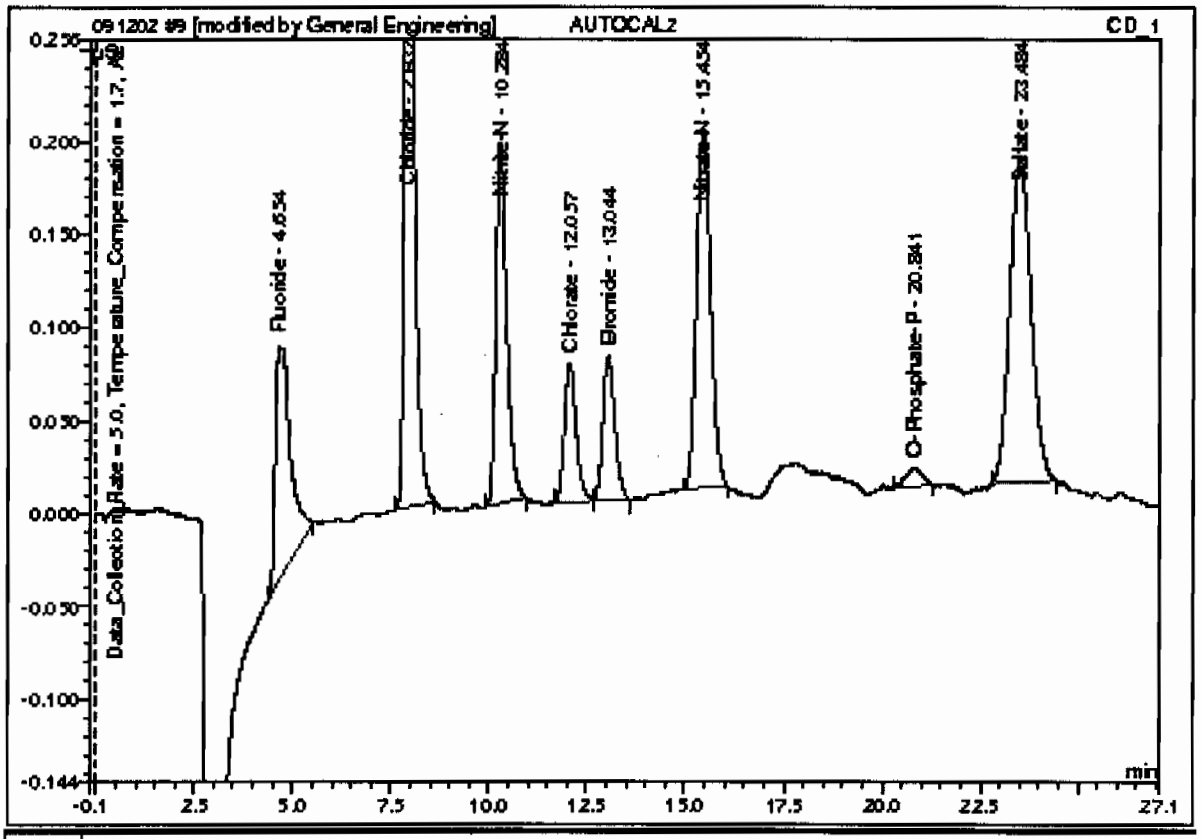

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

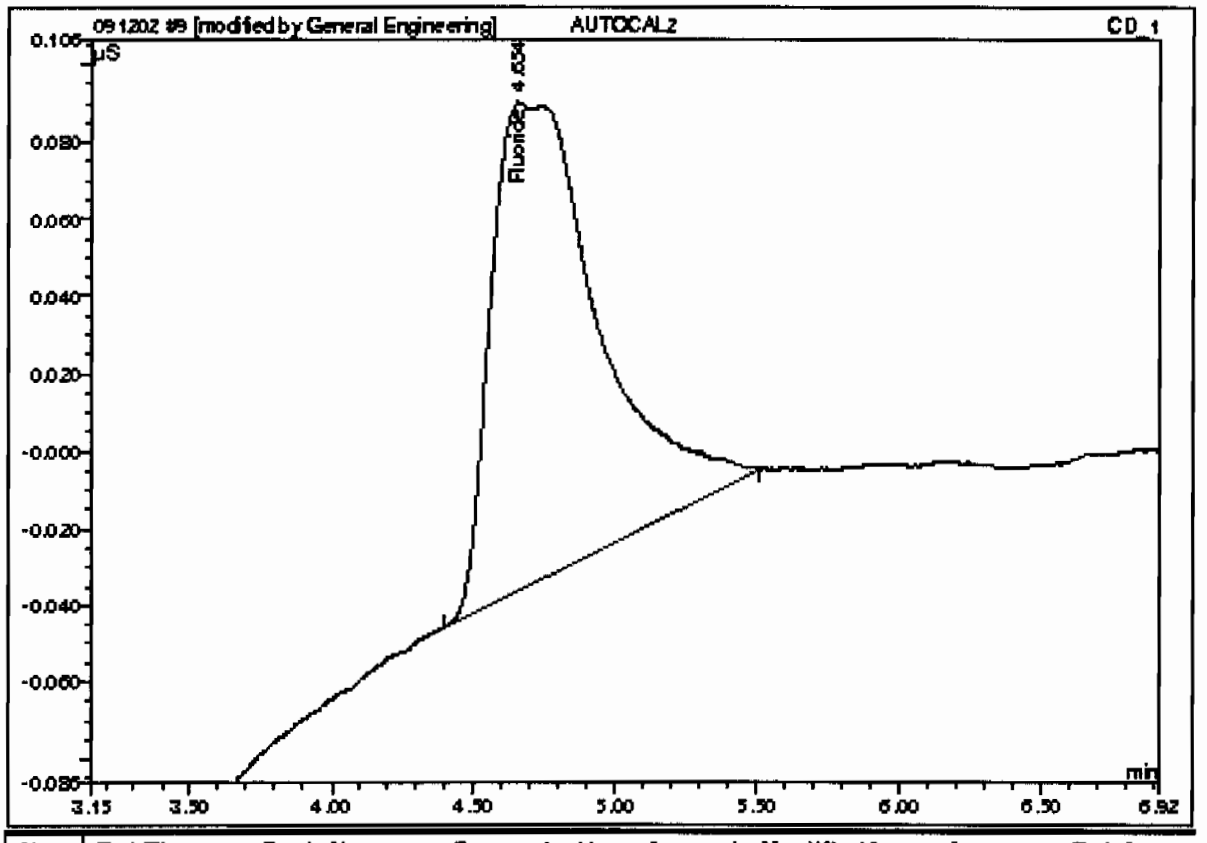

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

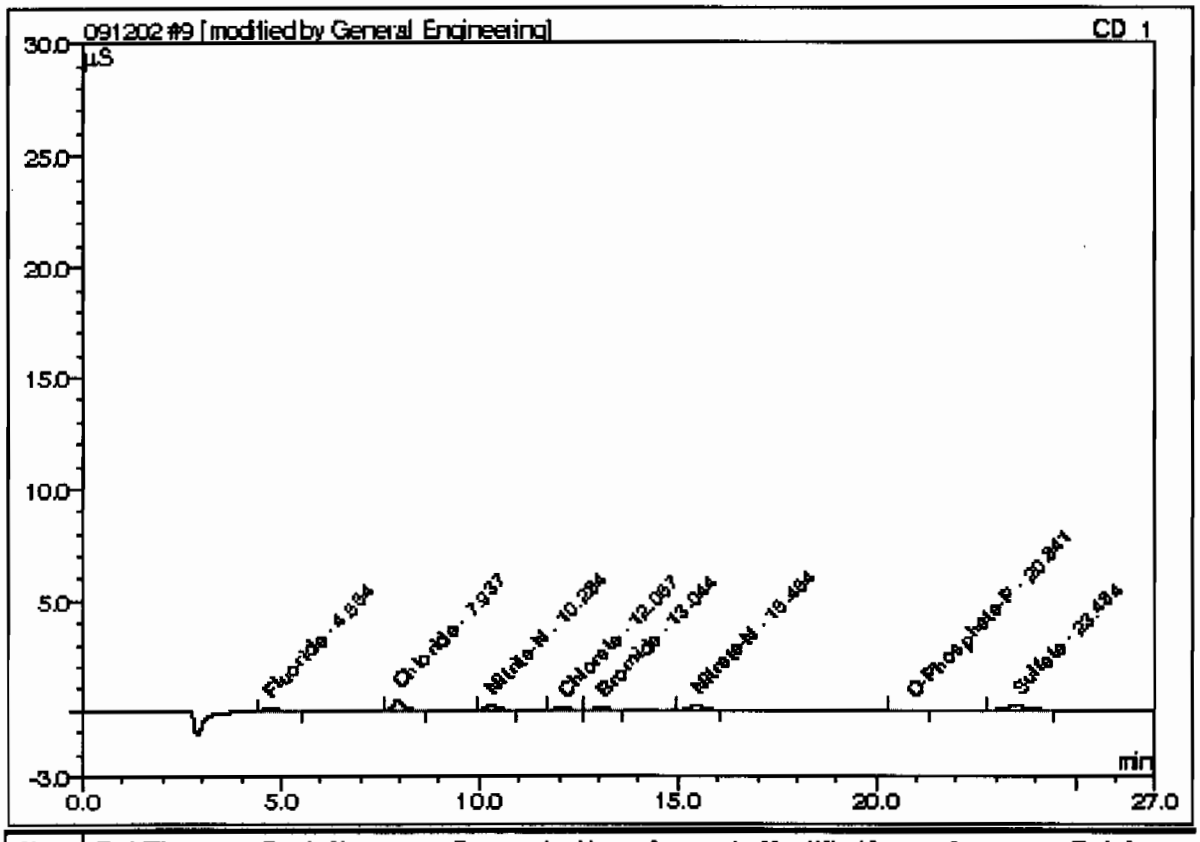

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

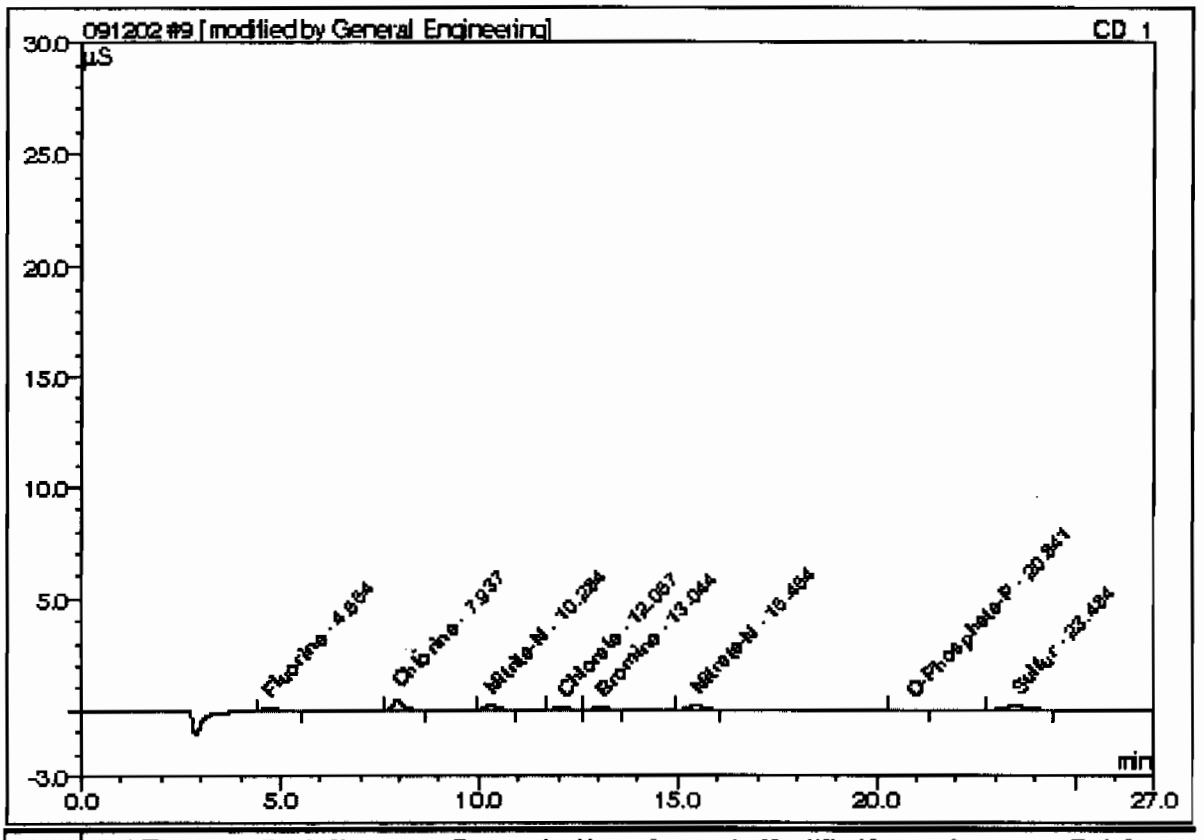

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chlorine	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromine	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfur	0.1333	0.2281	*	0.10850	22.16
Total:				1.7389	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

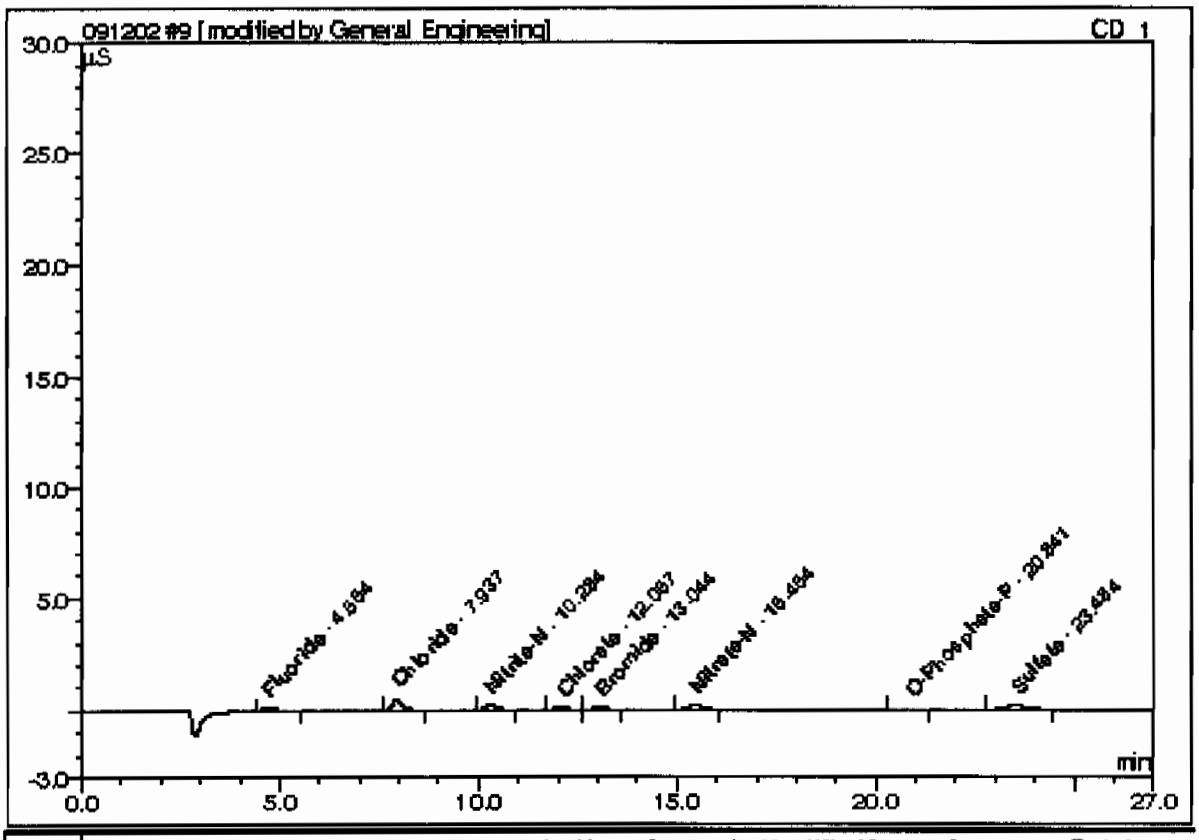

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

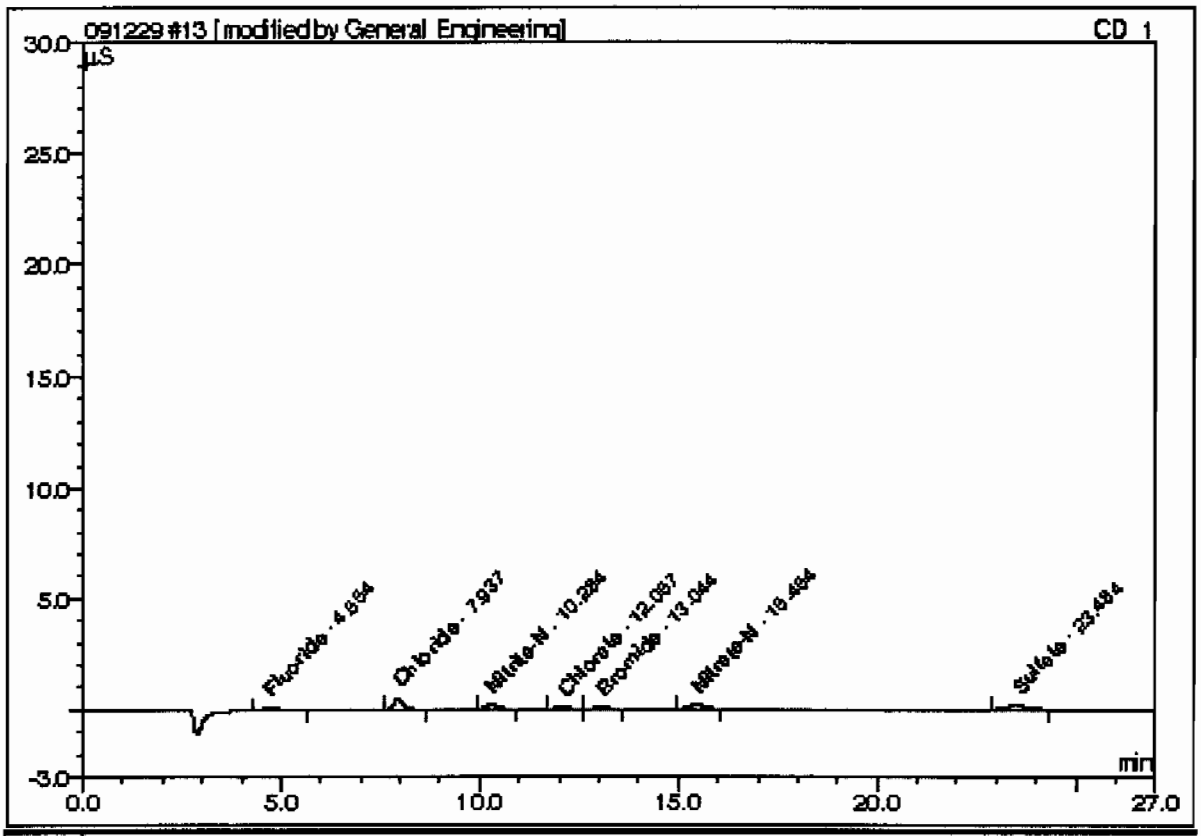

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1490	*	0.05925	12.21
2	7.94	Chloride	0.2000	0.3743		0.12619	26.01
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	12.75
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.36
5	13.04	Bromide	0.2000	0.2098		0.02783	5.73
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	16.34
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
7	23.48	Sulfate	0.4000	0.6952	*	0.10479	21.60
Total:				2.0022	0.000	0.485	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

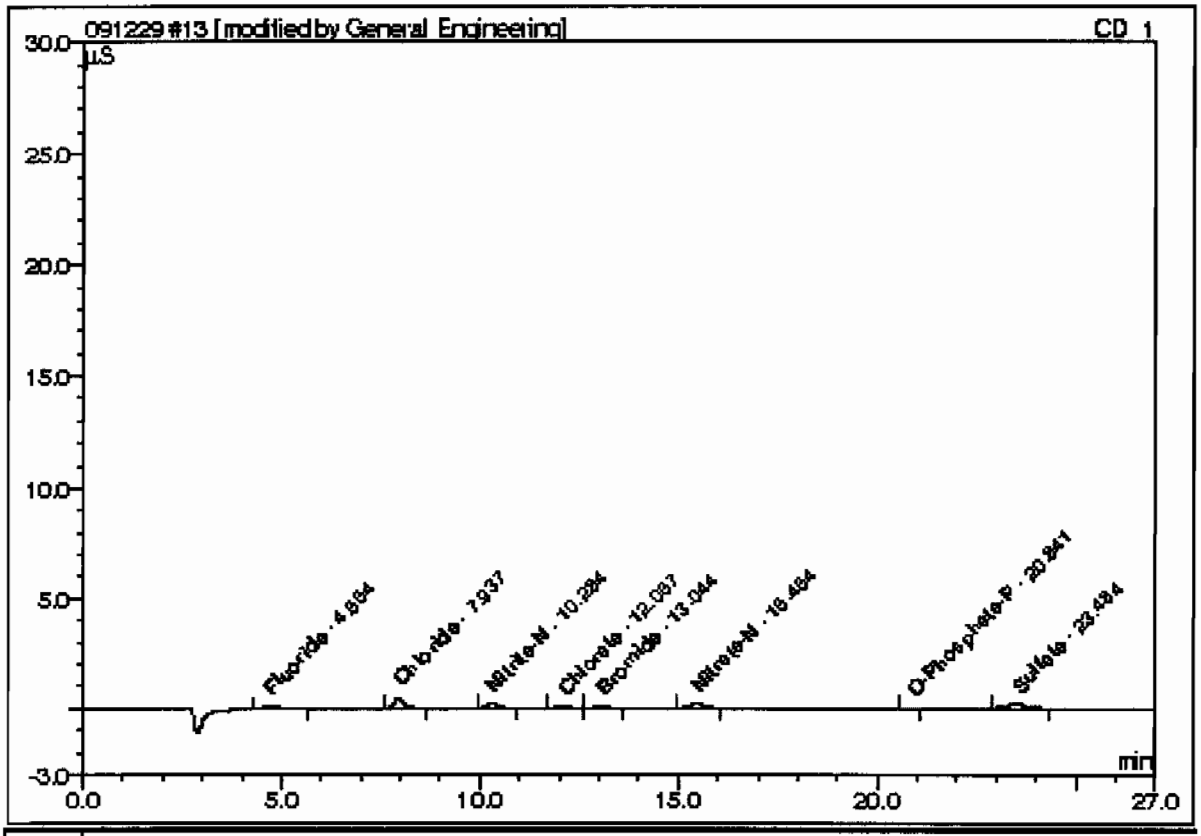

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1490	*	0.05925	12.18
2	7.94	Chloride	0.2000	0.3743		0.12619	25.93
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	12.72
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.34
5	13.04	Bromide	0.2000	0.2098		0.02783	5.72
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	16.30
7	20.84	O-Phosphate-P	0.2000	0.2053	*	0.00133	0.27
8	23.48	Sulfate	0.4000	0.6952	*	0.10479	21.54
Total:				2.2075	0.000	0.487	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091221b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

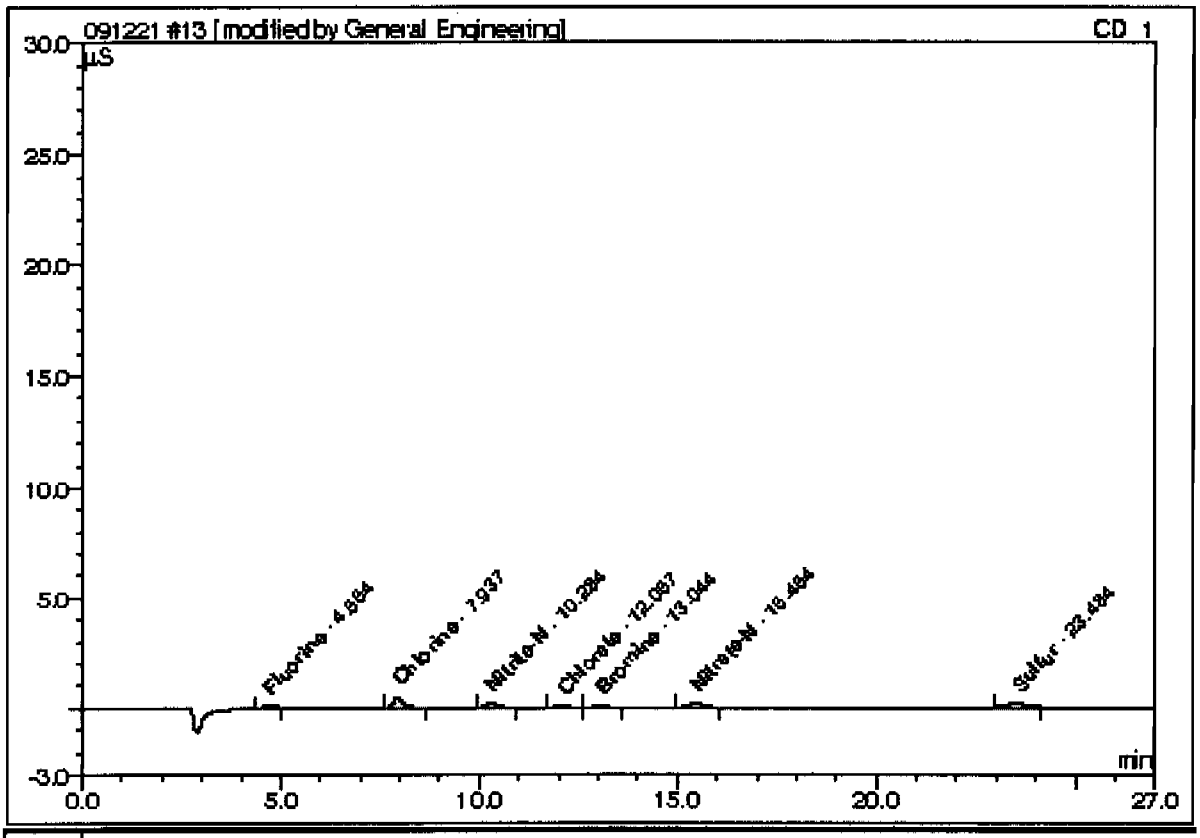

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1094	*	0.03286	7.37
2	7.94	Chlorine	0.2000	0.3743		0.12619	28.31
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.88
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.83
5	13.04	Bromine	0.2000	0.2098		0.02783	6.24
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.79
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
7	23.48	Sulfur	0.1333	0.5100	*	0.09173	20.58
Total:				1.7773	0.000	0.446	100.00

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

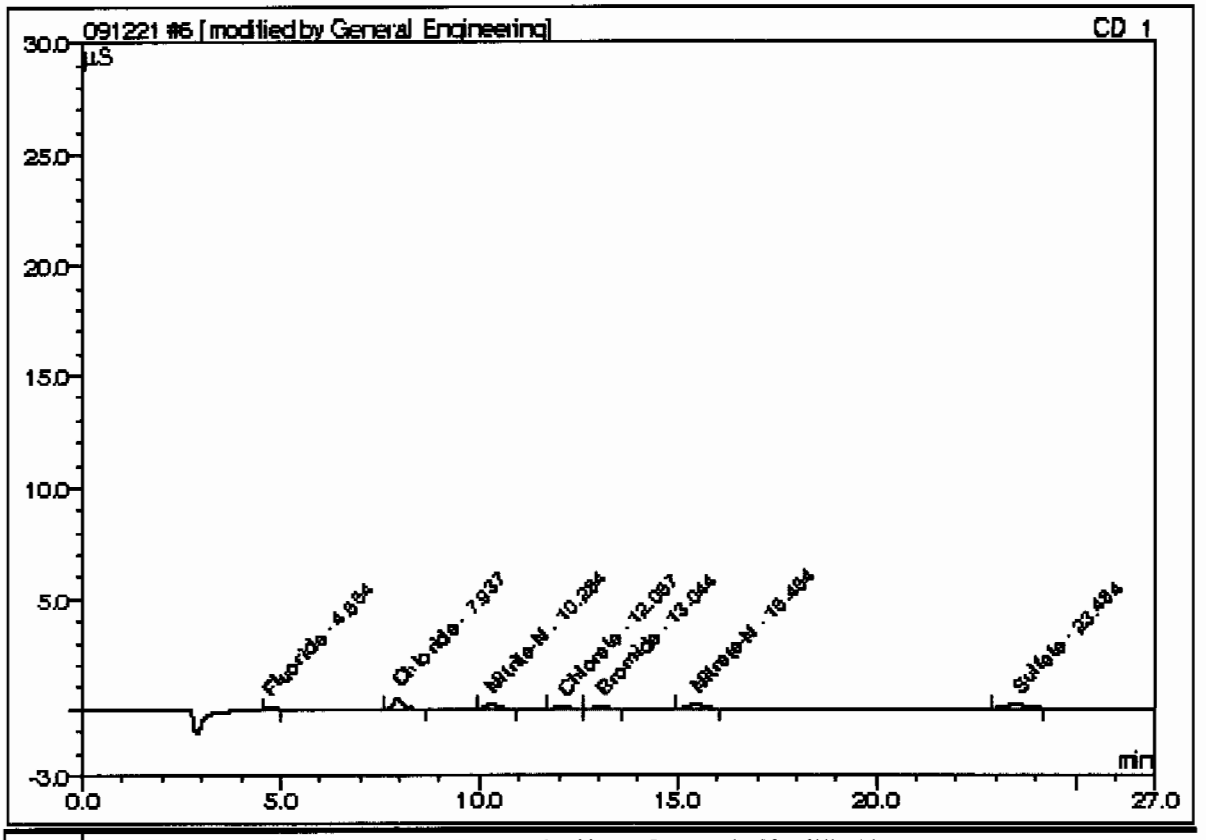

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.0989	*	0.02568	5.82
2	7.94	Chloride	0.2000	0.3743		0.12619	28.38
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.91
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.85
5	13.04	Bromide	0.2000	0.2098		0.02783	6.26
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.83
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
7	23.48	Sulfate	0.4000	0.6760	*	0.09764	21.96
Total:				1.9328	0.000	0.445	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

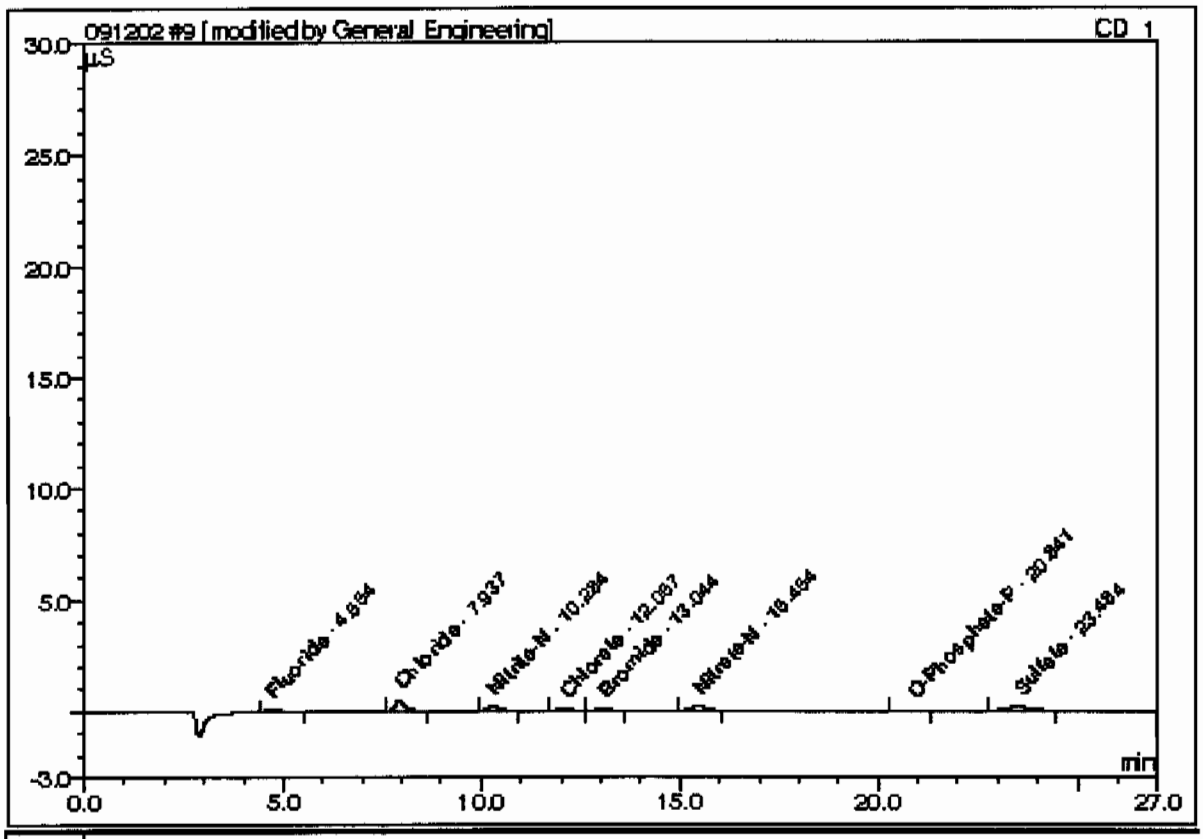

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

74 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

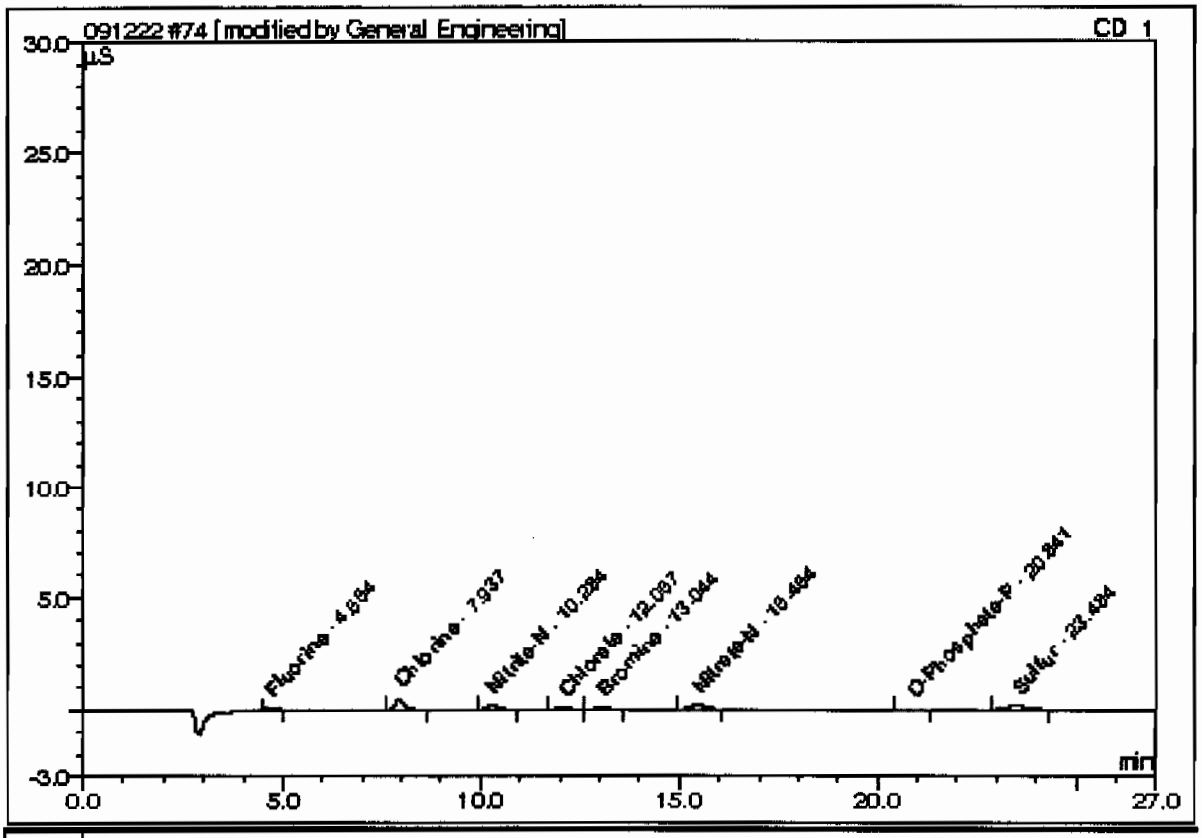

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1034	*	0.02890	6.30
2	7.94	Chlorine	0.2000	0.3743		0.12619	27.50
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.48
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.66
5	13.04	Bromine	0.2000	0.2098		0.02783	6.06
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.28
7	20.84	O-Phosphate-P	0.2000	0.2135	*	0.00418	0.91
8	23.48	Sulfur	0.1333	0.6513	*	0.10462	22.80
Total:				2.1262	0.000	0.459	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

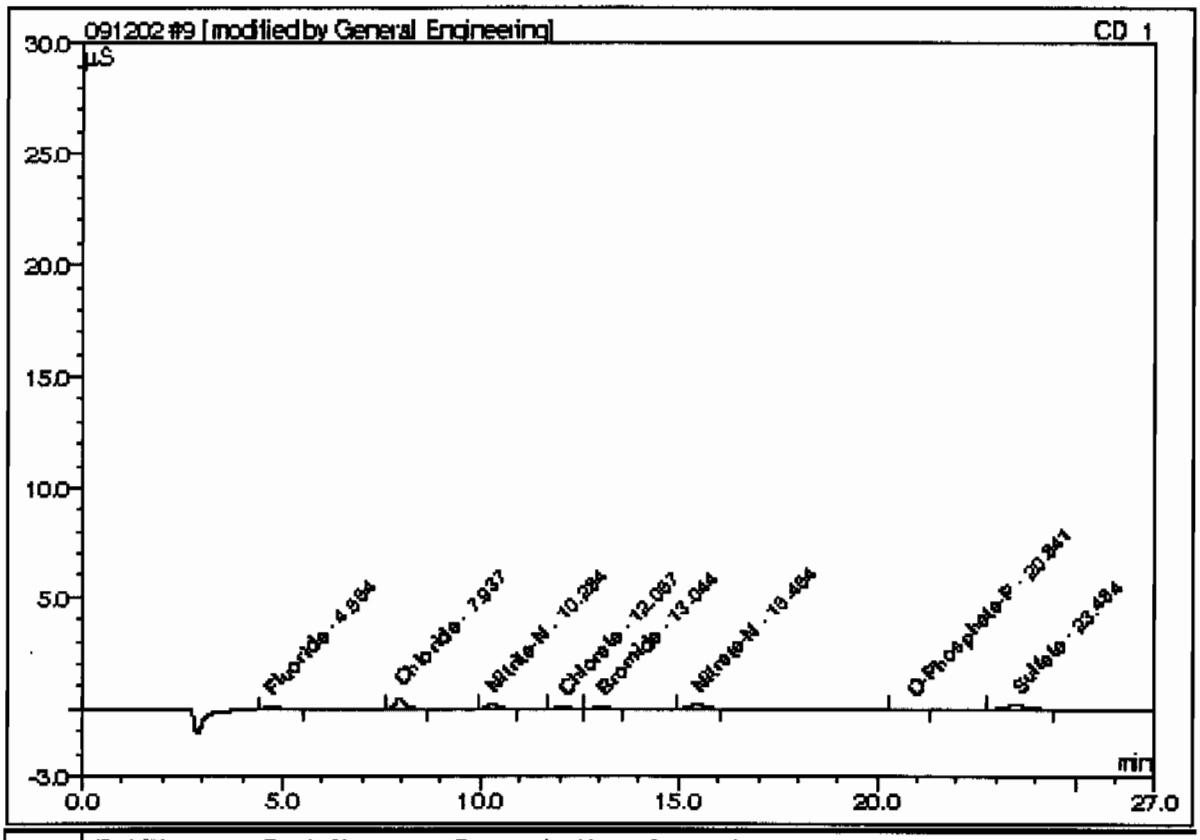

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

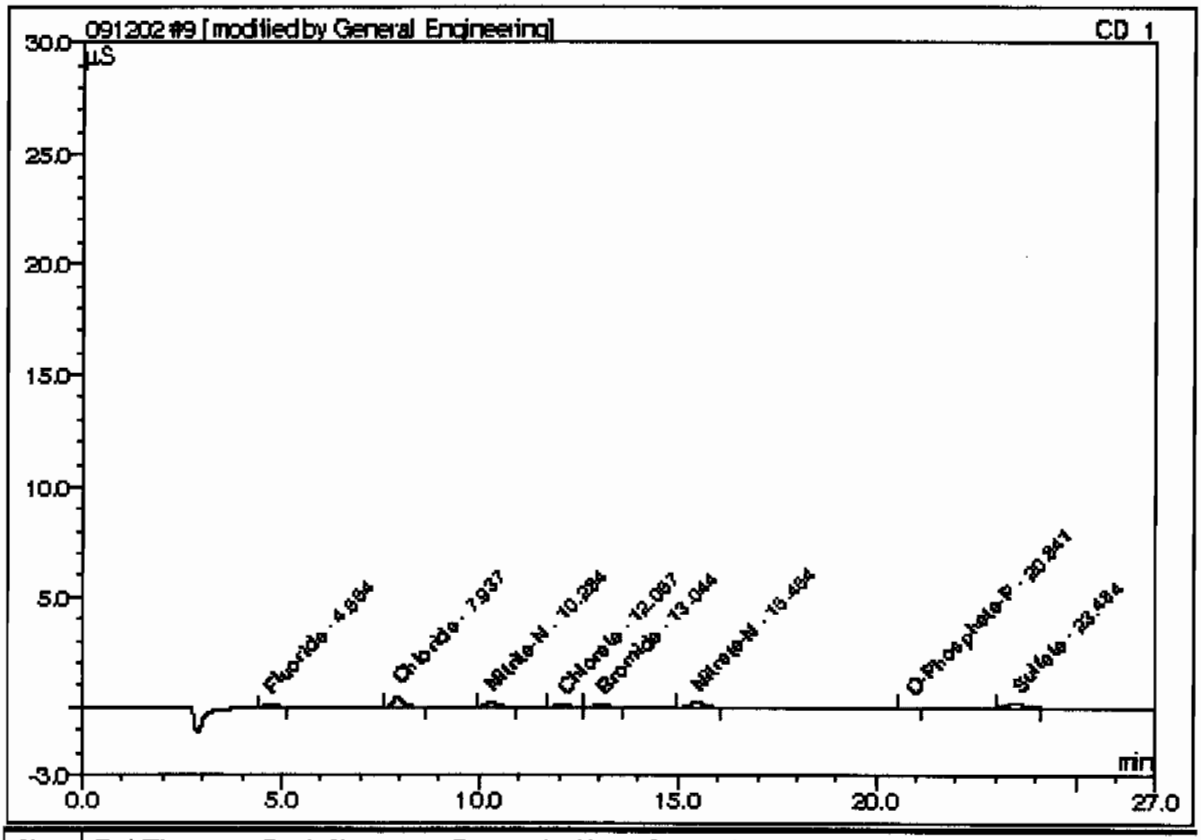

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1231	*	0.04201	9.23
2	7.94	Chloride	0.2000	0.3743		0.12619	27.73
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.60
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.71
5	13.04	Bromide	0.2000	0.2098		0.02783	6.12
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.43
7	20.84	O-Phosphate-P	0.2000	0.2070	*	0.00191	0.42
8	23.48	Sulfate	0.4000	0.6551	*	0.08988	19.75
Total:				2.1431	0.000	0.455	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

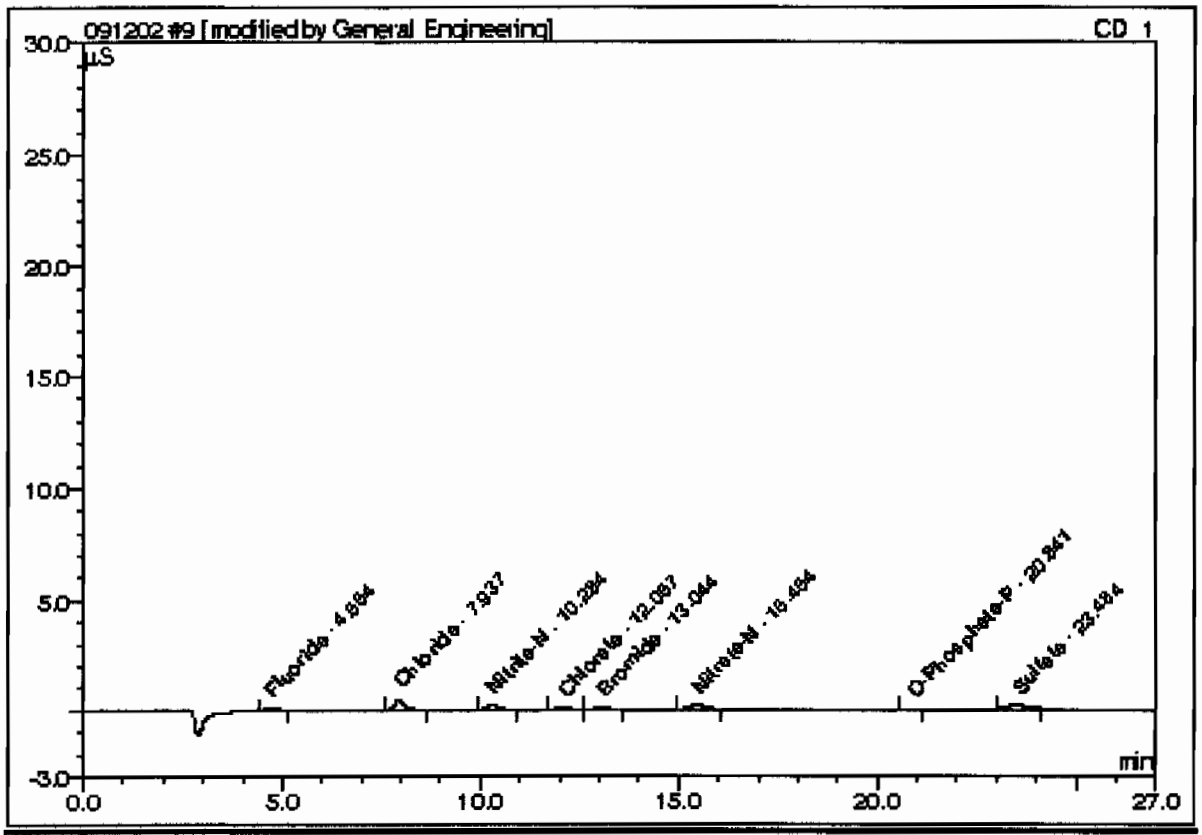

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1251	*	0.04330	9.49
2	7.94	Chloride	0.2000	0.3743		0.12619	27.66
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.56
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.70
5	13.04	Bromide	0.2000	0.2098		0.02783	6.10
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.38
7	20.84	O-Phosphate-P	0.2000	0.2070	*	0.00191	0.42
8	23.48	Sulfate	0.4000	0.6551	*	0.08988	19.70
Total:				2.1451	0.000	0.456	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

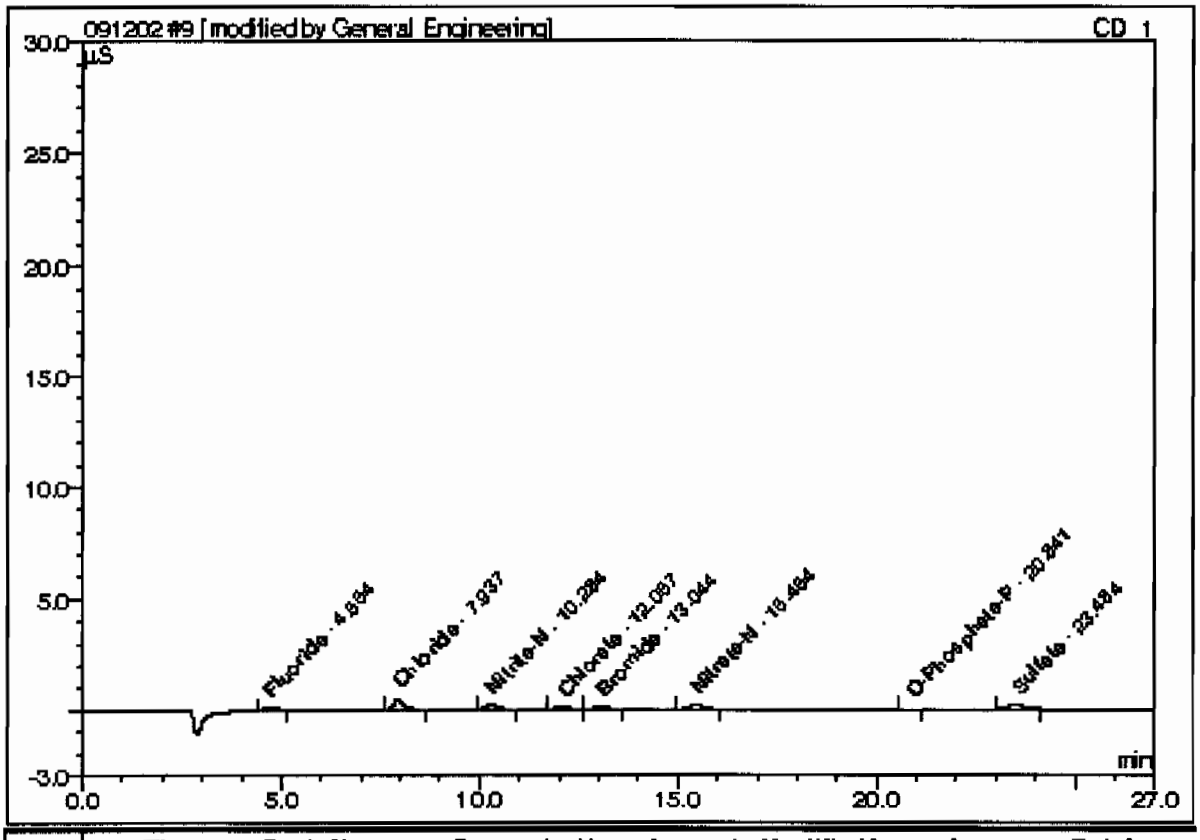

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1251	*	0.04330	9.49
2	7.94	Chloride	0.2000	0.3743		0.12619	27.66
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.56
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.70
5	13.04	Bromide	0.2000	0.2098		0.02783	6.10
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.38
7	20.84	O-Phosphate-P	0.2000	0.2070	*	0.00191	0.42
8	23.48	Sulfate	0.4000	0.6551	*	0.08988	19.70
Total:				2.1451	0.000	0.456	100.00

7 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:33	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

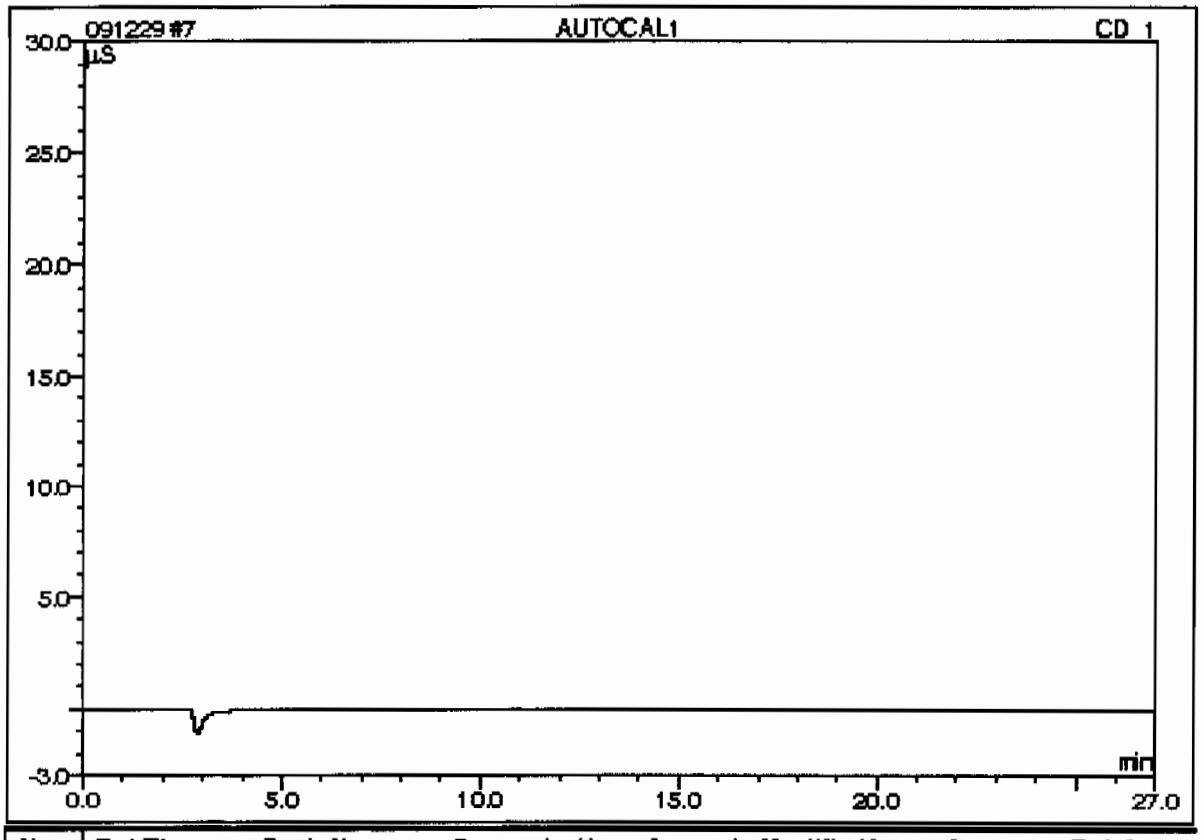

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluorine	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorine	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromine	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfur	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

7 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:33	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002593;GLGCE086;300;9056

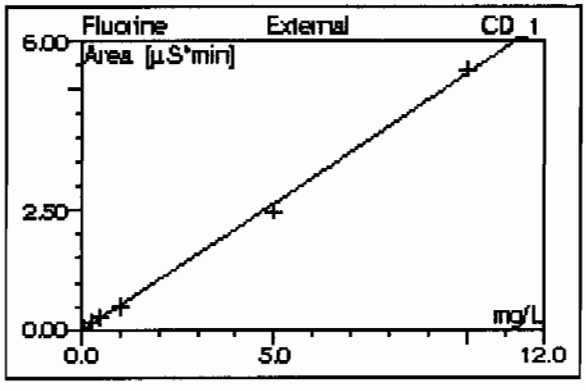

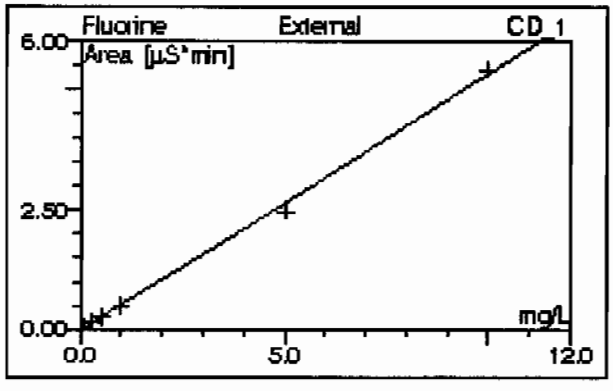

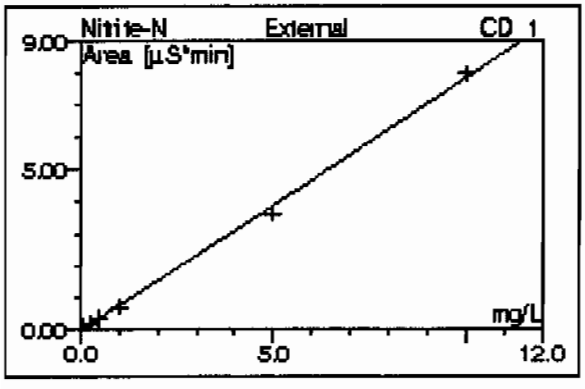

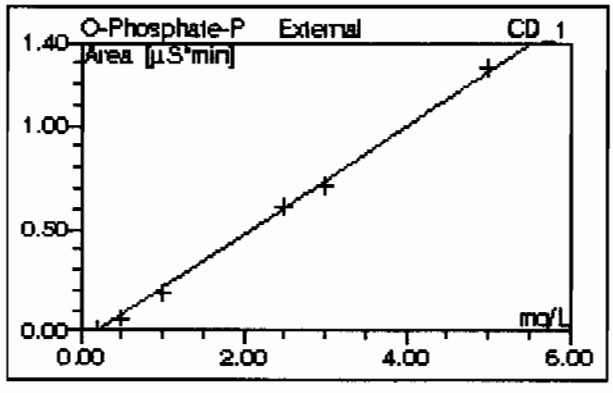

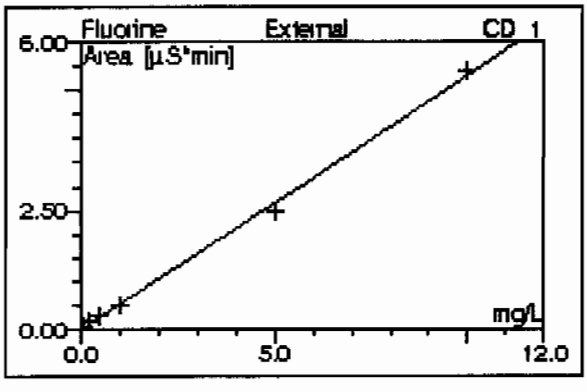

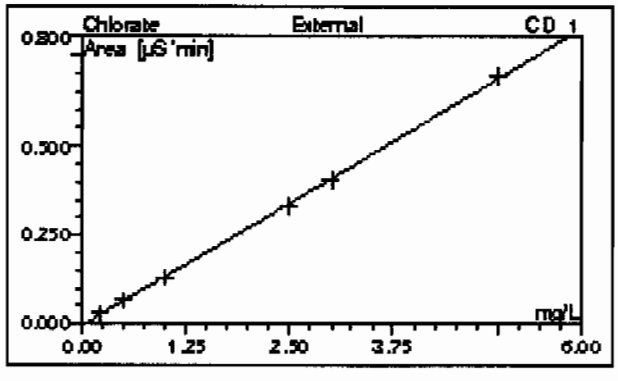

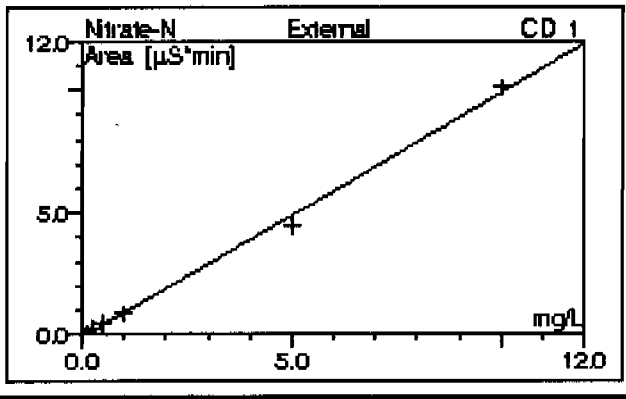

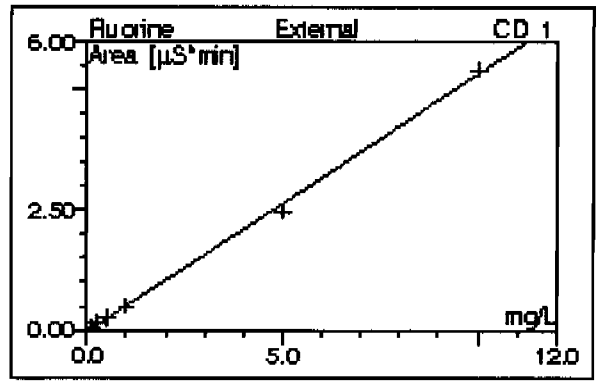

No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluorine	0LOff	99.8273	-0.0229	0.5344	0.0000
n.a.	n.a.	Chlorine	0LOff	99.5938	-0.0307	0.4192	0.0000
n.a.	n.a.	Nitrite-N	0LOff	99.8541	-0.0670	0.7923	0.0000
n.a.	n.a.	Chlorate	0LOff	99.9539	-0.0053	0.1380	0.0000
n.a.	n.a.	Bromine	0LOff	99.9837	-0.0043	0.1529	0.0000
n.a.	n.a.	Nitrate-N	0LOff	99.7226	-0.1037	0.9989	0.0000
n.a.	n.a.	O-Phosphate-P	0LOff	99.7900	-0.0496	0.2621	0.0000
n.a.	n.a.	Sulfur	0LOff	99.7713	-0.0940	0.8877	0.0000
Average:				99.8121	-0.0472	0.5232	0.0000

11 WIC091202-02ICV

Sample Name:	WIC091202-02ICV	*Injection Volume:*	50.0
Vial Number:	11	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 22:03	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

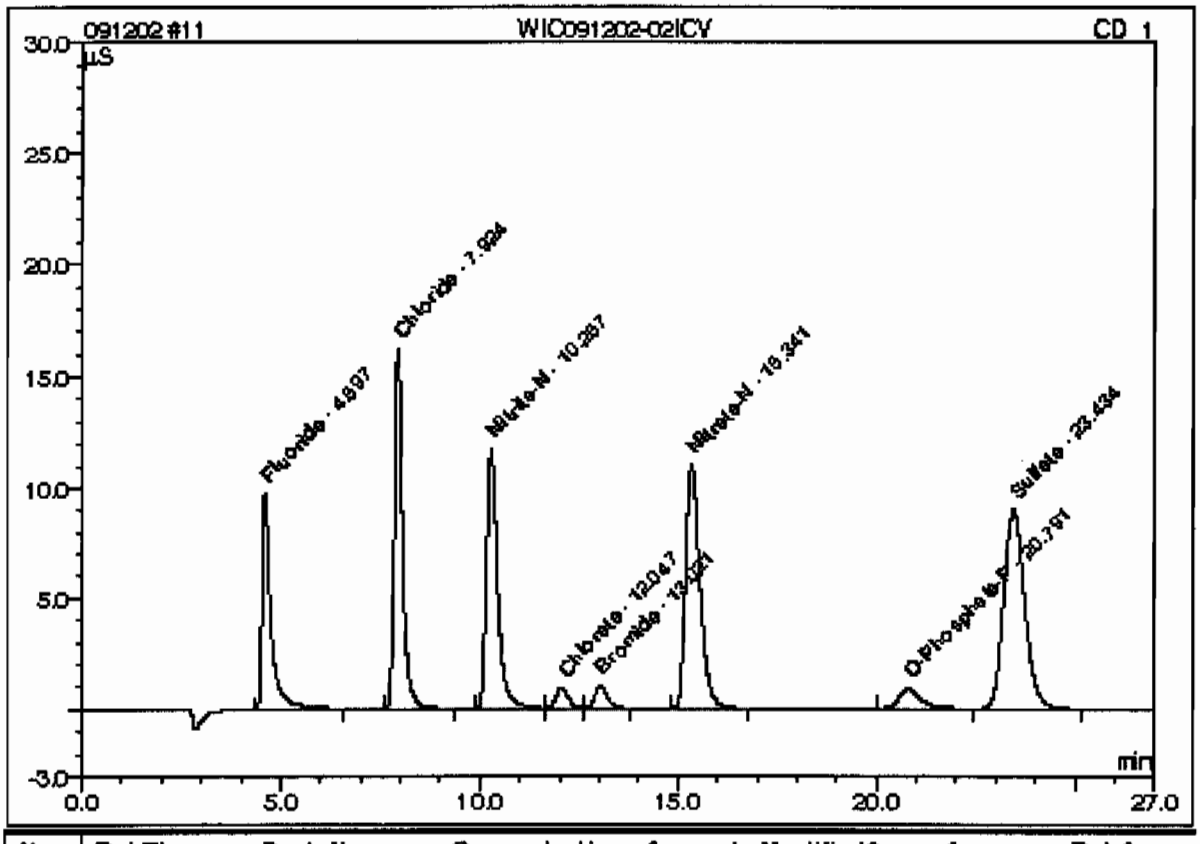

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	n.a.	4.7181		2.49838	11.68
2	7.92	Chloride	n.a.	9.2590		3.85054	18.00
3	10.27	Nitrite-N	n.a.	4.7805		3.72071	17.39
4	12.05	Chlorate	n.a.	2.4809		0.33694	1.57
5	13.02	Bromide	n.a.	2.4387		0.36874	1.72
6	15.34	Nitrate-N	n.a.	4.6791		4.57041	21.36
7	20.79	O-Phosphate-P	n.a.	2.4024		0.57999	2.71
8	23.43	Sulfate	n.a.	18.7982		5.46821	25.56
Total:				49.5569	0.000	21.394	100.00

12 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	12	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 22:33	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC B086;300;9056

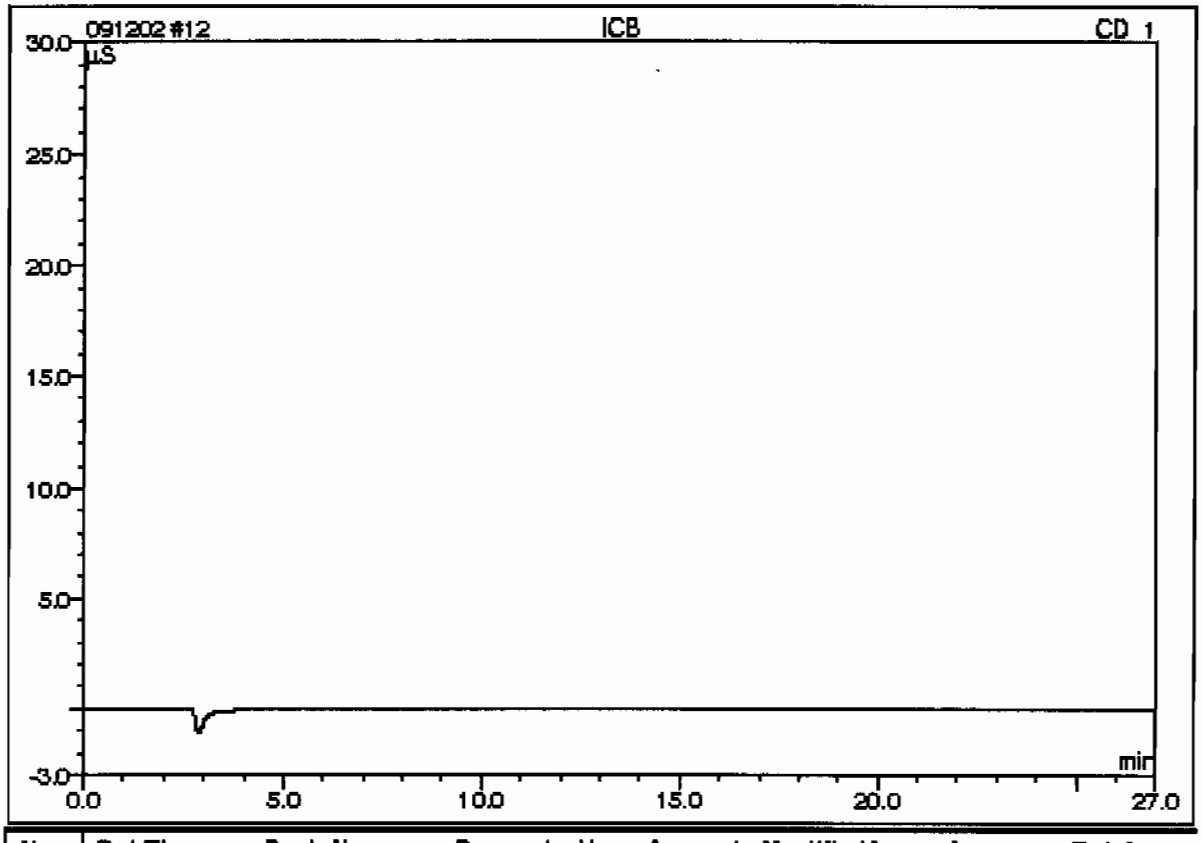

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 091221.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	12/21/09 15:13		1	091221	VH1
BLK	12/21/09 15:42		1	091221	VH1
BLK	12/21/09 16:12		1	091221	VH1
ICV	12/21/09 16:42		1	091221	VH1
ICB	12/21/09 17:12		1	091221	VH1
1202001752	12/21/09 17:42	935503	1	091221	VH1
1202001755	12/21/09 18:12	935503	1	091221	VH1
243085001	12/21/09 18:42	935503	1	091221	VH1
1202001753	12/21/09 19:12	935503	1	091221	VH1
1202001754	12/21/09 19:42	935503	1	091221	VH1
243108001	12/21/09 20:11	935503	1	091221	VH1
243108002	12/21/09 20:41	935503	1	091221	VH1
243242001	12/21/09 21:11	935503	1	091221	VH1
243242002	12/21/09 21:41	935503	1	091221	VH1
243251001	12/21/09 22:11	935503	1	091221	VH1
CVH	12/21/09 22:41		1	091221	VH1
CCB	12/21/09 23:11		1	091221	VH1
1202001887	12/21/09 23:41	935575	1	091221	VH1

14 WIC091221-02ICV

Sample Name:	WIC091221-02ICV	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/21/2009 16:42	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

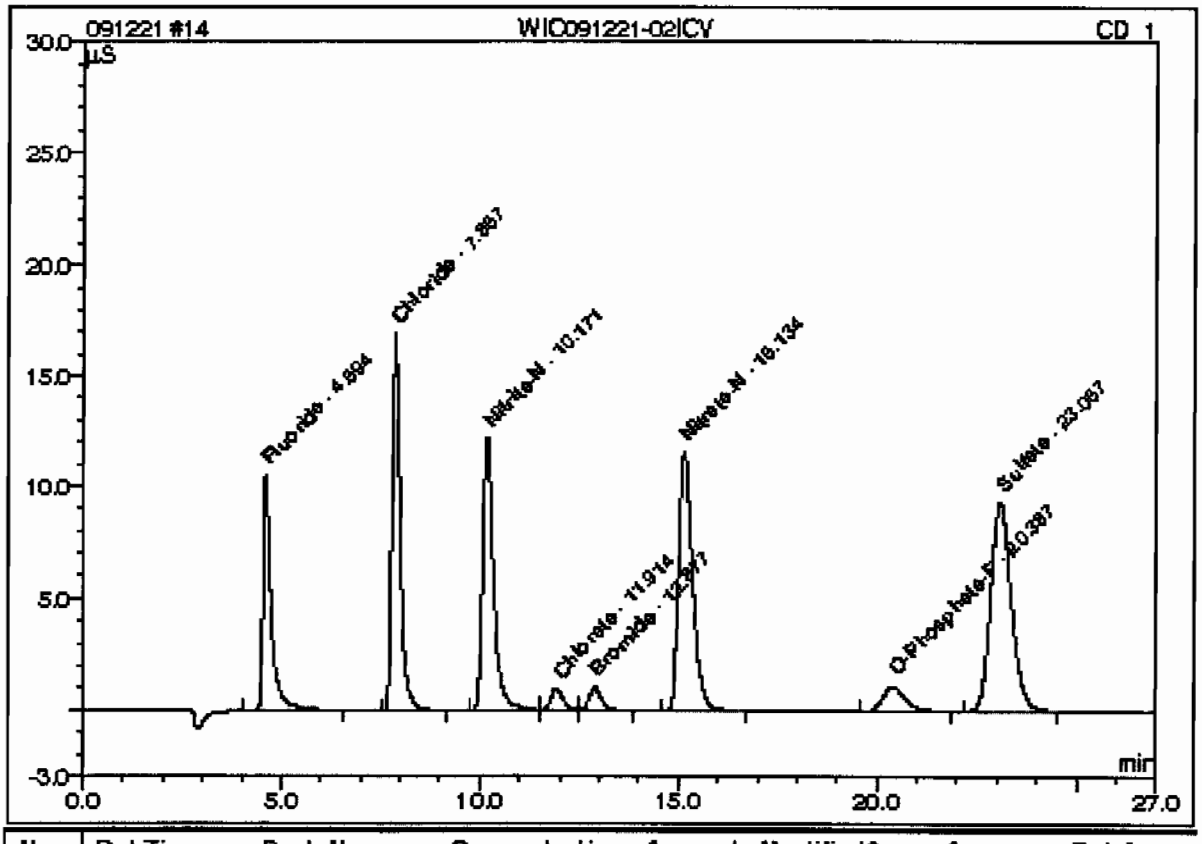

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	n.a.	4.8613		2.57488	11.63
2	7.87	Chloride	n.a.	9.5617		3.97742	17.96
3	10.17	Nitrite-N	n.a.	4.8985		3.81415	17.22
4	11.91	Chlorate	n.a.	2.5259		0.34316	1.55
5	12.88	Bromide	n.a.	2.4926		0.37699	1.70
6	15.13	Nitrate-N	n.a.	4.8520		4.74312	21.42
7	20.39	O-Phosphate-P	n.a.	2.8901		0.70780	3.20
8	23.07	Sulfate	n.a.	19.2790		5.61050	25.33
Total:				51.3612	0.000	22.148	100.00

15 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/21/2009 17:12	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

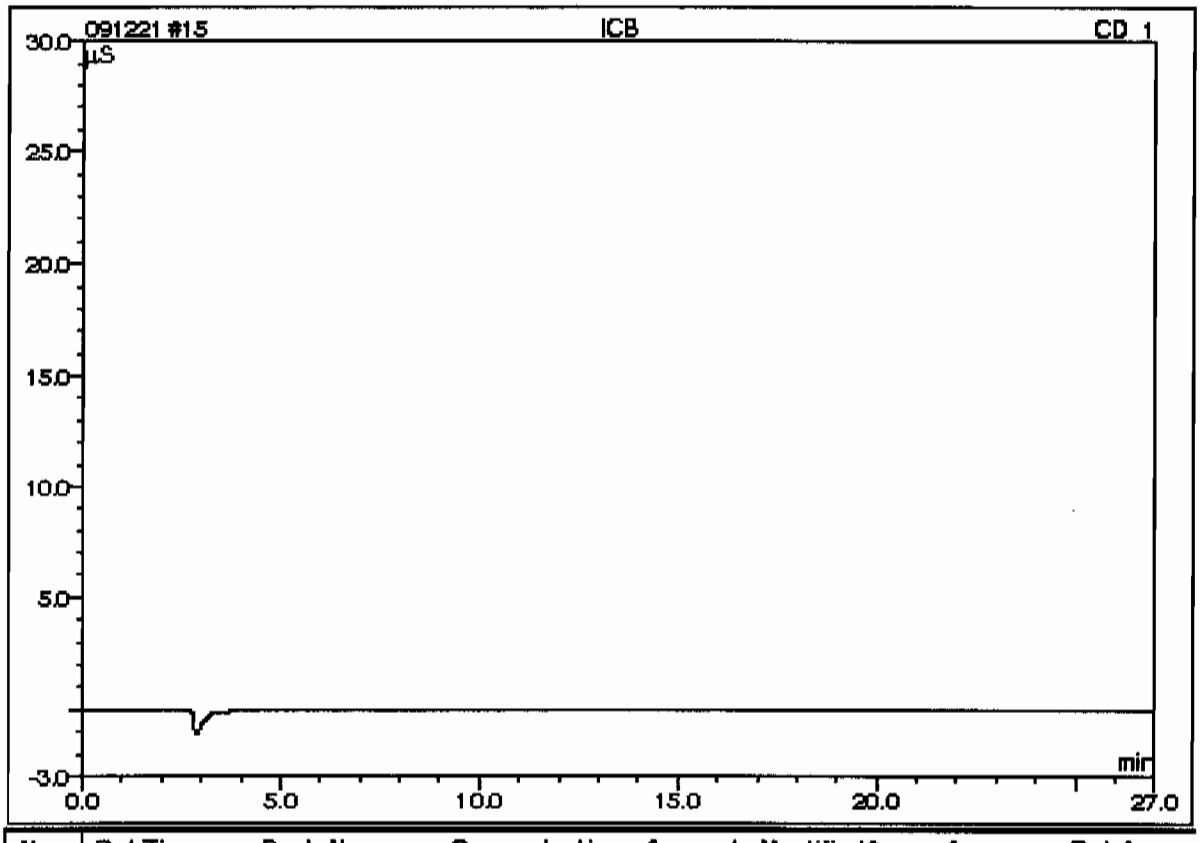

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 091221.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
1202001890	12/22/09 00:11	935575	1	091221	VH1
243253001	12/22/09 00:41	935575	1	091221	VH1
1202001888	12/22/09 01:10	935575	1	091221	VH1
1202001889	12/22/09 01:40	935575	1	091221	VH1
CCV	12/22/09 02:10		1	091221	VH1
CCB	12/22/09 02:40		1	091221	VH1
1202001780	12/22/09 03:10	935518	1	091221	VH1
1202001785	12/22/09 03:40	935518	1	091221	VH1
243009001	12/22/09 04:10	935518	1	091221	VH1
1202001781	12/22/09 04:40	935518	1	091221	VH1
1202001783	12/22/09 05:10	935518	1	091221	VH1
243009003	12/22/09 05:40	935518	1	091221	VH1
243255002	12/22/09 06:09	935518	1	091221	VH1
243255003	12/22/09 06:39	935518	1	091221	VH1
243255005	12/22/09 07:09	935518	1	091221	VH1
243257001	12/22/09 07:39	935518	1	091221	VH1
CCV	12/22/09 08:09		1	091221	VH1
CCB	12/22/09 08:39		1	091221	VH1
243257006	12/22/09 09:09	935518	1	091221	VH1
243285002	12/22/09 09:39	935518	1	091221	VH1
243286001	12/22/09 10:09	935518	1	091221	VH1
1202001782	12/22/09 10:39	935518	1	091221	VH1
1202001784	12/22/09 11:08	935518	1	091221	VH1
243286004	12/22/09 11:38	935518	1	091221	VH1
CVH	12/22/09 12:08		1	091221	VH1
CCB	12/22/09 12:38		1	091221	VH1

33 WIC091221-02CCV

Sample Name:	WIC091221-02CCV	*Injection Volume:*	50.0
Vial Number:	23	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/22/2009 2:10	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

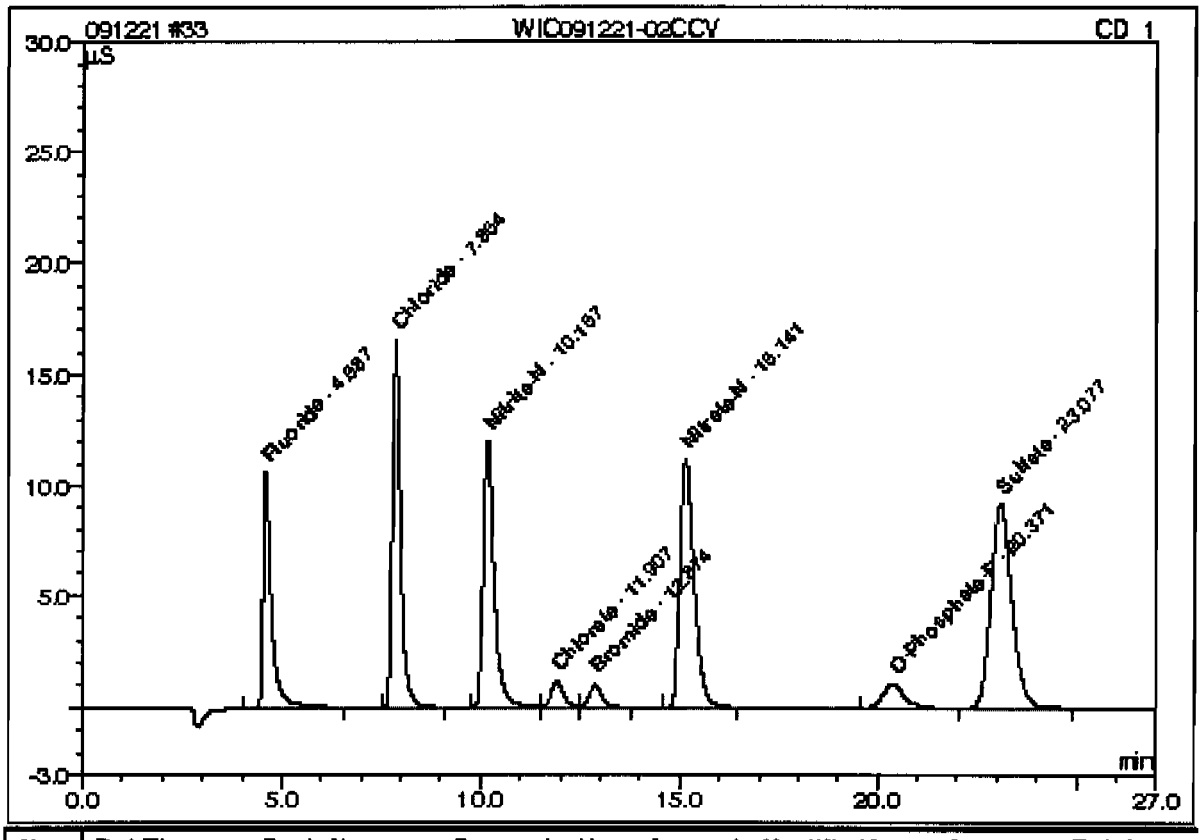

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	n.a.	4.8498		2.56874	11.76
2	7.86	Chloride	n.a.	9.3486		3.88810	17.81
3	10.17	Nitrite-N	n.a.	4.8471		3.77344	17.28
4	11.91	Chlorate	n.a.	3.0089		0.40979	1.88
5	12.87	Bromide	n.a.	2.3947		0.36200	1.66
6	15.14	Nitrate-N	n.a.	4.7247		4.61602	21.14
7	20.37	O-Phosphate-P	n.a.	2.7524		0.67171	3.08
8	23.08	Sulfate	n.a.	19.0588		5.54533	25.40
Total:				50.9850	0.000	21.835	100.00

34 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	24	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/22/2009 2:40	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

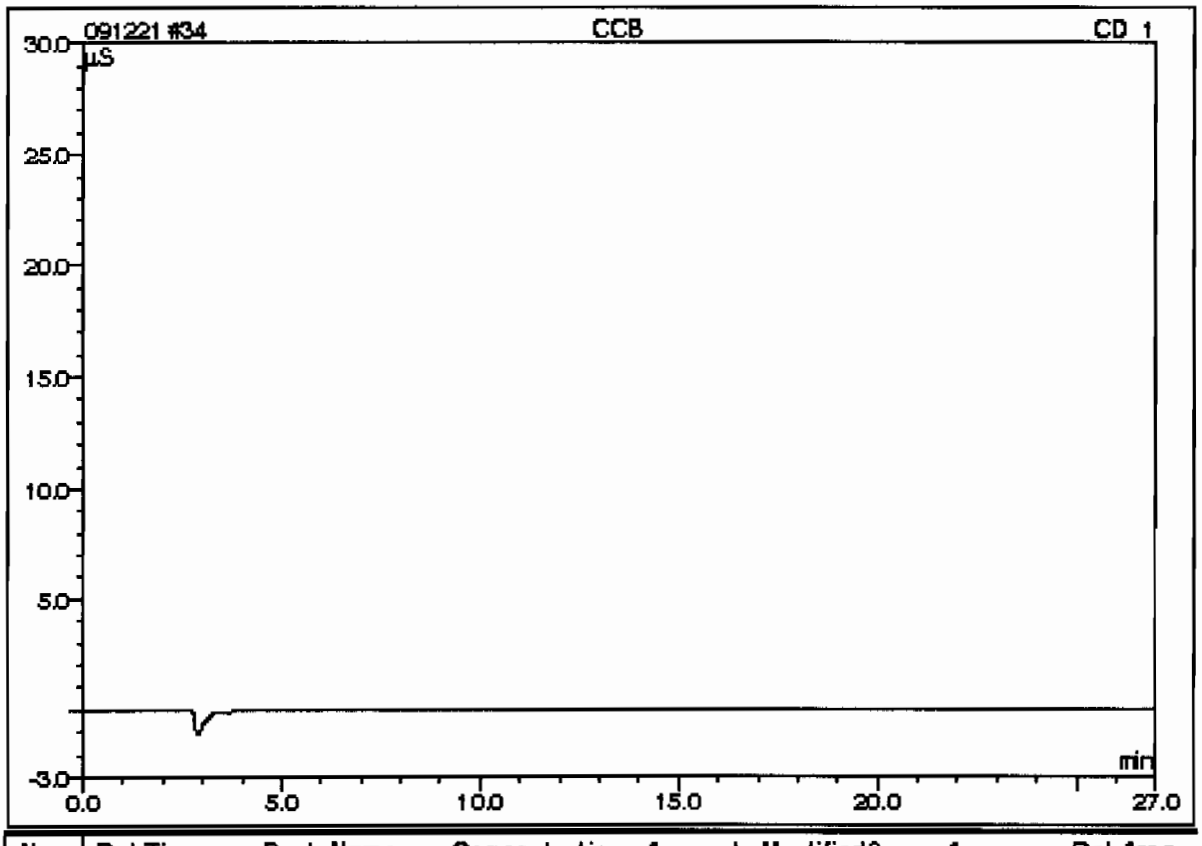

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

35 1202001780/935518/1/1/MB

Sample Name:	1202001780/935518/1/1/MB	*Injection Volume:*	50.0
Vial Number:	25	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/22/2009 3:10	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GL GCB86;300;9056

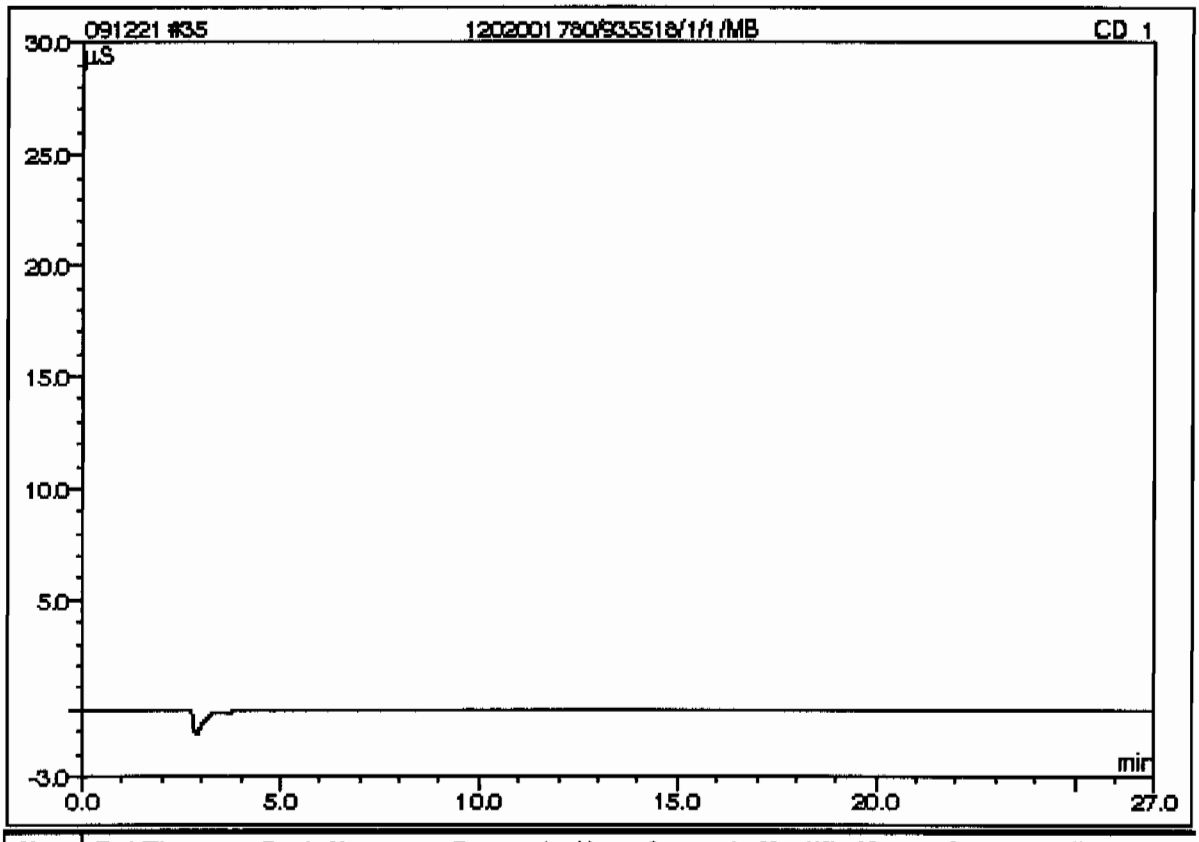

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

36 1202001785/935518/1/1/LCS

Sample Name:	1202001785/935518/1/1/LCS	*Injection Volume:*	50.0
Vial Number:	26	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/22/2009 3:40	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

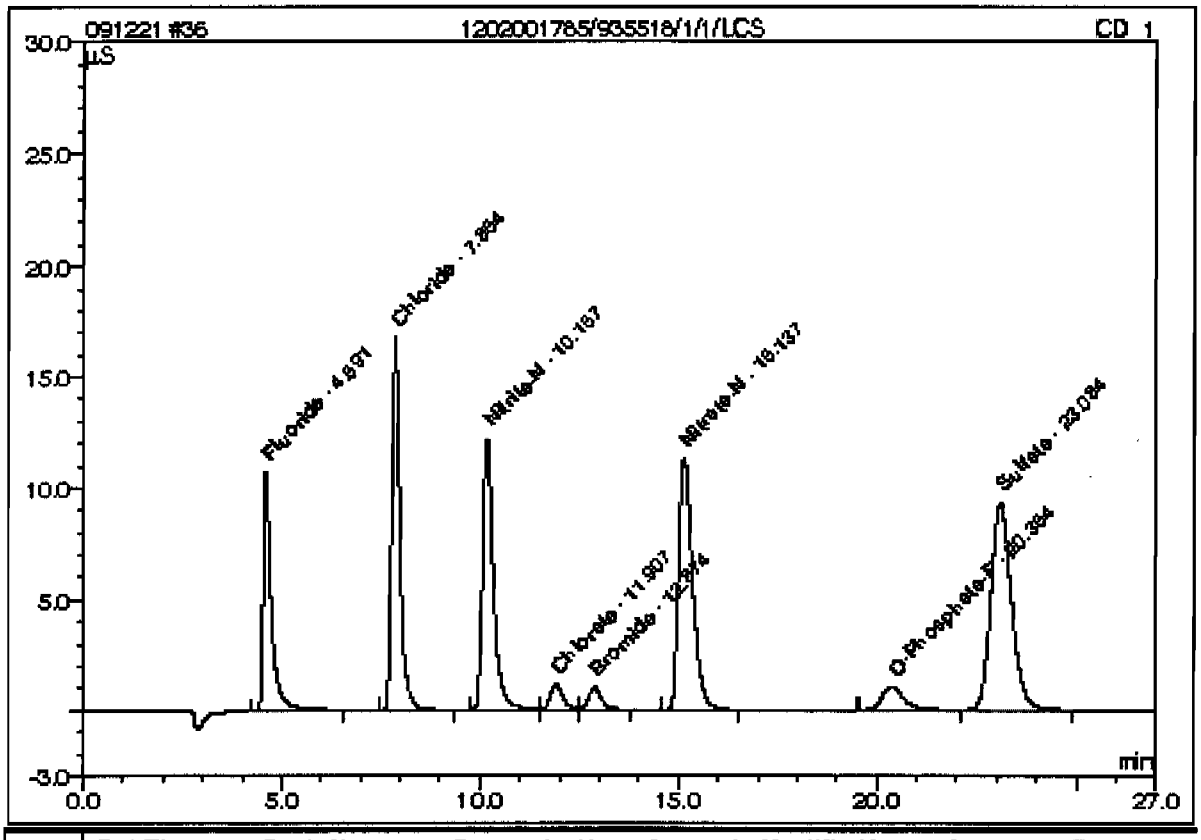

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	n.a.	4.8923		2.59145	11.72
2	7.86	Chloride	n.a.	9.4982		3.95078	17.86
3	10.17	Nitrite-N	n.a.	4.8991		3.81469	17.25
4	11.91	Chlorate	n.a.	3.0263		0.41219	1.86
5	12.87	Bromide	n.a.	2.4200		0.36588	1.65
6	15.14	Nitrate-N	n.a.	4.7900		4.68119	21.16
7	20.36	O-Phosphate-P	n.a.	2.8013		0.68453	3.09
8	23.08	Sulfate	n.a.	19.3035		5.61773	25.40
Total:				51.6308	0.000	22.118	100.00

37 243009001/935518/1/1/

Sample Name:	243009001/935518/1/1/	*Injection Volume:*	50.0
Vial Number:	27	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/22/2009 4:10	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

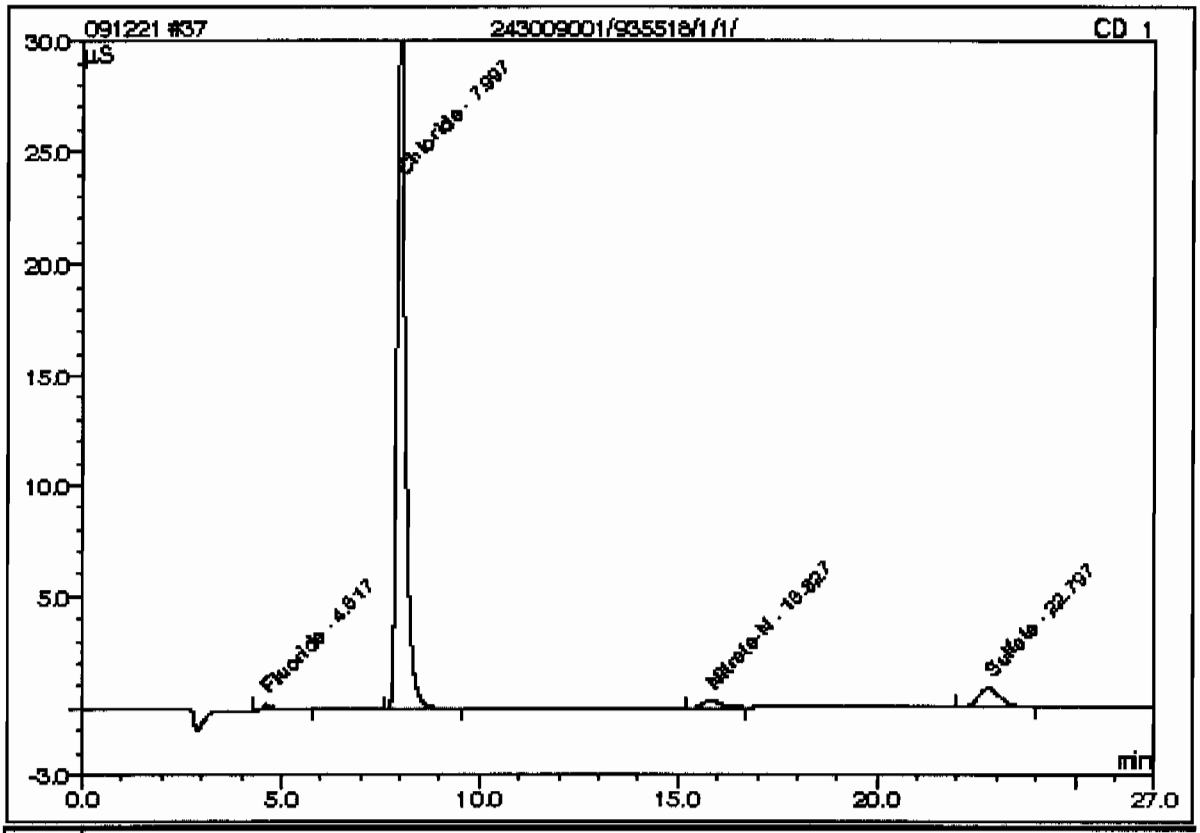

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	n.a.	0.1956		0.08164	0.96
2	8.00	Chloride	n.a.	18.5511		7.74560	90.79
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	15.83	Nitrate-N	n.a.	0.2726		0.16860	1.98
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	22.80	Sulfate	n.a.	2.1270		0.53536	6.28
Total:				21.1463	0.000	8.531	100.00

38 1202001781/935518/1/1/DUP

Sample Name:	1202001781/935518/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	28	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/22/2009 4:40	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

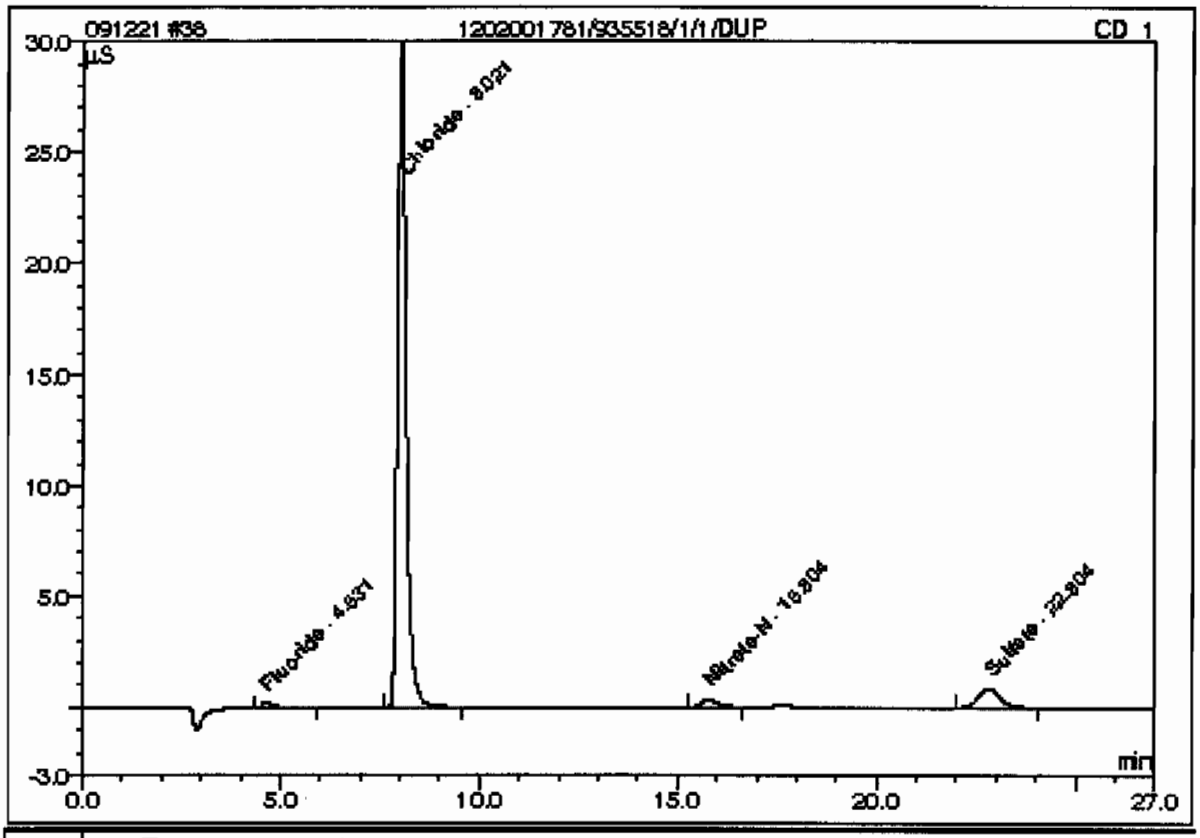

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	n.a.	0.2050		0.08665	1.02
2	8.02	Chloride	n.a.	18.4628		7.70859	90.78
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	15.80	Nitrate-N	n.a.	0.2660		0.16204	1.91
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	22.80	Sulfate	n.a.	2.1231		0.53419	6.29
Total:				21.0568	0.000	8.491	100.00

39 1202001783/935518/1/1/PS

Sample Name:	1202001783/935518/1/1/PS	*Injection Volume:*	50.0
Vial Number:	29	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/22/2009 5:10	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

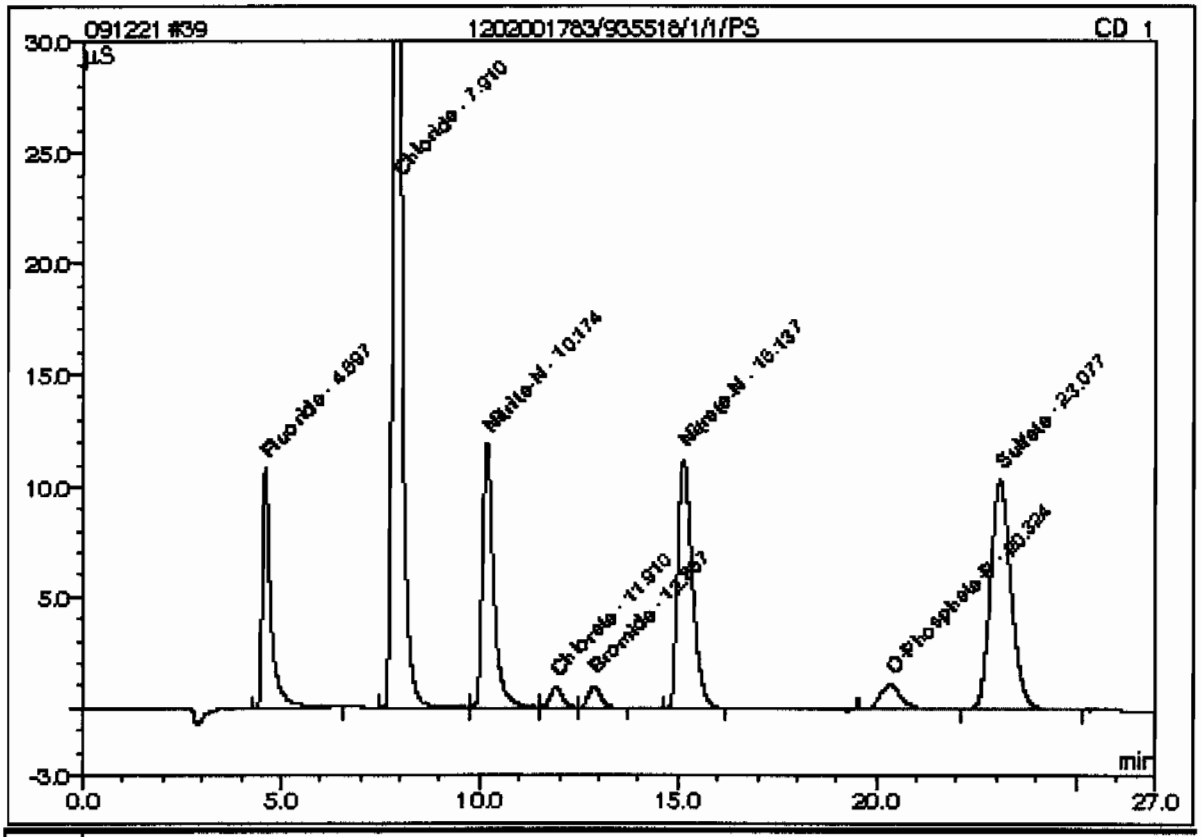

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	n.a.	5.0285		2.66425	8.44
2	7.91	Chloride	n.a.	30.4577		12.73669	40.33
3	10.17	Nitrite-N	n.a.	4.8210		3.75276	11.88
4	11.91	Chlorate	n.a.	2.2923		0.31093	0.98
5	12.87	Bromide	n.a.	2.3590		0.35654	1.13
6	15.14	Nitrate-N	n.a.	4.9112		4.80227	15.21
7	20.32	O-Phosphate-P	n.a.	2.9550		0.72481	2.30
8	23.08	Sulfate	n.a.	21.3733		6.23016	19.73
Total:				74.1980	0.000	31.578	100.00

45 WIC091221-02CCV

Sample Name:	WIC091221-02CCV	*Injection Volume:*	50.0
Vial Number:	35	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/22/2009 8:09	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

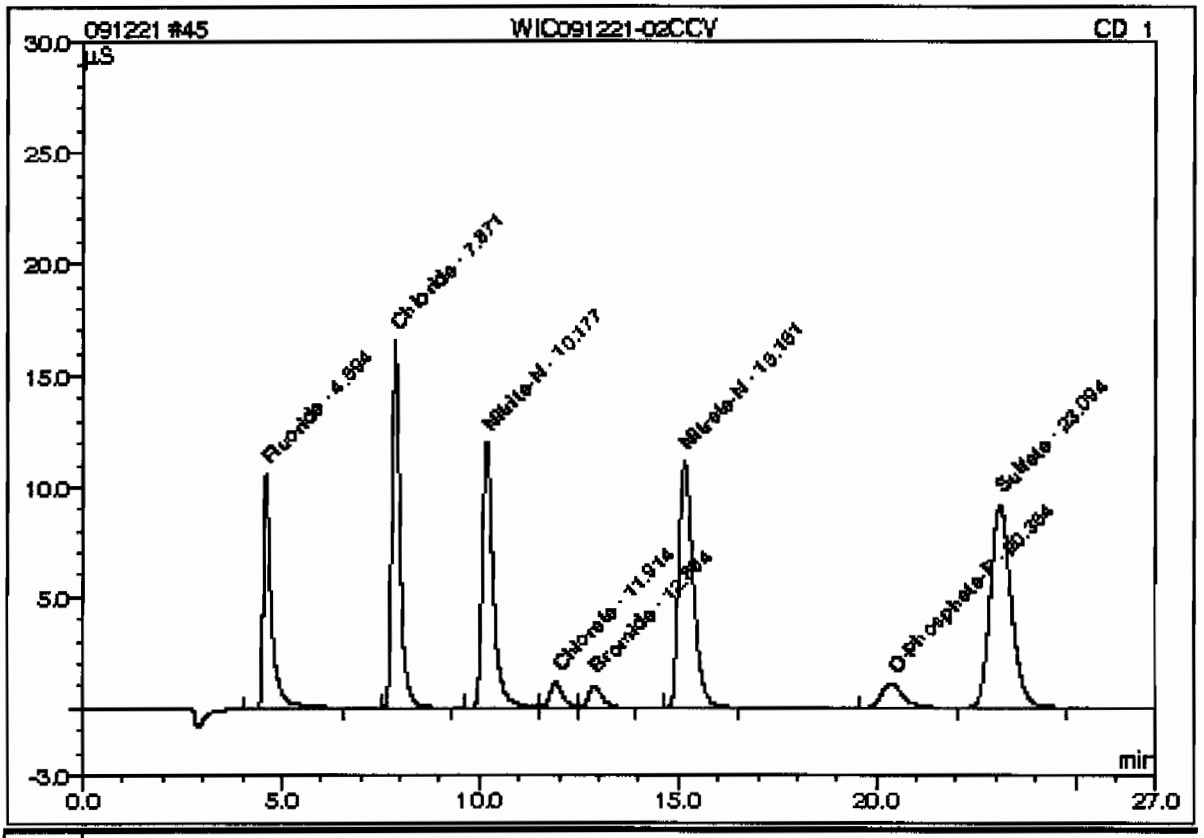

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	n.a.	4.8633		2.57596	11.75
2	7.87	Chloride	n.a.	9.4013		3.91017	17.83
3	10.18	Nitrite-N	n.a.	4.8597		3.78345	17.26
4	11.91	Chlorate	n.a.	2.9857		0.40659	1.85
5	12.88	Bromide	n.a.	2.4033		0.36332	1.66
6	15.15	Nitrate-N	n.a.	4.7472		4.63844	21.16
7	20.36	O-Phosphate-P	n.a.	2.7567		0.67282	3.07
8	23.09	Sulfate	n.a.	19.1590		5.57499	25.43
Total:				51.1762	0.000	21.926	100.00

46 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	36	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/22/2009 8:39	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GL GCB86;300;9056

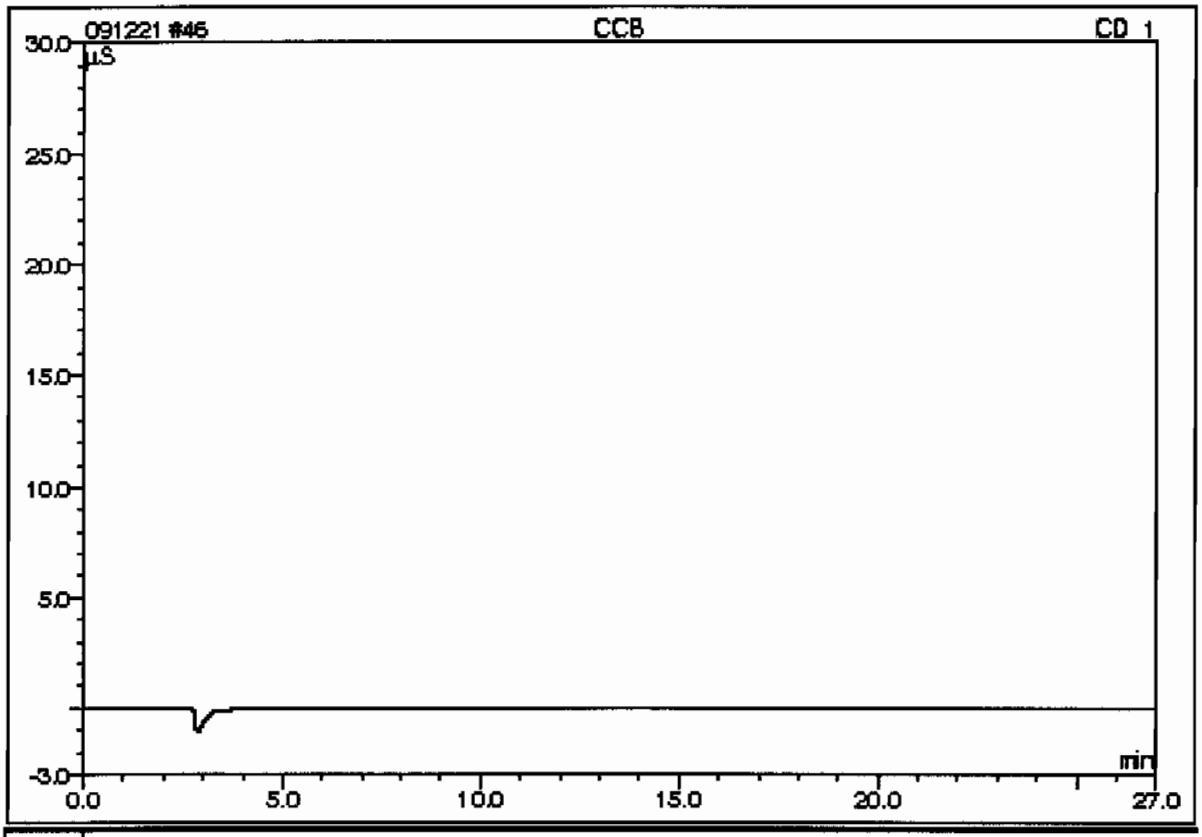

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

48 243285002/935518/1/1/

Sample Name:	243285002/935518/1/1/	*Injection Volume:*	50.0
Vial Number:	38	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/22/2009 9:39	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

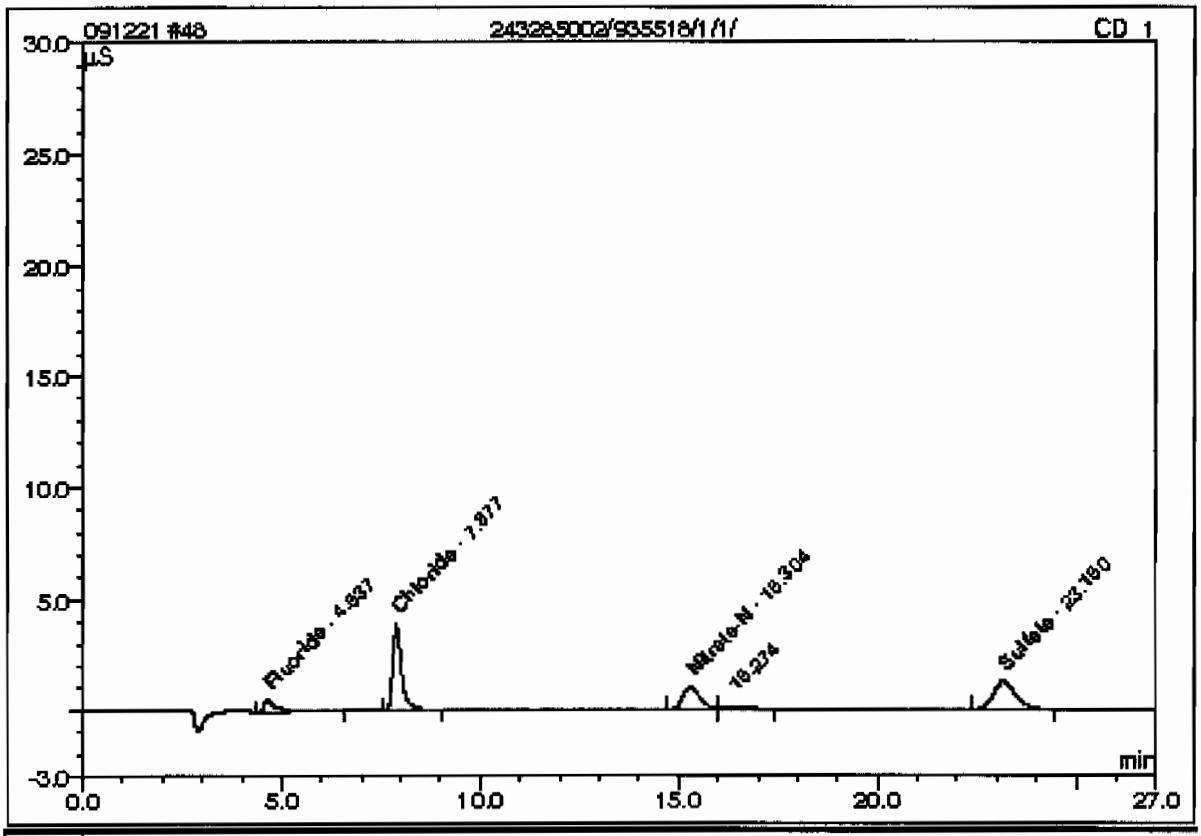

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.64	Fluoride	n.a.	0.5067		0.24788	9.78
2	7.88	Chloride	n.a.	2.4152		0.98171	38.73
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	15.30	Nitrate-N	n.a.	0.5813		0.47697	18.82
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	23.16	Sulfate	n.a.	2.9517		0.77938	30.75
Total:				6.4549	0.000	2.486	98.07

49 243286001/935518/1/1/

Sample Name:	243286001/935518/1/1/	*Injection Volume:*	50.0
Vial Number:	39	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/22/2009 10:09	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GL GC B086;300;9056

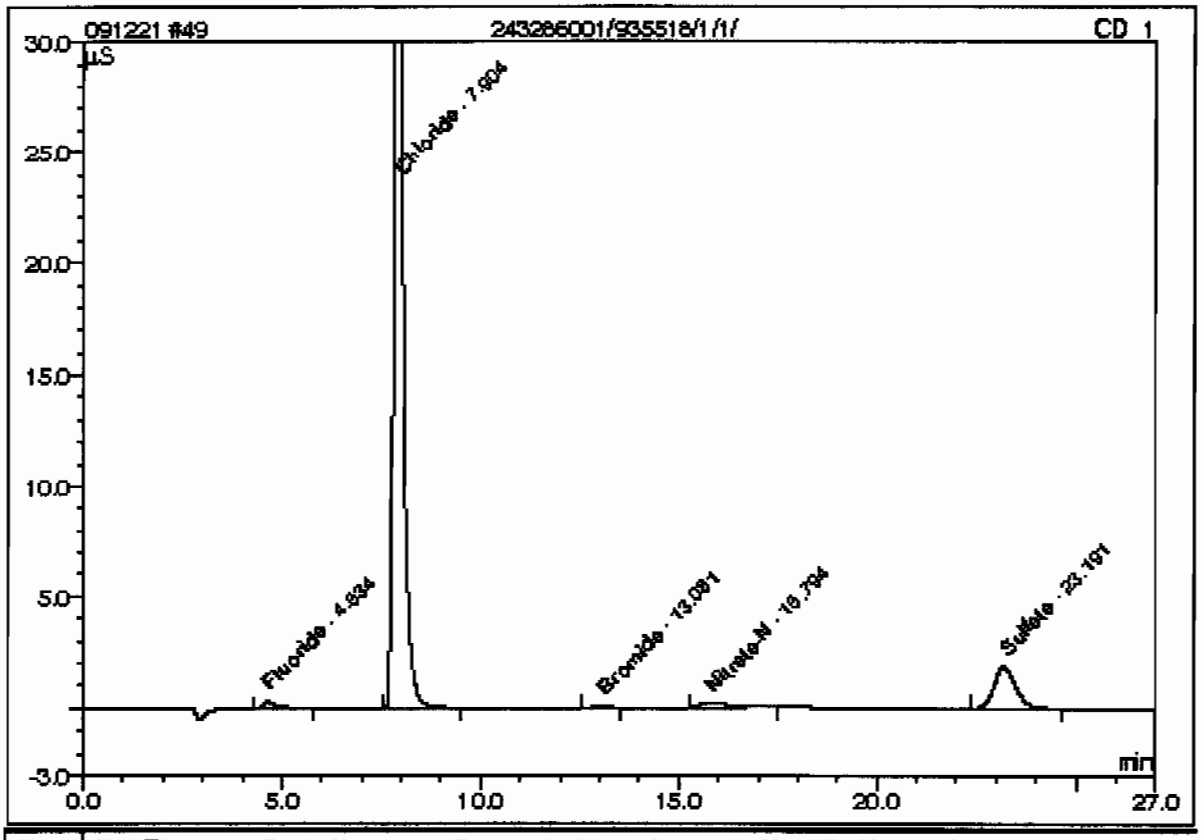

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	n.a.	0.2938		0.13414	1.10
2	7.90	Chloride	n.a.	25.7002		10.74242	87.98
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.08	Bromide	n.a.	0.1451		0.01793	0.15
4	15.79	Nitrate-N	n.a.	0.2824		0.17842	1.46
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	23.19	Sulfate	n.a.	4.1622		1.13754	9.32
Total:				30.5838	0.000	12.210	100.00

50 1202001782/935518/1/1/DUP

Sample Name:	1202001782/935518/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	40	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/22/2009 10:39	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

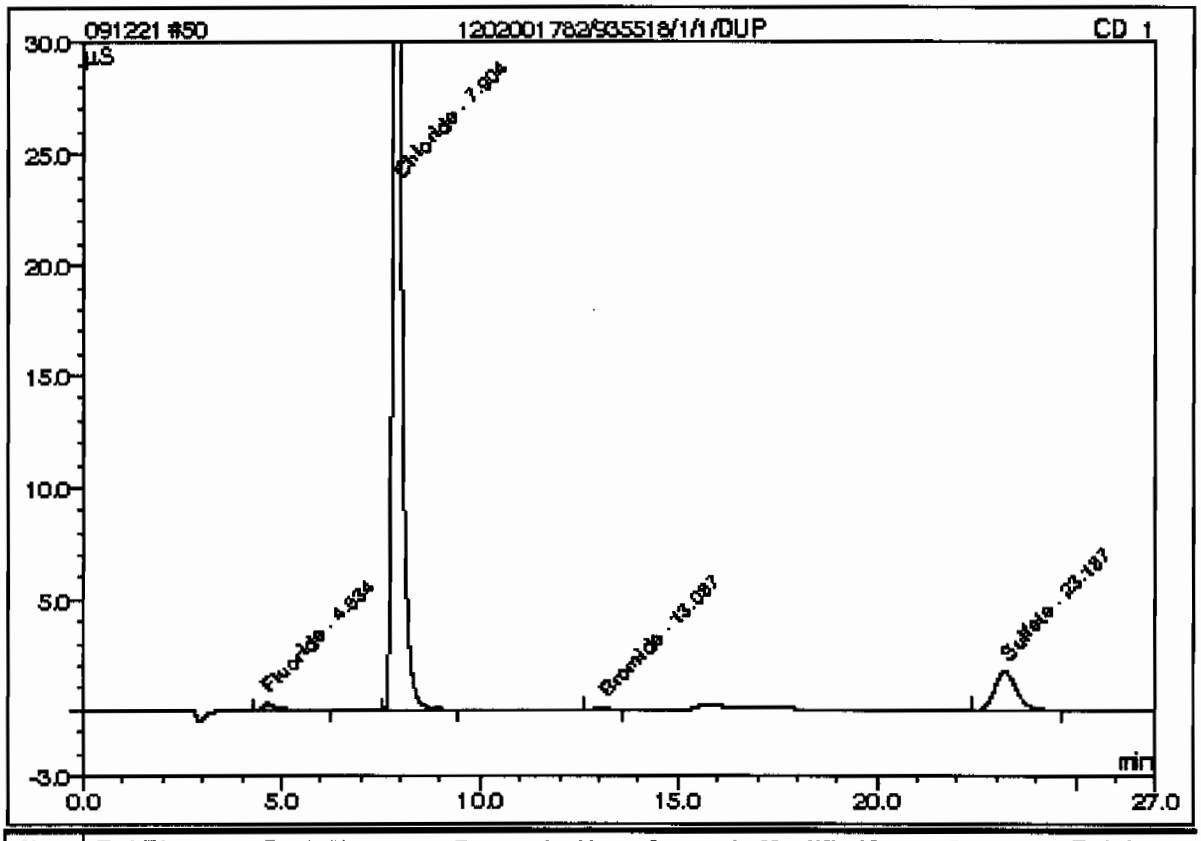

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	n.a.	0.3396		0.15858	1.32
2	7.90	Chloride	n.a.	25.5815		10.69264	89.32
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.09	Bromide	n.a.	0.1515		0.01891	0.16
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.19	Sulfate	n.a.	4.0396		1.10128	9.20
Total:				30.1122	0.000	11.971	100.00

51 1202001784/935518/1/1/PS

Sample Name:	1202001784/935518/1/1/PS	*Injection Volume:*	50.0
Vial Number:	41	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/22/2009 11:08	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

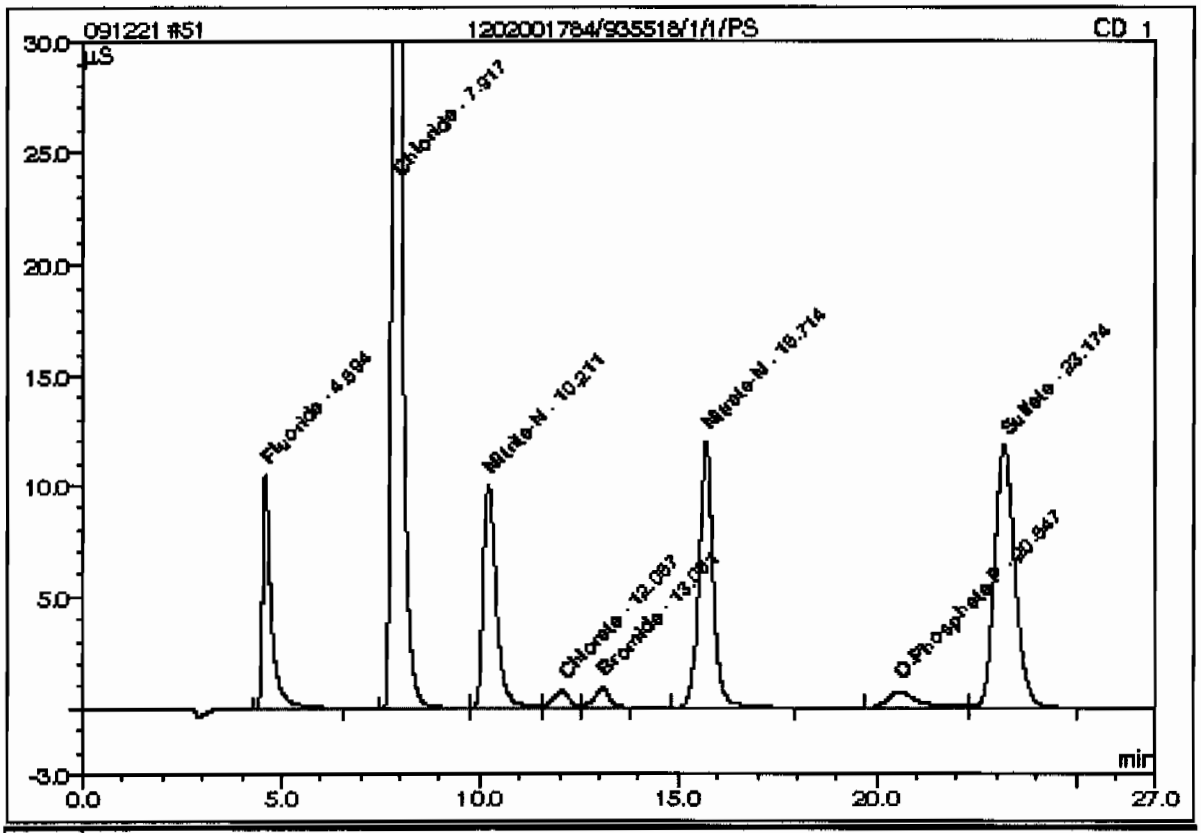

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	n.a.	5.1913		2.75123	7.76
2	7.92	Chloride	n.a.	37.5917		15.72711	44.37
3	10.21	Nitrite-N	n.a.	4.8415		3.76899	10.63
4	12.06	Chlorate	n.a.	2.5224		0.34268	0.97
5	13.08	Bromide	n.a.	2.6156		0.39580	1.12
6	15.71	Nitrate-N	n.a.	5.0184		4.90933	13.85
7	20.55	O-Phosphate-P	n.a.	2.5366		0.61515	1.74
8	23.17	Sulfate	n.a.	23.7583		6.93587	19.57
Total:				84.0757	0.000	35.446	100.00

53 WIC091221-02CVH

Sample Name:	WIC091221-02CVH	*Injection Volume:*	50.0
Vial Number:	43	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/22/2009 12:08	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

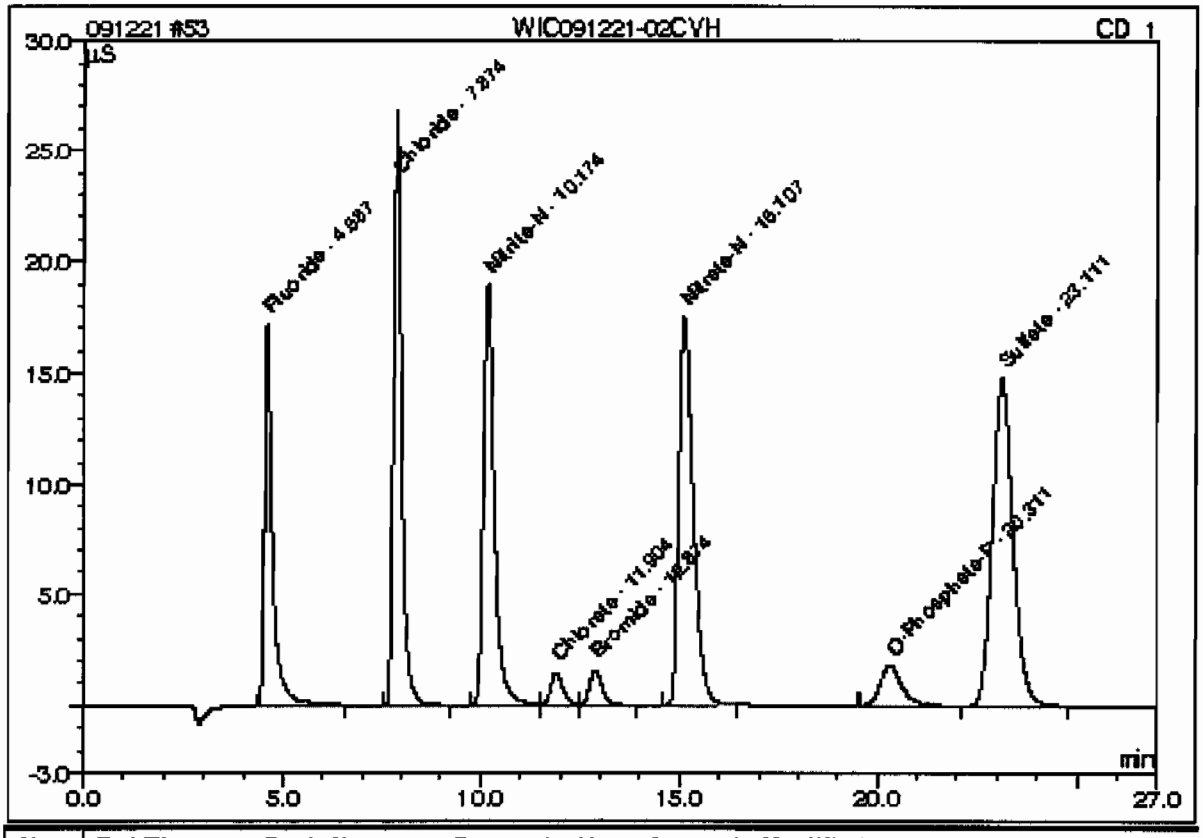

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	n.a.	7.5763		4.02576	11.65
2	7.87	Chloride	n.a.	14.9949		6.25493	18.10
3	10.17	Nitrite-N	n.a.	7.5608		5.92358	17.14
4	11.90	Chlorate	n.a.	3.7710		0.51493	1.49
5	12.87	Bromide	n.a.	3.7705		0.57244	1.66
6	15.11	Nitrate-N	n.a.	7.4663		7.35468	21.28
7	20.31	O-Phosphate-P	n.a.	4.5116		1.13273	3.28
8	23.11	Sulfate	n.a.	30.0137		8.78681	25.42
Total:				79.6652	0.000	34.566	100.00

54 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	44	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/22/2009 12:38	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

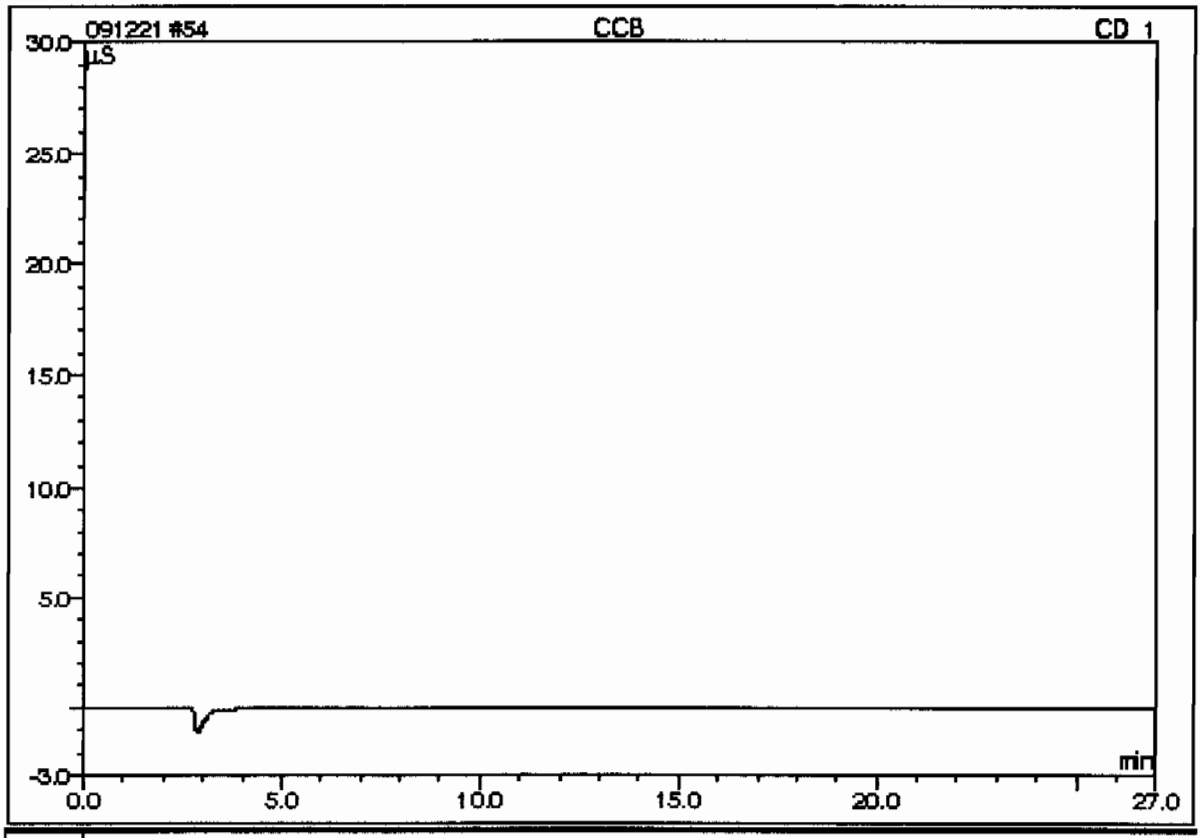

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 091222.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	12/22/09 13:27		1	091222	VH1
BLK	12/22/09 13:57		1	091222	VH1
BLK	12/22/09 14:27		1	091222	VH1
ICV	12/22/09 14:57		1	091222	VH1
ICB	12/22/09 15:26		1	091222	VH1
243029001	12/22/09 15:56	934564	1	091222	VH1
1201999495	12/22/09 16:26	934564	1	091222	VH1
1201999496	12/22/09 16:56	934564	1	091222	VH1
243029002	12/22/09 17:26	934564	1	091222	VH1
CVH	12/22/09 17:56		1	091222	VH1
CCB	12/22/09 18:26		1	091222	VH1
243014002	12/22/09 18:56	935518	1	091222	VH1
243286001	12/22/09 19:26	935518	5	091222	VH1
1202001782	12/22/09 19:56	935518	5	091222	VH1
1202001784	12/22/09 20:25	935518	5	091222	VH1
243286004	12/22/09 20:55	935518	5	091222	VH1
CCV	12/22/09 21:25		1	091222	VH1
CCB	12/22/09 21:55		1	091222	VH1
242435001	12/22/09 22:25	931027	1	091222	VH1
1201991334	12/22/09 22:55	931027	1	091222	VH1
1201991335	12/22/09 23:25	931027	1	091222	VH1
1201991336	12/22/09 23:55	931027	1	091222	VH1

14 WIC091222-02ICV

Sample Name:	WIC091222-02ICV	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/22/2009 14:57	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

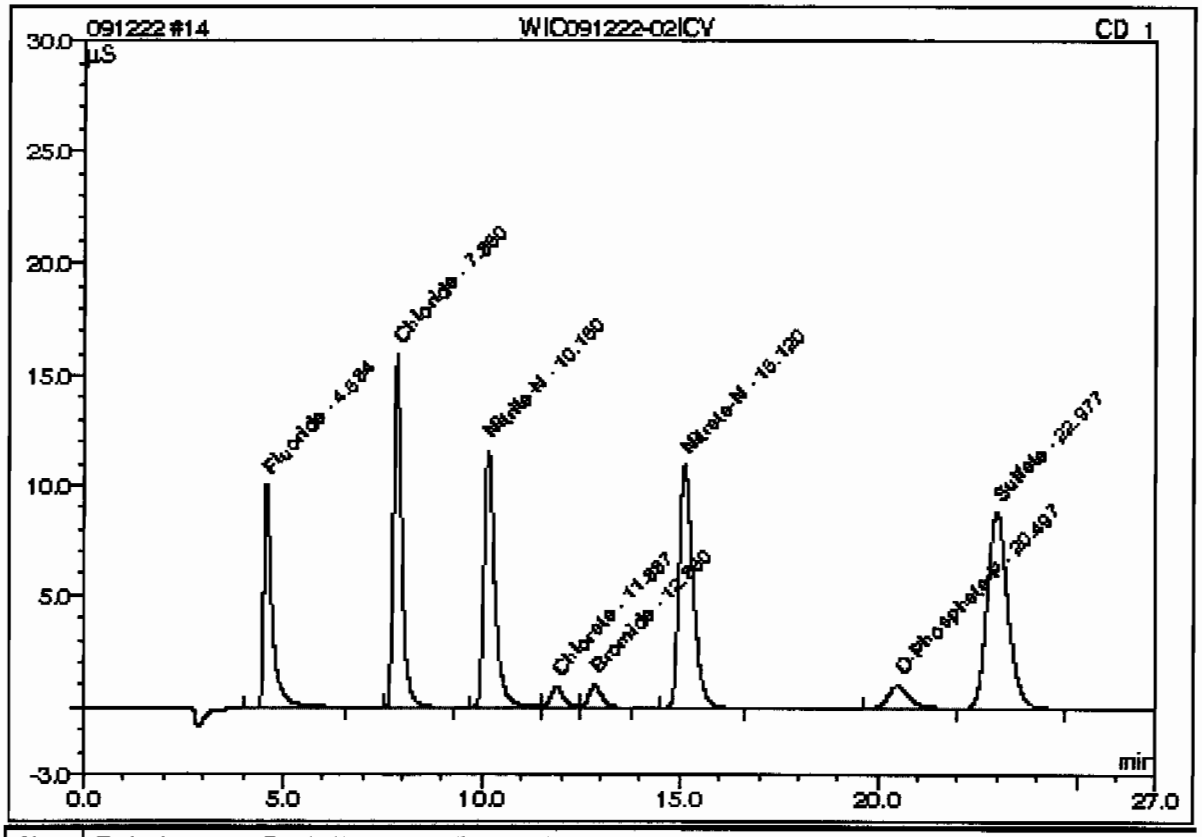

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.58	Fluoride	n.a.	4.6089		2.44000	11.62
2	7.85	Chloride	n.a.	9.0358		3.75697	17.89
3	10.15	Nitrite-N	n.a.	4.6718		3.63455	17.30
4	11.89	Chlorate	n.a.	2.5000		0.33958	1.62
5	12.85	Bromide	n.a.	2.4627		0.37240	1.77
6	15.12	Nitrate-N	n.a.	4.5842		4.47561	21.31
7	20.50	O-Phosphate-P	n.a.	2.6750		0.65143	3.10
8	22.98	Sulfate	n.a.	18.3440		5.33382	25.39
Total:				48.8823	0.000	21.004	100.00

15 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/22/2009 15:26	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

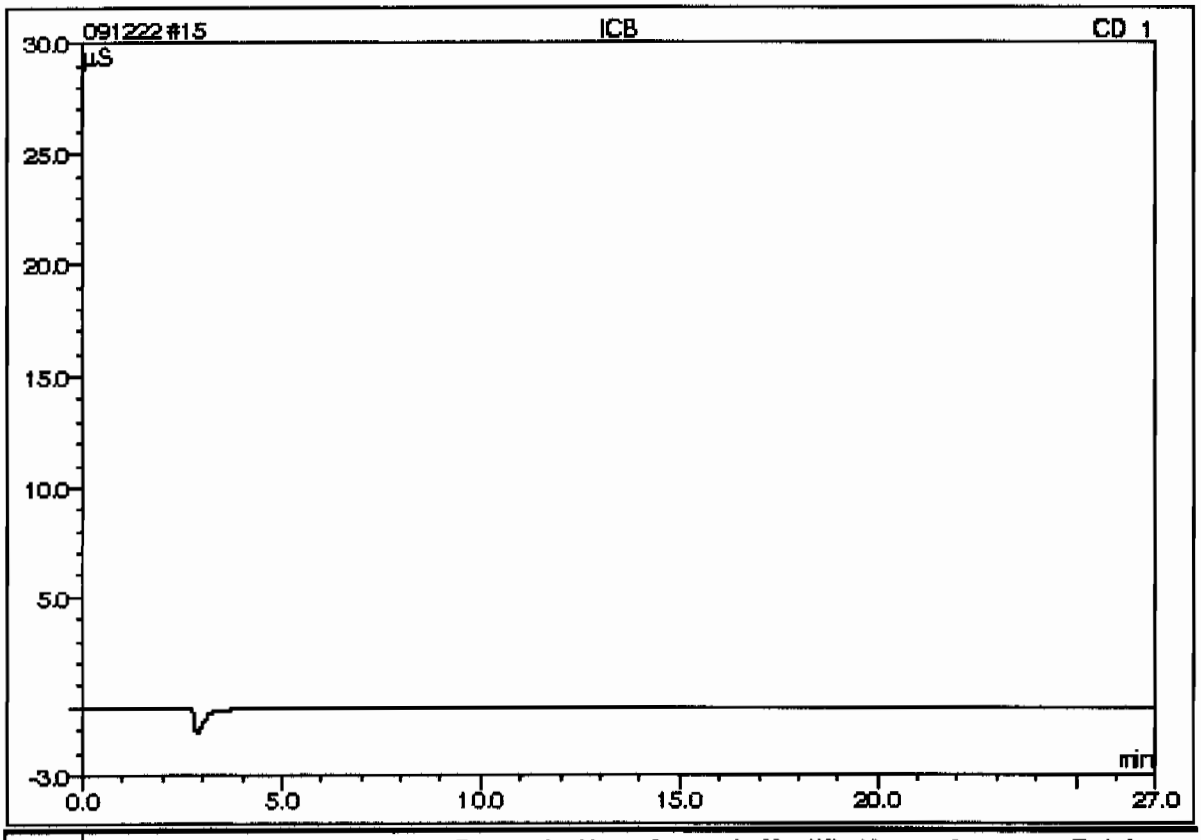

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

20 WIC091222-02CVH

Sample Name:	WIC091222-02CVH	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/22/2009 17:56	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

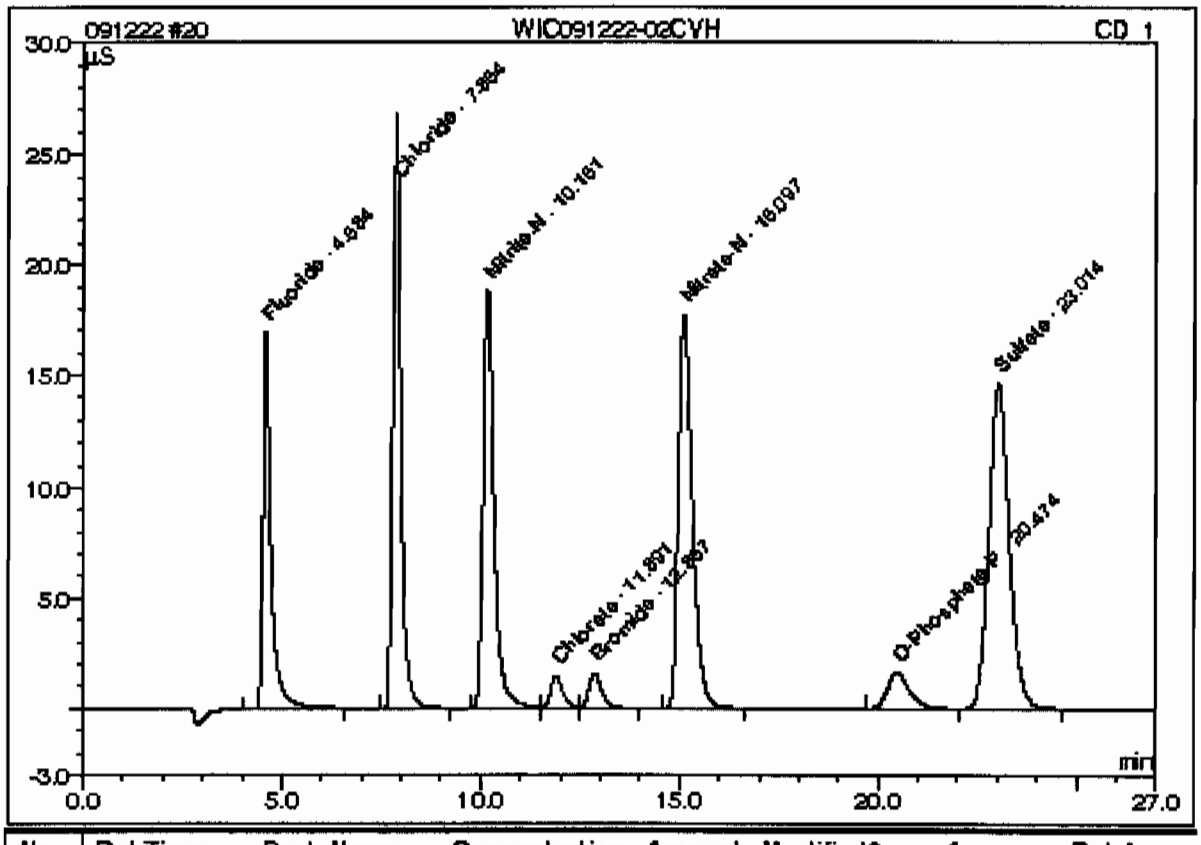

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.58	Fluoride	n.a.	7.4633		3.96534	11.60
2	7.86	Chloride	n.a.	14.9167		6.22214	18.21
3	10.16	Nitrite-N	n.a.	7.4899		5.86736	17.17
4	11.89	Chlorate	n.a.	3.7742		0.51537	1.51
5	12.86	Bromide	n.a.	3.7634		0.57135	1.67
6	15.10	Nitrate-N	n.a.	7.4338		7.32216	21.43
7	20.47	O-Phosphate-P	n.a.	4.0728		1.01773	2.98
8	23.01	Sulfate	n.a.	29.6907		8.69123	25.43
Total:				78.6046	0.000	34.173	100.00

21 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	11	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/22/2009 18:26	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

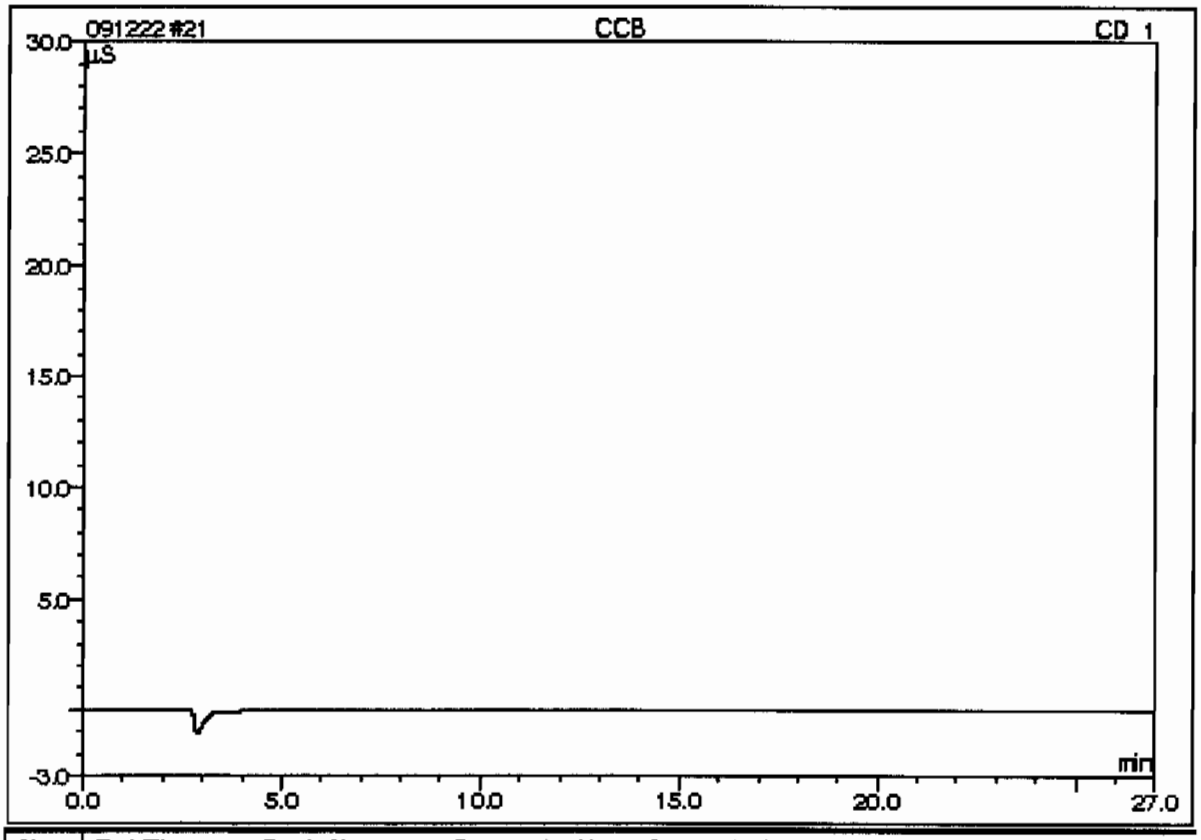

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

23 243286001/935518/5/2/

Sample Name:	243286001/935518/5/2/	*Injection Volume:*	50.0
Vial Number:	13	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/22/2009 19:26	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

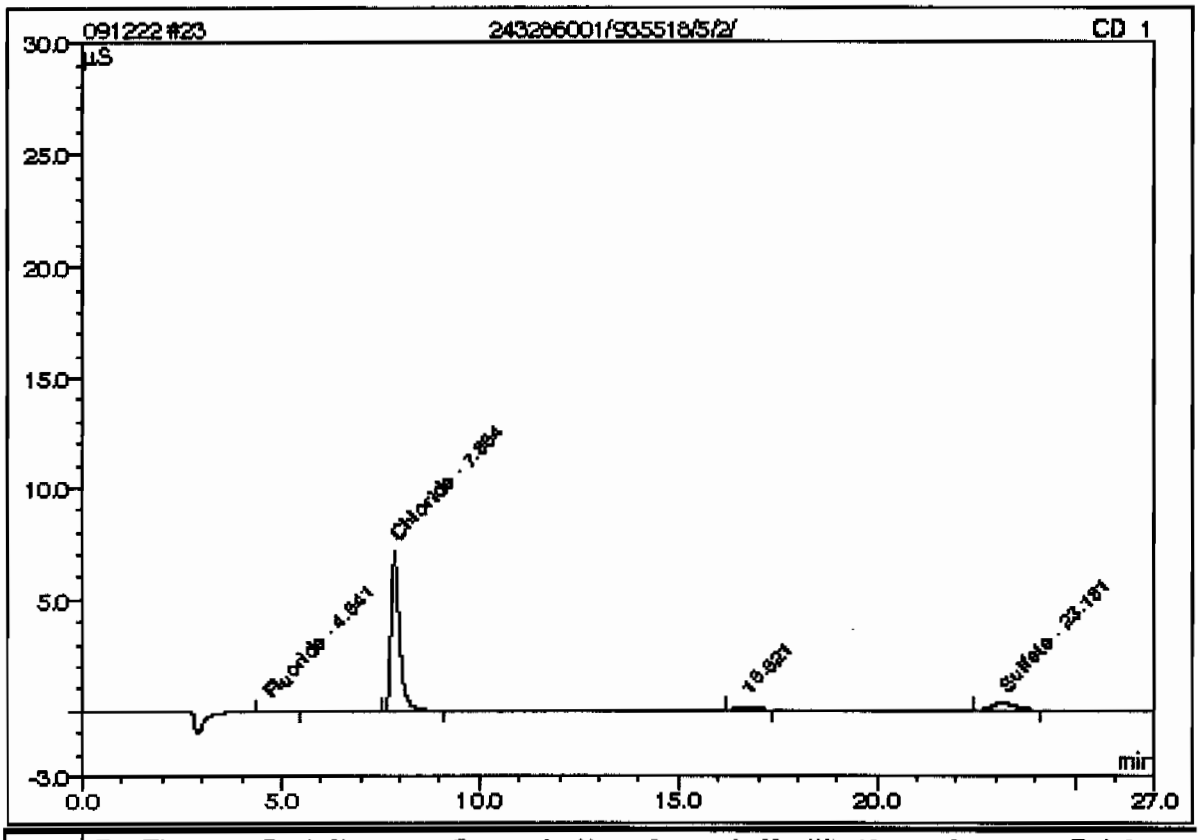

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.64	Fluoride	n.a.	0.0886		0.02446	1.21
2	7.86	Chloride	n.a.	4.2647		1.75698	87.04
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.18	Sulfate	n.a.	1.0296		0.21065	10.44
Total:				5.3829	0.000	1.992	98.69

24 1202001782/935518/5/2/DUP

Sample Name:	1202001782/935518/5/2/DUP	*Injection Volume:*	50.0
Vial Number:	14	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/22/2009 19:56	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

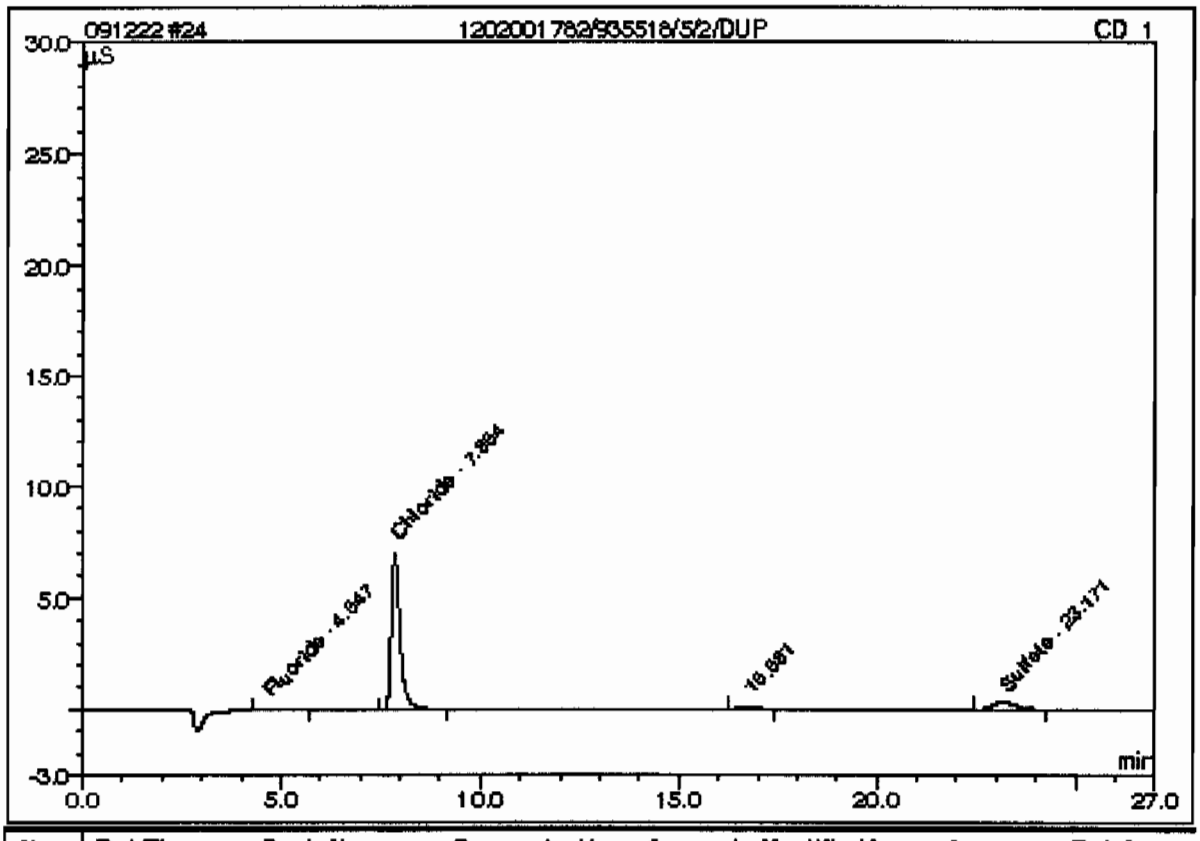

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	n.a.	0.0994		0.03025	1.49
2	7.86	Chloride	n.a.	4.2802		1.76350	86.57
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	23.17	Sulfate	n.a.	1.0515		0.21711	10.66
Total:				5.4311	0.000	2.011	98.71

25 1202001784/935518/5/2/PS

Sample Name:	1202001784/935518/5/2/PS	*Injection Volume:*	50.0
Vial Number:	15	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/22/2009 20:25	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GL GC B086;300;9056

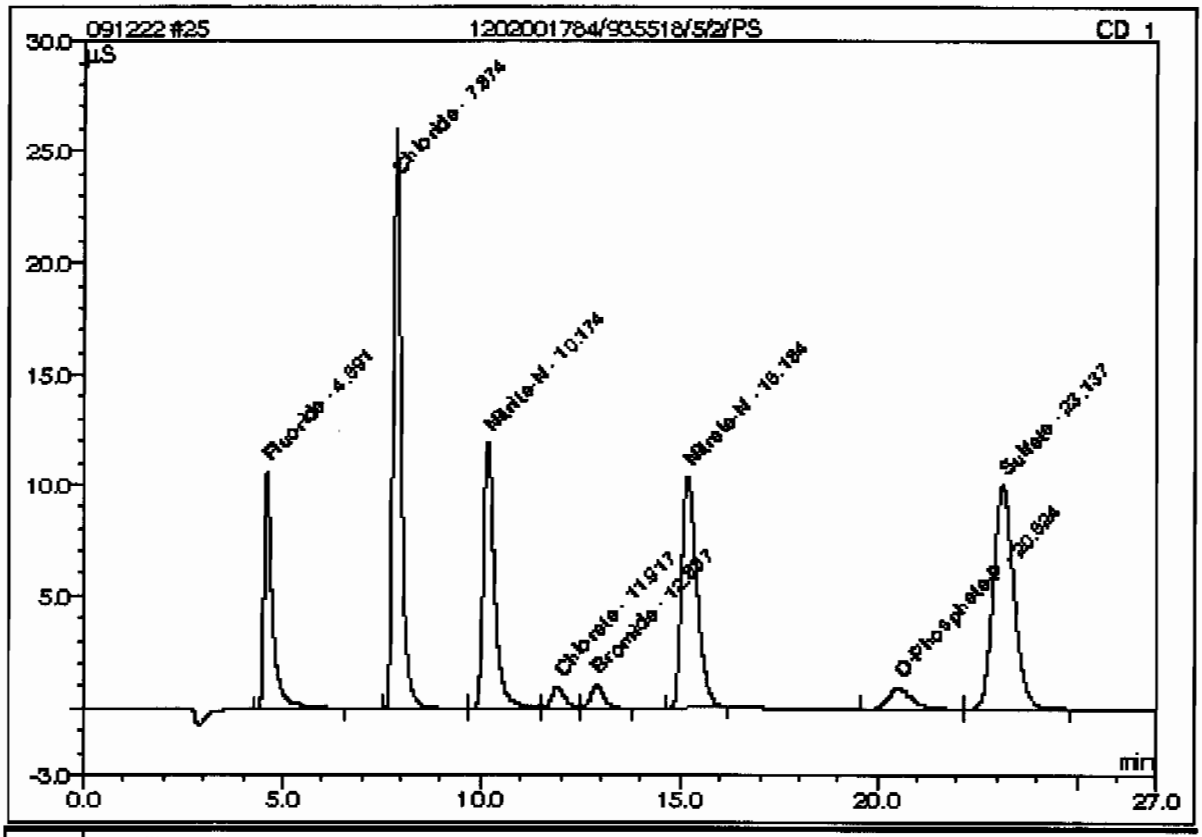

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	n.a.	4.9597		2.62751	10.76
2	7.87	Chloride	n.a.	14.6860		6.12542	25.08
3	10.17	Nitrite-N	n.a.	4.8808		3.80015	15.56
4	11.92	Chlorate	n.a.	2.5327		0.34409	1.41
5	12.89	Bromide	n.a.	2.5199		0.38115	1.56
6	15.18	Nitrate-N	n.a.	4.7092		4.60052	18.84
7	20.52	O-Phosphate-P	n.a.	2.6065		0.63348	2.59
8	23.14	Sulfate	n.a.	20.2845		5.90800	24.19
Total:				57.1793	0.000	24.420	100.00

27 WIC091222-02CCV

Sample Name:	WIC091222-02CCV	*Injection Volume:*	50.0
Vial Number:	17	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/22/2009 21:25	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

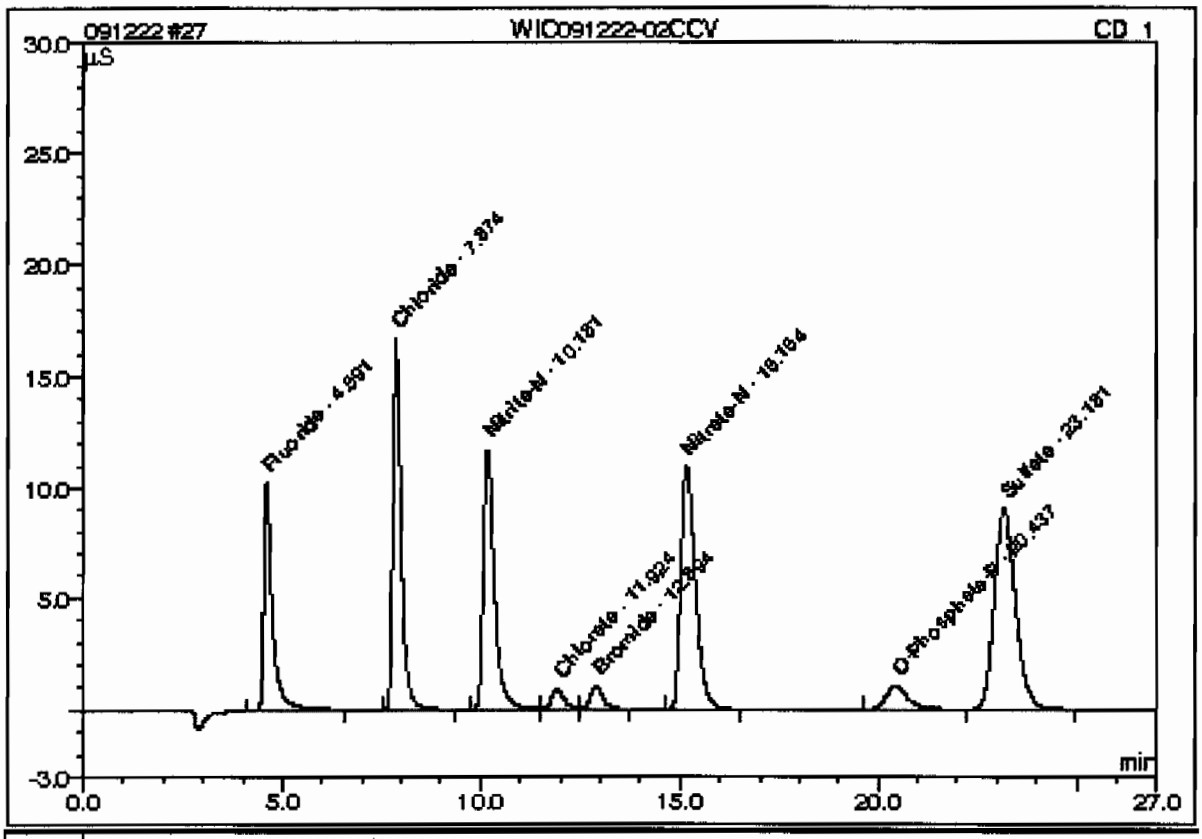

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	n.a.	4.7997		2.54200	11.73
2	7.87	Chloride	n.a.	9.5521		3.97339	18.33
3	10.18	Nitrite-N	n.a.	4.7814		3.72138	17.17
4	11.92	Chlorate	n.a.	2.5025		0.33992	1.57
5	12.89	Bromide	n.a.	2.4454		0.36976	1.71
6	15.16	Nitrate-N	n.a.	4.6777		4.56902	21.08
7	20.44	O-Phosphate-P	n.a.	2.7609		0.67394	3.11
8	23.18	Sulfate	n.a.	18.8655		5.48814	25.32
Total:				50.3852	0.000	21.678	100.00

28 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	18	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/22/2009 21:55	Analyst:	VH1
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

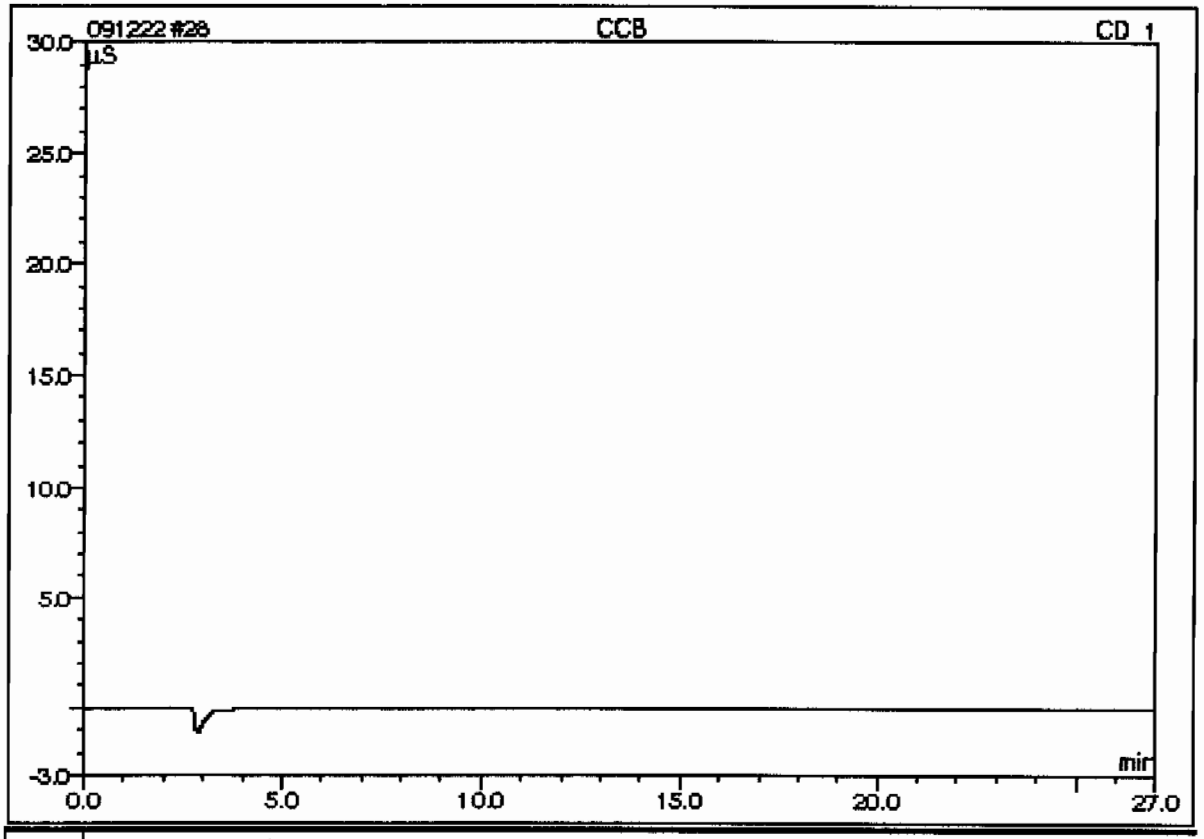

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

Nitrate Nitrite by Cadmium Reduction

This is runlog lachat3

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
1.5 PPM		1	axh3	12/21/2009 10:44:56	OM_12-21-2009_10-43-54
1.0 PPM		1	axh3	12/21/2009 10:46:07	OM_12-21-2009_10-43-54
0.5 ppm		1	axh3	12/21/2009 10:47:20	OM_12-21-2009_10-43-54
0.1 ppm		1	axh3	12/21/2009 10:48:34	OM_12-21-2009_10-43-54
0.05 ppm		1	axh3	12/21/2009 10:49:47	OM_12-21-2009_10-43-54
ICAL-00		1	axh3	12/21/2009 10:51:00	OM_12-21-2009_10-43-54
1.0 ppm ICV		1	axh3	12/21/2009 10:53:23	OM_12-21-2009_10-43-54
ICB		1	axh3	12/21/2009 10:55:44	OM_12-21-2009_10-43-54
Nitrate 1.0 ppm		1	axh3	12/21/2009 10:58:04	OM_12-21-2009_10-43-54
Nitrite 1.0 ppm		1	axh3	12/21/2009 11:00:24	OM_12-21-2009_10-43-54
1202000059	934820	1	axh3	12/21/2009 11:02:45	OM_12-21-2009_10-43-54
1202000066	934820	1	axh3	12/21/2009 11:03:58	OM_12-21-2009_10-43-54
243085001	934820	5	axh3	12/21/2009 11:05:11	OM_12-21-2009_10-43-54
1202000060	934820	5	axh3	12/21/2009 11:06:24	OM_12-21-2009_10-43-54
1202000063	934820	5	axh3	12/21/2009 11:07:37	OM_12-21-2009_10-43-54
243104001	934820	5	axh3	12/21/2009 11:08:49	OM_12-21-2009_10-43-54
1202000061	934820	5	axh3	12/21/2009 11:10:02	OM_12-21-2009_10-43-54
1202000064	934820	5	axh3	12/21/2009 11:11:15	OM_12-21-2009_10-43-54
243108001	934820	5	axh3	12/21/2009 11:12:27	OM_12-21-2009_10-43-54
243108002	934820	5	axh3	12/21/2009 11:13:39	OM_12-21-2009_10-43-54
1.0 ppm CCV		1	axh3	12/21/2009 11:14:51	OM_12-21-2009_10-43-54
CCB		1	axh3	12/21/2009 11:17:13	OM_12-21-2009_10-43-54
243188001	934820	50	axh3	12/21/2009 11:19:33	OM_12-21-2009_10-43-54
1202000062	934820	50	axh3	12/21/2009 11:20:45	OM_12-21-2009_10-43-54
1202000065	934820	50	axh3	12/21/2009 11:21:57	OM_12-21-2009_10-43-54
243253001	934820	25	axh3	12/21/2009 11:23:10	OM_12-21-2009_10-43-54
1202000921	934820	25	axh3	12/21/2009 11:24:21	OM_12-21-2009_10-43-54
1202000922	934820	25	axh3	12/21/2009 11:25:34	OM_12-21-2009_10-43-54
243223004	934820	25	axh3	12/21/2009 11:26:45	OM_12-21-2009_10-43-54
243223005*	934820	50	axh3	12/21/2009 11:27:57	OM_12-21-2009_10-43-54
243223007	934820	50	axh3	12/21/2009 11:29:10	OM_12-21-2009_10-43-54
243223008	934820	50	axh3	12/21/2009 11:30:23	OM_12-21-2009_10-43-54
1.0 ppm CCV		1	axh3	12/21/2009 11:31:36	OM_12-21-2009_10-43-54
CCB		1	axh3	12/21/2009 11:33:57	OM_12-21-2009_10-43-54
243223009	934820	25	axh3	12/21/2009 11:36:19	OM_12-21-2009_10-43-54
243223010	934820	50	axh3	12/21/2009 11:37:32	OM_12-21-2009_10-43-54
243242001	934820	5	axh3	12/21/2009 11:38:44	OM_12-21-2009_10-43-54
243242002	934820	5	axh3	12/21/2009 11:39:56	OM_12-21-2009_10-43-54
243251001	934820	5	axh3	12/21/2009 11:41:09	OM_12-21-2009_10-43-54
243255002	934820	5	axh3	12/21/2009 11:42:21	OM_12-21-2009_10-43-54
243255003	934820	5	axh3	12/21/2009 11:43:33	OM_12-21-2009_10-43-54
243255005	934820	5	axh3	12/21/2009 11:44:46	OM_12-21-2009_10-43-54
243257001	934820	5	axh3	12/21/2009 11:45:57	OM_12-21-2009_10-43-54
243257006*	934820	5	axh3	12/21/2009 11:47:09	OM_12-21-2009_10-43-54
1.0 ppm CCV		1	axh3	12/21/2009 11:48:21	OM_12-21-2009_10-43-54
CCB		1	axh3	12/21/2009 11:50:43	OM_12-21-2009_10-43-54
1202001088	935263	1	axh3	12/21/2009 11:53:04	OM_12-21-2009_10-43-54
1202001091	935263	1	axh3	12/21/2009 11:54:18	OM_12-21-2009_10-43-54
243285002	935263	5	axh3	12/21/2009 11:55:30	OM_12-21-2009_10-43-54
1202001089	935263	5	axh3	12/21/2009 11:56:43	OM_12-21-2009_10-43-54
1202001090	935263	5	axh3	12/21/2009 11:57:56	OM_12-21-2009_10-43-54
243286001	935263	5	axh3	12/21/2009 11:59:09	OM_12-21-2009_10-43-54
243286004	935263	5	axh3	12/21/2009 12:00:21	OM_12-21-2009_10-43-54
1.0 ppm CCV		1	axh3	12/21/2009 12:02:41	OM_12-21-2009_10-43-54
CCB		1	axh3	12/21/2009 12:05:03	OM_12-21-2009_10-43-54

Author: lachat

Date : 12/21/2009

Original Run Filename: OM_12-21-2009_10-43-54.OMN created 12/21/2009 10:43:54
Original Run Author's Signature: [lachat]
Current Run Filename: OM_12-21-2009_10-43-54.OMN last modified 12/21/2009 12:06:24
Current Run Author's Signature: [lachat]
Description: EPA 353.2
Cadmium Colum 9056CAJ
LCS nominal 1.0 mg/L

Sample	Rep.	Cup No.	Channel 1 NO3 + NO2 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR091221-26	1	S9	1.50	18.6	12/21/2009@10:44:56			1.5 PPM
WTR091221-25	1	S10	1.00	12.4	12/21/2009@10:46:07			1.0 PPM
WTR091221-24	1	S11	0.500	6.12	12/21/2009@10:47:20			0.5 ppm
WTR091221-23	1	S12	0.100	1.24	12/21/2009@10:48:34			0.1 ppm
WTR091221-21	1	S13	0.0500	0.628	12/21/2009@10:49:47			0.05 ppm
0.0ppm	1	S15	0.00	-0.0353	12/21/2009@10:51:00			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99999 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR091221-27 ICV	1	S16	0.968	12.0	12/21/2009@10:53:23			1.0 ppm ICV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.968 < 1.10					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.968 > 0.894					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
ICB	1	S15	3.94e-4	-0.0139	12/21/2009@10:55:44			ICB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	3.94e-4 < 0.0500					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	3.94e-4 > -0.0500					
		Message	ICB Passed					
		Action	Continue					
WTR091221-22	1	S1	0.945	11.7	12/21/2009@10:58:04			Nitrate 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.945 < 1.10					
		Message	Nitrate Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.945 > 0.894					
		Message	Nitrate Standard Passed					
		Action	Continue					
WTR091221-28	1	S2	0.938	11.6	12/21/2009@11:00:24			Nitrite 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.938 < 1.10					
		Message	Nitrite Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.938 > 0.894					
		Message	Nitrite Standard Passed					
		Action	Continue					
1202000059|934820|MB	1	1	0.00813	0.0820	12/21/2009@11:02:45			
1202000066||LCS	1	2	0.961	11.9	12/21/2009@11:03:58			
243085001	1	3	0.00740	0.0729	12/21/2009@11:05:11		5.00	
1202000060||DUP	1	4	0.0106	0.113	12/21/2009@11:06:24		5.00	
1202000063||PS	1	5	0.977	12.1	12/21/2009@11:07:37		5.00	

243104001	1	6	0.133	1.63	12/21/2009@11:08:49		5.00	
1202000061|DUP	1	7	0.126	1.55	12/21/2009@11:10:02		5.00	
1202000064|PS	1	8	1.12	13.9	12/21/2009@11:11:15		5.00	
243108001	1	9	0.00833	0.0845	12/21/2009@11:12:27		5.00	
243108002	1	10	-0.00322	-0.0587	12/21/2009@11:13:39		5.00	
WTR091221-25 CCV	1	S10	0.971	12.0	12/21/2009@11:14:51			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.971 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.971 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-3.13e-4	-0.0227	12/21/2009@11:17:13			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-3.13e-4 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-3.13e-4 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
243188001	1	11	0.167	2.05	12/21/2009@11:19:33		50.00	
1202000062|DUP	1	12	0.161	1.98	12/21/2009@11:20:45		50.00	
1202000065|PS	1	13	1.11	13.8	12/21/2009@11:21:57		50.00	
243253001	1	23	0.156	1.92	12/21/2009@11:23:10		25.00	
1202000921|DUP	1	24	0.195	2.40	12/21/2009@11:24:21		25.00	
1202000922|PS	1	25	1.17	14.5	12/21/2009@11:25:34		25.00	
243223004	1	14	0.233	2.86	12/21/2009@11:26:45		25.00	
243223005	1	15	0.329	4.06	12/21/2009@11:27:57		50.00	
243223007	1	16	0.255	3.15	12/21/2009@11:29:10		50.00	
243223008	1	17	0.385	4.75	12/21/2009@11:30:23		50.00	
WTR091221-25 CCV	1	S10	0.998	12.4	12/21/2009@11:31:36			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.998 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.998 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	0.00235	0.0103	12/21/2009@11:33:57			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.00235 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.00235 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
243223009	1	18	0.324	4.00	12/21/2009@11:36:19		25.00	
243223010	1	19	0.161	1.98	12/21/2009@11:37:32		50.00	
243242001	1	20	0.00861	0.0880	12/21/2009@11:38:44		5.00	
243242002	1	21	0.0122	0.133	12/21/2009@11:39:56		5.00	
243251001	1	22	0.0176	0.200	12/21/2009@11:41:09		5.00	
243255002	1	26	0.00811	0.0818	12/21/2009@11:42:21		5.00	
243255003	1	27	0.0395	0.470	12/21/2009@11:43:33		5.00	
243255005	1	28	0.0374	0.445	12/21/2009@11:44:46		5.00	
243257001	1	29	0.0511	0.614	12/21/2009@11:45:57		5.00	
243257006	1	30	0.101	1.24	12/21/2009@11:47:09		5.00	
WTR091221-25 CCV	1	S10	1.00	12.4	12/21/2009@11:48:21			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								

		Result:	1.00 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.00 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-8.40e-4	-0.0292	12/21/2009@11:50:43			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-8.40e-4 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-8.40e-4 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202001088|935263|MB	1	31	0.00932	0.0967	12/21/2009@11:53:04			
1202001091||LCS	1	32	0.963	11.9	12/21/2009@11:54:18			
243285002	1	33	0.118	1.44	12/21/2009@11:55:30		5.00	
1202001089||DUP	1	34	0.116	1.42	12/21/2009@11:56:43		5.00	
1202001090||PS	1	35	1.13	14.0	12/21/2009@11:57:56		5.00	
243286001	1	36	0.0115	0.124	12/21/2009@11:59:09		5.00	
243286004	1	37	0.00926	0.0960	12/21/2009@12:00:21		5.00	
WTR091221-25 CCV	1	S10	0.972	12.0	12/21/2009@12:02:41			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.972 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.972 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-5.57e-4	-0.0257	12/21/2009@12:05:03			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-5.57e-4 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-5.57e-4 > -0.0500					
		Message	CCB Passed					
		Action	Continue					

Author: lachat

Date : 12/21/2009

Channel 1 (NO3 + NO2) : Current View

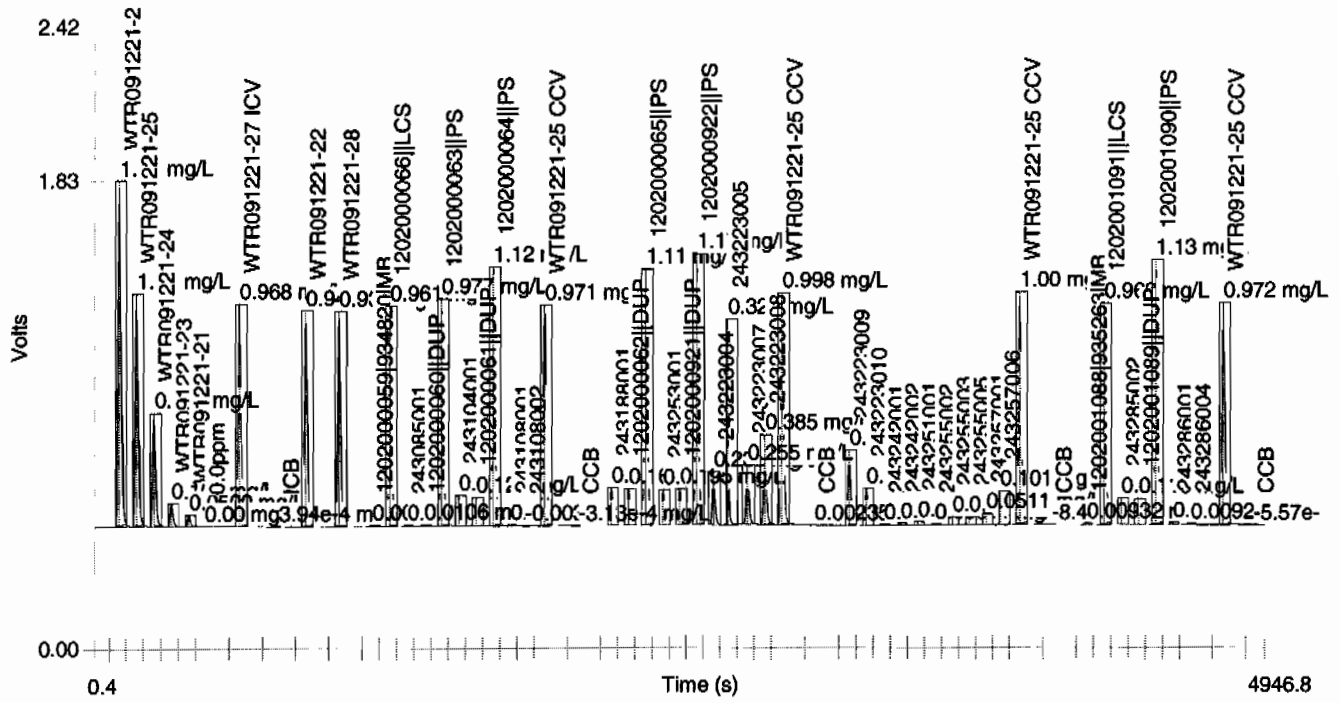

Table 1: NO3 + NO2

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	1.50	1	18.6	1.34	0.0	12/21/2009	10:46:15
2	1.00	1	12.4	0.897	-0.3	12/21/2009	10:47:27
3	0.500	1	6.12	0.439	1.0	12/21/2009	10:48:40
4	0.100	1	1.24	0.0880	-1.8	12/21/2009	10:49:53
5	0.0500	1	0.628	0.0452	-4.5	12/21/2009	10:51:06
6	0.00	1	-0.0353	-0.00131		12/21/2009	10:52:20

Figure 1: NO3 + NO2

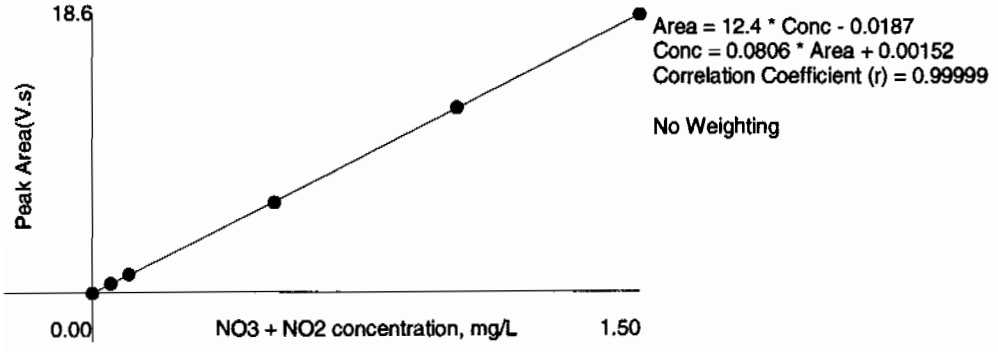

Solids, Total Dissolved

Batch: 934796.0
Analyst:SDS

TDS/TS/VS LogBook

Procedure Code BALDSEP_L
Procedure Description EPA 160.1 Solids, Dissolved
Lab Sop GL-GC-E-001

Sample Type	Sample Id	Lot Id	Nc(mg/L)	Recovery(%)
LCS	1202000008	WTD1230904-01	300	97.667

Sample Type	Sample Id	Rpd(%)
DUP	1202000007	2.1817309997602
DUP	1202000899	2.1978021978022
DUP	1202000900	5.1282051282051

Sample Id	Sample Type	Original Hsn	Instrument	Run Date	Crucible ID	Aliquot (L)	Crucible Wt(g)	Final Wt Event 1	Final Wt Event 2	Final Wt Event 3	Final Wt Event 4	Result	Units
1202000006	MB		BAL216	21-DEC-2009 11:22	S9	0.1	56.381	56.381	56.381			0	mg/L
1202000008	LCS		BAL216	21-DEC-2009 11:22	S6	0.1	59.4462	59.4755	59.4755			293	mg/L
242734005	SAMPLE		BAL216	21-DEC-2009 11:22	WET	0.1	51.0361	51.861	51.8612			8251	mg/L
1202000007	DUP	242734005	BAL216	21-DEC-2009 11:22	ACE	0.1	57.3581	58.2015	58.2014			8433	mg/L
242734006	SAMPLE		BAL216	21-DEC-2009 11:22	COP	0.1	47.3362	48.1563	48.156			8198	mg/L
242734007	SAMPLE		BAL216	21-DEC-2009 11:22	JIG	0.1	50.9257	51.0197	51.0195			938	mg/L
242734008	SAMPLE		BAL216	21-DEC-2009 11:22	DOG	0.1	53.9244	53.9252	53.9251			7	mg/L
243104001	SAMPLE		BAL216	21-DEC-2009 11:22	G81	0.1	55.4802	55.4956	55.4955			153	mg/L
243253001	SAMPLE		BAL216	21-DEC-2009 11:22	WAX	0.1	51.9167	51.9213	51.9213			46	mg/L
1202000899	DUP	243253001	BAL216	21-DEC-2009 11:22	BEN	0.1	54.4407	54.4451	54.4452			45	mg/L
243255002	SAMPLE		BAL216	21-DEC-2009 11:22	RIO	0.1	49.5339	49.5528	49.5525			186	mg/L
243255003	SAMPLE		BAL216	21-DEC-2009 11:22	YAM	0.1	53.6641	53.6788	53.6783			142	mg/L
243255005	SAMPLE		BAL216	21-DEC-2009 11:22	PO	0.1	55.6061	55.6198	55.6195			134	mg/L
243257001	SAMPLE		BAL216	21-DEC-2009 11:22	J1	0.1	50.196	50.2095	50.2091			131	mg/L
243257006	SAMPLE		BAL216	21-DEC-2009 11:22	420	0.1	55.8046	55.8181	55.8179			133	mg/L
1202000900	DUP	243257006	BAL216	21-DEC-2009 11:22	2	0.1	53.331	53.345	53.345			140	mg/L
243285002	SAMPLE		BAL216	21-DEC-2009 11:22	789	0.1	62.9186	62.9336	62.9331			145	mg/L
243286001	SAMPLE		BAL216	21-DEC-2009 11:22	J6	0.1	51.5932	51.6301	51.6299			367	mg/L
243286004	SAMPLE		BAL216	21-DEC-2009 11:22	OAK	0.1	47.1171	47.1535	47.153			359	mg/L

Comments: **All Weights are in Grams**
A) Result = (Final - Crucible)/Aliquot * 1000
B) Prep Factor = 0.5 / Aliquot

Date: 22-DEC-09 07:44:52 C
Date: 21-DEC-09 12:14:52
Temperature: 104 C
Temperature: 180 C

Note: Aliquot is used for the determination of the effective MDL and PQL in LIMS

Specific Conductivity

Analytical Logbook

Conductivity and Salinity

Batch ID: 935817.0
Analyst: Travis Tola
Method: EPA 120.1 (gk) SM 18_2510B (gl)
Lab SOP: GL-GC-E-009 REV# 9
Instrument: Orion 160 Conductivity Meter

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
CCV	240	Conductivity LCS	WCO091117-06	25	mL
LCS	1202002356	Conductivity LCS	WCO091117-06	25	mL

Sample ID	Run Date	Dilution	Temperature (C)	Conductivity Result (umhos/cm)
1202002356 LCS	22-DEC-2009 15:51:26	1	25	1404
242734005 (gk)	22-DEC-2009 15:51:40	1	24.9	13820
242734006 (gk)	22-DEC-2009 15:51:52	1	24.3	13660
242734007 (gk)	22-DEC-2009 15:52:07	1	24.1	1625
242734008 (gk)	22-DEC-2009 15:52:18	1	24.4	1.06
CCV	22-DEC-2009 15:52:29	1	24.3	1380
243074001 (gl)	22-DEC-2009 15:52:41	1	24.3	297
243074002 (gl)	22-DEC-2009 15:52:57	1	24.4	527
243074003 (gl)	22-DEC-2009 15:53:10	1	23.9	759
243255002 (gk)	22-DEC-2009 15:53:22	1	23.9	220
1202002354 DUP (243255002)	22-DEC-2009 15:53:31	1	23.7	220
CCV	22-DEC-2009 15:53:41	1	24.6	1393
243255003 (gk)	22-DEC-2009 15:54:01	1	23.8	178.1
243255005 (gk)	22-DEC-2009 15:54:18	1	23.5	177.5
243257001 (gk)	22-DEC-2009 15:54:35	1	23.4	122.9
1202002355 DUP (243257001)	22-DEC-2009 15:54:46	1	23.3	121.2
243257006 (gk)	22-DEC-2009 15:55:10	1	23.2	111.5
CCV	22-DEC-2009 15:55:24	1	24.6	1379
243285002 (gk)	22-DEC-2009 15:55:43	1	23.1	137.3
243286001 (gk)	22-DEC-2009 15:55:54	1	23.1	600
243286004 (gk)	22-DEC-2009 15:56:04	1	23.1	600
CCV	22-DEC-2009 15:56:13	1	24.1	1363

Calibration Information:
Run Date: 22-DEC-09 12:05
Instrument: CON160
Analyst: TXT1

Standard	Observed	Theoretical		%Recovery
WCO091222-07	15.34	14.5	umhos/cm	105.79
WD091222-01	1359	1413	umhos/cm	96.178
WCO091222-04	1781	1900	umhos/cm	93.737
WCO091222-08	23100	24800	umhos/cm	93.145
WCO091222-01	244	250	umhos/cm	97.6
WCO091222-02	712	750	umhos/cm	94.933

Comments:

Total Phosphorus

Prep LogBook

Analyst: SXJ1 Verified by:_____

Batch: 934823

Lab SOP: GL-GC-E-071 REV# 10

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202000076	UTR1169166-01	.2	mL
MS	1202000074	UTR1169166-01	.2	mL
MS	1202000913	UTR1169166-01	.2	mL
MSD	1202000075	UTR1169166-01	.2	mL
MSD	1202000914	UTR1169166-01	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202000072		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
LCS	1202000076		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243104001		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
DUP	1202000073	243104001	EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
MS	1202000074	243104001	EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
MSD	1202000075	243104001	EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243223004		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	WASTE WATER
SAMPLE	243223008		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	WASTE WATER
SAMPLE	243255002		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
DUP	1202000912	243255002	EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
MS	1202000913	243255002	EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
MSD	1202000914	243255002	EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243255003		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243255005		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243257001		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243257006		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243278001		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	WASTE WATER
SAMPLE	243278004		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	WASTE WATER
SAMPLE	243285002		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243286001		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243286004		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER

Reagent/Solvent Lot ID	Amount	Description
1238215-C	4 mL	TKN/PO4 Digestion Solution

Comments:

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
3.0 ppm Std.		1	axh3	12/22/2009 9:01:35	OM_12-22-2009_09-00-47
1.0 ppm Std.		1	axh3	12/22/2009 9:02:24	OM_12-22-2009_09-00-47
0.5 ppm Std		1	axh3	12/22/2009 9:03:13	OM_12-22-2009_09-00-47
0.1 ppm Std		1	axh3	12/22/2009 9:04:03	OM_12-22-2009_09-00-47
0.05 ppm Std		1	axh3	12/22/2009 9:04:55	OM_12-22-2009_09-00-47
ICAL-00		1	axh3	12/22/2009 9:05:46	OM_12-22-2009_09-00-47
ICV		1	axh3	12/22/2009 9:07:51	OM_12-22-2009_09-00-47
ICB		1	axh3	12/22/2009 9:09:57	OM_12-22-2009_09-00-47
1201998895	934274	1	axh3	12/22/2009 9:12:00	OM_12-22-2009_09-00-47
1201998899	934274	1	axh3	12/22/2009 9:12:52	OM_12-22-2009_09-00-47
243009001	934274	1	axh3	12/22/2009 9:13:42	OM_12-22-2009_09-00-47
1201998896	934274	1	axh3	12/22/2009 9:14:33	OM_12-22-2009_09-00-47
1201998897	934274	1	axh3	12/22/2009 9:15:23	OM_12-22-2009_09-00-47
1201998898	934274	1	axh3	12/22/2009 9:16:13	OM_12-22-2009_09-00-47
243063001	934274	1	axh3	12/22/2009 9:17:03	OM_12-22-2009_09-00-47
243089001	934274	1	axh3	12/22/2009 9:17:52	OM_12-22-2009_09-00-47
243009003	934274	1	axh3	12/22/2009 9:18:41	OM_12-22-2009_09-00-47
243014002	934274	1	axh3	12/22/2009 9:19:30	OM_12-22-2009_09-00-47
CCV		1	axh3	12/22/2009 9:20:19	OM_12-22-2009_09-00-47
CCB		1	axh3	12/22/2009 9:22:23	OM_12-22-2009_09-00-47
1202000072*	934824	1	axh3	12/22/2009 9:24:26	OM_12-22-2009_09-00-47
1202000076*	934824	1	axh3	12/22/2009 9:25:14	OM_12-22-2009_09-00-47
243223004*	934824	1	axh3	12/22/2009 9:26:04	OM_12-22-2009_09-00-47
243223008*	934824	1	axh3	12/22/2009 9:26:55	OM_12-22-2009_09-00-47
1202000072	934824	1	axh3	12/22/2009 9:27:45	OM_12-22-2009_09-00-47
1202000076	934824	1	axh3	12/22/2009 9:28:33	OM_12-22-2009_09-00-47
243223004	934824	25	axh3	12/22/2009 9:29:23	OM_12-22-2009_09-00-47
243223008	934824	1	axh3	12/22/2009 9:30:14	OM_12-22-2009_09-00-47
243104001	934824	1	axh3	12/22/2009 9:31:03	OM_12-22-2009_09-00-47
1202000073	934824	1	axh3	12/22/2009 9:31:51	OM_12-22-2009_09-00-47
CCV		1	axh3	12/22/2009 9:32:39	OM_12-22-2009_09-00-47
CCB		1	axh3	12/22/2009 9:34:44	OM_12-22-2009_09-00-47
1202000074*	934824	1	axh3	12/22/2009 9:36:46	OM_12-22-2009_09-00-47
1202000075*	934824	1	axh3	12/22/2009 9:37:35	OM_12-22-2009_09-00-47
243255002*	934824	1	axh3	12/22/2009 9:38:26	OM_12-22-2009_09-00-47
1202000912*	934824	1	axh3	12/22/2009 9:39:16	OM_12-22-2009_09-00-47
1202000913*	934824	1	axh3	12/22/2009 9:40:07	OM_12-22-2009_09-00-47
1202000914*	934824	1	axh3	12/22/2009 9:40:57	OM_12-22-2009_09-00-47
243255003*	934824	1	axh3	12/22/2009 9:41:46	OM_12-22-2009_09-00-47
243255005*	934824	1	axh3	12/22/2009 9:42:36	OM_12-22-2009_09-00-47
243257001*	934824	1	axh3	12/22/2009 9:43:24	OM_12-22-2009_09-00-47

Author: axh3 Date : 12/22/2009

Original Run Filename: OM_12-22-2009_09-00-47.OMN created 12/22/2009 9:00:47
Original Run Author's Signature: [axh3]
Current Run Filename: OM_12-22-2009_09-00-47.OMN last modified 12/22/2009 9:45:00
Current Run Author's Signature: [axh3]
Description: Total Phosphorous EPA Method 365.4 GEL SOP: GL-GC-E-103
Detection Wavelength: 880nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TLPOS Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR091222-13	1	S2	3.000	14.559	12/22/2009@9:01:35			3.0 ppm Std.
WTR091222-14	1	S3	1.000	5.296	12/22/2009@9:02:24			1.0 ppm Std.
WTR091222-15	1	S4	0.500	2.443	12/22/2009@9:03:13			0.5 ppm Std
WTR091222-16	1	S5	0.100	0.453	12/22/2009@9:04:03			0.1 ppm Std
WTR091222-17	1	S6	0.050	0.201	12/22/2009@9:04:55			0.05 ppm Std
WTR091222-19 0.0	1	S7	0.000	0.049	12/22/2009@9:05:46			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99947 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR091222-18 ICV	1	S8	1.032	5.085	12/22/2009@9:07:51			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.032 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.032 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR091222-19 ICB	1	S7	-0.019	-0.036	12/22/2009@9:09:57			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.019 < 0.050					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.019 > -0.050					
		Message	ICB Passed					
		Action	Continue					
1201998895|934274|MB	1	1	0.030	0.200	12/22/2009@9:12:00			
1201998899||LCS	1	2	1.049	5.170	12/22/2009@9:12:52			
243009001	1	3	0.035	0.227	12/22/2009@9:13:42			
1201998896||DUP	1	4	0.051	0.305	12/22/2009@9:14:33			
1201998897||MS	1	5	1.063	5.238	12/22/2009@9:15:23			
1201998898||MSD	1	6	1.102	5.430	12/22/2009@9:16:13			
243063001	1	9	0.060	0.348	12/22/2009@9:17:03			
243089001	1	10	1.044	5.145	12/22/2009@9:17:52			
243009003	1	7	0.033	0.218	12/22/2009@9:18:41			
243014002	1	8	0.026	0.181	12/22/2009@9:19:30			
WTR091222-14 CCV	1	S3	1.071	5.278	12/22/2009@9:20:19			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.071 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.071 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-19 CCB	1	S7	-2.194e-4	0.055	12/22/2009@9:22:23			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-2.194e-4 < 0.050					

		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.194e-4 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1202000072|934824|MB	1	11	0.036	0.232	12/22/2009@9:24:26			
1202000076||LCS	1	12	0.524	2.608	12/22/2009@9:25:14			
243223004	1	17	23.374	113.996	12/22/2009@9:26:04			
243223008	1	18	0.601	2.986	12/22/2009@9:26:55			
1202000072|934824|MB	1	11	0.036	0.229	12/22/2009@9:27:45			
1202000076||LCS	1	12	1.054	5.194	12/22/2009@9:28:33			
243223004	1	17	0.948	4.679	12/22/2009@9:29:23		25.00	
243223008	1	18	0.523	2.607	12/22/2009@9:30:14			
243104001	1	13	0.069	0.391	12/22/2009@9:31:03			
1202000073||DUP	1	14	0.082	0.454	12/22/2009@9:31:51			
WTR091222-14 CCV	1	S3	1.053	5.187	12/22/2009@9:32:39			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.053 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.053 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-19 CCB	1	S7	0.003	0.072	12/22/2009@9:34:44			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	0.003 < 0.050					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.003 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1202000074||MS	1	15	0.272	1.379	12/22/2009@9:36:46			
1202000075||MSD	1	16	0.613	3.046	12/22/2009@9:37:35			
243255002	1	19	-0.011	0.000	12/22/2009@9:38:26			
1202000912||DUP	1	20	-0.012	-3.426e-4	12/22/2009@9:39:16			
1202000913||MS	1	21	-0.011	-2.318e-5	12/22/2009@9:40:07			
1202000914||MSD	1	22	-0.011	-9.832e-8	12/22/2009@9:40:57			
243255003	1	23	-0.011	0.000	12/22/2009@9:41:46			
243255005	1	24	-0.011	1.536e-4	12/22/2009@9:42:36			
243257001	1	25	-0.012	-4.69e-4	12/22/2009@9:43:24			

Author: axh3 Date : 12/22/2009

Channel 1 (TLPOS) : Current View

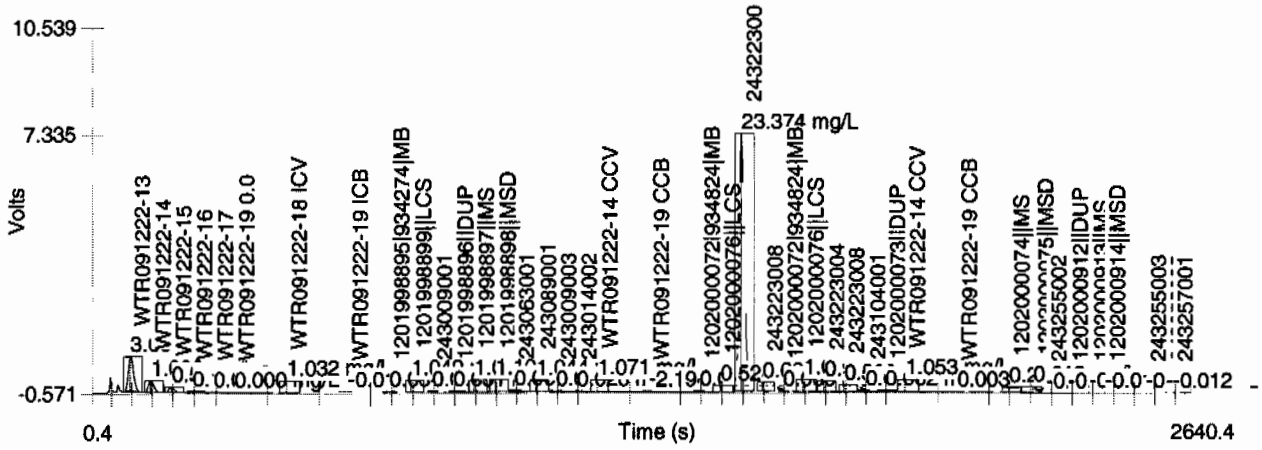

Table 1: TLPOS

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	3.000	1	14.559	1.017	0.7	12/22/2009	9:02:55
2	1.000	1	5.296	0.354	-7.5	12/22/2009	9:03:44
3	0.500	1	2.443	0.166	2.1	12/22/2009	9:04:33
4	0.100	1	0.453	0.033	17.1	12/22/2009	9:05:23
5	0.050	1	0.201	0.016	33.6	12/22/2009	9:06:15
6	0.000	1	0.049	0.005		12/22/2009	9:07:07

Figure 1: TLPOS

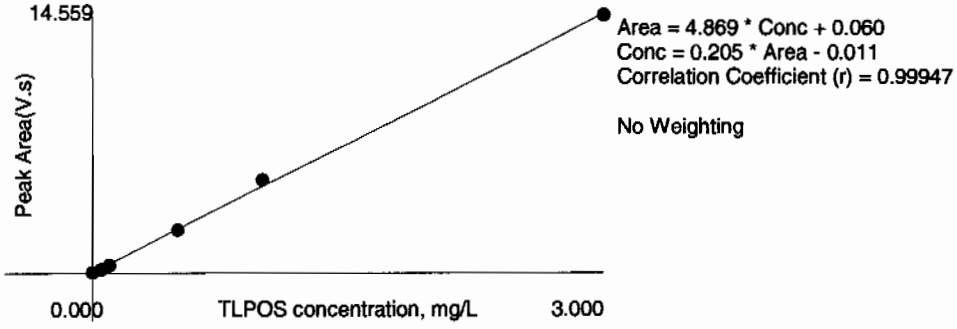

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axh3	12/22/2009 10:38:26	OM_12-22-2009_10-36-58
CCB		1	axh3	12/22/2009 10:40:31	OM_12-22-2009_10-36-58
1202000074	934824	1	axh3	12/22/2009 10:42:33	OM_12-22-2009_10-36-58
1202000075	934824	1	axh3	12/22/2009 10:43:22	OM_12-22-2009_10-36-58
243255002	934824	1	axh3	12/22/2009 10:44:13	OM_12-22-2009_10-36-58
1202000912	934824	1	axh3	12/22/2009 10:45:04	OM_12-22-2009_10-36-58
1202000913	934824	1	axh3	12/22/2009 10:45:55	OM_12-22-2009_10-36-58
1202000914	934824	1	axh3	12/22/2009 10:46:45	OM_12-22-2009_10-36-58
243255003	934824	1	axh3	12/22/2009 10:47:34	OM_12-22-2009_10-36-58
243255005	934824	1	axh3	12/22/2009 10:48:24	OM_12-22-2009_10-36-58
243257001	934824	1	axh3	12/22/2009 10:49:13	OM_12-22-2009_10-36-58
243257006	934824	1	axh3	12/22/2009 10:50:02	OM_12-22-2009_10-36-58
CCV		1	axh3	12/22/2009 10:50:51	OM_12-22-2009_10-36-58
CCB		1	axh3	12/22/2009 10:52:55	OM_12-22-2009_10-36-58
243278001	934824	1	axh3	12/22/2009 10:54:57	OM_12-22-2009_10-36-58
243278004	934824	1	axh3	12/22/2009 10:55:46	OM_12-22-2009_10-36-58
243285002	934824	1	axh3	12/22/2009 10:56:34	OM_12-22-2009_10-36-58
243286001	934824	1	axh3	12/22/2009 10:57:22	OM_12-22-2009_10-36-58
243286004	934824	1	axh3	12/22/2009 10:58:12	OM_12-22-2009_10-36-58
CCV		1	axh3	12/22/2009 11:00:15	OM_12-22-2009_10-36-58
CCB		1	axh3	12/22/2009 11:02:19	OM_12-22-2009_10-36-58

Author: axh3 Date : 12/22/2009

Original Run Filename: OM_12-22-2009_10-36-58.OMN created 12/22/2009 10:36:58
Original Run Author's Signature: [axh3]
Current Run Filename: OM_12-22-2009_10-36-58.OMN last modified 12/22/2009 11:03:41
Current Run Author's Signature: [axh3]
Description: Total Phosphorous EPA Method 365.4 GEL SOP: GL-GC-E-103
Detection Wavelength: 880nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TLPOS Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR091222-14 CCV	1	S3	1.067	5.257	12/22/2009@10:38:26			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.067 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.067 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-19 CCB	1	S7	0.001	0.062	12/22/2009@10:40:31			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.001 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.001 > -0.050					
		Message	CCB Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
1202000074|934824|MS	1	15	0.443	2.214	12/22/2009@10:42:33			
1202000075||MSD	1	16	0.427	2.136	12/22/2009@10:43:22			
243255002	1	19	0.138	0.728	12/22/2009@10:44:13			
1202000912||DUP	1	20	0.090	0.496	12/22/2009@10:45:04			
1202000913||MS	1	21	1.172	5.767	12/22/2009@10:45:55			
1202000914||MSD	1	22	1.075	5.298	12/22/2009@10:46:45			
243255003	1	23	0.073	0.412	12/22/2009@10:47:34			
243255005	1	24	0.067	0.384	12/22/2009@10:48:24			
243257001	1	25	0.058	0.340	12/22/2009@10:49:13			
243257006	1	26	0.080	0.446	12/22/2009@10:50:02			
WTR091222-14 CCV	1	S3	1.066	5.251	12/22/2009@10:50:51			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.066 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.066 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-19 CCB	1	S7	0.002	0.064	12/22/2009@10:52:55			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.002 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.002 > -0.050					
		Message	CCB Passed					
		Action	Continue					
243278001	1	27	1.404	6.901	12/22/2009@10:54:57			
243278004	1	28	0.094	0.513	12/22/2009@10:55:46			
243285002	1	29	0.038	0.241	12/22/2009@10:56:34			

243286001	1	30	0.069	0.395	12/22/2009@10:57:22			
243286004	1	31	0.056	0.328	12/22/2009@10:58:12			
WTR091222-14 CCV	1	S3	1.056	5.201	12/22/2009@11:00:15			CCV
Known Conc:			1.000					
DQM Test: > + Concentration Limit								
Result:			1.056 < 1.104					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			1.056 > 0.895					
Message			CCV Passed					
Action			Continue					
WTR091222-19 CCB	1	S7	0.002	0.065	12/22/2009@11:02:19			CCB
Known Conc:			0.000					
DQM Test: > + Concentration Limit								
Result:			0.002 < 0.050					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.002 > -0.050					
Message			CCB Passed					
Action			Continue					

Channel 1 (TLPOS) : Current View

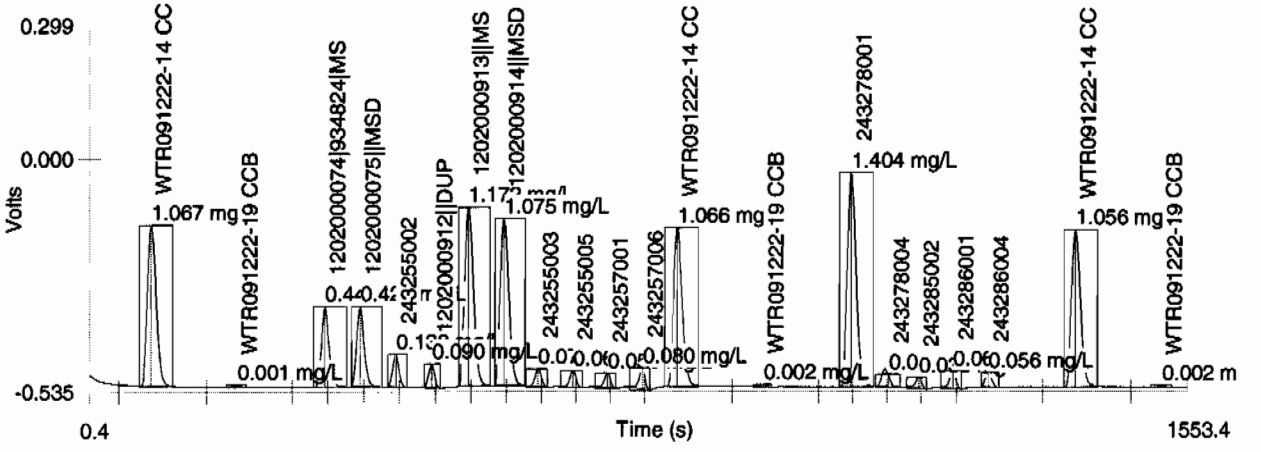

Table 1: TLPOS

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	3.000	1	14.559	1.017	0.7	12/22/2009	9:02:55
2	1.000	1	5.296	0.354	-7.5	12/22/2009	9:03:44
3	0.500	1	2.443	0.166	2.1	12/22/2009	9:04:33
4	0.100	1	0.453	0.033	17.1	12/22/2009	9:05:23
5	0.050	1	0.201	0.016	33.6	12/22/2009	9:06:15
6	0.000	1	0.049	0.005		12/22/2009	9:07:07

Author: axh3 Date : 12/22/2009

Figure 1: TLPOS

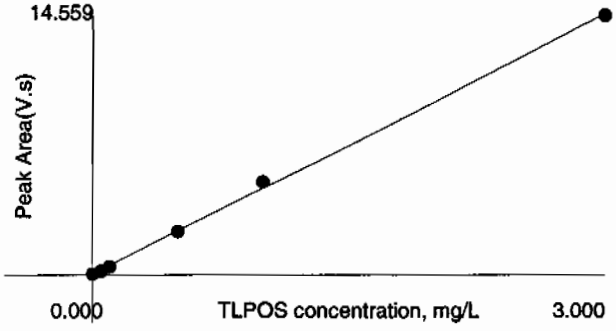

Area = 4.869 * Conc + 0.060
Conc = 0.205 * Area - 0.011
Correlation Coefficient (r) = 0.99947

No Weighting

pH

pH / Corrosivity LogBook

Analyst: LXA1
Batch: 935860
Lab SOP: GL-GC-E-008 REV# 17
Description: pH
Method: EPA 150.1

Type	Sample Id	Serial Number	Description
CCV	240	IMM091029-PH	PH 7 BUFFER FOR PH
LCS	1202002477	IMM091221-01	LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parmname	Initial Wt()	Final Vol()	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
1202002477 LCS		Ground Water			22-DEC-09 10:58	pH			6.97	20.0'C	7	99.571	
1202002477 LCS		Ground Water			22-DEC-09 10:58	pH 2			6.98	20.0'C	7	99.714	
243255002		Ground Water			22-DEC-09 10:59	pH			7.02	15.2'C			
243255002		Ground Water			22-DEC-09 10:59	pH 2			7.06	15.1'C			
243255003		Ground Water			22-DEC-09 11:00	pH			6.47	14.9'C			
243255003		Ground Water			22-DEC-09 11:00	pH 2			6.47	15.0'C			
243255005		Ground Water			22-DEC-09 11:02	pH			6.59	15.7'C			
243255005		Ground Water			22-DEC-09 11:02	pH 2			6.63	15.8'C			
243257001		Ground Water			22-DEC-09 11:03	pH			7.94	16.4'C			
243257001		Ground Water			22-DEC-09 11:03	pH 2			7.94	16.5'C			
CCV					22-DEC-09 11:07	pH			6.97	19.2'C	7	99.571	
CCV					22-DEC-09 11:07	pH 2			6.97	19.2'C	7	99.571	
243257006		Ground Water			22-DEC-09 11:09	pH			7.91	17.2'C			
243257006		Ground Water			22-DEC-09 11:09	pH 2			7.92	17.3'C			
243285002		Ground Water			22-DEC-09 11:13	pH			7.65	16.7'C			
243285002		Ground Water			22-DEC-09 11:13	pH 2			7.65	16.8'C			
243286001		Ground Water			22-DEC-09 11:15	pH			6.93	17.1'C			
243286001		Ground Water			22-DEC-09 11:15	pH 2			6.95	17.2'C			
1202002478 DUP	243286001	Ground Water			22-DEC-09 11:19	pH			6.95	17.4'C			.288
1202002478 DUP	243286001	Ground Water			22-DEC-09 11:19	pH 2			6.96	17.4'C			.144
243286004		Ground Water			22-DEC-09 11:22	pH			6.91	17.4'C			
243286004		Ground Water			22-DEC-09 11:22	pH 2			6.92	17.5'C			

pH / Corrosivity LogBook

Analyst: LXA1
Batch: 935860
Lab SOP: GL-GC-E-008 REV# 17
Description: pH
Method: EPA 150.1

Type	Sample Id	Serial Number	Description
CCV	240	IMM091029-PH	PH 7 BUFFER FOR PH
LCS	1202002477	IMM091221-01	LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parmname	Initial Wt()	Final Vol()	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
CCV					22-DEC-09 11:23	pH			6.96	19.0'C	7	99.429	
CCV					22-DEC-09 11:23	pH 2			6.96	19.0'C	7	99.429	

Calibration Information:
Run Date: 22-DEC-09 10:51
Instrument: PHX370
Analyst: LXA1

	Standard	Observed	Theoretical		C	%Recovery
10:51	IMM091222-PH1	4.01	4	SU	21	100.25
10:51	IMM091222-PH-	6.99	7	SU	21	99.857
10:51	UPH091222-a	9.98	10	SU	21	99.8
10:51	UPH091222-02c-	2.06	2	SU	21	103
10:51	091222-a	12.05	12	SU	21	100.42
10:51	IMM091222-01a	6.99	7	SU	21	99.857

Comments:

Miscellaneous

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
22-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 365.4	Liquid	ECWS, ESHL, THRM
Batch ID:	**Sample Numbers:**		
934824	See Below		

Potentially affected work order(s)(SDG): 243104(10-953),243223,243255(10-973),243257(10-976),243278,243285(10-995),243286(10-998)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS/MSD: QC 1202000074MS,1202000075MSD	1. The matrix spike was outside of the required acceptance limits due to matrix interference. The matrix spike duplicate verified the result with a passing RPD.

Originator's Name:

Aubrey Kingsbury 22-DEC-09

Data Validator/Group Leader:

Elzbieta Szulc 23-DEC-09

NCR Report No.: 775582
Revision No.: 2

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
30-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
IC	EPA 300.0	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
935518	See Below		

Potentially affected work order(s)(SDG): 243009(10-933),243014(10-938),243255(10-973),243257(10-976),243285(10-995),243286(10-998)

Application Issues:

Failed Recovery for MS/PS

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for PS: QC 1202001783PS	1. The spike recovery for Chloride falls outside of the GEL acceptance limits but within the client specified limits.

Originator's Name:

Virginia Wininger 30-DEC-09

Data Validator/Group Leader:

Julia Hamilton 04-JAN-10

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-995
Work Order 243285

Method/Analysis Information

Product:	**Alphaspec Am241 Liquid**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Analytical Batch Number:	935840

Sample ID	Client ID
243285001	CAPA-10-6793
1202002417	Method Blank (MB)
1202002418	243286003(CAPA-10-6746) Sample Duplicate (DUP)
1202002419	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202002417 (MB) and 1202002419 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243286003 (CAPA-10-6746). The QC was from LANL work order 243286.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec Pu, Liquid**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	935841

Sample ID	Client ID
243285001	CAPA-10-6793
1202002420	Method Blank (MB)
1202002421	243286003(CAPA-10-6746) Sample Duplicate (DUP)
1202002422	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202002420 (MB) and 1202002422 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243286003 (CAPA-10-6746). The QC was from LANL work order 243286.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The Pu-238 blank result is equal to the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec U, Liquid**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Analytical Batch Number:	935842

Sample ID	Client ID
243285001	CAPA-10-6793
1202002423	Method Blank (MB)
1202002424	243286003(CAPA-10-6746) Sample Duplicate (DUP)
1202002425	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202002423 (MB) and 1202002425 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243286003 (CAPA-10-6746). The QC was from LANL work order 243286.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result 1202002423 (MB) for U-238 is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Gammaspec, Gamma, Liquid**
Analytical Method:	EPA 901.1
Analytical Batch Number:	935338

Sample ID	Client ID
243285001	CAPA-10-6793
1202001366	Method Blank (MB)
1202001367	243286002(CAPA-10-6390) Sample Duplicate (DUP)
1202001368	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in January 2009, February 2009, March 2009 and November 2009.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 243286002 (CAPA-10-6390). The QC was from LANL work order 243286.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result for gross gamma is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result for gross gamma is greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Gross A/B, liquid**
Analytical Method:	EPA 900.0
Analytical Batch Number:	935330

Sample ID	Client ID
243285001	CAPA-10-6793
1202001335	Method Blank (MB)
1202001336	243255001(CAPA-10-6093) Sample Duplicate (DUP)
1202001337	243255001(CAPA-10-6093) Matrix Spike (MS)
1202001338	243255001(CAPA-10-6093) Matrix Spike Duplicate (MSD)
1202001339	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-001 REV# 12.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in July 2009. The discrimination settings are calibrated in beta discriminating mode to reduce beta to alpha crosstalk.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202001335 (MB) and 1202001339 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243255001 (CAPA-10-6093). The QC was from LANL work order 243255.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Gross Alpha/Beta Preparation Information
High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating, especially to a dull red heat. For this sample set, the prepared planchet was counted for beta

activity before being flamed. After flaming, the planchet was counted for alpha activity.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Sr90, liquid**
Analytical Method:	EPA 905.0 Modified
Analytical Batch Number:	937917

Sample ID	Client ID
243285001	CAPA-10-6793
1202007051	Method Blank (MB)
1202007052	243255004(CAPA-10-6753) Sample Duplicate (DUP)
1202007053	243255004(CAPA-10-6753) Matrix Spike (MS)
1202007054	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in January 2009.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202007051 (MB) and 1202007054 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243255004 (CAPA-10-6753). The QC was from LANL work order 243255.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were reprepped due to high recovery.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Liquid**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	935220

Sample ID	Client ID
243285001	CAPA-10-6793
1202000986	Method Blank (MB)
1202000987	243285001(CAPA-10-6793) Sample Duplicate (DUP)
1202000988	243285001(CAPA-10-6793) Matrix Spike (MS)
1202000989	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 17.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in August 2009.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 243285001 (CAPA-10-6793). The QC was from LANL work order 243285.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: 1/8/10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-995 GEL Work Order: 243285

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: January 8, 2010

Client Sample ID: CAPA-10-6793
Sample ID: 243285001
Matrix: Ground Water
Collect Date: 17-DEC-09
Receive Date: 19-DEC-09
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
Alphaspec Am241 Liquid "As Received"												
Americium-241	U	-0.0134	0.0385	+/-0.0111	0.050	pCi/L		MXA1	12/31/09	0749	935840	1
Alphaspec Pu, Liquid "As Received"												
Plutonium-238	U	0.00842	0.0309	+/-0.0107	0.050	pCi/L		MXA1	12/31/09	0749	935841	2
Plutonium-239/240	U	0.0021	0.0332	+/-0.00365	0.050	pCi/L						
Alphaspec U, Liquid "As Received"												
Uranium-234		0.262	0.0819	+/-0.0318	1.00	pCi/L		MXA1	12/31/09	1657	935842	3
Uranium-235/236	U	0.0247	0.0428	+/-0.0108	1.00	pCi/L						
Uranium-238		0.122	0.0512	+/-0.0195	0.500	pCi/L						
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Liquid "As Received"												
Cesium-137	U	0.443	2.97	+/-0.871	8.00	pCi/L		KXG3	12/30/09	2241	935338	4
Cobalt-60	U	1.10	3.18	+/-0.897	8.00	pCi/L						
Gross Gamma	U	33.9	65.8	+/-43.4	120	pCi/L						
Neptunium-237	U	9.63	24.9	+/-7.44	10.0	pCi/L						
Potassium-40	U	-1.53	40.4	+/-13.1	10.0	pCi/L						
Sodium-22	U	-0.485	2.52	+/-0.789	10.0	pCi/L						
Rad Gas Flow Proportional Counting												
GFPC, Gross A/B, liquid "As Received"												
Beta		3.55	3.24	+/-1.13	3.00	pCi/L		DXB5	12/28/09	1024	935330	5
Alpha	U	-0.342	2.45	+/-0.452	3.00	pCi/L		DXB5	12/29/09	1224	935330	6
GFPC, Sr90, liquid "As Received"												
Strontium-90	U	0.363	0.404	+/-0.132	0.500	pCi/L		MXB1	01/07/10	2003	937917	7
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid "As Received"												
Tritium	U	14.9	176	+/-51.9	200	pCi/L		EXK2	12/23/09	1513	935220	9

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: January 8, 2010

Client Sample ID: CAPA-10-6793 Project: ESHL01000
Sample ID: 243285001 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
4	EPA 901.1											
5	EPA 900.0											
6	EPA 900.0											
7	EPA 905.0 Modified											
8	EPA 905.0 Modified											
9	EPA 906.0 Modified											

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	Alphaspec Am241 Liquid "As Rec	85.5	(50%-105%)
Plutonium-242 Tracer	Alphaspec Pu, Liquid "As Receive	85.5	(50%-105%)
Uranium-232 Tracer	Alphaspec U, Liquid "As Received	89.6	(50%-105%)
Strontium Carrier	GFPC, Sr90, liquid "As Received"	87.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: January 8, 2010

Client Sample ID: CAPA-10-6793
Sample ID: 243285001

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: January 8, 2010
Page 1 of 6

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 243285

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 935840										
QC1202002418 243286003 DUP										
Americium-241	U	0.00144	U	-0.00714	pCi/L	0.191		(0-1)	MXA1	12/31/0907:49
TPU:		+/-0.0123		+/-0.0102						
Yield:		87.2		84.5						
QC1202002419 LCS										
Americium-241	2.84			2.83	pCi/L		99.5	(75%-125%)		
TPU:				+/-0.190						
Yield:				83.4						
QC1202002417 MB										
Americium-241			U	-0.00752	pCi/L					
TPU:				+/-0.00593						
Yield:				56.1						
Batch 935841										
QC1202002421 243286003 DUP										
Plutonium-238	U	-0.00956	U	0.00238	pCi/L	0.401		(0-1)	MXA1	12/31/0907:49
TPU:		+/-0.00956		+/-0.00532						
Yield:		68.7		75.5						
Plutonium-239/240	U	0.00478	U	0.00238	pCi/L	0.168		(0-1)		
TPU:		+/-0.00478		+/-0.00238						
Yield:		68.7		75.5						
QC1202002422 LCS										
Plutonium-238			U	0.00822	pCi/L			(75%-125%)		
TPU:				+/-0.0037						
Yield:				82.2						
Plutonium-239/240	2.27			2.40	pCi/L		106	(75%-125%)		
TPU:				+/-0.143						
Yield:				82.2						
QC1202002420 MB										
Plutonium-238			U	0.0103	pCi/L					
TPU:				+/-0.0088						
Yield:				80.3						
Plutonium-239/240			U	-0.00517	pCi/L					
TPU:				+/-0.00385						
Yield:				80.3						

QC Summary

Workorder: 243285

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 935842										
QC1202002424 243286003 DUP										
Uranium-234		1.48		1.44	pCi/L	0.0812		(0-1)	MXA1	12/31/0916:57
	TPU:	+/-0.121		+/-0.119						
	Yield:	86.7		88.6						
Uranium-235/236		0.0566		0.054	pCi/L	0.046		(0-1)		
	TPU:	+/-0.0146		+/-0.0136						
	Yield:	86.7		88.6						
Uranium-238		1.16		1.18	pCi/L	0.0553		(0-1)		
	TPU:	+/-0.0985		+/-0.100						
	Yield:	86.7		88.6						
QC1202002425 LCS										
Uranium-234				2.48	pCi/L			(75%-125%)		12/31/0916:57
	TPU:			+/-0.187						
	Yield:			96.3						
Uranium-235/236				0.136	pCi/L			(75%-125%)		
	TPU:			+/-0.0201						
	Yield:			96.3						
Uranium-238	2.59			2.42	pCi/L		93.4	(75%-125%)		
	TPU:			+/-0.183						
	Yield:			96.3						
QC1202002423 MB										
Uranium-234			U	-0.00205	pCi/L					12/31/0916:57
	TPU:			+/-0.00329						
	Yield:			91.4						
Uranium-235/236			U	0.00235	pCi/L					
	TPU:			+/-0.00407						
	Yield:			91.4						
Uranium-238			U	0.0057	pCi/L					
	TPU:			+/-0.00331						
	Yield:			91.4						
Rad Gamma Spec										
Batch 935338										
QC1202001367 243286002 DUP										
Cesium-137	U	1.09	U	-0.601	pCi/L	0.349		(0-1)	KXG3	12/30/0922:43
	TPU:	+/-1.37		+/-1.05						
Cobalt-60	U	-1.33	U	-2.42	pCi/L	0.229		(0-1)		
	TPU:	+/-1.32		+/-1.06						

QC Summary

Workorder: 243285

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 935338										
Gross Gamma	U	52.5		51.3	pCi/L	0.00695		(0-1)		
	TPU:	+/-65.5		+/-22.2						
Neptunium-237	U	20.1	U	3.30	pCi/L	0.509		(0-1)		
	TPU:	+/-9.79		+/-6.69						
Potassium-40	U	26.5	U	11.4	pCi/L	0.249		(0-1)		
	TPU:	+/-17.3		+/-13.2						
Sodium-22	U	0.305	U	-0.109	pCi/L	0.097		(0-1)		
	TPU:	+/-1.37		+/-0.765						
QC1202001368 LCS										
Americium-241	1240			1410	pCi/L		114	(75%-125%)		12/30/0922:03
	TPU:			+/-102						
Cesium-137	433			457	pCi/L		105	(75%-125%)		
	TPU:			+/-20.5						
Cobalt-60	506			563	pCi/L		111	(75%-125%)		
	TPU:			+/-29.5						
Gross Gamma	2180			2100	pCi/L		96.4	(75%-125%)		
	TPU:			+/-338						
Neptunium-237				894	pCi/L					
	TPU:			+/-116						
Potassium-40			U	-35	pCi/L					
	TPU:			+/-33.8						
Sodium-22			U	-5.47	pCi/L					
	TPU:			+/-3.07						
QC1202001366 MB										
Cesium-137			U	-0.306	pCi/L					12/30/0922:43
	TPU:			+/-0.750						
Cobalt-60			U	-0.572	pCi/L					
	TPU:			+/-0.829						
Gross Gamma				3.91	pCi/L					
	TPU:			+/-1.27						
Neptunium-237			U	-3.64	pCi/L					
	TPU:			+/-6.64						
Potassium-40			U	2.88	pCi/L					

QC Summary

Workorder: 243285

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 935338										
	TPU:			+/-11.6						
Sodium-22			U	-0.202	pCi/L					
	TPU:			+/-0.840						
Rad Gas Flow										
Batch 935330										
QC1202001336 243255001 DUP										
Alpha	U	0.103	U	0.268	pCi/L	0.0652		(0-1)	DXB5	12/29/0912:25
	TPU:	+/-0.667		+/-0.599						
Beta		4.74		3.57	pCi/L	0.246		(0-1)		12/28/0910:24
	TPU:	+/-1.31		+/-1.09						
QC1202001339 LCS										
Alpha	12.6			12.9	pCi/L		102	(75%-125%)		12/29/0912:25
	TPU:			+/-1.50						
Beta	38.6			38.1	pCi/L		98.5	(75%-125%)		12/28/0912:00
	TPU:			+/-3.26						
QC1202001335 MB										
Alpha			U	-0.00812	pCi/L					12/29/0912:25
	TPU:			+/-0.0663						
Beta			U	0.0521	pCi/L					12/28/0910:24
	TPU:			+/-0.0986						
QC1202001337 243255001 MS										
Alpha	252 U	0.103		241	pCi/L		95.7	(75%-125%)		12/29/0912:25
	TPU:	+/-0.667		+/-28.4						
Beta	773	4.74		845	pCi/L		109	(75%-125%)		12/28/0910:24
	TPU:	+/-1.31		+/-73.9						
QC1202001338 243255001 MSD										
Alpha	252 U	0.103		202	pCi/L	0.368	80.3	(0-1)		12/29/0912:25
	TPU:	+/-0.667		+/-24.3						
Beta	773	4.74		856	pCi/L	0.0386	110	(0-1)		12/28/0912:00
	TPU:	+/-1.31		+/-73.1						
Batch 937917										
QC1202007052 243255004 DUP										
Strontium-90	U	0.0817	U	-0.129	pCi/L	0.414		(0-1)	MXB1	01/07/1020:05
	TPU:	+/-0.123		+/-0.131						
	Yield:	84.0		76.2						
QC1202007054 LCS										

QC Summary

Workorder: 243285

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 937917										
Strontium-90	19.3			20.0	pCi/L		104	(75%-125%)		
	TPU:			+/-1.72						
	Yield:			85.2						
QC1202007051 MB										
Strontium-90			U	0.0834	pCi/L					01/07/1020:01
	TPU:			+/-0.0623						
	Yield:			85.2						
QC1202007053 243255004 MS										
Strontium-90	129 U	0.0817		145	pCi/L		113	(75%-125%)		01/07/1020:01
	TPU:	+/-0.123		+/-12.4						
	Yield:	84.0		79.6						
Rad Liquid Scintillation										
Batch 935220										
QC1202000987 243285001 DUP										
Tritium	U	14.9	U	105	pCi/L	0.421		(0-1)	EXK2	12/23/0919:20
	TPU:	+/-51.9		+/-54.6						
QC1202000989 LCS										
Tritium	2240			2200	pCi/L		98.3	(75%-125%)		12/23/0921:39
	TPU:			+/-310						
QC1202000986 MB										
Tritium			U	52.3	pCi/L					12/23/0917:17
	TPU:			+/-52.9						
QC1202000988 243285001 MS										
Tritium	2240 U	14.9		2270	pCi/L		101	(75%-125%)		12/23/0921:22
	TPU:	+/-51.9		+/-317						

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range

QC Summary

Workorder: 243285

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time

F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev 9

Batch# 935840 Product: Am Date: 1/2/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.	✓		
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed. If applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analyses.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Denise Green 1/2/10

Secondary Review Performed By: Jod M.C. 1/4/10

1/17

LANL

P

Am/Cm Que Sheet

22-DEC-09

Batch #: 935840 Analyst: MXA1 First Client Due Date: 17-JAN-10 Internal Due Date 06-JAN-10 Comments:

Tracer(s): Am243/Cm244 Tracer Code: 445 94-2-88 Expiration Date: 5/11/10 Vol: 0.1ml

LCS Isotope(s): Am241/Cm244 LCS Code(s): 0538-0 / — Expiration Date: 9/10/10 / — Vol(s): 0.1ml / —

Spike Isotope(s): Am241/Cm244 Spike Code(s): — / — Expiration Date: — / — Vol(s): — / —

Prep Date: 12/29/09 Initials: MMA Pipet ID: 2971058 Balance ID: 116750207 Witness: 12/29/09

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l)	Am/Cm Det #
243255001-1	CAPA-10-6093	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	16-DEC-09	1	1	0.800	7
243255004-1	CAPA-10-6753	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	16-DEC-09	2	2	0.800	8
243255006-1	CAPA-10-6767	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	16-DEC-09	3	3	0.800	9
243285001-1	CAPA-10-6793	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	17-DEC-09	4	4	0.800	10
243286002-1	CAPA-10-6390	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	17-DEC-09	5	5	0.800	11
243286003-1	CAPA-10-6746	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	17-DEC-09	6	6	0.800	12
1202002417-1	MB for batch 935840	MB		.05 pCi/L	GROUND WATER	QC ACCOUNT		7	7	1	28
1202002418-1	CAPA-10-6746(243286003DUP)	DUP		.05 pCi/L	GROUND WATER	QC ACCOUNT	17-DEC-09	8	8	0.800	29
1202002419-1	LCS for batch 935840	LCS		.05 pCi/L	GROUND WATER	QC ACCOUNT		9	9	1	30

Choose SOP Used: GL-RAD-A-011 ~~GL-RAD-A-036~~

Solid Sample Dissolution by: ~~LEACH or DIGESTION~~ N/A MMA 12/29/09
Circle One

Data Reviewed By: 1/2/10

Blank Correction Report

Batch ID 935840

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202002418	DUP	Americium-241	0.800 L	-0.00714	0.0102	0.0392	-.0094	pCi/L	NO
1202002419	LCS	Americium-241	1.00 L	2.83	0.190	0.0306	-.00752	pCi/L	NO
1202002417	MB	Americium-241	1.00 L	-0.00752	0.00593	0.0479	-.00752	pCi/L	NO
243255001	CAPA-10-6093	Americium-241	0.800 L	-0.02	0.013	0.0391	-.0094	pCi/L	NO
243255004	CAPA-10-6753	Americium-241	0.800 L	-0.000535	0.0108	0.0424	-.0094	pCi/L	NO
243255006	CAPA-10-6767	Americium-241	0.800 L	0.00984	0.0135	0.0387	-.0094	pCi/L	NO
243285001	CAPA-10-6793	Americium-241	0.800 L	-0.0134	0.0111	0.0385	-.0094	pCi/L	NO
243286002	CAPA-10-6390	Americium-241	0.800 L	0.0119	0.00881	0.0448	-.0094	pCi/L	NO
243286003	CAPA-10-6746	Americium-241	0.800 L	0.00144	0.0123	0.0393	-.0094	pCi/L	NO

1/14/10

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 935840 SAMPLE DATE : 17-DEC-2009 00:00:00	SAMPLE ID : S0243285001_AM SAMPLE QTY: 0.800 L
DETECTOR NUMBER :72529 AVERAGE %EFFICIENCY :31.2919 % YIELD : 85.543	COUNT DATE:31-DEC-2009 07:49:55 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXA1

MS/MSD	LCS/LCSD	TRACER	
ID : 0533-O	ID : 0533-O	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B010.CNF;1108
PCI/L : 3.553E+00	PCI/L : 3.553E+00	NOMINAL : 2.91660 dpm	BKG DATE : 29-DEC-2009
		RESULTS : 2.49496 dpm	EFF FILE : W010.CNF;331
			CAL DATE : 4-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
CM-3/4	5795.020	7.000	-11.000	18.000	4.7860	100.0000	-2.32E-02	1.05E-02	2.34E-02	5.25E-02	1.05E-02
CM-5/6	5386.000	8.000	7.000	1.000	20.9467	86.09000	1.71E-02	7.40E-03	1.19E-01	2.45E-01	7.33E-03
AM-241	5479.150	12.000	-6.356	17.000	3.3482	99.94000	-1.34E-02	1.11E-02	1.64E-02	3.85E-02	1.11E-02
CM-242	6102.000	11.000	8.000	3.000	3.7246	100.0000	1.79E-02	8.45E-03	1.82E-02	4.22E-02	8.38E-03
AM243	5270.000	782.000	779.000	3.000	1.7321	99.78000	1.64E+00	1.16E-01	8.49E-03	2.27E-02	5.91E-02
CM-247	4946.000	3.000	1.000	2.000	31.0273	79.30000	2.65E-03	5.93E-03	1.91E-01	3.90E-01	5.93E-03
CM-248	5078.600	12.000	12.000	0.000	52.5527	91.00000	2.77E-02	8.18E-03	2.83E-01	5.71E-01	8.01E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

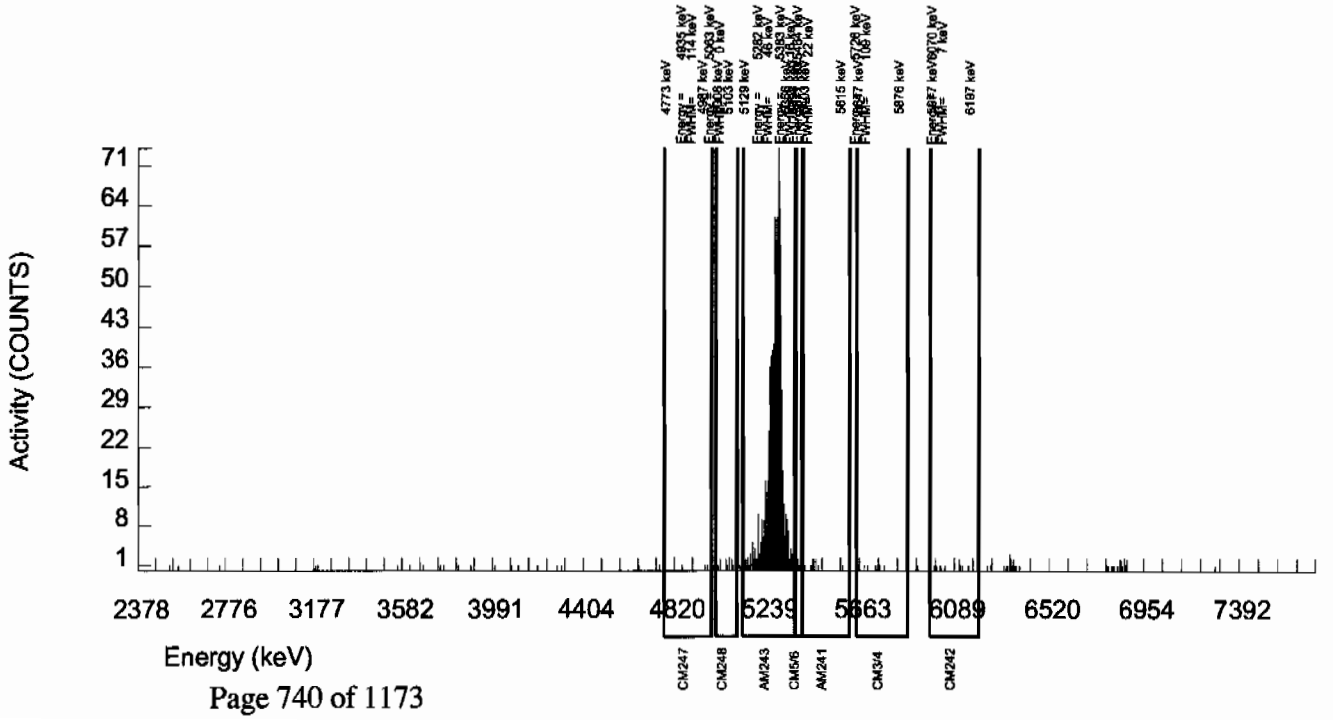

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 935840 SAMPLE DATE : 17-DEC-2009 00:00:00	SAMPLE ID : S0243286003_AM SAMPLE QTY: 0.800 L
DETECTOR NUMBER :67594 AVERAGE %EFFICIENCY :30.0522 % YIELD : 87.243	COUNT DATE:31-DEC-2009 07:49:55 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXA1

MS/MSD	LCS/LCSD	TRACER	
ID : 0533-O ISOTOPE : AM-241 PCI/L : 3.553E+00	ID : 0533-O ISOTOPE : AM-241 PCI/L : 3.553E+00	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91660 dpm RESULTS : 2.54452 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B012.CNF;1102 BKG DATE : 29-DEC-2009 EFF FILE : W012.CNF;310 CAL DATE : 4-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
CM-3/4	5795.020	20.000	10.000	10.000	4.7860	100.0000	2.15E-02	1.19E-02	2.39E-02	5.36E-02	1.18E-02
CM-5/6	5386.000	4.000	2.000	2.000	20.9467	86.09000	4.99E-03	6.12E-03	1.22E-01	2.50E-01	6.11E-03
AM-241	5479.150	18.000	0.672	16.000	3.3482	99.94000	1.44E-03	1.23E-02	1.67E-02	3.93E-02	1.23E-02
CM-242	6102.000	7.000	3.000	4.000	3.7246	100.0000	6.86E-03	7.59E-03	1.86E-02	4.30E-02	7.58E-03
AM243	5270.000	767.000	763.000	4.000	2.0000	99.78000	1.64E+00	1.17E-01	1.00E-02	2.59E-02	5.98E-02
CM-247	4946.000	6.000	4.000	2.000	31.0273	79.30000	1.08E-02	7.69E-03	1.95E-01	3.98E-01	7.66E-03
CM-248	5078.600	10.000	9.000	1.000	52.5527	91.00000	2.12E-02	7.93E-03	2.89E-01	5.83E-01	7.83E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

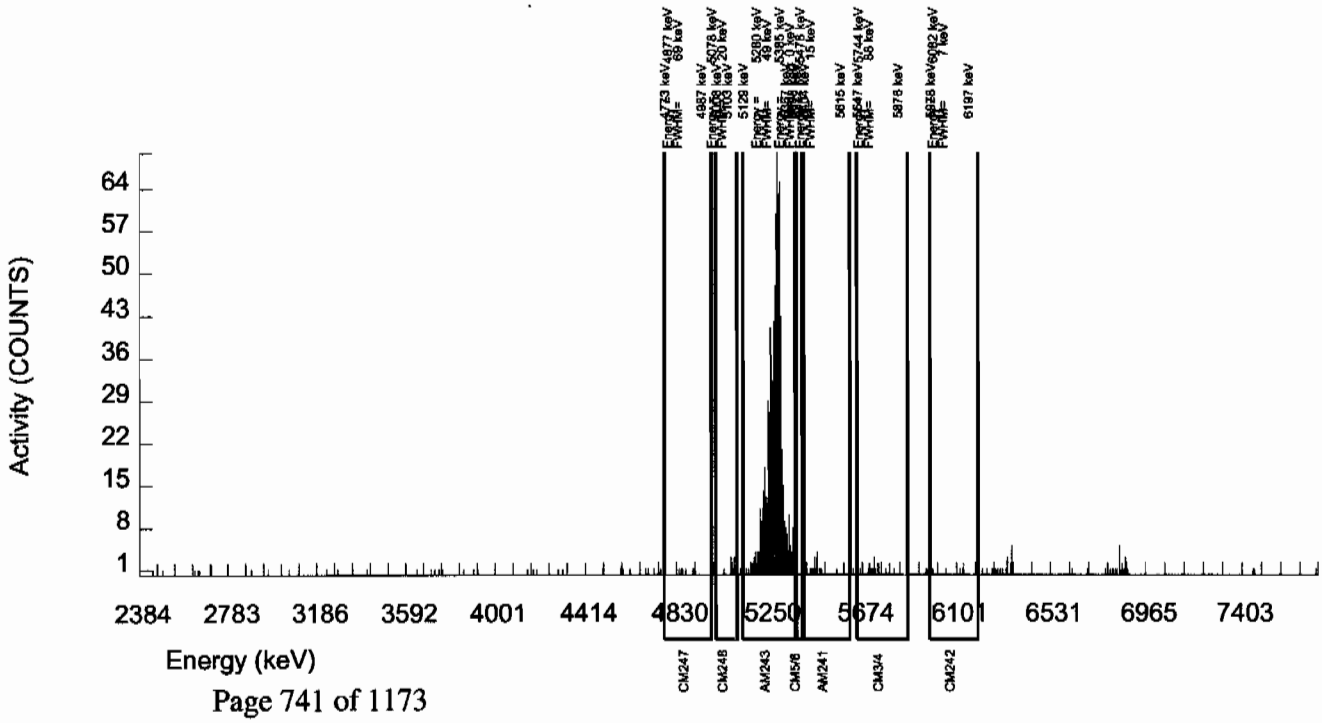

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 935840 SAMPLE DATE : 29-DEC-2009 00:00:00	SAMPLE ID : S1202002417_AM SAMPLE QTY: 1.000 L
DETECTOR NUMBER :78792 AVERAGE %EFFICIENCY :30.6909 % YIELD : 56.093	COUNT DATE:31-DEC-2009 07:49:54 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :MXA1

MS/MSD	LCS/LCSD	TRACER	
ID : 0533-O	ID : 0533-O	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B028.CNF;1109
PCI/L : 2.842E+00	PCI/L : 2.842E+00	NOMINAL : 2.91659 dpm	BKG DATE : 29-DEC-2009
		RESULTS : 1.63600 dpm	EFF FILE : W028.CNF;317
			CAL DATE : 4-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
CM-3/4	5795.020	28.000	-9.000	37.000	4.7860	100.0000	-2.36E-02	2.11E-02	2.91E-02	6.54E-02	2.11E-02
CM-5/6	5386.000	1.000	1.000	0.000	20.9467	86.09000	3.04E-03	3.05E-03	1.48E-01	3.04E-01	3.04E-03
AM-241	5479.150	2.000	-2.872	4.000	3.3482	99.94000	-7.52E-03	5.93E-03	2.04E-02	4.79E-02	5.93E-03
CM-242	6102.000	14.000	8.000	6.000	3.7246	100.0000	2.12E-02	1.19E-02	2.27E-02	5.24E-02	1.18E-02
AM243	5270.000	505.000	501.000	4.000	2.0000	99.78000	1.31E+00	1.07E-01	1.22E-02	3.15E-02	5.92E-02
CM-247	4946.000	3.000	2.000	1.000	31.0273	79.30000	6.60E-03	6.61E-03	2.38E-01	4.85E-01	6.60E-03
CM-248	5078.600	7.000	7.000	0.000	52.5527	91.00000	2.01E-02	7.73E-03	3.52E-01	7.11E-01	7.61E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

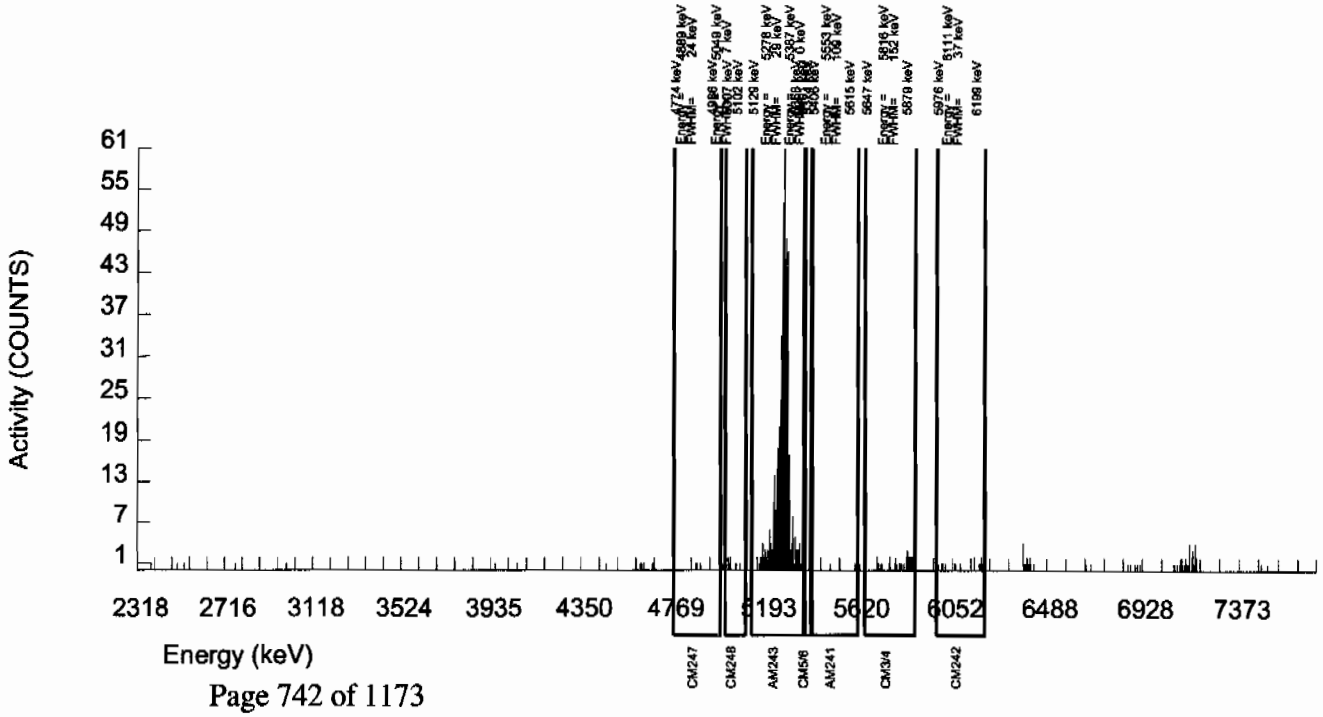

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 935840 SAMPLE DATE : 17-DEC-2009 00:00:00	SAMPLE ID : S1202002418_AM SAMPLE QTY: 0.800 L
DETECTOR NUMBER :33454 AVERAGE %EFFICIENCY :31.1255 % YIELD : 84.455	COUNT DATE:31-DEC-2009 07:49:54 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :MXA1

MS/MSD	LCS/LCSD	TRACER	
ID : 0533-O	ID : 0533-O	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B029.CNF;1100
PCI/L : 3.553E+00	PCI/L : 3.553E+00	NOMINAL : 2.91660 dpm	BKG DATE : 29-DEC-2009
		RESULTS : 2.46322 dpm	EFF FILE : W029.CNF;316
			CAL DATE : 4-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
CM-3/4	5795.020	41.000	6.000	35.000	4.7860	100.0000	1.29E-02	1.87E-02	2.38E-02	5.35E-02	1.87E-02
CM-5/6	5386.000	6.000	5.000	1.000	20.9467	86.09000	1.24E-02	6.63E-03	1.21E-01	2.49E-01	6.58E-03
AM-241	5479.150	11.000	-3.331	13.000	3.3482	99.94000	-7.14E-03	1.02E-02	1.67E-02	3.92E-02	1.02E-02
CM-242	6102.000	15.000	11.000	4.000	3.7246	100.0000	2.51E-02	1.01E-02	1.86E-02	4.29E-02	9.94E-03
AM243	5270.000	770.000	765.000	5.000	2.2361	99.78000	1.64E+00	1.19E-01	1.12E-02	2.82E-02	5.98E-02
CM-247	4946.000	11.000	8.000	3.000	31.0273	79.30000	2.16E-02	1.02E-02	1.95E-01	3.97E-01	1.01E-02
CM-248	5078.600	8.000	6.000	2.000	52.5527	91.00000	1.41E-02	7.50E-03	2.88E-01	5.82E-01	7.44E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

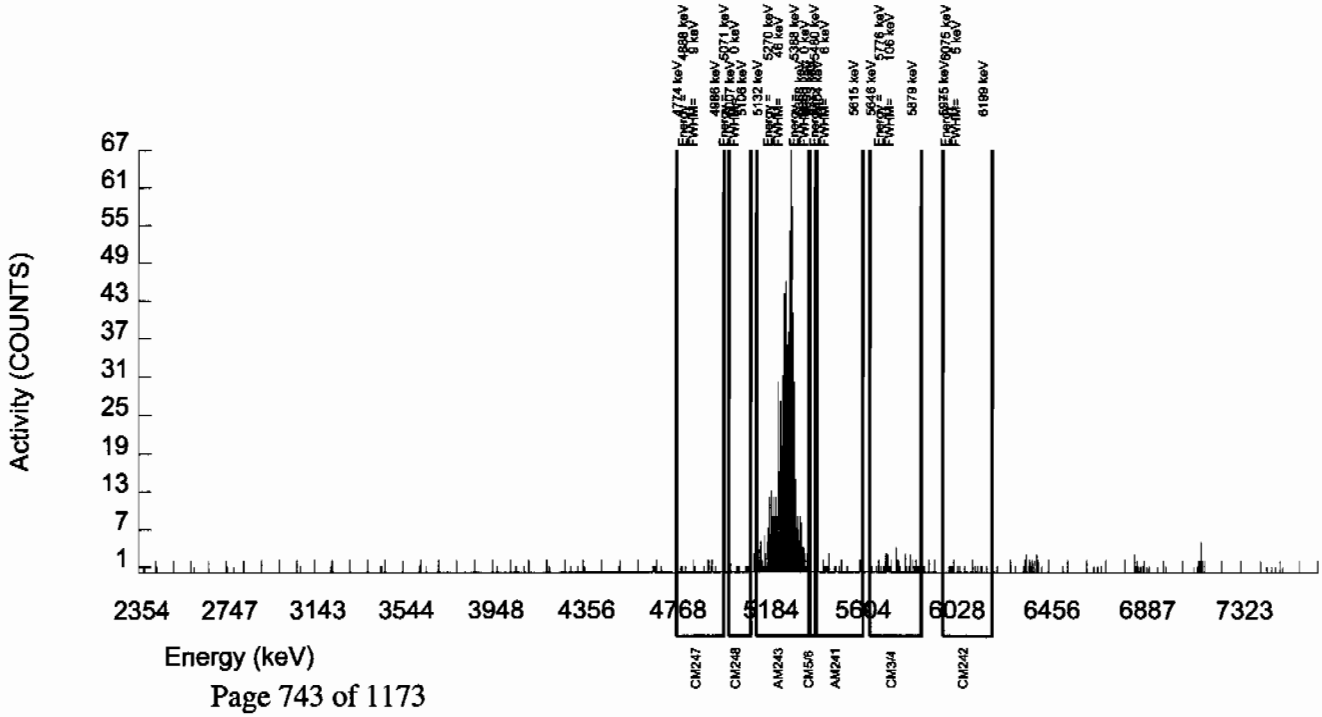

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 935840 SAMPLE DATE : 29-DEC-2009 00:00:00	SAMPLE ID : S1202002419_AM SAMPLE QTY: 1.000 L
DETECTOR NUMBER :33447 AVERAGE %EFFICIENCY :32.3059 % YIELD : 83.390	COUNT DATE:31-DEC-2009 07:49:54 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :MXA1

MS/MSD	LCS/LCSD	TRACER	
ID : 0533-O	ID : 0533-O	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B030.CNF;1097
PCI/L : 2.842E+00	PCI/L : 2.842E+00	NOMINAL : 2.91659 dpm	BKG DATE : 29-DEC-2009
		RESULTS : 2.43215 dpm	EFF FILE : W030.CNF;301
			CAL DATE : 4-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
CM-3/4	5795.020	28.000	0.000	28.000	4.7860	100.0000	3.19E-09	1.25E-02	1.86E-02	4.18E-02	1.25E-02
CM-5/6	5386.000	54.000	52.000	2.000	20.9467	86.09000	1.01E-01	1.58E-02	9.46E-02	1.95E-01	1.45E-02
AM-241	5479.150	1711.000	1689.635	20.000	3.3482	99.94000	2.83E+00	1.90E-01	1.30E-02	3.06E-02	6.96E-02
CM-242	6102.000	8.000	3.000	5.000	3.7246	100.0000	5.07E-03	6.11E-03	1.45E-02	3.35E-02	6.10E-03
AM243	5270.000	785.000	784.000	1.000	1.0000	99.78000	1.31E+00	9.46E-02	3.90E-03	1.23E-02	4.70E-02
CM-247	4946.000	9.000	7.000	2.000	31.0273	79.30000	1.48E-02	7.05E-03	1.52E-01	3.10E-01	6.99E-03
CM-248	5078.600	10.000	9.000	1.000	52.5527	91.00000	1.65E-02	6.18E-03	2.25E-01	4.54E-01	6.09E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

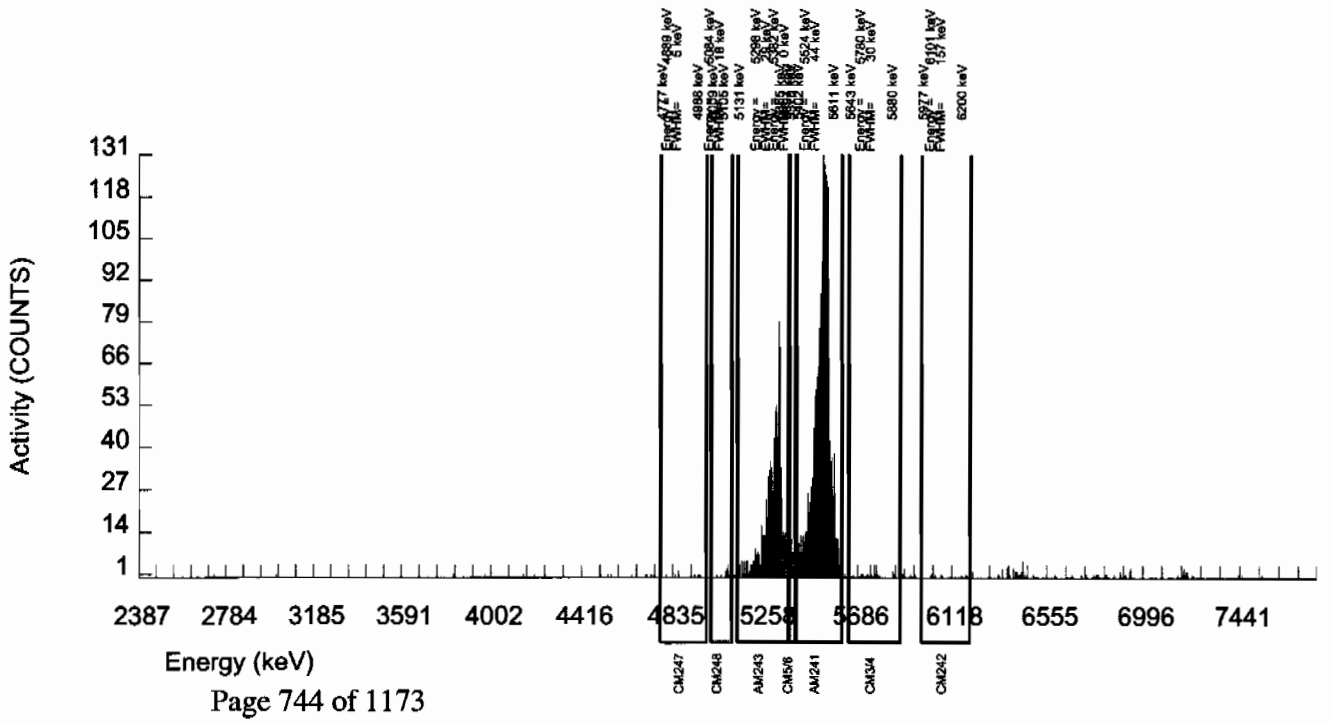

Radiochemistry Batch Checklist, Rev 9

Batch# 935841 Product: Pu Date: 1/2/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.	✓		
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Denise Green 1/2/10

Secondary Review Performed By: Jack [illegible] 1/4/10

1/17

LANL

Plutonium Que Sheet

22-DEC-09

P

Batch #: 935841 **Analyst:** MXA1 **First Client Due Date:** 17-JAN-10 **Internal Due Date:** 06-JAN-10

Tracer Isotope(s): Pu-242/Pu-238 **Tracer Code:** 1374-A **Expiration Date:** 12/8/10 **Vol:** 0.1 ml

LCS Isotope(s): Pu-239/Pu-238 **LCS Code:** 0330-BB **Expiration Date:** 4/23/10 **Vol:** 0.1 ml

Spike Isotope(s): Pu-239/Pu-238 **Spike Code:** — **Expiration Date:** — **Vol:** —

Prep Date: 12/29/09 **Initials:** LLA **Pipet ID:** 2072-50 **Balance ID:** 1675007 **Witness:** AM 12/29/09

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/ Dry Aliquot (g (l) f)	Pu Det #
243255001-1	CAPA-10-6893	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	16-DEC-09	1	1	0.800	19
243255004-1	CAPA-10-6753	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	16-DEC-09	2	2	0.800	20
243255006-1	CAPA-10-6767	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	16-DEC-09	3	3	0.800	21
243285001-1	CAPA-10-6793	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	17-DEC-09	4	4	0.800	22
243286002-1	CAPA-10-6390	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	17-DEC-09	5	5	0.800	23
243286003-1	CAPA-10-6746	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	17-DEC-09	6	6	0.800	24
1202002420-1	MB for batch 935841	MB		.05 pCi/L	GROUND WATE	QC ACCOUNT		7	7	1	25
1202002421-1	CAPA-10-6746(243286003DUP)	DUP		.05 pCi/L	GROUND WATE	QC ACCOUNT	17-DEC-09	8	8	0.800	26
1202002422-1	LCS for batch 935841	LCS		.05 pCi/L	GROUND WATE	QC ACCOUNT		9	9	1	27

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) N/A LLA 12/29/09

Data Reviewed By: 1/2/10

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 935841

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202002421	DUP	Plutonium-238	0.800 L	0.00238	0.00532	0.0349	.012875	pCi/L	YES
		Plutonium-239/240	0.800 L	0.00238	0.00238	0.0375	-.0064625	pCi/L	NO
1202002422	LCS	Plutonium-238	1.00 L	0.00822	0.0037	0.0241	.0103	pCi/L	YES
		Plutonium-239/240	1.00 L	2.40	0.143	0.0259	-.00517	pCi/L	NO
1202002420	MB	Plutonium-238	1.00 L	0.0103	0.0088	0.0253	.0103	pCi/L	YES
		Plutonium-239/240	1.00 L	-0.00517	0.00385	0.0272	-.00517	pCi/L	NO
243255001	CAPA-10-6093	Plutonium-238	0.800 L	0.00453	0.0116	0.0333	.012875	pCi/L	YES
		Plutonium-239/240	0.800 L	0.0068	0.00394	0.0358	-.0064625	pCi/L	NO
243255004	CAPA-10-6753	Plutonium-238	0.800 L	0.0214	0.011	0.0315	.012875	pCi/L	YES
		Plutonium-239/240	0.800 L	0.00429	0.00304	0.0338	-.0064625	pCi/L	NO
243255006	CAPA-10-6767	Plutonium-238	0.800 L	0.00671	0.015	0.0328	.012875	pCi/L	YES
		Plutonium-239/240	0.800 L	0.0067	0.00671	0.0353	-.0064625	pCi/L	NO
243285001	CAPA-10-6793	Plutonium-238	0.800 L	0.00842	0.0107	0.0309	.012875	pCi/L	YES
		Plutonium-239/240	0.800 L	0.0021	0.00365	0.0332	-.0064625	pCi/L	NO
243286002	CAPA-10-6390	Plutonium-238	0.800 L	0.0158	0.0109	0.0332	.012875	pCi/L	YES
		Plutonium-239/240	0.800 L	0.00453	0.00453	0.0357	-.0064625	pCi/L	NO
243286003	CAPA-10-6746	Plutonium-238	0.800 L	-0.00956	0.00956	0.035	.012875	pCi/L	YES
		Plutonium-239/240	0.800 L	0.00478	0.00478	0.0377	-.0064625	pCi/L	NO

1/4/10

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 935841 SAMPLE DATE : 17-DEC-2009 00:00:00	SAMPLE ID : S0243285001_PU SAMPLE QTY: 0.800 L
DETECTOR NUMBER :72530 AVERAGE %EFFICIENCY :31.3285 % YIELD : 85.517	COUNT DATE:31-DEC-2009 07:49:53 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXA1

MS/MSD	LCS/LCSD	TRACER	
ID : 0338-BB ISOTOPE : PU-9/0 PCI/L : 2.836E+00	ID : 0338-BB ISOTOPE : PU-9/0 PCI/L : 2.836E+00	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 2.89513 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B022.CNF;1095 BKG DATE : 29-DEC-2009 EFF FILE : W022.CNF;314 CAL DATE : 23-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-9/0	5155.000	2.000	1.000	1.000	2.8102	99.90000	2.10E-03	3.65E-03	1.38E-02	3.32E-02	3.64E-03
PU-236	5749.000	11.000	-1.000	12.000	3.4259	100.0000	-2.12E-03	1.02E-02	1.68E-02	3.92E-02	1.02E-02
PU-238	5499.000	15.000	4.000	11.000	2.5715	99.90000	8.42E-03	1.07E-02	1.26E-02	3.09E-02	1.07E-02
PU242	4890.000	908.000	907.000	1.000	1.0000	100.0000	1.91E+00	1.17E-01	4.89E-03	1.55E-02	6.34E-02
PU-244	4589.000	2.000	2.000	0.000	6.1055	99.90000	4.21E-03	2.98E-03	2.99E-02	6.55E-02	2.98E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

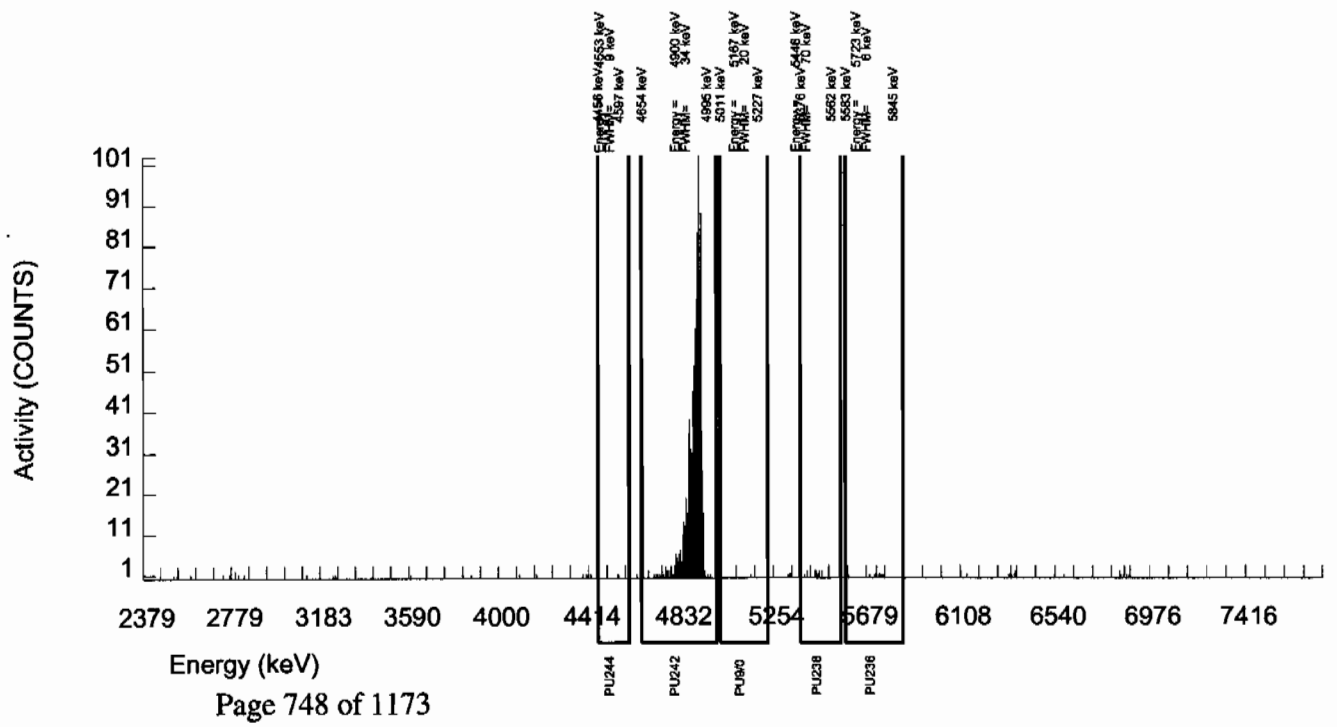

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 935841 SAMPLE DATE : 17-DEC-2009 00:00:00	SAMPLE ID : S0243286003_PU SAMPLE QTY: 0.800 L
DETECTOR NUMBER :76542 AVERAGE %EFFICIENCY :34.3789 % YIELD : 68.650	COUNT DATE:31-DEC-2009 07:49:53 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXA1

MS/MSD	LCS/LCSD	TRACER	
ID : 0338-BB ISOTOPE : PU-9/0 PCI/L : 2.836E+00	ID : 0338-BB ISOTOPE : PU-9/0 PCI/L : 2.836E+00	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 2.32410 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B024.CNF;1088 BKG DATE : 29-DEC-2009 EFF FILE : W024.CNF;297 CAL DATE : 4-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-9/0	5155.000	3.000	2.000	1.000	2.8102	99.90000	4.78E-03	4.78E-03	1.56E-02	3.77E-02	4.78E-03
PU-236	5749.000	7.000	-1.000	8.000	3.4259	100.0000	-2.41E-03	9.33E-03	1.90E-02	4.45E-02	9.33E-03
PU-238	5499.000	6.000	-4.000	10.000	2.5715	99.90000	-9.56E-03	9.56E-03	1.43E-02	3.50E-02	9.56E-03
PU242	4890.000	799.000	799.000	0.000	0.0000	100.0000	1.91E+00	1.22E-01	0.00E+00	6.47E-03	6.74E-02
PU-244	4589.000	1.000	1.000	0.000	6.1055	99.90000	2.39E-03	2.39E-03	3.39E-02	7.43E-02	2.39E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

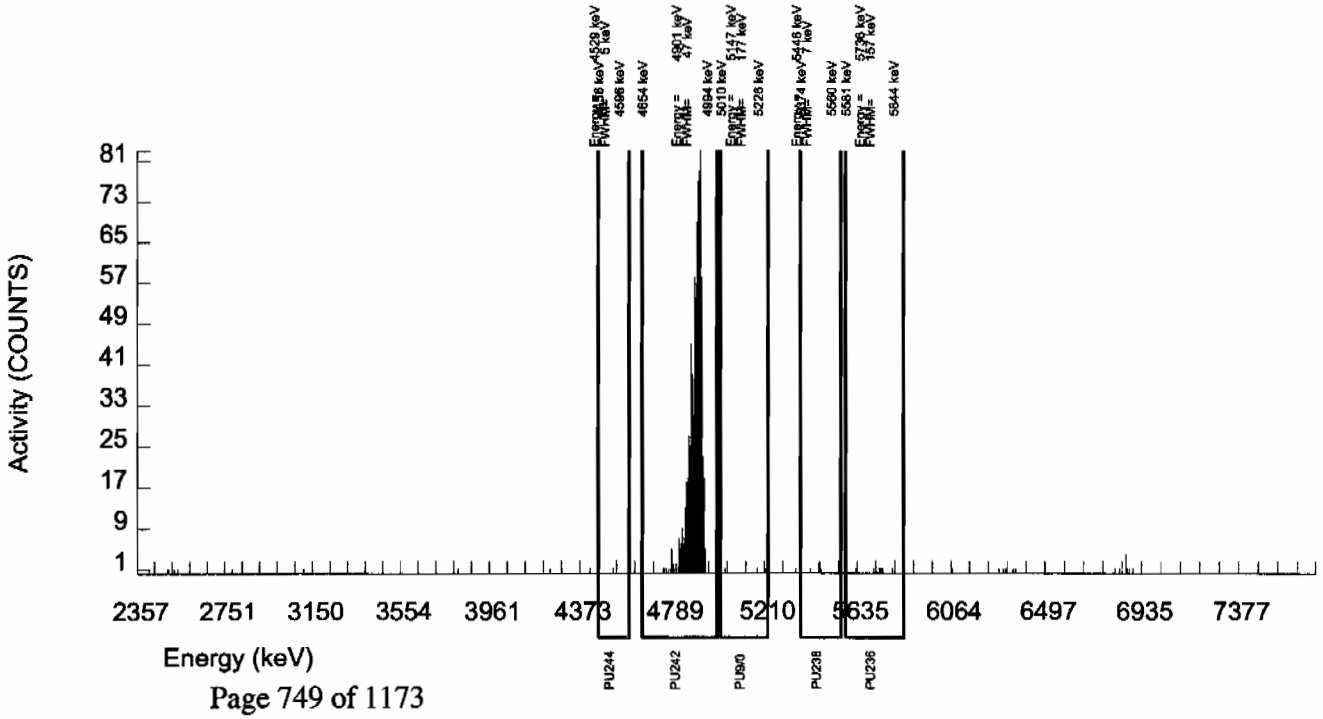

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 935841 SAMPLE DATE : 29-DEC-2009 00:00:00	SAMPLE ID : S1202002420_PU SAMPLE QTY: 1.000 L
DETECTOR NUMBER :45-149AA5 AVERAGE %EFFICIENCY :32.5832 % YIELD : 80.320	COUNT DATE:31-DEC-2009 07:49:54 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :MXA1

MS/MSD	LCS/LCSD	TRACER	
ID : 0338-BB	ID : 0338-BB	ID : 1374-A	LIB FILE : ENV_ALPHA_PU.N
ISOTOPE : PU-9/0	ISOTOPE : PU-9/0	ISOTOPE : PU242	BKG FILE : B025.CNF;1098
PCI/L : 2.269E+00	PCI/L : 2.269E+00	NOMINAL : 3.38543 dpm	BKG DATE : 29-DEC-2009
		RESULTS : 2.71919 dpm	EFF FILE : W025.CNF;324
			CAL DATE : 4-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-9/0	5155.000	1.000	-3.000	4.000	2.8102	99.90000	-5.17E-03	3.85E-03	1.13E-02	2.72E-02	3.85E-03
PU-236	5749.000	25.000	-8.000	33.000	3.4259	100.0000	-1.38E-02	1.31E-02	1.37E-02	3.21E-02	1.31E-02
PU-238	5499.000	16.000	6.000	10.000	2.5715	99.90000	1.03E-02	8.80E-03	1.03E-02	2.53E-02	8.79E-03
PU242	4890.000	886.000	886.000	0.000	0.0000	100.0000	1.52E+00	9.44E-02	0.00E+00	4.66E-03	5.12E-02
PU-244	4589.000	5.000	4.000	1.000	6.1055	99.90000	6.89E-03	4.24E-03	2.45E-02	5.36E-02	4.22E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

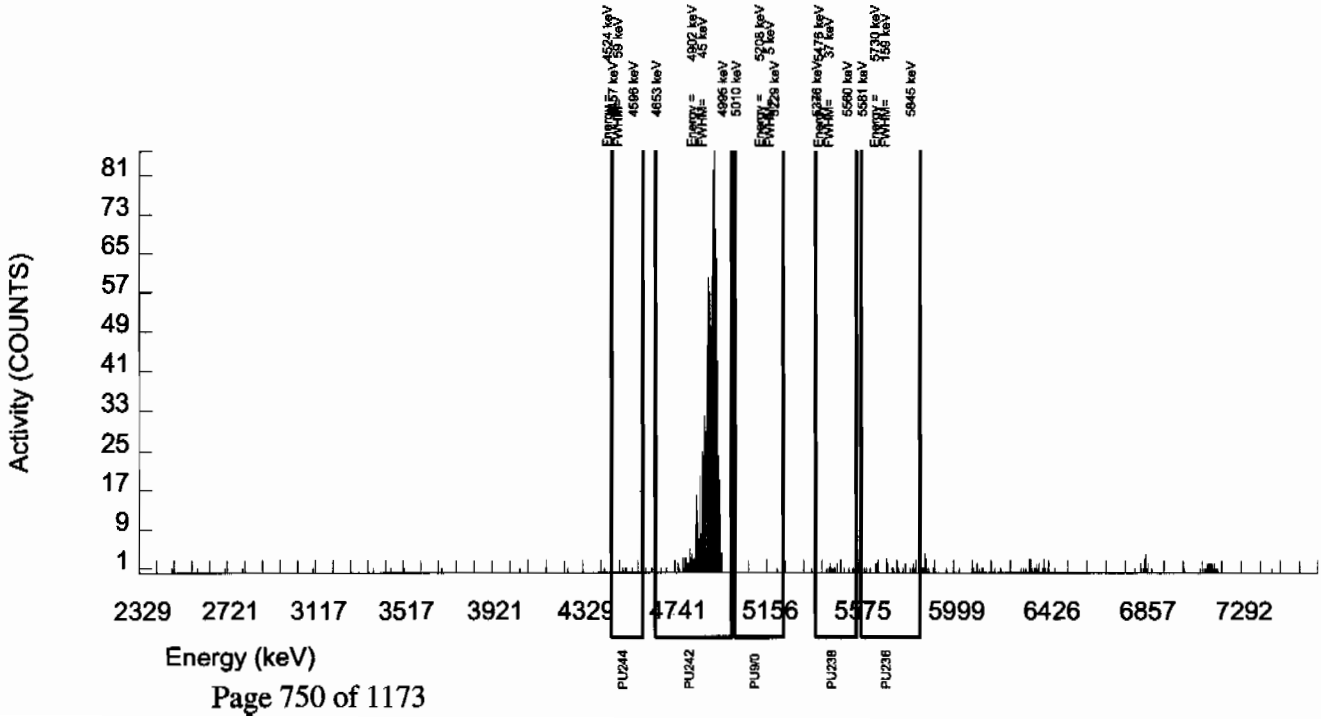

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 935841 SAMPLE DATE : 17-DEC-2009 00:00:00	SAMPLE ID : S1202002421_PU SAMPLE QTY: 0.800 L
DETECTOR NUMBER :78204 AVERAGE %EFFICIENCY :31.4322 % YIELD : 75.462	COUNT DATE:31-DEC-2009 07:49:54 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :MXA1

MS/MSD	LCS/LCSD	TRACER	
ID : 0338-BB ISOTOPE : PU-9/0 PCI/L : 2.836E+00	ID : 0338-BB ISOTOPE : PU-9/0 PCI/L : 2.836E+00	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 2.55470 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B026.CNF;1099 BKG DATE : 29-DEC-2009 EFF FILE : W026.CNF;298 CAL DATE : 4-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-9/0	5155.000	1.000	1.000	0.000	2.8102	99.90000	2.38E-03	2.38E-03	1.55E-02	3.75E-02	2.38E-03
PU-236	5749.000	16.000	3.000	13.000	3.4259	100.0000	7.19E-03	1.29E-02	1.89E-02	4.43E-02	1.29E-02
PU-238	5499.000	3.000	1.000	2.000	2.5715	99.90000	2.38E-03	5.32E-03	1.42E-02	3.49E-02	5.32E-03
PU242	4890.000	804.000	803.000	1.000	1.0000	100.0000	1.91E+00	1.25E-01	5.52E-03	1.75E-02	6.74E-02
PU-244	4589.000	3.000	3.000	0.000	6.1055	99.90000	7.13E-03	4.13E-03	3.38E-02	7.39E-02	4.12E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

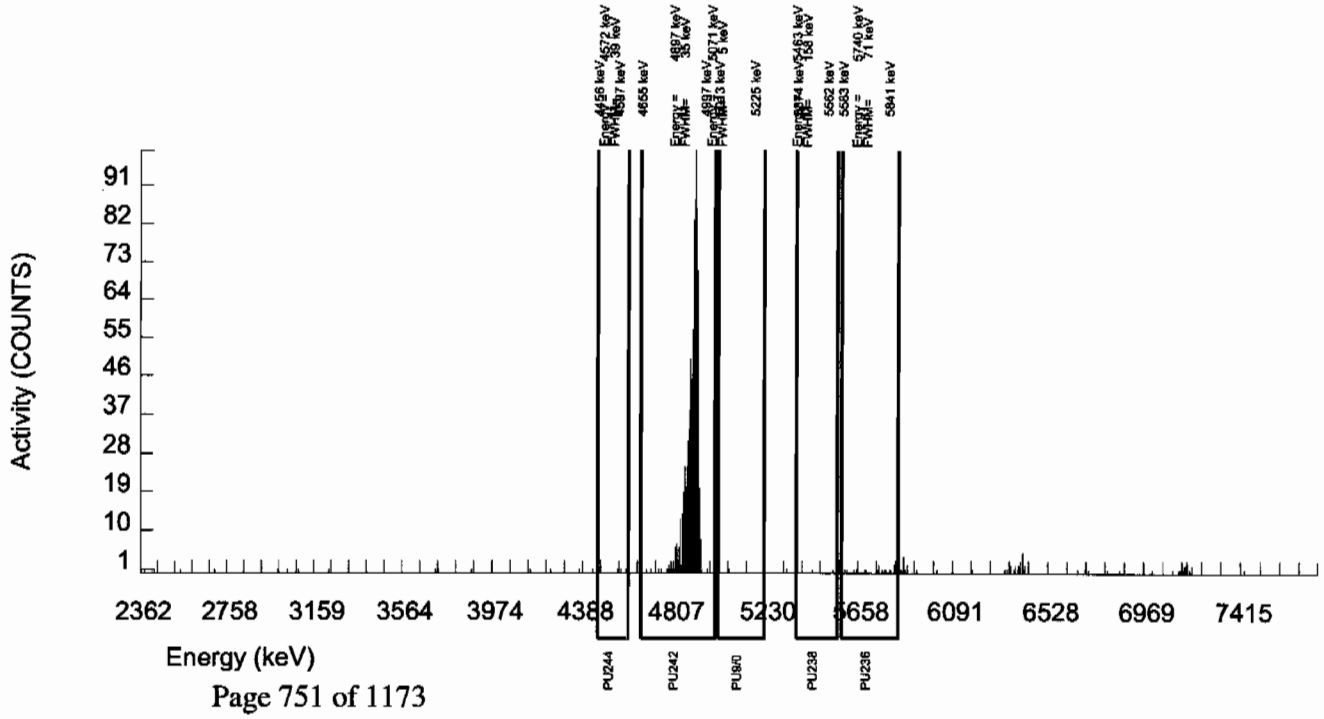

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 935841 SAMPLE DATE : 29-DEC-2009 00:00:00	SAMPLE ID : S1202002422_PU SAMPLE QTY: 1.000 L
DETECTOR NUMBER :42484 AVERAGE %EFFICIENCY :33.3660 % YIELD : 82.243	COUNT DATE:31-DEC-2009 07:49:54 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :MXA1

MS/MSD	LCS/LCSD	TRACER	
ID : 0338-BB ISOTOPE : PU-9/0 PCI/L : 2.269E+00	ID : 0338-BB ISOTOPE : PU-9/0 PCI/L : 2.269E+00	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 2.78427 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B027.CNF;1105 BKG DATE : 29-DEC-2009 EFF FILE : W027.CNF;325 CAL DATE : 4-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-9/0	5155.000	1465.000	1463.000	2.000	2.8102	99.90000	2.40E+00	1.43E-01	1.07E-02	2.59E-02	6.29E-02
PU-236	5749.000	13.000	-7.000	20.000	3.4259	100.0000	-1.15E-02	9.45E-03	1.31E-02	3.06E-02	9.45E-03
PU-238	5499.000	5.000	5.000	0.000	2.5715	99.90000	8.22E-03	3.70E-03	9.83E-03	2.41E-02	3.67E-03
PU242	4890.000	929.000	929.000	0.000	0.0000	100.0000	1.52E+00	9.56E-02	0.00E+00	4.45E-03	5.00E-02
PU-244	4589.000	4.000	4.000	0.000	6.1055	99.90000	6.57E-03	3.31E-03	2.33E-02	5.11E-02	3.29E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

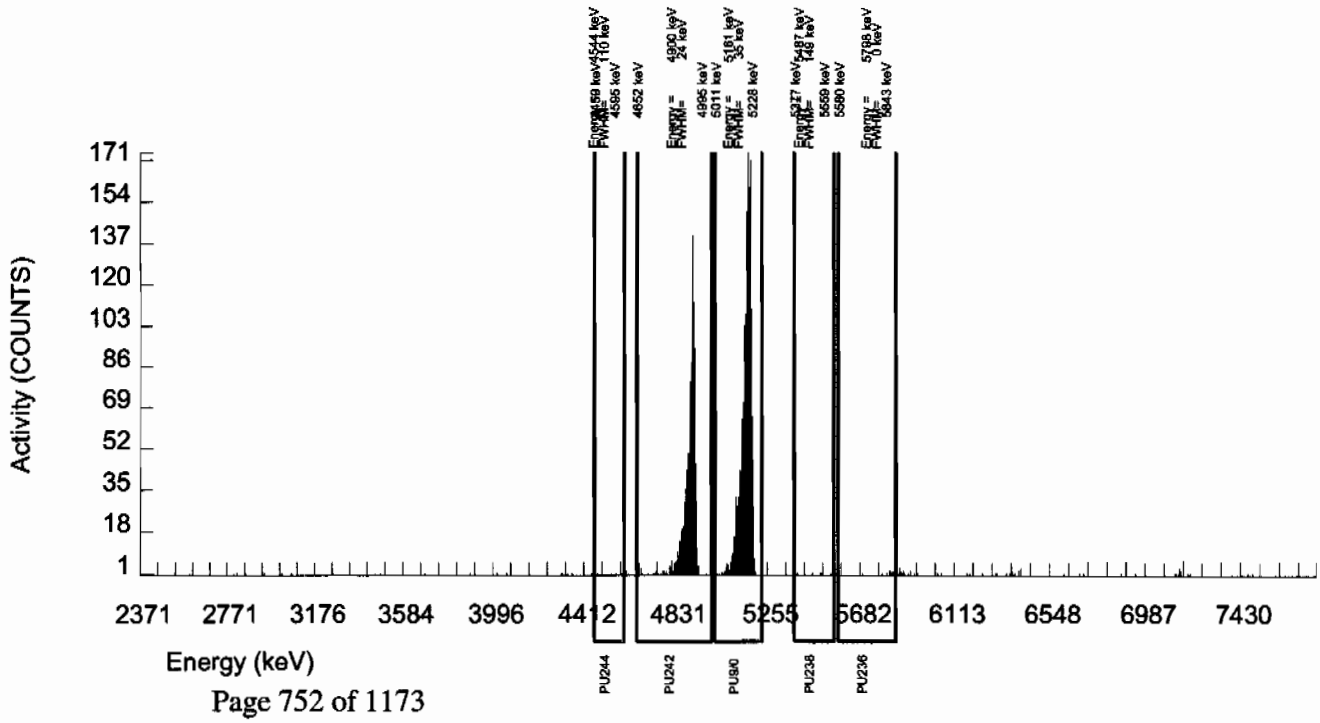

Radiochemistry Batch Checklist, Rev 9

Batch# 935842 Product: U Date: 1/2/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.	✓		
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			NA
Batch non-conformances second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analyses.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Denise Green 1/2/10

Secondary Review Performed By: [illegible] 1/4/10

1/17
LANL

P

Uranium Que Sheet

22-DEC-09

Batch #: 935842 Analyst: MXA1 First Client Due Date:17-JAN-10 Internal Due Date:06-JAN-10

Tracer Isotope: U-232/U-236 Tracer Code: 1283-H Expiration Date: 12/9/10 Vol: 0.1ml

LCS Isotope: U-238 LCS Code: 1163-H Expiration Date: 10/21/10 Vol: 0.1ml

Spike Isotope: U-238 Spike Code: — Expiration Date: — Vol: —

Prep Date: 12/29/09 Initials: MLK Pipet ID: 2921058 Balance ID: 1607580107 Witness: AW 12/29/09

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/ml)	U Det #
243255001-1	CAPA-10-6093	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	16-DEC-09	1	1	0.800	113
243255004-1	CAPA-10-6753	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	16-DEC-09	2	2	0.800	114
243255006-1	CAPA-10-6767	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	16-DEC-09	3	3	0.800	115
243285001-1	CAPA-10-6793	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	17-DEC-09	4	4	0.800	117
243286002-1	CAPA-10-6390	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	17-DEC-09	5	5	0.800	118
243286003-1	CAPA-10-6746	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	17-DEC-09	6	6	0.800	119
1202002423-1	MB for batch 935842	MB		.5 pCi/L	GROUND WATER	QC ACCOUNT		7	7	1	120
1202002424-1	CAPA-10-6746(243286003DUP)	DUP		.5 pCi/L	GROUND WATER	QC ACCOUNT	17-DEC-09	8	8	0.800	121
1202002425-1	LCS for batch 935842	LCS		.5 pCi/L	GROUND WATER	QC ACCOUNT		9	9	1	122

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) MLK MLK 12/29/09

Data Reviewed By: 1/2/10

GEL Laboratories LLC, Radiochemistry Division

JPN 1/4/10

Blank Correction Report

Batch ID 935842

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202002424	DUP	Uranium-233/234	0.800 L	1.44	0.119	0.0844	-.0025625	pCi/L	NO
		Uranium-235/236	0.800 L	0.054	0.0136	0.0441	.0029375	pCi/L	NO
		Uranium-238	0.800 L	1.18	0.100	0.0527	.007125	pCi/L	NO
1202002425	LCS	Uranium-233/234	1.00 L	2.48	0.187	0.0611	-.00205	pCi/L	NO
		Uranium-235/236	1.00 L	0.136	0.0201	0.0319	.00235	pCi/L	NO
		Uranium-238	1.00 L	2.42	0.183	0.0381	.0057	pCi/L	NO
1202002423	MB	Uranium-233/234	1.00 L	-0.00205	0.00329	0.0623	-.00205	pCi/L	NO
		Uranium-235/236	1.00 L	0.00235	0.00407	0.0326	.00235	pCi/L	YES
		Uranium-238	1.00 L	0.0057	0.00331	0.0389	.0057	pCi/L	YES
243255001	CAPA-10-6093	Uranium-233/234	0.800 L	0.0346	0.00959	0.0814	-.0025625	pCi/L	NO
		Uranium-235/236	0.800 L	0.0123	0.00756	0.0426	.0029375	pCi/L	YES
		Uranium-238	0.800 L	0.0347	0.0108	0.0509	.007125	pCi/L	YES
243255004	CAPA-10-6753	Uranium-233/234	0.800 L	0.0499	0.0123	0.0906	-.0025625	pCi/L	NO
		Uranium-235/236	0.800 L	0.00341	0.00342	0.0474	.0029375	pCi/L	YES
		Uranium-238	0.800 L	0.0414	0.0124	0.0566	.007125	pCi/L	NO
243255006	CAPA-10-6767	Uranium-233/234	0.800 L	0.0445	0.011	0.0813	-.0025625	pCi/L	NO
		Uranium-235/236	0.800 L	0.00612	0.00435	0.0425	.0029375	pCi/L	YES
		Uranium-238	0.800 L	0.0372	0.0111	0.0508	.007125	pCi/L	NO
243285001	CAPA-10-6793	Uranium-233/234	0.800 L	0.262	0.0318	0.0819	-.0025625	pCi/L	NO
		Uranium-235/236	0.800 L	0.0247	0.0108	0.0428	.0029375	pCi/L	NO
		Uranium-238	0.800 L	0.122	0.0195	0.0512	.007125	pCi/L	NO
243286002	CAPA-10-6390	Uranium-233/234	0.800 L	1.58	0.128	0.0814	-.0025625	pCi/L	NO
		Uranium-235/236	0.800 L	0.0613	0.0144	0.0426	.0029375	pCi/L	NO
		Uranium-238	0.800 L	1.24	0.104	0.0509	.007125	pCi/L	NO
243286003	CAPA-10-6746	Uranium-233/234	0.800 L	1.48	0.121	0.0835	-.0025625	pCi/L	NO
		Uranium-235/236	0.800 L	0.0566	0.0146	0.0437	.0029375	pCi/L	NO
		Uranium-238	0.800 L	1.16	0.0985	0.0522	.007125	pCi/L	NO

SDM 1/4/10

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 935842 SAMPLE DATE : 17-DEC-2009 00:00:00	SAMPLE ID : S0243285001_UU SAMPLE QTY: 0.800 L
DETECTOR NUMBER :33450 AVERAGE %EFFICIENCY :25.1810 % YIELD : 89.649	COUNT DATE:31-DEC-2009 16:57:23 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXA1

MS/MSD	LCS/LCSD	TRACER	
ID : 1163-H ISOTOPE : U-238 PCI/L : 3.243E+00	ID : 1163-H ISOTOPE : U-238 PCI/L : 3.243E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.51139 dpm RESULTS : 4.04439 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B117.CNF;430 BKG DATE : 27-DEC-2009 EFF FILE : W117.CNF;117 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U-3/4	4763.020	107.000	104.971	1.000	6.4732	100.0000	2.62E-01	3.18E-02	3.76E-02	8.19E-02	2.58E-02
U232	5302.100	1025.000	1018.000	7.000	2.6458	100.0000	2.54E+00	1.97E-01	1.54E-02	3.75E-02	8.02E-02
U-235	4391.000	10.000	8.000	2.000	2.4030	80.90000	2.47E-02	1.08E-02	1.72E-02	4.28E-02	1.07E-02
U-238	4184.730	49.000	49.000	0.000	3.8252	100.0000	1.22E-01	1.95E-02	2.22E-02	5.12E-02	1.75E-02

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

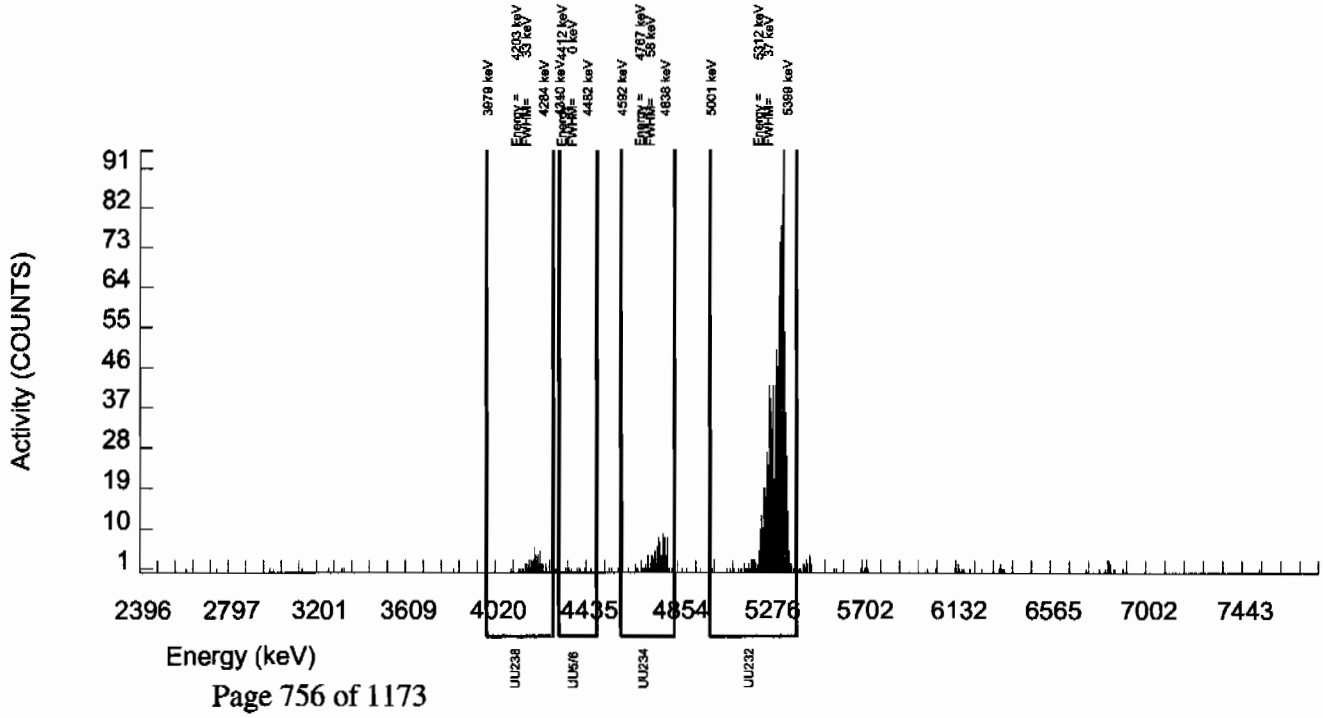

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 935842 SAMPLE DATE : 17-DEC-2009 00:00:00	SAMPLE ID : S0243286003_UU SAMPLE QTY: 0.800 L
DETECTOR NUMBER :79450 AVERAGE %EFFICIENCY :25.5316 % YIELD : 86.680	COUNT DATE:31-DEC-2009 16:57:28 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXA1

MS/MSD	LCS/LCSD	TRACER	
ID : 1163-H ISOTOPE : U-238 PCI/L : 3.243E+00	ID : 1163-H ISOTOPE : U-238 PCI/L : 3.243E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.51139 dpm RESULTS : 3.91049 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B119.CNF;439 BKG DATE : 27-DEC-2009 EFF FILE : W119.CNF;117 CAL DATE : 18-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U-3/4	4763.020	582.000	579.991	1.000	6.4732	100.0000	1.48E+00	1.21E-01	3.83E-02	8.35E-02	6.14E-02
U232	5302.100	998.000	998.000	0.000	0.0000	100.0000	2.54E+00	1.97E-01	0.00E+00	6.89E-03	8.04E-02
U-235	4391.000	19.000	18.000	1.000	2.4030	80.90000	5.66E-02	1.46E-02	1.76E-02	4.37E-02	1.41E-02
U-238	4184.730	456.000	456.000	0.000	3.8252	100.0000	1.16E+00	9.85E-02	2.26E-02	5.22E-02	5.43E-02

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

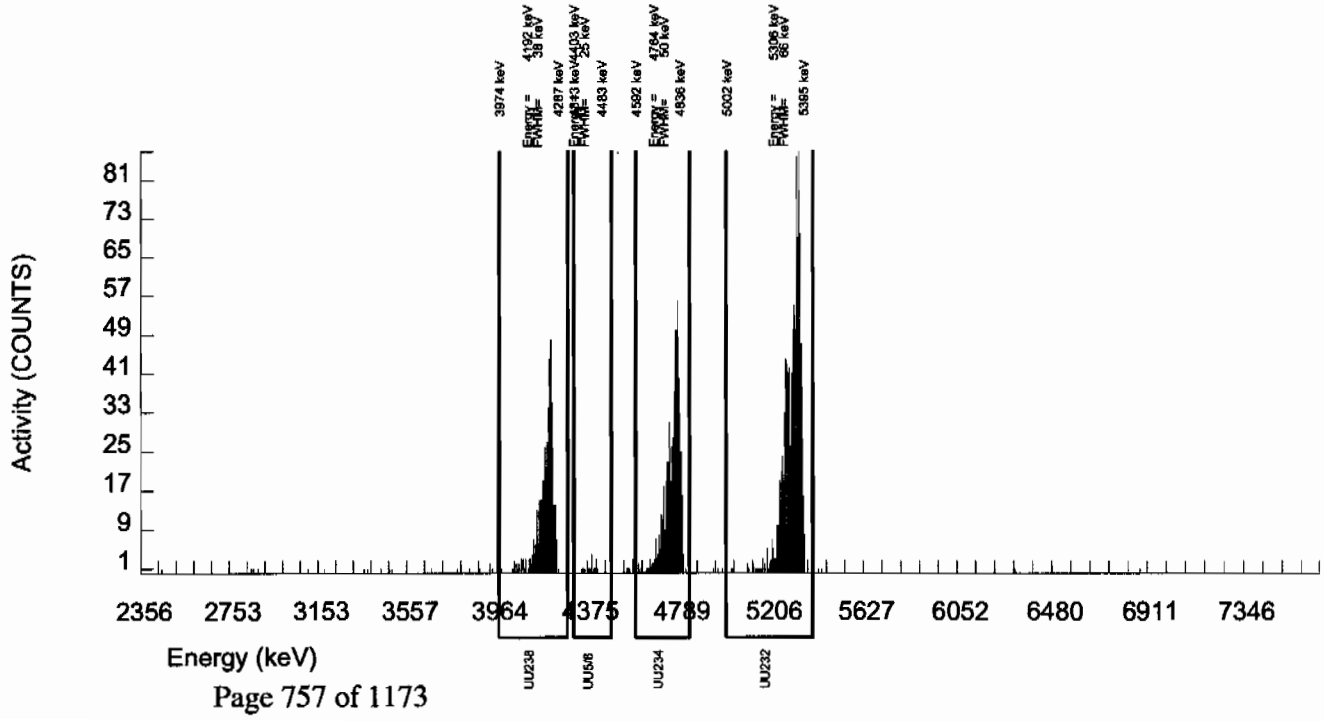

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 935842 SAMPLE DATE : 29-DEC-2009 00:00:00	SAMPLE ID : S1202002423_UU SAMPLE QTY: 1.000 L
DETECTOR NUMBER :74430 AVERAGE %EFFICIENCY :25.9702 % YIELD : 91.365	COUNT DATE:31-DEC-2009 16:57:30 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXA1

MS/MSD	LCS/LCSD	TRACER	
ID : 1163-H ISOTOPE : U-238 PCI/L : 2.594E+00	ID : 1163-H ISOTOPE : U-238 PCI/L : 2.594E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.50989 dpm RESULTS : 4.12045 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B120.CNF;443 BKG DATE : 27-DEC-2009 EFF FILE : W120.CNF;124 CAL DATE : 18-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U-3/4	4763.020	2.000	-1.081	2.000	6.4732	100.0000	-2.05E-03	3.29E-03	2.86E-02	6.23E-02	3.29E-03
U232	5302.100	1070.000	1070.000	0.000	0.0000	100.0000	2.03E+00	1.56E-01	0.00E+00	5.14E-03	6.21E-02
U-235	4391.000	2.000	1.000	1.000	2.4030	80.90000	2.35E-03	4.07E-03	1.31E-02	3.26E-02	4.06E-03
U-238	4184.730	3.000	3.000	0.000	3.8252	100.0000	5.70E-03	3.31E-03	1.69E-02	3.89E-02	3.29E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

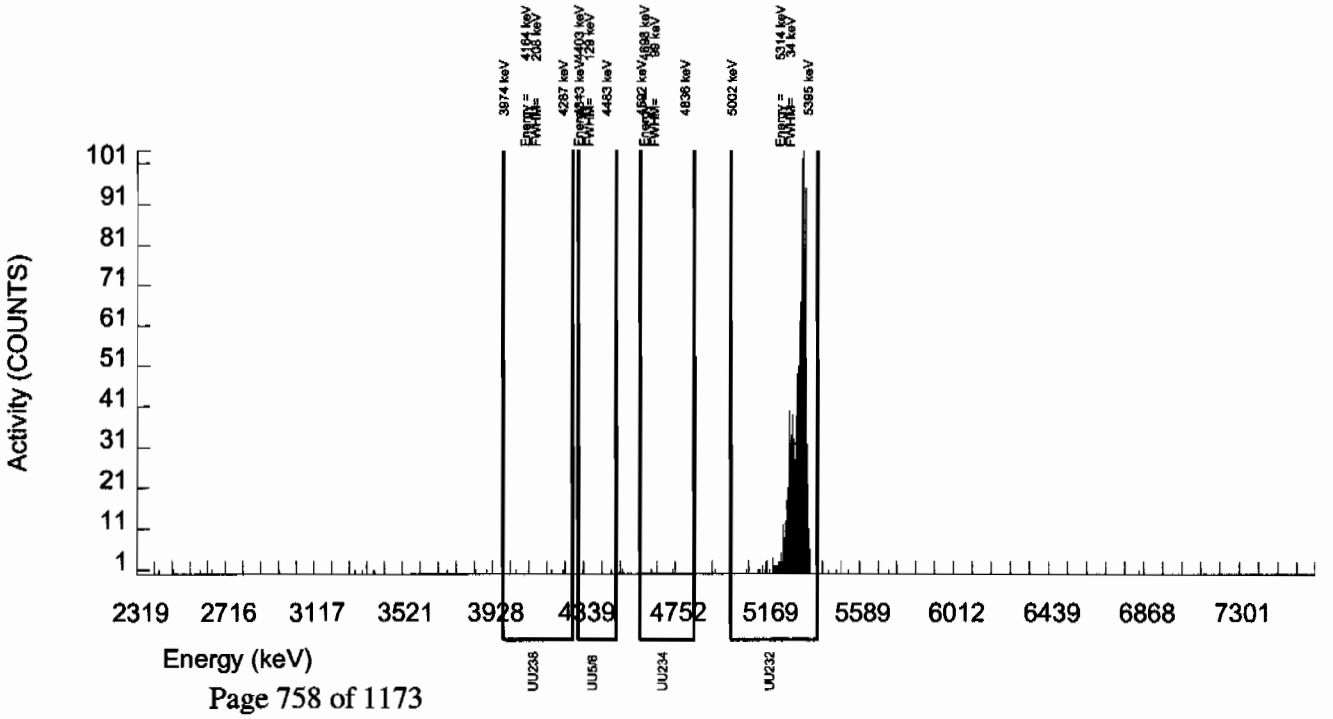

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 935842 SAMPLE DATE : 17-DEC-2009 00:00:00	SAMPLE ID : S1202002424_UU SAMPLE QTY: 0.800 L
DETECTOR NUMBER :75545 AVERAGE %EFFICIENCY :24.7171 % YIELD : 88.640	COUNT DATE:31-DEC-2009 16:57:33 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXA1

MS/MSD	LCS/LCSD	TRACER	
ID : 1163-H ISOTOPE : U-238 PCI/L : 3.243E+00	ID : 1163-H ISOTOPE : U-238 PCI/L : 3.243E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.51139 dpm RESULTS : 3.99888 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B121.CNF;425 BKG DATE : 27-DEC-2009 EFF FILE : W121.CNF;115 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U-3/4	4763.020	561.000	559.001	1.000	6.4732	100.0000	1.44E+00	1.19E-01	3.87E-02	8.44E-02	6.09E-02
U232	5302.100	992.000	988.000	4.000	2.0000	100.0000	2.54E+00	1.98E-01	1.20E-02	3.09E-02	8.11E-02
U-235	4391.000	17.000	17.000	0.000	2.4030	80.90000	5.40E-02	1.36E-02	1.78E-02	4.41E-02	1.31E-02
U-238	4184.730	461.000	460.000	1.000	3.8252	100.0000	1.18E+00	1.00E-01	2.29E-02	5.27E-02	5.52E-02

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

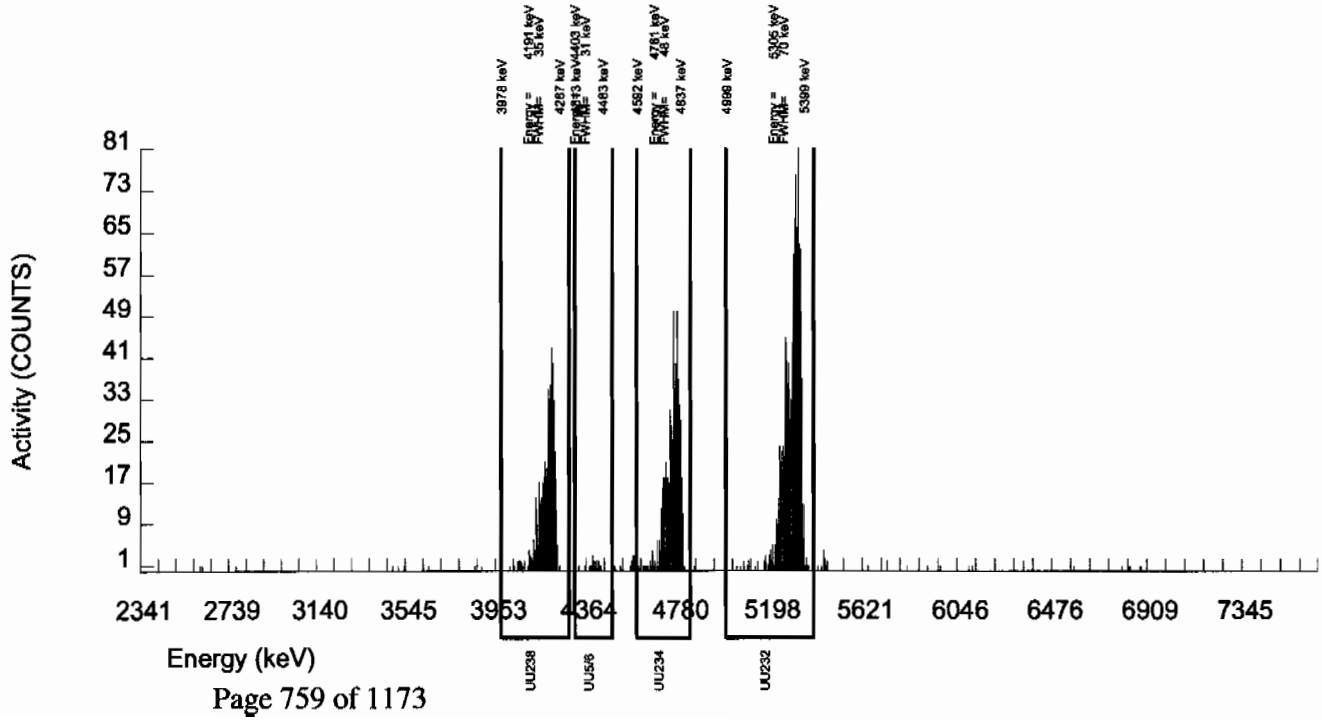

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 935842 SAMPLE DATE : 29-DEC-2009 00:00:00	SAMPLE ID : S1202002425_UU SAMPLE QTY: 1.000 L
DETECTOR NUMBER :75546 AVERAGE %EFFICIENCY :25.1424 % YIELD : 96.313	COUNT DATE:31-DEC-2009 16:57:35 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXA1

MS/MSD	LCS/LCSD	TRACER	
ID : 1163-H ISOTOPE : U-238 PCI/L : 2.594E+00	ID : 1163-H ISOTOPE : U-238 PCI/L : 2.594E+00	ID : 1283-H ISOTOPE : U232 NOMINAL : 4.50989 dpm RESULTS : 4.34362 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B122.CNF;427 BKG DATE : 27-DEC-2009 EFF FILE : W122.CNF;118 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U-3/4	4763.020	1335.000	1332.896	1.000	6.4732	100.0000	2.48E+00	1.87E-01	2.80E-02	6.11E-02	6.80E-02
U232	5302.100	1096.000	1092.000	4.000	2.0000	100.0000	2.03E+00	1.56E-01	8.65E-03	2.24E-02	6.17E-02
U-235	4391.000	59.000	59.000	0.000	2.4030	80.90000	1.36E-01	2.01E-02	1.29E-02	3.19E-02	1.77E-02
U-238	4184.730	1303.000	1302.000	1.000	3.8252	100.0000	2.42E+00	1.83E-01	1.66E-02	3.81E-02	6.72E-02

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

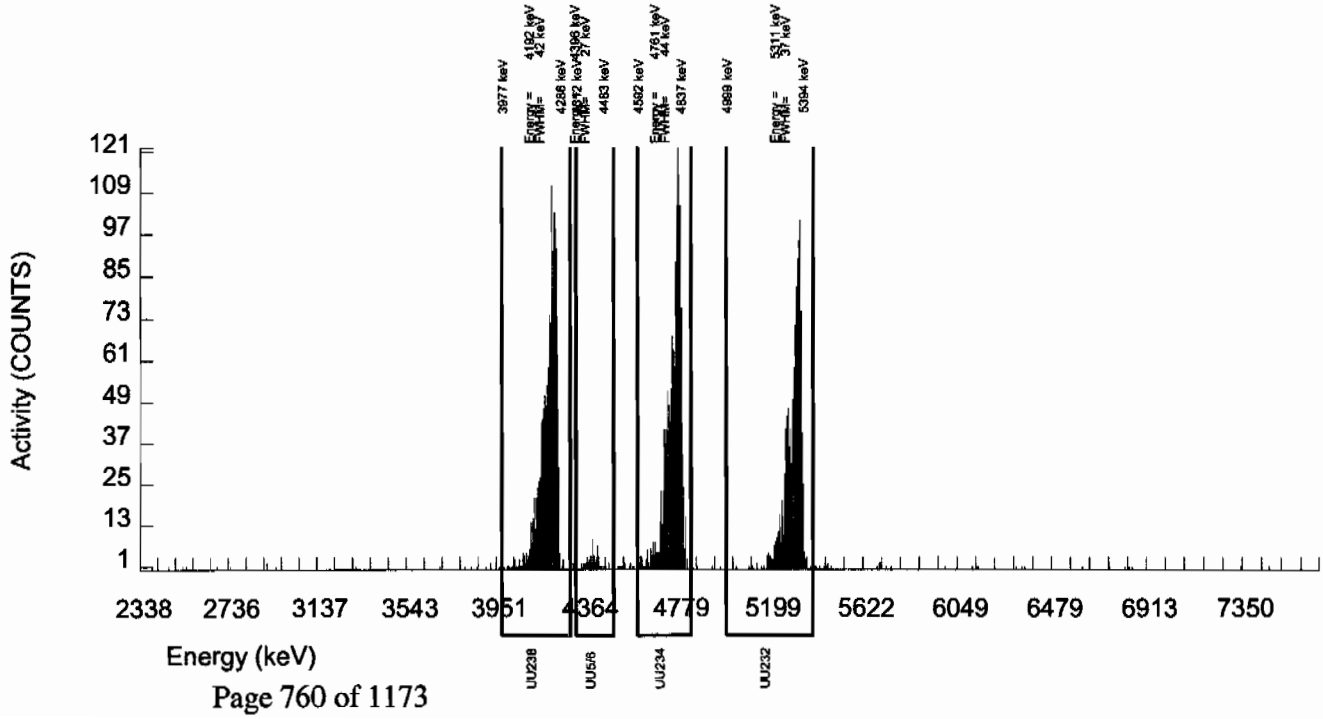

Radiochemistry Batch Checklist, Rev 9

Batch# 935338 Product: γL/LANL Date: 1/4/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			n/a
Samples have been blank corrected (if required)			n/a
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			n/a
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			n/a
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			n/a
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			n/a
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			n/a
Batch non-conformances second reviewed and disposition verified to be completed.			n/a
Aliquot Correction completed if required.			n/a
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: M. Stamps 1/4/10

Secondary Review Performed By: [illegible] 1/6/10

1/15/10

Gamma Spec Que Sheet

12/21/2009

Batch #:935338 **Analyst:** KXG3 **First Client DueDate** 01/15/2010 **Internal Due Date:** 01/04/2010

Gamma Spike Isotope: Mixed Gamma **Spike Code:** n/a **Expiration Date:** n/a **Vol:** n/a **Nominal Concentration:** n/a

Gamma LCS Isotope: Mixed Gamma **LCS Code:** 1032-A **Expiration Date:** 12/2/10 **Vol:** 1.0ml **Nominal Concentration:** Cs137-433.4 Co60-505.7

Initials: KXD **Prep Date:** 12/23/09 **Library:** Liquid **Witness:** n/a Am241-1236 gross α-217

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date		Geometry	Wet/Dry Aliquot (W/g / F)	Detector	Sealing Date/Time (if Applicable)
243014001-1	CAPA-10-6784	SAMPLE		LANL010	GROUND WATER	14-DEC-09 12:00:00	1	2LMB	2	4	
243104002-1	CAPA-10-6818	SAMPLE		LANL010	GROUND WATER	15-DEC-09 12:00:00	2		2	10	
243255001-1	CAPA-10-6093	SAMPLE		LANL010	GROUND WATER	16-DEC-09 12:00:00	3		2	12	
243255004-1	CAPA-10-6753	SAMPLE		LANL010	GROUND WATER	16-DEC-09 12:00:00	4		2	6	
243255006-1	CAPA-10-6767	SAMPLE		LANL010	GROUND WATER	16-DEC-09 12:00:00	5		2	7	
243285001-1	CAPA-10-6793	SAMPLE		LANL010	GROUND WATER	17-DEC-09 12:00:00	6		2	10	
243286002-1	CAPA-10-6390	SAMPLE		LANL010	GROUND WATER	17-DEC-09 12:00:00	7		2	16	
243286003-1	CAPA-10-6746	SAMPLE		LANL010	GROUND WATER	17-DEC-09 12:00:00	8		2	11	
1202001366-1	MB	MB		QC ACCOUNT	GROUND WATER	12/23/09	9		2	14	
1202001367-1	DUP CAPA-10-6390(243286002)	DUP		QC ACCOUNT	GROUND WATER	17-DEC-09 12:00:00			2	19	
1202001368-1	LCS	LCS		QC ACCOUNT	GROUND WATER	12/23/09			2	1	

MK 1/4/10

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: M. Stamper 1/4/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
935338	243014001	SAMPLE	30-DEC-09		Neptunium-237	18.19	32.17	10.0
					Potassium-40	27.53	53.89	10.0
935338	243104002	SAMPLE	30-DEC-09		Neptunium-237	10.5	34.61	10.0
					Potassium-40	-7.229	55.57	10.0
935338	243255001	SAMPLE	30-DEC-09		Neptunium-237	-10.96	32.69	10.0
					Potassium-40	-25.71	58.95	10.0
935338	243255004	SAMPLE	30-DEC-09		Neptunium-237	-7.576	25.26	10.0
					Potassium-40	-13.77	41.03	10.0
935338	243255006	SAMPLE	30-DEC-09		Neptunium-237	-15.04	17.47	10.0
					Potassium-40	0.8724	28.42	10.0
935338	243285001	SAMPLE	30-DEC-09		Neptunium-237	9.627	24.87	10.0
					Potassium-40	-1.534	40.42	10.0
935338	243286002	SAMPLE	30-DEC-09		Neptunium-237	20.08	34.51	10.0
					Potassium-40	26.46	48.69	10.0
935338	243286003	SAMPLE	30-DEC-09		Neptunium-237	1.024	17.79	10.0
935338	1202001366	MB	30-DEC-09		Neptunium-237	-3.639	16.48	10.0
					Potassium-40	2.878	34.25	10.0
935338	1202001367	DUP	30-DEC-09		Neptunium-237	3.296	20.47	10.0
					Potassium-40	11.35	22.68	10.0
935338	1202001368	LCS	30-DEC-09		Potassium-40	-34.95	114.4	10.0

Gamma Review Report based on Result > MDA for Batch:935338

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
243014001	14-DEC-09 12:00	30-DEC-09 18:38	16.3	SAMPLE	LOAD	1	LANL	ESHL01000|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Cerium-143	HE	5027	8043	pCi/L	0	N	0	7	0	SHORT_HLIF 0		
Iodine-123	HE	1.01E+09	1.00E+09	pCi/L	0	N	0	7	0	SHORT_HLIF 0		
Iodine-133	HE	3.53E+05	5.22E+05	pCi/L	0	N	0	7	0	SHORT_HLIF 0		
Rhodium-101	HE	5.739	1.34	pCi/L	4.844	N	0	7	0	NOT_IDENTI 0		
Sodium-24	HE	7.85E+06	8.56E+07	pCi/L	0	N	0	7	0	SHORT_HLIF 0		
Technetium-99m		6.20E+19	0	pCi/L	0	N	0	7	0	SHORT_HLIF 0		
Thallium-200	HE	1165	33580	pCi/L	0	N	0	7	0	SHORT_HLIF 0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
243104002	15-DEC-09 12:00	30-DEC-09 18:38	15.3	SAMPLE	LOAD	1	LANL	ESHL01000|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Technetium-99m		4.46E+18	0	pCi/L	0	N	0	2	0	SHORT_HLIF 0		
Thallium-200	HE	3298	18040	pCi/L	0	N	0	2	0	SHORT_HLIF 0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
243255001	16-DEC-09 12:00	30-DEC-09 18:39	14.3	SAMPLE	LOAD	1	LANL	ESHL01000|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Annihilation Rad.	HE	3.15	3.188	pCi/L	3.03	N	511.3	1	2.601	IDENTIFIED 101.1		
Cerium-143		7887	3489	pCi/L	0	N	0	7	0	SHORT_HLIF 0		
Iodine-133	HE	27660	1.06E+05	pCi/L	0	N	0	7	0	SHORT_HLIF 0		
Iodine-135		1.90E+16	0	pCi/L	0	N	0	7	0	SHORT_HLIF 0		
Niobium-97	HE	7.58E+05	1.83E+06	pCi/L	0	N	0	7	0	SHORT_HLIF 0		
Sodium-24	HE	5.79E+06	1.12E+07	pCi/L	0	N	0	7	0	SHORT_HLIF 0		
Thallium-200	HE	11520	10270	pCi/L	0	N	0	7	0	SHORT_HLIF 0		
Zirconium-97		1.13E+08	3.79E+07	pCi/L	0	N	0	7	0	SHORT_HLIF 0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
243255004	16-DEC-09 12:00	30-DEC-09 22:40	14.4	SAMPLE	LOAD	1	LANL	ESHL01000|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Arsenic-74	HE	7.994	2.412	pCi/L	7.271	N	595.8	1	1.812	IDENTIFIED 30.04		
Bismuth-211	HE	20.84	9.813	pCi/L	18.39	N	351.7	1	1.007	IDENTIFIED 46.98		
Bismuth-214	HE	9.988	3.772	pCi/L	8.984	N	0	10	0	FAIL_ABUND 0		
Iodine-133	HE	1.05E+05	99850	pCi/L	0	N	0	10	0	SHORT_HLIF 0		
Niobium-97	HE	2.34E+05	1.31E+06	pCi/L	0	N	0	10	0	SHORT_HLIF 0		
Protactinium-227		1.00E+41	0	pCi/L	0	N	0	10	0	SHORT_HLIF 0		
Sodium-24	HE	1.03E+07	9.10E+06	pCi/L	0	N	0	10	0	SHORT_HLIF 0		
Technetium-99m		8.25E+17	0	pCi/L	0	N	0	10	0	SHORT_HLIF 0		
Thallium-200	HE	2291	9056	pCi/L	0	N	0	10	0	SHORT_HLIF 0		
Thorium-230	HE	1915	6230	pCi/L	1555	N	0	10	0	NOT_IDENTI 0		
Thulium-171	HE	5721	1654	pCi/L	3939	N	0	10	0	FAIL_ABUND 0		
Tungsten-181	HE	70.19	20.29	pCi/L	52.97	N	0	10	0	FAIL_ABUND 0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
243255006	16-DEC-09 12:00	30-DEC-09 22:41	14.4	SAMPLE	LOAD	1	LANL	ESHL01000|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt Err(%)	Qual	Qual Comment
Bismuth-211	HE	24.33	8.96	pCi/L	15.73	N	352	1	1.169	IDENTIFIED 36.58		
Bismuth-214	HE	8.591	2.842	pCi/L	5.317	N	609.5	1	1.179	IDENTIFIED 32.72		
Cerium-143		7208	2818	pCi/L	0	N	0	7	0	SHORT_HLIF 0		
Lead-214	HE	8.462	3.125	pCi/L	7.444	N	0	7	0	FAIL_ABUND 0		
Polonium-214	HE	8.462	3.125	pCi/L	7.444	N	0	7	0	FAIL_ABUND 0		
Polonium-218	HE	8.462	3.125	pCi/L	7.444	N	0	7	0	FAIL_ABUND 0		
Protactinium-227		1.00E+41	0	pCi/L	0	N	0	7	0	SHORT_HLIF 0		
Technetium-99m		8.22E+17	0	pCi/L	0	N	0	7	0	SHORT_HLIF 0		

Tungsten-181	HE	30.59	8.71	pCi/L	27.7	N	0	7	0	NOT_IDENTI	0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
243285001	17-DEC-09 12:00	30-DEC-09 22:41	13.4	SAMPLE	LOAD	1	LANL	ESHL01000|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Arsenic-73	HE	222.9	55.47	pCi/L	197.5	N	0	8	0	NOT_IDENTI	0	
Arsenic-74	hv	14.33	3.184	pCi/L	6.483	N	596.1	1	1.445	IDENTIFIED	22.05	
Bismuth-211	HE	25.11	9.217	pCi/L	17.72	N	352.1	1	1.041	IDENTIFIED	36.56	
Bismuth-214	HE	9.869	3.78	pCi/L	8.173	N	0	8	0	FAIL_ABUND	0	
Cerium-143	HE	2895	1670	pCi/L	0	N	0	8	0	SHORT_HLIF	0	
Lead-214	HE	8.734	3.214	pCi/L	8.117	N	0	8	0	FAIL_ABUND	0	
Polonium-214	HE	8.734	3.214	pCi/L	8.117	N	0	8	0	FAIL_ABUND	0	
Polonium-218	HE	8.734	3.214	pCi/L	8.117	N	0	8	0	FAIL_ABUND	0	
Protactinium-227		1.00E+41	0	pCi/L	0	N	0	8	0	SHORT_HLIF	0	
Uranium-234	HE	16220	81220	pCi/L	15450	N	0	8	0	NOT_IDENTI	0	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
243286002	17-DEC-09 12:00	30-DEC-09 18:39	13.3	SAMPLE	LOAD	1	LANL	ESHL01000|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Bismuth-211	INT hv	69.23	14.7	pCi/L	25.84	N	351.8	4	0.9693	IDENTIFIED	20.66	
Bismuth-214	✓ hL	29.68	5.193	pCi/L	8.163	N	609.1	1	1.368	IDENTIFIED	16.8	
Cerium-143	HE	3240	2535	pCi/L	0	N	0	3	0	SHORT_HLIF	0	
Iodine-133	HE	43610	53860	pCi/L	0	N	0	3	0	SHORT_HLIF	0	
Lead-214	✓ hv	24.08	5.153	pCi/L	9.007	N	351.8	4	0.9693	IDENTIFIED	20.66	
Polonium-214	hv	24.08	5.153	pCi/L	9.007	N	351.8	4	0.9693	IDENTIFIED	20.66	
Polonium-218	hv	24.08	5.153	pCi/L	9.007	N	351.8	4	0.9693	IDENTIFIED	20.66	
Technetium-99m		3.51E+16	0	pCi/L	0	N	0	3	0	SHORT_HLIF	0	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
243286003	17-DEC-09 12:00	30-DEC-09 22:42	13.4	SAMPLE	LOAD	1	LANL	ESHL01000|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Arsenic-74	HE	8.528	2.759	pCi/L	6.218	N	595.6	1	0.9222	IDENTIFIED	32.04	
Bismuth-211	INT hv	55.83	9.708	pCi/L	14.31	N	351.6	1	1.234	IDENTIFIED	16.65	
Bismuth-214	✓ hv	21.48	3.477	pCi/L	4.143	N	608.7	1	1.194	IDENTIFIED	15.36	
Cerium-143	HE	2581	1561	pCi/L	0	N	0	13	0	SHORT_HLIF	0	
Gross Gamma		57.42	25.18	pCi/L	54.25	120		0				
Iodine-123	HE	1.49E+07	1.76E+07	pCi/L	0	N	0	13	0	SHORT_HLIF	0	
Lead-214	LA	19.42	3.415	pCi/L	8.62	N	0	13	0	FAIL_ABUND	0	
Polonium-214		19.42	3.415	pCi/L	8.62	N	0	13	0	FAIL_ABUND	0	
Polonium-218		19.42	3.415	pCi/L	8.62	N	0	13	0	FAIL_ABUND	0	
Potassium-40	X nvp	44.73	13.94	pCi/L	23.15	10.0	1461	1	0.8051	IDENTIFIED	30.85	ui
Protactinium-227		1.00E+41	0	pCi/L	0	N	0	13	0	SHORT_HLIF	0	
Radium-224	HE	56.87	21.78	pCi/L	42.99	N	241.9	1	1.347	IDENTIFIED	37.98	
Rhodium-101	HE	4.195	1.375	pCi/L	3.042	N	0	13	0	FAIL_ABUND	0	
Technetium-99m		4.98E+16	0	pCi/L	0	N	0	13	0	SHORT_HLIF	0	
Thallium-200	HE	1522	3868	pCi/L	0	N	0	13	0	SHORT_HLIF	0	
Thorium-230	HE	1428	4649	pCi/L	791	N	66.24	1	1.241	IDENTIFIED	28.38	
Thorium-234	HE	123.9	48.47	pCi/L	118.5	N	0	13	0	FAIL_ABUND	0	
Thulium-171	HE	3389	971	pCi/L	2373	N	0	13	0	FAIL_ABUND	0	
Total Uranium	HE	364.76972	144.21539	ug/L	352.56527	N		0				
Tungsten-181	HE	41.38	11.86	pCi/L	28.93	N	0	13	0	FAIL_ABUND	0	
Uranium-238	HE	123.9	48.47	pCi/L	118.5	N	0	13	0	FAIL_ABUND	0	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202001366		30-DEC-09 22:43	0	MB	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy ***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Gross Gamma		3.911	1.274	pCi/L	1.79	120		0				
Iodine-133	HE	218	492.3	pCi/L	0	N	0	6	0	SHORT_HLIF	0	
Iodine-135	HE	8.32E+07	1.84E+09	pCi/L	0	N	0	6	0	SHORT_HLIF	0	
Protactinium-227		1.00E+41	0	pCi/L	0	N	0	6	0	SHORT_HLIF	0	

Sodium-24	HE	4927	6114	pCi/L	0	N	0	6	0	SHORT_HLIF	0	☐
Technetium-99m	HE	2.09E+09	2.81E+09	pCi/L	0	N	0	6	0	SHORT_HLIF	0	☐
Zirconium-97	HE	15260	63630	pCi/L	0	N	0	6	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202001367	17-DEC-09 12:00	30-DEC-09 22:43	13.4	DUP	LOAD	1		ESHL01000IGEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Arsenic-74 nr		12.02	2.539	pCi/L	6.714	N	594.9	1	4.115	IDENTIFIED	20.95	☐	
Bismuth-211 Int		60.3	8.217	pCi/L	16.46	N	351.4	4	1.221	IDENTIFIED	13.23	☐	
Bismuth-214 ✓ nr		18.81	4.056	pCi/L	5.061	N	609	1	1.776	IDENTIFIED	21.24	☐	
Cerium-143		8269	2521	pCi/L	0	N	0	13	0	SHORT_HLIF	0	☐	
Gross Gamma		51.3	22.22	pCi/L	47.14	120		0				☐	
Iodine-133	HE	14640	39200	pCi/L	0	N	0	13	0	SHORT_HLIF	0	☐	
Iodine-135	HE	7.59E+14	1.89E+15	pCi/L	0	N	0	13	0	SHORT_HLIF	0	☐	
Lead-212	HE	5.482	2.865	pCi/L	5.426	N	0	13	0	FAIL_ABUND	0	☐	
Lead-214 ✓ nr		20.98	2.91	pCi/L	5.803	N	351.4	4	1.221	IDENTIFIED	13.23	☐	
Polonium-212	HE	5.482	2.865	pCi/L	5.426	N	0	13	0	FAIL_ABUND	0	☐	
Polonium-214 nr		20.98	2.91	pCi/L	5.803	N	351.4	4	1.221	IDENTIFIED	13.23	☐	
Polonium-216	HE	5.482	2.865	pCi/L	5.426	N	0	13	0	FAIL_ABUND	0	☐	
Polonium-218 nr		20.98	2.91	pCi/L	5.803	N	351.4	4	1.221	IDENTIFIED	13.23	☐	
Protactinium-227		1.00E+41	0	pCi/L	0	N	0	13	0	SHORT_HLIF	0	☐	
Radium-224	HE	64.71	19.11	pCi/L	58.71	N	0	13	0	NOT_IDENTI	0	☐	
Sodium-24	HE	2.15E+06	2.78E+06	pCi/L	0	N	0	13	0	SHORT_HLIF	0	☐	
Technetium-99m		6.18E+16	0	pCi/L	0	N	0	13	0	SHORT_HLIF	0	☐	
Thorium-228	HE	5.482	2.865	pCi/L	5.426	N	0	13	0	FAIL_ABUND	0	☐	
Thorium-230	HE	1279	4171	pCi/L	1033	N	66.35	1	1.604	IDENTIFIED	34.81	☐	
Thulium-171	HE	3035	1065	pCi/L	2902	N	0	13	0	FAIL_ABUND	0	☐	
Titanium-44	HE	3.24	1.194	pCi/L	3.119	N	0	13	0	FAIL_ABUND	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202001368		30-DEC-09 22:03	0	LCS	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Americium-241 ✓		1406	101.6	pCi/L	109.9	N	59.48	3	1.1	IDENTIFIED	5.498	☐ 113.7 %	
Barium-137m		432.3	19.33	pCi/L	14.67	N	661.5	2	1.383	IDENTIFIED	3.719	☐	
Cadmium-109		3064	243.3	pCi/L	384.4	N	87.95	3	1.315	IDENTIFIED	6.707	☐	
Cesium-137 ✓		457	20.47	pCi/L	15.51	8.00	661.5	2	1.383	IDENTIFIED	3.719	☐ 105.5 %	
Cobalt-57		26.33	5.82	pCi/L	10.95	N	122.1	1	0.9081	IDENTIFIED	21.84	☐	
Cobalt-60 ✓		563	29.51	pCi/L	7.957	8.00	1332	1	1.951	IDENTIFIED	3.632	☐ 111.3 %	
Gross Gamma ✓		2099	337.7	pCi/L	227.2	120		0				☐ 94.9 %	
Iodine-135	HE	4.01E+09	5.52E+09	pCi/L	0	N	0	3	0	SHORT_HLIF	0	☐	
Neptunium-237		893.9	116.4	pCi/L	105.8	10.0	87.95	3	1.315	IDENTIFIED	6.707	☐	
Niobium-97		48290	12310	pCi/L	0	N	0	3	0	SHORT_HLIF	0	☐	
Plutonium-237		17380	1222	pCi/L	1358	N	59.48	3	1.1	IDENTIFIED	5.498	☐	
Sodium-24	HE	13010	15540	pCi/L	0	N	0	3	0	SHORT_HLIF	0	☐	
Thorium-232	HE	2.66E+05	1.40E+06	pCi/L	21490	N	59.48	3	1.1	IDENTIFIED	5.498	☐	
Tin-126		304.4	24.18	pCi/L	38.45	N	87.95	3	1.315	IDENTIFIED	6.707	☐	

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
935338	243286002	SAMPLE	30-DEC-09	Polonium-214	24.08	5.153	pCi/L	4.506	N
				Polonium-218	24.08	5.153	pCi/L	4.506	N
				Potassium-40	26.46	17.25	pCi/L	24.36	10.0
				Protactinium-234m	324.3	156.1	pCi/L	300.1	N
				Technetium-99m	3.51E+16	0	pCi/L	0	N
935338	243286003	SAMPLE	30-DEC-09	Arsenic-73	36.12	19.38	pCi/L	32.36	N
				Beryllium-7	15.09	6.663	pCi/L	11.93	N
				Bismuth-211	55.83	9.708	pCi/L	7.157	N
				Bismuth-214	21.48	3.477	pCi/L	2.073	N
				Cerium-143	2581	1561	pCi/L	0	N
				Gross Gamma	57.42	25.18	pCi/L	26	120
				Iodine-123	1.49E+07	1.76E+07	pCi/L	0	N
				Lead-214	19.42	3.415	pCi/L	4.313	N
				Polonium-214	19.42	3.415	pCi/L	4.313	N
				Polonium-215	36.52	14.94	pCi/L	25.15	N
				Polonium-218	19.42	3.415	pCi/L	4.313	N
				Potassium-40	44.73	13.94	pCi/L	11.58	10.0
				Promethium-149	2766	1263	pCi/L	2135	N
				Protactinium-227	1.00E+41	0	pCi/L	0	N
				Radium-223	36.52	14.94	pCi/L	25.15	N
				Radium-224	56.87	21.78	pCi/L	21.51	N
				Radium-226	35.27	38.78	pCi/L	26.11	N
				Technetium-99m	4.98E+16	0	pCi/L	0	N
				Tellurium-125m	449.7	222.3	pCi/L	392.1	N
				Thallium-200	1522	3868	pCi/L	0	N
				Thallium-207	36.52	14.94	pCi/L	25.15	N
				Thorium-230	1428	4649	pCi/L	395.7	N
				Thorium-232	1467	7753	pCi/L	1112	N
				Thorium-234	123.9	48.47	pCi/L	59.3	N
				Thulium-171	3389	971	pCi/L	1187	N
				Tungsten-181	41.38	11.86	pCi/L	14.47	N
				Uranium-238	123.9	48.47	pCi/L	59.3	N
				Yttrium-91	984.8	318.8	pCi/L	600.2	N
935338	1202001366	MB	30-DEC-09	Cadmium-115	59.08	27.18	pCi/L	47.98	N
				Gross Gamma	3.911	1.274	pCi/L	0.6612	120
				Iodine-133	218	492.3	pCi/L	0	N
				Iodine-135	8.32E+07	1.84E+09	pCi/L	0	N

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Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
935338	1202001366	MB	30-DEC-09	Protactinium-227	1.00E+41	0	pCi/L	0	N
				Sodium-24	4927	6114	pCi/L	0	N
				Technetium-99m	2.09E+09	2.81E+09	pCi/L	0	N
				Tungsten-181	22	9.306	pCi/L	13.59	N
				Zirconium-97	15260	63630	pCi/L	0	N
935338	1202001367	DUP	30-DEC-09	Arsenic-74	12.02	2.539	pCi/L	3.359	N
				Bismuth-211	60.3	8.217	pCi/L	8.235	N
				Bismuth-214	18.81	4.056	pCi/L	2.532	N
				Cerium-143	8269	2521	pCi/L	0	N
				Gross Gamma	51.3	22.22	pCi/L	22.7	120
				Iodine-133	14640	39200	pCi/L	0	N
				Iodine-135	7.59E+14	1.89E+15	pCi/L	0	N
				Lead-214	20.98	2.91	pCi/L	2.903	N
				Polonium-214	20.98	2.91	pCi/L	2.903	N
				Polonium-218	20.98	2.91	pCi/L	2.903	N
				Potassium-40	11.35	13.15	pCi/L	11.35	10.0
				Protactinium-227	1.00E+41	0	pCi/L	0	N
				Radium-224	64.71	19.11	pCi/L	29.37	N
				Sodium-24	2.15E+06	2.78E+06	pCi/L	0	N
				Technetium-99m	6.18E+16	0	pCi/L	0	N
				Thorium-230	1279	4171	pCi/L	516.6	N
				Thulium-171	3035	1065	pCi/L	1452	N
				Tungsten-181	37.06	13.01	pCi/L	20	N
935338	1202001368	LCS	30-DEC-09	Americium-241	1406	101.6	pCi/L	54.97	25.0
				Arsenic-73	382	215.6	pCi/L	348.5	N
				Barium-137m	432.3	19.33	pCi/L	7.341	N
				Cadmium-109	3064	243.3	pCi/L	192.3	N
				Cesium-137	457	20.47	pCi/L	7.76	8.00
				Cobalt-57	26.33	5.82	pCi/L	5.476	N
				Cobalt-60	563	29.51	pCi/L	3.981	8.00
				Europium-155	31.54	14.19	pCi/L	24.17	N
				Gross Gamma	2099	337.7	pCi/L	109.6	120
				Iodine-135	4.01E+09	5.52E+09	pCi/L	0	N
				Neptunium-237	893.9	116.4	pCi/L	52.95	10.0
				Niobium-97	48290	12310	pCi/L	0	N
				Plutonium-237	17380	1222	pCi/L	679.6	N
				Silver-110m	14.59	5.007	pCi/L	8.559	N

MS
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VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 04:42:44.28

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243285001.CNF;1
Sample date       : 17-DEC-2009 12:00:00 Acquisition date : 30-DEC-2009 22:41:49
Sample ID         : G243285001           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM10                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:01.27  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 935338                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.22*	29	287	1.00	126.60	124	6	1.35E-03	110.2	
2	0	66.10	66	283	1.14	132.36	130	6	3.07E-03	42.1	
3	0	74.68*	34	435	0.97	149.50	145	8	1.56E-03	125.4	
4	0	92.45*	12	448	1.28	185.00	181	9	5.44E-04	389.4	
5	0	185.58*	23	319	0.90	371.11	367	9	1.05E-03	178.7	
6	0	238.38*	4	278	0.88	476.63	472	9	1.67E-04	987.4	
7	0	295.07*	37	166	1.05	589.93	587	8	1.71E-03	75.0	
8	0	352.05*	84	153	1.04	703.81	699	10	3.87E-03	36.6	
9	0	584.20*	9	68	1.37	1167.84	1163	11	4.04E-04	273.2	
10	0	596.09	89	80	1.45	1191.62	1186	11	4.14E-03	22.1	
11	0	609.79*	79	117	1.74	1219.00	1209	16	3.68E-03	38.1	
12	0	911.93*	7	44	1.28	1823.10	1820	12	3.12E-04	255.9	
13	0	1123.29	19	86	0.72	2245.79	2233	17	9.02E-04	110.8	
14	0	1463.95	53	42	8.67	2927.22	2916	23	2.43E-03	36.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 31-DEC-2009 04:42:46

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243285001.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : KXG3
Sample date       : 17-DEC-2009 12:00:00 Acquisition date : 30-DEC-2009 22:41:49
Sample ID         : G243285001           Sample quantity  : 2.0000 LITER
Sample type       : LIQUID               Sample geometry  :
Detector name     : GAMMA10              Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:01.27   0.0%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     1.50 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AS-74	+	595.88	*	1.433E+01	6.369E+00	6.483E+00	3.527E-01	2.211
		634.78		5.915E-01	1.569E+01	2.636E+01	1.357E+00	0.022
AU-195	+	65.12		1.901E+01	1.607E+01	2.415E+01	1.788E+00	0.787
	+	66.83		1.109E+01	9.374E+00	1.226E+01	9.077E-01	0.905
	+	75.70		8.710E+00	2.186E+01	1.937E+01	1.433E+00	0.450
		98.88	*	-2.229E+00	1.372E+01	2.227E+01	1.510E+00	-0.100
		129.76		1.034E+02	1.570E+02	2.609E+02	1.565E+01	0.396
BI-211		72.87		9.620E+01	2.506E+02	3.788E+02	2.797E+01	0.254
	+	351.07	*	2.511E+01	1.843E+01	1.772E+01	1.179E+00	1.417
RA-226	+	186.21	*	1.850E+01	6.749E+01	6.131E+01	4.498E+01	0.302
TH-234	+	63.29	*	7.225E+01	1.597E+02	2.019E+02	3.520E+01	0.358
	+	92.38		7.352E+00	5.727E+01	5.071E+01	8.857E+00	0.145
U-238	+	63.29	*	7.225E+01	1.597E+02	2.019E+02	3.520E+01	0.358
	+	92.38		7.352E+00	5.726E+01	5.071E+01	3.668E+00	0.145
AM-243	+	74.67	*	2.708E+00	6.796E+00	6.742E+00	4.982E-01	0.402
		86.72		-1.007E+01	5.615E+02	9.226E+02	7.048E+01	-0.011
		117.66		-2.491E+02	2.369E+02	3.659E+02	2.305E+01	-0.681
		142.18		-9.803E+02	1.056E+03	1.629E+03	9.213E+01	-0.602

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	-1.865E+00	1.645E+01	2.634E+01	1.825E+00	-0.071
NA-22		1274.54	*	-4.847E-01	1.579E+00	2.522E+00	1.616E-01	-0.192
NA-24		1368.53	*	-1.176E+01	1.579E+00	Half-Life too short		
AL-26		1129.67		1.220E+00	6.586E+01	1.030E+02	6.310E+00	0.012
		1808.65	*	6.164E-01	1.562E+00	2.696E+00	1.560E-01	0.229
K-40		1460.81	*	-1.534E+00	2.616E+01	4.042E+01	2.826E+00	-0.038
TI-44		67.85		-8.536E-01	4.154E+00	6.109E+00	4.519E-01	-0.140
		78.38	*	4.361E-01	2.395E+00	3.577E+00	2.655E-01	0.122
SC-46		889.25	*	-2.378E+00	1.836E+00	2.582E+00	1.948E-01	-0.921
		1120.51		1.821E+00	2.856E+00	4.425E+00	2.748E-01	0.411
V-48		944.10		-9.932E+00	3.506E+01	5.521E+01	4.108E+00	-0.180

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		983.50	*	3.102E+00	2.628E+00	4.822E+00	3.483E-01	0.643
		1312.09		5.151E-01	3.292E+00	5.560E+00	3.699E-01	0.093
CR-51		320.08	*	-7.794E+00	1.782E+01	2.875E+01	1.900E+00	-0.271
MN-52		744.21		-3.080E+00	8.302E+00	1.326E+01	7.697E-01	-0.232
		848.13		1.080E+01	2.391E+02	3.942E+02	2.770E+01	0.027
		935.52		5.619E+00	9.440E+00	1.626E+01	1.217E+00	0.346
		1246.25		9.640E+01	2.207E+02	3.851E+02	2.390E+01	0.250
		1333.61		-1.224E+02	1.921E+02	2.939E+02	1.996E+01	-0.416
		1434.06	*	1.786E+00	7.925E+00	1.350E+01	9.062E-01	0.132
MN-54		834.83	*	-1.613E+00	1.561E+00	2.285E+00	1.569E-01	-0.706
CO-56		846.75	*	-6.507E-01	1.789E+00	2.833E+00	1.986E-01	-0.230
		977.42		-1.228E+02	1.149E+02	1.597E+02	1.159E+01	-0.769
		1037.82		8.579E+00	1.255E+01	2.185E+01	1.625E+00	0.393
		1175.09		8.291E+01	7.902E+01	1.469E+02	8.416E+00	0.564
		1238.25		2.732E+00	2.989E+00	5.444E+00	3.536E-01	0.502
		1360.21		3.648E+01	4.536E+01	8.206E+01	5.562E+00	0.445
		1771.40		-2.529E+01	1.545E+01	1.886E+01	1.116E+00	-1.341
CO-57		122.06	*	5.946E-02	1.873E+00	2.628E+00	1.658E-01	0.023
		136.48		-1.592E+01	1.331E+01	2.032E+01	1.365E+00	-0.784
CO-58		810.76	*	-7.389E-01	1.734E+00	2.735E+00	1.806E-01	-0.270
FE-59		142.65		-2.160E+02	1.788E+02	2.420E+02	1.366E+01	-0.893
		192.34		3.137E+00	4.866E+01	7.730E+01	8.953E+00	0.041
		1099.22	*	8.765E-01	3.541E+00	5.864E+00	4.286E-01	0.149
		1291.56		-6.281E+00	5.256E+00	7.465E+00	5.965E-01	-0.841
CO-60		1173.22		6.699E-01	1.563E+00	2.743E+00	1.568E-01	0.244
		1332.49	*	1.102E+00	1.794E+00	3.177E+00	2.158E-01	0.347
ZN-65		1115.52	*	8.919E-01	3.772E+00	5.439E+00	3.408E-01	0.164
GE-68		1077.35	*	1.770E+01	4.972E+01	8.350E+01	5.487E+00	0.212
AS-73		53.44	*	2.229E+02	1.109E+02	1.975E+02	1.649E+01	1.129
SE-75	+	66.05		5.554E+02	4.705E+02	7.224E+02	6.831E+01	0.769
		96.73		3.585E+00	5.236E+01	7.691E+01	9.702E+00	0.047
		121.11		-1.473E-01	9.969E+00	1.392E+01	1.329E+00	-0.011
		136.00		-1.869E+00	2.402E+00	3.740E+00	2.206E-01	-0.500
		198.60		8.600E+01	1.256E+02	1.704E+02	1.152E+01	0.505
		264.65	*	1.316E+00	2.200E+00	3.788E+00	2.190E-01	0.347
		279.53		2.701E+00	5.420E+00	9.264E+00	5.805E-01	0.292
		303.91		-6.828E+00	1.279E+02	1.742E+02	1.673E+01	-0.039
		400.65		-9.152E+00	1.474E+01	2.086E+01	1.939E+00	-0.439
BR-77		87.88		-3.407E+03	7.629E+03	1.093E+04	8.400E+02	-0.312
		200.40		-5.425E+03	5.897E+03	8.891E+03	4.763E+02	-0.610
	+	239.00		2.471E+01	4.879E+02	5.621E+02	3.136E+01	0.044
		249.79		-7.549E+02	2.159E+03	3.566E+03	2.011E+02	-0.212
		281.68		-1.512E+03	2.828E+03	4.585E+03	2.662E+02	-0.330
		297.23		1.531E+03	1.848E+03	2.858E+03	1.679E+02	0.536
		303.76		-1.904E+03	6.972E+03	9.393E+03	5.544E+02	-0.203
		439.47		2.998E+03	4.399E+03	7.482E+03	4.547E+02	0.401
		484.57		1.287E+02	6.937E+03	1.121E+04	6.708E+02	0.011
		520.65	*	3.149E+02	3.178E+02	5.495E+02	3.219E+01	0.573
		574.64		2.933E+03	5.953E+03	1.039E+04	5.796E+02	0.282

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		578.91		-1.567E+03	2.790E+03	3.844E+03	2.134E+02	-0.408
	+	585.48		1.622E+03	8.864E+03	8.407E+03	4.633E+02	0.193
		755.35		3.734E+03	4.429E+03	7.878E+03	4.671E+02	0.474
		817.79		2.564E+03	3.818E+03	6.665E+03	4.438E+02	0.385
SR-82		698.33		2.904E+02	1.411E+03	2.387E+03	1.265E+02	0.122
		776.49	*	3.534E+00	1.514E+01	2.556E+01	1.578E+00	0.138
		1395.20		5.708E+02	4.878E+02	9.159E+02	6.185E+01	0.623
RB-83		520.41	*	3.088E+00	3.282E+00	5.658E+00	3.315E-01	0.546
		529.64		-5.619E+00	5.085E+00	7.351E+00	4.277E-01	-0.764
		552.65		-4.244E+00	1.018E+01	1.573E+01	8.972E-01	-0.270
RB-84		881.50	*	4.981E-01	3.057E+00	5.082E+00	3.784E-01	0.098
KR-85		513.99	*	-6.233E+02	5.291E+02	7.980E+02	4.696E+01	-0.781
SR-85		513.99	*	-3.143E+00	2.668E+00	4.024E+00	2.368E-01	-0.781
RB-86		1076.63	*	-5.327E+00	3.020E+01	4.758E+01	3.129E+00	-0.112
Y-88		898.02		-9.282E-01	1.955E+00	3.043E+00	2.344E-01	-0.305
		1836.01	*	-2.369E-02	1.875E+00	3.020E+00	1.721E-01	-0.008
ZR-88		392.90	*	1.111E+00	1.499E+00	2.566E+00	1.563E-01	0.433
Y-91		1204.90	*	2.436E+02	6.812E+02	1.181E+03	6.997E+01	0.206
NB-94		702.63	*	5.377E-01	1.482E+00	2.538E+00	1.357E-01	0.212
		871.10		1.449E+00	1.595E+00	2.828E+00	2.068E-01	0.513
NB-95		765.79	*	1.354E+00	2.063E+00	3.593E+00	2.174E-01	0.377
NB-95M		235.69	*	3.527E+00	6.306E+00	9.692E+00	7.118E-01	0.364
ZR-95		724.18		-2.242E+00	4.181E+00	6.630E+00	4.425E-01	-0.338
		756.15	*	1.993E+00	2.914E+00	5.121E+00	3.660E-01	0.389
NB-97		657.90	*	-4.819E-01	2.914E+00	Half-Life too short		
		1024.50		-5.651E+01	2.914E+00	Half-Life too short		
ZR-97		254.15		2.867E+01	2.914E+00	Half-Life too short		
		355.39		-3.405E+01	2.914E+00	Half-Life too short		
		507.63	*	-1.113E+02	2.914E+00	Half-Life too short		
		602.52		-8.808E+00	2.914E+00	Half-Life too short		
		1021.30		6.628E+01	2.914E+00	Half-Life too short		
		1147.95		8.531E+00	2.914E+00	Half-Life too short		
		1362.66		8.475E+00	2.914E+00	Half-Life too short		
		1750.46		8.160E+01	2.914E+00	Half-Life too short		
MO-99		140.51		-1.403E+02	1.269E+03	1.768E+03	4.760E+02	-0.079
		181.06		-1.043E+02	7.072E+02	9.886E+02	1.677E+02	-0.106
		366.43		1.641E+03	2.945E+03	4.996E+03	3.033E+02	0.329
		739.58	*	-1.075E+02	3.223E+02	5.161E+02	7.102E+01	-0.208
		778.00		-5.540E+02	9.868E+02	1.540E+03	9.532E+01	-0.360
TC-99M		140.51	*	-3.716E+09	9.868E+02	Half-Life too short		
RH-101		127.23		1.018E+00	1.876E+00	3.103E+00	1.889E-01	0.328
		198.01	*	1.302E+00	2.344E+00	3.175E+00	1.697E-01	0.410
		325.23		4.327E+00	1.174E+01	1.979E+01	1.183E+00	0.219
RH-102		418.52		-3.171E+00	1.856E+01	2.350E+01	1.432E+00	-0.135
		475.06	*	-3.183E-01	1.478E+00	2.350E+00	1.413E-01	-0.135
		631.29		-5.957E-01	2.572E+00	4.232E+00	2.191E-01	-0.141
		697.49		-1.078E-01	3.423E+00	5.681E+00	3.006E-01	-0.019
		766.84		7.015E+00	4.658E+00	8.608E+00	5.217E-01	0.815
		1046.59		1.137E+00	4.146E+00	6.936E+00	4.720E-01	0.164

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1112.84		-3.918E+00	9.500E+00	1.283E+01	8.052E-01	-0.305
RU-103		497.08	*	-1.992E+00	2.101E+00	3.114E+00	3.959E-01	-0.639
	+	610.33		1.036E+02	8.058E+01	8.483E+01	1.294E+01	1.222
RH-106		511.85		-4.890E+01	1.624E+01	2.344E+01	1.382E+00	-2.086
		621.84	*	-1.015E+01	1.546E+01	2.457E+01	2.820E+00	-0.413
		1050.47		-3.589E+01	8.894E+01	1.359E+02	9.210E+00	-0.264
RU-106		511.85		-4.890E+01	1.624E+01	2.344E+01	1.382E+00	-2.086
		621.84	*	-1.015E+01	1.542E+01	2.457E+01	1.290E+00	-0.413
		1050.47		-3.589E+01	8.894E+01	1.359E+02	9.210E+00	-0.264
AG-108M		433.93	*	-3.558E-01	1.636E+00	2.617E+00	1.717E-01	-0.136
		614.37		-2.109E+00	2.014E+00	2.586E+00	1.510E-01	-0.816
		722.95		-1.868E+00	1.902E+00	2.889E+00	1.755E-01	-0.647
CD-109		88.03	*	-2.191E+01	5.593E+01	8.040E+01	6.179E+00	-0.273
AG-110M		657.75	*	-9.439E-01	1.639E+00	2.613E+00	1.407E-01	-0.361
		677.61		1.151E+01	1.310E+01	2.344E+01	1.285E+00	0.491
		706.67		3.238E+00	9.398E+00	1.605E+01	9.251E-01	0.202
		763.93		-2.727E+00	7.250E+00	1.159E+01	7.384E-01	-0.235
		884.67		2.083E+00	2.182E+00	3.896E+00	3.040E-01	0.535
		937.48		-3.332E-01	4.866E+00	7.866E+00	6.161E-01	-0.042
		1384.27		-1.103E+00	7.295E+00	1.182E+01	8.357E-01	-0.093
IN-111		171.28		-2.425E+01	3.763E+01	5.803E+01	3.040E+00	-0.418
		245.39	*	-1.563E+00	3.708E+01	6.222E+01	3.493E+00	-0.025
IN-113M		391.69	*	1.893E+00	2.183E+00	3.763E+00	2.431E-01	0.503
SN-113		391.69	*	1.893E+00	2.183E+00	3.763E+00	2.431E-01	0.503
IN-114M		190.27	*	-7.601E-01	1.066E+01	1.493E+01	7.923E-01	-0.051
CD-115		260.90		8.814E+02	4.177E+03	7.066E+03	4.028E+02	0.125
		492.35		4.733E+02	1.112E+03	1.850E+03	1.103E+02	0.256
		527.90	*	1.504E+02	3.028E+02	5.063E+02	2.950E+01	0.297
SN-117M		156.02		-4.035E+00	1.216E+02	1.943E+02	1.046E+01	-0.021
		158.56	*	-2.087E-01	3.275E+00	4.876E+00	2.605E-01	-0.043
SB-122		563.90	*	-1.331E+01	6.362E+01	9.965E+01	5.623E+00	-0.134
		692.80		-1.000E+03	1.625E+03	2.128E+03	1.115E+02	-0.470
I-123		159.00	*	-2.182E+01	1.625E+03	Half-Life too short		
		528.96		-1.429E+03	1.625E+03	Half-Life too short		
TE-123M		159.00	*	-8.015E-01	1.833E+00	2.683E+00	1.454E-01	-0.299
I-124		602.71	*	-4.864E+00	3.270E+01	4.114E+01	2.219E+00	-0.118
		722.78		-1.499E+02	1.526E+02	2.319E+02	1.291E+01	-0.647
		1325.50		-2.322E+02	1.234E+03	2.003E+03	1.351E+02	-0.116
		1376.25		8.137E+02	1.068E+03	1.916E+03	1.296E+02	0.425
		1509.49		1.278E+02	5.721E+02	9.666E+02	6.384E+01	0.132
		1691.02		7.663E+01	1.342E+02	2.399E+02	1.482E+01	0.319
SB-124		602.71		-3.612E-01	2.428E+00	3.055E+00	1.649E-01	-0.118
		645.85		-2.539E+01	2.185E+01	3.277E+01	1.931E+00	-0.775
		709.31		3.912E+01	1.244E+02	2.120E+02	1.149E+01	0.185
		713.82		-4.043E+01	7.130E+01	1.123E+02	1.126E+01	-0.360
		722.78		-1.614E+01	1.643E+01	2.496E+01	1.460E+00	-0.647
		968.20		1.343E+02	1.137E+02	2.034E+02	1.487E+01	0.661
		1045.16		-6.792E+01	9.754E+01	1.432E+02	9.763E+00	-0.474
		1325.50		-2.670E+01	1.419E+02	2.303E+02	1.553E+01	-0.116

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1368.21		-1.630E+02	1.214E+02	1.294E+02	1.602E+01	-1.260
		1436.60		3.393E+01	1.478E+02	2.520E+02	1.691E+01	0.135
		1691.02	*	1.946E+00	3.409E+00	6.093E+00	4.049E-01	0.319
SB-125		427.89	*	-1.758E+00	4.697E+00	7.442E+00	4.706E-01	-0.236
		463.38		-2.862E+00	1.320E+01	2.101E+01	1.464E+00	-0.136
		600.56		5.204E+00	1.091E+01	1.487E+01	9.479E-01	0.350
		635.90		-4.952E+00	1.289E+01	2.095E+01	1.306E+00	-0.236
TE-125M		109.28	*	4.153E+02	5.582E+02	9.362E+02	8.014E+01	0.444
I-126		388.63		3.148E-01	9.183E+00	1.507E+01	9.174E-01	0.021
		666.33	*	-1.107E+01	1.373E+01	1.148E+01	5.695E-01	-0.964
		753.82		-1.427E+01	5.828E+01	9.425E+01	5.572E+00	-0.151
SB-126		223.80		6.333E+01	1.858E+02	3.184E+02	1.748E+01	0.199
		278.60		9.679E+01	1.123E+02	1.951E+02	1.130E+01	0.496
	+	296.50		6.053E+01	9.083E+01	1.145E+02	6.726E+00	0.528
		414.70		1.293E-01	3.354E+00	5.481E+00	3.341E-01	0.024
		415.30		-1.381E+01	2.820E+02	4.581E+02	2.792E+01	-0.030
		555.20		-2.271E+02	2.055E+02	2.998E+02	1.706E+01	-0.757
		573.80		9.962E+00	4.288E+01	7.353E+01	4.106E+00	0.135
		593.00		2.600E+01	4.311E+01	6.732E+01	3.676E+00	0.386
		656.30		5.825E+01	1.397E+02	2.410E+02	1.196E+01	0.242
		666.33		-4.607E+00	5.716E+00	4.779E+00	2.371E-01	-0.964
		675.00		-3.101E+01	7.916E+01	1.275E+02	6.442E+00	-0.243
		695.00		-2.142E+00	4.021E+00	5.351E+00	2.817E-01	-0.400
		697.00		-3.467E+00	1.109E+01	1.798E+01	9.505E-01	-0.193
		720.50	*	-5.539E-01	5.789E+00	9.531E+00	5.281E-01	-0.058
		856.80		-1.083E+01	1.843E+01	2.836E+01	2.024E+00	-0.382
		989.30		-4.267E+01	4.992E+01	7.259E+01	5.218E+00	-0.588
		1034.80		-5.272E+01	3.558E+02	5.652E+02	3.894E+01	-0.093
		1213.00		-3.259E+01	1.400E+02	2.273E+02	1.359E+01	-0.143
SN-126	+	64.28		2.860E+01	6.317E+01	7.918E+01	1.150E+01	0.361
		86.94		-3.347E+00	2.103E+01	3.428E+01	1.411E+01	-0.098
		87.57	*	-4.083E+00	5.262E+00	7.933E+00	6.086E-01	-0.515
SB-127		61.10		-9.815E+01	4.574E+03	6.826E+03	6.619E+02	-0.014
		252.40		3.961E+01	1.708E+02	2.884E+02	1.194E+02	0.137
		290.80		1.061E+02	9.041E+02	1.336E+03	1.153E+02	0.079
		411.60		-3.358E+02	4.514E+02	6.946E+02	9.827E+01	-0.484
		444.90		4.369E+01	3.722E+02	6.089E+02	6.375E+01	0.072
		473.00		-2.420E+01	6.349E+01	9.957E+01	1.079E+01	-0.243
		543.00		-1.632E+02	6.302E+02	9.868E+02	1.233E+02	-0.165
		603.60		8.491E+01	4.755E+02	7.080E+02	7.122E+01	0.120
		685.20	*	1.815E+01	4.441E+01	7.652E+01	6.489E+00	0.237
		698.50		5.483E+01	4.963E+02	8.332E+02	1.161E+02	0.066
		722.20		-7.748E+02	1.011E+03	1.565E+03	1.320E+02	-0.495
		783.80		2.393E+01	1.128E+02	1.899E+02	1.983E+01	0.126
XE-127		57.60		-4.552E+00	6.143E+02	1.025E+03	7.752E+01	-0.004
		145.22		-6.464E+00	3.729E+01	5.945E+01	3.322E+00	-0.109
		172.10		-1.679E+00	6.426E+00	1.011E+01	5.297E-01	-0.166
		202.84	*	-1.232E+00	2.274E+00	3.772E+00	2.026E-01	-0.327
		374.96		3.566E+00	9.559E+00	1.605E+01	9.755E-01	0.222

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Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
I-131		80.18		-1.247E+02	2.354E+02	3.785E+02	2.841E+01	-0.329
		284.30		-1.329E+01	6.377E+01	1.052E+02	6.783E+00	-0.126
		364.48	*	4.639E+00	5.307E+00	9.150E+00	6.131E-01	0.507
		636.97		1.562E+01	6.486E+01	1.106E+02	6.509E+00	0.141
		722.89		-2.743E+02	2.792E+02	4.242E+02	2.391E+01	-0.647
TE-132		49.72		5.971E+02	2.081E+03	3.531E+03	3.770E+02	0.169
		111.76		-8.180E+02	1.298E+03	2.050E+03	1.779E+02	-0.399
		116.30		-2.962E+02	1.239E+03	1.992E+03	1.721E+02	-0.149
		228.16	*	7.230E+00	2.444E+01	4.174E+01	5.820E+00	0.173
BA-133		53.15		9.105E+02	4.920E+02	8.724E+02	7.334E+01	1.044
		79.62		-1.288E+02	8.256E+01	1.230E+02	1.795E+01	-1.047
		81.00		-8.791E-01	5.714E+00	9.352E+00	1.429E+00	-0.094
		276.40		-2.021E+00	1.865E+01	3.098E+01	4.013E+00	-0.065
		302.84		-4.822E+00	7.105E+00	1.133E+01	1.326E+00	-0.426
		356.01	*	-8.287E-01	2.522E+00	3.538E+00	4.136E-01	-0.234
		383.85		-1.304E+01	1.485E+01	2.278E+01	2.512E+00	-0.573
I-133		510.53		-2.556E+01	1.485E+01	Half-Life too short		
		529.87	*	-9.732E-02	1.485E+01	Half-Life too short		
		706.58		1.802E+00	1.485E+01	Half-Life too short		
		856.28		-1.045E+00	1.485E+01	Half-Life too short		
		875.33		1.715E-01	1.485E+01	Half-Life too short		
		1236.41		2.800E+00	1.485E+01	Half-Life too short		
		1298.22		2.046E+00	1.485E+01	Half-Life too short		
CS-134		475.35		4.559E+01	9.142E+01	1.532E+02	9.211E+00	0.298
		563.23		-2.137E+01	1.815E+01	2.600E+01	1.500E+00	-0.822
		569.32		5.008E+00	8.796E+00	1.474E+01	8.532E-01	0.340
		604.70		-1.404E+00	1.862E+00	2.515E+00	1.361E-01	-0.558
		795.84	*	7.454E-01	1.907E+00	3.260E+00	2.113E-01	0.229
		801.93		-2.197E+00	1.748E+01	2.846E+01	1.860E+00	-0.077
		1038.57		1.274E+02	1.582E+02	2.790E+02	1.914E+01	0.457
		1167.94		-9.197E+01	8.184E+01	1.162E+02	6.703E+00	-0.791
		1365.15		8.008E+00	5.896E+01	9.914E+01	7.206E+00	0.081
CS-135		268.24	*	-5.495E+00	7.637E+00	1.229E+01	9.358E-01	-0.447
I-135		288.45		-6.427E+08	7.637E+00	Half-Life too short		
		417.63		7.078E+08	7.637E+00	Half-Life too short		
		546.56		-1.765E+09	7.637E+00	Half-Life too short		
		836.80		5.239E+09	7.637E+00	Half-Life too short		
		1038.76		1.038E+10	7.637E+00	Half-Life too short		
	+	1124.00		3.396E+10	7.637E+00	Half-Life too short		
		1131.51		-4.017E+09	7.637E+00	Half-Life too short		
		1260.41	*	-7.086E+08	7.637E+00	Half-Life too short		
		1457.56		4.030E+09	7.637E+00	Half-Life too short		
		1678.03		5.905E+09	7.637E+00	Half-Life too short		
		1706.46		5.254E+09	7.637E+00	Half-Life too short		
		1791.20		1.348E+10	7.637E+00	Half-Life too short		
CS-136	+	66.91		8.562E+01	7.318E+01	1.052E+02	1.555E+01	0.814
		86.29		4.366E+01	6.089E+01	1.026E+02	1.253E+01	0.425
		153.22		2.229E+01	3.362E+01	5.544E+01	3.842E+00	0.402
		163.89		9.780E+00	5.472E+01	8.812E+01	6.015E+00	0.111

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		176.55		-3.411E+00	1.986E+01	3.135E+01	1.891E+00	-0.109
		273.65		-1.142E+01	2.074E+01	3.370E+01	2.219E+00	-0.339
		340.57		-2.803E+00	5.354E+00	8.553E+00	5.449E-01	-0.328
		818.51		2.114E+00	3.144E+00	5.485E+00	3.662E-01	0.385
		1048.07	*	1.446E+00	3.651E+00	6.195E+00	4.492E-01	0.233
		1235.34		-1.087E+01	1.874E+01	2.922E+01	2.975E+00	-0.372
BA-137M		661.65	*	4.191E-01	1.647E+00	2.805E+00	1.378E-01	0.149
CS-137		661.65	*	4.430E-01	1.741E+00	2.965E+00	1.466E-01	0.149
CE-139		165.85	*	-6.001E-01	1.608E+00	2.519E+00	1.319E-01	-0.238
BA-140		162.64		1.131E+01	3.891E+01	6.299E+01	3.820E+00	0.180
		304.84		4.776E+00	7.240E+01	9.924E+01	2.711E+01	0.048
		423.70		-3.961E+00	8.928E+01	1.449E+02	4.613E+01	-0.027
		537.32	*	2.119E+00	1.513E+01	2.032E+01	6.606E+00	0.104
LA-140		328.77		8.872E+00	1.389E+01	2.372E+01	1.581E+00	0.374
		432.53		3.019E+01	9.549E+01	1.586E+02	1.057E+01	0.190
		487.03		-1.040E+00	6.133E+00	9.757E+00	6.560E-01	-0.107
		751.79		-6.600E+01	6.921E+01	1.039E+02	7.454E+00	-0.635
		815.85		-6.042E+00	1.370E+01	2.158E+01	1.701E+00	-0.280
		867.82		-5.973E+00	5.913E+01	9.589E+01	7.488E+00	-0.062
		919.63		5.167E+01	1.296E+02	1.934E+02	1.897E+01	0.267
		925.24		-6.500E+00	4.358E+01	6.984E+01	5.691E+00	-0.093
		1596.49	*	-6.285E+00	6.026E+00	6.352E+00	4.084E-01	-0.989
CE-141		145.44	*	-3.236E+00	3.458E+00	5.313E+00	3.094E-01	-0.609
CE-143		57.37		-3.605E-02	3.458E+00	Half-Life too short		
		231.56		2.093E-03	3.458E+00	Half-Life too short		
		293.26	*	2.895E-03	3.458E+00	Half-Life too short		
	+	350.59		8.934E-02	3.458E+00	Half-Life too short		
		490.36		3.058E-02	3.458E+00	Half-Life too short		
		664.57		-1.869E-02	3.458E+00	Half-Life too short		
		721.93		-1.345E-02	3.458E+00	Half-Life too short		
CE-144		80.11		-1.504E+02	1.282E+02	1.993E+02	1.485E+01	-0.755
		133.54	*	2.027E+00	1.187E+01	1.929E+01	2.745E+00	0.105
PM-144		476.78		1.631E+00	3.380E+00	5.648E+00	4.019E-01	0.289
		618.01		1.019E+00	1.506E+00	2.649E+00	1.499E-01	0.385
		696.49	*	-6.461E-01	1.539E+00	2.472E+00	1.306E-01	-0.261
		778.57		-5.360E+01	9.636E+01	1.502E+02	9.313E+00	-0.357
PR-144		696.49	*	-4.374E+01	1.042E+02	1.674E+02	8.837E+00	-0.261
		1489.15		2.162E+01	6.034E+02	9.960E+02	6.611E+01	0.022
PM-146		453.90	*	-1.004E+00	2.068E+00	3.222E+00	2.834E-01	-0.312
		633.02		2.947E+01	6.476E+01	1.108E+02	4.068E+01	0.266
		735.90		3.392E+00	6.391E+00	1.099E+01	3.062E+00	0.309
		747.13		6.507E+00	4.038E+00	7.475E+00	9.362E-01	0.870
ND-147	+	91.11		3.346E+00	2.606E+01	2.817E+01	2.303E+00	0.119
		319.41		1.359E+01	1.468E+02	2.445E+02	1.457E+01	0.056
		439.89		2.843E+01	2.643E+02	4.325E+02	2.629E+01	0.066
		531.02	*	-3.962E-01	2.460E+01	3.939E+01	5.328E+00	-0.010
PM-149		285.90	*	1.282E+03	2.743E+03	4.675E+03	6.629E+02	0.274
EU-152		121.78		1.073E+00	5.453E+00	7.703E+00	6.158E-01	0.139
		244.69		1.058E+00	1.688E+01	2.846E+01	1.597E+00	0.037

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		344.27	*	-2.571E+00	4.981E+00	7.962E+00	5.368E-01	-0.323
		443.98		-5.225E+01	4.867E+01	7.260E+01	4.408E+00	-0.720
		778.89		-4.854E+00	1.128E+01	1.784E+01	1.106E+00	-0.272
		867.32		1.346E+01	3.720E+01	6.307E+01	4.584E+00	0.213
		964.01		1.008E+00	1.249E+01	2.044E+01	1.500E+00	0.049
		1085.78		1.003E+00	1.544E+01	2.506E+01	1.630E+00	0.040
		1112.02		-2.184E-02	1.310E+01	1.979E+01	1.244E+00	-0.001
		1407.95		-5.659E-01	8.611E+00	1.410E+01	9.501E-01	-0.040
GD-153		69.67		-4.832E+01	1.532E+02	2.035E+02	1.504E+01	-0.237
		83.37		-6.210E+02	1.069E+03	1.461E+03	1.101E+02	-0.425
		97.43	*	-1.517E+00	5.124E+00	7.871E+00	5.401E-01	-0.193
		103.18		1.087E+00	6.261E+00	1.030E+01	6.780E-01	0.105
EU-154		123.07		4.913E-01	3.215E+00	5.241E+00	5.080E-01	0.094
		247.94		-8.048E+00	1.851E+01	3.044E+01	2.873E+00	-0.264
		591.81		3.734E+00	2.987E+01	4.442E+01	4.256E+00	0.084
		723.30		-5.523E+00	7.923E+00	1.237E+01	8.527E-01	-0.447
		756.87		2.077E+00	3.234E+01	5.383E+01	5.503E+00	0.039
		873.19		5.407E+00	1.362E+01	2.314E+01	2.634E+00	0.234
		996.32		-5.520E+00	1.566E+01	2.431E+01	4.156E+00	-0.227
		1004.76		-1.877E+00	8.883E+00	1.403E+01	1.481E+00	-0.134
		1274.45	*	-9.168E-01	4.400E+00	7.122E+00	6.925E-01	-0.129
EU-155		48.70		5.285E+01	3.788E+02	6.394E+02	5.697E+01	0.083
		60.01		6.467E+02	5.217E+02	8.315E+02	6.049E+01	0.778
		86.54		3.864E+00	6.039E+00	1.017E+01	7.867E-01	0.380
		105.31	*	2.034E+00	6.488E+00	1.073E+01	7.130E-01	0.190
TB-160		86.79		-9.909E-01	1.611E+01	2.642E+01	2.019E+00	-0.038
		197.04		5.195E+00	3.921E+01	5.191E+01	2.772E+00	0.100
		215.65		-2.074E+01	3.676E+01	6.066E+01	3.301E+00	-0.342
		298.57		6.874E+00	5.850E+00	9.272E+00	5.453E-01	0.741
		879.36	*	-3.913E+00	6.154E+00	9.384E+00	6.962E-01	-0.417
		962.29		-4.995E+00	2.138E+01	3.390E+01	2.490E+00	-0.147
		966.15		2.812E-01	1.046E+01	1.490E+01	1.091E+00	0.019
		1177.93		-4.184E+00	1.321E+01	2.133E+01	1.226E+00	-0.196
		1271.85		2.919E+01	2.451E+01	4.660E+01	2.972E+00	0.626
HO-166M		80.57		-4.352E+00	1.571E+01	2.556E+01	1.908E+00	-0.170
	+	184.41		8.427E-01	3.012E+00	3.359E+00	1.774E-01	0.251
		280.46		-8.497E-01	4.262E+00	7.040E+00	4.084E-01	-0.121
		410.95		-8.483E+00	1.223E+01	1.900E+01	1.158E+00	-0.446
		711.68	*	9.409E-02	2.734E+00	4.556E+00	2.480E-01	0.021
		752.31		-1.104E+01	1.210E+01	1.828E+01	1.078E+00	-0.604
		810.29		-1.017E+00	2.685E+00	4.259E+00	2.798E-01	-0.239
TM-171		51.35		-4.000E+03	4.478E+03	7.207E+03	6.281E+02	-0.555
		52.39		8.498E+02	2.208E+03	3.753E+03	3.206E+02	0.226
		59.40		1.809E+03	2.908E+03	4.498E+03	3.263E+02	0.402
	+	66.72	*	3.359E+03	2.839E+03	4.196E+03	3.106E+02	0.801
HF-175		89.36		-6.358E+01	9.353E+01	1.320E+02	9.939E+00	-0.482
		343.40	*	-9.792E-01	1.751E+00	2.790E+00	1.681E-01	-0.351
		433.00		-1.101E+01	1.075E+02	1.735E+02	1.056E+01	-0.063
LU-176		88.36		-7.958E-01	1.269E+01	1.859E+01	1.421E+00	-0.043

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		201.83		-1.698E+00	1.504E+00	2.433E+00	1.305E-01	-0.698
		306.84	*	1.545E-01	1.258E+00	2.102E+00	1.243E-01	0.074
		401.10		-3.328E+02	3.919E+02	5.469E+02	3.334E+01	-0.608
LU-177		112.95		-3.282E+01	8.581E+01	1.372E+02	8.701E+00	-0.239
		208.36	*	-3.788E+01	4.376E+01	7.136E+01	3.853E+00	-0.531
LU-177M		52.97		3.459E+02	2.228E+02	3.922E+02	3.310E+01	0.882
		54.07		2.279E+02	1.103E+02	1.968E+02	1.620E+01	1.158
		61.30		2.608E+01	1.564E+02	2.358E+02	1.731E+01	0.111
		121.62		8.546E+00	2.773E+01	3.934E+01	2.476E+00	0.217
		147.16		-2.450E+00	4.259E+01	5.900E+01	3.273E+00	-0.042
		171.86		-1.145E+01	2.644E+01	4.122E+01	2.160E+00	-0.278
		218.09		3.073E+01	4.183E+01	7.291E+01	3.978E+00	0.422
		268.79		-4.149E+01	3.880E+01	6.130E+01	3.520E+00	-0.677
		319.02		4.088E+00	1.261E+01	2.128E+01	1.268E+00	0.192
		367.43		-2.310E+01	4.622E+01	7.352E+01	4.463E+00	-0.314
		413.65	*	6.095E-03	8.420E+00	1.373E+01	8.368E-01	0.000
HF-181		56.28		-2.154E+02	1.074E+02	1.616E+02	1.261E+01	-1.333
		57.53		-2.993E+01	5.315E+01	8.648E+01	6.551E+00	-0.346
	+	65.20		1.038E+02	8.770E+01	1.423E+02	1.054E+01	0.729
		133.02		-4.419E-01	3.681E+00	5.909E+00	3.484E-01	-0.075
		136.25		-3.364E+01	2.826E+01	4.317E+01	2.506E+00	-0.779
		345.85		5.780E+00	9.651E+00	1.595E+01	9.623E-01	0.362
		482.03	*	-9.290E-01	2.129E+00	3.322E+00	1.991E-01	-0.280
W-181		56.28		-8.578E+01	4.277E+01	6.432E+01	5.020E+00	-1.334
		57.53		-1.196E+01	2.117E+01	3.445E+01	2.610E+00	-0.347
	+	65.20	*	4.102E+01	3.466E+01	5.626E+01	4.165E+00	0.729
TA-182		67.75		-9.026E-01	9.884E+00	1.463E+01	1.082E+00	-0.062
		100.10		2.699E+00	1.061E+01	1.754E+01	1.178E+00	0.154
		152.43		4.602E+00	1.859E+01	3.013E+01	1.641E+00	0.153
		222.10		-1.287E+01	2.392E+01	2.864E+01	1.569E+00	-0.449
		1001.68		-2.869E+01	1.013E+02	1.491E+02	1.060E+01	-0.192
		1121.28		4.597E+00	7.886E+00	1.216E+01	7.541E-01	0.378
		1189.05		-2.390E+00	1.007E+01	1.635E+01	9.519E-01	-0.146
		1221.42	*	-1.239E+00	1.030E+01	1.255E+01	7.578E-01	-0.099
		1230.97		1.044E+01	1.547E+01	2.773E+01	1.692E+00	0.376
RE-183		57.98		-3.726E+00	2.047E+01	3.390E+01	2.541E+00	-0.110
		59.32		6.587E+00	1.179E+01	1.818E+01	1.321E+00	0.362
	+	67.20		2.368E+01	2.001E+01	2.818E+01	2.085E+00	0.840
		162.32	*	2.086E+00	6.093E+00	9.886E+00	5.223E-01	0.211
		208.81		-4.146E+01	4.587E+01	7.466E+01	4.033E+00	-0.555
		291.72		2.971E+01	5.037E+01	7.692E+01	4.502E+00	0.386
RE-184		57.98		-1.386E+01	7.614E+01	1.261E+02	9.449E+00	-0.110
		59.32		2.448E+01	4.380E+01	6.755E+01	4.909E+00	0.362
	+	67.20		8.802E+01	7.439E+01	1.048E+02	7.753E+00	0.840
		161.27		-5.281E+00	2.046E+01	3.231E+01	1.712E+00	-0.163
		216.55		-1.560E+00	1.340E+01	2.255E+01	1.228E+00	-0.069
		252.85	*	4.383E+00	1.190E+01	2.031E+01	1.149E+00	0.216
		318.01		-7.451E+00	2.242E+01	3.645E+01	2.170E+00	-0.204
		792.07		-4.449E+01	4.216E+01	6.218E+01	3.950E+00	-0.716

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		903.28		-3.489E+00	4.261E+01	6.897E+01	5.265E+00	-0.051
		920.93		5.975E+00	2.076E+01	3.398E+01	2.567E+00	0.176
OS-185		59.72		2.668E+01	3.162E+01	4.943E+01	3.586E+00	0.540
		61.14		8.138E-02	1.711E+01	2.557E+01	1.875E+00	0.003
		69.30		2.985E+00	2.646E+01	3.621E+01	2.677E+00	0.082
		592.07		1.753E+01	1.207E+02	1.800E+02	9.839E+00	0.097
		646.12	*	-2.128E+00	1.835E+00	2.747E+00	1.388E-01	-0.775
		717.42		2.226E+01	3.872E+01	6.744E+01	3.714E+00	0.330
		874.81		2.590E+00	2.511E+01	4.154E+01	3.058E+00	0.062
		880.27		-1.494E+01	3.440E+01	5.371E+01	3.991E+00	-0.278
RE-188		155.03	*	-8.802E+00	9.841E+00	1.511E+01	8.162E-01	-0.582
		477.96		1.289E+01	1.549E+02	2.516E+02	1.511E+01	0.051
		633.10		6.470E+01	1.276E+02	2.221E+02	1.146E+01	0.291
W-188	+	63.58		2.858E+03	6.303E+03	8.366E+03	6.186E+02	0.342
		227.08		-3.088E+02	6.271E+02	1.035E+03	5.701E+01	-0.298
		290.67	*	1.401E+02	4.002E+02	6.013E+02	3.516E+01	0.233
IR-192	+	295.96		4.991E+00	7.490E+00	9.462E+00	5.640E-01	0.528
		308.46		-2.711E+00	4.880E+00	7.850E+00	4.698E-01	-0.345
		316.51	*	-3.809E-01	1.735E+00	2.840E+00	1.698E-01	-0.134
		468.07		2.242E+00	3.294E+00	5.578E+00	3.841E-01	0.402
		604.41		-1.552E+01	2.508E+01	3.436E+01	3.828E+00	-0.452
		612.46		4.053E+00	3.513E+01	5.197E+01	3.749E+00	0.078
TL-200		367.94	*	-6.854E-03	3.513E+01	Half-Life too short		
		579.30		-5.706E-02	3.513E+01	Half-Life too short		
		828.27		4.094E-02	3.513E+01	Half-Life too short		
		1205.75		-3.057E-03	3.513E+01	Half-Life too short		
TL-201		68.90		-1.982E+02	2.888E+02	4.122E+02	3.048E+01	-0.481
		70.82		-6.222E+00	1.564E+02	2.317E+02	1.711E+01	-0.027
		80.30		-6.398E+01	2.026E+02	3.292E+02	2.455E+01	-0.194
		135.34		7.338E+02	1.032E+03	1.714E+03	9.991E+01	0.428
		167.43	*	3.473E+01	2.571E+02	4.130E+02	2.161E+01	0.084
TL-202		68.90		-2.339E+01	3.408E+01	4.865E+01	3.597E+00	-0.481
		70.82		-7.322E-01	1.841E+01	2.727E+01	2.014E+00	-0.027
		80.30		-7.532E+00	2.385E+01	3.876E+01	2.890E+00	-0.194
		439.56	*	1.507E+00	3.129E+00	5.252E+00	3.192E-01	0.287
HG-203		70.83		-3.006E+00	8.525E+01	1.263E+02	1.624E+01	-0.024
		72.87		1.869E+01	4.872E+01	7.359E+01	9.148E+00	0.254
		82.60		-5.499E+01	6.518E+01	1.027E+02	1.343E+01	-0.535
		279.20	*	1.499E+00	1.984E+00	3.431E+00	2.111E-01	0.437
BI-207		72.80		3.971E+00	1.459E+01	2.194E+01	1.620E+00	0.181
	+	74.97		4.860E+00	1.220E+01	1.303E+01	9.629E-01	0.373
		84.90		-1.414E-01	1.392E+01	1.986E+01	1.505E+00	-0.007
		569.67		8.213E-01	1.377E+00	2.312E+00	1.297E-01	0.355
		1063.62	*	2.634E+00	2.243E+00	4.067E+00	2.716E-01	0.648
		1770.23		-4.758E+01	3.293E+01	4.268E+01	2.528E+00	-1.115
TL-207		81.07		-1.493E+00	1.262E+01	2.069E+01	1.546E+00	-0.072
		83.78		-7.187E+00	9.262E+00	1.263E+01	9.527E-01	-0.569
		94.90		1.108E+01	1.573E+01	2.391E+01	1.681E+00	0.463
		122.32		-2.157E+01	1.301E+02	1.807E+02	1.288E+01	-0.119

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		144.24		-2.040E+01	4.444E+01	6.193E+01	4.385E+00	-0.329
		154.21		-1.178E+01	2.264E+01	3.540E+01	2.371E+00	-0.333
		269.46		-8.071E+00	9.251E+00	1.478E+01	8.887E-01	-0.546
		323.87	*	-7.687E+00	3.488E+01	5.702E+01	9.452E+00	-0.135
		338.28		6.895E+00	5.728E+01	7.852E+01	8.363E+00	0.088
		445.03		1.963E+01	1.158E+02	1.901E+02	1.982E+01	0.103
TL-208		72.80		4.319E+01	1.587E+02	2.386E+02	1.762E+01	0.181
	+	74.97		5.281E+01	1.326E+02	1.416E+02	1.621E+01	0.373
		277.35		1.848E+01	1.904E+01	3.311E+01	3.493E+00	0.558
		510.84		-3.879E+01	1.546E+01	2.232E+01	2.279E+00	-1.738
	+	583.14	*	5.858E-01	3.201E+00	3.527E+00	2.274E-01	0.166
		763.13		-4.511E+01	9.393E+01	1.483E+02	1.856E+01	-0.304
		860.37		8.076E+00	1.208E+01	2.109E+01	1.673E+00	0.383
		1093.90		-1.010E+02	4.755E+02	7.450E+02	1.681E+02	-0.136
PO-209		260.50		2.748E+02	4.966E+02	8.533E+02	4.863E+01	0.322
		262.80		5.018E+02	1.414E+03	2.406E+03	1.374E+02	0.209
		896.60	*	-2.007E+02	3.619E+02	5.590E+02	4.270E+01	-0.359
BI-210		46.50	*	1.585E+02	6.044E+02	1.027E+03	9.554E+01	0.154
PB-210		46.50	*	1.585E+02	6.044E+02	1.027E+03	9.554E+01	0.154
PO-210		46.50	*	1.585E+02	6.044E+02	1.027E+03	8.650E+01	0.154
PB-211		404.84	*	-1.984E+01	5.786E+01	8.021E+01	5.002E+01	-0.247
		427.08		1.758E+01	1.062E+02	1.738E+02	1.075E+02	0.101
		831.96		1.410E+01	4.930E+01	8.210E+01	5.126E+01	0.172
BI-212		727.18	*	1.683E+01	1.379E+01	2.491E+01	1.887E+00	0.676
		785.46		1.953E+01	7.601E+01	1.284E+02	8.057E+00	0.152
		1620.62		3.210E+01	6.473E+01	1.128E+02	7.188E+00	0.285
PB-212	+	74.81		1.693E+01	4.252E+01	4.538E+01	5.406E+00	0.373
		77.11		1.357E+01	1.430E+01	2.221E+01	1.645E+00	0.611
		87.30		-1.669E+01	2.494E+01	3.773E+01	4.754E+00	-0.442
		115.19		1.943E+02	2.183E+02	3.677E+02	2.322E+01	0.529
	+	238.63	*	2.478E-01	4.894E+00	5.632E+00	4.030E-01	0.044
		300.09		1.021E+01	4.193E+01	6.241E+01	5.186E+00	0.164
PO-212	+	74.81		1.693E+01	4.252E+01	4.538E+01	5.406E+00	0.373
		77.11		1.357E+01	1.430E+01	2.221E+01	1.645E+00	0.611
		87.30		-1.669E+01	2.494E+01	3.773E+01	4.754E+00	-0.442
		115.19		1.943E+02	2.183E+02	3.677E+02	2.322E+01	0.529
	+	238.63	*	2.478E-01	4.894E+00	5.632E+00	4.030E-01	0.044
		300.09		1.021E+01	4.193E+01	6.241E+01	5.186E+00	0.164
BI-214	+	609.31	*	9.869E+00	7.561E+00	8.173E+00	6.086E-01	1.208
		1120.29		1.093E+01	1.693E+01	2.623E+01	2.381E+00	0.417
		1764.49		2.986E+01	1.511E+01	2.935E+01	1.745E+00	1.017
PB-214	+	74.81		2.878E+01	7.226E+01	7.714E+01	8.071E+00	0.373
		77.11		2.294E+01	2.426E+01	3.756E+01	3.992E+00	0.611
		87.30		-2.821E+01	4.211E+01	6.378E+01	6.931E+00	-0.442
		241.98		-6.835E+00	2.253E+01	2.943E+01	2.332E+00	-0.232
	+	295.21		6.644E+00	9.979E+00	1.259E+01	1.079E+00	0.528
	+	351.92	*	8.734E+00	6.429E+00	8.117E+00	6.864E-01	1.076
PO-214	+	74.81		2.878E+01	7.226E+01	7.714E+01	8.071E+00	0.373
		77.11		2.294E+01	2.426E+01	3.756E+01	3.992E+00	0.611

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		87.30		-2.821E+01	4.211E+01	6.378E+01	6.931E+00	-0.442
		241.98		-6.835E+00	2.253E+01	2.943E+01	2.332E+00	-0.232
	+	295.21		6.644E+00	9.979E+00	1.259E+01	1.079E+00	0.528
	+	351.92	*	8.734E+00	6.429E+00	8.117E+00	6.864E-01	1.076
PO-215		81.07		-1.493E+00	1.262E+01	2.069E+01	1.546E+00	-0.072
		83.78		-7.187E+00	9.262E+00	1.263E+01	9.527E-01	-0.569
		94.90		1.108E+01	1.573E+01	2.391E+01	1.681E+00	0.463
		122.32		-2.157E+01	1.301E+02	1.807E+02	1.288E+01	-0.119
		144.24		-2.040E+01	4.444E+01	6.193E+01	4.385E+00	-0.329
		154.21		-1.178E+01	2.264E+01	3.540E+01	2.371E+00	-0.333
		269.46		-8.071E+00	9.251E+00	1.478E+01	8.887E-01	-0.546
		323.87	*	-7.687E+00	3.488E+01	5.702E+01	9.452E+00	-0.135
		338.28		6.895E+00	5.728E+01	7.852E+01	8.363E+00	0.088
		445.03		1.963E+01	1.158E+02	1.901E+02	1.982E+01	0.103
PO-216	+	74.81		1.693E+01	4.252E+01	4.538E+01	5.406E+00	0.373
		77.11		1.357E+01	1.430E+01	2.221E+01	1.645E+00	0.611
		87.30		-1.669E+01	2.494E+01	3.773E+01	4.754E+00	-0.442
		115.19		1.943E+02	2.183E+02	3.677E+02	2.322E+01	0.529
	+	238.63	*	2.478E-01	4.894E+00	5.632E+00	4.030E-01	0.044
		300.09		1.021E+01	4.193E+01	6.241E+01	5.186E+00	0.164
PO-218	+	74.81		2.878E+01	7.226E+01	7.714E+01	8.071E+00	0.373
		77.11		2.294E+01	2.426E+01	3.756E+01	3.992E+00	0.611
		87.30		-2.821E+01	4.211E+01	6.378E+01	6.931E+00	-0.442
		241.98		-6.835E+00	2.253E+01	2.943E+01	2.332E+00	-0.232
	+	295.21		6.644E+00	9.979E+00	1.259E+01	1.079E+00	0.528
	+	351.92	*	8.734E+00	6.429E+00	8.117E+00	6.864E-01	1.076
RN-219		271.23		1.880E+01	1.170E+01	2.091E+01	1.688E+00	0.899
		401.81	*	-1.030E+01	2.427E+01	3.498E+01	4.804E+00	-0.294
RN-220		549.76	*	1.046E+02	1.318E+03	2.121E+03	1.213E+02	0.049
RA-223		81.07		-1.493E+00	1.262E+01	2.069E+01	1.546E+00	-0.072
		83.78		-7.187E+00	9.262E+00	1.263E+01	9.527E-01	-0.569
		94.90		1.108E+01	1.573E+01	2.391E+01	1.681E+00	0.463
		122.32		-2.157E+01	1.301E+02	1.807E+02	1.288E+01	-0.119
		144.24		-2.040E+01	4.444E+01	6.193E+01	4.385E+00	-0.329
		154.21		-1.178E+01	2.264E+01	3.540E+01	2.371E+00	-0.333
		269.46		-8.071E+00	9.251E+00	1.478E+01	8.887E-01	-0.546
		323.87	*	-7.687E+00	3.488E+01	5.702E+01	9.452E+00	-0.135
		338.28		6.895E+00	5.728E+01	7.852E+01	8.363E+00	0.088
		445.03		1.963E+01	1.158E+02	1.901E+02	1.982E+01	0.103
RA-224		240.98	*	-1.068E+01	4.346E+01	5.710E+01	3.192E+00	-0.187
AC-227		79.80		-1.174E+02	1.027E+02	1.556E+02	3.277E+01	-0.755
		236.00		7.276E+00	1.189E+01	1.831E+01	1.890E+00	0.397
		256.20	*	-1.006E+01	1.965E+01	3.207E+01	4.461E+00	-0.314
		286.10		1.579E+01	7.570E+01	1.275E+02	1.476E+01	0.124
		299.80		7.823E+00	7.858E+01	1.157E+02	1.888E+01	0.068
		304.40		-1.352E+01	1.153E+02	1.559E+02	2.703E+01	-0.087
		329.70		-2.424E+01	4.737E+01	7.601E+01	9.544E+00	-0.319
		334.20		1.558E+01	1.133E+02	1.886E+02	3.470E+01	0.083
PA-227	+	64.62	*	1.000E+35	1.133E+02	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		110.05		1.000E+35	1.133E+02	Half-Life too short		
TH-227		79.80		-1.174E+02	1.028E+02	1.556E+02	3.320E+01	-0.755
		94.00		-1.796E+02	1.722E+02	2.214E+02	4.699E+01	-0.811
		236.00		7.276E+00	1.188E+01	1.831E+01	1.630E+00	0.397
		256.20	*	-1.006E+01	1.968E+01	3.207E+01	5.406E+00	-0.314
		286.10		1.579E+01	7.732E+01	1.275E+02	1.278E+02	0.124
		299.80		7.823E+00	7.858E+01	1.157E+02	1.888E+01	0.068
		304.40		-1.352E+01	1.153E+02	1.559E+02	2.703E+01	-0.087
		329.70		-2.424E+01	4.737E+01	7.601E+01	9.544E+00	-0.319
		334.20		1.558E+01	1.133E+02	1.886E+02	3.470E+01	0.083
AC-228		338.32		1.952E+00	1.382E+01	1.894E+01	7.729E+00	0.103
	+	911.07	*	1.930E+00	9.877E+00	1.190E+01	1.247E+00	0.162
		969.11		-3.041E+00	1.393E+01	1.964E+01	4.495E+00	-0.155
RA-228		338.32		1.952E+00	1.382E+01	1.894E+01	7.729E+00	0.103
	+	911.07	*	1.930E+00	9.877E+00	1.190E+01	1.247E+00	0.162
		969.11		-3.041E+00	1.393E+01	1.964E+01	4.495E+00	-0.155
TH-228	+	74.81		1.693E+01	4.249E+01	4.538E+01	3.392E+00	0.373
		77.11		1.357E+01	1.430E+01	2.221E+01	1.645E+00	0.611
		87.30		-1.669E+01	2.488E+01	3.773E+01	2.891E+00	-0.442
	+	238.63	*	2.478E-01	4.894E+00	5.632E+00	4.030E-01	0.044
		300.09		1.021E+01	4.235E+01	6.241E+01	3.679E+01	0.164
TH-229		85.43		1.113E+01	1.341E+01	1.975E+01	1.500E+00	0.564
		88.47		-9.867E-01	7.273E+00	1.061E+01	8.094E-01	-0.093
		100.00		3.036E+00	1.113E+01	1.842E+01	1.238E+00	0.165
		193.63	*	-1.032E+01	2.732E+01	4.241E+01	2.257E+00	-0.243
		210.97		3.083E+00	4.457E+01	6.247E+01	3.383E+00	0.049
TH-230		67.67	*	3.673E+02	2.595E+03	1.560E+03	1.012E+04	0.235
PA-231		283.67	*	-6.050E+01	7.632E+01	1.211E+02	1.670E+01	-0.499
		301.29		-1.299E+01	2.748E+01	4.446E+01	4.670E+00	-0.292
		330.00		-1.251E+02	1.138E+02	1.653E+02	5.183E+01	-0.757
TH-231		84.21	*	-1.743E+01	3.572E+01	4.947E+01	8.586E+00	-0.352
U-231		84.21		-1.496E+02	3.058E+02	4.247E+02	3.209E+01	-0.352
	+	92.29		2.159E+01	1.681E+02	1.945E+02	1.408E+01	0.111
		95.87	*	1.165E+01	5.735E+01	8.490E+01	5.911E+00	0.137
		108.00		-1.783E+01	9.704E+01	1.568E+02	1.009E+01	-0.114
TH-232		59.00	*	7.654E+02	8.637E+03	5.015E+03	5.279E+04	0.153
PA-233	+	75.28		1.418E+02	3.564E+02	3.792E+02	5.572E+01	0.374
		86.59		6.118E+01	9.927E+01	1.651E+02	4.379E+01	0.371
		300.12		5.044E+00	2.138E+01	3.179E+01	4.283E+00	0.159
		311.98	*	1.093E+00	3.333E+00	5.623E+00	3.534E-01	0.194
		340.50		-1.478E+01	2.842E+01	4.510E+01	1.038E+01	-0.328
		398.62		3.271E+01	1.044E+02	1.735E+02	4.498E+01	0.189
		415.76		9.996E+00	8.180E+01	1.344E+02	2.778E+01	0.074
PA-234	+	63.00		8.422E+01	1.860E+02	2.511E+02	3.729E+01	0.335
		94.67		1.274E+01	1.137E+01	1.753E+01	1.992E+00	0.727
		98.44		-1.621E+00	5.746E+00	9.166E+00	5.091E+00	-0.177
		99.86		8.395E+00	2.825E+01	4.679E+01	3.148E+00	0.179
		111.00		-3.859E+00	1.143E+01	1.832E+01	1.942E+00	-0.211
		131.20		-1.072E+01	6.161E+00	9.102E+00	5.418E-01	-1.177

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		152.70		6.532E+00	1.818E+01	2.956E+01	4.636E+00	0.221
	+	186.00		3.034E+01	1.088E+02	1.283E+02	3.907E+01	0.237
		226.40		-9.303E+00	2.029E+01	3.351E+01	3.825E+00	-0.278
		227.20		-1.060E+01	2.148E+01	3.544E+01	1.952E+00	-0.299
		248.90		-1.576E+01	4.217E+01	6.936E+01	1.487E+01	-0.227
	+	293.70		3.189E+01	4.809E+01	5.954E+01	9.589E+00	0.536
		369.80		-6.055E+00	4.126E+01	6.706E+01	1.402E+01	-0.090
		568.70		2.944E+01	4.497E+01	7.584E+01	4.258E+00	0.388
		569.50		7.119E+00	1.220E+01	2.047E+01	1.148E+00	0.348
		574.00		2.004E+01	6.766E+01	1.165E+02	6.505E+00	0.172
		699.00		7.689E+00	3.086E+01	5.235E+01	9.334E+00	0.147
		706.10		-1.102E+00	4.726E+01	7.842E+01	3.457E+01	-0.014
		733.00		-1.612E+01	1.744E+01	2.598E+01	5.515E+00	-0.620
		742.81		-6.983E+01	7.427E+01	8.408E+01	5.626E+01	-0.831
		796.30		9.925E+00	3.782E+01	6.373E+01	1.684E+01	0.156
		805.60		6.067E+01	4.848E+01	8.272E+01	2.492E+01	0.733
		819.60		3.242E+01	5.657E+01	9.590E+01	3.609E+01	0.338
		826.30		-2.650E+01	3.667E+01	5.244E+01	2.329E+01	-0.505
		831.60		1.835E+01	2.547E+01	4.397E+01	1.292E+01	0.417
		876.40		-3.194E+01	4.941E+01	5.484E+01	5.632E+01	-0.582
		880.51		-4.260E+00	1.270E+01	2.006E+01	1.491E+00	-0.212
		883.24		1.573E+01	1.655E+01	2.336E+01	1.567E+01	0.673
		899.00		-1.197E+01	3.825E+01	5.990E+01	2.608E+01	-0.200
		925.00		-1.555E+01	4.969E+01	7.811E+01	5.886E+00	-0.199
		926.50		-1.028E+00	7.263E+00	1.164E+01	2.901E+00	-0.088
		946.00	*	-3.547E+00	1.263E+01	1.986E+01	3.624E+00	-0.179
		949.00		4.729E+00	1.830E+01	3.063E+01	2.272E+00	0.154
		980.50		-1.865E+01	2.958E+01	4.418E+01	3.199E+00	-0.422
		1394.10		1.334E+01	5.614E+01	9.437E+01	6.122E+01	0.141
PA-234M		766.42		5.866E+02	5.749E+02	8.940E+02	4.503E+02	0.656
		1001.03	*	-3.010E+01	2.274E+02	3.391E+02	2.949E+01	-0.089
U-234		53.20	*	1.622E+04	1.624E+05	1.545E+04	1.545E+05	1.050
U-235		89.95		-3.830E+01	7.355E+01	1.035E+02	3.163E+01	-0.370
	+	93.35		8.839E+00	6.888E+01	7.677E+01	2.120E+01	0.115
		105.00		4.319E+01	6.488E+01	1.069E+02	3.133E+01	0.404
		143.76	*	-6.519E+00	1.372E+01	1.904E+01	3.092E+00	-0.342
		163.35		2.192E+00	2.651E+01	4.250E+01	7.573E+00	0.052
	+	185.71		1.124E+00	4.016E+00	4.741E+00	2.506E-01	0.237
		205.31		1.640E+01	2.524E+01	4.367E+01	7.797E+00	0.375
NP-236		94.67		9.740E+00	8.582E+00	1.331E+01	9.378E-01	0.732
		98.44		-1.222E+00	4.291E+00	6.930E+00	4.714E-01	-0.176
		111.00		-2.919E+00	8.644E+00	1.386E+01	8.829E-01	-0.211
		160.31	*	-5.884E+00	5.212E+00	7.366E+00	3.915E-01	-0.799
NP-237		86.50	*	9.627E+00	1.489E+01	2.487E+01	5.471E+00	0.387
		95.87		1.337E+01	6.585E+01	9.738E+01	2.347E+01	0.137
PU-237		59.54	*	1.670E+02	2.281E+02	3.547E+02	2.568E+01	0.471
NP-239		99.55		3.576E+00	9.443E+00	1.570E+01	1.058E+00	0.228
		117.00	*	-7.096E+00	1.190E+01	1.881E+01	1.186E+00	-0.377
		209.75		-1.253E+01	3.651E+01	6.095E+01	3.296E+00	-0.206

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		228.18		3.492E+00	1.121E+01	1.917E+01	1.057E+00	0.182
		277.60		9.134E+00	9.052E+00	1.582E+01	9.153E-01	0.577
		334.30		8.454E+00	6.417E+01	1.068E+02	6.411E+00	0.079
AM-241		59.54	*	1.239E+01	1.693E+01	2.632E+01	2.099E+00	0.471
CM-243		99.55		3.680E+00	9.716E+00	1.615E+01	1.089E+00	0.228
		103.76	*	1.685E+00	5.809E+00	9.603E+00	6.299E-01	0.175
		117.00		-7.300E+00	1.224E+01	1.935E+01	1.220E+00	-0.377
		209.75		-1.235E+01	3.599E+01	6.008E+01	3.249E+00	-0.206
		228.18		3.528E+00	1.132E+01	1.937E+01	1.068E+00	0.182
		277.60		9.207E+00	9.124E+00	1.594E+01	9.226E-01	0.577
AM-246		798.80		-4.837E+00	5.941E+00	8.984E+00	5.779E-01	-0.538
		1036.00		-7.007E-01	1.327E+01	2.131E+01	1.466E+00	-0.033
		1062.04		-1.631E+00	1.024E+01	1.622E+01	1.085E+00	-0.101
		1078.86	*	4.054E+00	5.426E+00	9.541E+00	6.258E-01	0.425
CM-247		278.00		4.281E+01	3.683E+01	6.482E+01	3.752E+00	0.660
		287.40		1.988E+01	6.153E+01	1.042E+02	6.080E+00	0.191
		402.60	*	-1.826E+00	2.253E+00	3.089E+00	1.883E-01	-0.591
CF-249		252.85		1.656E+01	4.495E+01	7.672E+01	4.340E+00	0.216
		333.44		3.680E+00	8.429E+00	1.426E+01	8.557E-01	0.258
		387.95	*	-2.025E-01	1.977E+00	3.215E+00	1.958E-01	-0.063
CF-251		176.60	*	-1.377E+00	7.443E+00	1.174E+01	6.167E-01	-0.117
		227.00		-7.073E+00	1.904E+01	3.159E+01	1.740E+00	-0.224
		285.00		3.252E+00	8.540E+01	1.427E+02	8.306E+00	0.023
ANH-511		511.00	*	-8.301E+00	3.221E+00	4.755E+00	2.803E-01	-1.746

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243285001     *
* Acquisition date : 30-DEC-2009 22:41:49 Detector SN#    :                *
* Detector ID        : GAM10               Sensitivity     : 5.000         *
* Geometry           : 2LMB                Energy tolerance: 1.500         *
* Elapsed live time:    0 06:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 06:00:01.27      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 17-DEC-2009 12:00:00 Nuclide Library : LIQUI        *
* Sample ID          : G243285001           Analyst initials: KXG3          *
* Batch Number       : 935338               Sample Quantity : 2.0000E+00 LITER *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 25-FEB-2009 11:11:10 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
AS-74	1.433E+01	6.241E+00	6.483E+00	0.000E+00
AU-195	-2.229E+00	1.344E+01	2.227E+01	0.000E+00
BI-211	2.511E+01	1.807E+01	1.772E+01	0.000E+00
RA-226	1.850E+01	6.614E+01	6.131E+01	0.000E+00
TH-234	7.225E+01	1.565E+02	2.019E+02	0.000E+00
U-238	7.225E+01	1.565E+02	2.019E+02	0.000E+00
AM-243	2.708E+00	6.660E+00	6.742E+00	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)		
BE-7	-1.865E+00		1.612E+01	2.634E+01	0.000E+00	NOT IDENT.
NA-22	-4.847E-01		1.547E+00	2.522E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00		8.741E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	6.164E-01		1.531E+00	2.696E+00	0.000E+00	NOT IDENT.
K-40	-1.534E+00		2.563E+01	4.042E+01	0.000E+00	NOT IDENT.
TI-44	4.361E-01		2.347E+00	3.577E+00	0.000E+00	NOT IDENT.
SC-46	-2.378E+00		1.799E+00	2.582E+00	0.000E+00	NOT IDENT.
V-48	3.102E+00		2.575E+00	4.822E+00	0.000E+00	NOT IDENT.
CR-51	-7.794E+00		1.746E+01	2.875E+01	0.000E+00	NOT IDENT.
MN-52	1.786E+00		7.766E+00	1.350E+01	0.000E+00	NOT IDENT.
MN-54	-1.613E+00		1.530E+00	2.285E+00	0.000E+00	NOT IDENT.
CO-56	-6.507E-01		1.754E+00	2.833E+00	0.000E+00	NOT IDENT.
CO-57	5.946E-02		1.836E+00	2.628E+00	0.000E+00	NOT IDENT.
CO-58	-7.389E-01		1.699E+00	2.735E+00	0.000E+00	NOT IDENT.
FE-59	8.765E-01		3.470E+00	5.864E+00	0.000E+00	NOT IDENT.
CO-60	1.102E+00		1.758E+00	3.177E+00	0.000E+00	NOT IDENT.
ZN-65	8.919E-01		3.697E+00	5.439E+00	0.000E+00	NOT IDENT.
GE-68	1.770E+01		4.872E+01	8.350E+01	0.000E+00	NOT IDENT.
AS-73	0.000E+00		1.087E+02	1.975E+02	0.000E+00	NOT IDENT.
SE-75	1.316E+00		2.156E+00	3.788E+00	0.000E+00	FAIL ABUN

BR-77	3.149E+02	3.114E+02	5.495E+02	0.000E+00	FAIL ABUN
SR-82	3.534E+00	1.484E+01	2.556E+01	0.000E+00	NOT IDENT.
RB-83	3.088E+00	3.217E+00	5.658E+00	0.000E+00	NOT IDENT.
RB-84	4.981E-01	2.995E+00	5.082E+00	0.000E+00	NOT IDENT.
KR-85	-6.233E+02	5.185E+02	7.980E+02	0.000E+00	NOT IDENT.
SR-85	-3.143E+00	2.614E+00	4.024E+00	0.000E+00	NOT IDENT.
RB-86	-5.327E+00	2.960E+01	4.758E+01	0.000E+00	NOT IDENT.
Y-88	-2.369E-02	1.838E+00	3.020E+00	0.000E+00	NOT IDENT.
ZR-88	1.111E+00	1.469E+00	2.566E+00	0.000E+00	NOT IDENT.
Y-91	2.436E+02	6.676E+02	1.181E+03	0.000E+00	NOT IDENT.
NB-94	5.377E-01	1.453E+00	2.538E+00	0.000E+00	NOT IDENT.
NB-95	1.354E+00	2.021E+00	3.593E+00	0.000E+00	NOT IDENT.
NB-95M	3.527E+00	6.180E+00	9.692E+00	0.000E+00	NOT IDENT.
ZR-95	1.993E+00	2.856E+00	5.121E+00	0.000E+00	NOT IDENT.
NB-97	0.000E+00	9.457E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.684E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.075E+02	3.158E+02	5.161E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	3.294E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.302E+00	2.297E+00	3.175E+00	0.000E+00	NOT IDENT.
RH-102	-3.183E-01	1.449E+00	2.350E+00	0.000E+00	NOT IDENT.
RU-103	-1.992E+00	2.059E+00	3.114E+00	0.000E+00	FAIL ABUN
RH-106	-1.015E+01	1.515E+01	2.457E+01	0.000E+00	NOT IDENT.
RU-106	-1.015E+01	1.511E+01	2.457E+01	0.000E+00	NOT IDENT.
AG-108M	-3.558E-01	1.603E+00	2.617E+00	0.000E+00	NOT IDENT.
CD-109	-2.191E+01	5.481E+01	8.040E+01	0.000E+00	NOT IDENT.
AG-110M	-9.439E-01	1.606E+00	2.613E+00	0.000E+00	NOT IDENT.
IN-111	-1.563E+00	3.634E+01	6.222E+01	0.000E+00	NOT IDENT.
IN-113M	1.893E+00	2.139E+00	3.763E+00	0.000E+00	NOT IDENT.
SN-113	1.893E+00	2.139E+00	3.763E+00	0.000E+00	NOT IDENT.
IN-114M	-7.601E-01	1.045E+01	1.493E+01	0.000E+00	NOT IDENT.
CD-115	1.504E+02	2.968E+02	5.063E+02	0.000E+00	NOT IDENT.
SN-117M	-2.087E-01	3.209E+00	4.876E+00	0.000E+00	NOT IDENT.
SB-122	-1.331E+01	6.235E+01	9.965E+01	0.000E+00	NOT IDENT.
I-123	0.000E+00	4.890E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-8.015E-01	1.797E+00	2.683E+00	0.000E+00	NOT IDENT.
I-124	-4.864E+00	3.204E+01	4.114E+01	0.000E+00	NOT IDENT.
SB-124	1.946E+00	3.341E+00	6.093E+00	0.000E+00	NOT IDENT.
SB-125	-1.758E+00	4.603E+00	7.442E+00	0.000E+00	NOT IDENT.
TE-125M	4.153E+02	5.471E+02	9.362E+02	0.000E+00	NOT IDENT.
I-126	-1.107E+01	1.345E+01	1.148E+01	0.000E+00	NOT IDENT.
SB-126	-5.539E-01	5.673E+00	9.531E+00	0.000E+00	FAIL ABUN
SN-126	-4.083E+00	5.157E+00	7.933E+00	0.000E+00	FAIL ABUN
SB-127	1.815E+01	4.352E+01	7.652E+01	0.000E+00	NOT IDENT.
XE-127	-1.232E+00	2.229E+00	3.772E+00	0.000E+00	NOT IDENT.
I-131	4.639E+00	5.201E+00	9.150E+00	0.000E+00	NOT IDENT.
TE-132	7.230E+00	2.395E+01	4.174E+01	0.000E+00	NOT IDENT.
BA-133	-8.287E-01	2.471E+00	3.538E+00	0.000E+00	NOT IDENT.
I-133	0.000E+00	8.176E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.454E-01	1.869E+00	3.260E+00	0.000E+00	NOT IDENT.
CS-135	-5.495E+00	7.485E+00	1.229E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.762E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.446E+00	3.578E+00	6.195E+00	0.000E+00	FAIL ABUN
BA-137M	4.191E-01	1.614E+00	2.805E+00	0.000E+00	NOT IDENT.
CS-137	4.430E-01	1.707E+00	2.965E+00	0.000E+00	NOT IDENT.
CE-139	-6.001E-01	1.576E+00	2.519E+00	0.000E+00	NOT IDENT.
BA-140	2.119E+00	1.483E+01	2.032E+01	0.000E+00	NOT IDENT.
LA-140	-6.285E+00	5.905E+00	6.352E+00	0.000E+00	NOT IDENT.
CE-141	-3.236E+00	3.389E+00	5.313E+00	0.000E+00	NOT IDENT.
CE-143	0.000E+00	3.274E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	2.027E+00	1.163E+01	1.929E+01	0.000E+00	NOT IDENT.
PM-144	-6.461E-01	1.508E+00	2.472E+00	0.000E+00	NOT IDENT.
PR-144	-4.374E+01	1.021E+02	1.674E+02	0.000E+00	NOT IDENT.
PM-146	-1.004E+00	2.027E+00	3.222E+00	0.000E+00	NOT IDENT.
ND-147	-3.962E-01	2.411E+01	3.939E+01	0.000E+00	FAIL ABUN
PM-149	1.282E+03	2.688E+03	4.675E+03	0.000E+00	NOT IDENT.
EU-152	-2.571E+00	4.881E+00	7.962E+00	0.000E+00	NOT IDENT.
GD-153	-1.517E+00	5.021E+00	7.871E+00	0.000E+00	NOT IDENT.
EU-154	-9.168E-01	4.312E+00	7.122E+00	0.000E+00	NOT IDENT.
EU-155	2.034E+00	6.358E+00	1.073E+01	0.000E+00	NOT IDENT.
TB-160	-3.913E+00	6.031E+00	9.384E+00	0.000E+00	NOT IDENT.
HO-166M	9.409E-02	2.679E+00	4.556E+00	0.000E+00	FAIL ABUN
TM-171	3.359E+03	2.782E+03	4.196E+03	0.000E+00	FAIL ABUN
HF-175	-9.792E-01	1.716E+00	2.790E+00	0.000E+00	NOT IDENT.
LU-176	1.545E-01	1.232E+00	2.102E+00	0.000E+00	NOT IDENT.
LU-177	-3.788E+01	4.289E+01	7.136E+01	0.000E+00	NOT IDENT.
LU-177M	6.095E-03	8.252E+00	1.373E+01	0.000E+00	NOT IDENT.
HF-181	-9.290E-01	2.086E+00	3.322E+00	0.000E+00	FAIL ABUN
W-181	4.102E+01	3.397E+01	5.626E+01	0.000E+00	FAIL ABUN

TA-182	-1.239E+00	1.010E+01	1.255E+01	0.000E+00	NOT IDENT.
RE-183	2.086E+00	5.971E+00	9.886E+00	0.000E+00	FAIL ABUN
RE-184	4.383E+00	1.166E+01	2.031E+01	0.000E+00	FAIL ABUN
OS-185	-2.128E+00	1.798E+00	2.747E+00	0.000E+00	NOT IDENT.
RE-188	-8.802E+00	9.644E+00	1.511E+01	0.000E+00	NOT IDENT.
W-188	1.401E+02	3.922E+02	6.013E+02	0.000E+00	FAIL ABUN
IR-192	-3.809E-01	1.700E+00	2.840E+00	0.000E+00	FAIL ABUN
TL-200	0.000E+00	8.325E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	3.473E+01	2.520E+02	4.130E+02	0.000E+00	NOT IDENT.
TL-202	1.507E+00	3.067E+00	5.252E+00	0.000E+00	NOT IDENT.
HG-203	1.499E+00	1.944E+00	3.431E+00	0.000E+00	NOT IDENT.
BI-207	2.634E+00	2.199E+00	4.067E+00	0.000E+00	FAIL ABUN
TL-207	-7.687E+00	3.418E+01	5.702E+01	0.000E+00	NOT IDENT.
TL-208	5.858E-01	3.137E+00	3.527E+00	0.000E+00	FAIL ABUN
PO-209	-2.007E+02	3.546E+02	5.590E+02	0.000E+00	NOT IDENT.
BI-210	1.585E+02	5.923E+02	1.027E+03	0.000E+00	NOT IDENT.
PB-210	1.585E+02	5.923E+02	1.027E+03	0.000E+00	NOT IDENT.
PO-210	1.585E+02	5.923E+02	1.027E+03	0.000E+00	NOT IDENT.
PB-211	-1.984E+01	5.670E+01	8.021E+01	0.000E+00	NOT IDENT.
BI-212	1.683E+01	1.352E+01	2.491E+01	0.000E+00	NOT IDENT.
PB-212	2.478E-01	4.796E+00	5.632E+00	0.000E+00	FAIL ABUN
PO-212	2.478E-01	4.796E+00	5.632E+00	0.000E+00	FAIL ABUN
BI-214	0.000E+00	7.409E+00	8.173E+00	0.000E+00	FAIL ABUN
PB-214	0.000E+00	6.300E+00	8.117E+00	0.000E+00	FAIL ABUN
PO-214	0.000E+00	6.300E+00	8.117E+00	0.000E+00	FAIL ABUN
PO-215	-7.687E+00	3.418E+01	5.702E+01	0.000E+00	NOT IDENT.
PO-216	2.478E-01	4.796E+00	5.632E+00	0.000E+00	FAIL ABUN
PO-218	0.000E+00	6.300E+00	8.117E+00	0.000E+00	FAIL ABUN
RN-219	-1.030E+01	2.379E+01	3.498E+01	0.000E+00	NOT IDENT.
RN-220	1.046E+02	1.291E+03	2.121E+03	0.000E+00	NOT IDENT.
RA-223	-7.687E+00	3.418E+01	5.702E+01	0.000E+00	NOT IDENT.
RA-224	-1.068E+01	4.259E+01	5.710E+01	0.000E+00	NOT IDENT.
AC-227	-1.006E+01	1.926E+01	3.207E+01	0.000E+00	NOT IDENT.
PA-227	0.000E+00	2.161E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-1.006E+01	1.928E+01	3.207E+01	0.000E+00	NOT IDENT.
AC-228	1.930E+00	9.679E+00	1.190E+01	0.000E+00	FAIL ABUN
RA-228	1.930E+00	9.679E+00	1.190E+01	0.000E+00	FAIL ABUN
TH-228	2.478E-01	4.796E+00	5.632E+00	0.000E+00	FAIL ABUN
TH-229	-1.032E+01	2.678E+01	4.241E+01	0.000E+00	NOT IDENT.
TH-230	3.673E+02	2.543E+03	1.560E+03	0.000E+00	NOT IDENT.
PA-231	-6.050E+01	7.479E+01	1.211E+02	0.000E+00	NOT IDENT.
TH-231	-1.743E+01	3.501E+01	4.947E+01	0.000E+00	NOT IDENT.
U-231	1.165E+01	5.620E+01	8.490E+01	0.000E+00	FAIL ABUN
TH-232	7.654E+02	8.465E+03	5.015E+03	0.000E+00	NOT IDENT.
PA-233	1.093E+00	3.266E+00	5.623E+00	0.000E+00	FAIL ABUN
PA-234	-3.547E+00	1.237E+01	1.986E+01	0.000E+00	FAIL ABUN
PA-234M	-3.010E+01	2.229E+02	3.391E+02	0.000E+00	NOT IDENT.
U-234	0.000E+00	1.592E+05	1.545E+04	0.000E+00	NOT IDENT.
U-235	-6.519E+00	1.344E+01	1.904E+01	0.000E+00	FAIL ABUN
NP-236	-5.884E+00	5.107E+00	7.366E+00	0.000E+00	NOT IDENT.
NP-237	9.627E+00	1.459E+01	2.487E+01	0.000E+00	NOT IDENT.
PU-237	1.670E+02	2.235E+02	3.547E+02	0.000E+00	NOT IDENT.
NP-239	-7.096E+00	1.166E+01	1.881E+01	0.000E+00	NOT IDENT.
AM-241	1.239E+01	1.659E+01	2.632E+01	0.000E+00	NOT IDENT.
CM-243	1.685E+00	5.692E+00	9.603E+00	0.000E+00	NOT IDENT.
AM-246	4.054E+00	5.317E+00	9.541E+00	0.000E+00	NOT IDENT.
CM-247	-1.826E+00	2.208E+00	3.089E+00	0.000E+00	NOT IDENT.
CF-249	-2.025E-01	1.938E+00	3.215E+00	0.000E+00	NOT IDENT.
CF-251	-1.377E+00	7.294E+00	1.174E+01	0.000E+00	NOT IDENT.
ANH-511	-8.301E+00	3.157E+00	4.755E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 04:42:42.20

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243285001.CNF;1
Sample date       : 17-DEC-2009 12:00:00 Acquisition date : 30-DEC-2009 22:41:49
Sample ID         : G243285001           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM10                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:01.27  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 935338                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.22	69	287	1.00	126.60	124	6	3.21E-03	40.3	
2	0	66.10	66	283	1.14	132.36	130	6	3.07E-03	42.1	
3	0	74.68	72	435	0.97	149.50	145	8	3.32E-03	51.8	
4	0	92.45	212	448	1.28	185.00	181	9	9.83E-03	19.2	
5	0	185.58	175	319	0.90	371.11	367	9	8.09E-03	19.9	
6	0	238.38	87	278	0.88	476.63	472	9	4.02E-03	36.3	
7	0	295.07	70	166	1.05	589.93	587	8	3.25E-03	33.8	
8	0	352.05	153	153	1.04	703.81	699	10	7.09E-03	17.1	
9	0	511.25	300	202	2.41	1022.01	1014	15	1.39E-02	11.9	
10	0	584.20	59	68	1.37	1167.84	1163	11	2.74E-03	31.0	
11	0	596.09	89	80	1.45	1191.62	1186	11	4.14E-03	22.1	
12	0	609.79	137	117	1.74	1219.00	1209	16	6.34E-03	19.6	
13	0	911.93	46	44	1.28	1823.10	1820	12	2.12E-03	31.4	
14	0	1123.29	19	86	0.72	2245.79	2233	17	9.02E-04	110.8	
15	0	1463.95	53	42	8.67	2927.22	2916	23	2.43E-03	36.1	

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 04:42:45.14

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243285001.CNF;1
Sample date       : 17-DEC-2009 12:00:00 Acquisition date : 30-DEC-2009 22:41:49
Sample ID         : G243285001           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM10                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:01.27  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 935338               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
AS-74	595.88	89	59.90*	1.106E+00	8.441E+00	1.433E+01	44.44
	634.78	------	15.40	1.054E+00	------ Line Not Found		------
AU-195	65.12	66	29.00	7.920E-01	1.806E+01	1.901E+01	84.51
	66.83	66	49.70	7.920E-01	1.054E+01	1.109E+01	84.51
	75.70	34	21.60	1.177E+00	8.274E+00	8.710E+00	250.97
	98.88	------	10.90*	2.022E+00	------ Line Not Found		------
	129.76	------	0.81	2.431E+00	------ Line Not Found		------
BI-211	72.87	------	1.27	1.097E+00	------ Line Not Found		------
	351.07	84	12.94*	1.611E+00	2.511E+01	2.511E+01	73.42
RA-226	186.21	23	3.28*	2.336E+00	1.850E+01	1.850E+01	364.83
TH-234	63.29	29	3.80*	6.644E-01	7.225E+01	7.225E+01	221.09
	92.38	12	5.41	1.847E+00	7.352E+00	7.352E+00	778.93
U-238	63.29	29	3.80*	6.644E-01	7.225E+01	7.225E+01	221.09
	92.38	12	5.41	1.847E+00	7.352E+00	7.352E+00	778.76
AM-243	74.67	34	66.00*	1.177E+00	2.708E+00	2.708E+00	250.97
	86.72	------	0.34	1.660E+00	------ Line Not Found		------
	117.66	------	0.55	2.341E+00	------ Line Not Found		------
	142.18	------	0.13	2.462E+00	------ Line Not Found		------

Flag: "*" = Keyline

Sample ID : G243285001 Acquisition date : 30-DEC-2009 22:41:49

Total number of lines in spectrum 14
Number of unidentified lines 1
Number of lines tentatively identified by NID 13 92.86%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
AS-74	17.77D	1.70	8.441E+00	1.433E+01	0.637E+01	44.44	
AU-195	183.00D	1.05	1.054E+01	1.109E+01	0.937E+01	84.51	K
BI-211	7.04E+08Y	1.00	2.511E+01	2.511E+01	1.843E+01	73.42	
RA-226	1600.00Y	1.00	1.850E+01	1.850E+01	6.749E+01	364.83	
TH-234	4.47E+09Y	1.00	7.225E+01	7.225E+01	15.97E+01	221.09	
U-238	4.47E+09Y	1.00	7.225E+01	7.225E+01	15.97E+01	221.09	
AM-243	7380.00Y	1.00	2.708E+00	2.708E+00	6.796E+00	250.97	
	Total Activity :		2.098E+02	2.162E+02			

Grand Total Activity : 2.098E+02 2.162E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G243285001 Acquisition date : 30-DEC-2009 22:41:49

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	238.38	4	278	0.88	476.63	472	9	1.67E-04	****	2.07E+00	T
0	295.07	37	166	1.05	589.93	587	8	1.71E-03	****	1.81E+00	T
0	584.20	9	68	1.37	1167.84	1163	11	4.04E-04	****	1.12E+00	T
0	609.79	79	117	1.74	1219.00	1209	16	3.68E-03	76.2	1.09E+00	T
0	911.93	7	44	1.28	1823.10	1820	12	3.12E-04	****	7.91E-01	T
0	1123.29	19	86	0.72	2245.79	2233	17	9.02E-04	****	6.67E-01	T
0	1463.95	53	42	8.67	2927.22	2916	23	2.43E-03	72.2	5.45E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 04:42:49.60

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*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243285001.CNF;1   *
* Acquisition date  : 30-DEC-2009 22:41:49  Detector SN#     :                *
* Detector ID       : GAM10                 Sensitivity      : 5.00000       *
* Geometry          : 2LMB                  Energy tolerance: 1.50000        *
* Elapsed live time: 0 06:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 06:00:01.27          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                SAMPLE DATA                                  *
*                                                                             *
* Sample date       : 17-DEC-2009 12:00:00  Nuclide Library : LIQUID          *
* Sample ID         : G243285001            Analyst initials: KXG3            *
* Batch Number      : 935338                Sample Quantity : 2.00000E+00 LITER *
*******************************************************************************
*                                                                             *
*                                  QC DATA                                    *
*                                                                             *
* CALIB. DATE/TIME : 25-FEB-2009 11:11:10.0MS Isotope      :                  *
* MSD ID           :                      MSD Isotope      :                  *
* LCS ID           : 1032-A               LCS Isotope      :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AS-74	1.433E+01	6.369E+00	6.483E+00	3.527E-01	2.211
AU-195	1.109E+01	9.374E+00	2.227E+01	1.510E+00	0.498
BI-211	2.511E+01	1.843E+01	1.772E+01	1.179E+00	1.417
RA-226	1.850E+01	6.749E+01	6.131E+01	4.498E+01	0.302
TH-234	7.225E+01	1.597E+02	2.019E+02	3.520E+01	0.358
U-238	7.225E+01	1.597E+02	2.019E+02	3.520E+01	0.358
AM-243	2.708E+00	6.796E+00	6.742E+00	4.982E-01	0.402

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	-1.865E+00		1.645E+01	2.634E+01	1.825E+00	-0.071
NA-22	-4.847E-01		1.579E+00	2.522E+00	1.616E-01	-0.192
NA-24	-1.176E+01		4.460E+00	Half-Life too short		
AL-26	6.164E-01		1.562E+00	2.696E+00	1.560E-01	0.229
K-40	-1.534E+00		2.616E+01	4.042E+01	2.826E+00	-0.038

Sample ID : G243285001 Acquisition date : 30-DEC-2009 22:41:49

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TI-44	4.361E-01		2.395E+00	3.577E+00	2.655E-01	0.122
SC-46	-2.378E+00		1.836E+00	2.582E+00	1.948E-01	-0.921
V-48	3.102E+00		2.628E+00	4.822E+00	3.483E-01	0.643
CR-51	-7.794E+00		1.782E+01	2.875E+01	1.900E+00	-0.271
MN-52	1.786E+00		7.925E+00	1.350E+01	9.062E-01	0.132
MN-54	-1.613E+00		1.561E+00	2.285E+00	1.569E-01	-0.706
CO-56	-6.507E-01		1.789E+00	2.833E+00	1.986E-01	-0.230
CO-57	5.946E-02		1.873E+00	2.628E+00	1.658E-01	0.023
CO-58	-7.389E-01		1.734E+00	2.735E+00	1.806E-01	-0.270
FE-59	8.765E-01		3.541E+00	5.864E+00	4.286E-01	0.149
CO-60	1.102E+00		1.794E+00	3.177E+00	2.158E-01	0.347
ZN-65	8.919E-01		3.772E+00	5.439E+00	3.408E-01	0.164
GE-68	1.770E+01		4.972E+01	8.350E+01	5.487E+00	0.212
AS-73	2.229E+02		1.109E+02	1.975E+02	1.649E+01	1.129
SE-75	1.316E+00		2.200E+00	3.788E+00	2.190E-01	0.347
BR-77	3.149E+02		3.178E+02	5.495E+02	3.219E+01	0.573
SR-82	3.534E+00		1.514E+01	2.556E+01	1.578E+00	0.138
RB-83	3.088E+00		3.282E+00	5.658E+00	3.315E-01	0.546
RB-84	4.981E-01		3.057E+00	5.082E+00	3.784E-01	0.098
KR-85	-6.233E+02		5.291E+02	7.980E+02	4.696E+01	-0.781
SR-85	-3.143E+00		2.668E+00	4.024E+00	2.368E-01	-0.781
RB-86	-5.327E+00		3.020E+01	4.758E+01	3.129E+00	-0.112
Y-88	-2.369E-02		1.875E+00	3.020E+00	1.721E-01	-0.008
ZR-88	1.111E+00		1.499E+00	2.566E+00	1.563E-01	0.433
Y-91	2.436E+02		6.812E+02	1.181E+03	6.997E+01	0.206
NB-94	5.377E-01		1.482E+00	2.538E+00	1.357E-01	0.212
NB-95	1.354E+00		2.063E+00	3.593E+00	2.174E-01	0.377
NB-95M	3.527E+00		6.306E+00	9.692E+00	7.118E-01	0.364
ZR-95	1.993E+00		2.914E+00	5.121E+00	3.660E-01	0.389
NB-97	-4.819E-01		4.825E-01	Half-Life too short		
ZR-97	-1.113E+02		1.369E+01	Half-Life too short		
MO-99	-1.075E+02		3.223E+02	5.161E+02	7.102E+01	-0.208
TC-99M	-3.716E+09		1.680E+10	Half-Life too short		
RH-101	1.302E+00		2.344E+00	3.175E+00	1.697E-01	0.410
RH-102	-3.183E-01		1.478E+00	2.350E+00	1.413E-01	-0.135
RU-103	-1.992E+00		2.101E+00	3.114E+00	3.959E-01	-0.639
RH-106	-1.015E+01		1.546E+01	2.457E+01	2.820E+00	-0.413
RU-106	-1.015E+01		1.542E+01	2.457E+01	1.290E+00	-0.413
AG-108M	-3.558E-01		1.636E+00	2.617E+00	1.717E-01	-0.136
CD-109	-2.191E+01		5.593E+01	8.040E+01	6.179E+00	-0.273
AG-110M	-9.439E-01		1.639E+00	2.613E+00	1.407E-01	-0.361
IN-111	-1.563E+00		3.708E+01	6.222E+01	3.493E+00	-0.025
IN-113M	1.893E+00		2.183E+00	3.763E+00	2.431E-01	0.503
SN-113	1.893E+00		2.183E+00	3.763E+00	2.431E-01	0.503
IN-114M	-7.601E-01		1.066E+01	1.493E+01	7.923E-01	-0.051
CD-115	1.504E+02		3.028E+02	5.063E+02	2.950E+01	0.297
SN-117M	-2.087E-01		3.275E+00	4.876E+00	2.605E-01	-0.043
SB-122	-1.331E+01		6.362E+01	9.965E+01	5.623E+00	-0.134

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
I-123	-2.182E+01		2.495E+01	Half-Life too short		
TE-123M	-8.015E-01		1.833E+00	2.683E+00	1.454E-01	-0.299
I-124	-4.864E+00		3.270E+01	4.114E+01	2.219E+00	-0.118
SB-124	1.946E+00		3.409E+00	6.093E+00	4.049E-01	0.319
SB-125	-1.758E+00		4.697E+00	7.442E+00	4.706E-01	-0.236
TE-125M	4.153E+02		5.582E+02	9.362E+02	8.014E+01	0.444
I-126	-1.107E+01		1.373E+01	1.148E+01	5.695E-01	-0.964
SB-126	-5.539E-01		5.789E+00	9.531E+00	5.281E-01	-0.058
SN-126	-4.083E+00		5.262E+00	7.933E+00	6.086E-01	-0.515
SB-127	1.815E+01		4.441E+01	7.652E+01	6.489E+00	0.237
XE-127	-1.232E+00		2.274E+00	3.772E+00	2.026E-01	-0.327
I-131	4.639E+00		5.307E+00	9.150E+00	6.131E-01	0.507
TE-132	7.230E+00		2.444E+01	4.174E+01	5.820E+00	0.173
BA-133	-8.287E-01		2.522E+00	3.538E+00	4.136E-01	-0.234
I-133	-9.732E-02		4.172E-02	Half-Life too short		
CS-134	7.454E-01		1.907E+00	3.260E+00	2.113E-01	0.229
CS-135	-5.495E+00		7.637E+00	1.229E+01	9.358E-01	-0.447
I-135	-7.086E+08		1.920E+09	Half-Life too short		
CS-136	1.446E+00		3.651E+00	6.195E+00	4.492E-01	0.233
BA-137M	4.191E-01		1.647E+00	2.805E+00	1.378E-01	0.149
CS-137	4.430E-01		1.741E+00	2.965E+00	1.466E-01	0.149
CE-139	-6.001E-01		1.608E+00	2.519E+00	1.319E-01	-0.238
BA-140	2.119E+00		1.513E+01	2.032E+01	6.606E+00	0.104
LA-140	-6.285E+00		6.026E+00	6.352E+00	4.084E-01	-0.989
CE-141	-3.236E+00		3.458E+00	5.313E+00	3.094E-01	-0.609
CE-143	2.895E-03		1.670E-03	Half-Life too short		
CE-144	2.027E+00		1.187E+01	1.929E+01	2.745E+00	0.105
PM-144	-6.461E-01		1.539E+00	2.472E+00	1.306E-01	-0.261
PR-144	-4.374E+01		1.042E+02	1.674E+02	8.837E+00	-0.261
PM-146	-1.004E+00		2.068E+00	3.222E+00	2.834E-01	-0.312
ND-147	-3.962E-01		2.460E+01	3.939E+01	5.328E+00	-0.010
PM-149	1.282E+03		2.743E+03	4.675E+03	6.629E+02	0.274
EU-152	-2.571E+00		4.981E+00	7.962E+00	5.368E-01	-0.323
GD-153	-1.517E+00		5.124E+00	7.871E+00	5.401E-01	-0.193
EU-154	-9.168E-01		4.400E+00	7.122E+00	6.925E-01	-0.129
EU-155	2.034E+00		6.488E+00	1.073E+01	7.130E-01	0.190
TB-160	-3.913E+00		6.154E+00	9.384E+00	6.962E-01	-0.417
HO-166M	9.409E-02		2.734E+00	4.556E+00	2.480E-01	0.021
TM-171	3.359E+03	+	2.839E+03	4.196E+03	3.106E+02	0.801
HF-175	-9.792E-01		1.751E+00	2.790E+00	1.681E-01	-0.351
LU-176	1.545E-01		1.258E+00	2.102E+00	1.243E-01	0.074
LU-177	-3.788E+01		4.376E+01	7.136E+01	3.853E+00	-0.531
LU-177M	6.095E-03		8.420E+00	1.373E+01	8.368E-01	0.000
HF-181	-9.290E-01		2.129E+00	3.322E+00	1.991E-01	-0.280
W-181	4.102E+01	+	3.466E+01	5.626E+01	4.165E+00	0.729
TA-182	-1.239E+00		1.030E+01	1.255E+01	7.578E-01	-0.099
RE-183	2.086E+00		6.093E+00	9.886E+00	5.223E-01	0.211
RE-184	4.383E+00		1.190E+01	2.031E+01	1.149E+00	0.216

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
OS-185	-2.128E+00		1.835E+00	2.747E+00	1.388E-01	-0.775
RE-188	-8.802E+00		9.841E+00	1.511E+01	8.162E-01	-0.582
W-188	1.401E+02		4.002E+02	6.013E+02	3.516E+01	0.233
IR-192	-3.809E-01		1.735E+00	2.840E+00	1.698E-01	-0.134
TL-200	-6.854E-03		4.248E-03	Half-Life too short		
TL-201	3.473E+01		2.571E+02	4.130E+02	2.161E+01	0.084
TL-202	1.507E+00		3.129E+00	5.252E+00	3.192E-01	0.287
HG-203	1.499E+00		1.984E+00	3.431E+00	2.111E-01	0.437
BI-207	2.634E+00		2.243E+00	4.067E+00	2.716E-01	0.648
TL-207	-7.687E+00		3.488E+01	5.702E+01	9.452E+00	-0.135
TL-208	5.858E-01	+	3.201E+00	3.527E+00	2.274E-01	0.166
PO-209	-2.007E+02		3.619E+02	5.590E+02	4.270E+01	-0.359
BI-210	1.585E+02		6.044E+02	1.027E+03	9.554E+01	0.154
PB-210	1.585E+02		6.044E+02	1.027E+03	9.554E+01	0.154
PO-210	1.585E+02		6.044E+02	1.027E+03	8.650E+01	0.154
PB-211	-1.984E+01		5.786E+01	8.021E+01	5.002E+01	-0.247
BI-212	1.683E+01		1.379E+01	2.491E+01	1.887E+00	0.676
PB-212	2.478E-01	+	4.894E+00	5.632E+00	4.030E-01	0.044
PO-212	2.478E-01	+	4.894E+00	5.632E+00	4.030E-01	0.044
BI-214	9.869E+00	+	7.561E+00	8.173E+00	6.086E-01	1.208
PB-214	8.734E+00	+	6.429E+00	8.117E+00	6.864E-01	1.076
PO-214	8.734E+00	+	6.429E+00	8.117E+00	6.864E-01	1.076
PO-215	-7.687E+00		3.488E+01	5.702E+01	9.452E+00	-0.135
PO-216	2.478E-01	+	4.894E+00	5.632E+00	4.030E-01	0.044
PO-218	8.734E+00	+	6.429E+00	8.117E+00	6.864E-01	1.076
RN-219	-1.030E+01		2.427E+01	3.498E+01	4.804E+00	-0.294
RN-220	1.046E+02		1.318E+03	2.121E+03	1.213E+02	0.049
RA-223	-7.687E+00		3.488E+01	5.702E+01	9.452E+00	-0.135
RA-224	-1.068E+01		4.346E+01	5.710E+01	3.192E+00	-0.187
AC-227	-1.006E+01		1.965E+01	3.207E+01	4.461E+00	-0.314
PA-227	1.000E+35	+	1.103E+35	Half-Life too short		
TH-227	-1.006E+01		1.968E+01	3.207E+01	5.406E+00	-0.314
AC-228	1.930E+00	+	9.877E+00	1.190E+01	1.247E+00	0.162
RA-228	1.930E+00	+	9.877E+00	1.190E+01	1.247E+00	0.162
TH-228	2.478E-01	+	4.894E+00	5.632E+00	4.030E-01	0.044
TH-229	-1.032E+01		2.732E+01	4.241E+01	2.257E+00	-0.243
TH-230	3.673E+02		2.595E+03	1.560E+03	1.012E+04	0.235
PA-231	-6.050E+01		7.632E+01	1.211E+02	1.670E+01	-0.499
TH-231	-1.743E+01		3.572E+01	4.947E+01	8.586E+00	-0.352
U-231	1.165E+01		5.735E+01	8.490E+01	5.911E+00	0.137
TH-232	7.654E+02		8.637E+03	5.015E+03	5.279E+04	0.153
PA-233	1.093E+00		3.333E+00	5.623E+00	3.534E-01	0.194
PA-234	-3.547E+00		1.263E+01	1.986E+01	3.624E+00	-0.179
PA-234M	-3.010E+01		2.274E+02	3.391E+02	2.949E+01	-0.089
U-234	1.622E+04		1.624E+05	1.545E+04	1.545E+05	1.050
U-235	-6.519E+00		1.372E+01	1.904E+01	3.092E+00	-0.342
NP-236	-5.884E+00		5.212E+00	7.366E+00	3.915E-01	-0.799
NP-237	9.627E+00		1.489E+01	2.487E+01	5.471E+00	0.387

Sample ID : G243285001 Acquisition date : 30-DEC-2009 22:41:49

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PU-237	1.670E+02		2.281E+02	3.547E+02	2.568E+01	0.471
NP-239	-7.096E+00		1.190E+01	1.881E+01	1.186E+00	-0.377
AM-241	1.239E+01		1.693E+01	2.632E+01	2.099E+00	0.471
CM-243	1.685E+00		5.809E+00	9.603E+00	6.299E-01	0.175
AM-246	4.054E+00		5.426E+00	9.541E+00	6.258E-01	0.425
CM-247	-1.826E+00		2.253E+00	3.089E+00	1.883E-01	-0.591
CF-249	-2.025E-01		1.977E+00	3.215E+00	1.958E-01	-0.063
CF-251	-1.377E+00		7.443E+00	1.174E+01	6.167E-01	-0.117
ANH-511	-8.301E+00		3.221E+00	4.755E+00	2.803E-01	-1.746

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G243285001           *
* Acquisition date : 30-DEC-2009 22:41:49 Detector SN#    :                 *
* Detector ID      : GAM10                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:01.27     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 17-DEC-2009 12:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G243285001           Analyst initials: KXG3            *
* Batch Number     : 935338               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 25-FEB-2009 11:11:10 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
AS-74	1.433E+01	6.241E+00	3.243E+00	3.184E+00
AU-195	-2.229E+00	1.344E+01	1.114E+01	6.859E+00
BI-211	2.511E+01	1.807E+01	8.867E+00	9.217E+00
RA-226	1.850E+01	6.614E+01	3.067E+01	3.374E+01
TH-234	7.225E+01	1.565E+02	1.010E+02	7.987E+01
U-238	7.225E+01	1.565E+02	1.010E+02	7.987E+01
AM-243	2.708E+00	6.660E+00	3.373E+00	3.398E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU	
BE-7	-1.865E+00	1.612E+01	1.318E+01	8.223E+00	NOT IDENT.
NA-22	-4.847E-01	1.547E+00	1.262E+00	7.894E-01	NOT IDENT.
NA-24	-1.176E+07	8.741E+06	0.000E+00	4.460E+06	SHORT HLIF
AL-26	6.164E-01	1.531E+00	1.349E+00	7.812E-01	NOT IDENT.
K-40	-1.534E+00	2.563E+01	2.022E+01	1.308E+01	NOT IDENT.
TI-44	4.361E-01	2.347E+00	1.789E+00	1.197E+00	NOT IDENT.
SC-46	-2.378E+00	1.799E+00	1.292E+00	9.179E-01	NOT IDENT.
V-48	3.102E+00	2.575E+00	2.413E+00	1.314E+00	NOT IDENT.
CR-51	-7.794E+00	1.746E+01	1.439E+01	8.908E+00	NOT IDENT.
MN-52	1.786E+00	7.766E+00	6.754E+00	3.962E+00	NOT IDENT.
MN-54	-1.613E+00	1.530E+00	1.143E+00	7.807E-01	NOT IDENT.
CO-56	-6.507E-01	1.754E+00	1.417E+00	8.947E-01	NOT IDENT.
CO-57	5.946E-02	1.836E+00	1.315E+00	9.367E-01	NOT IDENT.
CO-58	-7.389E-01	1.699E+00	1.369E+00	8.669E-01	NOT IDENT.
FE-59	8.765E-01	3.470E+00	2.934E+00	1.771E+00	NOT IDENT.
CO-60	1.102E+00	1.758E+00	1.589E+00	8.970E-01	NOT IDENT.
ZN-65	8.919E-01	3.697E+00	2.721E+00	1.886E+00	NOT IDENT.
GE-68	1.770E+01	4.872E+01	4.178E+01	2.486E+01	NOT IDENT.
AS-73	2.229E+02	1.087E+02	9.879E+01	5.547E+01	NOT IDENT.
SE-75	1.316E+00	2.156E+00	1.895E+00	1.100E+00	FAIL ABUN

BR-77	3.149E+02	3.114E+02	2.749E+02	1.589E+02	FAIL ABUN
SR-82	3.534E+00	1.484E+01	1.279E+01	7.571E+00	NOT IDENT.
RB-83	3.088E+00	3.217E+00	2.831E+00	1.641E+00	NOT IDENT.
RB-84	4.981E-01	2.995E+00	2.542E+00	1.528E+00	NOT IDENT.
KR-85	-6.233E+02	5.185E+02	3.992E+02	2.645E+02	NOT IDENT.
SR-85	-3.143E+00	2.614E+00	2.013E+00	1.334E+00	NOT IDENT.
RB-86	-5.327E+00	2.960E+01	2.380E+01	1.510E+01	NOT IDENT.
Y-88	-2.369E-02	1.838E+00	1.511E+00	9.376E-01	NOT IDENT.
ZR-88	1.111E+00	1.469E+00	1.284E+00	7.494E-01	NOT IDENT.
Y-91	2.436E+02	6.676E+02	5.907E+02	3.406E+02	NOT IDENT.
NB-94	5.377E-01	1.453E+00	1.270E+00	7.411E-01	NOT IDENT.
NB-95	1.354E+00	2.021E+00	1.798E+00	1.031E+00	NOT IDENT.
NB-95M	3.527E+00	6.180E+00	4.849E+00	3.153E+00	NOT IDENT.
ZR-95	1.993E+00	2.856E+00	2.562E+00	1.457E+00	NOT IDENT.
NB-97	-4.819E+05	9.457E+05	0.000E+00	4.825E+05	SHORT HLIF
ZR-97	-1.113E+08	2.684E+07	0.000E+00	1.369E+07	SHORT HLIF
MO-99	-1.075E+02	3.158E+02	2.582E+02	1.611E+02	NOT IDENT.
TC-99M	-3.716E+15	3.294E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.302E+00	2.297E+00	1.588E+00	1.172E+00	NOT IDENT.
RH-102	-3.183E-01	1.449E+00	1.176E+00	7.392E-01	NOT IDENT.
RU-103	-1.992E+00	2.059E+00	1.558E+00	1.050E+00	FAIL ABUN
RH-106	-1.015E+01	1.515E+01	1.229E+01	7.728E+00	NOT IDENT.
RU-106	-1.015E+01	1.511E+01	1.229E+01	7.710E+00	NOT IDENT.
AG-108M	-3.558E-01	1.603E+00	1.309E+00	8.179E-01	NOT IDENT.
CD-109	-2.191E+01	5.481E+01	4.023E+01	2.796E+01	NOT IDENT.
AG-110M	-9.439E-01	1.606E+00	1.307E+00	8.195E-01	NOT IDENT.
IN-111	-1.563E+00	3.634E+01	3.113E+01	1.854E+01	NOT IDENT.
IN-113M	1.893E+00	2.139E+00	1.883E+00	1.092E+00	NOT IDENT.
SN-113	1.893E+00	2.139E+00	1.883E+00	1.092E+00	NOT IDENT.
IN-114M	-7.601E-01	1.045E+01	7.470E+00	5.331E+00	NOT IDENT.
CD-115	1.504E+02	2.968E+02	2.533E+02	1.514E+02	NOT IDENT.
SN-117M	-2.087E-01	3.209E+00	2.439E+00	1.637E+00	NOT IDENT.
SB-122	-1.331E+01	6.235E+01	4.986E+01	3.181E+01	NOT IDENT.
I-123	-2.182E+07	4.890E+07	0.000E+00	2.495E+07	SHORT HLIF
TE-123M	-8.015E-01	1.797E+00	1.342E+00	9.166E-01	NOT IDENT.
I-124	-4.864E+00	3.204E+01	2.058E+01	1.635E+01	NOT IDENT.
SB-124	1.946E+00	3.341E+00	3.048E+00	1.705E+00	NOT IDENT.
SB-125	-1.758E+00	4.603E+00	3.723E+00	2.349E+00	NOT IDENT.
TE-125M	4.153E+02	5.471E+02	4.684E+02	2.791E+02	NOT IDENT.
I-126	-1.107E+01	1.345E+01	5.742E+00	6.864E+00	NOT IDENT.
SB-126	-5.539E-01	5.673E+00	4.768E+00	2.894E+00	FAIL ABUN
SN-126	-4.083E+00	5.157E+00	3.969E+00	2.631E+00	FAIL ABUN
SB-127	1.815E+01	4.352E+01	3.828E+01	2.221E+01	NOT IDENT.
XE-127	-1.232E+00	2.229E+00	1.887E+00	1.137E+00	NOT IDENT.
I-131	4.639E+00	5.201E+00	4.578E+00	2.654E+00	NOT IDENT.
TE-132	7.230E+00	2.395E+01	2.088E+01	1.222E+01	NOT IDENT.
BA-133	-8.287E-01	2.471E+00	1.770E+00	1.261E+00	NOT IDENT.
I-133	-9.732E+04	8.176E+04	0.000E+00	4.172E+04	SHORT HLIF
CS-134	7.454E-01	1.869E+00	1.631E+00	9.537E-01	NOT IDENT.
CS-135	-5.495E+00	7.485E+00	6.150E+00	3.819E+00	NOT IDENT.
I-135	-7.086E+14	3.762E+15	0.000E+00	1.920E+15	SHORT HLIF
CS-136	1.446E+00	3.578E+00	3.099E+00	1.825E+00	FAIL ABUN
BA-137M	4.191E-01	1.614E+00	1.403E+00	8.237E-01	NOT IDENT.
CS-137	4.430E-01	1.707E+00	1.483E+00	8.707E-01	NOT IDENT.
CE-139	-6.001E-01	1.576E+00	1.260E+00	8.039E-01	NOT IDENT.
BA-140	2.119E+00	1.483E+01	1.016E+01	7.565E+00	NOT IDENT.
LA-140	-6.285E+00	5.905E+00	3.178E+00	3.013E+00	NOT IDENT.
CE-141	-3.236E+00	3.389E+00	2.658E+00	1.729E+00	NOT IDENT.
CE-143	2.895E+03	3.274E+03	0.000E+00	1.670E+03	SHORT HLIF
CE-144	2.027E+00	1.163E+01	9.649E+00	5.933E+00	NOT IDENT.
PM-144	-6.461E-01	1.508E+00	1.237E+00	7.695E-01	NOT IDENT.
PR-144	-4.374E+01	1.021E+02	8.373E+01	5.210E+01	NOT IDENT.
PM-146	-1.004E+00	2.027E+00	1.612E+00	1.034E+00	NOT IDENT.
ND-147	-3.962E-01	2.411E+01	1.971E+01	1.230E+01	FAIL ABUN
PM-149	1.282E+03	2.688E+03	2.339E+03	1.372E+03	NOT IDENT.
EU-152	-2.571E+00	4.881E+00	3.983E+00	2.490E+00	NOT IDENT.
GD-153	-1.517E+00	5.021E+00	3.938E+00	2.562E+00	NOT IDENT.
EU-154	-9.168E-01	4.312E+00	3.563E+00	2.200E+00	NOT IDENT.
EU-155	2.034E+00	6.358E+00	5.367E+00	3.244E+00	NOT IDENT.
TB-160	-3.913E+00	6.031E+00	4.695E+00	3.077E+00	NOT IDENT.
HO-166M	9.409E-02	2.679E+00	2.279E+00	1.367E+00	FAIL ABUN
TM-171	3.359E+03	2.782E+03	2.099E+03	1.419E+03	FAIL ABUN
HF-175	-9.792E-01	1.716E+00	1.396E+00	8.754E-01	NOT IDENT.
LU-176	1.545E-01	1.232E+00	1.052E+00	6.288E-01	NOT IDENT.
LU-177	-3.788E+01	4.289E+01	3.570E+01	2.188E+01	NOT IDENT.
LU-177M	6.095E-03	8.252E+00	6.868E+00	4.210E+00	NOT IDENT.
HF-181	-9.290E-01	2.086E+00	1.662E+00	1.064E+00	FAIL ABUN
W-181	4.102E+01	3.397E+01	2.815E+01	1.733E+01	FAIL ABUN

TA-182	-1.239E+00	1.010E+01	6.280E+00	5.152E+00	NOT IDENT.
RE-183	2.086E+00	5.971E+00	4.946E+00	3.046E+00	FAIL ABUN
RE-184	4.383E+00	1.166E+01	1.016E+01	5.951E+00	FAIL ABUN
OS-185	-2.128E+00	1.798E+00	1.374E+00	9.173E-01	NOT IDENT.
RE-188	-8.802E+00	9.644E+00	7.561E+00	4.921E+00	NOT IDENT.
W-188	1.401E+02	3.922E+02	3.008E+02	2.001E+02	FAIL ABUN
IR-192	-3.809E-01	1.700E+00	1.421E+00	8.676E-01	FAIL ABUN
TL-200	-6.854E+03	8.325E+03	0.000E+00	4.248E+03	SHORT HLIF
TL-201	3.473E+01	2.520E+02	2.066E+02	1.286E+02	NOT IDENT.
TL-202	1.507E+00	3.067E+00	2.628E+00	1.565E+00	NOT IDENT.
HG-203	1.499E+00	1.944E+00	1.717E+00	9.921E-01	NOT IDENT.
BI-207	2.634E+00	2.199E+00	2.035E+00	1.122E+00	FAIL ABUN
TL-207	-7.687E+00	3.418E+01	2.853E+01	1.744E+01	NOT IDENT.
TL-208	5.858E-01	3.137E+00	1.764E+00	1.601E+00	FAIL ABUN
PO-209	-2.007E+02	3.546E+02	2.797E+02	1.809E+02	NOT IDENT.
BI-210	1.585E+02	5.923E+02	5.136E+02	3.022E+02	NOT IDENT.
PB-210	1.585E+02	5.923E+02	5.136E+02	3.022E+02	NOT IDENT.
PO-210	1.585E+02	5.923E+02	5.136E+02	3.022E+02	NOT IDENT.
PB-211	-1.984E+01	5.670E+01	4.013E+01	2.893E+01	NOT IDENT.
BI-212	1.683E+01	1.352E+01	1.246E+01	6.896E+00	NOT IDENT.
PB-212	2.478E-01	4.796E+00	2.818E+00	2.447E+00	FAIL ABUN
PO-212	2.478E-01	4.796E+00	2.818E+00	2.447E+00	FAIL ABUN
BI-214	9.869E+00	7.409E+00	4.089E+00	3.780E+00	FAIL ABUN
PB-214	8.734E+00	6.300E+00	4.061E+00	3.214E+00	FAIL ABUN
PO-214	8.734E+00	6.300E+00	4.061E+00	3.214E+00	FAIL ABUN
PO-215	-7.687E+00	3.418E+01	2.853E+01	1.744E+01	NOT IDENT.
PO-216	2.478E-01	4.796E+00	2.818E+00	2.447E+00	FAIL ABUN
PO-218	8.734E+00	6.300E+00	4.061E+00	3.214E+00	FAIL ABUN
RN-219	-1.030E+01	2.379E+01	1.750E+01	1.214E+01	NOT IDENT.
RN-220	1.046E+02	1.291E+03	1.061E+03	6.588E+02	NOT IDENT.
RA-223	-7.687E+00	3.418E+01	2.853E+01	1.744E+01	NOT IDENT.
RA-224	-1.068E+01	4.259E+01	2.857E+01	2.173E+01	NOT IDENT.
AC-227	-1.006E+01	1.926E+01	1.605E+01	9.827E+00	NOT IDENT.
PA-227	1.000E+41	2.161E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-1.006E+01	1.928E+01	1.605E+01	9.839E+00	NOT IDENT.
AC-228	1.930E+00	9.679E+00	5.952E+00	4.938E+00	FAIL ABUN
RA-228	1.930E+00	9.679E+00	5.952E+00	4.938E+00	FAIL ABUN
TH-228	2.478E-01	4.796E+00	2.818E+00	2.447E+00	FAIL ABUN
TH-229	-1.032E+01	2.678E+01	2.122E+01	1.366E+01	NOT IDENT.
TH-230	3.673E+02	2.543E+03	7.805E+02	1.298E+03	NOT IDENT.
PA-231	-6.050E+01	7.479E+01	6.060E+01	3.816E+01	NOT IDENT.
TH-231	-1.743E+01	3.501E+01	2.475E+01	1.786E+01	NOT IDENT.
U-231	1.165E+01	5.620E+01	4.248E+01	2.867E+01	FAIL ABUN
TH-232	7.654E+02	8.465E+03	2.509E+03	4.319E+03	NOT IDENT.
PA-233	1.093E+00	3.266E+00	2.813E+00	1.666E+00	FAIL ABUN
PA-234	-3.547E+00	1.237E+01	9.935E+00	6.313E+00	FAIL ABUN
PA-234M	-3.010E+01	2.229E+02	1.697E+02	1.137E+02	NOT IDENT.
U-234	1.622E+04	1.592E+05	7.729E+03	8.122E+04	NOT IDENT.
U-235	-6.519E+00	1.344E+01	9.523E+00	6.858E+00	FAIL ABUN
NP-236	-5.884E+00	5.107E+00	3.685E+00	2.606E+00	NOT IDENT.
NP-237	9.627E+00	1.459E+01	1.244E+01	7.443E+00	NOT IDENT.
PU-237	1.670E+02	2.235E+02	1.774E+02	1.140E+02	NOT IDENT.
NP-239	-7.096E+00	1.166E+01	9.411E+00	5.951E+00	NOT IDENT.
AM-241	1.239E+01	1.659E+01	1.317E+01	8.464E+00	NOT IDENT.
CM-243	1.685E+00	5.692E+00	4.804E+00	2.904E+00	NOT IDENT.
AM-246	4.054E+00	5.317E+00	4.773E+00	2.713E+00	NOT IDENT.
CM-247	-1.826E+00	2.208E+00	1.546E+00	1.127E+00	NOT IDENT.
CF-249	-2.025E-01	1.938E+00	1.609E+00	9.887E-01	NOT IDENT.
CF-251	-1.377E+00	7.294E+00	5.874E+00	3.721E+00	NOT IDENT.
ANH-511	-8.301E+00	3.157E+00	2.379E+00	1.611E+00	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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ENERGY	MDA COUNTS
46.50	251.2042
46.50	251.2042
46.50	251.2042
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49.72	251.5559
51.35	298.9008
52.39	270.0107
52.97	242.5329
53.15	233.3471
53.20	233.3764
53.44	227.9361
54.07	218.9798
56.28	308.2517
56.28	308.2543
57.37	0.0000
57.53	262.2018
57.53	262.2029
57.60	239.6870
57.98	252.1367
57.98	252.1367
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59.32	237.8413
59.32	237.8413
59.40	237.8861
59.54	237.9650
59.54	237.9650
59.72	236.6492
60.01	218.3760
61.10	277.2195
61.14	277.2448
61.30	277.3474
63.00	284.1431
63.29	310.0485
63.29	310.0485
63.58	310.2521
64.28	292.1263
64.62	0.0000
65.12	292.6757
65.20	292.7274
65.20	292.7274
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66.72	263.4758
66.83	269.3004
66.91	269.3475
67.20	269.5187
67.20	269.5187
67.67	274.1223
67.75	292.9292
67.85	292.9927
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68.90	299.4434
69.30	260.6094
69.67	289.7964
70.82	289.0489
70.82	289.0489
70.83	289.0550
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72.80	307.7507
72.87	307.7958
72.87	307.7958
74.67	324.0651
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74.81	322.2052
74.81	322.2052
74.81	322.2052
74.81	322.2052
74.81	322.2052

74.81	322.2052
74.97	322.3093
74.97	322.3093
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77.11	253.0751
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77.11	253.0751
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79.62	295.7352
79.80	275.1302
79.80	275.1302
80.11	275.2977
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80.30	236.9019
80.57	237.0264
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81.07	240.2216
81.07	240.2216
81.07	240.2216
82.60	276.6202
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83.78	283.2040
83.78	283.2040
83.78	283.2040
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84.21	281.4440
84.90	276.8306
85.43	241.2209
86.29	284.5361
86.50	284.6478
86.54	284.6681
86.59	284.6942
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86.79	313.7780
86.94	313.8658
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87.30	331.2792
87.30	331.2792
87.30	331.2792
87.30	331.2792
87.57	331.4426
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88.03	316.9991
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88.47	296.2034
89.36	314.7549
89.95	318.1066
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92.38	302.8351
92.38	302.8351
93.35	286.6694
94.00	282.4413
94.67	266.0461
94.67	266.0488
94.90	273.7601
94.90	273.7601
94.90	273.7601
95.87	275.7436
95.87	275.7436
96.73	265.4737
97.43	276.1783
98.44	272.3697
98.44	272.3697
98.88	264.4064
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99.55	244.2648
99.86	246.4376
100.00	246.4964
100.10	246.5394

103.18	248.8301
103.76	248.0385
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105.31	254.8582
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110.05	0.0000
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111.00	297.7872
111.76	302.3120
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115.19	258.8533
115.19	258.8533
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117.00	310.0075
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121.78	292.1171
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122.32	305.0581
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144.24	283.8910
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147.16	253.1873
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152.70	270.4386
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154.21	303.0211
154.21	303.0211
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163.35	274.0050
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165.85	264.7294
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171.86	266.6067
172.10	264.4211
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176.60	297.5938
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186.00	252.5287
186.21	260.0497
190.27	247.3632
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193.63	253.4660

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198.60	226.8771
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202.84	258.5571
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209.75	240.0856
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223.80	218.3717
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227.20	229.8594
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228.18	210.3004
228.18	210.3004
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236.00	198.4510
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238.63	251.2069
238.63	251.2069
238.63	251.2069
239.00	251.2914
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241.98	237.4125
241.98	237.4125
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249.79	210.8521
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252.85	192.1202
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256.20	209.2795
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269.46	209.8080
269.46	209.8080
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278.60	168.1894
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286.10	160.7109
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297.23	163.2821
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299.80	168.1985
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300.09	157.5302
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300.09	157.5302
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323.87	176.1557
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329.70	181.7967
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338.28	129.8146
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338.32	129.8187
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445.03	106.3678
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513.99	267.9706
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569.50	64.0972
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602.71	98.2276
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609.31	76.0719
610.33	61.1296
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614.37	91.8628
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621.84	91.2511
631.29	78.6769
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911.07	44.6304
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969.11	55.6215
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1121.28	40.6277
1124.00	0.0000
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1147.95	0.0000
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1173.22	29.7031
1175.09	26.0028
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1189.05	32.6259
1204.90	36.5085
1205.75	0.0000
1213.00	33.7720
1221.42	29.1458
1230.97	28.2751
1235.34	46.2366
1236.41	0.0000
1238.25	31.1617
1246.25	33.1187
1260.41	0.0000
1271.85	18.0962
1274.45	30.4987
1274.54	31.4518
1291.56	49.7741
1298.22	0.0000
1312.09	34.6348
1325.50	38.6100
1325.50	38.6100
1332.49	29.9732
1333.61	41.5880
1360.21	25.3081
1362.66	0.0000
1365.15	32.1594
1368.21	34.1341
1368.53	0.0000
1376.25	28.3357
1384.27	31.3268
1394.10	28.4560
1395.20	20.6112
1407.95	32.4857
1434.06	19.8071
1436.60	18.8276
1457.56	0.0000
1460.81	22.2059
1489.15	28.0763
1509.49	26.1883
1596.49	35.9186
1620.62	21.6597
1678.03	0.0000
1691.02	12.5552
1691.02	12.5552
1706.46	0.0000
1750.46	0.0000
1764.49	23.3517
1770.23	48.8806
1771.40	45.7032
1791.20	0.0000
1808.65	14.9861
1836.01	20.4426

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G243285001

Total Uranium Activity	2.1193E+02	ug/g
Total Uranium Counting Unc.	4.6576E+02	ug/g
Total Uranium Tpu	2.3763E-04	ug/g
Total Uranium Mda	3.0059E+02	ug/g

```
*****************************************************************************
*                                                                           *
*                        GEL Laboratories LLC                               *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                            GROSS GAMMA REPORT                             *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 935338                    SAMPLE ID  : G243285001       *
*   ANALYST       : KXG3                      DETECTOR   : GAM10            *
*   SAMPLE DATE   : 17-DEC-2009 12:00:00.00   COUNT TIME :    0 06:00:00.00 *
*   ANALYSIS DATE: 30-DEC-2009 22:41:49.17    SAMPLE ALQT:    2.000 LITER   *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 3.391E+01
        GROSS GAMMA ERROR  (pCi/LITER )   : 4.337E+01
        GROSS GAMMA MDA    (pCi/LITER )   : 6.581E+01
        GROSS GAMMA DLC    (pCi/LITER )   : 3.178E+01
```

VAX/VMS Nuclide Identification Report Generated 30-DEC-2009 20:40:50.30

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243286002.CNF;1
Sample date       : 17-DEC-2009 12:00:00 Acquisition date : 30-DEC-2009 18:39:45
Sample ID         : G243286002           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM16                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.89  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 935338               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.05*	3	139	1.03	126.29	124	8	4.31E-04	719.8	
2	0	77.11*	22	141	1.16	154.41	150	8	3.06E-03	102.2	
3	0	139.83*	46	122	1.41	279.85	275	9	6.41E-03	48.2	
4	0	185.69*	13	105	1.22	371.57	367	10	1.74E-03	180.1	
5	0	238.15*	2	152	1.35	476.49	472	11	2.91E-04	*****	
6	0	294.94	37	65	0.76	590.07	586	8	5.18E-03	40.6	
7	0	351.84*	82	47	0.97	703.86	699	10	1.14E-02	20.7	
8	0	501.18	24	39	0.73	1002.53	996	14	3.33E-03	58.7	
9	0	609.06*	86	17	1.37	1218.24	1212	14	1.20E-02	16.8	
10	0	1120.21*	22	8	1.39	2240.30	2236	13	3.05E-03	36.3	
11	0	1237.55*	12	2	1.27	2474.90	2470	9	1.61E-03	50.6	
12	0	1459.79*	9	3	2.87	2919.19	2914	11	1.25E-03	65.0	
13	0	1764.11*	11	14	1.44	3527.49	3521	13	1.58E-03	77.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 30-DEC-2009 20:40:52

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243286002.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : KXG3
Sample date       : 17-DEC-2009 12:00:00 Acquisition date : 30-DEC-2009 18:39:45
Sample ID         : G243286002           Sample quantity  : 2.0000 LITER
Sample type       : LIQUID               Sample geometry  :
Detector name     : GAMMA16              Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.89   0.0%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     1.50 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
K-40	+	1460.81	*	2.646E+01	3.450E+01	4.869E+01	4.530E+00	0.543
BI-211		72.87		1.376E+01	2.618E+02	4.065E+02	3.548E+01	0.034
	+	351.07	*	6.923E+01	2.941E+01	2.584E+01	2.557E+00	2.679
BI-214	+	609.31	*	2.968E+01	1.039E+01	8.163E+00	7.998E-01	3.636
	+	1120.29		3.727E+01	2.741E+01	3.403E+01	3.828E+00	1.095
	+	1764.49		2.536E+01	3.925E+01	3.576E+01	3.058E+00	0.709
PB-214		74.81		-1.410E+01	5.404E+01	8.155E+01	9.378E+00	-0.173
	+	77.11		2.194E+01	4.493E+01	4.471E+01	5.236E+00	0.491
		87.30		3.554E+01	5.238E+01	9.245E+01	1.133E+01	0.384
		241.98		-6.673E+00	3.426E+01	4.815E+01	5.586E+00	-0.139
	+	295.21		1.896E+01	1.559E+01	1.875E+01	2.355E+00	1.011
	+	351.92	*	2.408E+01	1.031E+01	9.007E+00	1.006E+00	2.674
PO-214		74.81		-1.410E+01	5.404E+01	8.155E+01	9.378E+00	-0.173
	+	77.11		2.194E+01	4.493E+01	4.471E+01	5.236E+00	0.491
		87.30		3.554E+01	5.238E+01	9.245E+01	1.133E+01	0.384
		241.98		-6.673E+00	3.426E+01	4.815E+01	5.586E+00	-0.139
	+	295.21		1.896E+01	1.559E+01	1.875E+01	2.355E+00	1.011
	+	351.92	*	2.408E+01	1.031E+01	9.007E+00	1.006E+00	2.674
PO-218		74.81		-1.410E+01	5.404E+01	8.155E+01	9.378E+00	-0.173
	+	77.11		2.194E+01	4.493E+01	4.471E+01	5.236E+00	0.491
		87.30		3.554E+01	5.238E+01	9.245E+01	1.133E+01	0.384
		241.98		-6.673E+00	3.426E+01	4.815E+01	5.586E+00	-0.139
	+	295.21		1.896E+01	1.559E+01	1.875E+01	2.355E+00	1.011
	+	351.92	*	2.408E+01	1.031E+01	9.007E+00	1.006E+00	2.674
RA-226	+	186.21	*	2.902E+01	1.067E+02	9.400E+01	6.927E+01	0.309

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	1.762E+01	2.467E+01	4.416E+01	4.002E+00	0.399
NA-22		1274.54	*	3.053E-01	2.739E+00	4.550E+00	4.056E-01	0.067
NA-24		1368.53	*	-1.112E+00	2.739E+00	Half-Life too short		
AL-26		1129.67		-3.283E+01	9.995E+01	1.520E+02	1.369E+01	-0.216

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1808.65	*	-1.419E+00	2.677E+00	3.727E+00	3.137E-01	-0.381
TI-44		67.85		-1.469E+00	4.895E+00	6.829E+00	5.885E-01	-0.215
	+	78.38	*	2.362E+00	4.832E+00	4.603E+00	4.123E-01	0.513
SC-46		889.25	*	-2.560E+00	2.814E+00	3.940E+00	4.104E-01	-0.650
	+	1120.51		6.285E+00	4.603E+00	7.356E+00	6.688E-01	0.854
V-48		944.10		-3.545E+00	5.373E+01	8.825E+01	9.099E+00	-0.040
		983.50	*	-2.095E+00	4.312E+00	6.463E+00	6.530E-01	-0.324
		1312.09		2.587E+00	5.043E+00	9.040E+00	8.147E-01	0.286
CR-51		320.08	*	2.071E+01	2.911E+01	4.960E+01	5.323E+00	0.418
MN-52		744.21		4.250E+00	1.340E+01	2.263E+01	2.028E+00	0.188
		848.13		-2.862E+02	3.754E+02	5.461E+02	5.462E+01	-0.524
		935.52		-7.874E+00	1.441E+01	2.171E+01	2.247E+00	-0.363
		1246.25		1.614E+02	3.234E+02	5.808E+02	5.123E+01	0.278
		1333.61		-1.166E+02	2.432E+02	3.385E+02	3.069E+01	-0.344
		1434.06	*	2.102E+00	1.351E+01	2.255E+01	2.048E+00	0.093
MN-54		834.83	*	-3.331E-01	2.082E+00	3.390E+00	3.345E-01	-0.098
CO-56		846.75	*	7.524E-01	2.667E+00	4.668E+00	4.662E-01	0.161
		977.42		3.896E+01	1.675E+02	2.909E+02	2.950E+01	0.134
		1037.82		-7.286E+00	2.032E+01	3.116E+01	3.168E+00	-0.234
		1175.09		-1.198E+02	1.182E+02	1.404E+02	1.205E+01	-0.853
	+	1238.25		5.390E+00	5.476E+00	9.699E+00	8.769E-01	0.556
		1360.21		-2.961E+01	6.763E+01	9.628E+01	8.741E+00	-0.308
		1771.40		2.472E+00	2.215E+01	3.745E+01	3.195E+00	0.066
CO-57		122.06	*	-1.413E+00	2.350E+00	3.767E+00	3.518E-01	-0.375
		136.48		-2.095E+01	2.076E+01	2.777E+01	2.632E+00	-0.754
CO-58		810.76	*	-1.319E+00	3.034E+00	4.789E+00	4.619E-01	-0.275
FE-59		142.65		-3.113E+01	2.611E+02	3.801E+02	3.308E+01	-0.082
		192.34		-2.973E+01	8.198E+01	1.301E+02	1.767E+01	-0.228
		1099.22	*	7.798E-02	5.196E+00	8.560E+00	8.501E-01	0.009
		1291.56		7.867E+00	7.450E+00	1.468E+01	1.480E+00	0.536
CO-60		1173.22		1.200E+00	2.067E+00	3.858E+00	3.311E-01	0.311
		1332.49	*	-1.333E+00	2.638E+00	3.704E+00	3.358E-01	-0.360
ZN-65		1115.52	*	3.640E+00	4.751E+00	8.432E+00	7.712E-01	0.432
GE-68		1077.35	*	-6.146E+01	7.013E+01	8.964E+01	8.480E+00	-0.686
AS-73		53.44	*	3.199E+01	7.878E+01	1.283E+02	1.174E+01	0.249
AS-74		595.88	*	5.921E+00	6.574E+00	1.195E+01	9.976E-01	0.495
		634.78		1.345E+01	2.612E+01	4.538E+01	3.740E+00	0.296
SE-75		66.05		1.190E+02	5.484E+02	8.044E+02	8.383E+01	0.148
		96.73		-5.499E+01	6.935E+01	1.106E+02	1.546E+01	-0.497
		121.11		3.875E+00	1.237E+01	2.116E+01	2.487E+00	0.183
		136.00		-2.575E+00	3.719E+00	5.156E+00	4.600E-01	-0.499
		198.60		6.391E+01	1.787E+02	2.895E+02	2.872E+01	0.221
		264.65	*	1.404E+00	3.980E+00	6.579E+00	7.118E-01	0.213
		279.53		-1.516E+00	9.270E+00	1.457E+01	1.667E+00	-0.104
		303.91		4.280E+01	1.766E+02	2.874E+02	3.773E+01	0.149
		400.65		-1.038E+01	1.987E+01	3.139E+01	3.378E+00	-0.331
BR-77		87.88		2.674E+03	8.122E+03	1.409E+04	1.350E+03	0.190
		200.40		-8.365E+03	8.915E+03	1.345E+04	1.219E+03	-0.622
	+	239.00		3.794E+01	9.116E+02	9.884E+02	9.957E+01	0.038

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		249.79		-3.018E+03	3.372E+03	4.928E+03	5.111E+02	-0.612
		281.68		-3.504E+02	4.657E+03	7.381E+03	8.232E+02	-0.047
		297.23		9.888E+02	2.906E+03	4.291E+03	4.659E+02	0.230
		303.76		2.009E+03	8.785E+03	1.429E+04	1.532E+03	0.141
		439.47		3.205E+03	6.892E+03	1.204E+04	9.987E+02	0.266
		484.57		-1.543E+03	1.011E+04	1.641E+04	1.377E+03	-0.094
		520.65	*	7.371E-01	4.347E+02	7.161E+02	6.028E+01	0.001
		574.64		5.817E+02	9.404E+03	1.550E+04	1.300E+03	0.038
		578.91		-1.440E+03	3.795E+03	5.868E+03	4.916E+02	-0.245
		585.48		-3.492E+03	8.022E+03	1.237E+04	1.035E+03	-0.282
		755.35		6.071E+03	6.661E+03	1.227E+04	1.113E+03	0.495
		817.79		-1.928E+03	5.462E+03	8.659E+03	8.395E+02	-0.223
SR-82		698.33		-1.150E+02	2.385E+03	3.812E+03	3.241E+02	-0.030
		776.49	*	-3.888E+00	2.301E+01	3.547E+01	3.291E+00	-0.110
		1395.20		-5.258E+02	7.520E+02	9.727E+02	8.838E+01	-0.541
RB-83		520.41	*	1.732E-01	4.865E+00	8.052E+00	6.778E-01	0.022
		529.64		-5.147E-01	8.387E+00	1.369E+01	1.152E+00	-0.038
		552.65		6.985E+00	1.449E+01	2.530E+01	2.127E+00	0.276
RB-84		881.50	*	-2.448E+00	4.824E+00	7.367E+00	7.616E-01	-0.332
KR-85		513.99	*	-2.194E+03	8.266E+02	9.978E+02	8.397E+01	-2.198
SR-85		513.99	*	-1.103E+01	4.157E+00	5.018E+00	4.223E-01	-2.198
RB-86		1076.63	*	-2.010E+01	4.319E+01	6.348E+01	6.009E+00	-0.317
Y-88		898.02		1.672E+00	3.369E+00	5.995E+00	6.318E-01	0.279
		1836.01	*	-7.919E-01	2.238E+00	3.183E+00	2.653E-01	-0.249
ZR-88		392.90	*	2.065E-01	2.226E+00	3.776E+00	3.067E-01	0.055
Y-91		1204.90	*	-7.460E+01	9.585E+02	1.534E+03	1.333E+02	-0.049
NB-94		702.63	*	-3.761E-01	2.509E+00	3.944E+00	3.370E-01	-0.095
		871.10		2.489E-01	2.429E+00	4.131E+00	4.227E-01	0.060
NB-95		765.79	*	-9.213E-01	3.703E+00	5.493E+00	5.040E-01	-0.168
NB-95M		235.69	*	3.432E+00	1.011E+01	1.516E+01	1.679E+00	0.226
ZR-95		724.18		-1.885E+00	6.054E+00	9.174E+00	8.709E-01	-0.205
		756.15	*	2.274E+00	4.730E+00	8.203E+00	8.130E-01	0.277
NB-97		657.90	*	-1.188E+00	4.730E+00	Half-Life too short		
		1024.50		-4.269E+01	4.730E+00	Half-Life too short		
ZR-97		254.15		9.796E+01	4.730E+00	Half-Life too short		
		355.39		1.416E+01	4.730E+00	Half-Life too short		
		507.63	*	-1.613E+02	4.730E+00	Half-Life too short		
		602.52		4.450E+01	4.730E+00	Half-Life too short		
		1021.30		8.983E+00	4.730E+00	Half-Life too short		
		1147.95		-1.762E+00	4.730E+00	Half-Life too short		
		1362.66		4.932E+01	4.730E+00	Half-Life too short		
		1750.46		1.167E+02	4.730E+00	Half-Life too short		
MO-99	+	140.51		2.448E+03	2.455E+03	2.727E+03	7.562E+02	0.898
		181.06		-2.594E+02	1.015E+03	1.448E+03	2.647E+02	-0.179
		366.43		-3.487E+02	3.635E+03	6.061E+03	5.462E+02	-0.058
		739.58	*	1.153E+02	6.200E+02	1.020E+03	1.566E+02	0.113
		778.00		-5.012E+02	1.376E+03	2.029E+03	1.886E+02	-0.247
TC-99M	+	140.51	*	3.508E+10	1.376E+03	Half-Life too short		
RH-101		127.23		7.838E-03	2.867E+00	4.794E+00	4.378E-01	0.002

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		198.01	*	1.456E+00	3.310E+00	5.391E+00	4.853E-01	0.270
		325.23		-1.556E+01	1.849E+01	2.622E+01	2.679E+00	-0.593
RH-102		418.52		-1.019E+01	2.080E+01	3.267E+01	2.688E+00	-0.312
		475.06	*	-8.195E-01	2.279E+00	3.608E+00	3.022E-01	-0.227
		631.29		-1.286E+00	3.967E+00	6.101E+00	5.034E-01	-0.211
		697.49		1.754E+00	5.693E+00	9.590E+00	8.146E-01	0.183
		766.84		-1.527E+00	8.513E+00	1.279E+01	1.175E+00	-0.119
		1046.59		5.932E+00	7.899E+00	1.465E+01	1.421E+00	0.405
		1112.84		-1.439E+01	1.363E+01	1.568E+01	1.437E+00	-0.918
RU-103		497.08	*	-9.688E-01	3.493E+00	4.811E+00	6.750E-01	-0.201
	+	610.33		3.103E+02	1.162E+02	1.612E+02	2.664E+01	1.925
RH-106		511.85		-3.796E+01	2.196E+01	3.861E+01	3.249E+00	-0.983
		621.84	*	-8.812E+00	2.409E+01	3.693E+01	4.853E+00	-0.239
		1050.47		-4.056E+01	1.651E+02	2.602E+02	2.516E+01	-0.156
RU-106		511.85		-3.796E+01	2.196E+01	3.861E+01	3.249E+00	-0.983
		621.84	*	-8.812E+00	2.407E+01	3.693E+01	3.058E+00	-0.239
		1050.47		-4.056E+01	1.651E+02	2.602E+02	2.516E+01	-0.156
AG-108M		433.93	*	-6.907E-01	2.862E+00	4.573E+00	3.948E-01	-0.151
		614.37		-3.053E-02	2.973E+00	4.221E+00	3.652E-01	-0.007
		722.95		-2.404E+00	3.129E+00	4.094E+00	3.717E-01	-0.587
CD-109		88.03	*	-9.732E+00	6.481E+01	1.091E+02	1.046E+01	-0.089
AG-110M		657.75	*	-2.618E+00	2.735E+00	3.748E+00	3.158E-01	-0.699
		677.61		2.153E+00	1.844E+01	3.044E+01	2.602E+00	0.071
		706.67		1.126E+00	1.548E+01	2.518E+01	2.222E+00	0.045
		763.93		-2.091E+00	1.210E+01	1.879E+01	1.764E+00	-0.111
		884.67		-4.692E-01	3.282E+00	5.347E+00	5.668E-01	-0.088
		937.48		-4.293E+00	7.283E+00	1.076E+01	1.140E+00	-0.399
		1384.27		6.220E-01	9.702E+00	1.590E+01	1.481E+00	0.039
IN-111		171.28		-2.634E+00	5.710E+01	9.365E+01	7.864E+00	-0.028
		245.39	*	2.471E+01	6.083E+01	1.013E+02	1.038E+01	0.244
IN-113M		391.69	*	3.776E-01	3.197E+00	5.439E+00	4.569E-01	0.069
SN-113		391.69	*	3.776E-01	3.197E+00	5.439E+00	4.569E-01	0.069
IN-114M		190.27	*	2.155E+00	1.680E+01	2.489E+01	2.194E+00	0.087
CD-115		260.90		-1.452E+03	6.621E+03	1.041E+04	1.111E+03	-0.140
		492.35		9.362E+02	1.568E+03	2.778E+03	2.333E+02	0.337
		527.90	*	-9.627E+01	4.852E+02	7.775E+02	6.545E+01	-0.124
SN-117M		156.02		-2.518E+01	1.983E+02	3.253E+02	2.748E+01	-0.077
		158.56	*	-1.753E-01	4.733E+00	7.802E+00	6.557E-01	-0.022
SB-122		563.90	*	-3.424E+00	8.859E+01	1.339E+02	1.125E+01	-0.026
		692.80		-1.807E+03	1.973E+03	2.665E+03	2.251E+02	-0.678
I-123		159.00	*	-1.760E+01	1.973E+03	Half-Life too short		
		528.96		5.429E+02	1.973E+03	Half-Life too short		
TE-123M		159.00	*	-8.843E-01	2.712E+00	4.382E+00	3.703E-01	-0.202
I-124		602.71	*	1.538E+01	3.895E+01	5.988E+01	4.989E+00	0.257
		722.78		-1.979E+02	2.446E+02	3.186E+02	2.786E+01	-0.621
		1325.50		8.437E+01	1.809E+03	2.954E+03	2.673E+02	0.029
		1376.25		1.734E+03	1.734E+03	3.322E+03	3.017E+02	0.522
		1509.49		8.712E+02	8.909E+02	1.765E+03	1.596E+02	0.494
		1691.02		-1.516E+02	1.822E+02	2.006E+02	1.754E+01	-0.756

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
SB-124		602.71		1.187E+00	3.007E+00	4.623E+00	3.852E-01	0.257
		645.85		-4.066E+00	3.642E+01	5.798E+01	5.069E+00	-0.070
		709.31		7.956E+01	2.141E+02	3.628E+02	3.124E+01	0.219
		713.82		-3.214E+00	1.184E+02	1.894E+02	2.286E+01	-0.017
		722.78		-2.215E+01	2.738E+01	3.565E+01	3.183E+00	-0.621
		968.20		-7.284E+01	1.894E+02	2.870E+02	2.924E+01	-0.254
		1045.16		1.911E+01	1.739E+02	2.922E+02	2.836E+01	0.065
		1325.50		1.008E+01	2.163E+02	3.531E+02	3.195E+01	0.029
		1368.21		-2.876E+01	1.327E+02	2.030E+02	2.796E+01	-0.142
		1436.60		-1.880E+02	2.618E+02	3.616E+02	3.283E+01	-0.520
		1691.02	*	-4.002E+00	4.809E+00	5.295E+00	4.808E-01	-0.756
SB-125		427.89	*	-1.670E+00	6.907E+00	1.120E+01	9.445E-01	-0.149
		463.38		-1.824E-01	1.983E+01	3.288E+01	2.975E+00	-0.006
		600.56		-1.131E-01	1.373E+01	2.234E+01	2.009E+00	-0.005
		635.90		1.992E+01	2.089E+01	3.827E+01	3.430E+00	0.521
TE-125M		109.28	*	2.657E+02	8.377E+02	1.439E+03	1.539E+02	0.185
I-126		388.63		2.839E+00	1.333E+01	2.292E+01	1.887E+00	0.124
		666.33	*	-2.622E+00	1.050E+01	1.620E+01	1.326E+00	-0.162
		753.82		2.249E+01	9.545E+01	1.589E+02	1.438E+01	0.142
SB-126		223.80		5.847E+01	3.045E+02	5.015E+02	4.846E+01	0.117
		278.60		-1.127E+01	2.036E+02	3.057E+02	3.417E+01	-0.037
		296.50		6.742E+01	1.308E+02	1.957E+02	2.128E+01	0.344
		414.70		2.128E+00	5.006E+00	8.768E+00	7.200E-01	0.243
		415.30		1.714E+02	4.224E+02	7.379E+02	6.062E+01	0.232
		555.20		-1.342E+01	2.629E+02	4.277E+02	3.596E+01	-0.031
		573.80		3.196E+01	7.195E+01	1.245E+02	1.044E+01	0.257
		593.00		-7.086E+01	6.782E+01	9.344E+01	7.804E+00	-0.758
		656.30		7.271E+01	2.095E+02	3.578E+02	2.920E+01	0.203
		666.33		-1.091E+00	4.369E+00	6.742E+00	5.519E-01	-0.162
		675.00		-4.347E+01	1.205E+02	1.818E+02	1.504E+01	-0.239
		695.00		2.030E+00	4.796E+00	8.252E+00	6.989E-01	0.246
		697.00		-1.879E+00	1.859E+01	2.948E+01	2.503E+00	-0.064
		720.50	*	3.311E-01	9.506E+00	1.455E+01	1.269E+00	0.023
		856.80		-1.583E+01	2.764E+01	4.159E+01	4.196E+00	-0.381
		989.30		1.045E+01	7.376E+01	1.254E+02	1.263E+01	0.083
		1034.80		-2.507E+02	5.580E+02	8.428E+02	8.242E+01	-0.297
		1213.00		1.027E+02	2.430E+02	4.285E+02	3.735E+01	0.240
SN-126	+	64.28		5.384E+00	7.752E+01	8.626E+01	1.309E+01	0.062
		86.94		2.178E+01	2.862E+01	4.846E+01	2.014E+01	0.449
		87.57	*	5.113E+00	6.439E+00	1.146E+01	1.095E+00	0.446
SB-127		61.10		2.538E+02	4.021E+03	5.801E+03	6.166E+02	0.044
		252.40		1.029E+02	2.710E+02	4.456E+02	1.885E+02	0.231
		290.80		-3.904E+02	1.425E+03	1.939E+03	2.449E+02	-0.201
		411.60		-2.657E+01	5.933E+02	9.877E+02	1.494E+02	-0.027
		444.90		-2.164E+02	5.631E+02	8.952E+02	1.060E+02	-0.242
		473.00		-2.924E+01	9.601E+01	1.533E+02	1.876E+01	-0.191
		543.00		-3.227E+02	8.920E+02	1.388E+03	1.924E+02	-0.233
		603.60		-9.442E+01	6.990E+02	9.697E+02	1.148E+02	-0.097
		685.20	*	5.300E-01	6.819E+01	1.101E+02	1.175E+01	0.005

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		698.50		-2.190E+02	8.326E+02	1.286E+03	1.978E+02	-0.170
		722.20		-1.476E+03	1.620E+03	2.043E+03	2.193E+02	-0.722
		783.80		2.033E+02	1.798E+02	3.379E+02	4.219E+01	0.602
XE-127		57.60		3.003E+02	5.175E+02	8.548E+02	7.497E+01	0.351
		145.22		-3.517E+01	6.106E+01	9.723E+01	8.408E+00	-0.362
		172.10		-1.187E+01	1.071E+01	1.607E+01	1.352E+00	-0.739
		202.84	*	-6.253E-01	3.881E+00	6.244E+00	5.695E-01	-0.100
		374.96		-1.667E+00	1.379E+01	2.291E+01	1.999E+00	-0.073
I-131		80.18		2.411E+01	3.366E+02	5.212E+02	4.740E+01	0.046
		284.30		4.617E+01	1.107E+02	1.837E+02	2.103E+01	0.251
		364.48	*	-2.859E+00	7.088E+00	1.141E+01	1.085E+00	-0.251
		636.97		7.491E+01	9.860E+01	1.772E+02	1.546E+01	0.423
		722.89		-3.764E+02	4.557E+02	5.907E+02	5.191E+01	-0.637
TE-132		49.72		4.699E+01	1.334E+03	2.105E+03	2.335E+02	0.022
		111.76		-5.198E+01	1.791E+03	3.007E+03	3.243E+02	-0.017
		116.30		7.378E+02	1.715E+03	2.958E+03	3.211E+02	0.249
		228.16	*	1.468E+01	3.885E+01	6.484E+01	1.042E+01	0.226
BA-133		53.15		1.356E+02	3.492E+02	5.678E+02	5.211E+01	0.239
		79.62		-8.218E+01	1.150E+02	1.645E+02	2.542E+01	-0.500
		81.00		6.960E+00	8.072E+00	1.388E+01	2.240E+00	0.502
		276.40		-1.530E+01	3.381E+01	4.859E+01	7.805E+00	-0.315
		302.84		-1.898E+00	1.205E+01	1.881E+01	2.776E+00	-0.101
		356.01	*	2.028E+00	3.306E+00	5.375E+00	7.356E-01	0.377
		383.85		-6.496E-03	2.018E+01	3.393E+01	4.227E+00	0.000
I-133		510.53		-9.478E+00	2.018E+01	Half-Life too short		
		529.87	*	4.361E-02	2.018E+01	Half-Life too short		
		706.58		2.411E-01	2.018E+01	Half-Life too short		
		856.28		-8.046E+00	2.018E+01	Half-Life too short		
		875.33		1.061E-01	2.018E+01	Half-Life too short		
	+	1236.41		9.117E+00	2.018E+01	Half-Life too short		
		1298.22		3.629E-01	2.018E+01	Half-Life too short		
CS-134		475.35		-4.280E+01	1.480E+02	2.365E+02	1.981E+01	-0.181
		563.23		4.511E+00	2.386E+01	3.731E+01	3.165E+00	0.121
		569.32		3.306E+00	1.501E+01	2.527E+01	2.151E+00	0.131
		604.70		-2.949E-01	2.729E+00	3.805E+00	3.177E-01	-0.078
		795.84	*	-1.021E+00	2.841E+00	4.493E+00	4.283E-01	-0.227
		801.93		6.793E+00	2.856E+01	4.970E+01	4.761E+00	0.137
		1038.57		-5.993E+00	2.455E+02	4.031E+02	3.931E+01	-0.015
		1167.94		-1.362E+02	1.756E+02	2.444E+02	2.110E+01	-0.557
		1365.15		-9.719E+00	9.245E+01	1.453E+02	1.374E+01	-0.067
CS-135		268.24	*	-1.245E+01	1.443E+01	2.114E+01	2.533E+00	-0.589
I-135		288.45		1.265E+10	1.443E+01	Half-Life too short		
		417.63		2.800E+09	1.443E+01	Half-Life too short		
		546.56		-3.437E+09	1.443E+01	Half-Life too short		
		836.80		3.969E+09	1.443E+01	Half-Life too short		
		1038.76		-2.116E+09	1.443E+01	Half-Life too short		
		1124.00		1.047E+10	1.443E+01	Half-Life too short		
		1131.51		1.227E+09	1.443E+01	Half-Life too short		
		1260.41	*	-5.213E+08	1.443E+01	Half-Life too short		

---- Non-Identified Nuclides ----

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		1457.56		1.615E+10	1.443E+01	Half-Life too short		
		1678.03		2.647E+09	1.443E+01	Half-Life too short		
		1706.46		9.407E+09	1.443E+01	Half-Life too short		
		1791.20		-5.042E+09	1.443E+01	Half-Life too short		
CS-136		66.91		7.284E+01	7.551E+01	1.175E+02	1.813E+01	0.620
		86.29		5.078E+01	7.845E+01	1.383E+02	1.857E+01	0.367
		153.22		-3.745E+00	5.414E+01	8.921E+01	8.494E+00	-0.042
		163.89		4.651E+00	8.783E+01	1.455E+02	1.366E+01	0.032
		176.55		4.151E-01	2.911E+01	4.789E+01	4.314E+00	0.009
		273.65		-4.511E+01	3.621E+01	5.025E+01	5.772E+00	-0.898
		340.57		-4.685E+00	8.478E+00	1.359E+01	1.362E+00	-0.345
		818.51		-2.667E+00	4.683E+00	7.120E+00	6.912E-01	-0.375
		1048.07	*	4.259E+00	6.823E+00	1.242E+01	1.243E+00	0.343
		1235.34		2.647E+01	3.043E+01	5.328E+01	6.377E+00	0.497
BA-137M		661.65	*	1.029E+00	2.595E+00	4.445E+00	3.619E-01	0.231
CS-137		661.65	*	1.087E+00	2.743E+00	4.699E+00	3.833E-01	0.231
CE-139		165.85	*	-1.430E+00	2.602E+00	4.109E+00	3.408E-01	-0.348
BA-140		162.64		2.932E+01	6.336E+01	1.078E+02	9.549E+00	0.272
		304.84		3.644E+01	1.016E+02	1.663E+02	4.779E+01	0.219
		423.70		4.790E+01	1.332E+02	2.299E+02	7.429E+01	0.208
		537.32	*	-1.579E+01	1.973E+01	2.779E+01	9.197E+00	-0.568
LA-140		328.77		4.665E+00	2.179E+01	3.524E+01	3.714E+00	0.132
		432.53		1.797E+01	1.621E+02	2.690E+02	2.343E+01	0.067
		487.03		6.730E+00	9.300E+00	1.673E+01	1.496E+00	0.402
		751.79		-5.059E+01	1.152E+02	1.701E+02	1.687E+01	-0.297
		815.85		1.137E+01	2.150E+01	3.883E+01	4.104E+00	0.293
		867.82		6.760E+01	8.700E+01	1.626E+02	1.722E+01	0.416
		919.63		1.552E+01	1.380E+02	2.354E+02	2.861E+01	0.066
		925.24		-3.147E+01	7.449E+01	1.151E+02	1.249E+01	-0.273
		1596.49	*	3.800E-01	6.578E+00	1.108E+01	9.894E-01	0.034
CE-141		145.44	*	-3.176E+00	5.517E+00	8.785E+00	7.730E-01	-0.362
CE-143		57.37		-7.483E-03	5.517E+00	Half-Life too short		
		231.56		-2.595E-02	5.517E+00	Half-Life too short		
		293.26	*	3.240E-03	5.517E+00	Half-Life too short		
	+	350.59		2.171E-01	5.517E+00	Half-Life too short		
		490.36		-1.026E-01	5.517E+00	Half-Life too short		
		664.57		-3.620E-02	5.517E+00	Half-Life too short		
		721.93		-3.529E-02	5.517E+00	Half-Life too short		
CE-144		80.11		9.407E+00	1.806E+02	2.791E+02	2.526E+01	0.034
		133.54	*	9.341E+00	1.809E+01	3.115E+01	4.903E+00	0.300
PM-144		476.78		9.760E-01	5.303E+00	8.978E+00	8.264E-01	0.109
		618.01		2.175E-01	2.430E+00	4.001E+00	3.416E-01	0.054
		696.49	*	2.124E-01	2.532E+00	4.131E+00	3.506E-01	0.051
		778.57		-1.798E+02	1.579E+02	1.896E+02	1.764E+01	-0.948
PR-144		696.49	*	1.438E+01	1.714E+02	2.797E+02	2.373E+01	0.051
		1489.15		-3.288E+02	9.432E+02	1.455E+03	1.317E+02	-0.226
PM-146		453.90	*	1.841E+00	3.437E+00	6.049E+00	6.347E-01	0.304
		633.02		3.058E+01	1.036E+02	1.745E+02	6.507E+01	0.175
		735.90		4.391E+00	1.157E+01	1.954E+01	5.604E+00	0.225

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		747.13		9.022E-01	6.847E+00	1.120E+01	1.598E+00	0.081
ND-147		91.11		1.094E+01	2.078E+01	3.628E+01	3.646E+00	0.302
		319.41		6.206E+01	2.515E+02	4.088E+02	4.236E+01	0.152
		439.89		-3.061E+01	4.467E+02	7.392E+02	6.132E+01	-0.041
		531.02	*	3.892E+00	3.870E+01	6.447E+01	9.563E+00	0.060
PM-149		285.90	*	-4.831E+03	4.669E+03	6.530E+03	1.112E+03	-0.740
EU-152		121.78		-1.388E+00	6.814E+00	1.125E+01	1.187E+00	-0.123
		244.69		-1.360E+01	3.113E+01	4.830E+01	4.941E+00	-0.282
		344.27	*	-2.933E+00	7.630E+00	1.243E+01	1.263E+00	-0.236
		443.98		-1.112E+01	7.680E+01	1.258E+02	1.045E+01	-0.088
		778.89		-2.179E+01	1.813E+01	2.123E+01	1.975E+00	-1.026
		867.32		2.615E+01	5.866E+01	1.048E+02	1.069E+01	0.249
		964.01		1.396E+00	1.918E+01	3.221E+01	3.289E+00	0.043
		1085.78		-5.212E+00	2.745E+01	4.352E+01	4.087E+00	-0.120
		1112.02		-2.026E+01	2.040E+01	2.624E+01	2.405E+00	-0.772
		1407.95		2.518E+00	1.325E+01	2.225E+01	2.022E+00	0.113
GD-153		69.67		-1.338E+02	1.316E+02	2.092E+02	1.809E+01	-0.639
		83.37		-8.643E+02	1.298E+03	2.001E+03	1.851E+02	-0.432
		97.43	*	-4.789E+00	6.723E+00	1.079E+01	9.863E-01	-0.444
		103.18		-2.771E+00	8.523E+00	1.403E+01	1.271E+00	-0.197
EU-154		123.07		-4.698E+00	4.702E+00	7.250E+00	8.614E-01	-0.648
		247.94		-5.773E+00	3.219E+01	5.096E+01	6.524E+00	-0.113
		591.81		-6.558E+01	5.134E+01	6.732E+01	7.725E+00	-0.974
		723.30		-9.200E+00	1.244E+01	1.736E+01	1.674E+00	-0.530
		756.87		7.950E-02	5.499E+01	8.798E+01	1.084E+01	0.001
		873.19		-2.478E+01	2.195E+01	2.906E+01	3.906E+00	-0.853
		996.32		-1.422E+01	2.433E+01	3.547E+01	6.559E+00	-0.401
		1004.76		-1.564E+01	1.513E+01	1.990E+01	2.523E+00	-0.786
		1274.45	*	-4.490E-02	7.833E+00	1.269E+01	1.463E+00	-0.004
EU-155		48.70		-5.711E+01	2.699E+02	4.166E+02	3.959E+01	-0.137
		60.01		3.621E+02	4.783E+02	7.440E+02	6.416E+01	0.487
		86.54		8.226E+00	7.842E+00	1.414E+01	1.351E+00	0.582
		105.31	*	1.258E+00	9.336E+00	1.589E+01	1.454E+00	0.079
TB-160		86.79		2.153E+01	2.053E+01	3.701E+01	3.514E+00	0.582
		197.04		1.400E+01	5.522E+01	8.886E+01	7.978E+00	0.158
		215.65		-6.619E+00	6.113E+01	9.834E+01	9.293E+00	-0.067
		298.57		7.213E+00	9.854E+00	1.527E+01	1.654E+00	0.472
		879.36	*	2.921E+00	9.851E+00	1.723E+01	1.777E+00	0.170
		962.29		7.882E+00	3.384E+01	5.826E+01	5.954E+00	0.135
		966.15		-6.270E+00	1.246E+01	1.885E+01	1.922E+00	-0.333
		1177.93		5.831E+00	1.648E+01	2.930E+01	2.519E+00	0.199
		1271.85		2.794E+01	4.856E+01	8.726E+01	7.765E+00	0.320
HO-166M		80.57		6.558E+00	2.356E+01	3.711E+01	3.368E+00	0.177
	+	184.41		1.322E+00	4.764E+00	5.362E+00	4.654E-01	0.247
		280.46		-5.243E+00	7.586E+00	1.125E+01	1.258E+00	-0.466
		410.95		-3.951E-01	1.603E+01	2.675E+01	2.193E+00	-0.015
		711.68	*	4.794E-01	4.862E+00	7.930E+00	6.847E-01	0.060
		752.31		-1.219E+01	2.098E+01	3.017E+01	2.727E+00	-0.404
		810.29		-1.804E+00	4.682E+00	7.450E+00	7.167E-01	-0.242

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TM-171		51.35		-1.329E+03	3.087E+03	4.636E+03	4.331E+02	-0.287
		52.39		8.994E+02	1.528E+03	2.531E+03	2.341E+02	0.355
		59.40		2.328E+03	2.367E+03	4.024E+03	3.475E+02	0.579
		66.72	*	4.473E+02	3.224E+03	4.695E+03	4.041E+02	0.095
HF-175		89.36		-2.914E+02	1.240E+02	1.742E+02	1.654E+01	-1.673
		343.40	*	1.699E-01	2.708E+00	4.613E+00	4.486E-01	0.037
		433.00		2.495E+01	1.802E+02	2.997E+02	2.480E+01	0.083
LU-176		88.36		-1.836E+00	1.452E+01	2.448E+01	2.341E+00	-0.075
		201.83		-7.760E-01	2.456E+00	3.901E+00	3.549E-01	-0.199
		306.84	*	1.302E+00	2.204E+00	3.701E+00	3.944E-01	0.352
		401.10		-4.295E+02	5.255E+02	8.003E+02	6.529E+01	-0.537
LU-177		112.95		-4.264E+01	1.209E+02	1.982E+02	1.806E+01	-0.215
		208.36	*	5.621E-01	7.181E+01	1.169E+02	1.083E+01	0.005
LU-177M		52.97		6.103E+01	1.571E+02	2.555E+02	2.349E+01	0.239
		54.07		-2.063E+00	8.192E+01	1.280E+02	1.164E+01	-0.016
		61.30		2.118E+01	1.441E+02	2.099E+02	1.807E+01	0.101
		121.62		3.365E+00	3.411E+01	5.754E+01	5.359E+00	0.058
		147.16		5.924E+01	5.889E+01	1.039E+02	8.939E+00	0.570
		171.86		-4.226E+01	4.478E+01	6.833E+01	5.745E+00	-0.618
		218.09		3.833E+00	7.492E+01	1.221E+02	1.162E+01	0.031
		268.79		-1.191E+01	6.922E+01	1.091E+02	1.189E+01	-0.109
		319.02		-1.939E+00	2.164E+01	3.391E+01	3.517E+00	-0.057
		367.43		-8.976E+00	6.448E+01	1.070E+02	9.610E+00	-0.084
		413.65	*	-5.724E+00	1.261E+01	1.994E+01	1.637E+00	-0.287
HF-181		56.28		3.426E+01	8.307E+01	1.352E+02	1.201E+01	0.253
		57.53		2.387E+01	4.365E+01	7.190E+01	6.310E+00	0.332
		65.20		-8.966E+01	1.120E+02	1.490E+02	1.281E+01	-0.602
		133.02		5.175E+00	5.635E+00	9.954E+00	8.906E-01	0.520
		136.25		-4.676E+01	4.421E+01	5.879E+01	5.207E+00	-0.795
		345.85		7.266E-01	1.451E+01	2.390E+01	2.307E+00	0.030
		482.03	*	-1.399E+00	3.140E+00	4.897E+00	4.106E-01	-0.286
W-181		56.28		1.365E+01	3.315E+01	5.397E+01	4.795E+00	0.253
		57.53		9.518E+00	1.744E+01	2.872E+01	2.520E+00	0.331
		65.20	*	-3.553E+01	4.437E+01	5.905E+01	5.078E+00	-0.602
TA-182		67.75		-2.407E+00	1.162E+01	1.638E+01	1.411E+00	-0.147
		100.10		1.529E+01	1.484E+01	2.675E+01	2.432E+00	0.572
		152.43		5.195E+00	3.029E+01	5.075E+01	4.318E+00	0.102
		222.10		-1.519E+01	2.937E+01	4.540E+01	4.367E+00	-0.334
		1001.68		8.998E+01	1.388E+02	2.534E+02	2.533E+01	0.355
	+	1121.28		1.743E+01	1.277E+01	2.096E+01	1.904E+00	0.832
		1189.05		1.191E+01	1.953E+01	3.530E+01	3.048E+00	0.337
		1221.42	*	1.699E+00	1.143E+01	1.915E+01	1.674E+00	0.089
		1230.97		1.834E+01	2.444E+01	4.369E+01	3.833E+00	0.420
RE-183		57.98		-3.566E+00	1.891E+01	2.901E+01	2.535E+00	-0.123
		59.32		4.352E+00	9.908E+00	1.608E+01	1.390E+00	0.271
		67.20		1.890E+01	2.012E+01	3.156E+01	2.717E+00	0.599
		162.32	*	7.227E+00	1.009E+01	1.744E+01	1.455E+00	0.414
		208.81		1.687E+01	7.383E+01	1.225E+02	1.136E+01	0.138
		291.72		-3.002E+01	8.322E+01	1.115E+02	1.224E+01	-0.269

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RE-184		57.98		-1.328E+01	7.043E+01	1.080E+02	9.443E+00	-0.123
		59.32		1.620E+01	3.687E+01	5.986E+01	5.172E+00	0.271
		67.20		7.037E+01	7.491E+01	1.175E+02	1.012E+01	0.599
		161.27		1.675E+01	3.299E+01	5.631E+01	4.708E+00	0.298
		216.55		1.109E+01	2.220E+01	3.750E+01	3.553E+00	0.296
		252.85	*	6.602E+00	2.039E+01	3.373E+01	3.527E+00	0.196
		318.01		4.942E+00	3.836E+01	6.160E+01	6.404E+00	0.080
		792.07		2.342E+00	6.103E+01	1.035E+02	9.768E+00	0.023
		903.28		-6.751E+01	7.572E+01	1.077E+02	1.129E+01	-0.627
		920.93		-1.748E+01	2.589E+01	3.658E+01	3.810E+00	-0.478
OS-185		59.72		3.506E+01	2.698E+01	4.434E+01	3.825E+00	0.791
		61.14		1.257E+00	1.573E+01	2.273E+01	1.958E+00	0.055
		69.30		-3.585E+01	2.417E+01	3.697E+01	3.194E+00	-0.970
		592.07		-2.913E+02	2.026E+02	2.567E+02	2.144E+01	-1.135
		646.12	*	-2.150E-02	3.022E+00	4.891E+00	4.011E-01	-0.004
		717.42		2.862E+00	6.474E+01	1.048E+02	9.106E+00	0.027
		874.81		-3.064E+01	4.079E+01	5.910E+01	6.069E+00	-0.519
		880.27		7.220E+00	5.502E+01	9.390E+01	9.696E+00	0.077
RE-188		155.03	*	-3.522E+00	1.552E+01	2.527E+01	2.139E+00	-0.139
		477.96		2.356E+02	2.286E+02	4.234E+02	3.548E+01	0.556
		633.10		6.363E+01	2.049E+02	3.478E+02	2.868E+01	0.183
W-188	+	63.58		5.368E+02	7.728E+03	9.153E+03	7.870E+02	0.059
		227.08		-7.695E+02	1.079E+03	1.632E+03	1.591E+02	-0.472
		290.67	*	-2.065E+02	6.729E+02	9.110E+02	1.001E+02	-0.227
IR-192	+	295.96		1.421E+01	1.165E+01	1.724E+01	1.885E+00	0.824
		308.46		-1.933E+00	8.144E+00	1.258E+01	1.341E+00	-0.154
		316.51	*	4.725E-01	2.793E+00	4.509E+00	4.711E-01	0.105
		468.07		-3.449E+00	5.007E+00	7.575E+00	6.817E-01	-0.455
		604.41		-3.161E+00	3.643E+01	5.101E+01	6.543E+00	-0.062
		612.46		4.111E+01	5.121E+01	8.466E+01	8.152E+00	0.486
AU-195		65.12		-1.697E+01	2.062E+01	2.738E+01	2.354E+00	-0.620
		66.83		1.602E+00	1.060E+01	1.546E+01	1.330E+00	0.104
	+	75.70		1.122E+01	2.295E+01	2.701E+01	2.385E+00	0.415
		98.88	*	1.215E+01	1.962E+01	3.450E+01	3.143E+00	0.352
		129.76		-2.151E+02	2.536E+02	3.973E+02	3.594E+01	-0.541
TL-200		367.94	*	-2.545E-04	2.536E+02	Half-Life too short		
		579.30		-4.919E-02	2.536E+02	Half-Life too short		
		828.27		5.293E-02	2.536E+02	Half-Life too short		
		1205.75		-1.213E-02	2.536E+02	Half-Life too short		
TL-201		68.90		-4.597E+02	2.650E+02	3.966E+02	3.424E+01	-1.159
		70.82		-1.319E+01	1.379E+02	2.350E+02	2.038E+01	-0.056
		80.30		2.974E+01	2.833E+02	4.399E+02	3.985E+01	0.068
		135.34		-8.440E+02	1.611E+03	2.280E+03	2.025E+02	-0.370
		167.43	*	-4.845E+01	4.003E+02	6.536E+02	5.438E+01	-0.074
TL-202		68.90		-5.663E+01	3.264E+01	4.886E+01	4.218E+00	-1.159
		70.82		-1.621E+00	1.694E+01	2.886E+01	2.503E+00	-0.056
		80.30		3.654E+00	3.481E+01	5.405E+01	4.897E+00	0.068
		439.56	*	1.024E+00	5.227E+00	8.890E+00	7.374E-01	0.115
HG-203		70.83		-7.395E+00	7.928E+01	1.351E+02	1.843E+01	-0.055

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		72.87		2.662E+00	5.067E+01	7.867E+01	1.044E+01	0.034
		82.60		-7.312E+01	9.735E+01	1.490E+02	2.103E+01	-0.491
		279.20	*	-2.936E-01	3.399E+00	5.385E+00	6.131E-01	-0.055
BI-207		72.80		1.028E+00	1.531E+01	2.380E+01	2.077E+00	0.043
		74.97		-5.678E-01	9.036E+00	1.387E+01	1.221E+00	-0.041
		84.90		-2.257E+01	1.690E+01	2.471E+01	2.312E+00	-0.913
		569.67		7.737E-01	2.336E+00	3.988E+00	3.347E-01	0.194
		1063.62	*	7.887E-01	3.491E+00	5.986E+00	5.728E-01	0.132
		1770.23		-5.444E+01	5.569E+01	7.314E+01	6.242E+00	-0.744
TL-207		81.07		1.482E+01	1.765E+01	3.050E+01	2.777E+00	0.486
		83.78		-1.350E+01	1.126E+01	1.665E+01	1.545E+00	-0.811
		94.90		-3.054E+01	2.293E+01	3.558E+01	3.281E+00	-0.858
		122.32		-1.605E+02	1.646E+02	2.557E+02	2.533E+01	-0.628
		144.24		-5.750E+01	6.905E+01	9.954E+01	9.641E+00	-0.578
		154.21		2.728E+00	3.703E+01	6.160E+01	5.759E+00	0.044
		269.46		8.477E+00	1.718E+01	2.743E+01	3.034E+00	0.309
		323.87	*	-1.166E+01	5.160E+01	7.928E+01	1.471E+01	-0.147
		338.28		-3.249E+01	8.498E+01	1.304E+02	1.724E+01	-0.249
		445.03		-7.022E+01	1.827E+02	2.904E+02	3.447E+01	-0.242
TL-208		72.80		1.118E+01	1.664E+02	2.588E+02	2.258E+01	0.043
		74.97		-6.168E+00	9.816E+01	1.507E+02	1.870E+01	-0.041
		277.35		4.144E+00	3.415E+01	5.215E+01	7.413E+00	0.079
		510.84		-2.059E+01	2.098E+01	3.835E+01	4.542E+00	-0.537
		583.14	*	4.650E-02	3.319E+00	5.560E+00	5.008E-01	0.008
		763.13		2.413E+01	1.559E+02	2.555E+02	3.650E+01	0.094
		860.37		1.839E+01	1.877E+01	3.606E+01	3.848E+00	0.510
		1093.90		-3.456E+02	6.680E+02	9.636E+02	2.269E+02	-0.359
PO-209		260.50		-3.608E+02	8.642E+02	1.331E+03	1.420E+02	-0.271
		262.80		1.680E+03	2.412E+03	4.099E+03	4.400E+02	0.410
		896.60	*	-2.815E+02	5.871E+02	9.076E+02	9.521E+01	-0.310
BI-210		46.50	*	-1.477E+02	4.394E+02	6.640E+02	6.787E+01	-0.222
PB-210		46.50	*	-1.477E+02	4.394E+02	6.640E+02	6.787E+01	-0.222
PO-210		46.50	*	-1.477E+02	4.394E+02	6.640E+02	6.260E+01	-0.222
PB-211		404.84	*	4.294E+01	7.369E+01	1.227E+02	7.683E+01	0.350
		427.08		-5.637E+01	1.578E+02	2.458E+02	1.526E+02	-0.229
		831.96		-2.216E+01	6.859E+01	1.055E+02	6.627E+01	-0.210
BI-212		727.18	*	3.529E+00	2.441E+01	3.870E+01	3.930E+00	0.091
		785.46		-2.009E+01	1.335E+02	2.169E+02	2.033E+01	-0.093
		1620.62		4.265E+00	9.705E+01	1.630E+02	1.449E+01	0.026
PB-212		74.81		-8.293E+00	3.178E+01	4.796E+01	6.155E+00	-0.173
	+	77.11		1.297E+01	2.654E+01	3.108E+01	2.764E+00	0.417
		87.30		2.102E+01	3.101E+01	5.468E+01	7.555E+00	0.384
		115.19		-1.552E+02	3.313E+02	5.382E+02	4.926E+01	-0.288
	+	238.63	*	4.093E-01	9.836E+00	1.063E+01	1.171E+00	0.038
		300.09		-2.996E+01	6.590E+01	9.966E+01	1.225E+01	-0.301
PO-212		74.81		-8.293E+00	3.178E+01	4.796E+01	6.155E+00	-0.173
	+	77.11		1.297E+01	2.654E+01	3.108E+01	2.764E+00	0.417
		87.30		2.102E+01	3.101E+01	5.468E+01	7.555E+00	0.384
		115.19		-1.552E+02	3.313E+02	5.382E+02	4.926E+01	-0.288

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
	+	238.63	*	4.093E-01	9.836E+00	1.063E+01	1.171E+00	0.038
		300.09		-2.996E+01	6.590E+01	9.966E+01	1.225E+01	-0.301
PO-215		81.07		1.482E+01	1.765E+01	3.050E+01	2.777E+00	0.486
		83.78		-1.350E+01	1.126E+01	1.665E+01	1.545E+00	-0.811
		94.90		-3.054E+01	2.293E+01	3.558E+01	3.281E+00	-0.858
		122.32		-1.605E+02	1.646E+02	2.557E+02	2.533E+01	-0.628
		144.24		-5.750E+01	6.905E+01	9.954E+01	9.641E+00	-0.578
		154.21		2.728E+00	3.703E+01	6.160E+01	5.759E+00	0.044
		269.46		8.477E+00	1.718E+01	2.743E+01	3.034E+00	0.309
		323.87	*	-1.166E+01	5.160E+01	7.928E+01	1.471E+01	-0.147
		338.28		-3.249E+01	8.498E+01	1.304E+02	1.724E+01	-0.249
		445.03		-7.022E+01	1.827E+02	2.904E+02	3.447E+01	-0.242
PO-216		74.81		-8.293E+00	3.178E+01	4.796E+01	6.155E+00	-0.173
	+	77.11		1.297E+01	2.654E+01	3.108E+01	2.764E+00	0.417
		87.30		2.102E+01	3.101E+01	5.468E+01	7.555E+00	0.384
		115.19		-1.552E+02	3.313E+02	5.382E+02	4.926E+01	-0.288
	+	238.63	*	4.093E-01	9.836E+00	1.063E+01	1.171E+00	0.038
		300.09		-2.996E+01	6.590E+01	9.966E+01	1.225E+01	-0.301
RN-219		271.23		8.908E+00	2.215E+01	3.507E+01	4.329E+00	0.254
		401.81	*	-4.556E+01	3.269E+01	4.484E+01	6.622E+00	-1.016
RN-220		549.76	*	-2.370E+02	1.928E+03	3.107E+03	2.613E+02	-0.076
RA-223		81.07		1.482E+01	1.765E+01	3.050E+01	2.777E+00	0.486
		83.78		-1.350E+01	1.126E+01	1.665E+01	1.545E+00	-0.811
		94.90		-3.054E+01	2.293E+01	3.558E+01	3.281E+00	-0.858
		122.32		-1.605E+02	1.646E+02	2.557E+02	2.533E+01	-0.628
		144.24		-5.750E+01	6.905E+01	9.954E+01	9.641E+00	-0.578
		154.21		2.728E+00	3.703E+01	6.160E+01	5.759E+00	0.044
		269.46		8.477E+00	1.718E+01	2.743E+01	3.034E+00	0.309
		323.87	*	-1.166E+01	5.160E+01	7.928E+01	1.471E+01	-0.147
		338.28		-3.249E+01	8.498E+01	1.304E+02	1.724E+01	-0.249
		445.03		-7.022E+01	1.827E+02	2.904E+02	3.447E+01	-0.242
RA-224		240.98	*	2.393E+01	6.559E+01	9.789E+01	9.915E+00	0.244
AC-227		79.80		-8.823E+01	1.472E+02	2.126E+02	4.606E+01	-0.415
		236.00		9.334E+00	1.930E+01	2.935E+01	3.887E+00	0.318
		256.20	*	-1.760E+01	3.473E+01	5.299E+01	8.748E+00	-0.332
		286.10		-1.303E+02	1.359E+02	1.926E+02	2.874E+01	-0.676
		299.80		1.575E+01	1.201E+02	1.844E+02	3.441E+01	0.085
		304.40		4.992E+01	1.646E+02	2.689E+02	5.244E+01	0.186
		329.70		5.547E+01	6.739E+01	1.221E+02	1.827E+01	0.454
		334.20		-7.122E+01	1.758E+02	2.860E+02	5.734E+01	-0.249
PA-227		64.62	*	-1.000E+35	1.758E+02	Half-Life too short		
		110.05		1.000E+35	1.758E+02	Half-Life too short		
TH-227		79.80		-8.823E+01	1.473E+02	2.126E+02	4.665E+01	-0.415
		94.00		-6.354E+02	2.469E+02	3.074E+02	6.775E+01	-2.067
		236.00		9.334E+00	1.930E+01	2.935E+01	3.573E+00	0.318
		256.20	*	-1.760E+01	3.477E+01	5.299E+01	1.010E+01	-0.332
		286.10		-1.303E+02	1.878E+02	1.926E+02	1.938E+02	-0.676
		299.80		1.575E+01	1.201E+02	1.844E+02	3.441E+01	0.085
		304.40		4.992E+01	1.646E+02	2.689E+02	5.244E+01	0.186

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		329.70		5.547E+01	6.739E+01	1.221E+02	1.827E+01	0.454
		334.20		-7.122E+01	1.758E+02	2.860E+02	5.734E+01	-0.249
AC-228		338.32		-8.266E+00	2.066E+01	3.123E+01	1.297E+01	-0.265
		911.07	*	-3.767E+00	1.010E+01	1.663E+01	2.113E+00	-0.226
		969.11		-9.186E+00	1.794E+01	2.612E+01	6.258E+00	-0.352
RA-228		338.32		-8.266E+00	2.066E+01	3.123E+01	1.297E+01	-0.265
		911.07	*	-3.767E+00	1.010E+01	1.663E+01	2.113E+00	-0.226
		969.11		-9.186E+00	1.794E+01	2.612E+01	6.258E+00	-0.352
TH-228		74.81		-8.293E+00	3.177E+01	4.796E+01	4.253E+00	-0.173
	+	77.11		1.297E+01	2.654E+01	3.108E+01	2.764E+00	0.417
		87.30		2.102E+01	3.094E+01	5.468E+01	5.214E+00	0.384
	+	238.63	*	4.093E-01	9.836E+00	1.063E+01	1.171E+00	0.038
		300.09		-2.996E+01	6.818E+01	9.966E+01	5.943E+01	-0.301
TH-229		85.43		-8.595E+00	1.647E+01	2.573E+01	2.417E+00	-0.334
		88.47		-2.845E+00	8.453E+00	1.404E+01	1.342E+00	-0.203
		100.00		1.798E+01	1.575E+01	2.854E+01	2.595E+00	0.630
		193.63	*	1.337E+01	4.415E+01	7.382E+01	6.566E+00	0.181
		210.97		-4.573E+01	6.019E+01	9.103E+01	8.491E+00	-0.502
TH-230		67.67	*	-1.667E+02	1.641E+03	1.753E+03	1.137E+04	-0.095
PA-231		283.67	*	4.589E+01	1.367E+02	2.249E+02	3.763E+01	0.204
		301.29		-4.358E+01	4.861E+01	6.928E+01	9.593E+00	-0.629
		330.00		5.690E+01	1.545E+02	2.692E+02	8.717E+01	0.211
TH-231		84.21	*	-5.635E+01	4.469E+01	6.452E+01	1.174E+01	-0.873
U-231		84.21		-4.641E+02	3.609E+02	5.314E+02	4.946E+01	-0.873
		92.29		-1.261E+02	1.533E+02	2.623E+02	2.447E+01	-0.481
		95.87	*	-5.300E+01	7.498E+01	1.212E+02	1.114E+01	-0.437
		108.00		5.030E+01	1.387E+02	2.391E+02	2.165E+01	0.210
TH-232		59.00	*	2.438E+02	3.717E+03	4.234E+03	4.457E+04	0.058
PA-233		75.28		5.883E+01	2.669E+02	4.191E+02	6.478E+01	0.140
		86.59		1.337E+02	1.319E+02	2.298E+02	6.230E+01	0.582
		300.12		-1.537E+01	3.364E+01	5.079E+01	8.245E+00	-0.303
		311.98	*	-1.440E-01	4.991E+00	7.885E+00	8.470E-01	-0.018
		340.50		-2.403E+01	4.571E+01	7.295E+01	1.772E+01	-0.329
		398.62		2.205E+02	1.699E+02	3.048E+02	8.072E+01	0.723
		415.76		8.873E+01	1.234E+02	2.204E+02	4.715E+01	0.403
PA-234	+	63.00		1.586E+01	2.283E+02	2.704E+02	4.189E+01	0.059
		94.67		-2.103E+01	1.648E+01	2.550E+01	3.273E+00	-0.825
		98.44		3.832E+00	8.399E+00	1.417E+01	7.915E+00	0.270
		99.86		4.176E+01	4.018E+01	7.239E+01	6.582E+00	0.577
		111.00		-1.978E+00	1.667E+01	2.782E+01	3.456E+00	-0.071
		131.20		6.060E+00	9.468E+00	1.645E+01	1.481E+00	0.368
		152.70		1.300E+01	2.928E+01	4.983E+01	8.464E+00	0.261
	+	186.00		4.759E+01	1.721E+02	2.145E+02	6.702E+01	0.222
		226.40		-3.455E+01	3.547E+01	5.197E+01	7.253E+00	-0.665
		227.20		-2.612E+01	3.714E+01	5.624E+01	5.486E+00	-0.464
		248.90		-1.691E+01	7.010E+01	1.101E+02	2.546E+01	-0.154
	+	293.70		9.099E+01	7.585E+01	1.061E+02	1.968E+01	0.858
		369.80		-1.289E+01	6.073E+01	9.980E+01	2.185E+01	-0.129
		568.70		-6.057E+00	7.726E+01	1.251E+02	1.050E+01	-0.048

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		569.50		5.078E+00	2.087E+01	3.523E+01	2.956E+00	0.144
		574.00		4.781E+01	1.141E+02	1.968E+02	1.650E+01	0.243
		699.00		5.459E-01	5.546E+01	8.942E+01	1.702E+01	0.006
		706.10		-5.236E+01	8.683E+01	1.217E+02	5.427E+01	-0.430
		733.00		-2.532E+01	2.799E+01	3.656E+01	8.147E+00	-0.693
		742.81		-4.911E+01	1.110E+02	1.566E+02	1.053E+02	-0.314
		796.30		-1.863E+01	5.576E+01	8.829E+01	2.414E+01	-0.211
		805.60		6.333E+00	8.778E+01	1.411E+02	4.363E+01	0.045
		819.60		-1.573E+01	8.497E+01	1.382E+02	5.292E+01	-0.114
		826.30		-3.019E+00	5.458E+01	9.083E+01	4.086E+01	-0.033
		831.60		5.182E+00	3.561E+01	6.134E+01	1.854E+01	0.084
		876.40		2.084E+01	6.274E+01	1.041E+02	1.072E+02	0.200
		880.51		2.645E+00	2.017E+01	3.442E+01	3.554E+00	0.077
		883.24		-1.003E+01	2.066E+01	2.965E+01	2.001E+01	-0.338
		899.00		7.336E+01	7.363E+01	1.270E+02	5.603E+01	0.578
		925.00		-1.860E+01	8.378E+01	1.343E+02	1.396E+01	-0.139
		926.50		-1.106E+01	1.406E+01	1.997E+01	5.178E+00	-0.554
		946.00	*	-2.646E+00	1.859E+01	3.003E+01	5.884E+00	-0.088
		949.00		1.640E+01	2.635E+01	4.886E+01	5.026E+00	0.336
		980.50		-2.261E+01	4.490E+01	6.647E+01	6.728E+00	-0.340
		1394.10		3.483E+01	7.906E+01	1.367E+02	8.907E+01	0.255
PA-234M		766.42		-2.018E+02	8.586E+02	1.261E+03	6.412E+02	-0.160
		1001.03	*	3.243E+02	3.122E+02	5.999E+02	6.707E+01	0.541
TH-234	+	63.29	*	1.360E+01	1.958E+02	2.315E+02	4.162E+01	0.059
		92.38		-4.097E+01	5.468E+01	9.321E+01	1.718E+01	-0.440
U-234		53.20	*	2.402E+03	2.480E+04	1.006E+04	1.006E+05	0.239
U-235		89.95		-2.743E+02	1.293E+02	1.363E+02	4.239E+01	-2.013
		93.35		-4.114E+01	6.482E+01	1.104E+02	3.117E+01	-0.373
		105.00		2.268E+01	8.989E+01	1.539E+02	4.612E+01	0.147
		143.76	*	-1.108E+01	2.246E+01	3.152E+01	5.528E+00	-0.352
		163.35		1.050E+01	4.307E+01	7.221E+01	1.368E+01	0.145
	+	185.71		1.763E+00	6.352E+00	7.955E+00	6.928E-01	0.222
		205.31		1.123E+01	4.380E+01	7.270E+01	1.406E+01	0.154
NP-236		94.67		-1.596E+01	1.242E+01	1.934E+01	1.785E+00	-0.825
		98.44		2.897E+00	6.145E+00	1.071E+01	9.767E-01	0.270
		111.00		-1.496E+00	1.261E+01	2.105E+01	1.911E+00	-0.071
		160.31	*	-1.694E+00	7.664E+00	1.247E+01	1.044E+00	-0.136
NP-237		86.50	*	2.008E+01	1.959E+01	3.451E+01	7.836E+00	0.582
		95.87		-6.336E+01	9.083E+01	1.449E+02	3.599E+01	-0.437
PU-237		59.54	*	2.439E+02	1.932E+02	3.166E+02	2.732E+01	0.770
U-238	+	63.29	*	1.360E+01	1.958E+02	2.315E+02	4.162E+01	0.059
		92.38		-4.097E+01	5.429E+01	9.321E+01	8.693E+00	-0.440
NP-239		99.55		1.274E+01	1.345E+01	2.411E+01	2.194E+00	0.528
		117.00	*	1.337E+00	1.739E+01	2.934E+01	2.696E+00	0.046
		209.75		-1.821E+01	6.080E+01	9.632E+01	8.955E+00	-0.189
		228.18		7.040E+00	1.877E+01	3.135E+01	3.066E+00	0.225
		277.60		2.547E+00	1.618E+01	2.479E+01	2.764E+00	0.103
		334.30		-3.724E+01	9.970E+01	1.631E+02	1.628E+01	-0.228
AM-241		59.54	*	1.817E+01	1.440E+01	2.359E+01	2.182E+00	0.770

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AM-243		74.67	*	-1.236E+00	5.107E+00	7.722E+00	6.788E-01	-0.160
		86.72		7.509E+02	7.158E+02	1.290E+03	1.225E+02	0.582
		117.66		-1.897E+02	3.624E+02	5.864E+02	5.398E+01	-0.324
		142.18		1.103E+02	1.678E+03	2.516E+03	2.192E+02	0.044
CM-243		99.55		1.311E+01	1.384E+01	2.481E+01	2.257E+00	0.528
		103.76	*	-2.692E+00	8.031E+00	1.321E+01	1.196E+00	-0.204
		117.00		1.375E+00	1.789E+01	3.018E+01	2.774E+00	0.046
		209.75		-1.794E+01	5.993E+01	9.494E+01	8.826E+00	-0.189
		228.18		7.113E+00	1.896E+01	3.167E+01	3.098E+00	0.225
		277.60		2.567E+00	1.631E+01	2.499E+01	2.786E+00	0.103
AM-246		798.80		-2.121E+00	8.909E+00	1.442E+01	1.370E+00	-0.147
		1036.00		-2.014E+00	2.087E+01	3.384E+01	3.306E+00	-0.060
		1062.04		1.580E+01	1.497E+01	2.910E+01	2.788E+00	0.543
		1078.86	*	3.270E-01	7.238E+00	1.204E+01	1.137E+00	0.027
CM-247		278.00		-5.461E+00	6.906E+01	1.036E+02	1.157E+01	-0.053
		287.40		5.126E+01	1.025E+02	1.716E+02	1.896E+01	0.299
		402.60	*	-2.438E+00	2.762E+00	4.145E+00	3.384E-01	-0.588
CF-249		252.85		2.496E+01	7.709E+01	1.275E+02	1.334E+01	0.196
		333.44		-8.926E+00	1.286E+01	2.031E+01	2.031E+00	-0.439
		387.95	*	1.015E+00	2.810E+00	4.911E+00	4.055E-01	0.207
CF-251		176.60	*	-3.034E-01	1.103E+01	1.808E+01	1.538E+00	-0.017
		227.00		-2.923E+01	3.349E+01	4.985E+01	4.860E+00	-0.586
		285.00		-4.488E+01	1.581E+02	2.451E+02	2.719E+01	-0.183
ANH-511		511.00	*	-4.838E+00	4.433E+00	8.093E+00	6.810E-01	-0.598

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243286002     *
* Acquisition date : 30-DEC-2009 18:39:45 Detector SN#     :               *
* Detector ID        : GAM16                Sensitivity      : 5.000       *
* Geometry           : 2LMB                 Energy tolerance: 1.500        *
* Elapsed live time:     0 02:00:00.00      Abundance limit : 75.000       *
* Elapsed real time:     0 02:00:00.89      Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 17-DEC-2009 12:00:00 Nuclide Library : LIQUI        *
* Sample ID          : G243286002           Analyst initials: KXG3          *
* Batch Number       : 935338               Sample Quantity : 2.0000E+00 LITER *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 16-NOV-2009 16:34:37 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
K-40	2.646E+01	3.381E+01	4.869E+01	0.000E+00
BI-211	6.923E+01	2.882E+01	2.584E+01	0.000E+00
BI-214	2.968E+01	1.018E+01	8.163E+00	0.000E+00
PB-214	2.408E+01	1.010E+01	9.007E+00	0.000E+00
PO-214	2.408E+01	1.010E+01	9.007E+00	0.000E+00
PO-218	2.408E+01	1.010E+01	9.007E+00	0.000E+00
RA-226	2.902E+01	1.046E+02	9.400E+01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	1.762E+01	2.417E+01	4.416E+01	0.000E+00	NOT IDENT.
NA-22	3.053E-01	2.685E+00	4.550E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.384E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.419E+00	2.624E+00	3.727E+00	0.000E+00	NOT IDENT.
TI-44	2.362E+00	4.736E+00	4.603E+00	0.000E+00	FAIL ABUN
SC-46	-2.560E+00	2.758E+00	3.940E+00	0.000E+00	FAIL ABUN
V-48	-2.095E+00	4.226E+00	6.463E+00	0.000E+00	NOT IDENT.
CR-51	2.071E+01	2.852E+01	4.960E+01	0.000E+00	NOT IDENT.
MN-52	2.102E+00	1.324E+01	2.255E+01	0.000E+00	NOT IDENT.
MN-54	-3.331E-01	2.040E+00	3.390E+00	0.000E+00	NOT IDENT.
CO-56	7.524E-01	2.614E+00	4.668E+00	0.000E+00	FAIL ABUN
CO-57	-1.413E+00	2.303E+00	3.767E+00	0.000E+00	NOT IDENT.
CO-58	-1.319E+00	2.974E+00	4.789E+00	0.000E+00	NOT IDENT.
FE-59	7.798E-02	5.092E+00	8.560E+00	0.000E+00	NOT IDENT.
CO-60	-1.333E+00	2.586E+00	3.704E+00	0.000E+00	NOT IDENT.
ZN-65	3.640E+00	4.656E+00	8.432E+00	0.000E+00	NOT IDENT.
GE-68	-6.146E+01	6.873E+01	8.964E+01	0.000E+00	NOT IDENT.
AS-73	3.199E+01	7.721E+01	1.283E+02	0.000E+00	NOT IDENT.
AS-74	5.921E+00	6.443E+00	1.195E+01	0.000E+00	NOT IDENT.
SE-75	1.404E+00	3.901E+00	6.579E+00	0.000E+00	NOT IDENT.

BR-77	7.371E-01	4.260E+02	7.161E+02	0.000E+00	FAIL ABUN
SR-82	-3.888E+00	2.255E+01	3.547E+01	0.000E+00	NOT IDENT.
RB-83	1.732E-01	4.768E+00	8.052E+00	0.000E+00	NOT IDENT.
RB-84	-2.448E+00	4.728E+00	7.367E+00	0.000E+00	NOT IDENT.
KR-85	-2.194E+03	8.100E+02	9.978E+02	0.000E+00	NOT IDENT.
SR-85	-1.103E+01	4.074E+00	5.018E+00	0.000E+00	NOT IDENT.
RB-86	-2.010E+01	4.232E+01	6.348E+01	0.000E+00	NOT IDENT.
Y-88	-7.919E-01	2.193E+00	3.183E+00	0.000E+00	NOT IDENT.
ZR-88	2.065E-01	2.182E+00	3.776E+00	0.000E+00	NOT IDENT.
Y-91	-7.460E+01	9.393E+02	1.534E+03	0.000E+00	NOT IDENT.
NB-94	-3.761E-01	2.459E+00	3.944E+00	0.000E+00	NOT IDENT.
NB-95	-9.213E-01	3.629E+00	5.493E+00	0.000E+00	NOT IDENT.
NB-95M	3.432E+00	9.911E+00	1.516E+01	0.000E+00	NOT IDENT.
ZR-95	2.274E+00	4.636E+00	8.203E+00	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.230E+06	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	4.725E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.153E+02	6.076E+02	1.020E+03	0.000E+00	FAIL ABUN
TC-99M	0.000E+00	3.432E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.456E+00	3.244E+00	5.391E+00	0.000E+00	NOT IDENT.
RH-102	-8.195E-01	2.233E+00	3.608E+00	0.000E+00	NOT IDENT.
RU-103	-9.688E-01	3.423E+00	4.811E+00	0.000E+00	FAIL ABUN
RH-106	-8.812E+00	2.361E+01	3.693E+01	0.000E+00	NOT IDENT.
RU-106	-8.812E+00	2.359E+01	3.693E+01	0.000E+00	NOT IDENT.
AG-108M	-6.907E-01	2.805E+00	4.573E+00	0.000E+00	NOT IDENT.
CD-109	-9.732E+00	6.351E+01	1.091E+02	0.000E+00	NOT IDENT.
AG-110M	-2.618E+00	2.681E+00	3.748E+00	0.000E+00	NOT IDENT.
IN-111	2.471E+01	5.961E+01	1.013E+02	0.000E+00	NOT IDENT.
IN-113M	3.776E-01	3.133E+00	5.439E+00	0.000E+00	NOT IDENT.
SN-113	3.776E-01	3.133E+00	5.439E+00	0.000E+00	NOT IDENT.
IN-114M	2.155E+00	1.646E+01	2.489E+01	0.000E+00	NOT IDENT.
CD-115	-9.627E+01	4.755E+02	7.775E+02	0.000E+00	NOT IDENT.
SN-117M	-1.753E-01	4.638E+00	7.802E+00	0.000E+00	NOT IDENT.
SB-122	-3.424E+00	8.682E+01	1.339E+02	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.289E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-8.843E-01	2.658E+00	4.382E+00	0.000E+00	NOT IDENT.
I-124	1.538E+01	3.817E+01	5.988E+01	0.000E+00	NOT IDENT.
SB-124	-4.002E+00	4.713E+00	5.295E+00	0.000E+00	NOT IDENT.
SB-125	-1.670E+00	6.769E+00	1.120E+01	0.000E+00	NOT IDENT.
TE-125M	2.657E+02	8.209E+02	1.439E+03	0.000E+00	NOT IDENT.
I-126	-2.622E+00	1.029E+01	1.620E+01	0.000E+00	NOT IDENT.
SB-126	3.311E-01	9.315E+00	1.455E+01	0.000E+00	NOT IDENT.
SN-126	5.113E+00	6.310E+00	1.146E+01	0.000E+00	FAIL ABUN
SB-127	5.300E-01	6.682E+01	1.101E+02	0.000E+00	NOT IDENT.
XE-127	-6.253E-01	3.804E+00	6.244E+00	0.000E+00	NOT IDENT.
I-131	-2.859E+00	6.946E+00	1.141E+01	0.000E+00	NOT IDENT.
TE-132	1.468E+01	3.807E+01	6.484E+01	0.000E+00	NOT IDENT.
BA-133	2.028E+00	3.240E+00	5.375E+00	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.056E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-1.021E+00	2.784E+00	4.493E+00	0.000E+00	NOT IDENT.
CS-135	-1.245E+01	1.414E+01	2.114E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.951E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	4.259E+00	6.686E+00	1.242E+01	0.000E+00	NOT IDENT.
BA-137M	1.029E+00	2.543E+00	4.445E+00	0.000E+00	NOT IDENT.
CS-137	1.087E+00	2.688E+00	4.699E+00	0.000E+00	NOT IDENT.
CE-139	-1.430E+00	2.550E+00	4.109E+00	0.000E+00	NOT IDENT.
BA-140	-1.579E+01	1.934E+01	2.779E+01	0.000E+00	NOT IDENT.
LA-140	3.800E-01	6.447E+00	1.108E+01	0.000E+00	NOT IDENT.
CE-141	-3.176E+00	5.407E+00	8.785E+00	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.968E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	9.341E+00	1.773E+01	3.115E+01	0.000E+00	NOT IDENT.
PM-144	2.124E-01	2.482E+00	4.131E+00	0.000E+00	NOT IDENT.
PR-144	1.438E+01	1.680E+02	2.797E+02	0.000E+00	NOT IDENT.
PM-146	1.841E+00	3.368E+00	6.049E+00	0.000E+00	NOT IDENT.
ND-147	3.892E+00	3.792E+01	6.447E+01	0.000E+00	NOT IDENT.
PM-149	-4.831E+03	4.575E+03	6.530E+03	0.000E+00	NOT IDENT.
EU-152	-2.933E+00	7.477E+00	1.243E+01	0.000E+00	NOT IDENT.
GD-153	-4.789E+00	6.589E+00	1.079E+01	0.000E+00	NOT IDENT.
EU-154	-4.490E-02	7.677E+00	1.269E+01	0.000E+00	NOT IDENT.
EU-155	1.258E+00	9.149E+00	1.589E+01	0.000E+00	NOT IDENT.
TB-160	2.921E+00	9.654E+00	1.723E+01	0.000E+00	NOT IDENT.
HO-166M	4.794E-01	4.764E+00	7.930E+00	0.000E+00	FAIL ABUN
TM-171	4.473E+02	3.159E+03	4.695E+03	0.000E+00	NOT IDENT.
HF-175	1.699E-01	2.654E+00	4.613E+00	0.000E+00	NOT IDENT.
LU-176	1.302E+00	2.160E+00	3.701E+00	0.000E+00	NOT IDENT.
LU-177	5.621E-01	7.037E+01	1.169E+02	0.000E+00	NOT IDENT.
LU-177M	-5.724E+00	1.235E+01	1.994E+01	0.000E+00	NOT IDENT.
HF-181	-1.399E+00	3.077E+00	4.897E+00	0.000E+00	NOT IDENT.
W-181	-3.553E+01	4.348E+01	5.905E+01	0.000E+00	NOT IDENT.

TA-182	1.699E+00	1.120E+01	1.915E+01	0.000E+00	FAIL ABUN
RE-183	7.227E+00	9.892E+00	1.744E+01	0.000E+00	NOT IDENT.
RE-184	6.602E+00	1.998E+01	3.373E+01	0.000E+00	NOT IDENT.
OS-185	-2.150E-02	2.962E+00	4.891E+00	0.000E+00	NOT IDENT.
RE-188	-3.522E+00	1.521E+01	2.527E+01	0.000E+00	NOT IDENT.
W-188	-2.065E+02	6.595E+02	9.110E+02	0.000E+00	FAIL ABUN
IR-192	4.725E-01	2.737E+00	4.509E+00	0.000E+00	FAIL ABUN
AU-195	1.215E+01	1.923E+01	3.450E+01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	9.860E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-4.845E+01	3.923E+02	6.536E+02	0.000E+00	NOT IDENT.
TL-202	1.024E+00	5.123E+00	8.890E+00	0.000E+00	NOT IDENT.
HG-203	-2.936E-01	3.331E+00	5.385E+00	0.000E+00	NOT IDENT.
BI-207	7.887E-01	3.422E+00	5.986E+00	0.000E+00	NOT IDENT.
TL-207	-1.166E+01	5.057E+01	7.928E+01	0.000E+00	NOT IDENT.
TL-208	4.650E-02	3.252E+00	5.560E+00	0.000E+00	NOT IDENT.
PO-209	-2.815E+02	5.754E+02	9.076E+02	0.000E+00	NOT IDENT.
BI-210	-1.477E+02	4.306E+02	6.640E+02	0.000E+00	NOT IDENT.
PB-210	-1.477E+02	4.306E+02	6.640E+02	0.000E+00	NOT IDENT.
PO-210	-1.477E+02	4.306E+02	6.640E+02	0.000E+00	NOT IDENT.
PB-211	4.294E+01	7.222E+01	1.227E+02	0.000E+00	NOT IDENT.
BI-212	3.529E+00	2.392E+01	3.870E+01	0.000E+00	NOT IDENT.
PB-212	4.093E-01	9.639E+00	1.063E+01	0.000E+00	FAIL ABUN
PO-212	4.093E-01	9.639E+00	1.063E+01	0.000E+00	FAIL ABUN
PO-215	-1.166E+01	5.057E+01	7.928E+01	0.000E+00	NOT IDENT.
PO-216	4.093E-01	9.639E+00	1.063E+01	0.000E+00	FAIL ABUN
RN-219	-4.556E+01	3.204E+01	4.484E+01	0.000E+00	NOT IDENT.
RN-220	-2.370E+02	1.889E+03	3.107E+03	0.000E+00	NOT IDENT.
RA-223	-1.166E+01	5.057E+01	7.928E+01	0.000E+00	NOT IDENT.
RA-224	2.393E+01	6.427E+01	9.789E+01	0.000E+00	NOT IDENT.
AC-227	-1.760E+01	3.403E+01	5.299E+01	0.000E+00	NOT IDENT.
PA-227	0.000E+00	5.370E+40	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-1.760E+01	3.407E+01	5.299E+01	0.000E+00	NOT IDENT.
AC-228	-3.767E+00	9.900E+00	1.663E+01	0.000E+00	NOT IDENT.
RA-228	-3.767E+00	9.900E+00	1.663E+01	0.000E+00	NOT IDENT.
TH-228	4.093E-01	9.639E+00	1.063E+01	0.000E+00	FAIL ABUN
TH-229	1.337E+01	4.326E+01	7.382E+01	0.000E+00	NOT IDENT.
TH-230	-1.667E+02	1.608E+03	1.753E+03	0.000E+00	NOT IDENT.
PA-231	4.589E+01	1.340E+02	2.249E+02	0.000E+00	NOT IDENT.
TH-231	-5.635E+01	4.380E+01	6.452E+01	0.000E+00	NOT IDENT.
U-231	-5.300E+01	7.348E+01	1.212E+02	0.000E+00	NOT IDENT.
TH-232	2.438E+02	3.643E+03	4.234E+03	0.000E+00	NOT IDENT.
PA-233	-1.440E-01	4.891E+00	7.885E+00	0.000E+00	NOT IDENT.
PA-234	-2.646E+00	1.822E+01	3.003E+01	0.000E+00	FAIL ABUN
PA-234M	3.243E+02	3.059E+02	5.999E+02	0.000E+00	NOT IDENT.
TH-234	1.360E+01	1.919E+02	2.315E+02	0.000E+00	FAIL ABUN
U-234	2.402E+03	2.431E+04	1.006E+04	0.000E+00	NOT IDENT.
U-235	-1.108E+01	2.201E+01	3.152E+01	0.000E+00	FAIL ABUN
NP-236	-1.694E+00	7.510E+00	1.247E+01	0.000E+00	NOT IDENT.
NP-237	2.008E+01	1.919E+01	3.451E+01	0.000E+00	NOT IDENT.
PU-237	2.439E+02	1.893E+02	3.166E+02	0.000E+00	NOT IDENT.
U-238	1.360E+01	1.919E+02	2.315E+02	0.000E+00	FAIL ABUN
NP-239	1.337E+00	1.704E+01	2.934E+01	0.000E+00	NOT IDENT.
AM-241	1.817E+01	1.412E+01	2.359E+01	0.000E+00	NOT IDENT.
AM-243	-1.236E+00	5.004E+00	7.722E+00	0.000E+00	NOT IDENT.
CM-243	-2.692E+00	7.871E+00	1.321E+01	0.000E+00	NOT IDENT.
AM-246	3.270E-01	7.094E+00	1.204E+01	0.000E+00	NOT IDENT.
CM-247	-2.438E+00	2.707E+00	4.145E+00	0.000E+00	NOT IDENT.
CF-249	1.015E+00	2.753E+00	4.911E+00	0.000E+00	NOT IDENT.
CF-251	-3.034E-01	1.081E+01	1.808E+01	0.000E+00	NOT IDENT.
ANH-511	-4.838E+00	4.344E+00	8.093E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 30-DEC-2009 20:40:48.29

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243286002.CNF;1
Sample date       : 17-DEC-2009 12:00:00 Acquisition date : 30-DEC-2009 18:39:45
Sample ID         : G243286002           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM16                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.89  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 935338               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.05	49	139	1.03	126.29	124	8	6.85E-03	43.3	
2	0	77.11	41	141	1.16	154.41	150	8	5.70E-03	53.2	
3	0	92.43	70	163	0.78	185.05	183	8	9.72E-03	33.5	
4	0	139.83	60	122	1.41	279.85	275	9	8.27E-03	36.0	
5	0	185.69	87	105	1.22	371.57	367	10	1.21E-02	24.5	
6	0	238.15	36	152	1.35	476.49	472	11	5.00E-03	68.3	
7	0	294.94	37	65	0.76	590.07	586	8	5.18E-03	40.6	
8	0	351.84	97	47	0.97	703.86	699	10	1.34E-02	16.8	
9	0	501.18	24	39	0.73	1002.53	996	14	3.33E-03	58.7	
10	0	511.03	143	51	2.18	1022.21	1016	18	1.99E-02	14.2	
11	0	609.06	103	17	1.37	1218.24	1212	14	1.43E-02	13.1	
12	0	1120.21	26	8	1.39	2240.30	2236	13	3.64E-03	28.4	
13	0	1237.55	16	2	1.27	2474.90	2470	9	2.21E-03	30.2	
14	0	1459.79	19	3	2.87	2919.19	2914	11	2.65E-03	28.4	
15	0	1764.11	19	14	1.44	3527.49	3521	13	2.57E-03	46.6	

VAX/VMS Nuclide Identification Report Generated 30-DEC-2009 20:40:51.19

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243286002.CNF;1
Sample date       : 17-DEC-2009 12:00:00 Acquisition date : 30-DEC-2009 18:39:45
Sample ID         : G243286002           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM16                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.89  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 935338               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
K-40	1460.81	9	10.67*	5.978E-01	2.646E+01	2.646E+01	130.40
BI-211	72.87	------	1.27	1.614E+00	------	Line Not Found	------
	351.07	82	12.94*	1.721E+00	6.923E+01	6.923E+01	42.48
BI-214	609.31	86	46.30*	1.178E+00	2.968E+01	2.968E+01	35.00
	1120.29	22	15.10	7.312E-01	3.727E+01	3.727E+01	73.54
	1764.49	11	15.80	5.316E-01	2.536E+01	2.536E+01	154.77
PB-214	74.81	------	6.21	1.700E+00	------	Line Not Found	------
	77.11	22	10.50	1.798E+00	2.194E+01	2.194E+01	204.76
	87.30	------	4.67	2.156E+00	------	Line Not Found	------
	241.98	------	7.49	2.165E+00	------	Line Not Found	------
	295.21	37	19.20	1.925E+00	1.896E+01	1.896E+01	82.23
	351.92	82	37.20*	1.721E+00	2.408E+01	2.408E+01	42.80
PO-214	74.81	------	6.21	1.700E+00	------	Line Not Found	------
	77.11	22	10.50	1.798E+00	2.194E+01	2.194E+01	204.76
	87.30	------	4.67	2.156E+00	------	Line Not Found	------
	241.98	------	7.49	2.165E+00	------	Line Not Found	------
	295.21	37	19.20	1.925E+00	1.896E+01	1.896E+01	82.23
	351.92	82	37.20*	1.721E+00	2.408E+01	2.408E+01	42.80
PO-218	74.81	------	6.21	1.700E+00	------	Line Not Found	------
	77.11	22	10.50	1.798E+00	2.194E+01	2.194E+01	204.76
	87.30	------	4.67	2.156E+00	------	Line Not Found	------
	241.98	------	7.49	2.165E+00	------	Line Not Found	------
	295.21	37	19.20	1.925E+00	1.896E+01	1.896E+01	82.23
	351.92	82	37.20*	1.721E+00	2.408E+01	2.408E+01	42.80
RA-226	186.21	13	3.28*	2.472E+00	2.902E+01	2.902E+01	367.70

Flag: "*" = Keyline

Sample ID : G243286002 Acquisition date : 30-DEC-2009 18:39:45

Total number of lines in spectrum	13	
Number of unidentified lines	1	
Number of lines tentatively identified by NID	12	92.31%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.646E+01	2.646E+01	3.450E+01	130.40	
BI-211	7.04E+08Y	1.00	6.923E+01	6.923E+01	2.941E+01	42.48	
BI-214	1600.00Y	1.00	2.968E+01	2.968E+01	1.039E+01	35.00	
PB-214	1600.00Y	1.00	2.408E+01	2.408E+01	1.031E+01	42.80	
PO-214	1600.00Y	1.00	2.408E+01	2.408E+01	1.031E+01	42.80	
PO-218	1600.00Y	1.00	2.408E+01	2.408E+01	1.031E+01	42.80	
RA-226	1600.00Y	1.00	2.902E+01	2.902E+01	10.67E+01	367.70	
			---	---			
	Total Activity :		2.266E+02	2.266E+02			
	Grand Total Activity :		2.266E+02	2.266E+02			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G243286002 Acquisition date : 30-DEC-2009 18:39:45

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	63.05	3	139	1.03	126.29	124	8	4.31E-04	****	1.13E+00	T
0	139.83	46	122	1.41	279.85	275	9	6.41E-03	96.4	2.67E+00	T
0	238.15	2	152	1.35	476.49	472	11	2.91E-04	****	2.18E+00	T
0	501.18	24	39	0.73	1002.53	996	14	3.33E-03	****	1.36E+00	
0	1237.55	12	2	1.27	2474.90	2470	9	1.61E-03	****	6.76E-01	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 30-DEC-2009 20:40:56.39

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243286002.CNF;1 *
* Acquisition date  : 30-DEC-2009 18:39:45  Detector SN#     :             *
* Detector ID       : GAM16                 Sensitivity      : 5.00000     *
* Geometry          : 2LMB                  Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:00.89          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 17-DEC-2009 12:00:00  Nuclide Library : LIQUID       *
* Sample ID         : G243286002            Analyst initials: KXG3         *
* Batch Number      : 935338                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 16-NOV-2009 16:34:37.2MS Isotope      :               *
* MSD ID           :                      MSD Isotope     :               *
* LCS ID           : 1032-A               LCS Isotope     :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
K-40	2.646E+01	3.450E+01	4.869E+01	4.530E+00	0.543
BI-211	6.923E+01	2.941E+01	2.584E+01	2.557E+00	2.679
BI-214	2.968E+01	1.039E+01	8.163E+00	7.998E-01	3.636
PB-214	2.408E+01	1.031E+01	9.007E+00	1.006E+00	2.674
PO-214	2.408E+01	1.031E+01	9.007E+00	1.006E+00	2.674
PO-218	2.408E+01	1.031E+01	9.007E+00	1.006E+00	2.674
RA-226	2.902E+01	1.067E+02	9.400E+01	6.927E+01	0.309

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	1.762E+01		2.467E+01	4.416E+01	4.002E+00	0.399
NA-22	3.053E-01		2.739E+00	4.550E+00	4.056E-01	0.067
NA-24	-1.112E+00		3.767E+00	Half-Life too short		
AL-26	-1.419E+00		2.677E+00	3.727E+00	3.137E-01	-0.381
TI-44	2.362E+00	+	4.832E+00	4.603E+00	4.123E-01	0.513

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
SC-46	-2.560E+00		2.814E+00	3.940E+00	4.104E-01	-0.650
V-48	-2.095E+00		4.312E+00	6.463E+00	6.530E-01	-0.324
CR-51	2.071E+01		2.911E+01	4.960E+01	5.323E+00	0.418
MN-52	2.102E+00		1.351E+01	2.255E+01	2.048E+00	0.093
MN-54	-3.331E-01		2.082E+00	3.390E+00	3.345E-01	-0.098
CO-56	7.524E-01		2.667E+00	4.668E+00	4.662E-01	0.161
CO-57	-1.413E+00		2.350E+00	3.767E+00	3.518E-01	-0.375
CO-58	-1.319E+00		3.034E+00	4.789E+00	4.619E-01	-0.275
FE-59	7.798E-02		5.196E+00	8.560E+00	8.501E-01	0.009
CO-60	-1.333E+00		2.638E+00	3.704E+00	3.358E-01	-0.360
ZN-65	3.640E+00		4.751E+00	8.432E+00	7.712E-01	0.432
GE-68	-6.146E+01		7.013E+01	8.964E+01	8.480E+00	-0.686
AS-73	3.199E+01		7.878E+01	1.283E+02	1.174E+01	0.249
AS-74	5.921E+00		6.574E+00	1.195E+01	9.976E-01	0.495
SE-75	1.404E+00		3.980E+00	6.579E+00	7.118E-01	0.213
BR-77	7.371E-01		4.347E+02	7.161E+02	6.028E+01	0.001
SR-82	-3.888E+00		2.301E+01	3.547E+01	3.291E+00	-0.110
RB-83	1.732E-01		4.865E+00	8.052E+00	6.778E-01	0.022
RB-84	-2.448E+00		4.824E+00	7.367E+00	7.616E-01	-0.332
KR-85	-2.194E+03		8.266E+02	9.978E+02	8.397E+01	-2.198
SR-85	-1.103E+01		4.157E+00	5.018E+00	4.223E-01	-2.198
RB-86	-2.010E+01		4.319E+01	6.348E+01	6.009E+00	-0.317
Y-88	-7.919E-01		2.238E+00	3.183E+00	2.653E-01	-0.249
ZR-88	2.065E-01		2.226E+00	3.776E+00	3.067E-01	0.055
Y-91	-7.460E+01		9.585E+02	1.534E+03	1.333E+02	-0.049
NB-94	-3.761E-01		2.509E+00	3.944E+00	3.370E-01	-0.095
NB-95	-9.213E-01		3.703E+00	5.493E+00	5.040E-01	-0.168
NB-95M	3.432E+00		1.011E+01	1.516E+01	1.679E+00	0.226
ZR-95	2.274E+00		4.730E+00	8.203E+00	8.130E-01	0.277
NB-97	-1.188E+00		6.276E-01	Half-Life too short		
ZR-97	-1.613E+02		2.411E+01	Half-Life too short		
MO-99	1.153E+02		6.200E+02	1.020E+03	1.566E+02	0.113
TC-99M	3.508E+10	+	1.751E+10	Half-Life too short		
RH-101	1.456E+00		3.310E+00	5.391E+00	4.853E-01	0.270
RH-102	-8.195E-01		2.279E+00	3.608E+00	3.022E-01	-0.227
RU-103	-9.688E-01		3.493E+00	4.811E+00	6.750E-01	-0.201
RH-106	-8.812E+00		2.409E+01	3.693E+01	4.853E+00	-0.239
RU-106	-8.812E+00		2.407E+01	3.693E+01	3.058E+00	-0.239
AG-108M	-6.907E-01		2.862E+00	4.573E+00	3.948E-01	-0.151
CD-109	-9.732E+00		6.481E+01	1.091E+02	1.046E+01	-0.089
AG-110M	-2.618E+00		2.735E+00	3.748E+00	3.158E-01	-0.699
IN-111	2.471E+01		6.083E+01	1.013E+02	1.038E+01	0.244
IN-113M	3.776E-01		3.197E+00	5.439E+00	4.569E-01	0.069
SN-113	3.776E-01		3.197E+00	5.439E+00	4.569E-01	0.069
IN-114M	2.155E+00		1.680E+01	2.489E+01	2.194E+00	0.087
CD-115	-9.627E+01		4.852E+02	7.775E+02	6.545E+01	-0.124
SN-117M	-1.753E-01		4.733E+00	7.802E+00	6.557E-01	-0.022
SB-122	-3.424E+00		8.859E+01	1.339E+02	1.125E+01	-0.026

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
I-123	-1.760E+01		2.699E+01	Half-Life too short		
TE-123M	-8.843E-01		2.712E+00	4.382E+00	3.703E-01	-0.202
I-124	1.538E+01		3.895E+01	5.988E+01	4.989E+00	0.257
SB-124	-4.002E+00		4.809E+00	5.295E+00	4.808E-01	-0.756
SB-125	-1.670E+00		6.907E+00	1.120E+01	9.445E-01	-0.149
TE-125M	2.657E+02		8.377E+02	1.439E+03	1.539E+02	0.185
I-126	-2.622E+00		1.050E+01	1.620E+01	1.326E+00	-0.162
SB-126	3.311E-01		9.506E+00	1.455E+01	1.269E+00	0.023
SN-126	5.113E+00		6.439E+00	1.146E+01	1.095E+00	0.446
SB-127	5.300E-01		6.819E+01	1.101E+02	1.175E+01	0.005
XE-127	-6.253E-01		3.881E+00	6.244E+00	5.695E-01	-0.100
I-131	-2.859E+00		7.088E+00	1.141E+01	1.085E+00	-0.251
TE-132	1.468E+01		3.885E+01	6.484E+01	1.042E+01	0.226
BA-133	2.028E+00		3.306E+00	5.375E+00	7.356E-01	0.377
I-133	4.361E-02		5.386E-02	Half-Life too short		
CS-134	-1.021E+00		2.841E+00	4.493E+00	4.283E-01	-0.227
CS-135	-1.245E+01		1.443E+01	2.114E+01	2.533E+00	-0.589
I-135	-5.213E+08		1.506E+09	Half-Life too short		
CS-136	4.259E+00		6.823E+00	1.242E+01	1.243E+00	0.343
BA-137M	1.029E+00		2.595E+00	4.445E+00	3.619E-01	0.231
CS-137	1.087E+00		2.743E+00	4.699E+00	3.833E-01	0.231
CE-139	-1.430E+00		2.602E+00	4.109E+00	3.408E-01	-0.348
BA-140	-1.579E+01		1.973E+01	2.779E+01	9.197E+00	-0.568
LA-140	3.800E-01		6.578E+00	1.108E+01	9.894E-01	0.034
CE-141	-3.176E+00		5.517E+00	8.785E+00	7.730E-01	-0.362
CE-143	3.240E-03		2.535E-03	Half-Life too short		
CE-144	9.341E+00		1.809E+01	3.115E+01	4.903E+00	0.300
PM-144	2.124E-01		2.532E+00	4.131E+00	3.506E-01	0.051
PR-144	1.438E+01		1.714E+02	2.797E+02	2.373E+01	0.051
PM-146	1.841E+00		3.437E+00	6.049E+00	6.347E-01	0.304
ND-147	3.892E+00		3.870E+01	6.447E+01	9.563E+00	0.060
PM-149	-4.831E+03		4.669E+03	6.530E+03	1.112E+03	-0.740
EU-152	-2.933E+00		7.630E+00	1.243E+01	1.263E+00	-0.236
GD-153	-4.789E+00		6.723E+00	1.079E+01	9.863E-01	-0.444
EU-154	-4.490E-02		7.833E+00	1.269E+01	1.463E+00	-0.004
EU-155	1.258E+00		9.336E+00	1.589E+01	1.454E+00	0.079
TB-160	2.921E+00		9.851E+00	1.723E+01	1.777E+00	0.170
HO-166M	4.794E-01		4.862E+00	7.930E+00	6.847E-01	0.060
TM-171	4.473E+02		3.224E+03	4.695E+03	4.041E+02	0.095
HF-175	1.699E-01		2.708E+00	4.613E+00	4.486E-01	0.037
LU-176	1.302E+00		2.204E+00	3.701E+00	3.944E-01	0.352
LU-177	5.621E-01		7.181E+01	1.169E+02	1.083E+01	0.005
LU-177M	-5.724E+00		1.261E+01	1.994E+01	1.637E+00	-0.287
HF-181	-1.399E+00		3.140E+00	4.897E+00	4.106E-01	-0.286
W-181	-3.553E+01		4.437E+01	5.905E+01	5.078E+00	-0.602
TA-182	1.699E+00		1.143E+01	1.915E+01	1.674E+00	0.089
RE-183	7.227E+00		1.009E+01	1.744E+01	1.455E+00	0.414
RE-184	6.602E+00		2.039E+01	3.373E+01	3.527E+00	0.196

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
OS-185	-2.150E-02		3.022E+00	4.891E+00	4.011E-01	-0.004
RE-188	-3.522E+00		1.552E+01	2.527E+01	2.139E+00	-0.139
W-188	-2.065E+02		6.729E+02	9.110E+02	1.001E+02	-0.227
IR-192	4.725E-01		2.793E+00	4.509E+00	4.711E-01	0.105
AU-195	1.215E+01		1.962E+01	3.450E+01	3.143E+00	0.352
TL-200	-2.545E-04		5.031E-03	Half-Life too short		
TL-201	-4.845E+01		4.003E+02	6.536E+02	5.438E+01	-0.074
TL-202	1.024E+00		5.227E+00	8.890E+00	7.374E-01	0.115
HG-203	-2.936E-01		3.399E+00	5.385E+00	6.131E-01	-0.055
BI-207	7.887E-01		3.491E+00	5.986E+00	5.728E-01	0.132
TL-207	-1.166E+01		5.160E+01	7.928E+01	1.471E+01	-0.147
TL-208	4.650E-02		3.319E+00	5.560E+00	5.008E-01	0.008
PO-209	-2.815E+02		5.871E+02	9.076E+02	9.521E+01	-0.310
BI-210	-1.477E+02		4.394E+02	6.640E+02	6.787E+01	-0.222
PB-210	-1.477E+02		4.394E+02	6.640E+02	6.787E+01	-0.222
PO-210	-1.477E+02		4.394E+02	6.640E+02	6.260E+01	-0.222
PB-211	4.294E+01		7.369E+01	1.227E+02	7.683E+01	0.350
BI-212	3.529E+00		2.441E+01	3.870E+01	3.930E+00	0.091
PB-212	4.093E-01	+	9.836E+00	1.063E+01	1.171E+00	0.038
PO-212	4.093E-01	+	9.836E+00	1.063E+01	1.171E+00	0.038
PO-215	-1.166E+01		5.160E+01	7.928E+01	1.471E+01	-0.147
PO-216	4.093E-01	+	9.836E+00	1.063E+01	1.171E+00	0.038
RN-219	-4.556E+01		3.269E+01	4.484E+01	6.622E+00	-1.016
RN-220	-2.370E+02		1.928E+03	3.107E+03	2.613E+02	-0.076
RA-223	-1.166E+01		5.160E+01	7.928E+01	1.471E+01	-0.147
RA-224	2.393E+01		6.559E+01	9.789E+01	9.915E+00	0.244
AC-227	-1.760E+01		3.473E+01	5.299E+01	8.748E+00	-0.332
PA-227	-1.000E+35		2.740E+34	Half-Life too short		
TH-227	-1.760E+01		3.477E+01	5.299E+01	1.010E+01	-0.332
AC-228	-3.767E+00		1.010E+01	1.663E+01	2.113E+00	-0.226
RA-228	-3.767E+00		1.010E+01	1.663E+01	2.113E+00	-0.226
TH-228	4.093E-01	+	9.836E+00	1.063E+01	1.171E+00	0.038
TH-229	1.337E+01		4.415E+01	7.382E+01	6.566E+00	0.181
TH-230	-1.667E+02		1.641E+03	1.753E+03	1.137E+04	-0.095
PA-231	4.589E+01		1.367E+02	2.249E+02	3.763E+01	0.204
TH-231	-5.635E+01		4.469E+01	6.452E+01	1.174E+01	-0.873
U-231	-5.300E+01		7.498E+01	1.212E+02	1.114E+01	-0.437
TH-232	2.438E+02		3.717E+03	4.234E+03	4.457E+04	0.058
PA-233	-1.440E-01		4.991E+00	7.885E+00	8.470E-01	-0.018
PA-234	-2.646E+00		1.859E+01	3.003E+01	5.884E+00	-0.088
PA-234M	3.243E+02		3.122E+02	5.999E+02	6.707E+01	0.541
TH-234	1.360E+01	+	1.958E+02	2.315E+02	4.162E+01	0.059
U-234	2.402E+03		2.480E+04	1.006E+04	1.006E+05	0.239
U-235	-1.108E+01		2.246E+01	3.152E+01	5.528E+00	-0.352
NP-236	-1.694E+00		7.664E+00	1.247E+01	1.044E+00	-0.136
NP-237	2.008E+01		1.959E+01	3.451E+01	7.836E+00	0.582
PU-237	2.439E+02		1.932E+02	3.166E+02	2.732E+01	0.770
U-238	1.360E+01	+	1.958E+02	2.315E+02	4.162E+01	0.059

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NP-239	1.337E+00		1.739E+01	2.934E+01	2.696E+00	0.046
AM-241	1.817E+01		1.440E+01	2.359E+01	2.182E+00	0.770
AM-243	-1.236E+00		5.107E+00	7.722E+00	6.788E-01	-0.160
CM-243	-2.692E+00		8.031E+00	1.321E+01	1.196E+00	-0.204
AM-246	3.270E-01		7.238E+00	1.204E+01	1.137E+00	0.027
CM-247	-2.438E+00		2.762E+00	4.145E+00	3.384E-01	-0.588
CF-249	1.015E+00		2.810E+00	4.911E+00	4.055E-01	0.207
CF-251	-3.034E-01		1.103E+01	1.808E+01	1.538E+00	-0.017
ANH-511	-4.838E+00		4.433E+00	8.093E+00	6.810E-01	-0.598

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G243286002           *
* Acquisition date  : 30-DEC-2009 18:39:45 Detector SN#    :                *
* Detector ID       : GAM16                Sensitivity     : 5.000          *
* Geometry          : 2LMB                 Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:00.89      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 17-DEC-2009 12:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G243286002           Analyst initials: KXG3           *
* Batch Number      : 935338               Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 16-NOV-2009 16:34:37 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
K-40	2.646E+01	3.381E+01	2.436E+01	1.725E+01
BI-211	6.923E+01	2.882E+01	1.293E+01	1.470E+01
BI-214	2.968E+01	1.018E+01	4.084E+00	5.193E+00
PB-214	2.408E+01	1.010E+01	4.506E+00	5.153E+00
PO-214	2.408E+01	1.010E+01	4.506E+00	5.153E+00
PO-218	2.408E+01	1.010E+01	4.506E+00	5.153E+00
RA-226	2.902E+01	1.046E+02	4.703E+01	5.336E+01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU	
BE-7	1.762E+01	2.417E+01	2.209E+01	1.233E+01	NOT IDENT.
NA-22	3.053E-01	2.685E+00	2.276E+00	1.370E+00	NOT IDENT.
NA-24	-1.112E+06	7.384E+06	0.000E+00	3.767E+06	SHORT HLIF
AL-26	-1.419E+00	2.624E+00	1.865E+00	1.339E+00	NOT IDENT.
TI-44	2.362E+00	4.736E+00	2.303E+00	2.416E+00	FAIL ABUN
SC-46	-2.560E+00	2.758E+00	1.971E+00	1.407E+00	FAIL ABUN
V-48	-2.095E+00	4.226E+00	3.233E+00	2.156E+00	NOT IDENT.
CR-51	2.071E+01	2.852E+01	2.481E+01	1.455E+01	NOT IDENT.
MN-52	2.102E+00	1.324E+01	1.128E+01	6.756E+00	NOT IDENT.
MN-54	-3.331E-01	2.040E+00	1.696E+00	1.041E+00	NOT IDENT.
CO-56	7.524E-01	2.614E+00	2.335E+00	1.333E+00	FAIL ABUN
CO-57	-1.413E+00	2.303E+00	1.885E+00	1.175E+00	NOT IDENT.
CO-58	-1.319E+00	2.974E+00	2.396E+00	1.517E+00	NOT IDENT.
FE-59	7.798E-02	5.092E+00	4.282E+00	2.598E+00	NOT IDENT.
CO-60	-1.333E+00	2.586E+00	1.853E+00	1.319E+00	NOT IDENT.
ZN-65	3.640E+00	4.656E+00	4.219E+00	2.375E+00	NOT IDENT.
GE-68	-6.146E+01	6.873E+01	4.485E+01	3.507E+01	NOT IDENT.
AS-73	3.199E+01	7.721E+01	6.419E+01	3.939E+01	NOT IDENT.
AS-74	5.921E+00	6.443E+00	5.980E+00	3.287E+00	NOT IDENT.
SE-75	1.404E+00	3.901E+00	3.292E+00	1.990E+00	NOT IDENT.

BR-77	7.371E-01	4.260E+02	3.582E+02	2.174E+02	FAIL ABUN
SR-82	-3.888E+00	2.255E+01	1.774E+01	1.151E+01	NOT IDENT.
RB-83	1.732E-01	4.768E+00	4.029E+00	2.433E+00	NOT IDENT.
RB-84	-2.448E+00	4.728E+00	3.686E+00	2.412E+00	NOT IDENT.
KR-85	-2.194E+03	8.100E+02	4.992E+02	4.133E+02	NOT IDENT.
SR-85	-1.103E+01	4.074E+00	2.510E+00	2.078E+00	NOT IDENT.
RB-86	-2.010E+01	4.232E+01	3.176E+01	2.159E+01	NOT IDENT.
Y-88	-7.919E-01	2.193E+00	1.592E+00	1.119E+00	NOT IDENT.
ZR-88	2.065E-01	2.182E+00	1.889E+00	1.113E+00	NOT IDENT.
Y-91	-7.460E+01	9.393E+02	7.673E+02	4.792E+02	NOT IDENT.
NB-94	-3.761E-01	2.459E+00	1.973E+00	1.255E+00	NOT IDENT.
NB-95	-9.213E-01	3.629E+00	2.748E+00	1.851E+00	NOT IDENT.
NB-95M	3.432E+00	9.911E+00	7.583E+00	5.057E+00	NOT IDENT.
ZR-95	2.274E+00	4.636E+00	4.104E+00	2.365E+00	NOT IDENT.
NB-97	-1.188E+06	1.230E+06	0.000E+00	6.276E+05	SHORT HLIF
ZR-97	-1.613E+08	4.725E+07	0.000E+00	2.411E+07	SHORT HLIF
MO-99	1.153E+02	6.076E+02	5.104E+02	3.100E+02	FAIL ABUN
TC-99M	3.508E+16	3.432E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.456E+00	3.244E+00	2.697E+00	1.655E+00	NOT IDENT.
RH-102	-8.195E-01	2.233E+00	1.805E+00	1.139E+00	NOT IDENT.
RU-103	-9.688E-01	3.423E+00	2.407E+00	1.747E+00	FAIL ABUN
RH-106	-8.812E+00	2.361E+01	1.847E+01	1.204E+01	NOT IDENT.
RU-106	-8.812E+00	2.359E+01	1.847E+01	1.204E+01	NOT IDENT.
AG-108M	-6.907E-01	2.805E+00	2.288E+00	1.431E+00	NOT IDENT.
CD-109	-9.732E+00	6.351E+01	5.459E+01	3.240E+01	NOT IDENT.
AG-110M	-2.618E+00	2.681E+00	1.875E+00	1.368E+00	NOT IDENT.
IN-111	2.471E+01	5.961E+01	5.068E+01	3.041E+01	NOT IDENT.
IN-113M	3.776E-01	3.133E+00	2.721E+00	1.598E+00	NOT IDENT.
SN-113	3.776E-01	3.133E+00	2.721E+00	1.598E+00	NOT IDENT.
IN-114M	2.155E+00	1.646E+01	1.245E+01	8.400E+00	NOT IDENT.
CD-115	-9.627E+01	4.755E+02	3.890E+02	2.426E+02	NOT IDENT.
SN-117M	-1.753E-01	4.638E+00	3.903E+00	2.366E+00	NOT IDENT.
SB-122	-3.424E+00	8.682E+01	6.700E+01	4.430E+01	NOT IDENT.
I-123	-1.760E+07	5.289E+07	0.000E+00	2.699E+07	SHORT HLIF
TE-123M	-8.843E-01	2.658E+00	2.192E+00	1.356E+00	NOT IDENT.
I-124	1.538E+01	3.817E+01	2.996E+01	1.947E+01	NOT IDENT.
SB-124	-4.002E+00	4.713E+00	2.649E+00	2.404E+00	NOT IDENT.
SB-125	-1.670E+00	6.769E+00	5.603E+00	3.453E+00	NOT IDENT.
TE-125M	2.657E+02	8.209E+02	7.198E+02	4.188E+02	NOT IDENT.
I-126	-2.622E+00	1.029E+01	8.106E+00	5.250E+00	NOT IDENT.
SB-126	3.311E-01	9.315E+00	7.277E+00	4.753E+00	NOT IDENT.
SN-126	5.113E+00	6.310E+00	5.732E+00	3.220E+00	FAIL ABUN
SB-127	5.300E-01	6.682E+01	5.509E+01	3.409E+01	NOT IDENT.
XE-127	-6.253E-01	3.804E+00	3.124E+00	1.941E+00	NOT IDENT.
I-131	-2.859E+00	6.946E+00	5.707E+00	3.544E+00	NOT IDENT.
TE-132	1.468E+01	3.807E+01	3.244E+01	1.943E+01	NOT IDENT.
BA-133	2.028E+00	3.240E+00	2.689E+00	1.653E+00	NOT IDENT.
I-133	4.361E+04	1.056E+05	0.000E+00	5.386E+04	SHORT HLIF
CS-134	-1.021E+00	2.784E+00	2.248E+00	1.420E+00	NOT IDENT.
CS-135	-1.245E+01	1.414E+01	1.058E+01	7.214E+00	NOT IDENT.
I-135	-5.213E+14	2.951E+15	0.000E+00	1.506E+15	SHORT HLIF
CS-136	4.259E+00	6.686E+00	6.214E+00	3.411E+00	NOT IDENT.
BA-137M	1.029E+00	2.543E+00	2.224E+00	1.298E+00	NOT IDENT.
CS-137	1.087E+00	2.688E+00	2.351E+00	1.372E+00	NOT IDENT.
CE-139	-1.430E+00	2.550E+00	2.055E+00	1.301E+00	NOT IDENT.
BA-140	-1.579E+01	1.934E+01	1.391E+01	9.865E+00	NOT IDENT.
LA-140	3.800E-01	6.447E+00	5.542E+00	3.289E+00	NOT IDENT.
CE-141	-3.176E+00	5.407E+00	4.395E+00	2.759E+00	NOT IDENT.
CE-143	3.240E+03	4.968E+03	0.000E+00	2.535E+03	SHORT HLIF
CE-144	9.341E+00	1.773E+01	1.558E+01	9.047E+00	NOT IDENT.
PM-144	2.124E-01	2.482E+00	2.067E+00	1.266E+00	NOT IDENT.
PR-144	1.438E+01	1.680E+02	1.399E+02	8.571E+01	NOT IDENT.
PM-146	1.841E+00	3.368E+00	3.026E+00	1.718E+00	NOT IDENT.
ND-147	3.892E+00	3.792E+01	3.225E+01	1.935E+01	NOT IDENT.
PM-149	-4.831E+03	4.575E+03	3.267E+03	2.334E+03	NOT IDENT.
EU-152	-2.933E+00	7.477E+00	6.220E+00	3.815E+00	NOT IDENT.
GD-153	-4.789E+00	6.589E+00	5.396E+00	3.362E+00	NOT IDENT.
EU-154	-4.490E-02	7.677E+00	6.347E+00	3.917E+00	NOT IDENT.
EU-155	1.258E+00	9.149E+00	7.951E+00	4.668E+00	NOT IDENT.
TB-160	2.921E+00	9.654E+00	8.619E+00	4.925E+00	NOT IDENT.
HO-166M	4.794E-01	4.764E+00	3.967E+00	2.431E+00	FAIL ABUN
TM-171	4.473E+02	3.159E+03	2.349E+03	1.612E+03	NOT IDENT.
HF-175	1.699E-01	2.654E+00	2.308E+00	1.354E+00	NOT IDENT.
LU-176	1.302E+00	2.160E+00	1.852E+00	1.102E+00	NOT IDENT.
LU-177	5.621E-01	7.037E+01	5.850E+01	3.591E+01	NOT IDENT.
LU-177M	-5.724E+00	1.235E+01	9.976E+00	6.303E+00	NOT IDENT.
HF-181	-1.399E+00	3.077E+00	2.450E+00	1.570E+00	NOT IDENT.
W-181	-3.553E+01	4.348E+01	2.954E+01	2.219E+01	NOT IDENT.

TA-182	1.699E+00	1.120E+01	9.579E+00	5.715E+00	FAIL ABUN
RE-183	7.227E+00	9.892E+00	8.723E+00	5.047E+00	NOT IDENT.
RE-184	6.602E+00	1.998E+01	1.688E+01	1.020E+01	NOT IDENT.
OS-185	-2.150E-02	2.962E+00	2.447E+00	1.511E+00	NOT IDENT.
RE-188	-3.522E+00	1.521E+01	1.264E+01	7.759E+00	NOT IDENT.
W-188	-2.065E+02	6.595E+02	4.558E+02	3.365E+02	FAIL ABUN
IR-192	4.725E-01	2.737E+00	2.256E+00	1.397E+00	FAIL ABUN
AU-195	1.215E+01	1.923E+01	1.726E+01	9.809E+00	FAIL ABUN
TL-200	-2.545E+02	9.860E+03	0.000E+00	5.031E+03	SHORT HLIF
TL-201	-4.845E+01	3.923E+02	3.270E+02	2.001E+02	NOT IDENT.
TL-202	1.024E+00	5.123E+00	4.448E+00	2.614E+00	NOT IDENT.
HG-203	-2.936E-01	3.331E+00	2.694E+00	1.700E+00	NOT IDENT.
BI-207	7.887E-01	3.422E+00	2.995E+00	1.746E+00	NOT IDENT.
TL-207	-1.166E+01	5.057E+01	3.967E+01	2.580E+01	NOT IDENT.
TL-208	4.650E-02	3.252E+00	2.782E+00	1.659E+00	NOT IDENT.
PO-209	-2.815E+02	5.754E+02	4.541E+02	2.935E+02	NOT IDENT.
BI-210	-1.477E+02	4.306E+02	3.322E+02	2.197E+02	NOT IDENT.
PB-210	-1.477E+02	4.306E+02	3.322E+02	2.197E+02	NOT IDENT.
PO-210	-1.477E+02	4.306E+02	3.322E+02	2.197E+02	NOT IDENT.
PB-211	4.294E+01	7.222E+01	6.140E+01	3.685E+01	NOT IDENT.
BI-212	3.529E+00	2.392E+01	1.936E+01	1.220E+01	NOT IDENT.
PB-212	4.093E-01	9.639E+00	5.320E+00	4.918E+00	FAIL ABUN
PO-212	4.093E-01	9.639E+00	5.320E+00	4.918E+00	FAIL ABUN
PO-215	-1.166E+01	5.057E+01	3.967E+01	2.580E+01	NOT IDENT.
PO-216	4.093E-01	9.639E+00	5.320E+00	4.918E+00	FAIL ABUN
RN-219	-4.556E+01	3.204E+01	2.243E+01	1.635E+01	NOT IDENT.
RN-220	-2.370E+02	1.889E+03	1.554E+03	9.640E+02	NOT IDENT.
RA-223	-1.166E+01	5.057E+01	3.967E+01	2.580E+01	NOT IDENT.
RA-224	2.393E+01	6.427E+01	4.898E+01	3.279E+01	NOT IDENT.
AC-227	-1.760E+01	3.403E+01	2.651E+01	1.736E+01	NOT IDENT.
PA-227	-1.000E+41	5.370E+40	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-1.760E+01	3.407E+01	2.651E+01	1.738E+01	NOT IDENT.
AC-228	-3.767E+00	9.900E+00	8.322E+00	5.051E+00	NOT IDENT.
RA-228	-3.767E+00	9.900E+00	8.322E+00	5.051E+00	NOT IDENT.
TH-228	4.093E-01	9.639E+00	5.320E+00	4.918E+00	FAIL ABUN
TH-229	1.337E+01	4.326E+01	3.693E+01	2.207E+01	NOT IDENT.
TH-230	-1.667E+02	1.608E+03	8.770E+02	8.207E+02	NOT IDENT.
PA-231	4.589E+01	1.340E+02	1.125E+02	6.837E+01	NOT IDENT.
TH-231	-5.635E+01	4.380E+01	3.228E+01	2.235E+01	NOT IDENT.
U-231	-5.300E+01	7.348E+01	6.064E+01	3.749E+01	NOT IDENT.
TH-232	2.438E+02	3.643E+03	2.118E+03	1.859E+03	NOT IDENT.
PA-233	-1.440E-01	4.891E+00	3.945E+00	2.495E+00	NOT IDENT.
PA-234	-2.646E+00	1.822E+01	1.503E+01	9.293E+00	FAIL ABUN
PA-234M	3.243E+02	3.059E+02	3.001E+02	1.561E+02	NOT IDENT.
TH-234	1.360E+01	1.919E+02	1.158E+02	9.792E+01	FAIL ABUN
U-234	2.402E+03	2.431E+04	5.034E+03	1.240E+04	NOT IDENT.
U-235	-1.108E+01	2.201E+01	1.577E+01	1.123E+01	FAIL ABUN
NP-236	-1.694E+00	7.510E+00	6.238E+00	3.832E+00	NOT IDENT.
NP-237	2.008E+01	1.919E+01	1.727E+01	9.793E+00	NOT IDENT.
PU-237	2.439E+02	1.893E+02	1.584E+02	9.659E+01	NOT IDENT.
U-238	1.360E+01	1.919E+02	1.158E+02	9.792E+01	FAIL ABUN
NP-239	1.337E+00	1.704E+01	1.468E+01	8.694E+00	NOT IDENT.
AM-241	1.817E+01	1.412E+01	1.180E+01	7.202E+00	NOT IDENT.
AM-243	-1.236E+00	5.004E+00	3.863E+00	2.553E+00	NOT IDENT.
CM-243	-2.692E+00	7.871E+00	6.611E+00	4.016E+00	NOT IDENT.
AM-246	3.270E-01	7.094E+00	6.023E+00	3.619E+00	NOT IDENT.
CM-247	-2.438E+00	2.707E+00	2.074E+00	1.381E+00	NOT IDENT.
CF-249	1.015E+00	2.753E+00	2.457E+00	1.405E+00	NOT IDENT.
CF-251	-3.034E-01	1.081E+01	9.045E+00	5.513E+00	NOT IDENT.
ANH-511	-4.838E+00	4.344E+00	4.049E+00	2.216E+00	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	81.1078
46.50	81.1078
46.50	81.1078
48.70	84.0327
49.72	68.8604
51.35	73.9698
52.39	58.6393
52.97	62.3349
53.15	62.3675
53.20	62.3764
53.44	61.2195
54.07	67.3434
56.28	58.0845
56.28	58.0849
57.37	0.0000
57.53	55.8580
57.53	55.8582
57.60	55.8688
57.98	77.8115
57.98	77.8115
59.00	68.2744
59.32	68.3335
59.32	68.3335
59.40	57.3637
59.54	50.4666
59.54	50.4666
59.72	50.4910
60.01	61.9404
61.10	75.1983
61.14	75.2061
61.30	75.2378
63.00	104.7346
63.29	104.8134
63.29	104.8134
63.58	104.8919
64.28	105.0803
64.62	0.0000
65.12	128.8445
65.20	128.8701
65.20	128.8701
66.05	100.9996
66.72	101.1690
66.83	101.1969
66.91	74.6686
67.20	69.7407
67.20	69.7407
67.67	91.4334
67.75	91.4513
67.85	91.4742
68.90	119.2234
68.90	119.2234
69.30	112.6634
69.67	101.0709
70.82	86.2739
70.82	86.2739
70.83	86.2760
72.80	89.6264
72.80	89.6264
72.87	89.6411
72.87	89.6411
74.67	105.2330
74.81	105.2666
74.81	105.2666
74.81	105.2666
74.81	105.2666
74.81	105.2666
74.81	105.2666

74.81	105.2666
74.97	101.4996
74.97	101.4996
75.28	101.5723
75.70	97.8573
77.11	93.4973
77.11	93.4973
77.11	93.4973
77.11	93.4973
77.11	93.4973
77.11	93.4973
77.11	93.4973
78.38	85.6674
79.62	103.8548
79.80	103.8962
79.80	103.8962
80.11	88.5647
80.18	88.5784
80.30	88.6016
80.30	88.6016
80.57	88.6542
81.00	80.2499
81.07	80.2623
81.07	80.2623
81.07	80.2623
82.60	99.8020
83.37	94.7964
83.78	106.9561
83.78	106.9561
83.78	106.9561
84.21	112.2345
84.21	112.2345
84.90	110.6699
85.43	97.8106
86.29	92.7853
86.50	84.1507
86.54	84.1576
86.59	84.1665
86.72	84.1892
86.79	84.2011
86.94	90.3065
87.30	94.7191
87.30	94.7191
87.30	94.7191
87.30	94.7191
87.30	94.7191
87.30	94.7191
87.30	94.7191
87.57	88.6861
87.88	93.0933
88.03	102.6954
88.36	94.9276
88.47	100.1758
89.36	158.8288
89.95	176.4952
91.11	112.9780
92.29	102.7124
92.38	100.9748
92.38	100.9748
93.35	95.0120
94.00	140.9408
94.67	157.0021
94.67	157.0039
94.90	157.9570
94.90	157.9570
94.90	157.9570
95.87	125.5450
95.87	125.5450
96.73	113.3581
97.43	98.4354
98.44	87.0754
98.44	87.0759
98.88	82.7028
99.55	73.9044
99.55	73.9044
99.86	72.1662
100.00	69.5116
100.10	69.5255

103.18	81.5819
103.76	84.3623
105.00	80.9569
105.31	86.4033
108.00	94.0612
109.28	96.0905
110.05	0.0000
111.00	98.2024
111.00	98.2024
111.76	95.6022
112.95	101.2758
115.19	105.3330
115.19	105.3330
115.19	105.3330
116.30	91.7684
117.00	94.6346
117.00	94.6346
117.66	111.2970
121.11	90.6643
121.62	92.5929
121.78	100.0267
122.06	106.5596
122.32	113.0942
122.32	113.0942
122.32	113.0942
123.07	106.7368
127.23	98.1155
129.76	111.6460
131.20	88.3918
133.02	80.1562
133.54	85.8827
135.34	95.1123
136.00	95.2094
136.25	106.6177
136.48	106.6555
140.51	92.9991
140.51	0.0000
142.18	90.3616
142.65	77.5072
143.76	97.7614
144.24	102.4336
144.24	102.4336
144.24	102.4336
145.22	111.4180
145.44	111.4534
147.16	86.6885
152.43	98.0194
152.70	92.2313
153.22	101.0431
154.21	105.0743
154.21	105.0743
154.21	105.0743
155.03	106.1692
156.02	113.1432
158.56	105.7104
159.00	0.0000
159.00	113.6081
160.31	111.8500
161.27	95.2949
162.32	92.4787
162.64	95.4706
163.35	94.5771
163.89	95.6314
165.85	97.8590
167.43	89.1486
171.28	90.5936
171.86	111.5841
172.10	111.6183
176.55	86.1968
176.60	86.2030
181.06	87.6956
184.41	71.3592
185.71	76.0345
186.00	76.0620
186.21	76.0811
190.27	81.0438
192.34	94.0196
193.63	80.8580

197.04	89.4046
198.01	87.4487
198.60	88.5379
200.40	110.3884
201.83	86.8036
202.84	84.8353
205.31	78.8497
208.36	75.9986
208.81	67.7044
209.75	77.1601
209.75	77.1601
210.97	81.4420
215.65	74.5173
216.55	68.2876
218.09	81.0308
222.10	81.3825
223.80	68.8245
226.40	89.1885
227.00	87.1200
227.08	82.8774
227.20	82.8877
228.16	64.8882
228.18	64.8895
228.18	64.8895
231.56	0.0000
235.69	59.5011
236.00	59.5203
236.00	59.5203
238.63	84.9509
238.63	84.9509
238.63	84.9509
238.63	84.9509
239.00	84.9822
240.98	79.2250
241.98	85.7789
241.98	85.7789
241.98	85.7789
244.69	90.8804
245.39	70.3737
247.94	71.6370
248.90	66.2726
249.79	75.0301
252.40	58.8697
252.85	63.2581
252.85	63.2581
254.15	0.0000
256.20	76.5942
256.20	76.5942
260.50	72.5165
260.90	70.3451
262.80	59.4613
264.65	65.0798
268.24	84.1146
268.79	70.8698
269.46	56.5096
269.46	56.5096
269.46	56.5096
271.23	57.7118
273.65	83.4244
276.40	59.1020
277.35	50.2240
277.60	49.1195
277.60	49.1195
278.00	55.8380
278.60	53.6338
279.20	62.6058
279.53	63.7435
280.46	72.7507
281.68	63.8664
283.67	58.3688
284.30	53.9092
285.00	66.3042
285.90	73.1065
286.10	69.7437
286.10	69.7437
287.40	48.4266
288.45	0.0000
290.67	57.6022

290.80	57.6085
291.72	55.9594
293.26	0.0000
293.70	45.8641
295.21	62.9332
295.21	62.9332
295.21	62.9332
295.96	62.9750
296.50	69.8156
297.23	56.2283
298.57	46.0577
299.80	51.9123
299.80	51.9123
300.09	63.7679
300.09	63.7679
300.09	63.7679
300.09	63.7679
300.12	63.7702
301.29	68.3936
302.84	55.9285
303.76	51.4032
303.91	52.5520
304.40	54.8594
304.40	54.8594
304.84	53.7366
306.84	50.3916
308.46	55.0479
311.98	42.5577
316.51	45.0263
318.01	49.7056
319.02	49.7467
319.41	47.4480
320.08	39.3685
323.87	45.2977
323.87	45.2977
323.87	45.2977
325.23	58.1380
328.77	47.8083
329.70	37.6335
329.70	37.6335
330.00	44.6460
333.44	54.4241
334.20	52.6996
334.20	52.6996
334.30	52.7042
338.28	50.2255
338.28	50.2255
338.28	50.2255
338.32	50.2272
338.32	50.2272
340.50	53.8432
340.57	53.8460
343.40	45.1176
344.27	50.4595
345.85	42.5442
350.59	0.0000
351.07	43.6040
351.92	43.6324
351.92	43.6324
351.92	43.6324
355.39	0.0000
356.01	28.5828
364.48	38.6512
366.43	32.4058
367.43	36.0327
367.94	0.0000
369.80	36.0956
374.96	36.2311
383.85	30.0815
387.95	30.1691
388.63	32.9271
391.69	33.9146
391.69	33.9146
392.90	34.8608
398.62	25.7890
400.65	45.1936
401.10	47.9756
401.81	52.6138

402.60	44.3306
404.84	30.5236
410.95	28.7929
411.60	30.6636
413.65	37.2192
414.70	30.7275
415.30	31.6711
415.76	27.9538
417.63	0.0000
418.52	36.4066
423.70	32.7847
427.08	36.6125
427.89	35.6928
432.53	36.7428
433.00	34.8687
433.93	40.5474
439.47	35.0144
439.56	38.8016
439.89	43.5426
443.98	37.9620
444.90	39.8832
445.03	39.8871
445.03	39.8871
445.03	39.8871
453.90	30.5596
463.38	30.7393
468.07	38.5339
473.00	36.7168
475.06	35.7952
475.35	34.8338
476.78	31.9582
477.59	27.1293
477.96	22.2897
482.03	34.0013
484.57	31.1338
487.03	23.3844
490.36	0.0000
492.35	25.4124
497.08	32.9314
507.63	0.0000
510.53	0.0000
510.84	33.5876
511.00	33.5907
511.85	40.5255
511.85	40.5255
513.99	110.8379
513.99	110.8379
520.41	24.8299
520.65	24.8337
527.90	31.9150
528.96	0.0000
529.64	31.9463
529.87	0.0000
531.02	27.9744
537.32	38.0963
543.00	29.1628
546.56	0.0000
549.76	26.2420
552.65	22.2390
555.20	25.3059
563.23	13.2150
563.90	16.2700
568.70	29.5638
569.32	26.5142
569.50	26.5165
569.67	25.4990
573.80	24.5317
574.00	24.5339
574.64	27.6097
578.91	30.7452
579.30	0.0000
583.14	24.6497
585.48	38.0467
591.81	40.2330
592.07	40.2378
593.00	37.1602
595.88	20.6744
600.56	29.0126

602.52	0.0000
602.71	21.5750
602.71	21.5750
603.60	28.2260
604.41	26.5766
604.70	26.5805
609.31	26.0162
610.33	26.0292
612.46	16.6763
614.37	21.6995
618.01	25.0825
621.84	27.2235
621.84	27.2235
631.29	24.1925
633.02	21.0547
633.10	21.0553
634.78	22.1260
635.90	17.9209
636.97	17.9302
645.85	23.3011
646.12	21.1859
656.30	18.0936
657.75	33.0170
657.90	0.0000
661.65	20.2727
661.65	20.2727
664.57	0.0000
666.33	19.2469
666.33	19.2469
675.00	20.3968
677.61	13.9724
685.20	19.4128
692.80	28.1360
695.00	17.3315
696.49	22.7624
696.49	22.7624
697.00	26.0200
697.49	21.6882
698.33	23.8658
698.50	27.1225
699.00	26.0435
702.63	24.9983
706.10	31.5674
706.58	0.0000
706.67	22.8649
709.31	22.8912
711.68	25.0973
713.82	21.8439
717.42	20.7841
720.50	17.5259
721.93	0.0000
722.20	26.3079
722.78	26.3145
722.78	26.3145
722.89	26.3159
722.95	25.2201
723.30	26.3203
724.18	20.8450
727.18	19.7732
733.00	26.4302
735.90	19.8468
739.58	25.3991
742.81	25.4342
744.21	16.5971
747.13	19.9407
751.79	23.3097
752.31	25.5353
753.82	17.7749
755.35	12.2280
756.15	14.4560
756.87	18.9097
763.13	20.0737
763.93	23.4270
765.79	24.5613
766.42	22.3346
766.84	24.5721
776.49	15.6983
778.00	16.8301

778.57	23.5673
778.89	23.5705
783.80	11.2463
785.46	17.1060
792.07	16.2483
795.84	18.0811
796.30	18.0845
798.80	18.1021
801.93	19.0307
805.60	19.0584
810.29	26.3676
810.76	26.3726
815.85	16.4017
817.79	20.0616
818.51	20.9791
819.60	18.2505
826.30	16.4681
828.27	0.0000
831.60	11.9180
831.96	13.7534
834.83	13.7684
836.80	0.0000
846.75	15.6752
848.13	22.1414
856.28	0.0000
856.80	19.4368
860.37	10.1949
867.32	14.8672
867.82	12.0818
871.10	16.7489
873.19	25.1424
874.81	21.4305
875.33	0.0000
876.40	14.9168
879.36	15.8665
880.27	16.8056
880.51	16.8069
881.50	20.5493
883.24	18.6929
884.67	15.8972
889.25	23.4174
896.60	24.4188
898.02	19.7331
899.00	14.1002
903.28	26.3607
911.07	12.2729
911.07	12.2729
919.63	9.4695
920.93	14.2108
925.00	18.0259
925.24	19.9249
926.50	25.6296
935.52	20.9489
937.48	18.1047
944.10	14.3262
946.00	13.3796
949.00	8.6102
962.29	16.3376
964.01	18.2703
966.15	20.2084
968.20	18.2963
969.11	16.3758
969.11	16.3758
977.42	9.6597
980.50	14.5045
983.50	16.4551
989.30	12.6077
996.32	17.4973
1001.03	9.7358
1001.68	12.6594
1004.76	22.4199
1021.30	0.0000
1024.50	0.0000
1034.80	17.7179
1036.00	15.7555
1037.82	15.7641
1038.57	12.8115
1038.76	0.0000

1045.16	15.8016
1046.59	10.8684
1048.07	11.8617
1050.47	17.8066
1050.47	17.8066
1062.04	7.9430
1063.62	12.9137
1076.63	12.9657
1077.35	13.9665
1078.86	7.9844
1085.78	16.0031
1093.90	14.0376
1099.22	11.0473
1112.02	19.1559
1112.84	16.8083
1115.52	5.0464
1120.29	18.5303
1120.51	11.1187
1121.28	11.1214
1124.00	0.0000
1129.67	13.1765
1131.51	0.0000
1147.95	0.0000
1167.94	21.5250
1173.22	5.1328
1175.09	14.3801
1177.93	6.1679
1189.05	11.3438
1204.90	10.3589
1205.75	0.0000
1213.00	10.3828
1221.42	12.4887
1230.97	5.9626
1235.34	6.9648
1236.41	0.0000
1238.25	6.9704
1246.25	8.3832
1260.41	0.0000
1271.85	10.5518
1274.45	11.6155
1274.54	10.5596
1291.56	5.3040
1298.22	0.0000
1312.09	8.5324
1325.50	10.7031
1325.50	10.7031
1332.49	11.7944
1333.61	9.6530
1360.21	10.7988
1362.66	0.0000
1365.15	10.8125
1368.21	11.9029
1368.53	0.0000
1376.25	7.5899
1384.27	6.5188
1394.10	5.4458
1395.20	11.9840
1407.95	8.7434
1434.06	7.6997
1436.60	11.9235
1457.56	0.0000
1460.81	12.6523
1489.15	11.1455
1509.49	5.5994
1596.49	10.4709
1620.62	7.6559
1678.03	0.0000
1691.02	6.8012
1691.02	6.8012
1706.46	0.0000
1750.46	0.0000
1764.49	11.8384
1770.23	19.7534
1771.40	8.8912
1791.20	0.0000
1808.65	8.9583
1836.01	5.0039

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G243286002

Total Uranium Activity	3.5341E+01	ug/g
Total Uranium Counting Unc.	5.7109E+02	ug/g
Total Uranium Tpu	2.9137E-04	ug/g
Total Uranium Mda	3.4462E+02	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 935338                    SAMPLE ID  : G243286002       *
*   ANALYST       : KXG3                      DETECTOR   : GAM16            *
*   SAMPLE DATE   : 17-DEC-2009 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 30-DEC-2009 18:39:45.94    SAMPLE ALQT:    2.000 LITER   *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 5.252E+01
        GROSS GAMMA ERROR   (pCi/LITER )  : 6.550E+01
        GROSS GAMMA MDA     (pCi/LITER )  : 8.957E+01
        GROSS GAMMA DLC     (pCi/LITER )  : 4.182E+01
```

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 04:44:28.29

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001366.CNF;1
Sample date       : 23-DEC-2009 00:00:00 Acquisition date : 30-DEC-2009 22:43:00
Sample ID         : G1202001366          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM14                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:01.47  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 935338                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	92.51*	155	334	1.35	184.69	178	15	7.18E-03	32.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 31-DEC-2009 04:44:30

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001366.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 23-DEC-2009 00:00:00 Acquisition date : 30-DEC-2009 22:43:00
Sample ID : G1202001366 Sample quantity : 2.0000 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA14 Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00 Elapsed real time: 0 06:00:01.47 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	6.948E+00	1.371E+01	2.333E+01	1.621E+00	0.298
NA-22		1274.54	*	-2.015E-01	1.679E+00	2.717E+00	1.799E-01	-0.074
NA-24		1368.53	*	4.927E-03	1.679E+00	Half-Life too short		
AL-26		1129.67		3.774E+01	6.071E+01	1.070E+02	6.431E+00	0.353
		1808.65	*	-2.509E+00	1.729E+00	2.254E+00	1.322E-01	-1.113
K-40		1460.81	*	2.878E+00	2.323E+01	3.425E+01	2.514E+00	0.084
TI-44		67.85		-2.022E+00	2.388E+00	3.135E+00	2.596E-01	-0.645
		78.38	*	-2.295E+00	1.801E+00	2.458E+00	2.118E-01	-0.934
SC-46		889.25	*	5.191E-02	1.490E+00	2.500E+00	1.909E-01	0.021
		1120.51		-1.006E+00	2.220E+00	2.835E+00	1.730E-01	-0.355
V-48		944.10		1.826E+01	2.547E+01	4.539E+01	3.405E+00	0.402
		983.50	*	3.579E-01	2.107E+00	3.565E+00	2.584E-01	0.100
		1312.09		1.516E+00	2.339E+00	4.120E+00	2.892E-01	0.368
CR-51		320.08	*	-3.746E+00	1.446E+01	2.387E+01	1.591E+00	-0.157
MN-52		744.21		-1.628E+00	3.657E+00	5.601E+00	3.268E-01	-0.291
		848.13		-1.326E+02	1.185E+02	1.776E+02	1.261E+01	-0.747
		935.52		2.137E+00	4.101E+00	7.178E+00	5.420E-01	0.298
		1246.25		1.730E+01	9.752E+01	1.637E+02	1.032E+01	0.106
		1333.61		-8.925E+00	8.469E+01	1.367E+02	9.899E+00	-0.065
		1434.06	*	-4.862E-01	3.961E+00	6.333E+00	4.494E-01	-0.077
MN-54		834.83	*	-9.731E-02	1.429E+00	2.384E+00	1.653E-01	-0.041
CO-56		846.75	*	-1.153E+00	1.566E+00	2.450E+00	1.736E-01	-0.470
		977.42		-4.653E+01	1.126E+02	1.796E+02	1.310E+01	-0.259
		1037.82		-1.320E+01	1.139E+01	1.637E+01	1.214E+00	-0.806
		1175.09		4.650E+01	7.140E+01	1.262E+02	7.033E+00	0.368
		1238.25		-2.777E-01	2.605E+00	4.227E+00	2.775E-01	-0.066
		1360.21		1.770E+01	3.563E+01	6.221E+01	4.487E+00	0.285
		1771.40		2.449E+00	1.150E+01	1.975E+01	1.191E+00	0.124
CO-57		122.06	*	1.073E-01	1.123E+00	1.842E+00	1.113E-01	0.058
		136.48		-6.190E+00	9.843E+00	1.554E+01	1.032E+00	-0.398
CO-58		810.76	*	-3.469E-01	1.459E+00	2.282E+00	1.520E-01	-0.152
FE-59		142.65		4.140E+01	1.174E+02	1.937E+02	1.084E+01	0.214
		192.34		6.015E+00	3.831E+01	6.219E+01	7.227E+00	0.097
		1099.22	*	-1.298E+00	3.195E+00	5.056E+00	3.658E-01	-0.257

Sample ID : G1202001366 Acquisition date : 30-DEC-2009 22:43:00

---- Non-Identified Nuclides ----

Nuclide	Line Energy Ided (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
	1291.56		2.427E+00	4.122E+00	7.225E+00	5.940E-01	0.336
CO-60	1173.22		-5.164E-01	1.527E+00	2.416E+00	1.341E-01	-0.214
	1332.49	*	-5.716E-01	1.657E+00	2.594E+00	1.879E-01	-0.220
ZN-65	1115.52	*	-2.310E+00	3.225E+00	4.910E+00	3.027E-01	-0.470
GE-68	1077.35	*	7.507E+00	4.190E+01	7.085E+01	4.612E+00	0.106
AS-73	53.44	*	-1.983E+00	3.208E+01	5.320E+01	4.304E+00	-0.037
AS-74	595.88	*	2.113E+00	3.301E+00	5.629E+00	3.071E-01	0.375
	634.78		1.309E-01	1.158E+01	1.884E+01	9.714E-01	0.007
SE-75	66.05		-2.962E+02	2.503E+02	3.284E+02	3.333E+01	-0.902
	96.73		-3.600E+00	3.708E+01	5.306E+01	7.043E+00	-0.068
	121.11		3.016E+00	5.858E+00	9.796E+00	9.224E-01	0.308
	136.00		-7.240E-01	1.758E+00	2.805E+00	1.627E-01	-0.258
	198.60		-7.451E+01	1.027E+02	1.306E+02	8.924E+00	-0.570
	264.65	*	-1.621E+00	1.810E+00	2.901E+00	1.702E-01	-0.559
	279.53		8.206E-01	4.373E+00	7.426E+00	4.709E-01	0.111
	303.91		3.540E+01	9.199E+01	1.571E+02	1.516E+01	0.225
	400.65		-1.596E-01	1.049E+01	1.739E+01	1.620E+00	-0.009
BR-77	87.88		-2.961E+02	1.047E+03	1.485E+03	1.371E+02	-0.199
	200.40		5.484E+02	9.501E+02	1.571E+03	8.559E+01	0.349
	239.00		1.934E+01	8.281E+01	1.057E+02	5.997E+00	0.183
	249.79		6.209E+01	4.016E+02	6.467E+02	3.707E+01	0.096
	281.68		-6.855E+02	5.145E+02	8.025E+02	4.725E+01	-0.854
	297.23		-2.043E+02	3.013E+02	4.881E+02	2.904E+01	-0.419
	303.76		3.547E+02	1.033E+03	1.762E+03	1.053E+02	0.201
	439.47		5.847E+00	7.726E+02	1.278E+03	7.802E+01	0.005
	484.57		3.927E+02	1.337E+03	2.245E+03	1.349E+02	0.175
	520.65	*	9.532E+00	6.128E+01	1.017E+02	5.979E+00	0.094
	574.64		-5.313E+02	1.200E+03	1.892E+03	1.059E+02	-0.281
	578.91		-5.166E+02	5.287E+02	8.007E+02	4.459E+01	-0.645
	585.48		-1.164E+02	9.914E+02	1.604E+03	8.867E+01	-0.073
	755.35		5.521E+01	8.705E+02	1.412E+03	8.421E+01	0.039
	817.79		-1.302E+02	7.020E+02	1.104E+03	7.421E+01	-0.118
SR-82	698.33		-1.563E+03	1.348E+03	1.972E+03	1.048E+02	-0.793
	776.49	*	9.017E+00	1.280E+01	2.199E+01	1.367E+00	0.410
	1395.20		-1.400E+02	4.048E+02	6.306E+02	4.517E+01	-0.222
RB-83	520.41	*	9.383E-01	3.058E+00	5.126E+00	3.015E-01	0.183
	529.64		2.150E+00	4.669E+00	7.903E+00	4.615E-01	0.272
	552.65		-6.901E+00	8.341E+00	1.273E+01	7.285E-01	-0.542
RB-84	881.50	*	-2.655E-01	2.360E+00	3.906E+00	2.942E-01	-0.068
KR-85	513.99	*	-3.339E+03	5.832E+02	6.520E+02	3.852E+01	-5.120
SR-85	513.99	*	-1.589E+01	2.775E+00	3.103E+00	1.833E-01	-5.120
RB-86	1076.63	*	-3.462E+00	2.108E+01	3.423E+01	2.231E+00	-0.101
Y-88	898.02		-2.849E-01	1.597E+00	2.625E+00	2.047E-01	-0.109
	1836.01	*	8.387E-01	1.700E+00	3.027E+00	1.741E-01	0.277
ZR-88	392.90	*	-4.167E-01	1.558E+00	2.160E+00	1.323E-01	-0.193
Y-91	1204.90	*	-2.315E+02	5.609E+02	8.766E+02	5.151E+01	-0.264
NB-94	702.63	*	-2.220E-02	1.598E+00	2.582E+00	1.385E-01	-0.009
	871.10		3.363E-01	1.383E+00	2.367E+00	1.751E-01	0.142
NB-95	765.79	*	5.901E-02	1.547E+00	2.502E+00	1.523E-01	0.024

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NB-95M		235.69	*	-4.949E+00	5.582E+00	8.522E+00	6.321E-01	-0.581
ZR-95		724.18		6.383E-01	3.613E+00	5.927E+00	3.968E-01	0.108
		756.15	*	1.238E+00	2.800E+00	4.696E+00	3.371E-01	0.264
NB-97		657.90	*	-1.965E-03	2.800E+00	Half-Life too short		
		1024.50		9.763E-02	2.800E+00	Half-Life too short		
ZR-97		254.15		-1.217E-01	2.800E+00	Half-Life too short		
		355.39		-8.812E-02	2.800E+00	Half-Life too short		
		507.63	*	1.526E-02	2.800E+00	Half-Life too short		
		602.52		-1.130E-01	2.800E+00	Half-Life too short		
		1021.30		3.081E-01	2.800E+00	Half-Life too short		
		1147.95		-4.572E-02	2.800E+00	Half-Life too short		
		1362.66		-1.028E-01	2.800E+00	Half-Life too short		
		1750.46		-1.916E-02	2.800E+00	Half-Life too short		
MO-99		140.51		7.861E+01	2.120E+02	3.488E+02	9.386E+01	0.225
		181.06		-2.135E+02	1.455E+02	2.111E+02	3.587E+01	-1.011
		366.43		-5.233E+02	6.361E+02	1.003E+03	6.134E+01	-0.522
		739.58	*	-2.668E+01	7.565E+01	1.173E+02	1.616E+01	-0.227
		778.00		1.797E+02	2.318E+02	4.009E+02	2.500E+01	0.448
TC-99M		140.51	*	2.092E+03	2.318E+02	Half-Life too short		
RH-101		127.23		2.904E-01	1.404E+00	2.313E+00	1.364E-01	0.126
		198.01	*	-8.422E-01	1.938E+00	2.502E+00	1.359E-01	-0.337
		325.23		9.872E-01	9.893E+00	1.664E+01	1.005E+00	0.059
RH-102		418.52		-7.214E+00	1.212E+01	1.923E+01	1.177E+00	-0.375
		475.06	*	4.042E-01	1.323E+00	2.224E+00	1.343E-01	0.182
		631.29		-1.581E+00	2.313E+00	3.526E+00	1.828E-01	-0.448
		697.49		-2.476E+00	3.666E+00	5.609E+00	2.976E-01	-0.441
		766.84		-1.841E+00	3.990E+00	6.116E+00	3.731E-01	-0.301
		1046.59		1.856E+00	5.126E+00	8.775E+00	5.944E-01	0.211
		1112.84		2.935E+00	8.557E+00	1.464E+01	9.044E-01	0.201
RU-103		497.08	*	-5.478E-01	1.625E+00	2.605E+00	3.314E-01	-0.210
		610.33		4.523E+01	3.376E+01	5.863E+01	8.944E+00	0.771
RH-106		511.85		-4.391E+01	1.643E+01	2.363E+01	1.398E+00	-1.858
		621.84	*	3.529E+00	1.418E+01	2.353E+01	2.701E+00	0.150
		1050.47		9.568E+00	9.774E+01	1.636E+02	1.103E+01	0.058
RU-106		511.85		-4.391E+01	1.643E+01	2.363E+01	1.398E+00	-1.858
		621.84	*	3.529E+00	1.417E+01	2.353E+01	1.238E+00	0.150
		1050.47		9.568E+00	9.774E+01	1.636E+02	1.103E+01	0.058
AG-108M		433.93	*	6.996E-01	1.426E+00	2.435E+00	1.604E-01	0.287
		614.37		-1.092E+00	2.061E+00	2.861E+00	1.675E-01	-0.382
		722.95		-4.967E-01	1.774E+00	2.794E+00	1.704E-01	-0.178
CD-109		88.03	*	-6.099E+00	3.776E+01	5.399E+01	4.986E+00	-0.113
AG-110M		657.75	*	-1.216E+00	1.496E+00	2.252E+00	1.213E-01	-0.540
		677.61		-9.327E+00	1.285E+01	1.940E+01	1.065E+00	-0.481
		706.67		2.051E+00	9.657E+00	1.588E+01	9.177E-01	0.129
		763.93		7.635E-01	6.382E+00	1.040E+01	6.664E-01	0.073
		884.67		-1.415E+00	2.347E+00	3.133E+00	2.471E-01	-0.452
		937.48		-2.956E+00	4.567E+00	7.143E+00	5.639E-01	-0.414
		1384.27		1.730E+00	7.398E+00	1.241E+01	9.267E-01	0.139
IN-111		171.28		7.628E+00	8.319E+00	1.402E+01	7.421E-01	0.544

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		245.39	*	-2.862E-01	8.597E+00	1.371E+01	7.824E-01	-0.021
IN-113M		391.69	*	-1.308E-01	1.935E+00	3.201E+00	2.078E-01	-0.041
SN-113		391.69	*	-1.308E-01	1.935E+00	3.201E+00	2.078E-01	-0.041
IN-114M		190.27	*	-3.534E+00	7.684E+00	1.210E+01	6.519E-01	-0.292
CD-115		260.90		1.249E+02	6.335E+02	1.078E+03	6.242E+01	0.116
		492.35		-6.978E+00	1.757E+02	2.881E+02	1.725E+01	-0.024
		527.90	*	5.908E+01	5.436E+01	9.590E+01	5.609E+00	0.616
SN-117M		156.02		-1.341E+01	6.831E+01	1.096E+02	5.920E+00	-0.122
		158.56	*	-5.205E-01	1.731E+00	2.764E+00	1.483E-01	-0.188
SB-122		563.90	*	3.062E+00	1.711E+01	2.831E+01	1.603E+00	0.108
		692.80		9.192E+01	3.415E+02	5.643E+02	2.965E+01	0.163
I-123		159.00	*	-5.936E-03	3.415E+02	Half-Life too short		
		528.96		1.807E+00	3.415E+02	Half-Life too short		
TE-123M		159.00	*	-2.242E-01	1.235E+00	1.982E+00	1.079E-01	-0.113
I-124		602.71	*	-5.326E+00	1.011E+01	1.586E+01	8.574E-01	-0.336
		722.78		-8.290E+00	5.611E+01	8.942E+01	4.998E+00	-0.093
		1325.50		3.055E+02	4.168E+02	7.437E+02	5.330E+01	0.411
		1376.25		-4.113E+01	3.887E+02	6.262E+02	4.503E+01	-0.066
		1509.49		1.359E+02	2.054E+02	3.638E+02	2.522E+01	0.374
		1691.02		6.874E-01	6.039E+01	9.753E+01	6.203E+00	0.007
SB-124		602.71		-9.241E-01	1.754E+00	2.752E+00	1.488E-01	-0.336
		645.85		5.127E+00	2.234E+01	3.694E+01	2.179E+00	0.139
		709.31		-1.809E+00	1.153E+02	1.862E+02	1.013E+01	-0.010
		713.82		-2.879E+01	6.605E+01	1.024E+02	1.028E+01	-0.281
		722.78		-2.085E+00	1.411E+01	2.249E+01	1.321E+00	-0.093
		968.20		1.480E+01	8.527E+01	1.444E+02	1.061E+01	0.103
		1045.16		8.746E+01	1.002E+02	1.788E+02	1.214E+01	0.489
		1325.50		8.207E+01	1.120E+02	1.998E+02	1.432E+01	0.411
		1368.21		1.993E+01	7.186E+01	1.213E+02	1.531E+01	0.164
		1436.60		4.200E+01	1.336E+02	2.279E+02	1.616E+01	0.184
		1691.02	*	4.078E-02	3.582E+00	5.786E+00	3.943E-01	0.007
SB-125		427.89	*	-5.958E-03	4.135E+00	6.842E+00	4.346E-01	-0.001
		463.38		7.485E+00	1.199E+01	2.059E+01	1.440E+00	0.363
		600.56		-2.882E+00	8.675E+00	1.380E+01	8.814E-01	-0.209
		635.90		8.482E-01	1.189E+01	1.945E+01	1.214E+00	0.044
TE-125M		109.28	*	-2.085E+02	3.958E+02	6.315E+02	5.628E+01	-0.330
I-126		388.63		5.618E+00	6.354E+00	1.109E+01	6.793E-01	0.506
		666.33	*	-2.756E-01	5.112E+00	8.251E+00	4.097E-01	-0.033
		753.82		-1.731E+01	4.328E+01	6.707E+01	3.989E+00	-0.258
SB-126		223.80		-4.397E+01	1.270E+02	1.997E+02	1.116E+01	-0.220
		278.60		4.627E+01	6.881E+01	1.197E+02	7.029E+00	0.387
		296.50		-2.735E+01	4.183E+01	6.787E+01	4.036E+00	-0.403
		414.70		1.075E+00	2.212E+00	3.778E+00	2.315E-01	0.285
		415.30		4.474E+01	1.805E+02	3.040E+02	1.862E+01	0.147
		555.20		3.298E+01	1.188E+02	1.985E+02	1.134E+01	0.166
		573.80		-2.431E+01	3.209E+01	4.929E+01	2.761E+00	-0.493
		593.00		-9.054E+00	2.865E+01	4.557E+01	2.495E+00	-0.199
		656.30		1.493E+01	9.594E+01	1.578E+02	7.838E+00	0.095
		666.33		-1.133E-01	2.102E+00	3.392E+00	1.685E-01	-0.033

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		675.00		-1.641E+01	5.791E+01	9.149E+01	4.628E+00	-0.179
		695.00		1.328E+00	2.415E+00	4.078E+00	2.152E-01	0.326
		697.00		-2.777E+00	8.546E+00	1.347E+01	7.139E-01	-0.206
		720.50	*	6.111E-01	4.159E+00	6.807E+00	3.787E-01	0.090
		856.80		-5.872E+00	1.257E+01	2.015E+01	1.453E+00	-0.291
		989.30		6.062E+00	3.198E+01	5.426E+01	3.912E+00	0.112
		1034.80		-3.701E+00	2.246E+02	3.722E+02	2.557E+01	-0.010
		1213.00		3.012E+01	9.374E+01	1.604E+02	9.559E+00	0.188
SN-126		64.28		3.232E+00	2.627E+01	4.001E+01	5.998E+00	0.081
		86.94		9.092E-01	1.558E+01	2.257E+01	9.363E+00	0.040
		87.57	*	-1.689E+00	3.753E+00	5.265E+00	4.848E-01	-0.321
SB-127		61.10		-4.879E+02	6.897E+02	1.107E+03	1.012E+02	-0.441
		252.40		-1.430E+01	5.803E+01	9.081E+01	3.733E+01	-0.157
		290.80		1.712E+02	2.765E+02	4.777E+02	3.356E+01	0.358
		411.60		7.878E+01	1.475E+02	2.522E+02	3.331E+01	0.312
		444.90		-1.637E+02	1.501E+02	1.953E+02	1.789E+01	-0.838
		473.00		-1.548E+01	2.114E+01	3.292E+01	3.153E+00	-0.470
		543.00		6.356E+01	2.013E+02	3.376E+02	3.853E+01	0.188
		603.60		-1.219E+02	1.626E+02	2.508E+02	2.176E+01	-0.486
		685.20	*	-1.766E+01	1.603E+01	2.313E+01	1.568E+00	-0.764
		698.50		-1.773E+02	1.997E+02	2.974E+02	3.856E+01	-0.596
		722.20		-2.475E+02	3.597E+02	5.443E+02	3.668E+01	-0.455
		783.80		-1.989E+01	4.341E+01	6.671E+01	6.099E+00	-0.298
XE-127		57.60		2.646E+01	2.187E+02	3.651E+02	3.032E+01	0.072
		145.22		5.915E+00	2.788E+01	4.574E+01	2.541E+00	0.129
		172.10		3.724E+00	4.914E+00	8.225E+00	4.356E-01	0.453
		202.84	*	5.752E-01	1.845E+00	3.013E+00	1.646E-01	0.191
		374.96		-4.401E-01	7.861E+00	1.303E+01	7.976E-01	-0.034
I-131		80.18		-1.079E+02	1.071E+02	1.684E+02	1.470E+01	-0.641
		284.30		2.903E+01	3.691E+01	6.438E+01	4.175E+00	0.451
		364.48	*	1.714E+00	2.879E+00	4.957E+00	3.323E-01	0.346
		636.97		1.580E+01	3.655E+01	6.157E+01	3.603E+00	0.257
		722.89		-1.907E+01	1.594E+02	2.547E+02	1.430E+01	-0.075
TE-132		49.72		-3.317E+02	1.865E+02	2.820E+02	2.379E+01	-1.176
		111.76		1.764E+02	2.966E+02	4.983E+02	3.769E+01	0.354
		116.30		-1.691E+02	2.784E+02	4.413E+02	3.216E+01	-0.383
		228.16	*	9.503E-01	7.773E+00	1.149E+01	1.511E+00	0.083
BA-133		53.15		2.920E+00	1.456E+02	2.424E+02	1.956E+01	0.012
		79.62		-5.596E+01	5.568E+01	8.685E+01	1.325E+01	-0.644
		81.00		-1.144E+00	4.158E+00	6.772E+00	1.080E+00	-0.169
		276.40		4.283E+00	1.497E+01	2.554E+01	3.318E+00	0.168
		302.84		1.620E+00	6.398E+00	1.086E+01	1.276E+00	0.149
		356.01	*	-1.720E+00	2.031E+00	3.205E+00	3.754E-01	-0.537
		383.85		-7.786E-01	1.396E+01	2.313E+01	2.555E+00	-0.034
I-133		510.53		-6.385E-02	1.396E+01	Half-Life too short		
		529.87	*	2.180E-04	1.396E+01	Half-Life too short		
		706.58		4.259E-03	1.396E+01	Half-Life too short		
		856.28		-4.990E-02	1.396E+01	Half-Life too short		
		875.33		-1.406E-03	1.396E+01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1236.41		-4.284E-02	1.396E+01	Half-Life too short		
		1298.22		-2.149E-03	1.396E+01	Half-Life too short		
CS-134		475.35		2.916E+01	8.607E+01	1.451E+02	8.757E+00	0.201
		563.23		-1.304E+01	1.867E+01	2.907E+01	1.683E+00	-0.448
		569.32		9.084E-01	1.206E+01	1.751E+01	1.016E+00	0.052
		604.70		-2.225E+00	1.726E+00	2.559E+00	1.389E-01	-0.869
		795.84	*	-9.438E-01	1.878E+00	2.863E+00	1.870E-01	-0.330
		801.93		1.541E+01	2.399E+01	3.265E+01	2.151E+00	0.472
		1038.57		-1.086E+02	1.517E+02	2.321E+02	1.588E+01	-0.468
		1167.94		4.516E+01	8.436E+01	1.474E+02	8.272E+00	0.306
		1365.15		-2.732E+00	5.031E+01	8.159E+01	6.259E+00	-0.033
CS-135		268.24	*	2.062E+00	6.469E+00	1.107E+01	8.498E-01	0.186
I-135		288.45		-2.319E+04	6.469E+00	Half-Life too short		
		417.63		5.140E+03	6.469E+00	Half-Life too short		
		546.56		-3.410E+03	6.469E+00	Half-Life too short		
		836.80		-5.729E+03	6.469E+00	Half-Life too short		
		1038.76		-6.356E+03	6.469E+00	Half-Life too short		
		1124.00		-1.437E+04	6.469E+00	Half-Life too short		
		1131.51		1.042E+03	6.469E+00	Half-Life too short		
		1260.41	*	8.318E+01	6.469E+00	Half-Life too short		
		1457.56		8.935E+03	6.469E+00	Half-Life too short		
		1678.03		5.942E+02	6.469E+00	Half-Life too short		
		1706.46		6.370E+03	6.469E+00	Half-Life too short		
		1791.20		8.372E+03	6.469E+00	Half-Life too short		
CS-136		66.91		-4.600E+01	2.946E+01	3.688E+01	5.621E+00	-1.247
		86.29		4.256E-01	4.026E+01	5.086E+01	6.704E+00	0.008
		153.22		5.282E+00	1.952E+01	3.209E+01	2.223E+00	0.165
		163.89		1.035E+01	3.294E+01	5.414E+01	3.708E+00	0.191
		176.55		4.758E-01	1.167E+01	1.889E+01	1.149E+00	0.025
		273.65		-1.314E+01	1.267E+01	2.008E+01	1.336E+00	-0.654
		340.57		-1.834E+00	3.978E+00	6.480E+00	4.158E-01	-0.283
		818.51		-2.159E-01	2.170E+00	3.446E+00	2.319E-01	-0.063
		1048.07	*	1.513E+00	3.226E+00	5.577E+00	4.024E-01	0.271
		1235.34		-8.103E+00	1.217E+01	1.830E+01	1.870E+00	-0.443
BA-137M		661.65	*	-2.895E-01	1.420E+00	2.260E+00	1.111E-01	-0.128
CS-137		661.65	*	-3.060E-01	1.501E+00	2.389E+00	1.181E-01	-0.128
CE-139		165.85	*	1.717E-01	1.297E+00	2.113E+00	1.115E-01	0.081
BA-140		162.64		2.924E+00	2.343E+01	3.817E+01	2.326E+00	0.077
		304.84		1.363E+01	3.959E+01	6.725E+01	1.838E+01	0.203
		423.70		1.734E+01	5.706E+01	9.592E+01	3.054E+01	0.181
		537.32	*	-2.776E+00	7.555E+00	1.192E+01	3.877E+00	-0.233
LA-140		328.77		1.122E+01	9.052E+00	1.604E+01	1.078E+00	0.699
		432.53		4.776E+00	6.189E+01	1.029E+02	6.886E+00	0.046
		487.03		5.947E-01	4.186E+00	6.959E+00	4.694E-01	0.085
		751.79		-2.141E+01	4.708E+01	7.231E+01	5.206E+00	-0.296
		815.85		1.079E+00	9.001E+00	1.463E+01	1.161E+00	0.074
		867.82		5.313E+00	3.607E+01	6.128E+01	4.831E+00	0.087
		919.63		4.147E+01	7.710E+01	1.351E+02	1.333E+01	0.307
		925.24		-8.265E-01	2.863E+01	4.765E+01	3.915E+00	-0.017

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1596.49	*	-2.584E+00	2.675E+00	3.664E+00	2.452E-01	-0.705
CE-141		145.44	*	1.614E-02	2.465E+00	4.007E+00	2.321E-01	0.004
CE-143		57.37		-4.782E+00	1.232E+03	2.046E+03	1.974E+02	-0.002
		231.56		-1.200E+03	3.252E+03	5.066E+03	1.566E+03	-0.237
		293.26	*	-4.506E+01	2.090E+02	2.829E+02	5.815E+01	-0.159
		350.59		2.380E+02	2.540E+03	3.521E+03	1.072E+03	0.068
		490.36		-2.736E+03	3.686E+03	5.565E+03	1.724E+03	-0.492
		664.57		-4.064E+02	1.473E+03	2.319E+03	7.318E+02	-0.175
		721.93		-1.028E+03	1.671E+03	2.504E+03	7.123E+02	-0.411
CE-144		80.11		-9.151E+01	8.923E+01	1.402E+02	1.221E+01	-0.653
		133.54	*	7.248E-02	9.264E+00	1.509E+01	2.141E+00	0.005
PM-144		476.78		1.341E+00	3.061E+00	5.189E+00	3.703E-01	0.258
		618.01		-1.047E-01	1.384E+00	2.238E+00	1.269E-01	-0.047
		696.49	*	-2.684E-01	1.600E+00	2.554E+00	1.353E-01	-0.105
		778.57		1.770E+01	9.313E+01	1.527E+02	9.530E+00	0.116
PR-144		696.49	*	-1.812E+01	1.080E+02	1.724E+02	9.128E+00	-0.105
		1489.15		2.488E+02	5.650E+02	9.707E+02	6.777E+01	0.256
PM-146		453.90	*	-4.001E-01	2.036E+00	3.317E+00	2.924E-01	-0.121
		633.02		-7.496E+00	5.810E+01	9.328E+01	3.426E+01	-0.080
		735.90		1.587E+00	6.154E+00	1.015E+01	2.829E+00	0.156
		747.13		1.007E-01	3.494E+00	5.652E+00	7.087E-01	0.018
ND-147	+	91.11		2.325E+01	1.530E+01	1.548E+01	1.465E+00	1.502
		319.41		-3.830E+01	1.009E+02	1.655E+02	9.971E+00	-0.231
		439.89		-4.037E+01	1.608E+02	2.610E+02	1.594E+01	-0.155
		531.02	*	-9.936E+00	1.672E+01	2.610E+01	3.532E+00	-0.381
PM-149		285.90	*	1.957E+02	4.597E+02	7.872E+02	1.118E+02	0.249
EU-152		121.78		1.011E+00	3.286E+00	5.446E+00	4.248E-01	0.186
		244.69		-1.168E+00	1.472E+01	2.340E+01	1.335E+00	-0.050
		344.27	*	1.752E+00	4.470E+00	7.618E+00	5.172E-01	0.230
		443.98		-6.040E+01	5.143E+01	6.590E+01	4.020E+00	-0.917
		778.89		2.068E+00	1.089E+01	1.785E+01	1.114E+00	0.116
		867.32		3.319E+00	3.139E+01	5.313E+01	3.904E+00	0.062
		964.01		-9.240E+00	1.052E+01	1.595E+01	1.177E+00	-0.579
		1085.78		5.786E+00	1.385E+01	2.402E+01	1.546E+00	0.241
		1112.02		9.064E+00	1.163E+01	2.076E+01	1.285E+00	0.437
		1407.95		7.752E+00	7.131E+00	1.329E+01	9.494E-01	0.583
GD-153		69.67		-8.856E+01	6.801E+01	1.055E+02	8.763E+00	-0.840
		83.37		4.559E+02	6.059E+02	1.028E+03	9.156E+01	0.444
		97.43	*	4.302E-01	3.798E+00	5.510E+00	4.390E-01	0.078
		103.18		-3.331E+00	4.663E+00	7.374E+00	5.450E-01	-0.452
EU-154		123.07		-3.867E-01	2.330E+00	3.772E+00	3.596E-01	-0.103
		247.94		3.327E+00	1.726E+01	2.785E+01	2.644E+00	0.119
		591.81		-3.556E+01	2.888E+01	4.210E+01	4.037E+00	-0.845
		723.30		-3.099E+00	7.493E+00	1.165E+01	8.055E-01	-0.266
		756.87		1.420E+01	3.341E+01	5.589E+01	5.725E+00	0.254
		873.19		7.361E+00	1.199E+01	2.117E+01	2.420E+00	0.348
		996.32		-3.247E+00	1.548E+01	2.521E+01	4.313E+00	-0.129
		1004.76		3.626E+00	8.959E+00	1.543E+01	1.630E+00	0.235
		1274.45	*	-4.682E-01	4.719E+00	7.653E+00	7.549E-01	-0.061

---- Non-Identified Nuclides ----

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EU-155		48.70		-1.353E+02	1.056E+02	1.652E+02	1.234E+01	-0.819
		60.01		-4.083E+02	2.233E+02	3.372E+02	2.818E+01	-1.211
		86.54		-1.606E+00	5.419E+00	6.722E+00	6.192E-01	-0.239
		105.31	*	-1.944E+00	4.834E+00	7.766E+00	5.691E-01	-0.250
TB-160		86.79		1.476E+00	1.134E+01	1.652E+01	1.511E+00	0.089
		197.04		-2.188E+01	3.100E+01	3.935E+01	2.136E+00	-0.556
		215.65		2.637E+01	3.117E+01	5.219E+01	2.890E+00	0.505
		298.57		2.269E+00	4.673E+00	8.024E+00	4.778E-01	0.283
		879.36	*	-2.467E-01	5.279E+00	8.797E+00	6.602E-01	-0.028
		962.29		5.480E+00	1.788E+01	3.065E+01	2.265E+00	0.179
		966.15		-9.837E-01	6.685E+00	1.098E+01	8.083E-01	-0.090
		1177.93		1.055E+00	1.127E+01	1.877E+01	1.051E+00	0.056
		1271.85		1.979E+01	2.564E+01	4.560E+01	3.001E+00	0.434
HO-166M		80.57		-8.943E+00	1.164E+01	1.853E+01	1.618E+00	-0.483
		184.41		-2.086E-02	2.153E+00	3.023E+00	1.619E-01	-0.007
		280.46		-1.030E+00	3.680E+00	6.098E+00	3.586E-01	-0.169
		410.95		1.832E+00	1.063E+01	1.781E+01	1.091E+00	0.103
		711.68	*	-2.099E+00	2.682E+00	4.024E+00	2.199E-01	-0.522
		752.31		-1.037E+01	1.143E+01	1.669E+01	9.899E-01	-0.621
		810.29		-1.698E+00	2.401E+00	3.551E+00	2.353E-01	-0.478
TM-171		51.35		8.792E+02	1.232E+03	2.115E+03	1.671E+02	0.416
		52.39		-6.036E+01	6.360E+02	1.053E+03	8.433E+01	-0.057
		59.40		-5.374E+02	1.127E+03	1.831E+03	1.532E+02	-0.294
		66.72	*	-2.463E+03	1.518E+03	1.938E+03	1.603E+02	-1.271
HF-175		89.36		3.714E+01	5.980E+01	8.948E+01	8.075E+00	0.415
		343.40	*	8.535E-01	1.548E+00	2.658E+00	1.616E-01	0.321
		433.00		4.705E+01	8.675E+01	1.487E+02	9.090E+00	0.316
LU-176		88.36		-4.364E-01	8.904E+00	1.282E+01	1.177E+00	-0.034
		201.83		-3.646E-01	1.328E+00	2.106E+00	1.149E-01	-0.173
		306.84	*	-5.554E-01	1.140E+00	1.860E+00	1.113E-01	-0.299
		401.10		1.177E+02	2.840E+02	4.837E+02	2.964E+01	0.243
LU-177		112.95		-1.864E-01	3.560E+01	5.823E+01	3.850E+00	-0.003
		208.36	*	5.028E+00	2.142E+01	3.485E+01	1.915E+00	0.144
LU-177M		52.97		-4.352E-01	6.387E+01	1.062E+02	8.555E+00	-0.004
		54.07		-7.508E+00	3.395E+01	5.585E+01	4.543E+00	-0.134
		61.30		-2.440E+01	6.263E+01	1.021E+02	8.500E+00	-0.239
		121.62		4.657E+00	1.634E+01	2.706E+01	1.638E+00	0.172
		147.16		-2.021E+01	2.853E+01	4.470E+01	2.470E+00	-0.452
		171.86		1.474E+01	2.189E+01	3.651E+01	1.933E+00	0.404
		218.09		-1.001E+01	3.791E+01	5.995E+01	3.329E+00	-0.167
		268.79		2.937E+01	3.172E+01	5.585E+01	3.255E+00	0.526
		319.02		-3.757E+00	1.185E+01	1.949E+01	1.174E+00	-0.193
		367.43		-4.461E+01	3.886E+01	5.978E+01	3.655E+00	-0.746
		413.65	*	4.232E+00	7.534E+00	1.292E+01	7.915E-01	0.328
HF-181		56.28		-1.538E+01	3.513E+01	5.715E+01	4.715E+00	-0.269
		57.53		2.148E+00	1.875E+01	3.130E+01	2.598E+00	0.069
		65.20		5.251E+01	4.442E+01	6.484E+01	5.362E+00	0.810
		133.02		-1.563E+00	2.707E+00	4.285E+00	2.473E-01	-0.365
		136.25		-1.463E+01	1.946E+01	3.054E+01	1.743E+00	-0.479

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		345.85		-3.062E+00	7.839E+00	1.279E+01	7.782E-01	-0.239
		482.03	*	-4.798E-01	1.799E+00	2.907E+00	1.750E-01	-0.165
W-181		56.28		-6.503E+00	1.483E+01	2.412E+01	1.990E+00	-0.270
		57.53		9.059E-01	7.918E+00	1.322E+01	1.097E+00	0.069
		65.20	*	2.200E+01	1.861E+01	2.717E+01	2.247E+00	0.810
TA-182		67.75		-6.693E+00	5.561E+00	7.201E+00	5.962E-01	-0.929
		100.10		3.029E+00	7.924E+00	1.280E+01	9.838E-01	0.237
		152.43		3.982E+00	1.368E+01	2.252E+01	1.227E+00	0.177
		222.10		-3.521E+00	1.530E+01	2.421E+01	1.350E+00	-0.145
		1001.68		-7.193E+01	8.572E+01	1.313E+02	9.353E+00	-0.548
		1121.28		1.373E+00	4.525E+00	7.726E+00	4.710E-01	0.178
		1189.05		4.114E-01	1.024E+01	1.694E+01	9.676E-01	0.024
		1221.42	*	4.363E+00	6.920E+00	1.209E+01	7.310E-01	0.361
		1230.97		-3.389E+00	1.474E+01	2.358E+01	1.450E+00	-0.144
RE-183		57.98		1.614E+00	7.615E+00	1.277E+01	1.062E+00	0.126
		59.32		-2.075E+00	4.354E+00	7.069E+00	5.915E-01	-0.294
		67.20		-1.560E+01	1.000E+01	1.281E+01	1.060E+00	-1.218
		162.32	*	1.837E+00	4.661E+00	7.691E+00	4.089E-01	0.239
		208.81		1.432E+01	3.777E+01	6.191E+01	3.403E+00	0.231
		291.72		2.683E+01	4.020E+01	6.961E+01	4.127E+00	0.385
RE-184		57.98		6.196E+00	2.924E+01	4.901E+01	4.077E+00	0.126
		59.32		-7.961E+00	1.670E+01	2.712E+01	2.269E+00	-0.294
		67.20		-5.988E+01	3.840E+01	4.917E+01	4.069E+00	-1.218
		161.27		4.596E+00	1.558E+01	2.560E+01	1.364E+00	0.180
		216.55		8.775E+00	1.150E+01	1.919E+01	1.063E+00	0.457
		252.85	*	-2.321E+00	1.100E+01	1.734E+01	9.969E-01	-0.134
		318.01		1.126E+01	2.067E+01	3.555E+01	2.139E+00	0.317
		792.07		-5.814E+00	3.659E+01	5.782E+01	3.703E+00	-0.101
		903.28		3.615E-02	4.059E+01	6.785E+01	5.241E+00	0.001
		920.93		5.595E-01	1.761E+01	2.949E+01	2.251E+00	0.019
OS-185		59.72		-1.761E+01	1.236E+01	1.910E+01	1.598E+00	-0.922
		61.14		-4.299E+00	6.682E+00	1.077E+01	8.963E-01	-0.399
		69.30		-1.817E+01	1.185E+01	1.813E+01	1.505E+00	-1.002
		592.07		-1.167E+02	1.104E+02	1.645E+02	9.015E+00	-0.709
		646.12	*	9.640E-01	1.926E+00	3.249E+00	1.643E-01	0.297
		717.42		1.434E+01	3.533E+01	5.922E+01	3.274E+00	0.242
		874.81		8.611E+00	2.244E+01	3.890E+01	2.896E+00	0.221
		880.27		-6.365E+00	2.939E+01	4.816E+01	3.619E+00	-0.132
RE-188		155.03	*	-2.817E+00	6.939E+00	1.102E+01	5.964E-01	-0.256
		477.96		2.117E+01	1.364E+02	2.270E+02	1.369E+01	0.093
		633.10		-1.490E+01	1.095E+02	1.759E+02	9.091E+00	-0.085
W-188		63.58		-1.227E+03	2.548E+03	3.783E+03	3.133E+02	-0.324
		227.08		1.827E+02	5.534E+02	9.017E+02	5.054E+01	0.203
		290.67	*	1.859E+02	3.188E+02	5.501E+02	3.259E+01	0.338
IR-192		295.96		-2.389E+00	4.453E+00	7.273E+00	4.389E-01	-0.328
		308.46		-2.168E+00	4.078E+00	6.633E+00	4.015E-01	-0.327
		316.51	*	1.067E+00	1.522E+00	2.638E+00	1.594E-01	0.405
		468.07		-6.212E-01	3.174E+00	4.525E+00	3.126E-01	-0.137
		604.41		-3.083E+01	2.222E+01	3.235E+01	3.607E+00	-0.953

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		612.46		-6.370E+01	3.803E+01	4.905E+01	3.543E+00	-1.299
AU-195		65.12		1.120E+01	8.780E+00	1.287E+01	1.065E+00	0.870
		66.83		-8.073E+00	4.916E+00	6.265E+00	5.183E-01	-1.289
		75.70		1.984E+00	9.522E+00	1.322E+01	1.123E+00	0.150
		98.88	*	5.049E+00	1.114E+01	1.650E+01	1.289E+00	0.306
		129.76		2.259E+01	1.246E+02	2.049E+02	1.196E+01	0.110
TL-200		367.94	*	-2.193E+02	2.198E+02	3.419E+02	2.090E+01	-0.641
		579.30		-1.480E+03	1.834E+03	2.815E+03	1.567E+02	-0.526
		828.27		7.157E+02	2.185E+03	3.773E+03	2.585E+02	0.190
		1205.75		3.854E+01	8.359E+02	1.383E+03	8.141E+01	0.028
TL-201		68.90		-4.801E+01	3.956E+01	6.166E+01	5.114E+00	-0.779
		70.82		-8.351E+00	2.237E+01	3.639E+01	3.031E+00	-0.229
		80.30		-4.183E+01	4.284E+01	6.749E+01	5.885E+00	-0.620
		135.34		1.385E+02	2.322E+02	3.884E+02	2.224E+01	0.357
		167.43	*	-6.417E+01	6.509E+01	1.000E+02	5.278E+00	-0.641
TL-202		68.90		-1.451E+01	1.196E+01	1.864E+01	1.546E+00	-0.779
		70.82		-2.517E+00	6.741E+00	1.097E+01	9.137E-01	-0.229
		80.30		-1.261E+01	1.292E+01	2.035E+01	1.774E+00	-0.620
		439.56	*	-3.648E-02	1.974E+00	3.259E+00	1.990E-01	-0.011
HG-203		70.83		-1.445E+01	3.933E+01	6.395E+01	8.585E+00	-0.226
		72.87		-6.771E-02	2.343E+01	3.873E+01	5.054E+00	-0.002
		82.60		2.241E+01	4.143E+01	6.968E+01	9.681E+00	0.322
		279.20	*	8.083E-01	1.519E+00	2.624E+00	1.635E-01	0.308
BI-207		72.80		-1.079E+00	7.660E+00	1.259E+01	1.056E+00	-0.086
		74.97		8.621E-01	5.468E+00	7.555E+00	6.393E-01	0.114
		84.90		-7.685E+00	9.661E+00	1.277E+01	1.151E+00	-0.602
		569.67		-7.297E-01	1.873E+00	2.621E+00	1.474E-01	-0.278
		1063.62	*	-2.235E-01	2.166E+00	3.553E+00	2.356E-01	-0.063
		1770.23		1.955E+00	2.472E+01	4.174E+01	2.519E+00	0.047
TL-207		81.07		-2.691E+00	9.174E+00	1.494E+01	1.309E+00	-0.180
		83.78		-1.912E+00	6.462E+00	8.796E+00	7.859E-01	-0.217
		94.90		1.882E+01	1.164E+01	1.822E+01	1.505E+00	1.033
		122.32		3.651E+00	7.884E+01	1.290E+02	8.895E+00	0.028
		144.24		3.304E+01	3.182E+01	5.398E+01	3.806E+00	0.612
		154.21		-1.735E-01	1.707E+01	2.768E+01	1.856E+00	-0.006
		269.46		5.948E+00	7.604E+00	1.330E+01	8.105E-01	0.447
		323.87	*	-1.254E+01	2.974E+01	4.848E+01	8.048E+00	-0.259
		338.28		4.313E+01	4.541E+01	7.913E+01	8.454E+00	0.545
		445.03		-1.329E+02	1.256E+02	1.638E+02	1.710E+01	-0.811
TL-208		72.80		-1.168E+01	8.289E+01	1.362E+02	1.142E+01	-0.086
		74.97		9.320E+00	5.912E+01	8.167E+01	9.939E+00	0.114
		277.35		6.048E+00	1.547E+01	2.653E+01	2.811E+00	0.228
		510.84		-1.165E+01	1.546E+01	2.398E+01	2.451E+00	-0.486
		583.14	*	2.994E-01	2.285E+00	3.217E+00	2.079E-01	0.093
		763.13		-3.956E+01	8.958E+01	1.380E+02	1.730E+01	-0.287
		860.37		8.994E+00	1.111E+01	1.993E+01	1.595E+00	0.451
		1093.90		9.016E+01	4.368E+02	7.372E+02	1.661E+02	0.122
PO-209		260.50		1.021E+02	4.253E+02	7.254E+02	4.199E+01	0.141
		262.80		-1.746E+02	1.157E+03	1.935E+03	1.122E+02	-0.090

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		896.60	*	-1.118E+02	2.863E+02	4.595E+02	3.553E+01	-0.243
BI-210		46.50	*	-9.949E+01	1.808E+02	2.645E+02	2.083E+01	-0.376
PB-210		46.50	*	-9.949E+01	1.808E+02	2.645E+02	2.083E+01	-0.376
PO-210		46.50	*	-9.949E+01	1.808E+02	2.645E+02	1.802E+01	-0.376
BI-211		72.87		-3.782E-01	1.309E+02	2.163E+02	1.814E+01	-0.002
		351.07	*	4.625E+00	1.138E+01	1.607E+01	1.077E+00	0.288
PB-211		404.84	*	1.290E+01	4.021E+01	6.673E+01	4.162E+01	0.193
		427.08		6.491E+01	9.979E+01	1.582E+02	9.781E+01	0.410
		831.96		1.506E+01	4.894E+01	8.283E+01	5.173E+01	0.182
BI-212		727.18	*	7.474E+00	1.219E+01	2.073E+01	1.574E+00	0.361
		785.46		5.353E+01	7.176E+01	1.236E+02	7.816E+00	0.433
		1620.62		6.941E+00	5.343E+01	8.822E+01	5.833E+00	0.079
PB-212		74.81		5.336E+00	1.893E+01	2.622E+01	3.305E+00	0.203
		77.11		-4.527E+00	1.001E+01	1.428E+01	1.222E+00	-0.317
		87.30		-3.320E+00	1.723E+01	2.459E+01	3.339E+00	-0.135
		115.19		-4.770E+01	1.631E+02	2.629E+02	1.698E+01	-0.181
		238.63	*	-3.563E-01	4.149E+00	5.240E+00	3.789E-01	-0.068
		300.09		8.669E+00	3.460E+01	5.874E+01	4.912E+00	0.148
PO-212		74.81		5.336E+00	1.893E+01	2.622E+01	3.305E+00	0.203
		77.11		-4.527E+00	1.001E+01	1.428E+01	1.222E+00	-0.317
		87.30		-3.320E+00	1.723E+01	2.459E+01	3.339E+00	-0.135
		115.19		-4.770E+01	1.631E+02	2.629E+02	1.698E+01	-0.181
		238.63	*	-3.563E-01	4.149E+00	5.240E+00	3.789E-01	-0.068
		300.09		8.669E+00	3.460E+01	5.874E+01	4.912E+00	0.148
BI-214		609.31	*	-1.442E+00	4.552E+00	6.266E+00	4.671E-01	-0.230
		1120.29		-5.471E+00	1.372E+01	1.763E+01	1.588E+00	-0.310
		1764.49		5.690E+00	1.078E+01	1.922E+01	1.165E+00	0.296
PB-214		74.81		9.121E+00	3.235E+01	4.482E+01	5.039E+00	0.203
		77.11		-7.698E+00	1.704E+01	2.429E+01	2.782E+00	-0.317
		87.30		-5.642E+00	2.929E+01	4.178E+01	5.011E+00	-0.135
		241.98		-4.115E+01	1.753E+01	2.413E+01	1.928E+00	-1.705
		295.21		-6.181E+00	7.836E+00	1.021E+01	8.803E-01	-0.606
		351.92	*	2.156E+00	4.012E+00	5.732E+00	4.868E-01	0.376
PO-214		74.81		9.121E+00	3.235E+01	4.482E+01	5.039E+00	0.203
		77.11		-7.698E+00	1.704E+01	2.429E+01	2.782E+00	-0.317
		87.30		-5.642E+00	2.929E+01	4.178E+01	5.011E+00	-0.135
		241.98		-4.115E+01	1.753E+01	2.413E+01	1.928E+00	-1.705
		295.21		-6.181E+00	7.836E+00	1.021E+01	8.803E-01	-0.606
		351.92	*	2.156E+00	4.012E+00	5.732E+00	4.868E-01	0.376
PO-215		81.07		-2.691E+00	9.174E+00	1.494E+01	1.309E+00	-0.180
		83.78		-1.912E+00	6.462E+00	8.796E+00	7.859E-01	-0.217
		94.90		1.882E+01	1.164E+01	1.822E+01	1.505E+00	1.033
		122.32		3.651E+00	7.884E+01	1.290E+02	8.895E+00	0.028
		144.24		3.304E+01	3.182E+01	5.398E+01	3.806E+00	0.612
		154.21		-1.735E-01	1.707E+01	2.768E+01	1.856E+00	-0.006
		269.46		5.948E+00	7.604E+00	1.330E+01	8.105E-01	0.447
		323.87	*	-1.254E+01	2.974E+01	4.848E+01	8.048E+00	-0.259
		338.28		4.313E+01	4.541E+01	7.913E+01	8.454E+00	0.545
		445.03		-1.329E+02	1.256E+02	1.638E+02	1.710E+01	-0.811

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PO-216		74.81		5.336E+00	1.893E+01	2.622E+01	3.305E+00	0.203
		77.11		-4.527E+00	1.001E+01	1.428E+01	1.222E+00	-0.317
		87.30		-3.320E+00	1.723E+01	2.459E+01	3.339E+00	-0.135
		115.19		-4.770E+01	1.631E+02	2.629E+02	1.698E+01	-0.181
		238.63	*	-3.563E-01	4.149E+00	5.240E+00	3.789E-01	-0.068
		300.09		8.669E+00	3.460E+01	5.874E+01	4.912E+00	0.148
PO-218		74.81		9.121E+00	3.235E+01	4.482E+01	5.039E+00	0.203
		77.11		-7.698E+00	1.704E+01	2.429E+01	2.782E+00	-0.317
		87.30		-5.642E+00	2.929E+01	4.178E+01	5.011E+00	-0.135
		241.98		-4.115E+01	1.753E+01	2.413E+01	1.928E+00	-1.705
		295.21		-6.181E+00	7.836E+00	1.021E+01	8.803E-01	-0.606
		351.92	*	2.156E+00	4.012E+00	5.732E+00	4.868E-01	0.376
RN-219		271.23		6.457E+00	9.706E+00	1.688E+01	1.373E+00	0.383
		401.81	*	6.671E+00	1.732E+01	2.943E+01	4.046E+00	0.227
RN-220		549.76	*	3.587E+02	1.123E+03	1.885E+03	1.082E+02	0.190
RA-223		81.07		-2.691E+00	9.174E+00	1.494E+01	1.309E+00	-0.180
		83.78		-1.912E+00	6.462E+00	8.796E+00	7.859E-01	-0.217
		94.90		1.882E+01	1.164E+01	1.822E+01	1.505E+00	1.033
		122.32		3.651E+00	7.884E+01	1.290E+02	8.895E+00	0.028
		144.24		3.304E+01	3.182E+01	5.398E+01	3.806E+00	0.612
		154.21		-1.735E-01	1.707E+01	2.768E+01	1.856E+00	-0.006
		269.46		5.948E+00	7.604E+00	1.330E+01	8.105E-01	0.447
		323.87	*	-1.254E+01	2.974E+01	4.848E+01	8.048E+00	-0.259
		338.28		4.313E+01	4.541E+01	7.913E+01	8.454E+00	0.545
		445.03		-1.329E+02	1.256E+02	1.638E+02	1.710E+01	-0.811
RA-224		240.98	*	-4.413E+01	3.303E+01	4.911E+01	2.792E+00	-0.899
RA-226		186.21	*	-5.088E+01	6.084E+01	6.450E+01	4.732E+01	-0.789
AC-227		79.80		-7.262E+01	7.152E+01	1.100E+02	2.369E+01	-0.660
		236.00		3.865E+00	1.090E+01	1.773E+01	1.839E+00	0.218
		256.20	*	1.326E+00	1.759E+01	2.977E+01	4.151E+00	0.045
		286.10		3.643E+01	7.135E+01	1.227E+02	1.425E+01	0.297
		299.80		1.156E+01	6.383E+01	1.080E+02	1.765E+01	0.107
		304.40		1.528E+01	8.517E+01	1.441E+02	2.500E+01	0.106
		329.70		3.853E+01	4.118E+01	7.173E+01	9.026E+00	0.537
		334.20		-1.154E+02	1.089E+02	1.680E+02	3.095E+01	-0.687
PA-227		64.62	*	1.000E+35	1.089E+02	Half-Life too short		
		110.05		-1.000E+35	1.089E+02	Half-Life too short		
TH-227		79.80		-7.262E+01	7.156E+01	1.100E+02	2.399E+01	-0.660
	+	94.00		2.794E+02	1.919E+02	1.824E+02	3.955E+01	1.532
		236.00		3.865E+00	1.090E+01	1.773E+01	1.589E+00	0.218
		256.20	*	1.326E+00	1.759E+01	2.977E+01	5.027E+00	0.045
		286.10		3.643E+01	8.003E+01	1.227E+02	1.229E+02	0.297
		299.80		1.156E+01	6.383E+01	1.080E+02	1.765E+01	0.107
		304.40		1.528E+01	8.517E+01	1.441E+02	2.500E+01	0.106
		329.70		3.853E+01	4.118E+01	7.173E+01	9.026E+00	0.537
		334.20		-1.154E+02	1.089E+02	1.680E+02	3.095E+01	-0.687
AC-228		338.32		1.021E+01	1.161E+01	1.898E+01	7.744E+00	0.538
		911.07	*	-3.664E+00	6.842E+00	1.001E+01	1.055E+00	-0.366
		969.11		1.898E+00	9.150E+00	1.552E+01	3.554E+00	0.122

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RA-228		338.32		1.021E+01	1.161E+01	1.898E+01	7.744E+00	0.538
		911.07	*	-3.664E+00	6.842E+00	1.001E+01	1.055E+00	-0.366
		969.11		1.898E+00	9.150E+00	1.552E+01	3.554E+00	0.122
TH-228		74.81		5.336E+00	1.892E+01	2.622E+01	2.237E+00	0.203
		77.11		-4.527E+00	1.001E+01	1.428E+01	1.222E+00	-0.317
		87.30		-3.320E+00	1.723E+01	2.459E+01	2.259E+00	-0.135
		238.63	*	-3.563E-01	4.149E+00	5.240E+00	3.789E-01	-0.068
		300.09		8.669E+00	3.496E+01	5.874E+01	3.463E+01	0.148
TH-229		85.43		-5.064E+00	9.920E+00	1.262E+01	1.142E+00	-0.401
		88.47		3.119E+00	4.919E+00	7.367E+00	6.752E-01	0.423
		100.00		3.764E+00	8.609E+00	1.394E+01	1.073E+00	0.270
		193.63	*	-1.079E+00	2.339E+01	3.758E+01	2.032E+00	-0.029
		210.97		-1.745E+01	3.273E+01	5.102E+01	2.811E+00	-0.342
TH-230		67.67	*	-7.138E+02	4.670E+03	7.883E+02	5.114E+03	-0.906
PA-231		283.67	*	3.218E+01	6.960E+01	1.194E+02	1.651E+01	0.269
		301.29		4.218E+00	2.573E+01	4.350E+01	4.587E+00	0.097
		330.00		4.506E+01	9.326E+01	1.580E+02	4.956E+01	0.285
TH-231		84.21	*	-2.258E+01	2.530E+01	3.306E+01	5.956E+00	-0.683
U-231		84.21		-7.821E+01	8.678E+01	1.145E+02	1.027E+01	-0.683
	+	92.29		8.565E+01	5.629E+01	5.926E+01	5.095E+00	1.445
		95.87	*	-6.243E+00	1.668E+01	2.344E+01	1.909E+00	-0.266
		108.00		3.545E+00	2.892E+01	4.764E+01	3.326E+00	0.074
TH-232		59.00	*	-7.374E+02	7.867E+03	2.073E+03	2.182E+04	-0.356
PA-233		75.28		2.666E+01	1.587E+02	2.194E+02	3.349E+01	0.122
		86.59		1.918E+01	7.458E+01	1.092E+02	2.946E+01	0.176
		300.12		4.415E+00	1.774E+01	3.011E+01	4.067E+00	0.147
		311.98	*	1.290E-01	2.906E+00	4.880E+00	3.098E-01	0.026
		340.50		-1.260E+01	2.818E+01	4.570E+01	1.053E+01	-0.276
		398.62		-4.619E+01	9.151E+01	1.455E+02	3.774E+01	-0.317
		415.76		2.076E+01	7.201E+01	1.214E+02	2.510E+01	0.171
PA-234		63.00		-6.905E+01	8.208E+01	1.192E+02	1.826E+01	-0.579
		94.67		2.142E+01	8.933E+00	1.402E+01	1.707E+00	1.527
		98.44		-6.005E-02	4.127E+00	6.771E+00	3.770E+00	-0.009
		99.86		2.085E+01	2.072E+01	3.549E+01	2.736E+00	0.587
		111.00		6.286E+00	8.390E+00	1.416E+01	1.535E+00	0.444
		131.20		-1.392E+00	4.797E+00	7.708E+00	4.477E-01	-0.181
		152.70		3.630E+00	1.388E+01	2.279E+01	3.575E+00	0.159
		186.00		-7.531E+01	8.176E+01	1.057E+02	3.223E+01	-0.712
		226.40		5.929E+00	1.878E+01	3.057E+01	3.503E+00	0.194
		227.20		6.964E+00	2.008E+01	3.275E+01	1.836E+00	0.213
		248.90		4.985E-01	3.907E+01	6.242E+01	1.340E+01	0.008
		293.70		-1.391E+01	3.771E+01	5.063E+01	8.168E+00	-0.275
		369.80		-1.977E+01	3.791E+01	6.066E+01	1.269E+01	-0.326
		568.70		2.895E+01	6.245E+01	9.341E+01	5.261E+00	0.310
		569.50		-1.513E+00	1.664E+01	2.381E+01	1.340E+00	-0.064
		574.00		-4.584E+01	6.891E+01	1.067E+02	5.978E+00	-0.429
		699.00		-3.803E+01	3.437E+01	4.943E+01	8.816E+00	-0.769
		706.10		6.515E+00	5.018E+01	8.185E+01	3.608E+01	0.080
		733.00		6.792E-01	1.578E+01	2.557E+01	5.430E+00	0.027

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		742.81		-3.209E+01	5.487E+01	7.557E+01	5.057E+01	-0.425
		796.30		-1.256E+01	3.639E+01	5.618E+01	1.485E+01	-0.224
		805.60		-1.228E+00	4.630E+01	7.419E+01	2.236E+01	-0.017
		819.60		1.326E+01	5.174E+01	8.485E+01	3.194E+01	0.156
		826.30		8.396E+00	3.347E+01	5.710E+01	2.537E+01	0.147
		831.60		6.065E+00	2.476E+01	4.235E+01	1.245E+01	0.143
		876.40		-1.566E+01	3.787E+01	5.492E+01	5.640E+01	-0.285
		880.51		-2.135E+00	1.112E+01	1.827E+01	1.373E+00	-0.117
		883.24		-3.765E+00	1.402E+01	1.914E+01	1.284E+01	-0.197
		899.00		-9.045E+00	3.397E+01	5.497E+01	2.394E+01	-0.165
		925.00		4.334E+00	4.330E+01	7.306E+01	5.559E+00	0.059
		926.50		-1.955E+00	6.540E+00	1.054E+01	2.629E+00	-0.186
		946.00	*	-4.508E+00	1.148E+01	1.831E+01	3.346E+00	-0.246
		949.00		6.473E-01	1.677E+01	2.808E+01	2.098E+00	0.023
		980.50		2.141E+01	2.985E+01	5.301E+01	3.854E+00	0.404
		1394.10		7.809E-02	5.293E+01	8.638E+01	5.607E+01	0.001
PA-234M		766.42		-1.910E+02	4.325E+02	6.472E+02	3.260E+02	-0.295
		1001.03	*	-1.633E+01	2.024E+02	3.341E+02	2.909E+01	-0.049
TH-234		63.29	*	-5.858E+01	6.983E+01	1.011E+02	1.803E+01	-0.579
	+	92.38		7.230E+01	4.888E+01	4.997E+01	9.028E+00	1.447
U-234		53.20	*	7.110E+01	2.682E+03	4.306E+03	4.306E+04	0.017
U-235		89.95		3.267E+01	5.121E+01	7.526E+01	2.329E+01	0.434
	+	93.35		8.692E+01	6.164E+01	5.938E+01	1.661E+01	1.464
		105.00		-1.912E+01	4.786E+01	7.641E+01	2.252E+01	-0.250
		143.76	*	4.541E+00	9.947E+00	1.645E+01	2.670E+00	0.276
		163.35		-1.569E+00	2.161E+01	3.486E+01	6.216E+00	-0.045
		185.71		-2.508E+00	2.907E+00	3.930E+00	2.108E-01	-0.638
		205.31		-3.571E+01	2.891E+01	3.492E+01	6.243E+00	-1.023
NP-236		94.67		1.638E+01	6.626E+00	1.065E+01	8.831E-01	1.537
		98.44		-4.668E-02	3.120E+00	5.118E+00	4.022E-01	-0.009
		111.00		4.755E+00	6.333E+00	1.071E+01	7.234E-01	0.444
		160.31	*	1.921E+00	3.569E+00	5.932E+00	3.169E-01	0.324
NP-237		86.50	*	-3.639E+00	1.328E+01	1.648E+01	3.719E+00	-0.221
		95.87		-1.775E+01	4.759E+01	6.662E+01	1.630E+01	-0.266
PU-237		59.54	*	-1.159E+02	8.523E+01	1.322E+02	1.107E+01	-0.876
U-238		63.29	*	-5.858E+01	6.983E+01	1.011E+02	1.803E+01	-0.579
	+	92.38		7.230E+01	4.751E+01	4.997E+01	4.291E+00	1.447
NP-239		99.55		6.809E+00	7.479E+00	1.192E+01	9.231E-01	0.571
		117.00	*	2.899E+00	8.458E+00	1.405E+01	8.909E-01	0.206
		209.75		2.691E+01	3.181E+01	5.336E+01	2.936E+00	0.504
		228.18		1.384E+00	1.148E+01	1.697E+01	9.524E-01	0.082
		277.60		3.325E+00	7.427E+00	1.278E+01	7.501E-01	0.260
		334.30		-5.545E+01	6.012E+01	9.531E+01	5.776E+00	-0.582
AM-241		59.54	*	-9.354E+00	6.887E+00	1.068E+01	9.624E-01	-0.876
AM-243		74.67	*	7.910E-01	3.049E+00	4.221E+00	3.567E-01	0.187
		86.72		7.252E+01	4.166E+02	6.081E+02	5.560E+01	0.119
		117.66		9.846E+01	1.698E+02	2.850E+02	1.795E+01	0.345
		142.18		4.338E+02	8.551E+02	1.420E+03	7.960E+01	0.305
CM-243		99.55		7.679E+00	7.142E+00	1.226E+01	9.495E-01	0.626

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		103.76	*	-4.089E+00	4.446E+00	6.954E+00	5.103E-01	-0.588
		117.00		2.981E+00	8.697E+00	1.445E+01	9.162E-01	0.206
		209.75		2.651E+01	3.134E+01	5.258E+01	2.893E+00	0.504
		228.18		1.398E+00	1.160E+01	1.714E+01	9.619E-01	0.082
		277.60		3.351E+00	7.484E+00	1.288E+01	7.558E-01	0.260
AM-246		798.80		-1.039E+01	6.529E+00	8.836E+00	5.730E-01	-1.176
		1036.00		-8.602E+00	1.129E+01	1.709E+01	1.173E+00	-0.503
		1062.04		-4.900E+00	9.540E+00	1.499E+01	9.959E-01	-0.327
		1078.86	*	9.660E-01	4.738E+00	8.040E+00	5.223E-01	0.120
CM-247		278.00		1.637E+01	3.098E+01	5.352E+01	3.142E+00	0.306
		287.40		-1.672E+00	5.785E+01	9.705E+01	5.737E+00	-0.017
		402.60	*	-2.376E-01	1.591E+00	2.614E+00	1.602E-01	-0.091
CF-249		252.85		-8.965E+00	4.249E+01	6.699E+01	3.851E+00	-0.134
		333.44		-1.032E+01	7.923E+00	1.226E+01	7.431E-01	-0.842
		387.95	*	1.839E+00	1.797E+00	3.161E+00	1.936E-01	0.582
CF-251		176.60	*	8.983E-02	5.840E+00	9.441E+00	5.020E-01	0.010
		227.00		5.676E+00	1.781E+01	2.901E+01	1.626E+00	0.196
		285.00		5.497E+01	7.944E+01	1.380E+02	8.143E+00	0.398
ANH-511		511.00	*	-2.761E+00	3.300E+00	5.113E+00	3.027E-01	-0.540

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001366      *
* Acquisition date : 30-DEC-2009 22:43:00 Detector SN#    :                 *
* Detector ID       : GAM14               Sensitivity     : 5.000           *
* Geometry          : 2LMB                Energy tolerance: 1.500           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:01.47     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 23-DEC-2009 00:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G1202001366          Analyst initials: KXG3           *
* Batch Number      : 935338               Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  9-MAR-2009 15:03:15 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)	
BE-7	6.948E+00	1.344E+01	2.333E+01	0.000E+00 NOT IDENT.
NA-22	-2.015E-01	1.646E+00	2.717E+00	0.000E+00 NOT IDENT.
NA-24	0.000E+00	1.198E+04	0.000E+00	0.000E+00 SHORT HLIF
AL-26	-2.509E+00	1.695E+00	2.254E+00	0.000E+00 NOT IDENT.
K-40	2.878E+00	2.276E+01	3.425E+01	0.000E+00 NOT IDENT.
TI-44	-2.295E+00	1.765E+00	2.458E+00	0.000E+00 NOT IDENT.
SC-46	5.191E-02	1.460E+00	2.500E+00	0.000E+00 NOT IDENT.
V-48	3.579E-01	2.065E+00	3.565E+00	0.000E+00 NOT IDENT.
CR-51	-3.746E+00	1.418E+01	2.387E+01	0.000E+00 NOT IDENT.
MN-52	-4.862E-01	3.881E+00	6.333E+00	0.000E+00 NOT IDENT.
MN-54	-9.731E-02	1.401E+00	2.384E+00	0.000E+00 NOT IDENT.
CO-56	-1.153E+00	1.535E+00	2.450E+00	0.000E+00 NOT IDENT.
CO-57	1.073E-01	1.100E+00	1.842E+00	0.000E+00 NOT IDENT.
CO-58	-3.469E-01	1.430E+00	2.282E+00	0.000E+00 NOT IDENT.
FE-59	-1.298E+00	3.131E+00	5.056E+00	0.000E+00 NOT IDENT.
CO-60	-5.716E-01	1.624E+00	2.594E+00	0.000E+00 NOT IDENT.
ZN-65	-2.310E+00	3.161E+00	4.910E+00	0.000E+00 NOT IDENT.
GE-68	7.507E+00	4.106E+01	7.085E+01	0.000E+00 NOT IDENT.
AS-73	-1.983E+00	3.144E+01	5.320E+01	0.000E+00 NOT IDENT.
AS-74	2.113E+00	3.235E+00	5.629E+00	0.000E+00 NOT IDENT.
SE-75	-1.621E+00	1.774E+00	2.901E+00	0.000E+00 NOT IDENT.
BR-77	9.532E+00	6.006E+01	1.017E+02	0.000E+00 NOT IDENT.
SR-82	9.017E+00	1.254E+01	2.199E+01	0.000E+00 NOT IDENT.
RB-83	9.383E-01	2.997E+00	5.126E+00	0.000E+00 NOT IDENT.
RB-84	-2.655E-01	2.313E+00	3.906E+00	0.000E+00 NOT IDENT.
KR-85	-3.339E+03	5.715E+02	6.520E+02	0.000E+00 NOT IDENT.

SR-85	-1.589E+01	2.720E+00	3.103E+00	0.000E+00	NOT IDENT.
RB-86	-3.462E+00	2.066E+01	3.423E+01	0.000E+00	NOT IDENT.
Y-88	8.387E-01	1.666E+00	3.027E+00	0.000E+00	NOT IDENT.
ZR-88	-4.167E-01	1.527E+00	2.160E+00	0.000E+00	NOT IDENT.
Y-91	-2.315E+02	5.497E+02	8.766E+02	0.000E+00	NOT IDENT.
NB-94	-2.220E-02	1.566E+00	2.582E+00	0.000E+00	NOT IDENT.
NB-95	5.901E-02	1.516E+00	2.502E+00	0.000E+00	NOT IDENT.
NB-95M	-4.949E+00	5.471E+00	8.522E+00	0.000E+00	NOT IDENT.
ZR-95	1.238E+00	2.744E+00	4.696E+00	0.000E+00	NOT IDENT.
NB-97	0.000E+00	3.789E+03	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.247E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-2.668E+01	7.414E+01	1.173E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	5.511E+09	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-8.422E-01	1.900E+00	2.502E+00	0.000E+00	NOT IDENT.
RH-102	4.042E-01	1.296E+00	2.224E+00	0.000E+00	NOT IDENT.
RU-103	-5.478E-01	1.593E+00	2.605E+00	0.000E+00	NOT IDENT.
RH-106	3.529E+00	1.389E+01	2.353E+01	0.000E+00	NOT IDENT.
RU-106	3.529E+00	1.389E+01	2.353E+01	0.000E+00	NOT IDENT.
AG-108M	6.996E-01	1.397E+00	2.435E+00	0.000E+00	NOT IDENT.
CD-109	-6.099E+00	3.700E+01	5.399E+01	0.000E+00	NOT IDENT.
AG-110M	-1.216E+00	1.466E+00	2.252E+00	0.000E+00	NOT IDENT.
IN-111	-2.862E-01	8.425E+00	1.371E+01	0.000E+00	NOT IDENT.
IN-113M	-1.308E-01	1.897E+00	3.201E+00	0.000E+00	NOT IDENT.
SN-113	-1.308E-01	1.897E+00	3.201E+00	0.000E+00	NOT IDENT.
IN-114M	-3.534E+00	7.531E+00	1.210E+01	0.000E+00	NOT IDENT.
CD-115	5.908E+01	5.327E+01	9.590E+01	0.000E+00	NOT IDENT.
SN-117M	-5.205E-01	1.697E+00	2.764E+00	0.000E+00	NOT IDENT.
SB-122	3.062E+00	1.677E+01	2.831E+01	0.000E+00	NOT IDENT.
I-123	0.000E+00	3.203E+04	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-2.242E-01	1.210E+00	1.982E+00	0.000E+00	NOT IDENT.
I-124	-5.326E+00	9.907E+00	1.586E+01	0.000E+00	NOT IDENT.
SB-124	4.078E-02	3.511E+00	5.786E+00	0.000E+00	NOT IDENT.
SB-125	-5.958E-03	4.052E+00	6.842E+00	0.000E+00	NOT IDENT.
TE-125M	-2.085E+02	3.879E+02	6.315E+02	0.000E+00	NOT IDENT.
I-126	-2.756E-01	5.010E+00	8.251E+00	0.000E+00	NOT IDENT.
SB-126	6.111E-01	4.075E+00	6.807E+00	0.000E+00	NOT IDENT.
SN-126	-1.689E+00	3.678E+00	5.265E+00	0.000E+00	NOT IDENT.
SB-127	-1.766E+01	1.571E+01	2.313E+01	0.000E+00	NOT IDENT.
XE-127	5.752E-01	1.808E+00	3.013E+00	0.000E+00	NOT IDENT.
I-131	1.714E+00	2.821E+00	4.957E+00	0.000E+00	NOT IDENT.
TE-132	9.503E-01	7.618E+00	1.149E+01	0.000E+00	NOT IDENT.
BA-133	-1.720E+00	1.990E+00	3.205E+00	0.000E+00	NOT IDENT.
I-133	0.000E+00	9.649E+02	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-9.438E-01	1.841E+00	2.863E+00	0.000E+00	NOT IDENT.
CS-135	2.062E+00	6.339E+00	1.107E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.608E+09	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.513E+00	3.161E+00	5.577E+00	0.000E+00	NOT IDENT.
BA-137M	-2.895E-01	1.391E+00	2.260E+00	0.000E+00	NOT IDENT.
CS-137	-3.060E-01	1.471E+00	2.389E+00	0.000E+00	NOT IDENT.
CE-139	1.717E-01	1.271E+00	2.113E+00	0.000E+00	NOT IDENT.
BA-140	-2.776E+00	7.404E+00	1.192E+01	0.000E+00	NOT IDENT.
LA-140	-2.584E+00	2.622E+00	3.664E+00	0.000E+00	NOT IDENT.
CE-141	1.614E-02	2.416E+00	4.007E+00	0.000E+00	NOT IDENT.
CE-143	-4.506E+01	2.048E+02	2.829E+02	0.000E+00	NOT IDENT.
CE-144	7.248E-02	9.079E+00	1.509E+01	0.000E+00	NOT IDENT.
PM-144	-2.684E-01	1.568E+00	2.554E+00	0.000E+00	NOT IDENT.
PR-144	-1.812E+01	1.058E+02	1.724E+02	0.000E+00	NOT IDENT.
PM-146	-4.001E-01	1.995E+00	3.317E+00	0.000E+00	NOT IDENT.
ND-147	-9.936E+00	1.638E+01	2.610E+01	0.000E+00	FAIL ABUN
PM-149	1.957E+02	4.505E+02	7.872E+02	0.000E+00	NOT IDENT.
EU-152	1.752E+00	4.380E+00	7.618E+00	0.000E+00	NOT IDENT.
GD-153	4.302E-01	3.722E+00	5.510E+00	0.000E+00	NOT IDENT.
EU-154	-4.682E-01	4.625E+00	7.653E+00	0.000E+00	NOT IDENT.
EU-155	-1.944E+00	4.737E+00	7.766E+00	0.000E+00	NOT IDENT.
TB-160	-2.467E-01	5.173E+00	8.797E+00	0.000E+00	NOT IDENT.
HO-166M	-2.099E+00	2.628E+00	4.024E+00	0.000E+00	NOT IDENT.
TM-171	-2.463E+03	1.487E+03	1.938E+03	0.000E+00	NOT IDENT.
HF-175	8.535E-01	1.517E+00	2.658E+00	0.000E+00	NOT IDENT.
LU-176	-5.554E-01	1.117E+00	1.860E+00	0.000E+00	NOT IDENT.
LU-177	5.028E+00	2.099E+01	3.485E+01	0.000E+00	NOT IDENT.
LU-177M	4.232E+00	7.383E+00	1.292E+01	0.000E+00	NOT IDENT.
HF-181	-4.798E-01	1.763E+00	2.907E+00	0.000E+00	NOT IDENT.
W-181	2.200E+01	1.824E+01	2.717E+01	0.000E+00	NOT IDENT.
TA-182	4.363E+00	6.781E+00	1.209E+01	0.000E+00	NOT IDENT.
RE-183	1.837E+00	4.568E+00	7.691E+00	0.000E+00	NOT IDENT.
RE-184	-2.321E+00	1.078E+01	1.734E+01	0.000E+00	NOT IDENT.
OS-185	9.640E-01	1.887E+00	3.249E+00	0.000E+00	NOT IDENT.
RE-188	-2.817E+00	6.800E+00	1.102E+01	0.000E+00	NOT IDENT.

W-188	1.859E+02	3.124E+02	5.501E+02	0.000E+00	NOT IDENT.
IR-192	1.067E+00	1.492E+00	2.638E+00	0.000E+00	NOT IDENT.
AU-195	5.049E+00	1.092E+01	1.650E+01	0.000E+00	NOT IDENT.
TL-200	-2.193E+02	2.154E+02	3.419E+02	0.000E+00	NOT IDENT.
TL-201	-6.417E+01	6.379E+01	1.000E+02	0.000E+00	NOT IDENT.
TL-202	-3.648E-02	1.935E+00	3.259E+00	0.000E+00	NOT IDENT.
HG-203	8.083E-01	1.488E+00	2.624E+00	0.000E+00	NOT IDENT.
BI-207	-2.235E-01	2.123E+00	3.553E+00	0.000E+00	NOT IDENT.
TL-207	-1.254E+01	2.915E+01	4.848E+01	0.000E+00	NOT IDENT.
TL-208	2.994E-01	2.239E+00	3.217E+00	0.000E+00	NOT IDENT.
PO-209	-1.118E+02	2.806E+02	4.595E+02	0.000E+00	NOT IDENT.
BI-210	-9.949E+01	1.772E+02	2.645E+02	0.000E+00	NOT IDENT.
PB-210	-9.949E+01	1.772E+02	2.645E+02	0.000E+00	NOT IDENT.
PO-210	-9.949E+01	1.772E+02	2.645E+02	0.000E+00	NOT IDENT.
BI-211	4.625E+00	1.116E+01	1.607E+01	0.000E+00	NOT IDENT.
PB-211	1.290E+01	3.940E+01	6.673E+01	0.000E+00	NOT IDENT.
BI-212	7.474E+00	1.195E+01	2.073E+01	0.000E+00	NOT IDENT.
PB-212	-3.563E-01	4.066E+00	5.240E+00	0.000E+00	NOT IDENT.
PO-212	-3.563E-01	4.066E+00	5.240E+00	0.000E+00	NOT IDENT.
BI-214	-1.442E+00	4.461E+00	6.266E+00	0.000E+00	NOT IDENT.
PB-214	2.156E+00	3.932E+00	5.732E+00	0.000E+00	NOT IDENT.
PO-214	2.156E+00	3.932E+00	5.732E+00	0.000E+00	NOT IDENT.
PO-215	-1.254E+01	2.915E+01	4.848E+01	0.000E+00	NOT IDENT.
PO-216	-3.563E-01	4.066E+00	5.240E+00	0.000E+00	NOT IDENT.
PO-218	2.156E+00	3.932E+00	5.732E+00	0.000E+00	NOT IDENT.
RN-219	6.671E+00	1.698E+01	2.943E+01	0.000E+00	NOT IDENT.
RN-220	3.587E+02	1.101E+03	1.885E+03	0.000E+00	NOT IDENT.
RA-223	-1.254E+01	2.915E+01	4.848E+01	0.000E+00	NOT IDENT.
RA-224	-4.413E+01	3.236E+01	4.911E+01	0.000E+00	NOT IDENT.
RA-226	-5.088E+01	5.962E+01	6.450E+01	0.000E+00	NOT IDENT.
AC-227	1.326E+00	1.724E+01	2.977E+01	0.000E+00	NOT IDENT.
PA-227	0.000E+00	2.561E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	1.326E+00	1.724E+01	2.977E+01	0.000E+00	FAIL ABUN
AC-228	-3.664E+00	6.705E+00	1.001E+01	0.000E+00	NOT IDENT.
RA-228	-3.664E+00	6.705E+00	1.001E+01	0.000E+00	NOT IDENT.
TH-228	-3.563E-01	4.066E+00	5.240E+00	0.000E+00	NOT IDENT.
TH-229	-1.079E+00	2.292E+01	3.758E+01	0.000E+00	NOT IDENT.
TH-230	-7.138E+02	4.577E+03	7.883E+02	0.000E+00	NOT IDENT.
PA-231	3.218E+01	6.821E+01	1.194E+02	0.000E+00	NOT IDENT.
TH-231	-2.258E+01	2.479E+01	3.306E+01	0.000E+00	NOT IDENT.
U-231	-6.243E+00	1.635E+01	2.344E+01	0.000E+00	FAIL ABUN
TH-232	-7.374E+02	7.710E+03	2.073E+03	0.000E+00	NOT IDENT.
PA-233	1.290E-01	2.848E+00	4.880E+00	0.000E+00	NOT IDENT.
PA-234	-4.508E+00	1.126E+01	1.831E+01	0.000E+00	NOT IDENT.
PA-234M	-1.633E+01	1.983E+02	3.341E+02	0.000E+00	NOT IDENT.
TH-234	-5.858E+01	6.844E+01	1.011E+02	0.000E+00	FAIL ABUN
U-234	7.110E+01	2.628E+03	4.306E+03	0.000E+00	NOT IDENT.
U-235	4.541E+00	9.748E+00	1.645E+01	0.000E+00	FAIL ABUN
NP-236	1.921E+00	3.497E+00	5.932E+00	0.000E+00	NOT IDENT.
NP-237	-3.639E+00	1.302E+01	1.648E+01	0.000E+00	NOT IDENT.
PU-237	-1.159E+02	8.352E+01	1.322E+02	0.000E+00	NOT IDENT.
U-238	-5.858E+01	6.844E+01	1.011E+02	0.000E+00	FAIL ABUN
NP-239	2.899E+00	8.289E+00	1.405E+01	0.000E+00	NOT IDENT.
AM-241	-9.354E+00	6.750E+00	1.068E+01	0.000E+00	NOT IDENT.
AM-243	7.910E-01	2.988E+00	4.221E+00	0.000E+00	NOT IDENT.
CM-243	-4.089E+00	4.357E+00	6.954E+00	0.000E+00	NOT IDENT.
AM-246	9.660E-01	4.643E+00	8.040E+00	0.000E+00	NOT IDENT.
CM-247	-2.376E-01	1.559E+00	2.614E+00	0.000E+00	NOT IDENT.
CF-249	1.839E+00	1.761E+00	3.161E+00	0.000E+00	NOT IDENT.
CF-251	8.983E-02	5.724E+00	9.441E+00	0.000E+00	NOT IDENT.
ANH-511	-2.761E+00	3.234E+00	5.113E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 04:44:26.14

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001366.CNF;1
Sample date       : 23-DEC-2009 00:00:00 Acquisition date : 30-DEC-2009 22:43:00
Sample ID         : G1202001366          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM14                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:01.47  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 935338                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.37	84	255	1.10	126.47	123	8	3.88E-03	34.6	
2	0	92.51	408	334	1.35	184.69	178	15	1.89E-02	10.9	
3	0	185.50	124	234	1.39	370.51	367	9	5.75E-03	24.1	
4	0	238.54	108	296	1.43	476.51	469	13	5.01E-03	34.1	
5	0	510.43	486	175	2.47	1019.95	1013	16	2.25E-02	7.6	

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 04:44:29.18

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001366.CNF;1
Sample date       : 23-DEC-2009 00:00:00 Acquisition date : 30-DEC-2009 22:43:00
Sample ID         : G1202001366          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM14                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:01.47  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 935338                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Flag: "*" = Keyline

Sample ID : G1202001366 Acquisition date : 30-DEC-2009 22:43:00

Total number of lines in spectrum	1	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	1	100.00%

**** There are no nuclides meeting summary criteria ****

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202001366 Acquisition date : 30-DEC-2009 22:43:00

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.51	155	334	1.35	184.69	178	15	7.18E-03	65.2	2.48E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 04:44:33.58

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
*                                                                             *
*                                DETECTOR DATA                                *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001366.CNF;1  *
* Acquisition date  : 30-DEC-2009 22:43:00  Detector SN#     :               *
* Detector ID       : GAM14                 Sensitivity      : 5.00000       *
* Geometry          : 2LMB                  Energy tolerance: 1.50000        *
* Elapsed live time: 0 06:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 06:00:01.47          Half life ratio : 8.00000        *
*******************************************************************************
*                                                                             *
*                                 SAMPLE DATA                                 *
*                                                                             *
* Sample date       : 23-DEC-2009 00:00:00  Nuclide Library : LIQUID          *
* Sample ID         : G1202001366           Analyst initials: KXG3            *
* Batch Number      : 935338                Sample Quantity : 2.00000E+00 LITER *
*******************************************************************************
*                                                                             *
*                                   QC DATA                                   *
*                                                                             *
* CALIB. DATE/TIME : 9-MAR-2009 15:03:15.29MS Isotope      :                  *
* MSD ID           :                        MSD Isotope     :                *
* LCS ID           : 1032-A                 LCS Isotope     :                *
*******************************************************************************
```

Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	6.948E+00		1.371E+01	2.333E+01	1.621E+00	0.298
NA-22	-2.015E-01		1.679E+00	2.717E+00	1.799E-01	-0.074
NA-24	4.927E-03		6.114E-03	Half-Life too short		
AL-26	-2.509E+00		1.729E+00	2.254E+00	1.322E-01	-1.113
K-40	2.878E+00		2.323E+01	3.425E+01	2.514E+00	0.084
TI-44	-2.295E+00		1.801E+00	2.458E+00	2.118E-01	-0.934
SC-46	5.191E-02		1.490E+00	2.500E+00	1.909E-01	0.021
V-48	3.579E-01		2.107E+00	3.565E+00	2.584E-01	0.100
CR-51	-3.746E+00		1.446E+01	2.387E+01	1.591E+00	-0.157
MN-52	-4.862E-01		3.961E+00	6.333E+00	4.494E-01	-0.077
MN-54	-9.731E-02		1.429E+00	2.384E+00	1.653E-01	-0.041
CO-56	-1.153E+00		1.566E+00	2.450E+00	1.736E-01	-0.470
CO-57	1.073E-01		1.123E+00	1.842E+00	1.113E-01	0.058
CO-58	-3.469E-01		1.459E+00	2.282E+00	1.520E-01	-0.152
FE-59	-1.298E+00		3.195E+00	5.056E+00	3.658E-01	-0.257
CO-60	-5.716E-01		1.657E+00	2.594E+00	1.879E-01	-0.220
ZN-65	-2.310E+00		3.225E+00	4.910E+00	3.027E-01	-0.470

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
GE-68	7.507E+00		4.190E+01	7.085E+01	4.612E+00	0.106
AS-73	-1.983E+00		3.208E+01	5.320E+01	4.304E+00	-0.037
AS-74	2.113E+00		3.301E+00	5.629E+00	3.071E-01	0.375
SE-75	-1.621E+00		1.810E+00	2.901E+00	1.702E-01	-0.559
BR-77	9.532E+00		6.128E+01	1.017E+02	5.979E+00	0.094
SR-82	9.017E+00		1.280E+01	2.199E+01	1.367E+00	0.410
RB-83	9.383E-01		3.058E+00	5.126E+00	3.015E-01	0.183
RB-84	-2.655E-01		2.360E+00	3.906E+00	2.942E-01	-0.068
KR-85	-3.339E+03		5.832E+02	6.520E+02	3.852E+01	-5.120
SR-85	-1.589E+01		2.775E+00	3.103E+00	1.833E-01	-5.120
RB-86	-3.462E+00		2.108E+01	3.423E+01	2.231E+00	-0.101
Y-88	8.387E-01		1.700E+00	3.027E+00	1.741E-01	0.277
ZR-88	-4.167E-01		1.558E+00	2.160E+00	1.323E-01	-0.193
Y-91	-2.315E+02		5.609E+02	8.766E+02	5.151E+01	-0.264
NB-94	-2.220E-02		1.598E+00	2.582E+00	1.385E-01	-0.009
NB-95	5.901E-02		1.547E+00	2.502E+00	1.523E-01	0.024
NB-95M	-4.949E+00		5.582E+00	8.522E+00	6.321E-01	-0.581
ZR-95	1.238E+00		2.800E+00	4.696E+00	3.371E-01	0.264
NB-97	-1.965E-03		1.933E-03	Half-Life too short		
ZR-97	1.526E-02		6.363E-02	Half-Life too short		
MO-99	-2.668E+01		7.565E+01	1.173E+02	1.616E+01	-0.227
TC-99M	2.092E+03		2.812E+03	Half-Life too short		
RH-101	-8.422E-01		1.938E+00	2.502E+00	1.359E-01	-0.337
RH-102	4.042E-01		1.323E+00	2.224E+00	1.343E-01	0.182
RU-103	-5.478E-01		1.625E+00	2.605E+00	3.314E-01	-0.210
RH-106	3.529E+00		1.418E+01	2.353E+01	2.701E+00	0.150
RU-106	3.529E+00		1.417E+01	2.353E+01	1.238E+00	0.150
AG-108M	6.996E-01		1.426E+00	2.435E+00	1.604E-01	0.287
CD-109	-6.099E+00		3.776E+01	5.399E+01	4.986E+00	-0.113
AG-110M	-1.216E+00		1.496E+00	2.252E+00	1.213E-01	-0.540
IN-111	-2.862E-01		8.597E+00	1.371E+01	7.824E-01	-0.021
IN-113M	-1.308E-01		1.935E+00	3.201E+00	2.078E-01	-0.041
SN-113	-1.308E-01		1.935E+00	3.201E+00	2.078E-01	-0.041
IN-114M	-3.534E+00		7.684E+00	1.210E+01	6.519E-01	-0.292
CD-115	5.908E+01		5.436E+01	9.590E+01	5.609E+00	0.616
SN-117M	-5.205E-01		1.731E+00	2.764E+00	1.483E-01	-0.188
SB-122	3.062E+00		1.711E+01	2.831E+01	1.603E+00	0.108
I-123	-5.936E-03		1.634E-02	Half-Life too short		
TE-123M	-2.242E-01		1.235E+00	1.982E+00	1.079E-01	-0.113
I-124	-5.326E+00		1.011E+01	1.586E+01	8.574E-01	-0.336
SB-124	4.078E-02		3.582E+00	5.786E+00	3.943E-01	0.007
SB-125	-5.958E-03		4.135E+00	6.842E+00	4.346E-01	-0.001
TE-125M	-2.085E+02		3.958E+02	6.315E+02	5.628E+01	-0.330
I-126	-2.756E-01		5.112E+00	8.251E+00	4.097E-01	-0.033
SB-126	6.111E-01		4.159E+00	6.807E+00	3.787E-01	0.090
SN-126	-1.689E+00		3.753E+00	5.265E+00	4.848E-01	-0.321
SB-127	-1.766E+01		1.603E+01	2.313E+01	1.568E+00	-0.764
XE-127	5.752E-01		1.845E+00	3.013E+00	1.646E-01	0.191

Sample ID : G1202001366 Acquisition date : 30-DEC-2009 22:43:00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
I-131	1.714E+00		2.879E+00	4.957E+00	3.323E-01	0.346
TE-132	9.503E-01		7.773E+00	1.149E+01	1.511E+00	0.083
BA-133	-1.720E+00		2.031E+00	3.205E+00	3.754E-01	-0.537
I-133	2.180E-04		4.923E-04	Half-Life too short		
CS-134	-9.438E-01		1.878E+00	2.863E+00	1.870E-01	-0.330
CS-135	2.062E+00		6.469E+00	1.107E+01	8.498E-01	0.186
I-135	8.318E+01		1.841E+03	Half-Life too short		
CS-136	1.513E+00		3.226E+00	5.577E+00	4.024E-01	0.271
BA-137M	-2.895E-01		1.420E+00	2.260E+00	1.111E-01	-0.128
CS-137	-3.060E-01		1.501E+00	2.389E+00	1.181E-01	-0.128
CE-139	1.717E-01		1.297E+00	2.113E+00	1.115E-01	0.081
BA-140	-2.776E+00		7.555E+00	1.192E+01	3.877E+00	-0.233
LA-140	-2.584E+00		2.675E+00	3.664E+00	2.452E-01	-0.705
CE-141	1.614E-02		2.465E+00	4.007E+00	2.321E-01	0.004
CE-143	-4.506E+01		2.090E+02	2.829E+02	5.815E+01	-0.159
CE-144	7.248E-02		9.264E+00	1.509E+01	2.141E+00	0.005
PM-144	-2.684E-01		1.600E+00	2.554E+00	1.353E-01	-0.105
PR-144	-1.812E+01		1.080E+02	1.724E+02	9.128E+00	-0.105
PM-146	-4.001E-01		2.036E+00	3.317E+00	2.924E-01	-0.121
ND-147	-9.936E+00		1.672E+01	2.610E+01	3.532E+00	-0.381
PM-149	1.957E+02		4.597E+02	7.872E+02	1.118E+02	0.249
EU-152	1.752E+00		4.470E+00	7.618E+00	5.172E-01	0.230
GD-153	4.302E-01		3.798E+00	5.510E+00	4.390E-01	0.078
EU-154	-4.682E-01		4.719E+00	7.653E+00	7.549E-01	-0.061
EU-155	-1.944E+00		4.834E+00	7.766E+00	5.691E-01	-0.250
TB-160	-2.467E-01		5.279E+00	8.797E+00	6.602E-01	-0.028
HO-166M	-2.099E+00		2.682E+00	4.024E+00	2.199E-01	-0.522
TM-171	-2.463E+03		1.518E+03	1.938E+03	1.603E+02	-1.271
HF-175	8.535E-01		1.548E+00	2.658E+00	1.616E-01	0.321
LU-176	-5.554E-01		1.140E+00	1.860E+00	1.113E-01	-0.299
LU-177	5.028E+00		2.142E+01	3.485E+01	1.915E+00	0.144
LU-177M	4.232E+00		7.534E+00	1.292E+01	7.915E-01	0.328
HF-181	-4.798E-01		1.799E+00	2.907E+00	1.750E-01	-0.165
W-181	2.200E+01		1.861E+01	2.717E+01	2.247E+00	0.810
TA-182	4.363E+00		6.920E+00	1.209E+01	7.310E-01	0.361
RE-183	1.837E+00		4.661E+00	7.691E+00	4.089E-01	0.239
RE-184	-2.321E+00		1.100E+01	1.734E+01	9.969E-01	-0.134
OS-185	9.640E-01		1.926E+00	3.249E+00	1.643E-01	0.297
RE-188	-2.817E+00		6.939E+00	1.102E+01	5.964E-01	-0.256
W-188	1.859E+02		3.188E+02	5.501E+02	3.259E+01	0.338
IR-192	1.067E+00		1.522E+00	2.638E+00	1.594E-01	0.405
AU-195	5.049E+00		1.114E+01	1.650E+01	1.289E+00	0.306
TL-200	-2.193E+02		2.198E+02	3.419E+02	2.090E+01	-0.641
TL-201	-6.417E+01		6.509E+01	1.000E+02	5.278E+00	-0.641
TL-202	-3.648E-02		1.974E+00	3.259E+00	1.990E-01	-0.011
HG-203	8.083E-01		1.519E+00	2.624E+00	1.635E-01	0.308
BI-207	-2.235E-01		2.166E+00	3.553E+00	2.356E-01	-0.063
TL-207	-1.254E+01		2.974E+01	4.848E+01	8.048E+00	-0.259

Sample ID : G1202001366 Acquisition date : 30-DEC-2009 22:43:00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TL-208	2.994E-01		2.285E+00	3.217E+00	2.079E-01	0.093
PO-209	-1.118E+02		2.863E+02	4.595E+02	3.553E+01	-0.243
BI-210	-9.949E+01		1.808E+02	2.645E+02	2.083E+01	-0.376
PB-210	-9.949E+01		1.808E+02	2.645E+02	2.083E+01	-0.376
PO-210	-9.949E+01		1.808E+02	2.645E+02	1.802E+01	-0.376
BI-211	4.625E+00		1.138E+01	1.607E+01	1.077E+00	0.288
PB-211	1.290E+01		4.021E+01	6.673E+01	4.162E+01	0.193
BI-212	7.474E+00		1.219E+01	2.073E+01	1.574E+00	0.361
PB-212	-3.563E-01		4.149E+00	5.240E+00	3.789E-01	-0.068
PO-212	-3.563E-01		4.149E+00	5.240E+00	3.789E-01	-0.068
BI-214	-1.442E+00		4.552E+00	6.266E+00	4.671E-01	-0.230
PB-214	2.156E+00		4.012E+00	5.732E+00	4.868E-01	0.376
PO-214	2.156E+00		4.012E+00	5.732E+00	4.868E-01	0.376
PO-215	-1.254E+01		2.974E+01	4.848E+01	8.048E+00	-0.259
PO-216	-3.563E-01		4.149E+00	5.240E+00	3.789E-01	-0.068
PO-218	2.156E+00		4.012E+00	5.732E+00	4.868E-01	0.376
RN-219	6.671E+00		1.732E+01	2.943E+01	4.046E+00	0.227
RN-220	3.587E+02		1.123E+03	1.885E+03	1.082E+02	0.190
RA-223	-1.254E+01		2.974E+01	4.848E+01	8.048E+00	-0.259
RA-224	-4.413E+01		3.303E+01	4.911E+01	2.792E+00	-0.899
RA-226	-5.088E+01		6.084E+01	6.450E+01	4.732E+01	-0.789
AC-227	1.326E+00		1.759E+01	2.977E+01	4.151E+00	0.045
PA-227	1.000E+35		1.307E+35	Half-Life too short		
TH-227	1.326E+00		1.759E+01	2.977E+01	5.027E+00	0.045
AC-228	-3.664E+00		6.842E+00	1.001E+01	1.055E+00	-0.366
RA-228	-3.664E+00		6.842E+00	1.001E+01	1.055E+00	-0.366
TH-228	-3.563E-01		4.149E+00	5.240E+00	3.789E-01	-0.068
TH-229	-1.079E+00		2.339E+01	3.758E+01	2.032E+00	-0.029
TH-230	-7.138E+02		4.670E+03	7.883E+02	5.114E+03	-0.906
PA-231	3.218E+01		6.960E+01	1.194E+02	1.651E+01	0.269
TH-231	-2.258E+01		2.530E+01	3.306E+01	5.956E+00	-0.683
U-231	-6.243E+00		1.668E+01	2.344E+01	1.909E+00	-0.266
TH-232	-7.374E+02		7.867E+03	2.073E+03	2.182E+04	-0.356
PA-233	1.290E-01		2.906E+00	4.880E+00	3.098E-01	0.026
PA-234	-4.508E+00		1.148E+01	1.831E+01	3.346E+00	-0.246
PA-234M	-1.633E+01		2.024E+02	3.341E+02	2.909E+01	-0.049
TH-234	-5.858E+01		6.983E+01	1.011E+02	1.803E+01	-0.579
U-234	7.110E+01		2.682E+03	4.306E+03	4.306E+04	0.017
U-235	4.541E+00		9.947E+00	1.645E+01	2.670E+00	0.276
NP-236	1.921E+00		3.569E+00	5.932E+00	3.169E-01	0.324
NP-237	-3.639E+00		1.328E+01	1.648E+01	3.719E+00	-0.221
PU-237	-1.159E+02		8.523E+01	1.322E+02	1.107E+01	-0.876
U-238	-5.858E+01		6.983E+01	1.011E+02	1.803E+01	-0.579
NP-239	2.899E+00		8.458E+00	1.405E+01	8.909E-01	0.206
AM-241	-9.354E+00		6.887E+00	1.068E+01	9.624E-01	-0.876
AM-243	7.910E-01		3.049E+00	4.221E+00	3.567E-01	0.187
CM-243	-4.089E+00		4.446E+00	6.954E+00	5.103E-01	-0.588
AM-246	9.660E-01		4.738E+00	8.040E+00	5.223E-01	0.120

Sample ID : G1202001366 Acquisition date : 30-DEC-2009 22:43:00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CM-247	-2.376E-01		1.591E+00	2.614E+00	1.602E-01	-0.091
CF-249	1.839E+00		1.797E+00	3.161E+00	1.936E-01	0.582
CF-251	8.983E-02		5.840E+00	9.441E+00	5.020E-01	0.010
ANH-511	-2.761E+00		3.300E+00	5.113E+00	3.027E-01	-0.540

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202001366           *
* Acquisition date : 30-DEC-2009 22:43:00 Detector SN#    :                 *
* Detector ID      : GAM14                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:01.47     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 23-DEC-2009 00:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G1202001366          Analyst initials: KXG3            *
* Batch Number     : 935338               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  9-MAR-2009 15:03:15 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act Error	DLC (pCi/LITER)	TPU

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU
BE-7	6.948E+00	1.344E+01	1.167E+01	6.855E+00 NOT IDENT.
NA-22	-2.015E-01	1.646E+00	1.359E+00	8.397E-01 NOT IDENT.
NA-24	4.927E+03	1.198E+04	0.000E+00	6.114E+03 SHORT HLIF
AL-26	-2.509E+00	1.695E+00	1.128E+00	8.647E-01 NOT IDENT.
K-40	2.878E+00	2.276E+01	1.714E+01	1.161E+01 NOT IDENT.
TI-44	-2.295E+00	1.765E+00	1.230E+00	9.007E-01 NOT IDENT.
SC-46	5.191E-02	1.460E+00	1.251E+00	7.449E-01 NOT IDENT.
V-48	3.579E-01	2.065E+00	1.783E+00	1.054E+00 NOT IDENT.
CR-51	-3.746E+00	1.418E+01	1.194E+01	7.232E+00 NOT IDENT.
MN-52	-4.862E-01	3.881E+00	3.168E+00	1.980E+00 NOT IDENT.
MN-54	-9.731E-02	1.401E+00	1.193E+00	7.146E-01 NOT IDENT.
CO-56	-1.153E+00	1.535E+00	1.226E+00	7.832E-01 NOT IDENT.
CO-57	1.073E-01	1.100E+00	9.214E-01	5.614E-01 NOT IDENT.
CO-58	-3.469E-01	1.430E+00	1.142E+00	7.296E-01 NOT IDENT.
FE-59	-1.298E+00	3.131E+00	2.529E+00	1.598E+00 NOT IDENT.
CO-60	-5.716E-01	1.624E+00	1.298E+00	8.285E-01 NOT IDENT.
ZN-65	-2.310E+00	3.161E+00	2.456E+00	1.613E+00 NOT IDENT.
GE-68	7.507E+00	4.106E+01	3.544E+01	2.095E+01 NOT IDENT.
AS-73	-1.983E+00	3.144E+01	2.662E+01	1.604E+01 NOT IDENT.
AS-74	2.113E+00	3.235E+00	2.816E+00	1.650E+00 NOT IDENT.
SE-75	-1.621E+00	1.774E+00	1.451E+00	9.050E-01 NOT IDENT.
BR-77	9.532E+00	6.006E+01	5.087E+01	3.064E+01 NOT IDENT.
SR-82	9.017E+00	1.254E+01	1.100E+01	6.399E+00 NOT IDENT.
RB-83	9.383E-01	2.997E+00	2.564E+00	1.529E+00 NOT IDENT.
RB-84	-2.655E-01	2.313E+00	1.954E+00	1.180E+00 NOT IDENT.
KR-85	-3.339E+03	5.715E+02	3.262E+02	2.916E+02 NOT IDENT.

SR-85	-1.589E+01	2.720E+00	1.552E+00	1.388E+00	NOT IDENT.
RB-86	-3.462E+00	2.066E+01	1.713E+01	1.054E+01	NOT IDENT.
Y-88	8.387E-01	1.666E+00	1.515E+00	8.501E-01	NOT IDENT.
ZR-88	-4.167E-01	1.527E+00	1.081E+00	7.790E-01	NOT IDENT.
Y-91	-2.315E+02	5.497E+02	4.385E+02	2.805E+02	NOT IDENT.
NB-94	-2.220E-02	1.566E+00	1.292E+00	7.990E-01	NOT IDENT.
NB-95	5.901E-02	1.516E+00	1.252E+00	7.737E-01	NOT IDENT.
NB-95M	-4.949E+00	5.471E+00	4.263E+00	2.791E+00	NOT IDENT.
ZR-95	1.238E+00	2.744E+00	2.350E+00	1.400E+00	NOT IDENT.
NB-97	-1.965E+03	3.789E+03	0.000E+00	1.933E+03	SHORT HLIF
ZR-97	1.526E+04	1.247E+05	0.000E+00	6.363E+04	SHORT HLIF
MO-99	-2.668E+01	7.414E+01	5.870E+01	3.782E+01	NOT IDENT.
TC-99M	2.092E+09	5.511E+09	0.000E+00	2.812E+09	SHORT HLIF
RH-101	-8.422E-01	1.900E+00	1.252E+00	9.691E-01	NOT IDENT.
RH-102	4.042E-01	1.296E+00	1.113E+00	6.613E-01	NOT IDENT.
RU-103	-5.478E-01	1.593E+00	1.303E+00	8.127E-01	NOT IDENT.
RH-106	3.529E+00	1.389E+01	1.177E+01	7.089E+00	NOT IDENT.
RU-106	3.529E+00	1.389E+01	1.177E+01	7.086E+00	NOT IDENT.
AG-108M	6.996E-01	1.397E+00	1.218E+00	7.129E-01	NOT IDENT.
CD-109	-6.099E+00	3.700E+01	2.701E+01	1.888E+01	NOT IDENT.
AG-110M	-1.216E+00	1.466E+00	1.127E+00	7.482E-01	NOT IDENT.
IN-111	-2.862E-01	8.425E+00	6.857E+00	4.298E+00	NOT IDENT.
IN-113M	-1.308E-01	1.897E+00	1.601E+00	9.676E-01	NOT IDENT.
SN-113	-1.308E-01	1.897E+00	1.601E+00	9.676E-01	NOT IDENT.
IN-114M	-3.534E+00	7.531E+00	6.052E+00	3.842E+00	NOT IDENT.
CD-115	5.908E+01	5.327E+01	4.798E+01	2.718E+01	NOT IDENT.
SN-117M	-5.205E-01	1.697E+00	1.383E+00	8.657E-01	NOT IDENT.
SB-122	3.062E+00	1.677E+01	1.416E+01	8.557E+00	NOT IDENT.
I-123	-5.936E+03	3.203E+04	0.000E+00	1.634E+04	SHORT HLIF
TE-123M	-2.242E-01	1.210E+00	9.918E-01	6.173E-01	NOT IDENT.
I-124	-5.326E+00	9.907E+00	7.934E+00	5.055E+00	NOT IDENT.
SB-124	4.078E-02	3.511E+00	2.895E+00	1.791E+00	NOT IDENT.
SB-125	-5.958E-03	4.052E+00	3.423E+00	2.068E+00	NOT IDENT.
TE-125M	-2.085E+02	3.879E+02	3.159E+02	1.979E+02	NOT IDENT.
I-126	-2.756E-01	5.010E+00	4.128E+00	2.556E+00	NOT IDENT.
SB-126	6.111E-01	4.075E+00	3.405E+00	2.079E+00	NOT IDENT.
SN-126	-1.689E+00	3.678E+00	2.634E+00	1.876E+00	NOT IDENT.
SB-127	-1.766E+01	1.571E+01	1.157E+01	8.017E+00	NOT IDENT.
XE-127	5.752E-01	1.808E+00	1.508E+00	9.224E-01	NOT IDENT.
I-131	1.714E+00	2.821E+00	2.480E+00	1.439E+00	NOT IDENT.
TE-132	9.503E-01	7.618E+00	5.749E+00	3.887E+00	NOT IDENT.
BA-133	-1.720E+00	1.990E+00	1.603E+00	1.015E+00	NOT IDENT.
I-133	2.180E+02	9.649E+02	0.000E+00	4.923E+02	SHORT HLIF
CS-134	-9.438E-01	1.841E+00	1.432E+00	9.392E-01	NOT IDENT.
CS-135	2.062E+00	6.339E+00	5.538E+00	3.234E+00	NOT IDENT.
I-135	8.318E+07	3.608E+09	0.000E+00	1.841E+09	SHORT HLIF
CS-136	1.513E+00	3.161E+00	2.790E+00	1.613E+00	NOT IDENT.
BA-137M	-2.895E-01	1.391E+00	1.130E+00	7.099E-01	NOT IDENT.
CS-137	-3.060E-01	1.471E+00	1.195E+00	7.504E-01	NOT IDENT.
CE-139	1.717E-01	1.271E+00	1.057E+00	6.486E-01	NOT IDENT.
BA-140	-2.776E+00	7.404E+00	5.964E+00	3.778E+00	NOT IDENT.
LA-140	-2.584E+00	2.622E+00	1.833E+00	1.338E+00	NOT IDENT.
CE-141	1.614E-02	2.416E+00	2.005E+00	1.233E+00	NOT IDENT.
CE-143	-4.506E+01	2.048E+02	1.416E+02	1.045E+02	NOT IDENT.
CE-144	7.248E-02	9.079E+00	7.551E+00	4.632E+00	NOT IDENT.
PM-144	-2.684E-01	1.568E+00	1.278E+00	7.998E-01	NOT IDENT.
PR-144	-1.812E+01	1.058E+02	8.626E+01	5.400E+01	NOT IDENT.
PM-146	-4.001E-01	1.995E+00	1.659E+00	1.018E+00	NOT IDENT.
ND-147	-9.936E+00	1.638E+01	1.306E+01	8.358E+00	FAIL ABUN
PM-149	1.957E+02	4.505E+02	3.938E+02	2.298E+02	NOT IDENT.
EU-152	1.752E+00	4.380E+00	3.811E+00	2.235E+00	NOT IDENT.
GD-153	4.302E-01	3.722E+00	2.757E+00	1.899E+00	NOT IDENT.
EU-154	-4.682E-01	4.625E+00	3.829E+00	2.360E+00	NOT IDENT.
EU-155	-1.944E+00	4.737E+00	3.886E+00	2.417E+00	NOT IDENT.
TB-160	-2.467E-01	5.173E+00	4.401E+00	2.639E+00	NOT IDENT.
HO-166M	-2.099E+00	2.628E+00	2.013E+00	1.341E+00	NOT IDENT.
TM-171	-2.463E+03	1.487E+03	9.694E+02	7.589E+02	NOT IDENT.
HF-175	8.535E-01	1.517E+00	1.330E+00	7.738E-01	NOT IDENT.
LU-176	-5.554E-01	1.117E+00	9.305E-01	5.698E-01	NOT IDENT.
LU-177	5.028E+00	2.099E+01	1.744E+01	1.071E+01	NOT IDENT.
LU-177M	4.232E+00	7.383E+00	6.464E+00	3.767E+00	NOT IDENT.
HF-181	-4.798E-01	1.763E+00	1.455E+00	8.993E-01	NOT IDENT.
W-181	2.200E+01	1.824E+01	1.359E+01	9.306E+00	NOT IDENT.
TA-182	4.363E+00	6.781E+00	6.047E+00	3.460E+00	NOT IDENT.
RE-183	1.837E+00	4.568E+00	3.848E+00	2.331E+00	NOT IDENT.
RE-184	-2.321E+00	1.078E+01	8.676E+00	5.500E+00	NOT IDENT.
OS-185	9.640E-01	1.887E+00	1.626E+00	9.629E-01	NOT IDENT.
RE-188	-2.817E+00	6.800E+00	5.512E+00	3.470E+00	NOT IDENT.

W-188	1.859E+02	3.124E+02	2.752E+02	1.594E+02	NOT IDENT.
IR-192	1.067E+00	1.492E+00	1.320E+00	7.611E-01	NOT IDENT.
AU-195	5.049E+00	1.092E+01	8.254E+00	5.572E+00	NOT IDENT.
TL-200	-2.193E+02	2.154E+02	1.711E+02	1.099E+02	NOT IDENT.
TL-201	-6.417E+01	6.379E+01	5.005E+01	3.255E+01	NOT IDENT.
TL-202	-3.648E-02	1.935E+00	1.630E+00	9.870E-01	NOT IDENT.
HG-203	8.083E-01	1.488E+00	1.313E+00	7.594E-01	NOT IDENT.
BI-207	-2.235E-01	2.123E+00	1.777E+00	1.083E+00	NOT IDENT.
TL-207	-1.254E+01	2.915E+01	2.426E+01	1.487E+01	NOT IDENT.
TL-208	2.994E-01	2.239E+00	1.609E+00	1.142E+00	NOT IDENT.
PO-209	-1.118E+02	2.806E+02	2.299E+02	1.431E+02	NOT IDENT.
BI-210	-9.949E+01	1.772E+02	1.323E+02	9.041E+01	NOT IDENT.
PB-210	-9.949E+01	1.772E+02	1.323E+02	9.041E+01	NOT IDENT.
PO-210	-9.949E+01	1.772E+02	1.323E+02	9.039E+01	NOT IDENT.
BI-211	4.625E+00	1.116E+01	8.041E+00	5.692E+00	NOT IDENT.
PB-211	1.290E+01	3.940E+01	3.339E+01	2.010E+01	NOT IDENT.
BI-212	7.474E+00	1.195E+01	1.037E+01	6.094E+00	NOT IDENT.
PB-212	-3.563E-01	4.066E+00	2.622E+00	2.075E+00	NOT IDENT.
PO-212	-3.563E-01	4.066E+00	2.622E+00	2.075E+00	NOT IDENT.
BI-214	-1.442E+00	4.461E+00	3.135E+00	2.276E+00	NOT IDENT.
PB-214	2.156E+00	3.932E+00	2.868E+00	2.006E+00	NOT IDENT.
PO-214	2.156E+00	3.932E+00	2.868E+00	2.006E+00	NOT IDENT.
PO-215	-1.254E+01	2.915E+01	2.426E+01	1.487E+01	NOT IDENT.
PO-216	-3.563E-01	4.066E+00	2.622E+00	2.075E+00	NOT IDENT.
PO-218	2.156E+00	3.932E+00	2.868E+00	2.006E+00	NOT IDENT.
RN-219	6.671E+00	1.698E+01	1.472E+01	8.662E+00	NOT IDENT.
RN-220	3.587E+02	1.101E+03	9.428E+02	5.615E+02	NOT IDENT.
RA-223	-1.254E+01	2.915E+01	2.426E+01	1.487E+01	NOT IDENT.
RA-224	-4.413E+01	3.236E+01	2.457E+01	1.651E+01	NOT IDENT.
RA-226	-5.088E+01	5.962E+01	3.227E+01	3.042E+01	NOT IDENT.
AC-227	1.326E+00	1.724E+01	1.489E+01	8.794E+00	NOT IDENT.
PA-227	1.000E+41	2.561E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	1.326E+00	1.724E+01	1.489E+01	8.794E+00	FAIL ABUN
AC-228	-3.664E+00	6.705E+00	5.008E+00	3.421E+00	NOT IDENT.
RA-228	-3.664E+00	6.705E+00	5.008E+00	3.421E+00	NOT IDENT.
TH-228	-3.563E-01	4.066E+00	2.622E+00	2.075E+00	NOT IDENT.
TH-229	-1.079E+00	2.292E+01	1.880E+01	1.169E+01	NOT IDENT.
TH-230	-7.138E+02	4.577E+03	3.944E+02	2.335E+03	NOT IDENT.
PA-231	3.218E+01	6.821E+01	5.976E+01	3.480E+01	NOT IDENT.
TH-231	-2.258E+01	2.479E+01	1.654E+01	1.265E+01	NOT IDENT.
U-231	-6.243E+00	1.635E+01	1.173E+01	8.341E+00	FAIL ABUN
TH-232	-7.374E+02	7.710E+03	1.037E+03	3.934E+03	NOT IDENT.
PA-233	1.290E-01	2.848E+00	2.441E+00	1.453E+00	NOT IDENT.
PA-234	-4.508E+00	1.126E+01	9.163E+00	5.742E+00	NOT IDENT.
PA-234M	-1.633E+01	1.983E+02	1.671E+02	1.012E+02	NOT IDENT.
TH-234	-5.858E+01	6.844E+01	5.060E+01	3.492E+01	FAIL ABUN
U-234	7.110E+01	2.628E+03	2.154E+03	1.341E+03	NOT IDENT.
U-235	4.541E+00	9.748E+00	8.231E+00	4.973E+00	FAIL ABUN
NP-236	1.921E+00	3.497E+00	2.968E+00	1.784E+00	NOT IDENT.
NP-237	-3.639E+00	1.302E+01	8.245E+00	6.642E+00	NOT IDENT.
PU-237	-1.159E+02	8.352E+01	6.616E+01	4.261E+01	NOT IDENT.
U-238	-5.858E+01	6.844E+01	5.060E+01	3.492E+01	FAIL ABUN
NP-239	2.899E+00	8.289E+00	7.030E+00	4.229E+00	NOT IDENT.
AM-241	-9.354E+00	6.750E+00	5.341E+00	3.444E+00	NOT IDENT.
AM-243	7.910E-01	2.988E+00	2.112E+00	1.525E+00	NOT IDENT.
CM-243	-4.089E+00	4.357E+00	3.479E+00	2.223E+00	NOT IDENT.
AM-246	9.660E-01	4.643E+00	4.022E+00	2.369E+00	NOT IDENT.
CM-247	-2.376E-01	1.559E+00	1.308E+00	7.956E-01	NOT IDENT.
CF-249	1.839E+00	1.761E+00	1.581E+00	8.983E-01	NOT IDENT.
CF-251	8.983E-02	5.724E+00	4.723E+00	2.920E+00	NOT IDENT.
ANH-511	-2.761E+00	3.234E+00	2.558E+00	1.650E+00	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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ENERGY	MDA COUNTS
46.50	215.3764
46.50	215.3764
46.50	215.3764
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49.72	285.7103
51.35	196.0007
52.39	212.4924
52.97	209.8067
53.15	209.8604
53.20	209.8751
53.44	215.6722
54.07	217.7735
56.28	232.8112
56.28	232.8121
57.37	222.6036
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57.53	219.7734
57.60	219.7935
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57.98	217.0253
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59.32	260.7051
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59.54	301.1973
59.54	301.1973
59.72	301.2690
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63.29	272.6943
63.58	258.2850
64.28	242.0552
64.62	0.0000
65.12	234.5584
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65.20	234.5817
66.05	322.1658
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66.83	332.1918
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67.20	328.4568
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67.75	298.5340
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68.90	292.1379
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70.82	281.1039
70.83	281.1072
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72.87	304.2935
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74.81	267.7190
74.81	267.7190
74.81	267.7190
74.81	267.7190

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77.11	288.0933
77.11	288.0933
77.11	288.0933
77.11	288.0933
77.11	288.0933
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79.80	306.7208
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80.30	308.8664
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81.07	288.3899
81.07	288.3899
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83.37	254.4628
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83.78	266.4644
83.78	266.4644
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84.21	290.3734
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86.72	260.7484
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92.29	249.8751
92.38	249.8989
92.38	249.8989
93.35	250.1459
94.00	250.3109
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94.67	229.2399
94.90	229.2931
94.90	229.2931
94.90	229.2931
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95.87	248.7776
96.73	236.1403
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98.44	235.3336
98.44	235.3336
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99.55	201.3596
99.86	201.4206
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100.10	222.1911

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105.31	235.8887
108.00	230.3962
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110.05	0.0000
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111.00	214.7525
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115.19	234.9818
115.19	234.9818
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117.00	206.7097
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121.11	202.3236
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122.32	214.8727
122.32	214.8727
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144.24	230.2957
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145.44	240.9901
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154.21	210.9665
154.21	210.9665
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163.35	232.5722
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165.85	219.1610
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172.10	216.9312
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176.60	225.1149
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186.21	251.4076
190.27	244.5115
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193.63	224.4495

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208.81	185.0268
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209.75	173.0849
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215.65	181.4091
216.55	181.5086
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227.20	199.2769
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228.18	175.0209
228.18	175.0209
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238.63	190.5733
238.63	190.5733
238.63	190.5733
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241.98	303.7131
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269.46	143.2743
269.46	143.2743
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284.30	155.3512
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286.10	167.3829
286.10	167.3829
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293.70	179.9626
295.21	186.5310
295.21	186.5310
295.21	186.5310
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296.50	199.5224
297.23	196.8372
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300.09	170.4046
300.09	170.4046
300.09	170.4046
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323.87	160.2527
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391.69	126.7148
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445.03	115.6996
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513.99	484.5624
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569.32	109.5705
569.50	109.5783
569.67	114.7043
573.80	101.5257
574.00	101.5330
574.64	95.3977
578.91	120.1821
579.30	116.0871
583.14	88.4566
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591.81	105.2000
592.07	101.0840
593.00	90.7951
595.88	86.7460
600.56	111.6940

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602.71	117.9772
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610.33	93.3596
612.46	137.0177
614.37	87.2443
618.01	79.0226
621.84	77.0333
621.84	77.0333
631.29	77.2520
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633.10	68.9391
634.78	70.0179
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656.30	68.3611
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661.65	65.3074
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666.33	68.5610
666.33	68.5610
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677.61	75.1324
685.20	77.4164
692.80	87.1470
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696.49	89.3669
697.00	92.5713
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717.42	57.7837
720.50	66.4002
721.93	76.0702
722.20	80.3613
722.78	69.6576
722.78	69.6576
722.89	69.6592
722.95	73.9476
723.30	77.1697
724.18	67.5404
727.18	60.0852
733.00	62.3288
735.90	55.9254
739.58	54.9034
742.81	52.7958
744.21	50.6604
747.13	49.6213
751.79	60.4830
752.31	69.1344
753.82	68.0803
755.35	58.3783
756.15	57.3101
756.87	59.4835
763.13	69.3313
763.93	57.4279
765.79	52.0348
766.42	59.6339
766.84	59.6406
776.49	48.9199
778.00	46.7636

778.57	54.3848
778.89	54.3884
783.80	69.7063
785.46	49.0331
792.07	52.3910
795.84	63.3667
796.30	60.0958
798.80	91.8422
801.93	50.3350
805.60	69.0001
810.29	58.1176
810.76	51.5439
815.85	49.4132
817.79	53.8318
818.51	54.9402
819.60	49.4604
826.30	51.3778
828.27	51.4028
831.60	52.3636
831.96	52.3683
834.83	57.0024
836.80	0.0000
846.75	67.3132
848.13	70.1027
856.28	0.0000
856.80	59.1589
860.37	42.5569
867.32	44.4824
867.82	44.4873
871.10	48.2327
873.19	43.6169
874.81	46.4183
875.33	0.0000
876.40	56.6526
879.36	51.1160
880.27	51.1272
880.51	50.1998
881.50	48.3522
883.24	50.2328
884.67	54.9032
889.25	49.3726
896.60	49.4589
898.02	52.2756
899.00	53.2206
903.28	56.0779
911.07	55.2441
911.07	55.2441
919.63	44.0950
920.93	47.8623
925.00	39.4528
925.24	41.3341
926.50	44.1648
935.52	42.3724
937.48	61.2324
944.10	37.7380
946.00	47.1924
949.00	42.5024
962.29	46.4190
964.01	59.7034
966.15	51.1996
968.20	47.4284
969.11	48.3863
969.11	48.3863
977.42	52.2775
980.50	40.8995
983.50	45.6855
989.30	39.0723
996.32	55.3580
1001.03	61.1471
1001.68	69.7563
1004.76	48.7661
1021.30	0.0000
1024.50	0.0000
1034.80	40.4192
1036.00	47.1677
1037.82	53.9264
1038.57	51.0461
1038.76	0.0000

1045.16	46.2949
1046.59	54.0267
1048.07	49.2195
1050.47	52.1411
1050.47	52.1411
1062.04	55.1700
1063.62	50.3475
1076.63	35.9205
1077.35	32.0413
1078.86	30.1095
1085.78	31.1250
1093.90	43.8409
1099.22	48.7651
1112.02	34.2238
1112.84	42.0534
1115.52	50.8828
1120.29	36.2397
1120.51	37.2207
1121.28	36.2472
1124.00	0.0000
1129.67	33.3636
1131.51	0.0000
1147.95	0.0000
1167.94	31.6380
1173.22	39.5882
1175.09	30.6922
1177.93	34.6710
1189.05	38.7175
1204.90	38.8334
1205.75	31.8685
1213.00	27.9237
1221.42	40.9533
1230.97	40.0260
1235.34	41.0601
1236.41	0.0000
1238.25	39.0778
1246.25	31.1085
1260.41	0.0000
1271.85	31.2548
1274.45	39.3396
1274.54	39.3396
1291.56	28.3315
1298.22	0.0000
1312.09	28.4364
1325.50	24.4316
1325.50	24.4316
1332.49	37.7121
1333.61	32.6224
1360.21	21.5084
1362.66	0.0000
1365.15	28.7030
1368.21	30.7690
1368.53	0.0000
1376.25	33.8929
1384.27	34.9684
1394.10	31.9360
1395.20	35.0334
1407.95	17.5548
1434.06	24.8926
1436.60	19.7144
1457.56	0.0000
1460.81	18.7522
1489.15	26.1658
1509.49	21.0018
1596.49	33.0018
1620.62	19.2334
1678.03	0.0000
1691.02	22.6774
1691.02	22.6774
1706.46	0.0000
1750.46	0.0000
1764.49	22.4531
1770.23	25.2805
1771.40	23.4113
1791.20	0.0000
1808.65	36.7148
1836.01	18.9000

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202001366

Total Uranium Activity	-1.7218E+02	ug/g
Total Uranium Counting Unc.	2.0365E+02	ug/g
Total Uranium Tpu	1.0390E-04	ug/g
Total Uranium Mda	1.5057E+02	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 935338                    SAMPLE ID  : G1202001366        *
*   ANALYST       : KXG3                      DETECTOR   : GAM14              *
*   SAMPLE DATE   : 23-DEC-2009 00:00:00.00   COUNT TIME :    0 06:00:00.00   *
*   ANALYSIS DATE: 30-DEC-2009 22:43:00.23    SAMPLE ALQT:    2.000 LITER     *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 3.911E+00
        GROSS GAMMA ERROR  (pCi/LITER )   : 1.274E+00
        GROSS GAMMA MDA    (pCi/LITER )   : 1.790E+00
        GROSS GAMMA DLC    (pCi/LITER )   : 8.612E-01
```

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 04:45:19.89

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001367.CNF;1
Sample date       : 17-DEC-2009 12:00:00 Acquisition date : 30-DEC-2009 22:43:28
Sample ID         : G1202001367          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM19                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:02.19  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 935338                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	63.57*	38	400	1.60	127.00	120	17	1.75E-03	113.4	1.46E+00
2	2	66.35*	105	328	1.60	132.56	120	17	4.86E-03	34.8	
3	0	77.18	96	359	1.16	154.20	151	8	4.44E-03	36.5	
4	0	92.84*	54	450	1.28	185.49	180	11	2.52E-03	88.4	
5	0	139.46	128	391	1.58	278.65	275	10	5.94E-03	30.2	
6	0	174.89	88	374	1.61	349.46	345	10	4.05E-03	42.7	
7	0	197.10*	58	342	1.07	393.85	389	11	2.70E-03	71.6	
8	0	239.15*	87	370	1.40	477.89	472	14	4.05E-03	52.1	
9	0	294.59*	119	235	1.52	588.71	583	11	5.50E-03	28.5	
10	0	351.42	223	185	1.22	702.31	697	10	1.03E-02	13.2	
11	0	557.82*	61	47	1.37	1114.90	1111	10	2.83E-03	29.8	
12	0	594.86	84	57	4.12	1188.96	1183	12	3.90E-03	20.9	
13	0	609.04*	170	125	1.78	1217.32	1211	14	7.88E-03	21.2	
14	0	1120.46*	32	47	0.99	2240.06	2233	11	1.50E-03	55.3	
15	0	1460.17*	12	24	1.75	2919.70	2912	12	5.61E-04	115.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 31-DEC-2009 04:45:22

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001367.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 17-DEC-2009 12:00:00 Acquisition date : 30-DEC-2009 22:43:28
Sample ID : G1202001367 Sample quantity : 2.0000 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA19 Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00 Elapsed real time: 0 06:00:02.19 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
K-40	+	1460.81	*	1.135E+01	2.630E+01	2.268E+01	1.534E+00	0.500
AS-74	+	595.88	*	1.202E+01	5.077E+00	6.714E+00	3.565E-01	1.791
		634.78		5.785E+00	1.488E+01	2.510E+01	1.279E+00	0.230
AU-195	+	65.12		1.717E+01	1.206E+01	1.509E+01	1.366E+00	1.138
	+	66.83		1.002E+01	7.035E+00	8.299E+00	7.487E-01	1.208
	+	75.70		1.541E+01	1.135E+01	1.638E+01	1.491E+00	0.941
		98.88	*	7.076E+00	1.303E+01	2.021E+01	1.657E+00	0.350
		129.76		-1.800E+00	1.581E+02	2.569E+02	1.593E+01	-0.007
BI-211		72.87		1.665E+02	1.883E+02	2.822E+02	2.551E+01	0.590
	+	351.07	*	6.030E+01	1.643E+01	1.646E+01	1.072E+00	3.664
BI-214	+	609.31	*	1.881E+01	8.112E+00	5.061E+00	3.731E-01	3.717
	+	1120.29		1.753E+01	1.946E+01	1.715E+01	1.525E+00	1.022
		1764.49		2.919E+01	1.426E+01	2.764E+01	1.617E+00	1.056
PB-214		74.81		3.076E+01	5.140E+01	5.838E+01	6.842E+00	0.527
	+	77.11		3.010E+01	2.229E+01	2.924E+01	3.482E+00	1.030
		87.30		-5.375E+00	3.761E+01	5.362E+01	6.644E+00	-0.100
		241.98		1.837E+01	1.966E+01	2.900E+01	2.368E+00	0.633
	+	295.21		1.934E+01	1.115E+01	1.121E+01	9.711E-01	1.725
	+	351.92	*	2.098E+01	5.820E+00	5.803E+00	4.843E-01	3.615
PO-214		74.81		3.076E+01	5.140E+01	5.838E+01	6.842E+00	0.527
	+	77.11		3.010E+01	2.229E+01	2.924E+01	3.482E+00	1.030
		87.30		-5.375E+00	3.761E+01	5.362E+01	6.644E+00	-0.100
		241.98		1.837E+01	1.966E+01	2.900E+01	2.368E+00	0.633
	+	295.21		1.934E+01	1.115E+01	1.121E+01	9.711E-01	1.725
	+	351.92	*	2.098E+01	5.820E+00	5.803E+00	4.843E-01	3.615
PO-218		74.81		3.076E+01	5.140E+01	5.838E+01	6.842E+00	0.527
	+	77.11		3.010E+01	2.229E+01	2.924E+01	3.482E+00	1.030
		87.30		-5.375E+00	3.761E+01	5.362E+01	6.644E+00	-0.100
		241.98		1.837E+01	1.966E+01	2.900E+01	2.368E+00	0.633
	+	295.21		1.934E+01	1.115E+01	1.121E+01	9.711E-01	1.725
	+	351.92	*	2.098E+01	5.820E+00	5.803E+00	4.843E-01	3.615
TH-230	+	67.67	*	1.279E+03	8.342E+03	1.033E+03	6.698E+03	1.238
TH-234	+	63.29	*	5.001E+01	1.138E+02	1.179E+02	2.149E+01	0.424
	+	92.38		2.620E+01	4.659E+01	4.150E+01	7.588E+00	0.631

Sample ID : G1202001367 Acquisition date : 30-DEC-2009 22:43:28

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
U-238	+	63.29	*	5.001E+01	1.138E+02	1.179E+02	2.149E+01	0.424
	+	92.38		2.620E+01	4.641E+01	4.150E+01	3.749E+00	0.631

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	1.803E+00	1.412E+01	2.357E+01	1.569E+00	0.076
NA-22		1274.54	*	-1.089E-01	1.530E+00	2.520E+00	1.560E-01	-0.043
NA-24		1368.53	*	2.151E+00	1.530E+00	Half-Life too short		
AL-26		1129.67		3.342E+01	6.430E+01	1.126E+02	6.611E+00	0.297
		1808.65	*	6.127E-01	1.626E+00	2.793E+00	1.598E-01	0.219
TI-44		67.85		4.067E+00	3.025E+00	4.617E+00	4.160E-01	0.881
	+	78.38	*	3.240E+00	2.387E+00	3.119E+00	2.870E-01	1.039
SC-46		889.25	*	-1.707E+00	2.183E+00	2.954E+00	2.021E-01	-0.578
	+	1120.51		2.962E+00	3.282E+00	3.881E+00	2.301E-01	0.763
V-48		944.10		-5.883E+00	3.477E+01	5.494E+01	3.724E+00	-0.107
		983.50	*	1.091E+00	3.134E+00	5.192E+00	3.443E-01	0.210
		1312.09		3.819E+00	3.086E+00	5.739E+00	3.672E-01	0.665
CR-51		320.08	*	5.467E+00	1.751E+01	2.982E+01	1.973E+00	0.183
MN-52		744.21		-3.828E+00	8.670E+00	1.355E+01	7.578E-01	-0.282
		848.13		4.698E+00	2.491E+02	4.035E+02	2.613E+01	0.012
		935.52		-1.420E+00	9.746E+00	1.548E+01	1.054E+00	-0.092
		1246.25		1.158E+02	2.310E+02	4.015E+02	2.413E+01	0.288
		1333.61		9.703E+01	1.758E+02	3.082E+02	2.009E+01	0.315
		1434.06	*	-5.679E-02	8.383E+00	1.382E+01	8.936E-01	-0.004
MN-54		834.83	*	-1.789E+00	1.936E+00	2.473E+00	1.573E-01	-0.723
CO-56		846.75	*	-1.723E-01	1.782E+00	2.857E+00	1.847E-01	-0.060
		977.42		-6.270E+01	1.275E+02	1.944E+02	1.294E+01	-0.323
		1037.82		-3.134E+00	1.233E+01	2.017E+01	1.411E+00	-0.155
		1175.09		1.672E+00	7.969E+01	1.331E+02	7.446E+00	0.013
		1238.25		2.986E-01	2.900E+00	4.870E+00	3.077E-01	0.061
		1360.21		5.520E+00	4.589E+01	7.691E+01	5.008E+00	0.072
		1771.40		-1.082E+01	1.411E+01	2.076E+01	1.211E+00	-0.521
CO-57		122.06	*	5.313E-01	1.486E+00	2.451E+00	1.570E-01	0.217
		136.48		-3.825E+00	1.343E+01	1.876E+01	1.306E+00	-0.204
CO-58		810.76	*	5.609E-02	1.671E+00	2.715E+00	1.679E-01	0.021
FE-59		142.65		-9.506E+01	1.923E+02	2.337E+02	1.398E+01	-0.407
		192.34		2.338E+01	5.727E+01	8.231E+01	9.717E+00	0.284
		1099.22	*	-9.995E-01	3.560E+00	5.795E+00	4.067E-01	-0.172
		1291.56		-1.388E+00	4.711E+00	7.566E+00	5.901E-01	-0.183
CO-60		1173.22		-1.607E-01	1.614E+00	2.663E+00	1.487E-01	-0.060
		1332.49	*	-2.424E+00	2.128E+00	2.712E+00	1.768E-01	-0.894
ZN-65		1115.52	*	1.588E+00	3.810E+00	5.799E+00	3.465E-01	0.274
GE-68		1077.35	*	1.099E+01	4.959E+01	8.469E+01	5.236E+00	0.130
AS-73		53.44	*	6.446E+00	4.883E+01	8.110E+01	7.338E+00	0.079
SE-75	+	66.05		5.017E+02	3.534E+02	5.053E+02	5.447E+01	0.993
		96.73		9.728E+00	4.631E+01	6.711E+01	9.075E+00	0.145
		121.11		5.190E+00	7.850E+00	1.308E+01	1.262E+00	0.397

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		136.00		-5.702E-01	2.485E+00	3.483E+00	2.149E-01	-0.164
	+	198.60		1.084E+02	1.554E+02	1.638E+02	1.168E+01	0.662
		264.65	*	1.219E+00	2.148E+00	3.711E+00	2.241E-01	0.329
		279.53		-1.091E-01	4.808E+00	8.088E+00	5.217E-01	-0.013
		303.91		-2.951E+01	9.797E+01	1.621E+02	1.566E+01	-0.182
		400.65		2.086E+00	1.243E+01	2.089E+01	1.890E+00	0.100
BR-77		87.88		-6.199E+01	6.548E+03	9.398E+03	9.157E+02	-0.007
		200.40		-3.633E+02	6.309E+03	8.821E+03	5.128E+02	-0.041
	+	239.00		5.467E+02	5.709E+02	5.458E+02	3.236E+01	1.002
		249.79		4.541E+02	2.257E+03	3.640E+03	2.168E+02	0.125
		281.68		1.222E+03	2.554E+03	4.398E+03	2.637E+02	0.278
		297.23		1.688E+03	1.869E+03	2.887E+03	1.731E+02	0.585
		303.76		-1.583E+03	5.302E+03	8.774E+03	5.258E+02	-0.180
		439.47		3.803E+03	4.140E+03	7.253E+03	4.152E+02	0.524
		484.57		-3.747E+03	6.614E+03	1.051E+04	5.970E+02	-0.356
		520.65	*	-3.642E+02	3.108E+02	4.692E+02	2.627E+01	-0.776
		574.64		1.910E+03	5.935E+03	9.980E+03	5.398E+02	0.191
		578.91		-1.744E+03	2.485E+03	3.874E+03	2.088E+02	-0.450
		585.48		-3.067E+03	4.434E+03	6.889E+03	3.693E+02	-0.445
		755.35		5.994E+02	4.525E+03	7.438E+03	4.227E+02	0.081
		817.79		6.451E+02	3.703E+03	6.093E+03	3.785E+02	0.106
SR-82		698.33		2.547E+01	1.435E+03	2.344E+03	1.223E+02	0.011
		776.49	*	6.388E+00	1.549E+01	2.605E+01	1.526E+00	0.245
		1395.20		2.005E+02	4.660E+02	8.075E+02	5.243E+01	0.248
RB-83		520.41	*	-3.544E+00	3.194E+00	4.842E+00	2.712E-01	-0.732
		529.64		6.643E-01	4.799E+00	7.990E+00	4.454E-01	0.083
		552.65		3.588E+00	1.051E+01	1.550E+01	8.519E-01	0.232
RB-84		881.50	*	-6.844E-01	3.068E+00	4.847E+00	3.282E-01	-0.141
KR-85		513.99	*	-2.321E+03	5.241E+02	6.645E+02	3.733E+01	-3.493
SR-85		513.99	*	-1.171E+01	2.643E+00	3.351E+00	1.882E-01	-3.493
RB-86		1076.63	*	1.968E+01	3.028E+01	5.358E+01	3.315E+00	0.367
Y-88		898.02		-2.187E+00	2.259E+00	2.630E+00	1.833E-01	-0.831
		1836.01	*	-2.233E-01	1.790E+00	2.860E+00	1.616E-01	-0.078
ZR-88		392.90	*	2.611E-02	1.433E+00	2.391E+00	1.363E-01	0.011
Y-91		1204.90	*	2.940E+01	7.101E+02	1.187E+03	6.844E+01	0.025
NB-94		702.63	*	-2.859E-01	1.516E+00	2.436E+00	1.279E-01	-0.117
		871.10		-9.371E-01	1.620E+00	2.477E+00	1.654E-01	-0.378
NB-95		765.79	*	-8.947E-02	1.970E+00	3.188E+00	1.840E-01	-0.028
NB-95M		235.69	*	1.162E-01	6.595E+00	9.213E+00	7.023E-01	0.013
ZR-95		724.18		7.835E-01	3.870E+00	6.406E+00	4.193E-01	0.122
		756.15	*	1.619E+00	3.062E+00	5.195E+00	3.606E-01	0.312
NB-97		657.90	*	-3.925E-01	3.062E+00	Half-Life too short		
		1024.50		-4.499E+01	3.062E+00	Half-Life too short		
ZR-97		254.15		4.095E+01	3.062E+00	Half-Life too short		
		355.39		6.693E+00	3.062E+00	Half-Life too short		
		507.63	*	-3.169E+01	3.062E+00	Half-Life too short		
		602.52		-4.238E+01	3.062E+00	Half-Life too short		
		1021.30		-4.231E+01	3.062E+00	Half-Life too short		
		1147.95		2.147E+01	3.062E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1362.66		2.065E+01	3.062E+00	Half-Life too short		
		1750.46		-7.676E+00	3.062E+00	Half-Life too short		
MO-99	+	140.51		2.325E+03	1.537E+03	1.788E+03	4.827E+02	1.300
		181.06		-1.400E+03	7.338E+02	9.241E+02	1.582E+02	-1.515
		366.43		-4.802E+01	2.699E+03	4.503E+03	2.626E+02	-0.011
		739.58	*	6.805E+01	3.378E+02	5.589E+02	7.644E+01	0.122
		778.00		1.205E+01	9.339E+02	1.518E+03	8.915E+01	0.008
TC-99M	+	140.51	*	6.175E+10	9.339E+02	Half-Life too short		
RH-101		127.23		9.962E-01	1.810E+00	3.003E+00	1.879E-01	0.332
	+	198.01	*	2.006E+00	2.876E+00	3.059E+00	1.776E-01	0.656
		325.23		5.516E+00	1.095E+01	1.879E+01	1.121E+00	0.294
RH-102		418.52		8.008E-01	1.360E+01	2.269E+01	1.298E+00	0.035
		475.06	*	-4.586E-01	1.298E+00	2.095E+00	1.193E-01	-0.219
		631.29		-1.464E+00	2.322E+00	3.596E+00	1.840E-01	-0.407
		697.49		1.285E+00	3.290E+00	5.533E+00	2.883E-01	0.232
		766.84		1.721E+00	4.467E+00	7.487E+00	4.327E-01	0.230
		1046.59		2.082E+00	4.749E+00	8.263E+00	5.243E-01	0.252
		1112.84		-4.221E+00	1.003E+01	1.425E+01	8.520E-01	-0.296
RU-103		497.08	*	-2.412E+00	1.912E+00	2.847E+00	3.582E-01	-0.847
	+	610.33		1.976E+02	8.914E+01	9.202E+01	1.400E+01	2.147
RH-106		511.85		-4.060E+01	1.538E+01	2.268E+01	1.275E+00	-1.790
		621.84	*	-5.253E+00	1.401E+01	2.226E+01	2.546E+00	-0.236
		1050.47		-8.807E+00	9.427E+01	1.566E+02	9.907E+00	-0.056
RU-106		511.85		-4.060E+01	1.538E+01	2.268E+01	1.275E+00	-1.790
		621.84	*	-5.253E+00	1.400E+01	2.226E+01	1.151E+00	-0.236
		1050.47		-8.807E+00	9.427E+01	1.566E+02	9.907E+00	-0.056
AG-108M		433.93	*	-8.696E-01	1.472E+00	2.347E+00	1.462E-01	-0.370
		614.37		2.908E-01	1.909E+00	2.754E+00	1.585E-01	0.106
		722.95		-1.606E-01	1.795E+00	2.901E+00	1.723E-01	-0.055
CD-109		88.03	*	-2.038E+00	4.790E+01	6.863E+01	6.689E+00	-0.030
AG-110M		657.75	*	-7.232E-01	1.562E+00	2.458E+00	1.324E-01	-0.294
		677.61		1.333E+00	1.408E+01	2.316E+01	1.263E+00	0.058
		706.67		8.098E+00	9.565E+00	1.656E+01	9.378E-01	0.489
		763.93		6.126E-01	6.970E+00	1.141E+01	6.974E-01	0.054
		884.67		-6.991E-01	2.278E+00	3.571E+00	2.552E-01	-0.196
		937.48		-8.372E+00	5.179E+00	6.945E+00	4.995E-01	-1.205
		1384.27		2.841E+00	7.104E+00	1.226E+01	8.361E-01	0.232
IN-111		171.28		1.733E+00	4.238E+01	5.991E+01	3.435E+00	0.029
		245.39	*	-2.225E+01	4.295E+01	5.765E+01	3.427E+00	-0.386
IN-113M		391.69	*	-8.191E-01	2.111E+00	3.439E+00	2.096E-01	-0.238
SN-113		391.69	*	-8.191E-01	2.111E+00	3.439E+00	2.096E-01	-0.238
IN-114M		190.27	*	1.083E+00	1.004E+01	1.568E+01	9.065E-01	0.069
CD-115		260.90		-8.484E+01	4.152E+03	6.618E+03	3.954E+02	-0.013
		492.35		3.893E+02	1.051E+03	1.780E+03	1.008E+02	0.219
		527.90	*	3.018E+00	3.097E+02	5.110E+02	2.851E+01	0.006
SN-117M		156.02		-8.387E+01	1.088E+02	1.701E+02	9.899E+00	-0.493
		158.56	*	-8.130E-01	2.700E+00	4.312E+00	2.499E-01	-0.189
SB-122		563.90	*	4.338E+01	7.548E+01	1.134E+02	6.185E+00	0.382
		692.80		-4.719E+02	1.271E+03	2.010E+03	1.039E+02	-0.235

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
I-123		159.00	*	-1.448E+00	1.271E+03	Half-Life too short		
		528.96		-1.141E+03	1.271E+03	Half-Life too short		
TE-123M		159.00	*	-5.313E-02	1.496E+00	2.417E+00	1.418E-01	-0.022
I-124		602.71	*	-3.506E+00	2.796E+01	3.922E+01	2.069E+00	-0.089
		722.78		-1.289E+01	1.441E+02	2.329E+02	1.261E+01	-0.055
		1325.50		1.051E+03	1.180E+03	2.125E+03	1.376E+02	0.495
		1376.25		1.088E+03	9.757E+02	1.801E+03	1.171E+02	0.604
		1509.49		-4.150E+02	5.786E+02	8.694E+02	5.548E+01	-0.477
		1691.02		1.401E+02	1.780E+02	3.171E+02	1.916E+01	0.442
SB-124		602.71		-2.603E-01	2.076E+00	2.912E+00	1.537E-01	-0.089
		645.85		-2.629E+00	2.159E+01	3.497E+01	2.053E+00	-0.075
		709.31		2.274E+01	1.256E+02	2.076E+02	1.101E+01	0.110
		713.82		-2.142E+01	6.644E+01	1.051E+02	1.046E+01	-0.204
		722.78		-1.388E+00	1.551E+01	2.507E+01	1.431E+00	-0.055
		968.20		8.643E+01	9.640E+01	1.680E+02	1.124E+01	0.514
		1045.16		1.255E+00	1.013E+02	1.700E+02	1.080E+01	0.007
		1325.50		1.209E+02	1.356E+02	2.442E+02	1.582E+01	0.495
		1368.21		3.488E+01	7.610E+01	1.321E+02	1.616E+01	0.264
		1436.60		4.119E+01	1.654E+02	2.809E+02	1.815E+01	0.147
		1691.02	*	3.557E+00	4.521E+00	8.050E+00	5.248E-01	0.442
SB-125		427.89	*	-1.415E+00	4.182E+00	6.798E+00	4.060E-01	-0.208
		463.38		-5.019E+00	1.263E+01	2.039E+01	1.363E+00	-0.246
		600.56		2.686E+00	9.677E+00	1.412E+01	8.853E-01	0.190
		635.90		7.722E+00	1.192E+01	2.049E+01	1.270E+00	0.377
TE-125M		109.28	*	-4.978E+01	5.330E+02	8.666E+02	7.970E+01	-0.057
I-126		388.63		4.040E-01	8.832E+00	1.476E+01	8.441E-01	0.027
		666.33	*	5.054E-01	7.107E+00	1.168E+01	5.795E-01	0.043
		753.82		-5.068E+01	6.016E+01	9.043E+01	5.128E+00	-0.560
SB-126		223.80		1.060E+02	1.899E+02	3.121E+02	1.838E+01	0.340
		278.60		-9.537E+01	1.006E+02	1.611E+02	9.659E+00	-0.592
		296.50		1.350E+02	7.547E+01	1.212E+02	7.270E+00	1.113
		414.70		-1.432E+00	3.147E+00	5.086E+00	2.909E-01	-0.282
		415.30		-1.984E+02	2.693E+02	4.276E+02	2.446E+01	-0.464
		555.20		-3.866E+01	1.993E+02	2.785E+02	1.528E+01	-0.139
		573.80		2.802E+00	4.305E+01	7.110E+01	3.848E+00	0.039
		593.00		5.594E+01	4.191E+01	6.792E+01	3.617E+00	0.824
		656.30		-2.108E+01	1.414E+02	2.285E+02	1.134E+01	-0.092
		666.33		2.104E-01	2.959E+00	4.863E+00	2.413E-01	0.043
		675.00		8.051E+01	8.132E+01	1.428E+02	7.185E+00	0.564
		695.00		1.119E-01	3.120E+00	5.104E+00	2.649E-01	0.022
		697.00		1.533E+00	1.056E+01	1.743E+01	9.071E-01	0.088
		720.50	*	-1.057E+00	7.465E+00	9.559E+00	5.158E-01	-0.111
		856.80		-1.328E+01	1.813E+01	2.715E+01	1.779E+00	-0.489
		989.30		-1.083E+01	5.230E+01	8.223E+01	5.434E+00	-0.132
		1034.80		8.404E+01	3.202E+02	5.499E+02	3.522E+01	0.153
		1213.00		-1.184E+02	1.602E+02	2.539E+02	1.476E+01	-0.466
SN-126	+	64.28		1.979E+01	4.500E+01	5.427E+01	8.383E+00	0.365
		86.94		-1.282E-01	1.991E+01	2.859E+01	1.189E+01	-0.004
		87.57	*	-1.262E+00	4.784E+00	6.775E+00	6.586E-01	-0.186

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
SB-127		61.10		2.054E+03	2.718E+03	4.075E+03	4.554E+02	0.504
		252.40		3.626E+01	1.781E+02	2.863E+02	1.187E+02	0.127
		290.80		2.897E+02	8.870E+02	1.327E+03	1.159E+02	0.218
		411.60		1.148E+02	4.150E+02	7.013E+02	9.811E+01	0.164
		444.90		-1.536E+02	3.335E+02	5.360E+02	5.505E+01	-0.287
		473.00		-3.898E+00	5.664E+01	9.334E+01	9.953E+00	-0.042
		543.00		4.228E+02	5.636E+02	9.737E+02	1.206E+02	0.434
		603.60		-1.549E+02	4.875E+02	6.707E+02	6.706E+01	-0.231
		685.20	*	-1.439E+01	4.480E+01	7.113E+01	6.011E+00	-0.202
		698.50		2.368E+00	5.014E+02	8.180E+02	1.137E+02	0.003
		722.20		-1.086E+03	1.290E+03	1.567E+03	1.307E+02	-0.693
		783.80		-1.098E+00	1.137E+02	1.843E+02	1.888E+01	-0.006
XE-127		57.60		7.672E+01	3.784E+02	5.544E+02	5.124E+01	0.138
		145.22		-8.827E+00	4.161E+01	5.826E+01	3.464E+00	-0.152
		172.10		5.659E+00	7.322E+00	1.077E+01	6.176E-01	0.526
		202.84	*	-1.689E+00	2.796E+00	3.774E+00	2.197E-01	-0.448
		374.96		-3.891E+00	1.212E+01	1.470E+01	8.513E-01	-0.265
I-131		80.18		-7.081E+01	2.300E+02	3.253E+02	3.032E+01	-0.218
		284.30		-1.205E+01	6.056E+01	1.009E+02	6.674E+00	-0.119
		364.48	*	1.048E+00	4.711E+00	7.967E+00	5.175E-01	0.131
		636.97		1.969E+01	5.825E+01	9.795E+01	5.728E+00	0.201
		722.89		-2.359E+01	2.636E+02	4.261E+02	2.337E+01	-0.055
TE-132		49.72		-5.107E+02	8.383E+02	1.351E+03	1.398E+02	-0.378
		111.76		8.631E+02	1.204E+03	2.012E+03	1.850E+02	0.429
		116.30		-7.995E+02	1.105E+03	1.744E+03	1.563E+02	-0.458
		228.16	*	-6.653E+00	2.570E+01	4.064E+01	5.731E+00	-0.164
BA-133		53.15		5.622E+01	2.126E+02	3.549E+02	3.202E+01	0.158
		79.62		-2.952E+01	7.433E+01	1.045E+02	1.629E+01	-0.283
		81.00		-2.879E+00	5.745E+00	8.018E+00	1.304E+00	-0.359
		276.40		-1.322E+00	1.642E+01	2.755E+01	3.595E+00	-0.048
		302.84		7.329E-01	6.875E+00	1.161E+01	1.365E+00	0.063
		356.01	*	7.763E-01	2.346E+00	3.496E+00	4.055E-01	0.222
		383.85		-5.352E+00	1.410E+01	2.299E+01	2.492E+00	-0.233
I-133		510.53		-1.140E+01	1.410E+01	Half-Life too short		
		529.87	*	1.464E-02	1.410E+01	Half-Life too short		
		706.58		4.333E+00	1.410E+01	Half-Life too short		
		856.28		-7.940E+00	1.410E+01	Half-Life too short		
		875.33		-1.555E-01	1.410E+01	Half-Life too short		
		1236.41		1.209E+00	1.410E+01	Half-Life too short		
		1298.22		6.551E-01	1.410E+01	Half-Life too short		
CS-134		475.35		-3.511E+01	8.522E+01	1.370E+02	7.803E+00	-0.256
		563.23		-4.524E+00	2.016E+01	2.810E+01	1.570E+00	-0.161
		569.32		-3.323E+00	9.687E+00	1.556E+01	8.738E-01	-0.214
		604.70		-4.980E-01	1.834E+00	2.535E+00	1.344E-01	-0.196
		795.84	*	7.911E-01	1.977E+00	3.316E+00	2.027E-01	0.239
		801.93		-1.859E+00	2.251E+01	3.045E+01	1.871E+00	-0.061
		1038.57		-8.148E+01	1.569E+02	2.500E+02	1.597E+01	-0.326
		1167.94		1.527E+01	8.884E+01	1.507E+02	8.468E+00	0.101
		1365.15		-2.558E+01	5.818E+01	9.162E+01	6.432E+00	-0.279

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CS-135		268.24	*	-2.047E+00	7.567E+00	1.260E+01	9.828E-01	-0.162
I-135		288.45		-1.399E+09	7.567E+00	Half-Life too short		
		417.63		-1.540E+10	7.567E+00	Half-Life too short		
		546.56		-1.158E+10	7.567E+00	Half-Life too short		
		836.80		6.985E+09	7.567E+00	Half-Life too short		
		1038.76		-6.590E+09	7.567E+00	Half-Life too short		
		1124.00		5.470E+09	7.567E+00	Half-Life too short		
		1131.51		3.502E+09	7.567E+00	Half-Life too short		
		1260.41	*	7.588E+08	7.567E+00	Half-Life too short		
		1457.56		1.839E+10	7.567E+00	Half-Life too short		
		1678.03		2.485E+09	7.567E+00	Half-Life too short		
		1706.46		3.748E+09	7.567E+00	Half-Life too short		
		1791.20		-2.922E+09	7.567E+00	Half-Life too short		
CS-136	+	66.91		7.736E+01	5.520E+01	7.332E+01	1.148E+01	1.055
		86.29		2.095E+01	5.245E+01	8.424E+01	1.141E+01	0.249
		153.22		-2.019E+00	3.130E+01	5.054E+01	3.670E+00	-0.040
		163.89		-2.324E+01	5.301E+01	8.407E+01	6.058E+00	-0.276
		176.55		1.721E+01	2.188E+01	3.214E+01	2.078E+00	0.535
		273.65		1.197E+01	1.875E+01	3.249E+01	2.203E+00	0.368
		340.57		-1.420E+00	5.196E+00	8.574E+00	5.387E-01	-0.166
		818.51		2.530E+00	2.998E+00	5.215E+00	3.247E-01	0.485
		1048.07	*	-1.791E-01	4.127E+00	6.889E+00	4.702E-01	-0.026
		1235.34		1.251E+01	1.741E+01	3.089E+01	3.111E+00	0.405
BA-137M		661.65	*	-5.685E-01	1.984E+00	2.608E+00	1.284E-01	-0.218
CS-137		661.65	*	-6.010E-01	2.097E+00	2.757E+00	1.366E-01	-0.218
CE-139		165.85	*	-4.922E-01	1.554E+00	2.476E+00	1.419E-01	-0.199
BA-140		162.64		2.515E+00	3.747E+01	6.075E+01	3.939E+00	0.041
		304.84		-1.687E+01	5.502E+01	9.069E+01	2.479E+01	-0.186
		423.70		-7.303E+00	9.759E+01	1.396E+02	4.435E+01	-0.052
		537.32	*	-1.755E+01	1.810E+01	1.697E+01	5.510E+00	-1.034
LA-140		328.77		2.532E+00	1.284E+01	2.173E+01	1.442E+00	0.117
		432.53		1.059E+01	8.206E+01	1.375E+02	8.713E+00	0.077
		487.03		4.008E+00	5.845E+00	1.009E+01	6.515E-01	0.397
		751.79		3.625E+01	6.641E+01	1.130E+02	7.888E+00	0.321
		815.85		-1.110E+01	1.319E+01	1.961E+01	1.474E+00	-0.566
		867.82		6.724E+01	5.794E+01	1.028E+02	7.431E+00	0.654
		919.63		-8.566E-01	1.177E+02	1.895E+02	1.759E+01	-0.005
		925.24		5.284E+00	4.486E+01	7.309E+01	5.489E+00	0.072
		1596.49	*	-2.794E+00	5.109E+00	6.253E+00	3.904E-01	-0.447
CE-141		145.44	*	-6.938E-01	3.746E+00	5.252E+00	3.240E-01	-0.132
CE-143		57.37		4.978E-03	3.746E+00	Half-Life too short		
		231.56		5.549E-03	3.746E+00	Half-Life too short		
	+	293.26	*	8.269E-03	3.746E+00	Half-Life too short		
	+	350.59		2.147E-01	3.746E+00	Half-Life too short		
		490.36		-1.566E-02	3.746E+00	Half-Life too short		
		664.57		7.476E-03	3.746E+00	Half-Life too short		
		721.93		-2.635E-02	3.746E+00	Half-Life too short		
CE-144		80.11		-4.146E+01	1.208E+02	1.706E+02	1.582E+01	-0.243
		133.54	*	-4.901E+00	1.182E+01	1.816E+01	2.604E+00	-0.270

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PM-144		476.78		6.503E-01	2.929E+00	4.923E+00	3.373E-01	0.132
		618.01		4.947E-01	1.412E+00	2.376E+00	1.326E-01	0.208
		696.49	*	3.542E-01	1.460E+00	2.429E+00	1.264E-01	0.146
		778.57		9.826E+00	9.187E+01	1.506E+02	8.860E+00	0.065
PR-144		696.49	*	2.398E+01	9.888E+01	1.645E+02	8.555E+00	0.146
		1489.15		-1.727E+02	6.626E+02	1.061E+03	6.798E+01	-0.163
PM-146		453.90	*	3.448E-01	2.017E+00	3.380E+00	2.896E-01	0.102
		633.02		2.771E+01	6.029E+01	1.010E+02	3.708E+01	0.274
		735.90		2.024E+00	6.562E+00	1.092E+01	3.038E+00	0.185
		747.13		-2.409E-01	3.973E+00	6.427E+00	7.983E-01	-0.037
ND-147		91.11		4.063E+01	1.587E+01	2.463E+01	2.437E+00	1.649
		319.41		-3.965E+00	1.478E+02	2.475E+02	1.479E+01	-0.016
		439.89		2.251E+02	2.405E+02	4.220E+02	2.416E+01	0.534
		531.02	*	6.372E-01	2.319E+01	3.831E+01	5.143E+00	0.017
PM-149		285.90	*	-3.709E+02	2.668E+03	4.460E+03	6.356E+02	-0.083
EU-152		121.78		1.089E+00	4.320E+00	7.099E+00	5.737E-01	0.153
		244.69		-1.430E+01	1.968E+01	2.602E+01	1.546E+00	-0.550
		344.27	*	3.664E-02	4.952E+00	7.832E+00	5.201E-01	0.005
		443.98		-3.302E+01	4.401E+01	6.937E+01	3.969E+00	-0.476
		778.89		6.571E-01	1.078E+01	1.760E+01	1.035E+00	0.037
		867.32		4.663E+01	3.727E+01	6.661E+01	4.427E+00	0.700
		964.01		-1.195E+01	1.200E+01	1.740E+01	1.167E+00	-0.687
		1085.78		-3.293E+00	1.478E+01	2.416E+01	1.483E+00	-0.136
		1112.02		-1.344E+00	1.330E+01	2.038E+01	1.219E+00	-0.066
		1407.95		6.640E+00	7.917E+00	1.428E+01	9.262E-01	0.465
GD-153		69.67		-4.970E+01	1.037E+02	1.460E+02	1.315E+01	-0.340
		83.37		-1.906E+02	9.174E+02	1.270E+03	1.200E+02	-0.150
		97.43	*	3.816E+00	4.745E+00	7.088E+00	5.931E-01	0.538
		103.18		-4.349E+00	5.817E+00	9.199E+00	7.136E-01	-0.473
EU-154		123.07		2.011E-01	3.065E+00	5.001E+00	4.882E-01	0.040
		247.94		7.144E+00	1.908E+01	3.104E+01	2.990E+00	0.230
		591.81		1.729E+00	2.901E+01	4.154E+01	3.947E+00	0.042
		723.30		5.584E-01	7.499E+00	1.229E+01	8.320E-01	0.045
		756.87		1.819E+01	3.394E+01	5.756E+01	5.801E+00	0.316
		873.19		7.434E-01	1.359E+01	2.205E+01	2.420E+00	0.034
		996.32		1.157E+01	1.568E+01	2.679E+01	4.520E+00	0.432
		1004.76		4.018E+00	8.073E+00	1.417E+01	1.445E+00	0.284
		1274.45	*	-1.230E+00	4.341E+00	6.970E+00	6.677E-01	-0.177
EU-155		48.70		9.890E+00	1.427E+02	2.367E+02	1.944E+01	0.042
		60.01		1.899E+02	3.090E+02	4.616E+02	4.271E+01	0.412
		86.54		1.306E+00	5.469E+00	8.382E+00	8.154E-01	0.156
		105.31	*	2.006E+00	6.092E+00	1.007E+01	7.736E-01	0.199
TB-160		86.79		2.715E+00	1.433E+01	2.191E+01	2.118E+00	0.124
	+	197.04		3.377E+01	4.841E+01	5.256E+01	3.050E+00	0.643
		215.65		-1.648E+01	3.748E+01	5.886E+01	3.451E+00	-0.280
		298.57		-1.749E-01	6.067E+00	8.865E+00	5.316E-01	-0.020
		879.36	*	-1.781E-01	6.274E+00	1.010E+01	6.820E-01	-0.018
		962.29		1.293E+01	2.003E+01	3.418E+01	2.295E+00	0.378
		966.15		-1.196E-01	7.797E+00	1.251E+01	8.382E-01	-0.010

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1177.93		1.574E+00	1.305E+01	2.200E+01	1.234E+00	0.072
		1271.85		-2.127E+00	2.552E+01	4.198E+01	2.586E+00	-0.051
HO-166M		80.57		-2.673E+00	1.554E+01	2.216E+01	2.060E+00	-0.121
		184.41		-2.425E+00	2.333E+00	3.203E+00	1.846E-01	-0.757
		280.46		1.101E+00	3.812E+00	6.508E+00	3.902E-01	0.169
		410.95		7.654E+00	1.111E+01	1.922E+01	1.099E+00	0.398
		711.68	*	-3.674E-01	2.639E+00	4.251E+00	2.263E-01	-0.086
		752.31		-2.556E+00	1.224E+01	1.955E+01	1.106E+00	-0.131
		810.29		7.432E-01	2.527E+00	4.205E+00	2.585E-01	0.177
TM-171		51.35		1.769E+03	1.819E+03	3.110E+03	2.741E+02	0.569
		52.39		2.417E+02	9.385E+02	1.567E+03	1.402E+02	0.154
		59.40		9.583E+02	1.673E+03	2.495E+03	2.315E+02	0.384
	+	66.72	*	3.035E+03	2.130E+03	2.902E+03	2.619E+02	1.046
HF-175		89.36		-6.672E+01	8.159E+01	1.117E+02	1.063E+01	-0.597
		343.40	*	-2.823E-01	1.666E+00	2.764E+00	1.635E-01	-0.102
		433.00		-3.851E+01	9.303E+01	1.502E+02	8.599E+00	-0.256
LU-176		88.36		-1.336E+00	1.112E+01	1.587E+01	1.537E+00	-0.084
		201.83		-4.341E-02	1.704E+00	2.386E+00	1.388E-01	-0.018
		306.84	*	-7.026E-01	1.161E+00	1.888E+00	1.131E-01	-0.372
		401.10		-9.979E+00	3.302E+02	5.489E+02	3.135E+01	-0.018
LU-177		112.95		-7.928E+00	7.840E+01	1.273E+02	8.863E+00	-0.062
		208.36	*	1.462E+01	4.571E+01	7.446E+01	4.348E+00	0.196
LU-177M		52.97		2.182E+01	9.550E+01	1.592E+02	1.434E+01	0.137
		54.07		-4.563E+00	5.031E+01	8.282E+01	7.533E+00	-0.055
		61.30		7.649E+01	9.411E+01	1.415E+02	1.300E+01	0.541
		121.62		5.161E+00	2.200E+01	3.613E+01	2.317E+00	0.143
		147.16		-7.737E+00	3.452E+01	5.543E+01	3.282E+00	-0.140
		171.86		1.330E+01	2.993E+01	4.328E+01	2.482E+00	0.307
		218.09		-4.631E+01	4.904E+01	6.652E+01	3.905E+00	-0.696
		268.79		2.161E+00	3.678E+01	6.218E+01	3.722E+00	0.035
		319.02		5.480E-01	1.263E+01	2.123E+01	1.269E+00	0.026
		367.43		-2.881E+00	4.287E+01	7.133E+01	4.156E+00	-0.040
		413.65	*	-3.944E+00	8.108E+00	1.309E+01	7.487E-01	-0.301
HF-181		56.28		-4.493E+01	5.560E+01	8.529E+01	7.850E+00	-0.527
		57.53		6.099E+00	3.198E+01	4.682E+01	4.327E+00	0.130
	+	65.20		9.375E+01	6.582E+01	1.011E+02	9.153E+00	0.927
		133.02		-2.364E+00	3.584E+00	5.664E+00	3.476E-01	-0.417
		136.25		-4.650E+00	2.856E+01	4.018E+01	2.443E+00	-0.116
		345.85		2.038E+00	1.000E+01	1.479E+01	8.739E-01	0.138
		482.03	*	-7.950E-01	1.872E+00	3.006E+00	1.709E-01	-0.264
W-181		56.28		-2.076E+01	2.228E+01	3.395E+01	3.125E+00	-0.612
		57.53		2.425E+00	1.274E+01	1.865E+01	1.724E+00	0.130
	+	65.20	*	3.706E+01	2.601E+01	3.997E+01	3.618E+00	0.927
TA-182	+	67.75		1.214E+01	8.522E+00	1.097E+01	9.888E-01	1.106
		100.10		2.606E+00	9.534E+00	1.575E+01	1.270E+00	0.165
		152.43		-3.003E+00	1.732E+01	2.783E+01	1.631E+00	-0.108
		222.10		-6.840E+00	1.753E+01	2.757E+01	1.622E+00	-0.248
		1001.68		-5.050E+01	8.214E+01	1.303E+02	8.539E+00	-0.388
	+	1121.28		8.209E+00	9.097E+00	1.090E+01	6.458E-01	0.753

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1189.05		-3.763E+00	1.054E+01	1.691E+01	9.596E-01	-0.223
		1221.42	*	1.431E+00	5.820E+00	9.951E+00	5.835E-01	0.144
		1230.97		1.613E+00	1.433E+01	2.413E+01	1.428E+00	0.067
RE-183		57.98		3.576E-01	1.274E+01	1.848E+01	1.710E+00	0.019
		59.32		3.864E+00	6.786E+00	1.012E+01	9.390E-01	0.382
	+	67.20		2.139E+01	1.502E+01	2.003E+01	1.806E+00	1.068
		162.32	*	2.379E+00	5.820E+00	9.566E+00	5.509E-01	0.249
		208.81		5.356E+00	4.758E+01	7.680E+01	4.486E+00	0.070
		291.72		2.231E+01	5.172E+01	7.787E+01	4.671E+00	0.286
RE-184		57.98		1.330E+00	4.736E+01	6.872E+01	6.358E+00	0.019
		59.32		1.436E+01	2.522E+01	3.760E+01	3.489E+00	0.382
	+	67.20		7.952E+01	5.582E+01	7.446E+01	6.715E+00	1.068
		161.27		2.434E+01	1.873E+01	3.183E+01	1.836E+00	0.765
		216.55		-2.091E+01	1.532E+01	2.027E+01	1.189E+00	-1.031
		252.85	*	5.392E+00	1.243E+01	2.027E+01	1.208E+00	0.266
		318.01		8.865E+00	2.197E+01	3.758E+01	2.246E+00	0.236
		792.07		1.209E+00	4.341E+01	7.057E+01	4.229E+00	0.017
		903.28		-4.281E+01	5.279E+01	5.593E+01	3.862E+00	-0.765
		920.93		2.440E+00	2.112E+01	3.438E+01	2.356E+00	0.071
OS-185		59.72		1.022E+01	1.820E+01	2.712E+01	2.514E+00	0.377
		61.14		8.148E+00	1.017E+01	1.530E+01	1.407E+00	0.533
		69.30		-9.065E+00	1.865E+01	2.624E+01	2.363E+00	-0.345
		592.07		3.101E+01	1.188E+02	1.740E+02	9.273E+00	0.178
		646.12	*	-1.157E+00	1.907E+00	2.967E+00	1.491E-01	-0.390
		717.42		-2.208E+01	3.651E+01	5.615E+01	3.016E+00	-0.393
		874.81		-1.833E+00	2.610E+01	4.187E+01	2.810E+00	-0.044
		880.27		8.492E+00	3.447E+01	5.691E+01	3.847E+00	0.149
RE-188		155.03	*	3.683E+00	8.649E+00	1.425E+01	8.309E-01	0.258
		477.96		4.974E+01	1.337E+02	2.269E+02	1.291E+01	0.219
		633.10		5.744E+01	1.185E+02	2.016E+02	1.029E+01	0.285
W-188	+	63.58		1.978E+03	4.491E+03	5.386E+03	4.900E+02	0.367
		227.08		8.346E+01	6.522E+02	1.051E+03	6.200E+01	0.079
		290.67	*	2.297E+01	4.079E+02	5.999E+02	3.598E+01	0.038
IR-192	+	295.96		1.453E+01	8.328E+00	1.024E+01	6.233E-01	1.418
		308.46		-1.914E+00	4.454E+00	7.312E+00	4.426E-01	-0.262
		316.51	*	-4.874E-01	1.693E+00	2.800E+00	1.682E-01	-0.174
		468.07		1.096E+00	2.956E+00	5.013E+00	3.310E-01	0.219
		604.41		-2.865E+00	2.395E+01	3.360E+01	3.726E+00	-0.085
		612.46		6.530E+00	3.548E+01	5.130E+01	3.664E+00	0.127
TL-200		367.94	*	-2.160E-03	3.548E+01	Half-Life too short		
		579.30		-4.412E-02	3.548E+01	Half-Life too short		
		828.27		3.366E-02	3.548E+01	Half-Life too short		
		1205.75		-3.653E-03	3.548E+01	Half-Life too short		
TL-201		68.90		-1.059E+02	2.123E+02	2.985E+02	2.689E+01	-0.355
		70.82		-9.071E+01	1.211E+02	1.679E+02	1.514E+01	-0.540
		80.30		-4.965E+01	2.004E+02	2.845E+02	2.642E+01	-0.175
		135.34		-4.585E+02	1.132E+03	1.571E+03	9.577E+01	-0.292
		167.43	*	-1.434E+02	2.599E+02	4.097E+02	2.347E+01	-0.350
TL-202		68.90		-1.250E+01	2.505E+01	3.522E+01	3.172E+00	-0.355

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		70.82		-1.067E+01	1.425E+01	1.976E+01	1.781E+00	-0.540
		80.30		-5.844E+00	2.359E+01	3.349E+01	3.110E+00	-0.175
		439.56	*	2.621E+00	2.907E+00	5.088E+00	2.912E-01	0.515
HG-203		70.83		-7.645E+01	6.799E+01	9.152E+01	1.268E+01	-0.835
		72.87		3.235E+01	3.672E+01	5.482E+01	7.389E+00	0.590
		82.60		6.636E+00	6.030E+01	9.199E+01	1.311E+01	0.072
		279.20	*	-1.177E+00	1.805E+00	2.941E+00	1.865E-01	-0.400
BI-207		72.80		4.908E+00	1.117E+01	1.643E+01	1.484E+00	0.299
		74.97		3.025E+00	8.746E+00	9.896E+00	8.991E-01	0.306
		84.90		1.756E+00	1.157E+01	1.621E+01	1.547E+00	0.108
		569.67		-9.237E-01	1.513E+00	2.384E+00	1.294E-01	-0.388
		1063.62	*	-1.424E+00	1.969E+00	3.050E+00	1.909E-01	-0.467
		1770.23		-1.492E+01	2.878E+01	4.395E+01	2.564E+00	-0.340
TL-207		81.07		-6.325E+00	1.265E+01	1.770E+01	1.650E+00	-0.357
		83.78		-2.014E+00	7.798E+00	1.076E+01	1.020E+00	-0.187
		94.90		1.967E+01	1.431E+01	2.179E+01	1.892E+00	0.903
		122.32		1.910E+01	1.041E+02	1.706E+02	1.230E+01	0.112
		144.24		-4.138E+01	4.975E+01	5.906E+01	4.347E+00	-0.701
		154.21		8.995E+00	2.003E+01	3.304E+01	2.328E+00	0.272
		269.46		3.413E-02	8.829E+00	1.489E+01	9.291E-01	0.002
		323.87	*	1.505E+01	3.263E+01	5.576E+01	9.243E+00	0.270
		338.28		-1.285E+01	5.456E+01	7.598E+01	8.058E+00	-0.169
		445.03		-6.037E+01	1.043E+02	1.663E+02	1.700E+01	-0.363
TL-208		72.80		5.338E+01	1.214E+02	1.787E+02	1.615E+01	0.299
		74.97		3.286E+01	9.508E+01	1.075E+02	1.356E+01	0.306
		277.35		-9.686E+00	1.680E+01	2.744E+01	2.927E+00	-0.353
		510.84		-2.049E+01	1.459E+01	2.249E+01	2.262E+00	-0.911
		583.14	*	-1.629E+00	2.188E+00	2.777E+00	1.754E-01	-0.586
		763.13		-5.288E+01	9.663E+01	1.495E+02	1.852E+01	-0.354
		860.37		7.973E+00	1.200E+01	2.058E+01	1.522E+00	0.387
		1093.90		-8.498E+01	4.246E+02	6.956E+02	1.562E+02	-0.122
PO-209		260.50		-1.306E+02	5.082E+02	8.001E+02	4.780E+01	-0.163
		262.80		4.872E+02	1.413E+03	2.294E+03	1.371E+02	0.212
		896.60	*	6.545E+01	3.148E+02	5.181E+02	3.578E+01	0.126
BI-210		46.50	*	-2.183E+02	2.459E+02	3.376E+02	2.776E+01	-0.647
PB-210		46.50	*	-2.183E+02	2.459E+02	3.376E+02	2.776E+01	-0.647
PO-210		46.50	*	-2.183E+02	2.457E+02	3.376E+02	2.434E+01	-0.647
PB-211		404.84	*	2.847E+01	4.704E+01	7.521E+01	4.688E+01	0.379
		427.08		-1.064E+01	9.379E+01	1.544E+02	9.540E+01	-0.069
		831.96		-7.402E+00	5.366E+01	8.545E+01	5.332E+01	-0.087
BI-212		727.18	*	3.463E+00	1.258E+01	2.093E+01	1.560E+00	0.165
		785.46		4.705E+01	7.425E+01	1.271E+02	7.544E+00	0.370
		1620.62		5.562E+01	6.489E+01	1.170E+02	7.249E+00	0.475
PB-212		74.81		1.809E+01	3.025E+01	3.434E+01	4.475E+00	0.527
	+	77.11		1.780E+01	1.311E+01	1.875E+01	1.717E+00	0.949
		87.30		-3.180E+00	2.226E+01	3.172E+01	4.420E+00	-0.100
		115.19		-1.323E+02	2.029E+02	3.217E+02	2.190E+01	-0.411
	+	238.63	*	5.482E+00	5.731E+00	5.426E+00	4.033E-01	1.010
		300.09		1.977E+01	4.244E+01	6.399E+01	5.367E+00	0.309

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PO-212		74.81		1.809E+01	3.025E+01	3.434E+01	4.475E+00	0.527
	+	77.11		1.780E+01	1.311E+01	1.875E+01	1.717E+00	0.949
		87.30		-3.180E+00	2.226E+01	3.172E+01	4.420E+00	-0.100
		115.19		-1.323E+02	2.029E+02	3.217E+02	2.190E+01	-0.411
	+	238.63	*	5.482E+00	5.731E+00	5.426E+00	4.033E-01	1.010
		300.09		1.977E+01	4.244E+01	6.399E+01	5.367E+00	0.309
PO-215		81.07		-6.325E+00	1.265E+01	1.770E+01	1.650E+00	-0.357
		83.78		-2.014E+00	7.798E+00	1.076E+01	1.020E+00	-0.187
		94.90		1.967E+01	1.431E+01	2.179E+01	1.892E+00	0.903
		122.32		1.910E+01	1.041E+02	1.706E+02	1.230E+01	0.112
		144.24		-4.138E+01	4.975E+01	5.906E+01	4.347E+00	-0.701
		154.21		8.995E+00	2.003E+01	3.304E+01	2.328E+00	0.272
		269.46		3.413E-02	8.829E+00	1.489E+01	9.291E-01	0.002
		323.87	*	1.505E+01	3.263E+01	5.576E+01	9.243E+00	0.270
		338.28		-1.285E+01	5.456E+01	7.598E+01	8.058E+00	-0.169
		445.03		-6.037E+01	1.043E+02	1.663E+02	1.700E+01	-0.363
PO-216		74.81		1.809E+01	3.025E+01	3.434E+01	4.475E+00	0.527
	+	77.11		1.780E+01	1.311E+01	1.875E+01	1.717E+00	0.949
		87.30		-3.180E+00	2.226E+01	3.172E+01	4.420E+00	-0.100
		115.19		-1.323E+02	2.029E+02	3.217E+02	2.190E+01	-0.411
	+	238.63	*	5.482E+00	5.731E+00	5.426E+00	4.033E-01	1.010
		300.09		1.977E+01	4.244E+01	6.399E+01	5.367E+00	0.309
RN-219		271.23		3.817E+00	1.131E+01	1.934E+01	1.593E+00	0.197
		401.81	*	6.073E+00	1.980E+01	3.350E+01	4.546E+00	0.181
RN-220		549.76	*	7.853E+02	1.217E+03	2.093E+03	1.153E+02	0.375
RA-223		81.07		-6.325E+00	1.265E+01	1.770E+01	1.650E+00	-0.357
		83.78		-2.014E+00	7.798E+00	1.076E+01	1.020E+00	-0.187
		94.90		1.967E+01	1.431E+01	2.179E+01	1.892E+00	0.903
		122.32		1.910E+01	1.041E+02	1.706E+02	1.230E+01	0.112
		144.24		-4.138E+01	4.975E+01	5.906E+01	4.347E+00	-0.701
		154.21		8.995E+00	2.003E+01	3.304E+01	2.328E+00	0.272
		269.46		3.413E-02	8.829E+00	1.489E+01	9.291E-01	0.002
		323.87	*	1.505E+01	3.263E+01	5.576E+01	9.243E+00	0.270
		338.28		-1.285E+01	5.456E+01	7.598E+01	8.058E+00	-0.169
		445.03		-6.037E+01	1.043E+02	1.663E+02	1.700E+01	-0.363
RA-224		240.98	*	6.471E+01	3.821E+01	5.871E+01	3.484E+00	1.102
RA-226		186.21	*	-5.879E+01	6.733E+01	7.093E+01	5.206E+01	-0.829
AC-227		79.80		-4.584E+01	9.429E+01	1.313E+02	2.859E+01	-0.349
		236.00		4.073E+00	1.254E+01	1.787E+01	1.880E+00	0.228
		256.20	*	-1.085E+01	2.061E+01	3.194E+01	4.481E+00	-0.340
		286.10		-1.330E+01	7.338E+01	1.224E+02	1.427E+01	-0.109
		299.80		4.110E+01	7.799E+01	1.177E+02	1.925E+01	0.349
		304.40		-3.302E+01	8.892E+01	1.463E+02	2.541E+01	-0.226
		329.70		-7.861E+00	4.468E+01	7.423E+01	9.307E+00	-0.106
		334.20		-4.376E+01	1.069E+02	1.748E+02	3.213E+01	-0.250
PA-227	+	64.62	*	1.000E+35	1.069E+02	Half-Life too short		
		110.05		1.000E+35	1.069E+02	Half-Life too short		
TH-227		79.80		-4.584E+01	9.430E+01	1.313E+02	2.895E+01	-0.349
	+	94.00		1.012E+02	1.805E+02	2.061E+02	4.504E+01	0.491

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		236.00		4.073E+00	1.254E+01	1.787E+01	1.633E+00	0.228
		256.20	*	-1.085E+01	2.063E+01	3.194E+01	5.416E+00	-0.340
		286.10		-1.330E+01	7.457E+01	1.224E+02	1.226E+02	-0.109
		299.80		4.110E+01	7.799E+01	1.177E+02	1.925E+01	0.349
		304.40		-3.302E+01	8.892E+01	1.463E+02	2.541E+01	-0.226
		329.70		-7.861E+00	4.468E+01	7.423E+01	9.307E+00	-0.106
		334.20		-4.376E+01	1.069E+02	1.748E+02	3.213E+01	-0.250
AC-228		338.32		-3.019E+00	1.318E+01	1.829E+01	7.460E+00	-0.165
		911.07	*	-8.589E-01	7.523E+00	1.015E+01	1.012E+00	-0.085
		969.11		9.118E+00	9.839E+00	1.686E+01	3.826E+00	0.541
RA-228		338.32		-3.019E+00	1.318E+01	1.829E+01	7.460E+00	-0.165
		911.07	*	-8.589E-01	7.523E+00	1.015E+01	1.012E+00	-0.085
		969.11		9.118E+00	9.839E+00	1.686E+01	3.826E+00	0.541
TH-228		74.81		1.809E+01	3.021E+01	3.434E+01	3.142E+00	0.527
	+	77.11		1.780E+01	1.311E+01	1.875E+01	1.717E+00	0.949
		87.30		-3.180E+00	2.225E+01	3.172E+01	3.078E+00	-0.100
	+	238.63	*	5.482E+00	5.731E+00	5.426E+00	4.033E-01	1.010
		300.09		1.977E+01	4.398E+01	6.399E+01	3.772E+01	0.309
TH-229		85.43		3.024E+00	1.143E+01	1.614E+01	1.545E+00	0.187
		88.47		-8.291E-01	6.366E+00	9.078E+00	8.775E-01	-0.091
		100.00		2.814E+00	9.997E+00	1.652E+01	1.335E+00	0.170
		193.63	*	3.487E+00	3.189E+01	4.508E+01	2.611E+00	0.077
		210.97		-3.701E+01	3.868E+01	5.928E+01	3.467E+00	-0.624
PA-231		283.67	*	2.103E+01	7.148E+01	1.219E+02	1.690E+01	0.172
		301.29		8.466E+00	2.776E+01	4.613E+01	4.872E+00	0.184
		330.00		-1.256E+01	9.934E+01	1.653E+02	5.181E+01	-0.076
TH-231		84.21	*	-1.226E+01	3.006E+01	4.116E+01	7.527E+00	-0.298
U-231		84.21		-1.053E+02	2.576E+02	3.534E+02	3.357E+01	-0.298
	+	92.29		7.694E+01	1.363E+02	1.648E+02	1.491E+01	0.467
		95.87	*	1.154E+01	5.032E+01	7.300E+01	6.247E+00	0.158
		108.00		1.621E+01	9.186E+01	1.509E+02	1.107E+01	0.107
TH-232		59.00	*	6.669E+02	7.272E+03	2.799E+03	2.947E+04	0.238
PA-233		75.28		1.283E+02	2.549E+02	2.909E+02	4.543E+01	0.441
		86.59		2.034E+01	8.902E+01	1.361E+02	3.699E+01	0.149
		300.12		9.933E+00	2.165E+01	3.260E+01	4.408E+00	0.305
		311.98	*	7.140E-01	3.134E+00	5.319E+00	3.369E-01	0.134
		340.50		-7.914E+00	2.743E+01	4.513E+01	1.038E+01	-0.175
		398.62		-4.196E+01	1.034E+02	1.674E+02	4.325E+01	-0.251
		415.76		-6.837E+01	7.927E+01	1.229E+02	2.527E+01	-0.556
PA-234	+	63.00		5.829E+01	1.325E+02	1.588E+02	2.507E+01	0.367
		94.67		2.177E+01	1.072E+01	1.639E+01	2.044E+00	1.328
		98.44		1.689E+00	5.438E+00	8.227E+00	4.585E+00	0.205
		99.86		5.549E+00	2.538E+01	4.184E+01	3.386E+00	0.133
		111.00		7.639E+00	1.068E+01	1.783E+01	1.971E+00	0.428
		131.20		2.603E+00	5.838E+00	9.649E+00	5.956E-01	0.270
		152.70		-2.037E+00	1.687E+01	2.717E+01	4.301E+00	-0.075
		186.00		-9.146E+01	8.888E+01	1.159E+02	3.541E+01	-0.789
		226.40		7.428E+00	2.080E+01	3.386E+01	3.930E+00	0.219
		227.20		-9.886E-02	2.254E+01	3.610E+01	2.129E+00	-0.003

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		248.90		5.548E+00	4.456E+01	7.160E+01	1.542E+01	0.077
	+	293.70		9.281E+01	5.499E+01	6.705E+01	1.083E+01	1.384
		369.80		6.425E+00	4.080E+01	6.868E+01	1.430E+01	0.094
		568.70		7.856E+00	4.928E+01	8.189E+01	4.450E+00	0.096
		569.50		-5.561E+00	1.336E+01	2.135E+01	1.159E+00	-0.261
		574.00		9.303E+00	6.791E+01	1.127E+02	6.100E+00	0.083
		699.00		-3.726E+00	3.095E+01	4.997E+01	8.896E+00	-0.075
		706.10		4.493E+01	5.215E+01	8.406E+01	3.704E+01	0.534
		733.00		-4.675E-01	1.669E+01	2.709E+01	5.739E+00	-0.017
		742.81		-1.030E+01	6.033E+01	9.603E+01	6.424E+01	-0.107
		796.30		3.197E+00	3.776E+01	6.168E+01	1.625E+01	0.052
		805.60		1.212E-01	4.677E+01	7.583E+01	2.278E+01	0.002
		819.60		2.942E+01	5.651E+01	9.398E+01	3.530E+01	0.313
		826.30		-1.136E+01	3.740E+01	5.832E+01	2.587E+01	-0.195
		831.60		6.601E+00	2.734E+01	4.509E+01	1.320E+01	0.146
		876.40		-1.012E+01	3.942E+01	5.986E+01	6.145E+01	-0.169
		880.51		4.039E+00	1.259E+01	2.092E+01	1.414E+00	0.193
		883.24		-3.564E+00	1.382E+01	2.145E+01	1.437E+01	-0.166
		899.00		-3.627E+01	4.712E+01	5.164E+01	2.242E+01	-0.702
		925.00		-9.142E+00	6.529E+01	8.345E+01	5.708E+00	-0.110
		926.50		-8.916E+00	8.313E+00	1.148E+01	2.837E+00	-0.777
		946.00	*	-1.097E+01	1.219E+01	1.735E+01	3.121E+00	-0.632
		949.00		-9.611E-01	1.727E+01	2.761E+01	1.867E+00	-0.035
		980.50		-6.338E-01	3.358E+01	5.383E+01	3.576E+00	-0.012
		1394.10		-1.267E+00	5.189E+01	8.551E+01	5.544E+01	-0.015
PA-234M		766.42		-6.198E+01	4.810E+02	7.713E+02	3.882E+02	-0.080
		1001.03	*	-5.780E+01	1.861E+02	3.039E+02	2.506E+01	-0.190
U-234		53.20	*	1.034E+03	1.101E+04	6.294E+03	6.294E+04	0.164
U-235		89.95		-3.283E+01	6.551E+01	9.049E+01	2.813E+01	-0.363
	+	93.35		3.150E+01	5.642E+01	6.695E+01	1.882E+01	0.470
		105.00		1.444E+01	5.930E+01	9.750E+01	2.882E+01	0.148
		143.76	*	-1.440E+01	1.550E+01	1.810E+01	2.961E+00	-0.796
		163.35		3.310E+00	2.541E+01	4.129E+01	7.419E+00	0.080
		185.71		-3.547E+00	3.137E+00	4.294E+00	2.477E-01	-0.826
		205.31		2.183E+01	2.654E+01	4.373E+01	7.868E+00	0.499
NP-236		94.67		1.664E+01	8.006E+00	1.245E+01	1.085E+00	1.337
		98.44		1.276E+00	4.051E+00	6.220E+00	5.131E-01	0.205
		111.00		5.778E+00	8.062E+00	1.349E+01	9.578E-01	0.428
		160.31	*	4.204E+00	4.281E+00	7.191E+00	4.155E-01	0.585
NP-237		86.50	*	3.296E+00	1.337E+01	2.047E+01	4.664E+00	0.161
		95.87		1.324E+01	5.778E+01	8.371E+01	2.060E+01	0.158
PU-237		59.54	*	7.440E+01	1.310E+02	1.953E+02	1.812E+01	0.381
NP-239		99.55		6.003E-01	8.535E+00	1.399E+01	1.137E+00	0.043
		117.00	*	-1.783E+00	1.056E+01	1.709E+01	1.143E+00	-0.104
		209.75		-4.408E+01	3.917E+01	5.954E+01	3.479E+00	-0.740
		228.18		-3.141E+00	1.177E+01	1.862E+01	1.099E+00	-0.169
		277.60		-5.145E+00	7.962E+00	1.297E+01	7.775E-01	-0.397
		334.30		-2.646E+01	6.035E+01	9.876E+01	5.868E+00	-0.268
AM-241		59.54	*	5.521E+00	9.722E+00	1.449E+01	1.429E+00	0.381

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AM-243		74.67	*	2.562E+00	4.839E+00	5.476E+00	4.971E-01	0.468
		86.72		1.012E+02	4.986E+02	7.630E+02	7.372E+01	0.133
		117.66		-4.504E+01	2.134E+02	3.446E+02	2.292E+01	-0.131
		142.18		7.092E+02	1.093E+03	1.604E+03	9.602E+01	0.442
CM-243		99.55		6.176E-01	8.782E+00	1.439E+01	1.170E+00	0.043
		103.76	*	-1.693E+00	5.397E+00	8.702E+00	6.703E-01	-0.195
		117.00		-1.834E+00	1.086E+01	1.758E+01	1.176E+00	-0.104
		209.75		-4.345E+01	3.861E+01	5.868E+01	3.429E+00	-0.740
		228.18		-3.173E+00	1.190E+01	1.881E+01	1.110E+00	-0.169
		277.60		-5.186E+00	8.026E+00	1.308E+01	7.838E-01	-0.397
AM-246		798.80		-1.179E+01	6.510E+00	8.774E+00	5.308E-01	-1.344
		1036.00		-4.303E-01	1.222E+01	2.042E+01	1.306E+00	-0.021
		1062.04		-3.734E+00	8.691E+00	1.393E+01	8.726E-01	-0.268
		1078.86	*	-6.191E-01	5.652E+00	9.362E+00	5.781E-01	-0.066
CM-247		278.00		-3.030E+01	3.317E+01	5.325E+01	3.192E+00	-0.569
		287.40		-2.483E+01	6.222E+01	9.670E+01	5.800E+00	-0.257
		402.60	*	1.344E+00	1.794E+00	3.106E+00	1.774E-01	0.433
CF-249		252.85		2.036E+01	4.695E+01	7.655E+01	4.563E+00	0.266
		333.44		-4.825E+00	8.030E+00	1.303E+01	7.746E-01	-0.370
		387.95	*	9.008E-01	1.885E+00	3.225E+00	1.845E-01	0.279
CF-251		176.60	*	6.087E+00	8.189E+00	1.200E+01	6.896E-01	0.507
		227.00		2.684E+00	1.989E+01	3.207E+01	1.891E+00	0.084
		285.00		9.631E+00	8.193E+01	1.387E+02	8.317E+00	0.069
ANH-511		511.00	*	-4.497E+00	3.085E+00	4.781E+00	2.690E-01	-0.941

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001367    *
* Acquisition date : 30-DEC-2009 22:43:28 Detector SN#    :                *
* Detector ID        : GAM19                Sensitivity     : 5.000        *
* Geometry           : 2LMB                 Energy tolerance: 1.500        *
* Elapsed live time:    0 06:00:00.00       Abundance limit : 75.000       *
* Elapsed real time:    0 06:00:02.19       Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 17-DEC-2009 12:00:00 Nuclide Library : LIQUI         *
* Sample ID          : G1202001367          Analyst initials: KXG3          *
* Batch Number       : 935338               Sample Quantity : 2.0000E+00 LITER *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 11-MAR-2009 08:32:49 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
K-40	1.135E+01	2.578E+01	2.268E+01	0.000E+00
AS-74	1.202E+01	4.976E+00	6.714E+00	0.000E+00
AU-195	7.076E+00	1.276E+01	2.021E+01	0.000E+00
BI-211	6.030E+01	1.610E+01	1.646E+01	0.000E+00
BI-214	1.881E+01	7.949E+00	5.061E+00	0.000E+00
PB-214	2.098E+01	5.704E+00	5.803E+00	0.000E+00
PO-214	2.098E+01	5.704E+00	5.803E+00	0.000E+00
PO-218	2.098E+01	5.704E+00	5.803E+00	0.000E+00
TH-230	1.279E+03	8.176E+03	1.033E+03	0.000E+00
TH-234	5.001E+01	1.115E+02	1.179E+02	0.000E+00
U-238	5.001E+01	1.115E+02	1.179E+02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	1.803E+00	1.383E+01	2.357E+01	0.000E+00	NOT IDENT.
NA-22	-1.089E-01	1.500E+00	2.520E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00	5.443E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	6.127E-01	1.594E+00	2.793E+00	0.000E+00	NOT IDENT.
TI-44	0.000E+00	2.339E+00	3.119E+00	0.000E+00	FAIL ABUN
SC-46	-1.707E+00	2.139E+00	2.954E+00	0.000E+00	FAIL ABUN
V-48	1.091E+00	3.072E+00	5.192E+00	0.000E+00	NOT IDENT.
CR-51	5.467E+00	1.716E+01	2.982E+01	0.000E+00	NOT IDENT.
MN-52	-5.679E-02	8.215E+00	1.382E+01	0.000E+00	NOT IDENT.
MN-54	-1.789E+00	1.897E+00	2.473E+00	0.000E+00	NOT IDENT.
CO-56	-1.723E-01	1.746E+00	2.857E+00	0.000E+00	NOT IDENT.
CO-57	5.313E-01	1.456E+00	2.451E+00	0.000E+00	NOT IDENT.
CO-58	5.609E-02	1.637E+00	2.715E+00	0.000E+00	NOT IDENT.
FE-59	-9.995E-01	3.488E+00	5.795E+00	0.000E+00	NOT IDENT.
CO-60	-2.424E+00	2.085E+00	2.712E+00	0.000E+00	NOT IDENT.
ZN-65	1.588E+00	3.734E+00	5.799E+00	0.000E+00	NOT IDENT.

GE-68	1.099E+01	4.860E+01	8.469E+01	0.000E+00	NOT IDENT.
AS-73	6.446E+00	4.785E+01	8.110E+01	0.000E+00	NOT IDENT.
SE-75	1.219E+00	2.105E+00	3.711E+00	0.000E+00	FAIL ABUN
BR-77	-3.642E+02	3.046E+02	4.692E+02	0.000E+00	FAIL ABUN
SR-82	6.388E+00	1.518E+01	2.605E+01	0.000E+00	NOT IDENT.
RB-83	-3.544E+00	3.130E+00	4.842E+00	0.000E+00	NOT IDENT.
RB-84	-6.844E-01	3.006E+00	4.847E+00	0.000E+00	NOT IDENT.
KR-85	-2.321E+03	5.136E+02	6.645E+02	0.000E+00	NOT IDENT.
SR-85	-1.171E+01	2.590E+00	3.351E+00	0.000E+00	NOT IDENT.
RB-86	1.968E+01	2.967E+01	5.358E+01	0.000E+00	NOT IDENT.
Y-88	-2.233E-01	1.754E+00	2.860E+00	0.000E+00	NOT IDENT.
ZR-88	2.611E-02	1.404E+00	2.391E+00	0.000E+00	NOT IDENT.
Y-91	2.940E+01	6.959E+02	1.187E+03	0.000E+00	NOT IDENT.
NB-94	-2.859E-01	1.486E+00	2.436E+00	0.000E+00	NOT IDENT.
NB-95	-8.947E-02	1.931E+00	3.188E+00	0.000E+00	NOT IDENT.
NB-95M	1.162E-01	6.463E+00	9.213E+00	0.000E+00	NOT IDENT.
ZR-95	1.619E+00	3.001E+00	5.195E+00	0.000E+00	NOT IDENT.
NB-97	0.000E+00	8.992E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.641E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	6.805E+01	3.310E+02	5.589E+02	0.000E+00	FAIL ABUN
TC-99M	0.000E+00	3.967E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.006E+00	2.818E+00	3.059E+00	0.000E+00	FAIL ABUN
RH-102	-4.586E-01	1.272E+00	2.095E+00	0.000E+00	NOT IDENT.
RU-103	-2.412E+00	1.874E+00	2.847E+00	0.000E+00	FAIL ABUN
RH-106	-5.253E+00	1.373E+01	2.226E+01	0.000E+00	NOT IDENT.
RU-106	-5.253E+00	1.372E+01	2.226E+01	0.000E+00	NOT IDENT.
AG-108M	-8.696E-01	1.442E+00	2.347E+00	0.000E+00	NOT IDENT.
CD-109	-2.038E+00	4.694E+01	6.863E+01	0.000E+00	NOT IDENT.
AG-110M	-7.232E-01	1.530E+00	2.458E+00	0.000E+00	NOT IDENT.
IN-111	-2.225E+01	4.210E+01	5.765E+01	0.000E+00	NOT IDENT.
IN-113M	-8.191E-01	2.068E+00	3.439E+00	0.000E+00	NOT IDENT.
SN-113	-8.191E-01	2.068E+00	3.439E+00	0.000E+00	NOT IDENT.
IN-114M	1.083E+00	9.844E+00	1.568E+01	0.000E+00	NOT IDENT.
CD-115	3.018E+00	3.035E+02	5.110E+02	0.000E+00	NOT IDENT.
SN-117M	-8.130E-01	2.646E+00	4.312E+00	0.000E+00	NOT IDENT.
SB-122	4.338E+01	7.397E+01	1.134E+02	0.000E+00	NOT IDENT.
I-123	0.000E+00	3.997E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-5.313E-02	1.466E+00	2.417E+00	0.000E+00	NOT IDENT.
I-124	-3.506E+00	2.740E+01	3.922E+01	0.000E+00	NOT IDENT.
SB-124	3.557E+00	4.430E+00	8.050E+00	0.000E+00	NOT IDENT.
SB-125	-1.415E+00	4.098E+00	6.798E+00	0.000E+00	NOT IDENT.
TE-125M	-4.978E+01	5.224E+02	8.666E+02	0.000E+00	NOT IDENT.
I-126	5.054E-01	6.965E+00	1.168E+01	0.000E+00	NOT IDENT.
SB-126	-1.057E+00	7.316E+00	9.559E+00	0.000E+00	NOT IDENT.
SN-126	-1.262E+00	4.688E+00	6.775E+00	0.000E+00	FAIL ABUN
SB-127	-1.439E+01	4.391E+01	7.113E+01	0.000E+00	NOT IDENT.
XE-127	-1.689E+00	2.740E+00	3.774E+00	0.000E+00	NOT IDENT.
I-131	1.048E+00	4.616E+00	7.967E+00	0.000E+00	NOT IDENT.
TE-132	-6.653E+00	2.519E+01	4.064E+01	0.000E+00	NOT IDENT.
BA-133	7.763E-01	2.299E+00	3.496E+00	0.000E+00	NOT IDENT.
I-133	0.000E+00	7.684E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.911E-01	1.938E+00	3.316E+00	0.000E+00	NOT IDENT.
CS-135	-2.047E+00	7.416E+00	1.260E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.697E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.791E-01	4.044E+00	6.889E+00	0.000E+00	FAIL ABUN
BA-137M	-5.685E-01	1.944E+00	2.608E+00	0.000E+00	NOT IDENT.
CS-137	-6.010E-01	2.055E+00	2.757E+00	0.000E+00	NOT IDENT.
CE-139	-4.922E-01	1.523E+00	2.476E+00	0.000E+00	NOT IDENT.
BA-140	-1.755E+01	1.774E+01	1.697E+01	0.000E+00	NOT IDENT.
LA-140	-2.794E+00	5.006E+00	6.253E+00	0.000E+00	NOT IDENT.
CE-141	-6.938E-01	3.671E+00	5.252E+00	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.940E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-4.901E+00	1.158E+01	1.816E+01	0.000E+00	NOT IDENT.
PM-144	3.542E-01	1.431E+00	2.429E+00	0.000E+00	NOT IDENT.
PR-144	2.398E+01	9.691E+01	1.645E+02	0.000E+00	NOT IDENT.
PM-146	3.448E-01	1.976E+00	3.380E+00	0.000E+00	NOT IDENT.
ND-147	6.372E-01	2.273E+01	3.831E+01	0.000E+00	NOT IDENT.
PM-149	-3.709E+02	2.615E+03	4.460E+03	0.000E+00	NOT IDENT.
EU-152	3.664E-02	4.853E+00	7.832E+00	0.000E+00	NOT IDENT.
GD-153	3.816E+00	4.650E+00	7.088E+00	0.000E+00	NOT IDENT.
EU-154	-1.230E+00	4.254E+00	6.970E+00	0.000E+00	NOT IDENT.
EU-155	2.006E+00	5.970E+00	1.007E+01	0.000E+00	NOT IDENT.
TB-160	-1.781E-01	6.148E+00	1.010E+01	0.000E+00	FAIL ABUN
HO-166M	-3.674E-01	2.586E+00	4.251E+00	0.000E+00	NOT IDENT.
TM-171	0.000E+00	2.088E+03	2.902E+03	0.000E+00	FAIL ABUN
HF-175	-2.823E-01	1.633E+00	2.764E+00	0.000E+00	NOT IDENT.
LU-176	-7.026E-01	1.138E+00	1.888E+00	0.000E+00	NOT IDENT.
LU-177	1.462E+01	4.479E+01	7.446E+01	0.000E+00	NOT IDENT.

LU-177M	-3.944E+00	7.946E+00	1.309E+01	0.000E+00	NOT IDENT.
HF-181	-7.950E-01	1.835E+00	3.006E+00	0.000E+00	FAIL ABUN
W-181	3.706E+01	2.549E+01	3.997E+01	0.000E+00	FAIL ABUN
TA-182	1.431E+00	5.703E+00	9.951E+00	0.000E+00	FAIL ABUN
RE-183	2.379E+00	5.704E+00	9.566E+00	0.000E+00	FAIL ABUN
RE-184	5.392E+00	1.218E+01	2.027E+01	0.000E+00	FAIL ABUN
OS-185	-1.157E+00	1.869E+00	2.967E+00	0.000E+00	NOT IDENT.
RE-188	3.683E+00	8.476E+00	1.425E+01	0.000E+00	NOT IDENT.
W-188	2.297E+01	3.997E+02	5.999E+02	0.000E+00	FAIL ABUN
IR-192	-4.874E-01	1.659E+00	2.800E+00	0.000E+00	FAIL ABUN
TL-200	0.000E+00	7.783E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.434E+02	2.547E+02	4.097E+02	0.000E+00	NOT IDENT.
TL-202	2.621E+00	2.849E+00	5.088E+00	0.000E+00	NOT IDENT.
HG-203	-1.177E+00	1.769E+00	2.941E+00	0.000E+00	NOT IDENT.
BI-207	-1.424E+00	1.930E+00	3.050E+00	0.000E+00	NOT IDENT.
TL-207	1.505E+01	3.198E+01	5.576E+01	0.000E+00	NOT IDENT.
TL-208	-1.629E+00	2.144E+00	2.777E+00	0.000E+00	NOT IDENT.
PO-209	6.545E+01	3.085E+02	5.181E+02	0.000E+00	NOT IDENT.
BI-210	-2.183E+02	2.409E+02	3.376E+02	0.000E+00	NOT IDENT.
PB-210	-2.183E+02	2.409E+02	3.376E+02	0.000E+00	NOT IDENT.
PO-210	-2.183E+02	2.408E+02	3.376E+02	0.000E+00	NOT IDENT.
PB-211	2.847E+01	4.610E+01	7.521E+01	0.000E+00	NOT IDENT.
BI-212	3.463E+00	1.233E+01	2.093E+01	0.000E+00	NOT IDENT.
PB-212	0.000E+00	5.616E+00	5.426E+00	0.000E+00	FAIL ABUN
PO-212	0.000E+00	5.616E+00	5.426E+00	0.000E+00	FAIL ABUN
PO-215	1.505E+01	3.198E+01	5.576E+01	0.000E+00	NOT IDENT.
PO-216	0.000E+00	5.616E+00	5.426E+00	0.000E+00	FAIL ABUN
RN-219	6.073E+00	1.940E+01	3.350E+01	0.000E+00	NOT IDENT.
RN-220	7.853E+02	1.193E+03	2.093E+03	0.000E+00	NOT IDENT.
RA-223	1.505E+01	3.198E+01	5.576E+01	0.000E+00	NOT IDENT.
RA-224	0.000E+00	3.745E+01	5.871E+01	0.000E+00	NOT IDENT.
RA-226	-5.879E+01	6.598E+01	7.093E+01	0.000E+00	NOT IDENT.
AC-227	-1.085E+01	2.020E+01	3.194E+01	0.000E+00	NOT IDENT.
PA-227	0.000E+00	2.225E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-1.085E+01	2.022E+01	3.194E+01	0.000E+00	FAIL ABUN
AC-228	-8.589E-01	7.373E+00	1.015E+01	0.000E+00	NOT IDENT.
RA-228	-8.589E-01	7.373E+00	1.015E+01	0.000E+00	NOT IDENT.
TH-228	0.000E+00	5.616E+00	5.426E+00	0.000E+00	FAIL ABUN
TH-229	3.487E+00	3.125E+01	4.508E+01	0.000E+00	NOT IDENT.
PA-231	2.103E+01	7.005E+01	1.219E+02	0.000E+00	NOT IDENT.
TH-231	-1.226E+01	2.946E+01	4.116E+01	0.000E+00	NOT IDENT.
U-231	1.154E+01	4.931E+01	7.300E+01	0.000E+00	FAIL ABUN
TH-232	6.669E+02	7.127E+03	2.799E+03	0.000E+00	NOT IDENT.
PA-233	7.140E-01	3.072E+00	5.319E+00	0.000E+00	NOT IDENT.
PA-234	-1.097E+01	1.195E+01	1.735E+01	0.000E+00	FAIL ABUN
PA-234M	-5.780E+01	1.824E+02	3.039E+02	0.000E+00	NOT IDENT.
U-234	1.034E+03	1.079E+04	6.294E+03	0.000E+00	NOT IDENT.
U-235	-1.440E+01	1.519E+01	1.810E+01	0.000E+00	FAIL ABUN
NP-236	4.204E+00	4.196E+00	7.191E+00	0.000E+00	NOT IDENT.
NP-237	3.296E+00	1.310E+01	2.047E+01	0.000E+00	NOT IDENT.
PU-237	7.440E+01	1.284E+02	1.953E+02	0.000E+00	NOT IDENT.
NP-239	-1.783E+00	1.035E+01	1.709E+01	0.000E+00	NOT IDENT.
AM-241	5.521E+00	9.527E+00	1.449E+01	0.000E+00	NOT IDENT.
AM-243	2.562E+00	4.742E+00	5.476E+00	0.000E+00	NOT IDENT.
CM-243	-1.693E+00	5.289E+00	8.702E+00	0.000E+00	NOT IDENT.
AM-246	-6.191E-01	5.539E+00	9.362E+00	0.000E+00	NOT IDENT.
CM-247	1.344E+00	1.758E+00	3.106E+00	0.000E+00	NOT IDENT.
CF-249	9.008E-01	1.847E+00	3.225E+00	0.000E+00	NOT IDENT.
CF-251	6.087E+00	8.025E+00	1.200E+01	0.000E+00	NOT IDENT.
ANH-511	-4.497E+00	3.024E+00	4.781E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 04:45:17.81

```
*******************************************************************************
*                              GEL Laboratories LLC                           *
*                                2040 Savage Road                             *
*                              Charleston, SC 29414                           *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001367.CNF;1
Sample date       : 17-DEC-2009 12:00:00 Acquisition date : 30-DEC-2009 22:43:28
Sample ID         : G1202001367          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM19                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:02.19  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 935338               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*******************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	63.57	139	400	1.60	127.00	120	17	6.44E-03	28.7	1.46E+00
2	2	66.35	132	328	1.60	132.56	120	17	6.11E-03	25.5	
3	0	77.18	96	359	1.16	154.20	151	8	4.44E-03	36.5	
4	0	92.84	288	450	1.28	185.49	180	11	1.33E-02	15.5	
5	0	139.46	128	391	1.58	278.65	275	10	5.94E-03	30.2	
6	0	174.89	88	374	1.61	349.46	345	10	4.05E-03	42.7	
7	0	185.35	123	341	1.37	370.37	366	10	5.70E-03	29.5	
8	0	197.10	105	342	1.07	393.85	389	11	4.88E-03	35.3	
9	0	239.15	144	370	1.40	477.89	472	14	6.65E-03	29.6	
10	0	294.59	134	235	1.52	588.71	583	11	6.20E-03	23.8	
11	0	351.42	223	185	1.22	702.31	697	10	1.03E-02	13.2	
12	0	510.25	450	240	2.66	1019.81	1011	22	2.08E-02	9.9	
13	0	557.82	82	47	1.37	1114.90	1111	10	3.82E-03	18.8	
14	0	594.86	84	57	4.12	1188.96	1183	12	3.90E-03	20.9	
15	0	609.04	223	125	1.78	1217.32	1211	14	1.03E-02	12.7	
16	0	1120.46	38	47	0.99	2240.06	2233	11	1.77E-03	38.2	
17	0	1460.17	35	24	1.75	2919.70	2912	12	1.62E-03	32.8	

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 04:45:20.86

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001367.CNF;1
Sample date       : 17-DEC-2009 12:00:00 Acquisition date : 30-DEC-2009 22:43:28
Sample ID         : G1202001367          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM19                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:02.19  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 935338               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
K-40	1460.81	12	10.67*	6.259E-01	1.135E+01	1.135E+01	231.79
AS-74	595.88	84	59.90*	1.244E+00	7.081E+00	1.202E+01	42.23
	634.78	------	15.40	1.186E+00	------	Line Not Found	------
AU-195	65.12	105	29.00	1.389E+00	1.631E+01	1.717E+01	70.20
	66.83	105	49.70	1.389E+00	9.519E+00	1.002E+01	70.20
	75.70	96	21.60	1.897E+00	1.463E+01	1.541E+01	73.67
	98.88	------	10.90*	2.530E+00	------	Line Not Found	------
	129.76	------	0.81	2.782E+00	------	Line Not Found	------
BI-211	72.87	------	1.27	1.709E+00	------	Line Not Found	------
	351.07	223	12.94*	1.788E+00	6.030E+01	6.030E+01	27.25
BI-214	609.31	170	46.30*	1.223E+00	1.881E+01	1.881E+01	43.11
	1120.29	32	15.10	7.664E-01	1.753E+01	1.753E+01	111.02
	1764.49	------	15.80	5.509E-01	------	Line Not Found	------
PB-214	74.81	------	6.21	1.796E+00	------	Line Not Found	------
	77.11	96	10.50	1.897E+00	3.010E+01	3.010E+01	74.06
	87.30	------	4.67	2.255E+00	------	Line Not Found	------
	241.98	------	7.49	2.253E+00	------	Line Not Found	------
	295.21	119	19.20	2.002E+00	1.934E+01	1.934E+01	57.66
	351.92	223	37.20*	1.788E+00	2.097E+01	2.098E+01	27.75
PO-214	74.81	------	6.21	1.796E+00	------	Line Not Found	------
	77.11	96	10.50	1.897E+00	3.010E+01	3.010E+01	74.06
	87.30	------	4.67	2.255E+00	------	Line Not Found	------
	241.98	------	7.49	2.253E+00	------	Line Not Found	------
	295.21	119	19.20	2.002E+00	1.934E+01	1.934E+01	57.66
	351.92	223	37.20*	1.788E+00	2.097E+01	2.098E+01	27.75
PO-218	74.81	------	6.21	1.796E+00	------	Line Not Found	------
	77.11	96	10.50	1.897E+00	3.010E+01	3.010E+01	74.06
	87.30	------	4.67	2.255E+00	------	Line Not Found	------
	241.98	------	7.49	2.253E+00	------	Line Not Found	------
	295.21	119	19.20	2.002E+00	1.934E+01	1.934E+01	57.66
	351.92	223	37.20*	1.788E+00	2.097E+01	2.098E+01	27.75
TH-230	67.67	105	0.37*	1.389E+00	1.279E+03	1.279E+03	652.44

Sample ID : G1202001367 Acquisition date : 30-DEC-2009 22:43:28

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
TH-234	63.29	38	3.80*	1.242E+00	5.001E+01	5.001E+01	227.56
	92.38	54	5.41	2.403E+00	2.620E+01	2.620E+01	177.84
U-238	63.29	38	3.80*	1.242E+00	5.001E+01	5.001E+01	227.56
	92.38	54	5.41	2.403E+00	2.620E+01	2.620E+01	177.13

Flag: "*" = Keyline

Sample ID : G1202001367 Acquisition date : 30-DEC-2009 22:43:28

Total number of lines in spectrum	15	
Number of unidentified lines	2	
Number of lines tentatively identified by NID	13	86.67%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	1.135E+01	1.135E+01	2.630E+01	231.79	
AS-74	17.77D	1.70	7.081E+00	1.202E+01	0.508E+01	42.23	
AU-195	183.00D	1.05	9.519E+00	1.002E+01	0.704E+01	70.20	K
BI-211	7.04E+08Y	1.00	6.030E+01	6.030E+01	1.643E+01	27.25	
BI-214	1600.00Y	1.00	1.881E+01	1.881E+01	0.811E+01	43.11	
PB-214	1600.00Y	1.00	2.097E+01	2.098E+01	0.582E+01	27.75	
PO-214	1600.00Y	1.00	2.097E+01	2.098E+01	0.582E+01	27.75	
PO-218	1600.00Y	1.00	2.097E+01	2.098E+01	0.582E+01	27.75	
TH-230	7.70E+04Y	1.00	1.279E+03	1.279E+03	8.342E+03	652.44	
TH-234	4.47E+09Y	1.00	5.001E+01	5.001E+01	11.38E+01	227.56	
U-238	4.47E+09Y	1.00	5.001E+01	5.001E+01	11.38E+01	227.56	
	Total Activity :		1.549E+03	1.554E+03			

Grand Total Activity : 1.549E+03 1.554E+03

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202001367 Acquisition date : 30-DEC-2009 22:43:28

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	139.46	128	391	1.58	278.65	275	10	5.94E-03	60.3	2.78E+00	T
0	174.89	88	374	1.61	349.46	345	10	4.05E-03	85.5	2.63E+00	
0	197.10	58	342	1.07	393.85	389	11	2.70E-03	****	2.51E+00	T
0	239.15	87	370	1.40	477.89	472	14	4.05E-03	****	2.27E+00	T
0	557.82	61	47	1.37	1114.90	1111	10	2.83E-03	59.6	1.30E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 04:45:25.25

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001367.CNF;1  *
* Acquisition date  : 30-DEC-2009 22:43:28  Detector SN#     :             *
* Detector ID       : GAM19                 Sensitivity      : 5.00000     *
* Geometry          : 2LMB                  Energy tolerance: 1.50000      *
* Elapsed live time: 0 06:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 06:00:02.19          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 17-DEC-2009 12:00:00  Nuclide Library : LIQUID       *
* Sample ID         : G1202001367           Analyst initials: KXG3         *
* Batch Number      : 935338                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 11-MAR-2009 08:32:49.9MS Isotope      :               *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
K-40	1.135E+01	2.630E+01	2.268E+01	1.534E+00	0.500
AS-74	1.202E+01	5.077E+00	6.714E+00	3.565E-01	1.791
AU-195	1.002E+01	7.035E+00	2.021E+01	1.657E+00	0.496
BI-211	6.030E+01	1.643E+01	1.646E+01	1.072E+00	3.664
BI-214	1.881E+01	8.112E+00	5.061E+00	3.731E-01	3.717
PB-214	2.098E+01	5.820E+00	5.803E+00	4.843E-01	3.615
PO-214	2.098E+01	5.820E+00	5.803E+00	4.843E-01	3.615
PO-218	2.098E+01	5.820E+00	5.803E+00	4.843E-01	3.615
TH-230	1.279E+03	8.342E+03	1.033E+03	6.698E+03	1.238
TH-234	5.001E+01	1.138E+02	1.179E+02	2.149E+01	0.424
U-238	5.001E+01	1.138E+02	1.179E+02	2.149E+01	0.424

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	1.803E+00		1.412E+01	2.357E+01	1.569E+00	0.076

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NA-22	-1.089E-01		1.530E+00	2.520E+00	1.560E-01	-0.043
NA-24	2.151E+00		2.777E+00	Half-Life too short		
AL-26	6.127E-01		1.626E+00	2.793E+00	1.598E-01	0.219
TI-44	3.240E+00	+	2.387E+00	3.119E+00	2.870E-01	1.039
SC-46	-1.707E+00		2.183E+00	2.954E+00	2.021E-01	-0.578
V-48	1.091E+00		3.134E+00	5.192E+00	3.443E-01	0.210
CR-51	5.467E+00		1.751E+01	2.982E+01	1.973E+00	0.183
MN-52	-5.679E-02		8.383E+00	1.382E+01	8.936E-01	-0.004
MN-54	-1.789E+00		1.936E+00	2.473E+00	1.573E-01	-0.723
CO-56	-1.723E-01		1.782E+00	2.857E+00	1.847E-01	-0.060
CO-57	5.313E-01		1.486E+00	2.451E+00	1.570E-01	0.217
CO-58	5.609E-02		1.671E+00	2.715E+00	1.679E-01	0.021
FE-59	-9.995E-01		3.560E+00	5.795E+00	4.067E-01	-0.172
CO-60	-2.424E+00		2.128E+00	2.712E+00	1.768E-01	-0.894
ZN-65	1.588E+00		3.810E+00	5.799E+00	3.465E-01	0.274
GE-68	1.099E+01		4.959E+01	8.469E+01	5.236E+00	0.130
AS-73	6.446E+00		4.883E+01	8.110E+01	7.338E+00	0.079
SE-75	1.219E+00		2.148E+00	3.711E+00	2.241E-01	0.329
BR-77	-3.642E+02		3.108E+02	4.692E+02	2.627E+01	-0.776
SR-82	6.388E+00		1.549E+01	2.605E+01	1.526E+00	0.245
RB-83	-3.544E+00		3.194E+00	4.842E+00	2.712E-01	-0.732
RB-84	-6.844E-01		3.068E+00	4.847E+00	3.282E-01	-0.141
KR-85	-2.321E+03		5.241E+02	6.645E+02	3.733E+01	-3.493
SR-85	-1.171E+01		2.643E+00	3.351E+00	1.882E-01	-3.493
RB-86	1.968E+01		3.028E+01	5.358E+01	3.315E+00	0.367
Y-88	-2.233E-01		1.790E+00	2.860E+00	1.616E-01	-0.078
ZR-88	2.611E-02		1.433E+00	2.391E+00	1.363E-01	0.011
Y-91	2.940E+01		7.101E+02	1.187E+03	6.844E+01	0.025
NB-94	-2.859E-01		1.516E+00	2.436E+00	1.279E-01	-0.117
NB-95	-8.947E-02		1.970E+00	3.188E+00	1.840E-01	-0.028
NB-95M	1.162E-01		6.595E+00	9.213E+00	7.023E-01	0.013
ZR-95	1.619E+00		3.062E+00	5.195E+00	3.606E-01	0.312
NB-97	-3.925E-01		4.588E-01	Half-Life too short		
ZR-97	-3.169E+01		1.348E+01	Half-Life too short		
MO-99	6.805E+01		3.378E+02	5.589E+02	7.644E+01	0.122
TC-99M	6.175E+10	+	2.024E+10	Half-Life too short		
RH-101	2.006E+00	+	2.876E+00	3.059E+00	1.776E-01	0.656
RH-102	-4.586E-01		1.298E+00	2.095E+00	1.193E-01	-0.219
RU-103	-2.412E+00		1.912E+00	2.847E+00	3.582E-01	-0.847
RH-106	-5.253E+00		1.401E+01	2.226E+01	2.546E+00	-0.236
RU-106	-5.253E+00		1.400E+01	2.226E+01	1.151E+00	-0.236
AG-108M	-8.696E-01		1.472E+00	2.347E+00	1.462E-01	-0.370
CD-109	-2.038E+00		4.790E+01	6.863E+01	6.689E+00	-0.030
AG-110M	-7.232E-01		1.562E+00	2.458E+00	1.324E-01	-0.294
IN-111	-2.225E+01		4.295E+01	5.765E+01	3.427E+00	-0.386
IN-113M	-8.191E-01		2.111E+00	3.439E+00	2.096E-01	-0.238
SN-113	-8.191E-01		2.111E+00	3.439E+00	2.096E-01	-0.238
IN-114M	1.083E+00		1.004E+01	1.568E+01	9.065E-01	0.069

Sample ID : G1202001367 Acquisition date : 30-DEC-2009 22:43:28

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CD-115	3.018E+00		3.097E+02	5.110E+02	2.851E+01	0.006
SN-117M	-8.130E-01		2.700E+00	4.312E+00	2.499E-01	-0.189
SB-122	4.338E+01		7.548E+01	1.134E+02	6.185E+00	0.382
I-123	-1.448E+00		2.040E+01	Half-Life too short		
TE-123M	-5.313E-02		1.496E+00	2.417E+00	1.418E-01	-0.022
I-124	-3.506E+00		2.796E+01	3.922E+01	2.069E+00	-0.089
SB-124	3.557E+00		4.521E+00	8.050E+00	5.248E-01	0.442
SB-125	-1.415E+00		4.182E+00	6.798E+00	4.060E-01	-0.208
TE-125M	-4.978E+01		5.330E+02	8.666E+02	7.970E+01	-0.057
I-126	5.054E-01		7.107E+00	1.168E+01	5.795E-01	0.043
SB-126	-1.057E+00		7.465E+00	9.559E+00	5.158E-01	-0.111
SN-126	-1.262E+00		4.784E+00	6.775E+00	6.586E-01	-0.186
SB-127	-1.439E+01		4.480E+01	7.113E+01	6.011E+00	-0.202
XE-127	-1.689E+00		2.796E+00	3.774E+00	2.197E-01	-0.448
I-131	1.048E+00		4.711E+00	7.967E+00	5.175E-01	0.131
TE-132	-6.653E+00		2.570E+01	4.064E+01	5.731E+00	-0.164
BA-133	7.763E-01		2.346E+00	3.496E+00	4.055E-01	0.222
I-133	1.464E-02		3.920E-02	Half-Life too short		
CS-134	7.911E-01		1.977E+00	3.316E+00	2.027E-01	0.239
CS-135	-2.047E+00		7.567E+00	1.260E+01	9.828E-01	-0.162
I-135	7.588E+08		1.886E+09	Half-Life too short		
CS-136	-1.791E-01		4.127E+00	6.889E+00	4.702E-01	-0.026
BA-137M	-5.685E-01		1.984E+00	2.608E+00	1.284E-01	-0.218
CS-137	-6.010E-01		2.097E+00	2.757E+00	1.366E-01	-0.218
CE-139	-4.922E-01		1.554E+00	2.476E+00	1.419E-01	-0.199
BA-140	-1.755E+01		1.810E+01	1.697E+01	5.510E+00	-1.034
LA-140	-2.794E+00		5.109E+00	6.253E+00	3.904E-01	-0.447
CE-141	-6.938E-01		3.746E+00	5.252E+00	3.240E-01	-0.132
CE-143	8.269E-03	+	2.521E-03	Half-Life too short		
CE-144	-4.901E+00		1.182E+01	1.816E+01	2.604E+00	-0.270
PM-144	3.542E-01		1.460E+00	2.429E+00	1.264E-01	0.146
PR-144	2.398E+01		9.888E+01	1.645E+02	8.555E+00	0.146
PM-146	3.448E-01		2.017E+00	3.380E+00	2.896E-01	0.102
ND-147	6.372E-01		2.319E+01	3.831E+01	5.143E+00	0.017
PM-149	-3.709E+02		2.668E+03	4.460E+03	6.356E+02	-0.083
EU-152	3.664E-02		4.952E+00	7.832E+00	5.201E-01	0.005
GD-153	3.816E+00		4.745E+00	7.088E+00	5.931E-01	0.538
EU-154	-1.230E+00		4.341E+00	6.970E+00	6.677E-01	-0.177
EU-155	2.006E+00		6.092E+00	1.007E+01	7.736E-01	0.199
TB-160	-1.781E-01		6.274E+00	1.010E+01	6.820E-01	-0.018
HO-166M	-3.674E-01		2.639E+00	4.251E+00	2.263E-01	-0.086
TM-171	3.035E+03	+	2.130E+03	2.902E+03	2.619E+02	1.046
HF-175	-2.823E-01		1.666E+00	2.764E+00	1.635E-01	-0.102
LU-176	-7.026E-01		1.161E+00	1.888E+00	1.131E-01	-0.372
LU-177	1.462E+01		4.571E+01	7.446E+01	4.348E+00	0.196
LU-177M	-3.944E+00		8.108E+00	1.309E+01	7.487E-01	-0.301
HF-181	-7.950E-01		1.872E+00	3.006E+00	1.709E-01	-0.264
W-181	3.706E+01	+	2.601E+01	3.997E+01	3.618E+00	0.927

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TA-182	1.431E+00		5.820E+00	9.951E+00	5.835E-01	0.144
RE-183	2.379E+00		5.820E+00	9.566E+00	5.509E-01	0.249
RE-184	5.392E+00		1.243E+01	2.027E+01	1.208E+00	0.266
OS-185	-1.157E+00		1.907E+00	2.967E+00	1.491E-01	-0.390
RE-188	3.683E+00		8.649E+00	1.425E+01	8.309E-01	0.258
W-188	2.297E+01		4.079E+02	5.999E+02	3.598E+01	0.038
IR-192	-4.874E-01		1.693E+00	2.800E+00	1.682E-01	-0.174
TL-200	-2.160E-03		3.971E-03	Half-Life too short		
TL-201	-1.434E+02		2.599E+02	4.097E+02	2.347E+01	-0.350
TL-202	2.621E+00		2.907E+00	5.088E+00	2.912E-01	0.515
HG-203	-1.177E+00		1.805E+00	2.941E+00	1.865E-01	-0.400
BI-207	-1.424E+00		1.969E+00	3.050E+00	1.909E-01	-0.467
TL-207	1.505E+01		3.263E+01	5.576E+01	9.243E+00	0.270
TL-208	-1.629E+00		2.188E+00	2.777E+00	1.754E-01	-0.586
PO-209	6.545E+01		3.148E+02	5.181E+02	3.578E+01	0.126
BI-210	-2.183E+02		2.459E+02	3.376E+02	2.776E+01	-0.647
PB-210	-2.183E+02		2.459E+02	3.376E+02	2.776E+01	-0.647
PO-210	-2.183E+02		2.457E+02	3.376E+02	2.434E+01	-0.647
PB-211	2.847E+01		4.704E+01	7.521E+01	4.688E+01	0.379
BI-212	3.463E+00		1.258E+01	2.093E+01	1.560E+00	0.165
PB-212	5.482E+00	+	5.731E+00	5.426E+00	4.033E-01	1.010
PO-212	5.482E+00	+	5.731E+00	5.426E+00	4.033E-01	1.010
PO-215	1.505E+01		3.263E+01	5.576E+01	9.243E+00	0.270
PO-216	5.482E+00	+	5.731E+00	5.426E+00	4.033E-01	1.010
RN-219	6.073E+00		1.980E+01	3.350E+01	4.546E+00	0.181
RN-220	7.853E+02		1.217E+03	2.093E+03	1.153E+02	0.375
RA-223	1.505E+01		3.263E+01	5.576E+01	9.243E+00	0.270
RA-224	6.471E+01		3.821E+01	5.871E+01	3.484E+00	1.102
RA-226	-5.879E+01		6.733E+01	7.093E+01	5.206E+01	-0.829
AC-227	-1.085E+01		2.061E+01	3.194E+01	4.481E+00	-0.340
PA-227	1.000E+35	+	1.135E+35	Half-Life too short		
TH-227	-1.085E+01		2.063E+01	3.194E+01	5.416E+00	-0.340
AC-228	-8.589E-01		7.523E+00	1.015E+01	1.012E+00	-0.085
RA-228	-8.589E-01		7.523E+00	1.015E+01	1.012E+00	-0.085
TH-228	5.482E+00	+	5.731E+00	5.426E+00	4.033E-01	1.010
TH-229	3.487E+00		3.189E+01	4.508E+01	2.611E+00	0.077
PA-231	2.103E+01		7.148E+01	1.219E+02	1.690E+01	0.172
TH-231	-1.226E+01		3.006E+01	4.116E+01	7.527E+00	-0.298
U-231	1.154E+01		5.032E+01	7.300E+01	6.247E+00	0.158
TH-232	6.669E+02		7.272E+03	2.799E+03	2.947E+04	0.238
PA-233	7.140E-01		3.134E+00	5.319E+00	3.369E-01	0.134
PA-234	-1.097E+01		1.219E+01	1.735E+01	3.121E+00	-0.632
PA-234M	-5.780E+01		1.861E+02	3.039E+02	2.506E+01	-0.190
U-234	1.034E+03		1.101E+04	6.294E+03	6.294E+04	0.164
U-235	-1.440E+01		1.550E+01	1.810E+01	2.961E+00	-0.796
NP-236	4.204E+00		4.281E+00	7.191E+00	4.155E-01	0.585
NP-237	3.296E+00		1.337E+01	2.047E+01	4.664E+00	0.161
PU-237	7.440E+01		1.310E+02	1.953E+02	1.812E+01	0.381

Sample ID : G1202001367 Acquisition date : 30-DEC-2009 22:43:28

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NP-239	-1.783E+00		1.056E+01	1.709E+01	1.143E+00	-0.104
AM-241	5.521E+00		9.722E+00	1.449E+01	1.429E+00	0.381
AM-243	2.562E+00		4.839E+00	5.476E+00	4.971E-01	0.468
CM-243	-1.693E+00		5.397E+00	8.702E+00	6.703E-01	-0.195
AM-246	-6.191E-01		5.652E+00	9.362E+00	5.781E-01	-0.066
CM-247	1.344E+00		1.794E+00	3.106E+00	1.774E-01	0.433
CF-249	9.008E-01		1.885E+00	3.225E+00	1.845E-01	0.279
CF-251	6.087E+00		8.189E+00	1.200E+01	6.896E-01	0.507
ANH-511	-4.497E+00		3.085E+00	4.781E+00	2.690E-01	-0.941

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202001367          *
* Acquisition date : 30-DEC-2009 22:43:28 Detector SN#    :                 *
* Detector ID      : GAM19                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:02.19     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 17-DEC-2009 12:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G1202001367          Analyst initials: KXG3            *
* Batch Number     : 935338               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 11-MAR-2009 08:32:49 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
K-40	1.135E+01	2.578E+01	1.135E+01	1.315E+01
AS-74	1.202E+01	4.976E+00	3.359E+00	2.539E+00
AU-195	7.076E+00	1.276E+01	1.011E+01	6.513E+00
BI-211	6.030E+01	1.610E+01	8.235E+00	8.217E+00
BI-214	1.881E+01	7.949E+00	2.532E+00	4.056E+00
PB-214	2.098E+01	5.704E+00	2.903E+00	2.910E+00
PO-214	2.098E+01	5.704E+00	2.903E+00	2.910E+00
PO-218	2.098E+01	5.704E+00	2.903E+00	2.910E+00
TH-230	1.279E+03	8.176E+03	5.166E+02	4.171E+03
TH-234	5.001E+01	1.115E+02	5.899E+01	5.690E+01
U-238	5.001E+01	1.115E+02	5.899E+01	5.690E+01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU	
BE-7	1.803E+00	1.383E+01	1.179E+01	7.058E+00	NOT IDENT.
NA-22	-1.089E-01	1.500E+00	1.261E+00	7.652E-01	NOT IDENT.
NA-24	2.151E+06	5.443E+06	0.000E+00	2.777E+06	SHORT HLIF
AL-26	6.127E-01	1.594E+00	1.397E+00	8.132E-01	NOT IDENT.
TI-44	3.240E+00	2.339E+00	1.560E+00	1.194E+00	FAIL ABUN
SC-46	-1.707E+00	2.139E+00	1.478E+00	1.092E+00	FAIL ABUN
V-48	1.091E+00	3.072E+00	2.597E+00	1.567E+00	NOT IDENT.
CR-51	5.467E+00	1.716E+01	1.492E+01	8.756E+00	NOT IDENT.
MN-52	-5.679E-02	8.215E+00	6.916E+00	4.191E+00	NOT IDENT.
MN-54	-1.789E+00	1.897E+00	1.237E+00	9.678E-01	NOT IDENT.
CO-56	-1.723E-01	1.746E+00	1.429E+00	8.911E-01	NOT IDENT.
CO-57	5.313E-01	1.456E+00	1.226E+00	7.431E-01	NOT IDENT.
CO-58	5.609E-02	1.637E+00	1.359E+00	8.354E-01	NOT IDENT.
FE-59	-9.995E-01	3.488E+00	2.899E+00	1.780E+00	NOT IDENT.
CO-60	-2.424E+00	2.085E+00	1.357E+00	1.064E+00	NOT IDENT.
ZN-65	1.588E+00	3.734E+00	2.901E+00	1.905E+00	NOT IDENT.

GE-68	1.099E+01	4.860E+01	4.237E+01	2.479E+01	NOT IDENT.
AS-73	6.446E+00	4.785E+01	4.057E+01	2.441E+01	NOT IDENT.
SE-75	1.219E+00	2.105E+00	1.857E+00	1.074E+00	FAIL ABUN
BR-77	-3.642E+02	3.046E+02	2.347E+02	1.554E+02	FAIL ABUN
SR-82	6.388E+00	1.518E+01	1.303E+01	7.743E+00	NOT IDENT.
RB-83	-3.544E+00	3.130E+00	2.422E+00	1.597E+00	NOT IDENT.
RB-84	-6.844E-01	3.006E+00	2.425E+00	1.534E+00	NOT IDENT.
KR-85	-2.321E+03	5.136E+02	3.325E+02	2.620E+02	NOT IDENT.
SR-85	-1.171E+01	2.590E+00	1.676E+00	1.321E+00	NOT IDENT.
RB-86	1.968E+01	2.967E+01	2.680E+01	1.514E+01	NOT IDENT.
Y-88	-2.233E-01	1.754E+00	1.431E+00	8.948E-01	NOT IDENT.
ZR-88	2.611E-02	1.404E+00	1.196E+00	7.165E-01	NOT IDENT.
Y-91	2.940E+01	6.959E+02	5.937E+02	3.551E+02	NOT IDENT.
NB-94	-2.859E-01	1.486E+00	1.219E+00	7.582E-01	NOT IDENT.
NB-95	-8.947E-02	1.931E+00	1.595E+00	9.850E-01	NOT IDENT.
NB-95M	1.162E-01	6.463E+00	4.609E+00	3.298E+00	NOT IDENT.
ZR-95	1.619E+00	3.001E+00	2.599E+00	1.531E+00	NOT IDENT.
NB-97	-3.925E+05	8.992E+05	0.000E+00	4.588E+05	SHORT HLIF
ZR-97	-3.169E+07	2.641E+07	0.000E+00	1.348E+07	SHORT HLIF
MO-99	6.805E+01	3.310E+02	2.796E+02	1.689E+02	FAIL ABUN
TC-99M	6.175E+16	3.967E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.006E+00	2.818E+00	1.530E+00	1.438E+00	FAIL ABUN
RH-102	-4.586E-01	1.272E+00	1.048E+00	6.488E-01	NOT IDENT.
RU-103	-2.412E+00	1.874E+00	1.424E+00	9.560E-01	FAIL ABUN
RH-106	-5.253E+00	1.373E+01	1.113E+01	7.007E+00	NOT IDENT.
RU-106	-5.253E+00	1.372E+01	1.113E+01	7.002E+00	NOT IDENT.
AG-108M	-8.696E-01	1.442E+00	1.174E+00	7.358E-01	NOT IDENT.
CD-109	-2.038E+00	4.694E+01	3.434E+01	2.395E+01	NOT IDENT.
AG-110M	-7.232E-01	1.530E+00	1.230E+00	7.808E-01	NOT IDENT.
IN-111	-2.225E+01	4.210E+01	2.884E+01	2.148E+01	NOT IDENT.
IN-113M	-8.191E-01	2.068E+00	1.720E+00	1.055E+00	NOT IDENT.
SN-113	-8.191E-01	2.068E+00	1.720E+00	1.055E+00	NOT IDENT.
IN-114M	1.083E+00	9.844E+00	7.845E+00	5.022E+00	NOT IDENT.
CD-115	3.018E+00	3.035E+02	2.557E+02	1.548E+02	NOT IDENT.
SN-117M	-8.130E-01	2.646E+00	2.157E+00	1.350E+00	NOT IDENT.
SB-122	4.338E+01	7.397E+01	5.674E+01	3.774E+01	NOT IDENT.
I-123	-1.448E+06	3.997E+07	0.000E+00	2.040E+07	SHORT HLIF
TE-123M	-5.313E-02	1.466E+00	1.209E+00	7.481E-01	NOT IDENT.
I-124	-3.506E+00	2.740E+01	1.962E+01	1.398E+01	NOT IDENT.
SB-124	3.557E+00	4.430E+00	4.027E+00	2.260E+00	NOT IDENT.
SB-125	-1.415E+00	4.098E+00	3.401E+00	2.091E+00	NOT IDENT.
TE-125M	-4.978E+01	5.224E+02	4.335E+02	2.665E+02	NOT IDENT.
I-126	5.054E-01	6.965E+00	5.843E+00	3.553E+00	NOT IDENT.
SB-126	-1.057E+00	7.316E+00	4.783E+00	3.733E+00	NOT IDENT.
SN-126	-1.262E+00	4.688E+00	3.390E+00	2.392E+00	FAIL ABUN
SB-127	-1.439E+01	4.391E+01	3.559E+01	2.240E+01	NOT IDENT.
XE-127	-1.689E+00	2.740E+00	1.888E+00	1.398E+00	NOT IDENT.
I-131	1.048E+00	4.616E+00	3.986E+00	2.355E+00	NOT IDENT.
TE-132	-6.653E+00	2.519E+01	2.033E+01	1.285E+01	NOT IDENT.
BA-133	7.763E-01	2.299E+00	1.749E+00	1.173E+00	NOT IDENT.
I-133	1.464E+04	7.684E+04	0.000E+00	3.920E+04	SHORT HLIF
CS-134	7.911E-01	1.938E+00	1.659E+00	9.886E-01	NOT IDENT.
CS-135	-2.047E+00	7.416E+00	6.305E+00	3.784E+00	NOT IDENT.
I-135	7.588E+14	3.697E+15	0.000E+00	1.886E+15	SHORT HLIF
CS-136	-1.791E-01	4.044E+00	3.447E+00	2.063E+00	FAIL ABUN
BA-137M	-5.685E-01	1.944E+00	1.305E+00	9.919E-01	NOT IDENT.
CS-137	-6.010E-01	2.055E+00	1.379E+00	1.049E+00	NOT IDENT.
CE-139	-4.922E-01	1.523E+00	1.239E+00	7.770E-01	NOT IDENT.
BA-140	-1.755E+01	1.774E+01	8.488E+00	9.052E+00	NOT IDENT.
LA-140	-2.794E+00	5.006E+00	3.128E+00	2.554E+00	NOT IDENT.
CE-141	-6.938E-01	3.671E+00	2.628E+00	1.873E+00	NOT IDENT.
CE-143	8.269E+03	4.940E+03	0.000E+00	2.521E+03	SHORT HLIF
CE-144	-4.901E+00	1.158E+01	9.087E+00	5.910E+00	NOT IDENT.
PM-144	3.542E-01	1.431E+00	1.215E+00	7.302E-01	NOT IDENT.
PR-144	2.398E+01	9.691E+01	8.228E+01	4.944E+01	NOT IDENT.
PM-146	3.448E-01	1.976E+00	1.691E+00	1.008E+00	NOT IDENT.
ND-147	6.372E-01	2.273E+01	1.917E+01	1.160E+01	NOT IDENT.
PM-149	-3.709E+02	2.615E+03	2.231E+03	1.334E+03	NOT IDENT.
EU-152	3.664E-02	4.853E+00	3.918E+00	2.476E+00	NOT IDENT.
GD-153	3.816E+00	4.650E+00	3.546E+00	2.372E+00	NOT IDENT.
EU-154	-1.230E+00	4.254E+00	3.487E+00	2.170E+00	NOT IDENT.
EU-155	2.006E+00	5.970E+00	5.038E+00	3.046E+00	NOT IDENT.
TB-160	-1.781E-01	6.148E+00	5.053E+00	3.137E+00	FAIL ABUN
HO-166M	-3.674E-01	2.586E+00	2.127E+00	1.320E+00	NOT IDENT.
TM-171	3.035E+03	2.088E+03	1.452E+03	1.065E+03	FAIL ABUN
HF-175	-2.823E-01	1.633E+00	1.383E+00	8.332E-01	NOT IDENT.
LU-176	-7.026E-01	1.138E+00	9.447E-01	5.806E-01	NOT IDENT.
LU-177	1.462E+01	4.479E+01	3.725E+01	2.285E+01	NOT IDENT.

LU-177M	-3.944E+00	7.946E+00	6.548E+00	4.054E+00	NOT IDENT.
HF-181	-7.950E-01	1.835E+00	1.504E+00	9.361E-01	FAIL ABUN
W-181	3.706E+01	2.549E+01	2.000E+01	1.301E+01	FAIL ABUN
TA-182	1.431E+00	5.703E+00	4.978E+00	2.910E+00	FAIL ABUN
RE-183	2.379E+00	5.704E+00	4.786E+00	2.910E+00	FAIL ABUN
RE-184	5.392E+00	1.218E+01	1.014E+01	6.215E+00	FAIL ABUN
OS-185	-1.157E+00	1.869E+00	1.484E+00	9.537E-01	NOT IDENT.
RE-188	3.683E+00	8.476E+00	7.129E+00	4.325E+00	NOT IDENT.
W-188	2.297E+01	3.997E+02	3.001E+02	2.039E+02	FAIL ABUN
IR-192	-4.874E-01	1.659E+00	1.401E+00	8.464E-01	FAIL ABUN
TL-200	-2.160E+03	7.783E+03	0.000E+00	3.971E+03	SHORT HLIF
TL-201	-1.434E+02	2.547E+02	2.050E+02	1.299E+02	NOT IDENT.
TL-202	2.621E+00	2.849E+00	2.546E+00	1.453E+00	NOT IDENT.
HG-203	-1.177E+00	1.769E+00	1.471E+00	9.026E-01	NOT IDENT.
BI-207	-1.424E+00	1.930E+00	1.526E+00	9.846E-01	NOT IDENT.
TL-207	1.505E+01	3.198E+01	2.790E+01	1.632E+01	NOT IDENT.
TL-208	-1.629E+00	2.144E+00	1.389E+00	1.094E+00	NOT IDENT.
PO-209	6.545E+01	3.085E+02	2.592E+02	1.574E+02	NOT IDENT.
BI-210	-2.183E+02	2.409E+02	1.689E+02	1.229E+02	NOT IDENT.
PB-210	-2.183E+02	2.409E+02	1.689E+02	1.229E+02	NOT IDENT.
PO-210	-2.183E+02	2.408E+02	1.689E+02	1.229E+02	NOT IDENT.
PB-211	2.847E+01	4.610E+01	3.763E+01	2.352E+01	NOT IDENT.
BI-212	3.463E+00	1.233E+01	1.047E+01	6.289E+00	NOT IDENT.
PB-212	5.482E+00	5.616E+00	2.714E+00	2.865E+00	FAIL ABUN
PO-212	5.482E+00	5.616E+00	2.714E+00	2.865E+00	FAIL ABUN
PO-215	1.505E+01	3.198E+01	2.790E+01	1.632E+01	NOT IDENT.
PO-216	5.482E+00	5.616E+00	2.714E+00	2.865E+00	FAIL ABUN
RN-219	6.073E+00	1.940E+01	1.676E+01	9.898E+00	NOT IDENT.
RN-220	7.853E+02	1.193E+03	1.047E+03	6.086E+02	NOT IDENT.
RA-223	1.505E+01	3.198E+01	2.790E+01	1.632E+01	NOT IDENT.
RA-224	6.471E+01	3.745E+01	2.937E+01	1.911E+01	NOT IDENT.
RA-226	-5.879E+01	6.598E+01	3.548E+01	3.366E+01	NOT IDENT.
AC-227	-1.085E+01	2.020E+01	1.598E+01	1.030E+01	NOT IDENT.
PA-227	1.000E+41	2.225E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-1.085E+01	2.022E+01	1.598E+01	1.032E+01	FAIL ABUN
AC-228	-8.589E-01	7.373E+00	5.077E+00	3.762E+00	NOT IDENT.
RA-228	-8.589E-01	7.373E+00	5.077E+00	3.762E+00	NOT IDENT.
TH-228	5.482E+00	5.616E+00	2.714E+00	2.865E+00	FAIL ABUN
TH-229	3.487E+00	3.125E+01	2.255E+01	1.594E+01	NOT IDENT.
PA-231	2.103E+01	7.005E+01	6.100E+01	3.574E+01	NOT IDENT.
TH-231	-1.226E+01	2.946E+01	2.059E+01	1.503E+01	NOT IDENT.
U-231	1.154E+01	4.931E+01	3.652E+01	2.516E+01	FAIL ABUN
TH-232	6.669E+02	7.127E+03	1.401E+03	3.636E+03	NOT IDENT.
PA-233	7.140E-01	3.072E+00	2.661E+00	1.567E+00	NOT IDENT.
PA-234	-1.097E+01	1.195E+01	8.680E+00	6.096E+00	FAIL ABUN
PA-234M	-5.780E+01	1.824E+02	1.520E+02	9.307E+01	NOT IDENT.
U-234	1.034E+03	1.079E+04	3.149E+03	5.505E+03	NOT IDENT.
U-235	-1.440E+01	1.519E+01	9.054E+00	7.751E+00	FAIL ABUN
NP-236	4.204E+00	4.196E+00	3.598E+00	2.141E+00	NOT IDENT.
NP-237	3.296E+00	1.310E+01	1.024E+01	6.686E+00	NOT IDENT.
PU-237	7.440E+01	1.284E+02	9.770E+01	6.550E+01	NOT IDENT.
NP-239	-1.783E+00	1.035E+01	8.548E+00	5.280E+00	NOT IDENT.
AM-241	5.521E+00	9.527E+00	7.249E+00	4.861E+00	NOT IDENT.
AM-243	2.562E+00	4.742E+00	2.740E+00	2.419E+00	NOT IDENT.
CM-243	-1.693E+00	5.289E+00	4.354E+00	2.699E+00	NOT IDENT.
AM-246	-6.191E-01	5.539E+00	4.684E+00	2.826E+00	NOT IDENT.
CM-247	1.344E+00	1.758E+00	1.554E+00	8.968E-01	NOT IDENT.
CF-249	9.008E-01	1.847E+00	1.614E+00	9.424E-01	NOT IDENT.
CF-251	6.087E+00	8.025E+00	6.005E+00	4.094E+00	NOT IDENT.
ANH-511	-4.497E+00	3.024E+00	2.392E+00	1.543E+00	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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46.50	307.0948
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46.50	307.0948
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49.72	332.6768
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53.15	302.6590
53.20	302.6761
53.44	310.5970
54.07	315.7208
56.28	334.7524
56.28	341.4937
57.37	0.0000
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57.53	302.3666
57.60	302.3889
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57.98	316.6940
59.00	310.7331
59.32	302.9502
59.32	302.9502
59.40	302.9760
59.54	303.0217
59.54	303.0217
59.72	303.0797
60.01	303.1735
61.10	322.4934
61.14	322.5065
61.30	332.0478
63.00	357.3868
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63.29	357.4939
63.58	357.6006
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64.62	0.0000
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65.20	358.1924
65.20	358.1924
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66.83	362.5581
66.91	359.4068
67.20	359.5102
67.20	359.5102
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67.75	366.0726
67.85	369.2941
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68.90	409.5122
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70.82	437.4183
70.83	464.5627
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72.80	411.0604
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74.81	408.6381
74.81	408.6381
74.81	408.6381

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79.80	355.7838
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80.30	354.3337
80.57	352.8087
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81.07	375.5305
81.07	375.5305
81.07	375.5305
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83.78	372.5979
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84.21	380.8197
84.90	353.7598
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86.59	376.5481
86.72	376.5907
86.79	376.6120
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87.30	385.6910
87.30	385.6910
87.30	385.6910
87.30	385.6910
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88.03	385.9322
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88.47	382.8331
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89.95	415.7984
91.11	382.0615
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92.38	340.7621
92.38	340.7621
93.35	317.6212
94.00	316.1617
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94.67	334.2724
94.90	335.9671
94.90	335.9671
94.90	335.9671
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95.87	328.0714
96.73	315.2341
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98.44	310.7620
98.88	301.3267
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99.55	319.2220
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100.10	308.1029

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115.19	355.1502
115.19	355.1502
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117.00	327.6241
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121.78	351.6351
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144.24	336.2886
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154.21	278.4570
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163.89	330.3376
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209.75	315.7537
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228.18	266.6644
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236.00	243.4576
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238.63	232.4191
238.63	232.4191
238.63	232.4191
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241.98	233.4541
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256.20	251.1335
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295.21	218.9238
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329.70	196.9990
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338.28	156.8201
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391.69	151.3789
392.90	140.0833
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445.03	123.2734
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602.71	110.8782
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666.33	77.8555
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969.11	47.0229
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1099.22	55.9937
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1368.21	33.1423
1368.53	0.0000
1376.25	28.3026
1384.27	34.1982
1394.10	35.2280
1395.20	32.2964
1407.95	28.4360
1434.06	31.4974
1436.60	31.5091
1457.56	0.0000
1460.81	27.1027
1489.15	47.6211
1509.49	43.7780
1596.49	38.2629
1620.62	26.2645
1678.03	0.0000
1691.02	29.5664
1691.02	29.5664
1706.46	0.0000
1750.46	0.0000
1764.49	27.7866
1770.23	41.1947
1771.40	42.2295
1791.20	0.0000
1808.65	21.7306
1836.01	24.9180

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202001367

Total Uranium Activity	1.4210E+02	ug/g
Total Uranium Counting Unc.	3.3184E+02	ug/g
Total Uranium Tpu	1.6930E-04	ug/g
Total Uranium Mda	1.7556E+02	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 935338                    SAMPLE ID  : G1202001367        *
*   ANALYST       : KXG3                      DETECTOR   : GAM19              *
*   SAMPLE DATE   : 17-DEC-2009 12:00:00.00   COUNT TIME :    0 06:00:00.00   *
*   ANALYSIS DATE: 30-DEC-2009 22:43:28.50    SAMPLE ALQT:    2.000 LITER     *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 5.130E+01
        GROSS GAMMA ERROR   (pCi/LITER )  : 2.222E+01
        GROSS GAMMA MDA     (pCi/LITER )  : 4.714E+01
        GROSS GAMMA DLC     (pCi/LITER )  : 2.270E+01
```

VAX/VMS Nuclide Identification Report Generated 30-DEC-2009 23:03:45.17

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001368.CNF;1
Sample date       : 23-DEC-2009 00:00:00 Acquisition date : 30-DEC-2009 22:03:13
Sample ID         : G1202001368          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM01                Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:00.67  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 935338                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.48	938	424	1.10	119.74	114	12	2.60E-01	5.5	
2	0	87.95	548	230	1.32	176.66	172	10	1.52E-01	6.7	
3	0	92.79*	14	205	1.56	186.35	182	10	3.97E-03	199.8	
4	0	122.13	137	202	0.91	245.01	239	11	3.81E-02	21.8	
5	0	186.06*	13	138	1.48	372.86	369	8	3.72E-03	163.9	
6	0	661.54	964	68	1.38	1323.62	1317	15	2.68E-01	3.7	
7	0	1172.83	783	17	1.85	2345.76	2339	14	2.17E-01	3.7	
8	0	1332.02	787	4	1.95	2663.96	2655	20	2.18E-01	3.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 30-DEC-2009 23:03:47

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001368.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 23-DEC-2009 00:00:00 Acquisition date : 30-DEC-2009 22:03:13
Sample ID : G1202001368 Sample quantity : 2.0000 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA1 Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:00.67 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-57	+	122.06	*	2.633E+01	1.164E+01	1.095E+01	7.541E-01	2.406
		136.48		3.608E+01	5.578E+01	9.719E+01	6.979E+00	0.371
CO-60	+	1173.22		5.052E+02	4.698E+01	1.576E+01	8.665E-01	32.052
	+	1332.49	*	5.630E+02	5.902E+01	7.957E+00	6.019E-01	70.754
CD-109	+	88.03	*	3.064E+03	4.867E+02	3.844E+02	3.270E+01	7.971
SN-126		64.28		5.891E+01	1.786E+02	2.728E+02	4.112E+01	0.216
	+	86.94		1.266E+03	5.500E+02	1.644E+02	6.795E+01	7.697
	+	87.57	*	3.044E+02	4.835E+01	3.845E+01	3.264E+00	7.916
BA-137M	+	661.65	*	4.323E+02	3.867E+01	1.467E+01	7.285E-01	29.467
CS-137	+	661.65	*	4.570E+02	4.095E+01	1.551E+01	7.745E-01	29.467
RA-226	+	186.21	*	6.996E+01	2.349E+02	2.818E+02	2.068E+02	0.248
TH-232	+	59.00	*	2.657E+05	2.797E+06	2.149E+04	2.262E+05	12.365
NP-237	+	86.50	*	8.939E+02	2.328E+02	1.058E+02	2.359E+01	8.447
		95.87		-2.335E+02	2.796E+02	3.595E+02	8.752E+01	-0.650
PU-237	+	59.54	*	1.738E+04	2.445E+03	1.358E+03	1.190E+02	12.798
AM-241	+	59.54	*	1.406E+03	2.033E+02	1.099E+02	1.031E+01	12.798

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	6.268E+00	8.531E+01	1.377E+02	9.398E+00	0.046
NA-22		1274.54	*	-5.470E+00	6.130E+00	8.036E+00	5.460E-01	-0.681
NA-24		1368.53	*	1.301E-02	6.130E+00	Half-Life too short		
AL-26		1129.67		1.024E+00	3.373E+02	5.427E+02	3.099E+01	0.002
		1808.65	*	-7.676E-01	4.921E+00	7.523E+00	4.403E-01	-0.102
K-40		1460.81	*	-3.495E+01	6.758E+01	1.144E+02	8.674E+00	-0.306
TI-44		67.85		-1.949E+00	1.416E+01	2.272E+01	1.877E+00	-0.086
		78.38	*	-9.023E-01	1.045E+01	1.674E+01	1.370E+00	-0.054
SC-46		889.25	*	8.083E+00	1.180E+01	2.048E+01	1.301E+00	0.395
		1120.51		3.357E+00	1.182E+01	1.968E+01	1.132E+00	0.171
V-48		944.10		-1.225E+02	2.037E+02	3.109E+02	1.967E+01	-0.394
		983.50	*	5.730E+00	1.447E+01	2.452E+01	1.529E+00	0.234
		1312.09		8.079E-01	8.055E+00	1.374E+01	1.001E+00	0.059

Sample ID : G1202001368 Acquisition date : 30-DEC-2009 22:03:13

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CR-51		320.08	*	2.199E+01	7.916E+01	1.323E+02	8.849E+00	0.166
MN-52		744.21		-1.604E+01	2.662E+01	4.133E+01	2.259E+00	-0.388
		848.13		1.587E+02	7.332E+02	1.230E+03	7.504E+01	0.129
		935.52		-1.189E+01	3.194E+01	5.053E+01	3.206E+00	-0.235
		1246.25		-2.258E+02	4.342E+02	6.519E+02	4.181E+01	-0.346
		1333.61		2.717E+04	2.895E+03	4.725E+03	3.573E+02	5.749
		1434.06	*	-7.701E+00	1.256E+01	1.630E+01	1.201E+00	-0.472
MN-54		834.83	*	-2.929E-01	8.752E+00	1.431E+01	8.612E-01	-0.020
CO-56		846.75	*	1.799E+00	9.708E+00	1.624E+01	9.892E-01	0.111
		977.42		3.156E+02	8.449E+02	1.424E+03	8.903E+01	0.222
		1037.82		3.900E+00	8.283E+01	1.347E+02	9.040E+00	0.029
		1175.09		1.734E+04	1.784E+03	3.423E+03	1.889E+02	5.067
		1238.25		3.988E-01	9.680E+00	1.633E+01	1.085E+00	0.024
		1360.21		8.532E+01	1.363E+02	2.599E+02	1.954E+01	0.328
		1771.40		-3.305E+00	3.404E+01	5.345E+01	3.236E+00	-0.062
CO-58		810.76	*	7.503E+00	9.497E+00	1.689E+01	9.967E-01	0.444
FE-59		142.65		-1.632E+02	6.122E+02	1.022E+03	6.278E+01	-0.160
		192.34		-2.629E+01	1.990E+02	3.308E+02	3.883E+01	-0.079
		1099.22	*	-9.773E+00	2.363E+01	3.625E+01	2.477E+00	-0.270
		1291.56		-2.029E+00	1.514E+01	2.446E+01	2.055E+00	-0.083
ZN-65		1115.52	*	-1.670E+00	2.262E+01	3.609E+01	2.089E+00	-0.046
GE-68		1077.35	*	-2.337E+02	3.706E+02	5.553E+02	3.294E+01	-0.421
AS-73		53.44	*	3.820E+02	4.313E+02	6.966E+02	6.313E+01	0.548
AS-74		595.88	*	1.601E+00	1.711E+01	2.889E+01	1.568E+00	0.055
		634.78		-3.867E+01	6.867E+01	1.082E+02	5.598E+00	-0.357
SE-75		66.05		-1.542E+03	1.486E+03	2.248E+03	2.294E+02	-0.686
		96.73		-5.820E+01	2.062E+02	2.855E+02	3.729E+01	-0.204
	+	121.11		1.383E+02	6.195E+01	7.521E+01	7.485E+00	1.839
		136.00		-2.080E-01	1.026E+01	1.735E+01	1.114E+00	-0.012
		198.60		1.060E+02	4.155E+02	7.054E+02	4.955E+01	0.150
		264.65	*	-4.340E+00	1.136E+01	1.832E+01	1.102E+00	-0.237
		279.53		-2.321E+01	2.608E+01	4.024E+01	2.597E+00	-0.577
		303.91		7.271E+01	4.828E+02	8.019E+02	7.769E+01	0.091
		400.65		-1.777E+01	6.436E+01	1.017E+02	9.341E+00	-0.175
BR-77	+	87.88		8.150E+04	1.295E+04	1.814E+04	1.543E+03	4.493
		200.40		2.391E+03	4.851E+03	8.339E+03	4.740E+02	0.287
		239.00		1.317E+02	2.863E+02	4.935E+02	2.893E+01	0.267
		249.79		9.608E+02	2.206E+03	3.749E+03	2.214E+02	0.256
		281.68		-1.511E+03	2.591E+03	4.080E+03	2.449E+02	-0.370
		297.23		5.094E+02	1.565E+03	2.630E+03	1.586E+02	0.194
		303.76		-1.190E+03	5.370E+03	8.675E+03	5.239E+02	-0.137
		439.47		-2.016E+03	5.219E+03	8.143E+03	4.830E+02	-0.248
		484.57		-3.560E+03	7.261E+03	1.105E+04	6.493E+02	-0.322
		520.65	*	4.253E+01	3.393E+02	5.480E+02	3.165E+01	0.078
		574.64		-5.902E+03	6.146E+03	9.339E+03	5.179E+02	-0.632
		578.91		-1.204E+03	2.381E+03	3.793E+03	2.095E+02	-0.317
		585.48		-6.542E+02	4.305E+03	7.105E+03	3.898E+02	-0.092
		755.35		3.214E+03	5.318E+03	9.295E+03	5.144E+02	0.346
		817.79		-5.573E+02	4.262E+03	6.903E+03	4.083E+02	-0.081

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
SR-82		698.33		1.068E+02	6.394E+03	1.063E+04	5.513E+02	0.010
		776.49	*	-2.033E+01	6.975E+01	1.109E+02	6.279E+00	-0.183
		1395.20		-1.112E+03	1.198E+03	1.339E+03	9.979E+01	-0.831
RB-83		520.41	*	2.927E+00	1.744E+01	2.829E+01	1.634E+00	0.103
		529.64		-1.895E+01	2.529E+01	3.976E+01	2.284E+00	-0.477
		552.65		3.200E+01	4.637E+01	8.262E+01	4.669E+00	0.387
RB-84		881.50	*	2.938E+00	1.813E+01	3.013E+01	1.900E+00	0.097
KR-85		513.99	*	-2.100E+03	2.047E+03	2.967E+03	1.720E+02	-0.708
SR-85		513.99	*	-9.982E+00	9.730E+00	1.410E+01	8.176E-01	-0.708
RB-86		1076.63	*	-5.569E+01	1.826E+02	2.846E+02	1.690E+01	-0.196
Y-88		898.02		8.675E+00	1.213E+01	2.114E+01	1.366E+00	0.410
		1836.01	*	2.673E+00	6.406E+00	1.168E+01	6.671E-01	0.229
ZR-88		392.90	*	-1.542E+00	7.286E+00	1.159E+01	6.852E-01	-0.133
Y-91		1204.90	*	1.328E+03	2.812E+03	5.051E+03	2.974E+02	0.263
NB-94		702.63	*	7.162E-01	7.540E+00	1.264E+01	6.587E-01	0.057
		871.10		1.465E+00	9.828E+00	1.633E+01	1.019E+00	0.090
NB-95		765.79	*	-6.854E+00	9.797E+00	1.490E+01	8.338E-01	-0.460
NB-95M		235.69	*	-1.977E+01	2.714E+01	4.301E+01	3.254E+00	-0.460
ZR-95		724.18		6.578E+00	2.034E+01	3.477E+01	2.253E+00	0.189
		756.15	*	1.749E+01	1.716E+01	3.106E+01	2.118E+00	0.563
NB-97		657.90	*	4.829E-02	1.716E+01	Half-Life too short		
		1024.50		-1.386E+00	1.716E+01	Half-Life too short		
ZR-97		254.15		-3.017E-01	1.716E+01	Half-Life too short		
		355.39		-6.276E-01	1.716E+01	Half-Life too short		
		507.63	*	-6.081E-01	1.716E+01	Half-Life too short		
		602.52		2.896E-01	1.716E+01	Half-Life too short		
		1021.30		5.706E-02	1.716E+01	Half-Life too short		
		1147.95		4.326E-01	1.716E+01	Half-Life too short		
		1362.66		-1.503E-01	1.716E+01	Half-Life too short		
		1750.46		-9.924E-03	1.716E+01	Half-Life too short		
MO-99		140.51		-8.183E+02	1.127E+03	1.805E+03	4.880E+02	-0.453
		181.06		-1.520E+02	7.329E+02	1.066E+03	1.821E+02	-0.143
		366.43		1.060E+03	3.792E+03	6.301E+03	3.777E+02	0.168
		739.58	*	2.408E+02	5.156E+02	8.886E+02	1.211E+02	0.271
		778.00		-5.842E+02	1.198E+03	1.851E+03	1.050E+02	-0.316
TC-99M		140.51	*	-1.594E+04	1.198E+03	Half-Life too short		
RH-101		127.23		-1.082E+00	8.645E+00	1.288E+01	8.576E-01	-0.084
		198.01	*	-2.618E+00	7.941E+00	1.304E+01	7.397E-01	-0.201
		325.23		3.387E+00	5.414E+01	8.904E+01	5.386E+00	0.038
RH-102		418.52		7.658E+00	7.959E+01	1.296E+02	7.689E+00	0.059
		475.06	*	2.113E-01	8.352E+00	1.343E+01	7.911E-01	0.016
		631.29		1.643E+01	1.322E+01	2.460E+01	1.278E+00	0.668
		697.49		-4.548E+00	1.763E+01	2.845E+01	1.474E+00	-0.160
		766.84		-1.224E+01	2.528E+01	3.953E+01	2.215E+00	-0.310
		1046.59		-7.236E+00	3.261E+01	5.137E+01	3.106E+00	-0.141
		1112.84		3.007E+01	5.649E+01	9.676E+01	5.599E+00	0.311
RU-103		497.08	*	-7.330E+00	9.011E+00	1.306E+01	1.654E+00	-0.561
		610.33		-5.523E+01	1.693E+02	2.802E+02	4.274E+01	-0.197
RH-106		511.85		-5.208E+01	4.598E+01	7.917E+01	4.595E+00	-0.658

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		621.84	*	-2.877E+00	7.086E+01	1.179E+02	1.353E+01	-0.024
		1050.47		-2.074E+02	6.180E+02	9.577E+02	5.777E+01	-0.217
RU-106		511.85		-5.208E+01	4.598E+01	7.917E+01	4.595E+00	-0.658
		621.84	*	-2.877E+00	7.086E+01	1.179E+02	6.203E+00	-0.024
		1050.47		-2.074E+02	6.180E+02	9.577E+02	5.777E+01	-0.217
AG-108M		433.93	*	-5.431E+00	1.025E+01	1.585E+01	1.018E+00	-0.343
		614.37		5.464E+00	9.724E+00	1.705E+01	9.963E-01	0.321
		722.95		-8.896E-01	1.002E+01	1.644E+01	9.644E-01	-0.054
AG-110M		657.75	*	1.459E+01	1.001E+01	1.711E+01	9.285E-01	0.853
		677.61		-5.276E+01	7.052E+01	1.074E+02	5.866E+00	-0.491
		706.67		2.034E+00	4.564E+01	7.605E+01	4.274E+00	0.027
		763.93		1.957E+01	3.709E+01	6.465E+01	3.850E+00	0.303
		884.67		-5.147E+00	1.510E+01	2.385E+01	1.597E+00	-0.216
		937.48		2.619E+01	3.283E+01	5.754E+01	3.888E+00	0.455
		1384.27		-2.069E+01	2.485E+01	3.183E+01	2.468E+00	-0.650
IN-111		171.28		3.063E+01	4.280E+01	7.475E+01	4.166E+00	0.410
		245.39	*	-1.717E+01	4.804E+01	7.787E+01	4.584E+00	-0.220
IN-113M		391.69	*	-1.151E+00	1.063E+01	1.707E+01	1.074E+00	-0.067
SN-113		391.69	*	-1.151E+00	1.063E+01	1.707E+01	1.074E+00	-0.067
IN-114M		190.27	*	-1.468E+01	4.386E+01	6.298E+01	3.552E+00	-0.233
CD-115		260.90		1.768E+03	3.549E+03	6.057E+03	3.600E+02	0.292
		492.35		-3.738E+01	9.379E+02	1.495E+03	8.756E+01	-0.025
		527.90	*	-1.926E+02	2.823E+02	4.461E+02	2.565E+01	-0.432
SN-117M		156.02		8.217E+01	3.633E+02	6.215E+02	3.600E+01	0.132
		158.56	*	-3.631E+00	8.961E+00	1.478E+01	8.470E-01	-0.246
SB-122		563.90	*	-4.472E+01	7.304E+01	1.151E+02	6.443E+00	-0.389
		692.80		2.620E+02	1.610E+03	2.718E+03	1.401E+02	0.096
I-123		159.00	*	-3.220E-03	1.610E+03	Half-Life too short		
		528.96		-8.791E+00	1.610E+03	Half-Life too short		
TE-123M		159.00	*	-1.430E-01	6.462E+00	1.089E+01	6.319E-01	-0.013
I-124		602.71	*	1.152E+01	4.530E+01	7.766E+01	4.183E+00	0.148
		722.78		8.734E+01	3.081E+02	5.251E+02	2.802E+01	0.166
		1325.50		-1.407E+02	1.723E+03	2.397E+03	1.790E+02	-0.059
		1376.25		7.943E+01	1.464E+03	2.480E+03	1.858E+02	0.032
		1509.49		-1.962E+02	4.896E+02	6.627E+02	4.743E+01	-0.296
		1691.02		-2.272E+02	2.477E+02	2.925E+02	1.887E+01	-0.777
SB-124		602.71		2.039E+00	8.020E+00	1.375E+01	7.409E-01	0.148
		645.85		4.478E+00	1.092E+02	1.829E+02	1.083E+01	0.024
		709.31		1.660E+01	5.685E+02	9.456E+02	4.968E+01	0.018
		713.82		1.180E+02	3.321E+02	5.721E+02	5.678E+01	0.206
		722.78		2.242E+01	7.908E+01	1.348E+02	7.590E+00	0.166
		968.20		-4.729E+02	6.931E+02	1.055E+03	6.618E+01	-0.448
		1045.16		1.112E+01	6.571E+02	1.064E+03	6.441E+01	0.010
		1325.50		-3.857E+01	4.724E+02	6.572E+02	4.908E+01	-0.059
		1368.21		8.509E+01	2.035E+02	3.776E+02	4.830E+01	0.225
		1436.60		-3.460E+02	5.156E+02	6.769E+02	4.982E+01	-0.511
		1691.02	*	-1.375E+01	1.500E+01	1.771E+01	1.222E+00	-0.777
SB-125		427.89	*	1.834E+01	2.537E+01	4.333E+01	2.675E+00	0.423
		463.38		2.513E+01	8.049E+01	1.325E+02	9.088E+00	0.190

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		600.56		-3.263E+00	4.167E+01	6.924E+01	4.407E+00	-0.047
		635.90		-2.780E+01	6.886E+01	1.104E+02	6.905E+00	-0.252
TE-125M		109.28	*	1.016E+02	2.333E+03	3.725E+03	3.382E+02	0.027
I-126		388.63		-2.101E+01	3.768E+01	5.828E+01	3.452E+00	-0.361
		666.33	*	-9.244E+00	3.346E+01	4.636E+01	2.315E+00	-0.199
		753.82		5.858E+01	2.655E+02	4.480E+02	2.475E+01	0.131
SB-126		223.80		-3.259E+02	7.310E+02	1.187E+03	6.876E+01	-0.275
		278.60		2.811E+02	3.974E+02	6.864E+02	4.115E+01	0.410
		296.50		1.424E+02	2.173E+02	3.734E+02	2.252E+01	0.381
		414.70		2.586E+00	1.435E+01	2.353E+01	1.396E+00	0.110
		415.30		-2.896E+02	1.218E+03	1.931E+03	1.146E+02	-0.150
		555.20		2.193E+02	6.594E+02	1.141E+03	6.436E+01	0.192
		573.80		-1.418E+02	1.725E+02	2.670E+02	1.482E+01	-0.531
		593.00		3.378E+01	1.533E+02	2.621E+02	1.427E+01	0.129
		656.30		-8.145E+01	6.453E+02	9.172E+02	4.593E+01	-0.089
		666.33		-3.799E+00	1.375E+01	1.906E+01	9.514E-01	-0.199
		675.00		-5.709E-01	3.059E+02	5.085E+02	2.565E+01	-0.001
		695.00		1.363E+00	1.184E+01	1.990E+01	1.028E+00	0.068
		697.00		1.371E+01	4.037E+01	6.940E+01	3.594E+00	0.198
		720.50	*	1.449E+01	2.349E+01	4.129E+01	2.197E+00	0.351
		856.80		3.809E+01	7.670E+01	1.327E+02	8.163E+00	0.287
		989.30		-2.112E+01	2.236E+02	3.586E+02	2.231E+01	-0.059
		1034.80		-2.678E+02	1.646E+03	2.612E+03	1.590E+02	-0.103
		1213.00		-7.364E+01	4.475E+02	7.271E+02	4.355E+01	-0.101
SB-127		61.10		6.678E+04	1.106E+04	1.734E+04	1.630E+03	3.852
		252.40		1.777E+02	3.299E+02	5.505E+02	2.264E+02	0.323
		290.80		4.944E+02	1.392E+03	2.349E+03	1.662E+02	0.210
		411.60		1.925E+02	9.131E+02	1.501E+03	1.966E+02	0.128
		444.90		-3.474E+02	7.735E+02	1.197E+03	1.080E+02	-0.290
		473.00		7.305E+01	1.294E+02	2.174E+02	2.057E+01	0.336
		543.00		4.930E+02	1.185E+03	2.061E+03	2.340E+02	0.239
		603.60		-2.214E+02	7.049E+02	1.142E+03	9.869E+01	-0.194
		685.20	*	-2.786E+01	8.195E+01	1.307E+02	8.760E+00	-0.213
		698.50		5.424E+01	9.418E+02	1.572E+03	2.028E+02	0.035
		722.20		5.072E+02	1.949E+03	3.312E+03	2.152E+02	0.153
		783.80		5.717E+00	2.156E+02	3.564E+02	3.106E+01	0.016
XE-127		57.60		1.150E+04	3.484E+03	5.619E+03	4.990E+02	2.046
		145.22		4.887E+01	1.520E+02	2.613E+02	1.586E+01	0.187
		172.10		3.236E+00	2.634E+01	4.462E+01	2.488E+00	0.073
		202.84	*	-5.825E+00	9.889E+00	1.596E+01	9.088E-01	-0.365
		374.96		4.039E+00	4.693E+01	7.678E+01	4.584E+00	0.053
I-131		80.18		-2.370E+02	7.243E+02	1.144E+03	9.424E+01	-0.207
		284.30		6.999E+01	1.942E+02	3.283E+02	2.162E+01	0.213
		364.48	*	-2.202E+00	1.666E+01	2.682E+01	1.771E+00	-0.082
		636.97		-1.968E+02	2.110E+02	3.185E+02	1.869E+01	-0.618
		722.89		2.083E+02	8.780E+02	1.490E+03	7.986E+01	0.140
TE-132		49.72		7.407E+02	2.255E+03	3.733E+03	3.544E+02	0.198
		111.76		1.389E+03	1.810E+03	3.006E+03	2.355E+02	0.462
		116.30		-1.150E+03	1.999E+03	2.689E+03	2.085E+02	-0.428

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		228.16	*	2.533E+01	3.806E+01	6.552E+01	8.664E+00	0.387
BA-133		53.15		8.422E+02	1.918E+03	3.182E+03	2.885E+02	0.265
		79.62		-1.395E+02	3.823E+02	6.022E+02	9.029E+01	-0.232
		81.00		1.632E+00	2.812E+01	4.537E+01	7.112E+00	0.036
		276.40		5.154E+00	9.548E+01	1.581E+02	2.063E+01	0.033
		302.84		-2.287E+00	3.531E+01	5.773E+01	6.800E+00	-0.040
		356.01	*	-4.199E+00	1.089E+01	1.716E+01	2.003E+00	-0.245
		383.85		5.846E+01	8.255E+01	1.409E+02	1.542E+01	0.415
I-133		510.53		-8.201E-02	8.255E+01	Half-Life too short		
		529.87	*	-2.275E-03	8.255E+01	Half-Life too short		
		706.58		2.157E-02	8.255E+01	Half-Life too short		
		856.28		7.932E-02	8.255E+01	Half-Life too short		
		875.33		-3.348E-02	8.255E+01	Half-Life too short		
		1236.41		-5.780E-02	8.255E+01	Half-Life too short		
		1298.22		5.668E-02	8.255E+01	Half-Life too short		
CS-134		475.35		-8.622E+01	5.568E+02	8.811E+02	5.191E+01	-0.098
		563.23		-1.652E+01	8.170E+01	1.346E+02	7.707E+00	-0.123
		569.32		3.374E+01	4.604E+01	8.243E+01	4.741E+00	0.409
		604.70		-4.338E+00	7.782E+00	1.232E+01	6.665E-01	-0.352
		795.84	*	4.861E+00	1.078E+01	1.863E+01	1.094E+00	0.261
		801.93		-7.937E+01	9.828E+01	1.473E+02	8.678E+00	-0.539
		1038.57		4.259E+02	1.091E+03	1.842E+03	1.119E+02	0.231
		1167.94		7.063E+02	5.765E+02	1.015E+03	5.608E+01	0.696
		1365.15		-1.368E+02	1.870E+02	2.475E+02	1.969E+01	-0.553
CS-135		268.24	*	2.864E+01	3.926E+01	6.780E+01	5.278E+00	0.422
I-135		288.45		2.920E+04	3.926E+01	Half-Life too short		
		417.63		4.310E+04	3.926E+01	Half-Life too short		
		546.56		3.806E+04	3.926E+01	Half-Life too short		
		836.80		2.703E+04	3.926E+01	Half-Life too short		
		1038.76		2.550E+04	3.926E+01	Half-Life too short		
		1124.00		4.343E+04	3.926E+01	Half-Life too short		
		1131.51		-1.853E+04	3.926E+01	Half-Life too short		
		1260.41	*	4.011E+03	3.926E+01	Half-Life too short		
		1457.56		3.958E+04	3.926E+01	Half-Life too short		
		1678.03		2.958E+04	3.926E+01	Half-Life too short		
		1706.46		-1.388E+03	3.926E+01	Half-Life too short		
		1791.20		-1.792E+03	3.926E+01	Half-Life too short		
CS-136		66.91		-2.912E+01	1.687E+02	2.703E+02	4.123E+01	-0.108
		86.29		1.178E+03	3.121E+02	4.834E+02	6.149E+01	2.437
		153.22		-4.490E+01	1.072E+02	1.770E+02	1.286E+01	-0.254
		163.89		1.216E+02	1.787E+02	3.120E+02	2.213E+01	0.390
		176.55		-1.489E+01	6.089E+01	1.010E+02	6.382E+00	-0.147
		273.65		-3.559E+01	7.869E+01	1.260E+02	8.528E+00	-0.282
		340.57		-5.576E+00	2.031E+01	3.245E+01	2.072E+00	-0.172
		818.51		-2.286E+00	1.407E+01	2.272E+01	1.346E+00	-0.101
		1048.07	*	-6.290E+00	2.010E+01	3.125E+01	2.046E+00	-0.201
		1235.34		-5.885E+00	4.255E+01	6.890E+01	7.072E+00	-0.085
CE-139		165.85	*	-5.854E+00	7.251E+00	1.167E+01	6.499E-01	-0.501
BA-140		162.64		4.719E+01	1.248E+02	2.147E+02	1.370E+01	0.220

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		304.84		1.213E+01	2.141E+02	3.530E+02	9.653E+01	0.034
		423.70		-1.506E+02	3.378E+02	5.178E+02	1.647E+02	-0.291
		537.32	*	-6.017E+00	4.601E+01	7.658E+01	2.489E+01	-0.079
LA-140		328.77		3.781E+01	4.629E+01	8.042E+01	5.404E+00	0.470
		432.53		-2.801E+02	4.334E+02	6.628E+02	4.327E+01	-0.423
		487.03		-3.567E+00	2.417E+01	3.814E+01	2.528E+00	-0.094
		751.79		-9.543E+01	3.041E+02	4.861E+02	3.337E+01	-0.196
		815.85		-6.447E+01	5.990E+01	8.636E+01	6.284E+00	-0.746
		867.82		1.387E+02	2.632E+02	4.541E+02	3.106E+01	0.305
		919.63		-1.701E+02	6.153E+02	9.766E+02	8.717E+01	-0.174
		925.24		-1.396E+02	2.474E+02	3.805E+02	2.694E+01	-0.367
		1596.49	*	-6.624E+00	8.776E+00	1.062E+01	7.279E-01	-0.624
CE-141		145.44	*	8.722E+00	1.346E+01	2.353E+01	1.479E+00	0.371
CE-143		57.37		2.630E+04	1.700E+04	2.633E+04	2.668E+03	0.999
		231.56		5.704E+03	1.672E+04	2.821E+04	8.730E+03	0.202
		293.26	*	-5.019E+02	8.127E+02	1.265E+03	2.601E+02	-0.397
		350.59		-7.006E+03	1.073E+04	1.621E+04	4.931E+03	-0.432
		490.36		6.293E+01	1.903E+04	3.048E+04	9.433E+03	0.002
		664.57		6.335E+04	2.419E+04	2.731E+04	8.616E+03	2.320
		721.93		1.726E+03	8.809E+03	1.486E+04	4.216E+03	0.116
CE-144		80.11		-1.892E+02	6.113E+02	9.668E+02	7.945E+01	-0.196
		133.54	*	-3.426E+01	5.611E+01	8.488E+01	1.228E+01	-0.404
PM-144		476.78		-8.620E+00	1.968E+01	3.035E+01	2.129E+00	-0.284
		618.01		1.254E+00	7.777E+00	1.319E+01	7.474E-01	0.095
		696.49	*	2.668E+00	7.846E+00	1.348E+01	6.978E-01	0.198
		778.57		-1.822E+02	4.903E+02	7.696E+02	4.369E+01	-0.237
PR-144		696.49	*	1.801E+02	5.297E+02	9.098E+02	4.709E+01	0.198
		1489.15		-8.426E+02	1.137E+03	1.062E+03	7.665E+01	-0.793
PM-146		453.90	*	1.772E+00	1.258E+01	2.047E+01	1.782E+00	0.087
		633.02		1.078E+02	3.562E+02	6.076E+02	2.232E+02	0.177
		735.90		-3.368E+00	3.607E+01	5.904E+01	1.642E+01	-0.057
		747.13		-1.277E+01	2.302E+01	3.566E+01	4.409E+00	-0.358
ND-147		91.11		3.319E+01	6.007E+01	7.175E+01	6.392E+00	0.463
		319.41		-2.789E+01	5.531E+02	9.028E+02	5.462E+01	-0.031
		439.89		-3.176E+02	1.101E+03	1.732E+03	1.027E+02	-0.183
		531.02	*	2.154E+01	8.944E+01	1.538E+02	2.075E+01	0.140
PM-149		285.90	*	-5.889E+02	2.382E+03	3.851E+03	5.485E+02	-0.153
EU-152	+	121.78		7.777E+01	3.459E+01	4.226E+01	3.576E+00	1.840
		244.69		-5.231E+01	8.549E+01	1.364E+02	8.027E+00	-0.383
		344.27	*	-2.276E+01	2.549E+01	3.859E+01	2.604E+00	-0.590
		443.98		-1.705E+02	2.829E+02	4.322E+02	2.562E+01	-0.395
		778.89		-1.899E+01	5.761E+01	9.098E+01	5.165E+00	-0.209
		867.32		8.071E+01	2.326E+02	3.943E+02	2.452E+01	0.205
		964.01		-1.027E+01	8.739E+01	1.405E+02	8.831E+00	-0.073
		1085.78		-3.588E+01	1.136E+02	1.764E+02	1.041E+01	-0.203
		1112.02		3.582E+01	7.826E+01	1.331E+02	7.709E+00	0.269
		1407.95		3.962E+00	1.882E+01	3.353E+01	2.490E+00	0.118
GD-153		69.67		2.484E+02	4.863E+02	8.078E+02	6.631E+01	0.307
		83.37		4.592E+03	4.620E+03	7.095E+03	5.898E+02	0.647

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		97.43	*	-6.608E+00	2.236E+01	3.095E+01	2.364E+00	-0.214
		103.18		-9.542E+00	2.890E+01	4.514E+01	3.305E+00	-0.211
EU-154	+	123.07		5.457E+01	2.446E+01	2.850E+01	2.872E+00	1.915
		247.94		3.772E+01	1.001E+02	1.694E+02	1.626E+01	0.223
		591.81		1.216E+01	1.477E+02	2.495E+02	2.388E+01	0.049
		723.30		5.647E+00	4.193E+01	7.037E+01	4.720E+00	0.080
		756.87		1.637E+02	2.038E+02	3.615E+02	3.613E+01	0.453
		873.19		-6.250E+01	8.668E+01	1.304E+02	1.397E+01	-0.479
		996.32		-3.639E+01	1.006E+02	1.560E+02	2.609E+01	-0.233
		1004.76		8.143E+00	6.350E+01	1.043E+02	1.040E+01	0.078
		1274.45	*	-1.569E+01	1.715E+01	2.220E+01	2.216E+00	-0.707
EU-155		48.70		8.538E+02	1.293E+03	2.173E+03	1.873E+02	0.393
	+	60.01		4.562E+04	6.416E+03	7.330E+03	6.395E+02	6.224
	+	86.54		3.656E+02	5.825E+01	7.123E+01	6.076E+00	5.133
		105.31	*	3.154E+01	2.838E+01	4.832E+01	3.555E+00	0.653
TB-160	+	86.79		9.138E+02	1.452E+02	1.918E+02	1.621E+01	4.765
		197.04		-2.880E+01	1.262E+02	2.085E+02	1.182E+01	-0.138
		215.65		-1.186E+02	1.816E+02	2.914E+02	1.677E+01	-0.407
		298.57		1.138E+01	2.539E+01	4.302E+01	2.596E+00	0.265
		879.36	*	2.529E+00	3.846E+01	6.332E+01	3.984E+00	0.040
		962.29		4.296E+01	1.484E+02	2.476E+02	1.557E+01	0.173
		966.15		3.077E+00	5.426E+01	8.866E+01	5.567E+00	0.035
		1177.93		-3.643E+01	7.078E+01	9.038E+01	5.021E+00	-0.403
		1271.85		-2.526E+01	9.789E+01	1.546E+02	1.043E+01	-0.163
HO-166M		80.57		-9.727E+00	7.806E+01	1.247E+02	1.026E+01	-0.078
		184.41		6.869E+00	9.220E+00	1.434E+01	8.054E-01	0.479
		280.46		-2.274E+01	2.079E+01	3.145E+01	1.887E+00	-0.723
		410.95		3.444E+01	6.502E+01	1.096E+02	6.499E+00	0.314
		711.68	*	-3.780E+00	1.388E+01	2.229E+01	1.175E+00	-0.170
		752.31		-2.016E+01	7.221E+01	1.159E+02	6.391E+00	-0.174
		810.29		8.336E+00	1.582E+01	2.740E+01	1.608E+00	0.304
TM-171		51.35		2.325E+03	1.636E+04	2.684E+04	2.422E+03	0.087
		52.39		-4.079E+02	8.638E+03	1.404E+04	1.273E+03	-0.029
	+	59.40		2.389E+05	3.360E+04	4.059E+04	3.561E+03	5.884
		66.72	*	-2.184E+03	8.892E+03	1.419E+04	1.178E+03	-0.154
HF-175	+	89.36		5.077E+03	8.064E+02	9.724E+02	8.118E+01	5.221
		343.40	*	-4.569E-01	8.243E+00	1.340E+01	8.088E-01	-0.034
		433.00		-6.627E+02	6.436E+02	9.533E+02	5.657E+01	-0.695
LU-176	+	88.36		7.220E+02	1.147E+02	1.587E+02	1.343E+01	4.550
		201.83		4.326E+00	6.900E+00	1.195E+01	6.798E-01	0.362
		306.84	*	1.270E+00	6.056E+00	1.010E+01	6.103E-01	0.126
		401.10		-9.125E+02	1.744E+03	2.695E+03	1.596E+02	-0.339
LU-177		112.95		6.013E+01	2.267E+02	3.647E+02	2.555E+01	0.165
		208.36	*	1.541E+00	1.185E+02	1.981E+02	1.133E+01	0.008
LU-177M		52.97		2.999E+02	8.421E+02	1.392E+03	1.262E+02	0.215
		54.07		1.177E+02	4.949E+02	7.289E+02	6.597E+01	0.161
		61.30		4.235E+03	8.377E+02	1.388E+03	1.197E+02	3.051
	+	121.62		3.870E+02	1.711E+02	2.109E+02	1.451E+01	1.835
		147.16		-1.027E+02	1.591E+02	2.602E+02	1.565E+01	-0.395

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		171.86		2.181E+01	1.185E+02	2.014E+02	1.123E+01	0.108
		218.09		-9.920E+01	2.229E+02	3.624E+02	2.090E+01	-0.274
		268.79		-9.688E+00	1.945E+02	3.203E+02	1.912E+01	-0.030
		319.02		1.058E+01	6.517E+01	1.080E+02	6.536E+00	0.098
		367.43		9.853E+01	2.425E+02	4.065E+02	2.436E+01	0.242
		413.65	*	1.658E+01	4.831E+01	8.018E+01	4.755E+00	0.207
HF-181		56.28		-4.982E+01	4.817E+02	6.948E+02	6.223E+01	-0.072
		57.53		8.381E+02	2.909E+02	4.668E+02	4.148E+01	1.795
		65.20		-7.408E+01	2.852E+02	4.324E+02	3.622E+01	-0.171
		133.02		-6.500E+00	1.635E+01	2.519E+01	1.623E+00	-0.258
		136.25		5.625E+01	1.098E+02	1.902E+02	1.205E+01	0.296
		345.85		4.524E+01	4.156E+01	7.349E+01	4.435E+00	0.616
		482.03	*	1.288E+00	1.016E+01	1.648E+01	9.688E-01	0.078
W-181		56.28		-2.108E+01	2.036E+02	2.936E+02	2.630E+01	-0.072
		57.53		3.526E+02	1.229E+02	1.973E+02	1.753E+01	1.788
		65.20	*	-3.108E+01	1.197E+02	1.814E+02	1.520E+01	-0.171
TA-182		67.75		-1.481E+01	3.289E+01	5.179E+01	4.281E+00	-0.286
		100.10		4.112E+01	4.525E+01	7.618E+01	5.695E+00	0.540
		152.43		-1.439E+01	7.701E+01	1.289E+02	7.578E+00	-0.112
		222.10		4.438E+01	9.160E+01	1.565E+02	9.053E+00	0.284
		1001.68		4.039E+01	5.854E+02	9.590E+02	5.933E+01	0.042
		1121.28		2.466E+01	3.256E+01	5.711E+01	3.283E+00	0.432
		1189.05		-2.491E+00	5.193E+01	8.646E+01	4.921E+00	-0.029
		1221.42	*	-1.881E+01	3.157E+01	4.780E+01	2.914E+00	-0.394
		1230.97		-6.532E+01	5.702E+01	6.998E+01	4.351E+00	-0.933
RE-183		57.98		9.083E+02	1.433E+02	2.368E+02	2.097E+01	3.836
	+	59.32		9.178E+02	1.291E+02	1.570E+02	1.378E+01	5.848
		67.20		1.739E+01	5.669E+01	9.329E+01	7.731E+00	0.186
		162.32	*	1.608E+01	2.514E+01	4.382E+01	2.473E+00	0.367
		208.81		-1.039E+02	2.148E+02	3.485E+02	1.994E+01	-0.298
		291.72		-1.057E+02	2.110E+02	3.344E+02	2.014E+01	-0.316
RE-184		57.98		3.490E+03	5.508E+02	9.098E+02	8.059E+01	3.836
	+	59.32		3.524E+03	4.956E+02	6.026E+02	5.290E+01	5.848
		67.20		6.680E+01	2.177E+02	3.584E+02	2.970E+01	0.186
		161.27		3.937E+01	8.318E+01	1.439E+02	8.158E+00	0.274
		216.55		-4.051E+01	6.757E+01	1.088E+02	6.267E+00	-0.372
		252.85	*	1.694E+01	6.120E+01	1.031E+02	6.096E+00	0.164
		318.01		2.326E+01	1.124E+02	1.870E+02	1.131E+01	0.124
		792.07		-2.358E+00	2.241E+02	3.685E+02	2.122E+01	-0.006
		903.28		-2.150E+02	2.912E+02	4.388E+02	2.807E+01	-0.490
		920.93		1.097E+02	1.372E+02	2.404E+02	1.531E+01	0.456
OS-185	+	59.72		2.550E+03	3.586E+02	4.217E+02	3.690E+01	6.045
		61.14		6.150E+02	1.033E+02	1.673E+02	1.445E+01	3.677
		69.30		6.167E+01	8.554E+01	1.435E+02	1.180E+01	0.430
		592.07		9.361E+01	5.774E+02	9.821E+02	5.352E+01	0.095
		646.12	*	-1.833E+00	9.855E+00	1.612E+01	8.199E-01	-0.114
		717.42		-8.236E+01	2.122E+02	3.373E+02	1.789E+01	-0.244
		874.81		-2.397E+01	1.586E+02	2.553E+02	1.599E+01	-0.094
		880.27		2.903E+00	2.212E+02	3.622E+02	2.281E+01	0.008

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RE-188		155.03	*	-1.746E+01	3.671E+01	6.030E+01	3.508E+00	-0.290
		477.96		7.210E+01	8.362E+02	1.351E+03	7.952E+01	0.053
		633.10		1.871E+02	6.658E+02	1.140E+03	5.910E+01	0.164
W-188		63.58		-1.247E+04	1.863E+04	2.641E+04	2.236E+03	-0.472
		227.08		-8.909E+02	3.132E+03	5.115E+03	2.971E+02	-0.174
		290.67	*	6.474E+02	1.650E+03	2.791E+03	1.681E+02	0.232
IR-192		295.96		1.656E+01	2.311E+01	3.988E+01	2.440E+00	0.415
		308.46		-3.238E+00	2.160E+01	3.503E+01	2.139E+00	-0.092
		316.51	*	-9.071E-02	8.316E+00	1.362E+01	8.276E-01	-0.007
		468.07		-4.547E+00	1.730E+01	2.712E+01	1.838E+00	-0.168
		604.41		-4.588E+01	9.735E+01	1.552E+02	1.729E+01	-0.296
		612.46		-4.161E+01	1.629E+02	2.669E+02	1.925E+01	-0.156
AU-195		65.12		-1.127E+01	5.645E+01	8.592E+01	7.201E+00	-0.131
		66.83		-5.588E+00	2.884E+01	4.616E+01	3.832E+00	-0.121
		75.70		4.192E+01	5.047E+01	8.478E+01	6.913E+00	0.494
		98.88	*	-5.137E+00	5.783E+01	9.168E+01	6.919E+00	-0.056
		129.76		5.209E+01	6.959E+02	1.107E+03	7.258E+01	0.047
TL-200		367.94	*	5.106E+02	1.270E+03	2.129E+03	1.276E+02	0.240
		579.30		-3.951E+03	8.044E+03	1.284E+04	7.088E+02	-0.308
		828.27		2.205E+03	1.210E+04	2.029E+04	1.213E+03	0.109
		1205.75		5.964E+02	3.925E+03	6.737E+03	3.974E+02	0.089
TL-201		68.90		4.266E+01	2.847E+02	4.642E+02	3.820E+01	0.092
		70.82		1.381E+01	1.574E+02	2.555E+02	2.091E+01	0.054
		80.30		-9.952E+01	2.836E+02	4.474E+02	3.679E+01	-0.222
		135.34		-3.880E+02	1.315E+03	2.200E+03	1.400E+02	-0.176
		167.43	*	-8.512E+01	3.385E+02	5.625E+02	3.130E+01	-0.151
TL-202		68.90		1.319E+01	8.801E+01	1.435E+02	1.181E+01	0.092
		70.82		4.257E+00	4.851E+01	7.875E+01	6.444E+00	0.054
		80.30		-3.069E+01	8.745E+01	1.380E+02	1.134E+01	-0.222
		439.56	*	-5.595E+00	1.376E+01	2.142E+01	1.271E+00	-0.261
HG-203		70.83		2.523E+01	2.843E+02	4.615E+02	6.153E+01	0.055
		72.87		-1.342E+02	1.619E+02	2.477E+02	3.197E+01	-0.542
		82.60		-1.160E+01	3.085E+02	4.709E+02	6.375E+01	-0.025
		279.20	*	-1.204E+00	8.909E+00	1.455E+01	9.231E-01	-0.083
BI-207		72.80		-4.537E+01	5.269E+01	8.073E+01	6.586E+00	-0.562
		74.97		-1.779E+00	2.921E+01	4.695E+01	3.827E+00	-0.038
		84.90		1.409E+01	6.248E+01	9.122E+01	7.636E+00	0.154
		569.67		5.979E+00	7.162E+00	1.294E+01	7.206E-01	0.462
		1063.62	*	1.246E+01	1.422E+01	2.523E+01	1.510E+00	0.494
		1770.23		-2.874E+01	9.065E+01	1.333E+02	8.080E+00	-0.216
TL-207		81.07		-7.878E+00	6.277E+01	1.003E+02	8.265E+00	-0.079
		83.78		1.770E+01	4.089E+01	6.060E+01	5.047E+00	0.292
		94.90		5.664E+01	6.231E+01	9.546E+01	7.468E+00	0.593
	+	122.32		1.854E+03	8.220E+02	9.912E+02	7.578E+01	1.870
		144.24		3.805E+01	1.716E+02	2.937E+02	2.194E+01	0.130
		154.21		-4.016E+01	9.242E+01	1.523E+02	1.073E+01	-0.264
		269.46		-5.491E+01	4.908E+01	7.501E+01	4.670E+00	-0.732
		323.87	*	2.864E+01	1.648E+02	2.732E+02	4.536E+01	0.105
		338.28		-1.816E+02	2.450E+02	3.759E+02	4.010E+01	-0.483

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		445.03		-2.902E+02	6.616E+02	1.024E+03	1.059E+02	-0.283
TL-208		72.80		-4.909E+02	5.700E+02	8.735E+02	7.125E+01	-0.562
		74.97		-1.922E+01	3.158E+02	5.075E+02	6.067E+01	-0.038
		277.35		1.016E+02	9.525E+01	1.669E+02	1.780E+01	0.609
		510.84		-2.028E+01	4.340E+01	7.815E+01	7.938E+00	-0.260
		583.14	*	4.543E+00	8.378E+00	1.478E+01	9.501E-01	0.307
		763.13		2.927E+02	4.948E+02	8.663E+02	1.067E+02	0.338
		860.37		-7.012E+00	7.392E+01	1.198E+02	8.428E+00	-0.059
		1093.90		5.716E+02	3.165E+03	5.199E+03	1.165E+03	0.110
PO-209		260.50		9.572E+02	2.483E+03	4.208E+03	2.501E+02	0.227
		262.80		-1.305E+03	7.149E+03	1.168E+04	6.952E+02	-0.112
		896.60	*	2.984E+02	2.393E+03	3.954E+03	2.530E+02	0.075
BI-210		46.50	*	-2.280E+02	1.815E+03	2.946E+03	2.531E+02	-0.077
PB-210		46.50	*	-2.280E+02	1.815E+03	2.946E+03	2.531E+02	-0.077
PO-210		46.50	*	-2.280E+02	1.815E+03	2.946E+03	2.248E+02	-0.077
BI-211		72.87		-7.513E+02	9.032E+02	1.387E+03	1.131E+02	-0.542
		351.07	*	-2.877E+01	5.156E+01	8.059E+01	5.349E+00	-0.357
PB-211		404.84	*	-6.658E+01	2.457E+02	3.827E+02	2.386E+02	-0.174
		427.08		-1.530E+02	5.821E+02	9.060E+02	5.601E+02	-0.169
		831.96		-1.729E+02	3.151E+02	4.526E+02	2.822E+02	-0.382
BI-212		727.18	*	3.771E+01	6.538E+01	1.148E+02	8.485E+00	0.328
		785.46		2.013E+02	3.954E+02	6.893E+02	3.941E+01	0.292
		1620.62		-3.863E+01	1.803E+02	2.735E+02	1.849E+01	-0.141
PB-212		74.81		-3.713E+00	1.018E+02	1.638E+02	2.032E+01	-0.023
		77.11		1.379E+01	5.809E+01	9.469E+01	7.732E+00	0.146
	+	87.30		1.419E+03	2.664E+02	3.195E+02	4.188E+01	4.442
		115.19		4.291E+01	1.044E+03	1.663E+03	1.158E+02	0.026
		238.63	*	1.014E+01	1.445E+01	2.524E+01	1.862E+00	0.402
		300.09		-3.368E+01	1.903E+02	3.088E+02	2.599E+01	-0.109
PO-212		74.81		-3.713E+00	1.018E+02	1.638E+02	2.032E+01	-0.023
		77.11		1.379E+01	5.809E+01	9.469E+01	7.732E+00	0.146
	+	87.30		1.419E+03	2.664E+02	3.195E+02	4.188E+01	4.442
		115.19		4.291E+01	1.044E+03	1.663E+03	1.158E+02	0.026
		238.63	*	1.014E+01	1.445E+01	2.524E+01	1.862E+00	0.402
		300.09		-3.368E+01	1.903E+02	3.088E+02	2.599E+01	-0.109
BI-214		609.31	*	-4.614E+00	1.732E+01	2.886E+01	2.149E+00	-0.160
		1120.29		1.842E+01	7.302E+01	1.212E+02	1.063E+01	0.152
		1764.49		-1.857E+01	4.784E+01	7.727E+01	4.706E+00	-0.240
PB-214		74.81		-6.347E+00	1.740E+02	2.801E+02	3.085E+01	-0.023
		77.11		2.345E+01	9.881E+01	1.610E+02	1.799E+01	0.146
	+	87.30		2.412E+03	4.258E+02	5.429E+02	6.221E+01	4.442
		241.98		-1.813E+01	8.519E+01	1.396E+02	1.133E+01	-0.130
		295.21		-1.704E+00	3.238E+01	5.305E+01	4.607E+00	-0.032
		351.92	*	3.032E+00	1.776E+01	2.945E+01	2.486E+00	0.103
PO-214		74.81		-6.347E+00	1.740E+02	2.801E+02	3.085E+01	-0.023
		77.11		2.345E+01	9.881E+01	1.610E+02	1.799E+01	0.146
	+	87.30		2.412E+03	4.258E+02	5.429E+02	6.221E+01	4.442
		241.98		-1.813E+01	8.519E+01	1.396E+02	1.133E+01	-0.130
		295.21		-1.704E+00	3.238E+01	5.305E+01	4.607E+00	-0.032

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		351.92	*	3.032E+00	1.776E+01	2.945E+01	2.486E+00	0.103
PO-215		81.07		-7.878E+00	6.277E+01	1.003E+02	8.265E+00	-0.079
		83.78		1.770E+01	4.089E+01	6.060E+01	5.047E+00	0.292
		94.90		5.664E+01	6.231E+01	9.546E+01	7.468E+00	0.593
	+	122.32		1.854E+03	8.220E+02	9.912E+02	7.578E+01	1.870
		144.24		3.805E+01	1.716E+02	2.937E+02	2.194E+01	0.130
		154.21		-4.016E+01	9.242E+01	1.523E+02	1.073E+01	-0.264
		269.46		-5.491E+01	4.908E+01	7.501E+01	4.670E+00	-0.732
		323.87	*	2.864E+01	1.648E+02	2.732E+02	4.536E+01	0.105
		338.28		-1.816E+02	2.450E+02	3.759E+02	4.010E+01	-0.483
		445.03		-2.902E+02	6.616E+02	1.024E+03	1.059E+02	-0.283
PO-216		74.81		-3.713E+00	1.018E+02	1.638E+02	2.032E+01	-0.023
		77.11		1.379E+01	5.809E+01	9.469E+01	7.732E+00	0.146
	+	87.30		1.419E+03	2.664E+02	3.195E+02	4.188E+01	4.442
		115.19		4.291E+01	1.044E+03	1.663E+03	1.158E+02	0.026
		238.63	*	1.014E+01	1.445E+01	2.524E+01	1.862E+00	0.402
		300.09		-3.368E+01	1.903E+02	3.088E+02	2.599E+01	-0.109
PO-218		74.81		-6.347E+00	1.740E+02	2.801E+02	3.085E+01	-0.023
		77.11		2.345E+01	9.881E+01	1.610E+02	1.799E+01	0.146
	+	87.30		2.412E+03	4.258E+02	5.429E+02	6.221E+01	4.442
		241.98		-1.813E+01	8.519E+01	1.396E+02	1.133E+01	-0.130
		295.21		-1.704E+00	3.238E+01	5.305E+01	4.607E+00	-0.032
		351.92	*	3.032E+00	1.776E+01	2.945E+01	2.486E+00	0.103
RN-219		271.23		1.205E+01	5.914E+01	9.895E+01	8.144E+00	0.122
		401.81	*	-1.119E+02	1.108E+02	1.619E+02	2.211E+01	-0.691
RN-220		549.76	*	-7.613E+03	6.761E+03	1.019E+04	5.770E+02	-0.747
RA-223		81.07		-7.878E+00	6.277E+01	1.003E+02	8.265E+00	-0.079
		83.78		1.770E+01	4.089E+01	6.060E+01	5.047E+00	0.292
		94.90		5.664E+01	6.231E+01	9.546E+01	7.468E+00	0.593
	+	122.32		1.854E+03	8.220E+02	9.912E+02	7.578E+01	1.870
		144.24		3.805E+01	1.716E+02	2.937E+02	2.194E+01	0.130
		154.21		-4.016E+01	9.242E+01	1.523E+02	1.073E+01	-0.264
		269.46		-5.491E+01	4.908E+01	7.501E+01	4.670E+00	-0.732
		323.87	*	2.864E+01	1.648E+02	2.732E+02	4.536E+01	0.105
		338.28		-1.816E+02	2.450E+02	3.759E+02	4.010E+01	-0.483
		445.03		-2.902E+02	6.616E+02	1.024E+03	1.059E+02	-0.283
RA-224		240.98	*	-5.905E+01	1.649E+02	2.679E+02	1.572E+01	-0.220
AC-227		79.80		-1.017E+02	4.815E+02	7.653E+02	1.633E+02	-0.133
		236.00		-4.151E+01	5.552E+01	8.783E+01	9.204E+00	-0.473
		256.20	*	-2.880E+01	9.705E+01	1.574E+02	2.206E+01	-0.183
		286.10		-7.867E+01	3.845E+02	6.238E+02	7.279E+01	-0.126
		299.80		3.332E+01	3.459E+02	5.723E+02	9.368E+01	0.058
		304.40		8.483E-01	4.566E+02	7.500E+02	1.304E+02	0.001
		329.70		-1.896E+01	2.167E+02	3.520E+02	4.429E+01	-0.054
		334.20		7.563E+01	5.656E+02	9.338E+02	1.719E+02	0.081
PA-227		64.62	*	-1.000E+35	5.656E+02	Half-Life too short		
		110.05		1.000E+35	5.656E+02	Half-Life too short		
TH-227		79.80		-1.017E+02	4.815E+02	7.653E+02	1.655E+02	-0.133
	+	94.00		1.961E+02	7.848E+02	8.576E+02	1.844E+02	0.229

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		236.00		-4.151E+01	5.548E+01	8.783E+01	7.982E+00	-0.473
		256.20	*	-2.880E+01	9.709E+01	1.574E+02	2.667E+01	-0.183
		286.10		-7.867E+01	3.923E+02	6.238E+02	6.249E+02	-0.126
		299.80		3.332E+01	3.459E+02	5.723E+02	9.368E+01	0.058
		304.40		8.483E-01	4.566E+02	7.500E+02	1.304E+02	0.001
		329.70		-1.896E+01	2.167E+02	3.520E+02	4.429E+01	-0.054
		334.20		7.563E+01	5.656E+02	9.338E+02	1.719E+02	0.081
AC-228		338.32		-4.326E+01	6.127E+01	9.035E+01	3.686E+01	-0.479
		911.07	*	-4.674E+01	3.935E+01	5.698E+01	5.492E+00	-0.820
		969.11		-2.652E+01	7.317E+01	1.148E+02	2.592E+01	-0.231
RA-228		338.32		-4.326E+01	6.127E+01	9.035E+01	3.686E+01	-0.479
		911.07	*	-4.674E+01	3.935E+01	5.698E+01	5.492E+00	-0.820
		969.11		-2.652E+01	7.317E+01	1.148E+02	2.592E+01	-0.231
TH-228		74.81		-3.713E+00	1.018E+02	1.638E+02	1.348E+01	-0.023
		77.11		1.379E+01	5.809E+01	9.469E+01	7.732E+00	0.146
	+	87.30		1.419E+03	2.254E+02	3.195E+02	2.708E+01	4.442
		238.63	*	1.014E+01	1.445E+01	2.524E+01	1.862E+00	0.402
		300.09		-3.368E+01	1.913E+02	3.088E+02	1.821E+02	-0.109
TH-229		85.43		3.946E+01	6.112E+01	9.159E+01	7.687E+00	0.431
	+	88.47		4.156E+02	6.602E+01	9.103E+01	7.694E+00	4.566
		100.00		5.239E+01	4.838E+01	8.228E+01	6.156E+00	0.637
		193.63	*	-1.170E+00	1.214E+02	2.033E+02	1.149E+01	-0.006
		210.97		5.816E+01	1.821E+02	3.095E+02	1.775E+01	0.188
TH-230		67.67	*	-1.589E+03	1.091E+04	5.668E+03	3.677E+04	-0.280
PA-231		283.67	*	-1.570E+00	3.657E+02	6.023E+02	8.354E+01	-0.003
		301.29		-5.996E+01	1.416E+02	2.254E+02	2.386E+01	-0.266
		330.00		-2.491E+02	5.004E+02	7.766E+02	2.435E+02	-0.321
TH-231		84.21	*	-1.091E+01	1.583E+02	2.266E+02	4.014E+01	-0.048
U-231		84.21		-3.697E+01	5.365E+02	7.681E+02	6.409E+01	-0.048
	+	92.29		5.883E+01	2.352E+02	2.787E+02	2.242E+01	0.211
		95.87	*	-8.039E+01	9.443E+01	1.238E+02	9.591E+00	-0.650
		108.00		-1.884E+02	1.758E+02	2.601E+02	1.856E+01	-0.725
PA-233		75.28		1.472E+02	8.412E+02	1.369E+03	2.066E+02	0.108
	+	86.59		5.959E+03	1.785E+03	1.182E+03	3.165E+02	5.040
		300.12		-1.726E+01	9.758E+01	1.583E+02	2.143E+01	-0.109
		311.98	*	-3.603E+00	1.575E+01	2.537E+01	1.622E+00	-0.142
		340.50		-3.494E+01	1.446E+02	2.313E+02	5.327E+01	-0.151
		398.62		4.271E+02	5.420E+02	9.176E+02	2.375E+02	0.465
		415.76		-1.328E+02	4.879E+02	7.705E+02	1.589E+02	-0.172
PA-234		63.00		-3.164E+02	5.929E+02	8.480E+02	1.309E+02	-0.373
		94.67		6.267E+01	4.454E+01	7.017E+01	8.333E+00	0.893
		98.44		-1.899E+01	2.807E+01	3.735E+01	2.078E+01	-0.508
		99.86		1.286E+02	1.223E+02	2.077E+02	1.555E+01	0.619
		111.00		2.424E+01	5.257E+01	8.587E+01	9.466E+00	0.282
		131.20		1.675E+01	2.758E+01	4.528E+01	2.946E+00	0.370
		152.70		-3.389E+01	7.765E+01	1.278E+02	2.024E+01	-0.265
	+	186.00		1.147E+02	3.776E+02	5.376E+02	1.641E+02	0.213
		226.40		-7.118E+00	1.062E+02	1.756E+02	2.031E+01	-0.041
		227.20		-3.475E+01	1.136E+02	1.852E+02	1.076E+01	-0.188

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		248.90		1.828E+02	2.293E+02	3.920E+02	8.435E+01	0.466
		293.70		-1.077E+02	1.558E+02	2.416E+02	3.906E+01	-0.446
		369.80		1.129E+02	2.379E+02	3.989E+02	8.328E+01	0.283
		568.70		1.160E+02	2.418E+02	4.235E+02	2.361E+01	0.274
		569.50		4.700E+01	6.412E+01	1.148E+02	6.397E+00	0.409
		574.00		-3.192E+02	3.695E+02	5.691E+02	3.157E+01	-0.561
		699.00		2.669E+01	1.610E+02	2.717E+02	4.835E+01	0.098
		706.10		6.943E+01	2.383E+02	4.043E+02	1.781E+02	0.172
		733.00		-9.368E+01	8.647E+01	1.201E+02	2.540E+01	-0.780
		742.81		2.660E+02	3.987E+02	6.327E+02	4.232E+02	0.420
		796.30		1.668E+02	2.156E+02	3.772E+02	9.914E+01	0.442
		805.60		-1.487E+02	2.508E+02	3.776E+02	1.132E+02	-0.394
		819.60		1.621E+02	3.371E+02	5.726E+02	2.148E+02	0.283
		826.30		-1.542E+02	2.204E+02	3.144E+02	1.393E+02	-0.490
		831.60		-1.020E+02	1.547E+02	2.292E+02	6.693E+01	-0.445
		876.40		1.674E+01	2.372E+02	3.899E+02	4.002E+02	0.043
		880.51		1.613E+01	8.245E+01	1.375E+02	8.662E+00	0.117
		883.24		-4.825E+01	9.483E+01	1.379E+02	9.235E+01	-0.350
		899.00		2.597E+02	2.820E+02	4.618E+02	2.001E+02	0.562
		925.00		-1.402E+02	3.765E+02	5.910E+02	3.761E+01	-0.237
		926.50		-3.276E+01	5.440E+01	8.214E+01	2.020E+01	-0.399
		946.00	*	4.506E+01	8.684E+01	1.485E+02	2.646E+01	0.304
		949.00		-1.109E+02	1.367E+02	2.032E+02	1.284E+01	-0.546
		980.50		-4.321E+01	2.189E+02	3.479E+02	2.172E+01	-0.124
		1394.10		-1.586E+02	1.965E+02	1.922E+02	1.248E+02	-0.825
PA-234M		766.42		-1.363E+03	2.662E+03	3.992E+03	2.008E+03	-0.342
		1001.03	*	-6.149E+02	1.432E+03	2.227E+03	1.772E+02	-0.276
TH-234		63.29	*	-3.456E+02	5.081E+02	7.156E+02	1.283E+02	-0.483
	+	92.38		5.074E+01	2.030E+02	2.395E+02	4.266E+01	0.212
U-234		53.20	*	1.573E+04	1.609E+05	5.652E+04	5.652E+05	0.278
U-235		89.95		1.219E+03	5.626E+02	6.084E+02	1.872E+02	2.003
	+	93.35		6.100E+01	2.444E+02	2.773E+02	7.717E+01	0.220
		105.00		2.255E+02	2.926E+02	4.770E+02	1.406E+02	0.473
		143.76	*	1.711E+01	5.301E+01	9.105E+01	1.495E+01	0.188
		163.35		2.010E+01	1.177E+02	2.002E+02	3.589E+01	0.100
	+	185.71		4.249E+00	1.393E+01	2.000E+01	1.124E+00	0.212
		205.31		-3.291E+01	1.216E+02	1.997E+02	3.584E+01	-0.165
NP-236		94.67		4.773E+01	3.353E+01	5.326E+01	4.177E+00	0.896
		98.44		-1.436E+01	1.969E+01	2.824E+01	2.139E+00	-0.509
		111.00		1.833E+01	3.973E+01	6.495E+01	4.579E+00	0.282
		160.31	*	-7.376E+00	1.937E+01	3.199E+01	1.820E+00	-0.231
U-238		63.29	*	-3.456E+02	5.081E+02	7.156E+02	1.283E+02	-0.483
	+	92.38		5.074E+01	2.028E+02	2.395E+02	1.925E+01	0.212
NP-239		99.55		3.519E+01	4.121E+01	6.921E+01	5.196E+00	0.508
		117.00	*	-3.656E+00	6.212E+01	8.725E+01	6.048E+00	-0.042
		209.75		-1.884E+01	1.817E+02	3.016E+02	1.728E+01	-0.062
		228.18		3.770E+01	5.758E+01	9.938E+01	5.777E+00	0.379
		277.60		5.992E+01	4.418E+01	7.910E+01	4.740E+00	0.757
		334.30		4.764E+01	3.208E+02	5.303E+02	3.206E+01	0.090

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AM-243		74.67	*	4.988E-01	1.635E+01	2.642E+01	2.153E+00	0.019
	+	86.72		3.352E+04	5.325E+03	6.951E+03	5.873E+02	4.822
		117.66		-6.208E+02	1.244E+03	1.681E+03	1.164E+02	-0.369
		142.18		-2.995E+03	4.397E+03	7.183E+03	4.421E+02	-0.417
CM-243		99.55		3.620E+01	4.239E+01	7.119E+01	5.344E+00	0.508
		103.76	*	-3.548E+00	2.698E+01	4.268E+01	3.114E+00	-0.083
		117.00		-3.760E+00	6.387E+01	8.972E+01	6.219E+00	-0.042
		209.75		-1.856E+01	1.791E+02	2.972E+02	1.702E+01	-0.062
		228.18		3.807E+01	5.816E+01	1.004E+02	5.835E+00	0.379
		277.60		6.038E+01	4.452E+01	7.971E+01	4.777E+00	0.757
AM-246		798.80		9.104E-01	3.382E+01	5.582E+01	3.237E+00	0.016
		1036.00		-4.804E+01	8.504E+01	1.283E+02	7.800E+00	-0.375
		1062.04		-3.580E+01	6.152E+01	9.203E+01	5.513E+00	-0.389
		1078.86	*	6.661E+00	3.953E+01	6.501E+01	3.853E+00	0.102
CM-247		278.00		2.641E+02	1.776E+02	3.211E+02	1.924E+01	0.822
		287.40		5.572E+01	3.093E+02	5.158E+02	3.102E+01	0.108
		402.60	*	-2.684E+00	9.421E+00	1.487E+01	8.807E-01	-0.181
CF-249		252.85		6.549E+01	2.365E+02	3.983E+02	2.356E+01	0.164
		333.44		-4.262E+00	4.211E+01	6.831E+01	4.130E+00	-0.062
		387.95	*	-1.824E+00	1.095E+01	1.752E+01	1.038E+00	-0.104
CF-251		176.60	*	-1.096E+01	3.091E+01	5.092E+01	2.845E+00	-0.215
		227.00		-2.725E+01	1.011E+02	1.653E+02	9.598E+00	-0.165
		285.00		1.743E+02	4.303E+02	7.291E+02	4.382E+01	0.239
ANH-511		511.00	*	-4.560E+00	9.281E+00	1.671E+01	9.701E-01	-0.273

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001368     *
* Acquisition date : 30-DEC-2009 22:03:13 Detector SN#     :               *
* Detector ID        : GAM01               Sensitivity      : 5.000        *
* Geometry           : 2LMB                Energy tolerance: 1.500         *
* Elapsed live time:     0 01:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 01:00:00.67     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 23-DEC-2009 00:00:00 Nuclide Library : LIQUI         *
* Sample ID          : G1202001368          Analyst initials: KXG3          *
* Batch Number       : 935338               Sample Quantity : 2.0000E+00 LITER *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 29-JAN-2009 14:58:37 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
CO-57	2.633E+01	1.141E+01	1.095E+01	0.000E+00
CO-60	5.630E+02	5.783E+01	7.957E+00	0.000E+00
CD-109	3.064E+03	4.770E+02	3.844E+02	0.000E+00
SN-126	3.044E+02	4.739E+01	3.845E+01	0.000E+00
BA-137M	4.323E+02	3.790E+01	1.467E+01	0.000E+00
CS-137	4.570E+02	4.013E+01	1.551E+01	0.000E+00
RA-226	6.996E+01	2.302E+02	2.818E+02	0.000E+00
TH-232	2.657E+05	2.741E+06	2.149E+04	0.000E+00
NP-237	8.939E+02	2.281E+02	1.058E+02	0.000E+00
PU-237	1.738E+04	2.396E+03	1.358E+03	0.000E+00
AM-241	1.406E+03	1.992E+02	1.099E+02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)		
BE-7	6.268E+00		8.361E+01	1.377E+02	0.000E+00	NOT IDENT.
NA-22	-5.470E+00		6.007E+00	8.036E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00		3.045E+04	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-7.676E-01		4.823E+00	7.523E+00	0.000E+00	NOT IDENT.
K-40	-3.495E+01		6.623E+01	1.144E+02	0.000E+00	NOT IDENT.
TI-44	-9.023E-01		1.024E+01	1.674E+01	0.000E+00	NOT IDENT.
SC-46	8.083E+00		1.156E+01	2.048E+01	0.000E+00	NOT IDENT.
V-48	5.730E+00		1.418E+01	2.452E+01	0.000E+00	NOT IDENT.
CR-51	2.199E+01		7.757E+01	1.323E+02	0.000E+00	NOT IDENT.
MN-52	-7.701E+00		1.231E+01	1.630E+01	0.000E+00	NOT IDENT.
MN-54	-2.929E-01		8.577E+00	1.431E+01	0.000E+00	NOT IDENT.
CO-56	1.799E+00		9.514E+00	1.624E+01	0.000E+00	NOT IDENT.
CO-58	7.503E+00		9.307E+00	1.689E+01	0.000E+00	NOT IDENT.
FE-59	-9.773E+00		2.316E+01	3.625E+01	0.000E+00	NOT IDENT.
ZN-65	-1.670E+00		2.217E+01	3.609E+01	0.000E+00	NOT IDENT.
GE-68	-2.337E+02		3.632E+02	5.553E+02	0.000E+00	NOT IDENT.

AS-73	3.820E+02	4.227E+02	6.966E+02	0.000E+00	NOT IDENT.
AS-74	1.601E+00	1.676E+01	2.889E+01	0.000E+00	NOT IDENT.
SE-75	-4.340E+00	1.114E+01	1.832E+01	0.000E+00	FAIL ABUN
BR-77	4.253E+01	3.325E+02	5.480E+02	0.000E+00	FAIL ABUN
SR-82	-2.033E+01	6.836E+01	1.109E+02	0.000E+00	NOT IDENT.
RB-83	2.927E+00	1.709E+01	2.829E+01	0.000E+00	NOT IDENT.
RB-84	2.938E+00	1.777E+01	3.013E+01	0.000E+00	NOT IDENT.
KR-85	-2.100E+03	2.006E+03	2.967E+03	0.000E+00	NOT IDENT.
SR-85	-9.982E+00	9.536E+00	1.410E+01	0.000E+00	NOT IDENT.
RB-86	-5.569E+01	1.789E+02	2.846E+02	0.000E+00	NOT IDENT.
Y-88	2.673E+00	6.277E+00	1.168E+01	0.000E+00	NOT IDENT.
ZR-88	-1.542E+00	7.140E+00	1.159E+01	0.000E+00	NOT IDENT.
Y-91	1.328E+03	2.756E+03	5.051E+03	0.000E+00	NOT IDENT.
NB-94	7.162E-01	7.390E+00	1.264E+01	0.000E+00	NOT IDENT.
NB-95	-6.854E+00	9.601E+00	1.490E+01	0.000E+00	NOT IDENT.
NB-95M	-1.977E+01	2.659E+01	4.301E+01	0.000E+00	NOT IDENT.
ZR-95	1.749E+01	1.682E+01	3.106E+01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	2.413E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	4.182E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	2.408E+02	5.053E+02	8.886E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.125E+10	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.618E+00	7.782E+00	1.304E+01	0.000E+00	NOT IDENT.
RH-102	2.113E-01	8.185E+00	1.343E+01	0.000E+00	NOT IDENT.
RU-103	-7.330E+00	8.831E+00	1.306E+01	0.000E+00	NOT IDENT.
RH-106	-2.877E+00	6.944E+01	1.179E+02	0.000E+00	NOT IDENT.
RU-106	-2.877E+00	6.944E+01	1.179E+02	0.000E+00	NOT IDENT.
AG-108M	-5.431E+00	1.005E+01	1.585E+01	0.000E+00	NOT IDENT.
AG-110M	1.459E+01	9.813E+00	1.711E+01	0.000E+00	NOT IDENT.
IN-111	-1.717E+01	4.708E+01	7.787E+01	0.000E+00	NOT IDENT.
IN-113M	-1.151E+00	1.042E+01	1.707E+01	0.000E+00	NOT IDENT.
SN-113	-1.151E+00	1.042E+01	1.707E+01	0.000E+00	NOT IDENT.
IN-114M	-1.468E+01	4.299E+01	6.298E+01	0.000E+00	NOT IDENT.
CD-115	-1.926E+02	2.767E+02	4.461E+02	0.000E+00	NOT IDENT.
SN-117M	-3.631E+00	8.782E+00	1.478E+01	0.000E+00	NOT IDENT.
SB-122	-4.472E+01	7.158E+01	1.151E+02	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.426E+05	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.430E-01	6.332E+00	1.089E+01	0.000E+00	NOT IDENT.
I-124	1.152E+01	4.439E+01	7.766E+01	0.000E+00	NOT IDENT.
SB-124	-1.375E+01	1.470E+01	1.771E+01	0.000E+00	NOT IDENT.
SB-125	1.834E+01	2.486E+01	4.333E+01	0.000E+00	NOT IDENT.
TE-125M	1.016E+02	2.286E+03	3.725E+03	0.000E+00	NOT IDENT.
I-126	-9.244E+00	3.279E+01	4.636E+01	0.000E+00	NOT IDENT.
SB-126	1.449E+01	2.302E+01	4.129E+01	0.000E+00	NOT IDENT.
SB-127	-2.786E+01	8.031E+01	1.307E+02	0.000E+00	NOT IDENT.
XE-127	-5.825E+00	9.691E+00	1.596E+01	0.000E+00	NOT IDENT.
I-131	-2.202E+00	1.632E+01	2.682E+01	0.000E+00	NOT IDENT.
TE-132	2.533E+01	3.730E+01	6.552E+01	0.000E+00	NOT IDENT.
BA-133	-4.199E+00	1.067E+01	1.716E+01	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.615E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	4.861E+00	1.057E+01	1.863E+01	0.000E+00	NOT IDENT.
CS-135	2.864E+01	3.848E+01	6.780E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.081E+10	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.290E+00	1.970E+01	3.125E+01	0.000E+00	NOT IDENT.
CE-139	-5.854E+00	7.106E+00	1.167E+01	0.000E+00	NOT IDENT.
BA-140	-6.017E+00	4.509E+01	7.658E+01	0.000E+00	NOT IDENT.
LA-140	-6.624E+00	8.600E+00	1.062E+01	0.000E+00	NOT IDENT.
CE-141	8.722E+00	1.320E+01	2.353E+01	0.000E+00	NOT IDENT.
CE-143	-5.019E+02	7.964E+02	1.265E+03	0.000E+00	NOT IDENT.
CE-144	-3.426E+01	5.499E+01	8.488E+01	0.000E+00	NOT IDENT.
PM-144	2.668E+00	7.689E+00	1.348E+01	0.000E+00	NOT IDENT.
PR-144	1.801E+02	5.191E+02	9.098E+02	0.000E+00	NOT IDENT.
PM-146	1.772E+00	1.233E+01	2.047E+01	0.000E+00	NOT IDENT.
ND-147	2.154E+01	8.765E+01	1.538E+02	0.000E+00	NOT IDENT.
PM-149	-5.889E+02	2.334E+03	3.851E+03	0.000E+00	NOT IDENT.
EU-152	-2.276E+01	2.498E+01	3.859E+01	0.000E+00	FAIL ABUN
GD-153	-6.608E+00	2.192E+01	3.095E+01	0.000E+00	NOT IDENT.
EU-154	-1.569E+01	1.680E+01	2.220E+01	0.000E+00	FAIL ABUN
EU-155	3.154E+01	2.782E+01	4.832E+01	0.000E+00	FAIL ABUN
TB-160	2.529E+00	3.769E+01	6.332E+01	0.000E+00	FAIL ABUN
HO-166M	-3.780E+00	1.360E+01	2.229E+01	0.000E+00	NOT IDENT.
TM-171	-2.184E+03	8.714E+03	1.419E+04	0.000E+00	FAIL ABUN
HF-175	-4.569E-01	8.078E+00	1.340E+01	0.000E+00	FAIL ABUN
LU-176	1.270E+00	5.935E+00	1.010E+01	0.000E+00	FAIL ABUN
LU-177	1.541E+00	1.161E+02	1.981E+02	0.000E+00	NOT IDENT.
LU-177M	1.658E+01	4.735E+01	8.018E+01	0.000E+00	FAIL ABUN
HF-181	1.288E+00	9.958E+00	1.648E+01	0.000E+00	NOT IDENT.
W-181	-3.108E+01	1.173E+02	1.814E+02	0.000E+00	NOT IDENT.
TA-182	-1.881E+01	3.094E+01	4.780E+01	0.000E+00	NOT IDENT.

RE-183	1.608E+01	2.464E+01	4.382E+01	0.000E+00	FAIL ABUN
RE-184	1.694E+01	5.997E+01	1.031E+02	0.000E+00	FAIL ABUN
OS-185	-1.833E+00	9.658E+00	1.612E+01	0.000E+00	FAIL ABUN
RE-188	-1.746E+01	3.597E+01	6.030E+01	0.000E+00	NOT IDENT.
W-188	6.474E+02	1.617E+03	2.791E+03	0.000E+00	NOT IDENT.
IR-192	-9.071E-02	8.150E+00	1.362E+01	0.000E+00	NOT IDENT.
AU-195	-5.137E+00	5.667E+01	9.168E+01	0.000E+00	NOT IDENT.
TL-200	5.106E+02	1.245E+03	2.129E+03	0.000E+00	NOT IDENT.
TL-201	-8.512E+01	3.317E+02	5.625E+02	0.000E+00	NOT IDENT.
TL-202	-5.595E+00	1.348E+01	2.142E+01	0.000E+00	NOT IDENT.
HG-203	-1.204E+00	8.731E+00	1.455E+01	0.000E+00	NOT IDENT.
BI-207	1.246E+01	1.394E+01	2.523E+01	0.000E+00	NOT IDENT.
TL-207	2.864E+01	1.615E+02	2.732E+02	0.000E+00	FAIL ABUN
TL-208	4.543E+00	8.211E+00	1.478E+01	0.000E+00	NOT IDENT.
PO-209	2.984E+02	2.345E+03	3.954E+03	0.000E+00	NOT IDENT.
BI-210	-2.280E+02	1.778E+03	2.946E+03	0.000E+00	NOT IDENT.
PB-210	-2.280E+02	1.778E+03	2.946E+03	0.000E+00	NOT IDENT.
PO-210	-2.280E+02	1.778E+03	2.946E+03	0.000E+00	NOT IDENT.
BI-211	-2.877E+01	5.053E+01	8.059E+01	0.000E+00	NOT IDENT.
PB-211	-6.658E+01	2.408E+02	3.827E+02	0.000E+00	NOT IDENT.
BI-212	3.771E+01	6.407E+01	1.148E+02	0.000E+00	NOT IDENT.
PB-212	1.014E+01	1.416E+01	2.524E+01	0.000E+00	FAIL ABUN
PO-212	1.014E+01	1.416E+01	2.524E+01	0.000E+00	FAIL ABUN
BI-214	-4.614E+00	1.697E+01	2.886E+01	0.000E+00	NOT IDENT.
PB-214	3.032E+00	1.740E+01	2.945E+01	0.000E+00	FAIL ABUN
PO-214	3.032E+00	1.740E+01	2.945E+01	0.000E+00	FAIL ABUN
PO-215	2.864E+01	1.615E+02	2.732E+02	0.000E+00	FAIL ABUN
PO-216	1.014E+01	1.416E+01	2.524E+01	0.000E+00	FAIL ABUN
PO-218	3.032E+00	1.740E+01	2.945E+01	0.000E+00	FAIL ABUN
RN-219	-1.119E+02	1.085E+02	1.619E+02	0.000E+00	NOT IDENT.
RN-220	-7.613E+03	6.626E+03	1.019E+04	0.000E+00	NOT IDENT.
RA-223	2.864E+01	1.615E+02	2.732E+02	0.000E+00	FAIL ABUN
RA-224	-5.905E+01	1.616E+02	2.679E+02	0.000E+00	NOT IDENT.
AC-227	-2.880E+01	9.511E+01	1.574E+02	0.000E+00	NOT IDENT.
PA-227	0.000E+00	4.244E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-2.880E+01	9.515E+01	1.574E+02	0.000E+00	FAIL ABUN
AC-228	-4.674E+01	3.856E+01	5.698E+01	0.000E+00	NOT IDENT.
RA-228	-4.674E+01	3.856E+01	5.698E+01	0.000E+00	NOT IDENT.
TH-228	1.014E+01	1.416E+01	2.524E+01	0.000E+00	FAIL ABUN
TH-229	-1.170E+00	1.190E+02	2.033E+02	0.000E+00	FAIL ABUN
TH-230	-1.589E+03	1.070E+04	5.668E+03	0.000E+00	NOT IDENT.
PA-231	-1.570E+00	3.584E+02	6.023E+02	0.000E+00	NOT IDENT.
TH-231	-1.091E+01	1.551E+02	2.266E+02	0.000E+00	NOT IDENT.
U-231	-8.039E+01	9.255E+01	1.238E+02	0.000E+00	FAIL ABUN
PA-233	-3.603E+00	1.544E+01	2.537E+01	0.000E+00	FAIL ABUN
PA-234	4.506E+01	8.511E+01	1.485E+02	0.000E+00	FAIL ABUN
PA-234M	-6.149E+02	1.403E+03	2.227E+03	0.000E+00	NOT IDENT.
TH-234	-3.456E+02	4.979E+02	7.156E+02	0.000E+00	FAIL ABUN
U-234	1.573E+04	1.577E+05	5.652E+04	0.000E+00	NOT IDENT.
U-235	1.711E+01	5.195E+01	9.105E+01	0.000E+00	FAIL ABUN
NP-236	-7.376E+00	1.898E+01	3.199E+01	0.000E+00	NOT IDENT.
U-238	-3.456E+02	4.979E+02	7.156E+02	0.000E+00	FAIL ABUN
NP-239	-3.656E+00	6.087E+01	8.725E+01	0.000E+00	NOT IDENT.
AM-243	4.988E-01	1.603E+01	2.642E+01	0.000E+00	FAIL ABUN
CM-243	-3.548E+00	2.644E+01	4.268E+01	0.000E+00	NOT IDENT.
AM-246	6.661E+00	3.873E+01	6.501E+01	0.000E+00	NOT IDENT.
CM-247	-2.684E+00	9.232E+00	1.487E+01	0.000E+00	NOT IDENT.
CF-249	-1.824E+00	1.073E+01	1.752E+01	0.000E+00	NOT IDENT.
CF-251	-1.096E+01	3.029E+01	5.092E+01	0.000E+00	NOT IDENT.
ANH-511	-4.560E+00	9.096E+00	1.671E+01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 30-DEC-2009 23:03:43.10

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001368.CNF;1
Sample date       : 23-DEC-2009 00:00:00 Acquisition date : 30-DEC-2009 22:03:13
Sample ID         : G1202001368          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM01                Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:00.67  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 935338                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.48	938	424	1.10	119.74	114	12	2.60E-01	5.5	
2	0	87.95	548	230	1.32	176.66	172	10	1.52E-01	6.7	
3	0	92.79	76	205	1.56	186.35	182	10	2.10E-02	37.3	
4	0	122.13	137	202	0.91	245.01	239	11	3.81E-02	21.8	
5	0	186.06	54	138	1.48	372.86	369	8	1.50E-02	40.2	
6	0	661.54	964	68	1.38	1323.62	1317	15	2.68E-01	3.7	
7	0	1172.83	783	17	1.85	2345.76	2339	14	2.17E-01	3.7	
8	0	1332.02	787	4	1.95	2663.96	2655	20	2.18E-01	3.6	

VAX/VMS Nuclide Identification Report Generated 30-DEC-2009 23:03:45.99

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001368.CNF;1
Sample date       : 23-DEC-2009 00:00:00 Acquisition date : 30-DEC-2009 22:03:13
Sample ID         : G1202001368          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM01                Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:00.67  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 935338                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
CO-57	122.06	137	85.51*	2.336E+00	2.580E+01	2.633E+01	44.21
	136.48	------	10.60	2.365E+00	------ Line Not Found		------
CO-60	1173.22	783	100.00	5.832E-01	5.038E+02	5.052E+02	9.30
	1332.49	787	100.00*	5.259E-01	5.614E+02	5.630E+02	10.48
CD-109	88.03	548	3.72*	1.828E+00	3.028E+03	3.064E+03	15.88
SN-126	64.28	------	9.60	9.142E-01	------ Line Not Found		------
	86.94	548	8.90	1.828E+00	1.266E+03	1.266E+03	43.46
	87.57	548	37.00*	1.828E+00	3.044E+02	3.044E+02	15.88
BA-137M	661.65	964	89.98*	9.302E-01	4.321E+02	4.323E+02	8.94
CS-137	661.65	964	85.12*	9.302E-01	4.568E+02	4.570E+02	8.96
RA-226	186.21	13	3.28*	2.189E+00	6.996E+01	6.996E+01	335.83
TH-232	59.00	938	0.19*	6.972E-01	2.657E+05	2.657E+05	1052.73
NP-237	86.50	548	12.60*	1.828E+00	8.939E+02	8.939E+02	26.04
	95.87	------	2.60	2.024E+00	------ Line Not Found		------
PU-237	59.54	938	3.28*	6.972E-01	1.539E+04	1.738E+04	14.06
AM-241	59.54	938	35.90*	6.972E-01	1.406E+03	1.406E+03	14.46

Flag: "*" = Keyline

Sample ID : G1202001368 Acquisition date : 30-DEC-2009 22:03:13

Total number of lines in spectrum	8	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	8	100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	270.90D	1.02	2.580E+01	2.633E+01	1.164E+01	44.21	
CO-60	5.27Y	1.00	5.614E+02	5.630E+02	0.590E+02	10.48	
CD-109	464.00D	1.01	3.028E+03	3.064E+03	0.487E+03	15.88	
SN-126	1.00E+05Y	1.00	3.044E+02	3.044E+02	0.484E+02	15.88	
BA-137M	30.17Y	1.00	4.321E+02	4.323E+02	0.387E+02	8.94	
CS-137	30.17Y	1.00	4.568E+02	4.570E+02	0.409E+02	8.96	
RA-226	1600.00Y	1.00	6.996E+01	6.996E+01	23.49E+01	335.83	
TH-232	1.41E+10Y	1.00	2.657E+05	2.657E+05	27.97E+05	1052.73	
NP-237	2.14E+06Y	1.00	8.939E+02	8.939E+02	2.328E+02	26.04	
PU-237	45.20D	1.13	1.539E+04	1.738E+04	0.244E+04	14.06	
AM-241	432.20Y	1.00	1.406E+03	1.406E+03	0.203E+03	14.46	
	Total Activity :		2.883E+05	2.903E+05			

Grand Total Activity : 2.883E+05 2.903E+05

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Unidentified Energy Lines
Sample ID : G1202001368 Acquisition date : 30-DEC-2009 22:03:13

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.79	14	205	1.56	186.35	182	10	3.97E-03	****	1.95E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 30-DEC-2009 23:03:50.48

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001368.CNF;1  *
* Acquisition date  : 30-DEC-2009 22:03:13  Detector SN#     :             *
* Detector ID       : GAM01                 Sensitivity      : 5.00000     *
* Geometry          : 2LMB                  Energy tolerance: 1.50000      *
* Elapsed live time: 0 01:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 01:00:00.67          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 23-DEC-2009 00:00:00  Nuclide Library : LIQUID       *
* Sample ID         : G1202001368           Analyst initials: KXG3         *
* Batch Number      : 935338                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 29-JAN-2009 14:58:37.9MS Isotope      :                *
* MSD ID           :                      MSD Isotope      :                *
* LCS ID           : 1032-A               LCS Isotope      :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-57	2.633E+01	1.164E+01	1.095E+01	7.541E-01	2.406
CO-60	5.630E+02	5.902E+01	7.957E+00	6.019E-01	70.754
CD-109	3.064E+03	4.867E+02	3.844E+02	3.270E+01	7.971
SN-126	3.044E+02	4.835E+01	3.845E+01	3.264E+00	7.916
BA-137M	4.323E+02	3.867E+01	1.467E+01	7.285E-01	29.467
CS-137	4.570E+02	4.095E+01	1.551E+01	7.745E-01	29.467
RA-226	6.996E+01	2.349E+02	2.818E+02	2.068E+02	0.248
TH-232	2.657E+05	2.797E+06	2.149E+04	2.262E+05	12.365
NP-237	8.939E+02	2.328E+02	1.058E+02	2.359E+01	8.447
PU-237	1.738E+04	2.445E+03	1.358E+03	1.190E+02	12.798
AM-241	1.406E+03	2.033E+02	1.099E+02	1.031E+01	12.798

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	6.268E+00		8.531E+01	1.377E+02	9.398E+00	0.046

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NA-22	-5.470E+00		6.130E+00	8.036E+00	5.460E-01	-0.681
NA-24	1.301E-02		1.554E-02	Half-Life too short		
AL-26	-7.676E-01		4.921E+00	7.523E+00	4.403E-01	-0.102
K-40	-3.495E+01		6.758E+01	1.144E+02	8.674E+00	-0.306
TI-44	-9.023E-01		1.045E+01	1.674E+01	1.370E+00	-0.054
SC-46	8.083E+00		1.180E+01	2.048E+01	1.301E+00	0.395
V-48	5.730E+00		1.447E+01	2.452E+01	1.529E+00	0.234
CR-51	2.199E+01		7.916E+01	1.323E+02	8.849E+00	0.166
MN-52	-7.701E+00		1.256E+01	1.630E+01	1.201E+00	-0.472
MN-54	-2.929E-01		8.752E+00	1.431E+01	8.612E-01	-0.020
CO-56	1.799E+00		9.708E+00	1.624E+01	9.892E-01	0.111
CO-58	7.503E+00		9.497E+00	1.689E+01	9.967E-01	0.444
FE-59	-9.773E+00		2.363E+01	3.625E+01	2.477E+00	-0.270
ZN-65	-1.670E+00		2.262E+01	3.609E+01	2.089E+00	-0.046
GE-68	-2.337E+02		3.706E+02	5.553E+02	3.294E+01	-0.421
AS-73	3.820E+02		4.313E+02	6.966E+02	6.313E+01	0.548
AS-74	1.601E+00		1.711E+01	2.889E+01	1.568E+00	0.055
SE-75	-4.340E+00		1.136E+01	1.832E+01	1.102E+00	-0.237
BR-77	4.253E+01		3.393E+02	5.480E+02	3.165E+01	0.078
SR-82	-2.033E+01		6.975E+01	1.109E+02	6.279E+00	-0.183
RB-83	2.927E+00		1.744E+01	2.829E+01	1.634E+00	0.103
RB-84	2.938E+00		1.813E+01	3.013E+01	1.900E+00	0.097
KR-85	-2.100E+03		2.047E+03	2.967E+03	1.720E+02	-0.708
SR-85	-9.982E+00		9.730E+00	1.410E+01	8.176E-01	-0.708
RB-86	-5.569E+01		1.826E+02	2.846E+02	1.690E+01	-0.196
Y-88	2.673E+00		6.406E+00	1.168E+01	6.671E-01	0.229
ZR-88	-1.542E+00		7.286E+00	1.159E+01	6.852E-01	-0.133
Y-91	1.328E+03		2.812E+03	5.051E+03	2.974E+02	0.263
NB-94	7.162E-01		7.540E+00	1.264E+01	6.587E-01	0.057
NB-95	-6.854E+00		9.797E+00	1.490E+01	8.338E-01	-0.460
NB-95M	-1.977E+01		2.714E+01	4.301E+01	3.254E+00	-0.460
ZR-95	1.749E+01		1.716E+01	3.106E+01	2.118E+00	0.563
NB-97	4.829E-02		1.231E-02	Half-Life too short		
ZR-97	-6.081E-01		2.134E-01	Half-Life too short		
MO-99	2.408E+02		5.156E+02	8.886E+02	1.211E+02	0.271
TC-99M	-1.594E+04		1.084E+04	Half-Life too short		
RH-101	-2.618E+00		7.941E+00	1.304E+01	7.397E-01	-0.201
RH-102	2.113E-01		8.352E+00	1.343E+01	7.911E-01	0.016
RU-103	-7.330E+00		9.011E+00	1.306E+01	1.654E+00	-0.561
RH-106	-2.877E+00		7.086E+01	1.179E+02	1.353E+01	-0.024
RU-106	-2.877E+00		7.086E+01	1.179E+02	6.203E+00	-0.024
AG-108M	-5.431E+00		1.025E+01	1.585E+01	1.018E+00	-0.343
AG-110M	1.459E+01		1.001E+01	1.711E+01	9.285E-01	0.853
IN-111	-1.717E+01		4.804E+01	7.787E+01	4.584E+00	-0.220
IN-113M	-1.151E+00		1.063E+01	1.707E+01	1.074E+00	-0.067
SN-113	-1.151E+00		1.063E+01	1.707E+01	1.074E+00	-0.067
IN-114M	-1.468E+01		4.386E+01	6.298E+01	3.552E+00	-0.233
CD-115	-1.926E+02		2.823E+02	4.461E+02	2.565E+01	-0.432

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
SN-117M	-3.631E+00		8.961E+00	1.478E+01	8.470E-01	-0.246
SB-122	-4.472E+01		7.304E+01	1.151E+02	6.443E+00	-0.389
I-123	-3.220E-03		7.273E-02	Half-Life too short		
TE-123M	-1.430E-01		6.462E+00	1.089E+01	6.319E-01	-0.013
I-124	1.152E+01		4.530E+01	7.766E+01	4.183E+00	0.148
SB-124	-1.375E+01		1.500E+01	1.771E+01	1.222E+00	-0.777
SB-125	1.834E+01		2.537E+01	4.333E+01	2.675E+00	0.423
TE-125M	1.016E+02		2.333E+03	3.725E+03	3.382E+02	0.027
I-126	-9.244E+00		3.346E+01	4.636E+01	2.315E+00	-0.199
SB-126	1.449E+01		2.349E+01	4.129E+01	2.197E+00	0.351
SB-127	-2.786E+01		8.195E+01	1.307E+02	8.760E+00	-0.213
XE-127	-5.825E+00		9.889E+00	1.596E+01	9.088E-01	-0.365
I-131	-2.202E+00		1.666E+01	2.682E+01	1.771E+00	-0.082
TE-132	2.533E+01		3.806E+01	6.552E+01	8.664E+00	0.387
BA-133	-4.199E+00		1.089E+01	1.716E+01	2.003E+00	-0.245
I-133	-2.275E-03		2.354E-03	Half-Life too short		
CS-134	4.861E+00		1.078E+01	1.863E+01	1.094E+00	0.261
CS-135	2.864E+01		3.926E+01	6.780E+01	5.278E+00	0.422
I-135	4.011E+03		5.515E+03	Half-Life too short		
CS-136	-6.290E+00		2.010E+01	3.125E+01	2.046E+00	-0.201
CE-139	-5.854E+00		7.251E+00	1.167E+01	6.499E-01	-0.501
BA-140	-6.017E+00		4.601E+01	7.658E+01	2.489E+01	-0.079
LA-140	-6.624E+00		8.776E+00	1.062E+01	7.279E-01	-0.624
CE-141	8.722E+00		1.346E+01	2.353E+01	1.479E+00	0.371
CE-143	-5.019E+02		8.127E+02	1.265E+03	2.601E+02	-0.397
CE-144	-3.426E+01		5.611E+01	8.488E+01	1.228E+01	-0.404
PM-144	2.668E+00		7.846E+00	1.348E+01	6.978E-01	0.198
PR-144	1.801E+02		5.297E+02	9.098E+02	4.709E+01	0.198
PM-146	1.772E+00		1.258E+01	2.047E+01	1.782E+00	0.087
ND-147	2.154E+01		8.944E+01	1.538E+02	2.075E+01	0.140
PM-149	-5.889E+02		2.382E+03	3.851E+03	5.485E+02	-0.153
EU-152	-2.276E+01		2.549E+01	3.859E+01	2.604E+00	-0.590
GD-153	-6.608E+00		2.236E+01	3.095E+01	2.364E+00	-0.214
EU-154	-1.569E+01		1.715E+01	2.220E+01	2.216E+00	-0.707
EU-155	3.154E+01		2.838E+01	4.832E+01	3.555E+00	0.653
TB-160	2.529E+00		3.846E+01	6.332E+01	3.984E+00	0.040
HO-166M	-3.780E+00		1.388E+01	2.229E+01	1.175E+00	-0.170
TM-171	-2.184E+03		8.892E+03	1.419E+04	1.178E+03	-0.154
HF-175	-4.569E-01		8.243E+00	1.340E+01	8.088E-01	-0.034
LU-176	1.270E+00		6.056E+00	1.010E+01	6.103E-01	0.126
LU-177	1.541E+00		1.185E+02	1.981E+02	1.133E+01	0.008
LU-177M	1.658E+01		4.831E+01	8.018E+01	4.755E+00	0.207
HF-181	1.288E+00		1.016E+01	1.648E+01	9.688E-01	0.078
W-181	-3.108E+01		1.197E+02	1.814E+02	1.520E+01	-0.171
TA-182	-1.881E+01		3.157E+01	4.780E+01	2.914E+00	-0.394
RE-183	1.608E+01		2.514E+01	4.382E+01	2.473E+00	0.367
RE-184	1.694E+01		6.120E+01	1.031E+02	6.096E+00	0.164
OS-185	-1.833E+00		9.855E+00	1.612E+01	8.199E-01	-0.114

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RE-188	-1.746E+01		3.671E+01	6.030E+01	3.508E+00	-0.290
W-188	6.474E+02		1.650E+03	2.791E+03	1.681E+02	0.232
IR-192	-9.071E-02		8.316E+00	1.362E+01	8.276E-01	-0.007
AU-195	-5.137E+00		5.783E+01	9.168E+01	6.919E+00	-0.056
TL-200	5.106E+02		1.270E+03	2.129E+03	1.276E+02	0.240
TL-201	-8.512E+01		3.385E+02	5.625E+02	3.130E+01	-0.151
TL-202	-5.595E+00		1.376E+01	2.142E+01	1.271E+00	-0.261
HG-203	-1.204E+00		8.909E+00	1.455E+01	9.231E-01	-0.083
BI-207	1.246E+01		1.422E+01	2.523E+01	1.510E+00	0.494
TL-207	2.864E+01		1.648E+02	2.732E+02	4.536E+01	0.105
TL-208	4.543E+00		8.378E+00	1.478E+01	9.501E-01	0.307
PO-209	2.984E+02		2.393E+03	3.954E+03	2.530E+02	0.075
BI-210	-2.280E+02		1.815E+03	2.946E+03	2.531E+02	-0.077
PB-210	-2.280E+02		1.815E+03	2.946E+03	2.531E+02	-0.077
PO-210	-2.280E+02		1.815E+03	2.946E+03	2.248E+02	-0.077
BI-211	-2.877E+01		5.156E+01	8.059E+01	5.349E+00	-0.357
PB-211	-6.658E+01		2.457E+02	3.827E+02	2.386E+02	-0.174
BI-212	3.771E+01		6.538E+01	1.148E+02	8.485E+00	0.328
PB-212	1.014E+01		1.445E+01	2.524E+01	1.862E+00	0.402
PO-212	1.014E+01		1.445E+01	2.524E+01	1.862E+00	0.402
BI-214	-4.614E+00		1.732E+01	2.886E+01	2.149E+00	-0.160
PB-214	3.032E+00		1.776E+01	2.945E+01	2.486E+00	0.103
PO-214	3.032E+00		1.776E+01	2.945E+01	2.486E+00	0.103
PO-215	2.864E+01		1.648E+02	2.732E+02	4.536E+01	0.105
PO-216	1.014E+01		1.445E+01	2.524E+01	1.862E+00	0.402
PO-218	3.032E+00		1.776E+01	2.945E+01	2.486E+00	0.103
RN-219	-1.119E+02		1.108E+02	1.619E+02	2.211E+01	-0.691
RN-220	-7.613E+03		6.761E+03	1.019E+04	5.770E+02	-0.747
RA-223	2.864E+01		1.648E+02	2.732E+02	4.536E+01	0.105
RA-224	-5.905E+01		1.649E+02	2.679E+02	1.572E+01	-0.220
AC-227	-2.880E+01		9.705E+01	1.574E+02	2.206E+01	-0.183
PA-227	-1.000E+35		2.165E+35	Half-Life too short		
TH-227	-2.880E+01		9.709E+01	1.574E+02	2.667E+01	-0.183
AC-228	-4.674E+01		3.935E+01	5.698E+01	5.492E+00	-0.820
RA-228	-4.674E+01		3.935E+01	5.698E+01	5.492E+00	-0.820
TH-228	1.014E+01		1.445E+01	2.524E+01	1.862E+00	0.402
TH-229	-1.170E+00		1.214E+02	2.033E+02	1.149E+01	-0.006
TH-230	-1.589E+03		1.091E+04	5.668E+03	3.677E+04	-0.280
PA-231	-1.570E+00		3.657E+02	6.023E+02	8.354E+01	-0.003
TH-231	-1.091E+01		1.583E+02	2.266E+02	4.014E+01	-0.048
U-231	-8.039E+01		9.443E+01	1.238E+02	9.591E+00	-0.650
PA-233	-3.603E+00		1.575E+01	2.537E+01	1.622E+00	-0.142
PA-234	4.506E+01		8.684E+01	1.485E+02	2.646E+01	0.304
PA-234M	-6.149E+02		1.432E+03	2.227E+03	1.772E+02	-0.276
TH-234	-3.456E+02		5.081E+02	7.156E+02	1.283E+02	-0.483
U-234	1.573E+04		1.609E+05	5.652E+04	5.652E+05	0.278
U-235	1.711E+01		5.301E+01	9.105E+01	1.495E+01	0.188
NP-236	-7.376E+00		1.937E+01	3.199E+01	1.820E+00	-0.231

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
U-238	-3.456E+02		5.081E+02	7.156E+02	1.283E+02	-0.483
NP-239	-3.656E+00		6.212E+01	8.725E+01	6.048E+00	-0.042
AM-243	4.988E-01		1.635E+01	2.642E+01	2.153E+00	0.019
CM-243	-3.548E+00		2.698E+01	4.268E+01	3.114E+00	-0.083
AM-246	6.661E+00		3.953E+01	6.501E+01	3.853E+00	0.102
CM-247	-2.684E+00		9.421E+00	1.487E+01	8.807E-01	-0.181
CF-249	-1.824E+00		1.095E+01	1.752E+01	1.038E+00	-0.104
CF-251	-1.096E+01		3.091E+01	5.092E+01	2.845E+00	-0.215
ANH-511	-4.560E+00		9.281E+00	1.671E+01	9.701E-01	-0.273

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202001368           *
* Acquisition date : 30-DEC-2009 22:03:13 Detector SN#    :                 *
* Detector ID      : GAM01                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:00.67     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 23-DEC-2009 00:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G1202001368          Analyst initials: KXG3            *
* Batch Number     : 935338               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 29-JAN-2009 14:58:37 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
CO-57	2.633E+01	1.141E+01	5.476E+00	5.820E+00
CO-60	5.630E+02	5.783E+01	3.981E+00	2.951E+01
CD-109	3.064E+03	4.770E+02	1.923E+02	2.433E+02
SN-126	3.044E+02	4.739E+01	1.924E+01	2.418E+01
BA-137M	4.323E+02	3.790E+01	7.341E+00	1.933E+01
CS-137	4.570E+02	4.013E+01	7.760E+00	2.047E+01
RA-226	6.996E+01	2.302E+02	1.410E+02	1.175E+02
TH-232	2.657E+05	2.741E+06	1.075E+04	1.399E+06
NP-237	8.939E+02	2.281E+02	5.295E+01	1.164E+02
PU-237	1.738E+04	2.396E+03	6.796E+02	1.222E+03
AM-241	1.406E+03	1.992E+02	5.497E+01	1.016E+02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU
BE-7	6.268E+00	8.361E+01	6.887E+01	4.266E+01 NOT IDENT.
NA-22	-5.470E+00	6.007E+00	4.020E+00	3.065E+00 NOT IDENT.
NA-24	1.301E+04	3.045E+04	0.000E+00	1.554E+04 SHORT HLIF
AL-26	-7.676E-01	4.823E+00	3.764E+00	2.461E+00 NOT IDENT.
K-40	-3.495E+01	6.623E+01	5.723E+01	3.379E+01 NOT IDENT.
TI-44	-9.023E-01	1.024E+01	8.376E+00	5.226E+00 NOT IDENT.
SC-46	8.083E+00	1.156E+01	1.025E+01	5.899E+00 NOT IDENT.
V-48	5.730E+00	1.418E+01	1.227E+01	7.235E+00 NOT IDENT.
CR-51	2.199E+01	7.757E+01	6.621E+01	3.958E+01 NOT IDENT.
MN-52	-7.701E+00	1.231E+01	8.154E+00	6.282E+00 NOT IDENT.
MN-54	-2.929E-01	8.577E+00	7.158E+00	4.376E+00 NOT IDENT.
CO-56	1.799E+00	9.514E+00	8.124E+00	4.854E+00 NOT IDENT.
CO-58	7.503E+00	9.307E+00	8.448E+00	4.748E+00 NOT IDENT.
FE-59	-9.773E+00	2.316E+01	1.813E+01	1.181E+01 NOT IDENT.
ZN-65	-1.670E+00	2.217E+01	1.805E+01	1.131E+01 NOT IDENT.
GE-68	-2.337E+02	3.632E+02	2.778E+02	1.853E+02 NOT IDENT.

AS-73	3.820E+02	4.227E+02	3.485E+02	2.156E+02	NOT IDENT.
AS-74	1.601E+00	1.676E+01	1.446E+01	8.553E+00	NOT IDENT.
SE-75	-4.340E+00	1.114E+01	9.167E+00	5.682E+00	FAIL ABUN
BR-77	4.253E+01	3.325E+02	2.742E+02	1.696E+02	FAIL ABUN
SR-82	-2.033E+01	6.836E+01	5.548E+01	3.488E+01	NOT IDENT.
RB-83	2.927E+00	1.709E+01	1.415E+01	8.721E+00	NOT IDENT.
RB-84	2.938E+00	1.777E+01	1.507E+01	9.067E+00	NOT IDENT.
KR-85	-2.100E+03	2.006E+03	1.485E+03	1.024E+03	NOT IDENT.
SR-85	-9.982E+00	9.536E+00	7.055E+00	4.865E+00	NOT IDENT.
RB-86	-5.569E+01	1.789E+02	1.424E+02	9.129E+01	NOT IDENT.
Y-88	2.673E+00	6.277E+00	5.843E+00	3.203E+00	NOT IDENT.
ZR-88	-1.542E+00	7.140E+00	5.798E+00	3.643E+00	NOT IDENT.
Y-91	1.328E+03	2.756E+03	2.527E+03	1.406E+03	NOT IDENT.
NB-94	7.162E-01	7.390E+00	6.321E+00	3.770E+00	NOT IDENT.
NB-95	-6.854E+00	9.601E+00	7.452E+00	4.899E+00	NOT IDENT.
NB-95M	-1.977E+01	2.659E+01	2.152E+01	1.357E+01	NOT IDENT.
ZR-95	1.749E+01	1.682E+01	1.554E+01	8.581E+00	NOT IDENT.
NB-97	4.829E+04	2.413E+04	0.000E+00	1.231E+04	SHORT HLIF
ZR-97	-6.081E+05	4.182E+05	0.000E+00	2.134E+05	SHORT HLIF
MO-99	2.408E+02	5.053E+02	4.445E+02	2.578E+02	NOT IDENT.
TC-99M	-1.594E+10	2.125E+10	0.000E+00	1.084E+10	SHORT HLIF
RH-101	-2.618E+00	7.782E+00	6.523E+00	3.970E+00	NOT IDENT.
RH-102	2.113E-01	8.185E+00	6.717E+00	4.176E+00	NOT IDENT.
RU-103	-7.330E+00	8.831E+00	6.535E+00	4.506E+00	NOT IDENT.
RH-106	-2.877E+00	6.944E+01	5.897E+01	3.543E+01	NOT IDENT.
RU-106	-2.877E+00	6.944E+01	5.897E+01	3.543E+01	NOT IDENT.
AG-108M	-5.431E+00	1.005E+01	7.931E+00	5.126E+00	NOT IDENT.
AG-110M	1.459E+01	9.813E+00	8.559E+00	5.007E+00	NOT IDENT.
IN-111	-1.717E+01	4.708E+01	3.896E+01	2.402E+01	NOT IDENT.
IN-113M	-1.151E+00	1.042E+01	8.542E+00	5.316E+00	NOT IDENT.
SN-113	-1.151E+00	1.042E+01	8.542E+00	5.316E+00	NOT IDENT.
IN-114M	-1.468E+01	4.299E+01	3.151E+01	2.193E+01	NOT IDENT.
CD-115	-1.926E+02	2.767E+02	2.232E+02	1.412E+02	NOT IDENT.
SN-117M	-3.631E+00	8.782E+00	7.392E+00	4.481E+00	NOT IDENT.
SB-122	-4.472E+01	7.158E+01	5.758E+01	3.652E+01	NOT IDENT.
I-123	-3.220E+03	1.426E+05	0.000E+00	7.273E+04	SHORT HLIF
TE-123M	-1.430E-01	6.332E+00	5.451E+00	3.231E+00	NOT IDENT.
I-124	1.152E+01	4.439E+01	3.885E+01	2.265E+01	NOT IDENT.
SB-124	-1.375E+01	1.470E+01	8.858E+00	7.499E+00	NOT IDENT.
SB-125	1.834E+01	2.486E+01	2.168E+01	1.268E+01	NOT IDENT.
TE-125M	1.016E+02	2.286E+03	1.863E+03	1.166E+03	NOT IDENT.
I-126	-9.244E+00	3.279E+01	2.319E+01	1.673E+01	NOT IDENT.
SB-126	1.449E+01	2.302E+01	2.065E+01	1.174E+01	NOT IDENT.
SB-127	-2.786E+01	8.031E+01	6.541E+01	4.097E+01	NOT IDENT.
XE-127	-5.825E+00	9.691E+00	7.983E+00	4.945E+00	NOT IDENT.
I-131	-2.202E+00	1.632E+01	1.342E+01	8.328E+00	NOT IDENT.
TE-132	2.533E+01	3.730E+01	3.278E+01	1.903E+01	NOT IDENT.
BA-133	-4.199E+00	1.067E+01	8.585E+00	5.444E+00	NOT IDENT.
I-133	-2.275E+03	4.615E+03	0.000E+00	2.354E+03	SHORT HLIF
CS-134	4.861E+00	1.057E+01	9.320E+00	5.392E+00	NOT IDENT.
CS-135	2.864E+01	3.848E+01	3.392E+01	1.963E+01	NOT IDENT.
I-135	4.011E+09	1.081E+10	0.000E+00	5.515E+09	SHORT HLIF
CS-136	-6.290E+00	1.970E+01	1.564E+01	1.005E+01	NOT IDENT.
CE-139	-5.854E+00	7.106E+00	5.841E+00	3.625E+00	NOT IDENT.
BA-140	-6.017E+00	4.509E+01	3.831E+01	2.301E+01	NOT IDENT.
LA-140	-6.624E+00	8.600E+00	5.312E+00	4.388E+00	NOT IDENT.
CE-141	8.722E+00	1.320E+01	1.177E+01	6.732E+00	NOT IDENT.
CE-143	-5.019E+02	7.964E+02	6.330E+02	4.063E+02	NOT IDENT.
CE-144	-3.426E+01	5.499E+01	4.246E+01	2.806E+01	NOT IDENT.
PM-144	2.668E+00	7.689E+00	6.743E+00	3.923E+00	NOT IDENT.
PR-144	1.801E+02	5.191E+02	4.552E+02	2.648E+02	NOT IDENT.
PM-146	1.772E+00	1.233E+01	1.024E+01	6.290E+00	NOT IDENT.
ND-147	2.154E+01	8.765E+01	7.693E+01	4.472E+01	NOT IDENT.
PM-149	-5.889E+02	2.334E+03	1.927E+03	1.191E+03	NOT IDENT.
EU-152	-2.276E+01	2.498E+01	1.931E+01	1.274E+01	FAIL ABUN
GD-153	-6.608E+00	2.192E+01	1.548E+01	1.118E+01	NOT IDENT.
EU-154	-1.569E+01	1.680E+01	1.111E+01	8.573E+00	FAIL ABUN
EU-155	3.154E+01	2.782E+01	2.417E+01	1.419E+01	FAIL ABUN
TB-160	2.529E+00	3.769E+01	3.168E+01	1.923E+01	FAIL ABUN
HO-166M	-3.780E+00	1.360E+01	1.115E+01	6.938E+00	NOT IDENT.
TM-171	-2.184E+03	8.714E+03	7.098E+03	4.446E+03	FAIL ABUN
HF-175	-4.569E-01	8.078E+00	6.702E+00	4.121E+00	FAIL ABUN
LU-176	1.270E+00	5.935E+00	5.053E+00	3.028E+00	FAIL ABUN
LU-177	1.541E+00	1.161E+02	9.911E+01	5.925E+01	NOT IDENT.
LU-177M	1.658E+01	4.735E+01	4.011E+01	2.416E+01	FAIL ABUN
HF-181	1.288E+00	9.958E+00	8.244E+00	5.080E+00	NOT IDENT.
W-181	-3.108E+01	1.173E+02	9.077E+01	5.984E+01	NOT IDENT.
TA-182	-1.881E+01	3.094E+01	2.392E+01	1.579E+01	NOT IDENT.

RE-183	1.608E+01	2.464E+01	2.192E+01	1.257E+01	FAIL ABUN
RE-184	1.694E+01	5.997E+01	5.156E+01	3.060E+01	FAIL ABUN
OS-185	-1.833E+00	9.658E+00	8.064E+00	4.928E+00	FAIL ABUN
RE-188	-1.746E+01	3.597E+01	3.017E+01	1.835E+01	NOT IDENT.
W-188	6.474E+02	1.617E+03	1.396E+03	8.250E+02	NOT IDENT.
IR-192	-9.071E-02	8.150E+00	6.814E+00	4.158E+00	NOT IDENT.
AU-195	-5.137E+00	5.667E+01	4.587E+01	2.891E+01	NOT IDENT.
TL-200	5.106E+02	1.245E+03	1.065E+03	6.352E+02	NOT IDENT.
TL-201	-8.512E+01	3.317E+02	2.814E+02	1.692E+02	NOT IDENT.
TL-202	-5.595E+00	1.348E+01	1.072E+01	6.879E+00	NOT IDENT.
HG-203	-1.204E+00	8.731E+00	7.280E+00	4.455E+00	NOT IDENT.
BI-207	1.246E+01	1.394E+01	1.262E+01	7.112E+00	NOT IDENT.
TL-207	2.864E+01	1.615E+02	1.367E+02	8.238E+01	FAIL ABUN
TL-208	4.543E+00	8.211E+00	7.396E+00	4.189E+00	NOT IDENT.
PO-209	2.984E+02	2.345E+03	1.978E+03	1.196E+03	NOT IDENT.
BI-210	-2.280E+02	1.778E+03	1.474E+03	9.073E+02	NOT IDENT.
PB-210	-2.280E+02	1.778E+03	1.474E+03	9.073E+02	NOT IDENT.
PO-210	-2.280E+02	1.778E+03	1.474E+03	9.073E+02	NOT IDENT.
BI-211	-2.877E+01	5.053E+01	4.032E+01	2.578E+01	NOT IDENT.
PB-211	-6.658E+01	2.408E+02	1.914E+02	1.228E+02	NOT IDENT.
BI-212	3.771E+01	6.407E+01	5.744E+01	3.269E+01	NOT IDENT.
PB-212	1.014E+01	1.416E+01	1.263E+01	7.224E+00	FAIL ABUN
PO-212	1.014E+01	1.416E+01	1.263E+01	7.224E+00	FAIL ABUN
BI-214	-4.614E+00	1.697E+01	1.444E+01	8.660E+00	NOT IDENT.
PB-214	3.032E+00	1.740E+01	1.473E+01	8.879E+00	FAIL ABUN
PO-214	3.032E+00	1.740E+01	1.473E+01	8.879E+00	FAIL ABUN
PO-215	2.864E+01	1.615E+02	1.367E+02	8.238E+01	FAIL ABUN
PO-216	1.014E+01	1.416E+01	1.263E+01	7.224E+00	FAIL ABUN
PO-218	3.032E+00	1.740E+01	1.473E+01	8.879E+00	FAIL ABUN
RN-219	-1.119E+02	1.085E+02	8.100E+01	5.538E+01	NOT IDENT.
RN-220	-7.613E+03	6.626E+03	5.097E+03	3.381E+03	NOT IDENT.
RA-223	2.864E+01	1.615E+02	1.367E+02	8.238E+01	FAIL ABUN
RA-224	-5.905E+01	1.616E+02	1.340E+02	8.244E+01	NOT IDENT.
AC-227	-2.880E+01	9.511E+01	7.874E+01	4.852E+01	NOT IDENT.
PA-227	-1.000E+41	4.244E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-2.880E+01	9.515E+01	7.874E+01	4.854E+01	FAIL ABUN
AC-228	-4.674E+01	3.856E+01	2.851E+01	1.968E+01	NOT IDENT.
RA-228	-4.674E+01	3.856E+01	2.851E+01	1.968E+01	NOT IDENT.
TH-228	1.014E+01	1.416E+01	1.263E+01	7.224E+00	FAIL ABUN
TH-229	-1.170E+00	1.190E+02	1.017E+02	6.070E+01	FAIL ABUN
TH-230	-1.589E+03	1.070E+04	2.836E+03	5.457E+03	NOT IDENT.
PA-231	-1.570E+00	3.584E+02	3.014E+02	1.828E+02	NOT IDENT.
TH-231	-1.091E+01	1.551E+02	1.134E+02	7.914E+01	NOT IDENT.
U-231	-8.039E+01	9.255E+01	6.192E+01	4.722E+01	FAIL ABUN
PA-233	-3.603E+00	1.544E+01	1.269E+01	7.875E+00	FAIL ABUN
PA-234	4.506E+01	8.511E+01	7.427E+01	4.342E+01	FAIL ABUN
PA-234M	-6.149E+02	1.403E+03	1.114E+03	7.158E+02	NOT IDENT.
TH-234	-3.456E+02	4.979E+02	3.580E+02	2.540E+02	FAIL ABUN
U-234	1.573E+04	1.577E+05	2.828E+04	8.045E+04	NOT IDENT.
U-235	1.711E+01	5.195E+01	4.555E+01	2.650E+01	FAIL ABUN
NP-236	-7.376E+00	1.898E+01	1.600E+01	9.683E+00	NOT IDENT.
U-238	-3.456E+02	4.979E+02	3.580E+02	2.540E+02	FAIL ABUN
NP-239	-3.656E+00	6.087E+01	4.365E+01	3.106E+01	NOT IDENT.
AM-243	4.988E-01	1.603E+01	1.322E+01	8.176E+00	FAIL ABUN
CM-243	-3.548E+00	2.644E+01	2.135E+01	1.349E+01	NOT IDENT.
AM-246	6.661E+00	3.873E+01	3.252E+01	1.976E+01	NOT IDENT.
CM-247	-2.684E+00	9.232E+00	7.439E+00	4.710E+00	NOT IDENT.
CF-249	-1.824E+00	1.073E+01	8.767E+00	5.474E+00	NOT IDENT.
CF-251	-1.096E+01	3.029E+01	2.547E+01	1.545E+01	NOT IDENT.
ANH-511	-4.560E+00	9.096E+00	8.359E+00	4.641E+00	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	205.8505
46.50	205.8505
46.50	205.8505
48.70	214.0022
49.72	236.1015
51.35	251.3613
52.39	279.8685
52.97	260.4715
53.15	260.5634
53.20	260.5889
53.44	244.2996
54.07	274.5502
56.28	286.6782
56.28	286.6803
57.37	295.1169
57.53	284.2134
57.53	284.2148
57.60	284.2507
57.98	249.3536
57.98	249.3536
59.00	249.8245
59.32	249.9709
59.32	249.9709
59.40	250.0079
59.54	250.0714
59.54	250.0714
59.72	250.1537
60.01	250.2863
61.10	210.2128
61.14	210.2280
61.30	194.4772
63.00	180.7936
63.29	187.2329
63.29	187.2329
63.58	187.3286
64.28	147.8214
64.62	0.0000
65.12	182.1016
65.20	182.1269
65.20	182.1269
66.05	195.5739
66.72	179.8358
66.83	179.8694
66.91	179.8943
67.20	159.7481
67.20	159.7481
67.67	181.1922
67.75	181.2164
67.85	170.5859
68.90	174.0912
68.90	174.0912
69.30	160.3134
69.67	161.4820
70.82	177.8602
70.82	177.8602
70.83	177.8627
72.80	203.1581
72.80	203.1581
72.87	203.1812
72.87	203.1812
74.67	185.4392
74.81	188.7155
74.81	188.7155
74.81	188.7155
74.81	188.7155
74.81	188.7155
74.81	188.7155

74.81	188.7155
74.97	188.7635
74.97	188.7635
75.28	182.3819
75.70	172.7832
77.11	185.0708
77.11	185.0708
77.11	185.0708
77.11	185.0708
77.11	185.0708
77.11	185.0708
77.11	185.0708
78.38	197.3648
79.62	202.0875
79.80	196.7084
79.80	196.7084
80.11	200.0633
80.18	200.0848
80.30	200.1213
80.30	200.1213
80.57	190.4111
81.00	187.2685
81.07	194.9109
81.07	194.9109
81.07	194.9109
82.60	201.6898
83.37	163.8962
83.78	183.6765
83.78	183.6765
83.78	183.6765
84.21	196.9208
84.21	196.9208
84.90	198.7640
85.43	190.6984
86.29	186.0002
86.50	186.0571
86.54	227.2327
86.59	227.2496
86.72	227.2922
86.79	227.3149
86.94	227.3643
87.30	219.2412
87.30	219.2412
87.30	219.2412
87.30	219.2412
87.30	219.2412
87.30	219.2412
87.30	219.2412
87.57	219.3264
87.88	219.4238
88.03	219.4715
88.36	219.5750
88.47	219.6095
89.36	148.7968
89.95	148.9217
91.11	149.1655
92.29	114.5492
92.38	114.5634
92.38	114.5634
93.35	114.7182
94.00	109.8286
94.67	106.5981
94.67	106.5986
94.90	116.6291
94.90	116.6291
94.90	116.6291
95.87	150.1508
95.87	150.1508
96.73	128.6128
97.43	135.4213
98.44	148.6630
98.44	148.6630
98.88	131.7759
99.55	115.1274
99.55	115.1274
99.86	109.5841
100.00	109.6045
100.10	116.3309

103.18	158.3553
103.76	152.8547
105.00	129.4592
105.31	118.2489
108.00	176.2863
109.28	149.4057
110.05	0.0000
111.00	154.2631
111.00	154.2631
111.76	148.7316
112.95	164.8677
115.19	168.7387
115.19	168.7387
115.19	168.7387
116.30	186.6610
117.00	166.2510
117.00	166.2510
117.66	173.2431
121.11	150.4140
121.62	150.5040
121.78	150.5319
122.06	150.5812
122.32	150.6266
122.32	150.6266
122.32	150.6266
123.07	151.9093
127.23	142.9235
129.76	135.6788
131.20	134.7363
133.02	171.0873
133.54	171.1860
135.34	178.5249
136.00	175.1511
136.25	161.1825
136.48	161.2232
140.51	176.0025
140.51	0.0000
142.18	171.0258
142.65	159.6441
143.76	147.4692
144.24	149.3101
144.24	149.3101
144.24	149.3101
145.22	145.9259
145.44	145.9586
147.16	171.0322
152.43	145.2278
152.70	149.7224
153.22	148.9102
154.21	142.8101
154.21	142.8101
154.21	142.8101
155.03	139.3541
156.02	128.7620
158.56	140.7397
159.00	0.0000
159.00	135.4198
160.31	149.0634
161.27	132.1253
162.32	134.9590
162.64	139.5014
163.35	147.7029
163.89	132.4606
165.85	167.0169
167.43	153.7058
171.28	132.4863
171.86	146.1777
172.10	146.2097
176.55	141.3415
176.60	144.9963
181.06	136.2464
184.41	135.1868
185.71	126.8839
186.00	134.2741
186.21	134.2986
190.27	135.8864
192.34	130.3975
193.63	132.3954

197.04	141.1397
198.01	144.0448
198.60	132.9584
200.40	129.4365
201.83	123.9985
202.84	145.5656
205.31	134.6451
208.36	129.3603
208.81	144.4114
209.75	137.0154
209.75	137.0154
210.97	131.5149
215.65	158.4164
216.55	158.5305
218.09	163.4493
222.10	151.6479
223.80	161.3412
226.40	140.7475
227.00	143.6673
227.08	143.6765
227.20	143.6892
228.16	122.8458
228.18	122.8478
228.18	122.8478
231.56	122.2119
235.69	142.7102
236.00	149.4492
236.00	149.4492
238.63	112.3092
238.63	112.3092
238.63	112.3092
238.63	112.3092
239.00	121.9422
240.98	143.2775
241.98	136.6481
241.98	136.6481
241.98	136.6481
244.69	141.7434
245.39	135.0632
247.94	126.6174
248.90	121.8693
249.79	124.8526
252.40	120.2399
252.85	124.1592
252.85	124.1592
254.15	0.0000
256.20	117.6513
256.20	117.6513
260.50	108.2579
260.90	105.3616
262.80	124.0641
264.65	128.1376
268.24	101.0009
268.79	116.7339
269.46	143.2866
269.46	143.2866
269.46	143.2866
271.23	107.1056
273.65	125.9824
276.40	117.3440
277.35	94.7256
277.60	84.8728
277.60	84.8728
278.00	76.9979
278.60	90.8545
279.20	102.7479
279.53	118.5809
280.46	114.6990
281.68	98.9594
283.67	90.1738
284.30	87.2373
285.00	89.2612
285.90	101.2234
286.10	101.2358
286.10	101.2358
287.40	96.3562
288.45	0.0000
290.67	88.5994

290.80	88.6075
291.72	103.6033
293.26	104.7052
293.70	105.7331
295.21	96.8505
295.21	96.8505
295.21	96.8505
295.96	85.9095
296.50	87.9369
297.23	96.9763
298.57	93.0582
299.80	97.1376
299.80	97.1376
300.09	103.1650
300.09	103.1650
300.09	103.1650
300.09	103.1650
300.12	103.1666
301.29	108.2554
302.84	95.3189
303.76	96.3794
303.91	86.3477
304.40	90.3914
304.40	90.3914
304.84	92.4268
306.84	83.4901
308.46	84.5819
311.98	87.7965
316.51	92.0914
318.01	89.1373
319.02	91.2209
319.41	96.3119
320.08	86.2088
323.87	86.4085
323.87	86.4085
323.87	86.4085
325.23	86.4799
328.77	70.3508
329.70	84.6730
329.70	84.6730
330.00	93.8713
333.44	89.9739
334.20	85.9226
334.20	85.9226
334.30	85.9277
338.28	100.4868
338.28	100.4868
338.28	100.4868
338.32	100.4883
338.32	100.4883
340.50	88.2964
340.57	88.3004
343.40	82.2766
344.27	101.8687
345.85	63.8552
350.59	90.8816
351.07	84.7076
351.92	73.3802
351.92	73.3802
351.92	73.3802
355.39	0.0000
356.01	84.9479
364.48	86.3954
366.43	85.4471
367.43	83.4094
367.94	83.4338
369.80	83.5193
374.96	84.8043
383.85	76.7984
387.95	88.5656
388.63	91.7631
391.69	71.8391
391.69	71.8391
392.90	74.0001
398.62	62.5597
400.65	80.6711
401.10	82.8143
401.81	92.4030

402.60	76.5033
404.84	79.7836
410.95	73.6336
411.60	82.1979
413.65	83.3535
414.70	85.5359
415.30	94.1190
415.76	96.2801
417.63	0.0000
418.52	80.3455
423.70	75.1857
427.08	82.8453
427.89	68.8857
432.53	104.6462
433.00	116.5413
433.93	101.4800
439.47	93.0967
439.56	93.1006
439.89	90.9509
443.98	92.2178
444.90	86.8311
445.03	86.8372
445.03	86.8372
445.03	86.8372
453.90	78.4885
463.38	82.1274
468.07	76.8210
473.00	65.9985
475.06	74.8699
475.35	80.3862
476.78	84.8462
477.59	76.0594
477.96	76.0731
482.03	62.9604
484.57	65.2452
487.03	60.8897
490.36	55.4382
492.35	52.1593
497.08	62.2788
507.63	0.0000
510.53	0.0000
510.84	55.9467
511.00	55.9513
511.85	64.9274
511.85	64.9274
513.99	96.3616
513.99	96.3616
520.41	57.3050
520.65	57.3112
527.90	62.2247
528.96	0.0000
529.64	66.7843
529.87	0.0000
531.02	54.1816
537.32	63.3811
543.00	56.2723
546.56	0.0000
549.76	70.9941
552.65	46.4752
555.20	50.1727
563.23	49.4240
563.90	52.1837
568.70	44.9482
569.32	39.4538
569.50	39.4569
569.67	37.6247
573.80	63.4258
574.00	63.4308
574.64	61.6070
578.91	52.5023
579.30	53.4319
583.14	36.9063
585.48	44.3285
591.81	47.2173
592.07	47.2223
593.00	49.0923
595.88	51.9299
600.56	51.0966

602.52	0.0000
602.71	44.6309
602.71	44.6309
603.60	50.2269
604.41	54.8948
604.70	57.6921
609.31	52.2020
610.33	55.9526
612.46	59.7328
614.37	50.4365
618.01	48.6357
621.84	41.2135
621.84	41.2135
631.29	33.8414
633.02	47.9731
633.10	47.9744
634.78	56.4756
635.90	54.6171
636.97	59.3486
645.85	42.5325
646.12	47.2632
656.30	50.6029
657.75	37.9717
657.90	0.0000
661.65	49.4343
661.65	49.4343
664.57	41.2386
666.33	47.6135
666.33	47.6135
675.00	40.1205
677.61	47.8064
685.20	39.3073
692.80	42.2974
695.00	40.4055
696.49	39.4645
696.49	39.4645
697.00	37.5461
697.49	45.2559
698.33	42.3790
698.50	41.4179
699.00	39.4985
702.63	39.5486
706.10	37.6651
706.58	0.0000
706.67	38.6387
709.31	37.7070
711.68	41.6080
713.82	32.9234
717.42	49.4461
720.50	38.8223
721.93	43.6970
722.20	42.7292
722.78	40.7952
722.78	40.7952
722.89	40.7972
722.95	46.6254
723.30	44.6883
724.18	41.7864
727.18	34.0472
733.00	45.8101
735.90	41.9523
739.58	46.8879
742.81	40.0941
744.21	57.7223
747.13	48.9648
751.79	51.0021
752.31	51.0110
753.82	47.1105
755.35	42.2252
756.15	37.3246
756.87	40.2813
763.13	34.4565
763.93	35.4507
765.79	49.2664
766.42	46.3207
766.84	49.2834
776.49	36.5845
778.00	35.6124

778.57	34.6300
778.89	34.6334
783.80	33.6970
785.46	30.7404
792.07	38.7543
795.84	34.8214
796.30	31.8414
798.80	39.8330
801.93	46.8508
805.60	44.9088
810.29	39.9775
810.76	34.9855
815.85	56.0656
817.79	43.0766
818.51	48.0961
819.60	39.0914
826.30	46.2033
828.27	35.1760
831.60	44.2664
831.96	44.2707
834.83	39.2742
836.80	0.0000
846.75	40.4277
848.13	40.4443
856.28	0.0000
856.80	33.4544
860.37	42.6234
867.32	42.7116
867.82	40.6836
871.10	45.8141
873.19	55.0112
874.81	47.9030
875.33	0.0000
876.40	44.8658
879.36	48.9879
880.27	51.0425
880.51	46.9625
881.50	50.0396
883.24	60.2820
884.67	58.2636
889.25	50.1532
896.60	57.4396
898.02	46.1755
899.00	44.1359
903.28	60.6334
911.07	60.7703
911.07	60.7703
919.63	61.9512
920.93	45.4470
925.00	59.9768
925.24	63.0835
926.50	57.9332
935.52	56.0065
937.48	43.5842
944.10	59.2600
946.00	40.5672
949.00	60.3817
962.29	59.5578
964.01	65.8578
966.15	59.6204
968.20	63.8400
969.11	59.6691
969.11	59.6691
977.42	46.1646
980.50	49.3534
983.50	37.8334
989.30	37.8923
996.32	44.2907
1001.03	57.0164
1001.68	48.5785
1004.76	47.5609
1021.30	0.0000
1024.50	0.0000
1034.80	41.5460
1036.00	46.8875
1037.82	41.5784
1038.57	38.3871
1038.76	0.0000

1045.16	43.7927
1046.59	44.8793
1048.07	41.6889
1050.47	41.7136
1050.47	41.7136
1062.04	42.9102
1063.62	31.1226
1076.63	50.6053
1077.35	53.8452
1078.86	38.7844
1085.78	45.3264
1093.90	42.1745
1099.22	48.7266
1112.02	30.4145
1112.84	31.5078
1115.52	40.2249
1120.29	33.7413
1120.51	33.7443
1121.28	28.3067
1124.00	0.0000
1129.67	21.8184
1131.51	0.0000
1147.95	0.0000
1167.94	17.3011
1173.22	27.5586
1175.09	17.3302
1177.93	23.6478
1189.05	20.2848
1204.90	14.8066
1205.75	15.7355
1213.00	14.8346
1221.42	23.2239
1230.97	16.7571
1235.34	9.3188
1236.41	0.0000
1238.25	10.2574
1246.25	15.8808
1260.41	0.0000
1271.85	12.2139
1274.45	14.1010
1274.54	14.1016
1291.56	9.4360
1298.22	0.0000
1312.09	7.5827
1325.50	8.1477
1325.50	8.1477
1332.49	5.7119
1333.61	5.7131
1360.21	4.7878
1362.66	0.0000
1365.15	10.5444
1368.21	3.8368
1368.53	0.0000
1376.25	8.6470
1384.27	11.5488
1394.10	9.6436
1395.20	8.6810
1407.95	2.9012
1434.06	6.8055
1436.60	8.7543
1457.56	0.0000
1460.81	8.7968
1489.15	3.9316
1509.49	3.9471
1596.49	8.0251
1620.62	5.0380
1678.03	0.0000
1691.02	11.2247
1691.02	11.2247
1706.46	0.0000
1750.46	0.0000
1764.49	8.2682
1770.23	7.2418
1771.40	4.1390
1791.20	0.0000
1808.65	4.1650
1836.01	4.1841

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202001368

Total Uranium Activity	-1.0203E+03	ug/g
Total Uranium Counting Unc.	1.4815E+03	ug/g
Total Uranium Tpu	7.5589E-04	ug/g
Total Uranium Mda	1.0653E+03	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                             *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 935338                    SAMPLE ID  : G1202001368      *
*   ANALYST       : KXG3                      DETECTOR   : GAM01            *
*   SAMPLE DATE   : 23-DEC-2009 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE: 30-DEC-2009 22:03:13.30    SAMPLE ALQT:    2.000 LITER   *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 2.099E+03
        GROSS GAMMA ERROR  (pCi/LITER )   : 3.377E+02
        GROSS GAMMA MDA    (pCi/LITER )   : 2.272E+02
        GROSS GAMMA DLC    (pCi/LITER )   : 1.096E+02
```

Radiochemistry Batch Checklist, Rev 9

Batch# 935330 Product: GAB Date: 12/30/09

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.	✓		
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.			N/A
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: V. Culpepper 12/30/09

Secondary Review Performed By: [signature]

LANL
1/14

Gross Alpha Beta Que Sheet

12/21/2009 09:22:17

Batch #:935330 Analyst:DXB5 First Client DueDate01/14/2010 Internal Due Date01/03/2010

Alpha Spike Isotope: Th-230 Spike Code: 1242-B Vol: 0.1 Balance #: 51204863
Beta Spike Isotope: Sr-90 Spike Code: 1067-C Vol: 0.1 Pipette #: 4497063
Alpha LCS Isotope: Th-230 LCS Code: 1242-13 Vol: 0.1 Prep Date: 12/24/09
Beta LCS Isotope: Sr-90 LCS Code: 1067-C Vol: 0.1 Initials: SRS

Analytical Scale # C31514
Witness: BW 12/24/09

10% HNO3: 1231701
Conc HNO3: 1215254.11
Conc HCl:
Conc HF:
Conc Boric:

Sample ID	Client Description	Type	Hazard Code	RDL Alpha/Beta	Client	Matrix	Bkr#	Wet/Dry Aliquot (mL or g)	Carrier or Det#	Initial Wt (g)	Final Wt (g)	Net Wt (mg)
242934001-1	CAPA-10-6749	SAMPLE		3 pCi/L	LANL010	GROUND WATER	1	150	~~*59~~ 10C	7.5661	7.6148	48.7
243014001-1	CAPA-10-6784	SAMPLE		3 pCi/L	LANL010	GROUND WATER	2	150	~~*5C~~ 12C	7.5380	7.5538	15.8
243104002-1	CAPA-10-6818	SAMPLE		3 pCi/L	LANL010	GROUND WATER	3	150	~~*6A~~ 7A	7.5579	7.5752	17.3
243255001-1	CAPA-10-6093	SAMPLE		3 pCi/L	LANL010	GROUND WATER	4	150	~~*6B~~ 5B	7.5326	7.5545	21.9
243255004-1	CAPA-10-6753	SAMPLE		3 pCi/L	LANL010	GROUND WATER	5	150	6D	7.4934	7.5111	~~*17.1~~ 17.7
243255006-1	CAPA-10-6767	SAMPLE		3 pCi/L	LANL010	GROUND WATER	6	150	7A	7.5472	7.5652	18.0
243285001-1	CAPA-10-6793	SAMPLE		3 pCi/L	LANL010	GROUND WATER	7	150	7B	7.5325	7.5486	16.1
243286002-1	CAPA-10-6390	SAMPLE		3 pCi/L	LANL010	GROUND WATER	8	150	7D	7.5137	7.5575	43.8
243286003-1	CAPA-10-6746	SAMPLE		3 pCi/L	LANL010	GROUND WATER	9	150	~~*5A~~ 8C	7.5997	7.6452	45.5
1202001335-1	MB	MB		3 pCi/L	QC ACCOUNT	GROUND WATER	10	1000 ~~150~~*	8B	7.5551	7.5545	0.0
1202001336-1	DUP CAPA-10-6093(243255001)	DUP		3 pCi/L	QC ACCOUNT	GROUND WATER	11	150	8C	7.5753	7.5958	20.5
1202001337-1	MS CAPA-10-6093(243255001)	MS		3 pCi/L	QC ACCOUNT	GROUND WATER	12	50	9A	7.5732	7.5795	6.3
1202001338-1	MSD CAPA-10-6093(243255001)	MSD		3 pCi/L	QC ACCOUNT	GROUND WATER	13	50	9C	7.5747	7.5803	5.6
1202001339-1	LCS	LCS		3 pCi/L	QC ACCOUNT	GROUND WATER	14	1000 ~~150~~*	10A	7.5695	7.5694	0.0

th. by ✓ wtv ✓

* vc 12/30/09

Have the planchets been flamed? Yes No

Data Reviewed By: V. Calpropper 12/30/09

Gross Alpha Beta Que Sheet

12/21/2009 09:22:17

Batch #:935330 Analyst:DXB5 First Client DueDate 01/14/2010 Internal Due Date01/03/2010

Alpha Spike Isotope: Th-230 Spike Code: 1242-B Vol: 0.1 Balance #: 51204863
Beta Spike Isotope: Sr-90 Spike Code: 1067-C Vol: 0.1 Pipette #: 4497063
Alpha LCS Isotope: Th-230 LCS Code: 1242-B Vol: 0.1 Prep Date: 12/24/09
Beta LCS Isotope: Sr-90 LCS Code: 1067-C Vol: 0.1 Initials: JRS

Analytical Scale #: C31514
Witness: BW 12/24/09

10% HNO3: 123170
Conc HNO3: 121525
Conc HCl:
Conc HF: NA
Conc Boric:

Sample ID	Client Description	Type	Hazard Code	RDL Alpha/Beta	Client	Matrix	Bkr#	Wet/Dry Aliquot (mL or g)	Carrier or Det#	Initial Wt (g)	Final Wt (g)	Net Wt (mg)
242934001-1	CAPA-10-6749	SAMPLE		3 pCi/L	LANL010	GROUND WATER	1	150	1C	7.5661	7.6516	85.5
243014001-1	CAPA-10-6784	SAMPLE		3 pCi/L	LANL010	GROUND WATER	2	150	1D	7.5380	7.5652	27.2
243104002-1	CAPA-10-6818	SAMPLE		3 pCi/L	LANL010	GROUND WATER	3	150 ~~2B~~	1D	7.5579	7.5915	33.6
243255001-1	CAPA-10-6093	SAMPLE		3 pCi/L	LANL010	GROUND WATER	4	150	2C	7.5326	7.5711	38.5
243255004-1	CAPA-10-6753	SAMPLE		3 pCi/L	LANL010	GROUND WATER	5	150	2D	7.4934	7.5241	30.7
243255006-1	CAPA-10-6767	SAMPLE		3 pCi/L	LANL010	GROUND WATER	6	150	3A	7.5477	7.5769	29.2
243285001-1	CAPA-10-6793	SAMPLE		3 pCi/L	LANL010	GROUND WATER	7	150	3B	7.5325	7.5638	31.3
243286002-1	CAPA-10-6390	SAMPLE		3 pCi/L	LANL010	GROUND WATER	8	150	3C	7.5137	7.6010	87.3
243286003-1	CAPA-10-6746	SAMPLE		3 pCi/L	LANL010	GROUND WATER	9	150	3D	7.5997	7.6892	89.5
1202001335-1	MB	MB		3 pCi/L	QC ACCOUNT	GROUND WATER	10	1000 ~~150~~ *	4A	7.5551	7.5542	0.0
1202001336-1	DUP CAPA-10-6093(243255001)	DUP		3 pCi/L	QC ACCOUNT	GROUND WATER	11	150	4C	7.5753	7.6133	38.0
1202001337-1	MS CAPA-10-6093(243255001)	MS		3 pCi/L	QC ACCOUNT	GROUND WATER	12	50	4D	7.5732	7.5841	* ~~10.9~~ 10.9
1202001338-1	MSD CAPA-10-6093(243255001)	MSD		3 pCi/L	QC ACCOUNT	GROUND WATER	13	1000 50	4A	7.5747	7.5858	11.1
1202001339-1	LCS	LCS		3 pCi/L	QC ACCOUNT	GROUND WATER	14	~~150~~ *	4D	7.5695	7.5691	0.0

Daily ✓

* VC 12/30/09

Weights ✓

Have the planchets been flamed? Yes / No

V. Calhoun 12/30/09

Data Reviewed By: Rhya Brantley

Blank Correction Report

Batch ID 935330

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202001336	DUP	ALPHA	0.150 L	0.268	0.599	2.52	-.05413333	pCi/L	NO
		BETA	0.150 L	3.57	1.09	2.92	.347333333	pCi/L	NO
1202001339	LCS	ALPHA	1.00 L	12.9	1.50	0.243	-.00812	pCi/L	NO
		BETA	1.00 L	38.1	3.26	0.561	.0521	pCi/L	NO
1202001335	MB	ALPHA	1.00 L	-0.00812	0.0663	0.316	-.00812	pCi/L	NO
		BETA	1.00 L	0.0521	0.0986	0.347	.0521	pCi/L	YES
1202001337	MS	ALPHA	0.050 L	241	28.4	7.04	-.1624	pCi/L	NO
		BETA	0.050 L	845	73.9	9.85	1.042	pCi/L	NO
1202001338	MSD	ALPHA	0.050 L	202	24.3	6.78	-.1624	pCi/L	NO
		BETA	0.050 L	856	73.1	10.8	1.042	pCi/L	NO
242934001	CAPA-10-6749	ALPHA	0.150 L	1.24	0.845	2.78	-.05413333	pCi/L	NO
		BETA	0.150 L	7.28	1.20	2.03	.347333333	pCi/L	NO
243014001	CAPA-10-6784	ALPHA	0.150 L	0.376	0.672	2.74	-.05413333	pCi/L	NO
		BETA	0.150 L	1.30	0.739	2.36	.347333333	pCi/L	YES
243104002	CAPA-10-6818	ALPHA	0.150 L	-0.124	0.587	2.70	-.05413333	pCi/L	NO
		BETA	0.150 L	0.438	0.660	2.37	.347333333	pCi/L	YES
243255001	CAPA-10-6093	ALPHA	0.150 L	0.103	0.667	2.85	-.05413333	pCi/L	NO
		BETA	0.150 L	4.74	1.31	3.62	.347333333	pCi/L	NO
243255004	CAPA-10-6753	ALPHA	0.150 L	0.581	0.795	2.90	-.05413333	pCi/L	NO
		BETA	0.150 L	3.88	1.01	2.55	.347333333	pCi/L	NO
243255006	CAPA-10-6767	ALPHA	0.150 L	0.613	0.734	2.71	-.05413333	pCi/L	NO
		BETA	0.150 L	2.28	0.959	2.92	.347333333	pCi/L	NO
243285001	CAPA-10-6793	ALPHA	0.150 L	-0.342	0.452	2.45	-.05413333	pCi/L	YES
		BETA	0.150 L	3.55	1.13	3.24	.347333333	pCi/L	NO
243286002	CAPA-10-6390	ALPHA	0.150 L	3.57	1.37	3.43	-.05413333	pCi/L	NO
		BETA	0.150 L	12.9	1.85	3.32	.347333333	pCi/L	NO
243286003	CAPA-10-6746	ALPHA	0.150 L	3.00	1.20	2.98	-.05413333	pCi/L	NO
		BETA	0.150 L	13.1	1.86	3.27	.347333333	pCi/L	NO

Gross Alpha Liquid

Filename : ALPHA.XLS
File type : Excel
Version # : 1.2.6

Batch : 935330
Analyst : DXB5
Prep Date : 12/24/2009

Method Uncertainty : 0.0829
Geometry: 2 inch Planchett

Spike S/N : 1242-B
Spike Exp Date : 12/2/2010
Spike Activity (dpm/ml): 279.79
Spike Volume Added: 0.10

LCS S/N : 1242-B
LCS Exp Date : 12/2/2010
LCS Activity (dpm/ml): 279.79
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Procedure Code : GFCGANBL
Parmname : Alpha
Required MDC : 3 pCi/L

Sample Characteristics						Count Raw Data				
Pos.	Sample ID	Sample Aliquot L	Sample Residue Wt. (mg)	Sample Aliquot StDev. L	Sample Date/Time	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Count Start Date/Time
1	242934001.2	0.1500	48.7	1.4035E-05	12/11/2009 12:00	10C	70	8	80	12/29/2009 16:14
2	243014001.2	0.1500	15.8	1.4035E-05	12/14/2009 12:00	12C	60	6	71	12/29/2009 16:15
3	243104002.2	0.1500	17.3	1.4035E-05	12/15/2009 12:00	7A	60	5	47	12/29/2009 16:15
4	243255001.2	0.1500	21.9	1.4035E-05	12/16/2009 12:00	5B	60	6	79	12/29/2009 16:16
5	243255004.2	0.1500	17.7	1.4035E-05	12/16/2009 12:00	6D	60	9	125	12/29/2009 12:24
6	243255006.2	0.1500	18.0	1.4035E-05	12/16/2009 12:00	7A	60	8	52	12/29/2009 12:24
7	243285001.2	0.1500	16.1	1.4035E-05	12/17/2009 12:00	7B	60	3	35	12/29/2009 12:24
8	243286002.2	0.1500	43.8	1.4035E-05	12/17/2009 12:00	7D	60	18	115	12/29/2009 12:24
9	243286003.2	0.1500	45.5	1.4035E-05	12/17/2009 12:00	8C	60	14	146	12/29/2009 16:16
10	1202001335.2	1.0000	0.0	2.0399E-05	12/24/2009 0:00	8B	60	4	75	12/29/2009 12:25
11	1202001336.2	0.1500	20.5	1.4035E-05	12/16/2009 12:00	8C	60	5	60	12/29/2009 12:25
12	1202001337.2	0.0500	6.3	7.8337E-06	12/16/2009 12:00	9A	60	359	2852	12/29/2009 12:25
13	1202001338.2	0.0500	5.6	7.8337E-06	12/16/2009 12:00	9C	60	294	2636	12/29/2009 12:25
14	1202001339.2	1.0000	0.0	2.0399E-05	12/24/2009 0:00	10A	60	409	2637	12/29/2009 12:25

Calibration Data

Pos.	Counted on	Calibration Date	Calibration Due Date	Calibration Source Used	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Beta X-Talk	Weekly Bkg CPM	Weekly Bkg Count Time (min.)
1	PIC	7/31/2009	7/31/2010	Th230	0.1500	0.06392	0.00038	0.052	500
2	PIC	7/31/2009	7/31/2010	Th230	0.1908	0.06392	0.00007	0.076	500
3	PIC	7/31/2009	7/31/2010	Th230	0.2025	0.06392	0.00725	0.086	500
4	PIC	7/31/2009	7/31/2010	Th230	0.1935	0.06392	0.00406	0.088	500
5	PIC	7/31/2009	7/31/2010	Th230	0.1973	0.06392	0.00663	0.098	500
6	PIC	7/31/2009	7/31/2010	Th230	0.2012	0.06392	0.00725	0.086	500
7	PIC	7/31/2009	7/31/2010	Th230	0.2074	0.06392	0.00616	0.070	500
8	PIC	7/31/2009	7/31/2010	Th230	0.1644	0.06392	0.00543	0.094	500
9	PIC	7/31/2009	7/31/2010	Th230	0.1649	0.06392	0.00187	0.064	500
10	PIC	7/31/2009	7/31/2010	Th230	0.2408	0.06392	0.00061	0.070	500
11	PIC	7/31/2009	7/31/2010	Th230	0.1954	0.06392	0.00187	0.064	500
12	PIC	7/31/2009	7/31/2010	Th230	0.2206	0.06392	0.00009	0.074	500
13	PIC	7/31/2009	7/31/2010	Th230	0.2152	0.06392	0.00012	0.062	500
14	PIC	7/31/2009	7/31/2010	Th230	0.2369	0.06392	0.00038	0.030	500

Notes:
* - Reference date for Spike Activity (dpm/ml) is the batch Prep Date

* - RPD changed to 0% due to activity below MDC for 1202001336.2

Alpha Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	1.3577	0.9586	3	2.7753	**1.2386**	0.6721	0.0623	0.0417	0.8345	0.8446		SAMPLE				
2	1.3811	0.9751	3	2.7370	**0.3765**	1.7781	0.0240	0.0426	0.6711	0.6723		SAMPLE				
3	1.3846	0.9776	3	2.6967	**-0.1238**	14.8157	-0.0027	0.0395	0.5860	0.5866		SAMPLE				
4	1.4658	1.0349	3	2.8459	**0.1032**	3.5778	0.0120	0.0429	0.6663	0.6669		SAMPLE				
5	1.5171	1.0711	3	2.9033	**0.5814**	1.0006	0.0520	0.0519	0.7904	0.7948		SAMPLE				
6	1.3935	0.9839	3	2.7141	**0.6128**	1.0357	0.0473	0.0489	0.7304	0.7341		SAMPLE				
7	1.2195	0.8610	3	2.4459	**-0.3416**	1.5612	-0.0200	0.0312	0.4517	0.4524		SAMPLE				
8	1.7828	1.2586	3	3.4306	**3.5726**	0.3554	0.2060	0.0720	1.3156	1.3733		SAMPLE				
9	1.4662	1.0351	3	2.9606	**3.0002**	0.3797	0.1693	0.0634	1.1539	1.1981		SAMPLE				
10	0.1576	0.1113	3	0.3161	**-8.123E-03**	10.6115	-0.0033	0.0354	0.0662	0.0663		MB				
11	1.2376	0.8738	3	2.5159	**0.2684**	2.0155	0.0193	0.0389	0.5985	0.5993	243255001.2	DUP	0.0%	0.0652		
12	3.5362	2.4966	3	7.0350	**241.1300**	0.0833	5.9093	0.3160	12.9049	28.3667	243255001.2	MS			252.0649	95.7%
13	3.3182	2.3427	3	6.7784	**202.3077**	0.0871	4.8380	0.2860	11.9721	24.3481	243255001.2	MSD	17.5%	0.3682	252.0649	80.3%
14	0.1049	0.0740	3	0.2431	**12.8749**	0.0810	6.7867	0.3372	0.6412	1.4955		LCS			12.8032	102.2%

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
242934001	10C	70	8	80	12/29/2009 16:14	12/29/2009 17:24	PIC
243014001	12C	60	6	71	12/29/2009 16:15	12/29/2009 17:15	PIC
243104002	7A	60	5	47	12/29/2009 16:15	12/29/2009 17:15	PIC
243255001	5B	60	6	79	12/29/2009 16:16	12/29/2009 17:16	PIC
243255004	6D	60	9	125	12/29/2009 12:24	12/29/2009 13:24	PIC
243255006	7A	60	8	52	12/29/2009 12:24	12/29/2009 13:24	PIC
243285001	7B	60	3	35	12/29/2009 12:24	12/29/2009 13:24	PIC
243286002	7D	60	18	115	12/29/2009 12:24	12/29/2009 13:24	PIC
243286003	8C	60	14	146	12/29/2009 16:16	12/29/2009 17:16	PIC
1202001335	8B	60	4	75	12/29/2009 12:25	12/29/2009 13:25	PIC
1202001336	8C	60	5	60	12/29/2009 12:25	12/29/2009 13:25	PIC
1202001337	9A	60	359	2852	12/29/2009 12:25	12/29/2009 13:25	PIC
1202001338	9C	60	294	2636	12/29/2009 12:25	12/29/2009 13:25	PIC
1202001339	10A	60	409	2637	12/29/2009 12:25	12/29/2009 13:25	PIC

Gross Beta Liquid

Filename : BETA.XLS
File type : Excel
Version # : 1.2.6

Batch : 935330
Analyst : DXB5
Prep Date : 12/24/2009

Method Uncertainty : 0.0821
Geometry: 2 inch Planchett

Spike S/N : 1067-C
Spike Exp Date : 6/17/2010
Spike Activity (dpm/ml): 428.76
Spike Volume Added: 0.10

LCS S/N : 1067-C
LCS Exp Date : 6/17/2010
LCS Activity (dpm/ml): 428.76
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Procedure Code : GFCGANBL
Parmname : Beta
Required MDC : 3 pCi/L

Sample Characteristics						Count Raw Data				
Pos.	Sample ID	Sample Aliquot L	Sample Residue Wt. (mg)	Sample Aliquot StDev. L	Sample Date/Time	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Count Start Date/Time
1	242934001.1	0.1500	85.5	1.4035E-05	12/11/2009 12:00	11C	60	7	87	12/28/2009 10:23
2	243014001.1	0.1500	27.2	1.4035E-05	12/14/2009 12:00	11D	60	8	39	12/28/2009 10:23
3	243104002.1	0.1500	33.6	1.4035E-05	12/15/2009 12:00	11D	60	4	31	12/28/2009 15:55
4	243255001.1	0.1500	38.5	1.4035E-05	12/16/2009 12:00	12C	60	9	110	12/28/2009 10:23
5	243255004.1	0.1500	30.7	1.4035E-05	12/16/2009 12:00	12D	60	13	66	12/28/2009 10:23
6	243255006.1	0.1500	29.2	1.4035E-05	12/16/2009 12:00	13A	60	12	64	12/28/2009 10:25
7	243285001.1	0.1500	31.3	1.4035E-05	12/17/2009 12:00	13B	60	20	92	12/28/2009 10:24
8	243286002.1	0.1500	87.3	1.4035E-05	12/17/2009 12:00	13C	60	20	187	12/28/2009 10:25
9	243286003.1	0.1500	89.5	1.4035E-05	12/17/2009 12:00	13D	60	14	176	12/28/2009 10:25
10	1202001335.1	1.0000	0	2.0399E-05	12/24/2009 0:00	14A	60	14	37	12/28/2009 10:24
11	1202001336.1	0.1500	38	1.4035E-05	12/16/2009 12:00	14C	60	20	78	12/28/2009 10:24
12	1202001337.1	0.0500	10.9	7.8337E-06	12/16/2009 12:00	14D	60	268	2703	12/28/2009 10:24
13	1202001338.1	0.0500	11.1	7.8337E-06	12/16/2009 12:00	4A	60	326	2631	12/28/2009 12:00
14	1202001339.1	1.0000	0	2.0399E-05	12/24/2009 0:00	4D	60	451	2459	12/28/2009 12:00

Calibration Data								Weekly Bkg	
Pos.	Counted on	Calibration Date	Calibration Due Date	Calibration Source Used	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Alpha X-Talk	CPM	Count Time (min.)
1	PIC	7/31/2009	7/31/2010	Sr90	0.4561	0.00816	0.12371	0.330	500
2	PIC	7/31/2009	7/31/2010	Sr90	0.4453	0.00816	0.08662	0.446	500
3	PIC	7/31/2009	7/31/2010	Sr90	0.4446	0.00816	0.08831	0.446	500
4	PIC	7/31/2009	7/31/2010	Sr90	0.4373	0.00816	0.12416	1.124	500
5	PIC	7/31/2009	7/31/2010	Sr90	0.4368	0.00816	0.11820	0.510	500
6	PIC	7/31/2009	7/31/2010	Sr90	0.4433	0.00816	0.07316	0.716	500
7	PIC	7/31/2009	7/31/2010	Sr90	0.4562	0.00816	0.07308	0.970	500
8	PIC	7/31/2009	7/31/2010	Sr90	0.4670	0.00816	0.09888	1.074	500
9	PIC	7/31/2009	7/31/2010	Sr90	0.4499	0.00816	0.08035	0.958	500
10	PIC	7/31/2009	7/31/2010	Sr90	0.4872	0.00816	0.16430	0.522	500
11	PIC	7/31/2009	7/31/2010	Sr90	0.4413	0.00816	0.19161	0.712	500
12	PIC	7/31/2009	7/31/2010	Sr90	0.4553	0.00816	0.30536	0.992	500
13	PIC	7/31/2009	7/31/2010	Sr90	0.4462	0.00744	0.05407	1.154	500
14	PIC	7/31/2009	7/31/2010	Sr90	0.4656	0.00816	0.03459	1.392	500

Notes:
* - Reference date for Spike Activity (dpm/ml) is the batch Prep Date

Beta Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	1.2040	0.8501	3	2.0293	**7.2792**	0.1409	1.1200	0.1576	1.0374	1.2027		SAMPLE				
2	1.4339	1.0123	3	2.3619	**1.2980**	0.5309	0.2040	0.1083	0.7303	0.7391		SAMPLE				
3	1.4360	1.0138	3	2.3653	**0.4375**	1.3795	0.0707	0.0975	0.6584	0.6596		SAMPLE				
4	2.3175	1.6361	3	3.6156	**4.7428**	0.2555	0.7093	0.1811	1.2437	1.3070		SAMPLE				
5	1.5629	1.1034	3	2.5505	**3.6799**	0.2359	0.5900	0.1391	0.9564	1.0132		SAMPLE				
6	1.8247	1.2883	3	2.9152	**2.2763**	0.3953	0.3507	0.1386	0.9389	0.9591		SAMPLE				
7	2.0640	1.4572	3	3.2436	**3.5482**	0.2945	0.5633	0.1658	1.0916	1.1337		SAMPLE				
8	2.1215	1.4978	3	3.3171	**12.9236**	0.1142	2.0427	0.2326	1.4956	1.8470		SAMPLE				
9	2.0799	1.4684	3	3.2706	**13.0609**	0.1144	1.9753	0.2254	1.5046	1.8567		SAMPLE				
10	0.2127	0.1501	3	0.3465	**0.0521**	1.1240	0.0947	0.1064	0.0984	0.0986		MB				
11	1.8280	1.2906	3	2.9215	**3.5669**	0.2586	0.5880	0.1520	1.0341	1.0856	243255001.1	DUP	28.3%	0.2457		
12	6.2736	4.4292	3	9.8477	**844.7692**	0.0213	44.0580	0.8677	17.1678	73.9444	243255001.1	MS			772.5445	108.7%
13	6.9047	4.8748	3	10.7590	**856.1279**	0.0214	42.6960	0.8562	17.2880	73.1377	243255001.1	MSD	1.3%	0.0386	772.5445	110.2%
14	0.3634	0.2566	3	0.5615	**38.0548**	0.0225	39.5913	0.8282	0.8013	3.2604		LCS			38.6272	98.5%

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
242934001	11C	60	7	87	12/28/2009 10:23	12/28/2009 11:23	PIC
243014001	11D	60	8	39	12/28/2009 10:23	12/28/2009 11:23	PIC
243104002	11D	60	4	31	12/28/2009 15:55	12/28/2009 16:55	PIC
243255001	12C	60	9	110	12/28/2009 10:23	12/28/2009 11:23	PIC
243255004	12D	60	13	66	12/28/2009 10:23	12/28/2009 11:23	PIC
243255006	13A	60	12	64	12/28/2009 10:25	12/28/2009 11:25	PIC
243285001	13B	60	20	92	12/28/2009 10:24	12/28/2009 11:24	PIC
243286002	13C	60	20	187	12/28/2009 10:25	12/28/2009 11:25	PIC
243286003	13D	60	14	176	12/28/2009 10:25	12/28/2009 11:25	PIC
1202001335	14A	60	14	37	12/28/2009 10:24	12/28/2009 11:24	PIC
1202001336	14C	60	20	78	12/28/2009 10:24	12/28/2009 11:24	PIC
1202001337	14D	60	268	2703	12/28/2009 10:24	12/28/2009 11:24	PIC
1202001338	4A	60	326	2631	12/28/2009 12:00	12/28/2009 13:00	PIC
1202001339	4D	60	451	2459	12/28/2009 12:00	12/28/2009 13:00	PIC

Radiochemistry Batch Checklist, Rev 9

Batch# 937917 Product: 3R Date: 1/8/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)	✓		
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			
Batch non-conformances second reviewed and disposition verified to be completed.			
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: [signature] 1/8/10

Secondary Review Performed By: [signature]

Strontium 90 Que Sheet

12/31/09

Batch #: 937917 Analyst: MXB1 First Client Due Date: 01/14/2010 Internal Due Date 01/08/2010 Comments

Sr-90 Spike Code: 1067-c Expiration Date: 6-17-10 Vol: 0.1 Sr Sep. Date/time: 1-7-10/0959

Sr-90 LCS Code: 1067-c Expiration Date: 6-17-10 Vol: 0.1

Sr Carrier Code: 1194596 Exp Date: 3-19-10 Vol: 0.5 Sdt Wt: 8.93

Prep Date: 1-6-10 Initials: MEB Pipet ID: 1795419 Balance #: 17955160 Analytical Scale #: 39110047 Witness: MS 1-6-10

Sample ID	Client Description	Type	RDL	Collection Date	Matrix	Client	Rad	Pos. #	Wet/Dry Aliquot (mL) or (g)	Det # 1 & 2	Initial Sr wt (g)	Final Sr wt (g)	Net Sr wt (mg)
242934001-2	CAPA-10-6749	SAMPLE	.5 pCi/L	DEC-11-09 12:00 PM	GROUND WATE	LANL010		1	500	7A	0.0251	0.0329	7.8
243014001-2	CAPA-10-6784	SAMPLE	.5 pCi/L	DEC-14-09 12:00 PM	GROUND WATE	LANL010		2	500	7B	0.0245	0.0319	7.4
243104002-2	CAPA-10-6818	SAMPLE	.5 pCi/L	DEC-15-09 12:00 PM	GROUND WATE	LANL010		3	500	7D	0.0252	0.0321	6.9
243255001-2	CAPA-10-6093	SAMPLE	.5 pCi/L	DEC-16-09 12:00 PM	GROUND WATE	LANL010		4	500	8B	0.0246	0.0317	7.1
243255004-2	CAPA-10-6753	SAMPLE	.5 pCi/L	DEC-16-09 12:00 PM	GROUND WATE	LANL010		5	400	5A	0.0242	0.0317	7.5
243255006-2	CAPA-10-6767	SAMPLE	.5 pCi/L	DEC-16-09 12:00 PM	GROUND WATE	LANL010		6	500	9A	0.0245	0.0321	7.6
243285001-2	CAPA-10-6793	SAMPLE	.5 pCi/L	DEC-17-09 12:00 PM	GROUND WATE	LANL010		7	500	9C	0.0244	0.0322	7.8
~~243286002-2~~	~~CAPA-10-6390~~	~~SAMPLE~~	~~.5 pCi/L~~	~~DEC-17-09 12:00 PM~~	~~GROUND WATE~~	~~LANL010~~		~~8~~	~~500~~	~~10B~~	~~0.0249~~	~~0.0325~~	~~7.6~~
~~243286003-2~~	~~CAPA-10-6746~~	~~SAMPLE~~	~~.5 pCi/L~~	~~DEC-17-09 12:00 PM~~	~~GROUND WATE~~	~~LANL010~~		~~9~~	~~500~~	~~10D~~	~~0.0250~~	~~0.0329~~	~~7.4~~
1202007051-1	MB for batch 937917	MB	UCF pCi/l		GROUND WATE	QC ACCOUNT		10	1000 ~~500~~*	10C	0.0242	0.0318	7.6
1202007052-2	CAPA-10-6753(243255004DUP)	DUP	.5 pCi/L	DEC-16-09 12:00 PM	GROUND WATE	QC ACCOUNT		11	400	8C	0.0246	0.0314	6.8
1202007053-2	CAPA-10-6753(243255004MS)	MS	.5 pCi/L	DEC-16-09 12:00 PM	GROUND WATE	QC ACCOUNT		12	150	5D	0.0250	0.0321	7.1
1202007054-1	LCS for batch 937917	LCS	UCF pCi/l		GROUND WATE	QC ACCOUNT		13	1000 ~~500~~*	6D	0.0244	0.0320	7.6

* 1/8/10

✓ WTS.

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) Data Reviewed By: 1/8/10

Blank Correction Report

Batch ID 937917

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202007052	DUP	Strontium-90	0.400 L	-0.129	0.131	0.464	.2085	pCi/L	YES
1202007054	LCS	Strontium-90	1.00 L	20.0	1.72	0.667	.0834	pCi/L	NO
1202007051	MB	Strontium-90	1.00 L	0.0834	0.0623	0.209	.0834	pCi/L	YES
1202007053	MS	Strontium-90	0.150 L	145	12.4	4.96	.556	pCi/L	NO
242934001	CAPA-10-6749	Strontium-90	0.500 L	-0.222	0.101	0.400	.1668	pCi/L	YES
243014001	CAPA-10-6784	Strontium-90	0.500 L	-0.318	0.107	0.431	.1668	pCi/L	YES
243104002	CAPA-10-6818	Strontium-90	0.500 L	-0.291	0.111	0.439	.1668	pCi/L	YES
243255001	CAPA-10-6093	Strontium-90	0.500 L	0.213	0.141	0.463	.1668	pCi/L	YES
243255004	CAPA-10-6753	Strontium-90	0.400 L	0.0817	0.123	0.417	.2085	pCi/L	YES
243255006	CAPA-10-6767	Strontium-90	0.500 L	0.0339	0.121	0.419	.1668	pCi/L	YES
243285001	CAPA-10-6793	Strontium-90	0.500 L	0.363	0.132	0.404	.1668	pCi/L	YES

Strontium-90 Liquid

Filename : SR90.XLS
File type : Excel
Version # : 1.2.9

Spike S/N : 1067-C
Spike Exp Date : 6/17/2010
Spike Activity (dpm/ml): 428.40
Spike Volume Added: 0.10

Batch : 937917
Analyst : MXB1
Prep Date : 1/6/2010

LCS S/N : 1067-C
LCS Exp Date : 6/17/2010
LCS Activity (dpm/ml): 428.40
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Sr-90 Abundance : 1
Method Uncertainty : 0.0784

Procedure Code : GFC90SRL
Parmname : Strontium-90
Required MDC : 0.5 pCi/L
Halflife of Sr-90 : 28.90 years
Halflife of Y-90 : 64.053 hours

Geometry: Tuffryn Filter

Carrier S/N : 1194590
Carrier Exp Date : 3/19/2010
Carrier Volume Added: 0.50
Carrier Weight (mg/ml): 17.85
Carrier Weight StDev.: 0.06

Sample Characteristics					Carrier Calculations				
Pos.	Sample ID	Sample Aliquot L	Sample Aliquot StDev. L	Sample Date/Time	Carrier Weight (mg) (Standard)	Net Weight (mg) (Sample)	Net Weight StDev. (mg)	Carrier Aliquot (mL)	Carrier Aliquot StDev. (mL)
1	242934001.2	0.5000	2.0256E-05	12/11/2009 12:00	17.85	7.80	0.040854	0.5	0.002564
2	243014001.2	0.5000	2.0256E-05	12/14/2009 12:00	17.85	7.40	0.039135	0.5	0.002564
3	243104002.2	0.5000	2.0256E-05	12/15/2009 12:00	17.85	6.90	0.036986	0.5	0.002564
4	243255001.2	0.5000	2.0256E-05	12/16/2009 12:00	17.85	7.10	0.037846	0.5	0.002564
5	243255004.2	0.4000	1.9669E-05	12/16/2009 12:00	17.85	7.50	0.039565	0.5	0.002564
6	243255006.2	0.5000	2.0256E-05	12/16/2009 12:00	17.85	7.60	0.039995	0.5	0.002564
7	243285001.2	0.5000	2.0256E-05	12/17/2009 12:00	17.85	7.80	0.040854	0.5	0.002564
8	~~243286002.2~~	~~0.5000~~	~~2.0256E-05~~	~~12/17/2009 12:00~~	~~17.85~~	~~7.60~~	~~0.039996~~	~~0.5~~	~~0.002564~~
9	~~243286003.2~~	~~0.5000~~	~~2.0256E-05~~	~~12/17/2009 12:00~~	~~17.85~~	~~7.40~~	~~0.039135~~	~~0.5~~	~~0.002564~~
10	1202007051.1	1.0000	2.0399E-05	1/6/2010 0:00	17.85	7.60	0.039995	0.5	0.002564
11	1202007052.2	0.4000	1.9669E-05	12/16/2009 12:00	17.85	6.80	0.036556	0.5	0.002564
12	1202007053.2	0.1500	1.4035E-05	12/16/2009 12:00	17.85	7.10	0.037846	0.5	0.002564
13	1202007054.1	1.0000	2.0399E-05	1/6/2010 0:00	17.85	7.60	0.039995	0.5	0.002564

Count Raw Data

Pos.	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Gross Beta CPM	Count Start Date/Time	Strontium Separation Date/Time	Yttrium Ingrowth	Sr-90 Decay	Calculated Sample Recovery %	Sample Recovery Error %
1	7A	210	14	77	0.363	1/7/2010 20:02	1/7/2010 9:59	0.120	0.998	87.39%	0.96%
2	7B	220	10	84	0.380	1/7/2010 20:02	1/7/2010 9:59	0.121	0.998	82.91%	0.97%
3	7D	230	18	86	0.370	1/7/2010 20:02	1/7/2010 9:59	0.122	0.998	77.31%	0.97%
4	8B	500	26	655	1.307	1/7/2010 20:03	1/7/2010 9:59	0.143	0.999	79.55%	0.97%
5	5A	420	30	261	0.618	1/7/2010 20:05	1/7/2010 9:59	0.137	0.999	84.03%	0.97%
6	9A	260	16	170	0.647	1/7/2010 20:03	1/7/2010 9:59	0.124	0.999	85.15%	0.96%
7	9C	210	5	136	0.645	1/7/2010 20:03	1/7/2010 9:59	0.120	0.999	87.39%	0.96%
~~8~~	~~10A~~	~~160~~	~~5~~	~~140~~	~~0.872~~	~~1/8/2010 9:35~~	~~1/7/2010 9:59~~	~~0.236~~	~~0.999~~	~~85.15%~~	~~0.96%~~
~~9~~	~~10C~~	~~160~~	~~14~~	~~110~~	~~0.679~~	~~1/8/2010 9:35~~	~~1/7/2010 9:59~~	~~0.237~~	~~0.999~~	~~82.91%~~	~~0.97%~~
10	10C	160	8	70	0.433	1/7/2010 20:01	1/7/2010 9:59	0.116	1.000	85.15%	0.96%
11	8C	420	30	235	0.554	1/7/2010 20:05	1/7/2010 9:59	0.137	0.999	76.19%	0.98%
12	5D	60	17	1203	20.038	1/7/2010 20:01	1/7/2010 9:59	0.108	0.999	79.55%	0.97%
13	6D	60	18	1172	19.521	1/7/2010 20:01	1/7/2010 9:59	0.108	1.000	85.15%	0.96%

Calibration Data

Pos.	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm) Sr-90	Detector Efficiency (cpm/dpm) Y-90	Detector Efficiency Error (cpm/dpm)	Alpha X-Talk	Weekly Bkg CPM	Weekly Bkg Count Time (min.)
1	PIC	1/1/2009	1/31/2010	0.4101	0.5546	0.00816	0.06147	0.465	1000
2	PIC	1/1/2009	1/31/2010	0.4129	0.5564	0.00816	0.04246	0.520	1000
3	PIC	1/1/2009	1/31/2010	0.4158	0.5551	0.00816	0.04617	0.491	1000
4	PIC	1/1/2009	1/31/2010	0.4214	0.5598	0.00816	0.05751	1.213	1000
5	PIC	1/1/2009	1/31/2010	0.4188	0.5575	0.00816	0.04605	0.588	1000
6	PIC	1/1/2009	1/31/2010	0.4212	0.5525	0.00816	0.11653	0.631	1000
7	PIC	1/1/2009	1/31/2010	0.4123	0.5437	0.00816	0.10863	0.477	1000
~~8~~	~~PIC~~	~~1/1/2009~~	~~1/31/2010~~	~~0.4167~~	~~0.5489~~	~~0.00816~~	~~0.09100~~	~~0.387~~	~~1000~~
~~9~~	~~PIC~~	~~1/1/2009~~	~~1/31/2010~~	~~0.4101~~	~~0.5468~~	~~0.00816~~	~~0.09921~~	~~0.358~~	~~1000~~
10	PIC	1/1/2009	1/31/2010	0.4095	0.5468	0.00816	0.09928	0.358	1000
11	PIC	1/1/2009	1/31/2010	0.4176	0.5610	0.00816	0.07732	0.597	1000
12	PIC	1/1/2009	1/31/2010	0.4168	0.5621	0.00816	0.04091	1.734	1000
13	PIC	1/1/2009	1/31/2010	0.4157	0.5526	0.00816	0.03996	1.575	1000

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

* - RPD changed to 0% due to activity below MDC for 1202007052.2

Results Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	0.2613	0.1845	0.5	0.3999	-0.2219	0.4572	-0.1024	0.0468	0.1014	0.1014		SAMPLE				
2	0.2637	0.2003	0.5	0.4314	-0.3176	0.3385	-0.1401	0.0474	0.1075	0.1075		SAMPLE				
3	0.2683	0.2035	0.5	0.4386	-0.2915	0.3800	-0.1207	0.0458	0.1107	0.1107		SAMPLE				
4	0.3180	0.2245	0.5	0.4626	0.2127	0.6582	0.0940	0.0619	0.1400	0.1410		SAMPLE				
5	0.2616	0.1988	0.5	0.4169	0.0817	1.5059	0.0301	0.0454	0.1230	0.1232		SAMPLE				
6	0.2787	0.1988	0.5	0.4185	0.0339	3.5625	0.0157	0.0558	0.1208	0.1208		SAMPLE				
7	0.2640	0.1864	0.5	0.4037	0.3632	0.3547	0.1680	0.0596	0.1288	0.1320		SAMPLE				
~~8~~	~~0.2302~~	~~0.1689~~	~~0.5~~	~~0.3742~~	~~0.0405~~	~~0.1590~~	~~0.4852~~	~~0.0764~~	~~0.1481~~	~~0.1661~~		~~SAMPLE~~				
~~9~~	~~0.2394~~	~~0.1690~~	~~0.5~~	~~0.3759~~	~~0.6471~~	~~0.2118~~	~~0.3209~~	~~0.0678~~	~~0.1368~~	~~0.1462~~		~~SAMPLE~~				
10	0.1328	0.0938	0.5	0.2085	0.0634	0.7424	0.0745	0.0553	0.0619	0.0623		MB				
11	0.3134	0.2213	0.5	0.4639	-0.1287	1.0181	-0.0430	0.0438	0.1310	0.1310	243255004.2	DUP	0.0%	0.4138		
12	3.2294	2.2800	0.5	4.9559	144.9498	0.0341	18.3044	0.5794	4.5882	12.4489	243255004.2	MS			128.8208	112.5%
13	0.4326	0.3054	0.5	0.6665	19.9754	0.0343	17.9463	0.5718	0.6364	1.7169		LCS			19.2971	103.5%

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
242934001	7A	210	14	77	1/7/2010 20:02	1/7/2010 23:32	PIC
243014001	7B	220	10	84	1/7/2010 20:02	1/7/2010 23:42	PIC
243014002	7D	230	18	86	1/7/2010 20:02	1/7/2010 23:52	PIC
243255001	8B	500	26	655	1/7/2010 20:03	1/8/2010 4:23	PIC
243255004	5A	420	30	261	1/7/2010 20:05	1/8/2010 3:05	PIC
243255006	9A	260	16	170	1/7/2010 20:03	1/8/2010 0:23	PIC
243285001	9C	210	5	136	1/7/2010 20:03	1/7/2010 23:33	PIC
~~243285002~~	~~10B~~	~~180~~	~~6~~	~~160~~	~~1/7/2010 20:04~~	~~1/7/2010 23:04~~	~~PIC~~
~~243285003~~	~~10D~~	~~330~~	~~94~~	~~463~~	~~1/7/2010 20:04~~	~~1/8/2010 1:34~~	~~PIC~~
1202007051	10C	160	8	70	1/7/2010 20:01	1/7/2010 22:41	PIC
1202007052	8C	420	30	235	1/7/2010 20:05	1/8/2010 3:05	PIC
1202007053	5D	60	17	1203	1/7/2010 20:01	1/7/2010 21:01	PIC
1202007054	6D	60	18	1172	1/7/2010 20:01	1/7/2010 21:01	PIC

Radiochemistry Batch Checklist, Rev 9

Batch# 935220 Product: LN3 Date: 12/29/09

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.	✓		
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: [signature] 12/29/09

Secondary Review Performed By: [signature] 12/30/09

LANL

Tritium Que Sheet

120

21-DEC-09

Batch #: 935220 **Analyst:** EXK2 **First Client Due Date** 15-JAN-10 **Internal Due Date:** 04-JAN-10

Spike Isotope: Hydrogen-3 **Spike Code:** 0134-K **Expiration Date:** 3/27/10 **Vol:** 0.1

LCS Isotope: Hydrogen-3 **LCS Code:** 0134-K **Expiration Date:** 3/27/10 **Vol:** 0.1

Prep Date: 12/22/09 **Initials:** EXK2 **Pipet ID:** 2970968 **Witness:** JLR 12-22-09

Sample ID	Client Samp ID	Type	Hazard Code	Min CRDL	Matrix	Client	Sample Date	Aliquot in vial (g/mL)	LSC Rack #	Dist Rig #	Vol added for Dist (mL)	Initial Sample Aliquot (g/mL)	Final Wt (g)	Dist Vol (mL)
243009002-1	CAPA-10-6101	SAMPLE		.2 pCi/mL	GROUND WAT	ILANL010	14-DEC-09	10	47-2	138		50		13
243009004-1	CAPA-10-6105	SAMPLE		.2 pCi/mL	GROUND WAT	ILANL010	14-DEC-09	10	47-3	32		50		13
243285001-1	CAPA-10-6793	SAMPLE		.2 pCi/mL	GROUND WAT	ILANL010	17-DEC-09	10	47-4	36B		50		13
1202000986-1	MB for batch 935220	MB		.2 pCi/mL	GROUND WAT	IQC ACCOUNT		10	47-5	101	EK 12/22/09	50	EK 12/22/09	13
1202000987-1	CAPA-10-6793(243285001DUP)	DUP		.2 pCi/mL	GROUND WAT	IQC ACCOUNT	17-DEC-09	10	47-6	109		50		13
1202000988-1	CAPA-10-6793(243285001MS)	MS		.2 pCi/mL	GROUND WAT	IQC ACCOUNT	17-DEC-09	10	46-1	113		50		13
1202000989-1	LCS for batch 935220	LCS		.2 pCi/mL	GROUND WAT	IQC ACCOUNT	7	10	46-2	700		50		13

Dailies

Bkg Rack #: 47-1

Comments:

Instrument Used (circle as appropriate): *LS6000 (Red) 7065155, LS6500 (Blue) 7067085, LS6500 (Gold) 7070506, LS6500 (Green) 7067404, Wallac (Yellow) 4040127, LS6000 (Brown) 7060655, Wallac (Pink) 2200082, Wallac (White) 4140299, Purple 7069123, Silver 7060656*

Bkg prepared with dead water? Yes/No

Calibration Used : *Ultima Gold LLT (10 mL sample/13 mL LLT) poly vial; Ecoscint Ultra (10 mL sample/13 mL Econscint Ultra)*

Data Reviewed By: 12/29/09

GEL Laboratories LLC, Radiochemistry Division

Tritium Liquid

Filename : H3DST.XLS
File type : Excel
Version # : 1.2.5

Batch : 935220
Analyst : EXK2
Prep Date : 12/22/2009

H-3 Abundance : 1
Method Uncertainty : 0.0983
Geometry: 10mL DW/13mL Ecoscint Ultra

Spike S/N : 0134-K
Spike Exp Date : 3/27/2010
Spike Activity (dpm/ml): 2487.67
Spike Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1.0 ml Stdev : +/- 0.005480 ml
Pipet, 5.0 ml Stdev : +/- 0.025729 ml

LCS S/N : 0134-K
LCS Exp Date : 3/27/2010
LCS Activity (dpm/ml): 2487.67
LCS Volume Added: 0.10

Procedure Code : LSCDSH3L
Parmname : Tritium
Required MDC : 200 pCi/L
Halflife of Tritium : 12.32 years

Sample Characteristics

Pos.	Sample ID	Total Sample Volume (L)	Sample Aliquot L	Sample Aliquot StDev. L	Distilled Sample Counted L	Sample Counted StDev. L	Rig number	Sample Date/Time
1	243009002.1	0.0500	0.0500	7.8337E-06	0.0100	2.5729E-05	13B	12/14/2009 12:00
2	243009004.1	0.0500	0.0500	7.8337E-06	0.0100	2.5729E-05	32	12/14/2009 12:00
3	243285001.1	0.0500	0.0500	7.8337E-06	0.0100	2.5729E-05	36B	12/17/2009 12:00
4	1202000986.1	0.0500	0.0500	7.8337E-06	0.0100	2.5729E-05	101	12/22/2009 0:00
5	1202000987.1	0.0500	0.0500	7.8337E-06	0.0100	2.5729E-05	109	12/17/2009 12:00
6	1202000988.1	0.0500	0.0500	7.8337E-06	0.0100	2.5729E-05	113	12/17/2009 12:00
7	1202000989.1	0.0500	0.0500	7.8337E-06	0.0100	2.5729E-05	700	12/22/2009 0:00

Count raw Data					Background				Calibration Data					Backgrounds	
Pos.	Rack Position #	Counting Time (min.)	Quench#	Gross cpm	cpm	Count Time (min.)	Count Start Date/Time	Sample Decay	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Rack Position #	Count Start Date/Time
1	47-2	120	117.5	3.22	2.57	120	12/23/2009 11:06	0.999	LSCGOLD	8/20/2009	8/31/2010	0.1810	0.00792	47-1	12/23/2009 9:03
2	47-3	120	118.2	3.44	2.57	120	12/23/2009 13:10	0.999	LSCGOLD	8/20/2009	8/31/2010	0.1805	0.00792	47-1	12/23/2009 9:03
3	47-4	120	117.5	2.63	2.57	120	12/23/2009 15:13	0.999	LSCGOLD	8/20/2009	8/31/2010	0.1810	0.00792	47-1	12/23/2009 9:03
4	47-5	120	117.8	2.78	2.57	120	12/23/2009 17:17	1.000	LSCGOLD	8/20/2009	8/31/2010	0.1808	0.00792	47-1	12/23/2009 9:03
5	47-6	120	117.5	2.99	2.57	120	12/23/2009 19:20	0.999	LSCGOLD	8/20/2009	8/31/2010	0.1810	0.00792	47-1	12/23/2009 9:03
6	46-1	15	118.3	11.67	2.57	120	12/23/2009 21:22	0.999	LSCGOLD	8/20/2009	8/31/2010	0.1805	0.00792	47-1	12/23/2009 9:03
7	46-2	15	118.1	11.4	2.57	120	12/23/2009 21:39	1.000	LSCGOLD	8/20/2009	8/31/2010	0.1806	0.00792	47-1	12/23/2009 9:03

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

* - RPD changed to 0% due to activity below MDC for 1202000987.1

Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	120.1768	84.8458	200	175.9220	**161.9895**	0.3380	0.6500	0.2197	54.7422	57.0286		SAMPLE				
2	120.4817	85.0611	200	176.3684	**217.3669**	0.2574	0.8700	0.2238	55.9140	59.8876		SAMPLE				
3	120.1244	84.8089	200	175.8454	**14.9464**	3.4695	0.0600	0.2082	51.8556	51.8765		SAMPLE				
4	120.1713	84.8419	200	175.9140	**52.3327**	1.0055	0.2100	0.2111	52.6187	52.8715		MB				
5	120.1276	84.8111	200	175.8500	**104.6273**	0.5126	0.4200	0.2153	53.6220	54.6070	243285001.1	DUP	0.0%	0.4211		
6	255.5680	180.4332	200	410.8334	**2273.4987**	0.0986	9.1000	0.8941	223.3778	316.6006	243285001.1	MS			2242.6961	101.4%
7	255.2043	180.1765	200	410.2488	**2202.9043**	0.1005	8.8300	0.8840	220.5344	309.6710		LCS			2241.1420	98.3%

Instrument Type	LS 6000
Data Capture Date	23 Dec 2009 09:00:19
User Filename	C:\LSCCAPTURE\GOLD\USER02\UN122301.BSF
User Number	2
User Id	TRITIUM
User Comments	GOLD
Scintillator Choice:	LIQUID

Sam	Rack	Time	H#	Raw CPM1	Raw CPM2	CPM Iso1	%Err1	CPM Iso2	%Err2	LumEx	ElTime
1	47-1	120.00	118.2	2.65	41.86	2.57	11.58	41.78	2.83	0.25	122.95
2	47-2	120.00	117.5	3.30	42.28	3.22	10.31	42.19	2.81	0.27	246.47
3	47-3	120.00	118.2	3.53	42.89	3.44	9.96	42.81	2.79	0.24	369.97
4	47-4	120.00	117.5	2.72	42.80	2.63	11.43	42.72	2.80	0.25	493.46
5	47-5	120.00	117.8	2.86	41.35	2.78	11.12	41.27	2.84	0.26	616.96
6	47-6	120.00	117.5	3.08	41.26	2.99	10.70	41.17	2.85	0.25	740.44

Instrument Type	LS 6000
Data Capture Date	23 Dec 2009 21:21:55
User Filename	C:\LSCCAPTURE\GOLD\USER04\UN122301.BSF
User Number	4
User Id	TRITIUM
User Comments	GOLD
Scintillator Choice:	LIQUID

Sam	Rack	Time	H#	Raw CPM1	Raw CPM2	CPM Iso1	%Err1	CPM Iso2	%Err2	LumEx	ElTime
1	46-1	15.00	118.3	11.67	55.60	11.67	15.12	55.60	6.93	0.18	15.79
2	46-2	15.00	118.1	11.40	54.47	11.40	15.29	54.47	7.00	0.20	32.08

Sample Count Start Time:	23 Dec 2009 09:03:16		
Data Capture Date	23 Dec 2009 11:03:42		
User Filename	S02122347-1A.XLS		
	U02122347-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	47-1	120.00
H#, Total Counts:	118.2	5285	
Win1: Tritium - Start, End, Counts:	0	235	308
Win2: - Start, End, Counts:	0	990	4478

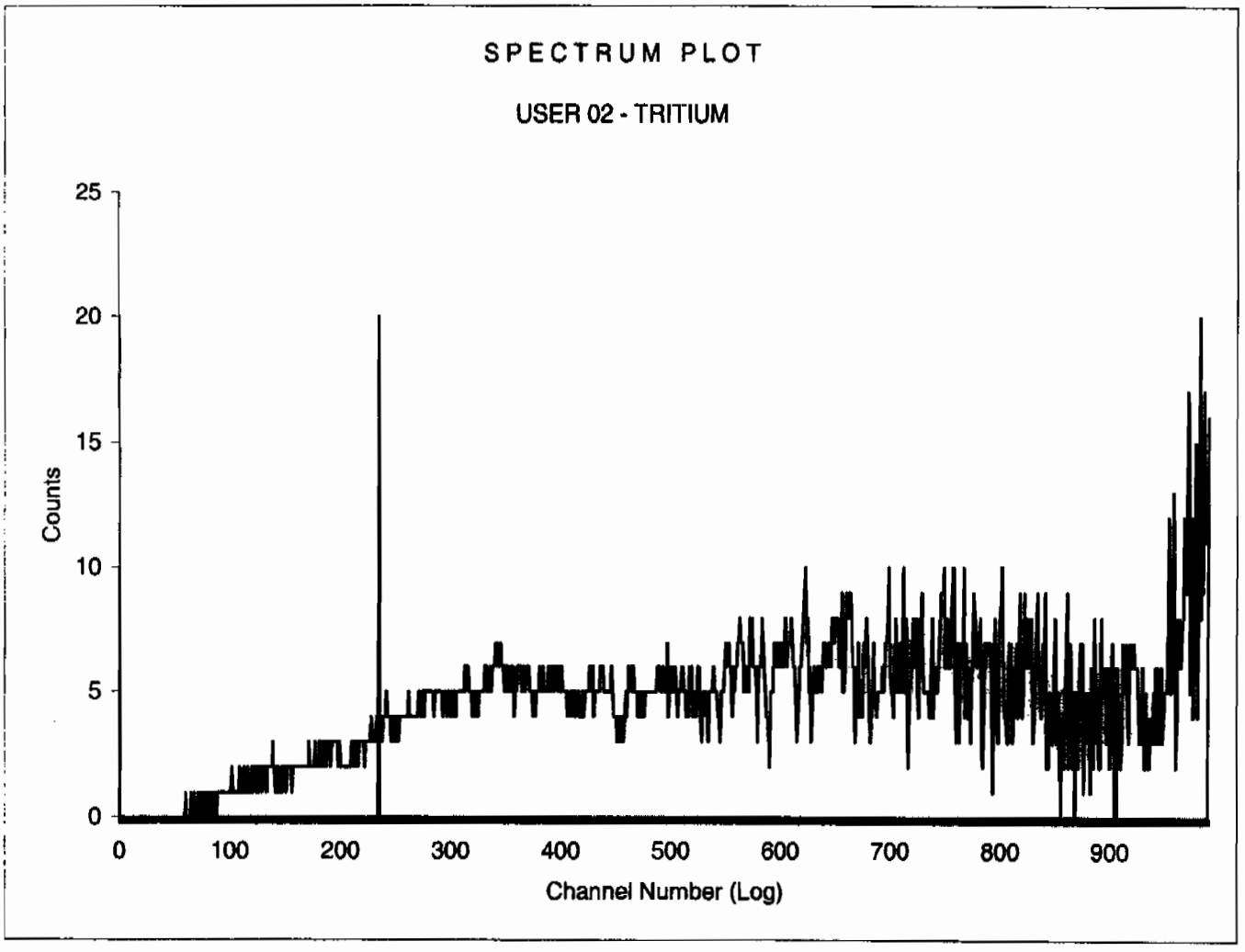

Sample Count Start Time:	23 Dec 2009 11:06:47		
Data Capture Date	23 Dec 2009 13:07:40		
User Filename	S02122347-2A.XLS		
	U02122347-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	47-2	120.00
H#, Total Counts:	117.5	5311	
Win1: Tritium - Start, End, Counts:	0	235	386
Win2: - Start, End, Counts:	0	990	4601

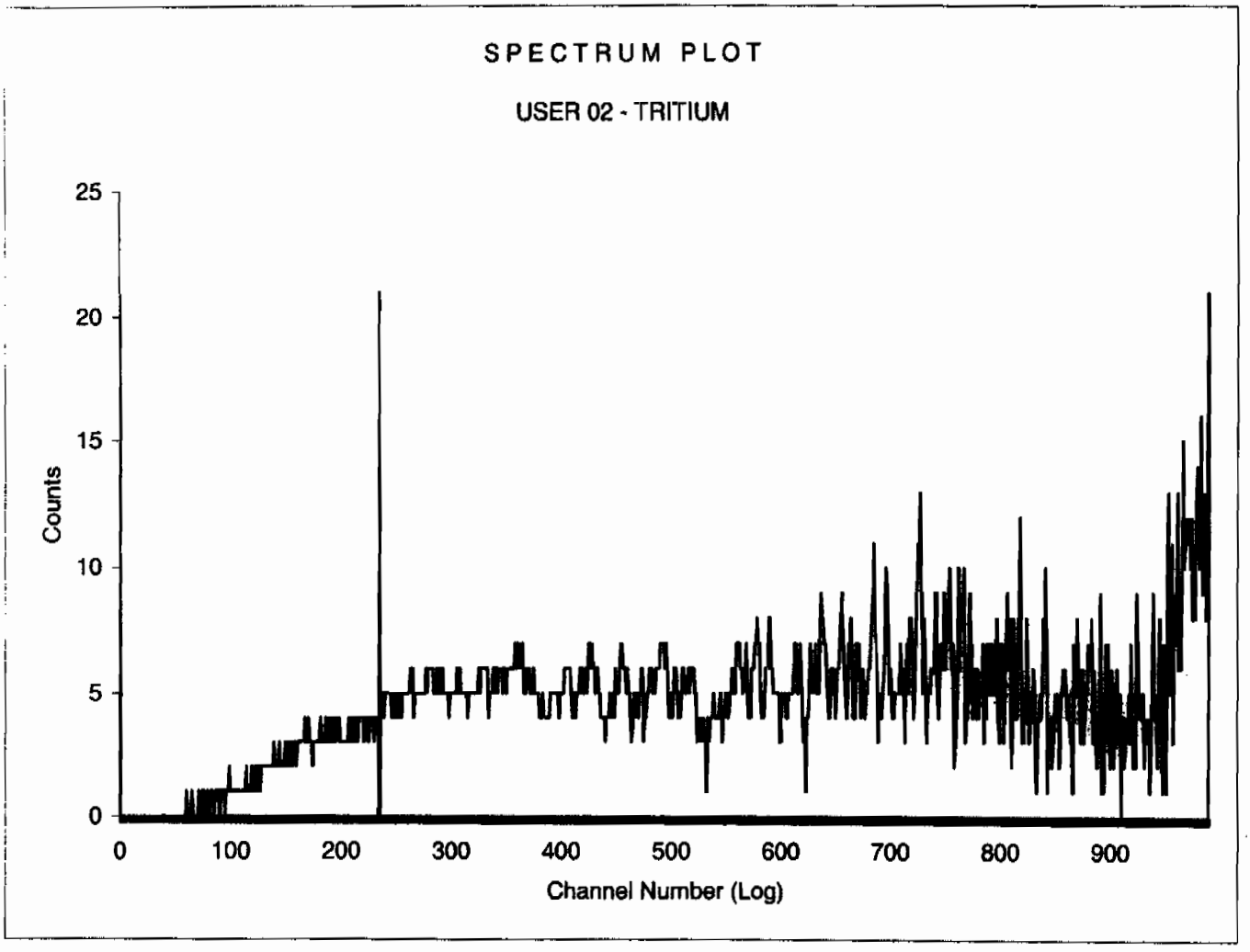

Sample Count Start Time:	23 Dec 2009 13:10:17		
Data Capture Date	23 Dec 2009 15:10:42		
User Filename	S02122347-3A.XLS		
	U02122347-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	3	47-3	120.00
H#, Total Counts:	118.2	5617	
Win1: Tritium - Start, End, Counts:	0	235	413
Win2: - Start, End, Counts:	0	990	4647

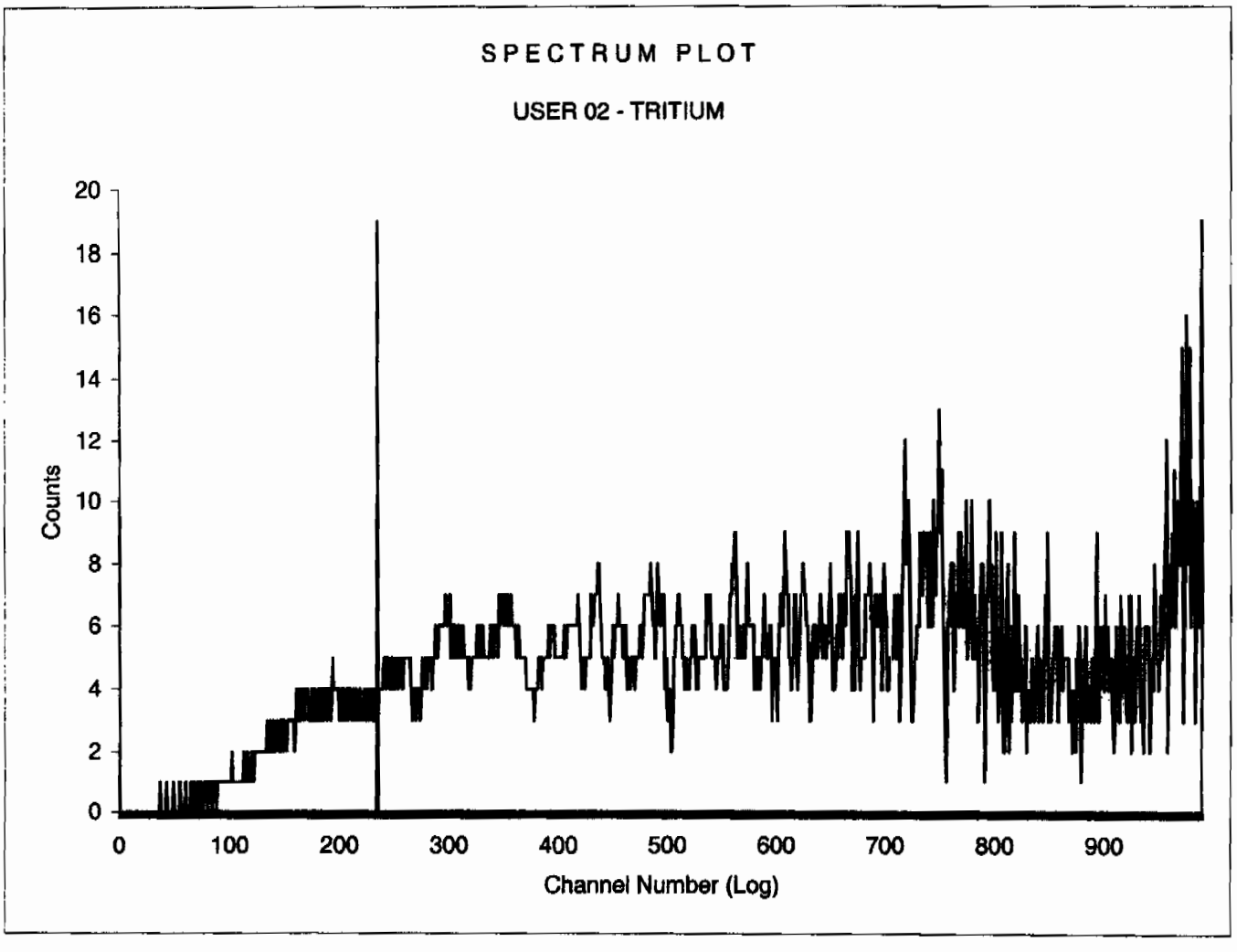

Sample Count Start Time:	23 Dec 2009 15:13:47		
Data Capture Date	23 Dec 2009 17:14:12		
User Filename	S02122347-4A.XLS		
	U02122347-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	4	47-4	120.00
H#, Total Counts:	117.5	5502	
Win1: Tritium - Start, End, Counts:	0	235	316
Win2: - Start, End, Counts:	0	990	4631

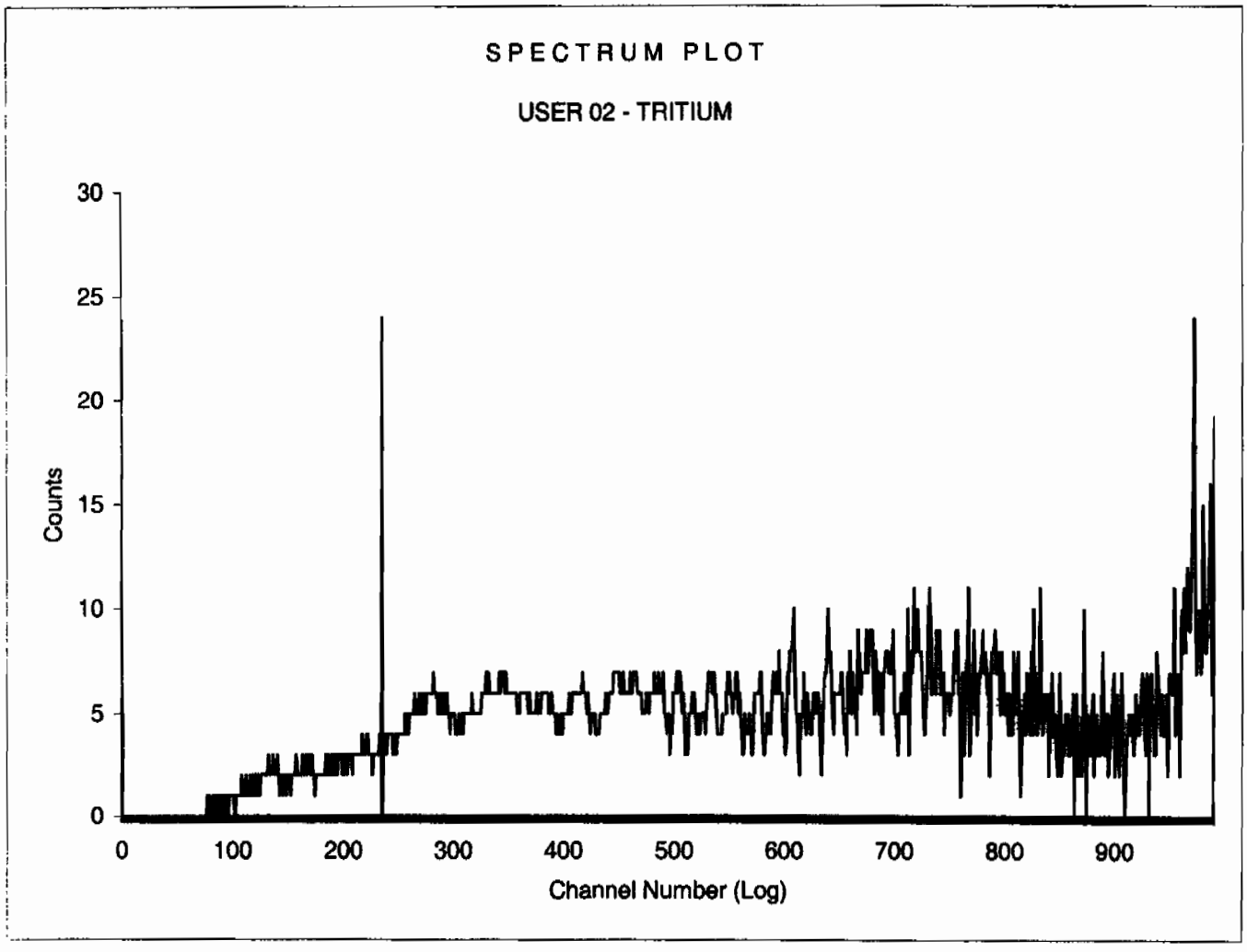

Sample Count Start Time:	23 Dec 2009 17:17:17		
Data Capture Date	23 Dec 2009 19:17:42		
User Filename	S02122347-5A.XLS		
	U02122347-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	5	47-5	120.00
H#, Total Counts:	117.8	5264	
Win1: Tritium - Start, End, Counts:	0	235	333
Win2: - Start, End, Counts:	0	990	4505

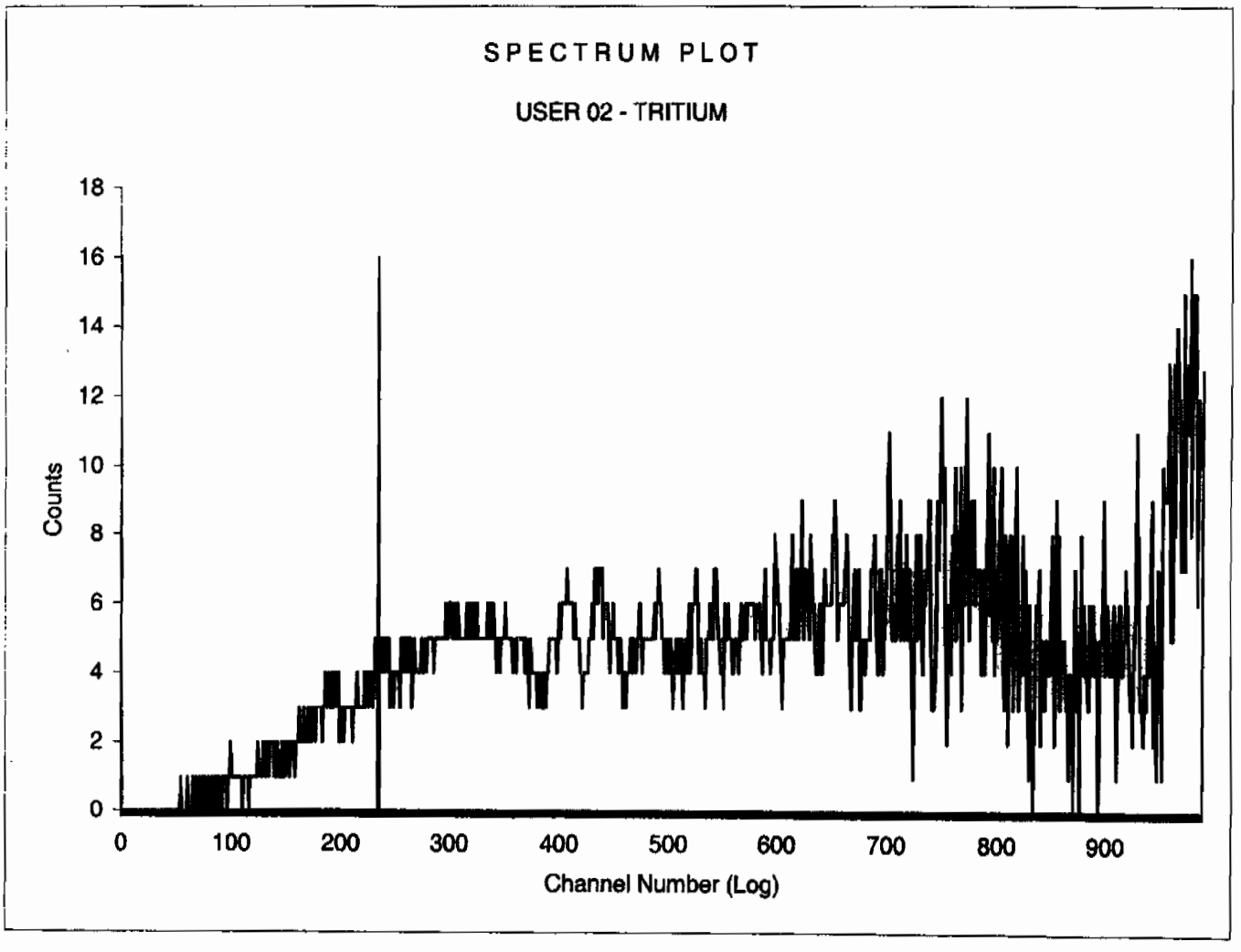

Sample Count Start Time:	23 Dec 2009 19:20:45		
Data Capture Date	23 Dec 2009 21:21:11		
User Filename	S02122347-6A.XLS		
	U02122347-1A.XLS		
Spectrum Type	Log Counts		
User Number	02		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	6	47-6	120.00
H#, Total Counts:	117.5	5421	
Win1: Tritium - Start, End, Counts:	0	235	359
Win2: - Start, End, Counts:	0	990	4482

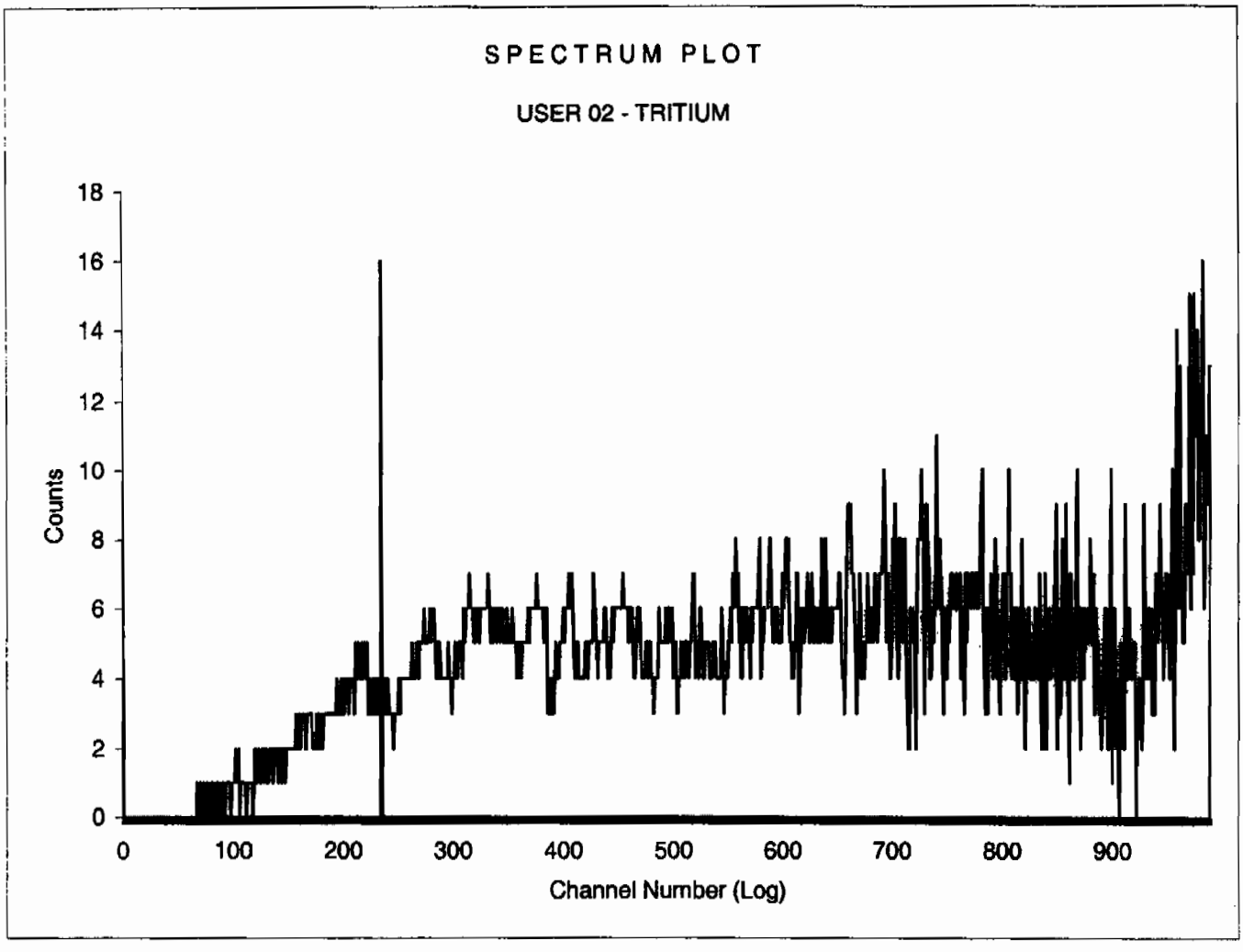

Sample Count Start Time:	23 Dec 2009 21:22:42		
Data Capture Date	23 Dec 2009 21:37:43		
User Filename	S04122346-1A.XLS		
	U04122346-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	46-1	15.00
H#, Total Counts:	118.3	834	
Win1: Tritium - Start, End, Counts:	0	235	175
Win2: - Start, End, Counts:	0	990	779

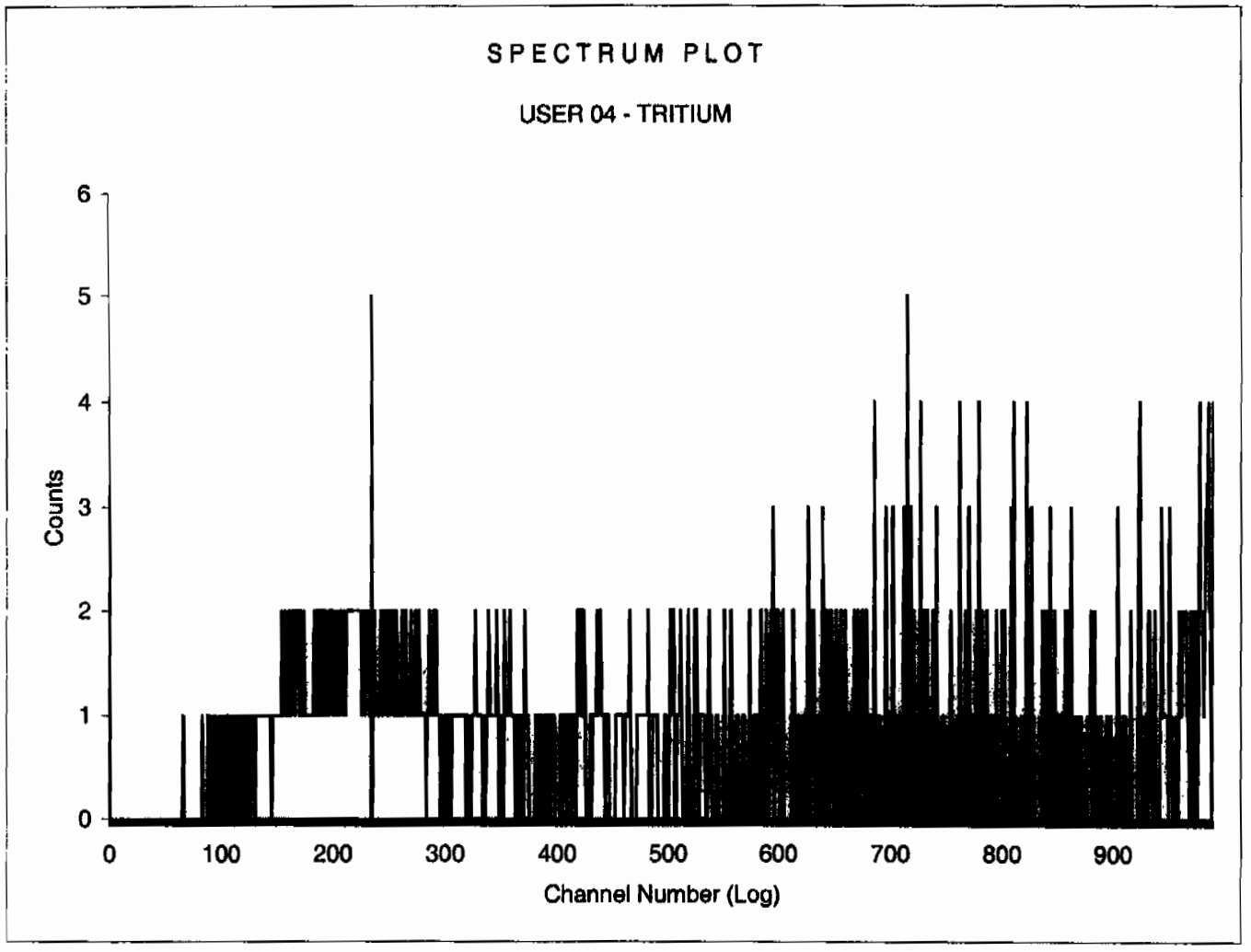

Sample Count Start Time:	23 Dec 2009 21:39:00		
Data Capture Date	23 Dec 2009 21:54:01		
User Filename	S04122346-2A.XLS		
	U04122346-1A.XLS		
Spectrum Type	Log Counts		
User Number	04		
User Id	TRITIUM		
User Comment	GOLD		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	46-2	15.00
H#, Total Counts:	118.1	841	
Win1: Tritium - Start, End, Counts:	0	235	171
Win2: - Start, End, Counts:	0	990	755

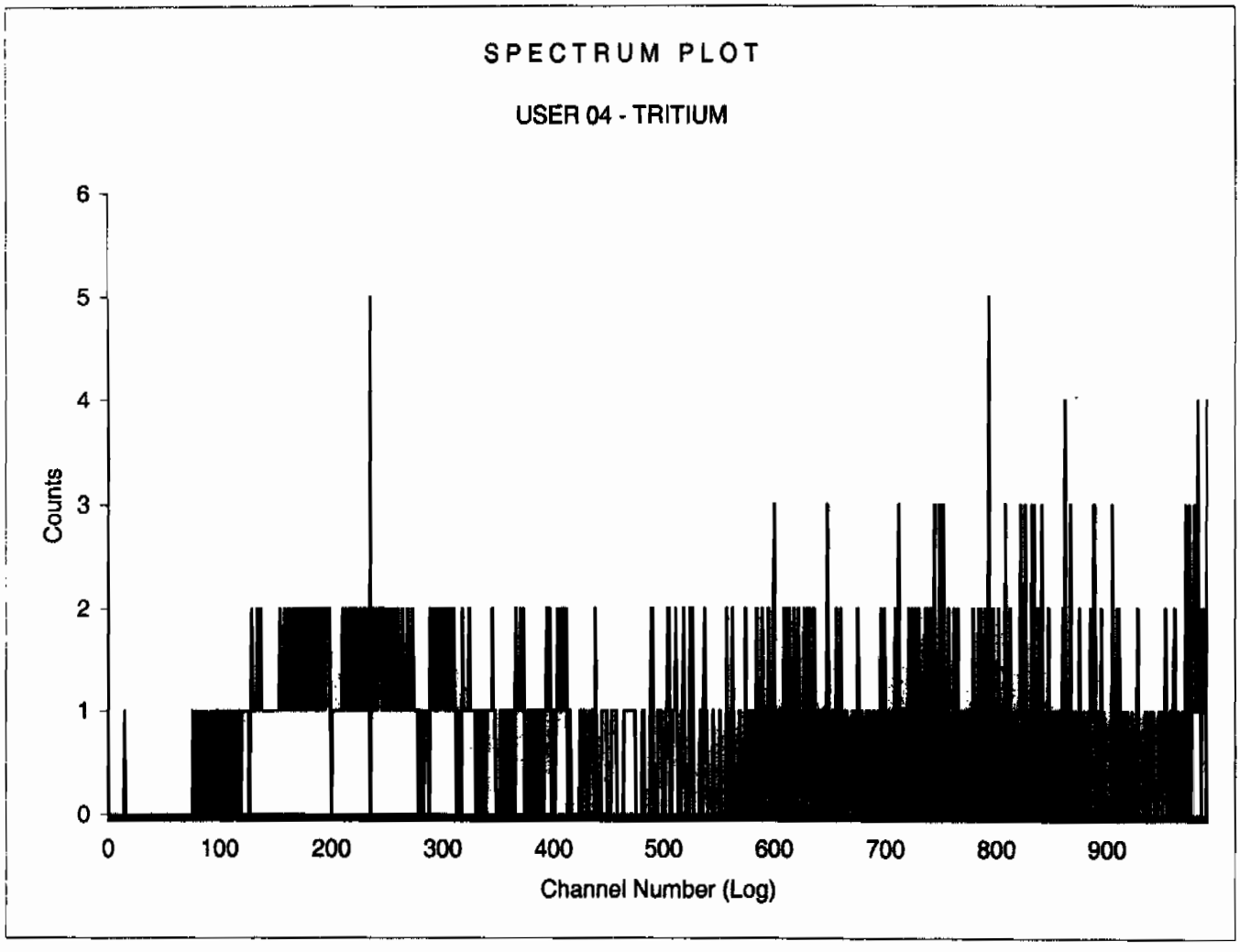

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W010.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 6-JUL-2009 09:46:11 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.303169 through 0.323169

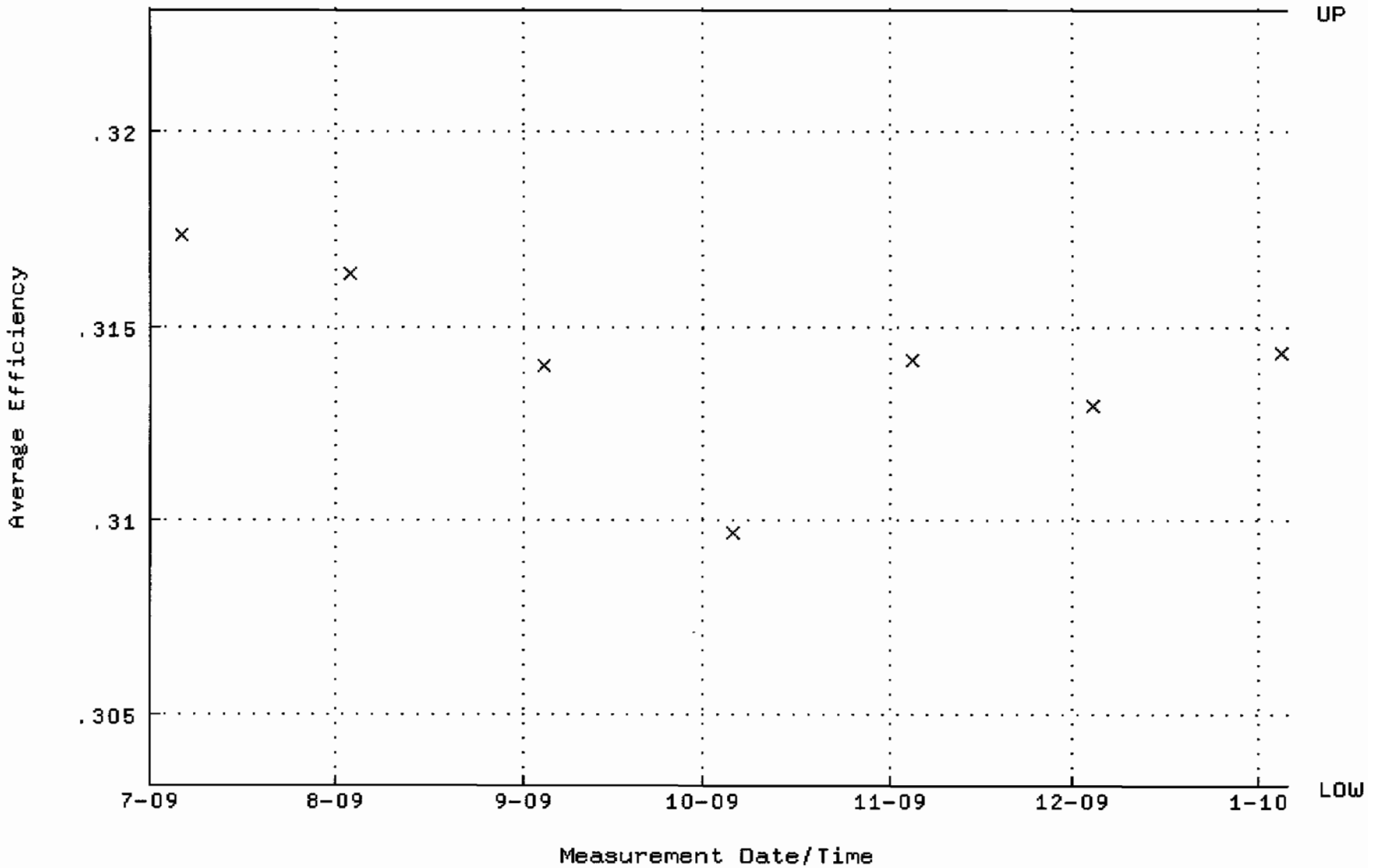

QA filename : DKA100:[ENV_ALPHA.QA.W]W010.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 6-JUL-2009 09:46:11 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 85.3273 through 94.3091

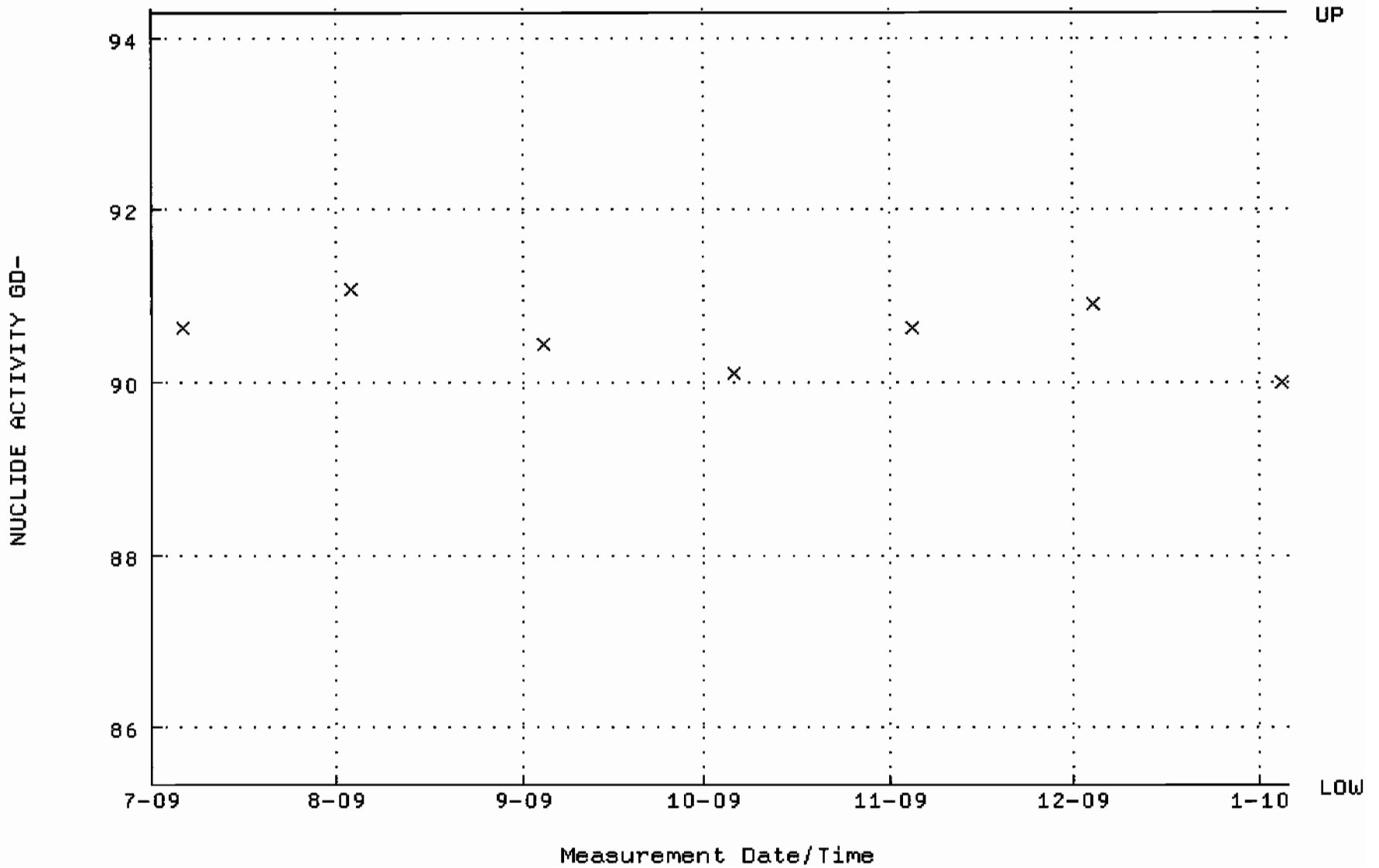

QA filename : DKA100:[ENV_ALPHA.QA.B]B010.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:11:55 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

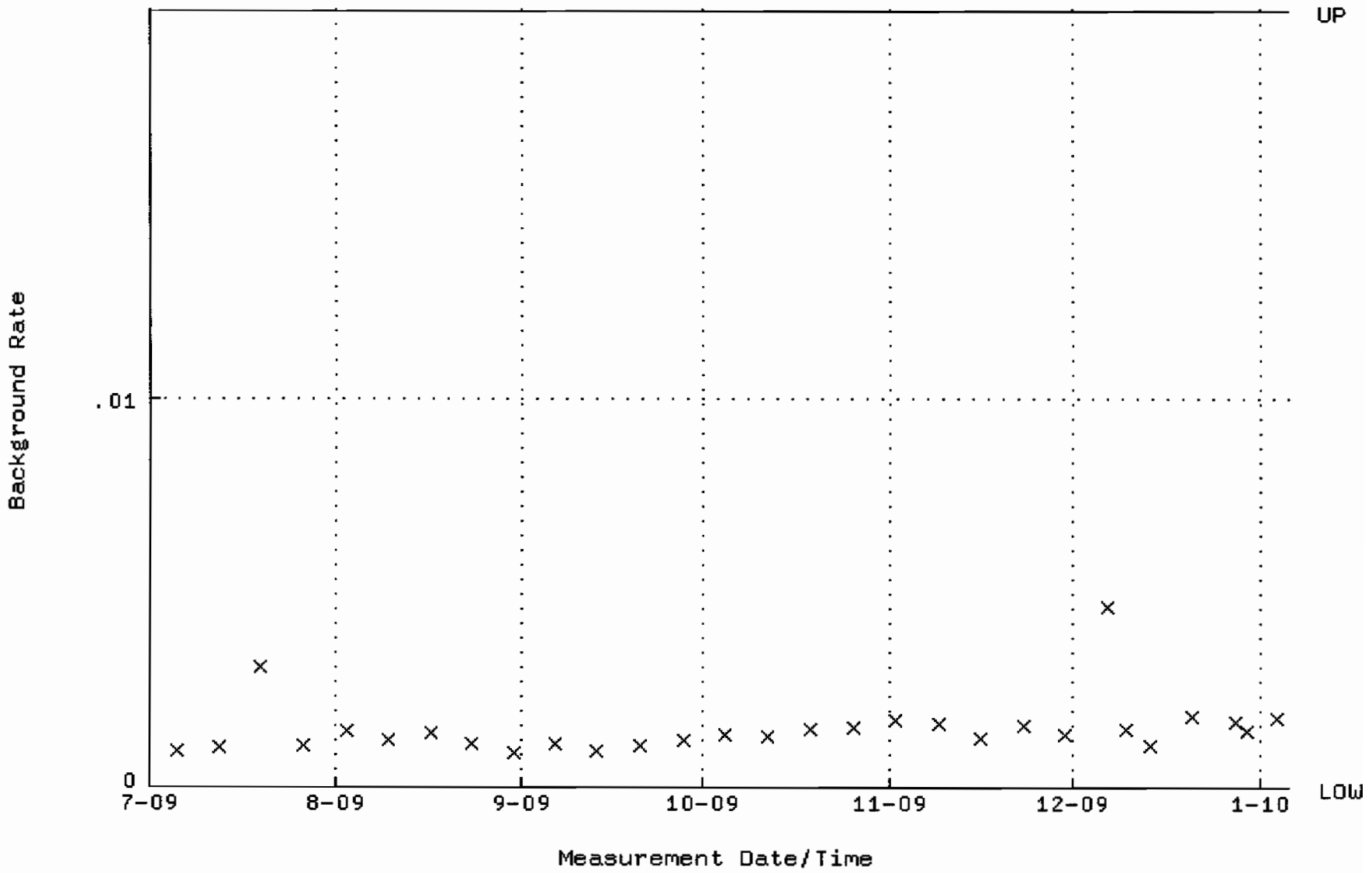

QA filename : DKA100:[ENV_ALPHA.QA.W]W012.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 6-JUL-2009 09:46:11 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.285730 through 0.305730

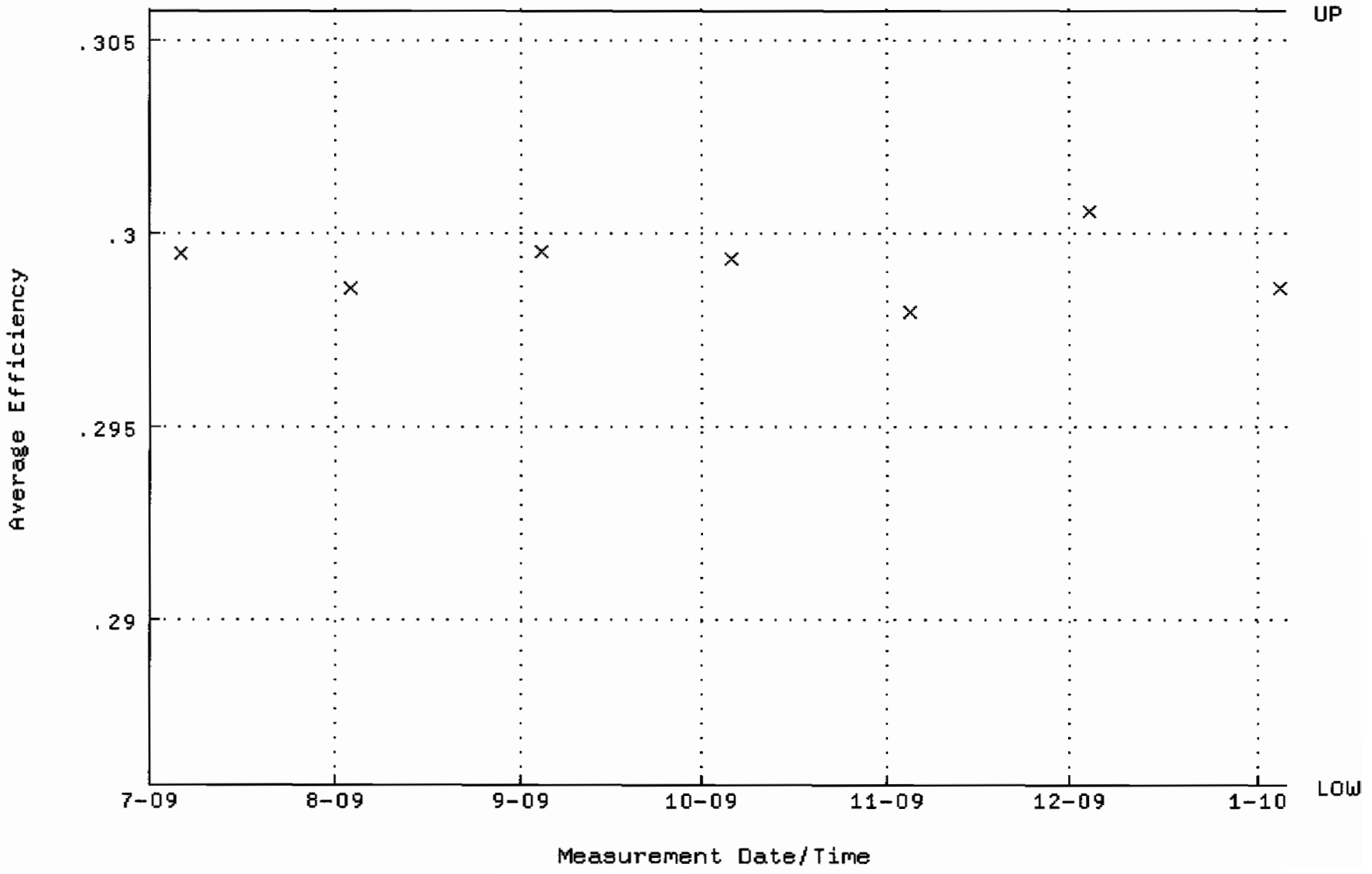

QA filename : DKA100:[ENV_ALPHA.QA.W]W012.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 6-JUL-2009 09:46:11 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 88.0678 through 97.3382

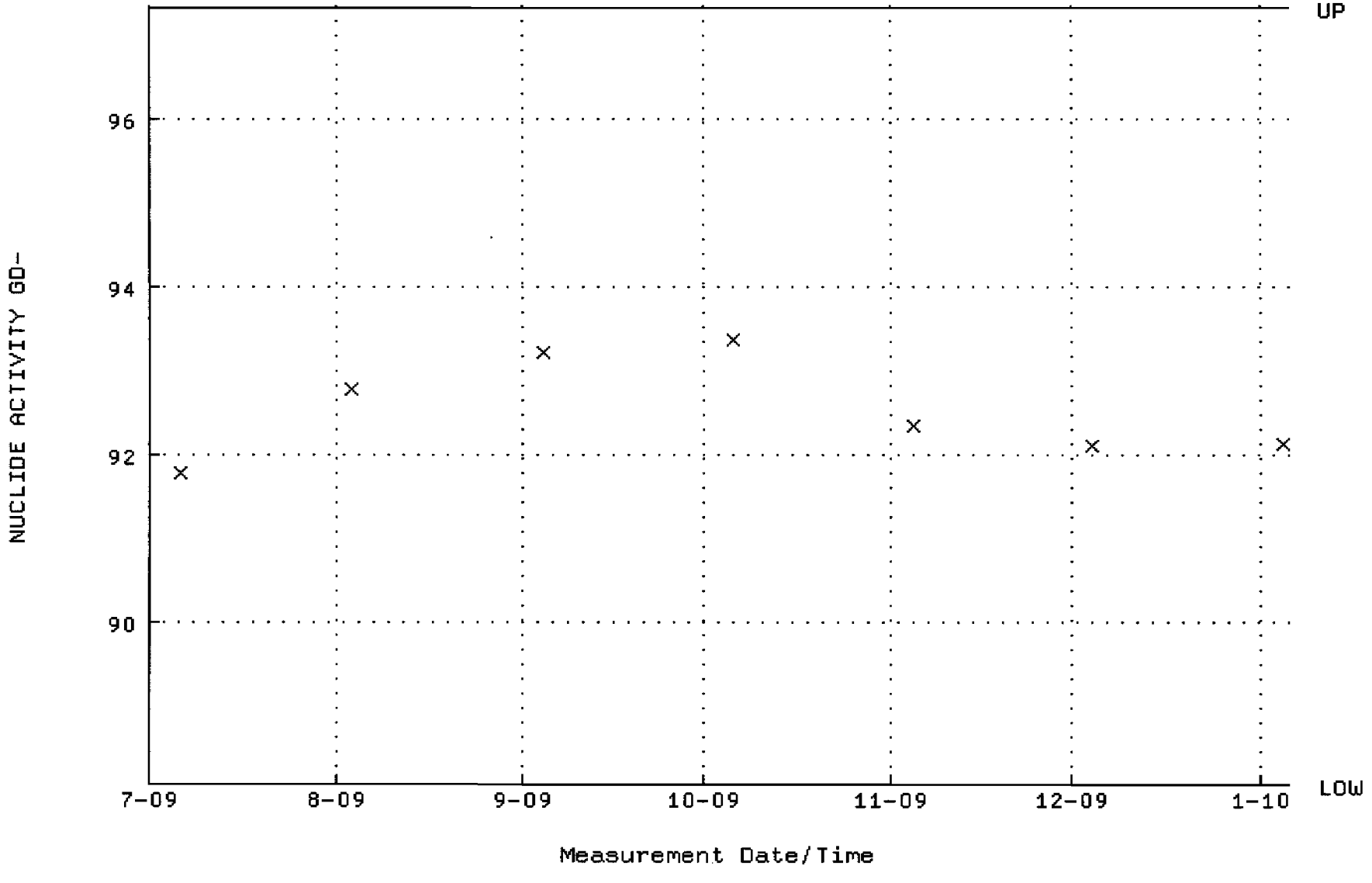

QA filename : DKA100:[ENV_ALPHA.QA.B]B012.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:11:55 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

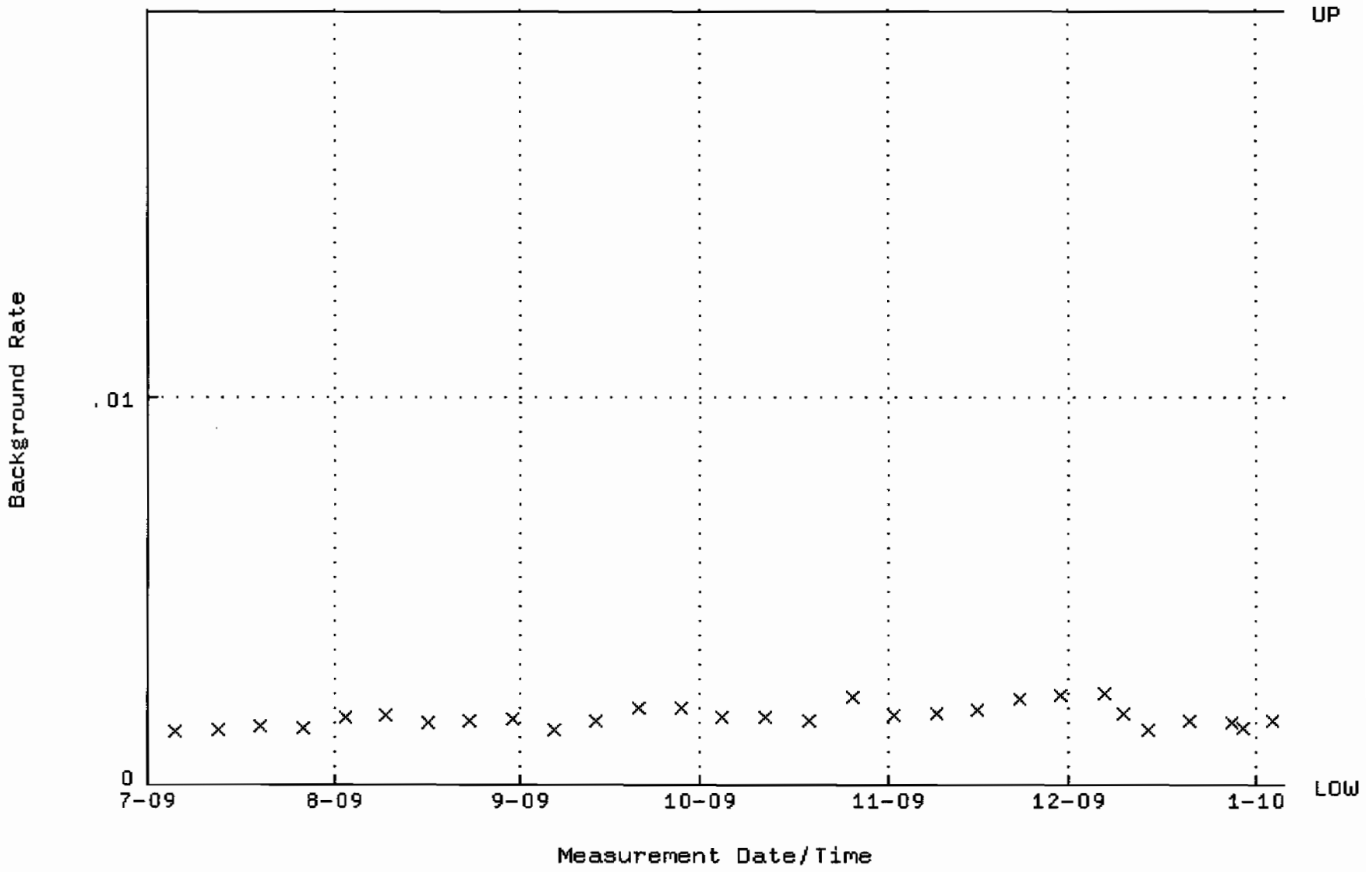

QA filename : DKA100:[ENV_ALPHA.QA.W]W022.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 6-JUL-2009 09:46:13 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.308540 through 0.329898

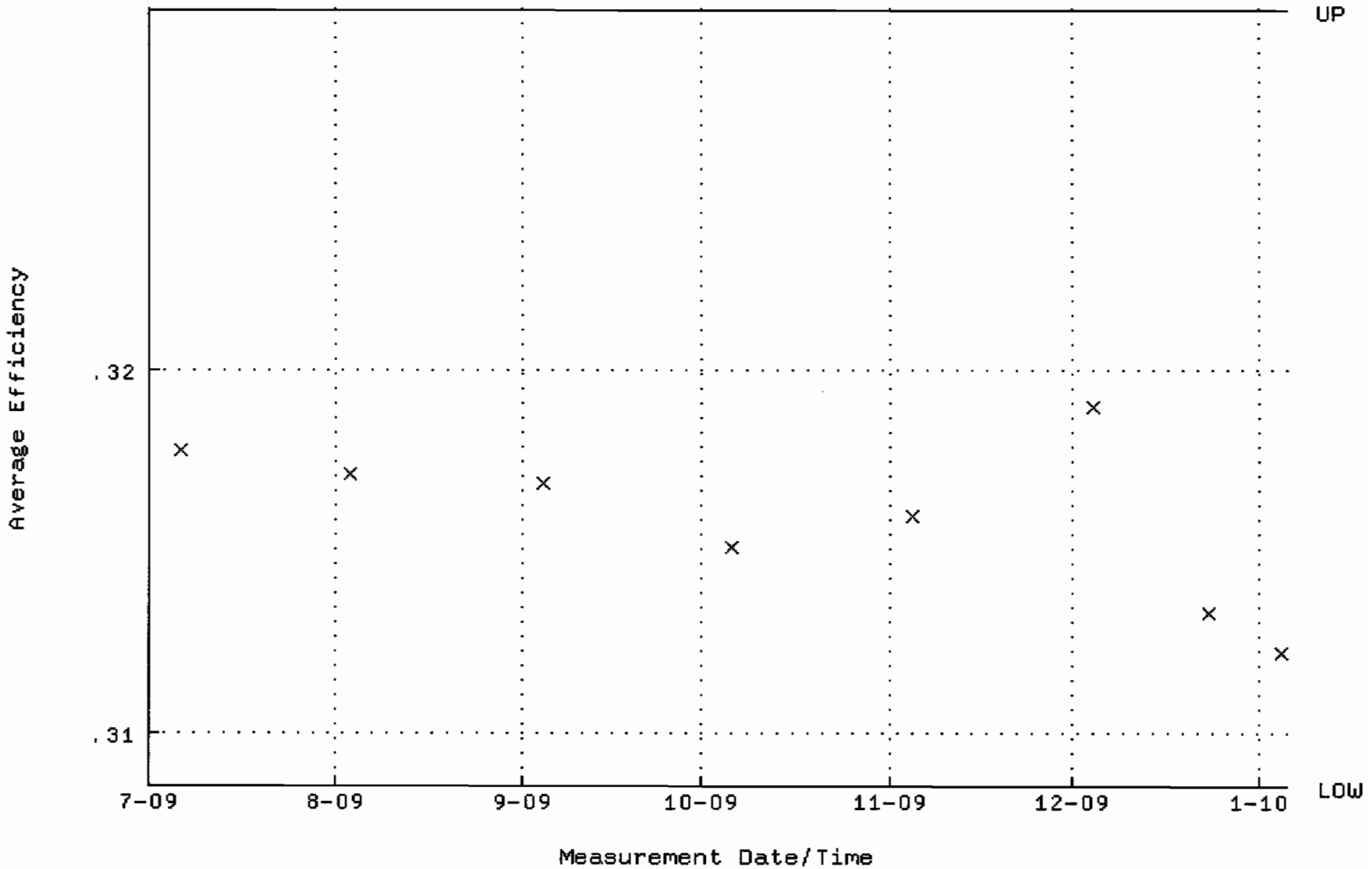

QA filename : DKA100:[ENV_ALPHA.QA.W]W022.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 6-JUL-2009 09:46:13 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 90.6887 through 93.4713

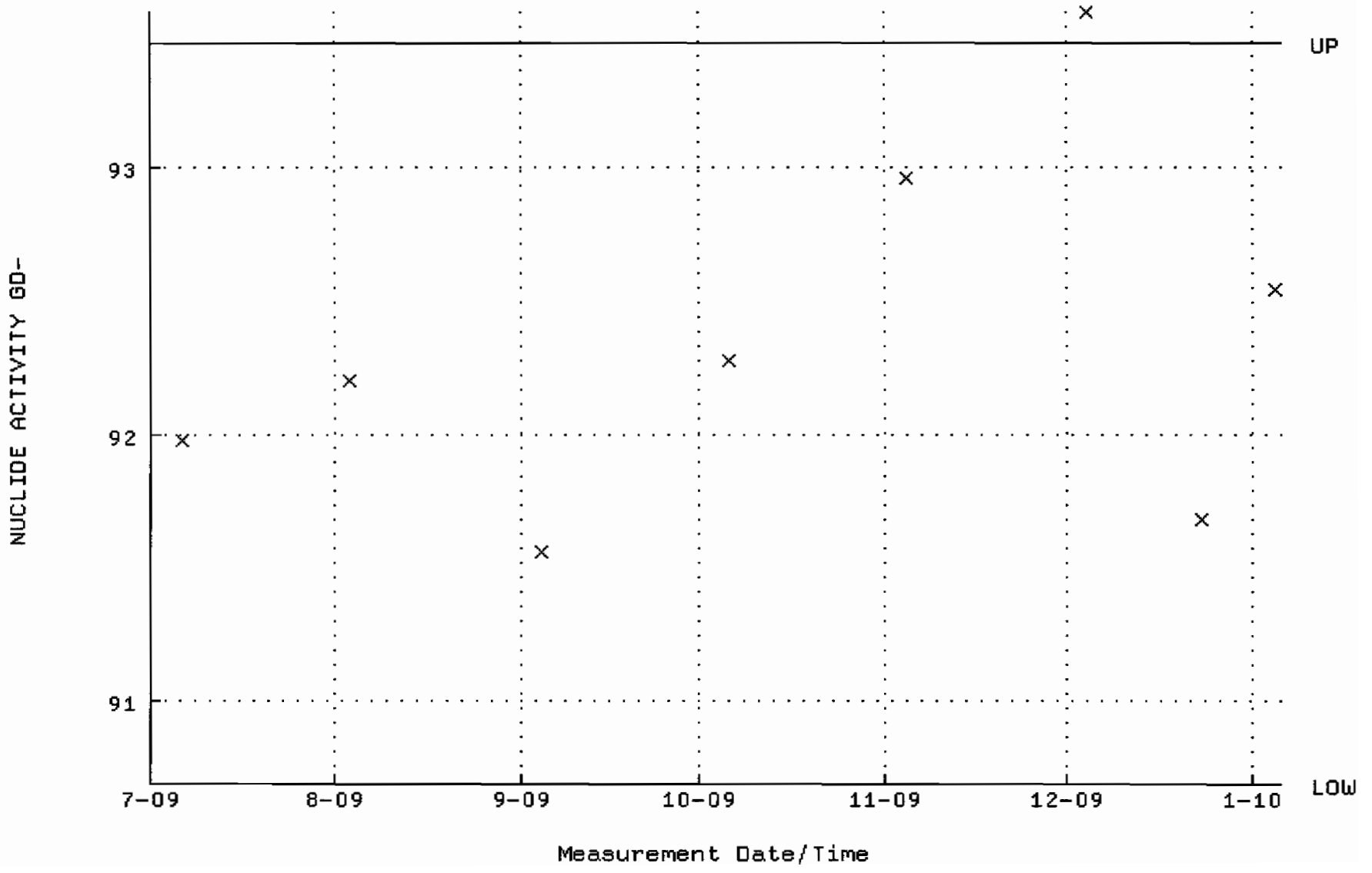

QA filename : DKA100:[ENV_ALPHA.QA.B]B022.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:11:57 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

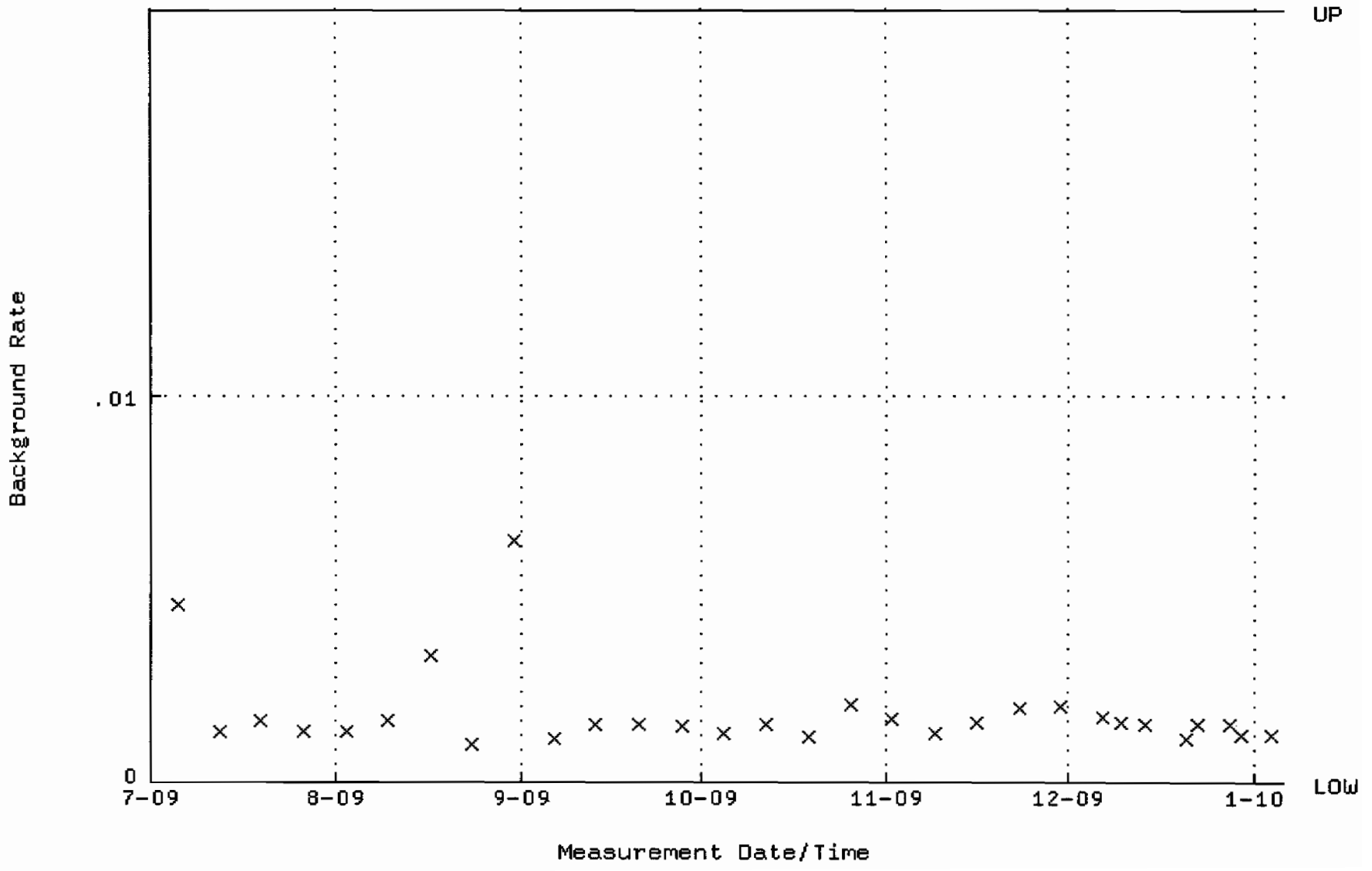

QA filename : DKA100:[ENV_ALPHA.QA.W]W024.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 6-JUL-2009 09:46:13 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.315820 through 0.352494

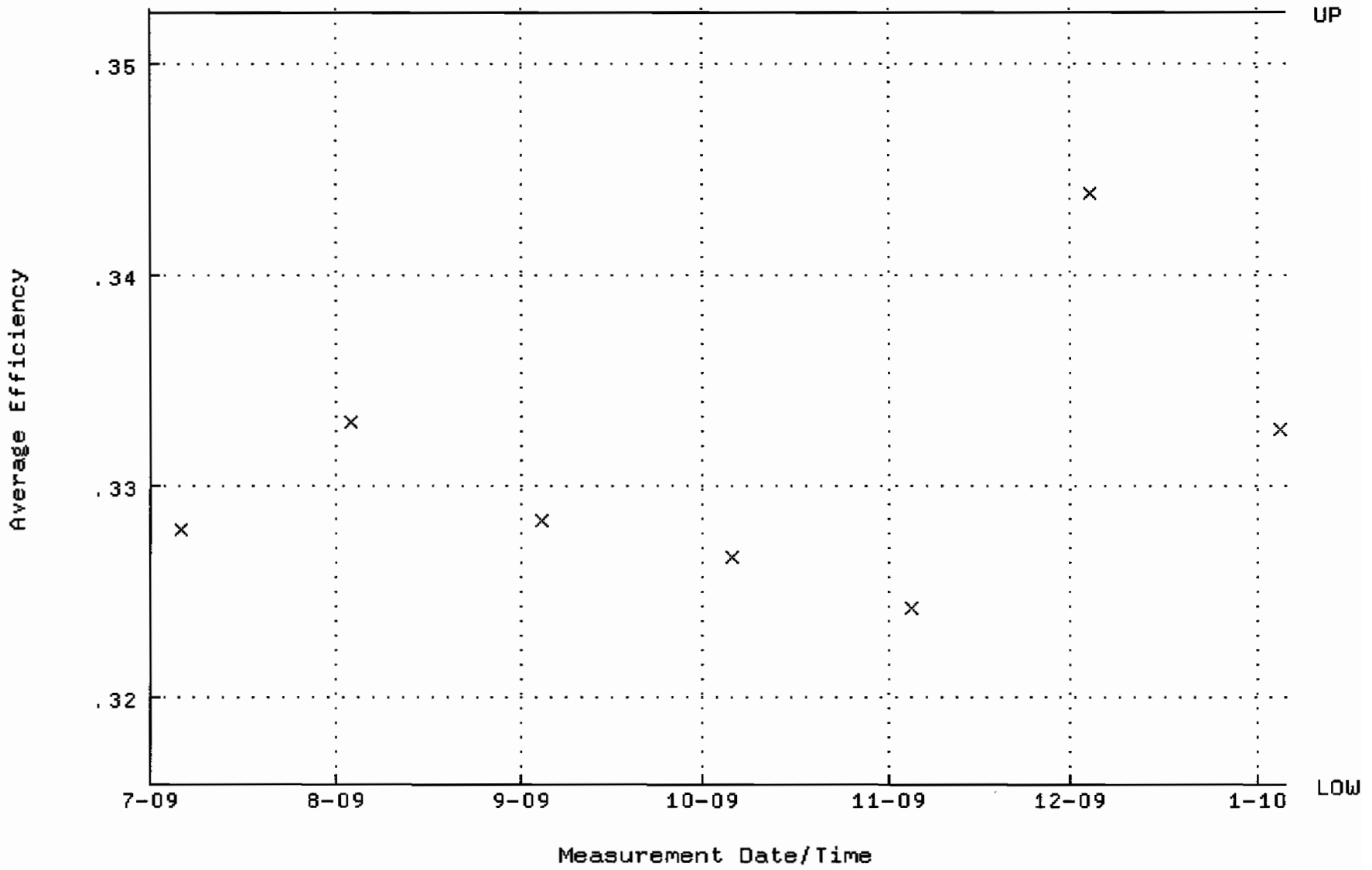

QA filename : DKA100:[ENV_ALPHA.QA.W]W024.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 6-JUL-2009 09:46:13 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 87.2434 through 91.8289

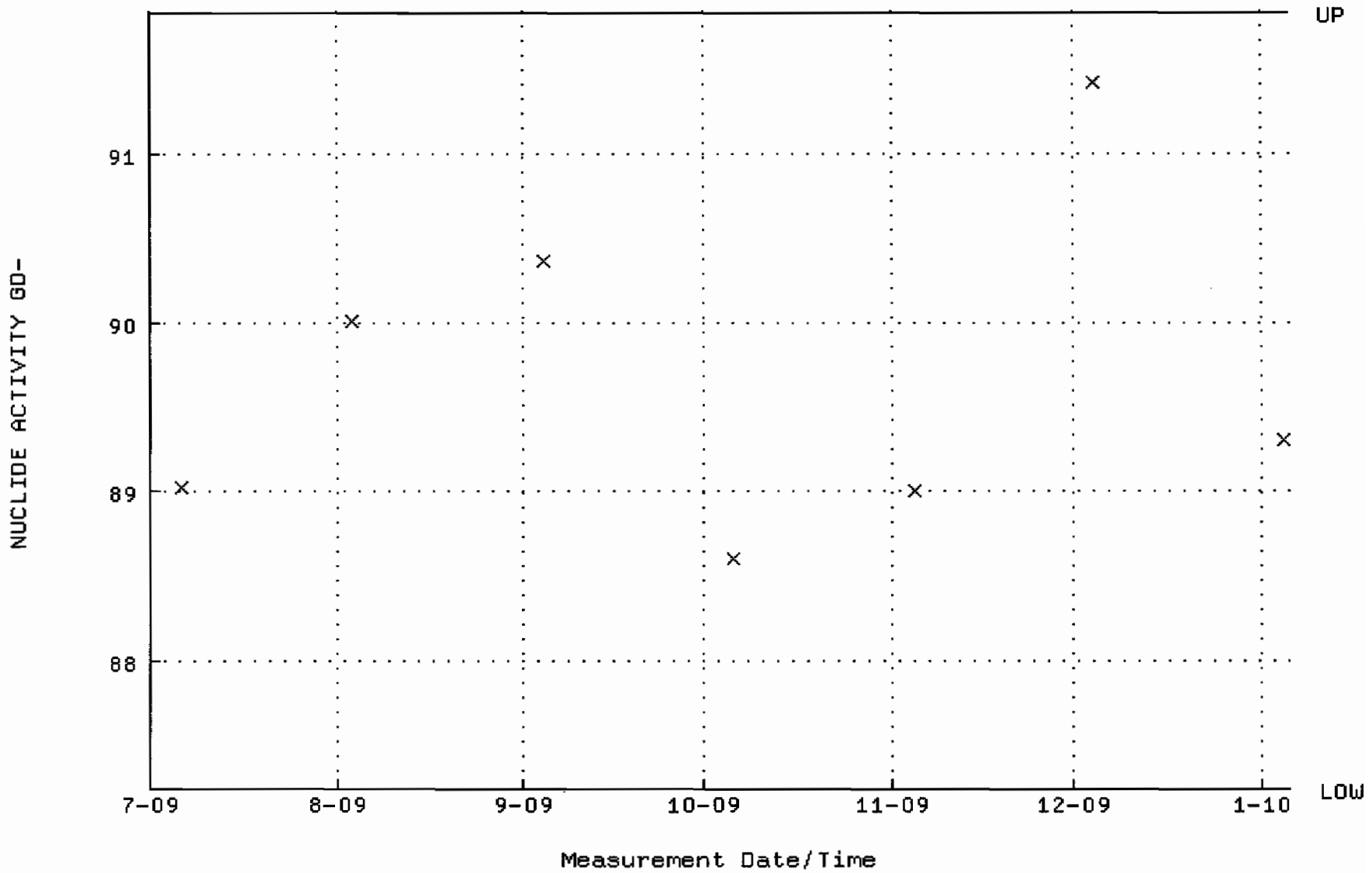

QA filename : DKA100:[ENV_ALPHA.QA.B]B024.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:11:57 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

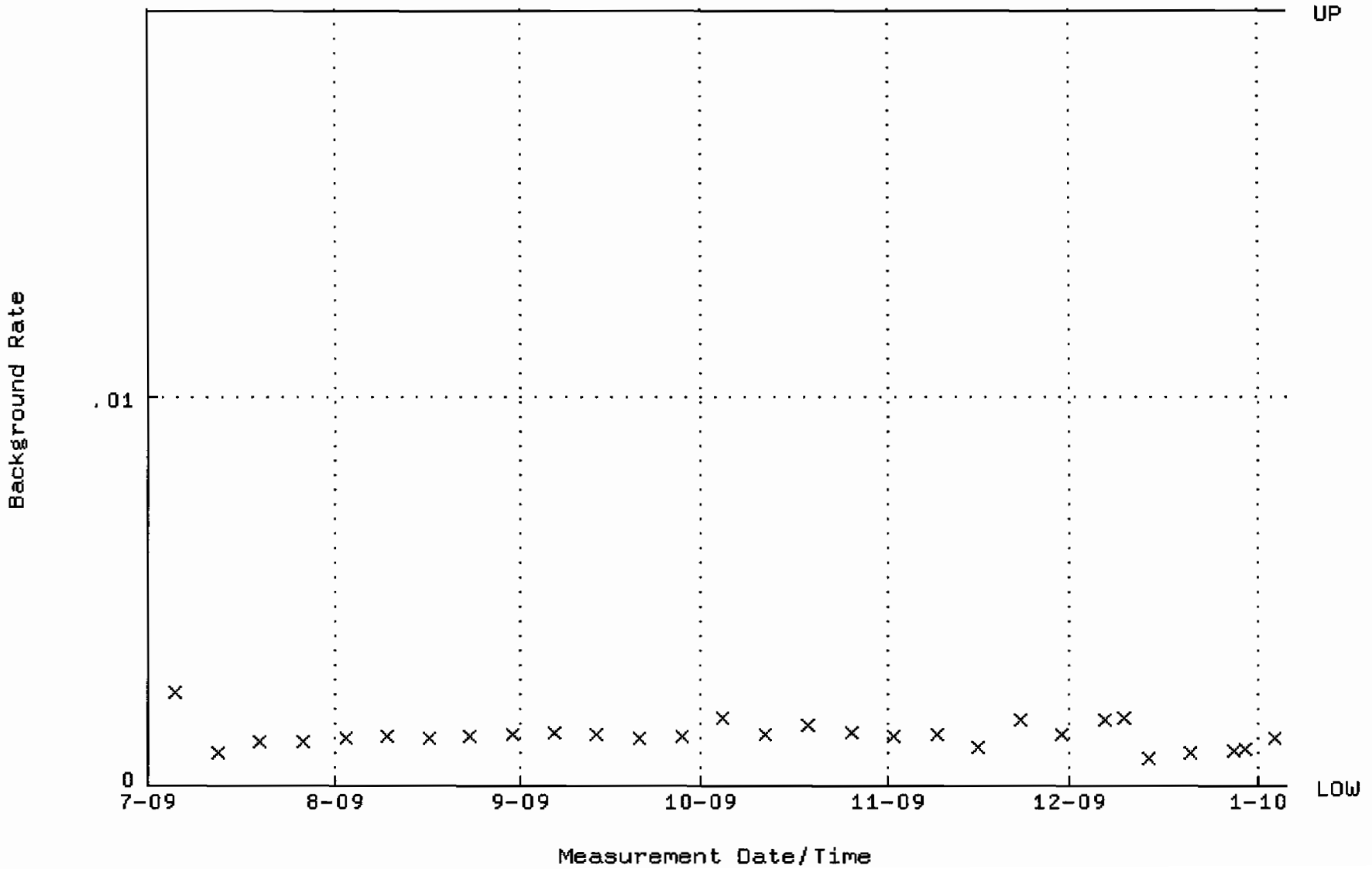

QA filename : DKA100:[ENV_ALPHA.QA.W]W025.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 6-JUL-2009 09:46:14 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

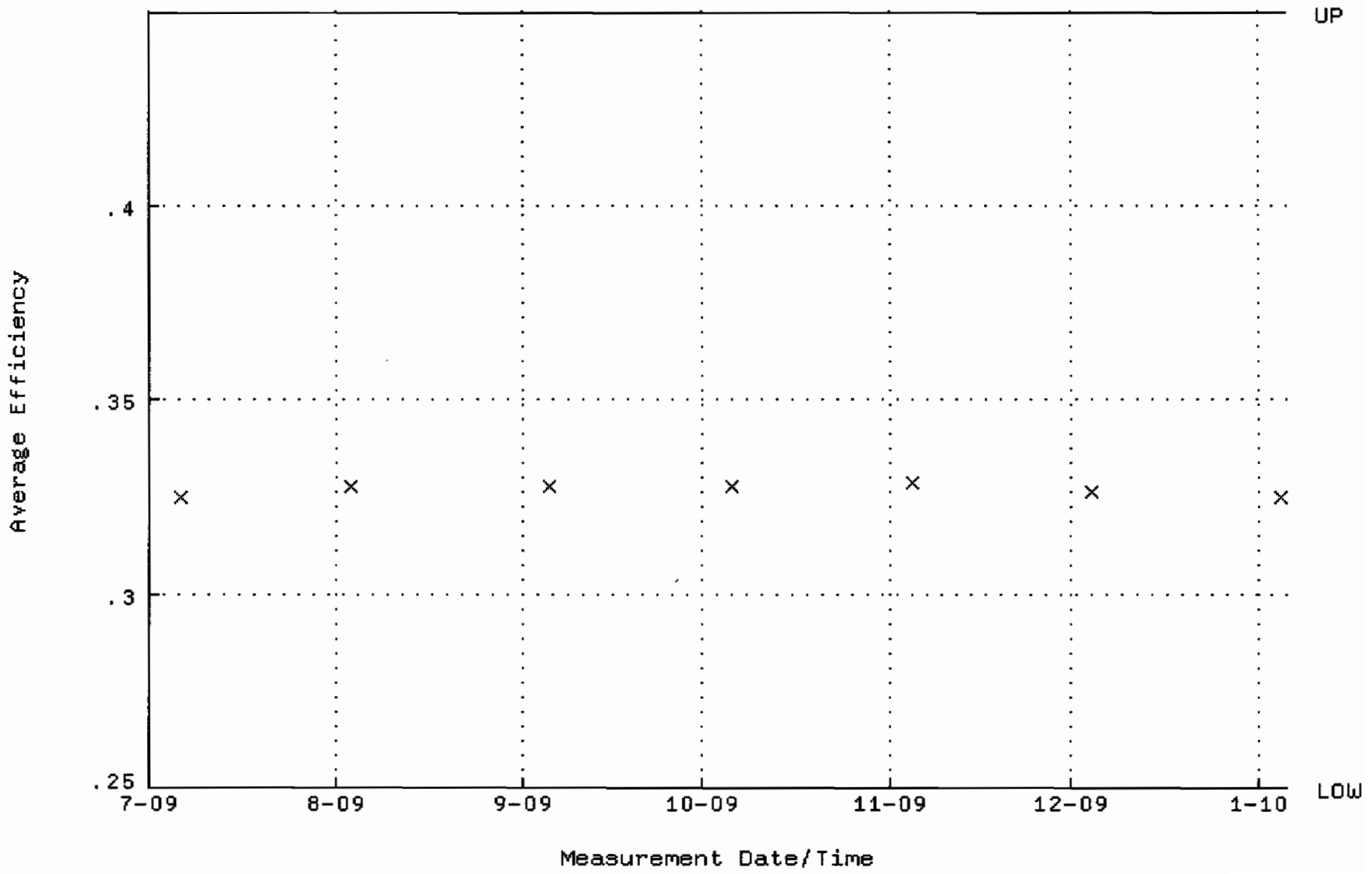

QA filename : DKA100:[ENV_ALPHA.QA.W]W025.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 6-JUL-2009 09:46:14 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

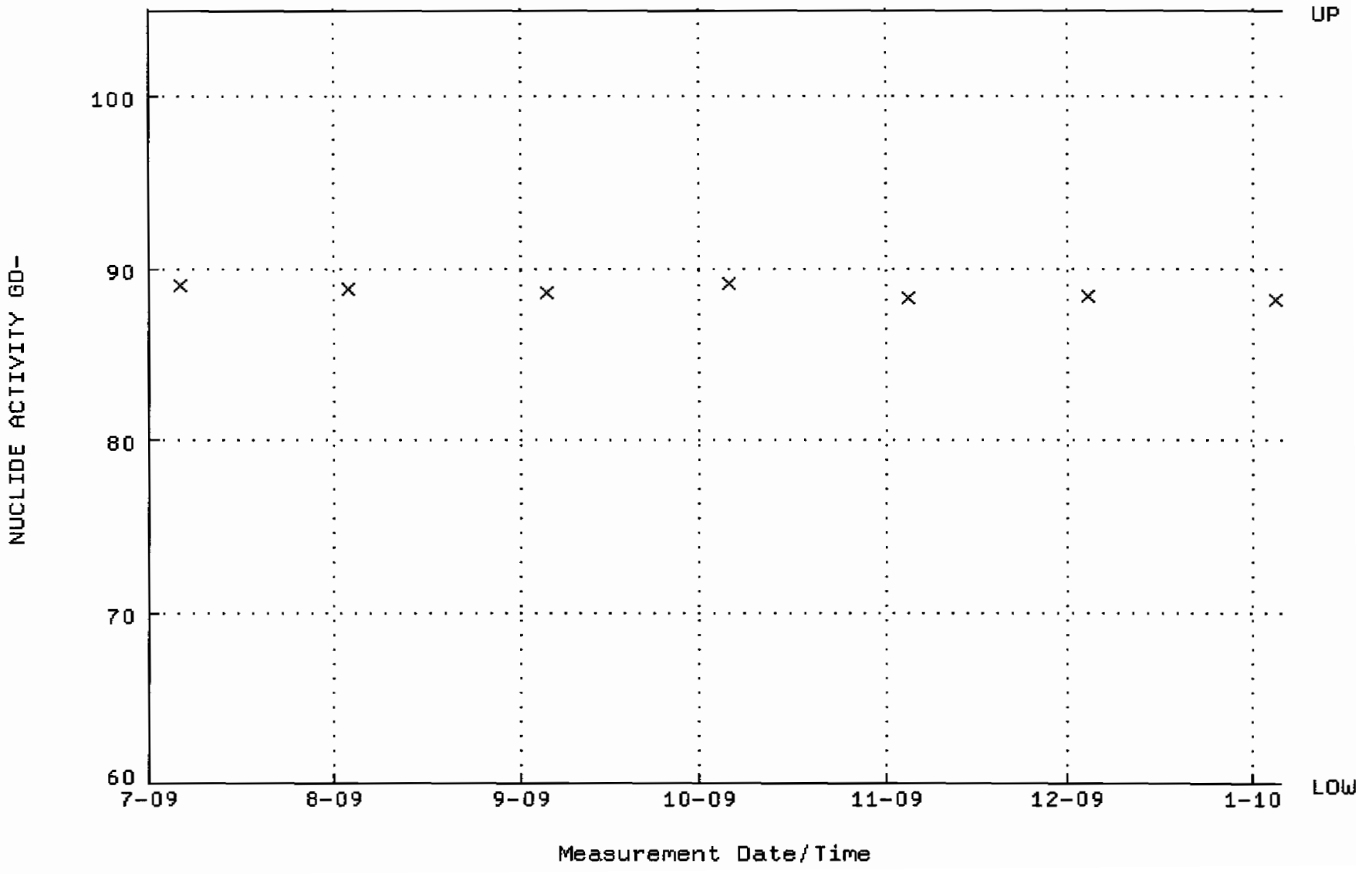

QA filename : DKA100:[ENV_ALPHA.QA.B]B025.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:11:58 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

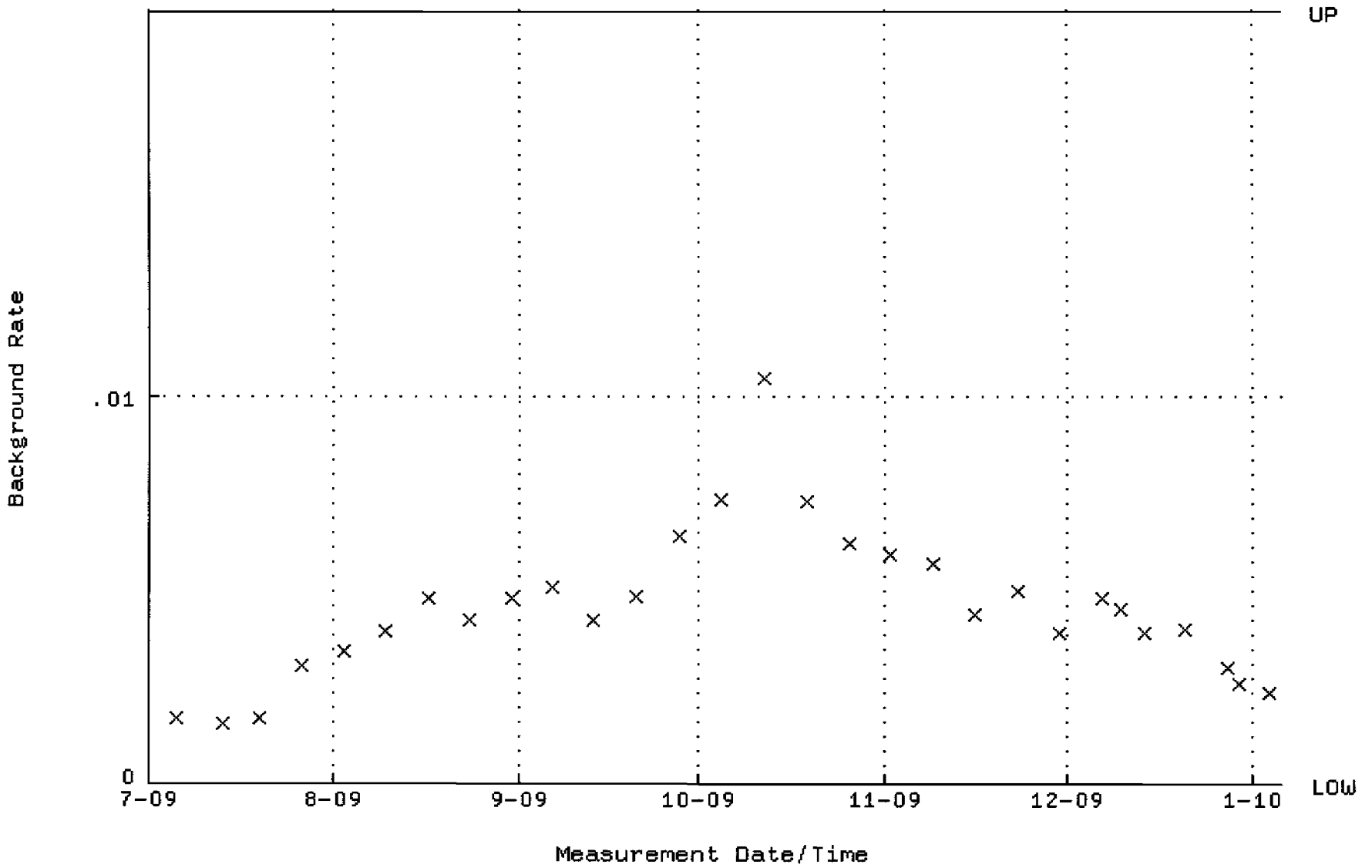

QA filename : DKA100:[ENV_ALPHA.QA.W]W026.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 6-JUL-2009 09:46:14 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.307728 through 0.327728

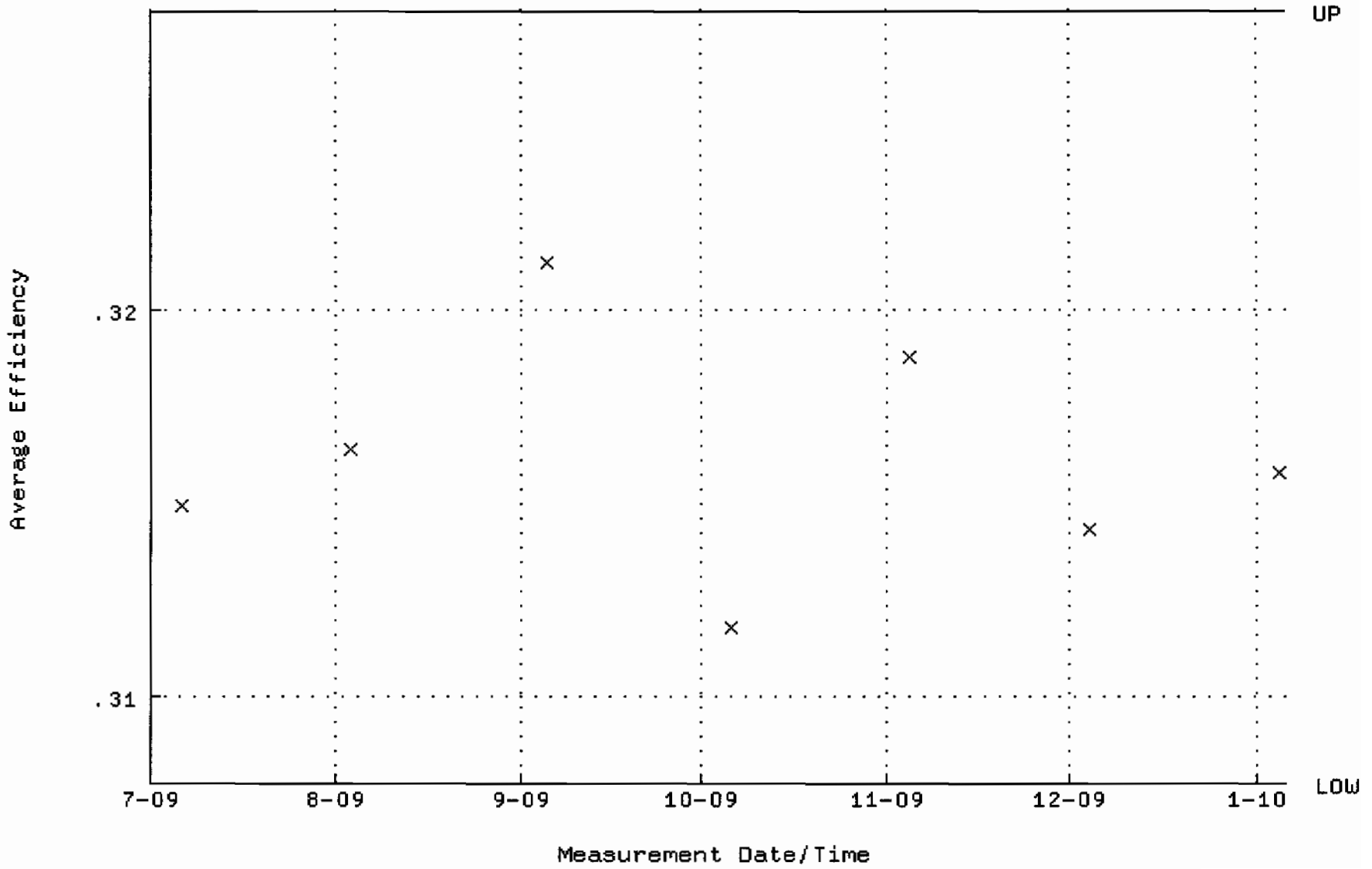

QA filename : DKA100:[ENV_ALPHA.QA.W]W026.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 6-JUL-2009 09:46:14 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 85.8763 through 94.9159

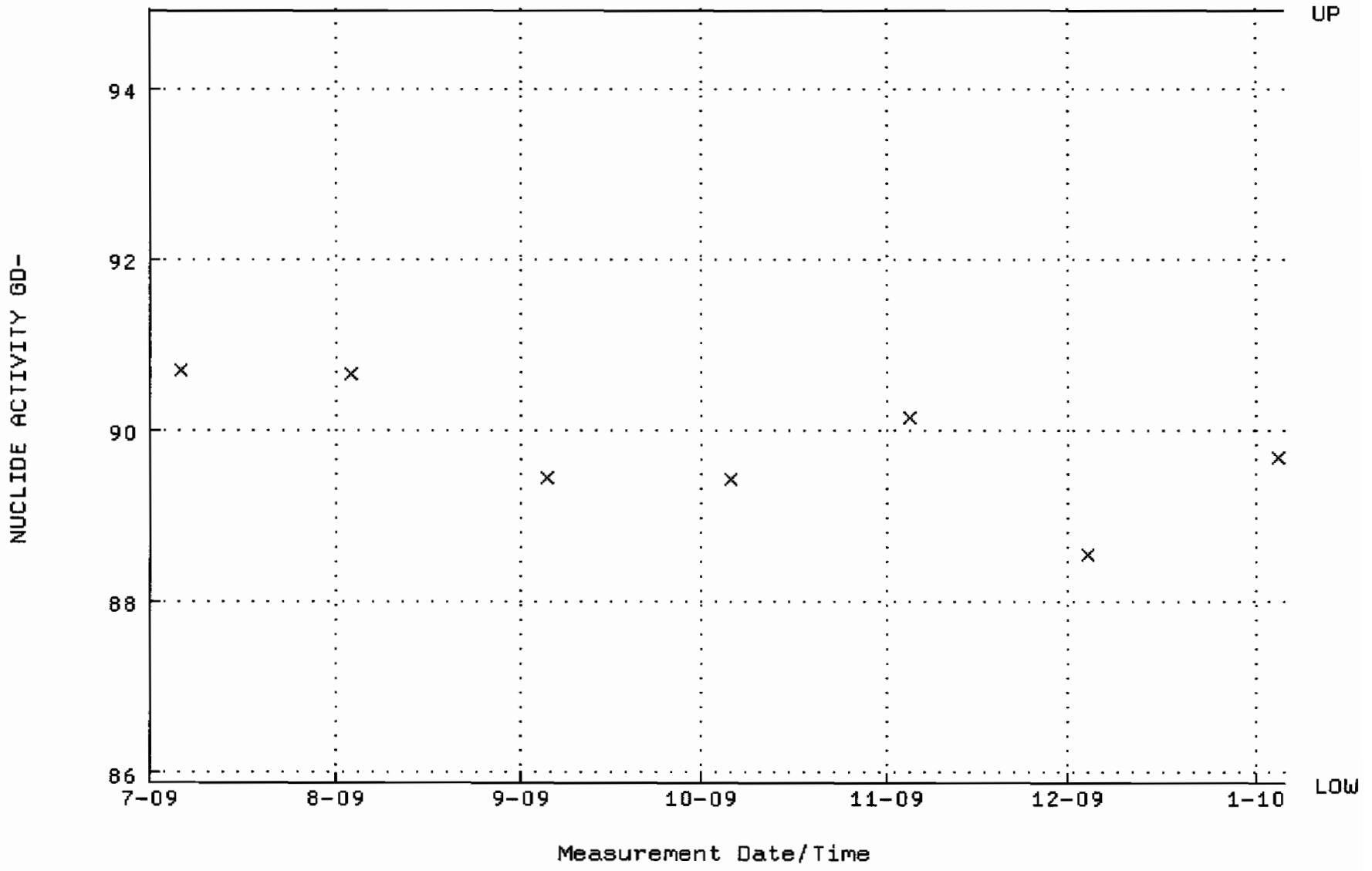

QA filename : DKA100:[ENV_ALPHA.QA.B]B026.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:11:58 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

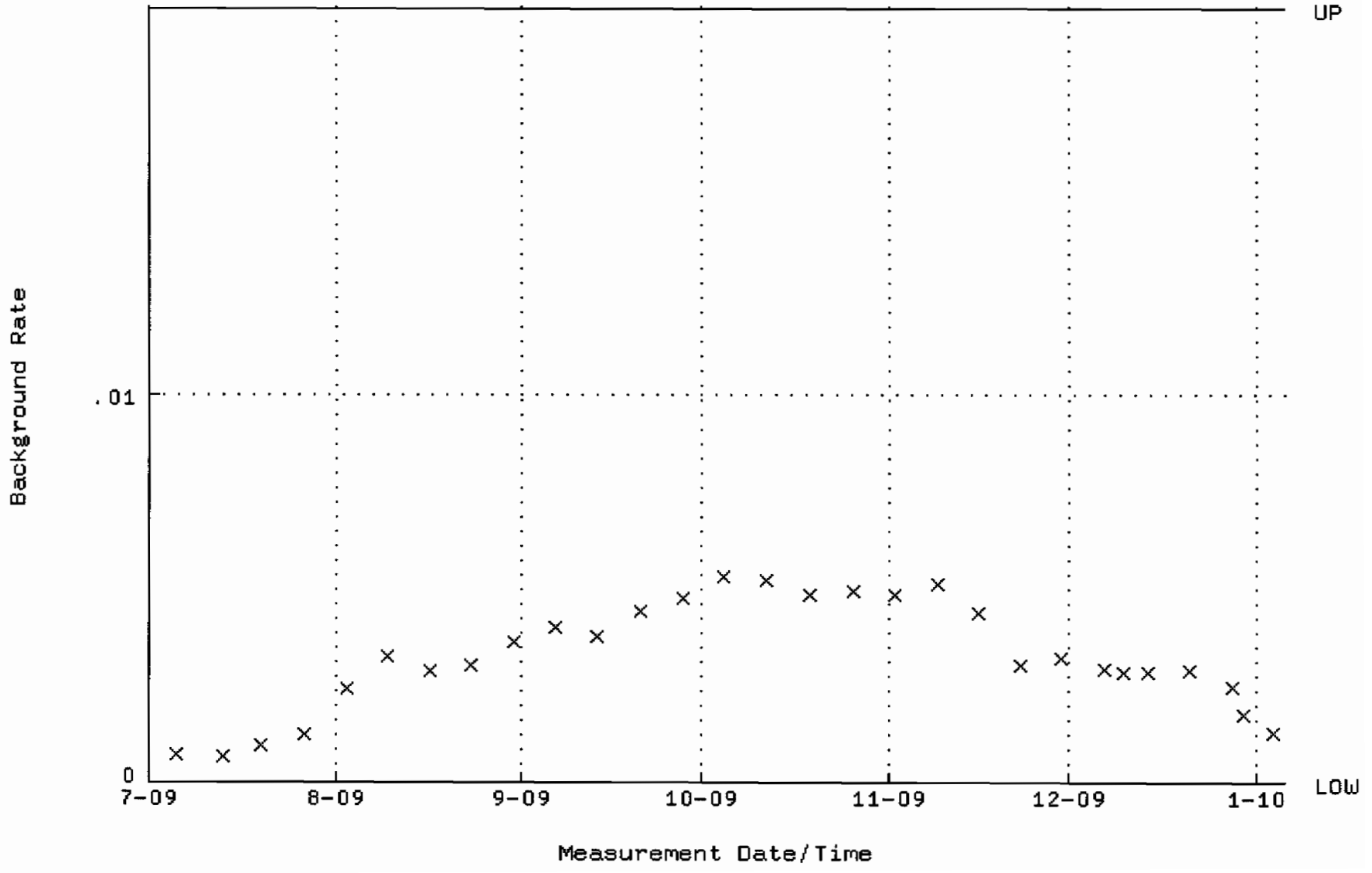

QA filename : DKA100:[ENV_ALPHA.QA.W]W027.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 6-JUL-2009 09:46:14 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.324980 through 0.344980

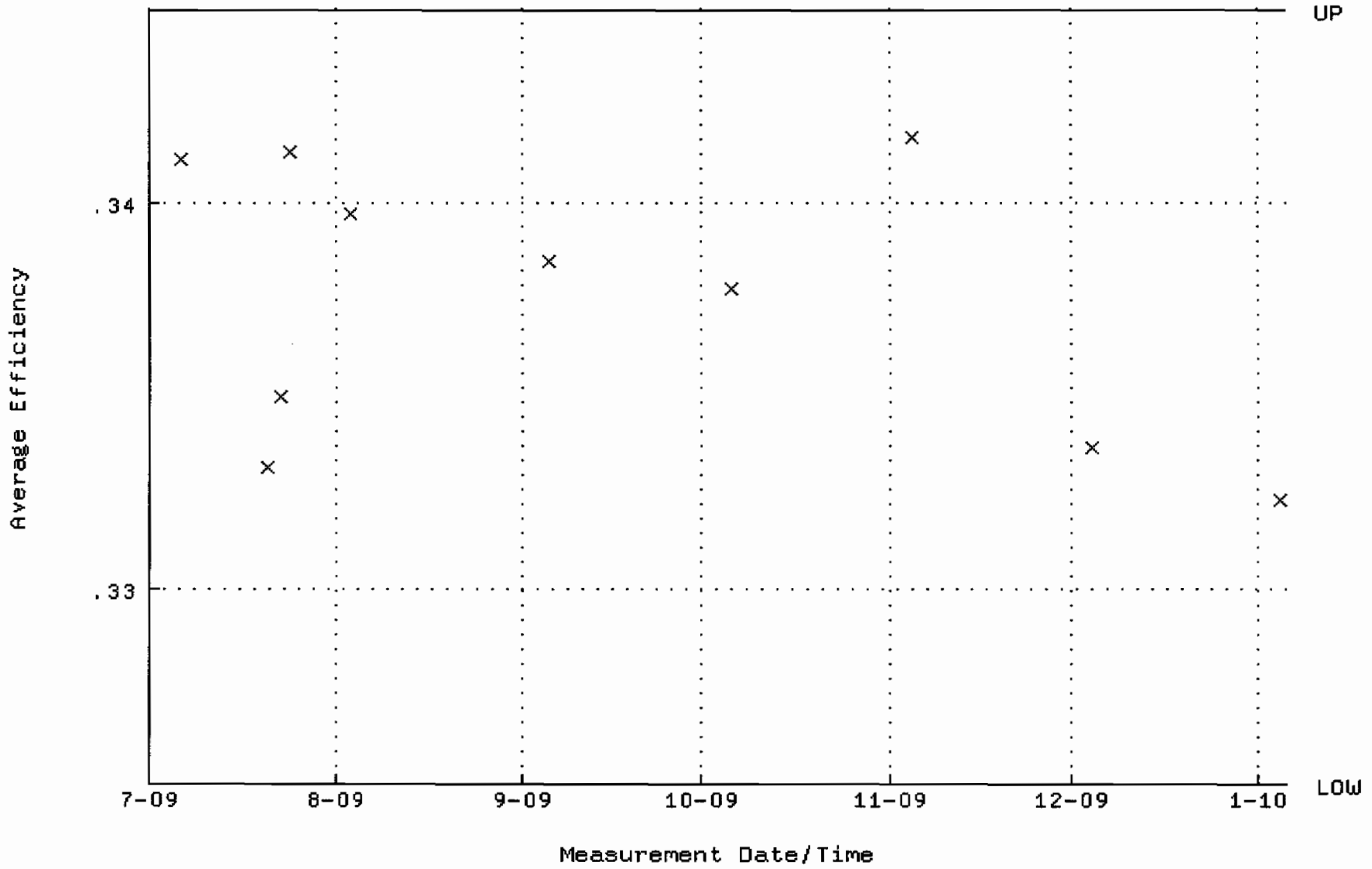

QA filename : DKA100:[ENV_ALPHA.QA.W]W027.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 6-JUL-2009 09:46:14 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 81.2030 through 89.7506

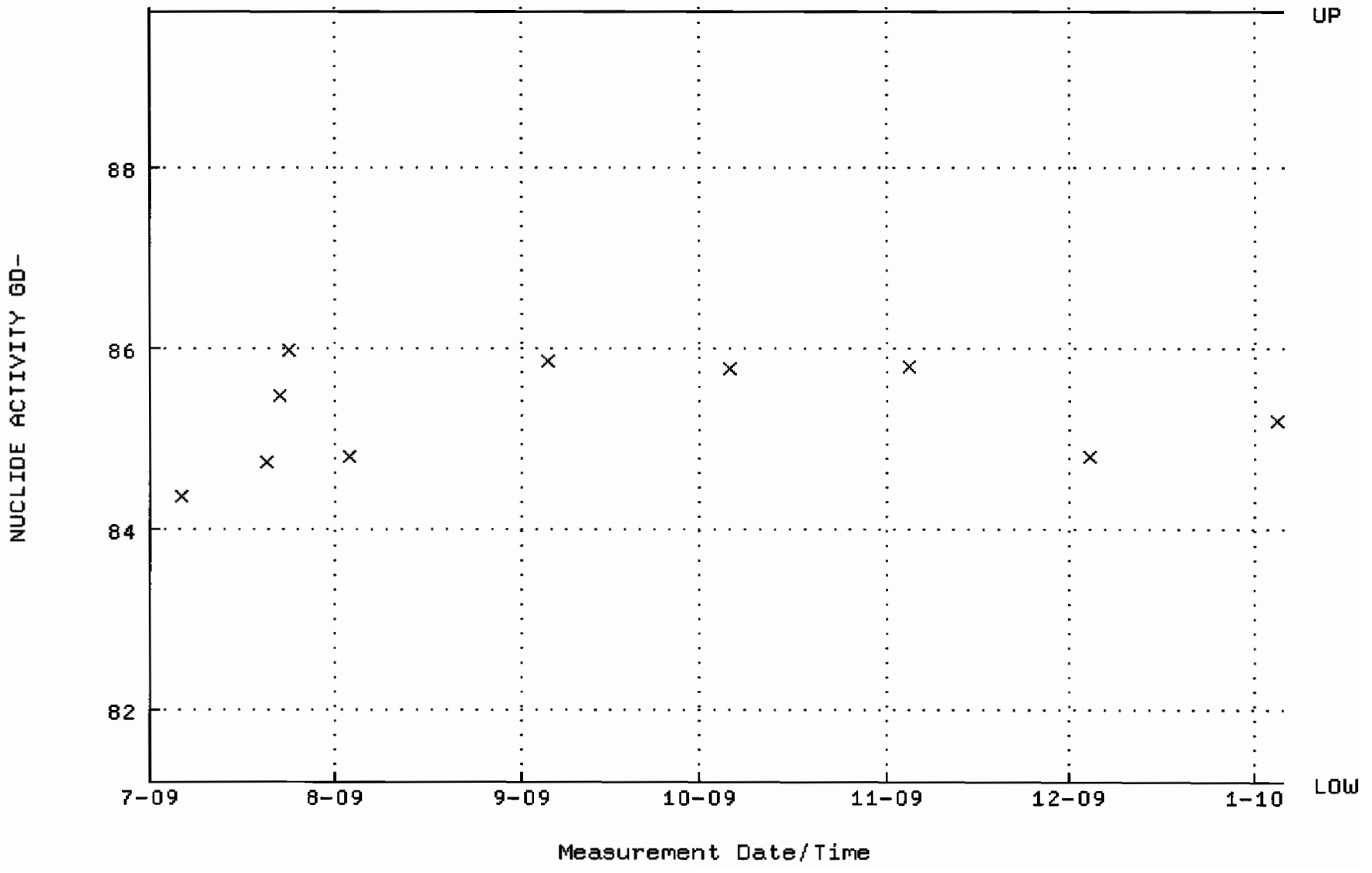

QA filename : DKA100:[ENV_ALPHA.QA.B]B027.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:11:58 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

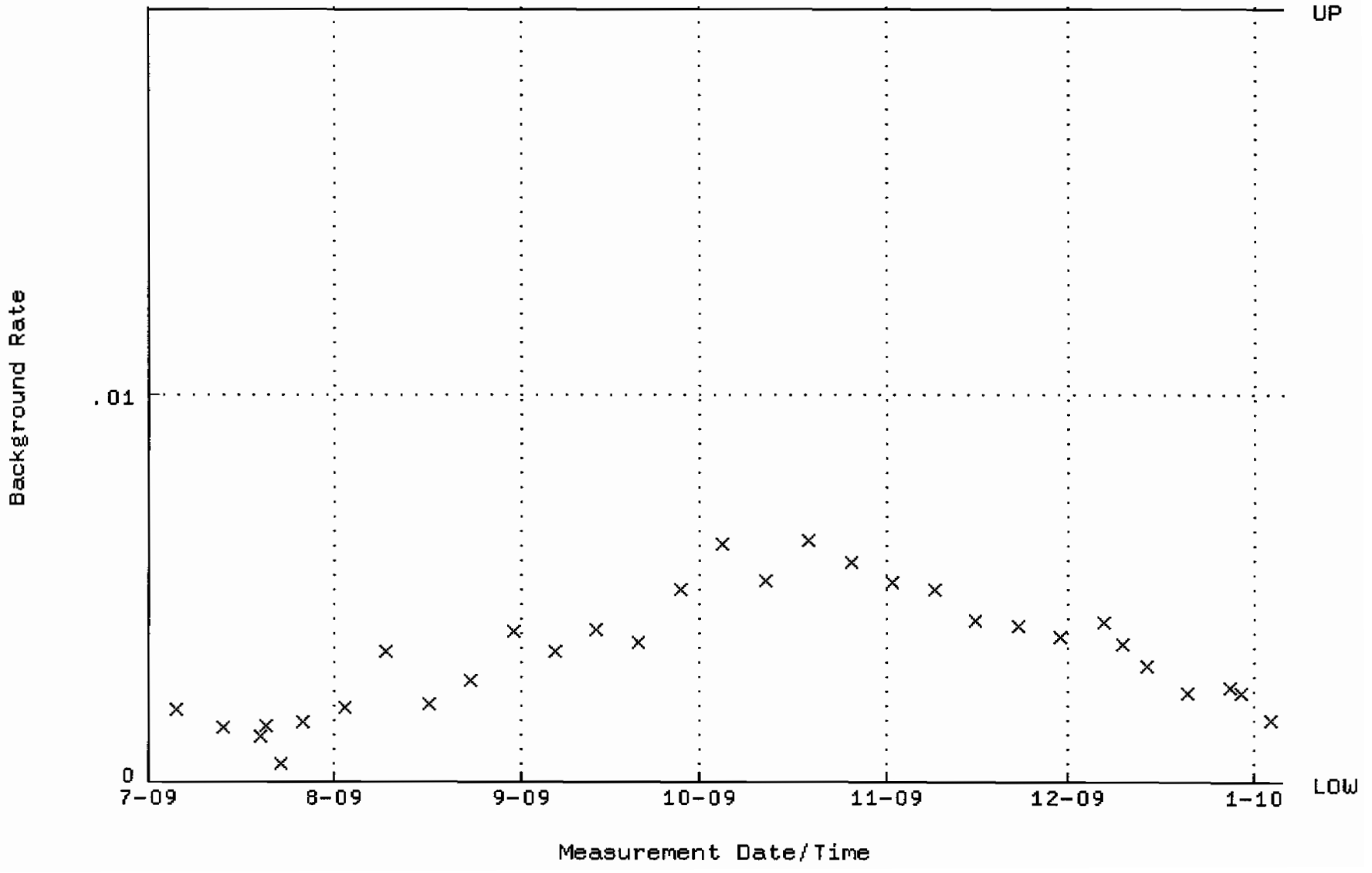

QA filename : DKA100:[ENV_ALPHA.QA.W]W028.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 6-JUL-2009 09:46:14 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.295040 through 0.315040

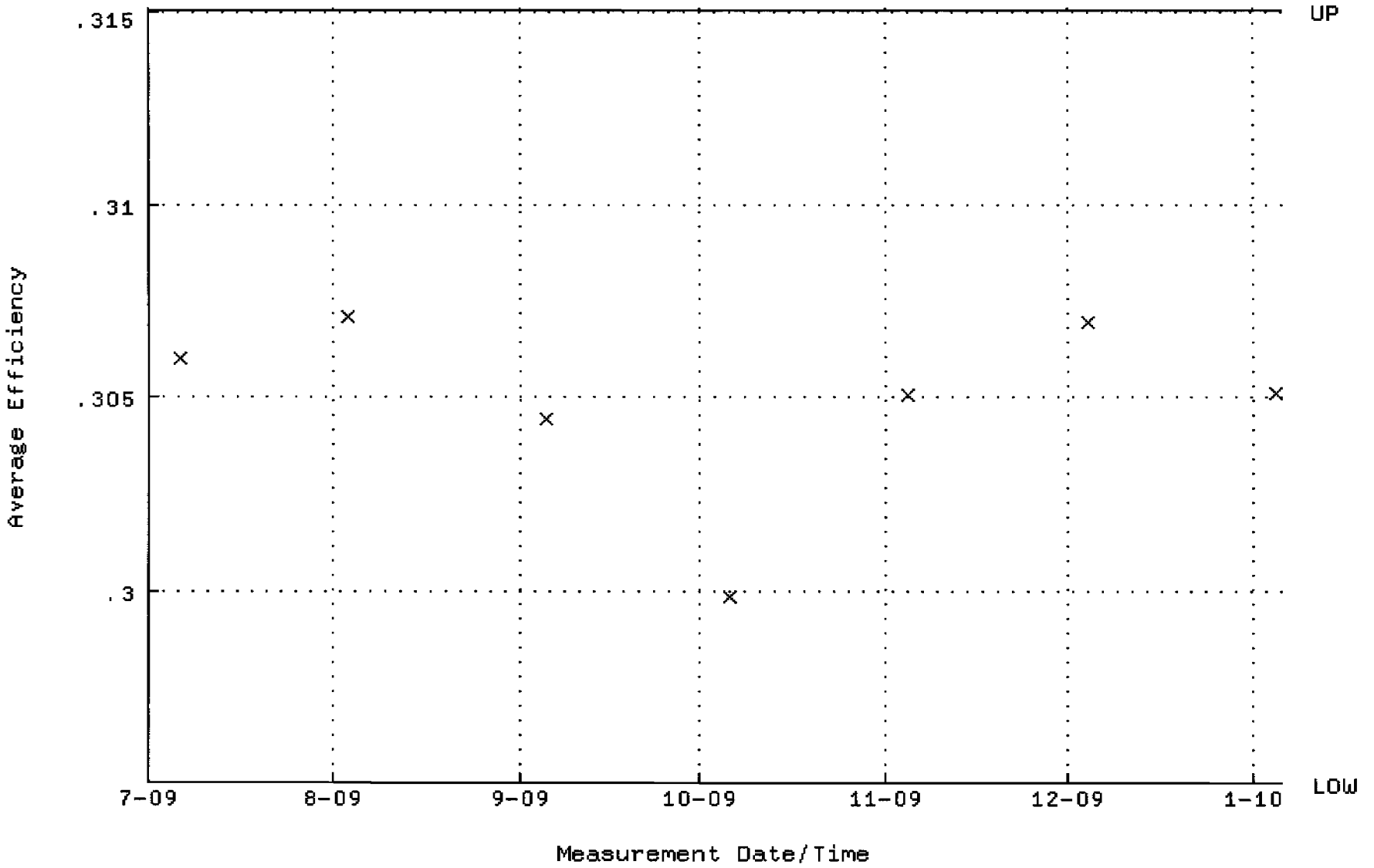

QA filename : DKA100:[ENV_ALPHA.QA.W]W028.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 6-JUL-2009 09:46:14 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 85.1965 through 94.1645

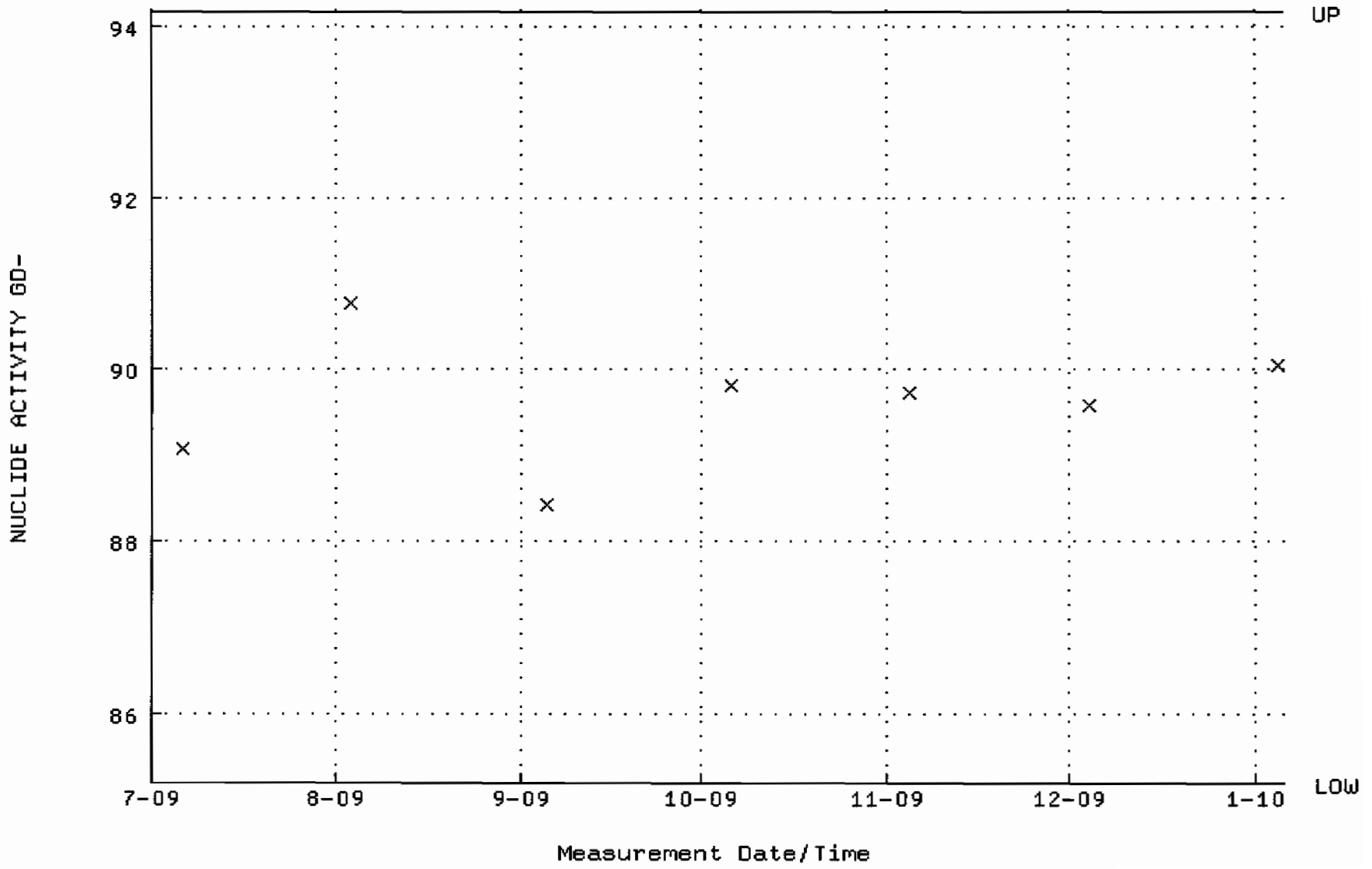

QA filename : DKA100:[ENV_ALPHA.QA.B]B028.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:11:58 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

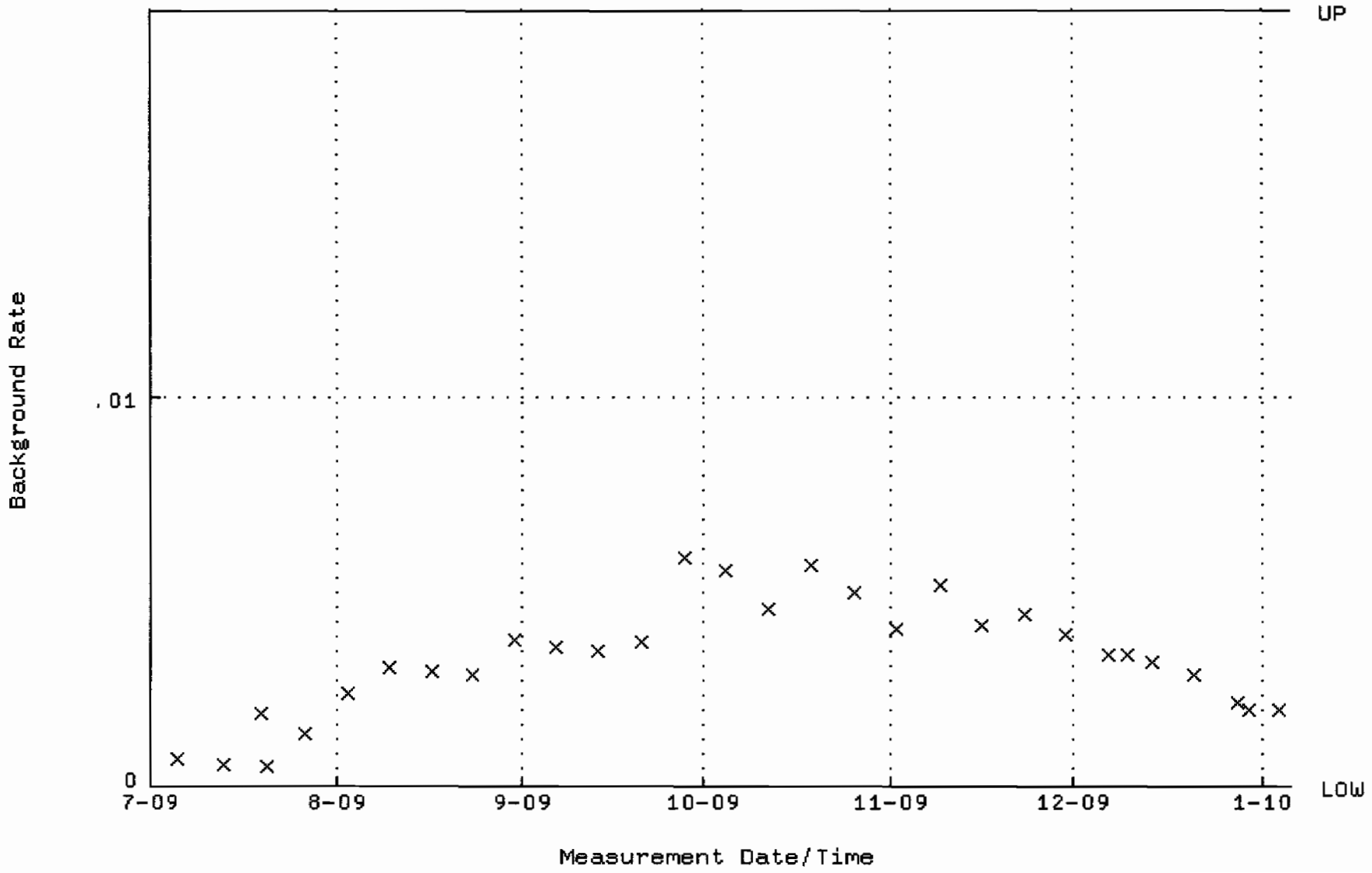

QA filename : DKA100:[ENV_ALPHA.QA.W]W029.QAF;6
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 6-JUL-2009 09:46:14 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

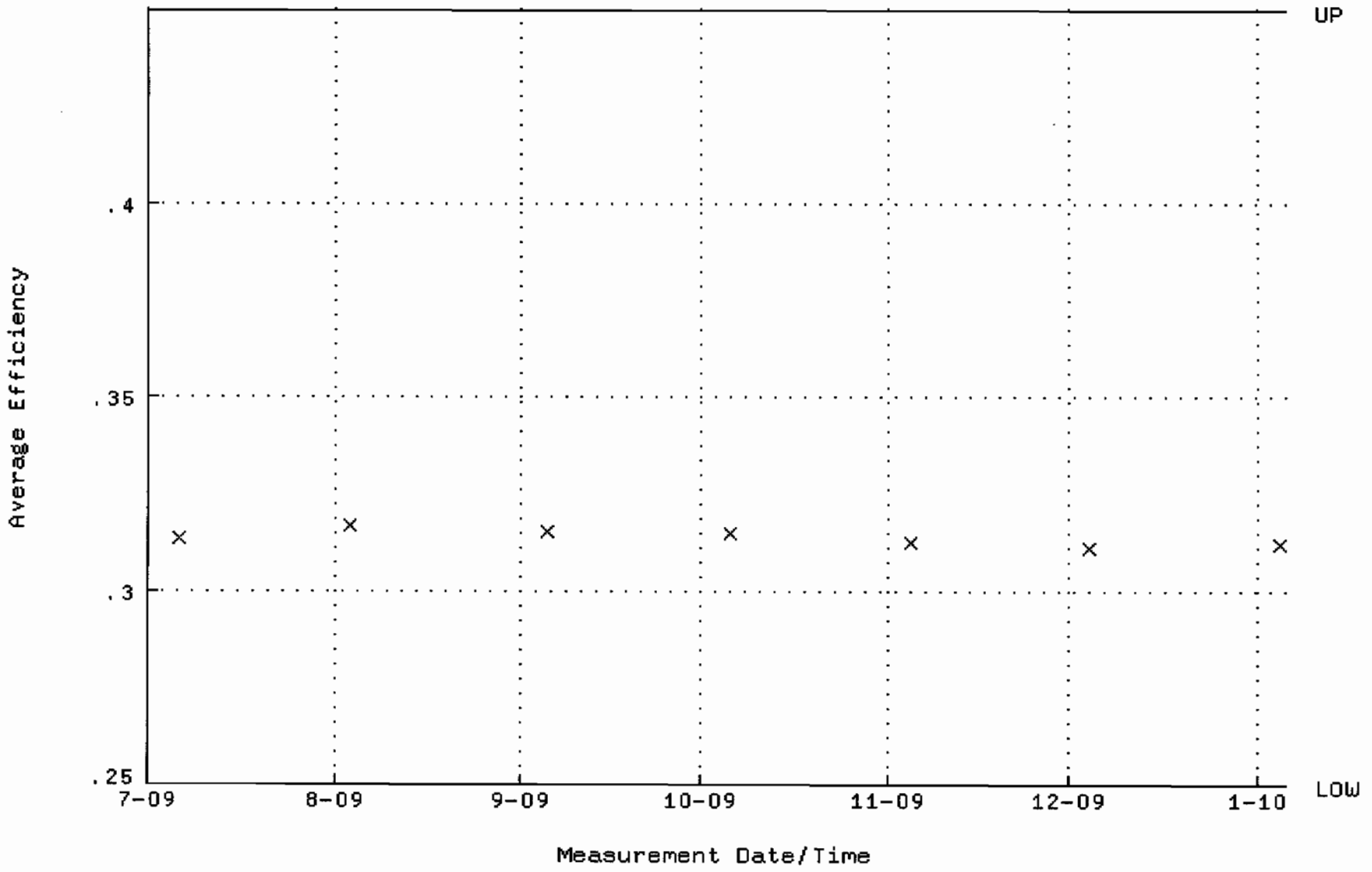

QA filename : DKA100:[ENV_ALPHA.QA.W]W029.QAF;6
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 6-JUL-2009 09:46:14 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

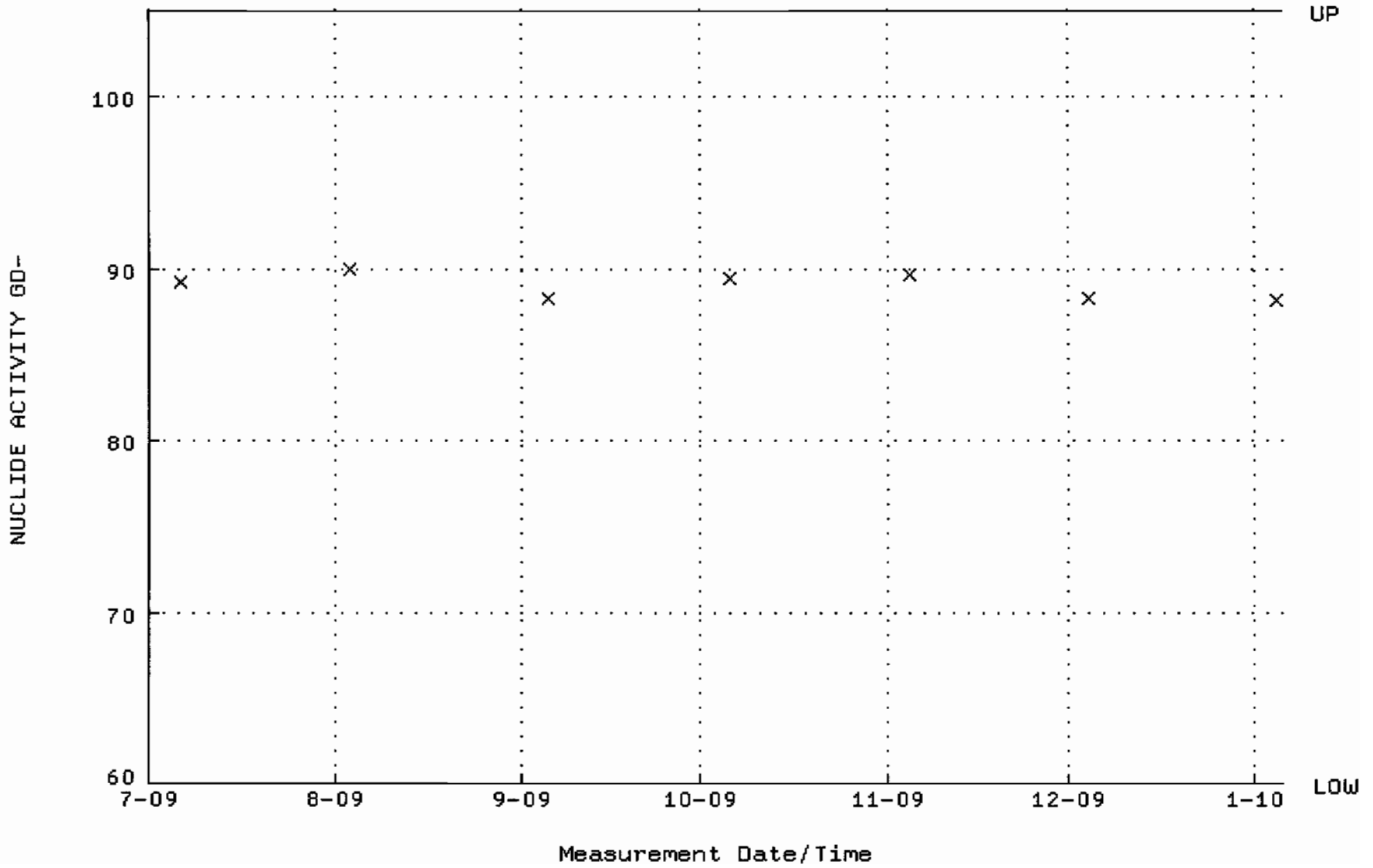

QA filename : DKA100:[ENV_ALPHA.QA.B]B029.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:11:58 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

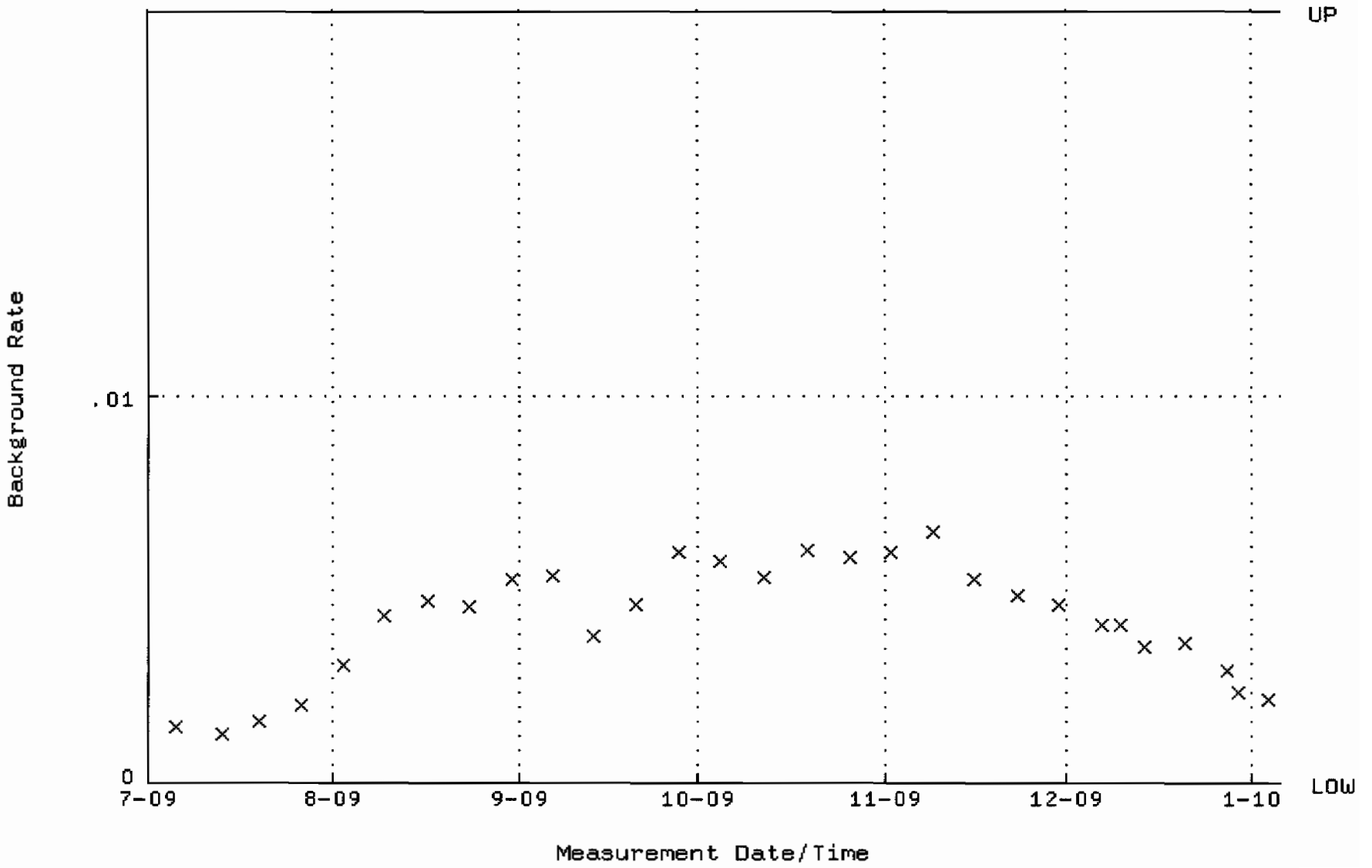

QA filename : DKA100:[ENV_ALPHA.QA.W]W030.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 6-JUL-2009 09:46:14 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

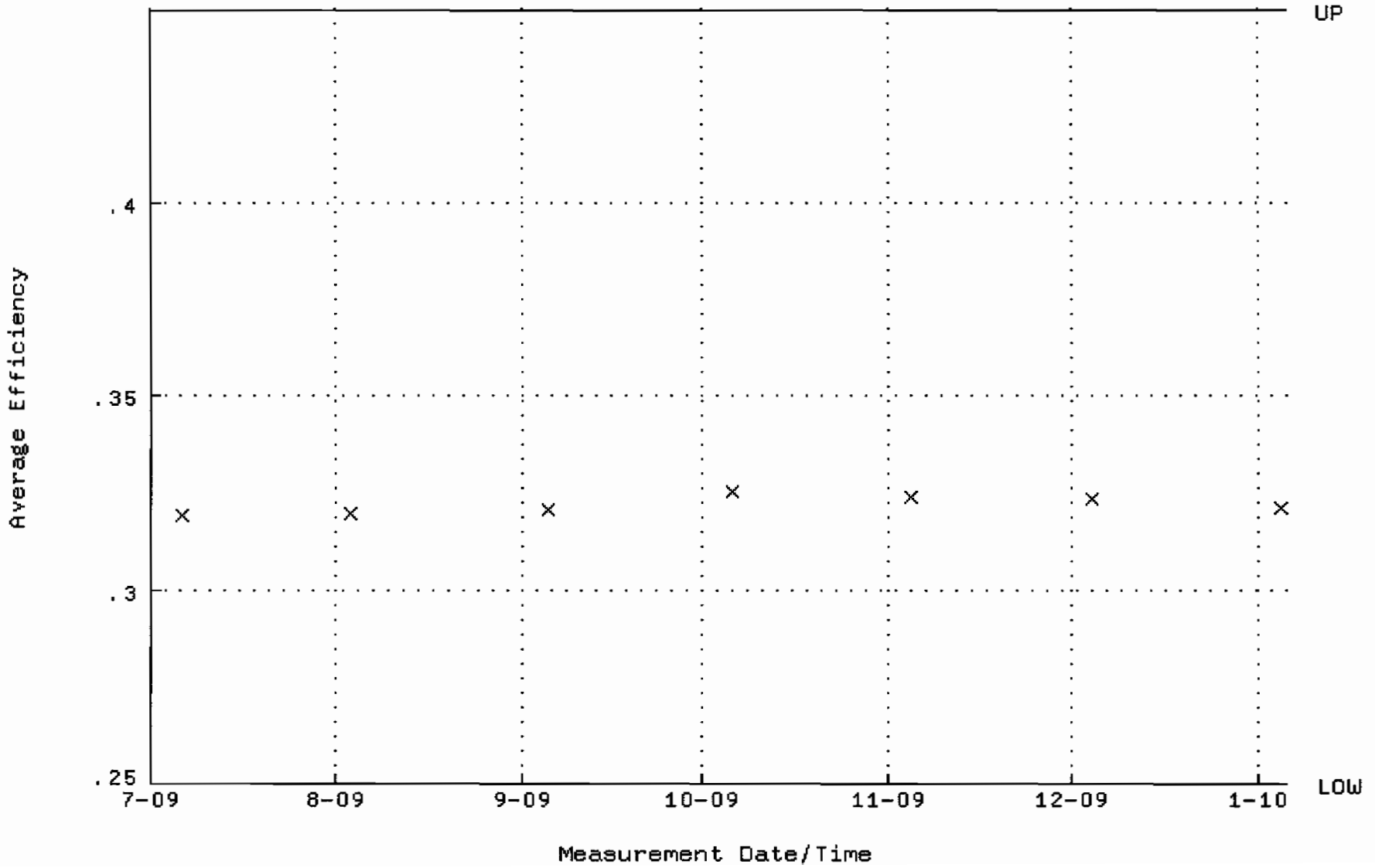

QA filename : DKA100:[ENV_ALPHA.QA.W]W030.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 6-JUL-2009 09:46:14 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

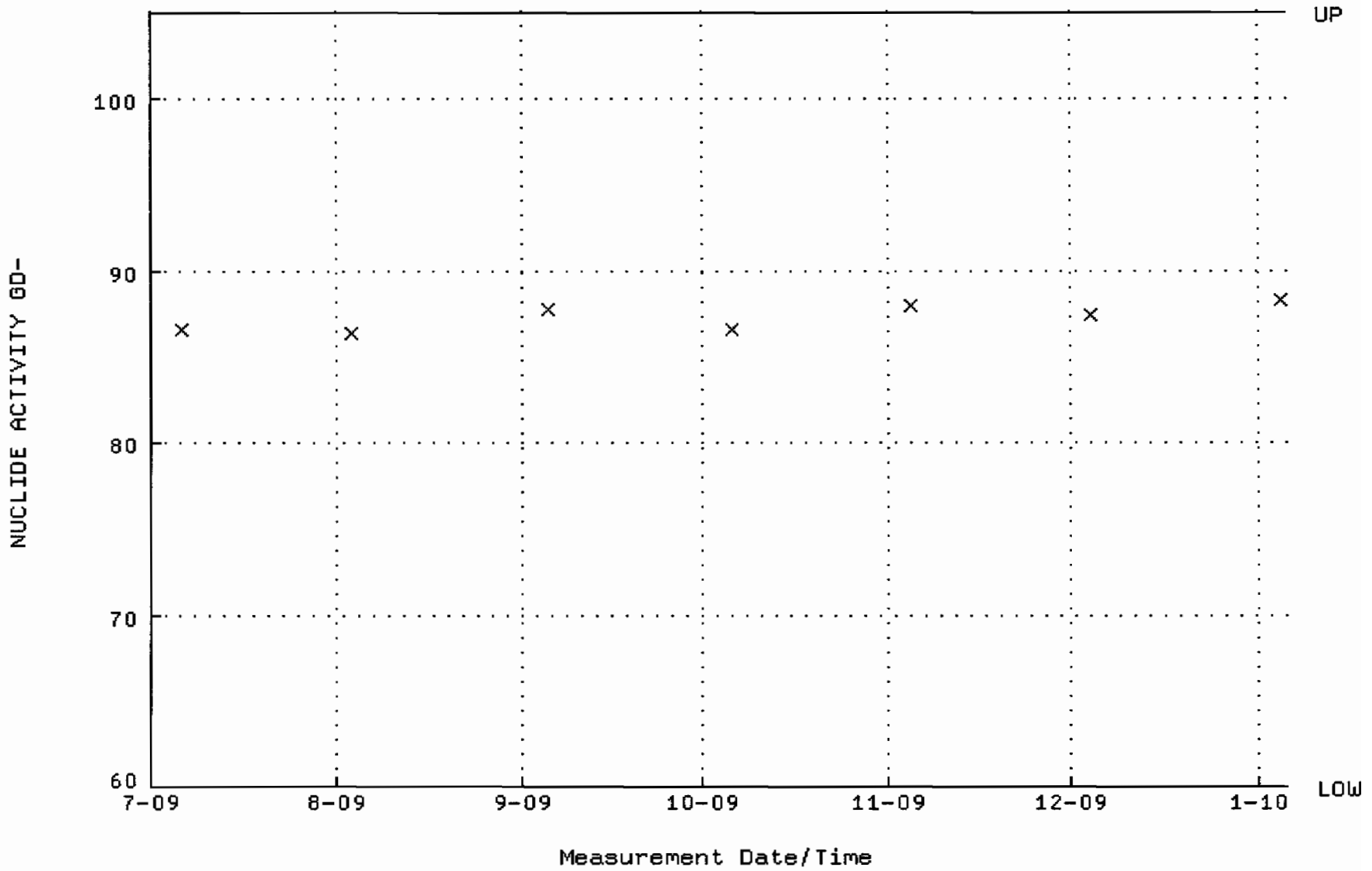

QA filename : DKA100:[ENV_ALPHA.QA.B]B030.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 5-JUL-2009 15:11:58 through 5-JAN-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

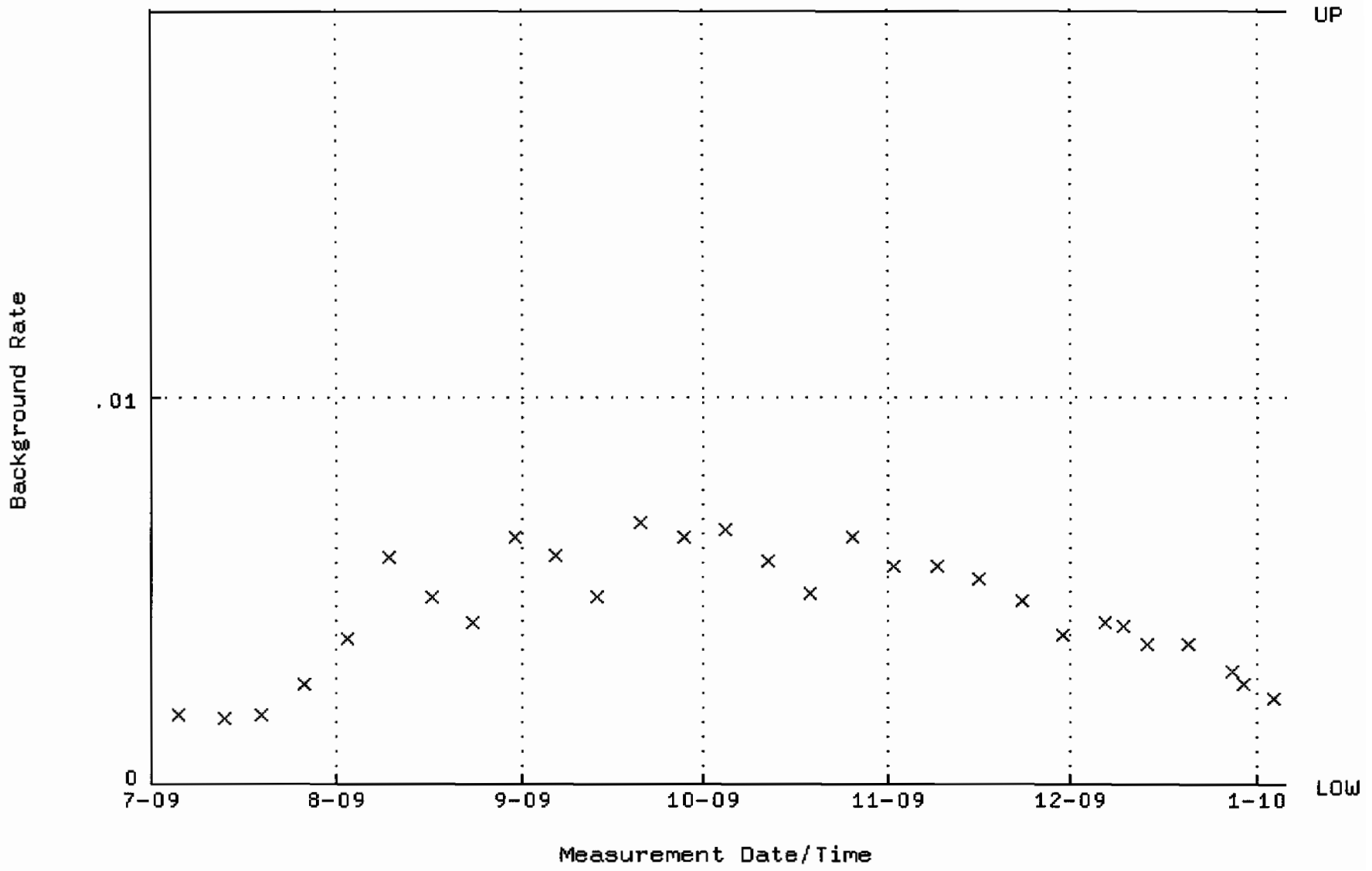

QA filename : DKA100:[ENV_ALPHA.QA.W]W117.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:34:39 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.242940 through 0.262940

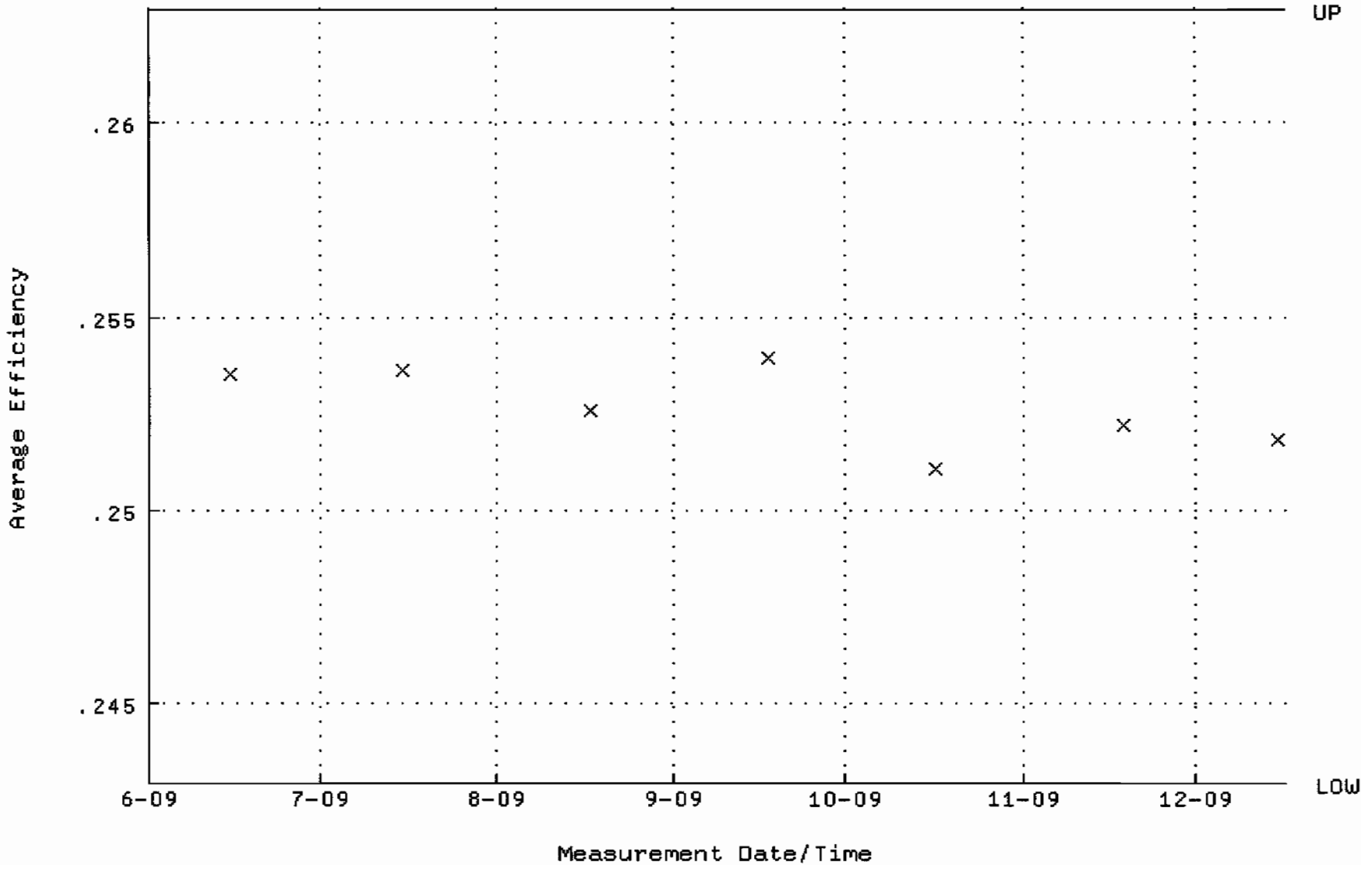

QA filename : DKA100:[ENV_ALPHA.QA.W]W117.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:34:39 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 85.8693 through 94.9081

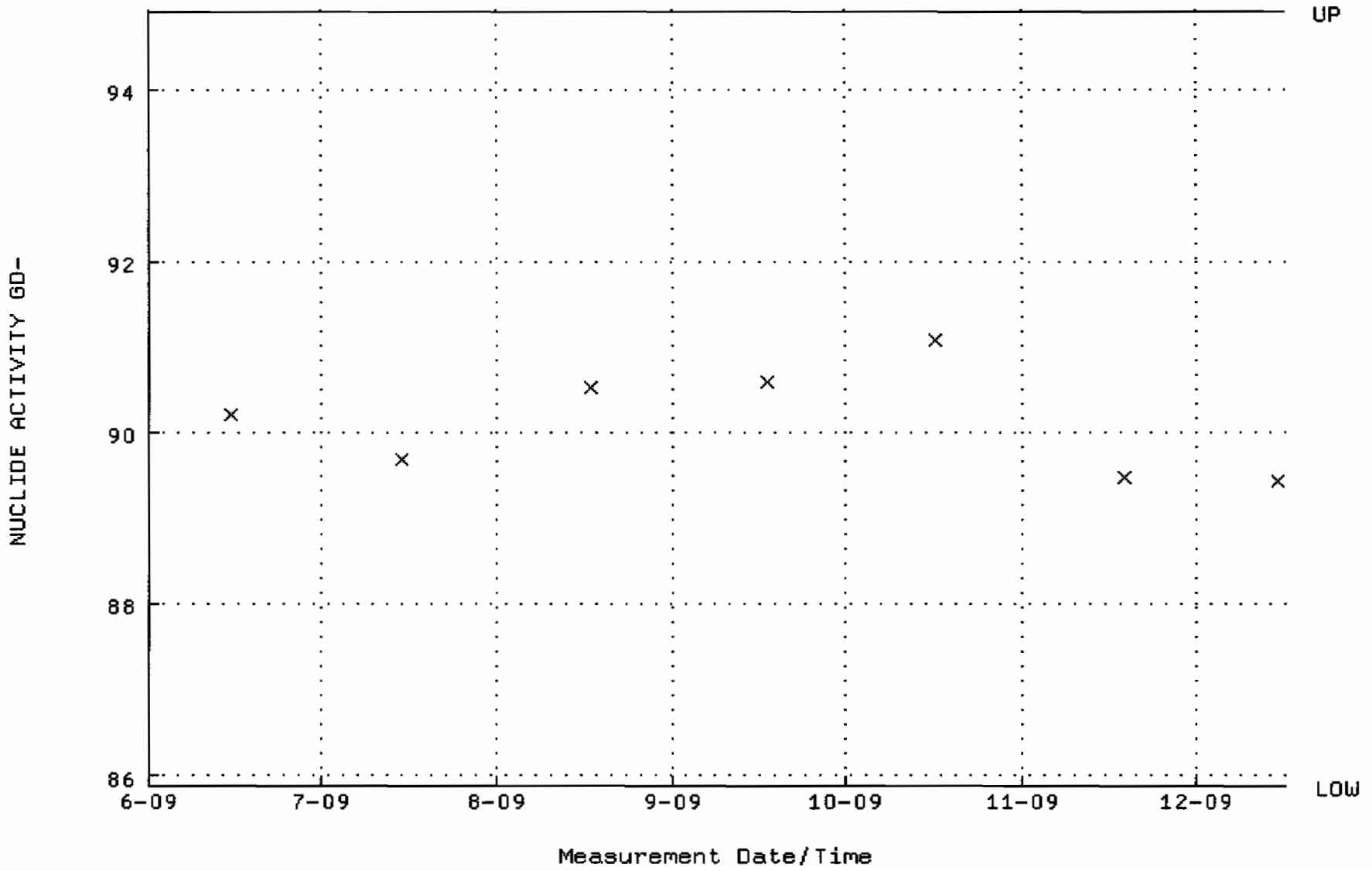

QA filename : DKA100:[ENV_ALPHA.QA.B]B117.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:08:57 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

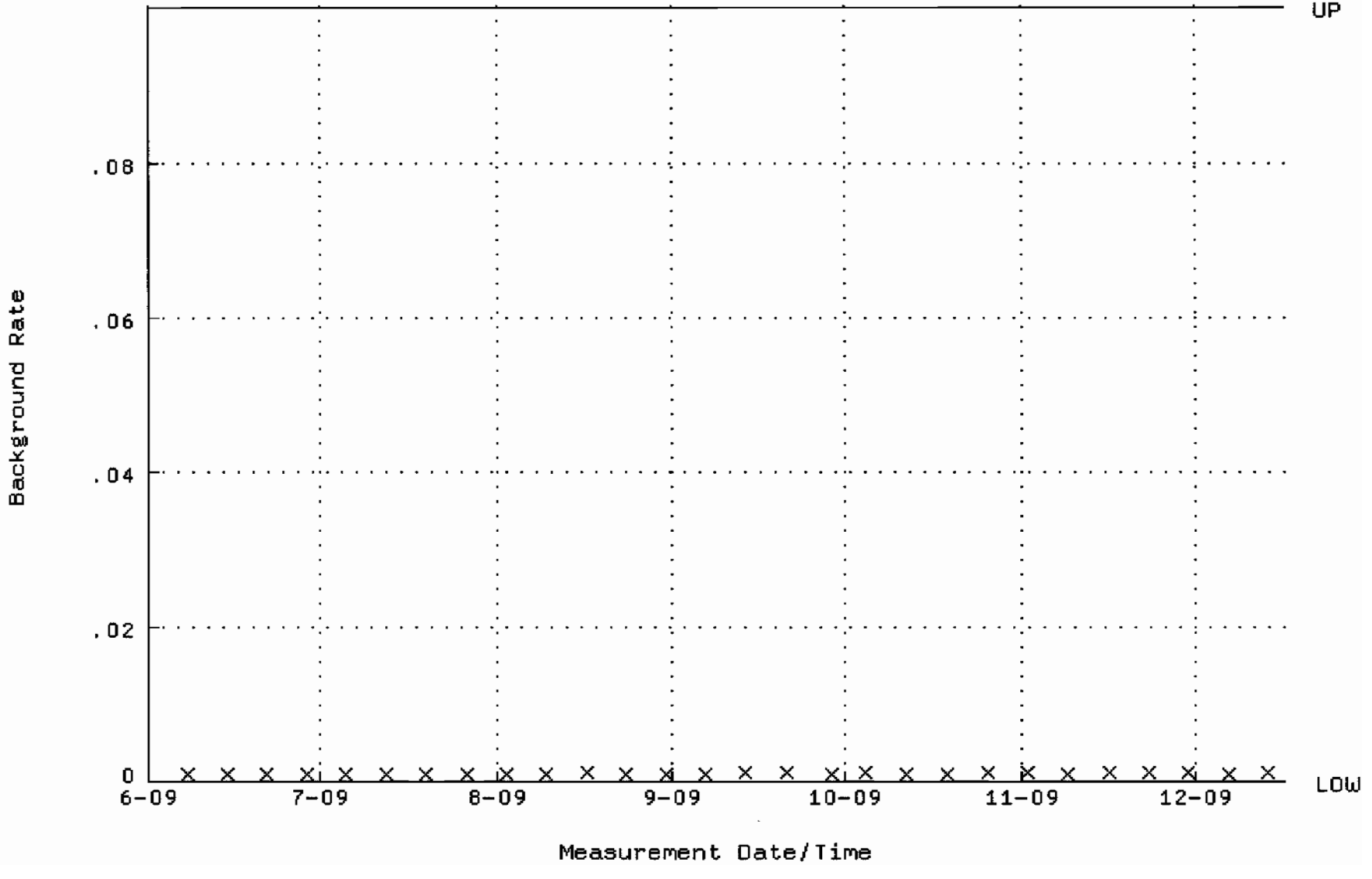

QA filename : DKA100:[ENV_ALPHA.QA.W]W119.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 06:21:52 through 19-DEC-2009 12:00:00
Lower/Upper Lmts: 0.251222 through 0.260678

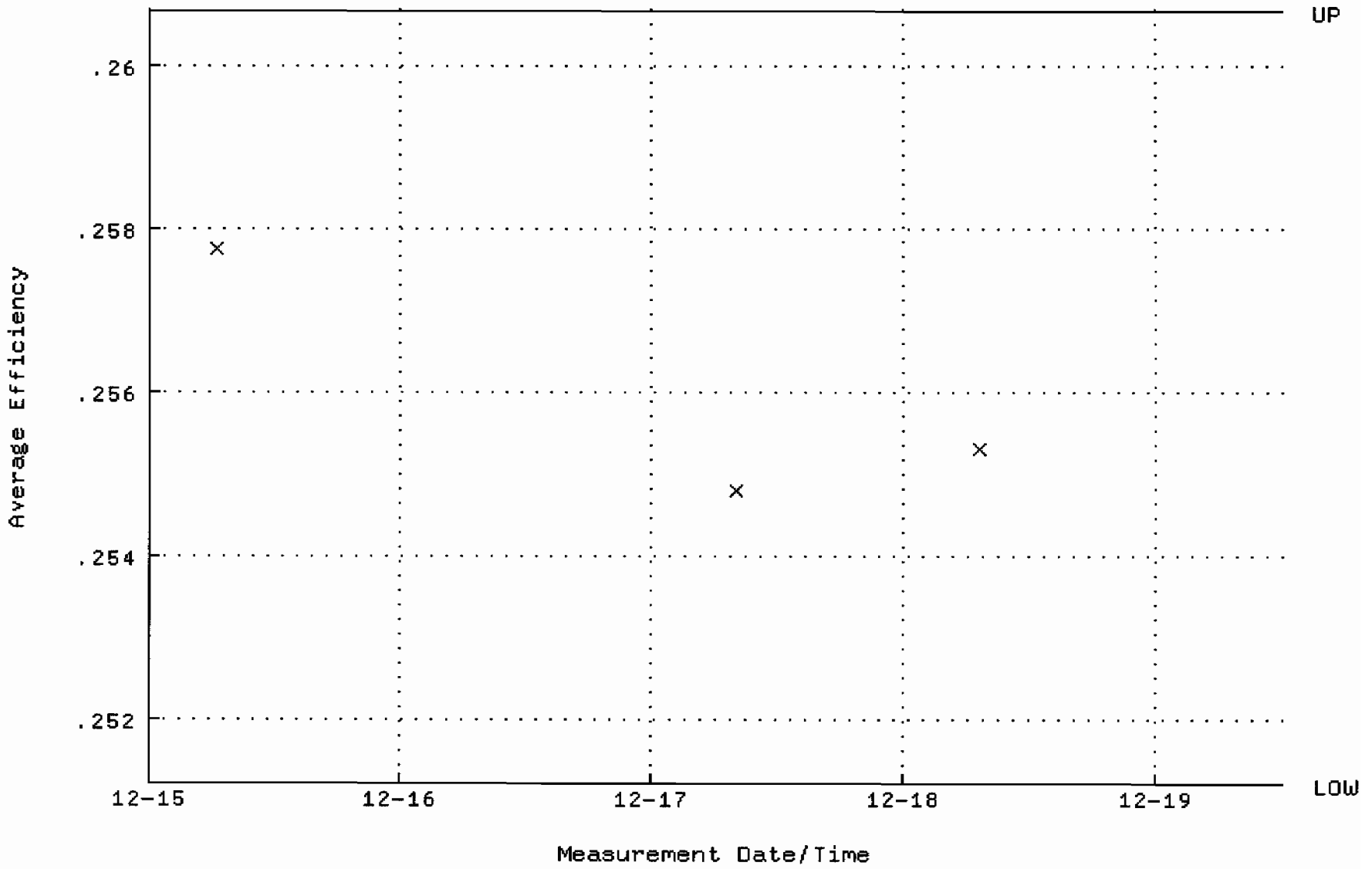

QA filename : DKA100:[ENV_ALPHA.QA.W]W119.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 06:21:52 through 19-DEC-2009 12:00:00
Lower/Upper Lmts: 90.6781 through 93.4921

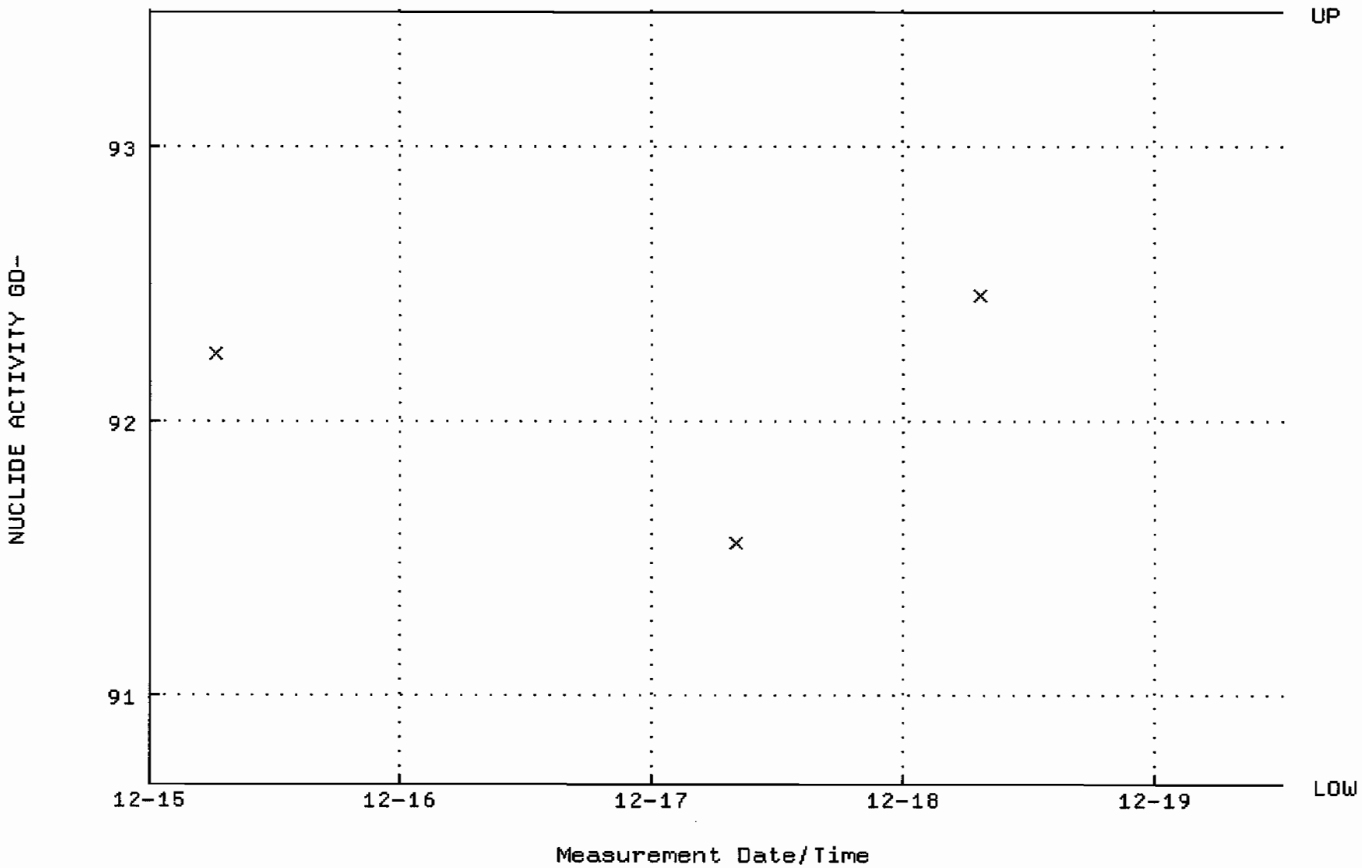

QA filename : DKA100:[ENV_ALPHA.QA.B]B119.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:09:05 through 19-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

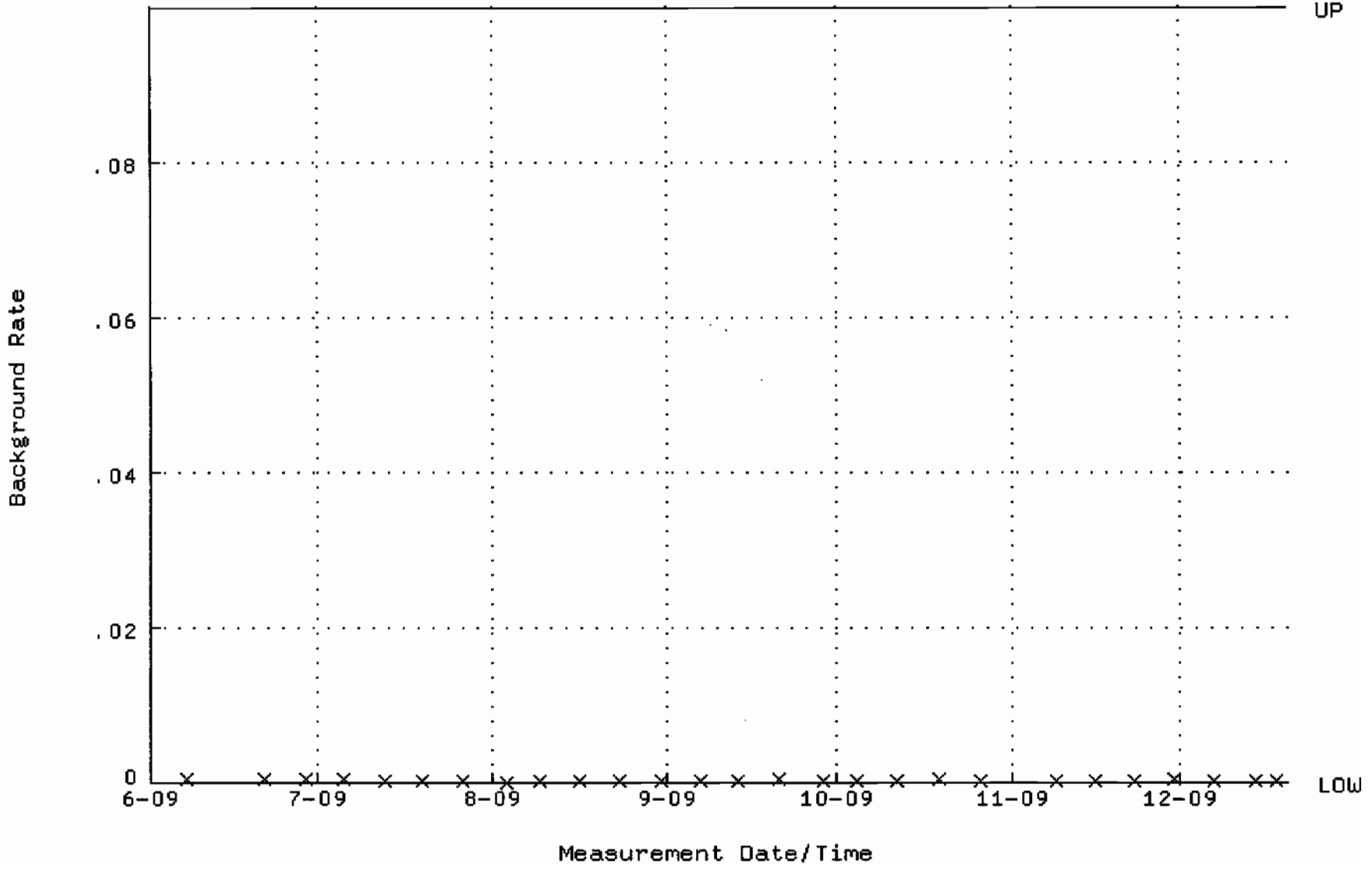

QA filename : DKA100:[ENV_ALPHA.QA.W]W120.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUL-2009 08:38:20 through 19-DEC-2009 12:00:00
Lower/Upper Lmts: 0.232847 through 0.282381

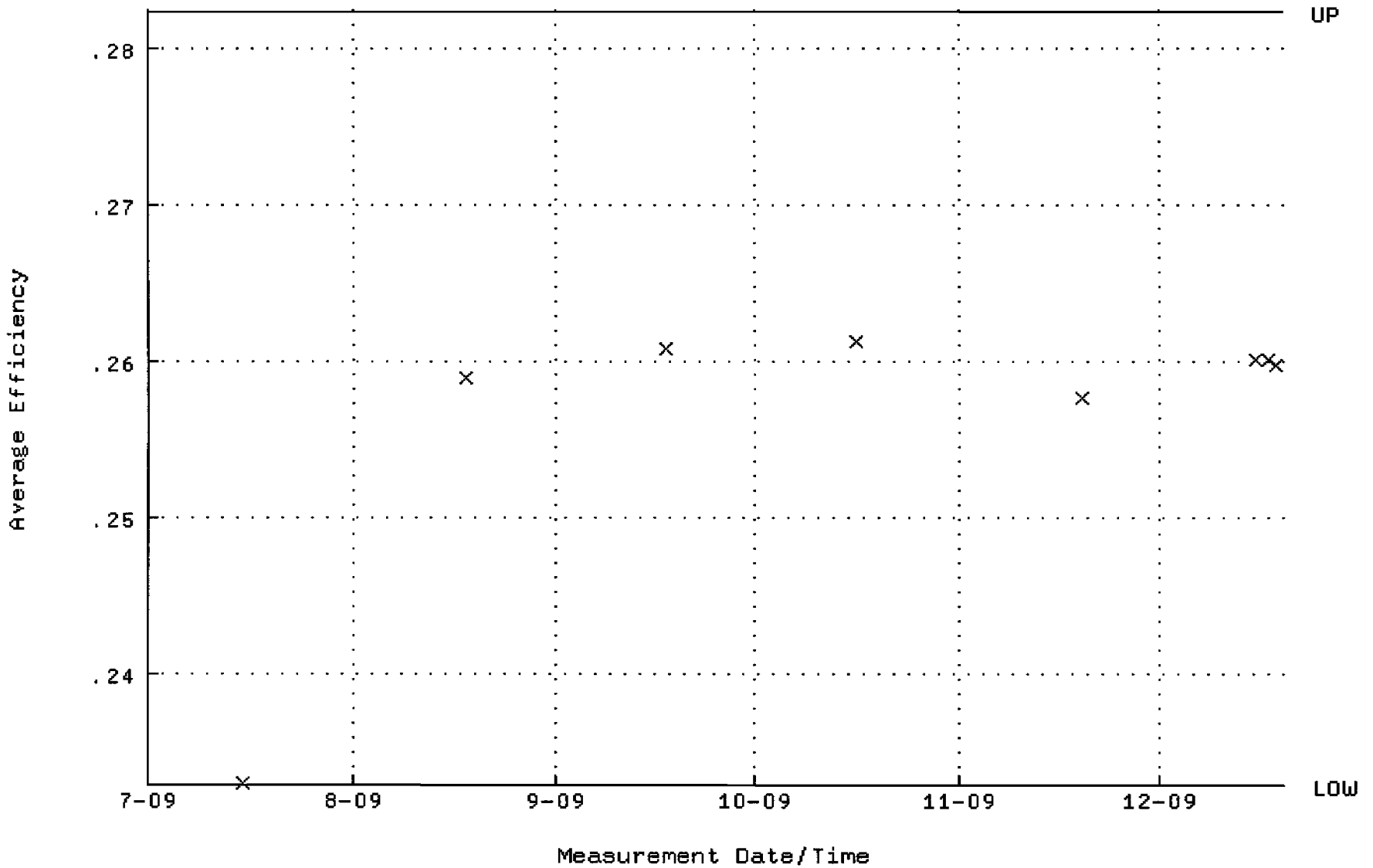

QA filename : DKA100:[ENV_ALPHA.QA.W]W120.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUL-2009 08:38:20 through 19-DEC-2009 12:00:00
Lower/Upper Lmts: 89.3881 through 91.8481

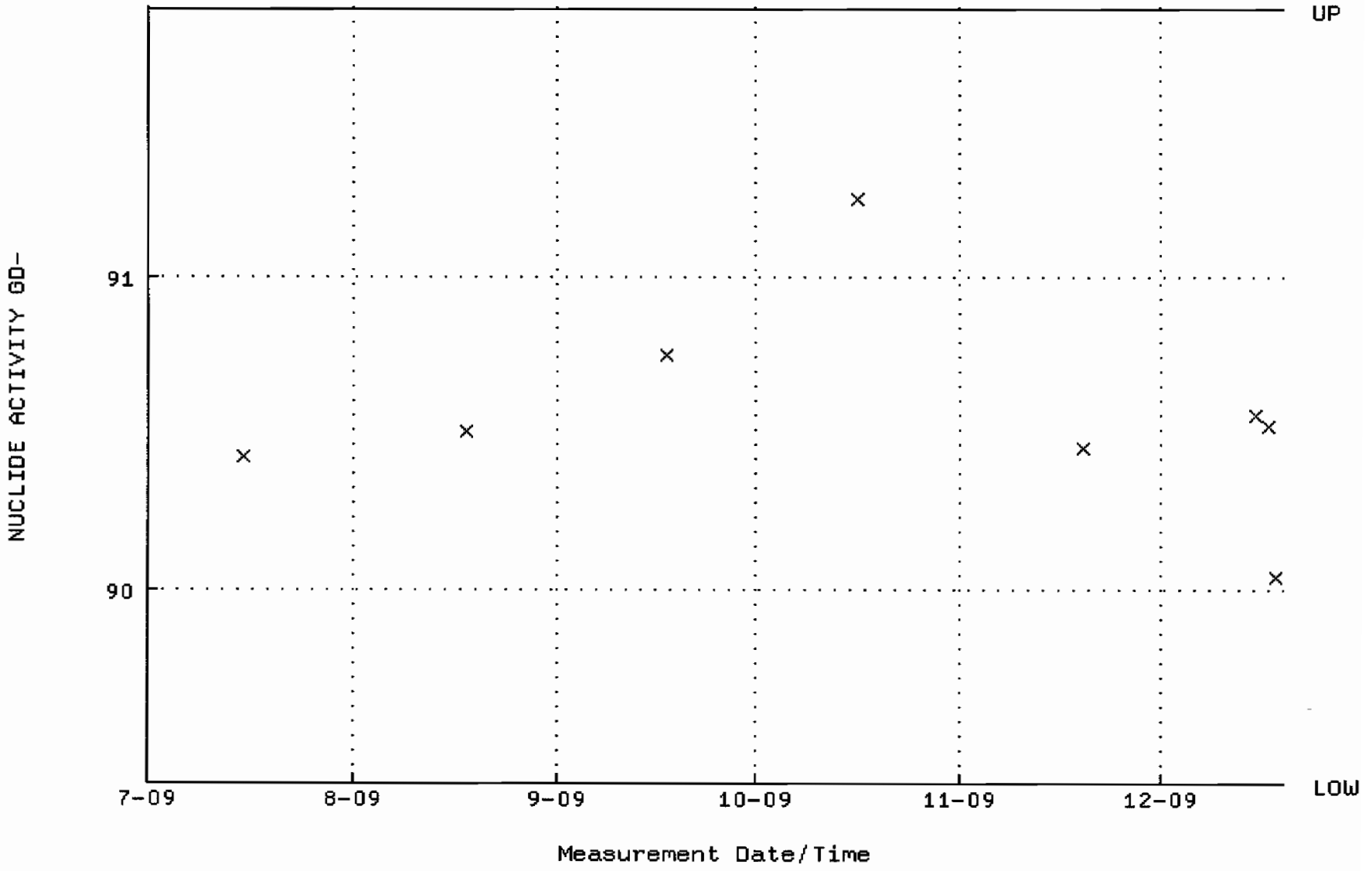

QA filename : DKA100:[ENV_ALPHA.QA.B]B120.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:09:10 through 19-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

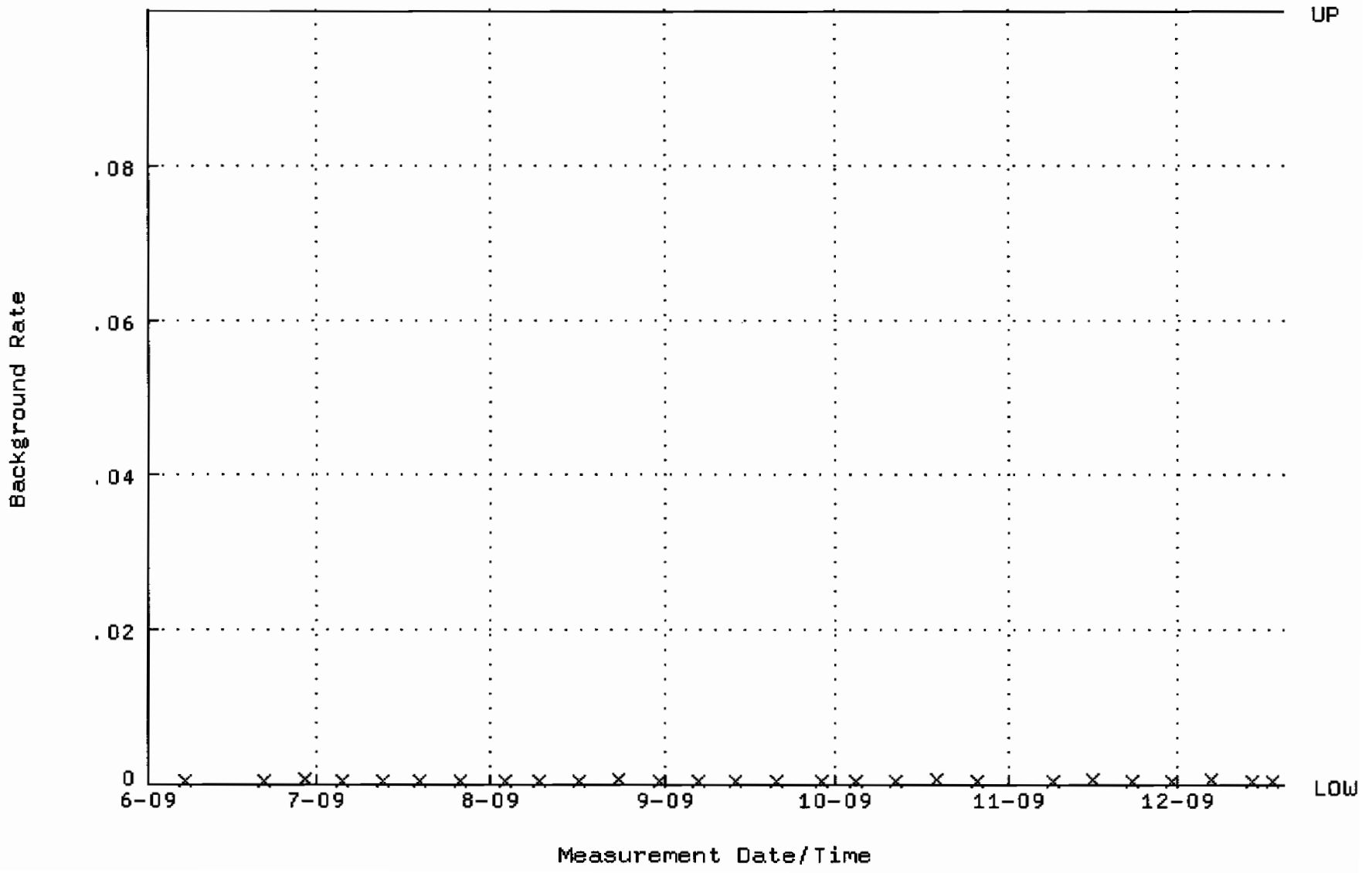

QA filename : DKA100:[ENV_ALPHA.QA.W]W121.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:34:51 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.237686 through 0.257686

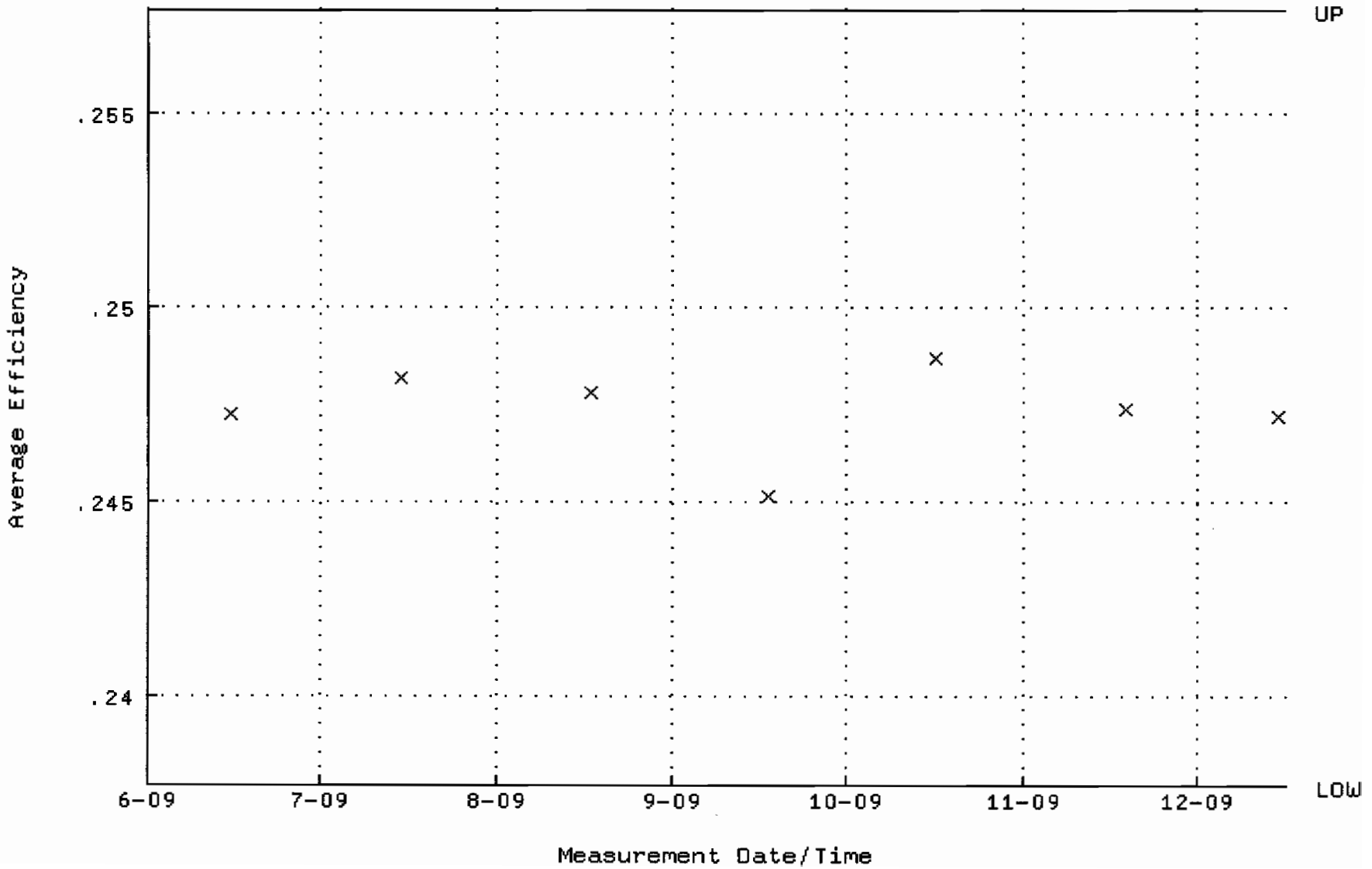

QA filename : DKA100:[ENV_ALPHA.QA.W]W121.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:34:51 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 89.4263 through 98.8395

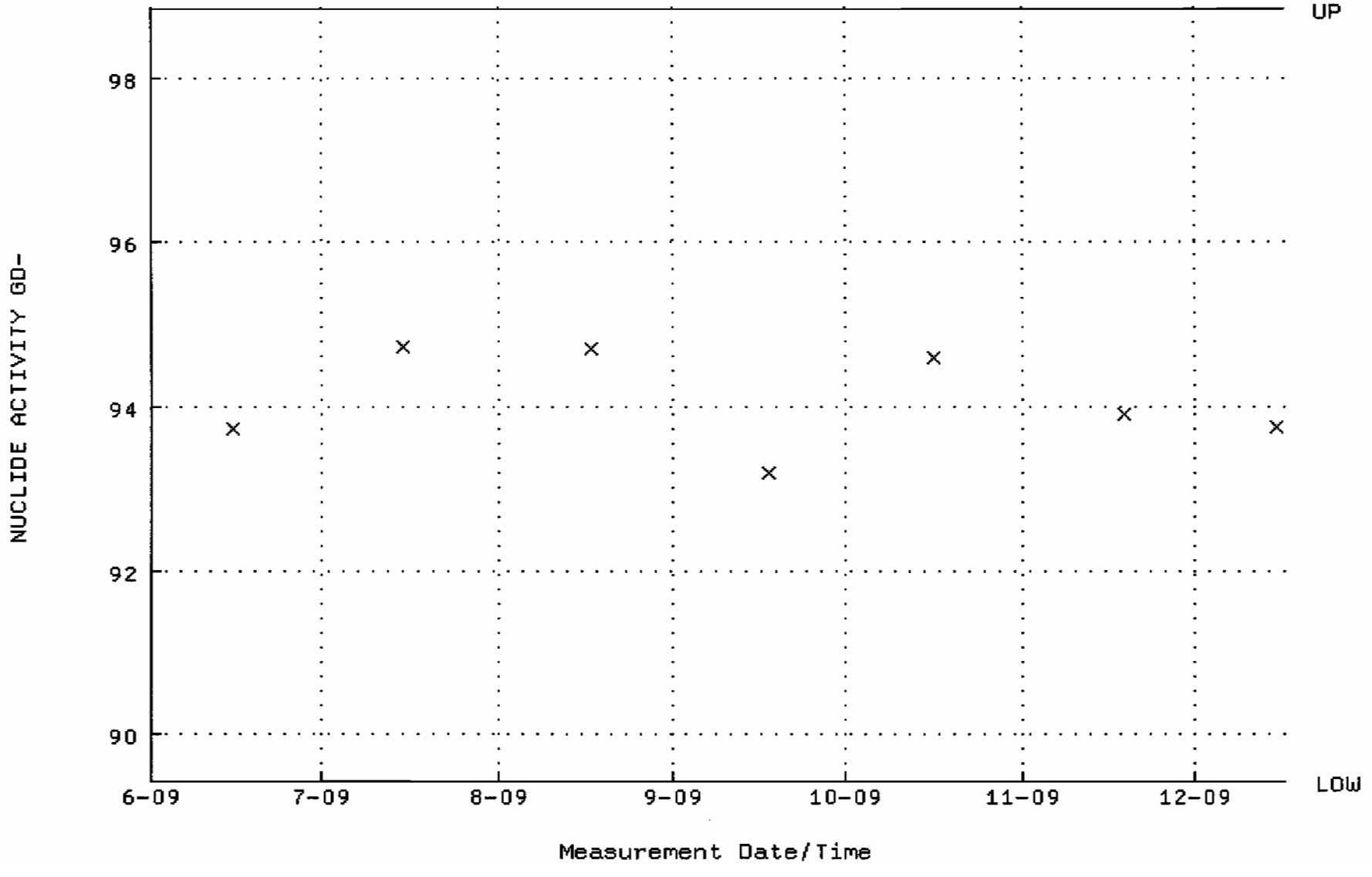

QA filename : DKA100:[ENV_ALPHA.QA.B]B121.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:09:14 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

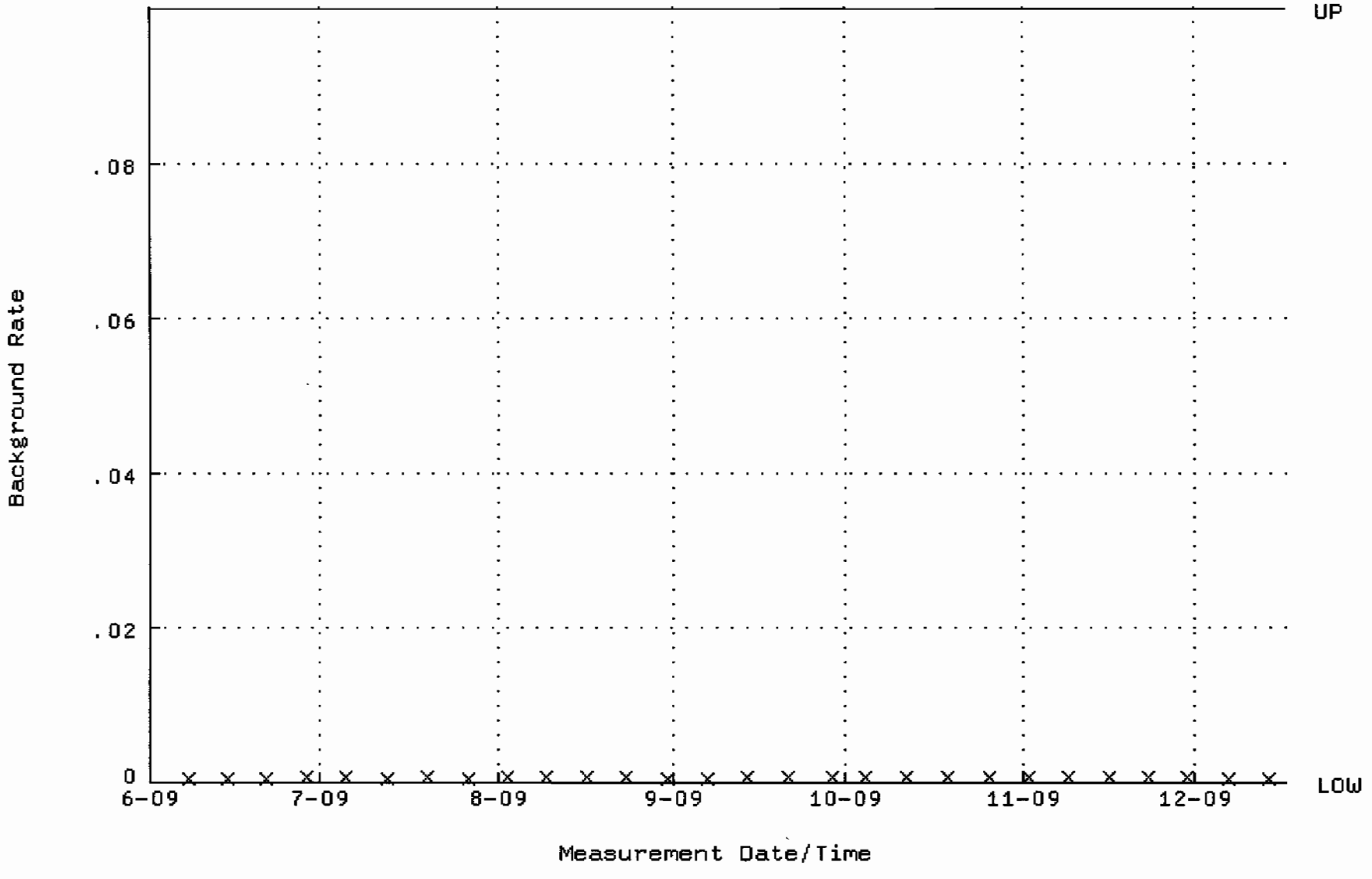

QA filename : DKA100:[ENV_ALPHA.QA.W]W122.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:34:57 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.242659 through 0.262659

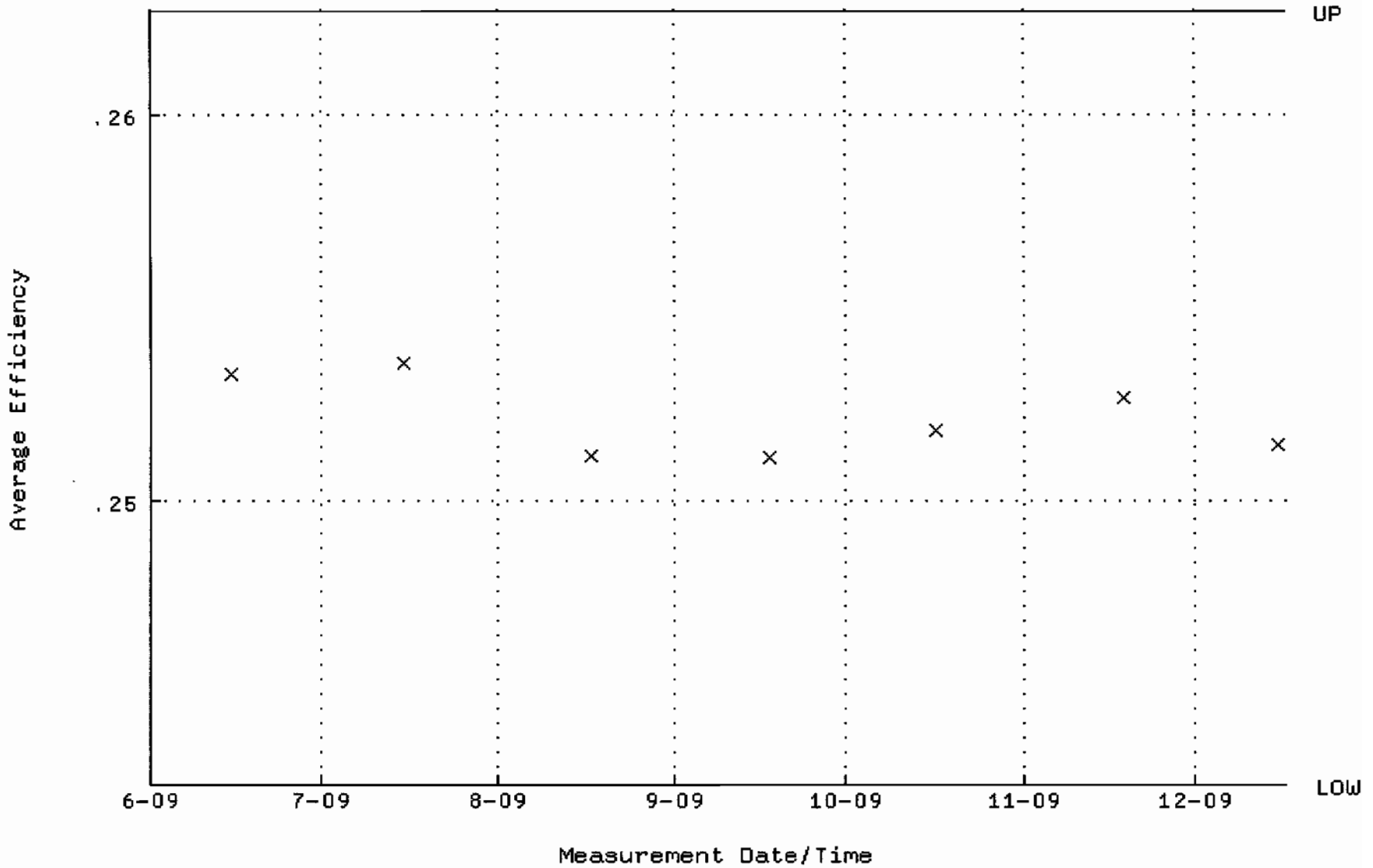

QA filename : DKA100:[ENV_ALPHA.QA.W]W122.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:34:57 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 90.5949 through 100.131

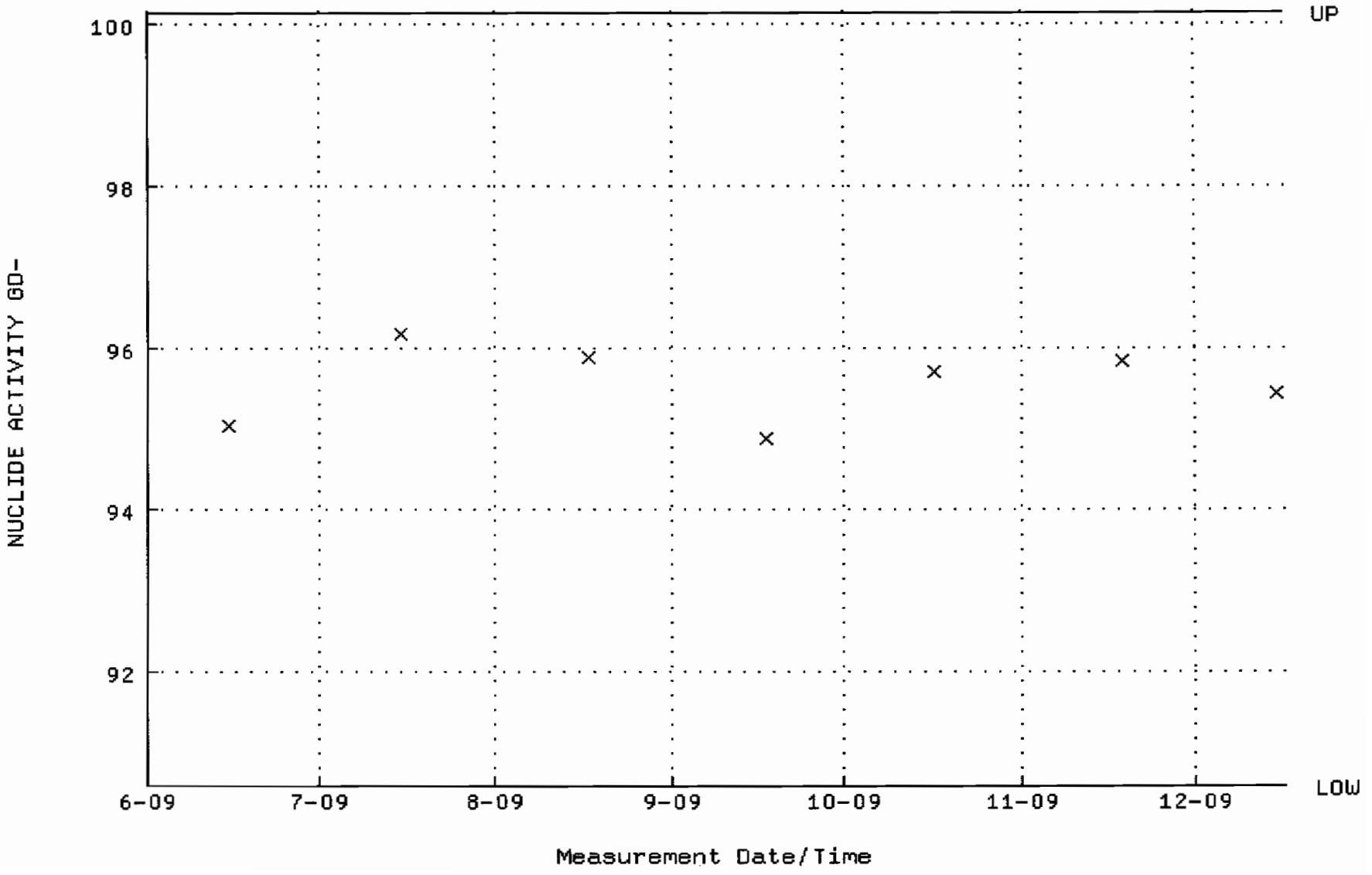

QA filename : DKA100:[ENV_ALPHA.QA.B]B122.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:09:18 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

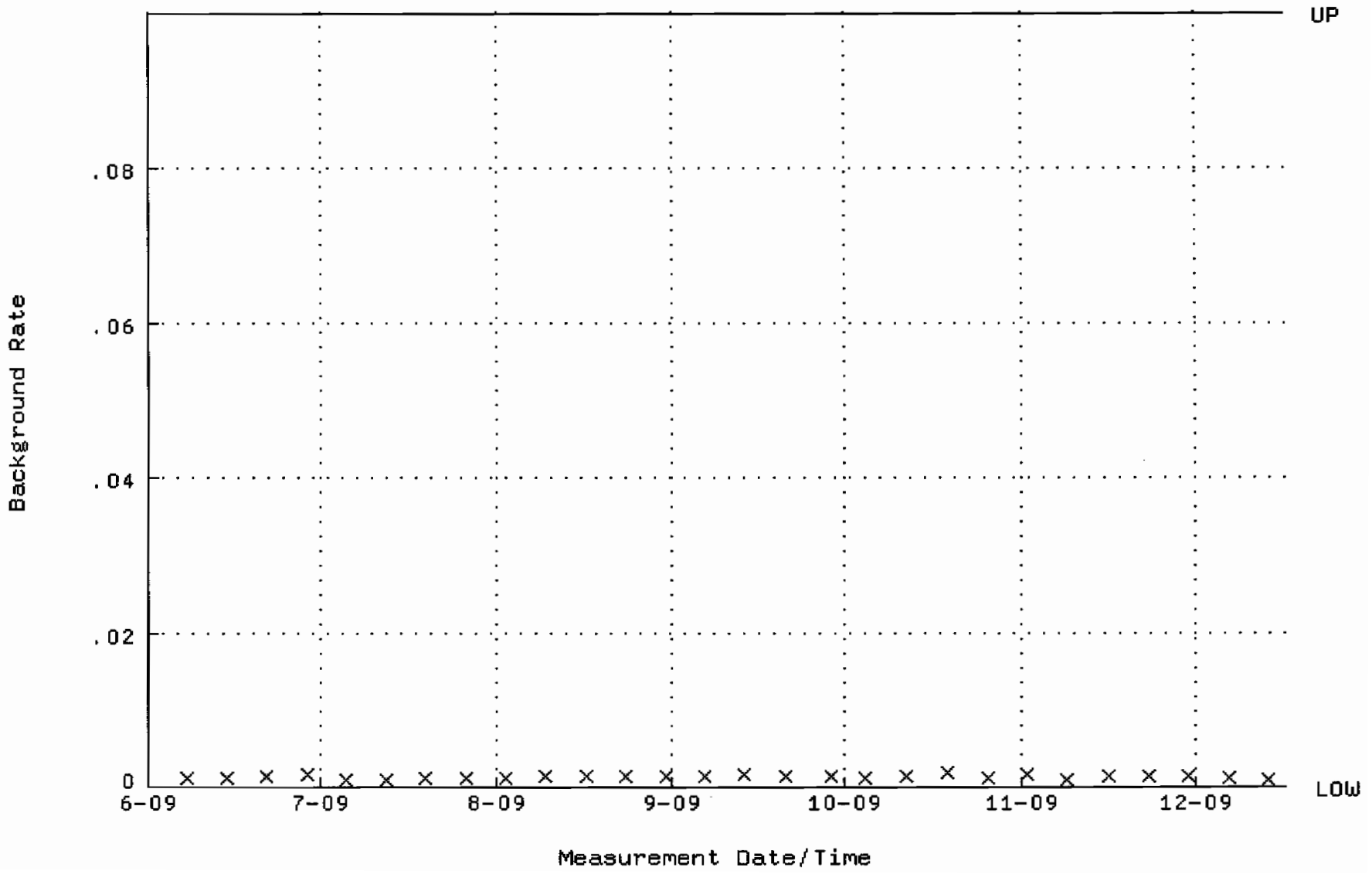

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM01_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-JUL-2009 04:58:53 through 1-JAN-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

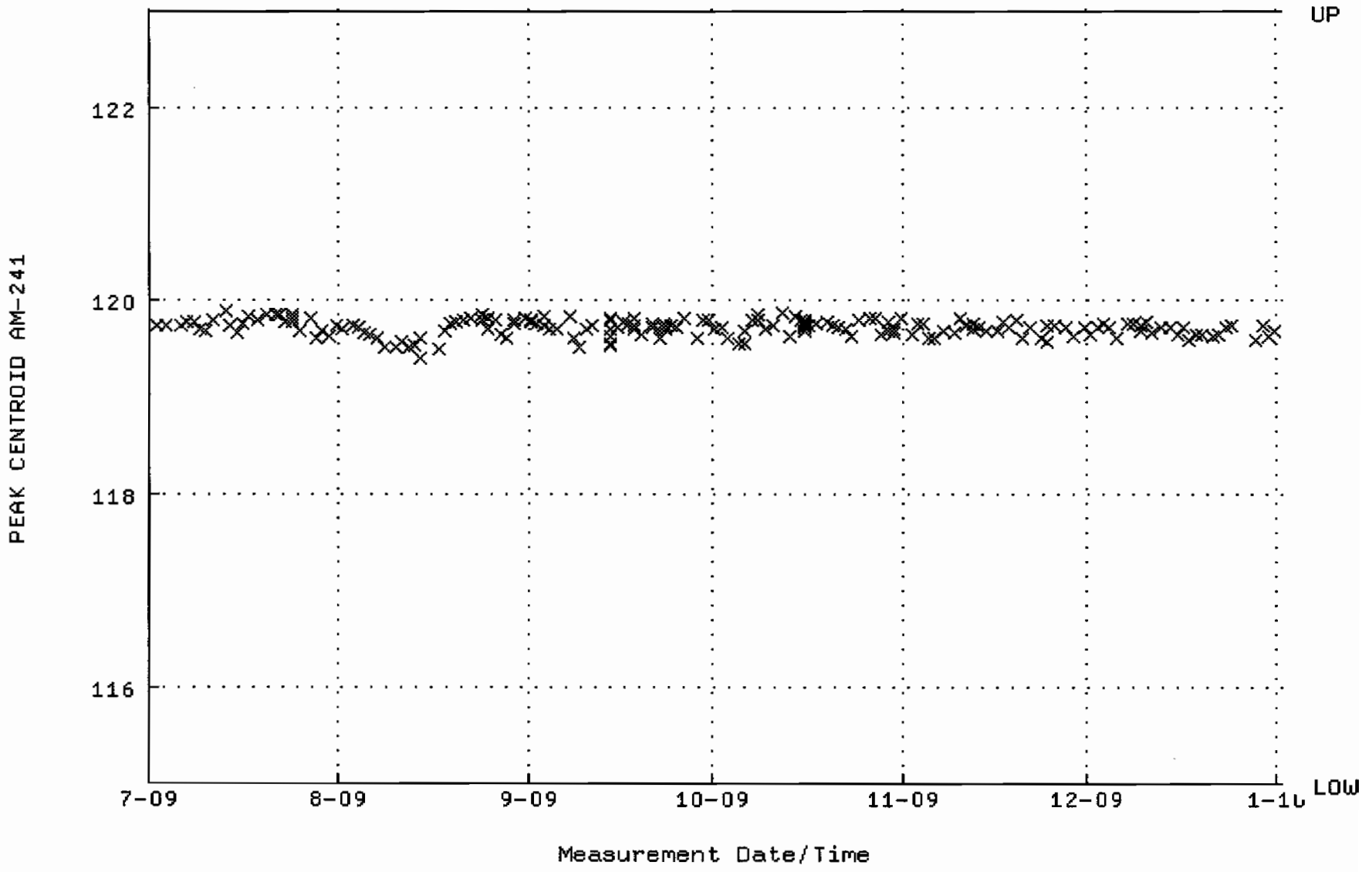

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM01.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-JUL-2009 13:49:24 through 1-JAN-2010 12:00:00
Mean +- Std Dev : 1.73723 +- 3.552524E-02 (2.04 %)

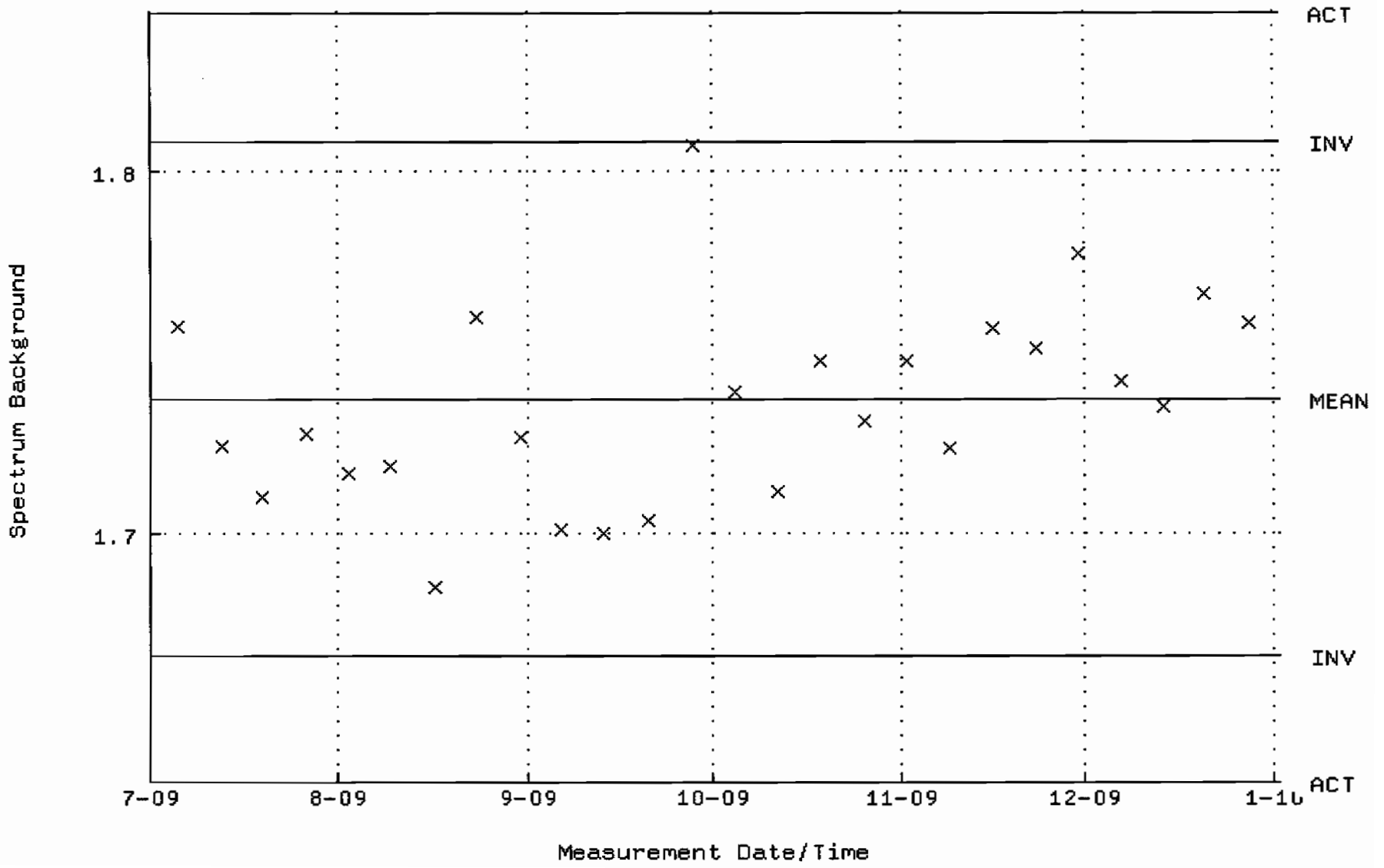

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM10_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-JUL-2009 10:47:17 through 1-JAN-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

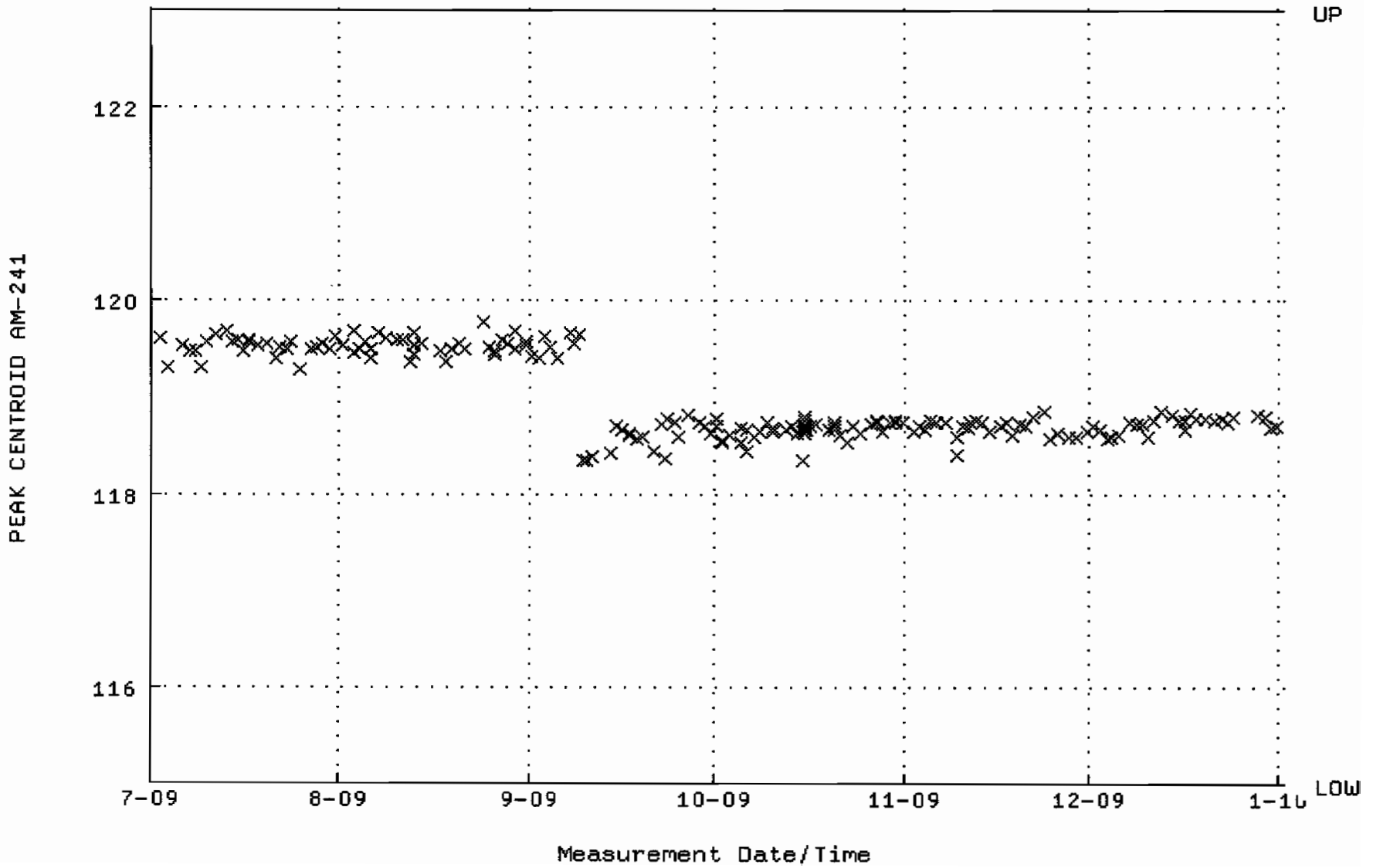

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM10.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-JUL-2009 13:51:14 through 1-JAN-2010 12:00:00
Mean +- Std Dev : 1.48000 +- 1.723892E-02 (1.16 %)

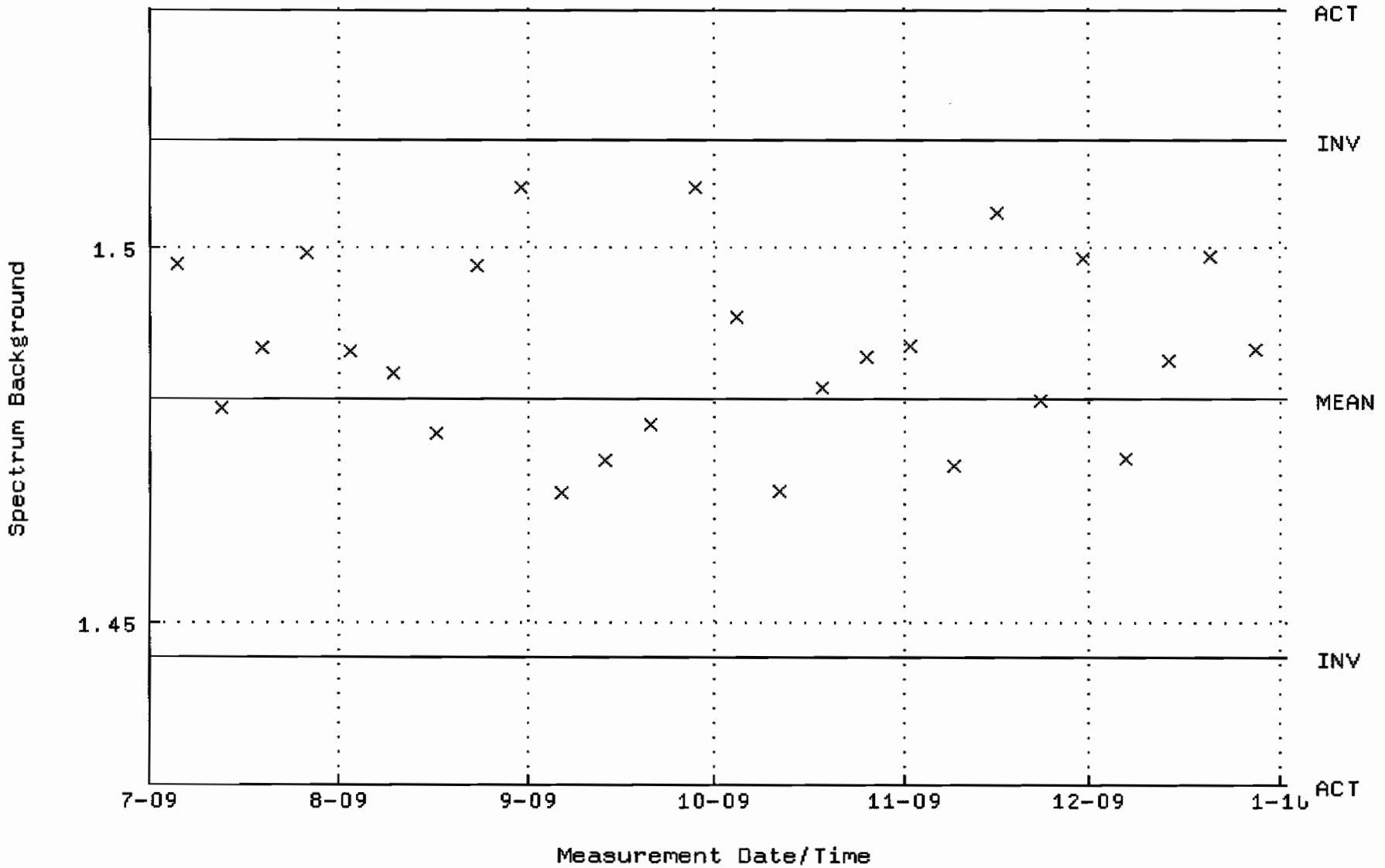

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM14_2LMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-JUL-2009 04:59:23 through 1-JAN-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

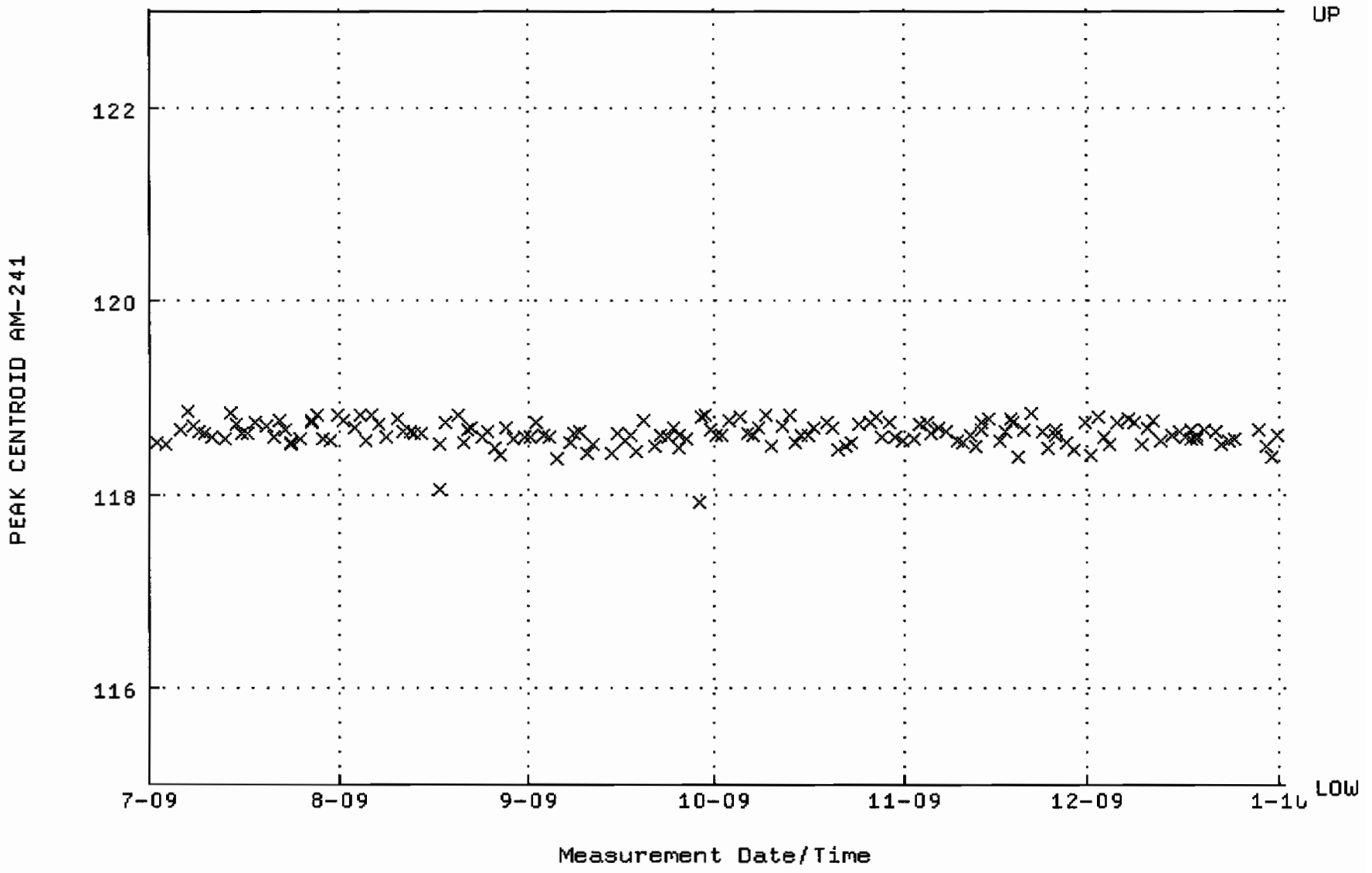

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM14.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-JUL-2009 13:52:31 through 1-JAN-2010 12:00:00
Mean +- Std Dev : 1.48240 +- 2.535500E-02 (1.71 %)

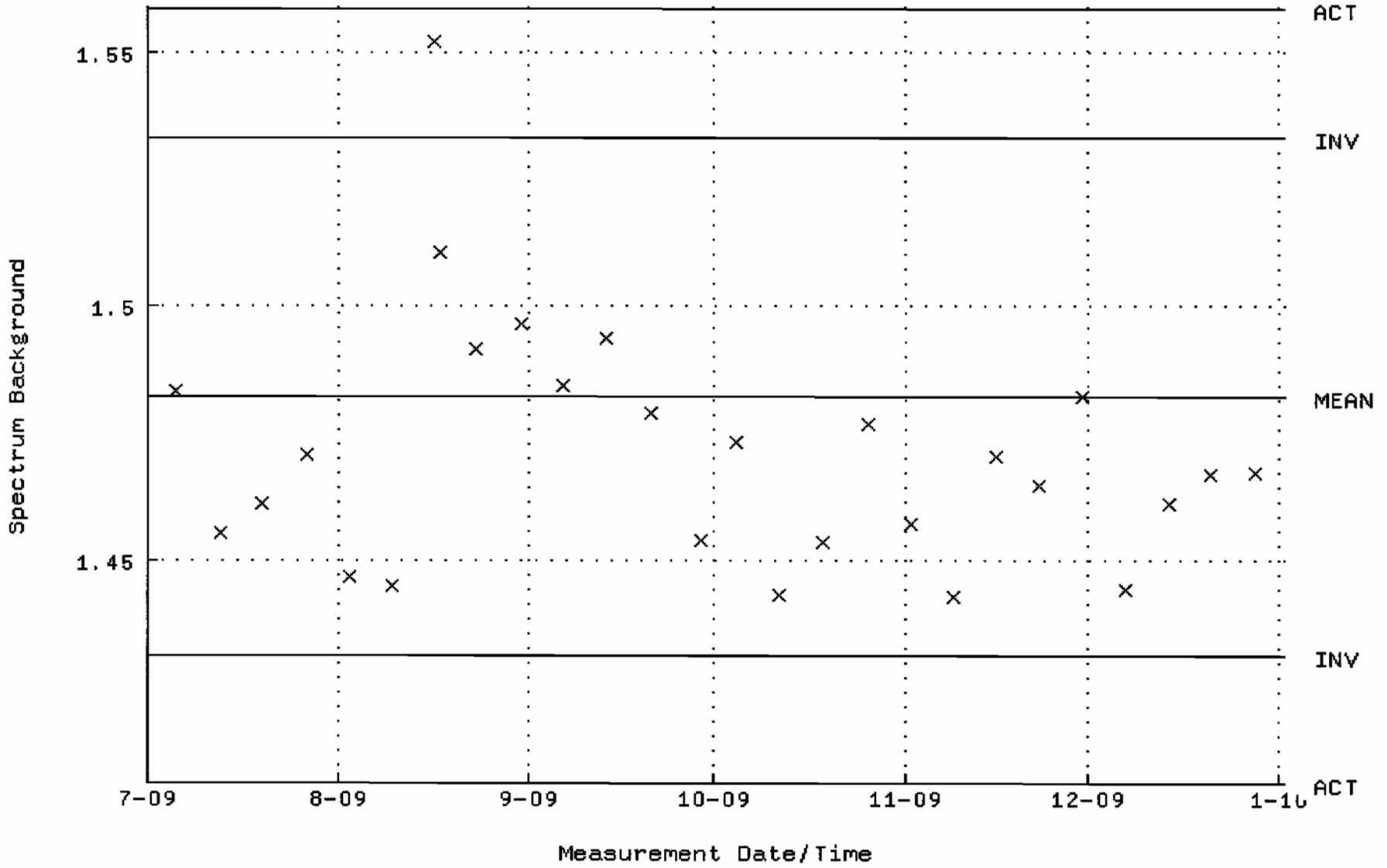

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM16_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-JUL-2009 05:29:19 through 1-JAN-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

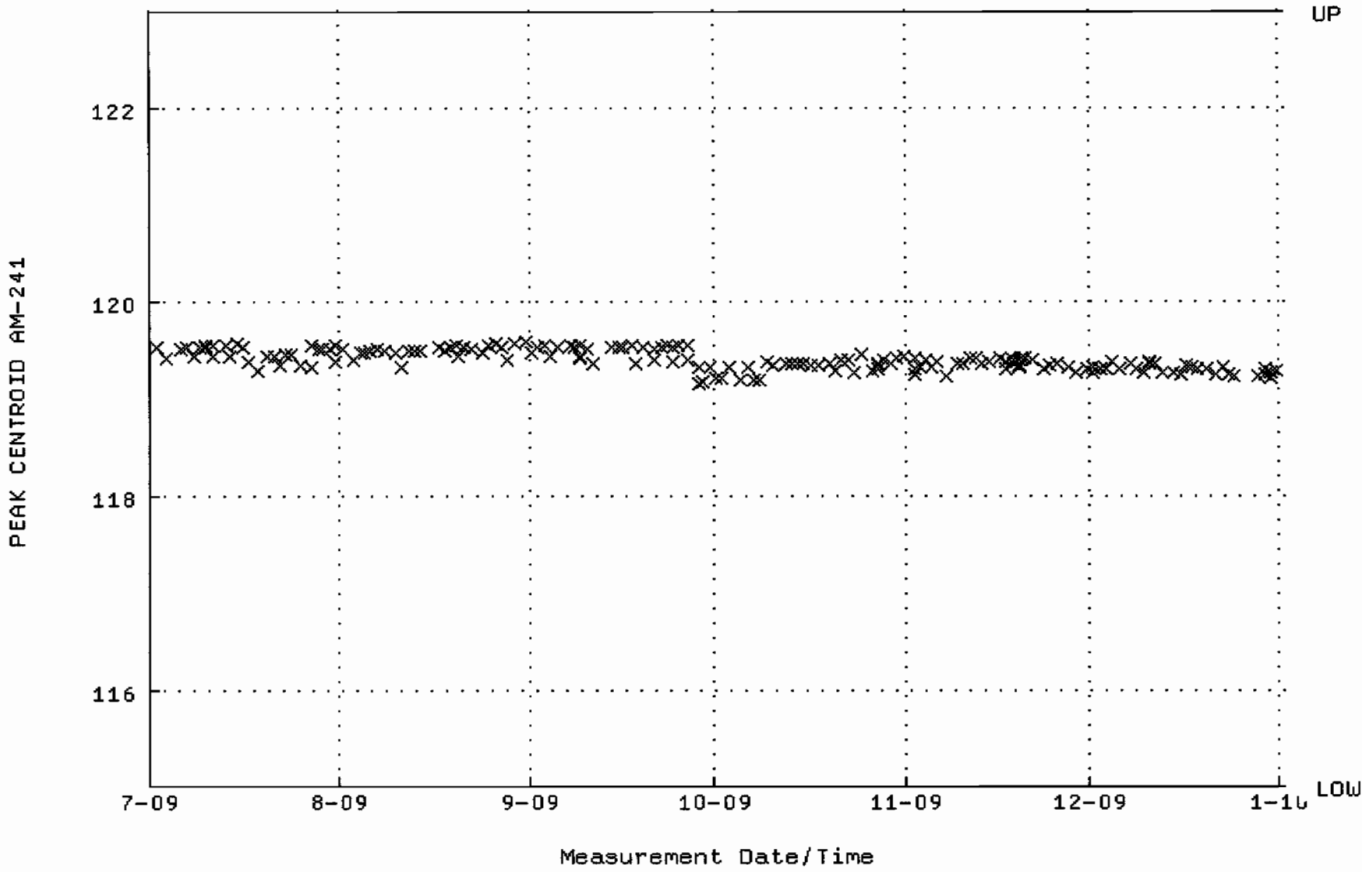

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM16.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-JUL-2009 13:52:58 through 1-JAN-2010 12:00:00
Mean +- Std Dev : 1.73980 +- 1.729897E-02 (0.99 %)

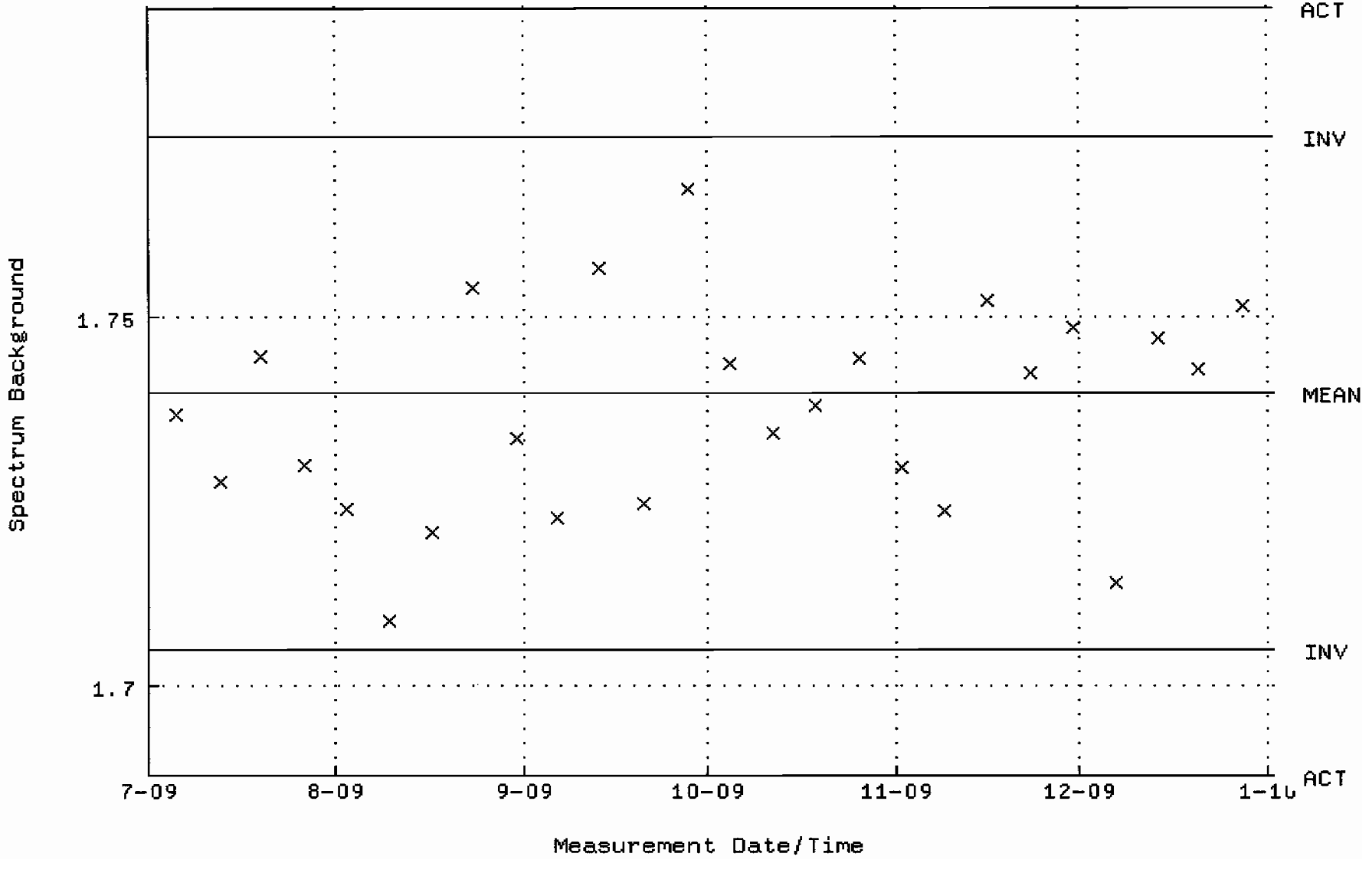

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM19_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-JUL-2009 05:41:19 through 1-JAN-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

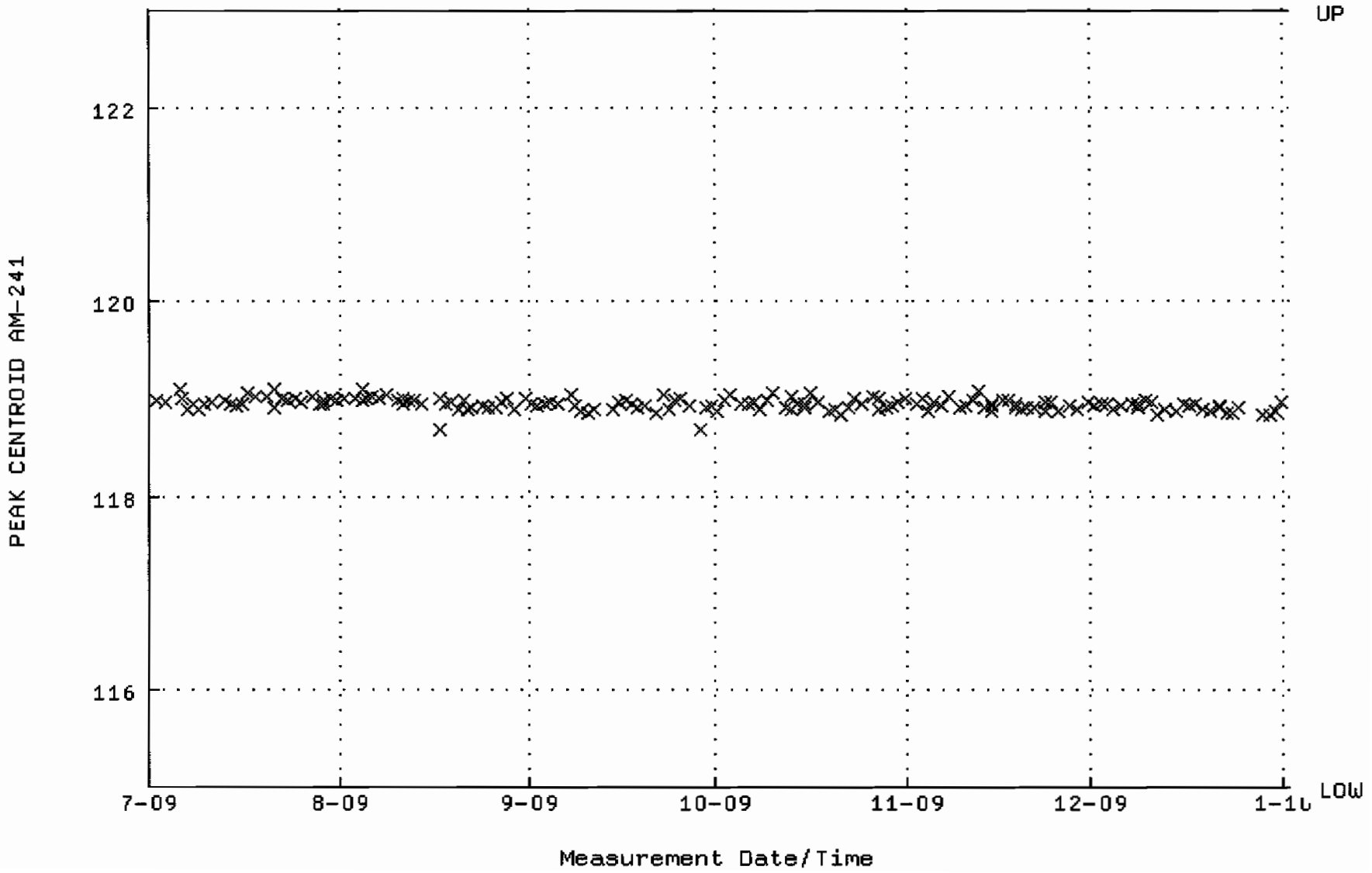

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM19.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-JUL-2009 13:53:35 through 1-JAN-2010 12:00:00
Mean +- Std Dev : 1.45067 +- 2.046038E-02 (1.41 %)

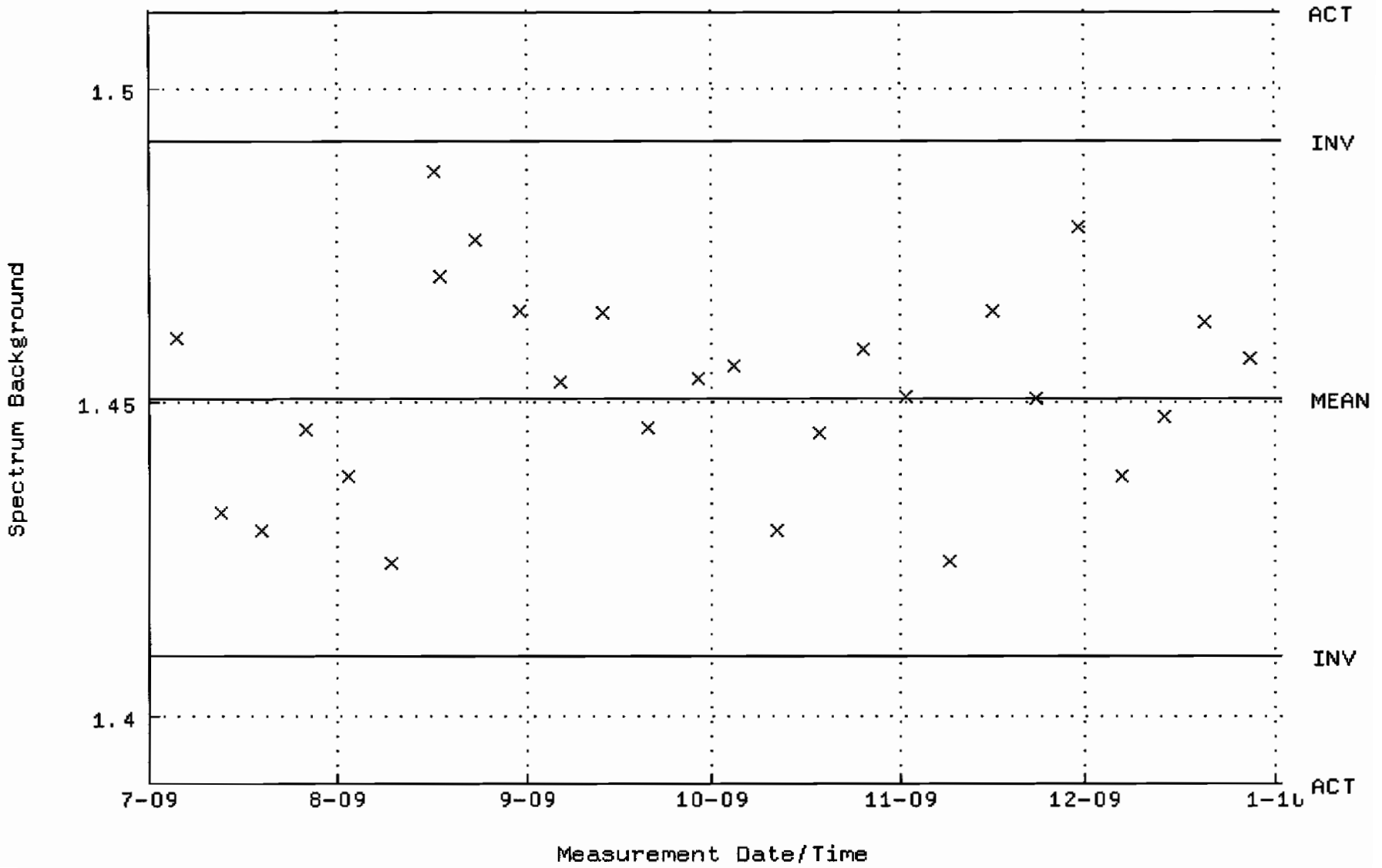

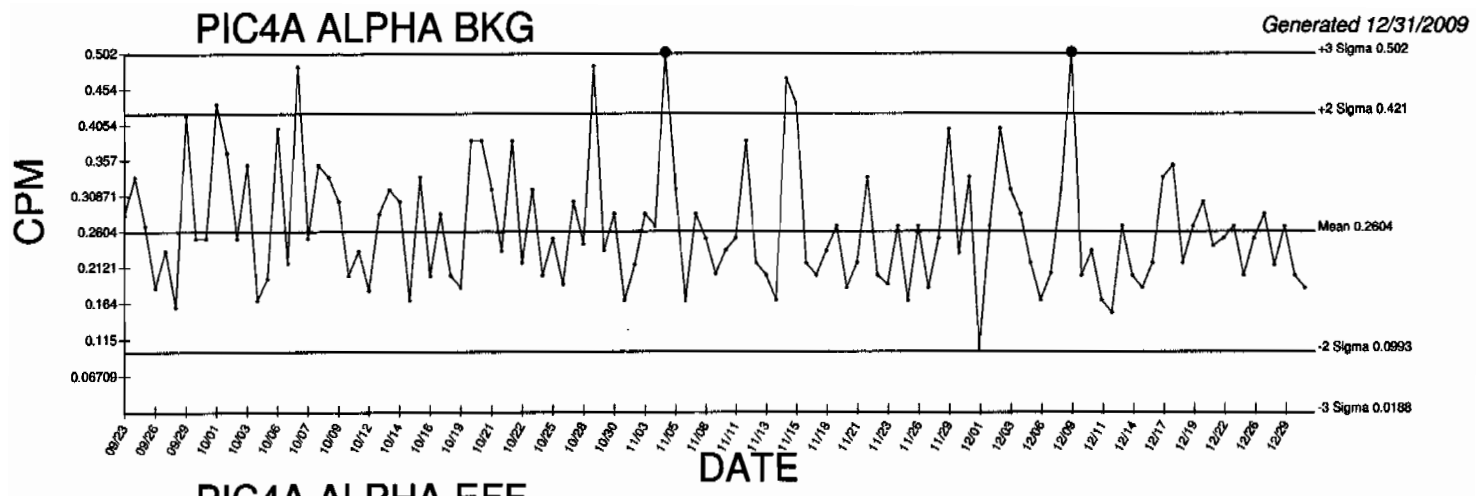

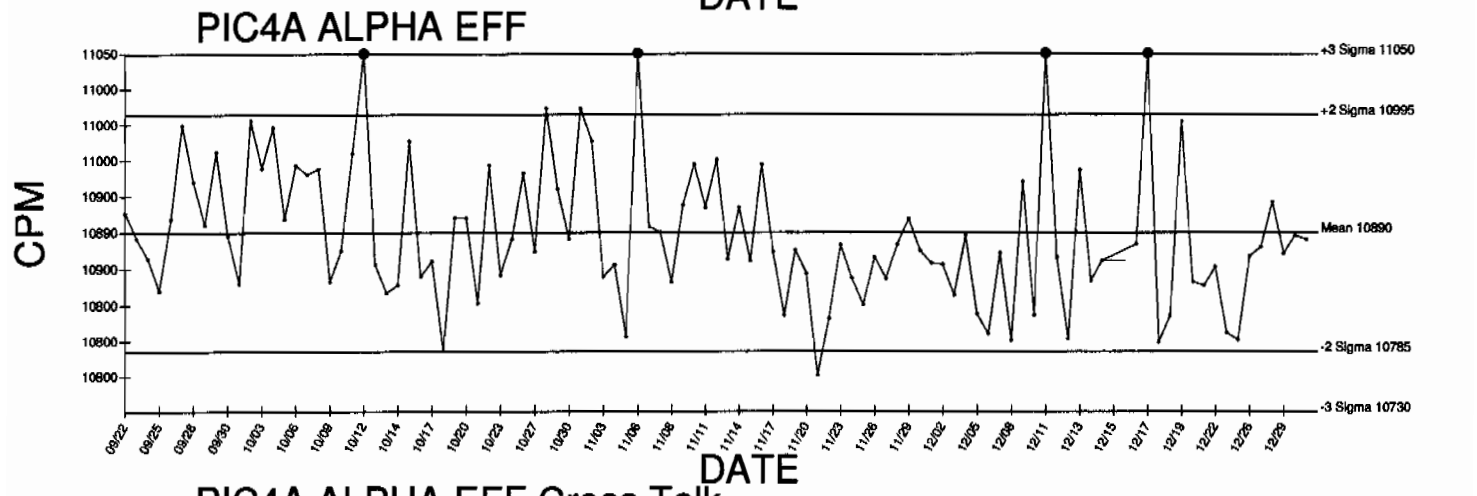

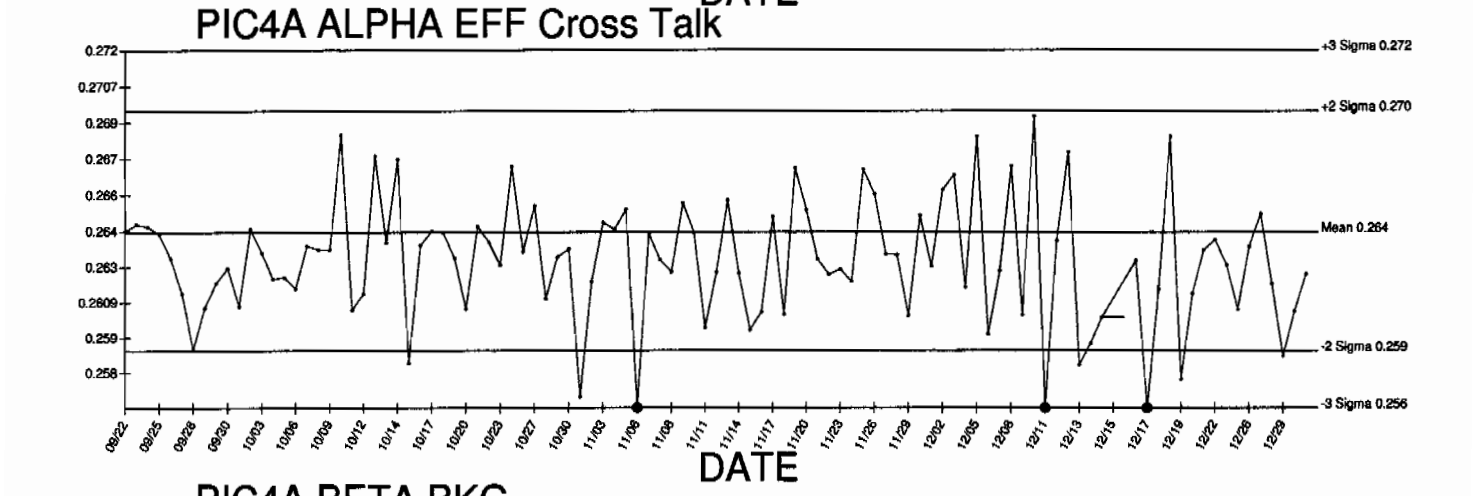

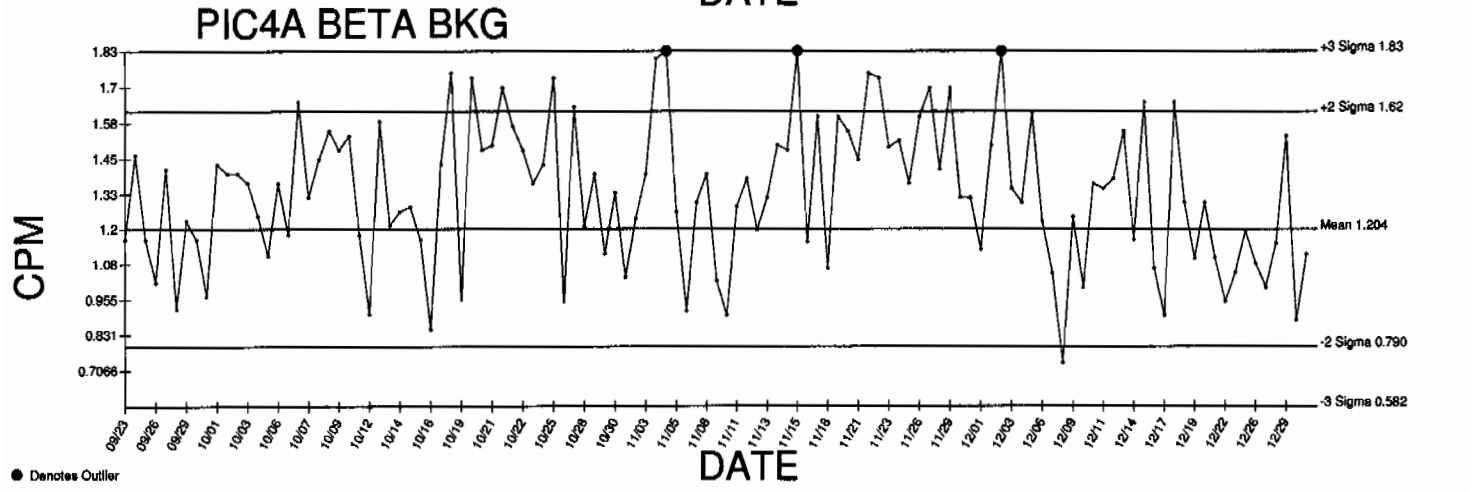

● Denotes Outlier

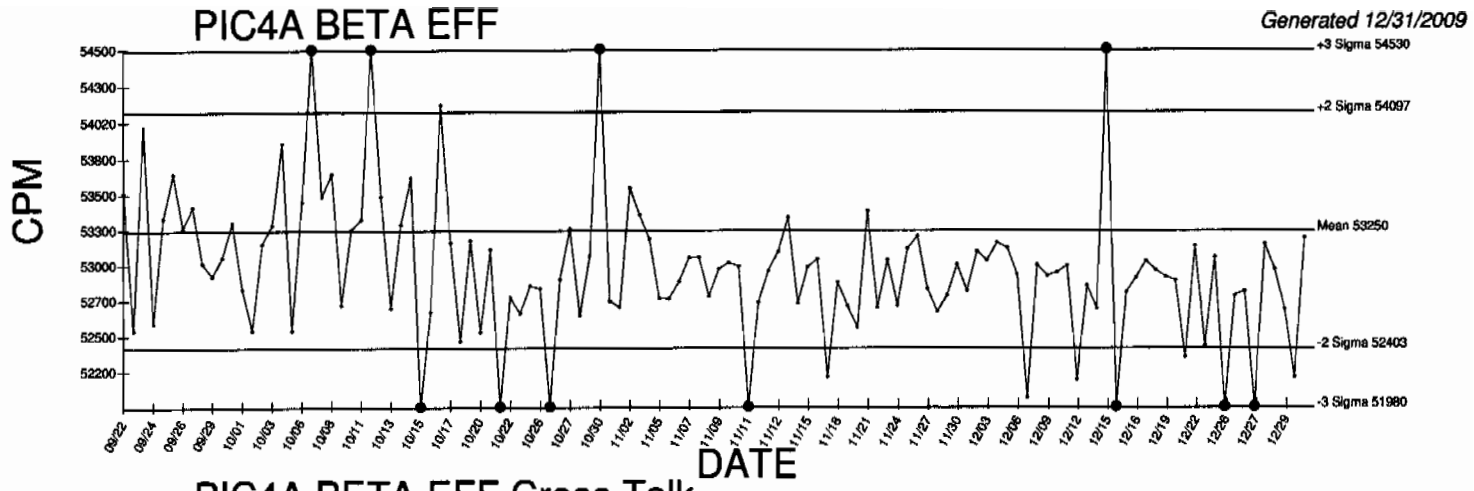

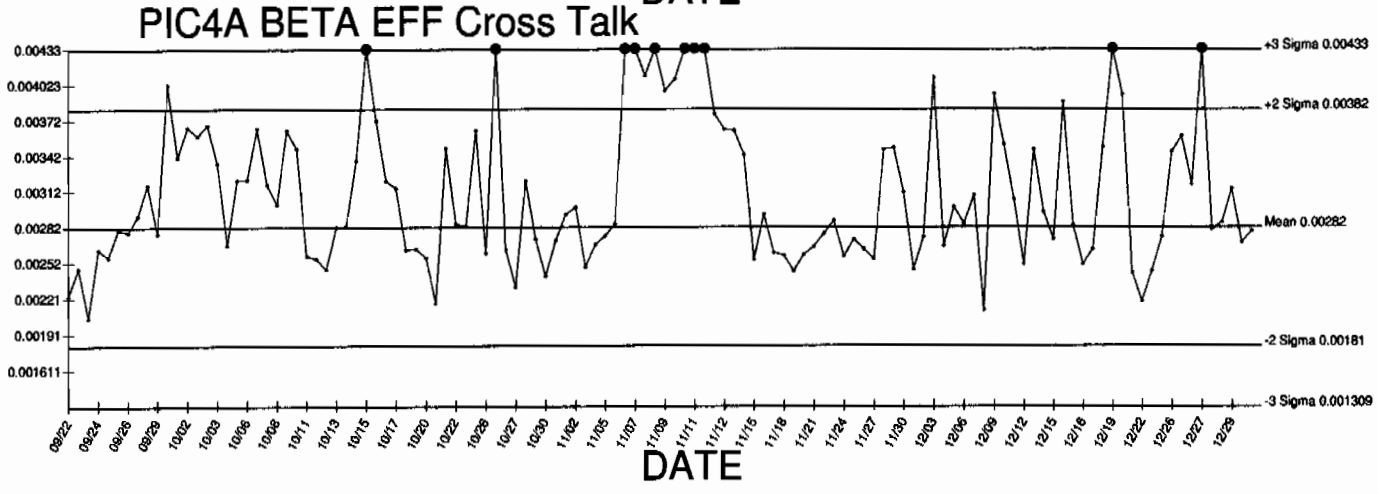

● Denotes Outlier

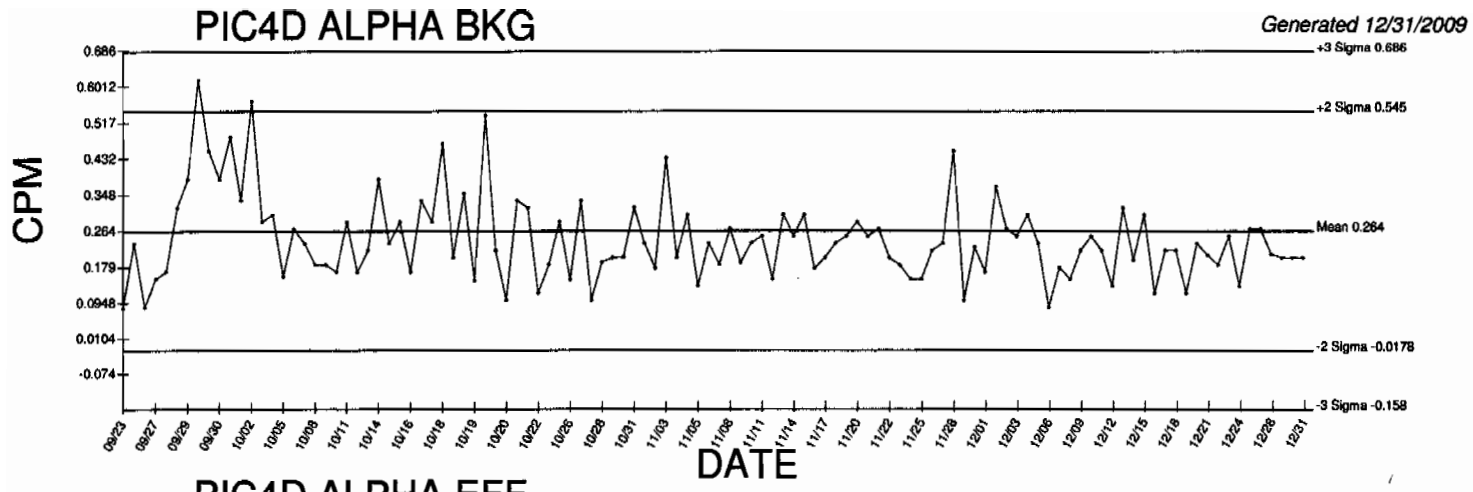
PIC4D ALPHA BKG
Generated 12/31/2009
CPM
DATE
+3 Sigma 0.686
+2 Sigma 0.545
Mean 0.264
-2 Sigma -0.0178
-3 Sigma -0.158

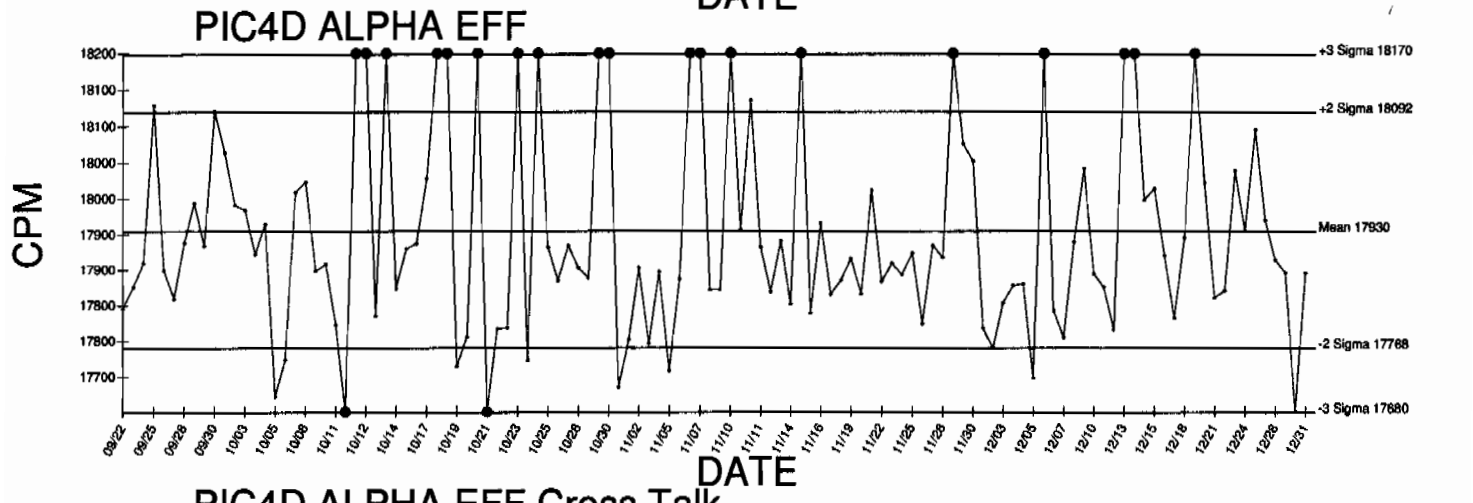
PIC4D ALPHA EFF
CPM
DATE
+3 Sigma 18170
+2 Sigma 18092
Mean 17930
-2 Sigma 17768
-3 Sigma 17680

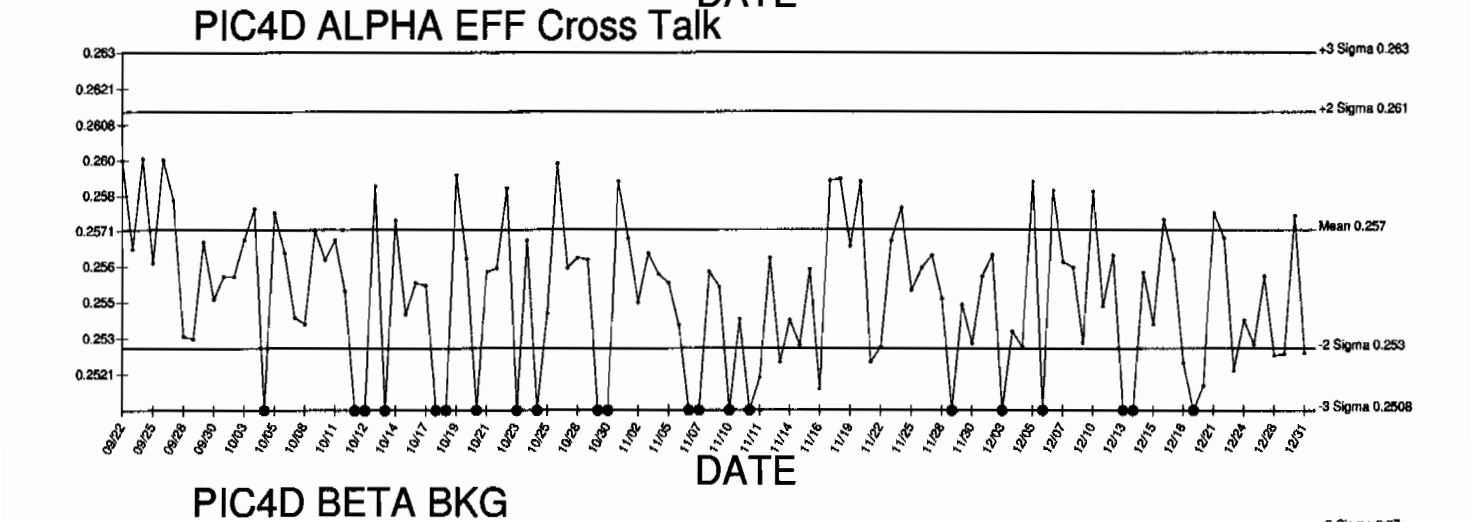
PIC4D ALPHA EFF Cross Talk
DATE
+3 Sigma 0.263
+2 Sigma 0.261
Mean 0.257
-2 Sigma 0.253
-3 Sigma 0.2508

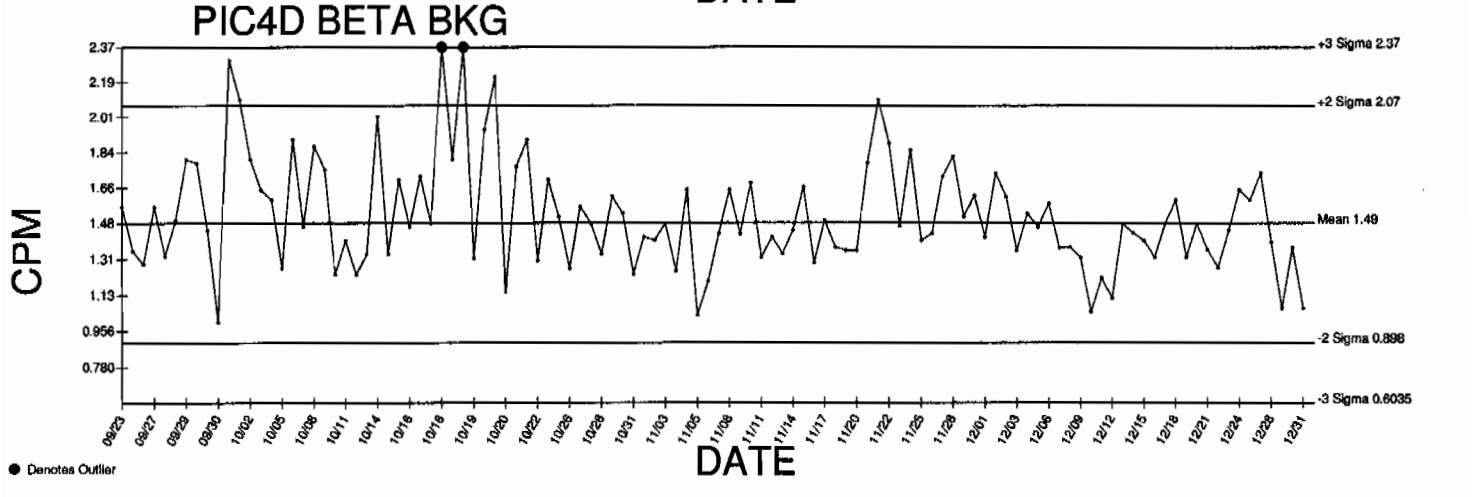
PIC4D BETA BKG
CPM
DATE
+3 Sigma 2.37
+2 Sigma 2.07
Mean 1.49
-2 Sigma 0.898
-3 Sigma 0.6035
● Denotes Outlier

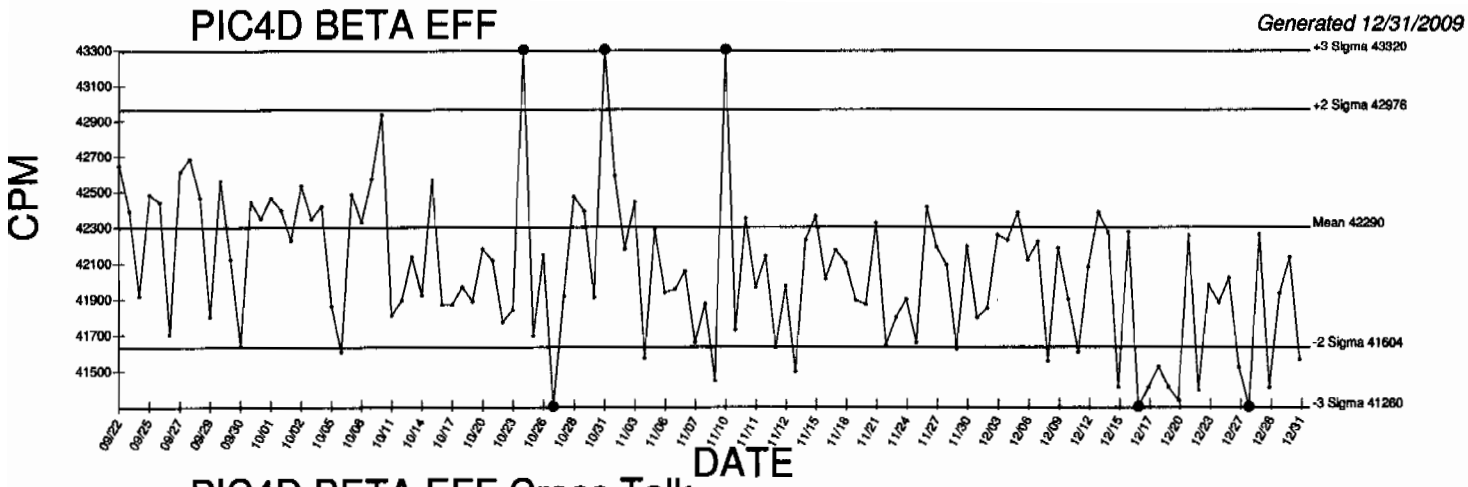

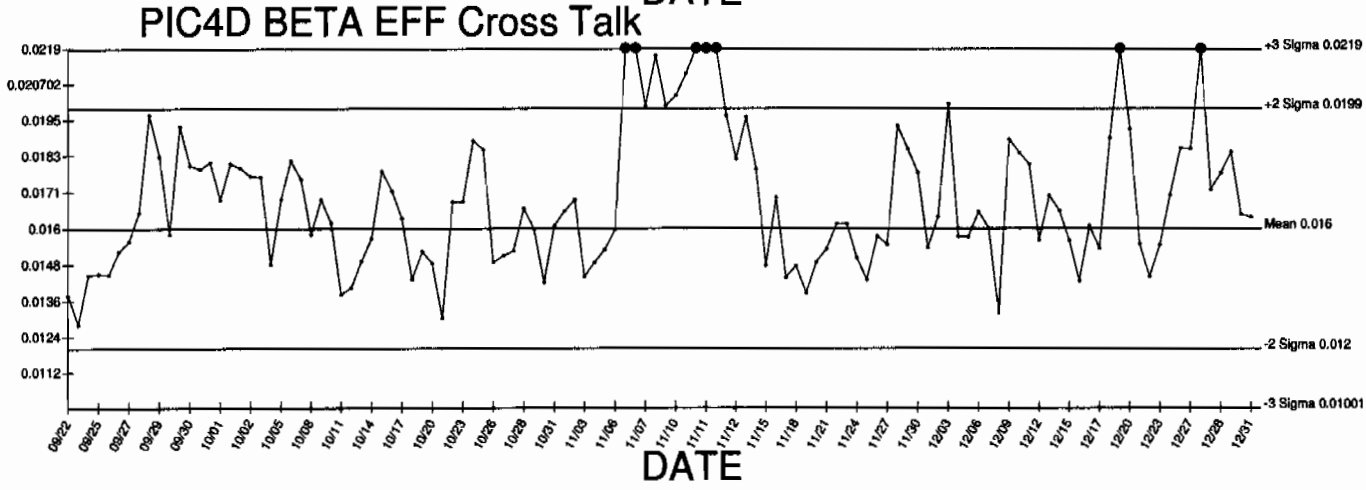

● Denotes Outlier

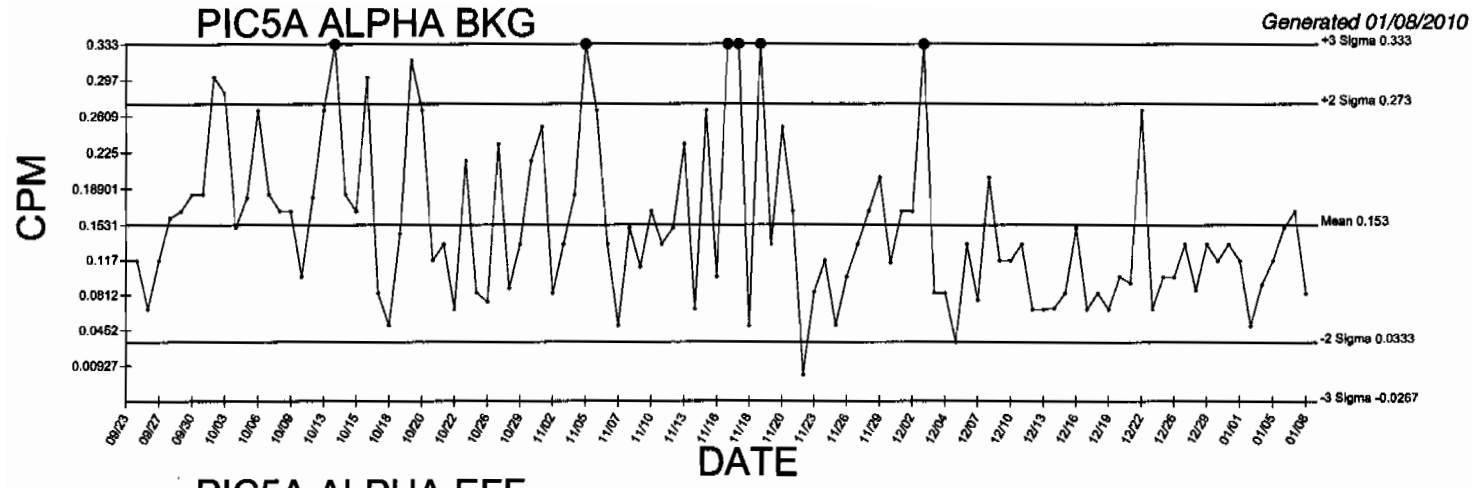
PIC5A ALPHA BKG
Generated 01/08/2010
CPM
DATE
+3 Sigma 0.333
+2 Sigma 0.273
Mean 0.153
-2 Sigma 0.0333
-3 Sigma -0.0267

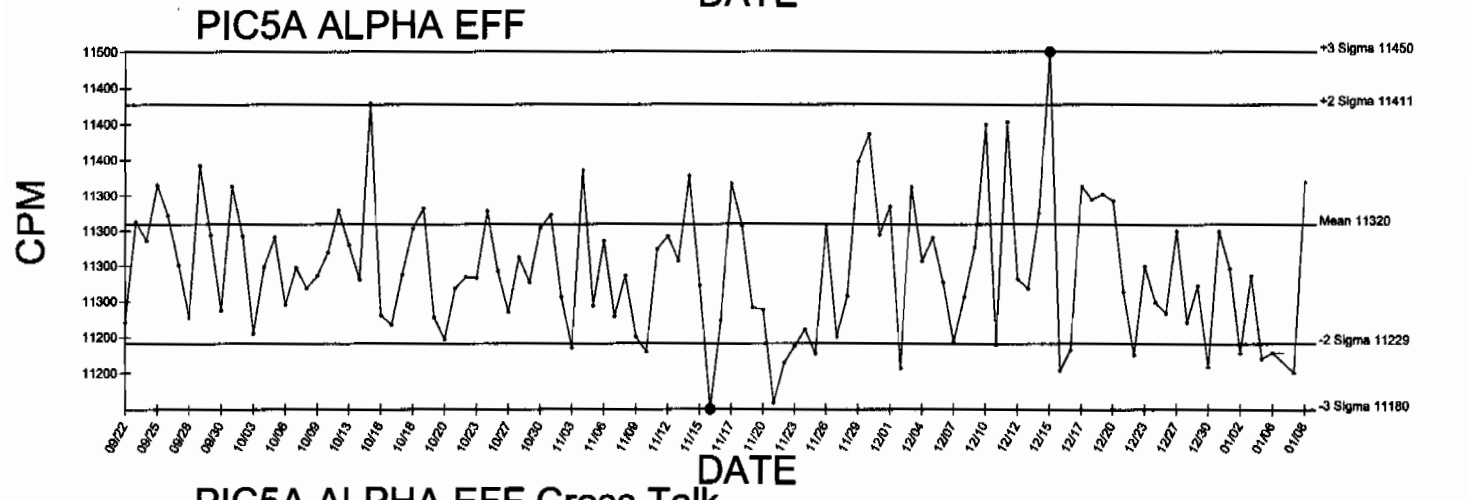
PIC5A ALPHA EFF
CPM
DATE
+3 Sigma 11450
+2 Sigma 11411
Mean 11320
-2 Sigma 11229
-3 Sigma 11180

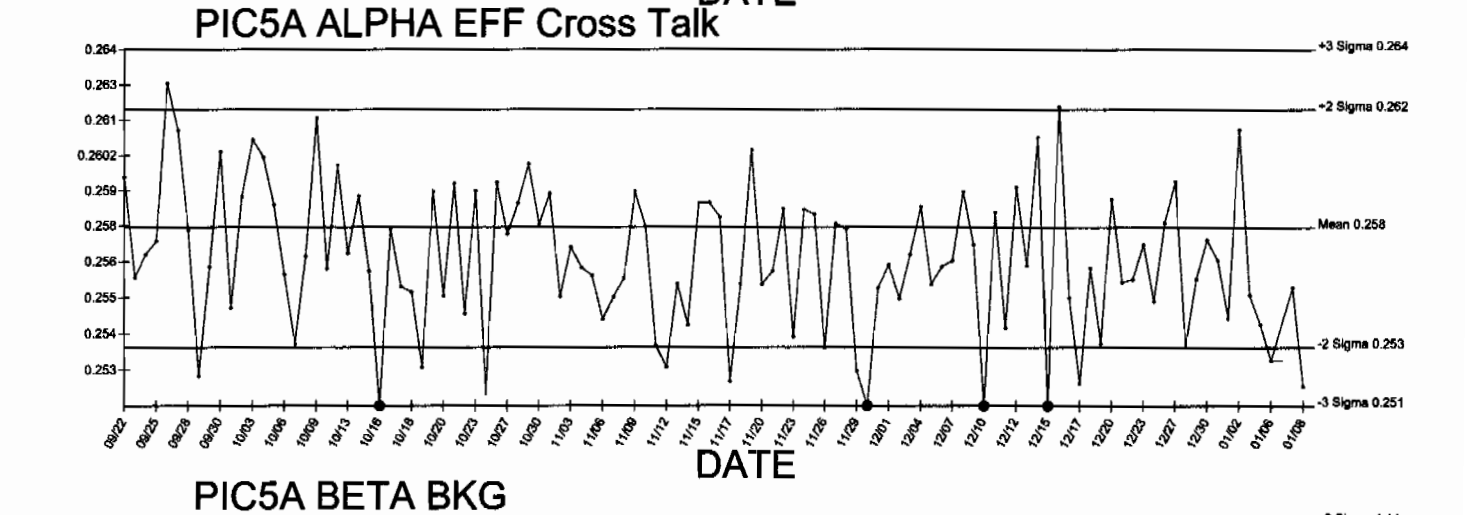
PIC5A ALPHA EFF Cross Talk
DATE
+3 Sigma 0.264
+2 Sigma 0.262
Mean 0.258
-2 Sigma 0.253
-3 Sigma 0.251

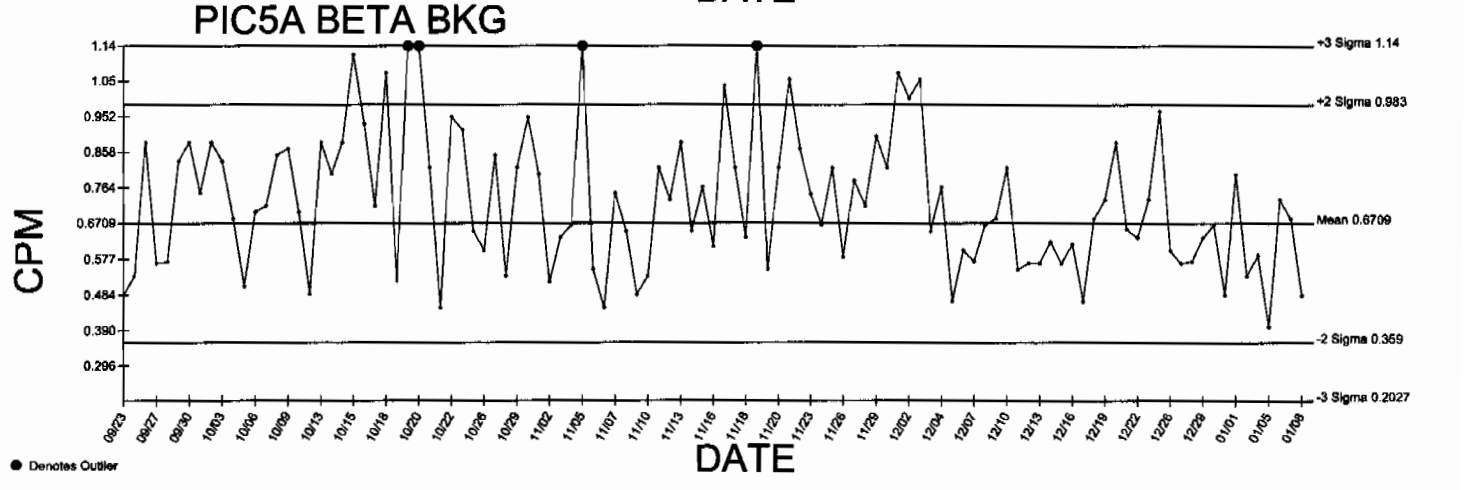
PIC5A BETA BKG
CPM
DATE
+3 Sigma 1.14
+2 Sigma 0.983
Mean 0.6709
-2 Sigma 0.359
-3 Sigma 0.2027
● Denotes Outlier

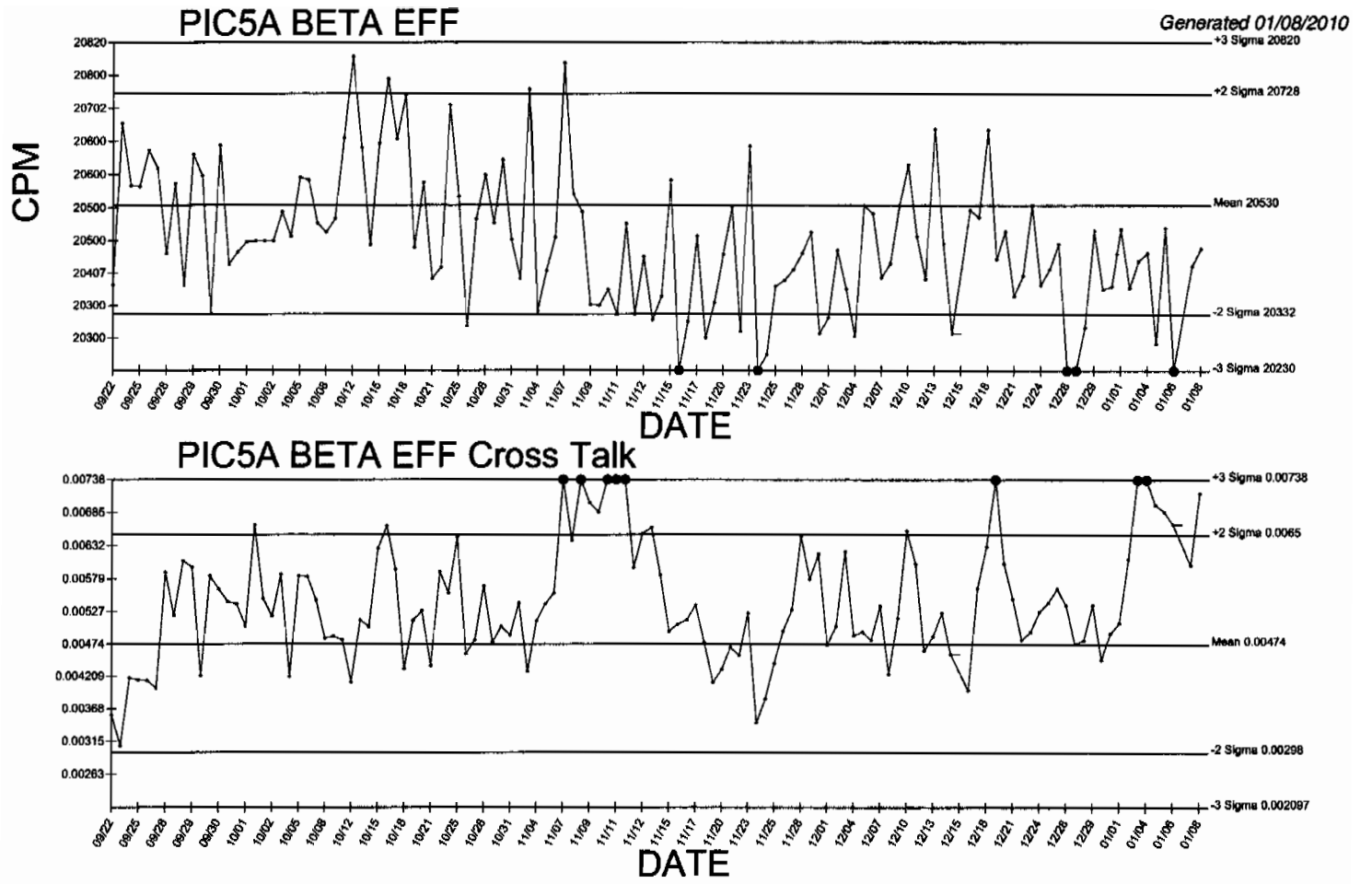

● Denotes Outlier

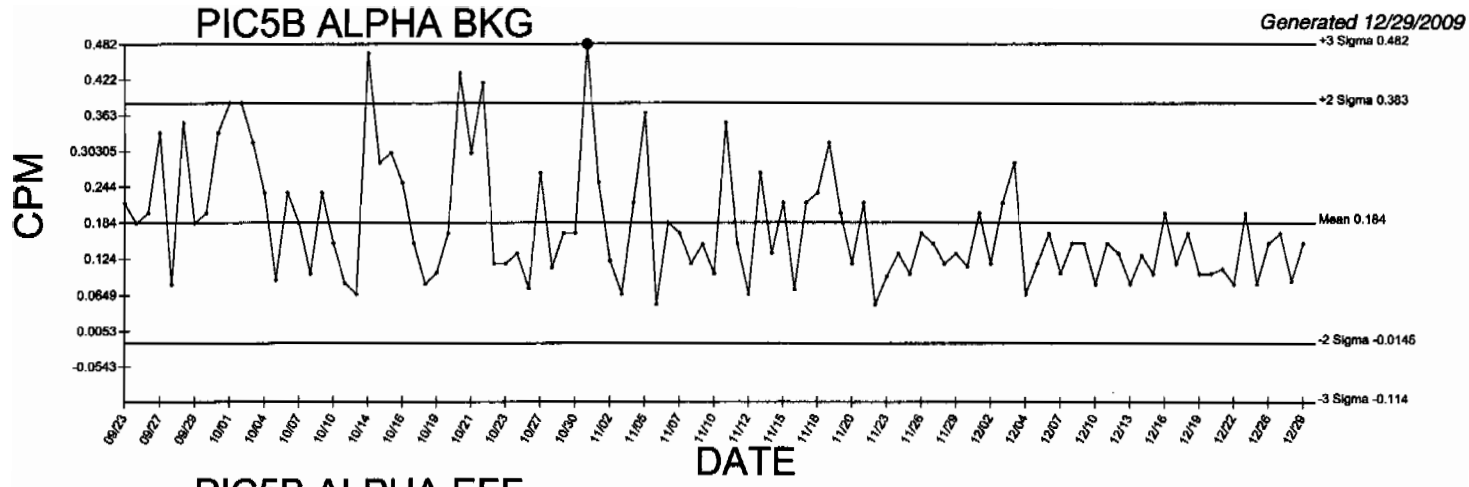
PIC5B ALPHA BKG
Generated 12/29/2009
CPM
DATE
+3 Sigma 0.482
+2 Sigma 0.383
Mean 0.184
-2 Sigma -0.0145
-3 Sigma -0.114

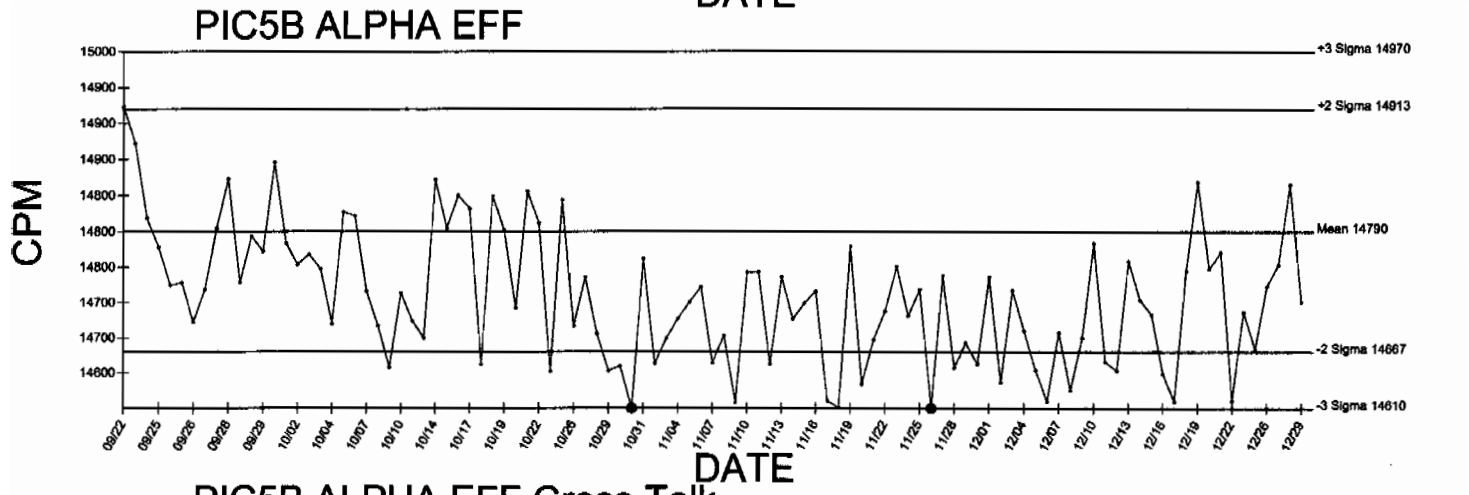
PIC5B ALPHA EFF
CPM
DATE
+3 Sigma 14970
+2 Sigma 14913
Mean 14790
-2 Sigma 14667
-3 Sigma 14610

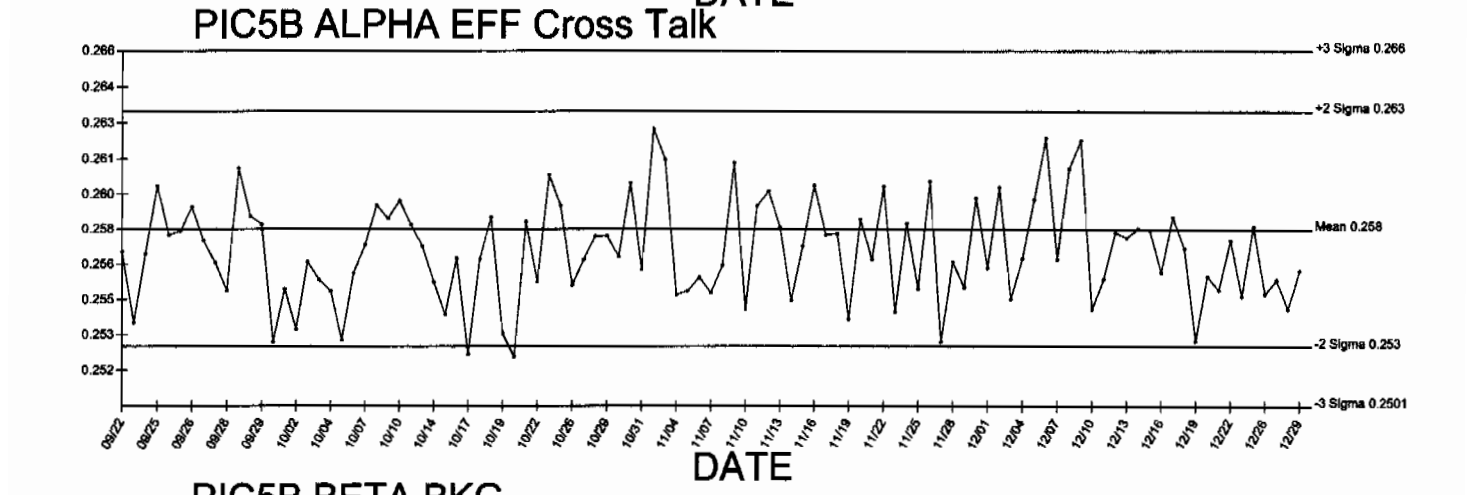
PIC5B ALPHA EFF Cross Talk
DATE
+3 Sigma 0.266
+2 Sigma 0.263
Mean 0.258
-2 Sigma 0.253
-3 Sigma 0.2501

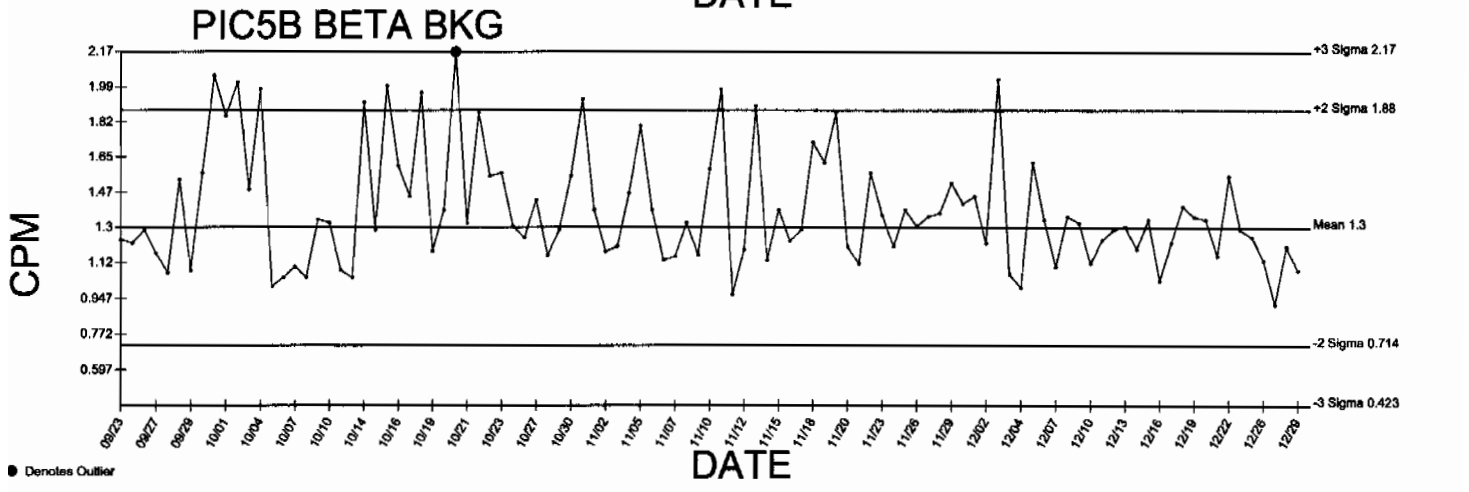
PIC5B BETA BKG
CPM
DATE
+3 Sigma 2.17
+2 Sigma 1.88
Mean 1.3
-2 Sigma 0.714
-3 Sigma 0.423
Denotes Outlier

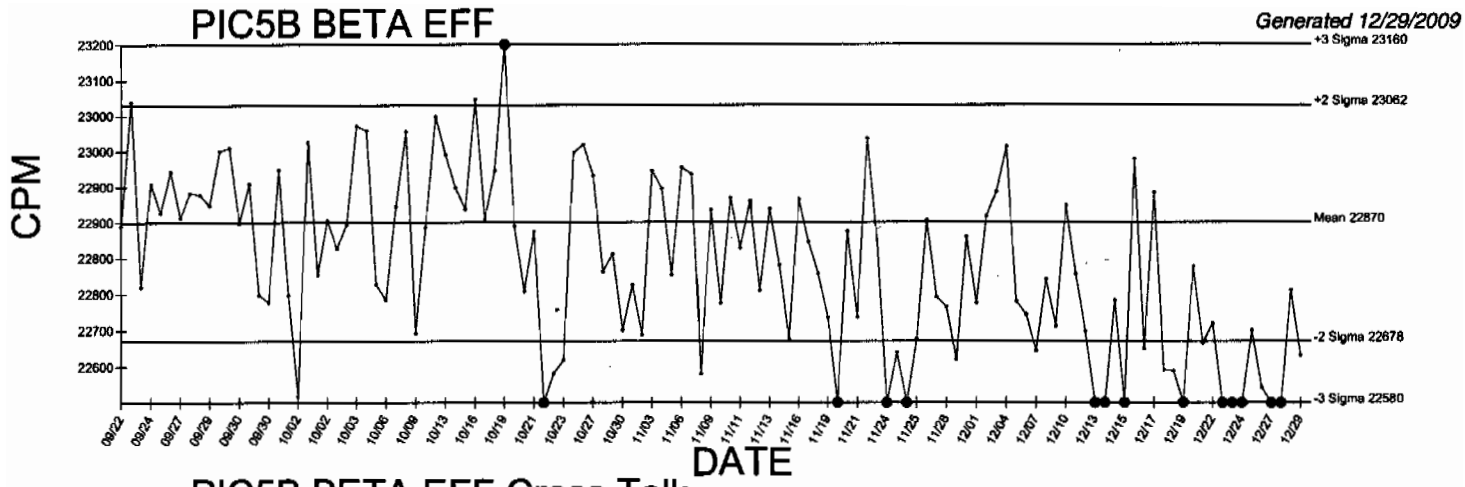

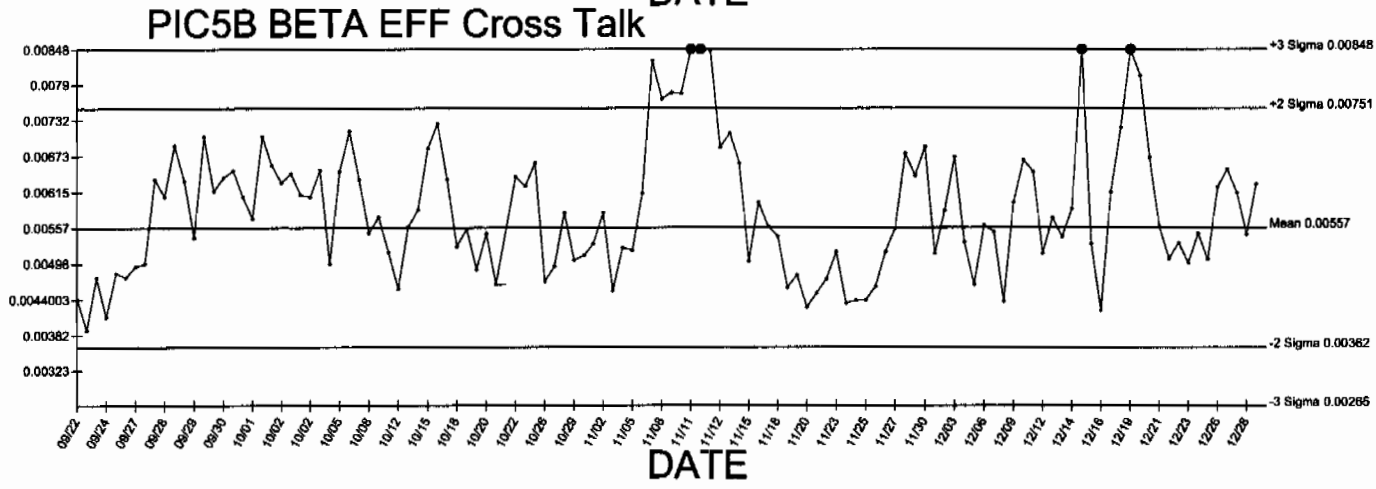

● Denotes Outlier

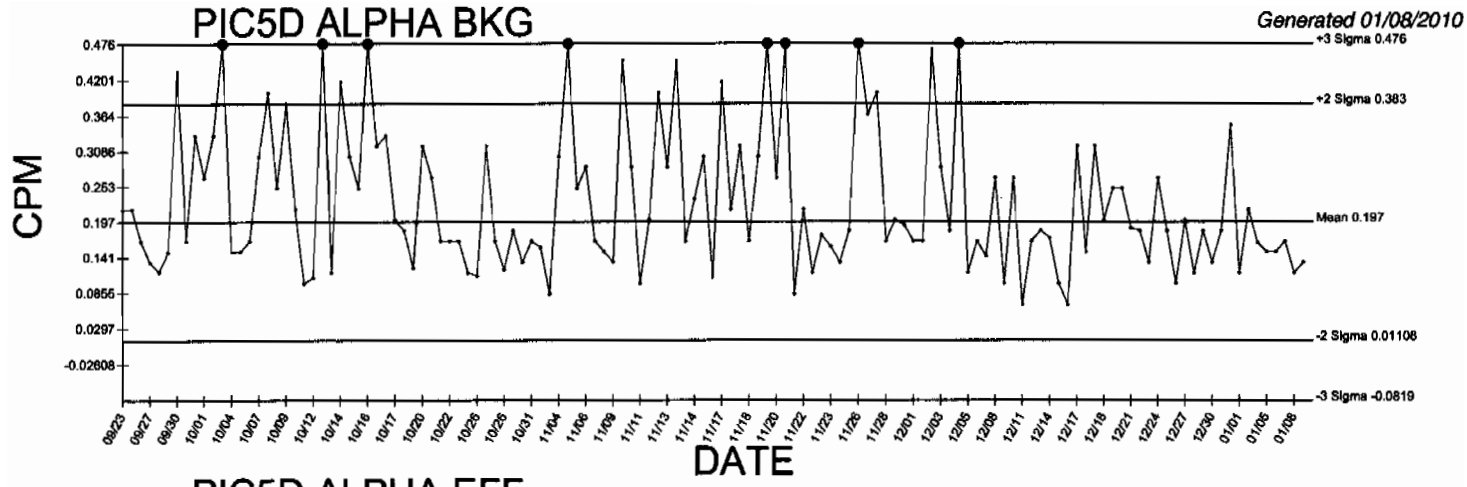
PIC5D ALPHA BKG
Generated 01/08/2010
CPM
DATE
+3 Sigma 0.476
+2 Sigma 0.383
Mean 0.197
-2 Sigma 0.01108
-3 Sigma -0.0819

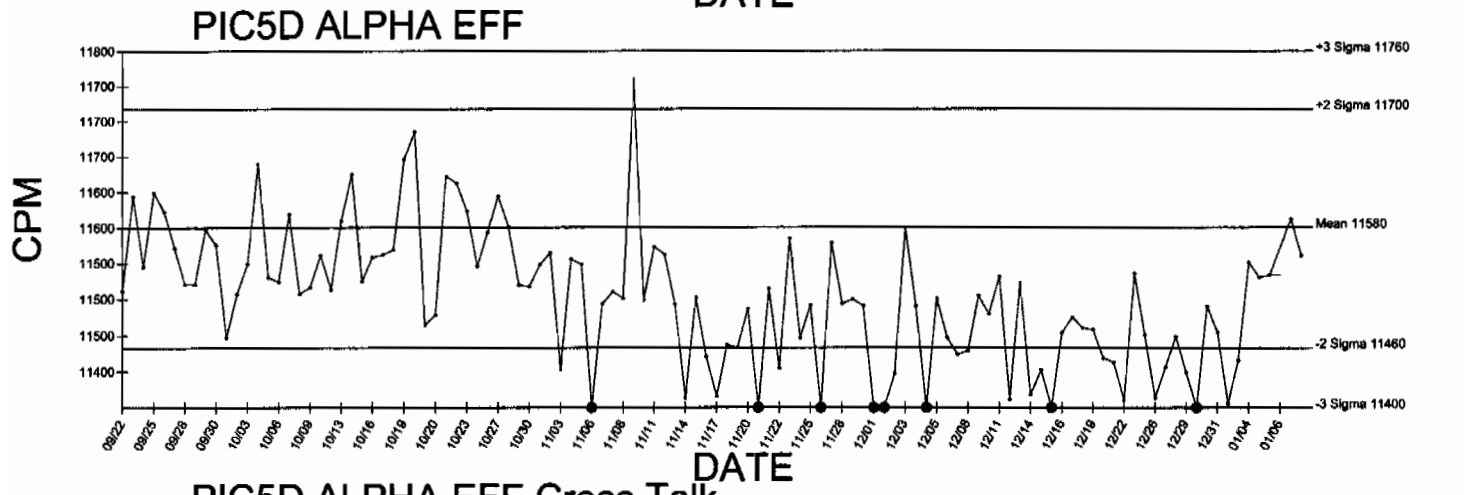
PIC5D ALPHA EFF
CPM
DATE
+3 Sigma 11760
+2 Sigma 11700
Mean 11580
-2 Sigma 11460
-3 Sigma 11400

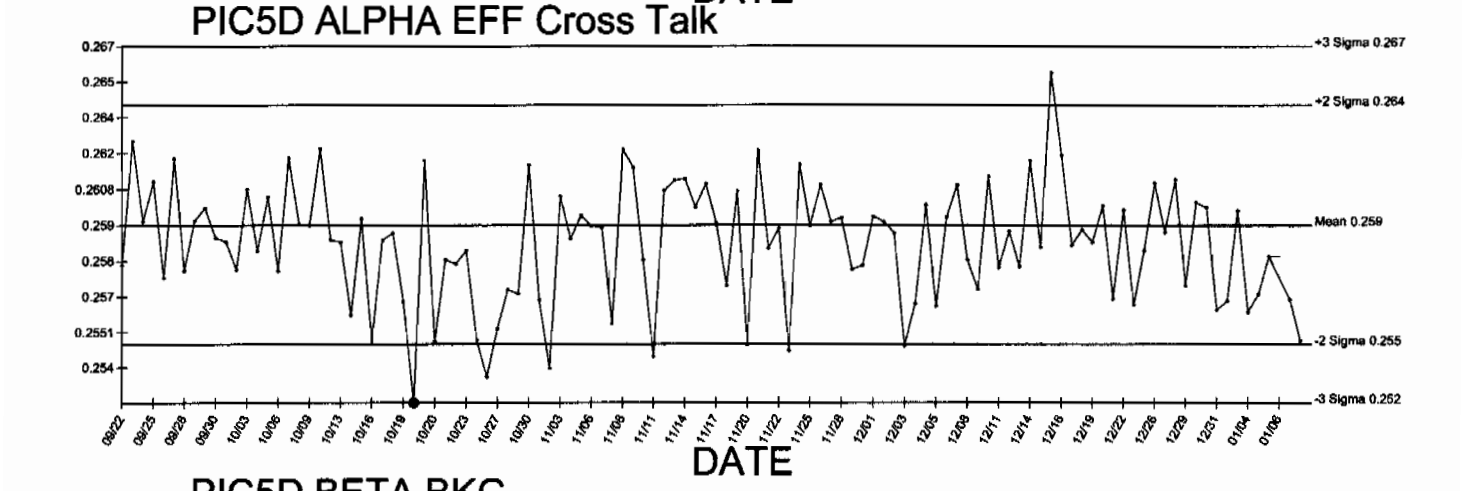
PIC5D ALPHA EFF Cross Talk
DATE
+3 Sigma 0.267
+2 Sigma 0.264
Mean 0.259
-2 Sigma 0.255
-3 Sigma 0.252

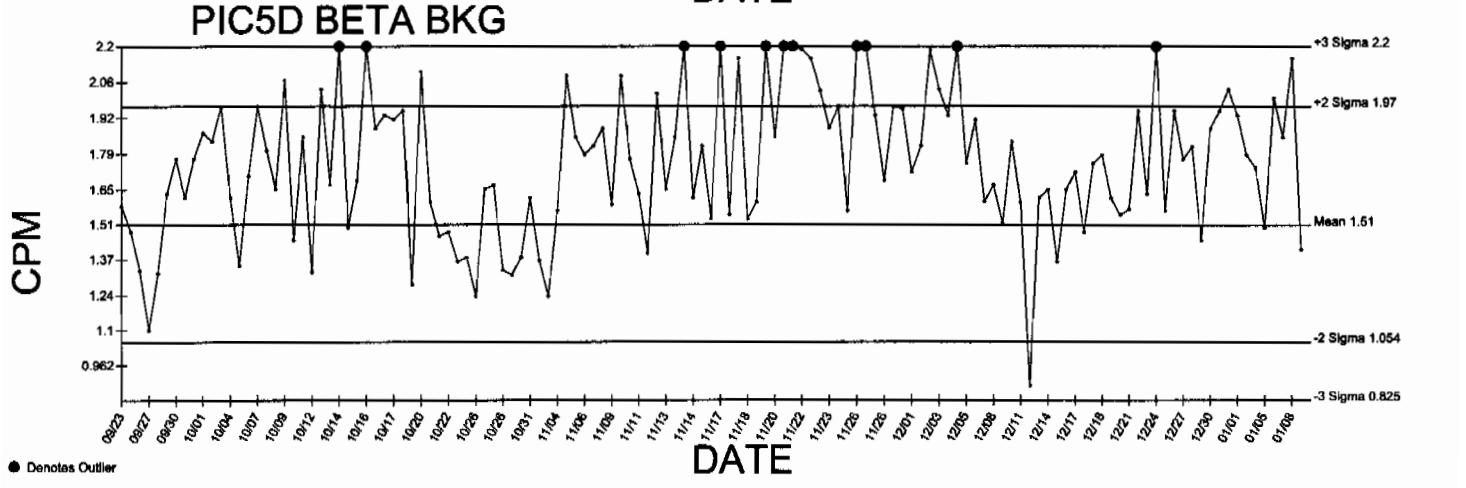
PIC5D BETA BKG
CPM
DATE
+3 Sigma 2.2
+2 Sigma 1.97
Mean 1.51
-2 Sigma 1.054
-3 Sigma 0.825
● Denotes Outlier

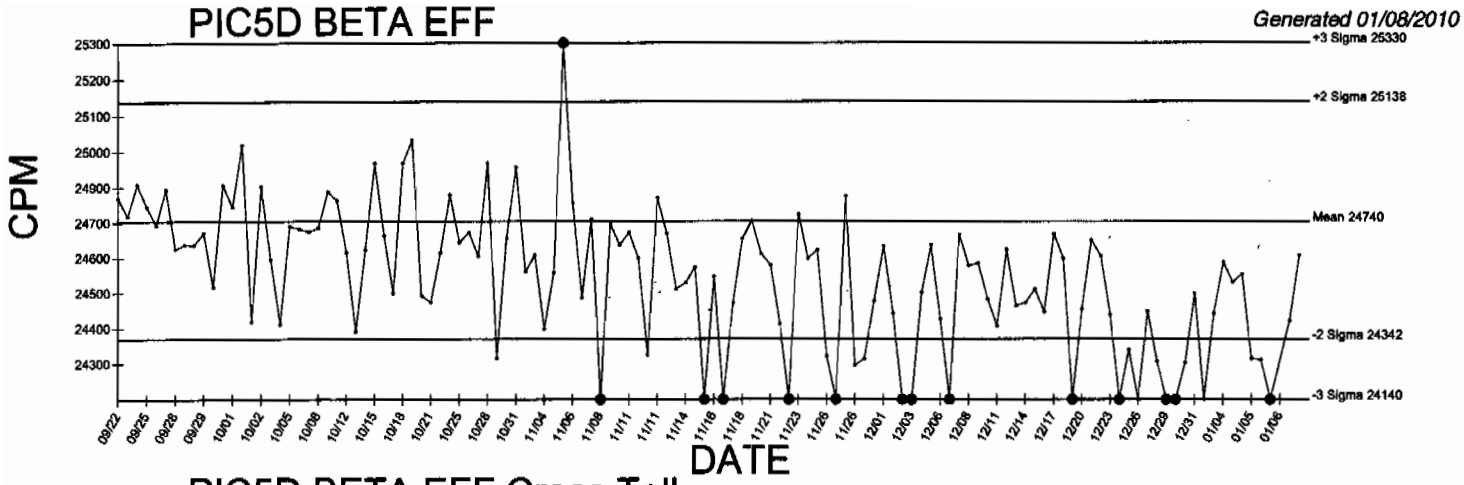

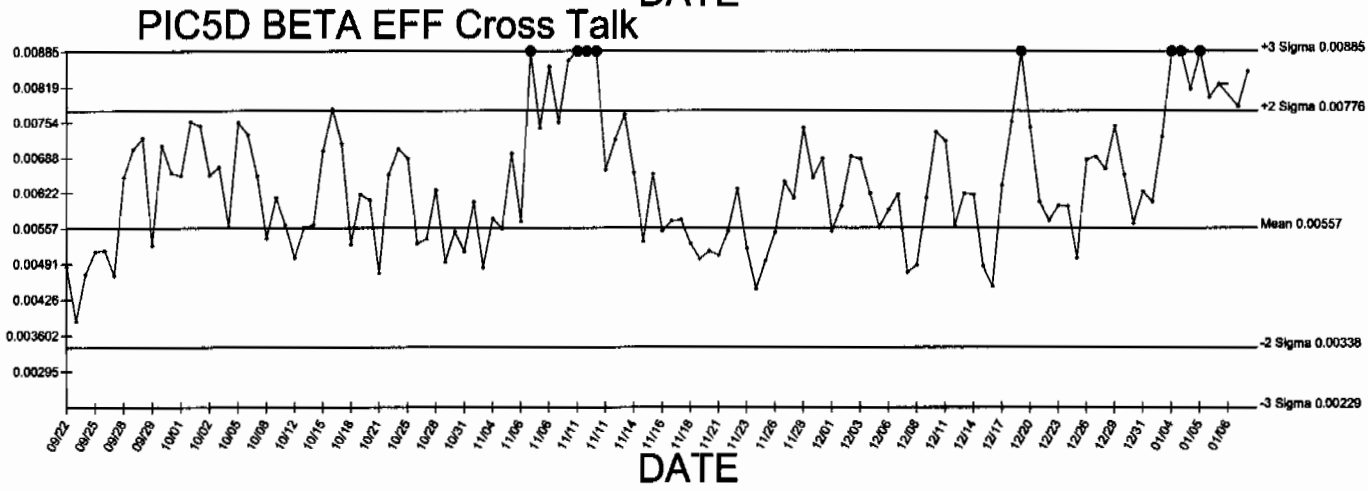

● Denotes Outlier

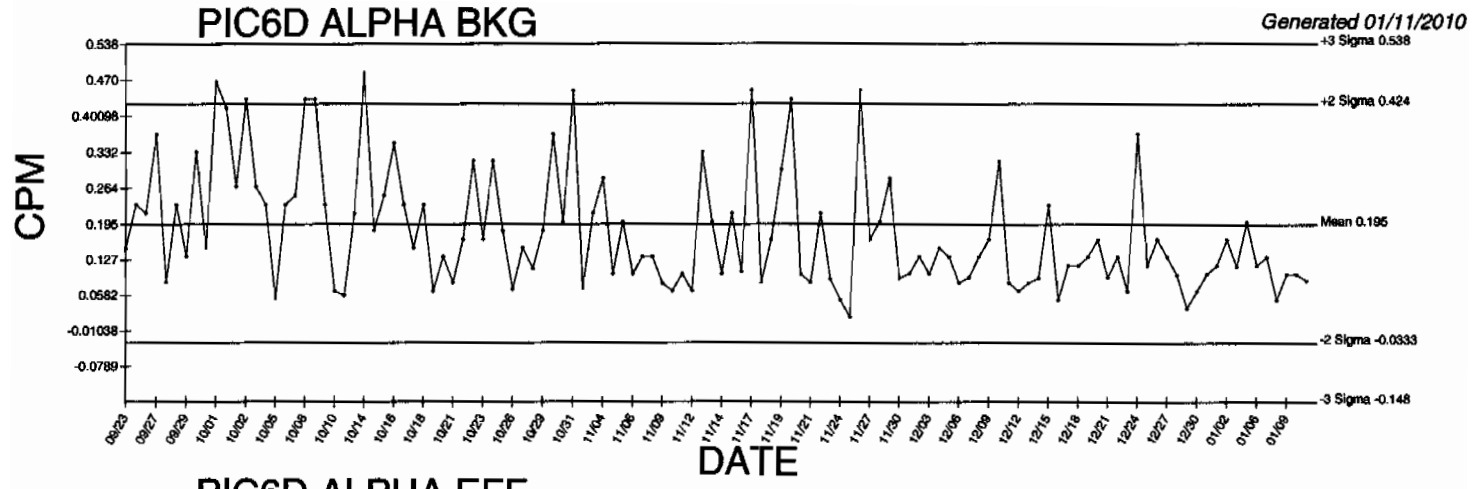
PIC6D ALPHA BKG
Generated 01/11/2010
CPM
DATE
+3 Sigma 0.538
+2 Sigma 0.424
Mean 0.195
-2 Sigma -0.0333
-3 Sigma -0.148

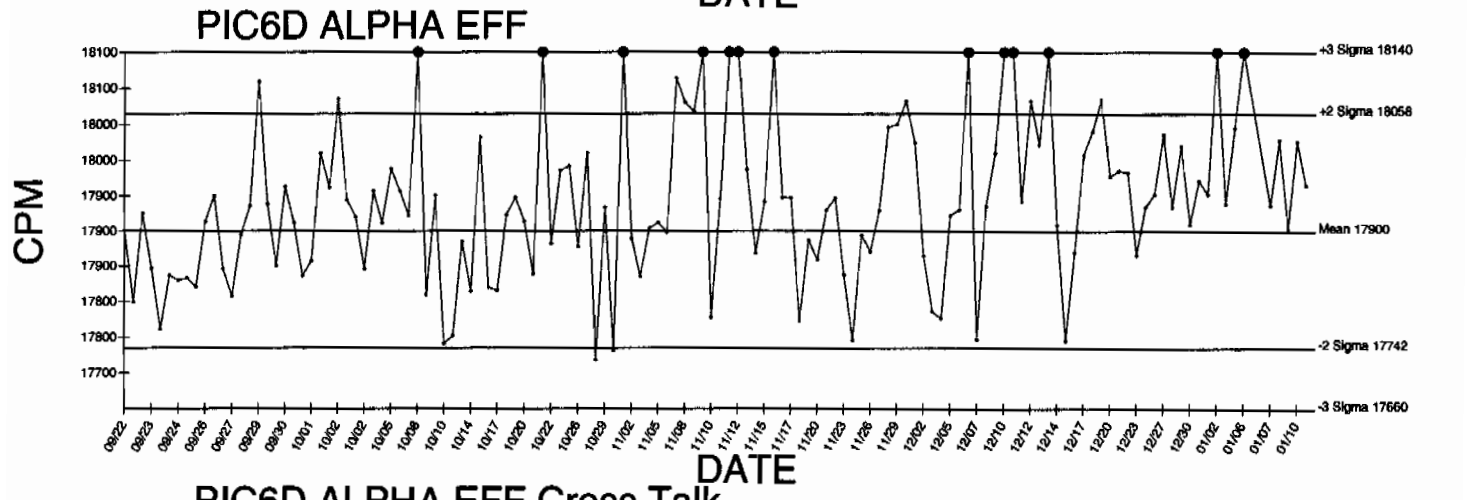
PIC6D ALPHA EFF
CPM
DATE
+3 Sigma 18140
+2 Sigma 18058
Mean 17900
-2 Sigma 17742
-3 Sigma 17660

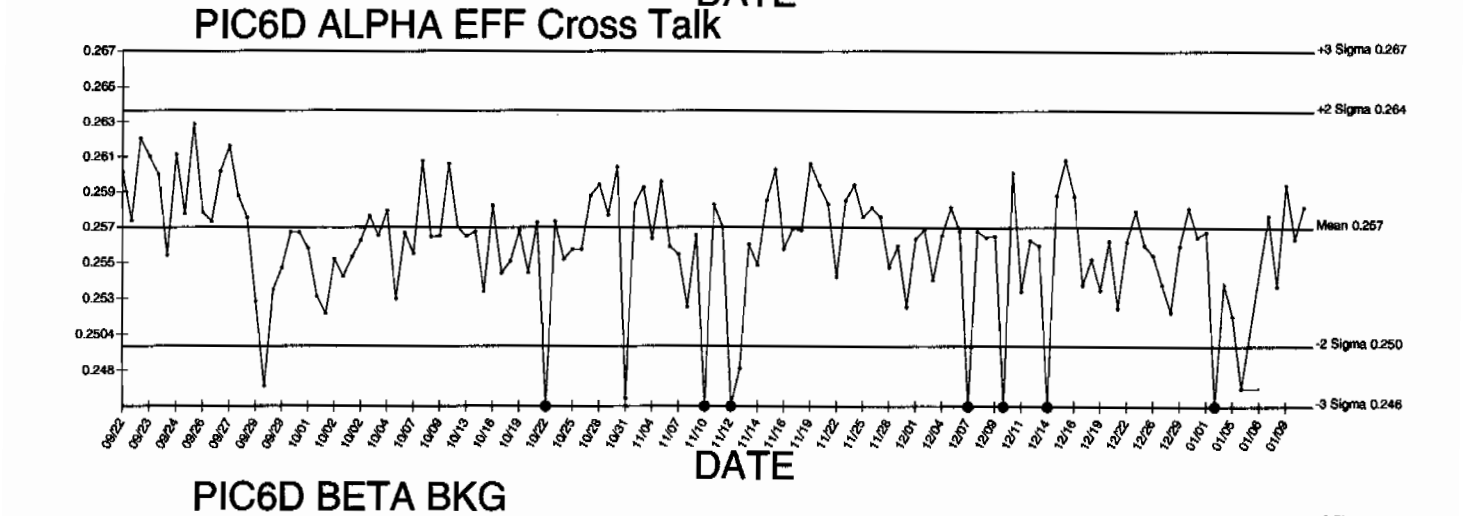
PIC6D ALPHA EFF Cross Talk
DATE
+3 Sigma 0.267
+2 Sigma 0.264
Mean 0.257
-2 Sigma 0.250
-3 Sigma 0.246

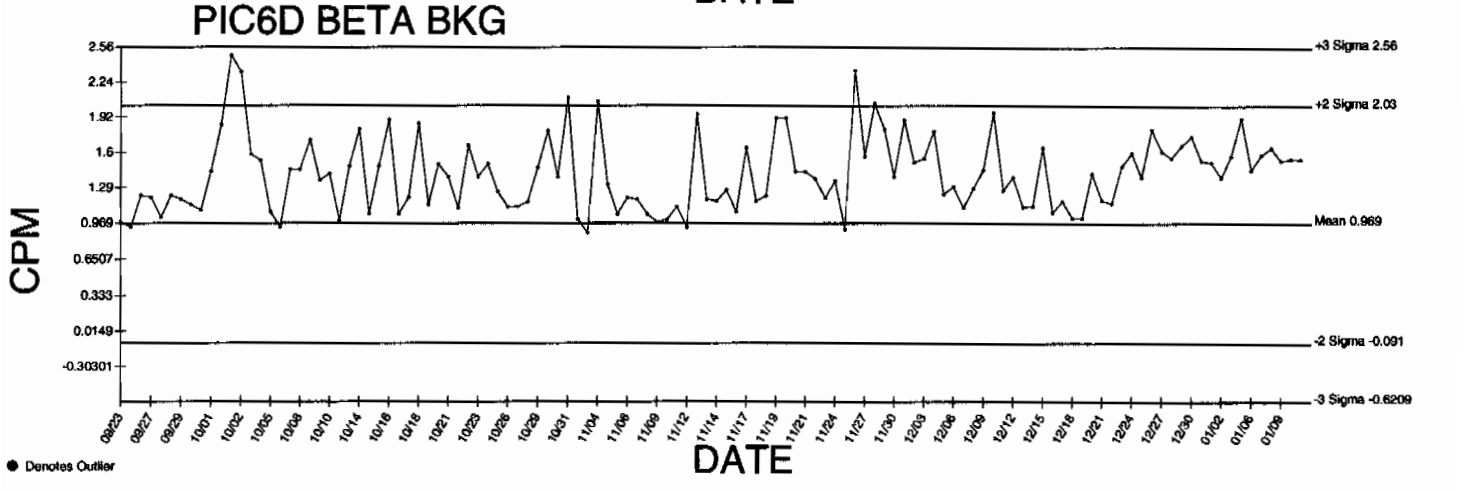
PIC6D BETA BKG
CPM
DATE
+3 Sigma 2.56
+2 Sigma 2.03
Mean 0.969
-2 Sigma -0.091
-3 Sigma -0.6209
Denotes Outlier

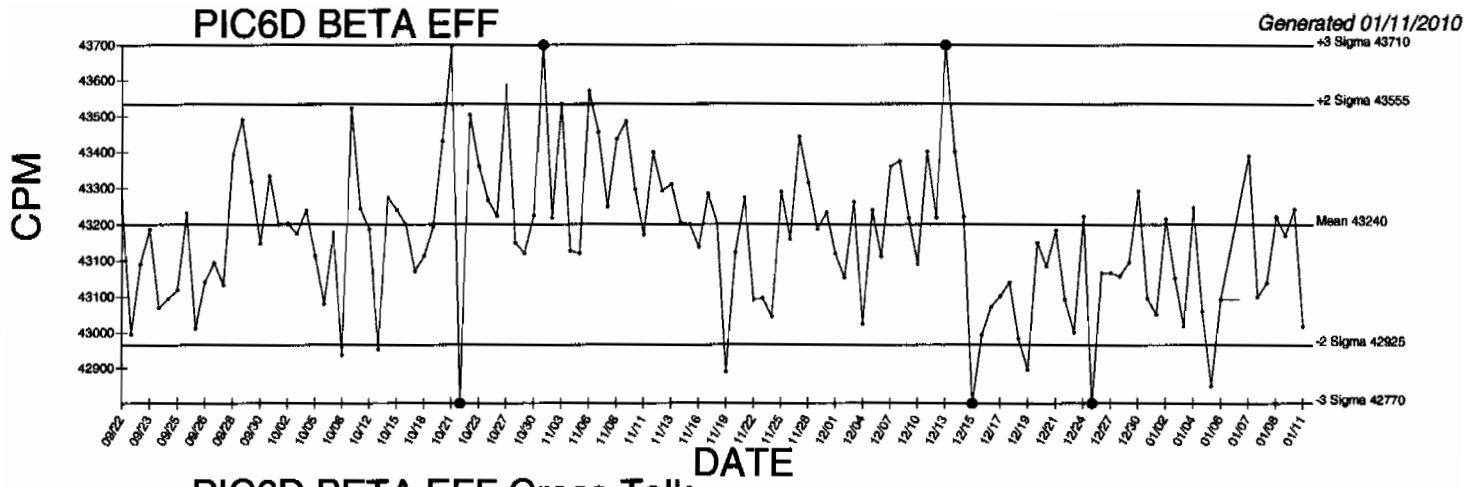

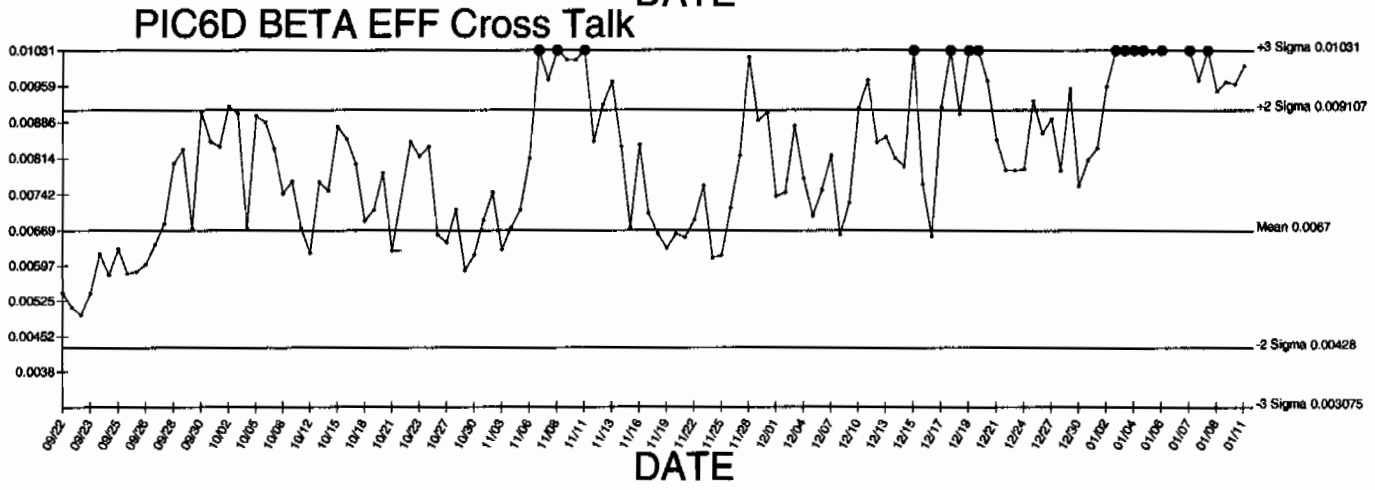

● Denotes Outlier

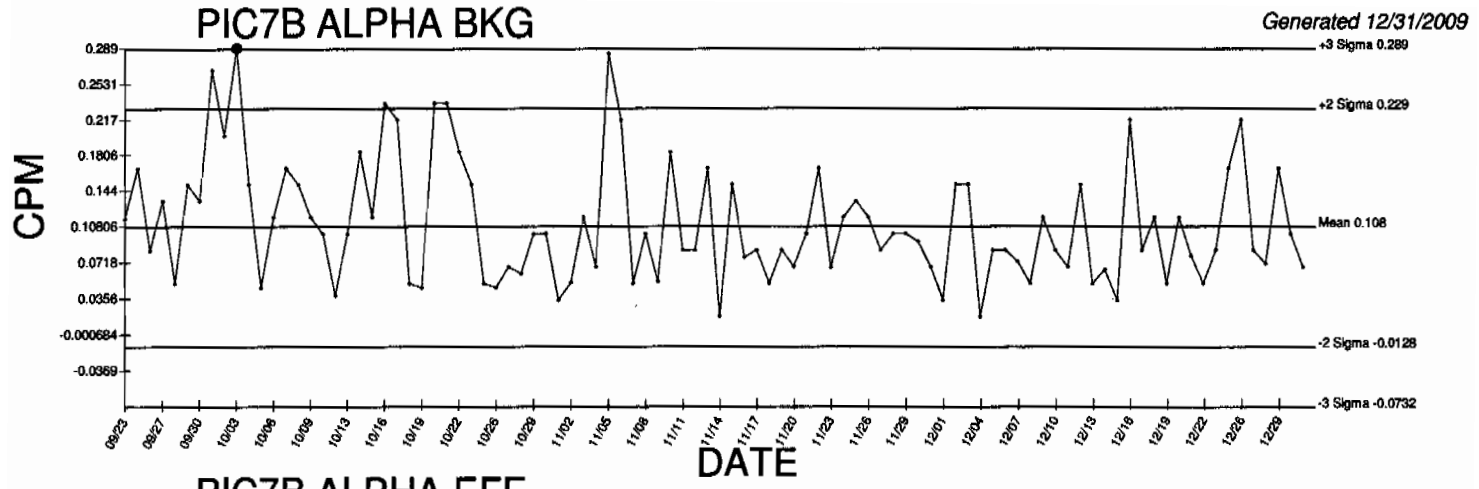
PIC7B ALPHA BKG
Generated 12/31/2009
CPM
DATE
+3 Sigma 0.289
+2 Sigma 0.229
Mean 0.108
-2 Sigma -0.0128
-3 Sigma -0.0732

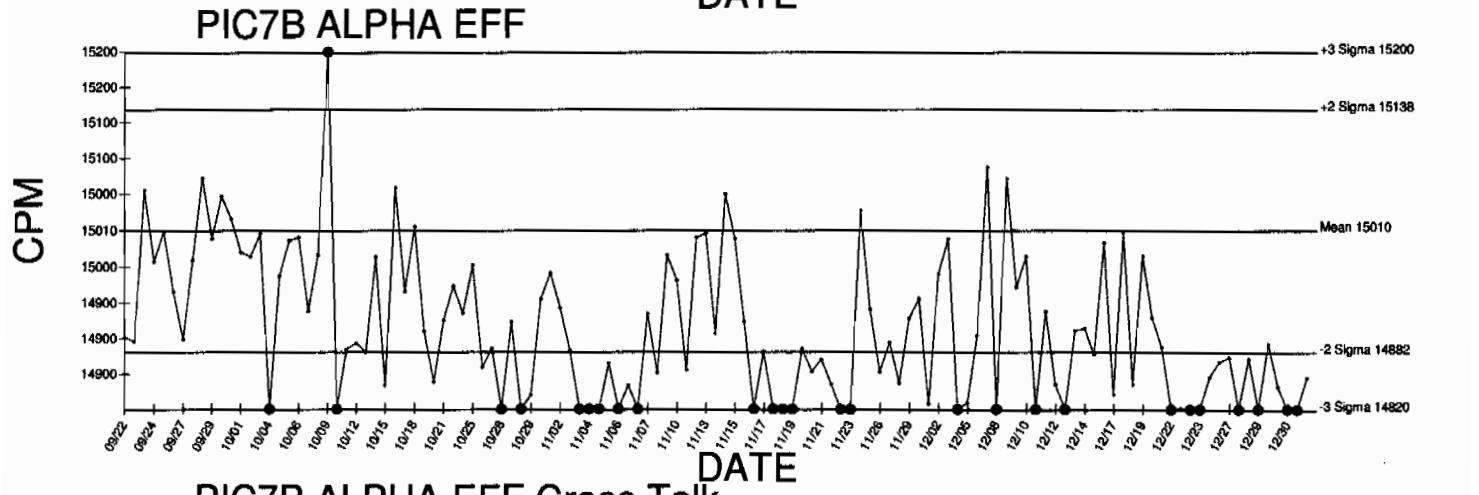
PIC7B ALPHA EFF
CPM
DATE
+3 Sigma 15200
+2 Sigma 15138
Mean 15010
-2 Sigma 14882
-3 Sigma 14820

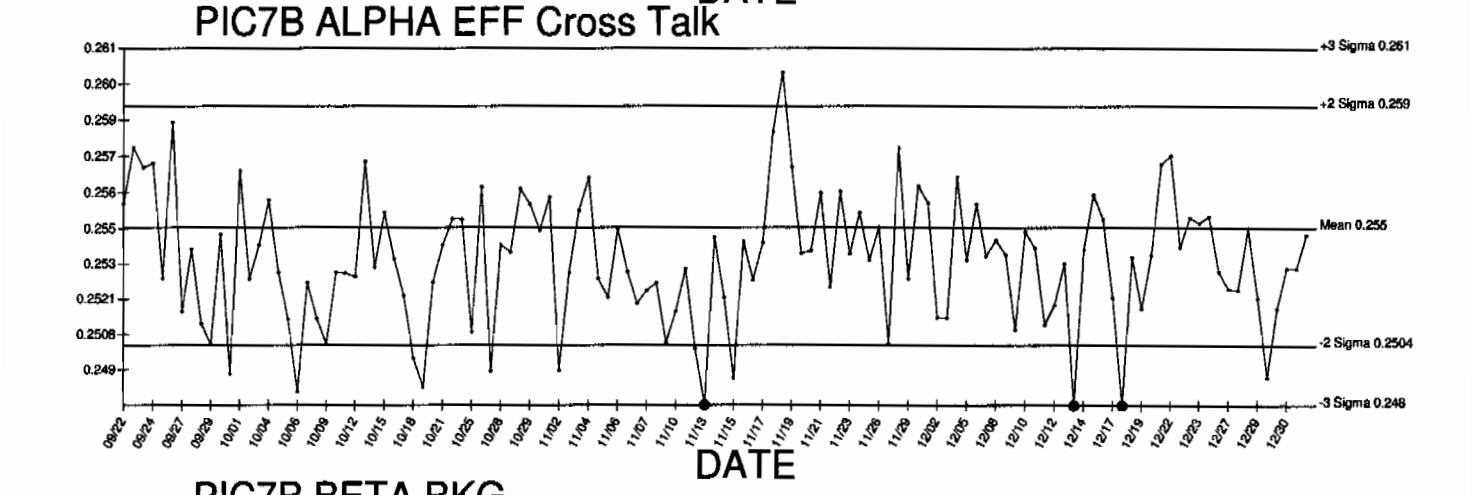
PIC7B ALPHA EFF Cross Talk
DATE
+3 Sigma 0.261
+2 Sigma 0.259
Mean 0.255
-2 Sigma 0.2504
-3 Sigma 0.248

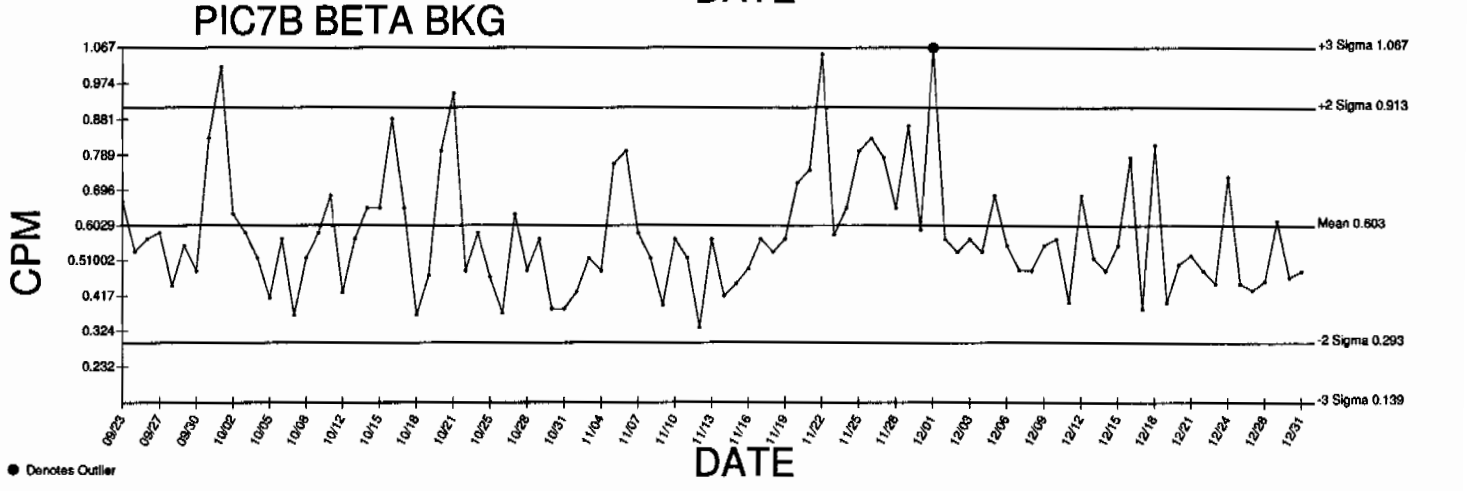
PIC7B BETA BKG
CPM
DATE
+3 Sigma 1.067
+2 Sigma 0.913
Mean 0.603
-2 Sigma 0.293
-3 Sigma 0.139
● Denotes Outlier

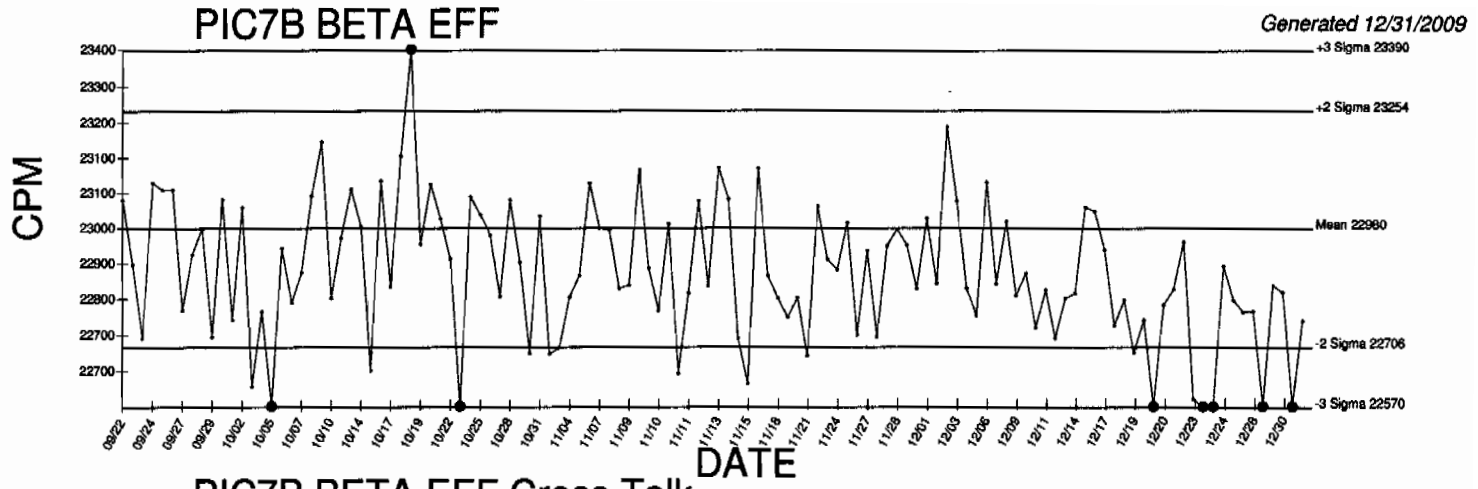

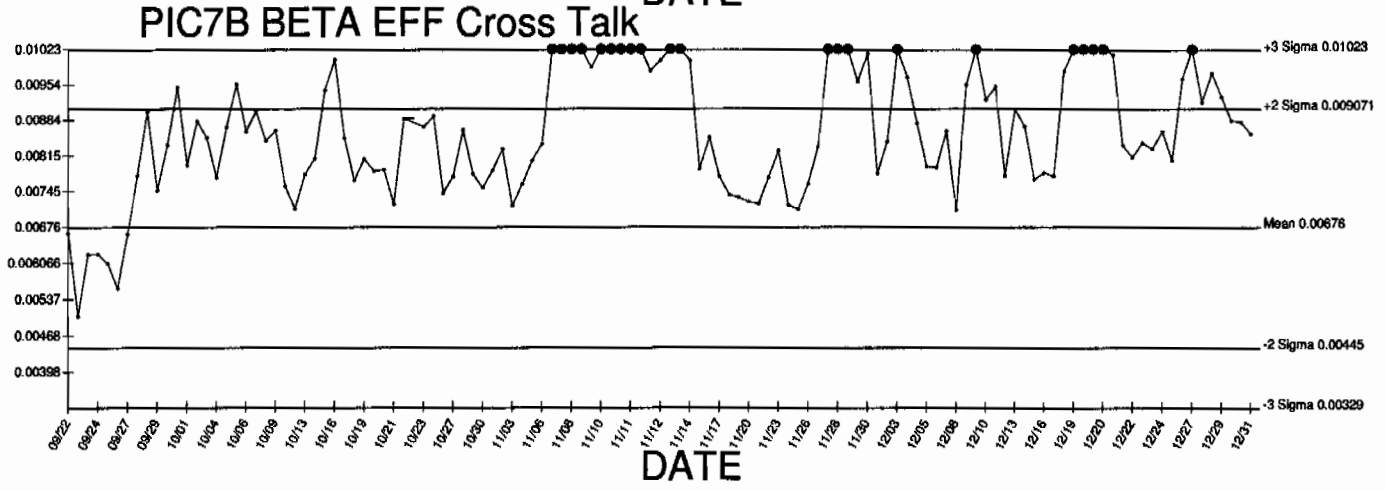

● Denotes Outlier

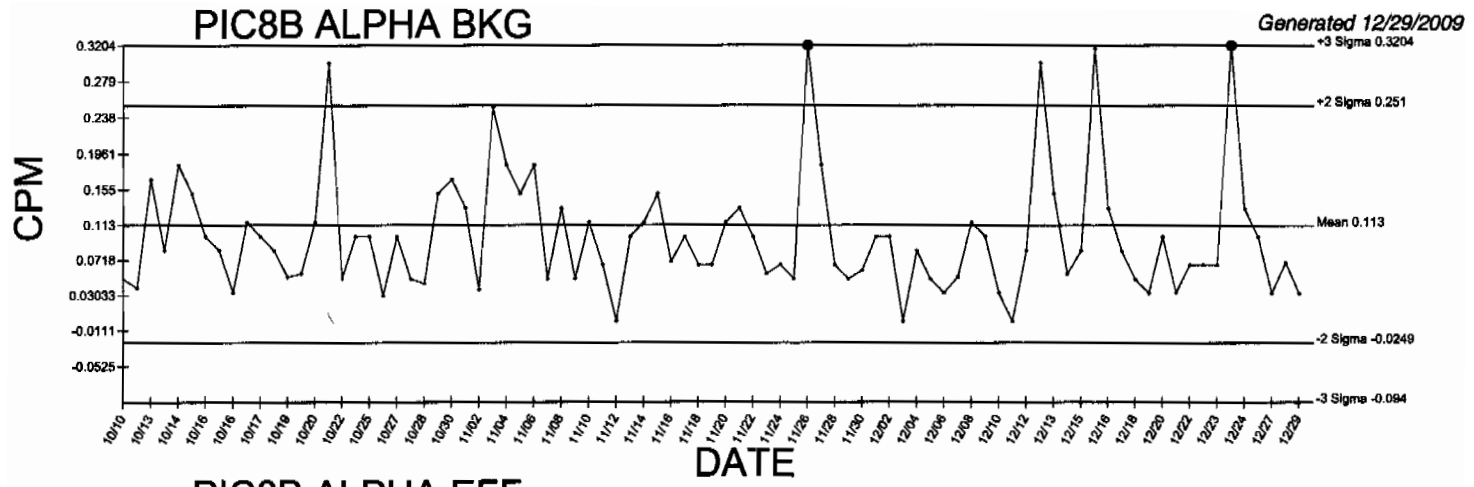
PIC8B ALPHA BKG
Generated 12/29/2009
CPM
DATE
+3 Sigma 0.3204
+2 Sigma 0.251
Mean 0.113
-2 Sigma -0.0249
-3 Sigma -0.094

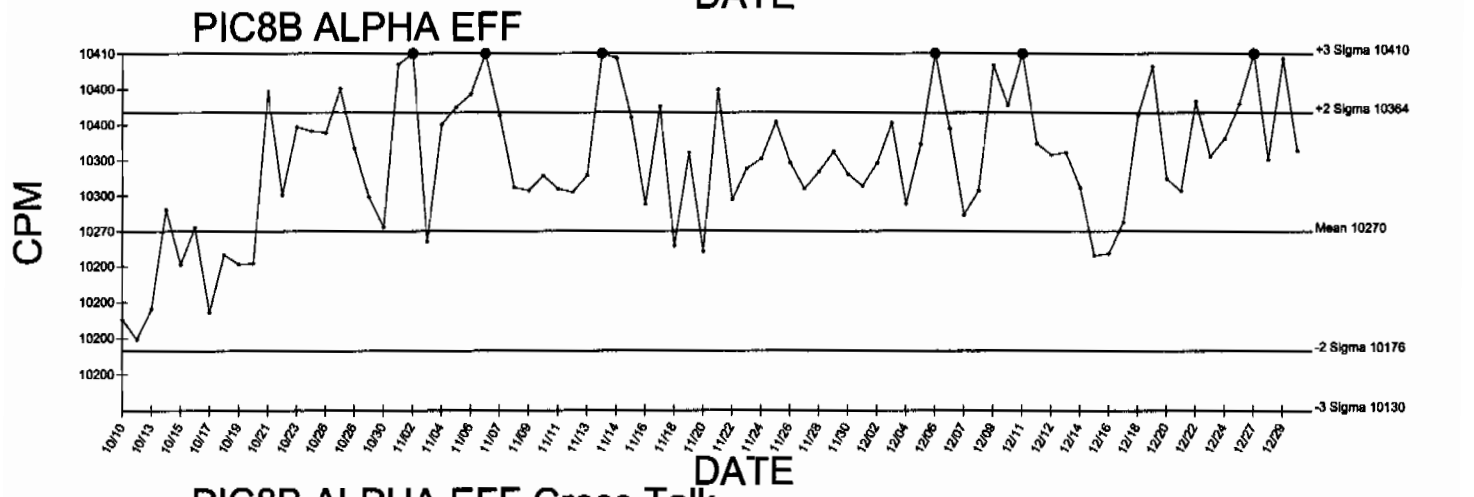
PIC8B ALPHA EFF
CPM
DATE
+3 Sigma 10410
+2 Sigma 10364
Mean 10270
-2 Sigma 10176
-3 Sigma 10130

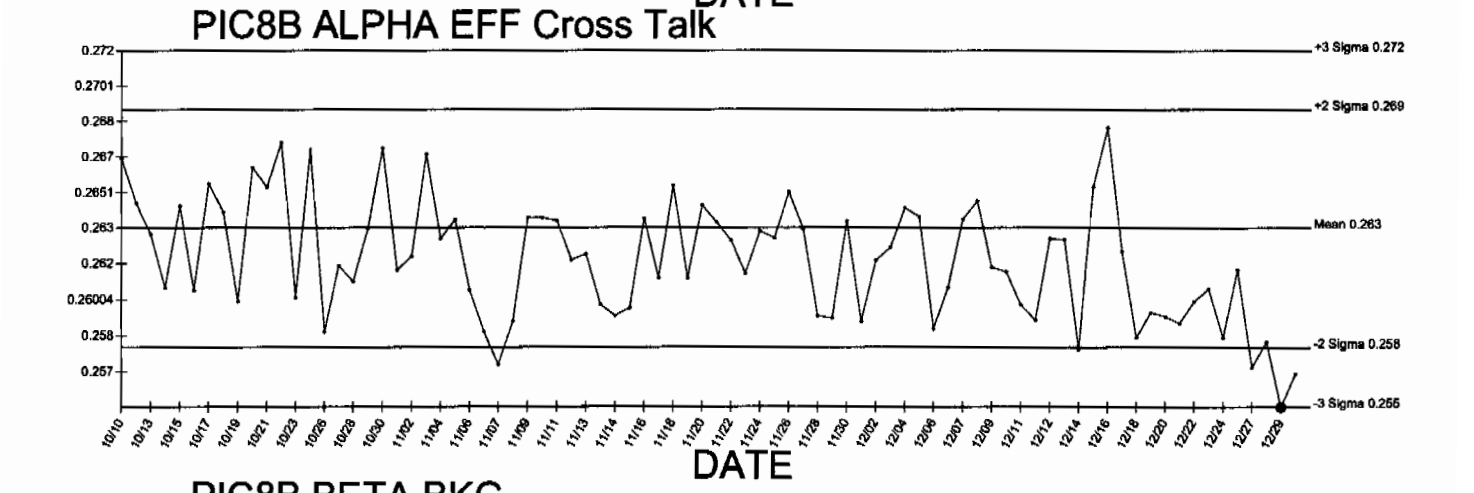
PIC8B ALPHA EFF Cross Talk
DATE
+3 Sigma 0.272
+2 Sigma 0.269
Mean 0.263
-2 Sigma 0.258
-3 Sigma 0.255

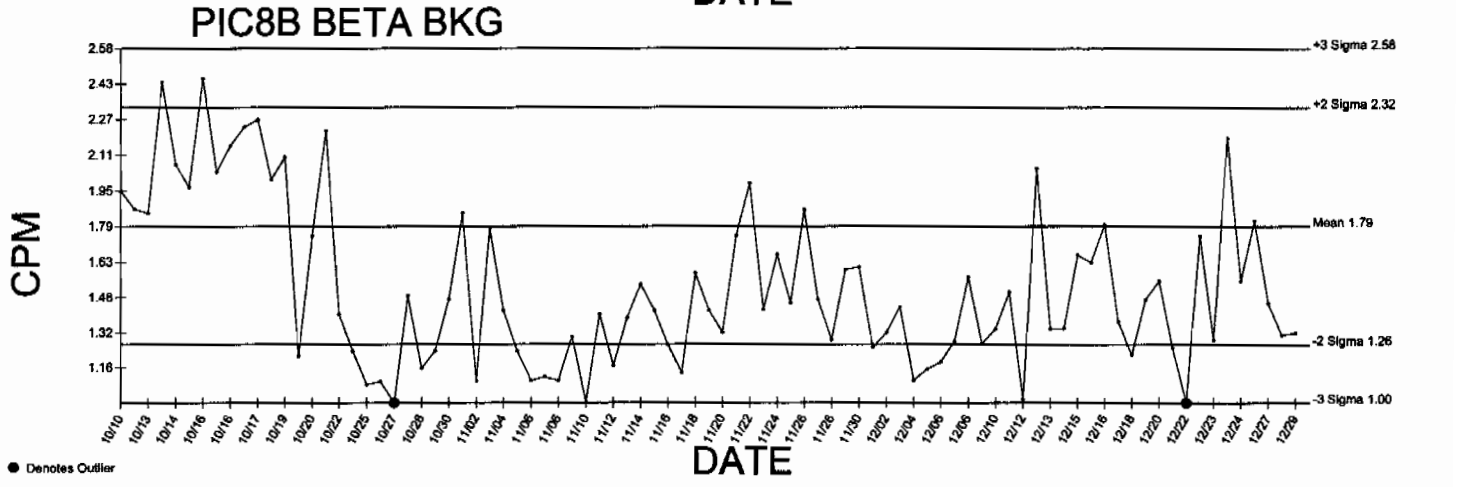
PIC8B BETA BKG
CPM
DATE
+3 Sigma 2.58
+2 Sigma 2.32
Mean 1.79
-2 Sigma 1.26
-3 Sigma 1.00
● Denotes Outlier

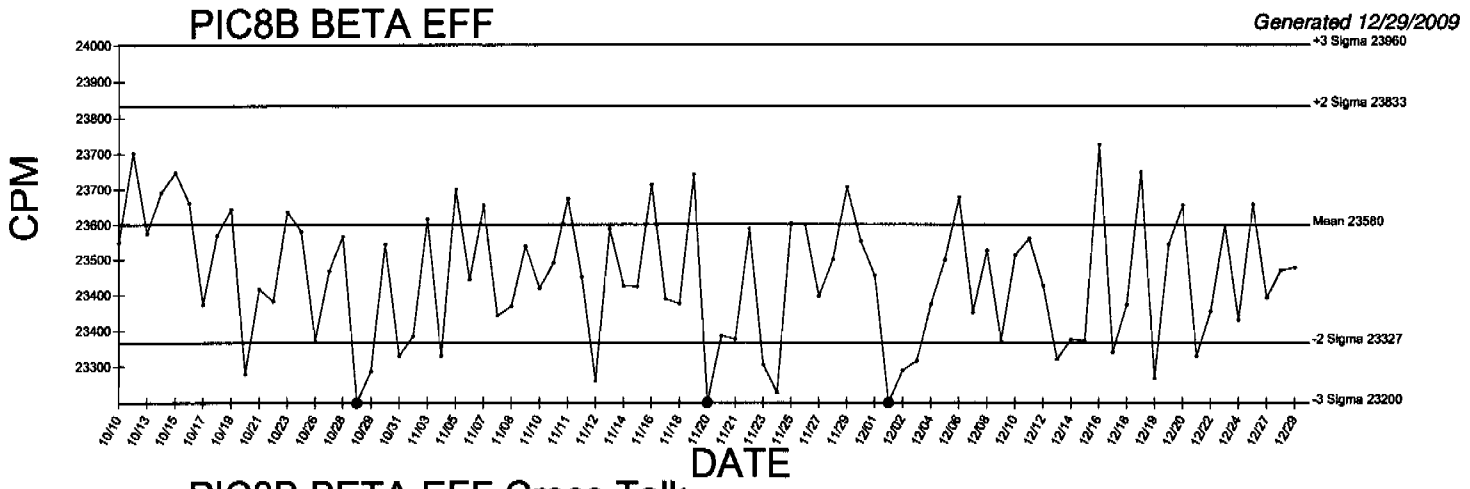

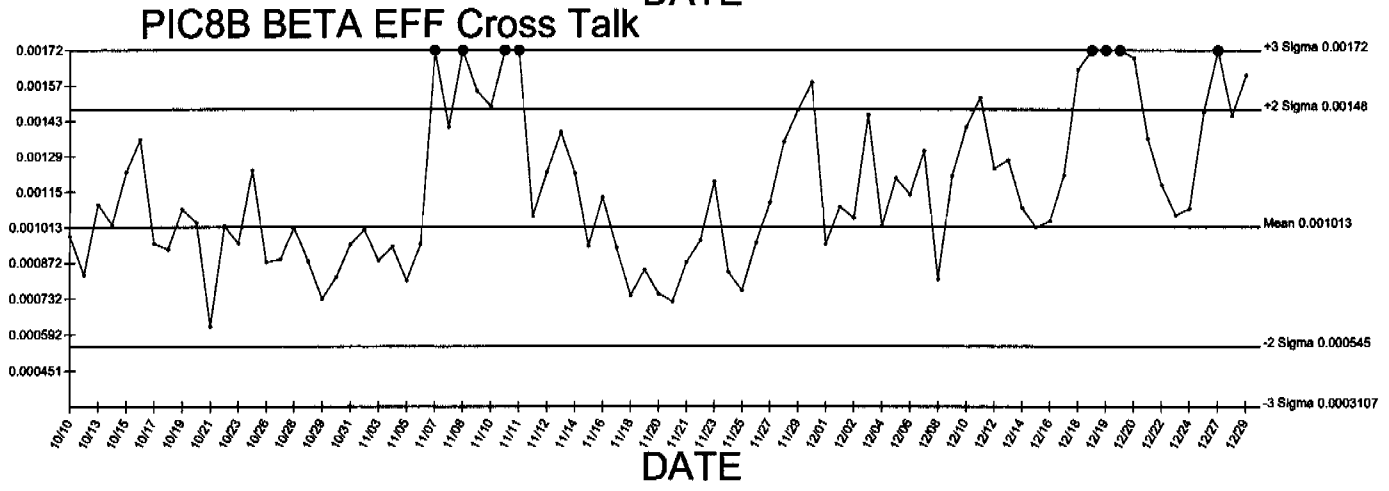

● Denotes Outlier

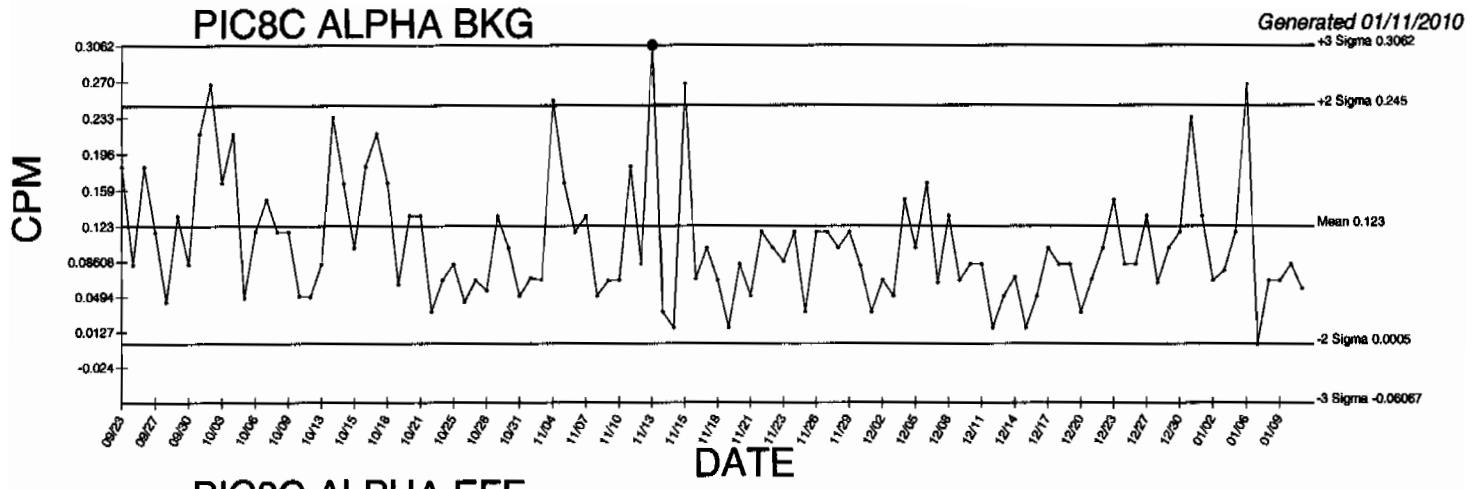
PIC8C ALPHA BKG
Generated 01/11/2010
CPM
DATE
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+2 Sigma 0.245
Mean 0.123
-2 Sigma 0.0005
-3 Sigma -0.06067

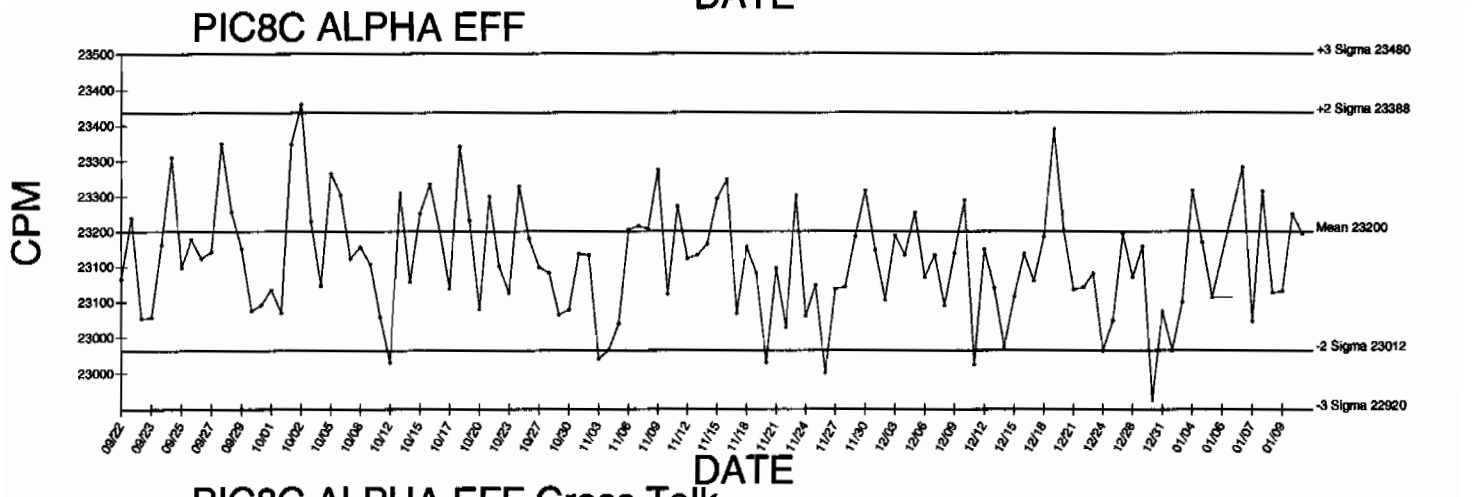
PIC8C ALPHA EFF
CPM
DATE
+3 Sigma 23480
+2 Sigma 23388
Mean 23200
-2 Sigma 23012
-3 Sigma 22920

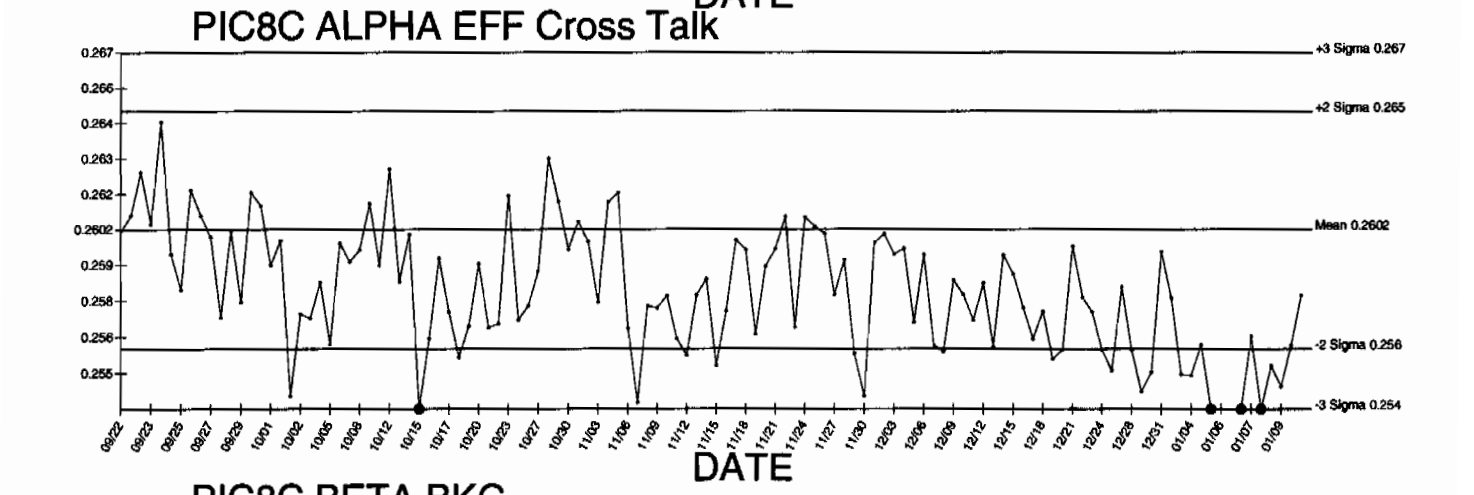
PIC8C ALPHA EFF Cross Talk
DATE
+3 Sigma 0.267
+2 Sigma 0.265
Mean 0.2602
-2 Sigma 0.256
-3 Sigma 0.254

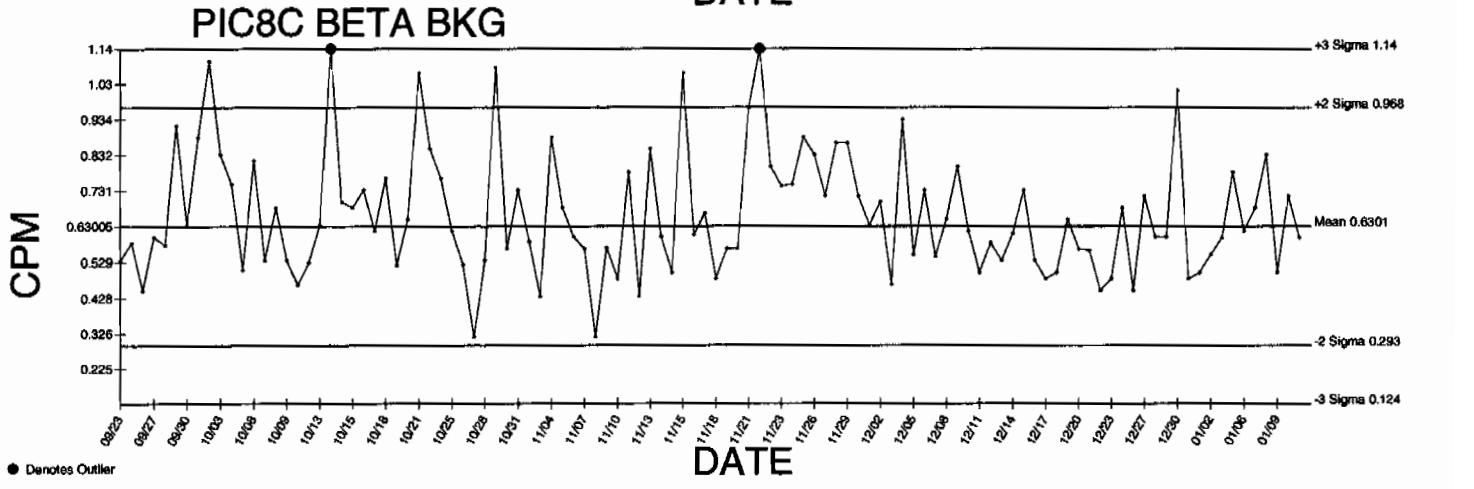
PIC8C BETA BKG
CPM
DATE
+3 Sigma 1.14
+2 Sigma 0.968
Mean 0.6301
-2 Sigma 0.293
-3 Sigma 0.124
Denotes Outlier

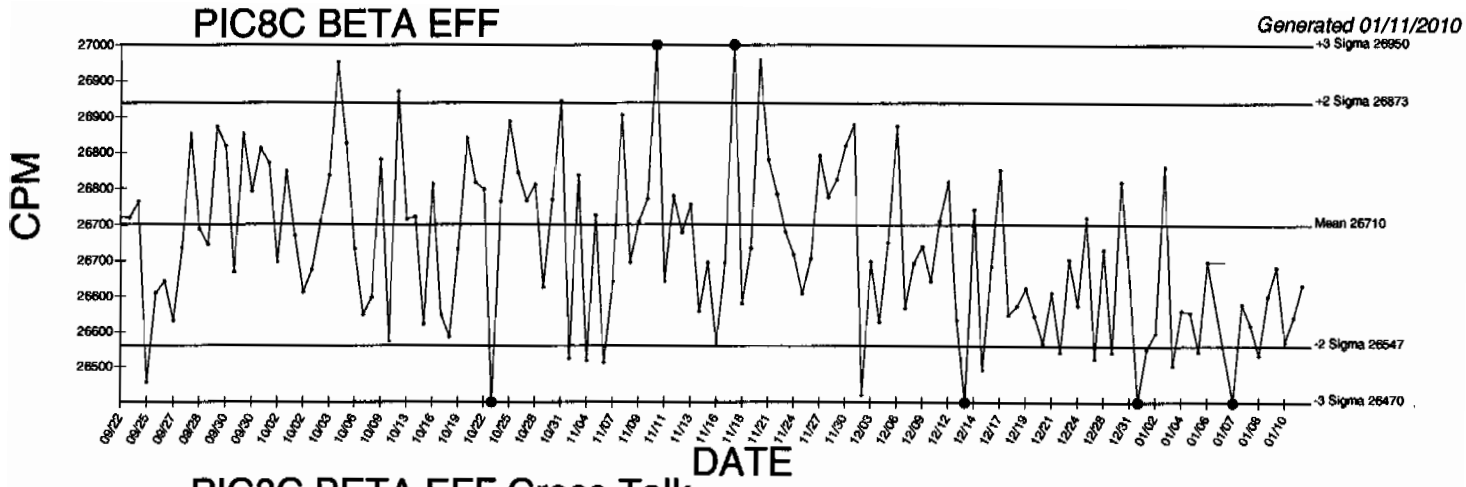

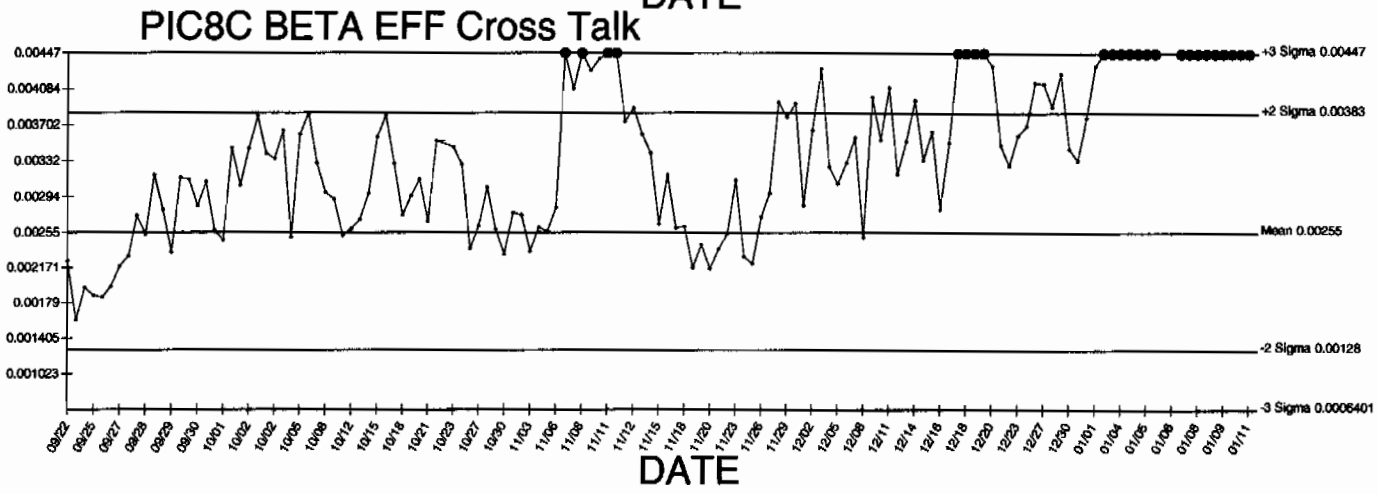

● Denotes Outlier

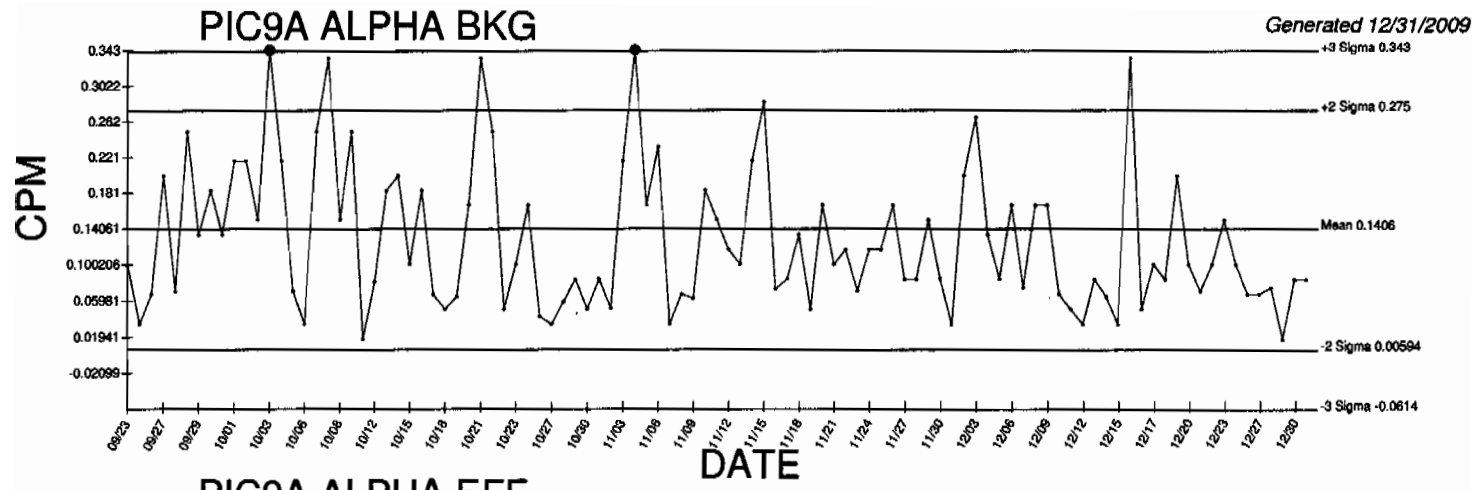
PIC9A ALPHA BKG
Generated 12/31/2009
CPM
DATE
+3 Sigma 0.343
+2 Sigma 0.275
Mean 0.1406
-2 Sigma 0.00594
-3 Sigma -0.0614

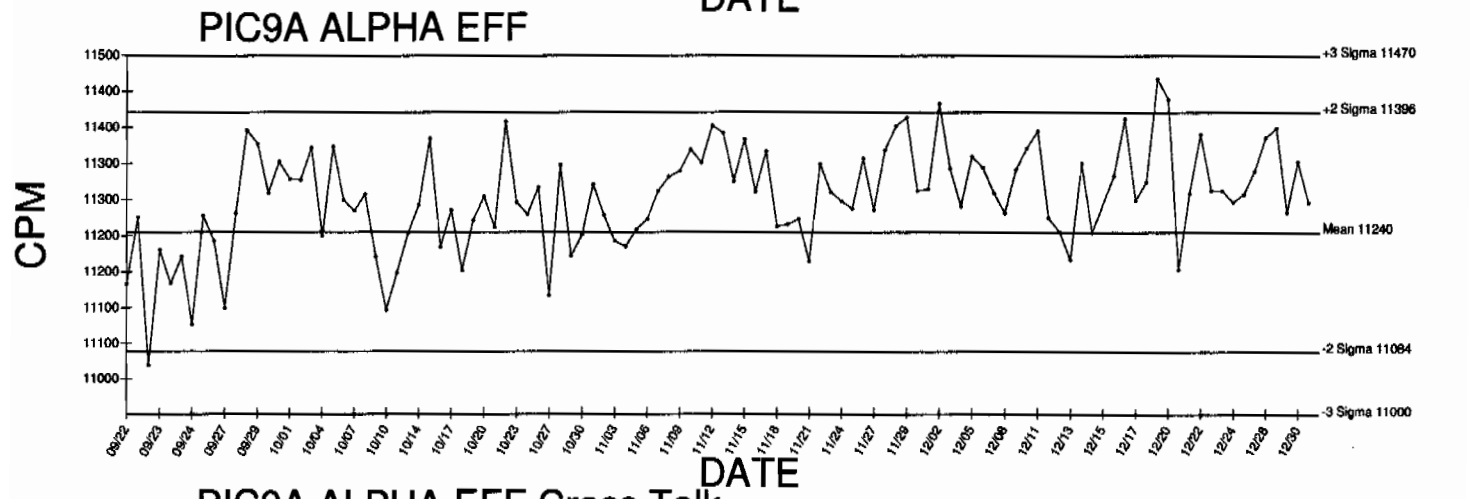
PIC9A ALPHA EFF
CPM
DATE
+3 Sigma 11470
+2 Sigma 11396
Mean 11240
-2 Sigma 11084
-3 Sigma 11000

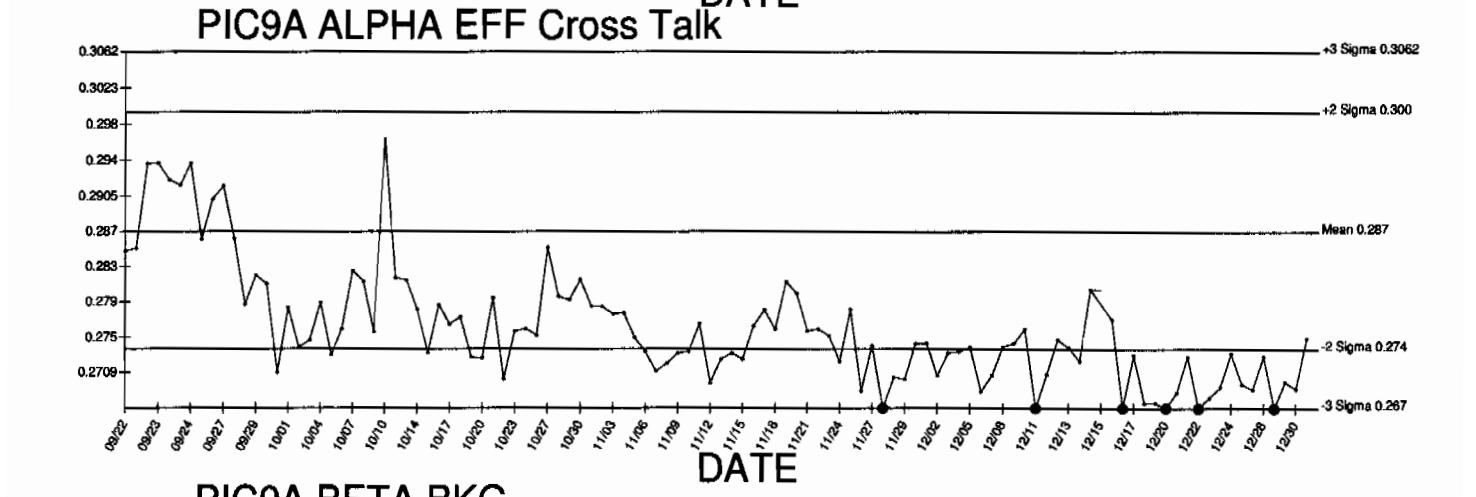
PIC9A ALPHA EFF Cross Talk
DATE
+3 Sigma 0.3062
+2 Sigma 0.300
Mean 0.287
-2 Sigma 0.274
-3 Sigma 0.267

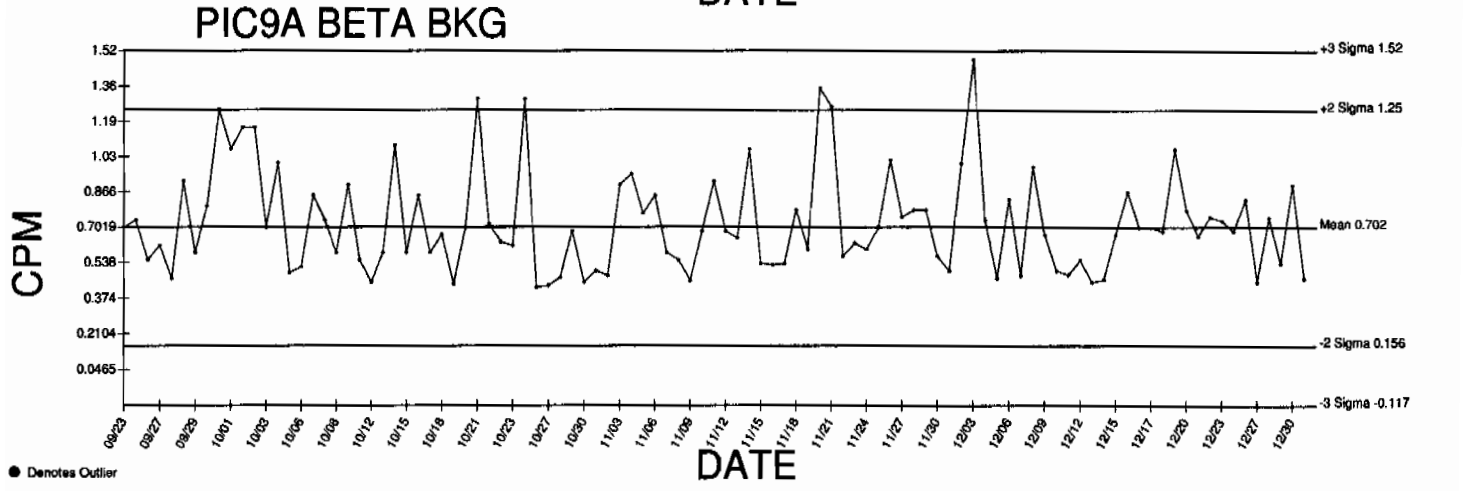
PIC9A BETA BKG
CPM
DATE
+3 Sigma 1.52
+2 Sigma 1.25
Mean 0.702
-2 Sigma 0.156
-3 Sigma -0.117
● Denotes Outlier

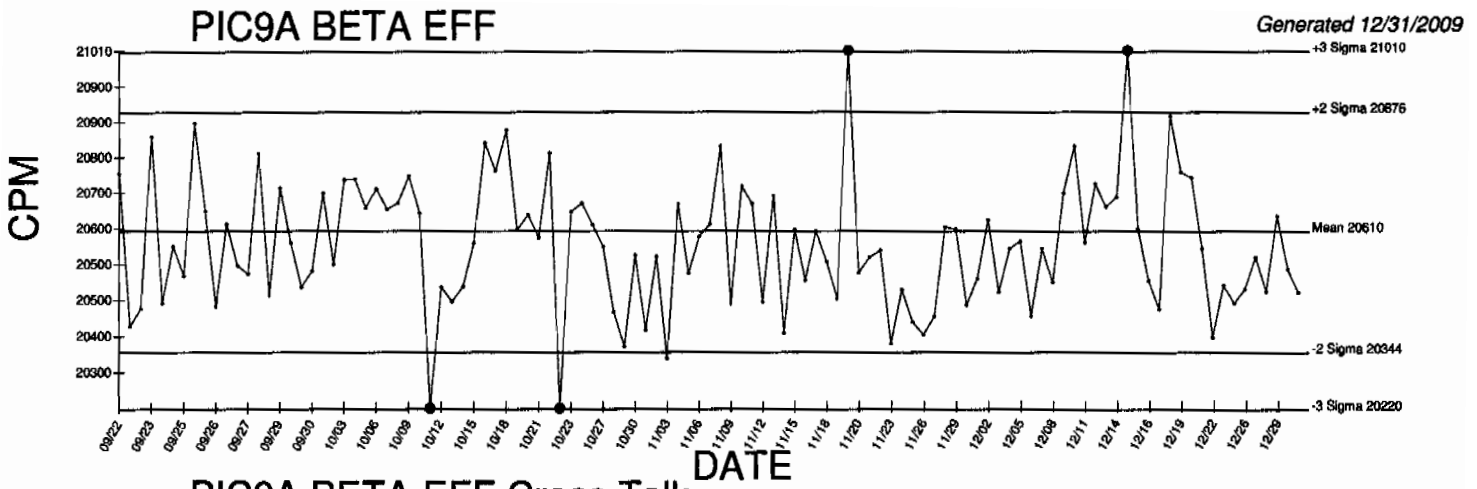

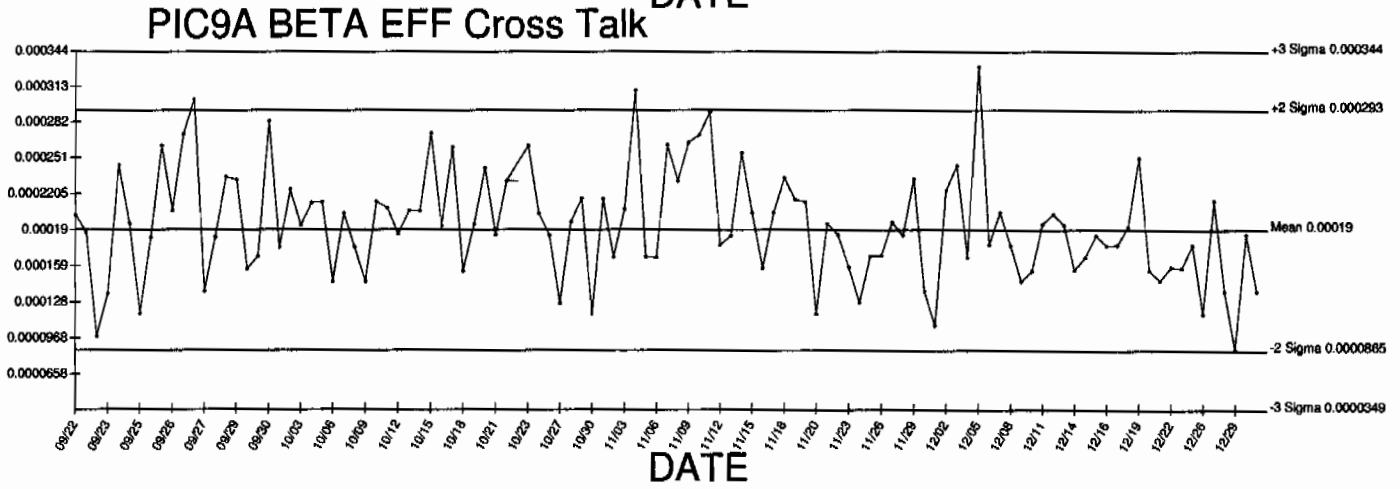

● Denotes Outlier

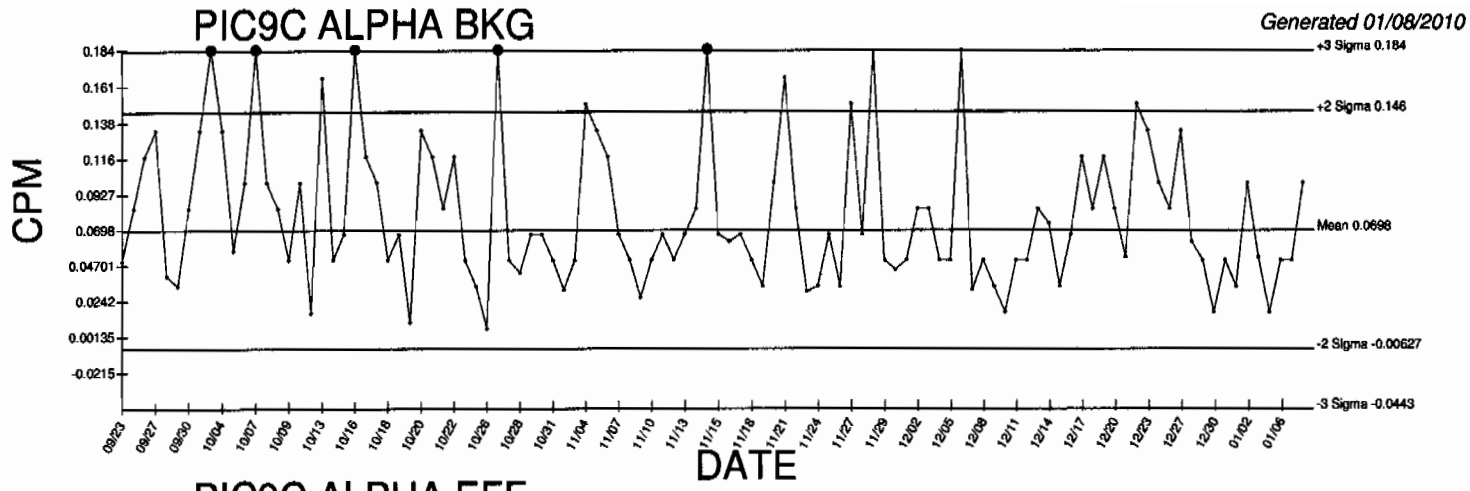
PIC9C ALPHA BKG
Generated 01/08/2010
CPM
DATE
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+2 Sigma 0.146
Mean 0.0698
-2 Sigma -0.00627
-3 Sigma -0.0443

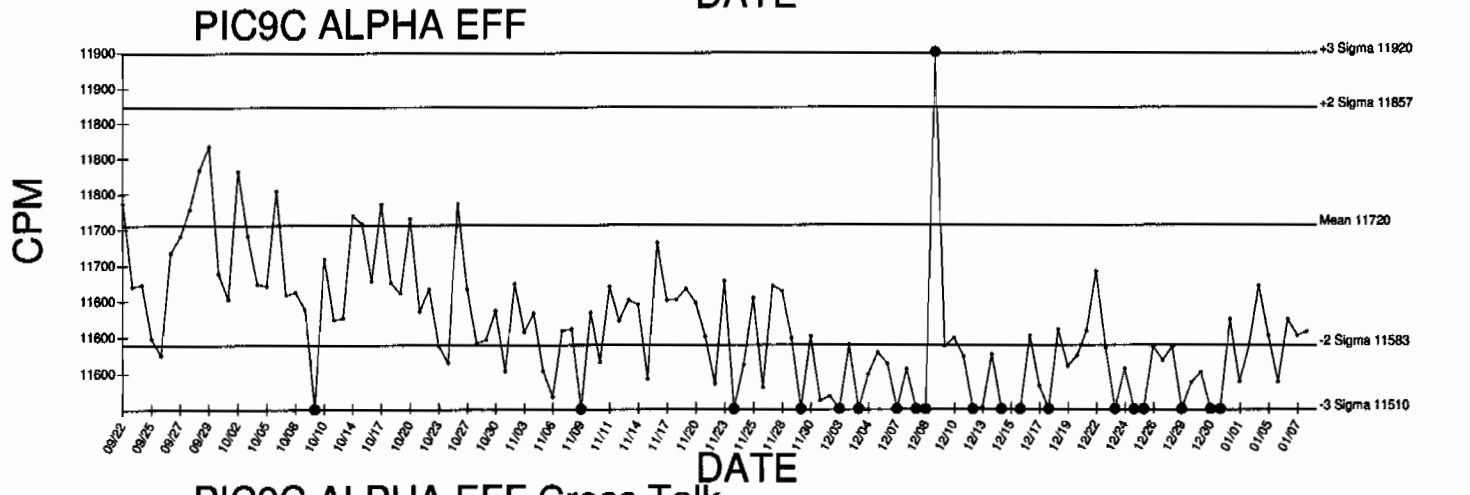
PIC9C ALPHA EFF
CPM
DATE
+3 Sigma 11920
+2 Sigma 11857
Mean 11720
-2 Sigma 11583
-3 Sigma 11510

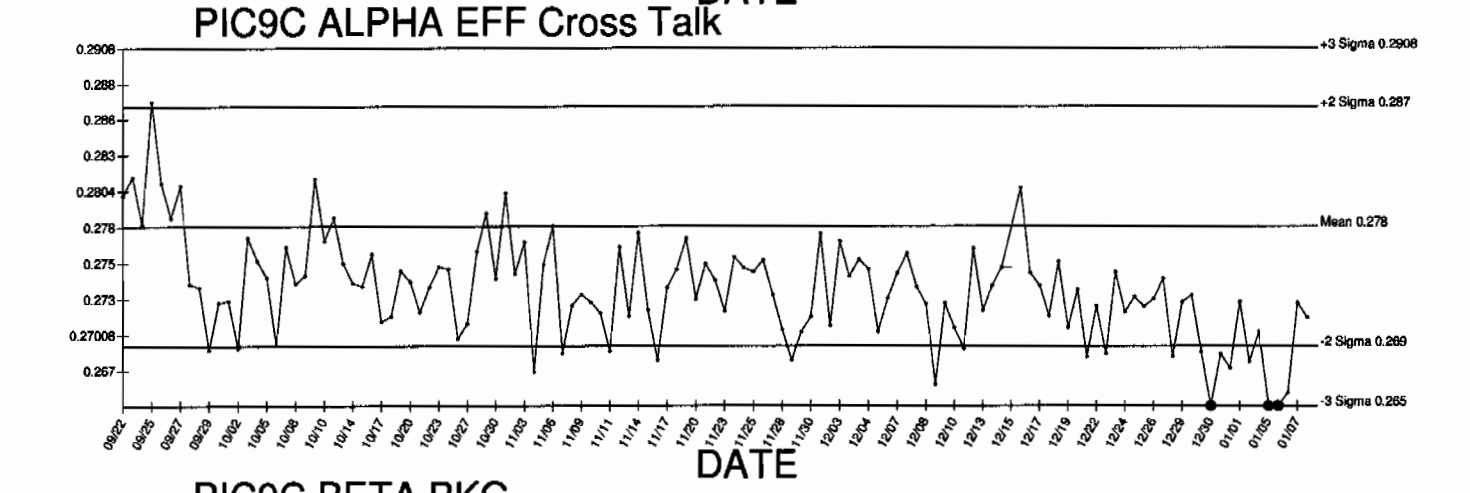
PIC9C ALPHA EFF Cross Talk
DATE
+3 Sigma 0.2908
+2 Sigma 0.287
Mean 0.278
-2 Sigma 0.269
-3 Sigma 0.265

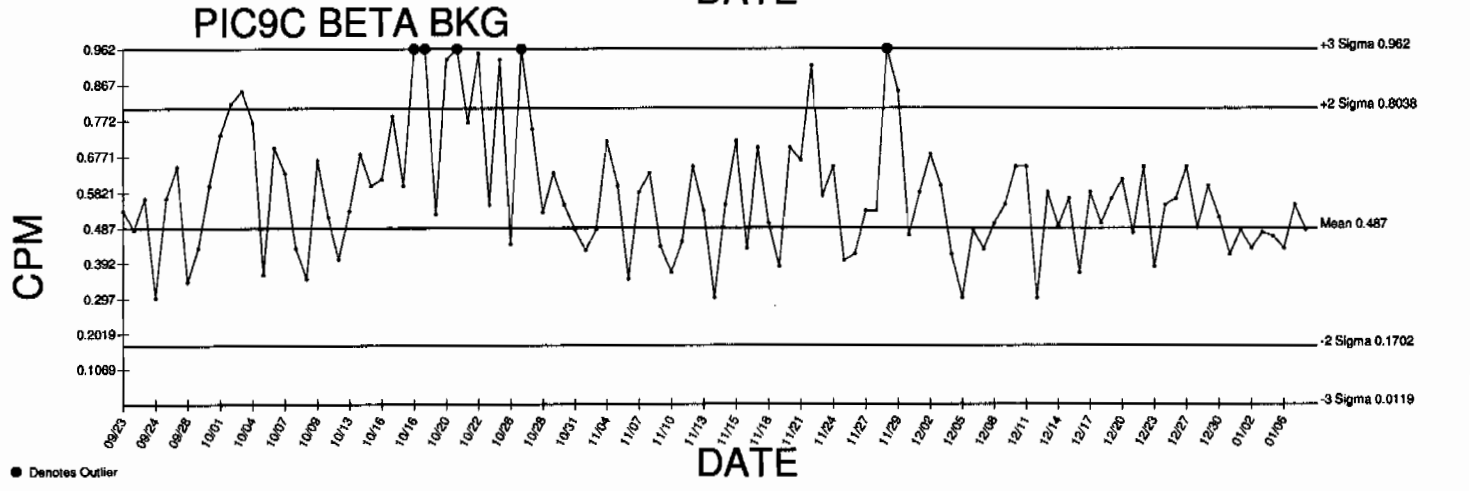
PIC9C BETA BKG
CPM
DATE
+3 Sigma 0.962
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Mean 0.487
-2 Sigma 0.1702
-3 Sigma 0.0119
● Denotes Outlier

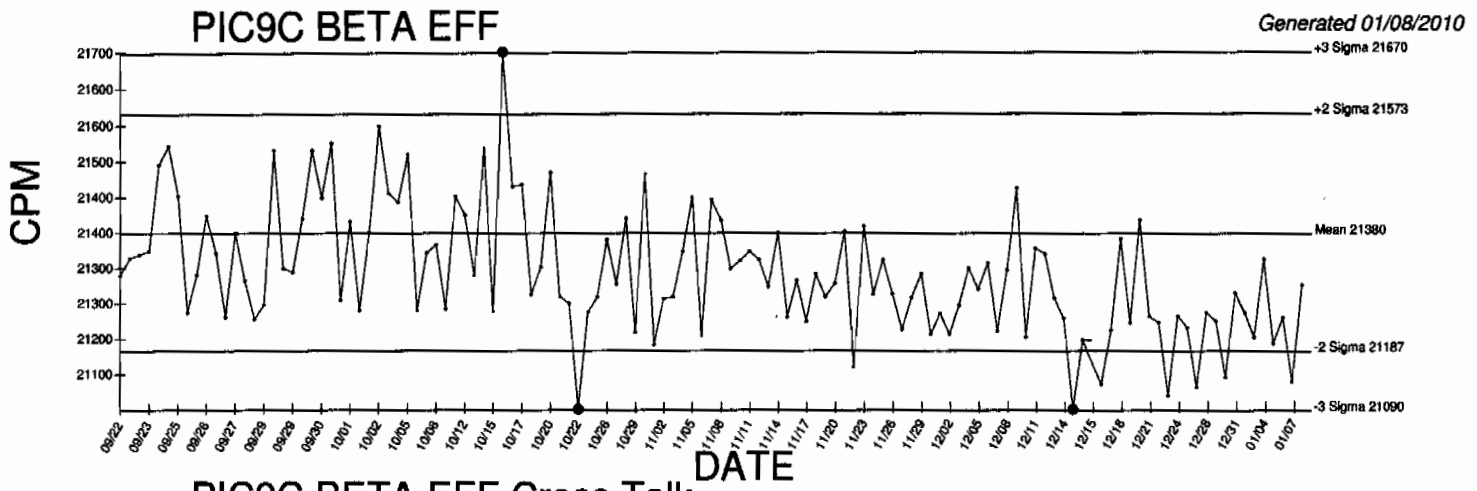

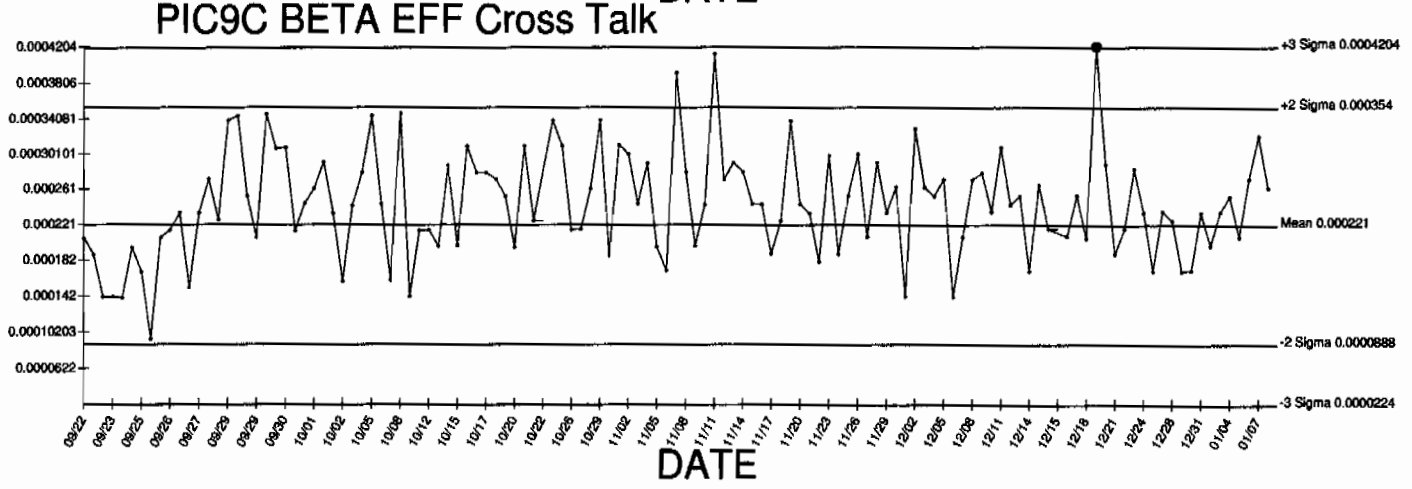

● Denotes Outlier

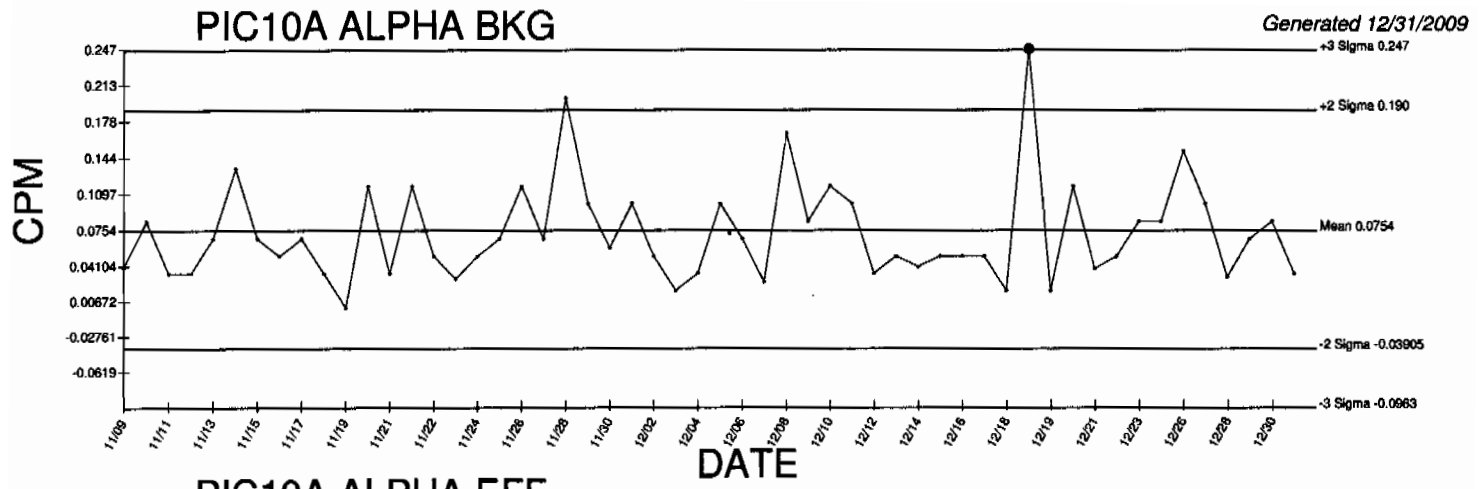
PIC10A ALPHA BKG
Generated 12/31/2009
CPM
DATE
+3 Sigma 0.247
+2 Sigma 0.190
Mean 0.0754
-2 Sigma -0.03905
-3 Sigma -0.0963

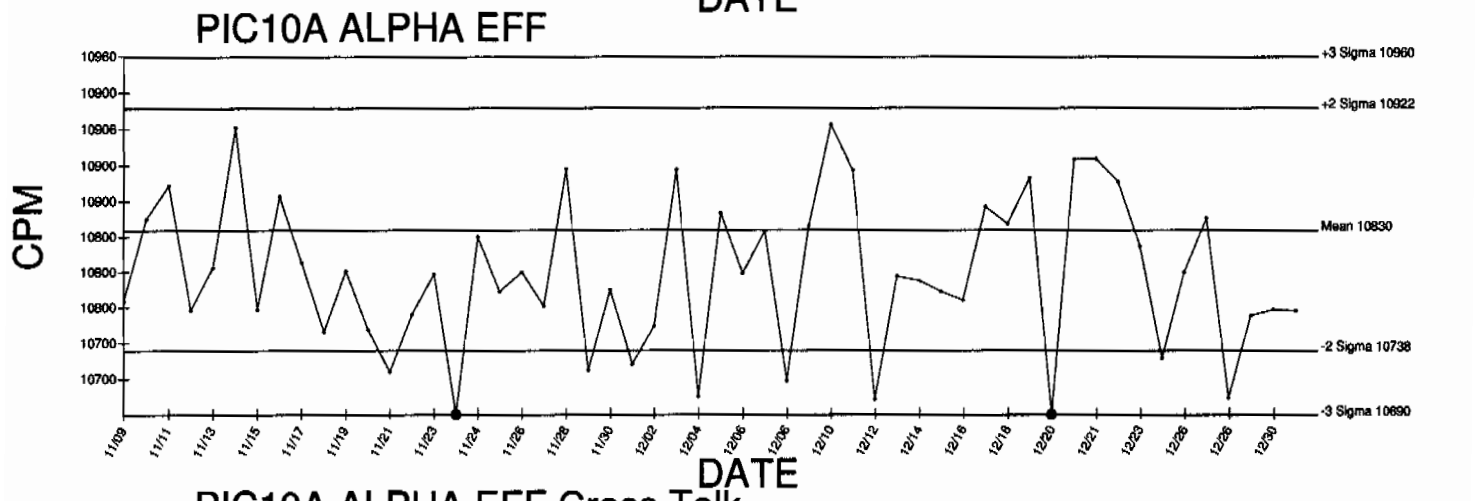
PIC10A ALPHA EFF
CPM
DATE
+3 Sigma 10960
+2 Sigma 10922
Mean 10830
-2 Sigma 10738
-3 Sigma 10690

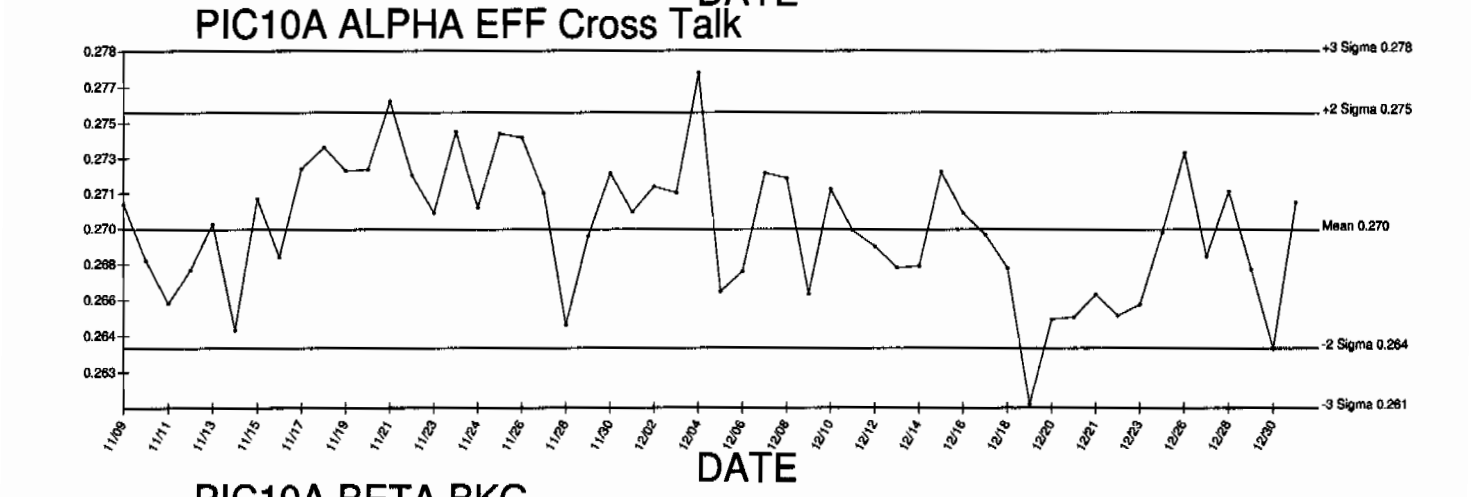
PIC10A ALPHA EFF Cross Talk
DATE
+3 Sigma 0.278
+2 Sigma 0.275
Mean 0.270
-2 Sigma 0.264
-3 Sigma 0.261

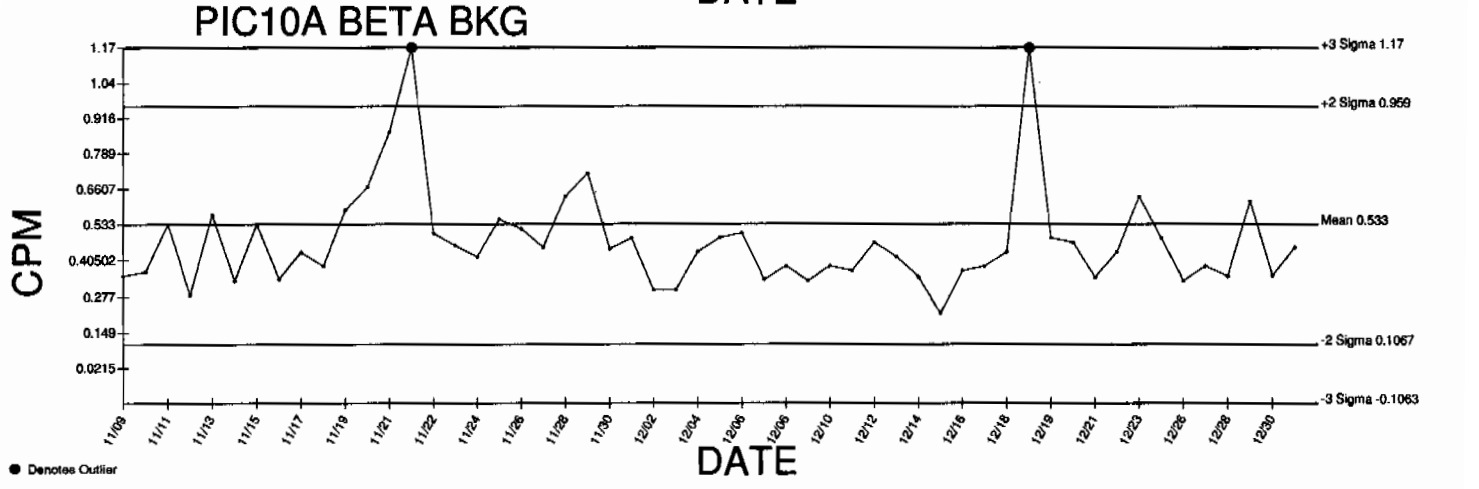
PIC10A BETA BKG
CPM
DATE
+3 Sigma 1.17
+2 Sigma 0.959
Mean 0.533
-2 Sigma 0.1067
-3 Sigma -0.1063
● Denotes Outlier

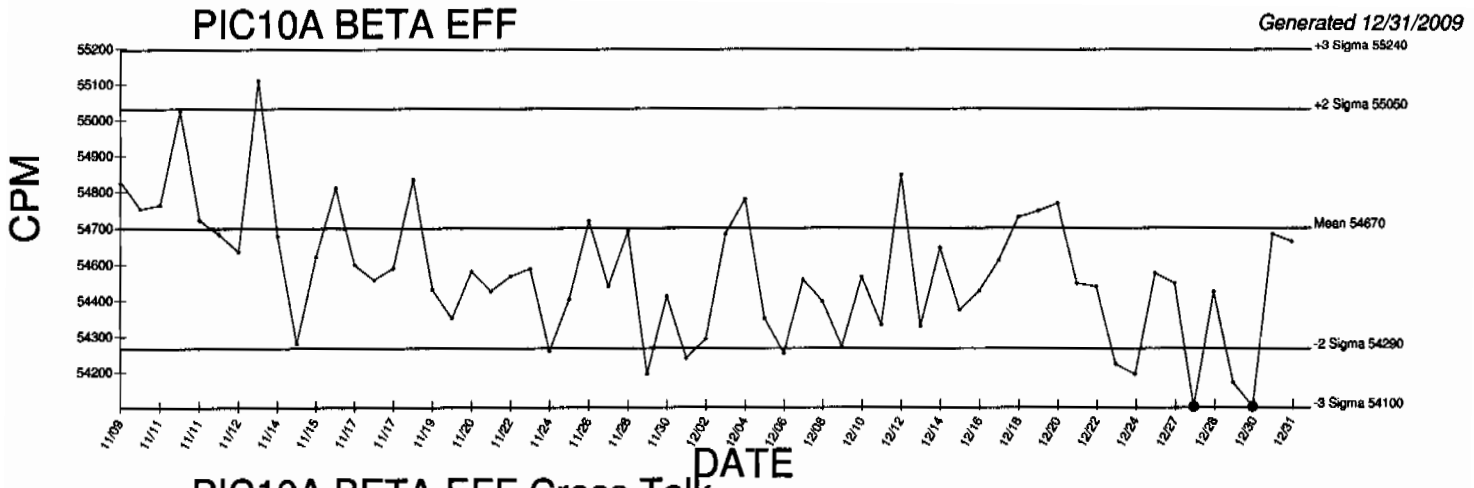

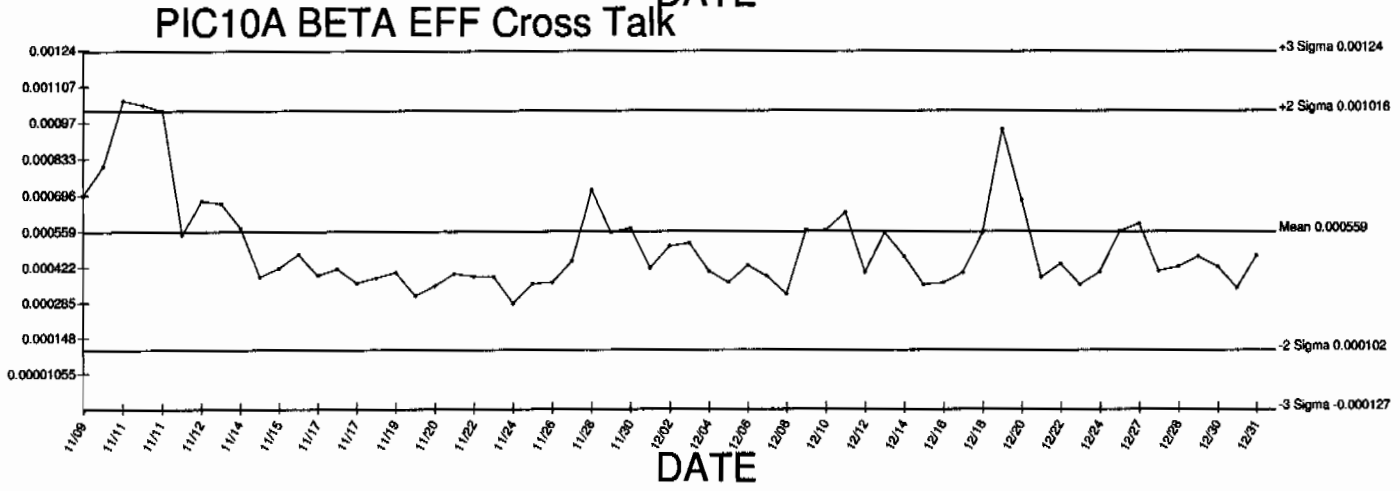

● Denotes Outlier

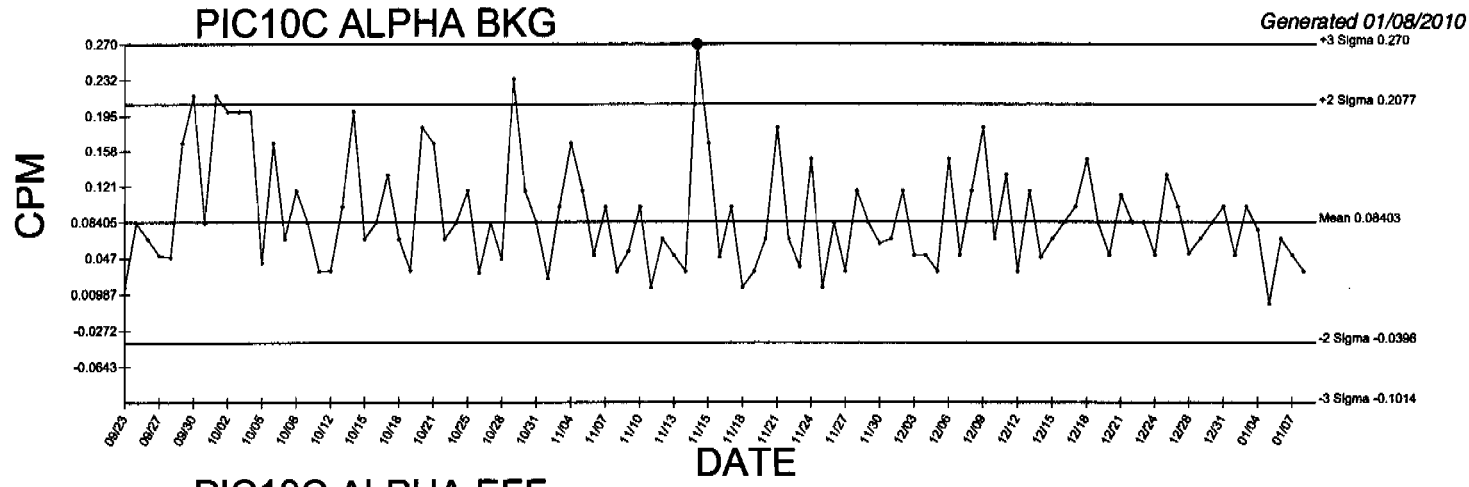
PIC10C ALPHA BKG
Generated 01/08/2010
CPM
DATE
+3 Sigma 0.270
+2 Sigma 0.2077
Mean 0.08403
-2 Sigma -0.0396
-3 Sigma -0.1014

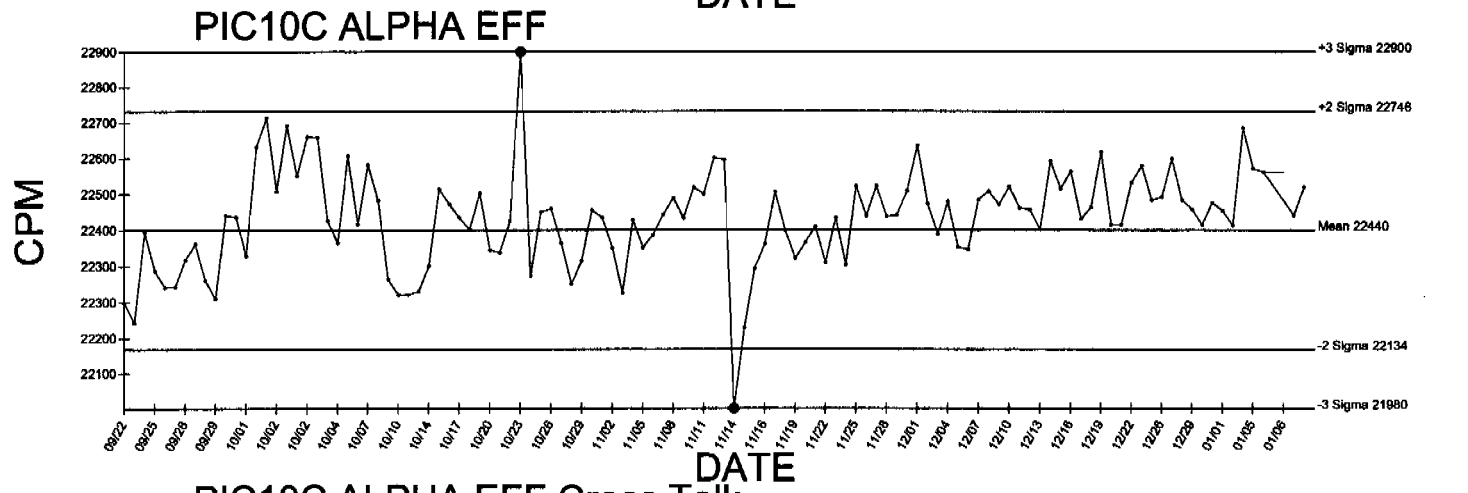
PIC10C ALPHA EFF
CPM
DATE
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+2 Sigma 22746
Mean 22440
-2 Sigma 22134
-3 Sigma 21980

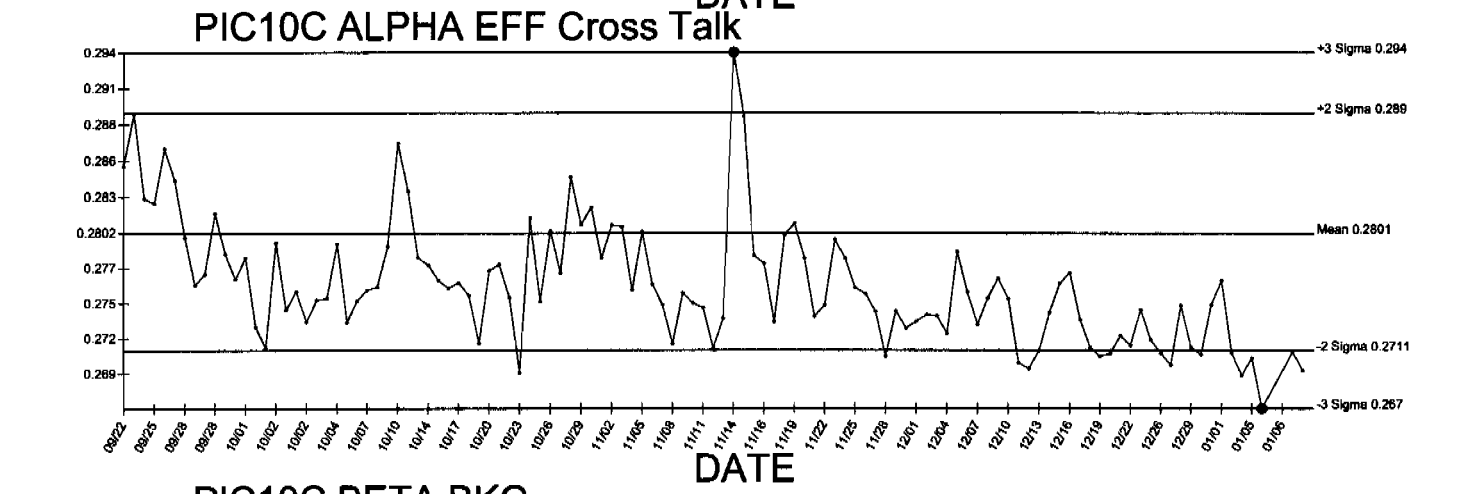
PIC10C ALPHA EFF Cross Talk
DATE
+3 Sigma 0.294
+2 Sigma 0.289
Mean 0.2801
-2 Sigma 0.2711
-3 Sigma 0.267

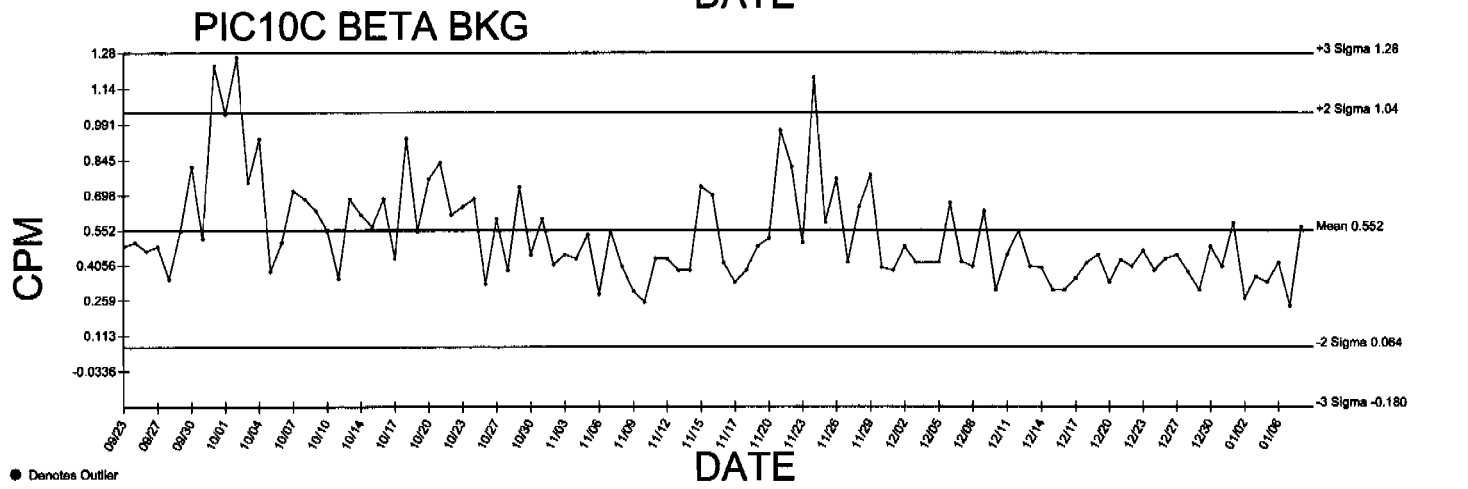
PIC10C BETA BKG
CPM
DATE
+3 Sigma 1.28
+2 Sigma 1.04
Mean 0.552
-2 Sigma 0.064
-3 Sigma -0.180
● Denotes Outlier

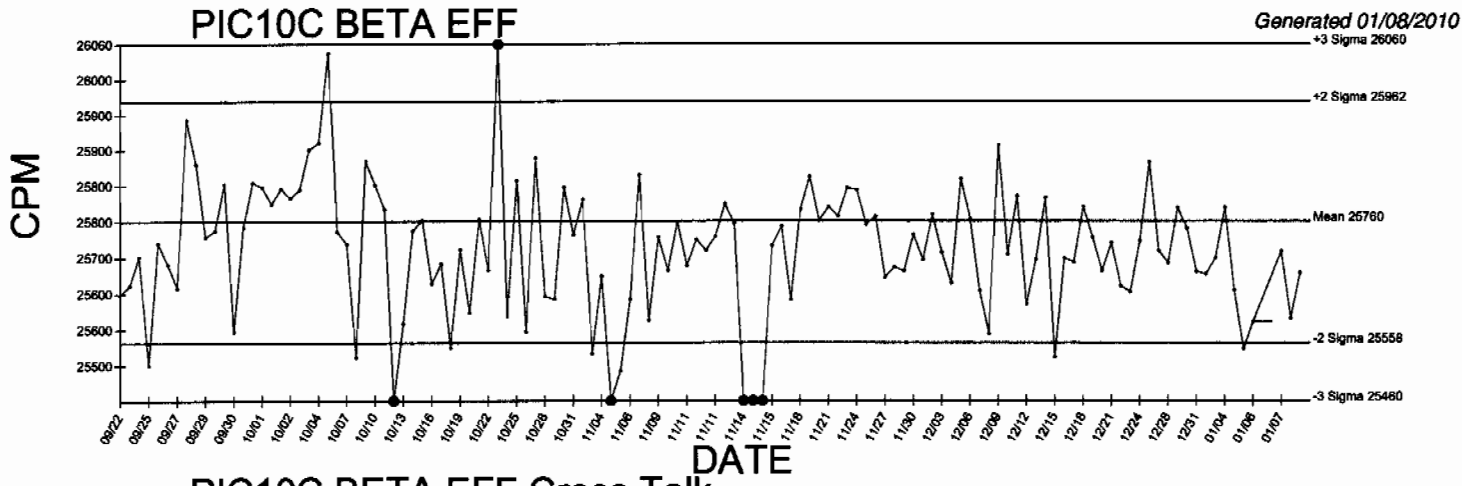

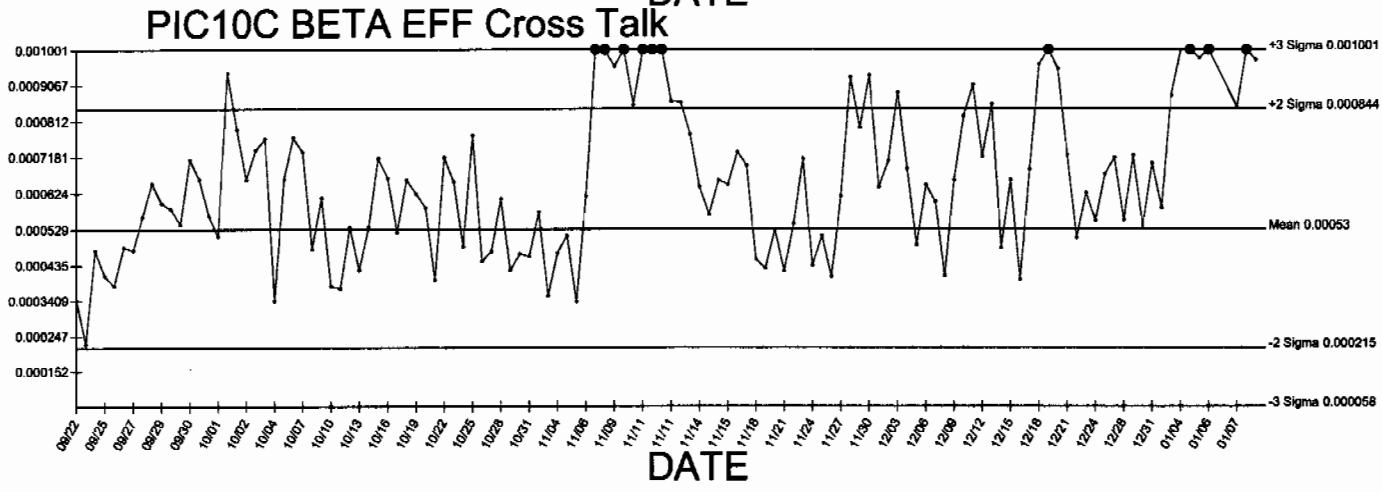

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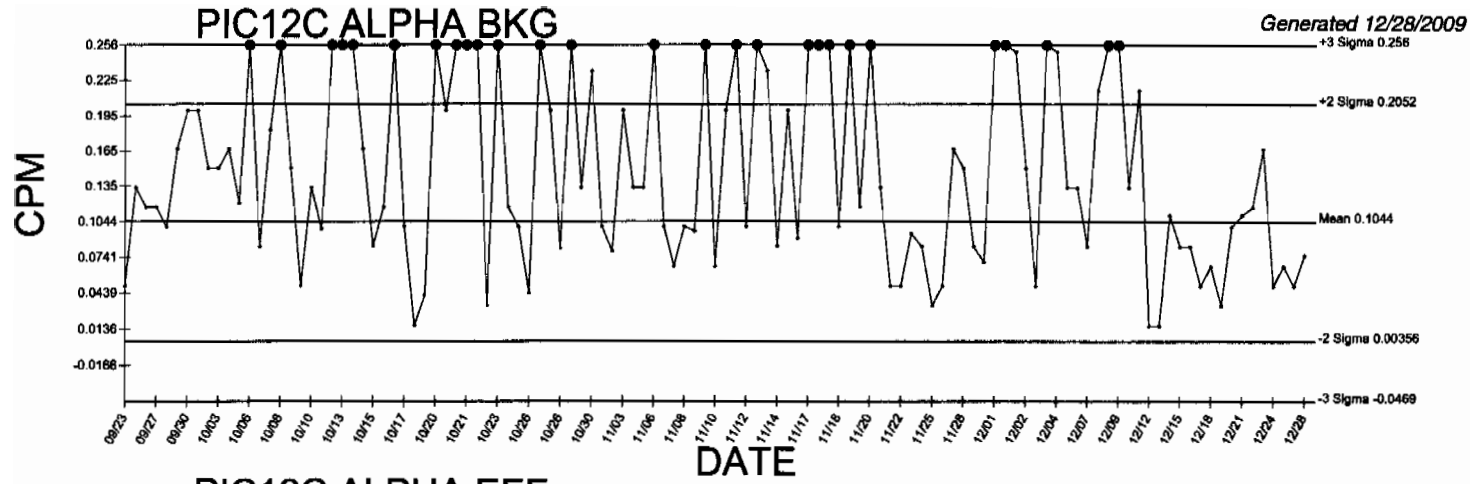

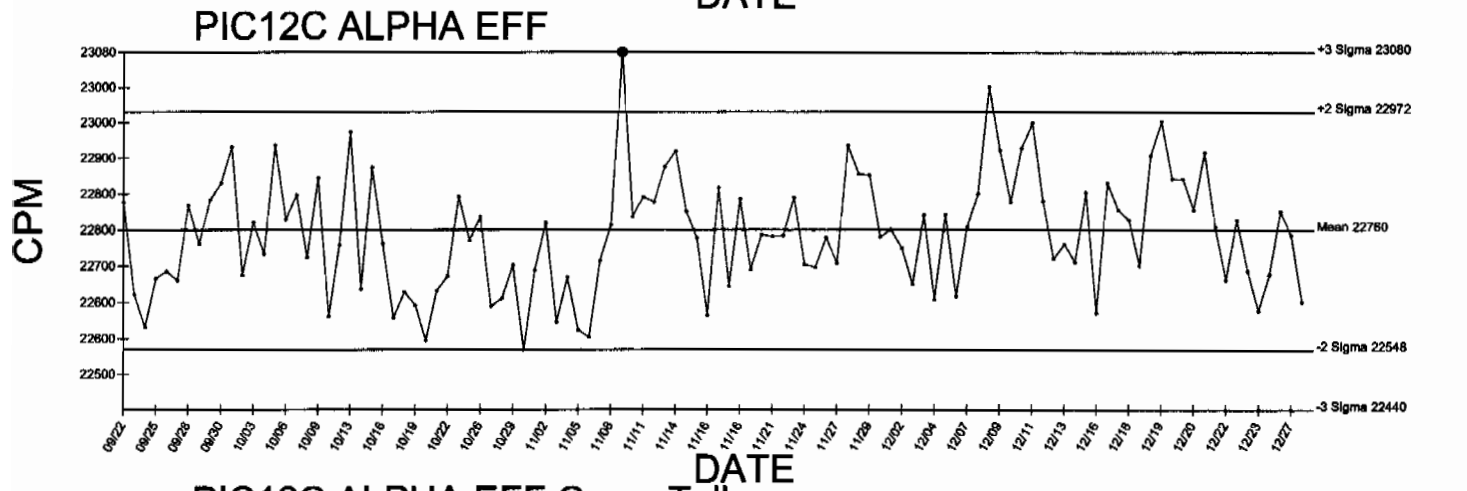

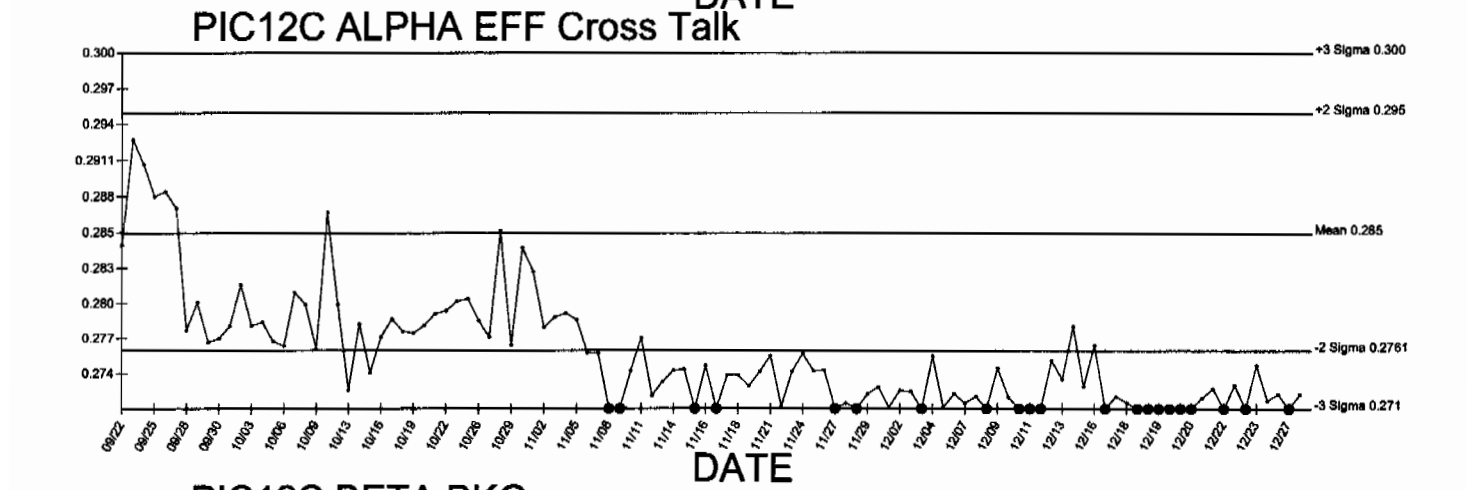

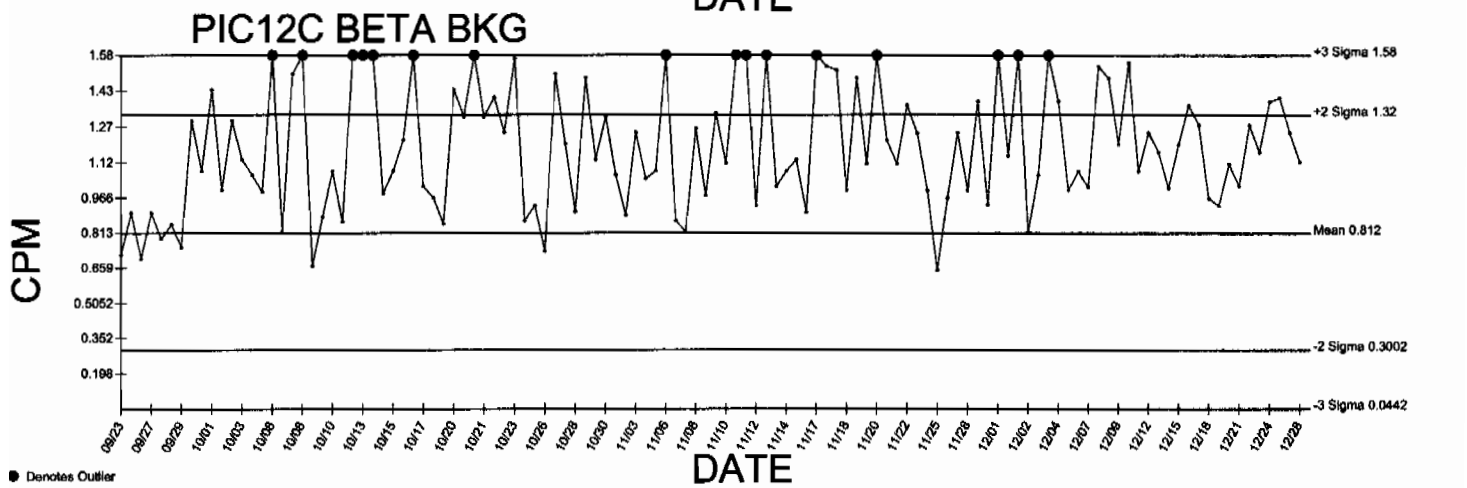

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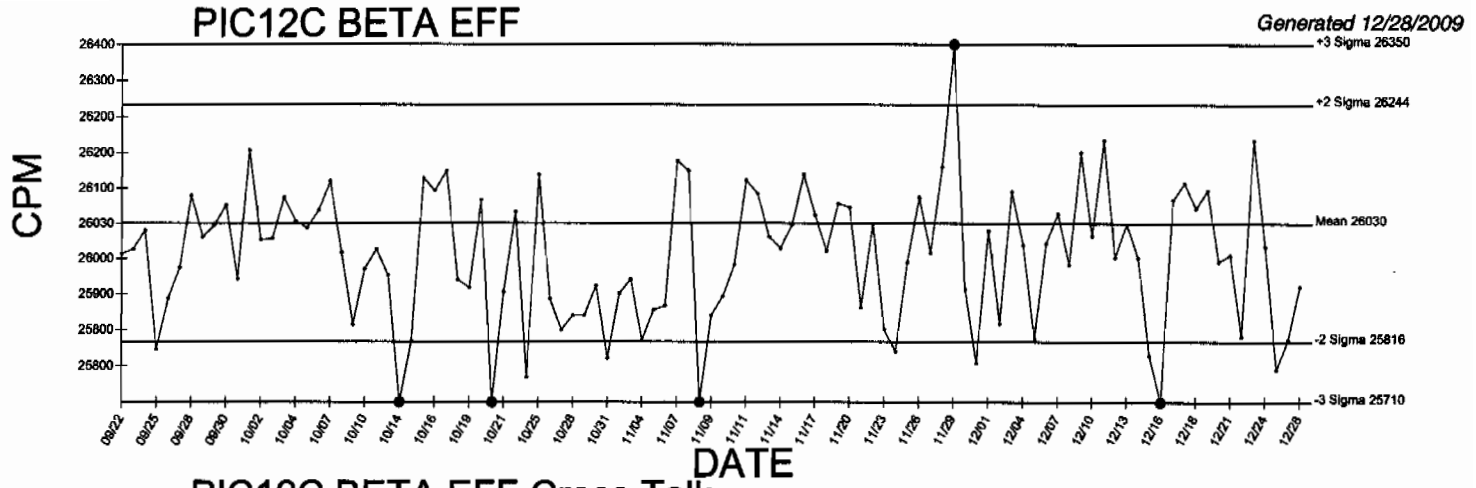

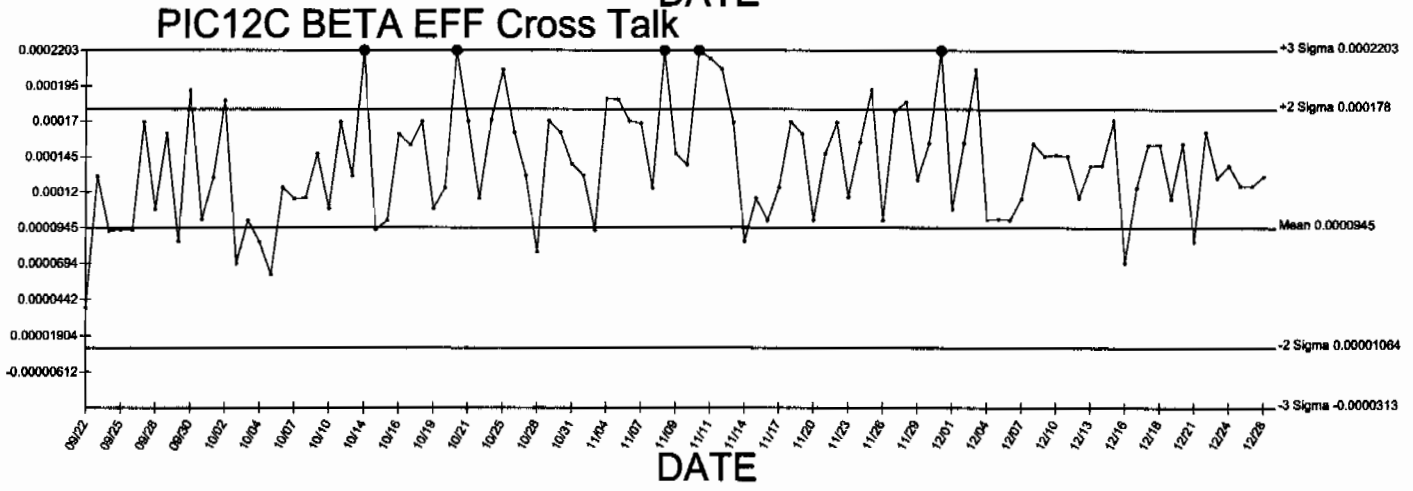

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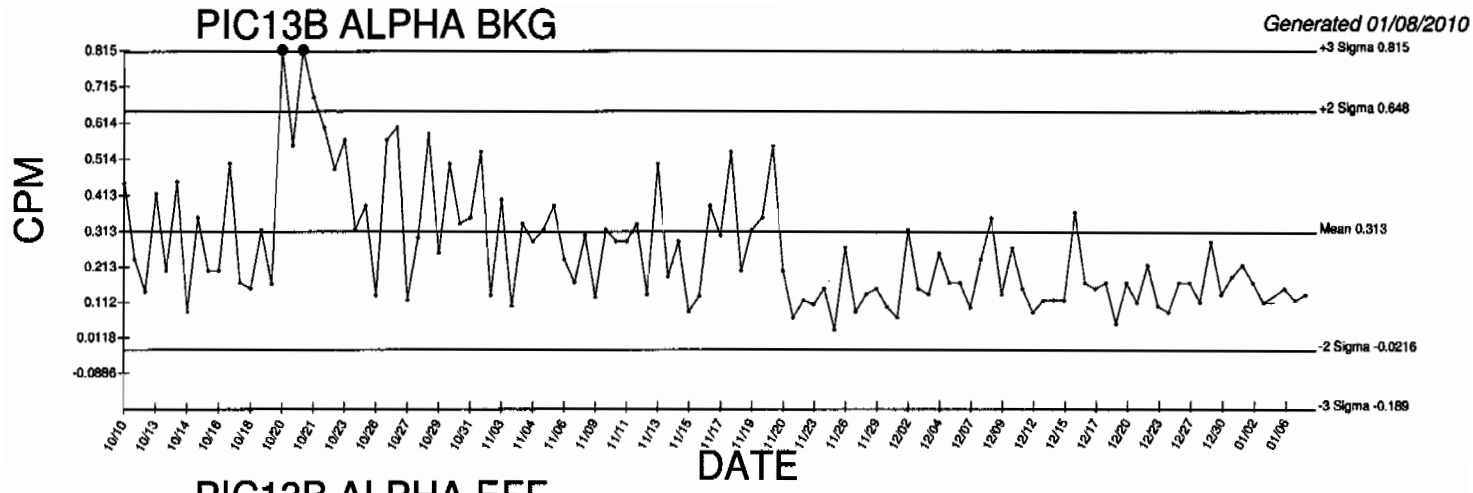
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Generated 01/08/2010
CPM
DATE
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+2 Sigma 0.648
Mean 0.313
-2 Sigma -0.0216
-3 Sigma -0.189

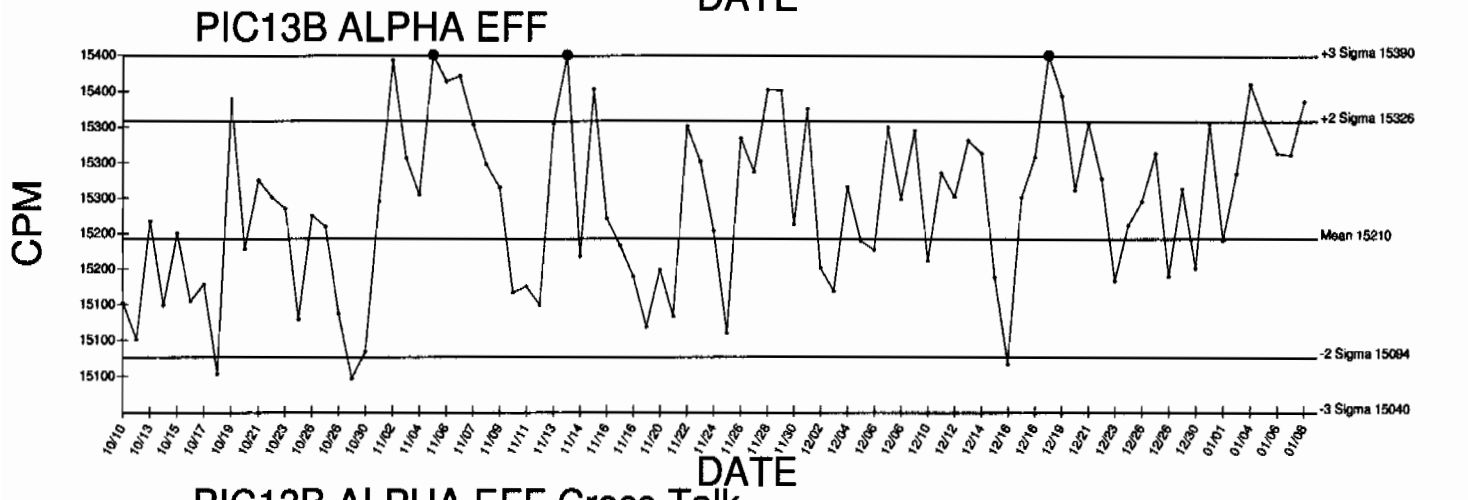
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CPM
DATE
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+2 Sigma 15326
Mean 15210
-2 Sigma 15094
-3 Sigma 15040

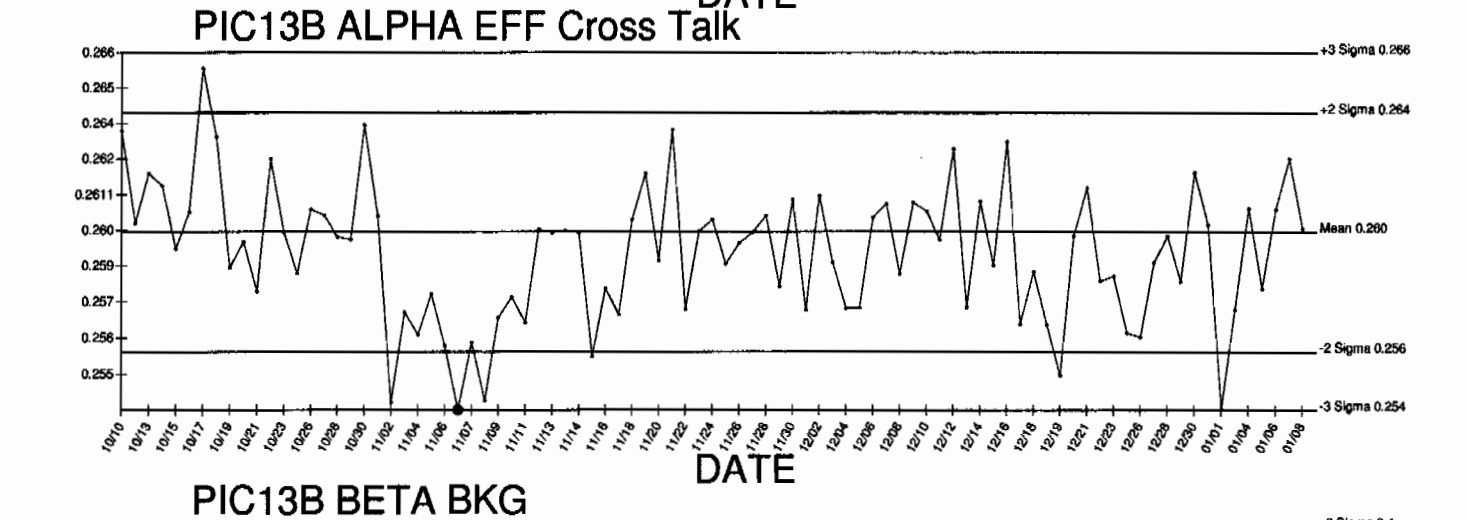
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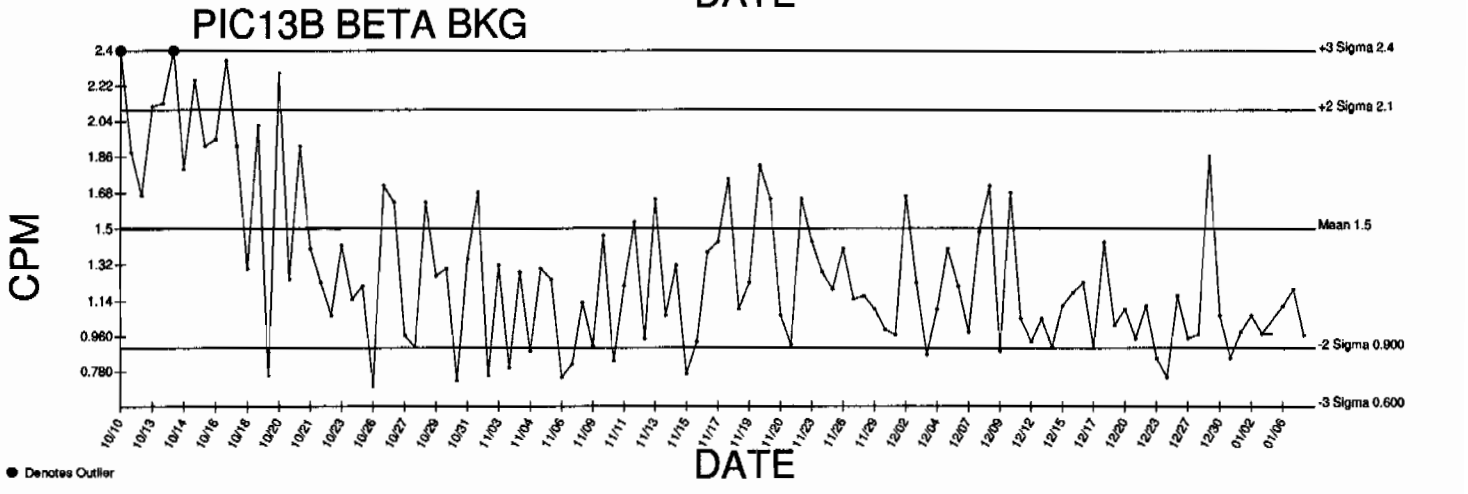
PIC13B BETA BKG
CPM
DATE
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+2 Sigma 2.1
Mean 1.5
-2 Sigma 0.900
-3 Sigma 0.600
● Denotes Outlier

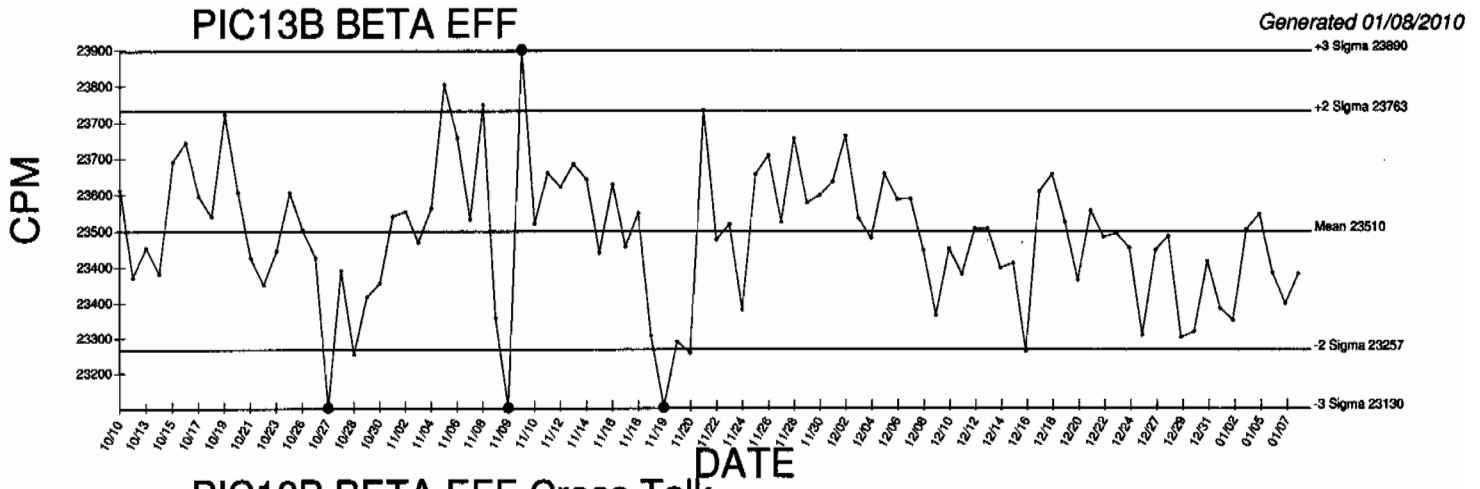

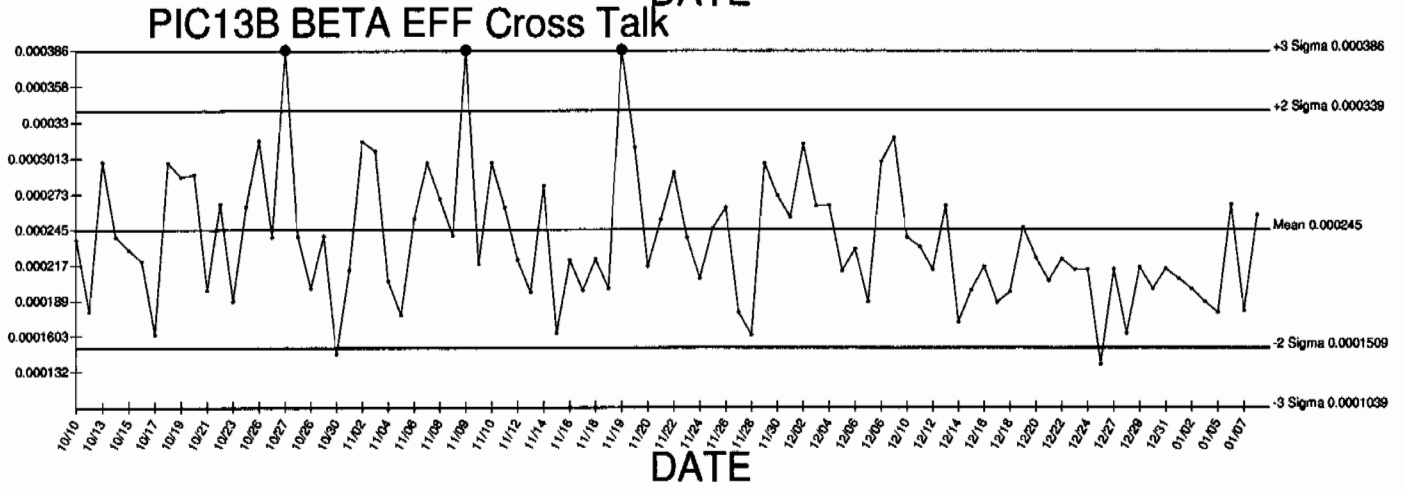

● Denotes Outlier

PIC14A ALPHA BKG

Generated 01/08/2010

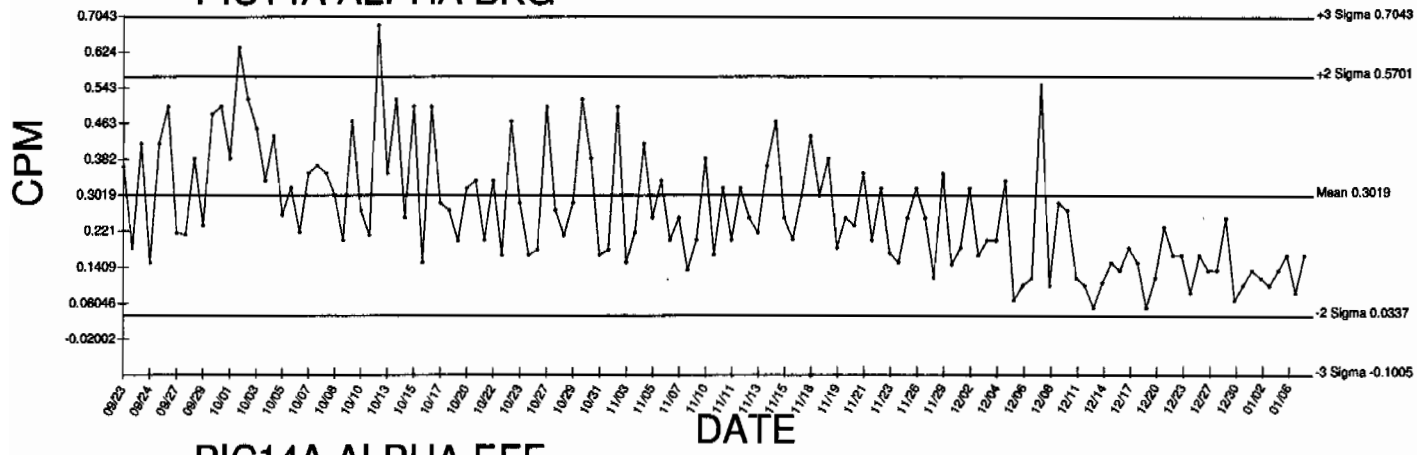

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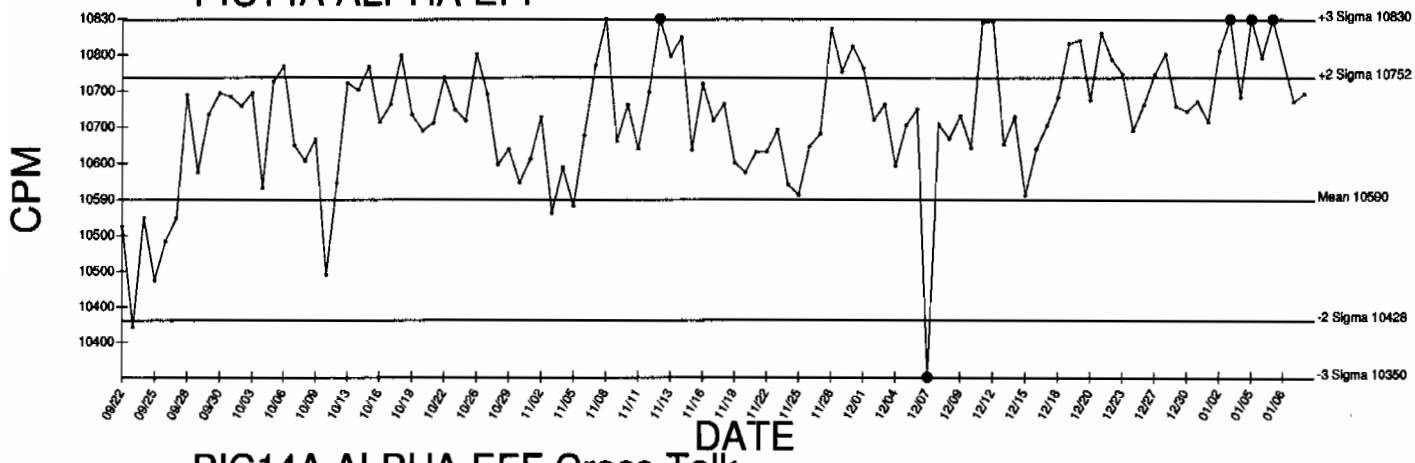

PIC14A ALPHA EFF Cross Talk

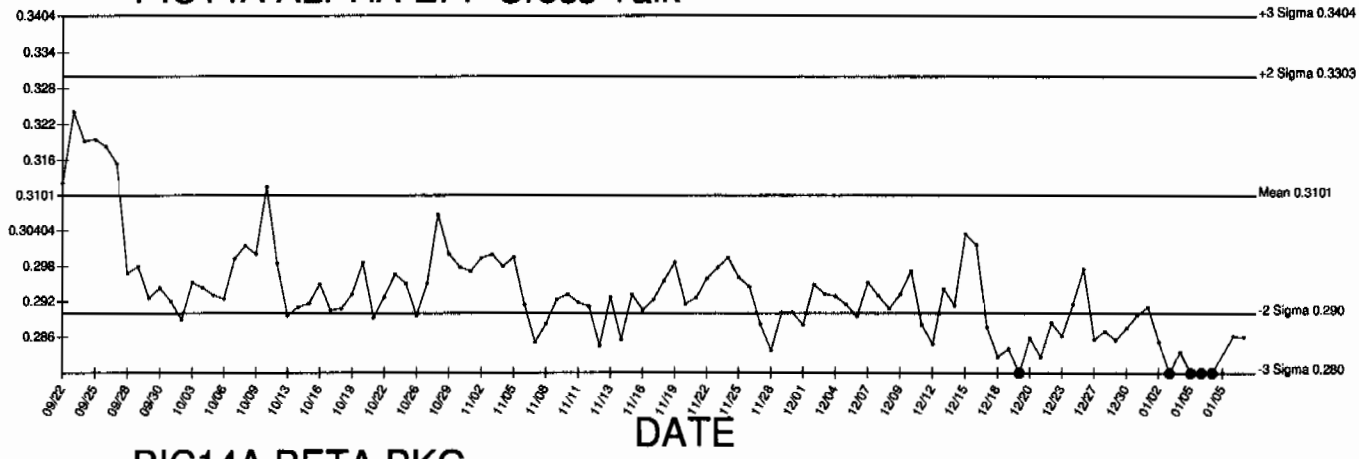

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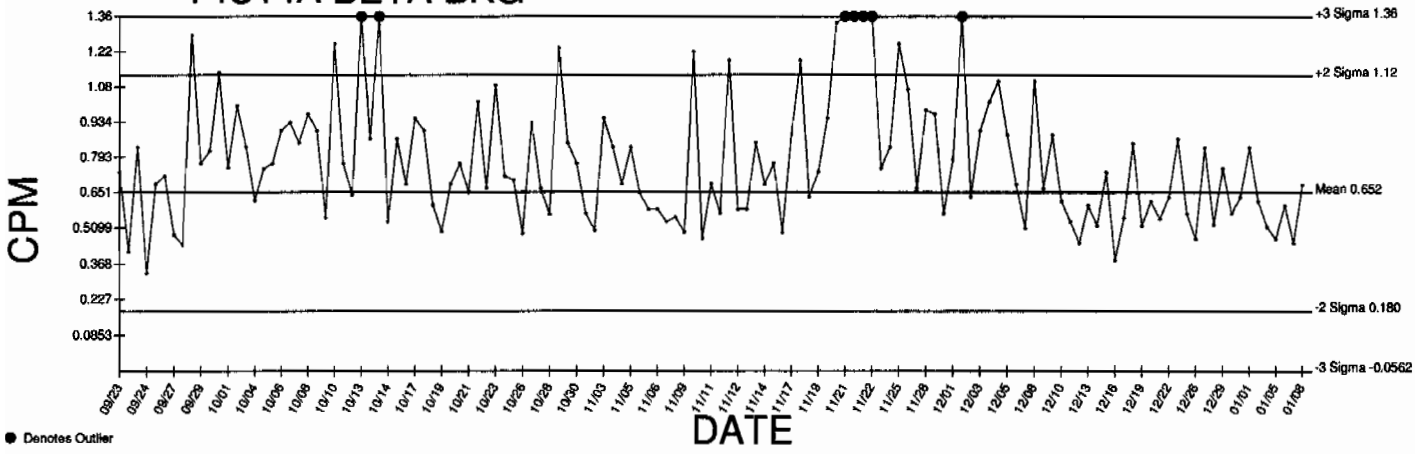

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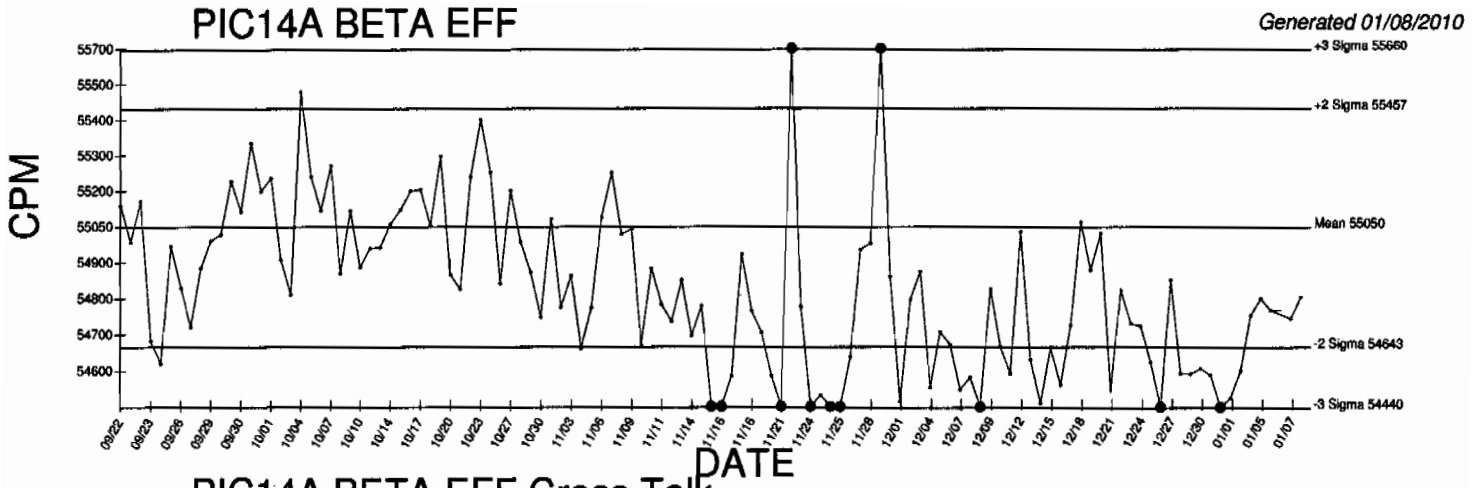

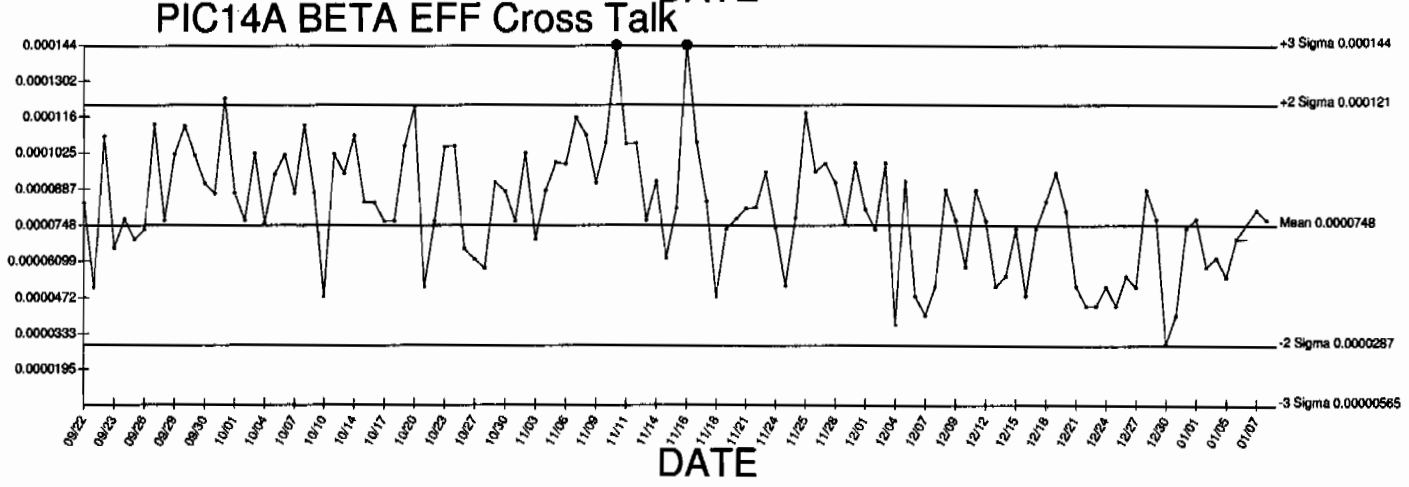

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Generated 01/08/2010

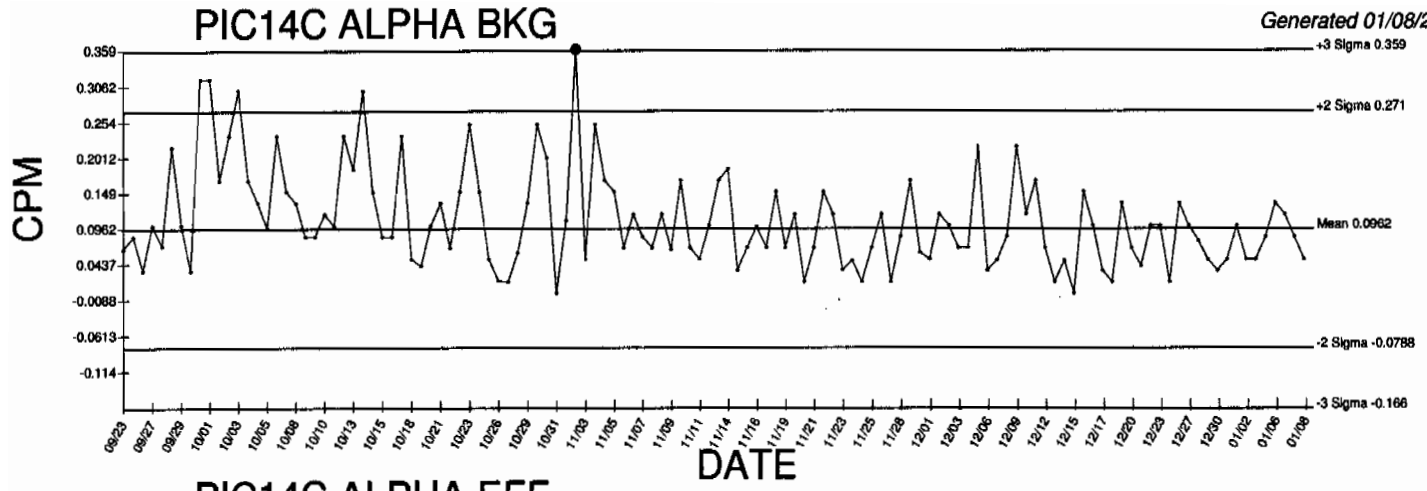

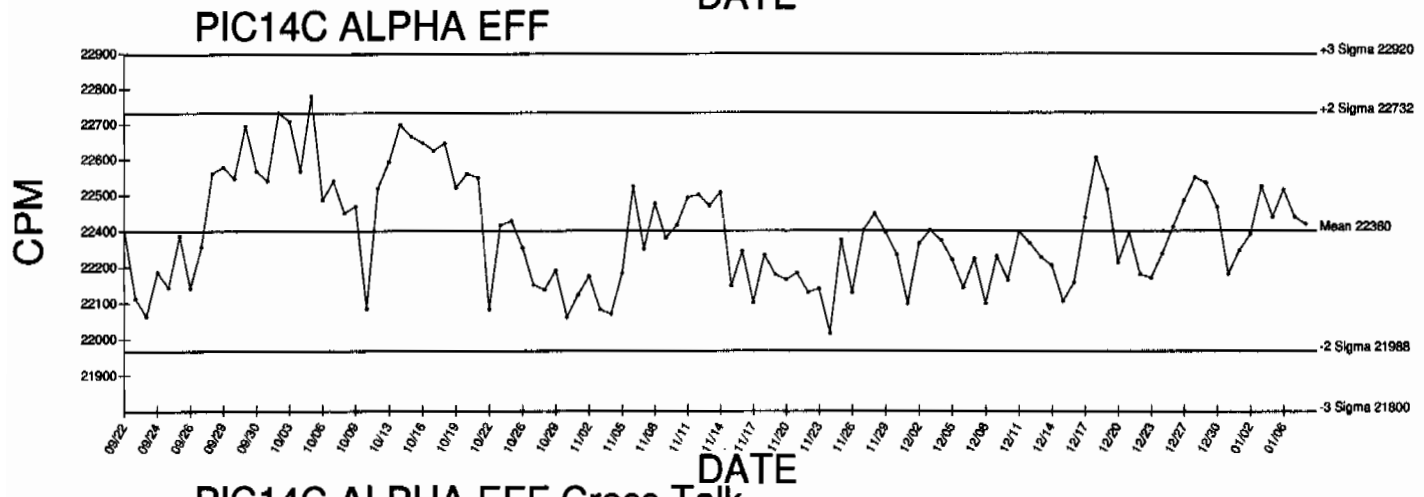

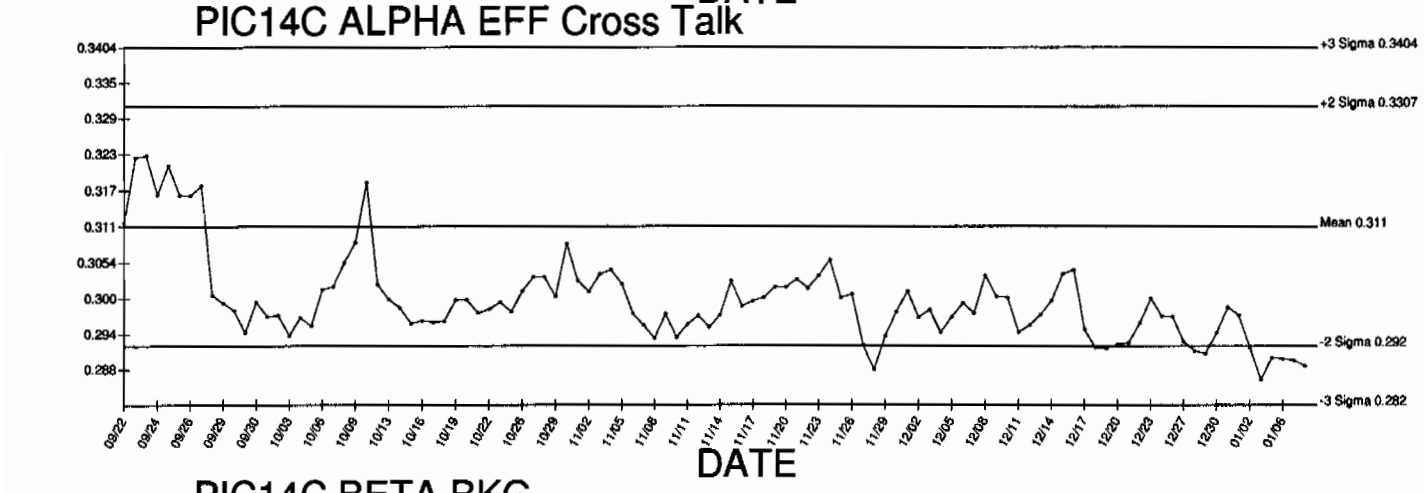

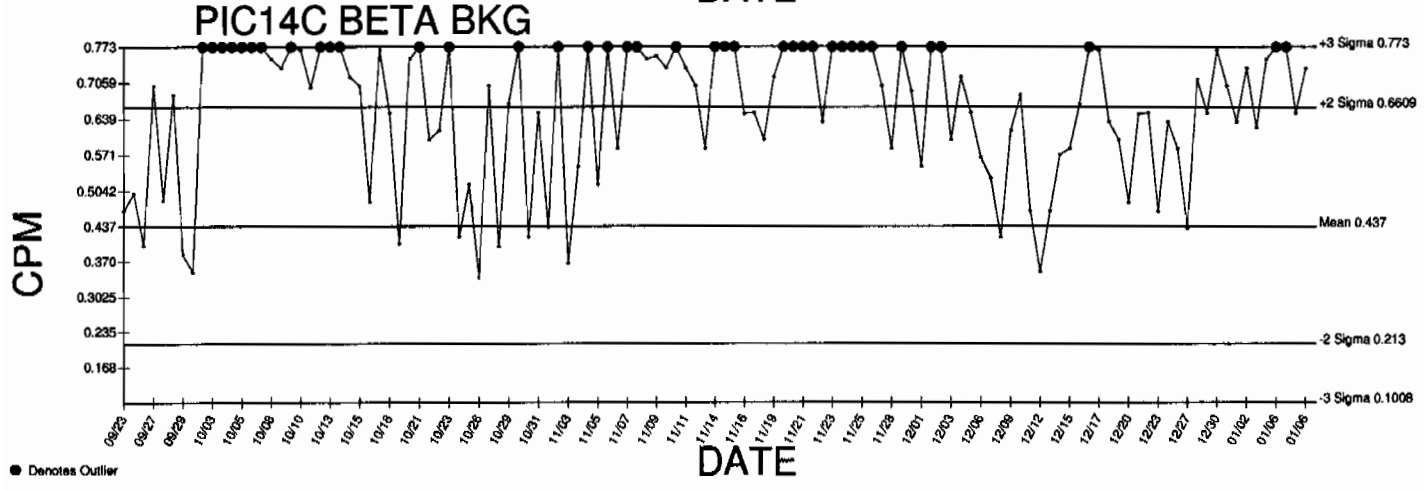

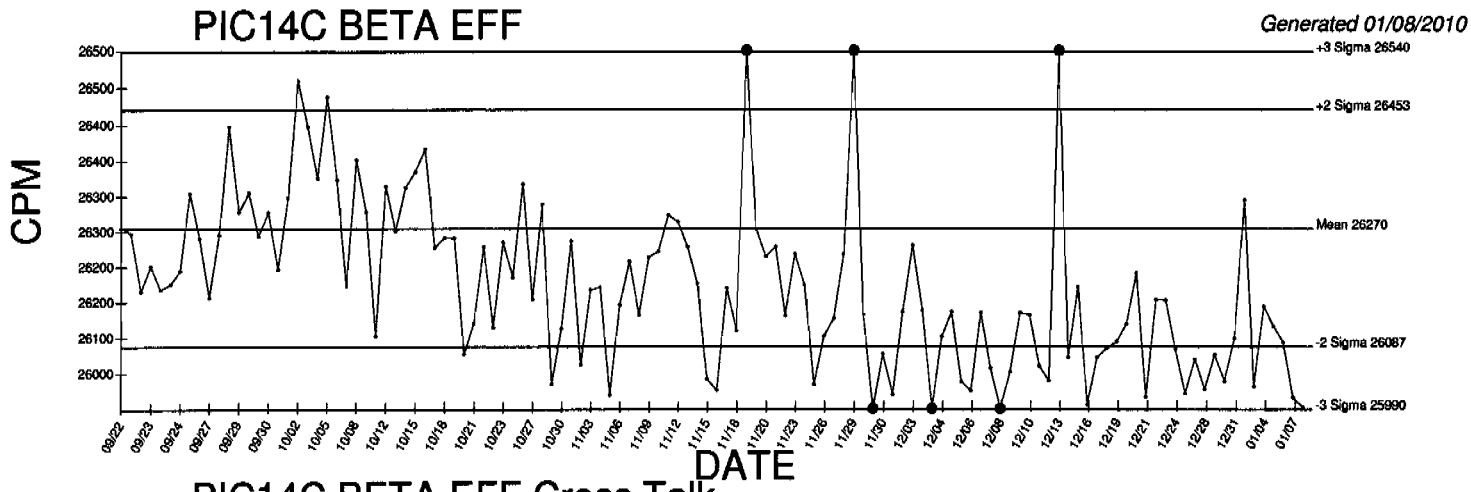

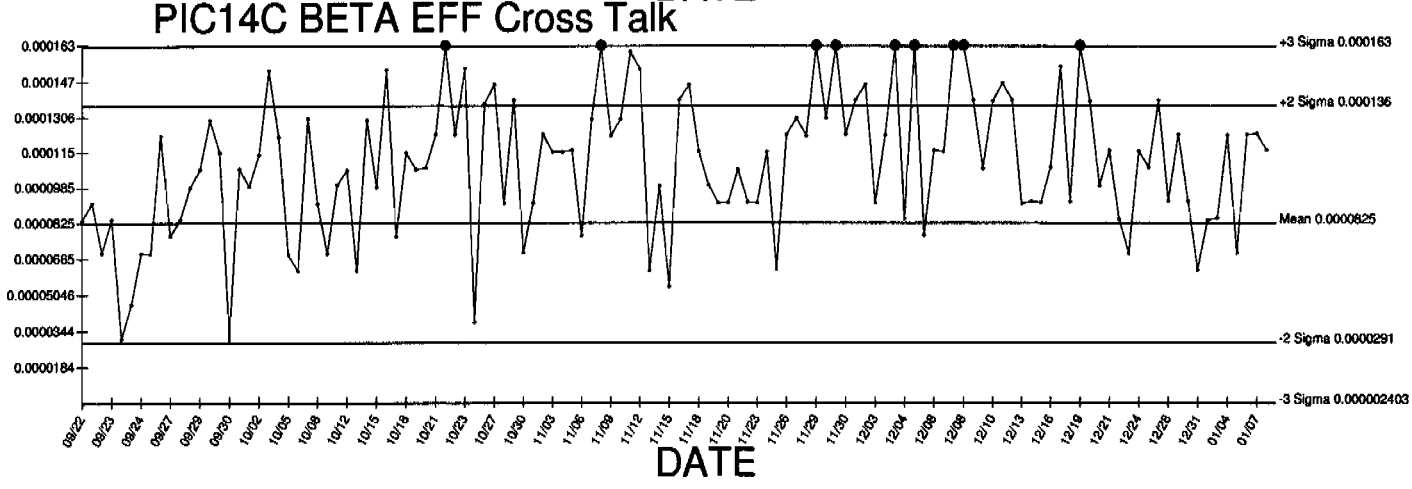

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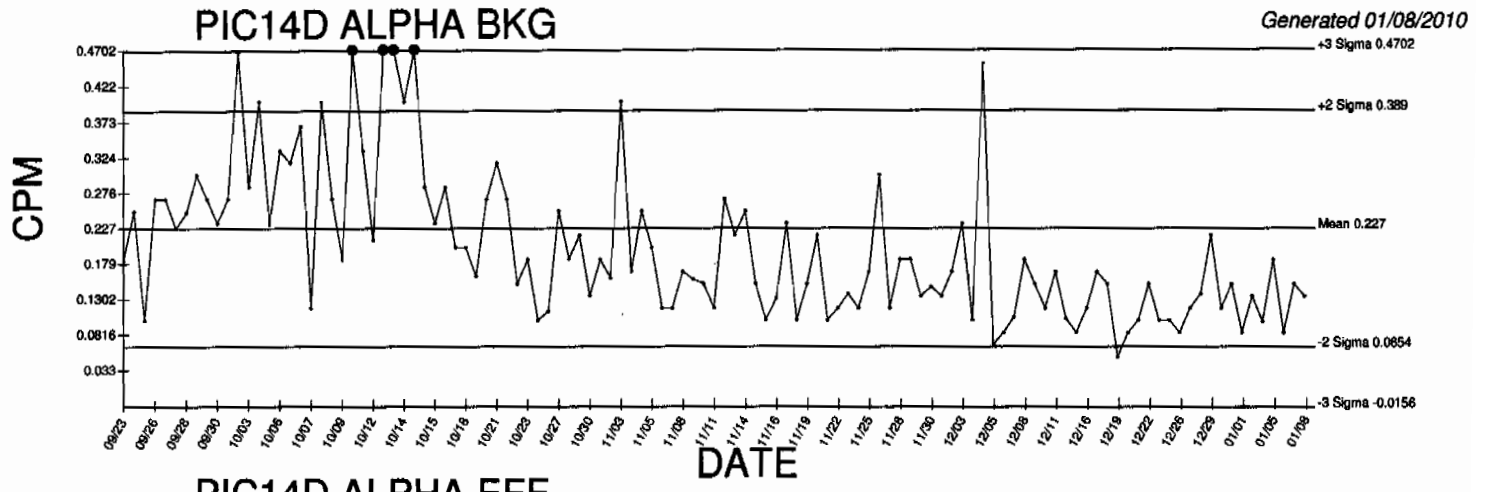

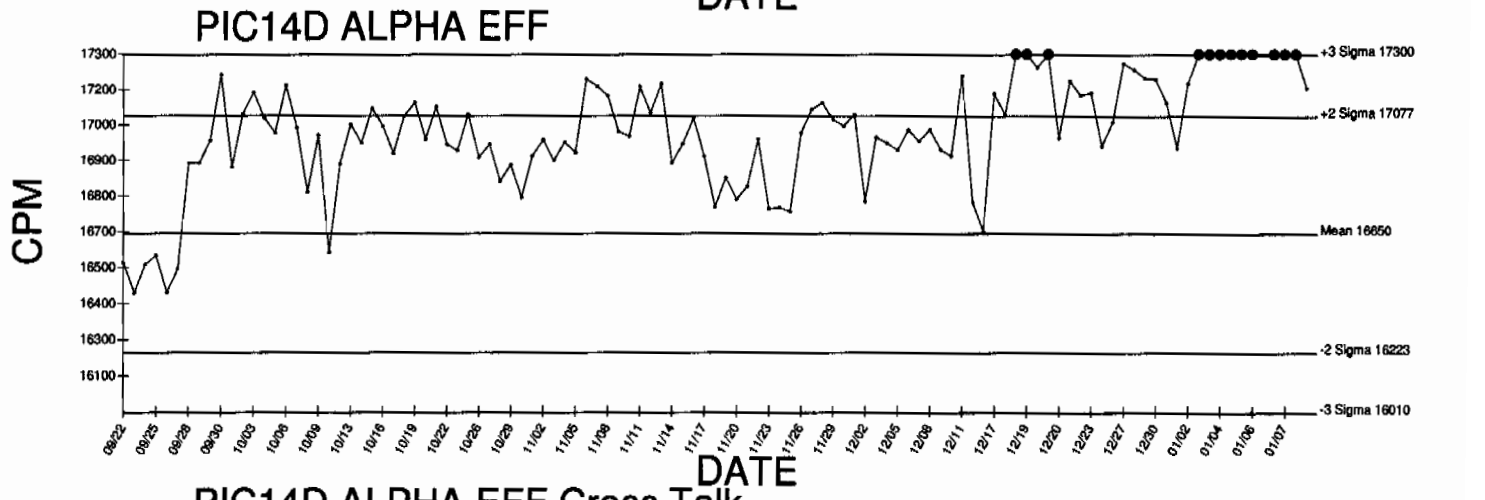

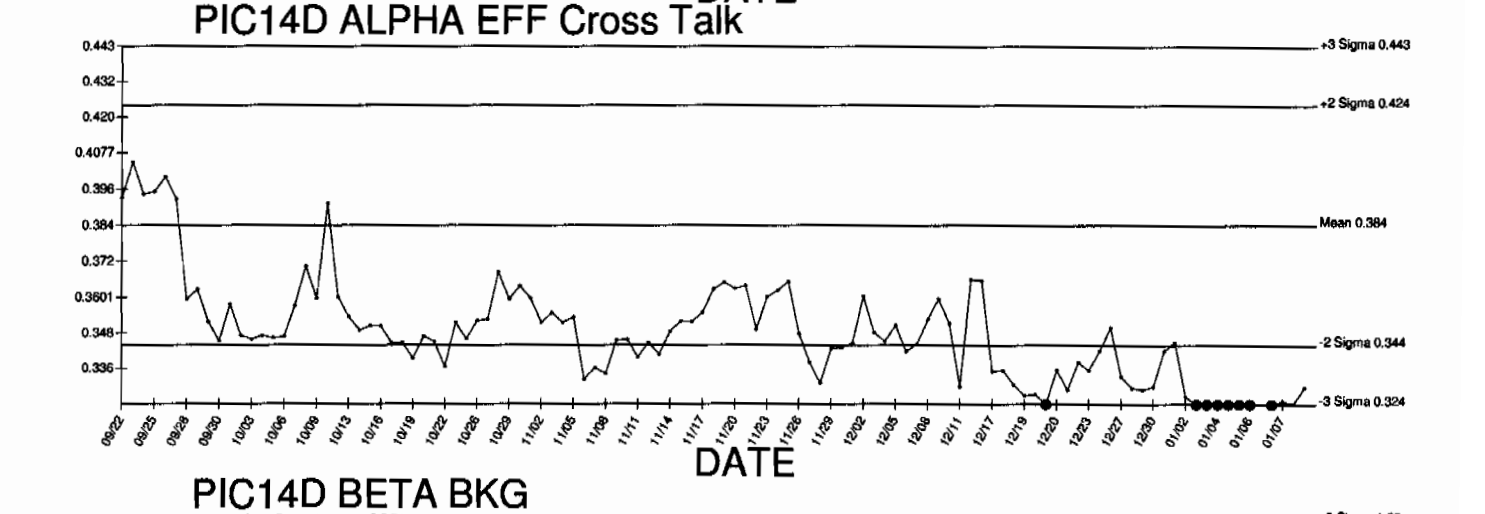

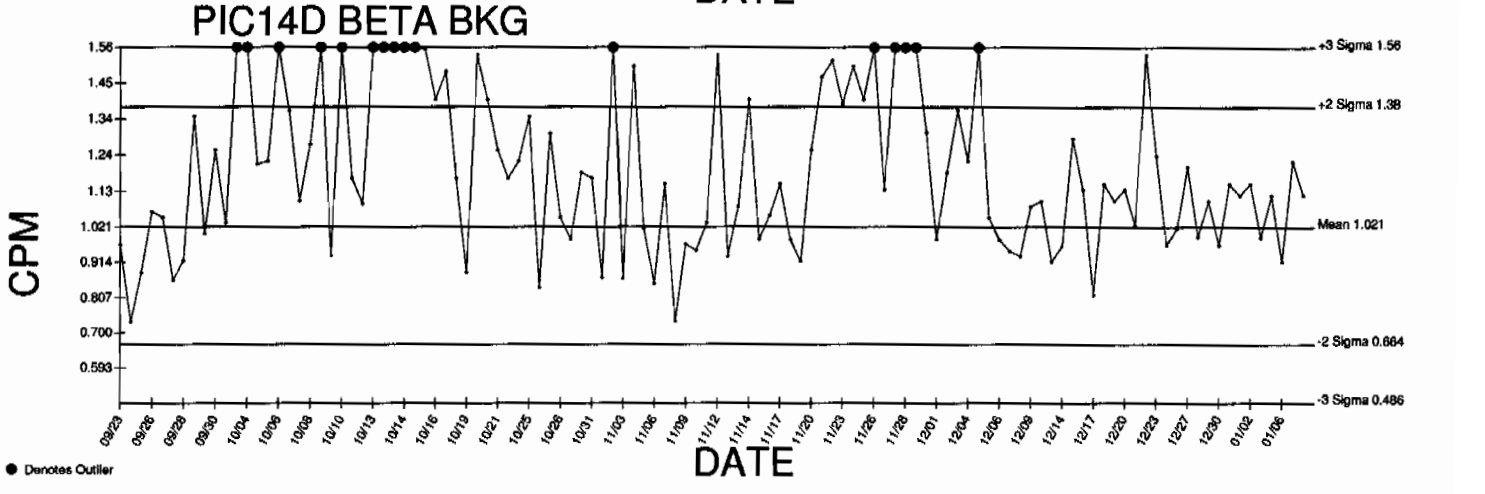

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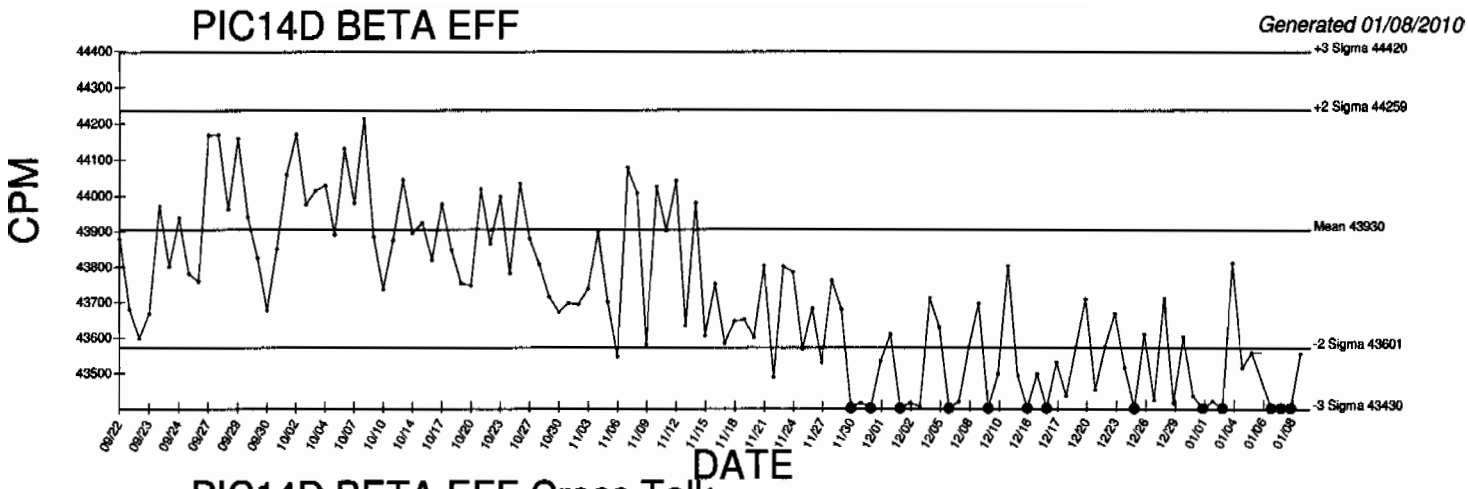

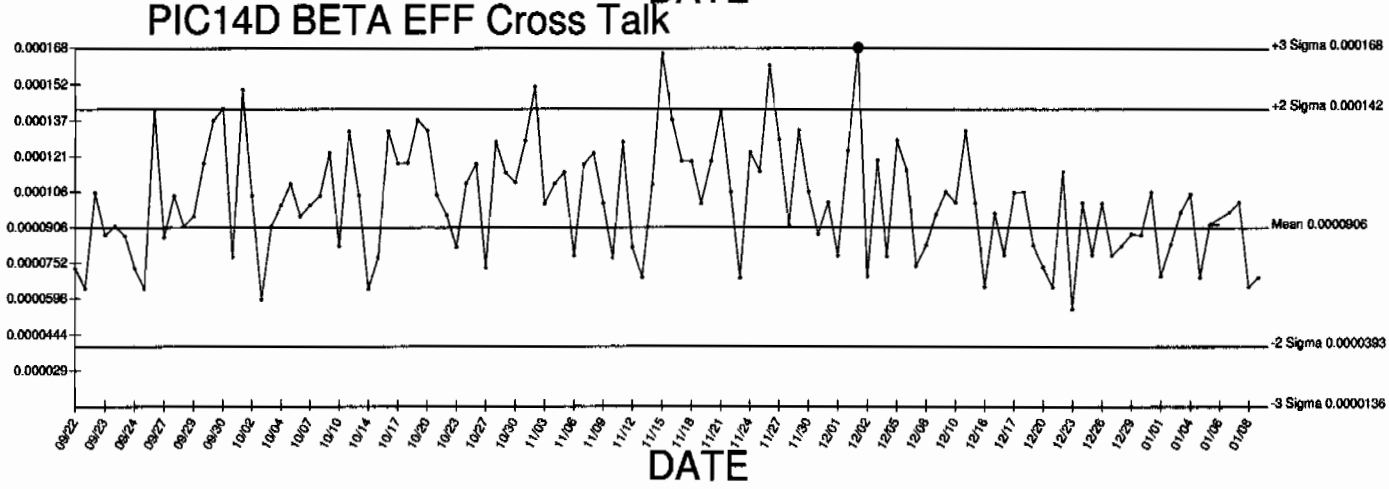

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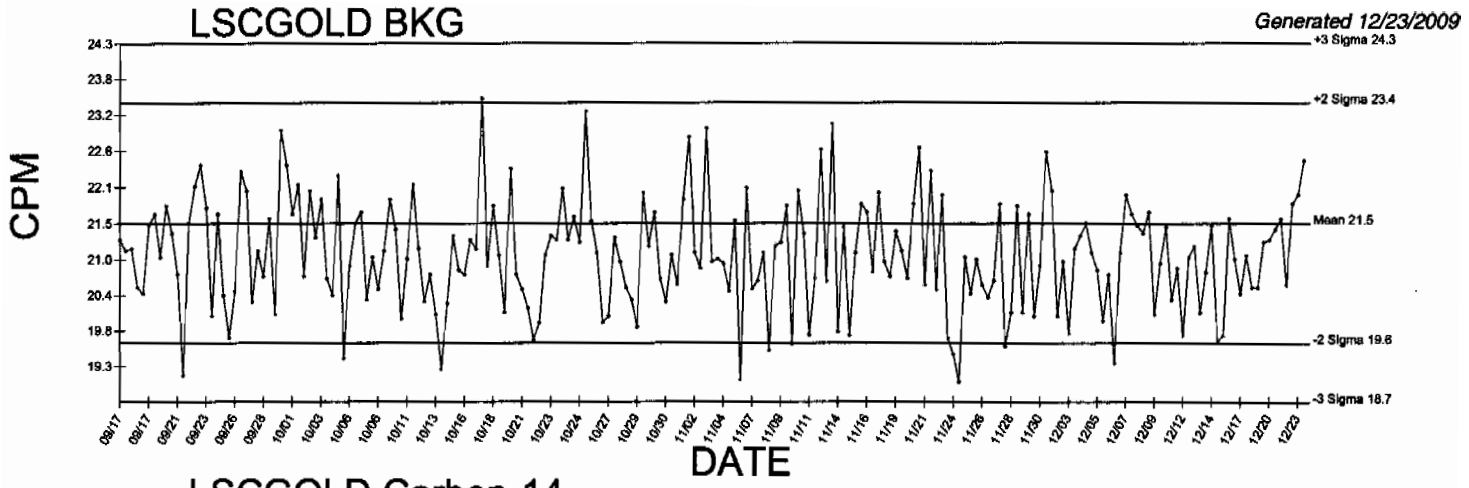

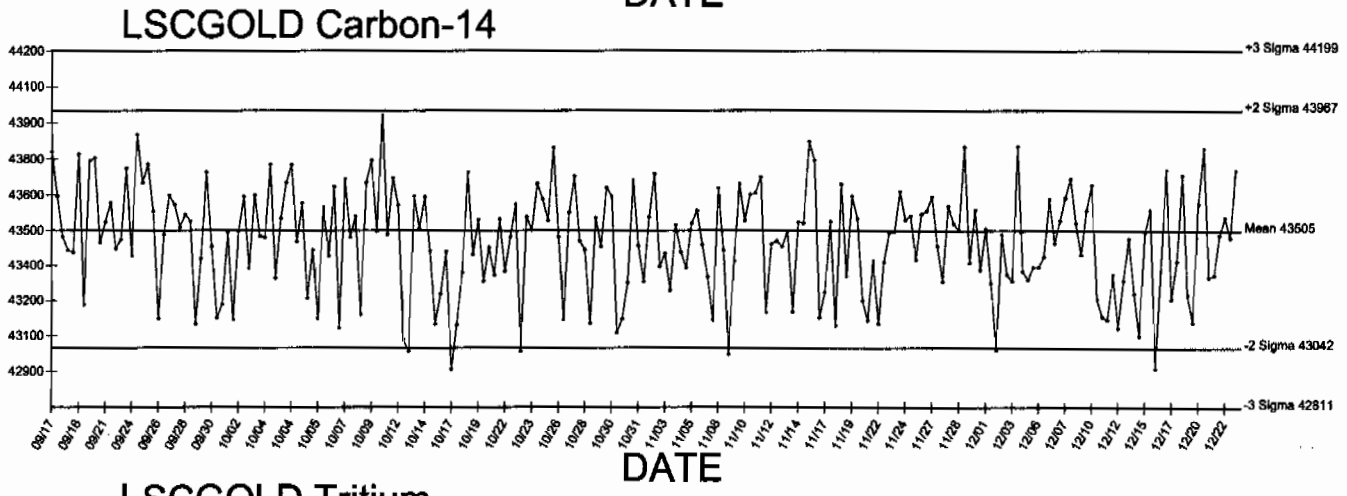

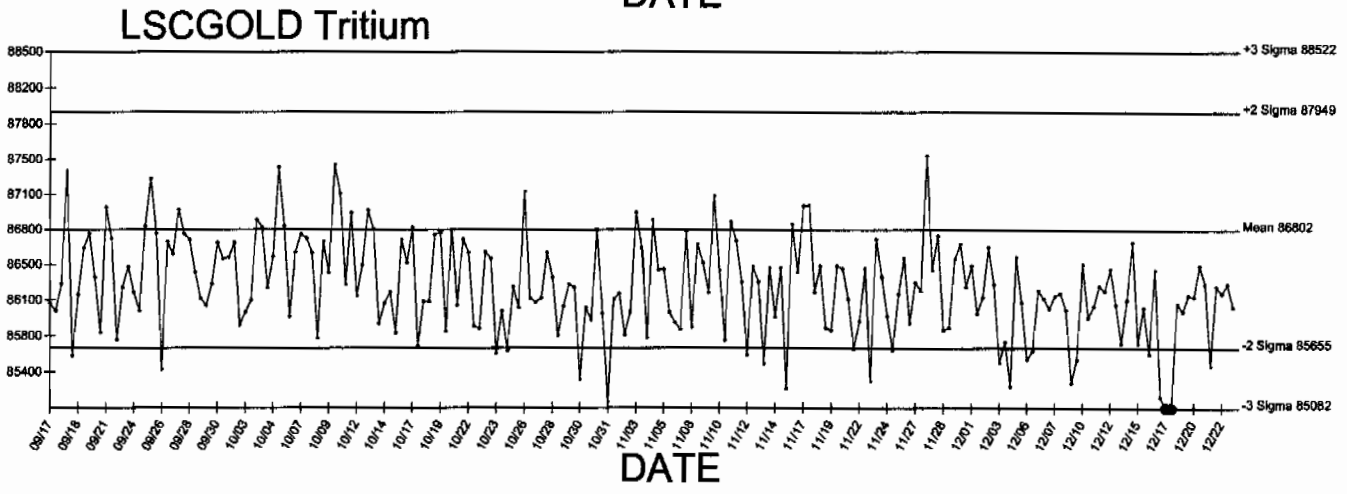

● Denotes Outlier

STANDARDS DATA

ANALYTICS
Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

Rec'd 11/30/06
RC-S-045-073-0

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ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318

Tel 404-352-8677
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www.analyticsinc.com

ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- Ver. JAR-1
	Mixed Gamma N2	2510	pCi/L	- Ver. JAR-3
	Mixed Gamma N3	2413	pCi/L	- Ver. JAR-5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**	
Stdev =	64.065		**Rule 3 (Pass/Fail)**	
Certificate Value =	2485.68018	pCi/L		
Lower Limit =	2357.536524	pCi/L		
Upper Limit =	2613.796809	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	128.1301422			
10 % of Mean =	248.56666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 verification 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER. JAR.-1
	Mixed Gamma N2	907.6	pCi/L	- VER. JAR.3
	Mixed Gamma N3	898.9	pCi/L	- VER. JAR.-2

Mean Value (Counting) =	886.90	**95.01**	**Pass**
Stdev =	28.651	**Rule 3 (Pass/Fail)**	

Certificate Value =	933.44144	pCi/L
Lower Limit =	829.597644	pCi/L
Upper Limit =	944.202356	pCi/L
Rule 1 (Pass/Fail)	**Pass**	
Two sigma =	57.30235597	
10 % of Mean =	88.69000000	
Rule 2 (Pass/Fail)	**Pass**	

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result		
	Mixed Gamma N1	1572	pCi/L	- VER-JAR-5
	Mixed Gamma N2	1495	pCi/L	- VER-JAR-2
	Mixed Gamma N3	1501	pCi/L	- VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**	
Stdev =	42.829	**Rule 3 (Pass/Fail)**		
Certificate Value =	1545.8378	pCi/L		
Lower Limit =	1437.008431	pCi/L		
Upper Limit =	1608.324902	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	85.65823564			
10 % of Mean =	152.26666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0533

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 · U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

65338-278

Am-241 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Am-241
ACTIVITY (dps):	3.920 E4
HALF-LIFE:	4.322 E2 years
CALIBRATION DATE:	January 15, 2003 12:00 EST
TOTAL UNCERTAINTY*:	3.2%
SYSTEMATIC:	2.2%
RANDOM:	1.0%

*99% confidence level.

5.10649 grams 1M HCl solution.

Impurities: γ-impurities <0.1%
α-impurities <0.1%

P O NUMBER 3213 RD, Item 1

SOURCE PREPARED BY: MTaskaeva
M. Taskaeva, Radiochemist

Q A APPROVED: UM Mt 1-16-03

RC-S-035-048a

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0533
Prepared By:	Angela Johnson
Carrier Conc:	1 M HCL
Reference Date:	01/15/2003
Ampoule Mass (g):	5.10649 g
Uncertainty:	+/- 3.2 %
LogBook No:	RC S 035 048

A Solution Material Info	
Isotope:	Americium-241
Prepared By:	Angela Johnson
Prep Date:	02/05/2003
Verification Date:	09/29/2008
Expiration Date:	09/29/2009
Primary Code:	0533-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8225 g
Density(g/mL):	1.0139
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8225 g) * (39200 dps) * (60 dpm/dps) / (5.10649 g * 100 mL) = 22211.9695 dpm/mL
(4.8225 g) * (39200 dps) * (60 dpm/dps) / (1.0139 g/mL)/ (5.10649 g * 100 mL) = 21907.2185 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
02/20/2003	Angela Johnson	1.0151	100	0533-B	222.38 dpm/mL	03/01/2006	03/01/2007
02/20/2003	Angela Johnson	.6819	250	0533-C	59.754 dpm/mL	02/20/2004	02/20/2005
05/07/2003	Tim Chandler	.1245	100	0533-D	27.2745 dpm/mL	05/03/2004	05/03/2005
09/10/2004	Amanda Fehr	.6933	250	0533-E	60.753 dpm/mL	09/10/2005	09/10/2006
12/17/2004	Brenda Burke	.0093	100	0533-F	2.0374 dpm/mL	12/20/2004	12/20/2005
12/21/2004	Brenda Burke	.009273	100	0533-G	2.0315 dpm/mL	12/07/2005	12/07/2006
04/28/2005	Brenda Burke	.1347	100	0533-H	29.4598 dpm/mL	04/27/2006	04/27/2007
10/19/2005	Mary Aders	.6948	250	0533-I	60.7831 dpm/mL	10/18/2006	10/18/2007

05/08/2006	Julie Strock	.0711	100	0533-J	15.576 dpm/mL	05/10/2008	05/10/2009
05/11/2006	Brenda Burke	.00092601	100	0533-K	.20286 dpm/mL	08/02/2007	07/28/2007
11/15/2006	Tina Schoneman	.132	1000	0533-L	2.88586 dpm/mL	10/30/2008	10/30/2009
06/12/2007	Julie Strock	.000979	100	0533-M	.21448 dpm/mL	05/20/2009	05/20/2010
08/03/2007	Daniel Roy	.7042	250	0533-N	61.7083 dpm/ml	08/02/2008	08/02/2009
09/25/2008	Daniel Roy	1.4561	500	0533-O	63.7982 dpm/ml	09/10/2009	09/10/2010
09/29/2008	Tara Sides	.1004	100	0533-P	21.9948 dpm/mL	09/09/2009	09/09/2010
06/03/2009	Julie Strock	.0009751	100	0533-Q	.2136 dpm/mL	06/05/2009	06/03/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-241 Standard *0533-O*

M. Aders			
9/10/2009	**Isotope**	**Value**	**Uncertainty**
	0533-O #1	2.880	0.3960
	0533-O #2	2.820	0.3910
	0533-O #3	2.790	0.3840
Mean Value (Counting) =	2.830	0.9953264	
Stdev =	0.045825757		
Target =	2.84		
Lower Limit =	2.738348486		
Upper Limit =	2.921651514		
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**
Two sigma =	0.091651514		
10 % of Mean =	0.283		
Rule 2 (Pass/Fail)	**Pass**		

Rule 1 = The target value must lie within the average counting value concentration plus or minus two times the standard deviation of the three counting sources.
Rule 2 =The calculated value of two times the standard deviation of the concentration of the three counted sources must be less than 10% of the average concentration value.
Rule 3 = The determined mean value must be +/- 5% of the of the certificate value or within the uncertainty of the standards being verified.

The analyst prepared three standard verification sources for standard ***0533-O*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Am_243*** standard ***445-96-2-SS*** in a disposable centrifuge tube. 4 mL of 2M HCL was added and was diluted with 6 mL of DI water. 25 micrograms of neodymium carrier and two mL of 49% HF was added to precipitate neodymium (and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-241 were calculated by comparison to Am-243 certified values.

9/22/09

9/25/09

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Khan
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ **1. STANDARD WIPE TEST**

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **2. SOAK TEST**

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **3. SOAK TEST -- BERYLLIUM WINDOW**

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **4. GAS SOURCE TEST (Radioactive Gas)**

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ **5. OTHER LEAK TEST**

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **6. LEAK TEST NOT APPLICABLE**

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	05/11/2009
Expiration Date:	05/11/2010
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Julie Strock	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/30/2008	09/29/2009
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-SS*

M. Aders	Isotope	Value	Uncertainty
5/15/2009	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590

Mean Value (Counting) =	1.340	101.99	Pass
Stdev =	0.043588989		Rule 3 (Pass/Fail)

Target =	1.314
Lower Limit =	1.252822021
Upper Limit =	1.427177979
Rule 1 Pass/Fail	Pass
Two sigma =	0.087177979
10 % of Mean =	0.134
Rule 2 (Pass/Fail)	Pass

The analyst prepared three standard verification sources for standard ***445-96-2-SS*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Mary Fridrich 5/15/09
Robert Bin 007509

0338

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 · U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

60513-278

Pu-239 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using an aliquot measured gravimetrically from a master radionuclide solution standard. The master radionuclide solution standard was calibrated by the Department Des Applications Et De La Metrologie Des Rayonnements Ionisants (DAMRI), Paris, France, as Number 24148.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Pu-239
ACTIVITY (dps):	3.674 E4
HALF-LIFE:	24131 years
CALIBRATION DATE:	October 30, 2000 12:00 EST
TOTAL UNCERTAINTY*:	5.0%

*99% confidence level.

5.45541 grams 3M HNO_3 solution.

Impurities detected (activity in dps/vial on Oct. 30, 2000):

Am-241 297.28
Pu-240 1208.8
Pu-241 2010.7
Pu-242 0.17

See reverse side for additional information.

P O NUMBER 2528RD, Item 1

PREPARED BY: M Taskaeva
M. Taskaeva, Radiochemist

Q A APPROVED: RCullen 11/13/00

RC-S-028-167

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0338
Prepared By:	Penet Melton
Carrier Conc:	3 M HNO3
Reference Date:	10/30/2000
Ampoule Mass (g):	5.45541 g
Uncertainty:	+/- 5 %
LogBook No:	RC S 027 167

A Solution Material Info	
Isotope:	Plutonium-239
Prepared By:	Penet Melton
Prep Date:	12/01/2000
Verification Date:	09/29/2008
Expiration Date:	09/29/2009
Primary Code:	0338-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.1674 g
Density(g/mL):	1.0121
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL | dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)

(5.1674 g) * (36740 dps) * (60 dpm/dps) / (5.45541 g * 100 mL) = 20880.2208 dpm/mL

(5.1674 g) * (36740 dps) * (60 dpm/dps) / (1.0121 g/mL)/ (5.45541 g * 100 mL) = 20630.6111 dpm/g

(5.1674 g) * (37948.8 dps) * (60 dpm/dps) / (5.45541 g * 100 mL) = 21567.2108 dpm/mL

(5.1674 g) * (37948.8 dps) * (60 dpm/dps) / (1.0121 g/mL)/ (5.45541 g * 100 mL) = 21309.3885 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
06/23/2009	Mary Aders	.591	250	0338-BB	50.3753 dpm/mL	06/23/2009	06/23/2010
10/29/2001	Tim Chandler	.3032	250	0338-E		10/16/2003	10/16/2004
12/30/2002	Tim Chandler	10.0252	100	0338-I		10/24/2003	10/24/2004
08/12/2003	Amanda Fehr	.2282	100	0338-K		08/12/2003	08/12/2004
12/09/2003	Amanda Fehr	.2409	100	0338-L		12/09/2003	12/09/2004

03/18/2004	Tim Chandler	10.0192	500	0338-M		03/18/2004	03/18/2005
04/26/2004	Amanda Fehr	.643	250	0338-N		04/26/2005	04/26/2006
05/26/2004	Eric Williamson	.355	250	0338-O	30.2619 dpm/mL	05/17/2007	05/17/2008
12/20/2004	Brenda Burke	.01957	100	0338-P	4.16992 dpm/mL	12/19/2006	12/19/2007
03/16/2005	Julie Strock	10.0395	100	0338-Q	2139.558 dpm/mL	06/12/2008	06/12/2009
07/19/2005	Amanda Fehr	.677	250	0338-R		07/10/2006	07/10/2007
05/11/2006	Brenda Burke	.0009935	100	0338-S	.21172 dpm/mL	07/30/2007	07/28/2007
01/04/2007	Julie Strock	.050286	250	0338-T	4.2887 dpm/mL	12/31/2007	12/31/2008
01/05/2007	Daniel Roy	.7285	250	0338-U		01/05/2008	01/05/2009
03/16/2005	Julie Strock	.010175	1000	0338-V	.216847 dpm/mL	04/23/2009	04/23/2010
05/15/2007	Eric Williamson	.253	250	0338-W	21.567 dpm/mL	05/21/2009	05/21/2010
07/31/2007	Julie Strock	.0010045	100	0338-X	.21379 dpm/mL	12/31/2007	12/31/2008
12/10/2008	Daniel Roy	.7715	250	0338-Y		12/10/2008	12/10/2009
09/29/2008	Julie Strock	.0504	250	0338-Z	4.29599 dpm/mL	09/30/2008	09/29/2009

Verification for Plutonium-239 Standard *0338-BB*

Analyst: M. Aders	**Serial #**	**Value**	**Uncertainty**
Date: 6/25/09	0338-BB #1	2.350	0.2960
	0338-BB #2	2.190	0.2210
	0338-BB #3	2.300	0.2920
Mean Value (Counting) =	2.280	103.80917	**Pass**
Stdev =	0.081853528		
Target =	2.196		
Lower Limit =	2.116292945		
Upper Limit =	2.443707055		
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**
Two sigma =	0.163707055		
10 % of Mean =	0.228		
Rule 2 (Pass/Fail)	**Pass**		

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements.
Rule 2 = The two sigma value used for the 95% cinfidence interval shall not exceed 10% of the mean value of the three measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three Pu-239 standard verification sources for standard ***0338-BB*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Pu-242*** standard ***1262-A*** and was diluted in a disposable centrifuge tube with 4 mL of 2 M HCl, and 6 mL of DI water, 50 micrograms of Nd carrier and 5 drops of hydrazine dihydrochloride were added to the centrifuge tube and swirled. After waiting ten minutes, two mL of 49% HF was added to precipitate Nd(and ***plutonium***) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for ***Pu-239*** were calculated by comparison to ***Pu-242*** certified values.

6/26/09

06 26 09

1374

National Institute of Standards & Technology
Certificate

Standard Reference Material 4334H
Plutonium-242 Radioactivity Standard

This Standard Reference Material (SRM) consists of radioactive plutonium-242 nitrate and nitric acid dissolved in 5 mL of distilled water. The solution is contained in a flame-sealed NIST borosilicate-glass ampoule. The SRM is intended for the calibration of alpha-particle counting instruments and for the monitoring of radiochemical procedures.

Radiological Hazard: The SRM ampoule contains plutonium-242 with a total activity of approximately 150 Bq. Plutonium-242 decays by alpha-particle emission. None of the alpha particles escape from the SRM ampoule. During the decay process, X-rays and gamma rays with energies from 10 keV to 160 keV are also emitted. Most of these photons escape from the SRM ampoule but their intensities are so small that they do not represent a radiation hazard. Approximate unshielded dose rates at several distances (as of the reference time) are given in note [a]*. The SRM should be used only by persons qualified to handle radioactive material.

Chemical Hazard: The SRM ampoule contains nitric acid (HNO_3) with a concentration of 3 moles per liter of water. The solution is corrosive and represents a health hazard if it comes in contact with eyes or skin. If the ampoule is to be opened to transfer the solution, the recommended procedure is given on page 2. The ampoule should be opened only by persons qualified to handle both radioactive material and strong acid solution.

Storage and Handling: The SRM should be stored and used at a temperature between 5 °C and 65 °C. The solution in an unopened ampoule should remain stable and homogeneous until at least January 2015. The ampoule (or any subsequent container) should always be clearly marked as containing radioactive material. If the ampoule is transported it should be packed, marked, labeled, and shipped in accordance with the applicable national, international, and carrier regulations. The solution in the ampoule is a dangerous good (hazardous material) both because of the radioactivity and because of the strong acid.

Preparation: This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

RECEIVED 2/12/04

Lisa R. Karam, Acting Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
January 2005

Robert L. Watters, Jr., Chief
Measurement Services Division

*Notes and references are on pages 5 to 7.

DC-S-057-C413

Recommended Procedure for Opening the SRM Ampoule

1) If the SRM solution is to be diluted, it is recommended that the diluting solution have a composition comparable to that of the SRM solution.

2) Wear eye protection, gloves, and protective clothing and work over a tray with absorbent paper in it. Work in a fume hood. In addition to the radioactive material, the solution contains strong acid and is corrosive.

3) Shake the ampoule to wet all of the inside surface of the ampoule. Return the ampoule to the upright position.

4) Check that all of the liquid has drained out of the neck of the ampoule. If necessary, gently tap the neck to speed the process.

5) Holding the ampoule upright, score the narrowest part of the neck with a scribe or diamond pencil.

6) Lightly wet the scored line. This reduces the crack propagation velocity and makes for a cleaner break.

7) Hold the ampoule upright with a paper towel, a wiper, or a support jig. Position the scored line away from you. Using a paper towel or wiper to avoid contamination, snap off the top of the ampoule by pressing the narrowest part of the neck away from you while pulling the tip of the ampoule towards you.

8) Transfer the solution from the ampoule using a pycnometer or a pipet with dispenser handle. NEVER PIPETTE BY MOUTH.

9) Seal any unused SRM solution in a flame-sealed glass ampoule, if possible, to minimize the evaporation loss.

See also reference [4]*.

*Notes and references are on pages 5 to 7.

PROPERTIES OF SRM 4334H

Certified values

Radionuclide	**Plutonium-242**
Reference time	**1200 EST, 07 June 1994 [b]***
Massic activity of the solution [c]	**26.31 $Bq \cdot g^{-1}$**
Relative expanded uncertainty (k=2)	**0.72% [d] [e]**
Solution density	**$(1.105 \pm 0.002)\ g \cdot mL^{-1}$ at 20 °C [f]**

Uncertified values

Physical Properties:			
Source description	Liquid in flame-sealed NIST borosilicate-glass ampoule		
Ampoule specifications	Body outside diameter Wall thickness Barium content Lead-oxide content Other heavy elements	(16.5 ± 0.5) mm (0.60 ± 0.04) mm Less than 2.5% Less than 0.02% Trace quantities	
Solution mass	Approximately 5.5 g		
Chemical Properties:			
Solution composition	Chemical Formula	Concentration ($mol \cdot L^{-1}$)	Mass Fraction ($g \cdot g^{-1}$)
	H_2O HNO_3 $^{242}Pu^{+6}$	50 3.2 8×10^{-7}	0.81 0.19 2×10^{-7}
Radiological Properties:			
Alpha-particle-emitting impurities	None detected [g] [h]. See table on page 5.		
Beta-particle-emitting impurities	Plutonium-241: $(0.092 \pm 0.018)\ Bq \cdot g^{-1}$ [f] [h]		
Photon-emitting impurities	None detected [i]		
Half lives used	Plutonium-242: (373 500 ± 1100) a [j] [5] Plutonium-241: (14.35 ± 0.10) a [j] [5] Americium-241: (432.2 ± 0.7) a [j] [5]		
Calibration method and measuring instrument(s)	Three $4\pi\alpha$ liquid-scintillation counters, a calibrated germanium detector system, and a silicon surface-barrier detector		

*Notes and references are on pages 5 to 7.

EVALUATION OF THE UNCERTAINTY OF THE MASSIC ACTIVITY [d] [e]*

Input Quantity x_i, the source of uncertainty (and individual uncertainty components where appropriate)	Method Used To Evaluate $u(x_i)$, the standard uncertainty of x_i (A) denotes evaluation by statistical methods (B) denotes evaluation by other methods	Relative Uncertainty Of Input Quantity, $u(x_i)/x_i$, (%) [k]	Relative Sensitivity Factor, $\lvert\partial y/\partial x_i\rvert \cdot (x_i/y)$ [m]	Relative Uncertainty Of Output Quantity, $u_i(y)/y$, (%) [n]
Massic alpha-particle emission rate, corrected for background and decay	Standard deviation of the mean for 80 sets of $4\pi\alpha$ liquid-scintillation measurements (A)	0.05	1.0	0.05
Half life of Pu-242	Standard uncertainty of the half life (A)	0.32 [p]	0.00001 [q]	0.000003
Decay-scheme data	Standard uncertainty of the probability of decay by alpha-particle emission (A)	0.001	1.0	0.001
Extrapolation of alpha-particle-count-rate-versus-energy to zero energy	Estimated (B)	0.25	1.0	0.25
Gravimetric measurements	Estimated (B)	0.10	1.0	0.10
Live time [r]	Estimated (B)	0.10	1.0	0.10
Alpha-particle detection efficiency of scintillators	Estimated (B)	0.15	1.0	0.15
Alpha-particle-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Photon-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Relative Combined Standard Uncertainty of the Output Quantity, $u_c(y)/y$, (%)				0.36
Coverage Factor, k				x 2
Relative Expanded Uncertainty of the Output Quantity, U/y, (%)				0.72

*Notes and references are on pages 5 to 7.

RELATIVE ACTIVITIES OF RADIONUCLIDIC IMPURITIES AT THE REFERENCE TIME [b]

Radionuclide	Half Life (years) [j] [5]	Relative Activity As Determined By	
		LLNL	NIST
Plutonium-242	373 500 ± 1100	1.000 000	1.000 000
Plutonium-241	14.35 ± 0.10	- -	0.0035 ± 0.0004 [t]
Plutonium-240	6 564 ± 11	^{239}Pu + ^{240}Pu <0.000 001 [u]	^{239}Pu + ^{240}Pu 0.000 020 ± 0.000 021 [v]
Plutonium-239	24 110 ± 30		
Plutonium-238	87.7 ± 0.1	^{238}Pu + ^{241}Am <0.000 016 [u]	0.000 009 ± 0.000 016 [v]
Americium-241	432.2 ± 0.7		0.000 000 assumed [t]

NOTES

[a] The Sievert is the SI unit for dose equivalent. See reference [1]. One μSv is equal to 0.1 mrem.

Distance from Ampoule (cm):	1	30	100
Approximate Dose Rate (μSv/h):	<0.1	-	-

[b] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994.

[c] **Massic activity** is the preferred name for the quantity activity divided by the total mass of the sample. See reference [1].

[d] The reported value, y, of massic activity (activity per unit mass) at the reference time was not measured directly but was derived from measurements and calculations of other quantities. This can be expressed as $y = f(x_1, x_2, x_3, \ldots x_n)$, where f is a mathematical function derived from the assumed model of the measurement process. The value, x_i, used for each input quantity i has a **standard uncertainty**, $u(x_i)$, that generates a corresponding uncertainty in y, $u_i(y) \equiv |\partial y/\partial x_i| \cdot u(x_i)$, called a **component of combined standard uncertainty** of y. The **combined standard uncertainty** of y, $u_c(y)$, is the positive square root of the sum of the squares of the components of combined standard uncertainty. The combined standard uncertainty is multiplied by a **coverage factor** of $k = 2$ to obtain U, the **expanded uncertainty** of y.

Since it can be assumed that the possible estimated values of the massic activity are approximately normally distributed with approximate standard deviation $u_c(y)$, the unknown value of the massic activity is believed to lie in the interval $y \pm U$ with a level of confidence of approximately 95 percent.

For further information on the expression of uncertainties, see references [2] and [3].

[e] The value of each component of combined standard uncertainty, and hence the value of the expanded uncertainty itself, is a best estimate based upon all available information, but is only approximately known. That is to say, the "uncertainty of the uncertainty" is large and not well known. This is true for uncertainties evaluated by statistical methods (e.g., the relative standard deviation of the standard deviation of the mean for the massic response is approximately 50%) and for uncertainties evaluated by other methods (which could easily be over estimated or under estimated by substantial amounts). The unknown value of the expanded uncertainty is believed to lie in the interval $U/2$ to $2U$ (i.e., within a factor of 2 of the estimated value).

[f] The stated uncertainty is two times the standard uncertainty.

[g] Estimated limits of detection for alpha-particle-emitting impurities, expressed as massic alpha-particle emission rates (numbers of alpha particles per second per gram), are:
0.003 $s^{-1} \cdot g^{-1}$ for energies less than 3.1 MeV,
0.03 $s^{-1} \cdot g^{-1}$ for energies between 3.1 and 4.4 MeV, and
0.003 $s^{-1} \cdot g^{-1}$ for energies greater than 5.0 MeV.

[h] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994. Americium-241, the daughter of plutonium-241, was removed but has been growing in since that time.

[i] Estimated limits of detection for photon-emitting impurities, expressed as massic photon emission rates (numbers of photons per second per gram), are:
5×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 19 and 39 keV,
7×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 49 and 92 keV,
2×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 106 and 507 keV,
1×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 515 and 1456 keV, and
5×10^{-6} $s^{-1} \cdot g^{-1}$ for energies between 1465 and 2750 keV,
provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of plutonium-242, plutonium-241, or americium-241.

[j] The stated uncertainty is the standard uncertainty.

[k] Relative standard uncertainty of the input quantity x_i.

[m] The relative change in the output quantity y divided by the relative change in the input quantity x_i. If $|\partial y/\partial x_i| \cdot (x_i/y) = 1.0$, then a 1% change in x_i results in a 1% change in y. If $|\partial y/\partial x_i| \cdot (x_i/y) = 0.05$, then a 1% change in x_i results in a 0.05% change in y.

[n] Relative component of combined standard uncertainty of output quantity y, rounded to two significant figures or less. The relative component of combined standard uncertainty of y is given by $u_i(y)/y \equiv |\partial y/\partial x_i| \cdot u(x_i)/y = |\partial y/\partial x_i| \cdot (x_i/y) \cdot u(x_i)/x_i$. The numerical values of $u(x_i)/x_i$, $|\partial y/\partial x_i| \cdot (x_i/y)$, and $u_i(y)/y$, all dimensionless quantities, are listed in columns 3, 4, and 5, respectively. Thus, the value in column 5 is equal to the value in column 4 multiplied by the value in column 3. The input quantities are independent, or very nearly so. Hence the covariances are zero or negligible.

[p] The relative standard uncertainty of $\lambda \cdot t$ is determined by the relative standard uncertainty of λ (i.e., of the half life). The relative standard uncertainty of t is negligible.

[q] $|\partial y/\partial x_i| \cdot (x_i/y) = |\lambda \cdot t|$

[r] The live time is determined by counting the pulses from a gated crystal-controlled oscillator.

[s] The standard uncertainty for each undetected impurity that might reasonably be expected to be present is estimated to be equal to the estimated limit of detection for that impurity, i.e. $u(x_i)/x_i$ = 100%. $|\partial y/\partial x_i| \cdot (x_i/y)$ = {(response per Bq of impurity)/(response per Bq of Pu-242)}•{(Bq of impurity)/(Bq of Pu-242)}. Thus $u_i(y)/y$ is the relative change in y if the impurity were present with a massic activity equal to the estimated limit of detection.

[t] The stated uncertainty is the standard uncertainty. The plutonium-241 activity was calculated from a gamma-ray measurement of the americium-241 ingrowth as of 25 November 1998, assuming that americium-241 was completely removed at the time of chemical purification.

[u] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The value shown is an estimated upper limit based upon background and counting statistics. Measurements were made at the Lawrence Livermore National Laboratory (LLNL) in July of 1994.

[v] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The stated uncertainty is the standard uncertainty. Measurements were made at the National Institute of Standards and Technology (NIST) in June and July of 1999.

REFERENCES

[1] International Organization for Standardization (ISO), *ISO Standards Handbook - Quantities and Units*, 1993. Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B.N. Taylor and C.E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

[4] National Council on Radiation Protection and Measurements Report No. 58, *A Handbook of Radioactivity Measurements Procedures*, Second Edition, 1985. Available from the National Council on Radiation Protection and Measurements, 7910 Woodmont Avenue, Bethesda, MD 20814 U.S.A.

[5] Evaluated Nuclear Structure Data File (ENSDF), January 2005.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1374
Prepared By:	Mary Aders
Carrier Conc:	0.5M HNO3
Reference Date:	06/07/1994
Ampoule Mass (g):	5.5 g
Uncertainty:	+/- .72 %
LogBook No:	RC-S-051-093

A Solution Material Info	
Isotope:	Plutonium-242
Prepared By:	Ashley Drochter
Prep Date:	12/02/2009
Verification Date:	12/08/2009
Expiration Date:	12/08/2010
Primary Code:	1374-A
Dilution(mL):	250 mL
Mass of Parent(g):	5.3616 g
Density(g/mL):	1.0136
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3616 g) * (26.31 Bq/g) * (60 dpm/Bq) / (250 mL) = 33.8553 dpm/mL
(5.3616 g) * (26.31 Bq/g) * (60 dpm/Bq) / (1.0136 g/mL) / (250 mL) = 33.4010 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Pu-242 Standard 1374-*A*

A.Drochter	Isotope	Value	Uncertainty
12/8/2009	1374-A	1.610	0.2480
	1374-A	1.580	0.2510
	1374-A	1.530	0.2440
Mean Value (Counting) =	1.573	103.17	**Pass**
Stdev =	0.040414519		**Rule 3 (Pass/Fail)**

Target =	1.52
Lower Limit =	1.492504296
Upper Limit =	1.654162371
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.080829038
10 % of Mean =	0.157333333
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for standard 1374-A using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. Two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-242 were calculated by comparison to Pu-239 certified values.

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12/9/09
12/9/09

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
Fax 404-352-2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1067

74463-278

Sr-90 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Sr-90
ACTIVITY (Bq):	3.835 E4
HALF-LIFE:	28.79 years
CALIBRATION DATE:	February 7, 2007 12:00 EST
RELATIVE EXPANDED UNCERTAINTY (k=2):	1.7%

Impurities: γ-impurities <0.1%

5.01066 grams 0.1M HCl solution with 30 μg/g Sr carrier.

NOTE: This source also contains Y-90 in secular equilibrium with Sr-90. The Y-90 activity is equal to the Sr-90 activity. Since Sr-90 and Y-90 both decay 100% by beta emission, the total beta emission rate for the source is twice the certified Sr-90 activity. The half-life for Y-90 is 64.08 hours.

P O NUMBER 2739 RD, Item 1

RECEIVED 2/8/07

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 2-7-07

RC-S-045-108-A

Corporate Office
24937 Avenue Tibbitts Valencia, California 91355

Laboratory
1380 Seaboard Industrial Blvd. Atlanta, Georgia, 30318

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1067
Prepared By:	Daniel Roy
Carrier Conc:	0.1M HCl
Reference Date:	02/07/2007
Ampoule Mass (g):	5.01066 g
Uncertainty:	+/- 1.7 %
LogBook No:	RC-S-045-108

A Solution Material Info	
Isotope:	Strontium-90
Prepared By:	Julie Strock
Prep Date:	10/12/2007
Verification Date:	06/17/2009
Expiration Date:	06/23/2010
Primary Code:	1067-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.9657 g
Density(g/mL):	0.9962
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (bq)) * (conversion dpm to bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)

(Mass of parent(g)) * (Parm Activity (bq)) * (conversion dpm to bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)

(4.9657 g) * (38350 bq) * (60 dpm/bq) / (5.01066 g * 100 mL) = 22803.5343 dpm/mL

(4.9657 g) * (38350 bq) * (60 dpm/bq) / (0.9962 g/mL)/ (5.01066 g * 100 mL) = 22889.8293 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/23/2008	Daniel Roy	20.0611	1000	1067-B	459.1952 dpm/ml	07/23/2008	07/23/2009
06/16/2009	Mary Aders	20.0693	1000	1067-C	459.3829 dpm/mL	06/17/2009	06/17/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Sr-90 Standard 1067-C

6/18/2009	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (mL)	Source DPM/mL
M. Aders	1067-C N1	922.6000	45.1300	877.4700	2.030242	1.0000	432.1997082
	1067-C N2	905.2700	45.1300	860.1400	2.030242	1.0000	423.66378
	1067-C N3	918.2700	45.1300	873.1400	2.030242	1.0000	430.0669575
						Average =	428.6434819
Mean Value (Counting) =	428.6434819		98.7985109	% of known	Pass		
Stdev =	4.442435123		0.01036394				
Certificate Value =	433.865	dpm/mL					
Lower Limit =	419.7586117	dpm/mL					
Upper Limit =	437.5283522	dpm/mL					
Rule 1 Pass/Fail	Pass	Pass	Pass				
Two sigma =	8.884870247						
10 % of Mean =	42.86434819						
Rule 2 (Pass/Fail)	Pass						

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for Sr-90 source 1067-C by transferring 1 mL portions of the standard into glass liquid scintillation vials. Thirteen mL of Ecoscint Ultra liquid scintillation coctail was prepared in a similar fashion using 1 mL of DI water and 13 mL of Ecoscint Ultra liquid scintillation coctail. The standard verification vials and Background source were dark adapted for two hours and counted on LSC Green for Sr-90 source standard verification. The Sr-90 efficiency calibration which was used for verification calculations was performed on 6/17/09 using source 0133-A (Sr-90). Calibration data is recorded in this logbook under Sr-90 0133-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.
RAD SOP M-001

6/18/09
6/29/09

STANDARDIZATION OF STRONTIUM CARRIER

DATE: [redacted] EXP. DATE: [redacted]
LOT NUMBER [redacted]

STRONTIUM PRECIPITATES

	1	2	3	4
Weight of carrier added	[redacted]			
Aliquot (5.00 mL)				
Crucible + ppt.	[redacted]			
Crucible				
Wt. of ppt., g	0.0178	0.0179	0.0179	0.0178
mg Sr/mL	17.80	17.90	17.90	17.80
mg Sr/g	17.28	17.72	17.55	17.28

Must weigh carrier added

Jennifer L. Robb
9-24-09

Average	Std. Dev.	
17.85	± 0.06	0.00323446
17.46	± 0.22	0.0124023
mg Sr/ 0.5 mL		**8.93**
mg Sr/g		17.46

0.5% of Mean Value = 0.08925 Pass

A satisfactory standardization is obtained when results give a standard deviation of less than 0.5% of the mean value.

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404·352·8677
Fax 404·352·2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1242

78148-278

Th-230 5 mL Liquid in Flame Sealed Vial

Customer: General Engineerings Labs
P.O. No.: 7311RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	Th-230
Activity (Bq):	4.021 E4
Half-Life:	7.538 E4 years
Calibration Date:	August 25, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	2.0%

Comments:
Impurities: γ-impurities <0.1%, α-impurities <0.04%
5.07467 grams 0.5M HNO3 solution.

Source Prepared By: MITaskaeva
M. I. Taskaeva, Radiochemist

QA Approved: DM Mg
D. M. Montgomery, QA Manager

Date: 9-4-08

RECEIVED 9/17/08
RC-S-048-123

End of Certificate

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1242
Prepared By:	Daniel Roy
Carrier Conc:	0.5M HNO3
Reference Date:	08/25/2008
Ampoule Mass (g):	5.07467 g
Uncertainty:	+/- 2 %
LogBook No:	RC-S-048-123

A Solution Material Info	
Isotope:	Thorium-230
Prepared By:	Ashley Drochter
Prep Date:	11/10/2009
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1242-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8836 g
Density(g/mL):	1.0597
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8836 g) * (40210 Bq) * (60 dpm/Bq) / (5.07467 g * 100 mL) = 23217.6149 dpm/mL
(4.8836 g) * (40210 Bq) * (60 dpm/Bq) / (1.0597 g/mL)/ (5.07467 g * 100 mL) = 21908.6601 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/01/2009	Bethany Fiem	6.3855	500	1242-B	279.79548 dpm/mL	12/02/2009	12/02/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Th-230 Standard 1242-B

Analyst: B. Fiem	Source ID	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (ml)	Source DPM/ml
Date: 12/1/09	1242-B #1	321.8000	39.8000	282.0000	1.069320	1.0000	263.719
	1242-B #2	325.2000	39.8000	285.4000	1.069320	1.0000	266.899
	1242-B #3	339.2000	39.8000	299.4000	1.069320	1.0000	279.991

Mean Value (Counting) =	270.2028704	96.5727649	Pass
Stdev =	8.62458049		Rule 3 (Pass/Fail)

Certificate Value =	279.792
Lower Limit =	252.9537094
Upper Limit =	287.4520313
Rule 1 Pass/Fail	Pass
Two sigma =	17.24916098
10 % of Mean =	27.02028704
Rule 2 (Pass/Fail)	Pass

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for **Th-230** source **1242-B** by transferring 1.0 mL portions of the standard to glass liquid scintillation vials. 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Background vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for one hour and counted on LSC Green for standard verification. The alpha efficiency calibration which was used for verification calculations was performed on 11/16/09 using NIST source 0905-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference: RAD SOP M - 001

12-10-09

12/2/09

Amersham International plc
Amersham Laboratories

0134

NAMAS
CALIBRATION
No. 0146

Certificate of Calibration of Standard Tritium Labelled Water

Description

Radionuclide: TRITIUM (HYDROGEN-3) Product code: TRY·64

Chemical form: water Batch: 111

Measurement

Reference time: 1200 GMT on 1 March 1996

Radioactive concentration of tritium: 488.0 kilobecquerels per gram of water

which is equivalent to: 13.19 microcuries per gram of water

or: 2.93×10^7 disintegrations per minute per gram of water

Method of Measurement
This reference material was calibrated by direct comparison with a standard of tritium-labelled water obtained from the National Institute of Standards and Technology, USA.

Accuracy

The OVERALL UNCERTAINTY of the result quoted above is estimated to be less than ±2.5%

This estimate of uncertainty was calculated in accordance with the recommendations of the International Commission on Radiation Units and Measurements (ICRU Report 12). The limits of uncertainty were taken as the arithmetic sum of the uncertainty due to random variations, calculated at the 99·7% confidence level, and the estimated systematic uncertainties.

Purity

No radioactive impurities were detected. (Impurities with total activity greater than 0.001% of the activity of the tritium would have been detected).

Physical Data

Half-life of tritium: 12·43 ± 0·11 years

Maximum beta energy of tritium: 18·6 keV

Remarks:

The S.I. unit of radioactivity is the becquerel.

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = $3{\cdot}7 \times 10^{10}$ becquerels exactly.

Useful conversion factors are:

1 microcurie (µCi) = $3{\cdot}7 \times 10^4$ Bq = 37 kilobecquerels (kBq)

1 kilobecquerel (kBq) = 27·027 nanocuries (nCi)

This product meets the quality assurance requirements of NRC Regulatory Guide 4.15 for achieving implicit NIST (NBS) traceability as defined in NCRP58 (1985).

Approved signatory

RC-5-024-061

W.F. Case

Amersham
The Health Science Group

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0134
Prepared By:	Angela Johnson
Carrier Conc:	DI WATER
Reference Date:	03/01/1996
Ampoule Mass (g):	5 g
Uncertainty:	+/- 2.5 %
LogBook No:	RC S 023 061

A Solution Material Info	
Isotope:	Tritium
Prepared By:	Angela Johnson
Prep Date:	02/21/2001
Verification Date:	09/10/2008
Expiration Date:	03/27/2010
Primary Code:	0134-A
Dilution(mL):	100 mL
Mass of Parent(g):	3.3659 g
Density(g/mL):	1.0004
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (100 mL) = 985535.5200 dpm/mL
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (1.0004 g/mL) / (100 mL) = 985180.3116 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/20/2004	Amanda Fehr	5.86	1000	0134-H	5773.1566 dpm/mL	07/25/2006	07/25/2007
12/20/2005	Amanda Fehr	5.5451	1000	0134-I	5462.92 dpm/mL	12/20/2006	12/20/2007
07/11/2007	Daniel Roy	5.5863	1000	0134-J	5503.5128 dpm/ml	07/29/2008	07/29/2009
03/25/2009	Mary Aders	5.4917	1000	0134-K	5410.3147 dpm/ml	03/27/2009	03/27/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for H-3 Standard 0134-K

M. Aders	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Mass. Used (mL)	Source DPM/mL
4/9/2009	0134-K N1	1097.2000	54.0000	1043.2000	0.380548	1.0000	2741.3099
	0134-K N2	1073.2000	54.0000	1019.2000	0.380548	1.0000	2678.242955
	0134-K N3	1085.2000	54.0000	1031.2000	0.380548	1.0000	2709.776428
						Average =	2709.776428
Mean Value (Counting) =	2709.776428		**104.954429**	**Pass**			
Stdev =	31.53347278		0.01163693	**Rule 3 (Pass/Fail)**			

Certificate Value =	2581.86	dpm/mL
Lower Limit =	2646.709482	dpm/mL
Upper Limit =	2772.843373	dpm/mL
Rule 1 Pass/Fail	**Fail**	***exception taken due to full recovery of standard**
Two sigma =	63.06694556	dpm/mL
10 % of Mean =	270.9776428	dpm/mL
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for H-3 source 0134-K by transferring 0.1 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on Silver for H-3 source standard verification. The H-3 efficiency calibration which was used for verification calculations was performed on 4/9/09 using 0020-A (H-3). Calibration data is recorded in this logbook under H-3 0020. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference RAD SOP M-001

Mary L. Adams 4/9/09
Amanda L. Fehr 4/9/09

National Institute of Standards & Technology

Certificate

1163

Standard Reference Material 4321C
Natural Uranium Radioactivity Standard

This Standard Reference Material (SRM) consists of a solution of a standardized and certified quantity of radioactive uranium-238, uranium-235, and uranium-234 in a suitably stable and homogeneous matrix. It is intended primarily for the calibration of instruments that are used to measure radioactivity and for the monitoring of radiochemical procedures. The solution, whose composition is specified in Table 1, is contained in a flame-sealed, 5 mL, NIST, borosilicate-glass ampoule (see Note 1)*.

The certified massic activities for the uranium isotopes at a Reference Time of 1200 EST, 1 August 1997, are:

Uranium-238: (242.0 ± 1.5) $Bq \cdot g^{-1}$

Uranium-235: (11.14 ± 0.07) $Bq \cdot g^{-1}$

Uranium-234: (233.1 ± 2.2) $Bq \cdot g^{-1}$

Additional physical, chemical, and radiological properties for the SRM, as well as details on the standardization method, are given in Table 1. Uncertainty intervals for certified quantities are expanded ($k = 2$) uncertainties calculated according to the ISO and NIST Guidelines (see Note 2). Table 2 contains a specification of the components that comprise the uncertainty analyses.

The certification of this SRM, within the measurement uncertainties specified, is valid for at least five (5) years after receipt. The solution matrix, in an unopened ampoule, is believed to be indefinitely homogeneous and stable, within its half-life-dependent, useful lifetime. NIST will monitor this material and will report any substantive changes in certification to the purchaser. Should any of the certified values change, purchasers of this SRM will be notified of the change by NIST.

This SRM may represent a radiological hazard and a chemical hazard. Consult the Material Safety Data Sheet (MSDS), enclosed with the SRM shipment, for details (see Note 1).

This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, Dr. M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by Dr. L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

Lisa R. Karam, Deputy Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
November 1997
Text revised and expiration date extended February 2007

Robert L. Watters, Jr., Chief
Measurement Services Division

RECEIVED 11/13/08

*Notes and references are on page 4

RC-5-048-044

Table 1. Properties of SRM 4321C

Certified values

Radionuclides	**Natural Uranium (Mixture of ^{238}U, ^{235}U, and ^{234}U)**
Reference time	**1200 EST, 1 August 1997**
Massic activities of the solution	**^{238}U : 242.0 Bq•g^{-1}** **^{235}U : 11.14 Bq•g^{-1}** **^{234}U : 233.1 Bq•g^{-1}**
Relative expanded uncertainties ($k = 2$)	**^{238}U : 0.60% (see Note 2)*** **^{235}U : 0.60% (see Note 2)** **^{234}U : 0.96% (see Note 2)**

Uncertified information

Source description	Liquid in flame-sealed, 5 mL NIST borosilicate ampoule (see Note 1)
Solution composition	1.0 mol•L^{-1} HCl with 30 mg $UO_2(NO_3)_2$ per gram of solution
Solution density	(1.053 ± 0.001) g•mL^{-1} at 21.4 °C (see Note 3)
Solution mass	(5.258 ± 0.002) g (see Note 3)
Mass fraction of uranium	(0.01960 ± 0.00010) g•g^{-1} (see Note 3)
Photon-emitting impurities	None detected (see Note 4)
Half-lifes used [1]	^{238}U : (4.468 ± 0.003) x 10^9 a ‡ ^{235}U : (7.038 ± 0.005) x 10^8 a ‡ ^{234}U : (2.455 ± 0.006) x 10^5 a ‡
Calibration method (and instruments)	The certified massic activity for natural uranium was obtained by mass spectrometer, silicon surface-barrier detector, and $4\pi\alpha\beta$ liquid scintillation (LS) counting systems.

‡ See Note 5

*Notes and references are on page 4

Table 2. Uncertainty evaluation for the massic activity for SRM 4321C

	Uncertainty component	Assessment Type†	Relative standard uncertainty contribution on massic activity of Natural Uranium (%)
1	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{238}U	A	0.001
2	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{235}U	A	0.07
3	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{234}U	A	0.3
4	Half life of ^{238}U; standard uncertainty of the half-life.	A	0.07
5	Half life of ^{235}U; standard uncertainty of the half-life	A	0.07
6	Half life of ^{234}U; standard uncertainty of the half-life	A	0.24
7	Uranium mass fraction in SRM 960; from SRM960 certificate	B	0.003
8	Quantitative dissolution	B	0.25
9	Gravimetric (mass) measurements	B	0.10
10	Limit for photon-emitting impurities	B	0.10
Relative combined standard uncertainty		^{238}U	**0.30**
		^{235}U	**0.30**
		^{234}U	**0.48**
Relative expanded uncertainty ($k = 2$)		^{238}U	**0.60**
		^{235}U	**0.60**
		^{234}U	**0.96**

† = (A) denotes evaluation by statistical methods; (B) denotes evaluation by other methods.

NOTES

Note 1. Refer to http://physics.nist.gov/Divisions/Div846/srm.html for the standardized ampoule dimensions and for assistance and instructions on how to properly open an ampoule. Information on additional storage and handling requirements is also included in the website.

Note 2. The uncertainties on certified values are expanded uncertainties, $U = ku_c$. The quantity u_c is the combined standard uncertainty calculated according to the ISO and NIST Guides (see references [2] and [3]). The combined standard uncertainty is multiplied by a coverage factor of $k = 2$ and was chosen to obtain an approximate 95 % level of confidence.

Note 3. The stated uncertainty is two times the standard uncertainty. See reference [3].

Note 4. The estimated lower limits of detection for photon-emitting impurities, expressed as massic photon emission rates are:

$1.4\ s^{-1} \cdot g^{-1}$ for 8 keV < E < 59 keV
$1.1\ s^{-1} \cdot g^{-1}$ for 67 keV < E < 88 keV
$0.5\ s^{-1} \cdot g^{-1}$ for 102 keV < E < 197 keV
$0.3\ s^{-1} \cdot g^{-1}$ for 205 keV < E < 762 keV
$0.2\ s^{-1} \cdot g^{-1}$ for 770 keV < E < 996 keV, and
$0.1\ s^{-1} \cdot g^{-1}$ for 1006 keV < E < 1900 keV

provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of ^{238}U, ^{235}U, ^{234}U, or their progeny.

Note 5. The stated uncertainty is the standard uncertainty. See reference [3].

REFERENCES

[1] Evaluated Nuclear Structure Data File (ENSDF), online database, National Nuclear Data Center, Brookhaven Laboratory (Upton, NY), August 2007. Refer to http://www.nndc.bnl.gov/ensdf/

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B. N. Taylor and C. E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1163
Prepared By:	Daniel Roy
Carrier Conc:	1M HCL
Reference Date:	08/01/1997
Ampoule Mass (g):	5.258 g
Uncertainty:	+/- .6 %
LogBook No:	RC-S-048-044

A Solution Material Info	
Isotope:	Uranium-238
Prepared By:	Daniel Roy
Prep Date:	02/23/2008
Verification Date:	10/21/2009
Expiration Date:	10/21/2010
Primary Code:	1163-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.118 g
Density(g/mL):	1.0327
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.118 g) * (242 Bq/g) * (60 dpm/Bq) / (100 mL) = 743.1336 dpm/mL
(5.118 g) * (242 Bq/g) * (60 dpm/Bq) / (1.0327 g/mL) / (100 mL) = 719.5817 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/23/2009	Julie Strock	.1	100	1163-090723-1		07/30/2008	07/30/2009
07/23/2009	Julie Strock	1	100	1163-090723-2		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.25	50	1163-090723-3		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.02	20	1163-090723-4		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.2	20	1163-090723-5		07/30/2008	07/30/2009
07/23/2009	Julie Strock	2	20	1163-090723-6		07/30/2008	07/30/2009
07/31/2009	James Schoneman	.1	100	1163-090731-1		08/07/2008	08/07/2009
07/31/2009	James Schoneman	1	100	1163-090731-2		08/07/2008	08/07/2009
07/31/2009	James Schoneman	.02	20	1163-090731-3		08/07/2008	08/07/2009
07/31/2009	James Schoneman	.2	20	1163-090731-4		08/07/2008	08/07/2009
07/31/2009	James Schoneman	2	20	1163-090731-5		08/07/2008	08/07/2009

08/05/2009	James Schoneman	.1	20	1163-090805-1	08/07/2008	08/07/2009
08/06/2009	James Schoneman	.02	20	1163-090806-1	08/07/2008	08/07/2009
08/06/2009	James Schoneman	.2	20	1163-090806-2	08/07/2008	08/07/2009
08/06/2009	James Schoneman	2	20	1163-090806-3	08/07/2008	08/07/2009
08/14/2009	James Schoneman	.1	100	1163-090814-1	08/21/2008	08/21/2009
08/14/2009	James Schoneman	1	100	1163-090814-2	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.02	20	1163-090814-3	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.2	20	1163-090814-4	08/21/2008	08/21/2009
08/14/2009	James Schoneman	2	20	1163-090814-5	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.01	20	1163-090814-6	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.05	25	13451163-090814-1	08/21/2008	08/21/2009
08/18/2009	James Schoneman	.1	20	1163-090818-1	08/21/2008	08/21/2009
08/18/2009	James Schoneman	2.5	25	1163-090818-2	08/21/2008	08/21/2009
08/21/2009	James Schoneman	.1	100	1163-090821-1	08/28/2008	08/28/2009
08/21/2009	James Schoneman	1	100	1163-090821-2	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.02	20	1163-090821-3	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.2	20	1163-090821-4	08/28/2008	08/28/2009
08/21/2009	James Schoneman	2	20	1163-090821-5	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.01	20	1163-090821-6	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.05	25	13451163-090821-1	08/28/2008	08/28/2009
08/28/2009	James Schoneman	.1	100	1163-090828-1	09/04/2008	09/04/2009

08/28/2009	James Schoneman	1	100	1163-090828-2		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.02	20	1163-090828-3		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.2	20	1163-090828-4		09/04/2008	09/04/2009
08/28/2009	James Schoneman	2	20	1163-090828-5		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.01	20	1163-090828-6		09/04/2008	09/04/2009
09/01/2009	James Schoneman	.01	20	1163-090901-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.01	20	1163-090902-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.01	20	1163-090902-2		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.05	25	11631345-090828-1		09/04/2008	09/04/2009
09/01/2009	James Schoneman	.05	25	11631345-090901-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.05	25	11631345-090902		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.05	25	11631345-090902-1		09/04/2008	09/04/2009
09/11/2009	James Schoneman	.1	100	1163-090911-1	999645.956 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	1	100	1163-090911-2	999.646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.02	20	1163-090911-3	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.2	20	1163-090911-4	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	2	20	1163-090911-5	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.01	20	1163-090911-6	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.02	20	1163-090916-1	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.2	20	1163-090916-2	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	2	20	1163-090916-3	9.99646 ug/L	09/18/2008	09/18/2009

09/16/2009	James Schoneman	.01	20	1163-090916-4	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.05	25	11631332-090916-1	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.05	25	11631345-090911-1	9.99646 ug/L	09/18/2008	09/18/2009
09/18/2009	James Schoneman	.1	20	1163-090918-1	999.646 ug/L	09/18/2008	09/18/2009
09/19/2009	James Schoneman	.1	100	1163-090919-1		09/26/2008	09/26/2009
09/19/2009	James Schoneman	1	100	1163-090919-2		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.02	20	1163-090919-3		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.2	20	1163-090919-4		09/26/2008	09/26/2009
09/19/2009	James Schoneman	2	20	1163-090919-5		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.01	20	1163-090919-6		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.05	25	11631332-090919-1		09/26/2008	09/26/2009
09/28/2009	James Schoneman	.1	100	1163-090928-1		10/05/2008	10/05/2009
09/28/2009	James Schoneman	1	100	1163-090928-2		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.02	20	1163-090928-3		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.2	20	1163-090928-4		10/05/2008	10/05/2009
09/28/2009	James Schoneman	2	20	1163-090928-5		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.01	20	1163-090928-6		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.05	25	11631332-090928-1		10/05/2008	10/05/2009
10/05/2009	James Schoneman	.1	100	1163-091005-1		10/12/2008	10/12/2009
10/05/2009	James Schoneman	1	100	1163-091005-2		10/12/2008	10/12/2009
10/05/2009	James Schoneman	.02	20	1163-091005-3		10/12/2008	10/12/2009

10/05/2009	James Schoneman	.2	20	1163-091005-4	10/12/2008	10/12/2009
10/05/2009	James Schoneman	2	20	1163-091005-5	10/12/2008	10/12/2009
10/05/2009	James Schoneman	.01	20	1163-091005-6	10/12/2008	10/12/2009
10/05/2009	James Schoneman	.05	25	11631332-091005	10/12/2008	10/12/2009
10/08/2009	James Schoneman	.1	20	1163-091008-1	10/12/2008	10/12/2009
10/09/2009	James Schoneman	.1	100	1163-091009-1	10/16/2008	10/16/2009
10/09/2009	James Schoneman	1	100	1163-091009-2	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.02	20	1163-091009-3	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.2	20	1163-091009-4	10/16/2008	10/16/2009
10/09/2009	James Schoneman	2	20	1163-091009-5	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.01	20	1163-091009-6	10/16/2008	10/16/2009
10/12/2009	James Schoneman	.01	20	1163-091012-1	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.05	25	11631332-091009-1	10/16/2008	10/16/2009
10/15/2009	James Schoneman	.1	100	1163-091015-1	10/22/2008	10/22/2009
10/15/2009	James Schoneman	1	100	1163-091015-2	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.02	20	1163-091015-3	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.2	20	1163-091015-4	10/22/2008	10/22/2009
10/15/2009	James Schoneman	2	20	1163-091015-5	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.01	20	1163-091015-6	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.05	25	11631332-091015	10/22/2008	10/22/2009
10/22/2009	James Schoneman	.1	100	1163-091022-1	10/29/2008	10/29/2009

10/22/2009	James Schoneman	1	100	1163-091022-2	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.2	20	1163-091022-4	10/29/2008	10/29/2009
10/22/2009	James Schoneman	2	20	1163-091022-5	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.01	20	1163-091022-6	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.05	25	11631332-091022-1	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.02	20	1163-091022-3	10/29/2008	10/29/2009
10/29/2009	James Schoneman	.1	100	1163-091029-1	11/05/2008	11/05/2009
10/29/2009	James Schoneman	1	100	1163-091029-2	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.02	20	1163-091029-3	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.2	20	1163-091029-4	11/05/2008	11/05/2009
10/29/2009	James Schoneman	2	20	1163-091029-5	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.01	20	1163-091029-6	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.05	25	11631332-091029	11/05/2008	11/05/2009
11/05/2009	James Schoneman	.1	100	1163-091105-1	11/12/2008	11/12/2009
11/05/2009	James Schoneman	1	100	1163-091105-2	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.02	20	1163-091105-3	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.2	20	1163-091105-4	11/12/2008	11/12/2009
11/05/2009	James Schoneman	2	20	1163-091105-5	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.01	20	1163-091105-6	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.05	25	11631332-091105-1	11/12/2008	11/12/2009
11/10/2009	James Schoneman	.1	20	1163-091110-1	11/12/2008	11/12/2009

11/12/2009	James Schoneman	.1	100	1163-091112-1	11/19/2008	11/19/2009
11/12/2009	James Schoneman	1	100	1163-091112-2	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.02	20	1163-091112-3	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.2	20	1163-091112-4	11/19/2008	11/19/2009
11/12/2009	James Schoneman	2	20	1163-091112-5	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.01	20	1163-091112-6	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.05	25	11631332-091112-1	11/19/2008	11/19/2009
11/18/2009	James Schoneman	.1	100	1163-091118-1	11/25/2008	11/25/2009
11/18/2009	James Schoneman	1	100	1163-091118-2	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.02	20	1163-091118-3	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.2	20	1163-091118-4	11/25/2008	11/25/2009
11/18/2009	James Schoneman	2	20	1163-091118-5	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.01	20	1163-091118-6	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.05	25	11631332-091118-1	11/25/2008	11/25/2009
11/30/2009	James Schoneman	.1	100	1163-091130-1	12/06/2008	12/06/2009
11/30/2009	James Schoneman	1	100	1163-091130-2	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.02	20	1163-091130-3	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.2	20	1163-091130-4	12/06/2008	12/06/2009
11/30/2009	James Schoneman	2	20	1163-091130-5	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.01	20	1163-091130-6	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.05	25	11631332-091130-1	12/06/2008	12/06/2009

12/07/2009	James Schoneman	.1	100	1163-091207-1		12/14/2008	12/14/2009
12/07/2009	James Schoneman	1	100	1163-091207-2		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.02	20	1163-091207-3		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.2	20	1163-091207-4		12/14/2008	12/14/2009
12/07/2009	James Schoneman	2	20	1163-091207-5		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.01	20	1163-091207-6		12/14/2008	12/14/2009
12/09/2009	James Schoneman	.01	20	1163-091209-1		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.02	20	1163-091210-2		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.2	20	1163-091210-3		12/14/2008	12/14/2009
12/10/2009	James Schoneman	2	20	1163-091210-4		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.05	25	11631332-091207-1		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.1	20	1163-091210-1		12/14/2008	12/14/2009
12/11/2009	James Schoneman	.1	100	1163-091211-1		12/18/2008	12/18/2009
12/11/2009	James Schoneman	1	100	1163-091211-2		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.02	20	1163-091211-3		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.2	20	1163-091211-4		12/18/2008	12/18/2009
12/11/2009	James Schoneman	2	20	1163-091211-5		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.01	20	1163-091211-6		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.05	25	11631333-091211-1		12/18/2008	12/18/2009
02/27/2008	Daniel Roy	8.0851	100	1163-B	58.1789 dpm/ml	03/01/2008	03/01/2009
02/27/2008	Daniel Roy	8.1015	100	1163-C	58.2969 dpm/ml	03/01/2008	03/01/2009

04/16/2008	Julie Strock	.5619	100	1163-D	4.0433 dpm/mL	04/16/2008	04/16/2009
07/10/2008	Daniel Roy	20.0175	250	1163-E	57.6169 dpm/ml	07/13/2008	07/13/2009
01/05/2009	Tina Schoneman	.519	100	1163-F	3.7346 dpm/mL	01/05/2009	01/05/2010
04/16/2009	Mary Aders	19.4278	250	1163-G	55.9196 dpm/ml	04/16/2009	04/16/2010
10/21/2009	Mary Aders	20.008	250	1163-H	57.5896 dpm/mL	10/21/2009	10/21/2010
08/01/1997	Julie Strock	7.379	250	1163-I	21.2392 dpm/mL	12/07/2009	12/02/2010
08/01/1997	Julie Strock	.106	375	1163-J	.2034 dpm/mL	12/07/2009	12/02/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Uranium-238 Standard *1163-H*

Analyst: M. Aders	Serial #	Value	Uncertainty
Date: 10/21/2009	1163-H N1	2.660	0.510
	1163-H N2	2.460	0.469
	1163-H N3	2.530	0.409

Mean Value (Counting) =	2.550	98.298998	Pass
Stdev =	0.101488916		Rule 3 (Pass/Fail)
Target =	2.594		
Lower Limit =	2.347022169		
Upper Limit =	2.752977831		
Rule 1 Pass/Fail	Pass		
Two sigma =	0.202977831		
10 % of Mean =	0.255		
Rule 2 (Pass/Fail)	Pass		

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1163-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-232** standard **1283-E** and was diluted to 10 mL with Di water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

10/20/09
11/2/09

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
Fax 404-352-2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20483 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

End of Certificate

RECEIVED 12/15/08
RC-S-05

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/30/2008	12/30/2009
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/09/2009	12/30/2009
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	Serial #	Value		Uncertainty	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Drochter AMS 12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: LSC **Batch ID: 935220**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243009002	SAMPLE	EXK2	LSCGOLD	23-DEC-09 11:06	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
243009004	SAMPLE	EXK2	LSCGOLD	23-DEC-09 13:10	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
243285001	SAMPLE	EXK2	LSCGOLD	23-DEC-09 15:13	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
1202000986	MB	EXK2	LSCGOLD	23-DEC-09 17:17	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
1202000987	DUP	EXK2	LSCGOLD	23-DEC-09 19:20	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
1202000988	MS	EXK2	LSCGOLD	23-DEC-09 21:22	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00
1202000989	LCS	EXK2	LSCGOLD	23-DEC-09 21:39	DONE	10mL DW/13mL Ecoscint Ultra	20-AUG-09 00:00

Instrument Run Log

Instrument Type: GFPC **Batch ID: 935330**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
242934001	SAMPLE	DXB5	PIC11C	28-DEC-09 10:23	DONE	2 inch Planchett	31-JUL-09 00:00
243014001	SAMPLE	DXB5	PIC11D	28-DEC-09 10:23	DONE	2 inch Planchett	31-JUL-09 00:00
243255001	SAMPLE	DXB5	PIC12C	28-DEC-09 10:23	DONE	2 inch Planchett	31-JUL-09 00:00
243255004	SAMPLE	DXB5	PIC12D	28-DEC-09 10:23	DONE	2 inch Planchett	31-JUL-09 00:00
1202001335	MB	DXB5	PIC14A	28-DEC-09 10:24	DONE	2 inch Planchett	31-JUL-09 00:00
1202001336	DUP	DXB5	PIC14C	28-DEC-09 10:24	DONE	2 inch Planchett	31-JUL-09 00:00
1202001337	MS	DXB5	PIC14D	28-DEC-09 10:24	DONE	2 inch Planchett	31-JUL-09 00:00
243285001	SAMPLE	DXB5	PIC13B	28-DEC-09 10:24	DONE	2 inch Planchett	31-JUL-09 00:00
243286002	SAMPLE	DXB5	PIC13C	28-DEC-09 10:25	DONE	2 inch Planchett	31-JUL-09 00:00
243286003	SAMPLE	DXB5	PIC13D	28-DEC-09 10:25	DONE	2 inch Planchett	31-JUL-09 00:00
243255006	SAMPLE	DXB5	PIC13A	28-DEC-09 10:25	DONE	2 inch Planchett	31-JUL-09 00:00
1202001338	MSD	DXB5	PIC4A	28-DEC-09 12:00	DONE	2 inch Planchett	31-JUL-09 00:00
1202001339	LCS	DXB5	PIC4D	28-DEC-09 12:00	DONE	2 inch Planchett	31-JUL-09 00:00
243104002	SAMPLE	DXB5	PIC11D	28-DEC-09 15:55	DONE	2 inch Planchett	31-JUL-09 00:00
243255004	SAMPLE	DXB5	PIC6D	29-DEC-09 12:24	DONE	2 inch Planchett	31-JUL-09 00:00
243255006	SAMPLE	DXB5	PIC7A	29-DEC-09 12:24	DONE	2 inch Planchett	31-JUL-09 00:00
243285001	SAMPLE	DXB5	PIC7B	29-DEC-09 12:24	DONE	2 inch Planchett	31-JUL-09 00:00
243286002	SAMPLE	DXB5	PIC7D	29-DEC-09 12:24	DONE	2 inch Planchett	31-JUL-09 00:00
1202001335	MB	DXB5	PIC8B	29-DEC-09 12:25	DONE	2 inch Planchett	31-JUL-09 00:00
1202001336	DUP	DXB5	PIC8C	29-DEC-09 12:25	DONE	2 inch Planchett	31-JUL-09 00:00
1202001337	MS	DXB5	PIC9A	29-DEC-09 12:25	DONE	2 inch Planchett	31-JUL-09 00:00
1202001338	MSD	DXB5	PIC9C	29-DEC-09 12:25	DONE	2 inch Planchett	31-JUL-09 00:00
1202001339	LCS	DXB5	PIC10A	29-DEC-09 12:25	DONE	2 inch Planchett	31-JUL-09 00:00
242934001	SAMPLE	DXB5	PIC10C	29-DEC-09 16:14	DONE	2 inch Planchett	31-JUL-09 00:00
243104002	SAMPLE	DXB5	PIC7A	29-DEC-09 16:15	DONE	2 inch Planchett	31-JUL-09 00:00
243014001	SAMPLE	DXB5	PIC12C	29-DEC-09 16:15	DONE	2 inch Planchett	31-JUL-09 00:00
243255001	SAMPLE	DXB5	PIC5B	29-DEC-09 16:16	DONE	2 inch Planchett	31-JUL-09 00:00
243286003	SAMPLE	DXB5	PIC8C	29-DEC-09 16:16	DONE	2 inch Planchett	31-JUL-09 00:00

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 935338**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243014001	SAMPLE	KXG3	GAM04	30-DEC-09 18:38	DONE	2LMB	26-MAY-09 00:00
243104002	SAMPLE	KXG3	GAM10	30-DEC-09 18:38	DONE	2LMB	25-FEB-09 00:00
243255001	SAMPLE	KXG3	GAM12	30-DEC-09 18:39	DONE	2LMB	09-FEB-09 00:00
243286002	SAMPLE	KXG3	GAM16	30-DEC-09 18:39	DONE	2LMB	16-NOV-09 00:00
1202001368	LCS	KXG3	GAM01	30-DEC-09 22:03	DONE	2LMB	30-JAN-09 00:00
243255004	SAMPLE	KXG3	GAM06	30-DEC-09 22:40	DONE	2LMB	04-FEB-09 00:00
243255006	SAMPLE	KXG3	GAM07	30-DEC-09 22:41	DONE	2LMB	20-JUL-09 00:00
243285001	SAMPLE	KXG3	GAM10	30-DEC-09 22:41	DONE	2LMB	25-FEB-09 00:00
243286003	SAMPLE	KXG3	GAM11	30-DEC-09 22:42	DONE	2LMB	18-NOV-09 00:00
1202001366	MB	KXG3	GAM14	30-DEC-09 22:43	DONE	2LMB	09-MAR-09 00:00
1202001367	DUP	KXG3	GAM19	30-DEC-09 22:43	DONE	2LMB	11-MAR-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 935840**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202002417	MB	MXA1	1028	31-DEC-09 07:49	DONE		
1202002418	DUP	MXA1	1029	31-DEC-09 07:49	DONE		
1202002419	LCS	MXA1	1030	31-DEC-09 07:49	DONE		
243255001	SAMPLE	MXA1	1007	31-DEC-09 07:49	DONE		
243255004	SAMPLE	MXA1	1008	31-DEC-09 07:49	DONE		
243255006	SAMPLE	MXA1	1009	31-DEC-09 07:49	DONE		
243285001	SAMPLE	MXA1	1010	31-DEC-09 07:49	DONE		
243286002	SAMPLE	MXA1	1011	31-DEC-09 07:49	DONE		
243286003	SAMPLE	MXA1	1012	31-DEC-09 07:49	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 935841**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243255001	SAMPLE	MXA1	1019	31-DEC-09 07:49	DONE		
243255004	SAMPLE	MXA1	1020	31-DEC-09 07:49	DONE		
243255006	SAMPLE	MXA1	1021	31-DEC-09 07:49	DONE		
243285001	SAMPLE	MXA1	1022	31-DEC-09 07:49	DONE		
243286002	SAMPLE	MXA1	1023	31-DEC-09 07:49	DONE		
243286003	SAMPLE	MXA1	1024	31-DEC-09 07:49	DONE		
1202002420	MB	MXA1	1025	31-DEC-09 07:49	DONE		
1202002421	DUP	MXA1	1026	31-DEC-09 07:49	DONE		
1202002422	LCS	MXA1	1027	31-DEC-09 07:49	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 935842**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243255001	SAMPLE	MXA1	1113	31-DEC-09 16:57	DONE		
243255004	SAMPLE	MXA1	1114	31-DEC-09 16:57	DONE		
243255006	SAMPLE	MXA1	1115	31-DEC-09 16:57	DONE		
243285001	SAMPLE	MXA1	1117	31-DEC-09 16:57	DONE		
243286002	SAMPLE	MXA1	1118	31-DEC-09 16:57	DONE		
243286003	SAMPLE	MXA1	1119	31-DEC-09 16:57	DONE		
1202002423	MB	MXA1	1120	31-DEC-09 16:57	DONE		
1202002424	DUP	MXA1	1121	31-DEC-09 16:57	DONE		
1202002425	LCS	MXA1	1122	31-DEC-09 16:57	DONE		

Instrument Run Log

Instrument Type: GFPC **Batch ID: 937917**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202007051	MB	MXB1	PIC10C	07-JAN-10 20:01	DONE	Tuffryn Filter	01-JAN-09 00:00
1202007053	MS	MXB1	PIC5D	07-JAN-10 20:01	DONE	Tuffryn Filter	01-JAN-09 00:00
1202007054	LCS	MXB1	PIC6D	07-JAN-10 20:01	DONE	Tuffryn Filter	01-JAN-09 00:00
242934001	SAMPLE	MXB1	PIC7A	07-JAN-10 20:02	DONE	Tuffryn Filter	01-JAN-09 00:00
243014001	SAMPLE	MXB1	PIC7B	07-JAN-10 20:02	DONE	Tuffryn Filter	01-JAN-09 00:00
243104002	SAMPLE	MXB1	PIC7D	07-JAN-10 20:02	DONE	Tuffryn Filter	01-JAN-09 00:00
243255001	SAMPLE	MXB1	PIC8B	07-JAN-10 20:03	DONE	Tuffryn Filter	01-JAN-09 00:00
243255006	SAMPLE	MXB1	PIC9A	07-JAN-10 20:03	DONE	Tuffryn Filter	01-JAN-09 00:00
243285001	SAMPLE	MXB1	PIC9C	07-JAN-10 20:03	DONE	Tuffryn Filter	01-JAN-09 00:00
1202007052	DUP	MXB1	PIC8C	07-JAN-10 20:05	DONE	Tuffryn Filter	01-JAN-09 00:00
243255004	SAMPLE	MXB1	PIC5A	07-JAN-10 20:05	DONE	Tuffryn Filter	01-JAN-09 00:00
243286002	SAMPLE	MXB1	PIC10A	08-JAN-10 09:35	DUSE	Tuffryn Filter	01-JAN-09 00:00
243286003	SAMPLE	MXB1	PIC10C	08-JAN-10 09:35	DUSE	Tuffryn Filter	01-JAN-09 00:00

Friday, December 18, 2009

REQUEST NUMBER: 10-994

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-994

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/18/2009

TURNAROUND/REPORT DUE: 1/17/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:351.2	1	CAPA-10-6793	WG	12/17/2009	
	SW-846:8081A	1	CAPA-10-6793	WG	12/17/2009	
		2	CAPA-10-6793	WG	12/17/2009	
	SW-846:8082	1	CAPA-10-6793	WG	12/17/2009	
		2	CAPA-10-6793	WG	12/17/2009	
	SW-846:8260B	1	CAPA-10-6793	WG	12/17/2009	
		2	CAPA-10-6793	WG	12/17/2009	
		1	CAPA-10-6795	WG	12/17/2009	
	SW-846:8270C	1	CAPA-10-6793	WG	12/17/2009	

Friday, December 18, 2009

REQUEST NUMBER: 10-994

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	2	CAPA-10-6793	WG	12/17/2009	
	SW-846:8321A_MOD	1	CAPA-10-6793	WG	12/17/2009	
		2	CAPA-10-6793	WG	12/17/2009	
	SW-846:9060	1	CAPA-10-6793	WG	12/17/2009	

Final Page of REQUEST NUMBER 10-994

Friday, December 18, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-994

REQUEST NUMBER: 10-994

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/17/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6793	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6793	2	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6793	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6793	2	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6793	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6793	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6793	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6793	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6793	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6793	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6793	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6795	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG

Relinquished By:		Date	Time	Received By:		Date	Time
		12/18/09	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6793 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/17/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1257	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-38		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2 ~~3~~	DW 12/17/09	WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
2 ~~3~~	DW 12/17/09	WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH <2
2 ~~3~~	DW 12/17/09	WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
2 ~~3~~	DW 12/17/09	WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH >12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	pH <2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2
1		WSP-H-3	250 ML AMBER GLASS	Ice	Y	Analysis by direct count with 10-day turnaround.

SAMPLE DESC:

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH (STV)	Temp (oC)	SC (µS/cm)	DO (mg/L)	Turb. (NTU)	ORP (mV)	Q (gpm)
~~1.38~~ 7.32	18.18	152	6.47	1.29	89.2	2.5

DW 12/17/09

COLLECTED BY (PRINT) J Berryhill, D. Wooly

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Wooly	12/17/09	(Printed Name) Sherri Sherwood	12/17/09
(Signature) D. Wooly	1430	(Signature) Sherri Sherwood	1430
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6794 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/17/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1257	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-38		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / (NA)

BOREHOLE: YES / NO (NA) **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH<2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC:

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

See ~~Samo Dw 12/0~~ CAPA-10-6793
JW 12/17/09

COLLECTED BY (PRINT) J Berryhill, D Waldy

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Waldy	12/17/09	(Printed Name) Sherri Sherwood	12/17/09
(Signature) D. Waldy	1430	(Signature) Sherri Sherwood	1430
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6795 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/17/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1257	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-38		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / (NA)		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / (NA)

BOREHOLE: YES / NO / (NA) **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2

SAMPLE DESC: QC Sample of CAPA-10-6793

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, D. Wooly **REVIEWED BY (PRINT)** J. Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Wooly	12/17/09	(Printed Name) Sherri Sherwood	12/17/09
(Signature) D. Wooly	1430	(Signature) Sherri Sherwood	1430
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-994 VALIDATION DATE: 2/4/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): VOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICAL and/or ICV/CCV RRFs for acetonitrile; n-butyl alcohol; propionitrile; and isobutyl alcohol were <0.05. The associated sample results were NDs and, thus, were qualified R,V7b. In the CCV associated with sample CAPA-10-6795, the acrolein RRF was also <0.05. The associated sample result was an ND and, thus, was qualified R,V7b.
2. Hexachlorobutadiene was detected in the MB associated with sample -6795. The associated sample result was an ND and, thus, was not qualified.
3. Methylene chloride was detected in FTB -6795. The associated field sample result was an ND and, thus, was not qualified.
4. In the ICV/CCV associated with sample -6793, the %Ds for trichlorotrifluoroethane and acetonitrile were >20%.The associated sample results were NDs and, thus, were qualified UJ,V7c. In the ICV/CCV associated with sample -6795, the %Ds for dichlorodifluoromethane; ethyl methacrylate; and acetonitrile were >20%. The associated sample results were NDs and, thus, were qualified UJ,V7c.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/05/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 2/4/10

DATA VALIDATION COVER SHEET

5114-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943
Form 5114-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☒	☐	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2 Volatile Organic Compound (VOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☒	☐	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☒	☐	☐	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994	Date Collected:	12/17/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243283003	Date Received:	12/19/2009 09:05		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6793	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	937175	Inst:	VOA9.I	Dilution:	1
Run Date:	12/29/2009 15:32	Analyst:	RXY1	Purge Vol:	5 mL
Prep Date:	12/29/2009 15:32				
Data File:	9r209.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0 R,V7b
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0 R,V7b
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	J	0.478	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	J	0.552	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

AMF
2/4/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994	Date Collected:	12/17/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243283003	Date Received:	12/19/2009 09:05		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6793	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	937175	Inst:	VOA9.I	Dilution:	1
Run Date:	12/29/2009 15:32	Analyst:	RXY1	Purge Vol:	5 mL
Prep Date:	12/29/2009 15:32				
Data File:	9r209.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00 UJ,V7c
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00 R,V7b
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0 R,V7b
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

AMF
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994	Date Collected:	12/17/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243283003	Date Received:	12/19/2009 09:05		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6793	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	937175	Inst:	VOA9.I	Dilution:	1
Run Date:	12/29/2009 15:32	Analyst:	RXY1	Purge Vol:	5 mL
Prep Date:	12/29/2009 15:32				
Data File:	9r209.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	57.6	50.0	ug/L	115	(59%-130%)
Bromofluorobenzene	44.8	50.0	ug/L	89.5	(71%-126%)
Toluene-d8	50.3	50.0	ug/L	101	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.47	5.9	ug/L		J
	Unknown	4.55	12.5	ug/L		J

AMF
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994	Date Collected:	12/17/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243283005	Date Received:	12/19/2009 09:05		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6795	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	937175	Inst:	VOA9.I	Dilution:	1
Run Date:	12/30/2009 01:10	Analyst:	RXY1	Purge Vol:	5 mL
Prep Date:	12/30/2009 01:10				
Data File:	9r230.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00 UJ,V7c
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0 R,V7b
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	J	3.87	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0 R,V7b
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

AMF
2/4/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994	Date Collected:	12/17/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243283005	Date Received:	12/19/2009 09:05		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6795	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	937175	Inst:	VOA9.I	Dilution:	1
Run Date:	12/30/2009 01:10	Analyst:	RXY1	Purge Vol:	5 mL
Prep Date:	12/30/2009 01:10				
Data File:	9r230.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00 R,V7b
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00 R,V7b
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0 R,V7b
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

AMF
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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994	Date Collected:	12/17/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243283005	Date Received:	12/19/2009 09:05		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6795	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	937175	Inst:	VOA9.I	Dilution:	1
Run Date:	12/30/2009 01:10	Analyst:	RXY1	Purge Vol:	5 mL
Prep Date:	12/30/2009 01:10				
Data File:	9r230.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00 UJ,V7c
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	62.3	50.0	ug/L	125	(59%-130%)
Bromofluorobenzene	56.0	50.0	ug/L	112	(71%-126%)
Toluene-d8	56.2	50.0	ug/L	112	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.55	5.37	ug/L		J

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DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-994 VALIDATION DATE: 2/4/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): SVOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICAL and/or ICV/CCV RRF for atrazine was <0.05. The associated sample result was an ND and, thus, was qualified R,SV7b.
2. The ICV/CCV %Ds for hexachlorocyclopentadiene; benzidine; and 1,4-dioxane were >20%. The associated sample results were NDs and, thus, were qualified UJ,SV7c.
3. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN and that the raw data for the parent sample was not included in the data package. In addition, six target analytes were not present in the LCS/MS/MSD spiking solution. No sample results were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/05/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 2/4/10

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2 Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☒	☐	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2 Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2 Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☒	☐	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☒	☐	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994	Date Collected:	12/17/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243283003	Date Received:	12/19/2009 09:05		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6793	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	936197	Inst:	MSD6.I	Dilution:	1
Run Date:	01/06/2010 13:14	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/23/2009 22:13	Aliquot:	960 mL	Final Volume:	1 mL
Data File:	s6a0610.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.4	ug/L	2.08	10.4
108-95-2	Phenol	U	10.4	ug/L	1.04	10.4
95-57-8	2-Chlorophenol	U	10.4	ug/L	2.08	10.4
106-46-7	1,4-Dichlorobenzene	U	10.4	ug/L	2.08	10.4
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	10.4	ug/L	2.08	10.4
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	10.4	ug/L	2.08	10.4
83-32-9	Acenaphthene	U	1.04	ug/L	0.323	1.04
121-14-2	2,4-Dinitrotoluene	U	10.4	ug/L	2.08	10.4
100-02-7	4-Nitrophenol	U	10.4	ug/L	2.08	10.4
87-86-5	Pentachlorophenol	U	10.4	ug/L	2.08	10.4
129-00-0	Pyrene	U	1.04	ug/L	0.313	1.04
110-86-1	Pyridine	U	10.4	ug/L	3.13	10.4
62-53-3	Aniline	U	10.4	ug/L	2.60	10.4
111-44-4	bis(2-Chloroethyl) ether	U	10.4	ug/L	2.08	10.4
541-73-1	1,3-Dichlorobenzene	U	10.4	ug/L	2.08	10.4
100-51-6	Benzyl alcohol	U	10.4	ug/L	2.08	10.4
95-50-1	1,2-Dichlorobenzene	U	10.4	ug/L	2.08	10.4
108-60-1	bis(2-Chloroisopropyl)ether	U	10.4	ug/L	2.08	10.4
95-48-7	o-Cresol	U	10.4	ug/L	2.08	10.4
65794-96-9	m,p-Cresols	U	10.4	ug/L	3.13	10.4
67-72-1	Hexachloroethane	U	10.4	ug/L	2.08	10.4
98-95-3	Nitrobenzene	U	10.4	ug/L	3.13	10.4
78-59-1	Isophorone	U	10.4	ug/L	3.13	10.4
88-75-5	2-Nitrophenol	U	10.4	ug/L	2.08	10.4
105-67-9	2,4-Dimethylphenol	U	10.4	ug/L	2.08	10.4
111-91-1	bis(2-Chloroethoxy)methane	U	10.4	ug/L	3.13	10.4
120-83-2	2,4-Dichlorophenol	U	10.4	ug/L	2.08	10.4
65-85-0	Benzoic acid	U	20.8	ug/L	6.25	20.8
91-20-3	Naphthalene	U	1.04	ug/L	0.313	1.04
106-47-8	4-Chloroaniline	U	10.4	ug/L	2.08	10.4
87-68-3	Hexachlorobutadiene	U	10.4	ug/L	2.08	10.4
91-57-6	2-Methylnaphthalene	U	1.04	ug/L	0.313	1.04
90-12-0	1-Methylnaphthalene	U	1.04	ug/L	0.313	1.04
77-47-4	Hexachlorocyclopentadiene	U	10.4	ug/L	3.13	10.4 UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	10.4	ug/L	2.08	10.4
95-95-4	2,4,5-Trichlorophenol	U	10.4	ug/L	2.08	10.4
91-58-7	2-Chloronaphthalene	U	1.04	ug/L	0.313	1.04

AMF
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994	Date Collected:	12/17/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243283003	Date Received:	12/19/2009 09:05		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6793	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	936197	Inst:	MSD6.I	Dilution:	1
Run Date:	01/06/2010 13:14	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/23/2009 22:13	Aliquot:	960 mL	Final Volume:	1 mL
Data File:	s6a0610.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.4	ug/L	2.08	10.4	
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.4	ug/L	2.08	10.4	
131-11-3	Dimethylphthalate	U	10.4	ug/L	2.08	10.4	
606-20-2	2,6-Dinitrotoluene	U	10.4	ug/L	2.08	10.4	
208-96-8	Acenaphthylene	U	1.04	ug/L	0.208	1.04	
51-28-5	2,4-Dinitrophenol	U	20.8	ug/L	5.21	20.8	
132-64-9	Dibenzofuran	U	10.4	ug/L	2.08	10.4	
84-66-2	Diethylphthalate	U	10.4	ug/L	2.08	10.4	
86-73-7	Fluorene	U	1.04	ug/L	0.208	1.04	
7005-72-3	4-Chlorophenylphenylether	U	10.4	ug/L	2.08	10.4	
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.4	ug/L	3.13	10.4	
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.4	ug/L	3.13	10.4	
122-39-4	Diphenylamine	U	10.4	ug/L	3.13	10.4	
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	10.4	ug/L	2.08	10.4	
101-55-3	4-Bromophenylphenylether	U	10.4	ug/L	2.08	10.4	
118-74-1	Hexachlorobenzene	U	10.4	ug/L	2.08	10.4	
1912-24-9	Atrazine	U	10.4	ug/L	3.13	10.4	R,SV7b
85-01-8	Phenanthrene	U	1.04	ug/L	0.208	1.04	
120-12-7	Anthracene	U	1.04	ug/L	0.208	1.04	
84-74-2	Di-n-butylphthalate	U	10.4	ug/L	2.08	10.4	
206-44-0	Fluoranthene	U	1.04	ug/L	0.208	1.04	
92-87-5	Benzidine	U	10.4	ug/L	3.13	10.4	UJ,SV7c
85-68-7	Butylbenzylphthalate	U	10.4	ug/L	2.08	10.4	
56-55-3	Benzo(a)anthracene	U	1.04	ug/L	0.208	1.04	
91-94-1	3,3'-Dichlorobenzidine	U	10.4	ug/L	2.08	10.4	
218-01-9	Chrysene	U	1.04	ug/L	0.208	1.04	
117-81-7	bis(2-Ethylhexyl)phthalate	J	5.57	ug/L	2.08	10.4	
117-84-0	Di-n-octylphthalate	U	10.4	ug/L	3.13	10.4	
205-99-2	Benzo(b)fluoranthene	U	1.04	ug/L	0.208	1.04	
207-08-9	Benzo(k)fluoranthene	U	1.04	ug/L	0.208	1.04	
50-32-8	Benzo(a)pyrene	U	1.04	ug/L	0.208	1.04	
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.04	ug/L	0.208	1.04	
53-70-3	Dibenzo(a,h)anthracene	U	1.04	ug/L	0.208	1.04	
191-24-2	Benzo(ghi)perylene	U	1.04	ug/L	0.208	1.04	
123-91-1	1,4-Dioxane	U	10.4	ug/L	2.08	10.4	UJ,SV7c
55-18-5	N-Nitrosodiethylamine	U	10.4	ug/L	2.08	10.4	

AMF
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994	Date Collected:	12/17/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243283003	Date Received:	12/19/2009 09:05		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6793	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	936197	Inst:	MSD6.I	Dilution:	1
Run Date:	01/06/2010 13:14	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/23/2009 22:13	Aliquot:	960 mL	Final Volume:	1 mL
Data File:	s6a0610.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.4	ug/L	2.08	10.4
924-16-3	N-Nitrosodi-n-butylamine	U	10.4	ug/L	3.13	10.4
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.4	ug/L	3.13	10.4
608-93-5	Pentachlorobenzene	U	10.4	ug/L	3.13	10.4
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.4	ug/L	2.08	10.4
88-85-7	Dinoseb	U	10.4	ug/L	2.08	10.4
120-82-1	1,2,4-Trichlorobenzene	U	10.4	ug/L	2.08	10.4

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	107	104	ug/L	103	(39%-115%)
2-Fluorobiphenyl	40.0	52.1	ug/L	76.9	(35%-100%)
2-Fluorophenol	46.7	104	ug/L	44.8	(25%-92%)
Nitrobenzene-d5	40.7	52.1	ug/L	78.1	(40%-112%)
Phenol-d5	29.7	104	ug/L	28.6	(15%-73%)
p-Terphenyl-d14	51.4	52.1	ug/L	98.7	(46%-130%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
80-05-7	Phenol, 4,4'-(1-methylethylidene)bis-	11.08	12.7	ug/L	98	NJ
1000314-84-4	Phthalic acid, 4-octyl undecyl ester	16.56	8.79	ug/L	83	NJ
1000308-92-8	Phthalic acid, hexadecyl pentyl ester	17.2	46.9	ug/L	80	NJ

AMF
2/4/10

DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-994 VALIDATION DATE: 2/4/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☒ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV/CCV %DS for RDX; 2,4,6-trinitrotoluene; and 4-amino-2,6-dinitrotoluene were >20% with positive bias. The associated sample results were NDs and, thus, were not qualified.

2. MS/MSD analyses were not performed. AN LCSD was analyzed to provide precision data, and met RPD acceptance limits with the exceptions of 4-amino-2,6-dinitrotoluene and PETN. The associated sample results were NDs and, thus, were qualified UJ,HE12g.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/05/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 2/4/10

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
☐	☐	☒	3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
☐	☐	☒	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
☐	☐	☒	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
☐	☒	☐	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
☐	☒	☐	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
☐	☒	☐	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
☐	☐	☒	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 LC/MS/MS High Explosive Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1942

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	11. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE3d	R, HE3d
☐	☒	☐	12. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, HE4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, HE4a
☐	☐	☒	14. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, HE4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE4e	R, HE4e
☐	☒	☐	16. The absence of sample carry-over must be determined and verified.	N/A	R, N, HE4f
☐	☒	☐	17. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, HE7	J, HE7
☐	☒	☐	18. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less < 0.99.	UJ, R, HE7a	J, HE7a
☐	☒	☐	19. The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV.	UJ, R, HE7b	J, HE7b
☒	☐	☐	20. The ICV and/or CCV were recovered outside the method limits.	UJ, R, HE7c	J, HE7c
☐	☒	☐	21. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, HE7d	J, HE7d
☐	☒	☐	22. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, HE7f	R, HE7f

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 LC/MS/MS High Explosive Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1952

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
☐	☒	☐	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
☐	☒	☐	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
☐	☒	☐	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
☐	☒	☐	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
☐	☒	☐	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
☐	☒	☐	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
☐	☐	☒	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
☐	☐	☒	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
☐	☐	☒	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
☒	☐	☐	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
☐	☐	☒	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, HE15	R, HE15
☐	☐	☒	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
☐	☐	☒	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6793

Lab Code: GEL

GEL Job No (SDG) 10-994

Matrix: GROUND WATER

GEL Sample ID: 243283004

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 19-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 935227

Concentrated Extract Volume (mL) 5

Date Extracted: 23-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0112074a

Date Analyzed: 14-JAN-10 03:49

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	U
121-14-2	2,4-Dinitrotoluene	0.325	U
121-82-4	RDX	0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene UJ,HE12g	0.325	U
2691-41-0	HMX	0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	U
479-45-8	Tetryl	0.649	U
606-20-2	2,6-Dinitrotoluene	0.325	U
78-11-5	PETN UJ,HE12g	1.3	U
88-72-2	o-Nitrotoluene	0.325	U
98-95-3	Nitrobenzene	0.325	U
99-08-1	m-Nitrotoluene	0.325	U
99-35-4	1,3,5-Trinitrobenzene	0.325	U
99-65-0	m-Dinitrobenzene	0.325	U
99-99-0	p-Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

AMF
2/4/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6793

Lab Code: GEL

GEL Job No (SDG) 10-994

Matrix: GROUND WATER

GEL Sample ID: 243283004

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 19-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 935227

Concentrated Extract Volume (mL) 5

Date Extracted: 23-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01040047.wiff

Date Analyzed: 05-JAN-10 03:43

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

AMF
2/4/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-994 VALIDATION DATE: 2/4/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): Pesticides

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV/CCV %Ds for gamma-chlordane were >15% on both columns. The associated sample result was an ND and, thus, was qualified UJ,P7c. The ICV/CCV %D for endosulfan I was >15% on one column only. The associated sample result was an ND and, thus, was not qualified.

2. The MS/MSD RPDs for fourteen target analytes were > the laboratory acceptance limits. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN and that the raw data for the parent sample was not included in the data package. MS/MSD analyses are not required for Pesticides, thus, no sample results were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/05/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 2/4/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☒	☐	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**	**Date Collected:**	**12/17/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243283001**	**Date Received:**	**12/19/2009 09:05**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6793**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**935414**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 17:50**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/21/2009 19:38**	**Aliquot:**	**980 mL**	**Final Volume:**	**5 mL**
Data File:	**023f2301.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	023b2301.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.0204	ug/L	0.0051	0.0204	1
58-89-9	gamma-BHC (Lindane)	U	0.0204	ug/L	0.0051	0.0204	1
319-85-7	beta-BHC	U	0.0204	ug/L	0.00612	0.0204	1
319-86-8	delta-BHC	U	0.0204	ug/L	0.0051	0.0204	1
76-44-8	Heptachlor	U	0.0204	ug/L	0.0051	0.0204	1
309-00-2	Aldrin	U	0.0204	ug/L	0.0051	0.0204	1
1024-57-3	Heptachlor epoxide	U	0.0204	ug/L	0.0051	0.0204	1
5103-74-2	gamma-Chlordane	U	0.0204	ug/L	0.0051	0.0204 UJ,P7c	1
5103-71-9	alpha-Chlordane	U	0.0204	ug/L	0.0051	0.0204	1
959-98-8	Endosulfan I	U	0.0204	ug/L	0.0051	0.0204	1
72-55-9	4,4'-DDE	U	0.0408	ug/L	0.0051	0.0408	1
60-57-1	Dieldrin	U	0.0408	ug/L	0.0102	0.0408	1
72-20-8	Endrin	U	0.0408	ug/L	0.0102	0.0408	1
72-54-8	4,4'-DDD	U	0.0408	ug/L	0.0102	0.0408	1
33213-65-9	Endosulfan II	U	0.0408	ug/L	0.0102	0.0408	1
7421-93-4	Endrin aldehyde	U	0.0408	ug/L	0.0051	0.0408	1
50-29-3	4,4'-DDT	U	0.0408	ug/L	0.0102	0.0408	1
1031-07-8	Endosulfan sulfate	U	0.0408	ug/L	0.0102	0.0408	1
72-43-5	Methoxychlor	U	0.204	ug/L	0.051	0.204	1
53494-70-5	Endrin ketone	U	0.0408	ug/L	0.0102	0.0408	1
8001-35-2	Toxaphene	U	0.510	ug/L	0.153	0.510	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.498	1.02	ug/L	48.8	(29%-103%)
Decachlorobiphenyl	0.597	1.02	ug/L	58.5	(34%-118%)

AMF
2/4/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-994 VALIDATION DATE: 2/4/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN and that the raw data for the parent sample was not included in the data package. No sample results were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/05/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 2/4/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST	
5116-2 Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-994	**Date Collected:**	12/17/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	243283002	**Date Received:**	12/19/2009 09:05		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-6793	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	935397	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/23/2009 12:09	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/22/2009 17:32	**Aliquot:**	985 mL	**Final Volume:**	1 mL
Data File:	027f2701.d	**Column:**	1 CLP1	**Level:**	LOW
	027b2701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.102	ug/L	0.0338	0.102	1
11104-28-2	Aroclor-1221	U	0.102	ug/L	0.0338	0.102	1
11141-16-5	Aroclor-1232	U	0.102	ug/L	0.0338	0.102	1
53469-21-9	Aroclor-1242	U	0.102	ug/L	0.0338	0.102	1
12672-29-6	Aroclor-1248	U	0.102	ug/L	0.0338	0.102	1
11097-69-1	Aroclor-1254	U	0.102	ug/L	0.0338	0.102	1
11096-82-5	Aroclor-1260	U	0.102	ug/L	0.0338	0.102	1
37324-23-5	Aroclor-1262	U	0.102	ug/L	0.0338	0.102	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.137	0.203	ug/L	67.3	(29%-103%)
Decachlorobiphenyl	0.186	0.203	ug/L	91.8	(34%-118%)

AMF
2/4/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-994 VALIDATION DATE: 2/4/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that all matrix QC analyses were performed on LANL sample from other RNs. No sample results were qualified. The TKN batch included multiple matrix QC samples. The QC sample most comparable to the matrix of this RN was selected for data validation purposes, and the extraneous QC samples were not evaluated.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/05/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 2/4/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 General Chemistry Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: December 31, 2009

Client SDG: 10-994

Client Sample ID:	CAPA-10-6793	Project:	ESHL01000
Sample ID:	243283004	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	17-DEC-09 12:00		
Receive Date:	19-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis											
SW 9060 Total Organic Carbon "As Received"											
Total Organic Carbon Average	J	0.824	0.330	1.00	mg/L	1	TSM	12/22/09	1511	935196	1
Nutrient Analysis											
Nitrogen, Total Kjeldahl (TKN) "As Received"											
Nitrogen, Total Kjeldahl	U	ND	0.033	0.100	mg/L	1	AXH3	12/22/09	1413	934822	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 351.2 Prep	EPA 351.2 Total Kjeldahl Nitrogen Prep	SXJ1	12/21/09	1536	934821

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9060	
2	EPA 351.2	

AMF
2/4/10

Friday, December 18, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-994

REQUEST NUMBER: 10-994

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/17/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 2432837.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6793	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6793	2	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6793	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6793	2	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6793	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6793	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6793	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6793	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6793	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6793	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6793	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6795	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG

Relinquished By:	Date	Time	Received By:	Date	Time
[illegible]	12/18/09	1400	Greg Tyler [illegible]	12-19-09	0905
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name / Signature

Friday, December 18, 2009

REQUEST NUMBER: 10-994

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-994
Per Agreement Number:126310011
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 12/18/2009
TURNAROUND/REPORT DUE: 1/17/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:351.2	1	CAPA-10-6793	WG	12/17/2009	
	SW-846:8081A	1	CAPA-10-6793	WG	12/17/2009	
		2	CAPA-10-6793	WG	12/17/2009	
	SW-846:8082	1	CAPA-10-6793	WG	12/17/2009	
		2	CAPA-10-6793	WG	12/17/2009	
	SW-846:8260B	1	CAPA-10-6793	WG	12/17/2009	
		2	CAPA-10-6793	WG	12/17/2009	
		1	CAPA-10-6795	WG	12/17/2009	
	SW-846:8270C	1	CAPA-10-6793	WG	12/17/2009	

Friday, December 18, 2009

REQUEST NUMBER: 10-994

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	2	CAPA-10-6793	WG	12/17/2009	
	SW-846:8321A_MOD	1	CAPA-10-6793	WG	12/17/2009	
		2	CAPA-10-6793	WG	12/17/2009	
	SW-846:9060	1	CAPA-10-6793	WG	12/17/2009	

Final Page of REQUEST NUMBER 10-994

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

January 04, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL-WQH Water Samples
Work Order: 243283
SDG: 10-994

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 19, 2009, and analyzed for Explosives by LCMSMS, GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile, GC/MS Volatile and General Chemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-994
Enclosures

problem solved

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 243283
SDG # : 10-994

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 243283
SDG # : 10-994

January 04, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 19, 2009 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
243283001	CAPA-10-6793
243283002	CAPA-10-6793
243283003	CAPA-10-6793
243283004	CAPA-10-6793
243283005	CAPA-10-6795

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Explosives by LCMSMS, GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile, GC/MS Volatile and General Chemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 04 January 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Friday, December 18, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-994

REQUEST NUMBER: 10-994

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/17/2010
TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 243283%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6793	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6793	2	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6793	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6793	2	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6793	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6793	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6793	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6793	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6793	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6793	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6793	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6795	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG

Relinquished By:		Date	Time	Received By:		Date	Time
		12/18/09	1400	Greg Tyler		12-19-09	0905
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Friday, December 18, 2009

REQUEST NUMBER: 10-994

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-994
Per Agreement Number:126310011
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/18/2009
TURNAROUND/REPORT DUE: 1/17/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:351.2	1	CAPA-10-6793	WG	12/17/2009	
	SW-846:8081A	1	CAPA-10-6793	WG	12/17/2009	
		2	CAPA-10-6793	WG	12/17/2009	
	SW-846:8082	1	CAPA-10-6793	WG	12/17/2009	
		2	CAPA-10-6793	WG	12/17/2009	
	SW-846:8260B	1	CAPA-10-6793	WG	12/17/2009	
		2	CAPA-10-6793	WG	12/17/2009	
		1	CAPA-10-6795	WG	12/17/2009	
	SW-846:8270C	1	CAPA-10-6793	WG	12/17/2009	

Friday, December 18, 2009

REQUEST NUMBER: 10-994

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	2	CAPA-10-6793	WG	12/17/2009	
	SW-846:8321A_MOD	1	CAPA-10-6793	WG	12/17/2009	
		2	CAPA-10-6793	WG	12/17/2009	
	SW-846:9060	1	CAPA-10-6793	WG	12/17/2009	

Final Page of REQUEST NUMBER 10-994

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-994**
Received By: Greg Tyler	**Date Received: 12/19/09**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other 1,4C 14C
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?	X			Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers
7209 7849 2932 1C
7209 7849 2954 4C
7209 7849 2943 4C
7209 7849 2921 14C

 PM (or PMA) review: Initials [illegible] Date 12-21-09

GIN ID: SAFA (505)665-9968
LENE VALDEZ
ALAMOS NATL LAB
0 BLDG 1237 DPU 03

ALAMOS, NM 87545
TED STATES US

SHIP DATE: 18DEC09
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

HARLESTON SC 29407
43)556-8171
EF: 6B01AMR1A015AGWM0

1°

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2 of 3 ### SATURDAY ### A1
PRIORITY OVERNIGHT

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ALERIE DAVIS
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1 of 2 ### SATURDAY ### A1
PRIORITY OVERNIGHT

RK# 7209 7849 2954
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M MASTER ###

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SC-US
CHS

X0 CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 18DEC09
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2434

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REF: 6B01AMR1A015AGWM0

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3 of 3 ### SATURDAY ### A1
PRIORITY OVERNIGHT

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MstrN 7209 7849 2921 0201

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X0 CHSA

Part # 158148-434 NAIT V3 09-09

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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1 of 3 ### SATURDAY ### A1
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TRK# 7209 7849 2921
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MASTER

29407
SC-US
CHS

X0 CHSA

Part # 158148-434 NAIT V3 09-09

DATA REVIEW QUALIFIER FLAG DEFINITION SHEET

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

GC/MS Volatile Organics
Los Alamos National Laboratory (LANL)
SDG 10-994

Method/Analysis Information

Procedure: Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method: SW846 8260B DOE-AL
Prep Method: SW846 5030B
Analytical Batch Number: 937175

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
243283003	CAPA-10-6793
243283005	CAPA-10-6795
1202005413	Method Blank (MB)
1202005416	Laboratory Control Sample (LCS)
1202005417	Laboratory Control Sample (LCS)
1202006389	Method Blank (MB)
1202006390	Laboratory Control Sample (LCS)
1202006391	Laboratory Control Sample (LCS)
1202005414	243283003(CAPA-10-6793) Post Spike (PS)
1202005415	243283003(CAPA-10-6793) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 13.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 19.1.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
Target analytes were detected in the blank (1202006389) below the reporting limit.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243283003 (CAPA-10-6793) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Sample 243283005 (CAPA-10-6795) was re-analyzed due to unacceptable recoveries in the initial analysis.

Miscellaneous Information

Electronic Package Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
A nonconformance report was not required for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may have required manual integrations due to software limitations.

TIC Comment
Tentatively identified compounds (TIC) were required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA9.I	Gas Chromatograph/Mass Spectrometer	HP6890/HP5973	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-994 GEL Work Order: 243283

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Erin Haubert **Name: Erin Haubert**

Date: 12 JAN 2010 **Title: Data Validator**

Roadmap for LANL 10-994 VOA

This roadmap was analyzed by ram01192 on 01-04-2010, 14:15.
This roadmap was reviewed by ehl on 01-11-2010, 09:39.

Sample

exclude	manual	datafile	smpid	clientid	injdate	injtime	sublist	dilution	batchid	comment
■	N	/chem/VOA1.i/122809v1/1t128.d	243283003	CAPA-10-6793	28-DEC-2009	23:53	10-994.sub	1	937175	
■	N	/chem/VOA1.i/122809v1/1t129.d	243283005	CAPA-10-6795	29-DEC-2009	00:23	10-994.sub	1	937175	
■	N	/chem/VOA9.i/122909v9/9r207.d	243283005	CAPA-10-6795	29-DEC-2009	14:37	10-994.sub	1	937175	
□	N	/chem/VOA9.i/122909v9/9r209.d	243283003	CAPA-10-6793	29-DEC-2009	15:32	10-994.sub	1	937175	
□	N	/chem/VOA9.i/122909v9/9r230.d	243283005	CAPA-10-6795	30-DEC-2009	01:10	10-994.sub	1	937175	

QC Sample

exclude	manual	datafile	smpid	clientid	sampletype	injdate	injtime	sublist	dilution	batchid	comment
■	N	/chem/VOA1.i/122809v1/1t110LA.d	1202005416	LCS	lcs	28-DEC-2009	14:38	all.sub	1	937175	
■	N	/chem/VOA1.i/122809v1/1t113sLA.d	1202005417	LCS	lcs	28-DEC-2009	16:18	all.sub	1	937175	
■	N	/chem/VOA1.i/122809v1/1t117BA.d	1202005413	BLANK	mb	28-DEC-2009	18:19	all.sub	1	937175	
■	N	/chem/VOA1.i/122809v1/1t134.d	1202005414	CAPA-10-6793MS	ms	29-DEC-2009	02:54	10-994.sub	1	937175	
■	N	/chem/VOA1.i/122809v1/1t135.d	1202005415	CAPA-10-6793MSD	msd	29-DEC-2009	03:24	10-994.sub	1	937175	
□	N	/chem/VOA9.i/122909v9/9r202L.d	1202005416	LCS	lcs	29-DEC-2009	12:08	all.sub	1	937175	
□	N	/chem/VOA9.i/122909v9/9r204L.d	1202005417	LCS	lcs	29-DEC-2009	13:14	all.sub	1	937175	
□	N	/chem/VOA9.i/122909v9/9r206B.d	1202005413	BLANK	mb	29-DEC-2009	14:09	all.sub	1	937175	
□	N	/chem/VOA9.i/122909v9/9r220.d	1202005414	CAPA-10-6793MS	ms	29-DEC-2009	20:35	10-994.sub	1	937175	
□	N	/chem/VOA9.i/122909v9/9r221.d	1202005415	CAPA-10-6793MSD	msd	29-DEC-2009	21:03	10-994.sub	1	937175	
□	N	/chem/VOA9.i/122909v9/9r226L.d	1202006390	LCS	lcs	29-DEC-2009	23:20	all.sub	1	937175	
□	N	/chem/VOA9.i/122909v9/9r228L.d	1202006391	LCS	lcs	30-DEC-2009	00:15	all.sub	1	937175	

☐	N	/chem/VOA9.i/122909v9/9r229B.d	1202006389	BLANK	mb	30-DEC-2009	00:43	all.sub	1	937175	

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994	**Date Collected:**	12/17/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	243283003	**Date Received:**	12/19/2009 09:05		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-6793	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	937175	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	12/29/2009 15:32	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	12/29/2009 15:32				
Data File:	9r209.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	J	0.478	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	J	0.552	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994	Date Collected:	12/17/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243283003	Date Received:	12/19/2009 09:05		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6793	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	937175	Inst:	VOA9.I	Dilution:	1
Run Date:	12/29/2009 15:32	Analyst:	RXY1	Purge Vol:	5 mL
Prep Date:	12/29/2009 15:32				
Data File:	9r209.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**	**Date Collected:**	**12/17/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243283003**	**Date Received:**	**12/19/2009 09:05**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6793**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937175**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 15:32**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 15:32**				
Data File:	**9r209.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	57.6	50.0	ug/L	115	(59%-130%)
Bromofluorobenzene	44.8	50.0	ug/L	89.5	(71%-126%)
Toluene-d8	50.3	50.0	ug/L	101	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.47	5.9	ug/L		J
	Unknown	4.55	12.5	ug/L		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**	**Date Collected:**	**12/17/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243283005**	**Date Received:**	**12/19/2009 09:05**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6795**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937175**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 01:10**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/30/2009 01:10**				
Data File:	**9r230.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	J	3.87	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994	Date Collected:	12/17/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243283005	Date Received:	12/19/2009 09:05		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6795	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	937175	Inst:	VOA9.I	Dilution:	1
Run Date:	12/30/2009 01:10	Analyst:	RXY1	Purge Vol:	5 mL
Prep Date:	12/30/2009 01:10				
Data File:	9r230.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**	**Date Collected:**	**12/17/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243283005**	**Date Received:**	**12/19/2009 09:05**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6795**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937175**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 01:10**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/30/2009 01:10**				
Data File:	**9r230.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	62.3	50.0	ug/L	125	(59%-130%)
Bromofluorobenzene	56.0	50.0	ug/L	112	(71%-126%)
Toluene-d8	56.2	50.0	ug/L	112	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.55	5.37	ug/L		J

QC Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-994

Matrix Type: LIQUID

CAP Column (1) : RTX-Volatiles

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202005416	LCS for batch 937175	121	104	99
1202005417	LCS for batch 937175	128	111	105
1202005413	MB for batch 937175	122	106	97
243283003	CAPA-10-6793	115	101	90
1202005414	CAPA-10-6793PS	119	107	91
1202005415	CAPA-10-6793PSD	117	105	95
1202006390	LCS for batch 937175	129	115	106
1202006391	LCS for batch 937175	118	104	100
1202006389	MB for batch 937175	115	104	99
243283005	CAPA-10-6795	125	112	112

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(59%-130%)
TOL	= Toluene-d8	(76%-129%)
BFB	= Bromofluorobenzene	(71%-126%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994 **Sample Type:** Post Spike

Client ID: CAPA-10-6793PS **Matrix:** GROUND WATER

Lab Sample ID: 1202005414

Instrument: VOA9.I **Analysis Date:** 12/29/2009 20:35 **Dilution:** 1

Analyst: RXY1 **Prep Batch ID** 937175

Purge Vol: 5 mL **Batch ID:** 937175

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	37.8	76	31-151
74-87-3	PS	Chloromethane	50.0	0.00	U	45.9	92	47-140
75-01-4	PS	Vinyl chloride	50.0	0.00	U	47.0	94	51-134
74-83-9	PS	Bromomethane	50.0	0.00	U	50.4	101	54-136
75-00-3	PS	Chloroethane	50.0	0.00	U	47.4	95	60-129
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	45.3	91	58-151
60-29-7	PS	Ethyl ether	50.0	0.00	U	39.7	79	63-125
67-64-1	PS	Acetone	250	0.00	U	124	50	14-150
75-05-8	PS	Acetonitrile	1250	0.00	U	1270	101	51-133
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	41.4	83	61-129
74-88-4	PS	Iodomethane	250	0.00	U	205	82	66-138
75-09-2	PS	Methylene chloride	50.0	0.00	U	38.2	76	68-134
75-15-0	PS	Carbon disulfide	250	0.00	U	218	87	57-129
1634-04-4	PS	tert-Butyl methyl ether	50.0	0.00	U	35.4	71	65-133
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	41.3	83	64-126
108-05-4	PS	Vinyl acetate	250	0.00	U	264	106	41-140
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	43.8	88	69-125
78-93-3	PS	2-Butanone	250	0.00	U	171	68	11-151
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	41.3	83	71-128
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	40.6	81	61-134
67-66-3	PS	Chloroform	50.0	0.00	U	43.6	87	70-126
74-97-5	PS	Bromochloromethane	50.0	0.00	U	43.3	87	71-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994 **Sample Type:** Post Spike

Client ID: CAPA-10-6793PS **Matrix:** GROUND WATER

Lab Sample ID: 1202005414

Instrument: VOA9.I **Analysis Date:** 12/29/2009 20:35 **Dilution:** 1

Analyst: RXY1 **Prep Batch ID:** 937175

Purge Vol: 5 mL **Batch ID:** 937175

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	42.9	86	66-132
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	43.9	88	68-128
71-36-3	PS	n-Butyl alcohol	5000	0.00	U	5160	103	58-146
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	43.7	87	66-138
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	44.6	89	65-129
71-43-2	PS	Benzene	50.0	0.478	J	41.2	82	66-121
79-01-6	PS	Trichloroethylene	50.0	0.00	U	42.4	85	66-127
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	42.9	86	71-125
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	43.4	87	72-134
74-95-3	PS	Dibromomethane	50.0	0.00	U	46.0	92	71-130
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	193	77	64-133
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	40.1	80	71-129
108-88-3	PS	Toluene	50.0	0.552	J	39.8	79	65-124
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	40.6	81	73-130
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	42.4	85	71-125
591-78-6	PS	2-Hexanone	250	0.00	U	156	63	28-143
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	42.7	85	69-124
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	41.5	83	63-126
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	42.6	85	76-135
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	41.1	82	73-126
108-90-7	PS	Chlorobenzene	50.0	0.00	U	42.6	85	69-120
100-41-4	PS	Ethylbenzene	50.0	0.00	U	41.0	82	65-123

Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-994 **Sample Type:** Post Spike
Client ID: CAPA-10-6793PS **Matrix:** GROUND WATER
Lab Sample ID: 1202005414
Instrument: VOA9.I **Analysis Date:** 12/29/2009 20:35 **Dilution:** 1
Analyst: RXY1 **Prep Batch ID:** 937175
Purge Vol: 5 mL **Batch ID:** 937175

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	PS	m,p-Xylenes	100	0.00	U	82.0	82	64-125
95-47-6	PS	o-Xylene	50.0	0.00	U	41.2	82	66-126
100-42-5	PS	Styrene	50.0	0.00	U	40.5	81	66-131
75-25-2	PS	Bromoform	50.0	0.00	U	38.8	78	72-143
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	42.5	85	66-128
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	39.1	78	67-141
108-86-1	PS	Bromobenzene	50.0	0.00	U	39.2	78	67-124
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	38.3	77	60-127
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	38.3	77	62-126
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	36.8	74	60-132
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	36.4	73	62-130
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	37.8	76	64-124
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	37.4	75	64-129
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	37.2	74	62-130
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	38.2	76	61-131
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	37.8	76	61-135
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	39.0	78	65-123
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	40.2	80	64-120
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	39.1	78	58-135
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	38.5	77	62-146
87-68-3	PS	Hexachlorobutadiene	50.0	0.00	U	37.1	74	53-132
91-20-3	PS	Naphthalene	50.0	0.00	U	40.9	82	54-144

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994
Client ID: CAPA-10-6793PS
Lab Sample ID: 1202005414
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: GROUND WATER
Analysis Date: 12/29/2009 20:35
Dilution: 1
Prep Batch ID: 937175
Batch ID: 937175

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
87-61-6	PS	1,2,3-Trichlorobenzene	50.0	0.00	U	42.5	85	59-136
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	42.8	86	73-127
120-82-1	PS	1,2,4-Trichlorobenzene	50.0	0.00	U	37.9	76	56-134
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	39.9	80	66-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994
Client ID: CAPA-10-6793PSD
Lab Sample ID: 1202005415
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 12/29/2009 21:03
Prep Batch ID: 937175
Batch ID: 937175
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	38.6	77	31-151	2	0-20
74-87-3	PSD	Chloromethane	50.0	0.00	U	45.6	91	47-140	1	0-20
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	48.2	96	51-134	3	0-20
74-83-9	PSD	Bromomethane	50.0	0.00	U	50.2	100	54-136	0	0-20
75-00-3	PSD	Chloroethane	50.0	0.00	U	47.2	94	60-129	0	0-20
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	47.8	96	58-151	6	0-20
60-29-7	PSD	Ethyl ether	50.0	0.00	U	40.3	81	63-125	1	0-20
67-64-1	PSD	Acetone	250	0.00	U	135	54	14-150	8	0-20
75-05-8	PSD	Acetonitrile	1250	0.00	U	1360	109	51-133	7	0-20
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	43.1	86	61-129	4	0-20
74-88-4	PSD	Iodomethane	250	0.00	U	210	84	66-138	3	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	39.1	78	68-134	2	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	224	89	57-129	2	0-20
1634-04-4	PSD	tert-Butyl methyl ether	50.0	0.00	U	36.2	72	65-133	2	0-20
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	42.5	85	64-126	3	0-20
108-05-4	PSD	Vinyl acetate	250	0.00	U	266	107	41-140	1	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	43.4	87	69-125	1	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	184	74	11-151	8	0-20
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	42.9	86	71-128	4	0-20
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	41.3	83	61-134	2	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	43.4	87	70-126	1	0-20
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	43.3	87	71-129	0	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994
Client ID: CAPA-10-6793PSD
Lab Sample ID: 1202005415
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 12/29/2009 21:03
Dilution: 1
Prep Batch ID: 937175
Batch ID: 937175

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	44.1	88	66-132	3	0-20
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	45.1	90	68-128	3	0-20
71-36-3	PSD	n-Butyl alcohol	5000	0.00	U	5530	111	58-146	7	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	45.5	91	66-138	4	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	45.1	90	65-129	1	0-20
71-43-2	PSD	Benzene	50.0	0.478	J	41.8	83	66-121	1	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	43.9	88	66-127	4	0-20
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	41.7	83	71-125	3	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	42.7	85	72-134	2	0-20
74-95-3	PSD	Dibromomethane	50.0	0.00	U	44.5	89	71-130	3	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	210	84	64-133	8	0-20
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	40.1	80	71-129	0	0-20
108-88-3	PSD	Toluene	50.0	0.552	J	42.5	84	65-124	7	0-20
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	41.3	83	73-130	2	0-20
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	43.4	87	71-125	2	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	170	68	28-143	8	0-20
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	43.3	87	69-124	1	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	44.1	88	63-126	6	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	43.6	87	76-135	2	0-20
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	42.4	85	73-126	3	0-20
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	43.9	88	69-120	3	0-20
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	42.5	85	65-123	4	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994 **Sample Type:** Post Spike Duplicate

Client ID: CAPA-10-6793PSD **Matrix:** GROUND WATER

Lab Sample ID: 1202005415

Instrument: VOA9.I **Analysis Date:** 12/29/2009 21:03 **Dilution:** 1

Analyst: RXY1 **Prep Batch ID** 937175

Purge Vol: 5 mL **Batch ID:** 937175

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	85.3	85	64-125	4	0-20
95-47-6	PSD	o-Xylene	50.0	0.00	U	42.4	85	66-126	3	0-20
100-42-5	PSD	Styrene	50.0	0.00	U	40.9	82	66-131	1	0-20
75-25-2	PSD	Bromoform	50.0	0.00	U	41.4	83	72-143	7	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	46.6	93	66-128	9	0-20
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	44.2	88	67-141	12	0-20
108-86-1	PSD	Bromobenzene	50.0	0.00	U	41.2	82	67-124	5	0-20
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	41.9	84	60-127	9	0-20
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	41.7	83	62-126	9	0-20
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	40.4	81	60-132	9	0-20
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	40.1	80	62-130	10	0-20
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	40.8	82	64-124	8	0-20
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	40.9	82	64-129	9	0-20
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	40.4	81	62-130	8	0-20
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	42.2	84	61-131	10	0-20
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	41.1	82	61-135	8	0-20
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	41.9	84	65-123	7	0-20
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	42.6	85	64-120	6	0-20
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	42.6	85	58-135	9	0-20
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	45.6	91	62-146	17	0-20
87-68-3	PSD	Hexachlorobutadiene	50.0	0.00	U	41.6	83	53-132	12	0-20
91-20-3	PSD	Naphthalene	50.0	0.00	U	44.3	89	54-144	8	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994
Client ID: CAPA-10-6793PSD
Lab Sample ID: 1202005415
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 12/29/2009 21:03
Dilution: 1
Prep Batch ID: 937175
Batch ID: 937175

CAS No	Parmname		Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
87-61-6	PSD	1,2,3-Trichlorobenzene	50.0	0.00	U	44.4	89	59-136	5	0-20
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	43.7	87	73-127	2	0-20
120-82-1	PSD	1,2,4-Trichlorobenzene	50.0	0.00	U	39.7	79	56-134	5	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	42.5	85	66-122	6	0-20

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994 **Sample Type:** Laboratory Control Sample
Client ID: LCS for batch 937175 **Matrix:** GROUND WATER
Lab Sample ID: 1202005416
Instrument: VOA9.I **Analysis Date:** 12/29/2009 12:08 **Dilution:** 1
Analyst: RXY1 **Prep Batch ID:** 937175
Purge Vol: 5 mL **Batch ID:** 937175

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	40.3	81	35-156
74-87-3	LCS	Chloromethane	50.0	0.0	43.7	87	52-139
75-01-4	LCS	Vinyl chloride	50.0	0.0	45.2	90	61-131
74-83-9	LCS	Bromomethane	50.0	0.0	50.8	102	63-131
75-00-3	LCS	Chloroethane	50.0	0.0	48.5	97	67-126
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	48.9	98	66-153
60-29-7	LCS	Ethyl ether	50.0	0.0	43.8	88	68-120
67-64-1	LCS	Acetone	250	0.0	208	83	28-157
75-05-8	LCS	Acetonitrile	1250	0.0	1430	114	54-127
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	43.2	86	70-128
74-88-4	LCS	Iodomethane	250	0.0	215	86	63-141
75-09-2	LCS	Methylene chloride	50.0	0.0	40.4	81	72-131
75-15-0	LCS	Carbon disulfide	250	0.0	223	89	63-129
1634-04-4	LCS	tert-Butyl methyl ether	50.0	0.0	40.2	80	70-129
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	43.6	87	71-124
108-05-4	LCS	Vinyl acetate	250	0.0	280	112	61-134
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	44.6	89	75-121
78-93-3	LCS	2-Butanone	250	0.0	217	87	31-160
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	44.0	88	77-124
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	45.0	90	72-140
67-66-3	LCS	Chloroform	50.0	0.0	44.7	89	76-121
74-97-5	LCS	Bromochloromethane	50.0	0.0	45.9	92	76-123

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994
Client ID: LCS for batch 937175
Lab Sample ID: 1202005416
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 12/29/2009 12:08
Dilution: 1
Prep Batch ID: 937175
Batch ID: 937175

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	45.8	92	73-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	45.3	91	75-128
71-36-3	LCS	n-Butyl alcohol	5000	0.0	5800	116	61-143
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	46.2	92	75-139
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	48.0	96	70-123
71-43-2	LCS	Benzene	50.0	0.0	42.3	85	72-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	44.7	89	76-123
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	43.3	87	75-121
75-27-4	LCS	Bromodichloromethane	50.0	0.0	45.3	91	77-130
74-95-3	LCS	Dibromomethane	50.0	0.0	48.6	97	77-124
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	224	90	68-132
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	44.4	89	79-127
108-88-3	LCS	Toluene	50.0	0.0	42.3	85	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	45.7	91	81-127
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	46.2	92	76-120
591-78-6	LCS	2-Hexanone	250	0.0	205	82	34-162
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	45.8	92	73-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	44.1	88	72-126
124-48-1	LCS	Dibromochloromethane	50.0	0.0	46.5	93	82-131
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	46.2	92	66-132
108-90-7	LCS	Chlorobenzene	50.0	0.0	44.9	90	76-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	42.7	85	75-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-994**
Client ID: **LCS for batch 937175**
Lab Sample ID: **1202005416**
Instrument: **VOA9.I**
Analyst: **RXY1**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **GROUND WATER**
Analysis Date: **12/29/2009 12:08**
Prep Batch ID: **937175**
Batch ID: **937175**
Dilution: **1**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	LCS	m,p-Xylenes	100	0.0	86.5	86	64-130
95-47-6	LCS	o-Xylene	50.0	0.0	43.1	86	75-121
100-42-5	LCS	Styrene	50.0	0.0	41.9	84	76-126
75-25-2	LCS	Bromoform	50.0	0.0	44.7	89	77-139
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	48.8	98	71-121
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	47.1	94	72-134
108-86-1	LCS	Bromobenzene	50.0	0.0	43.0	86	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	41.7	83	70-124
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	41.1	82	71-121
98-82-8	LCS	Isopropylbenzene	50.0	0.0	40.4	81	58-138
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	40.2	80	73-124
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	41.2	82	74-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	40.8	82	73-125
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	40.7	81	74-123
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	42.1	84	72-126
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	41.7	83	74-131
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	42.8	86	74-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	44.3	89	74-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	43.5	87	74-130
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	47.4	95	67-141
87-68-3	LCS	Hexachlorobutadiene	50.0	0.0	43.5	87	68-129
91-20-3	LCS	Naphthalene	50.0	0.0	48.1	96	59-138

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994
Client ID: LCS for batch 937175
Lab Sample ID: 1202005416
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 12/29/2009 12:08
Dilution: 1
Prep Batch ID: 937175
Batch ID: 937175

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
87-61-6	LCS	1,2,3-Trichlorobenzene	50.0	0.0	49.3	99	67-133
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	45.8	92	79-124
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	44.1	88	66-135
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	44.0	88	76-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994
Client ID: LCS for batch 937175
Lab Sample ID: 1202005417
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 12/29/2009 13:14
Dilution: 1
Prep Batch ID: 937175
Batch ID: 937175

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
107-02-8	LCS	Acrolein	250	0.0	273	109	41-148
76-13-1	LCS	Trichlorotrifluoroethane	250	0.0	309	124	52-141
107-05-1	LCS	Allyl chloride	250	0.0	263	105	55-130
107-13-1	LCS	Acrylonitrile	250	0.0	281	112	58-131
126-99-8	LCS	2-Chloro-1,3-butadiene	50.0	0.0	51.5	103	42-150
107-12-0	LCS	Propionitrile	250	0.0	273	109	57-131
126-98-7	LCS	Methacrylonitrile	250	0.0	282	113	58-128
78-83-1	LCS	Isobutyl alcohol	2500	0.0	2830	113	53-142
80-62-6	LCS	Methyl methacrylate	250	0.0	243	97	63-133
97-63-2	LCS	Ethyl methacrylate	250	0.0	218	87	64-128

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994
Client ID: LCS for batch 937175
Lab Sample ID: 1202006390
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 12/29/2009 23:20
Dilution: 1
Prep Batch ID: 937175
Batch ID: 937175

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	37.1	74	35-156
74-87-3	LCS	Chloromethane	50.0	0.0	44.9	90	52-139
75-01-4	LCS	Vinyl chloride	50.0	0.0	45.6	91	61-131
74-83-9	LCS	Bromomethane	50.0	0.0	52.7	105	63-131
75-00-3	LCS	Chloroethane	50.0	0.0	49.5	99	67-126
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	49.0	98	66-153
60-29-7	LCS	Ethyl ether	50.0	0.0	45.0	90	68-120
67-64-1	LCS	Acetone	250	0.0	222	89	28-157
75-05-8	LCS	Acetonitrile	1250	0.0	1440	115	54-127
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	44.8	90	70-128
74-88-4	LCS	Iodomethane	250	0.0	223	89	63-141
75-09-2	LCS	Methylene chloride	50.0	0.0	43.1	86	72-131
75-15-0	LCS	Carbon disulfide	250	0.0	228	91	63-129
1634-04-4	LCS	tert-Butyl methyl ether	50.0	0.0	40.6	81	70-129
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	46.3	93	71-124
108-05-4	LCS	Vinyl acetate	250	0.0	229	92	61-134
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	46.3	93	75-121
78-93-3	LCS	2-Butanone	250	0.0	229	91	31-160
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	46.8	94	77-124
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	43.9	88	72-140
67-66-3	LCS	Chloroform	50.0	0.0	47.4	95	76-121
74-97-5	LCS	Bromochloromethane	50.0	0.0	47.4	95	76-123

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994
Client ID: LCS for batch 937175
Lab Sample ID: 1202006390
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 12/29/2009 23:20
Dilution: 1
Prep Batch ID: 937175
Batch ID: 937175

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	46.4	93	73-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	47.2	94	75-128
71-36-3	LCS	n-Butyl alcohol	5000	0.0	5930	119	61-143
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	46.9	94	75-139
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	48.6	97	70-123
71-43-2	LCS	Benzene	50.0	0.0	44.7	89	72-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	47.8	96	76-123
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	44.7	89	75-121
75-27-4	LCS	Bromodichloromethane	50.0	0.0	46.9	94	77-130
74-95-3	LCS	Dibromomethane	50.0	0.0	49.4	99	77-124
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	239	96	68-132
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	45.4	91	79-127
108-88-3	LCS	Toluene	50.0	0.0	45.0	90	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	47.1	94	81-127
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	49.7	99	76-120
591-78-6	LCS	2-Hexanone	250	0.0	221	89	34-162
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	48.5	97	73-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	47.2	94	72-126
124-48-1	LCS	Dibromochloromethane	50.0	0.0	49.5	99	82-131
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	48.6	97	66-132
108-90-7	LCS	Chlorobenzene	50.0	0.0	47.5	95	76-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	44.8	90	75-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994
Client ID: LCS for batch 937175
Lab Sample ID: 1202006390
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 12/29/2009 23:20
Dilution: 1
Prep Batch ID: 937175
Batch ID: 937175

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	LCS	m,p-Xylenes	100	0.0	90.3	90	64-130
95-47-6	LCS	o-Xylene	50.0	0.0	45.2	90	75-121
100-42-5	LCS	Styrene	50.0	0.0	44.4	89	76-126
75-25-2	LCS	Bromoform	50.0	0.0	49.6	99	77-139
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	50.8	102	71-121
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	51.6	103	72-134
108-86-1	LCS	Bromobenzene	50.0	0.0	46.2	92	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	45.2	90	70-124
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	45.2	90	71-121
98-82-8	LCS	Isopropylbenzene	50.0	0.0	44.1	88	58-138
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	44.2	88	73-124
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	45.3	91	74-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	44.3	89	73-125
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	44.4	89	74-123
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	45.0	90	72-126
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	44.5	89	74-131
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	46.8	94	74-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	47.8	96	74-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	45.7	91	74-130
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	50.6	101	67-141
87-68-3	LCS	Hexachlorobutadiene	50.0	0.0	45.2	90	68-129
91-20-3	LCS	Naphthalene	50.0	0.0	50.4	101	59-138

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994
Client ID: LCS for batch 937175
Lab Sample ID: 1202006390
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 12/29/2009 23:20
Dilution: 1
Prep Batch ID: 937175
Batch ID: 937175

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
87-61-6	LCS	1,2,3-Trichlorobenzene	50.0	0.0	50.0	100	67-133
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	48.7	97	79-124
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	45.2	90	66-135
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	47.6	95	76-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994
Client ID: LCS for batch 937175
Lab Sample ID: 1202006391
Instrument: VOA9.I
Analyst: RXY1
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 12/30/2009 00:15
Dilution: 1
Prep Batch ID: 937175
Batch ID: 937175

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
107-02-8	LCS	Acrolein	250	0.0	214	86	41-148
76-13-1	LCS	Trichlorotrifluoroethane	250	0.0	259	104	52-141
107-05-1	LCS	Allyl chloride	250	0.0	233	93	55-130
107-13-1	LCS	Acrylonitrile	250	0.0	232	93	58-131
126-99-8	LCS	2-Chloro-1,3-butadiene	50.0	0.0	44.2	88	42-150
107-12-0	LCS	Propionitrile	250	0.0	229	92	57-131
126-98-7	LCS	Methacrylonitrile	250	0.0	237	95	58-128
78-83-1	LCS	Isobutyl alcohol	2500	0.0	2240	90	53-142
80-62-6	LCS	Methyl methacrylate	250	0.0	205	82	63-133
97-63-2	LCS	Ethyl methacrylate	250	0.0	190	76	64-128

Method Blank Summary

SDG Number:	10-994	Client:	LANL010	Matrix:	GROUND WATER
Client ID:	MB for batch 937175	Instrument ID:	VOA9.I	Data File:	9r206B.d
Lab Sample ID:	1202005413	Prep Date:	12/29/2009 14:09	Analyzed:	12/29/09 14:09
Column:	RTX-Volatiles	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 937175	1202005416	9r202L.d	12/29/09	1208
02 LCS for batch 937175	1202005417	9r204L.d	12/29/09	1314
03 CAPA-10-6793	243283003	9r209.d	12/29/09	1532
04 CAPA-10-6793PS	1202005414	9r220.d	12/29/09	2035
05 CAPA-10-6793PSD	1202005415	9r221.d	12/29/09	2103

Method Blank Summary

SDG Number:	10-994	Client:	LANL010	Matrix:	GROUND WATER
Client ID:	MB for batch 937175	Instrument ID:	VOA9.I	Data File:	9r229B.d
Lab Sample ID:	1202006389	Prep Date:	12/30/2009 00:43	Analyzed:	12/30/09 00:43
Column:	RTX-Volatiles	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 937175	1202006390	9r226L.d	12/29/09	2320
02	LCS for batch 937175	1202006391	9r228L.d	12/30/09	0015
03	CAPA-10-6795	243283005	9r230.d	12/30/09	0110

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-994

Instrument ID: VOA9.I **Injection Date/Time:** 19-NOV-09 10:47

Column Description: RTX-Volatiles **Lab File ID** /111909v9/9l404.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	23.4
75	30.0 - 60.0% of mass 95	49.2
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	61.4
175	5.0 -9.0% of mass 174	7.3
176	95.0 - 101.0% of mass 174	98.3
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD0005	W9VM091119-01	/111909v9/9l405.d	19-NOV-09 11:14
VSTD001	W9VM091119-02	/111909v9/9l406.d	19-NOV-09 11:42
VSTD002	W9VM091119-03	/111909v9/9l407.d	19-NOV-09 12:10
VSTD005	W9VM091119-04	/111909v9/9l408.d	19-NOV-09 12:37
VSTD010	W9VM091119-05	/111909v9/9l409.d	19-NOV-09 13:05
VSTD020	W9VM091119-06	/111909v9/9l410.d	19-NOV-09 13:33
VSTD050	W9VM091119-07	/111909v9/9l411.d	19-NOV-09 14:01
VSTD100	W9VM091119-08	/111909v9/9l412.d	19-NOV-09 14:29
VSTD005S	W9VM091119-09	/111909v9/9l414.d	19-NOV-09 15:24
VSTD010S	W9VM091119-10	/111909v9/9l415.d	19-NOV-09 15:52
VSTD025S	W9VM091119-11	/111909v9/9l416.d	19-NOV-09 16:20
VSTD050S	W9VM091119-12	/111909v9/9l417.d	19-NOV-09 16:48
VSTD100S	W9VM091119-13	/111909v9/9l418.d	19-NOV-09 17:16
VSTD250S	W9VM091119-14	/111909v9/9l419.d	19-NOV-09 17:43
VSTD500S	W9VM091119-15	/111909v9/9l420.d	19-NOV-09 18:11
SICV	W9VM091119-16	/111909v9/9l422.d	19-NOV-09 19:06

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-994

Instrument ID: VOA9.I **Injection Date/Time:** 20-NOV-09 08:43

Column Description: RTX-Volatiles **Lab File ID** /112009v9/91501BFB.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	22.5
75	30.0 - 60.0% of mass 95	48.1
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	68.7
175	5.0 -9.0% of mass 174	6.9
176	95.0 - 101.0% of mass 174	97.6
177	5.0 - 9.0% of mass 176	6.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
LICV	W9VM091120-01	/112009v9/91501.d	20-NOV-09 08:43

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-994

Instrument ID: VOA9.I **Injection Date/Time:** 29-DEC-09 12:08

Column Description: RTX-Volatiles **Lab File ID** /122909v9/9r202BFB.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	27.6
75	30.0 - 60.0% of mass 95	53.8
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	64.1
175	5.0 -9.0% of mass 174	7.2
176	95.0 - 101.0% of mass 174	95.5
177	5.0 - 9.0% of mass 176	6.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050	W9VM091229-02	/122909v9/9r202.d	29-DEC-09 12:08
LCS	1202005416	/122909v9/9r202L.d	29-DEC-09 12:08
VSTD250	UVM091216-08A	/122909v9/9r204.d	29-DEC-09 13:14
LCS	1202005417	/122909v9/9r204L.d	29-DEC-09 13:14
BLANK	1202005413	/122909v9/9r206B.d	29-DEC-09 14:09
CAPA-10-6793	243283003	/122909v9/9r209.d	29-DEC-09 15:32
CAPA-10-6793MS	1202005414	/122909v9/9r220.d	29-DEC-09 20:35
CAPA-10-6793MSD	1202005415	/122909v9/9r221.d	29-DEC-09 21:03

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-994

Instrument ID: VOA9.I **Injection Date/Time:** 29-DEC-09 23:20

Column Description: RTX-Volatiles **Lab File ID** /122909v9/9r226BFB.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	27.3
75	30.0 - 60.0% of mass 95	53
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.4
174	50.0 - 100.0% of mass 95	65.7
175	5.0 -9.0% of mass 174	7.2
176	95.0 - 101.0% of mass 174	96.3
177	5.0 - 9.0% of mass 176	6.8

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050	W9VM091229-05	/122909v9/9r226.d	29-DEC-09 23:20
LCS	1202006390	/122909v9/9r226L.d	29-DEC-09 23:20
VSTD250	UVM091216-08A	/122909v9/9r228.d	30-DEC-09 00:15
LCS	1202006391	/122909v9/9r228L.d	30-DEC-09 00:15
BLANK	1202006389	/122909v9/9r229B.d	30-DEC-09 00:43
CAPA-10-6795	243283005	/122909v9/9r230.d	30-DEC-09 01:10

(s12H

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-994

Lab File ID (Standard): 9R202 Date Analyzed: 12/29/09

Instrument ID: VOA9 Time Analyzed: 1208

GC Column: RTX-VOLATILES ID: 0.25 (mm) Heated Purge: (Y/N) Y

		IS1(FLB)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2179345	10.78	1527432	13.94	803402	16.37
	UPPER LIMIT	4358690	11.28	3054864	14.44	1606804	16.87
	LOWER LIMIT	1089672	10.28	763716	13.44	401701	15.87
	EPA SAMPLE NO.						
01	LCS	2179345	10.78	1527432	13.94	803402	16.37
02	LCS	2337434	10.78	1587254	13.94	775152	16.37
03	BLANK	2137446	10.78	1426374	13.94	684578	16.37
04	CAPA-10-6793	1718578	10.78	1157269	13.94	552266	16.37
05	CAPA-10-6793MS	1971249	10.78	1405137	13.94	773952	16.37
06	CAPA-10-6793MSD	2073330	10.78	1401028	13.94	723243	16.37
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (FLB) = Fluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

(s12H

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GEL, LLC. Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-994

Lab File ID (Standard): 9R226 Date Analyzed: 12/29/09

Instrument ID: VOA9 Time Analyzed: 2320

GC Column: RTX-VOLATILES ID: 0.25 (mm) Heated Purge: (Y/N) Y

		IS1(FLB) AREA #	RT #	IS2(CBZ) AREA #	RT #	IS3(DCB) AREA #	RT #
	12 HOUR STD	2151054	10.78	1457066	13.94	725957	16.37
	UPPER LIMIT	4302108	11.28	2914132	14.44	1451914	16.87
	LOWER LIMIT	1075527	10.28	728533	13.44	362978	15.87
	EPA SAMPLE NO.						
01	LCS	2151054	10.78	1457066	13.94	725957	16.37
02	LCS	2640784	10.78	1772844	13.94	845018	16.37
03	BLANK	2654677	10.78	1804663	13.94	873539	16.37
04	CAPA-10-6795	2113682	10.78	1374049	13.94	574819	16.37
05							
06							
07							
08							
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10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (FLB) = Fluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**	**Date Collected:**	**12/17/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243283003**	**Date Received:**	**12/19/2009 09:05**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6793**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937175**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 15:32**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 15:32**				
Data File:	**9r209.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	J	0.478	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	J	0.552	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994	**Date Collected:**	12/17/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	243283003	**Date Received:**	12/19/2009 09:05		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-6793	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	937175	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	12/29/2009 15:32	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	12/29/2009 15:32				
Data File:	9r209.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**	**Date Collected:**	**12/17/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243283003**	**Date Received:**	**12/19/2009 09:05**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6793**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937175**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 15:32**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 15:32**				
Data File:	**9r209.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	57.6	50.0	ug/L	115	(59%-130%)
Bromofluorobenzene	44.8	50.0	ug/L	89.5	(71%-126%)
Toluene-d8	50.3	50.0	ug/L	101	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.47	5.9	ug/L		J
	Unknown	4.55	12.5	ug/L		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/122909v9/9r209.d
Lab Smp Id: 243283003 Client Smp ID: CAPA-10-6793
Inj Date : 29-DEC-2009 15:32
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |243283003|937175|1|VOA|1|
Misc Info : LANL 5ml pH2
Comment :
Method : /chem/VOA9.i/122909v9/VOA9-8260B-111909.m
Meth Date : 29-Dec-2009 13:31 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 17:43 Cal File: 91419.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-994.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 51 Fluorobenzene	96	10.775	10.775	(1.000)	1718578	50.0000	
* 75 Chlorobenzene-d5	117	13.941	13.941	(1.000)	1157269	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	16.372	16.372	(1.000)	552266	50.0000	
$ 46 1,2-Dichloroethane-d4	65	10.431	10.431	(0.968)	532542	57.5926	57.6
$ 64 Toluene-d8	99	12.424	12.412	(0.891)	140852	50.2846	50.3
$ 86 Bromofluorobenzene	95	15.127	15.127	(0.924)	478661	44.7553	44.8
48 Benzene	78	10.538	10.538	(0.978)	13842	0.47753	0.48(a)
65 Toluene	92	12.483	12.495	(0.895)	9518	0.55223	0.55(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 9r209.d
Report Date: 12/29/2009 15:55
Lab. ID: 243283003 SampleType: SAMPLE
Injection Date: 29-DEC-2009 15:32
Operator: RXY1 Instrument: VOA9.i
Sample Info: |243283003|937175|1|VOA|1|
Miscellaneous Info: LANL 5ml pH2
Comment:
Method used: /chem/VOA9.i/122909v9/VOA9-8260B-111909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-994
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
47 1,2-Dichloroethane			CAS#: 107-06-2			
62	33121	10.78	10.51	80-120	100	(T)
64	5473	10.78	10.51	2- 62	17	(T)
48 Benzene			CAS#: 71-43-2			
78	13842	10.54	10.54	80-120	100	( )
77	2855	10.54	10.54	0- 53	21	( )
51	4806	10.53	10.53	0- 56	35	( )
63 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	13916	12.41	12.19	80-120	100	(T)
43	8869	12.41	12.19	243-303	64	(QT)
100	894970	12.41	12.19	0- 58	6431	(QT)
65 Toluene			CAS#: 108-88-3			
92	9518	12.48	12.49	80-120	100	( )
91	15818	12.49	12.49	134-194	166	( )
82 Bromoform			CAS#: 75-25-2			
173	1694	15.14	14.85	80-120	100	(T)
175	24246	15.14	14.85	18- 78	1431	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/122909v9/9r209.d
Lab Smp Id: 243283003 Client Smp ID: CAPA-10-6793
Inj Date : 29-DEC-2009 15:32
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |243283003|937175|1|VOA|1|
Misc Info : LANL 5ml pH2
Comment :
Method : /chem/VOA9.i/122909v9/VOA9-8260B-111909.m
Meth Date : 29-Dec-2009 13:31 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 17:43 Cal File: 91419.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-994.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 51 Fluorobenzene	10.775	3983854	50.000

RT	AREA	CONCENTRATIONS ON-COL(ug/l)	FINAL(ug/l)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
4.468	469970	5.89843201	5.9	0		0	51
Unknown				CAS #:			
4.552	999396	12.5430825	12.5	0		0	51

Data File: /chem/VOA9.i/122909v9/9r209.d
Date : 29-DEC-2009 15:32
Client ID: CAPA-10-6793
Sample Info: |2432830031937175|1|VOA|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

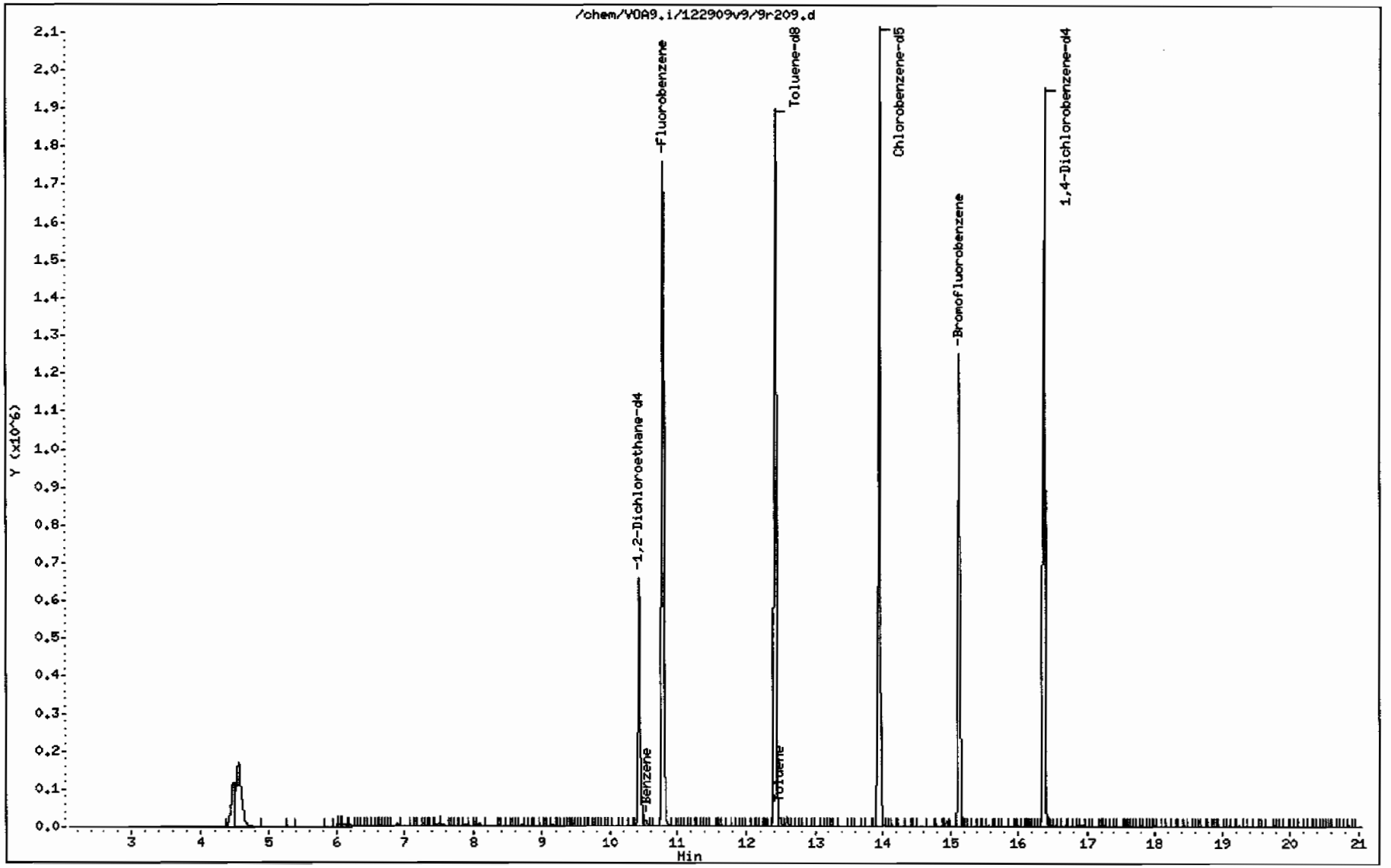

Data File: /chem/VOA9.i/122909v9/9r209.d

Date : 29-DEC-2009 15:32

Client ID: CAPA-10-6793

Instrument: VOA9.i

Sample Info: |2432830031937175|1|VOA|1|

Purge Volume: 5.0

Operator: RXY1

Column phase: RTX-Volatiles

Column diameter: 0.25

48 Benzene

Concentration: 0.48 ug/l

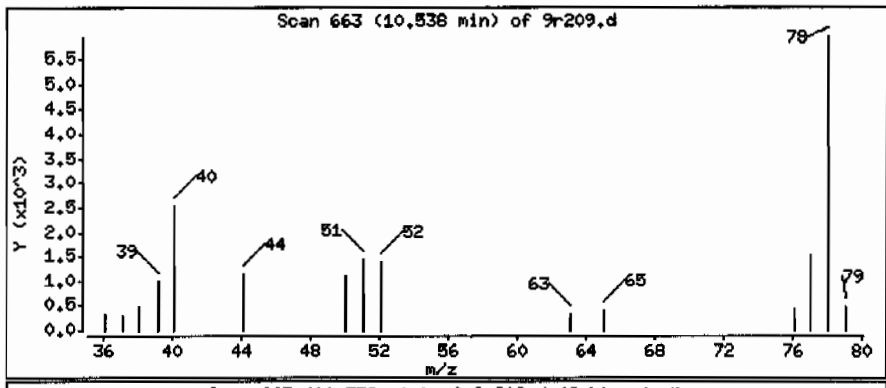

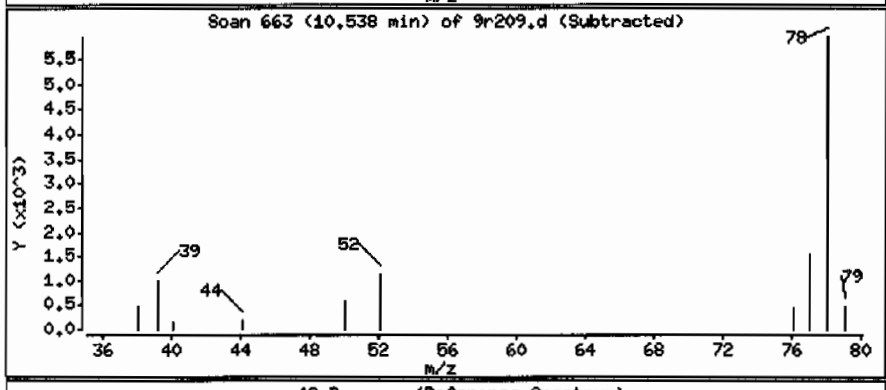

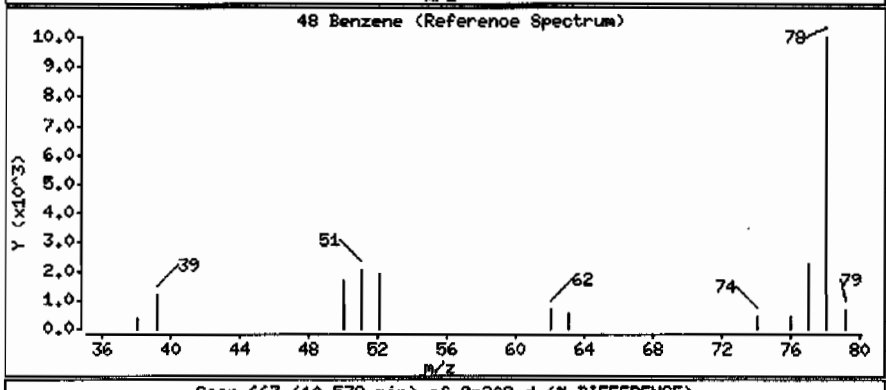

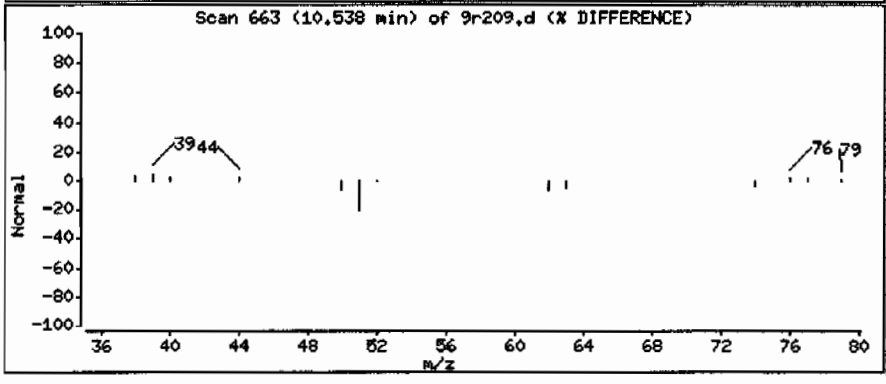

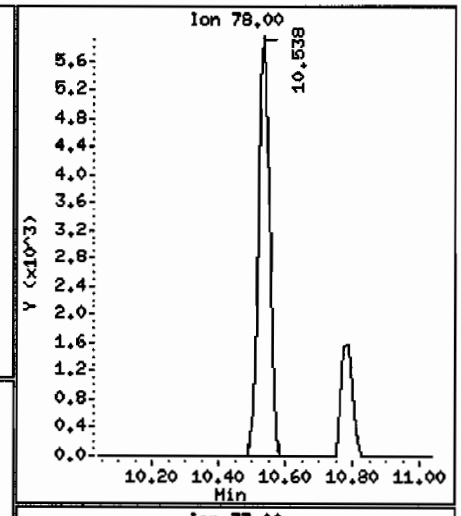

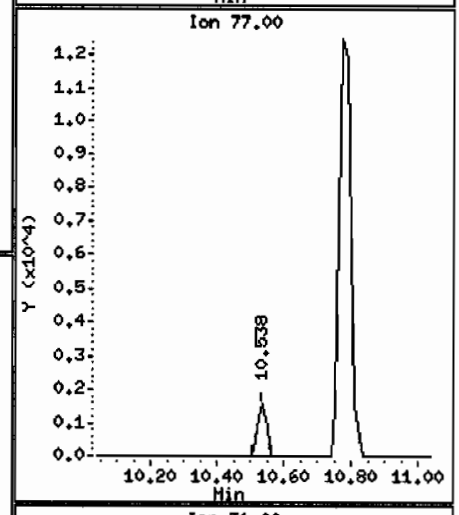

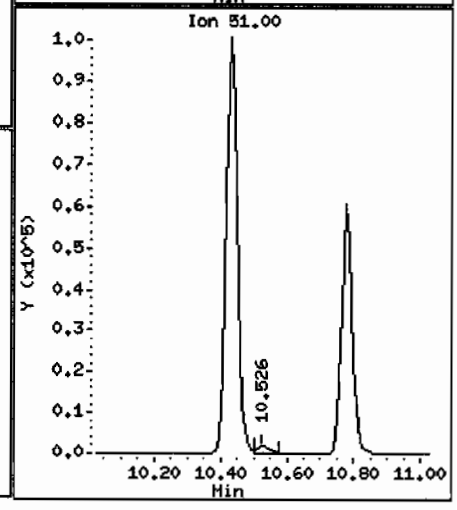

Data File: /chem/VOA9.i/122909v9/9r209.d

Date : 29-DEC-2009 15:32

Client ID: CAPA-10-6793

Instrument: VOA9.i

Sample Info: |2432830031937175|1|VOA|1|

Purge Volume: 5.0

Operator: RXY1

Column phase: RTX-Volatiles

Column diameter: 0.25

65 Toluene

Concentration: 0.55 ug/l

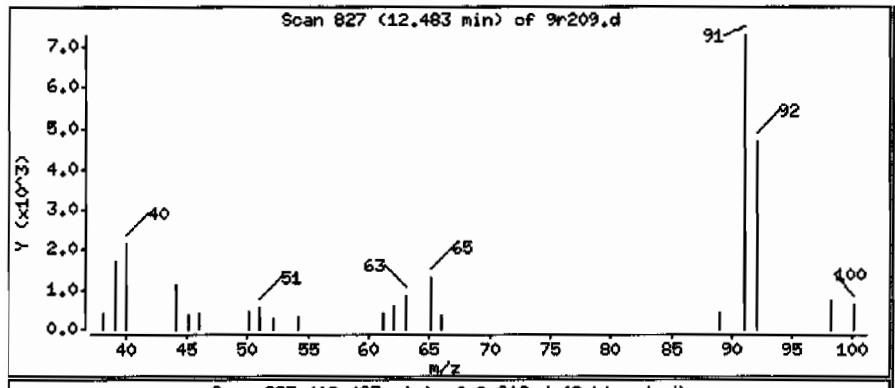

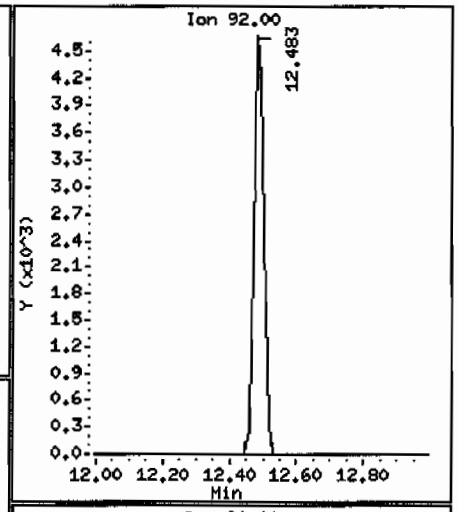

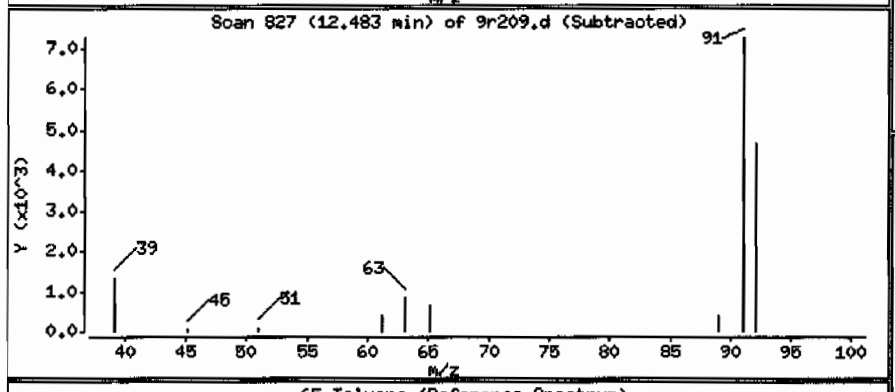

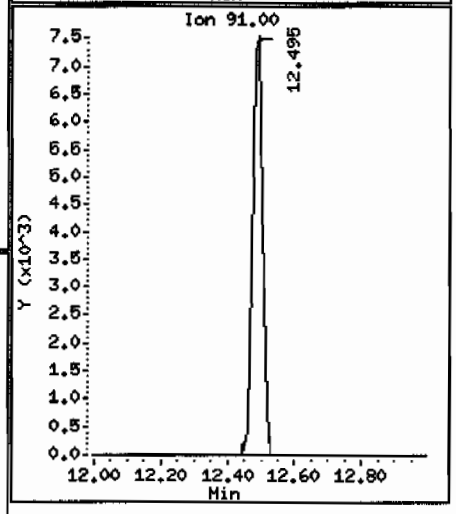

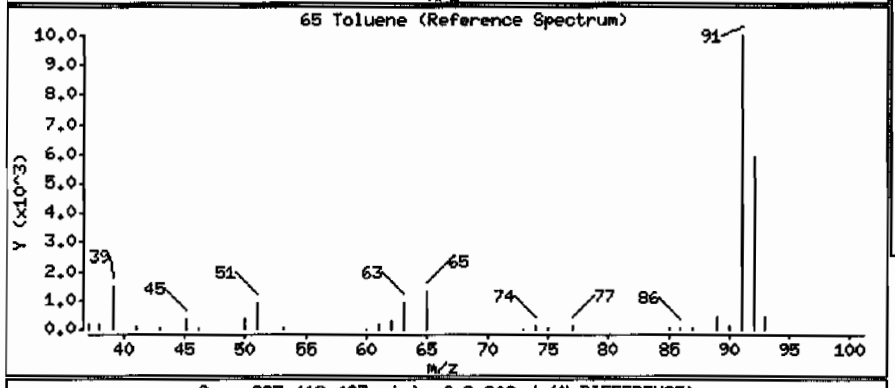

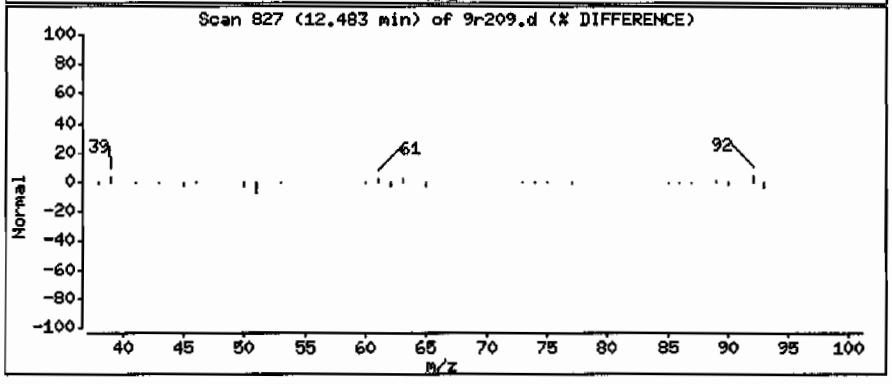

Data File: /chem/VOA9.i/122909v9/9r209.d

Date : 29-DEC-2009 15:32

Client ID: CAPA-10-6793

Instrument: VOA9.i

Sample Info: |2432830031937175|1|VOA|1|

Purge Volume: 5.0

Operator: RXY1

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0

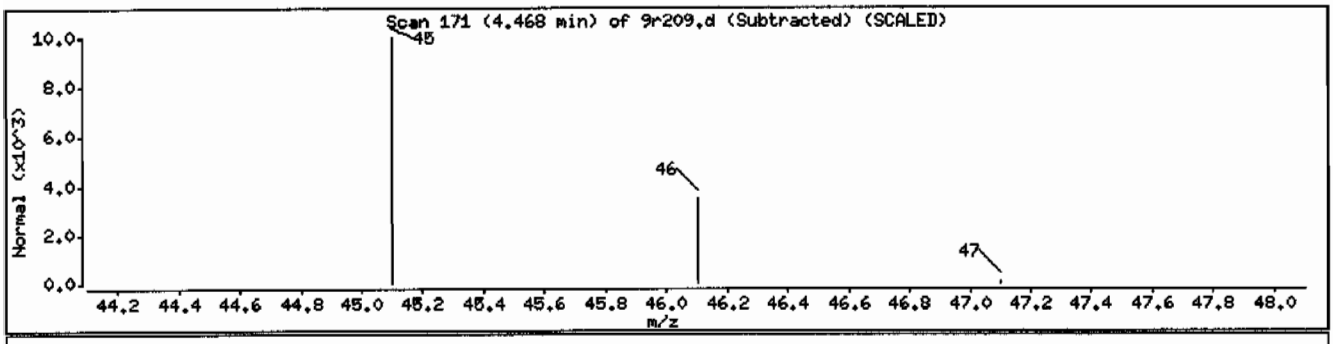

Data File: /chem/VOA9.i/122909v9/9r209.d

Date : 29-DEC-2009 15:32

Client ID: CAPA-10-6793

Instrument: VOA9.i

Sample Info: |2432830031937175|1|VOA|1|

Purge Volume: 5.0

Operator: RXY1

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0

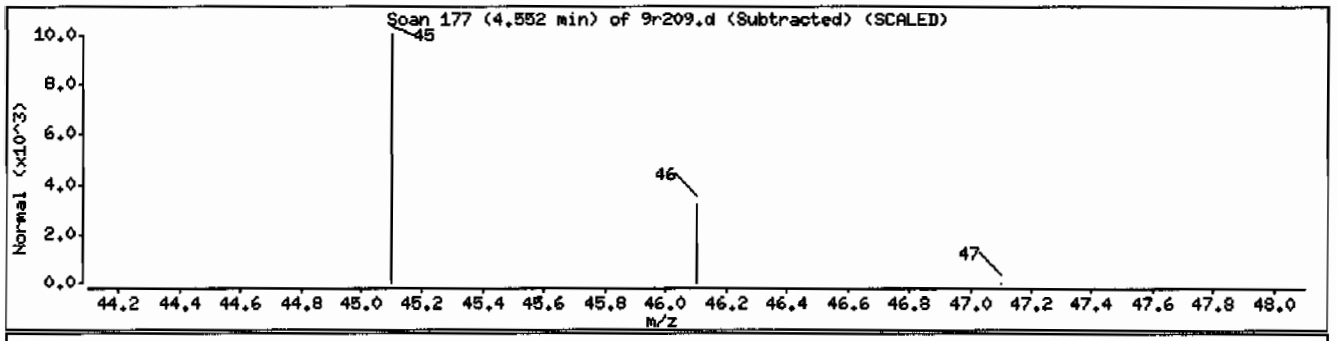

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994	**Date Collected:**	12/17/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	243283005	**Date Received:**	12/19/2009 09:05		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-6795	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	937175	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	12/30/2009 01:10	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	12/30/2009 01:10				
Data File:	9r230.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	J	3.87	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**	**Date Collected:**	**12/17/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243283005**	**Date Received:**	**12/19/2009 09:05**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6795**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937175**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 01:10**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/30/2009 01:10**				
Data File:	**9r230.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**	**Date Collected:**	**12/17/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243283005**	**Date Received:**	**12/19/2009 09:05**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6795**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937175**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 01:10**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/30/2009 01:10**				
Data File:	**9r230.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	62.3	50.0	ug/L	125	(59%-130%)
Bromofluorobenzene	56.0	50.0	ug/L	112	(71%-126%)
Toluene-d8	56.2	50.0	ug/L	112	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	4.55	5.37	ug/L		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/122909v9/9r230.d
Lab Smp Id: 243283005 Client Smp ID: CAPA-10-6795
Inj Date : 30-DEC-2009 01:10
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |243283005|937175|1|VOA|1|
Misc Info : LANL 5ml pH2
Comment :
Method : /chem/VOA9.i/122909v9/VOA9-8260B-111909pm.m
Meth Date : 30-Dec-2009 08:33 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 17:43 Cal File: 91419.d
Als bottle: 30
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-994.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 51 Fluorobenzene	96	10.775	10.775	(1.000)	2113682	50.0000	
* 75 Chlorobenzene-d5	117	13.941	13.942	(1.000)	1374049	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	16.372	16.373	(1.000)	574819	50.0000	
$ 46 1,2-Dichloroethane-d4	65	10.431	10.431	(0.968)	708357	62.2866	62.3
$ 64 Toluene-d8	99	12.412	12.412	(0.890)	187054	56.2433	56.2
$ 86 Bromofluorobenzene	95	15.127	15.127	(0.924)	623161	55.9801	56.0
19 Methylene chloride	84	8.095	8.083	(0.751)	42990	3.87253	3.9(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 9r230.d
Report Date: 12/30/2009 08:35
Lab. ID: 243283005 SampleType: SAMPLE
Injection Date: 30-DEC-2009 01:10
Operator: RXY1 Instrument: VOA9.i
Sample Info: |243283005|937175|1|VOA|1|
Miscellaneous Info: LANL 5ml pH2
Comment:
Method used: /chem/VOA9.i/122909v9/VOA9-8260B-111909pm.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-994
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 Allyl chloride			CAS#: 107-05-1			
76	7220	7.89	7.94	80-120	100	( )
39	938	7.93	7.94	173-233	13	(Q)
19 Methylene chloride			CAS#: 75-09-2			
84	42990	8.10	8.08	80-120	100	( )
86	28673	8.08	8.08	34- 94	67	( )
47 1,2-Dichloroethane			CAS#: 107-06-2			
62	37678	10.78	10.51	80-120	100	(T)
64	6116	10.79	10.51	2- 62	16	(T)
63 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	20081	12.41	12.19	80-120	100	(T)
43	11098	12.41	12.19	237-297	55	(QT)
100	1202146	12.41	12.19	0- 59	5986	(QT)
82 Bromoform			CAS#: 75-25-2			
173	2639	15.14	14.85	80-120	100	(T)
175	30172	15.14	14.84	17- 77	1143	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/122909v9/9r230.d
Lab Smp Id: 243283005 Client Smp ID: CAPA-10-6795
Inj Date : 30-DEC-2009 01:10
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |243283005|937175|1|VOA|1|
Misc Info : LANL 5ml pH2
Comment :
Method : /chem/VOA9.i/122909v9/VOA9-8260B-111909pm.m
Meth Date : 30-Dec-2009 08:33 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 17:43 Cal File: 91419.d
Als bottle: 30
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-994.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 51 Fluorobenzene	10.775	4848843	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/l)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown					CAS #:		
4.552	520665	5.36895756	5.4	0		0	51

Data File: /chem/VOA9.i/122909v9/9r230.d
Date : 30-DEC-2009 01:10
Client ID: CAPA-10-6795
Sample Info: |2432830051937175|1|VOA|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i

Operator: RXY1
Column diameter: 0.25

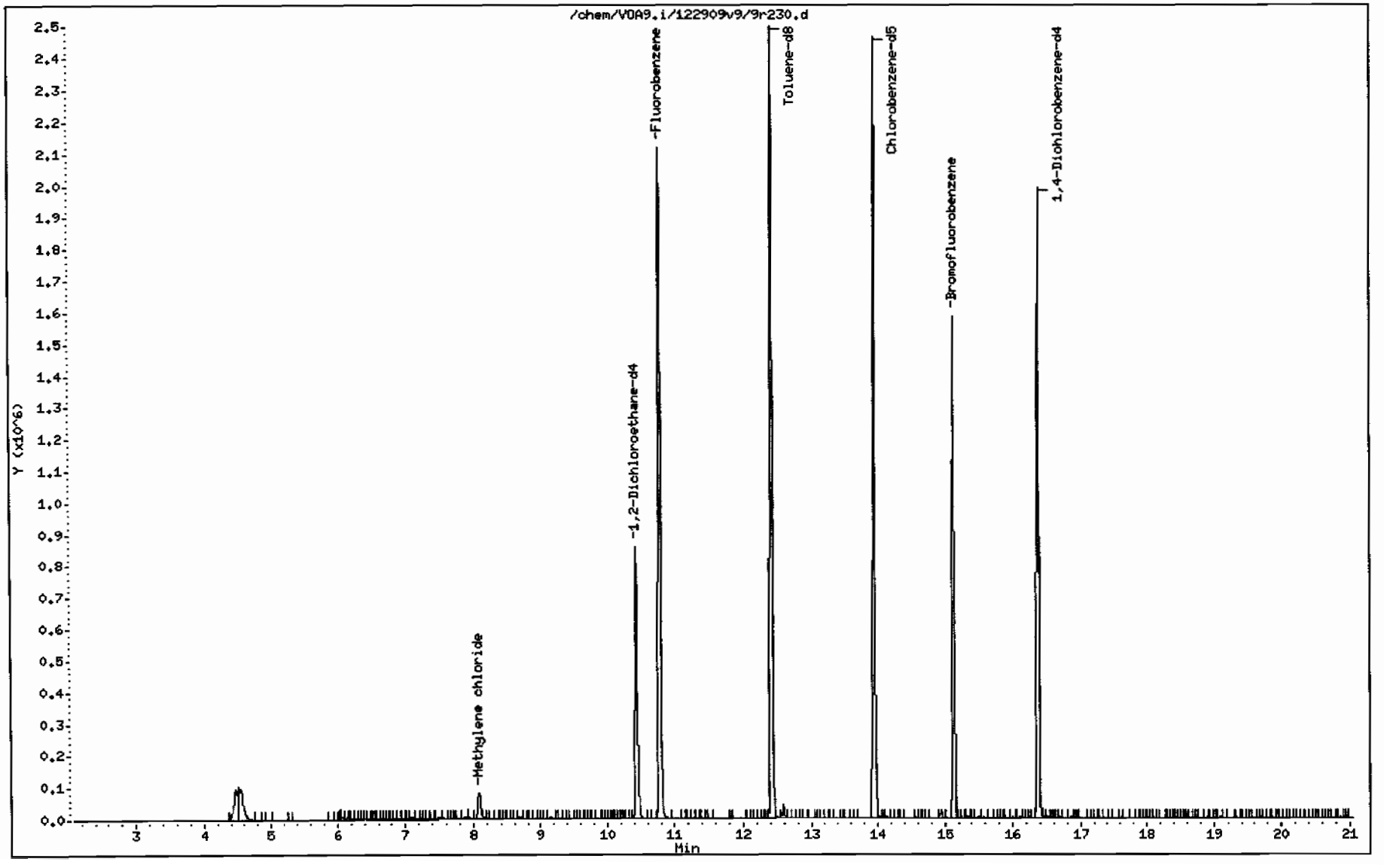

Data File: /chem/VOA9.i/122909v9/9r230.d

Date : 30-DEC-2009 01:10

Client ID: CAPA-10-6795

Instrument: VOA9.i

Sample Info: |2432830051937175|1|VOA|1|

Purge Volume: 5.0

Operator: RXY1

Column phase: RTX-Volatiles

Column diameter: 0.25

19 Methylene chloride

Concentration: 3.9 ug/l

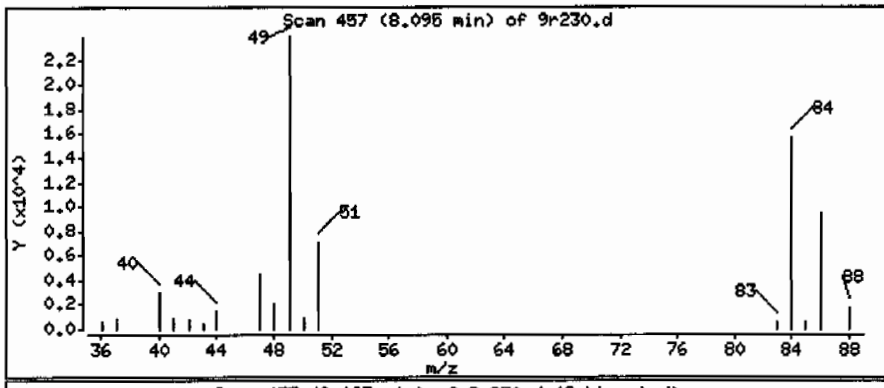

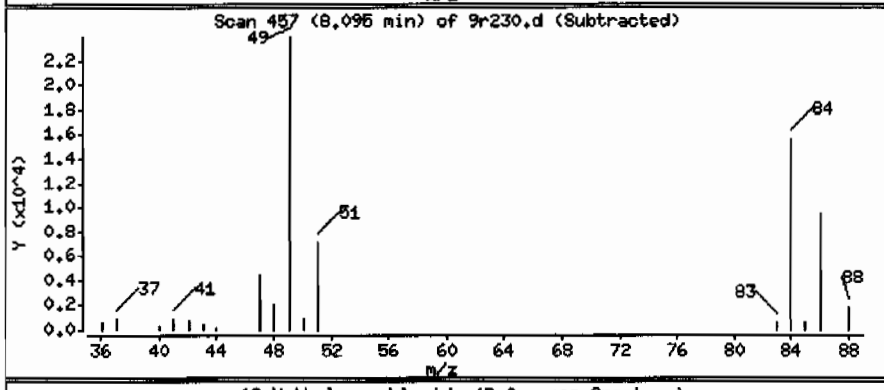

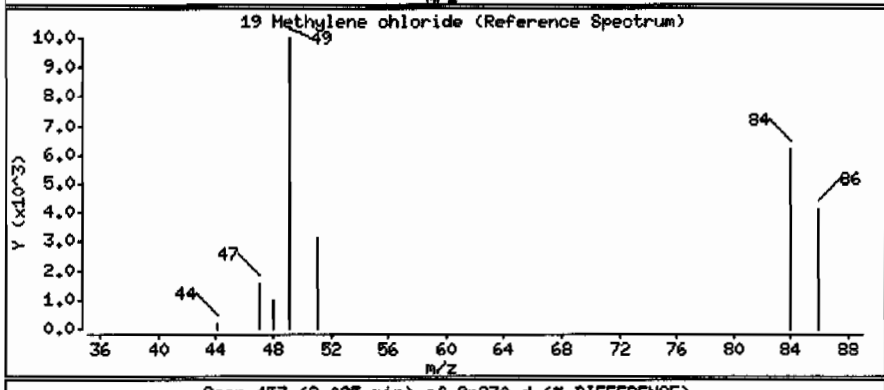

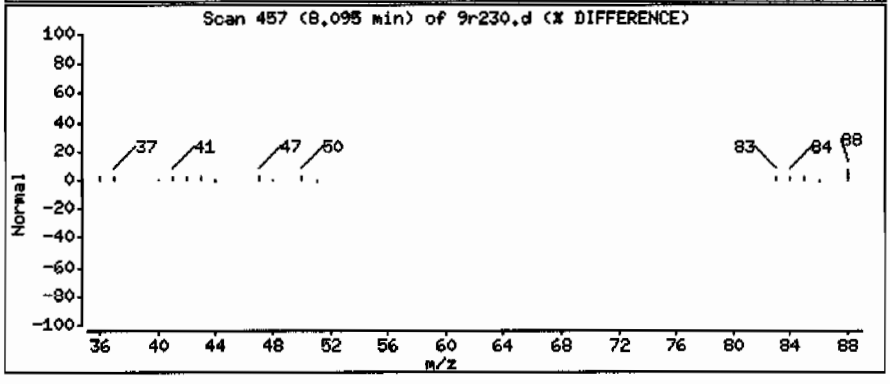

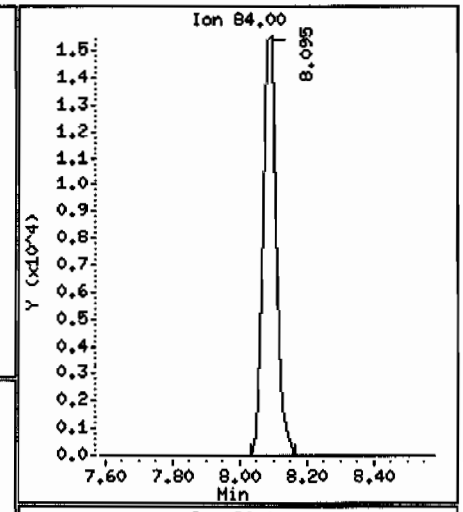

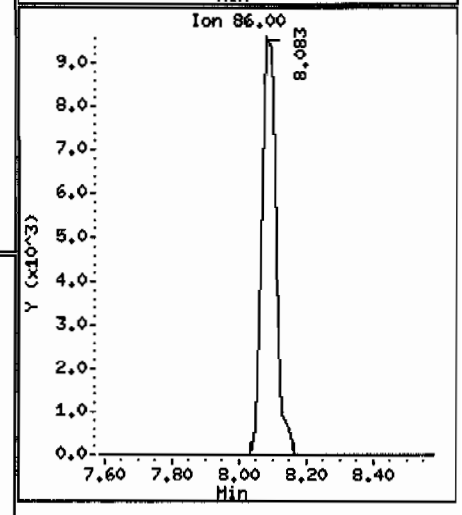

Data File: /chem/VOA9.i/122909v9/9r230.d

Date : 30-DEC-2009 01:10

Client ID: CAPA-10-6795

Instrument: VOA9.i

Sample Info: |2432830051937175|1|VOA|1|

Purge Volume: 5.0

Operator: RXY1

Column phase: RTX-Volatiles

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown			0	0		0

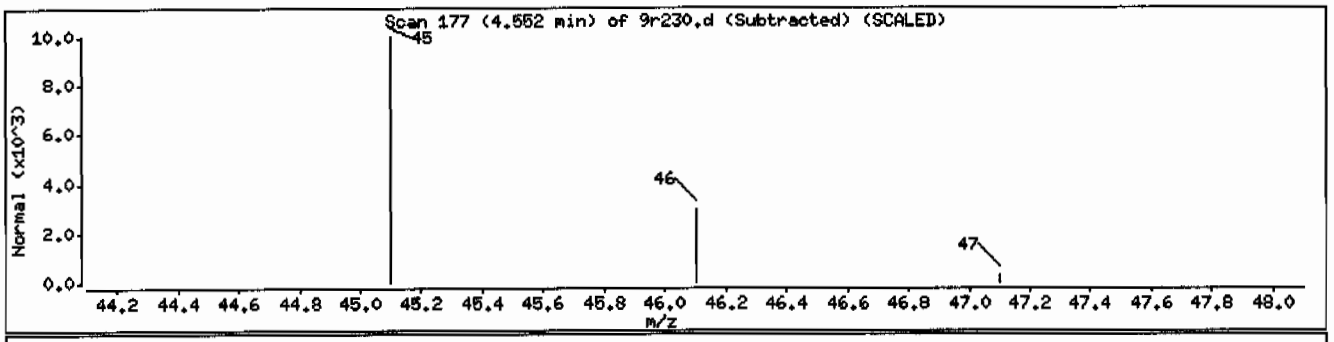

Standard Data

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Report Date: 29-Dec-2009 10:18

Calibration History

Method : /chem/VOA9.i/122909v9/VOA9-8260B-111909.m
Start Cal Date: 19-NOV-2009 11:14
End Cal Date : 19-NOV-2009 18:11

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
19-NOV-2009 15:24	ICALsubS	/chem/VOA9.i/111909v9/91414.d
19-NOV-2009 11:42	ICALsubL+	/chem/VOA9.i/111909v9/91406.d
Cal Level: 2 , Cal Amount: 2.00000		
19-NOV-2009 15:52	ICALsubS	/chem/VOA9.i/111909v9/91415.d
19-NOV-2009 12:10	ICALsubL+	/chem/VOA9.i/111909v9/91407.d
Cal Level: 3 , Cal Amount: 5.00000		
19-NOV-2009 16:20	ICALsubS	/chem/VOA9.i/111909v9/91416.d
19-NOV-2009 12:37	ICALsubL+	/chem/VOA9.i/111909v9/91408.d
Cal Level: 4 , Cal Amount: 10.00000		
19-NOV-2009 16:48	ICALsubS	/chem/VOA9.i/111909v9/91417.d
19-NOV-2009 13:05	ICALsubL+	/chem/VOA9.i/111909v9/91409.d
Cal Level: 5 , Cal Amount: 20.00000		
19-NOV-2009 17:16	ICALsubS	/chem/VOA9.i/111909v9/91418.d
19-NOV-2009 13:33	ICALsubL+	/chem/VOA9.i/111909v9/91410.d
Cal Level: 6 , Cal Amount: 50.00000		
19-NOV-2009 17:43	ICALsubS	/chem/VOA9.i/111909v9/91419.d
19-NOV-2009 14:01	ICALsubL+	/chem/VOA9.i/111909v9/91411.d
Cal Level: 7 , Cal Amount: 100.00000		
19-NOV-2009 18:11	ICALsubS	/chem/VOA9.i/111909v9/91420.d
19-NOV-2009 14:29	ICALsubL+	/chem/VOA9.i/111909v9/91412.d
Cal Level: 8 , Cal Amount: 200.00000		
19-NOV-2009 11:14	BENZENE+	/chem/VOA9.i/111909v9/91405.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-NOV-2009 11:14
End Cal Date : 19-NOV-2009 18:11
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA9.i/122909v9/VOA9-8260B-111909.m
Cal Date : 20-Nov-2009 07:59 ram01192

Calibration File Names:
Level 1: /chem/VOA9.i/111909v9/91414.d
Level 2: /chem/VOA9.i/111909v9/91415.d
Level 3: /chem/VOA9.i/111909v9/91416.d
Level 4: /chem/VOA9.i/111909v9/91417.d
Level 5: /chem/VOA9.i/111909v9/91418.d
Level 6: /chem/VOA9.i/111909v9/91419.d
Level 7: /chem/VOA9.i/111909v9/91420.d
Level 8: /chem/VOA9.i/111909v9/91405.d

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
M 27 Xylenes (total)	0.56217	0.54648	0.58510	0.56071	0.56616	0.52039					
	0.48225	++++++					AVRG		0.54618		6.31269
M 42 1,2-Dichloroethylene (total)	0.21605	0.20851	0.22498	0.21776	0.22215	0.20735					
	0.19885	++++++					AVRG		0.21367		4.30885
M 45 1,3-Dichloropropylene	0.34717	0.33308	0.37069	0.35489	0.35898	0.34424					
	0.32409	++++++					AVRG		0.34759		4.53538
146 Chlorotrifluoroethylene	++++++	0.10806	0.10839	0.10790	0.10526	0.10176					
	0.10134	++++++					AVRG		0.10545		3.05964
1 Dichlorodifluoromethane	0.16957	0.13678	0.16210	0.14992	0.15977	0.14120					
	0.13817	++++++					AVRG		0.15107		8.58297

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-NOV-2009 11:14
End Cal Date : 19-NOV-2009 18:11
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA9.i/122909v9/VOA9-8260B-111909.m
Cal Date : 20-Nov-2009 07:59 ram01192

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
2 Chloromethane	0.30332	0.27312	0.29398	0.27619	0.28692	0.26769					
	0.25470	+++++					AVRG		0.27941		5.91473
3 Vinyl chloride	0.24153	0.20962	0.23201	0.22408	0.23444	0.22506					
	0.22187	+++++					AVRG		0.22694		4.52242
147 2-Chloro-1,1,1-trifluoroethan	+++++	0.20008	0.18707	0.18685	0.15552	0.17837					
	0.16783	+++++					AVRG		0.17929		8.80795
4 Bromomethane	0.14163	0.13722	0.15792	0.15565	0.16430	0.15563					
	0.15521	+++++					AVRG		0.15251		6.26286
5 Chloroethane	0.15133	0.15557	0.16488	0.16094	0.16543	0.15881					
	0.15790	+++++					AVRG		0.15927		3.15053
6 Trichlorofluoromethane	0.24038	0.23410	0.26332	0.25956	0.26983	0.25504					
	0.25007	+++++					AVRG		0.25319		4.99948
7 Ethyl Ether	0.21430	0.20170	0.22361	0.21948	0.21887	0.21621					
	0.21048	+++++					AVRG		0.21495		3.33554
8 Acrolein	0.05099	0.05108	0.04661	0.04706	0.04044	0.04768					
	0.04061	+++++					AVRG		0.04635		9.40734
9 Trichlorotrifluoroethane	0.08102	0.07756	0.07285	0.07285	0.06076	0.06965					
	0.05946	+++++					AVRG		0.07059		11.40246

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-NOV-2009 11:14
End Cal Date : 19-NOV-2009 18:11
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA9.i/122909v9/VOA9-8260B-111909.m
Cal Date : 20-Nov-2009 07:59 ram01192

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
10 Acetone	0.19153	0.15900	0.16290	0.16771	0.14509	0.16911					
	0.13458	+++++					AVRG		0.16142		11.31213
11 1,1-Dichloroethylene	0.37045	0.35013	0.39149	0.37860	0.38335	0.35698					
	0.34302	+++++					AVRG		0.36772		4.92794
12 Isopropyl Alcohol	0.01925	0.02093	0.01865	0.02030	0.01702	0.01797					
	0.01581	+++++					AVRG		0.01856		9.68761
13 Iodomethane	0.28793	0.27749	0.30581	0.29345	0.29134	0.26999					
	0.24817	+++++					AVRG		0.28203		6.67953
14 Acetonitrile	0.03709	0.03517	0.03573	0.03582	0.03301	0.04140					
	0.02904	+++++					AVRG		0.03532		10.67706
15 Methyl acetate	0.23081	0.19973	0.20975	0.21150	0.18991	0.18916					
	0.16369	+++++					AVRG		0.19922		10.66661
16 Carbon disulfide	0.65226	0.62178	0.67276	0.65053	0.64338	0.57985					
	0.52087	+++++					AVRG		0.62020		8.51770
17 Allyl chloride	0.12994	0.12814	0.11694	0.11598	0.09629	0.11174					
	0.09652	+++++					AVRG		0.11365		11.85950
18 tert-Butyl Alcohol	0.03191	0.03304	0.03014	0.03202	0.02691	0.02784					
	0.02375	+++++					AVRG		0.02938		11.42019

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-NOV-2009 11:14
End Cal Date : 19-NOV-2009 18:11
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA9.i/122909v9/VOA9-8260B-111909.m
Cal Date : 20-Nov-2009 07:59 ram01192

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
19 Methylene chloride	+++++	0.31406	0.28582	0.26118	0.25201	0.23685					
	0.22570	+++++					AVRG		0.26260		12.42948
20 Acrylonitrile	0.09763	0.10408	0.09792	0.10441	0.08699	0.10195					
	0.08525	+++++					AVRG		0.09689		8.09235
21 tert-Butyl methyl ether	0.68066	0.70304	0.68794	0.69523	0.67283	0.64601					
	0.59981	+++++					AVRG		0.66936		5.34208
22 trans-1,2-Dichloroethylene	0.20495	0.19346	0.21123	0.20550	0.21149	0.19676					
	0.18870	+++++					AVRG		0.20173		4.40012
23 Vinyl acetate	0.46931	0.47454	0.52770	0.49652	0.47511	0.46433					
	0.37492	+++++					AVRG		0.46892		9.98092
24 Isopropyl ether	+++++	0.97546	0.93716	0.96027	0.82448	0.88435					
	0.83358	+++++					AVRG		0.90255		7.18543
25 1,1-Dichloroethane	0.43751	0.41577	0.45062	0.44344	0.44579	0.41551					
	0.39740	+++++					AVRG		0.42943		4.64232
26 2-Chloro-1,3-butadiene	0.41779	0.40139	0.38559	0.39261	0.33373	0.39415					
	0.34661	+++++					AVRG		0.38170		7.94063
28 Ethyl tert-butyl ether	+++++	0.88951	0.87579	0.88574	0.76449	0.82510					
	0.77027	+++++					AVRG		0.83515		6.87221

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-NOV-2009 11:14
End Cal Date : 19-NOV-2009 18:11
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA9.i/122909v9/VOA9-8260B-111909.m
Cal Date : 20-Nov-2009 07:59 ram01192

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
29 2-Butanone	0.20966	0.17238	0.18783	0.18428	0.17059	0.18945					
	0.15739	+++++					AVRG		0.18165		9.23117
30 Ethyl acetate	0.27223	0.28406	0.25790	0.26164	0.22112	0.24260					
	0.19005	+++++					AVRG		0.24709		13.08800
31 cis-1,2-Dichloroethylene	0.22715	0.22356	0.23874	0.23003	0.23282	0.21794					
	0.20900	+++++					AVRG		0.22561		4.37784
32 Propionitrile	0.03921	0.04074	0.03817	0.03862	0.03312	0.03900					
	0.03280	+++++					AVRG		0.03738		8.35761
33 2,2-Dichloropropane	0.31470	0.30073	0.31131	0.30227	0.30640	0.28195					
	0.26844	+++++					AVRG		0.29797		5.62250
34 Methacrylonitrile	0.16499	0.17205	0.16052	0.16438	0.13997	0.15410					
	0.12370	+++++					AVRG		0.15425		10.94907
35 Bromochloromethane	0.09774	0.09313	0.09955	0.10358	0.10099	0.09925					
	0.09346	+++++					AVRG		0.09824		3.89858
36 Chloroform	0.39392	0.36905	0.40197	0.38960	0.39053	0.36380					
	0.34047	+++++					AVRG		0.37848		5.71618
37 Tetrahydrofuran	0.26231	0.27228	0.24057	0.24491	0.20787	0.24479					
	0.19463	+++++					AVRG		0.23819		11.69268

GEL Laboratories LLC

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Method file : /chem/VOA9.i/122909v9/VOA9-8260B-111909.m
Cal Date : 20-Nov-2009 07:59 ram01192

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
39 1,1,1-Trichloroethane	0.28295	0.26924	0.29323	0.29446	0.30159	0.28061					
	0.26827	+++++					AVRG		0.28434		4.49721
40 Isobutyl alcohol	0.01047	0.01047	0.01001	0.01064	0.00911	0.00952					
	0.00771	+++++					AVRG		0.00970		10.70633
41 Cyclohexane	0.29819	0.29938	0.31780	0.31235	0.32362	0.29971					
	0.28602	+++++					AVRG		0.30530		4.29167
43 1,1-Dichloropropene	0.26004	0.26809	0.29177	0.28185	0.28974	0.26580					
	0.25068	+++++					AVRG		0.27257		5.70659
44 Carbon tetrachloride	0.24691	0.22945	0.24801	0.24518	0.25529	0.23711					
	0.22795	+++++					AVRG		0.24142		4.22299
47 1,2-Dichloroethane	0.34081	0.32169	0.34754	0.33843	0.33480	0.31641					
	0.29440	+++++					AVRG		0.32773		5.57606
48 Benzene	0.86646	0.81725	0.89013	0.84591	0.86378	0.79351					
	0.74178	0.92787					AVRG		0.84334		6.90984
49 Methyl tert-amyl ether	+++++	0.69224	0.68341	0.69687	0.59861	0.63868					
	0.59189	+++++					AVRG		0.65028		7.29229
50 Cyclohexene	0.45044	0.43642	0.47011	0.45324	0.47222	0.42465					
	0.40706	+++++					AVRG		0.44488		5.34744

GEL Laboratories LLC

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Start Cal Date : 19-NOV-2009 11:14
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Method file : /chem/VOA9.i/122909v9/VOA9-8260B-111909.m
Cal Date : 20-Nov-2009 07:59 ram01192

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
52 n-Butyl alcohol	0.00609	0.00570	0.00591	0.00615	0.00561	0.00568					
	0.00487	0.00601					AVRG		0.00575		7.09039
53 Trichloroethylene	0.19761	0.19795	0.21654	0.20718	0.21493	0.19889					
	0.18941	+++++					AVRG		0.20322		4.91702
54 Methyl methacrylate	0.16109	0.16785	0.15553	0.15650	0.13210	0.14558					
	0.11574	+++++					AVRG		0.14777		12.33528
55 1,2-Dichloropropane	0.24533	0.23619	0.26473	0.25417	0.25049	0.23688					
	0.22038	+++++					AVRG		0.24402		5.90650
56 Methylcyclohexane	0.38056	0.35622	0.38635	0.37956	0.38832	0.35095					
	0.33496	+++++					AVRG		0.36813		5.61341
57 1,4-Dioxane	6276	10859	23271	46100	84326	215148					
	+++++	+++++					LINR	-0.14408	0.00227		0.99750
58 Dibromomethane	0.13497	0.11736	0.13229	0.12686	0.12841	0.12783					
	0.12083	+++++					AVRG		0.12694		4.82536
59 Bromodichloromethane	0.29695	0.28367	0.30945	0.30345	0.30609	0.29379					
	0.27807	+++++					AVRG		0.29592		3.94479
60 2-Nitropropane	0.09201	0.08722	0.08140	0.08575	0.07466	0.08589					
	0.07096	+++++					AVRG		0.08256		8.99228

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Method file : /chem/VOA9.i/122909v9/VOA9-8260B-111909.m
Cal Date : 20-Nov-2009 07:59 ram01192

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
61 2-Chloroethylvinyl ether	0.15106	0.13615	0.15230	0.14740	0.14295	0.13802					
	0.12225	+++++					AVRG		0.14145		7.39363
62 cis-1,3-Dichloropropylene	0.36037	0.34234	0.38171	0.37343	0.37505	0.35563					
	0.33592	+++++					AVRG		0.36063		4.78412
63 4-Methyl-2-pentanone	0.17289	0.15764	0.16743	0.16622	0.15448	0.16917					
	0.14632	+++++					AVRG		0.16202		5.84779
65 Toluene	0.77581	0.74051	0.78155	0.74864	0.76574	0.71342					
	0.68696	+++++					AVRG		0.74466		4.62404
66 Ethyl methacrylate	0.44281	0.47041	0.43764	0.43799	0.35898	0.38414					
	+++++	+++++					AVRG		0.42200		9.87464
67 trans-1,3-Dichloropropylene	0.49174	0.47330	0.52354	0.49362	0.49892	0.49047					
	0.46262	+++++					AVRG		0.49060		3.94454
68 1,1,2-Trichloroethane	0.25277	0.23039	0.24872	0.24340	0.23986	0.23588					
	0.22097	+++++					AVRG		0.23886		4.56368
69 2-Hexanone	0.45819	0.41620	0.44942	0.43358	0.40551	0.42163					
	0.34084	+++++					AVRG		0.41791		9.25312
70 1,3-Dichloropropane	0.51605	0.44072	0.49838	0.48402	0.47154	0.45251					
	0.41061	+++++					AVRG		0.46769		7.69819

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Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
71 Tetrachloroethylene	0.21066	0.18962	0.21343	0.20419	0.20240	0.19070					
	0.18143	+++++					AVRG		0.19892		5.97661
72 Dibromochloromethane	0.30154	0.27022	0.29537	0.29767	0.29737	0.30207					
	0.28960	+++++					AVRG		0.29341		3.76179
73 1,2-Dibromoethane	0.26578	0.26730	0.29324	0.28426	0.28317	0.28547					
	0.26948	+++++					AVRG		0.27839		3.85018
74 1-Chlorohexane	+++++	0.27393	0.24606	0.25954	0.22055	0.23179					
	0.22686	+++++					AVRG		0.24312		8.48860
76 Chlorobenzene	0.76631	0.69415	0.77612	0.75998	0.75864	0.71365					
	0.66643	+++++					AVRG		0.73361		5.74761
77 1,1,1,2-Tetrachloroethane	0.28358	0.25175	0.27733	0.27379	0.27325	0.25945					
	0.24624	+++++					AVRG		0.26648		5.27526
78 Ethylbenzene	1.52316	1.37535	1.48810	1.41203	1.40342	1.23681					
	1.10728	+++++					AVRG		1.36374		10.65999
79 m,p-Xylenes	0.56025	0.54101	0.58400	0.55352	0.56262	0.51395					
	0.47328	+++++					AVRG		0.54123		6.81425
80 o-Xylene	0.56601	0.55742	0.58730	0.57509	0.57324	0.53328					
	0.50020	+++++					AVRG		0.55608		5.38182

GEL Laboratories LLC

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Method file : /chem/VOA9.i/122909v9/VOA9-8260B-111909.m
Cal Date : 20-Nov-2009 07:59 ram01192

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
81 Styrene	0.99664	0.94604	1.00452	0.96302	0.96806	0.88491					
	0.79976	+++++					AVRG		0.93756		7.71403
82 Bromoform	0.37637	0.31766	0.36342	0.36947	0.36337	0.38502					
	0.36335	+++++					AVRG		0.36267		5.91472
83 Isopropylbenzene	2.96020	2.81133	3.03956	2.91587	2.96983	2.62537					
	2.38167	+++++					AVRG		2.81483		8.32406
84 cis-1,4-Dichloro-2-butene	0.30861	0.31644	0.29619	0.30753	0.25795	0.29238					
	0.23636	+++++					AVRG		0.28792		10.29421
85 Cyclohexanone	0.05052	0.04961	0.04401	0.04539	0.03850	0.03988					
	0.03554	+++++					AVRG		0.04335		13.04423
87 1,1,2,2-Tetrachloroethane	0.78947	0.75443	0.81686	0.80020	0.77488	0.78945					
	0.71595	+++++					AVRG		0.77732		4.29195
88 trans-1,4-Dichloro-2-butene	0.28440	0.29390	0.27281	0.27925	0.24182	0.26814					
	0.21973	+++++					AVRG		0.26572		9.79953
89 1,2,3-Trichloropropane	0.20514	0.17966	0.19600	0.20448	0.19303	0.20028					
	0.18712	+++++					AVRG		0.19510		4.78417
90 Bromobenzene	0.68721	0.62230	0.67660	0.65110	0.64712	0.60194					
	0.56486	+++++					AVRG		0.63587		6.74317

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Cal Date : 20-Nov-2009 07:59 ram01192

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
91 n-Propylbenzene	3.66018	3.38057	3.63804	3.47894	3.47938	3.02338					
	2.65674	+++++					AVRG		3.33103		10.94998
92 2-Chlorotoluene	2.47586	2.38263	2.51535	2.39582	2.34173	2.09615					
	1.89889	+++++					AVRG		2.30092		9.67731
93 1,3,5-Trimethylbenzene	2.60755	2.39237	2.56708	2.49566	2.50564	2.20635					
	1.95979	+++++					AVRG		2.39063		9.69080
94 4-Chlorotoluene	2.37655	2.18335	2.28139	2.22874	2.22139	2.03855					
	1.87743	+++++					AVRG		2.17249		7.61409
95 tert-Butylbenzene	2.44004	2.23493	2.35296	2.32876	2.33922	2.12499					
	1.96509	+++++					AVRG		2.25514		7.18959
96 1,2,4-Trimethylbenzene	2.70662	2.48003	2.67200	2.60054	2.57035	2.30053					
	2.08607	+++++					AVRG		2.48802		8.95510
97 Pentachloroethane	0.25576	0.29310	0.28210	0.24733	0.21195	0.21910					
	+++++	+++++					AVRG		0.25156		12.96268
98 sec-Butylbenzene	3.39930	3.17279	3.37583	3.32577	3.36450	2.96982					
	2.68308	+++++					AVRG		3.18444		8.43349
99 4-Isopropyltoluene	2.50931	2.41745	2.59032	2.54288	2.56495	2.28318					
	2.08684	+++++					AVRG		2.42785		7.56471

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Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
100 1,3-Dichlorobenzene	1.30164	1.23377	1.34224	1.30245	1.28793	1.20574					
	1.12886	+++++					AVRG		1.25752		5.79520
102 1,4-Dichlorobenzene	1.28066	1.17250	1.29318	1.25142	1.25508	1.18015					
	1.10348	+++++					AVRG		1.21950		5.66852
103 Benzyl chloride	1.43635	1.50257	1.40260	1.36964	1.13046	1.16136					
	+++++	+++++					AVRG		1.33383		11.42443
104 n-Butylbenzene	1.52747	1.37680	1.56923	1.51318	1.54444	1.38748					
	1.30344	+++++					AVRG		1.46029		7.02441
105 1,2-Dichlorobenzene	1.25268	1.14720	1.28712	1.26338	1.25822	1.18461					
	1.10546	+++++					AVRG		1.21410		5.66101
106 bis(2-Chloroisopropyl)ether	0.45435	0.47365	0.44169	0.44900	0.38563	0.41896					
	0.34098	+++++					AVRG		0.42347		10.86982
107 1,2-Dibromo-3-chloropropane	0.15473	0.12059	0.13683	0.14257	0.13331	0.14600					
	0.13644	+++++					AVRG		0.13864		7.73908
108 1,2,4-Trichlorobenzene	0.78613	0.73029	0.81635	0.81161	0.82807	0.76322					
	0.70884	+++++					AVRG		0.77779		5.85663
109 Hexachlorobutadiene	0.41249	0.40221	0.44674	0.44435	0.46337	0.41540					
	0.38987	+++++					AVRG		0.42492		6.31614

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Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
110 Naphthalene	1.97592	1.82364	2.04608	2.06658	2.05176	1.96578					
	1.74405	+++++					AVRG		1.95340		6.35293
111 1,2,3-Trichlorobenzene	0.60729	0.59953	0.68220	0.68062	0.68998	0.64356					
	0.57991	+++++					AVRG		0.64044		7.05807
$ 46 1,2-Dichloroethane-d4	0.26555	0.24792	0.28510	0.27020	0.27383	0.27212					
	0.26845	+++++					AVRG		0.26902		4.15631
$ 64 Toluene-d8	0.11797	0.11085	0.12556	0.12140	0.12543	0.12102					
	0.12491	+++++					AVRG		0.12102		4.37262
$ 86 Bromofluorobenzene	0.94253	0.87675	0.99727	0.98141	1.00302	0.98616					
	0.99090	+++++					AVRG		0.96829		4.63600

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Cal Date : 20-Nov-2009 07:59 ram01192

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/111909v9/91405.d
Lab Smp Id: W9VM091119-01 Client Smp ID: VSTD0005
Inj Date : 19-NOV-2009 11:14
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |W9VM091119-01|VSTD0005|1|VOA|1|
Misc Info : GEL 5ml n/a UVM090911-01C/UVM091116-01A
Comment :
Method : /chem/VOA9.i/111909v9/VOA9-8260B-111909.m
Meth Date : 19-Nov-2009 14:46 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 11:14 Cal File: 91405.d
Als bottle: 5 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BENZENE+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
48 Benzene	78	10.538	10.538	(0.977)	17463	0.50000	0.55(a)
52 n-Butyl alcohol	41	10.858	10.858	(1.007)	11316	50.0000	52.3
* 51 Fluorobenzene	96	10.787	10.787	(1.000)	1882060	50.0000	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/VOA9.i/111909v9/91405.d

Date : 19-NOV-2009 11:14

Client ID: VSTD0005

Sample Info: |W9VH091119-01|VSTD0005|1|VOA|1|

Purge Volume: 5.0

Column phase: RTX-Volatiles

Instrument: VOA9.i

Operator: RXY1

Column diameter: 0.25

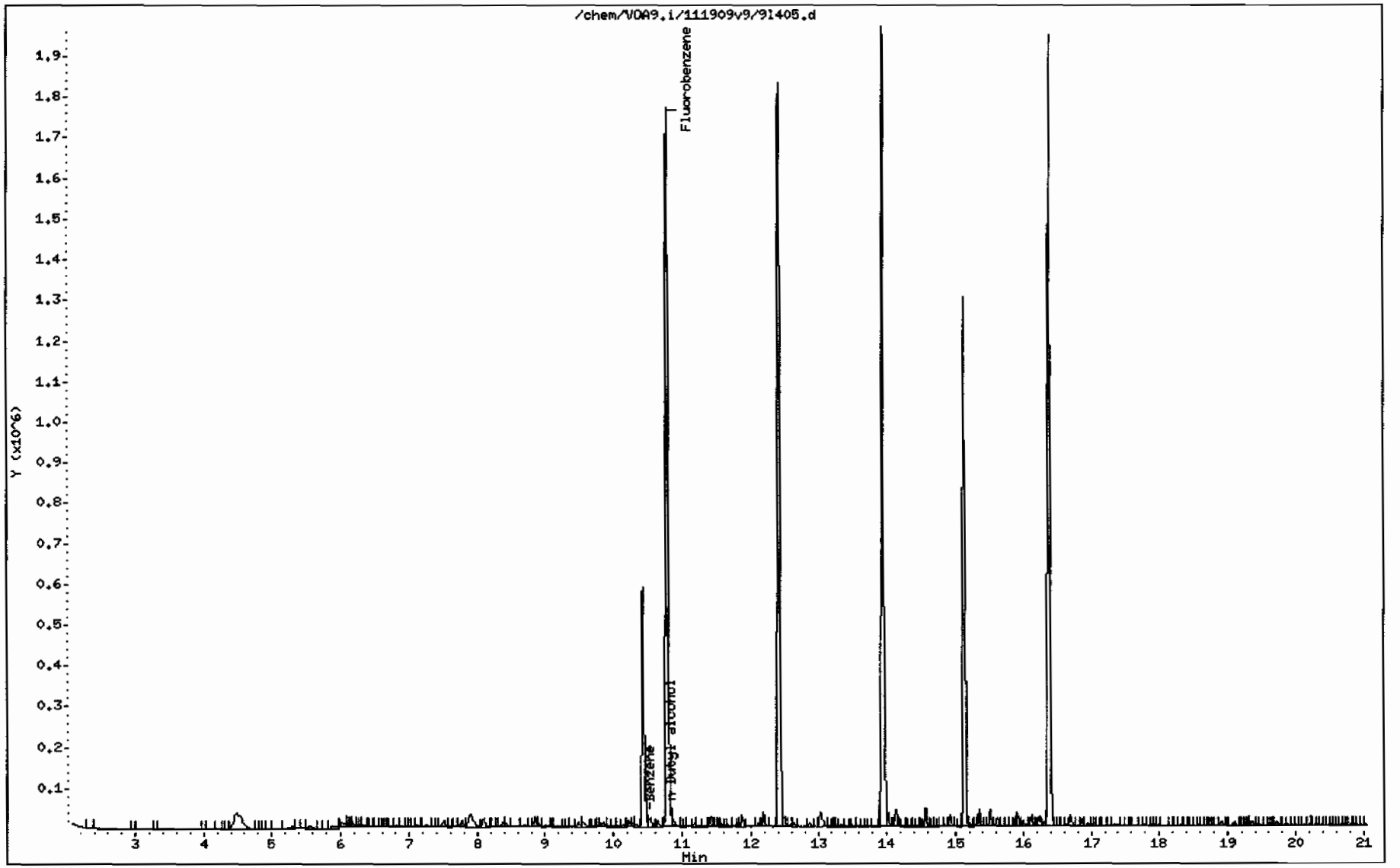

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/111909v9/91406.d
Lab Smp Id: W9VM091119-02 Client Smp ID: VSTD001
Inj Date : 19-NOV-2009 11:42
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |W9VM091119-02|VSTD001|1|VOA|1|
Misc Info : GEL 5ml n/a UVM090911-02C/UVM091116-02A
Comment :
Method : /chem/VOA9.i/111909v9/VOA9-8260B-111909.m
Meth Date : 19-Nov-2009 14:46 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 11:42 Cal File: 91406.d
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 27 Xylenes (total)	106				45097	3.00000	3.1
M 42 1,2-Dichloroethylene (total)	96				17012	2.00000	2.0
M 45 1,3-Dichloropropylene	75				27337	2.00000	2.0
1 Dichlorodifluoromethane	85	4.958	4.958	(0.460)	6676	1.00000	1.1
2 Chloromethane	50	5.308	5.322	(0.492)	11942	1.00000	1.1
3 Vinyl chloride	62	5.560	5.574	(0.515)	9509	1.00000	1.1
4 Bromomethane	94	6.174	6.198	(0.572)	5576	1.00000	0.93(a)
5 Chloroethane	64	6.340	6.352	(0.588)	5958	1.00000	0.95(a)
6 Trichlorofluoromethane	101	6.767	6.791	(0.627)	9464	1.00000	0.95(a)
7 Ethyl Ether	59	7.099	7.099	(0.658)	8437	1.00000	1.00
10 Acetone	43	7.502	7.490	(0.695)	37704	5.00000	5.9
14 Acetonitrile	41	7.870	7.870	(0.730)	36502	25.0000	26.2
11 1,1-Dichloroethylene	61	7.514	7.514	(0.697)	14585	1.00000	1.0
15 Methyl acetate	43	7.882	7.882	(0.731)	45435	5.00000	5.8
13 Iodomethane	142	7.775	7.775	(0.721)	56680	5.00000	5.1
16 Carbon disulfide	76	7.917	7.917	(0.734)	128400	5.00000	5.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
21 tert-Butyl methyl ether	73	8.380	8.380	(0.777)	26798	1.00000	1.0
22 trans-1,2-Dichloroethylene	96	8.427	8.427	(0.781)	8069	1.00000	1.0
23 Vinyl acetate	43	8.854	8.854	(0.821)	92386	5.00000	5.0
25 1,1-Dichloroethane	63	8.913	8.913	(0.826)	17225	1.00000	1.0
29 2-Butanone	43	9.494	9.495	(0.880)	41272	5.00000	5.8
31 cis-1,2-Dichloroethylene	96	9.554	9.554	(0.886)	8943	1.00000	1.0
33 2,2-Dichloropropane	77	9.577	9.589	(0.888)	12390	1.00000	1.0
36 Chloroform	83	9.862	9.862	(0.914)	15509	1.00000	1.0
35 Bromochloromethane	128	9.838	9.838	(0.912)	3848	1.00000	0.99(a)
39 1,1,1-Trichloroethane	97	10.135	10.147	(0.940)	11140	1.00000	1.00(Q)
41 Cyclohexane	84	10.230	10.230	(0.948)	11740	1.00000	0.98(a)
43 1,1-Dichloropropene	75	10.289	10.289	(0.954)	10238	1.00000	0.95(a)
52 n-Butyl alcohol	41	10.858	10.858	(1.007)	23963	100.000	106
44 Carbon tetrachloride	117	10.325	10.336	(0.957)	9721	1.00000	1.0
$ 46 1,2-Dichloroethane-d4	65	10.431	10.443	(0.967)	522745	50.0000	49.4
47 1,2-Dichloroethane	62	10.526	10.514	(0.976)	13418	1.00000	1.0
48 Benzene	78	10.538	10.538	(0.977)	34113	1.00000	1.0
50 Cyclohexene	67	10.645	10.645	(0.987)	17734	1.00000	1.0
* 51 Fluorobenzene	96	10.787	10.787	(1.000)	1968533	50.0000	
53 Trichloroethylene	95	11.166	11.167	(1.035)	7780	1.00000	0.97(a)
55 1,2-Dichloropropane	63	11.415	11.416	(1.058)	9659	1.00000	1.0
56 Methylcyclohexane	83	11.415	11.416	(1.058)	14983	1.00000	1.0
59 Bromodichloromethane	83	11.665	11.665	(1.081)	11691	1.00000	1.0
58 Dibromomethane	93	11.558	11.558	(1.071)	5314	1.00000	1.1
61 2-Chloroethylvinyl ether	63	11.866	11.866	(1.100)	29737	5.00000	5.3
63 4-Methyl-2-pentanone	58	12.186	12.186	(0.873)	23115	5.00000	5.3
$ 64 Toluene-d8	99	12.423	12.424	(0.890)	157729	50.0000	48.7
62 cis-1,3-Dichloropropylene	75	12.103	12.103	(1.122)	14188	1.00000	1.00
65 Toluene	92	12.495	12.495	(0.895)	20745	1.00000	1.0
67 trans-1,3-Dichloropropylene	75	12.637	12.637	(0.906)	13149	1.00000	1.0
68 1,1,2-Trichloroethane	83	12.862	12.862	(0.922)	6759	1.00000	1.0
69 2-Hexanone	43	13.028	13.028	(0.934)	61260	5.00000	5.5
70 1,3-Dichloropropane	76	13.064	13.064	(0.936)	13799	1.00000	1.1
71 Tetrachloroethylene	164	13.088	13.088	(0.938)	5633	1.00000	1.0
72 Dibromochloromethane	129	13.337	13.337	(0.956)	8063	1.00000	1.0
73 1,2-Dibromoethane	107	13.514	13.503	(0.969)	7107	1.00000	0.95(a)
* 75 Chlorobenzene-d5	117	13.953	13.953	(1.000)	1336991	50.0000	
76 Chlorobenzene	112	13.977	13.977	(1.002)	20491	1.00000	1.0
77 1,1,1,2-Tetrachloroethane	131	14.036	14.024	(1.006)	7583	1.00000	1.1
78 Ethylbenzene	91	14.036	14.036	(1.006)	40729	1.00000	1.1
79 m,p-Xylenes	106	14.143	14.143	(1.014)	29962	2.00000	2.1
80 o-Xylene	106	14.570	14.570	(1.044)	15135	1.00000	1.0
81 Styrene	104	14.582	14.582	(1.045)	26650	1.00000	1.1
82 Bromoform	173	14.854	14.855	(0.907)	4950	1.00000	1.0
83 Isopropylbenzene	105	14.926	14.926	(0.912)	38932	1.00000	1.0
$ 86 Bromofluorobenzene	95	15.139	15.139	(0.925)	619797	50.0000	48.7
87 1,1,2,2-Tetrachloroethane	83	15.210	15.210	(0.929)	10383	1.00000	1.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
89 1,2,3-Trichloropropane	110	15.305	15.305	(0.935)	2698	1.00000	1.0
90 Bromobenzene	156	15.353	15.353	(0.938)	9038	1.00000	1.1
91 n-Propylbenzene	91	15.353	15.353	(0.938)	48138	1.00000	1.1
92 2-Chlorotoluene	91	15.507	15.507	(0.947)	32562	1.00000	1.1
93 1,3,5-Trimethylbenzene	105	15.495	15.495	(0.946)	34294	1.00000	1.1
94 4-Chlorotoluene	91	15.613	15.614	(0.954)	31256	1.00000	1.1
95 tert-Butylbenzene	119	15.874	15.874	(0.970)	32091	1.00000	1.1
96 1,2,4-Trimethylbenzene	105	15.922	15.922	(0.972)	35597	1.00000	1.1
98 sec-Butylbenzene	105	16.111	16.112	(0.984)	44707	1.00000	1.1
99 4-Isopropyltoluene	119	16.230	16.230	(0.991)	33002	1.00000	1.0
100 1,3-Dichlorobenzene	146	16.313	16.313	(0.996)	17119	1.00000	1.0
* 101 1,4-Dichlorobenzene-d4	152	16.372	16.372	(1.000)	657591	50.0000	
102 1,4-Dichlorobenzene	146	16.408	16.408	(1.002)	16843	1.00000	1.0(Q)
104 n-Butylbenzene	92	16.693	16.693	(1.020)	20089	1.00000	1.0
105 1,2-Dichlorobenzene	146	16.859	16.859	(1.030)	16475	1.00000	1.0
107 1,2-Dibromo-3-chloropropane	157	17.784	17.784	(1.086)	2035	1.00000	1.1
108 1,2,4-Trichlorobenzene	180	18.922	18.922	(1.156)	10339	1.00000	1.0
109 Hexachlorobutadiene	225	19.100	19.100	(1.167)	5425	1.00000	0.97(a)
110 Naphthalene	128	19.349	19.349	(1.182)	25987	1.00000	1.0
111 1,2,3-Trichlorobenzene	180	19.728	19.728	(1.205)	7987	1.00000	0.95(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA9.i/111909v9/91406.d
Date : 19-NOV-2009 11:42
Client ID: VSTD001
Sample Info: IW9VHC91119-02|VSTD001|1|VOA|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

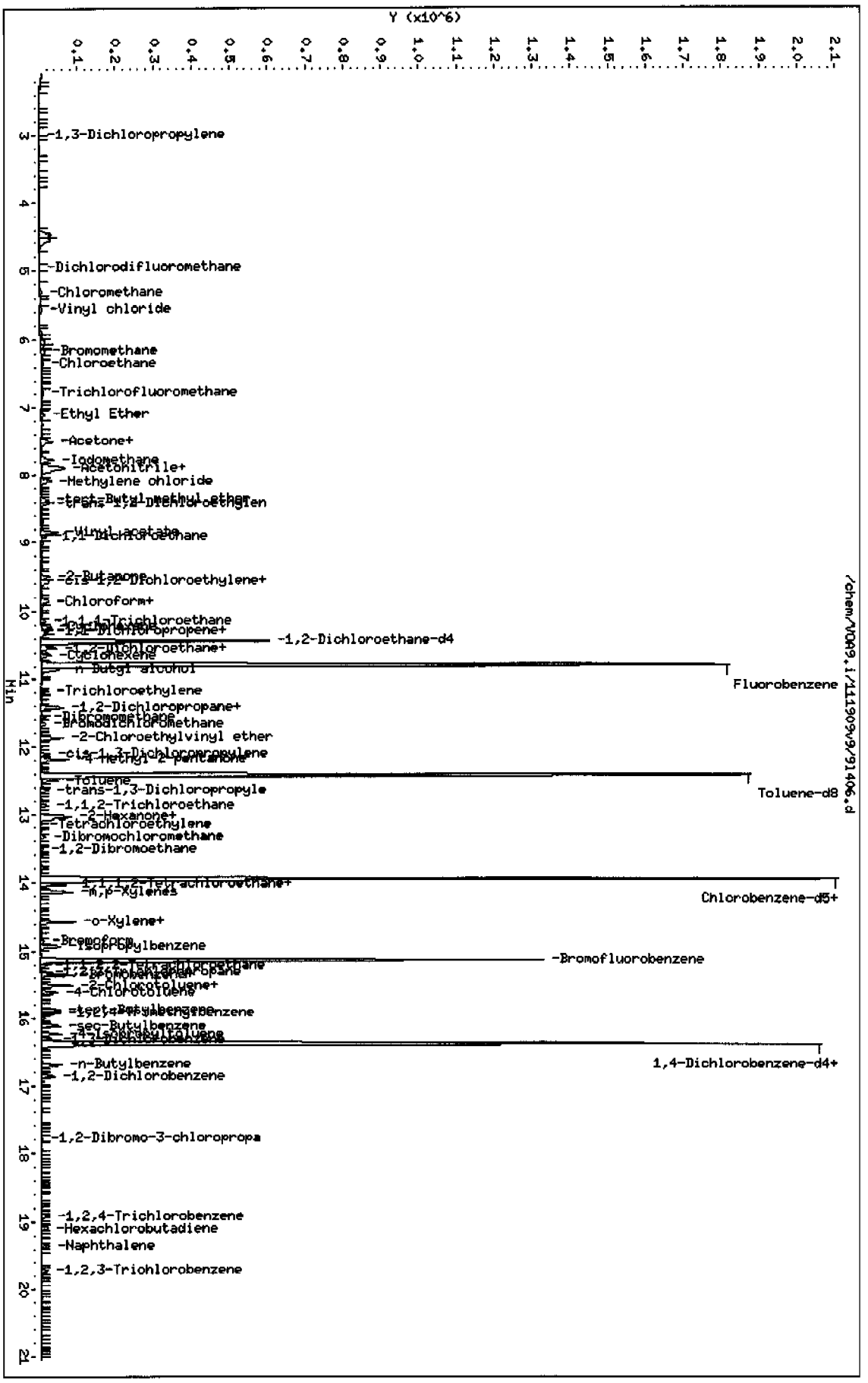

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/111909v9/91407.d
Lab Smp Id: W9VM091119-03 Client Smp ID: VSTD002
Inj Date : 19-NOV-2009 12:10
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |W9VM091119-03|VSTD002|1|VOA|1|
Misc Info : GEL 5ml n/a UVM090911-03C/UVM091116-03A
Comment :
Method : /chem/VOA9.i/111909v9/VOA9-8260B-111909.m
Meth Date : 19-Nov-2009 14:46 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 12:10 Cal File: 91407.d
Als bottle: 7 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 27 Xylenes (total)	106				92037	6.00000	6.0
M 42 1,2-Dichloroethylene (total)	96				34218	4.00000	3.9
M 45 1,3-Dichloropropylene	75				54661	4.00000	3.8
1 Dichlorodifluoromethane	85	4.944	4.958	(0.458)	11223	2.00000	1.8
2 Chloromethane	50	5.308	5.322	(0.492)	22410	2.00000	2.0
3 Vinyl chloride	62	5.560	5.574	(0.515)	17200	2.00000	1.8
4 Bromomethane	94	6.186	6.198	(0.573)	11259	2.00000	1.8
5 Chloroethane	64	6.340	6.352	(0.588)	12765	2.00000	2.0
6 Trichlorofluoromethane	101	6.779	6.791	(0.628)	19209	2.00000	1.8
7 Ethyl Ether	59	7.099	7.099	(0.658)	16550	2.00000	1.9
10 Acetone	43	7.502	7.490	(0.695)	65232	10.0000	9.8
14 Acetonitrile	41	7.870	7.870	(0.730)	72136	50.0000	49.8
11 1,1-Dichloroethylene	61	7.514	7.514	(0.697)	28729	2.00000	1.9
15 Methyl acetate	43	7.894	7.882	(0.732)	81944	10.0000	10.0
13 Iodomethane	142	7.775	7.775	(0.721)	113844	10.0000	9.8
19 Methylene chloride	84	8.095	8.095	(0.750)	25770	2.00000	2.4(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
	16 Carbon disulfide	76	7.917	7.917	(0.734)	255096	10.0000	10.0
	21 tert-Butyl methyl ether	73	8.380	8.380	(0.777)	57687	2.00000	2.1
	22 trans-1,2-Dichloroethylene	96	8.427	8.427	(0.781)	15874	2.00000	1.9
	23 Vinyl acetate	43	8.854	8.854	(0.821)	194689	10.0000	10.1
	25 1,1-Dichloroethane	63	8.913	8.913	(0.826)	34115	2.00000	1.9
	29 2-Butanone	43	9.494	9.495	(0.880)	70723	10.0000	9.5
	31 cis-1,2-Dichloroethylene	96	9.554	9.554	(0.886)	18344	2.00000	2.0
	33 2,2-Dichloropropane	77	9.589	9.589	(0.889)	24676	2.00000	2.0
	36 Chloroform	83	9.862	9.862	(0.914)	30282	2.00000	2.0
	35 Bromochloromethane	128	9.838	9.838	(0.912)	7642	2.00000	1.9
	39 1,1,1-Trichloroethane	97	10.147	10.147	(0.941)	22092	2.00000	1.9(Q)
	41 Cyclohexane	84	10.230	10.230	(0.948)	24565	2.00000	2.0
	43 1,1-Dichloropropene	75	10.289	10.289	(0.954)	21998	2.00000	2.0
	52 n-Butyl alcohol	41	10.858	10.858	(1.007)	46784	200.000	198
	44 Carbon tetrachloride	117	10.336	10.336	(0.958)	18827	2.00000	1.9
$	46 1,2-Dichloroethane-d4	65	10.443	10.443	(0.968)	508562	50.0000	46.1
	47 1,2-Dichloroethane	62	10.526	10.514	(0.976)	26396	2.00000	2.0
	48 Benzene	78	10.538	10.538	(0.977)	67058	2.00000	1.9
	50 Cyclohexene	67	10.645	10.645	(0.987)	35810	2.00000	2.0
*	51 Fluorobenzene	96	10.787	10.787	(1.000)	2051327	50.0000	
	53 Trichloroethylene	95	11.167	11.167	(1.035)	16242	2.00000	1.9
	55 1,2-Dichloropropane	63	11.416	11.416	(1.058)	19380	2.00000	1.9
	56 Methylcyclohexane	83	11.416	11.416	(1.058)	29229	2.00000	1.9
	59 Bromodichloromethane	83	11.665	11.665	(1.081)	23276	2.00000	1.9
	58 Dibromomethane	93	11.558	11.558	(1.071)	9630	2.00000	1.8
	61 2-Chloroethylvinyl ether	63	11.866	11.866	(1.100)	55859	10.0000	9.6
	63 4-Methyl-2-pentanone	58	12.186	12.186	(0.873)	44249	10.0000	9.7
$	64 Toluene-d8	99	12.424	12.424	(0.890)	155582	50.0000	45.8
	62 cis-1,3-Dichloropropylene	75	12.103	12.103	(1.122)	28090	2.00000	1.9
	65 Toluene	92	12.495	12.495	(0.895)	41572	2.00000	2.0
	67 trans-1,3-Dichloropropylene	75	12.637	12.637	(0.906)	26571	2.00000	1.9
	68 1,1,2-Trichloroethane	83	12.862	12.862	(0.922)	12934	2.00000	1.9
	69 2-Hexanone	43	13.028	13.028	(0.934)	116825	10.0000	10
	70 1,3-Dichloropropane	76	13.064	13.064	(0.936)	24742	2.00000	1.9
	71 Tetrachloroethylene	164	13.088	13.088	(0.938)	10645	2.00000	1.9
	72 Dibromochloromethane	129	13.337	13.337	(0.956)	15170	2.00000	1.8
	73 1,2-Dibromoethane	107	13.503	13.503	(0.968)	15006	2.00000	1.9
*	75 Chlorobenzene-d5	117	13.953	13.953	(1.000)	1403484	50.0000	
	76 Chlorobenzene	112	13.977	13.977	(1.002)	38969	2.00000	1.9(Q)
	77 1,1,1,2-Tetrachloroethane	131	14.036	14.024	(1.006)	14133	2.00000	1.9
	78 Ethylbenzene	91	14.036	14.036	(1.006)	77211	2.00000	2.0
	79 m,p-Xylenes	106	14.131	14.143	(1.013)	60744	4.00000	4.0
	80 o-Xylene	106	14.570	14.570	(1.044)	31293	2.00000	2.0
	81 Styrene	104	14.582	14.582	(1.045)	53110	2.00000	2.0
	82 Bromoform	173	14.854	14.855	(0.907)	8777	2.00000	1.8
	83 Isopropylbenzene	105	14.926	14.926	(0.912)	77677	2.00000	2.0
$	86 Bromofluorobenzene	95	15.139	15.139	(0.925)	605617	50.0000	45.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
87 1,1,2,2-Tetrachloroethane	83	15.210	15.210	(0.929)	20845	2.00000	1.9
89 1,2,3-Trichloropropane	110	15.305	15.305	(0.935)	4964	2.00000	1.8
90 Bromobenzene	156	15.353	15.353	(0.938)	17194	2.00000	2.0
91 n-Propylbenzene	91	15.353	15.353	(0.938)	93405	2.00000	2.0
92 2-Chlorotoluene	91	15.507	15.507	(0.947)	65832	2.00000	2.1
93 1,3,5-Trimethylbenzene	105	15.495	15.495	(0.946)	66101	2.00000	2.0
94 4-Chlorotoluene	91	15.613	15.614	(0.954)	60326	2.00000	2.0
95 tert-Butylbenzene	119	15.874	15.874	(0.970)	61751	2.00000	2.0
96 1,2,4-Trimethylbenzene	105	15.922	15.922	(0.972)	68523	2.00000	2.0
98 sec-Butylbenzene	105	16.112	16.112	(0.984)	87664	2.00000	2.0
99 4-Isopropyltoluene	119	16.230	16.230	(0.991)	66794	2.00000	2.0
100 1,3-Dichlorobenzene	146	16.325	16.313	(0.997)	34089	2.00000	2.0
* 101 1,4-Dichlorobenzene-d4	152	16.372	16.372	(1.000)	690749	50.0000	
102 1,4-Dichlorobenzene	146	16.408	16.408	(1.002)	32396	2.00000	1.9
104 n-Butylbenzene	92	16.693	16.693	(1.020)	38041	2.00000	1.9
105 1,2-Dichlorobenzene	146	16.859	16.859	(1.030)	31697	2.00000	1.9
107 1,2-Dibromo-3-chloropropane	157	17.784	17.784	(1.086)	3332	2.00000	1.7
108 1,2,4-Trichlorobenzene	180	18.922	18.922	(1.156)	20178	2.00000	1.9
109 Hexachlorobutadiene	225	19.100	19.100	(1.167)	11113	2.00000	1.9
110 Naphthalene	128	19.349	19.349	(1.182)	50387	2.00000	1.9
111 1,2,3-Trichlorobenzene	180	19.728	19.728	(1.205)	16565	2.00000	1.9

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA9.i/111909v9/91407.d
Date : 19-NOV-2009 12:10
Client ID: VSTD002
Sample Info: IW9VH091119-03|VSTD002|1|VOA1|1
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.1
Operator: RXY1
Column diameter: 0.25

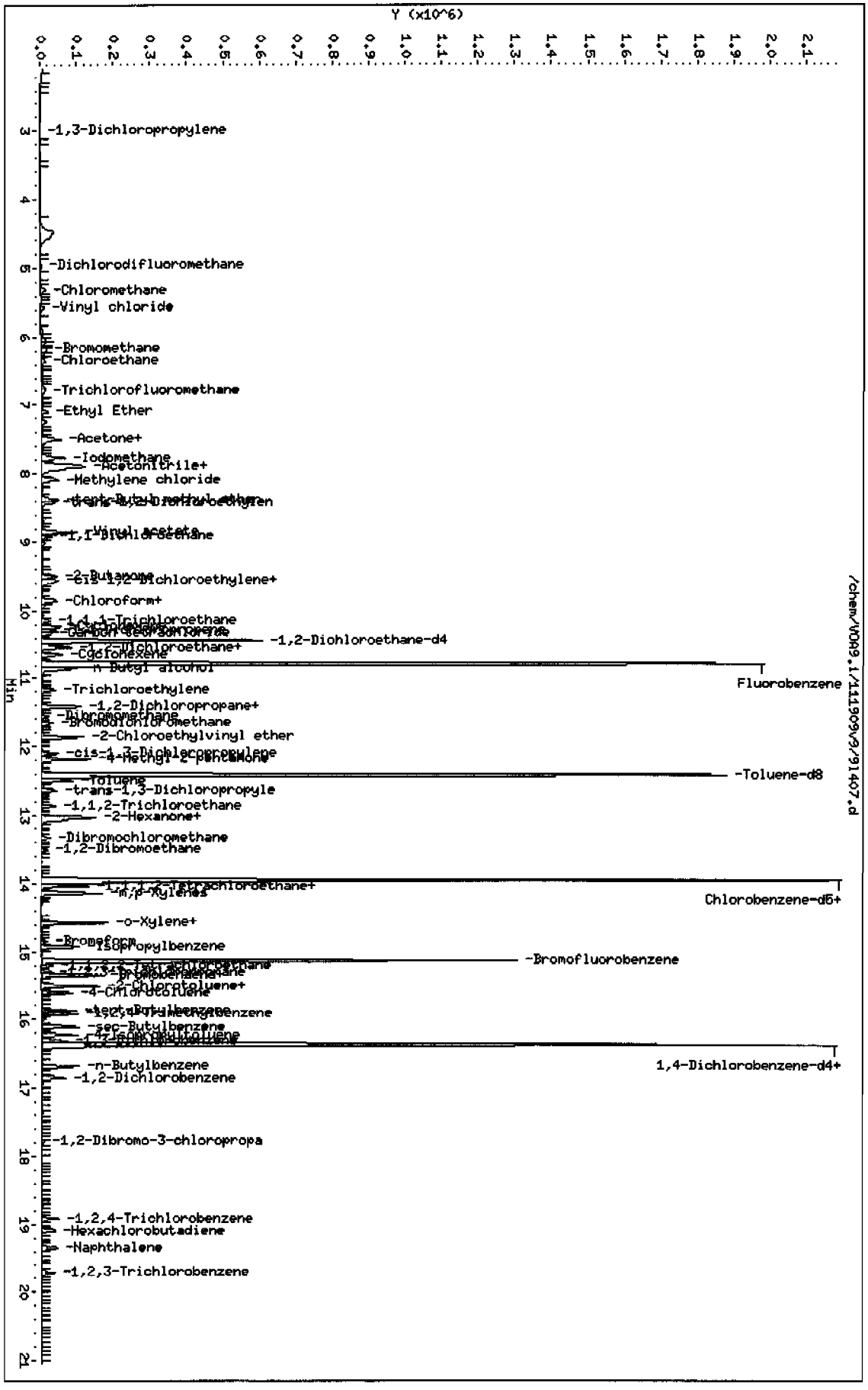

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/111909v9/91408.d
Lab Smp Id: W9VM091119-04 Client Smp ID: VSTD005
Inj Date : 19-NOV-2009 12:37
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |W9VM091119-04|VSTD005|1|VOA|1|
Misc Info : GEL 5ml n/a UVM090911-04C/UVM091116-04A
Comment :
Method : /chem/VOA9.i/111909v9/VOA9-8260B-111909.m
Meth Date : 19-Nov-2009 14:46 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 12:37 Cal File: 91408.d
Als bottle: 8 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
M 27 Xylenes (total)	106				219211	15.0000	16.1
M 42 1,2-Dichloroethylene (total)	96				81797	10.0000	10.5
M 45 1,3-Dichloropropylene	75				134772	10.0000	10.7
1 Dichlorodifluoromethane	85	4.958	4.958	(0.460)	29467	5.00000	5.4
2 Chloromethane	50	5.308	5.322	(0.492)	53441	5.00000	5.3
3 Vinyl chloride	62	5.560	5.574	(0.515)	42175	5.00000	5.1
4 Bromomethane	94	6.186	6.198	(0.573)	28707	5.00000	5.2
5 Chloroethane	64	6.340	6.352	(0.588)	29973	5.00000	5.2
6 Trichlorofluoromethane	101	6.791	6.791	(0.630)	47867	5.00000	5.2
7 Ethyl Ether	59	7.099	7.099	(0.658)	40648	5.00000	5.2
10 Acetone	43	7.490	7.490	(0.694)	148065	25.0000	25.2
14 Acetonitrile	41	7.870	7.870	(0.730)	162386	125.000	126
11 1,1-Dichloroethylene	61	7.514	7.514	(0.697)	71167	5.00000	5.3
15 Methyl acetate	43	7.882	7.882	(0.731)	190642	25.0000	26.3
13 Iodomethane	142	7.775	7.775	(0.721)	277953	25.0000	27.1
19 Methylene chloride	84	8.095	8.095	(0.750)	51958	5.00000	5.4

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
	16 Carbon disulfide	76	7.917	7.917	(0.734)	611483	25.0000	27.1
	21 tert-Butyl methyl ether	73	8.380	8.380	(0.777)	125056	5.00000	5.1
	22 trans-1,2-Dichloroethylene	96	8.427	8.427	(0.781)	38398	5.00000	5.2
	23 Vinyl acetate	43	8.854	8.854	(0.821)	479636	25.0000	28.1
	25 1,1-Dichloroethane	63	8.913	8.913	(0.826)	81915	5.00000	5.2
	29 2-Butanone	43	9.494	9.495	(0.880)	170724	25.0000	25.8
	31 cis-1,2-Dichloroethylene	96	9.554	9.554	(0.886)	43399	5.00000	5.3
	33 2,2-Dichloropropane	77	9.589	9.589	(0.889)	56592	5.00000	5.2
	36 Chloroform	83	9.862	9.862	(0.914)	73071	5.00000	5.3
	35 Bromochloromethane	128	9.838	9.838	(0.912)	18097	5.00000	5.1
	39 1,1,1-Trichloroethane	97	10.147	10.147	(0.941)	53305	5.00000	5.2(Q)
	41 Cyclohexane	84	10.230	10.230	(0.948)	57771	5.00000	5.2
	43 1,1-Dichloropropene	75	10.289	10.289	(0.954)	53040	5.00000	5.4
	52 n-Butyl alcohol	41	10.858	10.858	(1.007)	107387	500.000	513
	44 Carbon tetrachloride	117	10.336	10.336	(0.958)	45085	5.00000	5.1
$	46 1,2-Dichloroethane-d4	65	10.443	10.443	(0.968)	518259	50.0000	53.0
	47 1,2-Dichloroethane	62	10.514	10.514	(0.975)	63177	5.00000	5.3
	48 Benzene	78	10.538	10.538	(0.977)	161812	5.00000	5.3
	50 Cyclohexene	67	10.645	10.645	(0.987)	85458	5.00000	5.3
*	51 Fluorobenzene	96	10.787	10.787	(1.000)	1817843	50.0000	
	53 Trichloroethylene	95	11.167	11.167	(1.035)	39364	5.00000	5.3
	55 1,2-Dichloropropane	63	11.416	11.416	(1.058)	48123	5.00000	5.4
	56 Methylcyclohexane	83	11.416	11.416	(1.058)	70232	5.00000	5.2
	59 Bromodichloromethane	83	11.665	11.665	(1.081)	56254	5.00000	5.2
	58 Dibromomethane	93	11.558	11.558	(1.071)	24048	5.00000	5.2
	61 2-Chloroethylvinyl ether	63	11.866	11.866	(1.100)	138431	25.0000	26.9
	63 4-Methyl-2-pentanone	58	12.186	12.186	(0.874)	104548	25.0000	25.8
$	64 Toluene-d8	99	12.424	12.424	(0.891)	156810	50.0000	51.9
	62 cis-1,3-Dichloropropylene	75	12.103	12.103	(1.122)	69389	5.00000	5.3
	65 Toluene	92	12.495	12.495	(0.896)	97604	5.00000	5.2
	67 trans-1,3-Dichloropropylene	75	12.637	12.637	(0.906)	65383	5.00000	5.3
	68 1,1,2-Trichloroethane	83	12.862	12.862	(0.923)	31062	5.00000	5.2
	69 2-Hexanone	43	13.028	13.028	(0.934)	280633	25.0000	26.9
	70 1,3-Dichloropropane	76	13.064	13.064	(0.937)	62241	5.00000	5.3
	71 Tetrachloroethylene	164	13.088	13.088	(0.939)	26654	5.00000	5.4
	72 Dibromochloromethane	129	13.337	13.337	(0.957)	36887	5.00000	5.0
	73 1,2-Dibromoethane	107	13.503	13.503	(0.969)	36622	5.00000	5.3
*	75 Chlorobenzene-d5	117	13.941	13.953	(1.000)	1248856	50.0000	
	76 Chlorobenzene	112	13.977	13.977	(1.003)	96926	5.00000	5.3
	77 1,1,1,2-Tetrachloroethane	131	14.036	14.024	(1.007)	34635	5.00000	5.2
	78 Ethylbenzene	91	14.036	14.036	(1.007)	185842	5.00000	5.4
	79 m,p-Xylenes	106	14.131	14.143	(1.014)	145866	10.0000	10.8
	80 o-Xylene	106	14.570	14.570	(1.045)	73345	5.00000	5.3
	81 Styrene	104	14.582	14.582	(1.046)	125450	5.00000	5.4
	82 Bromoform	173	14.854	14.855	(0.907)	22443	5.00000	5.0
	83 Isopropylbenzene	105	14.926	14.926	(0.912)	187710	5.00000	5.4
$	86 Bromofluorobenzene	95	15.139	15.139	(0.925)	615869	50.0000	51.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
87 1,1,2,2-Tetrachloroethane	83	15.210	15.210	(0.929)	50446	5.00000	5.2
89 1,2,3-Trichloropropane	110	15.305	15.305	(0.935)	12104	5.00000	5.0
90 Bromobenzene	156	15.353	15.353	(0.938)	41784	5.00000	5.3
91 n-Propylbenzene	91	15.353	15.353	(0.938)	224670	5.00000	5.5
92 2-Chlorotoluene	91	15.507	15.507	(0.947)	155337	5.00000	5.5
93 1,3,5-Trimethylbenzene	105	15.495	15.495	(0.946)	158532	5.00000	5.4
94 4-Chlorotoluene	91	15.613	15.614	(0.954)	140889	5.00000	5.2
95 tert-Butylbenzene	119	15.874	15.874	(0.970)	145309	5.00000	5.2
96 1,2,4-Trimethylbenzene	105	15.922	15.922	(0.972)	165011	5.00000	5.4
98 sec-Butylbenzene	105	16.112	16.112	(0.984)	208477	5.00000	5.3
99 4-Isopropyltoluene	119	16.230	16.230	(0.991)	159967	5.00000	5.3
100 1,3-Dichlorobenzene	146	16.313	16.313	(0.996)	82891	5.00000	5.3
* 101 1,4-Dichlorobenzene-d4	152	16.372	16.372	(1.000)	617557	50.0000	
102 1,4-Dichlorobenzene	146	16.408	16.408	(1.002)	79861	5.00000	5.3
104 n-Butylbenzene	92	16.693	16.693	(1.020)	96909	5.00000	5.4
105 1,2-Dichlorobenzene	146	16.859	16.859	(1.030)	79487	5.00000	5.3
107 1,2-Dibromo-3-chloropropane	157	17.784	17.784	(1.086)	8450	5.00000	4.9
108 1,2,4-Trichlorobenzene	180	18.922	18.922	(1.156)	50414	5.00000	5.2
109 Hexachlorobutadiene	225	19.100	19.100	(1.167)	27589	5.00000	5.2
110 Naphthalene	128	19.349	19.349	(1.182)	126357	5.00000	5.2
111 1,2,3-Trichlorobenzene	180	19.716	19.728	(1.204)	42130	5.00000	5.3

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA9.i/111909v9/91408.d
Date : 19-NOV-2009 12:37
Client ID: VSTD005
Sample Info: IW9VH091119-04|VSTD005|1|VOA11
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

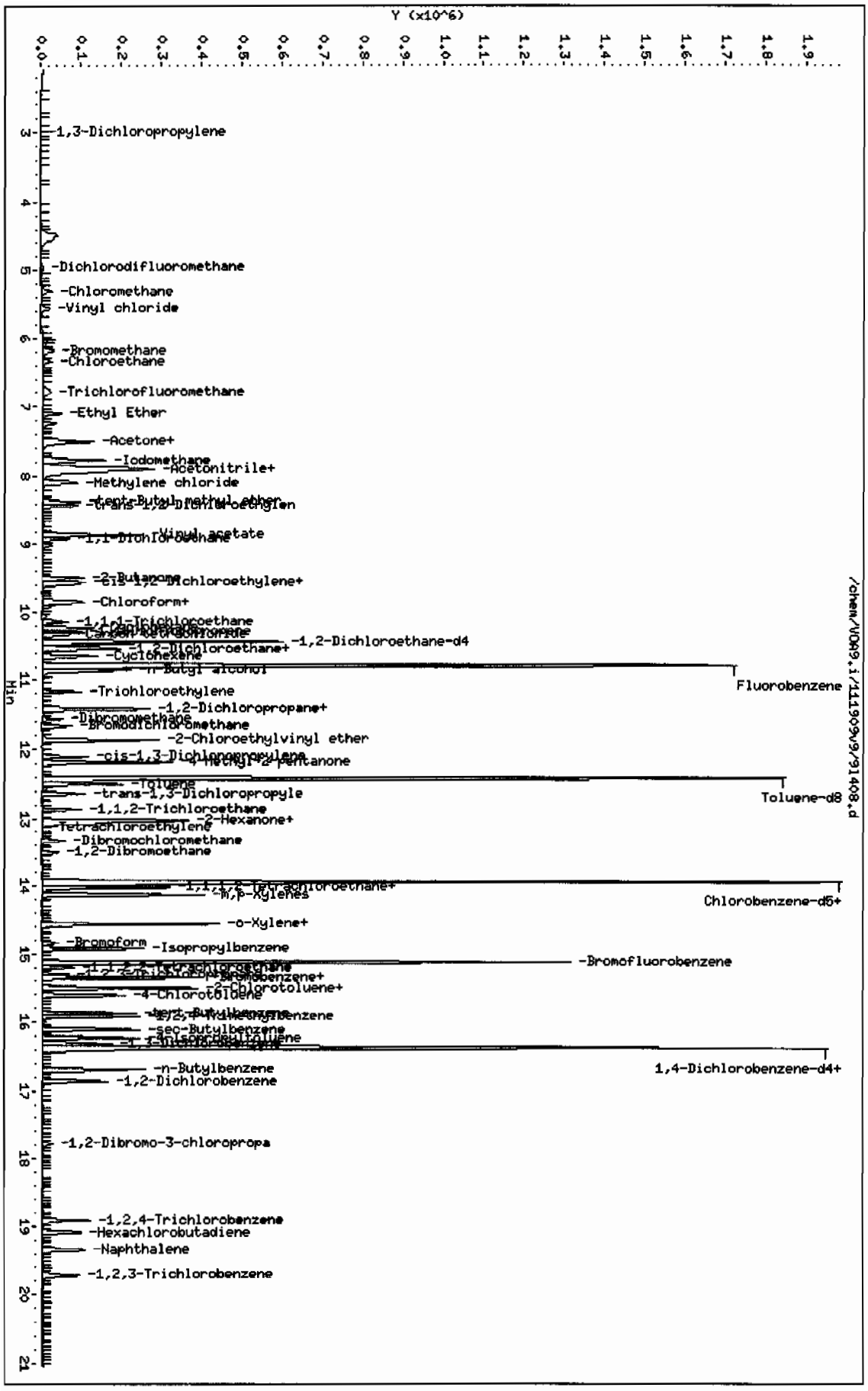

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GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/111909v9/91409.d
Lab Smp Id: W9VM091119-05 Client Smp ID: VSTD010
Inj Date : 19-NOV-2009 13:05
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |W9VM091119-05|VSTD010|1|VOA|1|
Misc Info : GEL 5ml n/a UVM090911-05C/UVM091116-05A
Comment :
Method : /chem/VOA9.i/111909v9/VOA9-8260B-111909.m
Meth Date : 19-Nov-2009 14:46 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 13:05 Cal File: 91409.d
Als bottle: 9 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 27 Xylenes (total)	106				420876	30.0000	30.8
M 42 1,2-Dichloroethylene (total)	96				159921	20.0000	20.4
M 45 1,3-Dichloropropylene	75				260623	20.0000	20.4
1 Dichlorodifluoromethane	85	4.958	4.958	(0.460)	55050	10.0000	9.9
2 Chloromethane	50	5.308	5.322	(0.492)	101412	10.0000	9.9
3 Vinyl chloride	62	5.560	5.574	(0.515)	82280	10.0000	9.9
4 Bromomethane	94	6.186	6.198	(0.573)	57153	10.0000	10.2
5 Chloroethane	64	6.340	6.352	(0.588)	59095	10.0000	10.1
6 Trichlorofluoromethane	101	6.779	6.791	(0.628)	95306	10.0000	10.2
7 Ethyl Ether	59	7.099	7.099	(0.658)	80591	10.0000	10.2
10 Acetone	43	7.490	7.490	(0.694)	307906	50.0000	51.9
14 Acetonitrile	41	7.870	7.870	(0.730)	328774	250.000	253
11 1,1-Dichloroethylene	61	7.514	7.514	(0.697)	139019	10.0000	10.3
15 Methyl acetate	43	7.882	7.882	(0.731)	388294	50.0000	53.1
13 Iodomethane	142	7.775	7.775	(0.721)	538758	50.0000	52.0
19 Methylene chloride	84	8.095	8.095	(0.750)	95903	10.0000	9.9

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
	16 Carbon disulfide	76	7.917	7.917	(0.734)	1194328	50.0000	52.4
	21 tert-Butyl methyl ether	73	8.380	8.380	(0.777)	255282	10.0000	10.4
	22 trans-1,2-Dichloroethylene	96	8.427	8.427	(0.781)	75458	10.0000	10.2
	23 Vinyl acetate	43	8.854	8.854	(0.821)	911576	50.0000	52.9
	25 1,1-Dichloroethane	63	8.913	8.913	(0.826)	162826	10.0000	10.3
	29 2-Butanone	43	9.494	9.495	(0.880)	338319	50.0000	50.7
	31 cis-1,2-Dichloroethylene	96	9.554	9.554	(0.886)	84463	10.0000	10.2
	33 2,2-Dichloropropane	77	9.589	9.589	(0.889)	110991	10.0000	10.1
	36 Chloroform	83	9.862	9.862	(0.914)	143057	10.0000	10.3
	35 Bromochloromethane	128	9.838	9.838	(0.912)	38034	10.0000	10.5
	39 1,1,1-Trichloroethane	97	10.147	10.147	(0.941)	108122	10.0000	10.4(Q)
	41 Cyclohexane	84	10.230	10.230	(0.948)	114691	10.0000	10.2
	43 1,1-Dichloropropene	75	10.289	10.289	(0.954)	103492	10.0000	10.3
	52 n-Butyl alcohol	41	10.858	10.858	(1.007)	225693	1000.00	1070
	44 Carbon tetrachloride	117	10.336	10.336	(0.958)	90028	10.0000	10.2
$	46 1,2-Dichloroethane-d4	65	10.431	10.443	(0.967)	496068	50.0000	50.2
	47 1,2-Dichloroethane	62	10.514	10.514	(0.975)	124269	10.0000	10.3
	48 Benzene	78	10.538	10.538	(0.977)	310607	10.0000	10.0
	50 Cyclohexene	67	10.645	10.645	(0.987)	166426	10.0000	10.2
*	51 Fluorobenzene	96	10.787	10.787	(1.000)	1835943	50.0000	
	53 Trichloroethylene	95	11.167	11.167	(1.035)	76074	10.0000	10.2
	55 1,2-Dichloropropane	63	11.416	11.416	(1.058)	93327	10.0000	10.4
	56 Methylcyclohexane	83	11.416	11.416	(1.058)	139370	10.0000	10.3
	59 Bromodichloromethane	83	11.665	11.665	(1.081)	111423	10.0000	10.2
	58 Dibromomethane	93	11.558	11.558	(1.071)	46580	10.0000	10
	61 2-Chloroethylvinyl ether	63	11.866	11.866	(1.100)	270610	50.0000	52.1
	63 4-Methyl-2-pentanone	58	12.186	12.186	(0.874)	207947	50.0000	51.3
$	64 Toluene-d8	99	12.424	12.424	(0.891)	151878	50.0000	50.2
	62 cis-1,3-Dichloropropylene	75	12.103	12.103	(1.122)	137118	10.0000	10.4
	65 Toluene	92	12.495	12.495	(0.896)	187311	10.0000	10.0
	67 trans-1,3-Dichloropropylene	75	12.637	12.637	(0.906)	123505	10.0000	10.1
	68 1,1,2-Trichloroethane	83	12.862	12.862	(0.923)	60899	10.0000	10.2
	69 2-Hexanone	43	13.028	13.028	(0.934)	542413	50.0000	51.9
	70 1,3-Dichloropropane	76	13.064	13.064	(0.937)	121104	10.0000	10.3
	71 Tetrachloroethylene	164	13.088	13.088	(0.939)	51088	10.0000	10.3
	72 Dibromochloromethane	129	13.337	13.337	(0.957)	74479	10.0000	10.1
	73 1,2-Dibromoethane	107	13.503	13.503	(0.969)	71122	10.0000	10.2
*	75 Chlorobenzene-d5	117	13.941	13.953	(1.000)	1251013	50.0000	
	76 Chlorobenzene	112	13.977	13.977	(1.003)	190150	10.0000	10.4
	77 1,1,1,2-Tetrachloroethane	131	14.024	14.024	(1.006)	68502	10.0000	10.3
	78 Ethylbenzene	91	14.024	14.036	(1.006)	353294	10.0000	10.4
	79 m,p-Xylenes	106	14.131	14.143	(1.014)	276986	20.0000	20.4
	80 o-Xylene	106	14.570	14.570	(1.045)	143890	10.0000	10.3
	81 Styrene	104	14.570	14.582	(1.045)	240950	10.0000	10.3
	82 Bromoform	173	14.855	14.855	(0.907)	45181	10.0000	10.2
	83 Isopropylbenzene	105	14.926	14.926	(0.912)	356571	10.0000	10.4
$	86 Bromofluorobenzene	95	15.127	15.139	(0.924)	600063	50.0000	50.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
87 1,1,2,2-Tetrachloroethane	83	15.210	15.210	(0.929)	97854	10.0000	10.3
89 1,2,3-Trichloropropane	110	15.305	15.305	(0.935)	25005	10.0000	10.5
90 Bromobenzene	156	15.353	15.353	(0.938)	79621	10.0000	10.2
91 n-Propylbenzene	91	15.353	15.353	(0.938)	425427	10.0000	10.4
92 2-Chlorotoluene	91	15.507	15.507	(0.947)	292976	10.0000	10.4
93 1,3,5-Trimethylbenzene	105	15.495	15.495	(0.946)	305185	10.0000	10.4
94 4-Chlorotoluene	91	15.613	15.614	(0.954)	272545	10.0000	10.2
95 tert-Butylbenzene	119	15.874	15.874	(0.970)	284776	10.0000	10.3
96 1,2,4-Trimethylbenzene	105	15.922	15.922	(0.972)	318011	10.0000	10.4
98 sec-Butylbenzene	105	16.112	16.112	(0.984)	406696	10.0000	10.4
99 4-Isopropyltoluene	119	16.230	16.230	(0.991)	310960	10.0000	10.5
100 1,3-Dichlorobenzene	146	16.313	16.313	(0.996)	159272	10.0000	10.4
* 101 1,4-Dichlorobenzene-d4	152	16.372	16.372	(1.000)	611432	50.0000	
102 1,4-Dichlorobenzene	146	16.408	16.408	(1.002)	153032	10.0000	10.3
104 n-Butylbenzene	92	16.693	16.693	(1.020)	185041	10.0000	10.4
105 1,2-Dichlorobenzene	146	16.859	16.859	(1.030)	154494	10.0000	10.4
107 1,2-Dibromo-3-chloropropane	157	17.784	17.784	(1.086)	17434	10.0000	10.3
108 1,2,4-Trichlorobenzene	180	18.922	18.922	(1.156)	99249	10.0000	10.4
109 Hexachlorobutadiene	225	19.100	19.100	(1.167)	54338	10.0000	10.4
110 Naphthalene	128	19.349	19.349	(1.182)	252715	10.0000	10.6
111 1,2,3-Trichlorobenzene	180	19.728	19.728	(1.205)	83231	10.0000	10.6

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA9.i/111909v9/91409.d
Date : 19-NOV-2009 13:05
Client ID: VSTD010
Sample Info: IW9VK091119-05|VSTD010|4|VOA14|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

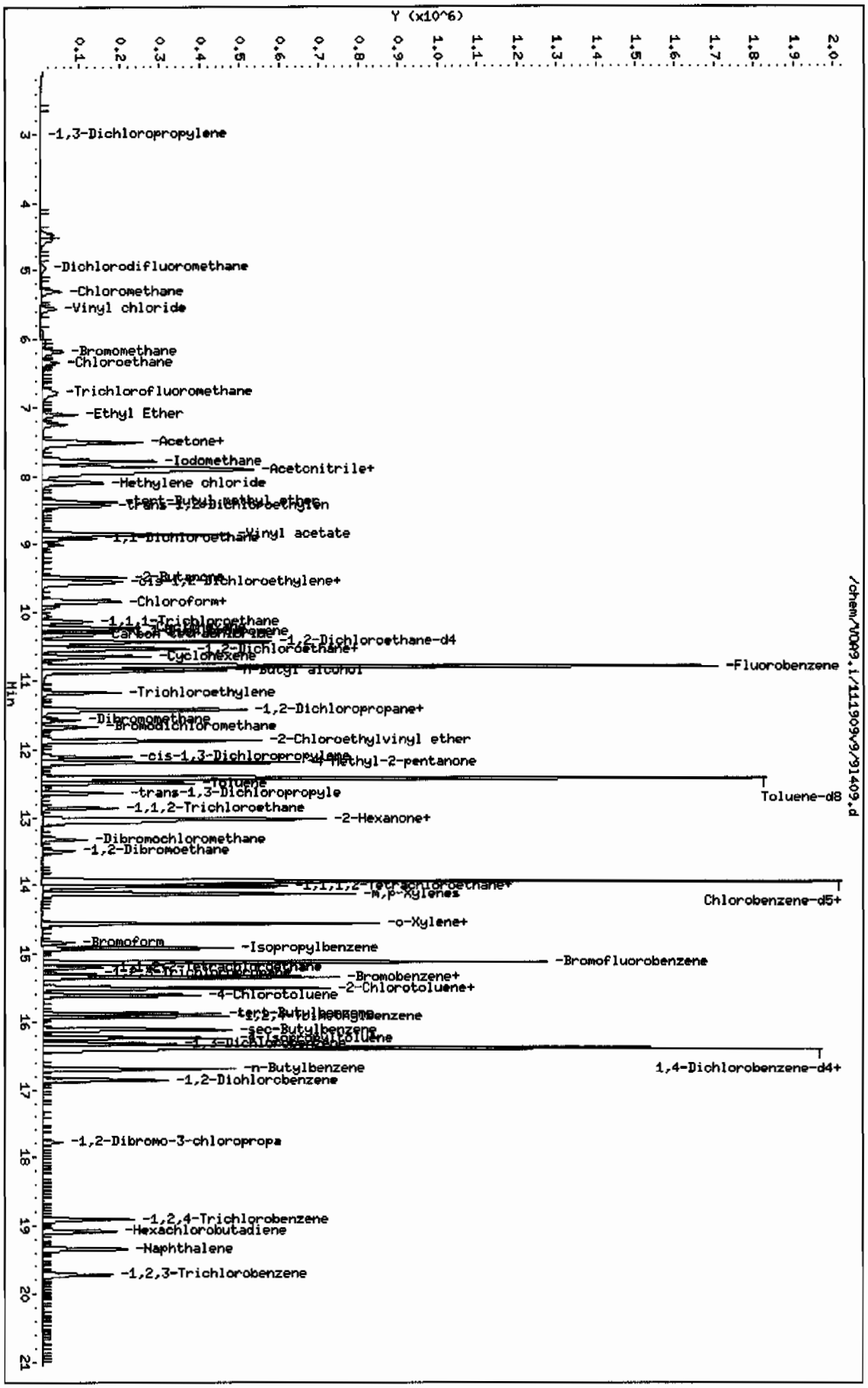

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GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/111909v9/91410.d
Lab Smp Id: W9VM091119-06 Client Smp ID: VSTD020
Inj Date : 19-NOV-2009 13:33
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |W9VM091119-06|VSTD020|1|VOA|1|
Misc Info : GEL 5ml n/a UVM090911-06C/UVM091116-06A
Comment :
Method : /chem/VOA9.i/111909v9/VOA9-8260B-111909.m
Meth Date : 19-Nov-2009 14:46 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 13:33 Cal File: 91410.d
Als bottle: 10 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 27 Xylenes (total)	106				858590	60.0000	62.2
M 42 1,2-Dichloroethylene (total)	96				326777	40.0000	41.6
M 45 1,3-Dichloropropylene	75				528047	40.0000	41.3
1 Dichlorodifluoromethane	85	4.958	4.958	(0.460)	117503	20.0000	21.2
2 Chloromethane	50	5.308	5.322	(0.492)	211022	20.0000	20.5
3 Vinyl chloride	62	5.560	5.574	(0.515)	172424	20.0000	20.7
4 Bromomethane	94	6.186	6.198	(0.573)	120836	20.0000	21.5
5 Chloroethane	64	6.340	6.352	(0.588)	121671	20.0000	20.8
6 Trichlorofluoromethane	101	6.791	6.791	(0.630)	198451	20.0000	21.3
7 Ethyl Ether	59	7.099	7.099	(0.658)	160975	20.0000	20.4
10 Acetone	43	7.490	7.490	(0.694)	533565	100.000	89.9
14 Acetonitrile	41	7.870	7.870	(0.730)	607001	500.000	467
11 1,1-Dichloroethylene	61	7.514	7.514	(0.697)	281943	20.0000	20.8
15 Methyl acetate	43	7.882	7.882	(0.731)	698369	100.000	95.3
13 Iodomethane	142	7.775	7.775	(0.721)	1071376	100.000	103
19 Methylene chloride	84	8.095	8.095	(0.750)	185350	20.0000	19.2

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
	16 Carbon disulfide	76	7.917	7.917	(0.734)	2365938	100.000	104
	21 tert-Butyl methyl ether	73	8.368	8.380	(0.776)	494851	20.0000	20.1
	22 trans-1,2-Dichloroethylene	96	8.427	8.427	(0.781)	155542	20.0000	21.0
	23 Vinyl acetate	43	8.854	8.854	(0.821)	1747143	100.000	101
	25 1,1-Dichloroethane	63	8.913	8.913	(0.826)	327867	20.0000	20.8
	29 2-Butanone	43	9.494	9.495	(0.880)	627328	100.000	93.9
	31 cis-1,2-Dichloroethylene	96	9.554	9.554	(0.886)	171235	20.0000	20.6
	33 2,2-Dichloropropane	77	9.577	9.589	(0.888)	225347	20.0000	20.6
	36 Chloroform	83	9.862	9.862	(0.914)	287223	20.0000	20.6
	35 Bromochloromethane	128	9.838	9.838	(0.912)	74273	20.0000	20.6
	39 1,1,1-Trichloroethane	97	10.135	10.147	(0.940)	221810	20.0000	21.2(Q)
	41 Cyclohexane	84	10.230	10.230	(0.948)	238012	20.0000	21.2
	43 1,1-Dichloropropene	75	10.289	10.289	(0.954)	213094	20.0000	21.2
	52 n-Butyl alcohol	41	10.858	10.858	(1.007)	412543	2000.00	1950
	44 Carbon tetrachloride	117	10.336	10.336	(0.958)	187761	20.0000	21.1
$	46 1,2-Dichloroethane-d4	65	10.431	10.443	(0.967)	503483	50.0000	50.9
	47 1,2-Dichloroethane	62	10.514	10.514	(0.975)	246238	20.0000	20.4
	48 Benzene	78	10.538	10.538	(0.977)	635289	20.0000	20.5
	50 Cyclohexene	67	10.645	10.645	(0.987)	347303	20.0000	21.2
*	51 Fluorobenzene	96	10.787	10.787	(1.000)	1838684	50.0000	
	53 Trichloroethylene	95	11.166	11.167	(1.035)	158079	20.0000	21.2
	55 1,2-Dichloropropane	63	11.416	11.416	(1.058)	184227	20.0000	20.5
	56 Methylcyclohexane	83	11.416	11.416	(1.058)	285596	20.0000	21.1
	59 Bromodichloromethane	83	11.665	11.665	(1.081)	225119	20.0000	20.7
	58 Dibromomethane	93	11.558	11.558	(1.071)	94444	20.0000	20.2
	61 2-Chloroethylvinyl ether	63	11.866	11.866	(1.100)	525698	100.000	101
	63 4-Methyl-2-pentanone	58	12.186	12.186	(0.874)	390459	100.000	95.3
$	64 Toluene-d8	99	12.424	12.424	(0.891)	158520	50.0000	51.8
	62 cis-1,3-Dichloropropylene	75	12.103	12.103	(1.122)	275837	20.0000	20.8
	65 Toluene	92	12.495	12.495	(0.896)	387087	20.0000	20.6
	67 trans-1,3-Dichloropropylene	75	12.637	12.637	(0.906)	252210	20.0000	20.3
	68 1,1,2-Trichloroethane	83	12.862	12.862	(0.923)	121252	20.0000	20.1
	69 2-Hexanone	43	13.028	13.028	(0.934)	1024947	100.000	97.0
	70 1,3-Dichloropropane	76	13.064	13.064	(0.937)	238368	20.0000	20.2
	71 Tetrachloroethylene	164	13.088	13.088	(0.939)	102315	20.0000	20.4
	72 Dibromochloromethane	129	13.337	13.337	(0.957)	150321	20.0000	20.3
	73 1,2-Dibromoethane	107	13.503	13.503	(0.969)	143145	20.0000	20.3
*	75 Chlorobenzene-d5	117	13.941	13.953	(1.000)	1263768	50.0000	
	76 Chlorobenzene	112	13.977	13.977	(1.003)	383500	20.0000	20.7
	77 1,1,1,2-Tetrachloroethane	131	14.024	14.024	(1.006)	138129	20.0000	20.5
	78 Ethylbenzene	91	14.036	14.036	(1.007)	709439	20.0000	20.6
	79 m,p-Xylenes	106	14.131	14.143	(1.014)	568815	40.0000	41.6
	80 o-Xylene	106	14.570	14.570	(1.045)	289775	20.0000	20.6
	81 Styrene	104	14.582	14.582	(1.046)	489363	20.0000	20.6
	82 Bromoform	173	14.854	14.855	(0.907)	89705	20.0000	20.0
	83 Isopropylbenzene	105	14.926	14.926	(0.912)	733169	20.0000	21.1
$	86 Bromofluorobenzene	95	15.139	15.139	(0.925)	619042	50.0000	51.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
87 1,1,2,2-Tetrachloroethane	83	15.210	15.210	(0.929)	191296	20.0000	19.9
89 1,2,3-Trichloropropane	110	15.305	15.305	(0.935)	47654	20.0000	19.8
90 Bromobenzene	156	15.353	15.353	(0.938)	159755	20.0000	20.4
91 n-Propylbenzene	91	15.353	15.353	(0.938)	858963	20.0000	20.9
92 2-Chlorotoluene	91	15.507	15.507	(0.947)	578109	20.0000	20.4
93 1,3,5-Trimethylbenzene	105	15.495	15.495	(0.946)	618573	20.0000	21.0
94 4-Chlorotoluene	91	15.613	15.614	(0.954)	548401	20.0000	20.4
95 tert-Butylbenzene	119	15.874	15.874	(0.970)	577489	20.0000	20.7
96 1,2,4-Trimethylbenzene	105	15.922	15.922	(0.972)	634549	20.0000	20.7
98 sec-Butylbenzene	105	16.111	16.112	(0.984)	830602	20.0000	21.1
99 4-Isopropyltoluene	119	16.230	16.230	(0.991)	633216	20.0000	21.1
100 1,3-Dichlorobenzene	146	16.313	16.313	(0.996)	317955	20.0000	20.5
* 101 1,4-Dichlorobenzene-d4	152	16.372	16.372	(1.000)	617181	50.0000	
102 1,4-Dichlorobenzene	146	16.408	16.408	(1.002)	309845	20.0000	20.6
104 n-Butylbenzene	92	16.693	16.693	(1.020)	381279	20.0000	21.2
105 1,2-Dichlorobenzene	146	16.859	16.859	(1.030)	310620	20.0000	20.7
107 1,2-Dibromo-3-chloropropane	157	17.784	17.784	(1.086)	32910	20.0000	19.2
108 1,2,4-Trichlorobenzene	180	18.922	18.922	(1.156)	204428	20.0000	21.3
109 Hexachlorobutadiene	225	19.100	19.100	(1.167)	114393	20.0000	21.8
110 Naphthalene	128	19.349	19.349	(1.182)	506523	20.0000	21.0
111 1,2,3-Trichlorobenzene	180	19.716	19.728	(1.204)	170338	20.0000	21.5

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA9.i/111909v9/91410.d
Date : 19-NOV-2009 13:33
Client ID: VSTD020
Sample Info: IW9M091119-061VSTD020I1IVOA1I1
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

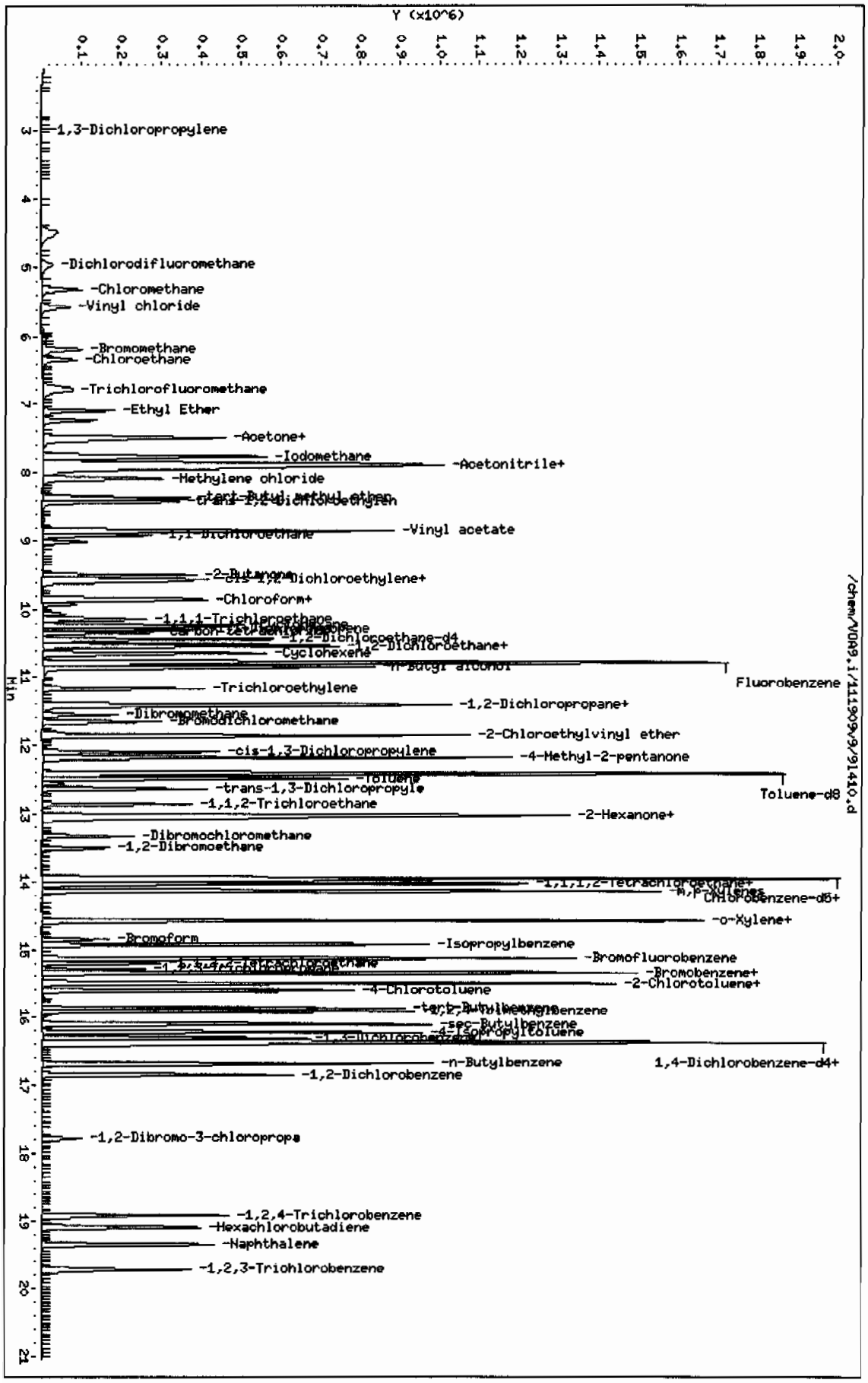

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GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/111909v9/91411.d
Lab Smp Id: W9VM091119-07 Client Smp ID: VSTD050
Inj Date : 19-NOV-2009 14:01
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |W9VM091119-07|VSTD050|1|VOA|1|
Misc Info : GEL 5ml n/a UVM090911-07C/UVM091116-07A
Comment :
Method : /chem/VOA9.i/111909v9/VOA9-8260B-111909.m
Meth Date : 20-Nov-2009 09:07 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 17:43 Cal File: 91419.d
Als bottle: 11 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 27 Xylenes (total)	106				2001604	150.000	143
M 42 1,2-Dichloroethylene (total)	96				783491	100.000	97.0
M 45 1,3-Dichloropropylene	75				1300707	100.000	99.0
1 Dichlorodifluoromethane	85	4.958	4.958	(0.460)	266768	50.0000	46.7
2 Chloromethane	50	5.322	5.322	(0.493)	505731	50.0000	47.9
3 Vinyl chloride	62	5.574	5.574	(0.517)	425207	50.0000	49.6
4 Bromomethane	94	6.198	6.198	(0.575)	294020	50.0000	51.0
5 Chloroethane	64	6.352	6.352	(0.589)	300033	50.0000	49.8
6 Trichlorofluoromethane	101	6.791	6.791	(0.630)	481848	50.0000	50.4
7 Ethyl Ether	59	7.099	7.099	(0.658)	408473	50.0000	50.3
10 Acetone	43	7.490	7.490	(0.694)	1597497	250.000	262
14 Acetonitrile	41	7.870	7.870	(0.730)	1564341	1000.00	1170
11 1,1-Dichloroethylene	61	7.514	7.514	(0.697)	674436	50.0000	48.5
15 Methyl acetate	43	7.882	7.882	(0.731)	1786879	250.000	237
13 Iodomethane	142	7.775	7.775	(0.721)	2550437	250.000	239

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
	19 Methylene chloride	84	8.095	8.095	(0.750)	447466	50.0000	45.1
	16 Carbon disulfide	76	7.917	7.917	(0.734)	5477460	250.000	234
	21 tert-Butyl methyl ether	73	8.380	8.380	(0.777)	1220483	50.0000	48.2
	22 trans-1,2-Dichloroethylene	96	8.427	8.427	(0.781)	371739	50.0000	48.8
	23 Vinyl acetate	43	8.854	8.854	(0.821)	4386177	250.000	248
	25 1,1-Dichloroethane	63	8.913	8.913	(0.826)	785007	50.0000	48.4
	29 2-Butanone	43	9.495	9.495	(0.880)	1789593	250.000	261
	31 cis-1,2-Dichloroethylene	96	9.554	9.554	(0.886)	411752	50.0000	48.3
	33 2,2-Dichloropropane	77	9.589	9.589	(0.889)	532670	50.0000	47.3
	36 Chloroform	83	9.862	9.862	(0.914)	687312	50.0000	48.1
	35 Bromochloromethane	128	9.838	9.838	(0.912)	187507	50.0000	50.5
	39 1,1,1-Trichloroethane	97	10.147	10.147	(0.941)	530149	50.0000	49.3
	41 Cyclohexane	84	10.230	10.230	(0.948)	566234	50.0000	49.1
	43 1,1-Dichloropropene	75	10.289	10.289	(0.954)	502168	50.0000	48.8
	52 n-Butyl alcohol	41	10.858	10.858	(1.007)	1073536	5000.00	4940
	44 Carbon tetrachloride	117	10.336	10.336	(0.958)	447970	50.0000	49.1
$	46 1,2-Dichloroethane-d4	65	10.443	10.443	(0.968)	514099	50.0000	50.6
	47 1,2-Dichloroethane	62	10.514	10.514	(0.975)	597777	50.0000	48.3
	48 Benzene	78	10.538	10.538	(0.977)	1499155	50.0000	47.0
	50 Cyclohexene	67	10.645	10.645	(0.987)	802282	50.0000	47.7
*	51 Fluorobenzene	96	10.787	10.787	(1.000)	1889269	50.0000	
	53 Trichloroethylene	95	11.167	11.167	(1.035)	375753	50.0000	48.9
	55 1,2-Dichloropropane	63	11.416	11.416	(1.058)	447521	50.0000	48.5
	56 Methylcyclohexane	83	11.416	11.416	(1.058)	663034	50.0000	47.7
	59 Bromodichloromethane	83	11.665	11.665	(1.081)	555050	50.0000	49.6
	58 Dibromomethane	93	11.558	11.558	(1.071)	241498	50.0000	50.4
	61 2-Chloroethylvinyl ether	63	11.866	11.866	(1.100)	1303770	250.000	244
	63 4-Methyl-2-pentanone	58	12.186	12.186	(0.873)	1084460	250.000	261
$	64 Toluene-d8	99	12.424	12.424	(0.890)	155156	50.0000	50.0
	62 cis-1,3-Dichloropropylene	75	12.103	12.103	(1.122)	671876	50.0000	49.3
	65 Toluene	92	12.495	12.495	(0.895)	914678	50.0000	47.9
	67 trans-1,3-Dichloropropylene	75	12.637	12.637	(0.906)	628831	50.0000	50.0
	68 1,1,2-Trichloroethane	83	12.862	12.862	(0.922)	302421	50.0000	49.4
	69 2-Hexanone	43	13.028	13.028	(0.934)	2702891	250.000	252
	70 1,3-Dichloropropane	76	13.064	13.064	(0.936)	580172	50.0000	48.4
	71 Tetrachloroethylene	164	13.088	13.088	(0.938)	244496	50.0000	47.9
	72 Dibromochloromethane	129	13.337	13.337	(0.956)	387286	50.0000	51.5
	73 1,2-Dibromoethane	107	13.503	13.503	(0.968)	366003	50.0000	51.3
*	75 Chlorobenzene-d5	117	13.953	13.953	(1.000)	1282108	50.0000	
	76 Chlorobenzene	112	13.977	13.977	(1.002)	914977	50.0000	48.6
	77 1,1,1,2-Tetrachloroethane	131	14.024	14.024	(1.005)	332649	50.0000	48.7
	78 Ethylbenzene	91	14.036	14.036	(1.006)	1585723	50.0000	45.3
	79 m,p-Xylenes	106	14.143	14.143	(1.014)	1317884	100.000	95.0
	80 o-Xylene	106	14.570	14.570	(1.044)	683720	50.0000	48.0
	81 Styrene	104	14.582	14.582	(1.045)	1134546	50.0000	47.2
	82 Bromoform	173	14.855	14.855	(0.907)	241786	50.0000	53.1
	83 Isopropylbenzene	105	14.926	14.926	(0.912)	1648683	50.0000	46.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
$ 86 Bromofluorobenzene	95	15.139	15.139	(0.925)	619289	50.0000	50.9
87 1,1,2,2-Tetrachloroethane	83	15.210	15.210	(0.929)	495761	50.0000	50.8
89 1,2,3-Trichloropropane	110	15.305	15.305	(0.935)	125769	50.0000	51.3
90 Bromobenzene	156	15.353	15.353	(0.938)	378008	50.0000	47.3
91 n-Propylbenzene	91	15.353	15.353	(0.938)	1898628	50.0000	45.4
92 2-Chlorotoluene	91	15.507	15.507	(0.947)	1316345	50.0000	45.6
93 1,3,5-Trimethylbenzene	105	15.495	15.495	(0.946)	1385548	50.0000	46.1
94 4-Chlorotoluene	91	15.614	15.614	(0.954)	1280173	50.0000	46.9
95 tert-Butylbenzene	119	15.874	15.874	(0.970)	1334454	50.0000	47.1
96 1,2,4-Trimethylbenzene	105	15.922	15.922	(0.972)	1444691	50.0000	46.2
98 sec-Butylbenzene	105	16.112	16.112	(0.984)	1864993	50.0000	46.6
99 4-Isopropyltoluene	119	16.230	16.230	(0.991)	1433791	50.0000	47.0
100 1,3-Dichlorobenzene	146	16.313	16.313	(0.996)	757184	50.0000	47.9
* 101 1,4-Dichlorobenzene-d4	152	16.372	16.372	(1.000)	627981	50.0000	
102 1,4-Dichlorobenzene	146	16.408	16.408	(1.002)	741109	50.0000	48.4
104 n-Butylbenzene	92	16.693	16.693	(1.020)	871311	50.0000	47.5
105 1,2-Dichlorobenzene	146	16.859	16.859	(1.030)	743914	50.0000	48.8
107 1,2-Dibromo-3-chloropropane	157	17.784	17.784	(1.086)	91683	50.0000	52.6
108 1,2,4-Trichlorobenzene	180	18.922	18.922	(1.156)	479290	50.0000	49.1
109 Hexachlorobutadiene	225	19.100	19.100	(1.167)	260862	50.0000	48.9
110 Naphthalene	128	19.349	19.349	(1.182)	1234470	50.0000	50.3
111 1,2,3-Trichlorobenzene	180	19.728	19.728	(1.205)	404145	50.0000	50.2

Data File: /chem/VOA9.i/111909v9/91411.d
Date : 19-NOV-2009 14:01
Client ID: VSTD050
Sample Info: IW9VH091119-07|VSTD050|1|VOA1|1
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

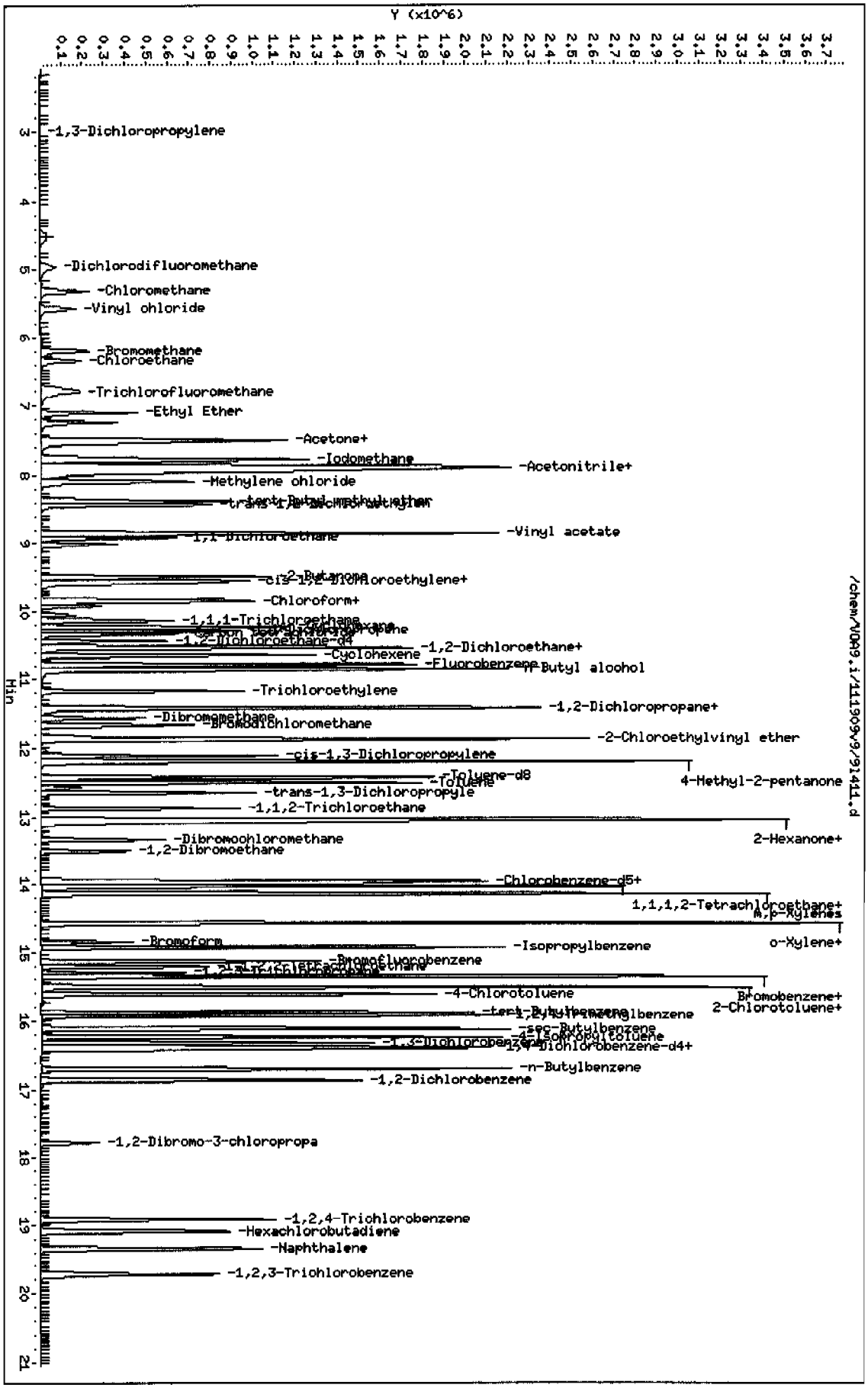

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/111909v9/91412.d
Lab Smp Id: W9VM091119-08 Client Smp ID: VSTD100
Inj Date : 19-NOV-2009 14:29
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |W9VM091119-08|VSTD100|1|VOA|1|
Misc Info : GEL 5ml n/a UVM090911-08C/UVM091116-08A
Comment :
Method : /chem/VOA9.i/111909v9/VOA9-8260B-111909.m
Meth Date : 19-Nov-2009 14:46 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 14:29 Cal File: 91412.d
Als bottle: 12 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
M 27 Xylenes (total)	106				3714181	300.000	265
M 42 1,2-Dichloroethylene (total)	96				1512686	200.000	186
M 45 1,3-Dichloropropylene	75				2465382	200.000	186
1 Dichlorodifluoromethane	85	4.958	4.958	(0.460)	525546	100.000	91.5
2 Chloromethane	50	5.322	5.322	(0.493)	968757	100.000	91.2
3 Vinyl chloride	62	5.588	5.574	(0.518)	843894	100.000	97.8
4 Bromomethane	94	6.198	6.198	(0.575)	590361	100.000	102(A)
5 Chloroethane	64	6.352	6.352	(0.589)	600584	100.000	99.1
6 Trichlorofluoromethane	101	6.791	6.791	(0.630)	951177	100.000	98.8
7 Ethyl Ether	59	7.099	7.099	(0.658)	800579	100.000	97.9
10 Acetone	43	7.490	7.490	(0.694)	2559435	500.000	417
14 Acetonitrile	41	7.858	7.870	(0.728)	2761088	2500.00	2060
11 1,1-Dichloroethylene	61	7.514	7.514	(0.697)	1304706	100.000	93.3
15 Methyl acetate	43	7.882	7.882	(0.731)	3113125	500.000	411
13 Iodomethane	142	7.775	7.775	(0.721)	4719704	500.000	440
19 Methylene chloride	84	8.095	8.095	(0.750)	858465	100.000	85.9

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
	16 Carbon disulfide	76	7.917	7.917	(0.734)	9905888	500.000	420
	21 tert-Butyl methyl ether	73	8.380	8.380	(0.777)	2281427	100.000	89.6
	22 trans-1,2-Dichloroethylene	96	8.427	8.427	(0.781)	717752	100.000	93.5
	23 Vinyl acetate	43	8.854	8.854	(0.821)	7130299	500.000	400
	25 1,1-Dichloroethane	63	8.913	8.913	(0.826)	1511541	100.000	92.5
	29 2-Butanone	43	9.494	9.495	(0.880)	2993219	500.000	433
	31 cis-1,2-Dichloroethylene	96	9.554	9.554	(0.886)	794934	100.000	92.6
	33 2,2-Dichloropropane	77	9.589	9.589	(0.889)	1021031	100.000	90.1
	36 Chloroform	83	9.862	9.862	(0.914)	1294998	100.000	90.0
	35 Bromochloromethane	128	9.827	9.838	(0.911)	355469	100.000	95.1
	39 1,1,1-Trichloroethane	97	10.147	10.147	(0.941)	1020386	100.000	94.3(Q)
	41 Cyclohexane	84	10.230	10.230	(0.948)	1087902	100.000	93.7
	43 1,1-Dichloropropene	75	10.289	10.289	(0.954)	953485	100.000	92.0
	52 n-Butyl alcohol	41	10.858	10.858	(1.007)	1852548	10000.0	8470
	44 Carbon tetrachloride	117	10.336	10.336	(0.958)	867014	100.000	94.4
$	46 1,2-Dichloroethane-d4	65	10.443	10.443	(0.968)	510536	50.0000	49.9
	47 1,2-Dichloroethane	62	10.514	10.514	(0.975)	1119775	100.000	89.8
	48 Benzene	78	10.538	10.538	(0.977)	2821444	100.000	88.0
	50 Cyclohexene	67	10.645	10.645	(0.987)	1548285	100.000	91.5
*	51 Fluorobenzene	96	10.787	10.787	(1.000)	1901797	50.0000	
	53 Trichloroethylene	95	11.167	11.167	(1.035)	720457	100.000	93.2
	55 1,2-Dichloropropane	63	11.416	11.416	(1.058)	838238	100.000	90.3
	56 Methylcyclohexane	83	11.416	11.416	(1.058)	1274036	100.000	91.0
	59 Bromodichloromethane	83	11.665	11.665	(1.081)	1057653	100.000	94.0
	58 Dibromomethane	93	11.558	11.558	(1.071)	459605	100.000	95.2
	61 2-Chloroethylvinyl ether	63	11.866	11.866	(1.100)	2324952	500.000	432
	63 4-Methyl-2-pentanone	58	12.186	12.186	(0.873)	1878217	500.000	452
$	64 Toluene-d8	99	12.424	12.424	(0.890)	160336	50.0000	51.6
	62 cis-1,3-Dichloropropylene	75	12.103	12.103	(1.122)	1277717	100.000	93.1
	65 Toluene	92	12.495	12.495	(0.895)	1763598	100.000	92.2
	67 trans-1,3-Dichloropropylene	75	12.637	12.637	(0.906)	1187665	100.000	94.3
	68 1,1,2-Trichloroethane	83	12.862	12.862	(0.922)	567293	100.000	92.5
	69 2-Hexanone	43	13.028	13.028	(0.934)	4375084	500.000	408
	70 1,3-Dichloropropane	76	13.064	13.064	(0.936)	1054143	100.000	87.8
	71 Tetrachloroethylene	164	13.088	13.088	(0.938)	465788	100.000	91.2
	72 Dibromochloromethane	129	13.337	13.337	(0.956)	743487	100.000	98.7
	73 1,2-Dibromoethane	107	13.503	13.503	(0.968)	691836	100.000	96.8
*	75 Chlorobenzene-d5	117	13.953	13.953	(1.000)	1283629	50.0000	
	76 Chlorobenzene	112	13.977	13.977	(1.002)	1710897	100.000	90.8
	77 1,1,1,2-Tetrachloroethane	131	14.024	14.024	(1.005)	632153	100.000	92.4
	78 Ethylbenzene	91	14.036	14.036	(1.006)	2842684	100.000	81.2
	79 m,p-Xylenes	106	14.143	14.143	(1.014)	2430049	200.000	175
	80 o-Xylene	106	14.570	14.570	(1.044)	1284132	100.000	90.0
	81 Styrene	104	14.582	14.582	(1.045)	2053202	100.000	85.3
	82 Bromoform	173	14.855	14.855	(0.907)	459669	100.000	100(A)
	83 Isopropylbenzene	105	14.926	14.926	(0.912)	3013018	100.000	84.6
$	86 Bromofluorobenzene	95	15.127	15.139	(0.924)	626787	50.0000	51.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
87 1,1,2,2-Tetrachloroethane	83	15.210	15.210	(0.929)	905738	100.000	92.1
89 1,2,3-Trichloropropane	110	15.305	15.305	(0.935)	236725	100.000	95.9
90 Bromobenzene	156	15.353	15.353	(0.938)	714592	100.000	88.8
91 n-Propylbenzene	91	15.353	15.353	(0.938)	3361008	100.000	79.8
92 2-Chlorotoluene	91	15.507	15.507	(0.947)	2402263	100.000	82.5
93 1,3,5-Trimethylbenzene	105	15.495	15.495	(0.946)	2479304	100.000	82.0
94 4-Chlorotoluene	91	15.613	15.614	(0.954)	2375114	100.000	86.4
95 tert-Butylbenzene	119	15.874	15.874	(0.970)	2486002	100.000	87.1
96 1,2,4-Trimethylbenzene	105	15.922	15.922	(0.972)	2639060	100.000	83.8
98 sec-Butylbenzene	105	16.112	16.112	(0.984)	3394331	100.000	84.2
99 4-Isopropyltoluene	119	16.230	16.230	(0.991)	2640038	100.000	86.0
100 1,3-Dichlorobenzene	146	16.313	16.313	(0.996)	1428111	100.000	89.8
* 101 1,4-Dichlorobenzene-d4	152	16.372	16.372	(1.000)	632543	50.0000	
102 1,4-Dichlorobenzene	146	16.408	16.408	(1.002)	1396003	100.000	90.5
104 n-Butylbenzene	92	16.693	16.693	(1.020)	1648966	100.000	89.2
105 1,2-Dichlorobenzene	146	16.859	16.859	(1.030)	1398505	100.000	91.0
107 1,2-Dibromo-3-chloropropane	157	17.784	17.784	(1.086)	172605	100.000	98.4
108 1,2,4-Trichlorobenzene	180	18.922	18.922	(1.156)	896746	100.000	91.1
109 Hexachlorobutadiene	225	19.100	19.100	(1.167)	493216	100.000	91.8
110 Naphthalene	128	19.349	19.349	(1.182)	2206370	100.000	89.3
111 1,2,3-Trichlorobenzene	180	19.717	19.728	(1.204)	733633	100.000	90.5

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA9.i/111909v9/91412.d
Date : 19-NOV-2009 14:29
Client ID: VSTD100
Sample Info: IW9VH091119-081VSTD100I1IVOA1I1
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

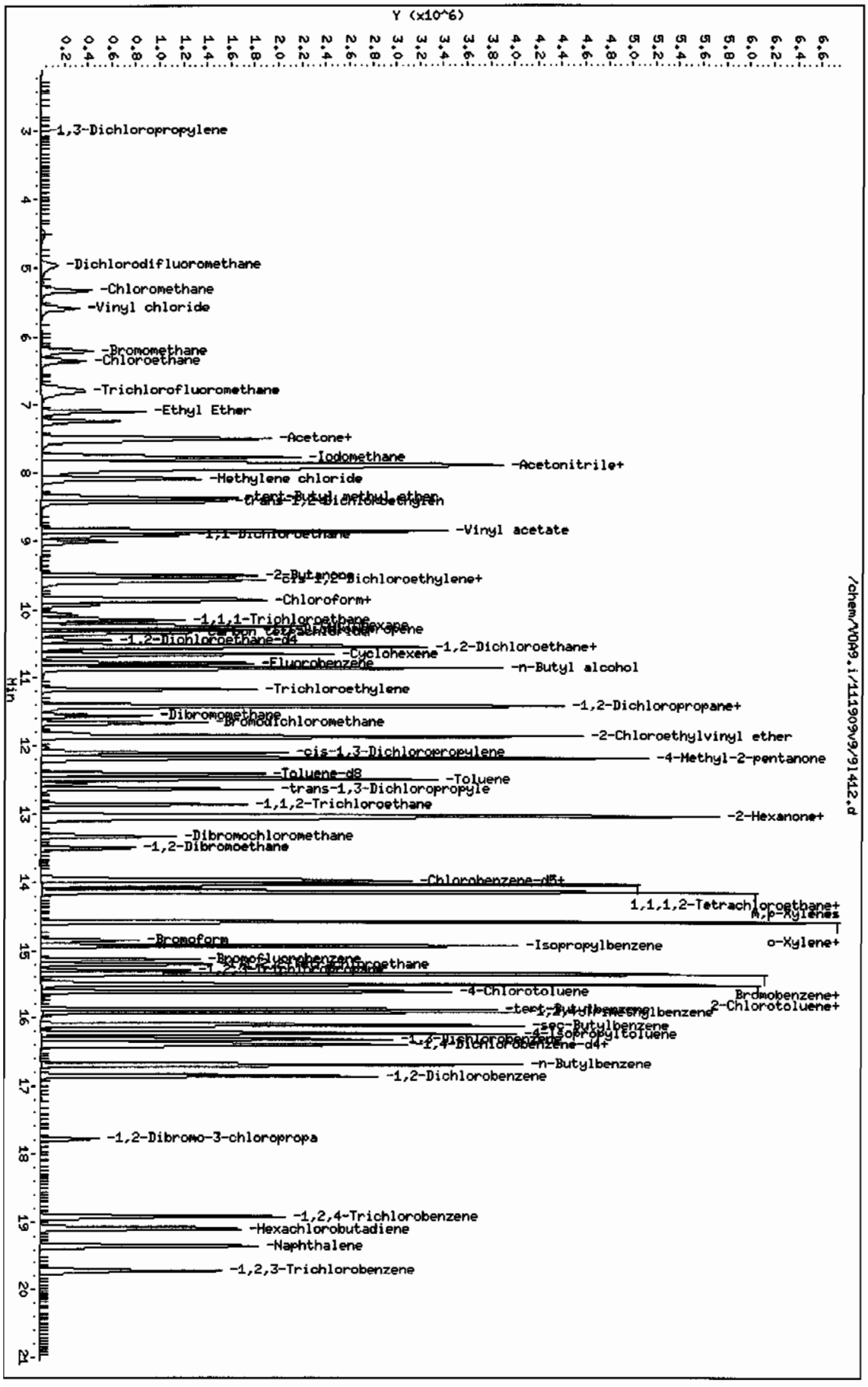

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/111909v9/91414.d
Lab Smp Id: W9VM091119-09 Client Smp ID: VSTD005S
Inj Date : 19-NOV-2009 15:24
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |W9VM091119-09|VSTD005S|1|VOA|1|
Misc Info : GEL 5ml n/a UVM091118-01/UVM091110-01A
Comment :
Method : /chem/VOA9.i/111909v9/VOA9-8260B-111909.m
Meth Date : 20-Nov-2009 07:45 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 15:24 Cal File: 91414.d
Als bottle: 14 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALsubS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
146 Chlorotrifluoroethylene	116	4.874	4.874	(0.452)	16317	5.00000	4.1
147 2-Chloro-1,1,1-trifluoroethane	118	5.700	5.714	(0.528)	36229	5.00000	5.2
8 Acrolein	56	7.313	7.313	(0.678)	9869	5.00000	5.2(Q)
9 Trichlorotrifluoroethane	85	7.467	7.467	(0.692)	15681	5.00000	5.4(Q)
12 Isopropyl Alcohol	45	7.562	7.562	(0.701)	37251	50.0000	51.7
17 Allyl chloride	76	7.941	7.941	(0.736)	25150	5.00000	5.4(Q)
18 tert-butyl alcohol	59	8.071	8.072	(0.748)	61766	50.0000	53.4
20 Acrylonitrile	53	8.344	8.344	(0.774)	18896	5.00000	4.9(aQ)
24 Isopropyl ether	45	8.866	8.866	(0.822)	36561	1.00000	1.1
26 2-Chloro-1,3-butadiene	53	9.020	9.020	(0.836)	16173	1.00000	1.0
28 Ethyl tert-butyl ether	59	9.281	9.281	(0.860)	33625	1.00000	1.0(a)
32 Propionitrile	54	9.578	9.578	(0.888)	7589	5.00000	5.0
30 Ethyl acetate	43	9.495	9.483	(0.880)	52691	5.00000	5.3
34 Methacrylonitrile	41	9.755	9.755	(0.904)	31935	5.00000	5.2
37 Tetrahydrofuran	42	9.874	9.874	(0.603)	17397	5.00000	5.2
40 Isobutyl alcohol	41	10.170	10.171	(0.943)	20269	50.0000	52.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
49 Methyl tert-amyl ether	73	10.538	10.538	(0.977)	25893	1.00000	1.0(a)
54 Methyl methacrylate	69	11.368	11.368	(1.054)	31180	5.00000	5.2
57 1,4-Dioxane	88	11.499	11.499	(1.066)	6276	50.0000	58.5
60 2-Nitropropane	43	11.866	11.866	(1.100)	17809	5.00000	5.2
66 Ethyl methacrylate	69	12.625	12.625	(0.905)	58291	5.00000	5.4
74 1-Chlorohexane	55	13.823	13.823	(1.281)	10653	1.00000	1.2(a)
84 cis-1,4-Dichloro-2-butene	53	14.973	14.973	(0.915)	20468	5.00000	5.1
85 Cyclohexanone	55	15.104	15.104	(1.082)	33255	25.0000	27.9(Q)
88 trans-1,4-Dichloro-2-butene	53	15.246	15.246	(0.931)	18862	5.00000	5.1
97 Pentachloroethane	167	15.957	15.969	(0.975)	16963	5.00000	5.4
103 Benzyl chloride	91	16.527	16.527	(1.009)	95263	5.00000	5.5
106 bis(2-Chloroisopropyl)ether	45	16.930	16.930	(1.034)	30134	5.00000	5.2
* 51 Fluorobenzene	96	10.787	10.787	(1.000)	1935524	50.0000	
* 75 Chlorobenzene-d5	117	13.953	13.953	(1.000)	1316379	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	16.372	16.372	(1.000)	663232	50.0000	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA9.i/111909v9/91414.d
Date : 19-NOV-2009 15:24
Client ID: VSTD005S
Sample Info: IW9VH091119-09|VSTD005S|1|VOA|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

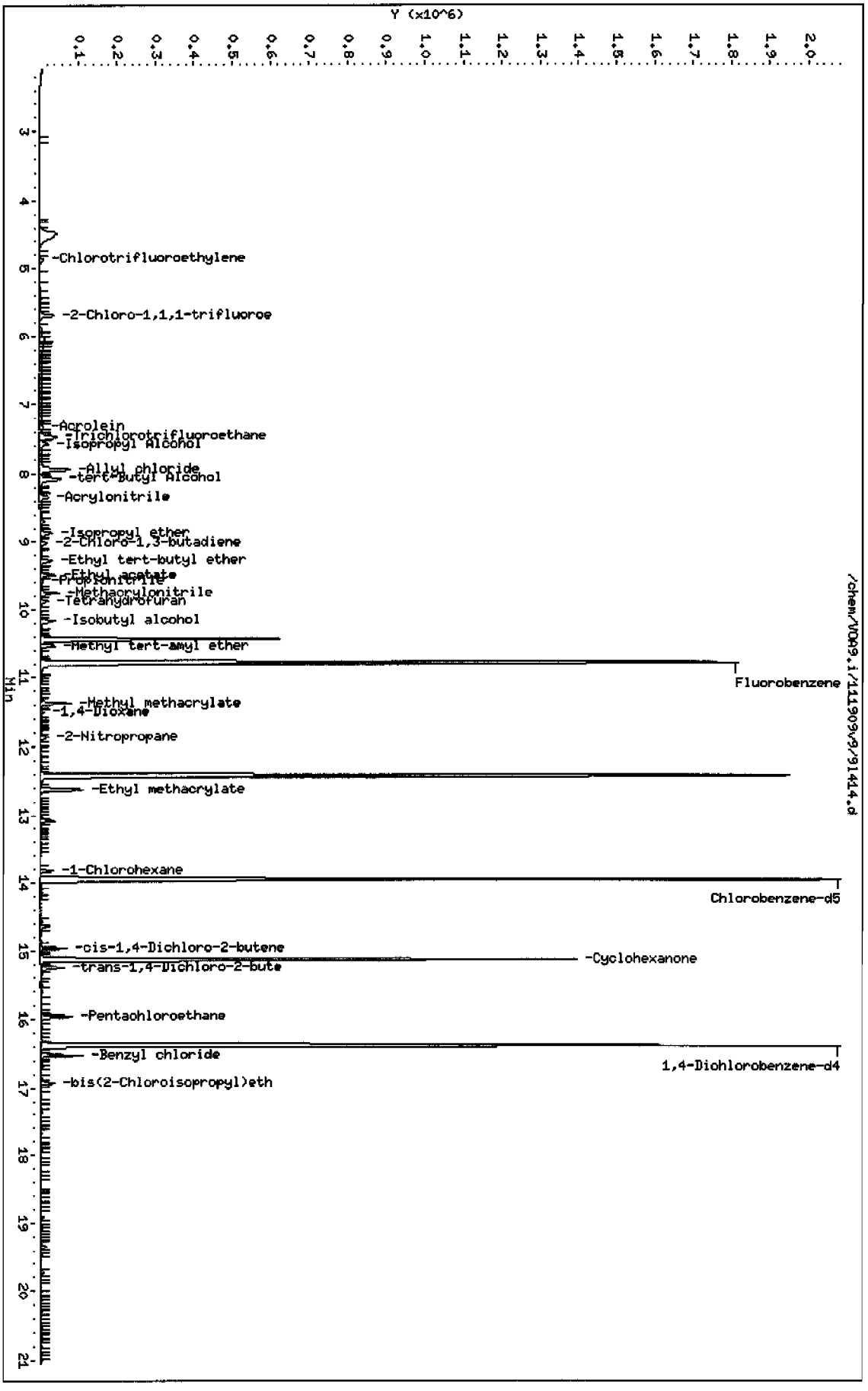

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GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/111909v9/91415.d
Lab Smp Id: W9VM091119-10 Client Smp ID: VSTD010S
Inj Date : 19-NOV-2009 15:52
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |W9VM091119-10|VSTD010S|1|VOA|1|
Misc Info : GEL 5ml n/a UVM091118-02/UVM091110-02A
Comment :
Method : /chem/VOA9.i/111909v9/VOA9-8260B-111909.m
Meth Date : 20-Nov-2009 07:45 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 15:52 Cal File: 91415.d
Als bottle: 15 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALsubS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
146 Chlorotrifluoroethylene	116	4.874	4.874	(0.452)	40927	10.0000	10.3
147 2-Chloro-1,1,1-trifluoroethane	118	5.700	5.714	(0.528)	75777	10.0000	10.6
8 Acrolein	56	7.324	7.313	(0.679)	19346	10.0000	10.2(Q)
9 Trichlorotrifluoroethane	85	7.467	7.467	(0.692)	29375	10.0000	10.2(Q)
12 Isopropyl Alcohol	45	7.562	7.562	(0.701)	79266	100.000	108
17 Allyl chloride	76	7.941	7.941	(0.736)	48529	10.0000	10.4(Q)
18 tert-butyl alcohol	59	8.072	8.072	(0.748)	125139	100.000	107
20 Acrylonitrile	53	8.344	8.344	(0.774)	39417	10.0000	10.3(Q)
24 Isopropyl ether	45	8.866	8.866	(0.822)	73888	2.00000	2.1
26 2-Chloro-1,3-butadiene	53	9.020	9.020	(0.836)	30404	2.00000	2.0
28 Ethyl tert-butyl ether	59	9.281	9.281	(0.860)	67377	2.00000	2.1(a)
32 Propionitrile	54	9.578	9.578	(0.888)	15430	10.0000	10.3
30 Ethyl acetate	43	9.495	9.483	(0.880)	107582	10.0000	10.7
34 Methacrylonitrile	41	9.755	9.755	(0.904)	65162	10.0000	10.5
37 Tetrahydrofuran	42	9.874	9.874	(0.603)	35149	10.0000	10.5
40 Isobutyl alcohol	41	10.171	10.171	(0.943)	39639	100.000	103

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
49 Methyl tert-amyl ether	73	10.538	10.538	(0.977)	52435	2.00000	2.1(a)
54 Methyl methacrylate	69	11.368	11.368	(1.054)	63569	10.0000	10.6
57 1,4-Dioxane	88	11.499	11.499	(1.066)	10859	100.000	102
60 2-Nitropropane	43	11.866	11.866	(1.100)	33032	10.0000	9.9
66 Ethyl methacrylate	69	12.625	12.625	(0.905)	121795	10.0000	10.9
74 1-Chlorohexane	55	13.823	13.823	(1.281)	20749	2.00000	2.2(a)
84 cis-1,4-Dichloro-2-butene	53	14.973	14.973	(0.915)	40850	10.0000	10.3
85 Cyclohexanone	55	15.104	15.104	(1.082)	64224	50.0000	53.1(Q)
88 trans-1,4-Dichloro-2-butene	53	15.246	15.246	(0.931)	37940	10.0000	10.4
97 Pentachloroethane	167	15.957	15.969	(0.975)	37837	10.0000	11.4
103 Benzyl chloride	91	16.527	16.527	(1.009)	193969	10.0000	11.0
106 bis(2-Chloroisopropyl)ether	45	16.930	16.930	(1.034)	61144	10.0000	10.5
* 51 Fluorobenzene	96	10.787	10.787	(1.000)	1893662	50.0000	
* 75 Chlorobenzene-d5	117	13.953	13.953	(1.000)	1294552	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	16.373	16.372	(1.000)	645457	50.0000	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA9.i/111909v9/91415.d
Date : 19-NOV-2009 15:52
Client ID: VSTD010S
Sample Info: IW9WH091119-10|VSTD010S|1|VOA1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

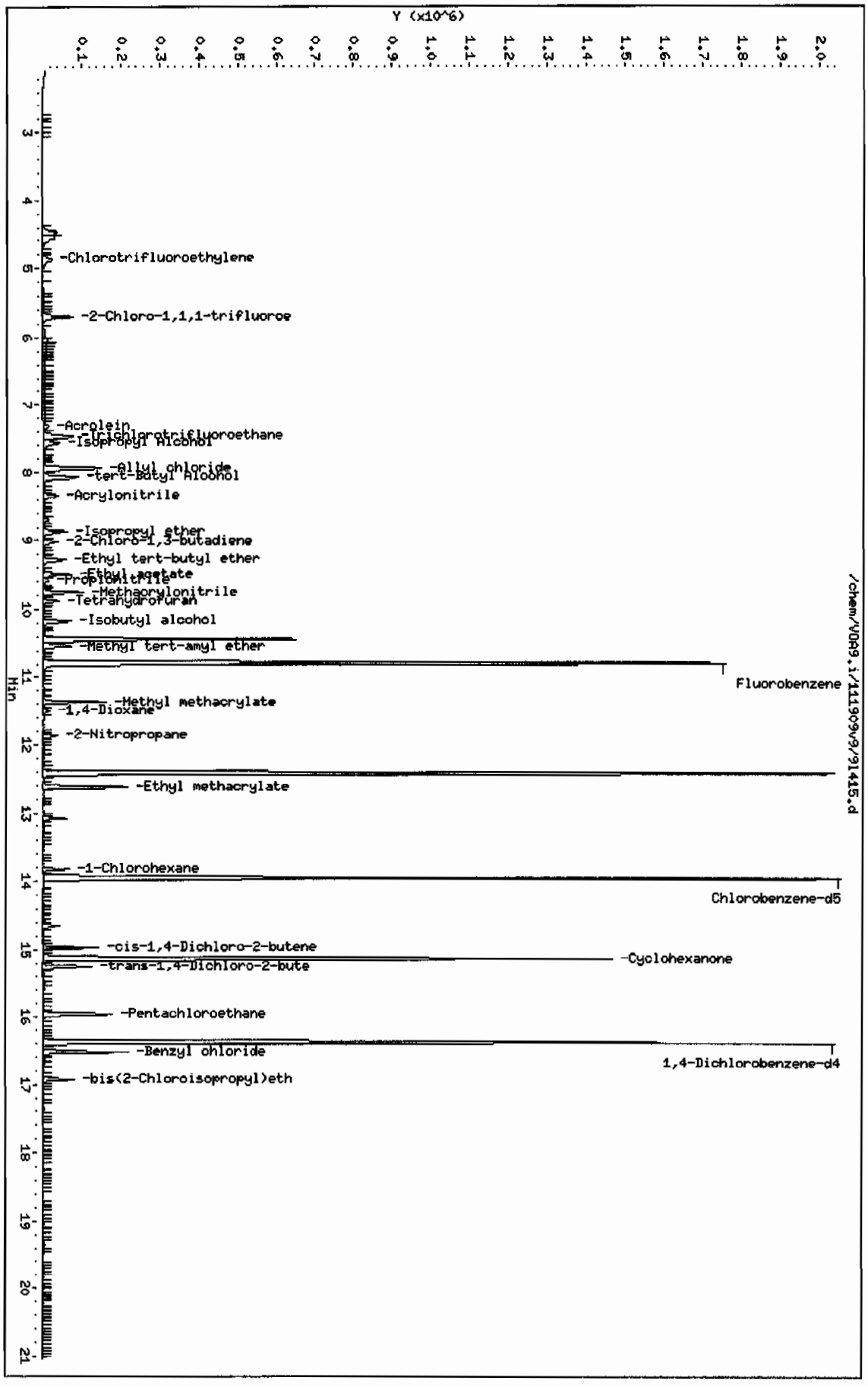

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GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/111909v9/91416.d
Lab Smp Id: W9VM091119-11 Client Smp ID: VSTD025S
Inj Date : 19-NOV-2009 16:20
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |W9VM091119-11|VSTD025S|1|VOA|1|
Misc Info : GEL 5ml n/a UVM091118-03/UVM091110-03A
Comment :
Method : /chem/VOA9.i/111909v9/VOA9-8260B-111909.m
Meth Date : 20-Nov-2009 07:45 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 16:20 Cal File: 91416.d
Als bottle: 16 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALsubS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
146 Chlorotrifluoroethylene	116	4.874	4.874	(0.452)	104985	25.0000	25.5
147 2-Chloro-1,1,1-trifluoroethane	118	5.714	5.714	(0.530)	181186	25.0000	24.8
8 Acrolein	56	7.324	7.313	(0.679)	45143	25.0000	23.7(Q)
9 Trichlorotrifluoroethane	85	7.467	7.467	(0.692)	70557	25.0000	24.2(Q)
12 Isopropyl Alcohol	45	7.561	7.562	(0.701)	180607	250.000	243
17 Allyl chloride	76	7.941	7.941	(0.736)	113267	25.0000	24.0(Q)
18 tert-butyl alcohol	59	8.071	8.072	(0.748)	291969	250.000	245
20 Acrylonitrile	53	8.344	8.344	(0.774)	94843	25.0000	24.4(Q)
24 Isopropyl ether	45	8.866	8.866	(0.822)	181540	5.00000	5.0
26 2-Chloro-1,3-butadiene	53	9.020	9.020	(0.836)	74694	5.00000	4.8
28 Ethyl tert-butyl ether	59	9.281	9.281	(0.860)	169652	5.00000	5.1
32 Propionitrile	54	9.577	9.578	(0.888)	36972	25.0000	24.3
30 Ethyl acetate	43	9.494	9.483	(0.880)	249795	25.0000	24.4
34 Methacrylonitrile	41	9.755	9.755	(0.904)	155476	25.0000	24.6
37 Tetrahydrofuran	42	9.874	9.874	(0.603)	78744	25.0000	23.6
40 Isobutyl alcohol	41	10.170	10.171	(0.943)	96908	250.000	247

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
49 Methyl tert-amyl ether	73	10.538	10.538	(0.977)	132386	5.00000	5.1
54 Methyl methacrylate	69	11.368	11.368	(1.054)	150644	25.0000	24.7
57 1,4-Dioxane	88	11.498	11.499	(1.066)	23271	250.000	222
60 2-Nitropropane	43	11.866	11.866	(1.100)	78842	25.0000	23.5
66 Ethyl methacrylate	69	12.625	12.625	(0.905)	290433	25.0000	25.2
74 1-Chlorohexane	55	13.823	13.823	(1.281)	47666	5.00000	4.9(a)
84 cis-1,4-Dichloro-2-butene	53	14.973	14.973	(0.915)	96951	25.0000	24.4
85 Cyclohexanone	55	15.103	15.104	(1.082)	146021	125.000	120(Q)
88 trans-1,4-Dichloro-2-butene	53	15.246	15.246	(0.931)	89296	25.0000	24.4
97 Pentachloroethane	167	15.969	15.969	(0.975)	92337	25.0000	26.9
103 Benzyl chloride	91	16.527	16.527	(1.009)	459105	25.0000	25.5
106 bis(2-Chloroisopropyl)ether	45	16.930	16.930	(1.034)	144575	25.0000	24.7
* 51 Fluorobenzene	96	10.787	10.787	(1.000)	1937134	50.0000	
* 75 Chlorobenzene-d5	117	13.953	13.953	(1.000)	1327256	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	16.372	16.372	(1.000)	654650	50.0000	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA9.i/111909v9/91416.d
Date : 19-NOV-2009 16:20
Client ID: VSTD025S
Sample Info: |W9VM091119-11|VSTD025S|1|VOA|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

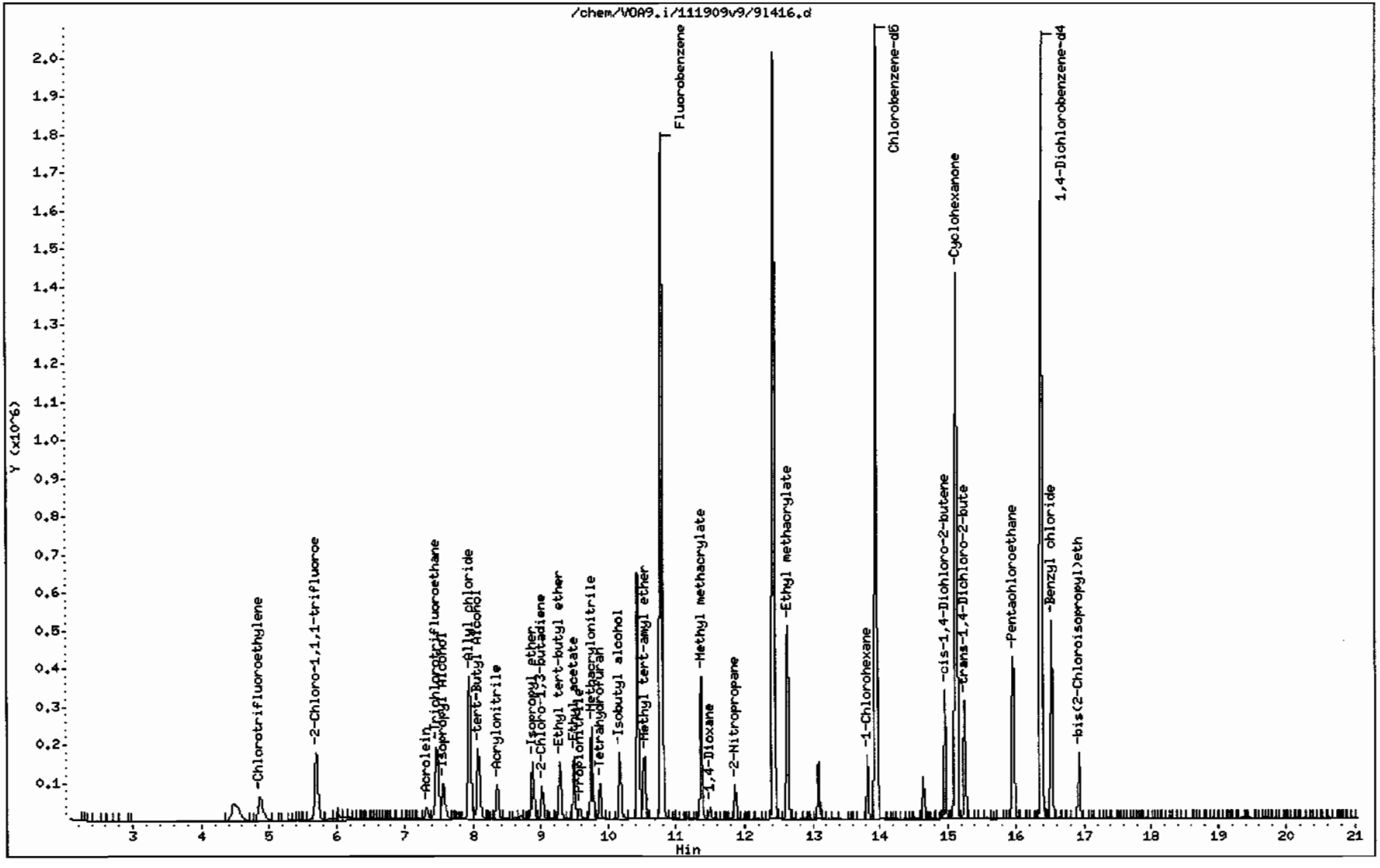

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/111909v9/91417.d
Lab Smp Id: W9VM091119-12 Client Smp ID: VSTD050S
Inj Date : 19-NOV-2009 16:48
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |W9VM091119-12|VSTD050S|1|VOA|1|
Misc Info : GEL 5ml n/a UVM091118-04/UVM091110-04A
Comment :
Method : /chem/VOA9.i/111909v9/VOA9-8260B-111909.m
Meth Date : 20-Nov-2009 07:45 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 16:48 Cal File: 91417.d
Als bottle: 17 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALsubS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
146 Chlorotrifluoroethylene	116	4.860	4.874	(0.450)	205663	50.0000	50.6
147 2-Chloro-1,1,1-trifluoroethane	118	5.714	5.714	(0.530)	356129	50.0000	49.7
8 Acrolein	56	7.324	7.313	(0.679)	89688	50.0000	48.3(Q)
9 Trichlorotrifluoroethane	85	7.467	7.467	(0.692)	138847	50.0000	48.7(Q)
12 Isopropyl Alcohol	45	7.562	7.562	(0.701)	386996	500.000	523
17 Allyl chloride	76	7.941	7.941	(0.736)	221063	50.0000	48.1(Q)
18 tert-butyl alcohol	59	8.071	8.072	(0.748)	610373	500.000	517
20 Acrylonitrile	53	8.344	8.344	(0.774)	199001	50.0000	51.6(Q)
24 Isopropyl ether	45	8.866	8.866	(0.822)	366058	10.0000	10.2
26 2-Chloro-1,3-butadiene	53	9.020	9.020	(0.836)	149664	10.0000	9.8
28 Ethyl tert-butyl ether	59	9.281	9.281	(0.860)	337646	10.0000	10.2
32 Propionitrile	54	9.578	9.578	(0.888)	73615	50.0000	49.3
30 Ethyl acetate	43	9.495	9.483	(0.880)	498689	50.0000	49.6
34 Methacrylonitrile	41	9.755	9.755	(0.904)	313314	50.0000	50.4
37 Tetrahydrofuran	42	9.874	9.874	(0.603)	161125	50.0000	48.4
40 Isobutyl alcohol	41	10.170	10.171	(0.943)	202714	500.000	520

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
49 Methyl tert-amyl ether	73	10.538	10.538	(0.977)	265647	10.0000	10.3
54 Methyl methacrylate	69	11.368	11.368	(1.054)	298286	50.0000	49.7
57 1,4-Dioxane	88	11.499	11.499	(1.066)	46100	500.000	457
60 2-Nitropropane	43	11.866	11.866	(1.100)	163445	50.0000	49.6
66 Ethyl methacrylate	69	12.625	12.625	(0.905)	574158	50.0000	50.4
74 1-Chlorohexane	55	13.823	13.823	(1.281)	98938	10.0000	10.3
84 cis-1,4-Dichloro-2-butene	53	14.973	14.973	(0.915)	202327	50.0000	50.5
85 Cyclohexanone	55	15.104	15.104	(1.082)	297474	250.000	247(Q)
88 trans-1,4-Dichloro-2-butene	53	15.246	15.246	(0.931)	183719	50.0000	49.9
97 Pentachloroethane	167	15.957	15.969	(0.975)	162717	50.0000	47.6
103 Benzyl chloride	91	16.527	16.527	(1.009)	901088	50.0000	49.8
106 bis(2-Chloroisopropyl)ether	45	16.930	16.930	(1.034)	295400	50.0000	50.2
* 51 Fluorobenzene	96	10.787	10.787	(1.000)	1906010	50.0000	
* 75 Chlorobenzene-d5	117	13.953	13.953	(1.000)	1310891	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	16.372	16.372	(1.000)	657902	50.0000	

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA9.i/111909v9/91417.d
Date : 19-NOV-2009 16:48
Client ID: VSTD050S
Sample Info: IW9VH091119-121VSTD050S!1!VOA!1!
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

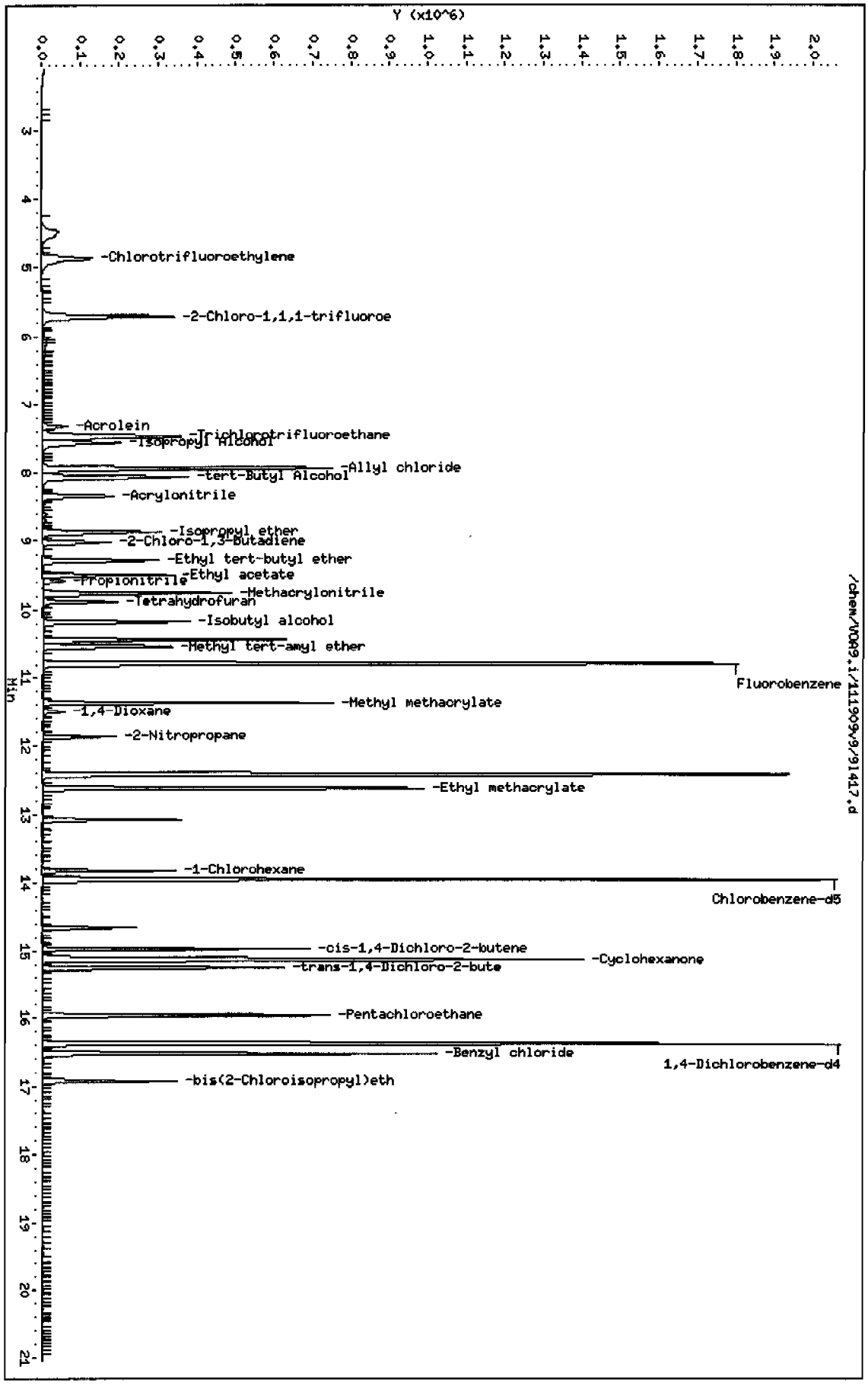

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GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/111909v9/91418.d
Lab Smp Id: W9VM091119-13 Client Smp ID: VSTD100S
Inj Date : 19-NOV-2009 17:16
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |W9VM091119-13|VSTD100S|1|VOA|1|
Misc Info : GEL 5ml n/a UVM091118-05/UVM091110-05A
Comment :
Method : /chem/VOA9.i/111909v9/VOA9-8260B-111909.m
Meth Date : 20-Nov-2009 07:45 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 17:16 Cal File: 91418.d
Als bottle: 18 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALsubS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
146 Chlorotrifluoroethylene	116	4.874	4.874	(0.452)	428926	100.000	99.0
147 2-Chloro-1,1,1-trifluoroethane	118	5.714	5.714	(0.530)	633730	100.000	85.6
8 Acrolein	56	7.324	7.313	(0.679)	164804	100.000	85.5(Q)
9 Trichlorotrifluoroethane	85	7.467	7.467	(0.692)	247589	100.000	83.9(Q)
12 Isopropyl Alcohol	45	7.562	7.562	(0.701)	693463	1000.00	895
17 Allyl chloride	76	7.941	7.941	(0.736)	392354	100.000	82.6(Q)
18 tert-butyl alcohol	59	8.071	8.072	(0.748)	1096480	1000.00	888
20 Acrylonitrile	53	8.344	8.344	(0.774)	354447	100.000	88.0(Q)
24 Isopropyl ether	45	8.866	8.866	(0.822)	671919	20.0000	18.0
26 2-Chloro-1,3-butadiene	53	9.020	9.020	(0.836)	271980	20.0000	17.2
28 Ethyl tert-butyl ether	59	9.281	9.281	(0.860)	623026	20.0000	18.0
32 Propionitrile	54	9.577	9.578	(0.888)	134946	100.000	86.8
30 Ethyl acetate	43	9.494	9.483	(0.880)	901029	100.000	86.2
34 Methacrylonitrile	41	9.755	9.755	(0.904)	570359	100.000	87.8
37 Tetrahydrofuran	42	9.874	9.874	(0.603)	290869	100.000	84.7
40 Isobutyl alcohol	41	10.170	10.171	(0.943)	371166	1000.00	908

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
49 Methyl tert-amyl ether	73	10.538	10.538	(0.977)	487840	20.0000	18.1
54 Methyl methacrylate	69	11.368	11.368	(1.054)	538268	100.000	86.3
57 1,4-Dioxane	88	11.499	11.499	(1.066)	84326	1000.00	812
60 2-Nitropropane	43	11.866	11.866	(1.100)	304238	100.000	88.4
66 Ethyl methacrylate	69	12.625	12.625	(0.905)	1001533	100.000	85.1
74 1-Chlorohexane	55	13.823	13.823	(1.281)	179740	20.0000	17.9
84 cis-1,4-Dichloro-2-butene	53	14.973	14.973	(0.915)	360932	100.000	87.0
85 Cyclohexanone	55	15.104	15.104	(1.082)	537000	500.000	431(Q)
88 trans-1,4-Dichloro-2-butene	53	15.246	15.246	(0.931)	338372	100.000	88.4
97 Pentachloroethane	167	15.969	15.969	(0.975)	296573	100.000	84.2
103 Benzyl chloride	91	16.527	16.527	(1.009)	1581792	100.000	84.8
106 bis(2-Chloroisopropyl)ether	45	16.930	16.930	(1.034)	539598	100.000	88.2
* 51 Fluorobenzene	96	10.787	10.787	(1.000)	2037397	50.0000	
* 75 Chlorobenzene-d5	117	13.953	13.953	(1.000)	1394957	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	16.372	16.372	(1.000)	699625	50.0000	

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA9.i/111909v9/91418.d
Date : 19-NOV-2009 17:16
Client ID: VSTD100S
Sample Info: IWSWH091119-13|VSTD100S|1|VOA1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

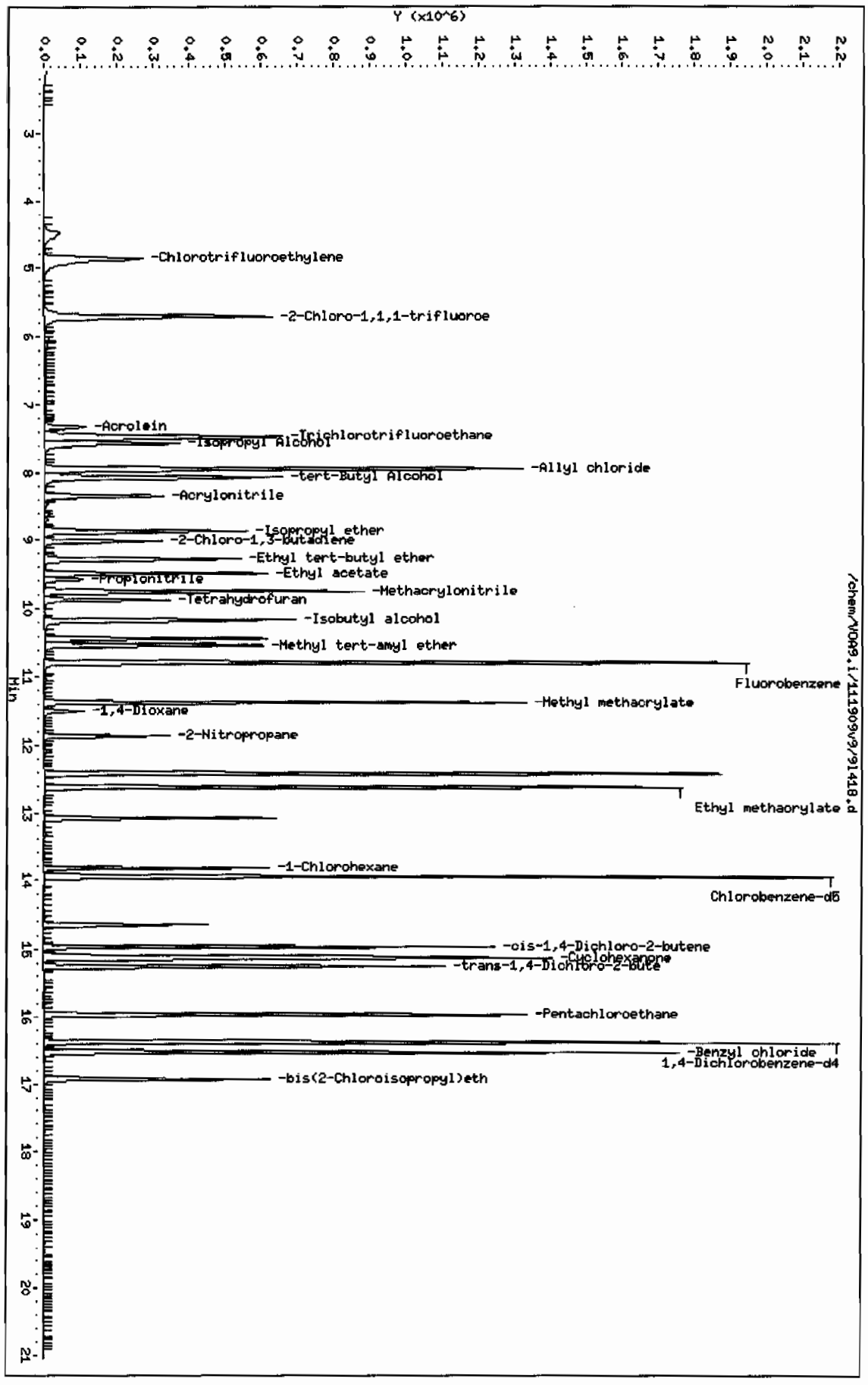

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/111909v9/91419.d
Lab Smp Id: W9VM091119-14 Client Smp ID: VSTD250S
Inj Date : 19-NOV-2009 17:43
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |W9VM091119-14|VSTD250S|1|VOA|1|
Misc Info : GEL 5ml n/a UVM091118-06/UVM091110-06A
Comment :
Method : /chem/VOA9.i/111909v9/VOA9-8260B-111909.m
Meth Date : 20-Nov-2009 07:45 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 17:43 Cal File: 91419.d
Als bottle: 19 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALsubS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
146 Chlorotrifluoroethylene	116	4.874	4.874	(0.452)	571989	150.000	145
147 2-Chloro-1,1,1-trifluoroethane	118	5.714	5.714	(0.530)	1002653	150.000	149
8 Acrolein	56	7.313	7.313	(0.678)	446721	250.000	257
9 Trichlorotrifluoroethane	85	7.467	7.467	(0.692)	652559	250.000	247
12 Isopropyl Alcohol	45	7.562	7.562	(0.701)	1683216	2500.00	2420
17 Allyl chloride	76	7.941	7.941	(0.736)	1046852	250.000	246
18 tert-butyl alcohol	59	8.072	8.072	(0.748)	2608499	2500.00	2370
20 Acrylonitrile	53	8.344	8.344	(0.774)	955115	250.000	263
24 Isopropyl ether	45	8.866	8.866	(0.822)	1657010	50.0000	49.0
26 2-Chloro-1,3-butadiene	53	9.020	9.020	(0.836)	738517	50.0000	51.6
28 Ethyl tert-butyl ether	59	9.281	9.281	(0.860)	1545984	50.0000	49.4
32 Propionitrile	54	9.578	9.578	(0.888)	365363	250.000	261
30 Ethyl acetate	43	9.483	9.483	(0.879)	2272825	250.000	245
34 Methacrylonitrile	41	9.755	9.755	(0.904)	1443712	250.000	250
37 Tetrahydrofuran	42	9.874	9.874	(0.603)	764774	250.000	257
40 Isobutyl alcohol	41	10.171	10.171	(0.943)	891804	2500.00	2450

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
49 Methyl tert-amyl ether	73	10.538	10.538	(0.977)	1196695	50.0000	49.1
54 Methyl methacrylate	69	11.368	11.368	(1.054)	1363840	250.000	246
57 1,4-Dioxane	88	11.499	11.499	(1.066)	215148	2500.00	2320
60 2-Nitropropane	43	11.866	11.866	(1.100)	804657	250.000	260
66 Ethyl methacrylate	69	12.625	12.625	(0.906)	2424629	250.000	238
74 1-Chlorohexane	55	13.823	13.823	(1.281)	434297	50.0000	47.7
84 cis-1,4-Dichloro-2-butene	53	14.973	14.973	(0.915)	913458	250.000	254
85 Cyclohexanone	55	15.104	15.104	(1.083)	1258532	1250.00	1150
88 trans-1,4-Dichloro-2-butene	53	15.246	15.246	(0.931)	837749	250.000	252
97 Pentachloroethane	167	15.969	15.969	(0.975)	684513	250.000	227
103 Benzyl chloride	91	16.527	16.527	(1.009)	3628380	250.000	229
106 bis(2-Chloroisopropyl)ether	45	16.930	16.930	(1.034)	1308949	250.000	247
* 51 Fluorobenzene	96	10.787	10.787	(1.000)	1873701	50.0000	
* 75 Chlorobenzene-d5	117	13.942	13.953	(1.000)	1262378	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	16.373	16.372	(1.000)	624852	50.0000	

Data File: /chem/VOA9.i/111909v9/91419.d
Date : 19-NOV-2009 17:43
Client ID: VSTD250S
Sample Info: IW9VN091119-141|VSTD250S|1|VOA14|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

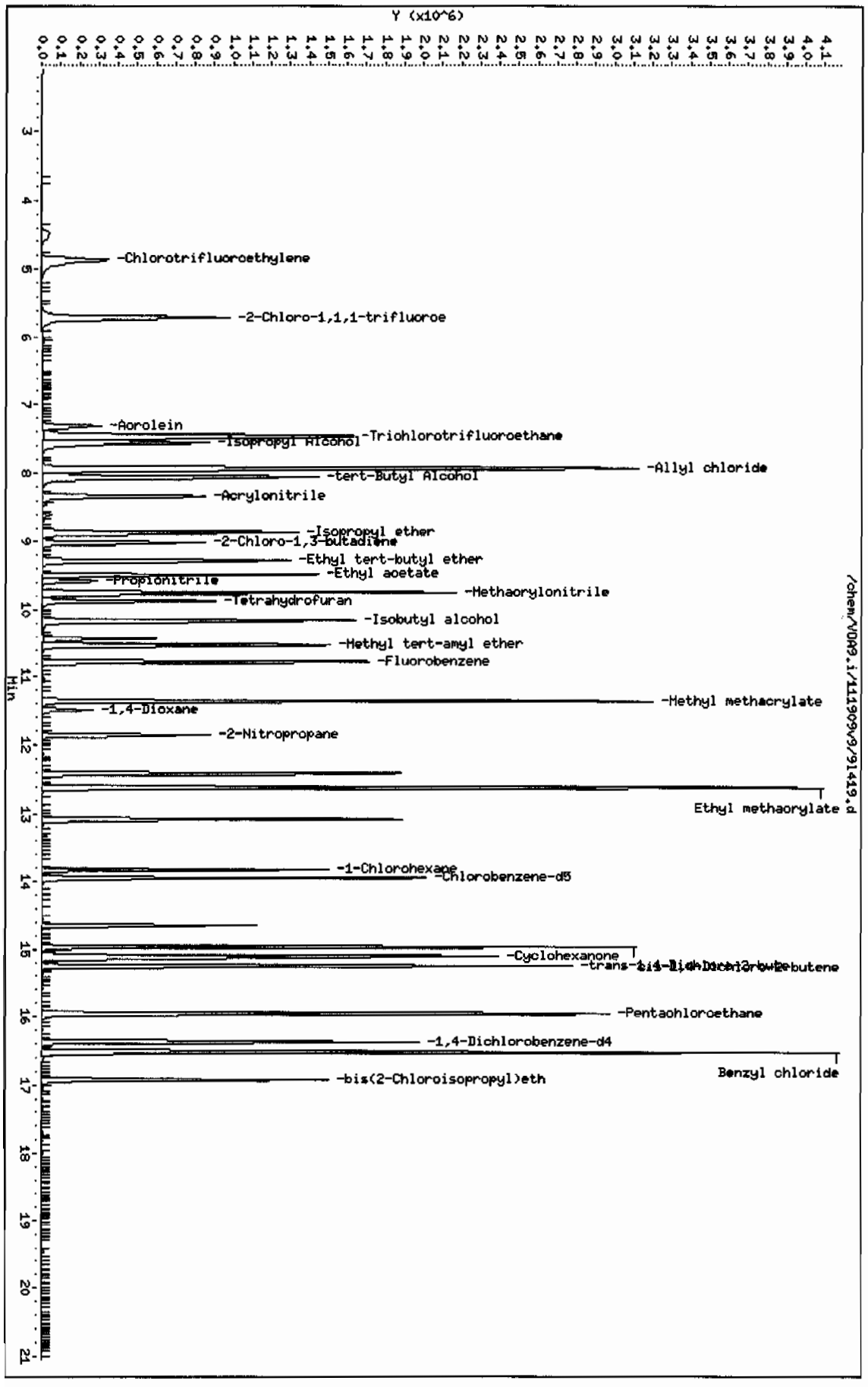

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/111909v9/91420.d
Lab Smp Id: W9VM091119-15 Client Smp ID: VSTD500S
Inj Date : 19-NOV-2009 18:11
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |W9VM091119-15|VSTD500S|1|VOA|1|
Misc Info : GEL 5ml n/a UVM091118-07/UVM091110-07A
Comment :
Method : /chem/VOA9.i/111909v9/VOA9-8260B-111909.m
Meth Date : 20-Nov-2009 07:45 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 18:11 Cal File: 91420.d
Als bottle: 20 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALsubS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
146 Chlorotrifluoroethylene	116	4.874	4.874	(0.452)	799613	200.000	192
147 2-Chloro-1,1,1-trifluoroethane	118	5.728	5.714	(0.531)	1324206	200.000	187
8 Acrolein	56	7.313	7.313	(0.678)	801020	500.000	438(Q)
9 Trichlorotrifluoroethane	85	7.479	7.467	(0.693)	1172993	500.000	421(Q)
12 Isopropyl Alcohol	45	7.562	7.562	(0.701)	3119551	5000.00	4260
17 Allyl chloride	76	7.941	7.941	(0.736)	1903913	500.000	425(Q)
18 tert-butyl alcohol	59	8.071	8.072	(0.748)	4685407	5000.00	4040
20 Acrylonitrile	53	8.344	8.344	(0.774)	1681707	500.000	440(Q)
24 Isopropyl ether	45	8.866	8.866	(0.822)	3288596	100.000	92.4
26 2-Chloro-1,3-butadiene	53	9.020	9.020	(0.836)	1367419	100.000	90.8
28 Ethyl tert-butyl ether	59	9.281	9.281	(0.860)	3038816	100.000	92.2
32 Propionitrile	54	9.577	9.578	(0.888)	647053	500.000	439
30 Ethyl acetate	43	9.494	9.483	(0.880)	3748978	500.000	384
34 Methacrylonitrile	41	9.755	9.755	(0.904)	2440141	500.000	401
37 Tetrahydrofuran	42	9.874	9.874	(0.603)	1305820	500.000	408
40 Isobutyl alcohol	41	10.170	10.171	(0.943)	1521782	5000.00	3980

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
49 Methyl tert-amyl ether	73	10.538	10.538	(0.977)	2335082	100.000	91.0
54 Methyl methacrylate	69	11.368	11.368	(1.054)	2283029	500.000	392
57 1,4-Dioxane	88	11.499	11.499	(1.066)	393258	5000.00	4040
60 2-Nitropropane	43	11.866	11.866	(1.100)	1399649	500.000	430
66 Ethyl methacrylate	69	12.625	12.625	(0.905)	3916241	500.000	362
74 1-Chlorohexane	55	13.823	13.823	(1.281)	895007	100.000	93.3
84 cis-1,4-Dichloro-2-butene	53	14.973	14.973	(0.915)	1585793	500.000	410
85 Cyclohexanone	55	15.104	15.104	(1.082)	2380517	2500.00	2050(Q)
88 trans-1,4-Dichloro-2-butene	53	15.246	15.246	(0.931)	1474180	500.000	413
97 Pentachloroethane	167	15.969	15.969	(0.975)	1196804	500.000	370
103 Benzyl chloride	91	16.527	16.527	(1.009)	5931038	500.000	348
106 bis(2-Chloroisopropyl)ether	45	16.930	16.930	(1.034)	2287642	500.000	403
* 51 Fluorobenzene	96	10.787	10.787	(1.000)	1972578	50.0000	
* 75 Chlorobenzene-d5	117	13.953	13.953	(1.000)	1339573	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	16.372	16.372	(1.000)	670911	50.0000	

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA9.i/111909v9/91420.d
Date : 19-NOV-2009 18:11
Client ID: VSTD500S
Sample Info: |W9VM091119-15|VSTD500S|1|VOA|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

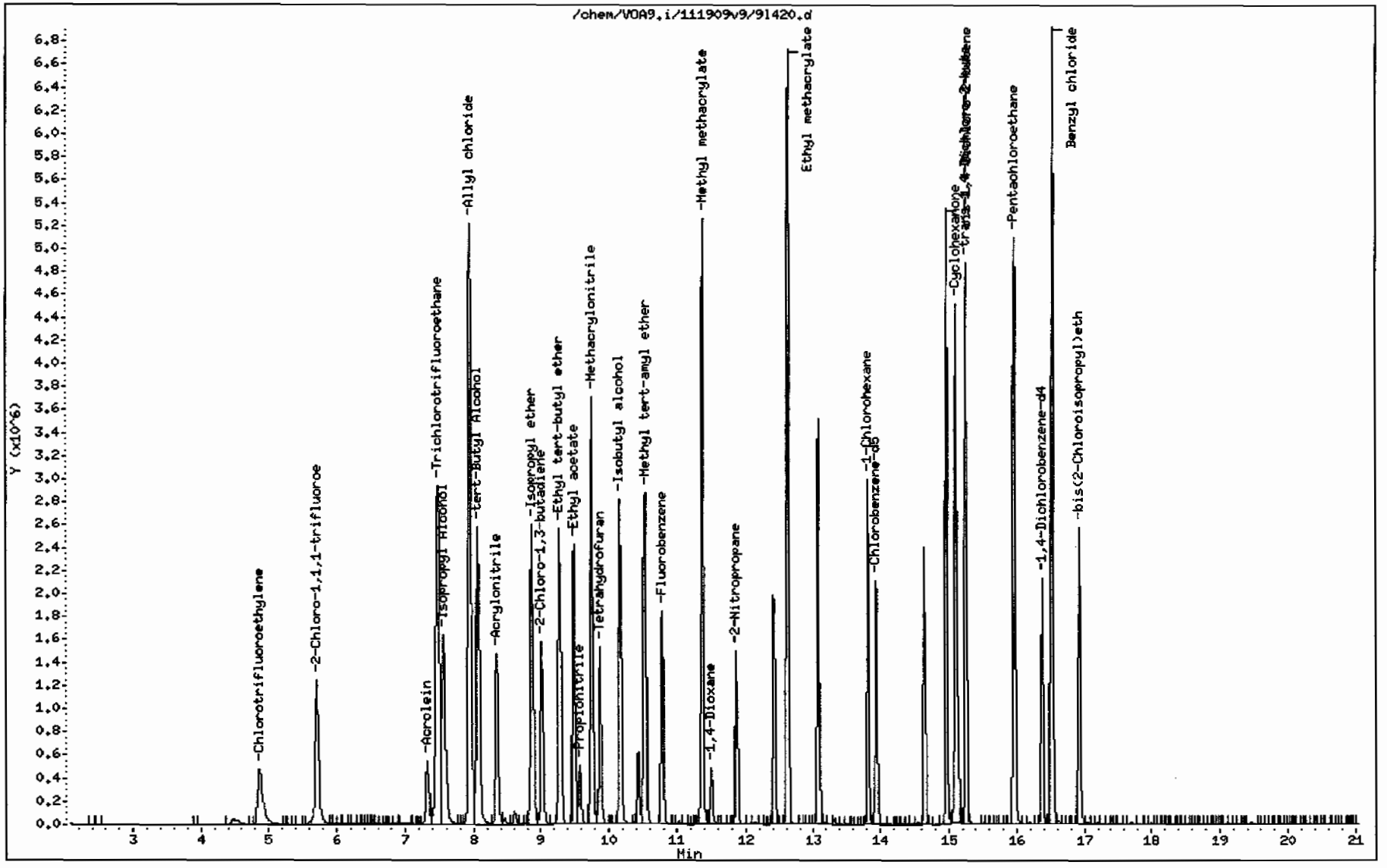

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA9.i Injection Date: 19-NOV-2009 19:06
Lab File ID: 91422.d Init. Cal. Date(s): 19-NOV-2009 19-NOV-2009
Analysis Type: WATER Init. Cal. Times: 11:14 18:11
Lab Sample ID: W9VM091119-16 Quant Type: ISTD
Method: /chem/VOA9.i/111909v9/VOA9-8260B-111909.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
146 Chlorotrifluoroethylene	0.10545	0.08183	0.08183	0.010	-22.39799	30.00000	Averaged	
147 2-Chloro-1,1,1-trifluoroeth	0.17929	0.17282	0.17282	0.010	-3.60776	30.00000	Averaged	
8 Acrolein	0.04635	0.04693	0.04693	0.001	1.24542	30.00000	Averaged	
9 Trichlorotrifluoroethane	0.07059	0.07018	0.07018	0.030	-0.58470	30.00000	Averaged	
12 Isopropyl Alcohol	0.01856	0.01936	0.01936	0.010	4.30494	40.00000	Averaged	
17 Allyl chloride	0.11365	0.10870	0.10870	0.010	-4.35248	30.00000	Averaged	
18 tert-Butyl Alcohol	0.02938	0.02959	0.02959	0.010	0.71619	40.00000	Averaged	
20 Acrylonitrile	0.09689	0.10192	0.10192	0.010	5.19165	30.00000	Averaged	
24 Isopropyl ether	0.90255	0.88338	0.88338	0.010	-2.12440	30.00000	Averaged	
26 2-Chloro-1,3-butadiene	0.38170	0.37081	0.37081	0.010	-2.85197	30.00000	Averaged	
28 Ethyl tert-butyl ether	0.83515	0.82569	0.82569	0.010	-1.13260	30.00000	Averaged	
32 Propionitrile	0.03738	0.03812	0.03812	0.010	1.97194	30.00000	Averaged	
30 Ethyl acetate	0.24709	0.22863	0.22863	0.010	-7.46825	40.00000	Averaged	
34 Methacrylonitrile	0.15425	0.15022	0.15022	0.010	-2.61077	30.00000	Averaged	
37 Tetrahydrofuran	0.23819	0.23598	0.23598	0.010	-0.92831	30.00000	Averaged	
40 Isobutyl alcohol	0.00970	0.00904	0.00904	0.004	-6.80124	40.00000	Averaged	
49 Methyl tert-amyl ether	0.65028	0.64968	0.64968	0.010	-0.09289	30.00000	Averaged	
54 Methyl methacrylate	0.14777	0.13975	0.13975	0.010	-5.42823	30.00000	Averaged	
66 Ethyl methacrylate	0.42200	0.36979	0.36979	0.010	-12.37172	30.00000	Averaged	
74 1-Chlorohexane	0.24312	0.22700	0.22700	0.010	-6.62951	30.00000	Averaged	
57 1,4-Dioxane	2535	2500	0.00230	0.001	1.40048	40.00000	Linear	
60 2-Nitropropane	0.08256	0.08409	0.08409	0.010	1.85833	30.00000	Averaged	
84 cis-1,4-Dichloro-2-butene	0.28792	0.28558	0.28558	0.010	-0.81395	30.00000	Averaged	
85 Cyclohexanone	0.04335	0.02419	0.02419	0.002	-44.19143	40.00000	Averaged	<-
88 trans-1,4-Dichloro-2-butene	0.26572	0.26596	0.26596	0.010	0.08822	30.00000	Averaged	
97 Pentachloroethane	0.25156	0.18791	0.18791	0.010	-25.30208	30.00000	Averaged	
103 Benzyl chloride	1.33383	1.03333	1.03333	0.010	-22.52903	30.00000	Averaged	
106 bis(2-Chloroisopropyl)ether	0.42347	0.42386	0.42386	0.010	0.09296	30.00000	Averaged	
$ 46 1,2-Dichloroethane-d4	0.26902	0.28250	0.28250	0.010	5.01149	30.00000	Averaged	
$ 64 Toluene-d8	0.12102	0.12514	0.12514	0.010	3.40428	30.00000	Averaged	
$ 86 Bromofluorobenzene	0.96829	0.94962	0.94962	0.010	-1.92765	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA9.i
Lab File ID: 91422.d
Analysis Type: WATER
Lab Sample ID: W9VM091119-16
Method: /chem/VOA9.i/111909v9/VOA9-8260B-111909.m

Injection Date: 19-NOV-2009 19:06
Init. Cal. Date(s): 19-NOV-2009 19-NOV-2009
Init. Cal. Times: 11:14 18:11
Quant Type: ISTD

Average %D / Drift Results.	
Calculated Average %D/Drift =	6.43332
Maximun Average %D/Drift =	20.00000
* Passed Average %D/Drift Test.	

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/111909v9/91422.d
Lab Smp Id: W9VM091119-16 Client Smp ID: SICV
Inj Date : 19-NOV-2009 19:06
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |W9VM091119-16|SICV|1|VOA|1|
Misc Info : GEL 5ml n/a UVM091118-08A/UVM091105-02B
Comment :
Method : /chem/VOA9.i/111909v9/VOA9-8260B-111909.m
Meth Date : 20-Nov-2009 07:57 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 17:43 Cal File: 91419.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
146 Chlorotrifluoroethylene	116	4.874	4.874	(0.452)	471408	150.000	116
147 2-Chloro-1,1,1-trifluoroethane	118	5.714	5.714	(0.530)	995526	150.000	144
8 Acrolein	56	7.313	7.313	(0.678)	450571	250.000	253
9 Trichlorotrifluoroethane	85	7.479	7.479	(0.693)	673797	250.000	248
12 Isopropyl Alcohol	45	7.562	7.562	(0.701)	1858724	2500.00	2610
17 Allyl chloride	76	7.941	7.941	(0.736)	1043650	250.000	239
18 tert-Butyl Alcohol	59	8.071	8.071	(0.748)	2840485	2500.00	2520
20 Acrylonitrile	53	8.344	8.344	(0.774)	978514	250.000	263
24 Isopropyl ether	45	8.866	8.866	(0.822)	1696247	50.0000	48.9
26 2-Chloro-1,3-butadiene	53	9.020	9.020	(0.836)	712025	50.0000	48.6
28 Ethyl tert-butyl ether	59	9.281	9.281	(0.860)	1585474	50.0000	49.4
32 Propionitrile	54	9.578	9.578	(0.888)	365964	250.000	255
30 Ethyl acetate	43	9.495	9.495	(0.880)	2195099	250.000	231
34 Methacrylonitrile	41	9.755	9.755	(0.904)	1442250	250.000	243
37 Tetrahydrofuran	42	9.874	9.874	(0.603)	784484	250.000	248

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
40 Isobutyl alcohol	41	10.170	10.170	(0.943)	868229	2500.00	2330
49 Methyl tert-amyl ether	73	10.538	10.538	(0.977)	1247502	50.0000	50.0
54 Methyl methacrylate	69	11.368	11.368	(1.054)	1341707	250.000	236
66 Ethyl methacrylate	69	12.625	12.625	(0.905)	2416682	250.000	219
74 1-Chlorohexane	55	13.823	13.823	(1.281)	435890	50.0000	46.7
57 1,4-Dioxane	88	11.499	11.499	(1.066)	221257	2500.00	2540
60 2-Nitropropane	43	11.866	11.866	(1.100)	807340	250.000	255
84 cis-1,4-Dichloro-2-butene	53	14.973	14.973	(0.915)	949362	250.000	248
85 Cyclohexanone	55	15.104	15.104	(1.082)	790526	1250.00	698
88 trans-1,4-Dichloro-2-butene	53	15.246	15.246	(0.931)	884123	250.000	250
97 Pentachloroethane	167	15.957	15.957	(0.975)	624665	250.000	187
103 Benzyl chloride	91	16.527	16.527	(1.009)	3435127	250.000	194
106 bis(2-Chloroisopropyl)ether	45	16.930	16.930	(1.034)	1409049	250.000	250
* 51 Fluorobenzene	96	10.787	10.787	(1.000)	1920184	50.0000	
* 75 Chlorobenzene-d5	117	13.953	13.953	(1.000)	1307061	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	16.372	16.372	(1.000)	664866	50.0000	
$ 46 1,2-Dichloroethane-d4	65	10.443	10.443	(0.968)	542460	50.0000	52.5
$ 64 Toluene-d8	99	12.424	12.424	(0.890)	163568	50.0000	51.7
$ 86 Bromofluorobenzene	95	15.127	15.127	(0.924)	631373	50.0000	49.0

Data File: /chem/VOA9.i/111909v9/91422.d
Date : 19-NOV-2009 19:06
Client ID: SICV
Sample Info: IN9M091119-16|SICV|1|VOA||1
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

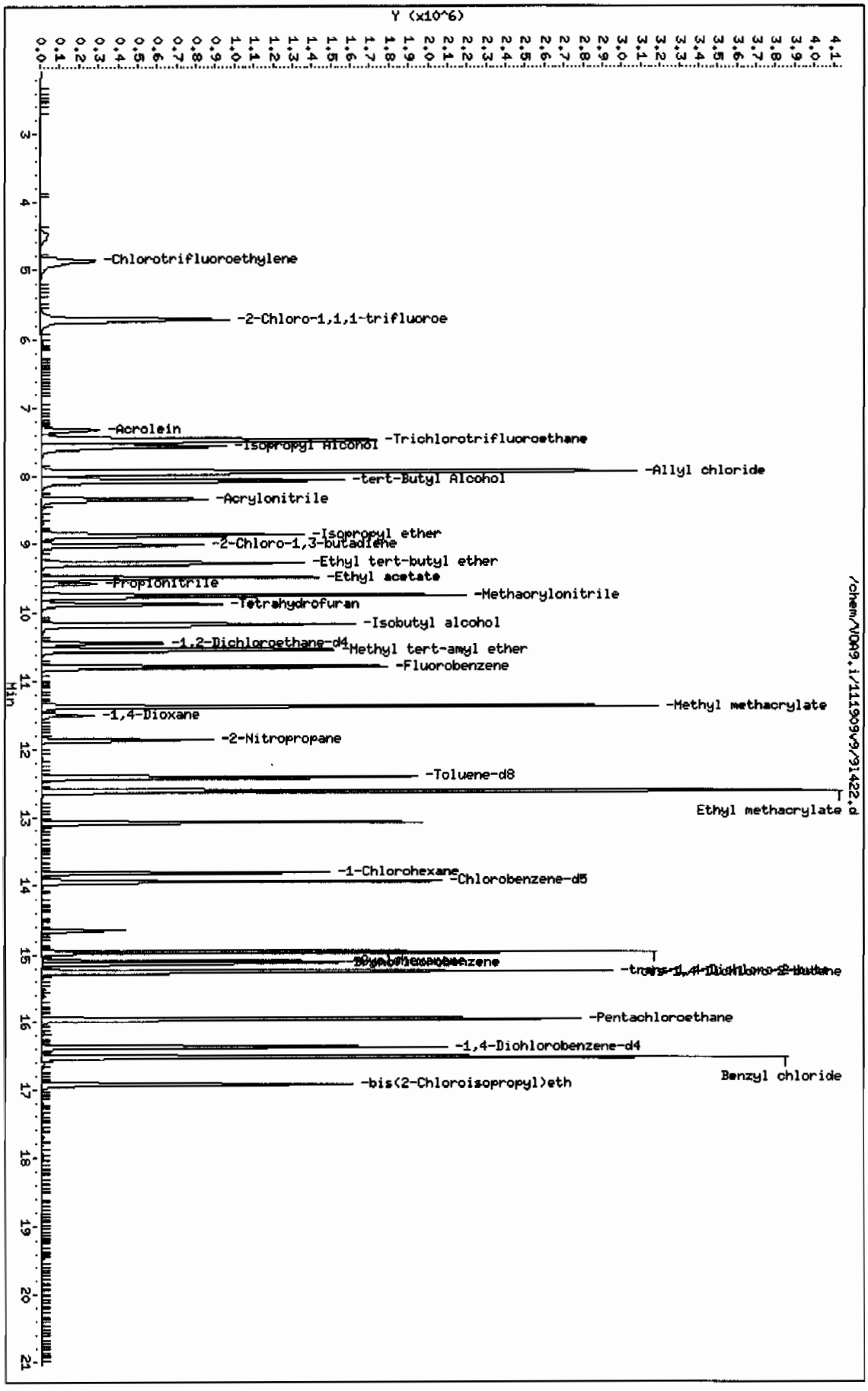

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA9.i Injection Date: 20-NOV-2009 08:43
Lab File ID: 91501ICV.d Init. Cal. Date(s): 19-NOV-2009 19-NOV-2009
Analysis Type: WATER Init. Cal. Times: 11:14 18:11
Lab Sample ID: W9VM091120-01 Quant Type: ISTD
Method: /chem/VOA9.i/112009v9/VOA9-8260B-111909.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	27 Xylenes (total)	0.54618	0.52059	0.52059	0.050	-4.68484	30.00000	Averaged	
M	42 1,2-Dichloroethylene (total	0.21367	0.21075	0.21075	0.050	-1.36613	30.00000	Averaged	
M	45 1,3-Dichloropropylene	0.34759	0.35376	0.35376	0.050	1.77408	30.00000	Averaged	
	1 Dichlorodifluoromethane	0.15107	0.13957	0.13957	0.050	-7.61291	30.00000	Averaged	
	2 Chloromethane	0.27941	0.25983	0.25983	0.100	-7.01006	30.00000	Averaged	spcc
	3 Vinyl chloride	0.22694	0.22804	0.22804	0.050	0.48223	20.00000	Averaged	ccc
	4 Bromomethane	0.15251	0.16296	0.16296	0.050	6.85723	30.00000	Averaged	
	5 Chloroethane	0.15927	0.16635	0.16635	0.050	4.45095	30.00000	Averaged	
	6 Trichlorofluoromethane	0.25319	0.27413	0.27413	0.050	8.27388	30.00000	Averaged	
	7 Ethyl Ether	0.21495	0.22065	0.22065	0.010	2.65221	30.00000	Averaged	
	10 Acetone	0.16142	0.14209	0.14209	0.040	-11.97303	40.00000	Averaged	
	14 Acetonitrile	0.03532	0.04375	0.04375	0.010	23.87556	30.00000	Averaged	
	11 1,1-Dichloroethylene	0.36772	0.34692	0.34692	0.050	-5.65580	20.00000	Averaged	ccc
	15 Methyl acetate	0.19922	0.19313	0.19313	0.010	-3.05759	40.00000	Averaged	
	13 Iodomethane	0.28203	0.26172	0.26172	0.050	-7.20024	30.00000	Averaged	
	19 Methylene chloride	0.26260	0.23790	0.23790	0.050	-9.40837	30.00000	Averaged	
	16 Carbon disulfide	0.62020	0.59696	0.59696	0.050	-3.74748	30.00000	Averaged	
	21 tert-Butyl methyl ether	0.66936	0.66252	0.66252	0.050	-1.02197	30.00000	Averaged	
	22 trans-1,2-Dichloroethylene	0.20173	0.19927	0.19927	0.050	-1.21704	30.00000	Averaged	
	23 Vinyl acetate	0.46892	0.54796	0.54796	0.010	16.85682	40.00000	Averaged	
	25 1,1-Dichloroethane	0.42943	0.42084	0.42084	0.100	-2.00044	30.00000	Averaged	spcc
	29 2-Butanone	0.18165	0.17255	0.17255	0.030	-5.00961	40.00000	Averaged	
	31 cis-1,2-Dichloroethylene	0.22561	0.22222	0.22222	0.050	-1.49944	30.00000	Averaged	
	33 2,2-Dichloropropane	0.29797	0.30775	0.30775	0.050	3.28065	30.00000	Averaged	
	36 Chloroform	0.37848	0.37177	0.37177	0.010	-1.77189	20.00000	Averaged	ccc
	35 Bromochloromethane	0.09824	0.10083	0.10083	0.010	2.62892	30.00000	Averaged	
	39 1,1,1-Trichloroethane	0.28434	0.29042	0.29042	0.010	2.14116	30.00000	Averaged	
	41 Cyclohexane	0.30530	0.30980	0.30980	0.010	1.47459	30.00000	Averaged	
	43 1,1-Dichloropropene	0.27257	0.27905	0.27905	0.010	2.37676	30.00000	Averaged	
	52 n-Butyl alcohol	0.00575	0.00633	0.00633	0.002	10.06085	40.00000	Averaged	
	44 Carbon tetrachloride	0.24142	0.24662	0.24662	0.010	2.15626	30.00000	Averaged	
$	46 1,2-Dichloroethane-d4	0.26902	0.29198	0.29198	0.010	8.53556	30.00000	Averaged	
	47 1,2-Dichloroethane	0.32773	0.32167	0.32167	0.010	-1.84719	30.00000	Averaged	
	48 Benzene	0.84334	0.80532	0.80532	0.010	-4.50741	30.00000	Averaged	
	50 Cyclohexene	0.44488	0.42789	0.42789	0.005	-3.81818	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA9.i
Lab File ID: 91501ICV.d
Analysis Type: WATER
Lab Sample ID: W9VM091120-01
Method: /chem/VOA9.i/112009v9/VOA9-8260B-111909.m

Injection Date: 20-NOV-2009 08:43
Init. Cal. Date(s): 19-NOV-2009 19-NOV-2009
Init. Cal. Times: 11:14 18:11
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	53 Trichloroethylene	0.20322	0.20282	0.20282	0.010	-0.19655	30.00000	Averaged	
	55 1,2-Dichloropropane	0.24402	0.23797	0.23797	0.010	-2.47863	20.00000	Averaged	ccc
	56 Methylcyclohexane	0.36813	0.37317	0.37317	0.010	1.36848	30.00000	Averaged	
	59 Bromodichloromethane	0.29592	0.29641	0.29641	0.010	0.16553	30.00000	Averaged	
	58 Dibromomethane	0.12694	0.12841	0.12841	0.010	1.16210	30.00000	Averaged	
	61 2-Chloroethylvinyl ether	0.14145	0.11725	0.11725	0.010	-17.10765	30.00000	Averaged	
	63 4-Methyl-2-pentanone	0.16202	0.16286	0.16286	0.010	0.52024	40.00000	Averaged	
	62 cis-1,3-Dichloropropylene	0.36063	0.36259	0.36259	0.010	0.54196	30.00000	Averaged	
$	64 Toluene-d8	0.12102	0.12945	0.12945	0.010	6.96647	30.00000	Averaged	
	65 Toluene	0.74466	0.70564	0.70564	0.010	-5.24030	20.00000	Averaged	ccc
	67 trans-1,3-Dichloropropylene	0.49060	0.50200	0.50200	0.010	2.32280	30.00000	Averaged	
	68 1,1,2-Trichloroethane	0.23886	0.23579	0.23579	0.010	-1.28456	30.00000	Averaged	
	69 2-Hexanone	0.41791	0.35869	0.35869	0.010	-14.16946	40.00000	Averaged	
	70 1,3-Dichloropropane	0.46769	0.45988	0.45988	0.010	-1.67052	30.00000	Averaged	
	71 Tetrachloroethylene	0.19892	0.19137	0.19137	0.010	-3.79443	30.00000	Averaged	
	72 Dibromochloromethane	0.29341	0.29978	0.29978	0.010	2.17398	30.00000	Averaged	
	73 1,2-Dibromoethane	0.27839	0.28785	0.28785	0.010	3.39979	30.00000	Averaged	
	76 Chlorobenzene	0.73361	0.72847	0.72847	0.300	-0.70139	30.00000	Averaged	spcc
	77 1,1,1,2-Tetrachloroethane	0.26648	0.25764	0.25764	0.010	-3.31951	30.00000	Averaged	
	78 Ethylbenzene	1.36374	1.25065	1.25065	0.010	-8.29252	20.00000	Averaged	ccc
	79 m,p-Xylenes	0.54123	0.51429	0.51429	0.010	-4.97724	30.00000	Averaged	
	80 o-Xylene	0.55608	0.53319	0.53319	0.010	-4.11566	30.00000	Averaged	
	81 Styrene	0.93756	0.88392	0.88392	0.010	-5.72145	30.00000	Averaged	
	82 Bromoform	0.36267	0.37171	0.37171	0.100	2.49290	30.00000	Averaged	spcc
	83 Isopropylbenzene	2.81483	2.62648	2.62648	0.010	-6.69155	30.00000	Averaged	
	87 1,1,2,2-Tetrachloroethane	0.77732	0.79469	0.79469	0.300	2.23445	30.00000	Averaged	spcc
$	86 Bromofluorobenzene	0.96829	1.01378	1.01378	0.010	4.69799	30.00000	Averaged	
	89 1,2,3-Trichloropropane	0.19510	0.20171	0.20171	0.010	3.38594	30.00000	Averaged	
	90 Bromobenzene	0.63587	0.59425	0.59425	0.010	-6.54552	30.00000	Averaged	
	91 n-Propylbenzene	3.33103	3.04406	3.04406	0.010	-8.61512	30.00000	Averaged	
	92 2-Chlorotoluene	2.30092	2.12208	2.12208	0.010	-7.77231	30.00000	Averaged	
	93 1,3,5-Trimethylbenzene	2.39063	2.19760	2.19760	0.010	-8.07471	30.00000	Averaged	
	94 4-Chlorotoluene	2.17249	2.04691	2.04691	0.010	-5.78056	30.00000	Averaged	
	95 tert-Butylbenzene	2.25514	2.10642	2.10642	0.010	-6.59474	30.00000	Averaged	
	96 1,2,4-Trimethylbenzene	2.48802	2.25674	2.25674	0.010	-9.29564	30.00000	Averaged	
	98 sec-Butylbenzene	3.18444	2.99778	2.99778	0.010	-5.86167	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA9.i
Lab File ID: 91501ICV.d
Analysis Type: WATER
Lab Sample ID: W9VM091120-01
Method: /chem/VOA9.i/112009v9/VOA9-8260B-111909.m

Injection Date: 20-NOV-2009 08:43
Init. Cal. Date(s): 19-NOV-2009 19-NOV-2009
Init. Cal. Times: 11:14 18:11
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
99 4-Isopropyltoluene	2.42785	2.28140	2.28140	0.010	-6.03184	30.00000	Averaged
100 1,3-Dichlorobenzene	1.25752	1.19553	1.19553	0.010	-4.92985	30.00000	Averaged
102 1,4-Dichlorobenzene	1.21950	1.17615	1.17615	0.010	-3.55471	30.00000	Averaged
104 n-Butylbenzene	1.46029	1.41833	1.41833	0.010	-2.87383	30.00000	Averaged
105 1,2-Dichlorobenzene	1.21410	1.15153	1.15153	0.010	-5.15291	30.00000	Averaged
107 1,2-Dibromo-3-chloropropane	0.13864	0.13707	0.13707	0.010	-1.13395	30.00000	Averaged
108 1,2,4-Trichlorobenzene	0.77779	0.75078	0.75078	0.010	-3.47199	30.00000	Averaged
109 Hexachlorobutadiene	0.42492	0.41463	0.41463	0.010	-2.42154	30.00000	Averaged
110 Naphthalene	1.95340	1.86767	1.86767	0.010	-4.38867	30.00000	Averaged
111 1,2,3-Trichlorobenzene	0.64044	0.62946	0.62946	0.010	-1.71445	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 4.78636
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/112009v9/91501ICV.d
Lab Smp Id: W9VM091120-01 Client Smp ID: LICV
Inj Date : 20-NOV-2009 08:43
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |W9VM091120-01|LICV|1|VOA|1|
Misc Info : GEL 5ml n/a UVM091111-01C/IVM091116-01
Comment :
Method : /chem/VOA9.i/112009v9/VOA9-8260B-111909.m
Meth Date : 20-Dec-2009 13:38 slg Quant Type: ISTD
Cal Date : 19-NOV-2009 17:43 Cal File: 91419.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 27 Xylenes (total)	106				1951281	150.000	143
M 42 1,2-Dichloroethylene (total)	96				766419	100.000	98.6
M 45 1,3-Dichloropropylene	75				1286504	100.000	102
1 Dichlorodifluoromethane	85	4.958	4.958	(0.460)	253787	50.0000	46.2
2 Chloromethane	50	5.322	5.322	(0.493)	472454	50.0000	46.5
3 Vinyl chloride	62	5.574	5.574	(0.517)	414649	50.0000	50.2
4 Bromomethane	94	6.198	6.198	(0.575)	296324	50.0000	53.4
5 Chloroethane	64	6.352	6.352	(0.589)	302489	50.0000	52.2
6 Trichlorofluoromethane	101	6.779	6.779	(0.628)	498469	50.0000	54.1
7 Ethyl Ether	59	7.099	7.099	(0.658)	401215	50.0000	51.3
10 Acetone	43	7.490	7.490	(0.694)	1291855	250.000	220
14 Acetonitrile	41	7.858	7.858	(0.728)	1591198	1000.00	1240
11 1,1-Dichloroethylene	61	7.514	7.514	(0.697)	630818	50.0000	47.2
15 Methyl acetate	43	7.882	7.882	(0.731)	1755871	250.000	242
13 Iodomethane	142	7.775	7.775	(0.721)	2379466	250.000	232

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
	19 Methylene chloride	84	8.095	8.095	(0.750)	432578	50.0000	45.3
	16 Carbon disulfide	76	7.917	7.917	(0.734)	5427381	250.000	241
	21 tert-Butyl methyl ether	73	8.380	8.380	(0.777)	1204683	50.0000	49.5
	22 trans-1,2-Dichloroethylene	96	8.427	8.427	(0.781)	362344	50.0000	49.4
	23 Vinyl acetate	43	8.854	8.854	(0.821)	4981903	250.000	292
	25 1,1-Dichloroethane	63	8.914	8.914	(0.826)	765232	50.0000	49.0
	29 2-Butanone	43	9.495	9.495	(0.880)	1568803	250.000	237
	31 cis-1,2-Dichloroethylene	96	9.554	9.554	(0.886)	404075	50.0000	49.2
	33 2,2-Dichloropropane	77	9.589	9.589	(0.889)	559587	50.0000	51.6
	36 Chloroform	83	9.862	9.862	(0.914)	676003	50.0000	49.1
	35 Bromochloromethane	128	9.838	9.838	(0.912)	183334	50.0000	51.3
	39 1,1,1-Trichloroethane	97	10.147	10.147	(0.941)	528088	50.0000	51.1
	41 Cyclohexane	84	10.230	10.230	(0.948)	563315	50.0000	50.7
	43 1,1-Dichloropropene	75	10.289	10.289	(0.954)	507400	50.0000	51.2
	52 n-Butyl alcohol	41	10.858	10.858	(1.007)	1151150	5000.00	5500
	44 Carbon tetrachloride	117	10.337	10.337	(0.958)	448439	50.0000	51.1
$	46 1,2-Dichloroethane-d4	65	10.443	10.443	(0.968)	530926	50.0000	54.3
	47 1,2-Dichloroethane	62	10.514	10.514	(0.975)	584909	50.0000	49.1
	48 Benzene	78	10.538	10.538	(0.977)	1464348	50.0000	47.7
	50 Cyclohexene	67	10.645	10.645	(0.987)	778049	50.0000	48.1
*	51 Fluorobenzene	96	10.787	10.787	(1.000)	1818335	50.0000	
	53 Trichloroethylene	95	11.167	11.167	(1.035)	368789	50.0000	49.9
	55 1,2-Dichloropropane	63	11.416	11.416	(1.058)	432717	50.0000	48.8
	56 Methylcyclohexane	83	11.416	11.416	(1.058)	678544	50.0000	50.7
	59 Bromodichloromethane	83	11.665	11.665	(1.081)	538979	50.0000	50.1
	58 Dibromomethane	93	11.558	11.558	(1.071)	233495	50.0000	50.6
	61 2-Chloroethylvinyl ether	63	11.866	11.866	(1.100)	1065996	250.000	207
	63 4-Methyl-2-pentanone	58	12.186	12.186	(0.873)	1017413	250.000	251
	62 cis-1,3-Dichloropropylene	75	12.103	12.103	(1.122)	659309	50.0000	50.3
$	64 Toluene-d8	99	12.424	12.424	(0.890)	161738	50.0000	53.5
	65 Toluene	92	12.495	12.495	(0.895)	881622	50.0000	47.4
	67 trans-1,3-Dichloropropylene	75	12.637	12.637	(0.906)	627195	50.0000	51.2
	68 1,1,2-Trichloroethane	83	12.862	12.862	(0.922)	294593	50.0000	49.4
	69 2-Hexanone	43	13.028	13.028	(0.934)	2240762	250.000	214
	70 1,3-Dichloropropane	76	13.064	13.064	(0.936)	574572	50.0000	49.2
	71 Tetrachloroethylene	164	13.088	13.088	(0.938)	239097	50.0000	48.1
	72 Dibromochloromethane	129	13.337	13.337	(0.956)	374549	50.0000	51.1
	73 1,2-Dibromoethane	107	13.503	13.503	(0.968)	359641	50.0000	51.7
*	75 Chlorobenzene-d5	117	13.953	13.953	(1.000)	1249397	50.0000	
	76 Chlorobenzene	112	13.977	13.977	(1.002)	910144	50.0000	49.6
	77 1,1,1,2-Tetrachloroethane	131	14.036	14.036	(1.006)	321893	50.0000	48.3
	78 Ethylbenzene	91	14.036	14.036	(1.006)	1562555	50.0000	45.8
	79 m,p-Xylenes	106	14.143	14.143	(1.014)	1285116	100.000	95.0
	80 o-Xylene	106	14.570	14.570	(1.044)	666165	50.0000	47.9
	81 Styrene	104	14.582	14.582	(1.045)	1104370	50.0000	47.1
	82 Bromoform	173	14.855	14.855	(0.907)	231983	50.0000	51.2
	83 Isopropylbenzene	105	14.926	14.926	(0.912)	1639192	50.0000	46.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
87 1,1,2,2-Tetrachloroethane	83	15.210	15.210	(0.929)	495969	50.0000	51.1
$ 86 Bromofluorobenzene	95	15.127	15.127	(0.924)	632703	50.0000	52.3
89 1,2,3-Trichloropropane	110	15.305	15.305	(0.935)	125886	50.0000	51.7
90 Bromobenzene	156	15.353	15.353	(0.938)	370875	50.0000	46.7
91 n-Propylbenzene	91	15.353	15.353	(0.938)	1899808	50.0000	45.7
92 2-Chlorotoluene	91	15.507	15.507	(0.947)	1324399	50.0000	46.1
93 1,3,5-Trimethylbenzene	105	15.495	15.495	(0.946)	1371527	50.0000	46.0
94 4-Chlorotoluene	91	15.614	15.614	(0.954)	1277481	50.0000	47.1
95 tert-Butylbenzene	119	15.874	15.874	(0.970)	1314624	50.0000	46.7
96 1,2,4-Trimethylbenzene	105	15.922	15.922	(0.972)	1408440	50.0000	45.4
98 sec-Butylbenzene	105	16.112	16.112	(0.984)	1870924	50.0000	47.1
99 4-Isopropyltoluene	119	16.230	16.230	(0.991)	1423831	50.0000	47.0
100 1,3-Dichlorobenzene	146	16.313	16.313	(0.996)	746132	50.0000	47.5
* 101 1,4-Dichlorobenzene-d4	152	16.373	16.373	(1.000)	624103	50.0000	
102 1,4-Dichlorobenzene	146	16.408	16.408	(1.002)	734036	50.0000	48.2
104 n-Butylbenzene	92	16.693	16.693	(1.020)	885181	50.0000	48.6
105 1,2-Dichlorobenzene	146	16.859	16.859	(1.030)	718676	50.0000	47.4
107 1,2-Dibromo-3-chloropropane	157	17.784	17.784	(1.086)	85543	50.0000	49.4
108 1,2,4-Trichlorobenzene	180	18.922	18.922	(1.156)	468566	50.0000	48.3
109 Hexachlorobutadiene	225	19.100	19.100	(1.167)	258771	50.0000	48.8
110 Naphthalene	128	19.349	19.349	(1.182)	1165620	50.0000	47.8
111 1,2,3-Trichlorobenzene	180	19.717	19.717	(1.204)	392850	50.0000	49.1

Data File: /chem/VOA9.i/112009w9/91501ICV.d
Date : 20-NOV-2009 08:43
Client ID: LICV
Sample Info: IW9WM091120-01|LICV|1|VOA|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

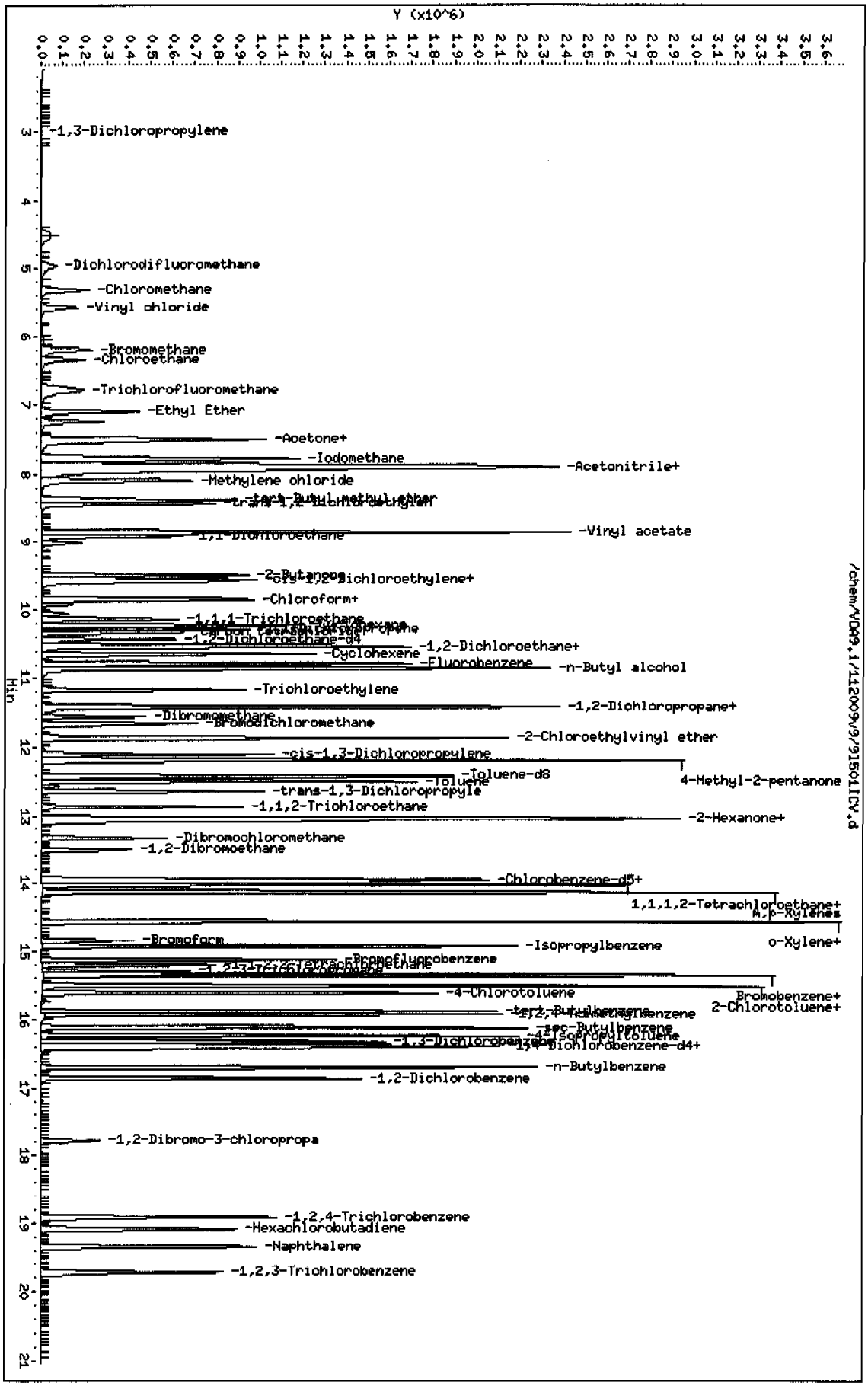

Page 1

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA9.i Injection Date: 29-DEC-2009 12:08
Lab File ID: 9r202.d Init. Cal. Date(s): 19-NOV-2009 19-NOV-2009
Analysis Type: WATER Init. Cal. Times: 11:14 18:11
Lab Sample ID: W9VM091229-02 Quant Type: ISTD
Method: /chem/VOA9.i/122909v9/VOA9-8260B-111909.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	27 Xylenes (total)	0.54618	0.47191	0.47191	0.050	-13.59748	30.00000	Averaged	
M	42 1,2-Dichloroethylene (total	0.21367	0.18729	0.18729	0.050	-12.34500	30.00000	Averaged	
M	45 1,3-Dichloropropylene	0.34759	0.31693	0.31693	0.050	-8.82017	30.00000	Averaged	
	1 Dichlorodifluoromethane	0.15107	0.12169	0.12169	0.050	-19.45163	30.00000	Averaged	
	2 Chloromethane	0.27941	0.24445	0.24445	0.100	-12.51230	30.00000	Averaged	spcc
	3 Vinyl chloride	0.22694	0.20518	0.20518	0.050	-9.59119	20.00000	Averaged	ccc
	4 Bromomethane	0.15251	0.15501	0.15501	0.050	1.64224	30.00000	Averaged	
	5 Chloroethane	0.15927	0.15460	0.15460	0.050	-2.93111	30.00000	Averaged	
	6 Trichlorofluoromethane	0.25319	0.24774	0.24774	0.050	-2.14936	30.00000	Averaged	
	7 Ethyl Ether	0.21495	0.18830	0.18830	0.010	-12.39659	30.00000	Averaged	
	10 Acetone	0.16142	0.13417	0.13417	0.040	-16.87977	40.00000	Averaged	
	14 Acetonitrile	0.03532	0.05034	0.05034	0.010	42.51591	30.00000	Averaged	<-
	11 1,1-Dichloroethylene	0.36772	0.31766	0.31766	0.050	-13.61351	20.00000	Averaged	ccc
	15 Methyl acetate	0.19922	0.21041	0.21041	0.010	5.61805	40.00000	Averaged	
	13 Iodomethane	0.28203	0.24206	0.24206	0.050	-14.16924	30.00000	Averaged	
	19 Methylene chloride	0.26260	0.21235	0.21235	0.050	-19.13594	30.00000	Averaged	
	16 Carbon disulfide	0.62020	0.55442	0.55442	0.050	-10.60636	30.00000	Averaged	
	21 tert-Butyl methyl ether	0.66936	0.53761	0.53761	0.050	-19.68357	30.00000	Averaged	
	22 trans-1,2-Dichloroethylene	0.20173	0.17608	0.17608	0.050	-12.71441	30.00000	Averaged	
	23 Vinyl acetate	0.46892	0.52477	0.52477	0.010	11.90966	40.00000	Averaged	
	25 1,1-Dichloroethane	0.42943	0.38263	0.38263	0.100	-10.89902	30.00000	Averaged	spcc
	29 2-Butanone	0.18165	0.15762	0.15762	0.030	-13.22986	40.00000	Averaged	
	31 cis-1,2-Dichloroethylene	0.22561	0.19850	0.19850	0.050	-12.01469	30.00000	Averaged	
	33 2,2-Dichloropropane	0.29797	0.26790	0.26790	0.050	-10.09370	30.00000	Averaged	
	36 Chloroform	0.37848	0.33833	0.33833	0.010	-10.60859	20.00000	Averaged	ccc
	35 Bromochloromethane	0.09824	0.09018	0.09018	0.010	-8.20314	30.00000	Averaged	
	39 1,1,1-Trichloroethane	0.28434	0.26056	0.26056	0.010	-8.36029	30.00000	Averaged	
	41 Cyclohexane	0.30530	0.26188	0.26188	0.010	-14.21924	30.00000	Averaged	
	43 1,1-Dichloropropene	0.27257	0.24683	0.24683	0.010	-9.44415	30.00000	Averaged	
	52 n-Butyl alcohol	0.00575	0.00667	0.00667	0.002	15.94330	40.00000	Averaged	
	44 Carbon tetrachloride	0.24142	0.22305	0.22305	0.010	-7.60650	30.00000	Averaged	
$	46 1,2-Dichloroethane-d4	0.26902	0.32631	0.32631	0.010	21.29364	30.00000	Averaged	
	47 1,2-Dichloroethane	0.32773	0.31475	0.31475	0.010	-3.96081	30.00000	Averaged	
	48 Benzene	0.84334	0.71386	0.71386	0.010	-15.35243	30.00000	Averaged	
	50 Cyclohexene	0.44488	0.37737	0.37737	0.005	-15.17529	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA9.i
Lab File ID: 9r202.d
Analysis Type: WATER
Lab Sample ID: W9VM091229-02
Method: /chem/VOA9.i/122909v9/VOA9-8260B-111909.m

Injection Date: 29-DEC-2009 12:08
Init. Cal. Date(s): 19-NOV-2009 19-NOV-2009
Init. Cal. Times: 11:14 18:11
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	53 Trichloroethylene	0.20322	0.18161	0.18161	0.010	-10.63145	30.00000	Averaged	
	55 1,2-Dichloropropane	0.24402	0.21139	0.21139	0.010	-13.37334	20.00000	Averaged	ccc
	56 Methylcyclohexane	0.36813	0.31872	0.31872	0.010	-13.42099	30.00000	Averaged	
	59 Bromodichloromethane	0.29592	0.26836	0.26836	0.010	-9.31289	30.00000	Averaged	
	58 Dibromomethane	0.12694	0.12345	0.12345	0.010	-2.74330	30.00000	Averaged	
	61 2-Chloroethylvinyl ether	0.14145	0.13024	0.13024	0.010	-7.92725	30.00000	Averaged	
	63 4-Methyl-2-pentanone	0.16202	0.14534	0.14534	0.010	-10.29460	40.00000	Averaged	
	62 cis-1,3-Dichloropropylene	0.36063	0.31990	0.31990	0.010	-11.29654	30.00000	Averaged	
$	64 Toluene-d8	0.12102	0.12552	0.12552	0.010	3.71284	30.00000	Averaged	
	65 Toluene	0.74466	0.63067	0.63067	0.010	-15.30705	20.00000	Averaged	ccc
	67 trans-1,3-Dichloropropylene	0.49060	0.44798	0.44798	0.010	-8.68844	30.00000	Averaged	
	68 1,1,2-Trichloroethane	0.23886	0.22059	0.22059	0.010	-7.64777	30.00000	Averaged	
	69 2-Hexanone	0.41791	0.34325	0.34325	0.010	-17.86447	40.00000	Averaged	
	70 1,3-Dichloropropane	0.46769	0.42860	0.42860	0.010	-8.35944	30.00000	Averaged	
	71 Tetrachloroethylene	0.19892	0.17563	0.17563	0.010	-11.70652	30.00000	Averaged	
	72 Dibromochloromethane	0.29341	0.27304	0.27304	0.010	-6.94011	30.00000	Averaged	
	73 1,2-Dibromoethane	0.27839	0.25708	0.25708	0.010	-7.65217	30.00000	Averaged	
	76 Chlorobenzene	0.73361	0.65870	0.65870	0.300	-10.21082	30.00000	Averaged	spcc
	77 1,1,1,2-Tetrachloroethane	0.26648	0.24408	0.24408	0.010	-8.40715	30.00000	Averaged	
	78 Ethylbenzene	1.36374	1.16387	1.16387	0.010	-14.65560	20.00000	Averaged	ccc
	79 m,p-Xylenes	0.54123	0.46799	0.46799	0.010	-13.53242	30.00000	Averaged	
	80 o-Xylene	0.55608	0.47976	0.47976	0.010	-13.72414	30.00000	Averaged	
	81 Styrene	0.93756	0.78581	0.78581	0.010	-16.18566	30.00000	Averaged	
	82 Bromoform	0.36267	0.32401	0.32401	0.100	-10.65948	30.00000	Averaged	spcc
	83 Isopropylbenzene	2.81483	2.27481	2.27481	0.010	-19.18497	30.00000	Averaged	
	87 1,1,2,2-Tetrachloroethane	0.77732	0.75841	0.75841	0.300	-2.43251	30.00000	Averaged	spcc
$	86 Bromofluorobenzene	0.96829	0.95819	0.95819	0.010	-1.04327	30.00000	Averaged	
	89 1,2,3-Trichloropropane	0.19510	0.18364	0.18364	0.010	-5.87363	30.00000	Averaged	
	90 Bromobenzene	0.63587	0.54653	0.54653	0.010	-14.05066	30.00000	Averaged	
	91 n-Propylbenzene	3.33103	2.77530	2.77530	0.010	-16.68359	30.00000	Averaged	
	92 2-Chlorotoluene	2.30092	1.88997	1.88997	0.010	-17.86007	30.00000	Averaged	
	93 1,3,5-Trimethylbenzene	2.39063	1.92264	1.92264	0.010	-19.57629	30.00000	Averaged	
	94 4-Chlorotoluene	2.17249	1.78912	1.78912	0.010	-17.64652	30.00000	Averaged	
	95 tert-Butylbenzene	2.25514	1.84093	1.84093	0.010	-18.36750	30.00000	Averaged	
	96 1,2,4-Trimethylbenzene	2.48802	2.02339	2.02339	0.010	-18.67463	30.00000	Averaged	
	98 sec-Butylbenzene	3.18444	2.68431	2.68431	0.010	-15.70561	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA9.i Injection Date: 29-DEC-2009 12:08
Lab File ID: 9r202.d Init. Cal. Date(s): 19-NOV-2009 19-NOV-2009
Analysis Type: WATER Init. Cal. Times: 11:14 18:11
Lab Sample ID: W9VM091229-02 Quant Type: ISTD
Method: /chem/VOA9.i/122909v9/VOA9-8260B-111909.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
99 4-Isopropyltoluene	2.42785	2.02324	2.02324	0.010	-16.66539	30.00000	Averaged
100 1,3-Dichlorobenzene	1.25752	1.07550	1.07550	0.010	-14.47486	30.00000	Averaged
102 1,4-Dichlorobenzene	1.21950	1.08130	1.08130	0.010	-11.33242	30.00000	Averaged
104 n-Butylbenzene	1.46029	1.27020	1.27020	0.010	-13.01755	30.00000	Averaged
105 1,2-Dichlorobenzene	1.21410	1.06826	1.06826	0.010	-12.01148	30.00000	Averaged
107 1,2-Dibromo-3-chloropropane	0.13864	0.13156	0.13156	0.010	-5.10831	30.00000	Averaged
108 1,2,4-Trichlorobenzene	0.77779	0.68595	0.68595	0.010	-11.80783	30.00000	Averaged
109 Hexachlorobutadiene	0.42492	0.36999	0.36999	0.010	-12.92757	30.00000	Averaged
110 Naphthalene	1.95340	1.87814	1.87814	0.010	-3.85258	30.00000	Averaged
111 1,2,3-Trichlorobenzene	0.64044	0.63087	0.63087	0.010	-1.49467	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 11.88561
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/122909v9/9r202.d
Lab Smp Id: W9VM091229-02 Client Smp ID: VSTD050
Inj Date : 29-DEC-2009 12:08
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |W9VM091229-02|BFB/CCV/LCS|1|VOA|1|
Misc Info : GEL 5ml n/a UVM091214-01C/IVM091228-01
Comment :
Method : /chem/VOA9.i/122909v9/VOA9-8260B-111909.m
Meth Date : 29-Dec-2009 13:31 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 17:43 Cal File: 91419.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
M 27 Xylenes (total)	106				2162448	150.000	130
M 42 1,2-Dichloroethylene (total)	96				816336	100.000	87.6
M 45 1,3-Dichloropropylene	75				1381417	100.000	91.2
1 Dichlorodifluoromethane	85	4.958	4.958	(0.460)	265196	50.0000	40.3
2 Chloromethane	50	5.308	5.308	(0.493)	532749	50.0000	43.7
3 Vinyl chloride	62	5.560	5.560	(0.516)	447151	50.0000	45.2
4 Bromomethane	94	6.186	6.186	(0.574)	337823	50.0000	50.8
5 Chloroethane	64	6.340	6.340	(0.588)	336922	50.0000	48.5
6 Trichlorofluoromethane	101	6.779	6.779	(0.629)	539921	50.0000	48.9
7 Ethyl Ether	59	7.099	7.099	(0.659)	410376	50.0000	43.8
10 Acetone	43	7.490	7.490	(0.695)	1462032	250.000	208
14 Acetonitrile	41	7.858	7.858	(0.729)	2194088	1000.00	1420
11 1,1-Dichloroethylene	61	7.514	7.514	(0.697)	692288	50.0000	43.2
15 Methyl acetate	43	7.882	7.882	(0.731)	2292815	250.000	264
13 Iodomethane	142	7.763	7.763	(0.720)	2637714	250.000	214

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
	19 Methylene chloride	84	8.083	8.083	(0.750)	462790	50.0000	40.4
	16 Carbon disulfide	76	7.905	7.905	(0.734)	6041390	250.000	223
	21 tert-Butyl methyl ether	73	8.368	8.368	(0.777)	1171630	50.0000	40.2
	22 trans-1,2-Dichloroethylene	96	8.427	8.427	(0.782)	383737	50.0000	43.6
	23 Vinyl acetate	43	8.854	8.854	(0.822)	5718220	250.000	280
	25 1,1-Dichloroethane	63	8.913	8.913	(0.827)	833880	50.0000	44.6
	29 2-Butanone	43	9.482	9.482	(0.880)	1717557	250.000	217
	31 cis-1,2-Dichloroethylene	96	9.554	9.554	(0.887)	432599	50.0000	44.0
	33 2,2-Dichloropropane	77	9.577	9.577	(0.889)	583836	50.0000	45.0
	36 Chloroform	83	9.850	9.850	(0.914)	737328	50.0000	44.7
	35 Bromochloromethane	128	9.826	9.826	(0.912)	196541	50.0000	45.9
	39 1,1,1-Trichloroethane	97	10.135	10.135	(0.941)	567860	50.0000	45.8
	41 Cyclohexane	84	10.230	10.230	(0.949)	570737	50.0000	42.9
	43 1,1-Dichloropropene	75	10.289	10.289	(0.955)	537920	50.0000	45.3
	52 n-Butyl alcohol	41	10.846	10.846	(1.007)	1453439	5000.00	5800
	44 Carbon tetrachloride	117	10.324	10.324	(0.958)	486107	50.0000	46.2
$	46 1,2-Dichloroethane-d4	65	10.431	10.431	(0.968)	711135	50.0000	60.6
	47 1,2-Dichloroethane	62	10.514	10.514	(0.976)	685940	50.0000	48.0
	48 Benzene	78	10.538	10.538	(0.978)	1555755	50.0000	42.3
	50 Cyclohexene	67	10.645	10.645	(0.988)	822410	50.0000	42.4
*	51 Fluorobenzene	96	10.775	10.775	(1.000)	2179345	50.0000	
	53 Trichloroethylene	95	11.166	11.166	(1.036)	395794	50.0000	44.7
	55 1,2-Dichloropropane	63	11.415	11.415	(1.059)	460689	50.0000	43.3
	56 Methylcyclohexane	83	11.415	11.415	(1.059)	694608	50.0000	43.3
	59 Bromodichloromethane	83	11.664	11.664	(1.083)	584859	50.0000	45.3
	58 Dibromomethane	93	11.558	11.558	(1.073)	269049	50.0000	48.6
	61 2-Chloroethylvinyl ether	63	11.866	11.866	(1.101)	1419137	250.000	230
	63 4-Methyl-2-pentanone	58	12.186	12.186	(0.874)	1110002	250.000	224
	62 cis-1,3-Dichloropropylene	75	12.103	12.103	(1.123)	697163	50.0000	44.4
$	64 Toluene-d8	99	12.412	12.412	(0.890)	191716	50.0000	51.8
	65 Toluene	92	12.495	12.495	(0.896)	963313	50.0000	42.3
	67 trans-1,3-Dichloropropylene	75	12.637	12.637	(0.906)	684254	50.0000	45.6
	68 1,1,2-Trichloroethane	83	12.862	12.862	(0.923)	336935	50.0000	46.2
	69 2-Hexanone	43	13.028	13.028	(0.934)	2621479	250.000	205
	70 1,3-Dichloropropane	76	13.052	13.052	(0.936)	654651	50.0000	45.8
	71 Tetrachloroethylene	164	13.087	13.087	(0.939)	268265	50.0000	44.1
	72 Dibromochloromethane	129	13.325	13.325	(0.956)	417054	50.0000	46.5
	73 1,2-Dibromoethane	107	13.503	13.503	(0.969)	392679	50.0000	46.2
*	75 Chlorobenzene-d5	117	13.941	13.941	(1.000)	1527432	50.0000	
	76 Chlorobenzene	112	13.977	13.977	(1.003)	1006126	50.0000	44.9
	77 1,1,1,2-Tetrachloroethane	131	14.024	14.024	(1.006)	372817	50.0000	45.8
	78 Ethylbenzene	91	14.024	14.024	(1.006)	1777735	50.0000	42.7
	79 m,p-Xylenes	106	14.131	14.131	(1.014)	1429649	100.000	86.5
	80 o-Xylene	106	14.570	14.570	(1.045)	732799	50.0000	43.1
	81 Styrene	104	14.570	14.570	(1.045)	1200277	50.0000	41.9
	82 Bromoform	173	14.854	14.854	(0.907)	260308	50.0000	44.7
	83 Isopropylbenzene	105	14.926	14.926	(0.912)	1827585	50.0000	40.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
87 1,1,2,2-Tetrachloroethane	83	15.198	15.198	(0.928)	609311	50.0000	48.8
$ 86 Bromofluorobenzene	95	15.127	15.127	(0.924)	769810	50.0000	49.5
89 1,2,3-Trichloropropane	110	15.293	15.293	(0.934)	147538	50.0000	47.1
90 Bromobenzene	156	15.352	15.352	(0.938)	439083	50.0000	43.0
91 n-Propylbenzene	91	15.352	15.352	(0.938)	2229680	50.0000	41.6
92 2-Chlorotoluene	91	15.507	15.507	(0.947)	1518408	50.0000	41.1
93 1,3,5-Trimethylbenzene	105	15.495	15.495	(0.946)	1544650	50.0000	40.2
94 4-Chlorotoluene	91	15.613	15.613	(0.954)	1437383	50.0000	41.2
95 tert-Butylbenzene	119	15.874	15.874	(0.970)	1479006	50.0000	40.8
96 1,2,4-Trimethylbenzene	105	15.922	15.922	(0.972)	1625597	50.0000	40.7
98 sec-Butylbenzene	105	16.111	16.111	(0.984)	2156577	50.0000	42.1
99 4-Isopropyltoluene	119	16.230	16.230	(0.991)	1625473	50.0000	41.7
100 1,3-Dichlorobenzene	146	16.313	16.313	(0.996)	864056	50.0000	42.8
* 101 1,4-Dichlorobenzene-d4	152	16.372	16.372	(1.000)	803402	50.0000	
102 1,4-Dichlorobenzene	146	16.408	16.408	(1.002)	868716	50.0000	44.3
104 n-Butylbenzene	92	16.692	16.692	(1.020)	1020479	50.0000	43.5
105 1,2-Dichlorobenzene	146	16.858	16.858	(1.030)	858246	50.0000	44.0
107 1,2-Dibromo-3-chloropropane	157	17.783	17.783	(1.086)	105692	50.0000	47.4
108 1,2,4-Trichlorobenzene	180	18.922	18.922	(1.156)	551092	50.0000	44.1
109 Hexachlorobutadiene	225	19.100	19.100	(1.167)	297248	50.0000	43.5
110 Naphthalene	128	19.349	19.349	(1.182)	1508905	50.0000	48.1
111 1,2,3-Trichlorobenzene	180	19.716	19.716	(1.204)	506843	50.0000	49.2

Data File: /chem/VOA9.i/122909v9/9r202.d
Date : 29-DEC-2009 12:08
Client ID: VSTD050
Sample Info: IW9VM091229-02|BFB/CCV/LCS|1|VOA|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

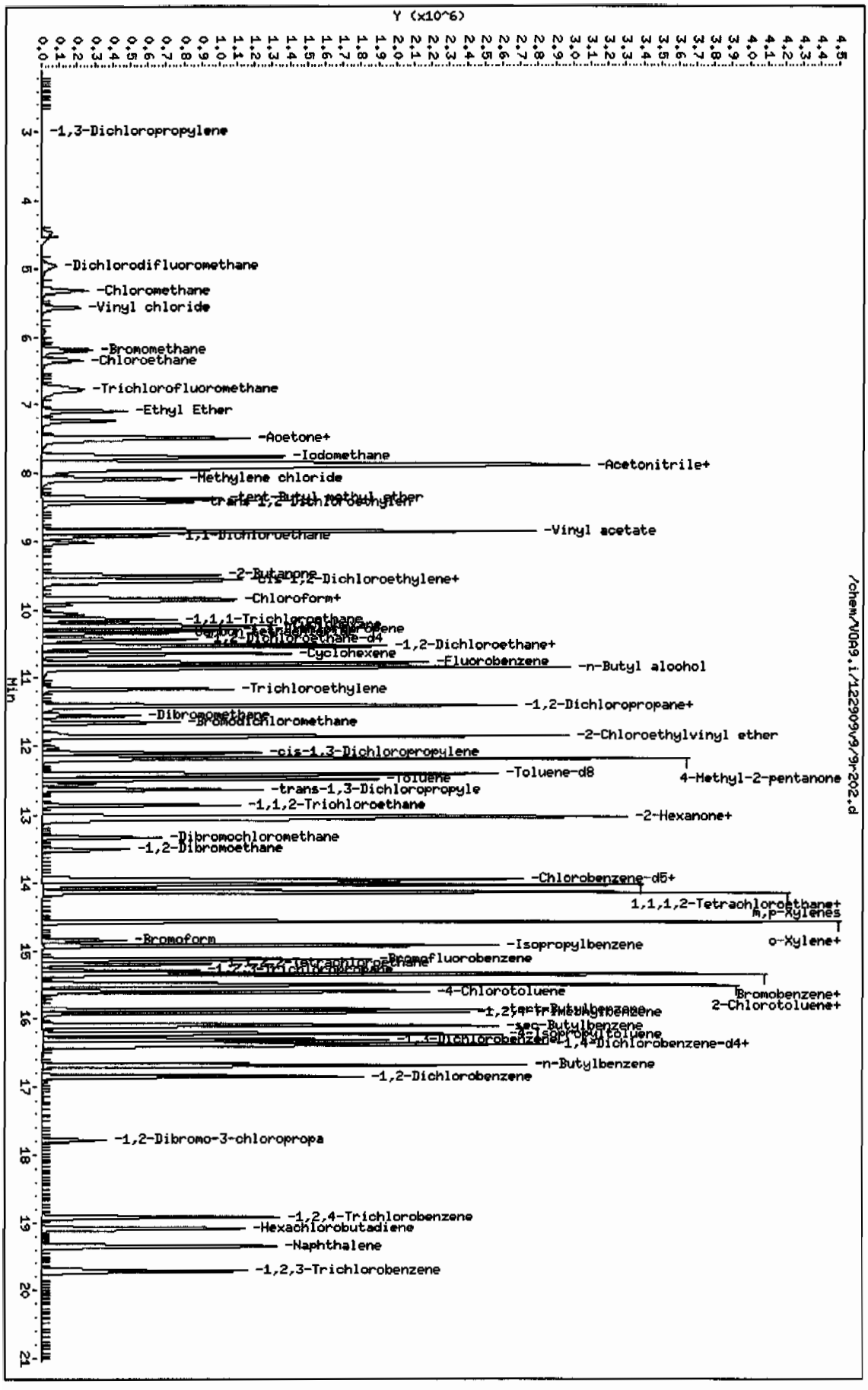

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA9.i Injection Date: 29-DEC-2009 13:14
Lab File ID: 9r204.d Init. Cal. Date(s): 19-NOV-2009 19-NOV-2009
Analysis Type: WATER Init. Cal. Times: 11:14 18:11
Lab Sample ID: UVM091216-08A Quant Type: ISTD
Method: /chem/VOA9.i/122909v9/VOA9-8260B-111909.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
8 Acrolein	0.04635	0.05065	0.05065	0.001	9.27583	30.00000	Averaged
9 Trichlorotrifluoroethane	0.07059	0.08719	0.08719	0.030	23.51052	30.00000	Averaged
17 Allyl chloride	0.11365	0.11970	0.11970	0.010	5.32595	30.00000	Averaged
20 Acrylonitrile	0.09689	0.10895	0.10895	0.010	12.44459	30.00000	Averaged
26 2-Chloro-1,3-butadiene	0.38170	0.39351	0.39351	0.010	3.09453	30.00000	Averaged
32 Propionitrile	0.03738	0.04087	0.04087	0.010	9.33408	30.00000	Averaged
30 Ethyl acetate	0.24709	0.26148	0.26148	0.010	5.82545	40.00000	Averaged
34 Methacrylonitrile	0.15425	0.17399	0.17399	0.010	12.80232	30.00000	Averaged
37 Tetrahydrofuran	0.23819	0.28252	0.28252	0.010	18.60729	30.00000	Averaged
40 Isobutyl alcohol	0.00970	0.01099	0.01099	0.004	13.26503	40.00000	Averaged
54 Methyl methacrylate	0.14777	0.14375	0.14375	0.010	-2.71965	30.00000	Averaged
66 Ethyl methacrylate	0.42200	0.36877	0.36877	0.010	-12.61424	30.00000	Averaged
57 1,4-Dioxane	2923	2500	0.00266	0.001	16.92230	40.00000	Linear
60 2-Nitropropane	0.08256	0.10153	0.10153	0.010	22.98162	30.00000	Averaged
84 cis-1,4-Dichloro-2-butene	0.28792	0.34888	0.34888	0.010	21.17034	30.00000	Averaged
85 Cyclohexanone	0.04335	0.01969	0.01969	0.002	-54.57298	40.00000	Averaged <-
88 trans-1,4-Dichloro-2-butene	0.26572	0.32760	0.32760	0.010	23.28632	30.00000	Averaged
97 Pentachloroethane	0.25156	0.32176	0.32176	0.010	27.90974	30.00000	Averaged
103 Benzyl chloride	1.33383	1.30434	1.30434	0.010	-2.21082	30.00000	Averaged
106 bis(2-Chloroisopropyl)ether	0.42347	0.48393	0.48393	0.010	14.27823	30.00000	Averaged
$ 46 1,2-Dichloroethane-d4	0.26902	0.34489	0.34489	0.010	28.20124	30.00000	Averaged
$ 64 Toluene-d8	0.12102	0.13425	0.13425	0.010	10.93094	30.00000	Averaged
$ 86 Bromofluorobenzene	0.96829	1.01936	1.01936	0.010	5.27429	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 32.77416
Maximun Average %D/Drift = 20.00000
* Failed Average %D/Drift Test.

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/122909v9/9r204.d
Lab Smp Id: UVM091216-08A Client Smp ID: VSTD250
Inj Date : 29-DEC-2009 13:14
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |UVM091216-08A|SHORT|1|VOA|1|
Misc Info : GEL 5ml n/a
Comment :
Method : /chem/VOA9.i/122909v9/VOA9-8260B-111909.m
Meth Date : 29-Dec-2009 13:30 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 17:43 Cal File: 91419.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
8 Acrolein	56	7.312	7.312	(0.679)	591982	250.000	273
9 Trichlorotrifluoroethane	85	7.467	7.467	(0.693)	1019005	250.000	309
17 Allyl chloride	76	7.941	7.941	(0.737)	1398985	250.000	263(Q)
20 Acrylonitrile	53	8.344	8.344	(0.774)	1273271	250.000	281
26 2-Chloro-1,3-butadiene	53	9.008	9.008	(0.836)	919800	50.0000	51.5
32 Propionitrile	54	9.577	9.577	(0.889)	477650	250.000	273
30 Ethyl acetate	43	9.483	9.483	(0.880)	3055976	250.000	264
34 Methacrylonitrile	41	9.755	9.755	(0.905)	2033500	250.000	282
37 Tetrahydrofuran	42	9.874	9.874	(0.603)	1094961	250.000	296
40 Isobutyl alcohol	41	10.159	10.159	(0.943)	1284448	2500.00	2830
54 Methyl methacrylate	69	11.368	11.368	(1.055)	1680033	250.000	243
66 Ethyl methacrylate	69	12.613	12.613	(0.905)	2926621	250.000	218
57 1,4-Dioxane	88	11.487	11.487	(1.066)	310447	2500.00	2920
60 2-Nitropropane	43	11.866	11.866	(1.101)	1186579	250.000	307
84 cis-1,4-Dichloro-2-butene	53	14.961	14.961	(0.914)	1352167	250.000	303
85 Cyclohexanone	55	15.104	15.104	(1.083)	781412	1250.00	568

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
88 trans-1,4-Dichloro-2-butene	53	15.246	15.246	(0.931)	1269689	250.000	308
97 Pentachloroethane	167	15.957	15.957	(0.975)	1247082	250.000	320(A)
103 Benzyl chloride	91	16.527	16.527	(1.009)	5055305	250.000	244
106 bis(2-Chloroisopropyl)ether	45	16.930	16.930	(1.034)	1875594	250.000	286
* 51 Fluorobenzene	96	10.775	10.775	(1.000)	2337434	50.0000	
* 75 Chlorobenzene-d5	117	13.941	13.941	(1.000)	1587254	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	16.372	16.372	(1.000)	775152	50.0000	
$ 46 1,2-Dichloroethane-d4	65	10.431	10.431	(0.968)	806157	50.0000	64.1
$ 64 Toluene-d8	99	12.412	12.412	(0.890)	213090	50.0000	55.5
$ 86 Bromofluorobenzene	95	15.127	15.127	(0.924)	790159	50.0000	52.6

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA9.i/122909v9/9r204.d
Date : 29-DEC-2009 13:14
Client ID: VSTD250
Sample Info: IUVM091216-08AISHORT11VOA11
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

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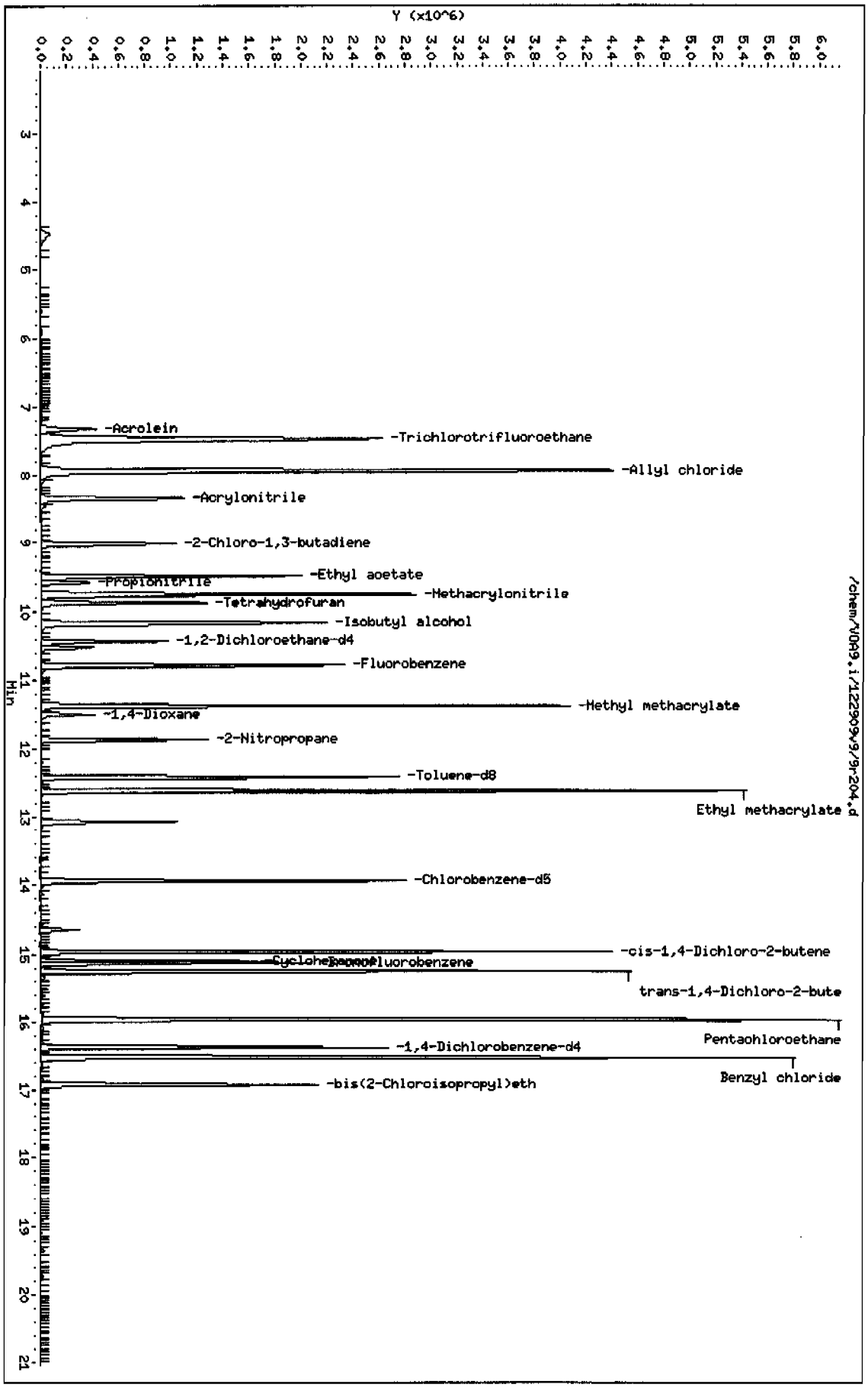

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA9.i Injection Date: 29-DEC-2009 23:20
Lab File ID: 9r226.d Init. Cal. Date(s): 19-NOV-2009 19-NOV-2009
Analysis Type: WATER Init. Cal. Times: 11:14 18:11
Lab Sample ID: W9VM091229-05 Quant Type: ISTD
Method: /chem/VOA9.i/122909v9/VOA9-8260B-111909pm.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
M	27 Xylenes (total)	0.54618	0.49349	0.49349	0.050	-9.64663	30.00000	Averaged	
M	42 1,2-Dichloroethylene (total	0.21367	0.19898	0.19898	0.050	-6.87554	30.00000	Averaged	
M	45 1,3-Dichloropropylene	0.34759	0.32024	0.32024	0.050	-7.86926	30.00000	Averaged	
	1 Dichlorodifluoromethane	0.15107	0.11218	0.11218	0.050	-25.74351	30.00000	Averaged	
	2 Chloromethane	0.27941	0.25069	0.25069	0.100	-10.28118	30.00000	Averaged	spcc
	3 Vinyl chloride	0.22694	0.20679	0.20679	0.050	-8.87962	20.00000	Averaged	ccc
	4 Bromomethane	0.15251	0.16073	0.16073	0.050	5.39210	30.00000	Averaged	
	5 Chloroethane	0.15927	0.15777	0.15777	0.050	-0.93726	30.00000	Averaged	
	6 Trichlorofluoromethane	0.25319	0.24802	0.24802	0.050	-2.04140	30.00000	Averaged	
	7 Ethyl Ether	0.21495	0.19337	0.19337	0.010	-10.03715	30.00000	Averaged	
	10 Acetone	0.16142	0.14342	0.14342	0.040	-11.14847	40.00000	Averaged	
	14 Acetonitrile	0.03532	0.05084	0.05084	0.010	43.92595	30.00000	Averaged	<-
	11 1,1-Dichloroethylene	0.36772	0.32980	0.32980	0.050	-10.31066	20.00000	Averaged	ccc
	15 Methyl acetate	0.19922	0.21641	0.21641	0.010	8.62667	40.00000	Averaged	
	13 Iodomethane	0.28203	0.25202	0.25202	0.050	-10.64075	30.00000	Averaged	
	19 Methylene chloride	0.26260	0.22642	0.22642	0.050	-13.77855	30.00000	Averaged	
	16 Carbon disulfide	0.62020	0.56616	0.56616	0.050	-8.71315	30.00000	Averaged	
	21 tert-Butyl methyl ether	0.66936	0.54381	0.54381	0.050	-18.75676	30.00000	Averaged	
	22 trans-1,2-Dichloroethylene	0.20173	0.18694	0.18694	0.050	-7.32976	30.00000	Averaged	
	23 Vinyl acetate	0.46892	0.42996	0.42996	0.010	-8.30911	40.00000	Averaged	
	25 1,1-Dichloroethane	0.42943	0.39733	0.39733	0.100	-7.47661	30.00000	Averaged	spcc
	29 2-Butanone	0.18165	0.16621	0.16621	0.030	-8.50152	40.00000	Averaged	
	31 cis-1,2-Dichloroethylene	0.22561	0.21101	0.21101	0.050	-6.46939	30.00000	Averaged	
	33 2,2-Dichloropropane	0.29797	0.26190	0.26190	0.050	-12.10586	30.00000	Averaged	
	36 Chloroform	0.37848	0.35886	0.35886	0.010	-5.18366	20.00000	Averaged	ccc
	35 Bromochloromethane	0.09824	0.09319	0.09319	0.010	-5.13849	30.00000	Averaged	
	39 1,1,1-Trichloroethane	0.28434	0.26363	0.26363	0.010	-7.28044	30.00000	Averaged	
	41 Cyclohexane	0.30530	0.26519	0.26519	0.010	-13.13733	30.00000	Averaged	
	43 1,1-Dichloropropene	0.27257	0.25712	0.25712	0.010	-5.66697	30.00000	Averaged	
	52 n-Butyl alcohol	0.00575	0.00683	0.00683	0.002	18.69895	40.00000	Averaged	
	44 Carbon tetrachloride	0.24142	0.22664	0.22664	0.010	-6.12154	30.00000	Averaged	
$	46 1,2-Dichloroethane-d4	0.26902	0.34837	0.34837	0.010	29.49479	30.00000	Averaged	
	47 1,2-Dichloroethane	0.32773	0.31859	0.31859	0.010	-2.78861	30.00000	Averaged	
	48 Benzene	0.84334	0.75379	0.75379	0.010	-10.61820	30.00000	Averaged	
	50 Cyclohexene	0.44488	0.38292	0.38292	0.005	-13.92580	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA9.i Injection Date: 29-DEC-2009 23:20
Lab File ID: 9r226.d Init. Cal. Date(s): 19-NOV-2009 19-NOV-2009
Analysis Type: WATER Init. Cal. Times: 11:14 18:11
Lab Sample ID: W9VM091229-05 Quant Type: ISTD
Method: /chem/VOA9.i/122909v9/VOA9-8260B-111909pm.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	53 Trichloroethylene	0.20322	0.19410	0.19410	0.010	-4.48773	30.00000	Averaged	
	55 1,2-Dichloropropane	0.24402	0.21809	0.21809	0.010	-10.62782	20.00000	Averaged	ccc
	56 Methylcyclohexane	0.36813	0.31663	0.31663	0.010	-13.98965	30.00000	Averaged	
	59 Bromodichloromethane	0.29592	0.27747	0.27747	0.010	-6.23547	30.00000	Averaged	
	58 Dibromomethane	0.12694	0.12552	0.12552	0.010	-1.11770	30.00000	Averaged	
	61 2-Chloroethylvinyl ether	0.14145	0.12665	0.12665	0.010	-10.46069	30.00000	Averaged	
	63 4-Methyl-2-pentanone	0.16202	0.15520	0.15520	0.010	-4.21151	40.00000	Averaged	
	62 cis-1,3-Dichloropropylene	0.36063	0.32716	0.32716	0.010	-9.28271	30.00000	Averaged	
$	64 Toluene-d8	0.12102	0.13935	0.13935	0.010	15.14550	30.00000	Averaged	
	65 Toluene	0.74466	0.67024	0.67024	0.010	-9.99322	20.00000	Averaged	ccc
	67 trans-1,3-Dichloropropylene	0.49060	0.46255	0.46255	0.010	-5.71752	30.00000	Averaged	
	68 1,1,2-Trichloroethane	0.23886	0.23757	0.23757	0.010	-0.53746	30.00000	Averaged	
	69 2-Hexanone	0.41791	0.37021	0.37021	0.010	-11.41447	40.00000	Averaged	
	70 1,3-Dichloropropane	0.46769	0.45332	0.45332	0.010	-3.07335	30.00000	Averaged	
	71 Tetrachloroethylene	0.19892	0.18758	0.18758	0.010	-5.69986	30.00000	Averaged	
	72 Dibromochloromethane	0.29341	0.29051	0.29051	0.010	-0.98543	30.00000	Averaged	
	73 1,2-Dibromoethane	0.27839	0.27071	0.27071	0.010	-2.75680	30.00000	Averaged	
	76 Chlorobenzene	0.73361	0.69649	0.69649	0.300	-5.06054	30.00000	Averaged	spcc
	77 1,1,1,2-Tetrachloroethane	0.26648	0.25937	0.25937	0.010	-2.66859	30.00000	Averaged	
	78 Ethylbenzene	1.36374	1.22222	1.22222	0.010	-10.37740	20.00000	Averaged	ccc
	79 m,p-Xylenes	0.54123	0.48866	0.48866	0.010	-9.71410	30.00000	Averaged	
	80 o-Xylene	0.55608	0.50316	0.50316	0.010	-9.51529	30.00000	Averaged	
	81 Styrene	0.93756	0.83206	0.83206	0.010	-11.25338	30.00000	Averaged	
	82 Bromoform	0.36267	0.35978	0.35978	0.100	-0.79554	30.00000	Averaged	spcc
	83 Isopropylbenzene	2.81483	2.48159	2.48159	0.010	-11.83888	30.00000	Averaged	
	87 1,1,2,2-Tetrachloroethane	0.77732	0.78999	0.78999	0.300	1.62937	30.00000	Averaged	spcc
$	86 Bromofluorobenzene	0.96829	1.02958	1.02958	0.010	6.32950	30.00000	Averaged	
	89 1,2,3-Trichloropropane	0.19510	0.20139	0.20139	0.010	3.22096	30.00000	Averaged	
	90 Bromobenzene	0.63587	0.58782	0.58782	0.010	-7.55740	30.00000	Averaged	
	91 n-Propylbenzene	3.33103	3.01278	3.01278	0.010	-9.55429	30.00000	Averaged	
	92 2-Chlorotoluene	2.30092	2.07821	2.07821	0.010	-9.67930	30.00000	Averaged	
	93 1,3,5-Trimethylbenzene	2.39063	2.11231	2.11231	0.010	-11.64240	30.00000	Averaged	
	94 4-Chlorotoluene	2.17249	1.96991	1.96991	0.010	-9.32469	30.00000	Averaged	
	95 tert-Butylbenzene	2.25514	1.99824	1.99824	0.010	-11.39174	30.00000	Averaged	
	96 1,2,4-Trimethylbenzene	2.48802	2.21101	2.21101	0.010	-11.13383	30.00000	Averaged	
	98 sec-Butylbenzene	3.18444	2.86576	2.86576	0.010	-10.00733	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA9.i Injection Date: 29-DEC-2009 23:20
Lab File ID: 9r226.d Init. Cal. Date(s): 19-NOV-2009 19-NOV-2009
Analysis Type: WATER Init. Cal. Times: 11:14 18:11
Lab Sample ID: W9VM091229-05 Quant Type: ISTD
Method: /chem/VOA9.i/122909v9/VOA9-8260B-111909pm.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
99 4-Isopropyltoluene	2.42785	2.16110	2.16110	0.010	-10.98716	30.00000	Averaged
100 1,3-Dichlorobenzene	1.25752	1.17619	1.17619	0.010	-6.46782	30.00000	Averaged
102 1,4-Dichlorobenzene	1.21950	1.16523	1.16523	0.010	-4.44978	30.00000	Averaged
104 n-Butylbenzene	1.46029	1.33326	1.33326	0.010	-8.69890	30.00000	Averaged
105 1,2-Dichlorobenzene	1.21410	1.15694	1.15694	0.010	-4.70752	30.00000	Averaged
107 1,2-Dibromo-3-chloropropane	0.13864	0.14021	0.14021	0.010	1.13773	30.00000	Averaged
108 1,2,4-Trichlorobenzene	0.77779	0.70288	0.70288	0.010	-9.63065	30.00000	Averaged
109 Hexachlorobutadiene	0.42492	0.38454	0.38454	0.010	-9.50243	30.00000	Averaged
110 Naphthalene	1.95340	1.96733	1.96733	0.010	0.71314	30.00000	Averaged
111 1,2,3-Trichlorobenzene	0.64044	0.64003	0.64003	0.010	-0.06441	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 8.72398
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/122909v9/9r226.d
Lab Smp Id: W9VM091229-05 Client Smp ID: VSTD050
Inj Date : 29-DEC-2009 23:20
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |W9VM091229-05|BFB/CCV/LCS|1|VOA|1|
Misc Info : GEL 5ml n/a UVM091214-01C/IVM091228-01
Comment :
Method : /chem/VOA9.i/122909v9/VOA9-8260B-111909pm.m
Meth Date : 30-Dec-2009 08:33 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 17:43 Cal File: 91419.d
Als bottle: 26 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 27 Xylenes (total)	106				2157153	150.000	136
M 42 1,2-Dichloroethylene (total)	96				856015	100.000	93.1
M 45 1,3-Dichloropropylene	75				1377704	100.000	92.1
1 Dichlorodifluoromethane	85	4.958	4.958	(0.460)	241307	50.0000	37.1
2 Chloromethane	50	5.308	5.308	(0.493)	539243	50.0000	44.8
3 Vinyl chloride	62	5.560	5.560	(0.516)	444820	50.0000	45.6
4 Bromomethane	94	6.186	6.186	(0.574)	345739	50.0000	52.7
5 Chloroethane	64	6.340	6.340	(0.588)	339379	50.0000	49.5
6 Trichlorofluoromethane	101	6.767	6.767	(0.628)	533500	50.0000	49.0
7 Ethyl Ether	59	7.087	7.087	(0.658)	415958	50.0000	45.0
10 Acetone	43	7.491	7.491	(0.695)	1542554	250.000	222
14 Acetonitrile	41	7.858	7.858	(0.729)	2187032	1000.00	1440
11 1,1-Dichloroethylene	61	7.502	7.502	(0.696)	709426	50.0000	44.8
15 Methyl acetate	43	7.882	7.882	(0.731)	2327516	250.000	272
13 Iodomethane	142	7.763	7.763	(0.720)	2710501	250.000	223

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
19 Methylene chloride	84	8.083	8.083	(0.750)	487045	50.0000	43.1
16 Carbon disulfide	76	7.906	7.906	(0.734)	6089250	250.000	228
21 tert-Butyl methyl ether	73	8.368	8.368	(0.777)	1169765	50.0000	40.6
22 trans-1,2-Dichloroethylene	96	8.427	8.427	(0.782)	402121	50.0000	46.3
23 Vinyl acetate	43	8.854	8.854	(0.822)	4624287	250.000	229
25 1,1-Dichloroethane	63	8.914	8.914	(0.827)	854669	50.0000	46.3
29 2-Butanone	43	9.483	9.483	(0.880)	1787640	250.000	229
31 cis-1,2-Dichloroethylene	96	9.554	9.554	(0.887)	453894	50.0000	46.8
33 2,2-Dichloropropane	77	9.578	9.578	(0.889)	563360	50.0000	43.9
36 Chloroform	83	9.850	9.850	(0.914)	771922	50.0000	47.4
35 Bromochloromethane	128	9.827	9.827	(0.912)	200466	50.0000	47.4
39 1,1,1-Trichloroethane	97	10.135	10.135	(0.941)	567093	50.0000	46.4
41 Cyclohexane	84	10.230	10.230	(0.949)	570433	50.0000	43.4
43 1,1-Dichloropropene	75	10.289	10.289	(0.955)	553083	50.0000	47.2
52 n-Butyl alcohol	41	10.846	10.846	(1.007)	1468667	5000.00	5930
44 Carbon tetrachloride	117	10.325	10.325	(0.958)	487508	50.0000	46.9
$ 46 1,2-Dichloroethane-d4	65	10.431	10.431	(0.968)	749362	50.0000	64.7
47 1,2-Dichloroethane	62	10.514	10.514	(0.976)	685299	50.0000	48.6
48 Benzene	78	10.538	10.538	(0.978)	1621441	50.0000	44.7
50 Cyclohexene	67	10.645	10.645	(0.988)	823691	50.0000	43.0
* 51 Fluorobenzene	96	10.775	10.775	(1.000)	2151054	50.0000	
53 Trichloroethylene	95	11.167	11.167	(1.036)	417512	50.0000	47.8
55 1,2-Dichloropropane	63	11.416	11.416	(1.059)	469120	50.0000	44.7
56 Methylcyclohexane	83	11.416	11.416	(1.059)	681088	50.0000	43.0
59 Bromodichloromethane	83	11.653	11.653	(1.081)	596856	50.0000	46.9
58 Dibromomethane	93	11.558	11.558	(1.073)	269995	50.0000	49.4
61 2-Chloroethylvinyl ether	63	11.866	11.866	(1.101)	1362173	250.000	224
63 4-Methyl-2-pentanone	58	12.187	12.187	(0.874)	1130670	250.000	239
62 cis-1,3-Dichloropropylene	75	12.103	12.103	(1.123)	703735	50.0000	45.4
$ 64 Toluene-d8	99	12.412	12.412	(0.890)	203044	50.0000	57.6
65 Toluene	92	12.483	12.483	(0.895)	976591	50.0000	45.0
67 trans-1,3-Dichloropropylene	75	12.637	12.637	(0.906)	673969	50.0000	47.1
68 1,1,2-Trichloroethane	83	12.862	12.862	(0.923)	346159	50.0000	49.7
69 2-Hexanone	43	13.028	13.028	(0.934)	2697090	250.000	221
70 1,3-Dichloropropane	76	13.052	13.052	(0.936)	660515	50.0000	48.5
71 Tetrachloroethylene	164	13.076	13.076	(0.938)	273316	50.0000	47.2
72 Dibromochloromethane	129	13.325	13.325	(0.956)	423298	50.0000	49.5
73 1,2-Dibromoethane	107	13.503	13.503	(0.969)	394446	50.0000	48.6
* 75 Chlorobenzene-d5	117	13.942	13.942	(1.000)	1457066	50.0000	
76 Chlorobenzene	112	13.977	13.977	(1.003)	1014828	50.0000	47.5
77 1,1,1,2-Tetrachloroethane	131	14.025	14.025	(1.006)	377924	50.0000	48.7
78 Ethylbenzene	91	14.025	14.025	(1.006)	1780848	50.0000	44.8
79 m,p-Xylenes	106	14.131	14.131	(1.014)	1424011	100.000	90.3
80 o-Xylene	106	14.570	14.570	(1.045)	733142	50.0000	45.2
81 Styrene	104	14.570	14.570	(1.045)	1212362	50.0000	44.4
82 Bromoform	173	14.855	14.855	(0.907)	261185	50.0000	49.6
83 Isopropylbenzene	105	14.926	14.926	(0.912)	1801526	50.0000	44.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
87 1,1,2,2-Tetrachloroethane	83	15.199	15.199	(0.928)	573497	50.0000	50.8
$ 86 Bromofluorobenzene	95	15.127	15.127	(0.924)	747429	50.0000	53.2
89 1,2,3-Trichloropropane	110	15.293	15.293	(0.934)	146197	50.0000	51.6
90 Bromobenzene	156	15.353	15.353	(0.938)	426731	50.0000	46.2
91 n-Propylbenzene	91	15.353	15.353	(0.938)	2187147	50.0000	45.2
92 2-Chlorotoluene	91	15.507	15.507	(0.947)	1508688	50.0000	45.2
93 1,3,5-Trimethylbenzene	105	15.495	15.495	(0.946)	1533444	50.0000	44.2
94 4-Chlorotoluene	91	15.614	15.614	(0.954)	1430071	50.0000	45.3
95 tert-Butylbenzene	119	15.874	15.874	(0.970)	1450638	50.0000	44.3
96 1,2,4-Trimethylbenzene	105	15.910	15.910	(0.972)	1605097	50.0000	44.4
98 sec-Butylbenzene	105	16.112	16.112	(0.984)	2080422	50.0000	45.0
99 4-Isopropyltoluene	119	16.230	16.230	(0.991)	1568863	50.0000	44.5
100 1,3-Dichlorobenzene	146	16.313	16.313	(0.996)	853861	50.0000	46.8
* 101 1,4-Dichlorobenzene-d4	152	16.373	16.373	(1.000)	725957	50.0000	
102 1,4-Dichlorobenzene	146	16.408	16.408	(1.002)	845907	50.0000	47.8
104 n-Butylbenzene	92	16.693	16.693	(1.020)	967891	50.0000	45.6
105 1,2-Dichlorobenzene	146	16.859	16.859	(1.030)	839890	50.0000	47.6
107 1,2-Dibromo-3-chloropropane	157	17.784	17.784	(1.086)	101790	50.0000	50.6
108 1,2,4-Trichlorobenzene	180	18.922	18.922	(1.156)	510262	50.0000	45.2
109 Hexachlorobutadiene	225	19.088	19.088	(1.166)	279160	50.0000	45.2
110 Naphthalene	128	19.349	19.349	(1.182)	1428198	50.0000	50.4
111 1,2,3-Trichlorobenzene	180	19.717	19.717	(1.204)	464635	50.0000	50.0

Data File: /chem/VOA9.i/122909v9/9r226.d
Date : 29-DEC-2009 23:20
Client ID: VSTD050
Sample Info: IW9VH091229-05IBFB/CCV/LCS11VOA111
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

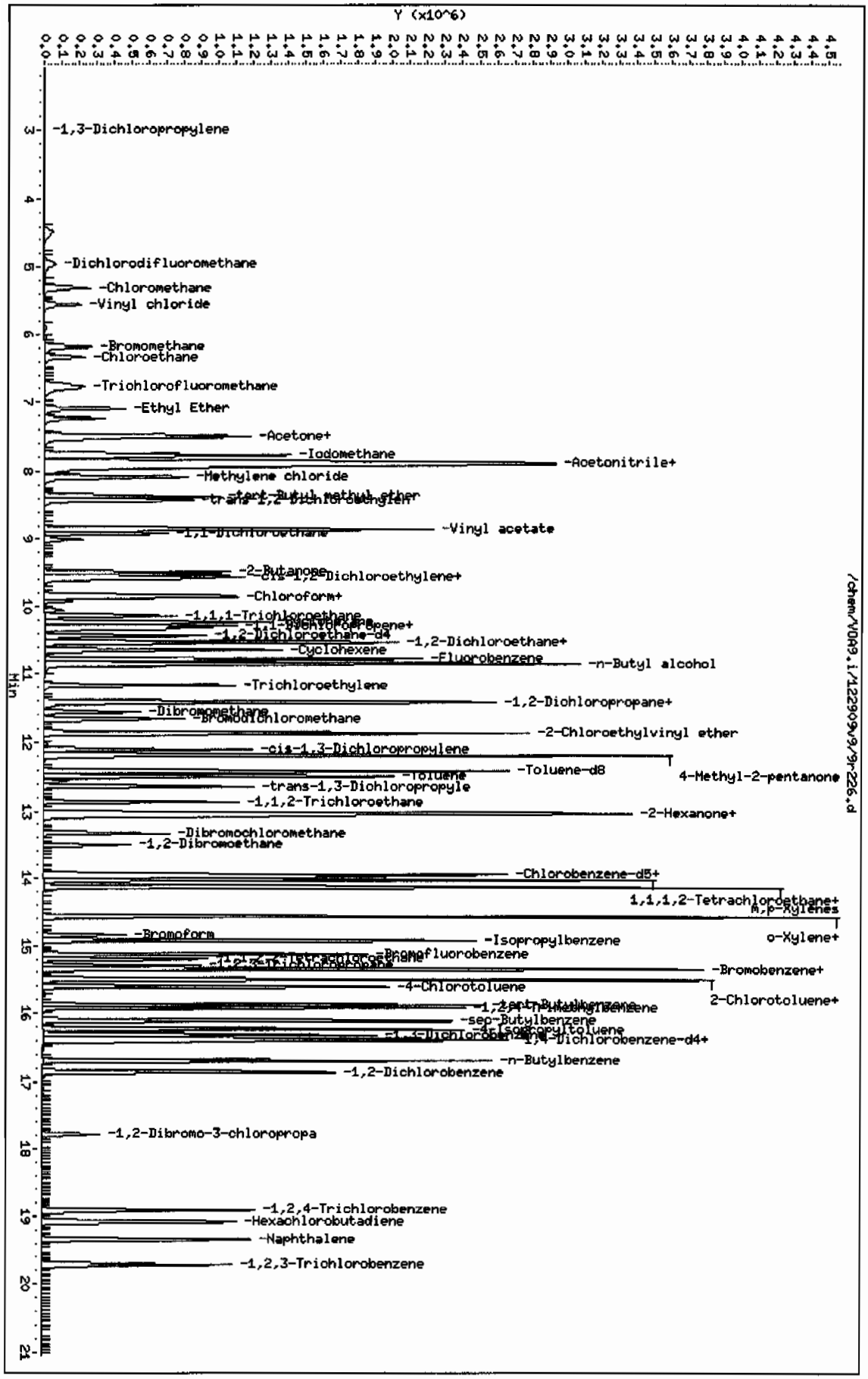

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA9.i Injection Date: 30-DEC-2009 00:15
Lab File ID: 9r228.d Init. Cal. Date(s): 19-NOV-2009 19-NOV-2009
Analysis Type: WATER Init. Cal. Times: 11:14 18:11
Lab Sample ID: UVM091216-08A Quant Type: ISTD
Method: /chem/VOA9.i/122909v9/VOA9-8260B-111909pm.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
8 Acrolein	0.04635	0.03965	0.03965	0.001	-14.45473	30.00000	Averaged	
9 Trichlorotrifluoroethane	0.07059	0.07307	0.07307	0.030	3.50536	30.00000	Averaged	
17 Allyl chloride	0.11365	0.10612	0.10612	0.010	-6.62183	30.00000	Averaged	
20 Acrylonitrile	0.09689	0.08988	0.08988	0.010	-7.23500	30.00000	Averaged	
26 2-Chloro-1,3-butadiene	0.38170	0.33769	0.33769	0.010	-11.53026	30.00000	Averaged	
32 Propionitrile	0.03738	0.03421	0.03421	0.010	-8.48571	30.00000	Averaged	
30 Ethyl acetate	0.24709	0.21360	0.21360	0.010	-13.55480	40.00000	Averaged	
34 Methacrylonitrile	0.15425	0.14633	0.14633	0.010	-5.13399	30.00000	Averaged	
37 Tetrahydrofuran	0.23819	0.23796	0.23796	0.010	-0.09689	30.00000	Averaged	
40 Isobutyl alcohol	0.00970	0.00869	0.00869	0.004	-10.42591	40.00000	Averaged	
54 Methyl methacrylate	0.14777	0.12093	0.12093	0.010	-18.16445	30.00000	Averaged	
66 Ethyl methacrylate	0.42200	0.32060	0.32060	0.010	-24.02731	30.00000	Averaged	
57 1,4-Dioxane	2355	2500	0.00214	0.001	-5.80505	40.00000	Linear	
60 2-Nitropropane	0.08256	0.07986	0.07986	0.010	-3.26238	30.00000	Averaged	
84 cis-1,4-Dichloro-2-butene	0.28792	0.28227	0.28227	0.010	-1.96512	30.00000	Averaged	
85 Cyclohexanone	0.04335	0.01628	0.01628	0.002	-62.45028	40.00000	Averaged	<-
88 trans-1,4-Dichloro-2-butene	0.26572	0.26417	0.26417	0.010	-0.58541	30.00000	Averaged	
97 Pentachloroethane	0.25156	0.15869	0.15869	0.010	-36.91675	30.00000	Averaged	<-
103 Benzyl chloride	1.33383	0.93280	0.93280	0.010	-30.06597	30.00000	Averaged	<-
106 bis(2-Chloroisopropyl)ether	0.42347	0.39224	0.39224	0.010	-7.37497	30.00000	Averaged	
$ 46 1,2-Dichloroethane-d4	0.26902	0.31708	0.31708	0.010	17.86351	30.00000	Averaged	
$ 64 Toluene-d8	0.12102	0.12610	0.12610	0.010	4.19806	30.00000	Averaged	
$ 86 Bromofluorobenzene	0.96829	0.96530	0.96530	0.010	-0.30886	30.00000	Averaged	

Average %D / Drift Results.

Calculated Average %D/Drift = 28.15875
Maximun Average %D/Drift = 20.00000
* Failed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/122909v9/9r228.d
Lab Smp Id: UVM091216-08A Client Smp ID: VSTD250
Inj Date : 30-DEC-2009 00:15
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |UVM091216-08A|SHORT|1|VOA|1|
Misc Info : GEL 5ml n/a
Comment :
Method : /chem/VOA9.i/122909v9/VOA9-8260B-111909pm.m
Meth Date : 30-Dec-2009 08:31 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 17:43 Cal File: 91419.d
Als bottle: 28 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
8 Acrolein	56	7.313	7.313	(0.679)	523569	250.000	214
9 Trichlorotrifluoroethane	85	7.467	7.467	(0.693)	964781	250.000	259
17 Allyl chloride	76	7.941	7.941	(0.737)	1401253	250.000	233
20 Acrylonitrile	53	8.344	8.344	(0.774)	1186752	250.000	232
26 2-Chloro-1,3-butadiene	53	9.008	9.008	(0.836)	891756	50.0000	44.2
32 Propionitrile	54	9.578	9.578	(0.889)	451686	250.000	229
30 Ethyl acetate	43	9.483	9.483	(0.880)	2820293	250.000	216
34 Methacrylonitrile	41	9.755	9.755	(0.905)	1932103	250.000	237
37 Tetrahydrofuran	42	9.874	9.874	(0.603)	1005415	250.000	250
40 Isobutyl alcohol	41	10.159	10.159	(0.943)	1147616	2500.00	2240
54 Methyl methacrylate	69	11.368	11.368	(1.055)	1596718	250.000	204
66 Ethyl methacrylate	69	12.613	12.613	(0.905)	2841891	250.000	190
57 1,4-Dioxane	88	11.487	11.487	(1.066)	282728	2500.00	2350
60 2-Nitropropane	43	11.866	11.866	(1.101)	1054497	250.000	242
84 cis-1,4-Dichloro-2-butene	53	14.961	14.961	(0.914)	1192597	250.000	245
85 Cyclohexanone	55	15.104	15.104	(1.083)	721434	1250.00	469

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
88 trans-1,4-Dichloro-2-butene	53	15.246	15.246	(0.931)	1116122	250.000	248
97 Pentachloroethane	167	15.957	15.957	(0.975)	670478	250.000	158
103 Benzyl chloride	91	16.527	16.527	(1.009)	3941161	250.000	175
106 bis(2-Chloroisopropyl)ether	45	16.918	16.918	(1.033)	1657230	250.000	232
* 51 Fluorobenzene	96	10.775	10.775	(1.000)	2640784	50.0000	
* 75 Chlorobenzene-d5	117	13.941	13.941	(1.000)	1772844	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	16.372	16.372	(1.000)	845018	50.0000	
$ 46 1,2-Dichloroethane-d4	65	10.431	10.431	(0.968)	837337	50.0000	58.9
$ 64 Toluene-d8	99	12.412	12.412	(0.890)	223560	50.0000	52.1
$ 86 Bromofluorobenzene	95	15.127	15.127	(0.924)	815695	50.0000	49.8

Data File: /chem/VOA9.i/122909v9/9r228.d
Date : 30-DEC-2009 00:15
Client ID: VSTD250
Sample Info: IUWH091216-08A|SHORT|1|VOA|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

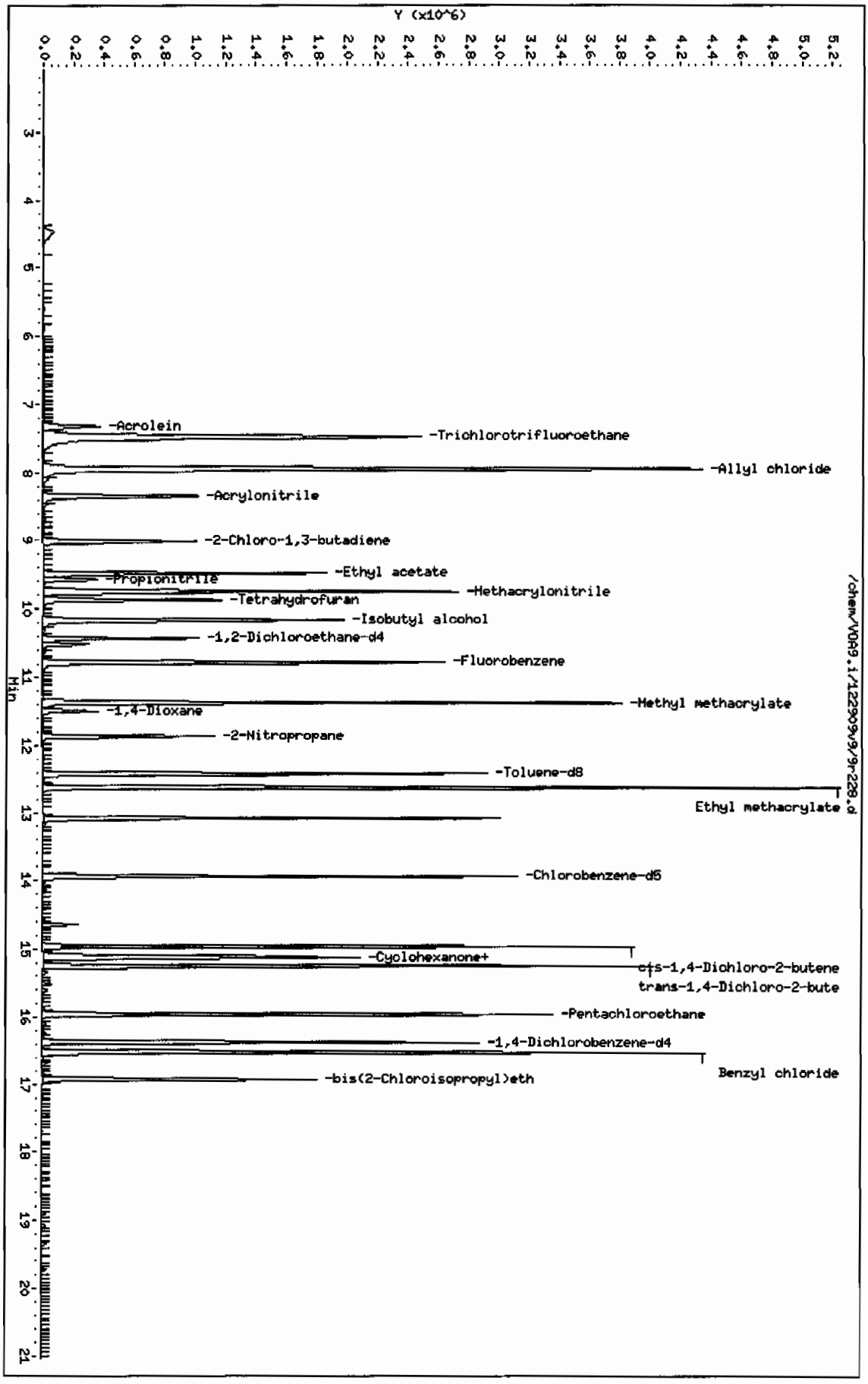

Page 1

QC Data

Data File: /chem/VOA9.i/111909v9/91404.d

Page 1

Date : 19-NOV-2009 10:47

Client ID: BFB01

Instrument: VOA9.i

Sample Info: |UVM090910-02|BFB|1|VOA|1|

Operator: RXY1

Column phase: RTX-Volatiles

Column diameter: 0.25

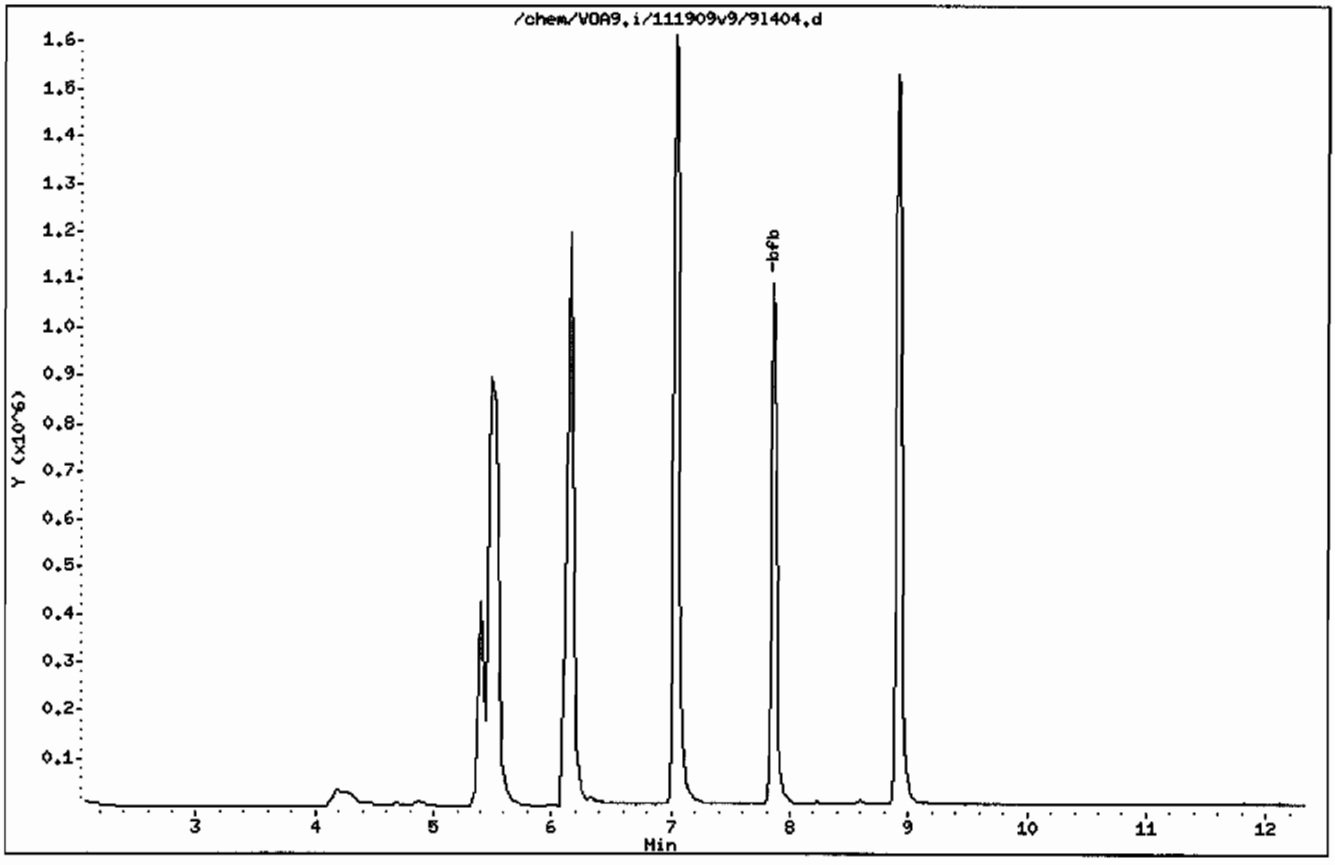

Data File: /chem/VOA9.i/111909v9/91404.d

Date : 19-NOV-2009 10:47

Client ID: BFB01

Instrument: VOA9.i

Sample Info: |UWH090910-02|BFB|1|VOA|1|

Operator: RXY1

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb

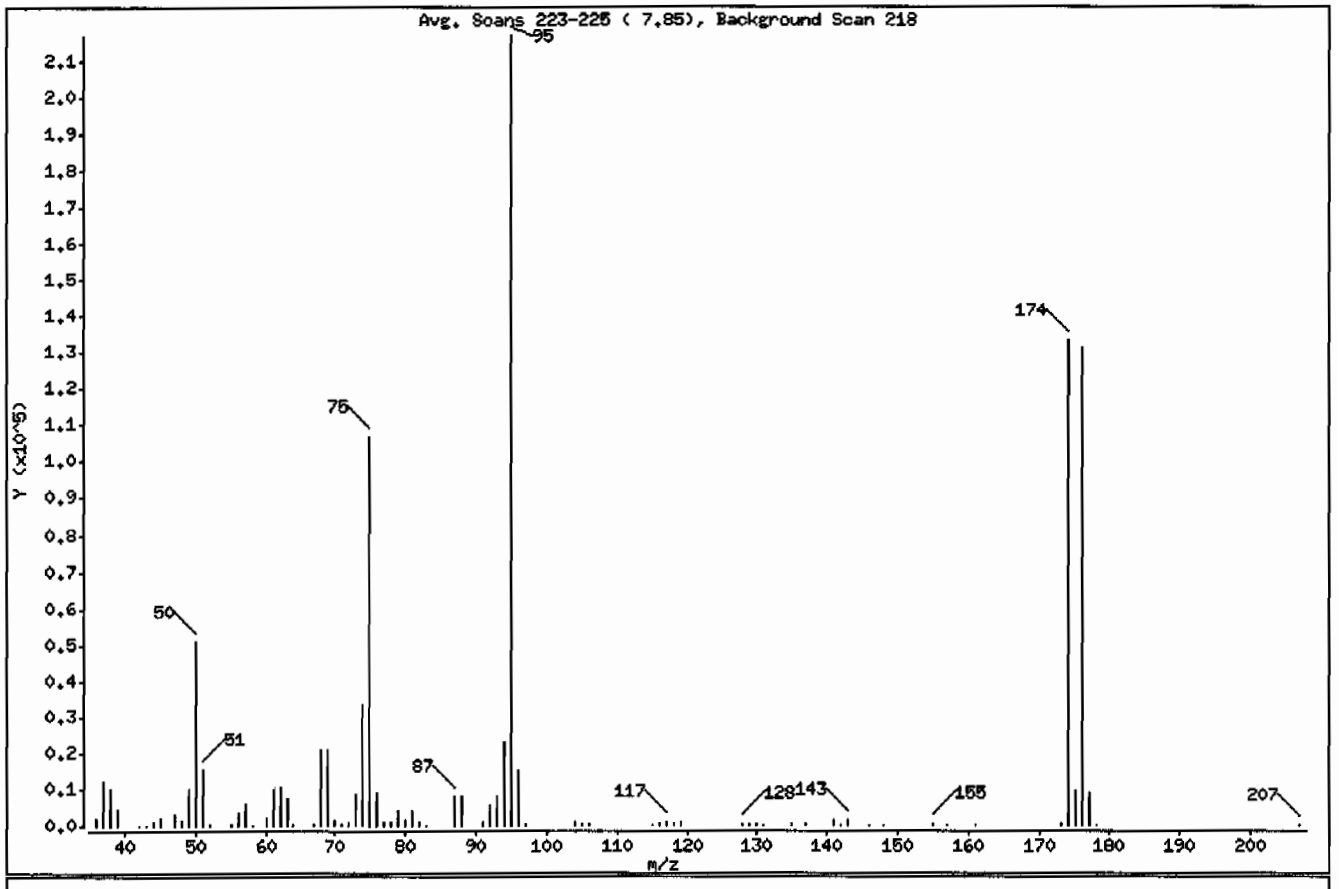

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	23.43
75	30.00 - 60.00% of mass 95	49.21
96	5.00 - 9.00% of mass 95	6.86
173	Less than 2.00% of mass 174	0.34 (0.55)
174	50.00 - 100.00% of mass 95	61.36
175	5.00 - 9.00% of mass 174	4.46 (7.27)
176	95.00 - 101.00% of mass 174	60.35 (98.35)
177	5.00 - 9.00% of mass 176	4.03 (6.67)

Data File: /chem/VOA9.i/111909v9/91404.d

Date : 19-NOV-2009 10:47

Client ID: BFB01 Instrument: VOA9.i

Sample Info: |UVM090910-02|BFB|1|VOA|1|

Operator: RXY1

Column phase: RTX-Volatiles Column diameter: 0.25

Data File: 91404.d

Spectrum: Avg. Scans 223-225 (7.85), Background Scan 218

Location of Maximum: 95.00

Number of points: 78

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2068	62.00	10315	87.00	8177	131.00	204
37.00	11885	63.00	7373	88.00	7860	135.00	254
38.00	10148	64.00	697	91.00	763	137.00	262
39.00	4420	67.00	580	92.00	5458	141.00	1642
42.00	200	68.00	21032	93.00	8006	142.00	88
43.00	133	69.00	21008	94.00	22832	143.00	1574
44.00	1178	70.00	1582	95.00	216832	146.00	170
45.00	2039	71.00	344	96.00	14847	148.00	249
47.00	3071	72.00	1005	97.00	533	155.00	384
48.00	1403	73.00	8585	104.00	794	157.00	180
49.00	10069	74.00	33528	105.00	393	161.00	102
50.00	50800	75.00	106712	106.00	720	173.00	731
51.00	15667	76.00	9102	115.00	102	174.00	133056
52.00	642	77.00	1157	116.00	610	175.00	9678
55.00	679	78.00	772	117.00	1106	176.00	130856
56.00	3456	79.00	4221	118.00	680	177.00	8732
57.00	6076	80.00	1327	119.00	1028	178.00	105
58.00	211	81.00	4191	128.00	693	207.00	47
60.00	1966	82.00	1017	129.00	367		
61.00	10083	83.00	112	130.00	588		

Data File: /chem/VOA9.i/112009v9/91501BFB.d

Page 1

Date : 20-NOV-2009 08:43

Client ID: BFB

Instrument: VOA9.i

Sample Info: |W9VM091120-01|BFB/CCV/LCS|1|VOA|1|

Operator: RXY1

Column phase: RTX-Volatiles

Column diameter: 0.25

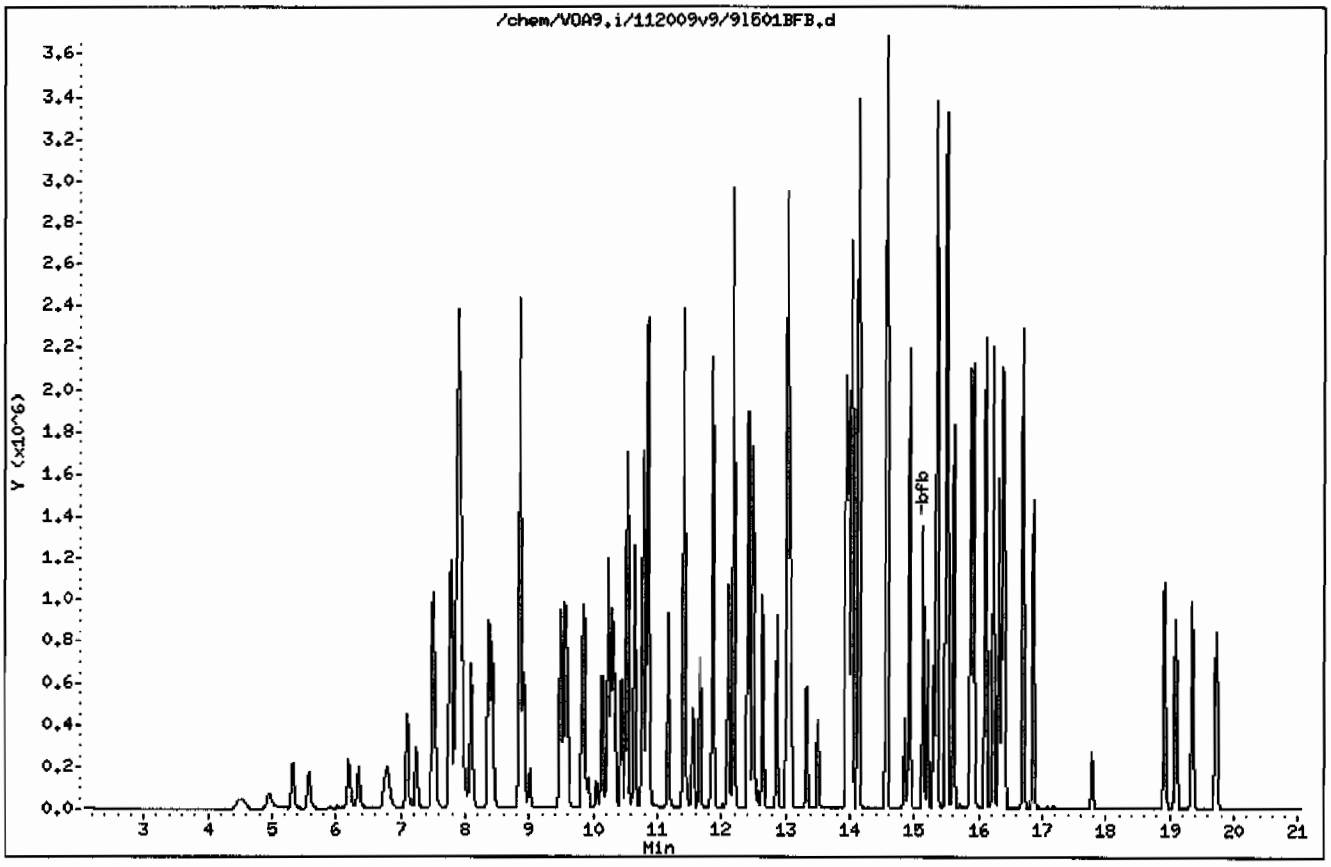

Data File: /chem/VOA9.i/112009v9/91501BFB.d

Date : 20-NOV-2009 08:43

Client ID: BFB

Instrument: VOA9.i

Sample Info: |W9VH091120-01|BFB/CCV/LCS|1|VOA|1|

Operator: RXY1

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb

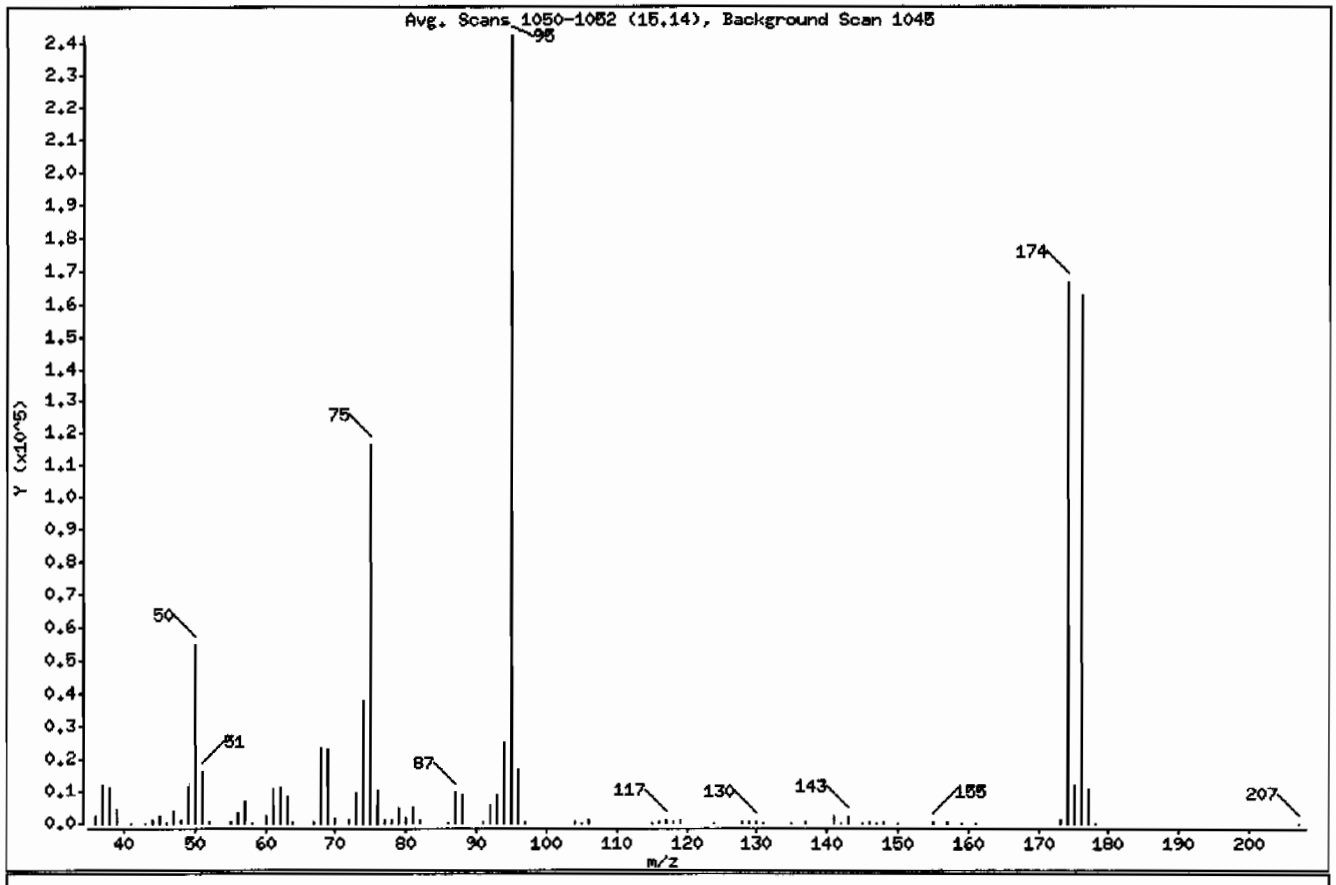

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	22.52
75	30.00 - 60.00% of mass 95	48.09
96	5.00 - 9.00% of mass 95	6.79
173	Less than 2.00% of mass 174	0.36 (0.52)
174	50.00 - 100.00% of mass 95	68.68
175	5.00 - 9.00% of mass 174	4.72 (6.87)
176	95.00 - 101.00% of mass 174	67.02 (97.58)
177	5.00 - 9.00% of mass 176	4.39 (6.55)

Data File: /chem/VOA9.i/112009v9/91501BFB.d

Date : 20-NOV-2009 08:43

Client ID: BFB

Instrument: VOA9.i

Sample Info: |W9VM091120-01|BFB/CCV/LCS|1|VOA|1|

Operator: RXY1

Column phase: RTX-Volatiles

Column diameter: 0.25

Data File: 91501BFB.d
Spectrum: Avg. Scans 1050-1052 (15.14), Background Scan 1045
Location of Maximum: 95.00
Number of points: 83

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2118	62.00	11053	91.00	753	137.00	351
37.00	11759	63.00	8181	92.00	5812	141.00	1998
38.00	11022	64.00	694	93.00	8955	142.00	120
39.00	4198	67.00	629	94.00	25240	143.00	2064
41.00	241	68.00	23192	95.00	242176	145.00	207
43.00	40	69.00	22896	96.00	16432	146.00	323
44.00	1345	70.00	1771	97.00	597	147.00	103
45.00	2259	72.00	1003	104.00	809	148.00	554
46.00	93	73.00	9649	105.00	140	150.00	179
47.00	3922	74.00	37760	106.00	940	155.00	508
48.00	1339	75.00	116464	115.00	203	157.00	357
49.00	10915	76.00	9913	116.00	721	159.00	93
50.00	54544	77.00	1367	117.00	1144	161.00	170
51.00	16197	78.00	981	118.00	750	173.00	860
52.00	718	79.00	4710	119.00	1056	174.00	166336
55.00	418	80.00	1718	124.00	103	175.00	11428
56.00	3541	81.00	4929	128.00	696	176.00	162304
57.00	6842	82.00	1041	129.00	335	177.00	10624
58.00	267	86.00	178	130.00	779	178.00	105
60.00	1957	87.00	9560	131.00	242	207.00	16
61.00	10723	88.00	9060	135.00	237		

Data File: /chem/VOA9.i/122909v9/9r202BFB.d

Page 1

Date : 29-DEC-2009 12:08

Client ID: BFB

Instrument: VOA9.i

Sample Info: |W9VH091229-02|BFB/CCV/LCS|1|VOA|1|

Operator: RXY1

Column phase: RTX-Volatiles

Column diameter: 0.25

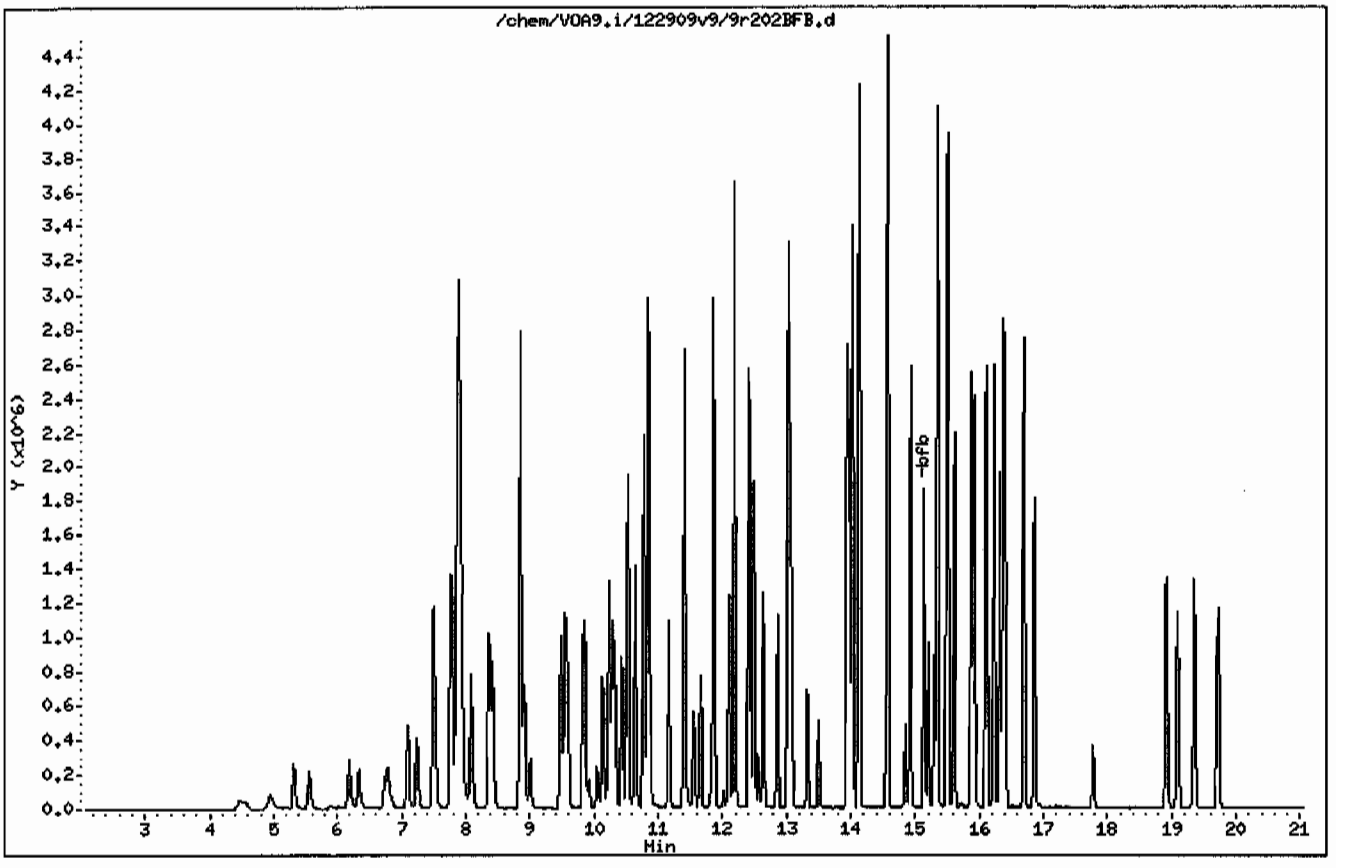

Data File: /chem/VOA9.i/122909v9/9r202BFB.d

Date : 29-DEC-2009 12:08

Client ID: BFB

Instrument: VOA9.i

Sample Info: |W9VH091229-02|BFB/CCV/LCS|1|VOA|1|

Operator: RXY1

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb

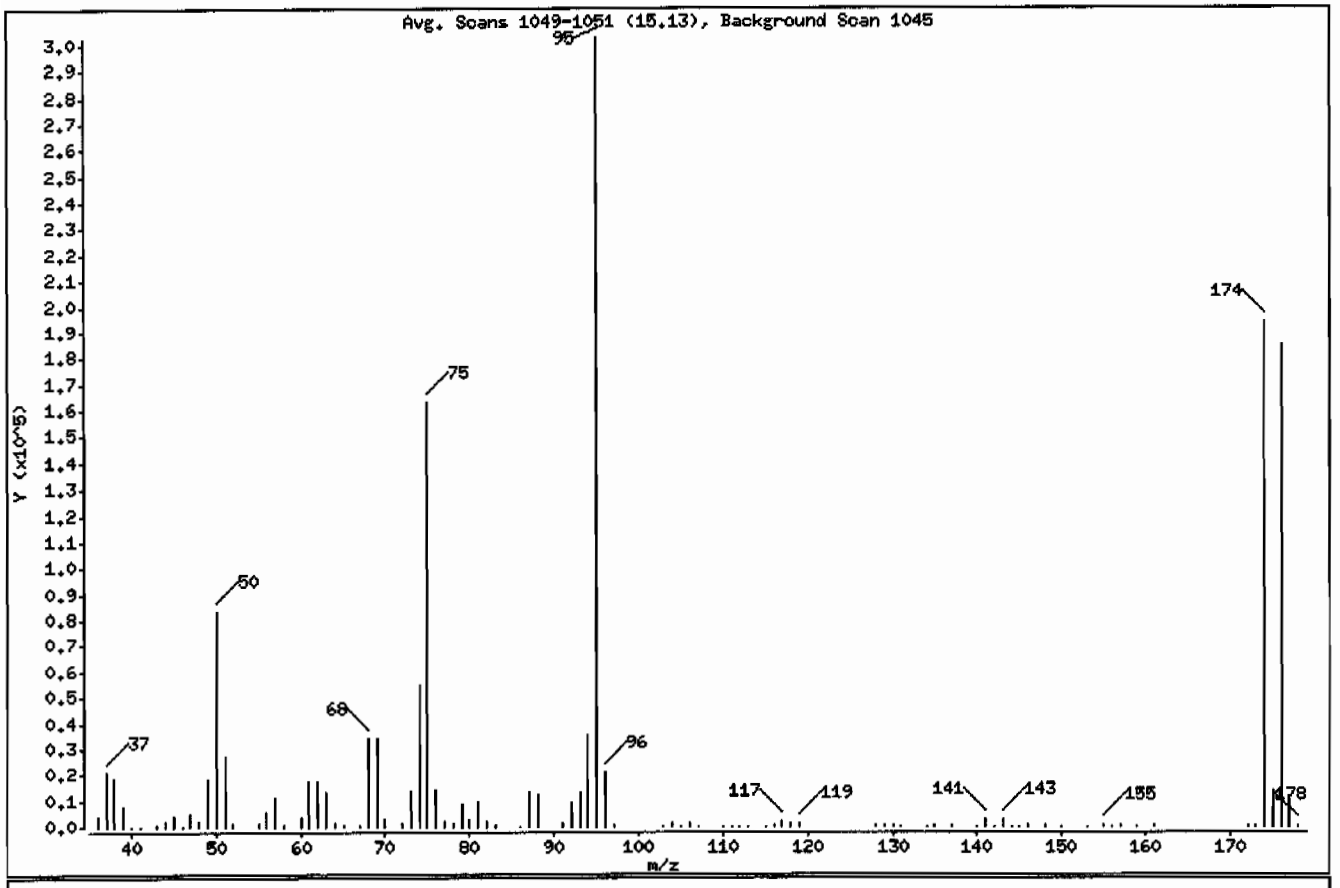

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	27.56
75	30.00 - 60.00% of mass 95	53.77
96	5.00 - 9.00% of mass 95	6.96
173	Less than 2.00% of mass 174	0.32 (0.50)
174	50.00 - 100.00% of mass 95	64.07
175	5.00 - 9.00% of mass 174	4.61 (7.20)
176	95.00 - 101.00% of mass 174	61.18 (95.48)
177	5.00 - 9.00% of mass 176	3.86 (6.30)

Data File: /chem/VOA9.i/122909v9/9r202BFB.d

Date : 29-DEC-2009 12:08

Client ID: BFB

Instrument: VOA9.i

Sample Info: |W9VM091229-02|BFB/CCV/LCS|1|VOA|1|

Operator: RXY1

Column phase: RTX-Volatiles

Column diameter: 0.25

Data File: 9r202BFB.d
Spectrum: Avg. Scans 1049-1051 (15.13), Background Scan 1045
Location of Maximum: 95.00
Number of points: 95

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3851	64.00	1200	94.00	35568	137.00	589
37.00	20864	65.00	615	95.00	302656	140.00	218
38.00	18896	67.00	870	96.00	21056	141.00	2981
39.00	7712	68.00	34144	97.00	627	142.00	226
40.00	183	69.00	33896	103.00	148	143.00	2828
41.00	290	70.00	2592	104.00	1537	144.00	237
43.00	388	72.00	1586	105.00	71	145.00	218
44.00	1969	73.00	13598	106.00	1519	146.00	527
45.00	3945	74.00	54760	107.00	265	148.00	646
46.00	293	75.00	162752	110.00	86	150.00	248
47.00	5027	76.00	13804	111.00	193	153.00	242
48.00	2302	77.00	1910	112.00	136	155.00	726
49.00	18064	78.00	1343	113.00	306	156.00	93
50.00	83416	79.00	8678	115.00	287	157.00	523
51.00	27336	80.00	2710	116.00	962	159.00	246
52.00	1128	81.00	9481	117.00	1801	161.00	364
55.00	1096	82.00	2155	118.00	1236	172.00	567
56.00	5472	83.00	370	119.00	1552	173.00	967
57.00	10907	86.00	209	128.00	1003	174.00	193920
58.00	507	87.00	13052	129.00	367	175.00	13960
60.00	3324	88.00	12747	130.00	920	176.00	185152
61.00	17408	91.00	1090	131.00	323	177.00	11657
62.00	17568	92.00	8722	134.00	84	178.00	364
63.00	13124	93.00	12897	135.00	421		

Data File: /chem/VOA9.i/122909v9/9r226BFB.d

Date : 29-DEC-2009 23:20

Client ID: BFB

Instrument: VOA9.i

Sample Info: |W9VH091229-05|BFB/CCV/LCS|1|VOA|1|

Operator: RXY1

Column phase: RTX-Volatiles

Column diameter: 0.25

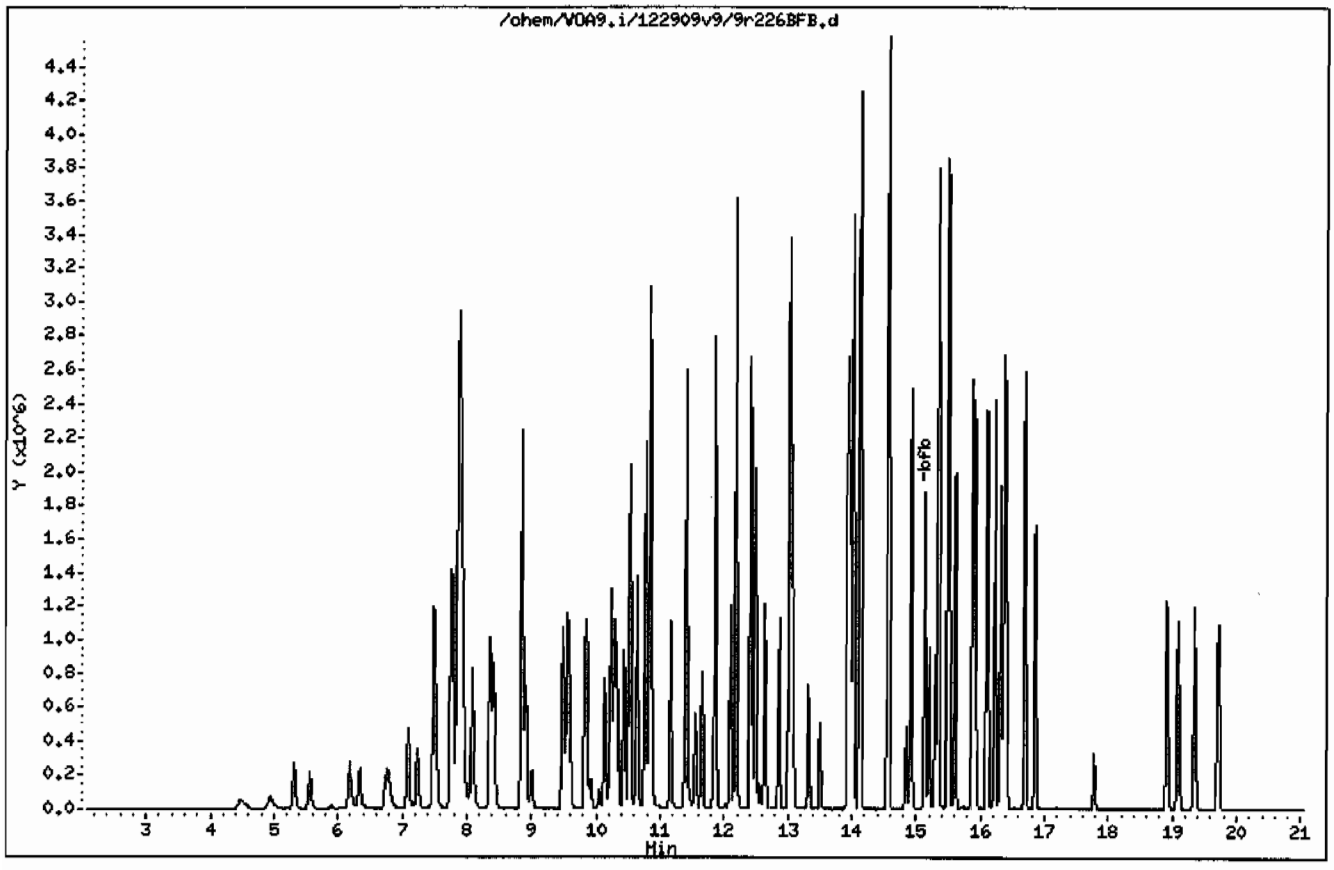

Data File: /chem/VOA9.i/122909v9/9r226BFB.d

Date : 29-DEC-2009 23:20

Client ID: BFB

Instrument: VOA9.i

Sample Info: |W9VM091229-05|BFB/CCV/LCS|1|VOA|1|

Operator: RXY1

Column phase: RTX-Volatiles

Column diameter: 0.25

1 bfb

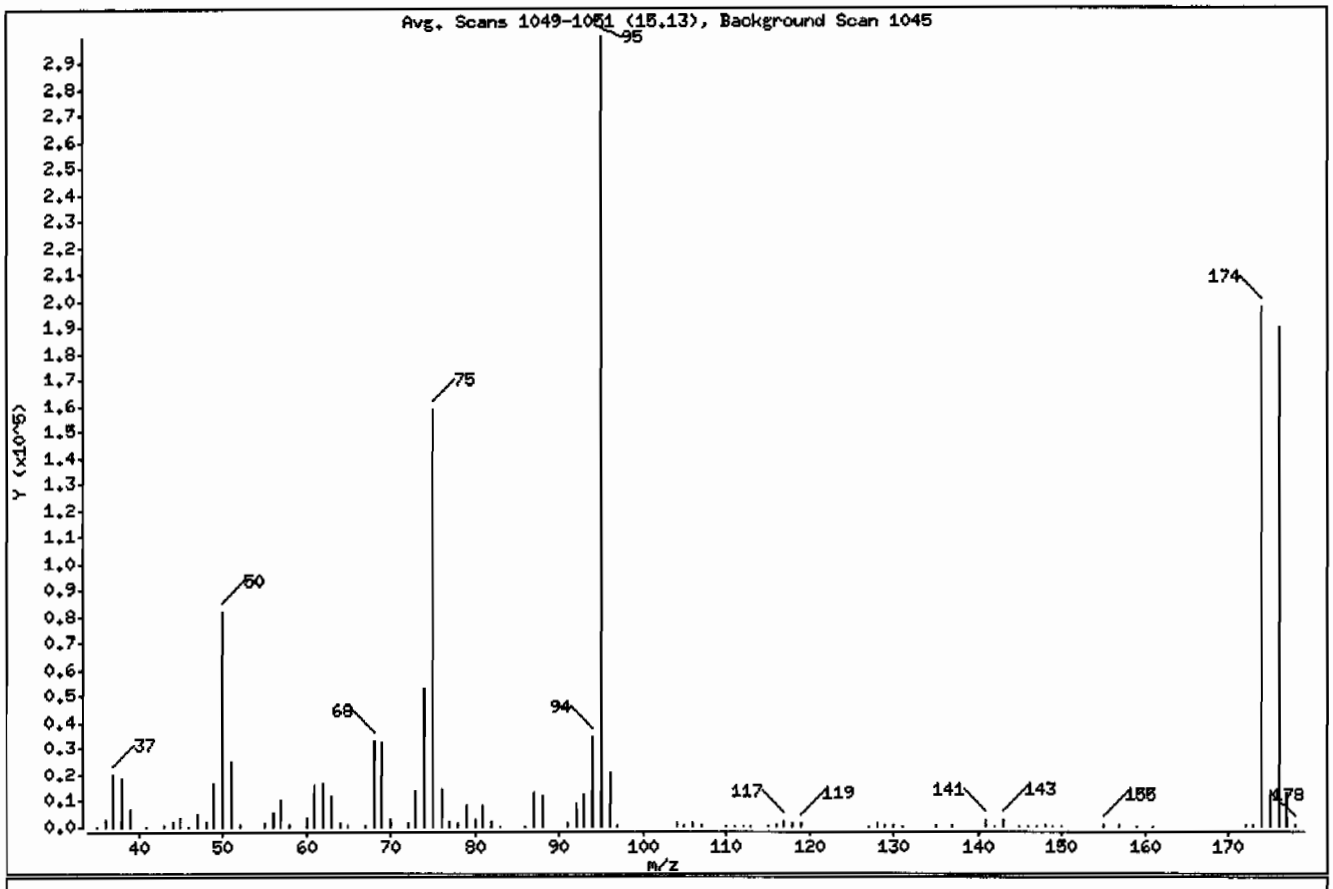

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	27.25
75	30.00 - 60.00% of mass 95	52.98
96	5.00 - 9.00% of mass 95	6.81
173	Less than 2.00% of mass 174	0.29 (0.45)
174	50.00 - 100.00% of mass 95	65.66
175	5.00 - 9.00% of mass 174	4.71 (7.17)
176	95.00 - 101.00% of mass 174	63.23 (96.29)
177	5.00 - 9.00% of mass 176	4.29 (6.78)

Data File: /chem/VOA9.i/122909v9/9r226BFB.d

Date : 29-DEC-2009 23:20

Client ID: BFB

Instrument: VOA9.i

Sample Info: IW9VM091229-05|BFB/CCV/LCS|1|VOA|1|

Operator: RXY1

Column phase: RTX-Volatiles

Column diameter: 0.25

Data File: 9r226BFB.d
Spectrum: Avg. Scans 1049-1051 (15.13), Background Scan 1045
Location of Maximum: 95.00
Number of points: 92

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.00	88	64.00	1232	94.00	34448	141.00	2956
36.00	3044	65.00	503	95.00	299712	142.00	127
37.00	20304	67.00	812	96.00	20400	143.00	2486
38.00	18336	68.00	33096	97.00	709	145.00	234
39.00	7213	69.00	32296	104.00	1451	146.00	258
41.00	29	70.00	2551	105.00	559	147.00	132
43.00	371	72.00	1270	106.00	1333	148.00	638
44.00	1822	73.00	13519	107.00	366	149.00	85
45.00	3386	74.00	53120	110.00	198	150.00	122
46.00	147	75.00	158784	111.00	223	155.00	626
47.00	4490	76.00	14472	112.00	99	157.00	443
48.00	2118	77.00	1880	113.00	192	159.00	261
49.00	16348	78.00	1232	115.00	300	161.00	213
50.00	81680	79.00	8007	116.00	1019	172.00	458
51.00	24896	80.00	2879	117.00	1839	173.00	876
52.00	1016	81.00	8359	118.00	1183	174.00	196800
55.00	1115	82.00	1992	119.00	1399	175.00	14115
56.00	5722	83.00	229	127.00	95	176.00	189504
57.00	10189	86.00	248	128.00	1168	177.00	12854
58.00	568	87.00	12927	129.00	525	178.00	468
60.00	3183	88.00	11994	130.00	989		
61.00	16009	91.00	1247	131.00	344		
62.00	16600	92.00	8624	135.00	633		
63.00	11891	93.00	12178	137.00	546		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202005413**				
Client Sample:	**QC for batch 937175**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937175**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937175**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 14:09**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 14:09**				
Data File:	**9r206B.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994			Matrix:	GROUND WATER
Lab Sample ID:	1202005413				
Client Sample:	QC for batch 937175	Client:	LANL010	Project:	QC
Client ID:	MB for batch 937175	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	937175	Inst:	VOA9.I	Dilution:	1
Run Date:	12/29/2009 14:09	Analyst:	RXY1	Purge Vol:	5 mL
Prep Date:	12/29/2009 14:09				
Data File:	9r206B.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202005413**				
Client Sample:	**QC for batch 937175**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937175**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937175**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 14:09**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 14:09**				
Data File:	**9r206B.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	60.9	50.0	ug/L	122	(59%-130%)
Bromofluorobenzene	48.4	50.0	ug/L	96.8	(71%-126%)
Toluene-d8	53.2	50.0	ug/L	106	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/122909v9/9r206B.d
Lab Smp Id: 1202005413 Client Smp ID: BLANK
Inj Date : 29-DEC-2009 14:09
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |1202005413|937175|1|VOA|1|
Misc Info : GEL 5ml n/a
Comment :
Method : /chem/VOA9.i/122909v9/VOA9-8260B-111909.m
Meth Date : 29-Dec-2009 13:31 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 17:43 Cal File: 91419.d
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
$ 46 1,2-Dichloroethane-d4	65	10.431	10.431	(0.968)	700460	60.9074	60.9
* 51 Fluorobenzene	96	10.775	10.775	(1.000)	2137446	50.0000	
$ 64 Toluene-d8	99	12.412	12.412	(0.890)	183654	53.1953	53.2(Q)
* 75 Chlorobenzene-d5	117	13.941	13.941	(1.000)	1426374	50.0000	
$ 86 Bromofluorobenzene	95	15.127	15.127	(0.924)	641806	48.4112	48.4
* 101 1,4-Dichlorobenzene-d4	152	16.372	16.372	(1.000)	684578	50.0000	

QC Flag Legend

Q - Qualifier signal failed the ratio test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/122909v9/9r206B.d
Lab Smp Id: 1202005413 Client Smp ID: BLANK
Inj Date : 29-DEC-2009 14:09
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |1202005413|937175|1|VOA|1|
Misc Info : GEL 5ml n/a
Comment :
Method : /chem/VOA9.i/122909v9/VOA9-8260B-111909.m
Meth Date : 29-Dec-2009 13:31 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 17:43 Cal File: 91419.d
Als bottle: 6 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA9.i/122909v9/9r206B.d
Date : 29-DEC-2009 14:09
Client ID: BLANK
Sample Info: |120200541319371751|VOAI1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

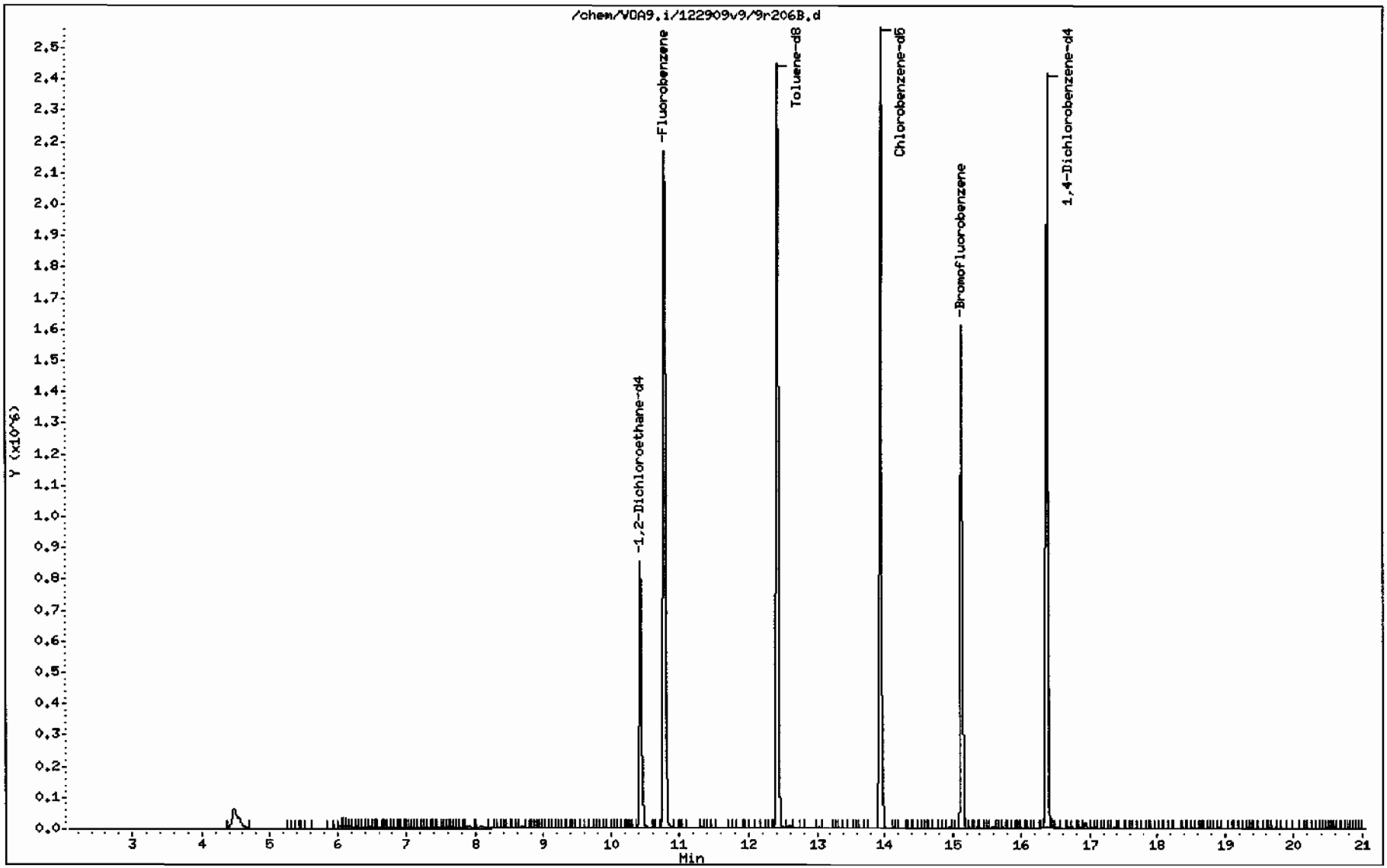

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202006389**				
Client Sample:	**QC for batch 937175**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937175**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937175**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 00:43**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/30/2009 00:43**				
Data File:	**9r229B.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202006389**				
Client Sample:	**QC for batch 937175**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937175**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937175**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 00:43**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/30/2009 00:43**				
Data File:	**9r229B.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	J	0.334	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202006389**				
Client Sample:	**QC for batch 937175**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 937175**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937175**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 00:43**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/30/2009 00:43**				
Data File:	**9r229B.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	57.6	50.0	ug/L	115	(59%-130%)
Bromofluorobenzene	49.3	50.0	ug/L	98.7	(71%-126%)
Toluene-d8	52.0	50.0	ug/L	104	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/122909v9/9r229B.d
Lab Smp Id: 1202006389 Client Smp ID: BLANK
Inj Date : 30-DEC-2009 00:43
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |1202006389|937175|1|VOA|1|
Misc Info : GEL 5ml n/a
Comment :
Method : /chem/VOA9.i/122909v9/VOA9-8260B-111909pm.m
Meth Date : 30-Dec-2009 08:33 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 17:43 Cal File: 91419.d
Als bottle: 29 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
$ 46 1,2-Dichloroethane-d4	65	10.431	10.431	(0.968)	822735	57.6010	57.6
* 51 Fluorobenzene	96	10.775	10.775	(1.000)	2654677	50.0000	
$ 64 Toluene-d8	99	12.412	12.412	(0.890)	227016	51.9716	52.0
* 75 Chlorobenzene-d5	117	13.941	13.942	(1.000)	1804663	50.0000	
$ 86 Bromofluorobenzene	95	15.127	15.127	(0.924)	834830	49.3492	49.3
* 101 1,4-Dichlorobenzene-d4	152	16.372	16.373	(1.000)	873539	50.0000	
109 Hexachlorobutadiene	225	19.100	19.088	(1.167)	2477	0.33366	0.33(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/122909v9/9r229B.d
Lab Smp Id: 1202006389 Client Smp ID: BLANK
Inj Date : 30-DEC-2009 00:43
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |1202006389|937175|1|VOA|1|
Misc Info : GEL 5ml n/a
Comment :
Method : /chem/VOA9.i/122909v9/VOA9-8260B-111909pm.m
Meth Date : 30-Dec-2009 08:33 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 17:43 Cal File: 91419.d
Als bottle: 29 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA9.i/122909v9/9r229B.d
Date : 30-DEC-2009 00:43
Client ID: BLANK
Sample Info: |1202006389|937175|1|VOA|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i

Operator: RXY1
Column diameter: 0.25

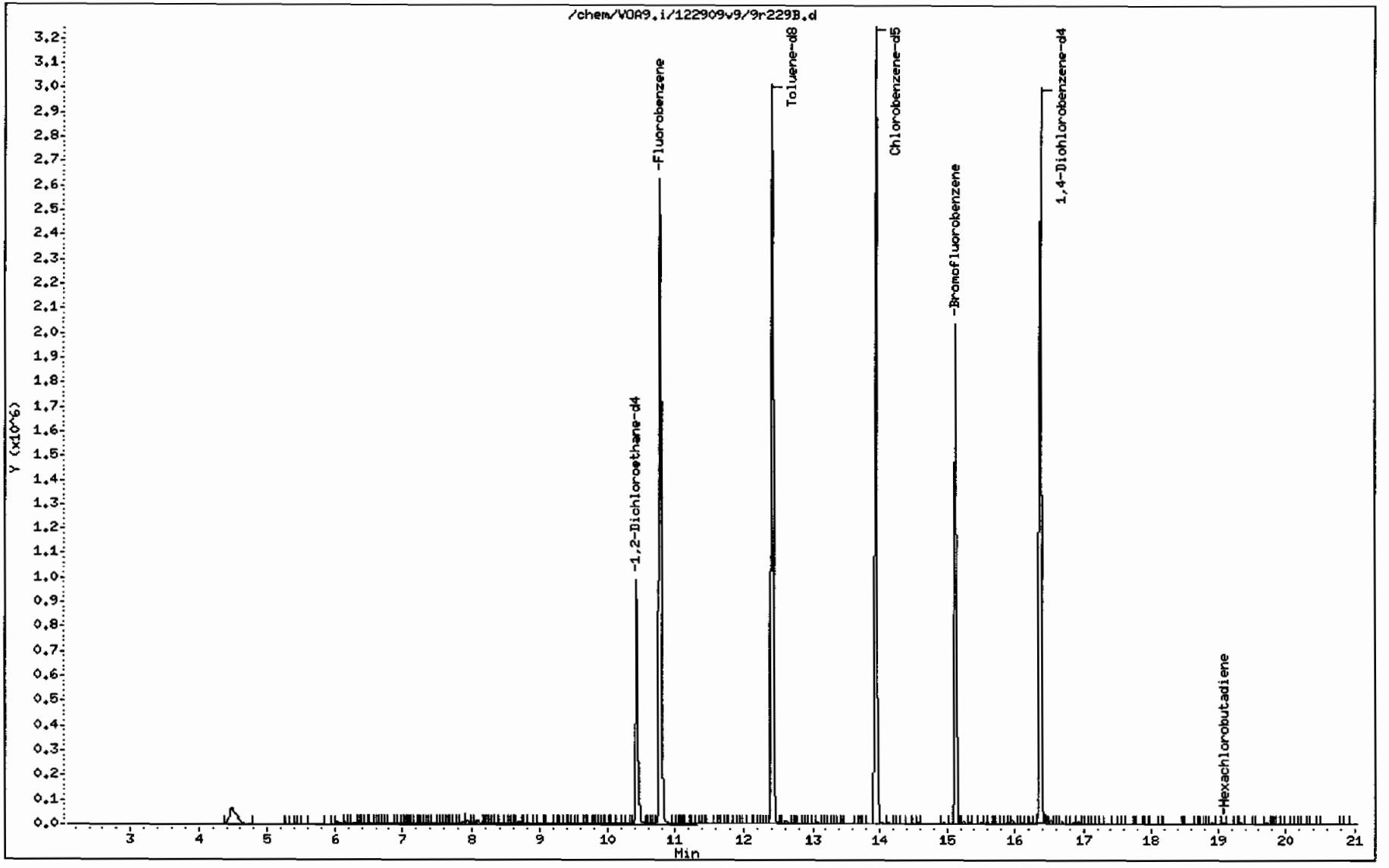

Data File: /chem/VOA9.i/122909v9/9r229B.d

Date : 30-DEC-2009 00:43

Client ID: BLANK

Instrument: VOA9.i

Sample Info: |1202006389|937175|1|VOA|1|

Purge Volume: 5.0

Operator: RXY1

Column phase: RTX-Volatiles

Column diameter: 0.25

109 Hexachlorobutadiene

Concentration: 0.33 ug/l

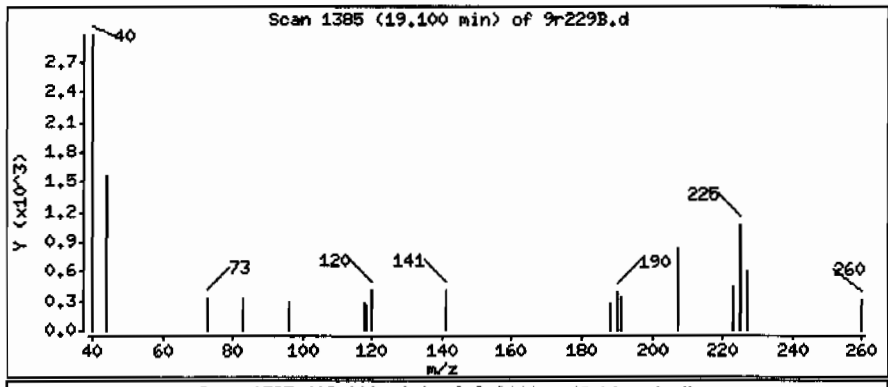

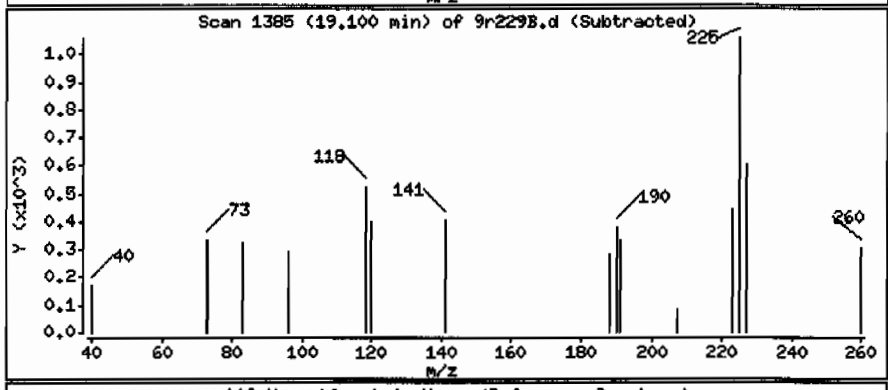

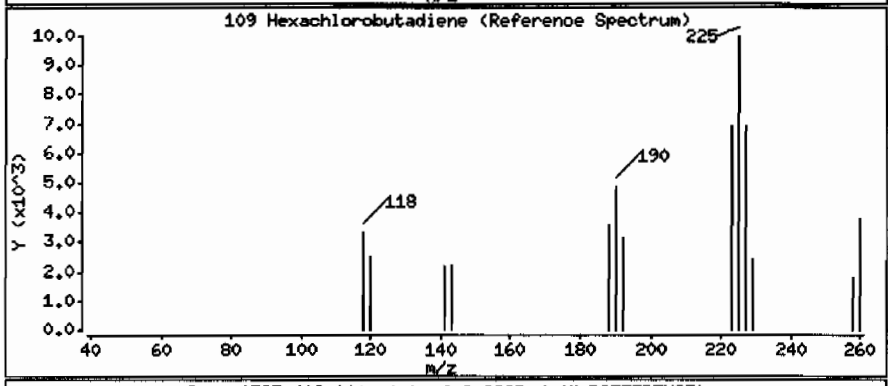

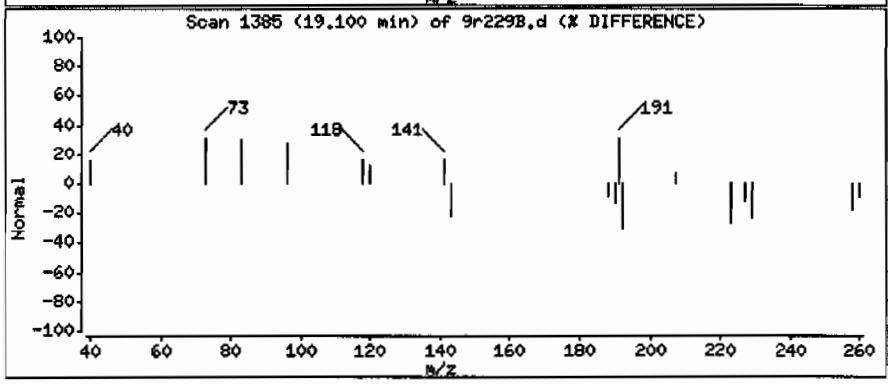

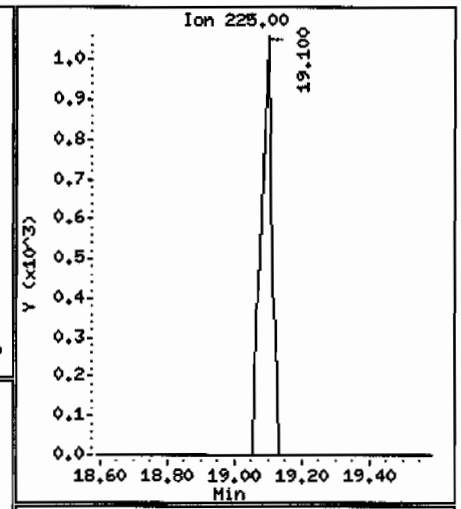

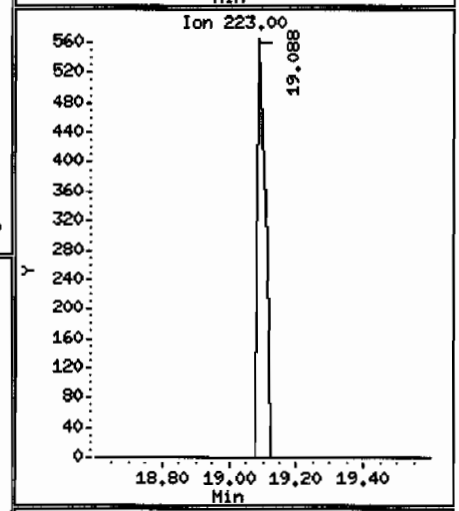

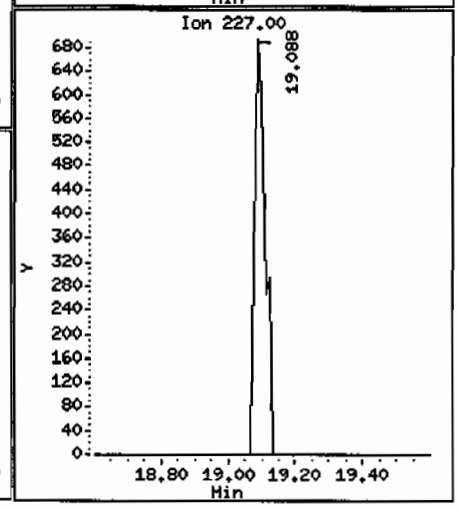

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994			**Matrix:**	GROUND WATER
Lab Sample ID:	1202005416				
Client Sample:	QC for batch 937175	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 937175	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	937175	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	12/29/2009 12:08	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	12/29/2009 12:08				
Data File:	9r202L.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		40.3	ug/L	0.300	1.00
74-87-3	Chloromethane		43.7	ug/L	0.300	1.00
75-01-4	Vinyl chloride		45.2	ug/L	0.500	1.00
74-83-9	Bromomethane		50.8	ug/L	0.300	1.00
75-00-3	Chloroethane		48.5	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		48.9	ug/L	0.300	1.00
60-29-7	Ethyl ether		43.8	ug/L	0.300	1.00
67-64-1	Acetone		208	ug/L	3.50	10.0
75-05-8	Acetonitrile		1430	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		43.2	ug/L	0.300	1.00
74-88-4	Iodomethane		215	ug/L	1.25	5.00
75-09-2	Methylene chloride		40.4	ug/L	3.00	10.0
75-15-0	Carbon disulfide		223	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		40.2	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		43.6	ug/L	0.300	1.00
108-05-4	Vinyl acetate		280	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		44.6	ug/L	0.300	1.00
78-93-3	2-Butanone		217	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		44.0	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		45.0	ug/L	0.300	1.00
67-66-3	Chloroform		44.7	ug/L	0.250	1.00
74-97-5	Bromochloromethane		45.9	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		45.8	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		45.3	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		5800	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		46.2	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		48.0	ug/L	0.250	1.00
71-43-2	Benzene		42.3	ug/L	0.300	1.00
79-01-6	Trichloroethylene		44.7	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		43.3	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		45.3	ug/L	0.250	1.00
74-95-3	Dibromomethane		48.6	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		224	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		44.4	ug/L	0.250	1.00
108-88-3	Toluene		42.3	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		45.7	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		46.2	ug/L	0.250	1.00
591-78-6	2-Hexanone		205	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202005416**				
Client Sample:	**QC for batch 937175**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937175**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937175**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 12:08**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 12:08**				
Data File:	**9r202L.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		45.8	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		44.1	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		46.5	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		46.2	ug/L	0.250	1.00
108-90-7	Chlorobenzene		44.9	ug/L	0.250	1.00
100-41-4	Ethylbenzene		42.7	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		86.5	ug/L	0.500	2.00
95-47-6	o-Xylene		43.1	ug/L	0.300	1.00
100-42-5	Styrene		41.9	ug/L	0.250	1.00
75-25-2	Bromoform		44.7	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		48.8	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		47.1	ug/L	0.300	1.00
108-86-1	Bromobenzene		43.0	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		41.7	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		41.1	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		40.4	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		40.2	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		41.2	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		40.8	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		40.7	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		42.1	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		41.7	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		42.8	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		44.3	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		43.5	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		47.4	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		43.5	ug/L	0.300	1.00
91-20-3	Naphthalene		48.1	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		49.3	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202005416**				
Client Sample:	**QC for batch 937175**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937175**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937175**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 12:08**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 12:08**				
Data File:	**9r202L.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		45.8	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		44.1	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		44.0	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	60.6	50.0	ug/L	121	(59%-130%)
Bromofluorobenzene	49.5	50.0	ug/L	99.0	(71%-126%)
Toluene-d8	51.9	50.0	ug/L	104	(76%-129%)

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/122909v9/9r202L.d
Lab Smp Id: 1202005416 Client Smp ID: LCS
Inj Date : 29-DEC-2009 12:08
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |1202005416|937175|1|VOA|1|
Misc Info : GEL 5ml n/a UVM091214-01C/IVM091228-01
Comment :
Method : /chem/VOA9.i/122909v9/VOA9-8260B-111909.m
Meth Date : 29-Dec-2009 13:31 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 17:43 Cal File: 91419.d
Als bottle: 2 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
M 27 Xylenes (total)	106				2162448	129.604	130
M 42 1,2-Dichloroethylene (total)	96				816336	87.6550	87.6
M 45 1,3-Dichloropropylene	75				1381417	91.1798	91.2
1 Dichlorodifluoromethane	85	4.958	4.958	(0.460)	265196	40.2742	40.3
2 Chloromethane	50	5.308	5.308	(0.493)	532749	43.7439	43.7
3 Vinyl chloride	62	5.560	5.560	(0.516)	447151	45.2044	45.2
4 Bromomethane	94	6.186	6.186	(0.574)	337823	50.8211	50.8
5 Chloroethane	64	6.340	6.340	(0.588)	336922	48.5344	48.5
6 Trichlorofluoromethane	101	6.779	6.779	(0.629)	539921	48.9253	48.9
7 Ethyl Ether	59	7.099	7.099	(0.659)	410376	43.8017	43.8
10 Acetone	43	7.490	7.490	(0.695)	1462032	207.801	208
11 1,1-Dichloroethylene	61	7.514	7.514	(0.697)	692288	43.1932	43.2
13 Iodomethane	142	7.763	7.763	(0.720)	2637714	214.577	214
14 Acetonitrile	41	7.858	7.858	(0.729)	2194088	1425.16	1420
15 Methyl acetate	43	7.882	7.882	(0.731)	2292815	264.045	264

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	16 Carbon disulfide	76	7.905	7.905	(0.734)	6041390	223.484	223
	19 Methylene chloride	84	8.083	8.083	(0.750)	462790	40.4320	40.4
	21 tert-Butyl methyl ether	73	8.368	8.368	(0.777)	1171630	40.1582	40.2
	22 trans-1,2-Dichloroethylene	96	8.427	8.427	(0.782)	383737	43.6428	43.6
	23 Vinyl acetate	43	8.854	8.854	(0.822)	5718220	279.774	280
	25 1,1-Dichloroethane	63	8.913	8.913	(0.827)	833880	44.5505	44.6
	29 2-Butanone	43	9.482	9.482	(0.880)	1717557	216.925	217
	31 cis-1,2-Dichloroethylene	96	9.554	9.554	(0.887)	432599	43.9927	44.0
	33 2,2-Dichloropropane	77	9.577	9.577	(0.889)	583836	44.9532	45.0
	35 Bromochloromethane	128	9.826	9.826	(0.912)	196541	45.8984	45.9
	36 Chloroform	83	9.850	9.850	(0.914)	737328	44.6957	44.7
	39 1,1,1-Trichloroethane	97	10.135	10.135	(0.941)	567860	45.8199	45.8
	41 Cyclohexane	84	10.230	10.230	(0.949)	570737	42.8904	42.9
	43 1,1-Dichloropropene	75	10.289	10.289	(0.955)	537920	45.2779	45.3
	44 Carbon tetrachloride	117	10.324	10.324	(0.958)	486107	46.1967	46.2
$	46 1,2-Dichloroethane-d4	65	10.431	10.431	(0.968)	711135	60.6468	60.6
	47 1,2-Dichloroethane	62	10.514	10.514	(0.976)	685940	48.0196	48.0
	48 Benzene	78	10.538	10.538	(0.978)	1555755	42.3238	42.3
	50 Cyclohexene	67	10.645	10.645	(0.988)	822410	42.4124	42.4
*	51 Fluorobenzene	96	10.775	10.775	(1.000)	2179345	50.0000	
	52 n-Butyl alcohol	41	10.846	10.846	(1.007)	1453439	5797.17	5800
	53 Trichloroethylene	95	11.166	11.166	(1.036)	395794	44.6843	44.7
	55 1,2-Dichloropropane	63	11.415	11.415	(1.059)	460689	43.3133	43.3
	56 Methylcyclohexane	83	11.415	11.415	(1.059)	694608	43.2895	43.3
	58 Dibromomethane	93	11.558	11.558	(1.073)	269049	48.6284	48.6
	59 Bromodichloromethane	83	11.664	11.664	(1.083)	584859	45.3436	45.3
	61 2-Chloroethylvinyl ether	63	11.866	11.866	(1.101)	1419137	230.182	230
	62 cis-1,3-Dichloropropylene	75	12.103	12.103	(1.123)	697163	44.3517	44.4
	63 4-Methyl-2-pentanone	58	12.186	12.186	(0.874)	1110002	224.263	224
$	64 Toluene-d8	99	12.412	12.412	(0.890)	191716	51.8564	51.8
	65 Toluene	92	12.495	12.495	(0.896)	963313	42.3465	42.3
	67 trans-1,3-Dichloropropylene	75	12.637	12.637	(0.906)	684254	45.6558	45.6
	68 1,1,2-Trichloroethane	83	12.862	12.862	(0.923)	336935	46.1761	46.2
	69 2-Hexanone	43	13.028	13.028	(0.934)	2621479	205.339	205
	70 1,3-Dichloropropane	76	13.052	13.052	(0.936)	654651	45.8203	45.8
	71 Tetrachloroethylene	164	13.087	13.087	(0.939)	268265	44.1467	44.1
	72 Dibromochloromethane	129	13.325	13.325	(0.956)	417054	46.5299	46.5
	73 1,2-Dibromoethane	107	13.503	13.503	(0.969)	392679	46.1739	46.2
*	75 Chlorobenzene-d5	117	13.941	13.941	(1.000)	1527432	50.0000	
	76 Chlorobenzene	112	13.977	13.977	(1.003)	1006126	44.8946	44.9
	77 1,1,1,2-Tetrachloroethane	131	14.024	14.024	(1.006)	372817	45.7964	45.8
	78 Ethylbenzene	91	14.024	14.024	(1.006)	1777735	42.6722	42.7
	79 m,p-Xylenes	106	14.131	14.131	(1.014)	1429649	86.4676	86.5
	80 o-Xylene	106	14.570	14.570	(1.045)	732799	43.1379	43.1
	81 Styrene	104	14.570	14.570	(1.045)	1200277	41.9072	41.9
	82 Bromoform	173	14.854	14.854	(0.907)	260308	44.6703	44.7
	83 Isopropylbenzene	105	14.926	14.926	(0.912)	1827585	40.4075	40.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
$ 86 Bromofluorobenzene	95	15.127	15.127	(0.924)	769810	49.4784	49.5
87 1,1,2,2-Tetrachloroethane	83	15.198	15.198	(0.928)	609311	48.7837	48.8
89 1,2,3-Trichloropropane	110	15.293	15.293	(0.934)	147538	47.0632	47.1
90 Bromobenzene	156	15.352	15.352	(0.938)	439083	42.9747	43.0
91 n-Propylbenzene	91	15.352	15.352	(0.938)	2229680	41.6582	41.6
92 2-Chlorotoluene	91	15.507	15.507	(0.947)	1518408	41.0700	41.1
93 1,3,5-Trimethylbenzene	105	15.495	15.495	(0.946)	1544650	40.2119	40.2
94 4-Chlorotoluene	91	15.613	15.613	(0.954)	1437383	41.1767	41.2
95 tert-Butylbenzene	119	15.874	15.874	(0.970)	1479006	40.8162	40.8
96 1,2,4-Trimethylbenzene	105	15.922	15.922	(0.972)	1625597	40.6627	40.7
98 sec-Butylbenzene	105	16.111	16.111	(0.984)	2156577	42.1472	42.1
99 4-Isopropyltoluene	119	16.230	16.230	(0.991)	1625473	41.6673	41.7
100 1,3-Dichlorobenzene	146	16.313	16.313	(0.996)	864056	42.7626	42.8
* 101 1,4-Dichlorobenzene-d4	152	16.372	16.372	(1.000)	803402	50.0000	
102 1,4-Dichlorobenzene	146	16.408	16.408	(1.002)	868716	44.3338	44.3
104 n-Butylbenzene	92	16.692	16.692	(1.020)	1020479	43.4912	43.5
105 1,2-Dichlorobenzene	146	16.858	16.858	(1.030)	858246	43.9943	44.0
107 1,2-Dibromo-3-chloropropane	157	17.783	17.783	(1.086)	105692	47.4458	47.4
108 1,2,4-Trichlorobenzene	180	18.922	18.922	(1.156)	551092	44.0961	44.1
109 Hexachlorobutadiene	225	19.100	19.100	(1.167)	297248	43.5362	43.5
110 Naphthalene	128	19.349	19.349	(1.182)	1508905	48.0737	48.1
111 1,2,3-Trichlorobenzene	180	19.716	19.716	(1.204)	506843	49.2527	49.2

Data File: /chem/VOA9.i/122909v9/9r202L.d
Date : 29-DEC-2009 12:08
Client ID: LCS
Sample Info: 1120200541619371751|1|VOA|1|
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

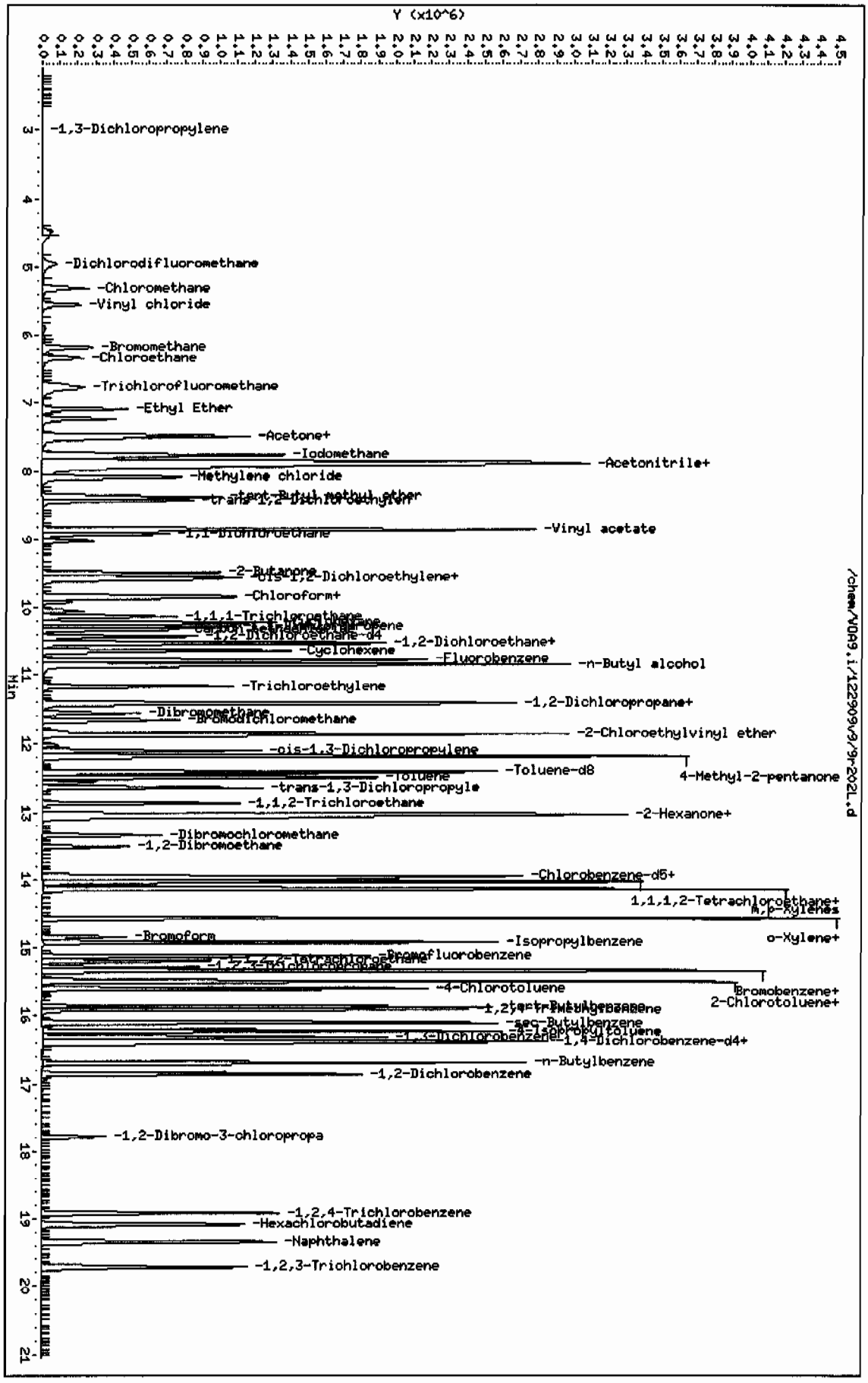

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202005417**				
Client Sample:	**QC for batch 937175**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937175**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937175**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 13:14**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 13:14**				
Data File:	**9r204L.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202005417**				
Client Sample:	**QC for batch 937175**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937175**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937175**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 13:14**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 13:14**				
Data File:	**9r204L.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein		273	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane		309	ug/L	1.00	5.00
107-05-1	Allyl chloride		263	ug/L	1.50	5.00
107-13-1	Acrylonitrile		281	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene		51.5	ug/L	0.300	1.00
107-12-0	Propionitrile		273	ug/L	1.50	5.00
126-98-7	Methacrylonitrile		282	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol		2830	ug/L	12.5	50.0
80-62-6	Methyl methacrylate		243	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202005417**				
Client Sample:	**QC for batch 937175**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937175**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937175**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 13:14**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 13:14**				
Data File:	**9r204L.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate		218	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	64.1	50.0	ug/L	128	(59%-130%)
Bromofluorobenzene	52.6	50.0	ug/L	105	(71%-126%)
Toluene-d8	55.5	50.0	ug/L	111	(76%-129%)

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/122909v9/9r204L.d
Lab Smp Id: 1202005417 Client Smp ID: LCS
Inj Date : 29-DEC-2009 13:14
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |1202005417|937175|1|VOA|1|
Misc Info : GEL 5ml n/a
Comment :
Method : /chem/VOA9.i/122909v9/VOA9-8260B-111909.m
Meth Date : 29-Dec-2009 13:31 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 17:43 Cal File: 91419.d
Als bottle: 4 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
8 Acrolein	56	7.312	7.312	(0.679)	591982	273.190	273
9 Trichlorotrifluoroethane	85	7.467	7.467	(0.693)	1019005	308.776	309
17 Allyl chloride	76	7.941	7.941	(0.737)	1398985	263.315	263(Q)
20 Acrylonitrile	53	8.344	8.344	(0.774)	1273271	281.111	281
26 2-Chloro-1,3-butadiene	53	9.008	9.008	(0.836)	919800	51.5473	51.5
30 Ethyl acetate	43	9.483	9.483	(0.880)	3055976	264.564	264
32 Propionitrile	54	9.577	9.577	(0.889)	477650	273.335	273
34 Methacrylonitrile	41	9.755	9.755	(0.905)	2033500	282.006	282
37 Tetrahydrofuran	42	9.874	9.874	(0.603)	1094961	296.518	296
40 Isobutyl alcohol	41	10.159	10.159	(0.943)	1284448	2831.63	2830
$ 46 1,2-Dichloroethane-d4	65	10.431	10.431	(0.968)	806157	64.1006	64.1
* 51 Fluorobenzene	96	10.775	10.775	(1.000)	2337434	50.0000	
54 Methyl methacrylate	69	11.368	11.368	(1.055)	1680033	243.201	243
57 1,4-Dioxane	88	11.487	11.487	(1.066)	310447	2923.06	2920(A)
60 2-Nitropropane	43	11.866	11.866	(1.101)	1186579	307.454	307

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
$ 64 Toluene-d8	99	12.412	12.412	(0.890)	213090	55.4655	55.5
66 Ethyl methacrylate	69	12.613	12.613	(0.905)	2926621	218.464	218
* 75 Chlorobenzene-d5	117	13.941	13.941	(1.000)	1587254	50.0000	
84 cis-1,4-Dichloro-2-butene	53	14.961	14.961	(0.914)	1352167	302.926	303
85 Cyclohexanone	55	15.104	15.104	(1.083)	781412	567.838	568
$ 86 Bromofluorobenzene	95	15.127	15.127	(0.924)	790159	52.6371	52.6
88 trans-1,4-Dichloro-2-butene	53	15.246	15.246	(0.931)	1269689	308.216	308
97 Pentachloroethane	167	15.957	15.957	(0.975)	1247082	319.774	320(A)
* 101 1,4-Dichlorobenzene-d4	152	16.372	16.372	(1.000)	775152	50.0000	
103 Benzyl chloride	91	16.527	16.527	(1.009)	5055305	244.473	244
106 bis(2-Chloroisopropyl)ether	45	16.930	16.930	(1.034)	1875594	285.696	286

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA9.i/122909v9/9r204L.d
Date : 29-DEC-2009 13:14
Client ID: LCS
Sample Info: I12920005417|93717511|VOA11!
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

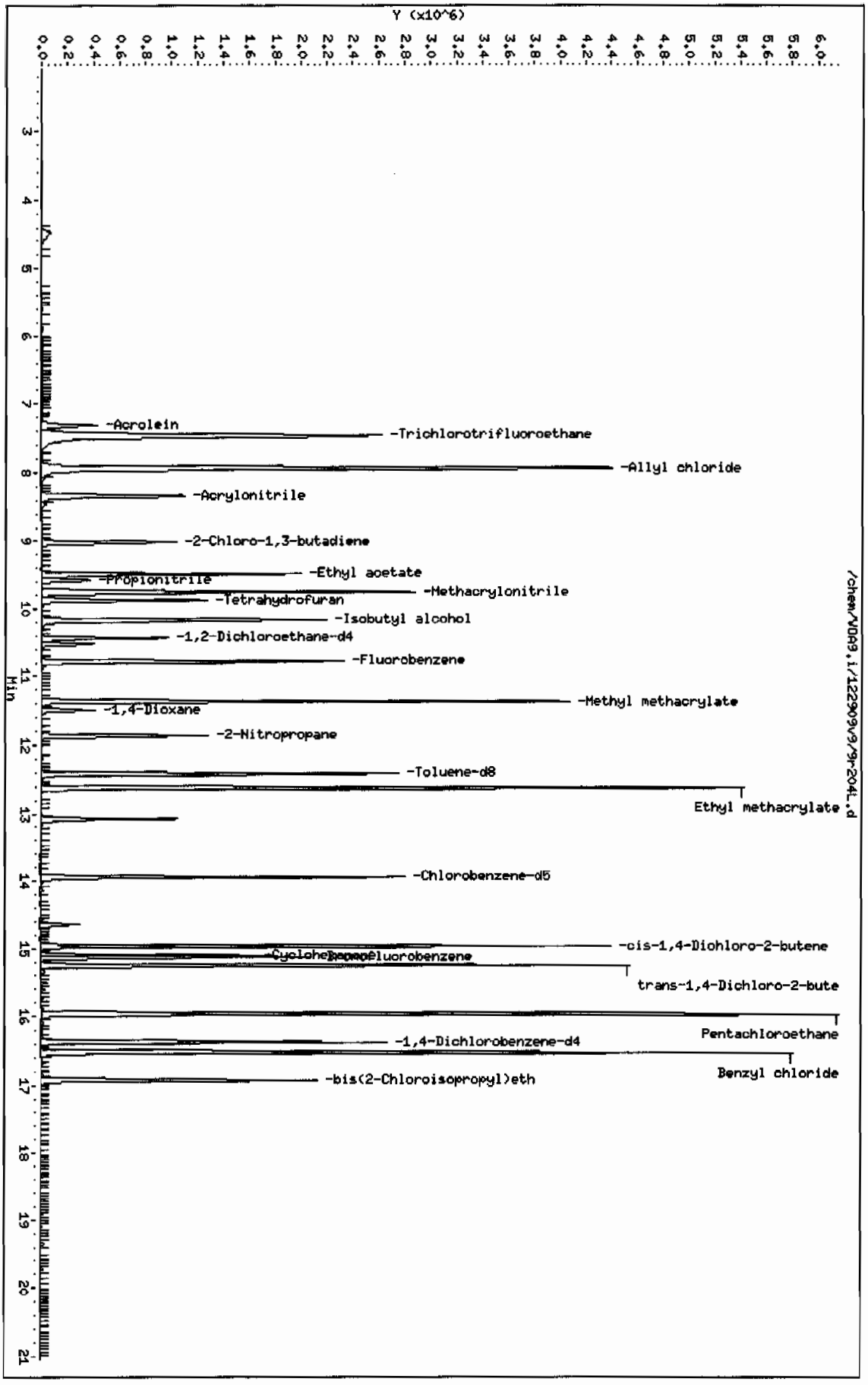

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202006390**				
Client Sample:	**QC for batch 937175**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937175**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937175**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 23:20**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 23:20**				
Data File:	**9r226L.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		37.1	ug/L	0.300	1.00
74-87-3	Chloromethane		44.9	ug/L	0.300	1.00
75-01-4	Vinyl chloride		45.6	ug/L	0.500	1.00
74-83-9	Bromomethane		52.7	ug/L	0.300	1.00
75-00-3	Chloroethane		49.5	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		49.0	ug/L	0.300	1.00
60-29-7	Ethyl ether		45.0	ug/L	0.300	1.00
67-64-1	Acetone		222	ug/L	3.50	10.0
75-05-8	Acetonitrile		1440	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		44.8	ug/L	0.300	1.00
74-88-4	Iodomethane		223	ug/L	1.25	5.00
75-09-2	Methylene chloride		43.1	ug/L	3.00	10.0
75-15-0	Carbon disulfide		228	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		40.6	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		46.3	ug/L	0.300	1.00
108-05-4	Vinyl acetate		229	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		46.3	ug/L	0.300	1.00
78-93-3	2-Butanone		229	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		46.8	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		43.9	ug/L	0.300	1.00
67-66-3	Chloroform		47.4	ug/L	0.250	1.00
74-97-5	Bromochloromethane		47.4	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		46.4	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		47.2	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		5930	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		46.9	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		48.6	ug/L	0.250	1.00
71-43-2	Benzene		44.7	ug/L	0.300	1.00
79-01-6	Trichloroethylene		47.8	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		44.7	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		46.9	ug/L	0.250	1.00
74-95-3	Dibromomethane		49.4	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		239	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		45.4	ug/L	0.250	1.00
108-88-3	Toluene		45.0	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		47.1	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		49.7	ug/L	0.250	1.00
591-78-6	2-Hexanone		221	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202006390**				
Client Sample:	**QC for batch 937175**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937175**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937175**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 23:20**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 23:20**				
Data File:	**9r226L.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		48.5	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		47.2	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		49.5	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		48.6	ug/L	0.250	1.00
108-90-7	Chlorobenzene		47.5	ug/L	0.250	1.00
100-41-4	Ethylbenzene		44.8	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		90.3	ug/L	0.500	2.00
95-47-6	o-Xylene		45.2	ug/L	0.300	1.00
100-42-5	Styrene		44.4	ug/L	0.250	1.00
75-25-2	Bromoform		49.6	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		50.8	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		51.6	ug/L	0.300	1.00
108-86-1	Bromobenzene		46.2	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		45.2	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		45.2	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		44.1	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		44.2	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		45.3	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		44.3	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		44.4	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		45.0	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		44.5	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		46.8	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		47.8	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		45.7	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		50.6	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	B	45.2	ug/L	0.300	1.00
91-20-3	Naphthalene		50.4	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		50.0	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994			**Matrix:**	GROUND WATER
Lab Sample ID:	1202006390				
Client Sample:	QC for batch 937175	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 937175	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	937175	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	12/29/2009 23:20	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	12/29/2009 23:20				
Data File:	9r226L.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		48.7	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		45.2	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		47.6	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	64.7	50.0	ug/L	129	(59%-130%)
Bromofluorobenzene	53.2	50.0	ug/L	106	(71%-126%)
Toluene-d8	57.6	50.0	ug/L	115	(76%-129%)

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/122909v9/9r226L.d
Lab Smp Id: 1202006390 Client Smp ID: LCS
Inj Date : 29-DEC-2009 23:20
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |1202006390|937175|1|VOA|1|
Misc Info : GEL 5ml n/a UVM091214-01C/IVM091228-01
Comment :
Method : /chem/VOA9.i/122909v9/VOA9-8260B-111909pm.m
Meth Date : 30-Dec-2009 08:33 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 17:43 Cal File: 91419.d
Als bottle: 26 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
M 27 Xylenes (total)	106				2157153	135.530	136
M 42 1,2-Dichloroethylene (total)	96				856015	93.1245	93.1
M 45 1,3-Dichloropropylene	75				1377704	92.1307	92.1
1 Dichlorodifluoromethane	85	4.958	4.958	(0.460)	241307	37.1282	37.1
2 Chloromethane	50	5.308	5.308	(0.493)	539243	44.8594	44.8
3 Vinyl chloride	62	5.560	5.560	(0.516)	444820	45.5602	45.6
4 Bromomethane	94	6.186	6.186	(0.574)	345739	52.6960	52.7
5 Chloroethane	64	6.340	6.340	(0.588)	339379	49.5314	49.5
6 Trichlorofluoromethane	101	6.767	6.767	(0.628)	533500	48.9793	49.0
7 Ethyl Ether	59	7.087	7.087	(0.658)	415958	44.9814	45.0
10 Acetone	43	7.491	7.491	(0.695)	1542554	222.129	222
11 1,1-Dichloroethylene	61	7.502	7.502	(0.696)	709426	44.8447	44.8
13 Iodomethane	142	7.763	7.763	(0.720)	2710501	223.398	223
14 Acetonitrile	41	7.858	7.858	(0.729)	2187032	1439.26	1440
15 Methyl acetate	43	7.882	7.882	(0.731)	2327516	271.567	272

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
16 Carbon disulfide	76	7.906	7.906	(0.734)	6089250	228.217	228
19 Methylene chloride	84	8.083	8.083	(0.750)	487045	43.1107	43.1
21 tert-Butyl methyl ether	73	8.368	8.368	(0.777)	1169765	40.6216	40.6
22 trans-1,2-Dichloroethylene	96	8.427	8.427	(0.782)	402121	46.3351	46.3
23 Vinyl acetate	43	8.854	8.854	(0.822)	4624287	229.227	229
25 1,1-Dichloroethane	63	8.914	8.914	(0.827)	854669	46.2617	46.3
29 2-Butanone	43	9.483	9.483	(0.880)	1787640	228.746	229
31 cis-1,2-Dichloroethylene	96	9.554	9.554	(0.887)	453894	46.7653	46.8
33 2,2-Dichloropropane	77	9.578	9.578	(0.889)	563360	43.9471	43.9
35 Bromochloromethane	128	9.827	9.827	(0.912)	200466	47.4308	47.4
36 Chloroform	83	9.850	9.850	(0.914)	771922	47.4082	47.4
39 1,1,1-Trichloroethane	97	10.135	10.135	(0.941)	567093	46.3598	46.4
41 Cyclohexane	84	10.230	10.230	(0.949)	570433	43.4313	43.4
43 1,1-Dichloropropene	75	10.289	10.289	(0.955)	553083	47.1665	47.2
44 Carbon tetrachloride	117	10.325	10.325	(0.958)	487508	46.9392	46.9
$ 46 1,2-Dichloroethane-d4	65	10.431	10.431	(0.968)	749362	64.7474	64.7
47 1,2-Dichloroethane	62	10.514	10.514	(0.976)	685299	48.6057	48.6
48 Benzene	78	10.538	10.538	(0.978)	1621441	44.6909	44.7
50 Cyclohexene	67	10.645	10.645	(0.988)	823691	43.0371	43.0
* 51 Fluorobenzene	96	10.775	10.775	(1.000)	2151054	50.0000	
52 n-Butyl alcohol	41	10.846	10.846	(1.007)	1468667	5934.95	5930
53 Trichloroethylene	95	11.167	11.167	(1.036)	417512	47.7561	47.8
55 1,2-Dichloropropane	63	11.416	11.416	(1.059)	469120	44.6861	44.7
56 Methylcyclohexane	83	11.416	11.416	(1.059)	681088	43.0052	43.0
58 Dibromomethane	93	11.558	11.558	(1.073)	269995	49.4411	49.4
59 Bromodichloromethane	83	11.653	11.653	(1.081)	596856	46.8823	46.9
61 2-Chloroethylvinyl ether	63	11.866	11.866	(1.101)	1362173	223.848	224
62 cis-1,3-Dichloropropylene	75	12.103	12.103	(1.123)	703735	45.3586	45.4
63 4-Methyl-2-pentanone	58	12.187	12.187	(0.874)	1130670	239.471	239
$ 64 Toluene-d8	99	12.412	12.412	(0.890)	203044	57.5728	57.6
65 Toluene	92	12.483	12.483	(0.895)	976591	45.0034	45.0
67 trans-1,3-Dichloropropylene	75	12.637	12.637	(0.906)	673969	47.1412	47.1
68 1,1,2-Trichloroethane	83	12.862	12.862	(0.923)	346159	49.7313	49.7
69 2-Hexanone	43	13.028	13.028	(0.934)	2697090	221.464	221
70 1,3-Dichloropropane	76	13.052	13.052	(0.936)	660515	48.4633	48.5
71 Tetrachloroethylene	164	13.076	13.076	(0.938)	273316	47.1501	47.2
72 Dibromochloromethane	129	13.325	13.325	(0.956)	423298	49.5073	49.5
73 1,2-Dibromoethane	107	13.503	13.503	(0.969)	394446	48.6216	48.6
* 75 Chlorobenzene-d5	117	13.942	13.942	(1.000)	1457066	50.0000	
76 Chlorobenzene	112	13.977	13.977	(1.003)	1014828	47.4697	47.5
77 1,1,1,2-Tetrachloroethane	131	14.025	14.025	(1.006)	377924	48.6657	48.7
78 Ethylbenzene	91	14.025	14.025	(1.006)	1780848	44.8113	44.8
79 m,p-Xylenes	106	14.131	14.131	(1.014)	1424011	90.2859	90.3
80 o-Xylene	106	14.570	14.570	(1.045)	733142	45.2424	45.2
81 Styrene	104	14.570	14.570	(1.045)	1212362	44.3733	44.4
82 Bromoform	173	14.855	14.855	(0.907)	261185	49.6022	49.6
83 Isopropylbenzene	105	14.926	14.926	(0.912)	1801526	44.0806	44.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
$ 86 Bromofluorobenzene	95	15.127	15.127	(0.924)	747429	53.1647	53.2
87 1,1,2,2-Tetrachloroethane	83	15.199	15.199	(0.928)	573497	50.8147	50.8
89 1,2,3-Trichloropropane	110	15.293	15.293	(0.934)	146197	51.6105	51.6
90 Bromobenzene	156	15.353	15.353	(0.938)	426731	46.2213	46.2
91 n-Propylbenzene	91	15.353	15.353	(0.938)	2187147	45.2229	45.2
92 2-Chlorotoluene	91	15.507	15.507	(0.947)	1508688	45.1603	45.2
93 1,3,5-Trimethylbenzene	105	15.495	15.495	(0.946)	1533444	44.1788	44.2
94 4-Chlorotoluene	91	15.614	15.614	(0.954)	1430071	45.3377	45.3
95 tert-Butylbenzene	119	15.874	15.874	(0.970)	1450638	44.3041	44.3
96 1,2,4-Trimethylbenzene	105	15.910	15.910	(0.972)	1605097	44.4331	44.4
98 sec-Butylbenzene	105	16.112	16.112	(0.984)	2080422	44.9963	45.0
99 4-Isopropyltoluene	119	16.230	16.230	(0.991)	1568863	44.5064	44.5
100 1,3-Dichlorobenzene	146	16.313	16.313	(0.996)	853861	46.7661	46.8
* 101 1,4-Dichlorobenzene-d4	152	16.373	16.373	(1.000)	725957	50.0000	
102 1,4-Dichlorobenzene	146	16.408	16.408	(1.002)	845907	47.7751	47.8
104 n-Butylbenzene	92	16.693	16.693	(1.020)	967891	45.6506	45.6
105 1,2-Dichlorobenzene	146	16.859	16.859	(1.030)	839890	47.6462	47.6
107 1,2-Dibromo-3-chloropropane	157	17.784	17.784	(1.086)	101790	50.5689	50.6
108 1,2,4-Trichlorobenzene	180	18.922	18.922	(1.156)	510262	45.1847	45.2
109 Hexachlorobutadiene	225	19.088	19.088	(1.166)	279160	45.2488	45.2
110 Naphthalene	128	19.349	19.349	(1.182)	1428198	50.3566	50.4
111 1,2,3-Trichlorobenzene	180	19.717	19.717	(1.204)	464635	49.9678	50.0

Data File: /chem/VOA9.i/122909v9/9r226L.d
Date : 29-DEC-2009 23:20
Client ID: LCS
Sample Info: 1120200639019371751|1|VOA1|1
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

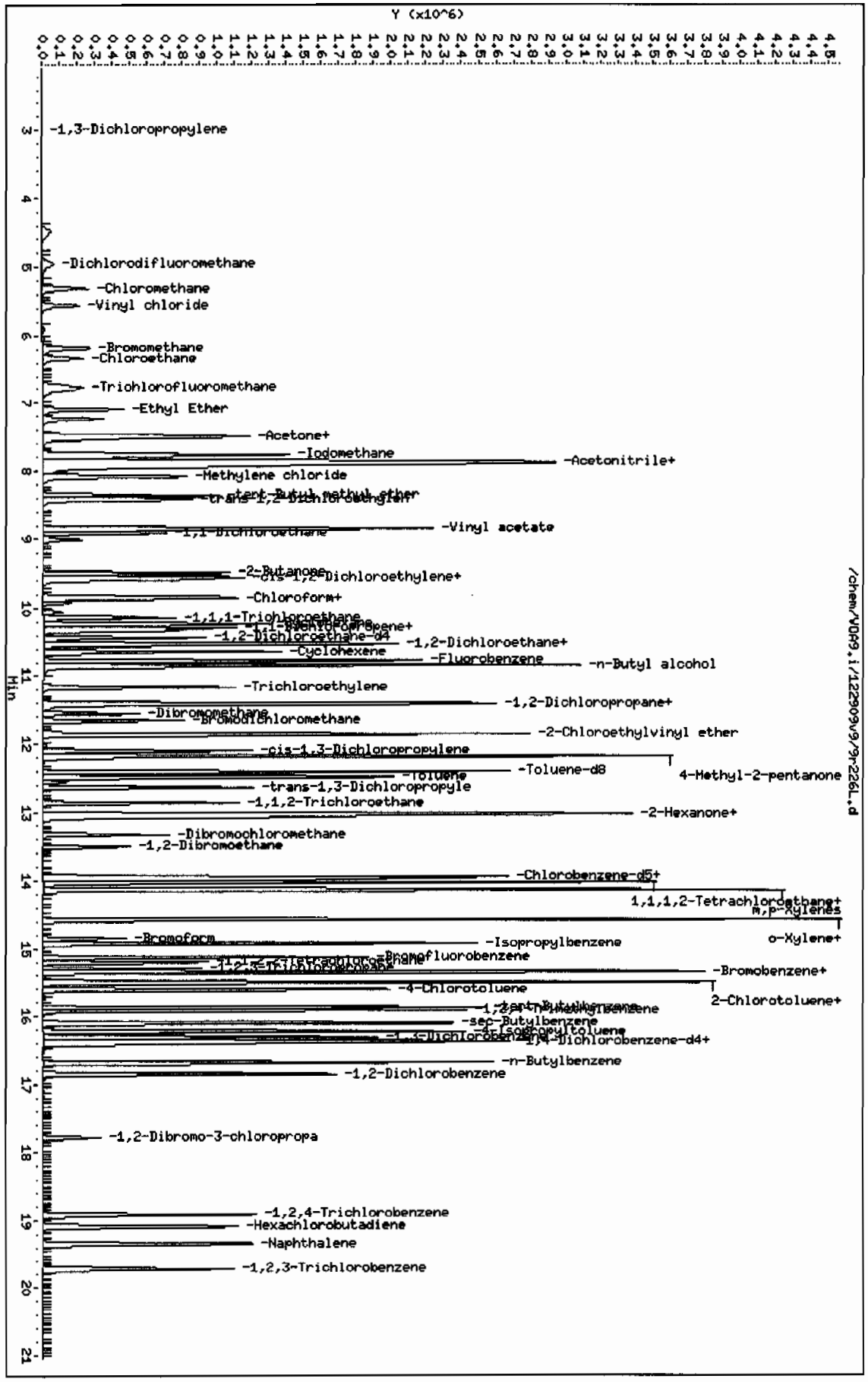

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202006391**				
Client Sample:	**QC for batch 937175**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937175**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937175**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 00:15**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/30/2009 00:15**				
Data File:	**9r228L.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202006391**				
Client Sample:	**QC for batch 937175**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937175**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937175**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 00:15**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/30/2009 00:15**				
Data File:	**9r228L.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein		214	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane		259	ug/L	1.00	5.00
107-05-1	Allyl chloride		233	ug/L	1.50	5.00
107-13-1	Acrylonitrile		232	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene		44.2	ug/L	0.300	1.00
107-12-0	Propionitrile		229	ug/L	1.50	5.00
126-98-7	Methacrylonitrile		237	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol		2240	ug/L	12.5	50.0
80-62-6	Methyl methacrylate		205	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202006391**				
Client Sample:	**QC for batch 937175**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 937175**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937175**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**12/30/2009 00:15**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/30/2009 00:15**				
Data File:	**9r228L.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate		190	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	58.9	50.0	ug/L	118	(59%-130%)
Bromofluorobenzene	49.8	50.0	ug/L	99.7	(71%-126%)
Toluene-d8	52.1	50.0	ug/L	104	(76%-129%)

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/122909v9/9r228L.d
Lab Smp Id: 1202006391 Client Smp ID: LCS
Inj Date : 30-DEC-2009 00:15
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |1202006391|937175|1|VOA|1|
Misc Info : GEL 5ml n/a
Comment :
Method : /chem/VOA9.i/122909v9/VOA9-8260B-111909pm.m
Meth Date : 30-Dec-2009 08:33 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 17:43 Cal File: 91419.d
Als bottle: 28 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
8 Acrolein	56	7.313	7.313	(0.679)	523569	213.863	214
9 Trichlorotrifluoroethane	85	7.467	7.467	(0.693)	964781	258.763	259
17 Allyl chloride	76	7.941	7.941	(0.737)	1401253	233.445	233
20 Acrylonitrile	53	8.344	8.344	(0.774)	1186752	231.913	232
26 2-Chloro-1,3-butadiene	53	9.008	9.008	(0.836)	891756	44.2349	44.2
30 Ethyl acetate	43	9.483	9.483	(0.880)	2820293	216.113	216
32 Propionitrile	54	9.578	9.578	(0.889)	451686	228.786	229
34 Methacrylonitrile	41	9.755	9.755	(0.905)	1932103	237.165	237
37 Tetrahydrofuran	42	9.874	9.874	(0.603)	1005415	249.758	250
40 Isobutyl alcohol	41	10.159	10.159	(0.943)	1147616	2239.35	2240
$ 46 1,2-Dichloroethane-d4	65	10.431	10.431	(0.968)	837337	58.9318	58.9
* 51 Fluorobenzene	96	10.775	10.775	(1.000)	2640784	50.0000	
54 Methyl methacrylate	69	11.368	11.368	(1.055)	1596718	204.589	204
57 1,4-Dioxane	88	11.487	11.487	(1.066)	282728	2354.87	2350
60 2-Nitropropane	43	11.866	11.866	(1.101)	1054497	241.844	242

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
$ 64 Toluene-d8	99	12.412	12.412	(0.890)	223560	52.0990	52.1
66 Ethyl methacrylate	69	12.613	12.613	(0.905)	2841891	189.932	190
* 75 Chlorobenzene-d5	117	13.941	13.942	(1.000)	1772844	50.0000	
84 cis-1,4-Dichloro-2-butene	53	14.961	14.961	(0.914)	1192597	245.087	245
85 Cyclohexanone	55	15.104	15.104	(1.083)	721434	469.371	469
$ 86 Bromofluorobenzene	95	15.127	15.127	(0.924)	815695	49.8456	49.8
88 trans-1,4-Dichloro-2-butene	53	15.246	15.246	(0.931)	1116122	248.536	248
97 Pentachloroethane	167	15.957	15.957	(0.975)	670478	157.708	158
* 101 1,4-Dichlorobenzene-d4	152	16.372	16.373	(1.000)	845018	50.0000	
103 Benzyl chloride	91	16.527	16.527	(1.009)	3941161	174.835	175
106 bis(2-Chloroisopropyl)ether	45	16.918	16.918	(1.033)	1657230	231.563	232

Data File: /chem/VOA9.i/122909v9/9r228L.d
Date : 30-DEC-2009 00:15
Client ID: LCS
Sample Info: 1120200639119371751111VOA111
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

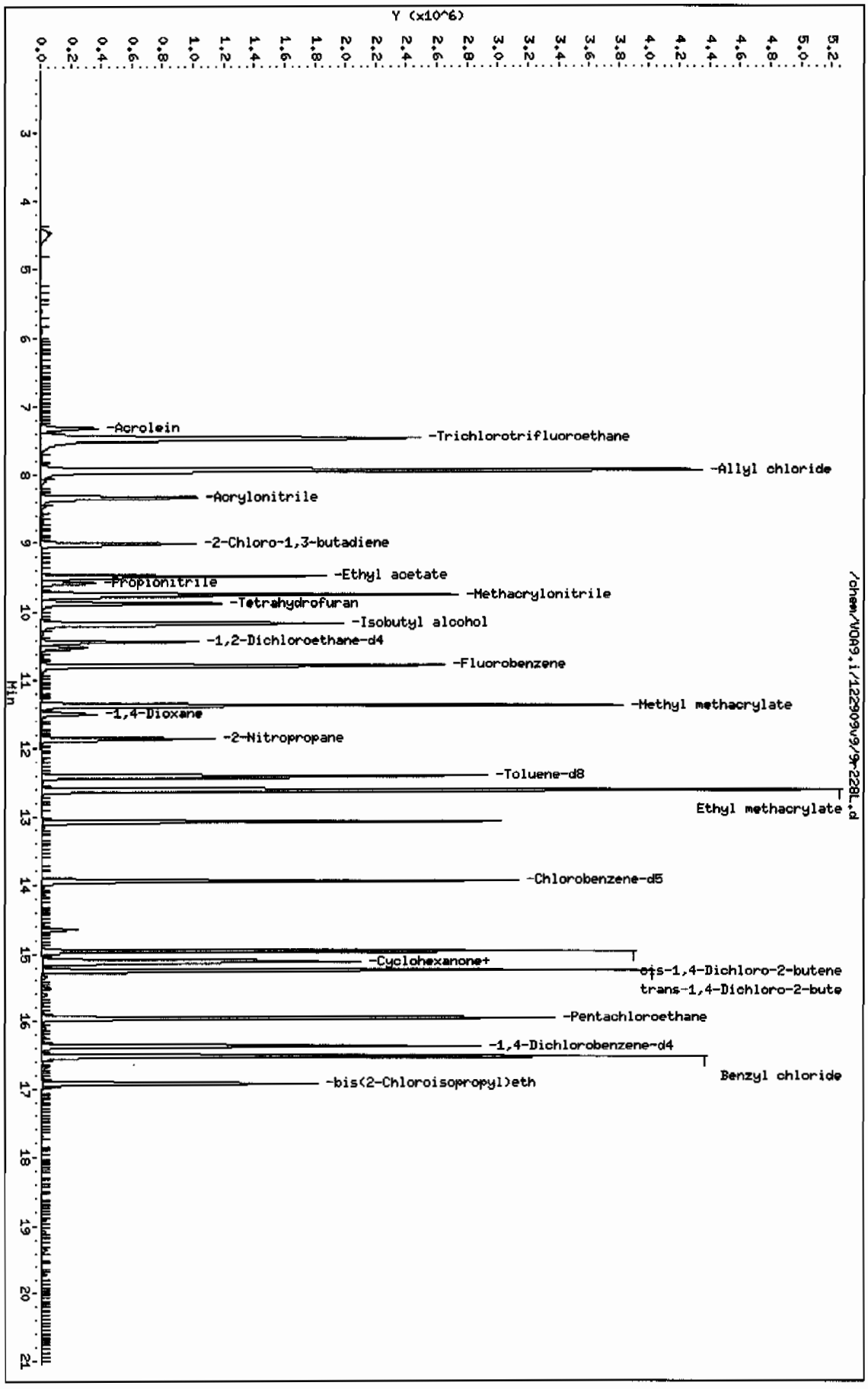

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994	**Date Collected:**	12/17/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	1202005414	**Date Received:**	12/19/2009 09:05		
Client Sample:	QC for batch 937175	**Client:**	LANL010	**Project:**	QC
Client ID:	CAPA-10-6793PS	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	937175	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	12/29/2009 20:35	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	12/29/2009 20:35				
Data File:	9r220.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		37.8	ug/L	0.300	1.00
74-87-3	Chloromethane		45.9	ug/L	0.300	1.00
75-01-4	Vinyl chloride		47.0	ug/L	0.500	1.00
74-83-9	Bromomethane		50.4	ug/L	0.300	1.00
75-00-3	Chloroethane		47.4	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		45.3	ug/L	0.300	1.00
60-29-7	Ethyl ether		39.7	ug/L	0.300	1.00
67-64-1	Acetone		124	ug/L	3.50	10.0
75-05-8	Acetonitrile		1270	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		41.4	ug/L	0.300	1.00
74-88-4	Iodomethane		205	ug/L	1.25	5.00
75-09-2	Methylene chloride		38.2	ug/L	3.00	10.0
75-15-0	Carbon disulfide		218	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		35.4	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		41.3	ug/L	0.300	1.00
108-05-4	Vinyl acetate		264	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		43.8	ug/L	0.300	1.00
78-93-3	2-Butanone		171	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		41.3	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		40.6	ug/L	0.300	1.00
67-66-3	Chloroform		43.6	ug/L	0.250	1.00
74-97-5	Bromochloromethane		43.3	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		42.9	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		43.9	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		5160	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		43.7	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		44.6	ug/L	0.250	1.00
71-43-2	Benzene		41.2	ug/L	0.300	1.00
79-01-6	Trichloroethylene		42.4	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		42.9	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		43.4	ug/L	0.250	1.00
74-95-3	Dibromomethane		46.0	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		193	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		40.1	ug/L	0.250	1.00
108-88-3	Toluene		39.8	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		40.6	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		42.4	ug/L	0.250	1.00
591-78-6	2-Hexanone		156	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994	**Date Collected:**	12/17/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	1202005414	**Date Received:**	12/19/2009 09:05		
Client Sample:	QC for batch 937175	**Client:**	LANL010	**Project:**	QC
Client ID:	CAPA-10-6793PS	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	937175	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	12/29/2009 20:35	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	12/29/2009 20:35				
Data File:	9r220.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		42.7	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		41.5	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		42.6	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		41.1	ug/L	0.250	1.00
108-90-7	Chlorobenzene		42.6	ug/L	0.250	1.00
100-41-4	Ethylbenzene		41.0	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		82.0	ug/L	0.500	2.00
95-47-6	o-Xylene		41.2	ug/L	0.300	1.00
100-42-5	Styrene		40.5	ug/L	0.250	1.00
75-25-2	Bromoform		38.8	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		42.5	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		39.1	ug/L	0.300	1.00
108-86-1	Bromobenzene		39.2	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		38.3	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		38.3	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		36.8	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		36.4	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		37.8	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		37.4	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		37.2	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		38.2	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		37.8	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		39.0	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		40.2	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		39.1	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		38.5	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		37.1	ug/L	0.300	1.00
91-20-3	Naphthalene		40.9	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		42.5	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994	**Date Collected:**	12/17/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	1202005414	**Date Received:**	12/19/2009 09:05		
Client Sample:	QC for batch 937175	**Client:**	LANL010	**Project:**	QC
Client ID:	CAPA-10-6793PS	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	937175	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	12/29/2009 20:35	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	12/29/2009 20:35				
Data File:	9r220.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		42.8	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		37.9	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		39.9	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	59.7	50.0	ug/L	119	(59%-130%)
Bromofluorobenzene	45.6	50.0	ug/L	91.2	(71%-126%)
Toluene-d8	53.3	50.0	ug/L	107	(76%-129%)

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/122909v9/9r220.d
Lab Smp Id: 1202005414 Client Smp ID: CAPA-10-6793MS
Inj Date : 29-DEC-2009 20:35
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |1202005414|937175|1|VOA|1|
Misc Info : LANL 5ml pH2 ms 243283003
Comment :
Method : /chem/VOA9.i/122909v9/VOA9-8260B-111909.m
Meth Date : 29-Dec-2009 13:31 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 17:43 Cal File: 91419.d
Als bottle: 20 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-994.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 51 Fluorobenzene	96	10.775	10.775	(1.000)	1971249	50.0000	
* 75 Chlorobenzene-d5	117	13.941	13.941	(1.000)	1405137	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	16.372	16.372	(1.000)	773952	50.0000	
$ 46 1,2-Dichloroethane-d4	65	10.431	10.431	(0.968)	633415	59.7212	59.7
$ 64 Toluene-d8	99	12.412	12.412	(0.890)	181343	53.3198	53.3
$ 86 Bromofluorobenzene	95	15.127	15.127	(0.924)	683745	45.6189	45.6
1 Dichlorodifluoromethane	85	4.958	4.958	(0.460)	225280	37.8240	37.8
2 Chloromethane	50	5.308	5.308	(0.493)	505541	45.8918	45.9
3 Vinyl chloride	62	5.560	5.560	(0.516)	420436	46.9906	47.0
4 Bromomethane	94	6.186	6.186	(0.574)	303007	50.3955	50.4
5 Chloroethane	64	6.352	6.340	(0.589)	297887	47.4413	47.4
6 Trichlorofluoromethane	101	6.779	6.779	(0.629)	451739	45.2559	45.2
7 Ethyl ether	59	7.099	7.099	(0.659)	336772	39.7402	39.7
10 Acetone	43	7.490	7.490	(0.695)	791766	124.415	124
14 Acetonitrile	41	7.858	7.858	(0.729)	1763275	1266.23	1270

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
11 1,1-Dichloroethylene	61	7.514	7.514	(0.697)	600355	41.4116	41.4
102 1,4-Dichlorobenzene	146	16.408	16.408	(1.002)	758052	40.1583	40.2
108 1,2,4-Trichlorobenzene	180	18.922	18.922	(1.156)	456743	37.9373	37.9
13 Iodomethane	142	7.775	7.763	(0.722)	2275971	204.695	205
19 Methylene chloride	84	8.083	8.083	(0.750)	395077	38.1600	38.2
16 Carbon disulfide	76	7.905	7.905	(0.734)	5335603	218.212	218
21 tert-Butyl methyl ether	73	8.368	8.368	(0.777)	934929	35.4280	35.4
22 trans-1,2-Dichloroethylene	96	8.427	8.427	(0.782)	328111	41.2557	41.2
23 Vinyl acetate	43	8.854	8.854	(0.822)	4889095	264.460	264
25 1,1-Dichloroethane	63	8.913	8.913	(0.827)	741013	43.7683	43.8
29 2-Butanone	43	9.482	9.482	(0.880)	1221239	170.524	170
31 cis-1,2-Dichloroethylene	96	9.554	9.554	(0.887)	367590	41.3279	41.3
100 1,3-Dichlorobenzene	146	16.313	16.313	(0.996)	759839	39.0357	39.0
33 2,2-Dichloropropane	77	9.577	9.577	(0.889)	477093	40.6122	40.6
36 Chloroform	83	9.850	9.850	(0.914)	651175	43.6403	43.6
105 1,2-Dichlorobenzene	146	16.858	16.858	(1.030)	750642	39.9426	39.9
35 Bromochloromethane	128	9.826	9.826	(0.912)	167568	43.2634	43.3
39 1,1,1-Trichloroethane	97	10.135	10.135	(0.941)	481283	42.9336	42.9
43 1,1-Dichloropropene	75	10.289	10.289	(0.955)	472270	43.9485	43.9
52 n-Butyl alcohol	41	10.846	10.846	(1.007)	1169779	5158.31	5160
44 Carbon tetrachloride	117	10.324	10.324	(0.958)	415912	43.6984	43.7
47 1,2-Dichloroethane	62	10.514	10.514	(0.976)	576252	44.5994	44.6
48 Benzene	78	10.538	10.538	(0.978)	1370842	41.2302	41.2
53 Trichloroethylene	95	11.166	11.166	(1.036)	339385	42.3607	42.4
55 1,2-Dichloropropane	63	11.415	11.415	(1.059)	412711	42.8987	42.9
59 Bromodichloromethane	83	11.664	11.664	(1.083)	505939	43.3658	43.4
58 Dibromomethane	93	11.558	11.558	(1.073)	230006	45.9602	46.0
110 Naphthalene	128	19.349	19.349	(1.182)	1236055	40.8792	40.9
63 4-Methyl-2-pentanone	58	12.186	12.186	(0.874)	878262	192.887	193
109 Hexachlorobutadiene	225	19.100	19.100	(1.167)	244061	37.1064	37.1
62 cis-1,3-Dichloropropylene	75	12.103	12.103	(1.123)	570714	40.1402	40.1
65 Toluene	92	12.495	12.495	(0.896)	833571	39.8323	39.8
67 trans-1,3-Dichloropropylene	75	12.637	12.637	(0.906)	560019	40.6185	40.6
68 1,1,2-Trichloroethane	83	12.862	12.862	(0.923)	284858	42.4368	42.4
69 2-Hexanone	43	13.028	13.028	(0.934)	1836003	156.330	156
70 1,3-Dichloropropane	76	13.052	13.052	(0.936)	561764	42.7410	42.7
71 Tetrachloroethylene	164	13.087	13.087	(0.939)	231769	41.4604	41.5
72 Dibromochloromethane	129	13.325	13.325	(0.956)	351102	42.5811	42.6
73 1,2-Dibromoethane	107	13.503	13.503	(0.969)	321864	41.1410	41.1
76 Chlorobenzene	112	13.977	13.977	(1.003)	878955	42.6336	42.6
77 1,1,1,2-Tetrachloroethane	131	14.024	14.024	(1.006)	320586	42.8079	42.8
78 Ethylbenzene	91	14.024	14.024	(1.006)	1572456	41.0298	41.0
79 m,p-Xylenes	106	14.131	14.131	(1.014)	1247092	81.9909	82.0
80 o-Xylene	106	14.570	14.570	(1.045)	643303	41.1655	41.2
81 Styrene	104	14.570	14.570	(1.045)	1065803	40.4508	40.4
82 Bromoform	173	14.854	14.854	(0.907)	217652	38.7715	38.8
87 1,1,2,2-Tetrachloroethane	83	15.198	15.198	(0.928)	510989	42.4685	42.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
89 1,2,3-Trichloropropane	110	15.293	15.293	(0.934)	118150	39.1228	39.1
90 Bromobenzene	156	15.352	15.352	(0.938)	386158	39.2329	39.2
91 n-Propylbenzene	91	15.352	15.352	(0.938)	1976584	38.3347	38.3
92 2-Chlorotoluene	91	15.507	15.507	(0.947)	1362771	38.2629	38.3
83 Isopropylbenzene	105	14.926	14.926	(0.912)	1602339	36.7754	36.8
93 1,3,5-Trimethylbenzene	105	15.495	15.495	(0.946)	1348064	36.4295	36.4
94 4-Chlorotoluene	91	15.613	15.613	(0.954)	1271266	37.8037	37.8
95 tert-Butylbenzene	119	15.874	15.874	(0.970)	1306275	37.4211	37.4
96 1,2,4-Trimethylbenzene	105	15.922	15.922	(0.972)	1434362	37.2444	37.2
98 sec-Butylbenzene	105	16.111	16.111	(0.984)	1885186	38.2452	38.2
99 4-Isopropyltoluene	119	16.230	16.230	(0.991)	1420742	37.8050	37.8
104 n-Butylbenzene	92	16.692	16.692	(1.020)	884261	39.1198	39.1
107 1,2-Dibromo-3-chloropropane	157	17.783	17.783	(1.086)	82630	38.5046	38.5
111 1,2,3-Trichlorobenzene	180	19.716	19.716	(1.204)	420843	42.4517	42.4

Data File: /chem/VOA9.i/122909v9/9r220.d
Date : 29-DEC-2009 20:35
Client ID: CAPA-10-6793HS
Sample Info: 1120200541419371751!1!VOA!1!
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

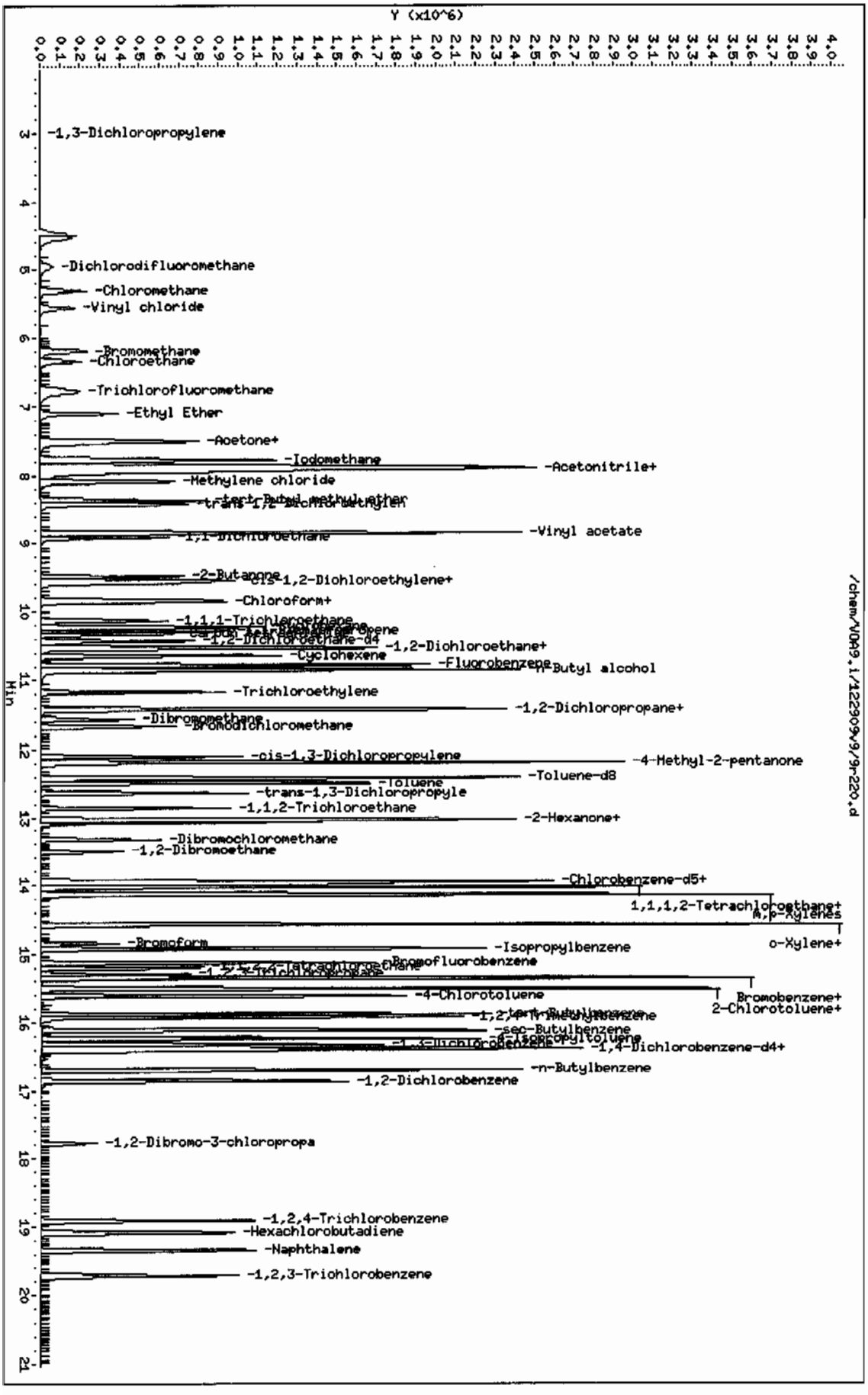

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994	**Date Collected:**	12/17/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	1202005415	**Date Received:**	12/19/2009 09:05		
Client Sample:	QC for batch 937175	**Client:**	LANL010	**Project:**	QC
Client ID:	CAPA-10-6793PSD	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	937175	**Inst:**	VOA9.I	**Dilution:**	1
Run Date:	12/29/2009 21:03	**Analyst:**	RXY1	**Purge Vol:**	5 mL
Prep Date:	12/29/2009 21:03				
Data File:	9r221.d	**Column:**	RTX-Volatiles	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		38.6	ug/L	0.300	1.00
74-87-3	Chloromethane		45.6	ug/L	0.300	1.00
75-01-4	Vinyl chloride		48.2	ug/L	0.500	1.00
74-83-9	Bromomethane		50.2	ug/L	0.300	1.00
75-00-3	Chloroethane		47.2	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		47.8	ug/L	0.300	1.00
60-29-7	Ethyl ether		40.3	ug/L	0.300	1.00
67-64-1	Acetone		135	ug/L	3.50	10.0
75-05-8	Acetonitrile		1360	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		43.1	ug/L	0.300	1.00
74-88-4	Iodomethane		210	ug/L	1.25	5.00
75-09-2	Methylene chloride		39.1	ug/L	3.00	10.0
75-15-0	Carbon disulfide		224	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		36.2	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		42.5	ug/L	0.300	1.00
108-05-4	Vinyl acetate		266	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		43.4	ug/L	0.300	1.00
78-93-3	2-Butanone		184	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		42.9	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		41.3	ug/L	0.300	1.00
67-66-3	Chloroform		43.4	ug/L	0.250	1.00
74-97-5	Bromochloromethane		43.3	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		44.1	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		45.1	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		5530	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		45.5	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		45.1	ug/L	0.250	1.00
71-43-2	Benzene		41.8	ug/L	0.300	1.00
79-01-6	Trichloroethylene		43.9	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		41.7	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		42.7	ug/L	0.250	1.00
74-95-3	Dibromomethane		44.5	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		210	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		40.1	ug/L	0.250	1.00
108-88-3	Toluene		42.5	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		41.3	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		43.4	ug/L	0.250	1.00
591-78-6	2-Hexanone		170	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994	Date Collected:	12/17/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	1202005415	Date Received:	12/19/2009 09:05		
Client Sample:	QC for batch 937175	Client:	LANL010	Project:	QC
Client ID:	CAPA-10-6793PSD	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	937175	Inst:	VOA9.I	Dilution:	1
Run Date:	12/29/2009 21:03	Analyst:	RXY1	Purge Vol:	5 mL
Prep Date:	12/29/2009 21:03				
Data File:	9r221.d	Column:	RTX-Volatiles	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		43.3	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		44.1	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		43.6	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		42.4	ug/L	0.250	1.00
108-90-7	Chlorobenzene		43.9	ug/L	0.250	1.00
100-41-4	Ethylbenzene		42.5	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		85.3	ug/L	0.500	2.00
95-47-6	o-Xylene		42.4	ug/L	0.300	1.00
100-42-5	Styrene		40.9	ug/L	0.250	1.00
75-25-2	Bromoform		41.4	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		46.6	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		44.2	ug/L	0.300	1.00
108-86-1	Bromobenzene		41.2	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		41.9	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		41.7	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		40.4	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		40.1	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		40.8	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		40.9	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		40.4	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		42.2	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		41.1	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		41.9	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		42.6	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		42.6	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		45.6	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		41.6	ug/L	0.300	1.00
91-20-3	Naphthalene		44.3	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		44.4	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**	**Date Collected:**	**12/17/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202005415**	**Date Received:**	**12/19/2009 09:05**		
Client Sample:	**QC for batch 937175**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-6793PSD**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**937175**	**Inst:**	**VOA9.I**	**Dilution:**	**1**
Run Date:	**12/29/2009 21:03**	**Analyst:**	**RXY1**	**Purge Vol:**	**5 mL**
Prep Date:	**12/29/2009 21:03**				
Data File:	**9r221.d**	**Column:**	**RTX-Volatiles**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		43.7	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		39.7	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		42.5	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	58.4	50.0	ug/L	117	(59%-130%)
Bromofluorobenzene	47.7	50.0	ug/L	95.4	(71%-126%)
Toluene-d8	52.4	50.0	ug/L	105	(76%-129%)

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA9.i/122909v9/9r221.d
Lab Smp Id: 1202005415 Client Smp ID: CAPA-10-6793MSD
Inj Date : 29-DEC-2009 21:03
Operator : RXY1 Inst ID: VOA9.i
Smp Info : |1202005415|937175|1|VOA|1|
Misc Info : LANL 5ml pH2 msd 243283003
Comment :
Method : /chem/VOA9.i/122909v9/VOA9-8260B-111909.m
Meth Date : 29-Dec-2009 13:31 ram01192 Quant Type: ISTD
Cal Date : 19-NOV-2009 17:43 Cal File: 91419.d
Als bottle: 21 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-994.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 51 Fluorobenzene	96	10.775	10.775	(1.000)	2073330	50.0000	
* 75 Chlorobenzene-d5	117	13.941	13.941	(1.000)	1401028	50.0000	
* 101 1,4-Dichlorobenzene-d4	152	16.372	16.372	(1.000)	723243	50.0000	
$ 46 1,2-Dichloroethane-d4	65	10.431	10.431	(0.968)	651288	58.3830	58.4
$ 64 Toluene-d8	99	12.412	12.412	(0.890)	177785	52.4269	52.4
$ 86 Bromofluorobenzene	95	15.127	15.127	(0.924)	667941	47.6890	47.7
1 Dichlorodifluoromethane	85	4.958	4.958	(0.460)	241538	38.5570	38.6
2 Chloromethane	50	5.308	5.308	(0.493)	528420	45.6070	45.6
3 Vinyl chloride	62	5.560	5.560	(0.516)	453848	48.2275	48.2
4 Bromomethane	94	6.186	6.186	(0.574)	317637	50.2277	50.2
5 Chloroethane	64	6.340	6.340	(0.588)	311792	47.2110	47.2
6 Trichlorofluoromethane	101	6.779	6.779	(0.629)	502089	47.8235	47.8
7 Ethyl ether	59	7.099	7.099	(0.659)	359518	40.3355	40.3
10 Acetone	43	7.490	7.490	(0.695)	902987	134.905	135
14 Acetonitrile	41	7.858	7.858	(0.729)	1990687	1359.16	1360

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
11 1,1-Dichloroethylene	61	7.514	7.514	(0.697)	657152	43.0975	43.1
102 1,4-Dichlorobenzene	146	16.408	16.408	(1.002)	751522	42.6037	42.6
108 1,2,4-Trichlorobenzene	180	18.922	18.922	(1.156)	446476	39.6847	39.7
13 Iodomethane	142	7.775	7.763	(0.722)	2455080	209.932	210
19 Methylene chloride	84	8.083	8.083	(0.750)	425259	39.0528	39.0
16 Carbon disulfide	76	7.905	7.905	(0.734)	5748514	223.523	224
21 tert-Butyl methyl ether	73	8.368	8.368	(0.777)	1003688	36.1610	36.2
22 trans-1,2-Dichloroethylene	96	8.427	8.427	(0.782)	355260	42.4700	42.5
23 Vinyl acetate	43	8.854	8.854	(0.822)	5179057	266.351	266
25 1,1-Dichloroethane	63	8.913	8.913	(0.827)	772832	43.4002	43.4
29 2-Butanone	43	9.483	9.482	(0.880)	1386955	184.128	184
31 cis-1,2-Dichloroethylene	96	9.554	9.554	(0.887)	401242	42.8903	42.9
100 1,3-Dichlorobenzene	146	16.313	16.313	(0.996)	762022	41.8927	41.9
33 2,2-Dichloropropane	77	9.578	9.577	(0.889)	510746	41.3363	41.3
36 Chloroform	83	9.850	9.850	(0.914)	680579	43.3652	43.4
105 1,2-Dichlorobenzene	146	16.859	16.858	(1.030)	746527	42.5088	42.5
35 Bromochloromethane	128	9.827	9.826	(0.912)	176424	43.3072	43.3
39 1,1,1-Trichloroethane	97	10.135	10.135	(0.941)	520398	44.1373	44.1
43 1,1-Dichloropropene	75	10.289	10.289	(0.955)	510209	45.1413	45.1
52 n-Butyl alcohol	41	10.846	10.846	(1.007)	1318094	5526.15	5530
44 Carbon tetrachloride	117	10.325	10.324	(0.958)	455268	45.4783	45.5
47 1,2-Dichloroethane	62	10.514	10.514	(0.976)	612703	45.0858	45.1
48 Benzene	78	10.538	10.538	(0.978)	1462617	41.8246	41.8
53 Trichloroethylene	95	11.167	11.166	(1.036)	370348	43.9494	43.9
55 1,2-Dichloropropane	63	11.416	11.415	(1.059)	422061	41.7106	41.7
59 Bromodichloromethane	83	11.653	11.664	(1.081)	524000	42.7025	42.7
58 Dibromomethane	93	11.558	11.558	(1.073)	234290	44.5112	44.5
110 Naphthalene	128	19.349	19.349	(1.182)	1250433	44.2542	44.2
63 4-Methyl-2-pentanone	58	12.186	12.186	(0.874)	953231	209.966	210
109 Hexachlorobutadiene	225	19.100	19.100	(1.167)	255832	41.6232	41.6
62 cis-1,3-Dichloropropylene	75	12.103	12.103	(1.123)	599283	40.0743	40.1
65 Toluene	92	12.483	12.495	(0.895)	887050	42.5121	42.5
67 trans-1,3-Dichloropropylene	75	12.637	12.637	(0.906)	568169	41.3305	41.3
68 1,1,2-Trichloroethane	83	12.862	12.862	(0.923)	290148	43.3517	43.4
69 2-Hexanone	43	13.028	13.028	(0.934)	1987015	169.684	170
70 1,3-Dichloropropane	76	13.052	13.052	(0.936)	567134	43.2762	43.3
71 Tetrachloroethylene	164	13.088	13.087	(0.939)	246065	44.1468	44.1
72 Dibromochloromethane	129	13.325	13.325	(0.956)	358859	43.6495	43.6
73 1,2-Dibromoethane	107	13.503	13.503	(0.969)	330593	42.3807	42.4
76 Chlorobenzene	112	13.977	13.977	(1.003)	902576	43.9077	43.9
77 1,1,1,2-Tetrachloroethane	131	14.024	14.024	(1.006)	326083	43.6696	43.7
78 Ethylbenzene	91	14.024	14.024	(1.006)	1624151	42.5030	42.5
79 m,p-Xylenes	106	14.131	14.131	(1.014)	1293375	85.2832	85.3
80 o-Xylene	106	14.570	14.570	(1.045)	660312	42.3778	42.4
81 Styrene	104	14.570	14.570	(1.045)	1075334	40.9322	40.9
82 Bromoform	173	14.855	14.854	(0.907)	217333	41.4291	41.4
87 1,1,2,2-Tetrachloroethane	83	15.198	15.198	(0.928)	524080	46.6103	46.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
89 1,2,3-Trichloropropane	110	15.293	15.293	(0.934)	124695	44.1850	44.2
90 Bromobenzene	156	15.353	15.352	(0.938)	379254	41.2330	41.2
91 n-Propylbenzene	91	15.353	15.352	(0.938)	2017680	41.8754	41.9
92 2-Chlorotoluene	91	15.507	15.507	(0.947)	1387184	41.6791	41.7
83 Isopropylbenzene	105	14.926	14.926	(0.912)	1644713	40.3946	40.4
93 1,3,5-Trimethylbenzene	105	15.495	15.495	(0.946)	1388258	40.1461	40.1
94 4-Chlorotoluene	91	15.613	15.613	(0.954)	1283212	40.8344	40.8
95 tert-Butylbenzene	119	15.874	15.874	(0.970)	1334207	40.9011	40.9
96 1,2,4-Trimethylbenzene	105	15.910	15.922	(0.972)	1452855	40.3696	40.4
98 sec-Butylbenzene	105	16.112	16.111	(0.984)	1944767	42.2202	42.2
99 4-Isopropyltoluene	119	16.230	16.230	(0.991)	1443916	41.1156	41.1
104 n-Butylbenzene	92	16.693	16.692	(1.020)	900607	42.6365	42.6
107 1,2-Dibromo-3-chloropropane	157	17.784	17.783	(1.086)	91397	45.5761	45.6
111 1,2,3-Trichlorobenzene	180	19.717	19.716	(1.204)	411712	44.4425	44.4

Data File: /chem/VOA9.i/122909v9/9r221.d
Date : 29-DEC-2009 21:03
Client ID: CAPA-10-6793HSD
Sample Info: 1120200541519371751|1|VOA1|1
Purge Volume: 5.0
Column phase: RTX-Volatiles

Instrument: VOA9.i
Operator: RXY1
Column diameter: 0.25

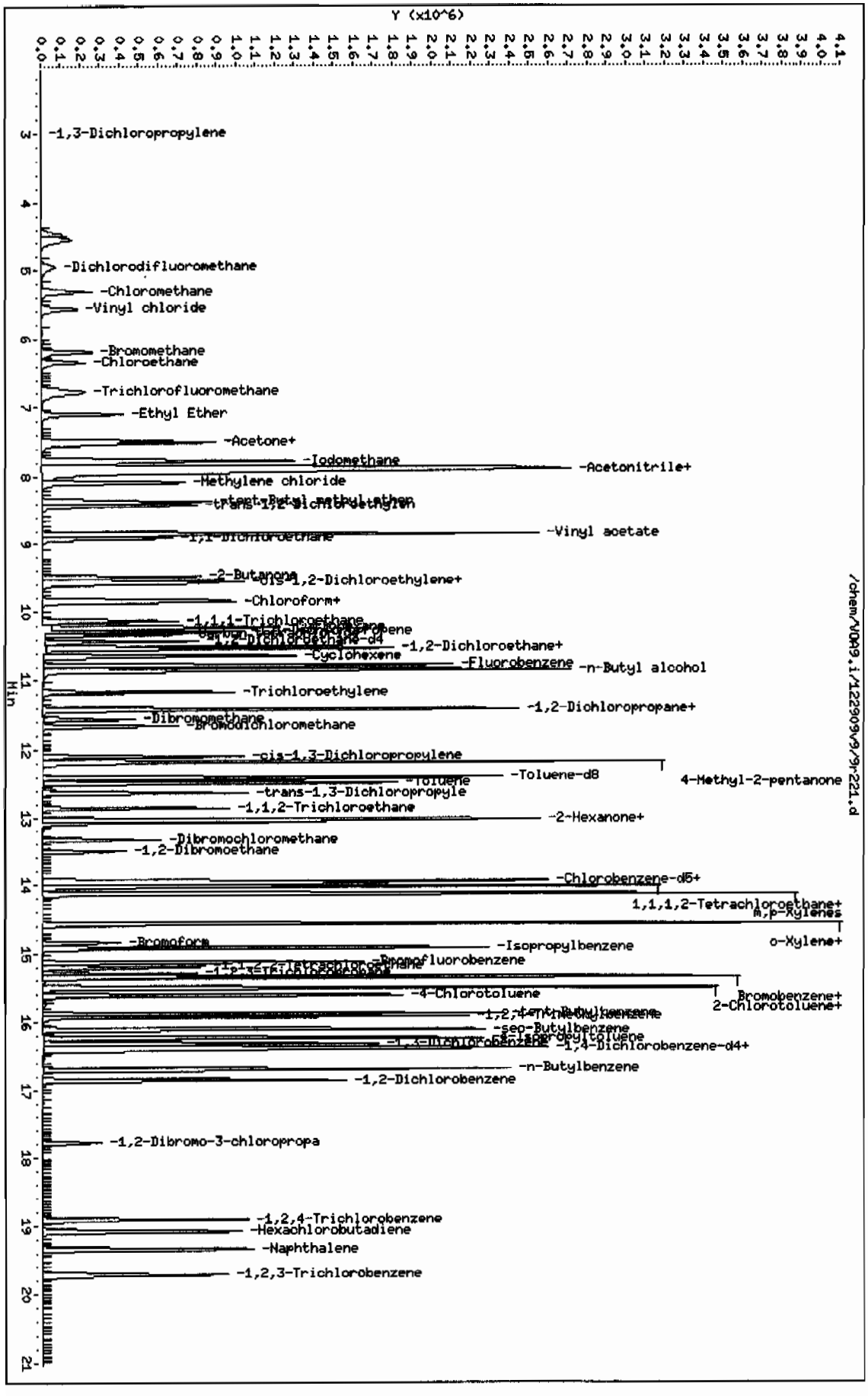

Page 1

Miscellaneous Data

GEL Laboratories, LLC.
Revision:03/22/07

ORGANIC RUN LOG - INSTRUMENT ID#VOA9

Date: 11/19/2009 Method 8260/624 Operator: RXY1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1 Daily Instrument Readings:

Multiplier Voltage: 1576

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 11/19/2009 & 11/20/2009

(See pg. 345/346 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # N/A

Sequence Number: 111909V9

	Daily Standard Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
IS	UVM091117-01	1	1	1	
SS	UVM090910-02	1	1	1	
BFB	UVM090910-02				1

Purge Amount	
5	Water Purge Vol:
N/A	Soil Purge Wt.
X	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
11/19/2009 8:24	9L401.D	UVM090910-02	--------	BFB	5ml	1	--------	1	w	RXY1	N/A	X	
11/19/2009 9:49	9L402.D	UVM090910-02	--------	BFB	5ml	1	--------	2	w	RXY1	N/A	X	
11/19/2009 10:19	9L403.D	UVM090910-02	--------	BFB	5ml	1	--------	3	w	RXY1	N/A	X	
11/19/2009 10:47	9L404.D	UVM090910-02	--------	BFB	5ml	1	--------	4	w	RXY1	N/A	O	
11/19/2009 11:14	9L405.D	W9VM091119-01	GEL	VSTD0005	5ml	1	n/a	5	w	RXY1	N/A	O	UVM090911-01C/UVM091116-01A
11/19/2009 11:42	9L406.D	W9VM091119-02	GEL	VSTD001	5ml	1	n/a	6	w	RXY1	N/A	O	UVM090911-02C/UVM091116-02A
11/19/2009 12:10	9L407.D	W9VM091119-03	GEL	VSTD002	5ml	1	n/a	7	w	RXY1	N/A	O	UVM090911-03C/UVM091116-03A
11/19/2009 12:37	9L408.D	W9VM091119-04	GEL	VSTD005	5ml	1	n/a	8	w	RXY1	N/A	O	UVM090911-04C/UVM091116-04A
11/19/2009 13:05	9L409.D	W9VM091119-05	GEL	VSTD010	5ml	1	n/a	9	w	RXY1	N/A	O	UVM090911-05C/UVM091116-05A
11/19/2009 13:33	9L410.D	W9VM091119-06	GEL	VSTD020	5ml	1	n/a	10	w	RXY1	N/A	O	UVM090911-06C/UVM091116-06A
11/19/2009 14:01	9L411.D	W9VM091119-07	GEL	VSTD050	5ml	1	n/a	11	w	RXY1	N/A	O	UVM090911-07C/UVM091116-07A
11/19/2009 14:29	9L412.D	W9VM091119-08	GEL	VSTD100	5ml	1	n/a	12	w	RXY1	N/A	O	UVM090911-08C/UVM091116-08A
11/19/2009 14:57	9L413.D	12019----------	GEL	BLANK	5ml	1	n/a	13	w	RXY1	N/A	X	Instrument blank
11/19/2009 15:24	9L414.D	W9VM091119-09	GEL	VSTD005S	5ml	1	n/a	14	w	RXY1	N/A	O	UVM091118-01/UVM091110-01A
11/19/2009 15:52	9L415.D	W9VM091119-10	GEL	VSTD010S	5ml	1	n/a	15	w	RXY1	N/A	O	UVM091118-02/UVM091110-02A
11/19/2009 16:20	9L416.D	W9VM091119-11	GEL	VSTD025S	5ml	1	n/a	16	w	RXY1	N/A	O	UVM091118-03/UVM091110-03A
11/19/2009 16:48	9L417.D	W9VM091119-12	GEL	VSTD050S	5ml	1	n/a	17	w	RXY1	N/A	O	UVM091118-04/UVM091110-04A
11/19/2009 17:16	9L418.D	W9VM091119-13	GEL	VSTD100S	5ml	1	n/a	18	w	RXY1	N/A	O	UVM091118-05/UVM091110-05A
11/19/2009 17:43	9L419.D	W9VM091119-14	GEL	VSTD250S	5ml	1	n/a	19	w	RXY1	N/A	O	UVM091118-06/UVM091110-06A
11/19/2009 18:11	9L420.D	W9VM091119-15	GEL	VSTD500S	5ml	1	n/a	20	w	RXY1	N/A	O	UVM091118-07/UVM091110-07A
11/19/2009 18:39	9L421.D	12019----------	GEL	BLANK	5ml	1	n/a	21	w	RXY1	N/A	X	Instrument blank
11/19/2009 19:06	9L422.D	W9VM091119-16	GEL	SICV	5ml	1	n/a	22	w	RXY1	N/A	O	UVM091118-08A/UVM091105-02B
11/19/2009 19:34	9L423.D	W9VM091119-17	GEL	LICV	5ml	1	n/a	23	w	RXY1	N/A	X	UVM091111-01B/IVM091116-01: Report 9L501 as ICV
11/19/2009 20:02	9L424.D	W9VM091119-18	GEL	LICV	5ml	1	n/a	24	w	RXY1	N/A	X	UVM091105-01A/IVM091116-01
11/19/2009 20:29	9L425.D	12019----------	GEL	BLANK	5ml	1	n/a	25	w	RXY1	N/A	X	Instrument blank
11/19/2009 20:57	9L426.D	12019----------	GEL	BLANK	5ml	1	n/a	26	w	RXY1	N/A	X	Instrument blank

GEL Laboratories, LLC.
Revision:03/22/07

ORGANIC RUN LOG - INSTRUMENT ID#VOA9

Date: 11/20/2009 Method 8260/624 Operator: RXY1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1 Daily Instrument Readings:

Multiplier Voltage: 1576

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 11/19/2009 & 11/20/2009

(See pg. 345/346 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 84515

Sequence Number: 112009V9

Daily Standard / Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV/ICV	W9VM091120-01		5+5		
IS	UVM091117-01	1	1	1	
SS	UVM090910-02	1	1	1	
LCS/MS	W9VM091120-01			5+5	
BFB	UVM090910-02				1
SHORT	UVM091118-08A		5		
N/A					

Purge Amount

5	Water Purge Vol:
N/A	Soil Purge Wt.
X	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
11/20/2009 8:43	9L501.D	W9VM091120-01	--------	BFB/CCV/ICV/LCS	5ml	1	--------	1	w	RXY1	N/A	O	UVM091111-01C/IVM091116-01
11/20/2009 9:10	9L502.D	W9VM091120-02	--------	LCS	5g	1	--------	2	s	RXY1	N/A	X	UVM091111-01C/IVM091116-01
11/20/2009 9:38	9L503.D	UVM091118-08A	--------	SHORT	5ml	1	--------	3	w	RXY1	N/A	O	
11/20/2009 10:05	9L504.D	12019----------	GEL	BLANK	5g	1	n/a	4	s	RXY1	N/A	X	
11/20/2009 10:34	9L505.D	12019----------	GEL	BLANK	5ml	1	n/a	5	w	RXY1	N/A	O	
11/20/2009 11:01	9L506.D	240916027	LAID	924567	5ml	1	pH2	6	w	RXY1	N	O	
11/20/2009 11:29	9L507.D	240916016	LAID	924567	5ml	1	pH2	7	w	RXY1	N	O	
11/20/2009 11:57	9L508.D	240916017	LAID	924567	5ml	1	pH2	8	w	RXY1	N	O	
11/20/2009 12:25	9L509.D	240916018	LAID	924567	5ml	1	pH2	9	w	RXY1	N	O	
11/20/2009 12:52	9L510.D	240916019	LAID	924567	5ml	1	pH2	10	w	RXY1	N	O	
11/20/2009 13:20	9L511.D	240916020	LAID	924567	5ml	1	pH2	11	w	RXY1	N	O	
11/20/2009 13:48	9L512.D	240916021	LAID	924567	5ml	1	pH2	12	w	RXY1	N	O	
11/20/2009 14:16	9L513.D	240916022	LAID	924567	5ml	1	pH2	13	w	RXY1	N	O	
11/20/2009 14:44	9L514.D	240916023	LAID	924567	5ml	1	pH2	14	w	RXY1	N	O	
11/20/2009 15:12	9L515.D	240916024	LAID	924567	5ml	1	pH2	15	w	RXY1	N	O	
11/20/2009 15:39	9L516.D	240916025	LAID	924567	5ml	1	pH2	16	w	RXY1	N	O	
11/20/2009 16:07	9L517.D	240916026	LAID	924567	5ml	1	pH2	17	w	RXY1	N	O	
11/20/2009 16:35	9L518.D	240916028	LAID	924567	5ml	1	pH2	18	w	RXY1	N	O	
11/20/2009 17:02	9L519.D	240916029	LAID	924567	5ml	1	pH2	19	w	RXY1	N	O	
11/20/2009 17:29	9L520.D	240916030	LAID	924567	5ml	1	pH2	20	w	RXY1	N	O	
11/20/2009 17:57	9L521.D	240916031	LAID	924567	5ml	1	pH2	21	w	RXY1	N	O	
11/20/2009 18:25	9L522.D	240916032	LAID	924567	5ml	1	pH2	22	w	RXY1	N	O	
11/20/2009 18:52	9L523.D	1201976490	LAID	924567	5ml	1	pH2	23	w	RXY1	N	O	ms 240916016
11/20/2009 19:19	9L524.D	1201976491	LAID	924567	5ml	1	pH2	24	w	RXY1	N	O	msd 240916016
11/20/2009 19:47	9L525.D	12019----------	GEL	BLANK	5ml	1	n/a	25	w	RXY1	N/A	X	Instrument blank
11/21/2009 3:43	9L526.D	12019----------	GEL	BLANK	5ml	1	n/a	26	w	RXY1	N/A	X	Instrument blank

GEL Laboratories, LLC.
Revision:03/22/07

ORGANIC RUN LOG - INSTRUMENT ID#VOA9

Date: 12/29/2009 Method 8260/624 Operator: RXY1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1 Daily Instrument Readings:

Multiplier Voltage: 1824

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 11/19/2009 & 11/20/2009

(See pg. 345/346 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 81710

Sequence Number: 122909V9

Daily Standard Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W9VM091229-02		5+5		
IS	UVM091216-09	1	1	1	
SS	UVM091117-02	1	1	1	
LCS/MS	W9VM091229-02			5+5	
BFB	UVM091117-02				1
SHORT	UVM091216-08A		5	5	
N/A					

Purge Amount

5	Water Purge Vol:
N/A	Soil Purge Wt.
X	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
12/29/2009	11:27	9R201.D	W9VM091229-01	--------	BFB/CCV	5ml	1	--------	1	w	RXY1	N/A	X	UVM091214-01C/IVM091228-01: Increased EM Volts
12/29/2009	**12:08**	9R202.D	W9VM091229-02	--------	BFB/CCV/LCS	5ml	1	--------	2	w	RXY1	N/A	O	UVM091214-01C/IVM091228-01
12/29/2009	12:47	9R203.D	W9VM091229-03	--------	LCS	5g	1	--------	3	s	RXY1	N/A	X	UVM091214-01C/IVM091228-01
12/29/2009	13:14	9R204.D	UVM091216-08A	--------	SHORT	5ml	1	--------	4	w	RXY1	N/A	O	
12/29/2009	13:42	9R205.D	1202----------	GEL	BLANK	5g	1	n/a	5	s	RXY1	N/A	X	
12/29/2009	14:09	9R206.D	1202----------	GEL	BLANK	5ml	1	n/a	6	w	RXY1	N/A	O	
12/29/2009	14:37	9R207.D	243283005	LANL	937175	5ml	1	pH2	7	w	RXY1	N	X	High SS: Report 9R230
12/29/2009	15:04	9R208.D	243284001	LANL	937175	5ml	1	pH2	8	w	RXY1	N	O	
12/29/2009	15:32	9R209.D	243283003	LANL	937175	5ml	1	pH2	9	w	RXY1	N	O	
12/29/2009	16:00	9R210.D	243284004	LANL	937175	5ml	1	pH2	10	w	RXY1	N	O	
12/29/2009	16:28	9R211.D	243284006	LANL	937175	5ml	1	pH2	11	w	RXY1	N	O	
12/29/2009	16:55	9R212.D	243284011	LANL	937175	5ml	1	pH2	12	w	RXY1	N	X	High SS: Report 9R310
12/29/2009	17:23	9R213.D	243334040	WASP	936236	5ml	1	pH2	13	w	RXY1	N	O	
12/29/2009	17:50	9R214.D	243334044	WASP	936236	5ml	1	pH2	14	w	RXY1	N	X	High SS: Report 9R407
12/29/2009	18:18	9R215.D	243334052	WASP	936236	5ml	1	pH2	15	w	RXY1	N	O	
12/29/2009	18:46	9R216.D	243353001	COAN	937161	5ml	1	pH2	16	w	RXY1	N	X	1,4-Dioxane OR (High SS): Report 9R409
12/29/2009	19:13	9R217.D	243468001	COAN	937161	5ml	1	pH2	17	w	RXY1	N	X	CO - 1,4-Dioxane OR: Report 9R408
12/29/2009	19:41	9R218.D	1202005871	COAN	937161	5ml	1	pH2	18	w	RXY1	N	X	ms 243353001: See 12/31 rr
12/29/2009	20:08	9R219.D	1202005872	COAN	937161	5ml	1	pH2	19	w	RXY1	N	X	msd 243353001: See 12/31 rr
12/29/2009	20:35	9R220.D	1202005414	LANL	937175	5ml	1	pH2	20	w	RXY1	N	O	ms 243283003
12/29/2009	21:03	9R221.D	1202005415	LANL	937175	5ml	1	pH2	21	w	RXY1	N	O	msd 243283003
12/29/2009	21:31	9R222.D	1202003278	WASP	936236	5ml	1	pH2	22	w	RXY1	N	X	ms 243334032: High SS: See 12/31 rr
12/29/2009	21:58	9R223.D	1202003280	WASP	936236	5ml	1	pH2	23	w	RXY1	N	X	msd 243334032
12/29/2009	22:26	9R224.D	1202----------	GEL	BLANK	5ml	1	n/a	24	w	RXY1	N/A	X	Instrument blank

GEL Laboratories, LLC.
Revision:03/22/07

ORGANIC RUN LOG - INSTRUMENT ID#VOA9

Date: 12/29/2009 Method 8260/624 Operator: RXY1

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1 Daily Instrument Readings:

Multiplier Voltage: 1824

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 11/19/2009 & 11/20/2009

(See pg. 345/346 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 81710

Sequence Number: 122909V9pm

Daily Standard — Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W9VM091229-05		5+5		
IS	UVM091216-09	1	1	1	
SS	UVM091117-02	1	1	1	
LCS/MS	W9VM091229-05			5+5	
BFB	UVM091117-02				1
SHORT	UVM091216-08A		5	5	
N/A					

Purge Amount

5	Water Purge Vol:
N/A	Soil Purge Wt.
X	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
X	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable(O/X)	Comments
12/29/2009 22:53	9R225.D	W9VM091229-04	--------	BFB2/CCV	5ml	1	--------	25	w	RXY1	N/A	X	UVM091214-01C/IVM091228-01
12/29/2009 23:20	9R226.D	W9VM091229-05	--------	BFB2/CCV/LCS	5ml	1	--------	26	w	RXY1	N/A	O	UVM091214-01C/IVM091228-01
12/29/2009 23:48	9R227.D	W9VM091229-06	--------	LCSD	5ml	1	--------	27	w	RXY1	N/A	X	UVM091214-01C/IVM091228-01
12/30/2009 0:15	9R228.D	UVM091216-08A	--------	SHORT	5ml	1	--------	28	w	RXY1	N/A	O	
12/30/2009 0:43	9R229.D	1202----------	GEL	BLANK	5ml	1	n/a	29	w	RXY1	N/A	O	
12/30/2009 1:10	9R230.D	243283005	LANL	937175	5ml	1	pH2	30	w	RXY1	N	O	
12/30/2009 1:38	9R231.D	243458001	LANL	937413	5ml	1	pH2	31	w	RXY1	N	O	
12/30/2009 2:05	9R232.D	243460007	LANL	937413	5ml	1	pH2	32	w	RXY1	N	X	High SS: Report 9R406
12/30/2009 2:32	9R233.D	243467001	LANL	937413	5ml	1	pH2	33	w	RXY1	N	O	
12/30/2009 3:00	9R234.D	243402001	LANL	937413	5ml	1	pH7	34	w	RXY1	N	X	High SS: Report 9R312
12/30/2009 3:27	9R235.D	243402002	LANL	937413	5ml	1	pH7	35	w	RXY1	N	X	Low IS: Report 9R313
12/30/2009 3:55	9R236.D	243458002	LANL	937413	5ml	1	pH2	36	w	RXY1	N	O	
12/30/2009 4:22	9R237.D	243458006	LANL	937413	5ml	1	pH2	37	w	RXY1	N	O	
12/30/2009 4:49	9R238.D	243460003	LANL	937413	5ml	1	pH2	38	w	RXY1	N	O	
12/30/2009 5:17	9R239.D	243460006	LANL	937413	5ml	1	pH2	39	w	RXY1	N	O	
12/30/2009 5:44	9R240.D	243467002	LANL	937413	5ml	1	pH5	40	w	RXY1	N	X	High SS: Report 9R247
12/30/2009 6:11	9R241.D	243467005	LANL	937413	5ml	1	pH4	41	w	RXY1	N	O	
12/30/2009 6:39	9R242.D	243469001	LANL	937413	5ml	1	pH6	42	w	RXY1	N	X	TIC CO: Report 9R311
12/30/2009 7:06	9R243.D	243469005	LANL	937413	5ml	1	pH6	43	w	RXY1	N	O	
12/30/2009 7:33	9R244.D	243496001	LANL	937413	5ml	1	pH6	44	w	RXY1	N	O	
12/30/2009 9:06	9R245.D	243460007	LANL	937413	5ml	1	pH2	45	w	RXY1	N	X	High SS: Report 9R406
12/30/2009 9:34	9R246.D	243402001	LANL	937413	5ml	1	pH7	46	w	RXY1	N	X	High SS: Report 9R312
12/30/2009 10:02	9R247.D	243467002	LANL	937413	5ml	1	pH5	47	w	RXY1	N	O	
12/30/2009 10:29	9R248.D	243284011	LANL	937175	5ml	1	pH2	48	w	RXY1	N	X	TIC CO: Report 9R310
12/30/2009 10:57	9R249.D	243460007	LANL	937413	5ml	1	pH2	49	w	RXY1	N	X	High SS: Report 9R406
12/30/2009 11:25	9R250.D	243402001	LANL	937413	5ml	1	pH7	50	w	RXY1	N	X	High SS: Report 9R312

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-994

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3510C
Analytical Batch Number:	936197
Prep Batch Number:	936196

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
243283003	CAPA-10-6793
1202003210	Method Blank (MB)
1202003211	Laboratory Control Sample (LCS)
1202003212	243284004(CAPA-10-6390) Matrix Spike (MS)
1202003213	243284004(CAPA-10-6390) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243284004 (CAPA-10-6390) not associated with this SDG, was selected for analysis as the matrix spike and matrix spike duplicate. Please see the associated raw data files located in the Miscellaneous Section of the data report.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recovered Benzidine at 19% (limits: 20%-126%). The associated MS displayed a similar biased low (but passing) recovery for Benzideine. Therefore, the low recoveries have been attributed to sample matrix interference and the data were reported.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Data Exception report (DER) Documentation
A DER was not required for the samples reported with this SDG.

Manual Integrations
Manual integrations were required for the LCS(1202003211) and MSD(1202003213).

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD6.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.20mm x 0.33 um (5% Phenylmethylpolysiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: [illegible] **Date:** 1-14-10

Roadmap for LANL 10-994 SVOA

This roadmap was analyzed by nat00999 on 01-08-2010, 09:56.
This roadmap was reviewed by bar00895 on 01-11-2010, 07:47.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s010610.b/s6a0610.d	243283003	06-JAN-2010	13:14	10-994.sub	CAPA-10-6793	1	936197	USE

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD6.i/s010610.b/s6a0606-1.d	1202003210	mb	06-JAN-2010	11:20	10-994.sub	SBLK01	1	936197	USE
☐	N	/chem/MSD6.i/s010610.b/s6a0607-1.d	1202003211	lcs	06-JAN-2010	11:48	10-994.sub	SBLK01LCS	1	936197	USE

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994	Date Collected:	12/17/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243283003	Date Received:	12/19/2009 09:05		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6793	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	936197	Inst:	MSD6.I	Dilution:	1
Run Date:	01/06/2010 13:14	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/23/2009 22:13	Aliquot:	960 mL	Final Volume:	1 mL
Data File:	s6a0610.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.4	ug/L	2.08	10.4
108-95-2	Phenol	U	10.4	ug/L	1.04	10.4
95-57-8	2-Chlorophenol	U	10.4	ug/L	2.08	10.4
106-46-7	1,4-Dichlorobenzene	U	10.4	ug/L	2.08	10.4
621-64-7	N-Nitrosodi--n-propylamine	U	10.4	ug/L	2.08	10.4
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol	U	10.4	ug/L	2.08	10.4
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene	U	1.04	ug/L	0.323	1.04
121-14-2	2,4-Dinitrotoluene	U	10.4	ug/L	2.08	10.4
100-02-7	4-Nitrophenol	U	10.4	ug/L	2.08	10.4
87-86-5	Pentachlorophenol	U	10.4	ug/L	2.08	10.4
129-00-0	Pyrene	U	1.04	ug/L	0.313	1.04
110-86-1	Pyridine	U	10.4	ug/L	3.13	10.4
62-53-3	Aniline	U	10.4	ug/L	2.60	10.4
111-44-4	bis(2-Chloroethyl) ether	U	10.4	ug/L	2.08	10.4
541-73-1	1,3-Dichlorobenzene	U	10.4	ug/L	2.08	10.4
100-51-6	Benzyl alcohol	U	10.4	ug/L	2.08	10.4
95-50-1	1,2-Dichlorobenzene	U	10.4	ug/L	2.08	10.4
108-60-1	bis(2-Chloroisopropyl)ether	U	10.4	ug/L	2.08	10.4
95-48-7	o-Cresol	U	10.4	ug/L	2.08	10.4
65794-96-9	m,p-Cresols	U	10.4	ug/L	3.13	10.4
67-72-1	Hexachloroethane	U	10.4	ug/L	2.08	10.4
98-95-3	Nitrobenzene	U	10.4	ug/L	3.13	10.4
78-59-1	Isophorone	U	10.4	ug/L	3.13	10.4
88-75-5	2-Nitrophenol	U	10.4	ug/L	2.08	10.4
105-67-9	2,4-Dimethylphenol	U	10.4	ug/L	2.08	10.4
111-91-1	bis(2-Chloroethoxy)methane	U	10.4	ug/L	3.13	10.4
120-83-2	2,4-Dichlorophenol	U	10.4	ug/L	2.08	10.4
65-85-0	Benzoic acid	U	20.8	ug/L	6.25	20.8
91-20-3	Naphthalene	U	1.04	ug/L	0.313	1.04
106-47-8	4-Chloroaniline	U	10.4	ug/L	2.08	10.4
87-68-3	Hexachlorobutadiene	U	10.4	ug/L	2.08	10.4
91-57-6	2-Methylnaphthalene	U	1.04	ug/L	0.313	1.04
90-12-0	1-Methylnaphthalene	U	1.04	ug/L	0.313	1.04
77-47-4	Hexachlorocyclopentadiene	U	10.4	ug/L	3.13	10.4
88-06-2	2,4,6-Trichlorophenol	U	10.4	ug/L	2.08	10.4
95-95-4	2,4,5-Trichlorophenol	U	10.4	ug/L	2.08	10.4
91-58-7	2-Chloronaphthalene	U	1.04	ug/L	0.313	1.04

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**	**Date Collected:**	**12/17/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243283003**	**Date Received:**	**12/19/2009 09:05**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6793**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936197**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 13:14**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/23/2009 22:13**	**Aliquot:**	**960 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0610.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.4	ug/L	2.08	10.4
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.4	ug/L	2.08	10.4
131-11-3	Dimethylphthalate	U	10.4	ug/L	2.08	10.4
606-20-2	2,6-Dinitrotoluene	U	10.4	ug/L	2.08	10.4
208-96-8	Acenaphthylene	U	1.04	ug/L	0.208	1.04
51-28-5	2,4-Dinitrophenol	U	20.8	ug/L	5.21	20.8
132-64-9	Dibenzofuran	U	10.4	ug/L	2.08	10.4
84-66-2	Diethylphthalate	U	10.4	ug/L	2.08	10.4
86-73-7	Fluorene	U	1.04	ug/L	0.208	1.04
7005-72-3	4-Chlorophenylphenylether	U	10.4	ug/L	2.08	10.4
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.4	ug/L	3.13	10.4
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.4	ug/L	3.13	10.4
122-39-4	Diphenylamine *1,2-Diphenylhydrazine*	U	10.4	ug/L	3.13	10.4
122-66-7	Azobenzene	U	10.4	ug/L	2.08	10.4
101-55-3	4-Bromophenylphenylether	U	10.4	ug/L	2.08	10.4
118-74-1	Hexachlorobenzene	U	10.4	ug/L	2.08	10.4
1912-24-9	Atrazine	U	10.4	ug/L	3.13	10.4
85-01-8	Phenanthrene	U	1.04	ug/L	0.208	1.04
120-12-7	Anthracene	U	1.04	ug/L	0.208	1.04
84-74-2	Di-n-butylphthalate	U	10.4	ug/L	2.08	10.4
206-44-0	Fluoranthene	U	1.04	ug/L	0.208	1.04
92-87-5	Benzidine	U	10.4	ug/L	3.13	10.4
85-68-7	Butylbenzylphthalate	U	10.4	ug/L	2.08	10.4
56-55-3	Benzo(a)anthracene	U	1.04	ug/L	0.208	1.04
91-94-1	3,3'-Dichlorobenzidine	U	10.4	ug/L	2.08	10.4
218-01-9	Chrysene	U	1.04	ug/L	0.208	1.04
117-81-7	bis(2-Ethylhexyl)phthalate	J	5.57	ug/L	2.08	10.4
117-84-0	Di-n-octylphthalate	U	10.4	ug/L	3.13	10.4
205-99-2	Benzo(b)fluoranthene	U	1.04	ug/L	0.208	1.04
207-08-9	Benzo(k)fluoranthene	U	1.04	ug/L	0.208	1.04
50-32-8	Benzo(a)pyrene	U	1.04	ug/L	0.208	1.04
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.04	ug/L	0.208	1.04
53-70-3	Dibenzo(a,h)anthracene	U	1.04	ug/L	0.208	1.04
191-24-2	Benzo(ghi)perylene	U	1.04	ug/L	0.208	1.04
123-91-1	1,4-Dioxane	U	10.4	ug/L	2.08	10.4
55-18-5	N-Nitrosodiethylamine	U	10.4	ug/L	2.08	10.4

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**	**Date Collected:**	**12/17/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243283003**	**Date Received:**	**12/19/2009 09:05**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6793**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936197**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 13:14**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/23/2009 22:13**	**Aliquot:**	**960 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0610.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.4	ug/L	2.08	10.4
924-16-3	N-Nitrosodi-n-butylamine	U	10.4	ug/L	3.13	10.4
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.4	ug/L	3.13	10.4
608-93-5	Pentachlorobenzene	U	10.4	ug/L	3.13	10.4
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.4	ug/L	2.08	10.4
88-85-7	Dinoseb	U	10.4	ug/L	2.08	10.4
120-82-1	1,2,4-Trichlorobenzene	U	10.4	ug/L	2.08	10.4

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	107	104	ug/L	103	(39%-115%)
2-Fluorobiphenyl	40.0	52.1	ug/L	76.9	(35%-100%)
2-Fluorophenol	46.7	104	ug/L	44.8	(25%-92%)
Nitrobenzene-d5	40.7	52.1	ug/L	78.1	(40%-112%)
Phenol-d5	29.7	104	ug/L	28.6	(15%-73%)
p-Terphenyl-d14	51.4	52.1	ug/L	98.7	(46%-130%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
80-05-7	Phenol, 4,4'-(1-methylethylidene)bis-	11.08	12.7	ug/L	98	NJ
1000314-84-4	Phthalic acid, 4-octyl undecyl ester	16.56	8.79	ug/L	83	NJ
1000308-92-8	Phthalic acid, hexadecyl pentyl ester	17.2	46.9	ug/L	80	NJ

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-994

Matrix Type: LIQUID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202003210	MB for batch 936196	49	30	83	79	89	110
1202003211	LCS for batch 936196	48	30	79	75	97	94
243283003	CAPA-10-6793	45	29	78	77	103	99

Surrogate			Acceptance Limits
2FP	=	2-Fluorophenol	(25%-92%)
PHL	=	Phenol-d5	(15%-73%)
NBZ	=	Nitrobenzene-d5	(40%-112%)
FBP	=	2-Fluorobiphenyl	(35%-100%)
TBP	=	2,4,6-Tribromophenol	(39%-115%)
TPH	=	p-Terphenyl-d14	(46%-130%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994
Client ID: LCS for batch 936196
Lab Sample ID: 1202003211
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 01/06/2010 11:48
Dilution: 1
Prep Batch ID: 936196
Batch ID: 936197

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	50.0	0.0	23.1	46	43-68
108-95-2	LCS	Phenol	50.0	0.0	16.7	33	21-45
95-57-8	LCS	2-Chlorophenol	50.0	0.0	39.2	78	49-96
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	34.1	68	38-88
621-64-7	LCS	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	50.0	0.0	42.1	84	44-118
59-50-7	LCS	Parachlorometa cresol *4-Chloro-3-methylphenol*	50.0	0.0	43.5	87	55-109
83-32-9	LCS	Acenaphthene	50.0	0.0	37.2	74	47-101
121-14-2	LCS	2,4-Dinitrotoluene	50.0	0.0	43.2	86	55-108
100-02-7	LCS	4-Nitrophenol	50.0	0.0	16.3	33	19-56
87-86-5	LCS	Pentachlorophenol	50.0	0.0	40.9	82	44-121
129-00-0	LCS	Pyrene	50.0	0.0	41.5	83	49-115
110-86-1	LCS	Pyridine	50.0	0.0	28.7	57	26-103
62-53-3	LCS	Aniline	50.0	0.0	43.4	87	49-124
111-44-4	LCS	bis(2-Chloroethyl) ether	50.0	0.0	36.8	74	46-106
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	34.3	69	38-88
100-51-6	LCS	Benzyl alcohol	50.0	0.0	40.8	82	41-88
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	35.5	71	39-91
108-60-1	LCS	bis(2-Chloroisopropyl)ether	50.0	0.0	40.4	81	44-115
95-48-7	LCS	o-Cresol	50.0	0.0	33.8	68	41-94
65794-96-9	LCS	m,p-Cresols	50.0	0.0	34.8	70	38-96
67-72-1	LCS	Hexachloroethane	50.0	0.0	31.7	63	35-92
98-95-3	LCS	Nitrobenzene	50.0	0.0	39.4	79	48-112

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994
Client ID: LCS for batch 936196
Lab Sample ID: 1202003211
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 01/06/2010 11:48
Prep Batch ID: 936196
Batch ID: 936197
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	50.0	0.0	42.2	84	52-113
88-75-5	LCS	2-Nitrophenol	50.0	0.0	40.4	81	52-104
105-67-9	LCS	2,4-Dimethylphenol	50.0	0.0	40.8	82	44-100
111-91-1	LCS	bis(2-Chloroethoxy)methane	50.0	0.0	39.3	79	54-107
120-83-2	LCS	2,4-Dichlorophenol	50.0	0.0	42.6	85	52-105
65-85-0	LCS	Benzoic acid	100	0.0	22.7	23	10-77
91-20-3	LCS	Naphthalene	50.0	0.0	34.3	69	40-93
106-47-8	LCS	4-Chloroaniline	50.0	0.0	48.9	98	57-145
87-68-3	LCS	Hexachlorobutadiene	50.0	0.0	33.9	68	33-98
91-57-6	LCS	2-Methylnaphthalene	50.0	0.0	39.6	79	42-97
90-12-0	LCS	1-Methylnaphthalene	50.0	0.0	39.2	78	40-95
77-47-4	LCS	Hexachlorocyclopentadiene	50.0	0.0	17.8	36	10-128
88-06-2	LCS	2,4,6-Trichlorophenol	50.0	0.0	42.7	85	54-111
95-95-4	LCS	2,4,5-Trichlorophenol	50.0	0.0	43.4	87	50-111
91-58-7	LCS	2-Chloronaphthalene	50.0	0.0	37.7	75	46-100
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	50.0	0.0	39.3	79	50-120
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	50.0	0.0	46.2	92	58-125
131-11-3	LCS	Dimethylphthalate	50.0	0.0	44.7	89	59-107
606-20-2	LCS	2,6-Dinitrotoluene	50.0	0.0	42.4	85	58-104
208-96-8	LCS	Acenaphthylene	50.0	0.0	40.0	80	58-99
51-28-5	LCS	2,4-Dinitrophenol	50.0	0.0	28.8	58	33-118
132-64-9	LCS	Dibenzofuran	50.0	0.0	49.1	98	54-108

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994
Client ID: LCS for batch 936196
Lab Sample ID: 1202003211
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 01/06/2010 11:48
Dilution: 1
Prep Batch ID: 936196
Batch ID: 936197

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
84-66-2	LCS	Diethylphthalate	50.0	0.0	45.4	91	60-112
86-73-7	LCS	Fluorene	50.0	0.0	41.7	83	52-106
7005-72-3	LCS	4-Chlorophenylphenylether	50.0	0.0	41.4	83	57-106
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	50.0	0.0	28.2	56	39-124
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	50.0	0.0	44.4	89	48-135
122-39-4	LCS	Diphenylamine	50.0	0.0	44.3	89	55-113
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	50.0	0.0	41.7	83	48-120
101-55-3	LCS	4-Bromophenylphenylether	50.0	0.0	42.0	84	56-108
118-74-1	LCS	Hexachlorobenzene	50.0	0.0	45.3	91	53-115
1912-24-9	LCS	Atrazine	50.0	0.0	43.9	88	49-118
85-01-8	LCS	Phenanthrene	50.0	0.0	42.8	86	54-105
120-12-7	LCS	Anthracene	50.0	0.0	43.5	87	55-106
84-74-2	LCS	Di-n-butylphthalate	50.0	0.0	47.5	95	58-119
206-44-0	LCS	Fluoranthene	50.0	0.0	46.8	94	57-114
92-87-5	LCS	Benzidine	100	0.0	43.9	44	17-138
85-68-7	LCS	Butylbenzylphthalate	50.0	0.0	46.1	92	55-122
56-55-3	LCS	Benzo(a)anthracene	50.0	0.0	43.7	87	56-105
91-94-1	LCS	3,3'-Dichlorobenzidine	50.0	0.0	34.6	69	41-107
218-01-9	LCS	Chrysene	50.0	0.0	44.1	88	56-105
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	50.0	0.0	48.6	97	55-124
117-84-0	LCS	Di-n-octylphthalate	50.0	0.0	50.4	101	41-136
205-99-2	LCS	Benzo(b)fluoranthene	50.0	0.0	47.6	95	53-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994
Client ID: LCS for batch 936196
Lab Sample ID: 1202003211
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 01/06/2010 11:48
Dilution: 1
Prep Batch ID: 936196
Batch ID: 936197

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
207-08-9	LCS	Benzo(k)fluoranthene	50.0	0.0	48.1	96	55-116
50-32-8	LCS	Benzo(a)pyrene	50.0	0.0	47.9	96	58-111
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	50.0	0.0	41.2	82	45-124
53-70-3	LCS	Dibenzo(a,h)anthracene	50.0	0.0	40.7	81	44-126
191-24-2	LCS	Benzo(ghi)perylene	50.0	0.0	42.4	85	41-125
123-91-1	LCS	1,4-Dioxane	50.0	0.0	27.6	55	30-80
930-55-2	LCS	N-Nitrosopyrrolidine	50.0	0.0	37.5	75	10-150
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	35.1	70	40-91

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994
Client ID: CAPA-10-6390MS
Lab Sample ID: 1202003212
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 01/06/2010 14:10
Prep Batch ID: 936196
Batch ID: 936197
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	100	0.00	U	55.2	55	42-89
108-95-2	MS	Phenol	100	0.00	U	50.7	51	27-88
95-57-8	MS	2-Chlorophenol	100	0.00	U	78.7	79	45-101
106-46-7	MS	1,4-Dichlorobenzene	100	0.00	U	68.4	68	37-91
621-64-7	MS	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	100	0.00	U	83.0	83	42-116
59-50-7	MS	Parachlorometa cresol *4-Chloro-3-methylphenol*	100	0.00	U	95.9	96	48-117
83-32-9	MS	Acenaphthene	100	0.00	U	75.5	75	46-104
121-14-2	MS	2,4-Dinitrotoluene	100	0.00	U	87.5	88	50-109
100-02-7	MS	4-Nitrophenol	100	0.00	U	53.8	54	28-96
87-86-5	MS	Pentachlorophenol	100	0.00	U	91.6	92	38-131
129-00-0	MS	Pyrene	100	0.00	U	82.5	83	42-122
110-86-1	MS	Pyridine	100	0.00	U	81.0	81	28-110
62-53-3	MS	Aniline	100	0.00	U	85.0	85	38-129
111-44-4	MS	bis(2-Chloroethyl) ether	100	0.00	U	71.0	71	41-107
541-73-1	MS	1,3-Dichlorobenzene	100	0.00	U	68.6	69	36-94
100-51-6	MS	Benzyl alcohol	100	0.00	U	91.3	91	34-104
95-50-1	MS	1,2-Dichlorobenzene	100	0.00	U	70.9	71	36-97
108-60-1	MS	bis(2-Chloroisopropyl)ether	100	0.00	U	80.2	80	38-118
95-48-7	MS	o-Cresol	100	0.00	U	74.9	75	37-105
65794-96-9	MS	m,p-Cresols	100	0.00	U	83.8	84	33-110
67-72-1	MS	Hexachloroethane	100	0.00	U	61.7	62	34-95
98-95-3	MS	Nitrobenzene	100	0.00	U	77.8	78	43-118

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994
Client ID: CAPA-10-6390MS
Lab Sample ID: 1202003212
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 01/06/2010 14:10
Prep Batch ID: 936196
Batch ID: 936197
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	100	0.00	U	84.7	85	46-115
88-75-5	MS	2-Nitrophenol	100	0.00	U	83.2	83	42-114
105-67-9	MS	2,4-Dimethylphenol	100	0.00	U	88.9	89	38-107
111-91-1	MS	bis(2-Chloroethoxy)methane	100	0.00	U	78.0	78	47-111
120-83-2	MS	2,4-Dichlorophenol	100	0.00	U	87.4	87	45-112
65-85-0	MS	Benzoic acid	200	0.00	U	116	58	27-106
91-20-3	MS	Naphthalene	100	0.00	U	69.9	70	41-96
106-47-8	MS	4-Chloroaniline	100	0.00	U	88.8	89	50-140
87-68-3	MS	Hexachlorobutadiene	100	0.00	U	67.9	68	31-106
91-57-6	MS	2-Methylnaphthalene	100	0.00	U	81.5	82	44-98
90-12-0	MS	1-Methylnaphthalene	100	0.00	U	80.4	80	45-94
77-47-4	MS	Hexachlorocyclopentadiene	100	0.00	U	46.6	47	15-139
88-06-2	MS	2,4,6-Trichlorophenol	100	0.00	U	87.0	87	46-114
95-95-4	MS	2,4,5-Trichlorophenol	100	0.00	U	92.0	92	46-117
91-58-7	MS	2-Chloronaphthalene	100	0.00	U	77.1	77	41-108
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	100	0.00	U	80.4	80	43-120
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	100	0.00	U	90.3	90	47-130
131-11-3	MS	Dimethylphthalate	100	0.00	U	89.8	90	50-114
606-20-2	MS	2,6-Dinitrotoluene	100	0.00	U	85.9	86	47-111
208-96-8	MS	Acenaphthylene	100	0.00	U	82.1	82	51-102
51-28-5	MS	2,4-Dinitrophenol	100	0.00	U	77.4	77	27-128
132-64-9	MS	Dibenzofuran	100	0.00	U	100	100	49-109

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994 **Sample Type:** Matrix Spike

Client ID: CAPA-10-6390MS **Matrix:** GROUND WATER

Lab Sample ID: 1202003212

Instrument: MSD6.I **Analysis Date:** 01/06/2010 14:10 **Dilution:** 1

Analyst: NAG1 **Prep Batch ID:** 936196

Inj. Vol: .5 uL **Batch ID:** 936197

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
84-66-2	MS	Diethylphthalate	100	0.00	U	90.6	91	52-115
86-73-7	MS	Fluorene	100	0.00	U	85.8	86	49-110
7005-72-3	MS	4-Chlorophenylphenylether	100	0.00	U	85.4	85	48-115
534-52-1	MS	2-Methyl-4,6-dinitrophenol	100	0.00	U	71.9	72	33-128
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	100	0.00	U	91.9	92	37-138
122-39-4	MS	Diphenylamine	100	0.00	U	87.9	88	44-117
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	100	0.00	U	84.1	84	43-119
101-55-3	MS	4-Bromophenylphenylether	100	0.00	U	86.0	86	44-118
118-74-1	MS	Hexachlorobenzene	100	0.00	U	91.1	91	47-120
1912-24-9	MS	Atrazine	100	0.00	U	87.3	87	43-118
85-01-8	MS	Phenanthrene	100	0.00	U	85.9	86	46-112
120-12-7	MS	Anthracene	100	0.00	U	88.0	88	47-112
84-74-2	MS	Di-n-butylphthalate	100	0.00	U	94.1	94	49-120
206-44-0	MS	Fluoranthene	100	0.00	U	92.7	93	46-122
92-87-5	MS	Benzidine	200	0.00	U	43.2	22	20-126
85-68-7	MS	Butylbenzylphthalate	100	0.00	U	92.1	92	47-127
56-55-3	MS	Benzo(a)anthracene	100	0.00	U	87.0	87	47-111
91-94-1	MS	3,3'-Dichlorobenzidine	100	0.00	U	80.5	80	39-102
218-01-9	MS	Chrysene	100	0.00	U	88.9	89	48-112
117-81-7	MS	bis(2-Ethylhexyl)phthalate	100	0.00	U	96.2	96	43-130
117-84-0	MS	Di-n-octylphthalate	100	0.00	U	93.1	93	39-141
205-99-2	MS	Benzo(b)fluoranthene	100	0.00	U	89.5	90	43-125

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994 **Sample Type:** Matrix Spike

Client ID: CAPA-10-6390MS **Matrix:** GROUND WATER

Lab Sample ID: 1202003212

Instrument: MSD6.I **Analysis Date:** 01/06/2010 14:10 **Dilution:** 1

Analyst: NAG1 **Prep Batch ID:** 936196

Inj. Vol: .5 uL **Batch ID:** 936197

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
207-08-9	MS	Benzo(k)fluoranthene	100	0.00	U	91.2	91	50-120
50-32-8	MS	Benzo(a)pyrene	100	0.00	U	95.0	95	49-118
193-39-5	MS	Indeno(1,2,3-cd)pyrene	100	0.00	U	93.1	93	40-124
53-70-3	MS	Dibenzo(a,h)anthracene	100	0.00	U	91.8	92	41-125
191-24-2	MS	Benzo(ghi)perylene	100	0.00	U	99.0	99	36-124
123-91-1	MS	1,4-Dioxane	100	0.00	U	71.9	72	37-86
930-55-2	MS	N-Nitrosopyrrolidine	100	0.00	U	79.9	80	10-150
120-82-1	MS	1,2,4-Trichlorobenzene	100	0.00	U	71.7	72	34-100

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994
Client ID: CAPA-10-6390MSD
Lab Sample ID: 1202003213
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 01/06/2010 14:38
Dilution: 1
Prep Batch ID: 936196
Batch ID: 936197

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD	N-Methyl-N-nitrosomethylam	100	0.00	U	54.2	54	42-89	2	0-25
108-95-2	MSD	Phenol	100	0.00	U	48.2	48	27-88	5	0-25
95-57-8	MSD	2-Chlorophenol	100	0.00	U	78.4	78	45-101	0	0-25
106-46-7	MSD	1,4-Dichlorobenzene	100	0.00	U	70.3	70	37-91	3	0-25
621-64-7	MSD	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	100	0.00	U	82.1	82	42-116	1	0-25
59-50-7	MSD	Parachlorometa cresol *4-Chloro-3-methylphenol*	100	0.00	U	92.1	92	48-117	4	0-25
83-32-9	MSD	Acenaphthene	100	0.00	U	75.0	75	46-104	1	0-25
121-14-2	MSD	2,4-Dinitrotoluene	100	0.00	U	85.8	86	50-109	2	0-25
100-02-7	MSD	4-Nitrophenol	100	0.00	U	48.8	49	28-96	10	0-25
87-86-5	MSD	Pentachlorophenol	100	0.00	U	89.1	89	38-131	3	0-25
129-00-0	MSD	Pyrene	100	0.00	U	81.3	81	42-122	1	0-25
110-86-1	MSD	Pyridine	100	0.00	U	68.3	68	28-110	17	0-25
62-53-3	MSD	Aniline	100	0.00	U	84.6	85	38-129	0	0-25
111-44-4	MSD	bis(2-Chloroethyl) ether	100	0.00	U	71.4	71	41-107	1	0-25
541-73-1	MSD	1,3-Dichlorobenzene	100	0.00	U	70.6	71	36-94	3	0-25
100-51-6	MSD	Benzyl alcohol	100	0.00	U	90.1	90	34-104	1	0-25
95-50-1	MSD	1,2-Dichlorobenzene	100	0.00	U	72.1	72	36-97	2	0-25
108-60-1	MSD	bis(2-Chloroisopropyl)ether	100	0.00	U	79.7	80	38-118	1	0-25
95-48-7	MSD	o-Cresol	100	0.00	U	72.4	72	37-105	3	0-25
65794-96-9	MSD	m,p-Cresols	100	0.00	U	82.2	82	33-110	2	0-25
67-72-1	MSD	Hexachloroethane	100	0.00	U	64.8	65	34-95	5	0-25
98-95-3	MSD	Nitrobenzene	100	0.00	U	78.9	79	43-118	1	0-25

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994
Client ID: CAPA-10-6390MSD
Lab Sample ID: 1202003213
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 01/06/2010 14:38
Dilution: 1
Prep Batch ID: 936196
Batch ID: 936197

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD	Isophorone	100	0.00	U	84.0	84	46-115	1	0-25
88-75-5	MSD	2-Nitrophenol	100	0.00	U	81.7	82	42-114	2	0-25
105-67-9	MSD	2,4-Dimethylphenol	100	0.00	U	88.2	88	38-107	1	0-25
111-91-1	MSD	bis(2-Chloroethoxy)methane	100	0.00	U	79.0	79	47-111	1	0-25
120-83-2	MSD	2,4-Dichlorophenol	100	0.00	U	86.0	86	45-112	2	0-25
65-85-0	MSD	Benzoic acid	200	0.00	U	119	59	27-106	3	0-25
91-20-3	MSD	Naphthalene	100	0.00	U	71.4	71	41-96	2	0-25
106-47-8	MSD	4-Chloroaniline	100	0.00	U	88.9	89	50-140	0	0-25
87-68-3	MSD	Hexachlorobutadiene	100	0.00	U	69.4	69	31-106	2	0-25
91-57-6	MSD	2-Methylnaphthalene	100	0.00	U	82.6	83	44-98	1	0-25
90-12-0	MSD	1-Methylnaphthalene	100	0.00	U	79.4	79	45-94	1	0-25
77-47-4	MSD	Hexachlorocyclopentadiene	100	0.00	U	46.8	47	15-139	0	0-25
88-06-2	MSD	2,4,6-Trichlorophenol	100	0.00	U	87.3	87	46-114	0	0-25
95-95-4	MSD	2,4,5-Trichlorophenol	100	0.00	U	88.9	89	46-117	3	0-25
91-58-7	MSD	2-Chloronaphthalene	100	0.00	U	76.8	77	41-108	0	0-25
88-74-4	MSD	2-Nitroaniline *o-Nitroaniline*	100	0.00	U	77.7	78	43-120	3	0-25
99-09-2	MSD	3-Nitroaniline *m-Nitroaniline*	100	0.00	U	87.2	87	47-130	4	0-25
131-11-3	MSD	Dimethylphthalate	100	0.00	U	87.9	88	50-114	2	0-25
606-20-2	MSD	2,6-Dinitrotoluene	100	0.00	U	83.7	84	47-111	3	0-25
208-96-8	MSD	Acenaphthylene	100	0.00	U	81.8	82	51-102	0	0-25
51-28-5	MSD	2,4-Dinitrophenol	100	0.00	U	67.4	67	27-128	14	0-25
132-64-9	MSD	Dibenzofuran	100	0.00	U	97.7	98	49-109	3	0-25

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-994 **Sample Type:** Matrix Spike Duplicate

Client ID: CAPA-10-6390MSD **Matrix:** GROUND WATER

Lab Sample ID: 1202003213

Instrument: MSD6.I **Analysis Date:** 01/06/2010 14:38 **Dilution:** 1

Analyst: NAG1 **Prep Batch ID:** 936196

Inj. Vol: .5 uL **Batch ID:** 936197

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
84-66-2	MSD	Diethylphthalate	100	0.00	U	89.4	89	52-115	1	0-25
86-73-7	MSD	Fluorene	100	0.00	U	84.8	85	49-110	1	0-25
7005-72-3	MSD	4-Chlorophenylphenylether	100	0.00	U	84.7	85	48-115	1	0-25
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	100	0.00	U	64.6	65	33-128	11	0-25
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	100	0.00	U	88.2	88	37-138	4	0-25
122-39-4	MSD	Diphenylamine	100	0.00	U	85.2	85	44-117	3	0-25
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	100	0.00	U	81.9	82	43-119	3	0-25
101-55-3	MSD	4-Bromophenylphenylether	100	0.00	U	85.3	85	44-118	1	0-25
118-74-1	MSD	Hexachlorobenzene	100	0.00	U	89.0	89	47-120	2	0-25
1912-24-9	MSD	Atrazine	100	0.00	U	86.7	87	43-118	1	0-25
85-01-8	MSD	Phenanthrene	100	0.00	U	84.7	85	46-112	1	0-25
120-12-7	MSD	Anthracene	100	0.00	U	85.7	86	47-112	3	0-25
84-74-2	MSD	Di-n-butylphthalate	100	0.00	U	93.2	93	49-120	1	0-25
206-44-0	MSD	Fluoranthene	100	0.00	U	92.1	92	46-122	1	0-25
92-87-5	MSD	Benzidine	200	0.00	U	38.3	19 *	20-126	12	0-25
85-68-7	MSD	Butylbenzylphthalate	100	0.00	U	90.9	91	47-127	1	0-25
56-55-3	MSD	Benzo(a)anthracene	100	0.00	U	85.1	85	47-111	2	0-25
91-94-1	MSD	3,3'-Dichlorobenzidine	100	0.00	U	72.6	73	39-102	10	0-25
218-01-9	MSD	Chrysene	100	0.00	U	86.2	86	48-112	3	0-25
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	100	0.00	U	94.2	94	43-130	2	0-25
117-84-0	MSD	Di-n-octylphthalate	100	0.00	U	97.9	98	39-141	5	0-25
205-99-2	MSD	Benzo(b)fluoranthene	100	0.00	U	91.4	91	43-125	2	0-25

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994
Client ID: CAPA-10-6390MSD
Lab Sample ID: 1202003213
Instrument: MSD6.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 01/06/2010 14:38
Dilution: 1
Prep Batch ID: 936196
Batch ID: 936197

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
207-08-9	MSD Benzo(k)fluoranthene	100	0.00	U	91.8	92	50-120	1	0-25
50-32-8	MSD Benzo(a)pyrene	100	0.00	U	93.9	94	49-118	1	0-25
193-39-5	MSD Indeno(1,2,3-cd)pyrene	100	0.00	U	82.1	82	40-124	13	0-25
53-70-3	MSD Dibenzo(a,h)anthracene	100	0.00	U	81.3	81	41-125	12	0-25
191-24-2	MSD Benzo(ghi)perylene	100	0.00	U	85.8	86	36-124	14	0-25
123-91-1	MSD 1,4-Dioxane	100	0.00	U	67.0	67	37-86	7	0-25
930-55-2	MSD N-Nitrosopyrrolidine	100	0.00	U	74.9	75	10-150	7	0-25
120-82-1	MSD 1,2,4-Trichlorobenzene	100	0.00	U	73.7	74	34-100	3	0-25

Method Blank Summary

SDG Number:	10-994	Client:	LANL010	Matrix:	GROUND WATER
Client ID:	MB for batch 936196	Instrument ID:	MSD6.I	Data File:	s6a0606-1.d
Lab Sample ID:	1202003210	Prep Date:	12/23/2009 22:13	Analyzed:	01/06/10 11:20
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 936196	1202003211	s6a0607-1.d	01/06/10	1148
02	CAPA-10-6793	243283003	s6a0610.d	01/06/10	1314

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-994

Instrument ID: MSD6.I **Injection Date/Time:** 06-JAN-10 08:55

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s010610.b/s6a0601.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	43
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	41.4
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.7
197	0 - 1% of mass 198	0.5
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	23.5
365	Greater than 1% of mass 198	2.5
441	Present, but less than mass 443	75.6
442	Greater than 40% of mass 198	72.5
443	17 - 23% of mass 442	18.8

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN091223-17.2	/chem/MSD6.i/s010610.b/s6a060	06-JAN-10 09:46
AP12CVS	WBN100103-03.2	/chem/MSD6.i/s010610.b/s6a060	06-JAN-10 10:22
SBLK01	1202003210	/chem/MSD6.i/s010610.b/s6a060	06-JAN-10 11:20
SBLK01LCS	1202003211	/chem/MSD6.i/s010610.b/s6a060	06-JAN-10 11:48
CAPA-10-6793	243283003	/chem/MSD6.i/s010610.b/s6a061	06-JAN-10 13:14

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-994

Instrument ID: MSD6.I **Injection Date/Time:** 09-NOV-09 18:00

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s110909.b/s6k0911.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.4
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	51.4
197	0 - 1% of mass 198	0.6
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	23.7
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	73.9
442	Greater than 40% of mass 198	77.9
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGAICAL	WBN091106-08	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 18:53
MEGAICAL	WBN091106-07	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 19:31
MEGAICAL	WBN091106-06	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 20:09
MEGAICAL	WBN091106-05.1	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 20:46
MEGAICAL	WBN091106-04	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 21:25
MEGAICAL	WBN091106-03	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 22:01
MEGAICAL	WBN091106-02	/chem/MSD6.i/s110909.b/s6k091	09-NOV-09 22:39
MEGAICAL	WBN091106-01	/chem/MSD6.i/s110909.b/s6k092	09-NOV-09 23:16

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-994

Instrument ID: MSD6.I **Injection Date/Time:** 10-NOV-09 11:07

Column Description: Phenomenex ZB-5MS **Lab File ID** /chem/MSD6.i/s110909.b/s6k0921.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.1
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43.1
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	50.9
197	0 - 1% of mass 198	0.4
199	5 - 9% of mass 198	7
275	10 - 30% of mass 198	23.3
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	72.6
442	Greater than 40% of mass 198	76
443	17 - 23% of mass 442	19.9

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP12ICAL	WBN091016-01	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 11:59
AP12ICAL	WBN091016-02	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 12:36
AP12ICAL	WBN091016-03	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 13:13
AP12ICAL	WBN091016-04	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 13:51
AP12ICAL	WBN091016-05	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 14:30
AP12ICAL	WBN091016-06	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 15:06
AP12ICAL	WBN091016-07	/chem/MSD6.i/s110909.b/s6k092	10-NOV-09 15:43
MEGAICV	WBN091106-09.1	/chem/MSD6.i/s110909.b/s6k093	10-NOV-09 20:29
AP12ICV	WBN091016-08.1	/chem/MSD6.i/s110909.b/s6k093	10-NOV-09 21:07

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-994

Instrument: MSD6.I

STD Analysis Time: 06-JAN-10 09:46

GC Column: J&W DB-5MS

Data File: s6a0603.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	246011		4.75	1013849		6.03	552080		7.89	999172		9.5	890342		12.5	743918		14.8
Upper Limit	492022		5.25	2027698		6.53	1104160		8.39	1998344		10	1780684		13	1487836		15.3
Lower Limit	123006		4.25	506925		5.53	276040		7.39	499586		9	445171		12	371959		14.3
Sample ID																		
BLK01	263212		4.75	963363		6.02	541450		7.89	898105		9.5	664684		12.5	514801		14.8
BLK01LCS	248632		4.75	1007296		6.03	539338		7.89	945529		9.5	779773		12.5	614153		14.8
CAPA-10-6793	258362		4.75	952485		6.02	534793		7.89	958397		9.5	834463		12.5	755003		14.8

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994	Date Collected:	12/17/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243283003	Date Received:	12/19/2009 09:05		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6793	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	936197	Inst:	MSD6.I	Dilution:	1
Run Date:	01/06/2010 13:14	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/23/2009 22:13	Aliquot:	960 mL	Final Volume:	1 mL
Data File:	s6a0610.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.4	ug/L	2.08	10.4
108-95-2	Phenol	U	10.4	ug/L	1.04	10.4
95-57-8	2-Chlorophenol	U	10.4	ug/L	2.08	10.4
106-46-7	1,4-Dichlorobenzene	U	10.4	ug/L	2.08	10.4
621-64-7	N-Nitrosodi--n-propylamine	U	10.4	ug/L	2.08	10.4
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol	U	10.4	ug/L	2.08	10.4
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene	U	1.04	ug/L	0.323	1.04
121-14-2	2,4-Dinitrotoluene	U	10.4	ug/L	2.08	10.4
100-02-7	4-Nitrophenol	U	10.4	ug/L	2.08	10.4
87-86-5	Pentachlorophenol	U	10.4	ug/L	2.08	10.4
129-00-0	Pyrene	U	1.04	ug/L	0.313	1.04
110-86-1	Pyridine	U	10.4	ug/L	3.13	10.4
62-53-3	Aniline	U	10.4	ug/L	2.60	10.4
111-44-4	bis(2-Chloroethyl) ether	U	10.4	ug/L	2.08	10.4
541-73-1	1,3-Dichlorobenzene	U	10.4	ug/L	2.08	10.4
100-51-6	Benzyl alcohol	U	10.4	ug/L	2.08	10.4
95-50-1	1,2-Dichlorobenzene	U	10.4	ug/L	2.08	10.4
108-60-1	bis(2-Chloroisopropyl)ether	U	10.4	ug/L	2.08	10.4
95-48-7	o-Cresol	U	10.4	ug/L	2.08	10.4
65794-96-9	m,p-Cresols	U	10.4	ug/L	3.13	10.4
67-72-1	Hexachloroethane	U	10.4	ug/L	2.08	10.4
98-95-3	Nitrobenzene	U	10.4	ug/L	3.13	10.4
78-59-1	Isophorone	U	10.4	ug/L	3.13	10.4
88-75-5	2-Nitrophenol	U	10.4	ug/L	2.08	10.4
105-67-9	2,4-Dimethylphenol	U	10.4	ug/L	2.08	10.4
111-91-1	bis(2-Chloroethoxy)methane	U	10.4	ug/L	3.13	10.4
120-83-2	2,4-Dichlorophenol	U	10.4	ug/L	2.08	10.4
65-85-0	Benzoic acid	U	20.8	ug/L	6.25	20.8
91-20-3	Naphthalene	U	1.04	ug/L	0.313	1.04
106-47-8	4-Chloroaniline	U	10.4	ug/L	2.08	10.4
87-68-3	Hexachlorobutadiene	U	10.4	ug/L	2.08	10.4
91-57-6	2-Methylnaphthalene	U	1.04	ug/L	0.313	1.04
90-12-0	1-Methylnaphthalene	U	1.04	ug/L	0.313	1.04
77-47-4	Hexachlorocyclopentadiene	U	10.4	ug/L	3.13	10.4
88-06-2	2,4,6-Trichlorophenol	U	10.4	ug/L	2.08	10.4
95-95-4	2,4,5-Trichlorophenol	U	10.4	ug/L	2.08	10.4
91-58-7	2-Chloronaphthalene	U	1.04	ug/L	0.313	1.04

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994	**Date Collected:**	12/17/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	243283003	**Date Received:**	12/19/2009 09:05		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-6793	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	936197	**Inst:**	MSD6.I	**Dilution:**	1
Run Date:	01/06/2010 13:14	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	12/23/2009 22:13	**Aliquot:**	960 mL	**Final Volume:**	1 mL
Data File:	s6a0610.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline	U	10.4	ug/L	2.08	10.4
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	10.4	ug/L	2.08	10.4
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	10.4	ug/L	2.08	10.4
606-20-2	2,6-Dinitrotoluene	U	10.4	ug/L	2.08	10.4
208-96-8	Acenaphthylene	U	1.04	ug/L	0.208	1.04
51-28-5	2,4-Dinitrophenol	U	20.8	ug/L	5.21	20.8
132-64-9	Dibenzofuran	U	10.4	ug/L	2.08	10.4
84-66-2	Diethylphthalate	U	10.4	ug/L	2.08	10.4
86-73-7	Fluorene	U	1.04	ug/L	0.208	1.04
7005-72-3	4-Chlorophenylphenylether	U	10.4	ug/L	2.08	10.4
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.4	ug/L	3.13	10.4
100-01-6	4-Nitroaniline	U	10.4	ug/L	3.13	10.4
	p-Nitroaniline					
122-39-4	Diphenylamine	U	10.4	ug/L	3.13	10.4
122-66-7	Azobenzene	U	10.4	ug/L	2.08	10.4
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	10.4	ug/L	2.08	10.4
118-74-1	Hexachlorobenzene	U	10.4	ug/L	2.08	10.4
1912-24-9	Atrazine	U	10.4	ug/L	3.13	10.4
85-01-8	Phenanthrene	U	1.04	ug/L	0.208	1.04
120-12-7	Anthracene	U	1.04	ug/L	0.208	1.04
84-74-2	Di-n-butylphthalate	U	10.4	ug/L	2.08	10.4
206-44-0	Fluoranthene	U	1.04	ug/L	0.208	1.04
92-87-5	Benzidine	U	10.4	ug/L	3.13	10.4
85-68-7	Butylbenzylphthalate	U	10.4	ug/L	2.08	10.4
56-55-3	Benzo(a)anthracene	U	1.04	ug/L	0.208	1.04
91-94-1	3,3'-Dichlorobenzidine	U	10.4	ug/L	2.08	10.4
218-01-9	Chrysene	U	1.04	ug/L	0.208	1.04
117-81-7	bis(2-Ethylhexyl)phthalate	J	5.57	ug/L	2.08	10.4
117-84-0	Di-n-octylphthalate	U	10.4	ug/L	3.13	10.4
205-99-2	Benzo(b)fluoranthene	U	1.04	ug/L	0.208	1.04
207-08-9	Benzo(k)fluoranthene	U	1.04	ug/L	0.208	1.04
50-32-8	Benzo(a)pyrene	U	1.04	ug/L	0.208	1.04
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.04	ug/L	0.208	1.04
53-70-3	Dibenzo(a,h)anthracene	U	1.04	ug/L	0.208	1.04
191-24-2	Benzo(ghi)perylene	U	1.04	ug/L	0.208	1.04
123-91-1	1,4-Dioxane	U	10.4	ug/L	2.08	10.4
55-18-5	N-Nitrosodiethylamine	U	10.4	ug/L	2.08	10.4

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**	**Date Collected:**	**12/17/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243283003**	**Date Received:**	**12/19/2009 09:05**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6793**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936197**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 13:14**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/23/2009 22:13**	**Aliquot:**	**960 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0610.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.4	ug/L	2.08	10.4
924-16-3	N-Nitrosodi-n-butylamine	U	10.4	ug/L	3.13	10.4
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.4	ug/L	3.13	10.4
608-93-5	Pentachlorobenzene	U	10.4	ug/L	3.13	10.4
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.4	ug/L	2.08	10.4
88-85-7	Dinoseb	U	10.4	ug/L	2.08	10.4
120-82-1	1,2,4-Trichlorobenzene	U	10.4	ug/L	2.08	10.4

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	107	104	ug/L	103	(39%-115%)
2-Fluorobiphenyl	40.0	52.1	ug/L	76.9	(35%-100%)
2-Fluorophenol	46.7	104	ug/L	44.8	(25%-92%)
Nitrobenzene-d5	40.7	52.1	ug/L	78.1	(40%-112%)
Phenol-d5	29.7	104	ug/L	28.6	(15%-73%)
p-Terphenyl-d14	51.4	52.1	ug/L	98.7	(46%-130%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
80-05-7	Phenol, 4,4'-(1-methylethylidene)bis-	11.08	12.7	ug/L	98	NJ
1000314-84-4	Phthalic acid, 4-octyl undecyl ester	16.56	8.79	ug/L	83	NJ
1000308-92-8	Phthalic acid, hexadecyl pentyl ester	17.2	46.9	ug/L	80	NJ

GEL Laboratories LLC

Data file : /chem/MSD6.i/s010610.b/s6a0610.d
Lab Smp Id: 243283003 Client Smp ID: CAPA-10-6793
Inj Date : 06-JAN-2010 13:14
Operator : nag1 Inst ID: MSD6.i
Smp Info : |243283003|936197|1|SVM|1|LANL
Misc Info : |MSD82709L|WBN091223-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Meth Date : 07-Jan-2010 08:58 hnm Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-994.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	960.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.749	4.750	(1.000)	258362	40.0000	
* 29 Naphthalene-d8	136	6.023	6.026	(1.000)	952485	40.0000	
* 46 Acenaphthene-d10	164	7.888	7.894	(1.000)	534793	40.0000	
* 67 Phenanthrene-d10	188	9.499	9.502	(1.000)	958397	40.0000	
* 91 Chrysene-d12	240	12.485	12.496	(1.000)	834463	40.0000	
* 98 Perylene-d12	264	14.778	14.779	(1.000)	755003	40.0000	
$ 3 2-Fluorophenol	112	3.587	3.588	(0.755)	290048	44.8299	46.7
$ 5 Phenol-d5	99	4.362	4.370	(0.918)	233197	28.5571	29.7
$ 20 Nitrobenzene-d5	82	5.284	5.290	(0.877)	263024	39.0369	40.7
$ 39 2-Fluorobiphenyl	172	7.149	7.150	(0.906)	529762	38.4386	40.0
$ 60 2,4,6-Tribromophenol	329	8.739	8.743	(1.108)	160503	102.826	107
$ 81 p-Terphenyl-d14	244	11.208	11.207	(0.898)	664088	49.3485	51.4
93 bis(2-Ethylhexyl)phthalate	149	12.437	12.442	(0.996)	72164	5.34281	5.6(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

SV REPORT

Data file: s6a0610.d
Report Date: 01/06/2010 15:21
Lab. ID: 243283003 SampleType: SAMPLE
Injection Date: 06-JAN-2010 13:14
Operator: nagl Instrument: MSD6.i
Sample Info: |243283003|936197|1|SVM|1|LANL
Miscellaneous Info: |MSD82709L|WBN091223-01
Comment:
Method used: /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-994
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	12522	4.36	4.44	80-120	100	(T)
93	102	4.12	4.44	218-278	1	(QT)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	36410	5.28	5.13	80-120	100	(T)
42	22734	5.28	5.13	46-106	62	(T)
22 Isophorone		CAS#: 78-59-1				
82	263024	5.28	5.54	80-120	100	(T)
138	5260	6.02	5.54	0- 49	2	(T)
43 Dimethylphthalate			CAS#: 131-11-3			
163	96123	7.89	7.58	80-120	100	(T)
164	534793	7.89	7.58	0- 40	556	(QT)
50 2,4-Dinitrotoluene			CAS#: 121-14-2			
165	70392	7.89	8.09	80-120	100	(T)
89	944	7.89	8.09	44-104	1	(QT)
63	822	7.89	8.09	21- 81	1	(QT)
52 4-Nitrophenol			CAS#: 100-02-7			
139	147	8.11	8.01	80-120	100	(T)
109	990	7.89	8.01	40-100	672	(QT)
65	241	8.32	8.01	64-124	164	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
53 Fluorene			CAS#: 86-73-7			
166	9505	8.74	8.48	80-120	100	(T)
165	10046	8.74	8.48	62-122	106	(T)
167	3592	8.74	8.48	0- 44	38	(T)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	197	8.73	8.53	80-120	100	(T)
105	1017	8.73	8.53	11- 71	515	(QT)
51	506	8.73	8.53	28- 88	256	(QT)
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	10243	8.74	9.00	80-120	100	(T)
141	72524	8.74	9.00	51-111	708	(QT)
250	20342	8.74	9.00	69-129	199	(QT)
93 bis(2-Ethylhexyl)phthalate				CAS#: 117-81-7		
149	72164	12.44	12.44	80-120	100	( )
167	21903	12.44	12.44	2- 62	30	( )
121 N-Nitrosodi-n-butylamine				CAS#: 924-16-3		
84	23952	6.02	6.43	80-120	100	(T)
57	699	6.02	6.43	51-111	3	(QT)
41	1134	6.03	6.43	0- 30	5	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD6.i/s010610.b/s6a0610.d
Lab Smp Id: 243283003 Client Smp ID: CAPA-10-6793
Inj Date : 06-JAN-2010 13:14
Operator : nagl Inst ID: MSD6.i
Smp Info : |243283003|936197|1|SVM|1|LANL
Misc Info : |MSD82709L|WBN091223-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Meth Date : 07-Jan-2010 08:58 hnm Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-994.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	960.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 91 Chrysene-d12	12.485	2228184	40.000
* 98 Perylene-d12	14.778	2042627	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/L)	QUAL	LIBRARY	LIB ENTRY	CPND #
Phenol, 4,4'-(1-methylethylidene)bis-				CAS #: 80-05-7			
11.081	677776	12.1673224	12.7	98	NIST05.L	77364	91

RT	AREA	CONCENTRATIONS ON-COL(ng/ul)	FINAL(ug/L)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Phthalic acid, 4-octyl undecyl ester				CAS #: 1000314-84-4			
16.557	431019	8.44049091	8.8	83	NIST05.L	177587	98
Phthalic acid, hexadecyl pentyl ester				CAS #: 1000308-92-8			
17.202	2297717	44.9953148	46.9	80	NIST05.L	181166	98

Data File: /chem/MSD6.i/s010610.b/s6a0610.d
Date : 06-JAN-2010 13:14
Client ID: CAPA-10-6793
Sample Info: |2432830031936197|1|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

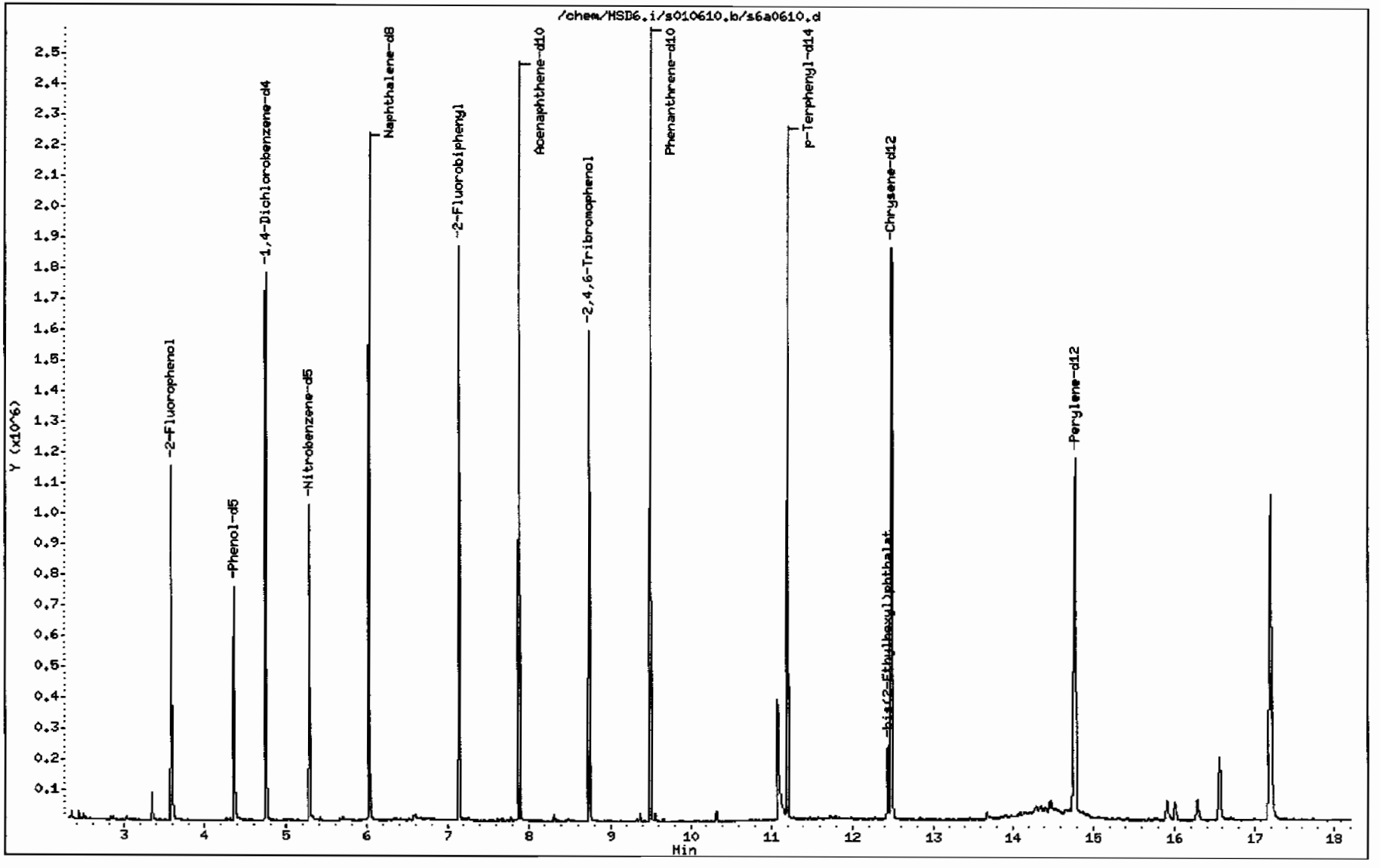

Data File: /chem/MSD6.i/s010610.b/s6a0610.d

Date : 06-JAN-2010 13:14

Client ID: CAPA-10-6793

Instrument: MSD6.i

Sample Info: |2432830031936197|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

93 bis(2-Ethylhexyl)phthalate

Concentration: 5.6 ug/L

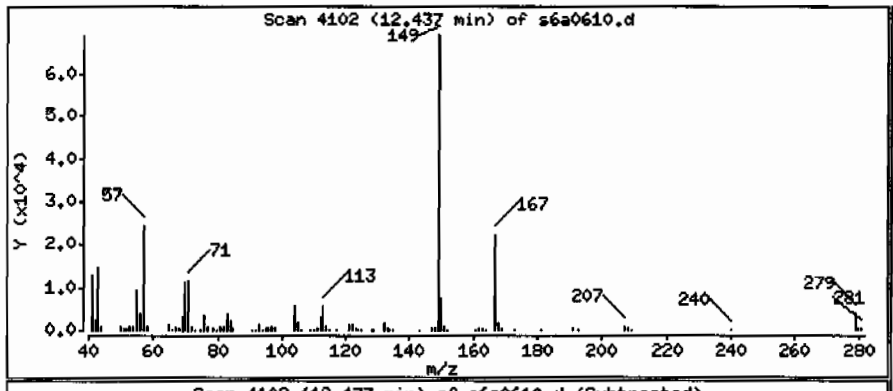

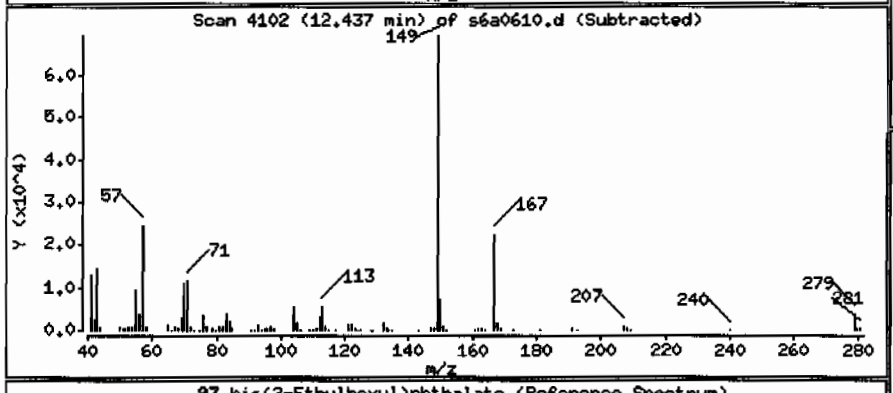

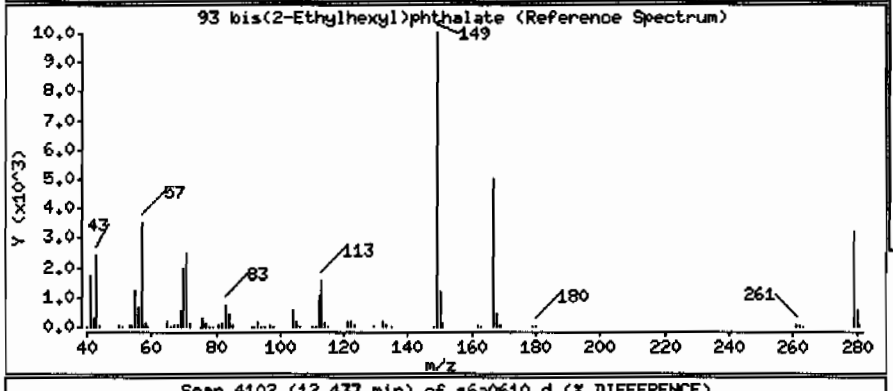

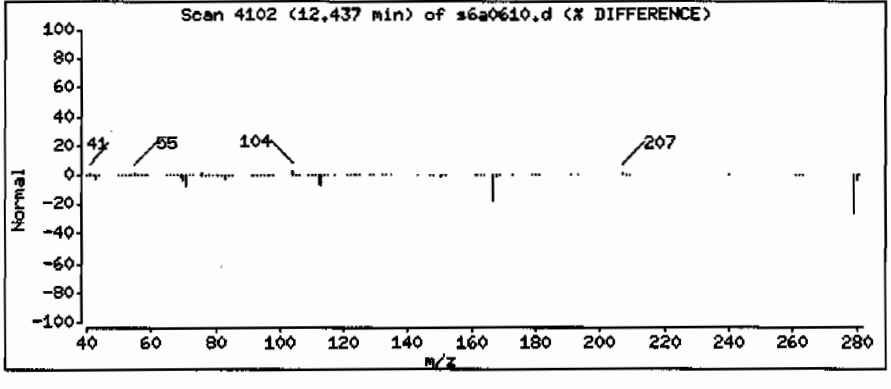

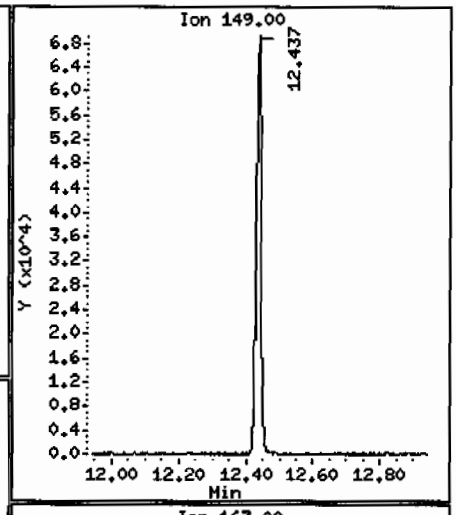

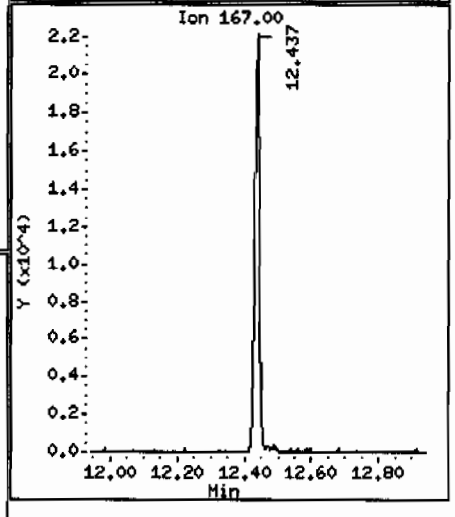

Data File: /chem/MSD6.i/s010610.b/s6a0610.d

Date : 06-JAN-2010 13:14

Client ID: CAPA-10-6793

Instrument: MSD6.i

Sample Info: |2432830031936197|1|SVMI1|LANL

Volume Injected (uL): 0.5

Operator: nagl

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phenol, 4,4'-(1-methylethylidene)bis-	80-05-7	NIST05.L	77364	98	C15H1602	228
Phenol, 4,4'-(1-methylethylidene)bis-	80-05-7	NIST05.L	77361	98	C15H1602	228
Phenol, 4,4'-(1-methylethylidene)bis-	80-05-7	NIST05.L	77362	94	C15H1602	228

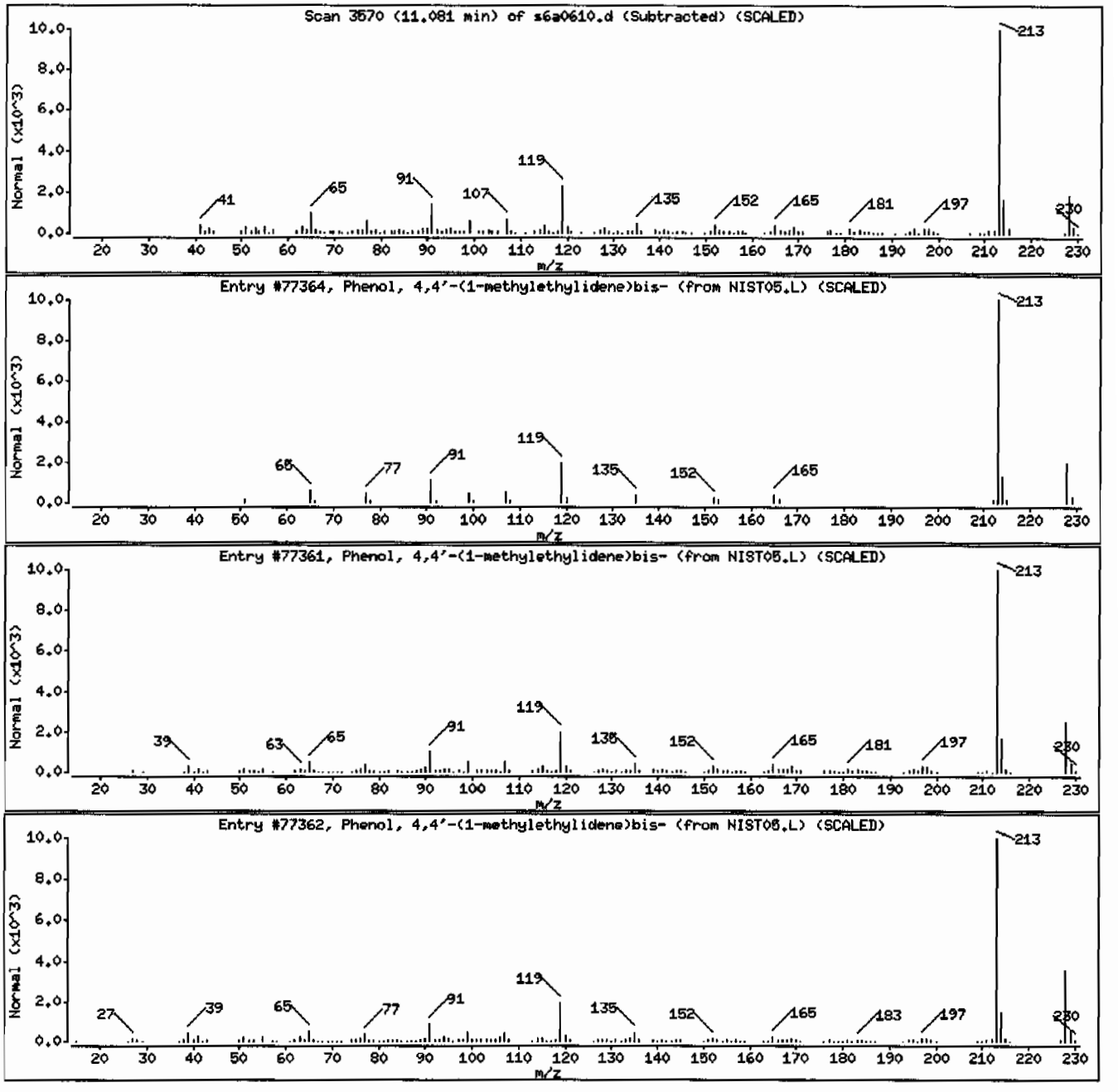

Data File: /chem/MSD6.i/s010610.b/s6a0610.d

Date : 06-JAN-2010 13:14

Client ID: CAPA-10-6793

Instrument: MSD6.i

Sample Info: 1243283003193619711ISVMI1ILANL

Volume Injected (uL): 0.5

Operator: nagi

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phthalic acid, 4-octyl undecyl ester	1000314-84-4	NIST05.L	177587	83	C27H4404	432
Dideoyl phthalate	84-77-5	NIST05.L	179565	72	C28H4604	446
Phthalic acid, isobutyl undecyl ester	1000308-97-3	NIST05.L	163891	72	C23H3604	376

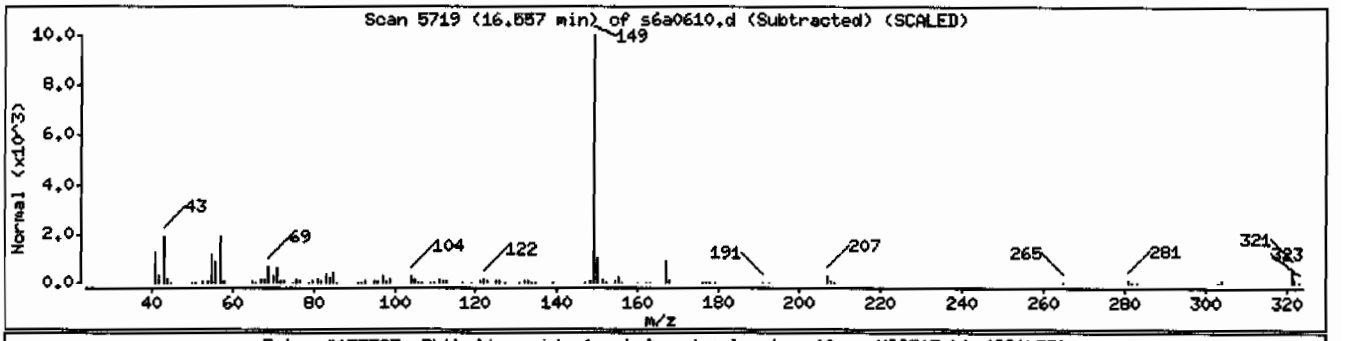

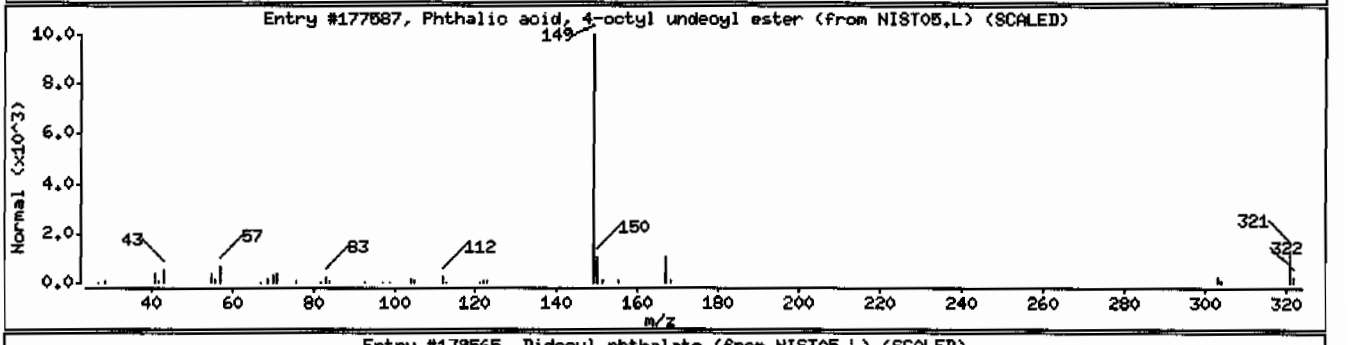

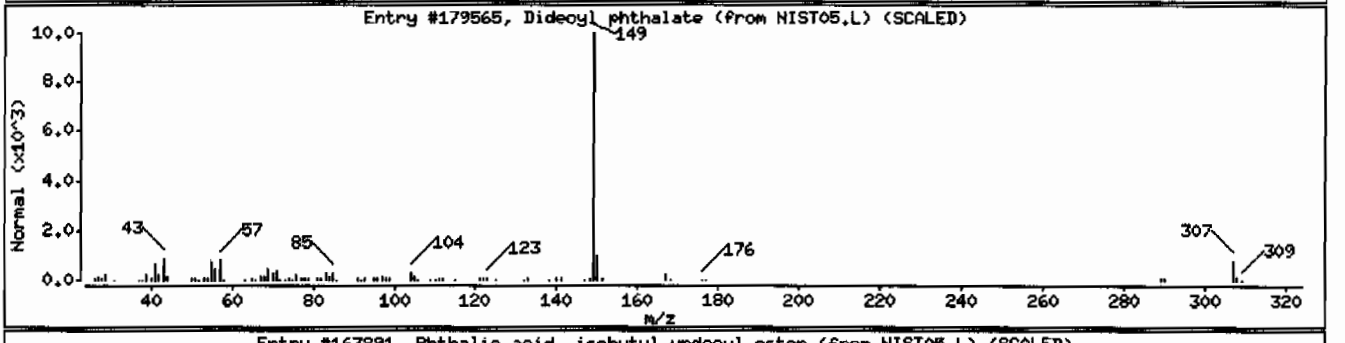

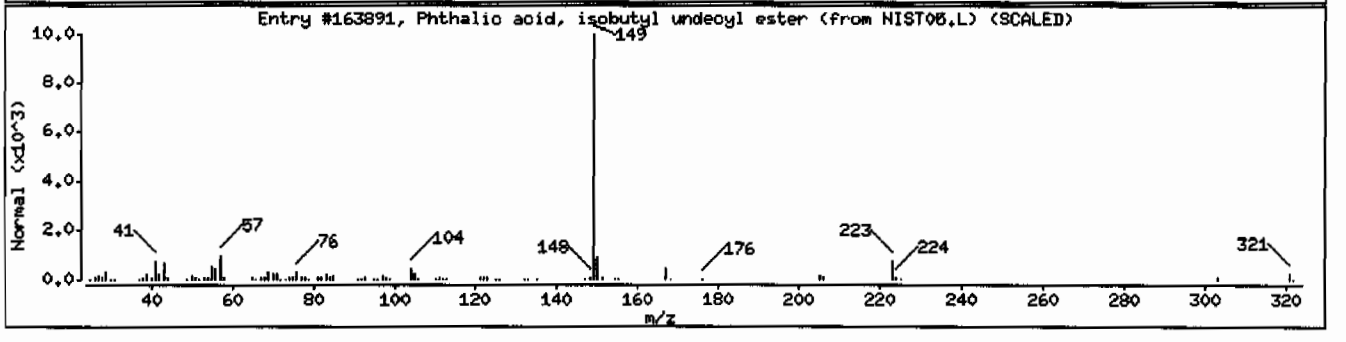

Data File: /chem/MSD6.i/s010610.b/s6a0610.d

Date : 06-JAN-2010 13:14

Client ID: CAPA-10-6793 Instrument: MSD6.i

Sample Info: 1243283003193619711ISVH11LANL

Volume Injected (uL): 0.5 Operator: nag1

Column phase: J&W DB-5MS Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Phthalic acid, hexadecyl pentyl ester	1000308-92-8	NIST05.L	181166	80	C29H4804	460
Phthalic acid, dodecyl nonyl ester	1000308-92-6	NIST05.L	181164	80	C29H4804	460
1,2-Benzenedicarboxylic acid, decyl octy	119-07-3	NIST05.L	175194	78	C26H4204	418

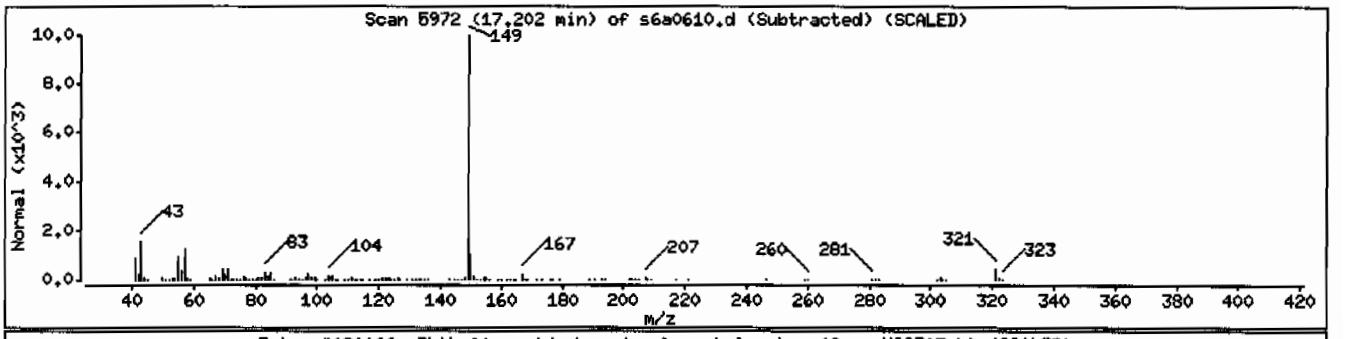

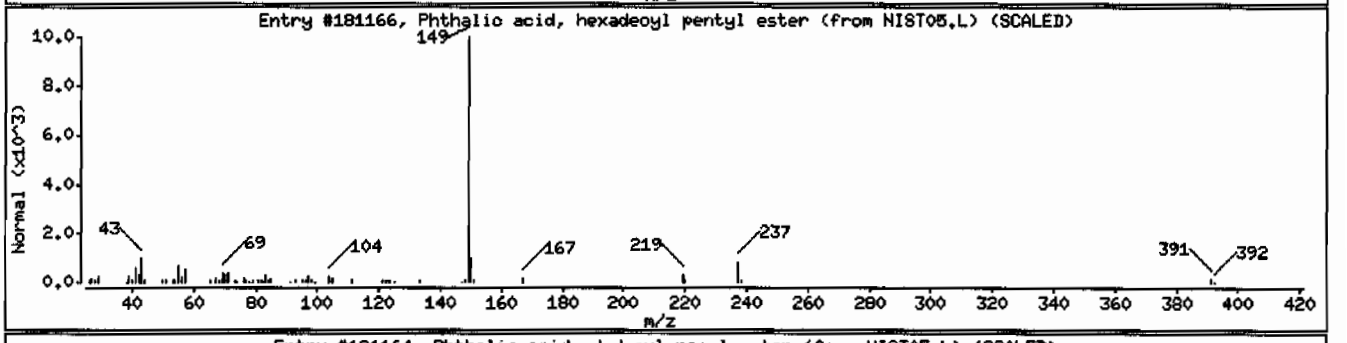

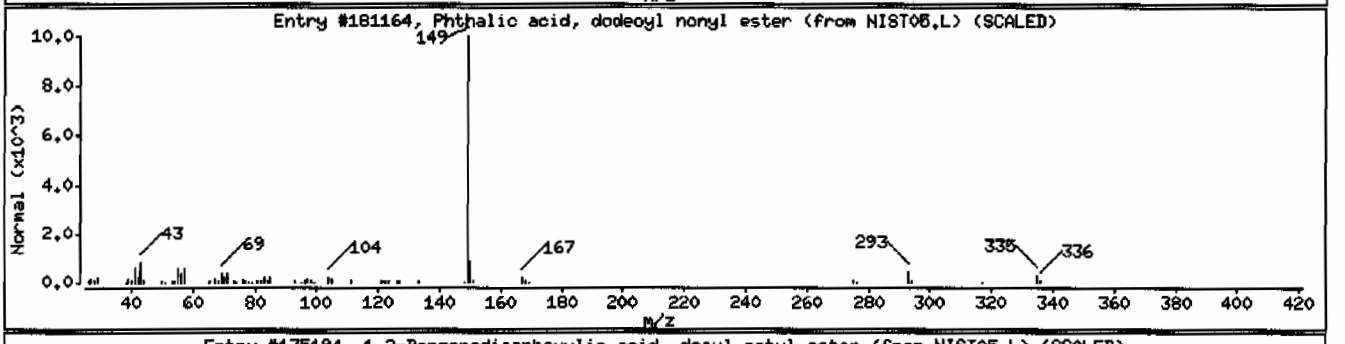

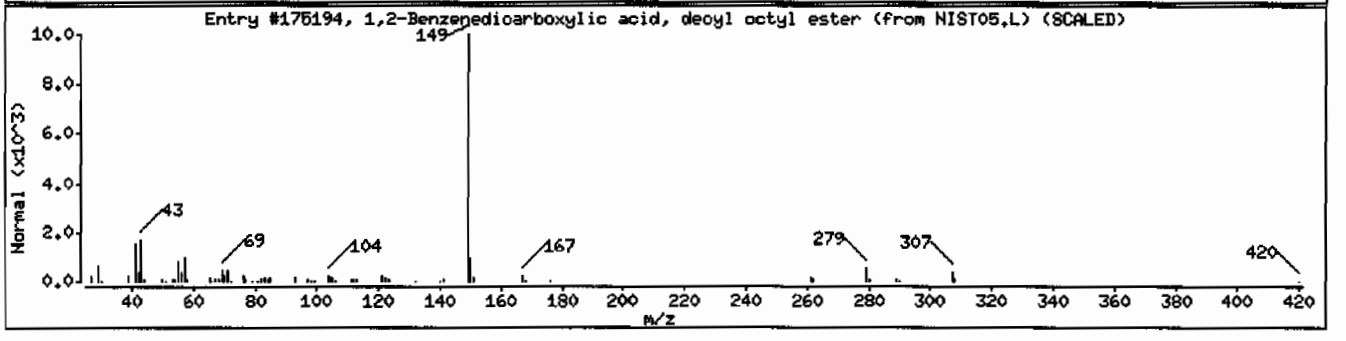

Standard Data

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine		10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Benzaldehyde		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether	1	10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120

2-Methylnaphthalene	1	10	20	40	50	80	100	120
1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
Tributylphosphate		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1	10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

APPENDIX IX

1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate (cis and trans)		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625

Calibration Standard Concentration Levels*

	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Dimethoate		10	20	40	50	80	100	120
4-Aminobiphenyl		10	20	40	50	80	100	120
Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene		10	20	40	50	80	100	120
Isodrin		10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone		10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120

Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120
Hexachlorophene		500	1000	1250	1500	1750	2000	
p-Benzoquinone		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120
Methoxychlor		10	20	40	50	80	100	120
2-Ethoxyethanol		50	75	100	125	150	200	250
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
Dibenzo(a,e)pyrene		50	75	100	125	150	200	250
Phthalic anhydride		50	75	100	125	150	200	250
1,4-Dinitrobenzene		50	75	100	125	150	200	250
(2,3-Dibromopropyl)phosphate		50	75	100	125	150	200	250
Methylenebis(2-chloroaniline)		50	75	100	125	150	200	250
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothio anisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalamide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120
bis(p-Chlorophenyl)sulfone		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
Level 1 may be included at request of client
(06/08)

Report Date: 06-Jan-2010 15:14

Calibration History

Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Start Cal Date: 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
09-NOV-2009 18:53	MEGA	/chem/MSD6.i/s110909.b/s6k0913.d
Cal Level: 2 , Cal Amount: 10.00000		
11-NOV-2009 01:47	NEV	/chem/MSD6.i/s110909.b/s6k0948.d
10-NOV-2009 22:55	HEX	/chem/MSD6.i/s110909.b/s6k0942.d
10-NOV-2009 16:20	PEST	/chem/MSD6.i/s110909.b/s6k0930.d
10-NOV-2009 11:59	AP12	/chem/MSD6.i/s110909.b/s6k0923.d
09-NOV-2009 19:31	MEGA	/chem/MSD6.i/s110909.b/s6k0914.d
Cal Level: 3 , Cal Amount: 20.00000		
11-NOV-2009 02:16	NEV	/chem/MSD6.i/s110909.b/s6k0949.d
10-NOV-2009 23:24	HEX	/chem/MSD6.i/s110909.b/s6k0943.d
10-NOV-2009 16:56	PEST	/chem/MSD6.i/s110909.b/s6k0931.d
10-NOV-2009 12:36	AP12	/chem/MSD6.i/s110909.b/s6k0924.d
09-NOV-2009 20:09	MEGA	/chem/MSD6.i/s110909.b/s6k0915.d
Cal Level: 4 , Cal Amount: 40.00000		
11-NOV-2009 02:44	NEV	/chem/MSD6.i/s110909.b/s6k0950.d
10-NOV-2009 23:53	HEX	/chem/MSD6.i/s110909.b/s6k0944.d
10-NOV-2009 17:33	PEST	/chem/MSD6.i/s110909.b/s6k0932.d
10-NOV-2009 13:13	AP12	/chem/MSD6.i/s110909.b/s6k0925.d
09-NOV-2009 20:46	MEGA	/chem/MSD6.i/s110909.b/s6k0916.d
Cal Level: 5 , Cal Amount: 50.00000		
11-NOV-2009 03:12	NEV	/chem/MSD6.i/s110909.b/s6k0951.d
11-NOV-2009 00:21	HEX	/chem/MSD6.i/s110909.b/s6k0945.d
10-NOV-2009 18:09	PEST	/chem/MSD6.i/s110909.b/s6k0933.d
10-NOV-2009 13:51	AP12	/chem/MSD6.i/s110909.b/s6k0926.d
09-NOV-2009 21:25	MEGA	/chem/MSD6.i/s110909.b/s6k0917.d
Cal Level: 6 , Cal Amount: 80.00000		
11-NOV-2009 03:41	NEV	/chem/MSD6.i/s110909.b/s6k0952.d
11-NOV-2009 00:50	HEX	/chem/MSD6.i/s110909.b/s6k0946.d
10-NOV-2009 18:45	PEST	/chem/MSD6.i/s110909.b/s6k0934.d
10-NOV-2009 14:30	AP12	/chem/MSD6.i/s110909.b/s6k0927.d
09-NOV-2009 22:01	MEGA	/chem/MSD6.i/s110909.b/s6k0918.d
Cal Level: 7 , Cal Amount: 100.00000		

11-NOV-2009 04:10	NEV	/chem/MSD6.i/s110909.b/s6k0953.d
11-NOV-2009 01:18	HEX	/chem/MSD6.i/s110909.b/s6k0947.d
10-NOV-2009 19:21	PEST	/chem/MSD6.i/s110909.b/s6k0935.d
10-NOV-2009 15:06	AP12	/chem/MSD6.i/s110909.b/s6k0928.d
09-NOV-2009 22:39	MEGA	/chem/MSD6.i/s110909.b/s6k0919.d

Cal Level: 8 , Cal Amount: 120.00000		
11-NOV-2009 04:38	NEV	/chem/MSD6.i/s110909.b/s6k0954.d
10-NOV-2009 19:58	PEST	/chem/MSD6.i/s110909.b/s6k0936.d
10-NOV-2009 15:43	AP12	/chem/MSD6.i/s110909.b/s6k0929.d
09-NOV-2009 23:16	MEGA	/chem/MSD6.i/s110909.b/s6k0920.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
06-JAN-2010 10:50	PEST	/chem/MSD6.i/s010610.b/s6a0605.d
Ccal Level: 4 , Ccal Amount: 40.0		
06-JAN-2010 10:22	AP12	/chem/MSD6.i/s010610.b/s6a0604.d
Ccal Level: 4 , Ccal Amount: 40.0		
06-JAN-2010 09:46	MEGA	/chem/MSD6.i/s010610.b/s6a0603.d
Ccal Level: 4 , Ccal Amount: 40.0		
06-JAN-2010 09:09	MEGA	/chem/MSD6.i/s010610.b/s6a0602.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Cal Date : 06-Jan-2010 15:13 jos00786

Calibration File Names:
Level 1: /chem/MSD6.i/s110909.b/s6k0913.d
Level 2: /chem/MSD6.i/s110909.b/s6k0948.d
Level 3: /chem/MSD6.i/s110909.b/s6k0949.d
Level 4: /chem/MSD6.i/s110909.b/s6k0950.d
Level 5: /chem/MSD6.i/s110909.b/s6k0951.d
Level 6: /chem/MSD6.i/s110909.b/s6k0952.d
Level 7: /chem/MSD6.i/s110909.b/s6k0953.d
Level 8: /chem/MSD6.i/s110909.b/s6k0954.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.62711	0.72014	0.69994	0.71294	0.67761					
	0.66245	0.66663					AVRG		0.68098		4.78734
2 Pyridine	+++++	0.78506	0.84345	0.94451	0.94132	0.77430					
	0.82190	0.82246					AVRG		0.84757		8.16958
4 Aniline	+++++	0.51792	0.56281	0.52949	0.53182	0.51964					
	0.51849	0.51247					AVRG		0.52752		3.21865
209 Benzaldehyde	+++++	0.94297	0.91161	0.92064	0.86617	0.84259					
	0.79828	0.74667					AVRG		0.86127		8.23824
6 Phenol	+++++	1.29580	1.38609	1.27955	1.27629	1.24279					
	1.20107	1.21677					AVRG		1.27120		4.82676

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	0.93365	0.90056	0.92748	0.85273	0.86174	0.82247					
	0.79075	0.79709					AVRG		0.86081		6.48811
8 2-Chlorophenol	+++++	1.05270	1.10343	1.04994	1.05384	0.99340					
	0.95375	0.94058					AVRG		1.02109		5.85808
203 n-Decane	+++++	1.57696	1.59018	1.40648	1.36249	1.17658					
	+++++	+++++					AVRG		1.42254		11.98709
9 1,3-Dichlorobenzene	+++++	1.22415	1.27608	1.20806	1.21136	1.14335					
	1.08668	1.07881					AVRG		1.17550		6.31837
11 1,4-Dichlorobenzene	+++++	1.27202	1.32037	1.21925	1.20743	1.15141					
	1.09639	1.07447					AVRG		1.19162		7.54222
12 Benzyl alcohol	+++++	0.60900	0.65716	0.63043	0.62465	0.64143					
	0.63021	0.64767					AVRG		0.63436		2.50657
13 1,2-Dichlorobenzene	+++++	1.16666	1.21707	1.13327	1.12016	1.08966					
	1.03460	1.02472					AVRG		1.11231		6.21300
14 bis(2-Chloroisopropyl)ether	+++++	2.07635	2.13325	1.99088	1.97675	1.86028					
	1.72252	1.69272					AVRG		1.92182		8.81925
15 o-Cresol	+++++	0.82992	0.88629	0.84024	0.85639	0.80893					
	0.80386	0.79407					AVRG		0.83139		3.92027

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.20921	1.17591	1.21168	1.15285	1.16925					
	1.13524	1.12939					AVRG		1.16908		2.80572
17 N-Nitrosodipropylamine	0.65638	0.74117	0.78851	0.72893	0.73002	0.72328					
	0.70725	0.59369					AVRG		0.70865		8.34285
18 m,p-Cresols	+++++	1.03591	1.12590	1.04958	1.05532	1.04720					
	1.02399	1.03632					AVRG		1.05346		3.18987
19 Hexachloroethane	+++++	0.45806	0.49524	0.47390	0.46960	0.45628					
	0.43995	0.43396					AVRG		0.46100		4.53111
21 Nitrobenzene	+++++	0.31691	0.32516	0.29885	0.29715	0.27038					
	0.24823	0.23966					AVRG		0.28519		11.62250
22 Isophorone	+++++	0.55891	0.57824	0.53268	0.53266	0.49425					
	0.45829	0.38358					AVRG		0.50552		13.23015
23 2-Nitrophenol	+++++	0.13453	0.14214	0.13601	0.13806	0.12888					
	0.12072	0.12047					AVRG		0.13154		6.43934
24 2,4-Dimethylphenol	+++++	0.23987	0.22536	0.21067	0.20421	0.21065					
	0.21868	0.21622					AVRG		0.21795		5.40955
25 bis(2-Chloroethoxy)methane	+++++	0.33208	0.34147	0.30906	0.30442	0.28195					
	0.26036	0.25310					AVRG		0.29749		11.40063

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Cal Date : 06-Jan-2010 15:13 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.19875	0.21444	0.20921	0.20622	0.19391					
	0.18142	0.17985					AVRG		0.19769		6.80078
27 Benzoic acid	+++++	+++++	0.10585	0.12338	0.14032	0.14157					
	0.15049	0.14556					AVRG		0.13453		12.46641
28 1,2,4-Trichlorobenzene	+++++	0.27809	0.27557	0.25214	0.25046	0.22876					
	0.21050	0.20278					AVRG		0.24261		12.25857
30 Naphthalene	0.93577	0.85146	0.85267	0.76017	0.74029	0.64713					
	+++++	+++++					AVRG		0.79792		12.82401
204 alpha-Terpineol	+++++	0.23577	0.25490	0.22003	0.21987	0.20427					
	0.17723	+++++					AVRG		0.21868		12.15593
31 4-Chloroaniline	+++++	0.26389	0.28196	0.26991	0.26064	0.24995					
	0.23771	0.23114					AVRG		0.25646		7.00922
189 Caprolactam	+++++	0.06766	0.07272	0.08214	0.08102	0.07115					
	0.07075	0.07172					AVRG		0.07388		7.43636
32 Hexachlorobutadiene	+++++	0.14265	0.14557	0.13182	0.13097	0.11864					
	0.10931	0.10542					AVRG		0.12634		12.40746
33 4-Chloro-3-methylphenol	+++++	0.20824	0.22585	0.20971	0.20633	0.19424					
	0.17957	0.17303					AVRG		0.19957		9.25582

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Cal Date : 06-Jan-2010 15:13 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.56779	0.53746	0.54769	0.49857	0.47476	0.43707					
	0.39981	0.38884					AVRG		0.48150		14.15789
35 1-Methylnaphthalene	0.55872	0.52838	0.53208	0.48366	0.46920	0.42612					
	0.38935	0.38051					AVRG		0.47100		14.29869
36 Hexachlorocyclopentadiene	+++++	0.13520	0.17775	0.15114	0.16219	0.15378					
	0.18308	0.16783					AVRG		0.16157		10.19735
208 1,1'-Biphenyl	+++++	1.32152	1.23439	1.25731	1.19710	1.16580					
	1.12776	1.10528					AVRG		1.20131		6.32036
205 2,3-Dichloroaniline	+++++	0.51880	0.53286	0.48272	0.49159	0.46096					
	0.42997	0.43664					AVRG		0.47908		8.16477
37 2,4,6-Trichlorophenol	+++++	0.27570	0.29634	0.28058	0.28008	0.26989					
	0.25242	0.25556					AVRG		0.27294		5.58990
38 2,4,5-Trichlorophenol	+++++	0.28031	0.30282	0.29443	0.29832	0.29160					
	0.28523	0.28197					AVRG		0.29067		2.92500
40 2-Chloronaphthalene	0.91208	0.94921	0.97975	0.90835	0.91949	0.87198					
	0.81926	0.82647					AVRG		0.89832		6.24992
42 o-Nitroaniline	+++++	0.28653	0.32807	0.30812	0.31848	0.31056					
	0.29539	0.30412					AVRG		0.30732		4.50651

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End Cal Date : 11-NOV-2009 04:38
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Target Version : 3.50
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Method file : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Cal Date : 06-Jan-2010 15:13 jos00786

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
41 m-Nitroaniline	+++++	0.19029	0.23187	0.23025	0.23197	0.23511					
	0.22216	0.23314					AVRG		0.22497		7.03906
43 Dimethylphthalate	+++++	1.10253	1.11895	1.05121	1.05401	1.01311					
	0.95493	0.88796					AVRG		1.02610		7.97599
44 2,6-Dinitrotoluene	+++++	0.24859	0.25869	0.24751	0.24771	0.24514					
	0.22903	0.23656					AVRG		0.24475		3.87474
45 Acenaphthylene	1.45077	1.53234	1.59736	1.47314	1.47686	1.41153					
	1.30118	1.31187					AVRG		1.44438		7.03164
47 Acenaphthene	0.97754	0.93463	0.97051	0.90906	0.90733	0.85875					
	0.82122	0.83304					AVRG		0.90151		6.58830
48 2,4-Dinitrophenol	+++++	+++++	15920	45695	60199	121040					
	185455	+++++					LINR	0.36255	0.13077		0.99262
49 Dibenzofuran	+++++	1.31036	1.35172	1.24091	1.23630	1.17505					
	1.09035	1.11352					AVRG		1.21689		7.96140
50 2,4-Dinitrotoluene	+++++	0.28688	0.32526	0.31392	0.31582	0.31468					
	0.30077	0.30301					AVRG		0.30862		4.09740
51 Diethylphthalate	+++++	1.08427	1.13193	1.06273	1.05585	1.00787					
	0.93441	0.95637					AVRG		1.03335		6.84784

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	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	12277	40572	90802	114423	208122					
	294363	379687					LINR	0.18209	0.20146		0.99664
53 Fluorene	1.06940	1.05468	1.10259	1.00777	1.00699	0.94775					
	0.89677	0.90440					AVRG		0.99879		7.65829
54 4-Chlorophenylphenylether	+++++	0.49941	0.52344	0.48539	0.48490	0.45443					
	0.43029	0.42560					AVRG		0.47192		7.71070
55 2-Methyl-4,6-dinitrophenol	+++++	9251	34357	85168	107219	199515					
	279188	346834					LINR	0.17722	0.10780		0.99957
56 p-Nitroaniline	+++++	18297	49968	114446	144020	267165					
	377942	477974					LINR	0.17663	0.25514		0.99741
133 Diphenylamine	+++++	0.51235	0.51279	0.48995	0.49110	0.46341					
	0.45142	0.45392					AVRG		0.48213		5.41113
58 1,2-Diphenylhydrazine	+++++	0.65288	0.67935	0.62730	0.62752	0.58724					
	0.56393	0.55466					AVRG		0.61327		7.55575
59 Tributylphosphate	+++++	1.19922	1.25332	1.24022	1.27997	1.24188					
	1.19433	1.14050					AVRG		1.22135		3.81011
61 4-Bromophenylphenylether	+++++	0.16321	0.16758	0.15949	0.16092	0.15366					
	0.14977	0.15022					AVRG		0.15784		4.30183

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.17072	0.17525	0.16702	0.16690	0.16190					
	0.15730	0.15822					AVRG		0.16533		3.97990
207 Atrazine	+++++	0.04466	0.04316	0.04336	0.04050	0.04104					
	0.03746	0.03425					AVRG		0.04063		9.04410
65 Pentachlorophenol	+++++	12427	38945	80211	100581	192628					
	259470	326879					LINR	0.13427	0.09964		0.99838
206 n-Octadecane	+++++	0.51627	0.51598	0.45832	0.46068	0.40718					
	0.37377	0.35992					AVRG		0.44173		14.37986
68 Phenanthrene	0.95060	0.88603	0.89746	0.83221	0.81673	0.77346					
	0.73349	0.72773					AVRG		0.82721		9.72714
69 Anthracene	0.87683	0.86194	0.90534	0.83970	0.83829	0.78921					
	0.75133	0.75196					AVRG		0.82682		6.91971
72 Di-n-butylphthalate	+++++	1.00113	1.04654	0.99105	0.98676	0.92173					
	0.85606	0.84350					AVRG		0.94954		8.15043
76 Fluoranthene	0.78392	0.79487	0.87026	0.82674	0.81613	0.77420					
	0.73596	0.73727					AVRG		0.79242		5.73137
77 Benzidine	+++++	0.35813	0.40641	0.39242	0.37729	0.37701					
	0.39765	0.44234					AVRG		0.39304		6.85454

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	100 Level 7	120 Level 8									
79 Pyrene	1.12114	1.31021	1.22539	1.10007	1.11660	1.02083					
	0.96007	0.94734					AVRG		1.10021		11.38295
85 Butylbenzylphthalate	+++++	0.52543	0.54028	0.51608	0.52406	0.49119					
	0.46906	0.45845					AVRG		0.50351		6.16544
89 Benzo(a)anthracene	0.94221	0.85505	0.89830	0.85692	0.85716	0.83423					
	0.82127	0.83891					AVRG		0.86301		4.55256
90 3,3'-Dichlorobenzidine	+++++	0.23529	0.28074	0.29290	0.29384	0.28532					
	0.28779	0.30173					AVRG		0.28252		7.74710
92 Chrysene	0.87195	0.83557	0.87346	0.82487	0.82639	0.80729					
	0.78155	0.79409					AVRG		0.82690		4.03552
93 bis(2-Ethylhexyl)phthalate	7340	107837	270739	551016	645048	1078889					
	1389660	1700943					WLINR	0.01019	0.70092		0.99014
94 Di-n-octylphthalate	+++++	1.19610	1.35485	1.31605	1.35770	1.25055					
	1.27306	1.15060					AVRG		1.27127		6.18607
95 Benzo(b)fluoranthene	0.74161	0.85750	0.94279	0.90432	0.93361	0.89239					
	0.89332	0.91506					AVRG		0.88507		7.19928
96 Benzo(k)fluoranthene	0.73172	0.86857	0.95518	0.92430	0.92244	0.89945					
	0.88010	0.85909					AVRG		0.88011		7.72381

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	0.54179	0.70605	0.81133	0.81358	0.82559	0.80913					
	0.80179	0.80647					AVRG		0.76447		12.74919
99 Indeno(1,2,3-cd)pyrene	5888	60939	200863	402882	510813	1012558					
	1348903	1889688					LINR	0.07592	0.78768		0.99752
100 Dibenzo(a,h)anthracene	3385	46770	157194	361792	411532	815285					
	1094612	1529825					LINR	0.06768	0.63666		0.99908
101 Benzo(ghi)perylene	0.41694	0.53228	0.60870	0.60962	0.60436	0.63133					
	0.62968	0.63931					AVRG		0.58403		12.88683
102 1,4-Dioxane	+++++	0.37671	0.37043	0.39061	0.37803	0.36375					
	0.35237	0.33052					AVRG		0.36606		5.38827
103 Methyl methacrylate	+++++	0.19626	0.19646	0.20436	0.20625	0.18540					
	0.18964	0.17876					AVRG		0.19388		5.13081
104 Ethyl methacrylate	+++++	0.79650	0.81191	0.84398	0.82898	0.80568					
	0.79571	0.75648					AVRG		0.80561		3.45659
105 2-Picoline	+++++	1.39124	1.31746	1.36987	1.31904	1.28927					
	1.27506	1.19912					AVRG		1.30872		4.85814
106 N-Nitrosomethylethylamine	+++++	0.50512	0.48970	0.52453	0.49928	0.51969					
	0.51463	0.52429					AVRG		0.51104		2.61826

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	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.56429	0.53321	0.56316	0.50377	0.53102					
	0.50923	0.49498					AVRG		0.52852		5.24900
108 N-Nitrosodiethylamine	+++++	0.50310	0.47987	0.51154	0.48534	0.49862					
	0.49304	0.49722					AVRG		0.49553		2.15019
109 Ethyl Methanesulfonate	+++++	0.65808	0.64977	0.67344	0.62747	0.66045					
	0.64399	0.64860					AVRG		0.65169		2.21442
110 Pentachloroethane	+++++	0.32209	0.31386	0.33094	0.32010	0.31614					
	0.31148	0.30303					AVRG		0.31681		2.78134
111 N-Nitrosopyrrolidine	+++++	0.44182	0.46376	0.50830	0.47779	0.50143					
	0.49385	0.44600					AVRG		0.47614		5.57640
113 N-Nitrosomorpholine	+++++	0.71032	0.67134	0.71256	0.65887	0.68726					
	0.65974	0.65547					AVRG		0.67936		3.58698
114 o-Toluidine	+++++	1.74797	1.65530	1.71709	1.64005	1.64679					
	1.58070	1.58178					AVRG		1.65281		3.79762
115 N-Nitrosopiperidine	+++++	0.13834	0.13623	0.14736	0.13885	0.14290					
	0.13997	0.14373					AVRG		0.14105		2.69891
116 a,a-Dimethylphenethylamine	+++++	0.78770	0.81587	0.88476	0.87463	0.88336					
	0.86623	0.87565					AVRG		0.85546		4.44785

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	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.14741	0.14492	0.13783	0.14116	0.13439					
	0.12857	0.12370					AVRG		0.13685		6.28357
118 2,6-Dichlorophenol	+++++	0.19682	0.19992	0.21240	0.20960	0.21251					
	0.20568	0.21118					AVRG		0.20687		3.05257
119 Hexachloropropene	+++++	0.08644	0.09499	0.10791	0.10350	0.10830					
	0.10654	0.11112					AVRG		0.10269		8.60612
120 p-Phenylenediamine	+++++	0.19714	0.24091	0.25567	0.24421	0.23168					
	0.22043	0.21678					AVRG		0.22955		8.57933
121 N-Nitrosodi-n-butylamine	+++++	0.22447	0.22501	0.22216	0.21154	0.19839					
	0.19348	0.19524					AVRG		0.21004		6.76180
122 Safrole	+++++	0.18675	0.18585	0.19677	0.19040	0.18675					
	0.17956	0.17958					AVRG		0.18653		3.22597
123 1,2,4,5-Tetrachlorobenzene	+++++	0.45393	0.42422	0.44255	0.41650	0.41676					
	0.40609	0.40229					AVRG		0.42319		4.45863
124 Isosafrole	+++++	0.34011	0.33198	0.35164	0.33779	0.34233					
	0.33627	0.33702					AVRG		0.33959		1.83025
125 1,4-Naphthoquinone	+++++	0.30018	0.32824	0.34894	0.32634	0.29745					
	0.28366	0.26235					AVRG		0.30674		9.65282

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	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.15441	0.17500	0.17160	0.17355	0.17392					
	0.16754	0.16904					AVRG		0.16929		4.19006
127 Pentachlorobenzene	+++++	0.38426	0.36575	0.37736	0.36552	0.35674					
	0.35182	0.35035					AVRG		0.36454		3.50537
128 1-Naphthylamine	+++++	0.90674	0.92102	0.95184	0.91692	0.90718					
	0.86367	0.88454					AVRG		0.90742		3.07978
129 2-Naphthylamine	+++++	0.96578	1.00999	1.02440	0.99125	0.97953					
	0.93471	0.95520					AVRG		0.98012		3.19024
130 2,3,4,6-Tetrachlorophenol	+++++	0.20640	0.23481	0.21862	0.21374	0.22201					
	0.21460	0.22254					AVRG		0.21896		4.07356
131 5-Nitro-o-toluidine	+++++	0.22084	0.26615	0.28994	0.29013	0.29251					
	0.28841	0.30508					AVRG		0.27901		10.07623
132 Thionazin	+++++	0.16760	0.17396	0.17237	0.17849	0.17822					
	0.16987	0.16398					AVRG		0.17207		3.11896
134 Sulfotepp	+++++	0.08934	0.08802	0.08507	0.08886	0.08655					
	0.08265	0.08005					AVRG		0.08579		4.00843
135 Phorate	+++++	0.38230	0.38968	0.37391	0.38904	0.37359					
	0.35020	0.32660					AVRG		0.36933		6.25438

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136 1,3,5-Trinitrobenzene	+++++	14861	45341	104071	130665	222134					
	265730	408609					LINR	0.09141	0.12978		0.99734
137 Phenacetin	+++++	0.21732	0.25812	0.27209	0.26902	0.27044					
	0.26738	0.28241					AVRG		0.26240		8.05167
138 Diallate	+++++	0.26191	0.24374	0.25182	0.23998	0.23522					
	0.22716	0.22410					AVRG		0.24056		5.55643
139 Dimethoate	+++++	0.18955	0.19806	0.21061	0.22946	0.23158					
	0.22398	0.21950					AVRG		0.21468		7.45885
140 4-Aminobiphenyl	+++++	0.50489	0.50584	0.54599	0.56556	0.56494					
	0.53276	0.52934					AVRG		0.53562		4.66298
141 Pentachloronitrobenzene	+++++	0.06195	0.06081	0.06546	0.06329	0.06151					
	0.06084	0.05959					AVRG		0.06192		3.12402
142 Pronamide	+++++	0.26962	0.26582	0.27431	0.26759	0.26151					
	0.25173	0.25174					AVRG		0.26319		3.31411
143 Dinoseb	+++++	11996	47856	123552	154632	280906					
	375481	479562					LINR	0.15482	0.14736		0.99949
144 Disulfoton	+++++	0.31933	0.32969	0.31920	0.32975	0.31125					
	0.29624	0.27823					AVRG		0.31196		6.02930

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	100 Level 7	120 Level 8									
145 Methyl parathion	+++++	0.14493	0.15978	0.17270	0.18140	0.18775					
	0.18141	0.17864					AVRG		0.17237		8.70434
146 4-Nitroquinoline-1-oxide	+++++	0.02012	0.03296	0.02700	0.02533	0.02224					
	0.01930	0.01750					AVRG		0.02349		22.76469 <-
147 Methapyrilene	+++++	0.40623	0.42209	0.41103	0.39768	0.37937					
	0.35132	0.33430					AVRG		0.38600		8.45747
148 Isodrin	+++++	0.10136	0.09753	0.10130	0.09757	0.09481					
	0.09122	0.09037					AVRG		0.09631		4.58453
149 Aramite	+++++	0.03841	0.04251	0.04600	0.04566	0.04690					
	0.04564	0.04428					AVRG		0.04420		6.60357
150 Kepone	+++++	0.05674	0.06191	0.06311	0.06098	0.06085					
	0.06194	0.06656					AVRG		0.06173		4.75009
151 p-(Dimethylamino)azobenzene	+++++	0.31224	0.31378	0.33288	0.32474	0.31931					
	0.31446	0.30396					AVRG		0.31734		2.95033
152 Chlorobenzilate	+++++	0.30009	0.27506	0.30295	0.29512	0.29377					
	0.29203	0.28006					AVRG		0.29130		3.50189
153 3,3'-Dimethylbenzidine	+++++	0.49489	0.52397	0.53487	0.52482	0.53397					
	0.53619	0.54473					AVRG		0.52763		3.04743

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INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Cal Date : 06-Jan-2010 15:13 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
154 Famphur	+++++	0.28850	0.33742	0.33640	0.36516	0.37704					
	0.35655	0.33317					AVRG		0.34203		8.41381
155 2-Acetylaminofluorene	+++++	23996	98558	217618	290992	478700					
	598627	953419					LINR	0.12414	0.37309		0.99874
157 7,12Dimethylbenz(a)anthracene	+++++	0.45745	0.44941	0.48919	0.48420	0.49542					
	0.49422	0.48353					AVRG		0.47906		3.80416
158 3-Methylcholanthrene	+++++	0.29343	0.35502	0.37871	0.37695	0.38953					
	0.38995	0.40328					AVRG		0.36955		9.94080
26 Phthalic anhydride	+++++	10939	40864	83487	108159	203846					
	306459	+++++					LINR	0.14938	0.09004		0.99590
173 Carbazole	0.68572	0.63216	0.65059	0.65023	0.64669	0.65901					
	0.65208	0.65947					AVRG		0.65449		2.32370
174 Hexachlorophene	+++++	0.04700	0.06194	0.06687	0.06701	0.06606					
	+++++	+++++					AVRG		0.06178		13.78238
179 Dibenzo(a,e)pyrene	+++++	21397	67635	183254	214017	467062					
	+++++	+++++					LINR	0.16800	0.36891		0.99459
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

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INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Cal Date : 06-Jan-2010 15:13 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	0.09983	0.11502	0.14598	0.13665	0.14571					
	0.12211	0.12583					AVRG		0.12730		13.25929
191 Parathion	+++++	0.05089	0.05709	0.06102	0.06360	0.06315					
	0.06253	0.06173					AVRG		0.06000		7.60183
192 Methoxychlor	+++++	0.54663	0.59527	0.57022	0.57190	0.55995					
	0.49223	0.53082					AVRG		0.55243		6.05482
210 m-Toluidine	+++++	1.07152	1.09862	1.08267	1.09477	1.19760					
	1.39731	0.92523					AVRG		1.12396		12.87193
211 p-Toluidine	+++++	0.98878	1.01175	0.93629	0.93823	0.84629					
	0.67790	+++++					AVRG		0.89987		13.64283
212 Cis Diallate	+++++	0.25680	0.24216	0.25774	0.25015	0.25647					
	0.24871	0.25860					AVRG		0.25295		2.41779
213 Trans Diallate	+++++	0.30813	0.28675	0.29626	0.28232	0.27673					
	0.26725	0.26364					AVRG		0.28301		5.55643
214 1,4-Dinitrobenzene	+++++	0.15465	0.18602	0.18671	0.19154	0.19074					
	0.18381	0.19324					AVRG		0.18382		7.23195
215 2-Ethoxyethanol	+++++	0.69474	0.75708	0.72314	0.72734	0.69576					
	0.68979	0.68463					AVRG		0.71035		3.71426

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INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Cal Date : 06-Jan-2010 15:13 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	11622	37526	94270	117296	226774					
	306702	394688					LINR	0.14094	0.14618		0.99920
229 2,2'-Dichlorobenzil	+++++	0.65548	0.70788	0.67278	+++++	0.85557					
	0.79635	+++++					AVRG		0.73761		11.58274
230 4-Chlorothioanisole	+++++	65505	120100	275307	+++++	727615					
	828249	+++++					LINR	0.13623	0.30665		0.99347
231 4-Chlorothiophenol	+++++	14955	49890	195788	+++++	593706					
	683100	+++++					LINR	0.29380	0.27176		0.99219
232 bis(p-Chlorophenyl)sulfone	+++++	0.41911	0.42098	0.38909	+++++	0.48605					
	0.44832	+++++					AVRG		0.43271		8.42306
233 bis(p-Chlorophenyl)disulfide	+++++	0.19644	0.20913	0.18244	+++++	0.22594					
	0.20806	+++++					AVRG		0.20440		7.90920
234 Diphenyl disulfide	+++++	0.20078	0.21401	0.19911	+++++	0.24759					
	0.23595	+++++					AVRG		0.21949		9.81334
235 Diphenyl sulfide	+++++	0.77537	0.76082	0.73538	+++++	0.86393					
	0.82035	+++++					AVRG		0.79117		6.45415
236 Phenyl sulfone	+++++	0.43220	0.43102	0.40994	+++++	0.50304					
	0.47114	+++++					AVRG		0.44947		8.28032

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INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Cal Date : 06-Jan-2010 15:13 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
237 Hydroxymethyl phthalimide	+++++	0.14671	0.15531	0.12673	+++++	0.19818						
	0.17963	+++++					AVRG		0.16131		17.36813	<-
238 Phthalic acid	+++++	13646	40994	115933	+++++	343308						
	402020	+++++					LINR	0.25337	0.15547		0.99358	
239 Thiophenol	+++++	41092	104698	327879	+++++	922601						
	1046955	+++++					LINR	0.23456	1.46946		0.99364	
240 bis(Chloromethyl)ether	+++++	1.01755	1.00429	0.94829	+++++	1.10480						
	1.05711	+++++					AVRG		1.02641		5.71407	
241 Octachlorostyrene	+++++	0.06097	0.06109	0.05953	+++++	0.07399						
	0.07072	+++++					AVRG		0.06526		10.12747	
M 225 Trichlorophenols	+++++	0.27800	0.29958	0.28751	0.28920	0.28074						
	0.26883	0.26877					AVRG		0.28180		3.98593	
M 226 Tetrachlorophenols	+++++	0.20640	0.23481	0.21862	0.21374	0.22201						
	0.21460	0.22254					AVRG		0.21896		4.07356	
M 227 Benzo(b,k)fluoranthene	0.73667	0.86303	0.94898	0.91431	0.92802	0.89592						
	0.88671	0.88707					AVRG		0.88259		7.33906	
M 228 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

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INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Cal Date : 06-Jan-2010 15:13 jos00786

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
$ 3 2-Fluorophenol	+++++	0.98202	1.07204	1.02934	1.03017	0.98830						
	0.95348	0.95648					AVRG		1.00169		4.36295	
$ 5 Phenol-d5	+++++	1.23734	1.34586	1.27212	1.28456	1.26316						
	1.22407	1.22277					AVRG		1.26427		3.41674	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.30745	0.31426	0.29453	0.29315	0.27101						
	0.25359	0.24671					AVRG		0.28296		9.27927	
$ 39 2-Fluorobiphenyl	+++++	1.11512	1.14628	1.04977	1.05601	0.99136						
	0.92488	0.93239					AVRG		1.03083		8.29816	
$ 60 2,4,6-Tribromophenol	+++++	0.10485	0.11685	0.11180	0.11267	0.12310						
	0.12190	0.12607					AVRG		0.11675		6.41378	
$ 81 p-Terphenyl-d14	+++++	0.71309	0.69797	0.64349	0.66522	0.61764						
	0.59401	0.58404					AVRG		0.64507		7.73004	

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INITIAL CALIBRATION DATA

Start Cal Date : 09-NOV-2009 18:53
End Cal Date : 11-NOV-2009 04:38
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Cal Date : 06-Jan-2010 15:13 jos00786

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

Data file : /chem/MSD6.i/s110909.b/s6k0913.d
Lab Smp Id: WBN091106-08 Client Smp ID: MEGAICAL
Inj Date : 09-NOV-2009 18:53
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-08|1 PPM|1|SVMF|1|MEGAICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:51 nat00999 Quant Type: ISTD
Cal Date : 09-NOV-2009 18:53 Cal File: s6k0913.d
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.833	4.833	(1.000)	284776	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	1018965	40.0000	
* 46 Acenaphthene-d10	164	7.986	7.986	(1.000)	545612	40.0000	
* 67 Phenanthrene-d10	188	9.598	9.598	(1.000)	921774	40.0000	
* 91 Chrysene-d12	240	12.615	12.615	(1.000)	727011	40.0000	
* 98 Perylene-d12	264	14.955	14.955	(1.000)	586942	40.0000	
1 N-Methyl-N-nitrosomethylamine	74	2.663	2.663	(0.551)	4297	1.00000	0.89(H)
7 bis(2-Chloroethyl) ether	63	4.548	4.548	(0.941)	6647	1.00000	1.1
17 N-Nitrosodipropylamine	70	5.190	5.190	(1.074)	4673	1.00000	0.93
30 Naphthalene	128	6.133	6.133	(1.003)	23838	1.00000	1.2
34 2-Methylnaphthalene	142	6.857	6.857	(1.122)	14464	1.00000	1.2
35 1-Methylnaphthalene	142	6.964	6.964	(1.139)	14233	1.00000	1.2
40 2-Chloronaphthalene	162	7.379	7.379	(0.924)	12441	1.00000	1.0
43 Dimethylphthalate	163	7.657	7.657	(0.959)	13728	1.00000	0.98
45 Acenaphthylene	152	7.830	7.830	(0.981)	19789	1.00000	1.0
47 Acenaphthene	154	8.016	8.016	(1.004)	13334	1.00000	1.1
51 Diethylphthalate	149	8.414	8.414	(1.054)	15410	1.00000	1.1
53 Fluorene	166	8.572	8.572	(1.073)	14587	1.00000	1.1
68 Phenanthrene	178	9.619	9.619	(1.002)	21906	1.00000	1.1
69 Anthracene	178	9.672	9.672	(1.008)	20206	1.00000	1.1
72 Di-n-butylphthalate	149	10.187	10.187	(1.061)	17369	1.00000	0.79
76 Fluoranthene	202	10.908	10.908	(1.136)	18065	1.00000	0.99
79 Pyrene	202	11.158	11.158	(0.884)	20377	1.00000	1.0(H)
85 Butylbenzylphthalate	149	11.838	11.838	(0.938)	5225	1.00000	0.57
89 Benzo(a)anthracene	228	12.592	12.592	(0.998)	17125	1.00000	1.1
92 Chrysene	228	12.643	12.643	(1.002)	15848	1.00000	1.0(H)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
93 bis(2-Ethylhexyl)phthalate	149	12.572	12.572	(0.997)	7340	1.00000	0.98
94 Di-n-octylphthalate	149	13.558	13.558	(0.907)	6621	1.00000	0.35
95 Benzo(b)fluoranthene	252	14.261	14.261	(0.954)	10882	1.00000	0.84(H)
96 Benzo(k)fluoranthene	252	14.310	14.310	(0.957)	10737	1.00000	0.83(H)
97 Benzo(a)pyrene	252	14.842	14.842	(0.992)	7950	1.00000	0.71
99 Indeno(1,2,3-cd)pyrene	276	16.929	16.929	(1.132)	5888	1.00000	3.5(H)
100 Dibenzo(a,h)anthracene	278	16.962	16.962	(1.134)	3385	1.00000	3.1(H)
101 Benzo(ghi)perylene	276	17.434	17.434	(1.166)	6118	1.00000	0.71(H)
173 Carbazole	167	9.835	9.835	(1.025)	15802	1.00000	1.0
M 227 Benzo(b,k)fluoranthene	252				21619	2.00000	1.7

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0913.d
Date : 09-NOV-2009 18:53
Client ID: MEGAICAL
Sample Info: IWBN091106-0811 PPM1|1|SVMF1|1|MEGAICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JWB3
Column diameter: 0.20

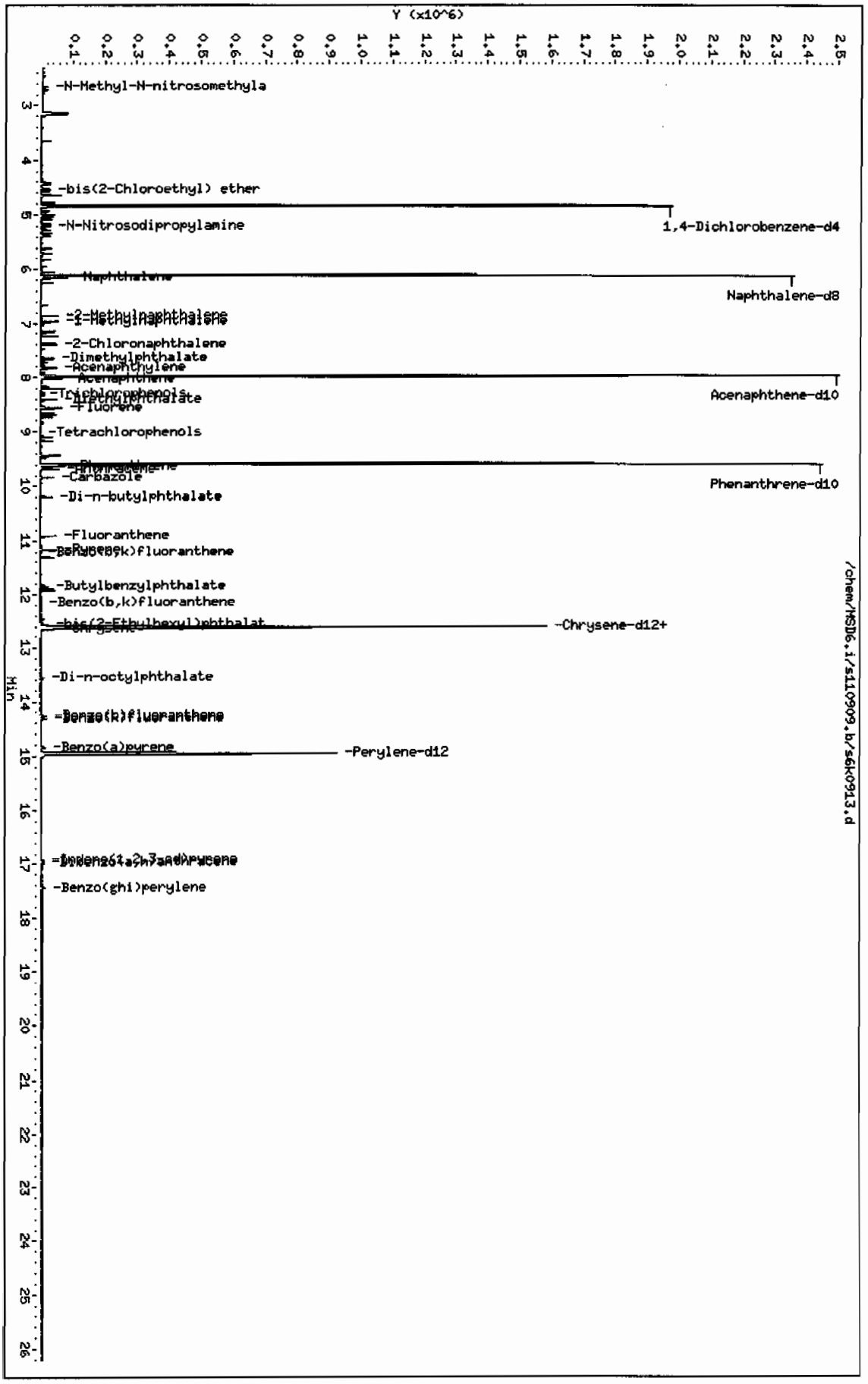

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GEL Laboratories LLC

Data file : /chem/MSD6.i/s110909.b/s6k0914.d
Lab Smp Id: WBN091106-07 Client Smp ID: MEGAICAL
Inj Date : 09-NOV-2009 19:31
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-07|10 PPM|1|SVMF|1|MEGAICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:51 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 01:47 Cal File: s6k0948.d
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	282234	40.0000	
* 29 Naphthalene-d8	136	6.115	6.115	(1.000)	1024045	40.0000	
* 46 Acenaphthene-d10	164	7.986	7.986	(1.000)	524483	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	864358	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	561593	40.0000	
* 98 Perylene-d12	264	14.950	14.950	(1.000)	416639	40.0000	
$ 3 2-Fluorophenol	112	3.649	3.649	(0.755)	69290	10.0000	9.8
$ 5 Phenol-d5	99	4.426	4.426	(0.916)	87305	10.0000	9.8
$ 20 Nitrobenzene-d5	82	5.366	5.366	(0.877)	78711	10.0000	10.9
$ 39 2-Fluorobiphenyl	172	7.239	7.239	(0.906)	146216	10.0000	10.8
$ 60 2,4,6-Tribromophenol	329	8.829	8.829	(1.106)	13748	10.0000	9.0
$ 81 p-Terphenyl-d14	244	11.303	11.303	(0.896)	100117	10.0000	11.0
1 N-Methyl-N-nitrosomethylamine	74	2.660	2.660	(0.550)	44248	10.0000	9.2
2 Pyridine	79	2.703	2.703	(0.559)	55393	10.0000	9.3
4 Aniline	66	4.515	4.515	(0.934)	36544	10.0000	9.8
6 Phenol	94	4.439	4.439	(0.918)	91430	10.0000	10.2(Q)
7 bis(2-Chloroethyl) ether	63	4.553	4.553	(0.942)	63542	10.0000	10.5
8 2-Chlorophenol	128	4.630	4.630	(0.958)	74277	10.0000	10.3
203 n-Decane	43	4.643	4.643	(0.960)	111268	10.0000	11.1
9 1,3-Dichlorobenzene	146	4.783	4.783	(0.989)	86374	10.0000	10.4
11 1,4-Dichlorobenzene	146	4.852	4.852	(1.004)	89752	10.0000	10.7
13 1,2-Dichlorobenzene	146	4.999	4.999	(1.034)	82318	10.0000	10.5
14 bis(2-Chloroisopropyl)ether	45	5.066	5.066	(1.048)	146504	10.0000	10.8
12 Benzyl alcohol	108	4.936	4.936	(1.021)	42970	10.0000	9.6
15 o-Cresol	107	5.022	5.022	(1.039)	58558	10.0000	10
18 m,p-Cresols	107	5.170	5.170	(1.070)	73092	10.0000	9.8(H)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.196	5.196	(1.075)	52296	10.0000	10.4
19 Hexachloroethane	117	5.338	5.338	(1.104)	32320	10.0000	9.9
21 Nitrobenzene	77	5.387	5.387	(0.881)	81133	10.0000	11.1
22 Isophorone	82	5.618	5.618	(0.919)	143086	10.0000	11.0
23 2-Nitrophenol	139	5.705	5.705	(0.933)	34440	10.0000	10.2
24 2,4-Dimethylphenol	122	5.715	5.715	(0.935)	61410	10.0000	11.0
25 bis(2-Chloroethoxy)methane	93	5.822	5.822	(0.952)	85015	10.0000	11.2
26 2,4-Dichlorophenol	162	5.945	5.945	(0.972)	50883	10.0000	10.0
27 Benzoic acid	105	5.756	5.756	(0.941)	13180	10.0000	3.8(QH)
28 1,2,4-Trichlorobenzene	180	6.044	6.044	(0.988)	71193	10.0000	11.5
30 Naphthalene	128	6.136	6.136	(1.003)	217984	10.0000	10.7
204 alpha-Terpineol	59	6.120	6.120	(1.001)	60361	10.0000	10.8
31 4-Chloroaniline	127	6.169	6.169	(1.009)	67559	10.0000	10.3
32 Hexachlorobutadiene	225	6.250	6.250	(1.022)	36520	10.0000	11.3
33 4-Chloro-3-methylphenol	107	6.650	6.650	(1.087)	53312	10.0000	10.4
34 2-Methylnaphthalene	142	6.859	6.859	(1.122)	137596	10.0000	11.2
35 1-Methylnaphthalene	142	6.966	6.966	(1.139)	135270	10.0000	11.2
36 Hexachlorocyclopentadiene	237	7.022	7.022	(0.879)	17728	10.0000	8.4
205 2,3-Dichloroaniline	161	7.152	7.152	(0.896)	68026	10.0000	10.8
37 2,4,6-Trichlorophenol	196	7.145	7.145	(0.895)	36150	10.0000	10.1
38 2,4,5-Trichlorophenol	196	7.180	7.180	(0.899)	36754	10.0000	9.6
40 2-Chloronaphthalene	162	7.382	7.382	(0.924)	124461	10.0000	10.6
42 o-Nitroaniline	65	7.474	7.474	(0.936)	37570	10.0000	9.3
41 m-Nitroaniline	138	7.914	7.914	(0.991)	24951	10.0000	8.4
43 Dimethylphthalate	163	7.662	7.662	(0.959)	144565	10.0000	10.7
44 2,6-Dinitrotoluene	165	7.731	7.731	(0.968)	32595	10.0000	10.2
50 2,4-Dinitrotoluene	165	8.164	8.164	(1.022)	37616	10.0000	9.3
45 Acenaphthylene	152	7.833	7.833	(0.981)	200921	10.0000	10.6
47 Acenaphthene	154	8.019	8.019	(1.004)	122550	10.0000	10.4
48 2,4-Dinitrophenol	184	8.024	8.024	(1.005)	3239	10.0000	16.4(Q)
49 Dibenzofuran	168	8.202	8.202	(1.027)	171816	10.0000	10.8
51 Diethylphthalate	149	8.416	8.416	(1.054)	142170	10.0000	10.5
52 4-Nitrophenol	139	8.060	8.060	(1.009)	12277	10.0000	11.9
53 Fluorene	166	8.574	8.574	(1.074)	138291	10.0000	10.6
54 4-Chlorophenylphenylether	204	8.559	8.559	(1.072)	65483	10.0000	10.6
55 2-Methyl-4,6-dinitrophenol	198	8.605	8.605	(0.896)	9251	10.0000	11.1
56 p-Nitroaniline	138	8.572	8.572	(1.073)	18297	10.0000	12.5(H)
133 Diphenylamine	169	8.681	8.681	(0.904)	110713	10.0000	10.6
58 1,2-Diphenylhydrazine	77	8.732	8.732	(0.910)	141081	10.0000	10.6
61 4-Bromophenylphenylether	248	9.092	9.092	(0.947)	35269	10.0000	10.3
63 Hexachlorobenzene	284	9.168	9.168	(0.955)	36891	10.0000	10.3
65 Pentachlorophenol	266	9.372	9.372	(0.976)	12427	10.0000	11.1
206 n-Octadecane	57	9.428	9.428	(0.982)	111561	10.0000	11.7
68 Phenanthrene	178	9.622	9.622	(1.002)	191461	10.0000	10.7
69 Anthracene	178	9.675	9.675	(1.008)	186256	10.0000	10.4
72 Di-n-butylphthalate	149	10.187	10.187	(1.061)	216333	10.0000	10.5
76 Fluoranthene	202	10.911	10.911	(1.137)	171763	10.0000	10.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.161	11.161	(0.885)	183951	10.0000	11.9
85 Butylbenzylphthalate	149	11.838	11.838	(0.939)	73769	10.0000	10.4
89 Benzo(a)anthracene	228	12.593	12.593	(0.998)	120048	10.0000	9.9
92 Chrysene	228	12.644	12.644	(1.002)	117313	10.0000	10.1
93 bis(2-Ethylhexyl)phthalate	149	12.567	12.567	(0.996)	107837	10.0000	11.4
94 Di-n-octylphthalate	149	13.558	13.558	(0.907)	124585	10.0000	9.4
95 Benzo(b)fluoranthene	252	14.264	14.264	(0.954)	89317	10.0000	9.7
96 Benzo(k)fluoranthene	252	14.313	14.313	(0.957)	90470	10.0000	9.9
97 Benzo(a)pyrene	252	14.843	14.843	(0.993)	73542	10.0000	9.2
99 Indeno(1,2,3-cd)pyrene	276	16.932	16.932	(1.133)	60939	10.0000	10.5
100 Dibenzo(a,h)anthracene	278	16.963	16.963	(1.135)	46770	10.0000	9.8
101 Benzo(ghi)perylene	276	17.444	17.444	(1.167)	55442	10.0000	9.1
126 m-Dinitrobenzene	168	7.700	7.700	(0.964)	20247	10.0000	9.1
130 2,3,4,6-Tetrachlorophenol	232	8.322	8.322	(1.042)	27063	10.0000	9.4
143 Dinoseb	211	9.558	9.558	(0.996)	11996	10.0000	10
173 Carbazole	167	9.836	9.836	(1.025)	136603	10.0000	9.6
184 p-Benzoquinone	54	4.082	4.082	(0.844)	7044	10.0000	7.8
192 Methoxychlor	227	12.465	12.465	(0.988)	76746	10.0000	9.9
211 p-Toluidine	106	5.249	5.249	(1.086)	69767	10.0000	11.0
210 m-Toluidine	106	5.280	5.280	(1.092)	75605	10.0000	9.5
26 Phthalic anhydride	104	6.900	6.900	(1.128)	10939	10.0000	10.7
179 Dibenzo(a,e)pyrene	302	21.164	21.164	(1.416)	21397	10.0000	12.3
214 1,4-Dinitrobenzene	75	7.619	7.619	(0.954)	20278	10.0000	8.4
215 2-Ethoxyethanol	59	2.449	2.449	(0.507)	49020	10.0000	9.8
216 Methylenebis(2-chloroaniline)	231	12.534	12.534	(0.994)	11622	10.0000	11.3(Q)
M 225 Trichlorophenols	196				72904	20.0000	19.7
M 226 Tetrachlorophenols	232				27063	10.0000	9.4
M 227 Benzo(b,k)fluoranthene	252				179787	20.0000	19.6

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0914.d
Date : 09-NOV-2009 19:31
Client ID: MEGA1CAL
Sample Info: IWBN091106-07110 PPM11SVHF11MEGA1CAL
Column phase: JWW DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

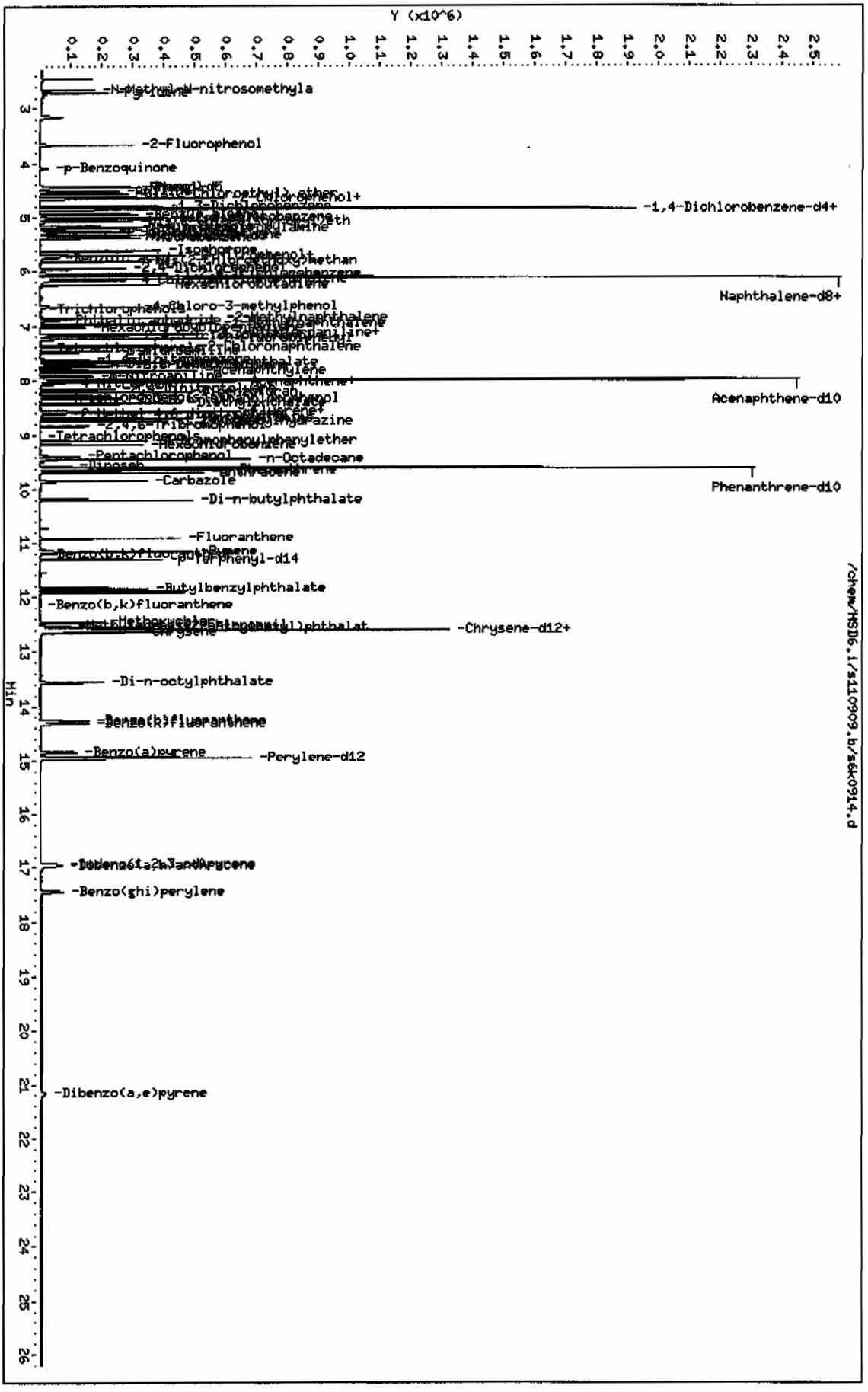

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Data file : /chem/MSD6.i/s110909.b/s6k0915.d
Lab Smp Id: WBN091106-06 Client Smp ID: MEGAICAL
Inj Date : 09-NOV-2009 20:09
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-06|20 PPM|1|SVMF|1|MEGAICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:51 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 02:16 Cal File: s6k0949.d
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.836	4.836	(1.000)	289417	40.0000	
* 29 Naphthalene-d8	136	6.115	6.115	(1.000)	1088371	40.0000	
* 46 Acenaphthene-d10	164	7.988	7.988	(1.000)	552569	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	946467	40.0000	
* 91 Chrysene-d12	240	12.616	12.616	(1.000)	713356	40.0000	
* 98 Perylene-d12	264	14.957	14.957	(1.000)	558138	40.0000	
$ 3 2-Fluorophenol	112	3.649	3.649	(0.754)	155134	20.0000	21.4
$ 5 Phenol-d5	99	4.429	4.429	(0.916)	194758	20.0000	21.3
$ 20 Nitrobenzene-d5	82	5.369	5.369	(0.878)	171017	20.0000	22.2
$ 39 2-Fluorobiphenyl	172	7.242	7.242	(0.907)	316700	20.0000	22.2
$ 60 2,4,6-Tribromophenol	329	8.829	8.829	(1.105)	32283	20.0000	20.0
$ 81 p-Terphenyl-d14	244	11.303	11.303	(0.896)	248952	20.0000	21.6
1 N-Methyl-N-nitrosomethylamine	74	2.663	2.663	(0.551)	104210	20.0000	21.2
2 Pyridine	79	2.704	2.704	(0.559)	122054	20.0000	19.9
4 Aniline	66	4.518	4.518	(0.934)	81443	20.0000	21.3
6 Phenol	94	4.441	4.441	(0.918)	200579	20.0000	21.8(Q)
7 bis(2-Chloroethyl) ether	63	4.556	4.556	(0.942)	134214	20.0000	21.5
8 2-Chlorophenol	128	4.630	4.630	(0.957)	159676	20.0000	21.6
203 n-Decane	43	4.643	4.643	(0.960)	230112	20.0000	22.4
9 1,3-Dichlorobenzene	146	4.783	4.783	(0.989)	184659	20.0000	21.7
11 1,4-Dichlorobenzene	146	4.852	4.852	(1.003)	191069	20.0000	22.2
13 1,2-Dichlorobenzene	146	4.999	4.999	(1.034)	176121	20.0000	21.9
14 bis(2-Chloroisopropyl)ether	45	5.068	5.068	(1.048)	308699	20.0000	22.2
12 Benzyl alcohol	108	4.941	4.941	(1.022)	95096	20.0000	20.7
15 o-Cresol	107	5.022	5.022	(1.038)	128253	20.0000	21.3
18 m,p-Cresols	107	5.175	5.175	(1.070)	162927	20.0000	21.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.201	5.201	(1.075)	114104	20.0000	22.2
19 Hexachloroethane	117	5.338	5.338	(1.104)	71665	20.0000	21.5
21 Nitrobenzene	77	5.389	5.389	(0.881)	176947	20.0000	22.8
22 Isophorone	82	5.621	5.621	(0.919)	314669	20.0000	22.9
23 2-Nitrophenol	139	5.708	5.708	(0.933)	77352	20.0000	21.6
24 2,4-Dimethylphenol	122	5.715	5.715	(0.935)	122636	20.0000	20.7
25 bis(2-Chloroethoxy)methane	93	5.822	5.822	(0.952)	185821	20.0000	23.0
26 2,4-Dichlorophenol	162	5.947	5.947	(0.972)	116696	20.0000	21.7
27 Benzoic acid	105	5.782	5.782	(0.945)	57602	20.0000	15.7
28 1,2,4-Trichlorobenzene	180	6.047	6.047	(0.989)	149963	20.0000	22.7
30 Naphthalene	128	6.136	6.136	(1.003)	464010	20.0000	21.4
204 alpha-Terpineol	59	6.123	6.123	(1.001)	138713	20.0000	23.3
31 4-Chloroaniline	127	6.169	6.169	(1.009)	153437	20.0000	22.0
32 Hexachlorobutadiene	225	6.251	6.251	(1.022)	79219	20.0000	23.0
33 4-Chloro-3-methylphenol	107	6.651	6.651	(1.087)	122902	20.0000	22.6
34 2-Methylnaphthalene	142	6.860	6.860	(1.122)	298046	20.0000	22.7
35 1-Methylnaphthalene	142	6.967	6.967	(1.139)	289552	20.0000	22.6
36 Hexachlorocyclopentadiene	237	7.023	7.023	(0.879)	49109	20.0000	22.0
205 2,3-Dichloroaniline	161	7.153	7.153	(0.895)	147220	20.0000	22.2
37 2,4,6-Trichlorophenol	196	7.145	7.145	(0.894)	81873	20.0000	21.7
38 2,4,5-Trichlorophenol	196	7.181	7.181	(0.899)	83664	20.0000	20.8
40 2-Chloronaphthalene	162	7.384	7.384	(0.924)	270690	20.0000	21.8
42 o-Nitroaniline	65	7.476	7.476	(0.936)	90640	20.0000	21.3
41 m-Nitroaniline	138	7.917	7.917	(0.991)	64063	20.0000	20.6
43 Dimethylphthalate	163	7.665	7.665	(0.959)	309149	20.0000	21.8
44 2,6-Dinitrotoluene	165	7.736	7.736	(0.968)	71471	20.0000	21.1
50 2,4-Dinitrotoluene	165	8.169	8.169	(1.023)	89865	20.0000	21.1
45 Acenaphthylene	152	7.835	7.835	(0.981)	441326	20.0000	22.1
47 Acenaphthene	154	8.021	8.021	(1.004)	268137	20.0000	21.5
48 2,4-Dinitrophenol	184	8.027	8.027	(1.005)	15920	20.0000	23.3(Q)
49 Dibenzofuran	168	8.205	8.205	(1.027)	373458	20.0000	22.2
51 Diethylphthalate	149	8.422	8.422	(1.054)	312734	20.0000	21.9
52 4-Nitrophenol	139	8.065	8.065	(1.010)	40572	20.0000	21.9
53 Fluorene	166	8.574	8.574	(1.073)	304628	20.0000	22.1
54 4-Chlorophenylphenylether	204	8.562	8.562	(1.072)	144619	20.0000	22.2
55 2-Methyl-4,6-dinitrophenol	198	8.608	8.608	(0.897)	34357	20.0000	20.6
56 p-Nitroaniline	138	8.577	8.577	(1.074)	49968	20.0000	21.2
133 Diphenylamine	169	8.687	8.687	(0.905)	242668	20.0000	21.3
58 1,2-Diphenylhydrazine	77	8.735	8.735	(0.910)	321489	20.0000	22.2
61 4-Bromophenylphenylether	248	9.094	9.094	(0.947)	79306	20.0000	21.2
63 Hexachlorobenzene	284	9.171	9.171	(0.955)	82935	20.0000	21.2
65 Pentachlorophenol	266	9.374	9.374	(0.977)	38945	20.0000	21.9
206 n-Octadecane	57	9.431	9.431	(0.982)	244179	20.0000	23.4
68 Phenanthrene	178	9.624	9.624	(1.003)	424706	20.0000	21.7
69 Anthracene	178	9.678	9.678	(1.008)	428435	20.0000	21.9
72 Di-n-butylphthalate	149	10.187	10.187	(1.061)	495257	20.0000	22.0
76 Fluoranthene	202	10.911	10.911	(1.137)	411837	20.0000	22.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.163	11.163	(0.885)	437071	20.0000	22.3
85 Butylbenzylphthalate	149	11.838	11.838	(0.938)	192705	20.0000	21.5
89 Benzo(a)anthracene	228	12.598	12.598	(0.999)	320405	20.0000	20.8
92 Chrysene	228	12.651	12.651	(1.003)	311544	20.0000	21.1
93 bis(2-Ethylhexyl)phthalate	149	12.570	12.570	(0.996)	270739	20.0000	22.1
94 Di-n-octylphthalate	149	13.561	13.561	(0.907)	378096	20.0000	21.3
95 Benzo(b)fluoranthene	252	14.269	14.269	(0.954)	263103	20.0000	21.3
96 Benzo(k)fluoranthene	252	14.318	14.318	(0.957)	266560	20.0000	21.7
97 Benzo(a)pyrene	252	14.848	14.848	(0.993)	226418	20.0000	21.2
99 Indeno(1,2,3-cd)pyrene	276	16.935	16.935	(1.132)	200863	20.0000	21.3
100 Dibenzo(a,h)anthracene	278	16.970	16.970	(1.135)	157194	20.0000	20.4
101 Benzo(ghi)perylene	276	17.449	17.449	(1.167)	169870	20.0000	20.8
126 m-Dinitrobenzene	168	7.703	7.703	(0.964)	48351	20.0000	20.7
130 2,3,4,6-Tetrachlorophenol	232	8.322	8.322	(1.042)	64873	20.0000	21.4
143 Dinoseb	211	9.558	9.558	(0.996)	47856	20.0000	19.9
173 Carbazole	167	9.838	9.838	(1.025)	307883	20.0000	19.9
184 p-Benzoquinone	54	4.085	4.085	(0.845)	16645	20.0000	18.1
192 Methoxychlor	227	12.468	12.468	(0.988)	212321	20.0000	21.6
211 p-Toluidine	106	5.249	5.249	(1.085)	146409	20.0000	22.5
210 m-Toluidine	106	5.282	5.282	(1.092)	158980	20.0000	19.5
26 Phthalic anhydride	104	6.905	6.905	(1.129)	40864	20.0000	22.6
179 Dibenzo(a,e)pyrene	302	21.177	21.177	(1.416)	67635	20.0000	19.8
214 1,4-Dinitrobenzene	75	7.624	7.624	(0.954)	51394	20.0000	20.2
215 2-Ethoxyethanol	59	2.454	2.454	(0.507)	109556	20.0000	21.3
216 Methylenebis(2-chloroaniline)	231	12.537	12.537	(0.994)	37526	20.0000	20.0(Q)
M 225 Trichlorophenols	196				165537	40.0000	42.5
M 226 Tetrachlorophenols	232				64873	20.0000	21.4
M 227 Benzo(b,k)fluoranthene	252				529663	40.0000	43.0

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0915.d
Date : 09-NOV-2009 20:09
Client ID: MEGAICAL
Sample Info: IWBN091106-06120 PPM11SUMF11MEGAICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JHB3
Column diameter: 0.20

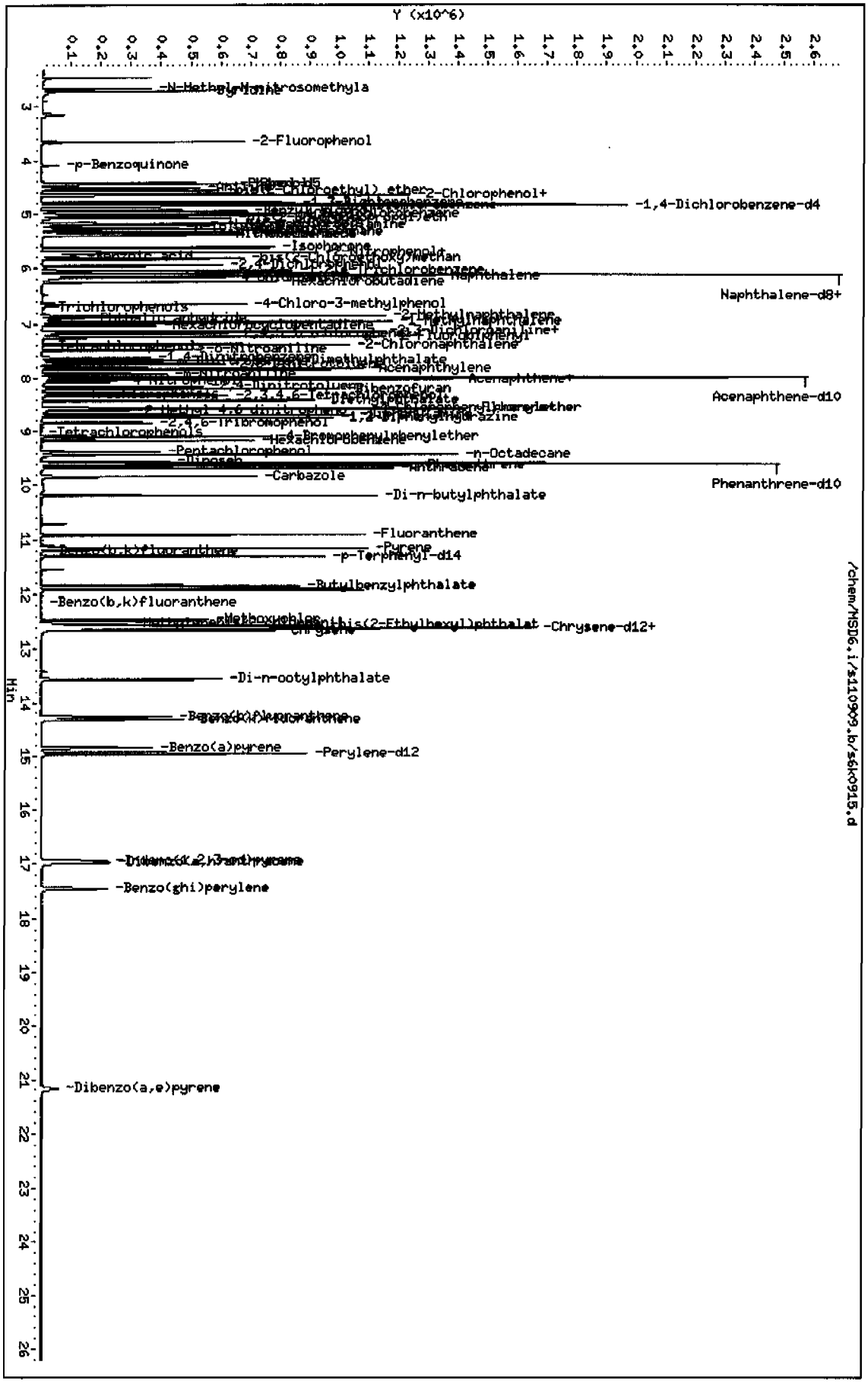

GEL Laboratories LLC

Data file : /chem/MSD6.i/s110909.b/s6k0916.d
Lab Smp Id: WBN091106-05.1 Client Smp ID: MEGAICAL
Inj Date : 09-NOV-2009 20:46
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-05.1|40 PPM|1|SVMF|1|MEGAICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:51 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 02:44 Cal File: s6k0950.d
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.836	4.836	(1.000)	298722	40.0000	
* 29 Naphthalene-d8	136	6.118	6.118	(1.000)	1143952	40.0000	
* 46 Acenaphthene-d10	164	7.991	7.991	(1.000)	575628	40.0000	
* 67 Phenanthrene-d10	188	9.601	9.601	(1.000)	993660	40.0000	
* 91 Chrysene-d12	240	12.623	12.623	(1.000)	793787	40.0000	
* 98 Perylene-d12	264	14.960	14.960	(1.000)	630407	40.0000	
$ 3 2-Fluorophenol	112	3.651	3.651	(0.755)	307486	40.0000	41.1
$ 5 Phenol-d5	99	4.434	4.434	(0.917)	380010	40.0000	40.2
$ 20 Nitrobenzene-d5	82	5.374	5.374	(0.878)	336930	40.0000	41.6
$ 39 2-Fluorobiphenyl	172	7.244	7.244	(0.907)	604279	40.0000	40.7
$ 60 2,4,6-Tribromophenol	329	8.834	8.834	(1.106)	64358	40.0000	38.3
$ 81 p-Terphenyl-d14	244	11.308	11.308	(0.896)	510797	40.0000	39.9
1 N-Methyl-N-nitrosomethylamine	74	2.665	2.665	(0.551)	209088	40.0000	41.1
2 Pyridine	79	2.701	2.701	(0.558)	282146	40.0000	44.6
4 Aniline	66	4.520	4.520	(0.935)	158171	40.0000	40.1
6 Phenol	94	4.446	4.446	(0.919)	382231	40.0000	40.3
7 bis(2-Chloroethyl) ether	63	4.559	4.559	(0.943)	254729	40.0000	39.6
8 2-Chlorophenol	128	4.632	4.632	(0.958)	313640	40.0000	41.1
203 n-Decane	43	4.645	4.645	(0.960)	420146	40.0000	39.5
9 1,3-Dichlorobenzene	146	4.785	4.785	(0.989)	360873	40.0000	41.1
11 1,4-Dichlorobenzene	146	4.854	4.854	(1.004)	364217	40.0000	40.9
13 1,2-Dichlorobenzene	146	5.002	5.002	(1.034)	338533	40.0000	40.8
14 bis(2-Chloroisopropyl)ether	45	5.071	5.071	(1.048)	594721	40.0000	41.4
12 Benzyl alcohol	108	4.946	4.946	(1.023)	188324	40.0000	39.8
15 o-Cresol	107	5.027	5.027	(1.040)	250999	40.0000	40.4
18 m,p-Cresols	107	5.183	5.183	(1.072)	313533	40.0000	39.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.211	5.211	(1.077)	217747	40.0000	41.1
19 Hexachloroethane	117	5.338	5.338	(1.104)	141565	40.0000	41.1
21 Nitrobenzene	77	5.394	5.394	(0.882)	341873	40.0000	41.9
22 Isophorone	82	5.629	5.629	(0.920)	609361	40.0000	42.1
23 2-Nitrophenol	139	5.710	5.710	(0.933)	155591	40.0000	41.4
24 2,4-Dimethylphenol	122	5.720	5.720	(0.935)	240998	40.0000	38.7
25 bis(2-Chloroethoxy)methane	93	5.827	5.827	(0.953)	353549	40.0000	41.6
26 2,4-Dichlorophenol	162	5.952	5.952	(0.973)	239324	40.0000	42.3
27 Benzoic acid	105	5.815	5.815	(0.950)	141142	40.0000	36.7(H)
28 1,2,4-Trichlorobenzene	180	6.049	6.049	(0.989)	288440	40.0000	41.6
30 Naphthalene	128	6.141	6.141	(1.004)	869601	40.0000	38.1
204 alpha-Terpineol	59	6.128	6.128	(1.002)	251702	40.0000	40.2
31 4-Chloroaniline	127	6.174	6.174	(1.009)	308766	40.0000	42.1
32 Hexachlorobutadiene	225	6.253	6.253	(1.022)	150798	40.0000	41.7
33 4-Chloro-3-methylphenol	107	6.656	6.656	(1.088)	239902	40.0000	42.0
34 2-Methylnaphthalene	142	6.862	6.862	(1.122)	570340	40.0000	41.4
35 1-Methylnaphthalene	142	6.972	6.972	(1.140)	553281	40.0000	41.1
36 Hexachlorocyclopentadiene	237	7.023	7.023	(0.879)	87000	40.0000	37.4
205 2,3-Dichloroaniline	161	7.158	7.158	(0.896)	277867	40.0000	40.3
37 2,4,6-Trichlorophenol	196	7.150	7.150	(0.895)	161512	40.0000	41.1
38 2,4,5-Trichlorophenol	196	7.186	7.186	(0.899)	169483	40.0000	40.5
40 2-Chloronaphthalene	162	7.387	7.387	(0.924)	522872	40.0000	40.4
42 o-Nitroaniline	65	7.481	7.481	(0.936)	177361	40.0000	40.1
41 m-Nitroaniline	138	7.925	7.925	(0.992)	132538	40.0000	40.9
43 Dimethylphthalate	163	7.675	7.675	(0.960)	605104	40.0000	41.0
44 2,6-Dinitrotoluene	165	7.741	7.741	(0.969)	142474	40.0000	40.4
50 2,4-Dinitrotoluene	165	8.174	8.174	(1.023)	180702	40.0000	40.7
45 Acenaphthylene	152	7.840	7.840	(0.981)	847979	40.0000	40.8
47 Acenaphthene	154	8.027	8.027	(1.004)	523279	40.0000	40.3
48 2,4-Dinitrophenol	184	8.032	8.032	(1.005)	45695	40.0000	38.8
49 Dibenzofuran	168	8.207	8.207	(1.027)	714305	40.0000	40.8
51 Diethylphthalate	149	8.427	8.427	(1.055)	611739	40.0000	41.1
52 4-Nitrophenol	139	8.072	8.072	(1.010)	90802	40.0000	38.6
53 Fluorene	166	8.579	8.579	(1.074)	580101	40.0000	40.4
54 4-Chlorophenylphenylether	204	8.564	8.564	(1.072)	279403	40.0000	41.1
55 2-Methyl-4,6-dinitrophenol	198	8.618	8.618	(0.898)	85168	40.0000	38.9
56 p-Nitroaniline	138	8.585	8.585	(1.074)	114446	40.0000	38.2
133 Diphenylamine	169	8.692	8.692	(0.905)	486846	40.0000	40.6
58 1,2-Diphenylhydrazine	77	8.740	8.740	(0.910)	623327	40.0000	40.9
61 4-Bromophenylphenylether	248	9.097	9.097	(0.947)	158482	40.0000	40.4
63 Hexachlorobenzene	284	9.176	9.176	(0.956)	165966	40.0000	40.4
65 Pentachlorophenol	266	9.377	9.377	(0.977)	80211	40.0000	37.8
206 n-Octadecane	57	9.433	9.433	(0.982)	455414	40.0000	41.5
68 Phenanthrene	178	9.627	9.627	(1.003)	826930	40.0000	40.2
69 Anthracene	178	9.683	9.683	(1.008)	834373	40.0000	40.6
72 Di-n-butylphthalate	149	10.190	10.190	(1.061)	984767	40.0000	41.7
76 Fluoranthene	202	10.916	10.916	(1.137)	821495	40.0000	41.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.166	11.166	(0.885)	873225	40.0000	40.0
85 Butylbenzylphthalate	149	11.841	11.841	(0.938)	409656	40.0000	41.0
89 Benzo(a)anthracene	228	12.603	12.603	(0.998)	680213	40.0000	39.7
92 Chrysene	228	12.656	12.656	(1.003)	654773	40.0000	39.9
93 bis(2-Ethylhexyl)phthalate	149	12.572	12.572	(0.996)	551016	40.0000	40.0
94 Di-n-octylphthalate	149	13.564	13.564	(0.907)	829648	40.0000	41.4
95 Benzo(b)fluoranthene	252	14.277	14.277	(0.954)	570092	40.0000	40.9
96 Benzo(k)fluoranthene	252	14.328	14.328	(0.958)	582683	40.0000	42.0
97 Benzo(a)pyrene	252	14.853	14.853	(0.993)	512885	40.0000	42.6
99 Indeno(1,2,3-cd)pyrene	276	16.947	16.947	(1.133)	402882	40.0000	35.5
100 Dibenzo(a,h)anthracene	278	16.983	16.983	(1.135)	361792	40.0000	38.8
101 Benzo(ghi)perylene	276	17.465	17.465	(1.167)	384310	40.0000	41.8
126 m-Dinitrobenzene	168	7.711	7.711	(0.965)	98777	40.0000	40.5
130 2,3,4,6-Tetrachlorophenol	232	8.327	8.327	(1.042)	125841	40.0000	39.9
143 Dinoseb	211	9.563	9.563	(0.996)	123552	40.0000	39.9
173 Carbazole	167	9.843	9.843	(1.025)	646111	40.0000	39.7
184 p-Benzoquinone	54	4.085	4.085	(0.845)	43607	40.0000	45.9
192 Methoxychlor	227	12.473	12.473	(0.988)	452636	40.0000	41.3
211 p-Toluidine	106	5.254	5.254	(1.086)	279690	40.0000	41.6
210 m-Toluidine	106	5.287	5.287	(1.093)	323416	40.0000	38.5
26 Phthalic anhydride	104	6.910	6.910	(1.130)	83487	40.0000	38.4
179 Dibenzo(a,e)pyrene	302	21.193	21.193	(1.417)	183254	40.0000	38.2
214 1,4-Dinitrobenzene	75	7.629	7.629	(0.955)	107473	40.0000	40.6
215 2-Ethoxyethanol	59	2.454	2.454	(0.507)	216018	40.0000	40.7
216 Methylenebis(2-chloroaniline)	231	12.542	12.542	(0.994)	94270	40.0000	38.1
M 225 Trichlorophenols	196				330995	80.0000	81.6
M 226 Tetrachlorophenols	232				125841	40.0000	39.9
M 227 Benzo(b,k)fluoranthene	252				1152775	80.0000	82.9

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0916.d
Date : 09-NOV-2009 20:46
Client ID: MEGAICAL
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Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

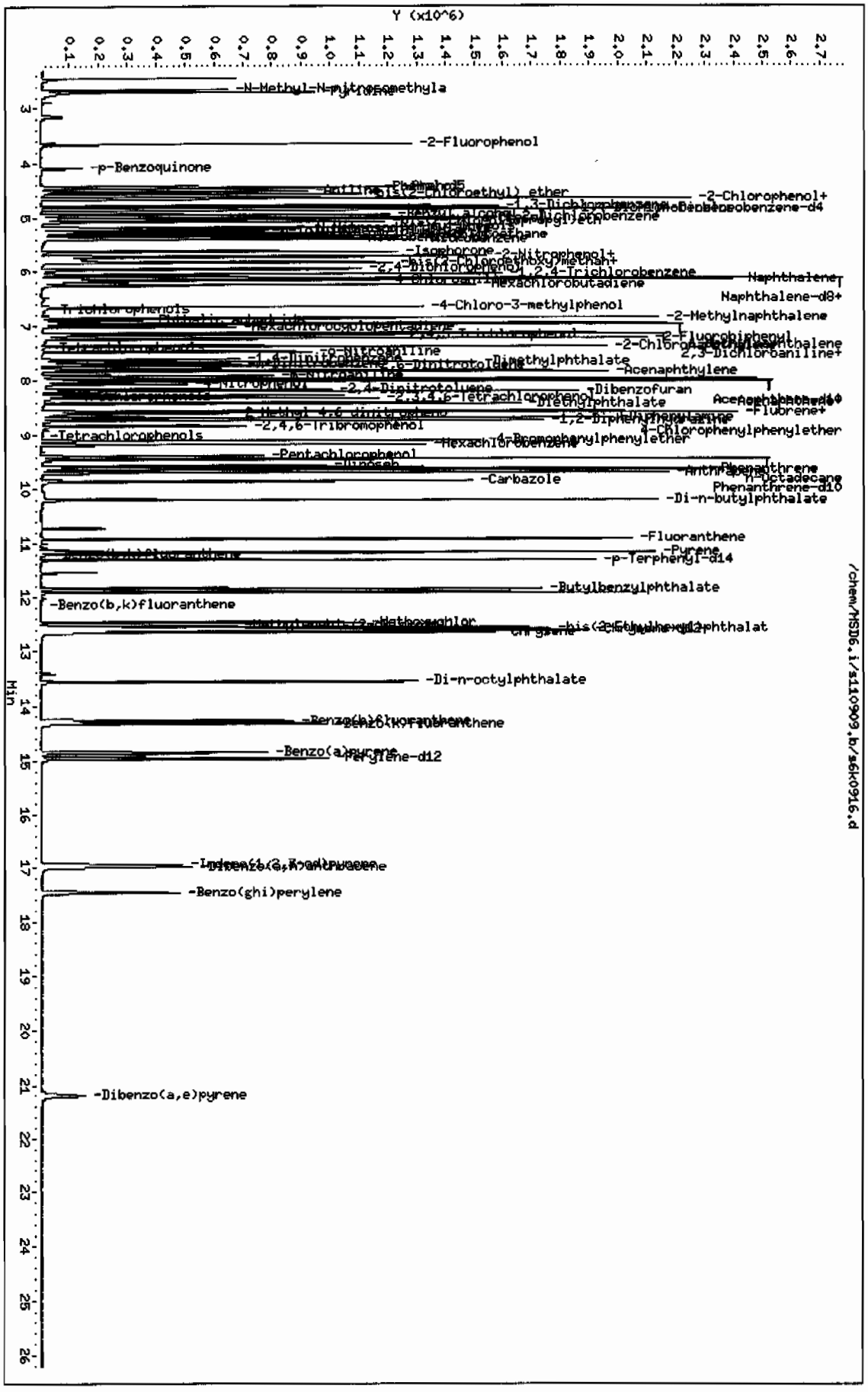

/chem/MSD6.i/s110909.b/s6k0916.d

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Data file : /chem/MSD6.i/s110909.b/s6k0917.d
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Inj Date : 09-NOV-2009 21:25
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-04|50 PPM|1|SVMF|1|MEGAICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:52 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 03:12 Cal File: s6k0951.d
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.836	4.836	(1.000)	302004	40.0000	
* 29 Naphthalene-d8	136	6.118	6.118	(1.000)	1155922	40.0000	
* 46 Acenaphthene-d10	164	7.991	7.991	(1.000)	554397	40.0000	
* 67 Phenanthrene-d10	188	9.601	9.601	(1.000)	948438	40.0000	
* 91 Chrysene-d12	240	12.623	12.623	(1.000)	730814	40.0000	
* 98 Perylene-d12	264	14.957	14.957	(1.000)	564456	40.0000	
$ 3 2-Fluorophenol	112	3.651	3.651	(0.755)	388894	50.0000	51.4
$ 5 Phenol-d5	99	4.436	4.436	(0.917)	484929	50.0000	50.8
$ 20 Nitrobenzene-d5	82	5.376	5.376	(0.879)	423567	50.0000	51.8
$ 39 2-Fluorobiphenyl	172	7.244	7.244	(0.907)	731813	50.0000	51.2
$ 60 2,4,6-Tribromophenol	329	8.837	8.837	(1.106)	78080	50.0000	48.2
$ 81 p-Terphenyl-d14	244	11.311	11.311	(0.896)	607689	50.0000	51.6
1 N-Methyl-N-nitrosomethylamine	74	2.670	2.670	(0.552)	269140	50.0000	52.3
2 Pyridine	79	2.703	2.703	(0.559)	355353	50.0000	55.5
4 Aniline	66	4.523	4.523	(0.935)	200763	50.0000	50.4
6 Phenol	94	4.451	4.451	(0.920)	481806	50.0000	50.2(Q)
7 bis(2-Chloroethyl) ether	63	4.561	4.561	(0.943)	325313	50.0000	50.0
8 2-Chlorophenol	128	4.635	4.635	(0.958)	397829	50.0000	51.6
203 n-Decane	43	4.645	4.645	(0.960)	514345	50.0000	47.9
9 1,3-Dichlorobenzene	146	4.785	4.785	(0.989)	457295	50.0000	51.5
11 1,4-Dichlorobenzene	146	4.854	4.854	(1.004)	455811	50.0000	50.7
13 1,2-Dichlorobenzene	146	5.002	5.002	(1.034)	422867	50.0000	50.4
14 bis(2-Chloroisopropyl)ether	45	5.071	5.071	(1.048)	746233	50.0000	51.4
12 Benzyl alcohol	108	4.946	4.946	(1.023)	235807	50.0000	49.2
15 o-Cresol	107	5.030	5.030	(1.040)	323291	50.0000	51.5
18 m,p-Cresols	107	5.185	5.185	(1.072)	398387	50.0000	50.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.218	5.218	(1.079)	275587	50.0000	51.5
19 Hexachloroethane	117	5.341	5.341	(1.104)	177276	50.0000	50.9
21 Nitrobenzene	77	5.397	5.397	(0.882)	429349	50.0000	52.1
22 Isophorone	82	5.634	5.634	(0.921)	769638	50.0000	52.7
23 2-Nitrophenol	139	5.713	5.713	(0.934)	199485	50.0000	52.5
24 2,4-Dimethylphenol	122	5.723	5.723	(0.935)	295059	50.0000	46.8
25 bis(2-Chloroethoxy)methane	93	5.830	5.830	(0.953)	439862	50.0000	51.2
26 2,4-Dichlorophenol	162	5.955	5.955	(0.973)	297965	50.0000	52.2
27 Benzoic acid	105	5.830	5.830	(0.953)	202753	50.0000	52.2(H)
28 1,2,4-Trichlorobenzene	180	6.049	6.049	(0.989)	361892	50.0000	51.6
30 Naphthalene	128	6.141	6.141	(1.004)	1069650	50.0000	46.4
204 alpha-Terpineol	59	6.131	6.131	(1.002)	317685	50.0000	50.3
31 4-Chloroaniline	127	6.177	6.177	(1.010)	376602	50.0000	50.8
32 Hexachlorobutadiene	225	6.253	6.253	(1.022)	189234	50.0000	51.8
33 4-Chloro-3-methylphenol	107	6.658	6.658	(1.088)	298121	50.0000	51.7
34 2-Methylnaphthalene	142	6.864	6.864	(1.122)	685976	50.0000	49.3
35 1-Methylnaphthalene	142	6.972	6.972	(1.140)	677942	50.0000	49.8
36 Hexachlorocyclopentadiene	237	7.022	7.022	(0.879)	112398	50.0000	50.2
205 2,3-Dichloroaniline	161	7.158	7.158	(0.896)	340669	50.0000	51.3
37 2,4,6-Trichlorophenol	196	7.152	7.152	(0.895)	194092	50.0000	51.3
38 2,4,5-Trichlorophenol	196	7.186	7.186	(0.899)	206734	50.0000	51.3
40 2-Chloronaphthalene	162	7.389	7.389	(0.925)	637201	50.0000	51.2
42 o-Nitroaniline	65	7.484	7.484	(0.937)	220705	50.0000	51.8
41 m-Nitroaniline	138	7.930	7.930	(0.992)	160753	50.0000	51.6
43 Dimethylphthalate	163	7.677	7.677	(0.961)	730427	50.0000	51.4
44 2,6-Dinitrotoluene	165	7.746	7.746	(0.969)	171665	50.0000	50.6
50 2,4-Dinitrotoluene	165	8.179	8.179	(1.024)	218862	50.0000	51.2
45 Acenaphthylene	152	7.840	7.840	(0.981)	1023459	50.0000	51.1
47 Acenaphthene	154	8.026	8.026	(1.004)	628774	50.0000	50.3
48 2,4-Dinitrophenol	184	8.034	8.034	(1.005)	60199	50.0000	47.7(Q)
49 Dibenzofuran	168	8.210	8.210	(1.027)	856749	50.0000	50.8
51 Diethylphthalate	149	8.429	8.429	(1.055)	731700	50.0000	51.1
52 4-Nitrophenol	139	8.077	8.077	(1.011)	114423	50.0000	48.3
53 Fluorene	166	8.582	8.582	(1.074)	697837	50.0000	50.4
54 4-Chlorophenylphenylether	204	8.567	8.567	(1.072)	336031	50.0000	51.4
55 2-Methyl-4,6-dinitrophenol	198	8.620	8.620	(0.898)	107219	50.0000	49.0
56 p-Nitroaniline	138	8.590	8.590	(1.075)	144020	50.0000	47.8(H)
133 Diphenylamine	169	8.694	8.694	(0.906)	582219	50.0000	50.9
58 1,2-Diphenylhydrazine	77	8.742	8.742	(0.911)	743959	50.0000	51.2
61 4-Bromophenylphenylether	248	9.099	9.099	(0.948)	190778	50.0000	51.0
63 Hexachlorobenzene	284	9.176	9.176	(0.956)	197870	50.0000	50.5
65 Pentachlorophenol	266	9.377	9.377	(0.977)	100581	50.0000	47.9
206 n-Octadecane	57	9.433	9.433	(0.982)	546158	50.0000	52.1
68 Phenanthrene	178	9.629	9.629	(1.003)	968276	50.0000	49.4
69 Anthracene	178	9.685	9.685	(1.009)	993833	50.0000	50.7
72 Di-n-butylphthalate	149	10.192	10.192	(1.062)	1169848	50.0000	52.0
76 Fluoranthene	202	10.919	10.919	(1.137)	967563	50.0000	51.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.168	11.168	(0.885)	1020034	50.0000	50.7
85 Butylbenzylphthalate	149	11.843	11.843	(0.938)	478741	50.0000	52.0
89 Benzo(a)anthracene	228	12.603	12.603	(0.998)	783027	50.0000	49.7
92 Chrysene	228	12.659	12.659	(1.003)	754926	50.0000	50.0
93 bis(2-Ethylhexyl)phthalate	149	12.575	12.575	(0.996)	645048	50.0000	50.8
94 Di-n-octylphthalate	149	13.563	13.563	(0.907)	957955	50.0000	53.4
95 Benzo(b)fluoranthene	252	14.279	14.279	(0.955)	658725	50.0000	52.7
96 Benzo(k)fluoranthene	252	14.330	14.330	(0.958)	650848	50.0000	52.4
97 Benzo(a)pyrene	252	14.858	14.858	(0.993)	582512	50.0000	54.0
99 Indeno(1,2,3-cd)pyrene	276	16.950	16.950	(1.133)	510813	50.0000	49.0
100 Dibenzo(a,h)anthracene	278	16.983	16.983	(1.135)	411532	50.0000	48.5
101 Benzo(ghi)perylene	276	17.470	17.470	(1.168)	426415	50.0000	51.7
126 m-Dinitrobenzene	168	7.713	7.713	(0.965)	120267	50.0000	51.2
130 2,3,4,6-Tetrachlorophenol	232	8.330	8.330	(1.042)	148123	50.0000	48.8
143 Dinoseb	211	9.565	9.565	(0.996)	154632	50.0000	50.4
173 Carbazole	167	9.843	9.843	(1.025)	766686	50.0000	49.4
184 p-Benzoquinone	54	4.087	4.087	(0.845)	51587	50.0000	53.7
192 Methoxychlor	227	12.475	12.475	(0.988)	522439	50.0000	51.8
211 p-Toluidine	106	5.257	5.257	(1.087)	354186	50.0000	52.1
210 m-Toluidine	106	5.290	5.290	(1.094)	413282	50.0000	48.7
26 Phthalic anhydride	104	6.913	6.913	(1.130)	108159	50.0000	47.5
179 Dibenzo(a,e)pyrene	302	21.195	21.195	(1.417)	214017	50.0000	47.8
214 1,4-Dinitrobenzene	75	7.629	7.629	(0.955)	132736	50.0000	52.1
215 2-Ethoxyethanol	59	2.456	2.456	(0.508)	274575	50.0000	51.2
216 Methylenebis(2-chloroaniline)	231	12.547	12.547	(0.994)	117296	50.0000	49.6(Q)
M 225 Trichlorophenols	196				400826	100.000	103
M 226 Tetrachlorophenols	232				148123	50.0000	48.8
M 227 Benzo(b,k)fluoranthene	252				1309573	100.000	105

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0917.d

Date : 09-NOV-2009 21:25

Client ID: MEGAICAL

Sample Info: |WBN091106-04|50 PPM|1|SVMF|1|MEGAICAL

Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: JMB3

Column diameter: 0.20

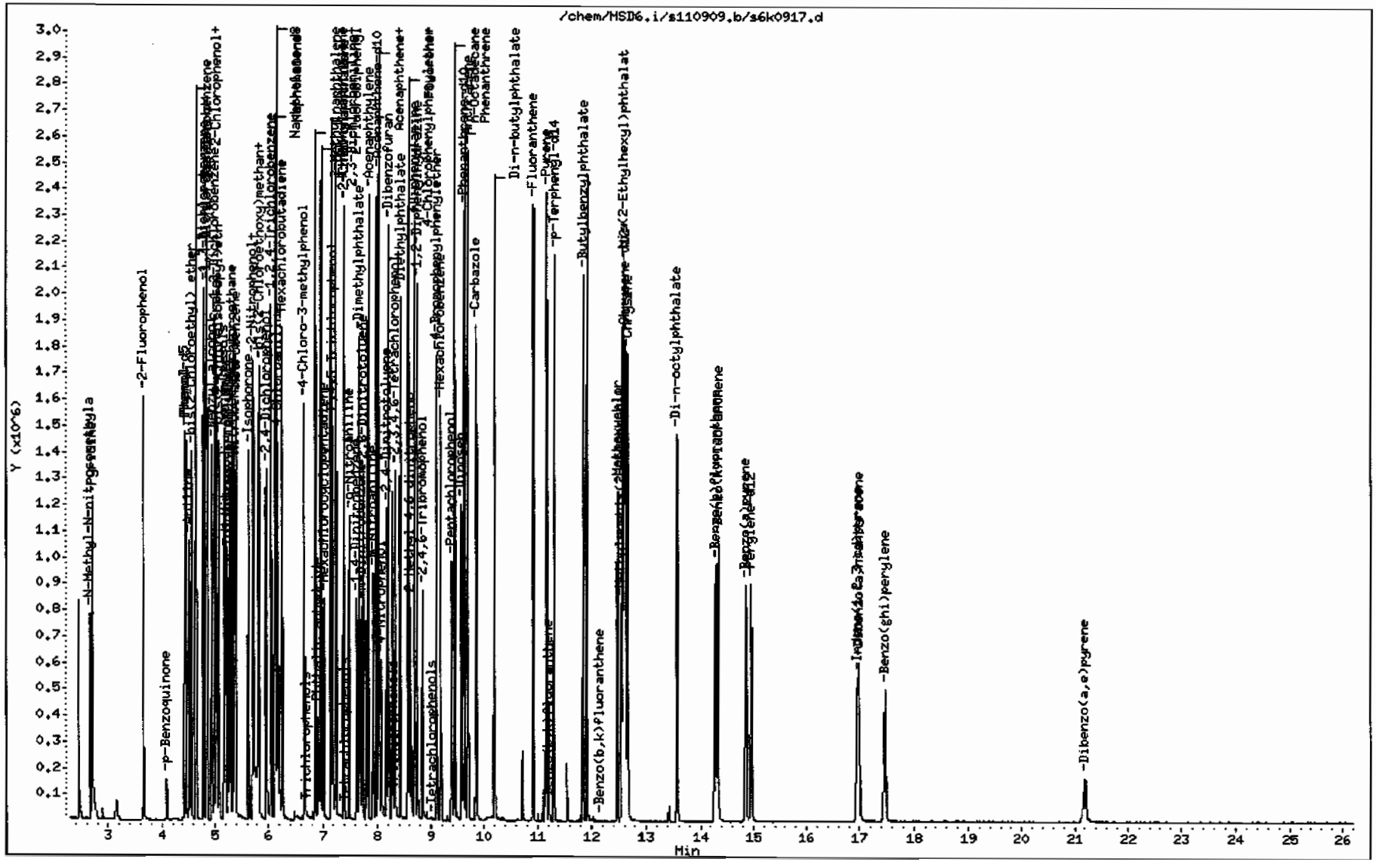

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Data file : /chem/MSD6.i/s110909.b/s6k0918.d
Lab Smp Id: WBN091106-03 Client Smp ID: MEGAICAL
Inj Date : 09-NOV-2009 22:01
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-03|80 PPM|1|SVMF|1|MEGAICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:52 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 03:41 Cal File: s6k0952.d
Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.839	4.839	(1.000)	304898	40.0000	
* 29 Naphthalene-d8	136	6.120	6.120	(1.000)	1251706	40.0000	
* 46 Acenaphthene-d10	164	7.993	7.993	(1.000)	586776	40.0000	
* 67 Phenanthrene-d10	188	9.604	9.604	(1.000)	1023140	40.0000	
* 91 Chrysene-d12	240	12.628	12.628	(1.000)	818530	40.0000	
* 98 Perylene-d12	264	14.965	14.965	(1.000)	674673	40.0000	
$ 3 2-Fluorophenol	112	3.654	3.654	(0.755)	602660	80.0000	78.9
$ 5 Phenol-d5	99	4.444	4.444	(0.918)	770270	80.0000	79.9
$ 20 Nitrobenzene-d5	82	5.381	5.381	(0.879)	678450	80.0000	76.6
$ 39 2-Fluorobiphenyl	172	7.249	7.249	(0.907)	1163417	80.0000	76.9
$ 60 2,4,6-Tribromophenol	329	8.842	8.842	(1.106)	144470	80.0000	84.4
$ 81 p-Terphenyl-d14	244	11.313	11.313	(0.896)	1011106	80.0000	76.6
1 N-Methyl-N-nitrosomethylamine	74	2.675	2.675	(0.553)	413204	80.0000	79.6
2 Pyridine	79	2.703	2.703	(0.559)	472168	80.0000	73.1
4 Aniline	66	4.528	4.528	(0.936)	316875	80.0000	78.8
6 Phenol	94	4.456	4.456	(0.921)	757850	80.0000	78.2(Q)
7 bis(2-Chloroethyl) ether	63	4.566	4.566	(0.944)	501536	80.0000	76.4
8 2-Chlorophenol	128	4.637	4.637	(0.958)	605774	80.0000	77.8
203 n-Decane	43	4.648	4.648	(0.960)	717473	80.0000	66.2
9 1,3-Dichlorobenzene	146	4.788	4.788	(0.989)	697208	80.0000	77.8
11 1,4-Dichlorobenzene	146	4.857	4.857	(1.004)	702123	80.0000	77.3
13 1,2-Dichlorobenzene	146	5.004	5.004	(1.034)	664473	80.0000	78.4
14 bis(2-Chloroisopropyl)ether	45	5.076	5.076	(1.049)	1134393	80.0000	77.4
12 Benzyl alcohol	108	4.953	4.953	(1.024)	391141	80.0000	80.9
15 o-Cresol	107	5.035	5.035	(1.041)	493284	80.0000	77.8
18 m,p-Cresols	107	5.195	5.195	(1.074)	638579	80.0000	79.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.229	5.229	(1.081)	441053	80.0000	81.6
19 Hexachloroethane	117	5.341	5.341	(1.104)	278235	80.0000	79.2
21 Nitrobenzene	77	5.402	5.402	(0.883)	676862	80.0000	75.8
22 Isophorone	82	5.641	5.641	(0.922)	1237317	80.0000	78.2
23 2-Nitrophenol	139	5.715	5.715	(0.934)	322643	80.0000	78.4
24 2,4-Dimethylphenol	122	5.728	5.728	(0.936)	527356	80.0000	77.3
25 bis(2-Chloroethoxy)methane	93	5.832	5.832	(0.953)	705848	80.0000	75.8
26 2,4-Dichlorophenol	162	5.960	5.960	(0.974)	485436	80.0000	78.5
27 Benzoic acid	105	5.866	5.866	(0.958)	354417	80.0000	84.2
28 1,2,4-Trichlorobenzene	180	6.052	6.052	(0.989)	572693	80.0000	75.4
30 Naphthalene	128	6.143	6.143	(1.004)	1620027	80.0000	64.9
204 alpha-Terpineol	59	6.136	6.136	(1.002)	511383	80.0000	74.7
31 4-Chloroaniline	127	6.182	6.182	(1.010)	625731	80.0000	78.0
32 Hexachlorobutadiene	225	6.255	6.255	(1.022)	296995	80.0000	75.1
33 4-Chloro-3-methylphenol	107	6.661	6.661	(1.088)	486253	80.0000	77.9
34 2-Methylnaphthalene	142	6.867	6.867	(1.122)	1094176	80.0000	72.6
35 1-Methylnaphthalene	142	6.977	6.977	(1.140)	1066765	80.0000	72.4
36 Hexachlorocyclopentadiene	237	7.025	7.025	(0.879)	180471	80.0000	76.1
205 2,3-Dichloroaniline	161	7.163	7.163	(0.896)	540961	80.0000	77.0
37 2,4,6-Trichlorophenol	196	7.155	7.155	(0.895)	316731	80.0000	79.1
38 2,4,5-Trichlorophenol	196	7.191	7.191	(0.900)	342202	80.0000	80.2
40 2-Chloronaphthalene	162	7.392	7.392	(0.925)	1023319	80.0000	77.6
42 o-Nitroaniline	65	7.489	7.489	(0.937)	364460	80.0000	80.8
41 m-Nitroaniline	138	7.937	7.937	(0.993)	275916	80.0000	83.6
43 Dimethylphthalate	163	7.687	7.687	(0.962)	1188934	80.0000	79.0
44 2,6-Dinitrotoluene	165	7.754	7.754	(0.970)	287684	80.0000	80.1
50 2,4-Dinitrotoluene	165	8.187	8.187	(1.024)	369296	80.0000	81.6
45 Acenaphthylene	152	7.848	7.848	(0.982)	1656503	80.0000	78.2
47 Acenaphthene	154	8.031	8.031	(1.005)	1007792	80.0000	76.2
48 2,4-Dinitrophenol	184	8.042	8.042	(1.006)	121040	80.0000	77.6(Q)
49 Dibenzofuran	168	8.215	8.215	(1.028)	1378986	80.0000	77.2
51 Diethylphthalate	149	8.437	8.437	(1.055)	1182782	80.0000	78.0
52 4-Nitrophenol	139	8.088	8.088	(1.012)	208122	80.0000	77.7
53 Fluorene	166	8.587	8.587	(1.074)	1112233	80.0000	75.9
54 4-Chlorophenylphenylether	204	8.572	8.572	(1.072)	533296	80.0000	77.0
55 2-Methyl-4,6-dinitrophenol	198	8.630	8.630	(0.899)	199515	80.0000	79.4
56 p-Nitroaniline	138	8.605	8.605	(1.077)	267165	80.0000	78.4
133 Diphenylamine	169	8.699	8.699	(0.906)	948274	80.0000	76.9
58 1,2-Diphenylhydrazine	77	8.745	8.745	(0.911)	1201649	80.0000	76.6
61 4-Bromophenylphenylether	248	9.102	9.102	(0.948)	314432	80.0000	77.9
63 Hexachlorobenzene	284	9.181	9.181	(0.956)	331294	80.0000	78.3
65 Pentachlorophenol	266	9.382	9.382	(0.977)	192628	80.0000	81.0
206 n-Octadecane	57	9.438	9.438	(0.983)	833210	80.0000	73.7
68 Phenanthrene	178	9.634	9.634	(1.003)	1582722	80.0000	74.8
69 Anthracene	178	9.690	9.690	(1.009)	1614945	80.0000	76.4
72 Di-n-butylphthalate	149	10.195	10.195	(1.062)	1886112	80.0000	77.6
76 Fluoranthene	202	10.924	10.924	(1.137)	1584229	80.0000	78.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.176	11.176	(0.885)	1671156	80.0000	74.2
85 Butylbenzylphthalate	149	11.849	11.849	(0.938)	804101	80.0000	78.0
89 Benzo(a)anthracene	228	12.608	12.608	(0.998)	1365683	80.0000	77.3
92 Chrysene	228	12.669	12.669	(1.003)	1321586	80.0000	78.1
93 bis(2-Ethylhexyl)phthalate	149	12.577	12.577	(0.996)	1078889	80.0000	75.6
94 Di-n-octylphthalate	149	13.571	13.571	(0.907)	1687425	80.0000	78.7
95 Benzo(b)fluoranthene	252	14.295	14.295	(0.955)	1204142	80.0000	80.7
96 Benzo(k)fluoranthene	252	14.346	14.346	(0.959)	1213675	80.0000	81.8
97 Benzo(a)pyrene	252	14.871	14.871	(0.994)	1091797	80.0000	84.7
99 Indeno(1,2,3-cd)pyrene	276	16.970	16.970	(1.134)	1012558	80.0000	79.2
100 Dibenzo(a,h)anthracene	278	17.006	17.006	(1.136)	815285	80.0000	78.6
101 Benzo(ghi)perylene	276	17.490	17.490	(1.169)	851887	80.0000	86.5
126 m-Dinitrobenzene	168	7.721	7.721	(0.966)	204100	80.0000	82.2
130 2,3,4,6-Tetrachlorophenol	232	8.332	8.332	(1.042)	260543	80.0000	81.1
143 Dinoseb	211	9.571	9.571	(0.997)	280906	80.0000	80.7
173 Carbazole	167	9.851	9.851	(1.026)	1348512	80.0000	80.6
184 p-Benzoquinone	54	4.087	4.087	(0.845)	88853	80.0000	91.6
192 Methoxychlor	227	12.480	12.480	(0.988)	916678	80.0000	81.1
211 p-Toluidine	106	5.259	5.259	(1.087)	516062	80.0000	75.2
210 m-Toluidine	106	5.295	5.295	(1.094)	730294	80.0000	85.2
26 Phthalic anhydride	104	6.923	6.923	(1.131)	203846	80.0000	78.3
179 Dibenzo(a,e)pyrene	302	21.231	21.231	(1.419)	467062	80.0000	81.8
214 1,4-Dinitrobenzene	75	7.637	7.637	(0.955)	223847	80.0000	83.0
215 2-Ethoxyethanol	59	2.461	2.461	(0.509)	424273	80.0000	78.4
216 Methylenebis(2-chloroaniline)	231	12.552	12.552	(0.994)	226774	80.0000	81.4(Q)
M 225 Trichlorophenols	196				658933	160.000	159
M 226 Tetrachlorophenols	232				260543	80.0000	81.1
M 227 Benzo(b,k)fluoranthene	252				2417817	160.000	162

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0918.d
Date : 09-NOV-2009 22:01
Client ID: MEGAICAL
Sample Info: WBN091106-03180 PPM11SVHF11MEGAICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JWB3
Column diameter: 0.20

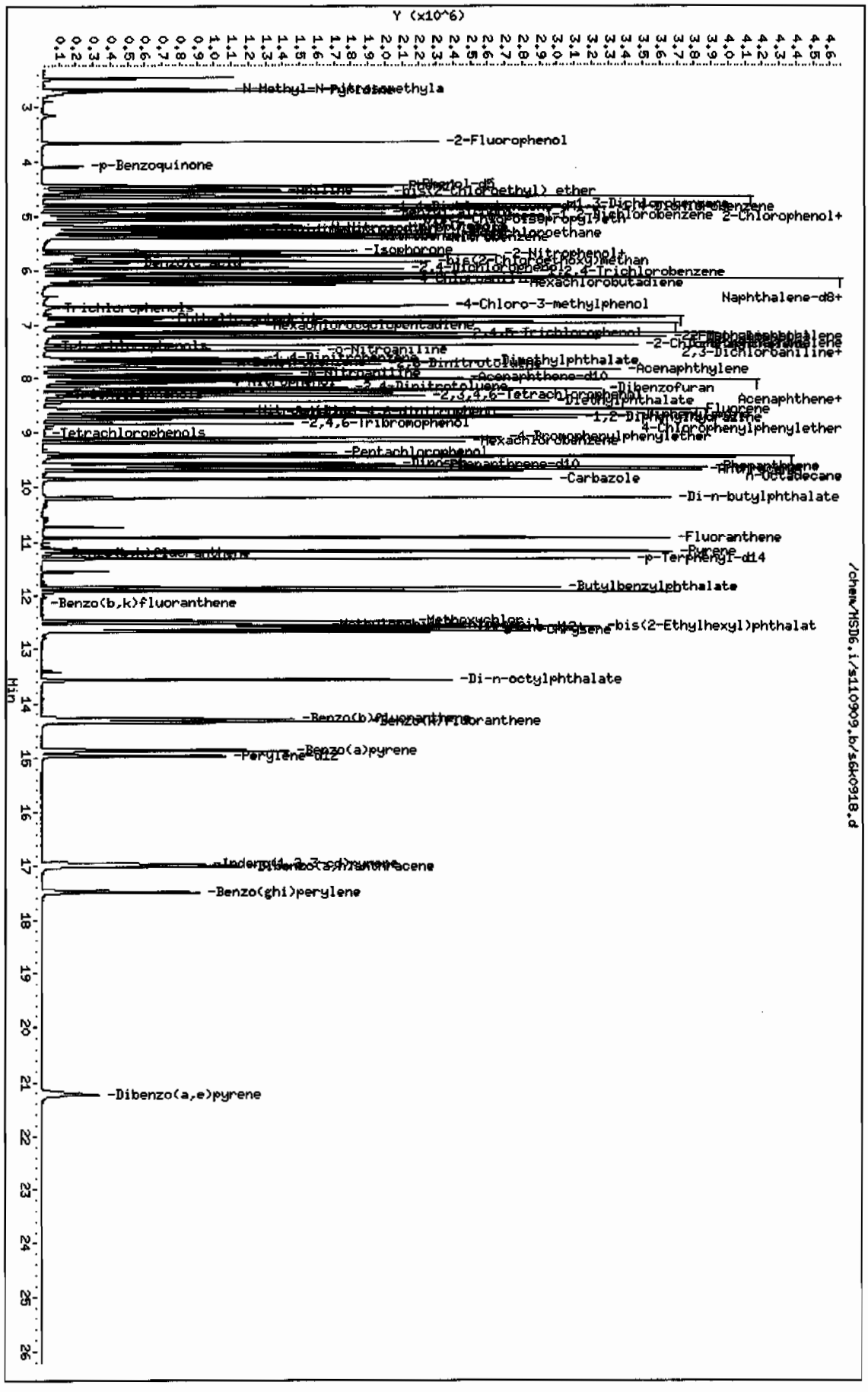

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Data file : /chem/MSD6.i/s110909.b/s6k0919.d
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Inj Date : 09-NOV-2009 22:39
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-02|100 PPM|1|SVMF|1|MEGAICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:52 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:10 Cal File: s6k0953.d
Als bottle: 9 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.839	4.839	(1.000)	330680	40.0000	
* 29 Naphthalene-d8	136	6.123	6.123	(1.000)	1412427	40.0000	
* 46 Acenaphthene-d10	164	7.996	7.996	(1.000)	644045	40.0000	
* 67 Phenanthrene-d10	188	9.606	9.606	(1.000)	1109067	40.0000	
* 91 Chrysene-d12	240	12.633	12.633	(1.000)	896879	40.0000	
* 98 Perylene-d12	264	14.970	14.970	(1.000)	703276	40.0000	
$ 3 2-Fluorophenol	112	3.657	3.657	(0.756)	788238	100.000	95.2
$ 5 Phenol-d5	99	4.449	4.449	(0.919)	1011939	100.000	96.8
$ 20 Nitrobenzene-d5	82	5.387	5.387	(0.880)	895459	100.000	89.6
$ 39 2-Fluorobiphenyl	172	7.252	7.252	(0.907)	1489153	100.000	89.7
$ 60 2,4,6-Tribromophenol	329	8.847	8.847	(1.106)	196276	100.000	104
$ 81 p-Terphenyl-d14	244	11.316	11.316	(0.896)	1331883	100.000	92.1
1 N-Methyl-N-nitrosomethylamine	74	2.678	2.678	(0.553)	547651	100.000	97.3
2 Pyridine	79	2.706	2.706	(0.559)	679468	100.000	97.0
4 Aniline	66	4.531	4.531	(0.936)	428636	100.000	98.3
6 Phenol	94	4.464	4.464	(0.923)	992925	100.000	94.5(Q)
7 bis(2-Chloroethyl) ether	63	4.571	4.571	(0.945)	653713	100.000	91.9
8 2-Chlorophenol	128	4.640	4.640	(0.959)	788462	100.000	93.4
203 n-Decane	43	4.650	4.650	(0.961)	859925	100.000	73.1
9 1,3-Dichlorobenzene	146	4.790	4.790	(0.990)	898362	100.000	92.4
11 1,4-Dichlorobenzene	146	4.857	4.857	(1.004)	906388	100.000	92.0
13 1,2-Dichlorobenzene	146	5.007	5.007	(1.035)	855301	100.000	93.0
14 bis(2-Chloroisopropyl)ether	45	5.078	5.078	(1.049)	1424009	100.000	89.6
12 Benzyl alcohol	108	4.959	4.959	(1.025)	520993	100.000	99.3
15 o-Cresol	107	5.040	5.040	(1.042)	664551	100.000	96.7
18 m,p-Cresols	107	5.201	5.201	(1.075)	846534	100.000	97.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.236	5.236	(1.082)	584680	100.000	99.8
19 Hexachloroethane	117	5.343	5.343	(1.104)	363707	100.000	95.4
21 Nitrobenzene	77	5.407	5.407	(0.883)	876503	100.000	87.0
22 Isophorone	82	5.647	5.647	(0.922)	1618267	100.000	90.6
23 2-Nitrophenol	139	5.721	5.721	(0.934)	426260	100.000	91.8
24 2,4-Dimethylphenol	122	5.733	5.733	(0.936)	772185	100.000	100
25 bis(2-Chloroethoxy)methane	93	5.838	5.838	(0.953)	919366	100.000	87.5
26 2,4-Dichlorophenol	162	5.965	5.965	(0.974)	640589	100.000	91.8
27 Benzoic acid	105	5.891	5.891	(0.962)	531391	100.000	112
28 1,2,4-Trichlorobenzene	180	6.054	6.054	(0.989)	743276	100.000	86.8
30 Naphthalene	128	6.149	6.149	(1.004)	2034122	100.000	72.2
204 alpha-Terpineol	59	6.138	6.138	(1.002)	625805	100.000	81.0
31 4-Chloroaniline	127	6.187	6.187	(1.010)	839384	100.000	92.7
32 Hexachlorobutadiene	225	6.258	6.258	(1.022)	385992	100.000	86.5
33 4-Chloro-3-methylphenol	107	6.666	6.666	(1.089)	634058	100.000	90.0
34 2-Methylnaphthalene	142	6.870	6.870	(1.122)	1411742	100.000	83.0
35 1-Methylnaphthalene	142	6.979	6.979	(1.140)	1374835	100.000	82.7
36 Hexachlorocyclopentadiene	237	7.025	7.025	(0.879)	294782	100.000	113
205 2,3-Dichloroaniline	161	7.168	7.168	(0.896)	692307	100.000	89.8
37 2,4,6-Trichlorophenol	196	7.160	7.160	(0.895)	406428	100.000	92.5
38 2,4,5-Trichlorophenol	196	7.196	7.196	(0.900)	459259	100.000	98.1
40 2-Chloronaphthalene	162	7.395	7.395	(0.925)	1319102	100.000	91.2
42 o-Nitroaniline	65	7.497	7.497	(0.938)	475616	100.000	96.1
41 m-Nitroaniline	138	7.945	7.945	(0.994)	357709	100.000	98.8
43 Dimethylphthalate	163	7.695	7.695	(0.962)	1537547	100.000	93.1
44 2,6-Dinitrotoluene	165	7.759	7.759	(0.970)	368765	100.000	93.6
50 2,4-Dinitrotoluene	165	8.195	8.195	(1.025)	484269	100.000	97.4
45 Acenaphthylene	152	7.851	7.851	(0.982)	2095043	100.000	90.1
47 Acenaphthene	154	8.037	8.037	(1.005)	1322253	100.000	91.1
48 2,4-Dinitrophenol	184	8.049	8.049	(1.007)	185455	100.000	102(Q)
49 Dibenzofuran	168	8.220	8.220	(1.028)	1755593	100.000	89.6
51 Diethylphthalate	149	8.442	8.442	(1.056)	1504510	100.000	90.4
52 4-Nitrophenol	139	8.098	8.098	(1.013)	294363	100.000	98.0
53 Fluorene	166	8.592	8.592	(1.075)	1443897	100.000	89.8
54 4-Chlorophenylphenylether	204	8.574	8.574	(1.072)	692810	100.000	91.2
55 2-Methyl-4,6-dinitrophenol	198	8.641	8.641	(0.899)	279188	100.000	100
56 p-Nitroaniline	138	8.615	8.615	(1.077)	377942	100.000	99.1(H)
133 Diphenylamine	169	8.707	8.707	(0.906)	1251636	100.000	93.6
58 1,2-Diphenylhydrazine	77	8.750	8.750	(0.911)	1563583	100.000	92.0
61 4-Bromophenylphenylether	248	9.107	9.107	(0.948)	415272	100.000	94.9
63 Hexachlorobenzene	284	9.183	9.183	(0.956)	436128	100.000	95.1
65 Pentachlorophenol	266	9.385	9.385	(0.977)	259470	100.000	99.3
206 n-Octadecane	57	9.441	9.441	(0.983)	1036341	100.000	84.6
68 Phenanthrene	178	9.639	9.639	(1.003)	2033728	100.000	88.7
69 Anthracene	178	9.696	9.696	(1.009)	2083180	100.000	90.9
72 Di-n-butylphthalate	149	10.198	10.198	(1.062)	2373557	100.000	90.2
76 Fluoranthene	202	10.926	10.926	(1.137)	2040583	100.000	92.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.179	11.179	(0.885)	2152662	100.000	87.3
85 Butylbenzylphthalate	149	11.851	11.851	(0.938)	1051724	100.000	93.2
89 Benzo(a)anthracene	228	12.616	12.616	(0.999)	1841444	100.000	95.2
92 Chrysene	228	12.677	12.677	(1.003)	1752387	100.000	94.5
93 bis(2-Ethylhexyl)phthalate	149	12.583	12.583	(0.996)	1389660	100.000	88.8
94 Di-n-octylphthalate	149	13.576	13.576	(0.907)	2238289	100.000	100
95 Benzo(b)fluoranthene	252	14.300	14.300	(0.955)	1570629	100.000	101
96 Benzo(k)fluoranthene	252	14.351	14.351	(0.959)	1547376	100.000	100
97 Benzo(a)pyrene	252	14.878	14.878	(0.994)	1409695	100.000	105
99 Indeno(1,2,3-cd)pyrene	276	16.981	16.981	(1.134)	1348903	100.000	100
100 Dibenzo(a,h)anthracene	278	17.016	17.016	(1.137)	1094612	100.000	100
101 Benzo(ghi)perylene	276	17.500	17.500	(1.169)	1107099	100.000	108
126 m-Dinitrobenzene	168	7.731	7.731	(0.967)	269752	100.000	99.0
130 2,3,4,6-Tetrachlorophenol	232	8.337	8.337	(1.043)	345531	100.000	98.0
143 Dinoseb	211	9.576	9.576	(0.997)	375481	100.000	98.1
173 Carbazole	167	9.856	9.856	(1.026)	1808011	100.000	99.6
184 p-Benzoquinone	54	4.090	4.090	(0.845)	100948	100.000	95.9
192 Methoxychlor	227	12.486	12.486	(0.988)	1103669	100.000	89.1
211 p-Toluidine	106	5.262	5.262	(1.087)	560424	100.000	75.3
210 m-Toluidine	106	5.308	5.308	(1.097)	1155156	100.000	124(A)
26 Phthalic anhydride	104	6.926	6.926	(1.131)	306459	100.000	102
179 Dibenzo(a,e)pyrene	302	21.231	21.231	(1.418)	497266	100.000	83.4
214 1,4-Dinitrobenzene	75	7.642	7.642	(0.956)	295950	100.000	100
215 2-Ethoxyethanol	59	2.464	2.464	(0.509)	570248	100.000	97.1
216 Methylenebis(2-chloroaniline)	231	12.560	12.560	(0.994)	306702	100.000	99.2(Q)
M 225 Trichlorophenols	196				865687	200.000	191
M 226 Tetrachlorophenols	232				345531	100.000	98.0
M 227 Benzo(b,k)fluoranthene	252				3118005	200.000	201

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0919.d
Date : 09-NOV-2009 22:39
Client ID: MEGAICAL
Sample Info: IWBN091106-021100 PPM|1|SVMF|1|MEGAICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

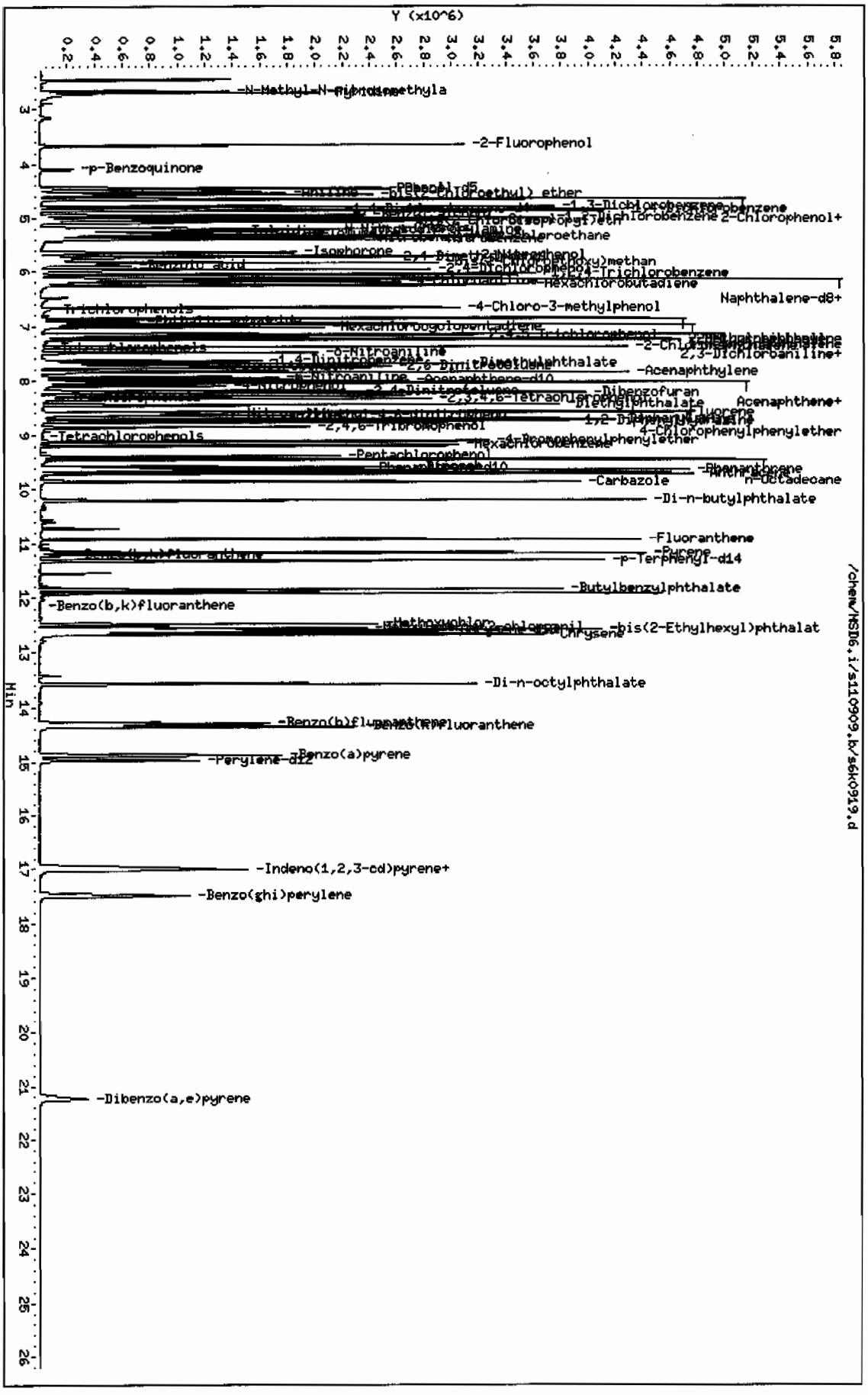

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Data file : /chem/MSD6.i/s110909.b/s6k0920.d
Lab Smp Id: WBN091106-01 Client Smp ID: MEGAICAL
Inj Date : 09-NOV-2009 23:16
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-01|120 PPM|1|SVMF|1|MEGAICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:52 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.841	4.841	(1.000)	333223	40.0000	
* 29 Naphthalene-d8	136	6.123	6.123	(1.000)	1463272	40.0000	
* 46 Acenaphthene-d10	164	7.998	7.998	(1.000)	648114	40.0000	
* 67 Phenanthrene-d10	188	9.609	9.609	(1.000)	1134747	40.0000	
* 91 Chrysene-d12	240	12.638	12.638	(1.000)	941778	40.0000	
* 98 Perylene-d12	264	14.975	14.975	(1.000)	810019	40.0000	
$ 3 2-Fluorophenol	112	3.659	3.659	(0.756)	956166	120.000	114
$ 5 Phenol-d5	99	4.451	4.451	(0.919)	1222364	120.000	116
$ 20 Nitrobenzene-d5	82	5.389	5.389	(0.880)	1083018	120.000	105
$ 39 2-Fluorobiphenyl	172	7.252	7.252	(0.907)	1812882	120.000	108
$ 60 2,4,6-Tribromophenol	329	8.849	8.849	(1.106)	245114	120.000	130(A)
$ 81 p-Terphenyl-d14	244	11.321	11.321	(0.896)	1650122	120.000	109
1 N-Methyl-N-nitrosomethylamine	74	2.680	2.680	(0.554)	666413	120.000	117
2 Pyridine	79	2.706	2.706	(0.559)	822183	120.000	116
4 Aniline	66	4.535	4.535	(0.937)	512300	120.000	116
6 Phenol	94	4.469	4.469	(0.923)	1216367	120.000	115(Q)
7 bis(2-Chloroethyl) ether	63	4.574	4.574	(0.945)	796827	120.000	111
8 2-Chlorophenol	128	4.642	4.642	(0.959)	940267	120.000	110
203 n-Decane	43	4.653	4.653	(0.961)	961133	120.000	81.1
9 1,3-Dichlorobenzene	146	4.793	4.793	(0.990)	1078457	120.000	110
11 1,4-Dichlorobenzene	146	4.859	4.859	(1.004)	1074113	120.000	108
13 1,2-Dichlorobenzene	146	5.009	5.009	(1.035)	1024380	120.000	110
14 bis(2-Chloroisopropyl)ether	45	5.081	5.081	(1.049)	1692158	120.000	106
12 Benzyl alcohol	108	4.966	4.966	(1.026)	647455	120.000	122(A)
15 o-Cresol	107	5.043	5.043	(1.042)	793811	120.000	115
18 m,p-Cresols	107	5.206	5.206	(1.075)	1035973	120.000	118

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.241	5.241	(1.083)	593493	120.000	100
19 Hexachloroethane	117	5.343	5.343	(1.104)	433814	120.000	113
21 Nitrobenzene	77	5.412	5.412	(0.884)	1052072	120.000	101
22 Isophorone	82	5.654	5.654	(0.923)	1683858	120.000	91.0
23 2-Nitrophenol	139	5.723	5.723	(0.935)	528860	120.000	110
24 2,4-Dimethylphenol	122	5.738	5.738	(0.937)	949157	120.000	119
25 bis(2-Chloroethoxy)methane	93	5.840	5.840	(0.954)	1111077	120.000	102
26 2,4-Dichlorophenol	162	5.967	5.967	(0.975)	789520	120.000	109
27 Benzoic acid	105	5.906	5.906	(0.965)	638965	120.000	130(A)
28 1,2,4-Trichlorobenzene	180	6.057	6.057	(0.989)	890158	120.000	100
30 Naphthalene	128	6.151	6.151	(1.005)	2444601	120.000	83.8
204 alpha-Terpineol	59	6.141	6.141	(1.003)	723777	120.000	90.5
31 4-Chloroaniline	127	6.189	6.189	(1.011)	1014652	120.000	108
32 Hexachlorobutadiene	225	6.258	6.258	(1.022)	462771	120.000	100
33 4-Chloro-3-methylphenol	107	6.668	6.668	(1.089)	759568	120.000	104
34 2-Methylnaphthalene	142	6.872	6.872	(1.122)	1706925	120.000	96.9
35 1-Methylnaphthalene	142	6.982	6.982	(1.140)	1670386	120.000	96.9
36 Hexachlorocyclopentadiene	237	7.025	7.025	(0.878)	326317	120.000	125(A)
205 2,3-Dichloroaniline	161	7.168	7.168	(0.896)	848984	120.000	109
37 2,4,6-Trichlorophenol	196	7.163	7.163	(0.896)	496898	120.000	112
38 2,4,5-Trichlorophenol	196	7.198	7.198	(0.900)	548249	120.000	116
40 2-Chloronaphthalene	162	7.397	7.397	(0.925)	1606934	120.000	110
42 o-Nitroaniline	65	7.499	7.499	(0.938)	591312	120.000	119
41 m-Nitroaniline	138	7.950	7.950	(0.994)	453301	120.000	124(A)
43 Dimethylphthalate	163	7.700	7.700	(0.963)	1726505	120.000	104
44 2,6-Dinitrotoluene	165	7.764	7.764	(0.971)	459963	120.000	116
50 2,4-Dinitrotoluene	165	8.200	8.200	(1.025)	589150	120.000	118
45 Acenaphthylene	152	7.853	7.853	(0.982)	2550730	120.000	109
47 Acenaphthene	154	8.039	8.039	(1.005)	1619711	120.000	111
48 2,4-Dinitrophenol	184	8.054	8.054	(1.007)	246126	120.000	131(AQ)
49 Dibenzofuran	168	8.223	8.223	(1.028)	2165065	120.000	110
51 Diethylphthalate	149	8.447	8.447	(1.056)	1859513	120.000	111
52 4-Nitrophenol	139	8.105	8.105	(1.013)	379687	120.000	124(A)
53 Fluorene	166	8.595	8.595	(1.075)	1758463	120.000	109
54 4-Chlorophenylphenylether	204	8.577	8.577	(1.072)	827514	120.000	108
55 2-Methyl-4,6-dinitrophenol	198	8.646	8.646	(0.900)	346834	120.000	120(A)
56 p-Nitroaniline	138	8.628	8.628	(1.079)	477974	120.000	123(A)
133 Diphenylamine	169	8.712	8.712	(0.907)	1545255	120.000	113
58 1,2-Diphenylhydrazine	77	8.753	8.753	(0.911)	1888199	120.000	108
61 4-Bromophenylphenylether	248	9.109	9.109	(0.948)	511390	120.000	114
63 Hexachlorobenzene	284	9.188	9.188	(0.956)	538604	120.000	115
65 Pentachlorophenol	266	9.387	9.387	(0.977)	326879	120.000	121(A)
206 n-Octadecane	57	9.443	9.443	(0.983)	1225249	120.000	97.8
68 Phenanthrene	178	9.642	9.642	(1.003)	2477381	120.000	106
69 Anthracene	178	9.700	9.700	(1.010)	2559859	120.000	109
72 Di-n-butylphthalate	149	10.200	10.200	(1.062)	2871463	120.000	106
76 Fluoranthene	202	10.931	10.931	(1.138)	2509833	120.000	112

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.183	11.183	(0.885)	2676547	120.000	103
85 Butylbenzylphthalate	149	11.854	11.854	(0.938)	1295261	120.000	109
89 Benzo(a)anthracene	228	12.621	12.621	(0.999)	2370190	120.000	117
92 Chrysene	228	12.682	12.682	(1.003)	2243579	120.000	115
93 bis(2-Ethylhexyl)phthalate	149	12.585	12.585	(0.996)	1700943	120.000	103
94 Di-n-octylphthalate	149	13.581	13.581	(0.907)	2796015	120.000	109
95 Benzo(b)fluoranthene	252	14.313	14.313	(0.956)	2223643	120.000	124(A)
96 Benzo(k)fluoranthene	252	14.363	14.363	(0.959)	2087639	120.000	117
97 Benzo(a)pyrene	252	14.891	14.891	(0.994)	1959776	120.000	126(A)
99 Indeno(1,2,3-cd)pyrene	276	16.993	16.993	(1.135)	1889688	120.000	122(A)
100 Dibenzo(a,h)anthracene	278	17.031	17.031	(1.137)	1529825	120.000	121(A)
101 Benzo(ghi)perylene	276	17.515	17.515	(1.170)	1553559	120.000	131(A)
126 m-Dinitrobenzene	168	7.744	7.744	(0.968)	328678	120.000	120
130 2,3,4,6-Tetrachlorophenol	232	8.340	8.340	(1.043)	432688	120.000	122(A)
143 Dinoseb	211	9.581	9.581	(0.997)	479562	120.000	121(A)
173 Carbazole	167	9.858	9.858	(1.026)	2244987	120.000	121(A)
184 p-Benzoquinone	54	4.092	4.092	(0.845)	125786	120.000	119
192 Methoxychlor	227	12.493	12.493	(0.988)	1499742	120.000	115
211 p-Toluidine	106	5.267	5.267	(1.088)	647565	120.000	86.4
210 m-Toluidine	106	5.313	5.313	(1.097)	924924	120.000	98.8
26 Phthalic anhydride	104	6.931	6.931	(1.132)	320729	120.000	103
179 Dibenzo(a,e)pyrene	302	21.261	21.261	(1.420)	844324	120.000	120
214 1,4-Dinitrobenzene	75	7.647	7.647	(0.956)	375732	120.000	126(A)
215 2-Ethoxyethanol	59	2.466	2.466	(0.509)	684402	120.000	116
216 Methylenebis(2-chloroaniline)	231	12.565	12.565	(0.994)	394688	120.000	120(AQ)
M 225 Trichlorophenols	196				1045147	240.000	229
M 226 Tetrachlorophenols	232				432688	120.000	122(A)
M 227 Benzo(b,k)fluoranthene	252				4311282	240.000	241(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0920.d
Date : 09-NOV-2009 23:16
Client ID: MEGAICAL
Sample Info: WBN091106-01|120 PPM|1|SVMF|1|MEGAICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JWB3
Column diameter: 0.20

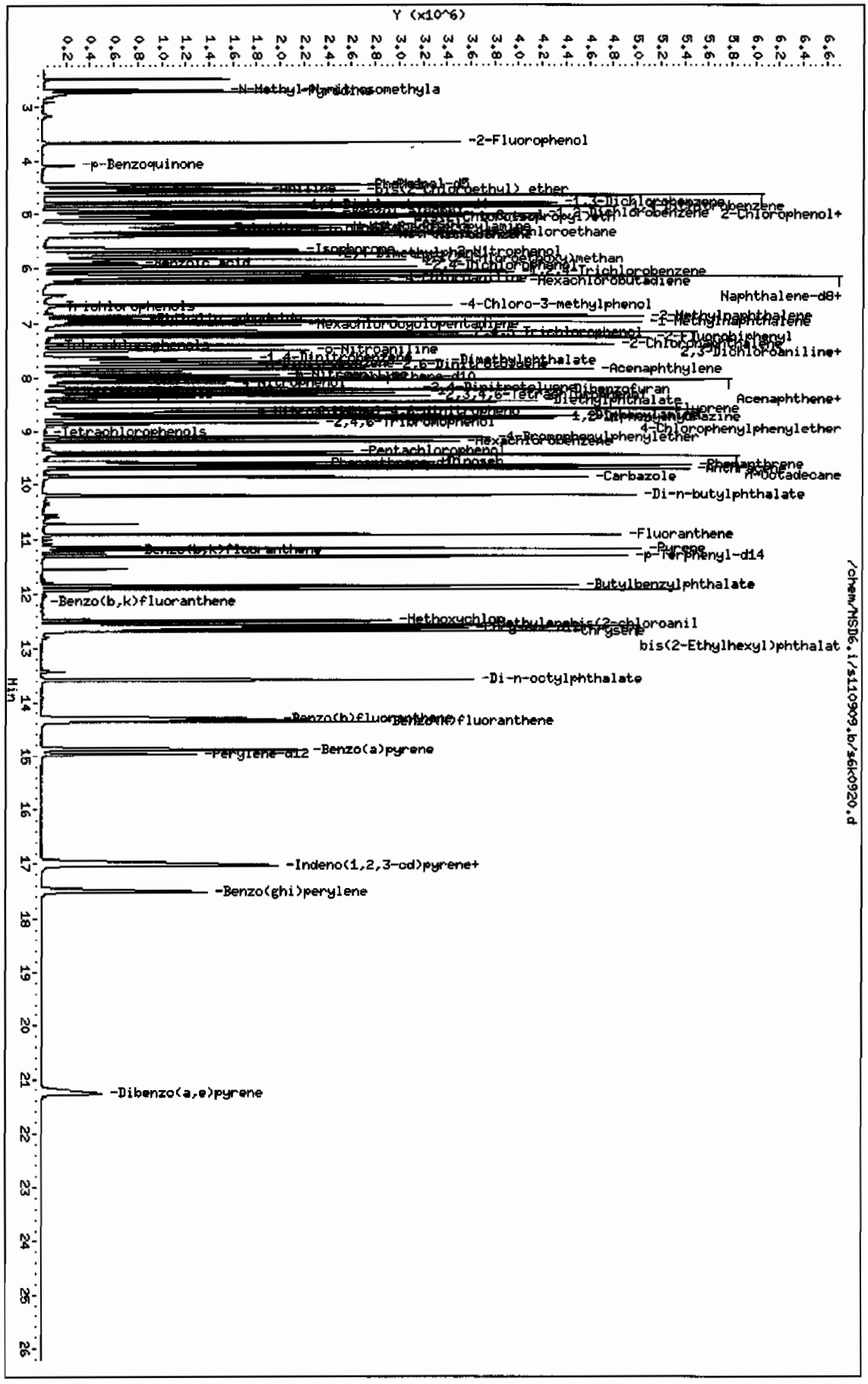

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Data file : /chem/MSD6.i/s110909.b/s6k0923.d
Lab Smp Id: WBN091016-01 Client Smp ID: AP12ICAL
Inj Date : 10-NOV-2009 11:59
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-01|10 PPM|1|SVMF|1|AP12ICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD6.i/s110909.b/MSD6-M8270D-110909.m
Meth Date : 10-Nov-2009 22:15 nat00999 Quant Type: ISTD
Cal Date : 10-NOV-2009 11:59 Cal File: s6k0923.d
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	247567	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	883871	40.0000	
* 46 Acenaphthene-d10	164	7.986	7.986	(1.000)	454586	40.0000	
* 67 Phenanthrene-d10	188	9.598	9.598	(1.000)	758263	40.0000	
* 91 Chrysene-d12	240	12.610	12.610	(1.000)	522180	40.0000	
* 98 Perylene-d12	264	14.947	14.947	(1.000)	359436	40.0000	
209 Benzaldehyde	77	4.426	4.426	(0.916)	58362	10.0000	10.0(Q)
16 Acetophenone	105	5.208	5.208	(1.077)	74840	10.0000	10.0(Q)
189 Caprolactam	113	6.503	6.503	(1.064)	14951	10.0000	10.0(Q)
208 1,1'-Biphenyl	154	7.351	7.351	(0.921)	150186	10.0000	10.0(Q)
207 Atrazine	173	9.244	9.244	(0.963)	8466	10.0000	10.0(Q)
77 Benzidine	184	11.036	11.036	(0.875)	46752	10.0000	10.0
90 3,3'-Dichlorobenzidine	252	12.534	12.534	(0.994)	30716	10.0000	10.0(Q)
102 1,4-Dioxane	88	2.451	2.451	(0.507)	23315	10.0000	10.0(Q)
103 Methyl methacrylate	100	2.449	2.449	(0.507)	12147	10.0000	10.0(Q)
104 Ethyl methacrylate	69	2.968	2.968	(0.614)	49297	10.0000	10.0(Q)
105 2-Picoline	93	3.228	3.228	(0.668)	86106	10.0000	10.0(Q)
106 N-Nitrosomethylethylamine	88	3.292	3.292	(0.681)	31263	10.0000	10.0(Q)
107 Methyl methanesulfonate	80	3.519	3.519	(0.728)	34925	10.0000	10.0(Q)
108 N-Nitrosodiethylamine	102	3.855	3.855	(0.798)	31138	10.0000	10.0(Q)
109 Ethyl Methanesulfonate	79	4.089	4.089	(0.846)	40730	10.0000	10.0(Q)
110 Pentachloroethane	167	4.574	4.574	(0.946)	19935	10.0000	10.0(Q)
111 N-Nitrosopyrrolidine	100	5.180	5.180	(1.072)	27345	10.0000	10.0(Q)
113 N-Nitrosomorpholine	56	5.216	5.216	(1.079)	43963	10.0000	10.0(Q)
114 o-Toluidine	106	5.241	5.241	(1.084)	108185	10.0000	10.0(Q)
115 N-Nitrosopiperidine	114	5.534	5.534	(0.905)	30569	10.0000	10.0(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.924	5.924	(0.969)	174056	10.0000	10.0
118 2,6-Dichlorophenol	162	6.179	6.179	(1.011)	43490	10.0000	10.0(QH)
119 Hexachloropropene	213	6.222	6.222	(1.018)	19101	10.0000	10.0(Q)
120 p-Phenylenediamine	108	6.533	6.533	(1.069)	43562	10.0000	10.0(QH)
121 N-Nitrosodi-n-butylamine	84	6.508	6.508	(1.065)	49601	10.0000	10.0(TQ)
122 Safrole	162	6.747	6.747	(1.104)	41266	10.0000	10.0(Q)
123 1,2,4,5-Tetrachlorobenzene	216	7.033	7.033	(0.881)	51588	10.0000	10.0(Q)
124 Isosafrole	162	7.300	7.300	(0.914)	38652	10.0000	10.0(Q)
125 1,4-Naphthoquinone	158	7.563	7.563	(0.947)	34114	10.0000	10.0(Q)
127 Pentachlorobenzene	250	8.156	8.156	(1.021)	43670	10.0000	10.0(Q)
128 1-Naphthylamine	143	8.281	8.281	(1.037)	103048	10.0000	10.0(Q)
129 2-Naphthylamine	143	8.365	8.365	(1.048)	109757	10.0000	10.0(QH)
131 5-Nitro-o-toluidine	152	8.566	8.566	(1.073)	25098	10.0000	10.0(Q)
136 1,3,5-Trinitrobenzene	75	8.941	8.941	(0.932)	14861	10.0000	10.0(Q)
137 Phenacetin	108	8.997	8.997	(0.937)	41196	10.0000	10.0(QH)
138 Diallate	86	8.989	8.989	(0.937)	49649	10.0000	10.0(Q)
140 4-Aminobiphenyl	169	9.372	9.372	(0.976)	95709	10.0000	10.0(H)
141 Pentachloronitrobenzene	237	9.390	9.390	(0.978)	11744	10.0000	10.0(Q)
142 Pronamide	173	9.418	9.418	(0.981)	51110	10.0000	10.0(Q)
146 4-Nitroquinoline-1-oxide	101	10.444	10.444	(1.088)	3815	10.0000	10.0(Q)
147 Methapyrilene	58	10.513	10.513	(1.095)	77008	10.0000	10.0(Q)
148 Isodrin	193	10.753	10.753	(1.120)	19214	10.0000	10.0(Q)
149 Aramite	185	11.265	11.265	(1.174)	7281	10.0000	10.0(Q)
150 Kepone	272	11.933	11.933	(1.243)	10756	10.0000	10.0(QH)
151 p-(Dimethylamino)azobenzene	120	11.454	11.454	(0.908)	40762	10.0000	10.0(Q)
152 Chlorobenzilate	251	11.497	11.497	(0.912)	39175	10.0000	10.0(Q)
153 3,3'-Dimethylbenzidine	212	11.836	11.836	(0.939)	64606	10.0000	10.0
155 2-Acetylaminofluorene	181	12.144	12.144	(0.963)	23996	10.0000	10.0(QH)
157 7,12Dimethylbenz(a)anthracene	256	14.246	14.246	(0.953)	41106	10.0000	10.0(Q)
158 3-Methylcholanthrene	268	15.467	15.467	(1.035)	26367	10.0000	10(QH)
212 Cis Diallate	86	9.089	9.089	(0.947)	7302	1.50000	1.5(Q)
213 Trans Diallate	86	8.989	8.989	(0.937)	49649	8.50000	8.5(Q)

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6k0923.d
Date : 10-NOV-2009 11:59
Client ID: AP121CAL
Sample Info: IWBN091016-01110 PPM11SVMF11AP121CAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

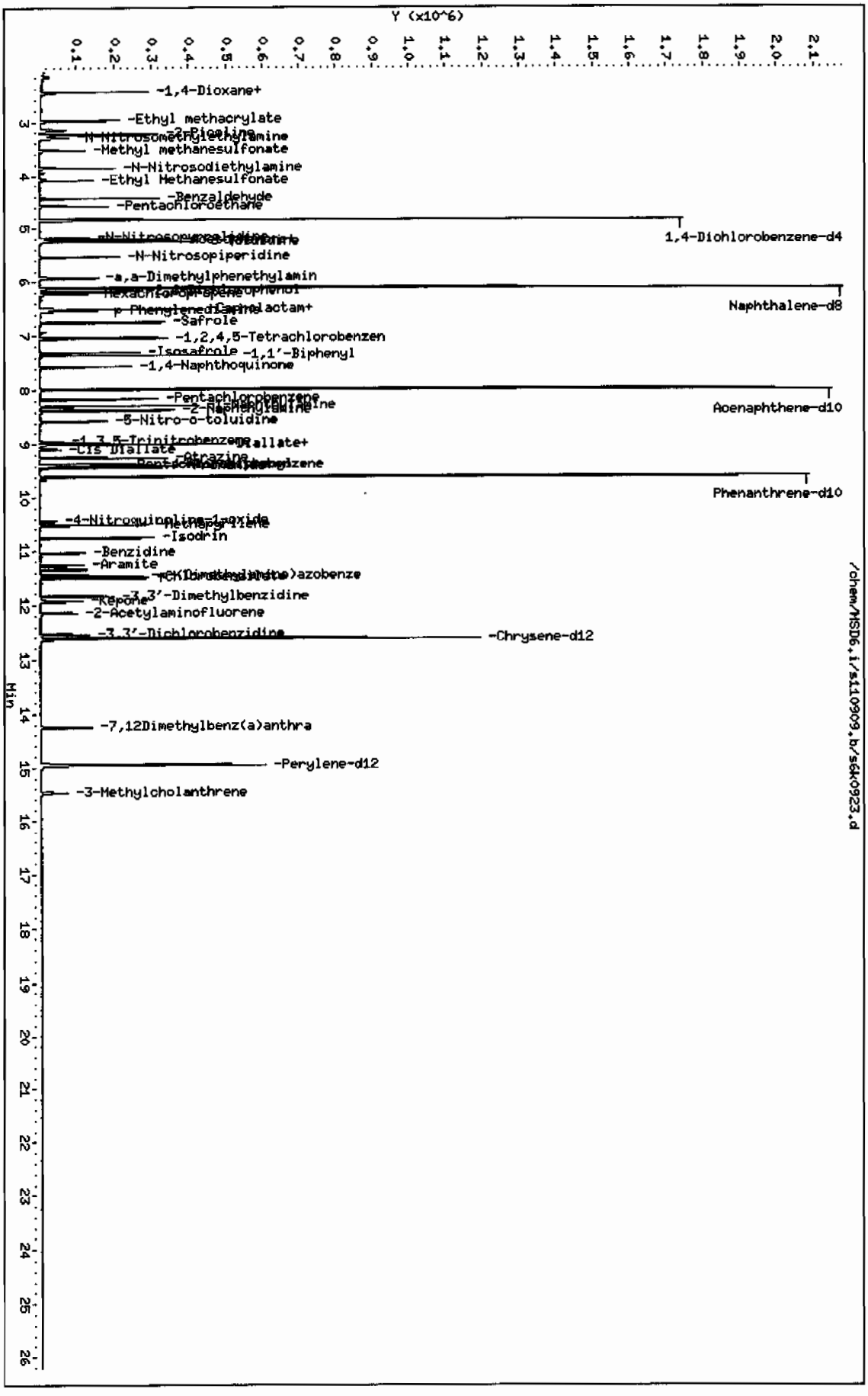

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Data file : /chem/MSD6.i/s110909.b/s6k0924.d
Lab Smp Id: WBN091016-02 Client Smp ID: AP12ICAL
Inj Date : 10-NOV-2009 12:36
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-02|20 PPM|1|SVMF|1|AP12ICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD6.i/s110909.b/MSD6-M8270D-110909.m
Meth Date : 10-Nov-2009 22:15 nat00999 Quant Type: ISTD
Cal Date : 10-NOV-2009 12:36 Cal File: s6k0924.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	256549	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	922700	40.0000	
* 46 Acenaphthene-d10	164	7.983	7.983	(1.000)	490585	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	853832	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	688612	40.0000	
* 98 Perylene-d12	264	14.952	14.952	(1.000)	518310	40.0000	
209 Benzaldehyde	77	4.426	4.426	(0.916)	116936	20.0000	19.7(Q)
16 Acetophenone	105	5.208	5.208	(1.077)	150839	20.0000	19.7(Q)
189 Caprolactam	113	6.513	6.513	(1.065)	33549	20.0000	20.7(Q)
208 1,1'-Biphenyl	154	7.351	7.351	(0.921)	302786	20.0000	19.3(Q)
207 Atrazine	173	9.247	9.247	(0.963)	18427	20.0000	19.6(Q)
77 Benzidine	184	11.036	11.036	(0.875)	139931	20.0000	21.3
90 3,3'-Dichlorobenzidine	252	12.534	12.534	(0.994)	96661	20.0000	21.8(Q)
102 1,4-Dioxane	88	2.456	2.456	(0.508)	47517	20.0000	19.8(Q)
103 Methyl methacrylate	100	2.454	2.454	(0.508)	25201	20.0000	20.0(Q)
104 Ethyl methacrylate	69	2.971	2.971	(0.615)	104147	20.0000	20.2(Q)
105 2-Picoline	93	3.228	3.228	(0.668)	168996	20.0000	19.4(Q)
106 N-Nitrosomethylethylamine	88	3.295	3.295	(0.682)	62816	20.0000	19.7(Q)
107 Methyl methanesulfonate	80	3.522	3.522	(0.729)	68397	20.0000	19.4(Q)
108 N-Nitrosodiethylamine	102	3.858	3.858	(0.798)	61555	20.0000	19.5(Q)
109 Ethyl Methanesulfonate	79	4.092	4.092	(0.847)	83349	20.0000	19.9(Q)
110 Pentachloroethane	167	4.574	4.574	(0.946)	40260	20.0000	19.7(Q)
111 N-Nitrosopyrrolidine	100	5.183	5.183	(1.072)	59489	20.0000	20.5(Q)
113 N-Nitrosomorpholine	56	5.219	5.219	(1.080)	86116	20.0000	19.4(Q)
114 o-Toluidine	106	5.244	5.244	(1.085)	212333	20.0000	19.4(Q)
115 N-Nitrosopiperidine	114	5.535	5.535	(0.905)	62849	20.0000	19.8(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.914	5.914	(0.967)	376403	20.0000	20.4
118 2,6-Dichlorophenol	162	6.182	6.182	(1.011)	92233	20.0000	20.2(Q)
119 Hexachloropropene	213	6.223	6.223	(1.018)	43822	20.0000	20.9(Q)
120 p-Phenylenediamine	108	6.536	6.536	(1.069)	111144	20.0000	22.0(Q)
121 N-Nitrosodi-n-butylamine	84	6.510	6.510	(1.065)	103810	20.0000	20.0(TQ)
122 Safrole	162	6.750	6.750	(1.104)	85743	20.0000	20.0(Q)
123 1,2,4,5-Tetrachlorobenzene	216	7.035	7.035	(0.881)	104059	20.0000	19.3(Q)
124 Isosafrole	162	7.303	7.303	(0.915)	81432	20.0000	19.8(Q)
125 1,4-Naphthoquinone	158	7.565	7.565	(0.948)	80516	20.0000	20.9(Q)
127 Pentachlorobenzene	250	8.157	8.157	(1.022)	89715	20.0000	19.5(Q)
128 1-Naphthylamine	143	8.281	8.281	(1.037)	225919	20.0000	20.2(Q)
129 2-Naphthylamine	143	8.368	8.368	(1.048)	247742	20.0000	20.4(Q)
131 5-Nitro-o-toluidine	152	8.569	8.569	(1.073)	65284	20.0000	21.9(Q)
136 1,3,5-Trinitrobenzene	75	8.944	8.944	(0.932)	45341	20.0000	23.0(Q)
137 Phenacetin	108	9.002	9.002	(0.938)	110195	20.0000	21.7(Q)
138 Diallate	86	8.990	8.990	(0.937)	104056	20.0000	19.3(Q)
140 4-Aminobiphenyl	169	9.374	9.374	(0.977)	215951	20.0000	20.0
141 Pentachloronitrobenzene	237	9.390	9.390	(0.978)	25960	20.0000	19.8(Q)
142 Pronamide	173	9.418	9.418	(0.981)	113483	20.0000	19.8(Q)
146 4-Nitroquinoline-1-oxide	101	10.445	10.445	(1.088)	14070	20.0000	24.8(Q)
147 Methapyrilene	58	10.514	10.514	(1.095)	180198	20.0000	20.4(Q)
148 Isodrin	193	10.750	10.750	(1.120)	41636	20.0000	19.6(Q)
149 Aramite	185	11.265	11.265	(1.174)	18150	20.0000	21.0(Q)
150 Kepone	272	11.930	11.930	(1.243)	26432	20.0000	20.9(Q)
151 p-(Dimethylamino)azobenzene	120	11.454	11.454	(0.908)	108037	20.0000	20.0(Q)
152 Chlorobenzilate	251	11.497	11.497	(0.912)	94704	20.0000	19.1(Q)
153 3,3'-Dimethylbenzidine	212	11.836	11.836	(0.938)	180406	20.0000	20.6
155 2-Acetylaminofluorene	181	12.147	12.147	(0.963)	98558	20.0000	24.4(Q)
157 7,12Dimethylbenz(a)anthracene	256	14.249	14.249	(0.953)	116466	20.0000	19.8(Q)
158 3-Methylcholanthrene	268	15.472	15.472	(1.035)	92005	20.0000	21.9(Q)
212 Cis Diallate	86	9.092	9.092	(0.947)	15507	3.00000	2.9(Q)
213 Trans Diallate	86	8.990	8.990	(0.937)	104056	17.0000	16.4(Q)

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0924.d
Date : 10-NOV-2009 12:36
Client ID: AP12ICAL
Sample Info: WBN091016-02120 PPM11ISVHF:11AP12ICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

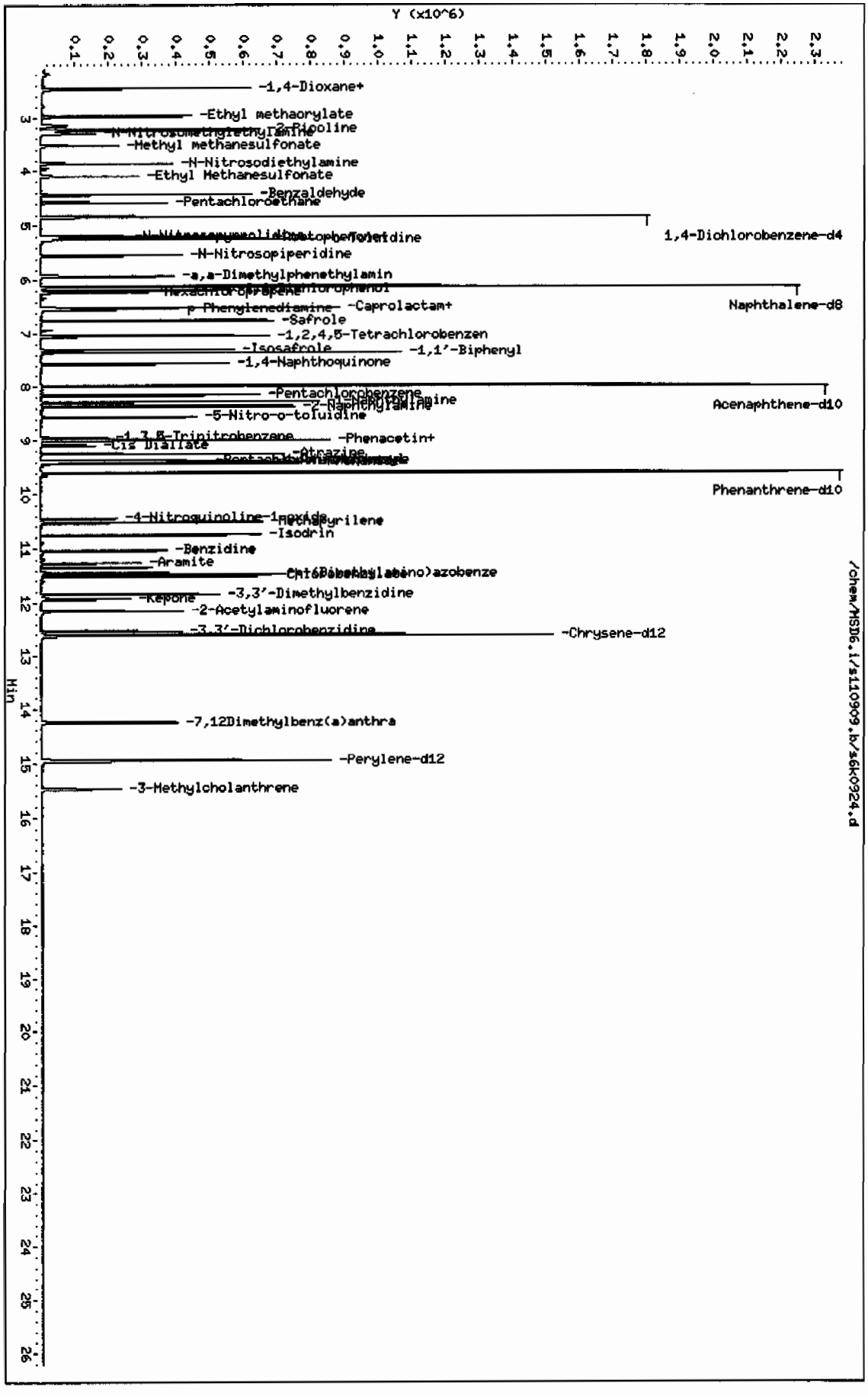

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Data file : /chem/MSD6.i/s110909.b/s6k0925.d
Lab Smp Id: WBN091016-03 Client Smp ID: AP12ICAL
Inj Date : 10-NOV-2009 13:13
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-03|40 PPM|1|SVMF|1|AP12ICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD6.i/s110909.b/MSD6-M8270D-110909.m
Meth Date : 10-Nov-2009 22:16 nat00999 Quant Type: ISTD
Cal Date : 10-NOV-2009 13:13 Cal File: s6k0925.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	263784	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	929195	40.0000	
* 46 Acenaphthene-d10	164	7.983	7.983	(1.000)	488159	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	849770	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	655637	40.0000	
* 98 Perylene-d12	264	14.950	14.950	(1.000)	480061	40.0000	
209 Benzaldehyde	77	4.429	4.429	(0.916)	242849	40.0000	39.8
16 Acetophenone	105	5.213	5.213	(1.079)	319622	40.0000	40.4
189 Caprolactam	113	6.531	6.531	(1.068)	76323	40.0000	44.3
208 1,1'-Biphenyl	154	7.354	7.354	(0.921)	613769	40.0000	39.6
207 Atrazine	173	9.252	9.252	(0.964)	36850	40.0000	39.7
77 Benzidine	184	11.038	11.038	(0.875)	257284	40.0000	40.7
90 3,3'-Dichlorobenzidine	252	12.537	12.537	(0.994)	192035	40.0000	43.4
102 1,4-Dioxane	88	2.459	2.459	(0.509)	103036	40.0000	41.2
103 Methyl methacrylate	100	2.456	2.456	(0.508)	53908	40.0000	41.1
104 Ethyl methacrylate	69	2.974	2.974	(0.615)	222628	40.0000	41.3
105 2-Picoline	93	3.228	3.228	(0.668)	361350	40.0000	40.3
106 N-Nitrosomethylethylamine	88	3.297	3.297	(0.682)	138363	40.0000	41.4
107 Methyl methanesulfonate	80	3.524	3.524	(0.729)	148553	40.0000	40.7
108 N-Nitrosodiethylamine	102	3.860	3.860	(0.799)	134935	40.0000	41.1
109 Ethyl Methanesulfonate	79	4.097	4.097	(0.848)	177643	40.0000	40.8
110 Pentachloroethane	167	4.574	4.574	(0.946)	87297	40.0000	41.1
111 N-Nitrosopyrrolidine	100	5.191	5.191	(1.074)	134081	40.0000	43.1
113 N-Nitrosomorpholine	56	5.226	5.226	(1.081)	187961	40.0000	40.8
114 o-Toluidine	106	5.249	5.249	(1.086)	452942	40.0000	40.2
115 N-Nitrosopiperidine	114	5.540	5.540	(0.906)	136923	40.0000	41.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.937	5.937	(0.971)	822116	40.0000	42.7
118 2,6-Dichlorophenol	162	6.184	6.184	(1.012)	197363	40.0000	41.8
119 Hexachloropropene	213	6.222	6.222	(1.018)	100271	40.0000	44.8
120 p-Phenylenediamine	108	6.541	6.541	(1.070)	237565	40.0000	44.2
121 N-Nitrosodi-n-butylamine	84	6.516	6.516	(1.066)	206427	40.0000	39.7(T)
122 Safrole	162	6.750	6.750	(1.104)	182839	40.0000	41.5
123 1,2,4,5-Tetrachlorobenzene	216	7.035	7.035	(0.881)	216035	40.0000	40.2
124 Isosafrole	162	7.305	7.305	(0.915)	171657	40.0000	41.2
125 1,4-Naphthoquinone	158	7.568	7.568	(0.948)	170338	40.0000	42.8
127 Pentachlorobenzene	250	8.159	8.159	(1.022)	184211	40.0000	40.2
128 1-Naphthylamine	143	8.284	8.284	(1.038)	464647	40.0000	41.1
129 2-Naphthylamine	143	8.371	8.371	(1.048)	500071	40.0000	41.0
131 5-Nitro-o-toluidine	152	8.574	8.574	(1.074)	141536	40.0000	44.8
136 1,3,5-Trinitrobenzene	75	8.946	8.946	(0.932)	104071	40.0000	47.8
137 Phenacetin	108	9.010	9.010	(0.939)	231214	40.0000	43.7
138 Diallate	86	8.992	8.992	(0.937)	213990	40.0000	39.9
140 4-Aminobiphenyl	169	9.377	9.377	(0.977)	463964	40.0000	42.1
141 Pentachloronitrobenzene	237	9.392	9.392	(0.978)	55629	40.0000	41.7
142 Pronamide	173	9.423	9.423	(0.982)	233100	40.0000	40.6
146 4-Nitroquinoline-1-oxide	101	10.445	10.445	(1.088)	22943	40.0000	40.4
147 Methapyrilene	58	10.516	10.516	(1.096)	349282	40.0000	39.8
148 Isodrin	193	10.753	10.753	(1.120)	86082	40.0000	40.5
149 Aramite	185	11.265	11.265	(1.174)	39093	40.0000	43.5
150 Kepone	272	11.933	11.933	(1.243)	53631	40.0000	41.7
151 p-(Dimethylamino)azobenzene	120	11.456	11.456	(0.908)	218246	40.0000	41.6
152 Chlorobenzilate	251	11.500	11.500	(0.912)	198625	40.0000	41.4
153 3,3'-Dimethylbenzidine	212	11.838	11.838	(0.939)	350679	40.0000	41.3
155 2-Acetylaminofluorene	181	12.154	12.154	(0.964)	217618	40.0000	49.7
157 7,12Dimethylbenz(a)anthracene	256	14.252	14.252	(0.953)	234840	40.0000	42.0
158 3-Methylcholanthrene	268	15.480	15.480	(1.035)	181802	40.0000	44.2
212 Cis Diallate	86	9.092	9.092	(0.947)	32853	6.00000	6.1
213 Trans Diallate	86	8.992	8.992	(0.937)	213990	34.0000	33.9

QC Flag Legend

T - Target compound detected outside RT window.

Data File: /chem/MSD6.i/s110909.b/s6k0925.d
Date : 10-NOV-2009 13:13
Client ID: AP121CAL
Sample Info: WBN091016-03:40 PPM11SVHF11AP121CAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JHB3
Column diameter: 0.20

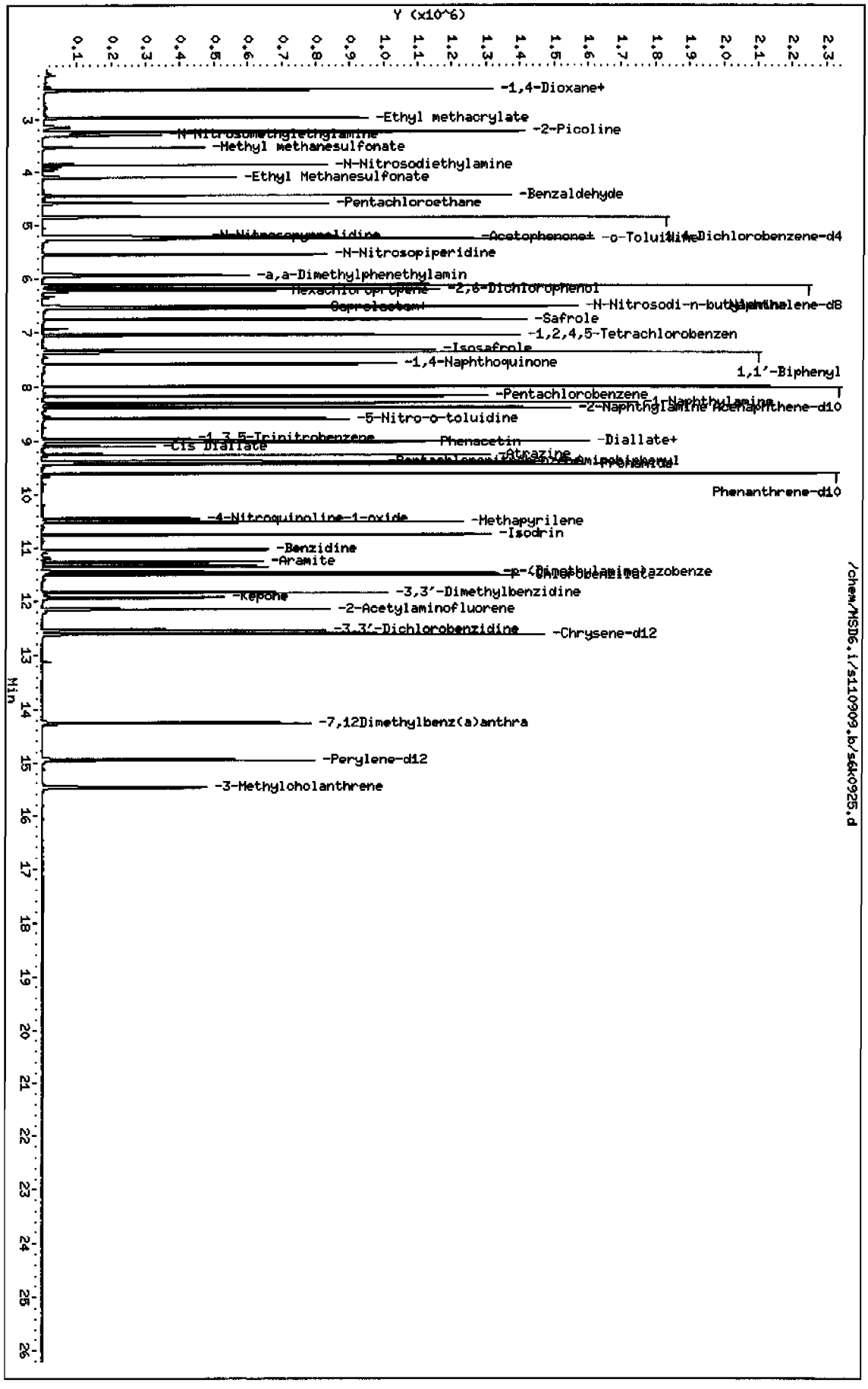

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Data file : /chem/MSD6.i/s110909.b/s6k0926.d
Lab Smp Id: WBN091016-04 Client Smp ID: AP12ICAL
Inj Date : 10-NOV-2009 13:51
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-04|50 PPM|1|SVMF|1|AP12ICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD6.i/s110909.b/MSD6-M8270D-110909.m
Meth Date : 10-Nov-2009 22:16 nat00999 Quant Type: ISTD
Cal Date : 10-NOV-2009 13:51 Cal File: s6k0926.d
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	250921	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	887231	40.0000	
* 46 Acenaphthene-d10	164	7.983	7.983	(1.000)	483118	40.0000	
* 67 Phenanthrene-d10	188	9.601	9.601	(1.000)	863982	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	678374	40.0000	
* 98 Perylene-d12	264	14.952	14.952	(1.000)	505705	40.0000	
209 Benzaldehyde	77	4.431	4.431	(0.917)	271675	50.0000	47.6
16 Acetophenone	105	5.213	5.213	(1.079)	361594	50.0000	48.5
189 Caprolactam	113	6.536	6.536	(1.069)	89854	50.0000	53.4
208 1,1'-Biphenyl	154	7.354	7.354	(0.921)	722924	50.0000	47.8
207 Atrazine	173	9.255	9.255	(0.964)	43736	50.0000	47.2
77 Benzidine	184	11.041	11.041	(0.875)	319932	50.0000	49.2
90 3,3'-Dichlorobenzidine	252	12.539	12.539	(0.994)	249163	50.0000	53.3
102 1,4-Dioxane	88	2.461	2.461	(0.509)	118569	50.0000	49.9
103 Methyl methacrylate	100	2.459	2.459	(0.509)	64691	50.0000	51.3
104 Ethyl methacrylate	69	2.976	2.976	(0.616)	260010	50.0000	50.5
105 2-Picoline	93	3.231	3.231	(0.668)	413718	50.0000	48.9
106 N-Nitrosomethylethylamine	88	3.300	3.300	(0.683)	156599	50.0000	49.5
107 Methyl methanesulfonate	80	3.526	3.526	(0.730)	158007	50.0000	46.5
108 N-Nitrosodiethylamine	102	3.863	3.863	(0.799)	152229	50.0000	49.0
109 Ethyl Methanesulfonate	79	4.097	4.097	(0.848)	196808	50.0000	48.1
110 Pentachloroethane	167	4.574	4.574	(0.946)	100400	50.0000	49.7
111 N-Nitrosopyrrolidine	100	5.193	5.193	(1.074)	149858	50.0000	50.5(Q)
113 N-Nitrosomorpholine	56	5.229	5.229	(1.082)	206654	50.0000	47.9
114 o-Toluidine	106	5.252	5.252	(1.086)	514405	50.0000	48.5
115 N-Nitrosopiperidine	114	5.542	5.542	(0.907)	153985	50.0000	49.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.950	5.950	(0.973)	969998	50.0000	52.0
118 2,6-Dichlorophenol	162	6.184	6.184	(1.012)	232452	50.0000	51.2
119 Hexachloropropene	213	6.222	6.222	(1.018)	114784	50.0000	52.7
120 p-Phenylenediamine	108	6.543	6.543	(1.070)	270833	50.0000	52.1
121 N-Nitrosodi-n-butylamine	84	6.518	6.518	(1.066)	234607	50.0000	47.9(T)
122 Safrole	162	6.752	6.752	(1.105)	211165	50.0000	50.1
123 1,2,4,5-Tetrachlorobenzene	216	7.038	7.038	(0.882)	251525	50.0000	48.0
124 Isosafrole	162	7.305	7.305	(0.915)	203991	50.0000	49.6
125 1,4-Naphthoquinone	158	7.568	7.568	(0.948)	197074	50.0000	50.1
127 Pentachlorobenzene	250	8.159	8.159	(1.022)	220739	50.0000	49.0
128 1-Naphthylamine	143	8.286	8.286	(1.038)	553727	50.0000	49.6
129 2-Naphthylamine	143	8.370	8.370	(1.048)	598614	50.0000	49.7
131 5-Nitro-o-toluidine	152	8.577	8.577	(1.074)	175206	50.0000	54.4
136 1,3,5-Trinitrobenzene	75	8.949	8.949	(0.932)	130665	50.0000	56.5
137 Phenacetin	108	9.013	9.013	(0.939)	290534	50.0000	52.9(Q)
138 Diallate	86	8.992	8.992	(0.937)	259168	50.0000	48.1
140 4-Aminobiphenyl	169	9.377	9.377	(0.977)	610793	50.0000	53.3
141 Pentachloronitrobenzene	237	9.392	9.392	(0.978)	68356	50.0000	50.3(Q)
142 Pronamide	173	9.425	9.425	(0.982)	288993	50.0000	49.7
146 4-Nitroquinoline-1-oxide	101	10.450	10.450	(1.088)	27356	50.0000	48.0
147 Methapyrilene	58	10.516	10.516	(1.095)	429483	50.0000	48.6
148 Isodrin	193	10.753	10.753	(1.120)	105375	50.0000	49.1
149 Aramite	185	11.268	11.268	(1.174)	49307	50.0000	52.9
150 Kepone	272	11.938	11.938	(1.243)	65859	50.0000	50.2
151 p-(Dimethylamino)azobenzene	120	11.459	11.459	(0.908)	275367	50.0000	50.6
152 Chlorobenzilate	251	11.502	11.502	(0.912)	250256	50.0000	50.3
153 3,3'-Dimethylbenzidine	212	11.841	11.841	(0.939)	445030	50.0000	50.5
155 2-Acetylaminofluorene	181	12.157	12.157	(0.964)	290992	50.0000	59.9
157 7,12Dimethylbenz(a)anthracene	256	14.257	14.257	(0.953)	306081	50.0000	51.5
158 3-Methylcholanthrene	268	15.485	15.485	(1.036)	238279	50.0000	53.7(Q)
212 Cis Diallate	86	9.092	9.092	(0.947)	40524	7.50000	7.4
213 Trans Diallate	86	8.992	8.992	(0.937)	259168	42.5000	40.9

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0926.d
Date : 10-NOV-2009 13:51
Client ID: AP12ICAL
Sample Info: IWBN091016-04|50 PPM|1|SVMF|1|AP12ICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JHB3
Column diameter: 0.20

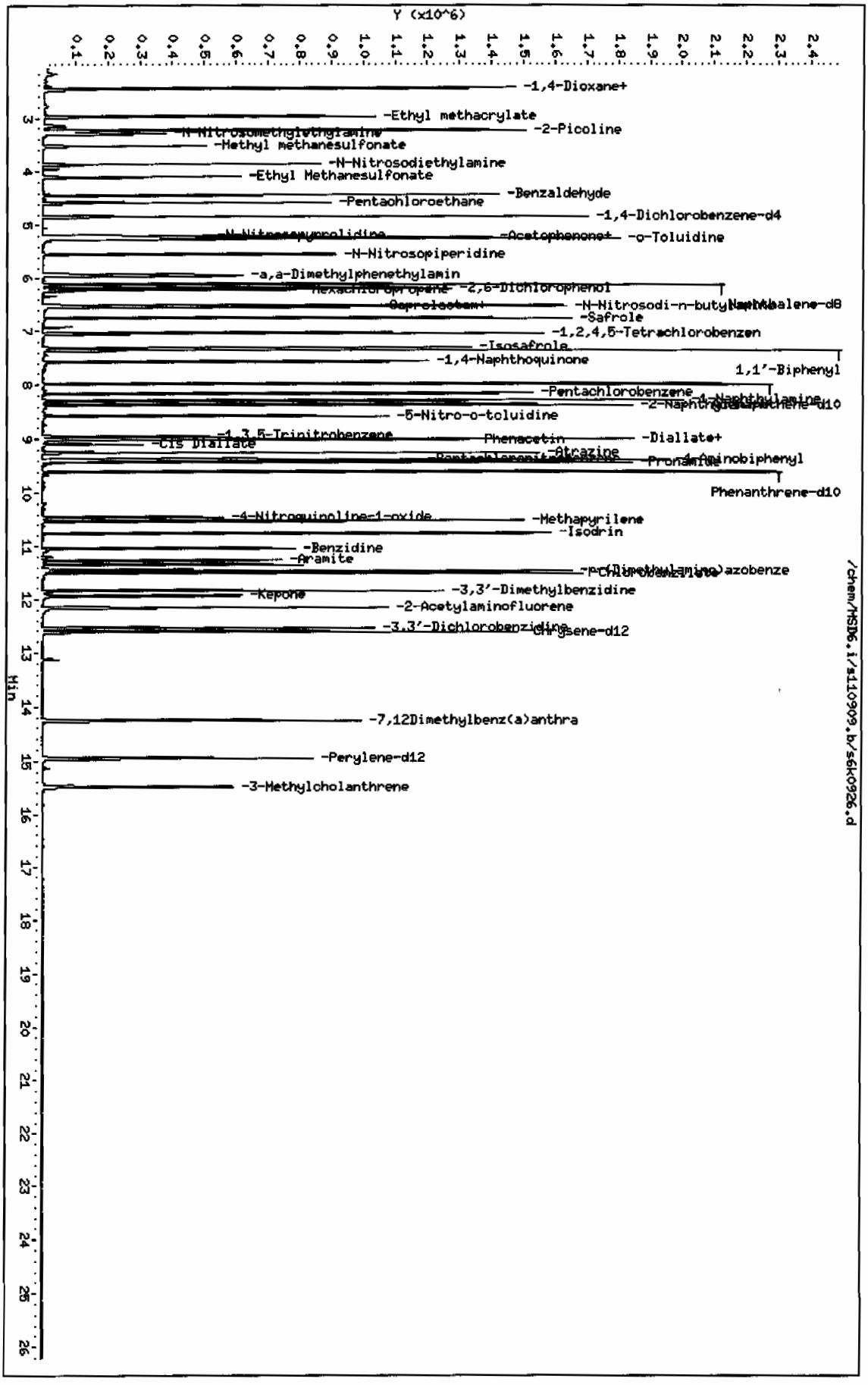

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Data file : /chem/MSD6.i/s110909.b/s6k0927.d
Lab Smp Id: WBN091016-05 Client Smp ID: AP12ICAL
Inj Date : 10-NOV-2009 14:30
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-05|80 PPM|1|SVMF|1|AP12ICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD6.i/s110909.b/MSD6-M8270D-110909.m
Meth Date : 10-Nov-2009 22:16 nat00999 Quant Type: ISTD
Cal Date : 10-NOV-2009 14:30 Cal File: s6k0927.d
Als bottle: 7 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	276239	40.0000	
* 29 Naphthalene-d8	136	6.115	6.115	(1.000)	973833	40.0000	
* 46 Acenaphthene-d10	164	7.986	7.986	(1.000)	510901	40.0000	
* 67 Phenanthrene-d10	188	9.601	9.601	(1.000)	893057	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	703590	40.0000	
* 98 Perylene-d12	264	14.952	14.952	(1.000)	512813	40.0000	
209 Benzaldehyde	77	4.434	4.434	(0.917)	465512	80.0000	75.2
16 Acetophenone	105	5.219	5.219	(1.080)	645987	80.0000	79.0
189 Caprolactam	113	6.554	6.554	(1.072)	138581	80.0000	76.0(Q)
208 1,1'-Biphenyl	154	7.359	7.359	(0.922)	1191213	80.0000	75.5
207 Atrazine	173	9.262	9.262	(0.965)	73310	80.0000	77.2
77 Benzidine	184	11.046	11.046	(0.876)	530516	80.0000	78.9
90 3,3'-Dichlorobenzidine	252	12.544	12.544	(0.995)	401503	80.0000	82.2
102 1,4-Dioxane	88	2.454	2.454	(0.508)	200966	80.0000	77.4
103 Methyl methacrylate	100	2.451	2.451	(0.507)	102431	80.0000	75.0
104 Ethyl methacrylate	69	2.971	2.971	(0.615)	445120	80.0000	78.8
105 2-Picoline	93	3.231	3.231	(0.668)	712295	80.0000	77.1
106 N-Nitrosomethylethylamine	88	3.302	3.302	(0.683)	287120	80.0000	81.9
107 Methyl methanesulfonate	80	3.534	3.534	(0.731)	293376	80.0000	78.8
108 N-Nitrosodiethylamine	102	3.868	3.868	(0.800)	275478	80.0000	80.5
109 Ethyl Methanesulfonate	79	4.105	4.105	(0.849)	364882	80.0000	80.8
110 Pentachloroethane	167	4.574	4.574	(0.946)	174658	80.0000	78.9
111 N-Nitrosopyrrolidine	100	5.206	5.206	(1.077)	277028	80.0000	83.8(Q)
113 N-Nitrosomorpholine	56	5.239	5.239	(1.084)	379696	80.0000	79.9
114 o-Toluidine	106	5.257	5.257	(1.087)	909814	80.0000	78.4
115 N-Nitrosopiperidine	114	5.547	5.547	(0.907)	278319	80.0000	81.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.950	5.950	(0.973)	1720488	80.0000	83.2
118 2,6-Dichlorophenol	162	6.189	6.189	(1.012)	413898	80.0000	82.4
119 Hexachloropropene	213	6.225	6.225	(1.018)	210927	80.0000	86.4
120 p-Phenylenediamine	108	6.551	6.551	(1.071)	451242	80.0000	79.2
121 N-Nitrosodi-n-butylamine	84	6.523	6.523	(1.067)	386399	80.0000	73.4(T)
122 Safrole	162	6.755	6.755	(1.105)	363735	80.0000	78.9
123 1,2,4,5-Tetrachlorobenzene	216	7.040	7.040	(0.882)	425849	80.0000	77.4
124 Isosafrole	162	7.311	7.311	(0.915)	349789	80.0000	80.4
125 1,4-Naphthoquinone	158	7.570	7.570	(0.948)	303940	80.0000	74.3
127 Pentachlorobenzene	250	8.162	8.162	(1.022)	364514	80.0000	77.1
128 1-Naphthylamine	143	8.292	8.292	(1.038)	926962	80.0000	78.8
129 2-Naphthylamine	143	8.376	8.376	(1.049)	1000885	80.0000	78.8
131 5-Nitro-o-toluidine	152	8.582	8.582	(1.075)	298885	80.0000	86.0
136 1,3,5-Trinitrobenzene	75	8.954	8.954	(0.933)	222134	80.0000	90.0
137 Phenacetin	108	9.023	9.023	(0.940)	483029	80.0000	84.0(Q)
138 Diallate	86	8.995	8.995	(0.937)	420134	80.0000	76.3
140 4-Aminobiphenyl	169	9.382	9.382	(0.977)	1009045	80.0000	84.1
141 Pentachloronitrobenzene	237	9.397	9.397	(0.979)	109865	80.0000	78.6(Q)
142 Pronamide	173	9.431	9.431	(0.982)	467086	80.0000	78.1
146 4-Nitroquinoline-1-oxide	101	10.452	10.452	(1.089)	39722	80.0000	69.7
147 Methapyrilene	58	10.519	10.519	(1.096)	677593	80.0000	75.2
148 Isodrin	193	10.756	10.756	(1.120)	169335	80.0000	77.0
149 Aramite	185	11.270	11.270	(1.174)	83762	80.0000	85.5
150 Kepone	272	11.940	11.940	(1.244)	108681	80.0000	80.2
151 p-(Dimethylamino)azobenzene	120	11.464	11.464	(0.909)	449328	80.0000	79.7
152 Chlorobenzilate	251	11.505	11.505	(0.912)	413386	80.0000	80.1
153 3,3'-Dimethylbenzidine	212	11.844	11.844	(0.939)	751395	80.0000	81.8
155 2-Acetylaminofluorene	181	12.165	12.165	(0.964)	478700	80.0000	91.6
157 7,12Dimethylbenz(a)anthracene	256	14.264	14.264	(0.954)	508112	80.0000	83.4
158 3-Methylcholanthrene	268	15.490	15.490	(1.036)	399514	80.0000	86.9(Q)
212 Cis Diallate	86	9.094	9.094	(0.947)	68713	12.0000	12.2
213 Trans Diallate	86	8.995	8.995	(0.937)	420134	68.0000	64.9

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0927.d
Date : 10-NOV-2009 14:30
Client ID: AP12ICAL
Sample Info: IWBN091016-05180 PPM11ISVHF11AP12ICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

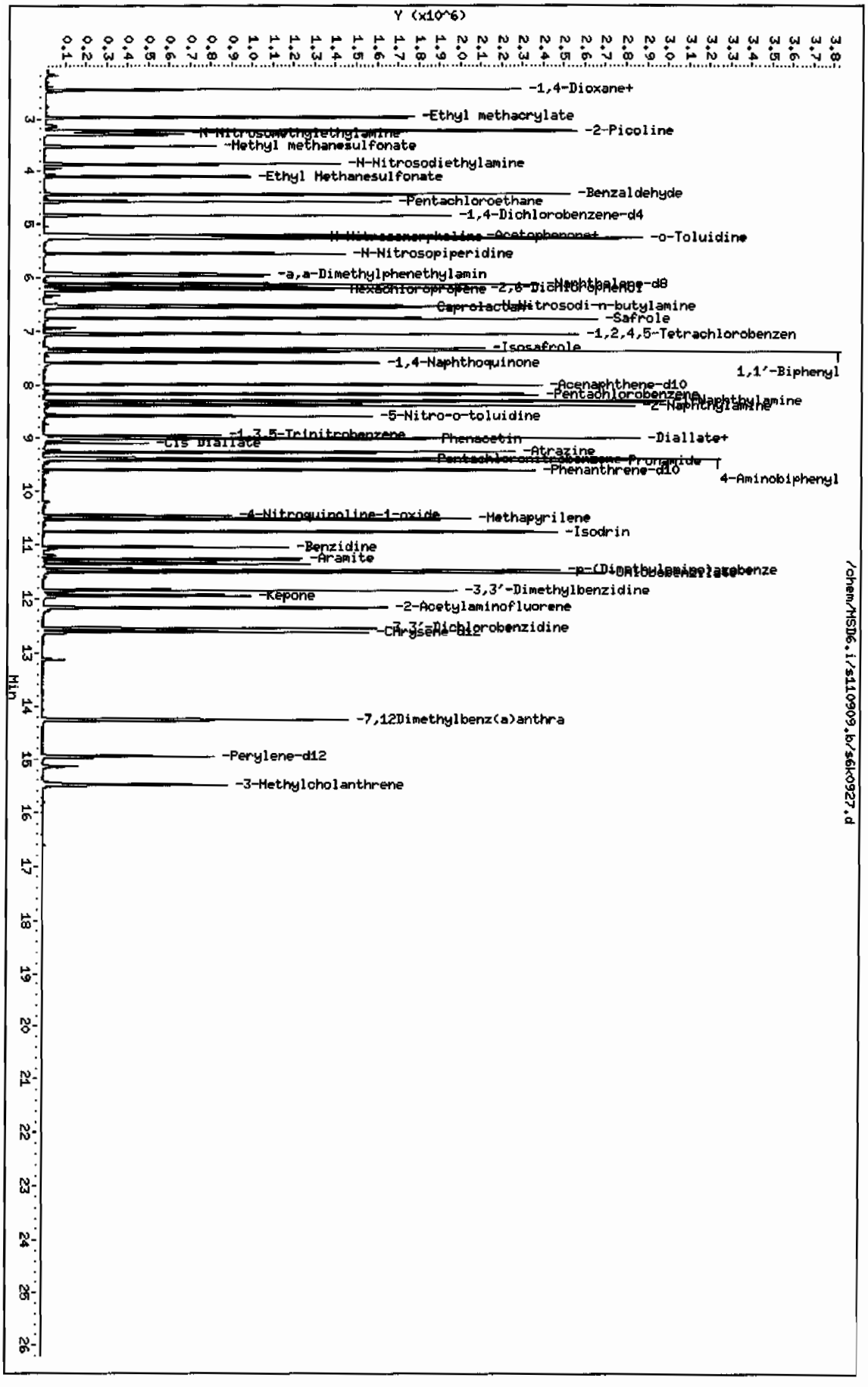

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Data file : /chem/MSD6.i/s110909.b/s6k0928.d
Lab Smp Id: WBN091016-06 Client Smp ID: AP12ICAL
Inj Date : 10-NOV-2009 15:06
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-06|100 PPM|1|SVMF|1|AP12ICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD6.i/s110909.b/MSD6-M8270D-110909.m
Meth Date : 10-Nov-2009 22:16 nat00999 Quant Type: ISTD
Cal Date : 10-NOV-2009 15:06 Cal File: s6k0928.d
Als bottle: 8 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	269726	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	951450	40.0000	
* 46 Acenaphthene-d10	164	7.983	7.983	(1.000)	504353	40.0000	
* 67 Phenanthrene-d10	188	9.601	9.601	(1.000)	889633	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	687577	40.0000	
* 98 Perylene-d12	264	14.952	14.952	(1.000)	493603	40.0000	
209 Benzaldehyde	77	4.434	4.434	(0.917)	538292	100.000	90.7
16 Acetophenone	105	5.221	5.221	(1.080)	765509	100.000	96.6
189 Caprolactam	113	6.556	6.556	(1.073)	168280	100.000	95.3(Q)
208 1,1'-Biphenyl	154	7.359	7.359	(0.922)	1421978	100.000	92.6
207 Atrazine	173	9.265	9.265	(0.965)	83322	100.000	89.8
77 Benzidine	184	11.048	11.048	(0.876)	683542	100.000	103
90 3,3'-Dichlorobenzidine	252	12.544	12.544	(0.995)	494688	100.000	103
102 1,4-Dioxane	88	2.456	2.456	(0.508)	237610	100.000	94.7
103 Methyl methacrylate	100	2.454	2.454	(0.508)	127875	100.000	96.6(Q)
104 Ethyl methacrylate	69	2.974	2.974	(0.615)	536559	100.000	97.8
105 2-Picoline	93	3.231	3.231	(0.668)	859789	100.000	96.1
106 N-Nitrosomethylethylamine	88	3.305	3.305	(0.684)	347021	100.000	101
107 Methyl methanesulfonate	80	3.534	3.534	(0.731)	343383	100.000	95.3
108 N-Nitrosodiethylamine	102	3.868	3.868	(0.800)	332464	100.000	99.6
109 Ethyl Methanesulfonate	79	4.105	4.105	(0.849)	434255	100.000	98.7
110 Pentachloroethane	167	4.576	4.576	(0.947)	210039	100.000	97.6
111 N-Nitrosopyrrolidine	100	5.208	5.208	(1.077)	333013	100.000	103(Q)
113 N-Nitrosomorpholine	56	5.241	5.241	(1.084)	444870	100.000	96.5
114 o-Toluidine	106	5.259	5.259	(1.088)	1065890	100.000	95.0
115 N-Nitrosopiperidine	114	5.550	5.550	(0.908)	332946	100.000	99.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.947	5.947	(0.973)	2060426	100.000	102
118 2,6-Dichlorophenol	162	6.192	6.192	(1.013)	489228	100.000	99.8
119 Hexachloropropene	213	6.225	6.225	(1.018)	253423	100.000	105
120 p-Phenylenediamine	108	6.551	6.551	(1.072)	524330	100.000	95.1
121 N-Nitrosodi-n-butylamine	84	6.523	6.523	(1.067)	460225	100.000	91.0(T)
122 Safrole	162	6.755	6.755	(1.105)	427111	100.000	95.7
123 1,2,4,5-Tetrachlorobenzene	216	7.040	7.040	(0.882)	512033	100.000	95.2
124 Isosafrole	162	7.310	7.310	(0.916)	423998	100.000	98.9
125 1,4-Naphthoquinone	158	7.570	7.570	(0.948)	357656	100.000	90.3
127 Pentachlorobenzene	250	8.161	8.161	(1.022)	443605	100.000	95.9
128 1-Naphthylamine	143	8.291	8.291	(1.039)	1088986	100.000	94.8
129 2-Naphthylamine	143	8.375	8.375	(1.049)	1178556	100.000	95.0
131 5-Nitro-o-toluidine	152	8.584	8.584	(1.075)	363649	100.000	105
136 1,3,5-Trinitrobenzene	75	8.956	8.956	(0.933)	265730	100.000	107
137 Phenacetin	108	9.028	9.028	(0.940)	594671	100.000	103(Q)
138 Diallate	86	8.995	8.995	(0.937)	505233	100.000	93.4
140 4-Aminobiphenyl	169	9.385	9.385	(0.977)	1184900	100.000	99.3
141 Pentachloronitrobenzene	237	9.397	9.397	(0.979)	135313	100.000	97.6(Q)
142 Pronamide	173	9.430	9.430	(0.982)	559863	100.000	95.0
146 4-Nitroquinoline-1-oxide	101	10.455	10.455	(1.089)	42924	100.000	75.6
147 Methapyrilene	58	10.524	10.524	(1.096)	781358	100.000	89.0
148 Isodrin	193	10.755	10.755	(1.120)	202874	100.000	93.8
149 Aramite	185	11.270	11.270	(1.174)	101518	100.000	103
150 Kepone	272	11.940	11.940	(1.244)	137760	100.000	102
151 p-(Dimethylamino)azobenzene	120	11.464	11.464	(0.909)	540533	100.000	98.4
152 Chlorobenzilate	251	11.507	11.507	(0.912)	501976	100.000	99.6
153 3,3'-Dimethylbenzidine	212	11.846	11.846	(0.939)	921672	100.000	102
155 2-Acetylaminofluorene	181	12.167	12.167	(0.965)	598627	100.000	114
157 7,12Dimethylbenz(a)anthracene	256	14.264	14.264	(0.954)	609873	100.000	103
158 3-Methylcholanthrene	268	15.495	15.495	(1.036)	481197	100.000	107(Q)
212 Cis Diallate	86	9.094	9.094	(0.947)	82974	15.0000	14.8
213 Trans Diallate	86	8.995	8.995	(0.937)	505233	85.0000	79.4

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0928.d
Date : 10-NOV-2009 15:06
Client ID: AP12ICAL
Sample Info: IWBN091016-061100 PPM1:1SVMF11AP12ICAL
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JHB3
Column diameter: 0.20

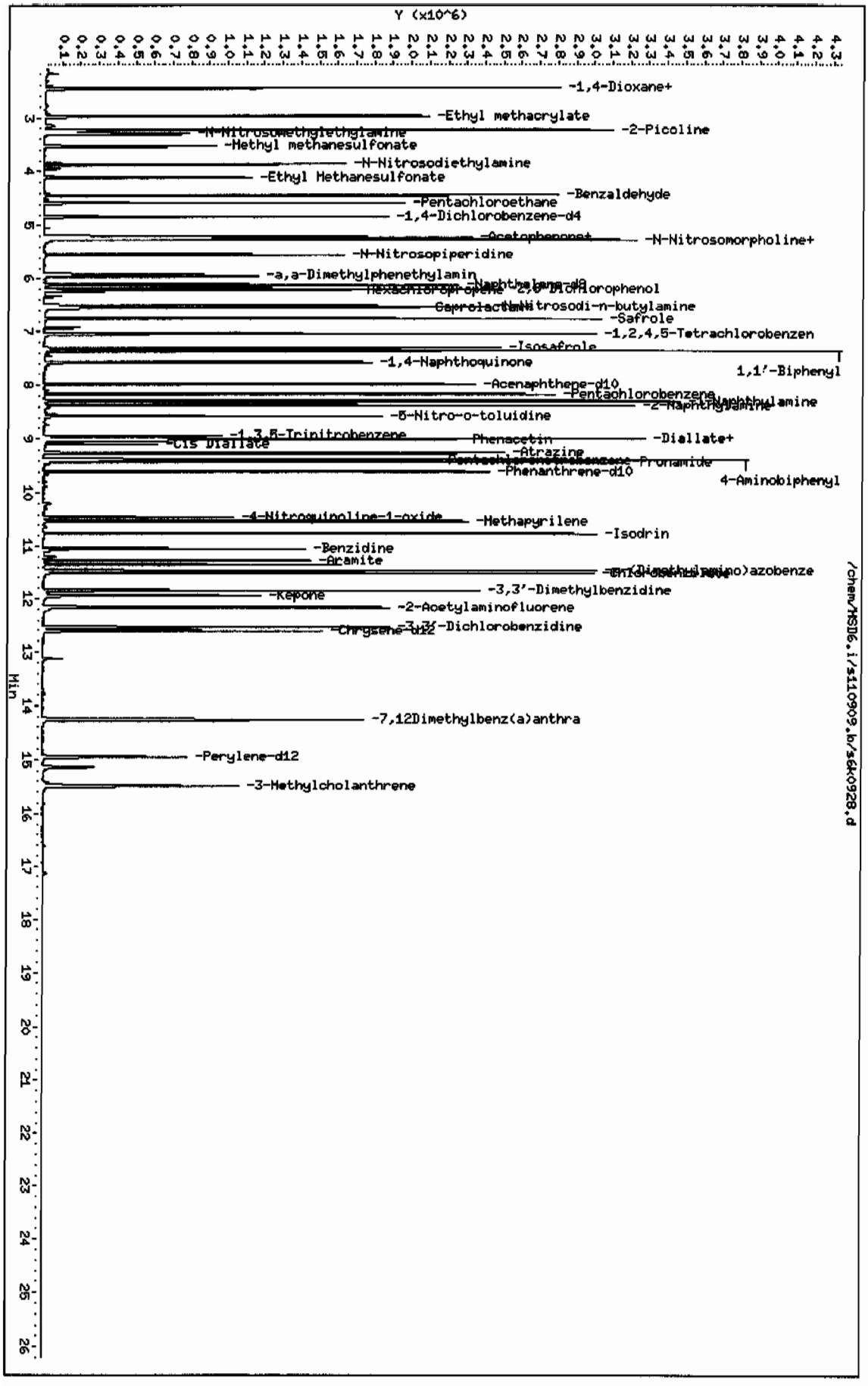

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Data file : /chem/MSD6.i/s110909.b/s6k0929.d
Lab Smp Id: WBN091016-07 Client Smp ID: AP12ICAL
Inj Date : 10-NOV-2009 15:43
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-07|120 PPM|1|SVMF|1|AP12ICAL
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD6.i/s110909.b/MSD6-M8270D-110909.m
Meth Date : 10-Nov-2009 22:16 nat00999 Quant Type: ISTD
Cal Date : 10-NOV-2009 15:43 Cal File: s6k0929.d
Als bottle: 9 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	316668	40.0000	
* 29 Naphthalene-d8	136	6.115	6.115	(1.000)	1127304	40.0000	
* 46 Acenaphthene-d10	164	7.986	7.986	(1.000)	597582	40.0000	
* 67 Phenanthrene-d10	188	9.606	9.606	(1.000)	1059068	40.0000	
* 91 Chrysene-d12	240	12.618	12.618	(1.000)	872881	40.0000	
* 98 Perylene-d12	264	14.957	14.957	(1.000)	672288	40.0000	
209 Benzaldehyde	77	4.436	4.436	(0.918)	709340	120.000	104
16 Acetophenone	105	5.226	5.226	(1.081)	1072926	120.000	116
189 Caprolactam	113	6.569	6.569	(1.074)	242566	120.000	116(Q)
208 1,1'-Biphenyl	154	7.362	7.362	(0.922)	1981495	120.000	110
207 Atrazine	173	9.270	9.270	(0.965)	108824	120.000	101
77 Benzidine	184	11.056	11.056	(0.876)	1158331	120.000	135(A)
90 3,3'-Dichlorobenzidine	252	12.555	12.555	(0.995)	790124	120.000	128(A)
102 1,4-Dioxane	88	2.459	2.459	(0.509)	313992	120.000	108
103 Methyl methacrylate	100	2.456	2.456	(0.508)	169825	120.000	111(Q)
104 Ethyl methacrylate	69	2.974	2.974	(0.615)	718659	120.000	113
105 2-Picoline	93	3.234	3.234	(0.669)	1139171	120.000	110
106 N-Nitrosomethylethylamine	88	3.307	3.307	(0.684)	498080	120.000	123(A)
107 Methyl methanesulfonate	80	3.539	3.539	(0.732)	470230	120.000	112
108 N-Nitrosodiethylamine	102	3.873	3.873	(0.801)	472357	120.000	120(A)
109 Ethyl Methanesulfonate	79	4.110	4.110	(0.850)	616173	120.000	119
110 Pentachloroethane	167	4.576	4.576	(0.947)	287880	120.000	115
111 N-Nitrosopyrrolidine	100	5.219	5.219	(1.080)	423699	120.000	112(Q)
113 N-Nitrosomorpholine	56	5.249	5.249	(1.086)	622702	120.000	116
114 o-Toluidine	106	5.264	5.264	(1.089)	1502696	120.000	115
115 N-Nitrosopiperidine	114	5.555	5.555	(0.908)	486070	120.000	122(A)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.947	5.947	(0.972)	2961362	120.000	123(A)
118 2,6-Dichlorophenol	162	6.197	6.197	(1.013)	714204	120.000	122(A)
119 Hexachloropropene	213	6.225	6.225	(1.018)	375796	120.000	130(A)
120 p-Phenylenediamine	108	6.561	6.561	(1.073)	733126	120.000	113
121 N-Nitrosodi-n-butylamine	84	6.528	6.528	(1.067)	660297	120.000	112(T)
122 Safrole	162	6.758	6.758	(1.105)	607338	120.000	116
123 1,2,4,5-Tetrachlorobenzene	216	7.043	7.043	(0.882)	721210	120.000	114
124 Isosafrole	162	7.316	7.316	(0.916)	604188	120.000	119
125 1,4-Naphthoquinone	158	7.570	7.570	(0.948)	470325	120.000	103
127 Pentachlorobenzene	250	8.164	8.164	(1.022)	628086	120.000	115
128 1-Naphthylamine	143	8.297	8.297	(1.039)	1585757	120.000	117
129 2-Naphthylamine	143	8.383	8.383	(1.050)	1712431	120.000	117
131 5-Nitro-o-toluidine	152	8.590	8.590	(1.076)	546937	120.000	131(A)
136 1,3,5-Trinitrobenzene	75	8.962	8.962	(0.933)	408609	120.000	135(A)
137 Phenacetin	108	9.041	9.041	(0.941)	897271	120.000	129(AQ)
138 Diallate	86	8.997	8.997	(0.937)	712002	120.000	112
140 4-Aminobiphenyl	169	9.390	9.390	(0.977)	1681806	120.000	118
141 Pentachloronitrobenzene	237	9.403	9.403	(0.979)	189324	120.000	115(Q)
142 Pronamide	173	9.438	9.438	(0.982)	799839	120.000	115
146 4-Nitroquinoline-1-oxide	101	10.460	10.460	(1.089)	55611	120.000	82.3
147 Methapyrilene	58	10.529	10.529	(1.096)	1062145	120.000	104
148 Isodrin	193	10.758	10.758	(1.120)	287118	120.000	113
149 Aramite	185	11.273	11.273	(1.173)	140689	120.000	120(A)
150 Kepone	272	11.951	11.951	(1.244)	211485	120.000	129(A)
151 p-(Dimethylamino)azobenzene	120	11.469	11.469	(0.909)	795963	120.000	115
152 Chlorobenzilate	251	11.512	11.512	(0.912)	733377	120.000	115
153 3,3'-Dimethylbenzidine	212	11.854	11.854	(0.939)	1426464	120.000	124(A)
155 2-Acetylaminofluorene	181	12.180	12.180	(0.965)	953419	120.000	139(A)
157 7,12Dimethylbenz(a)anthracene	256	14.277	14.277	(0.954)	975211	120.000	121(A)
158 3-Methylcholanthrene	268	15.510	15.510	(1.037)	813356	120.000	131(AQ)
212 Cis Diallate	86	9.094	9.094	(0.947)	123246	18.0000	18.4(A)
213 Trans Diallate	86	8.997	8.997	(0.937)	712002	102.000	95.0

QC Flag Legend

T - Target compound detected outside RT window.
A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s64-0929.d
Date : 10-NOV-2009 15:43
Client ID: AP121CAL
Sample Info: IWBN091016-071120 PPM11ISVHF11AP121CAL

Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: JMB3
Column diameter: 0.20

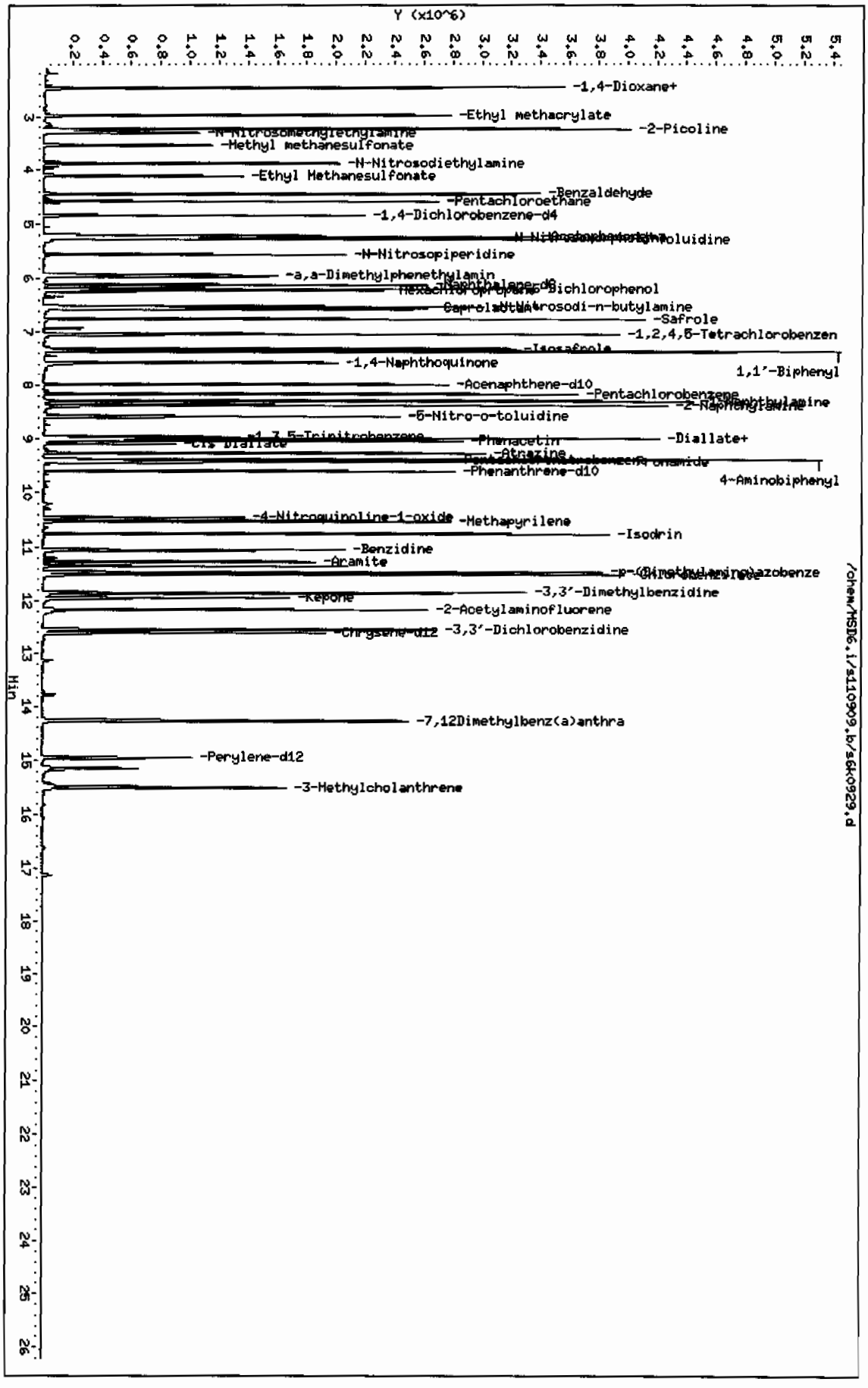

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 20:29
Lab File ID: s6k0937.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091106-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 3 2-Fluorophenol	1.00169	1.03466	1.03466	0.000	3.29147	60.00000	Averaged	
$ 5 Phenol-d5	1.26427	1.24245	1.24245	0.000	-1.72556	60.00000	Averaged	
$ 20 Nitrobenzene-d5	0.28296	0.29902	0.29902	0.000	5.67523	60.00000	Averaged	
$ 39 2-Fluorobiphenyl	1.03083	1.08174	1.08174	0.000	4.93820	60.00000	Averaged	
$ 60 2,4,6-Tribromophenol	0.11675	0.12945	0.12945	0.000	10.88297	60.00000	Averaged	
$ 81 p-Terphenyl-d14	0.64507	0.72359	0.72359	0.000	12.17316	60.00000	Averaged	
1 N-Methyl-N-nitrosomethylami	0.68098	0.64081	0.64081	0.000	-5.89855	60.00000	Averaged	
2 Pyridine	0.84757	0.77144	0.77144	0.000	-8.98267	60.00000	Averaged	
4 Aniline	0.52752	0.51930	0.51930	0.000	-1.55765	60.00000	Averaged	
6 Phenol	1.27120	1.23489	1.23489	0.001	-2.85632	20.00000	Averaged	ccc
7 bis(2-Chloroethyl) ether	0.86081	0.80936	0.80936	0.000	-5.97614	60.00000	Averaged	
8 2-Chlorophenol	1.02109	1.01772	1.01772	0.000	-0.32996	60.00000	Averaged	
203 n-Decane	1.42254	1.44155	1.44155	0.000	1.33631	60.00000	Averaged	
9 1,3-Dichlorobenzene	1.17550	1.19665	1.19665	0.000	1.79939	60.00000	Averaged	
11 1,4-Dichlorobenzene	1.19162	1.18877	1.18877	0.001	-0.23932	20.00000	Averaged	ccc
13 1,2-Dichlorobenzene	1.11231	1.12583	1.12583	0.000	1.21558	60.00000	Averaged	
14 bis(2-Chloroisopropyl)ether	1.92182	1.94108	1.94108	0.000	1.00230	60.00000	Averaged	
12 Benzyl alcohol	0.63436	0.65075	0.65075	0.000	2.58272	60.00000	Averaged	
15 o-Cresol	0.83139	0.83798	0.83798	0.000	0.79318	60.00000	Averaged	
18 m,p-Cresols	1.05346	1.05662	1.05662	0.000	0.29972	60.00000	Averaged	
17 N-Nitrosodipropylamine	0.70865	0.69204	0.69204	0.050	-2.34415	60.00000	Averaged	spcc
19 Hexachloroethane	0.46100	0.44650	0.44650	0.000	-3.14409	60.00000	Averaged	
21 Nitrobenzene	0.28519	0.29957	0.29957	0.000	5.04113	60.00000	Averaged	
22 Isophorone	0.50552	0.52435	0.52435	0.000	3.72478	60.00000	Averaged	
23 2-Nitrophenol	0.13154	0.13639	0.13639	0.001	3.68222	20.00000	Averaged	ccc
24 2,4-Dimethylphenol	0.21795	0.23088	0.23088	0.000	5.93159	60.00000	Averaged	
25 bis(2-Chloroethoxy)methane	0.29749	0.30276	0.30276	0.000	1.77222	60.00000	Averaged	
26 2,4-Dichlorophenol	0.19769	0.20590	0.20590	0.001	4.15386	20.00000	Averaged	ccc
27 Benzoic acid	0.13453	0.14567	0.14567	0.000	8.28081	60.00000	Averaged	
28 1,2,4-Trichlorobenzene	0.24261	0.24953	0.24953	0.000	2.85087	60.00000	Averaged	
30 Naphthalene	0.79792	0.83170	0.83170	0.000	4.23406	60.00000	Averaged	
204 alpha-Terpineol	0.21868	0.21801	0.21801	0.000	-0.30655	60.00000	Averaged	
31 4-Chloroaniline	0.25646	0.26546	0.26546	0.000	3.51176	60.00000	Averaged	
32 Hexachlorobutadiene	0.12634	0.13489	0.13489	0.001	6.77038	20.00000	Averaged	ccc
33 4-Chloro-3-methylphenol	0.19957	0.20148	0.20148	0.001	0.96147	20.00000	Averaged	ccc
34 2-Methylnaphthalene	0.48150	0.55976	0.55976	0.000	16.25394	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6k0937.d
Analysis Type:
Lab Sample ID: WBN091106-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

Injection Date: 10-NOV-2009 20:29
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.47100	0.53047	0.53047	0.000	12.62514	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.16157	0.12441	0.12441	0.050	-22.99690	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.47908	0.48878	0.48878	0.000	2.02564	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.27294	0.27425	0.27425	0.001	0.48093	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.29067	0.30912	0.30912	0.000	6.34737	60.00000	Averaged
40 2-Chloronaphthalene	0.89832	0.89821	0.89821	0.000	-0.01212	60.00000	Averaged
42 o-Nitroaniline	0.30732	0.29883	0.29883	0.000	-2.76487	60.00000	Averaged
41 m-Nitroaniline	0.22497	0.22544	0.22544	0.000	0.20968	60.00000	Averaged
43 Dimethylphthalate	1.02610	1.07233	1.07233	0.000	4.50566	60.00000	Averaged
44 2,6-Dinitrotoluene	0.24475	0.24571	0.24571	0.000	0.39287	60.00000	Averaged
50 2,4-Dinitrotoluene	0.30862	0.32387	0.32387	0.000	4.94261	60.00000	Averaged
45 Acenaphthylene	1.44438	1.60997	1.60997	0.000	11.46448	60.00000	Averaged
47 Acenaphthene	0.90151	0.96315	0.96315	0.001	6.83729	20.00000	Averaged ccc
48 2,4-Dinitrophenol	35.88405	40.00000	0.06990	0.050	-10.28987	60.00000	Linear spcc
49 Dibenzofuran	1.21689	1.24464	1.24464	0.000	2.28092	60.00000	Averaged
51 Diethylphthalate	1.03335	1.08103	1.08103	0.000	4.61479	60.00000	Averaged
52 4-Nitrophenol	37.16907	40.00000	0.15052	0.050	-7.07733	60.00000	Linear spcc
53 Fluorene	0.99879	1.09503	1.09503	0.000	9.63571	60.00000	Averaged
54 4-Chlorophenylphenylether	0.47192	0.49481	0.49481	0.000	4.84948	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	44.79678	40.00000	0.10162	0.000	11.99194	60.00000	Linear
56 p-Nitroaniline	37.18126	40.00000	0.19210	0.000	-7.04684	60.00000	Linear
133 Diphenylamine	0.48213	0.48382	0.48382	0.001	0.34977	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.61327	0.61966	0.61966	0.000	1.04277	60.00000	Averaged
61 4-Bromophenylphenylether	0.15784	0.15705	0.15705	0.000	-0.50023	60.00000	Averaged
63 Hexachlorobenzene	0.16533	0.16268	0.16268	0.000	-1.60406	60.00000	Averaged
65 Pentachlorophenol	41.23337	40.00000	0.08933	0.001	3.08343	20.00000	Linear ccc
206 n-Octadecane	0.44173	0.45929	0.45929	0.000	3.97491	60.00000	Averaged
68 Phenanthrene	0.82721	0.88585	0.88585	0.000	7.08867	60.00000	Averaged
69 Anthracene	0.82682	0.90991	0.90991	0.000	10.04830	60.00000	Averaged
72 Di-n-butylphthalate	0.94954	1.02135	1.02135	0.000	7.56331	60.00000	Averaged
76 Fluoranthene	0.79242	0.90654	0.90654	0.001	14.40110	20.00000	Averaged ccc
79 Pyrene	1.10021	1.20816	1.20816	0.000	9.81213	60.00000	Averaged
85 Butylbenzylphthalate	0.50351	0.54090	0.54090	0.000	7.42706	60.00000	Averaged
89 Benzo(a)anthracene	0.86301	0.92157	0.92157	0.000	6.78546	60.00000	Averaged
92 Chrysene	0.82690	0.90169	0.90169	0.000	9.04505	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	41.60196	40.00000	0.72185	0.000	4.00491	60.00000	Wt Linear

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 20:29
Lab File ID: s6k0937.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091106-09.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
94 Di-n-octylphthalate	1.27127	1.35676	1.35676	0.001	6.72426	20.00000	Averaged	ccc
95 Benzo(b)fluoranthene	0.88507	0.99154	0.99154	0.000	12.02912	60.00000	Averaged	
96 Benzo(k)fluoranthene	0.88011	1.01364	1.01364	0.000	15.17242	60.00000	Averaged	
97 Benzo(a)pyrene	0.76447	0.88080	0.88080	0.001	15.21790	20.00000	Averaged	ccc
99 Indeno(1,2,3-cd)pyrene	40.05227	40.00000	0.72891	0.000	0.13069	60.00000	Linear	
100 Dibenzo(a,h)anthracene	37.95723	40.00000	0.56106	0.000	-5.10692	60.00000	Linear	
101 Benzo(ghi)perylene	0.58403	0.61594	0.61594	0.000	5.46367	60.00000	Averaged	
126 m-Dinitrobenzene	0.16929	0.17081	0.17081	0.000	0.89311	60.00000	Averaged	
130 2,3,4,6-Tetrachlorophenol	0.21896	0.23318	0.23318	0.000	6.49309	60.00000	Averaged	
143 Dinoseb	37.88463	40.00000	0.11675	0.000	-5.28842	60.00000	Linear	
173 Carbazole	0.65449	0.70032	0.70032	0.000	7.00193	60.00000	Averaged	
184 p-Benzoquinone	0.12730	0.14364	0.14364	0.000	12.83157	60.00000	Averaged	
192 Methoxychlor	0.55243	0.57593	0.57593	0.000	4.25434	60.00000	Averaged	
211 p-Toluidine	0.89987	0.90823	0.90823	0.000	0.92871	60.00000	Averaged	
210 m-Toluidine	1.12396	1.11262	1.11262	0.000	-1.00903	60.00000	Averaged	
26 Phthalic anhydride	71.32284	40.00000	0.14710	0.000	78.30709	60.00000	Linear	<-
179 Dibenzo(a,e)pyrene	23.04060	40.00000	0.15052	0.000	-42.39851	60.00000	Linear	
214 1,4-Dinitrobenzene	0.18382	0.17485	0.17485	0.000	-4.87689	60.00000	Averaged	
215 2-Ethoxyethanol	0.71035	0.75383	0.75383	0.000	6.12038	60.00000	Averaged	
216 Methylenebis(2-chloroanilin	38.25405	40.00000	0.11920	0.000	-4.36487	60.00000	Linear	
M 225 Trichlorophenols	0.28180	0.29168	0.29168	0.000	3.50642	60.00000	Averaged	
M 226 Tetrachlorophenols	0.21896	0.23318	0.23318	0.000	6.49309	60.00000	Averaged	
M 227 Benzo(b,k)fluoranthene	0.88259	1.00259	1.00259	0.000	13.59635	60.00000	Averaged	

GEL Laboratories LLC

Data file : /chem/MSD6.i/s110909.b/s6k0937.d
Lab Smp Id: WBN091106-09.1 Client Smp ID: MEGAICV
Inj Date : 10-NOV-2009 20:29
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091106-09.1|40 PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 10:50 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 02:44 Cal File: s6k0950.d
Als bottle: 17 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	267857	40.0000	
* 29 Naphthalene-d8	136	6.116	6.116	(1.000)	1007489	40.0000	
* 46 Acenaphthene-d10	164	7.986	7.986	(1.000)	511035	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	891521	40.0000	
* 91 Chrysene-d12	240	12.618	12.618	(1.000)	688764	40.0000	
* 98 Perylene-d12	264	14.955	14.955	(1.000)	524055	40.0000	
$ 3 2-Fluorophenol	112	3.646	3.646	(0.754)	277141	40.0000	41.3
$ 5 Phenol-d5	99	4.431	4.431	(0.917)	332800	40.0000	39.3
$ 20 Nitrobenzene-d5	82	5.371	5.371	(0.878)	301256	40.0000	42.3
$ 39 2-Fluorobiphenyl	172	7.242	7.242	(0.907)	552805	40.0000	42.0
$ 60 2,4,6-Tribromophenol	329	8.834	8.834	(1.106)	66156	40.0000	44.4
$ 81 p-Terphenyl-d14	244	11.306	11.306	(0.896)	498384	40.0000	44.9
1 N-Methyl-N-nitrosomethylamine	74	2.663	2.663	(0.551)	171645	40.0000	37.6
2 Pyridine	79	2.701	2.701	(0.559)	206635	40.0000	36.4
4 Aniline	66	4.518	4.518	(0.935)	139099	40.0000	39.4
6 Phenol	94	4.444	4.444	(0.919)	330773	40.0000	38.8
7 bis(2-Chloroethyl) ether	63	4.559	4.559	(0.943)	216794	40.0000	37.6
8 2-Chlorophenol	128	4.633	4.633	(0.958)	272604	40.0000	39.9
203 n-Decane	43	4.643	4.643	(0.960)	386128	40.0000	40.5
9 1,3-Dichlorobenzene	146	4.783	4.783	(0.989)	320531	40.0000	40.7
11 1,4-Dichlorobenzene	146	4.852	4.852	(1.004)	318420	40.0000	39.9
13 1,2-Dichlorobenzene	146	5.002	5.002	(1.035)	301561	40.0000	40.5
14 bis(2-Chloroisopropyl)ether	45	5.068	5.068	(1.048)	519933	40.0000	40.4
12 Benzyl alcohol	108	4.941	4.941	(1.022)	174307	40.0000	41.0
15 o-Cresol	107	5.025	5.025	(1.040)	224459	40.0000	40.3
18 m,p-Cresols	107	5.180	5.180	(1.072)	283022	40.0000	40.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	5.206	5.206	(1.077)	185368	40.0000	39.1
19 Hexachloroethane	117	5.338	5.338	(1.104)	119599	40.0000	38.7
21 Nitrobenzene	77	5.392	5.392	(0.882)	301811	40.0000	42.0
22 Isophorone	82	5.626	5.626	(0.920)	528272	40.0000	41.5
23 2-Nitrophenol	139	5.708	5.708	(0.933)	137410	40.0000	41.5
24 2,4-Dimethylphenol	122	5.718	5.718	(0.935)	232609	40.0000	42.4
25 bis(2-Chloroethoxy)methane	93	5.825	5.825	(0.952)	305032	40.0000	40.7
26 2,4-Dichlorophenol	162	5.950	5.950	(0.973)	207439	40.0000	41.7
27 Benzoic acid	105	5.812	5.812	(0.950)	146760	40.0000	43.3(H)
28 1,2,4-Trichlorobenzene	180	6.047	6.047	(0.989)	251400	40.0000	41.1
30 Naphthalene	128	6.138	6.138	(1.004)	837929	40.0000	41.7
204 alpha-Terpineol	59	6.123	6.123	(1.001)	219641	40.0000	39.9
31 4-Chloroaniline	127	6.172	6.172	(1.009)	267452	40.0000	41.4
32 Hexachlorobutadiene	225	6.251	6.251	(1.022)	135904	40.0000	42.7
33 4-Chloro-3-methylphenol	107	6.653	6.653	(1.088)	202993	40.0000	40.4
34 2-Methylnaphthalene	142	6.862	6.862	(1.122)	563953	40.0000	46.5
35 1-Methylnaphthalene	142	6.969	6.969	(1.140)	534441	40.0000	45.0
36 Hexachlorocyclopentadiene	237	7.020	7.020	(0.879)	63579	40.0000	30.8
205 2,3-Dichloroaniline	161	7.155	7.155	(0.896)	249785	40.0000	40.8
37 2,4,6-Trichlorophenol	196	7.147	7.147	(0.895)	140152	40.0000	40.2
38 2,4,5-Trichlorophenol	196	7.183	7.183	(0.899)	157970	40.0000	42.5
40 2-Chloronaphthalene	162	7.384	7.384	(0.925)	459019	40.0000	40.0
42 o-Nitroaniline	65	7.479	7.479	(0.936)	152711	40.0000	38.9
41 m-Nitroaniline	138	7.922	7.922	(0.992)	115209	40.0000	40.1
43 Dimethylphthalate	163	7.670	7.670	(0.960)	548000	40.0000	41.8
44 2,6-Dinitrotoluene	165	7.739	7.739	(0.969)	125566	40.0000	40.2
50 2,4-Dinitrotoluene	165	8.172	8.172	(1.023)	165511	40.0000	42.0
45 Acenaphthylene	152	7.835	7.835	(0.981)	822752	40.0000	44.6
47 Acenaphthene	154	8.024	8.024	(1.005)	492203	40.0000	42.7
48 2,4-Dinitrophenol	184	8.029	8.029	(1.005)	35722	40.0000	35.9
49 Dibenzofuran	168	8.205	8.205	(1.027)	636057	40.0000	40.9
51 Diethylphthalate	149	8.424	8.424	(1.055)	552446	40.0000	41.8
52 4-Nitrophenol	139	8.070	8.070	(1.011)	76920	40.0000	37.2
53 Fluorene	166	8.577	8.577	(1.074)	559601	40.0000	43.8
54 4-Chlorophenylphenylether	204	8.564	8.564	(1.072)	252864	40.0000	41.9
55 2-Methyl-4,6-dinitrophenol	198	8.613	8.613	(0.897)	90597	40.0000	44.8
56 p-Nitroaniline	138	8.582	8.582	(1.075)	98168	40.0000	37.2
133 Diphenylamine	169	8.689	8.689	(0.905)	431336	40.0000	40.1
58 1,2-Diphenylhydrazine	77	8.738	8.738	(0.910)	552443	40.0000	40.4
61 4-Bromophenylphenylether	248	9.094	9.094	(0.947)	140012	40.0000	39.8
63 Hexachlorobenzene	284	9.173	9.173	(0.956)	145031	40.0000	39.4
65 Pentachlorophenol	266	9.375	9.375	(0.977)	79644	40.0000	41.2
206 n-Octadecane	57	9.431	9.431	(0.982)	409467	40.0000	41.6
68 Phenanthrene	178	9.624	9.624	(1.003)	789756	40.0000	42.8
69 Anthracene	178	9.680	9.680	(1.008)	811200	40.0000	44.0
72 Di-n-butylphthalate	149	10.190	10.190	(1.062)	910557	40.0000	43.0
76 Fluoranthene	202	10.914	10.914	(1.137)	808196	40.0000	45.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	11.166	11.166	(0.885)	832137	40.0000	43.9
85 Butylbenzylphthalate	149	11.841	11.841	(0.938)	372553	40.0000	43.0
89 Benzo(a)anthracene	228	12.598	12.598	(0.998)	634741	40.0000	42.7
92 Chrysene	228	12.654	12.654	(1.003)	621053	40.0000	43.6
93 bis(2-Ethylhexyl)phthalate	149	12.570	12.570	(0.996)	497186	40.0000	41.6
94 Di-n-octylphthalate	149	13.561	13.561	(0.907)	711015	40.0000	42.7
95 Benzo(b)fluoranthene	252	14.275	14.275	(0.954)	519622	40.0000	44.8
96 Benzo(k)fluoranthene	252	14.326	14.326	(0.958)	531203	40.0000	46.1
97 Benzo(a)pyrene	252	14.853	14.853	(0.993)	461589	40.0000	46.1
99 Indeno(1,2,3-cd)pyrene	276	16.945	16.945	(1.133)	381990	40.0000	40.0
100 Dibenzo(a,h)anthracene	278	16.978	16.978	(1.135)	294025	40.0000	38.0
101 Benzo(ghi)perylene	276	17.460	17.460	(1.167)	322785	40.0000	42.2
126 m-Dinitrobenzene	168	7.708	7.708	(0.965)	87288	40.0000	40.4
130 2,3,4,6-Tetrachlorophenol	232	8.325	8.325	(1.042)	119161	40.0000	42.6
143 Dinoseb	211	9.561	9.561	(0.996)	104085	40.0000	37.9
173 Carbazole	167	9.841	9.841	(1.025)	624352	40.0000	42.8
184 p-Benzoquinone	54	4.085	4.085	(0.845)	38475	40.0000	45.1
192 Methoxychlor	227	12.468	12.468	(0.988)	396683	40.0000	41.7
211 p-Toluidine	106	5.252	5.252	(1.086)	243276	40.0000	40.4
210 m-Toluidine	106	5.285	5.285	(1.093)	298023	40.0000	39.6
26 Phthalic anhydride	104	6.911	6.911	(1.130)	148201	40.0000	71.3
179 Dibenzo(a,e)pyrene	302	21.182	21.182	(1.416)	78881	40.0000	23.0
214 1,4-Dinitrobenzene	75	7.624	7.624	(0.955)	89355	40.0000	38.0
215 2-Ethoxyethanol	59	2.454	2.454	(0.508)	201919	40.0000	42.4
216 Methylenebis(2-chloroaniline)	231	12.539	12.539	(0.994)	82098	40.0000	38.2
M 225 Trichlorophenols	196				298122	80.0000	82.8
M 226 Tetrachlorophenols	232				119161	40.0000	42.6
M 227 Benzo(b,k)fluoranthene	252				1050825	80.0000	90.9

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD6.i/s110909.b/s6K0937.d
Date : 10-NOV-2009 20:29
Client ID: MEGAICV
Sample Info: IWBK091106-09.1140 PPM11ISVHF11MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

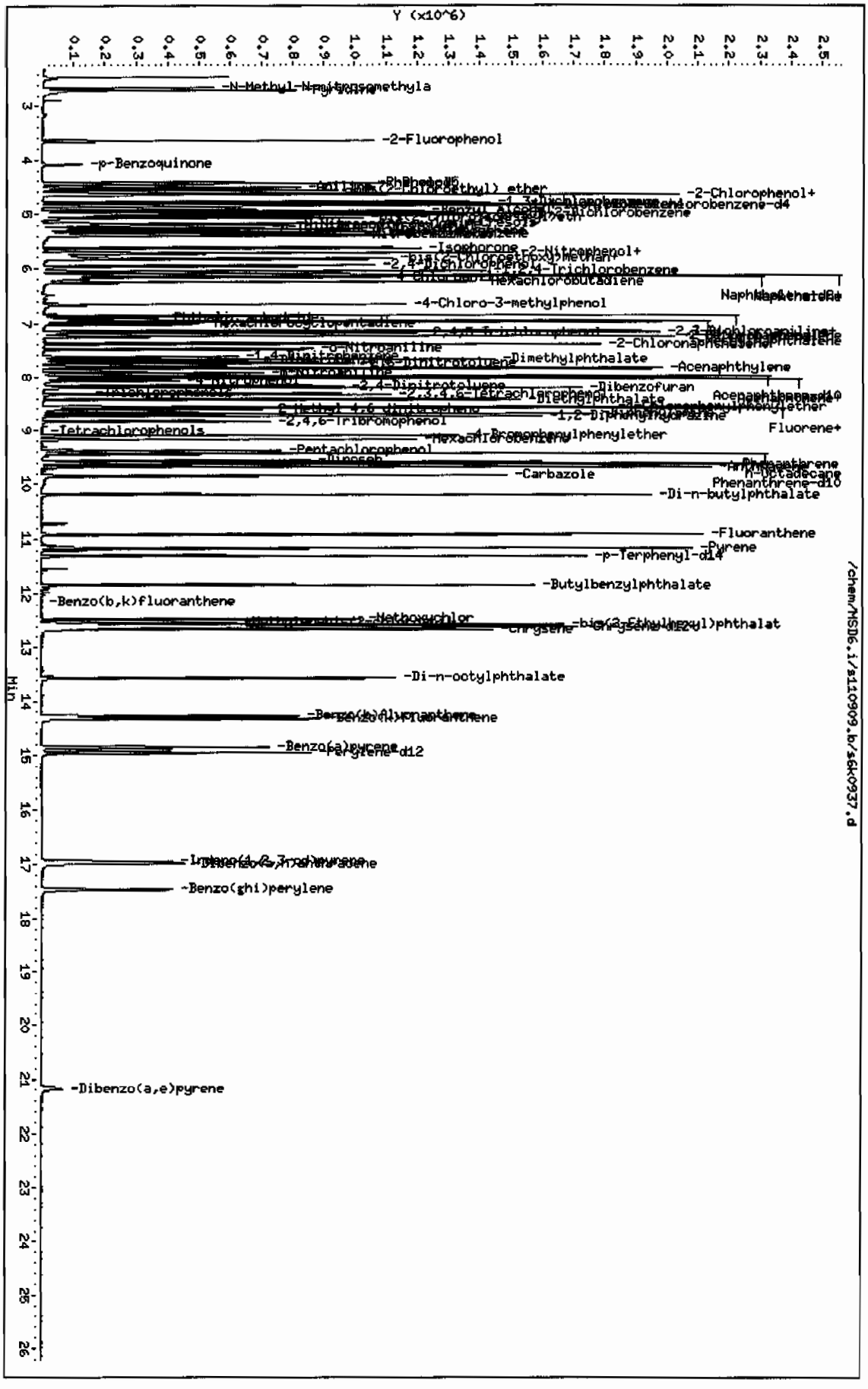

Page 1

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 21:07
Lab File ID: s6k0938.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091016-08.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86127	0.67526	0.67526	0.000	-21.59733	60.00000	Averaged
16 Acetophenone	1.16908	1.08481	1.08481	0.000	-7.20809	60.00000	Averaged
189 Caprolactam	0.07388	0.08118	0.08118	0.000	9.87786	60.00000	Averaged
208 1,1'-Biphenyl	1.20131	1.15865	1.15865	0.000	-3.55099	60.00000	Averaged
207 Atrazine	0.04063	0.03738	0.03738	0.000	-8.01727	60.00000	Averaged
77 Benzidine	0.39304	0.35886	0.35886	0.000	-8.69608	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.28252	0.30132	0.30132	0.000	6.65684	60.00000	Averaged
102 1,4-Dioxane	0.36606	0.45837	0.45837	0.000	25.21672	60.00000	Averaged
103 Methyl methacrylate	0.19388	0.26059	0.26059	0.000	34.40927	60.00000	Averaged
104 Ethyl methacrylate	0.80561	0.97594	0.97594	0.000	21.14390	60.00000	Averaged
105 2-Picoline	1.30872	1.36092	1.36092	0.000	3.98846	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.51104	0.53755	0.53755	0.000	5.18772	60.00000	Averaged
107 Methyl methanesulfonate	0.52852	0.52223	0.52223	0.000	-1.19058	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49553	0.51026	0.51026	0.000	2.97098	60.00000	Averaged
109 Ethyl Methanesulfonate	0.65169	0.73760	0.73760	0.000	13.18337	60.00000	Averaged
110 Pentachloroethane	0.31681	0.42390	0.42390	0.000	33.80401	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47614	0.46325	0.46325	0.000	-2.70540	60.00000	Averaged
113 N-Nitrosomorpholine	0.67936	0.65676	0.65676	0.000	-3.32751	60.00000	Averaged
114 o-Toluidine	1.65281	1.64899	1.64899	0.000	-0.23102	60.00000	Averaged
115 N-Nitrosopiperidine	0.14105	0.14180	0.14180	0.000	0.52679	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.85546	0.87204	0.87204	0.000	1.93819	60.00000	Averaged
118 2,6-Dichlorophenol	0.20687	0.20008	0.20008	0.000	-3.28259	60.00000	Averaged
119 Hexachloropropene	0.10269	0.14537	0.14537	0.000	41.57055	60.00000	Averaged
120 p-Phenylenediamine	0.22955	0.23182	0.23182	0.000	0.99155	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21004	0.21749	0.21749	0.000	3.54470	60.00000	Averaged
122 Safrole	0.18653	0.20933	0.20933	0.000	12.22661	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42319	0.42512	0.42512	0.000	0.45545	60.00000	Averaged
124 Isosafrole	0.33959	0.43257	0.43257	0.000	27.38086	60.00000	Averaged
125 1,4-Naphthoquinone	0.30674	0.30375	0.30375	0.000	-0.97466	60.00000	Averaged
127 Pentachlorobenzene	0.36454	0.36394	0.36394	0.000	-0.16566	60.00000	Averaged
128 1-Naphthylamine	0.90742	0.91190	0.91190	0.000	0.49410	60.00000	Averaged
129 2-Naphthylamine	0.98012	0.91865	0.91865	0.000	-6.27177	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27901	0.28996	0.28996	0.000	3.92480	60.00000	Averaged
136 1,3,5-Trinitrobenzene	46.05690	40.00000	0.13757	0.000	15.14226	60.00000	Linear
137 Phenacetin	0.26240	0.25991	0.25991	0.000	-0.94903	60.00000	Averaged
138 Diallate	0.24056	0.23148	0.23148	0.000	-3.77545	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 10-NOV-2009 21:07
Lab File ID: s6k0938.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091016-08.1 Quant Type: ISTD
Method: /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.53562	0.58994	0.58994	0.000	10.14239	60.00000	Averaged
141 Pentachloronitrobenzene	0.06192	0.06213	0.06213	0.000	0.34079	60.00000	Averaged
142 Pronamide	0.26319	0.26234	0.26234	0.000	-0.32101	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02349	0.02580	0.02580	0.000	9.82299	60.00000	Averaged
147 Methapyrilene	0.38600	0.39422	0.39422	0.000	2.12820	60.00000	Averaged
148 Isodrin	0.09631	0.08838	0.08838	0.000	-8.22821	60.00000	Averaged
149 Aramite	0.04420	0.04155	0.04155	0.000	-5.99495	60.00000	Averaged
150 Kepone	0.06173	0.05889	0.05889	0.000	-4.59530	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31734	0.33079	0.33079	0.000	4.23929	60.00000	Averaged
152 Chlorobenzilate	0.29130	0.29321	0.29321	0.000	0.65640	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52763	0.57778	0.57778	0.000	9.50435	60.00000	Averaged
155 2-Acetylaminofluorene	41.44131	40.00000	0.34022	0.000	3.60328	60.00000	Linear
157 7,12Dimethylbenz(a)anthrace	0.47906	0.41447	0.41447	0.000	-13.48259	60.00000	Averaged
158 3-Methylcholanthrene	0.36955	0.35869	0.35869	0.000	-2.93887	60.00000	Averaged
212 Cis Diallate	0.25295	0.25705	0.25705	0.000	1.62146	60.00000	Averaged
213 Trans Diallate	0.28301	0.27233	0.27233	0.000	-3.77545	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD6.i/s110909.b/s6k0938.d
Lab Smp Id: WBN091016-08.1 Client Smp ID: AP12ICV
Inj Date : 10-NOV-2009 21:07
Operator : JMB3 Inst ID: MSD6.i
Smp Info : |WBN091016-08.1|40 PPM|1|SVMF|1|AP12ICV
Misc Info : |MSD8270|WBN091106-10
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s110909.b/MSD6-M8270C-AQA-110909.m
Meth Date : 11-Nov-2009 09:25 nat00999 Quant Type: ISTD
Cal Date : 11-NOV-2009 02:44 Cal File: s6k0950.d
Als bottle: 18 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.834	4.834	(1.000)	282437	40.0000	
* 29 Naphthalene-d8	136	6.113	6.113	(1.000)	974498	40.0000	
* 46 Acenaphthene-d10	164	7.983	7.983	(1.000)	519475	40.0000	
* 67 Phenanthrene-d10	188	9.599	9.599	(1.000)	914999	40.0000	
* 91 Chrysene-d12	240	12.613	12.613	(1.000)	718441	40.0000	
* 98 Perylene-d12	264	14.950	14.950	(1.000)	524113	40.0000	
209 Benzaldehyde	77	4.428	4.428	(0.916)	190719	40.0000	31.4
16 Acetophenone	105	5.211	5.211	(1.078)	306390	40.0000	37.1
189 Caprolactam	113	6.531	6.531	(1.068)	79108	40.0000	44.0
208 1,1'-Biphenyl	154	7.354	7.354	(0.921)	601890	40.0000	38.6
207 Atrazine	173	9.249	9.249	(0.964)	34200	40.0000	36.8
77 Benzidine	184	11.038	11.038	(0.875)	257818	40.0000	36.5
90 3,3'-Dichlorobenzidine	252	12.539	12.539	(0.994)	216482	40.0000	42.7
102 1,4-Dioxane	88	2.456	2.456	(0.508)	129460	40.0000	50.1
103 Methyl methacrylate	100	2.454	2.454	(0.508)	73600	40.0000	53.8
104 Ethyl methacrylate	69	2.971	2.971	(0.615)	275642	40.0000	48.4
105 2-Picoline	93	3.228	3.228	(0.668)	384374	40.0000	41.6
106 N-Nitrosomethylethylamine	88	3.297	3.297	(0.682)	151823	40.0000	42.1
107 Methyl methanesulfonate	80	3.521	3.521	(0.728)	147497	40.0000	39.5
108 N-Nitrosodiethylamine	102	3.858	3.858	(0.798)	144115	40.0000	41.2
109 Ethyl Methanesulfonate	79	4.097	4.097	(0.848)	208326	40.0000	45.3
110 Pentachloroethane	167	4.574	4.574	(0.946)	119725	40.0000	53.5
111 N-Nitrosopyrrolidine	100	5.190	5.190	(1.074)	130840	40.0000	38.9(Q)
113 N-Nitrosomorpholine	56	5.223	5.223	(1.081)	185493	40.0000	38.7
114 o-Toluidine	106	5.249	5.249	(1.086)	465737	40.0000	39.9
115 N-Nitrosopiperidine	114	5.539	5.539	(0.906)	138180	40.0000	40.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.962	5.962	(0.975)	849798	40.0000	40.8
118 2,6-Dichlorophenol	162	6.184	6.184	(1.012)	194979	40.0000	38.7
119 Hexachloropropene	213	6.222	6.222	(1.018)	141665	40.0000	56.6
120 p-Phenylenediamine	108	6.541	6.541	(1.070)	225910	40.0000	40.4
121 N-Nitrosodi-n-butylamine	84	6.515	6.515	(1.066)	211942	40.0000	41.4(T)
122 Safrole	162	6.750	6.750	(1.104)	203993	40.0000	44.9
123 1,2,4,5-Tetrachlorobenzene	216	7.035	7.035	(0.881)	220840	40.0000	40.2
124 Isosafrole	162	7.305	7.305	(0.915)	224711	40.0000	51.0
125 1,4-Naphthoquinone	158	7.565	7.565	(0.948)	157789	40.0000	39.6
127 Pentachlorobenzene	250	8.156	8.156	(1.022)	189057	40.0000	39.9
128 1-Naphthylamine	143	8.284	8.284	(1.038)	473709	40.0000	40.2
129 2-Naphthylamine	143	8.368	8.368	(1.048)	477216	40.0000	37.5
131 5-Nitro-o-toluidine	152	8.574	8.574	(1.074)	150626	40.0000	41.6
136 1,3,5-Trinitrobenzene	75	8.946	8.946	(0.932)	125876	40.0000	46.0
137 Phenacetin	108	9.010	9.010	(0.939)	237813	40.0000	39.6(Q)
138 Diallate	86	8.990	8.990	(0.937)	211803	40.0000	38.5
140 4-Aminobiphenyl	169	9.374	9.374	(0.977)	539794	40.0000	44.0
141 Pentachloronitrobenzene	237	9.392	9.392	(0.978)	56852	40.0000	40.1(Q)
142 Pronamide	173	9.423	9.423	(0.982)	240044	40.0000	39.9
146 4-Nitroquinoline-1-oxide	101	10.445	10.445	(1.088)	23608	40.0000	43.9
147 Methapyrilene	58	10.518	10.518	(1.096)	360709	40.0000	40.8
148 Isodrin	193	10.750	10.750	(1.120)	80870	40.0000	36.7
149 Aramite	185	11.265	11.265	(1.174)	38019	40.0000	37.6
150 Kepone	272	11.933	11.933	(1.243)	53886	40.0000	38.2
151 p-(Dimethylamino)azobenzene	120	11.456	11.456	(0.908)	237654	40.0000	41.7
152 Chlorobenzilate	251	11.499	11.499	(0.912)	210653	40.0000	40.3
153 3,3'-Dimethylbenzidine	212	11.838	11.838	(0.939)	415103	40.0000	43.8
155 2-Acetylaminofluorene	181	12.154	12.154	(0.964)	244425	40.0000	41.4
157 7,12Dimethylbenz(a)anthracene	256	14.251	14.251	(0.953)	217229	40.0000	34.6
158 3-Methylcholanthrene	268	15.477	15.477	(1.035)	187994	40.0000	38.8(Q)
212 Cis Diallate	86	9.092	9.092	(0.947)	35280	6.00000	6.1
213 Trans Diallate	86	8.990	8.990	(0.937)	211803	34.0000	32.7

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s110909.b/s6k0938.d
Date : 10-NOV-2009 21:07
Client ID: AP12ICV
Sample Info: IWBN091016-08,1|40 PPM|1|SVHF|1|AP12ICV

Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: JMB3
Column diameter: 0.20

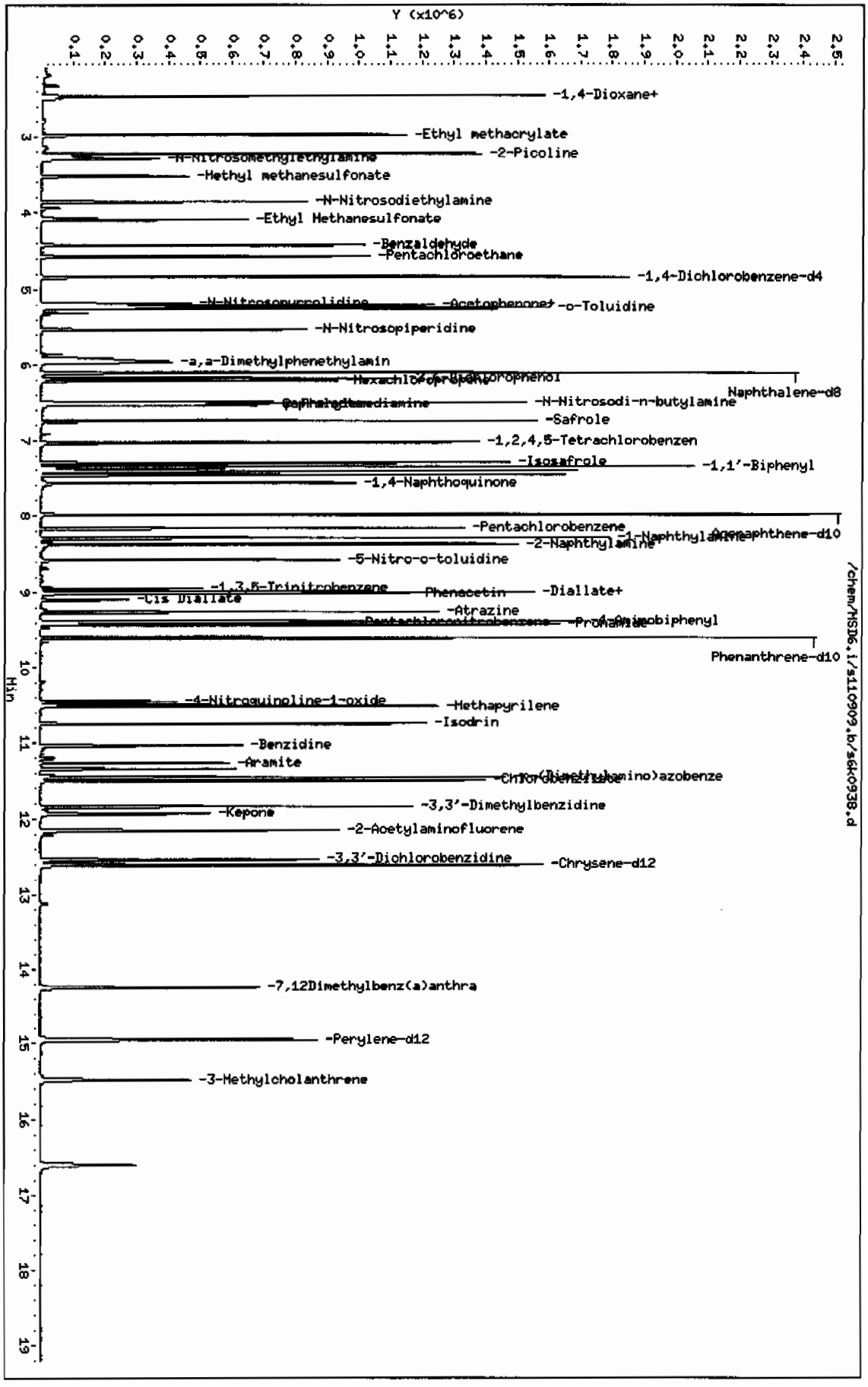

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 06-JAN-2010 09:46
Lab File ID: s6a0603.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091223-17.2 Quant Type: ISTD
Method: /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.00169	0.93161	0.93161	0.000	-6.99589	60.00000	Averaged
$ 5 Phenol-d5	1.26427	1.22987	1.22987	0.000	-2.72109	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.28296	0.27438	0.27438	0.000	-3.03225	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.03083	1.01326	1.01326	0.000	-1.70488	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11675	0.13365	0.13365	0.000	14.47234	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.64507	0.64382	0.64382	0.000	-0.19259	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.68098	0.54276	0.54276	0.000	-20.29731	60.00000	Averaged
2 Pyridine	0.84757	0.68299	0.68299	0.000	-19.41859	60.00000	Averaged
4 Aniline	0.52752	0.49822	0.49822	0.000	-5.55401	60.00000	Averaged
6 Phenol	1.27120	1.19624	1.19624	0.001	-5.89624	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.86081	0.77035	0.77035	0.000	-10.50828	60.00000	Averaged
8 2-Chlorophenol	1.02109	0.96167	0.96167	0.000	-5.81955	60.00000	Averaged
203 n-Decane	1.42254	1.23775	1.23775	0.000	-12.98964	60.00000	Averaged
9 1,3-Dichlorobenzene	1.17550	1.18359	1.18359	0.000	0.68868	60.00000	Averaged
11 1,4-Dichlorobenzene	1.19162	1.18095	1.18095	0.001	-0.89569	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.11231	1.12612	1.12612	0.000	1.24184	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.92182	1.91578	1.91578	0.000	-0.31437	60.00000	Averaged
12 Benzyl alcohol	0.63436	0.56847	0.56847	0.000	-10.38650	60.00000	Averaged
15 o-Cresol	0.83139	0.79562	0.79562	0.000	-4.30215	60.00000	Averaged
18 m,p-Cresols	1.05346	1.03449	1.03449	0.000	-1.80019	60.00000	Averaged
17 N-Nitrosodipropylamine	0.70865	0.72391	0.72391	0.050	2.15366	60.00000	Averaged spcc
19 Hexachloroethane	0.46100	0.45122	0.45122	0.000	-2.12187	60.00000	Averaged
21 Nitrobenzene	0.28519	0.27499	0.27499	0.000	-3.57623	60.00000	Averaged
22 Isophorone	0.50552	0.48338	0.48338	0.000	-4.37950	60.00000	Averaged
23 2-Nitrophenol	0.13154	0.13101	0.13101	0.001	-0.40983	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.21795	0.22090	0.22090	0.000	1.35342	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.29749	0.27899	0.27899	0.000	-6.21870	60.00000	Averaged
26 2,4-Dichlorophenol	0.19769	0.20054	0.20054	0.001	1.44334	20.00000	Averaged ccc
27 Benzoic acid	0.13453	0.15734	0.15734	0.000	16.95254	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24261	0.23859	0.23859	0.000	-1.65773	60.00000	Averaged
30 Naphthalene	0.79792	0.78636	0.78636	0.000	-1.44882	60.00000	Averaged
204 alpha-Terpineol	0.21868	0.20164	0.20164	0.000	-7.79369	60.00000	Averaged
31 4-Chloroaniline	0.25646	0.24969	0.24969	0.000	-2.64046	60.00000	Averaged
32 Hexachlorobutadiene	0.12634	0.13237	0.13237	0.001	4.76950	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.19957	0.20306	0.20306	0.001	1.75205	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.48150	0.55778	0.55778	0.000	15.84280	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 06-JAN-2010 09:46
Lab File ID: s6a0603.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN091223-17.2 Quant Type: ISTD
Method: /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	0.47100	0.51797	0.51797	0.000	9.97172	60.00000	Averaged
36 Hexachlorocyclopentadiene	0.16157	0.11566	0.11566	0.050	-28.41460	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.47908	0.45721	0.45721	0.000	-4.56520	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.27294	0.25821	0.25821	0.001	-5.39537	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.29067	0.29283	0.29283	0.000	0.74219	60.00000	Averaged
40 2-Chloronaphthalene	0.89832	0.84807	0.84807	0.000	-5.59401	60.00000	Averaged
42 o-Nitroaniline	0.30732	0.27654	0.27654	0.000	-10.01573	60.00000	Averaged
41 m-Nitroaniline	0.22497	0.22226	0.22226	0.000	-1.20277	60.00000	Averaged
43 Dimethylphthalate	1.02610	1.01733	1.01733	0.000	-0.85453	60.00000	Averaged
44 2,6-Dinitrotoluene	0.24475	0.23185	0.23185	0.000	-5.27181	60.00000	Averaged
50 2,4-Dinitrotoluene	0.30862	0.31057	0.31057	0.000	0.63208	60.00000	Averaged
45 Acenaphthylene	1.44438	1.53360	1.53360	0.000	6.17697	60.00000	Averaged
47 Acenaphthene	0.90151	0.89934	0.89934	0.001	-0.24128	20.00000	Averaged ccc
48 2,4-Dinitrophenol	39.92034	40.00000	0.08310	0.050	-0.19914	60.00000	Linear spcc
49 Dibenzofuran	1.21689	1.19956	1.19956	0.000	-1.42401	60.00000	Averaged
51 Diethylphthalate	1.03335	1.05132	1.05132	0.000	1.73954	60.00000	Averaged
52 4-Nitrophenol	38.57130	40.00000	0.15758	0.050	-3.57175	60.00000	Linear spcc
53 Fluorene	0.99879	1.08243	1.08243	0.000	8.37392	60.00000	Averaged
54 4-Chlorophenylphenylether	0.47192	0.48456	0.48456	0.000	2.67730	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	46.23898	40.00000	0.10551	0.000	15.59746	60.00000	Linear
56 p-Nitroaniline	39.87399	40.00000	0.20927	0.000	-0.31501	60.00000	Linear
133 Diphenylamine	0.48213	0.45595	0.45595	0.001	-5.43095	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.61327	0.56282	0.56282	0.000	-8.22698	60.00000	Averaged
61 4-Bromophenylphenylether	0.15784	0.15215	0.15215	0.000	-3.60182	60.00000	Averaged
63 Hexachlorobenzene	0.16533	0.15870	0.15870	0.000	-4.01061	60.00000	Averaged
65 Pentachlorophenol	38.07988	40.00000	0.08148	0.001	-4.80029	20.00000	Linear ccc
206 n-Octadecane	0.44173	0.40252	0.40252	0.000	-8.87793	60.00000	Averaged
68 Phenanthrene	0.82721	0.85546	0.85546	0.000	3.41489	60.00000	Averaged
69 Anthracene	0.82682	0.88458	0.88458	0.000	6.98474	60.00000	Averaged
72 Di-n-butylphthalate	0.94954	0.98609	0.98609	0.000	3.85004	60.00000	Averaged
76 Fluoranthene	0.79242	0.89845	0.89845	0.001	13.38014	20.00000	Averaged ccc
79 Pyrene	1.10021	1.04862	1.04862	0.000	-4.68913	60.00000	Averaged
85 Butylbenzylphthalate	0.50351	0.48570	0.48570	0.000	-3.53604	60.00000	Averaged
89 Benzo(a)anthracene	0.86301	0.89370	0.89370	0.000	3.55677	60.00000	Averaged
92 Chrysene	0.82690	0.85775	0.85775	0.000	3.73141	60.00000	Averaged
93 bis(2-Ethylhexyl)phthalate	39.77820	40.00000	0.68989	0.000	-0.55450	60.00000	Wt Linear

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6a0603.d
Analysis Type: WATER
Lab Sample ID: WBN091223-17.2 Quant Type: ISTD
Method: /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m

Injection Date: 06-JAN-2010 09:46
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.27127	1.33277	1.33277	0.001	4.83707	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	0.88507	0.98091	0.98091	0.000	10.82835	60.00000	Averaged	
	96 Benzo(k)fluoranthene	0.88011	0.97036	0.97036	0.000	10.25497	60.00000	Averaged	
	97 Benzo(a)pyrene	0.76447	0.86361	0.86361	0.001	12.96893	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	40.53600	40.00000	0.73844	0.000	1.34000	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	39.92557	40.00000	0.59239	0.000	-0.18608	60.00000	Linear	
	101 Benzo(ghi)perylene	0.58403	0.61743	0.61743	0.000	5.71897	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16929	0.16014	0.16014	0.000	-5.40637	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21896	0.22876	0.22876	0.000	4.47568	60.00000	Averaged	
	143 Dinoseb	38.19129	40.00000	0.11788	0.000	-4.52178	60.00000	Linear	
	173 Carbazole	0.65449	0.67822	0.67822	0.000	3.62517	60.00000	Averaged	
	184 p-Benzoquinone	0.12730	0.09932	0.09932	0.000	-21.98196	60.00000	Averaged	
	192 Methoxychlor	0.55243	0.44971	0.44971	0.000	-18.59468	60.00000	Averaged	
	211 p-Toluidine	0.89987	0.88037	0.88037	0.000	-2.16724	60.00000	Averaged	
	210 m-Toluidine	1.12396	1.11173	1.11173	0.000	-1.08849	60.00000	Averaged	
	26 Phthalic anhydride	65.09396	40.00000	0.13308	0.000	62.73489	60.00000	Linear	<-
	179 Dibenzo(a,e)pyrene	28.72568	40.00000	0.20295	0.000	-28.18580	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.18382	0.17077	0.17077	0.000	-7.09481	60.00000	Averaged	
	215 2-Ethoxyethanol	0.71035	0.56112	0.56112	0.000	-21.00890	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	37.60793	40.00000	0.11683	0.000	-5.98018	60.00000	Linear	
M	225 Trichlorophenols	0.28180	0.27552	0.27552	0.000	-2.23006	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21896	0.22876	0.22876	0.000	4.47568	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.88259	0.97564	0.97564	0.000	10.54247	60.00000	Averaged	

GEL Laboratories LLC

Data file : /chem/MSD6.i/s010610.b/s6a0603.d
Lab Smp Id: WBN091223-17.2 Client Smp ID: MEGACVS
Inj Date : 06-JAN-2010 09:46
Operator : nagl Inst ID: MSD6.i
Smp Info : |WBN091223-17.2|CVS|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN091223-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Meth Date : 07-Jan-2010 08:58 hnm Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGA.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.750	4.750	(1.000)	246011	40.0000	
* 29 Naphthalene-d8	136	6.026	6.026	(1.000)	1013849	40.0000	
* 46 Acenaphthene-d10	164	7.894	7.894	(1.000)	552080	40.0000	
* 67 Phenanthrene-d10	188	9.502	9.502	(1.000)	999172	40.0000	
* 91 Chrysene-d12	240	12.496	12.496	(1.000)	890342	40.0000	
* 98 Perylene-d12	264	14.779	14.779	(1.000)	743918	40.0000	
$ 3 2-Fluorophenol	112	3.588	3.588	(0.755)	229187	40.0000	37.2
$ 5 Phenol-d5	99	4.370	4.370	(0.920)	302561	40.0000	38.9
$ 20 Nitrobenzene-d5	82	5.290	5.290	(0.878)	278178	40.0000	38.8
$ 39 2-Fluorobiphenyl	172	7.150	7.150	(0.906)	559399	40.0000	39.3
$ 60 2,4,6-Tribromophenol	329	8.743	8.743	(1.107)	73783	40.0000	45.8
$ 81 p-Terphenyl-d14	244	11.207	11.207	(0.897)	573224	40.0000	39.9
1 N-Methyl-N-nitrosomethylamine	74	2.619	2.619	(0.552)	133524	40.0000	31.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
2 Pyridine	79	2.655	2.655	(0.559)	168022	40.0000	32.2
4 Aniline	66	4.444	4.444	(0.936)	122568	40.0000	37.8
6 Phenol	94	4.383	4.383	(0.923)	294289	40.0000	37.6(Q)
7 bis(2-Chloroethyl) ether	63	4.480	4.480	(0.943)	189515	40.0000	35.8
8 2-Chlorophenol	128	4.556	4.556	(0.959)	236581	40.0000	37.7
203 n-Decane	43	4.556	4.556	(0.959)	304501	40.0000	34.8
9 1,3-Dichlorobenzene	146	4.699	4.699	(0.989)	291177	40.0000	40.3
11 1,4-Dichlorobenzene	146	4.767	4.767	(1.004)	290526	40.0000	39.6
13 1,2-Dichlorobenzene	146	4.915	4.915	(1.035)	277038	40.0000	40.5
14 bis(2-Chloroisopropyl)ether	45	4.984	4.984	(1.049)	471303	40.0000	39.9
12 Benzyl alcohol	108	4.864	4.864	(1.024)	139851	40.0000	35.8
15 o-Cresol	107	4.953	4.953	(1.043)	195731	40.0000	38.3
18 m,p-Cresols	107	5.109	5.109	(1.076)	254497	40.0000	39.3
17 N-Nitrosodipropylamine	70	5.129	5.129	(1.080)	178091	40.0000	40.9
19 Hexachloroethane	117	5.247	5.247	(1.105)	111004	40.0000	39.2
21 Nitrobenzene	77	5.310	5.310	(0.881)	278800	40.0000	38.6
22 Isophorone	82	5.542	5.542	(0.920)	490071	40.0000	38.2
23 2-Nitrophenol	139	5.624	5.624	(0.933)	132820	40.0000	39.8
24 2,4-Dimethylphenol	122	5.641	5.641	(0.936)	223961	40.0000	40.5
25 bis(2-Chloroethoxy)methane	93	5.743	5.743	(0.953)	282856	40.0000	37.5
26 2,4-Dichlorophenol	162	5.871	5.871	(0.974)	203316	40.0000	40.6
27 Benzoic acid	105	5.754	5.754	(0.955)	159514	40.0000	46.8
28 1,2,4-Trichlorobenzene	180	5.957	5.957	(0.989)	241897	40.0000	39.3
30 Naphthalene	128	6.049	6.049	(1.004)	797246	40.0000	39.4
204 alpha-Terpineol	59	6.036	6.036	(1.002)	204428	40.0000	36.9
31 4-Chloroaniline	127	6.090	6.090	(1.011)	253144	40.0000	38.9
32 Hexachlorobutadiene	225	6.156	6.156	(1.022)	134199	40.0000	41.9
33 4-Chloro-3-methylphenol	107	6.579	6.579	(1.092)	205874	40.0000	40.7
34 2-Methylnaphthalene	142	6.770	6.770	(1.123)	565506	40.0000	46.3
35 1-Methylnaphthalene	142	6.877	6.877	(1.141)	525144	40.0000	44.0
36 Hexachlorocyclopentadiene	237	6.926	6.926	(0.877)	63853	40.0000	28.6
205 2,3-Dichloroaniline	161	7.066	7.066	(0.895)	252415	40.0000	38.2
37 2,4,6-Trichlorophenol	196	7.061	7.061	(0.894)	142554	40.0000	37.8
38 2,4,5-Trichlorophenol	196	7.104	7.104	(0.900)	161663	40.0000	40.3
40 2-Chloronaphthalene	162	7.293	7.293	(0.924)	468203	40.0000	37.8
42 o-Nitroaniline	65	7.395	7.395	(0.937)	152674	40.0000	36.0
41 m-Nitroaniline	138	7.840	7.840	(0.993)	122708	40.0000	39.5
43 Dimethylphthalate	163	7.583	7.583	(0.961)	561649	40.0000	39.6
44 2,6-Dinitrotoluene	165	7.654	7.654	(0.970)	127997	40.0000	37.9
50 2,4-Dinitrotoluene	165	8.090	8.090	(1.025)	171460	40.0000	40.2
45 Acenaphthylene	152	7.744	7.744	(0.981)	846670	40.0000	42.5
47 Acenaphthene	154	7.930	7.930	(1.005)	496505	40.0000	39.9
48 2,4-Dinitrophenol	184	7.950	7.950	(1.007)	45876	40.0000	39.9
49 Dibenzofuran	168	8.113	8.113	(1.028)	662253	40.0000	39.4
51 Diethylphthalate	149	8.335	8.335	(1.056)	580414	40.0000	40.7
52 4-Nitrophenol	139	8.011	8.011	(1.015)	86997	40.0000	38.6
53 Fluorene	166	8.483	8.483	(1.075)	597589	40.0000	43.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
54 4-Chlorophenylphenylether	204	8.467	8.467	(1.073)	267514	40.0000	41.1
55 2-Methyl-4,6-dinitrophenol	198	8.531	8.531	(0.898)	105420	40.0000	46.2
56 p-Nitroaniline	138	8.503	8.503	(1.077)	115535	40.0000	39.9
133 Diphenylamine	169	8.597	8.597	(0.905)	455572	40.0000	37.8
58 1,2-Diphenylhydrazine	77	8.643	8.643	(0.910)	562349	40.0000	36.7
61 4-Bromophenylphenylether	248	9.000	9.000	(0.947)	152027	40.0000	38.6
63 Hexachlorobenzene	284	9.074	9.074	(0.955)	158568	40.0000	38.4
65 Pentachlorophenol	266	9.283	9.283	(0.977)	81412	40.0000	38.1
206 n-Octadecane	57	9.331	9.331	(0.982)	402182	40.0000	36.4
68 Phenanthrene	178	9.530	9.530	(1.003)	854754	40.0000	41.4
69 Anthracene	178	9.583	9.583	(1.009)	883843	40.0000	42.8
72 Di-n-butylphthalate	149	10.093	10.093	(1.062)	985277	40.0000	41.5
76 Fluoranthene	202	10.814	10.814	(1.138)	897702	40.0000	45.4
79 Pyrene	202	11.066	11.066	(0.886)	933627	40.0000	38.1
85 Butylbenzylphthalate	149	11.731	11.731	(0.939)	432440	40.0000	38.6
89 Benzo(a)anthracene	228	12.473	12.473	(0.998)	795700	40.0000	41.4
92 Chrysene	228	12.529	12.529	(1.003)	763694	40.0000	41.5
93 bis(2-Ethylhexyl)phthalate	149	12.442	12.442	(0.996)	614242	40.0000	39.8
94 Di-n-octylphthalate	149	13.406	13.406	(0.907)	991468	40.0000	41.9
95 Benzo(b)fluoranthene	252	14.114	14.114	(0.955)	729719	40.0000	44.3
96 Benzo(k)fluoranthene	252	14.160	14.160	(0.958)	721869	40.0000	44.1
97 Benzo(a)pyrene	252	14.680	14.680	(0.993)	642455	40.0000	45.2
99 Indeno(1,2,3-cd)pyrene	276	16.741	16.741	(1.133)	549337	40.0000	40.5
100 Dibenzo(a,h)anthracene	278	16.769	16.769	(1.135)	440687	40.0000	39.9
101 Benzo(ghi)perylene	276	17.248	17.248	(1.167)	459316	40.0000	42.3
126 m-Dinitrobenzene	168	7.629	7.629	(0.966)	88411	40.0000	37.8
130 2,3,4,6-Tetrachlorophenol	232	8.235	8.235	(1.043)	126293	40.0000	41.8
143 Dinoseb	211	9.469	9.469	(0.996)	117782	40.0000	38.2
173 Carbazole	167	9.749	9.749	(1.026)	677660	40.0000	41.4
184 p-Benzoquinone	54	4.016	4.016	(0.845)	24434	40.0000	31.2
192 Methoxychlor	227	12.346	12.346	(0.988)	400395	40.0000	32.6
211 p-Toluidine	106	5.170	5.170	(1.089)	216581	40.0000	39.1
210 m-Toluidine	106	5.206	5.206	(1.096)	273497	40.0000	39.6
26 Phthalic anhydride	104	6.834	6.834	(1.134)	134921	40.0000	65.1
179 Dibenzo(a,e)pyrene	302	20.818	20.818	(1.409)	150980	40.0000	28.7
214 1,4-Dinitrobenzene	75	7.547	7.547	(0.956)	94281	40.0000	37.2
215 2-Ethoxyethanol	59	2.410	2.410	(0.507)	138041	40.0000	31.6
216 Methylenebis(2-chloroaniline)	231	12.419	12.419	(0.994)	104023	40.0000	37.6(Q)
M 225 Trichlorophenols	196				304217	80.0000	78.2
M 226 Tetrachlorophenols	232				126293	40.0000	41.8
M 227 Benzo(b,k)fluoranthene	252				1451588	80.0000	88.4

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s010610.b/s6a0603.d
Date : 06-JAN-2010 09:46
Client ID: MEOACVS
Sample Info: IWBN091223-17,21CVS|1|SVHF1|MEOACVS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nagl
Column diameter: 0.20

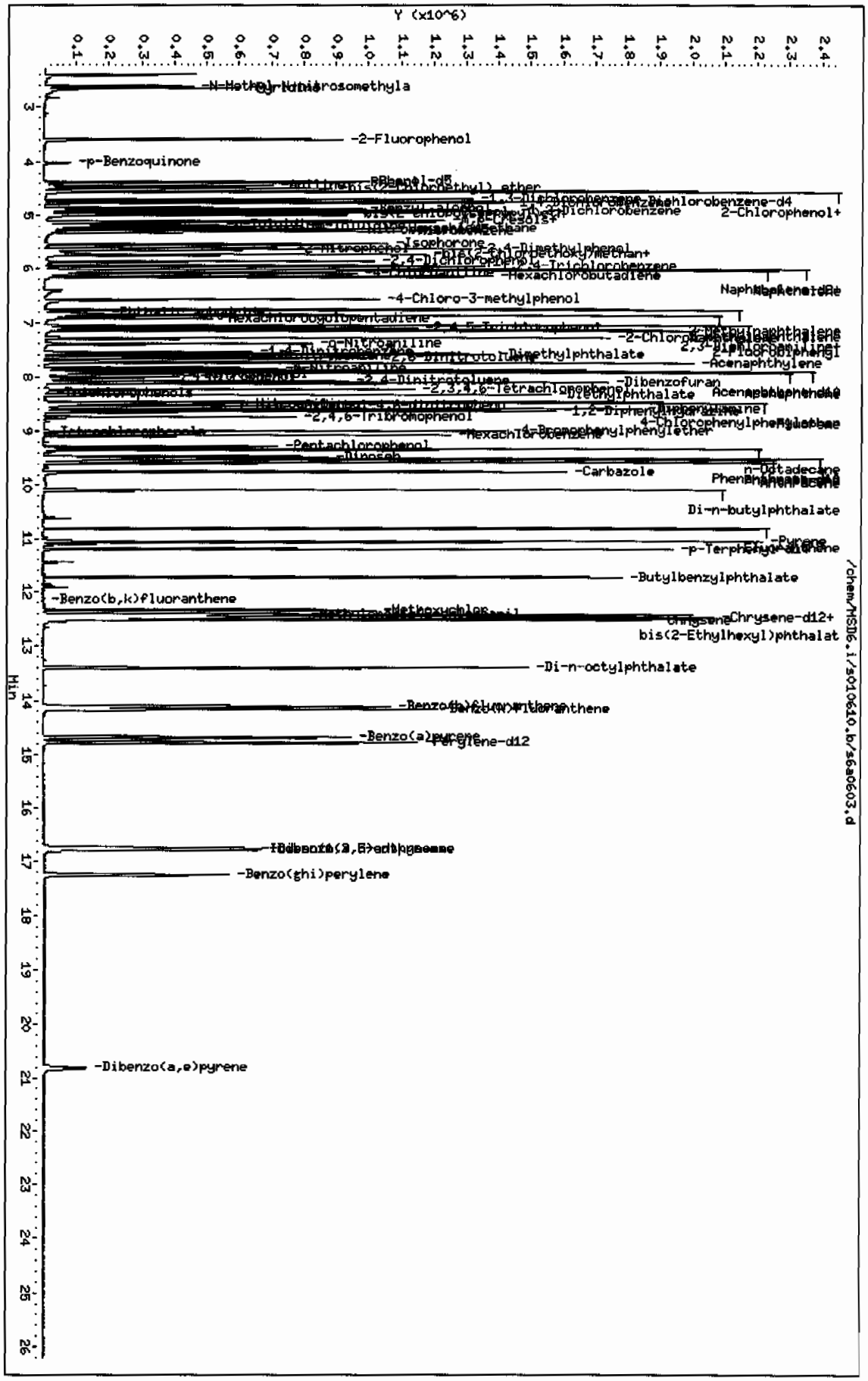

/chem/MSD6.i/s010610.b/s6a0603.d

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i Injection Date: 06-JAN-2010 10:22
Lab File ID: s6a0604.d Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Analysis Type: WATER Init. Cal. Times: 18:53 04:38
Lab Sample ID: WBN100103-03.2 Quant Type: ISTD
Method: /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.86127	0.81515	0.81515	0.000	-5.35539	60.00000	Averaged
16 Acetophenone	1.16908	1.12150	1.12150	0.000	-4.06973	60.00000	Averaged
189 Caprolactam	0.07388	0.07843	0.07843	0.000	6.15797	60.00000	Averaged
208 1,1'-Biphenyl	1.20131	1.14505	1.14505	0.000	-4.68322	60.00000	Averaged
207 Atrazine	0.04063	0.03978	0.03978	0.000	-2.09592	60.00000	Averaged
77 Benzidine	0.39304	0.16697	0.16697	0.000	-57.51805	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.28252	0.25249	0.25249	0.000	-10.62850	60.00000	Averaged
102 1,4-Dioxane	0.36606	0.32152	0.32152	0.000	-12.16710	60.00000	Averaged
103 Methyl methacrylate	0.19388	0.17916	0.17916	0.000	-7.59079	60.00000	Averaged
104 Ethyl methacrylate	0.80561	0.71833	0.71833	0.000	-10.83341	60.00000	Averaged
105 2-Picoline	1.30872	1.16155	1.16155	0.000	-11.24561	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.51104	0.44166	0.44166	0.000	-13.57604	60.00000	Averaged
107 Methyl methanesulfonate	0.52852	0.46570	0.46570	0.000	-11.88638	60.00000	Averaged
108 N-Nitrosodiethylamine	0.49553	0.45284	0.45284	0.000	-8.61627	60.00000	Averaged
109 Ethyl Methanesulfonate	0.65169	0.58769	0.58769	0.000	-9.82095	60.00000	Averaged
110 Pentachloroethane	0.31681	0.31293	0.31293	0.000	-1.22494	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47614	0.47784	0.47784	0.000	0.35797	60.00000	Averaged
113 N-Nitrosomorpholine	0.67936	0.66078	0.66078	0.000	-2.73544	60.00000	Averaged
114 o-Toluidine	1.65281	1.56870	1.56870	0.000	-5.08916	60.00000	Averaged
115 N-Nitrosopiperidine	0.14105	0.13504	0.13504	0.000	-4.25958	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.85546	0.66030	0.66030	0.000	-22.81342	60.00000	Averaged
118 2,6-Dichlorophenol	0.20687	0.20595	0.20595	0.000	-0.44423	60.00000	Averaged
119 Hexachloropropene	0.10269	0.08088	0.08088	0.000	-21.23573	60.00000	Averaged
120 p-Phenylenediamine	0.22955	0.16318	0.16318	0.000	-28.91032	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21004	0.20088	0.20088	0.000	-4.36106	60.00000	Averaged
122 Safrole	0.18653	0.18828	0.18828	0.000	0.93948	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42319	0.41331	0.41331	0.000	-2.33623	60.00000	Averaged
124 Isosafrole	0.33959	0.32029	0.32029	0.000	-5.68274	60.00000	Averaged
125 1,4-Naphthoquinone	0.30674	0.31650	0.31650	0.000	3.18449	60.00000	Averaged
127 Pentachlorobenzene	0.36454	0.36695	0.36695	0.000	0.66073	60.00000	Averaged
128 1-Naphthylamine	0.90742	0.81882	0.81882	0.000	-9.76305	60.00000	Averaged
129 2-Naphthylamine	0.98012	0.89711	0.89711	0.000	-8.46999	60.00000	Averaged
131 5-Nitro-o-toluidine	0.27901	0.26597	0.26597	0.000	-4.67248	60.00000	Averaged
136 1,3,5-Trinitrobenzene	28.83327	40.00000	0.08169	0.000	-27.91683	60.00000	Linear
137 Phenacetin	0.26240	0.25017	0.25017	0.000	-4.65763	60.00000	Averaged
138 Diallate	0.24056	0.23650	0.23650	0.000	-1.68652	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD6.i
Lab File ID: s6a0604.d
Analysis Type: WATER
Lab Sample ID: WBN100103-03.2
Method: /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m

Injection Date: 06-JAN-2010 10:22
Init. Cal. Date(s): 09-NOV-2009 11-NOV-2009
Init. Cal. Times: 18:53 04:38
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
140 4-Aminobiphenyl	0.53562	0.49010	0.49010	0.000	-8.49693	60.00000	Averaged
141 Pentachloronitrobenzene	0.06192	0.06521	0.06521	0.000	5.31424	60.00000	Averaged
142 Pronamide	0.26319	0.26072	0.26072	0.000	-0.93935	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02349	0.00484	0.00484	0.000	-79.40060	60.00000	Averaged <-
147 Methapyrilene	0.38600	0.31468	0.31468	0.000	-18.47718	60.00000	Averaged
148 Isodrin	0.09631	0.10465	0.10465	0.000	8.66286	60.00000	Averaged
149 Aramite	0.04420	0.04804	0.04804	0.000	8.68180	60.00000	Averaged
150 Kepone	0.06173	0.06800	0.06800	0.000	10.16290	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.31734	0.28935	0.28935	0.000	-8.81889	60.00000	Averaged
152 Chlorobenzilate	0.29130	0.28815	0.28815	0.000	-1.07880	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52763	0.41395	0.41395	0.000	-21.54614	60.00000	Averaged
155 2-Acetylaminofluorene	35.75788	40.00000	0.28721	0.000	-10.60529	60.00000	Linear
157 7,12Dimethylbenz(a)anthrace	0.47906	0.47785	0.47785	0.000	-0.25295	60.00000	Averaged
158 3-Methylcholanthrene	0.36955	0.37060	0.37060	0.000	0.28428	60.00000	Averaged
212 Cis Diallate	0.25295	0.23951	0.23951	0.000	-5.31163	60.00000	Averaged
213 Trans Diallate	0.28301	0.27824	0.27824	0.000	-1.68652	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD6.i/s010610.b/s6a0604.d
Lab Smp Id: WBN100103-03.2 Client Smp ID: AP12CVS
Inj Date : 06-JAN-2010 10:22
Operator : nagl Inst ID: MSD6.i
Smp Info : |WBN100103-03.2|CVS|1|SVMF|1|AP12CVS
Misc Info : |MSD8270|WBN091223-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Meth Date : 06-Jan-2010 15:14 jos00786 Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.749	4.749	(1.000)	249359	40.0000	
* 29 Naphthalene-d8	136	6.023	6.023	(1.000)	924118	40.0000	
* 46 Acenaphthene-d10	164	7.891	7.888	(1.000)	525997	40.0000	
* 67 Phenanthrene-d10	188	9.501	9.499	(1.000)	931180	40.0000	
* 91 Chrysene-d12	240	12.485	12.483	(1.000)	764012	40.0000	
* 98 Perylene-d12	264	14.771	14.768	(1.000)	592829	40.0000	
209 Benzaldehyde	77	4.351	4.351	(0.916)	203265	40.0000	37.8
16 Acetophenone	105	5.129	5.129	(1.080)	279656	40.0000	38.4
189 Caprolactam	113	6.454	6.454	(1.071)	72478	40.0000	42.5
208 1,1'-Biphenyl	154	7.261	7.261	(0.920)	602292	40.0000	38.1
207 Atrazine	173	9.165	9.165	(0.965)	37045	40.0000	39.2
77 Benzidine	184	10.941	10.941	(0.876)	127566	40.0000	17.0
90 3,3'-Dichlorobenzidine	252	12.414	12.414	(0.994)	192904	40.0000	35.7
102 1,4-Dioxane	88	2.410	2.410	(0.507)	80174	40.0000	35.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
103 Methyl methacrylate	100	2.407	2.407	(0.507)	44675	40.0000	37.0
104 Ethyl methacrylate	69	2.909	2.909	(0.613)	179122	40.0000	35.7
105 2-Picoline	93	3.167	3.167	(0.667)	289642	40.0000	35.5
106 N-Nitrosomethylethylamine	88	3.235	3.235	(0.681)	110131	40.0000	34.6
107 Methyl methanesulfonate	80	3.465	3.465	(0.730)	116126	40.0000	35.2
108 N-Nitrosodiethylamine	102	3.791	3.791	(0.798)	112919	40.0000	36.6
109 Ethyl Methanesulfonate	79	4.028	4.028	(0.848)	146544	40.0000	36.1
110 Pentachloroethane	167	4.492	4.492	(0.946)	78031	40.0000	39.5
111 N-Nitrosopyrrolidine	100	5.116	5.116	(1.077)	119153	40.0000	40.1(Q)
113 N-Nitrosomorpholine	56	5.149	5.149	(1.084)	164771	40.0000	38.9
114 o-Toluidine	106	5.167	5.167	(1.088)	391169	40.0000	38.0
115 N-Nitrosopiperidine	114	5.457	5.457	(0.906)	124797	40.0000	38.3
116 a,a-Dimethylphenethylamine	58	5.824	5.824	(0.967)	610192	40.0000	30.9
118 2,6-Dichlorophenol	162	6.099	6.099	(1.013)	190325	40.0000	39.8
119 Hexachloropropene	213	6.127	6.127	(1.017)	74742	40.0000	31.5
120 p-Phenylenediamine	108	6.461	6.461	(1.073)	150800	40.0000	28.4
121 N-Nitrosodi-n-butylamine	84	6.428	6.428	(1.067)	185639	40.0000	38.2(Q)
122 Safrole	162	6.660	6.660	(1.106)	173991	40.0000	40.4
123 1,2,4,5-Tetrachlorobenzene	216	6.943	6.943	(0.880)	217398	40.0000	39.1
124 Isosafrole	162	7.215	7.215	(0.914)	168473	40.0000	37.7
125 1,4-Naphthoquinone	158	7.480	7.480	(0.948)	166480	40.0000	41.3
127 Pentachlorobenzene	250	8.064	8.064	(1.022)	193015	40.0000	40.3
128 1-Naphthylamine	143	8.194	8.194	(1.038)	430699	40.0000	36.1
129 2-Naphthylamine	143	8.278	8.278	(1.049)	471875	40.0000	36.6
131 5-Nitro-o-toluidine	152	8.487	8.487	(1.076)	139900	40.0000	38.1
136 1,3,5-Trinitrobenzene	75	8.879	8.879	(0.935)	76065	40.0000	28.8
137 Phenacetin	108	8.925	8.925	(0.939)	232957	40.0000	38.1(Q)
138 Diallate	86	8.895	8.895	(0.936)	220228	40.0000	39.3
140 4-Aminobiphenyl	169	9.282	9.282	(0.977)	456375	40.0000	36.6
141 Pentachloronitrobenzene	237	9.295	9.295	(0.978)	60725	40.0000	42.1(Q)
142 Pronamide	173	9.330	9.330	(0.982)	242773	40.0000	39.6
146 4-Nitroquinoline-1-oxide	101	10.355	10.355	(1.090)	4506	40.0000	8.2(a)
147 Methapyrilene	58	10.416	10.416	(1.096)	293024	40.0000	32.6
148 Isodrin	193	10.645	10.645	(1.120)	97447	40.0000	43.5
149 Aramite	185	11.165	11.165	(1.175)	44732	40.0000	43.5
150 Kepone	272	11.812	11.812	(1.243)	63322	40.0000	44.1
151 p-(Dimethylamino)azobenzene	120	11.356	11.356	(0.910)	221069	40.0000	36.5
152 Chlorobenzilate	251	11.397	11.397	(0.913)	220153	40.0000	39.6
153 3,3'-Dimethylbenzidine	212	11.733	11.733	(0.940)	316263	40.0000	31.4
155 2-Acetylaminofluorene	181	12.044	12.044	(0.965)	219428	40.0000	35.8
157 7,12Dimethylbenz(a)anthracene	256	14.083	14.083	(0.953)	283281	40.0000	39.9
158 3-Methylcholanthrene	268	15.288	15.288	(1.035)	219703	40.0000	40.1(Q)
212 Cis Diallate	86	8.994	8.994	(0.947)	33454	6.00000	5.7
213 Trans Diallate	86	8.895	8.895	(0.936)	220228	34.0000	33.4

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s010610.b/s6a0604.d
Date : 06-JAN-2010 10:22
Client ID: AP12CVS
Sample Info: IWBN100103-03,2ICVS1ISVMF1IIAP12CVS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

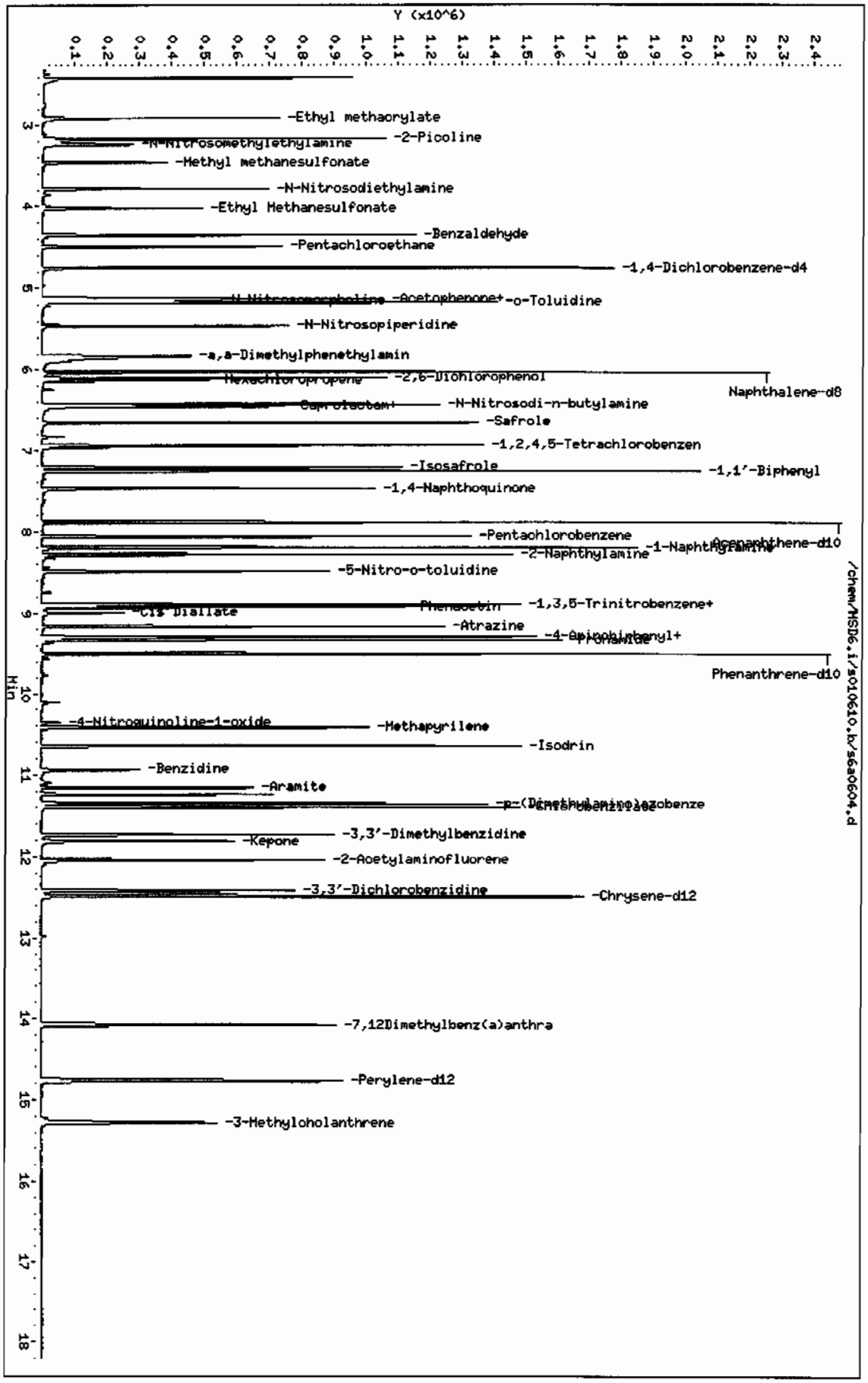

QC Data

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN091101-01|50 PPM|1|SVHF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

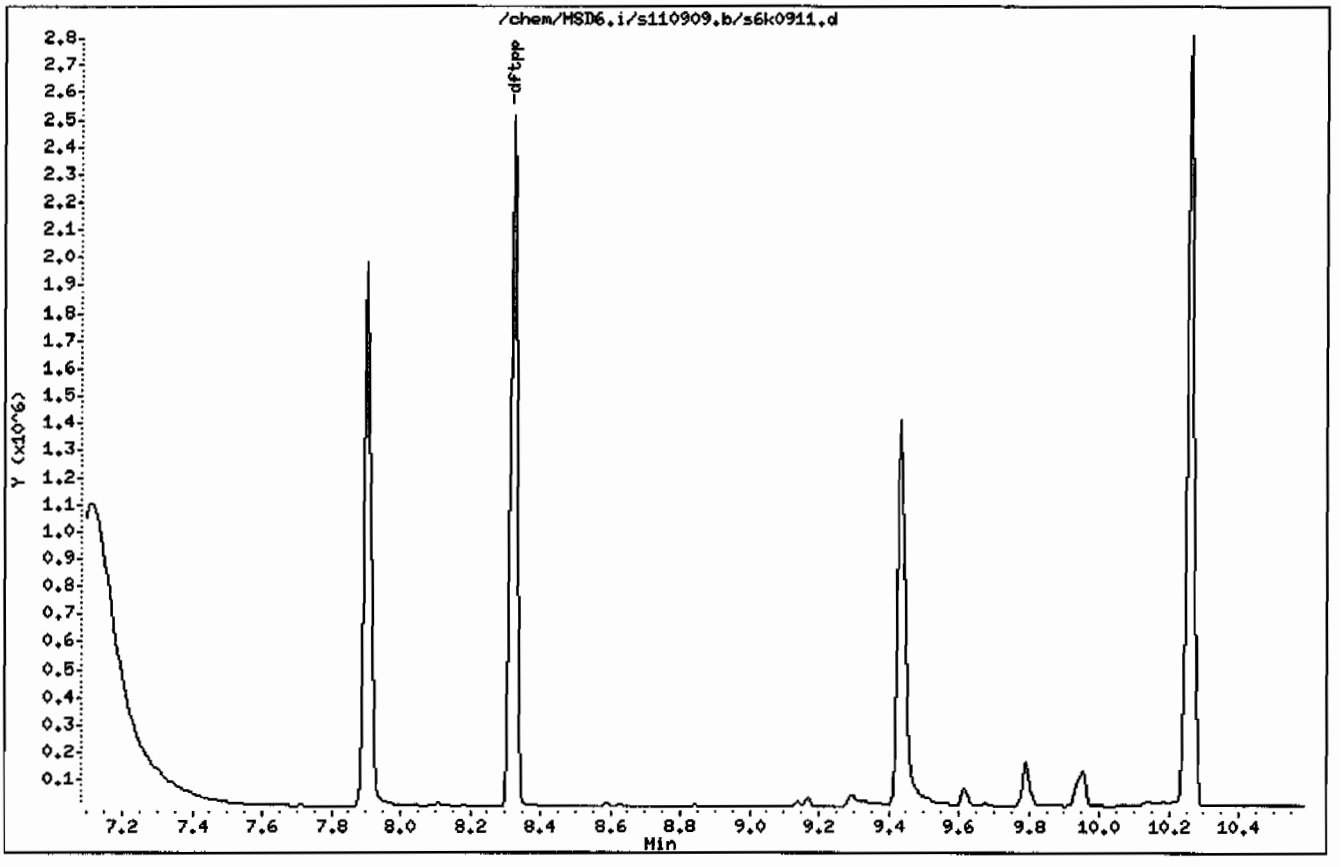

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

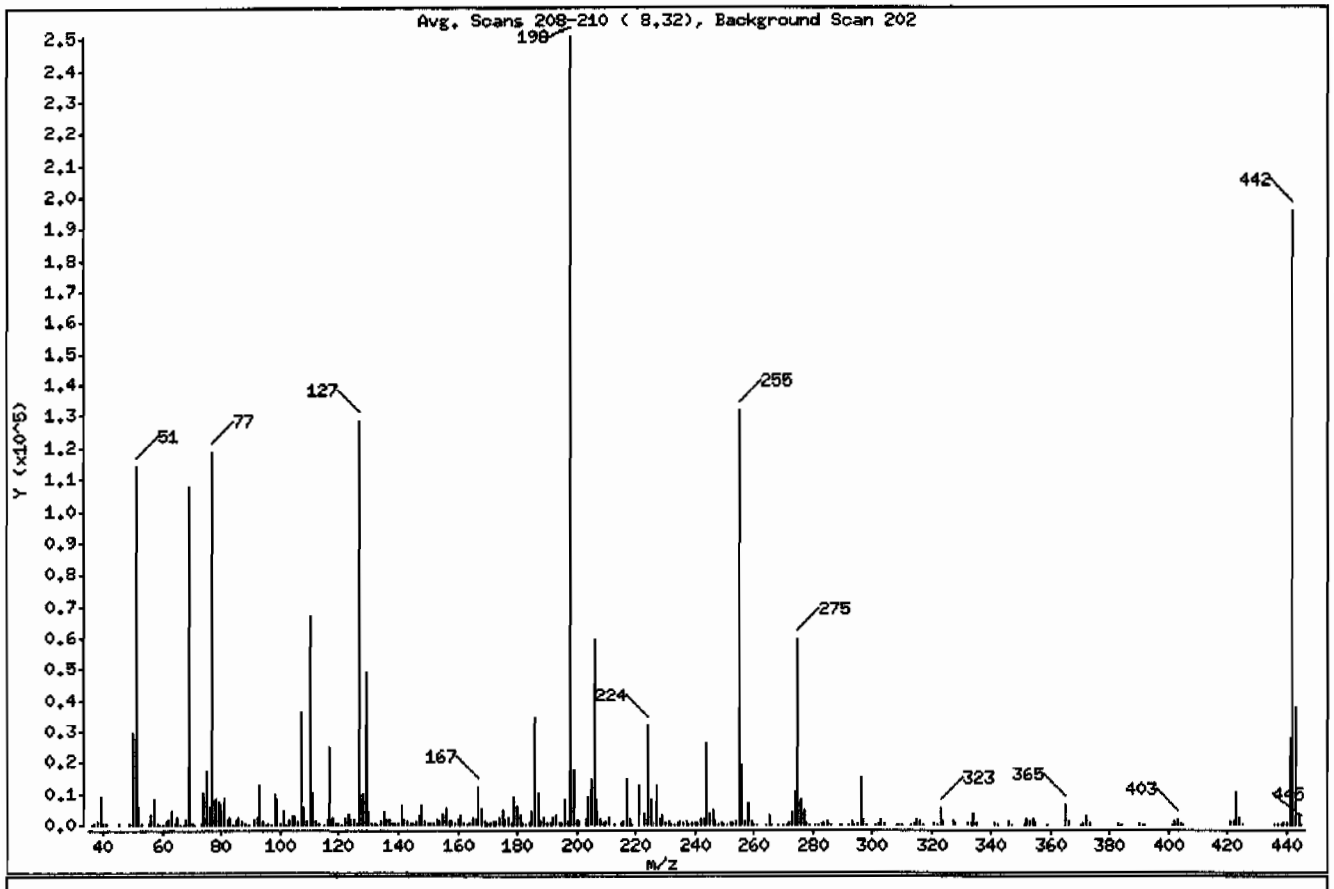

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.40
68	Less than 2.00% of mass 69	0.67 (1.56)
69	Mass 69 relative abundance	42.98
70	Less than 2.00% of mass 69	0.23 (0.53)
127	40.00 - 60.00% of mass 198	51.37
197	Less than 1.00% of mass 198	0.57
199	5.00 - 9.00% of mass 198	6.92
275	10.00 - 30.00% of mass 198	23.67
365	Greater than 1.00% of mass 198	2.45
441	Present, but less than mass 443	11.05
442	Greater than 40.00% of mass 198	77.94
443	17.00 - 23.00% of mass 442	14.94 (19.17)

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	8	122.00	2302	198.00	250752	284.00	336
37.00	393	123.00	3695	199.00	17344	285.00	937
38.00	1200	124.00	1621	200.00	1195	286.00	170
39.00	9016	125.00	1448	201.00	1207	289.00	255
40.00	406	126.00	632	203.00	1659	290.00	159
41.00	292	127.00	128832	204.00	8363	292.00	259
45.00	305	128.00	9787	205.00	14289	293.00	1083
49.00	640	129.00	49280	206.00	59576	294.00	255
50.00	29544	130.00	4085	207.00	7878	295.00	324
51.00	113864	131.00	795	208.00	1898	296.00	14712
52.00	5719	132.00	464	209.00	609	297.00	1998
53.00	291	133.00	153	210.00	1016	298.00	48
55.00	556	134.00	1412	211.00	2089	301.00	220
56.00	3212	135.00	3908	213.00	96	302.00	374
57.00	7977	136.00	1509	215.00	674	303.00	1716
58.00	306	137.00	2002	216.00	1188	304.00	518
59.00	43	138.00	459	217.00	14324	308.00	142
60.00	144	139.00	392	218.00	1841	309.00	104
61.00	1384	140.00	761	219.00	194	310.00	127
62.00	1579	141.00	6116	221.00	12869	313.00	98
63.00	4522	142.00	1931	223.00	3368	314.00	758
64.00	592	143.00	1380	224.00	31752	315.00	1571
65.00	2251	144.00	329	225.00	7987	316.00	915
66.00	47	145.00	339	226.00	839	317.00	119
67.00	98	146.00	1032	227.00	12952	321.00	481
68.00	1681	147.00	3100	228.00	1848	322.00	229
69.00	107792	148.00	6347	229.00	2774	323.00	5178
70.00	566	149.00	1410	230.00	478	324.00	998
71.00	154	150.00	411	231.00	1257	327.00	960
73.00	818	151.00	692	232.00	280	328.00	487
74.00	10556	152.00	489	233.00	226	332.00	397
75.00	17208	153.00	1814	234.00	759	333.00	430
76.00	5735	154.00	1411	235.00	1001	334.00	3299
77.00	118792	155.00	3187	236.00	589	335.00	849
78.00	8119	156.00	5061	237.00	1093	341.00	644

Data File: /chem/MSD6.i/s110909.b/s6k0911.d

Date : 09-NOV-2009 18:00

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	7616	157.00	1047	238.00	176	342.00	184
80.00	6053	158.00	1005	239.00	483	346.00	1112
81.00	8741	159.00	819	240.00	449	347.00	197
82.00	1932	160.00	1690	241.00	776	351.00	99
83.00	2188	161.00	2737	242.00	1684	352.00	1491
84.00	232	162.00	809	243.00	1819	353.00	1169
85.00	1461	163.00	190	244.00	25832	354.00	1726
86.00	2130	164.00	335	245.00	3598	355.00	318
87.00	1162	165.00	2034	246.00	4786	359.00	103
88.00	449	166.00	1979	247.00	980	365.00	6134
89.00	268	167.00	12360	248.00	210	366.00	872
91.00	1835	168.00	5121	249.00	829	370.00	96
92.00	2163	169.00	1038	250.00	174	371.00	434
93.00	12786	170.00	446	251.00	238	372.00	2651
94.00	908	171.00	470	252.00	289	373.00	764
95.00	251	172.00	1064	253.00	569	383.00	711
96.00	626	173.00	1291	254.00	1047	384.00	258
97.00	236	174.00	2515	255.00	131328	390.00	402
98.00	9808	175.00	4789	256.00	18784	391.00	259
99.00	8032	176.00	1446	257.00	1424	392.00	153
100.00	745	177.00	2269	258.00	6873	401.00	116
101.00	4358	178.00	802	259.00	1148	402.00	1140
102.00	258	179.00	8475	260.00	228	403.00	1594
103.00	1616	180.00	5994	261.00	261	404.00	514
104.00	3096	181.00	2983	264.00	141	405.00	98
105.00	2795	182.00	429	265.00	2620	421.00	1430
106.00	910	183.00	259	266.00	251	422.00	1234
107.00	36184	184.00	679	268.00	180	423.00	10131
108.00	5604	185.00	3929	270.00	163	424.00	2144
109.00	997	186.00	34256	271.00	257	425.00	193
110.00	66656	187.00	9747	272.00	290	436.00	45
111.00	10177	188.00	1146	273.00	3906	437.00	191
112.00	1133	189.00	2105	274.00	10561	438.00	232
113.00	472	190.00	292	275.00	59368	439.00	301
115.00	217	191.00	815	276.00	7957	440.00	309

Date : 09-NOV-2009 18:00

Client ID: DFTPP Instrument: HSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JHB3

Column phase: Phenomenex ZB-5HS Column diameter: 0.20

Data File: s6k0911.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 303

m/z	Y	m/z	Y	m/z	Y	m/z	Y
116.00	1841	192.00	2423	277.00	4641	441.00	27712
117.00	25072	193.00	3008	278.00	676	442.00	195456
118.00	2060	194.00	699	279.00	176	443.00	37472
119.00	345	195.00	448	281.00	87	444.00	3400
120.00	476	196.00	7876	282.00	46	445.00	197
121.00	165	197.00	1433	283.00	505		

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

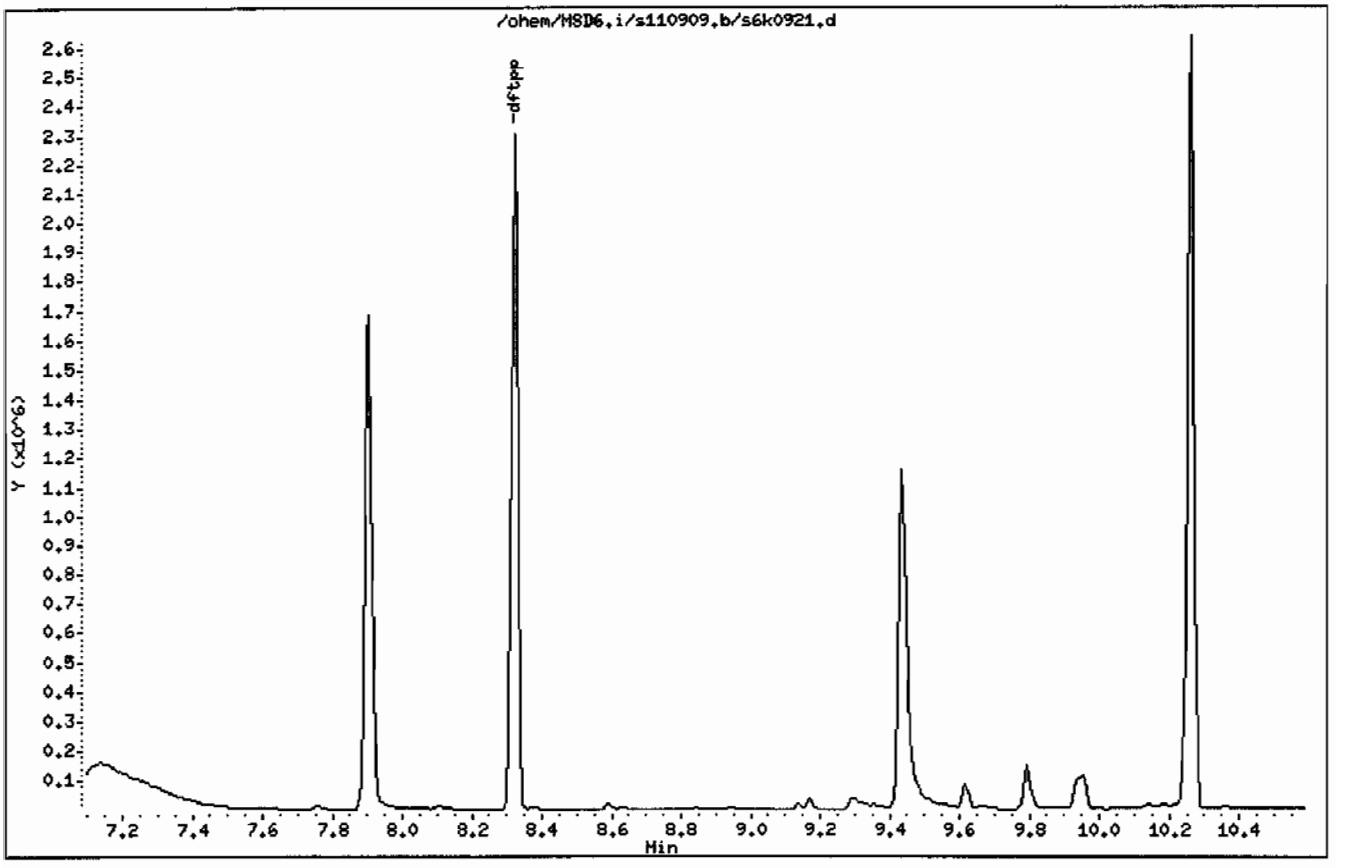

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

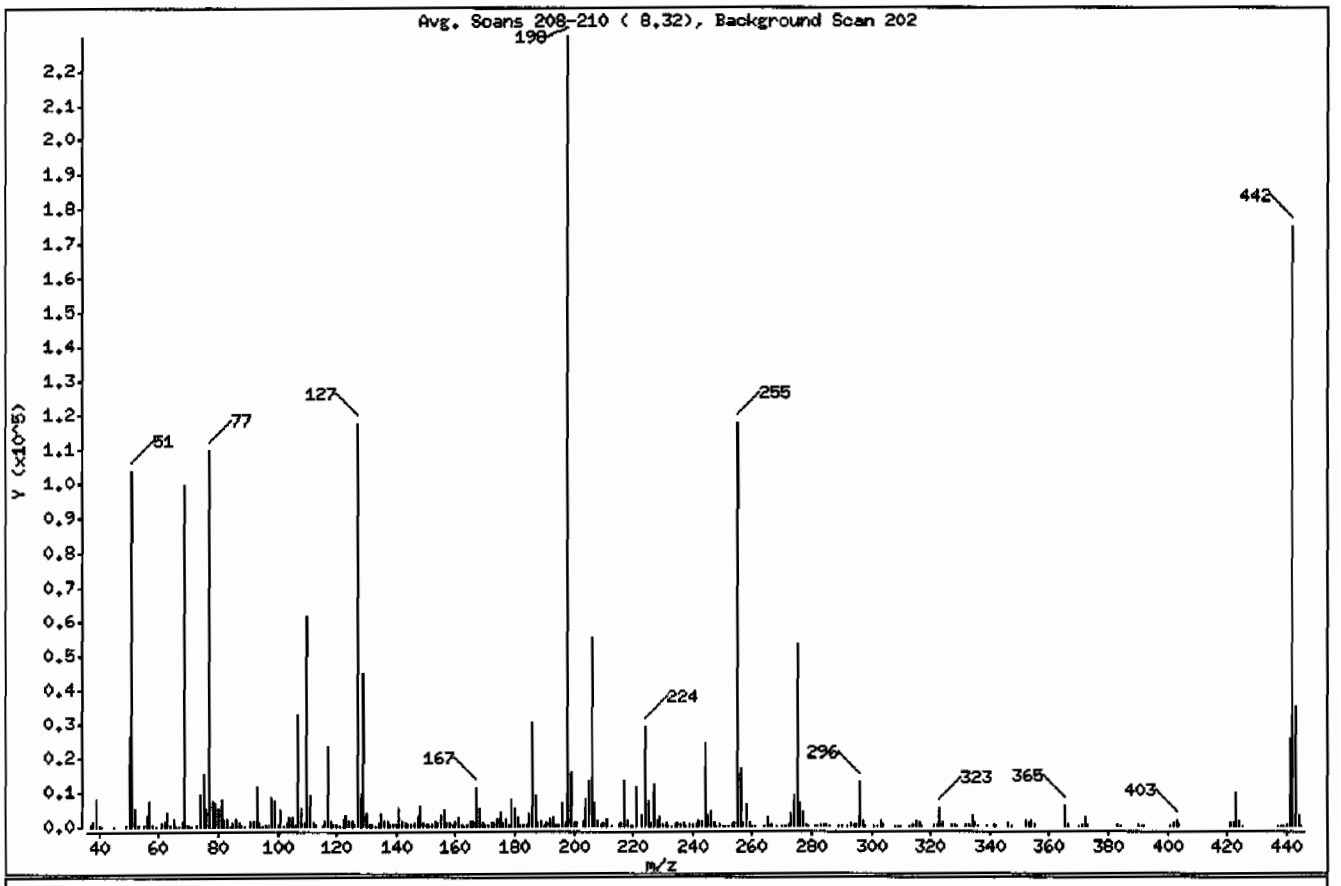

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.09
68	Less than 2.00% of mass 69	0.69 (1.59)
69	Mass 69 relative abundance	43.13
70	Less than 2.00% of mass 69	0.21 (0.50)
127	40.00 - 60.00% of mass 198	50.95
197	Less than 1.00% of mass 198	0.38
199	5.00 - 9.00% of mass 198	7.01
275	10.00 - 30.00% of mass 198	23.31
365	Greater than 1.00% of mass 198	2.61
441	Present, but less than mass 443	11.00
442	Greater than 40.00% of mass 198	76.04
443	17.00 - 23.00% of mass 442	15.14 (19.92)

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JHB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	446	124.00	1597	200.00	1296	285.00	727
38.00	1364	125.00	1527	201.00	1130	286.00	93
39.00	8081	126.00	500	203.00	1398	289.00	109
40.00	429	127.00	117112	204.00	7870	290.00	48
41.00	123	128.00	9305	205.00	12990	292.00	179
45.00	232	129.00	44864	206.00	55704	293.00	996
49.00	676	130.00	3877	207.00	6919	294.00	284
50.00	26328	131.00	762	208.00	1589	295.00	295
51.00	103656	132.00	413	209.00	492	296.00	12743
52.00	5217	133.00	83	210.00	869	297.00	1768
53.00	281	134.00	1179	211.00	2059	298.00	106
55.00	508	135.00	3584	213.00	155	301.00	200
56.00	3141	136.00	1380	215.00	501	302.00	236
57.00	7300	137.00	1770	216.00	1098	303.00	1828
58.00	351	138.00	422	217.00	13179	304.00	578
59.00	89	139.00	313	218.00	1725	308.00	164
61.00	1282	140.00	577	219.00	178	309.00	120
62.00	1522	141.00	5319	220.00	48	310.00	179
63.00	4035	142.00	1826	221.00	11795	313.00	116
64.00	709	143.00	1268	223.00	3181	314.00	633
65.00	2010	144.00	322	224.00	29056	315.00	1462
66.00	201	145.00	315	225.00	7532	316.00	903
67.00	136	146.00	853	226.00	796	317.00	97
68.00	1576	147.00	2856	227.00	12169	321.00	535
69.00	99128	148.00	5895	228.00	1834	322.00	301
70.00	492	149.00	1137	229.00	2389	323.00	5031
71.00	87	150.00	371	230.00	448	324.00	932
73.00	640	151.00	713	231.00	1077	327.00	782
74.00	9704	152.00	430	232.00	217	328.00	460
75.00	15458	153.00	1634	233.00	234	329.00	92
76.00	5031	154.00	1294	234.00	764	332.00	329
77.00	109208	155.00	2977	235.00	895	333.00	541
78.00	7381	156.00	4520	236.00	588	334.00	3026
79.00	6803	157.00	931	237.00	934	335.00	912
80.00	5387	158.00	937	238.00	52	336.00	92

Data File: /chem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
81.00	7979	159.00	792	239.00	457	339.00	88
82.00	2000	160.00	1501	240.00	364	341.00	550
83.00	1851	161.00	2637	241.00	638	342.00	176
84.00	203	162.00	756	242.00	1412	346.00	1020
85.00	1319	163.00	204	243.00	1572	347.00	119
86.00	1985	164.00	328	244.00	24152	352.00	1335
87.00	1000	165.00	1810	245.00	3200	353.00	950
88.00	412	166.00	1695	246.00	4314	354.00	1475
89.00	260	167.00	10891	247.00	844	355.00	296
91.00	1676	168.00	5136	248.00	166	365.00	5995
92.00	1806	169.00	973	249.00	748	366.00	747
93.00	11677	170.00	306	250.00	170	370.00	103
94.00	892	171.00	442	251.00	190	371.00	323
95.00	199	172.00	897	252.00	210	372.00	2543
96.00	636	173.00	1105	253.00	472	373.00	611
97.00	286	174.00	2178	254.00	899	383.00	675
98.00	8556	175.00	4297	255.00	117320	384.00	156
99.00	7312	176.00	1290	256.00	16728	390.00	314
100.00	595	177.00	2105	257.00	1320	391.00	189
101.00	4548	178.00	636	258.00	6484	392.00	157
102.00	251	179.00	8002	259.00	1064	401.00	199
103.00	1289	180.00	5191	260.00	200	402.00	1090
104.00	2626	181.00	2701	261.00	212	403.00	1396
105.00	2533	182.00	448	264.00	192	404.00	427
106.00	724	183.00	312	265.00	2469	421.00	1265
107.00	33008	184.00	599	266.00	401	422.00	1145
108.00	5264	185.00	3797	268.00	43	423.00	9473
109.00	994	186.00	30448	270.00	167	424.00	1846
110.00	61616	187.00	8914	271.00	186	425.00	183
111.00	9026	188.00	970	272.00	329	437.00	54
112.00	1057	189.00	1726	273.00	3492	438.00	170
113.00	367	190.00	298	274.00	9124	439.00	228
115.00	227	191.00	976	275.00	53576	440.00	294
116.00	1610	192.00	2282	276.00	7126	441.00	25272
117.00	23152	193.00	2535	277.00	3970	442.00	174784

Data File: /ohem/MSD6.i/s110909.b/s6k0921.d

Date : 10-NOV-2009 11:07

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: JMB3

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6k0921.d
Spectrum: Avg. Scans 208-210 (8.32), Background Scan 202
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
118.00	1681	194.00	518	278.00	653	443.00	34808
119.00	280	195.00	333	279.00	140	444.00	3177
120.00	427	196.00	6863	281.00	140	445.00	129
121.00	176	197.00	878	282.00	42		
122.00	2199	198.00	229824	283.00	507		
123.00	3315	199.00	16104	284.00	294		

Data File: /ohem/MSD6.i/s010610.b/s6a0601.d

Page 1

Date : 06-JAN-2010 08:55

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

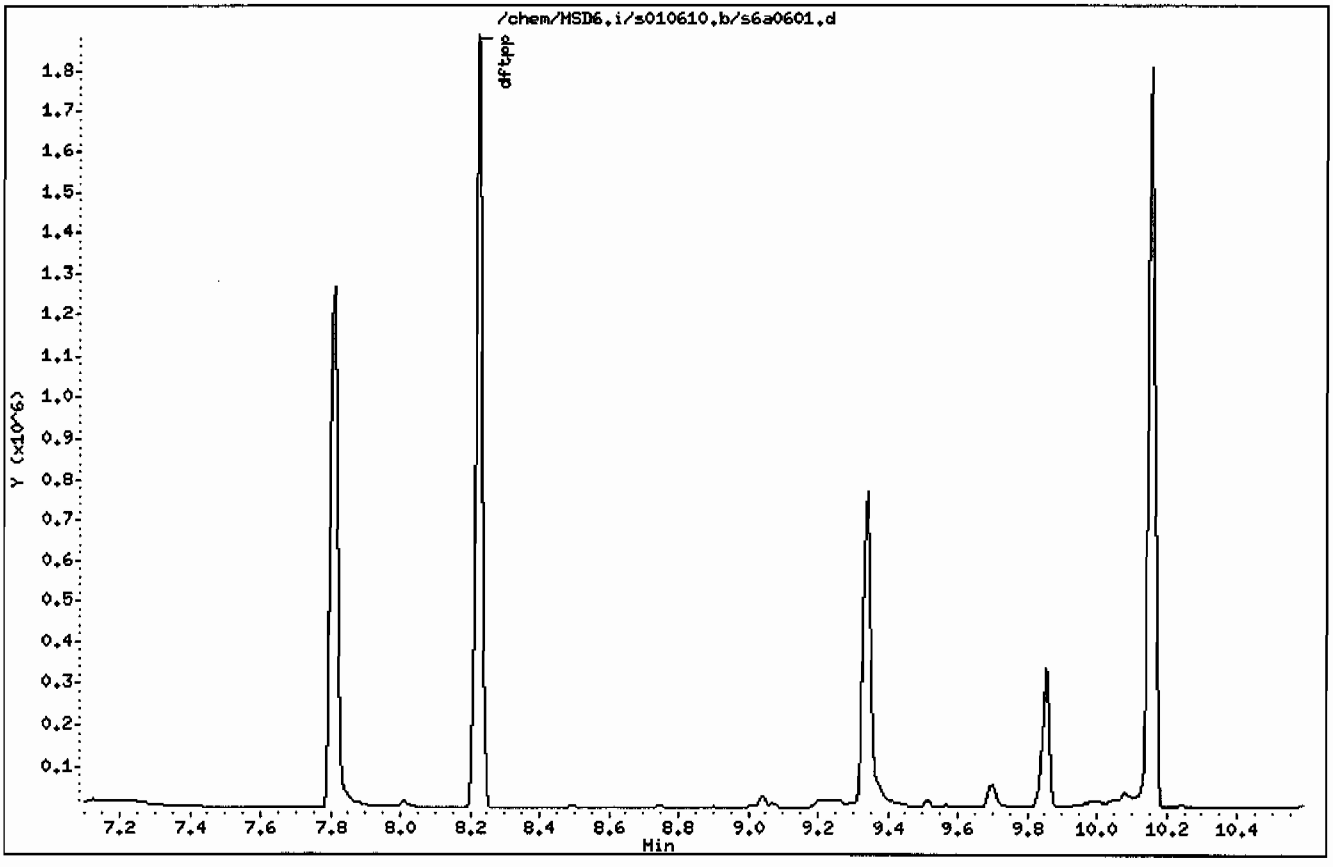

Data File: /chem/MSD6.i/s010610.b/s6a0601.d

Date : 06-JAN-2010 08:55

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

1 dftpp

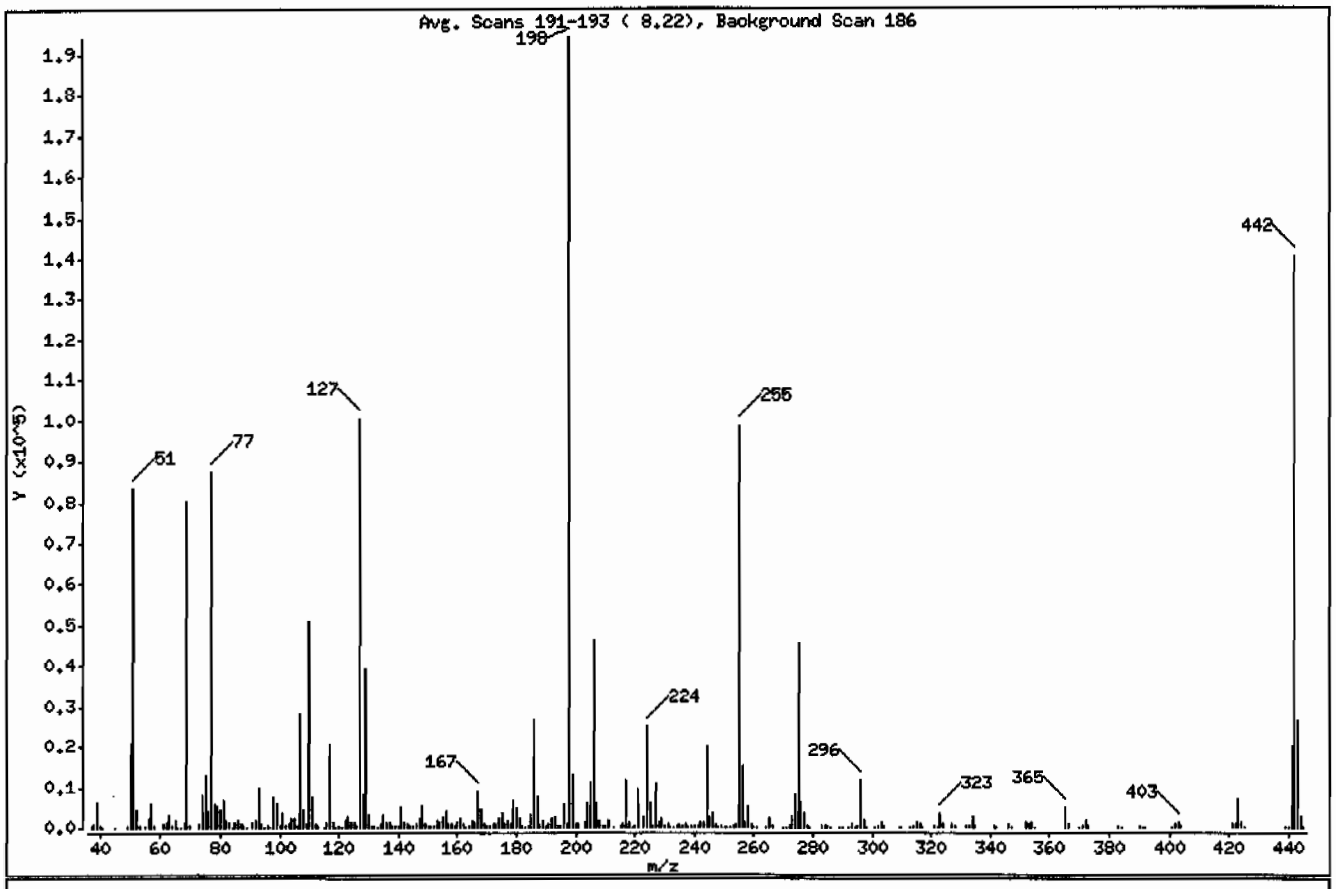

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	43.01
68	Less than 2.00% of mass 69	0.60 (1.46)
69	Mass 69 relative abundance	41.36
70	Less than 2.00% of mass 69	0.19 (0.45)
127	40.00 - 60.00% of mass 198	51.72
197	Less than 1.00% of mass 198	0.50
199	5.00 - 9.00% of mass 198	6.77
275	10.00 - 30.00% of mass 198	23.49
365	Greater than 1.00% of mass 198	2.52
441	Present, but less than mass 443	10.30
442	Greater than 40.00% of mass 198	72.46
443	17.00 - 23.00% of mass 442	13.61 (18.79)

Date : 06-JAN-2010 08:55

Client ID: DFTPP Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nagl

Column phase: Phenomenex ZB-5MS Column diameter: 0.20

Data File: s6a0601.d
Spectrum: Avg. Scans 191-193 (8.22), Background Scan 186
Location of Maximum: 198.00
Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	356	123.00	2700	196.00	5653	278.00	578
38.00	1039	124.00	1217	197.00	973	279.00	117
39.00	6224	125.00	1219	198.00	193920	283.00	408
40.00	424	126.00	453	199.00	13134	284.00	287
41.00	121	127.00	100304	200.00	966	285.00	647
45.00	171	128.00	7945	201.00	841	286.00	41
49.00	501	129.00	39152	203.00	1272	289.00	116
50.00	21112	130.00	3224	204.00	6435	290.00	42
51.00	83416	131.00	599	205.00	11149	292.00	134
52.00	4344	132.00	306	206.00	46584	293.00	804
53.00	231	133.00	106	207.00	6079	294.00	218
55.00	443	134.00	1039	208.00	1595	295.00	254
56.00	2396	135.00	3168	209.00	525	296.00	11483
57.00	5657	136.00	1194	210.00	547	297.00	1562
58.00	245	137.00	1428	211.00	1867	298.00	93
61.00	981	138.00	275	213.00	88	301.00	139
62.00	1197	139.00	224	215.00	503	302.00	226
63.00	3286	140.00	403	216.00	907	303.00	1471
64.00	390	141.00	4981	217.00	11543	304.00	343
65.00	1597	142.00	1482	218.00	1543	309.00	46
66.00	90	143.00	979	219.00	105	310.00	133
67.00	44	144.00	303	220.00	297	313.00	95
68.00	1173	145.00	283	221.00	9490	314.00	570
69.00	80216	146.00	831	223.00	2563	315.00	1213
70.00	361	147.00	2376	224.00	24824	316.00	713
73.00	700	148.00	5400	225.00	6331	317.00	115
74.00	7988	149.00	1089	226.00	635	321.00	410
75.00	12877	150.00	328	227.00	10591	322.00	125
76.00	4092	151.00	567	228.00	1463	323.00	3758
77.00	87360	152.00	327	229.00	2269	324.00	694
78.00	5935	153.00	1578	230.00	312	327.00	734
79.00	5566	154.00	1204	231.00	772	328.00	316
80.00	4473	155.00	2522	232.00	135	332.00	243
81.00	6655	156.00	4079	233.00	137	333.00	314
82.00	1565	157.00	670	234.00	591	334.00	2509

Data File: /chem/MSD6.i/s010610.b/s6a0601.d

Date : 06-JAN-2010 08:55

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nagl

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6a0601.d
Spectrum: Avg. Scans 191-193 (8.22), Background Scan 186
Location of Maximum: 198.00
Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
83.00	1438	158.00	896	235.00	702	335.00	618
84.00	192	159.00	564	236.00	419	341.00	471
85.00	1150	160.00	1488	237.00	794	342.00	90
86.00	1959	161.00	2277	238.00	49	346.00	817
87.00	857	162.00	698	239.00	365	347.00	116
88.00	340	163.00	221	240.00	390	352.00	1174
89.00	168	164.00	237	241.00	544	353.00	839
91.00	1474	165.00	1618	242.00	1252	354.00	1236
92.00	1581	166.00	1385	243.00	1434	355.00	218
93.00	9756	167.00	8982	244.00	20016	365.00	4891
94.00	728	168.00	4337	245.00	2618	366.00	783
95.00	207	169.00	798	246.00	3621	370.00	42
96.00	509	170.00	328	247.00	729	371.00	300
97.00	215	171.00	393	248.00	162	372.00	1818
98.00	7603	172.00	798	249.00	624	373.00	575
99.00	5960	173.00	1096	250.00	92	383.00	527
100.00	488	174.00	2014	251.00	188	384.00	123
101.00	3513	175.00	3632	252.00	210	390.00	255
102.00	225	176.00	933	253.00	466	391.00	128
103.00	1015	177.00	1754	254.00	770	392.00	103
104.00	2166	178.00	723	255.00	98608	401.00	93
105.00	2192	179.00	6789	256.00	15060	402.00	798
106.00	655	180.00	4832	257.00	1147	403.00	1137
107.00	28048	181.00	2291	258.00	5468	404.00	426
108.00	4267	182.00	355	259.00	938	421.00	942
109.00	759	183.00	187	260.00	183	422.00	884
110.00	50688	184.00	531	261.00	137	423.00	7244
111.00	7775	185.00	3169	264.00	176	424.00	1539
112.00	892	186.00	26552	265.00	2132	425.00	115
113.00	296	187.00	7565	266.00	267	439.00	115
115.00	177	188.00	724	270.00	119	440.00	161
116.00	1349	189.00	1625	271.00	196	441.00	19968
117.00	20360	190.00	281	272.00	273	442.00	140480
118.00	1497	191.00	721	273.00	2789	443.00	26400
119.00	200	192.00	2057	274.00	7920	444.00	2457

Data File: /chem/MSD6.i/s010610.b/s6a0601.d

Date : 06-JAN-2010 08:55

Client ID: DFTPP

Instrument: MSD6.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: nag1

Column phase: Phenomenex ZB-5MS

Column diameter: 0.20

Data File: s6a0601.d
Spectrum: Avg. Scans 191-193 (8.22), Background Scan 186
Location of Maximum: 198.00
Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
120.00	401	193.00	2621	275.00	45552	445.00	141
121.00	94	194.00	539	276.00	6036		
122.00	1741	195.00	360	277.00	3531		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202003210**				
Client Sample:	**QC for batch 936196**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 936196**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936197**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 11:20**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/23/2009 22:13**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0606-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.0	ug/L	2.00	10.0
108-95-2	Phenol	U	10.0	ug/L	1.00	10.0
95-57-8	2-Chlorophenol	U	10.0	ug/L	2.00	10.0
106-46-7	1,4-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
621-64-7	N-Nitrosodi--n-propylamine	U	10.0	ug/L	2.00	10.0
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol	U	10.0	ug/L	2.00	10.0
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene	U	1.00	ug/L	0.310	1.00
121-14-2	2,4-Dinitrotoluene	U	10.0	ug/L	2.00	10.0
100-02-7	4-Nitrophenol	U	10.0	ug/L	2.00	10.0
87-86-5	Pentachlorophenol	U	10.0	ug/L	2.00	10.0
129-00-0	Pyrene	U	1.00	ug/L	0.300	1.00
110-86-1	Pyridine	U	10.0	ug/L	3.00	10.0
62-53-3	Aniline	U	10.0	ug/L	2.50	10.0
111-44-4	bis(2-Chloroethyl) ether	U	10.0	ug/L	2.00	10.0
541-73-1	1,3-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
100-51-6	Benzyl alcohol	U	10.0	ug/L	2.00	10.0
95-50-1	1,2-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
108-60-1	bis(2-Chloroisopropyl)ether	U	10.0	ug/L	2.00	10.0
95-48-7	o-Cresol	U	10.0	ug/L	2.00	10.0
65794-96-9	m,p-Cresols	U	10.0	ug/L	3.00	10.0
67-72-1	Hexachloroethane	U	10.0	ug/L	2.00	10.0
98-95-3	Nitrobenzene	U	10.0	ug/L	3.00	10.0
78-59-1	Isophorone	U	10.0	ug/L	3.00	10.0
88-75-5	2-Nitrophenol	U	10.0	ug/L	2.00	10.0
105-67-9	2,4-Dimethylphenol	U	10.0	ug/L	2.00	10.0
111-91-1	bis(2-Chloroethoxy)methane	U	10.0	ug/L	3.00	10.0
120-83-2	2,4-Dichlorophenol	U	10.0	ug/L	2.00	10.0
65-85-0	Benzoic acid	U	20.0	ug/L	6.00	20.0
91-20-3	Naphthalene	U	1.00	ug/L	0.300	1.00
106-47-8	4-Chloroaniline	U	10.0	ug/L	2.00	10.0
87-68-3	Hexachlorobutadiene	U	10.0	ug/L	2.00	10.0
91-57-6	2-Methylnaphthalene	U	1.00	ug/L	0.300	1.00
90-12-0	1-Methylnaphthalene	U	1.00	ug/L	0.300	1.00
77-47-4	Hexachlorocyclopentadiene	U	10.0	ug/L	3.00	10.0
88-06-2	2,4,6-Trichlorophenol	U	10.0	ug/L	2.00	10.0
95-95-4	2,4,5-Trichlorophenol	U	10.0	ug/L	2.00	10.0
91-58-7	2-Chloronaphthalene	U	1.00	ug/L	0.300	1.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202003210**				
Client Sample:	**QC for batch 936196**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 936196**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936197**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 11:20**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/23/2009 22:13**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0606-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.0	ug/L	2.00	10.0
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.0	ug/L	2.00	10.0
131-11-3	Dimethylphthalate	U	10.0	ug/L	2.00	10.0
606-20-2	2,6-Dinitrotoluene	U	10.0	ug/L	2.00	10.0
208-96-8	Acenaphthylene	U	1.00	ug/L	0.200	1.00
51-28-5	2,4-Dinitrophenol	U	20.0	ug/L	5.00	20.0
132-64-9	Dibenzofuran	U	10.0	ug/L	2.00	10.0
84-66-2	Diethylphthalate	U	10.0	ug/L	2.00	10.0
86-73-7	Fluorene	U	1.00	ug/L	0.200	1.00
7005-72-3	4-Chlorophenylphenylether	U	10.0	ug/L	2.00	10.0
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.0	ug/L	3.00	10.0
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.0	ug/L	3.00	10.0
122-39-4	Diphenylamine *1,2-Diphenylhydrazine*	U	10.0	ug/L	3.00	10.0
122-66-7	Azobenzene	U	10.0	ug/L	2.00	10.0
101-55-3	4-Bromophenylphenylether	U	10.0	ug/L	2.00	10.0
118-74-1	Hexachlorobenzene	U	10.0	ug/L	2.00	10.0
1912-24-9	Atrazine	U	10.0	ug/L	3.00	10.0
85-01-8	Phenanthrene	U	1.00	ug/L	0.200	1.00
120-12-7	Anthracene	U	1.00	ug/L	0.200	1.00
84-74-2	Di-n-butylphthalate	U	10.0	ug/L	2.00	10.0
206-44-0	Fluoranthene	U	1.00	ug/L	0.200	1.00
92-87-5	Benzidine	U	10.0	ug/L	3.00	10.0
85-68-7	Butylbenzylphthalate	U	10.0	ug/L	2.00	10.0
56-55-3	Benzo(a)anthracene	U	1.00	ug/L	0.200	1.00
91-94-1	3,3'-Dichlorobenzidine	U	10.0	ug/L	2.00	10.0
218-01-9	Chrysene	U	1.00	ug/L	0.200	1.00
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.0	ug/L	2.00	10.0
117-84-0	Di-n-octylphthalate	U	10.0	ug/L	3.00	10.0
205-99-2	Benzo(b)fluoranthene	U	1.00	ug/L	0.200	1.00
207-08-9	Benzo(k)fluoranthene	U	1.00	ug/L	0.200	1.00
50-32-8	Benzo(a)pyrene	U	1.00	ug/L	0.200	1.00
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.00	ug/L	0.200	1.00
53-70-3	Dibenzo(a,h)anthracene	U	1.00	ug/L	0.200	1.00
191-24-2	Benzo(ghi)perylene	U	1.00	ug/L	0.200	1.00
123-91-1	1,4-Dioxane	U	10.0	ug/L	2.00	10.0
55-18-5	N-Nitrosodiethylamine	U	10.0	ug/L	2.00	10.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202003210**				
Client Sample:	**QC for batch 936196**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 936196**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936197**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 11:20**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/23/2009 22:13**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0606-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.0	ug/L	2.00	10.0
924-16-3	N-Nitrosodi-n-butylamine	U	10.0	ug/L	3.00	10.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.0	ug/L	3.00	10.0
608-93-5	Pentachlorobenzene	U	10.0	ug/L	3.00	10.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.0	ug/L	2.00	10.0
88-85-7	Dinoseb	U	10.0	ug/L	2.00	10.0
120-82-1	1,2,4-Trichlorobenzene	U	10.0	ug/L	2.00	10.0

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	89.4	100	ug/L	89.4	(39%-115%)
2-Fluorobiphenyl	39.5	50.0	ug/L	79.0	(35%-100%)
2-Fluorophenol	48.7	100	ug/L	48.7	(25%-92%)
Nitrobenzene-d5	41.6	50.0	ug/L	83.2	(40%-112%)
Phenol-d5	30.3	100	ug/L	30.3	(15%-73%)
p-Terphenyl-d14	55.1	50.0	ug/L	110	(46%-130%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

GEL Laboratories LLC

Data file : /chem/MSD6.i/s010610.b/s6a0606-1.d
Lab Smp Id: 1202003210 Client Smp ID: SBLK01
Inj Date : 06-JAN-2010 11:20
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202003210|936197|1|SVM|1|SBLK01
Misc Info : |MSD82709L|WBN091223-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Meth Date : 07-Jan-2010 08:58 hnm Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-994.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.749	4.750	(1.000)	263212	40.0000	
* 29 Naphthalene-d8	136	6.023	6.026	(1.000)	963363	40.0000	
* 46 Acenaphthene-d10	164	7.888	7.894	(1.000)	541450	40.0000	
* 67 Phenanthrene-d10	188	9.499	9.502	(1.000)	898105	40.0000	
* 91 Chrysene-d12	240	12.482	12.496	(1.000)	664684	40.0000	
* 98 Perylene-d12	264	14.771	14.779	(1.000)	514801	40.0000	
$ 3 2-Fluorophenol	112	3.587	3.588	(0.755)	320829	48.6737	48.7
$ 5 Phenol-d5	99	4.362	4.370	(0.918)	252110	30.3043	30.3
$ 20 Nitrobenzene-d5	82	5.284	5.290	(0.877)	283363	41.5806	41.6
$ 39 2-Fluorobiphenyl	172	7.149	7.150	(0.906)	551131	39.4974	39.5
$ 60 2,4,6-Tribromophenol	329	8.739	8.743	(1.108)	141302	89.4121	89.4
$ 81 p-Terphenyl-d14	244	11.208	11.207	(0.898)	590457	55.0844	55.1

GEL Laboratories LLC

Data file : /chem/MSD6.i/s010610.b/s6a0606-1.d
Lab Smp Id: 1202003210 Client Smp ID: SBLK01
Inj Date : 06-JAN-2010 11:20
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202003210|936197|1|SVM|1|SBLK01
Misc Info : |MSD82709L|WBN091223-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Meth Date : 07-Jan-2010 08:58 hnm Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 5 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-994.sub
Target Version: 3.50
Processing Host: hpclp1

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/MSD6.i/s010610.b/s6a0606-1.d
Date : 06-JAN-2010 11:20
Client ID: SBLK01
Sample Info: |1202003210|936197|1|SVM|1|SBLK01
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i

Operator: nag1
Column diameter: 0.20

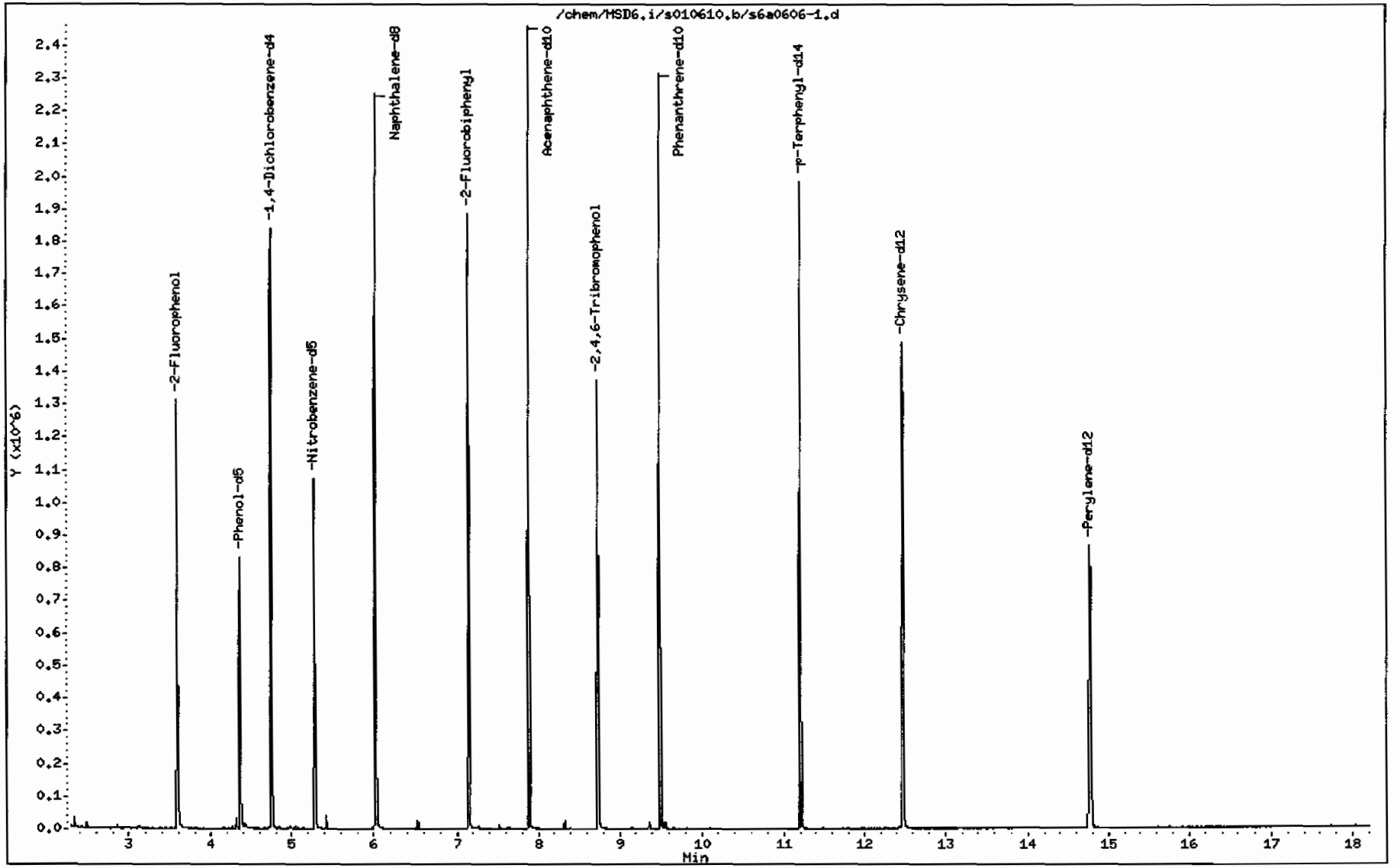

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202003211**				
Client Sample:	**QC for batch 936196**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 936196**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936197**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 11:48**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/23/2009 22:13**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0607-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		23.1	ug/L	2.00	10.0
108-95-2	Phenol		16.7	ug/L	1.00	10.0
95-57-8	2-Chlorophenol		39.2	ug/L	2.00	10.0
106-46-7	1,4-Dichlorobenzene		34.1	ug/L	2.00	10.0
621-64-7	N-Nitrosodi--n-propylamine		42.1	ug/L	2.00	10.0
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol		43.5	ug/L	2.00	10.0
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene		37.2	ug/L	0.310	1.00
121-14-2	2,4-Dinitrotoluene		43.2	ug/L	2.00	10.0
100-02-7	4-Nitrophenol		16.3	ug/L	2.00	10.0
87-86-5	Pentachlorophenol		40.9	ug/L	2.00	10.0
129-00-0	Pyrene		41.5	ug/L	0.300	1.00
110-86-1	Pyridine		28.7	ug/L	3.00	10.0
62-53-3	Aniline		43.4	ug/L	2.50	10.0
111-44-4	bis(2-Chloroethyl) ether		36.8	ug/L	2.00	10.0
541-73-1	1,3-Dichlorobenzene		34.3	ug/L	2.00	10.0
100-51-6	Benzyl alcohol		40.8	ug/L	2.00	10.0
95-50-1	1,2-Dichlorobenzene		35.5	ug/L	2.00	10.0
108-60-1	bis(2-Chloroisopropyl)ether		40.4	ug/L	2.00	10.0
95-48-7	o-Cresol		33.8	ug/L	2.00	10.0
65794-96-9	m,p-Cresols		34.8	ug/L	3.00	10.0
67-72-1	Hexachloroethane		31.7	ug/L	2.00	10.0
98-95-3	Nitrobenzene		39.4	ug/L	3.00	10.0
78-59-1	Isophorone		42.2	ug/L	3.00	10.0
88-75-5	2-Nitrophenol		40.4	ug/L	2.00	10.0
105-67-9	2,4-Dimethylphenol		40.8	ug/L	2.00	10.0
111-91-1	bis(2-Chloroethoxy)methane		39.3	ug/L	3.00	10.0
120-83-2	2,4-Dichlorophenol		42.6	ug/L	2.00	10.0
65-85-0	Benzoic acid		22.7	ug/L	6.00	20.0
91-20-3	Naphthalene		34.3	ug/L	0.300	1.00
106-47-8	4-Chloroaniline		48.9	ug/L	2.00	10.0
87-68-3	Hexachlorobutadiene		33.9	ug/L	2.00	10.0
91-57-6	2-Methylnaphthalene		39.6	ug/L	0.300	1.00
90-12-0	1-Methylnaphthalene		39.2	ug/L	0.300	1.00
77-47-4	Hexachlorocyclopentadiene		17.8	ug/L	3.00	10.0
88-06-2	2,4,6-Trichlorophenol		42.7	ug/L	2.00	10.0
95-95-4	2,4,5-Trichlorophenol		43.4	ug/L	2.00	10.0
91-58-7	2-Chloronaphthalene		37.7	ug/L	0.300	1.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-994			Matrix:	GROUND WATER
Lab Sample ID:	1202003211				
Client Sample:	QC for batch 936196	Client:	LANL010	Project:	QC
Client ID:	LCS for batch 936196	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	936197	Inst:	MSD6.I	Dilution:	1
Run Date:	01/06/2010 11:48	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	12/23/2009 22:13	Allquot:	1000 mL	Final Volume:	1 mL
Data File:	s6a0607-1.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline		39.3	ug/L	2.00	10.0
	o-Nitroaniline					
99-09-2	3-Nitroaniline		46.2	ug/L	2.00	10.0
	m-Nitroaniline					
131-11-3	Dimethylphthalate		44.7	ug/L	2.00	10.0
606-20-2	2,6-Dinitrotoluene		42.4	ug/L	2.00	10.0
208-96-8	Acenaphthylene		40.0	ug/L	0.200	1.00
51-28-5	2,4-Dinitrophenol		28.8	ug/L	5.00	20.0
132-64-9	Dibenzofuran		49.1	ug/L	2.00	10.0
84-66-2	Diethylphthalate		45.4	ug/L	2.00	10.0
86-73-7	Fluorene		41.7	ug/L	0.200	1.00
7005-72-3	4-Chlorophenylphenylether		41.4	ug/L	2.00	10.0
534-52-1	2-Methyl-4,6-dinitrophenol		28.2	ug/L	3.00	10.0
100-01-6	4-Nitroaniline		44.4	ug/L	3.00	10.0
	p-Nitroaniline					
122-39-4	Diphenylamine		44.3	ug/L	3.00	10.0
122-66-7	Azobenzene		41.7	ug/L	2.00	10.0
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		42.0	ug/L	2.00	10.0
118-74-1	Hexachlorobenzene		45.3	ug/L	2.00	10.0
1912-24-9	Atrazine		43.9	ug/L	3.00	10.0
85-01-8	Phenanthrene		42.8	ug/L	0.200	1.00
120-12-7	Anthracene		43.5	ug/L	0.200	1.00
84-74-2	Di-n-butylphthalate		47.5	ug/L	2.00	10.0
206-44-0	Fluoranthene		46.8	ug/L	0.200	1.00
92-87-5	Benzidine		43.9	ug/L	3.00	10.0
85-68-7	Butylbenzylphthalate		46.1	ug/L	2.00	10.0
56-55-3	Benzo(a)anthracene		43.7	ug/L	0.200	1.00
91-94-1	3,3'-Dichlorobenzidine		34.6	ug/L	2.00	10.0
218-01-9	Chrysene		44.1	ug/L	0.200	1.00
117-81-7	bis(2-Ethylhexyl)phthalate		48.6	ug/L	2.00	10.0
117-84-0	Di-n-octylphthalate		50.4	ug/L	3.00	10.0
205-99-2	Benzo(b)fluoranthene		47.6	ug/L	0.200	1.00
207-08-9	Benzo(k)fluoranthene		48.1	ug/L	0.200	1.00
50-32-8	Benzo(a)pyrene		47.9	ug/L	0.200	1.00
193-39-5	Indeno(1,2,3-cd)pyrene		41.2	ug/L	0.200	1.00
53-70-3	Dibenzo(a,h)anthracene		40.7	ug/L	0.200	1.00
191-24-2	Benzo(ghi)perylene		42.4	ug/L	0.200	1.00
123-91-1	1,4-Dioxane		27.6	ug/L	2.00	10.0
55-18-5	N-Nitrosodiethylamine	U	10.0	ug/L	2.00	10.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202003211**				
Client Sample:	**QC for batch 936196**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 936196**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**936197**	**Inst:**	**MSD6.I**	**Dilution:**	**1**
Run Date:	**01/06/2010 11:48**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/23/2009 22:13**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s6a0607-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine		37.5	ug/L	2.00	10.0
924-16-3	N-Nitrosodi-n-butylamine	U	10.0	ug/L	3.00	10.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.0	ug/L	3.00	10.0
608-93-5	Pentachlorobenzene	U	10.0	ug/L	3.00	10.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.0	ug/L	2.00	10.0
88-85-7	Dinoseb	U	10.0	ug/L	2.00	10.0
120-82-1	1,2,4-Trichlorobenzene		35.1	ug/L	2.00	10.0

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	97.4	100	ug/L	97.4	(39%-115%)
2-Fluorobiphenyl	37.7	50.0	ug/L	75.3	(35%-100%)
2-Fluorophenol	47.6	100	ug/L	47.6	(25%-92%)
Nitrobenzene-d5	39.3	50.0	ug/L	78.7	(40%-112%)
Phenol-d5	30.4	100	ug/L	30.4	(15%-73%)
p-Terphenyl-d14	47.1	50.0	ug/L	94.3	(46%-130%)

GEL Laboratories LLC

Data file : /chem/MSD6.i/s010610.b/s6a0607-1.d
Lab Smp Id: 1202003211 Client Smp ID: SBLK01LCS
Inj Date : 06-JAN-2010 11:48
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202003211|936197|1|SVM|1|SBLK01LCS
Misc Info : |MSD82709L|WBN091223-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Meth Date : 07-Jan-2010 08:58 hnm Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-994.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.749	4.750	(1.000)	248632	40.0000	
* 29 Naphthalene-d8	136	6.026	6.026	(1.000)	1007296	40.0000	
* 46 Acenaphthene-d10	164	7.893	7.894	(1.000)	539338	40.0000	
* 67 Phenanthrene-d10	188	9.501	9.502	(1.000)	945529	40.0000	
* 91 Chrysene-d12	240	12.493	12.496	(1.000)	779773	40.0000	
* 98 Perylene-d12	264	14.776	14.779	(1.000)	614153	40.0000	
$ 3 2-Fluorophenol	112	3.587	3.588	(0.755)	296534	47.6260	47.6
$ 5 Phenol-d5	99	4.367	4.370	(0.920)	238741	30.3802	30.4
$ 20 Nitrobenzene-d5	82	5.289	5.290	(0.878)	280389	39.3497	39.3
$ 39 2-Fluorobiphenyl	172	7.149	7.150	(0.906)	523332	37.6520	37.6
$ 60 2,4,6-Tribromophenol	329	8.744	8.743	(1.108)	153373	97.4303	97.4
$ 81 p-Terphenyl-d14	244	11.206	11.207	(0.897)	592840	47.1438	47.1
6 Phenol	94	4.380	4.383	(0.922)	131804	16.6809	16.7(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	4.553	4.556	(0.959)	248934	39.2214	39.2
11 1,4-Dichlorobenzene	146	4.767	4.767	(1.004)	252609	34.1047	34.1
17 N-Nitrosodipropylamine	70	5.124	5.129	(1.079)	185250	42.0560	42.0(Q)
28 1,2,4-Trichlorobenzene	180	5.957	5.957	(0.989)	214571	35.1202	35.1
33 4-Chloro-3-methylphenol	107	6.584	6.579	(1.093)	218697	43.5172	43.5
47 Acenaphthene	154	7.929	7.930	(1.005)	452134	37.1959	37.2
50 2,4-Dinitrotoluene	165	8.087	8.090	(1.025)	179844	43.2186	43.2
52 4-Nitrophenol	139	8.028	8.011	(1.017)	24429	16.2769	16.3(M)
65 Pentachlorophenol	266	9.290	9.283	(0.978)	83569	40.8514	40.8
79 Pyrene	202	11.066	11.066	(0.886)	889901	41.4915	41.5
2 Pyridine	79	2.652	2.655	(0.558)	151151	28.6904	28.7
4 Aniline	66	4.441	4.444	(0.935)	142173	43.3592	43.4
7 bis(2-Chloroethyl) ether	63	4.479	4.480	(0.943)	196758	36.7730	36.8
9 1,3-Dichlorobenzene	146	4.698	4.699	(0.989)	250458	34.2780	34.3
12 Benzyl alcohol	108	4.864	4.864	(1.024)	160724	40.7611	40.8
13 1,2-Dichlorobenzene	146	4.915	4.915	(1.035)	245450	35.5011	35.5
14 bis(2-Chloroisopropyl)ether	45	4.983	4.984	(1.049)	482585	40.3984	40.4
15 o-Cresol	107	4.953	4.953	(1.043)	174583	33.7833	33.8
18 m,p-Cresols	107	5.108	5.109	(1.076)	228159	34.8436	34.8
19 Hexachloroethane	117	5.246	5.247	(1.105)	90943	31.7376	31.7
21 Nitrobenzene	77	5.310	5.310	(0.881)	283149	39.4260	39.4
22 Isophorone	82	5.541	5.542	(0.920)	537003	42.1837	42.2
23 2-Nitrophenol	139	5.623	5.624	(0.933)	133690	40.3579	40.4
24 2,4-Dimethylphenol	122	5.641	5.641	(0.936)	223940	40.8013	40.8
25 bis(2-Chloroethoxy)methane	93	5.740	5.743	(0.953)	294173	39.2672	39.3
26 2,4-Dichlorophenol	162	5.870	5.871	(0.974)	212166	42.6191	42.6
27 Benzoic acid	105	5.735	5.754	(0.952)	76819	22.6754	22.7
30 Naphthalene	128	6.049	6.049	(1.004)	689136	34.2966	34.3
31 4-Chloroaniline	127	6.092	6.090	(1.011)	315731	48.8882	48.9
32 Hexachlorobutadiene	225	6.156	6.156	(1.022)	107900	33.9143	33.9
34 2-Methylnaphthalene	142	6.770	6.770	(1.123)	480564	39.6332	39.6
35 1-Methylnaphthalene	142	6.877	6.877	(1.141)	464910	39.1965	39.2
36 Hexachlorocyclopentadiene	237	6.925	6.926	(0.877)	38837	17.8275	17.8
37 2,4,6-Trichlorophenol	196	7.063	7.061	(0.895)	157133	42.6974	42.7
38 2,4,5-Trichlorophenol	196	7.106	7.104	(0.900)	170274	43.4460	43.4
40 2-Chloronaphthalene	162	7.295	7.293	(0.924)	456086	37.6542	37.6
42 o-Nitroaniline	65	7.396	7.395	(0.937)	162858	39.3017	39.3
41 m-Nitroaniline	138	7.840	7.840	(0.993)	140230	46.2289	46.2
43 Dimethylphthalate	163	7.577	7.583	(0.960)	619115	44.7487	44.7
44 2,6-Dinitrotoluene	165	7.654	7.654	(0.970)	139793	42.3610	42.4
45 Acenaphthylene	152	7.740	7.744	(0.981)	779043	40.0017	40.0
48 2,4-Dinitrophenol	184	7.952	7.950	(1.007)	25176	28.7808	28.8
49 Dibenzofuran	168	8.112	8.113	(1.028)	804979	49.0606	49.1
51 Diethylphthalate	149	8.334	8.335	(1.056)	632469	45.3933	45.4
53 Fluorene	166	8.482	8.483	(1.075)	561155	41.6683	41.7
54 4-Chlorophenylphenylether	204	8.469	8.467	(1.073)	263662	41.4359	41.4
55 2-Methyl-4,6-dinitrophenol	198	8.530	8.531	(0.898)	53750	28.1825	28.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
56 p-Nitroaniline	138	8.502	8.503	(1.077)	128299	44.3594	44.4
133 Diphenylamine	169	8.599	8.597	(0.905)	504805	44.2936	44.3
58 1,2-Diphenylhydrazine	77	8.645	8.643	(0.910)	604706	41.7137	41.7
61 4-Bromophenylphenylether	248	8.999	9.000	(0.947)	156878	42.0471	42.0
63 Hexachlorobenzene	284	9.076	9.074	(0.955)	177069	45.3081	45.3
207 Atrazine	173	9.165	9.165	(0.965)	42133	43.8640	43.9
68 Phenanthrene	178	9.529	9.530	(1.003)	836406	42.7745	42.8
69 Anthracene	178	9.583	9.583	(1.009)	851012	43.5419	43.5
72 Di-n-butylphthalate	149	10.092	10.093	(1.062)	1065093	47.4527	47.4
76 Fluoranthene	202	10.816	10.814	(1.138)	875751	46.7531	46.8
77 Benzidine	184	10.943	10.941	(0.876)	336551	43.9248	43.9
85 Butylbenzylphthalate	149	11.731	11.731	(0.939)	452180	46.0680	46.1
89 Benzo(a)anthracene	228	12.472	12.473	(0.998)	735180	43.6990	43.7
90 3,3'-Dichlorobenzidine	252	12.419	12.414	(0.994)	190363	34.5647	34.6
92 Chrysene	228	12.528	12.529	(1.003)	711645	44.1472	44.1
93 bis(2-Ethylhexyl)phthalate	149	12.442	12.442	(0.996)	657843	48.5517	48.6
94 Di-n-octylphthalate	149	13.402	13.406	(0.907)	983527	50.3884	50.4
95 Benzo(b)fluoranthene	252	14.111	14.114	(0.955)	646299	47.5595	47.6
96 Benzo(k)fluoranthene	252	14.159	14.160	(0.958)	650592	48.1456	48.1
97 Benzo(a)pyrene	252	14.676	14.680	(0.993)	561695	47.8548	47.8
99 Indeno(1,2,3-cd)pyrene	276	16.738	16.741	(1.133)	461267	41.1771	41.2
100 Dibenzo(a,h)anthracene	278	16.766	16.769	(1.135)	371774	40.7397	40.7
101 Benzo(ghi)perylene	276	17.240	17.248	(1.167)	380062	42.3842	42.4
102 1,4-Dioxane	88	2.410	2.410	(0.507)	62842	27.6186	27.6
111 N-Nitrosopyrrolidine	100	5.121	5.116	(1.078)	110898	37.4711	37.5(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.616	2.619	(0.551)	97704	23.0825	23.1

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: /chem/MSD6.i/s010610.b/s6a0607-1.d
Date : 06-JAN-2010 11:48
Client ID: SBLK01LCS
Sample Info: |1202003211|936197|1|SVH|1|SBLK01LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD6.i

Operator: nagi
Column diameter: 0.20

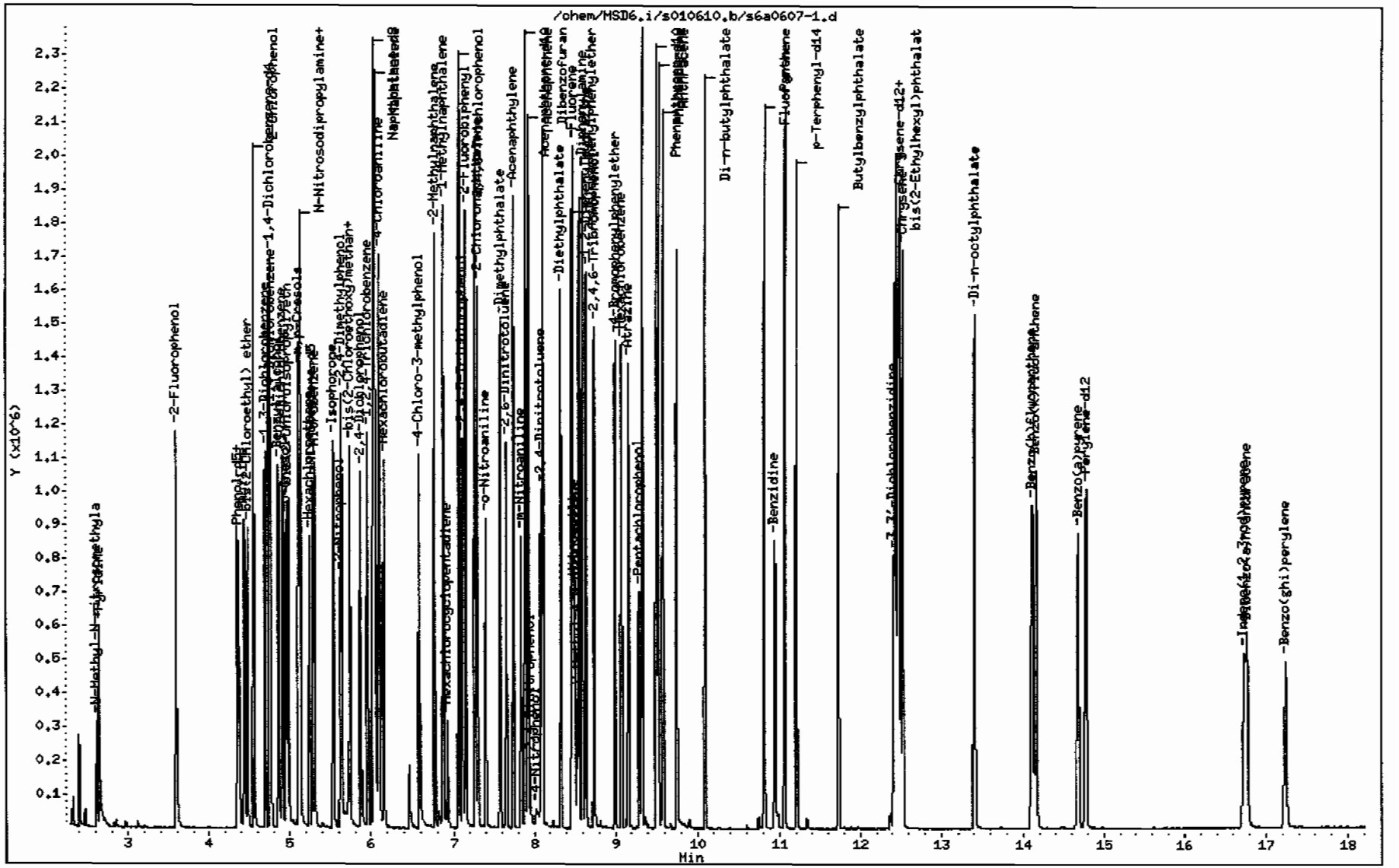

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 936196 **Verified by:** _____

Analyst: Sequan Smalls

Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Sec Ext pH	Final Volume (mL)	Prepped Factor (mL/mL)
1202003210 MB	23-DEC-2009 22:13:53	1000	5	1	13	1	0.001
1202003211 LCS	23-DEC-2009 22:13:53	1000	5	1	13	1	0.001
243283003	23-DEC-2009 22:13:53	960	6	1	13	1	0.00104
243284004	23-DEC-2009 22:13:53	740	6	1	13	1	0.00135
1202003212 MS (243284004)	23-DEC-2009 22:13:53	500	6	1	13	1	0.002
1202003213 MSD (243284004)	23-DEC-2009 22:13:53	500	6	1	13	1	0.002
243284008	23-DEC-2009 22:13:53	910	6	1	13	1	0.0011
243284011	23-DEC-2009 22:13:53	860	6	1	13	1	0.00116

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202003211	BNA LCS w/o Benzidine 50ppm	UE091217-12	1	mL
LCS	1202003211	BENZIDINE LCS	UE091217-21	1	mL
MS	1202003212	BNA LCS w/o Benzidine 50ppm	UE091217-12	1	mL
MS	1202003212	BENZIDINE LCS	UE091217-21	1	mL
MSD	1202003213	BNA LCS w/o Benzidine 50ppm	UE091217-12	1	mL
MSD	1202003213	BENZIDINE LCS	UE091217-21	1	mL
SURR	All	BNA for all Surrogate	UE091217-10	1	mL
REGNT	All	Methylene Chloride	1245410-D	360	mL
REGNT	All	Sulfuric Acid Sol., 1:1	1245641	2	mL
REGNT	All	10 N Sodium Hydroxide Solution	1246682	10	mL
SOURC	All	SODIUM SULFATE	1236563	30	g

Comments:

Sample 243284004, along with MS and MSD did not turn pink and were all emulsive in base.

Verified By: MJS

Final Solvent: CH2CL2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 11/09/2009 METHOD: See raw data OPERATOR: JMB3 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1198658-D
Multiplier Voltage: 1565 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091101-01 Internal Std ID: WBN091106-10
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 22 Sequence Number: /chem/MSD6.i/s110909.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6k0901.d	WBN091101-01	JMB3	09-NOV-2009 11:20	50 PPM	s110909	1.0	DFTPP	DUSE
s6k0902.d	inst blk	JMB3	09-NOV-2009 11:35	--------	s110909	1.0	INST BLK	DUSE
s6k0903.d	WBN091106-08	JMB3	09-NOV-2009 12:23	1 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0904.d	WBN091106-07	JMB3	09-NOV-2009 13:00	10 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0905.d	WBN091106-06	JMB3	09-NOV-2009 13:36	20 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0906.d	WBN091106-05.1	JMB3	09-NOV-2009 14:14	40 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0907.d	WBN091106-04	JMB3	09-NOV-2009 14:52	50 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0908.d	WBN091106-03	JMB3	09-NOV-2009 15:30	80 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0909.d	WBN091106-02	JMB3	09-NOV-2009 16:06	100 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0910.d	WBN091106-01	JMB3	09-NOV-2009 16:43	120 PPM	s110909	1.0	MEGAICAL	DUSE
s6k0911-D.d	WBN091101-01	JMB3	09-NOV-2009 18:00	50 PPM	s110909	1.0	DFTPP	
s6k0911.d	WBN091101-01	JMB3	09-NOV-2009 18:00	50 PPM	s110909	1.0	DFTPP	
s6k0912.d	inst blk	JMB3	09-NOV-2009 18:15	--------	s110909	1.0	INST BLK	
s6k0913.d	WBN091106-08	JMB3	09-NOV-2009 18:53	1 PPM	s110909	1.0	MEGAICAL	
s6k0914.d	WBN091106-07	JMB3	09-NOV-2009 19:31	10 PPM	s110909	1.0	MEGAICAL	
s6k0915.d	WBN091106-06	JMB3	09-NOV-2009 20:09	20 PPM	s110909	1.0	MEGAICAL	
s6k0916.d	WBN091106-05.1	JMB3	09-NOV-2009 20:46	40 PPM	s110909	1.0	MEGAICAL	
s6k0917.d	WBN091106-04	JMB3	09-NOV-2009 21:25	50 PPM	s110909	1.0	MEGAICAL	
s6k0918.d	WBN091106-03	JMB3	09-NOV-2009 22:01	80 PPM	s110909	1.0	MEGAICAL	

s6k0919.d	WBN091106-02	JMB3	09-NOV-2009 22:39	100 PPM	s110909	1.0	MEGAICAL	
s6k0920.d	WBN091106-01	JMB3	09-NOV-2009 23:16	120 PPM	s110909	1.0	MEGAICAL	
s6k0921-D.d	WBN091101-01	JMB3	10-NOV-2009 11:07	50 PPM	s110909	1.0	DFTPP	
s6k0921.d	WBN091101-01	JMB3	10-NOV-2009 11:07	50 PPM	s110909	1.0	DFTPP	
s6k0922.d	inst blk	JMB3	10-NOV-2009 11:21	--------	s110909	1.0	INST BLK	
s6k0923.d	WBN091016-01	JMB3	10-NOV-2009 11:59	10 PPM	s110909	1.0	AP12ICAL	
s6k0924.d	WBN091016-02	JMB3	10-NOV-2009 12:36	20 PPM	s110909	1.0	AP12ICAL	
s6k0925.d	WBN091016-03	JMB3	10-NOV-2009 13:13	40 PPM	s110909	1.0	AP12ICAL	
s6k0926.d	WBN091016-04	JMB3	10-NOV-2009 13:51	50 PPM	s110909	1.0	AP12ICAL	
s6k0927.d	WBN091016-05	JMB3	10-NOV-2009 14:30	80 PPM	s110909	1.0	AP12ICAL	
s6k0928.d	WBN091016-06	JMB3	10-NOV-2009 15:06	100 PPM	s110909	1.0	AP12ICAL	
s6k0929.d	WBN091016-07	JMB3	10-NOV-2009 15:43	120 PPM	s110909	1.0	AP12ICAL	
s6k0930.d	WBN091029-25	JMB3	10-NOV-2009 16:20	10 PPM	s110909	1.0	PESTICAL	
s6k0931.d	WBN091029-24	JMB3	10-NOV-2009 16:56	20 PPM	s110909	1.0	PESTICAL	
s6k0932.d	WBN091029-23.1	JMB3	10-NOV-2009 17:33	40 PPM	s110909	1.0	PESTICAL	
s6k0933.d	WBN091029-22	JMB3	10-NOV-2009 18:09	50 PPM	s110909	1.0	PESTICAL	
s6k0934.d	WBN091029-21	JMB3	10-NOV-2009 18:45	80 PPM	s110909	1.0	PESTICAL	
s6k0935.d	WBN091029-20	JMB3	10-NOV-2009 19:21	100 PPM	s110909	1.0	PESTICAL	
s6k0936.d	WBN091029-19	JMB3	10-NOV-2009 19:58	120 PPM	s110909	1.0	PESTICAL	
s6k0937-D.d	WBN091106-09.1	JMB3	10-NOV-2009 20:29	40 PPM	s110909	1.0	MEGAICV	FAILED SC 8270D
s6k0937.d	WBN091106-09.1	JMB3	10-NOV-2009 20:29	40 PPM	s110909	1.0	MEGAICV	
s6k0938-D.d	WBN091016-08.1	JMB3	10-NOV-2009 21:07	40 PPM	s110909	1.0	AP12ICV	
s6k0938.d	WBN091016-08.1	JMB3	10-NOV-2009 21:07	40 PPM	s110909	1.0	AP12ICV	
s6k0939-D.d	WBN091029-26.1	JMB3	10-NOV-2009 21:35	40 PPM	s110909	1.0	PESTICV	
s6k0939.d	WBN091029-26.1	JMB3	10-NOV-2009 21:35	40 PPM	s110909	1.0	PESTICV	
s6k0940-D.d	WBN091101-01	JMB3	10-NOV-2009 22:12	50 PPM	s110909	1.0	DFTPP	
s6k0940.d	WBN091101-01	JMB3	10-NOV-2009 22:12	50 PPM	s110909	1.0	DFTPP	

s6k0941.d	inst blk	JMB3	10-NOV-2009 22:26	--------	s110909	1.0	INST BLK	
s6k0942.d	WBN091016-16	JMB3	10-NOV-2009 22:55	500 PPM	s110909	1.0	HEXICAL	
s6k0943.d	WBN091016-15	JMB3	10-NOV-2009 23:24	1000 PPM	s110909	1.0	HEXICAL	
s6k0944.d	WBN091016-14	JMB3	10-NOV-2009 23:53	1250 PPM	s110909	1.0	HEXICAL	
s6k0945.d	WBN091016-13	JMB3	11-NOV-2009 00:21	1500 PPM	s110909	1.0	HEXICAL	
s6k0946.d	WBN091016-12	JMB3	11-NOV-2009 00:50	1750 PPM	s110909	1.0	HEXICAL	
s6k0947.d	UBN090828-02.4-16	JMB3	11-NOV-2009 01:18	500 PPM	s110909	1.0	HEXICAL	
s6k0948.d	UBN090924-01	JMB3	11-NOV-2009 01:47	10 PPM	s110909	1.0	NEVICAL	
s6k0949.d	UBN090924-02	JMB3	11-NOV-2009 02:16	20 PPM	s110909	1.0	NEVICAL	
s6k0950.d	UBN090924-03	JMB3	11-NOV-2009 02:44	40 PPM	s110909	1.0	NEVICAL	
s6k0951.d	UBN090924-04	JMB3	11-NOV-2009 03:12	50 PPM	s110909	1.0	NEVICAL	DUSE - disabled
s6k0952.d	UBN090924-05	JMB3	11-NOV-2009 03:41	80 PPM	s110909	1.0	NEVICAL	
s6k0953.d	UBN090924-06	JMB3	11-NOV-2009 04:10	100 PPM	s110909	1.0	NEVICAL	
s6k0954.d	UBN090924-07	JMB3	11-NOV-2009 04:38	120 PPM	s110909	1.0	NEVICAL	DUSE - disabled
s6k0955-D.d	WBN091016-10.1	JMB3	11-NOV-2009 05:07	1250 PPM	s110909	1.0	HEXICV	DUSE - failed >70%-130%
s6k0955.d	WBN091016-10.1	JMB3	11-NOV-2009 05:07	1250 PPM	s110909	1.0	HEXICV	

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD6

DATE: 01/06/2010 METHOD: See raw data OPERATOR: nagl REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1529 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091213-01 Internal Std ID: WBN091223-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD6.i/s010610.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s6a0601.d	WBN091213-01	nagl	06-JAN-2010 08:55	50 PPM	s010610	1.0	DFTPP	
s6a0602.d	WBN091223-17.2	nagl	06-JAN-2010 09:09	CVS	s010610	1.0	MEGACVS	DUSE
s6a0603.d	WBN091223-17.2	nagl	06-JAN-2010 09:46	CVS	s010610	1.0	MEGACVS	pass 246011
s6a0604.d	WBN100103-03.2	nagl	06-JAN-2010 10:22	CVS	s010610	1.0	AP12CVS	
s6a0605.d	WBN100303-23.2	nagl	06-JAN-2010 10:50	CVS	s010610	1.0	PESTCVS	
s6a0606-1.d	1202003210	nagl	06-JAN-2010 11:20	936197	10-994	1.0	SBLK01	USE
s6a0606.d	1202003210	nagl	06-JAN-2010 11:20	936197	10-997	1.0	SBLK01	USE
s6a0607-1.d	1202003211	nagl	06-JAN-2010 11:48	936197	10-994	1.0	SBLK01LCS	USE
s6a0607.d	1202003211	nagl	06-JAN-2010 11:48	936197	10-997	1.0	SBLK01LCS	USE
s6a0608.d	1202003486	nagl	06-JAN-2010 12:16	936348	10-1020	1.0	SBLK01	USE
s6a0609.d	1202003487	nagl	06-JAN-2010 12:45	936348	10-1020	1.0	SBLK01LCS	USE
s6a0610.d	243283003	nagl	06-JAN-2010 13:14	936348	10-994	1.0	LANL	USE
s6a0611.d	243284004	nagl	06-JAN-2010 13:43	936348	10-997	1.0	LANL	USE
s6a0612.d	1202003212	nagl	06-JAN-2010 14:10	936197	10-997	1.0	LANL004MS	USE
s6a0613.d	1202003213	nagl	06-JAN-2010 14:38	936197	10-997	1.0	LANL004MSD	USE
s6a0614.d	243284008	nagl	06-JAN-2010 15:06	936197	10-997	1.0	LANL	USE
s6a0615.d	243284011	nagl	06-JAN-2010 15:34	936197	10-997	1.0	LANL	USE
s6a0616.d	243401002	nagl	06-JAN-2010 16:02	936348	10-1020	1.0	LANL	USE
s6a0617.d	1202003488	nagl	06-JAN-2010 16:30	936348	10-1020	1.0	LANL002MS	USE

s6a0618.d	1202003489	nag1	06-JAN-2010 16:58	936348	10-1020	1.0	LANL002MSD	USE
s6a0619.d	243401005	nag1	06-JAN-2010 17:26	936348	10-1020	1.0	LANL	USE
s6a0620.d	243401009	nag1	06-JAN-2010 17:53	936348	10-1020	1.0	LANL	USE
s6a0621.d	243401011	nag1	06-JAN-2010 18:21	936348	10-1020	1.0	LANL	USE

(s10HInstrument Batch: /chem/MSD6.i/s010610.b Page: 1

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Data file : /chem/MSD6.i/s010610.b/s6a0612.d
Lab Smp Id: 1202003212 Client Smp ID: CAPA-10-6390MS
Inj Date : 06-JAN-2010 14:10
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202003212|936197|1|SVM|1|LANL004MS
Misc Info : |MSD82709L|WBN091223-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Meth Date : 07-Jan-2010 08:58 hnm Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 11 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-997.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	500.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.749	4.750	(1.000)	255619	40.0000	
* 29 Naphthalene-d8	136	6.026	6.026	(1.000)	1029118	40.0000	
* 46 Acenaphthene-d10	164	7.891	7.894	(1.000)	558170	40.0000	
* 67 Phenanthrene-d10	188	9.501	9.502	(1.000)	984165	40.0000	
* 91 Chrysene-d12	240	12.493	12.496	(1.000)	817862	40.0000	
* 98 Perylene-d12	264	14.778	14.779	(1.000)	716573	40.0000	
$ 3 2-Fluorophenol	112	3.587	3.588	(0.755)	385613	60.2400	120
$ 5 Phenol-d5	99	4.369	4.370	(0.920)	372129	46.0597	92.1
$ 20 Nitrobenzene-d5	82	5.289	5.290	(0.878)	281618	38.6841	77.4
$ 39 2-Fluorobiphenyl	172	7.149	7.150	(0.906)	542972	37.7471	75.5
$ 60 2,4,6-Tribromophenol	329	8.744	8.743	(1.108)	167514	102.823	206
$ 81 p-Terphenyl-d14	244	11.206	11.207	(0.897)	619542	46.9728	93.9
6 Phenol	94	4.382	4.383	(0.923)	205991	25.3573	50.7(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	4.553	4.556	(0.959)	256759	39.3485	78.7
11 1,4-Dichlorobenzene	146	4.767	4.767	(1.004)	260269	34.1784	68.4
17 N-Nitrosodipropylamine	70	5.124	5.129	(1.079)	187952	41.5031	83.0(Q)
28 1,2,4-Trichlorobenzene	180	5.957	5.957	(0.989)	223772	35.8495	71.7
33 4-Chloro-3-methylphenol	107	6.586	6.579	(1.093)	246142	47.9397	95.9
47 Acenaphthene	154	7.927	7.930	(1.005)	474863	37.7478	75.5
50 2,4-Dinitrotoluene	165	8.087	8.090	(1.025)	188450	43.7588	87.5
52 4-Nitrophenol	139	8.018	8.011	(1.016)	55213	26.9238	53.8
65 Pentachlorophenol	266	9.290	9.283	(0.978)	99079	45.7849	91.6
79 Pyrene	202	11.066	11.066	(0.886)	927969	41.2515	82.5
2 Pyridine	79	2.652	2.655	(0.558)	219277	40.4840	81.0
4 Aniline	66	4.441	4.444	(0.935)	143240	42.4905	85.0
7 bis(2-Chloroethyl) ether	63	4.479	4.480	(0.943)	195233	35.4906	71.0
9 1,3-Dichlorobenzene	146	4.698	4.699	(0.989)	257811	34.3199	68.6
12 Benzyl alcohol	108	4.866	4.864	(1.025)	185117	45.6642	91.3
13 1,2-Dichlorobenzene	146	4.912	4.915	(1.034)	251962	35.4468	70.9
14 bis(2-Chloroisopropyl)ether	45	4.983	4.984	(1.049)	492436	40.0962	80.2
15 o-Cresol	107	4.953	4.953	(1.043)	199051	37.4652	74.9
18 m,p-Cresols	107	5.108	5.109	(1.076)	281985	41.8866	83.8
19 Hexachloroethane	117	5.246	5.247	(1.105)	90816	30.8270	61.6
21 Nitrobenzene	77	5.310	5.310	(0.881)	285519	38.9130	77.8
22 Isophorone	82	5.542	5.542	(0.920)	551101	42.3732	84.7
23 2-Nitrophenol	139	5.623	5.624	(0.933)	140798	41.6023	83.2
24 2,4-Dimethylphenol	122	5.641	5.641	(0.936)	249183	44.4378	88.9
25 bis(2-Chloroethoxy)methane	93	5.740	5.743	(0.953)	298549	39.0063	78.0
26 2,4-Dichlorophenol	162	5.868	5.871	(0.974)	222283	43.7045	87.4
27 Benzoic acid	105	5.771	5.754	(0.958)	199955	57.7712	116
30 Naphthalene	128	6.049	6.049	(1.004)	717414	34.9468	69.9
31 4-Chloroaniline	127	6.092	6.090	(1.011)	292817	44.3788	88.8
32 Hexachlorobutadiene	225	6.156	6.156	(1.022)	110398	33.9637	67.9
34 2-Methylnaphthalene	142	6.770	6.770	(1.123)	504837	40.7522	81.5
35 1-Methylnaphthalene	142	6.877	6.877	(1.141)	487378	40.2195	80.4
36 Hexachlorocyclopentadiene	237	6.925	6.926	(0.878)	52570	23.3172	46.6
37 2,4,6-Trichlorophenol	196	7.063	7.061	(0.895)	165721	43.5117	87.0
38 2,4,5-Trichlorophenol	196	7.106	7.104	(0.901)	186570	45.9979	92.0
40 2-Chloronaphthalene	162	7.295	7.293	(0.924)	483495	38.5703	77.1
42 o-Nitroaniline	65	7.397	7.395	(0.937)	172397	40.2001	80.4
41 m-Nitroaniline	138	7.840	7.840	(0.994)	141736	45.1489	90.3
43 Dimethylphthalate	163	7.577	7.583	(0.960)	642606	44.8795	89.8
44 2,6-Dinitrotoluene	165	7.654	7.654	(0.970)	146673	42.9462	85.9
45 Acenaphthylene	152	7.740	7.744	(0.981)	826995	41.0312	82.1
48 2,4-Dinitrophenol	184	7.952	7.950	(1.008)	44116	38.6785	77.4
49 Dibenzofuran	168	8.113	8.113	(1.028)	851545	50.1476	100
51 Diethylphthalate	149	8.334	8.335	(1.056)	653281	45.3051	90.6
53 Fluorene	166	8.482	8.483	(1.075)	598215	42.9215	85.8
54 4-Chlorophenylphenylether	204	8.469	8.467	(1.073)	281274	42.7123	85.4
55 2-Methyl-4,6-dinitrophenol	198	8.533	8.531	(0.898)	76539	35.9467	71.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
56 p-Nitroaniline	138	8.505	8.503	(1.078)	138489	45.9632	91.9
133 Diphenylamine	169	8.599	8.597	(0.905)	521581	43.9689	87.9
58 1,2-Diphenylhydrazine	77	8.643	8.643	(0.910)	634853	42.0741	84.1
61 4-Bromophenylphenylether	248	8.999	9.000	(0.947)	167024	43.0090	86.0
63 Hexachlorobenzene	284	9.076	9.074	(0.955)	185377	45.5718	91.1
207 Atrazine	173	9.167	9.165	(0.965)	43637	43.6463	87.3
68 Phenanthrene	178	9.529	9.530	(1.003)	874403	42.9621	85.9
69 Anthracene	178	9.583	9.583	(1.009)	894812	43.9856	88.0
72 Di-n-butylphthalate	149	10.092	10.093	(1.062)	1098726	47.0295	94.0
76 Fluoranthene	202	10.816	10.814	(1.138)	903296	46.3305	92.7
77 Benzidine	184	10.941	10.941	(0.876)	173637	21.6068	43.2
85 Butylbenzylphthalate	149	11.731	11.731	(0.939)	474220	46.0634	92.1
89 Benzo(a)anthracene	228	12.472	12.473	(0.998)	767324	43.4855	87.0
90 3,3'-Dichlorobenzidine	252	12.419	12.414	(0.994)	232396	40.2315	80.5
92 Chrysene	228	12.528	12.529	(1.003)	751256	44.4340	88.9
93 bis(2-Ethylhexyl)phthalate	149	12.439	12.442	(0.996)	683506	48.1003	96.2
94 Di-n-octylphthalate	149	13.405	13.406	(0.907)	1059870	46.5386	93.1
95 Benzo(b)fluoranthene	252	14.111	14.114	(0.955)	709541	44.7504	89.5
96 Benzo(k)fluoranthene	252	14.162	14.160	(0.958)	718820	45.5916	91.2
97 Benzo(a)pyrene	252	14.679	14.680	(0.993)	650656	47.5108	95.0
99 Indeno(1,2,3-cd)pyrene	276	16.738	16.741	(1.133)	614263	46.5682	93.1
100 Dibenzo(a,h)anthracene	278	16.771	16.769	(1.135)	492675	45.9041	91.8
101 Benzo(ghi)perylene	276	17.250	17.248	(1.167)	517868	49.4977	99.0
102 1,4-Dioxane	88	2.410	2.410	(0.507)	84074	35.9399	71.9
111 N-Nitrosopyrrolidine	100	5.121	5.116	(1.078)	121606	39.9661	79.9(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.619	2.619	(0.551)	120137	27.6065	55.2

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD6.i/s010610.b/s6a0612.d
Date : 06-JAN-2010 14:10
Client ID: CAPA-10-6390HS
Sample Info: 1120200321219361971111SVM111LANL004HS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

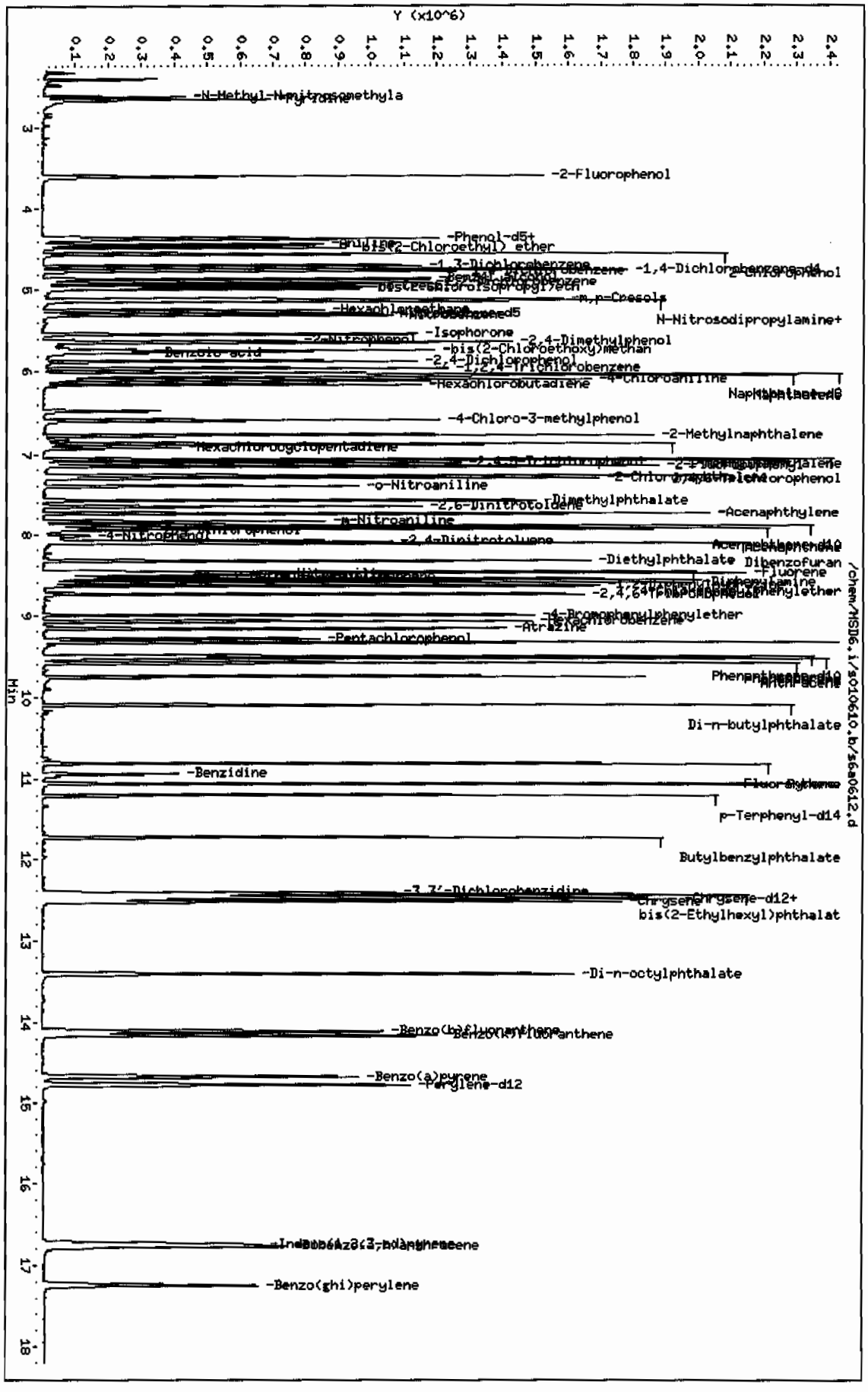

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Data file : /chem/MSD6.i/s010610.b/s6a0613.d
Lab Smp Id: 1202003213 Client Smp ID: CAPA-10-6390MSD
Inj Date : 06-JAN-2010 14:38
Operator : nagl Inst ID: MSD6.i
Smp Info : |1202003213|936197|1|SVM|1|LANL004MSD
Misc Info : |MSD82709L|WBN091223-01
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD6.i/s010610.b/MSD6-M8270C-AQA-110909.m
Meth Date : 07-Jan-2010 08:58 hnm Quant Type: ISTD
Cal Date : 11-NOV-2009 04:38 Cal File: s6k0954.d
Als bottle: 12 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-997.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	500.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.751	4.750	(1.000)	239632	40.0000	
* 29 Naphthalene-d8	136	6.025	6.026	(1.000)	951380	40.0000	
* 46 Acenaphthene-d10	164	7.891	7.894	(1.000)	513503	40.0000	
* 67 Phenanthrene-d10	188	9.501	9.502	(1.000)	909061	40.0000	
* 91 Chrysene-d12	240	12.492	12.496	(1.000)	757716	40.0000	
* 98 Perylene-d12	264	14.776	14.779	(1.000)	616028	40.0000	
$ 3 2-Fluorophenol	112	3.587	3.588	(0.755)	357683	59.6047	119
$ 5 Phenol-d5	99	4.369	4.370	(0.920)	335921	44.3519	88.7
$ 20 Nitrobenzene-d5	82	5.289	5.290	(0.878)	261314	38.8281	77.6
$ 39 2-Fluorobiphenyl	172	7.149	7.150	(0.906)	509904	38.5317	77.1
$ 60 2,4,6-Tribromophenol	329	8.744	8.743	(1.108)	151788	101.275	202
$ 81 p-Terphenyl-d14	244	11.206	11.207	(0.897)	567381	46.4327	92.9
6 Phenol	94	4.379	4.383	(0.922)	183407	24.0834	48.2(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	4.553	4.556	(0.958)	239896	39.2169	78.4
11 1,4-Dichlorobenzene	146	4.767	4.767	(1.003)	250949	35.1530	70.3
17 N-Nitrosodipropylamine	70	5.123	5.129	(1.078)	174283	41.0522	82.1(Q)
28 1,2,4-Trichlorobenzene	180	5.957	5.957	(0.989)	212597	36.8422	73.7
33 4-Chloro-3-methylphenol	107	6.586	6.579	(1.093)	218499	46.0331	92.1
47 Acenaphthene	154	7.926	7.930	(1.005)	433818	37.4847	75.0
50 2,4-Dinitrotoluene	165	8.087	8.090	(1.025)	169952	42.8962	85.8
52 4-Nitrophenol	139	8.021	8.011	(1.016)	44318	24.4196	48.8(M)
65 Pentachlorophenol	266	9.287	9.283	(0.977)	88673	44.5286	89.0
79 Pyrene	202	11.063	11.066	(0.886)	847382	40.6592	81.3
2 Pyridine	79	2.649	2.655	(0.558)	173467	34.1629	68.3
4 Aniline	66	4.440	4.444	(0.935)	133714	42.3110	84.6
7 bis(2-Chloroethyl) ether	63	4.479	4.480	(0.943)	184215	35.7219	71.4
9 1,3-Dichlorobenzene	146	4.698	4.699	(0.989)	248543	35.2935	70.6
12 Benzyl alcohol	108	4.863	4.864	(1.024)	171277	45.0689	90.1
13 1,2-Dichlorobenzene	146	4.914	4.915	(1.034)	240160	36.0405	72.1
14 bis(2-Chloroisopropyl)ether	45	4.986	4.984	(1.049)	458716	39.8424	79.7
15 o-Cresol	107	4.953	4.953	(1.042)	180286	36.1971	72.4
18 m,p-Cresols	107	5.108	5.109	(1.075)	259369	41.0975	82.2
19 Hexachloroethane	117	5.246	5.247	(1.104)	89452	32.3897	64.8
21 Nitrobenzene	77	5.309	5.310	(0.881)	267740	39.4715	78.9
22 Isophorone	82	5.541	5.542	(0.920)	504765	41.9817	84.0
23 2-Nitrophenol	139	5.625	5.624	(0.934)	127818	40.8530	81.7
24 2,4-Dimethylphenol	122	5.641	5.641	(0.936)	228641	44.1062	88.2
25 bis(2-Chloroethoxy)methane	93	5.743	5.743	(0.953)	279522	39.5045	79.0
26 2,4-Dichlorophenol	162	5.867	5.871	(0.974)	202295	43.0246	86.0
27 Benzoic acid	105	5.765	5.754	(0.957)	190103	59.4127	119
30 Naphthalene	128	6.048	6.049	(1.004)	677123	35.6793	71.4
31 4-Chloroaniline	127	6.092	6.090	(1.011)	271261	44.4711	88.9
32 Hexachlorobutadiene	225	6.155	6.156	(1.022)	104268	34.6989	69.4
34 2-Methylnaphthalene	142	6.769	6.770	(1.123)	473077	41.3088	82.6
35 1-Methylnaphthalene	142	6.876	6.877	(1.141)	444852	39.7098	79.4
36 Hexachlorocyclopentadiene	237	6.925	6.926	(0.878)	48545	23.4049	46.8
37 2,4,6-Trichlorophenol	196	7.062	7.061	(0.895)	152954	43.6529	87.3
38 2,4,5-Trichlorophenol	196	7.106	7.104	(0.901)	165809	44.4353	88.9
40 2-Chloronaphthalene	162	7.294	7.293	(0.924)	442851	38.4010	76.8
42 o-Nitroaniline	65	7.396	7.395	(0.937)	153209	38.8333	77.7
41 m-Nitroaniline	138	7.840	7.840	(0.994)	125858	43.5784	87.2
43 Dimethylphthalate	163	7.577	7.583	(0.960)	578902	43.9473	87.9
44 2,6-Dinitrotoluene	165	7.654	7.654	(0.970)	131500	41.8528	83.7
45 Acenaphthylene	152	7.740	7.744	(0.981)	758534	40.9082	81.8
48 2,4-Dinitrophenol	184	7.949	7.950	(1.007)	32233	33.7029	67.4
49 Dibenzofuran	168	8.112	8.113	(1.028)	762893	48.8349	97.7
51 Diethylphthalate	149	8.334	8.335	(1.056)	592892	44.6937	89.4
53 Fluorene	166	8.482	8.483	(1.075)	543865	42.4163	84.8
54 4-Chlorophenylphenylether	204	8.469	8.467	(1.073)	256509	42.3399	84.7
55 2-Methyl-4,6-dinitrophenol	198	8.530	8.531	(0.898)	61818	32.3220	64.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
56 p-Nitroaniline	138	8.502	8.503	(1.077)	121382	44.1239	88.2
133 Diphenylamine	169	8.599	8.597	(0.905)	466760	42.5984	85.2
58 1,2-Diphenylhydrazine	77	8.642	8.643	(0.910)	570580	40.9386	81.9
61 4-Bromophenylphenylether	248	8.999	9.000	(0.947)	153076	42.6739	85.3
63 Hexachlorobenzene	284	9.075	9.074	(0.955)	167281	44.5207	89.0
207 Atrazine	173	9.165	9.165	(0.965)	40011	43.3259	86.6
68 Phenanthrene	178	9.529	9.530	(1.003)	795877	42.3346	84.7
69 Anthracene	178	9.583	9.583	(1.009)	805588	42.8713	85.7
72 Di-n-butylphthalate	149	10.092	10.093	(1.062)	1005833	46.6103	93.2
76 Fluoranthene	202	10.813	10.814	(1.138)	828868	46.0254	92.0
77 Benzidine	184	10.941	10.941	(0.876)	142734	19.1712	38.3(R)
85 Butylbenzylphthalate	149	11.731	11.731	(0.939)	433315	45.4311	90.9
89 Benzo(a)anthracene	228	12.472	12.473	(0.998)	695406	42.5381	85.1
90 3,3'-Dichlorobenzidine	252	12.416	12.414	(0.994)	194199	36.2876	72.6
92 Chrysene	228	12.526	12.529	(1.003)	675102	43.0993	86.2
93 bis(2-Ethylhexyl)phthalate	149	12.439	12.442	(0.996)	619676	47.0786	94.2
94 Di-n-octylphthalate	149	13.402	13.406	(0.907)	958634	48.9636	97.9
95 Benzo(b)fluoranthene	252	14.111	14.114	(0.955)	622701	45.6835	91.4
96 Benzo(k)fluoranthene	252	14.156	14.160	(0.958)	622366	45.9167	91.8
97 Benzo(a)pyrene	252	14.676	14.680	(0.993)	552653	46.9411	93.9
99 Indeno(1,2,3-cd)pyrene	276	16.738	16.741	(1.133)	461284	41.0624	82.1
100 Dibenzo(a,h)anthracene	278	16.768	16.769	(1.135)	371978	40.6447	81.3
101 Benzo(ghi)perylene	276	17.242	17.248	(1.167)	385864	42.9003	85.8
102 1,4-Dioxane	88	2.407	2.410	(0.507)	73495	33.5136	67.0
111 N-Nitrosopyrrolidine	100	5.118	5.116	(1.077)	106791	37.4386	74.9(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.619	2.619	(0.551)	110552	27.0988	54.2

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/MSD6.i/s010610.b/s6a0613.d
Date : 06-JAN-2010 14:38
Client ID: CAPA-10-6390HSD
Sample Info: 1120200321319361971ISVN14LAN1004HSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD6.i
Operator: nag1
Column diameter: 0.20

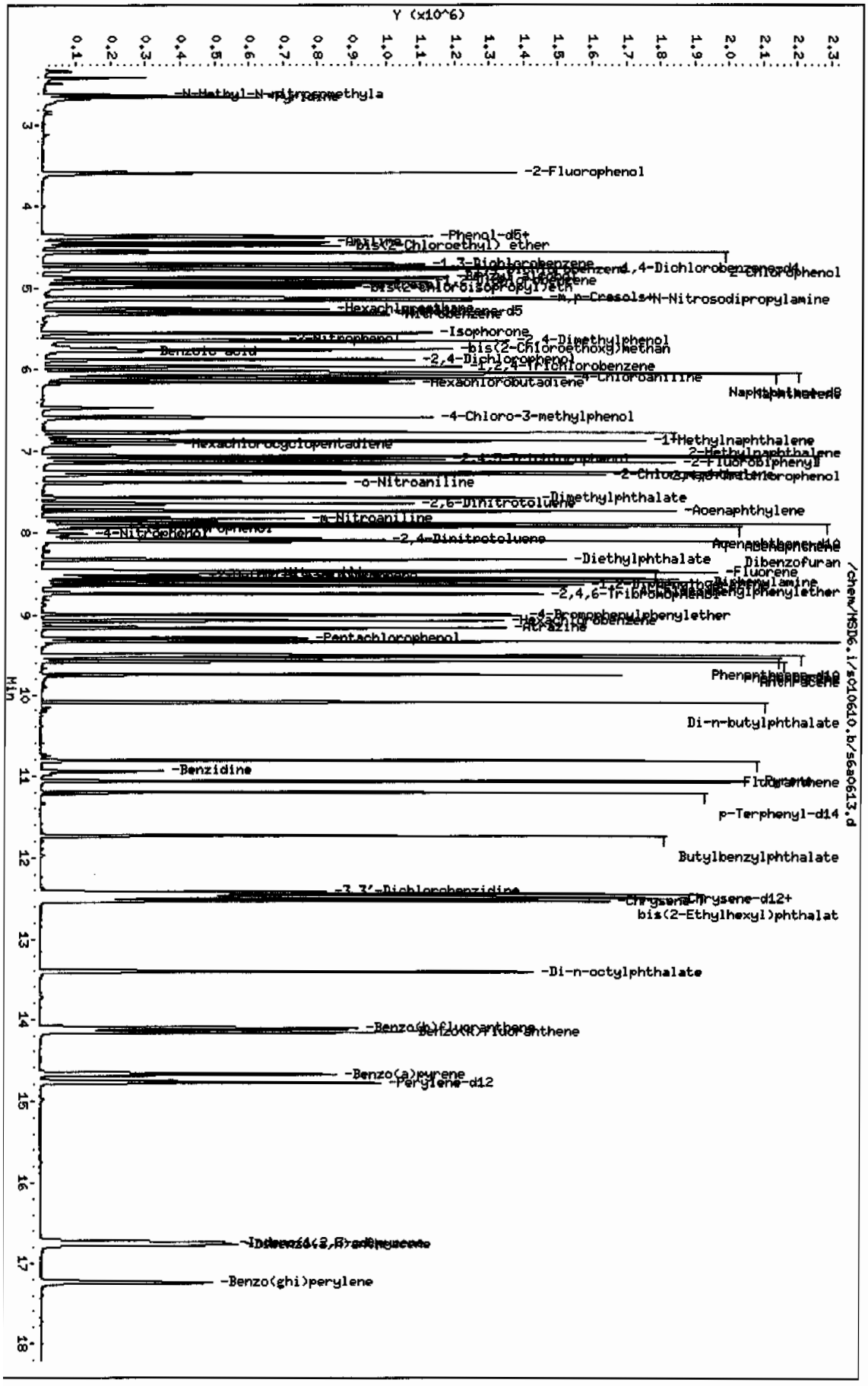

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Instrument: MSD6.i
Client Sample ID: SBLK01LCS

Compound: 4-Nitrophenol
CAS Number: 100-02-7

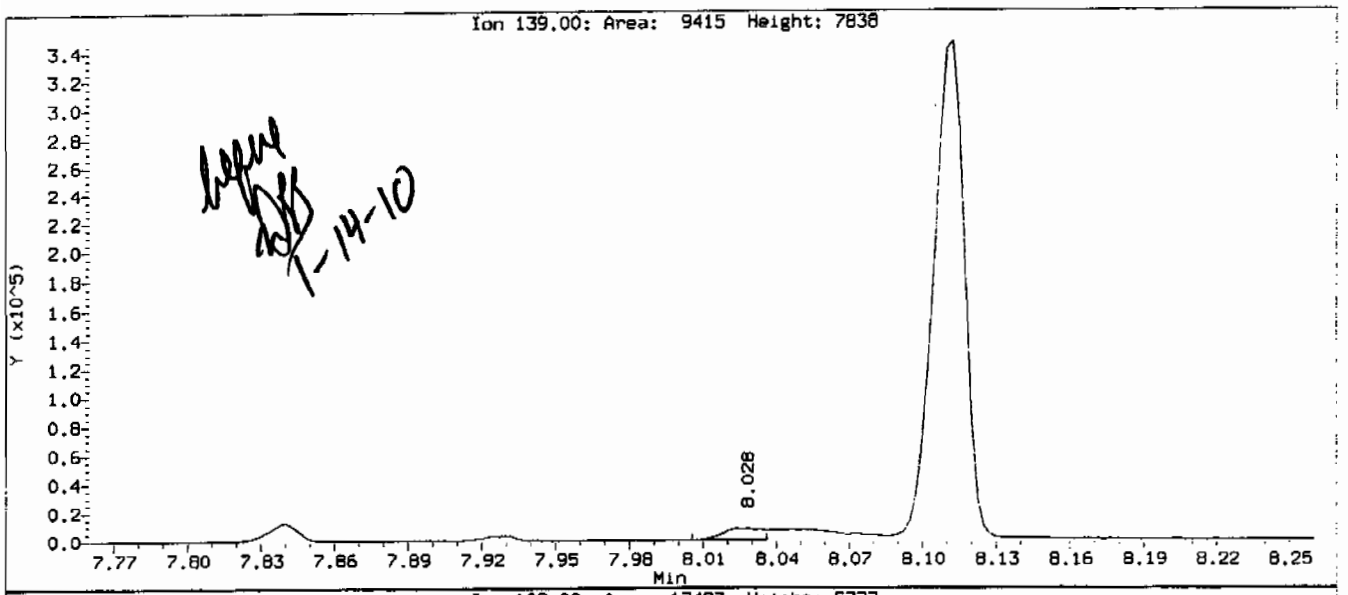

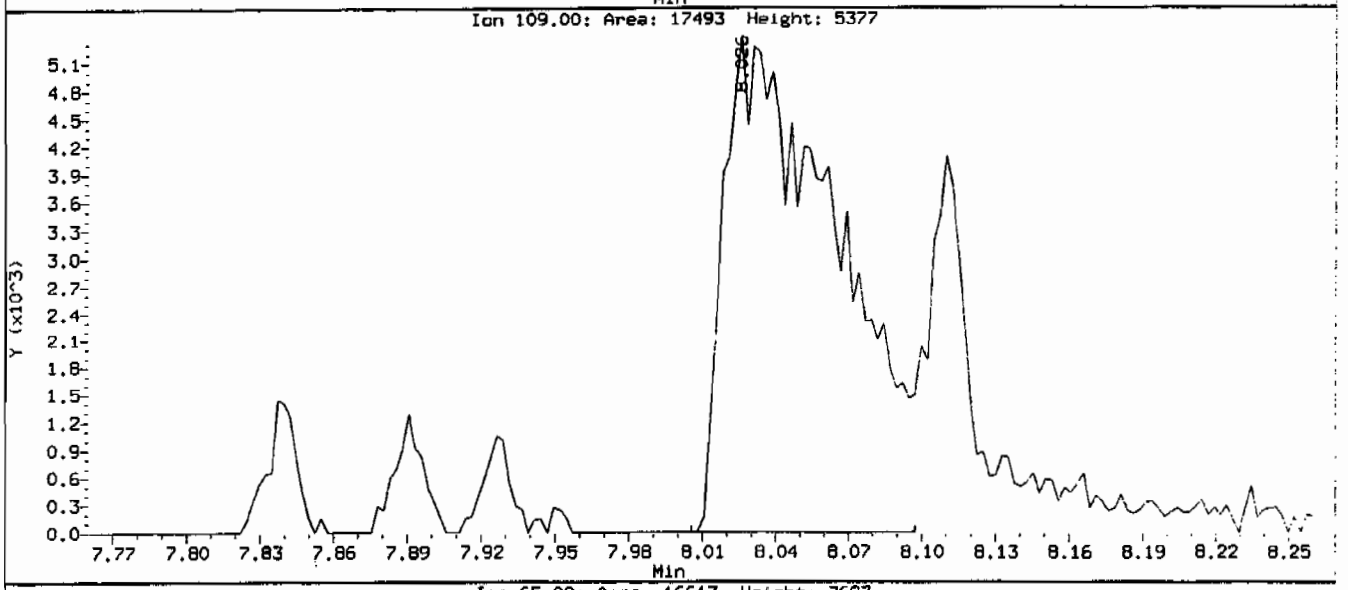

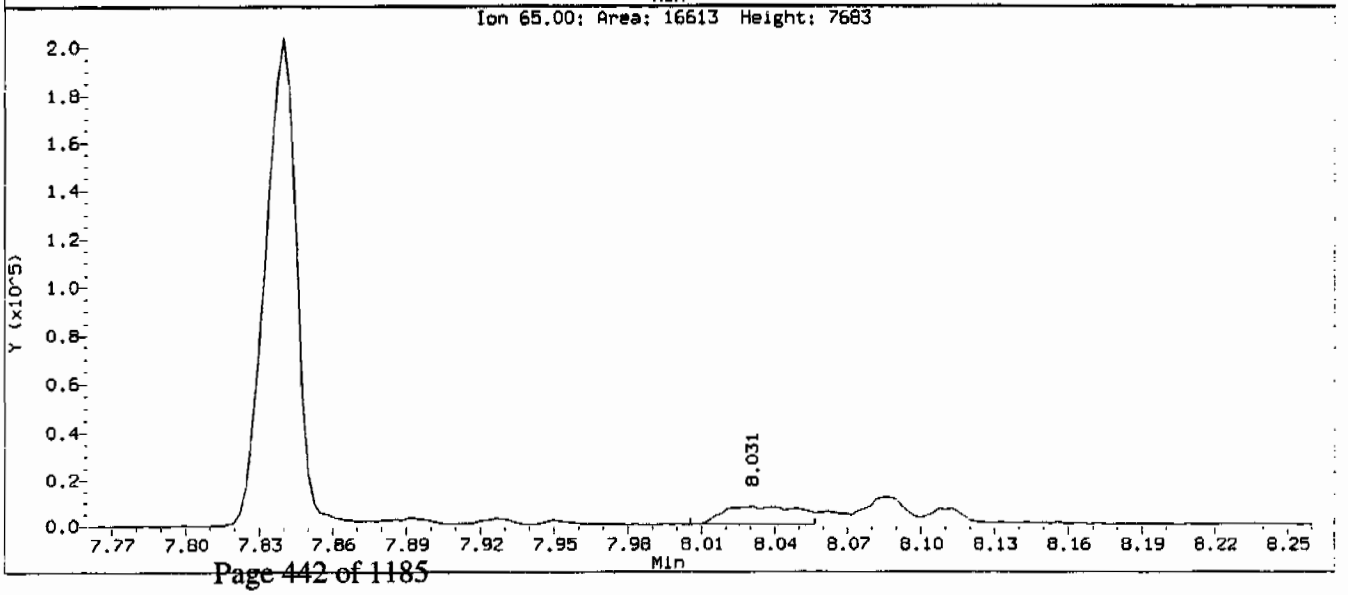

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Instrument: MSD6.i
Client Sample ID: 5BLK01LCS

Compound: 4-Nitrophenol
CAS Number: 100-02-7

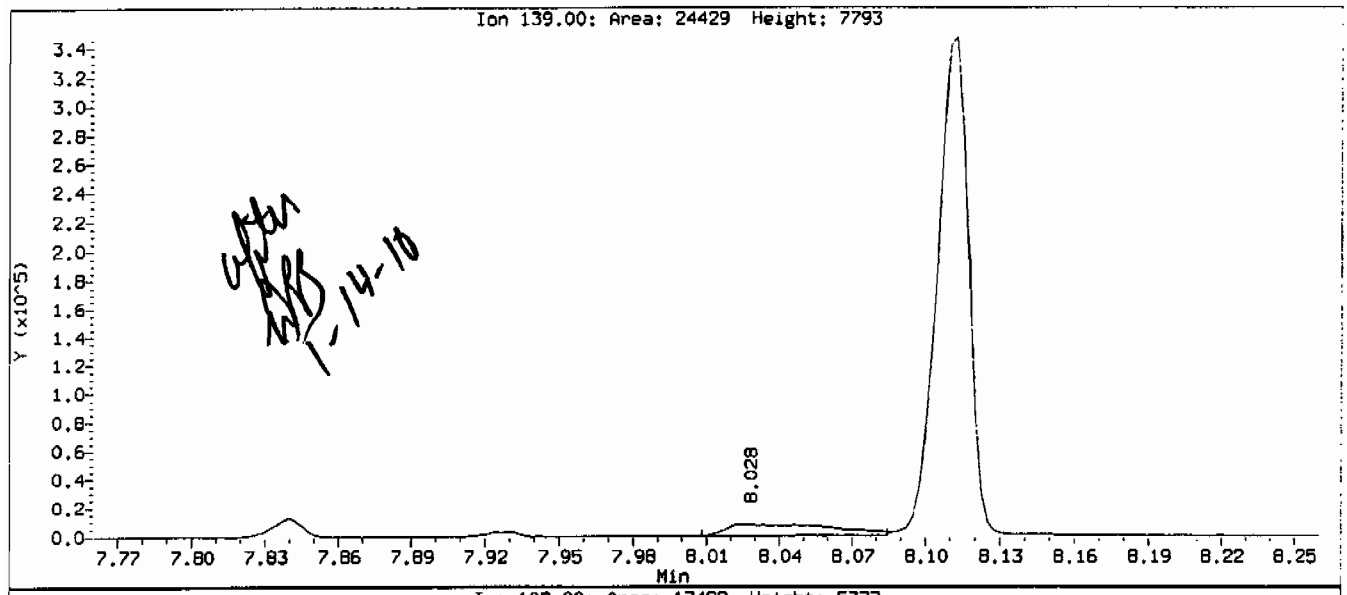

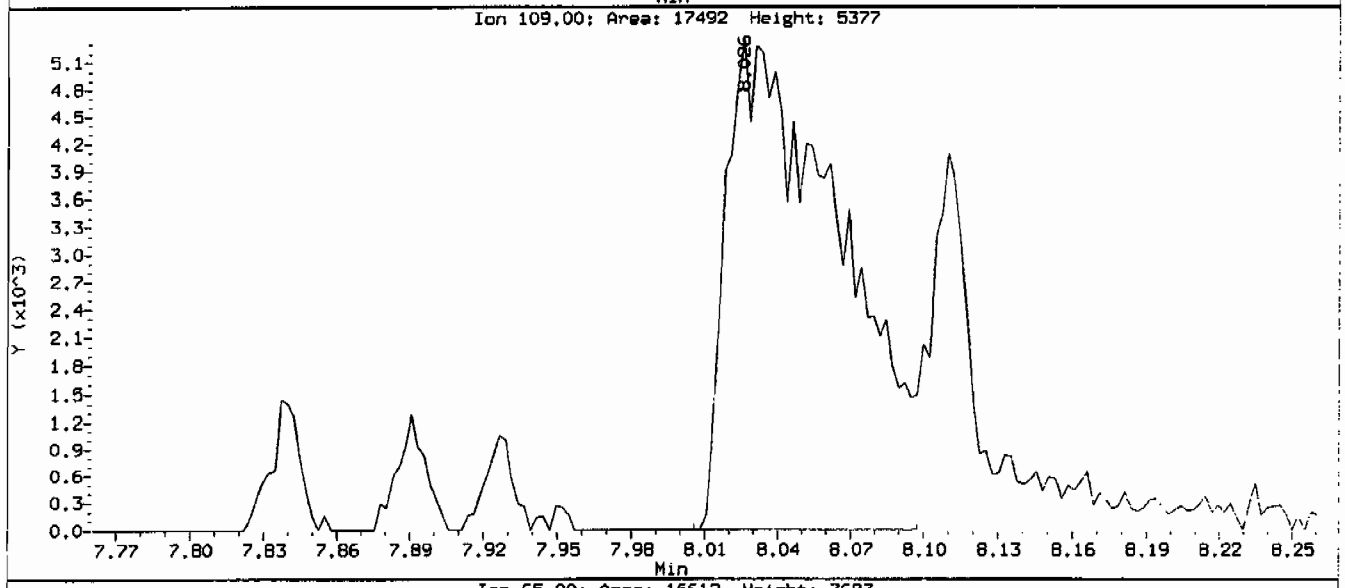

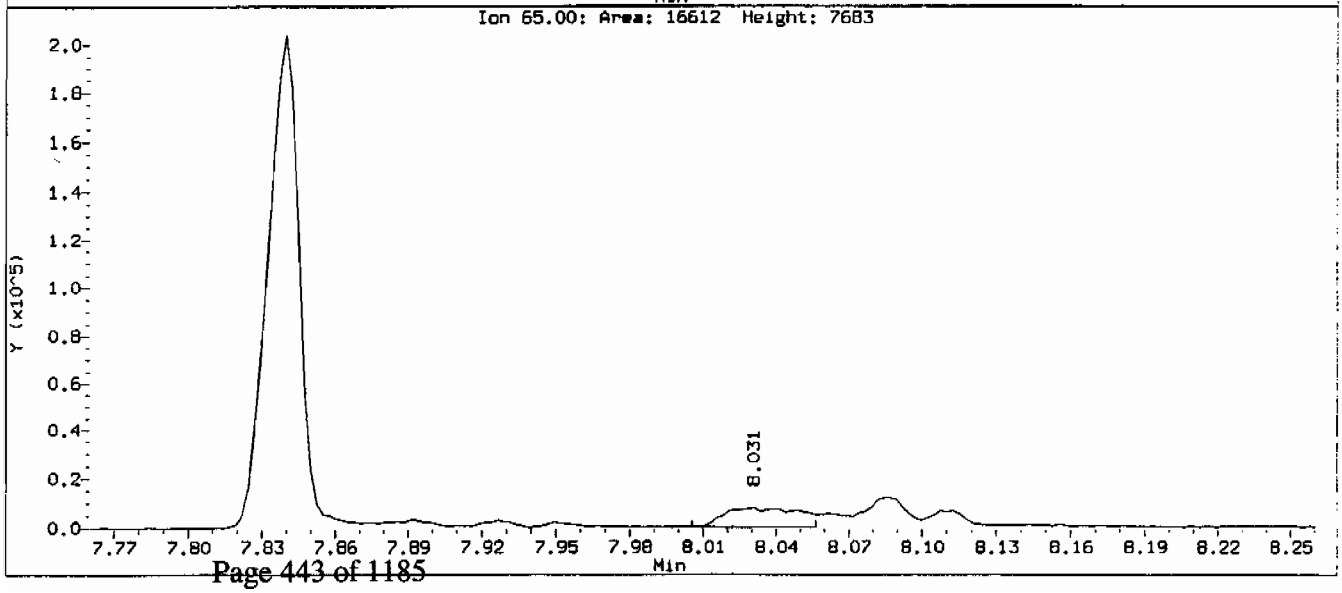

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Instrument: MSD6.i
Client Sample ID: CAPA-10-6390MSD

Compound: 4-Nitrophenol
CAS Number: 100-02-7

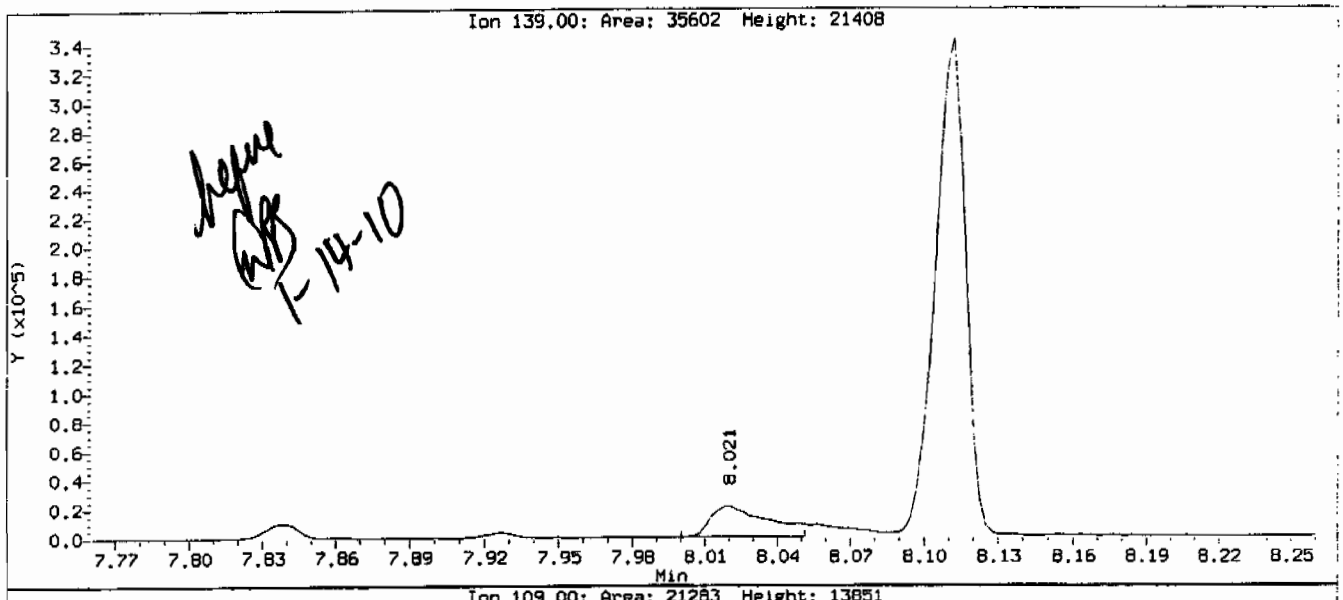

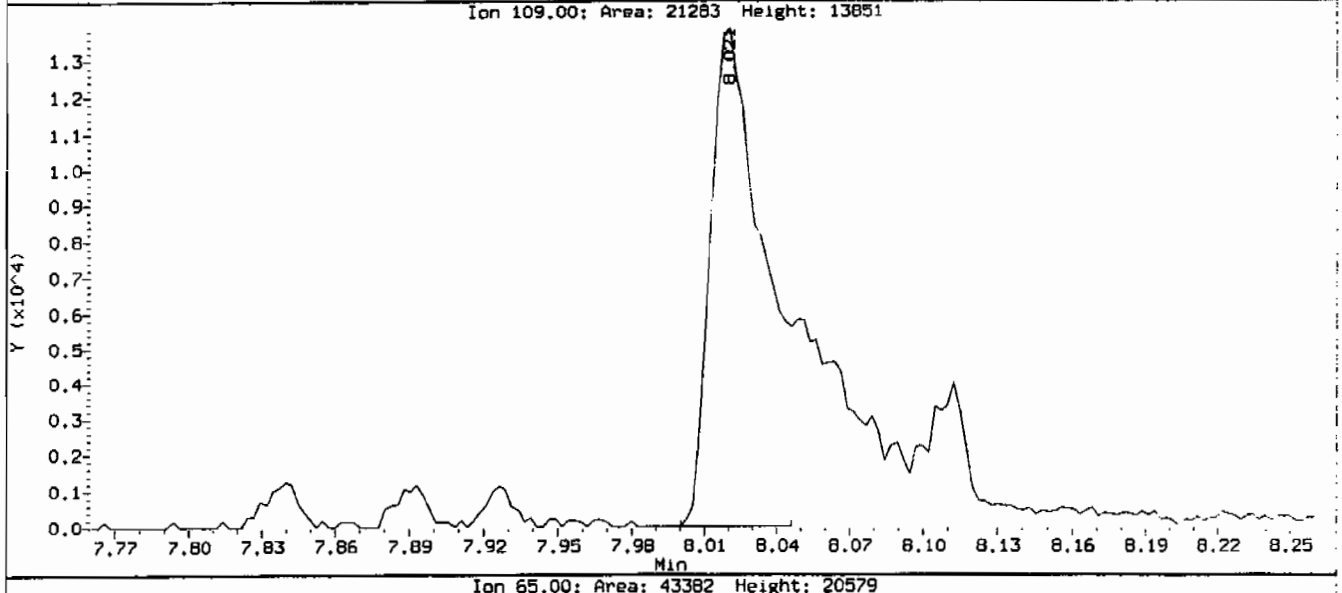

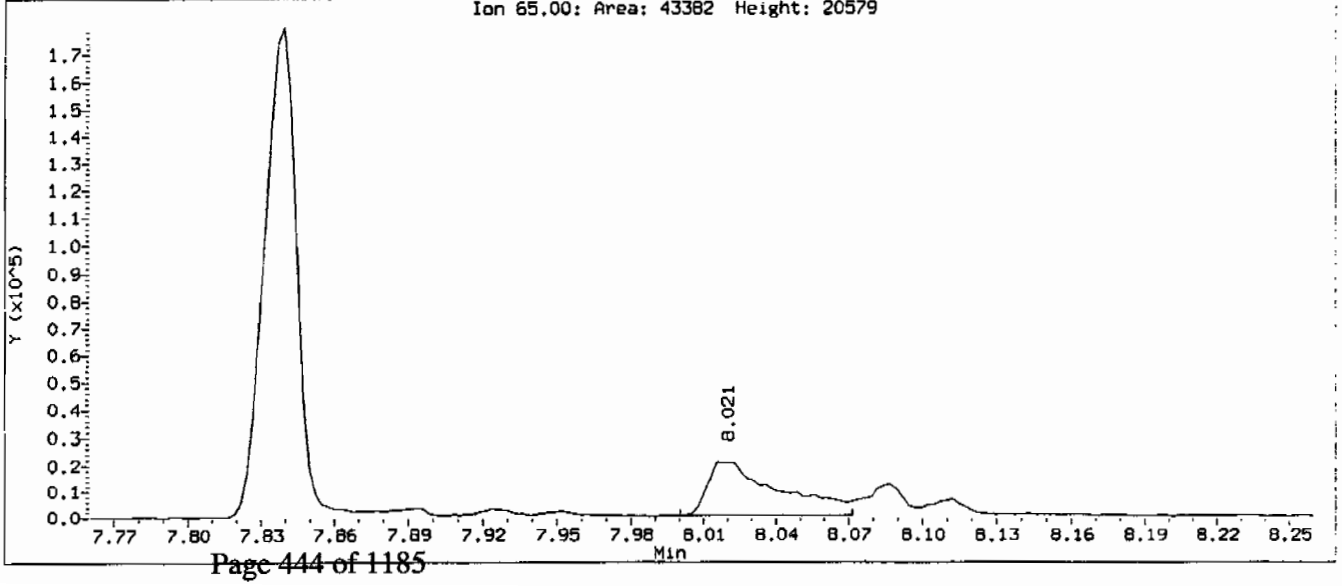

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Injection Date: 06-JAN-2010 14:38
Instrument: MSD6.i
Client Sample ID: CAPA-10-6390MSD

Compound: 4-Nitrophenol
CAS Number: 100-02-7

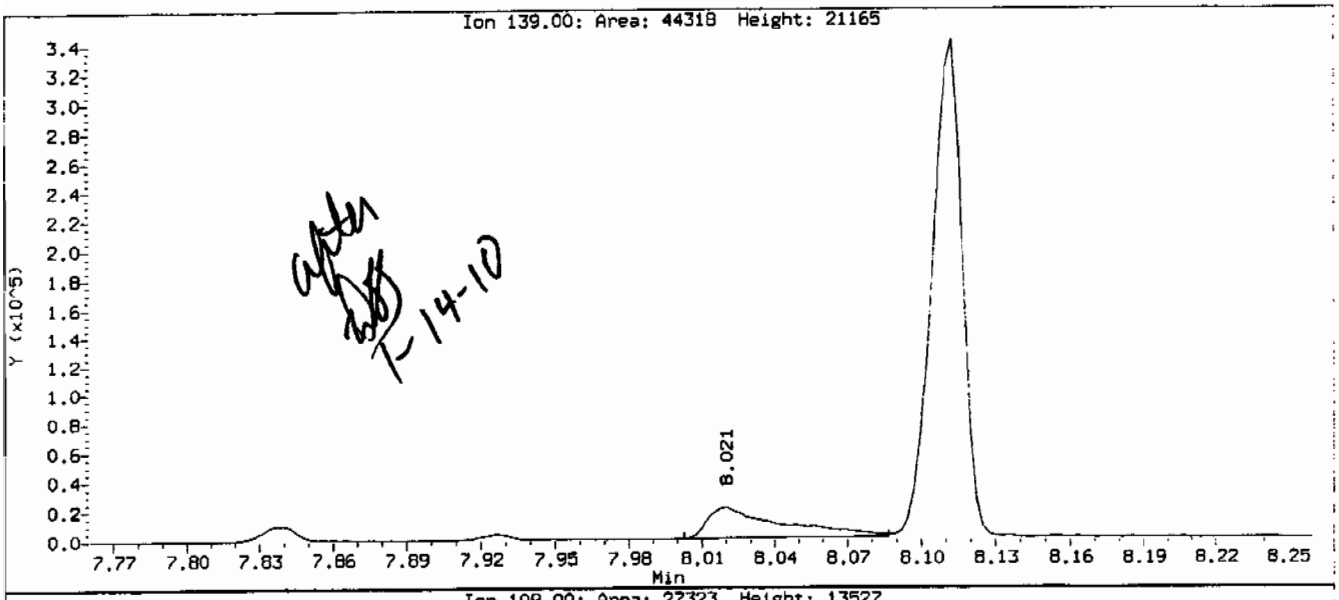

after 7-14-10

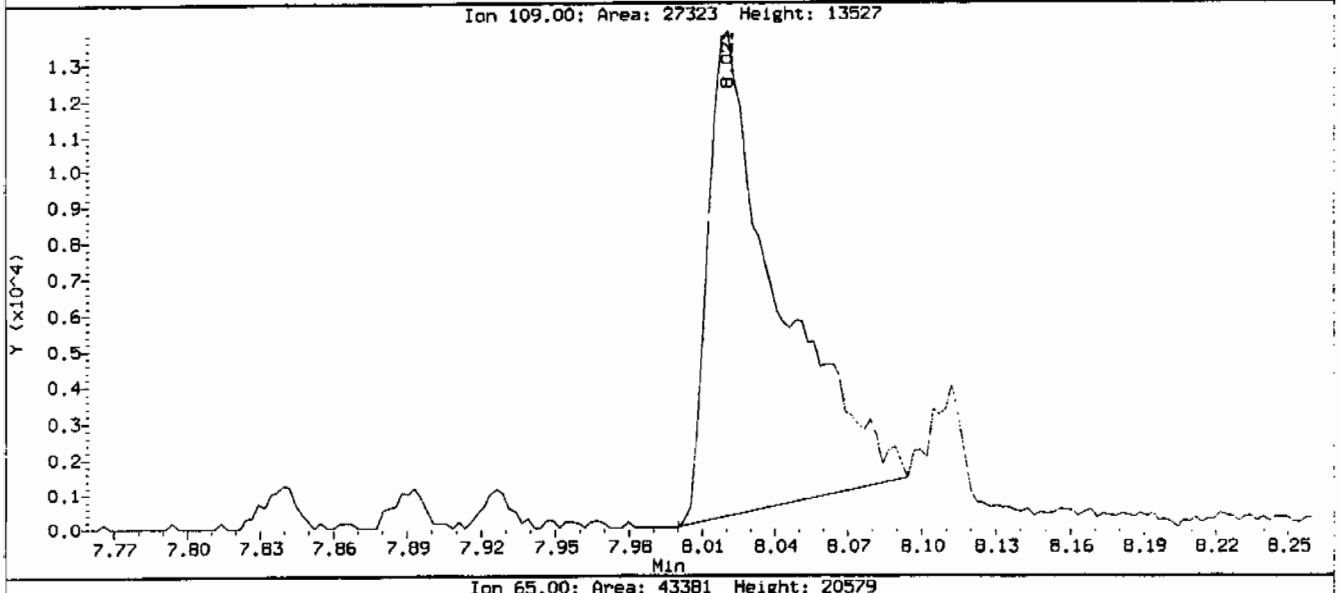

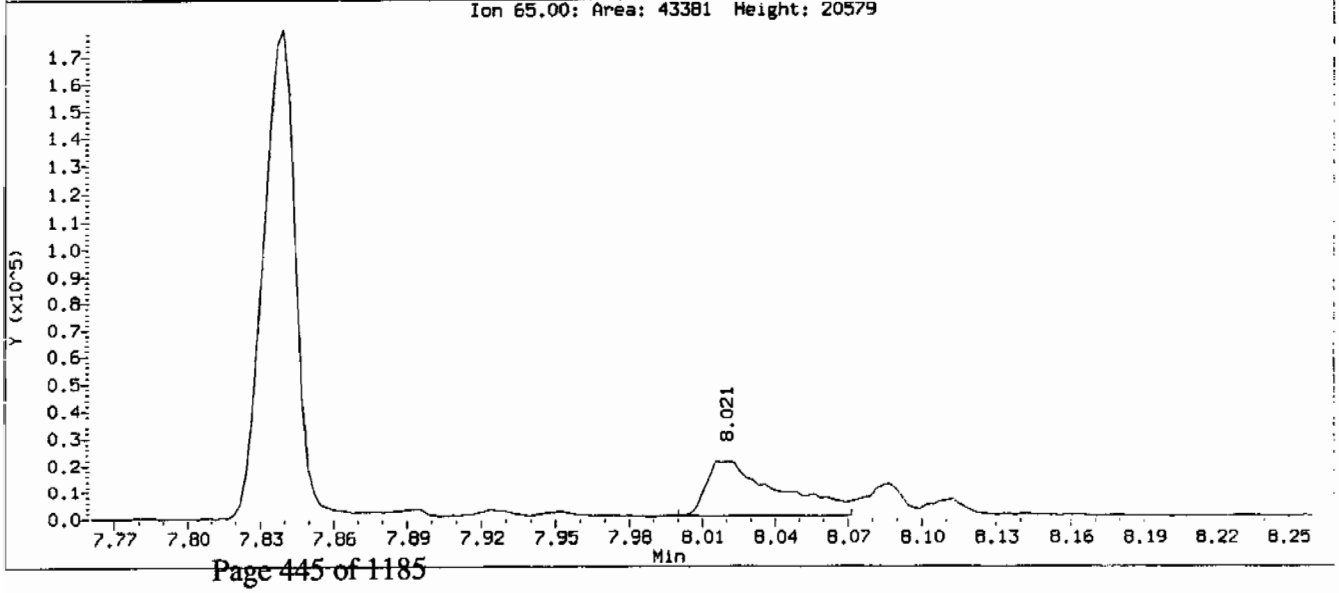

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LC/MS/MS EXPLOSIVES ANALYSIS

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LC/MS/MS Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-994

Method/Analysis Information

Procedure:	**Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)**
Analytical Method:	SW846 3535/8321A Modified
Prep Method:	SW846 Method 3535
Analytical Batch Number:	935230
Prep Batch Number:	935227

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 3535/8321A Modified :

Sample ID	Client ID
243283004	CAPA-10-6793
1202000990	Method Blank (MB)
1202000991	Laboratory Control Sample (LCS)
1202000994	Laboratory Control Sample Duplicate (LCSD)

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

Primary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

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Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery
The LCSD spike recoveries were within the established acceptance limits.

LCS/LCSD Relative Percent Difference (RPD) Statement
The LCS/LCSD RPD for 4-Amino-2,6-dinitrotoluene was 26.4% and for PETN was 27.9%. The acceptance limits for each are 0-25%. Since all other RPD recoveries met acceptance criteria, the noted exceptions are attributed to vagaries in the analytical process. The data are reported. Please see data exception report 780076.

QC Sample Designation
A matrix spike was not performed with this batch.

Internal Standard (ISTD) Acceptance
The SDG was re-analyzed several times due to failing ISTD acceptance criteria. Please see the Form 8 in the data package for the exact recoveries. The re-analyses confirmed the failures for samples 1202000990(MB), 1202000991(LCS) and 1202000994(LCSD). The last re-analysis data are reported for these samples. The confirmation raw data are in the Miscellaneous Section. Please see data exception report 780076.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

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Sample Re-extraction/Re-analysis
Samples 1202000990(MB), 1202000991(LCS) and 1202000994(LCSD) were re-analyzed several times due to failing ISTD acceptance criteria. Please see the Form 8 in the data package for the exact recoveries. The re-analyses confirmed the failures for samples 1202000990(MB), 1202000991(LCS) and 1202000994(LCSD). The last re-analysis data are reported for these samples. The confirmation raw data are in the Miscellaneous Section. Please see data exception report 780076.

Sample 243283004 (CAPA-10-6793) failed ISTD acceptance criteria. It was re-analyzed several times. The last re-analysis passed acceptance criteria and is reported.

Secondary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery
The LCSD spike recoveries were within the established acceptance limits.

LCS/LCSD Relative Percent Difference (RPD) Statement
The RPD(s) between the LCS and LCSD met the acceptance limits.

QC Sample Designation
A matrix spike was not performed with this batch.

Internal Standard (ISTD) Acceptance
The internal standards were not added to the secondary analyte extracts.

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Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
The SDG was re-analyzed due to a CVS failing acceptance criteria. The re-analysis passed acceptance criteria and is reported.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report 780076 was generated for this SDG.

The LCS/LCSD RPD for 4-Amino-2,6-dinitrotoluene was 26.4% and for PETN was 27.9%. The acceptance limits for each are 0-25%. Since all other RPD recoveries met acceptance criteria, the noted exceptions are attributed to vagaries in the analytical process. The data are reported.

The SDG was re-analyzed several times due to failing ISTD acceptance criteria. Please see the Form 8 in the data package for the exact recoveries. The re-analyses confirmed the failures for samples 1202000990(MB), 1202000991(LCS) and 1202000994(LCSD). The last re-analysis data are reported for these samples. The confirmation raw data are in the Miscellaneous Section.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

Flagging Convention
The sample was not originally analyzed using SW-846 Method 8330.

Additional Comments
Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

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System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert K Maier **Date:** 01/14/10

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SAMPLE DATA SUMMARY

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6793

Lab Code: GEL

GEL Job No (SDG) 10-994

Matrix: GROUND WATER

GEL Sample ID: 243283004

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 19-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 935227

Concentrated Extract Volume (mL) 5

Date Extracted: 23-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0112074a

Date Analyzed: 14-JAN-10 03:49

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	U
121-14-2	2,4-Dinitrotoluene	0.325	U
121-82-4	RDX	0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	U
2691-41-0	HMX	0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	U
479-45-8	Tetryl	0.649	U
606-20-2	2,6-Dinitrotoluene	0.325	U
78-11-5	PETN	1.3	U
88-72-2	o-Nitrotoluene	0.325	U
98-95-3	Nitrobenzene	0.325	U
99-08-1	m-Nitrotoluene	0.325	U
99-35-4	1,3,5-Trinitrobenzene	0.325	U
99-65-0	m-Dinitrobenzene	0.325	U
99-99-0	p-Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6793

Lab Code: GEL

GEL Job No (SDG) 10-994

Matrix: GROUND WATER

GEL Sample ID: 243283004

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 19-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 935227

Concentrated Extract Volume (mL) 5

Date Extracted: 23-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01040047.wiff

Date Analyzed: 05-JAN-10 03:43

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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QUALITY CONTROL SUMMARY

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

2

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–994

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
243283004	CAPA–10–6793	97.6	66.8 – 128.8	
243283004	CAPA–10–6793	100	66.8 – 128.8	
1202000990	MB for batch 935227	100	66.8 – 128.8	
1202000990	MB for batch 935227	97.6	66.8 – 128.8	
1202000991	LCS for batch 935227	90.4	66.8 – 128.8	
1202000991	LCS for batch 935227	93.2	66.8 – 128.8	
1202000994	LCSD for batch 935227	101	66.8 – 128.8	
1202000994	LCSD for batch 935227	102	66.8 – 128.8	

DNT = 3,4–Dinitrotoluene

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-994

Extract Batch Code: 935227

Date Extracted: 23-DEC-09

GEL LCS ID: 1202000991

GEL LCSDUP ID: 1202000994

Analysis Date/Time: 14-JAN-10 02:50

DUP Analysis Date/Time:

Reporting Units: ug/L

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
1,3,5-Trinitrobenzene	6.49351	5.87	90.4	6.69	103	13.1	25	64.7 – 122
2,4,6-Trinitrotoluene	6.49351	5.6	86.3	6.81	105	19.4	25	76 – 132
2,4-Dinitrotoluene	6.49351	6.3	97	6.75	104	6.85	25	76.9 – 126
2,6-Dinitrotoluene	6.49351	5.54	85.2	6	92.4	8.02	25	78.8 – 117
2-Amino-4,6-dinitrotoluene	6.49351	5.42	83.4	6.81	105	22.8	25	72.9 – 142
4-Amino-2,6-dinitrotoluene	6.49351	5.17	79.6	6.74	104	26.4 *	25	75.7 – 130
HMX	6.49351	4.71	72.6	5.72	88.1	19.3	25	59.6 – 135
Nitrobenzene	6.49351	4.85	74.7	5.58	85.9	13.9	25	65 – 116
PETN	6.49351	4.91	75.6	6.5	100	27.9 *	25	58.8 – 135
RDX	6.49351	5.54	85.4	6.45	99.4	15.2	25	68.3 – 140
Tetryl	6.49351	5.21	80.3	6.03	92.9	14.6	25	56.9 – 126
m-Dinitrobenzene	6.49351	5.19	79.9	6.2	95.5	17.8	25	75.7 – 119
m-Nitrotoluene	6.49351	4.48	68.9	4.93	75.9	9.58	25	62 – 120
o-Nitrotoluene	6.49351	4.22	64.9	5.02	77.3	17.4	25	63.3 – 114
p-Nitrotoluene	6.49351	4.53	69.8	5.12	78.8	12.1	25	64 – 117

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10–994

Extract Batch Code: 935227

Date Extracted: 23–DEC–09

GEL LCS ID: 1202000991

GEL LCSDUP ID: 1202000994

Analysis Date/Time: 05–JAN–10 03:12

DUP Analysis Date/Time:

Reporting Units: ug/L

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
TATB	6.49351	4.48	69	5.51	84.8	20.5	25	32.7 – 150
tris(o–cresyl) phosphate	6.49351	2.26	34.8	2.7	41.6	17.8	25	26.1 – 68.5
2,4–Diamino–6–nitrotoluene	6.49351	4.65	71.6	5.38	82.8	14.5	25	52.3 – 113
3,5–Dinitroaniline	6.49351	4.82	74.2	5.86	90.2	19.5	25	68.2 – 116
2,6–Diamino–4–nitrotoluene	6.49351	5.95	91.6	6.45	99.4	8.17	25	59.1 – 123

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10--994

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 12-JAN-10 15:55

GEL Data File: EXP0112001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4--Dinitrotoluene	0	0
1,3,5--Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	657.584
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	664.736
2-Amino-4,6--dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

Method: C:\MASSLYNX\NEW_EXP.PRO\MethDB\011210expa.mdb, Time: Wed Jan 13 07:57:02 2010
Calibration: Untitled, Time: Wed Jan 13 08:59:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112001a
Date: 12-Jan-2010
Time: 15:55:42
ID: XIBLK01
Vial: 1:1,A

MMP 1/13/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.713e+003

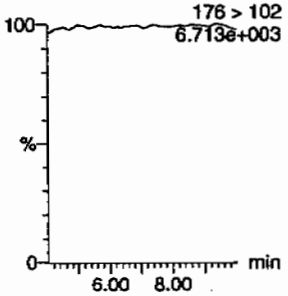

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.713e+003

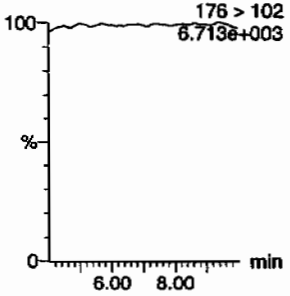

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.534e+003

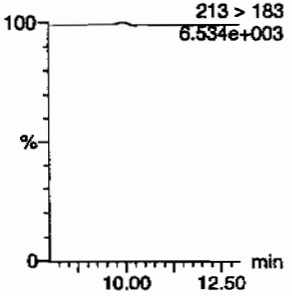

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.420e+004

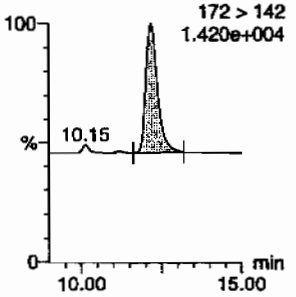

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.501e+003

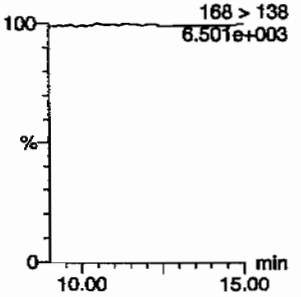

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.473e+003

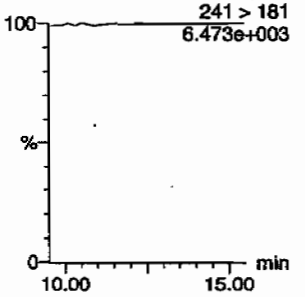

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.538e+003

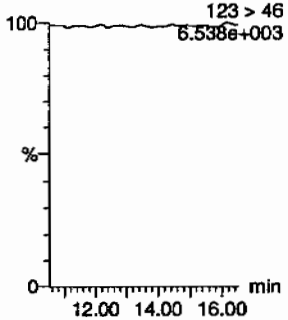

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.551e+003

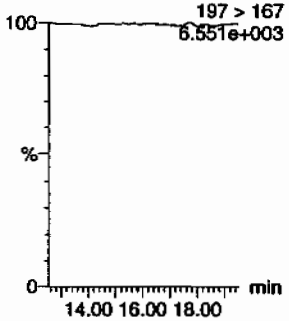

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.612e+003

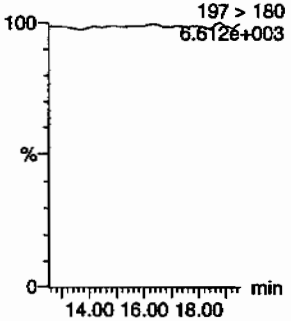

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.503e+003

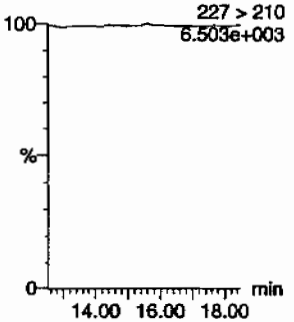

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.508e+003

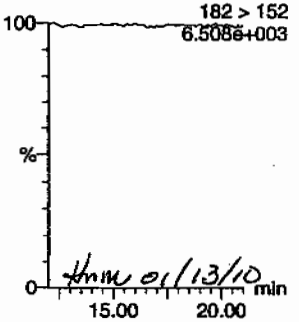

Hmm 01/13/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.508e+003

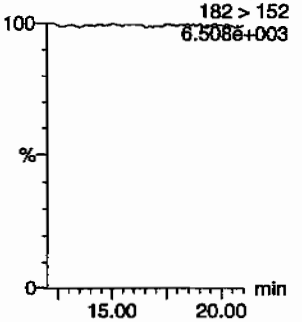

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

24-dinitrotoluene

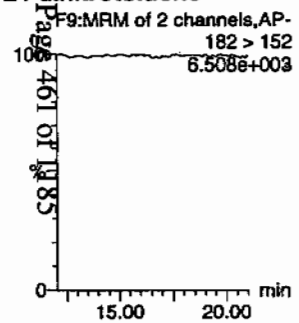

26-dinitrotoluene-d3

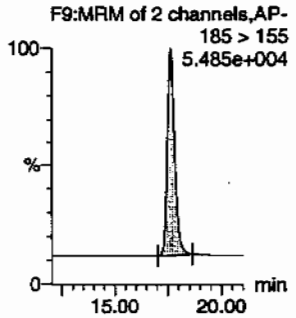

2-Nitrotoluene

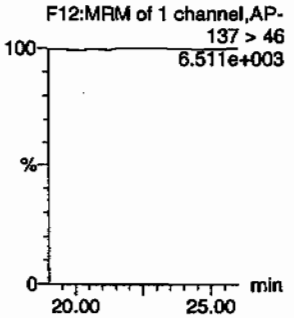

4-Nitrotoluene

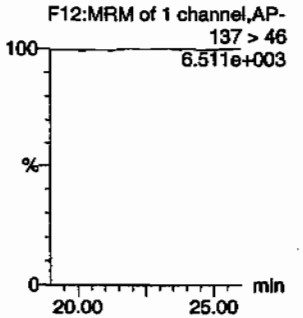

3-Nitrotoluene

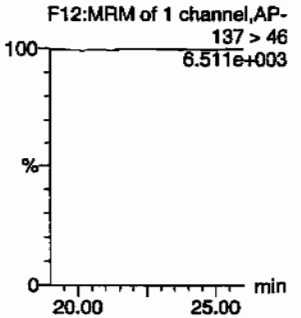

PETN

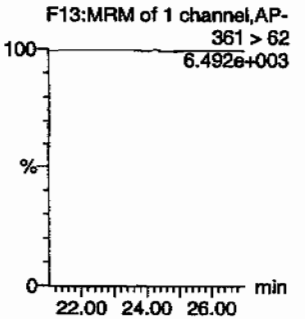

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			3310.351									
XIBLK01	RDX	176 > 102			3310.351									
XIBLK01	135-Trinitrobenzene	213 > 183			3310.351									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.20	3310.351		3310.351	3310.351	bb			657.5842	131.5	31.5	823.4
XIBLK01	13-Dinitrobenzene	168 > 138			3310.351									
XIBLK01	Tetryl	241 > 181			3310.351									
XIBLK01	Nitrobenzene	123 > 46			3310.351									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			19318.230									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			19318.230									
XIBLK01	246-Trinitrotoluene	227 > 210			19318.230									
XIBLK01	34-dinitrotoluene	182 > 152			19318.230									
XIBLK01	26-dinitrotoluene	182 > 152			19318.230									
XIBLK01	24-dinitrotoluene	182 > 152			19318.230									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.65	19318.230		19318.230	19318.230	bb			664.7357	132.9	32.9	1476.6
XIBLK01	2-Nitrotoluene	137 > 46			19318.230									
XIBLK01	4-Nitrotoluene	137 > 46			19318.230									
XIBLK01	3-Nitrotoluene	137 > 46			19318.230									
XIBLK01	PETN	361 > 62			19318.230									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-994

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 12-JAN-10 16:25

GEL Data File: EXP0112002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	640.009
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	627.601
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112002a
Date: 12-Jan-2010
Time: 16:25:11
ID: KIBLK01
Vial: 1:1,A

MMP 1/13/10

HMX

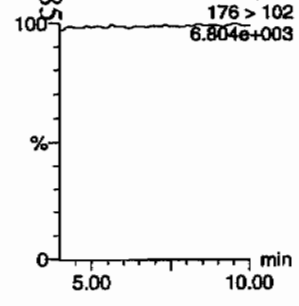

RDX

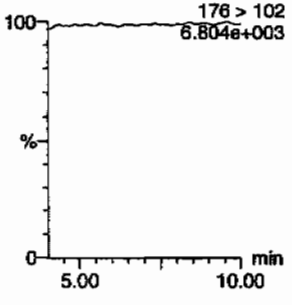

135-Trinitrobenzene

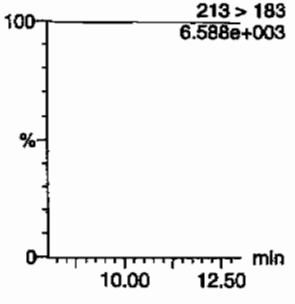

13-Dinitrobenzene-d4

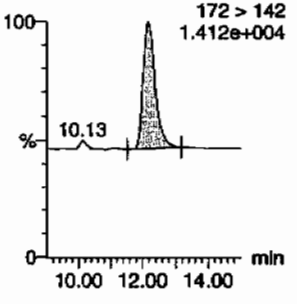

13-Dinitrobenzene

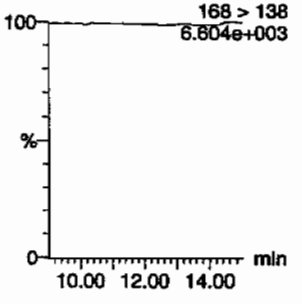

Tetryl

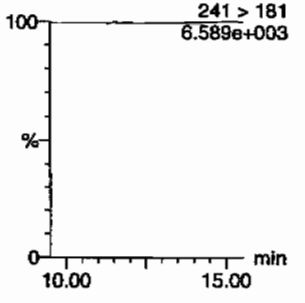

Nitrobenzene

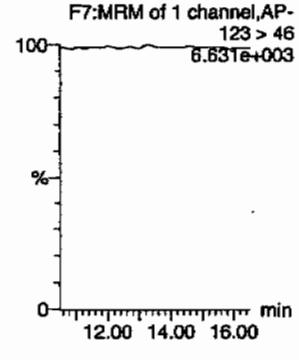

4-Amino-26-dinitrotoluene

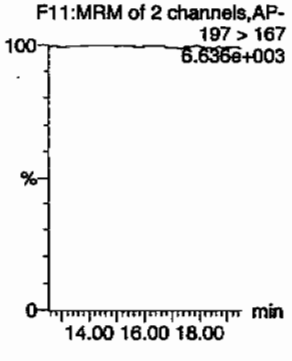

2-Amino-46-dinitrotoluene

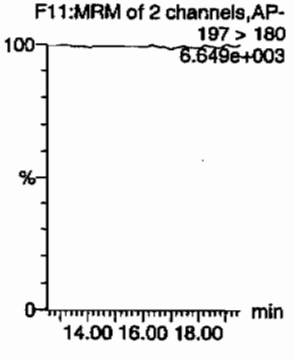

246-Trinitrotoluene

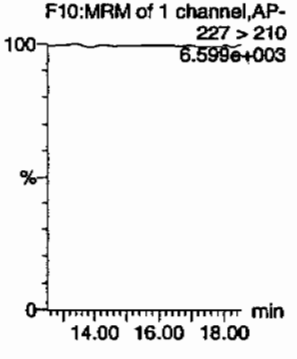

34-dinitrotoluene

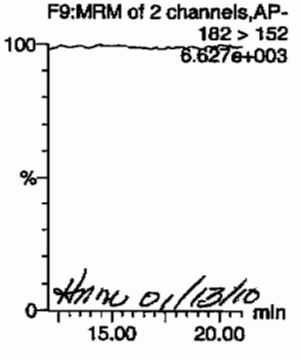

MMP 01/13/10

26-dinitrotoluene

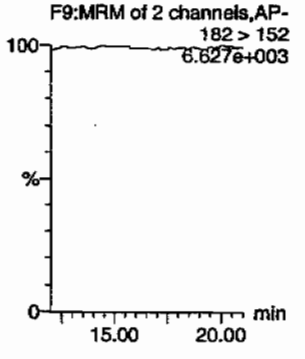

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.627e+003

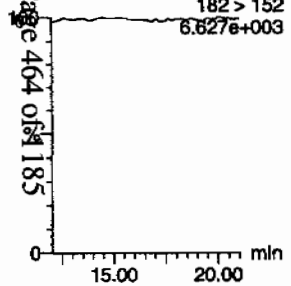

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
5.256e+004

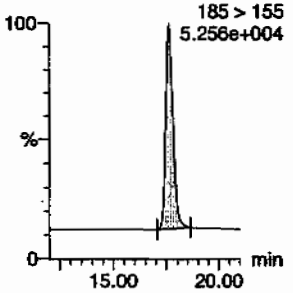

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.620e+003

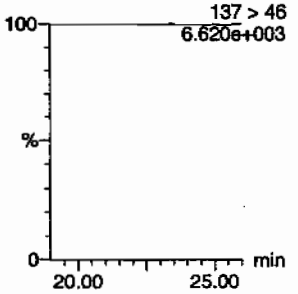

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.620e+003

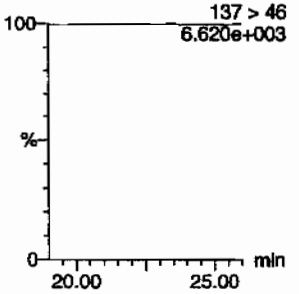

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.620e+003

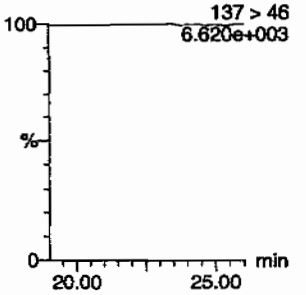

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.598e+003

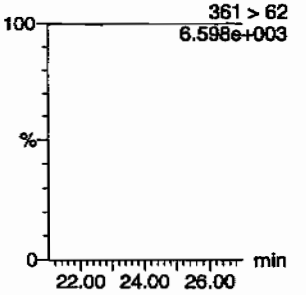

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%DeV	S/N
XIBLK01	HMX	176 > 102			3221.878									
XIBLK01	RDX	176 > 102			3221.878									
XIBLK01	135-Trinitrobenzene	213 > 183			3221.878									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.20	3221.878		3221.878	3221.878	bb			640.0095	128.0	28.0	323.2
XIBLK01	13-Dinitrobenzene	168 > 138			3221.878									
XIBLK01	Tetryl	241 > 181			3221.878									
XIBLK01	Nitrobenzene	123 > 46			3221.878									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			18239.025									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			18239.025									
XIBLK01	246-Trinitrotoluene	227 > 210			18239.025									
XIBLK01	34-dinitrotoluene	182 > 152			18239.025									
XIBLK01	26-dinitrotoluene	182 > 152			18239.025									
XIBLK01	24-dinitrotoluene	182 > 152			18239.025									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.64	18239.025		18239.025	18239.025	bb			627.6005	125.5	25.5	1114.5
XIBLK01	2-Nitrotoluene	137 > 46			18239.025									
XIBLK01	4-Nitrotoluene	137 > 46			18239.025									
XIBLK01	3-Nitrotoluene	137 > 46			18239.025									
XIBLK01	PETN	361 > 62			18239.025									

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-994

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 04-JAN-10 15:41

GEL Data File: EXS01040001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	3.71
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Sample Name: "XIBLK01" Sample ID: "1|LER" File: "EXS01040001.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 3:41:28 PM

Modified: No

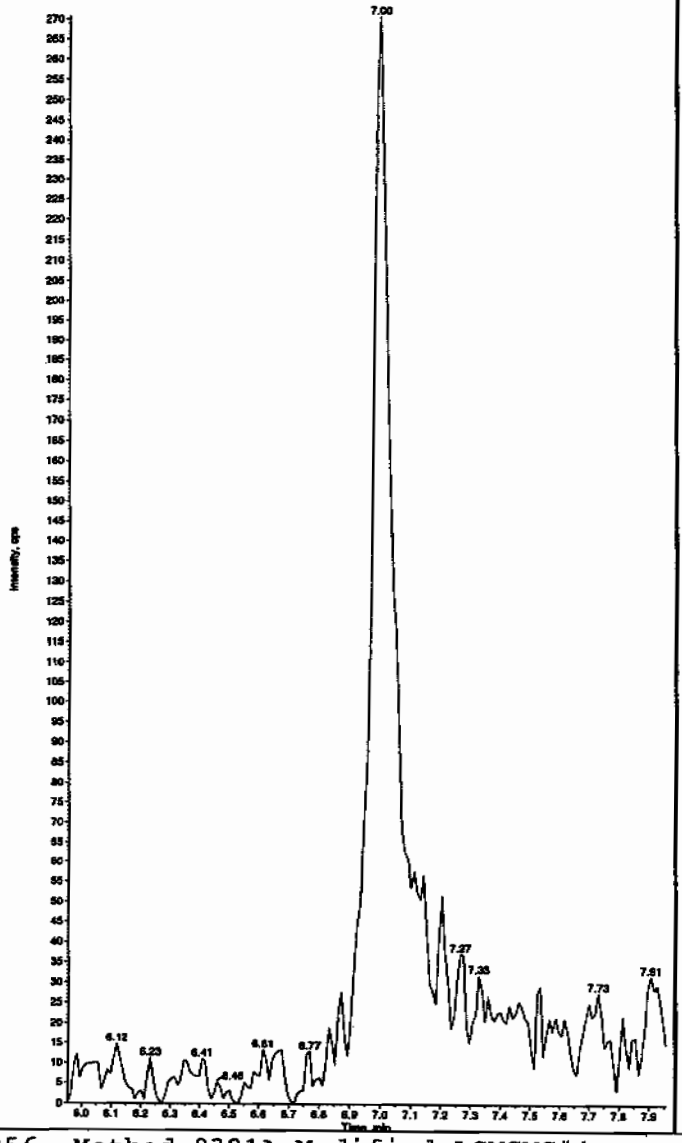

Sample Name: "XIBLK01" Sample ID: "1|LER" File: "EXS01040001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 3:41:28 PM

Modified: No

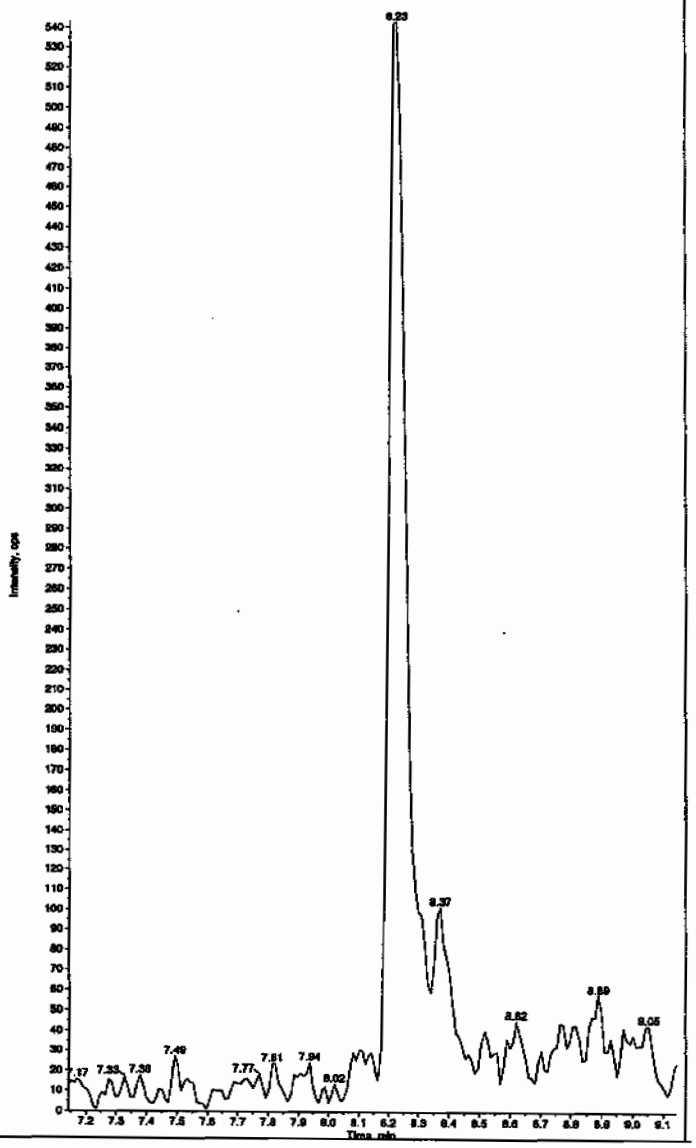

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS01040001.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 3:41:28 PM

Modified: No

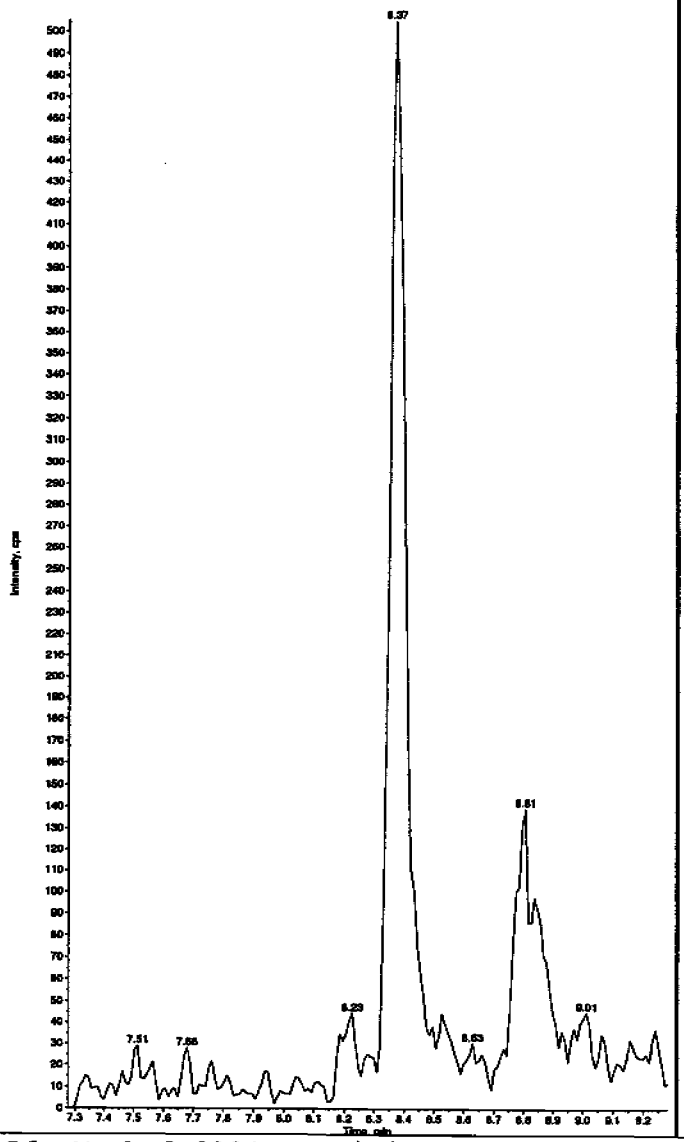

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS01040001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 3:41:28 PM

Modified: No

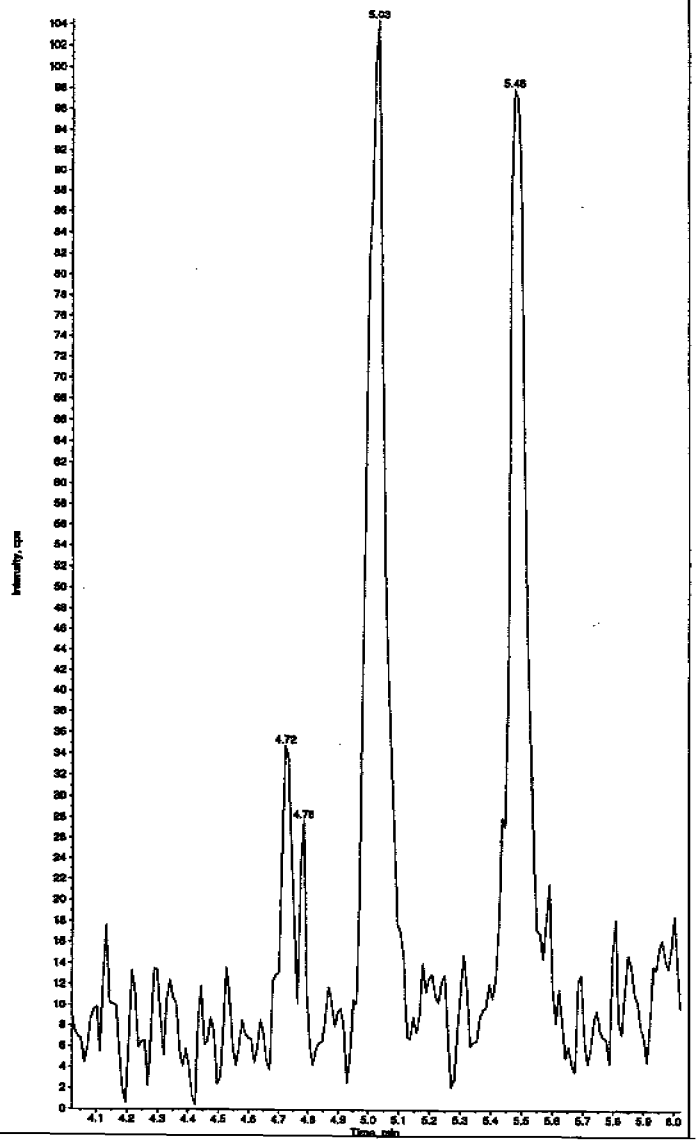

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBUK01" Sample ID: "[1]LER" File: "EXS01040001.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 3:41:28 PM

Modified: No

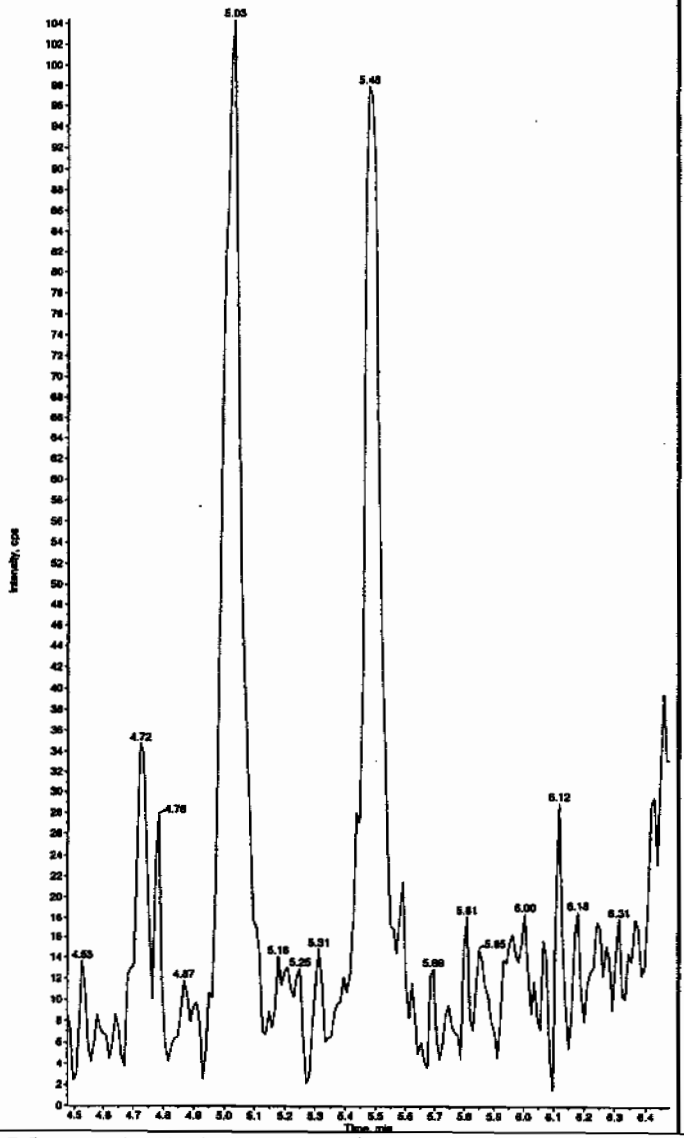

Sample Name: "XIBUK01" Sample ID: "[1]LER" File: "EXS01040001.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 3.71 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 3:41:28 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.94e+004 counts
Height: 20074.606 cps
Start Time: 10.8 min
End Time: 11.2 min

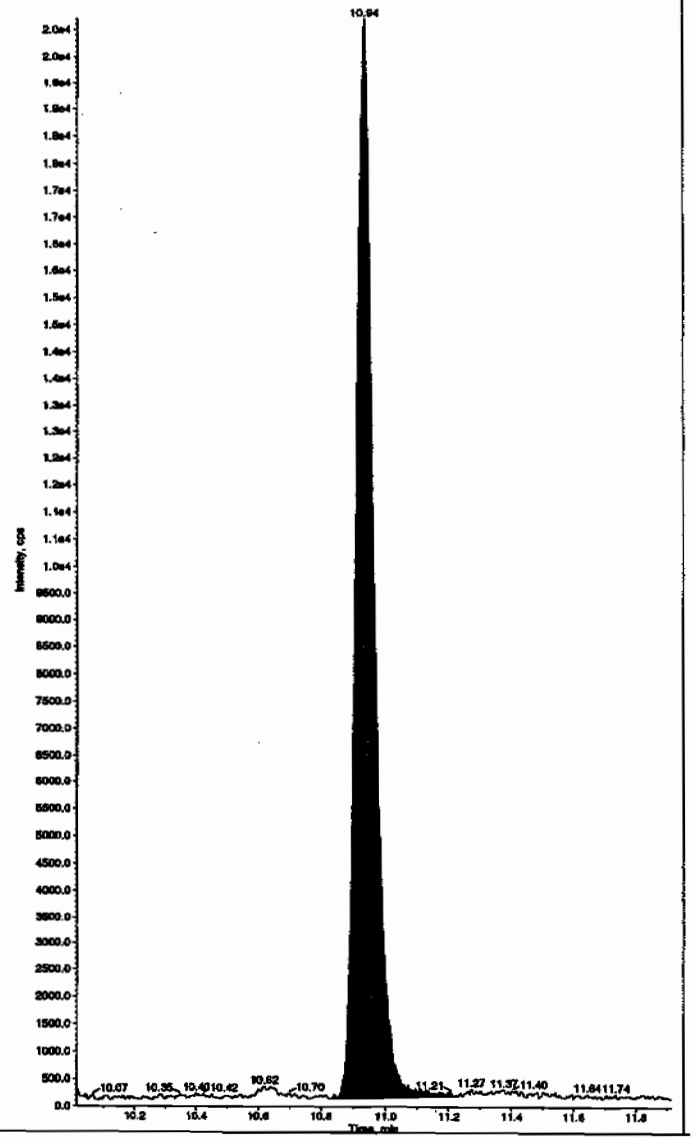

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-994

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 04-JAN-10 15:57

GEL Data File: EXS01040002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	3.32
TATB	0	0

Sam 1/5/10

Sample Name: "XIBLK01" Sample ID: "[1]LEFT" File: "EXS01040002.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 3:57:15 PM
Modified: No

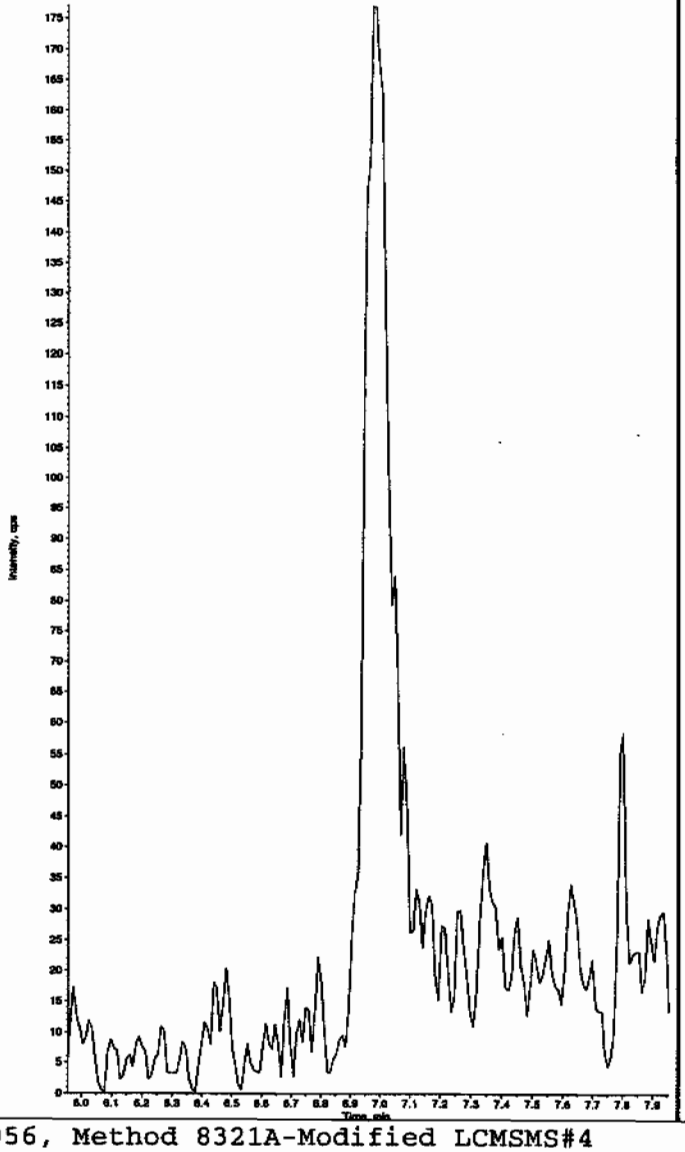

Sample Name: "XIBLK01" Sample ID: "[1]LEFT" File: "EXS01040002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 3:57:15 PM
Modified: No

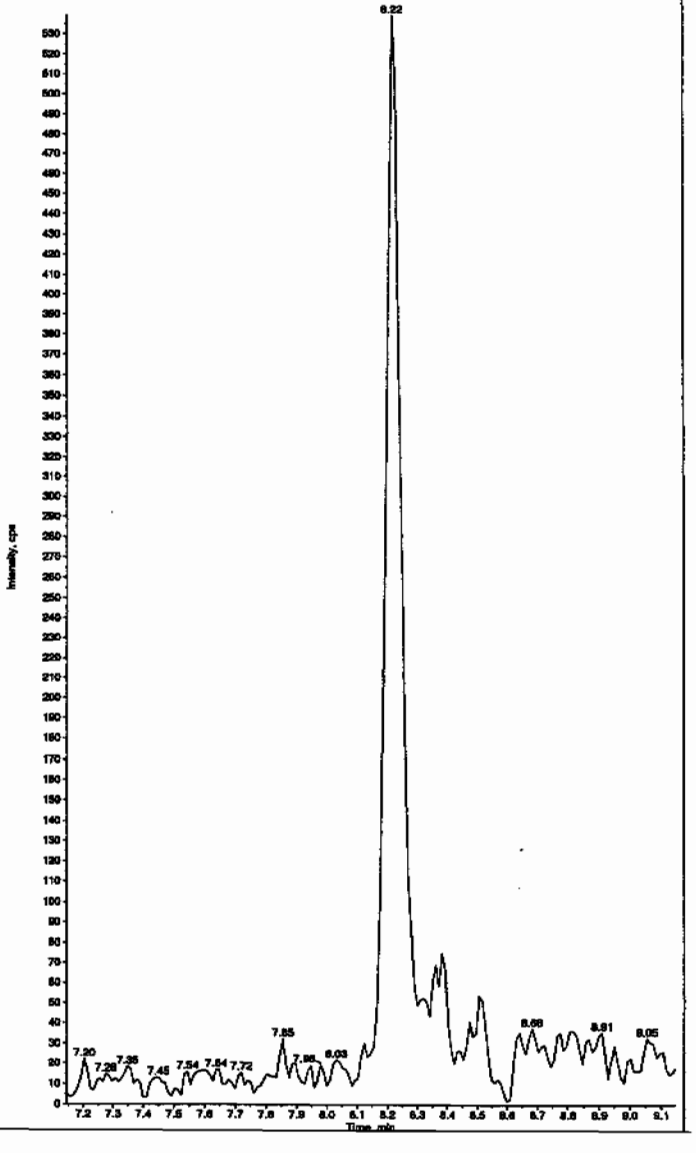

HNM 01/05/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS01040002.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 3:57:15 PM

Modified: No

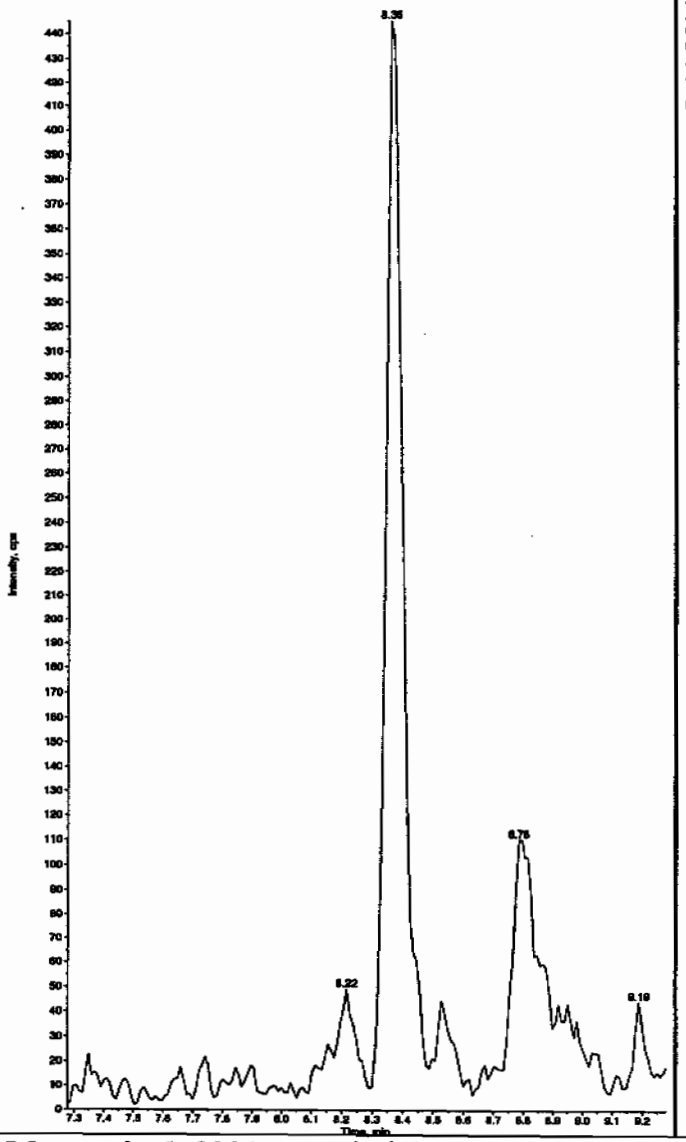

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS01040002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 3:57:15 PM

Modified: No

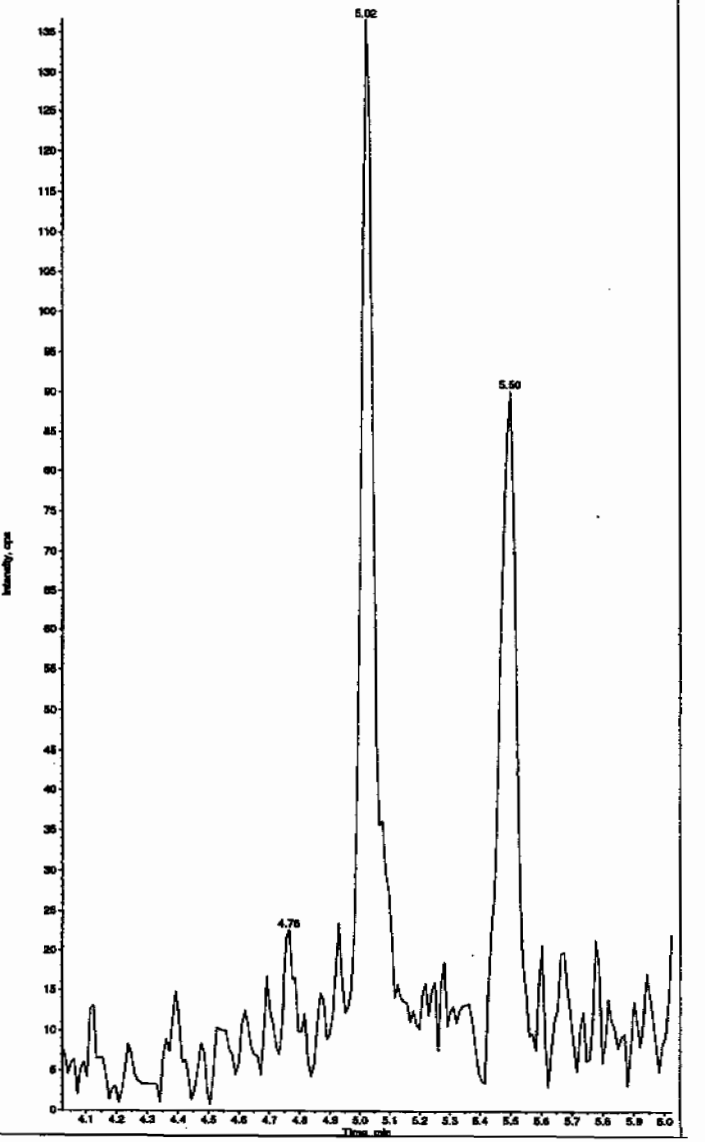

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS01040002.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 3:57:15 PM

Modified: No

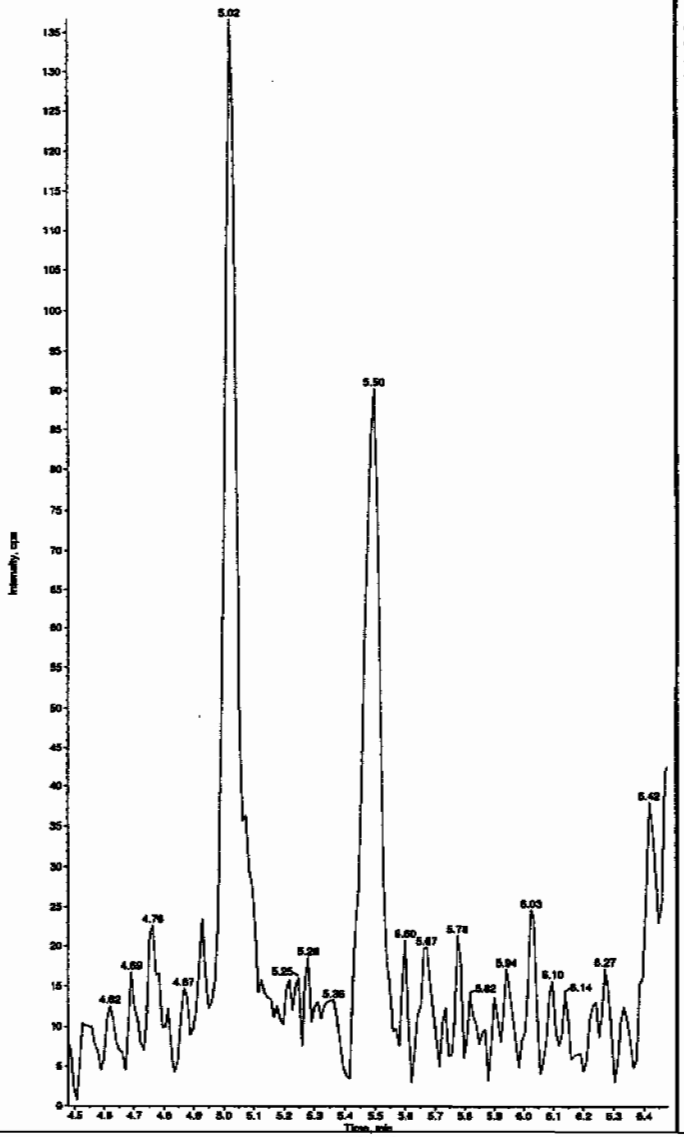

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS01040002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 3.32 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 3:57:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 6.92e+004 counts
Height: 18611.103 cps
Start Time: 10.9 min
End Time: 11.1 min

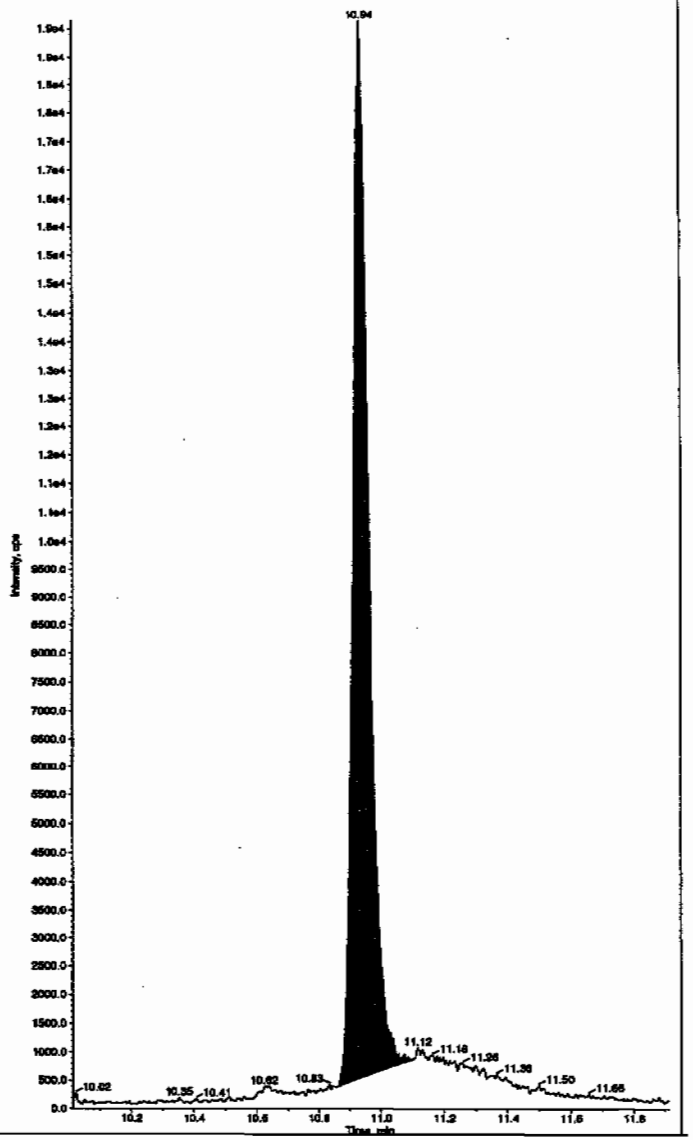

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-994

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 12-JAN-10 19:51

GEL Data File: EXP0112009a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	577.037
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	650.121

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112009a
Date: 12-Jan-2010
Time: 19:51:29
ID: XIBLK02
Vial: 1:1,A

MM 1/13/10

HMX
F2:MRM of 1 channel,AP-176 > 102
6.095e+003

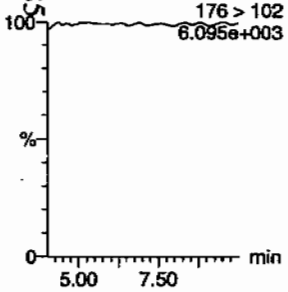

RDX
F2:MRM of 1 channel,AP-176 > 102
6.095e+003

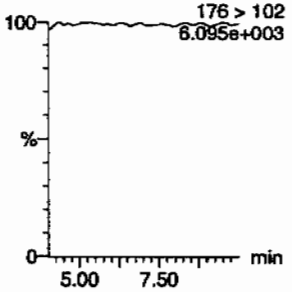

135-Trinitrobenzene
F4:MRM of 1 channel,AP-213 > 183
5.910e+003

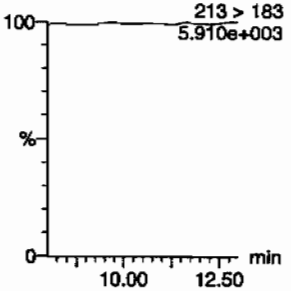

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-172 > 142
1.359e+004

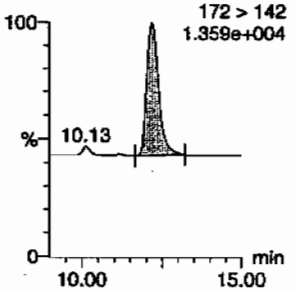

13-Dinitrobenzene
F5:MRM of 2 channels,AP-168 > 138
5.887e+003

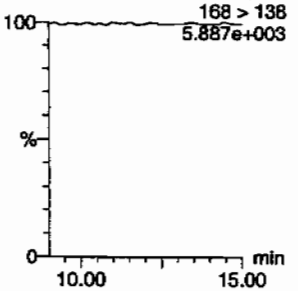

Tetryl
F6:MRM of 1 channel,AP-241 > 181
5.909e+003

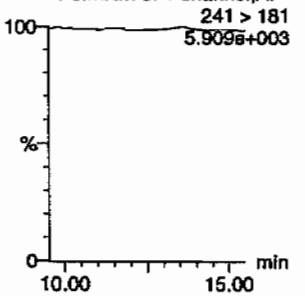

Nitrobenzene
F7:MRM of 1 channel,AP-123 > 46
5.894e+003

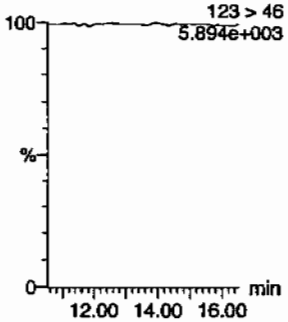

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-197 > 167
6.018e+003

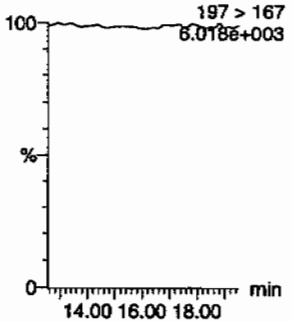

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-197 > 180
5.997e+003

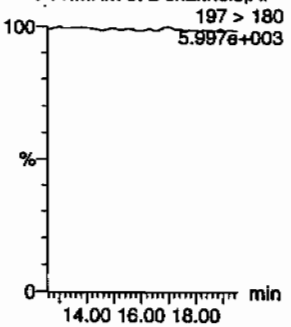

246-Trinitrotoluene
F10:MRM of 1 channel,AP-227 > 210
5.911e+003

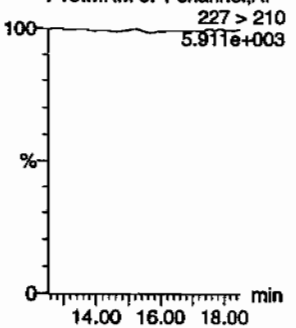

34-dinitrotoluene
F9:MRM of 2 channels,AP-182 > 152
5.941e+003

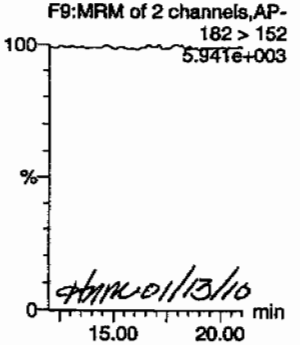

MM 01/13/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-182 > 152
5.941e+003

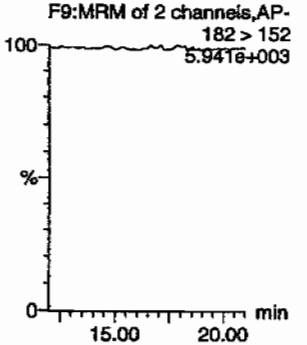

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

24-dinitrotoluene

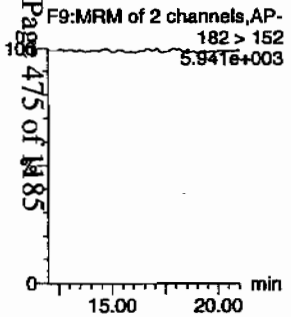

26-dinitrotoluene-d3

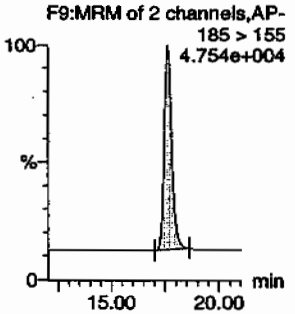

2-Nitrotoluene

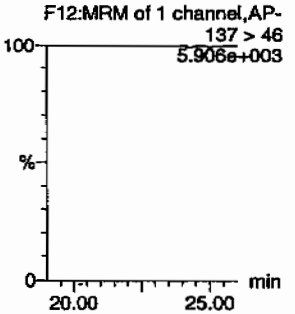

4-Nitrotoluene

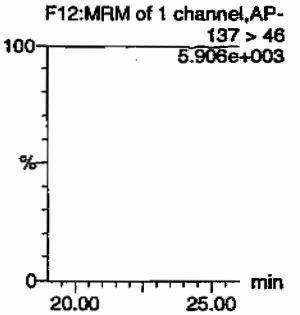

3-Nitrotoluene

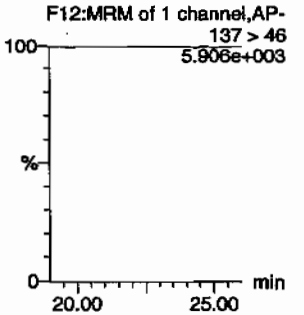

PETN

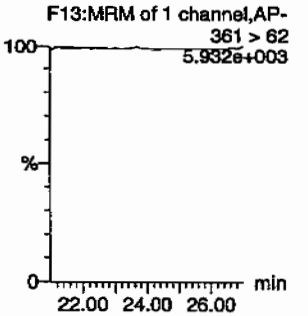

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK02	HMX	176 > 102			3272.779									
XIBLK02	RDX	176 > 102			3272.779									
XIBLK02	135-Trinitrobenzene	213 > 183			3272.779									
XIBLK02	13-Dinitrobenzene-d4	172 > 142	12.20	3272.779		3272.779	3272.779	bb			650.1207	130.0	30.0	256.5
XIBLK02	13-Dinitrobenzene	168 > 138			3272.779									
XIBLK02	Tetryl	241 > 181			3272.779									
XIBLK02	Nitrobenzene	123 > 46			3272.779									
XIBLK02	4-Amino-26-dinitrotoluene	197 > 167			16769.582									
XIBLK02	2-Amino-46-dinitrotoluene	197 > 180			16769.582									
XIBLK02	246-Trinitrotoluene	227 > 210			16769.582									
XIBLK02	34-dinitrotoluene	182 > 152			16769.582									
XIBLK02	26-dinitrotoluene	182 > 152			16769.582									
XIBLK02	24-dinitrotoluene	182 > 152			16769.582									
XIBLK02	26-dinitrotoluene-d3	185 > 155	17.63	16769.582		16769.582	16769.582	bb			577.0373	115.4	15.4	1212.9
XIBLK02	2-Nitrotoluene	137 > 46			16769.582									
XIBLK02	4-Nitrotoluene	137 > 46			16769.582									
XIBLK02	3-Nitrotoluene	137 > 46			16769.582									
XIBLK02	PETN	361 > 62			16769.582									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–994

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 12–JAN–10 20:50

GEL Data File: EXP0112011a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	597.6
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	608.793
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112011a
Date: 12-Jan-2010
Time: 20:50:25
ID: XIBLK03
Vial: 1:1,A

MMT 1/13/10

HMX

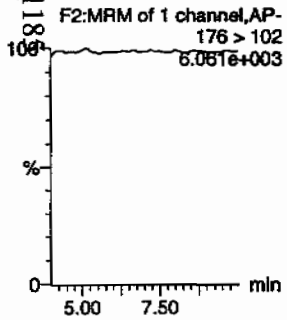

RDX

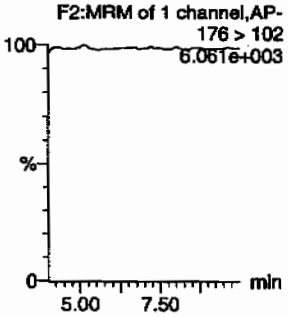

135-Trinitrobenzene

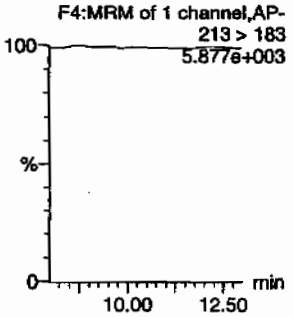

13-Dinitrobenzene-d4

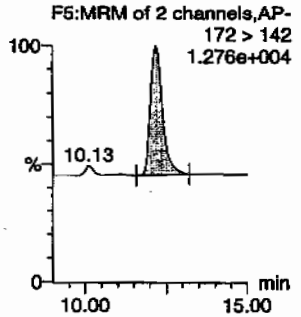

13-Dinitrobenzene

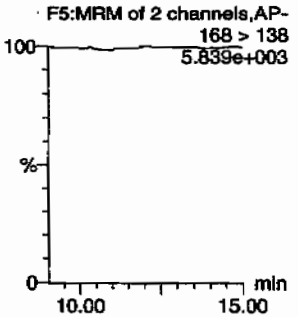

Tetryl

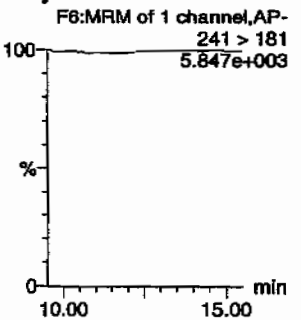

Nitrobenzene

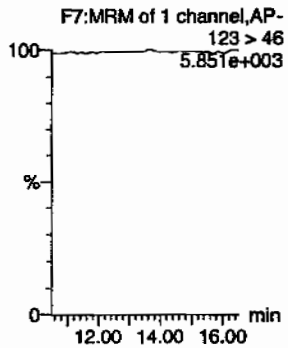

4-Amino-26-dinitrotoluene

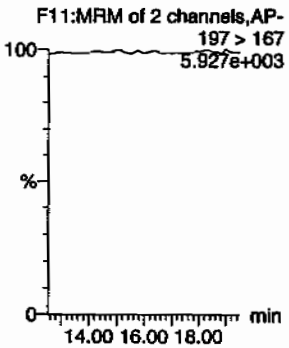

2-Amino-46-dinitrotoluene

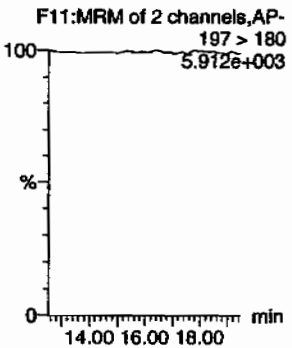

246-Trinitrotoluene

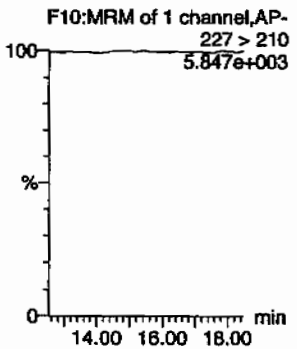

34-dinitrotoluene

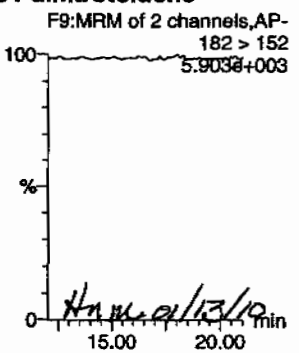

Hmm. 01/13/10

26-dinitrotoluene

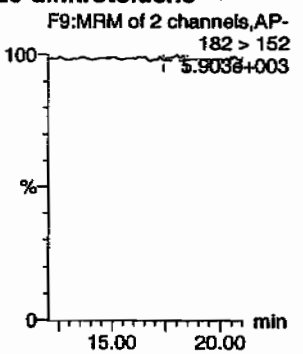

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

24-dinitrotoluene

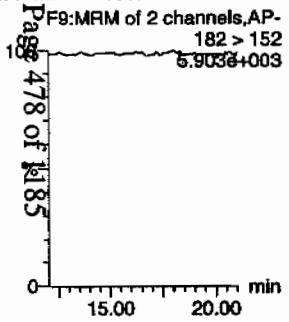

26-dinitrotoluene-d3

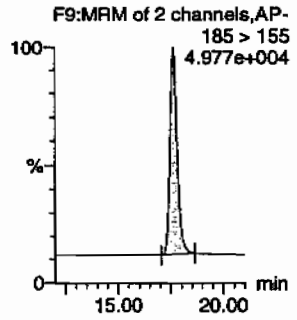

2-Nitrotoluene

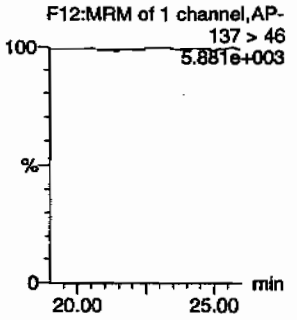

4-Nitrotoluene

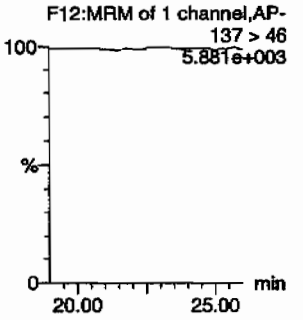

3-Nitrotoluene

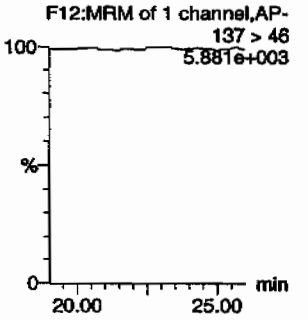

PETN

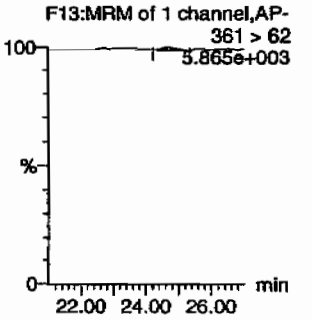

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
XIBLK03	HMX	176 > 102			3008.383									
XIBLK03	RDX	176 > 102			3008.383									
XIBLK03	135-Trinitrobenzene	213 > 183			3008.383									
XIBLK03	13-Dinitrobenzene-d4	172 > 142	12.17	3008.383		3008.383	3008.383	bb			597.5998	119.5	19.5	127.8
XIBLK03	13-Dinitrobenzene	168 > 138			3008.383									
XIBLK03	Tetryl	241 > 181			3008.383									
XIBLK03	Nitrobenzene	123 > 46			3008.383									
XIBLK03	4-Amino-26-dinitrotoluene	197 > 167			17692.457									
XIBLK03	2-Amino-46-dinitrotoluene	197 > 180			17692.457									
XIBLK03	246-Trinitrotoluene	227 > 210			17692.457									
XIBLK03	34-dinitrotoluene	182 > 152			17692.457									
XIBLK03	26-dinitrotoluene	182 > 152			17692.457			MM-	13-Jan-10	08:52:54				
XIBLK03	24-dinitrotoluene	182 > 152			17692.457			MM-	13-Jan-10	08:55:24				
XIBLK03	26-dinitrotoluene-d3	185 > 155	17.63	17692.457		17692.457	17692.457	bb			608.7932	121.8	21.8	1093.7
XIBLK03	2-Nitrotoluene	137 > 46			17692.457									
XIBLK03	4-Nitrotoluene	137 > 46			17692.457									
XIBLK03	3-Nitrotoluene	137 > 46			17692.457									
XIBLK03	PETN	361 > 62	24.68	40.340	17692.457	40.340	1.140	bb			0.0000			7.2

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10–994
Lab Code: GEL
Lab Sample ID: XIBLK04
Analysis Date: 13–JAN–10 00:16
GEL Data File: EXP0112018a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	620.846
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	577.078

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112018a
Date: 13-Jan-2010
Time: 00:16:49
ID: XIBLK04
Vial: 1:1,A

MM 1/13/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.638e+003

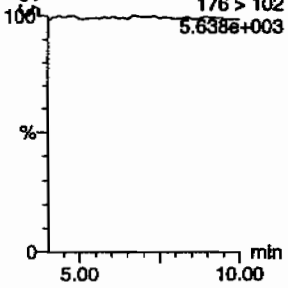

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.638e+003

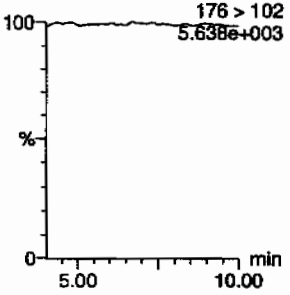

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.513e+003

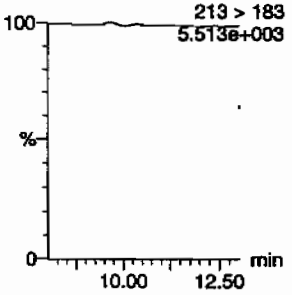

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.236e+004

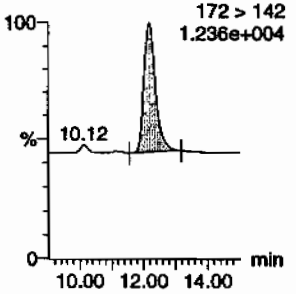

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.488e+003

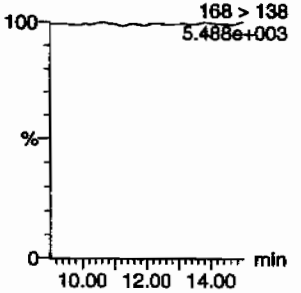

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.486e+003

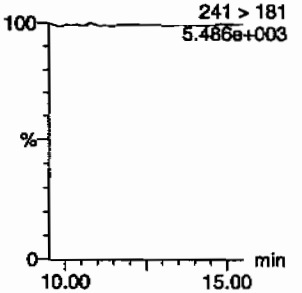

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.515e+003

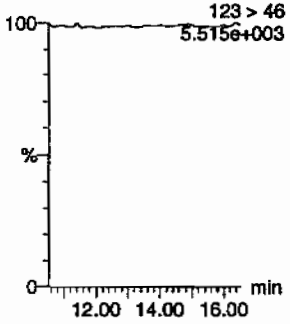

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.569e+003

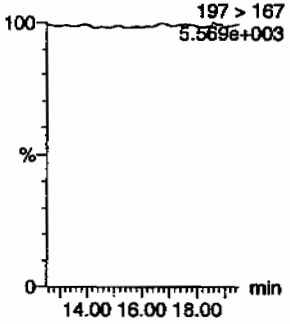

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.556e+003

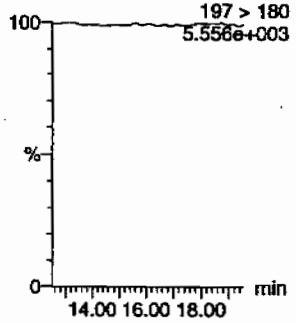

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.499e+003

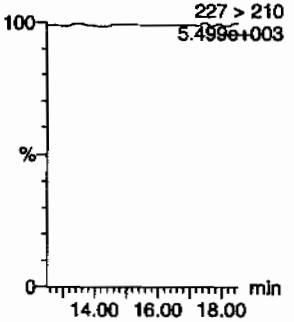

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.505e+003

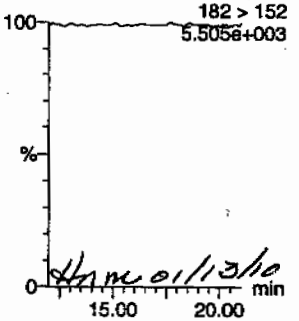

MM 01/13/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.505e+003

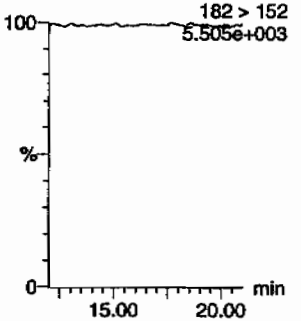

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

24-dinitrotoluene

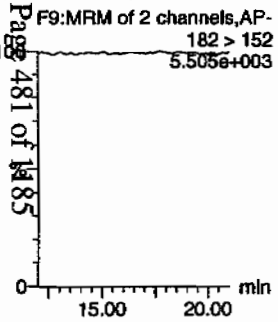

26-dinitrotoluene-d3

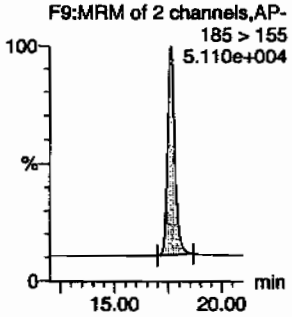

2-Nitrotoluene

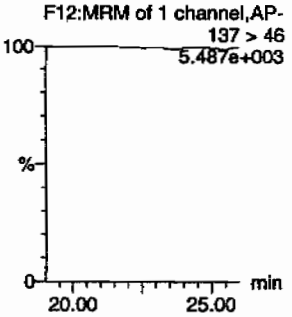

4-Nitrotoluene

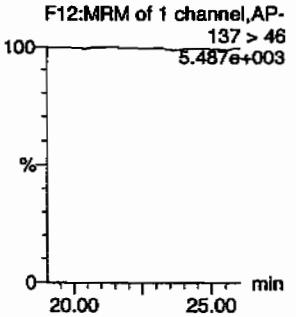

3-Nitrotoluene

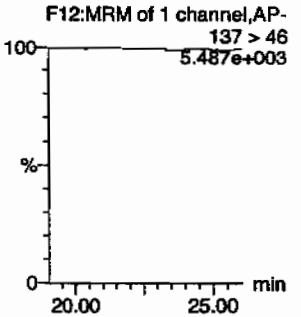

PETN

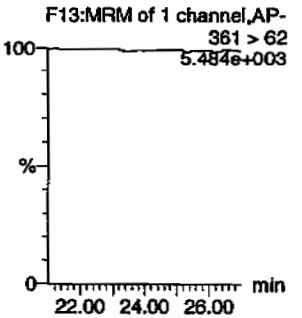

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK04	HMX	176 > 102			2905.073									
XIBLK04	RDX	176 > 102			2905.073									
XIBLK04	135-Trinitrobenzene	213 > 183			2905.073									
XIBLK04	13-Dinitrobenzene-d4	172 > 142	12.17	2905.073		2905.073	2905.073	bb			577.0778	115.4	15.4	367.8
XIBLK04	13-Dinitrobenzene	168 > 138			2905.073									
XIBLK04	Tetryl	241 > 181			2905.073									
XIBLK04	Nitrobenzene	123 > 46			2905.073									
XIBLK04	4-Amino-26-dinitrotoluene	197 > 167			18042.723									
XIBLK04	2-Amino-46-dinitrotoluene	197 > 180			18042.723									
XIBLK04	246-Trinitrotoluene	227 > 210			18042.723									
XIBLK04	34-dinitrotoluene	182 > 152			18042.723									
XIBLK04	26-dinitrotoluene	182 > 152			18042.723									
XIBLK04	24-dinitrotoluene	182 > 152			18042.723									
XIBLK04	26-dinitrotoluene-d3	185 > 155	17.62	18042.723		18042.723	18042.723	bb			620.8458	124.2	24.2	1369.8
XIBLK04	2-Nitrotoluene	137 > 46			18042.723									
XIBLK04	4-Nitrotoluene	137 > 46			18042.723									
XIBLK04	3-Nitrotoluene	137 > 46			18042.723									
XIBLK04	PETN	361 > 62			18042.723									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-994
Lab Code: GEL
Lab Sample ID: XIBLK05
Analysis Date: 13-JAN-10 05:41
GEL Data File: EXP0112029a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	635.906
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	691.656
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112029a
Date: 13-Jan-2010
Time: 05:41:13
ID: XIBLK05
Vial: 1:1,A

MMT 1/14/10

HMX

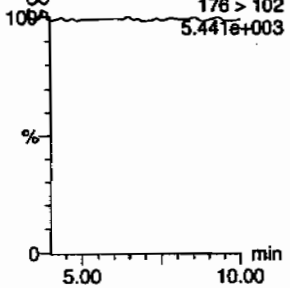

RDX

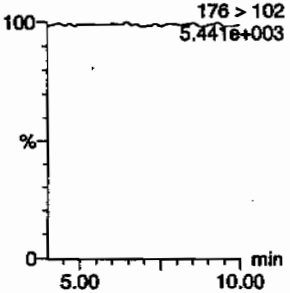

135-Trinitrobenzene

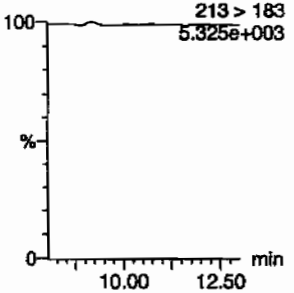

13-Dinitrobenzene-d4

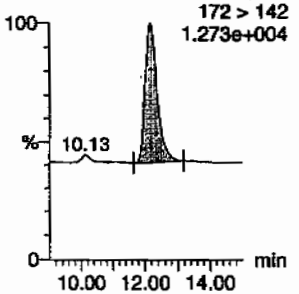

13-Dinitrobenzene

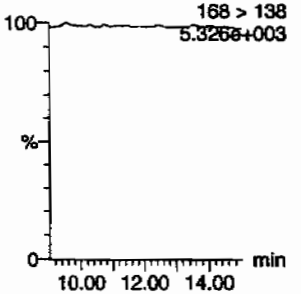

Tetryl

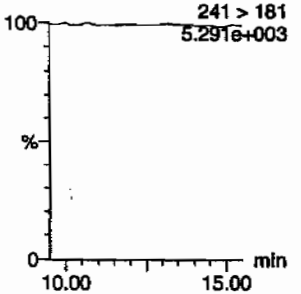

Nitrobenzene

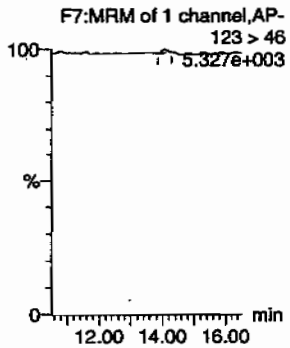

4-Amino-26-dinitrotoluene

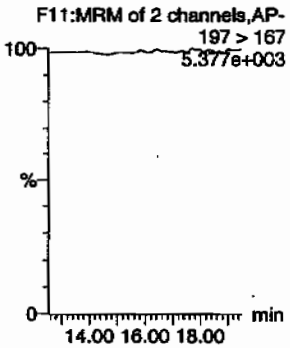

2-Amino-46-dinitrotoluene

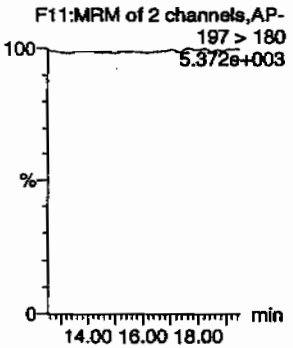

246-Trinitrotoluene

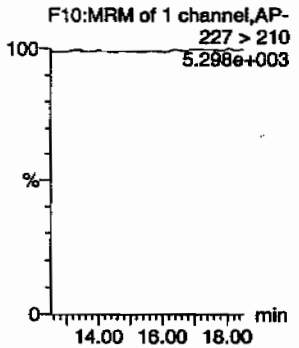

34-dinitrotoluene

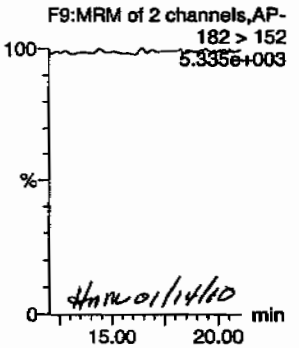

HMM 01/14/10

26-dinitrotoluene

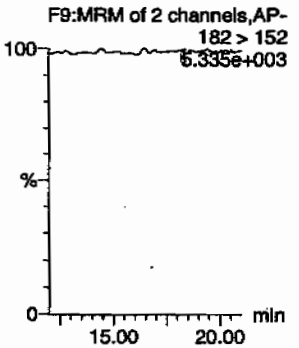

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

24-dinitrotoluene

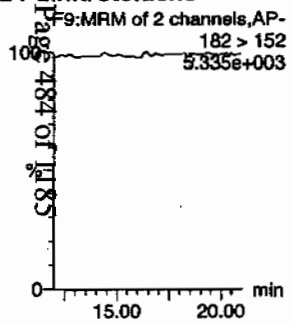

26-dinitrotoluene-d3

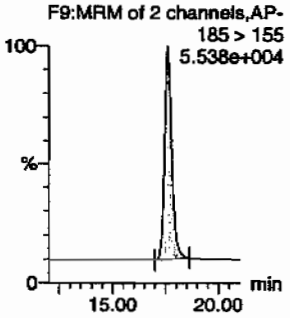

2-Nitrotoluene

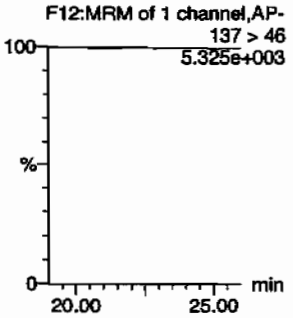

4-Nitrotoluene

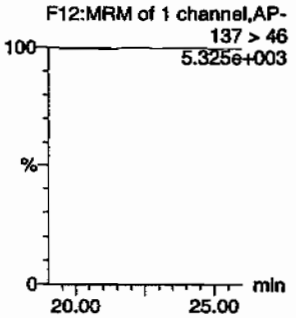

3-Nitrotoluene

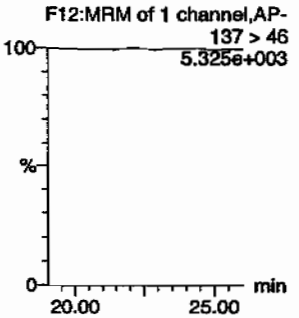

PETN

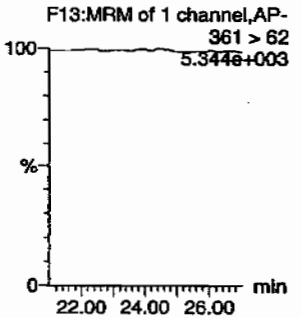

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	µg/mL	%Rec	%Dev	S/N
XIBLK05	HMX	176 > 102			3201.222									
XIBLK05	RDX	176 > 102			3201.222									
XIBLK05	135-Trinitrobenzene	213 > 183			3201.222									
XIBLK05	13-Dinitrobenzene-d4	172 > 142	12.17	3201.222		3201.222	3201.222	bb			635.9062	127.2	27.2	281.7
XIBLK05	13-Dinitrobenzene	168 > 138			3201.222									
XIBLK05	Tetryl	241 > 181			3201.222									
XIBLK05	Nitrobenzene	123 > 46			3201.222			MM-	14-Jan-10	07:32:13				
XIBLK05	4-Amino-26-dinitrotoluene	197 > 167			20100.582									
XIBLK05	2-Amino-46-dinitrotoluene	197 > 180			20100.582									
XIBLK05	246-Trinitrotoluene	227 > 210			20100.582									
XIBLK05	34-dinitrotoluene	182 > 152			20100.582									
XIBLK05	26-dinitrotoluene	182 > 152			20100.582			MM-	14-Jan-10	07:43:54				
XIBLK05	24-dinitrotoluene	182 > 152			20100.582			MM-	14-Jan-10	07:45:39				
XIBLK05	26-dinitrotoluene-d3	185 > 155	17.62	20100.582		20100.582	20100.582	bb			691.6562	138.3	38.3	987.2
XIBLK05	2-Nitrotoluene	137 > 46			20100.582									
XIBLK05	4-Nitrotoluene	137 > 46			20100.582									
XIBLK05	3-Nitrotoluene	137 > 46			20100.582									
XIBLK05	PETN	361 > 62			20100.582									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-994

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 13-JAN-10 10:07

GEL Data File: EXP0112038a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	287.258
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	271.403

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112038a
Date: 13-Jan-2010
Time: 10:07:03
ID: XIBLK06
Vial: 1:1,A

MTP 1/14/10

HMX

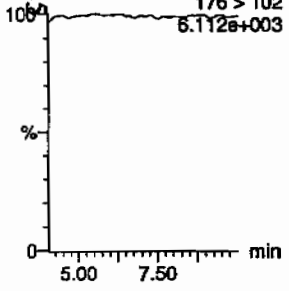

RDX

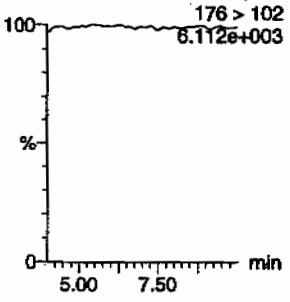

135-Trinitrobenzene

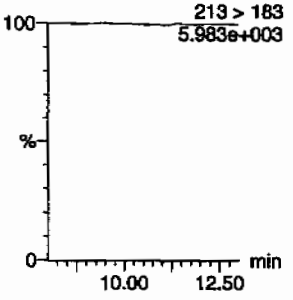

13-Dinitrobenzene-d4

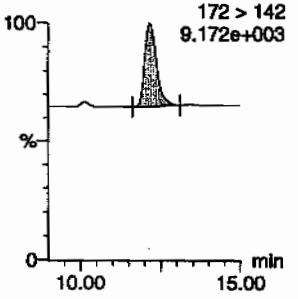

13-Dinitrobenzene

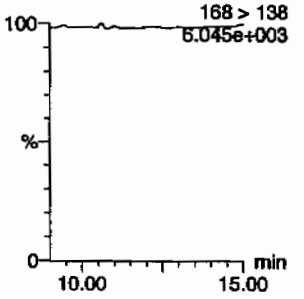

Tetryl

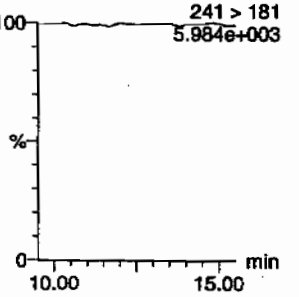

Nitrobenzene

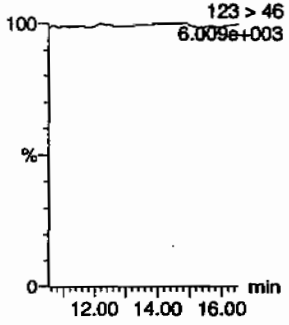

4-Amino-26-dinitrotoluene

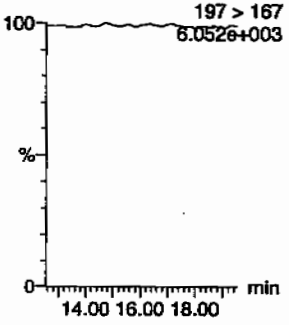

2-Amino-46-dinitrotoluene

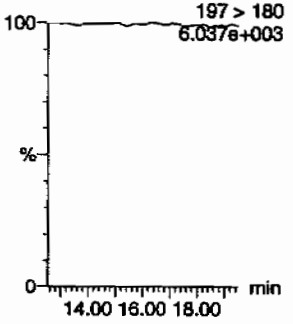

246-Trinitrotoluene

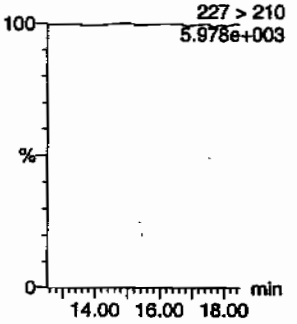

34-dinitrotoluene

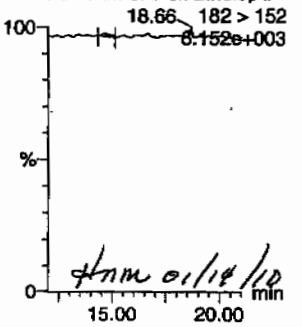

HMM 01/14/10

26-dinitrotoluene

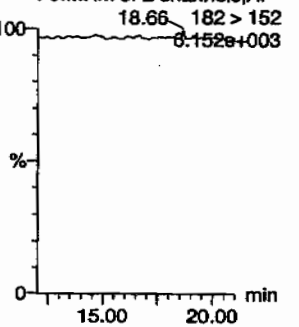

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

Page 487 of 1185

24-dinitrotoluene

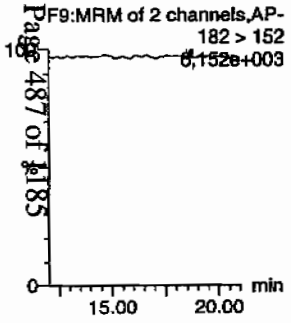

26-dinitrotoluene-d3

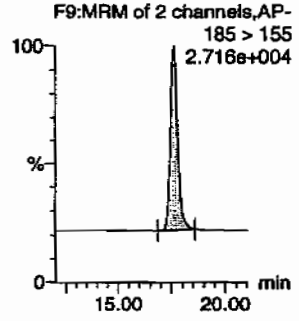

2-Nitrotoluene

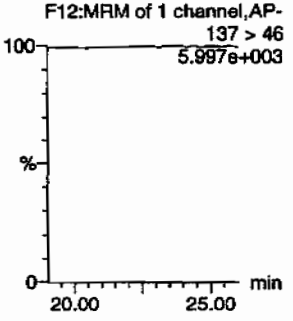

4-Nitrotoluene

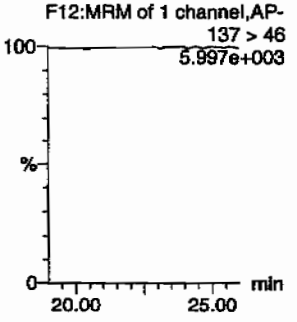

3-Nitrotoluene

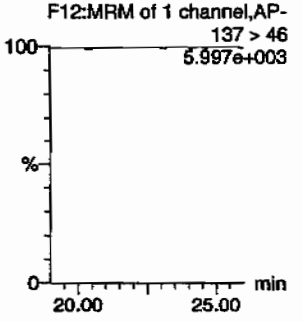

PETN

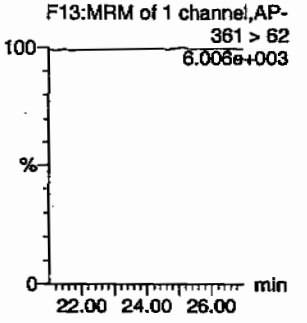

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ug/ml	%Rec	%Dev	S/N
XIBLK06	HMX	176 > 102			1366.274									
XIBLK06	RDX	176 > 102			1366.274									
XIBLK06	135-Trinitrobenzene	213 > 183			1366.274									
XIBLK06	13-Dinitrobenzene-d4	172 > 142	12.17	1366.274		1366.274	1366.274	bb			271.4033	54.3	-45.7	82.0
XIBLK06	13-Dinitrobenzene	168 > 138			1366.274									
XIBLK06	Tetryl	241 > 181			1366.274									
XIBLK06	Nitrobenzene	123 > 46			1366.274									
XIBLK06	4-Amino-26-dinitrotoluene	197 > 167			8348.153									
XIBLK06	2-Amino-46-dinitrotoluene	197 > 180			8348.153									
XIBLK06	246-Trinitrotoluene	227 > 210			8348.153									
XIBLK06	34-dinitrotoluene	182 > 152	14.63	31.975	8348.153	31.975	1.915	bb			2.2391			1.7
XIBLK06	26-dinitrotoluene	182 > 152			8348.153									
XIBLK06	24-dinitrotoluene	182 > 152			8348.153			MM-	14-Jan-10	07:46:29				
XIBLK06	26-dinitrotoluene-d3	185 > 155	17.63	8348.153		8348.153	8348.153	bb			287.2580	57.5	-42.5	1145.5
XIBLK06	2-Nitrotoluene	137 > 46			8348.153									
XIBLK06	4-Nitrotoluene	137 > 46			8348.153									
XIBLK06	3-Nitrotoluene	137 > 46			8348.153									
XIBLK06	PETN	361 > 62			8348.153									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-994

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 13-JAN-10 15:31

GEL Data File: EXP0112049a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	516.462
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	550.633
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112049a
Date: 13-Jan-2010
Time: 15:31:27
ID: XIBLK07
Vial: 1:1,A

MMP 1/14/10

HMX

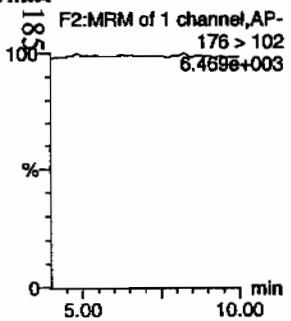

RDX

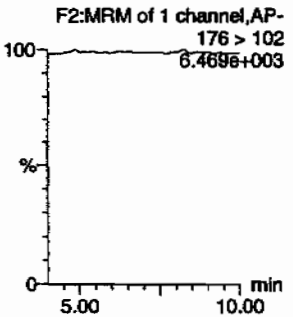

135-Trinitrobenzene

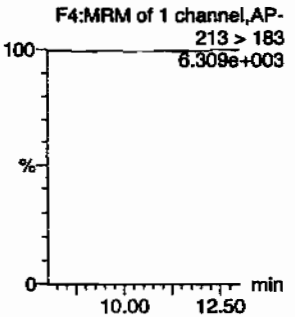

13-Dinitrobenzene-d4

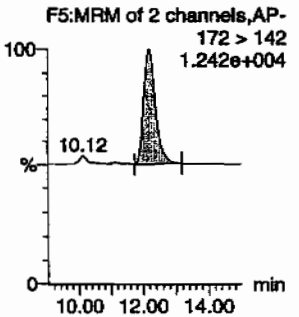

13-Dinitrobenzene

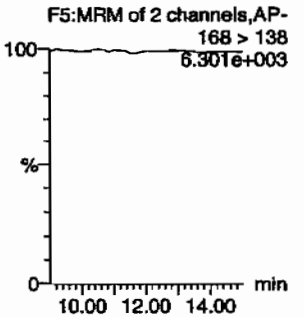

Tetryl

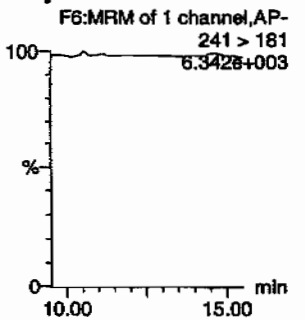

Nitrobenzene

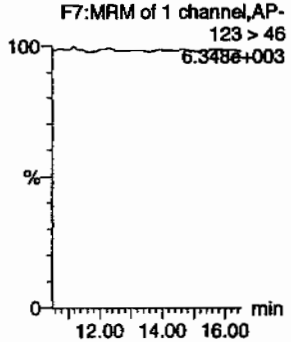

4-Amino-26-dinitrotoluene

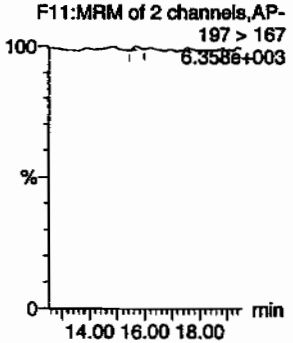

2-Amino-46-dinitrotoluene

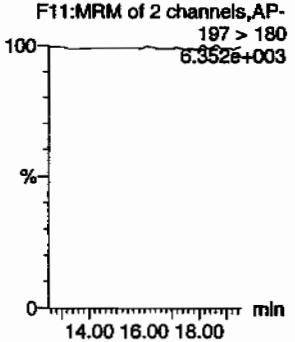

246-Trinitrotoluene

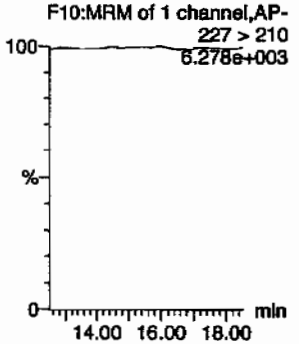

34-dinitrotoluene

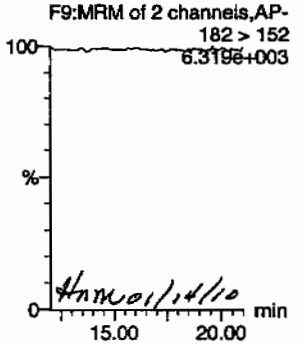

26-dinitrotoluene

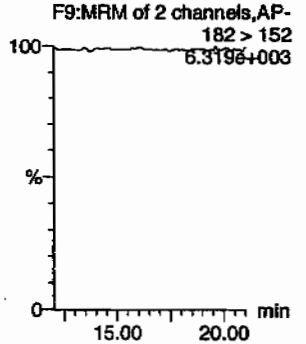

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

24-dinitrotoluene

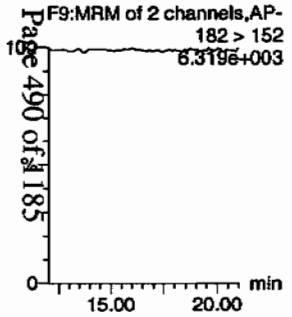

26-dinitrotoluene-d3

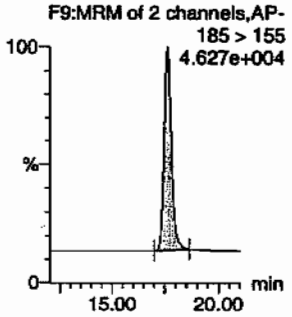

2-Nitrotoluene

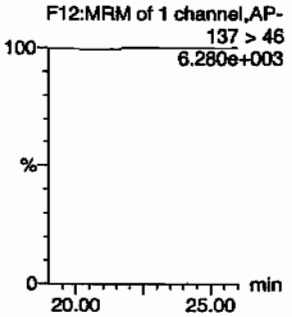

4-Nitrotoluene

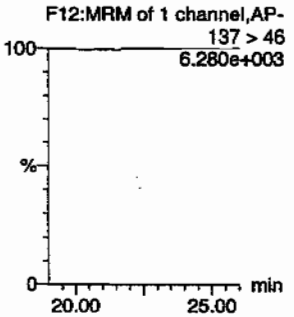

3-Nitrotoluene

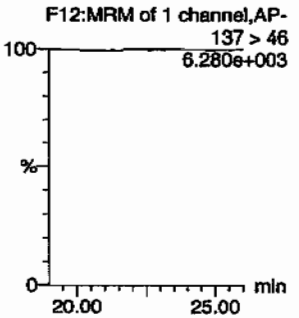

PETN

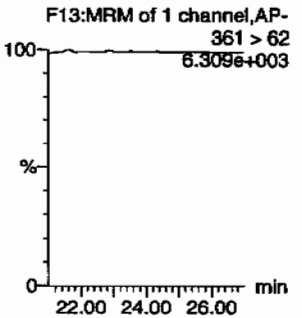

ID	Name	Trace	RT	Area	S/Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK07	HMX	176 > 102			2599.928									
XIBLK07	RDX	176 > 102			2599.928									
XIBLK07	135-Trinitrobenzene	213 > 183			2599.928									
XIBLK07	13-Dinitrobenzene-d4	172 > 142	12.17	2599.928		2599.928	2599.928	bb			516.4623	103.3	3.3	243.2
XIBLK07	13-Dinitrobenzene	168 > 138			2599.928									
XIBLK07	Tetryl	241 > 181			2599.928									
XIBLK07	Nitrobenzene	123 > 46			2599.928									
XIBLK07	4-Amino-26-dinitrotoluene	197 > 167			16002.235			MM-	14-Jan-10	07:34:00				
XIBLK07	2-Amino-46-dinitrotoluene	197 > 180			16002.235									
XIBLK07	246-Trinitrotoluene	227 > 210			16002.235									
XIBLK07	34-dinitrotoluene	182 > 152			16002.235									
XIBLK07	26-dinitrotoluene	182 > 152			16002.235									
XIBLK07	24-dinitrotoluene	182 > 152			16002.235									
XIBLK07	26-dinitrotoluene-d3	185 > 155	17.64	16002.235		16002.235	16002.235	bb			550.6331	110.1	10.1	1119.3
XIBLK07	2-Nitrotoluene	137 > 46			16002.235									
XIBLK07	4-Nitrotoluene	137 > 46			16002.235									
XIBLK07	3-Nitrotoluene	137 > 46			16002.235									
XIBLK07	PETN	361 > 62			16002.235									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–994

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 13–JAN–10 19:57

GEL Data File: EXP0112058a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	598.801
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	615.254
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112058a
Date: 13-Jan-2010
Time: 19:57:08
ID: XIBLK08
Vial: 1:1,A

MT 1/14/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.976e+003

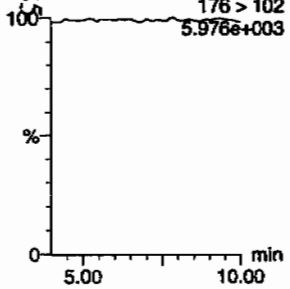

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.976e+003

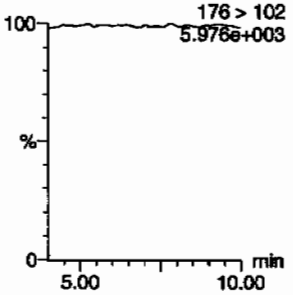

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.851e+003

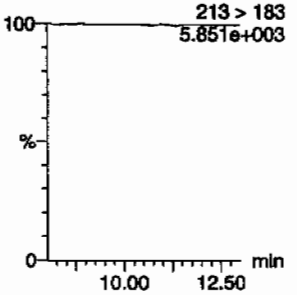

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.297e+004

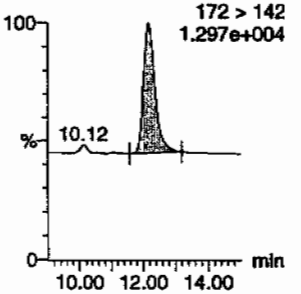

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
9.02
168 > 138
6.065e+003

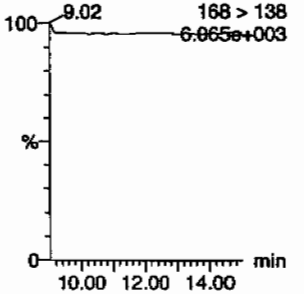

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.846e+003

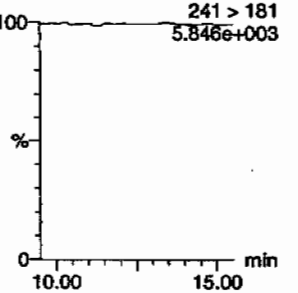

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.855e+003

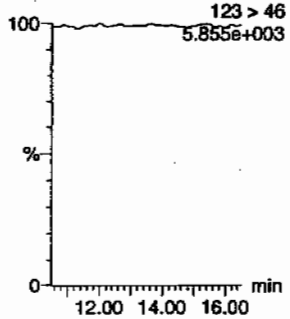

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.874e+003

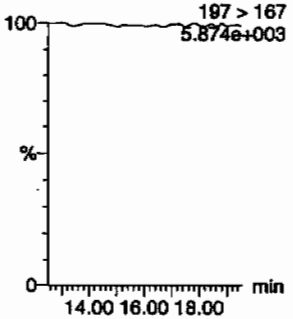

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.886e+003

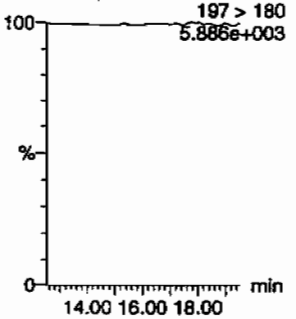

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.837e+003

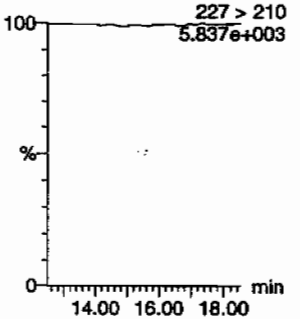

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.882e+003

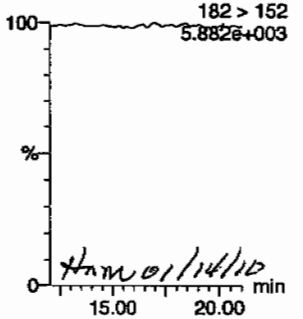

HMW 01/14/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.882e+003

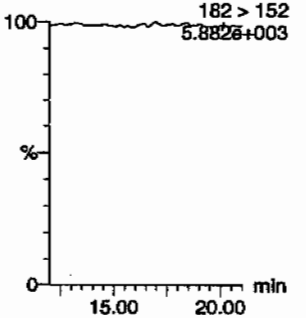

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

24-dinitrotoluene

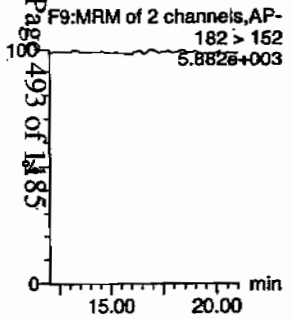

26-dinitrotoluene-d3

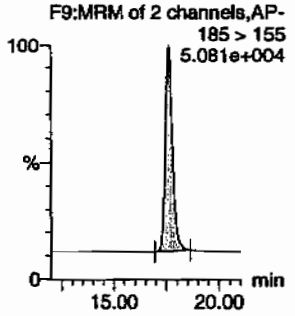

2-Nitrotoluene

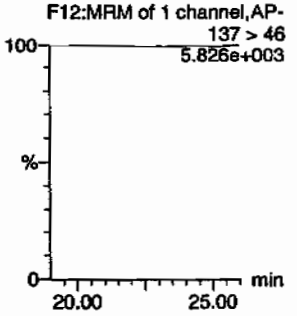

4-Nitrotoluene

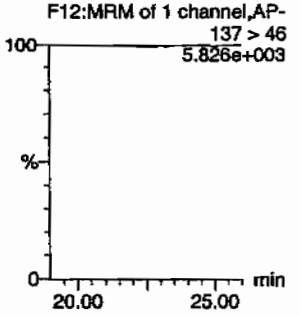

3-Nitrotoluene

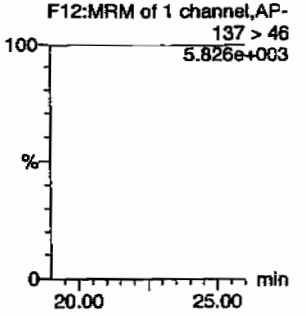

PETN

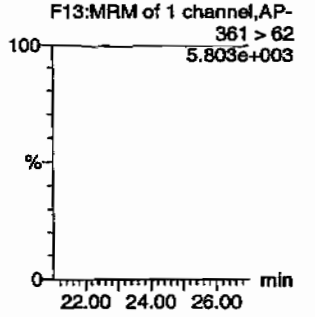

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Conc	%Rec	%Dev	S/N
XIBLK08	HMX	176 > 102			3014.432									
XIBLK08	RDX	176 > 102			3014.432									
XIBLK08	135-Trinitrobenzene	213 > 183			3014.432									
XIBLK08	13-Dinitrobenzene-d4	172 > 142	12.17	3014.432		3014.432	3014.432	bb			598.8014	119.8	19.8	300.0
XIBLK08	13-Dinitrobenzene	168 > 138			3014.432									
XIBLK08	Tetryl	241 > 181			3014.432									
XIBLK08	Nitrobenzene	123 > 46			3014.432									
XIBLK08	4-Amino-26-dinitrotoluene	197 > 167			17880.207									
XIBLK08	2-Amino-46-dinitrotoluene	197 > 180			17880.207									
XIBLK08	246-Trinitrotoluene	227 > 210			17880.207									
XIBLK08	34-dinitrotoluene	182 > 152			17880.207									
XIBLK08	26-dinitrotoluene	182 > 152			17880.207									
XIBLK08	24-dinitrotoluene	182 > 152			17880.207									
XIBLK08	26-dinitrotoluene-d3	185 > 155	17.62	17880.207		17880.207	17880.207	bb			615.2537	123.1	23.1	2004.8
XIBLK08	2-Nitrotoluene	137 > 46			17880.207									
XIBLK08	4-Nitrotoluene	137 > 46			17880.207									
XIBLK08	3-Nitrotoluene	137 > 46			17880.207									
XIBLK08	PETN	361 > 62			17880.207									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–994

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 14–JAN–10 01:21

GEL Data File: EXP0112069a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	504.6
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	533.414
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112069a
Date: 14-Jan-2010
Time: 01:21:33
ID: XIBLK07
Vial: 1:1,A

MMP 1/14/10

HMX

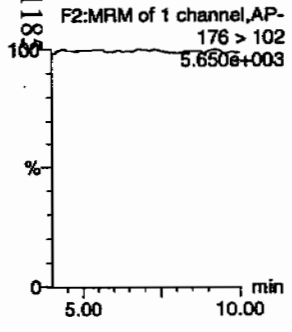

RDX

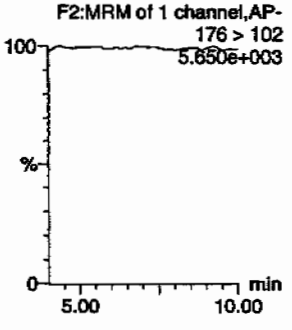

135-Trinitrobenzene

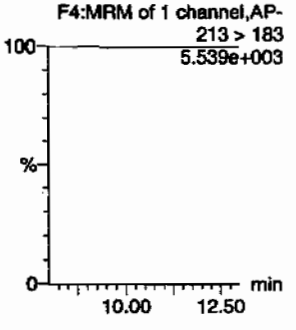

13-Dinitrobenzene-d4

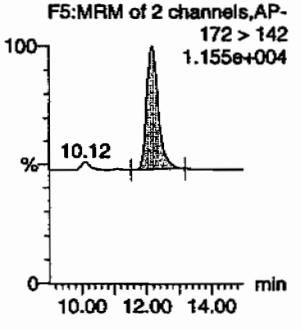

13-Dinitrobenzene

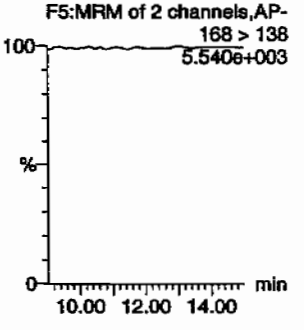

Tetryl

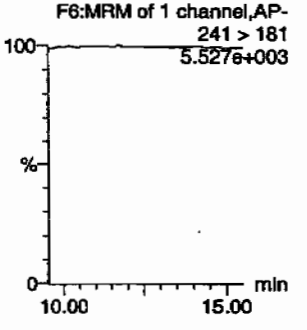

Nitrobenzene

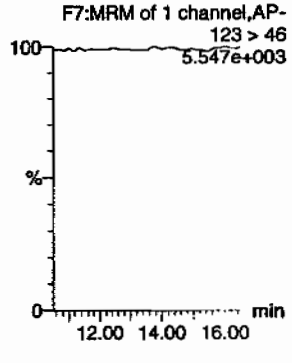

4-Amino-26-dinitrotoluene

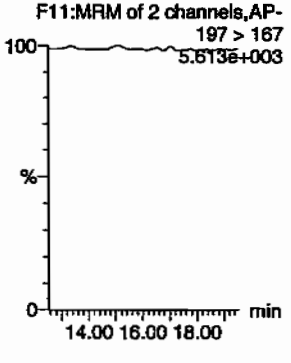

2-Amino-46-dinitrotoluene

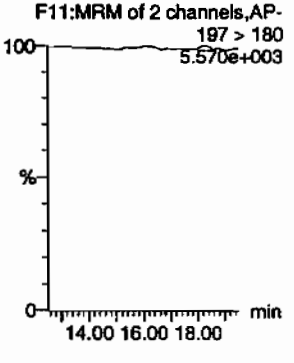

246-Trinitrotoluene

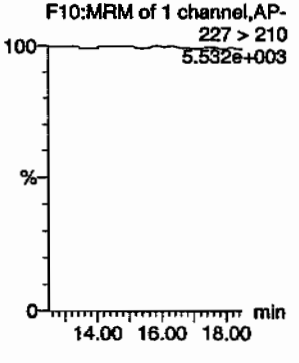

34-dinitrotoluene

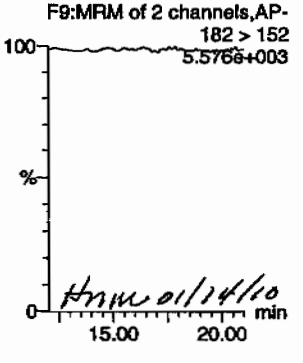

HMW 01/14/10

26-dinitrotoluene

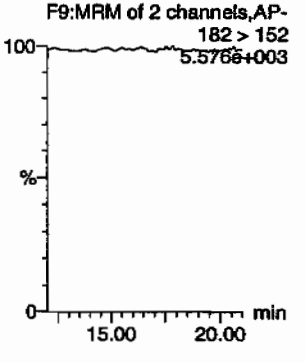

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

24-dinitrotoluene

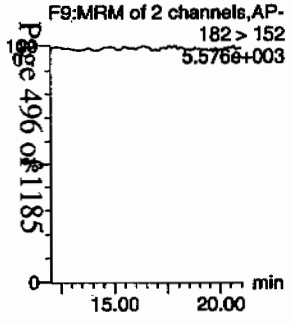

26-dinitrotoluene-d3

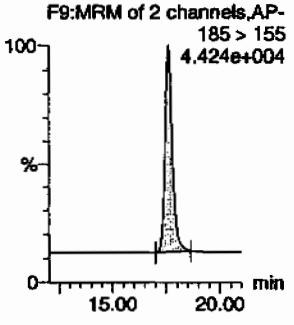

2-Nitrotoluene

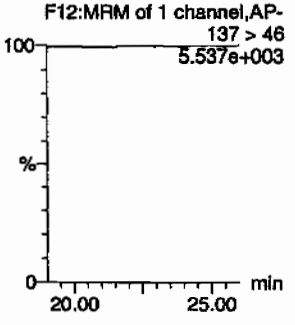

4-Nitrotoluene

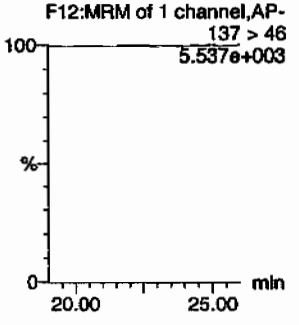

3-Nitrotoluene

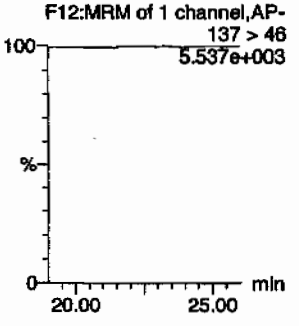

PETN

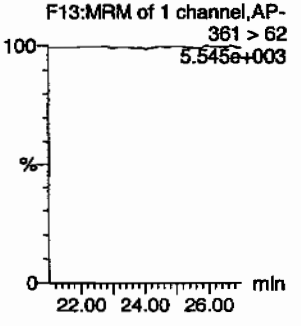

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK07	HMX	176 > 102			2540.214									
XIBLK07	RDX	176 > 102			2540.214									
XIBLK07	135-Trinitrobenzene	213 > 183			2540.214									
XIBLK07	13-Dinitrobenzene-d4	172 > 142	12.17	2540.214		2540.214	2540.214	bb			504.6004	100.9	0.9	161.6
XIBLK07	13-Dinitrobenzene	168 > 138			2540.214									
XIBLK07	Tetryl	241 > 181			2540.214									
XIBLK07	Nitrobenzene	123 > 46			2540.214									
XIBLK07	4-Amino-26-dinitrotoluene	197 > 167			15501.833									
XIBLK07	2-Amino-46-dinitrotoluene	197 > 180			15501.833									
XIBLK07	246-Trinitrotoluene	227 > 210			15501.833									
XIBLK07	34-dinitrotoluene	182 > 152			15501.833									
XIBLK07	26-dinitrotoluene	182 > 152			15501.833									
XIBLK07	24-dinitrotoluene	182 > 152			15501.833									
XIBLK07	26-dinitrotoluene-d3	185 > 155	17.62	15501.833		15501.833	15501.833	bb			533.4144	106.7	6.7	1951.3
XIBLK07	2-Nitrotoluene	137 > 46			15501.833									
XIBLK07	4-Nitrotoluene	137 > 46			15501.833									
XIBLK07	3-Nitrotoluene	137 > 46			15501.833									
XIBLK07	PETN	361 > 62			15501.833									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10–994
Lab Code: GEL
Lab Sample ID: XIBLK08
Analysis Date: 14–JAN–10 05:46
GEL Data File: EXP0112078a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	492.037
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	502.226
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112078a
Date: 14-Jan-2010
Time: 05:46:59
ID: XIBLK08
Vial: 1:1,A

MMT 1/14/10

HMX

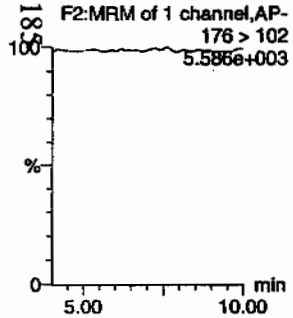

RDX

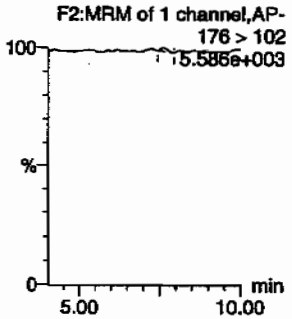

135-Trinitrobenzene

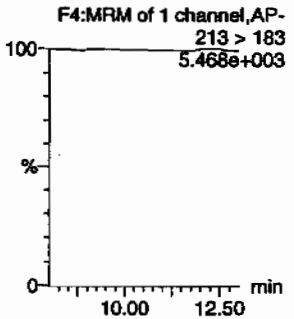

13-Dinitrobenzene-d4

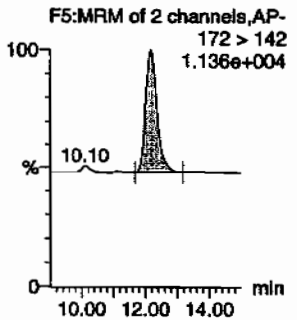

13-Dinitrobenzene

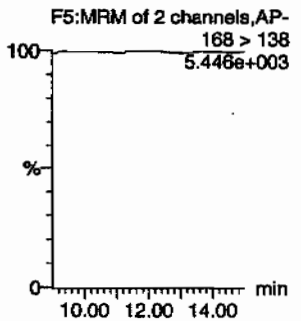

Tetryl

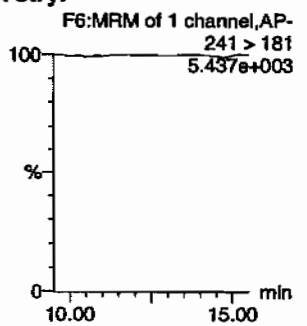

Nitrobenzene

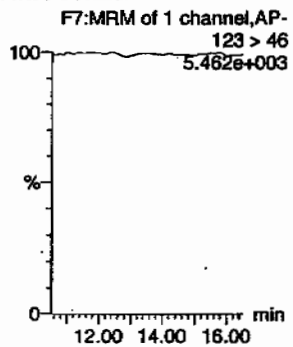

4-Amino-26-dinitrotoluene

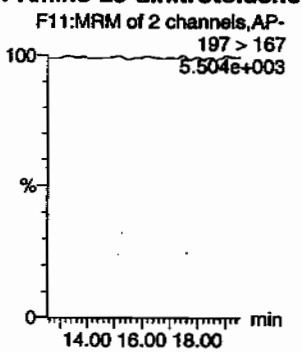

2-Amino-46-dinitrotoluene

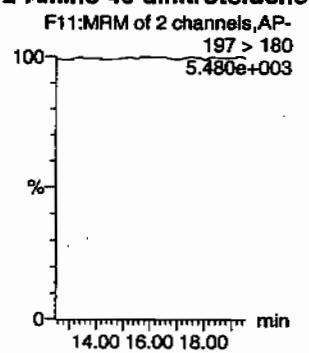

246-Trinitrotoluene

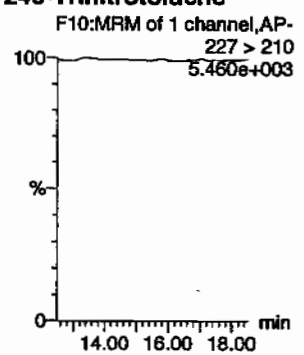

34-dinitrotoluene

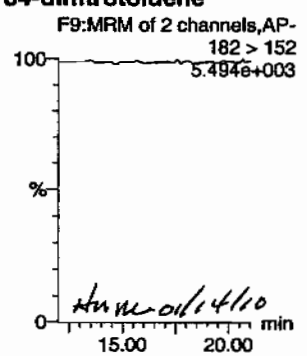

HMW 01/14/10

26-dinitrotoluene

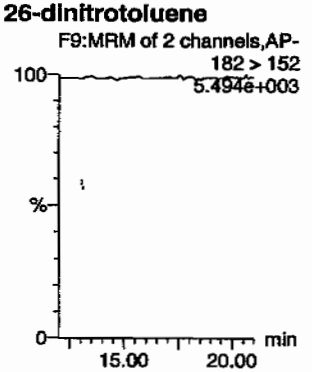

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

24-dinitrotoluene

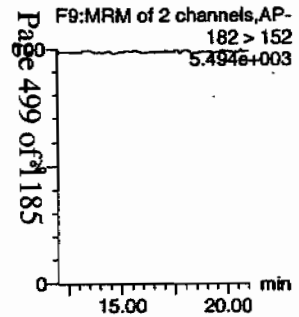

26-dinitrotoluene-d3

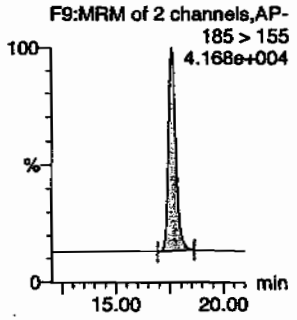

2-Nitrotoluene

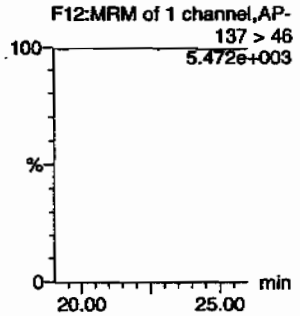

4-Nitrotoluene

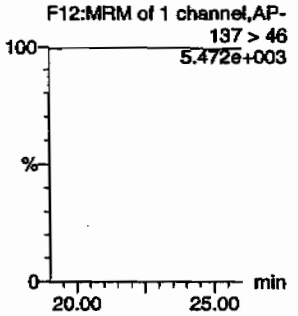

3-Nitrotoluene

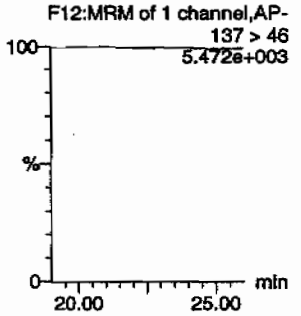

PETN

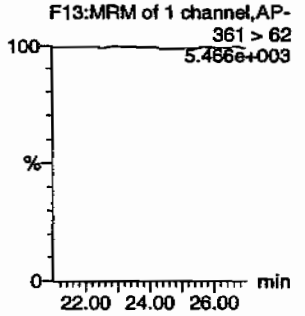

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	mg/mL	%Rec	%Dev	S/N
XIBLK08	HMX	176 > 102			2476.967									
XIBLK08	RDX	176 > 102			2476.967			MM-	14-Jan-10	07:30:21				
XIBLK08	135-Trinitrobenzene	213 > 183			2476.967									
XIBLK08	13-Dinitrobenzene-d4	172 > 142	12.17	2476.967		2476.967	2476.967	bb			492.0367	98.4	-1.6	92.8
XIBLK08	13-Dinitrobenzene	168 > 138			2476.967									
XIBLK08	Tetryl	241 > 181			2476.967									
XIBLK08	Nitrobenzene	123 > 46			2476.967									
XIBLK08	4-Amino-26-dinitrotoluene	197 > 167			14595.465									
XIBLK08	2-Amino-46-dinitrotoluene	197 > 180			14595.465									
XIBLK08	246-Trinitrotoluene	227 > 210			14595.465									
XIBLK08	34-dinitrotoluene	182 > 152			14595.465									
XIBLK08	26-dinitrotoluene	182 > 152			14595.465									
XIBLK08	24-dinitrotoluene	182 > 152			14595.465									
XIBLK08	26-dinitrotoluene-d3	185 > 155	17.62	14595.465		14595.465	14595.465	bb			502.2265	100.4	0.4	1164.1
XIBLK08	2-Nitrotoluene	137 > 46			14595.465									
XIBLK08	4-Nitrotoluene	137 > 46			14595.465									
XIBLK08	3-Nitrotoluene	137 > 46			14595.465									
XIBLK08	PETN	361 > 62			14595.465									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–994

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 04–JAN–10 18:02

GEL Data File: EXS01040010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Ben 1/5/10

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS01040010.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 6:02:46 PM

Modified: No

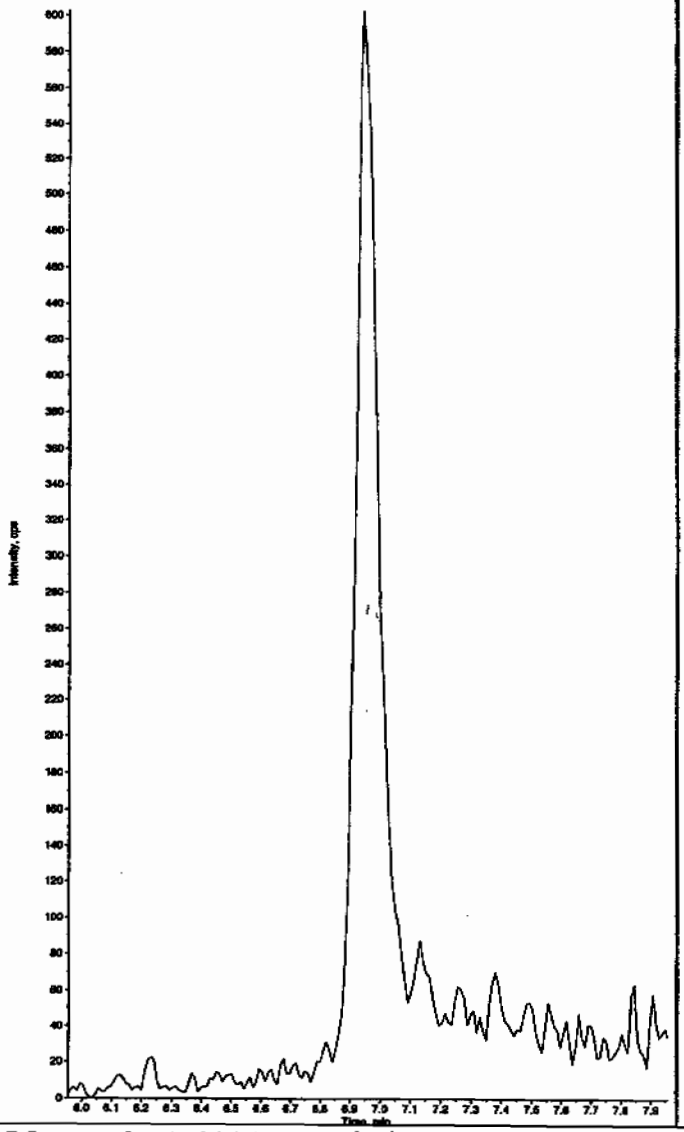

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS01040010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 6:02:46 PM

Modified: No

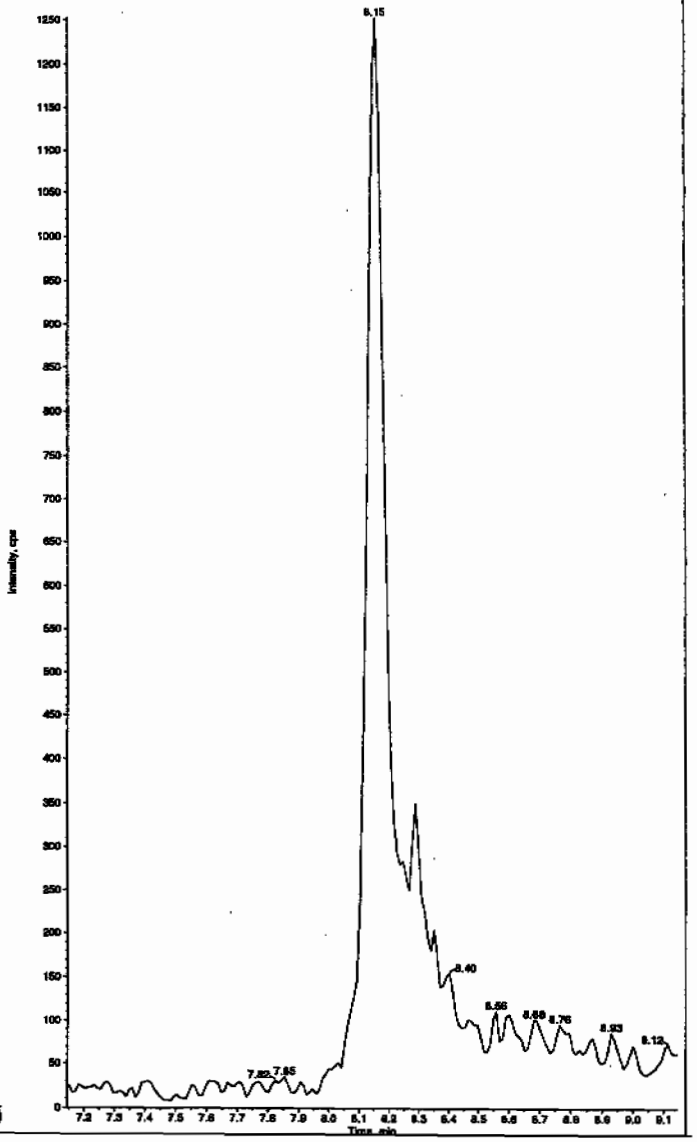

HNM 01/05/10

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Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS01040010.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_6" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 6:02:46 PM

Modified: No

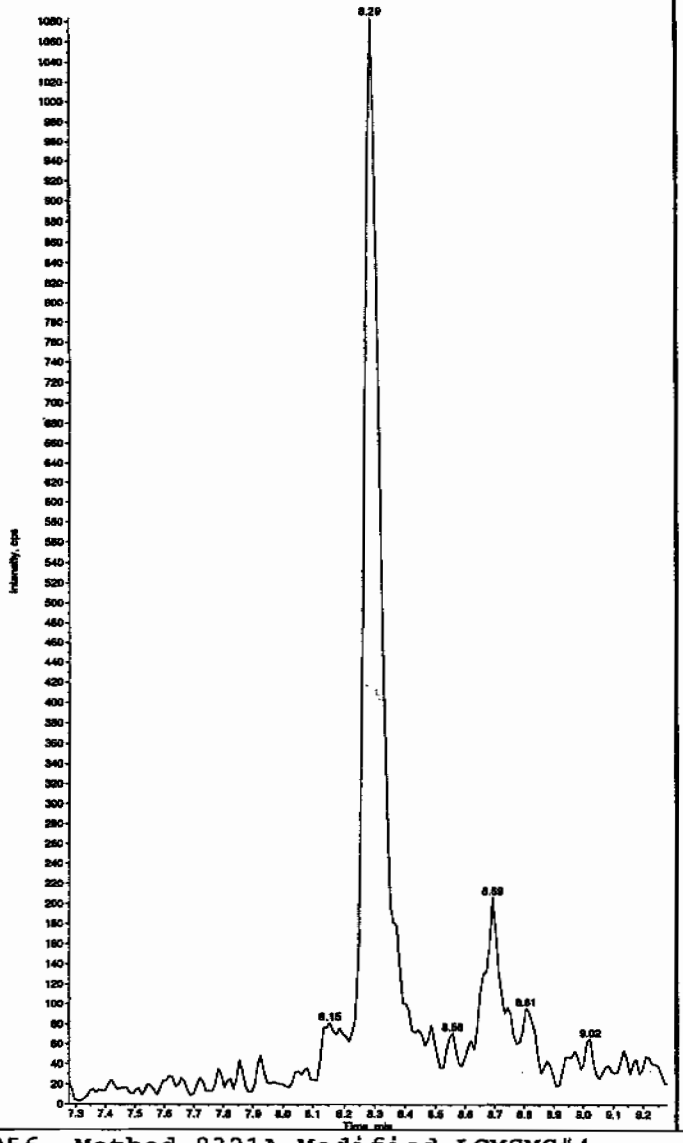

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS01040010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "168.0/46.0 amu"
Comment: "LCMSEXP_6" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 6:02:46 PM

Modified: No

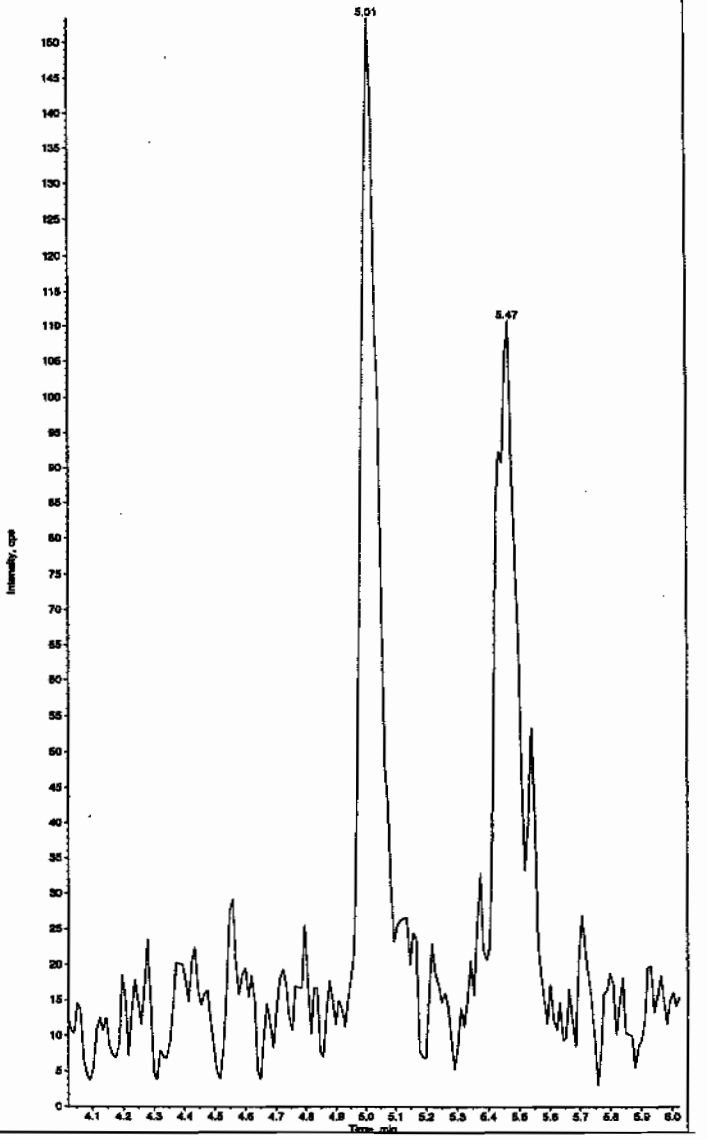

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS01040010.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 6:02:46 PM

Modified: No

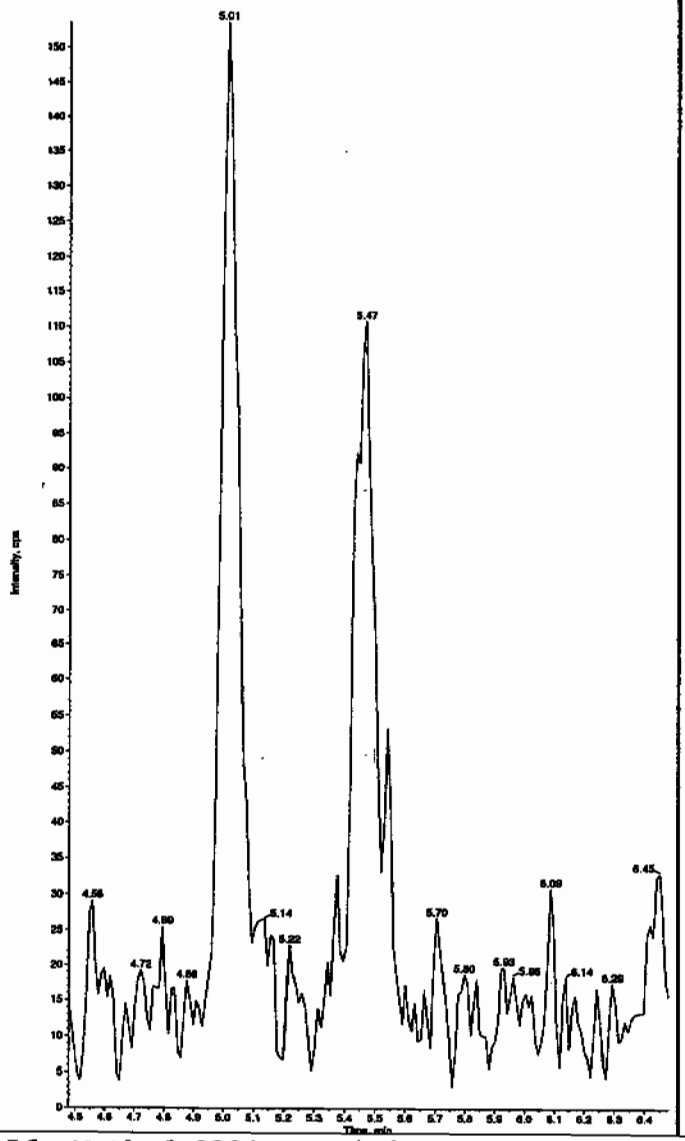

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS01040010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 6:02:46 PM

Modified: No

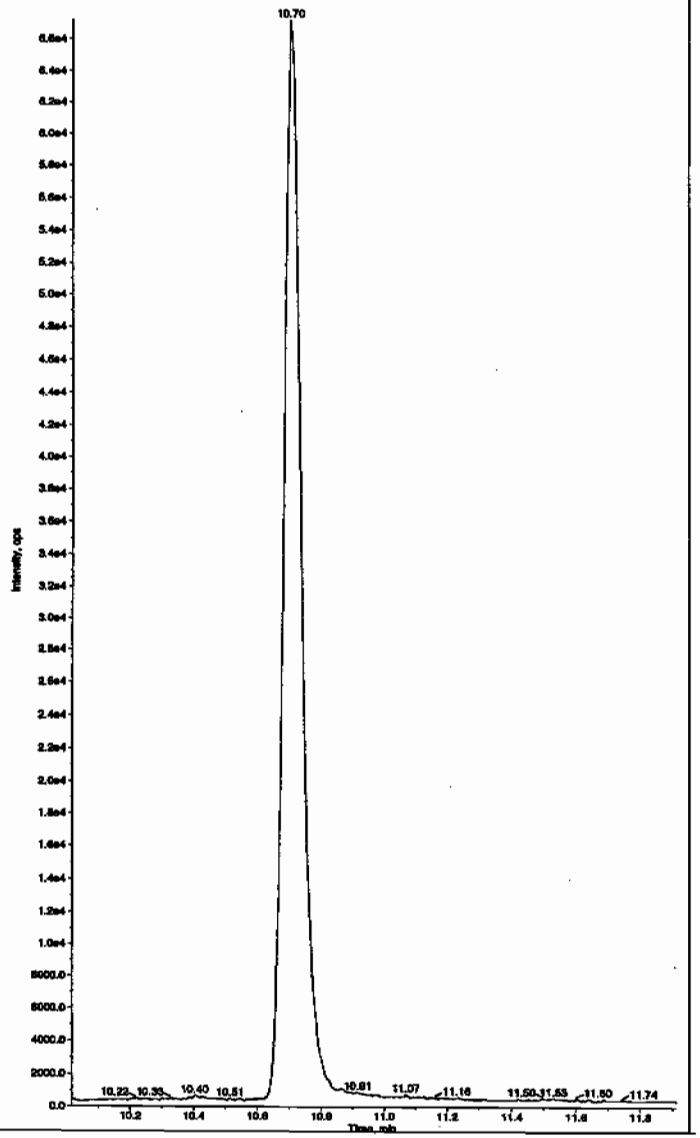

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–994

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 04–JAN–10 18:34

GEL Data File: EXS01040012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	7.04
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

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Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS01040012.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 6:34:11 PM
Modified: No

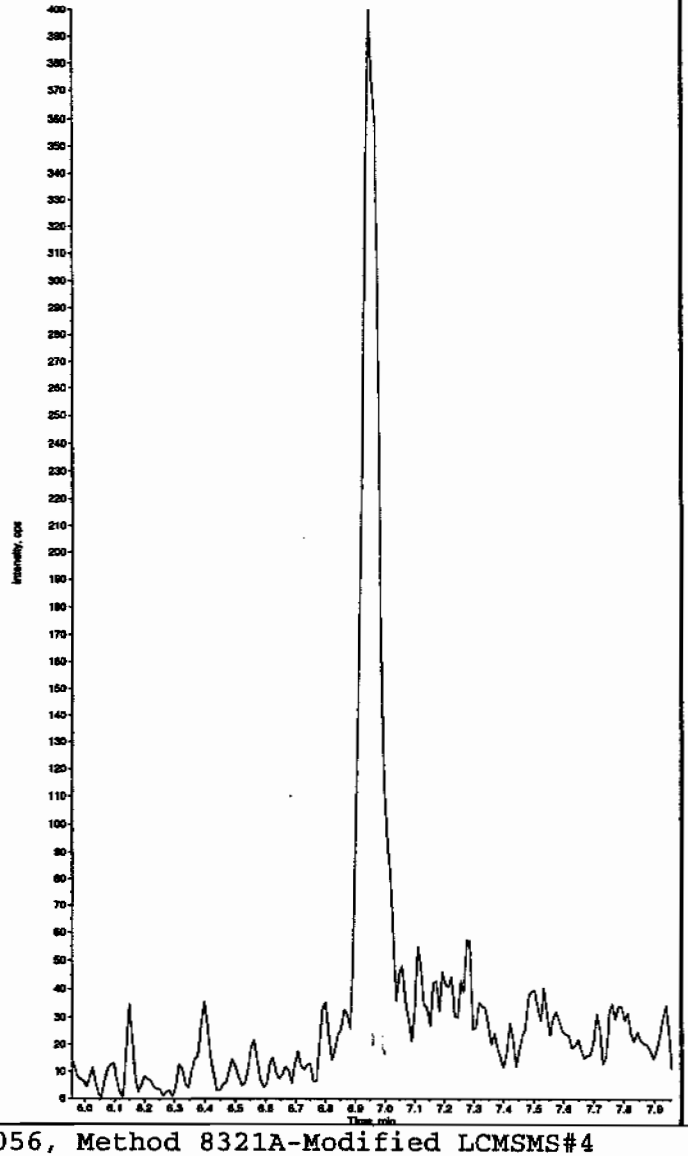

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS01040012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 6:34:11 PM
Modified: No

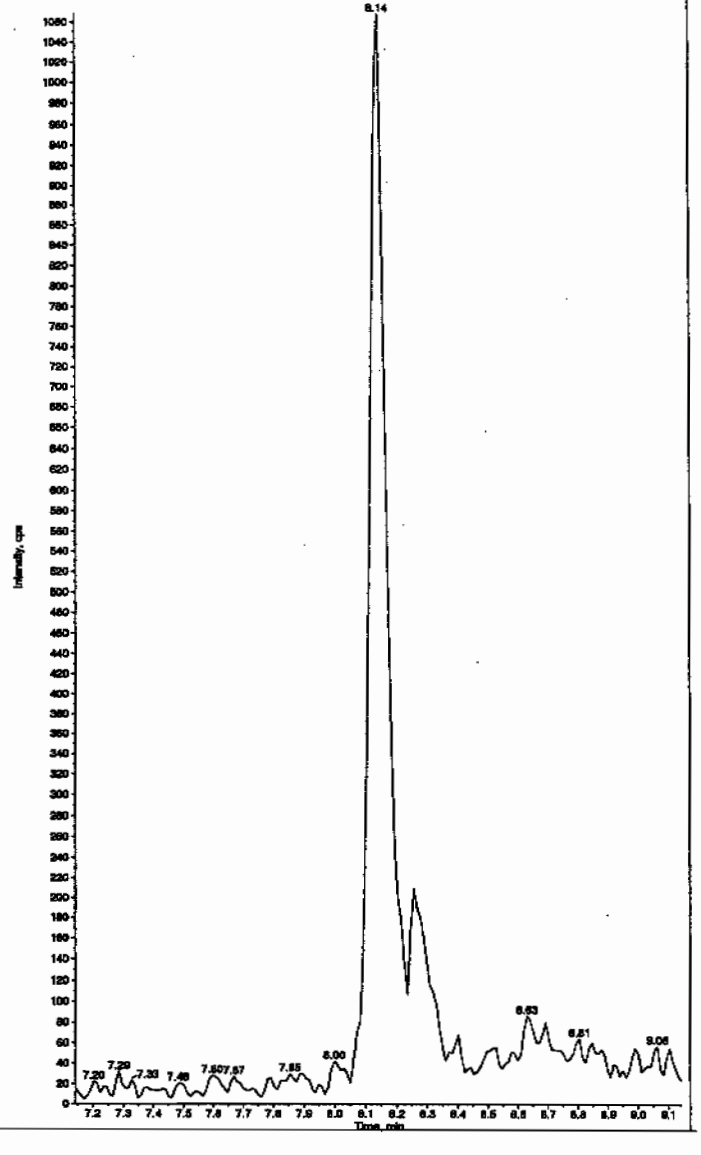

Sat 1/5/10

Hmm 01/05/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS01040012.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 6:34:11 PM

Modified: No

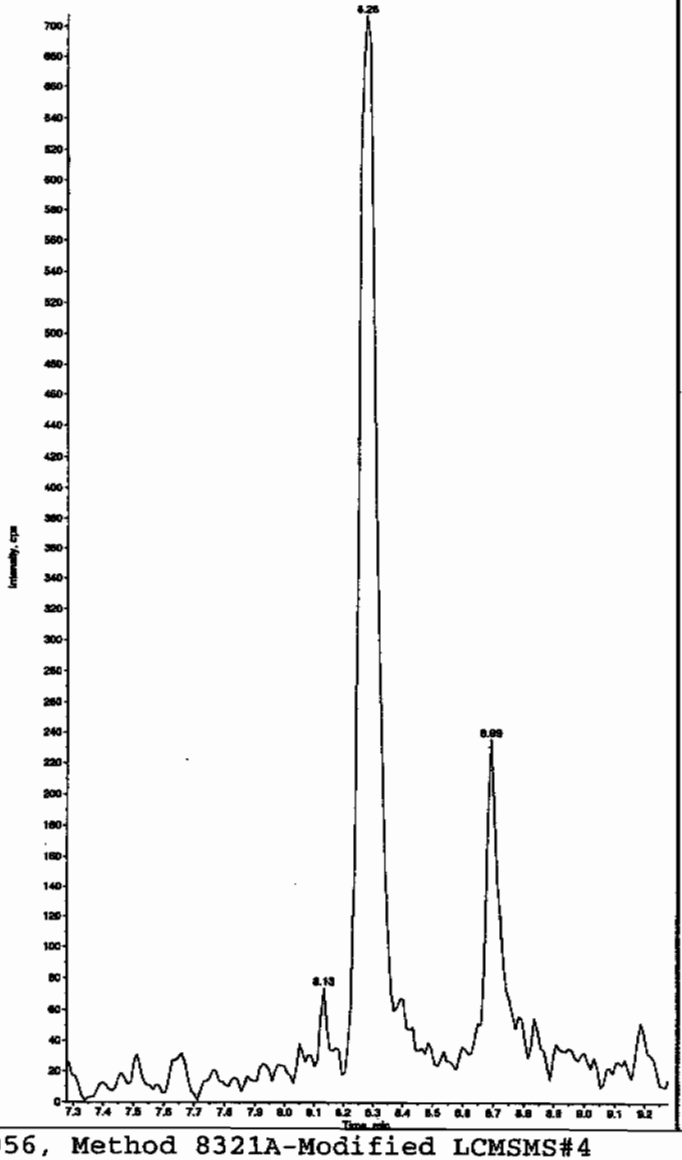

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS01040012.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 6:34:11 PM

Modified: No

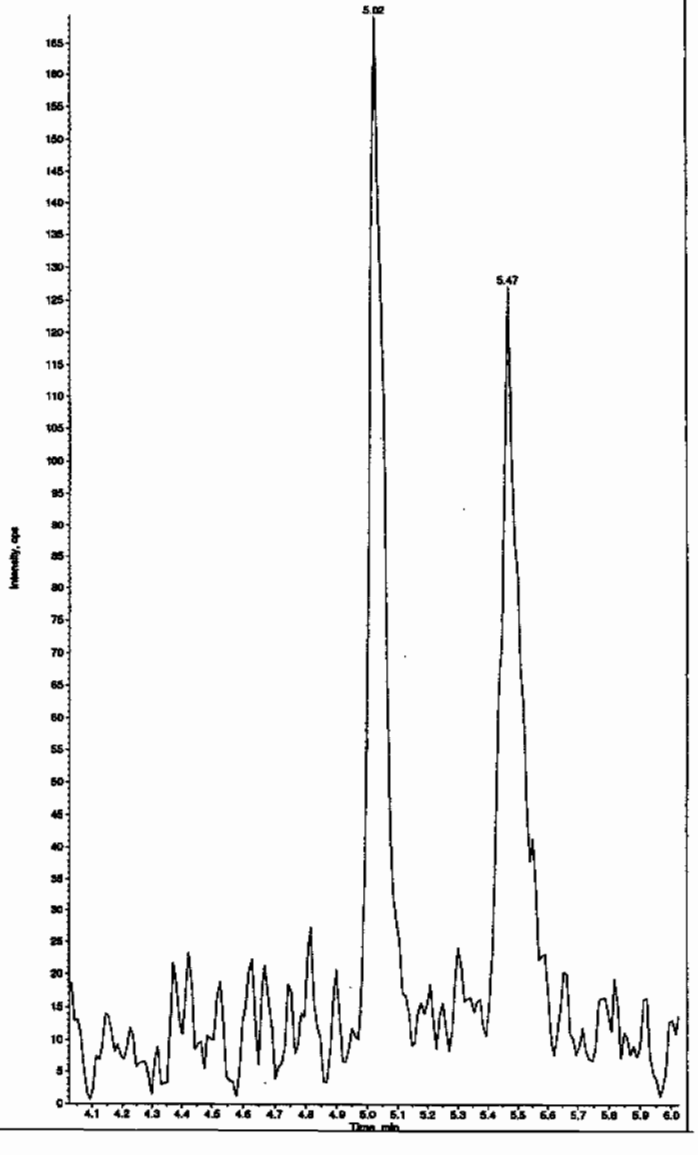

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Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS01040012.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 1/4/2010
q. Time: 6:34:11 PM
dified: No

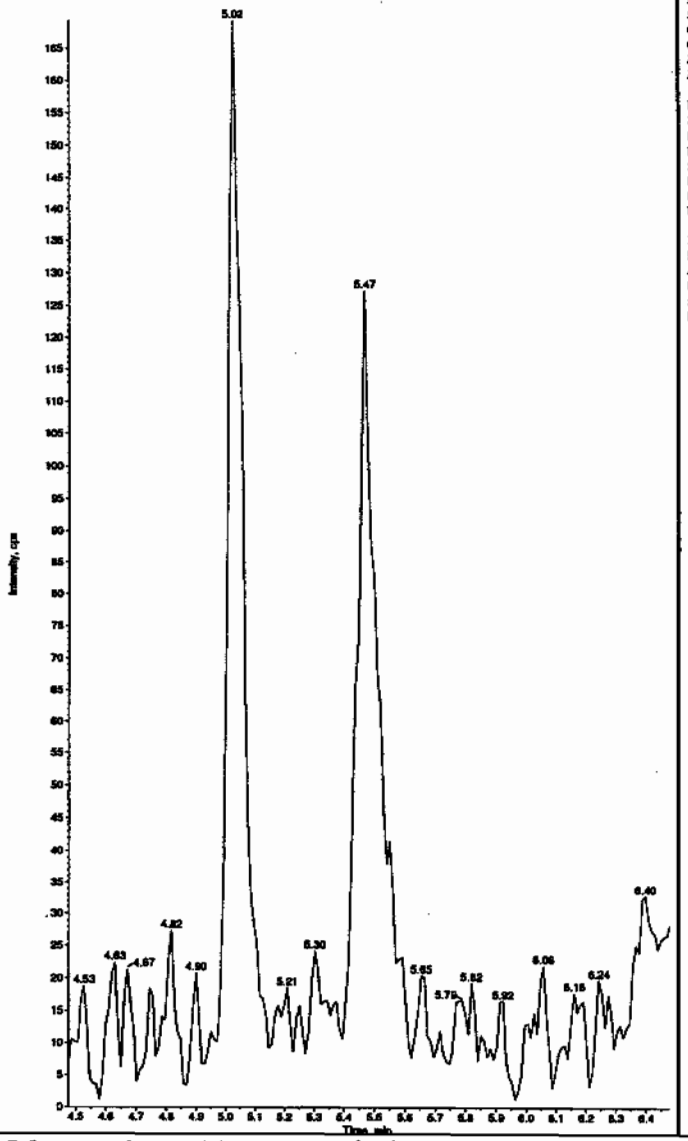

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS01040012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 7.04 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 6:34:11 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.67e+005 counts
Height: 41429.737 cps
Start Time: 10.7 min
End Time: 11.1 min

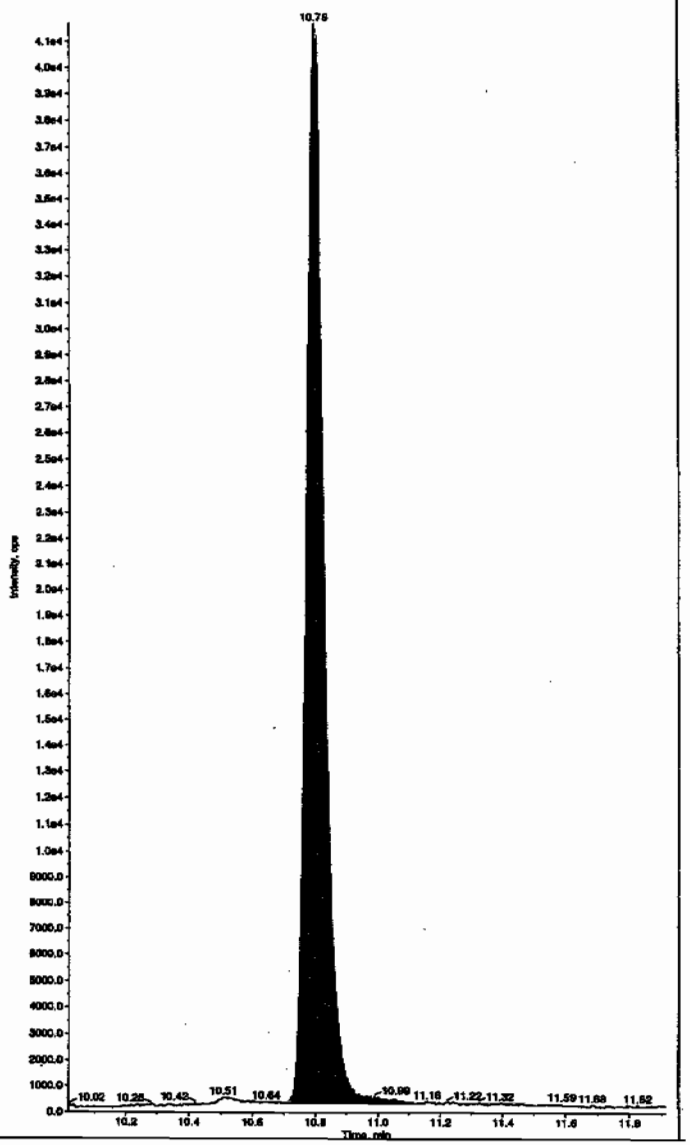

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–994

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 04–JAN–10 21:58

GEL Data File: EXS01040025.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Page 559 of 1185

Ran 115710

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS01040025.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 9:58:08 PM

Modified: No

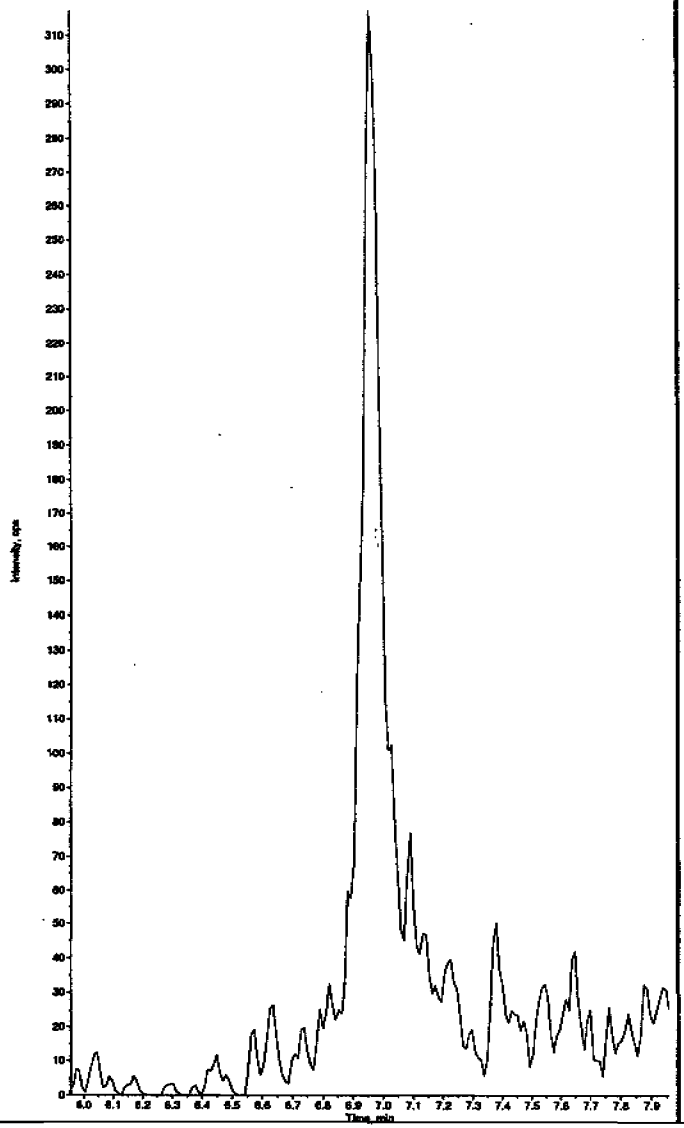

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS01040025.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 9:58:08 PM

Modified: No

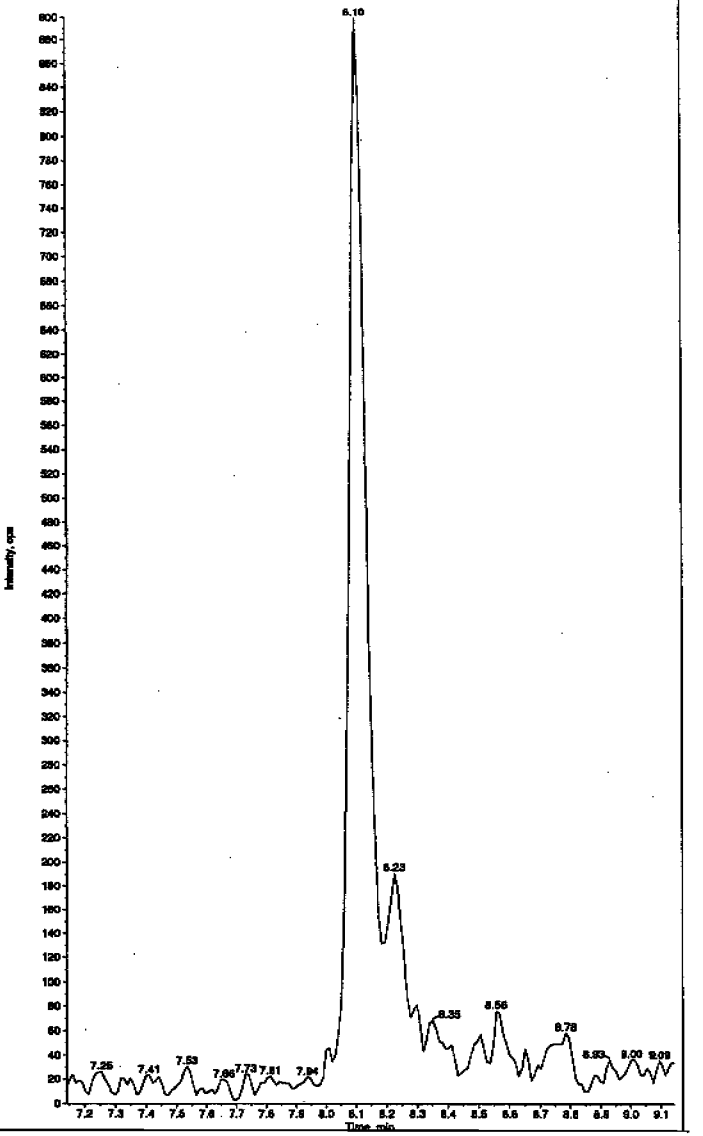

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GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS01040025.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 9:58:08 PM

Modified: No

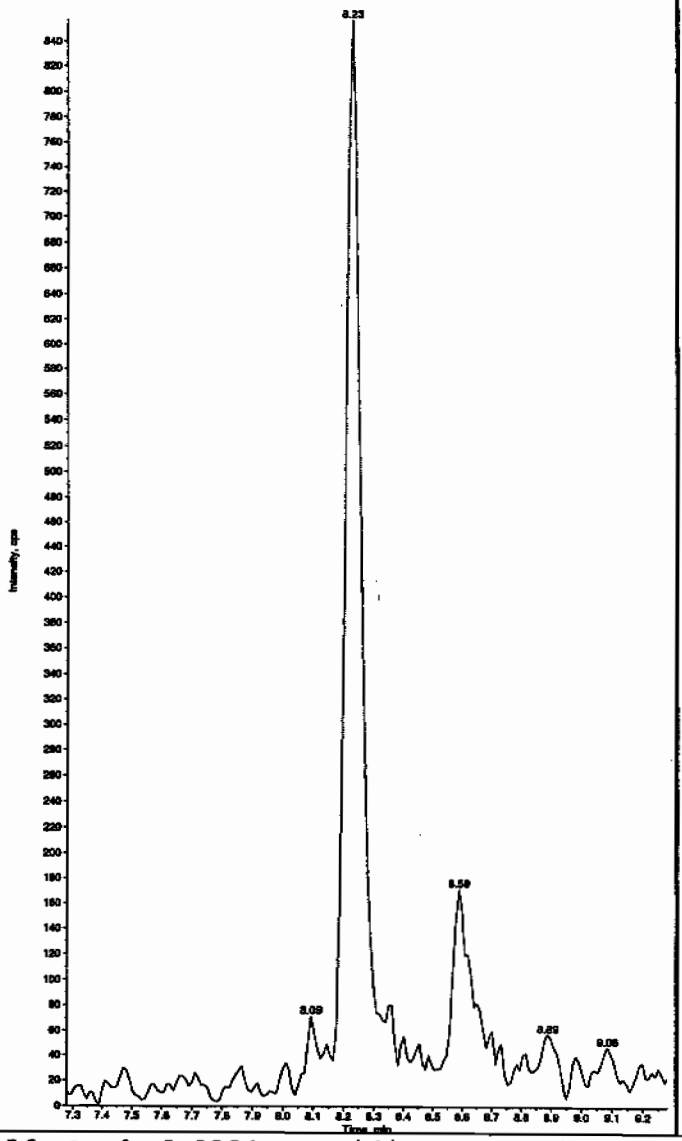

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS01040025.wiff"
Peak Name: "2S-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 9:58:08 PM

Modified: No

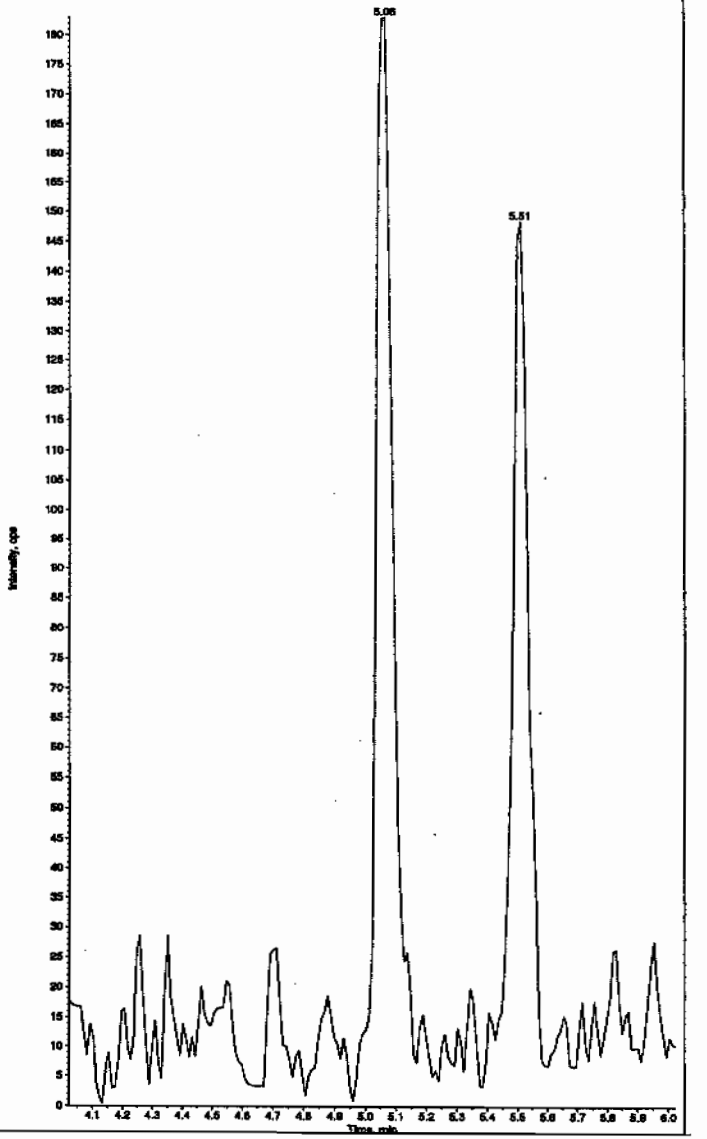

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Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS01040025.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 9:58:08 PM

Modified: No

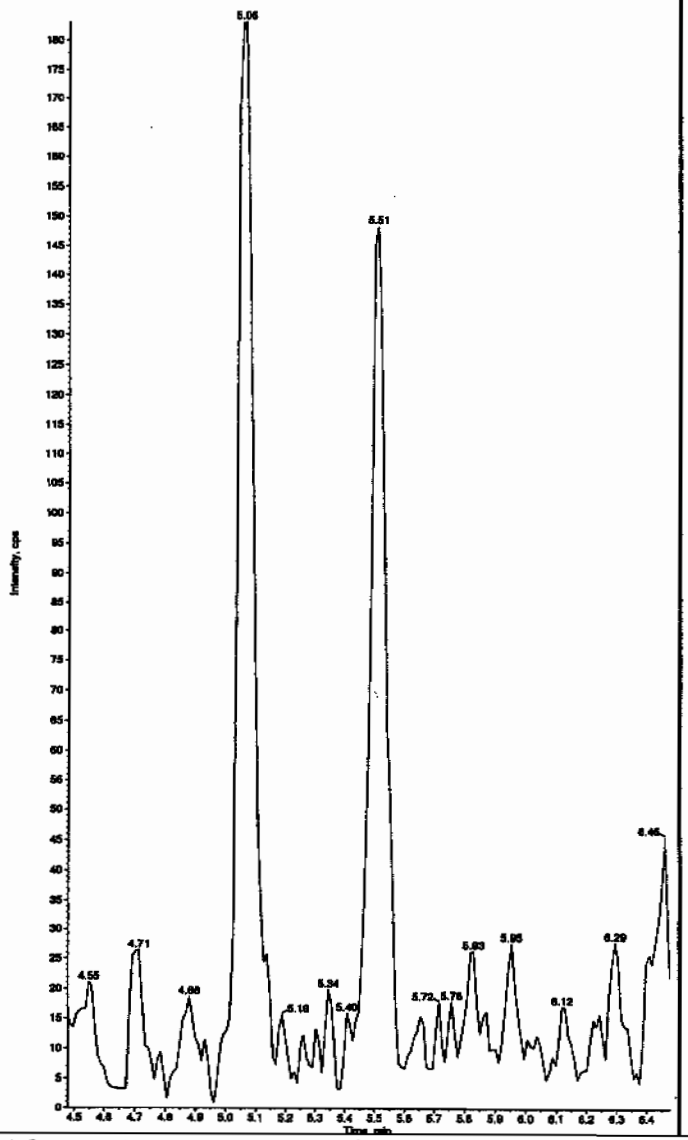

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS01040025.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 9:58:08 PM

Modified: No

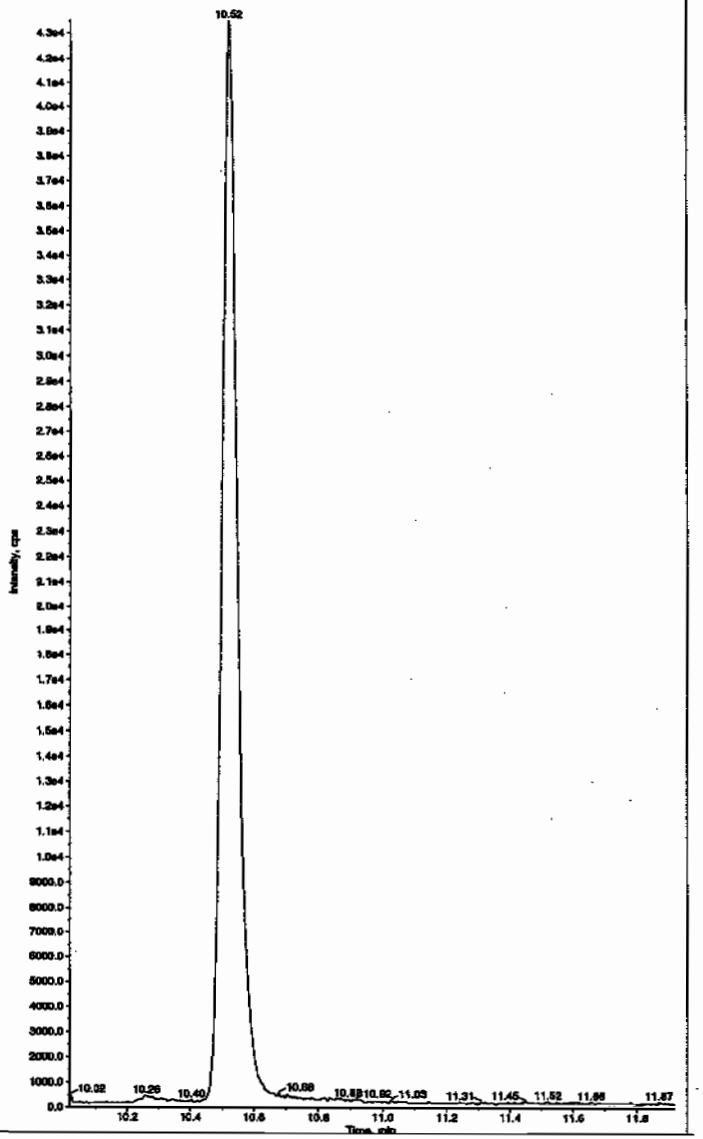

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-994

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 05-JAN-10 01:22

GEL Data File: EXS01040038.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	5.83
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

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Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS01040038.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 1:22:18 AM
Modified: No

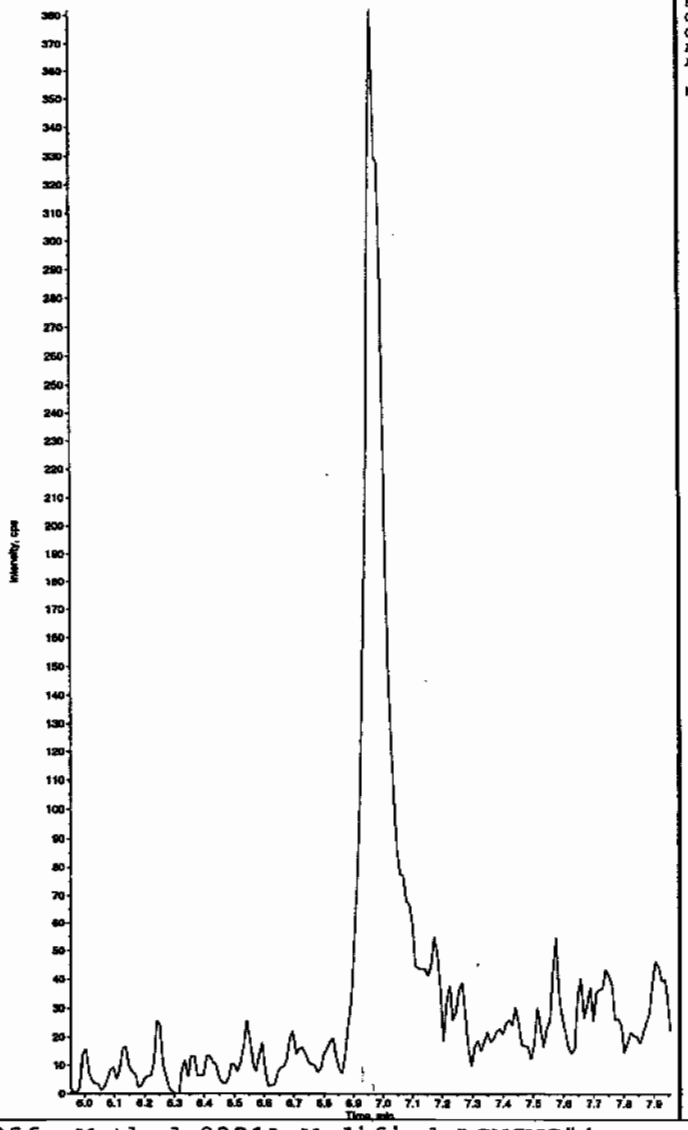

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS01040038.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 1:22:18 AM
Modified: No

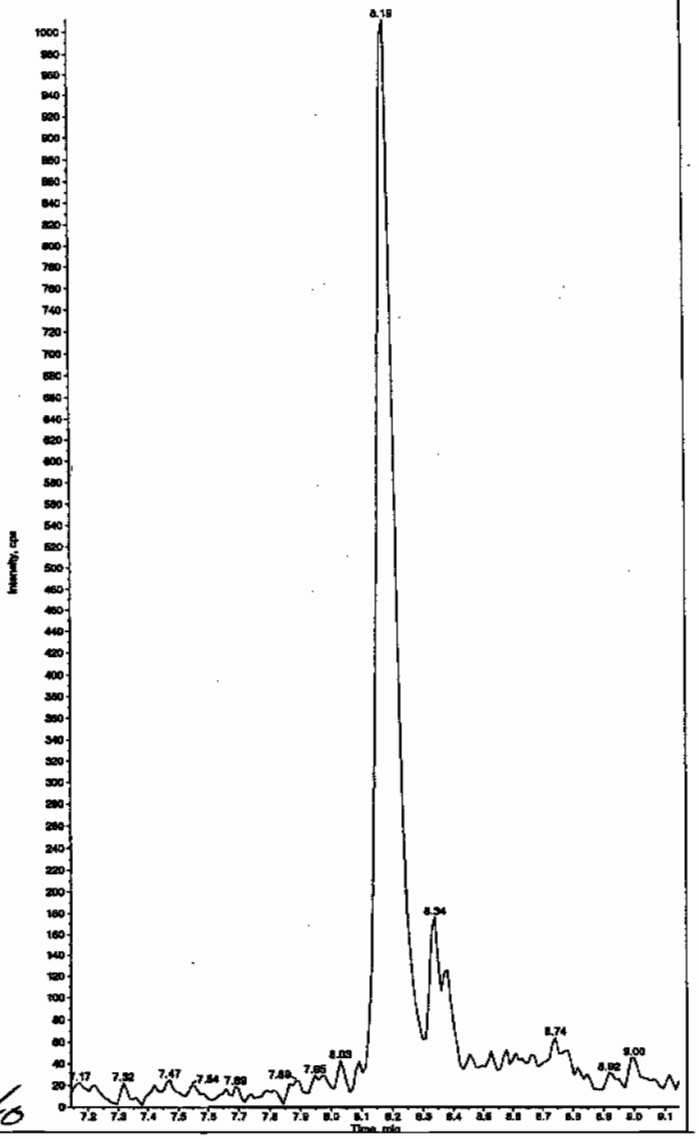

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GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS01040038.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 1:22:18 AM

Modified: No

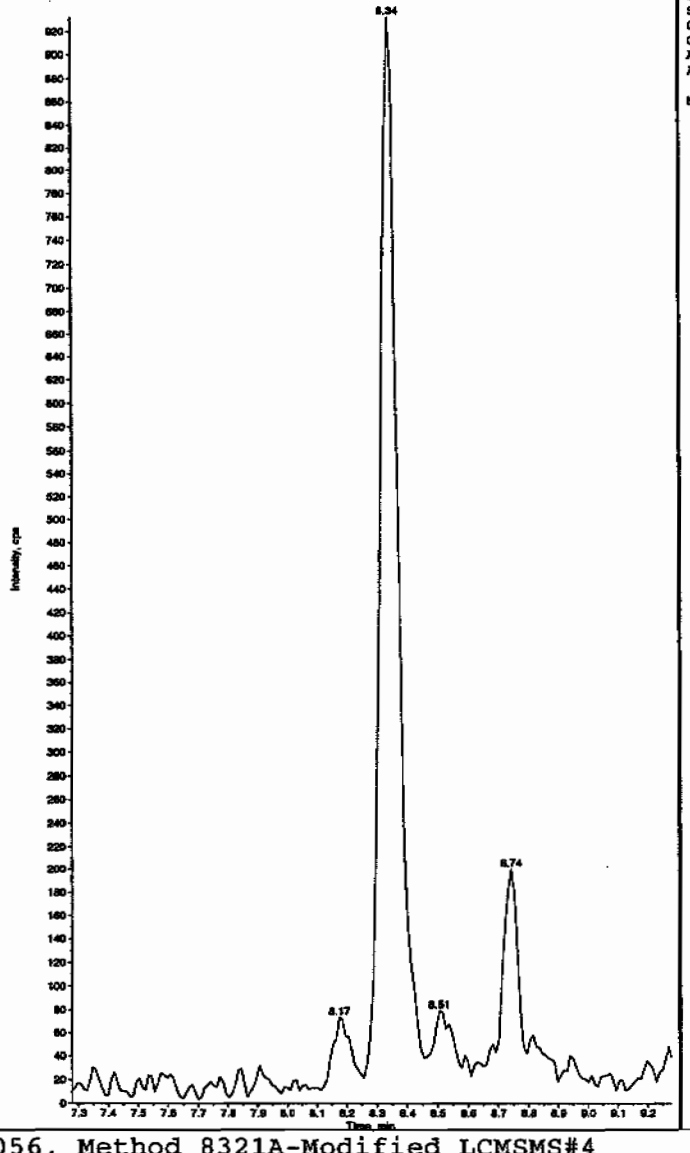

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS01040038.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 1:22:18 AM

Modified: No

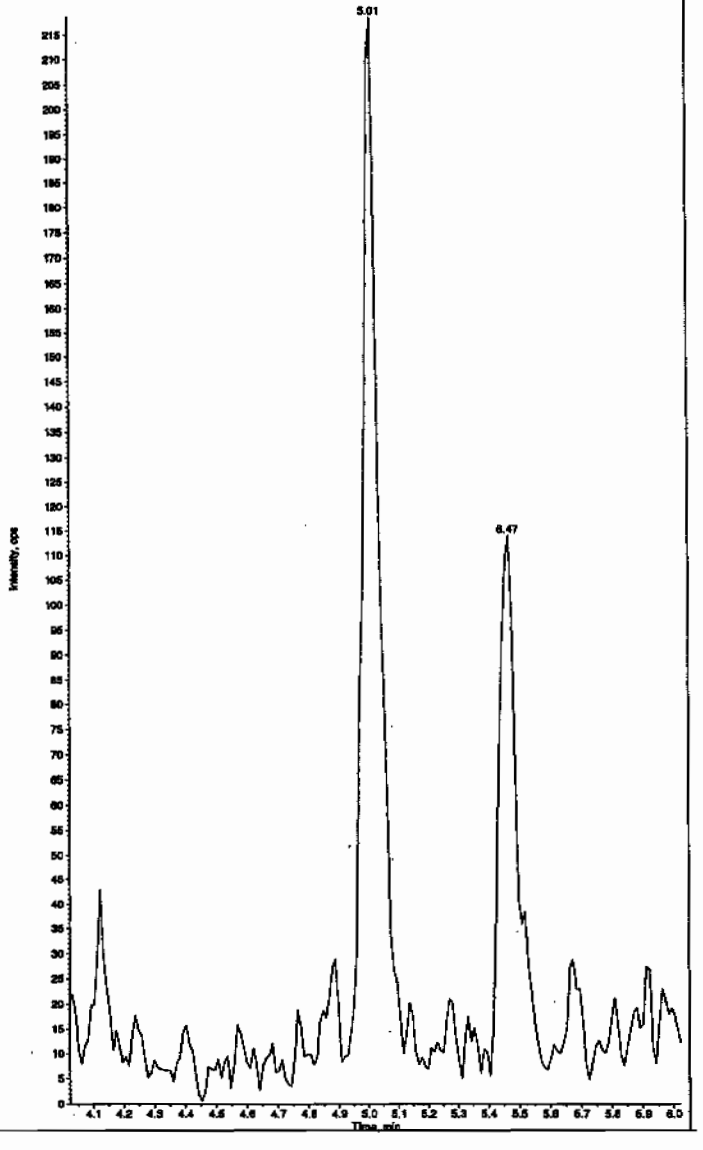

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS01040038.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "165.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 1:22:18 AM

Modified: No

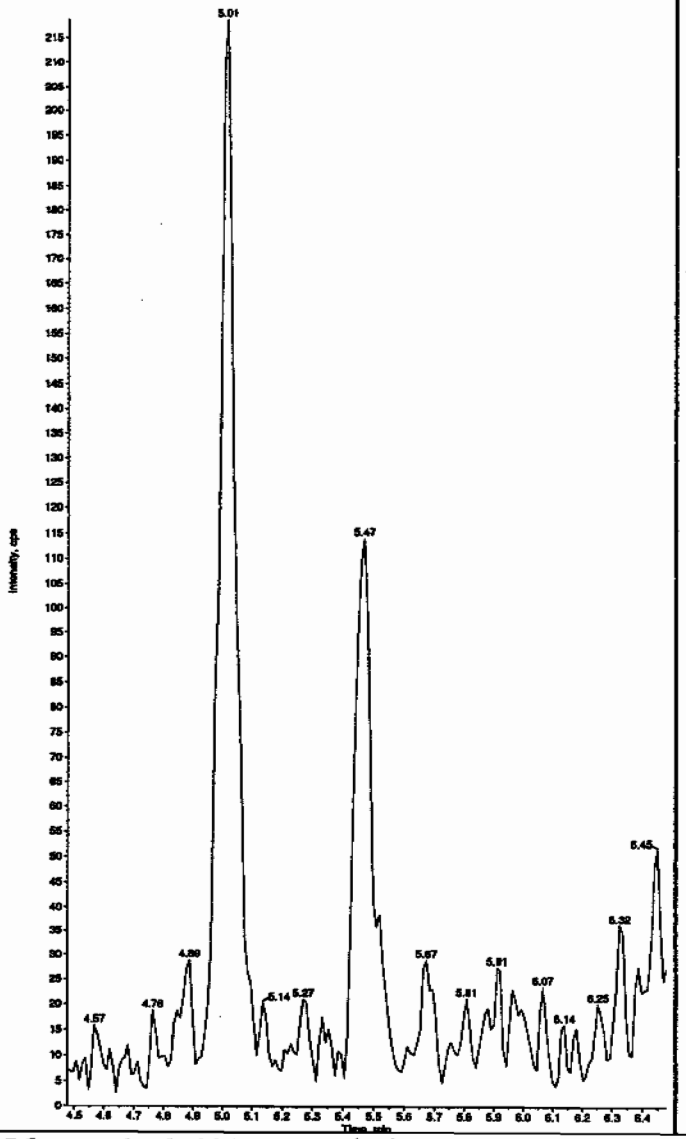

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS01040038.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 5.83 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 1:22:18 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.36e+005 counts
Height: 30266.014 cps
Start Time: 10.8 min
End Time: 11.1 min

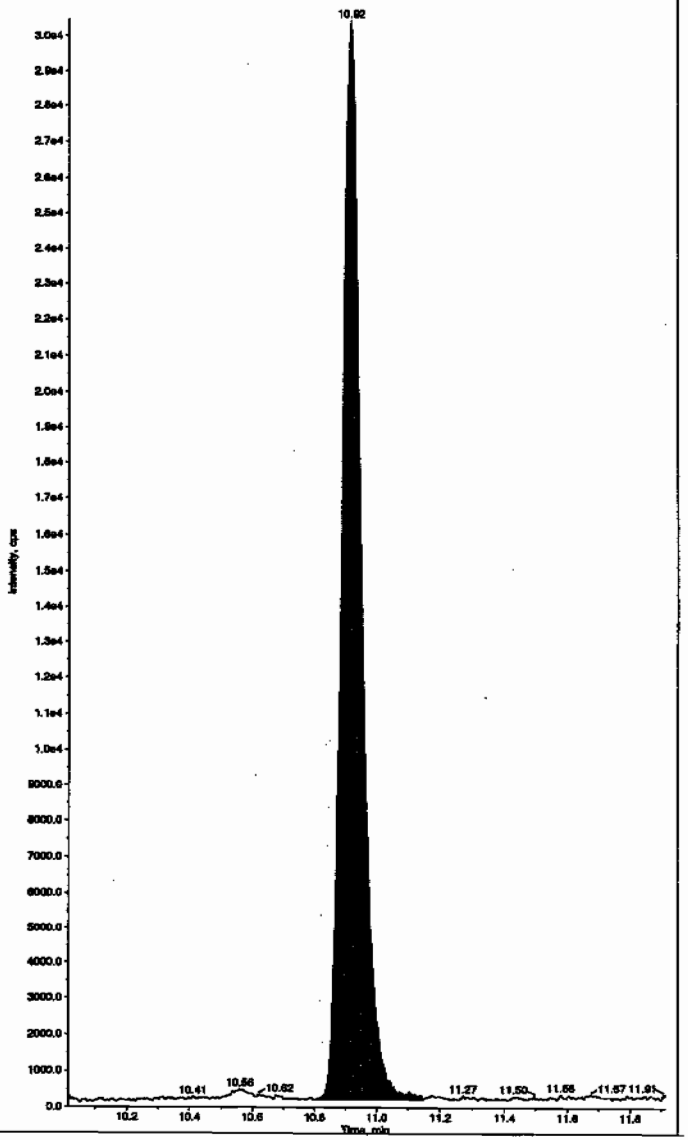

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–994

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 05–JAN–10 02:09

GEL Data File: EXS01040041.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	4.67
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS01040041.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 2:09:26 AM

Modified: No

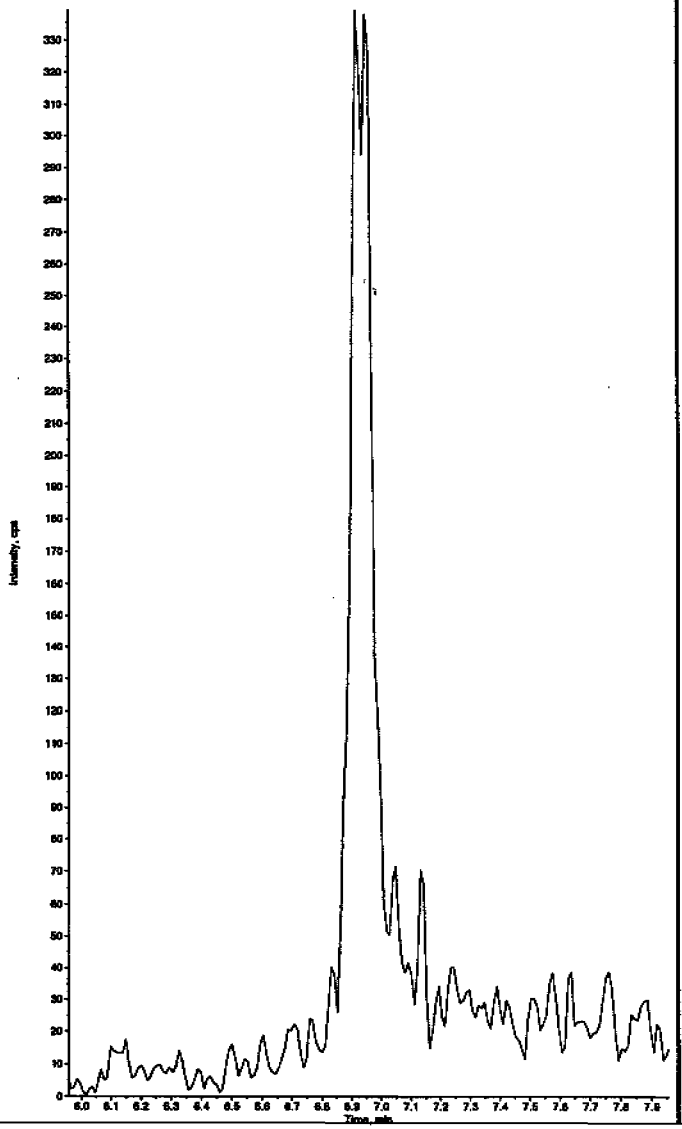

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS01040041.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 2:09:26 AM

Modified: No

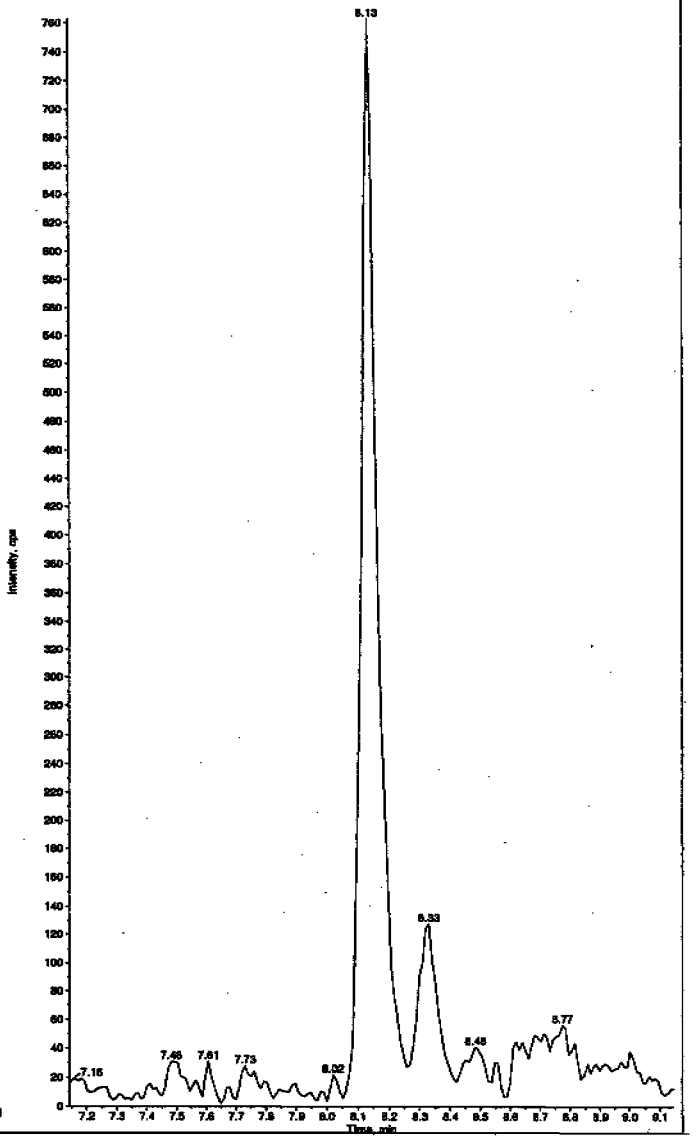

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GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS01040041.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 2:09:26 AM

Modified: No

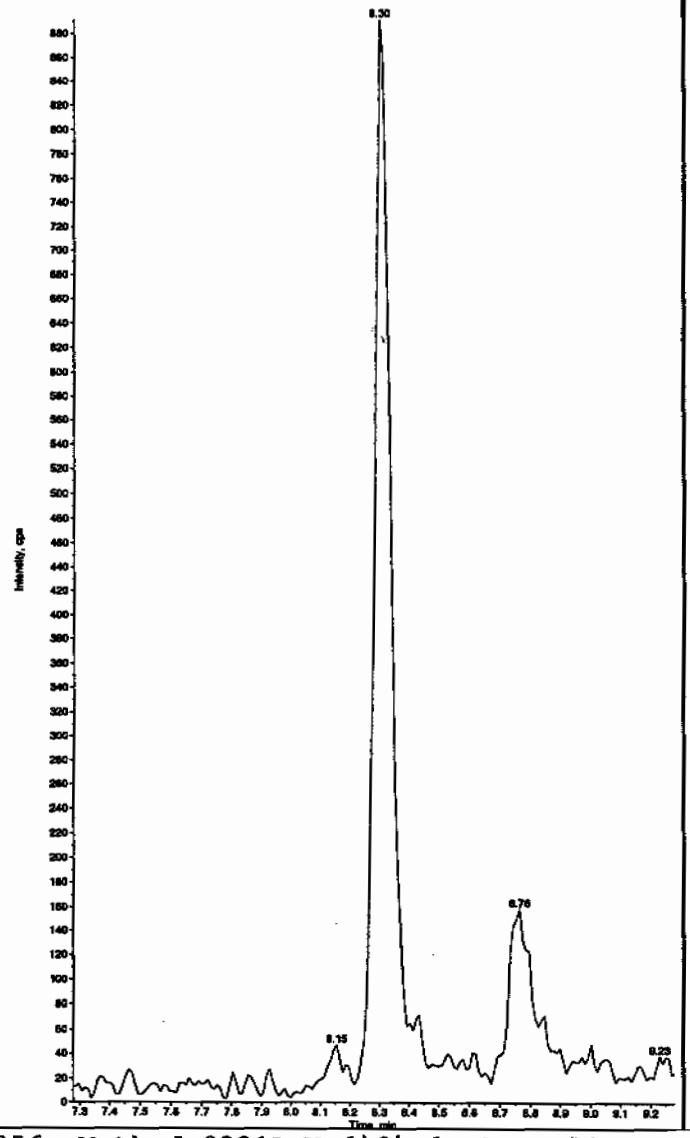

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS01040041.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 2:09:26 AM

Modified: No

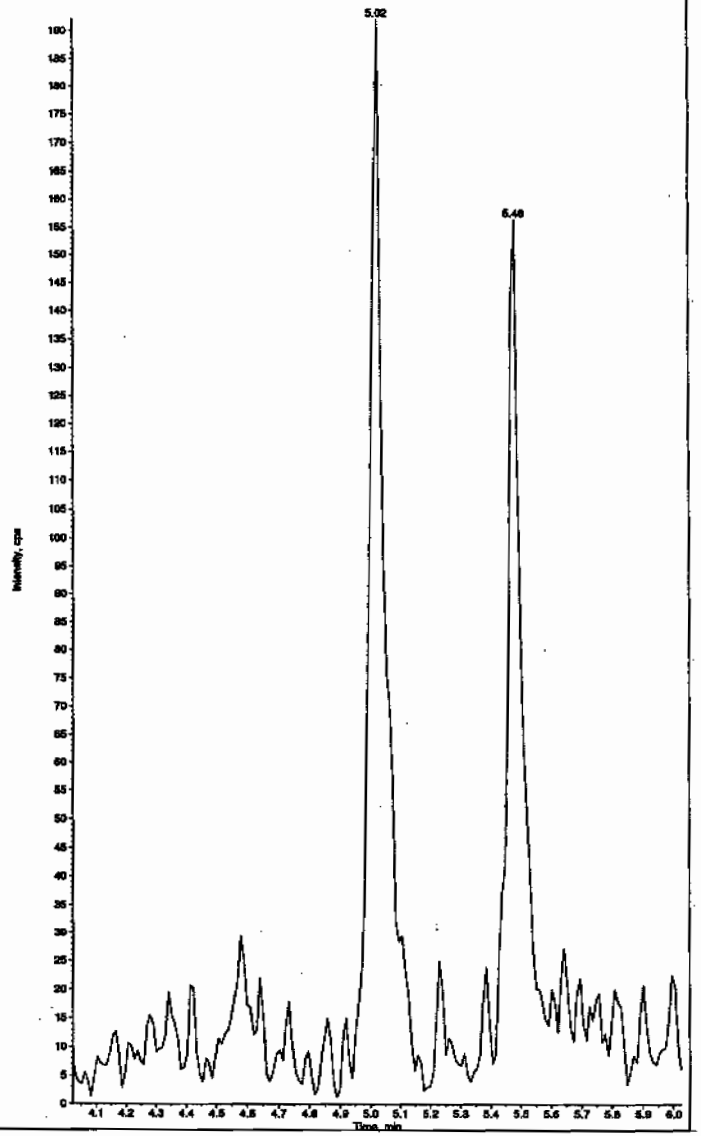

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS01040041.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 2:09:26 AM

Modified: No

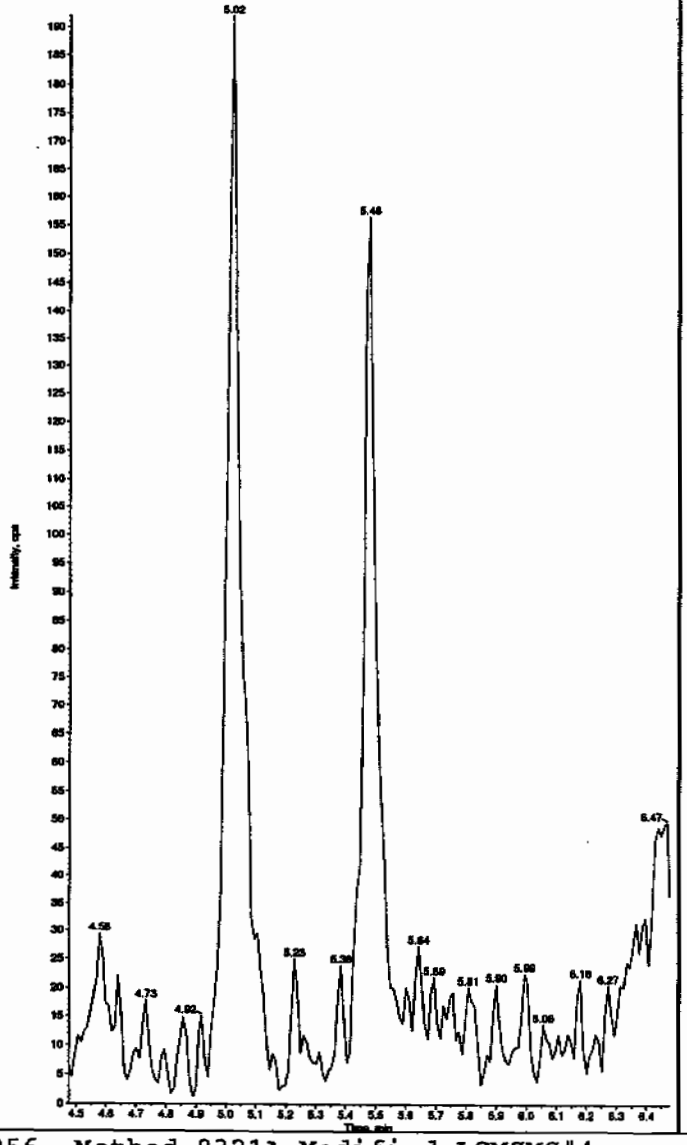

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS01040041.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 4.67 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 2:09:26 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.05e+005 counts
Height: 24515.182 cps
Start Time: 10.9 min
End Time: 11.1 min

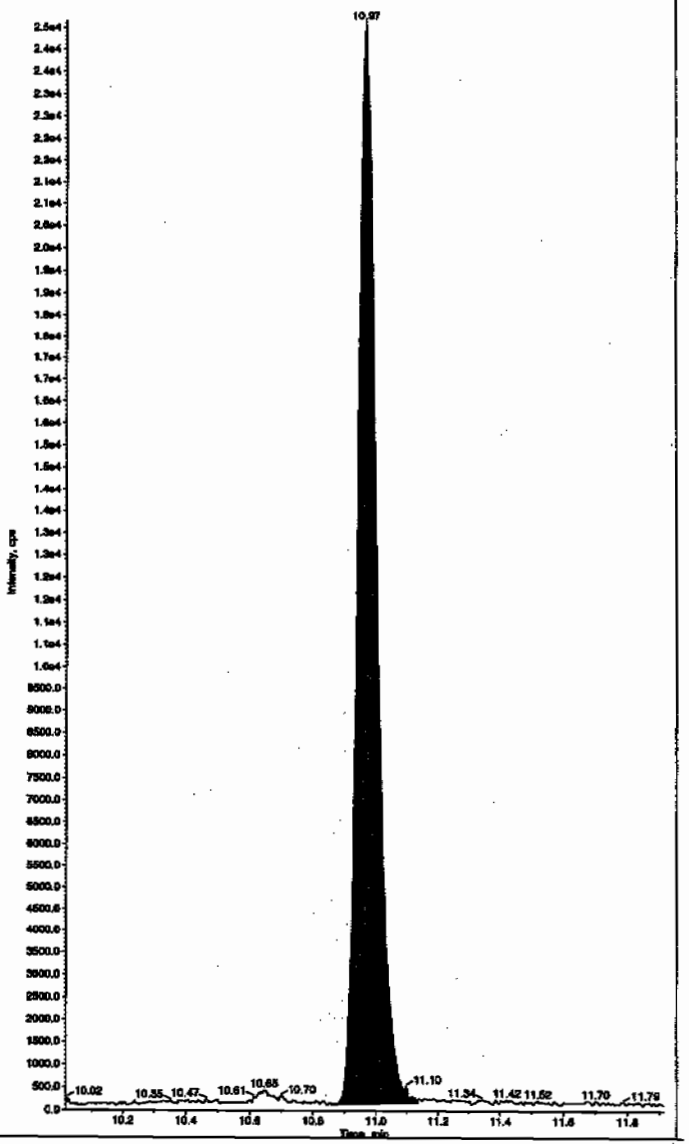

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–994

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 05–JAN–10 02:40

GEL Data File: EXS01040043.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	5.48
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

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Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS01040043.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 2:40:51 AM

Modified: No

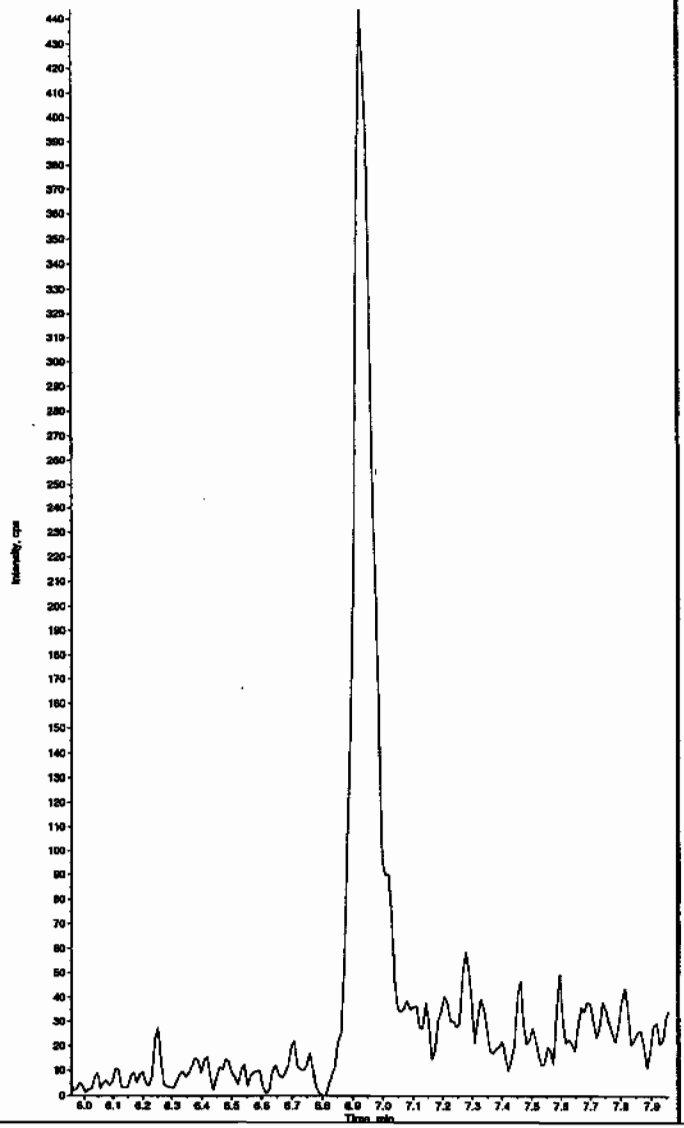

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS01040043.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 2:40:51 AM

Modified: No

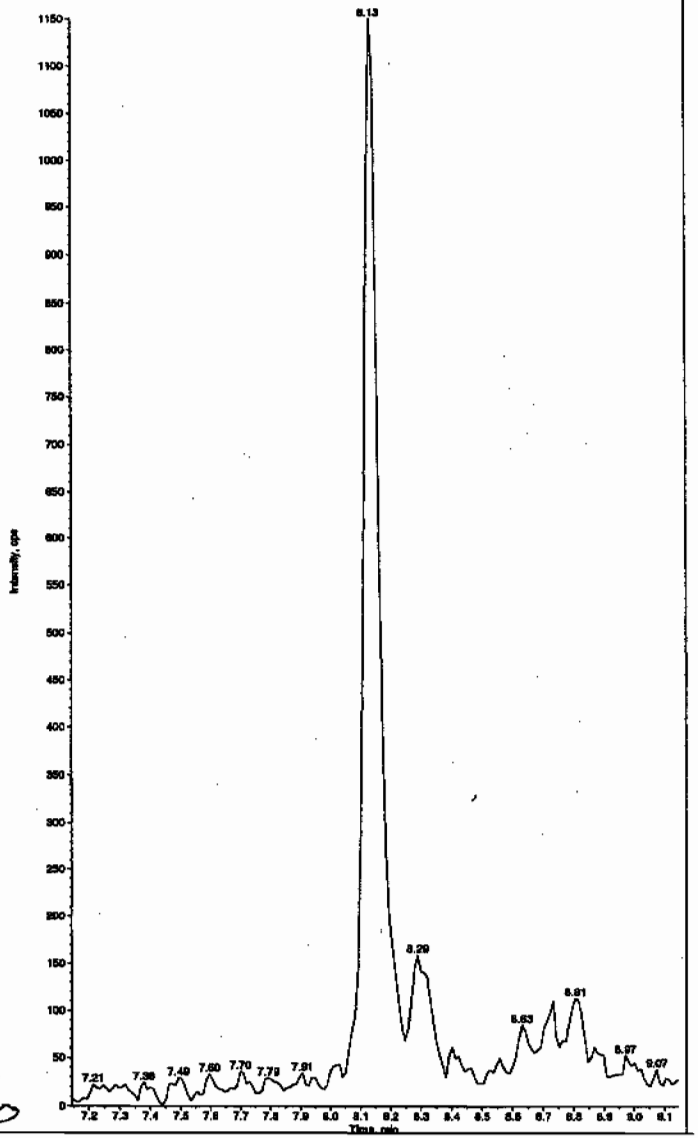

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GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS01040043.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 2:40:51 AM

Modified: No

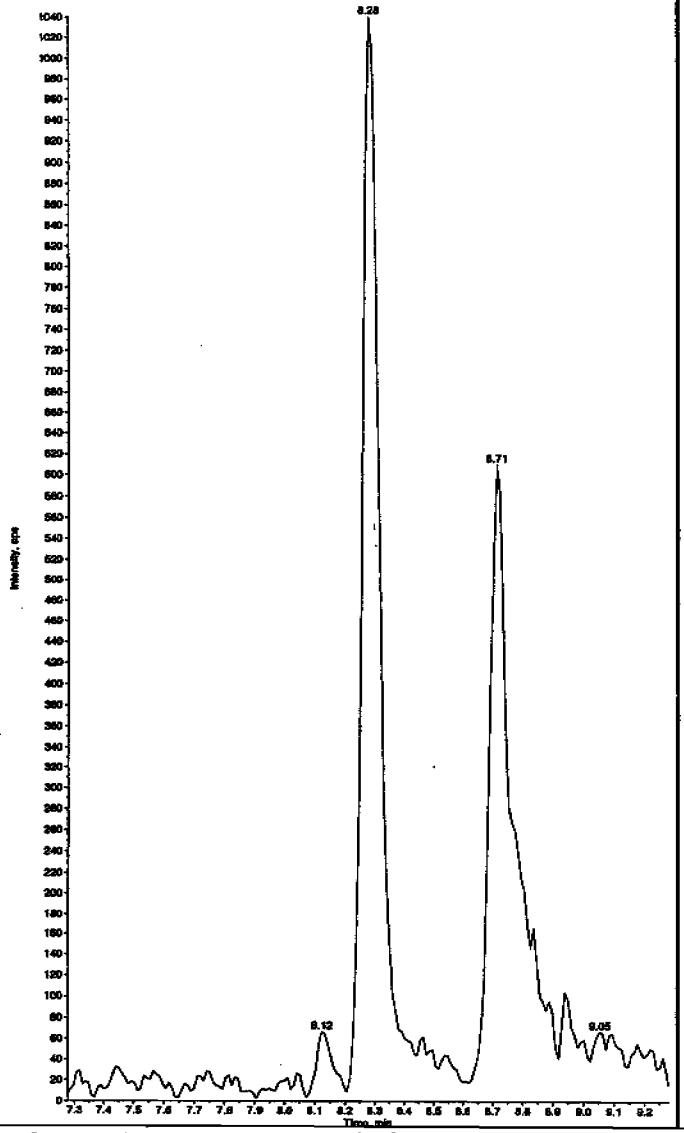

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS01040043.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 2:40:51 AM

Modified: No

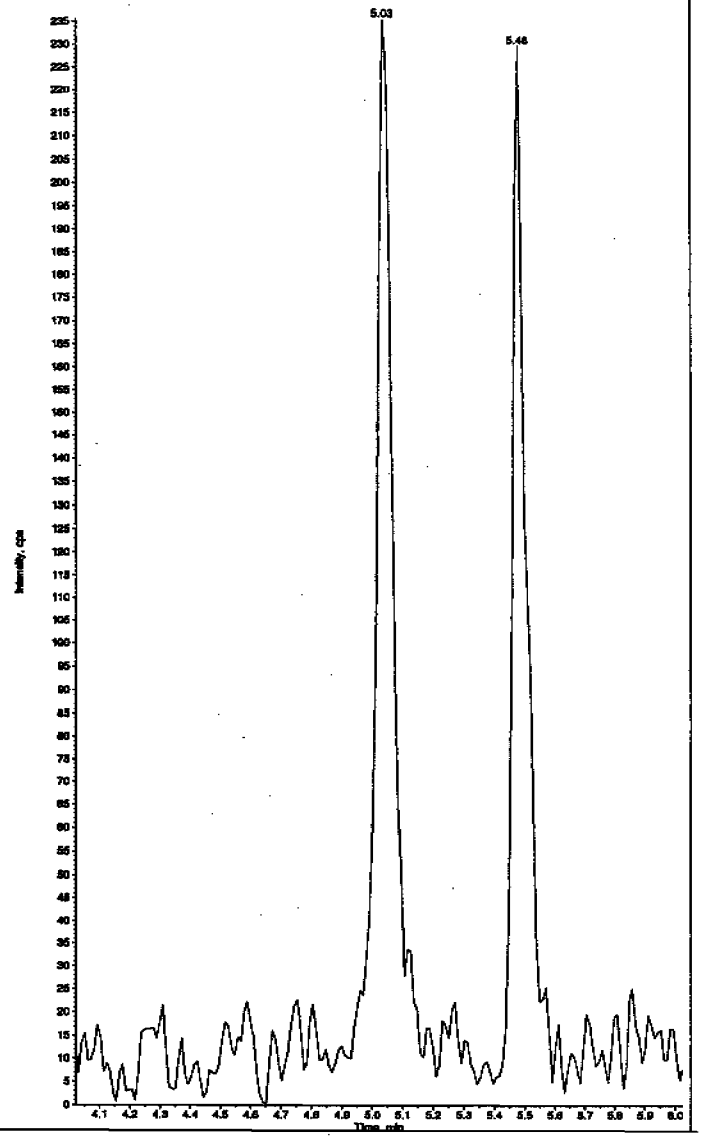

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS01040043.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 1/5/2010
cq. Time: 2:40:51 AM

odified: No

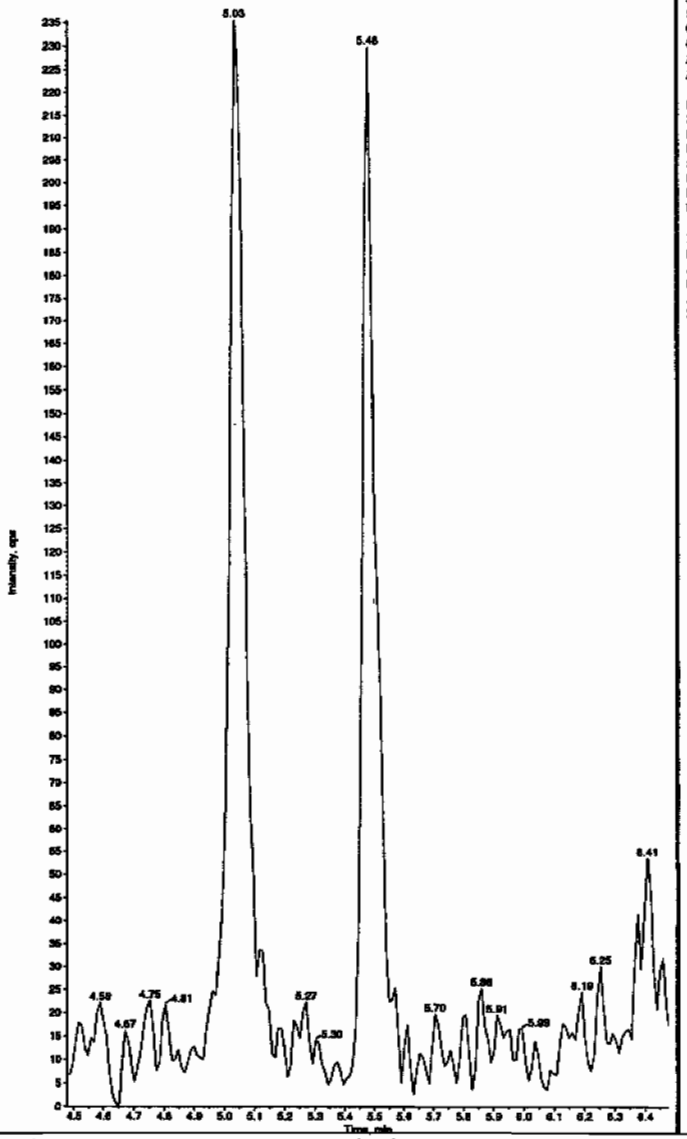

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS01040043.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 5.48 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 2:40:51 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.26e+005 counts
Height: 32617.306 cps
Start Time: 10.9 min
End Time: 11.2 min

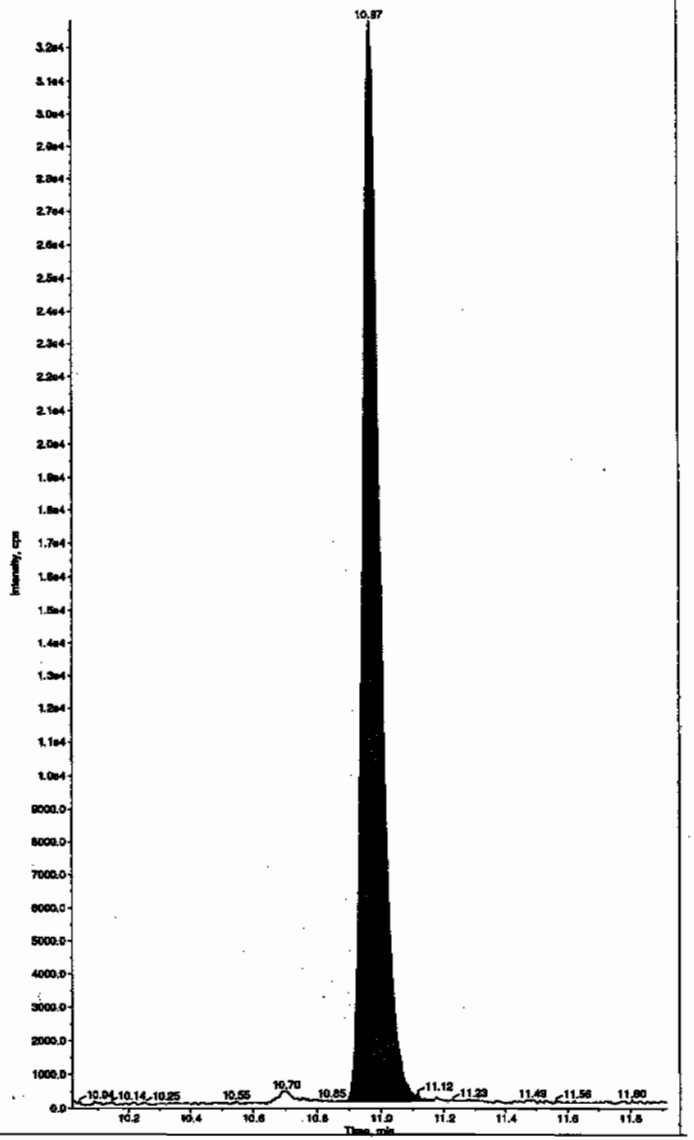

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10–994
Lab Code: GEL
Lab Sample ID: XIBLK08
Analysis Date: 05–JAN–10 04:46
GEL Data File: EXS01040051.wiff
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	6.56
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS01040051.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 4:46:27 AM

Modified: No

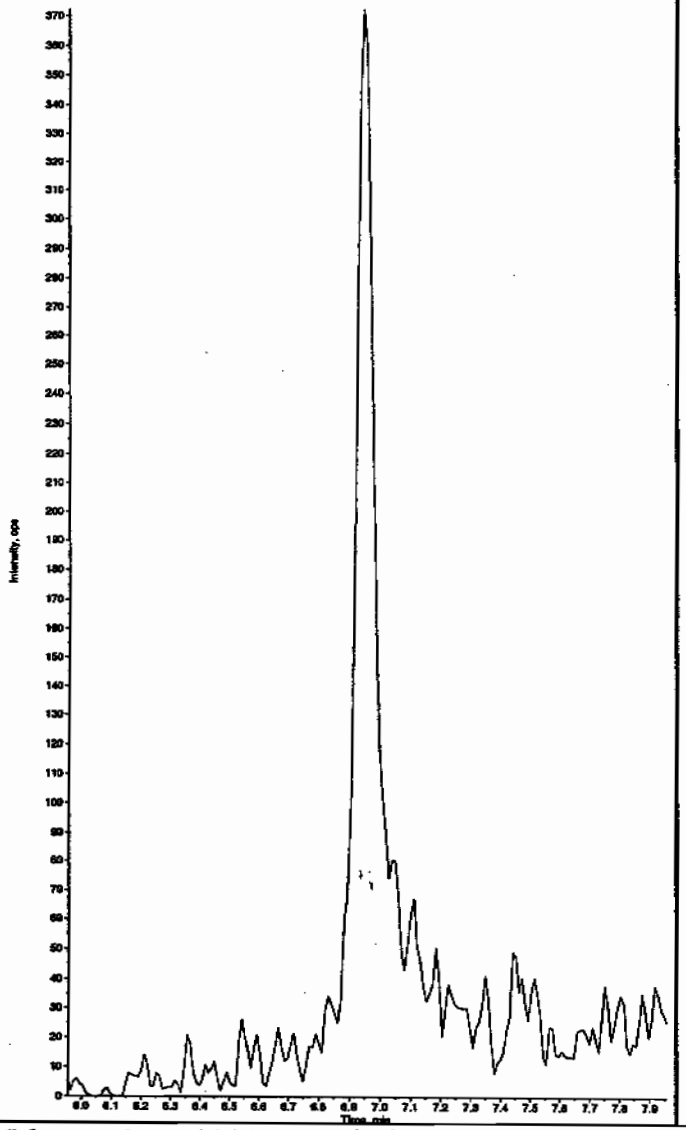

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS01040051.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 4:46:27 AM

Modified: No

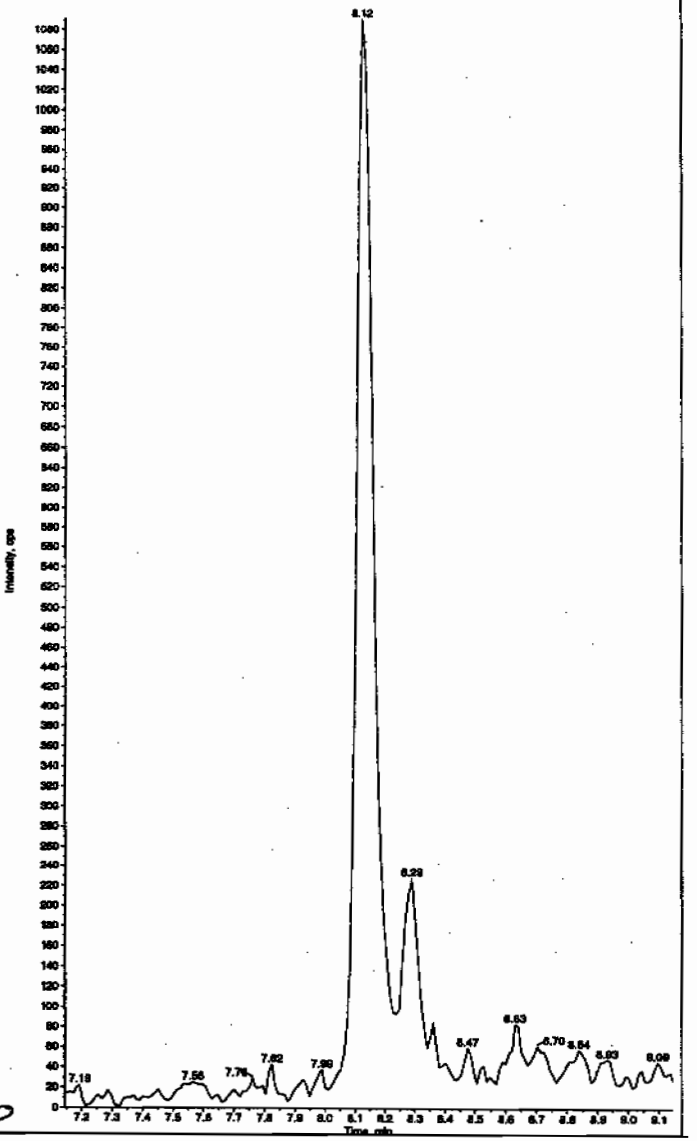

Ann 01/05/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS01040051.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 4:46:27 AM

Modified: No

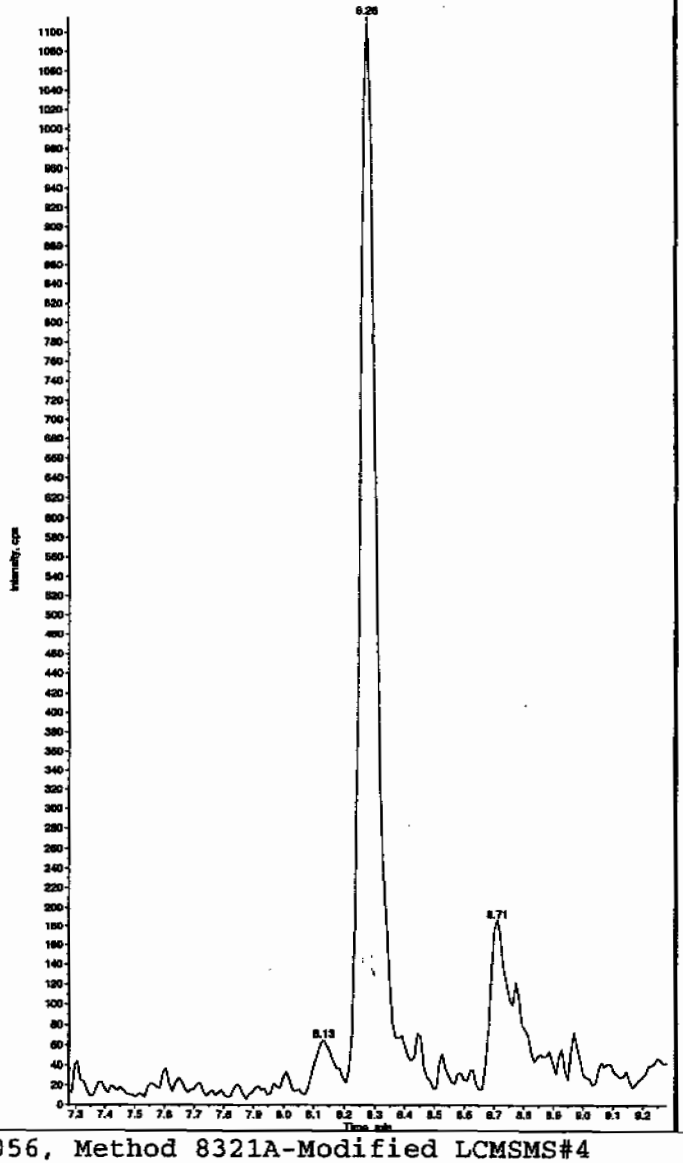

Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS01040051.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 4:46:27 AM

Modified: No

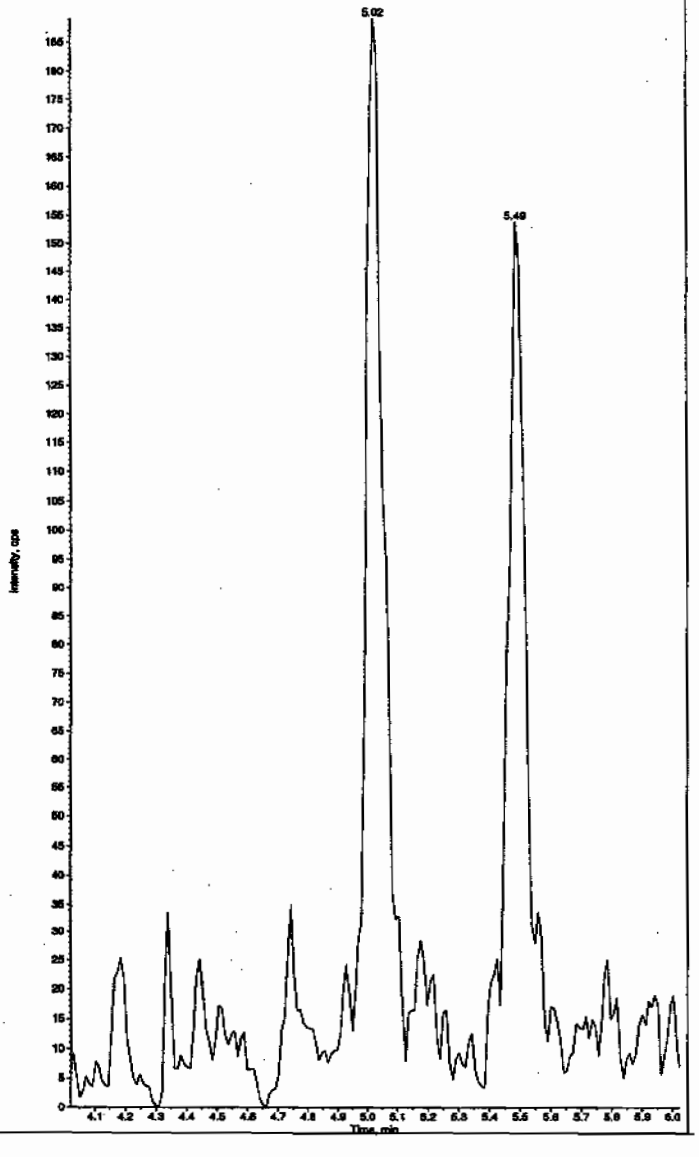

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PRELIMINARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS01040051.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 4:46:27 AM

Modified: No

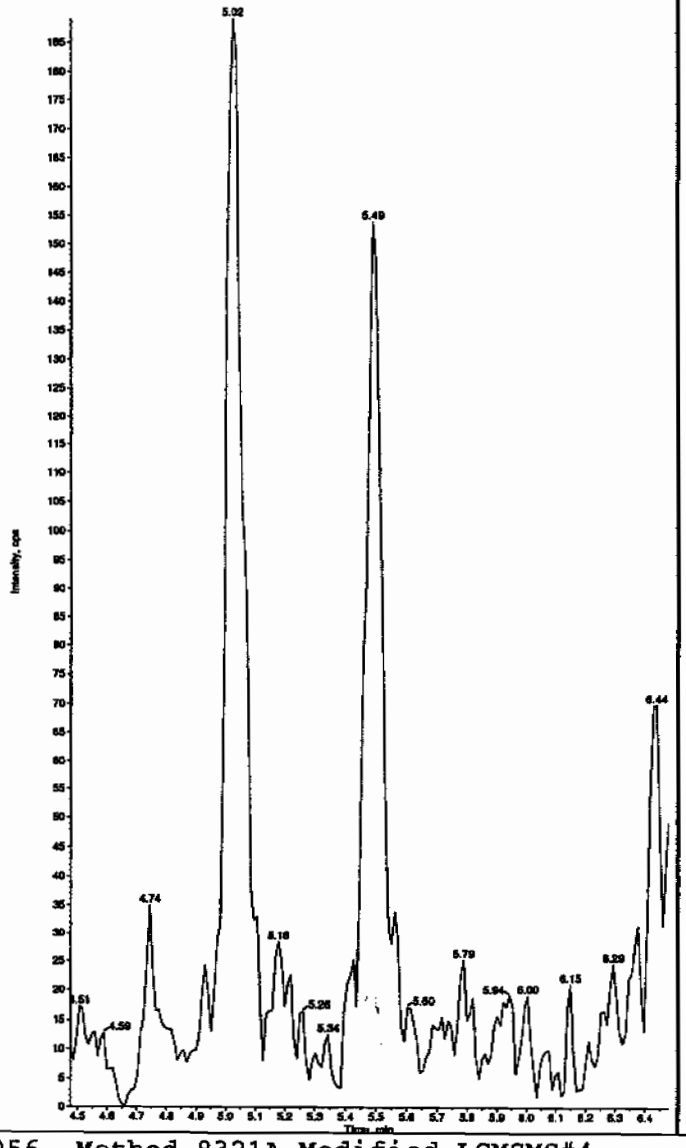

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS01040051.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 6.56 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 4:46:27 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.55e+005 counts
Height: 42480.213 cps
Start Time: 10.9 min
End Time: 11.3 min

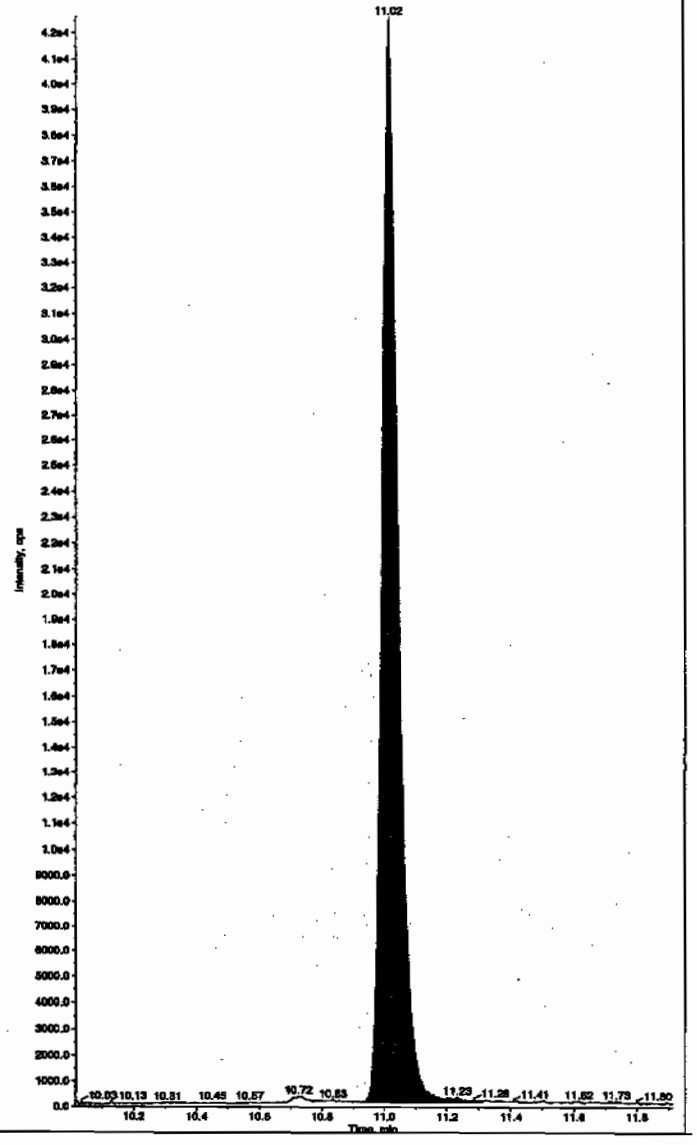

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated 15 matches of 15 tested references

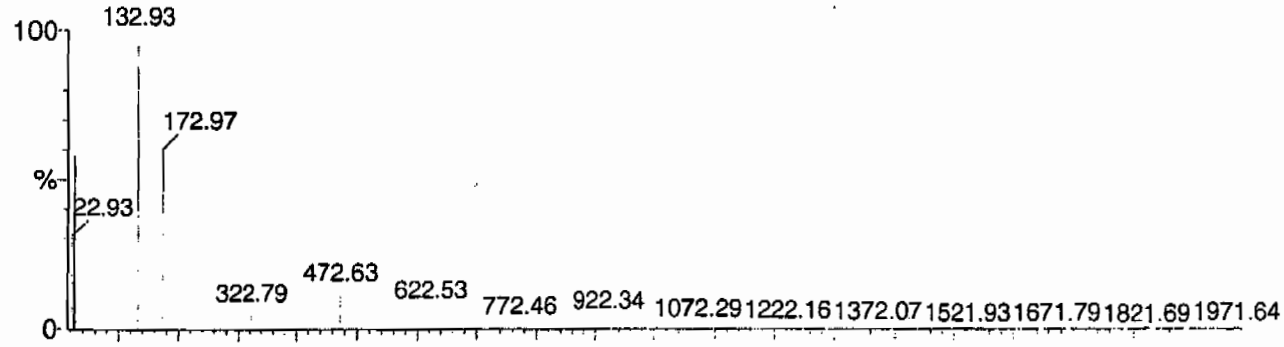

Reference file: Naics2

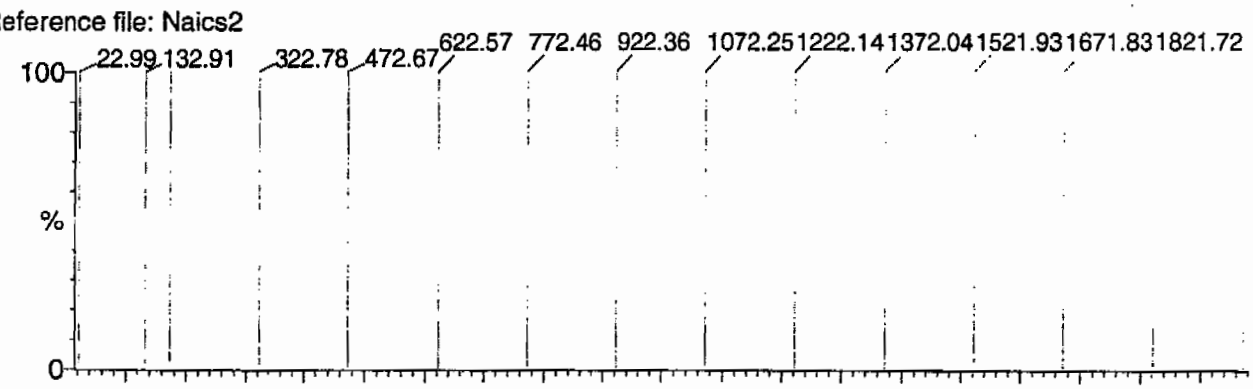

Mass difference (Raw - Ref mass)

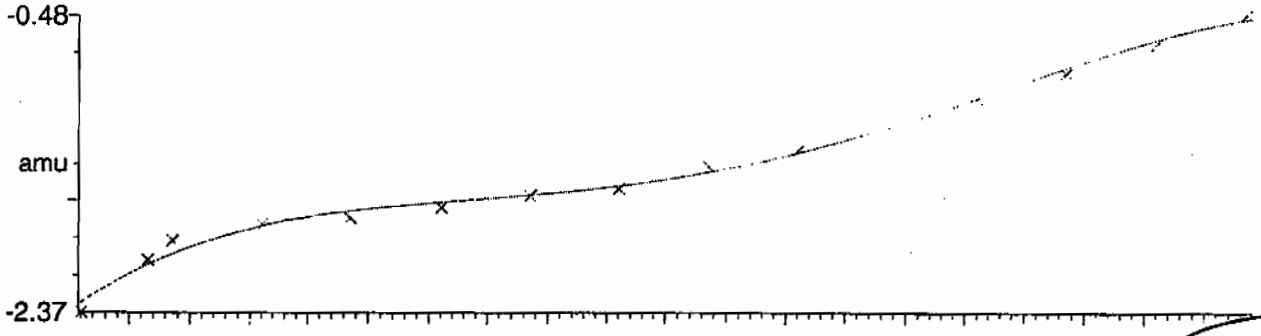

Residuals Mean residual = -1.673470e-9 ± 0.036953

ok
hm

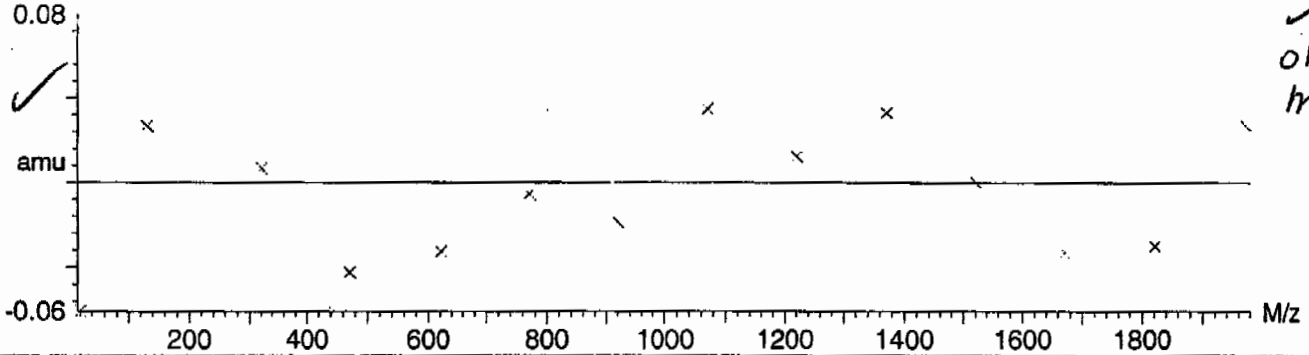

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Calibration Report - MS1 Scanning

Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

15 matches of 15 tested references

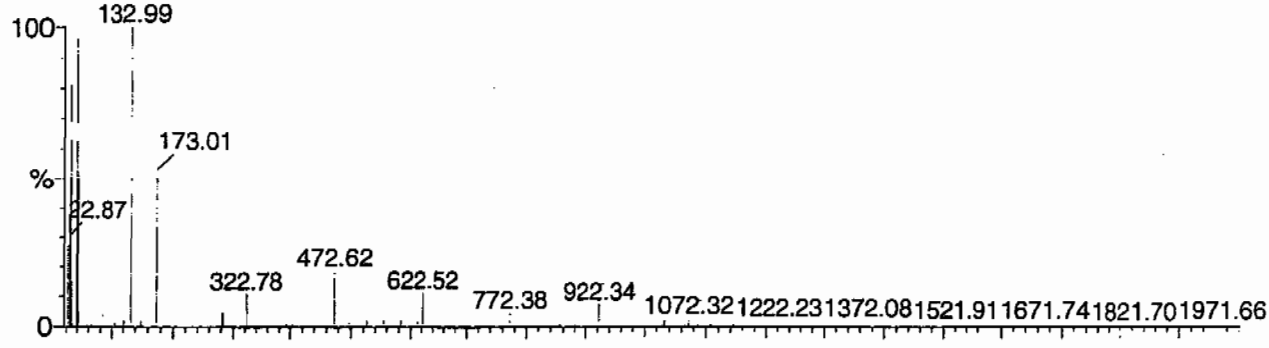

Reference file: Naics2

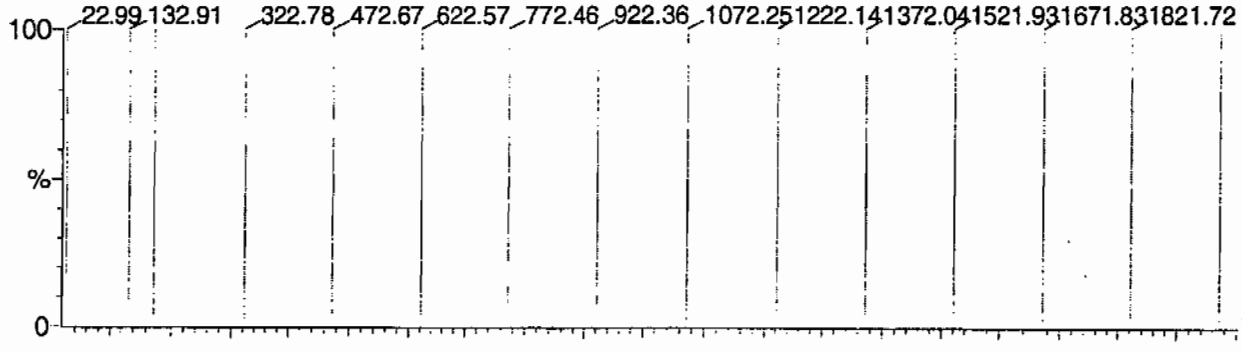

Mass difference (Raw - Ref mass)

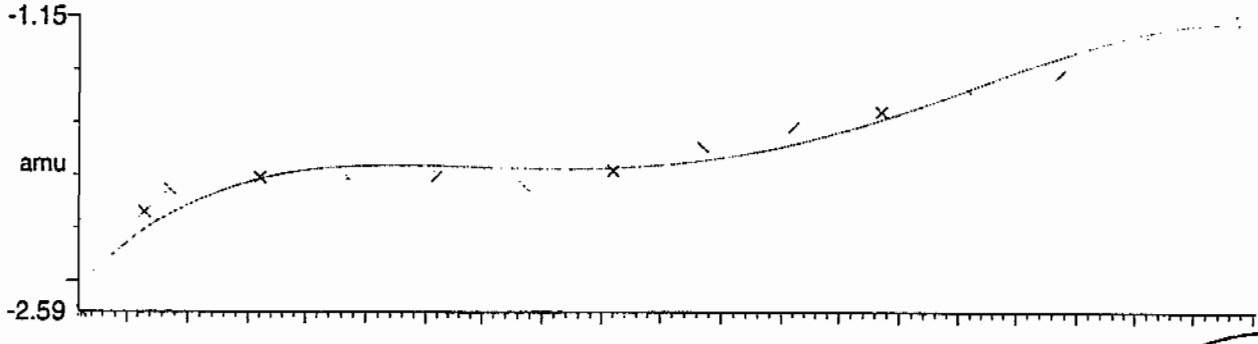

Residuals

Mean residual = -5.432715e-9 ± 0.069858

ok
m

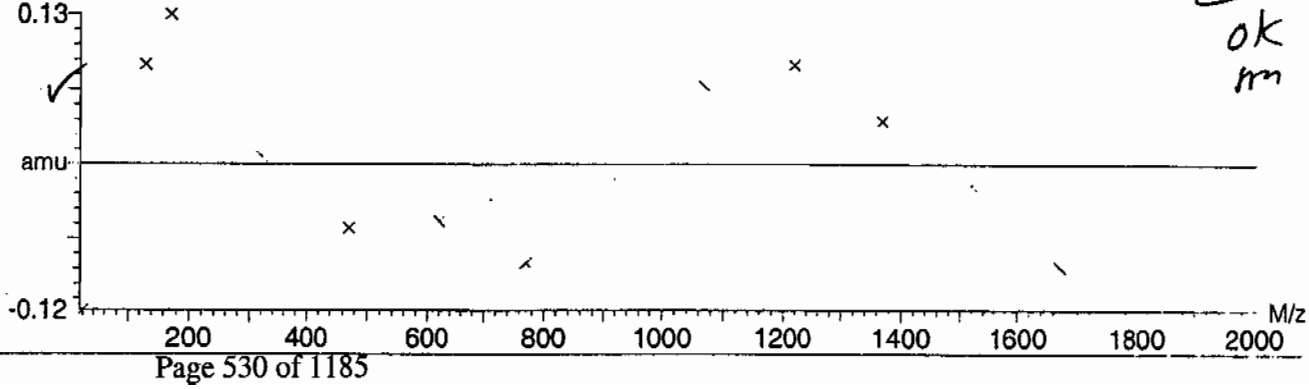

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Calibration Report - MS1 Scan Speed Compensation

Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

15 matches of 15 tested references

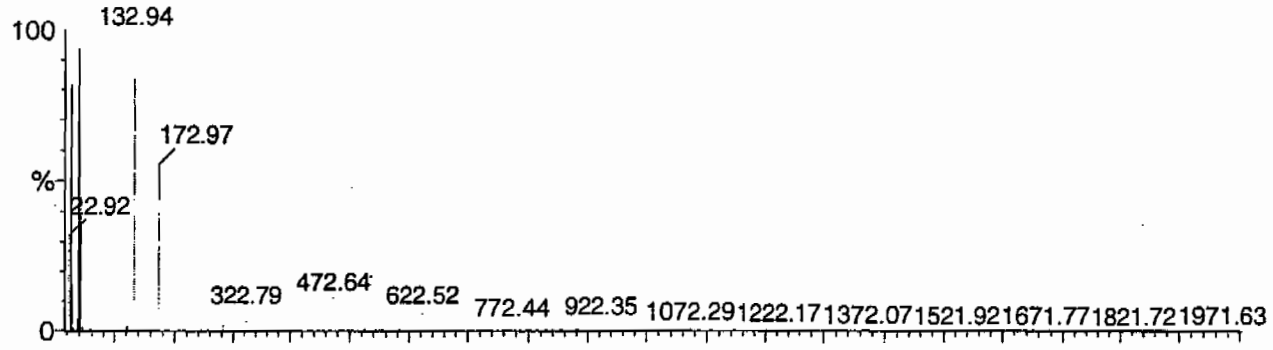

Reference file: Naics2

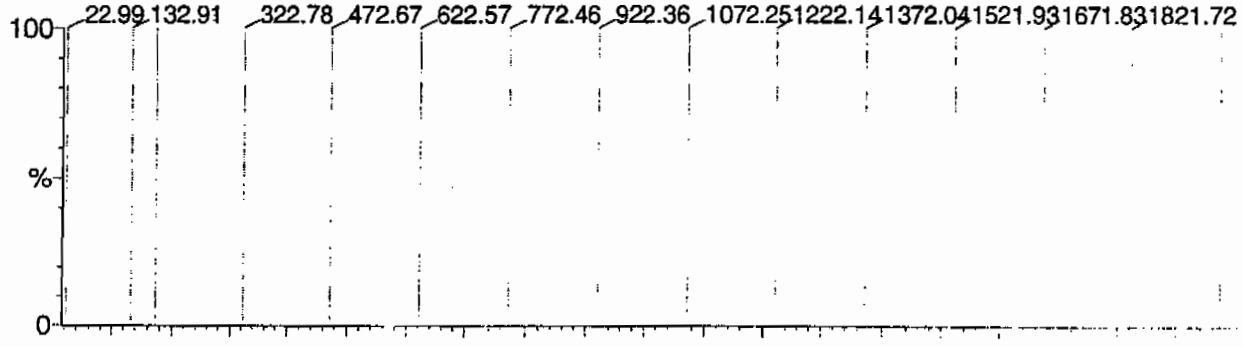

Mass difference (Raw - Ref mass)

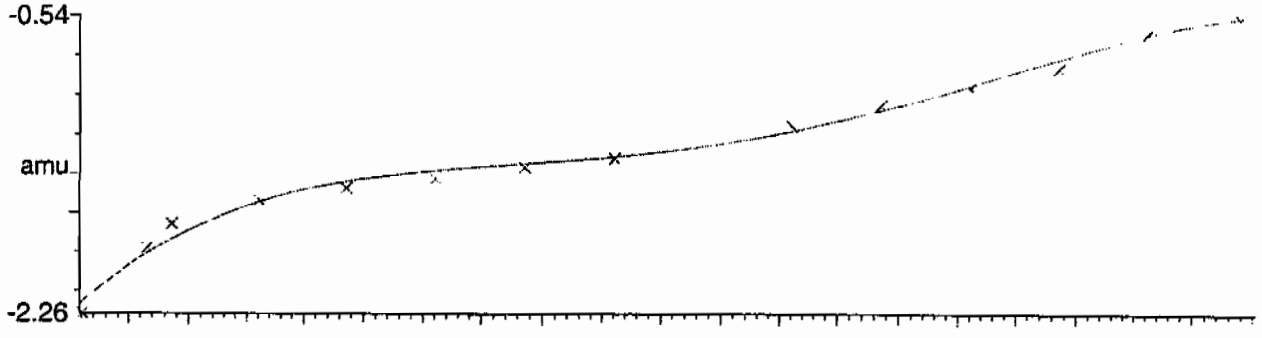

Residuals

Mean residual = 3.486639e-9 ± 0.040487

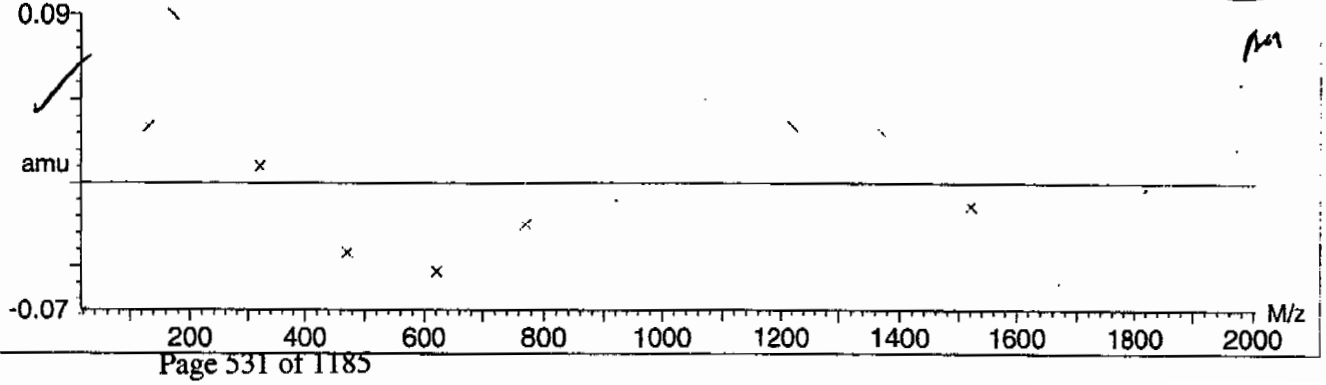

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Calibration Report - MS2 Static

Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated 15 matches of 15 tested references

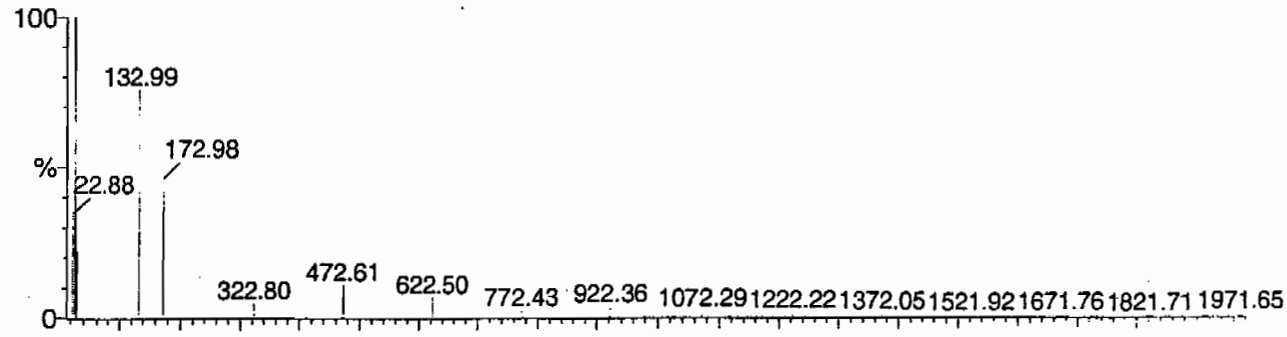

Reference file: Naics2

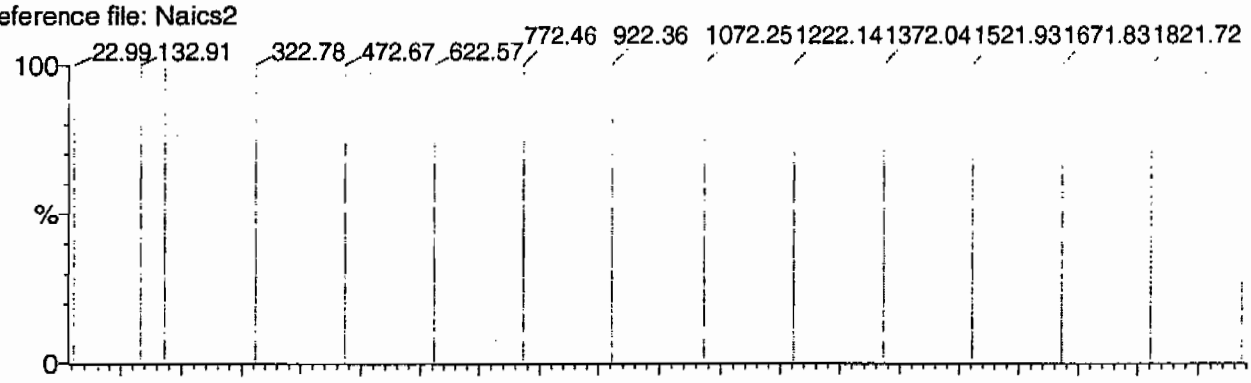

Mass difference (Raw - Ref mass)

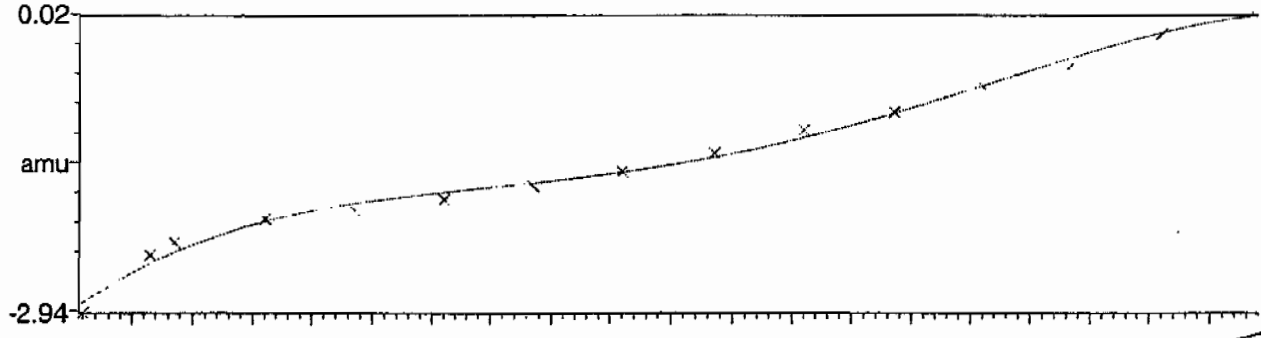

Residuals Mean residual = 2.048910e-9 ± 0.057803

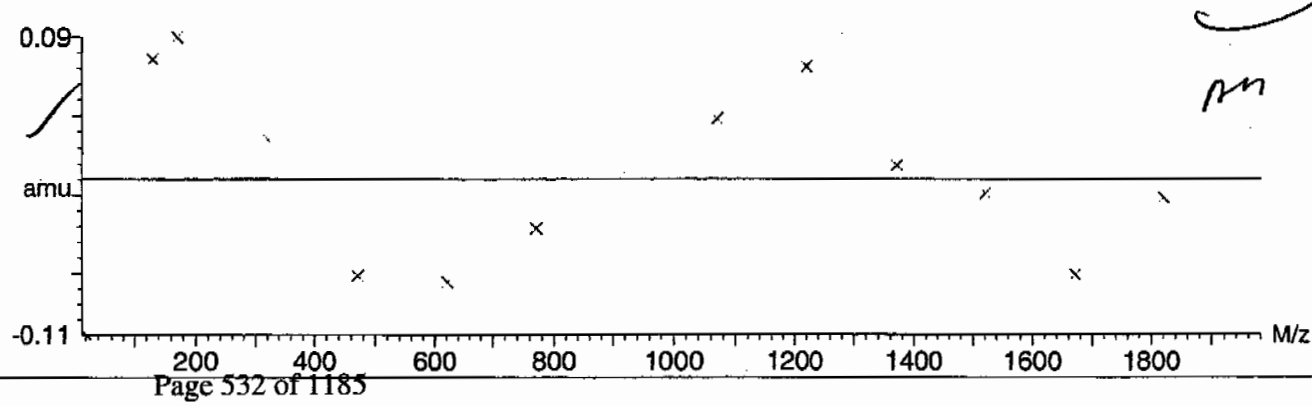

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

14 matches of 15 tested references

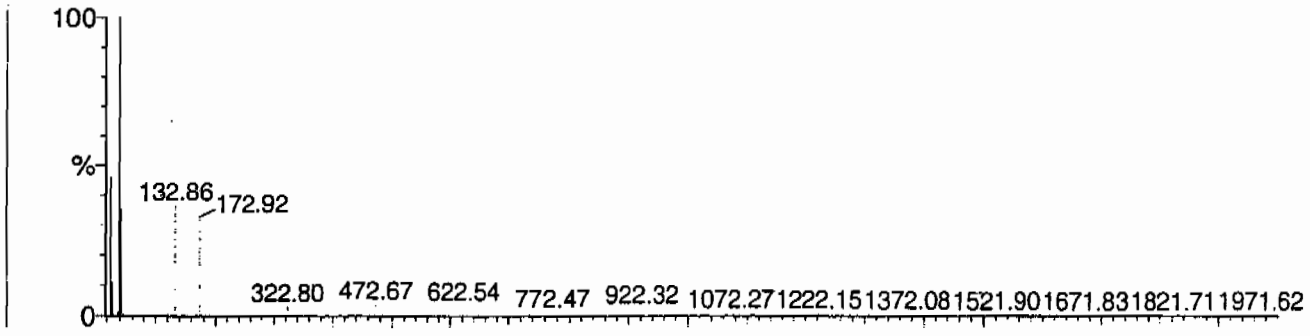

Reference file: Naics2

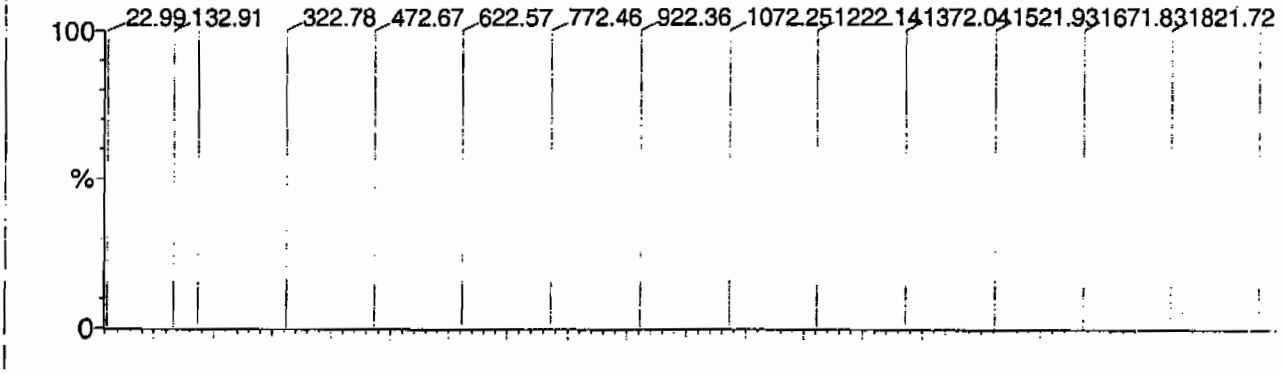

Mass difference (Raw - Ref mass)

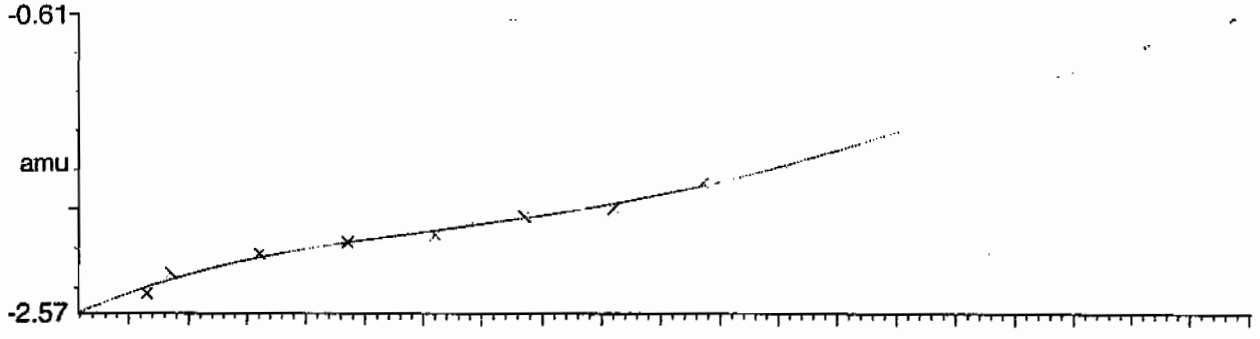

Residuals

Mean residual = -2.623502e-9 ± 0.025622

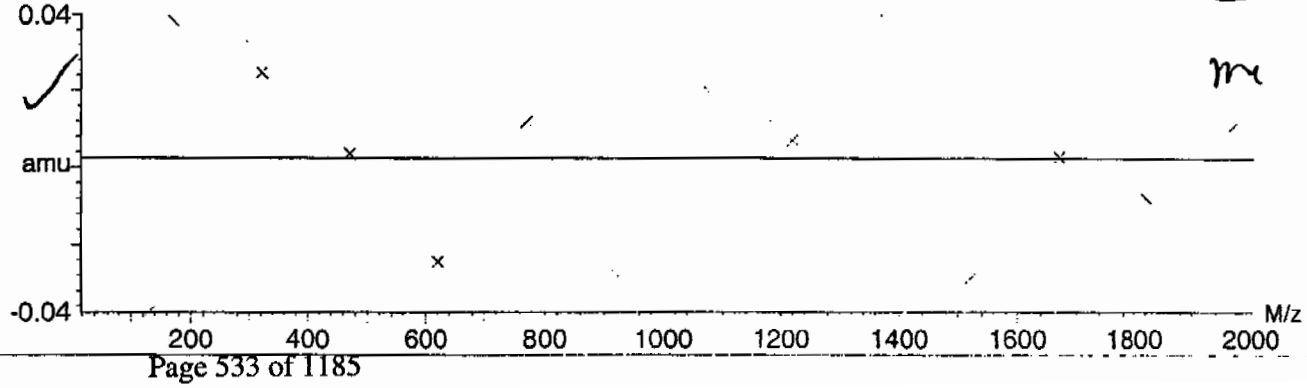

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Calibration Report - MS2 Scan Speed Compensation

Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

14 matches of 15 tested references

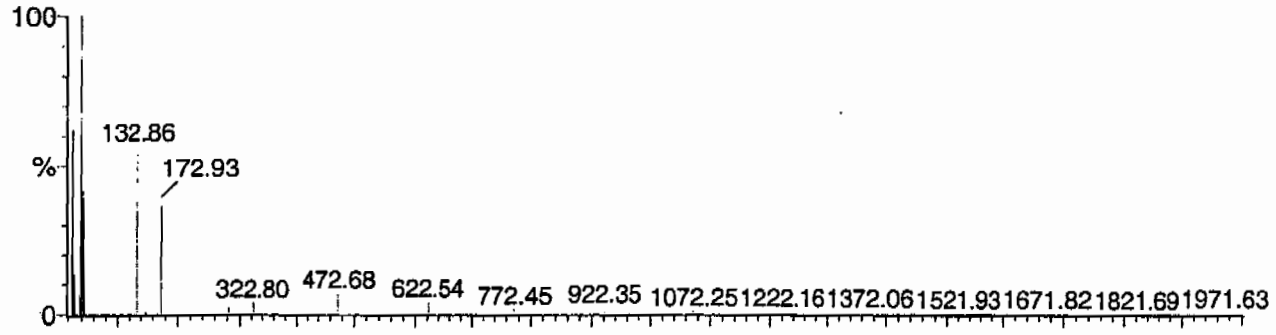

Reference file: Naics2

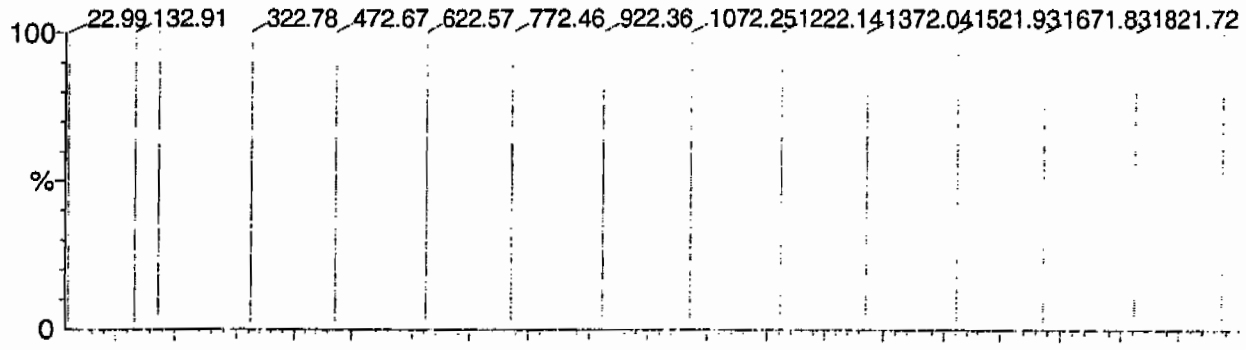

Mass difference (Raw - Ref mass)

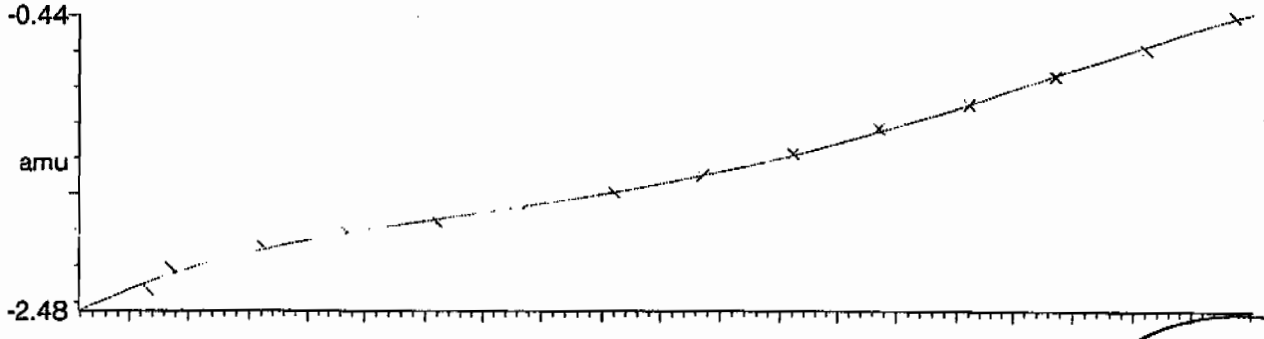

Residuals

Mean residual = -6.785350e-9 ± 0.023134

m

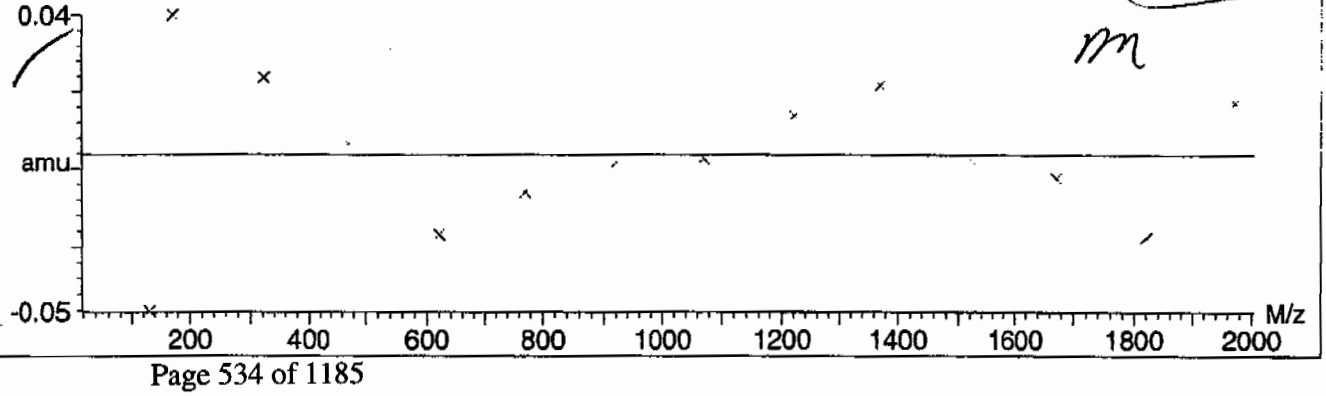

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Quattro Micro Tune Parameters Page 1

Parameter File: C:\MASSLYNX\NEW_EXP.PRO\ACQUDB\explosives04.ipr

Printed : Tue Jan 12 11:26:21 2010

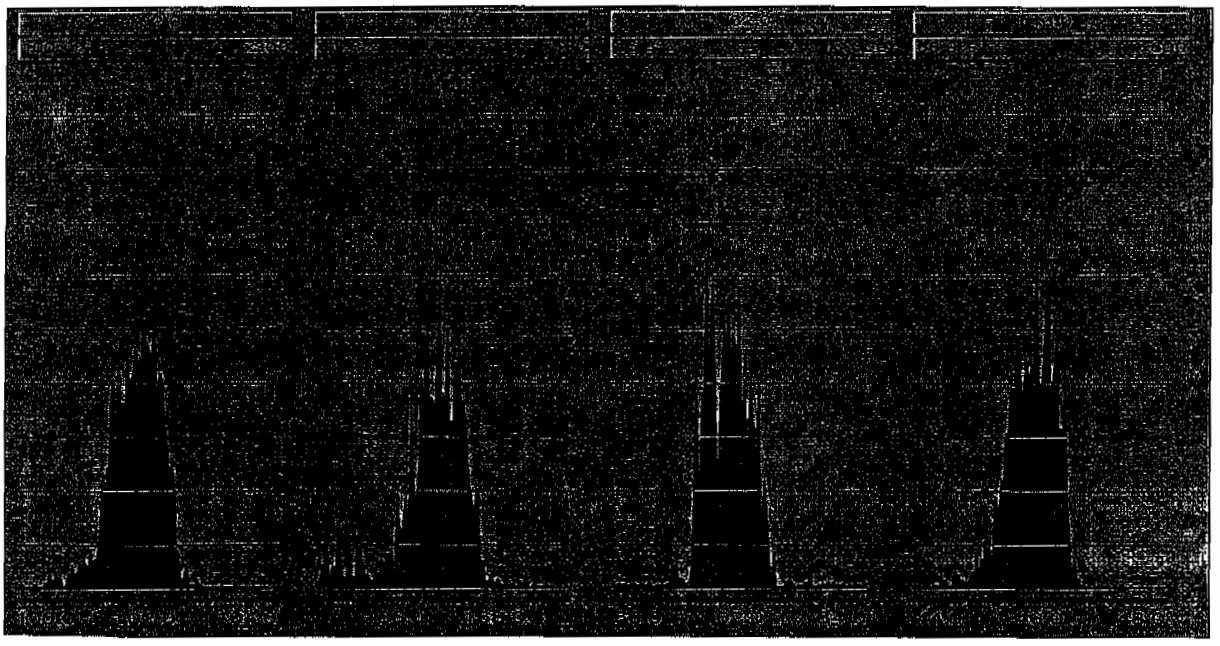

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–994

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			2517.055	12.193	14530.767	17.644
Upper Limit			3272.1715	12.693	18889.9971	18.144
Lower Limit			1761.9385	11.693	10171.5369	17.144
MB for batch 935227	14–jan–10 02:20	EXP0112071a	3270.94	12.171	19581.5 *	17.619
LCS for batch 935227	14–jan–10 02:50	EXP0112072a	3405.16 *	12.17	21292.4 *	17.619
LCSD for batch 935227	14–jan–10 03:19	EXP0112073a	3335.39 *	12.17	20086 *	17.619
CAPA–10–6793	14–jan–10 03:49	EXP0112074a	3199.75	12.171	18090.8	17.619

IS1 (DNB) = 1,3–Dinitrobenzene–d4
IS2 (DNT) = 2,6–Dinitrotoluene–d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = – 30% of average IS area from multipoint calibratio

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = –0.5 of average multipoint RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits

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SAMPLE
DATA

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6793

Lab Code: GEL

GEL Job No (SDG) 10-994

Matrix: GROUND WATER

GEL Sample ID: 243283004

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 19-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 935227

Concentrated Extract Volume (mL) 5

Date Extracted: 23-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0112074a

Date Analyzed: 14-JAN-10 03:49

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	U
121-14-2	2,4-Dinitrotoluene	0.325	U
121-82-4	RDX	0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	U
2691-41-0	HMX	0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	U
479-45-8	Tetryl	0.649	U
606-20-2	2,6-Dinitrotoluene	0.325	U
78-11-5	PETN	1.3	U
88-72-2	o-Nitrotoluene	0.325	U
98-95-3	Nitrobenzene	0.325	U
99-08-1	m-Nitrotoluene	0.325	U
99-35-4	1,3,5-Trinitrobenzene	0.325	U
99-65-0	m-Dinitrobenzene	0.325	U
99-99-0	p-Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112074a
Date: 14-Jan-2010
Time: 03:49:01
ID: 243283004
Vial: 1:7,D

| LANL | 935230 | LCQ | 2 |

MAP 1/14/10

HMX

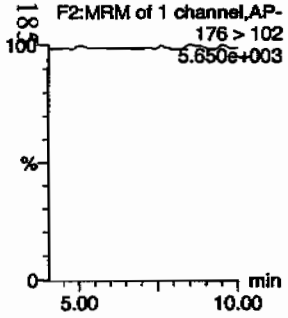

RDX

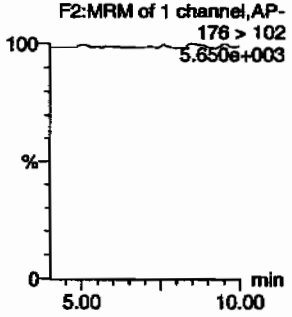

135-Trinitrobenzene

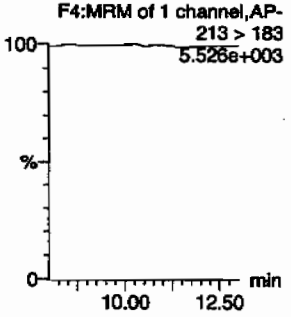

13-Dinitrobenzene-d4

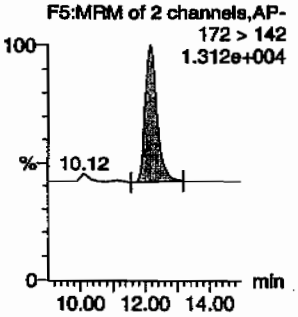

13-Dinitrobenzene

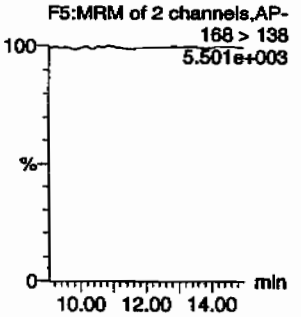

Tetryl

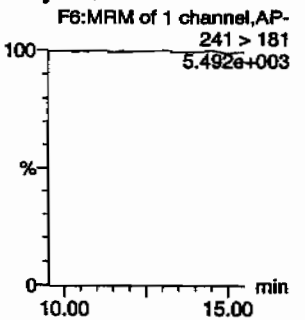

Nitrobenzene

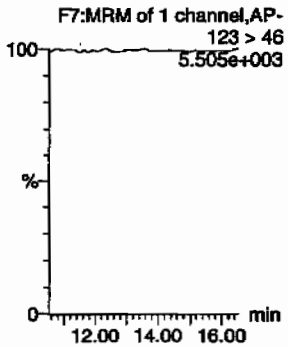

4-Amino-26-dinitrotoluene

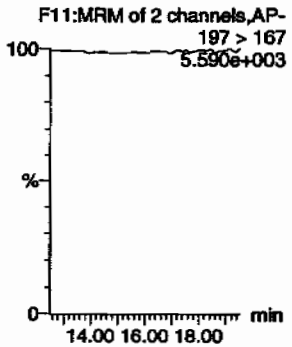

2-Amino-46-dinitrotoluene

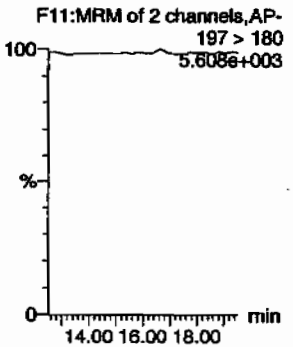

246-Trinitrotoluene

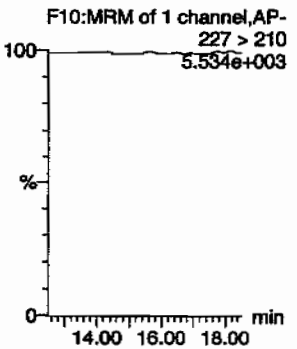

34-dinitrotoluene

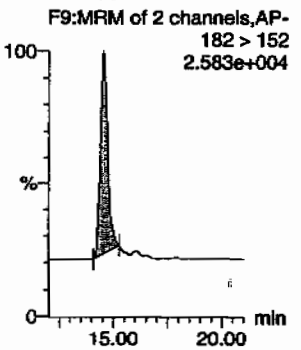

26-dinitrotoluene

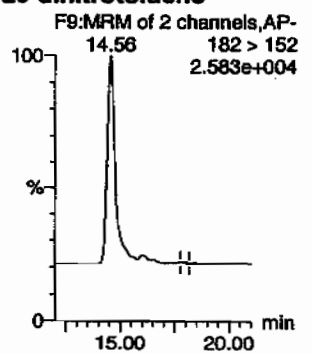

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

24-dinitrotoluene

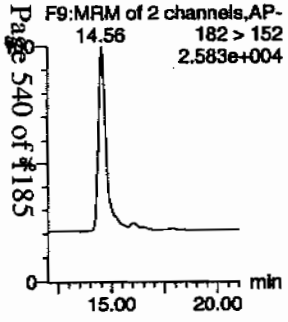

26-dinitrotoluene-d3

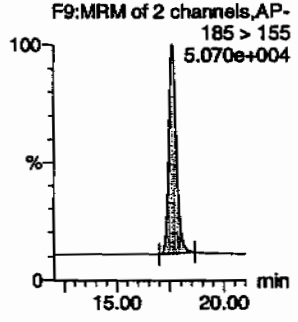

2-Nitrotoluene

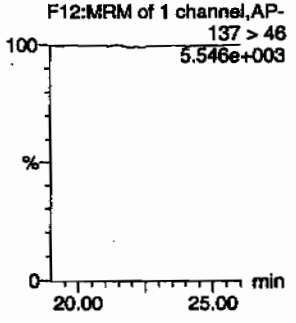

4-Nitrotoluene

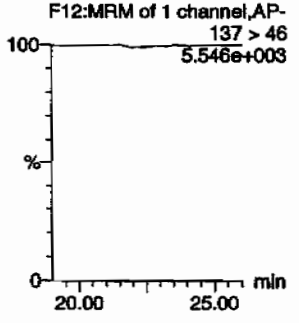

3-Nitrotoluene

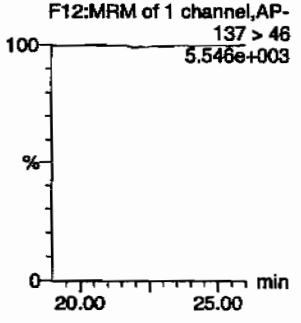

PETN

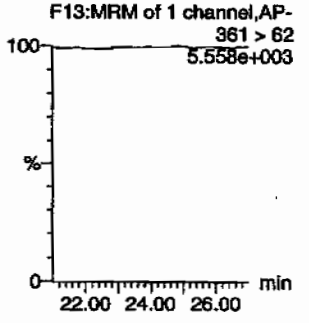

ID	Name	Transition	RetTime	Area	IS Area	Abs Resp	Response	Flags	Modifiedat	Modifiedby	Conc	%Rec	%Dev	S/N
243283004	HMX	176 > 102			3199.754									
243283004	RDX	176 > 102			3199.754									
243283004	135-Trinitrobenzene	213 > 183			3199.754									
243283004	13-Dinitrobenzene-d4	172 > 142	12.17	3199.754		3199.754	3199.754	bb			635.6146	127.1	27.1	470.5
243283004	13-Dinitrobenzene	168 > 138			3199.754									
243283004	Tetryl	241 > 181			3199.754									
243283004	Nitrobenzene	123 > 46			3199.754									
243283004	4-Amino-26-dinitrotoluene	197 > 167			18090.840									
243283004	2-Amino-46-dinitrotoluene	197 > 180			18090.840									
243283004	246-Trinitrotoluene	227 > 210			18090.840									
243283004	34-dinitrotoluene	182 > 152	14.56	7550.731	18090.840	7550.731	208.689	bb			243.9918	97.6	-2.4	326.8
243283004	26-dinitrotoluene	182 > 152			18090.840			MM-	14-Jan-10	07:40:01				
243283004	24-dinitrotoluene	182 > 152			18090.840									
243283004	26-dinitrotoluene-d3	185 > 155	17.62	18090.840		18090.840	18090.840	bb			622.5015	124.5	24.5	1132.0
243283004	2-Nitrotoluene	137 > 46			18090.840									
243283004	4-Nitrotoluene	137 > 46			18090.840									
243283004	3-Nitrotoluene	137 > 46			18090.840									
243283004	PETN	361 > 62			18090.840									

5.15

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6793

Lab Code: GEL

GEL Job No (SDG) 10-994

Matrix: GROUND WATER

GEL Sample ID: 243283004

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 19-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 935227

Concentrated Extract Volume (mL) 5

Date Extracted: 23-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01040047.wiff

Date Analyzed: 05-JAN-10 03:43

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lab 1/5/10

ample Name: "243283004" Sample ID: "935230[2]LER" File: "EXS01040047.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212L" Annotation: ""
ple Index: 1
ple Type: Unknown
ncentration: N/A
culated Conc: 0.00 ng/mL
. Date: 1/5/2010
. Time: 3:43:39 AM
ified: No

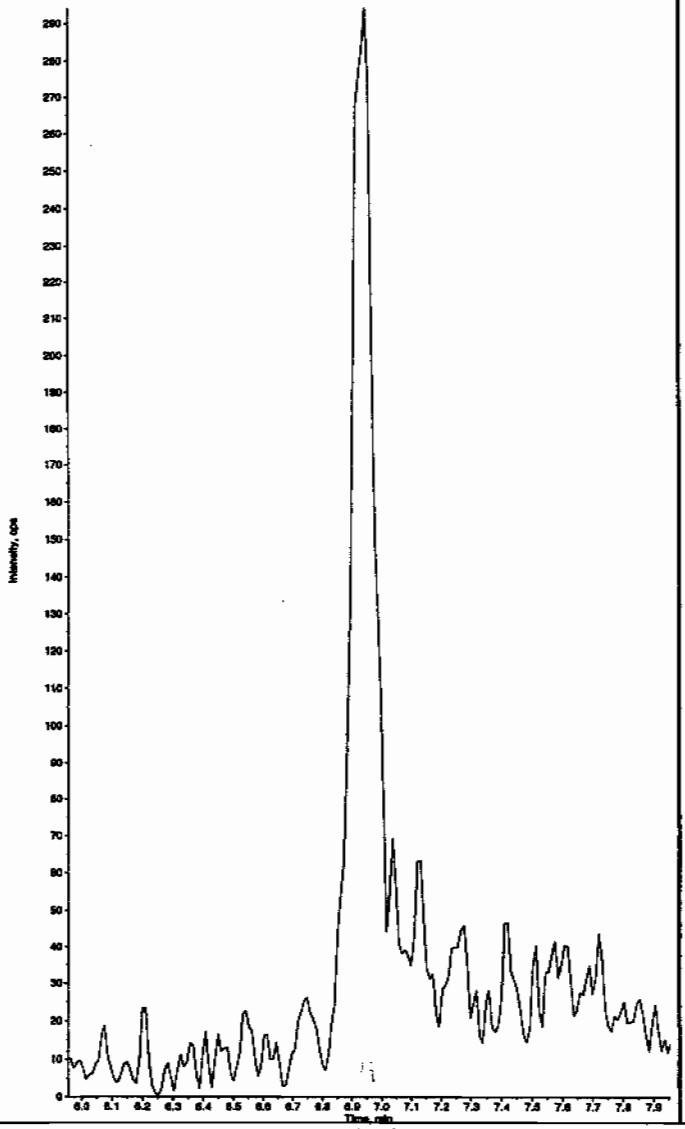

Sample Name: "243283004" Sample ID: "935230[2]LER" File: "EXS01040047.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 3:43:39 AM

Modified: No

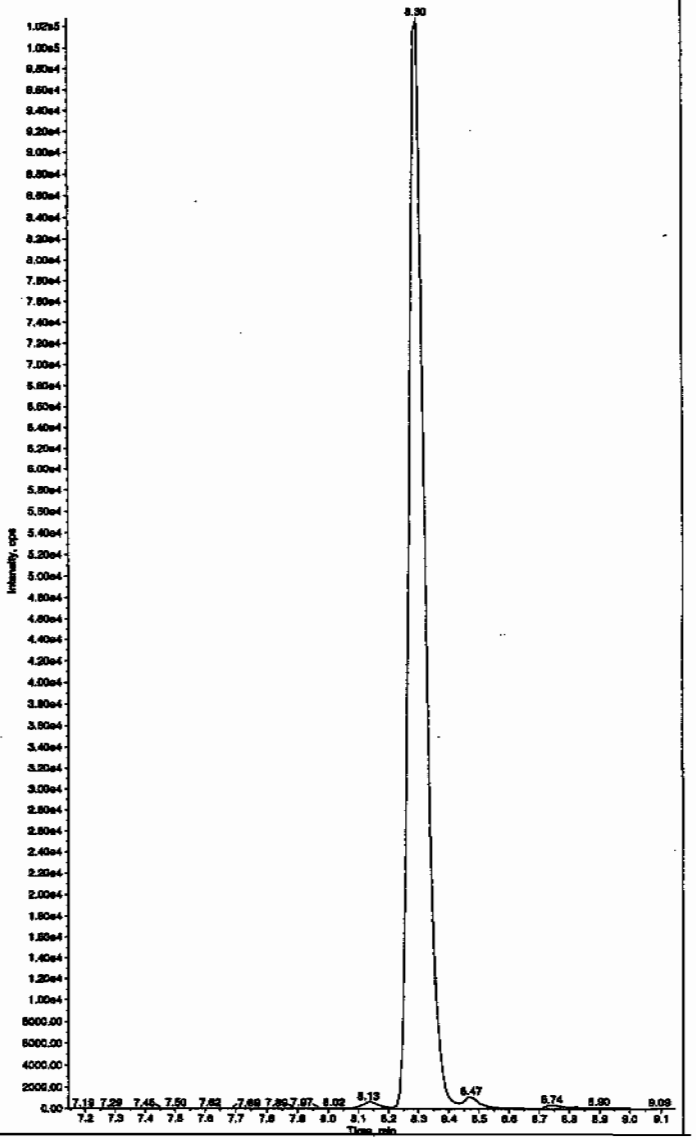

Hom 01/05/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "243283004" Sample ID: "935230[2]LER" File: "EXS01040047.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212L" Annotation: ""

mple Index:	1
mple Type:	Unknown
ncentration:	N/A
lculated Conc:	251. ng/mL
q. Date:	1/5/2010
q. Time:	3:43:39 AM
dified:	No
oc. Algorithm:	IntelliQuan - IQA
n. Peak Height:	1460.00 cps
n. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	15.0 sec
pected RT:	8.28 min
e Relative RT:	No
t. Type:	Valley
tention Time:	8.29 min
ea:	3.22e+006 counts
ight:	881602.600 cps
art Time:	8.20 min
d Time:	8.42 min

3-2V

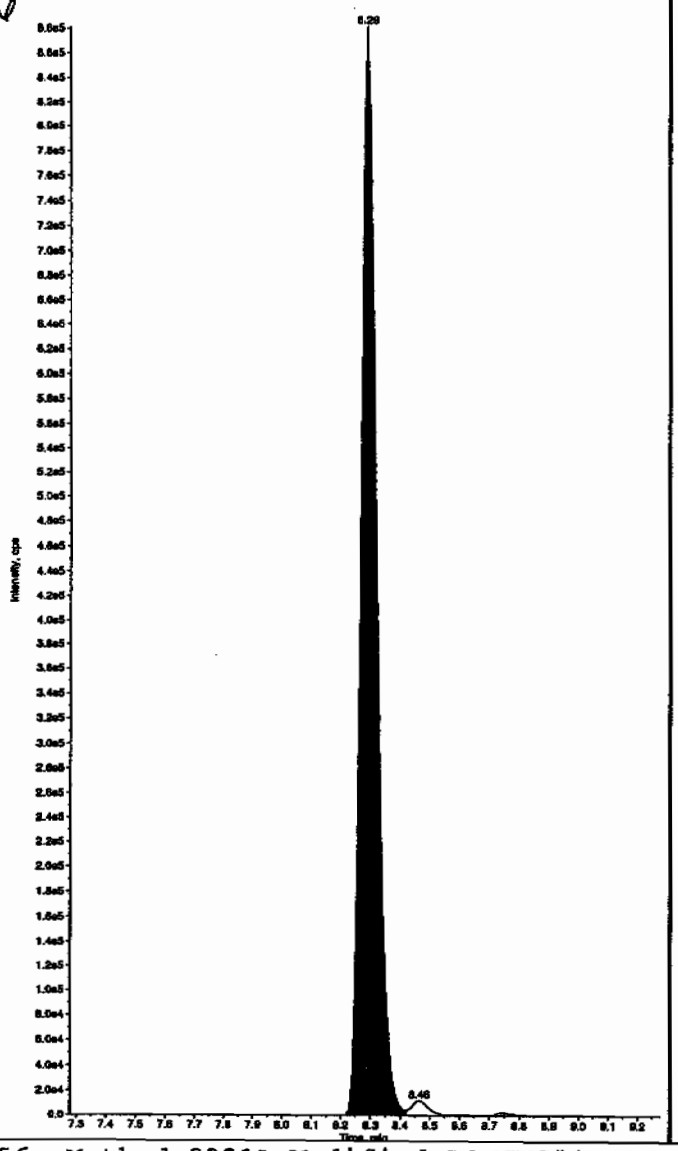

Sample Name: "243283004" Sample ID: "935230[2]LER" File: "EXS01040047.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00 ng/mL
Acq. Date:	1/5/2010
Acq. Time:	3:43:39 AM
Modified:	No

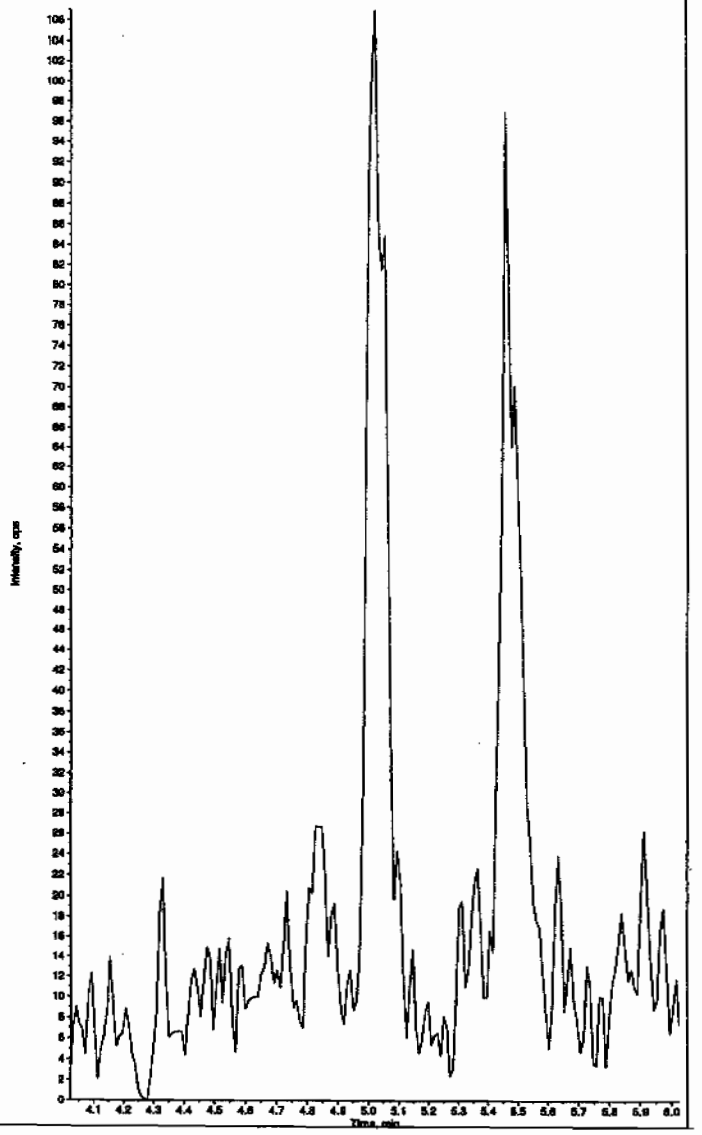

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "243283004" Sample ID: "935230[2]LER" File: "EXS01040047.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 3:43:39 AM

Modified: No

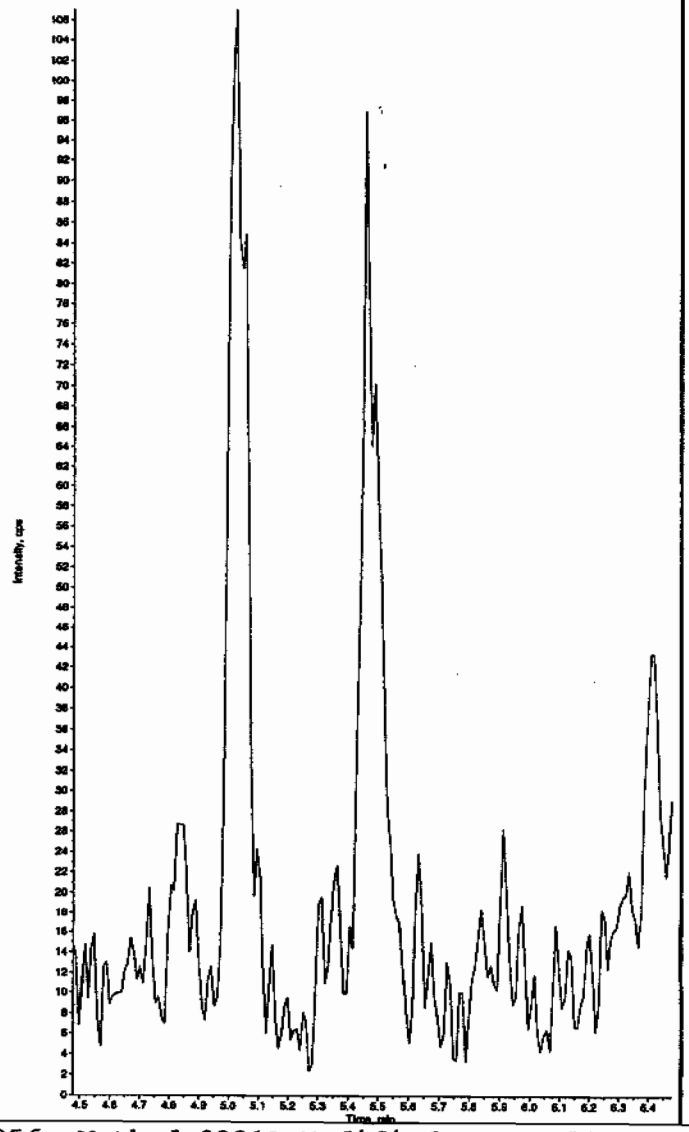

Sample Name: "243283004" Sample ID: "935230[2]LER" File: "EXS01040047.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 3:43:39 AM

Modified: Yes

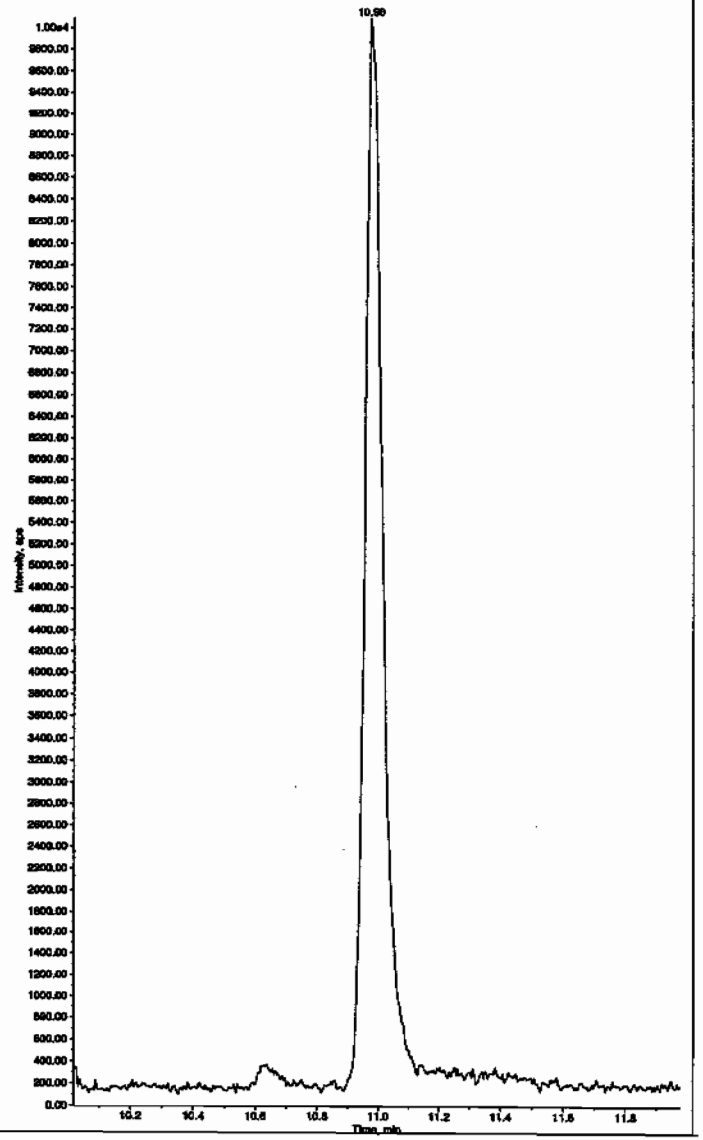

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STANDARDS DATA

SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MNX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-994

Lab Code: GEL

Run Date: 04-JAN-10,12-JAN-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	1	2	3	4	5	6	Ave RF	RSD	Q
Data File:	EXP0112003a	EXP0112004a	EXP0112005a	EXP0112006a	EXP0112007a	EXP0112008a			
Parmname									
1,3-Dinitrobenzene-d4	5.202	5.246	5.505	4.762	4.996	4.493	5.034	7.234	
2,4,6-Trinitrotoluene	.31	.355	.337	.338	.359	.39	0.348	7.675	
2,4-Dinitrotoluene	.276	.247	.234	.222	.224	.254	0.243	8.516	
2,6-Dinitrotoluene	1.099	1.103	1.081	1.063	1.099	1.093	1.090	1.384	
2,6-Dinitrotoluene-d3	30.509	30.534	30.348	28.639	28.993	25.347	29.062	6.864	
2-Amino-4,6-dinitrotoluene	.393	.352	.375	.382	.409	.427	0.390	6.728	
3,4-Dinitrotoluene	.7	.932	.938	.805	.875	.882	0.855	10.553	
4-Amino-2,6-dinitrotoluene	.223	.294	.259	.257	.291	.291	0.269	10.407	
HMX	4.863	3.793	3.418	3.691	3.663	3.444	3.812	14.047	
Nitrobenzene	.986	.974	.853	.876	.932	.873	0.916	6.145	
RDX	2.9	2.537	2.341	2.361	2.54	2.939	2.603	9.971	
Tetryl	1.08	1.42	1.142	1.064	1.028	1.018	1.125	13.412	
m-Dinitrobenzene	1.439	1.092	1.238	1.237	1.273	1.238	1.253	8.861	
m-Nitrotoluene	.106	.096	.087	.091	.082	.098	0.093	9.219	
o-Nitrotoluene	.172	.163	.151	.155	.152	.175	0.161	6.47	
p-Nitrotoluene	.096	.085	.079	.076	.072	.076	0.081	10.591	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-994

Lab Code: GEL

Run Date: 04-JAN-10,12-JAN-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	1	2	3	4	5	6	X	X^2	Intercept	COD	Q
Data File:	EXP0112003a	EXP0112004a	EXP0112005a	EXP0112006a	EXP0112007a	EXP0112008a					
Parmname:											
1,3,5-Trinitrobenzene	664.653	1097.39	4000.78	6648.17	14344.8	17093.8	2.997	.0007118	67.674	.9996	
PETN	1676.82	3570.66	12022.1	20918	35285.4	36888.3	1.967	-.000543	17.359	.9993	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

Method: C:\MASSLYNX\NEW_EXP.PRO\MethDB\011210expa.mdb, Time: Wed Jan 13 07:57:02 2010
Calibration: Untitled, Time: Wed Jan 13 08:59:40 2010

Compound name: HMX
Response Factor: 3.81209
RRF SD: 0.535479, % Relative SD: 14.0469
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

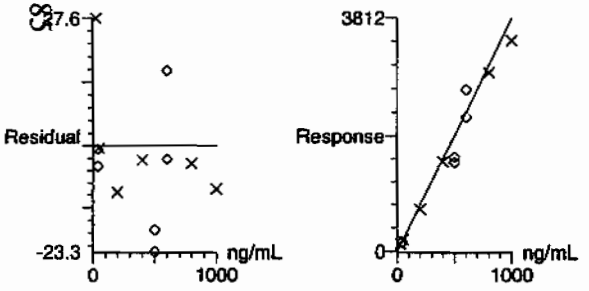

MMP
1/13/10

Compound name: RDX
Response Factor: 2.60315
RRF SD: 0.259571, % Relative SD: 9.97141
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

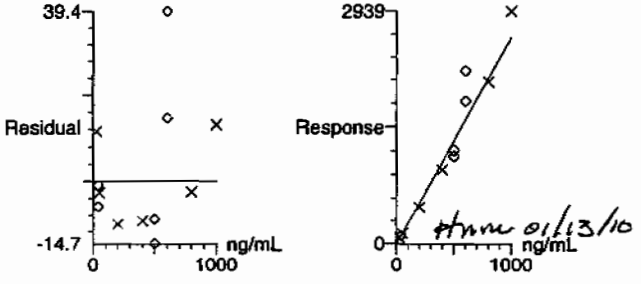

HMM 01/13/10

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

Compound name: 135-Trinitrobenzene
Coefficient of Determination: 0.999578
Calibration curve: 0.000711783 * x^2 + 2.99692 * x + 67.6744
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None

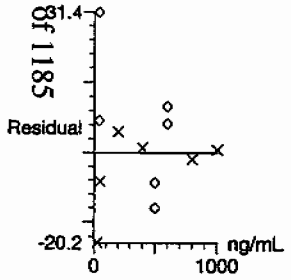

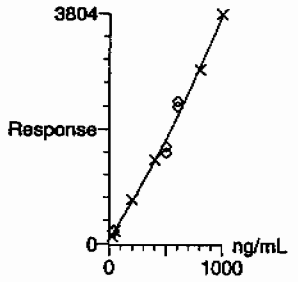

Compound name: 13-Dinitrobenzene-d4
Response Factor: 5.03411
RRF SD: 0.364146, % Relative SD: 7.23357
Response type: External Std, Area
Curve type: RF

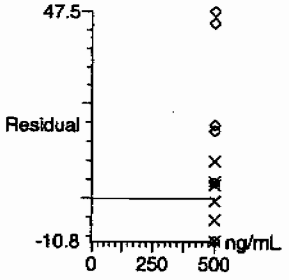

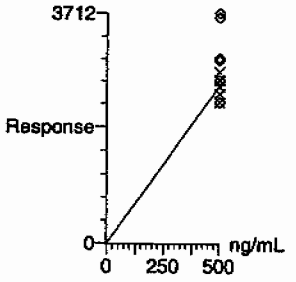

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

Compound name: 13-Dinitrobenzene
Response Factor: 1.25303
RRF SD: 0.111027, % Relative SD: 8.86065
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

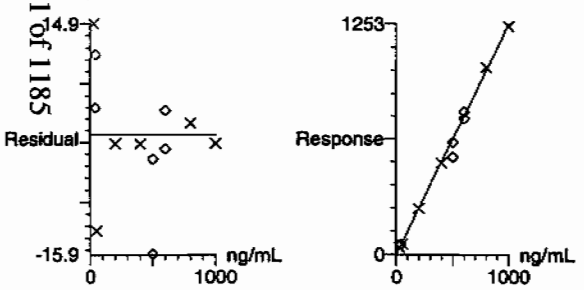

Compound name: Tetryl
Response Factor: 1.12521
RRF SD: 0.150909, % Relative SD: 13.4117
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

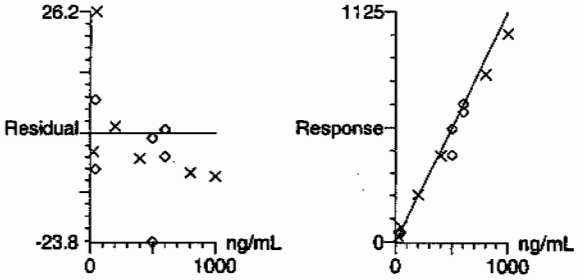

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

Compound name: Nitrobenzene
Response Factor: 0.915642
RRF SD: 0.0562699, % Relative SD: 6.1454
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

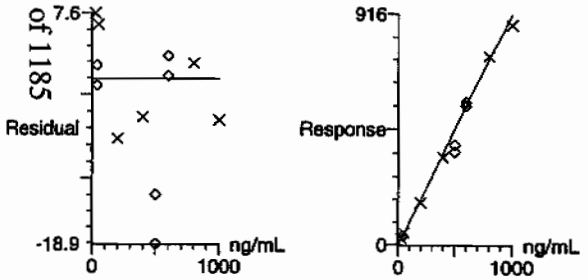

Compound name: 4-Amino-26-dinitrotoluene
Response Factor: 0.269092
RRF SD: 0.0280031, % Relative SD: 10.4065
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

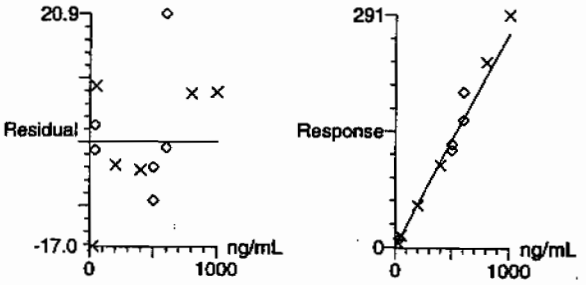

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

Compound name: 2-Amino-46-dinitrotoluene
Response Factor: 0.389731
RRF SD: 0.026223, % Relative SD: 6.72847
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

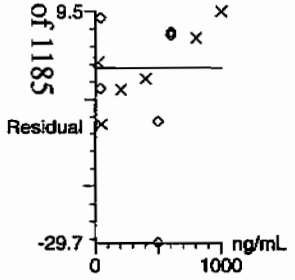

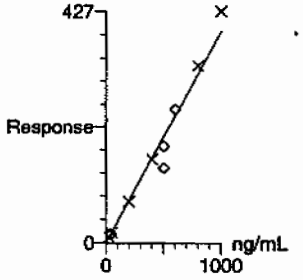

Compound name: 246-Trinitrotoluene
Response Factor: 0.348225
RRF SD: 0.0267268, % Relative SD: 7.67515
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

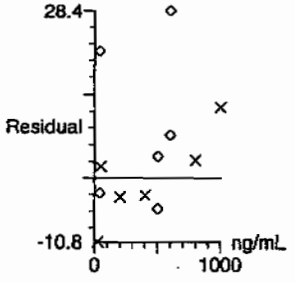

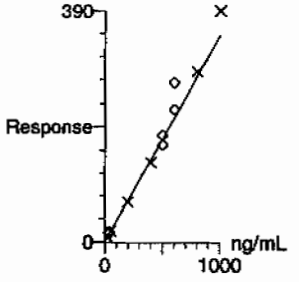

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

Compound name: 34-dinitrotoluene
Response Factor: 0.855313
RRF SD: 0.0902639, % Relative SD: 10.5533
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

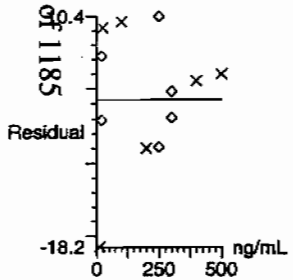

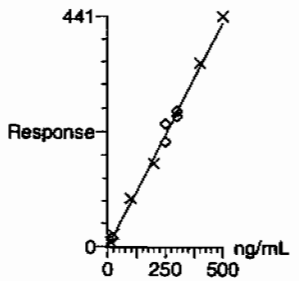

Compound name: 26-dinitrotoluene
Response Factor: 1.08959
RRF SD: 0.0150824, % Relative SD: 1.38423
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

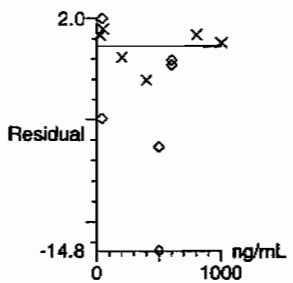

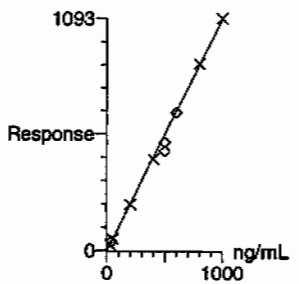

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

Compound name: 24-dinitrotoluene
Response Factor: 0.242937
RRF SD: 0.0206878, % Relative SD: 8.51569
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

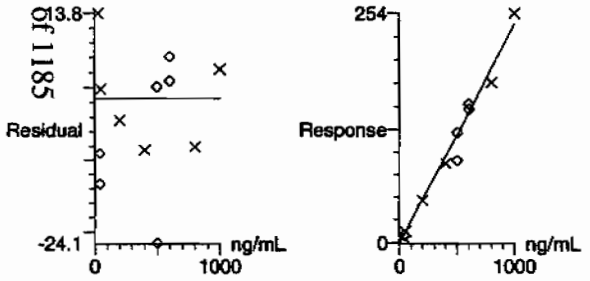

Compound name: 26-dinitrotoluene-d3
Response Factor: 29.0615
RRF SD: 1.99485, % Relative SD: 6.86425
Response type: External Std, Area
Curve type: RF

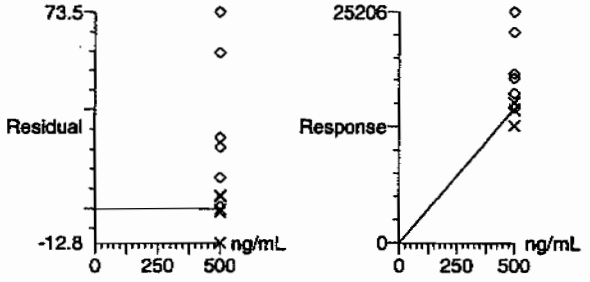

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

Compound name: 2-Nitrotoluene
Response Factor: 0.161201
RRF SD: 0.010429, % Relative SD: 6.46954
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

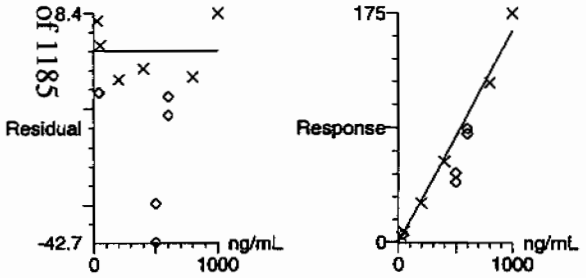

Compound name: 4-Nitrotoluene
Response Factor: 0.0806263
RRF SD: 0.00853882, % Relative SD: 10.5906
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

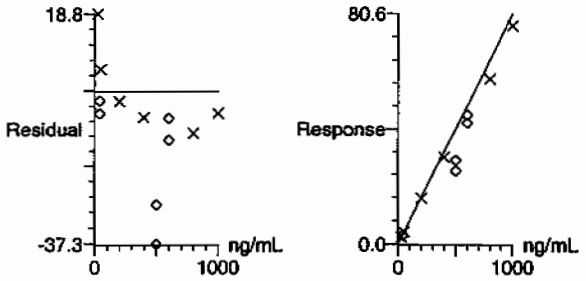

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

Compound name: 3-Nitrotoluene
Response Factor: 0.0932857
RRF SD: 0.00859988, % Relative SD: 9.21886
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

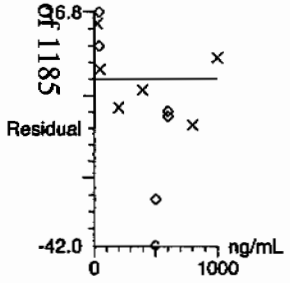

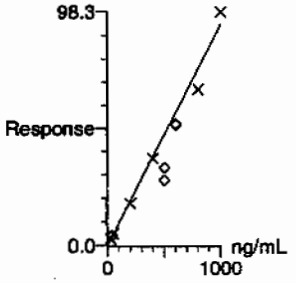

Compound name: PETN
Coefficient of Determination: 0.999257
Calibration curve: -0.000543034 * x^2 + 1.96669 * x + 17.359
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None

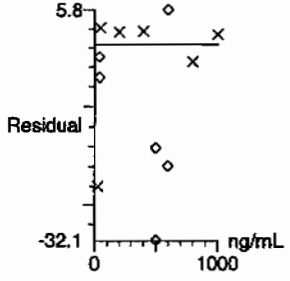

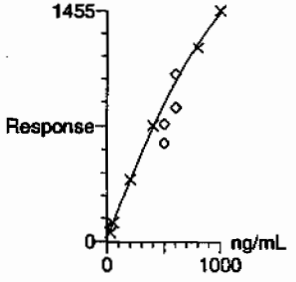

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112003a
Date: 12-Jan-2010
Time: 16:54:39
ID: XXX100112-01
Vial: 1:2,A

MMP 1/13/10

HMX

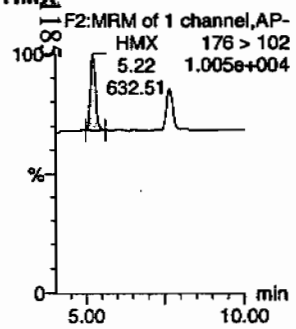

RDX

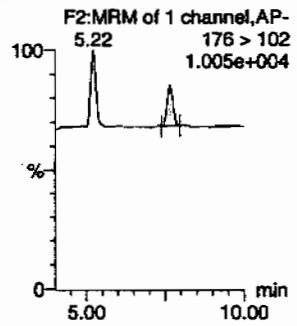

135-Trinitrobenzene

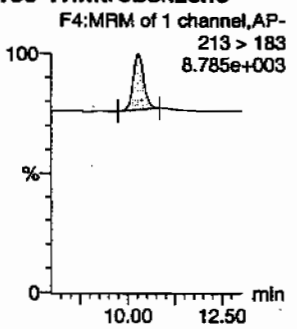

13-Dinitrobenzene-d4

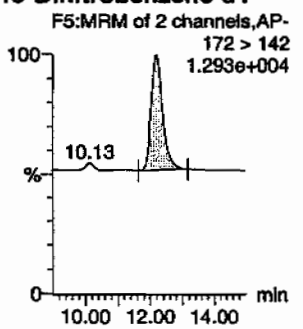

13-Dinitrobenzene

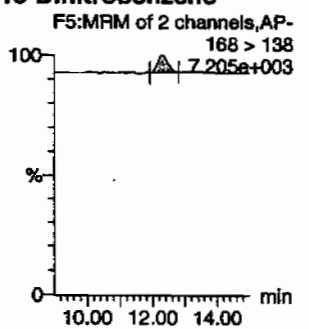

Tetryl

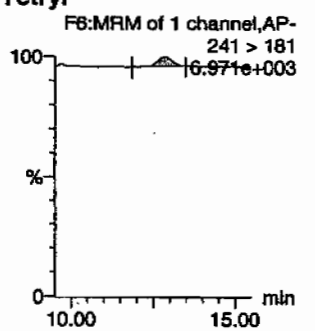

Nitrobenzene

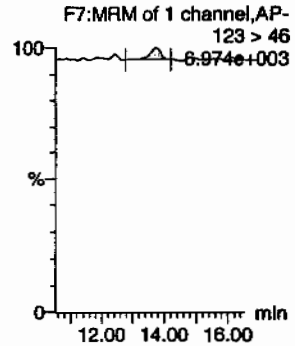

4-Amino-26-dinitrotoluene

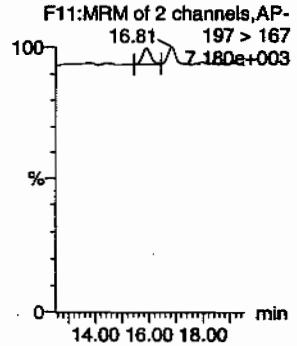

2-Amino-46-dinitrotoluene

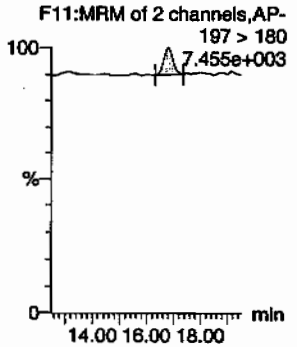

246-Trinitrotoluene

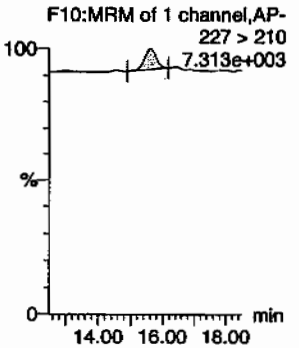

34-dinitrotoluene

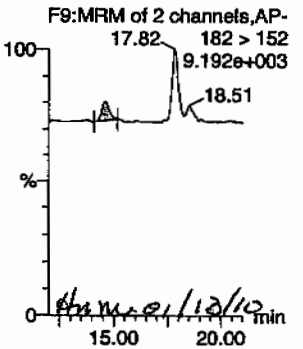

26-dinitrotoluene

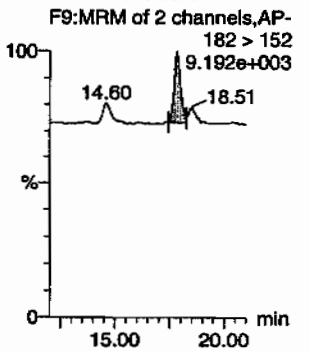

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

24-dinitrotoluene

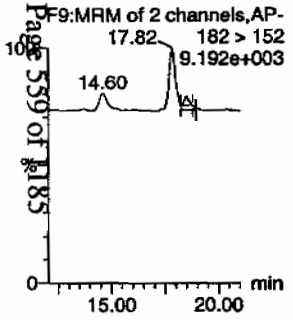

26-dinitrotoluene-d3

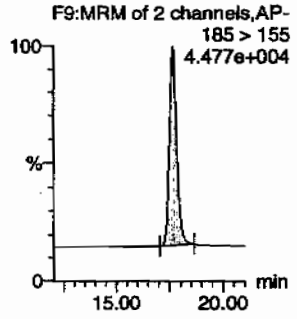

2-Nitrotoluene

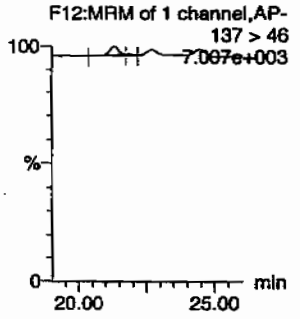

4-Nitrotoluene

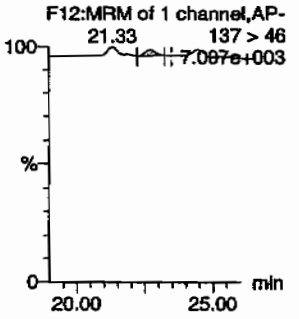

3-Nitrotoluene

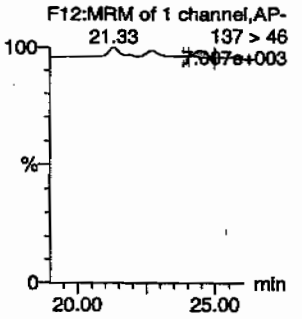

PETN

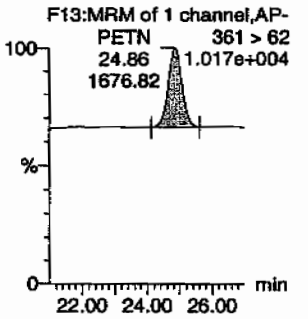

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ug/ml	%Rec	%Dev	S/N
WXX100112-01	HMX	176 > 102	5.22	632.512	2601.093	632.512	121.586	bb			31.8948	127.6	27.6	73.6
WXX100112-01	RDX	176 > 102	7.66	377.195	2601.093	377.195	72.507	bb			27.8535	111.4	11.4	39.4
WXX100112-01	135-Trinitrobenzene	213 > 183	10.28	664.653	2601.093	664.653	127.764	bb			19.9559	79.8	-20.2	105.3
WXX100112-01	13-Dinitrobenzene-d4	172 > 142	12.20	2601.093		2601.093	2601.093	bb			516.6937	103.3	3.3	264.7
WXX100112-01	13-Dinitrobenzene	168 > 138	12.31	187.203	2601.093	187.203	35.985	bb			28.7187	114.9	14.9	51.7
WXX100112-01	Tetryl	241 > 181	12.87	140.499	2601.093	140.499	27.008	bb			24.0024	96.0	-4.0	14.6
WXX100112-01	Nitrobenzene	123 > 46	13.72	128.190	2601.093	128.190	24.642	bb			26.9118	107.6	7.6	7.4
WXX100112-01	4-Amino-26-dinitrotoluene	197 > 167	15.89	170.342	15254.461	170.342	5.583	MM	13-Jan-10	08:49:04	20.7489	83.0	-17.0	7.9
WXX100112-01	2-Amino-46-dinitrotoluene	197 > 180	16.81	299.970	15254.461	299.970	9.832	bb			25.2282	100.9	0.9	20.9
WXX100112-01	246-Trinitrotoluene	227 > 210	15.61	236.818	15254.461	236.818	7.762	bb			22.2909	89.2	-10.8	29.7
WXX100112-01	34-dinitrotoluene	182 > 152	14.60	266.814	15254.461	266.814	8.745	bb			10.2248	81.8	-18.2	24.4
WXX100112-01	26-dinitrotoluene	182 > 152	17.82	837.851	15254.461	837.851	27.462	MM	13-Jan-10	08:51:53	25.2044	100.8	0.8	90.5
WXX100112-01	24-dinitrotoluene	182 > 152	18.51	210.847	15254.461	210.847	6.911	MM	13-Jan-10	08:54:09	28.4477	113.8	13.8	20.4
WXX100112-01	26-dinitrotoluene-d3	185 > 155	17.66	15254.461		15254.461	15254.461	bb			524.9024	105.0	5.0	1699.8
WXX100112-01	2-Nitrotoluene	137 > 46	21.33	131.219	15254.461	131.219	4.301	MM	13-Jan-10	08:12:02	26.6810	106.7	6.7	24.7
WXX100112-01	4-Nitrotoluene	137 > 46	22.72	73.058	15254.461	73.058	2.395	MM	13-Jan-10	08:12:39	29.7005	118.8	18.8	15.0
WXX100112-01	3-Nitrotoluene	137 > 46	24.46	81.020	15254.461	81.020	2.656	MM	13-Jan-10	08:12:55	28.4676	113.9	13.9	16.2
WXX100112-01	PETN	361 > 62	24.86	1676.818	15254.461	1676.818	54.962	bb			19.2218	76.9	-23.1	237.5

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Time: 17:24:09
ID: WXX100112-02
Vial: 1:2,B

MMP 1/13/10

HMX

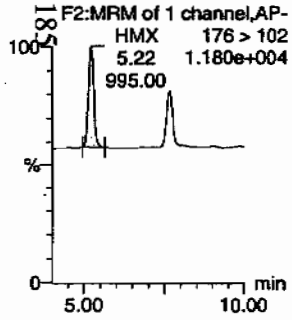

RDX

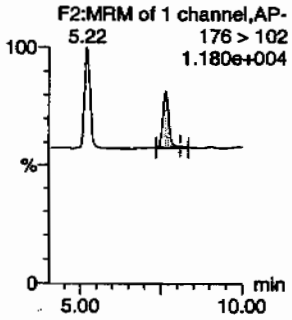

135-Trinitrobenzene

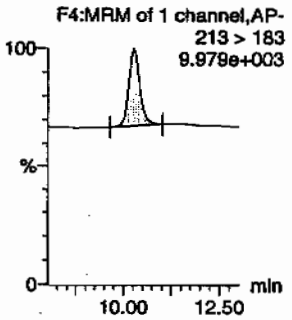

13-Dinitrobenzene-d4

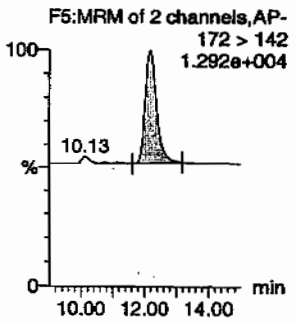

13-Dinitrobenzene

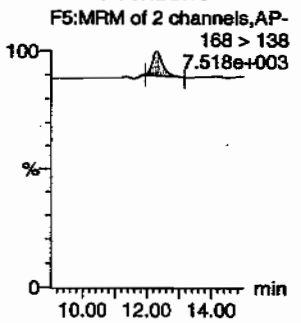

Tetryl

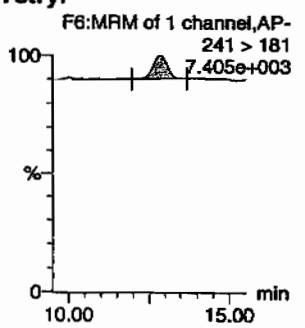

Nitrobenzene

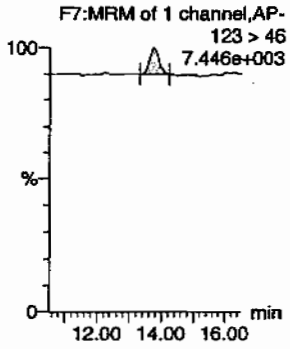

4-Amino-26-dinitrotoluene

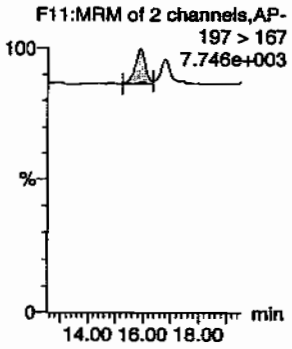

2-Amino-46-dinitrotoluene

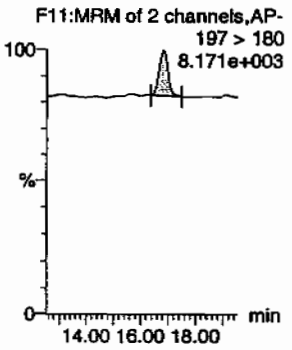

246-Trinitrotoluene

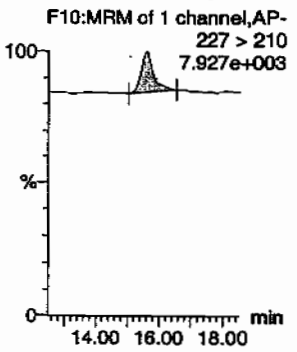

34-dinitrotoluene

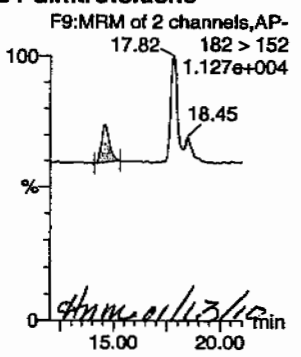

26-dinitrotoluene

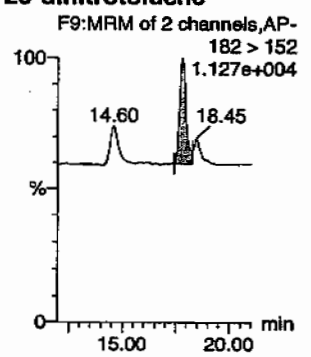

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

24-dinitrotoluene

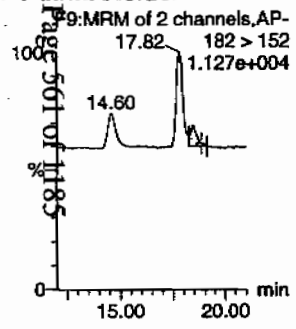

26-dinitrotoluene-d3

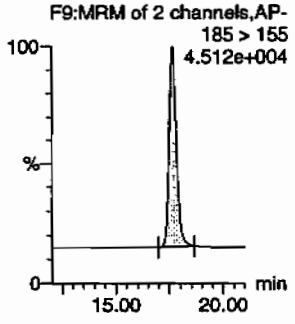

2-Nitrotoluene

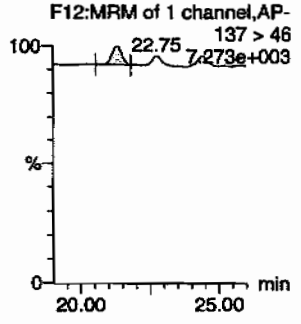

4-Nitrotoluene

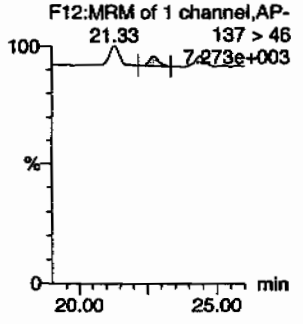

3-Nitrotoluene

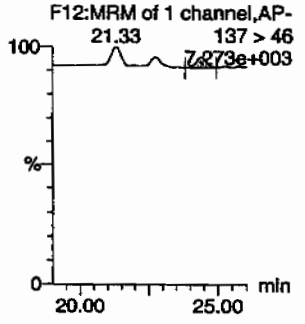

PETN

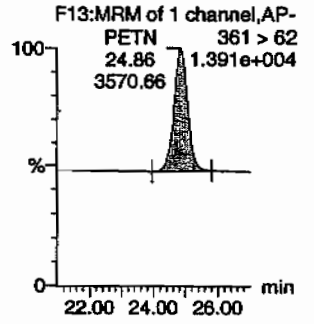

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100112-02	HMX	176 > 102	5.22	995.001	2622.961	995.001	189.671	bb			49.7553	99.5	-0.5	89.0
WXX100112-02	RDX	176 > 102	7.66	665.574	2622.961	665.574	126.875	MM	13-Jan-10	08:58:29	48.7388	97.5	-2.5	50.8
WXX100112-02	135-Trinitrobenzene	213 > 183	10.28	1097.393	2622.961	1097.393	209.190	bb			46.7022	93.4	-6.6	198.1
WXX100112-02	13-Dinitrobenzene-d4	172 > 142	12.20	2622.961		2622.961	2622.961	bb			521.0377	104.2	4.2	351.1
WXX100112-02	13-Dinitrobenzene	168 > 138	12.31	286.541	2622.961	286.541	54.622	bb			43.5916	87.2	-12.8	43.3
WXX100112-02	Tetryl	241 > 181	12.87	372.381	2622.961	372.381	70.985	bb			63.0860	126.2	26.2	43.6
WXX100112-02	Nitrobenzene	123 > 46	13.76	255.453	2622.961	255.453	48.696	bb			53.1818	106.4	6.4	18.5
WXX100112-02	4-Amino-26-dinitrotoluene	197 > 167	15.89	448.527	15266.956	448.527	14.689	MM	13-Jan-10	08:49:49	54.5891	109.2	9.2	21.1
WXX100112-02	2-Amino-46-dinitrotoluene	197 > 180	16.81	537.313	15266.956	537.313	17.597	bb			45.1523	90.3	-9.7	72.4
WXX100112-02	246-Trinitrotoluene	227 > 210	15.61	542.207	15266.956	542.207	17.758	bb			50.9944	102.0	2.0	48.4
WXX100112-02	34-dinitrotoluene	182 > 152	14.60	711.633	15266.956	711.633	23.306	bb			27.2489	109.0	9.0	37.4
WXX100112-02	26-dinitrotoluene	182 > 152	17.82	1684.599	15266.956	1684.599	55.171	MM	13-Jan-10	08:52:00	50.6350	101.3	1.3	103.0
WXX100112-02	24-dinitrotoluene	182 > 152	18.45	376.473	15266.956	376.473	12.330	MM	13-Jan-10	08:54:20	50.7525	101.5	1.5	23.1
WXX100112-02	26-dinitrotoluene-d3	185 > 155	17.64	15266.956		15266.956	15266.956	bb			525.3323	105.1	5.1	1632.3
WXX100112-02	2-Nitrotoluene	137 > 46	21.33	249.142	15266.956	249.142	8.160	bb			50.6171	101.2	1.2	85.7
WXX100112-02	4-Nitrotoluene	137 > 46	22.75	129.752	15266.956	129.752	4.249	bb			52.7053	105.4	5.4	45.5
WXX100112-02	3-Nitrotoluene	137 > 46	24.41	145.988	15266.956	145.988	4.781	bb			51.2530	102.5	2.5	49.6
WXX100112-02	PETN	361 > 62	24.86	3570.660	15266.956	3570.660	116.941	bb			51.3627	102.7	2.7	1221.5

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112005a
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Time: 17:53:38
ID: WXX100112-03
Vial: 1:2,C

HMX

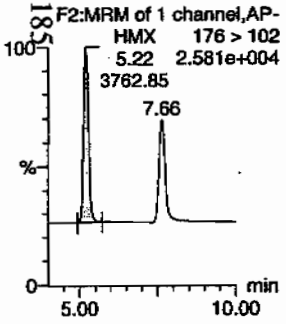

RDX

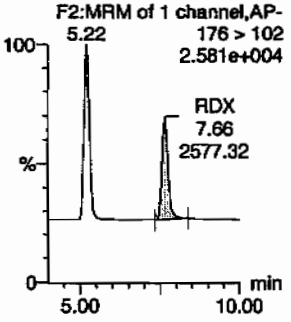

135-Trinitrobenzene

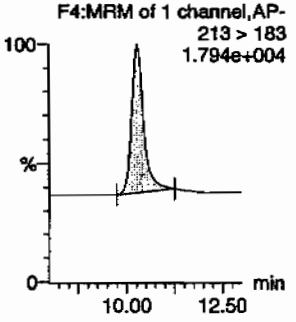

13-Dinitrobenzene-d4

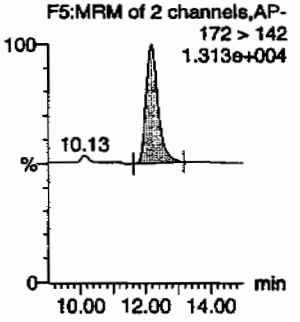

13-Dinitrobenzene

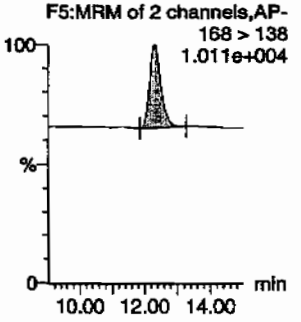

Tetryl

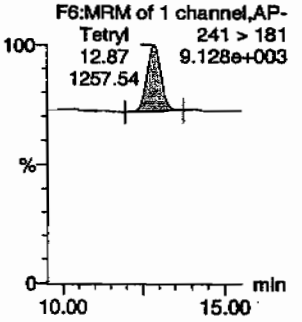

Nitrobenzene

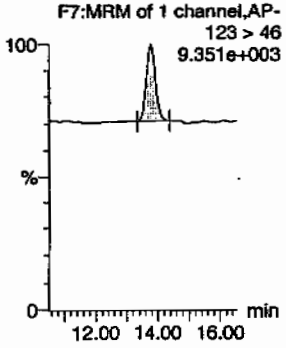

4-Amino-26-dinitrotoluene

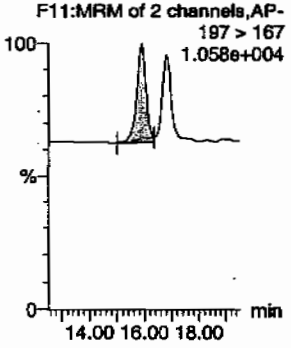

2-Amino-46-dinitrotoluene

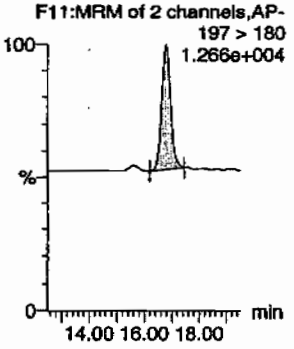

246-Trinitrotoluene

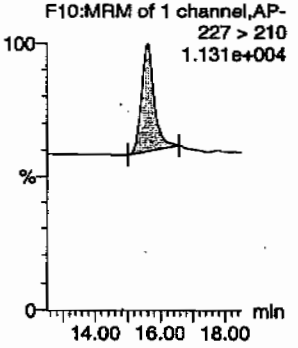

34-dinitrotoluene

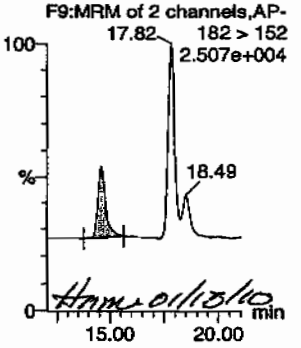

26-dinitrotoluene

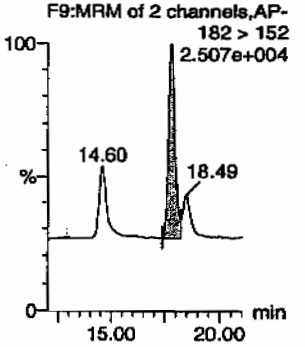

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

24-dinitrotoluene

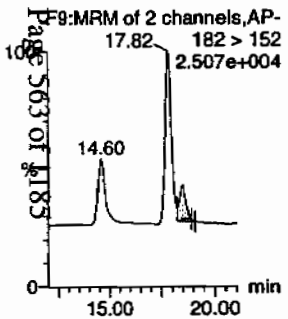

26-dinitrotoluene-d3

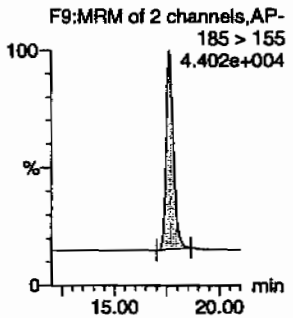

2-Nitrotoluene

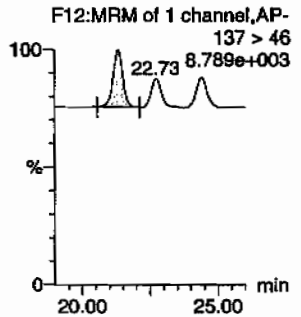

4-Nitrotoluene

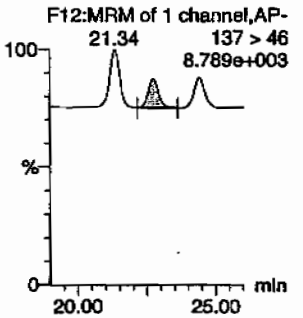

3-Nitrotoluene

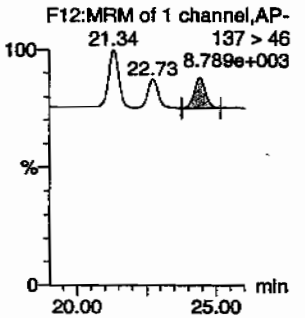

PETN

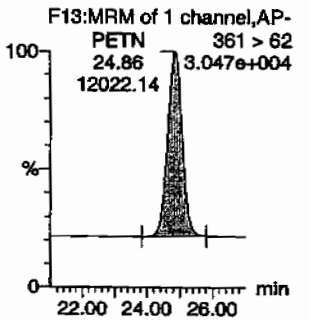

ID	Name	Trace/Frag	RT	Area	S/Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	U-S/N
WXX100112-03	HMX	176 > 102	5.22	3762.853	2752.618	3762.853	683.504	bb			179.2993	89.6	-10.4	382.6
WXX100112-03	RDX	176 > 102	7.66	2577.319	2752.618	2577.319	468.158	bb			179.8426	89.9	-10.1	223.9
WXX100112-03	135-Trinitrobenzene	213 > 183	10.28	4000.780	2752.618	4000.780	726.723	bb			209.4858	104.7	4.7	729.9
WXX100112-03	13-Dinitrobenzene-d4	172 > 142	12.20	2752.618		2752.618	2752.618	bb			546.7934	109.4	9.4	293.9
WXX100112-03	13-Dinitrobenzene	168 > 138	12.31	1362.995	2752.618	1362.995	247.582	bb			197.5862	98.8	-1.2	167.4
WXX100112-03	Tetryl	241 > 181	12.87	1257.542	2752.618	1257.542	228.427	bb			203.0083	101.5	1.5	110.7
WXX100112-03	Nitrobenzene	123 > 46	13.76	939.700	2752.618	939.700	170.692	bb			186.4179	93.2	-6.8	77.2
WXX100112-03	4-Amino-26-dinitrotoluene	197 > 167	15.89	1571.409	15173.813	1571.409	51.780	MM	13-Jan-10	08:49:55	192.4263	96.2	-3.8	112.3
WXX100112-03	2-Amino-46-dinitrotoluene	197 > 180	16.79	2277.000	15173.813	2277.000	75.031	bb			192.5187	96.3	-3.7	182.7
WXX100112-03	246-Trinitrotoluene	227 > 210	15.61	2044.763	15173.813	2044.763	67.378	bb			193.4899	96.7	-3.3	584.8
WXX100112-03	34-dinitrotoluene	182 > 152	14.60	2848.104	15173.813	2848.104	93.849	bb			109.7251	109.7	9.7	134.8
WXX100112-03	26-dinitrotoluene	182 > 152	17.82	6561.412	15173.813	6561.412	216.208	MM	13-Jan-10	08:52:11	198.4310	99.2	-0.8	362.1
WXX100112-03	24-dinitrotoluene	182 > 152	18.49	1422.235	15173.813	1422.235	46.865	MM	13-Jan-10	08:54:29	192.9093	96.5	-3.5	75.9
WXX100112-03	26-dinitrotoluene-d3	185 > 155	17.64	15173.813		15173.813	15173.813	bb			522.1273	104.4	4.4	794.3
WXX100112-03	2-Nitrotoluene	137 > 46	21.34	915.127	15173.813	915.127	30.155	bb			187.0636	93.5	-6.5	55.1
WXX100112-03	4-Nitrotoluene	137 > 46	22.73	477.634	15173.813	477.634	15.739	bb			195.2062	97.6	-2.4	27.2
WXX100112-03	3-Nitrotoluene	137 > 46	24.41	525.187	15173.813	525.187	17.306	bb			185.5128	92.8	-7.2	28.7
WXX100112-03	PETN	361 > 62	24.86	12022.141	15173.813	12022.141	396.148	bb			204.1052	102.1	2.1	1714.1

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112006a
Date: 12-Jan-2010
Time: 18:23:06
ID: WXX100112-04
Vial: 1:2,D

MMP 1/13/10

HMX

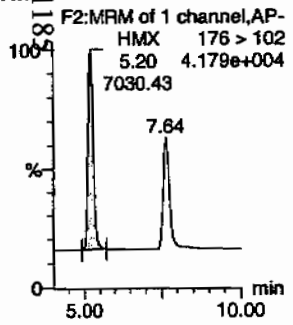

RDX

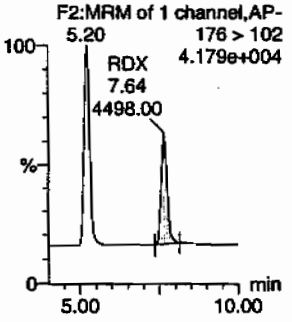

135-Trinitrobenzene

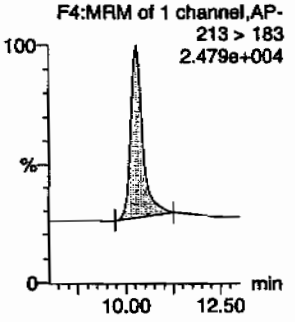

13-Dinitrobenzene-d4

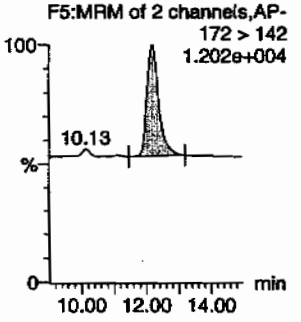

13-Dinitrobenzene

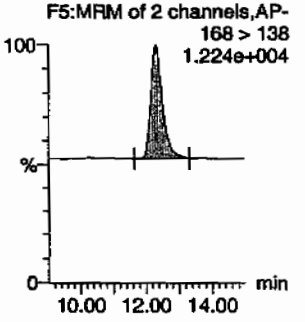

Tetryl

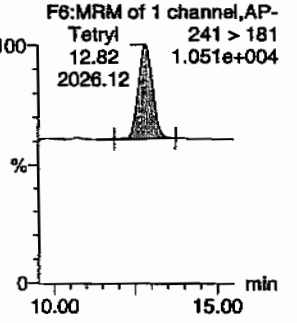

Nitrobenzene

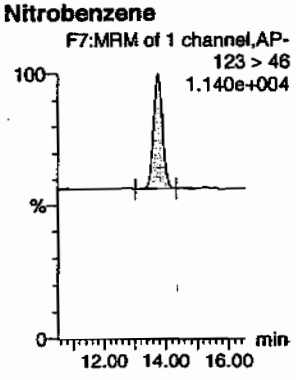

4-Amino-26-dinitrotoluene

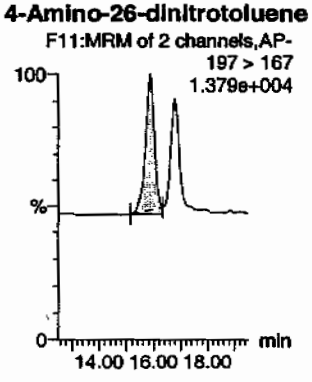

2-Amino-46-dinitrotoluene

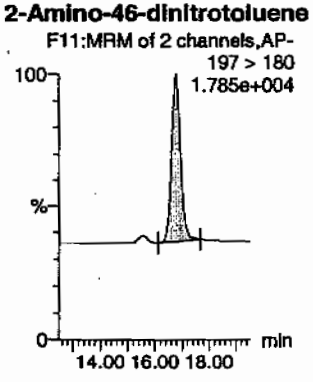

246-Trinitrotoluene

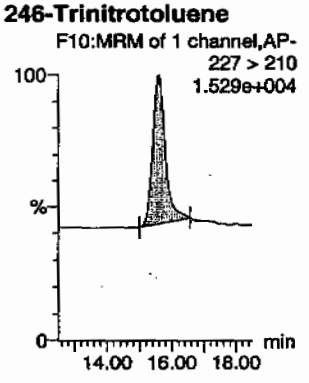

34-dinitrotoluene

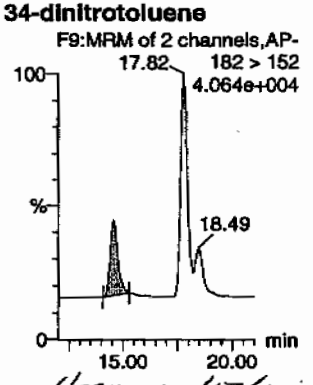

HMM 01/13/10

26-dinitrotoluene

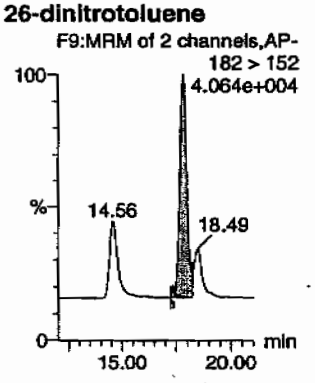

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

24-dinitrotoluene

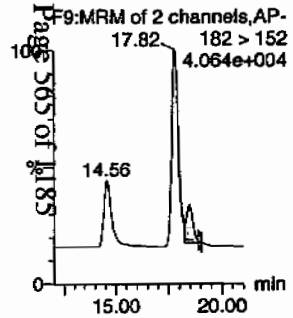

26-dinitrotoluene-d3

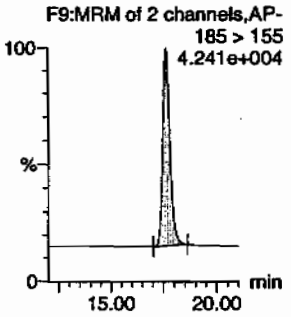

2-Nitrotoluene

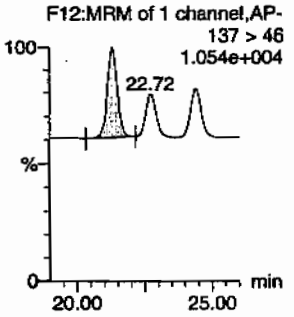

4-Nitrotoluene

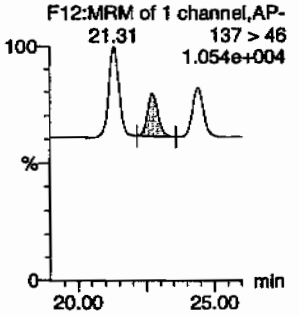

3-Nitrotoluene

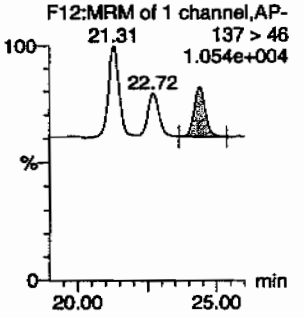

PETN

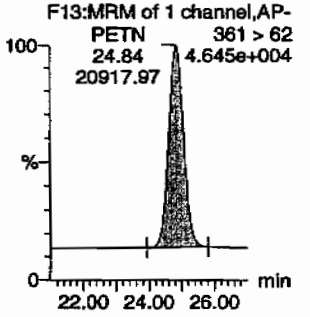

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100112-04	HMX	176 > 102	5.20	7030.431	2381.050	7030.431	1476.330	bb			387.2761	96.8	-3.2	936.8
WXX100112-04	RDX	176 > 102	7.64	4498.000	2381.050	4498.000	944.541	bb			362.8452	90.7	-9.3	528.4
WXX100112-04	135-Trinitrobenzene	213 > 183	10.28	6648.167	2381.050	6648.167	1396.058	bb			404.4069	101.1	1.1	367.8
WXX100112-04	13-Dinitrobenzene-d4	172 > 142	12.20	2381.050		2381.050	2381.050	bb			472.9833	94.6	-5.4	183.4
WXX100112-04	13-Dinitrobenzene	168 > 138	12.31	2356.430	2381.050	2356.430	494.830	bb			394.9065	98.7	-1.3	224.2
WXX100112-04	Tetryl	241 > 181	12.82	2026.119	2381.050	2026.119	425.468	bb			378.1234	94.5	-5.5	242.5
WXX100112-04	Nitrobenzene	123 > 46	13.76	1668.791	2381.050	1668.791	350.432	bb			382.7169	95.7	-4.3	171.2
WXX100112-04	4-Amino-26-dinitrotoluene	197 > 167	15.89	2939.392	14319.326	2939.392	102.637	MM	13-Jan-10	08:50:04	381.4213	95.4	-4.6	112.1
WXX100112-04	2-Amino-46-dinitrotoluene	197 > 180	16.79	4380.336	14319.326	4380.336	152.952	bb			392.4546	98.1	-1.9	315.0
WXX100112-04	246-Trinitrotoluene	227 > 210	15.61	3870.726	14319.326	3870.726	135.157	bb			388.1324	97.0	-3.0	322.0
WXX100112-04	34-dinitrotoluene	182 > 152	14.56	4608.775	14319.326	4608.775	160.928	bb			188.1516	94.1	-5.9	149.7
WXX100112-04	26-dinitrotoluene	182 > 152	17.82	12178.697	14319.326	12178.697	425.254	MM	13-Jan-10	08:52:28	390.2880	97.6	-2.4	451.7
WXX100112-04	24-dinitrotoluene	182 > 152	18.49	2546.308	14319.326	2546.308	88.912	MM	13-Jan-10	08:54:38	365.9863	91.5	-8.5	87.6
WXX100112-04	26-dinitrotoluene-d3	185 > 155	17.64	14319.326		14319.326	14319.326	bb			492.7246	98.5	-1.5	1304.9
WXX100112-04	2-Nitrotoluene	137 > 46	21.31	1773.074	14319.326	1773.074	61.912	bb			384.0668	96.0	-4.0	270.7
WXX100112-04	4-Nitrotoluene	137 > 46	22.72	865.933	14319.326	865.933	30.237	bb			375.0203	93.8	-6.2	125.8
WXX100112-04	3-Nitrotoluene	137 > 46	24.41	1039.026	14319.326	1039.026	36.281	bb			388.9185	97.2	-2.8	145.1
WXX100112-04	PETN	361 > 62	24.84	20917.971	14319.326	20917.971	730.410	bb			408.6822	102.2	2.2	3716.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112007a
Date: 12-Jan-2010
Time: 18:52:34
ID: WXX100112-05
Vial: 1:2,E

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.897e+004

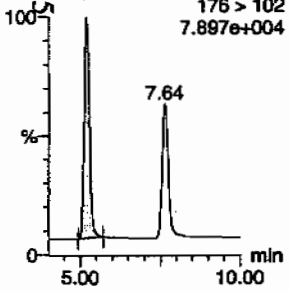

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.897e+004

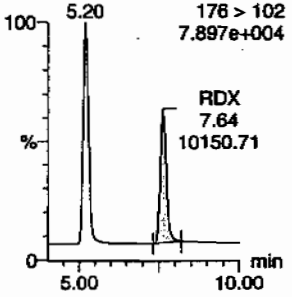

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
4.600e+004

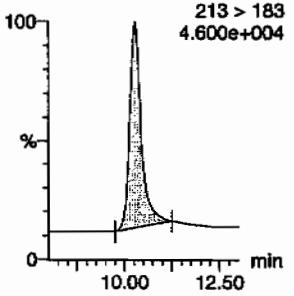

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.135e+004

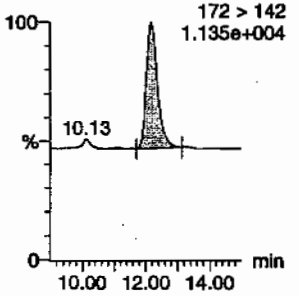

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.829e+004

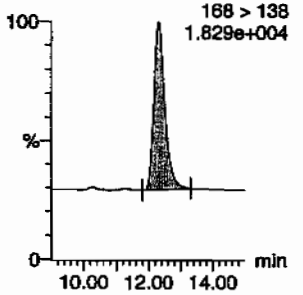

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.355e+004

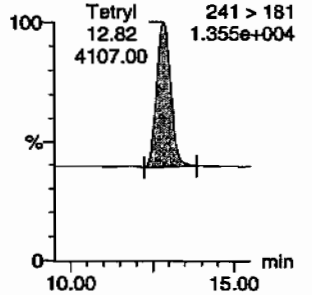

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.628e+004

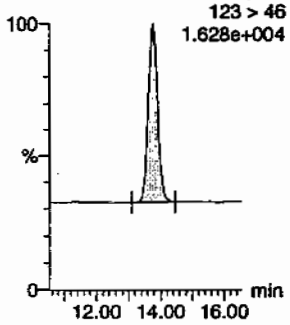

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.223e+004

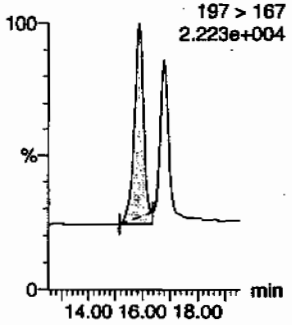

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.050e+004

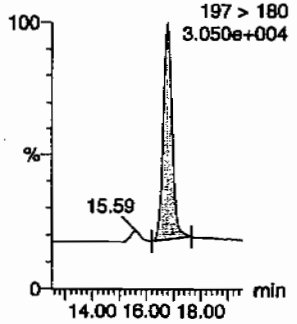

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.457e+004

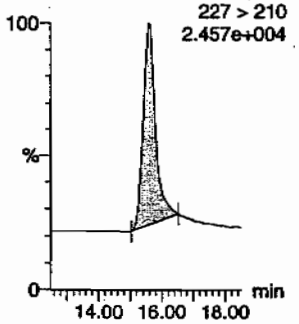

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.551e+004

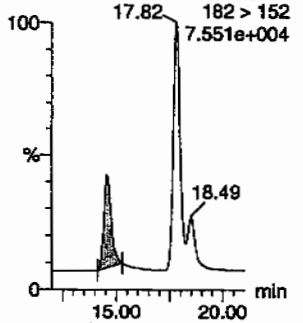

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.551e+004

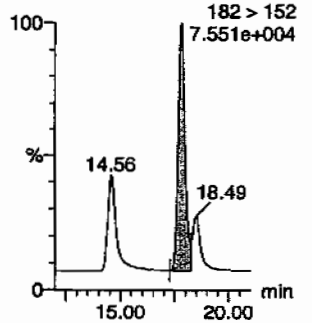

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

24-dinitrotoluene

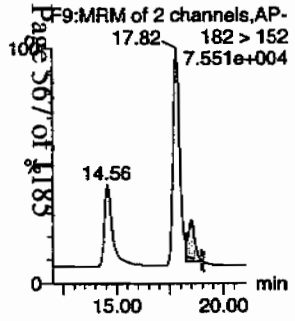

26-dinitrotoluene-d3

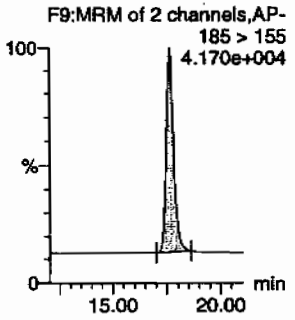

2-Nitrotoluene

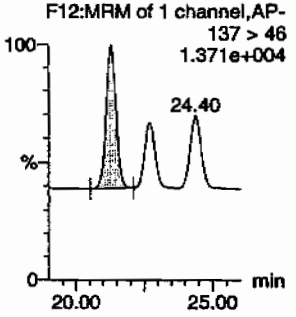

4-Nitrotoluene

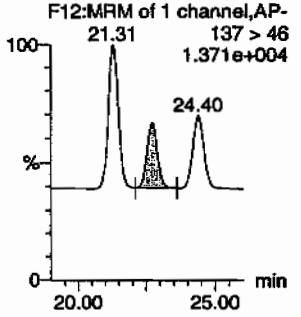

3-Nitrotoluene

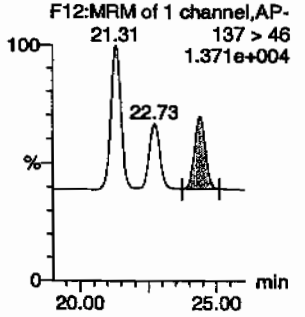

PETN

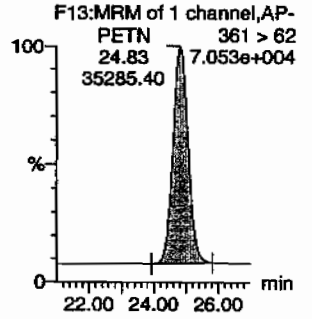

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Conc	%Rec	%Dev	S/N
WXX100112-05	HMX	176 > 102	5.20	14641.335	2497.965	14641.335	2930.653	bb			768.7792	96.1	-3.9	3143.8
WXX100112-05	RDX	176 > 102	7.64	10150.705	2497.965	10150.705	2031.795	bb			780.5132	97.6	-2.4	1912.4
WXX100112-05	135-Trinitrobenzene	213 > 183	10.28	14344.771	2497.965	14344.771	2871.291	bb			788.0163	98.5	-1.5	1274.1
WXX100112-05	13-Dinitrobenzene-d4	172 > 142	12.17	2497.965		2497.965	2497.965	bb			496.2079	99.2	-0.8	324.1
WXX100112-05	13-Dinitrobenzene	168 > 138	12.31	5088.160	2497.965	5088.160	1018.461	bb			812.7980	101.6	1.6	189.2
WXX100112-05	Tetryl	241 > 181	12.82	4107.002	2497.965	4107.002	822.070	bb			730.5933	91.3	-8.7	266.3
WXX100112-05	Nitrobenzene	123 > 46	13.76	3724.743	2497.965	3724.743	745.555	bb			814.2433	101.8	1.8	283.8
WXX100112-05	4-Amino-26-dinitrotoluene	197 > 167	15.89	6742.761	14496.442	6742.761	232.566	MM	13-Jan-10	08:50:12	864.2638	108.0	8.0	332.8
WXX100112-05	2-Amino-46-dinitrotoluene	197 > 180	16.79	9487.169	14496.442	9487.169	327.224	bb			839.6142	105.0	5.0	266.0
WXX100112-05	246-Trinitrotoluene	227 > 210	15.58	8323.220	14496.442	8323.220	287.078	bb			824.4039	103.1	3.1	268.1
WXX100112-05	34-dinitrotoluene	182 > 152	14.56	10144.139	14496.442	10144.139	349.884	bb			409.0711	102.3	2.3	420.5
WXX100112-05	26-dinitrotoluene	182 > 152	17.82	25484.902	14496.442	25484.902	879.005	MM	13-Jan-10	08:52:37	806.7306	100.8	0.8	1137.9
WXX100112-05	24-dinitrotoluene	182 > 152	18.49	5186.932	14496.442	5186.932	178.904	MM	13-Jan-10	08:54:48	736.4201	92.1	-7.9	222.1
WXX100112-05	26-dinitrotoluene-d3	185 > 155	17.64	14496.442		14496.442	14496.442	bb			498.8191	99.8	-0.2	987.4
WXX100112-05	2-Nitrotoluene	137 > 46	21.31	3518.900	14496.442	3518.900	121.371	bb			752.9186	94.1	-5.9	958.4
WXX100112-05	4-Nitrotoluene	137 > 46	22.73	1678.594	14496.442	1678.594	57.897	bb			718.0874	89.8	-10.2	429.9
WXX100112-05	3-Nitrotoluene	137 > 46	24.40	1910.071	14496.442	1910.071	65.881	bb			706.2246	88.3	-11.7	476.8
WXX100112-05	PETN	361 > 62	24.83	35285.398	14496.442	35285.398	1217.036	bb			776.4726	97.1	-2.9	7313.4

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112008a
Date: 12-Jan-2010
Time: 19:22:01
ID: WXX100112-06
Vial: 1:2,F

MMP 1/13/10

HMX

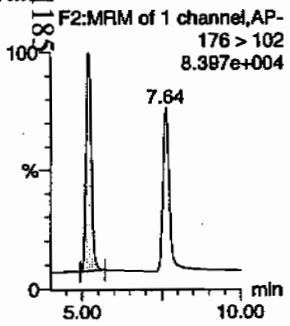

RDX

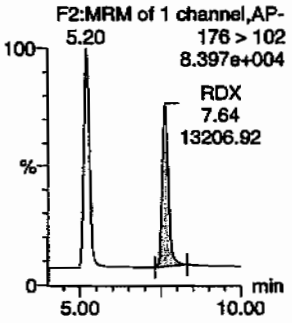

135-Trinitrobenzene

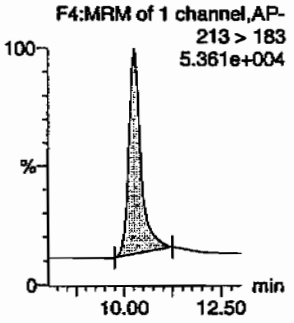

13-Dinitrobenzene-d4

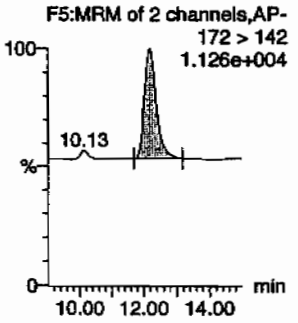

13-Dinitrobenzene

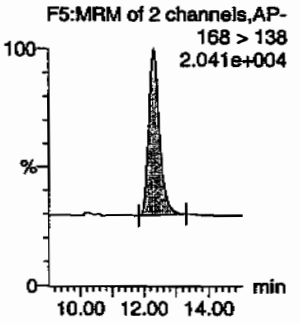

Tetryl

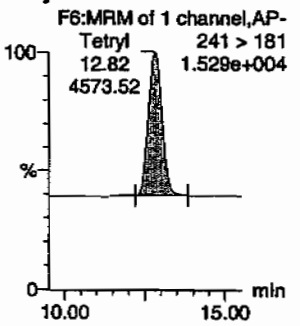

Nitrobenzene

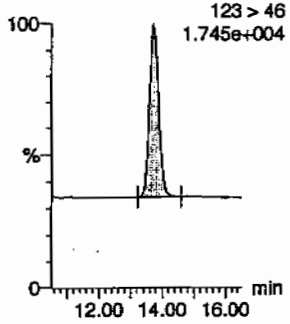

4-Amino-26-dinitrotoluene

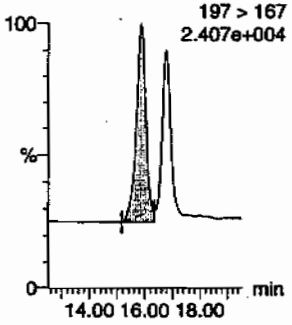

2-Amino-46-dinitrotoluene

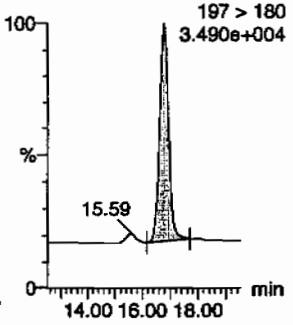

246-Trinitrotoluene

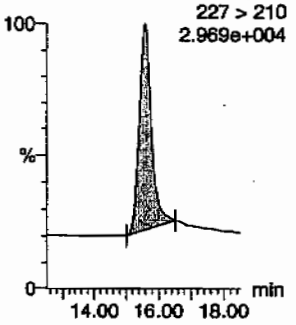

34-dinitrotoluene

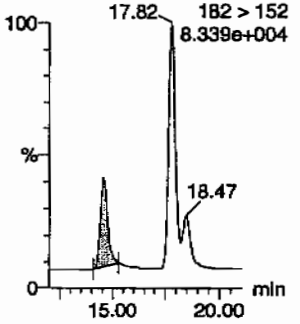

Hmm-01/13/10

26-dinitrotoluene

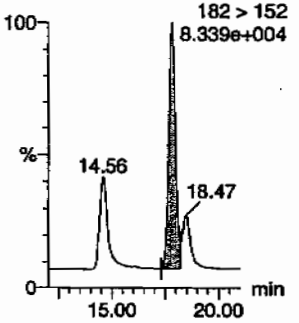

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

24-dinitrotoluene

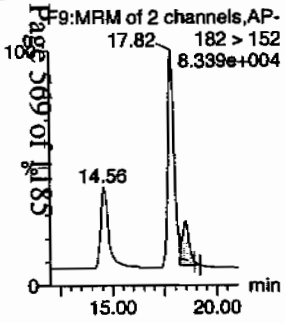

26-dinitrotoluene-d3

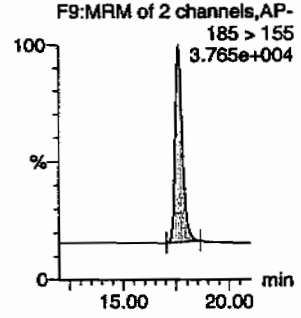

2-Nitrotoluene

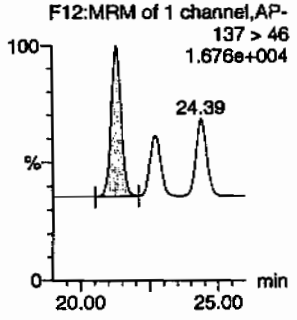

4-Nitrotoluene

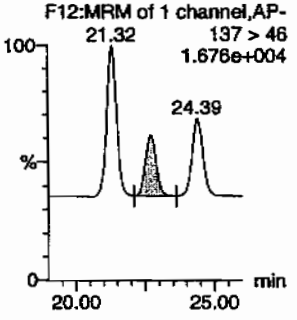

3-Nitrotoluene

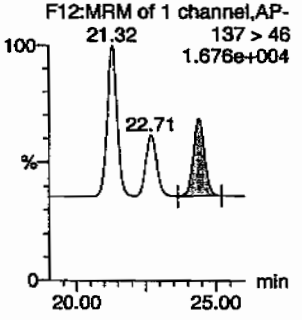

PETN

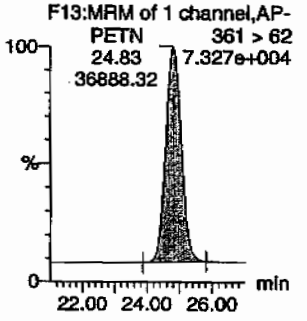

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100112-06	HMX	176 > 102	5.20	15474.854	2246.643	15474.854	3443.995	bb			903.4410	90.3	-9.7	1754.9
WXX100112-06	RDX	176 > 102	7.64	13206.925	2246.643	13206.925	2939.258	bb			1129.1...	112.9	12.9	1306.0
WXX100112-06	135-Trinitrobenzene	213 > 183	10.27	17093.813	2246.643	17093.813	3804.301	bb			1006.3...	100.6	0.6	3030.8
WXX100112-06	13-Dinitrobenzene-d4	172 > 142	12.17	2246.643		2246.643	2246.643	bb			446.2841	89.3	-10.7	74.0
WXX100112-06	13-Dinitrobenzene	168 > 138	12.31	5563.922	2246.643	5563.922	1238.275	bb			988.2236	98.8	-1.2	938.8
WXX100112-06	Tetryl	241 > 181	12.82	4573.517	2246.643	4573.517	1017.856	bb			904.5933	90.5	-9.5	276.2
WXX100112-06	Nitrobenzene	123 > 46	13.76	3921.720	2246.643	3921.720	872.796	bb			953.2060	95.3	-4.7	624.6
WXX100112-06	4-Amino-26-dinitrotoluene	197 > 167	15.86	7381.680	12673.563	7381.680	291.224	MM	13-Jan-10	08:50:20	1082.2...	108.2	8.2	450.2
WXX100112-06	2-Amino-46-dinitrotoluene	197 > 180	16.79	10812.894	12673.563	10812.894	426.593	bb			1094.5...	109.5	9.5	400.3
WXX100112-06	246-Trinitrotoluene	227 > 210	15.58	9887.354	12673.563	9887.354	390.078	bb			1120.1...	112.0	12.0	819.1
WXX100112-06	34-dinitrotoluene	182 > 152	14.56	11179.910	12673.563	11179.910	441.072	bb			515.6851	103.1	3.1	328.0
WXX100112-06	26-dinitrotoluene	182 > 152	17.82	27696.229	12673.563	27696.229	1092.677	MM	13-Jan-10	08:52:45	1002.8...	100.3	0.3	904.0
WXX100112-06	24-dinitrotoluene	182 > 152	18.47	6447.193	12673.563	6447.193	254.356	MM	13-Jan-10	08:55:02	1047.0...	104.7	4.7	185.0
WXX100112-06	26-dinitrotoluene-d3	185 > 155	17.64	12673.563		12673.563	12673.563	bb			436.0943	87.2	-12.8	1075.3
WXX100112-06	2-Nitrotoluene	137 > 46	21.32	4428.322	12673.563	4428.322	174.707	bb			1083.7...	108.4	8.4	702.7
WXX100112-06	4-Nitrotoluene	137 > 46	22.71	1934.682	12673.563	1934.682	76.327	bb			946.6816	94.7	-5.3	278.8
WXX100112-06	3-Nitrotoluene	137 > 46	24.39	2491.256	12673.563	2491.256	98.286	bb			1053.5...	105.4	5.4	358.0
WXX100112-06	PETN	361 > 62	24.83	36888.324	12673.563	36888.324	1455.326	bb			1016.4...	101.6	1.6	3106.9

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-994

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0112010a

Analysis Date: 12-JAN-10 20:20

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Nitrobenzene	600	615.689	103	
PETN	600	634.683	106	
RDX	600	836.482	139	*
Tetryl	600	604.445	101	
m-Dinitrobenzene	600	588.466	98	
m-Nitrotoluene	600	542.744	90	
o-Nitrotoluene	600	538.238	90	
p-Nitrotoluene	600	561.26	94	
1,3,5-Trinitrobenzene	600	662.283	110	
1,3-Dinitrobenzene-d4	500	445.809	89	
2,4,6-Trinitrotoluene	600	770.353	128	*
2,4-Dinitrotoluene	600	616.939	103	
2,6-Dinitrotoluene	600	591.913	99	
2,6-Dinitrotoluene-d3	500	503.405	101	
2-Amino-4,6-dinitrotoluene	600	632.694	105	
3,4-Dinitrotoluene	300	293.556	98	
4-Amino-2,6-dinitrotoluene	600	725.649	121	*
HMX	600	697.303	116	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112010a
Date: 12-Jan-2010
Time: 20:20:57
ID: WXX100112-07ICV
Vial: 1:1,B

MMP 1/13/10

HMX

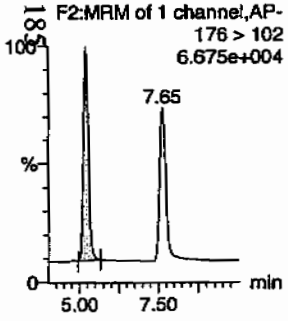

RDX

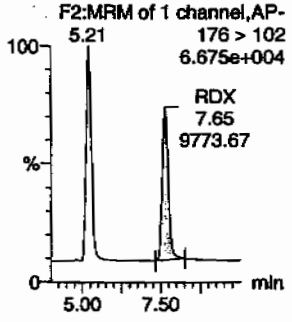

135-Trinitrobenzene

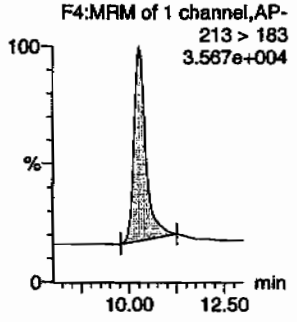

13-Dinitrobenzene-d4

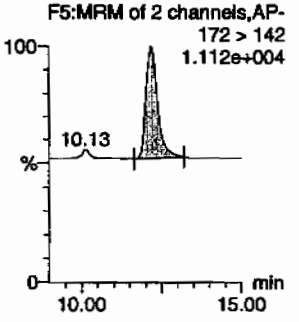

13-Dinitrobenzene

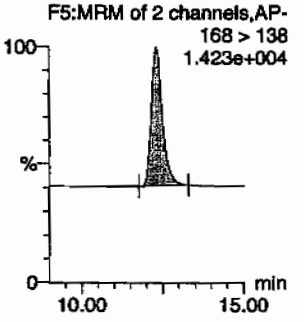

Tetryl

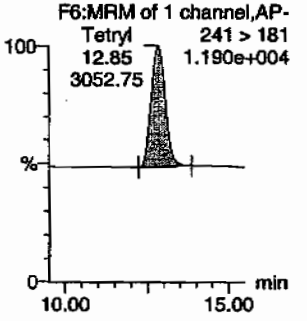

Nitrobenzene

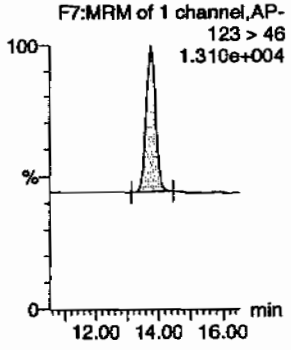

4-Amino-26-dinitrotoluene

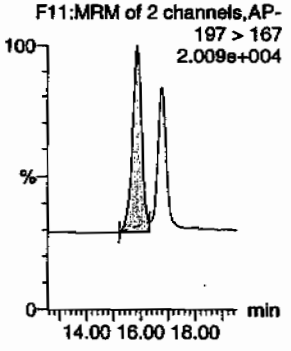

2-Amino-46-dinitrotoluene

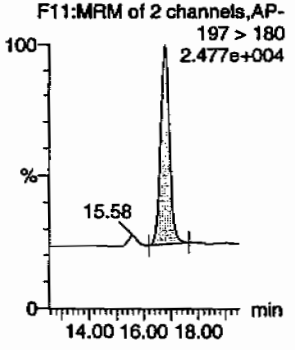

246-Trinitrotoluene

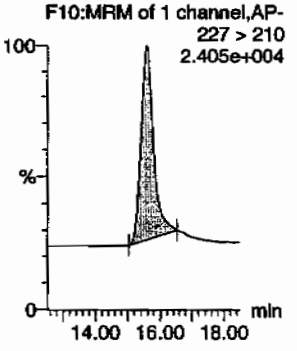

34-dinitrotoluene

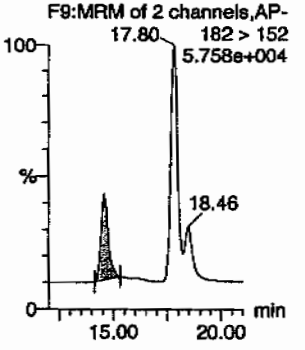

26-dinitrotoluene

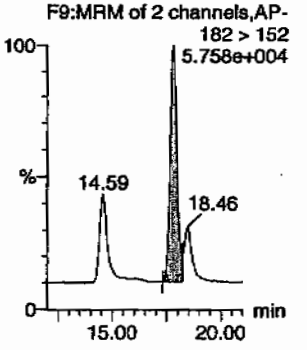

Hnw 01/13/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

24-dinitrotoluene

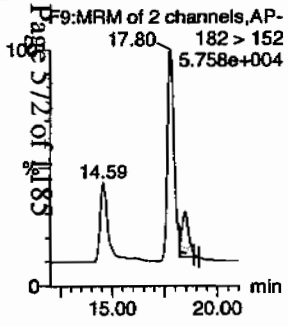

26-dinitrotoluene-d3

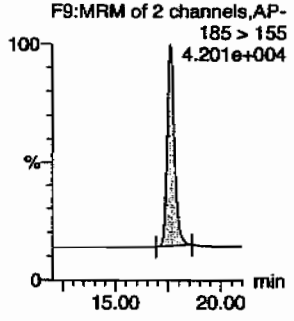

2-Nitrotoluene

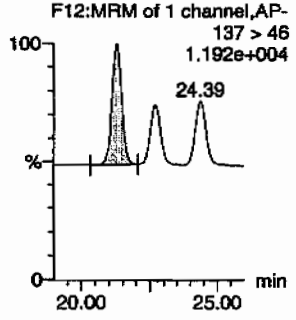

4-Nitrotoluene

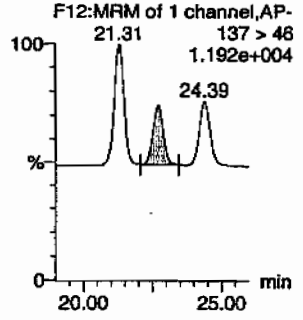

3-Nitrotoluene

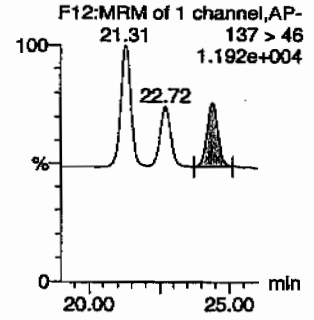

PETN

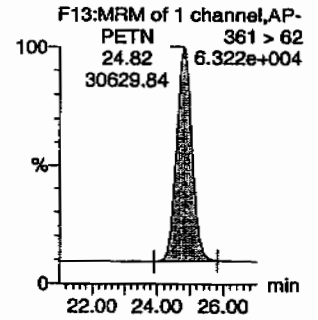

ID	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100112-07ICV	HMX	176 > 102	5.21	11931.243	2244.250	11931.243	2658.180	bb			697.3034	116.2	16.2	1293.3
WXX100112-07ICV	RDX	176 > 102	7.65	9773.666	2244.250	9773.666	2177.490	bb			836.4821	139.4	39.4	921.4
WXX100112-07ICV	135-Trinitrobenzene	213 > 183	10.26	10613.881	2244.250	10613.881	2364.683	bb			662.2827	110.4	10.4	660.9
WXX100112-07ICV	13-Dinitrobenzene-d4	172 > 142	12.17	2244.250		2244.250	2244.250	bb			445.8087	89.2	-10.8	149.3
WXX100112-07ICV	13-Dinitrobenzene	168 > 138	12.31	3309.668	2244.250	3309.668	737.366	bb			588.4661	98.1	-1.9	339.1
WXX100112-07ICV	Tetryl	241 > 181	12.85	3052.748	2244.250	3052.748	680.127	bb			604.4451	100.7	0.7	248.2
WXX100112-07ICV	Nitrobenzene	123 > 46	13.74	2530.394	2244.250	2530.394	563.750	bb			615.6887	102.6	2.6	121.2
WXX100112-07ICV	4-Amino-26-dinitrotoluene	197 > 167	15.88	5713.379	14629.729	5713.379	195.266	MM	13-Jan-10	08:50:36	725.6492	120.9	20.9	198.9
WXX100112-07ICV	2-Amino-46-dinitrotoluene	197 > 180	16.77	7214.816	14629.729	7214.816	246.581	bb			632.6938	105.4	5.4	394.8
WXX100112-07ICV	246-Trinitrotoluene	227 > 210	15.60	7849.033	14629.729	7849.033	268.256	bb			770.3533	128.4	28.4	401.2
WXX100112-07ICV	34-dinitrotoluene	182 > 152	14.59	7346.519	14629.729	7346.519	251.082	bb			293.5556	97.9	-2.1	113.3
WXX100112-07ICV	26-dinitrotoluene	182 > 152	17.80	18870.658	14629.729	18870.658	644.942	MM	13-Jan-10	08:52:51	591.9128	98.7	-1.3	310.6
WXX100112-07ICV	24-dinitrotoluene	182 > 152	18.46	4385.325	14629.729	4385.325	149.877	MM	13-Jan-10	08:55:16	616.9386	102.8	2.8	66.7
WXX100112-07ICV	26-dinitrotoluene-d3	185 > 155	17.63	14629.729		14629.729	14629.729	bb			503.4055	100.7	0.7	929.8
WXX100112-07ICV	2-Nitrotoluene	137 > 46	21.31	2538.681	14629.729	2538.681	86.764	bb			538.2380	89.7	-10.3	465.3
WXX100112-07ICV	4-Nitrotoluene	137 > 46	22.72	1324.058	14629.729	1324.058	45.252	bb			561.2596	93.5	-6.5	231.3
WXX100112-07ICV	3-Nitrotoluene	137 > 46	24.39	1481.414	14629.729	1481.414	50.630	bb			542.7438	90.5	-9.5	247.2
WXX100112-07ICV	PETN	361 > 62	24.82	30629.838	14629.729	30629.838	1046.835	bb			634.6834	105.8	5.8	9484.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 01/12/10
Time of Injection: 2020
Standard Number: WXX100112-07ICV
Data File: EXP011210a

HMX	116.2
RDX	139.4
135-TNB	110.4
13-DNB	98.1
Tetryl	100.7
Nitrobenzene	102.6
4A-26-DNT	120.9
2A-46-DNT	105.4
246-TNT	128.4
34-DNT(surr)	97.9
26-DNT	98.7
24-DNT	102.8
2-NT	89.7
4-NT	93.5
3-NT	90.5
PETN	105.8
Total	1701.0
Average	106.3

MMT 1/13/10

HMK 01/13/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-994

Lab Code: GEL

Run Date: 04-JAN-10,12-JAN-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H80

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS01040003.wifl	EXS01040004.wifl	EXS01040005.wifl	EXS01040006.wifl	EXS01040007.wifl	EXS01040008.wifl	EXS01040009.wifl					
Parmname:												
2,4-Diamino-6-nitrotoluene	114000	217000	560000	1100000	1670000	2220000	4970000	28200	1980	.244	.9999	
2,6-Diamino-4-nitrotoluene	152000	311000	936000	1620000	2230000	3230000	6840000	63400	2880	.253	.9993	
3,4-Dinitrotoluene	302000	607000	1610000	2960000	4650000	5670000	9950000	-54600	14100	-4.1	.9966	
3,5-Dinitroaniline	511000	1000000	2620000	4630000	6690000	8470000	13600000	55200	10100	-1.65	.9999	
TATB	68400	137000	338000	675000	957000	1320000	2450000	-566	1370	-.073	.9998	
tris(o-cresyl) phosphate	1350000	2610000	6260000	11900000	16900000	21700000	33000000	-18800	26500	-4.99	1	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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010410ICAL

Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-566			
a1	1.37e+003			
a2	-0.0733			

Correlation coefficient 0.9998
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	5.52e+004			
a1	1.01e+004			
a2	-1.65			

Correlation coefficient 0.9999
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-5.46e+004			
a1	1.41e+004			
a2	-4.1			

Correlation coefficient 0.9966
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	6.34e+004			
a1	2.88e+003			
a2	0.253			

Correlation coefficient 0.9993
Use Area

Page 1

Hnm 01/05/10

Pai 1/5/10

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Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	2.82e+004			
a1	1.98e+003			
a2	0.244			

Correlation coefficient 0.9999
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.88e+004			
a1	2.65e+004			
a2	-4.99			

Correlation coefficient 1.0000
Use Area

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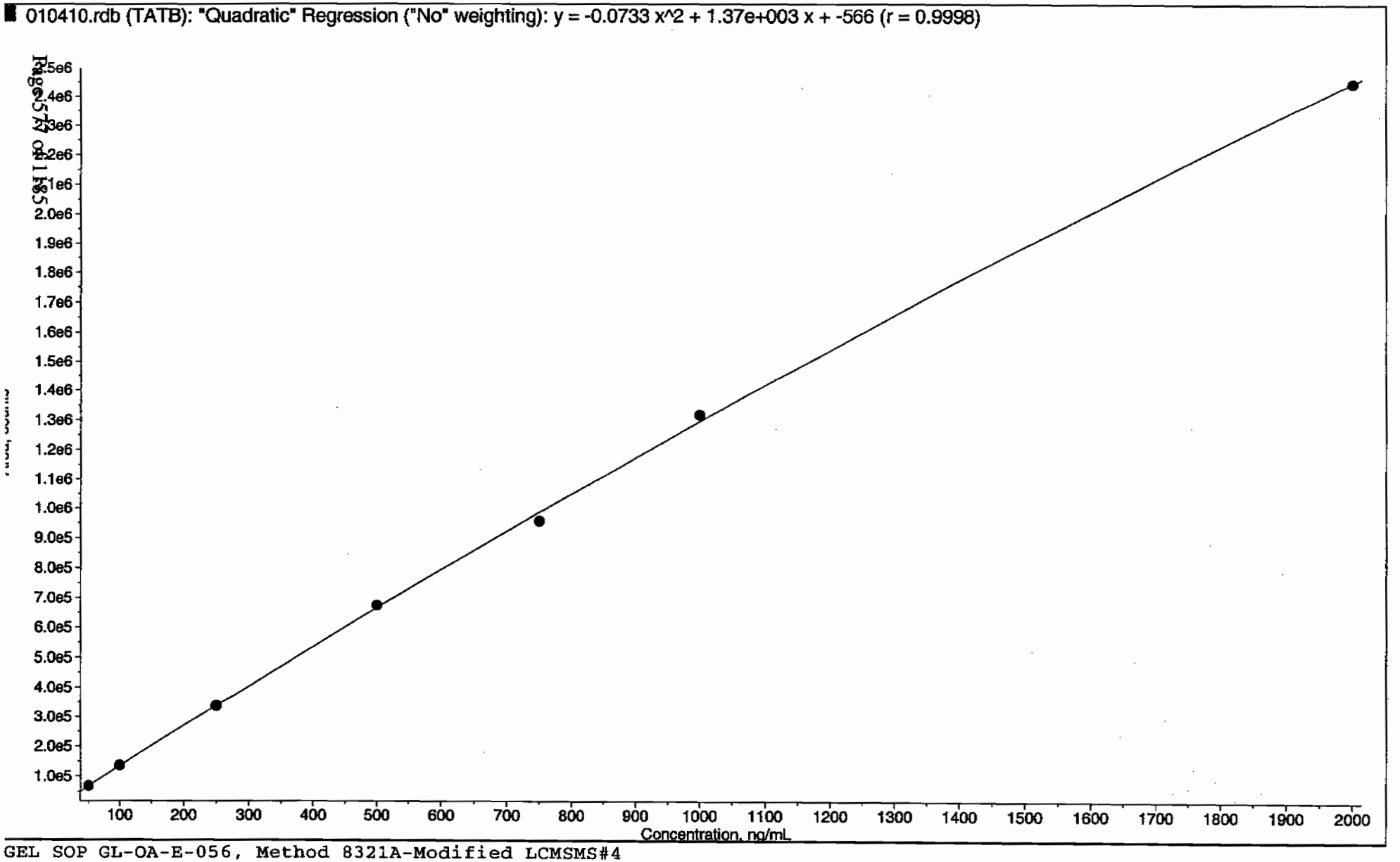

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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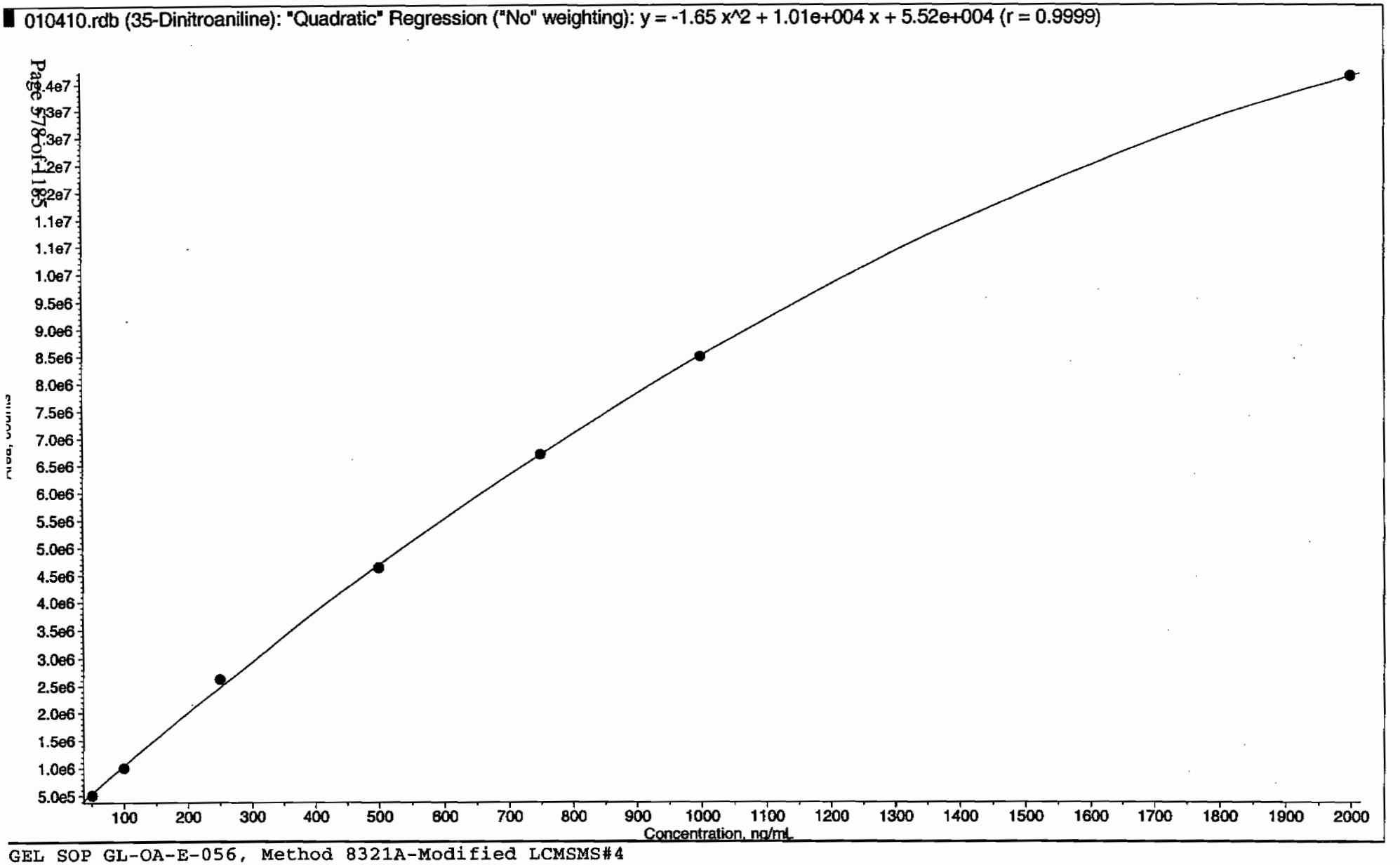

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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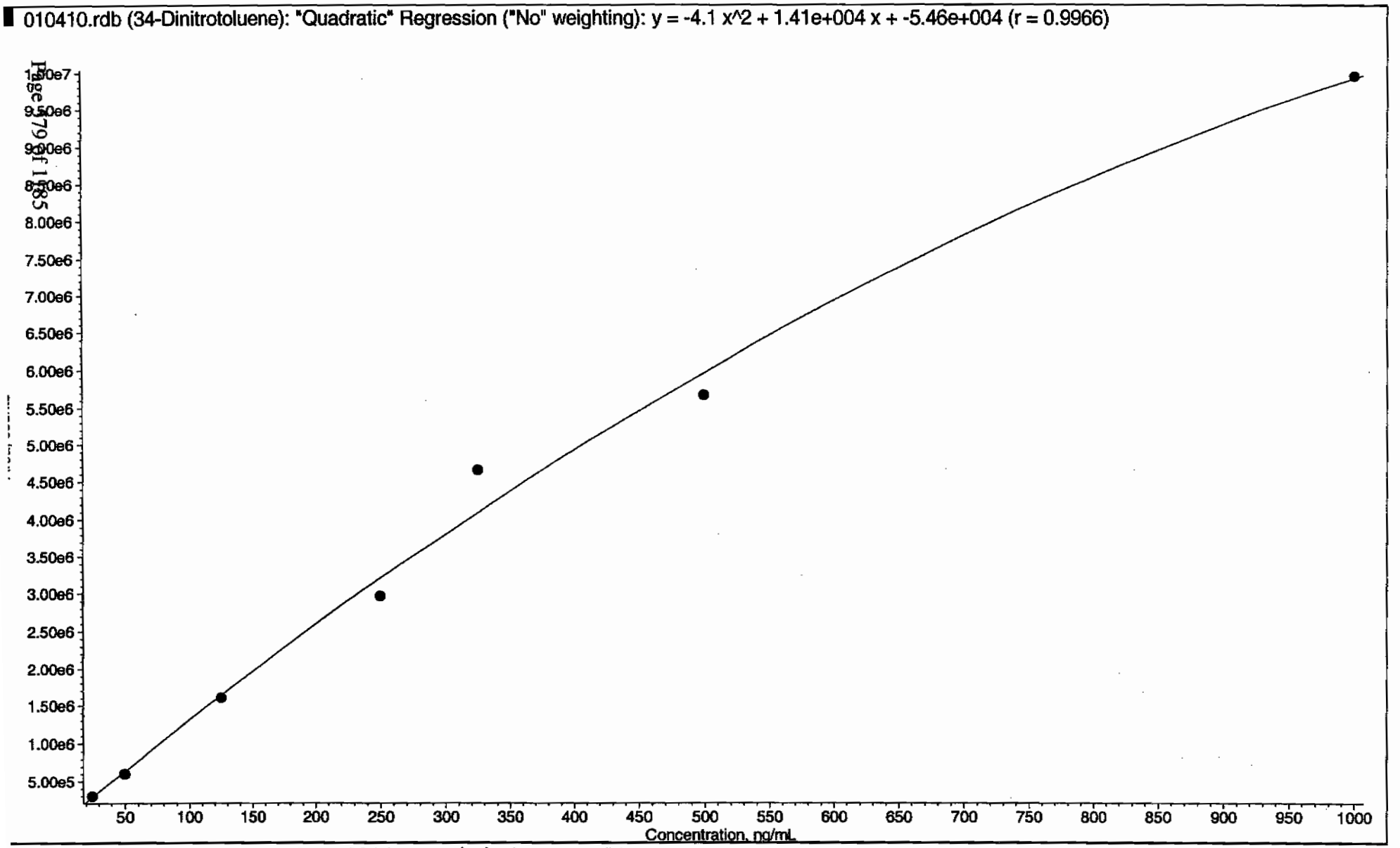

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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010410.rdb (26-Diamino-4-nitrotoluene): "Quadratic" Regression ("No" weighting): y = 0.253 x^2 + 2.88e+003 x + 6.34e+004 (r = 0.9993)

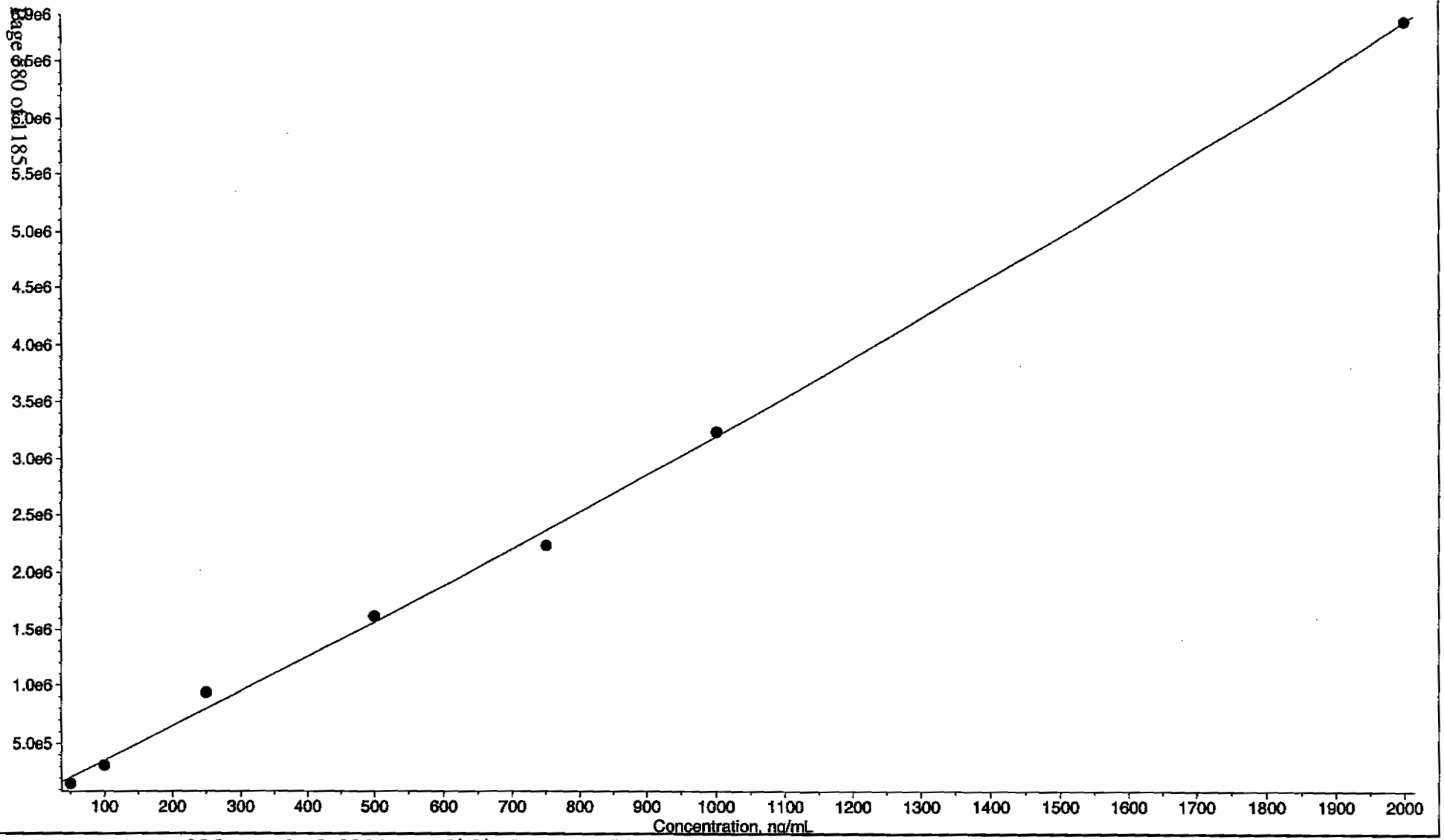

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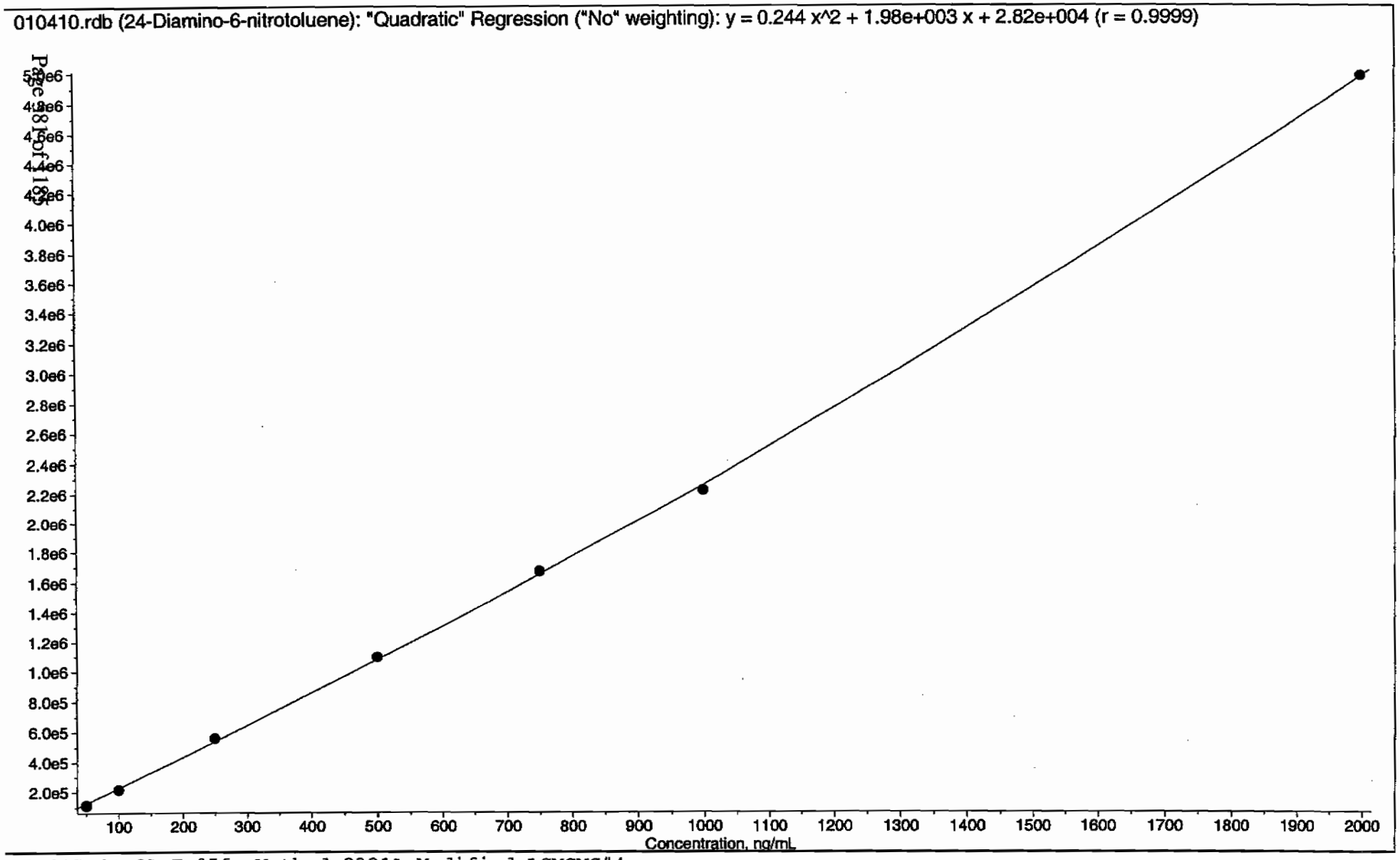

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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010410.rdb (tris(o-cresyl) phosphate): "Quadratic" Regression ("No" weighting): y = -4.99 x^2 + 2.65e+004 x + -1.88e+004 (r = 1.0000)

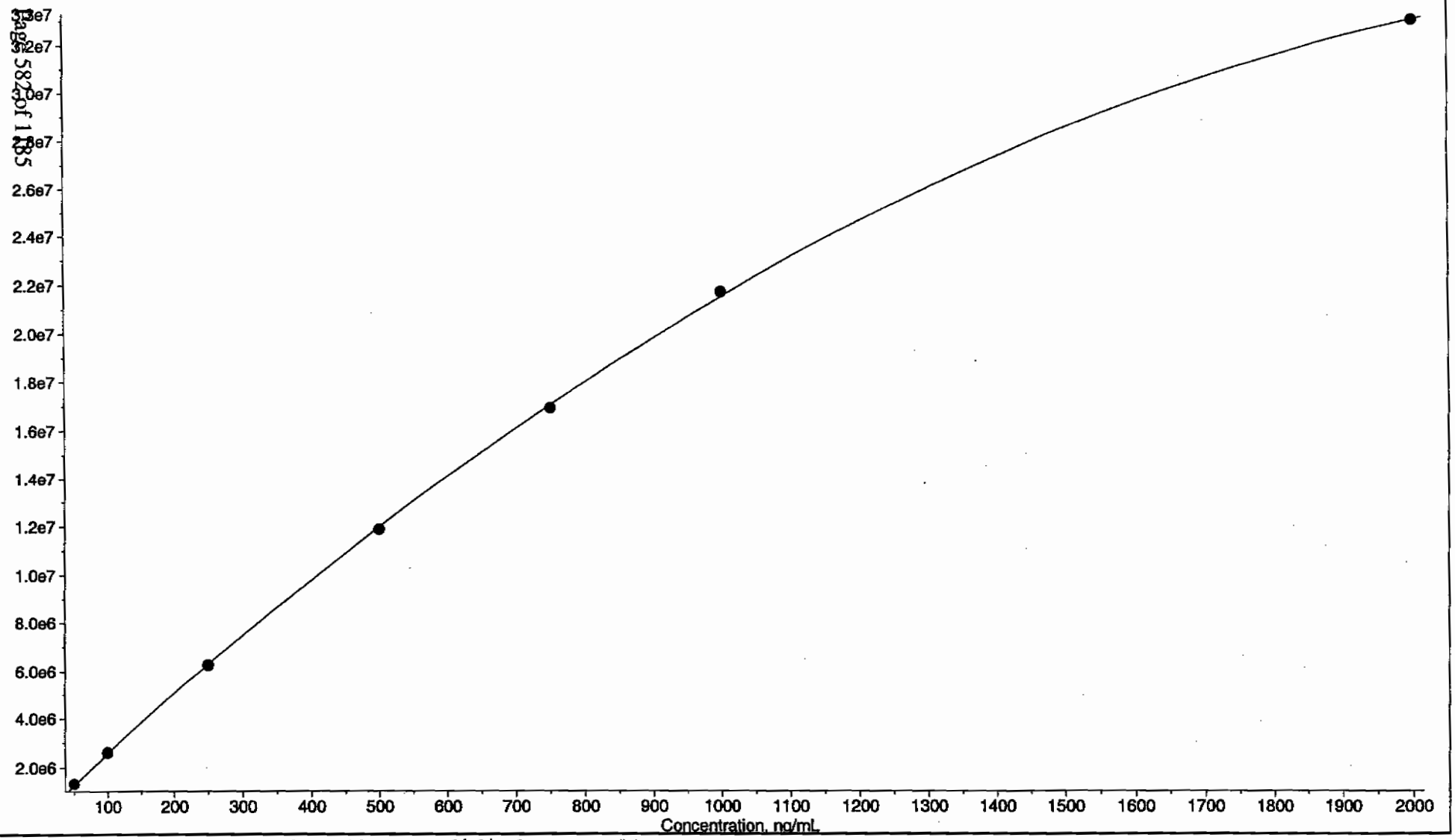

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100104-19" Sample ID: "|1|LER" File: "EXS01040003.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 50.0 ng/mL
Calculated Conc: 50.4 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 4:12:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.96 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 6.84e+004 counts
Height: 16285.309 cps
Start Time: 6.90 min
End Time: 7.46 min

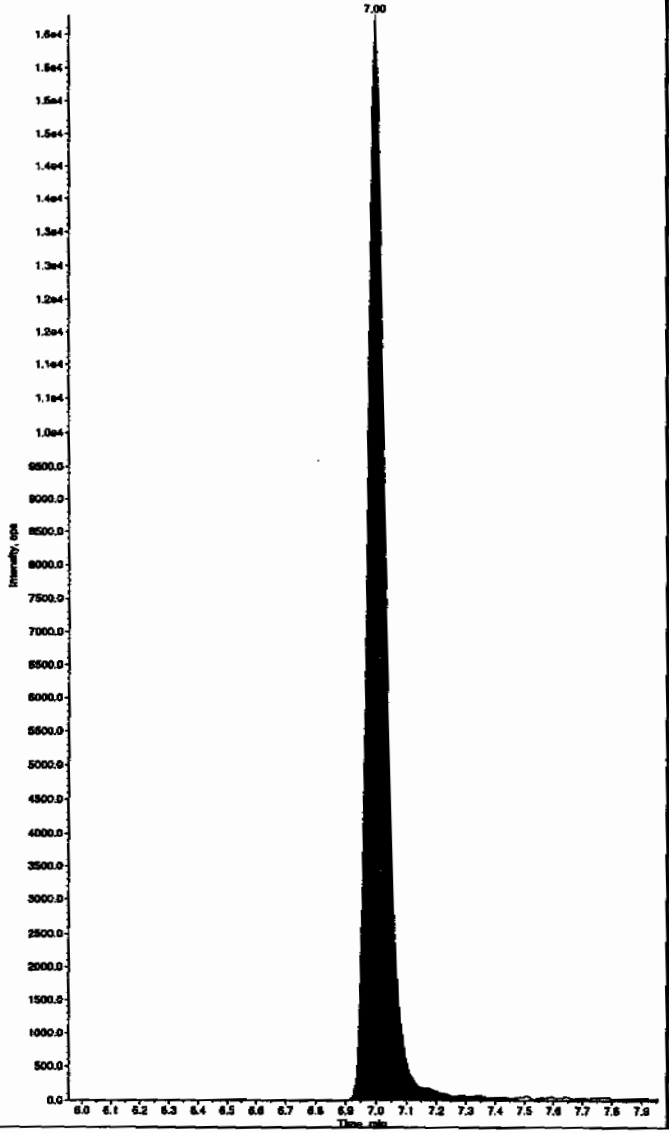

Sample Name: "WXX100104-19" Sample ID: "|1|LER" File: "EXS01040003.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 50.0 ng/mL
Calculated Conc: 45.6 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 4:12:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 5.11e+005 counts
Height: 140904.205 cps
Start Time: 8.12 min
End Time: 8.33 min

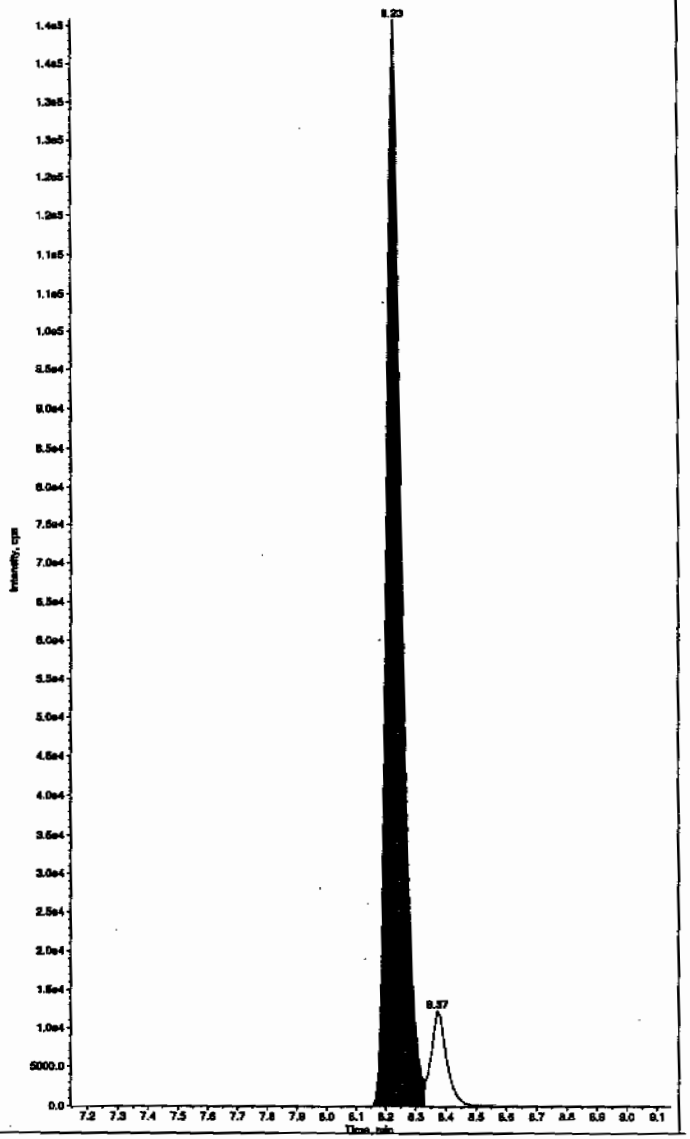

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100104-19" Sample ID: "[1]LER" File: "EXS01040003.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

ample Index: 1
ample Type: Standard
ncentration: 25.0 ng/mL
lculated Conc: 25.5 ng/mL
q. Date: 1/4/2010
q. Time: 4:12:57 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.28 min
e Relative RT: No

t. Type: Valley
tention Time: 8.37 min
ea: 3.02e+005 counts
ight: 85873.886 cps
art Time: 8.30 min
d Time: 8.63 min

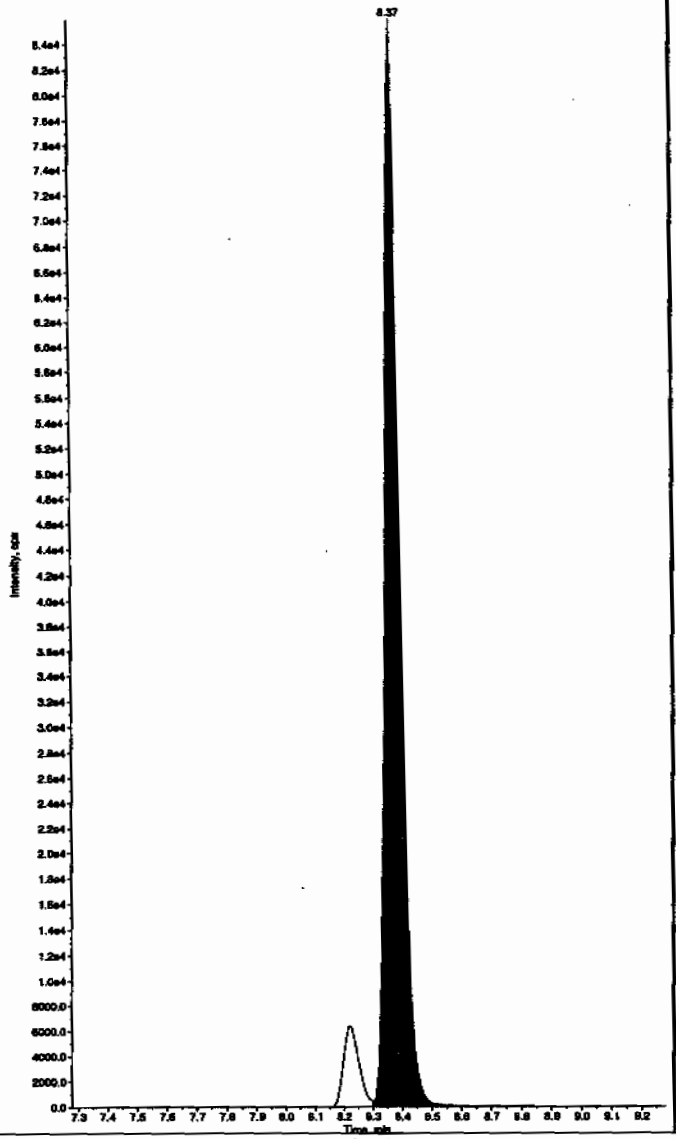

Sample Name: "WXX100104-19" Sample ID: "[1]LER" File: "EXS01040003.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 50.0 ng/mL
Calculated Conc: 30.7 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 4:12:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 1.52e+005 counts
Height: 37766.571 cps
Start Time: 4.93 min
End Time: 5.31 min

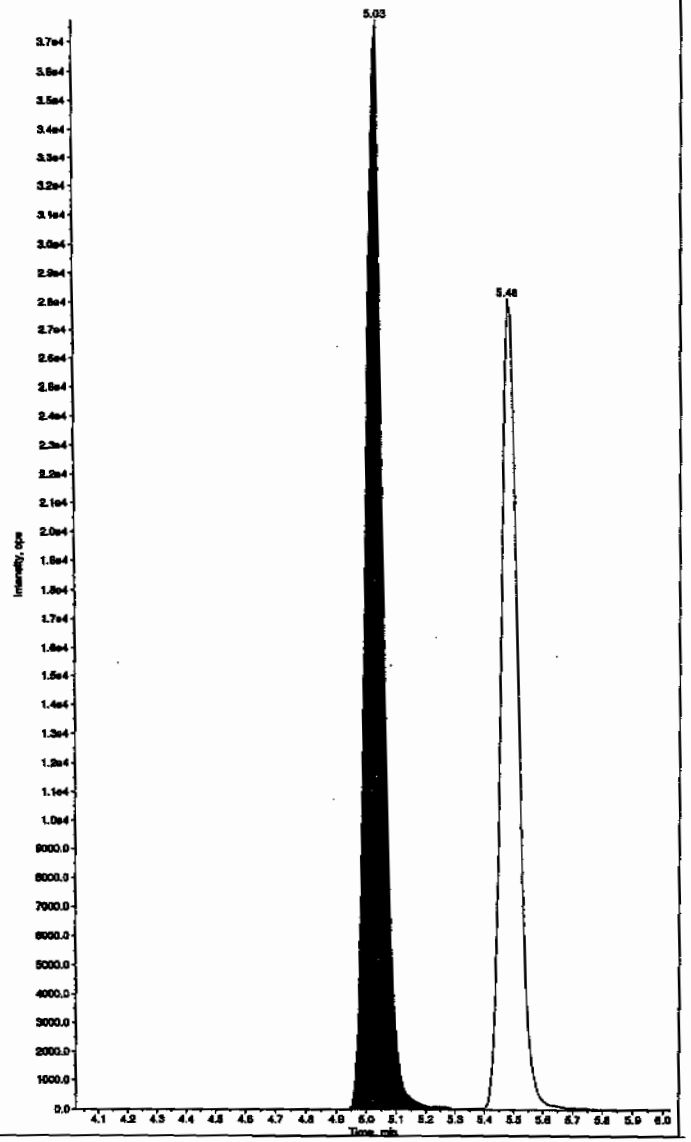

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100104-19" Sample ID: "[1]LER" File: "EXS01040003.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_F" Annotation: ""

ample Index: 1
ample Type: Standard
oncentration: 50.0 ng/mL
alculated Conc: 42.9 ng/mL
cq. Date: 1/4/2010
cq. Time: 4:12:57 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 350.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 30.0 sec
xpected RT: 5.48 min
se Relative RT: No

nt. Type: Valley
etention Time: 5.48 min
rea: 1.14e+005 counts
eight: 28109.125 cps
tart Time: 5.38 min
nd Time: 5.83 min

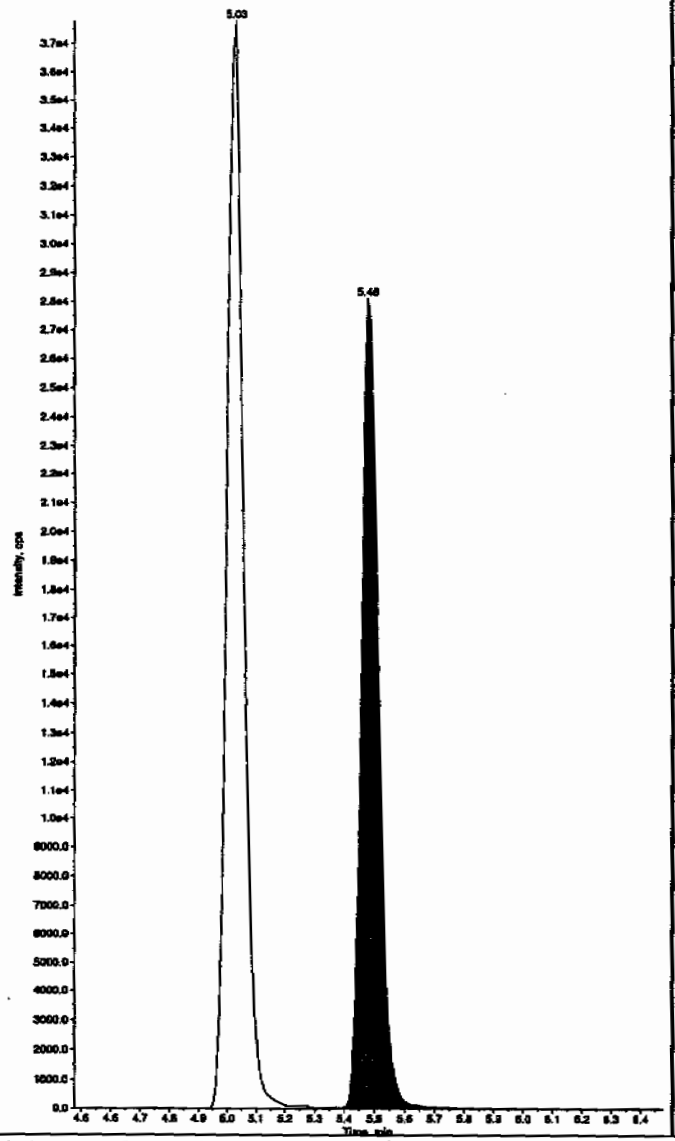

Sample Name: "WXX100104-19" Sample ID: "[1]LER" File: "EXS01040003.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 50.0 ng/mL
Calculated Conc: 52.2 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 4:12:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.35e+006 counts
Height: 331941.406 cps
Start Time: 10.8 min
End Time: 11.2 min

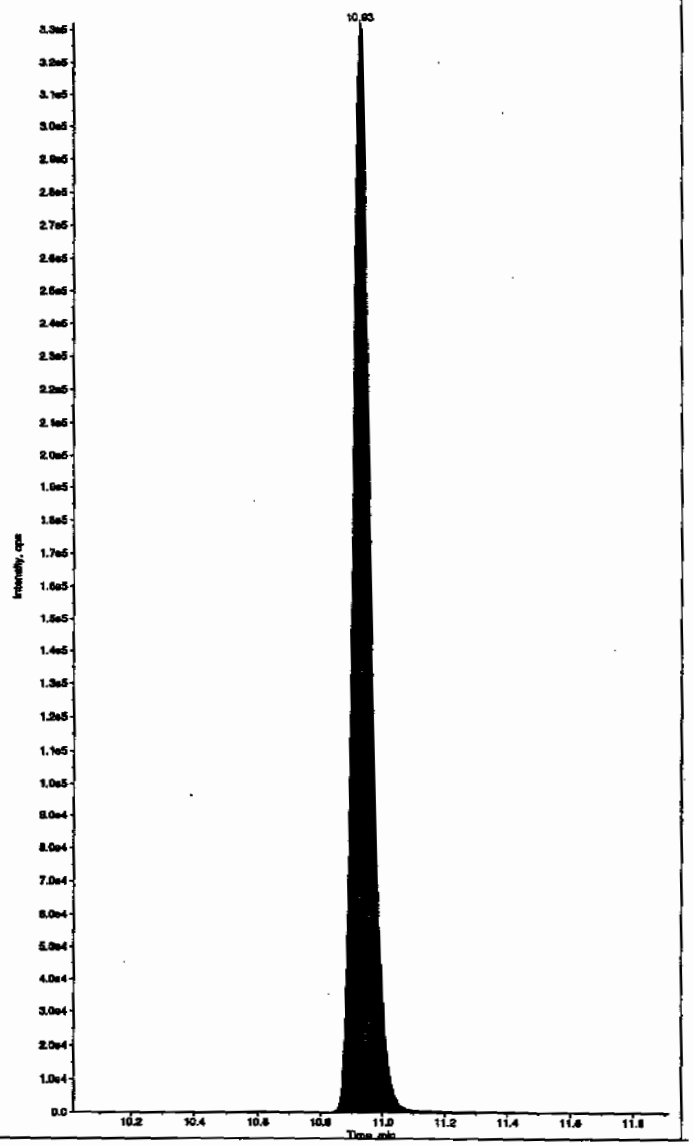

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sam 15110

Sample Name: "WXX100104-20" Sample ID: "|1|LER" File: "EXS01040004.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

ample Index:	1	
ample Type:	Standard	
ncentration:	100.	ng/mL
lculated Conc:	101.	ng/mL
q. Date:	1/4/2010	
q. Time:	4:28:38 PM	
dified:	No	
oc. Algorithm:	IntelliQuan - IQA	
n. Peak Height:	2500.00	cps
n. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
pected RT:	6.96	min
e Relative RT:	No	
t. Type:	Valley	
tention Time:	7.01	min
ea:	1.37e+005	counts
ight:	33564.934	cps
art Time:	6.89	min
d Time:	7.41	min

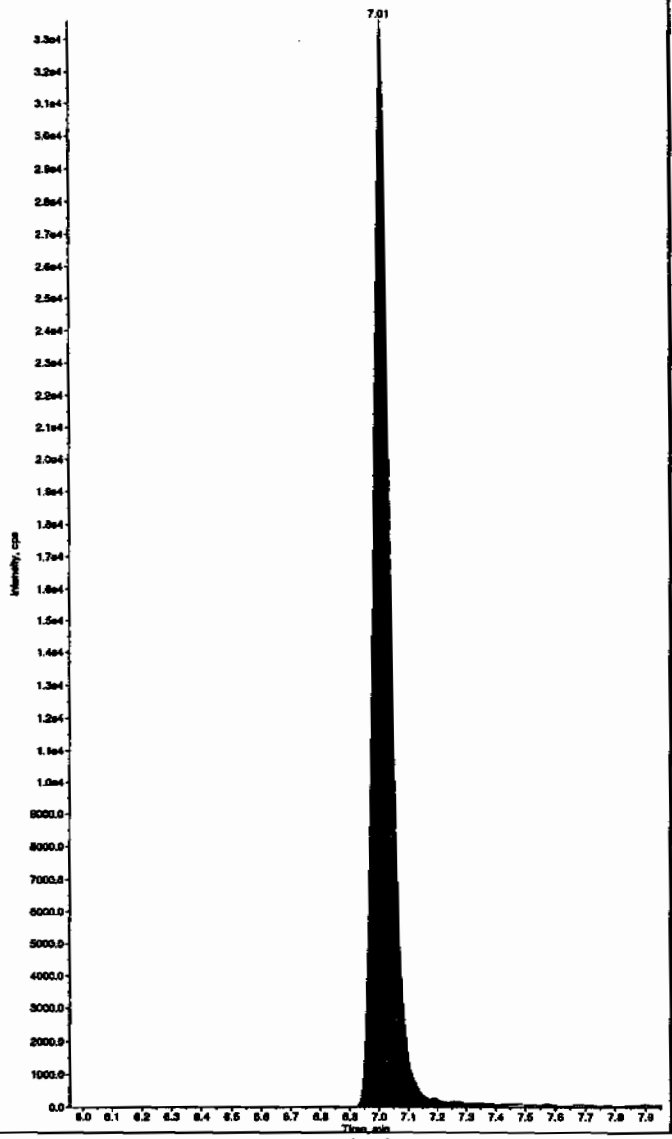

Sample Name: "WXX100104-20" Sample ID: "|1|LER" File: "EXS01040004.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	100.	ng/mL
Calculated Conc:	95.4	ng/mL
Acq. Date:	1/4/2010	
Acq. Time:	4:28:38 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.14	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.24	min
Area:	1.00e+006	counts
Height:	258942.535	cps
Start Time:	8.12	min
End Time:	8.34	min

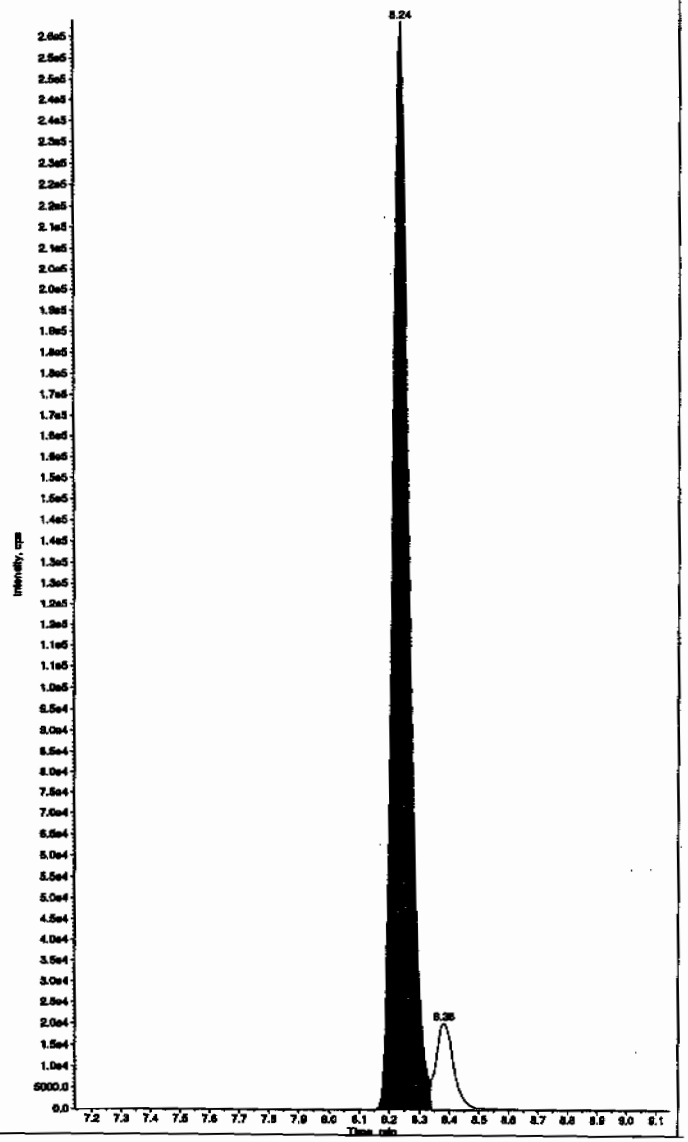

Hmm 01/05/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100104-20" Sample ID: "[1]LER" File: "EXS01040004.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

ample Index:	1	
ample Type:	Standard	
ncentration:	50.0	ng/mL
lculated Conc:	47.6	ng/mL
q. Date:	1/4/2010	
q. Time:	4:28:38 PM	
odified	No	
oc. Algorithm:	IntelliQuan - IQA	
n. Peak Height:	1460.00	cps
n. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	15.0	sec
pected RT:	8.28	min
e Relative RT:	No	
t. Type:	Valley	
tention Time:	8.37	min
ea:	6.07e+005	counts
ight:	171362.717	cps
art Time:	8.31	min
d Time:	8.70	min

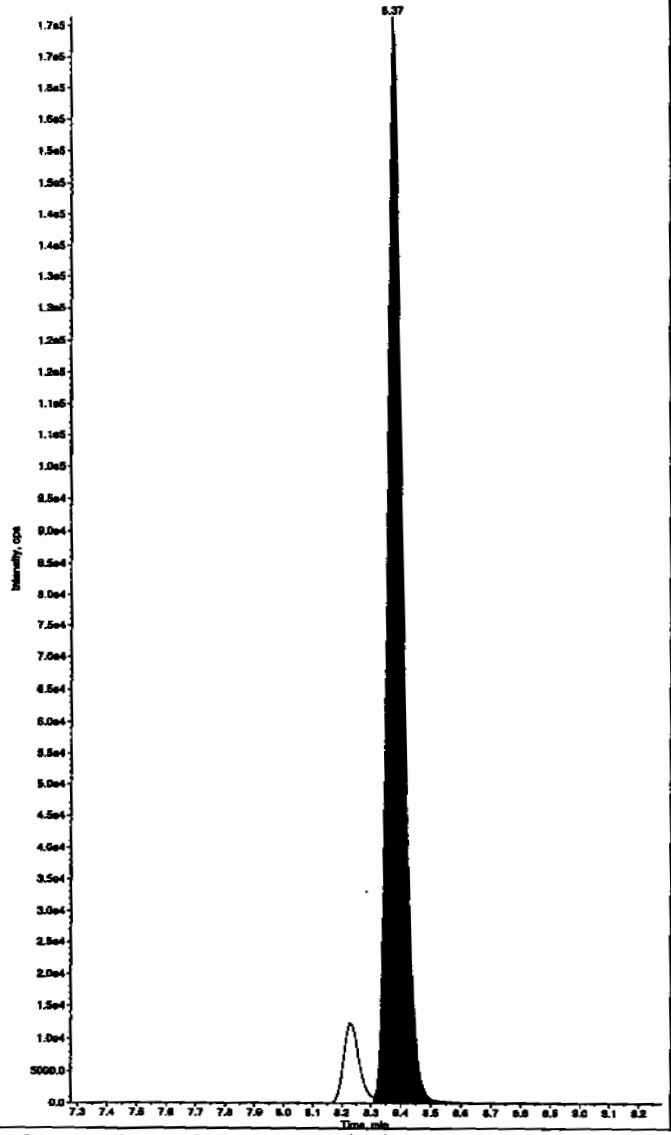

Sample Name: "WXX100104-20" Sample ID: "[1]LER" File: "EXS01040004.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	100.	ng/mL
Calculated Conc:	85.2	ng/mL
Acq. Date:	1/4/2010	
Acq. Time:	4:28:38 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	5.02	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	5.03	min
Area:	3.11e+005	counts
Height:	75874.039	cps
Start Time:	4.93	min
End Time:	5.30	min

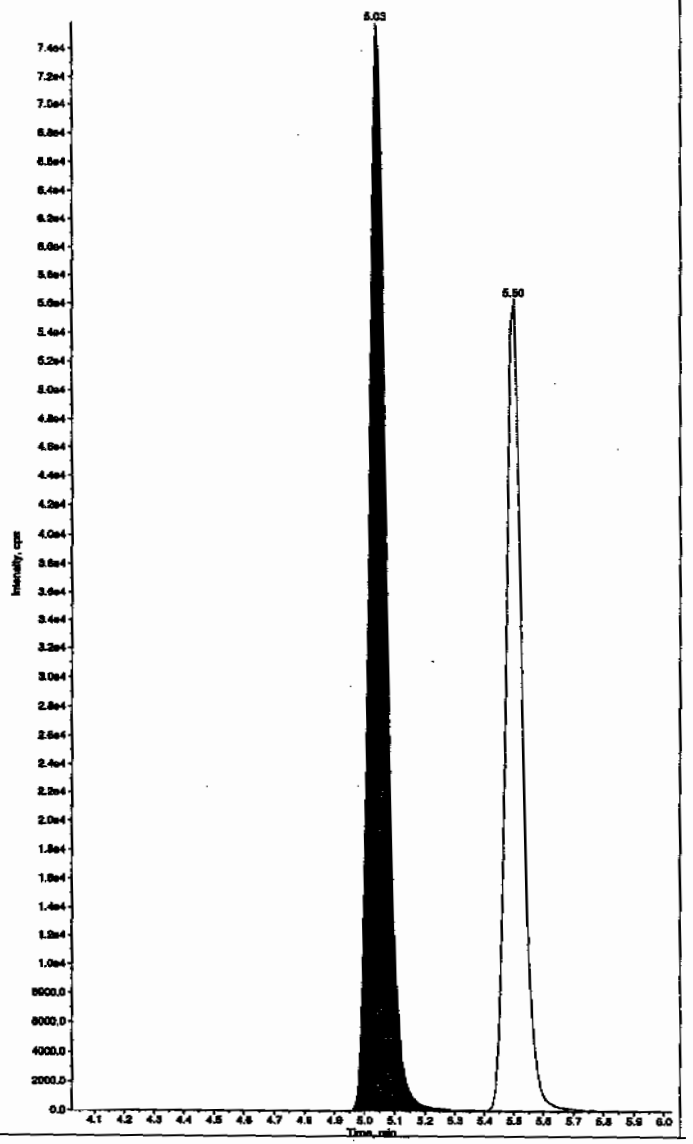

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100104-20" Sample ID: "[1]LER" File: "EXS01040004.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

mple Index:	1	
mple Type:	Standard	
ncentration:	100.	ng/mL
lculated Conc:	94.2	ng/mL
q. Date:	1/4/2010	
q. Time:	4:28:38 PM	
dified	No	
oc. Algorithm:	IntelliQuan - IQA	
n. Peak Height:	350.00	cps
n. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
pected RT:	5.48	min
e Relative RT:	No	
t. Type:	Valley	
tention Time:	5.50	min
as:	2.17e+005	counts
ight:	56384.624	cps
art Time:	5.39	min
d Time:	5.81	min

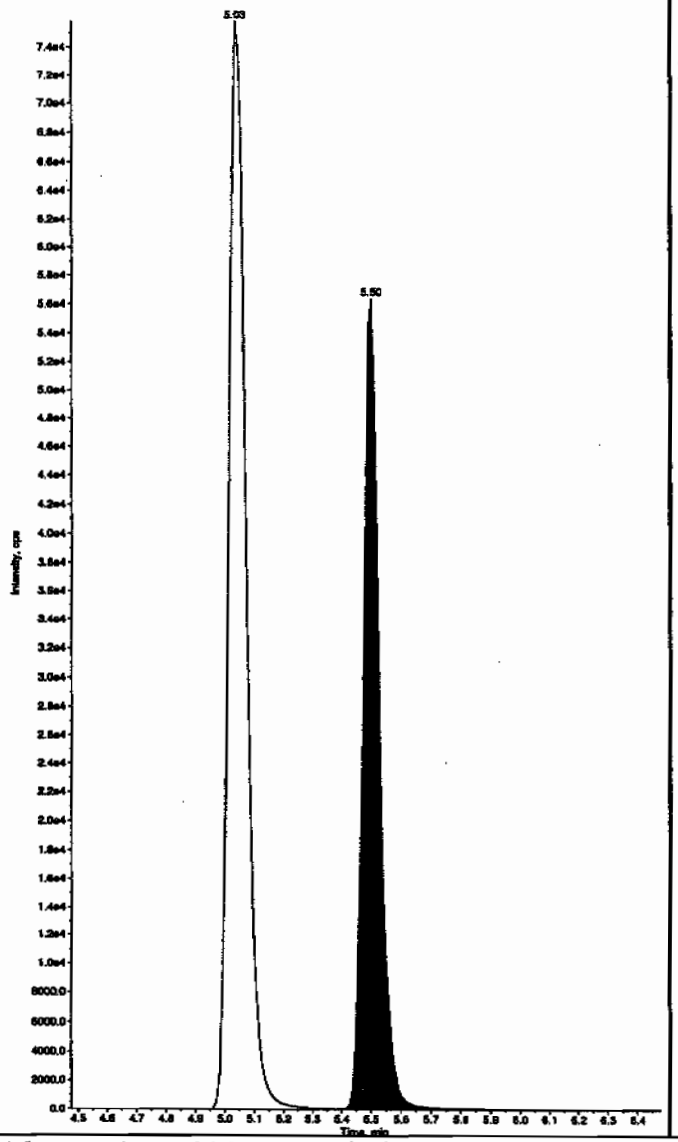

Sample Name: "WXX100104-20" Sample ID: "[1]LER" File: "EXS01040004.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_J" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	100.	ng/mL
Calculated Conc:	101.	ng/mL
Acq. Date:	1/4/2010	
Acq. Time:	4:28:38 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	1.00e4	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.9	min
Area:	2.61e+006	counts
Height:	672747.925	cps
Start Time:	10.8	min
End Time:	11.2	min

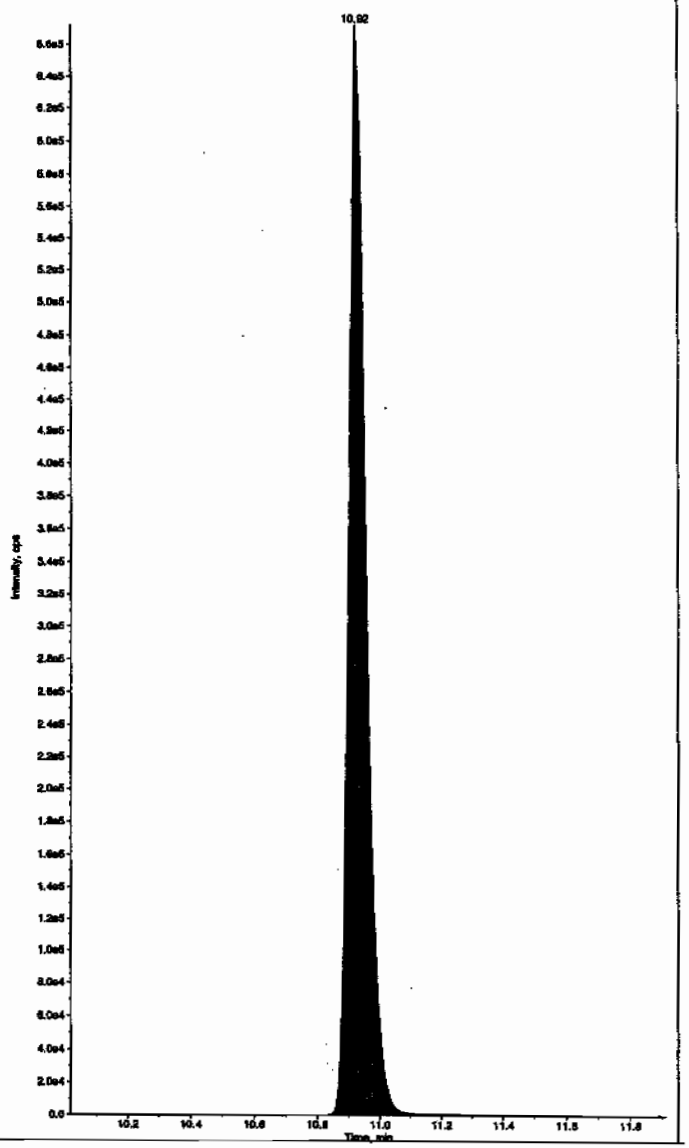

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100104-21" Sample ID: "[1]LER" File: "EXS01040005.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

ple Index:	1	
ple Type:	Standard	
ncentration:	250.	ng/mL
lculated Conc:	250.	ng/mL
q. Date:	1/4/2010	
q. Time:	4:44:18 PM	
dified:	No	
oc. Algorithm:	IntelliQuan - IQA	
n. Peak Height:	2500.00	cps
n. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
pected RT:	6.96	min
e Relative RT:	No	
t. Type:	Valley	
tention Time:	7.02	min
ea:	3.38e+005	counts
ight:	80180.260	cps
art Time:	6.92	min
d Time:	7.46	min

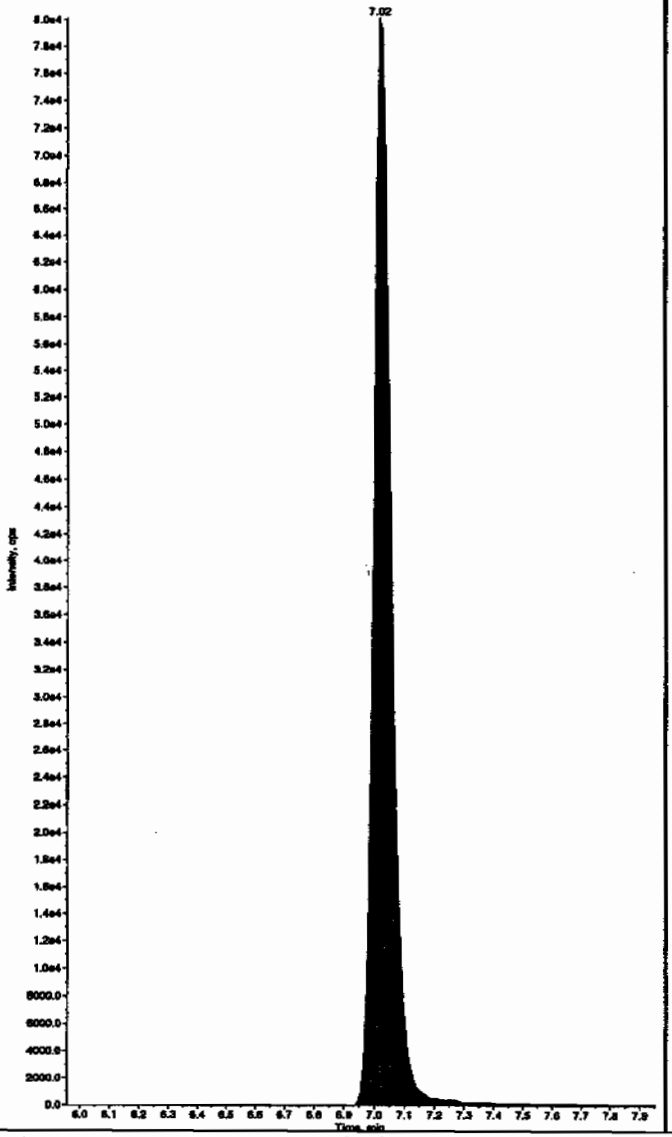

Sample Name: "WXX100104-21" Sample ID: "[1]LER" File: "EXS01040005.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	250.	ng/mL
Calculated Conc:	266.	ng/mL
Acq. Date:	1/4/2010	
Acq. Time:	4:44:18 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.14	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.24	min
Area:	2.62e+006	counts
Height:	715581.238	cps
Start Time:	8.13	min
End Time:	8.33	min

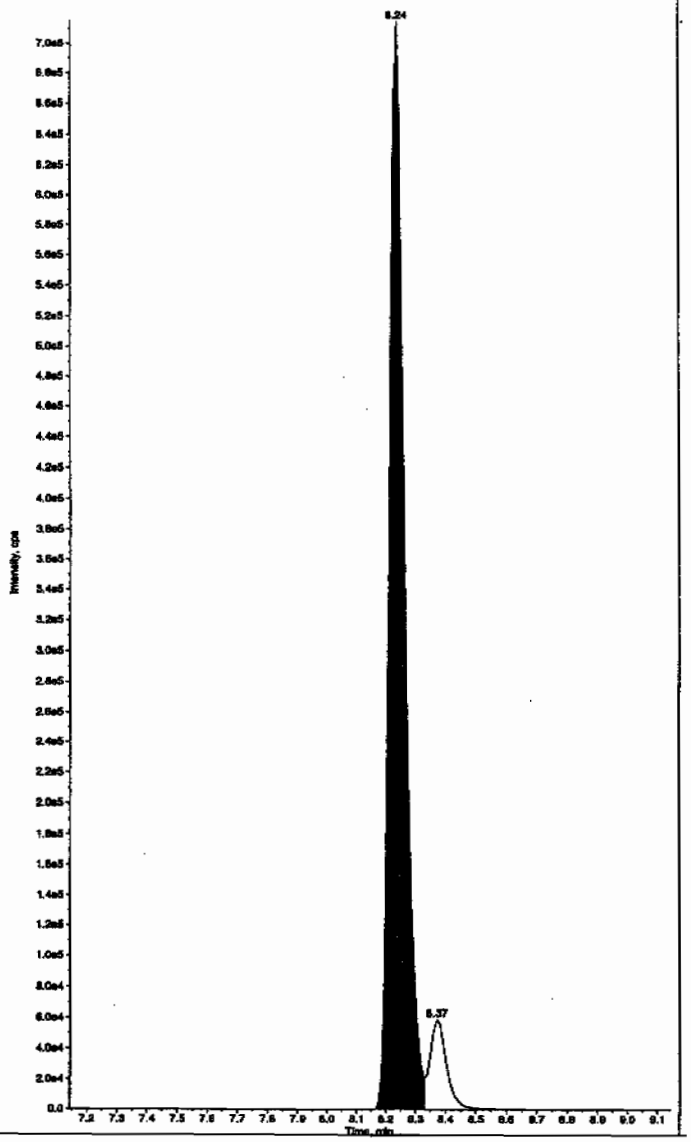

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GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100104-21" Sample ID: "[1]LER" File: "EXS01040005.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_r" Annotation: ""

ple Index:	1	
ple Type:	Standard	
centration:	125.	ng/mL
culated Conc:	123.	ng/mL
. Date:	1/4/2010	
. Time:	4:44:18 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	1460.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	15.0	sec
ected RT:	8.28	min
Relative RT:	No	
.. Type:	Valley	
ention Time:	8.37	min
a:	1.61e+006	counts
ght:	452750.488	cps
rt Time:	8.30	min
Time:	8.65	min

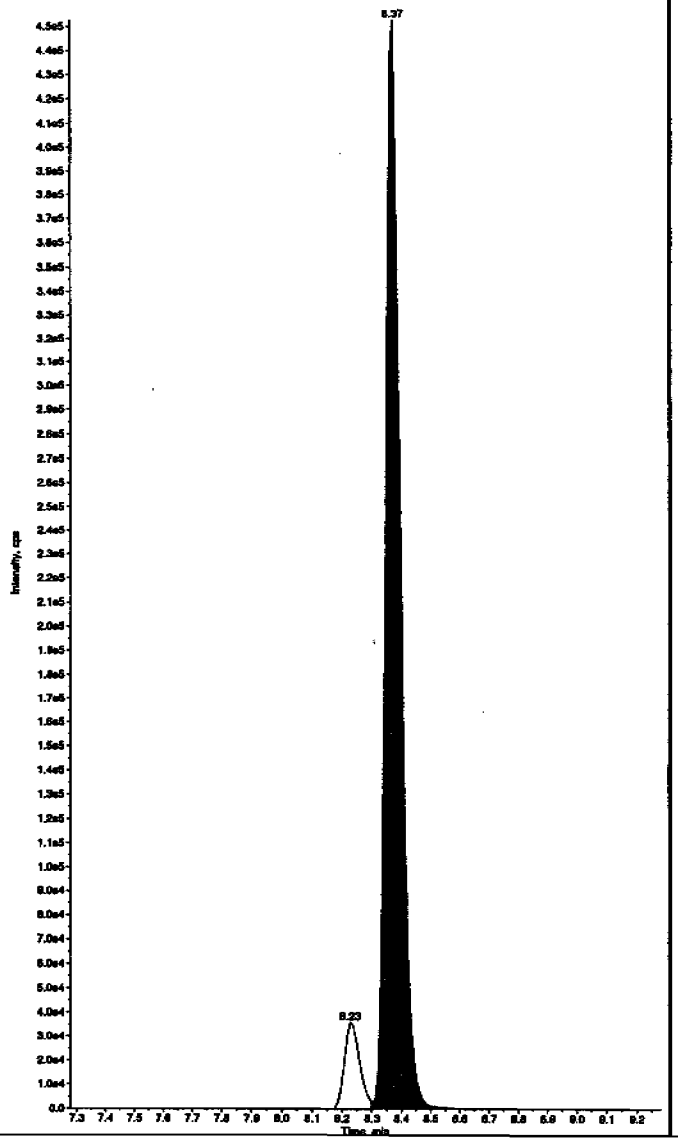

Sample Name: "WXX100104-21" Sample ID: "[1]LER" File: "EXS01040005.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_r" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	250.	ng/mL
Calculated Conc:	295.	ng/mL
Acq. Date:	1/4/2010	
Acq. Time:	4:44:18 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	5.02	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	5.03	min
Area:	9.36e+005	counts
Height:	238658.447	cps
Start Time:	4.92	min
End Time:	5.33	min

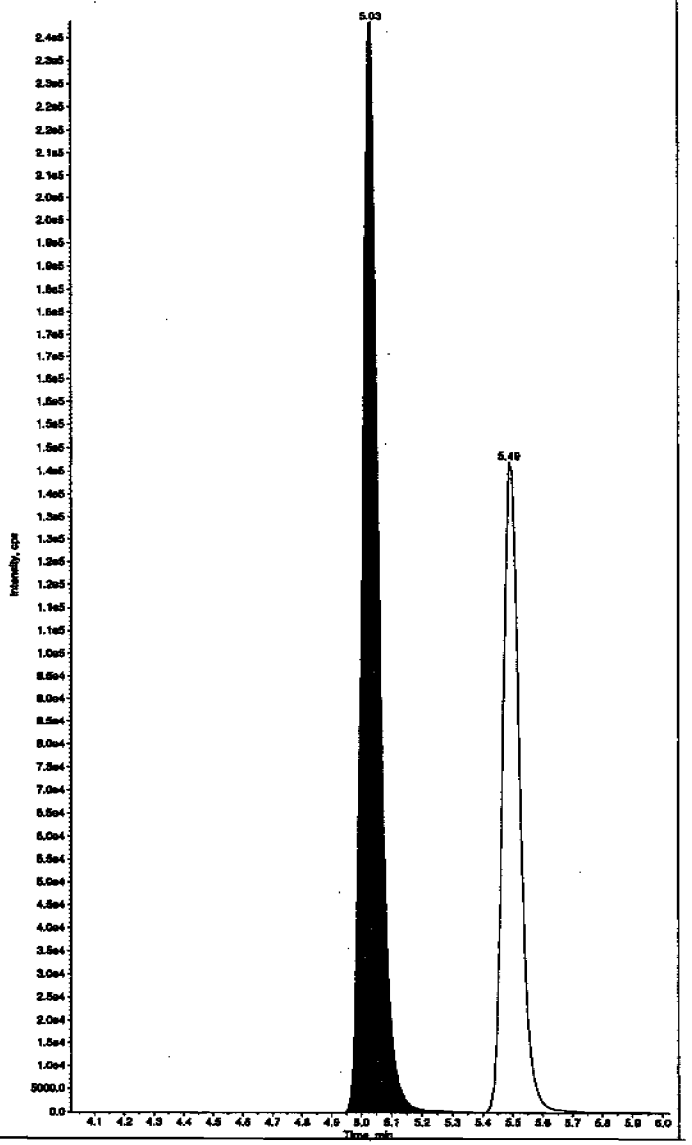

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100104-21" Sample ID: "[1]LER" File: "EXS01040005.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

mple Index: 1
mple Type: Standard
ncentration: 250. ng/mL
lculated Conc: 260. ng/mL
q. Date: 1/4/2010
q. Time: 4:44:18 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 350.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 5.48 min
e Relative RT: No

t. Type: Valley
tention Time: 5.49 min
ea: 5.60e+005 counts
ight: 142183.029 cps
art Time: 5.39 min
d Time: 5.97 min

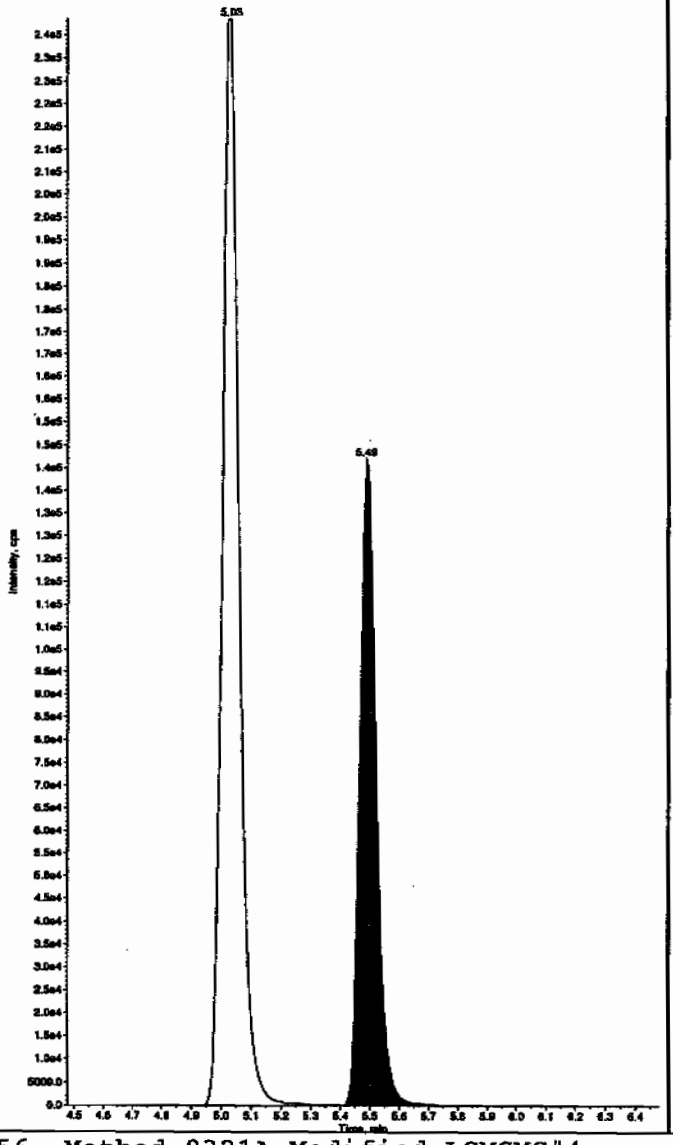

Sample Name: "WXX100104-21" Sample ID: "[1]LER" File: "EXS01040005.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 250. ng/mL
Calculated Conc: 249. ng/mL
Acq. Date: 1/4/2010
Acq. Time: 4:44:18 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 6.26e+006 counts
Height: 1500703.003 cps
Start Time: 10.7 min
End Time: 11.2 min

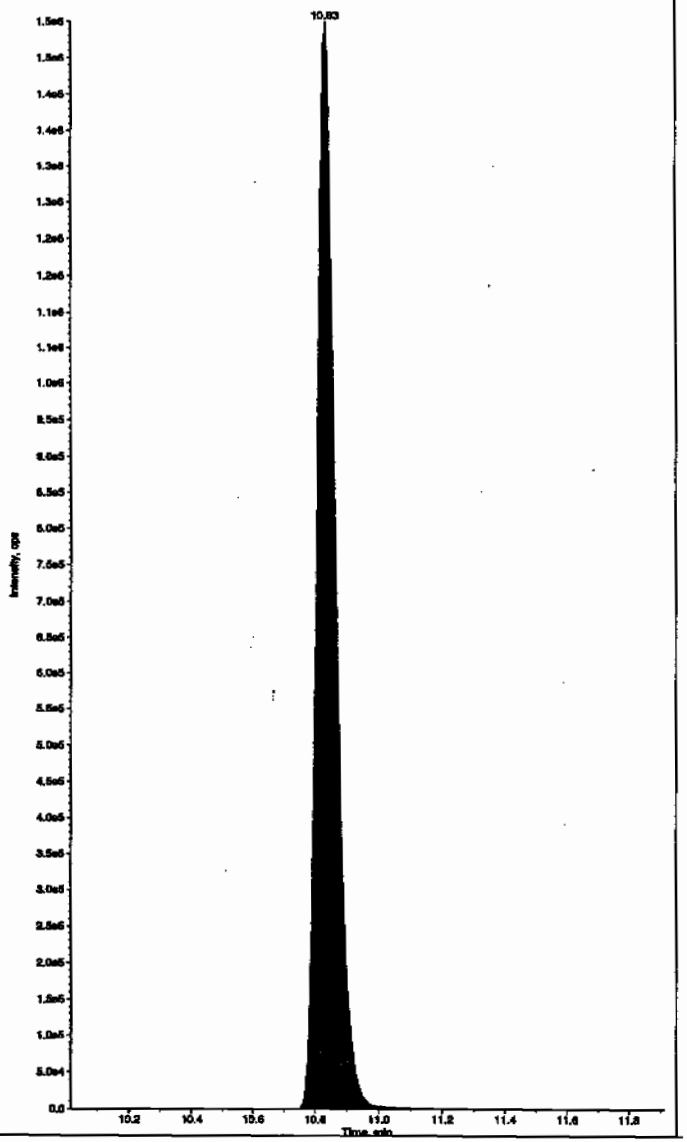

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Before Jan 1/5/10

Sample Name: "WXX100104-22" Sample ID: "[1]LER" File: "EXS01040006.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

mple Index:	1	
mple Type:	Standard	
ncentration:	500.	ng/mL
lculated Conc:	506.	ng/mL
q. Date:	1/4/2010	
q. Time:	5:00:00 PM	
dified:	No	
oc. Algorithm:	IntelliQuan - IQA	
n. Peak Height:	2500.00	cps
n. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
pected RT:	6.96	min
e Relative RT:	No	
t. Type:	Valley	
tention Time:	6.99	min
ea:	6.75e+005	counts
ight:	163926.208	cps
art Time:	6.82	min
d Time:	7.52	min

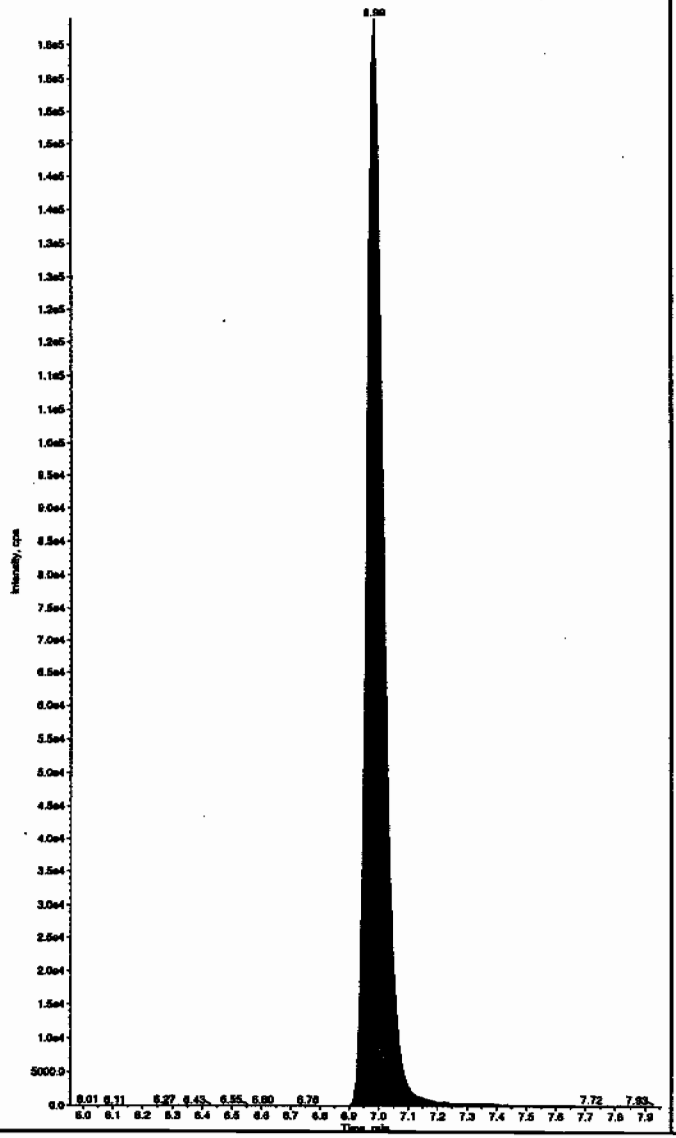

Sample Name: "WXX100104-22" Sample ID: "[1]LER" File: "EXS01040006.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	500.	ng/mL
Calculated Conc:	464.	ng/mL
Acq. Date:	1/4/2010	
Acq. Time:	5:00:00 PM	
Modified:	Yes	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.15	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.19	min
Area:	4.47e+006	counts
Height:	1222000.366	cps
Start Time:	8.11	min
End Time:	8.28	min

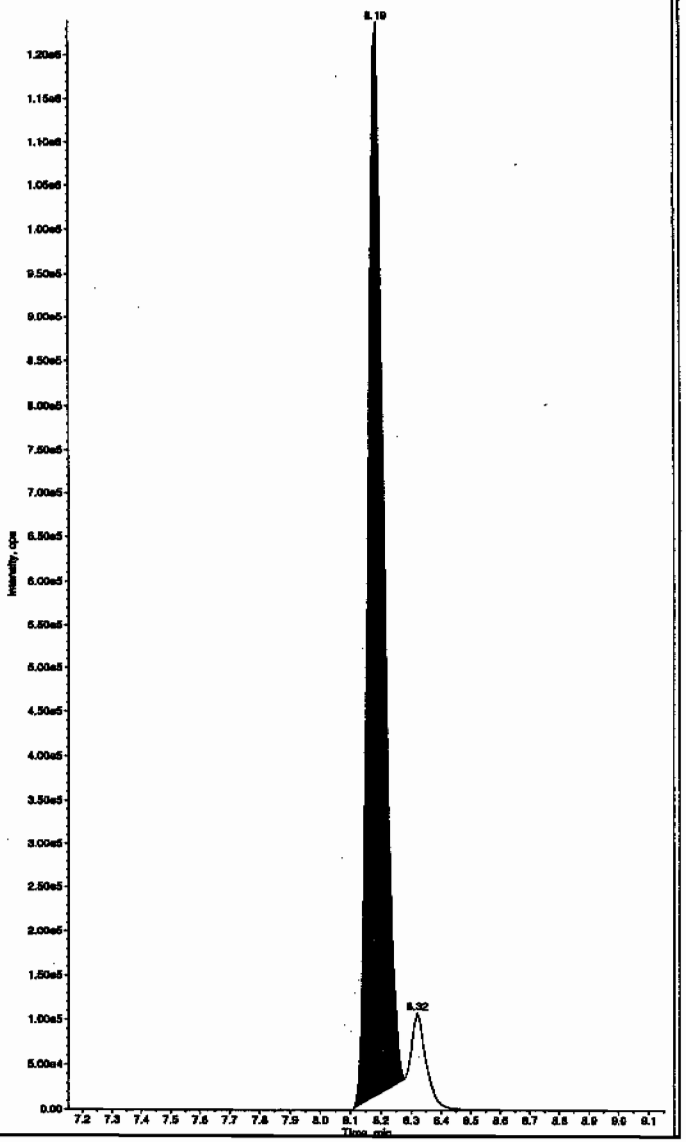

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GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

after Ser 115110

Sample Name: "WXX100104-22" Sample ID: "[1]LER" File: "EXS01040008.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1
Sample Type:	Standard
Concentration:	500. ng/mL
Calculated Conc:	506. ng/mL
Acq. Date:	1/4/2010
Acq. Time:	5:00:00 PM
Modified:	No
Algorithm:	IntelliQuan - IQA
Int. Peak Height:	2500.00 cps
Int. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	6.96 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	6.99 min
Area:	6.75e+005 counts
Height:	163926.208 cps
Start Time:	6.82 min
End Time:	7.52 min

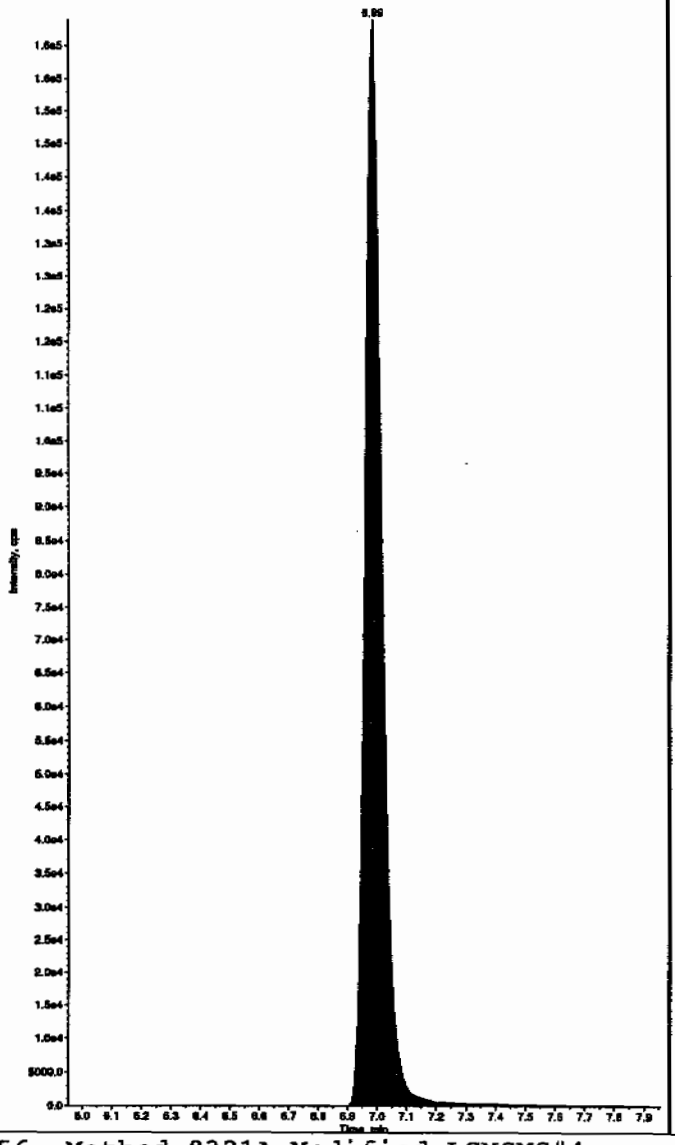

Sample Name: "WXX100104-22" Sample ID: "[1]LER" File: "EXS01040008.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1
Sample Type:	Standard
Concentration:	500. ng/mL
Calculated Conc:	494. ng/mL
Acq. Date:	1/4/2010
Acq. Time:	5:00:00 PM
Modified:	Yes
RT Window:	15.0 sec
Expected RT:	8.15 min
Use Relative RT:	No
Int. Type:	Manual
Retention Time:	8.18 min
Area:	4.63e+006 counts
Height:	1251356.618 cps
Start Time:	8.11 min
End Time:	8.28 min

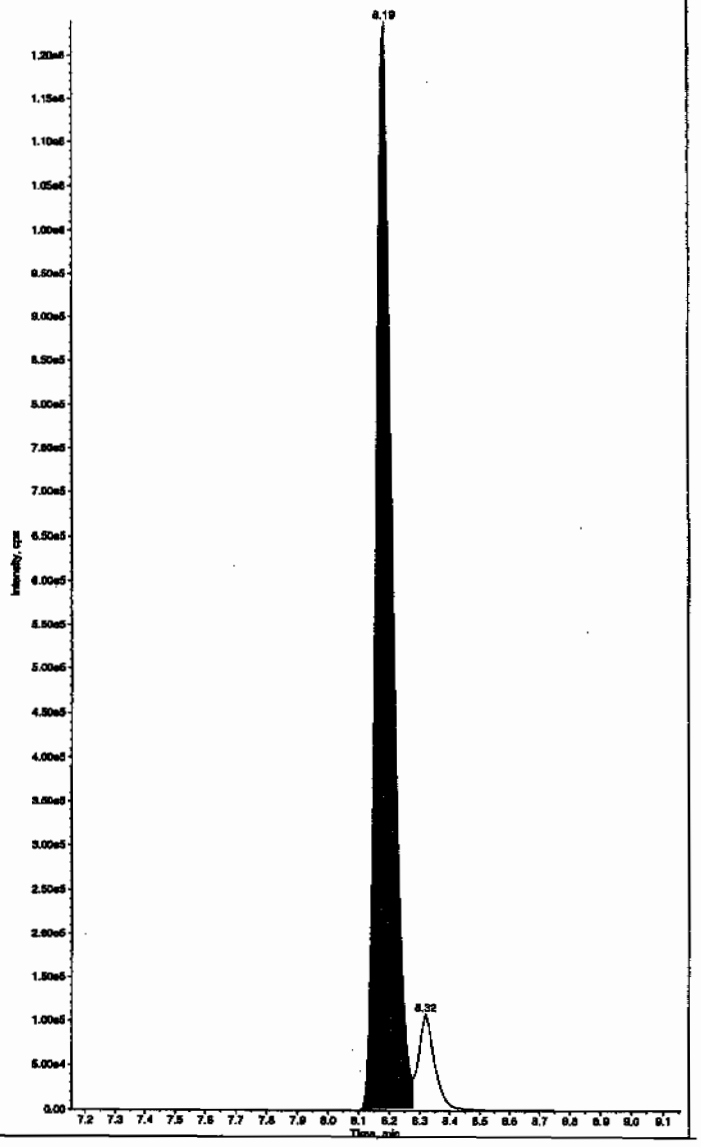

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100104-22" Sample ID: "[I]LER" File: "EXS01040006.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

ample Index:	1	
ample Type:	Standard	
oncentration:	250.	ng/mL
alculated Conc:	230.	ng/mL
cq. Date:	1/4/2010	
cq. Time:	5:00:00 PM	
odified:	No	
roc. Algorithm:	IntelliQuan - IQA	
in. Peak Height:	1460.00	cps
in. Peak Width:	0.00	sec
moothing Width:	3	points
T Window:	15.0	sec
xpected RT:	8.28	min
se Relative RT:	No	
nt. Type:	Valley	
etention Time:	8.31	min
rea:	2.96e+006	counts
eight:	815785.950	cps
tart Time:	8.25	min
nd Time:	8.65	min

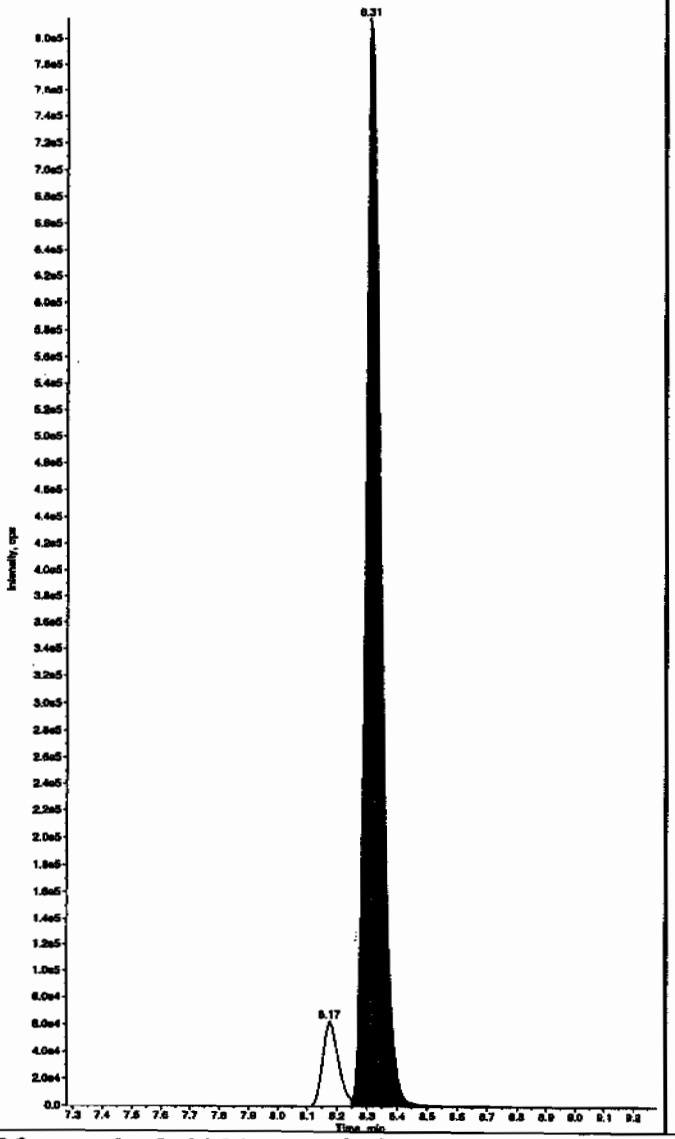

Sample Name: "WXX100104-22" Sample ID: "[I]LER" File: "EXS01040006.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	500.	ng/mL
Calculated Conc:	517.	ng/mL
Acq. Date:	1/4/2010	
Acq. Time:	5:00:00 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	5.02	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	5.04	min
Area:	1.62e+006	counts
Height:	408694.550	cps
Start Time:	4.94	min
End Time:	5.33	min

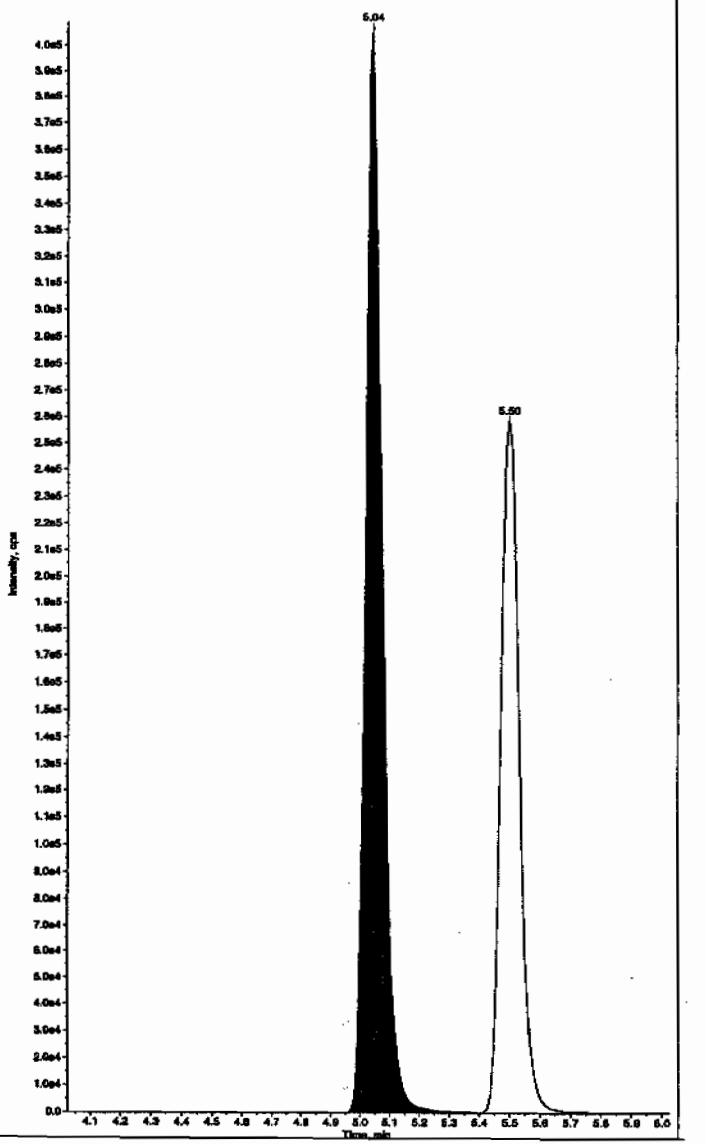

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100104-22" Sample ID: "[1]LER" File: "EXS01040006.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

ample Index: 1
mple Type: Standard
ncentration: 500. ng/mL
lculated Conc: 507. ng/mL
q. Date: 1/4/2010
q. Time: 5:00:00 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 350.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 5.48 min
e Relative RT: No

t. Type: Valley
tention Time: 5.50 min
ea: 1.10e+006 counts
ight: 260759.644 cps
art Time: 5.39 min
d Time: 5.95 min

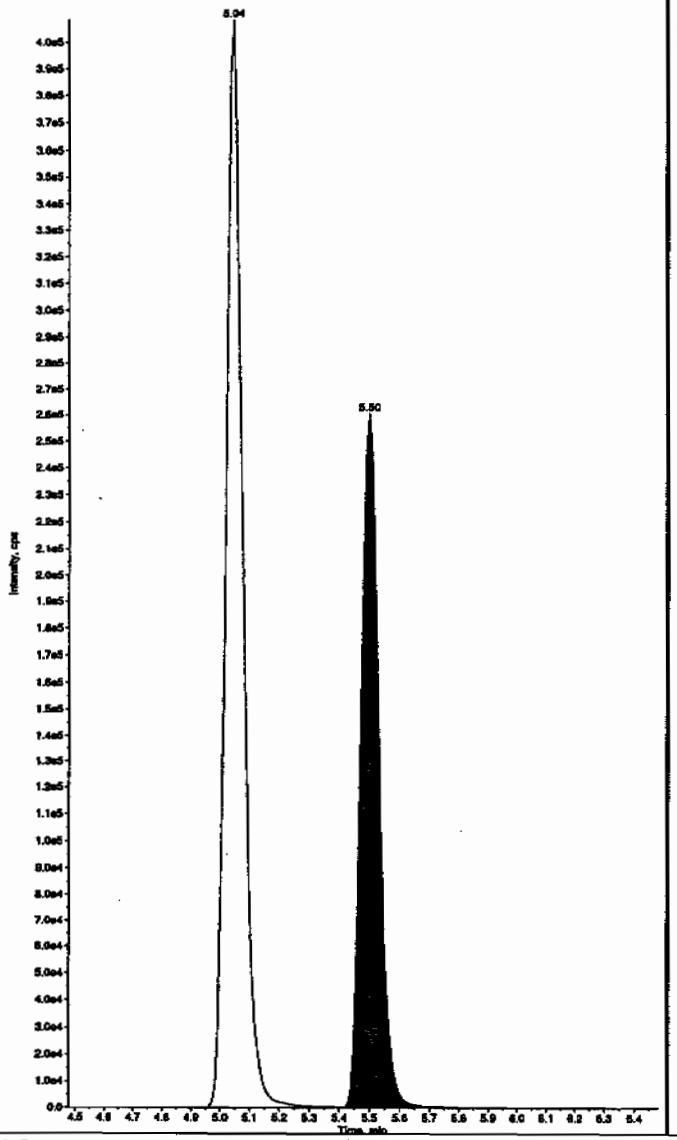

Sample Name: "WXX100104-22" Sample ID: "[1]LER" File: "EXS01040006.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 500. ng/mL
Calculated Conc: 495. ng/mL
Acq. Date: 1/4/2010
Acq. Time: 5:00:00 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.19e+007 counts
Height: 3038658.936 cps
Start Time: 10.7 min
End Time: 11.2 min

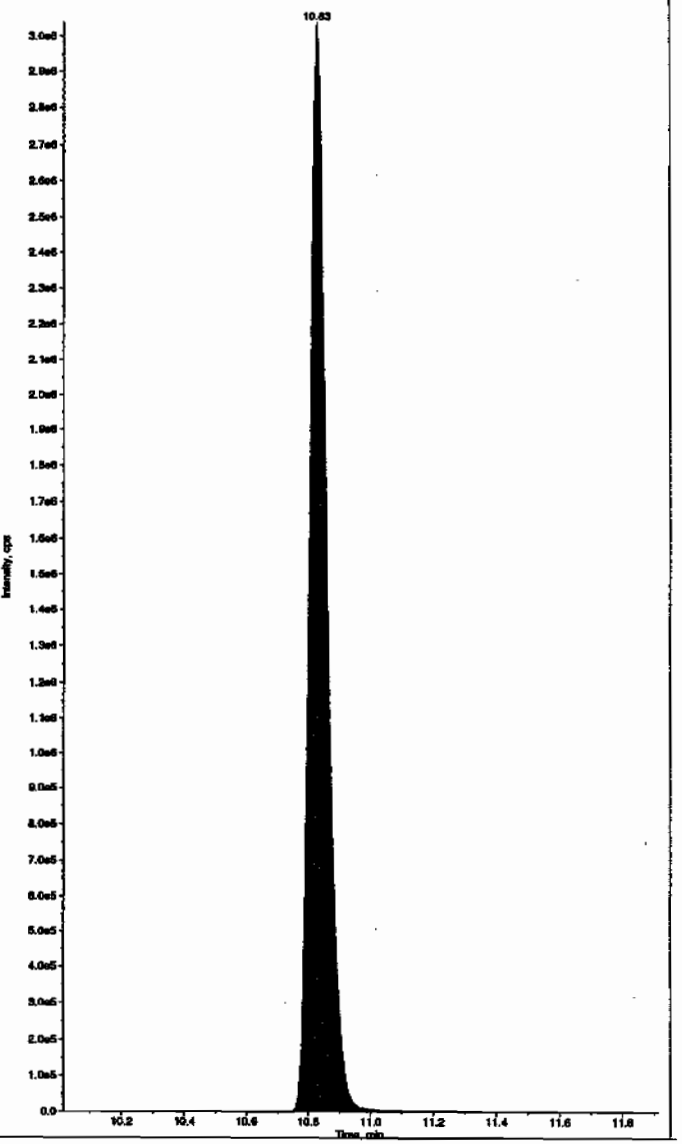

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION : No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100104-23" Sample ID: "[1]LER" File: "EXS01040007.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

ple Index:	1	
ple Type:	Standard	
ncentration:	750.	ng/mL
lculated Conc:	726.	ng/mL
q. Date:	1/4/2010	
q. Time:	5:15:40 PM	
dified:	No	
oc. Algorithm:	IntelliQuan - IQA	
n. Peak Height:	2500.00	cps
n. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
pected RT:	6.96	min
e Relative RT:	No	
t. Type:	Valley	
tention Time:	7.00	min
ea:	9.57e+005	counts
ight:	230486.984	cps
art Time:	6.85	min
d Time:	7.51	min

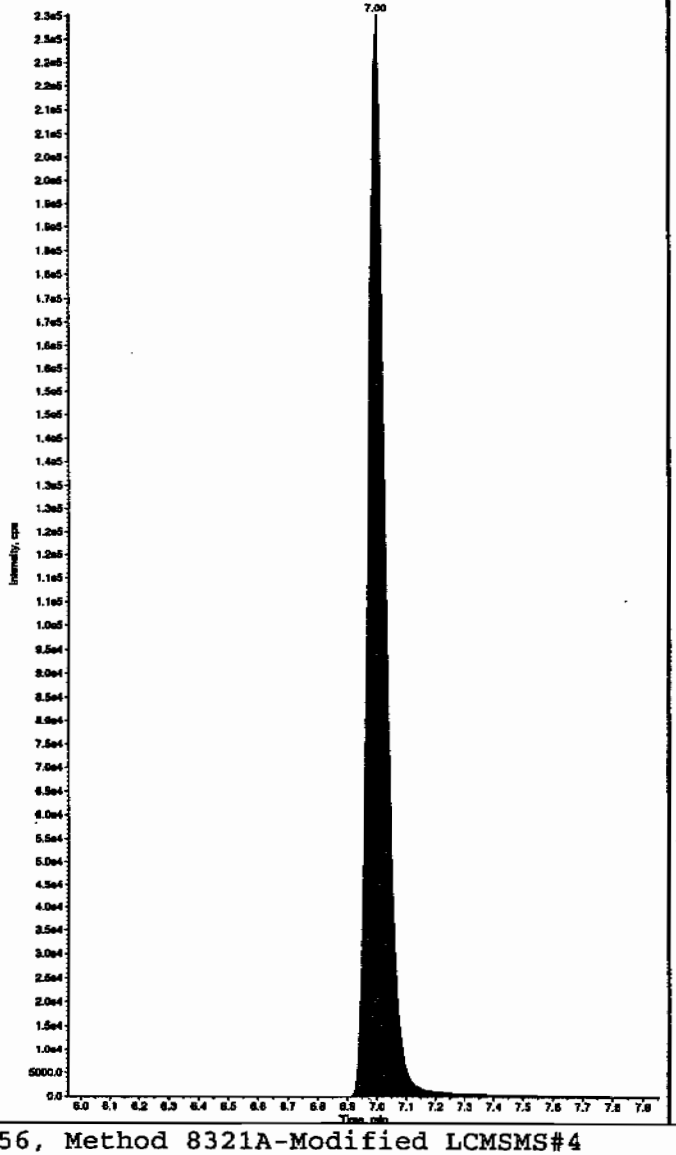

Sample Name: "WXX100104-23" Sample ID: "[1]LER" File: "EXS01040007.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	750.	ng/mL
Calculated Conc:	750.	ng/mL
Acq. Date:	1/4/2010	
Acq. Time:	5:15:40 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.14	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.19	min
Area:	6.69e+006	counts
Height:	1718668.335	cps
Start Time:	8.08	min
End Time:	8.28	min

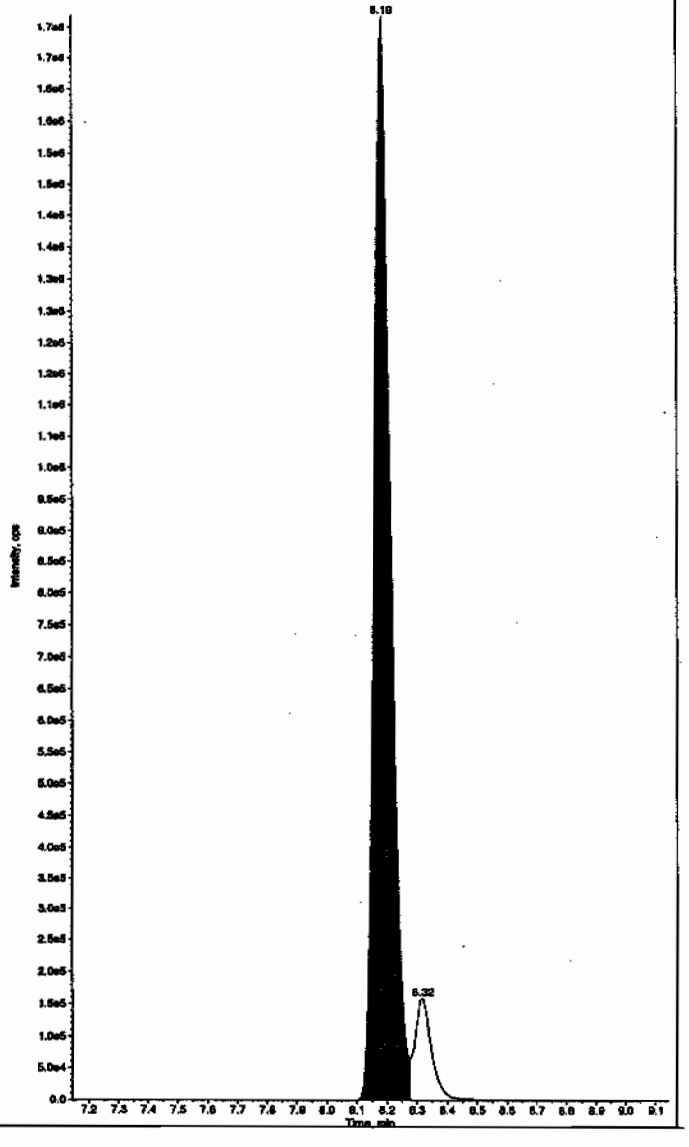

Hnm 01/05/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Ptm 1/5/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100104-23" Sample ID: "[1]LER" File: "EXS01040007.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

mple Index:	1
mple Type:	Standard
oncentration:	325. ng/mL
alculated Conc:	375. ng/mL
cq. Date:	1/4/2010
cq. Time:	5:15:40 PM
odified:	No
roc. Algorithm:	IntelliQuan - IQA
in. Peak Height:	1460.00 cps
in. Peak Width:	0.00 sec
oothing Width:	3 points
T Window:	15.0 sec
xpected RT:	8.28 min
se Relative RT:	No
nt. Type:	Valley
etention Time:	8.31 min
rea:	4.65e+006 counts
eight:	1281085.571 cps
tart Time:	8.25 min
nd Time:	8.63 min

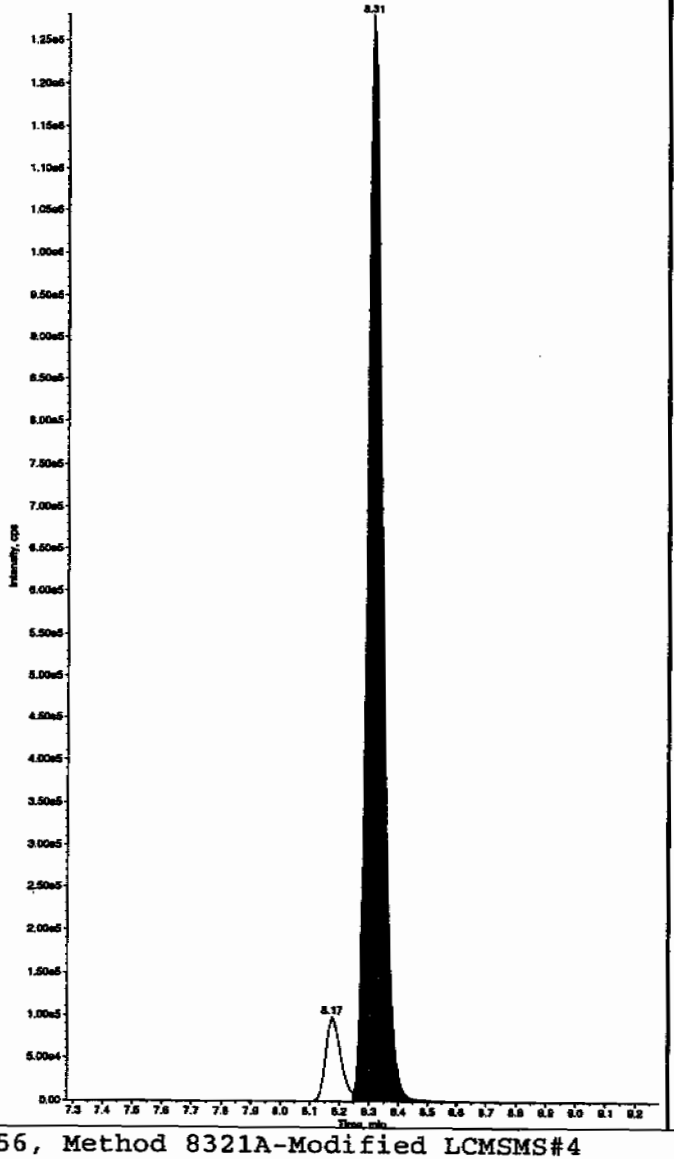

Sample Name: "WXX100104-23" Sample ID: "[1]LER" File: "EXS01040007.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1
Sample Type:	Standard
Concentration:	750. ng/mL
Calculated Conc:	709. ng/mL
Acq. Date:	1/4/2010
Acq. Time:	5:15:40 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	450.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	5.02 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	5.14 min
Area:	2.23e+006 counts
Height:	548326.477 cps
Start Time:	5.03 min
End Time:	5.39 min

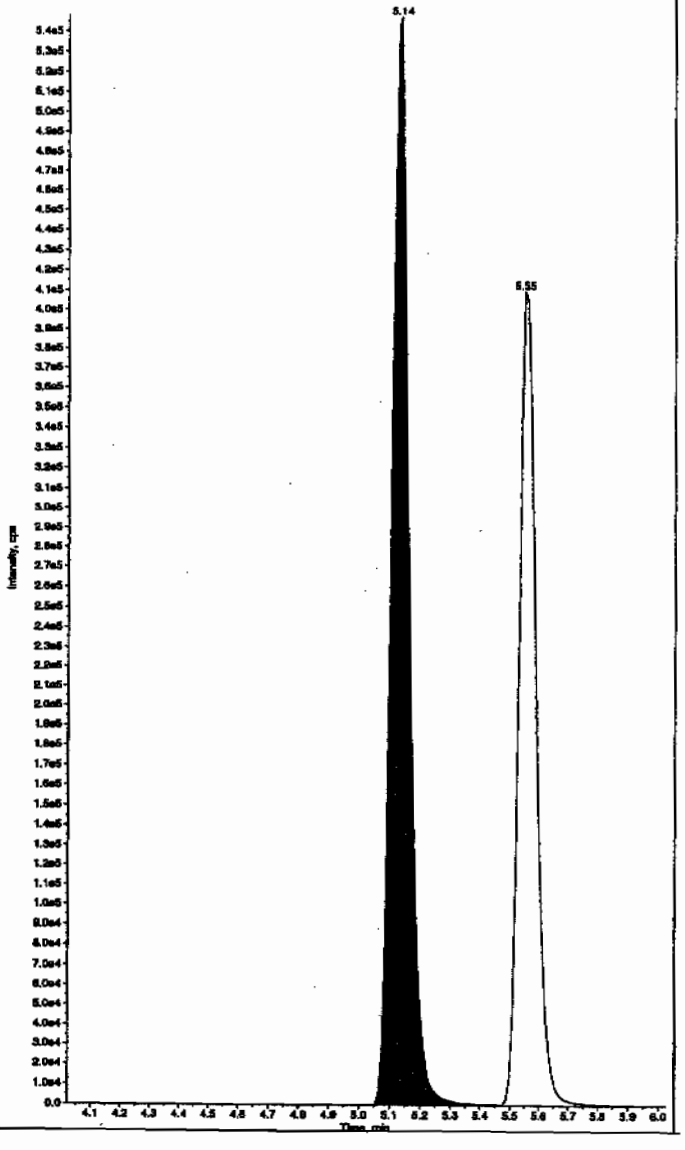

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100104-23" Sample ID: "[1]LER" File: "EXS01040007.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

ample Index: 1
ample Type: Standard
ncentration: 750. ng/mL
lculated Conc: 758. ng/mL
q. Date: 1/4/2010
q. Time: 5:15:40 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 350.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 5.48 min
e Relative RT: No

t. Type: Valley
tention Time: 5.55 min
ea: 1.67e+006 counts
ight: 410293.091 cps
art Time: 5.46 min
d Time: 5.97 min

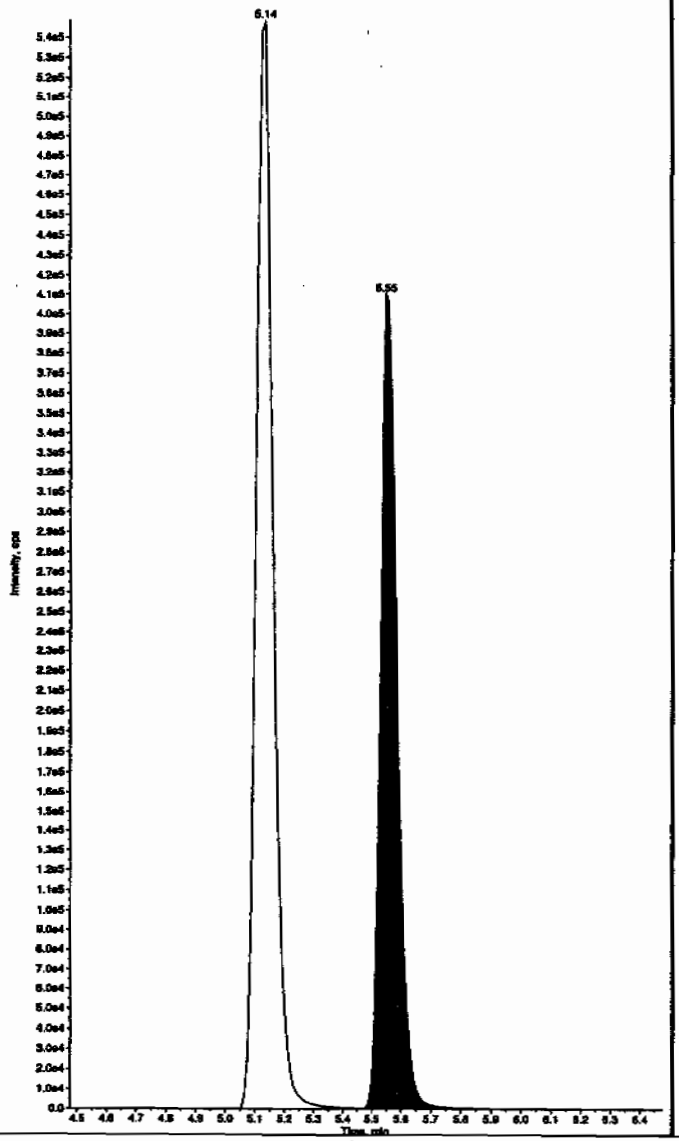

Sample Name: "WXX100104-23" Sample ID: "[1]LER" File: "EXS01040007.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 750. ng/mL
Calculated Conc: 743. ng/mL
Acq. Date: 1/4/2010
Acq. Time: 5:15:40 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.69e+007 counts
Height: 3922375.732 cps
Start Time: 10.7 min
End Time: 11.1 min

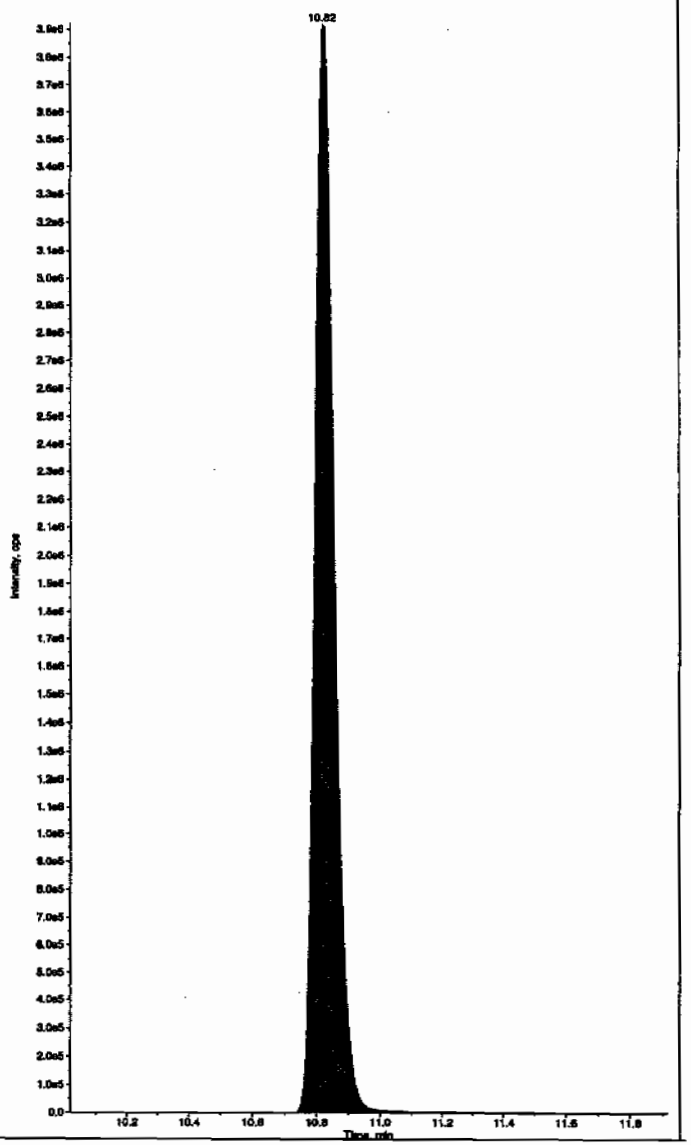

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Before Scan 1/5/10

Sample Name: "WXX100104-24" Sample ID: "[1]LER" File: "EXS01040008.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

ample Index:	1
ample Type:	Standard
ncentration:	1000. ng/mL
lculated Conc:	1020. ng/mL
q. Date:	1/4/2010
q. Time:	5:31:22 PM
odified:	No
roc. Algorithm:	IntelliQuan - IQA
n. Peak Height:	2500.00 cps
n. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	30.0 sec
pected RT:	6.96 min
e Relative RT:	No
t. Type:	Valley
tention Time:	7.02 min
ea:	1.32e+006 counts
ight:	311938.538 cps
art Time:	6.85 min
d Time:	7.50 min

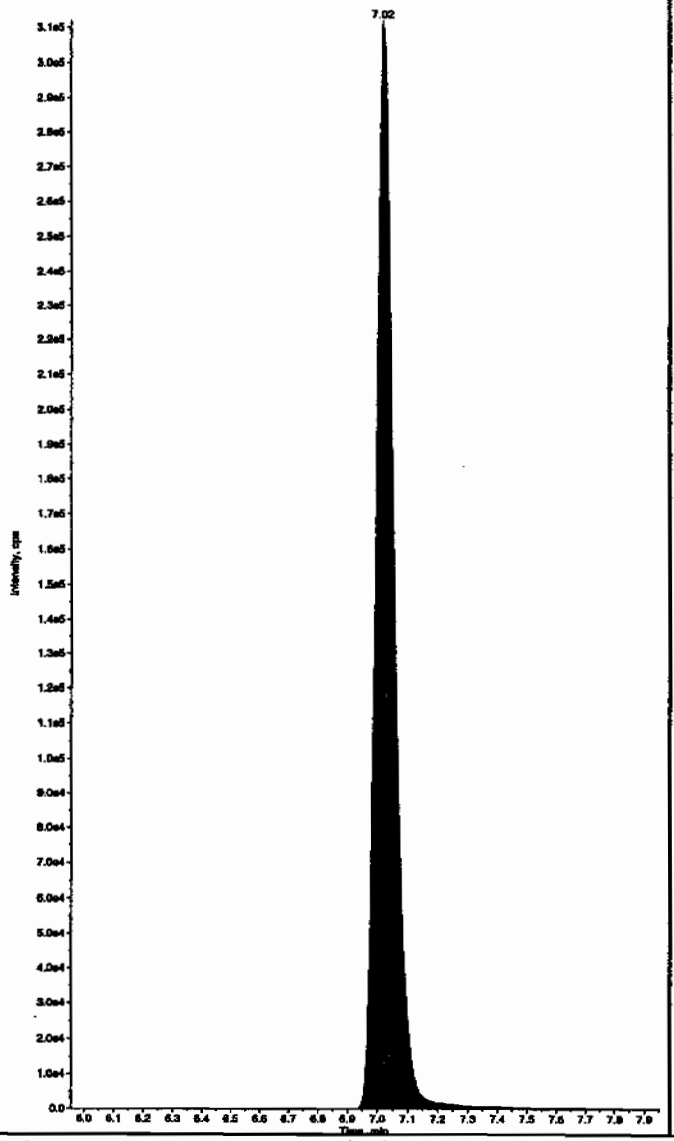

Sample Name: "WXX100104-24" Sample ID: "[1]LER" File: "EXS01040008.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1
Sample Type:	Standard
Concentration:	1000. ng/mL
Calculated Conc:	1050. ng/mL
Acq. Date:	1/4/2010
Acq. Time:	5:31:22 PM
Modified:	Yes
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	2000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	15.0 sec
Expected RT:	8.16 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	8.19 min
Area:	9.37e+006 counts
Height:	2149478.760 cps
Start Time:	8.09 min
End Time:	8.64 min

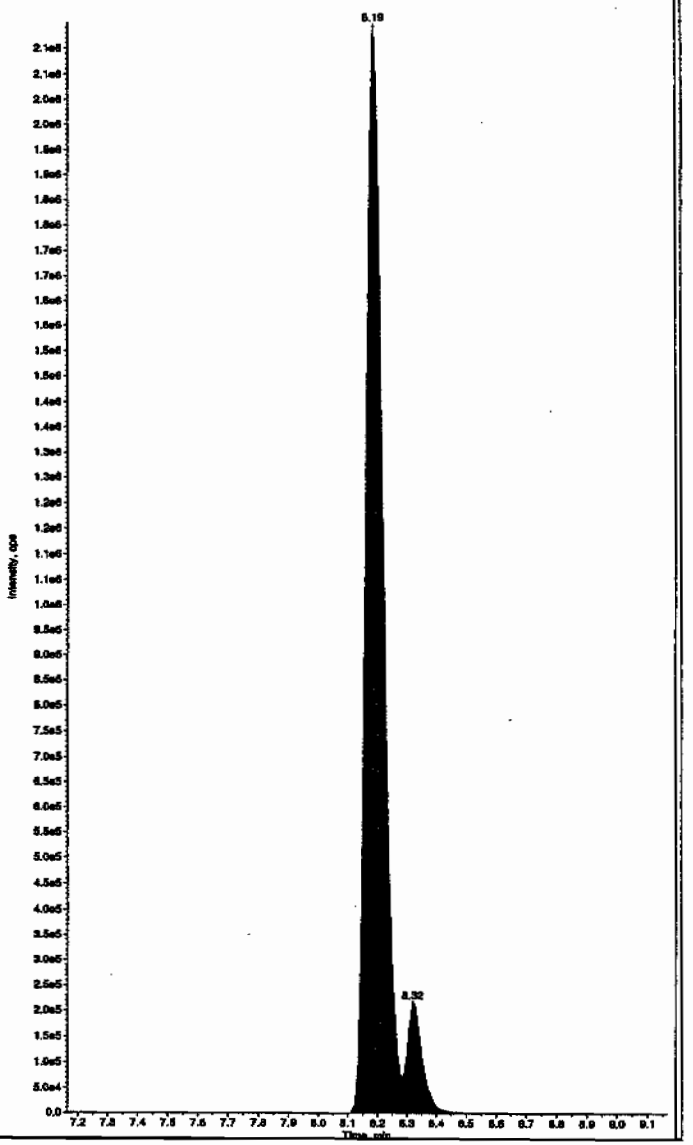

HMK 01/05/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

after Jan 1/5/10

Sample Name: "WXX100104-24" Sample ID: "[1]LEFT" File: "EXS01040006.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

mple Index: 1
mple Type: Standard
ncentration: 1000. ng/mL
lculated Conc: 1020. ng/mL
q. Date: 1/4/2010
q. Time: 5:31:22 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 2500.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 6.96 min
e Relative RT: No

t. Type: Valley
tention Time: 7.02 min
ea: 1.32e+006 counts
ight: 311938.538 cps
art Time: 6.85 min
d Time: 7.60 min

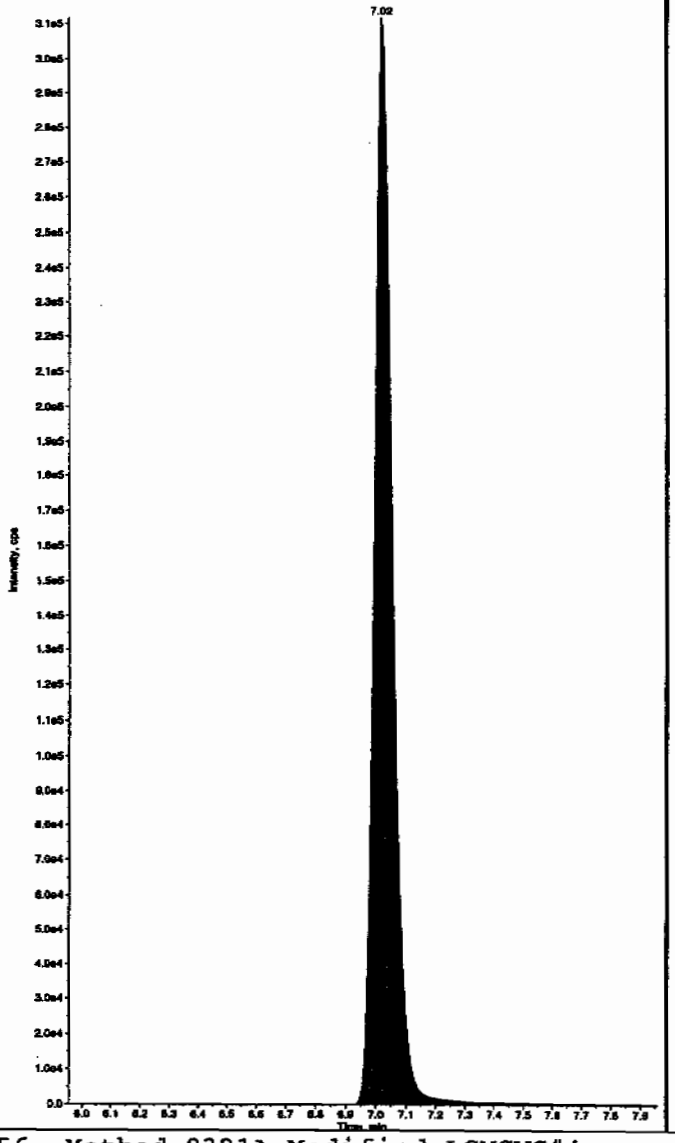

Sample Name: "WXX100104-24" Sample ID: "[1]LEFT" File: "EXS01040006.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 1000. ng/mL
Calculated Conc: 998. ng/mL
Acq. Date: 1/4/2010
Acq. Time: 5:31:22 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.16 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.19 min
Area: 8.47e+006 counts
Height: 2148879.007 cps
Start Time: 8.11 min
End Time: 8.28 min

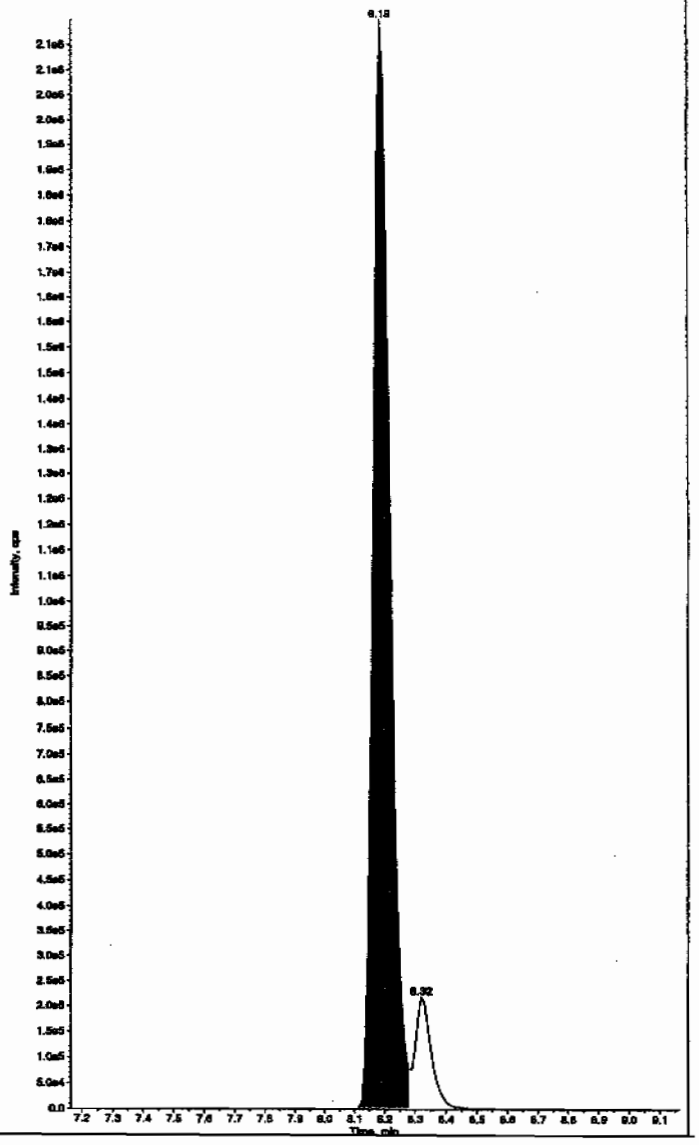

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100104-24" Sample ID: "[1]LER" File: "EXS01040006.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

ample Index: 1
ample Type: Standard
ncentration: 500. ng/mL
lculated Conc: 471. ng/mL
q. Date: 1/4/2010
q. Time: 5:31:22 PM

odified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.28 min
e Relative RT: No

t. Type: Valley
tention Time: 8.32 min
ea: 5.67e+006 counts
ight: 1513694.336 cps
art Time: 8.26 min
d Time: 8.65 min

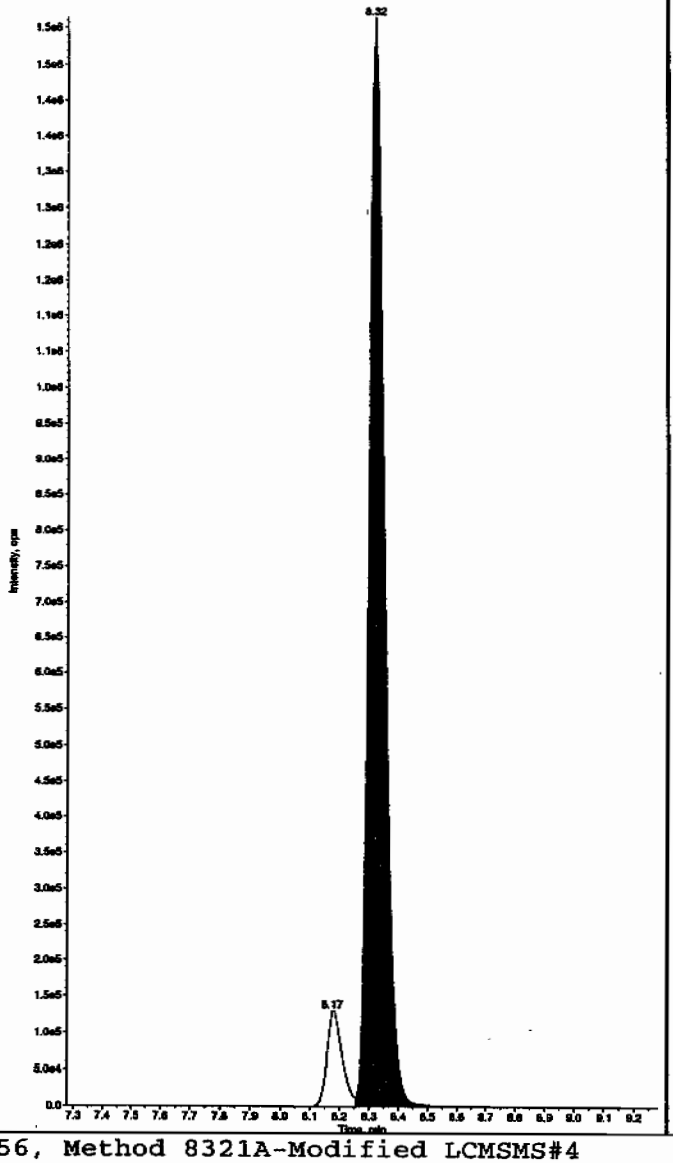

Sample Name: "WXX100104-24" Sample ID: "[1]LER" File: "EXS01040008.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 1000. ng/mL
Calculated Conc: 1010. ng/mL
Acq. Date: 1/4/2010
Acq. Time: 5:31:22 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.11 min
Area: 3.23e+006 counts
Height: 794258.301 cps
Start Time: 4.99 min
End Time: 5.39 min

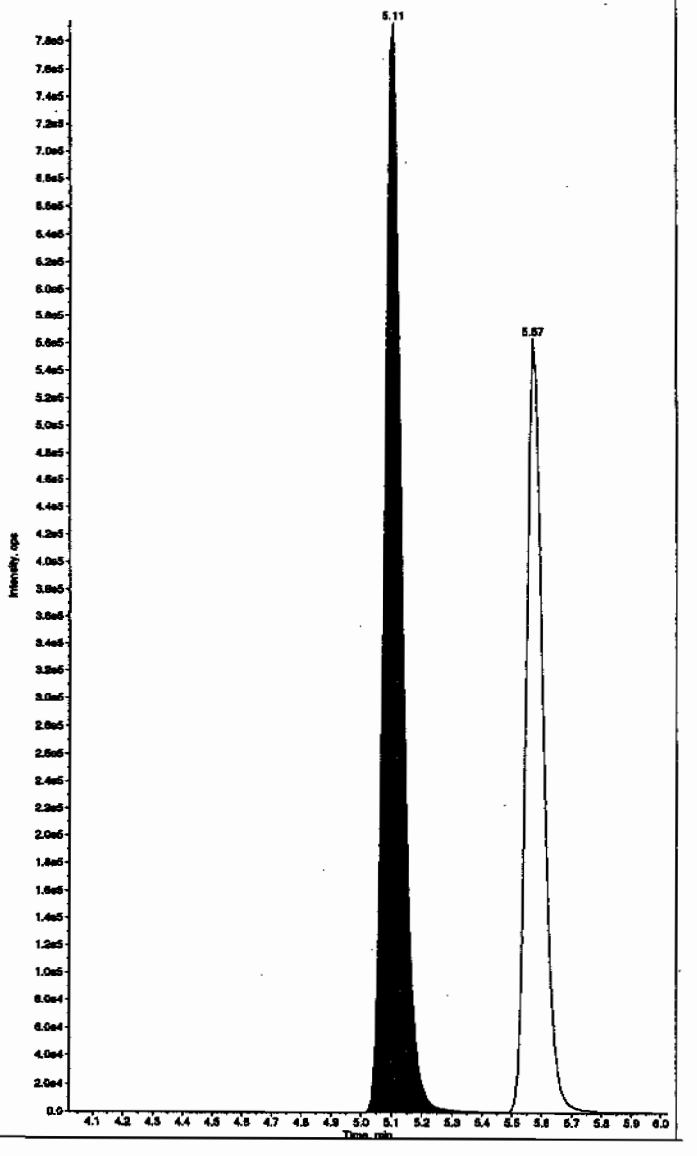

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100104-24" Sample ID: "[1]LER" File: "EXS01040008.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_j" Annotation: ""
ple Index: 1
ple Type: Standard
icentration: 1000. ng/mL
culated Conc: 986. ng/mL
. Date: 1/4/2010
. Time: 5:31:22 PM

lified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
ected RT: 5.48 min
Relative RT: No

. Type: Valley
ention Time: 5.57 min
a: 2.22e+006 counts
ght: 564584.534 cps
rt Time: 5.47 min
Time: 6.01 min

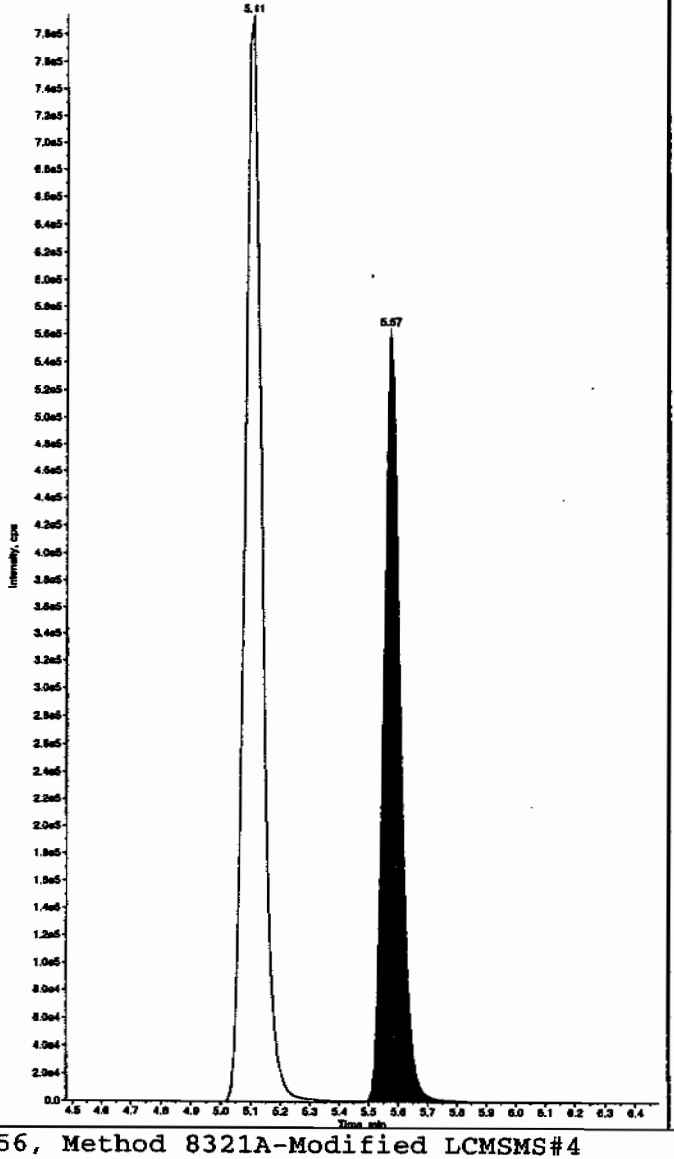

Sample Name: "WXX100104-24" Sample ID: "[1]LER" File: "EXS01040008.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "368.1/91.0 amu"
Comment: "LCMSEXP_j" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 1000. ng/mL
Calculated Conc: 1010. ng/mL
Acq. Date: 1/4/2010
Acq. Time: 5:31:22 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 2.17e+007 counts
Height: 5112966.309 cps
Start Time: 10.7 min
End Time: 11.1 min

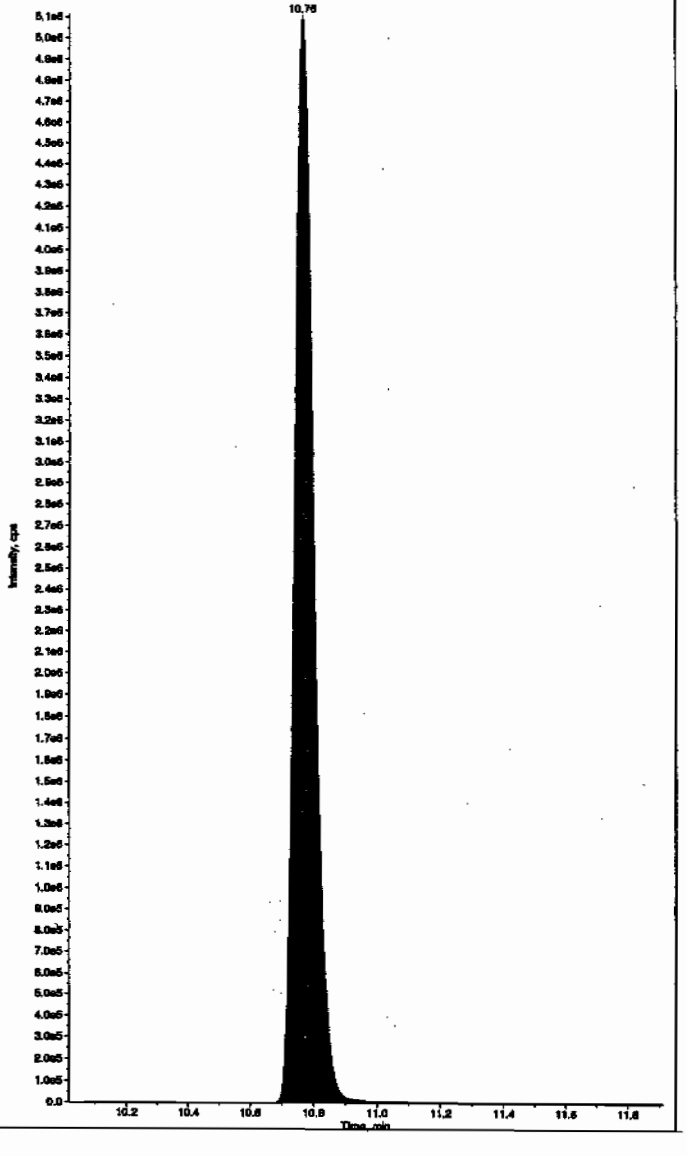

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Before Lan 1/5/10

Sample Name: "WXX100104-25" Sample ID: "[1]LER" File: "EXS01040009.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

mple Index:	1	
mple Type:	Standard	
ncentration:	2000.	ng/mL
lculated Conc:	2000.	ng/mL
q. Date:	1/4/2010	
q. Time:	5:47:04 PM	
dified:	No	
oc. Algorithm:	IntelliQuan - IQA	
n. Peak Height:	2500.00	cps
n. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
pected RT:	6.96	min
e Relative RT:	No	
t. Type:	Valley	
tention Time:	6.97	min
ea:	2.45e+006	counts
ight:	594591.248	cps
art Time:	6.84	min
d Time:	7.51	min

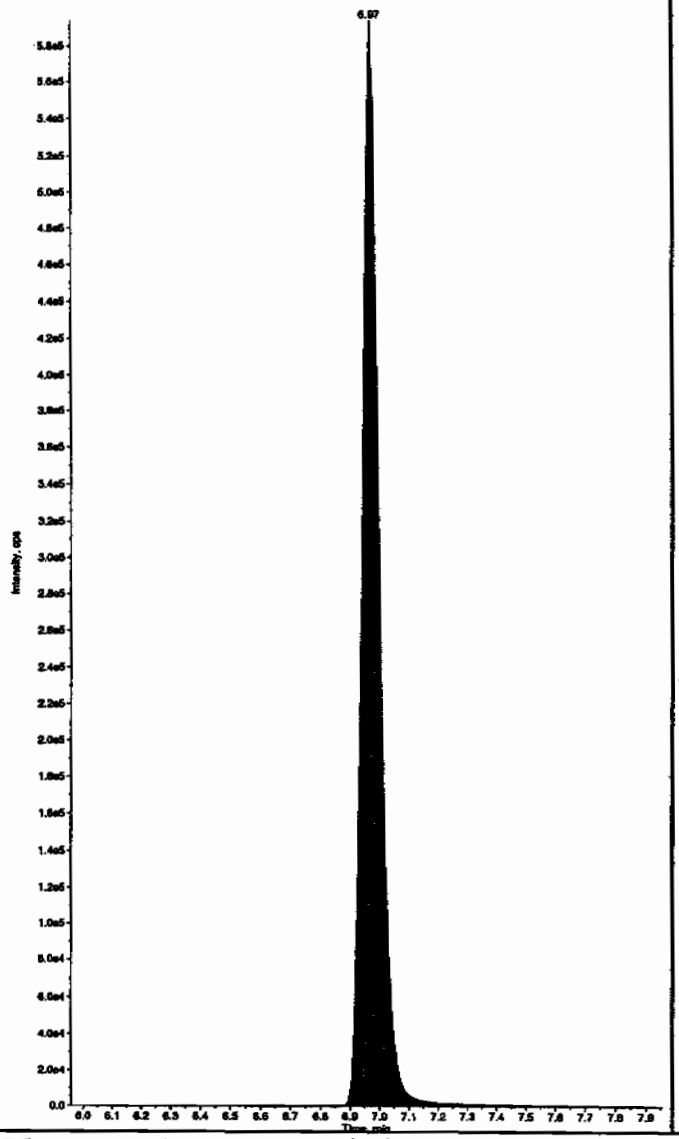

Sample Name: "WXX100104-25" Sample ID: "[1]LER" File: "EXS01040009.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	2000.	ng/mL
Calculated Conc:	2000.	ng/mL
Acq. Date:	1/4/2010	
Acq. Time:	5:47:04 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.14	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.14	min
Area:	1.51e+007	counts
Height:	3225066.162	cps
Start Time:	8.04	min
End Time:	8.65	min

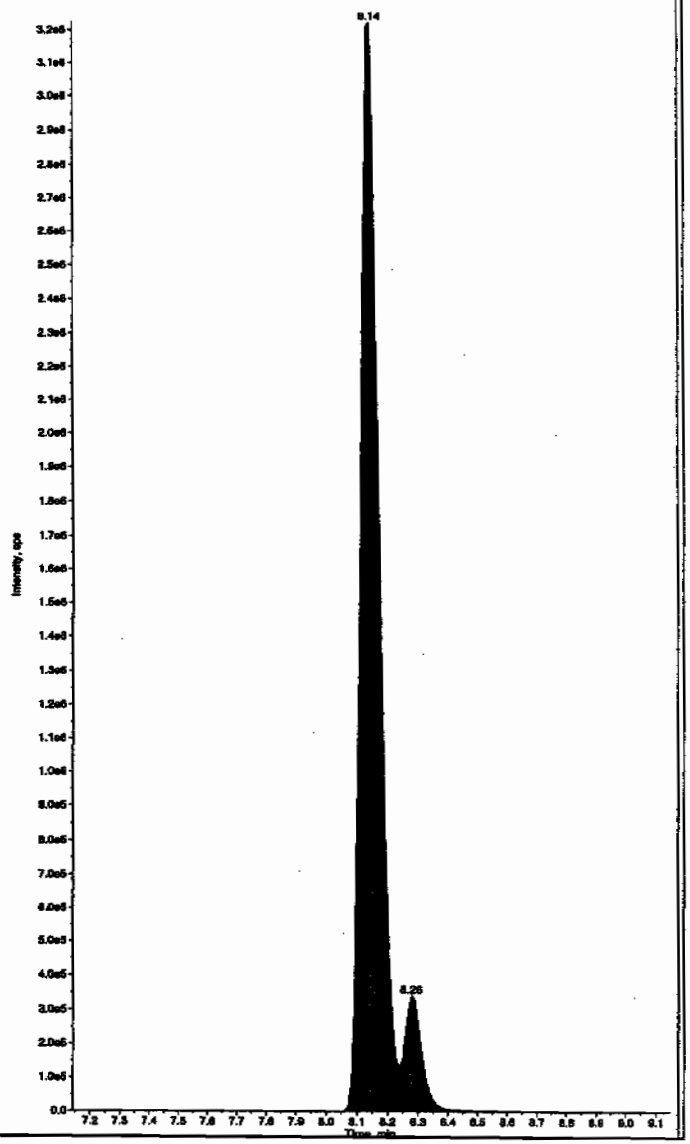

Hnm 01/05/10

-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Ben 1/5/10

Sample Name: "WXX100104-25" Sample ID: "[1]LER" File: "EXS01040009.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

mple Index:	1
mple Type:	Standard
ncentration:	2000. ng/mL
lculated Conc:	2000. ng/mL
q. Date:	1/4/2010
q. Time:	5:47:04 PM
ified:	No
ec. Algorithm:	IntelliQuan - IQA
n. Peak Height:	2500.00 cps
n. Peak Width:	0.00 sec
oothing Width:	3 points
Window:	30.0 sec
pected RT:	6.96 min
Relative RT:	No
t. Type:	Valley
tention Time:	6.97 min
ea:	2.45e+006 counts
ight:	594591.248 cps
art Time:	6.84 min
d Time:	7.51 min

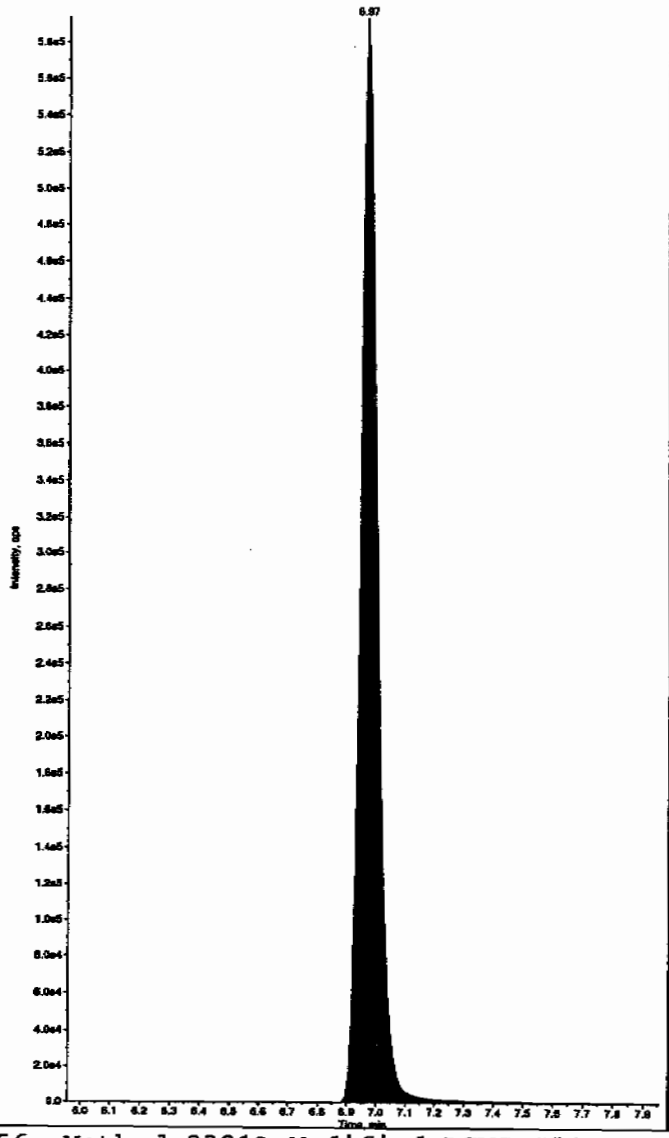

Sample Name: "WXX100104-25" Sample ID: "[1]LER" File: "EXS01040009.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1
Sample Type:	Standard
Concentration:	2000. ng/mL
Calculated Conc:	2000. ng/mL
Acq. Date:	1/4/2010
Acq. Time:	5:47:04 PM
Modified:	Yes
RT Window:	15.0 sec
Expected RT:	8.14 min
Use Relative RT:	No
Int. Type:	Manual
Retention Time:	8.14 min
Area:	1.36e+007 counts
Height:	3263155.746 cps
Start Time:	8.06 min
End Time:	8.24 min

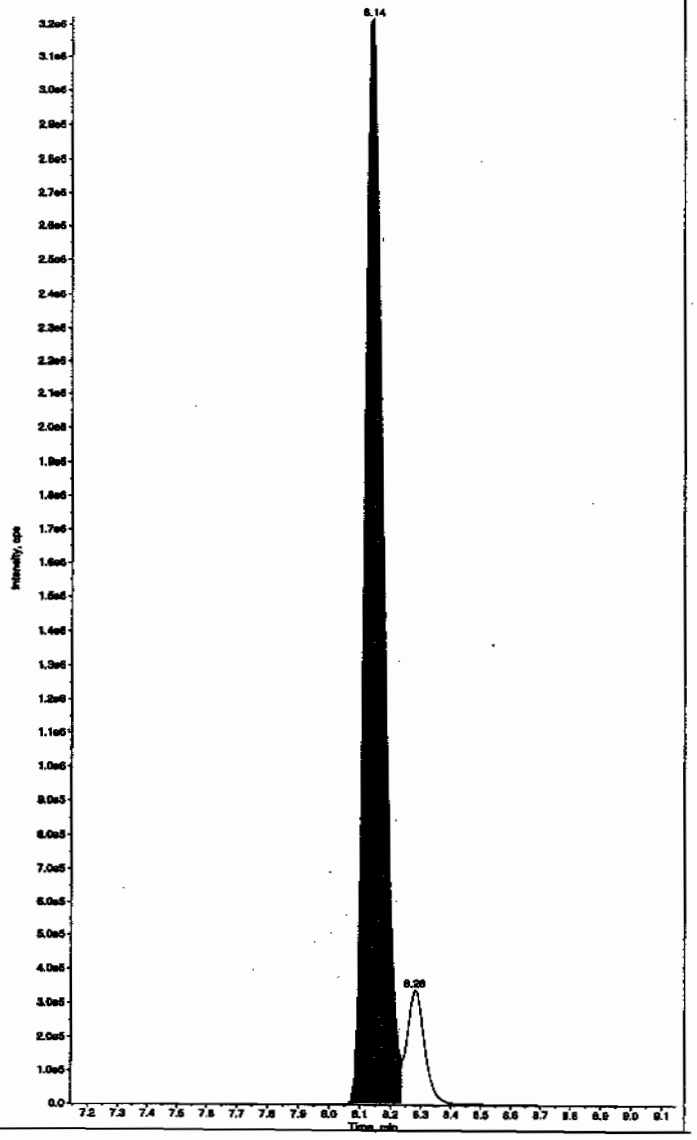

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100104-25" Sample ID: "[1]LER" File: "EXS01040009.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

mple Index: 1
mple Type: Standard
ncentration: 1000. ng/mL
lculated Conc: 1010. ng/mL
q. Date: 1/4/2010
q. Time: 5:47:04 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.28 min
e Relative RT: No

t. Type: Valley
tention Time: 8.28 min
ea: 9.95e+006 counts
ight: 2585541.260 cps
art Time: 8.21 min
d Time: 8.61 min

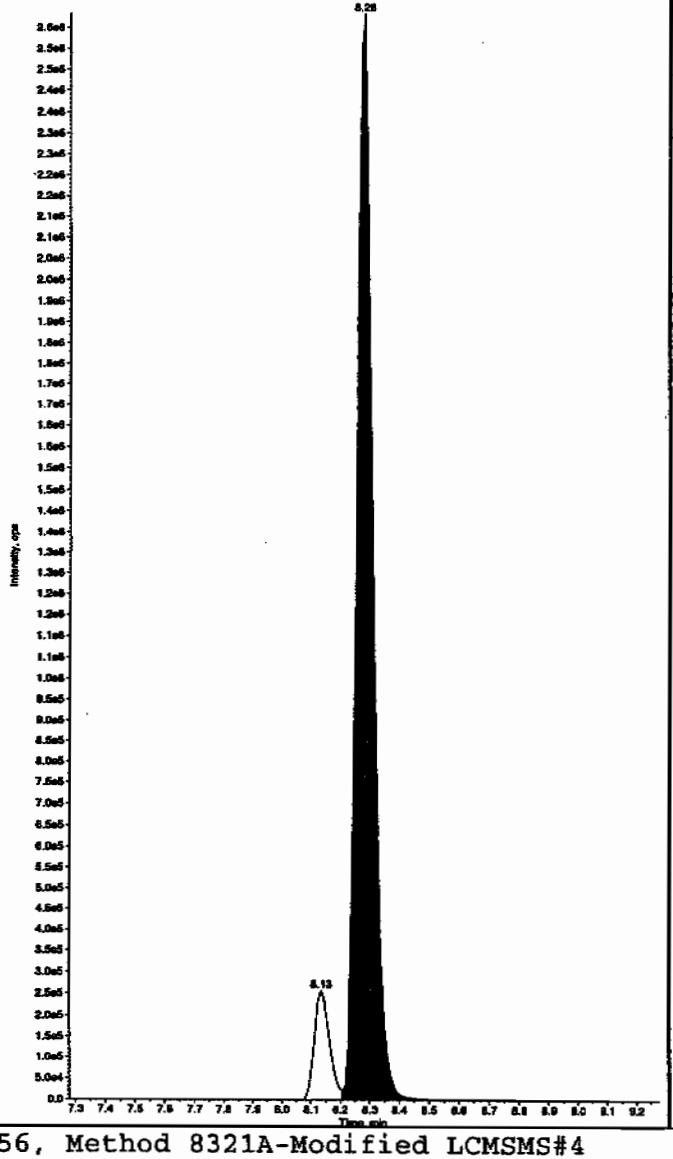

Sample Name: "WXX100104-25" Sample ID: "[1]LER" File: "EXS01040009.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 2000. ng/mL
Calculated Conc: 2000. ng/mL
Acq. Date: 1/4/2010
Acq. Time: 5:47:04 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.01 min
Area: 6.84e+006 counts
Height: 1588077.637 cps
Start Time: 4.91 min
End Time: 5.31 min

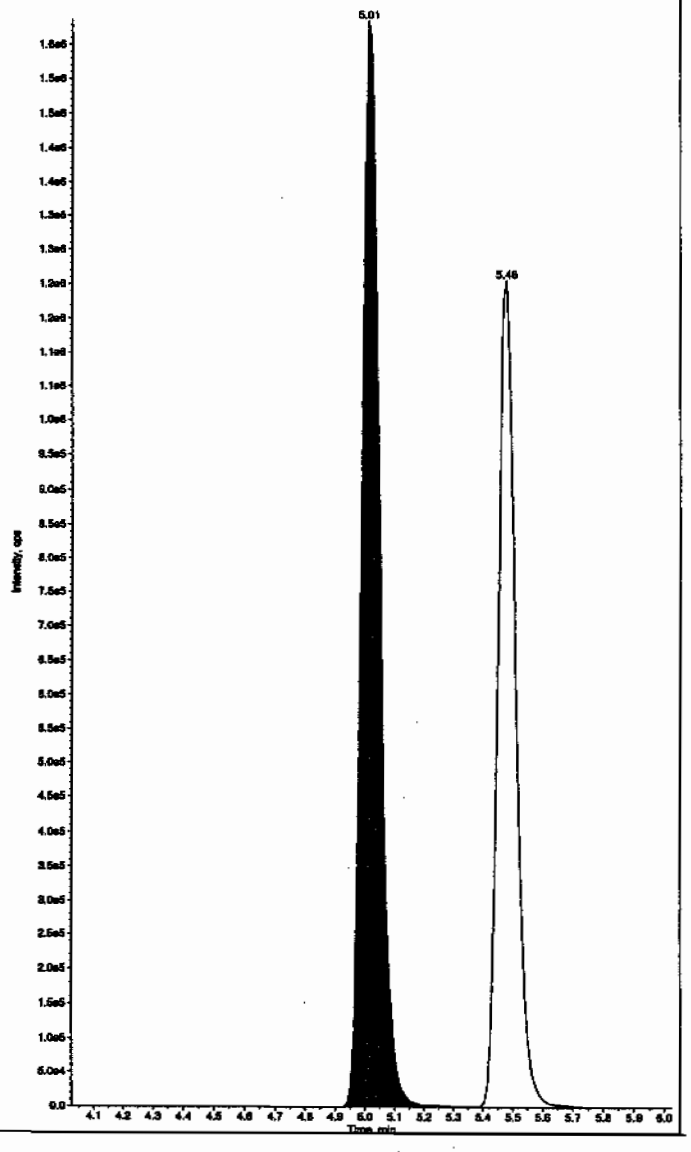

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100104-25" Sample ID: "[1]LER" File: "EXS01040009.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_F" Annotation: ""

ample Index: 1
ample Type: Standard
ncentration: 2000. ng/mL
lculated Conc: 2000. ng/mL
q. Date: 1/4/2010
q. Time: 5:47:04 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 350.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
' Window: 30.0 sec
pected RT: 5.48 min
e Relative RT: No

t. Type: Valley
tention Time: 5.48 min
ea: 4.97e+006 counts
ight: 1206569.702 cps
art Time: 5.37 min
d Time: 5.95 min

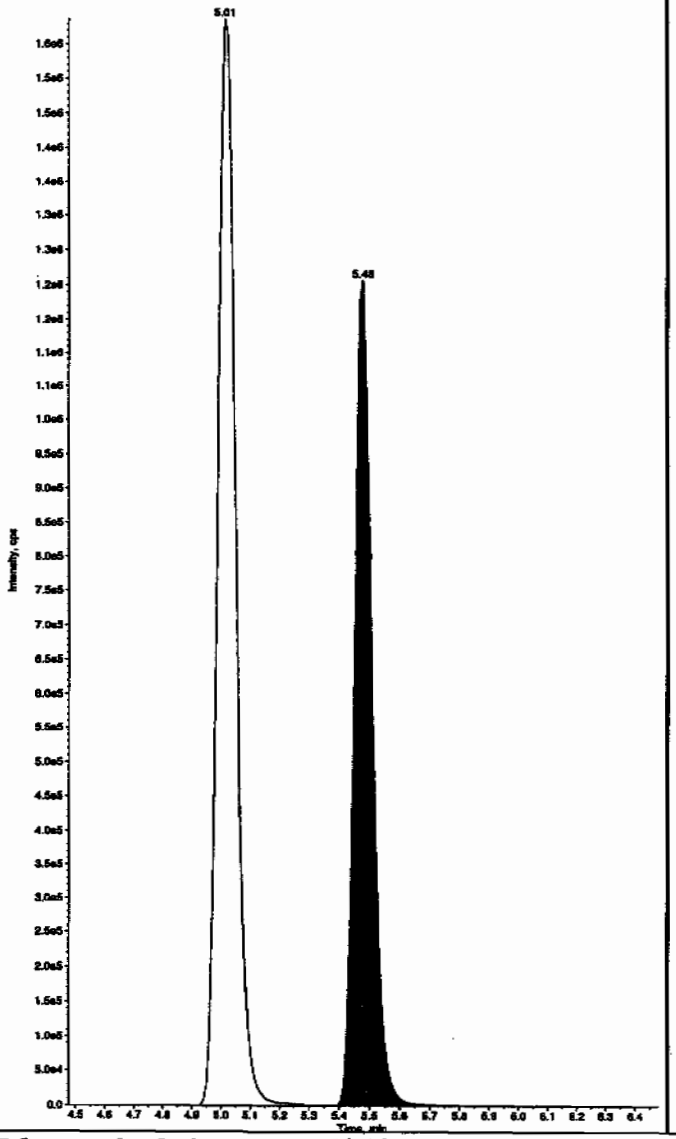

Sample Name: "WXX100104-25" Sample ID: "[1]LER" File: "EXS01040009.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/81.0 amu"
Comment: "LCMSEXP_F" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 2000. ng/mL
Calculated Conc: 2000. ng/mL
Acq. Date: 1/4/2010
Acq. Time: 5:47:04 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 3.30e+007 counts
Height: 5927125.000 cps
Start Time: 10.7 min
End Time: 11.1 min

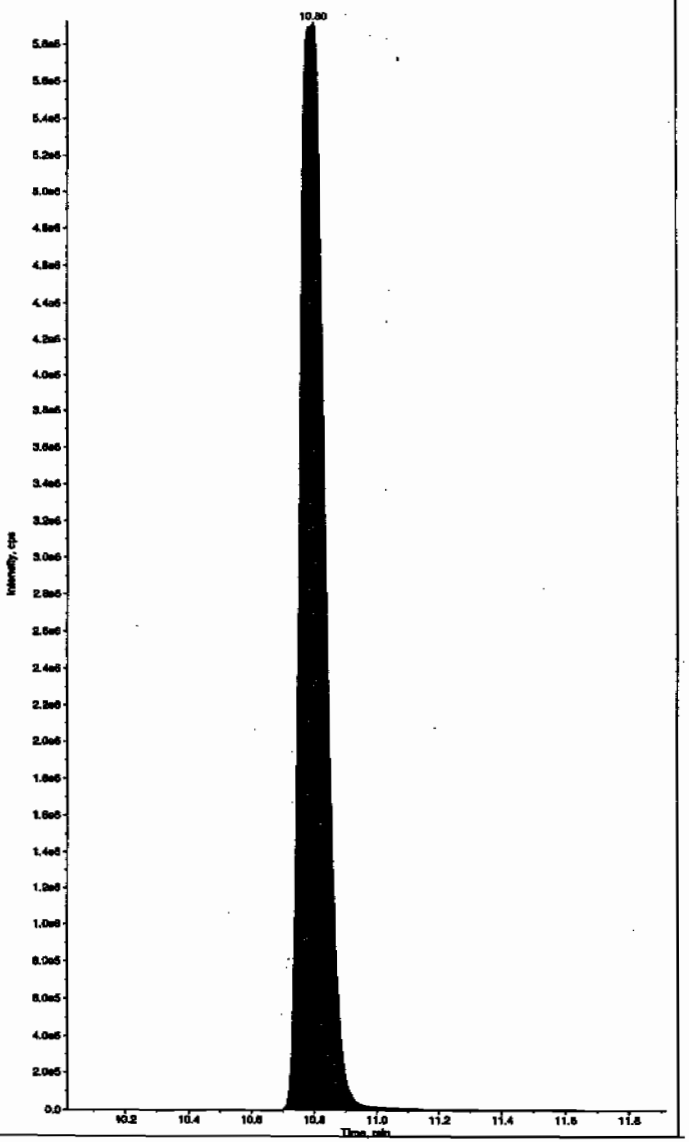

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-994

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS01040011.wiff

Analysis Date: 04-JAN-10 18:18

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	546	109	
2,6-Diamino-4-nitrotoluene	500	540	108	
3,4-Dinitrotoluene	250	232	93	
3,5-Dinitroaniline	500	479	96	
TATB	500	493	99	
tris(o-cresyl) phosphate	500	483	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Lcer 1/5/10

Sample Name: "WXX100104-26ICV" Sample ID: "[1]LER" File: "EXS01040011.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index: 1
mple Type: QC
ncentration: 500. ng/mL
lculated Conc: 493. ng/mL
q. Date: 1/4/2010
q. Time: 6:18:29 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 2500.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 6.96 min
e Relative RT: No

t. Type: Valley
tention Time: 6.96 min
ea: 6.58e+005 counts
ight: 153958.832 cps
art Time: 6.84 min
d Time: 7.55 min

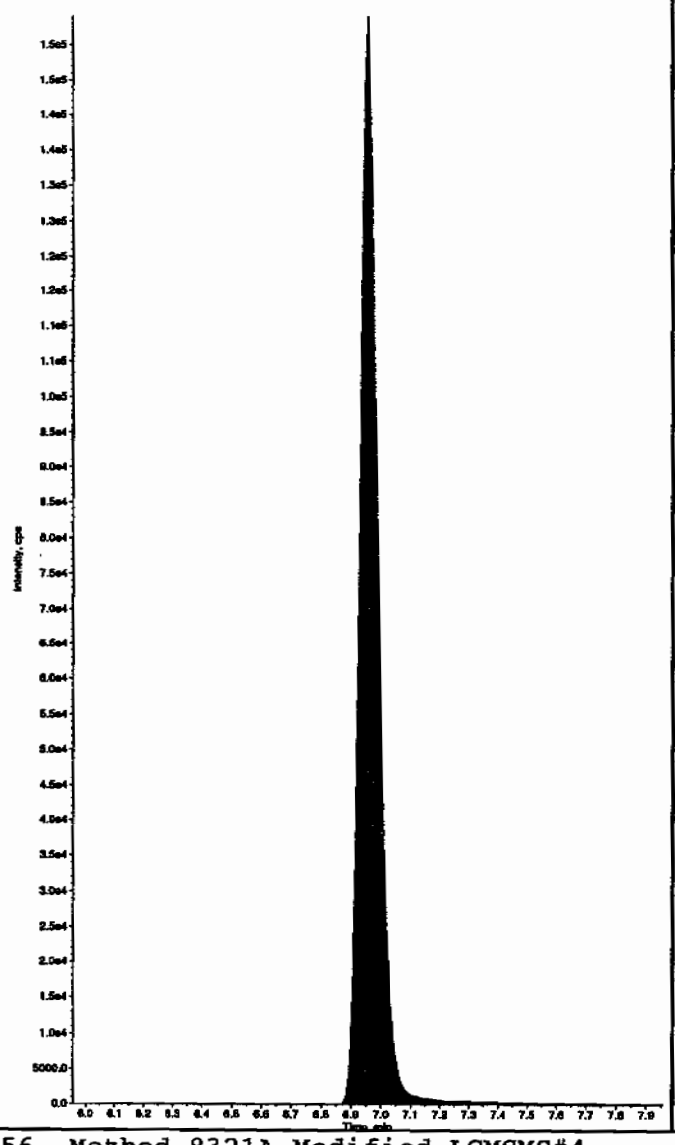

Sample Name: "WXX100104-26ICV" Sample ID: "[1]LER" File: "EXS01040011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 532. ng/mL
Acq. Date: 1/4/2010
Acq. Time: 6:18:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.14 min
Area: 4.96e+006 counts
Height: 1205584.839 cps
Start Time: 8.04 min
End Time: 8.63 min

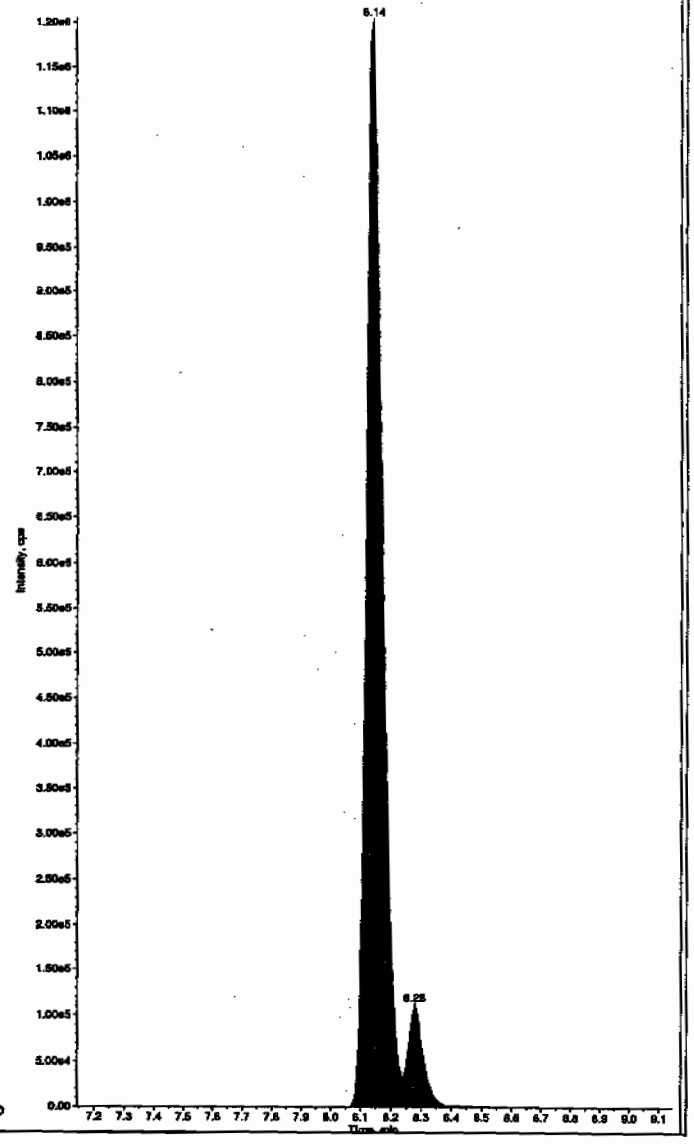

Hnm 01/05/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

after Run 115/10

Sample Name: "WXX100104-26ICV" Sample ID: "[1]LEF" File: "EXS01040011.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	493. ng/mL
Acq. Date:	1/4/2010
Acq. Time:	6:18:29 PM
Modified:	No
Int. Algorithm:	IntelliQuan - IQA
Int. Peak Height:	2500.00 cps
Int. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	6.96 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	6.96 min
Area:	6.58e+005 counts
Height:	153958.832 cps
Start Time:	6.84 min
End Time:	7.55 min

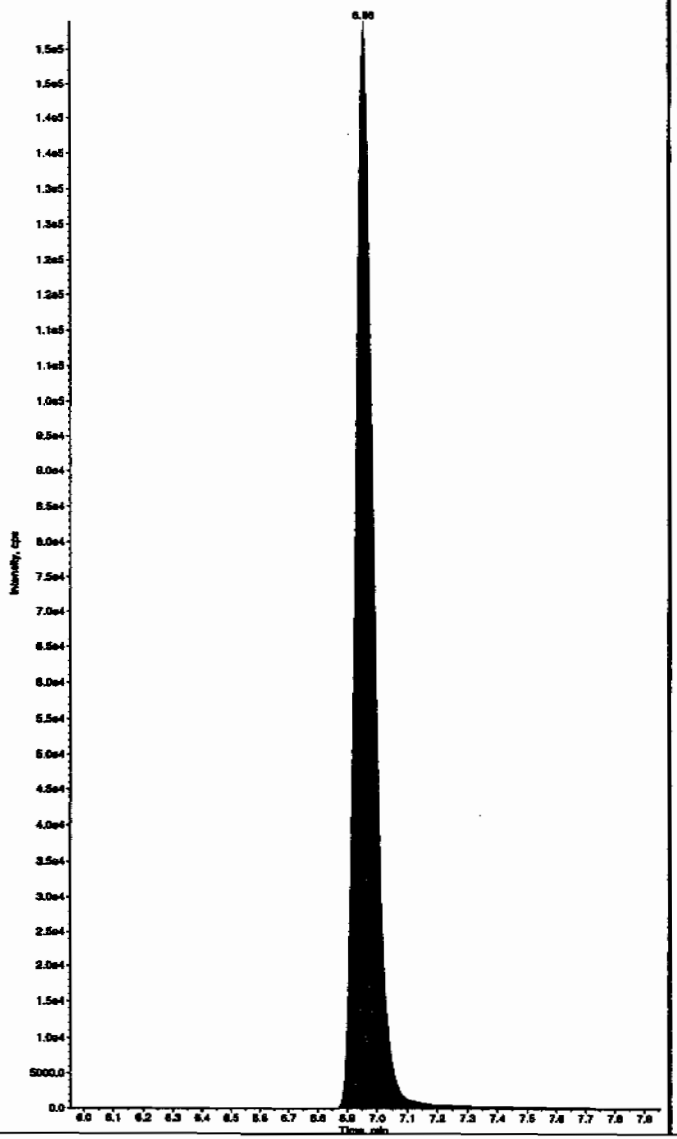

Sample Name: "WXX100104-26ICV" Sample ID: "[1]LEF" File: "EXS01040011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	479. ng/mL
Acq. Date:	1/4/2010
Acq. Time:	6:18:29 PM
Modified:	Yes
RT Window:	15.0 sec
Expected RT:	8.14 min
Use Relative RT:	No
Int. Type:	Manual
Retention Time:	8.14 min
Area:	4.51e+006 counts
Height:	1215775.799 cps
Start Time:	8.07 min
End Time:	8.24 min

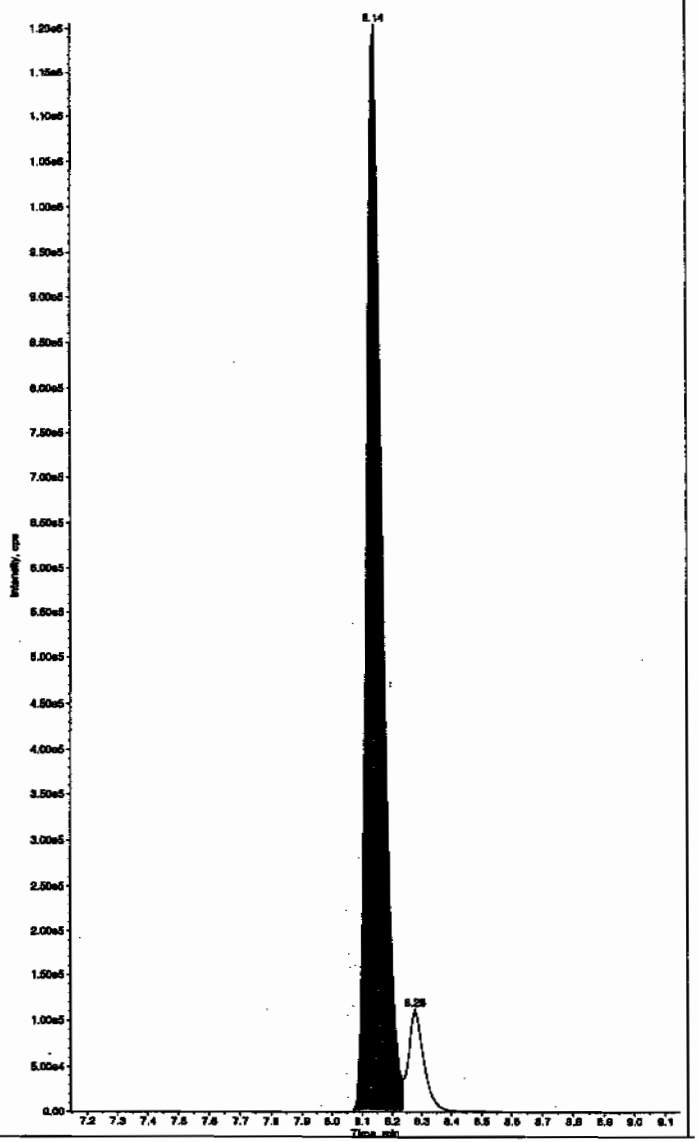

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100104-26ICV" Sample ID: "[1]LER" File: "EXS01040011.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index: 1
mple Type: QC
ncentration: 250. ng/mL
lculated Conc: 232. ng/mL
q. Date: 1/4/2010
q. Time: 6:18:29 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.28 min
e Relative RT: No

t. Type: Valley
tention Time: 8.28 min
ea: 2.99e+006 counts
ight: 844927.917 cps
art Time: 8.21 min
d Time: 8.55 min

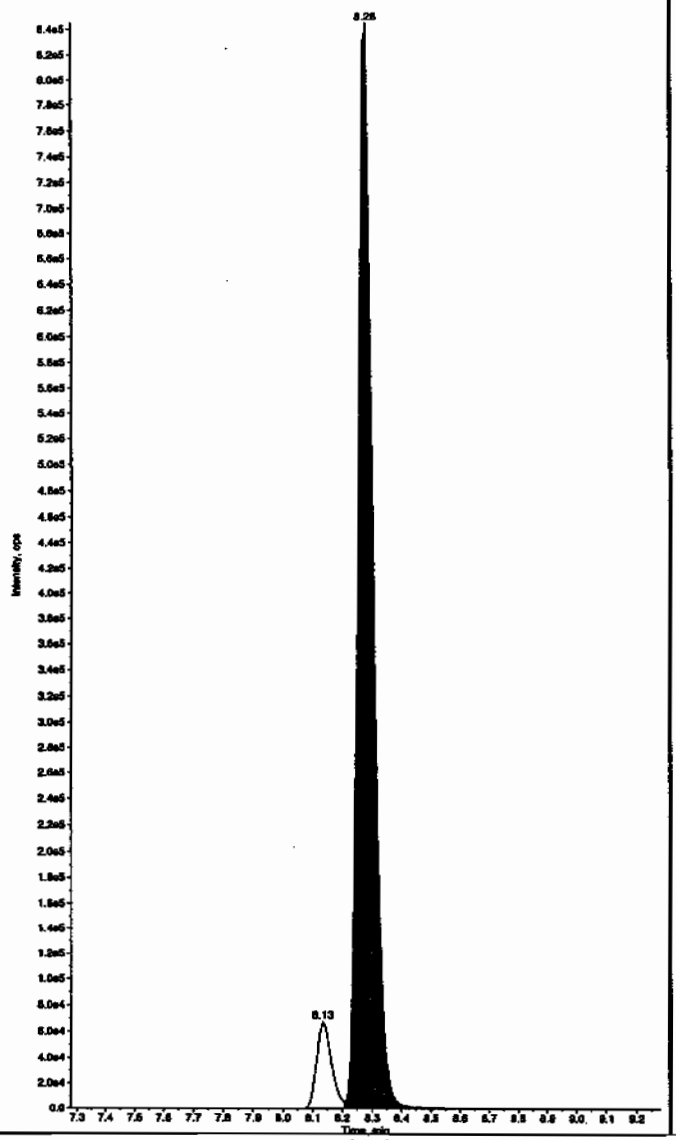

Sample Name: "WXX100104-26ICV" Sample ID: "[1]LER" File: "EXS01040011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 540. ng/mL
Acq. Date: 1/4/2010
Acq. Time: 6:18:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 1.69e+006 counts
Height: 416363.953 cps
Start Time: 4.91 min
End Time: 5.30 min

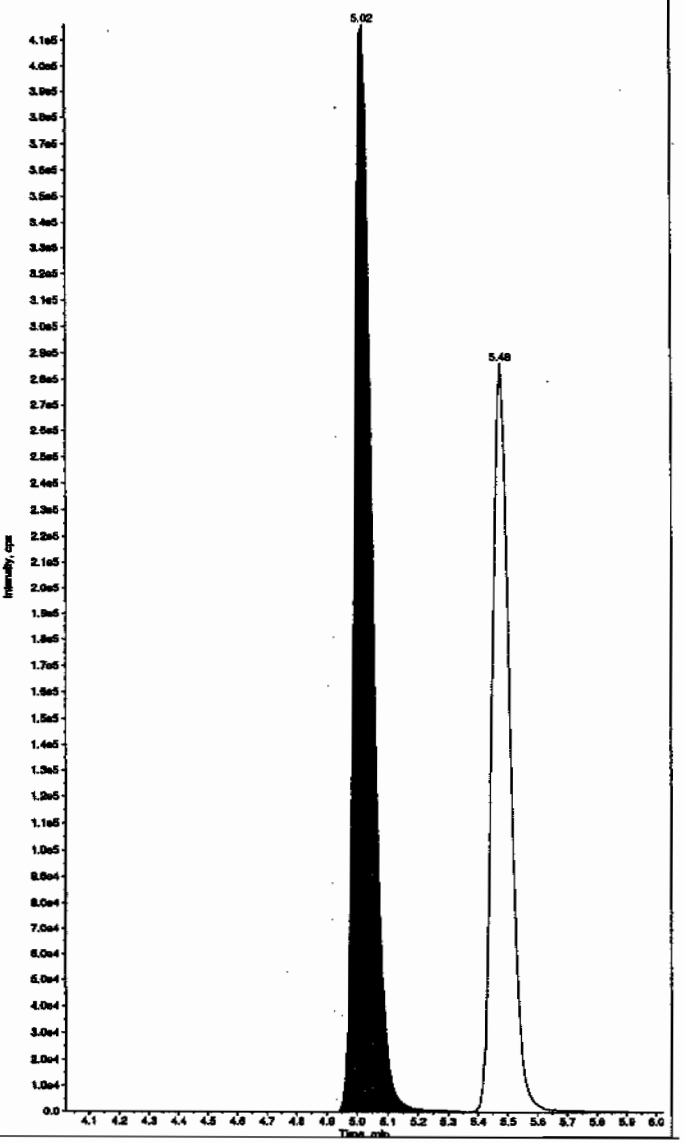

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100104-26ICV" Sample ID: "[1]LER" File: "EXS01040011.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index: 1
ample Type: QC
oncentration: 500. ng/mL
alculated Conc: 546. ng/mL
cq. Date: 1/4/2010
cq. Time: 6:18:29 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 350.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 30.0 sec
xpected RT: 5.48 min
se Relative RT: No

nt. Type: Valley
etention Time: 5.48 min
rea: 1.18e+006 counts
eight: 286483.337 cps
tart Time: 5.36 min
nd Time: 5.95 min

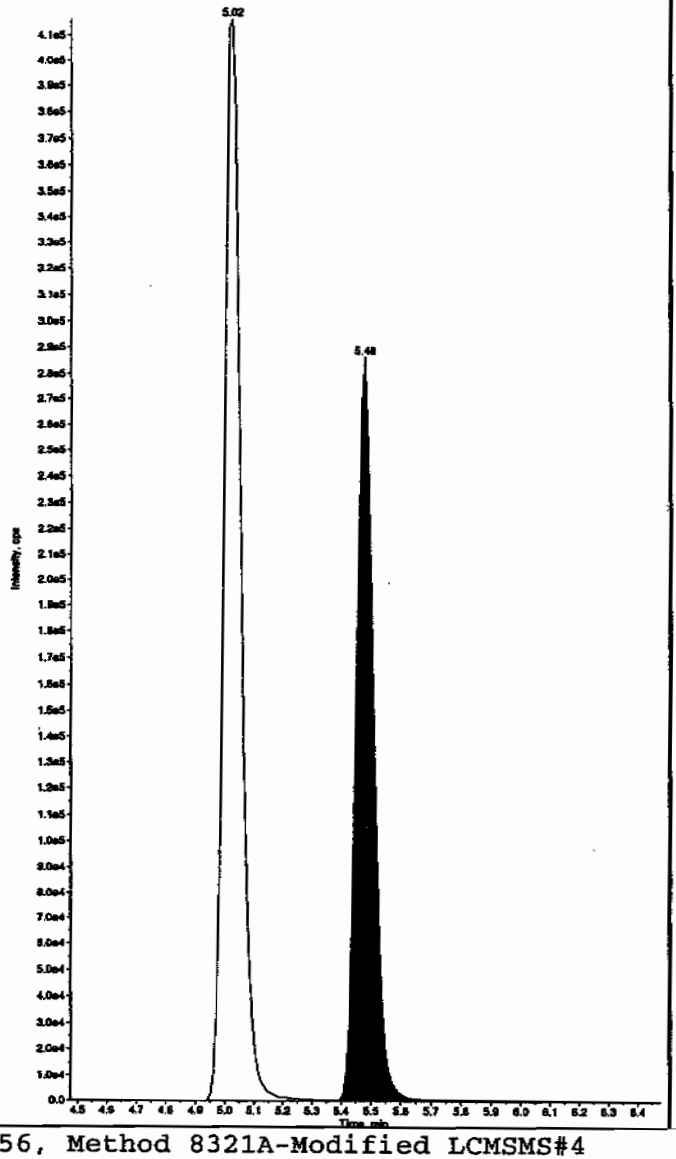

Sample Name: "WXX100104-26ICV" Sample ID: "[1]LER" File: "EXS01040011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "368.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 483. ng/mL
Acq. Date: 1/4/2010
Acq. Time: 6:18:29 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.16e+007 counts
Height: 2893281.738 cps
Start Time: 10.6 min
End Time: 11.2 min

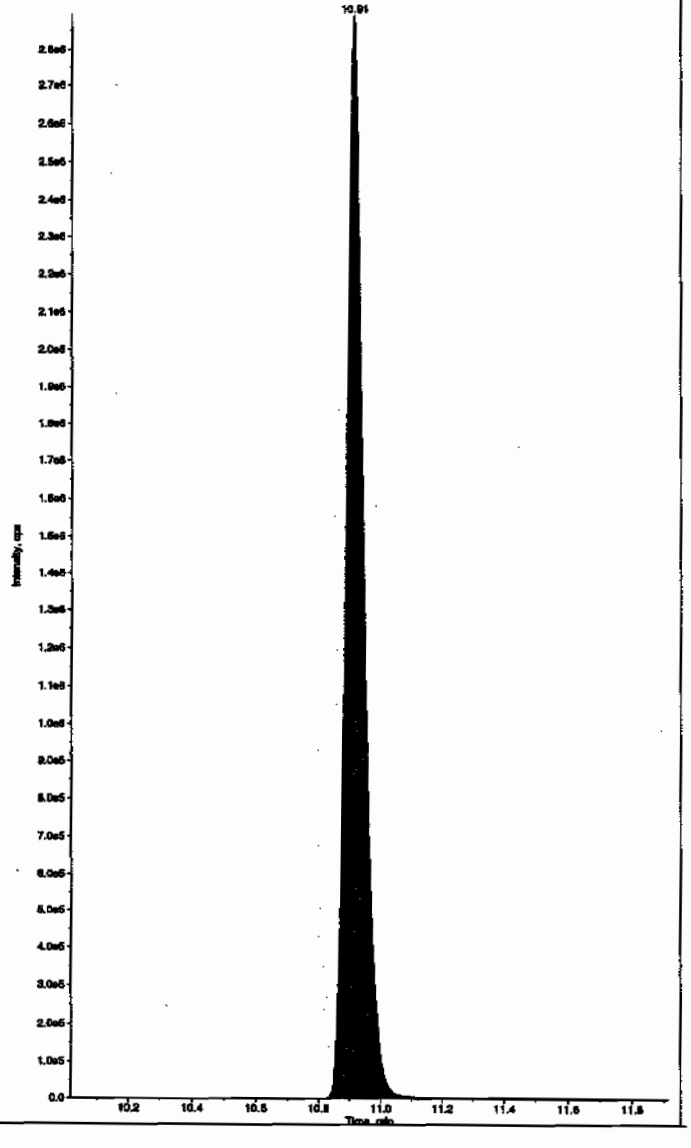

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-994

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0112012a

Analysis Date: 12-JAN-10 21:19

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
o-Nitrotoluene	40	36.215	91	
p-Nitrotoluene	40	37.854	95	
1,3,5-Trinitrobenzene	40	42.901	107	
1,3-Dinitrobenzene-d4	500	519.768	104	
2,4,6-Trinitrotoluene	40	38.977	97	
2,4-Dinitrotoluene	40	36.371	91	
2,6-Dinitrotoluene	40	40.819	102	
2,6-Dinitrotoluene-d3	500	557.339	111	
2-Amino-4,6-dinitrotoluene	40	38.579	96	
3,4-Dinitrotoluene	20	19.518	98	
4-Amino-2,6-dinitrotoluene	40	39.464	99	
HMX	40	39.704	99	
Nitrobenzene	40	40.62	102	
PETN	40	39.149	98	
RDX	40	37.666	94	
Tetryl	40	36.829	92	
m-Dinitrobenzene	40	44.324	111	
m-Nitrotoluene	40	43.356	108	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112012a
Date: 12-Jan-2010
Time: 21:19:55
ID: WXX100112-08CRI
Vial: 1:1,C

HMT 1/13/10

HMX

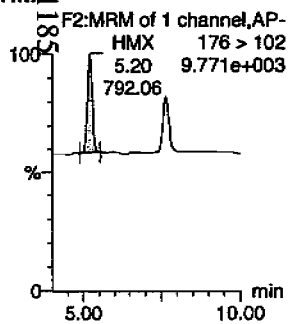

RDX

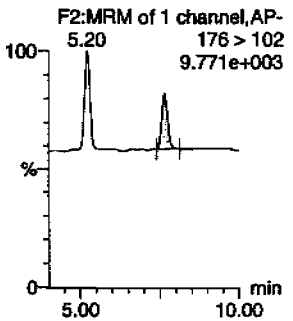

135-Trinitrobenzene

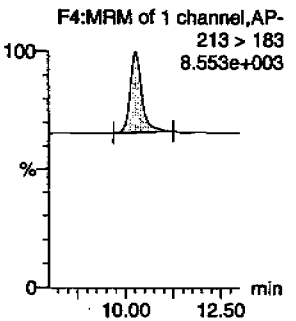

13-Dinitrobenzene-d4

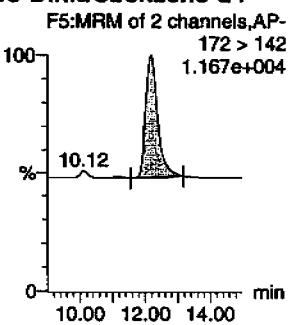

13-Dinitrobenzene

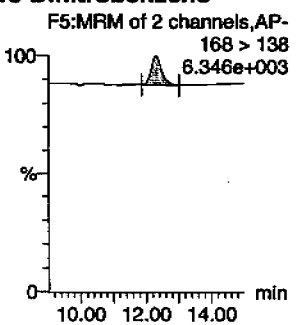

Tetryl

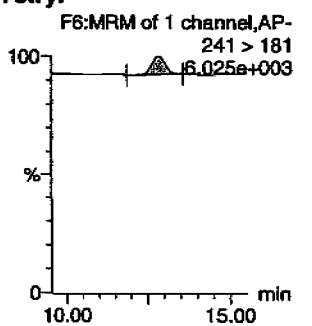

Nitrobenzene

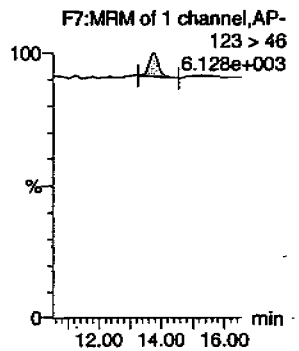

4-Amino-26-dinitrotoluene

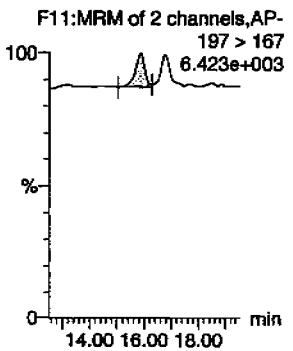

2-Amino-46-dinitrotoluene

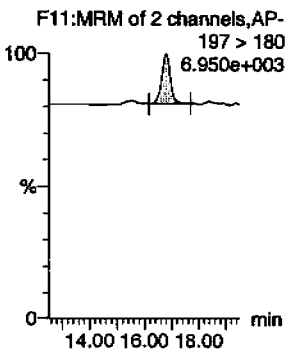

246-Trinitrotoluene

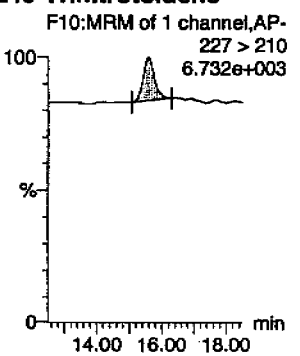

34-dinitrotoluene

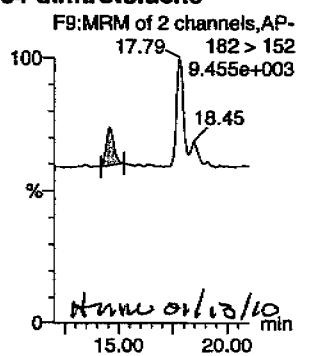

26-dinitrotoluene

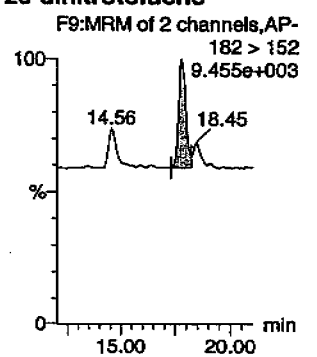

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

24-dinitrotoluene

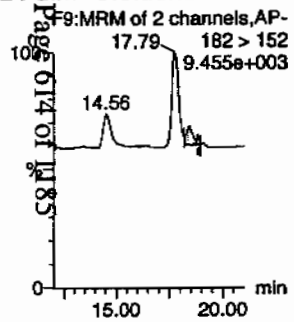

26-dinitrotoluene-d3

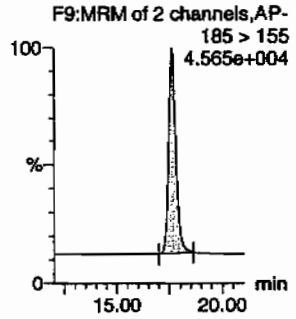

2-Nitrotoluene

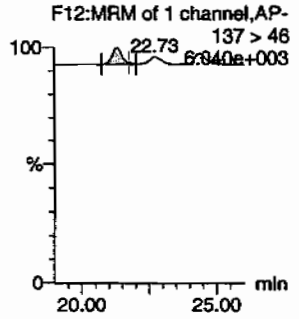

4-Nitrotoluene

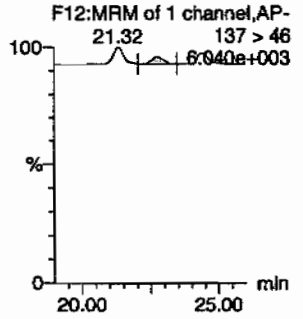

3-Nitrotoluene

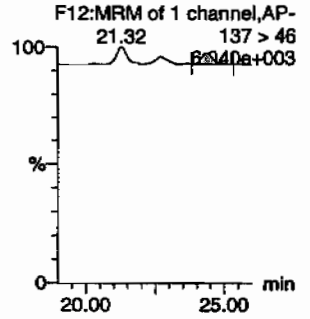

PETN

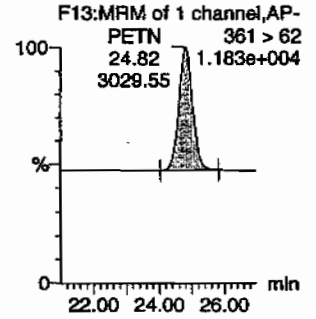

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	% Rec	% Dev	S/N
WXX100112-08CRI	HMX	176 > 102	5.20	792.060	2616.570	792.060	151.355	bb			39.7039	99.3	-0.7	132.9
WXX100112-08CRI	RDX	176 > 102	7.64	513.110	2616.570	513.110	98.050	bb			37.6659	94.2	-5.8	76.0
WXX100112-08CRI	135-Trinitrobenzene	213 > 183	10.27	1033.829	2616.570	1033.829	197.554	bb			42.9007	107.3	7.3	149.0
WXX100112-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	2616.570		2616.570	2616.570	bb			519.7681	104.0	4.0	226.7
WXX100112-08CRI	13-Dinitrobenzene	168 > 138	12.31	290.647	2616.570	290.647	55.540	bb			44.3243	110.8	10.8	34.1
WXX100112-08CRI	Tetryl	241 > 181	12.82	216.863	2616.570	216.863	41.440	bb			36.8290	92.1	-7.9	16.5
WXX100112-08CRI	Nitrobenzene	123 > 46	13.72	194.640	2616.570	194.640	37.194	bb			40.6204	101.6	1.6	14.6
WXX100112-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.86	344.011	16197.111	344.011	10.620	MM	13-Jan-10	08:51:03	39.4643	98.7	-1.3	21.0
WXX100112-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.79	487.062	16197.111	487.062	15.035	bb			38.5790	96.4	-3.6	42.2
WXX100112-08CRI	246-Trinitrotoluene	227 > 210	15.61	439.684	16197.111	439.684	13.573	bb			38.9774	97.4	-2.6	23.4
WXX100112-08CRI	34-dinitrotoluene	182 > 152	14.56	540.799	16197.111	540.799	16.694	bb			19.5184	97.6	-2.4	39.8
WXX100112-08CRI	26-dinitrotoluene	182 > 152	17.79	1440.775	16197.111	1440.775	44.476	MM	13-Jan-10	08:53:00	40.8193	102.0	2.0	112.1
WXX100112-08CRI	24-dinitrotoluene	182 > 152	18.45	286.233	16197.111	286.233	8.836	MM	13-Jan-10	08:55:33	36.3713	90.9	-9.1	23.1
WXX100112-08CRI	26-dinitrotoluene-d3	185 > 155	17.64	16197.111		16197.111	16197.111	bb			557.3387	111.5	11.5	1887.0
WXX100112-08CRI	2-Nitrotoluene	137 > 46	21.32	189.115	16197.111	189.115	5.838	MM	13-Jan-10	08:12:09	36.2152	90.5	-9.5	25.2
WXX100112-08CRI	4-Nitrotoluene	137 > 46	22.73	98.868	16197.111	98.868	3.052	bb			37.8540	94.6	-5.4	11.2
WXX100112-08CRI	3-Nitrotoluene	137 > 46	24.38	131.017	16197.111	131.017	4.044	bb			43.3556	108.4	8.4	15.5
WXX100112-08CRI	PETN	361 > 62	24.82	3029.546	16197.111	3029.546	93.521	bb			39.1494	97.9	-2.1	969.3

✓

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	01/12/10
Time of Injection	2119
Standard Number	WXX100112-08CRI
Data File	EXP0112012a

HMX	99.3
RDX	94.2
135-TNB	107.3
13-DNB	110.8
Tetryl	92.1
Nitrobenzene	101.6
4A-26-DNT	98.7
2A-46-DNT	96.4
246-TNT	97.4
34-DNT(surr)	97.6
26-DNT	102.0
24-DNT	90.9
2-NT	90.5
4-NT	94.6
3-NT	108.4
PETN	97.9
Total	1579.7
Average	98.7

MAP 1/13/10

Hmc 01/13/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-994

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0112017a

Analysis Date: 12-JAN-10 23:47

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
PETN	600	481.598	80	
RDX	600	687.007	115	
Tetryl	600	569.231	95	
m-Dinitrobenzene	600	620.035	103	
m-Nitrotoluene	600	550.786	92	
o-Nitrotoluene	600	513.55	86	
p-Nitrotoluene	600	527.629	88	
1,3,5-Trinitrobenzene	600	639.333	107	
1,3-Dinitrobenzene-d4	500	591.015	118	
2,4,6-Trinitrotoluene	600	643.763	107	
2,4-Dinitrotoluene	600	640.302	107	
2,6-Dinitrotoluene	600	594.026	99	
2,6-Dinitrotoluene-d3	500	631.779	126	*
2-Amino-4,6-dinitrotoluene	600	635.635	106	
3,4-Dinitrotoluene	300	303.003	101	
4-Amino-2,6-dinitrotoluene	600	594.345	99	
HMX	600	582.027	97	
Nitrobenzene	600	602.017	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112017a
Date: 12-Jan-2010
Time: 23:47:21
ID: WXX100112-07CCV
Vial: 1:1,B

MMT 1/13/10

HMX

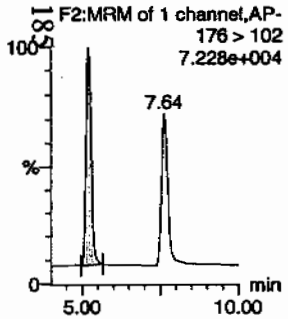

RDX

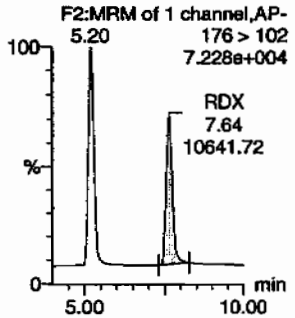

135-Trinitrobenzene

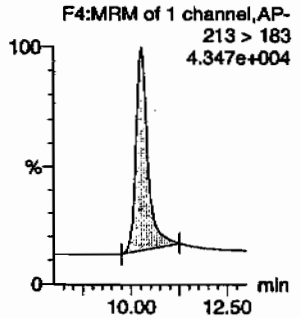

13-Dinitrobenzene-d4

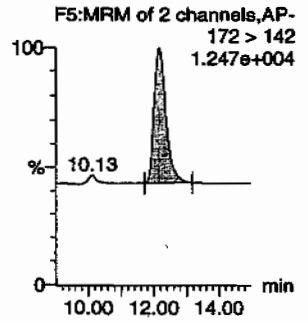

13-Dinitrobenzene

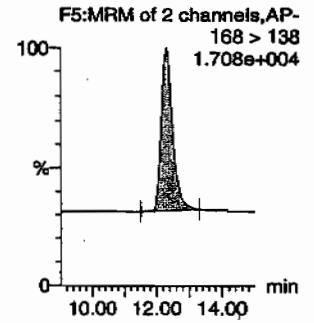

Tetryl

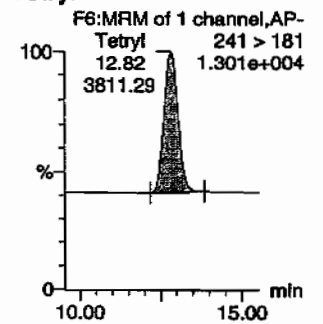

Nitrobenzene

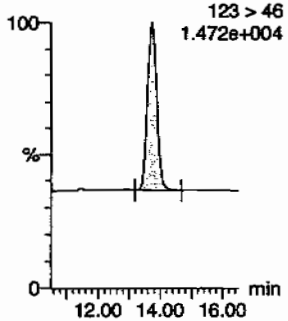

4-Amino-26-dinitrotoluene

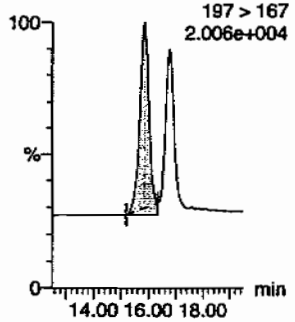

2-Amino-46-dinitrotoluene

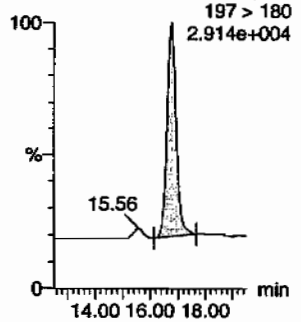

246-Trinitrotoluene

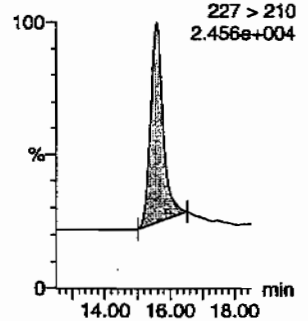

34-dinitrotoluene

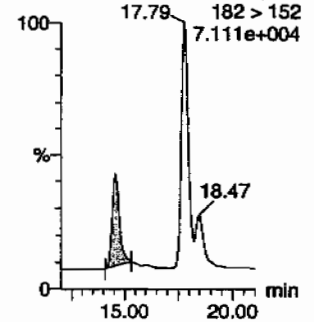

Hmm 01/13/10

26-dinitrotoluene

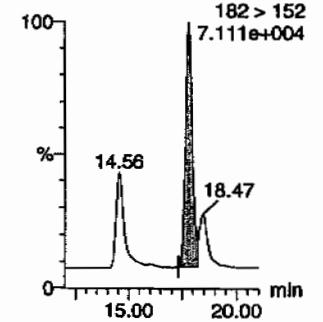

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

24-dinitrotoluene

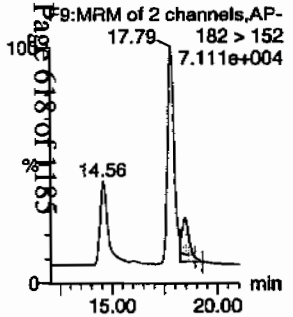

26-dinitrotoluene-d3

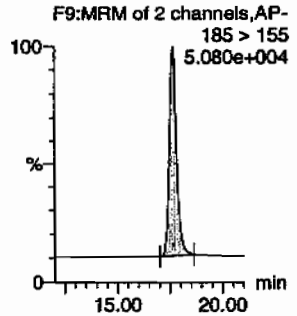

2-Nitrotoluene

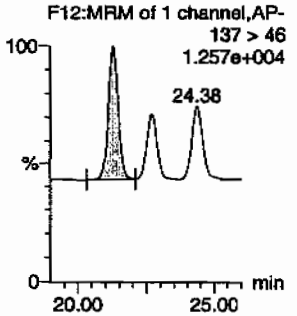

4-Nitrotoluene

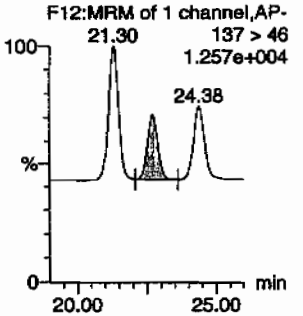

3-Nitrotoluene

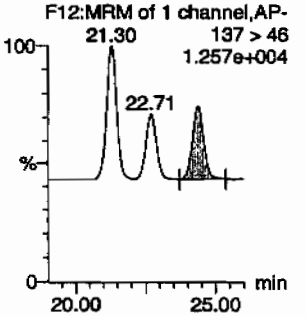

PETN

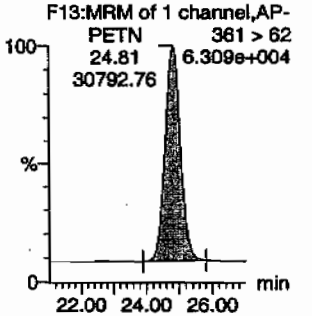

ID	Name	Trace	RT	S/L Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%DEV	S/N
WXX100112-07CCV	HMX	176 > 102	5.20	13202.530	2975.234	13202.530	2218.738	bb			582.0273	97.0	-3.0	381.8
WXX100112-07CCV	RDX	176 > 102	7.64	10641.715	2975.234	10641.715	1788.383	bb			687.0066	114.5	14.5	267.0
WXX100112-07CCV	135-Trinitrobenzene	213 > 183	10.27	13535.188	2975.234	13535.188	2274.643	bb			639.3329	106.6	6.6	1354.3
WXX100112-07CCV	13-Dinitrobenzene-d4	172 > 142	12.17	2975.234		2975.234	2975.234	bb			591.0149	118.2	18.2	517.9
WXX100112-07CCV	13-Dinitrobenzene	168 > 138	12.31	4623.055	2975.234	4623.055	776.923	bb			620.0350	103.3	3.3	367.4
WXX100112-07CCV	Tetryl	241 > 181	12.82	3811.292	2975.234	3811.292	640.503	bb			569.2306	94.9	-5.1	555.7
WXX100112-07CCV	Nitrobenzene	123 > 46	13.76	3280.090	2975.234	3280.090	551.232	bb			602.0172	100.3	0.3	522.2
WXX100112-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.86	5872.895	18360.465	5872.895	159.933	MM	13-Jan-10	08:51:30	594.3449	99.1	-0.9	268.9
WXX100112-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.76	9096.762	18360.465	9096.762	247.727	bb			635.6349	105.9	5.9	664.2
WXX100112-07CCV	246-Trinitrotoluene	227 > 210	15.58	8231.885	18360.465	8231.885	224.174	bb			643.7625	107.3	7.3	307.6
WXX100112-07CCV	34-dinitrotoluene	182 > 152	14.56	9516.677	18360.465	9516.677	259.162	bb			303.0028	101.0	1.0	228.5
WXX100112-07CCV	26-dinitrotoluene	182 > 152	17.79	23767.416	18360.465	23767.416	647.244	MM	13-Jan-10	08:53:24	594.0258	99.0	-1.0	610.9
WXX100112-07CCV	24-dinitrotoluene	182 > 152	18.47	5712.049	18360.465	5712.049	155.553	MM	13-Jan-10	08:56:14	640.3018	106.7	6.7	124.6
WXX100112-07CCV	26-dinitrotoluene-d3	185 > 155	17.62	18360.465		18360.465	18360.465	bb			631.7792	126.4	26.4	1367.3
WXX100112-07CCV	2-Nitrotoluene	137 > 46	21.30	3039.931	18360.465	3039.931	82.785	bb			513.5498	85.6	-14.4	658.6
WXX100112-07CCV	4-Nitrotoluene	137 > 46	22.71	1562.138	18360.465	1562.138	42.541	bb			527.6292	87.9	-12.1	327.3
WXX100112-07CCV	3-Nitrotoluene	137 > 46	24.38	1886.740	18360.465	1886.740	51.381	bb			550.7863	91.8	-8.2	365.4
WXX100112-07CCV	PETN	361 > 62	24.81	30792.758	18360.465	30792.758	838.561	bb			481.5979	80.3	-19.7	5965.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

Page 618 of 1185

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 01/12/10
Time of Injection: 2347
Standard Number: WXX100112-07CCV
Data File: EXP011217a

HMX	97.0
RDX	114.5
135-TNB	106.6
13-DNB	103.3
Tetryl	94.9
Nitrobenzene	100.3
4A-26-DNT	99.1
2A-46-DNT	105.9
246-TNT	107.3
34-DNT(surr)	101.0
26-DNT	99.0
24-DNT	106.7
2-NT	85.6
4-NT	87.9
3-NT	91.8
PETN	80.3
Total	1581.2
Average	98.8

MAT 1/13/10

Hmm 01/10/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-994

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0112019a

Analysis Date: 13-JAN-10 00:46

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	52.575	131	*
1,3-Dinitrobenzene-d4	500	583.925	117	
2,4,6-Trinitrotoluene	40	48.594	121	
2,4-Dinitrotoluene	40	34.288	86	
2,6-Dinitrotoluene	40	37.896	95	
2,6-Dinitrotoluene-d3	500	613.829	123	
2-Amino-4,6-dinitrotoluene	40	43.351	108	
3,4-Dinitrotoluene	20	21.078	105	
4-Amino-2,6-dinitrotoluene	40	41.115	103	
HMX	40	38.19	95	
Nitrobenzene	40	39.697	99	
PETN	40	37.796	94	
RDX	40	39.675	99	
Tetryl	40	42.884	107	
m-Dinitrobenzene	40	41.471	104	
m-Nitrotoluene	40	46.712	117	
o-Nitrotoluene	40	36.286	91	
p-Nitrotoluene	40	39.1	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112019a
Date: 13-Jan-2010
Time: 00:46:18
ID: WXX100112-08CRI
Vial: 1:1,C

MAP 1/13/10

HMX

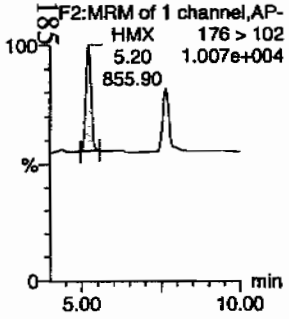

RDX

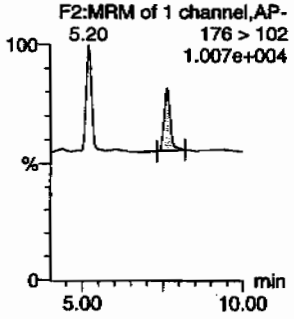

135-Trinitrobenzene

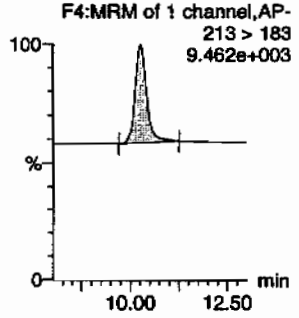

13-Dinitrobenzene-d4

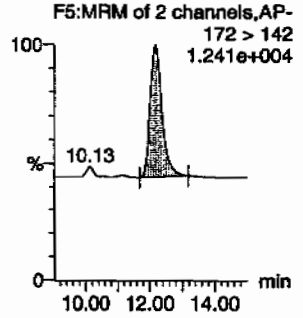

13-Dinitrobenzene

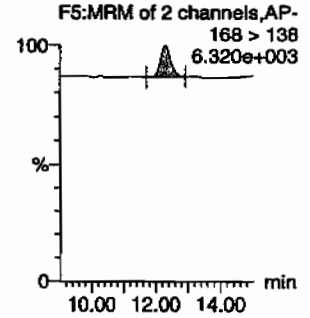

Tetryl

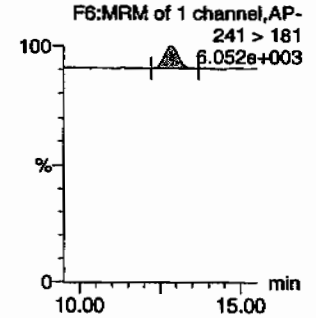

Nitrobenzene

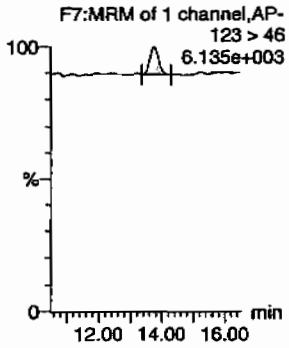

4-Amino-26-dinitrotoluene

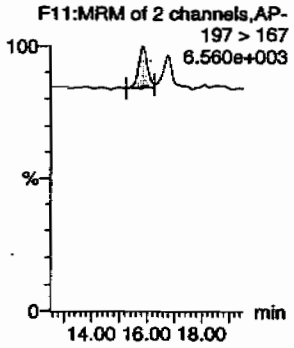

2-Amino-46-dinitrotoluene

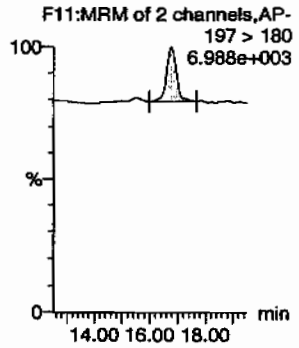

246-Trinitrotoluene

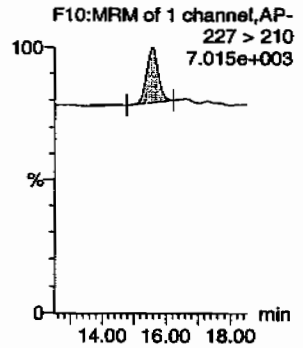

34-dinitrotoluene

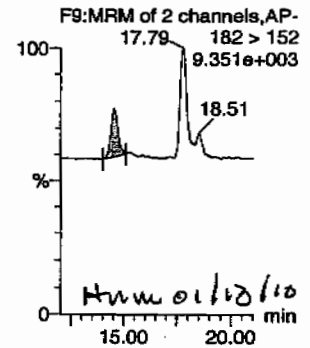

Hmm 01/13/10

26-dinitrotoluene

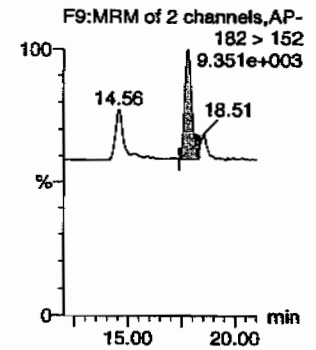

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

24-dinitrotoluene

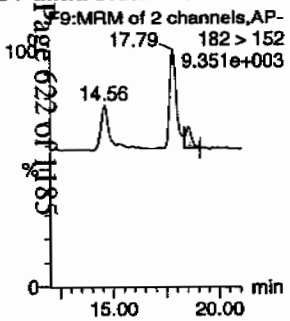

26-dinitrotoluene-d3

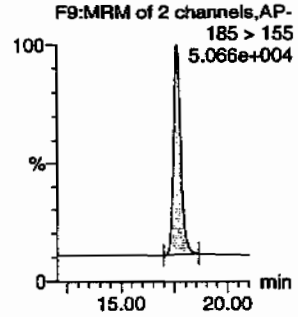

2-Nitrotoluene

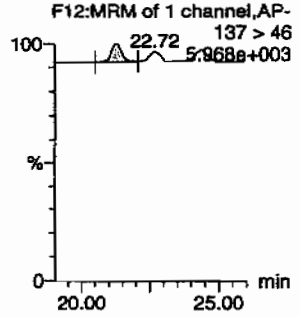

4-Nitrotoluene

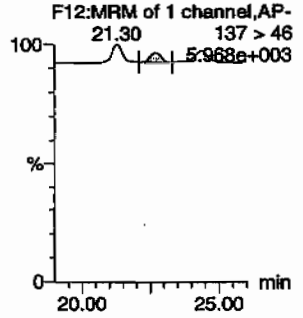

3-Nitrotoluene

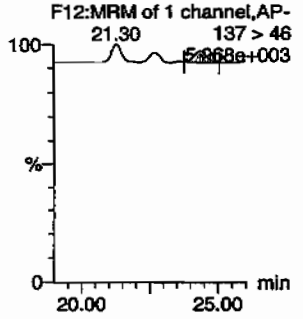

PETN

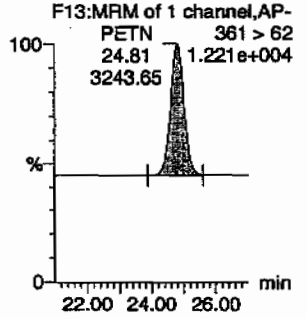

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	mg/mL	%Rec	%Dev	S/N
WXX100112-08CRI	HMX	176 > 102	5.20	855.898	2939.545	855.898	145.583	bb			38.1900	95.5	-4.5	186.7
WXX100112-08CRI	RDX	176 > 102	7.64	607.197	2939.545	607.197	103.281	bb			39.6753	99.2	-0.8	111.0
WXX100112-08CRI	135-Trinitrobenzene	213 > 183	10.27	1335.757	2939.545	1335.757	227.205	bb			52.5749	131.4	31.4	292.4
WXX100112-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	2939.545		2939.545	2939.545	bb			583.9255	116.8	16.8	244.4
WXX100112-08CRI	13-Dinitrobenzene	168 > 138	12.31	305.504	2939.545	305.504	51.965	bb			41.4710	103.7	3.7	47.2
WXX100112-08CRI	Tetryl	241 > 181	12.87	283.689	2939.545	283.689	48.254	bb			42.8844	107.2	7.2	22.1
WXX100112-08CRI	Nitrobenzene	123 > 46	13.76	213.695	2939.545	213.695	36.348	bb			39.6971	99.2	-0.8	20.7
WXX100112-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.86	394.723	17838.805	394.723	11.064	MM	13-Jan-10	08:51:37	41.1147	102.8	2.8	27.3
WXX100112-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.76	602.780	17838.805	602.780	16.895	bb			43.3509	108.4	8.4	40.5
WXX100112-08CRI	246-Trinitrotoluene	227 > 210	15.58	603.720	17838.805	603.720	16.922	bb			48.5937	121.5	21.5	22.5
WXX100112-08CRI	34-dinitrotoluene	182 > 152	14.56	643.207	17838.805	643.207	18.028	bb			21.0780	105.4	5.4	11.2
WXX100112-08CRI	26-dinitrotoluene	182 > 152	17.79	1473.173	17838.805	1473.173	41.291	MM	13-Jan-10	08:53:45	37.8961	94.7	-5.3	25.7
WXX100112-08CRI	24-dinitrotoluene	182 > 152	18.51	297.188	17838.805	297.188	8.330	MM	13-Jan-10	08:56:31	34.2880	85.7	-14.3	5.7
WXX100112-08CRI	26-dinitrotoluene-d3	185 > 155	17.62	17838.805		17838.805	17838.805	bb			613.8290	122.8	22.8	1780.2
WXX100112-08CRI	2-Nitrotoluene	137 > 46	21.30	208.692	17838.805	208.692	5.849	bb			36.2863	90.7	-9.3	38.1
WXX100112-08CRI	4-Nitrotoluene	137 > 46	22.72	112.473	17838.805	112.473	3.152	bb			39.0999	97.7	-2.3	20.2
WXX100112-08CRI	3-Nitrotoluene	137 > 46	24.41	155.466	17838.805	155.466	4.358	bb			46.7116	116.8	16.8	24.4
WXX100112-08CRI	PETN	361 > 62	24.81	3243.650	17838.805	3243.650	90.916	bb			37.7957	94.5	-5.5	1175.4

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	01/13/10
Time of Injection	0046
Standard Number	WXX100112-08CRI
Data File	EXP0112019a

HMX	95.5
RDX	99.2
135-TNB	131.4
13-DNB	103.7
Tetryl	107.2
Nitrobenzene	99.2
4A-26-DNT	102.8
2A-46-DNT	108.4
246-TNT	121.5
34-DNT(surr)	105.4
26-DNT	94.7
24-DNT	85.7
2-NT	90.7
4-NT	97.7
3-NT	116.8
PETN	94.5
Total	1654.4
Average	103.4

MJP 1/13/10

dhm 01/13/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-994

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0112028a

Analysis Date: 13-JAN-10 05:11

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	662.372	110	
1,3-Dinitrobenzene-d4	500	527.718	106	
2,4,6-Trinitrotoluene	600	676.605	113	
2,4-Dinitrotoluene	600	658.407	110	
2,6-Dinitrotoluene	600	607.505	101	
2,6-Dinitrotoluene-d3	500	499.624	100	
2-Amino-4,6-dinitrotoluene	600	646.875	108	
3,4-Dinitrotoluene	300	323.376	108	
4-Amino-2,6-dinitrotoluene	600	647.489	108	
HMX	600	598.093	100	
Nitrobenzene	600	538.441	90	
PETN	600	693.85	116	
RDX	600	772.556	129	*
Tetryl	600	602.585	100	
m-Dinitrobenzene	600	600.878	100	
m-Nitrotoluene	600	547.658	91	
o-Nitrotoluene	600	537.823	90	
p-Nitrotoluene	600	564.591	94	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112028a
Date: 13-Jan-2010
Time: 05:11:45
ID: WXX100112-07CCV
Vial: 1:1,B

HMX

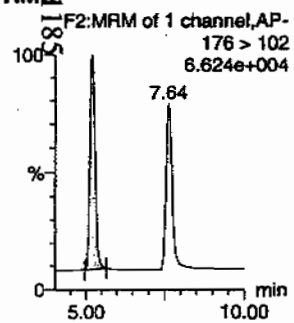

RDX

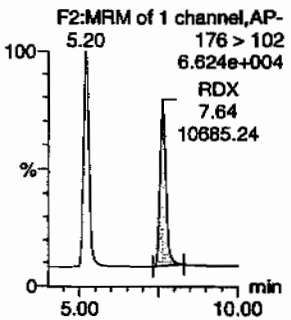

135-Trinitrobenzene

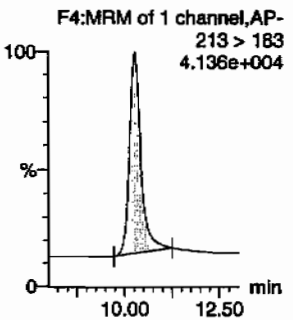

13-Dinitrobenzene-d4

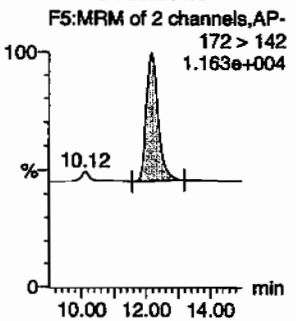

13-Dinitrobenzene

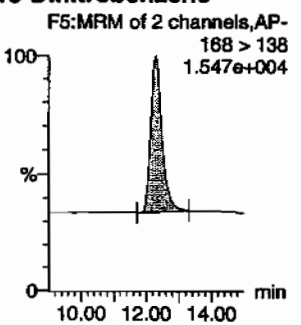

Tetryl

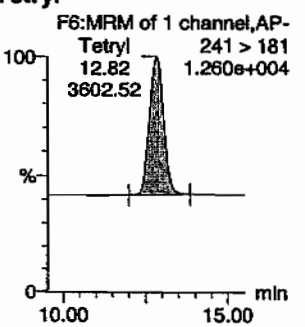

Nitrobenzene

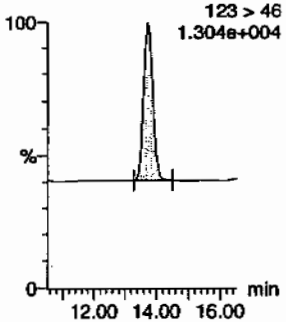

4-Amino-26-dinitrotoluene

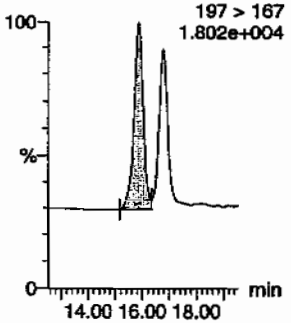

2-Amino-46-dinitrotoluene

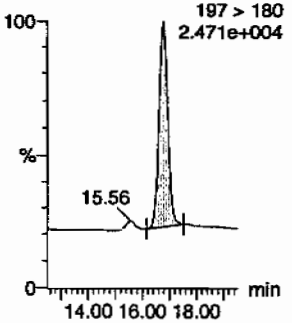

246-Trinitrotoluene

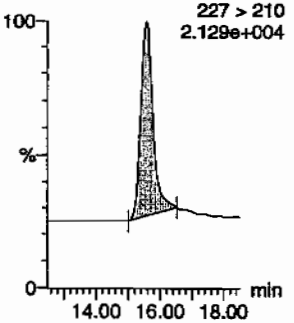

34-dinitrotoluene

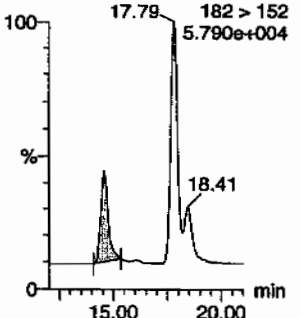

26-dinitrotoluene

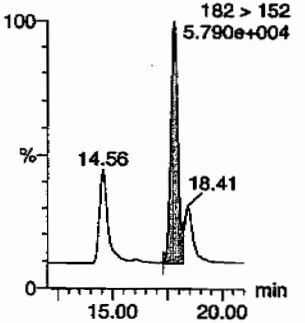

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

24-dinitrotoluene

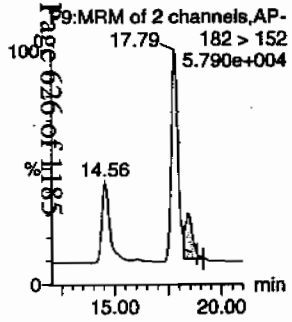

26-dinitrotoluene-d3

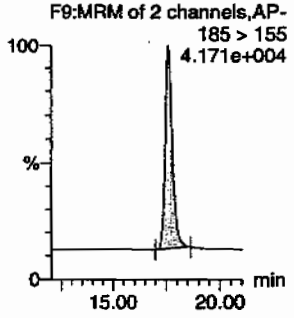

2-Nitrotoluene

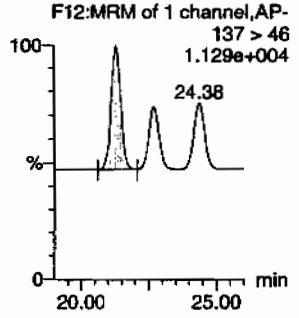

4-Nitrotoluene

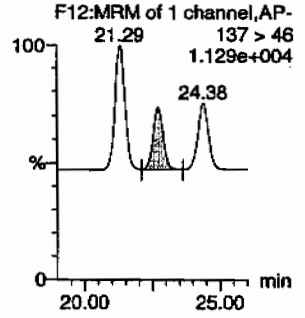

3-Nitrotoluene

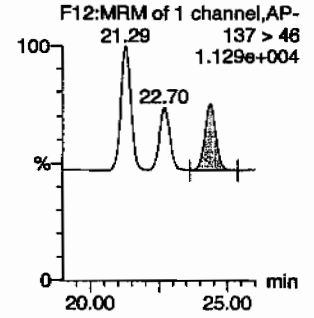

PETN

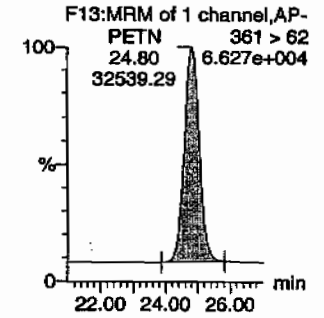

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100112-07CCV	HMX	176 > 102	5.20	12113.969	2656.591	12113.969	2279.984	bb			598.0935	99.7	-0.3	673.7
WXX100112-07CCV	RDX	176 > 102	7.64	10685.239	2656.591	10685.239	2011.081	bb			772.5559	128.8	28.8	517.3
WXX100112-07CCV	135-Trinitrobenzene	213 > 183	10.27	12565.854	2656.591	12565.854	2365.034	bb			662.3716	110.4	10.4	452.0
WXX100112-07CCV	13-Dinitrobenzene-d4	172 > 142	12.17	2656.591		2656.591	2656.591	bb			527.7181	105.5	5.5	201.0
WXX100112-07CCV	13-Dinitrobenzene	168 > 138	12.31	4000.397	2656.591	4000.397	752.919	bb			600.8785	100.1	0.1	665.6
WXX100112-07CCV	Tetryl	241 > 181	12.82	3602.516	2656.591	3602.516	678.034	bb			602.5851	100.4	0.4	251.1
WXX100112-07CCV	Nitrobenzene	123 > 46	13.72	2619.502	2656.591	2619.502	493.019	bb			538.4412	89.7	-10.3	376.1
WXX100112-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.86	5059.686	14519.822	5059.686	174.234	MM	14-Jan-10	07:32:39	647.4888	107.9	7.9	226.3
WXX100112-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.76	7321.111	14519.822	7321.111	252.107	bb			646.8749	107.8	7.8	518.4
WXX100112-07CCV	246-Trinitrotoluene	227 > 210	15.58	6842.048	14519.822	6842.048	235.611	bb			676.6045	112.8	12.8	149.0
WXX100112-07CCV	34-dinitrotoluene	182 > 152	14.56	8032.011	14519.822	8032.011	276.588	bb			323.3762	107.8	7.8	183.6
WXX100112-07CCV	26-dinitrotoluene	182 > 152	17.79	19222.236	14519.822	19222.236	661.931	MM	14-Jan-10	07:44:00	607.5046	101.3	1.3	479.4
WXX100112-07CCV	24-dinitrotoluene	182 > 152	18.41	4644.928	14519.822	4644.928	159.951	MM	14-Jan-10	07:45:35	658.4066	109.7	9.7	105.4
WXX100112-07CCV	26-dinitrotoluene-d3	185 > 155	17.62	14519.822		14519.822	14519.822	bb			499.6236	99.9	-0.1	1229.2
WXX100112-07CCV	2-Nitrotoluene	137 > 46	21.29	2517.664	14519.822	2517.664	86.697	bb			537.8226	89.6	-10.4	622.0
WXX100112-07CCV	4-Nitrotoluene	137 > 46	22.70	1321.911	14519.822	1321.911	45.521	bb			564.5910	94.1	-5.9	309.5
WXX100112-07CCV	3-Nitrotoluene	137 > 46	24.38	1483.596	14519.822	1483.596	51.089	bb			547.6576	91.3	-8.7	328.3
WXX100112-07CCV	PETN	361 > 62	24.80	32539.287	14519.822	32539.287	1120.513	bb			693.8501	115.6	15.6	1496.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 01/13/10
Time of Injection: 0511
Standard Number: WXX100112-07CCV
Data File: EXP0112028a

HMX		99.7
RDX		128.8
135-TNB		110.4
13-DNB		100.1
Tetryl		100.4
Nitrobenzene		89.7
4A-26-DNT		107.9
2A-46-DNT		107.8
246-TNT		112.8
34-DNT(surr)		107.8
26-DNT		101.3
24-DNT		109.7
2-NT		89.6
4-NT		94.1
3-NT		91.3
PETN		115.6
Total		1667.0
Average		104.2

MTT 1/14/10

dmm 01/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-994

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0112030a

Analysis Date: 13-JAN-10 06:10

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
4-Amino-2,6-dinitrotoluene	40	48.774	122	
HMX	40	45.777	114	
Nitrobenzene	40	43.768	109	
PETN	40	37.971	95	
RDX	40	45.489	114	
Tetryl	40	46.026	115	
m-Dinitrobenzene	40	47.362	118	
m-Nitrotoluene	40	28.09	70	
o-Nitrotoluene	40	42.835	107	
p-Nitrotoluene	40	40.933	102	
1,3,5-Trinitrobenzene	40	37.082	93	
1,3-Dinitrobenzene-d4	500	605.751	121	
2,4,6-Trinitrotoluene	40	53.155	133	*
2,4-Dinitrotoluene	40	40.623	102	
2,6-Dinitrotoluene	40	39.062	98	
2,6-Dinitrotoluene-d3	500	614.947	123	
2-Amino-4,6-dinitrotoluene	40	39.725	99	
3,4-Dinitrotoluene	20	23.296	116	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112030a
Date: 13-Jan-2010
Time: 06:10:42
ID: WXX100112-08CRI
Vial: 1:1,C

MMT 1/14/10

HMX

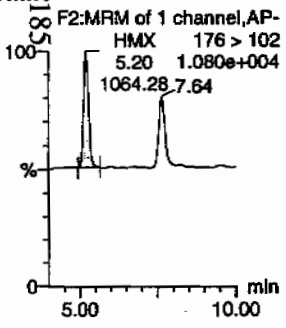

RDX

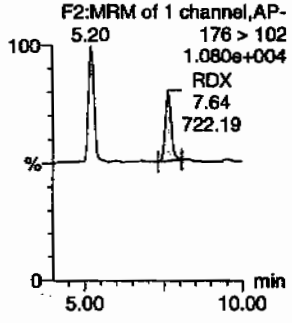

135-Trinitrobenzene

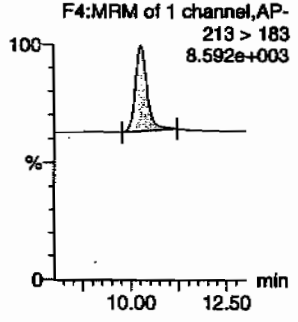

13-Dinitrobenzene-d4

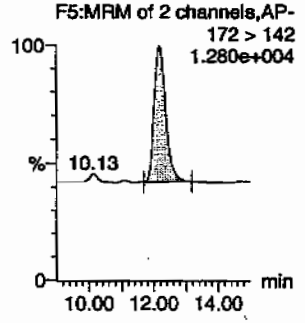

13-Dinitrobenzene

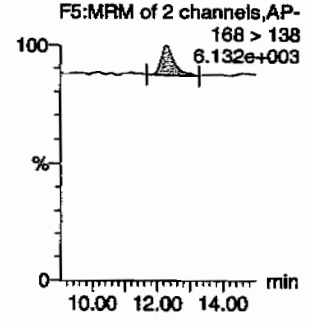

Tetryl

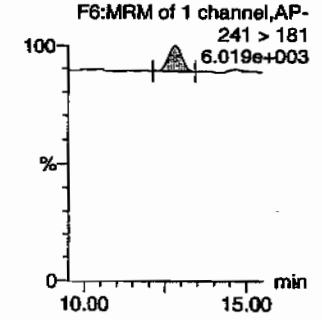

Nitrobenzene

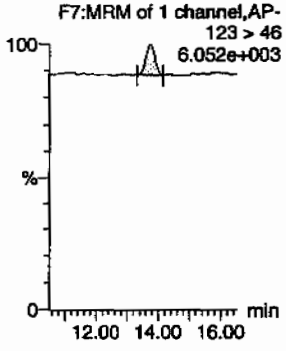

4-Amino-26-dinitrotoluene

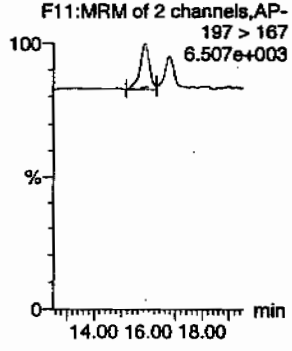

2-Amino-46-dinitrotoluene

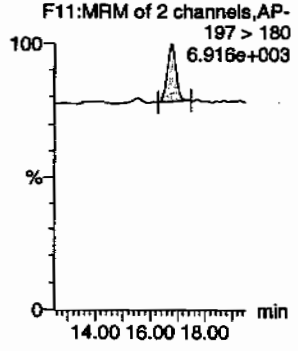

246-Trinitrotoluene

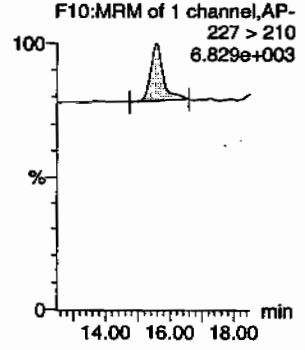

34-dinitrotoluene

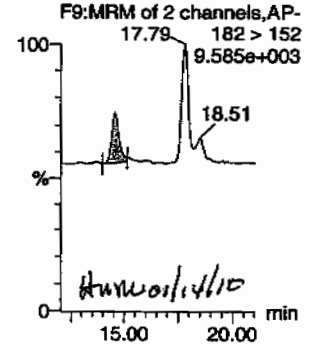

HMW 01/14/10

26-dinitrotoluene

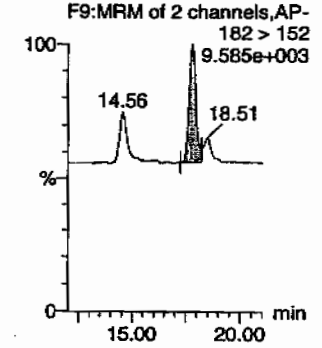

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

24-dinitrotoluene

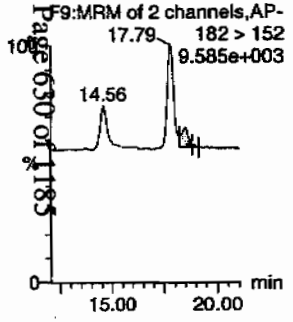

26-dinitrotoluene-d3

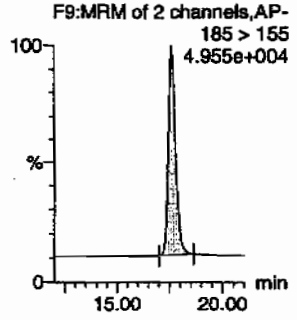

2-Nitrotoluene

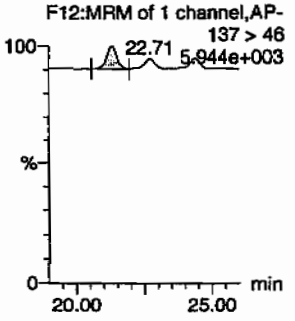

4-Nitrotoluene

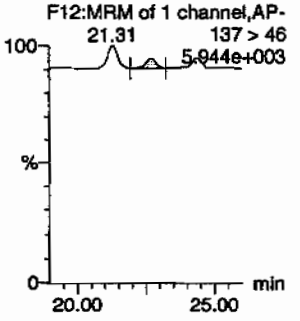

3-Nitrotoluene

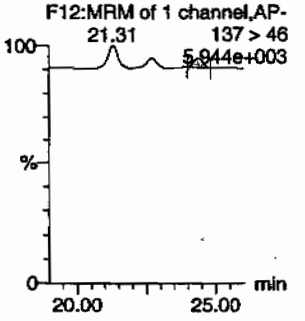

PETN

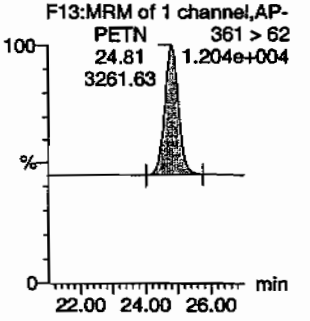

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100112-08CRI	HMX	176 > 102	5.20	1064.284	3049.417	1064.284	174.506	bb			45.7771	114.4	14.4	87.4
WXX100112-08CRI	RDX	176 > 102	7.64	722.193	3049.417	722.193	118.415	bb			45.4890	113.7	13.7	52.0
WXX100112-08CRI	135-Trinitrobenzene	213 > 183	10.27	1096.476	3049.417	1096.476	179.785	bb			37.0819	92.7	-7.3	142.9
WXX100112-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	3049.417		3049.417	3049.417	bb			605.7510	121.2	21.2	126.4
WXX100112-08CRI	13-Dinitrobenzene	168 > 138	12.31	361.938	3049.417	361.938	59.345	bb			47.3615	118.4	18.4	32.7
WXX100112-08CRI	Tetryl	241 > 181	12.82	315.853	3049.417	315.853	51.789	bb			46.0262	115.1	15.1	23.8
WXX100112-08CRI	Nitrobenzene	123 > 46	13.76	244.416	3049.417	244.416	40.076	bb			43.7680	109.4	9.4	23.9
WXX100112-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.86	469.106	17871.287	469.106	13.125	MM	14-Jan-10	07:32:48	48.7736	121.9	21.9	34.1
WXX100112-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.76	553.367	17871.287	553.367	15.482	bb			39.7248	99.3	-0.7	42.1
WXX100112-08CRI	246-Trinitrotoluene	227 > 210	15.58	661.587	17871.287	661.587	18.510	bb			53.1546	132.9	32.9	47.2
WXX100112-08CRI	34-dinitrotoluene	182 > 152	14.56	712.195	17871.287	712.195	19.926	bd			23.2964	116.5	16.5	32.7
WXX100112-08CRI	26-dinitrotoluene	182 > 152	17.79	1521.241	17871.287	1521.241	42.561	MM	14-Jan-10	07:43:50	39.0615	97.7	-2.3	76.3
WXX100112-08CRI	24-dinitrotoluene	182 > 152	18.51	352.741	17871.287	352.741	9.869	MM	14-Jan-10	07:45:50	40.6234	101.6	1.6	15.3
WXX100112-08CRI	26-dinitrotoluene-d3	185 > 155	17.62	17871.287		17871.287	17871.287	bb			614.9467	123.0	23.0	2165.1
WXX100112-08CRI	2-Nitrotoluene	137 > 46	21.31	246.801	17871.287	246.801	6.905	bb			42.8345	107.1	7.1	54.6
WXX100112-08CRI	4-Nitrotoluene	137 > 46	22.71	117.959	17871.287	117.959	3.300	bb			40.9325	102.3	2.3	25.0
WXX100112-08CRI	3-Nitrotoluene	137 > 46	24.38	93.661	17871.287	93.661	2.620	bb			28.0904	70.2	-29.8	23.4
WXX100112-08CRI	PETN	361 > 62	24.81	3261.634	17871.287	3261.634	91.253	bb			37.9712	94.9	-5.1	396.7

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	01/13/10
Time of Injection	0610
Standard Number	WXX100112-08CRI
Data File	EXP0112030a

HMX	114.4
RDX	113.7
135-TNB	92.7
13-DNB	118.4
Tetryl	115.1
Nitrobenzene	109.4
4A-26-DNT	121.9
2A-46-DNT	99.3
246-TNT	132.9
34-DNT(surr)	116.5
26-DNT	97.7
24-DNT	101.6
2-NT	107.1
4-NT	102.3
3-NT	70.2
PETN	94.9
Total	1708.1
Average	106.8

MAT 1/14/10

dbm 01/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–994

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0112037a

Analysis Date: 13–JAN–10 09:37

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4–Dinitrotoluene	600	643.815	107	
2,6–Dinitrotoluene	600	613.94	102	
2,6–Dinitrotoluene–d3	500	537.873	108	
2–Amino–4,6–dinitrotoluene	600	647.116	108	
3,4–Dinitrotoluene	300	325.224	108	
4–Amino–2,6–dinitrotoluene	600	640.599	107	
HMX	600	593.513	99	
Nitrobenzene	600	613.674	102	
PETN	600	593.622	99	
RDX	600	675.028	113	
Tetryl	600	561.233	94	
m–Dinitrobenzene	600	636.535	106	
m–Nitrotoluene	600	507.781	85	
o–Nitrotoluene	600	553.358	92	
p–Nitrotoluene	600	624.214	104	
1,3,5–Trinitrobenzene	600	604.241	101	
1,3–Dinitrobenzene–d4	500	524.49	105	
2,4,6–Trinitrotoluene	600	720.464	120	*

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112037a
Date: 13-Jan-2010
Time: 09:37:20
ID: WXX100112-07CCV
Vial: 1:1,B

MMT 1/14/10

HMX

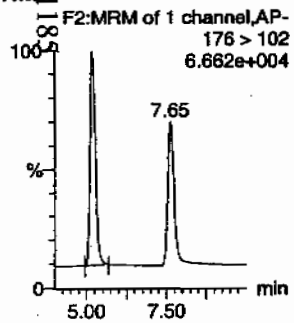

RDX

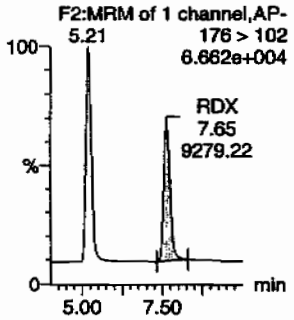

135-Trinitrobenzene

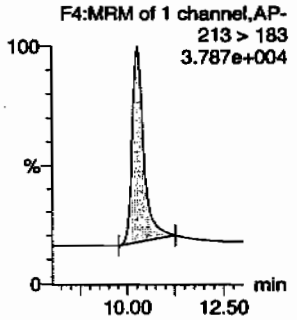

13-Dinitrobenzene-d4

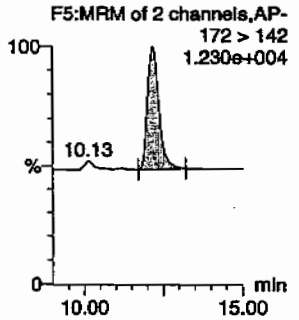

13-Dinitrobenzene

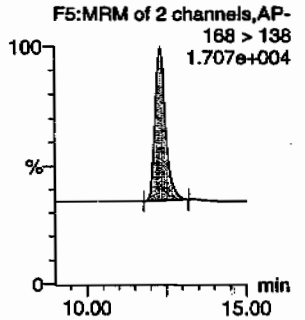

Tetryl

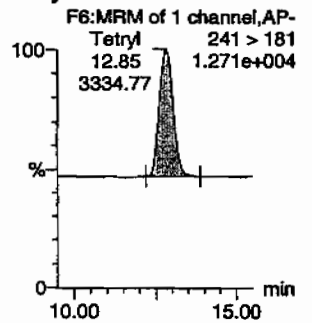

Nitrobenzene

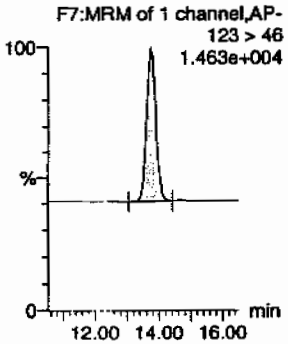

4-Amino-26-dinitrotoluene

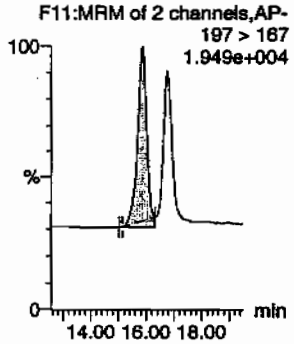

2-Amino-46-dinitrotoluene

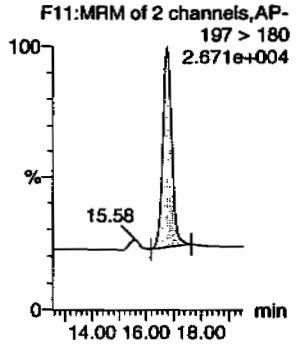

246-Trinitrotoluene

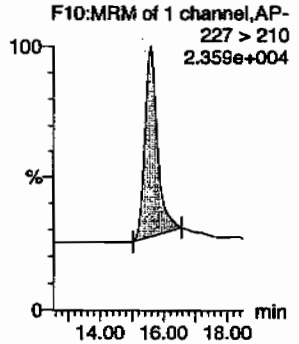

34-dinitrotoluene

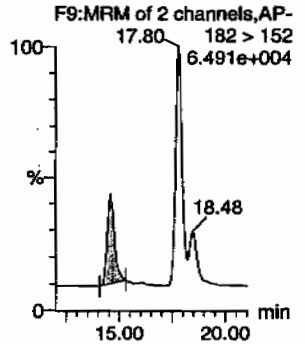

HMW 01/14/10

26-dinitrotoluene

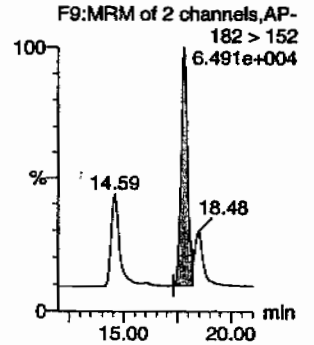

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

24-dinitrotoluene

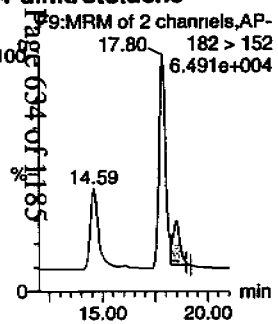

26-dinitrotoluene-d3

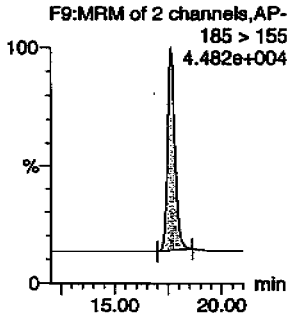

2-Nitrotoluene

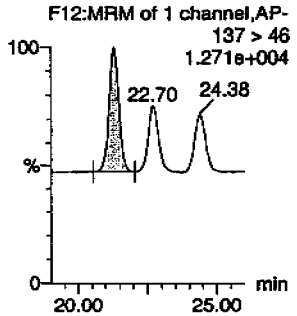

4-Nitrotoluene

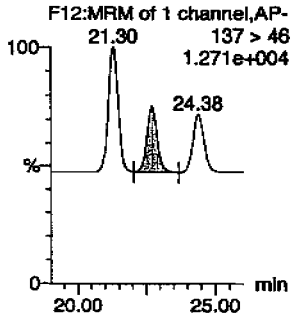

3-Nitrotoluene

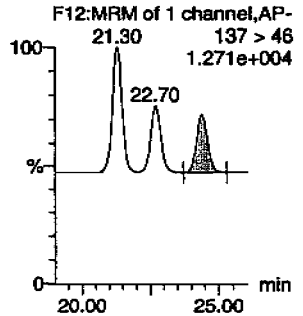

PETN

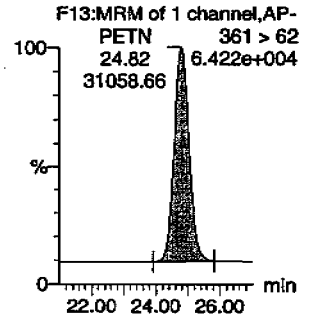

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100112-07CCV	HMX	176 > 102	5.21	11947.647	2640.338	11947.647	2262.522	bb			593.5129	98.9	-1.1	1128.1
WXX100112-07CCV	RDX	176 > 102	7.65	9279.215	2640.338	9279.215	1757.202	bb			675.0285	112.5	12.5	758.2
WXX100112-07CCV	135-Trinitrobenzene	213 > 183	10.26	11292.259	2640.338	11292.259	2138.412	bb			604.2406	100.7	0.7	522.4
WXX100112-07CCV	13-Dinitrobenzene-d4	172 > 142	12.17	2640.338		2640.338	2640.338	bb			524.4895	104.9	4.9	137.1
WXX100112-07CCV	13-Dinitrobenzene	168 > 138	12.31	4211.859	2640.338	4211.859	797.598	bb			636.5354	106.1	6.1	612.7
WXX100112-07CCV	Tetryl	241 > 181	12.85	3334.767	2640.338	3334.767	631.504	bb			561.2329	93.5	-6.5	291.8
WXX100112-07CCV	Nitrobenzene	123 > 46	13.74	2967.241	2640.338	2967.241	561.906	bb			613.6737	102.3	2.3	443.6
WXX100112-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.88	5389.080	15631.410	5389.080	172.380	MM	14-Jan-10	07:33:22	640.5993	106.8	6.8	337.7
WXX100112-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.77	7884.526	15631.410	7884.526	252.201	bb			647.1158	107.9	7.9	636.5
WXX100112-07CCV	246-Trinitrotoluene	227 > 210	15.60	7843.330	15631.410	7843.330	250.884	bb			720.4642	120.1	20.1	229.7
WXX100112-07CCV	34-dinitrotoluene	182 > 152	14.59	8696.337	15631.410	8696.337	278.169	bb			325.2245	108.4	8.4	219.9
WXX100112-07CCV	26-dinitrotoluene	182 > 152	17.80	20913.029	15631.410	20913.029	668.943	MM	14-Jan-10	07:43:28	613.9398	102.3	2.3	592.3
WXX100112-07CCV	24-dinitrotoluene	182 > 152	18.48	4889.710	15631.410	4889.710	156.407	MM	14-Jan-10	07:46:25	643.8155	107.3	7.3	123.0
WXX100112-07CCV	26-dinitrotoluene-d3	185 > 155	17.63	15631.410		15631.410	15631.410	bb			537.8731	107.6	7.6	1333.7
WXX100112-07CCV	2-Nitrotoluene	137 > 46	21.30	2788.698	15631.410	2788.698	89.202	bb			553.3576	92.2	-7.8	676.6
WXX100112-07CCV	4-Nitrotoluene	137 > 46	22.70	1573.398	15631.410	1573.398	50.328	bb			624.2140	104.0	4.0	363.7
WXX100112-07CCV	3-Nitrotoluene	137 > 46	24.38	1480.880	15631.410	1480.880	47.369	bb			507.7810	84.6	-15.4	319.8
WXX100112-07CCV	PETN	361 > 62	24.82	31058.656	15631.410	31058.656	993.469	bb			593.6223	98.9	-1.1	8797.0

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 01/13/10
Time of Injection: 0937
Standard Number: WXX100112-07CCV
Data File: EXP0112037a

HMX		98.9
RDX		112.5
135-TNB		100.7
13-DNB		106.1
Tetryl		93.5
Nitrobenzene		102.3
4A-26-DNT		106.8
2A-46-DNT		107.9
246-TNT		120.1
34-DNT(surr)		108.4
26-DNT		102.3
24-DNT		107.3
2-NT		92.2
4-NT		104.0
3-NT		84.6
PETN		98.9
Total		1646.5
Average		102.9

1/14/10

01/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-994

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0112039a

Analysis Date: 13-JAN-10 10:36

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	27.451	69	*
1,3-Dinitrobenzene-d4	500	639.606	128	
2,4,6-Trinitrotoluene	40	51.223	128	
2,4-Dinitrotoluene	40	36.396	91	
2,6-Dinitrotoluene	40	38.456	96	
2,6-Dinitrotoluene-d3	500	627.517	126	
2-Amino-4,6-dinitrotoluene	40	33.551	84	
3,4-Dinitrotoluene	20	21.124	106	
4-Amino-2,6-dinitrotoluene	40	44.609	112	
HMX	40	35.92	90	
Nitrobenzene	40	36.47	91	
PETN	40	34.564	86	
RDX	40	35.482	89	
Tetryl	40	37.52	94	
m-Dinitrobenzene	40	42.89	107	
m-Nitrotoluene	40	37.145	93	
o-Nitrotoluene	40	39.116	98	
p-Nitrotoluene	40	25.489	64	*

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112039a
Date: 13-Jan-2010
Time: 10:36:32
ID: WXX100112-08CRI
Vial: 1:1,C

MMP 1/14/10

HMX

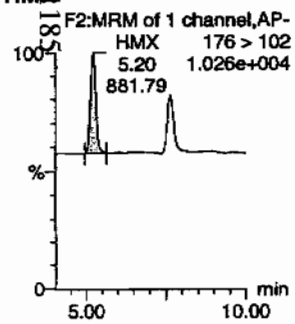

RDX

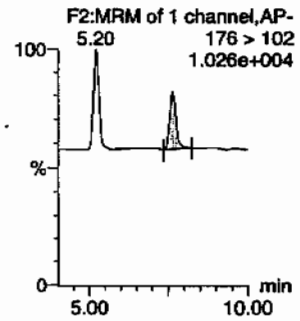

135-Trinitrobenzene

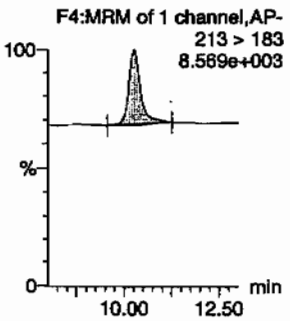

13-Dinitrobenzene-d4

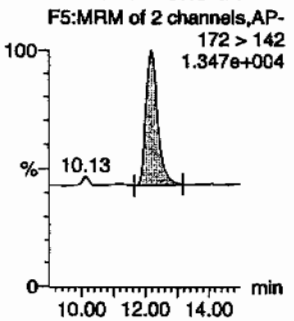

13-Dinitrobenzene

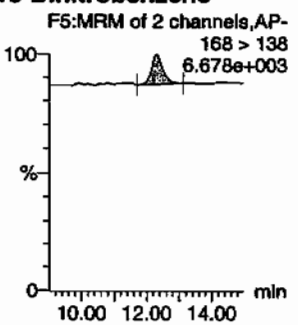

Tetryl

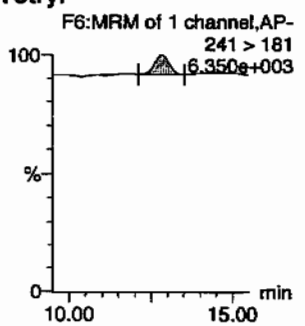

Nitrobenzene

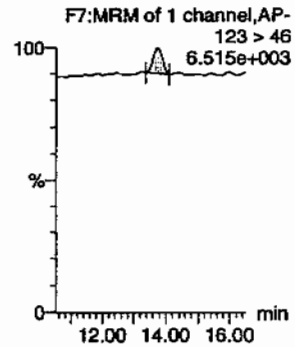

4-Amino-26-dinitrotoluene

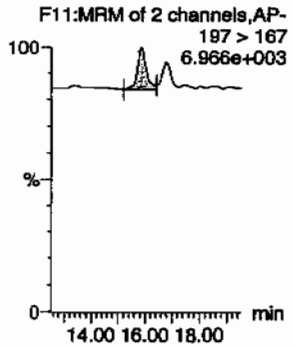

2-Amino-46-dinitrotoluene

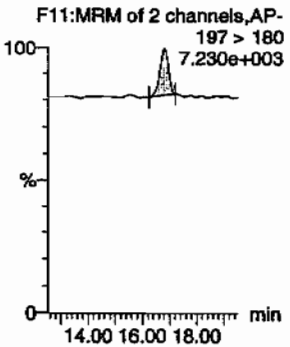

246-Trinitrotoluene

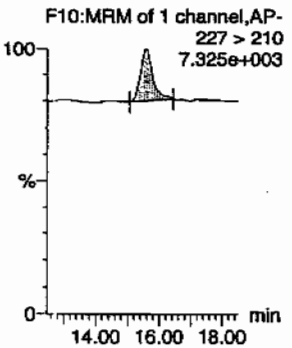

34-dinitrotoluene

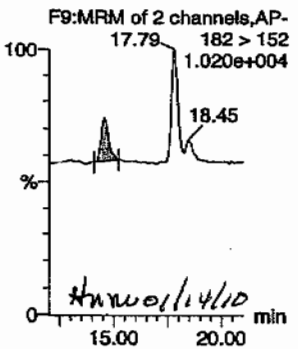

26-dinitrotoluene

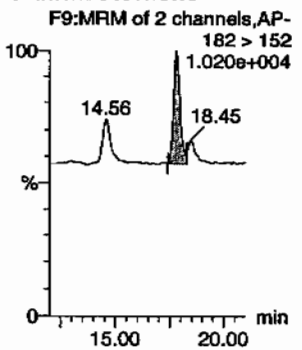

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

24-dinitrotoluene

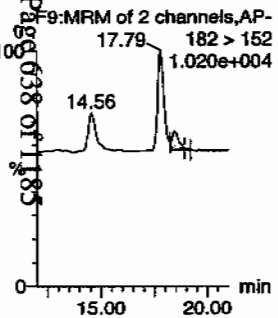

26-dinitrotoluene-d3

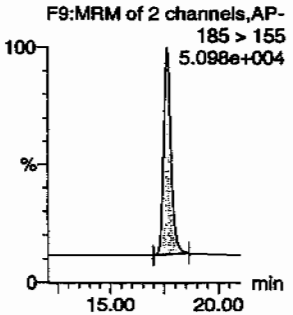

2-Nitrotoluene

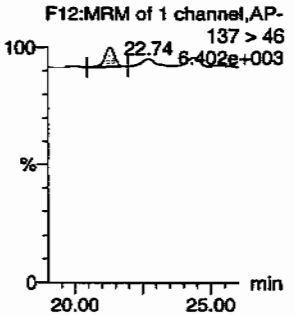

4-Nitrotoluene

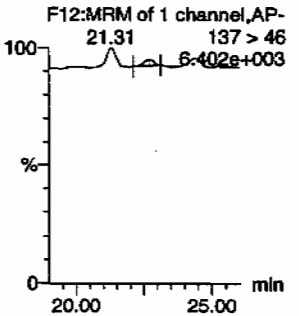

3-Nitrotoluene

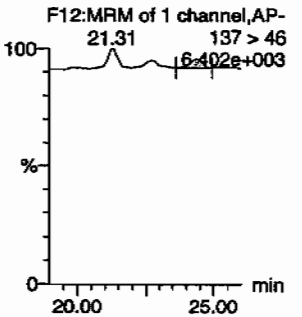

PETN

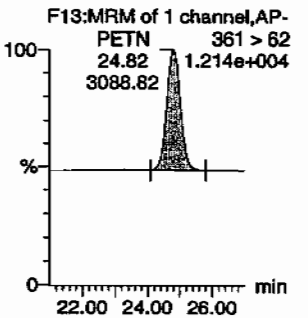

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100112-08CRI	HMX	176 > 102	5.20	881.793	3219.847	881.793	136.931	bb			35.9202	89.8	-10.2	188.8
WXX100112-08CRI	RDX	176 > 102	7.64	594.798	3219.847	594.798	92.364	bb			35.4817	88.7	-11.3	108.4
WXX100112-08CRI	135-Trinitrobenzene	213 > 183	10.27	969.035	3219.847	969.035	150.478	bb			27.4507	68.6	-31.4	107.2
WXX100112-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	3219.847		3219.847	3219.847	bb			639.6060	127.9	27.9	154.0
WXX100112-08CRI	13-Dinitrobenzene	168 > 138	12.31	346.088	3219.847	346.088	53.743	bb			42.8903	107.2	7.2	19.8
WXX100112-08CRI	Tetryl	241 > 181	12.82	271.868	3219.847	271.868	42.218	bb			37.5198	93.8	-6.2	23.2
WXX100112-08CRI	Nitrobenzene	123 > 46	13.72	215.042	3219.847	215.042	33.393	bb			36.4697	91.2	-8.8	18.9
WXX100112-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.86	437.816	18236.607	437.816	12.004	MM	14-Jan-10	07:33:29	44.6085	111.5	11.5	36.4
WXX100112-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.79	476.924	18236.607	476.924	13.076	bb			33.5513	83.9	-16.1	51.4
WXX100112-08CRI	246-Trinitrotoluene	227 > 210	15.58	650.579	18236.607	650.579	17.837	bb			51.2231	128.1	28.1	90.8
WXX100112-08CRI	34-dinitrotoluene	182 > 152	14.56	658.983	18236.607	658.983	18.068	bb			21.1240	105.6	5.6	26.9
WXX100112-08CRI	26-dinitrotoluene	182 > 152	17.79	1528.284	18236.607	1528.284	41.902	MM	14-Jan-10	07:43:19	38.4563	96.1	-3.9	71.6
WXX100112-08CRI	24-dinitrotoluene	182 > 152	18.45	322.497	18236.607	322.497	8.842	MM	14-Jan-10	07:46:49	36.3964	91.0	-9.0	13.5
WXX100112-08CRI	26-dinitrotoluene-d3	185 > 155	17.64	18236.607		18236.607	18236.607	bb			627.5173	125.5	25.5	885.2
WXX100112-08CRI	2-Nitrotoluene	137 > 46	21.31	229.982	18236.607	229.982	6.306	bb			39.1158	97.8	-2.2	47.7
WXX100112-08CRI	4-Nitrotoluene	137 > 46	22.74	74.955	18236.607	74.955	2.055	bb			25.4888	63.7	-36.3	15.0
WXX100112-08CRI	3-Nitrotoluene	137 > 46	24.37	126.384	18236.607	126.384	3.465	bb			37.1452	92.9	-7.1	22.4
WXX100112-08CRI	PETN	361 > 62	24.82	3088.820	18236.607	3088.820	84.687	bb			34.5643	86.4	-13.6	664.5

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	01/13/10
Time of Injection	1036
Standard Number	WXX100112-08CRI
Data File	EXP0112039a

HMX	89.8
RDX	88.7
135-TNB	68.6
13-DNB	107.2
Tetryl	93.8
Nitrobenzene	91.2
4A-26-DNT	111.5
2A-46-DNT	83.9
246-TNT	128.1
34-DNT(surr)	105.6
26-DNT	96.1
24-DNT	91.0
2-NT	97.8
4-NT	63.7
3-NT	92.9
PETN	86.4
Total	1496.3
Average	93.5

MMT 1/14/10

HMK-01/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-994

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0112057a

Analysis Date: 13-JAN-10 19:27

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	593.209	99	
1,3-Dinitrobenzene-d4	500	586.235	117	
2,4,6-Trinitrotoluene	600	697.924	116	
2,4-Dinitrotoluene	600	656.916	109	
2,6-Dinitrotoluene	600	600.2	100	
2,6-Dinitrotoluene-d3	500	570.408	114	
2-Amino-4,6-dinitrotoluene	600	639.135	107	
3,4-Dinitrotoluene	300	327.142	109	
4-Amino-2,6-dinitrotoluene	600	645.951	108	
HMX	600	540.902	90	
Nitrobenzene	600	577.307	96	
PETN	600	585.777	98	
RDX	600	608.237	101	
Tetryl	600	521.217	87	
m-Dinitrobenzene	600	581.266	97	
m-Nitrotoluene	600	541.947	90	
o-Nitrotoluene	600	507.05	85	
p-Nitrotoluene	600	519.113	87	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112057a
Date: 13-Jan-2010
Time: 19:27:40
ID: WXX100112-07CCV
Vial: 1:1,B

HMX

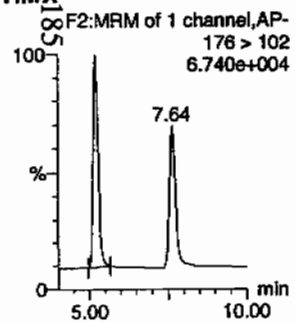

RDX

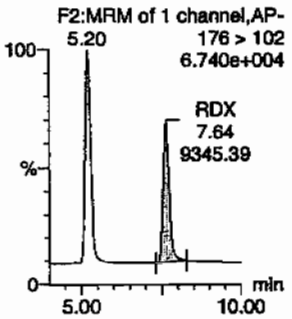

135-Trinitrobenzene

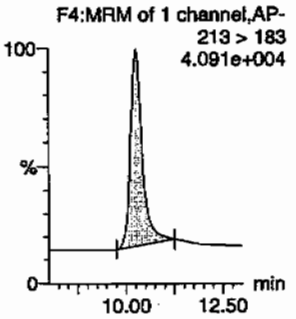

13-Dinitrobenzene-d4

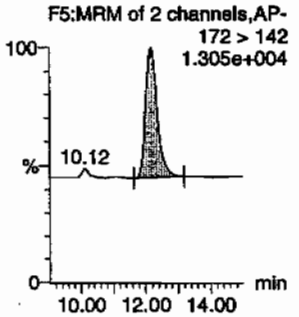

13-Dinitrobenzene

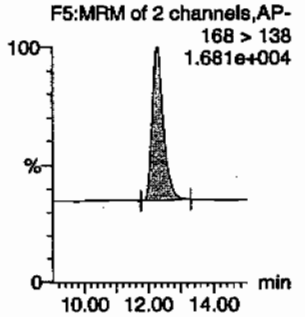

Tetryl

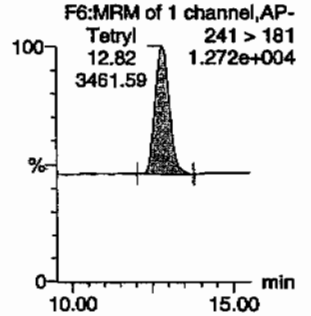

Nitrobenzene

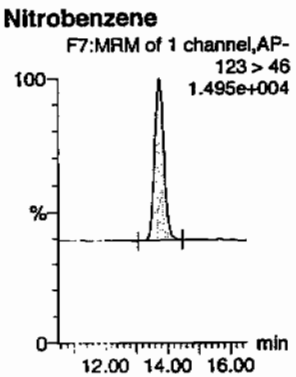

4-Amino-26-dinitrotoluene

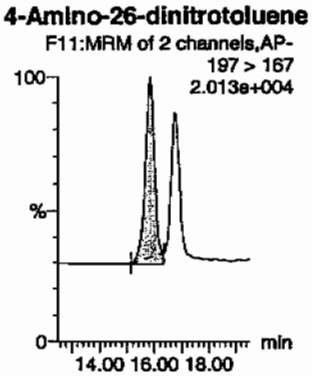

2-Amino-46-dinitrotoluene

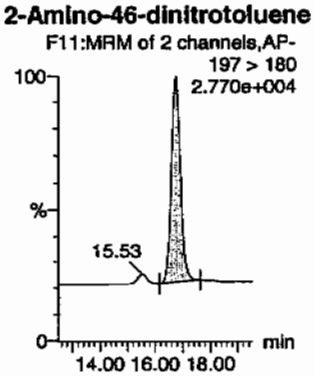

246-Trinitrotoluene

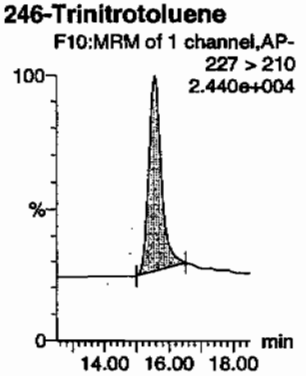

34-dinitrotoluene

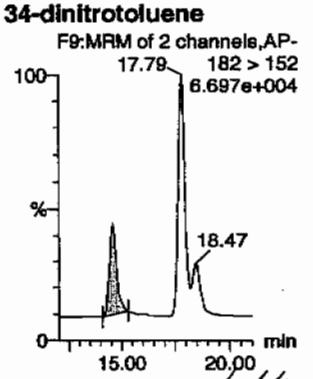

26-dinitrotoluene

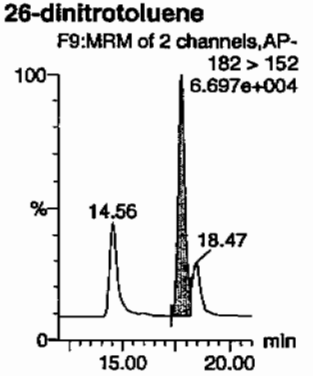

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

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24-dinitrotoluene

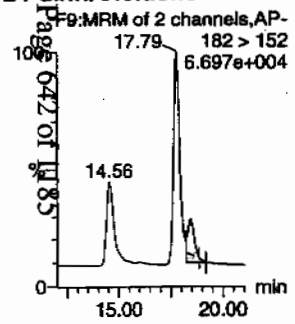

26-dinitrotoluene-d3

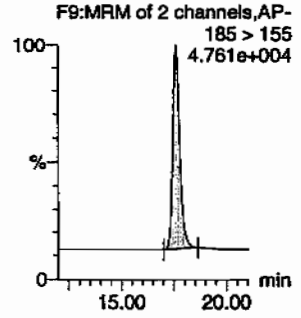

2-Nitrotoluene

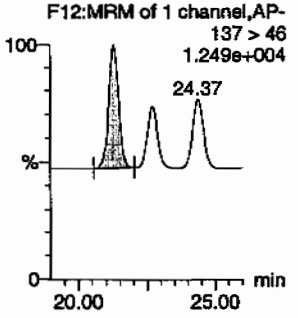

4-Nitrotoluene

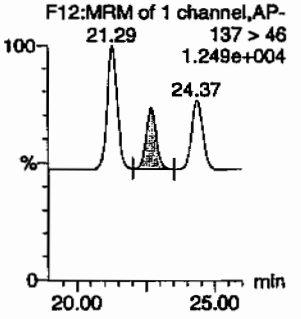

3-Nitrotoluene

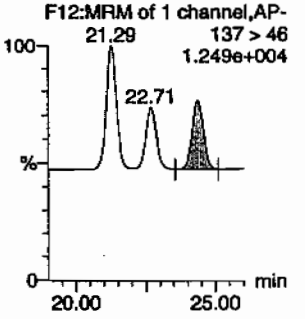

PETN

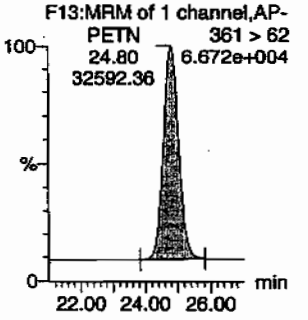

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flag	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100112-07CCV	HMX	176 > 102	5.20	12170.434	2951.173	12170.434	2061.966	bb			540.9021	90.2	-9.8	1347.5
WXX100112-07CCV	RDX	176 > 102	7.64	9345.387	2951.173	9345.387	1583.334	bb			608.2373	101.4	1.4	896.4
WXX100112-07CCV	135-Trinitrobenzene	213 > 183	10.27	12371.003	2951.173	12371.003	2095.947	bb			593.2086	98.9	-1.1	2510.3
WXX100112-07CCV	13-Dinitrobenzene-d4	172 > 142	12.17	2951.173		2951.173	2951.173	bb			586.2353	117.2	17.2	117.8
WXX100112-07CCV	13-Dinitrobenzene	168 > 138	12.31	4298.939	2951.173	4298.939	728.344	bb			581.2659	96.9	-3.1	280.4
WXX100112-07CCV	Tetryl	241 > 181	12.82	3461.594	2951.173	3461.594	586.478	bb			521.2170	86.9	-13.1	241.1
WXX100112-07CCV	Nitrobenzene	123 > 46	13.72	3120.020	2951.173	3120.020	528.607	bb			577.3072	96.2	-3.8	159.7
WXX100112-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.86	5762.803	16576.922	5762.803	173.820	MM	14-Jan-10	07:34:42	645.9514	107.7	7.7	418.6
WXX100112-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.76	8258.325	16576.922	8258.325	249.091	bb			639.1351	106.5	6.5	550.1
WXX100112-07CCV	246-Trinitrotoluene	227 > 210	15.58	8057.533	16576.922	8057.533	243.035	bb			697.9242	116.3	16.3	181.2
WXX100112-07CCV	34-dinitrotoluene	182 > 152	14.56	9276.737	16576.922	9276.737	279.809	bb			327.1420	109.0	9.0	377.7
WXX100112-07CCV	26-dinitrotoluene	182 > 152	17.79	21681.686	16576.922	21681.686	653.972	MM	14-Jan-10	07:41:49	600.2002	100.0	0.0	976.0
WXX100112-07CCV	24-dinitrotoluene	182 > 152	18.47	5290.995	16576.922	5290.995	159.589	MM	14-Jan-10	07:48:28	656.9161	109.5	9.5	206.5
WXX100112-07CCV	26-dinitrotoluene-d3	185 > 155	17.62	16576.922		16576.922	16576.922	bb			570.4079	114.1	14.1	1102.7
WXX100112-07CCV	2-Nitrotoluene	137 > 46	21.29	2709.892	16576.922	2709.892	81.737	bb			507.0498	84.5	-15.5	792.8
WXX100112-07CCV	4-Nitrotoluene	137 > 46	22.71	1387.628	16576.922	1387.628	41.854	bb			519.1134	86.5	-13.5	389.0
WXX100112-07CCV	3-Nitrotoluene	137 > 46	24.37	1676.124	16576.922	1676.124	50.556	bb			541.9472	90.3	-9.7	435.6
WXX100112-07CCV	PETN	361 > 62	24.80	32592.357	16576.922	32592.357	983.064	bb			585.7766	97.6	-2.4	4532.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 01/13/10
Time of Injection: 1927
Standard Number: WXX100112-07CCV
Data File: EXP0112057a

HMX	90.2
RDX	101.4
135-TNB	98.9
13-DNB	96.9
Tetryl	86.9
Nitrobenzene	96.2
4A-26-DNT	107.7
2A-46-DNT	106.5
246-TNT	116.3
34-DNT(surr)	109.0
26-DNT	100.0
24-DNT	109.5
2-NT	84.5
4-NT	86.5
3-NT	90.3
PETN	97.6
Total	1578.4
Average	98.7

HMM 01/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-994

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0112059a

Analysis Date: 13-JAN-10 20:26

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
RDX	40	36.902	92	
Tetryl	40	49.984	125	
m-Dinitrobenzene	40	34.932	87	
m-Nitrotoluene	40	50.763	127	
o-Nitrotoluene	40	36.193	90	
p-Nitrotoluene	40	35.224	88	
1,3,5-Trinitrobenzene	40	39.692	99	
1,3-Dinitrobenzene-d4	500	573.834	115	
2,4,6-Trinitrotoluene	40	38.307	96	
2,4-Dinitrotoluene	40	36.743	92	
2,6-Dinitrotoluene	40	38.571	96	
2,6-Dinitrotoluene-d3	500	570.775	114	
2-Amino-4,6-dinitrotoluene	40	42.595	106	
3,4-Dinitrotoluene	20	19.317	97	
4-Amino-2,6-dinitrotoluene	40	48.489	121	
HMX	40	39.454	99	
Nitrobenzene	40	32.657	82	
PETN	40	42.365	106	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112059a
Date: 13-Jan-2010
Time: 20:26:37
ID: WXX100112-08CRI
Vial: 1:1,C

MMT 1/14/10

HMX

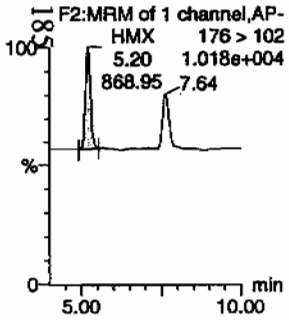

RDX

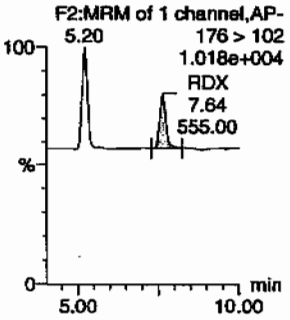

135-Trinitrobenzene

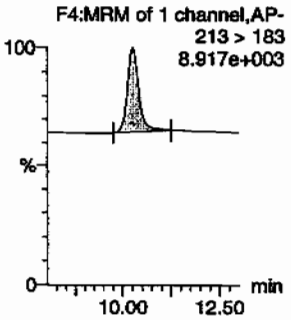

13-Dinitrobenzene-d4

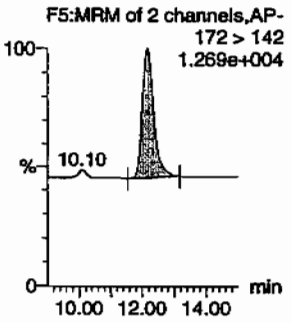

13-Dinitrobenzene

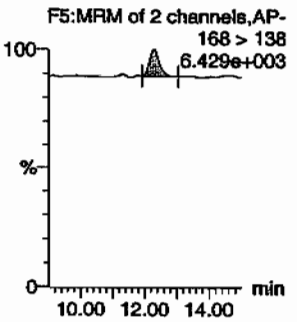

Tetryl

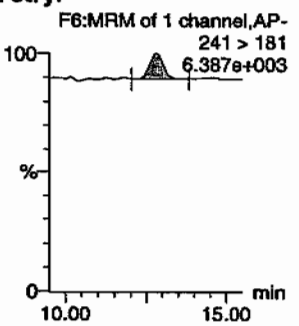

Nitrobenzene

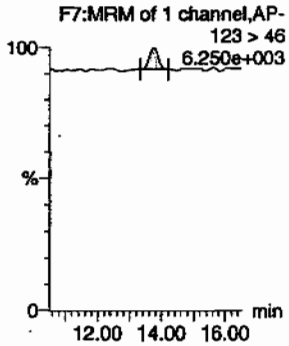

4-Amino-26-dinitrotoluene

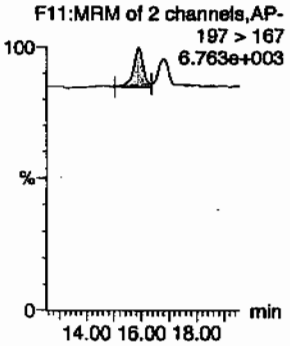

2-Amino-46-dinitrotoluene

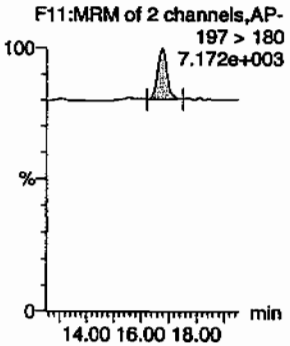

246-Trinitrotoluene

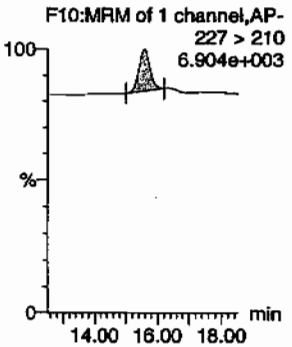

34-dinitrotoluene

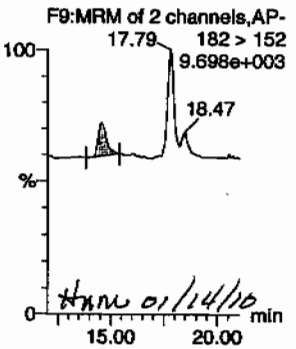

26-dinitrotoluene

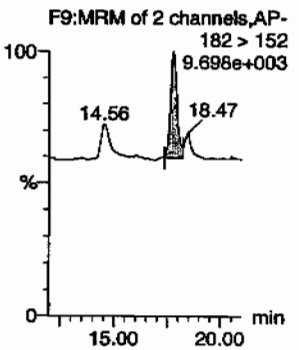

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

24-dinitrotoluene

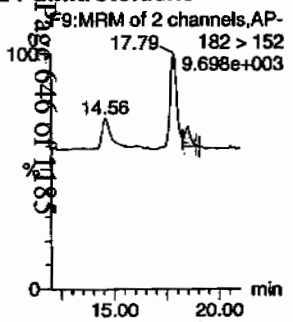

26-dinitrotoluene-d3

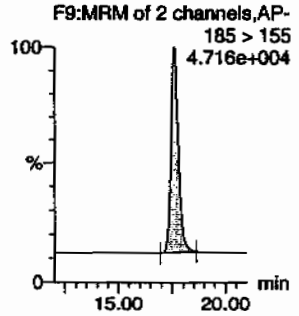

2-Nitrotoluene

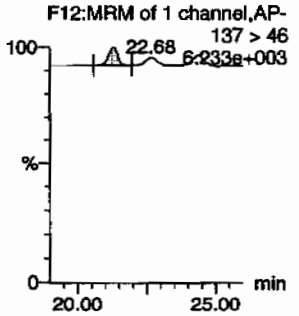

4-Nitrotoluene

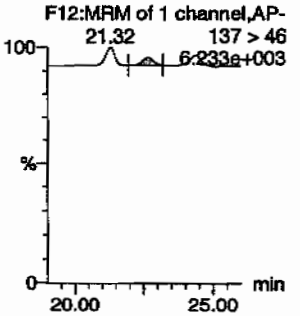

3-Nitrotoluene

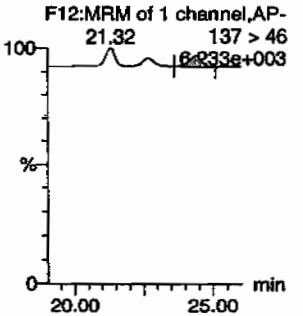

PETN

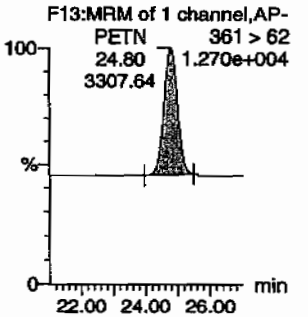

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Ug/ml	%Rec	%Dev	S/N
WXX100112-08CRI	HMX	176 > 102	5.20	868.945	2888.744	868.945	150.402	bb			39.4540	98.6	-1.4	278.6
WXX100112-08CRI	RDX	176 > 102	7.64	555.000	2888.744	555.000	96.063	bb			36.9024	92.3	-7.7	152.4
WXX100112-08CRI	135-Trinitrobenzene	213 > 183	10.27	1084.723	2888.744	1084.723	187.750	bb			39.6921	99.2	-0.8	268.1
WXX100112-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	2888.744		2888.744	2888.744	bb			573.8341	114.8	14.8	234.7
WXX100112-08CRI	13-Dinitrobenzene	168 > 138	12.31	252.887	2888.744	252.887	43.771	bb			34.9322	87.3	-12.7	48.8
WXX100112-08CRI	Tetryl	241 > 181	12.82	324.941	2888.744	324.941	56.243	bb			49.9842	125.0	25.0	27.1
WXX100112-08CRI	Nitrobenzene	123 > 46	13.76	172.757	2888.744	172.757	29.902	bb			32.6566	81.6	-18.4	14.7
WXX100112-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.86	432.871	16587.580	432.871	13.048	MM	14-Jan-10	07:34:48	48.4892	121.2	21.2	31.2
WXX100112-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.76	550.733	16587.580	550.733	16.601	bb			42.5954	106.5	6.5	53.2
WXX100112-08CRI	246-Trinitrotoluene	227 > 210	15.58	442.534	16587.580	442.534	13.339	bb			38.3066	95.8	-4.2	37.1
WXX100112-08CRI	34-dinitrotoluene	182 > 152	14.56	548.111	16587.580	548.111	16.522	bb			19.3166	96.6	-3.4	27.8
WXX100112-08CRI	26-dinitrotoluene	182 > 152	17.79	1394.224	16587.580	1394.224	42.026	MM	14-Jan-10	07:41:40	38.5706	96.4	-3.6	87.5
WXX100112-08CRI	24-dinitrotoluene	182 > 152	18.47	296.126	16587.580	296.126	8.926	MM	14-Jan-10	07:48:40	36.7426	91.9	-8.1	19.4
WXX100112-08CRI	26-dinitrotoluene-d3	185 > 155	17.62	16587.580		16587.580	16587.580	bb			570.7747	114.2	14.2	2122.4
WXX100112-08CRI	2-Nitrotoluene	137 > 46	21.32	193.554	16587.580	193.554	5.834	bb			36.1928	90.5	-9.5	63.9
WXX100112-08CRI	4-Nitrotoluene	137 > 46	22.68	94.217	16587.580	94.217	2.840	bb			35.2241	88.1	-11.9	26.7
WXX100112-08CRI	3-Nitrotoluene	137 > 46	24.39	157.099	16587.580	157.099	4.735	bb			50.7627	126.9	26.9	37.8
WXX100112-08CRI	PETN	361 > 62	24.80	3307.641	16587.580	3307.641	99.702	bb			42.3646	105.9	5.9	816.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	01/13/10
Time of Injection	2026
Standard Number	WXX100112-08CRI
Data File	EXP0112059a

HMX	98.6
RDX	92.3
135-TNB	99.2
13-DNB	87.3
Tetryl	125.0
Nitrobenzene	81.6
4A-26-DNT	121.2
2A-46-DNT	106.5
246-TNT	95.8
34-DNT(surr)	96.6
26-DNT	96.4
24-DNT	91.9
2-NT	90.5
4-NT	88.1
3-NT	126.9
PETN	105.9
Total	1603.8
Average	100.2

1/14/10

HMM 01/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–994

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0112068a

Analysis Date: 14–JAN–10 00:52

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6–Dinitrotoluene–d3	500	516.521	103	
2–Amino–4,6–dinitrotoluene	600	674.987	112	
3,4–Dinitrotoluene	300	330.747	110	
4–Amino–2,6–dinitrotoluene	600	650.699	108	
HMX	600	541.348	90	
Nitrobenzene	600	532.533	89	
PETN	600	670.597	112	
RDX	600	637.806	106	
Tetryl	600	562.314	94	
m–Dinitrobenzene	600	600.769	100	
m–Nitrotoluene	600	550.349	92	
o–Nitrotoluene	600	550.515	92	
p–Nitrotoluene	600	568.221	95	
1,3,5–Trinitrobenzene	600	628.273	105	
1,3–Dinitrobenzene–d4	500	562.542	113	
2,4,6–Trinitrotoluene	600	661.421	110	
2,4–Dinitrotoluene	600	675.892	113	
2,6–Dinitrotoluene	600	598.736	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112068a
Date: 14-Jan-2010
Time: 00:52:04
ID: WXX100112-07CCV
Vial: 1:1,B

MDT 1/14/10

HMX

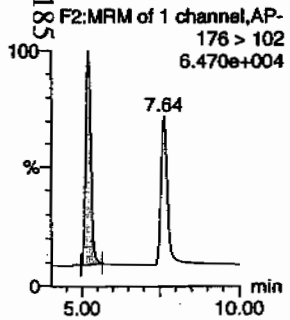

RDX

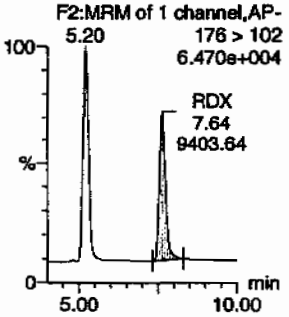

135-Trinitrobenzene

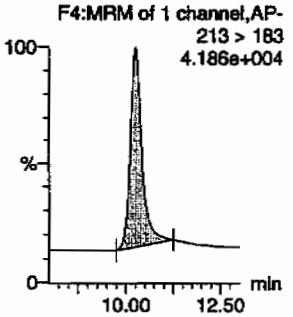

13-Dinitrobenzene-d4

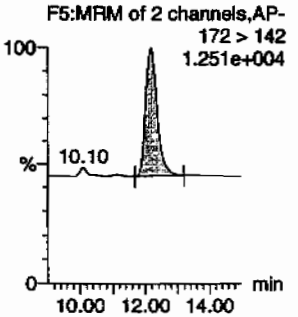

13-Dinitrobenzene

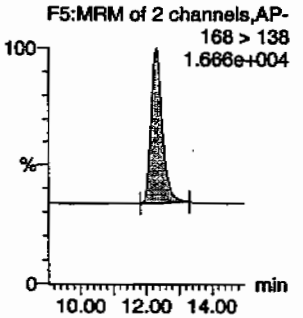

Tetryl

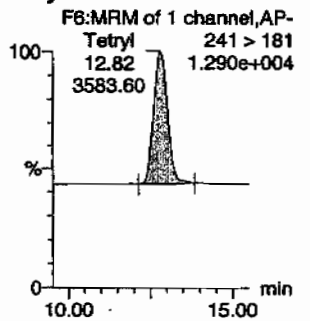

Nitrobenzene

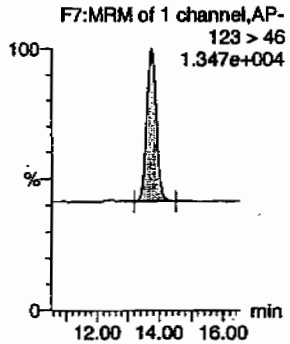

4-Amino-26-dinitrotoluene

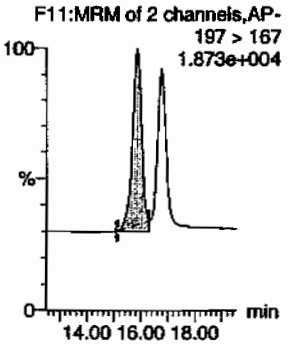

2-Amino-46-dinitrotoluene

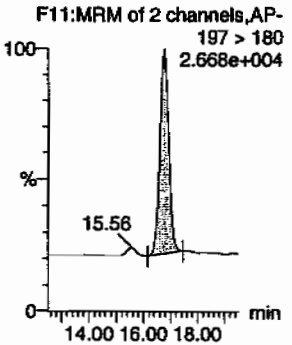

246-Trinitrotoluene

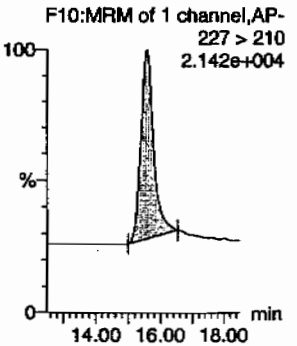

34-dinitrotoluene

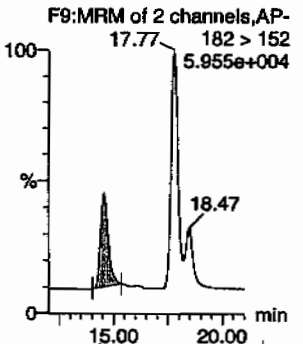

HWM 01/14/10

26-dinitrotoluene

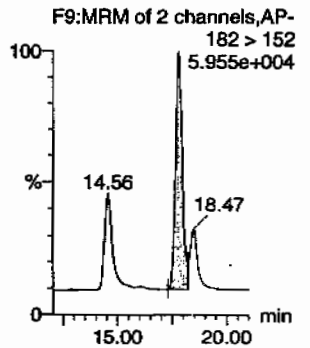

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

24-dinitrotoluene

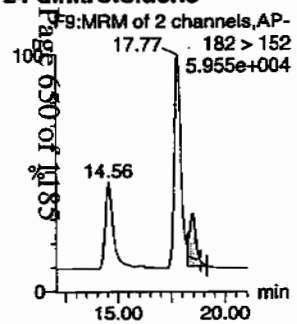

26-dinitrotoluene-d3

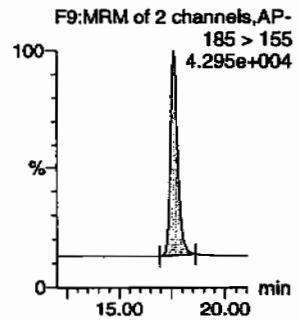

2-Nitrotoluene

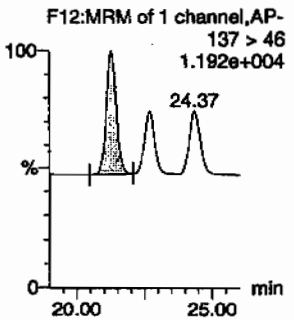

4-Nitrotoluene

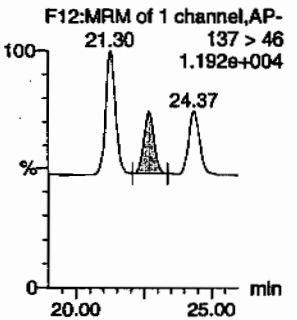

3-Nitrotoluene

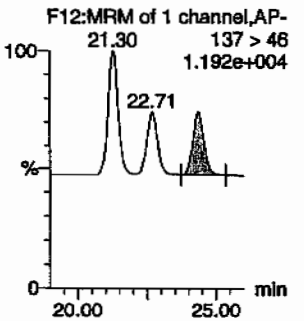

PETN

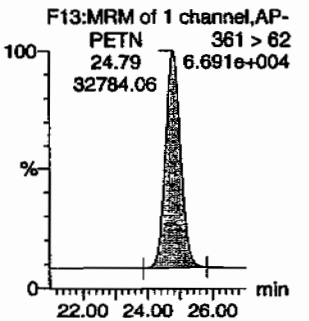

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Conc/mL	%Rec	%Dev	S/N
WXX100112-07CCV	HMX	176 > 102	5.20	11688.175	2831.899	11688.175	2063.664	bb			541.3476	90.2	-9.8	2271.7
WXX100112-07CCV	RDX	176 > 102	7.64	9403.642	2831.899	9403.642	1660.307	bb			637.8062	106.3	6.3	1578.4
WXX100112-07CCV	135-Trinitrobenzene	213 > 183	10.27	12638.864	2831.899	12638.864	2231.517	bb			628.2729	104.7	4.7	2351.5
WXX100112-07CCV	13-Dinitrobenzene-d4	172 > 142	12.17	2831.899		2831.899	2831.899	bb			562.5421	112.5	12.5	297.7
WXX100112-07CCV	13-Dinitrobenzene	168 > 138	12.31	4263.603	2831.899	4263.603	752.782	bb			600.7686	100.1	0.1	444.0
WXX100112-07CCV	Tetryl	241 > 181	12.82	3583.599	2831.899	3583.599	632.720	bb			562.3139	93.7	-6.3	198.3
WXX100112-07CCV	Nitrobenzene	123 > 46	13.72	2761.723	2831.899	2761.723	487.610	bb			532.5331	88.8	-11.2	172.0
WXX100112-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.86	5256.737	15010.875	5256.737	175.098	MM	14-Jan-10	07:35:25	650.6991	108.4	8.4	334.5
WXX100112-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.76	7897.632	15010.875	7897.632	263.064	bb			674.9871	112.5	12.5	202.3
WXX100112-07CCV	246-Trinitrotoluene	227 > 210	15.58	6914.711	15010.875	6914.711	230.323	bb			661.4212	110.2	10.2	308.2
WXX100112-07CCV	34-dinitrotoluene	182 > 152	14.56	8492.921	15010.875	8492.921	282.892	bb			330.7471	110.2	10.2	364.3
WXX100112-07CCV	26-dinitrotoluene	182 > 152	17.77	19585.500	15010.875	19585.500	652.377	MM	14-Jan-10	07:40:51	598.7364	99.8	-0.2	926.6
WXX100112-07CCV	24-dinitrotoluene	182 > 152	18.47	4929.542	15010.875	4929.542	164.199	MM	14-Jan-10	07:49:31	675.8916	112.6	12.6	224.0
WXX100112-07CCV	26-dinitrotoluene-d3	185 > 155	17.62	15010.875		15010.875	15010.875	bb			516.5206	103.3	3.3	1235.6
WXX100112-07CCV	2-Nitrotoluene	137 > 46	21.30	2664.237	15010.875	2664.237	88.744	bb			550.5153	91.8	-8.2	655.8
WXX100112-07CCV	4-Nitrotoluene	137 > 46	22.71	1375.403	15010.875	1375.403	45.814	bb			568.2207	94.7	-5.3	332.7
WXX100112-07CCV	3-Nitrotoluene	137 > 46	24.37	1541.309	15010.875	1541.309	51.340	bb			550.3493	91.7	-8.3	340.1
WXX100112-07CCV	PETN	361 > 62	24.79	32784.055	15010.875	32784.055	1092.010	bb			670.5969	111.8	11.8	7030.6

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 01/14/10
Time of Injection: 0052
Standard Number: WXX100112-07CCV
Data File: EXP0112068a

HMX	90.2
RDX	106.3
135-TNB	104.7
13-DNB	100.1
Tetryl	93.7
Nitrobenzene	88.8
4A-26-DNT	108.4
2A-46-DNT	112.5
246-TNT	110.2
34-DNT(surr)	110.2
26-DNT	99.8
24-DNT	112.6
2-NT	91.8
4-NT	94.7
3-NT	91.7
PETN	111.8
Total	1627.5
Average	101.7

MPP 1/14/10

HMM 01/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-994

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0112070a

Analysis Date: 14-JAN-10 01:51

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	41.027	103	
1,3-Dinitrobenzene-d4	500	557.391	111	
2,4,6-Trinitrotoluene	40	43.755	109	
2,4-Dinitrotoluene	40	34.13	85	
2,6-Dinitrotoluene	40	41.323	103	
2,6-Dinitrotoluene-d3	500	558.726	112	
2-Amino-4,6-dinitrotoluene	40	45.438	114	
3,4-Dinitrotoluene	20	20.684	103	
4-Amino-2,6-dinitrotoluene	40	46.178	115	
HMX	40	41.499	104	
Nitrobenzene	40	35.286	88	
PETN	40	47.865	120	
RDX	40	42.033	105	
Tetryl	40	48.743	122	
m-Dinitrobenzene	40	31.296	78	
m-Nitrotoluene	40	41.436	104	
o-Nitrotoluene	40	38.28	96	
p-Nitrotoluene	40	36.778	92	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112070a
Date: 14-Jan-2010
Time: 01:51:01
ID: WXX100112-08CRI
Vial: 1:1,C

MMT 1/14/10

HMX

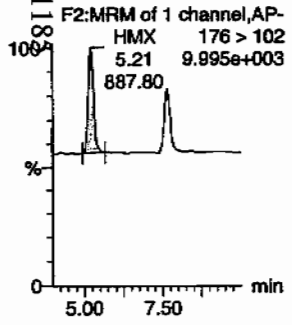

RDX

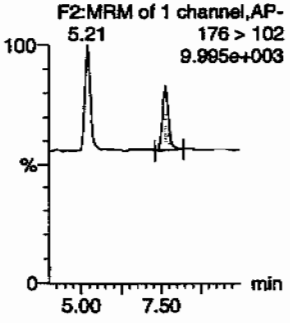

135-Trinitrobenzene

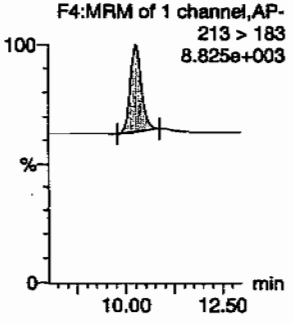

13-Dinitrobenzene-d4

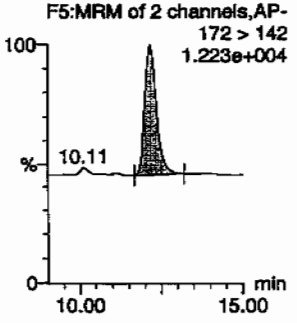

13-Dinitrobenzene

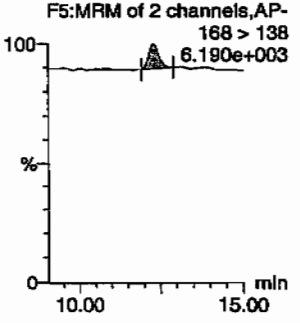

Tetryl

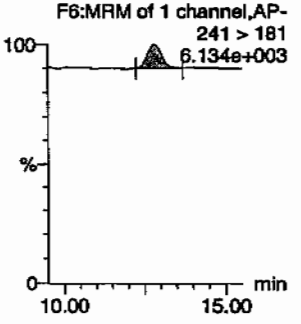

Nitrobenzene

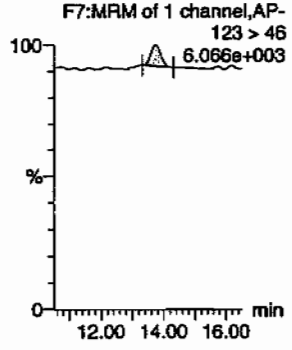

4-Amino-26-dinitrotoluene

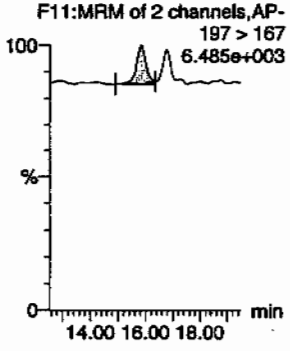

2-Amino-46-dinitrotoluene

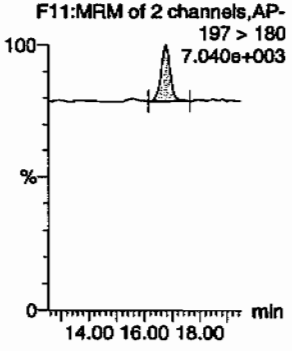

246-Trinitrotoluene

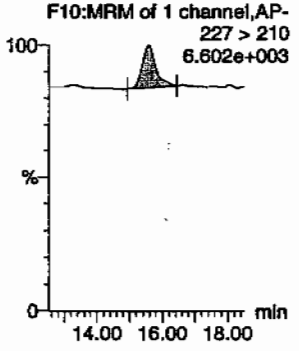

34-dinitrotoluene

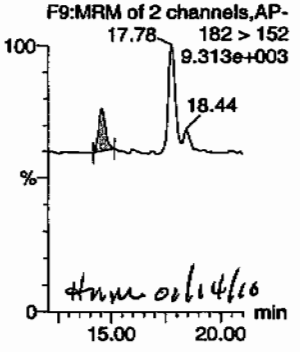

Hmm 01/14/10

26-dinitrotoluene

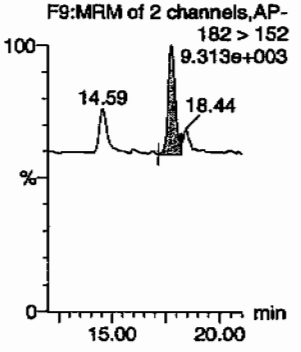

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

24-dinitrotoluene

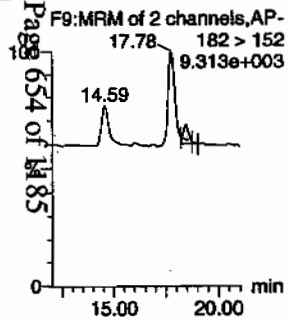

26-dinitrotoluene-d3

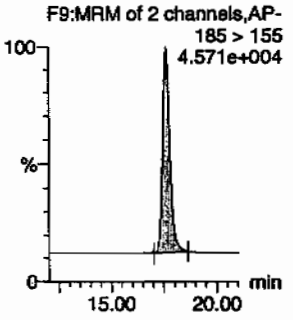

2-Nitrotoluene

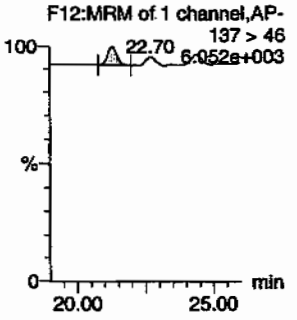

4-Nitrotoluene

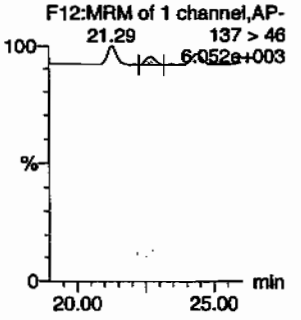

3-Nitrotoluene

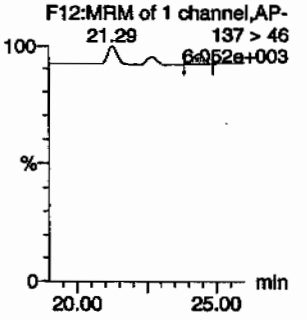

PETN

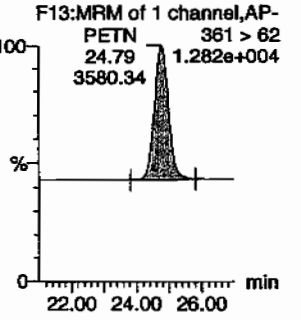

ID	Name	Trace	RT	Area	SArea	Abs Resp	Response	Flag	Modified	Modtime	Amount	%Rec	%Dev	S/N
WXX100112-08CRI	HMX	176 > 102	5.21	887.799	2805.969	887.799	158.198	bb			41.4991	103.7	3.7	104.2
WXX100112-08CRI	RDX	176 > 102	7.65	614.047	2805.969	614.047	109.418	bb			42.0329	105.1	5.1	64.0
WXX100112-08CRI	135-Trinitrobenzene	213 > 183	10.26	1076.524	2805.969	1076.524	191.827	bb			41.0271	102.6	2.6	93.4
WXX100112-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	2805.969		2805.969	2805.969	bb			557.3913	111.5	11.5	177.2
WXX100112-08CRI	13-Dinitrobenzene	168 > 138	12.31	220.071	2805.969	220.071	39.215	bb			31.2960	78.2	-21.8	52.5
WXX100112-08CRI	Tetryl	241 > 181	12.85	307.791	2805.969	307.791	54.846	bb			48.7428	121.9	21.9	39.4
WXX100112-08CRI	Nitrobenzene	123 > 46	13.74	181.319	2805.969	181.319	32.310	bb			35.2862	88.2	-11.8	16.5
WXX100112-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.85	403.534	16237.421	403.534	12.426	MM	14-Jan-10	07:35:31	46.1778	115.4	15.4	18.7
WXX100112-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.75	575.089	16237.421	575.089	17.709	bb			45.4384	113.6	13.6	46.4
WXX100112-08CRI	246-Trinitrotoluene	227 > 210	15.60	494.801	16237.421	494.801	15.236	bb			43.7546	109.4	9.4	39.1
WXX100112-08CRI	34-dinitrotoluene	182 > 152	14.59	574.508	16237.421	574.508	17.691	bb			20.6835	103.4	3.4	44.1
WXX100112-08CRI	26-dinitrotoluene	182 > 152	17.78	1462.193	16237.421	1462.193	45.025	MM	14-Jan-10	07:40:41	41.3233	103.3	3.3	111.1
WXX100112-08CRI	24-dinitrotoluene	182 > 152	18.44	269.260	16237.421	269.260	8.291	MM	14-Jan-10	07:49:44	34.1296	85.3	-14.7	22.4
WXX100112-08CRI	26-dinitrotoluene-d3	185 > 155	17.61	16237.421		16237.421	16237.421	bb			558.7258	111.7	11.7	1706.7
WXX100112-08CRI	2-Nitrotoluene	137 > 46	21.29	200.395	16237.421	200.395	6.171	bb			38.2800	95.7	-4.3	30.7
WXX100112-08CRI	4-Nitrotoluene	137 > 46	22.70	96.296	16237.421	96.296	2.965	bb			36.7777	91.9	-8.1	14.2
WXX100112-08CRI	3-Nitrotoluene	137 > 46	24.39	125.529	16237.421	125.529	3.865	bb			41.4364	103.6	3.6	17.1
WXX100112-08CRI	PETN	361 > 62	24.79	3580.337	16237.421	3580.337	110.250	bb			47.8646	119.7	19.7	1688.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	01/14/10
Time of Injection	0151
Standard Number	WXX100112-08CRI
Data File	EXP0112070a

HMX	103.7
RDX	105.1
135-TNB	102.6
13-DNB	78.2
Tetryl	121.9
Nitrobenzene	88.2
4A-26-DNT	115.4
2A-46-DNT	113.6
246-TNT	109.4
34-DNT(surr)	103.4
26-DNT	103.3
24-DNT	85.3
2-NT	95.7
4-NT	91.9
3-NT	103.6
PETN	119.7
Total	1641.0
Average	102.6

WTP 1/14/10

ATM 01/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-994

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0112077a

Analysis Date: 14-JAN-10 05:17

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Nitrotoluene	600	542.269	90	
o-Nitrotoluene	600	619.541	103	
p-Nitrotoluene	600	560.178	93	
1,3,5-Trinitrobenzene	600	605.785	101	
1,3-Dinitrobenzene-d4	500	509.385	102	
2,4,6-Trinitrotoluene	600	631.942	105	
2,4-Dinitrotoluene	600	601.14	100	
2,6-Dinitrotoluene	600	607.026	101	
2,6-Dinitrotoluene-d3	500	487.236	97	
2-Amino-4,6-dinitrotoluene	600	652.874	109	
3,4-Dinitrotoluene	300	324.517	108	
4-Amino-2,6-dinitrotoluene	600	638.14	106	
HMX	600	531.001	89	
Nitrobenzene	600	567.701	95	
PETN	600	700.261	117	
RDX	600	652.889	109	
Tetryl	600	513.106	86	
m-Dinitrobenzene	600	572.981	95	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112077a
Date: 14-Jan-2010
Time: 05:17:30
ID: WXX100112-07CCV
Vial: 1:1,B

MATT 1/14/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.784e+004
7.64

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.784e+004
5.20
RDX
7.84
8716.42

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
3.658e+004

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.171e+004
10.12

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.496e+004

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.158e+004
Tetryl
12.82
2961.00

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.320e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
1.777e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
2.479e+004
15.56

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.013e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.866e+004
17.79
18.45

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.866e+004
14.56
18.45

Hum 01/14/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

24-dinitrotoluene

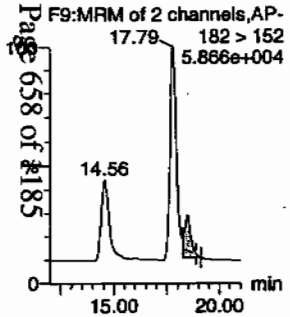

26-dinitrotoluene-d3

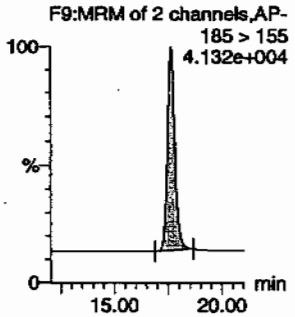

2-Nitrotoluene

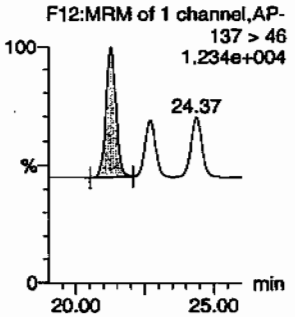

4-Nitrotoluene

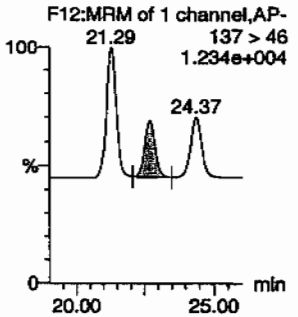

3-Nitrotoluene

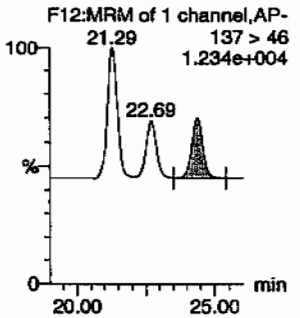

PETN

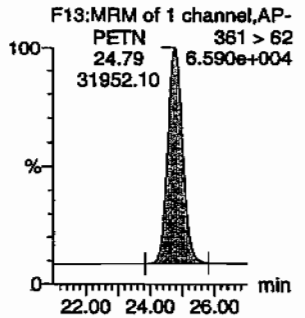

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100112-07CCV	HMX	176 > 102	5.20	10381.432	2564.300	10381.432	2024.223	bb			531.0015	88.5	-11.5	1530.8
WXX100112-07CCV	RDX	176 > 102	7.64	8716.415	2564.300	8716.415	1699.570	bb			652.8892	108.8	8.8	1111.7
WXX100112-07CCV	135-Trinitrobenzene	213 > 183	10.27	10997.608	2564.300	10997.608	2144.368	bb			605.7846	101.0	1.0	1290.0
WXX100112-07CCV	13-Dinitrobenzene-d4	172 > 142	12.17	2564.300		2564.300	2564.300	bb			509.3850	101.9	1.9	305.1
WXX100112-07CCV	13-Dinitrobenzene	168 > 138	12.31	3682.143	2564.300	3682.143	717.963	bb			572.9808	95.5	-4.5	480.8
WXX100112-07CCV	Tetryl	241 > 181	12.82	2961.004	2564.300	2961.004	577.351	bb			513.1063	85.5	-14.5	237.3
WXX100112-07CCV	Nitrobenzene	123 > 46	13.76	2665.904	2564.300	2665.904	519.811	bb			567.7013	94.6	-5.4	211.0
WXX100112-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.86	4862.989	14159.813	4862.989	171.718	MM	14-Jan-10	07:35:58	638.1397	106.4	6.4	157.7
WXX100112-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.76	7205.803	14159.813	7205.803	254.446	bb			652.8741	108.8	8.8	409.3
WXX100112-07CCV	246-Trinitrotoluene	227 > 210	15.58	6231.964	14159.813	6231.964	220.058	bb			631.9424	105.3	5.3	298.5
WXX100112-07CCV	34-dinitrotoluene	182 > 152	14.56	7860.506	14159.813	7860.506	277.564	bb			324.5174	108.2	8.2	275.7
WXX100112-07CCV	26-dinitrotoluene	182 > 152	17.79	18730.857	14159.813	18730.857	661.409	MM	14-Jan-10	07:39:56	607.0258	101.2	1.2	737.4
WXX100112-07CCV	24-dinitrotoluene	182 > 152	18.45	4135.771	14159.813	4135.771	146.039	MM	14-Jan-10	07:50:26	601.1397	100.2	0.2	149.3
WXX100112-07CCV	26-dinitrotoluene-d3	185 > 155	17.62	14159.813		14159.813	14159.813	bb			487.2358	97.4	-2.6	853.6
WXX100112-07CCV	2-Nitrotoluene	137 > 46	21.29	2828.298	14159.813	2828.298	99.871	bb			619.5412	103.3	3.3	242.8
WXX100112-07CCV	4-Nitrotoluene	137 > 46	22.69	1279.059	14159.813	1279.059	45.165	bb			560.1781	93.4	-6.6	103.7
WXX100112-07CCV	3-Nitrotoluene	137 > 46	24.37	1432.575	14159.813	1432.575	50.586	bb			542.2688	90.4	-9.6	109.9
WXX100112-07CCV	PETN	361 > 62	24.79	31952.100	14159.813	31952.100	1128.267	bb			700.2606	116.7	16.7	1445.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 01/14/10
Time of Injection: 0517
Standard Number: WXX100112-07CCV
Data File: EXP0112077a

HMX	88.5
RDX	108.8
135-TNB	101.0
13-DNB	95.5
Tetryl	85.5
Nitrobenzene	94.6
4A-26-DNT	106.4
2A-46-DNT	108.8
246-TNT	105.3
34-DNT(surr)	108.2
26-DNT	101.2
24-DNT	100.2
2-NT	103.3
4-NT	93.4
3-NT	90.4
PETN	116.7
Total	1607.8
Average	100.5

MHT 1/14/10

Hmm 01/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-994

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0112079a

Analysis Date: 14-JAN-10 06:16

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene-d3	500	582.94	117	
2-Amino-4,6-dinitrotoluene	40	35.508	89	
3,4-Dinitrotoluene	20	18.04	90	
4-Amino-2,6-dinitrotoluene	40	37.252	93	
HMX	40	40.971	102	
Nitrobenzene	40	39.57	99	
PETN	40	42.713	107	
RDX	40	37.527	94	
Tetryl	40	53.314	133	*
m-Dinitrobenzene	40	47.524	119	
m-Nitrotoluene	40	32.752	82	
o-Nitrotoluene	40	34.867	87	
p-Nitrotoluene	40	26.83	67	*
1,3,5-Trinitrobenzene	40	43.804	110	
1,3-Dinitrobenzene-d4	500	555.242	111	
2,4,6-Trinitrotoluene	40	43.169	108	
2,4-Dinitrotoluene	40	45.234	113	
2,6-Dinitrotoluene	40	38.774	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112079a
Date: 14-Jan-2010
Time: 06:16:27
ID: WXX100112-08CRI
Vial: 1:1,C

MR 1/14/10

HMX

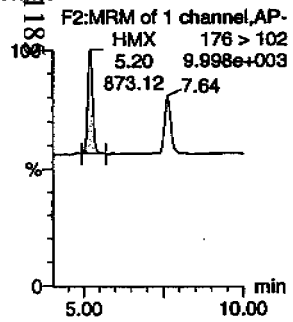

RDX

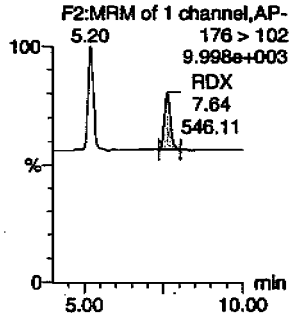

135-Trinitrobenzene

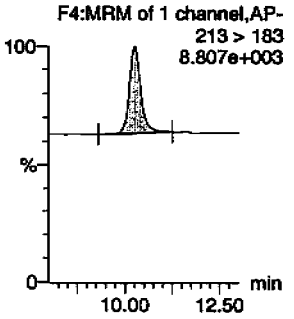

13-Dinitrobenzene-d4

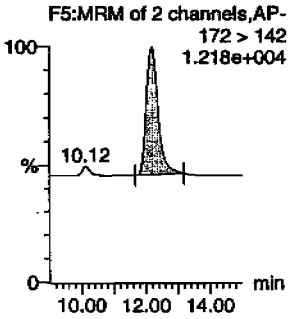

13-Dinitrobenzene

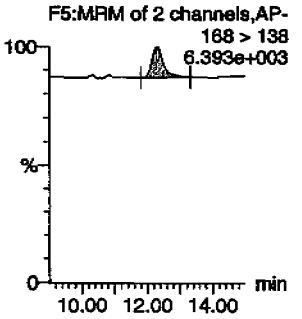

Tetryl

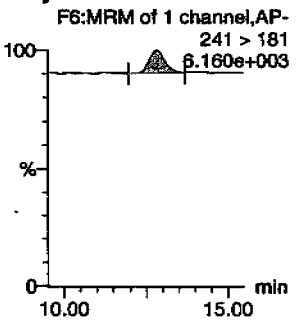

Nitrobenzene

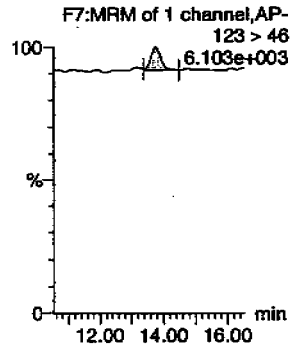

4-Amino-26-dinitrotoluene

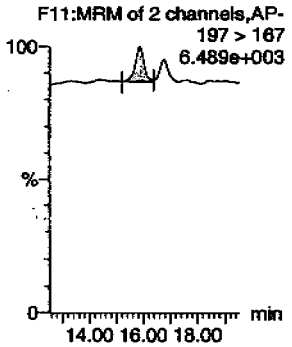

2-Amino-46-dinitrotoluene

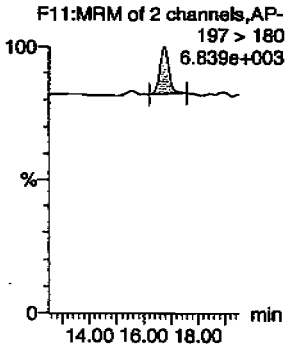

246-Trinitrotoluene

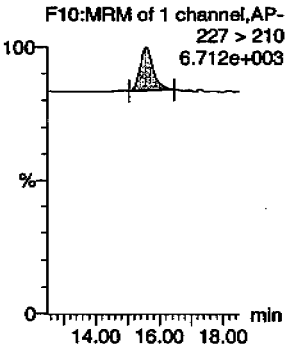

34-dinitrotoluene

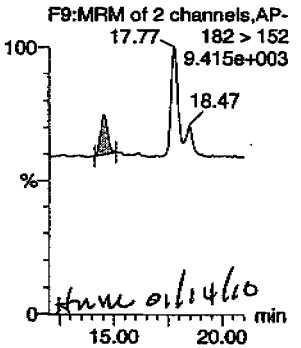

Hmm 01/14/10

26-dinitrotoluene

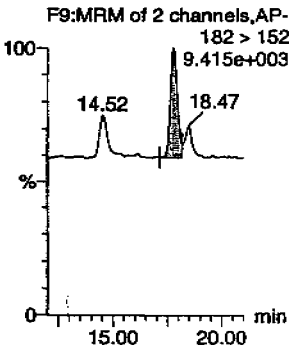

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

24-dinitrotoluene

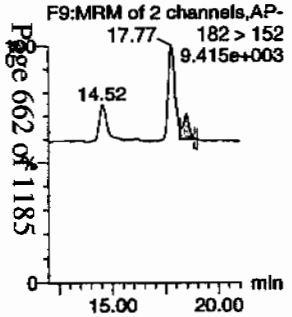

26-dinitrotoluene-d3

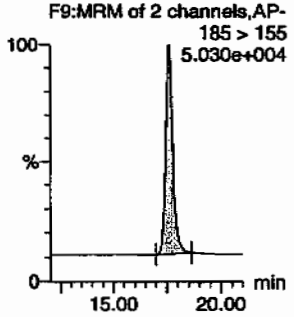

2-Nitrotoluene

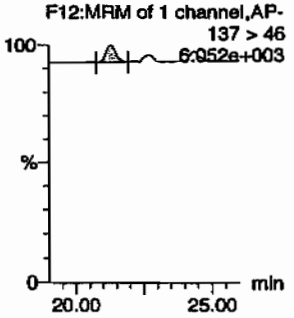

4-Nitrotoluene

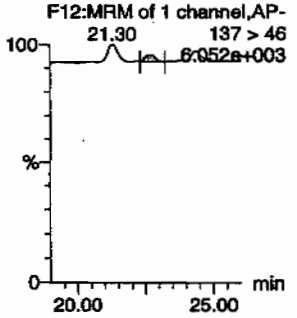

3-Nitrotoluene

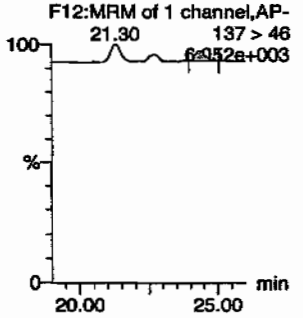

PETN

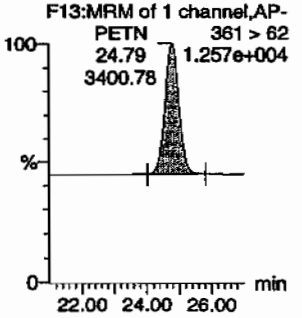

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100112-08CRI	HMX	176 > 102	5.20	873.116	2795.151	873.116	156.184	bb			40.9708	102.4	2.4	134.7
WXX100112-08CRI	RDX	176 > 102	7.64	546.112	2795.151	546.112	97.689	bb			37.5273	93.8	-6.2	73.5
WXX100112-08CRI	135-Trinitrobenzene	213 > 183	10.27	1119.839	2795.151	1119.839	200.318	bb			43.8043	109.5	9.5	433.2
WXX100112-08CRI	13-Dinitrobenzene-d4	172 > 142	12.17	2795.151		2795.151	2795.151	bb			555.2423	111.0	11.0	401.8
WXX100112-08CRI	13-Dinitrobenzene	168 > 138	12.31	332.897	2795.151	332.897	59.549	bb			47.5240	118.8	18.8	23.8
WXX100112-08CRI	Tetryl	241 > 181	12.82	335.361	2795.151	335.361	59.990	bb			53.3144	133.3	33.3	22.7
WXX100112-08CRI	Nitrobenzene	123 > 46	13.76	202.547	2795.151	202.547	36.232	db			39.5699	98.9	-1.1	15.0
WXX100112-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.86	339.642	16941.109	339.642	10.024	MM	14-Jan-10	07:36:06	37.2520	93.1	-6.9	29.7
WXX100112-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.76	468.879	16941.109	468.879	13.838	bb			35.5078	88.8	-11.2	25.5
WXX100112-08CRI	246-Trinitrotoluene	227 > 210	15.58	509.334	16941.109	509.334	15.032	bb			43.1689	107.9	7.9	32.7
WXX100112-08CRI	34-dinitrotoluene	182 > 152	14.52	522.805	16941.109	522.805	15.430	bb			18.0403	90.2	-9.8	17.3
WXX100112-08CRI	26-dinitrotoluene	182 > 152	17.77	1431.446	16941.109	1431.446	42.248	MM	14-Jan-10	07:39:40	38.7740	96.9	-3.1	47.1
WXX100112-08CRI	24-dinitrotoluene	182 > 152	18.47	372.331	16941.109	372.331	10.989	MM	14-Jan-10	07:50:36	45.2339	113.1	13.1	12.7
WXX100112-08CRI	26-dinitrotoluene-d3	185 > 155	17.62	16941.109		16941.109	16941.109	bb			582.9395	116.6	16.6	1716.0
WXX100112-08CRI	2-Nitrotoluene	137 > 46	21.30	190.436	16941.109	190.436	5.621	bb			34.8666	87.2	-12.8	41.0
WXX100112-08CRI	4-Nitrotoluene	137 > 46	22.71	73.294	16941.109	73.294	2.163	bb			26.8299	67.1	-32.9	16.0
WXX100112-08CRI	3-Nitrotoluene	137 > 46	24.36	103.520	16941.109	103.520	3.055	bb			32.7519	81.9	-18.1	22.8
WXX100112-08CRI	PETN	361 > 62	24.79	3400.784	16941.109	3400.784	100.371	bb			42.7127	106.8	6.8	519.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	01/14/10
Time of Injection	0616
Standard Number	WXX100112-08CRI
Data File	EXP0112079a

HMX	102.4
RDX	93.8
135-TNB	109.5
13-DNB	118.8
Tetryl	133.3
Nitrobenzene	98.9
4A-26-DNT	93.1
2A-46-DNT	88.8
246-TNT	107.9
34-DNT(surr)	90.2
26-DNT	96.9
24-DNT	113.1
2-NT	87.2
4-NT	67.1
3-NT	81.9
PETN	106.8
Total	1589.7
Average	99.4

MRP 1/14/10

HMC 01/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-994

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS01040013.wiff

Analysis Date: 04-JAN-10 18:49

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	101	101	
2,6-Diamino-4-nitrotoluene	100	102	102	
3,4-Dinitrotoluene	50	47.2	95	
3,5-Dinitroaniline	100	87.8	88	
TATB	100	104	104	
tris(o-cresyl) phosphate	100	104	104	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Jan 1/5/10

Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040013.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

mpls Index: 1
mple Type: QC
ncentration: 100. ng/mL
lculated Conc: 104. ng/mL
q. Date: 1/4/2010
q. Time: 6:49:52 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 2500.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 6.96 min
e Relative RT: No

t. Type: Valley
tention Time: 6.93 min
ea: 1.41e+005 counts
ight: 34192.535 cps
art Time: 6.78 min
d Time: 7.27 min

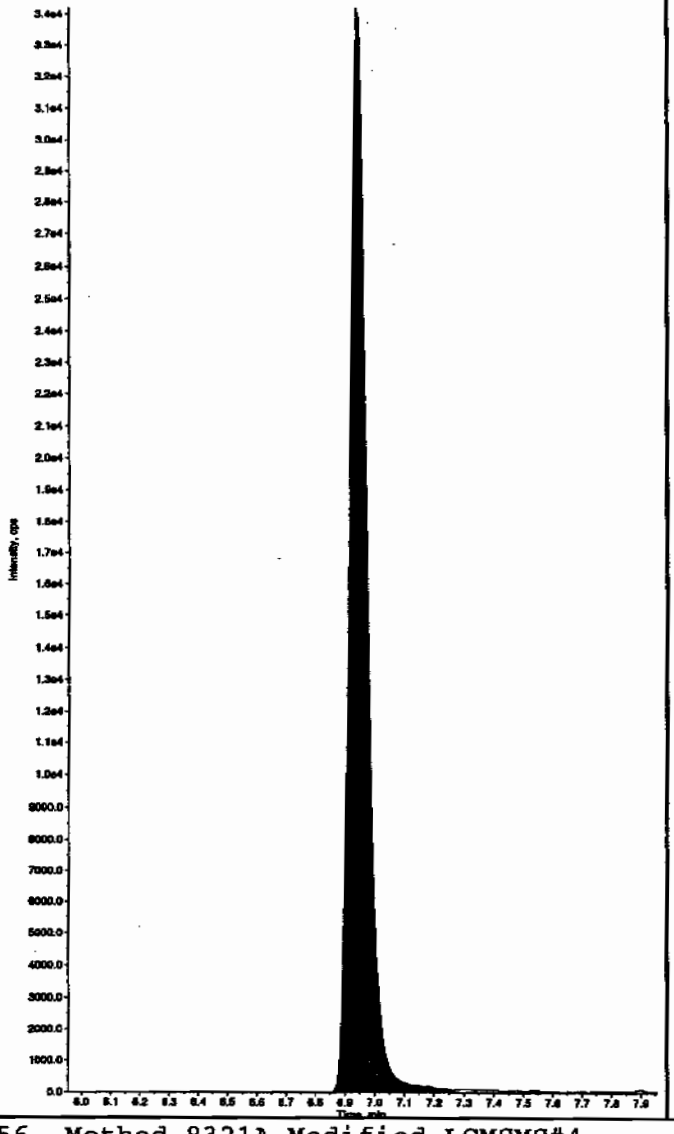

Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 97.5 ng/mL
Acq. Date: 1/4/2010
Acq. Time: 6:49:52 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.10 min
Area: 1.02e+006 counts
Height: 251062.881 cps
Start Time: 8.00 min
End Time: 8.67 min

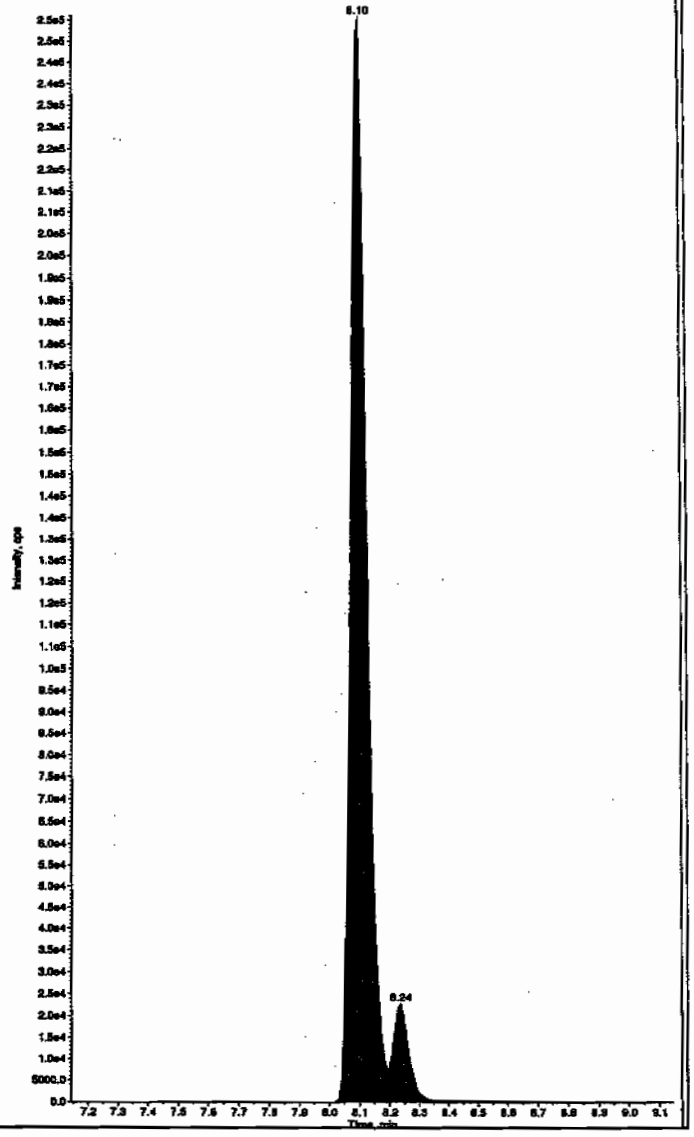

Hmm 01/05/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Flex 1/5/10

Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040013.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	104.	ng/mL
Acq. Date:	1/4/2010	
Acq. Time:	6:49:52 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2500.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	6.96	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	6.93	min
Area:	1.41e+005	counts
Height:	34192.535	cps
Start Time:	6.78	min
End Time:	7.27	min

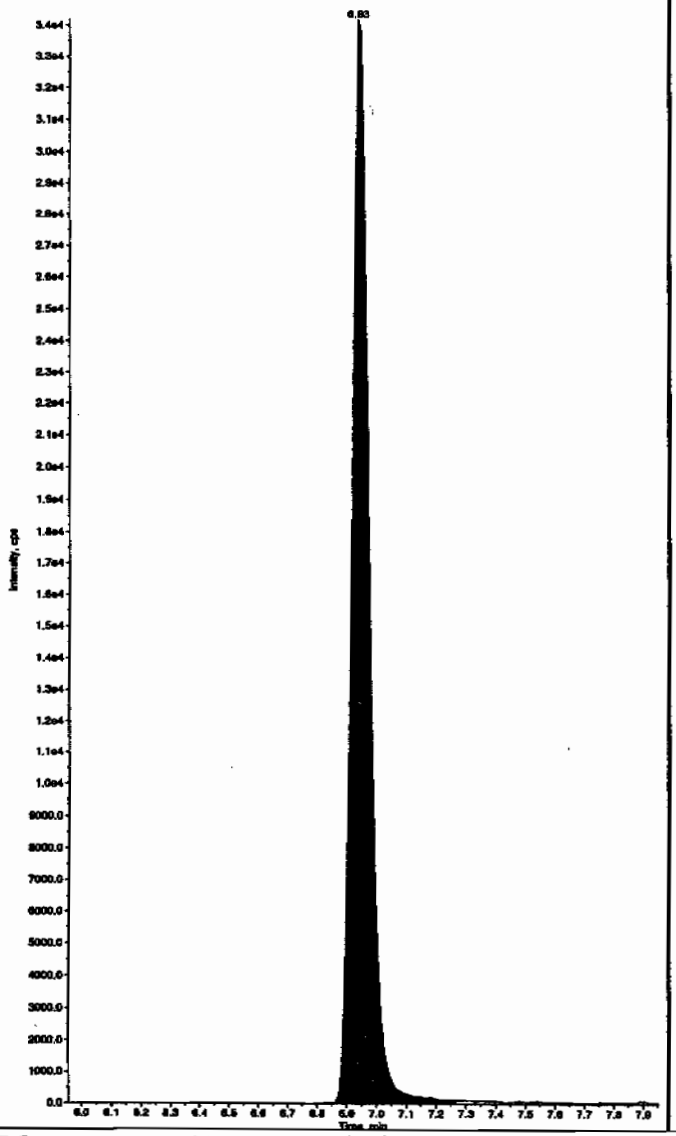

Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	87.8	ng/mL
Acq. Date:	1/4/2010	
Acq. Time:	6:49:52 PM	
Modified:	Yes	
RT Window:	15.0	sec
Expected RT:	8.14	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	8.10	min
Area:	9.28e+005	counts
Height:	254719.276	cps
Start Time:	8.03	min
End Time:	8.20	min

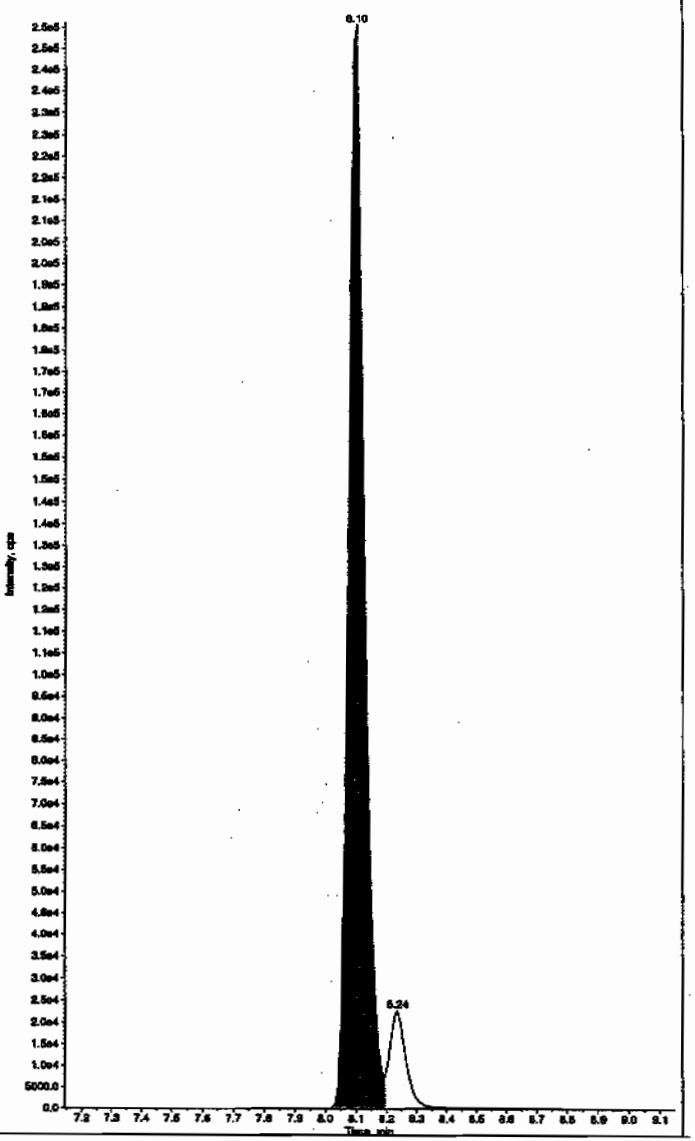

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040013.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index: 1
ample Type: QC
oncentration: 50.0 ng/mL
alculated Conc: 47.2 ng/mL
cq. Date: 1/4/2010
cq. Time: 6:49:52 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 1460.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 15.0 sec
xpected RT: 8.28 min
se Relative RT: No

nt. Type: Valley
etention Time: 8.23 min
rea: 6.02e+005 counts
eight: 176094.543 cps
tart Time: 8.16 min
nd Time: 8.39 min

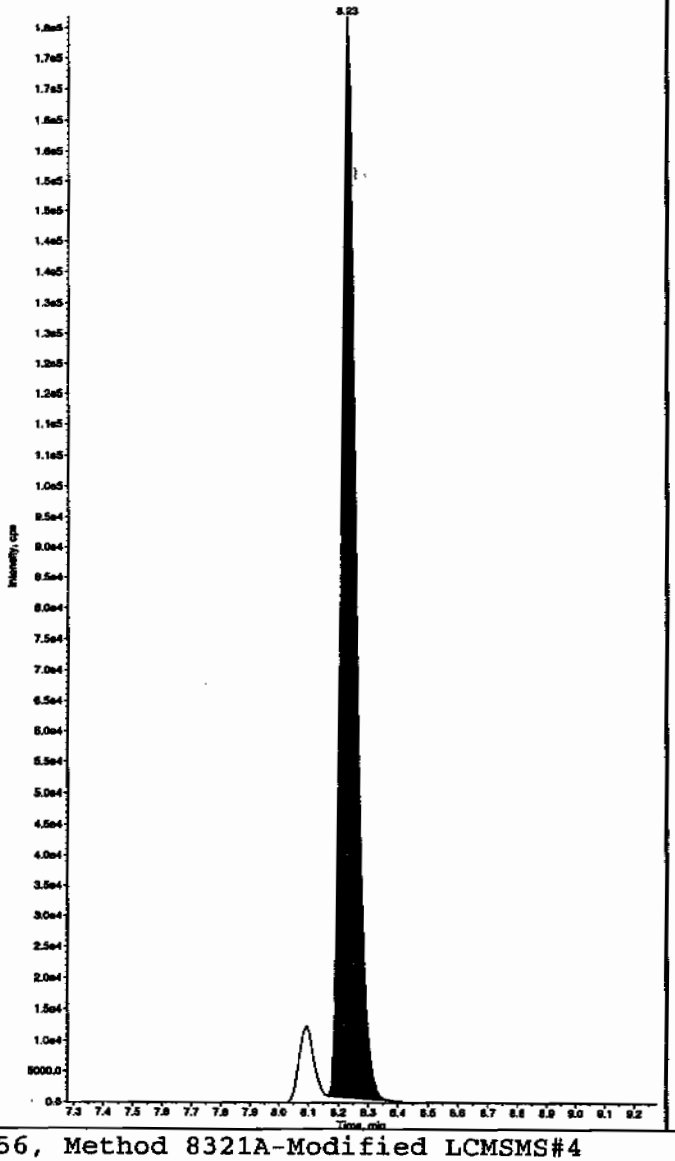

Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 102. ng/mL
Acq. Date: 1/4/2010
Acq. Time: 6:49:52 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.04 min
Area: 3.61e+005 counts
Height: 94341.652 cps
Start Time: 4.94 min
End Time: 5.34 min

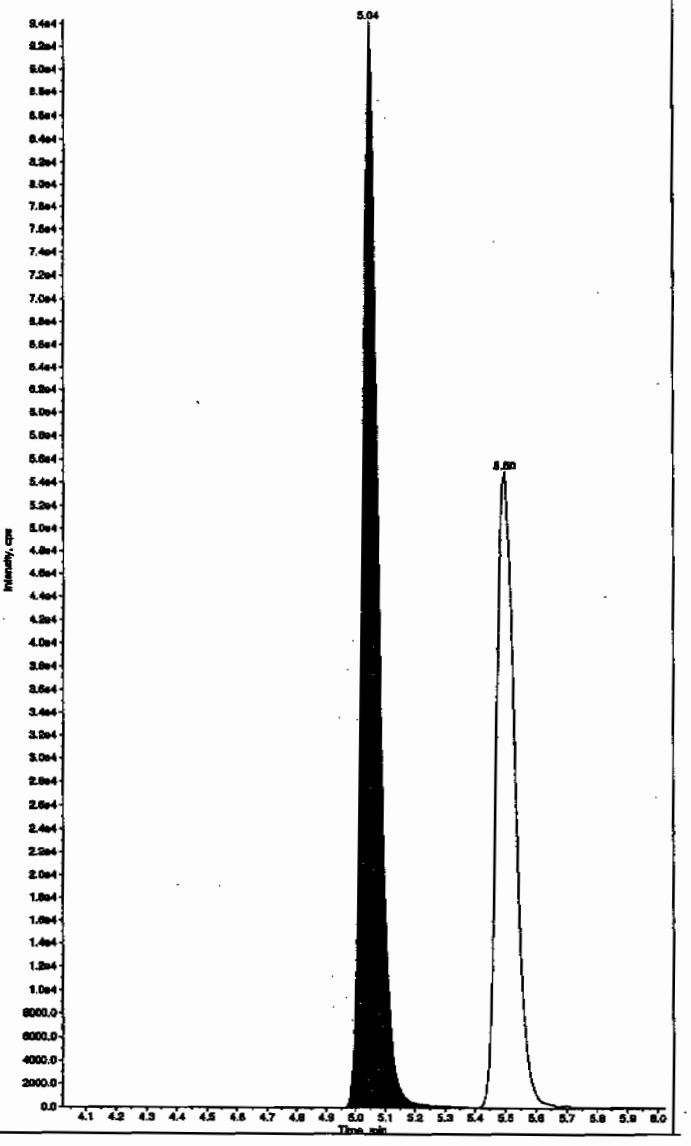

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040013.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index: 1
ample Type: QC
oncentration: 100. ng/mL
alculated Conc: 101. ng/mL
cq. Date: 1/4/2010
cq. Time: 6:49:52 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 350.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 30.0 sec
xpected RT: 5.48 min
se Relative RT: No

nt. Type: Valley
etention Time: 5.50 min
rea: 2.31e+005 counts
eight: 55023.876 cps
tart Time: 5.41 min
nd Time: 5.87 min

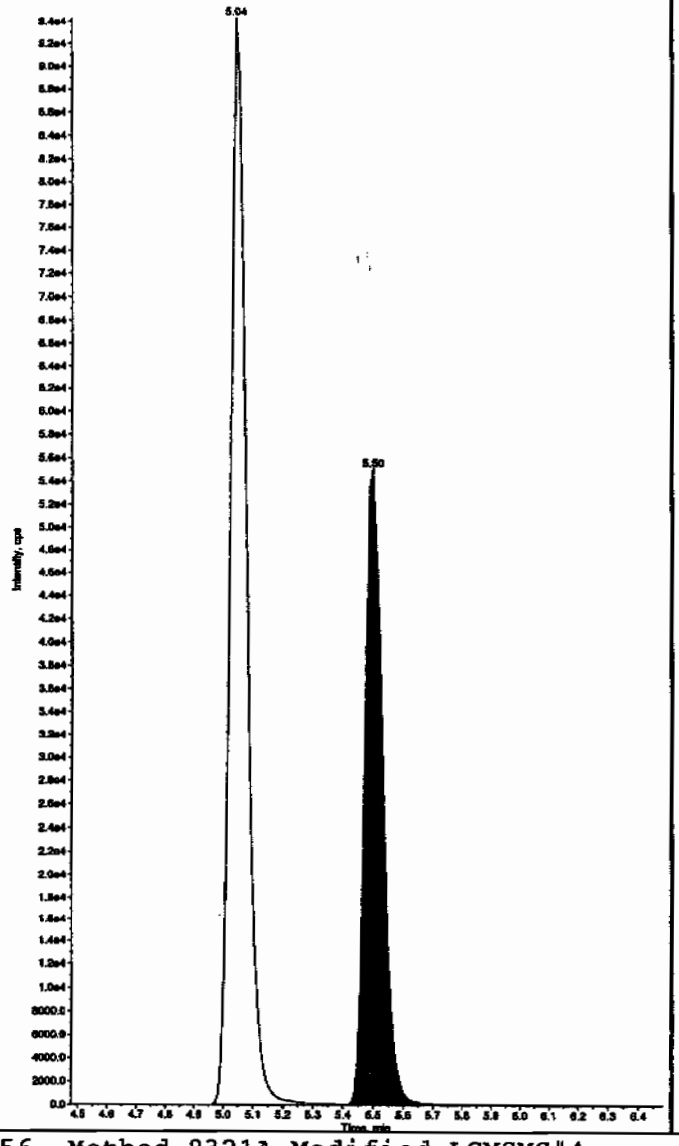

Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 1/4/2010
Acq. Time: 6:49:52 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.70e+006 counts
Height: 690256.958 cps
Start Time: 10.8 min
End Time: 11.2 min

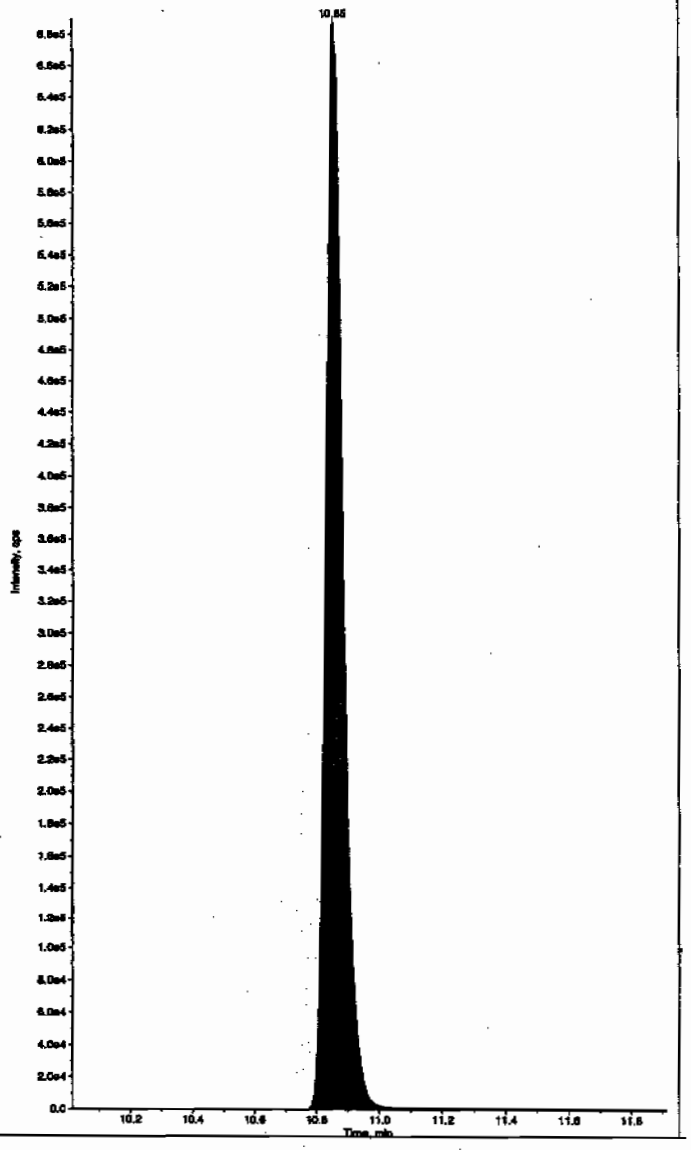

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-994

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS01040024.wiff

Analysis Date: 04-JAN-10 21:42

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	573	115	
2,6-Diamino-4-nitrotoluene	500	567	113	
3,4-Dinitrotoluene	250	228	91	
3,5-Dinitroaniline	500	473	95	
TATB	500	488	98	
tris(o-cresyl) phosphate	500	483	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Lar 1/5/10

Sample Name: "WXX100104-26CCV" Sample ID: "[1]LER" File: "EXS01040024.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index: 1
ample Type: QC
ncentration: 500. ng/mL
lculated Conc: 488. ng/mL
cq. Date: 1/4/2010
cq. Time: 9:42:26 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 2500.00 cps
in. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
pected RT: 6.96 min
e Relative RT: No

t. Type: Valley
tention Time: 6.99 min
ea: 6.51e+005 counts
ight: 162279.892 cps
art Time: 6.89 min
d Time: 7.37 min

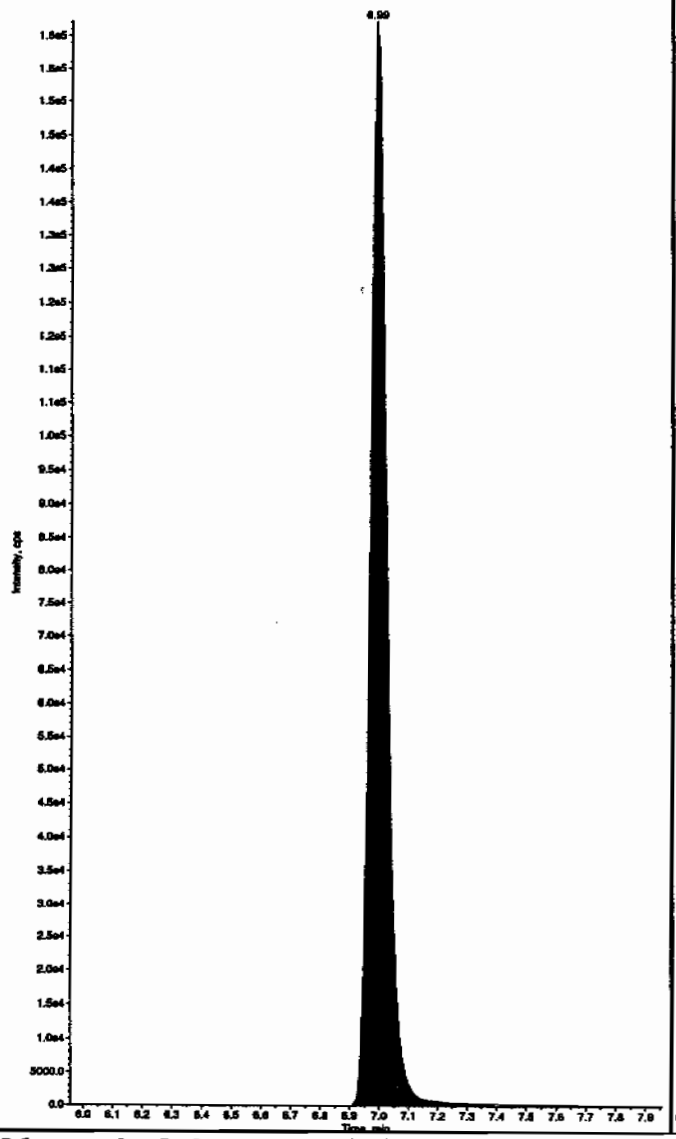

Sample Name: "WXX100104-26CCV" Sample ID: "[1]LER" File: "EXS01040024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 525. ng/mL
Acq. Date: 1/4/2010
Acq. Time: 9:42:26 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.06 min
Area: 4.89e+006 counts
Height: 1214477.905 cps
Start Time: 7.98 min
End Time: 8.48 min

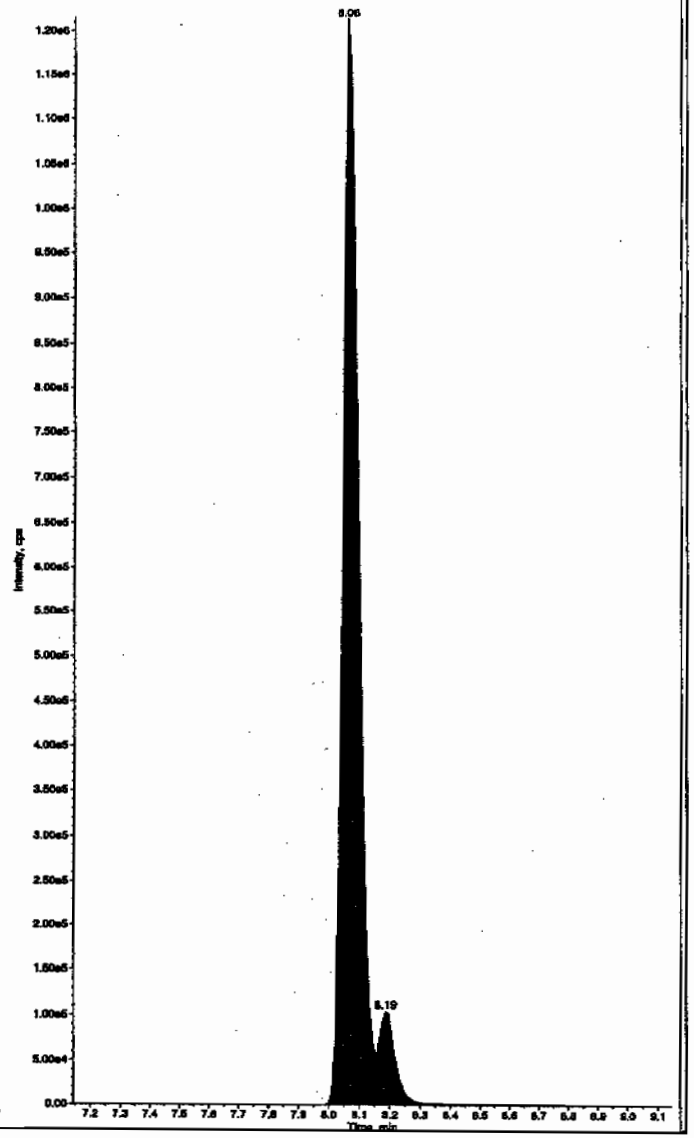

HMM 01/05/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Lab 1/5/10

Sample Name: "WXX100104-26CCV" Sample ID: "[1]LER" File: "EXS01040024.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index:	1	
ample Type:	QC	
ncentration:	500.	ng/mL
lculated Conc:	488.	ng/mL
q. Date:	1/4/2010	
q. Time:	9:42:26 PM	
odified:	No	
oc. Algorithm:	IntelliQuan - IQA	
n. Peak Height:	2500.00	cps
n. Peak Width:	0.00	sec
oothing Width:	3	points
Window:	30.0	sec
pected RT:	6.96	min
e Relative RT:	No	
t. Type:	Valley	
tention Time:	6.99	min
ea:	6.51e+005	counts
ight:	162279.892	cps
art Time:	6.69	min
d Time:	7.37	min

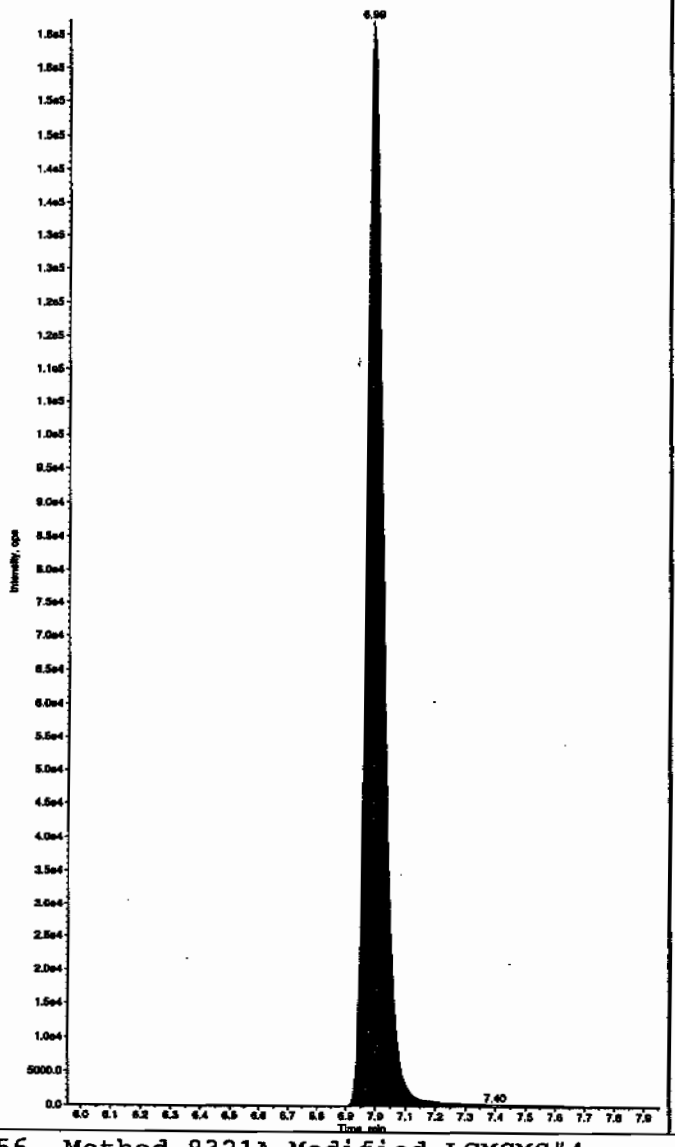

Sample Name: "WXX100104-26CCV" Sample ID: "[1]LER" File: "EXS01040024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	473.	ng/mL
Acq. Date:	1/4/2010	
Acq. Time:	9:42:26 PM	
Modified:	Yes	
RT Window:	15.0	sec
Expected RT:	8.14	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	8.06	min
Area:	4.45e+006	counts
Height:	1223848.048	cps
Start Time:	8.00	min
End Time:	8.15	min

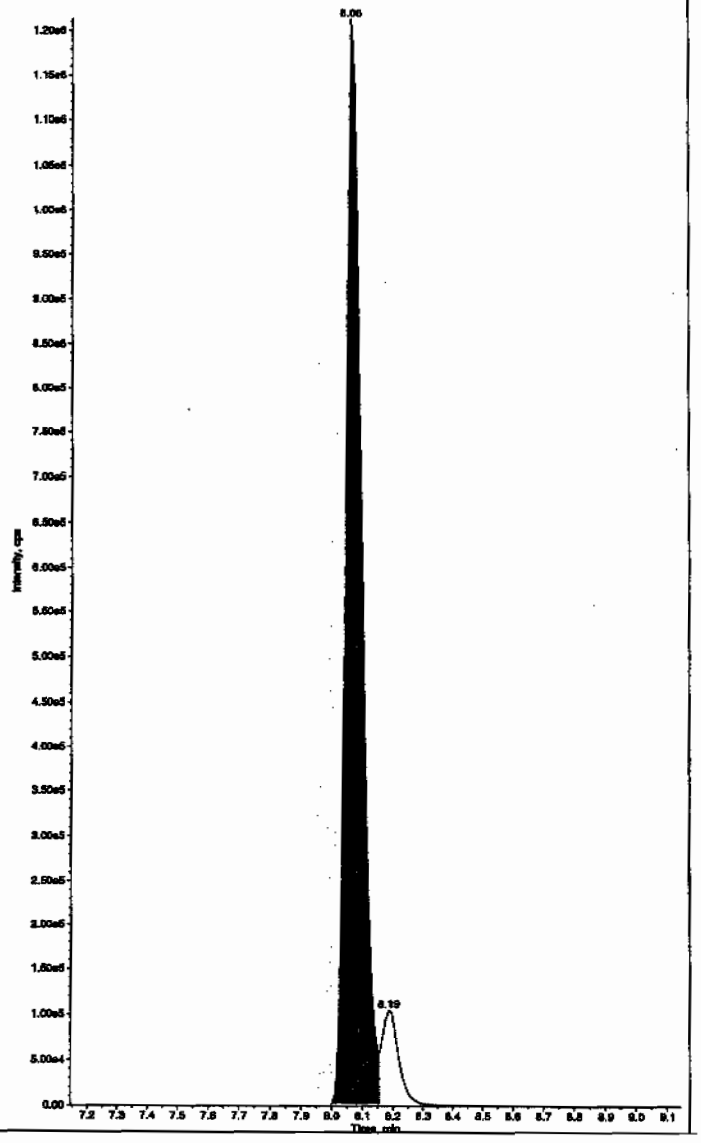

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100104-26CCV" Sample ID: "[1]LER" File: "EXS01040024.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index:	1	
ample Type:	QC	
oncentration:	250.	ng/mL
alculated Conc:	228.	ng/mL
cq. Date:	1/4/2010	
cq. Time:	9:42:26 PM	
odified:	No	
roc. Algorithm:	IntelliQuan - IQA	
in. Peak Height:	1460.00	cps
in. Peak Width:	0.00	sec
moothing Width:	3	points
T Window:	15.0	sec
xpected RT:	8.28	min
se Relative RT:	No	
nt. Type:	Valley	
etention Time:	8.19	min
rea:	2.94e+006	counts
eight:	797382.019	cps
tart Time:	8.12	min
nd Time:	8.50	min

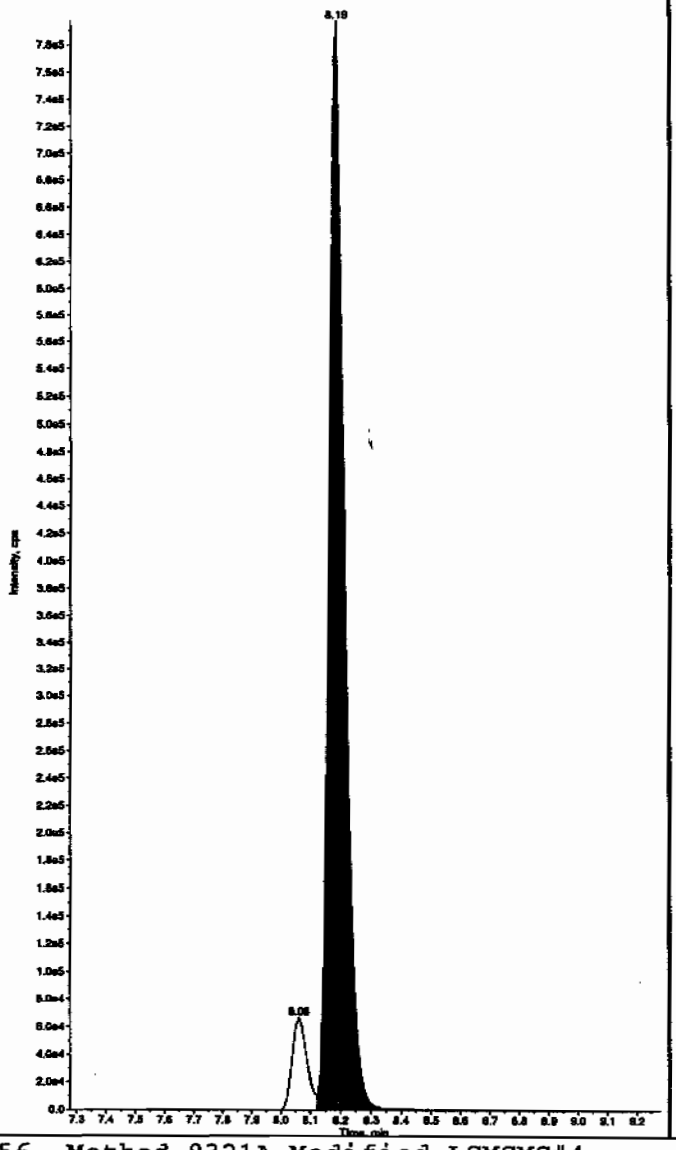

Sample Name: "WXX100104-26CCV" Sample ID: "[1]LER" File: "EXS01040024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	567.	ng/mL
Acq. Date:	1/4/2010	
Acq. Time:	9:42:26 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	5.02	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	5.06	min
Area:	1.78e+006	counts
Height:	446574.280	cps
Start Time:	4.95	min
End Time:	5.41	min

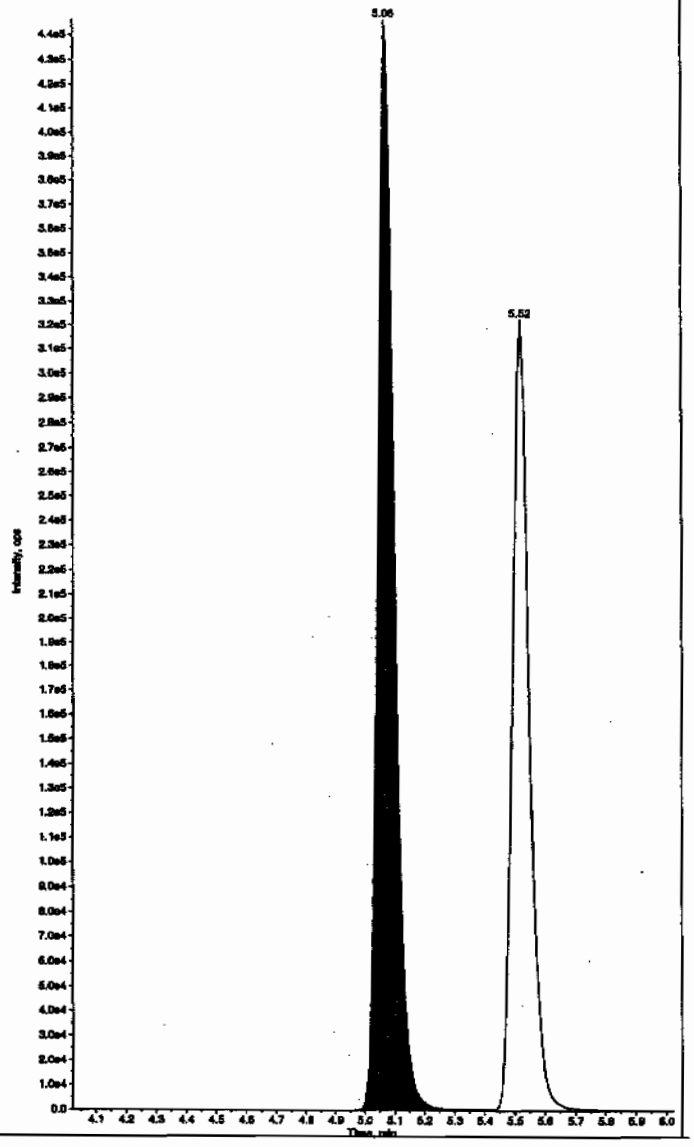

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100104-26CCV" Sample ID: "[1]LER" File: "EXS01040024.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index: 1
ample Type: QC
oncentration: 500. ng/mL
alculated Conc: 573. ng/mL
cq. Date: 1/4/2010
cq. Time: 9:42:26 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 350.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 30.0 sec
xpected RT: 5.48 min
se Relative RT: No

nt. Type: Valley
etention Time: 5.52 min
rea: 1.24e+006 counts
eight: 322771.576 cps
tart Time: 5.41 min
nd Time: 5.87 min

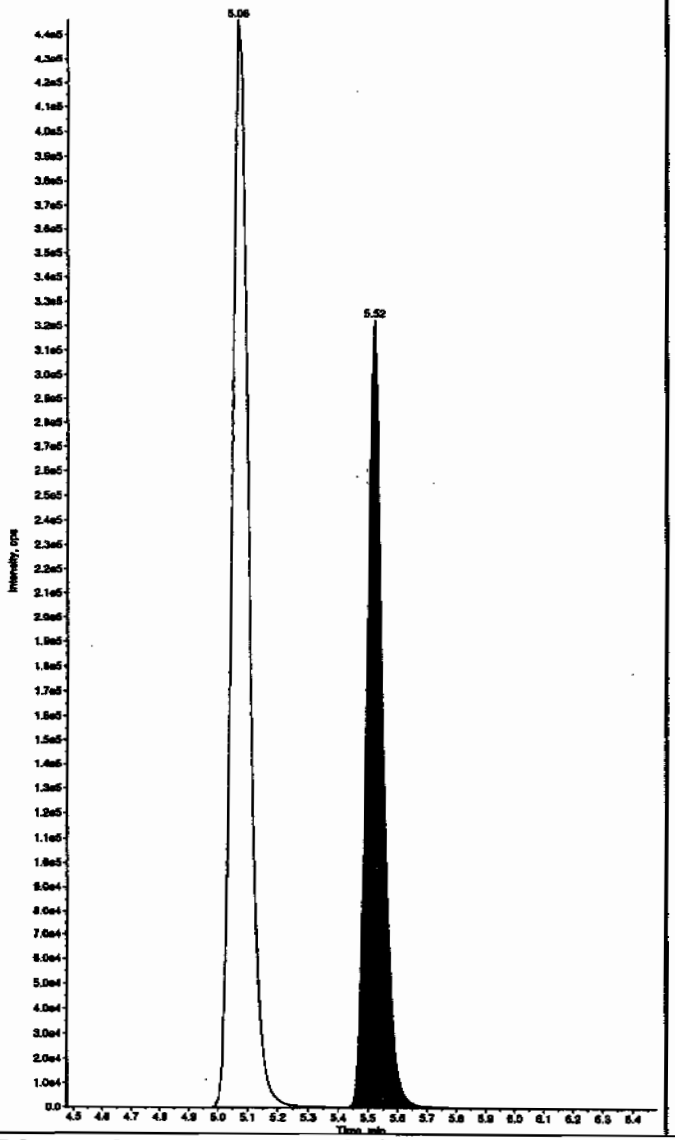

Sample Name: "WXX100104-26CCV" Sample ID: "[1]LER" File: "EXS01040024.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 483. ng/mL
Acq. Date: 1/4/2010
Acq. Time: 9:42:26 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.7 min
Area: 1.16e+007 counts
Height: 2926904.541 cps
Start Time: 10.6 min
End Time: 11.0 min

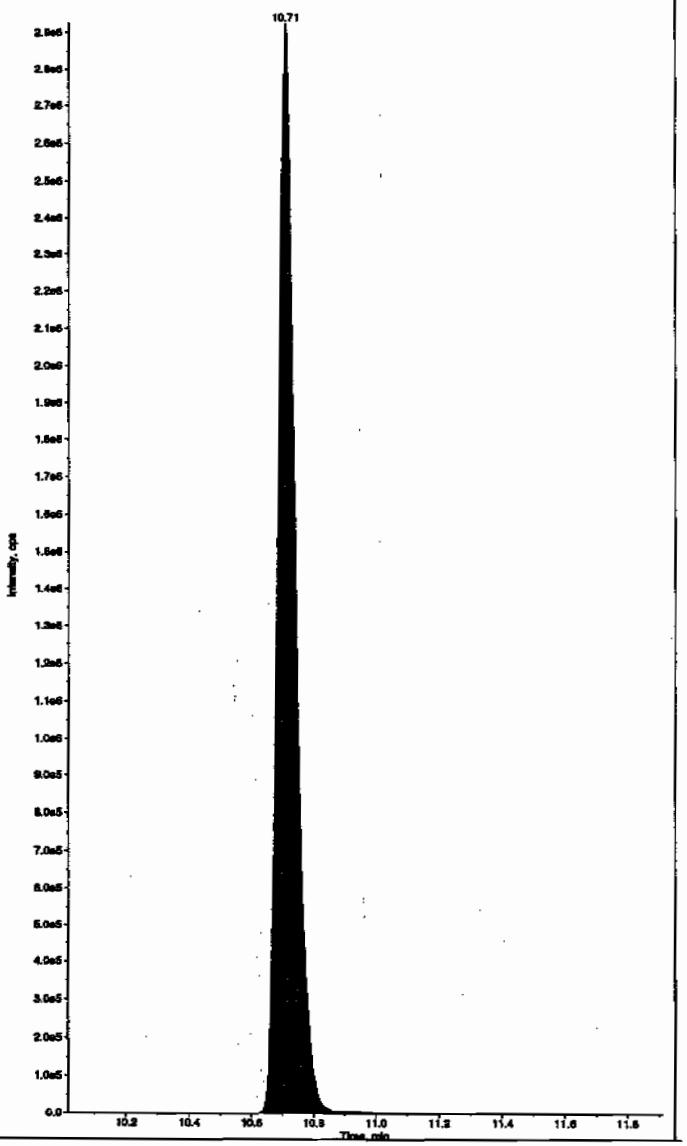

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–994

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS01040026.wiff

Analysis Date: 04–JAN–10 22:13

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
tris(o–cresyl) phosphate	100	102	102	
TATB	100	100	100	
2,4–Diamino–6–nitrotoluene	100	95.4	95	
2,6–Diamino–4–nitrotoluene	100	94.6	95	
3,4–Dinitrotoluene	50	45	90	
3,5–Dinitroaniline	100	88.2	88	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ran 1/5/10

Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040026.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index:	1	
ample Type:	QC	
oncentration:	100.	ng/mL
alculated Conc:	100.	ng/mL
cq. Date:	1/4/2010	
cq. Time:	10:13:51 PM	
odified	No	
roc. Algorithm:	IntelliQuan - IQA	
in. Peak Height:	2500.00	cps
in. Peak Width:	0.00	sec
moothing Width:	3	points
Window:	30.0	sec
xpected RT:	6.96	min
se Relative RT:	No	
nt. Type:	Valley	
etention Time:	6.92	min
rea:	1.36e+005	counts
eight:	32399.933	cps
tart Time:	6.78	min
nd Time:	7.23	min

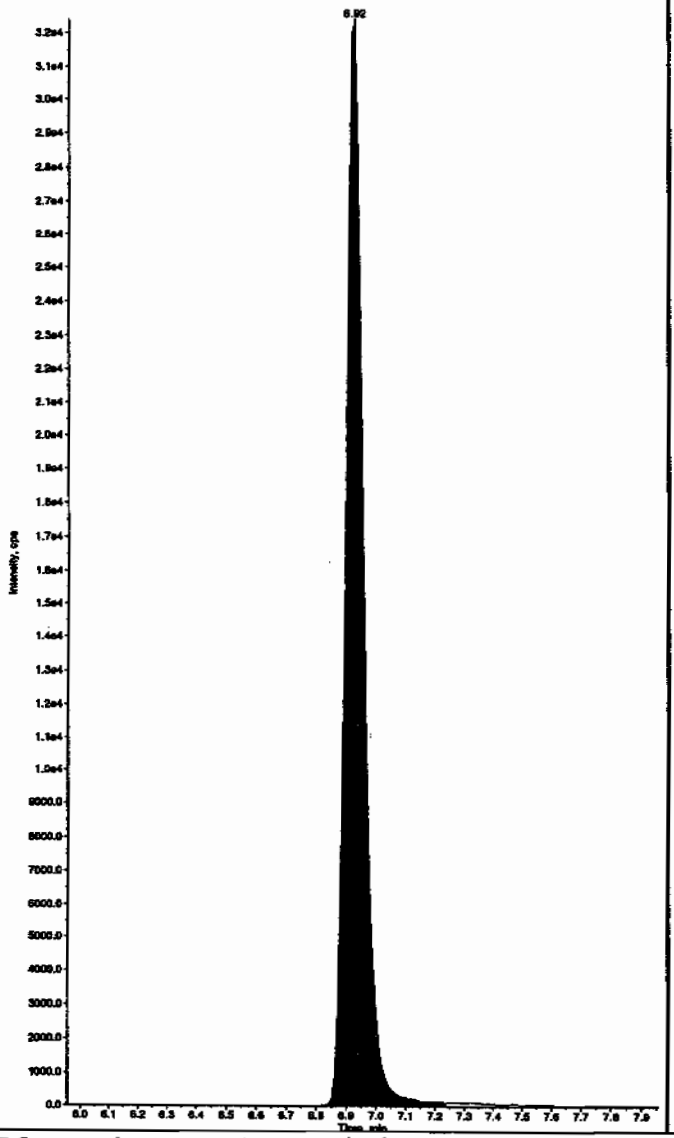

Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	88.2	ng/mL
Acq. Date:	1/4/2010	
Acq. Time:	10:13:51 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.14	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.19	min
Area:	9.32e+005	counts
Height:	258788.879	cps
Start Time:	8.09	min
End Time:	8.29	min

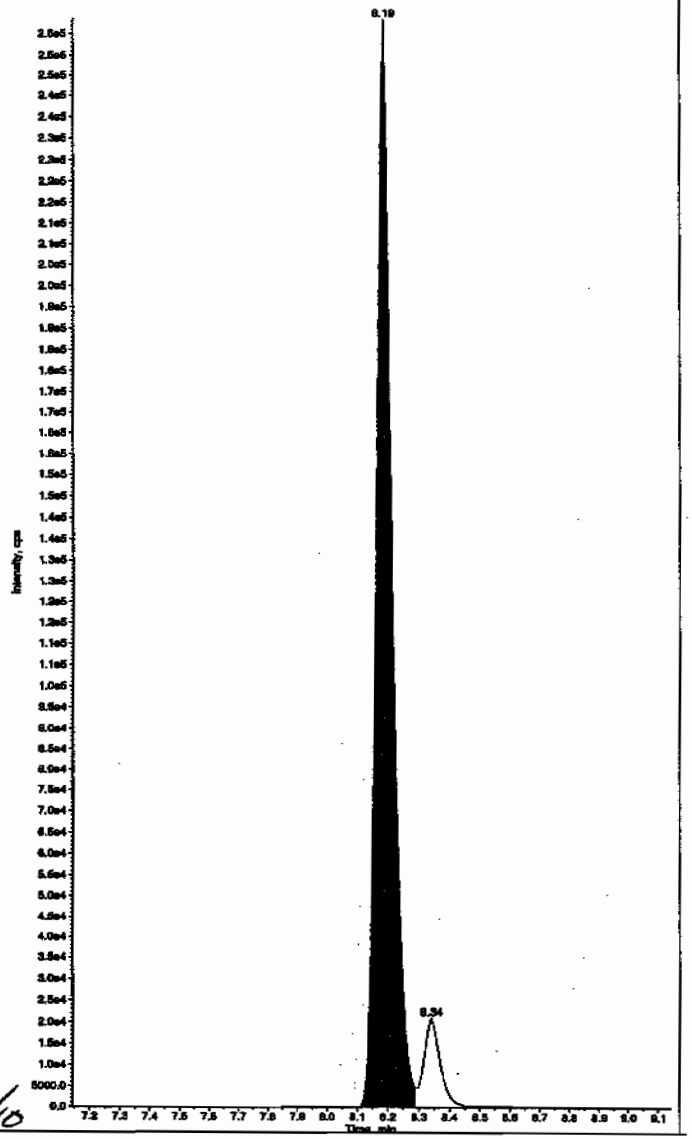

Hm 01/05/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040026.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.8 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index:	1	
ample Type:	QC	
oncentration:	50.0	ng/mL
alculated Conc:	45.0	ng/mL
cq. Date:	1/4/2010	
cq. Time:	10:13:51 PM	
odified:	No	
roc. Algorithm:	IntelliQuan - IQA	
in. Peak Height:	1450.00	cps
in. Peak Width:	0.00	sec
moothing Width:	3	points
T Window:	15.0	sec
xpected RT:	8.28	min
ss Relative RT:	No	
nt. Type:	Valley	
etention Time:	8.33	min
rea:	5.71e+005	counts
eight:	156963.531	cps
tart Time:	8.27	min
nd Time:	8.65	min

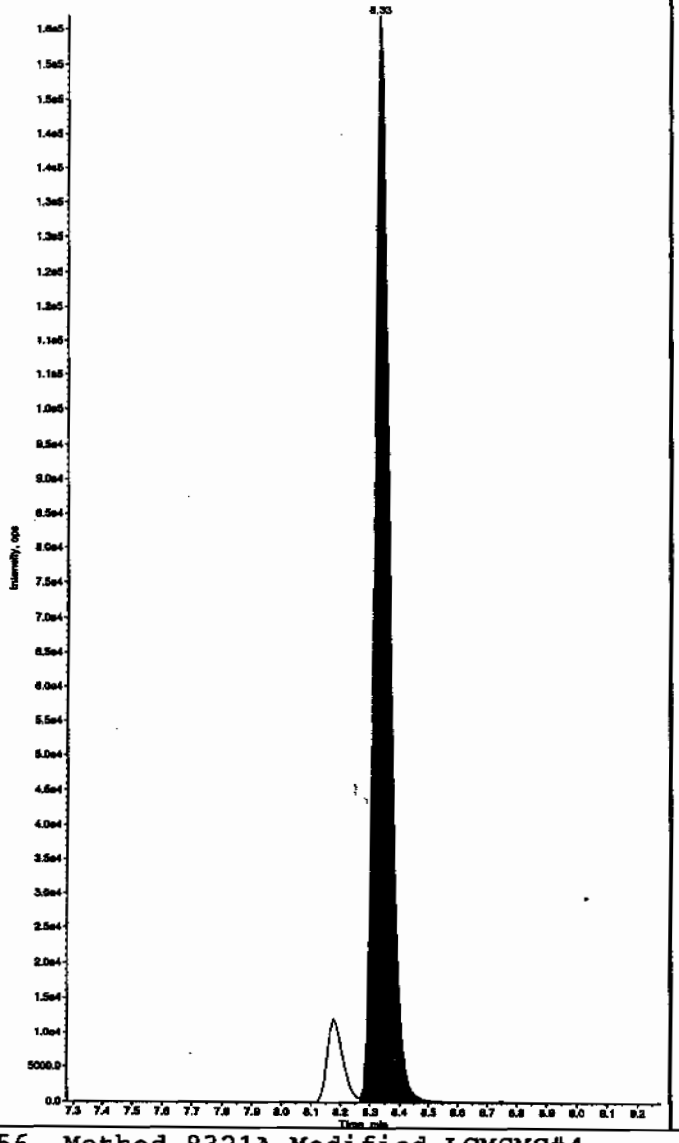

Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040026.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	94.6	ng/mL
Acq. Date:	1/4/2010	
Acq. Time:	10:13:51 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	5.02	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	5.02	min
Area:	3.38e+005	counts
Height:	85027.710	cps
Start Time:	4.91	min
End Time:	5.25	min

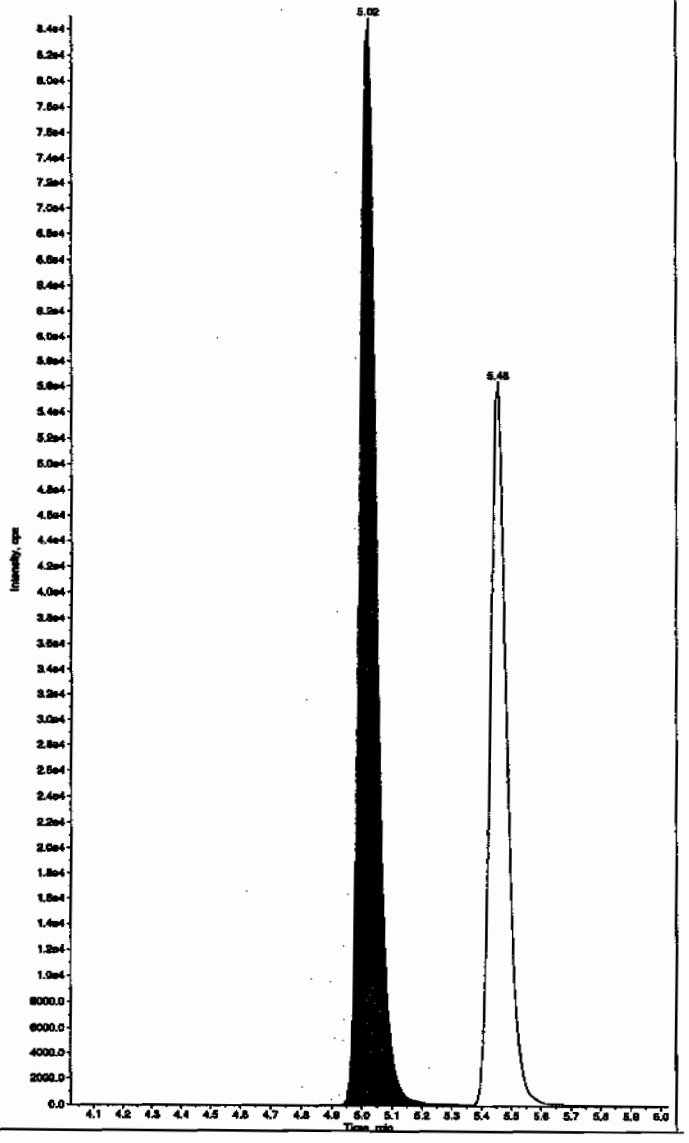

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040026.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

mple Index:	1	
mple Type:	QC	
oncentration:	100.	ng/mL
alculated Conc:	95.4	ng/mL
cq. Date:	1/4/2010	
cq. Time:	10:13:51 PM	
odified	No	
roc. Algorithm:	IntelliQuan - IQA	
in. Peak Height:	350.00	cps
in. Peak Width:	0.00	sec
moothing Width:	3	points
T Window:	30.0	sec
pected RT:	5.48	min
se Relative RT:	No	
nt. Type:	Valley	
etention Time:	5.46	min
rea:	2.19e+005	counts
eight:	56457.657	cps
tart Time:	5.33	min
nd Time:	5.77	min

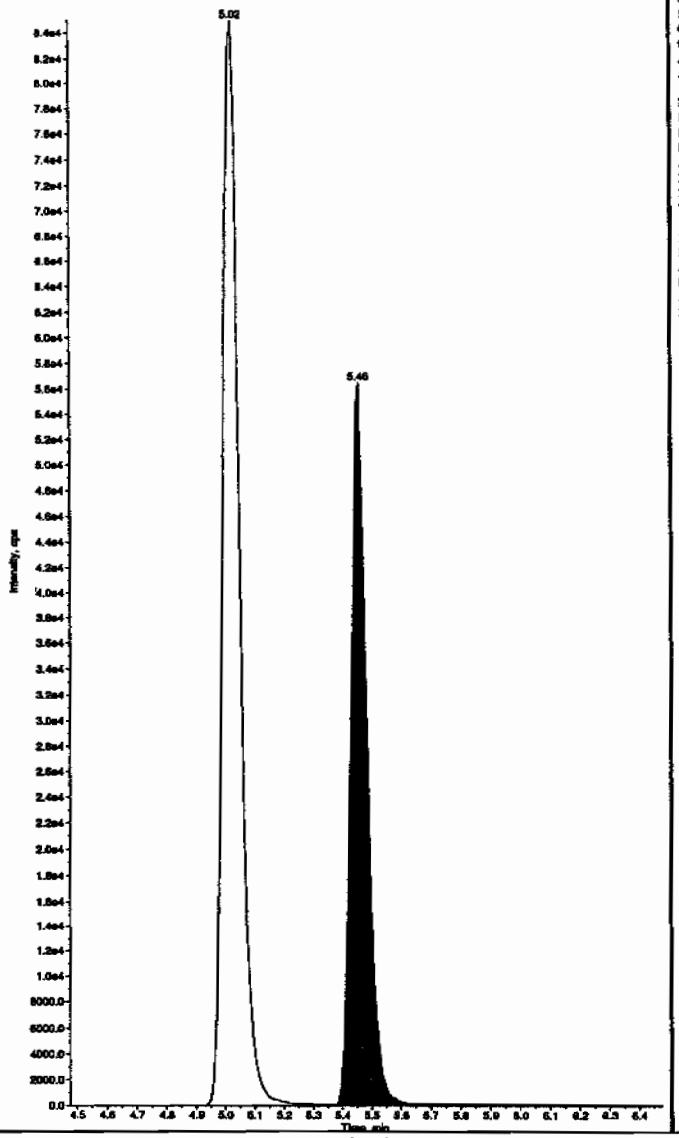

Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040026.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	102.	ng/mL
Acq. Date:	1/4/2010	
Acq. Time:	10:13:51 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	1.00e4	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.9	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.8	min
Area:	2.62e+006	counts
Height:	662174.561	cps
Start Time:	10.6	min
End Time:	11.0	min

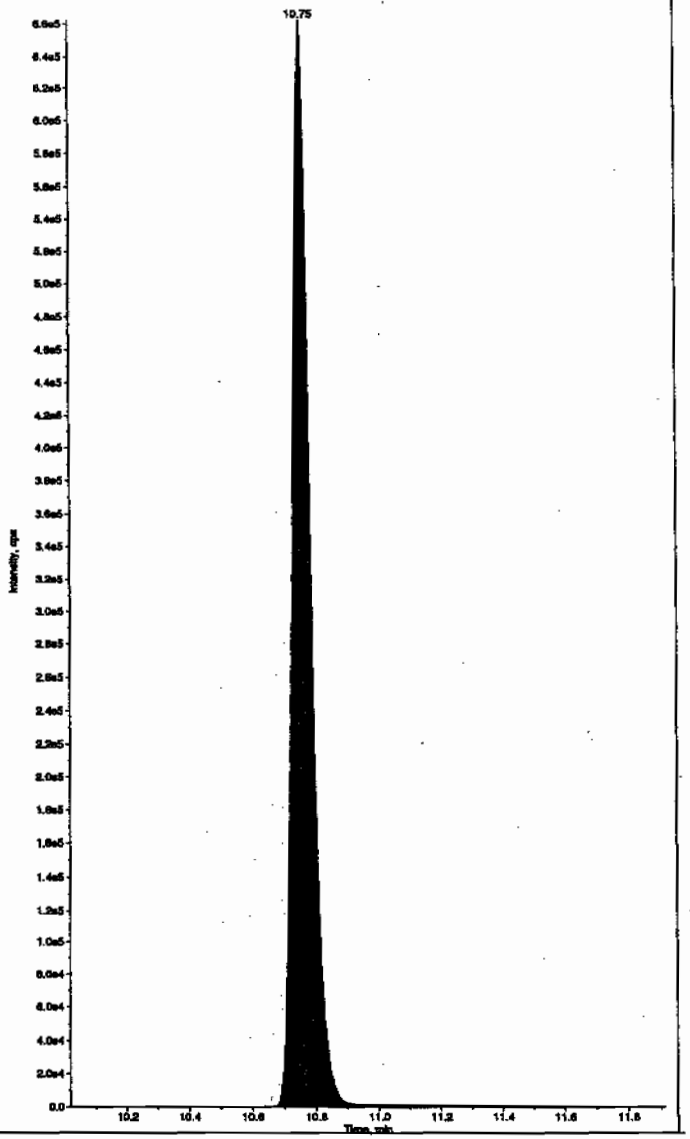

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-994

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS01040037.wiff

Analysis Date: 05-JAN-10 01:06

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	538	108	
2,6-Diamino-4-nitrotoluene	500	526	105	
3,4-Dinitrotoluene	250	230	92	
3,5-Dinitroaniline	500	494	99	
TATB	500	521	104	
tris(o-cresyl) phosphate	500	477	96	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Sample Name: "WXX100104-26CCV" Sample ID: "[1]LER" File: "EXS01040037.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.8 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index: 1
ample Type: QC
oncentration: 500. ng/mL
alculated Conc: 521. ng/mL
cq. Date: 1/5/2010
cq. Time: 1:06:37 AM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 2500.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 30.0 sec
xpected RT: 6.96 min
se Relative RT: No

nt. Type: Valley
etention Time: 6.93 min
rea: 6.93e+005 counts
eight: 165212.326 cps
tart Time: 6.82 min
nd Time: 7.47 min

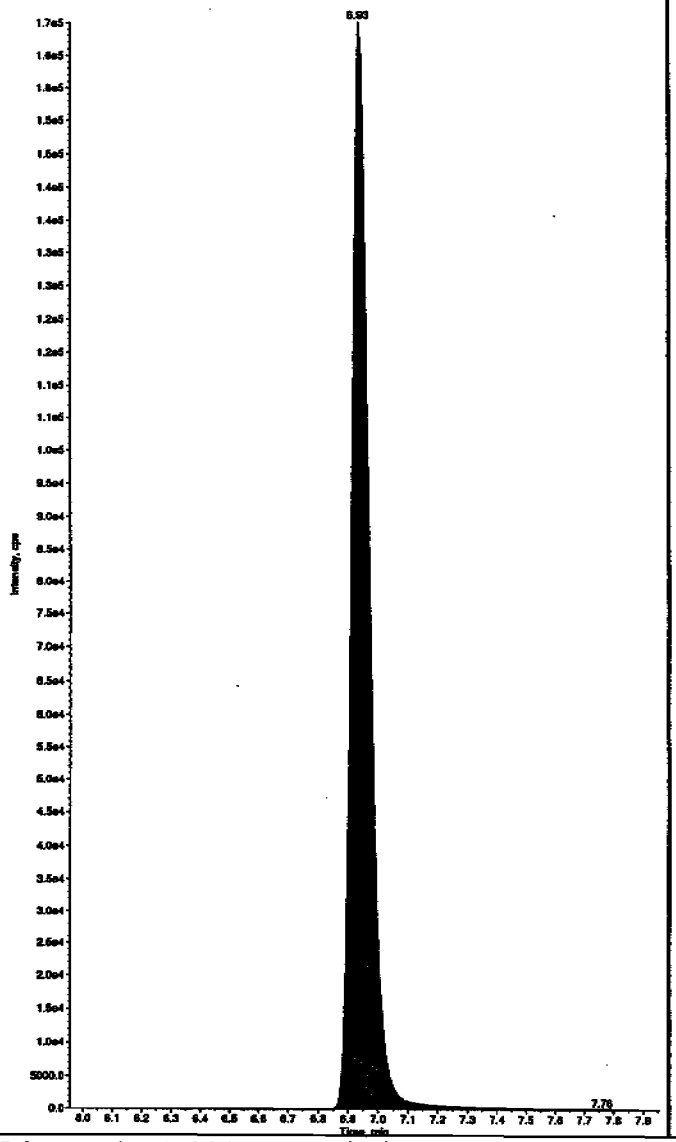

Sample Name: "WXX100104-26CCV" Sample ID: "[1]LER" File: "EXS01040037.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 494. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 1:06:37 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.17 min
Area: 4.63e+006 counts
Height: 1161479.492 cps
Start Time: 8.08 min
End Time: 8.29 min

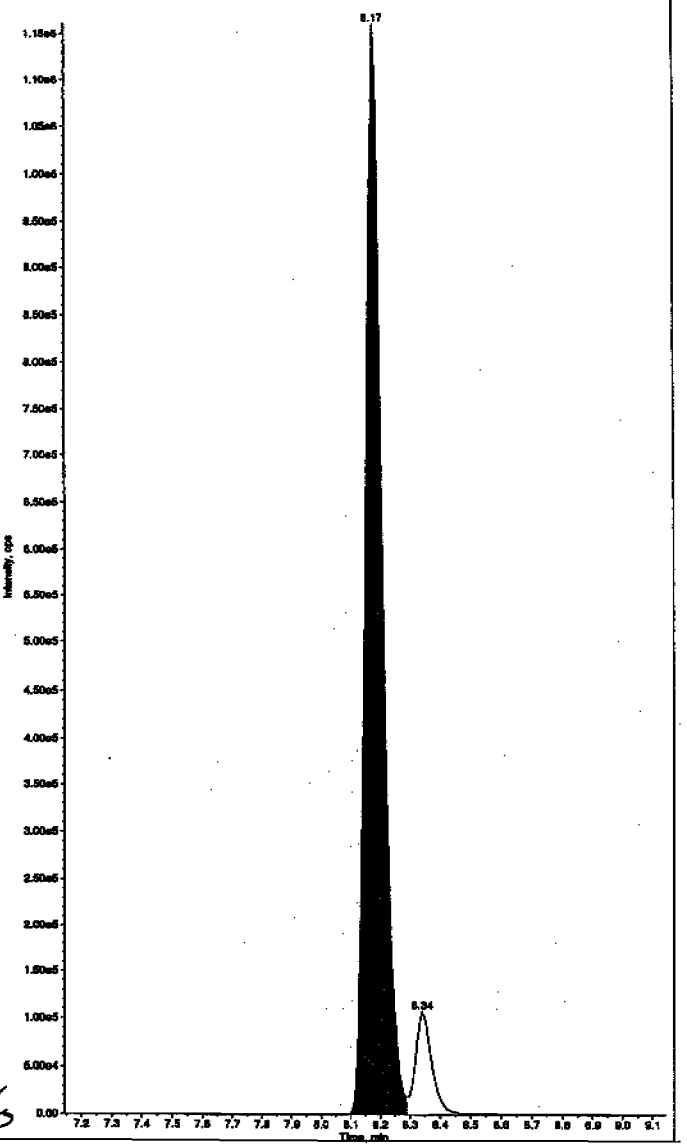

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100104-26CCV" Sample ID: "[1]LER" File: "EXS01040037.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 230. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 1:06:37 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.28 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.34 min
Area: 2.97e+006 counts
Height: 800430.908 cps
Start Time: 8.26 min
End Time: 8.70 min

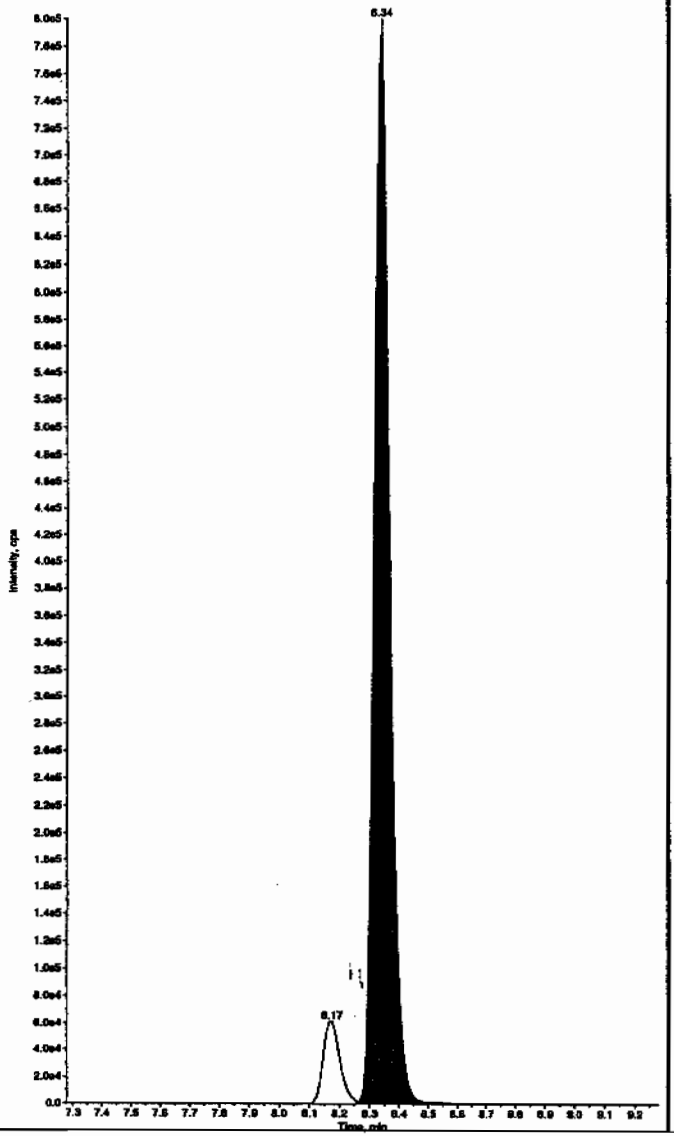

Sample Name: "WXX100104-26CCV" Sample ID: "[1]LER" File: "EXS01040037.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 526. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 1:06:37 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.01 min
Area: 1.65e+006 counts
Height: 432253.326 cps
Start Time: 4.90 min
End Time: 5.30 min

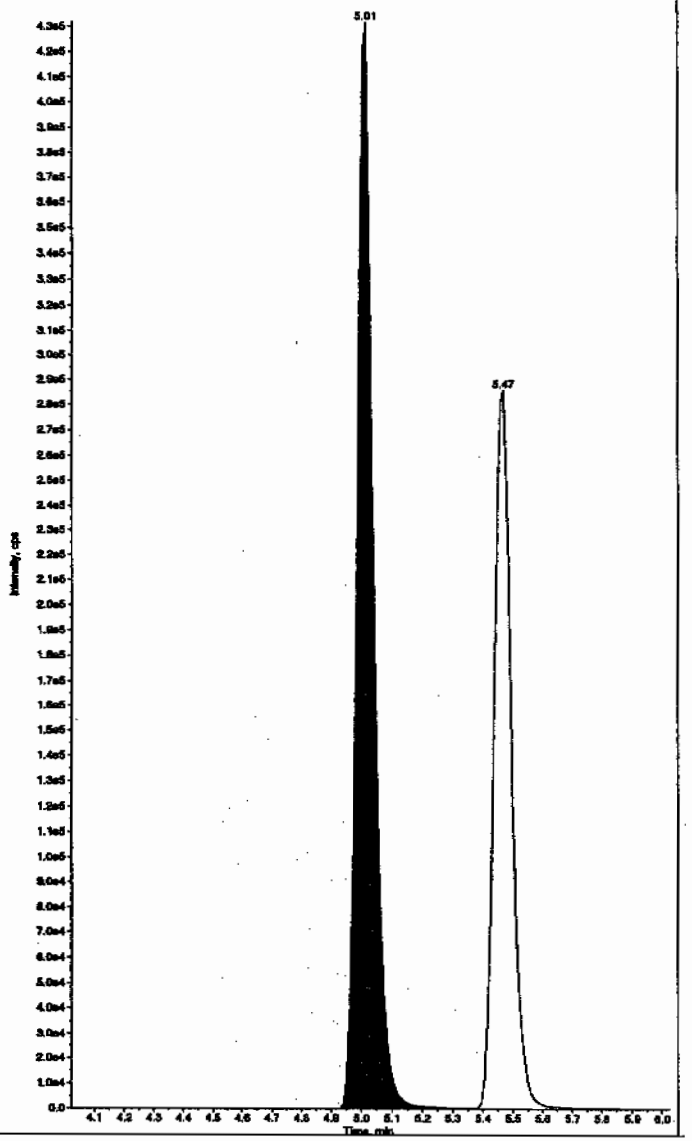

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100104-26CCV" Sample ID: "[1]LER" File: "EXS01040037.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 538. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 1:06:37 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.47 min
Area: 1.16e+006 counts
Height: 286072.327 cps
Start Time: 5.36 min
End Time: 5.85 min

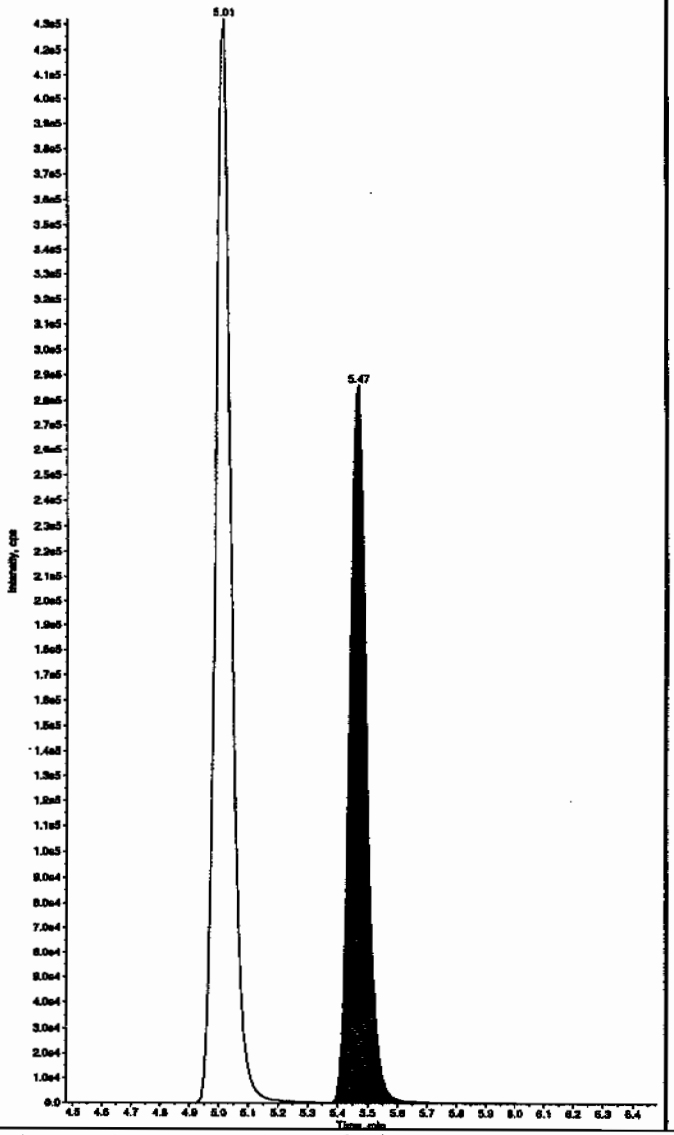

Sample Name: "WXX100104-26CCV" Sample ID: "[1]LER" File: "EXS01040037.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 477. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 1:06:37 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 1.15e+007 counts
Height: 2486511.475 cps
Start Time: 10.9 min
End Time: 11.3 min

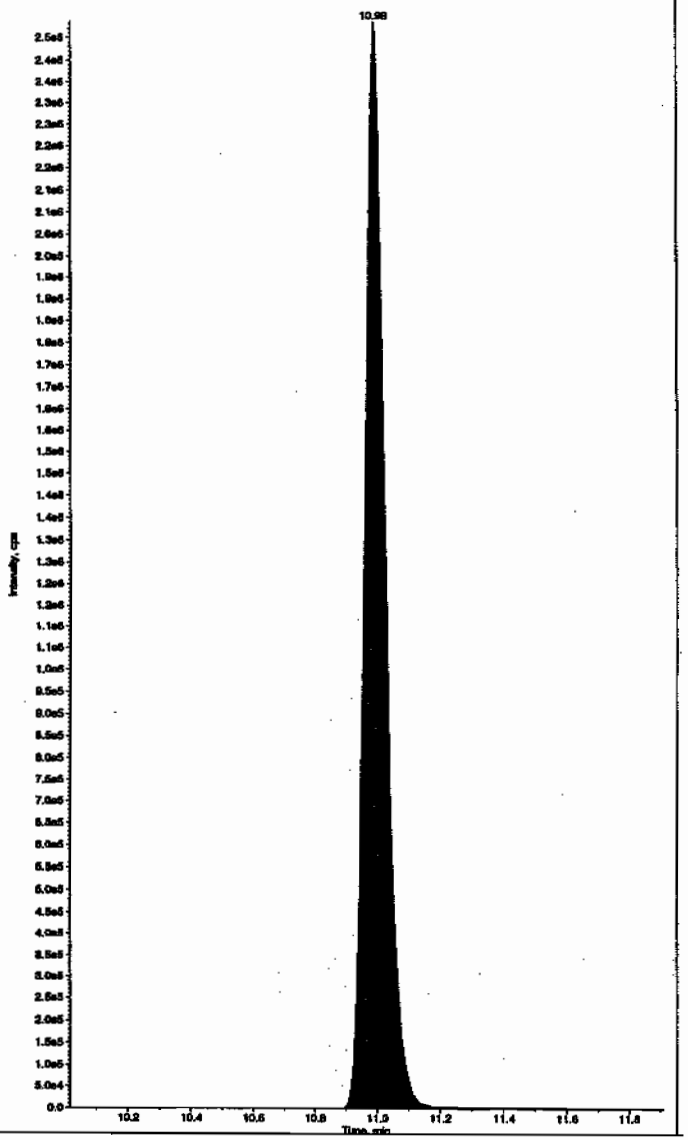

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-994

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS01040039.wiff

Analysis Date: 05-JAN-10 01:38

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	100	100	
2,6-Diamino-4-nitrotoluene	100	82.8	83	
3,4-Dinitrotoluene	50	46	92	
3,5-Dinitroaniline	100	84.1	84	
TATB	100	106	106	
tris(o-cresyl) phosphate	100	101	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040039.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 106. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 1:38:01 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.96 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.91 min
Area: 1.44e+005 counts
Height: 35626.762 cps
Start Time: 6.76 min
End Time: 7.33 min

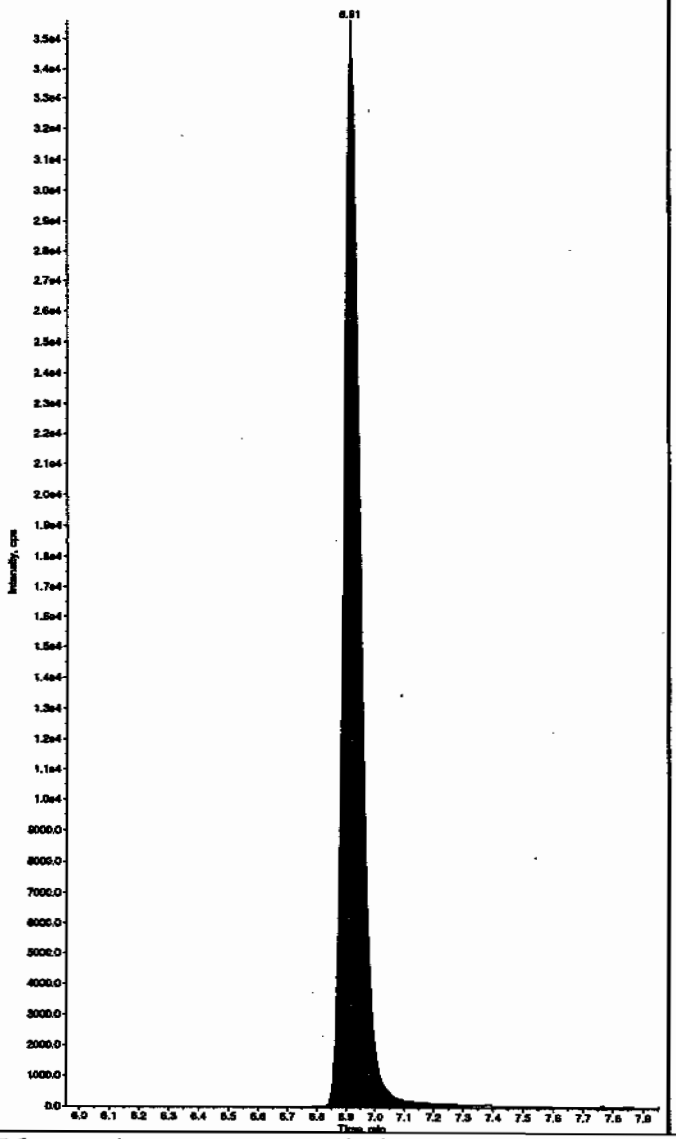

Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040039.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 84.1 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 1:38:01 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.16 min
Area: 8.91e+005 counts
Height: 229664.337 cps
Start Time: 8.01 min
End Time: 8.25 min

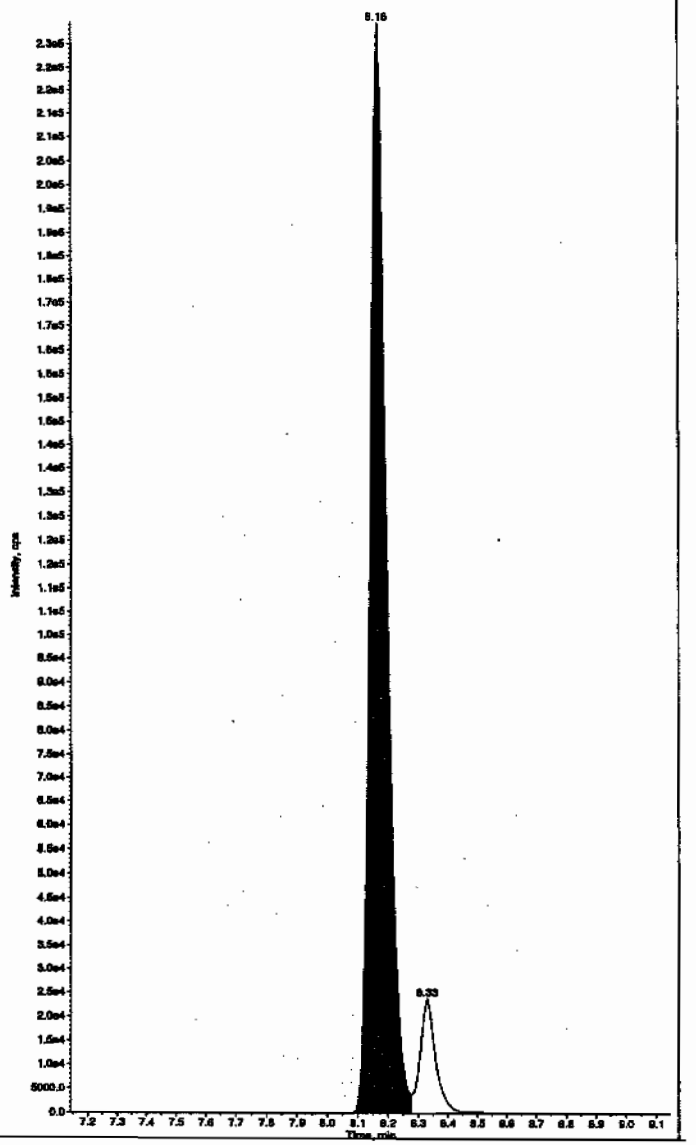

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GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040039.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 46.0 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 1:38:01 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 6.28 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.33 min
Area: 5.84e+005 counts
Height: 165580.933 cps
Start Time: 8.26 min
End Time: 8.65 min

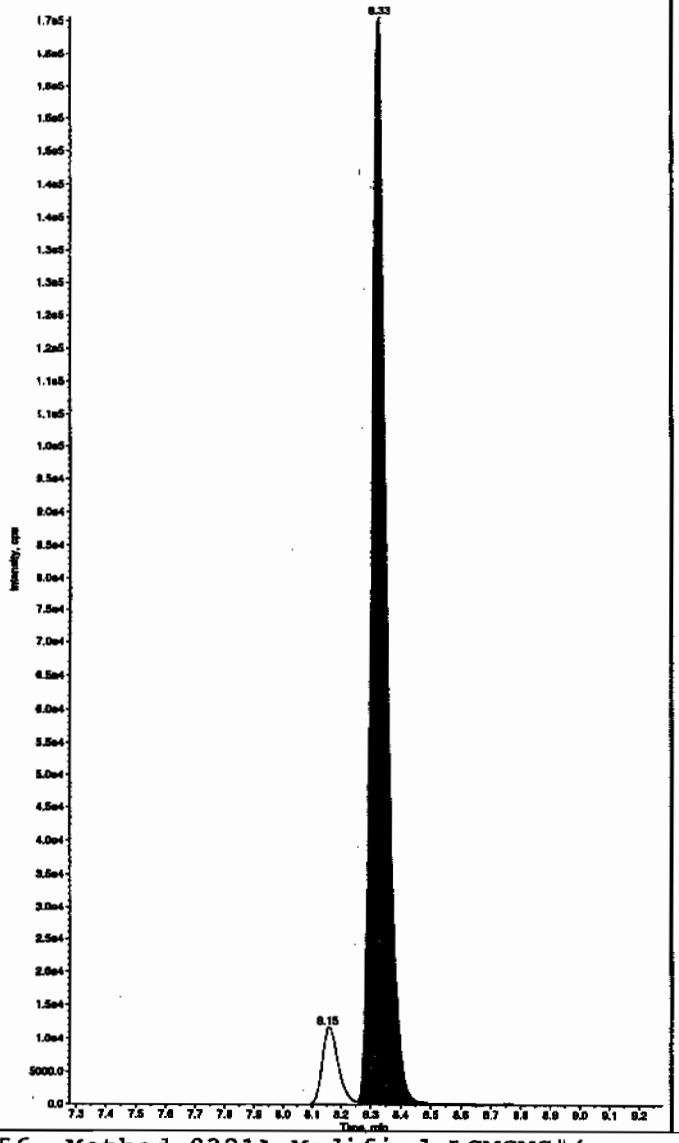

Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040039.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 82.8 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 1:38:01 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 3.04e+005 counts
Height: 79506.989 cps
Start Time: 4.86 min
End Time: 5.30 min

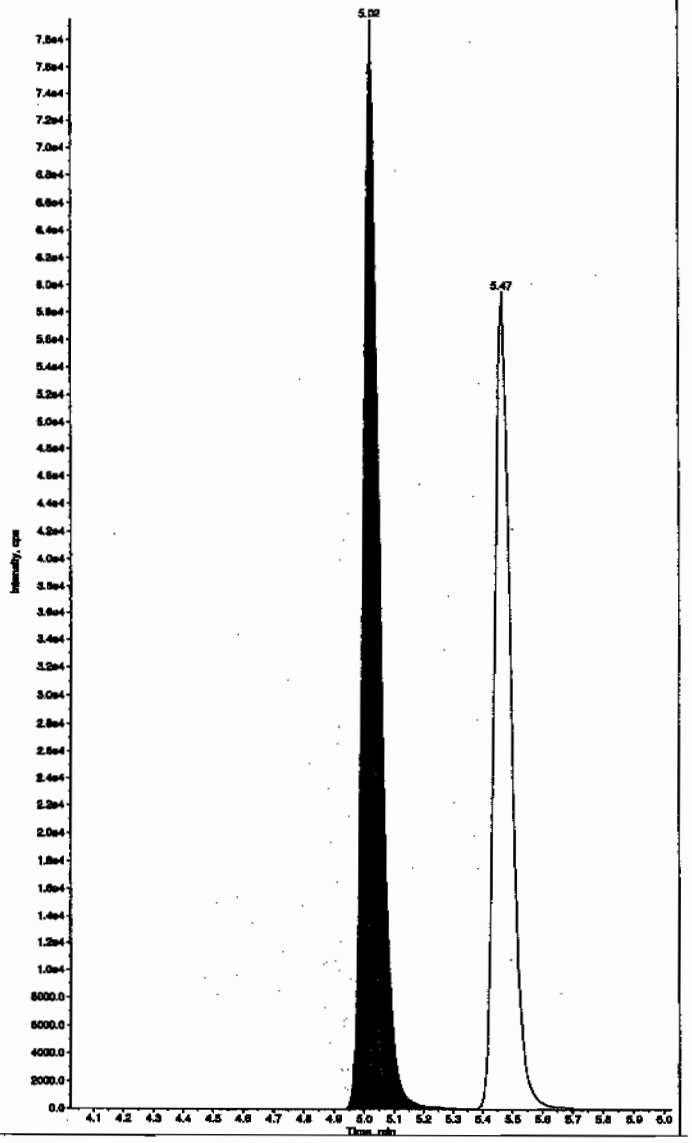

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040039.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 100. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 1:38:01 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.47 min
Area: 2.30e+005 counts
Height: 59574.413 cps
Start Time: 5.34 min
End Time: 5.84 min

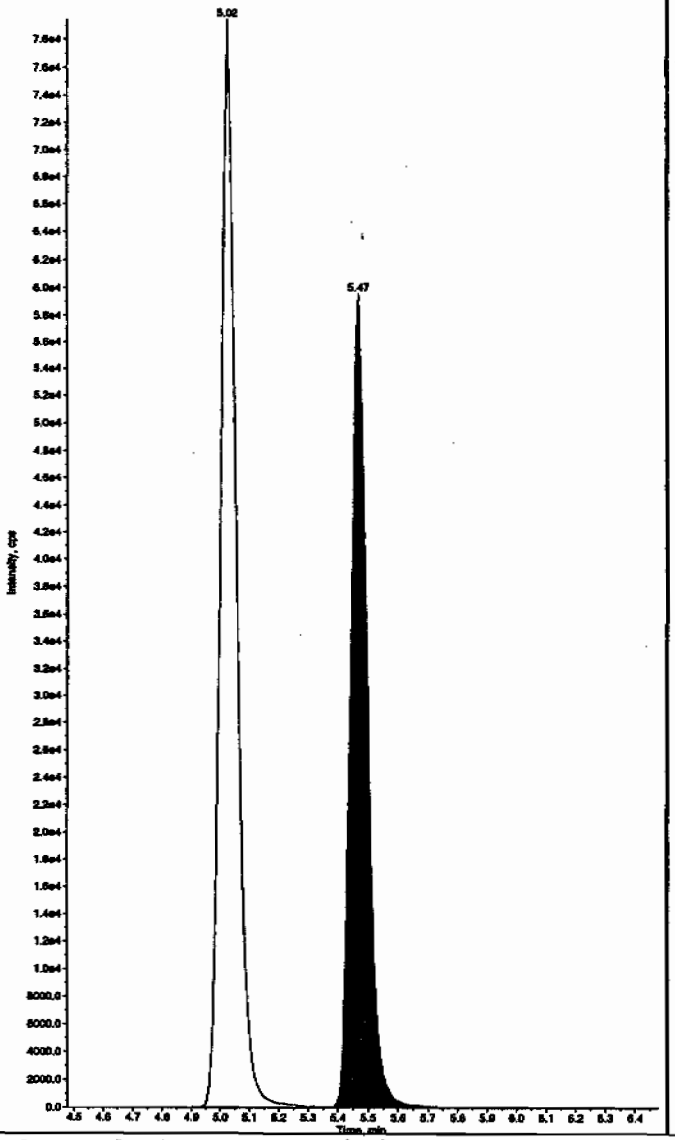

Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040039.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 101. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 1:38:01 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 2.62e+006 counts
Height: 652211.304 cps
Start Time: 10.9 min
End Time: 11.3 min

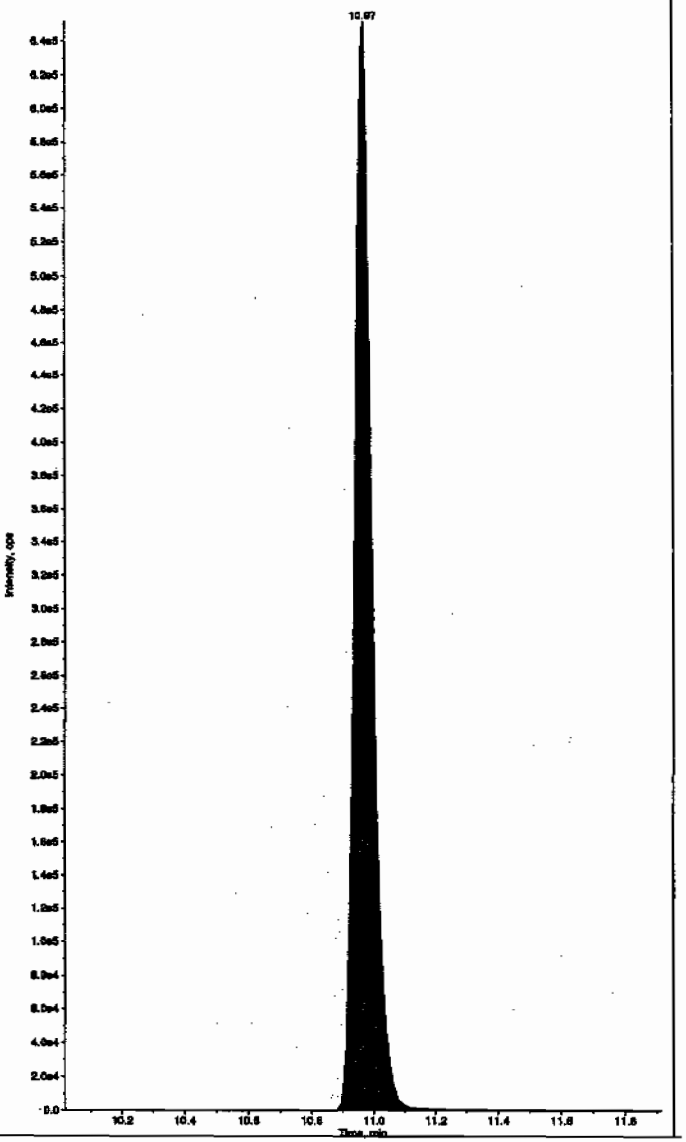

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-994

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS01040050.wiff

Analysis Date: 05-JAN-10 04:30

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	542	108	
2,6-Diamino-4-nitrotoluene	500	524	105	
3,4-Dinitrotoluene	250	243	97	
3,5-Dinitroaniline	500	501	100	
TATB	500	517	103	
tris(o-cresyl) phosphate	500	478	96	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before date 1/5/10

Sample Name: "WXX100104-26CCV" Sample ID: "[1]LER" File: "EXS01040050.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 517. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 4:30:45 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.96 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.92 min
Area: 6.89e+005 counts
Height: 162858.047 cps
Start Time: 6.81 min
End Time: 7.37 min

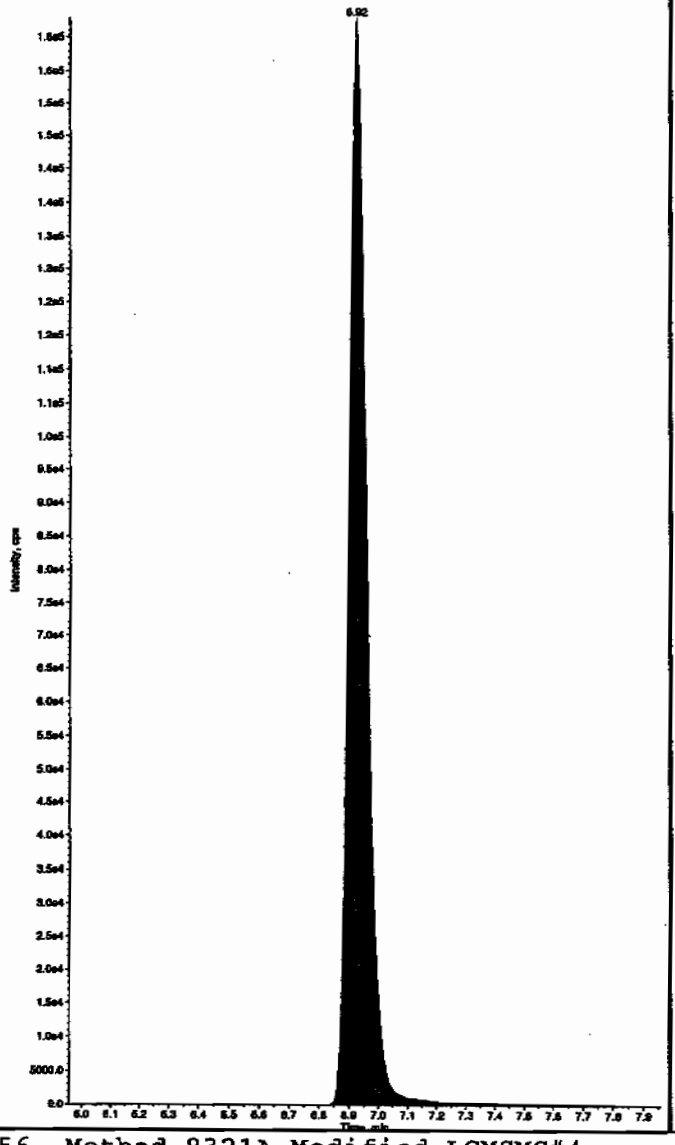

Sample Name: "WXX100104-26CCV" Sample ID: "[1]LER" File: "EXS01040050.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 555. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 4:30:45 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.12 min
Area: 5.14e+006 counts
Height: 1259818.970 cps
Start Time: 8.02 min
End Time: 8.58 min

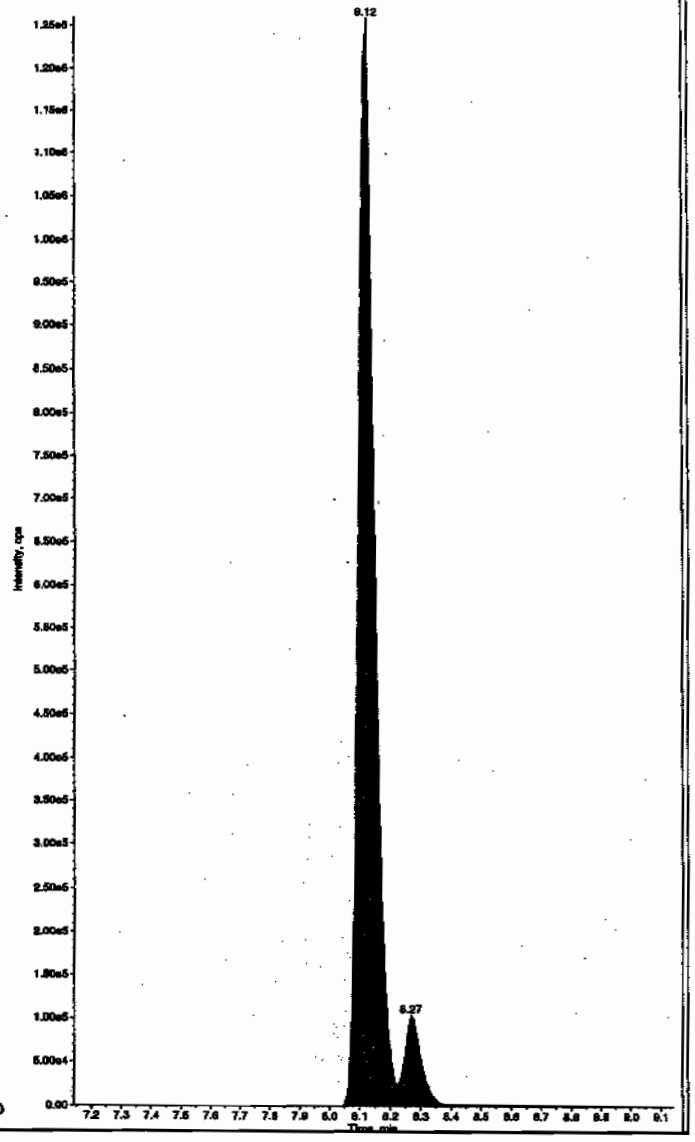

HMM 01/05/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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afsl Fan 1/5/10

Sample Name: "WXX100104-26CCV" Sample ID: "[1]LER" File: "EXS01040050.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 517. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 4:30:45 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.96 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.92 min
Area: 6.89e+005 counts
Height: 162858.047 cps
Start Time: 6.81 min
End Time: 7.37 min

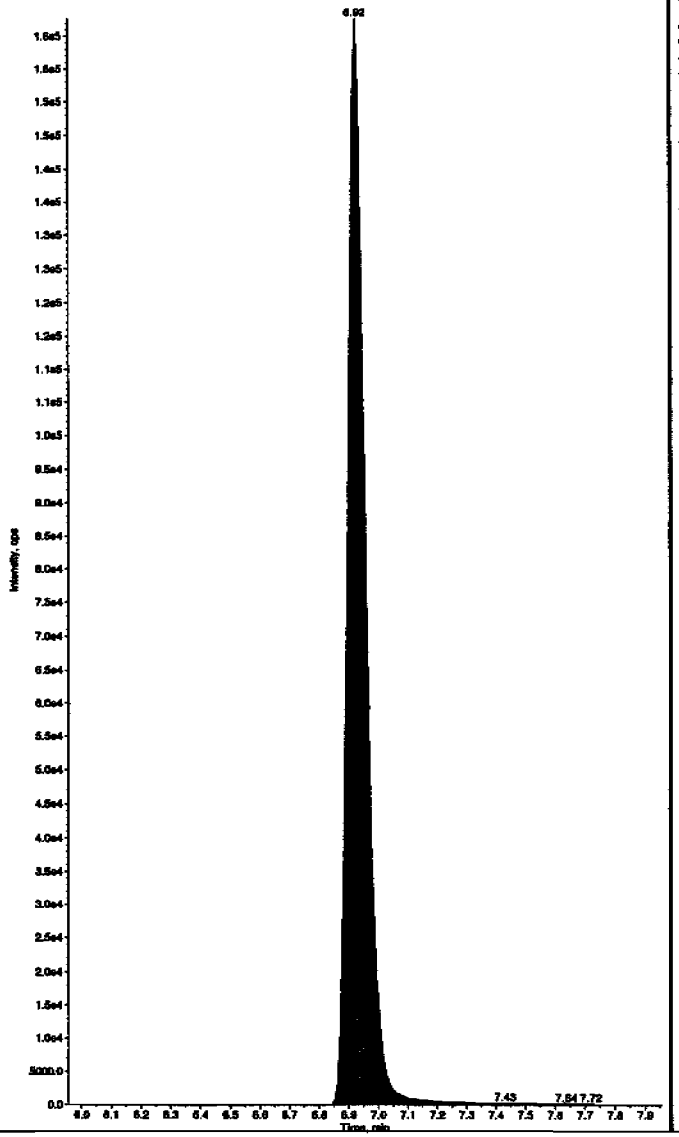

Sample Name: "WXX100104-26CCV" Sample ID: "[1]LER" File: "EXS01040050.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 501. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 4:30:45 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.12 min
Area: 4.70e+006 counts
Height: 1269234.429 cps
Start Time: 8.05 min
End Time: 8.23 min

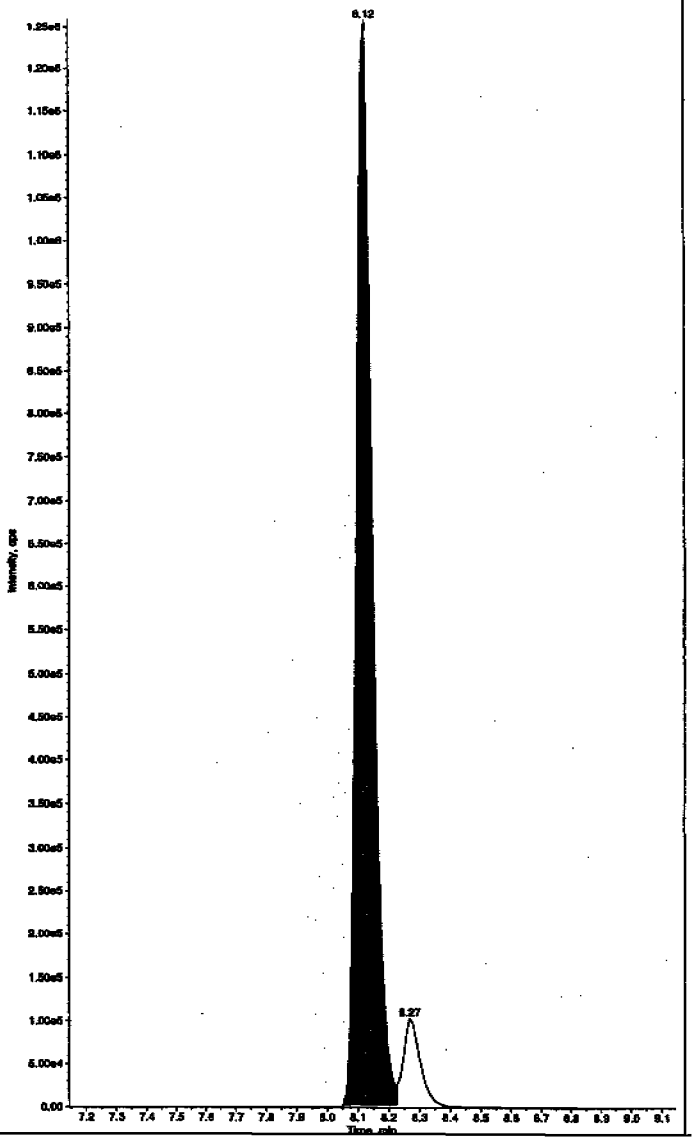

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "WXX100104-26CCV" Sample ID: "[1]LER" File: "EXS01040050.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 243. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 4:30:45 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.28 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.27 min
Area: 3.13e+006 counts
Height: 828059.387 cps
Start Time: 8.20 min
End Time: 8.60 min

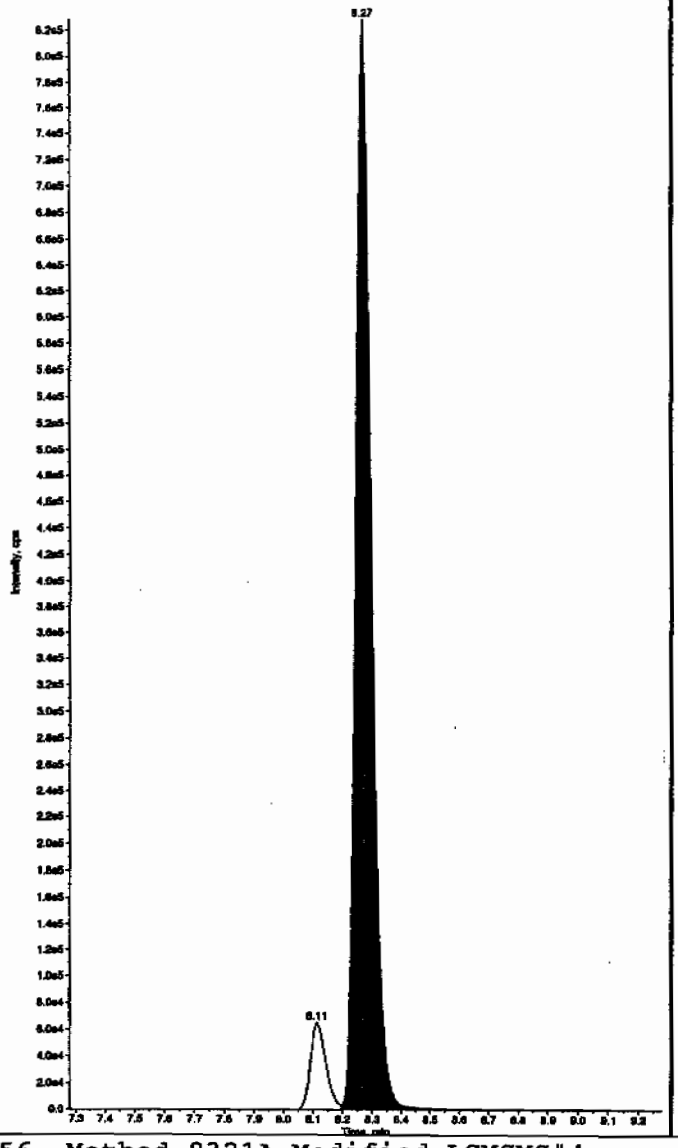

Sample Name: "WXX100104-26CCV" Sample ID: "[1]LER" File: "EXS01040050.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 524. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 4:30:45 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 1.64e+006 counts
Height: 418554.199 cps
Start Time: 4.93 min
End Time: 5.32 min

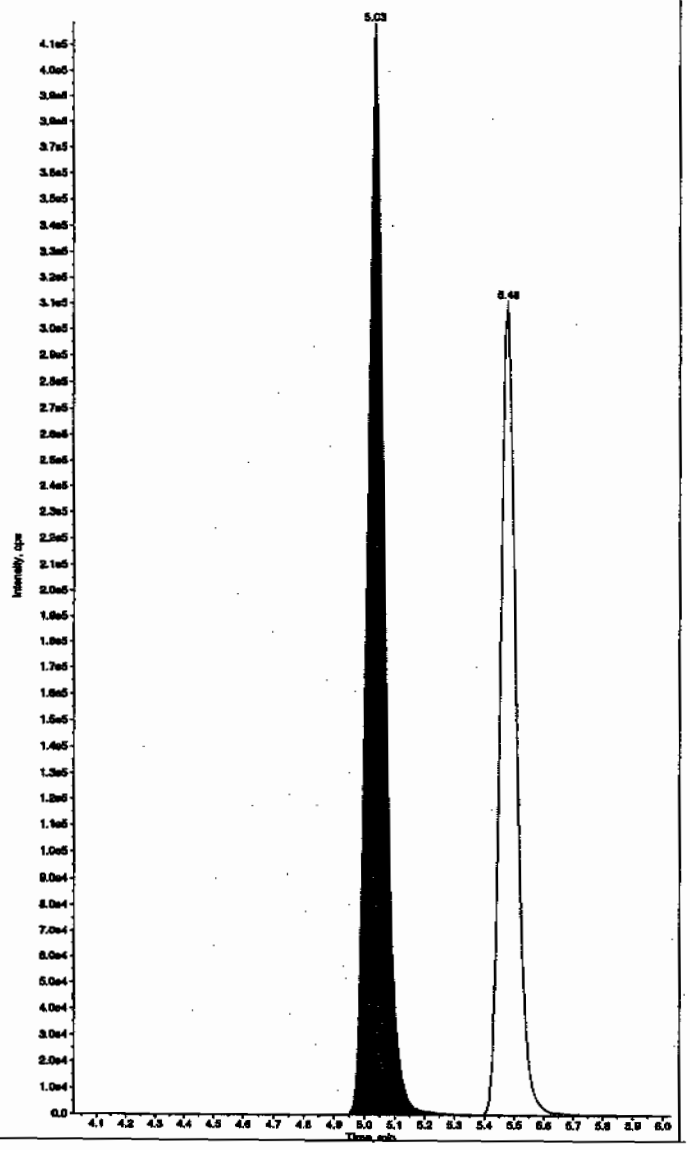

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100104-26CCV" Sample ID: "[1]LER" File: "EXS01040050.wiff"
Peak Name: "2,4-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 542. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 4:30:45 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 1.17e+006 counts
Height: 311650.543 cps
Start Time: 5.37 min
End Time: 5.95 min

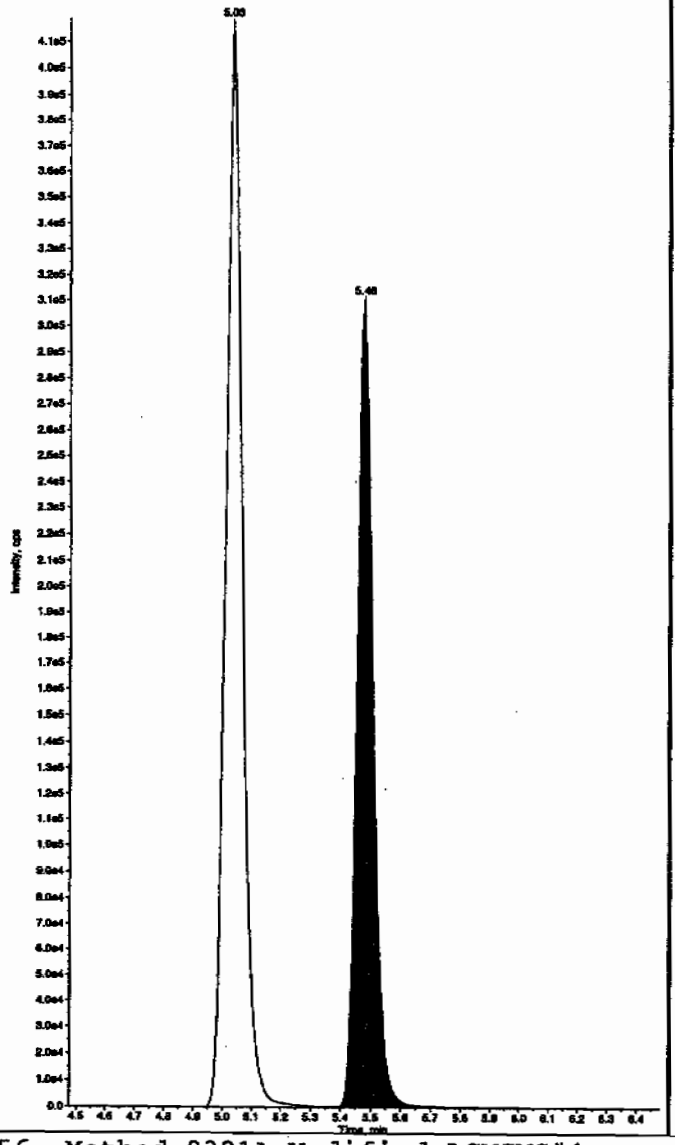

Sample Name: "WXX100104-26CCV" Sample ID: "[1]LER" File: "EXS01040050.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 478. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 4:30:45 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.15e+007 counts
Height: 2715679.685 cps
Start Time: 10.8 min
End Time: 11.2 min

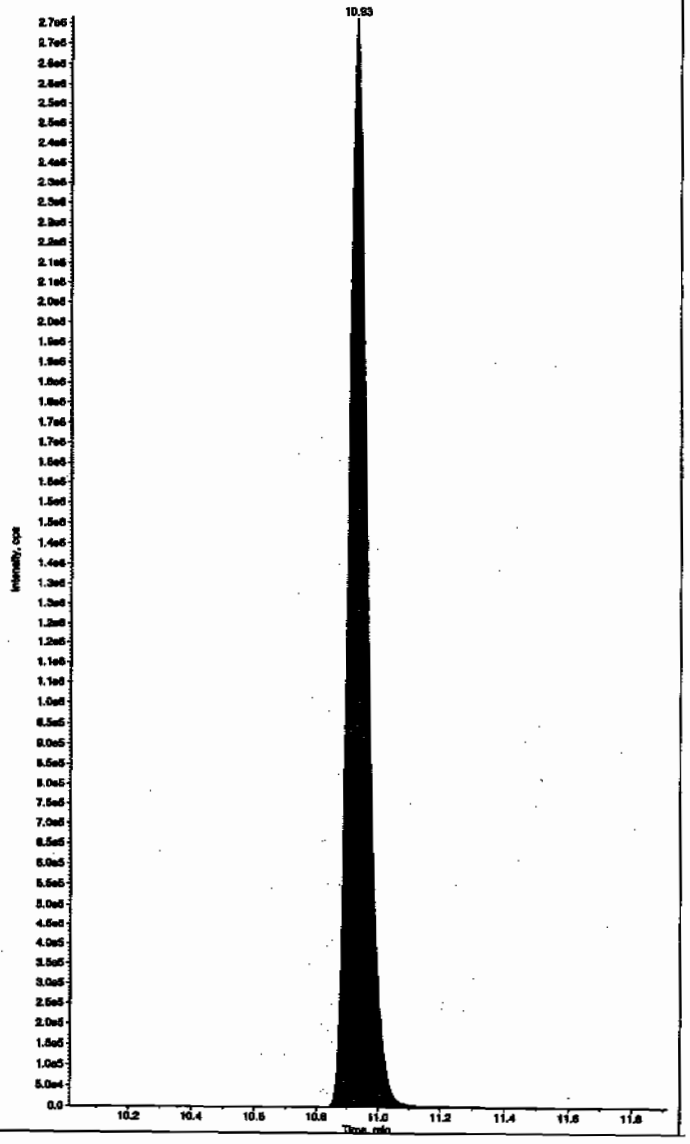

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–994

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS01040052.wiff

Analysis Date: 05–JAN–10 05:02

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	101	101	
2,6–Diamino–4–nitrotoluene	100	92.9	93	
3,4–Dinitrotoluene	50	49.6	99	
3,5–Dinitroaniline	100	96.6	97	
TATB	100	113	113	
tris(o–cresyl) phosphate	100	99.6	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Char 1/5/10

Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040052.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 113. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 5:02:09 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.96 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.94 min
Area: 1.53e+005 counts
Height: 37186.878 cps
Start Time: 6.79 min
End Time: 7.41 min

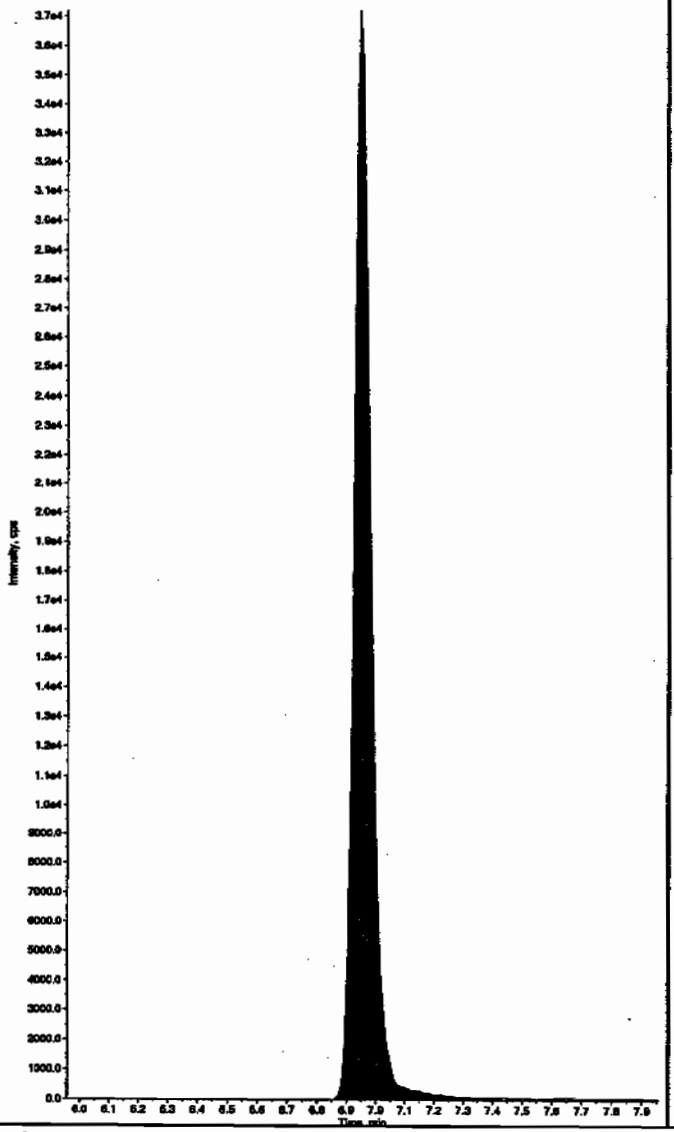

Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040052.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 107. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 5:02:09 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.10 min
Area: 1.11e+006 counts
Height: 287519.623 cps
Start Time: 7.92 min
End Time: 8.47 min

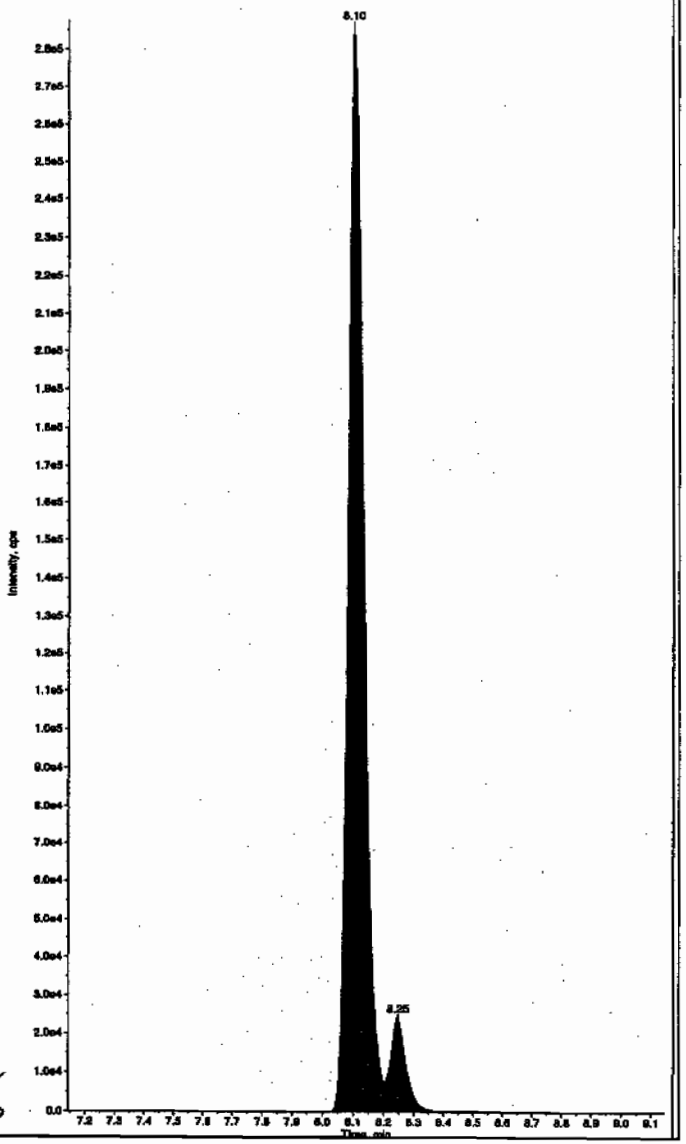

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GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Lan 1/5/10

Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040052.wif"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 113. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 5:02:09 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.96 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.94 min
Area: 1.53e+005 counts
Height: 37186.878 cps
Start Time: 6.79 min
End Time: 7.41 min

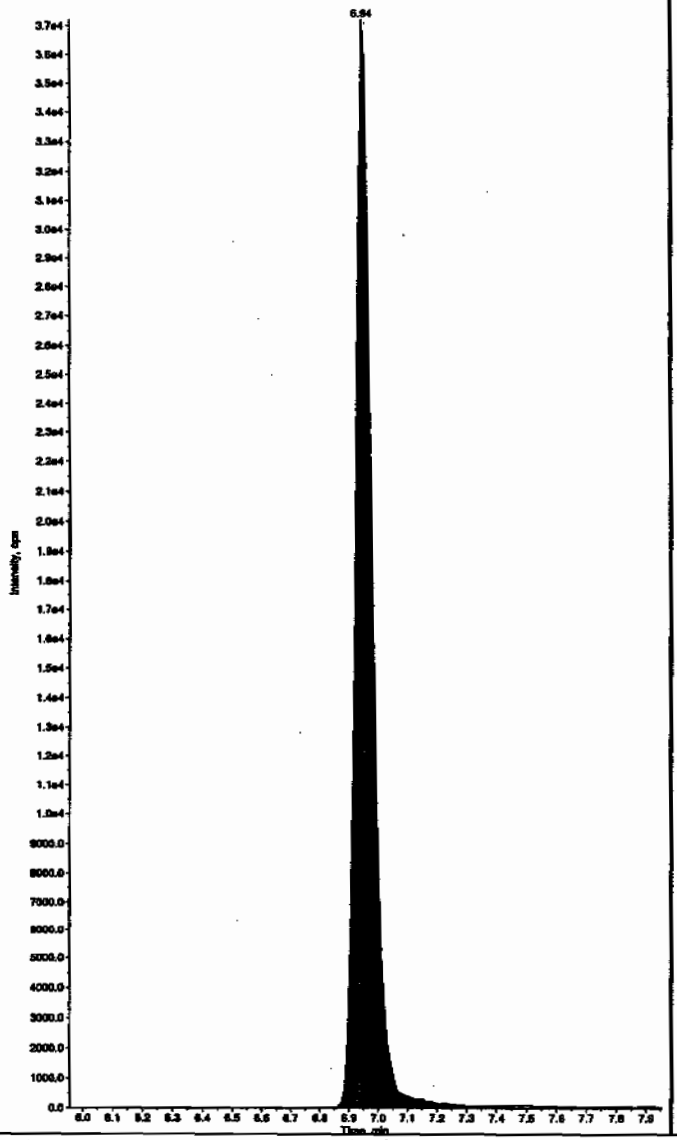

Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040052.wif"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 96.6 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 5:02:09 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.10 min
Area: 1.01e+006 counts
Height: 288604.970 cps
Start Time: 8.03 min
End Time: 8.21 min

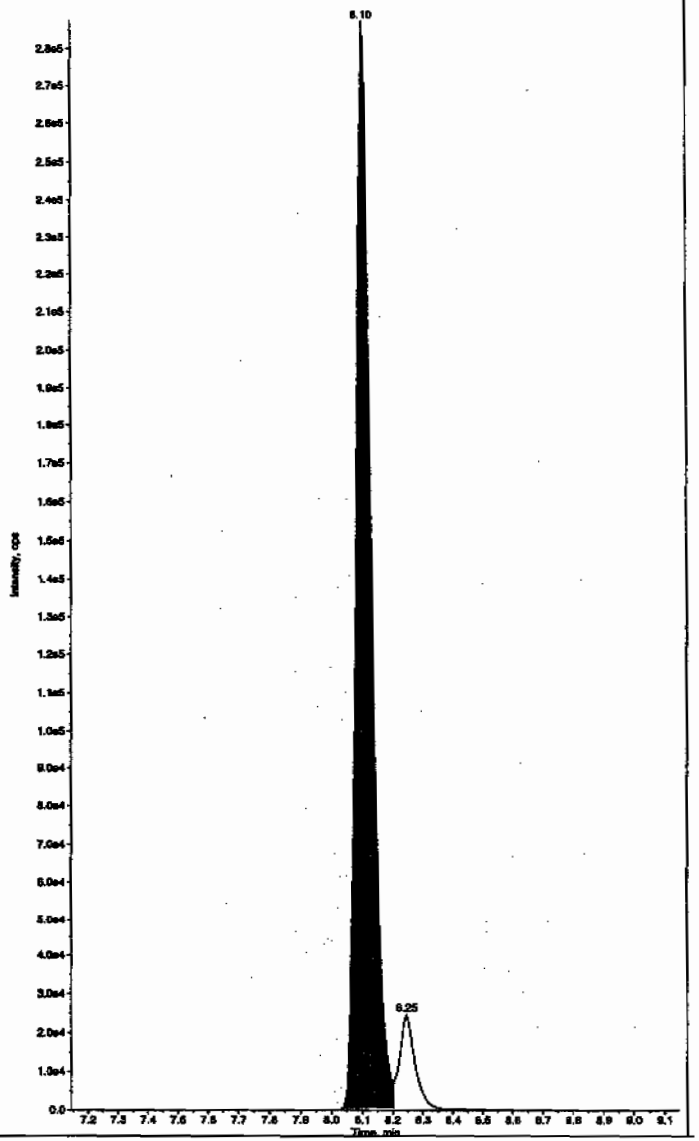

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - NO unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040052.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 49.6 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 5:02:09 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.28 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.24 min
Area: 6.34e+005 counts
Height: 173922.089 cps
Start Time: 8.17 min
End Time: 8.40 min

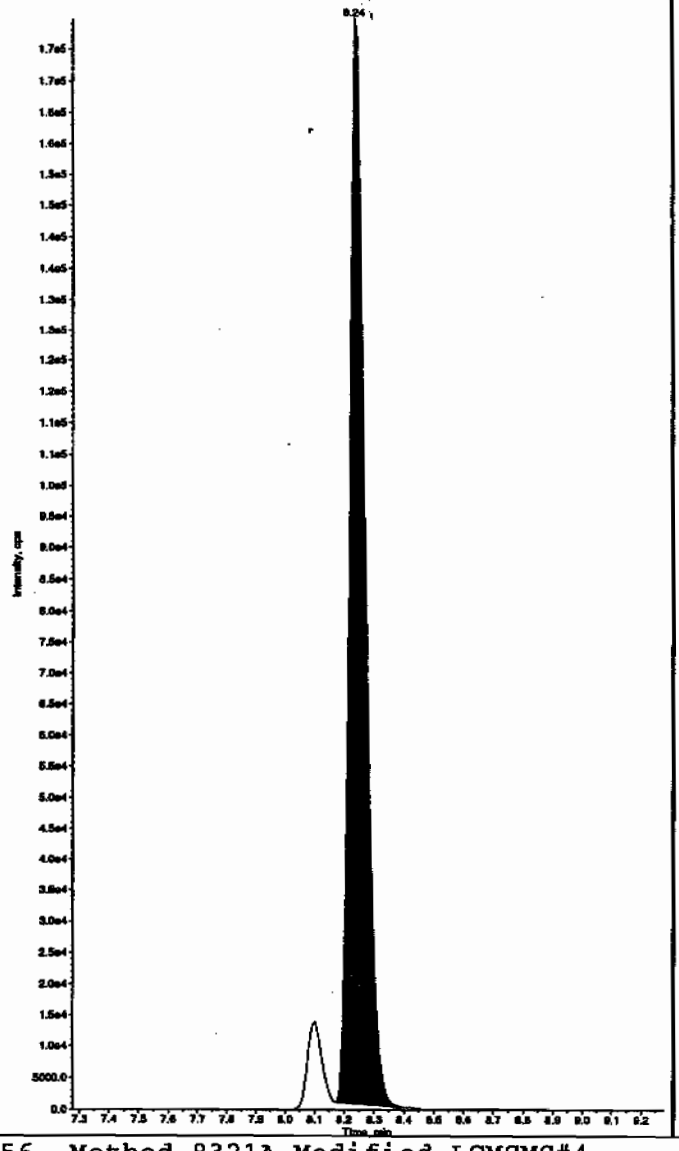

Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040052.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 92.9 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 5:02:09 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 3.33e+005 counts
Height: 89640.404 cps
Start Time: 4.93 min
End Time: 5.31 min

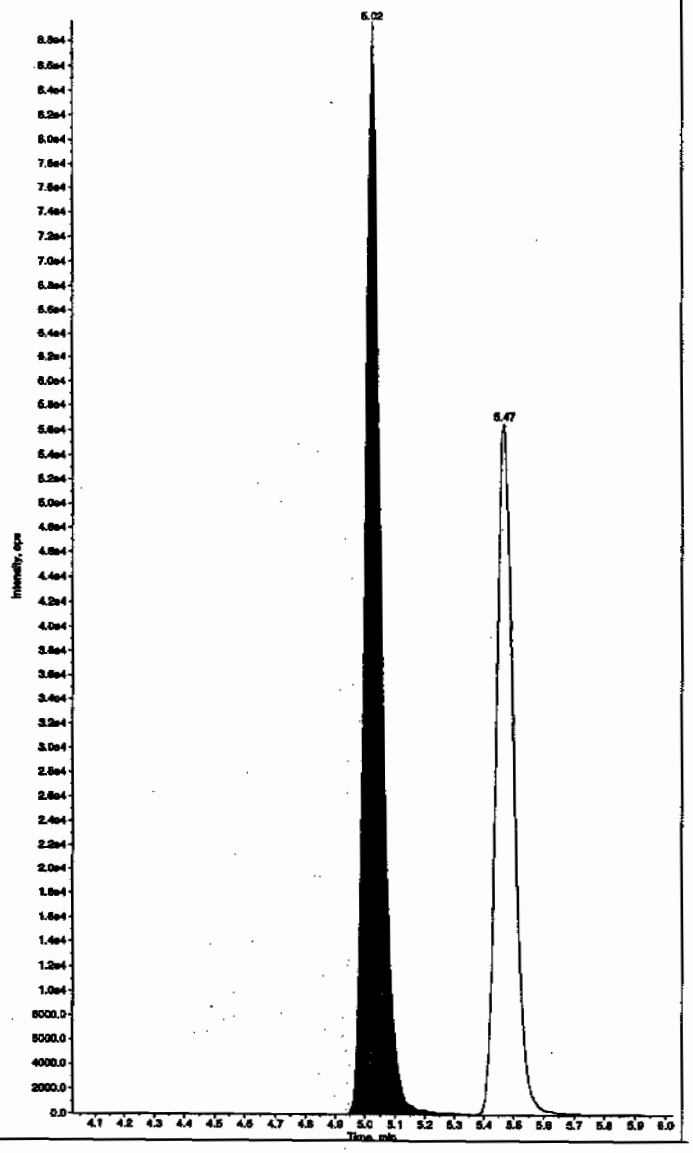

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040052.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 101. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 5:02:09 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.47 min
Area: 2.30e+005 counts
Height: 56571.121 cps
Start Time: 5.38 min
End Time: 5.64 min

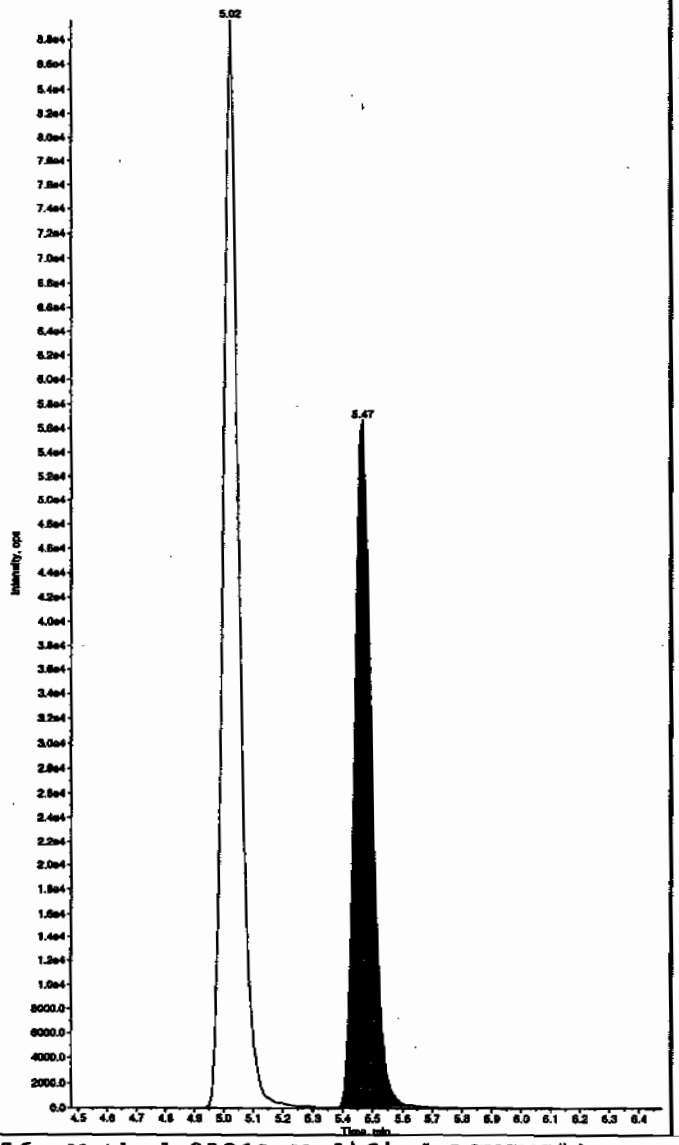

Sample Name: "WXX100104-27CRI" Sample ID: "[1]LER" File: "EXS01040052.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 99.6 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 5:02:09 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.57e+006 counts
Height: 598805.725 cps
Start Time: 10.8 min
End Time: 11.2 min

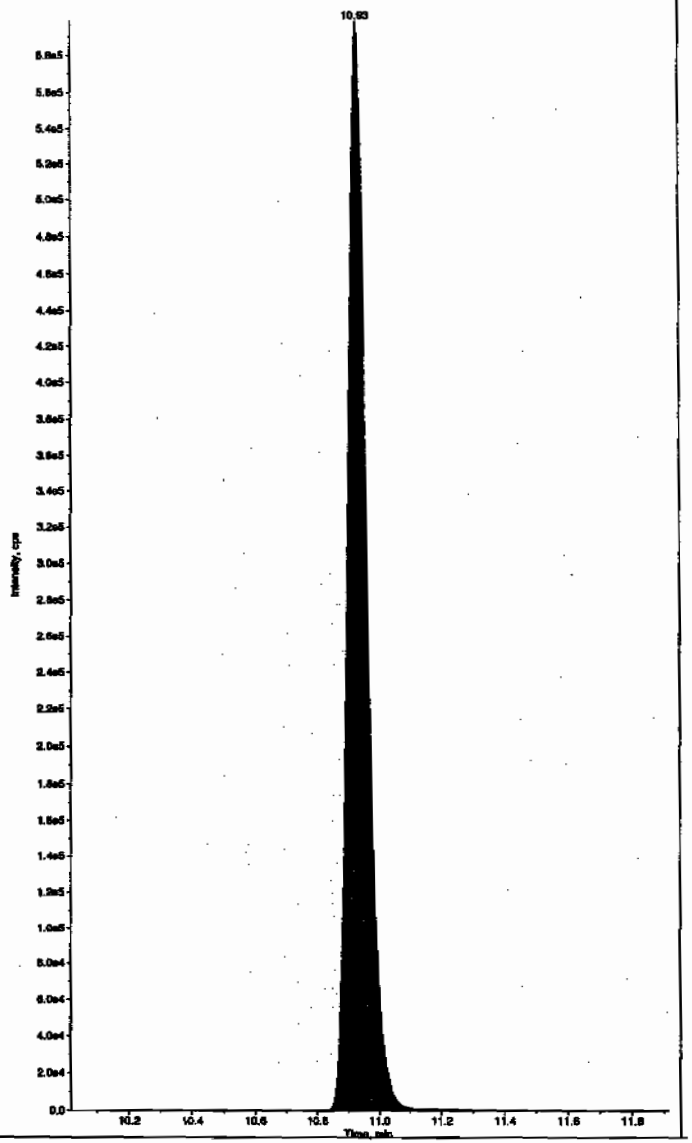

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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QUALITY CONTROL DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 935227

Lab Code: GEL

GEL Job No (SDG) 10-994

Matrix: GROUND WATER

GEL Sample ID: 1202000990

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 21-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 935227

Concentrated Extract Volume (mL) 5

Date Extracted: 23-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0112071a

Date Analyzed: 14-JAN-10 02:20

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	U
121-14-2	2,4-Dinitrotoluene	0.325	U
121-82-4	RDX	0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	U
2691-41-0	HMX	0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	U
479-45-8	Tetryl	0.649	U
606-20-2	2,6-Dinitrotoluene	0.325	U
78-11-5	PETN	1.3	U
88-72-2	o-Nitrotoluene	0.325	U
98-95-3	Nitrobenzene	0.325	U
99-08-1	m-Nitrotoluene	0.325	U
99-35-4	1,3,5-Trinitrobenzene	0.325	U
99-65-0	m-Dinitrobenzene	0.325	U
99-99-0	p-Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112071a
Date: 14-Jan-2010
Time: 02:20:29
ID: 1202000990 | LANL | 935230 | LAB | MB | 2 |
Vial: 1:7,A

MMP 1/14/10

P28

CONFIRMED BY EXP0112031a

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.5536e+003

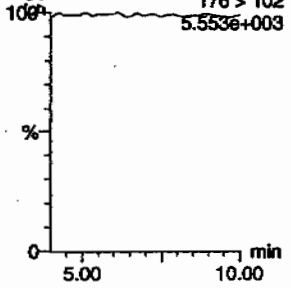

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.5536e+003

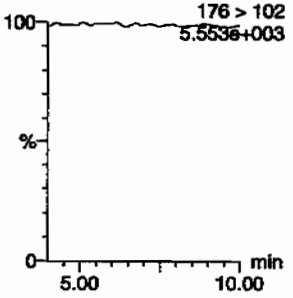

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.478e+003

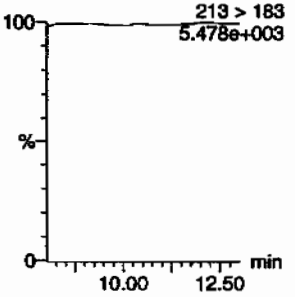

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.325e+004

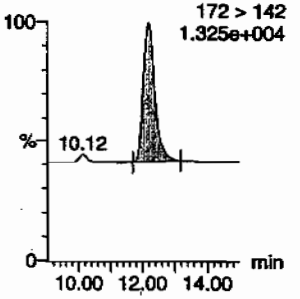

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.473e+003

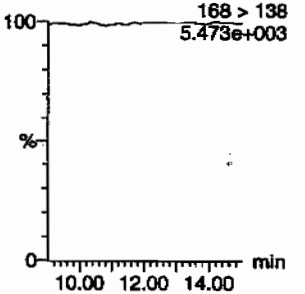

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.465e+003

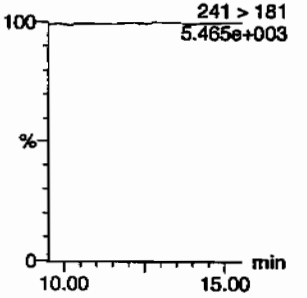

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.486e+003

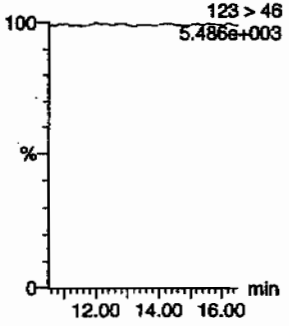

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.520e+003

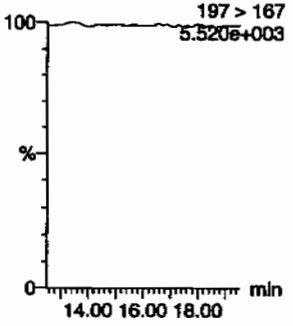

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.502e+003

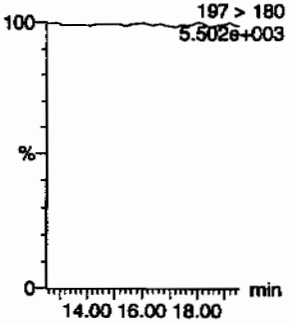

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.473e+003

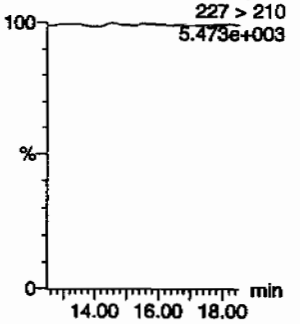

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.682e+004

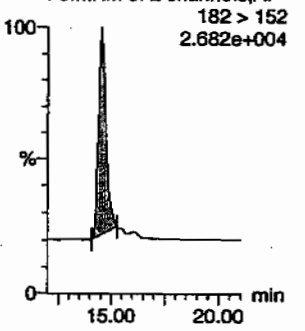

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.56
182 > 152
2.682e+004

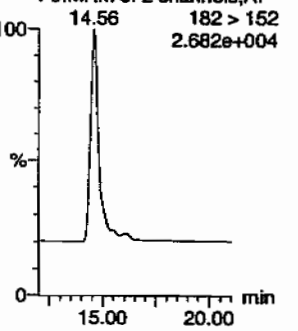

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

24-dinitrotoluene

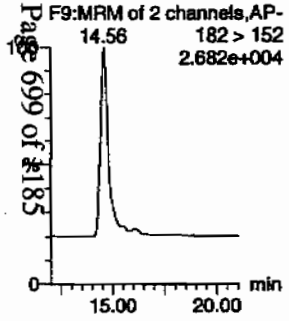

26-dinitrotoluene-d3

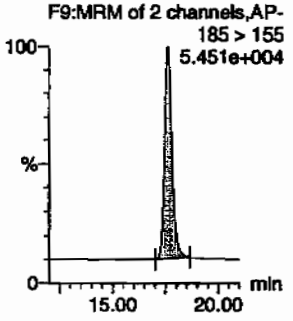

2-Nitrotoluene

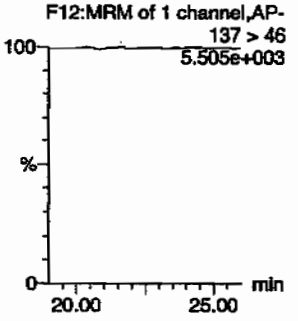

4-Nitrotoluene

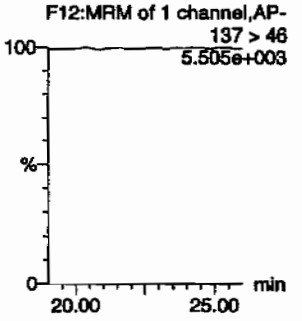

3-Nitrotoluene

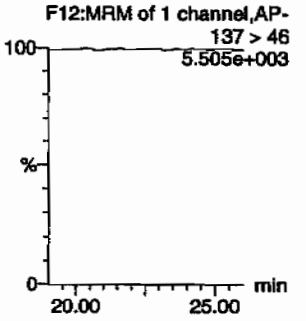

PETN

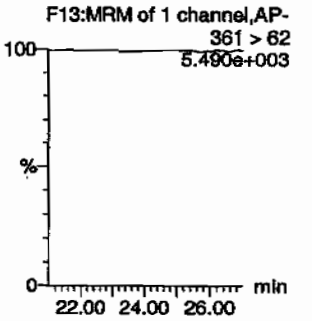

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
1202000990	HMX	176 > 102			3270.936									
1202000990	RDX	176 > 102			3270.936									
1202000990	135-Trinitrobenzene	213 > 183			3270.936									
1202000990	13-Dinitrobenzene-d4	172 > 142	12.17	3270.936		3270.936	3270.936	bb			649.7546	130.0	30.0	344.4
1202000990	13-Dinitrobenzene	168 > 138			3270.936									
1202000990	Tetryl	241 > 181			3270.936									
1202000990	Nitrobenzene	123 > 46			3270.936									
1202000990	4-Amino-26-dinitrotoluene	197 > 167			19581.541									
1202000990	2-Amino-46-dinitrotoluene	197 > 180			19581.541									
1202000990	246-Trinitrotoluene	227 > 210			19581.541									
1202000990	34-dinitrotoluene	182 > 152	14.56	8370.769	19581.541	8370.769	213.741	bb		3.23	249.8984	100.0	-0.0	418.4
1202000990	26-dinitrotoluene	182 > 152			19581.541									
1202000990	24-dinitrotoluene	182 > 152			19581.541									
1202000990	26-dinitrotoluene-d3	185 > 155	17.62	19581.541		19581.541	19581.541	bb			673.7962	134.8	34.8	1935.8
1202000990	2-Nitrotoluene	137 > 46			19581.541									
1202000990	4-Nitrotoluene	137 > 46			19581.541									
1202000990	3-Nitrotoluene	137 > 46			19581.541									
1202000990	PETN	361 > 62			19581.541									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 935227

Lab Code: GEL

GEL Job No (SDG) 10-994

Matrix: GROUND WATER

GEL Sample ID: 1202000990

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 21-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 935227

Concentrated Extract Volume (mL) 5

Date Extracted: 23-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01040044.wiff

Date Analyzed: 05-JAN-10 02:56

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sample Name: "1202000990" Sample ID: "935230[2]LER" File: "EXS01040044.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 2:56:31 AM
Modified: No

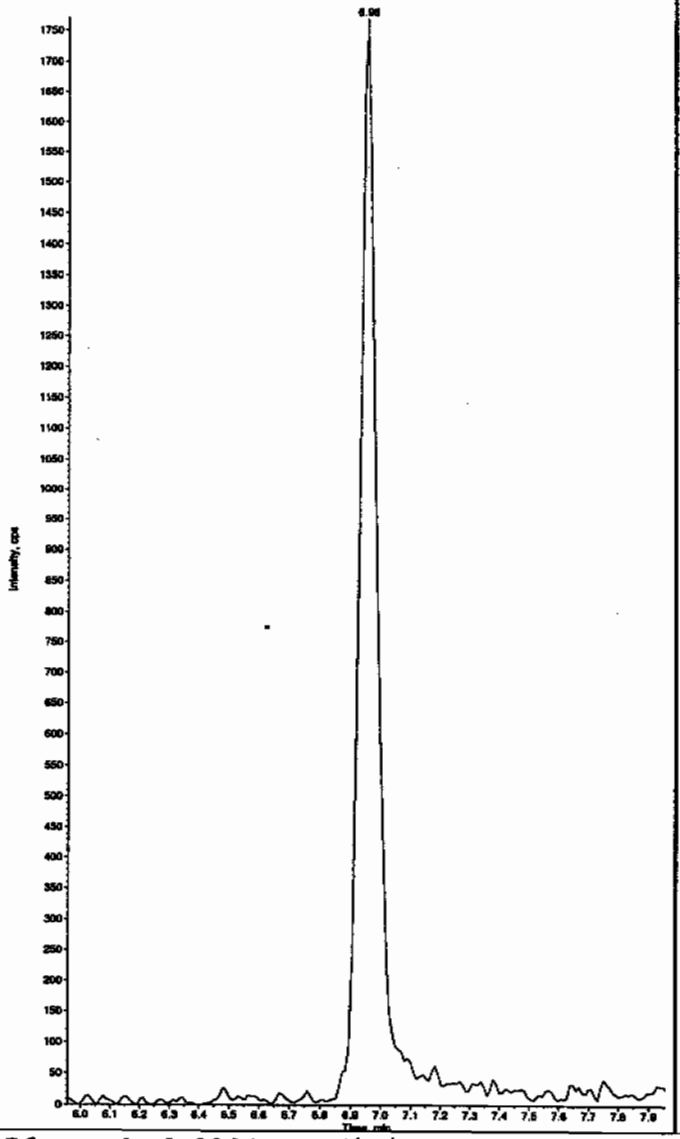

Sample Name: "1202000990" Sample ID: "935230[2]LER" File: "EXS01040044.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 2:56:31 AM
Modified: No

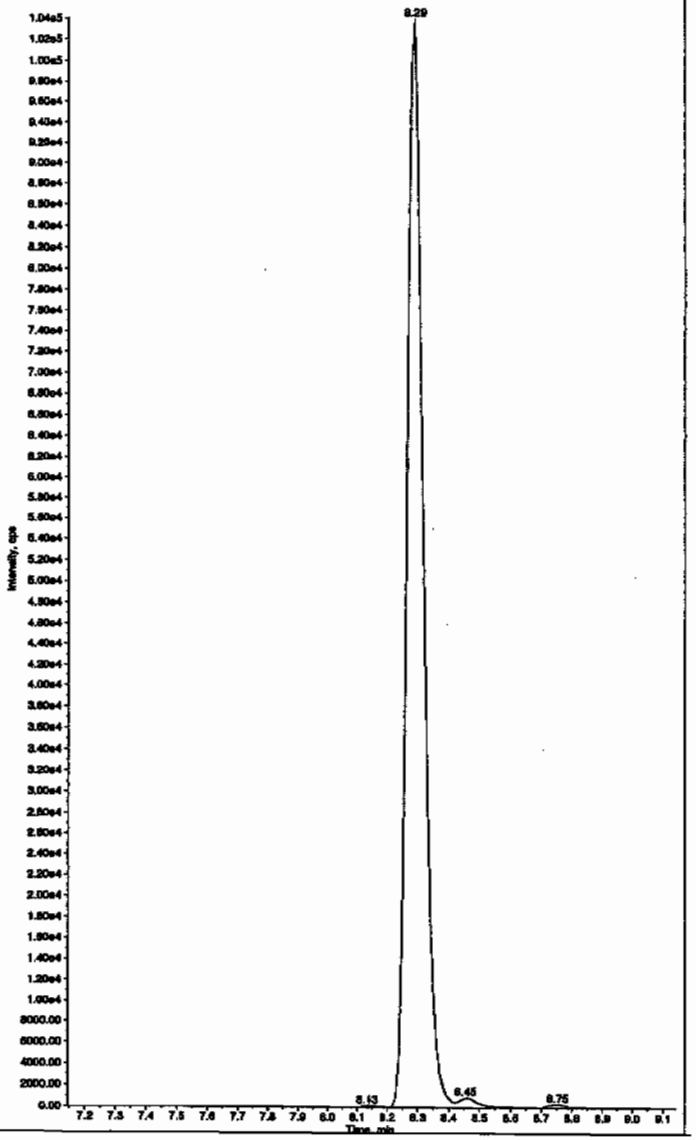

Hmm 01/05/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202000990" Sample ID: "935230[2]LER" File: "EXS01040044.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212L" Annotation: ""

ample Index: 1
ample Type: Unknown
ncentration: N/A
lculated Conc: 244. ng/mL
q. Date: 1/5/2010
q. Time: 2:56:31 AM

3.18

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.28 min
e Relative RT: No

t. Type: Valley
tention Time: 8.28 min
ea: 3.14e+006 counts
eight: 871945.923 cps
art Time: 8.19 min
d Time: 8.41 min

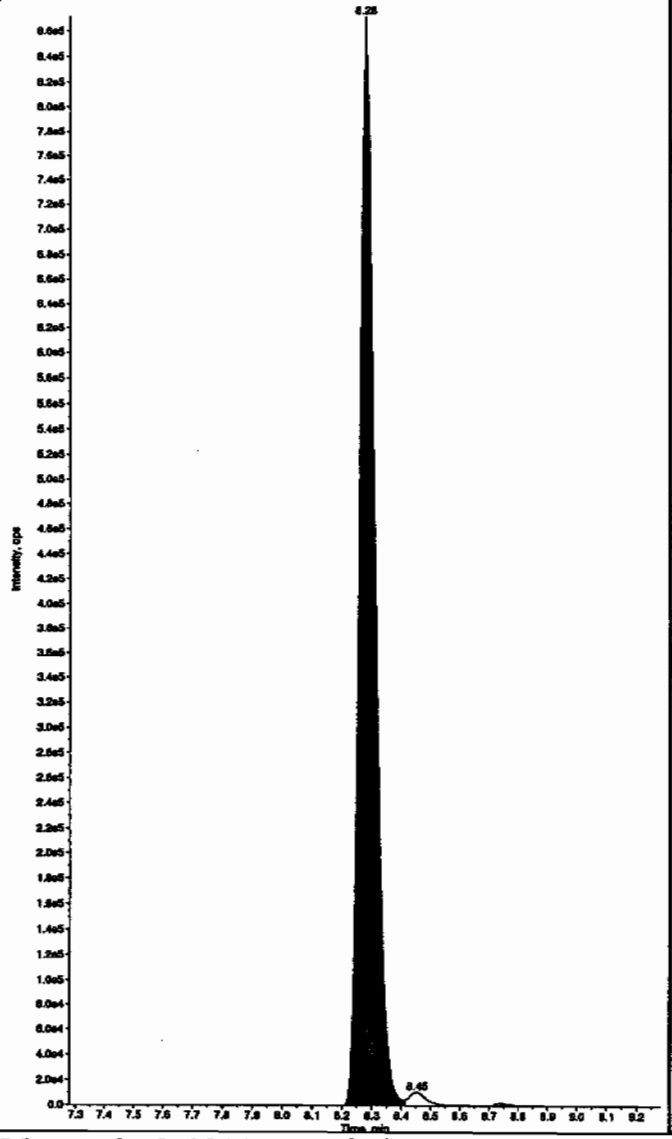

Sample Name: "1202000990" Sample ID: "935230[2]LER" File: "EXS01040044.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 2:56:31 AM

Modified: No

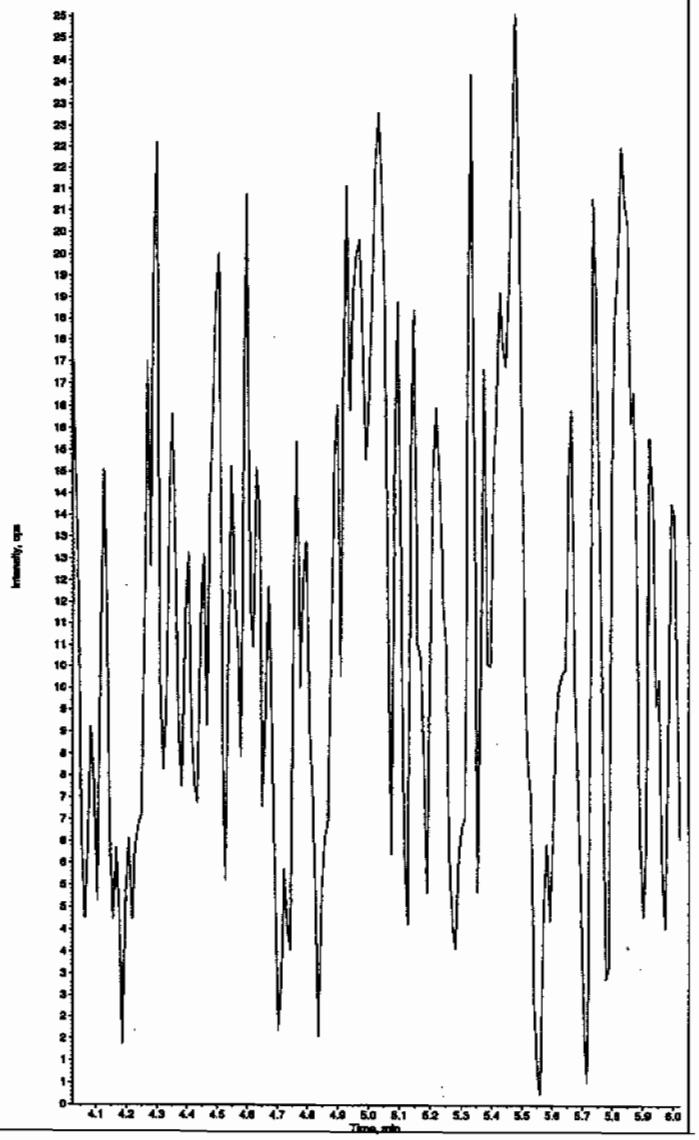

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202000990" Sample ID: "935230[2]LER" File: "EXS01040044.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 2:56:31 AM

Modified: No

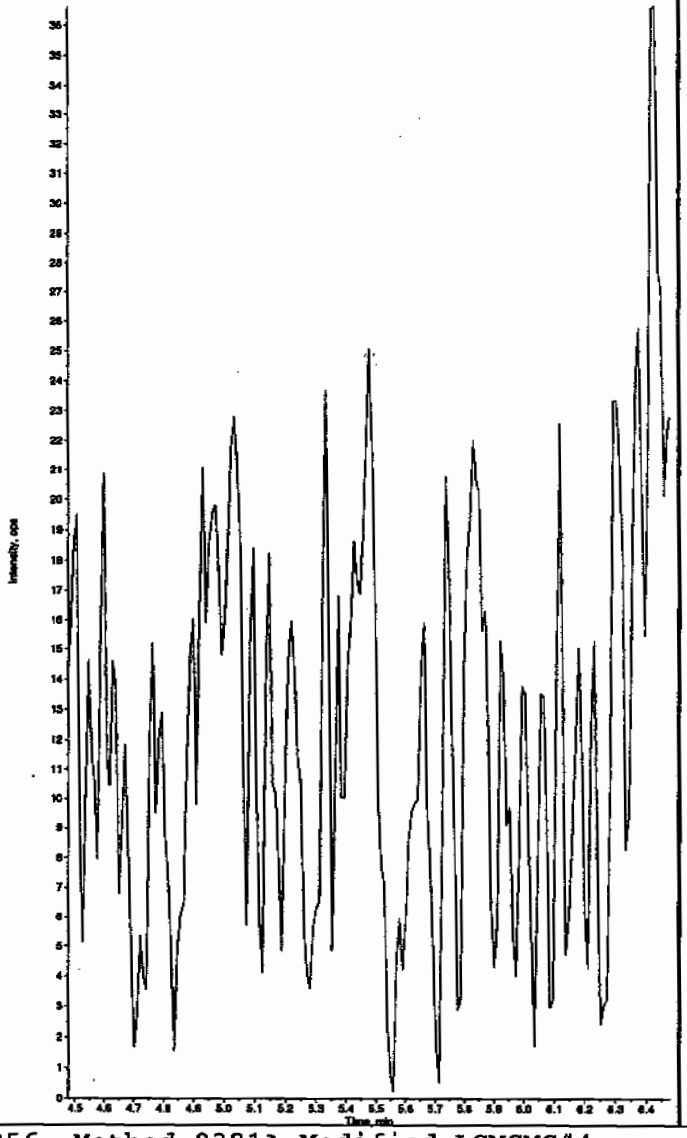

Sample Name: "1202000990" Sample ID: "935230[2]LER" File: "EXS01040044.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 1/5/2010
Acq. Time: 2:56:31 AM

Modified: No

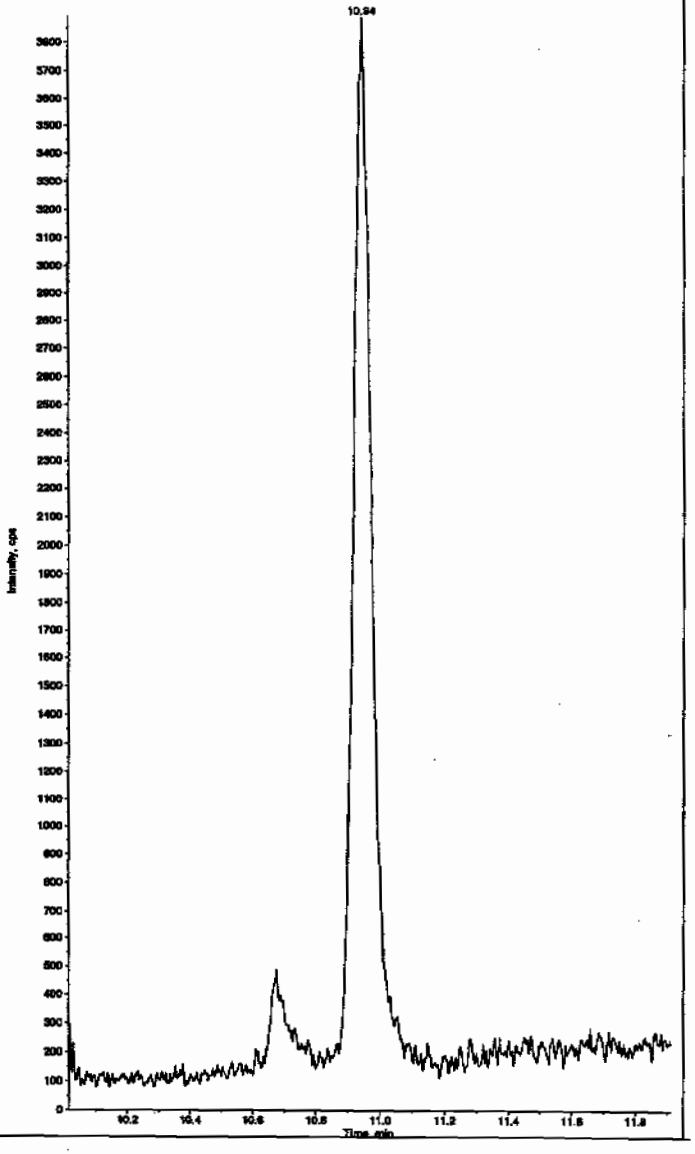

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 935227

Lab Code: GEL

GEL Job No (SDG) 10-994

Matrix: GROUND WATER

GEL Sample ID: 1202000991

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 21-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 935227

Concentrated Extract Volume (mL) 5

Date Extracted: 23-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0112072a

Date Analyzed: 14-JAN-10 02:50

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5.6	
121-14-2	2,4-Dinitrotoluene	6.3	
121-82-4	RDX	5.54	
19406-51-0	4-Amino-2,6-dinitrotoluene	5.17	
2691-41-0	HMX	4.71	
35572-78-2	2-Amino-4,6-dinitrotoluene	5.42	
479-45-8	Tetryl	5.21	
606-20-2	2,6-Dinitrotoluene	5.54	
78-11-5	PETN	4.91	
88-72-2	o-Nitrotoluene	4.22	
98-95-3	Nitrobenzene	4.85	
99-08-1	m-Nitrotoluene	4.48	
99-35-4	1,3,5-Trinitrobenzene	5.87	
99-65-0	m-Dinitrobenzene	5.19	
99-99-0	p-Nitrotoluene	4.53	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112072a
Date: 14-Jan-2010
Time: 02:50:01
ID: 1202000991 | LANU | 935230 | LIQ | LC8 | 2 |
Vial: 1:7,B

MMT 1/14/10

#28

CONFIRMED BY EXP0112032a

HMX

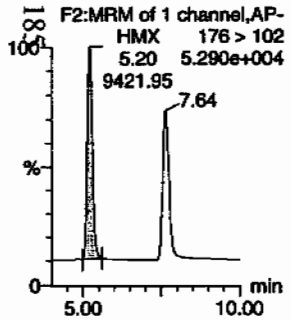

RDX

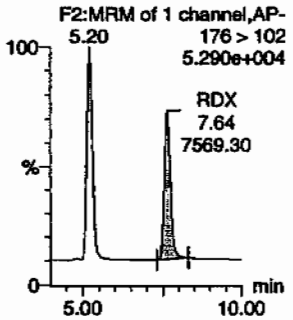

135-Trinitrobenzene

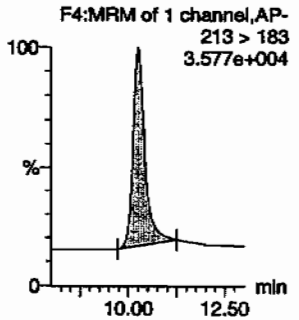

13-Dinitrobenzene-d4

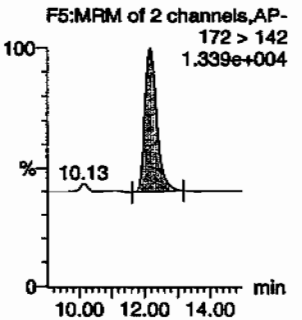

13-Dinitrobenzene

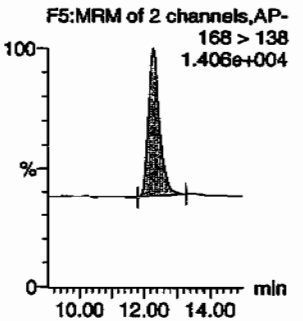

Tetryl

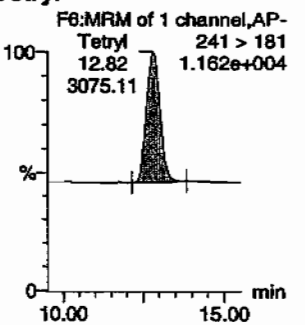

Nitrobenzene

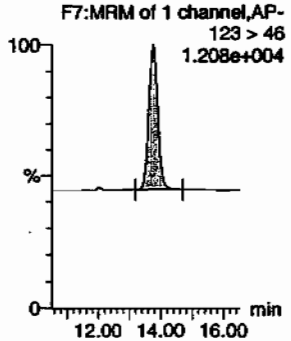

4-Amino-26-dinitrotoluene

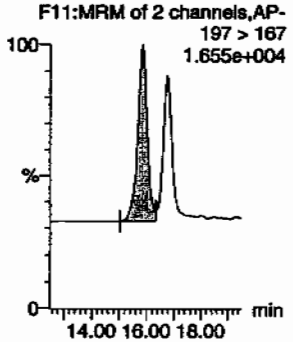

2-Amino-46-dinitrotoluene

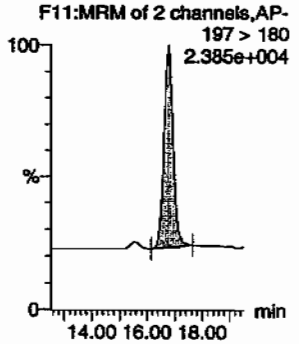

246-Trinitrotoluene

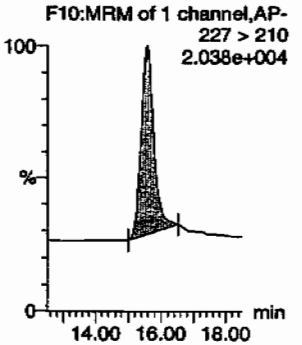

34-dinitrotoluene

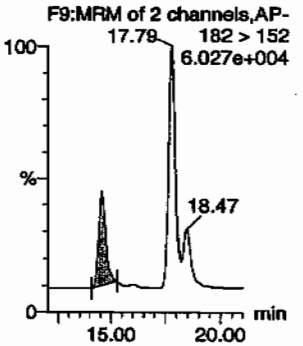

26-dinitrotoluene

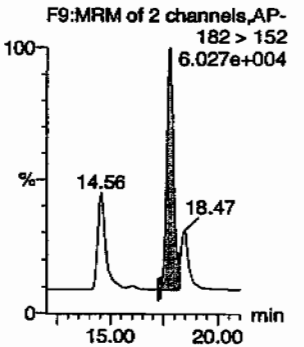

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

24-dinitrotoluene

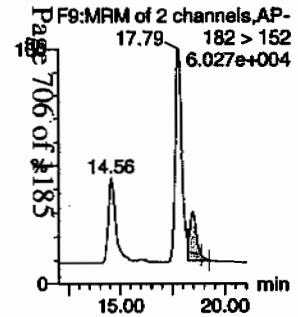

26-dinitrotoluene-d3

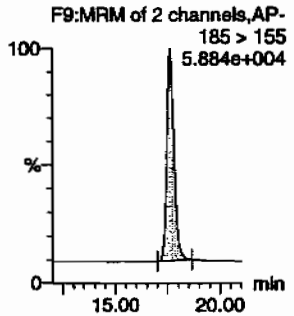

2-Nitrotoluene

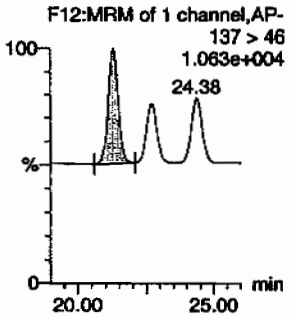

4-Nitrotoluene

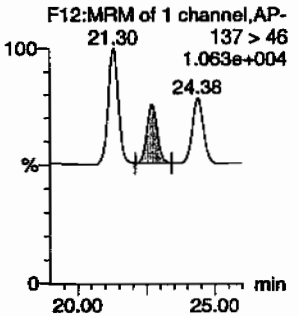

3-Nitrotoluene

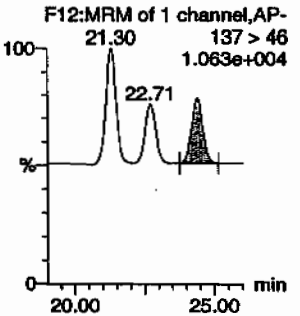

PETN

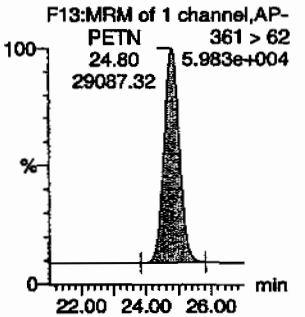

ID	Name	Trace	RT	Area	ISTAd	Abs Resp	Response	Flag	Mod Date	Mod Time	Conc	%Rec	%Dev	S/N
1202000991	HMX	176 > 102	5.20	9421.950	3405.156	9421.950	1383.483	bb			362.9202	72.6	-27.4	623.3
1202000991	RDX	176 > 102	7.64	7569.296	3405.156	7569.296	1111.446	bb			426.9617	85.4	-14.6	438.3
1202000991	135-Trinitrobenzene	213 > 183	10.27	10674.558	3405.156	10674.558	1567.411	bb			451.9200	90.4	-9.6	532.4
1202000991	13-Dinitrobenzene-d4	172 > 142	12.17	3405.156		3405.156	3405.156	bb			676.4167	135.3	35.3	322.7
1202000991	13-Dinitrobenzene	168 > 138	12.31	3409.647	3405.156	3409.647	500.659	bb			399.5588	79.9	-20.1	165.4
1202000991	Tetryl	241 > 181	12.82	3075.107	3405.156	3075.107	451.537	bb			401.2919	80.3	-19.7	263.1
1202000991	Nitrobenzene	123 > 46	13.72	2329.411	3405.156	2329.411	342.042	bb			373.5540	74.7	-25.3	208.9
1202000991	4-Amino-26-dinitrotoluene	197 > 167	15.86	4561.653	21292.410	4561.653	107.119	MM	14-Jan-10	07:35:45	398.0773	79.6	-20.4	154.6
1202000991	2-Amino-46-dinitrotoluene	197 > 180	16.76	6923.856	21292.410	6923.856	162.590	bb			417.1841	83.4	-16.6	297.1
1202000991	246-Trinitrotoluene	227 > 210	15.58	6399.893	21292.410	6399.893	150.286	bb			431.5767	86.3	-13.7	296.5
1202000991	34-dinitrotoluene	182 > 152	14.56	8231.975	21292.410	8231.975	193.308	bb		293	226.0082	90.4	-9.6	177.6
1202000991	26-dinitrotoluene	182 > 152	17.79	19776.322	21292.410	19776.322	464.398	MM	14-Jan-10	07:40:27	426.2140	85.2	-14.8	461.6
1202000991	24-dinitrotoluene	182 > 152	18.47	5019.040	21292.410	5019.040	117.860	MM	14-Jan-10	07:49:55	485.1458	97.0	-3.0	105.6
1202000991	26-dinitrotoluene-d3	185 > 155	17.62	21292.410		21292.410	21292.410	bb			732.6668	146.5	46.5	2950.4
1202000991	2-Nitrotoluene	137 > 46	21.30	2229.076	21292.410	2229.076	52.344	bb			324.7152	64.9	-35.1	169.5
1202000991	4-Nitrotoluene	137 > 46	22.71	1198.666	21292.410	1198.666	28.148	bb			349.1133	69.8	-30.2	86.4
1202000991	3-Nitrotoluene	137 > 46	24.38	1369.303	21292.410	1369.303	32.155	bb			344.6906	68.9	-31.1	95.4
1202000991	PETN	361 > 62	24.80	29087.322	21292.410	29087.322	683.044	bb			377.9157	75.6	-24.4	7202.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 935227

Lab Code: GEL

GEL Job No (SDG) 10-994

Matrix: GROUND WATER

GEL Sample ID: 1202000991

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 21-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 935227

Concentrated Extract Volume (mL) 5

Date Extracted: 23-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01040045.wiff

Date Analyzed: 05-JAN-10 03:12

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	4.48	
59229-75-3	2,6-Diamino-4-nitrotoluene	5.95	
618-87-1	3,5-Dinitroaniline	4.82	
6629-29-4	2,4-Diamino-6-nitrotoluene	4.65	
78-30-8	tris(o-cresyl) phosphate	2.26	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Before Lear 1/5/10

Sample Name: "1202000991" Sample ID: "935230|2|LER" File: "EXS01040045.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 345. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 3:12:13 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.96 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.92 min
Area: 4.63e+005 counts
Height: 108906.143 cps
Start Time: 6.79 min
End Time: 7.37 min

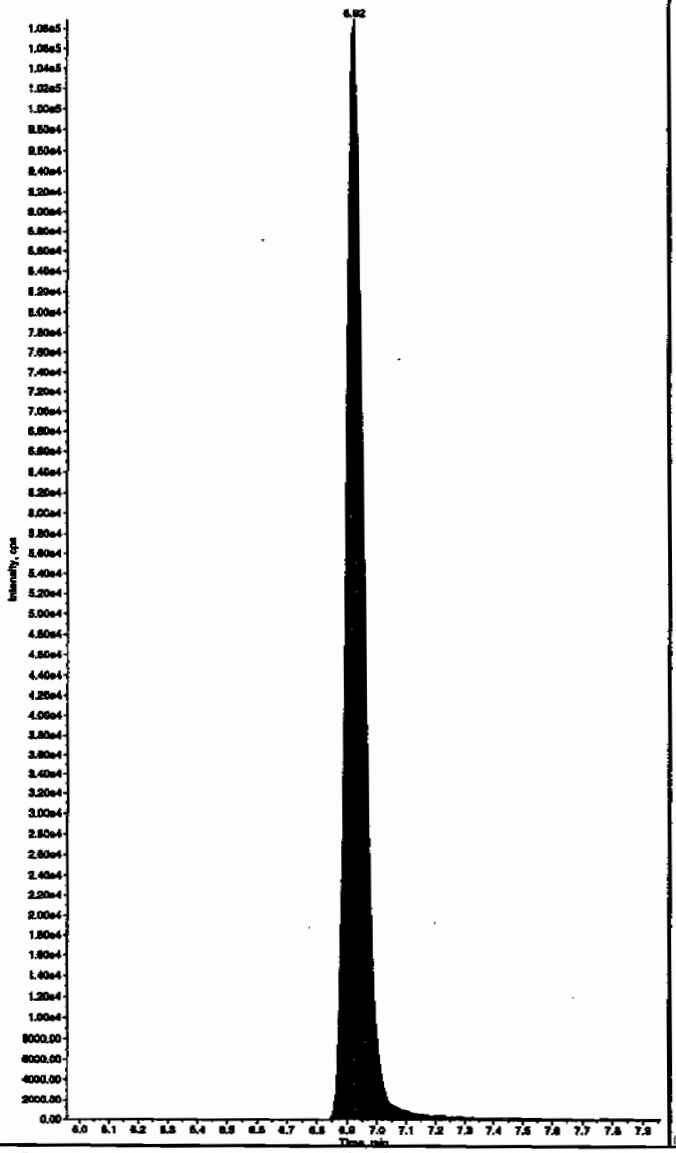

Sample Name: "1202000991" Sample ID: "935230|2|LER" File: "EXS01040045.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/48.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 355. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 3:12:13 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.12 min
Area: 3.43e+006 counts
Height: 930104.797 cps
Start Time: 8.06 min
End Time: 8.23 min

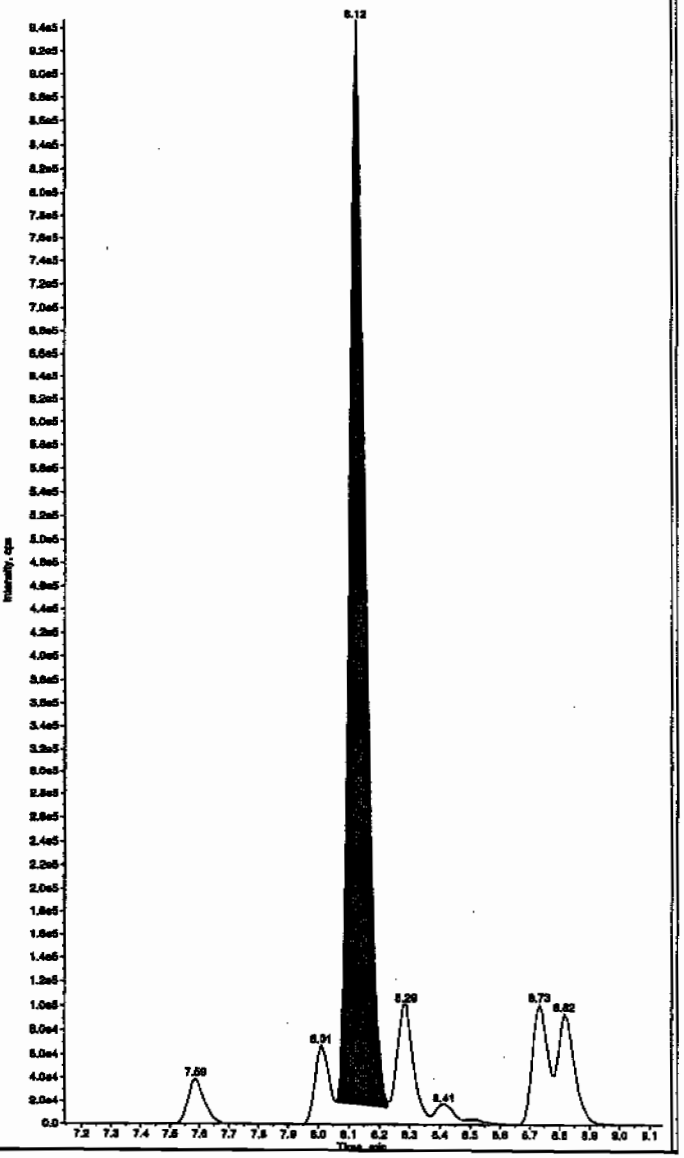

HMW 01/05/10

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Lab 1/5/10

Sample Name: "12020009 91" Sample ID: "935230[2]LER" File: "EXS01040045.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 345. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 3:12:13 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.96 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.92 min
Area: 4.63e+005 counts
Height: 108906.143 cps
Start Time: 6.79 min
End Time: 7.37 min

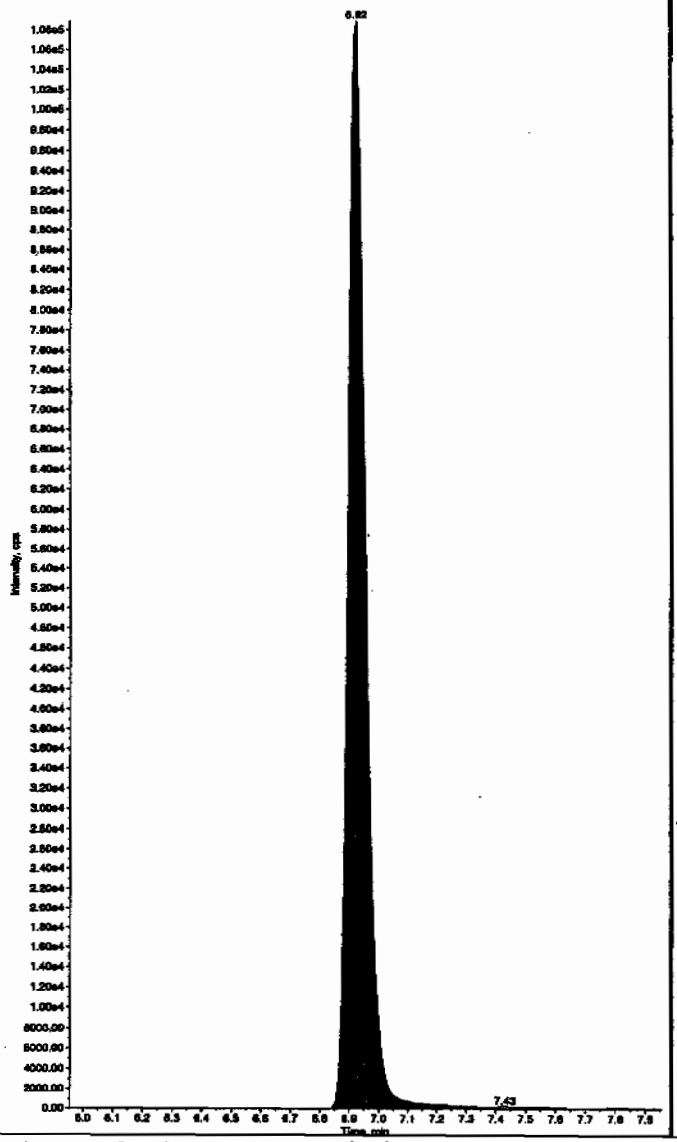

Sample Name: "12020009 91" Sample ID: "935230[2]LER" File: "EXS01040045.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 371. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 3:12:13 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.12 min
Area: 3.57e+006 counts
Height: 945651.704 cps
Start Time: 8.06 min
End Time: 8.23 min

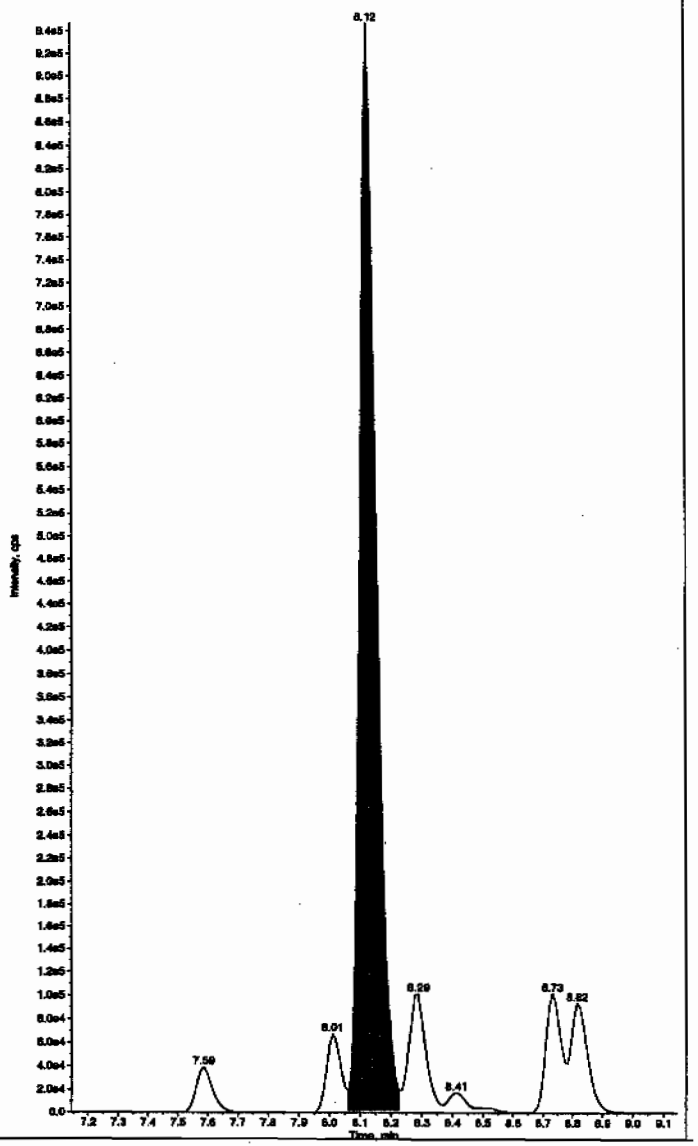

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202000991" Sample ID: "935230[2]LER" File: "EXS01040045.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 233. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 3:12:13 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.28 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.28 min
Area: 3.00e+006 counts
Height: 821920.471 cps
Start Time: 8.21 min
End Time: 8.40 min

3.02

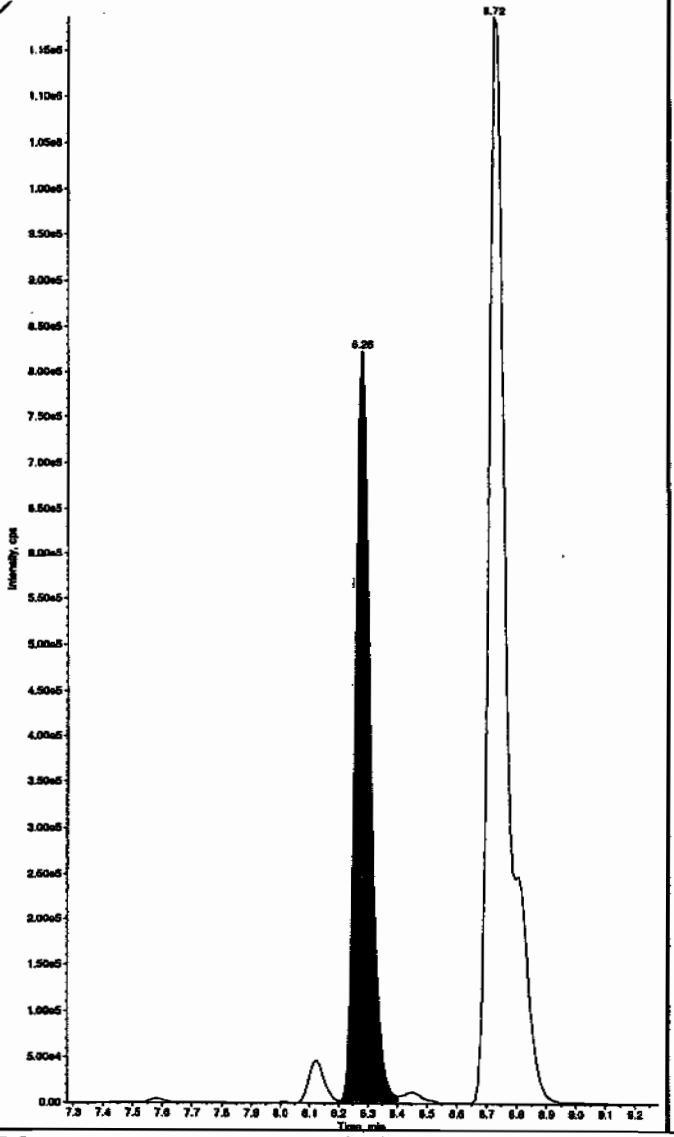

Sample Name: "1202000991" Sample ID: "935230[2]LER" File: "EXS01040045.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 458. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 3:12:13 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 1.44e+006 counts
Height: 372886.688 cps
Start Time: 4.93 min
End Time: 5.31 min

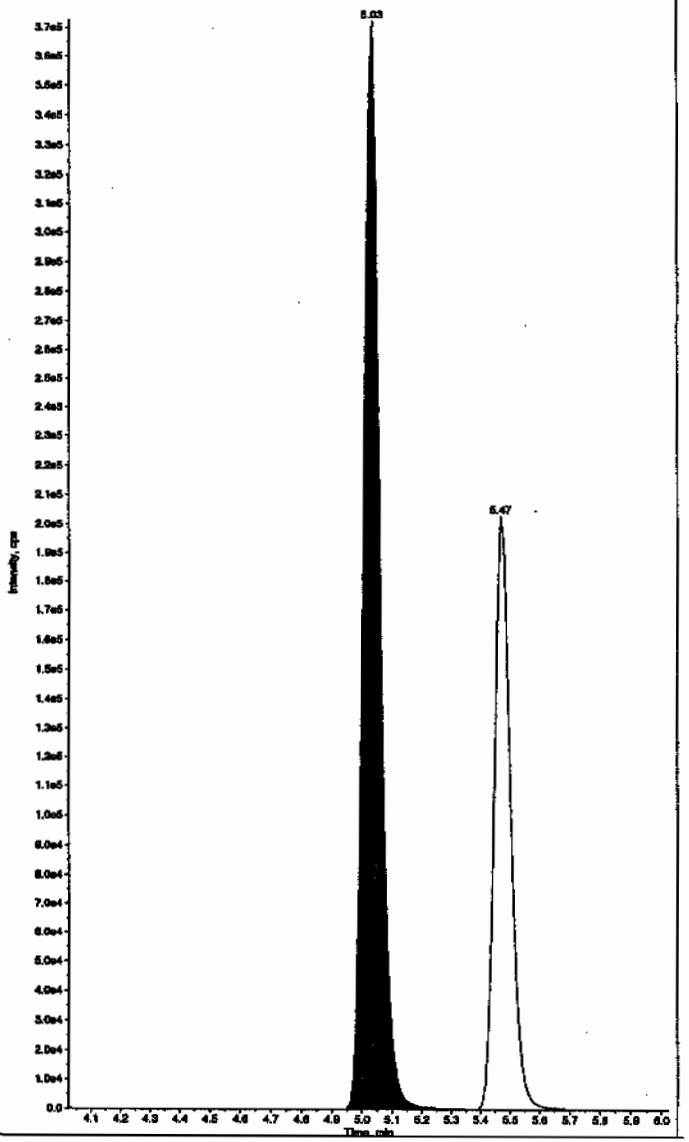

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202000991" Sample ID: "935230[2]LER" File: "EXS01040045.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX63212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 358. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 3:12:13 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.47 min
Area: 7.68e+005 counts
Height: 202913.330 cps
Start Time: 5.39 min
End Time: 5.80 min

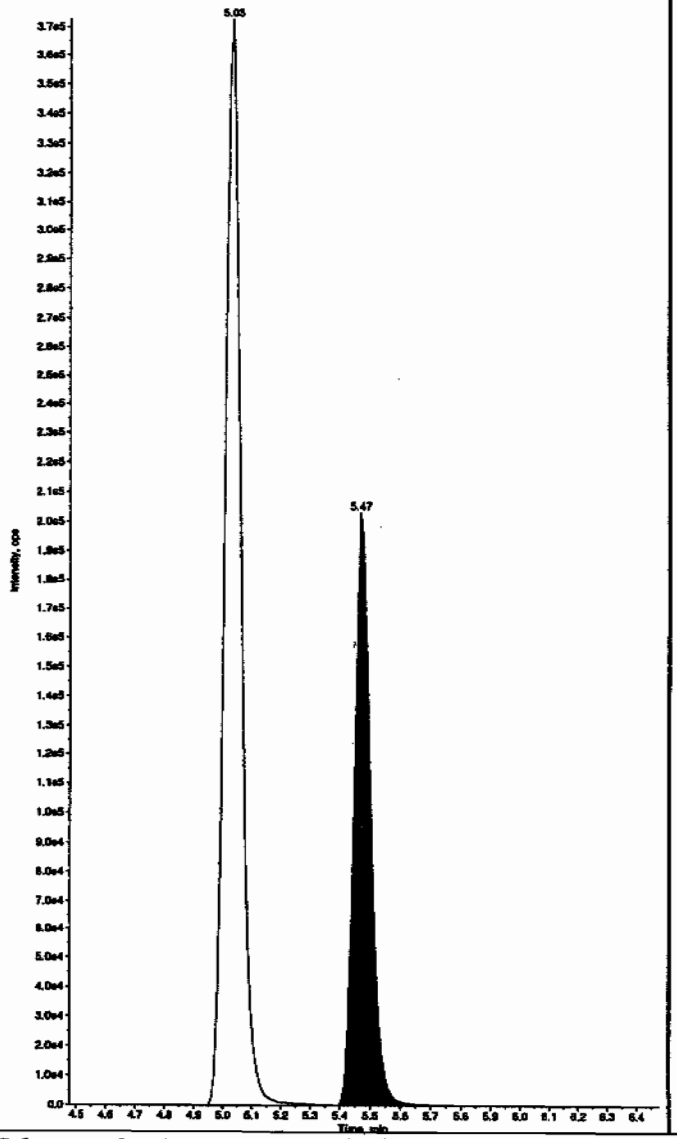

Sample Name: "1202000991" Sample ID: "935230[2]LER" File: "EXS01040045.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX63212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 174. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 3:12:13 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 11.0 min
Area: 4.44e+006 counts
Height: 1061606.934 cps
Start Time: 10.9 min
End Time: 11.3 min

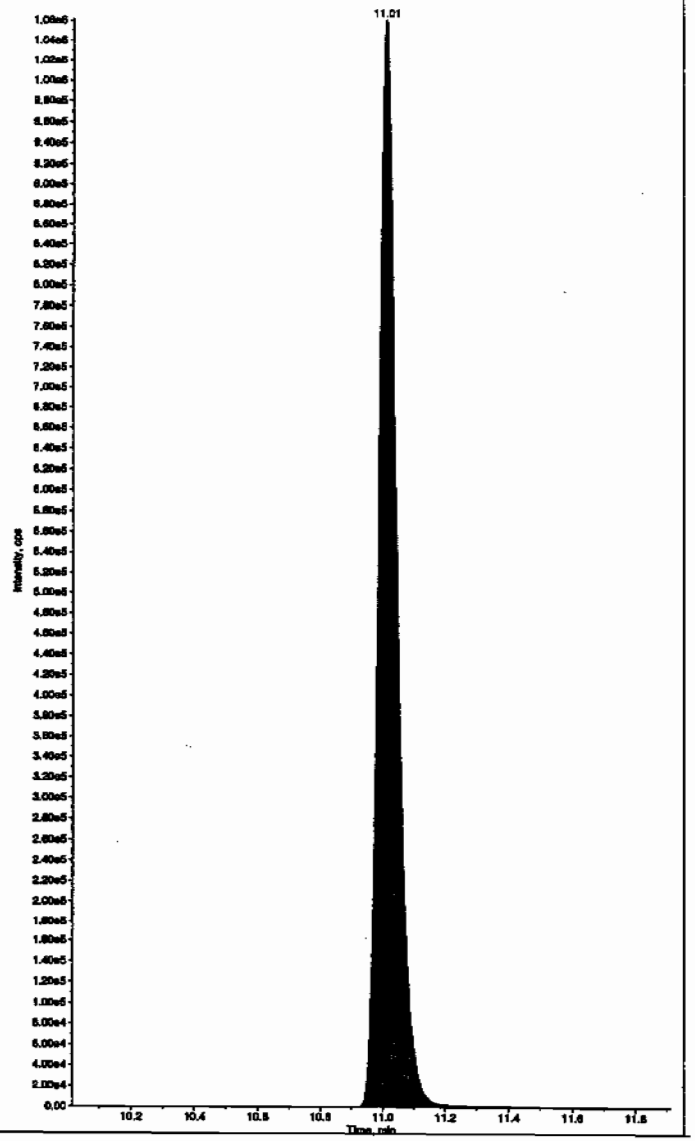

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCSD for batch 935227

Lab Code: GEL

GEL Job No (SDG) 10-994

Matrix: GROUND WATER

GEL Sample ID: 1202000994

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 19-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 935227

Concentrated Extract Volume (mL) 5

Date Extracted: 23-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0112073a

Date Analyzed: 14-JAN-10 03:19

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	6.81	
121-14-2	2,4-Dinitrotoluene	6.75	
121-82-4	RDX	6.45	
19406-51-0	4-Amino-2,6-dinitrotoluene	6.74	
2691-41-0	HMX	5.72	
35572-78-2	2-Amino-4,6-dinitrotoluene	6.81	
479-45-8	Tetryl	6.03	
606-20-2	2,6-Dinitrotoluene	6.0	
78-11-5	PETN	6.5	
88-72-2	o-Nitrotoluene	5.02	
98-95-3	Nitrobenzene	5.58	
99-08-1	m-Nitrotoluene	4.93	
99-35-4	1,3,5-Trinitrobenzene	6.69	
99-65-0	m-Dinitrobenzene	6.2	
99-99-0	p-Nitrotoluene	5.12	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112073a
Date: 14-Jan-2010
Time: 03:19:30
ID: 1202000994 | LANL | 935230 | LOD | LOSD | 2 |
Vial: 1:7,C

MMP 1/14/10

A28

Confirmed by EXP0112033a

HMX

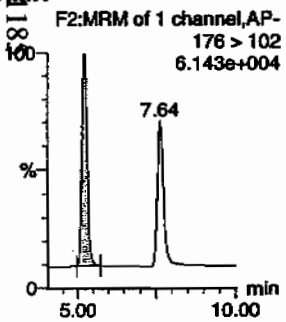

RDX

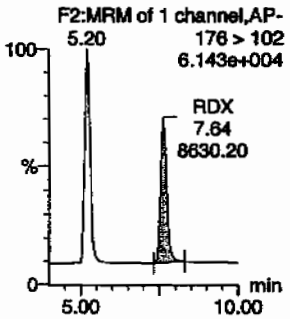

135-Trinitrobenzene

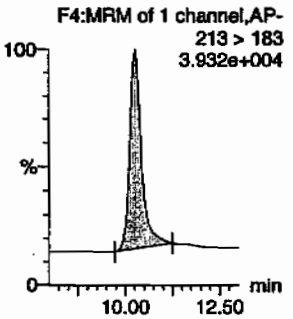

13-Dinitrobenzene-d4

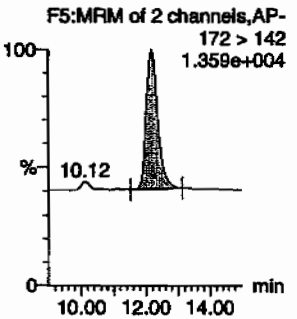

13-Dinitrobenzene

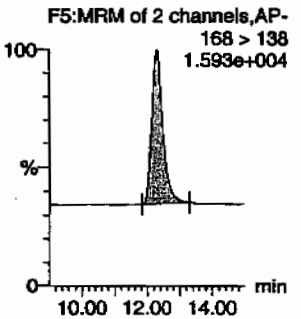

Tetryl

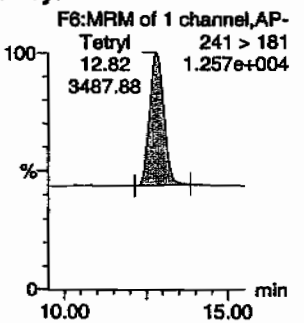

Nitrobenzene

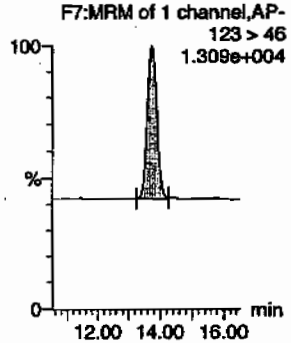

4-Amino-26-dinitrotoluene

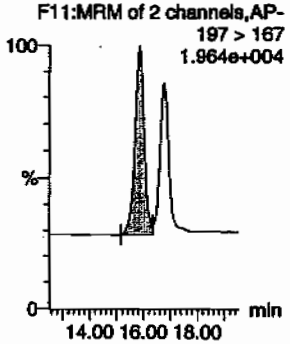

2-Amino-46-dinitrotoluene

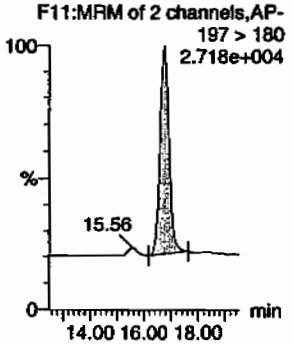

246-Trinitrotoluene

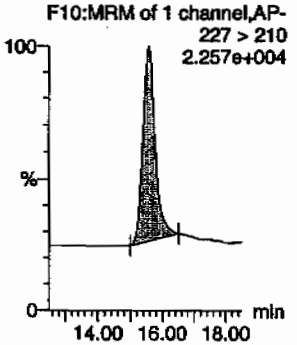

34-dinitrotoluene

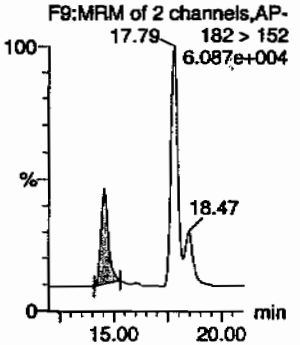

26-dinitrotoluene

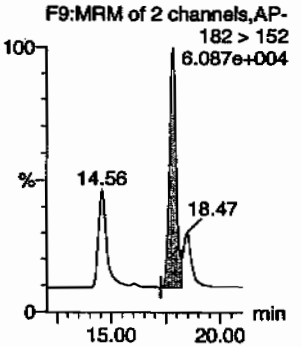

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

24-dinitrotoluene

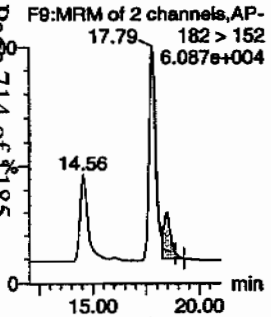

26-dinitrotoluene-d3

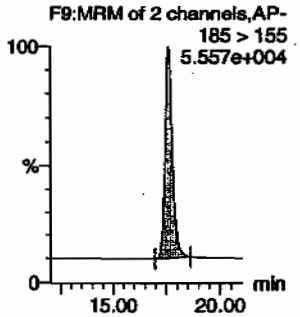

2-Nitrotoluene

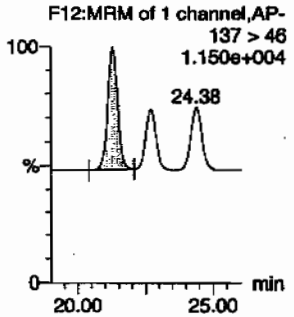

4-Nitrotoluene

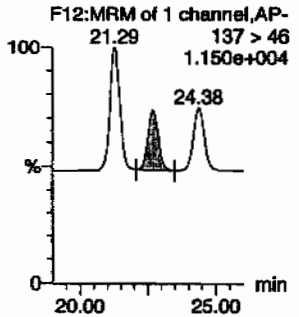

3-Nitrotoluene

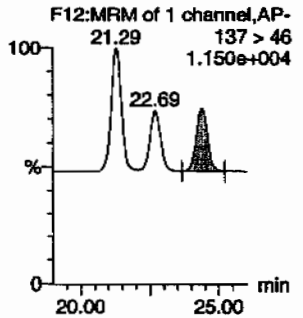

PETN

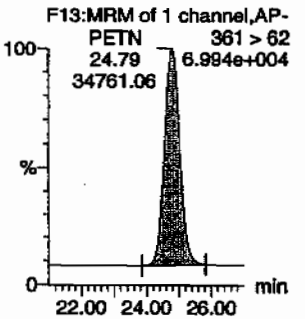

ID	Name	Trace	RT	Area	ISArea	Abs Resp	Response	Flags	Mod Date	Mod Time	Expected	%Rec	%Dev	S/N
1202000994	HMX	176 > 102	5.20	11201.624	3335.392	11201.624	1679.207	db			440.4954	88.1	-11.9	1613.5
1202000994	RDX	176 > 102	7.64	8630.197	3335.392	8630.197	1293.731	bb			496.9861	99.4	-0.6	1091.9
1202000994	135-Trinitrobenzene	213 > 183	10.27	12014.534	3335.392	12014.534	1801.068	bb			515.3209	103.1	3.1	1234.8
1202000994	13-Dinitrobenzene-d4	172 > 142	12.17	3335.392		3335.392	3335.392	bb			662.5584	132.5	32.5	294.4
1202000994	13-Dinitrobenzene	168 > 138	12.31	3991.906	3335.392	3991.906	598.416	bb			477.5751	95.5	-4.5	651.6
1202000994	Tetryl	241 > 181	12.82	3487.879	3335.392	3487.879	522.859	bb			464.6775	92.9	-7.1	326.9
1202000994	Nitrobenzene	123 > 46	13.72	2622.152	3335.392	2622.152	393.080	bd			429.2944	85.9	-14.1	210.1
1202000994	4-Amino-26-dinitrotoluene	197 > 167	15.86	5612.602	20086.045	5612.602	139.714	MM	14-Jan-10	07:35:52	519.2061	103.8	3.8	211.7
1202000994	2-Amino-46-dinitrotoluene	197 > 180	16.76	8209.625	20086.045	8209.625	204.361	bb			524.3647	104.9	4.9	592.5
1202000994	246-Trinitrotoluene	227 > 210	15.58	7335.659	20086.045	7335.659	182.606	bb			524.3905	104.9	4.9	552.6
1202000994	34-dinitrotoluene	182 > 152	14.56	8693.411	20086.045	8693.411	216.404	bb		2.28	253.0118	101.2	1.2	251.3
1202000994	26-dinitrotoluene	182 > 152	17.79	20213.781	20086.045	20213.781	503.180	MM	14-Jan-10	07:40:19	461.8066	92.4	-7.6	625.9
1202000994	24-dinitrotoluene	182 > 152	18.47	5070.326	20086.045	5070.326	126.215	MM	14-Jan-10	07:50:06	519.5387	103.9	3.9	138.4
1202000994	26-dinitrotoluene-d3	185 > 155	17.62	20086.045		20086.045	20086.045	bb			691.1560	138.2	38.2	2642.8
1202000994	2-Nitrotoluene	137 > 46	21.29	2503.809	20086.045	2503.809	62.327	bb			386.6422	77.3	-22.7	294.4
1202000994	4-Nitrotoluene	137 > 46	22.69	1276.223	20086.045	1276.223	31.769	bb			394.0263	78.8	-21.2	142.7
1202000994	3-Nitrotoluene	137 > 46	24.38	1421.759	20086.045	1421.759	35.392	bb			379.3904	75.9	-24.1	149.2
1202000994	PETN	361 > 62	24.79	34761.055	20086.045	34761.055	865.304	bb			500.2529	100.1	0.1	10362.9

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCSD for batch 935227

Lab Code: GEL

GEL Job No (SDG) 10-994

Matrix: GROUND WATER

GEL Sample ID: 1202000994

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 19-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 935227

Concentrated Extract Volume (mL) 5

Date Extracted: 23-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS01040046.wiff

Date Analyzed: 05-JAN-10 03:27

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5.51	
59229-75-3	2,6-Diamino-4-nitrotoluene	6.45	
618-87-1	3,5-Dinitroaniline	5.86	
6629-29-4	2,4-Diamino-6-nitrotoluene	5.38	
78-30-8	tris(o-cresyl) phosphate	2.7	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Before Alan 1/5/10

Sample Name: "1202000994" Sample ID: "935230[2]LER" File: "EXS01040046.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 424. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 3:27:56 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.96 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.92 min
Area: 5.67e+005 counts
Height: 135468.460 cps
Start Time: 6.80 min
End Time: 7.51 min

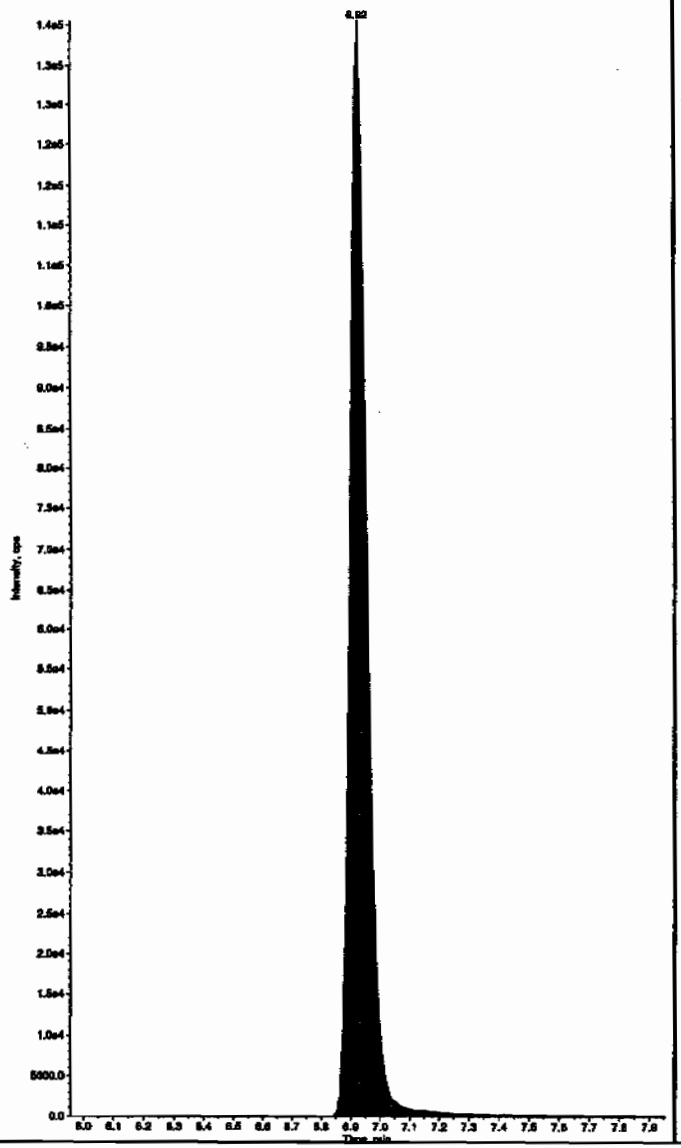

Sample Name: "1202000994" Sample ID: "935230[2]LER" File: "EXS01040046.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 433. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 3:27:56 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.14 min
Area: 4.11e+006 counts
Height: 1072351.685 cps
Start Time: 8.08 min
End Time: 8.26 min

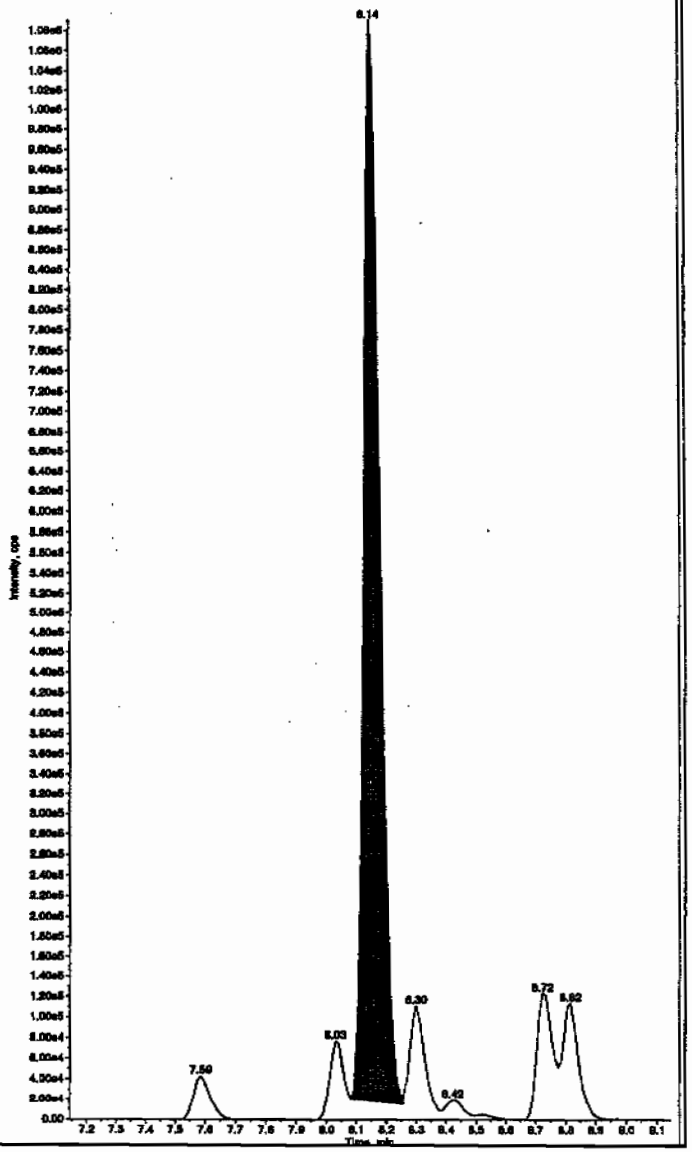

HMW 01/05/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Lan 1/5/10

Sample Name: "1202000994" Sample ID: "935230[2]LER" File: "EXS01040046.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 424. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 3:27:56 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.96 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.92 min
Area: 5.67e+005 counts
Height: 135468.460 cps
Start Time: 6.80 min
End Time: 7.51 min

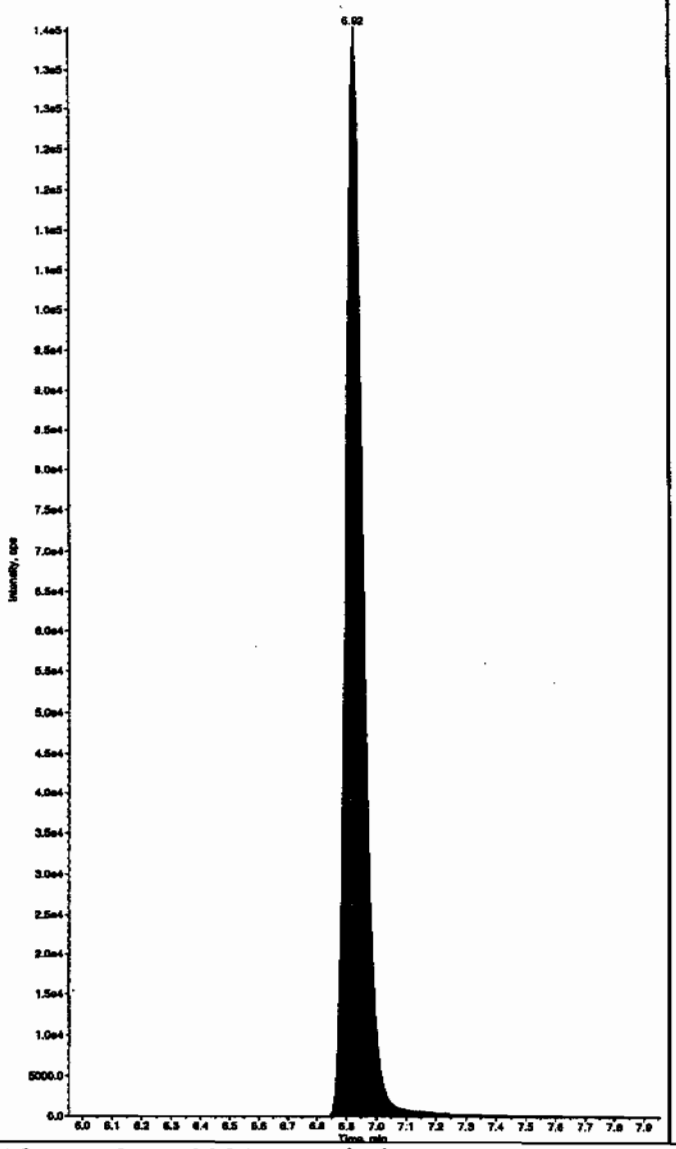

Sample Name: "1202000994" Sample ID: "935230[2]LER" File: "EXS01040046.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 451. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 3:27:56 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.15 min
Area: 4.27e+006 counts
Height: 1101943.928 cps
Start Time: 8.08 min
End Time: 8.26 min

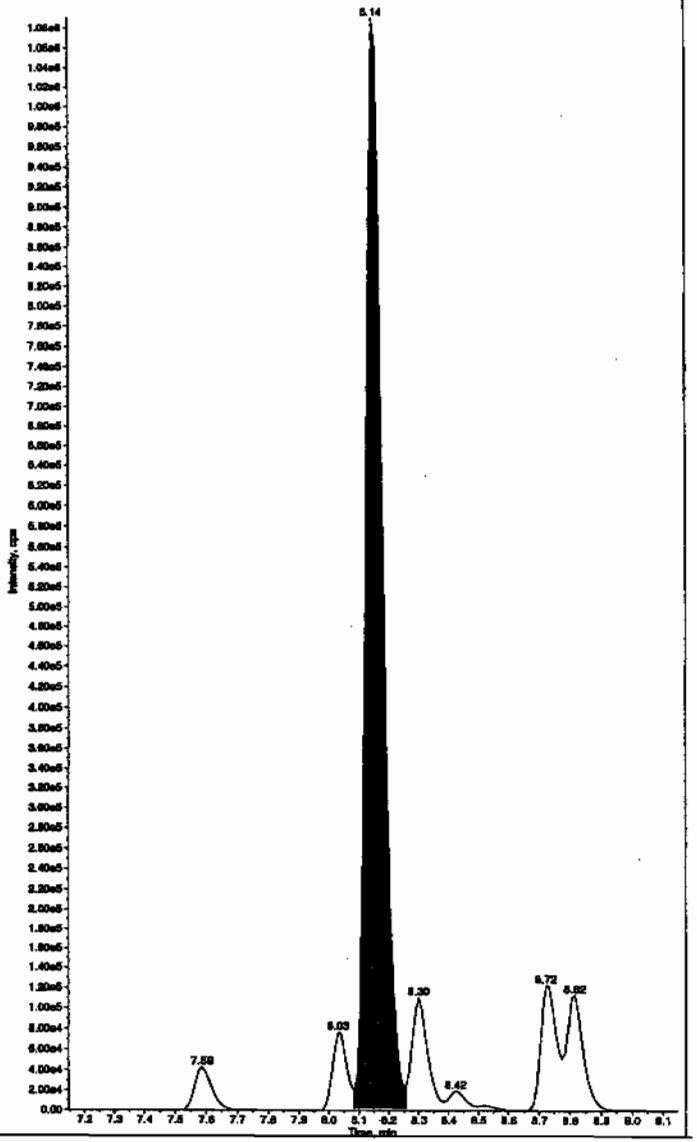

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PRELIMINARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "1202000994" Sample ID: "935230[2]LER" File: "EXS01040046.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 254. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 3:27:56 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.28 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.30 min
Area: 3.26e+006 counts
Height: 904246.643 cps
Start Time: 8.23 min
End Time: 8.42 min

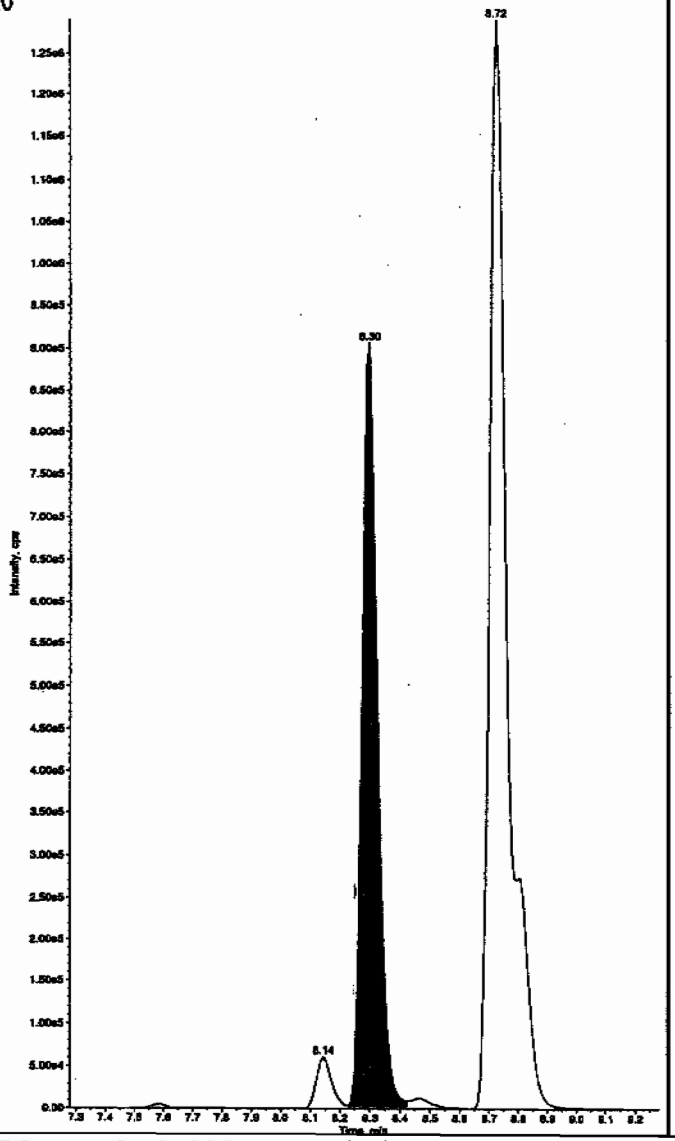

Sample Name: "1202000994" Sample ID: "935230[2]LER" File: "EXS01040046.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 497. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 3:27:56 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.02 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 1.56e+006 counts
Height: 376742.279 cps
Start Time: 4.93 min
End Time: 5.31 min

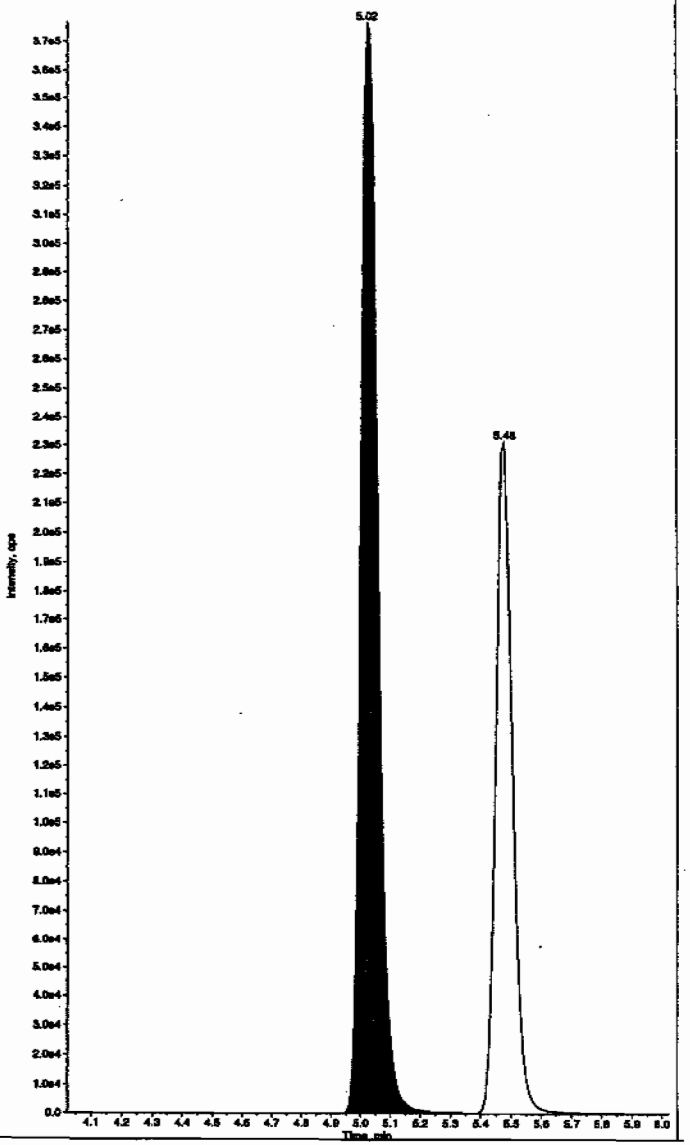

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "1202000994" Sample ID: "935230|2|LER" File: "EXS01040046.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 414. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 3:27:56 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.48 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 8.90e+005 counts
Height: 231862.503 cps
Start Time: 5.38 min
End Time: 5.93 min

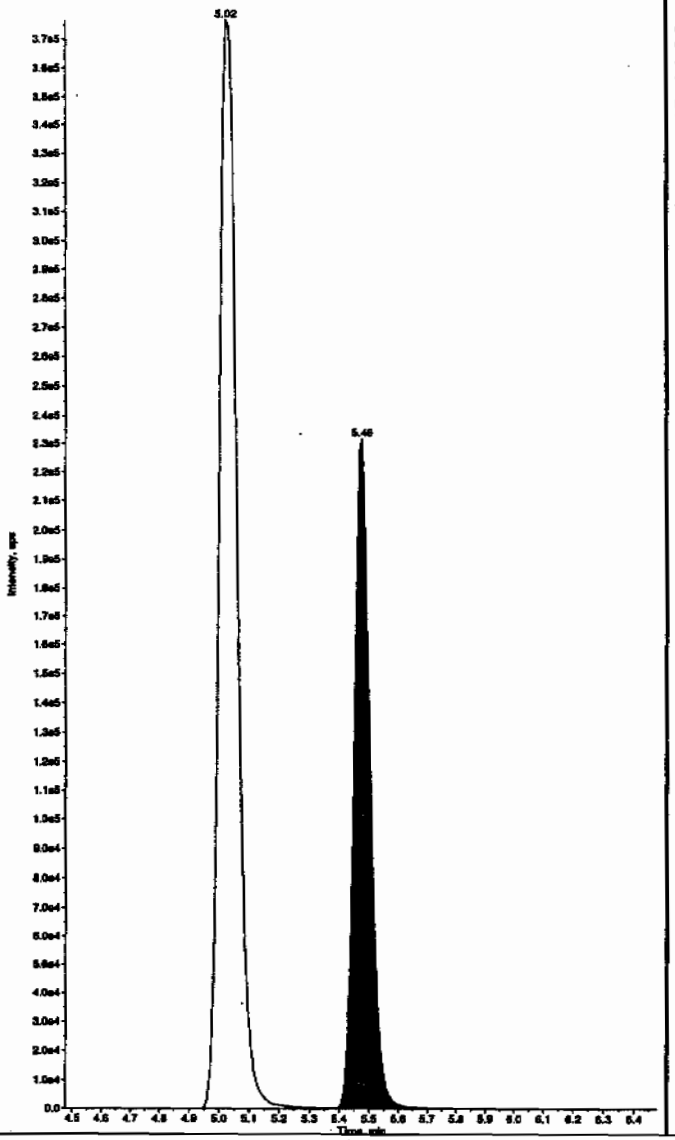

Sample Name: "1202000994" Sample ID: "935230|2|LER" File: "EXS01040046.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 208. ng/mL
Acq. Date: 1/5/2010
Acq. Time: 3:27:56 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 5.27e+006 counts
Height: 1211336.792 cps
Start Time: 10.8 min
End Time: 11.2 min

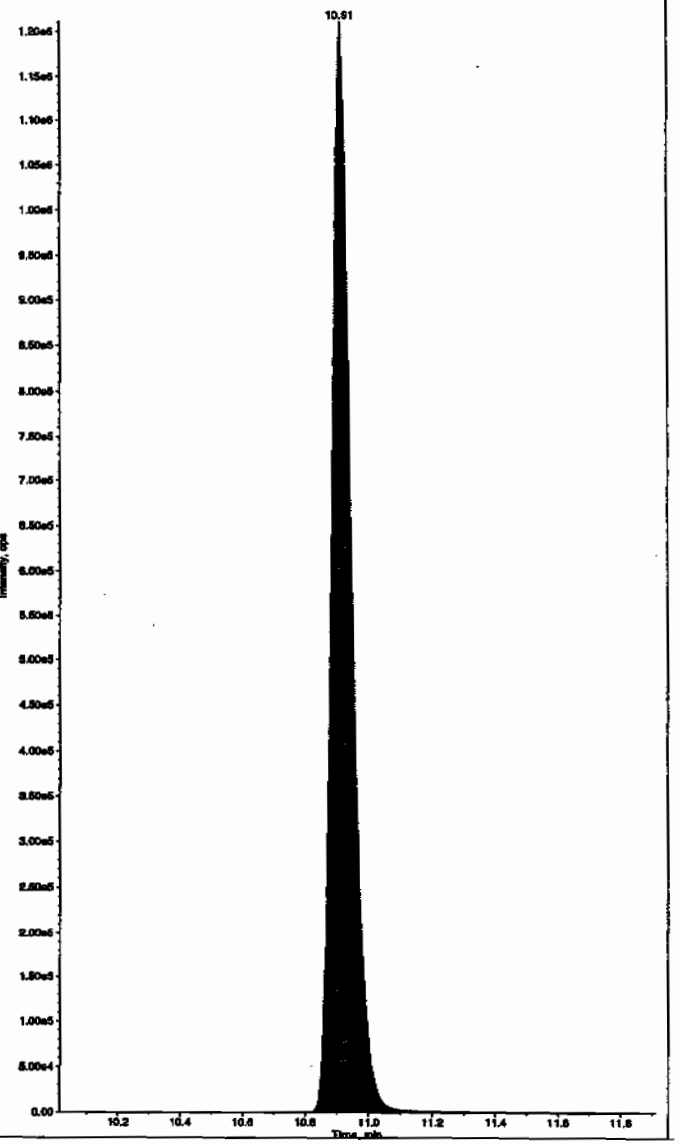

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 935227 **Verified by:** _____

Analyst: Sirena White

Method: SW846 Method 3535

Lab SOP: GL-OA-E-033 REV# 17

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Ph 1	Final Volume (mL)	Prepped Factor (mL/mL)
1202000990 MB	23-DEC-2009 11:00:37	770	5	5	0.00649
1202000991 LCS	23-DEC-2009 11:00:37	770	5	5	0.00649
1202000994 LCSD	23-DEC-2009 11:00:37	770	5	5	0.00649
243283004	23-DEC-2009 11:00:37	770	6	5	0.00649
243284005	23-DEC-2009 11:00:37	770	7	5	0.00649
243284012	23-DEC-2009 11:00:37	770	7	5	0.00649

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202000991	8321 Explosives LCS	DXX091127-03	.05	mL
LCS	1202000991	8321 LANL Explosives Mix 10mg/L	UXX091007-02.4	.5	mL
LCSD	1202000994	8321 Explosives LCS	DXX091127-03	.05	mL
LCSD	1202000994	8321 LANL Explosives Mix 10mg/L	UXX091007-02.4	.5	mL
SURR	All	3,4-Dinitrotoluene (8330 Surr.) 100ppm	DCP091204-02	.025	mL

Comments:

SPE Cartridge: 003339260A

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 01/12/10
Extr. Injection Volume: 50uL
Sequence Number: 011210expA
Initial Calibration Date: 01/12/10

Method: SW846 8321A-Modified
Int. Std.: UXX091230-01.1
Mobile Phase Lot#: 1250684, 1236350
Standard-Samp Reagent Lot#: 1253092, 1246195

Reviewed BY: HMM
Date: 01/14/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100112-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0112001a	XIBLK01	MAP	1/12/10 15:55			1		USE	B
EXP0112002a	XIBLK01	MAP	1/12/10 16:25			1		USE	B
EXP0112003a	WXXICAL-01	MAP	1/12/10 16:54			1		USE	I
EXP0112004a	WXXICAL-02	MAP	1/12/10 17:24			1		USE	I
EXP0112005a	WXXICAL-03	MAP	1/12/10 17:53			1		USE	I
EXP0112006a	WXXICAL-04	MAP	1/12/10 18:23			1		USE	I
EXP0112007a	WXXICAL-05	MAP	1/12/10 18:52			1		USE	I
EXP0112008a	WXXICAL-06	MAP	1/12/10 19:22			1		USE	I
EXP0112009a	XIBLK02	MAP	1/12/10 19:51			1		USE	B
EXP0112010a	WXXICV	MAP	1/12/10 20:20			1		USE	C
EXP0112011a	XIBLK03	MAP	1/12/10 20:50			1		USE	B
EXP0112012a	WXXCRI	MAP	1/12/10 21:19			1		USE	C
EXP0112013a	1201999937	MAP	1/12/10 21:49	934771	10-952	2	LANL	DUSE	S
EXP0112014a	1201999938	MAP	1/12/10 22:18	934771	10-952	2	LANL	DUSE	S
EXP0112015a	1201999941	MAP	1/12/10 22:48	934771	10-952	2	LANL	DUSE	S
EXP0112016a	243099004	MAP	1/12/10 23:17	934771	10-952	2	LANL	DUSE	S
EXP0112017a	WXXCCV	MAP	1/12/10 23:47			1		USE	C
EXP0112018a	XIBLK04	MAP	1/13/10 0:16			1		USE	B
EXP0112019a	WXXCRI	MAP	1/13/10 0:46			1		USE	C
EXP0112020a	1202000961	MAP	1/13/10 1:15	935214	Various	2	LANL	DUSE-RA	S
EXP0112021a	1202000964	MAP	1/13/10 1:45	935214	Various	2	LANL	DUSE-RA	S
EXP0112022a	243254006	MAP	1/13/10 2:14	935214	10-972	2	LANL	DUSE-RA	S
EXP0112023a	243254011	MAP	1/13/10 2:44	935214	10-972	2	LANL	DUSE-RA	S
EXP0112024a	243257003	MAP	1/13/10 3:13	935214	10-976	2	LANL	DUSE-RA	S
EXP0112025a	1202000962	MAP	1/13/10 3:43	935214	10-976	2	LANL	DUSE-RA	S
EXP0112026a	1202000963	MAP	1/13/10 4:12	935214	10-976	2	LANL	DUSE-RA	S
EXP0112027a	243257005	MAP	1/13/10 4:42	935214	10-976	2	LANL	DUSE-RA	S
EXP0112028a	WXXCCV	MAP	1/13/10 5:11			1		USE	C
EXP0112029a	XIBLK05	MAP	1/13/10 5:41			1		USE	B

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EXP0112030a	WXXCRI	MAP	1/13/10 6:10			1		USE	C
EXP0112031a	1202000990	MAP	1/13/10 6:40	935230	Various	2	LANL	DUSE-RA	S
EXP0112032a	1202000991	MAP	1/13/10 7:09	935230	Various	2	LANL	DUSE-RA	S
EXP0112033a	1202000994	MAP	1/13/10 7:39	935230	Various	2	LANL	DUSE-RA	S
EXP0112034a	243283004	MAP	1/13/10 8:08	935230	10-994	2	LANL	DUSE-RA	S
EXP0112035a	243284005	MAP	1/13/10 8:38	935230	10-997	2	LANL	DUSE-RA	S
EXP0112036a	243284012	MAP	1/13/10 9:07	935230	10-997	2	LANL	DUSE-RA	S
EXP0112037a	WXXCCV	MAP	1/13/10 9:37			1		USE	C
EXP0112038a	XIBLK06	MAP	1/13/10 10:07			1		USE	B
EXP0112039a	WXXCRI	MAP	1/13/10 10:36			1		USE	C
EXP0112040a	1202000961	MAP	1/13/10 11:06	935214	Various	2	LANL	DUSE	S
EXP0112041a	1202000964	MAP	1/13/10 11:35	935214	Various	2	LANL	DUSE	S
EXP0112042a	243254006	MAP	1/13/10 12:05	935214	10-972	2	LANL	DUSE	S
EXP0112043a	243254011	MAP	1/13/10 12:34	935214	10-972	2	LANL	DUSE	S
EXP0112044a	243257003	MAP	1/13/10 13:04	935214	10-976	2	LANL	DUSE	S
EXP0112045a	1202000962	MAP	1/13/10 13:33	935214	10-976	2	LANL	DUSE	S
EXP0112046a	1202000963	MAP	1/13/10 14:02	935214	10-976	2	LANL	DUSE	S
EXP0112047a	243257005	MAP	1/13/10 14:32	935214	10-976	2	LANL	DUSE	S
EXP0112048a	WXXCCV	MAP	1/13/10 15:01			1		DUSE	C
EXP0112049a	XIBLK07	MAP	1/13/10 15:31			1		USE	B
EXP0112050a	WXXCRI	MAP	1/13/10 16:00			1		DUSE	C
EXP0112051a	1202000990	MAP	1/13/10 16:30	935230	Various	2	LANL	DUSE	S
EXP0112052a	1202000991	MAP	1/13/10 17:00	935230	Various	2	LANL	DUSE	S
EXP0112053a	1202000994	MAP	1/13/10 17:29	935230	Various	2	LANL	DUSE	S
EXP0112054a	243283004	MAP	1/13/10 17:59	935230	10-994	2	LANL	DUSE	S
EXP0112055a	243284005	MAP	1/13/10 18:28	935230	10-997	2	LANL	DUSE	S
EXP0112056a	243284012	MAP	1/13/10 18:58	935230	10-997	2	LANL	DUSE	S
EXP0112057a	WXXCCV	MAP	1/13/10 19:27			1		DUSE	C
EXP0112058a	XIBLK08	MAP	1/13/10 19:57			1		USE	B
EXP0112059a	WXXCRI	MAP	1/13/10 20:26			1		USE	C
EXP0112060a	1202000961	MAP	1/13/10 20:56	935214	Various	2	LANL	USE	S
EXP0112061a	1202000964	MAP	1/13/10 21:25	935214	Various	2	LANL	USE	S
EXP0112062a	243254006	MAP	1/13/10 21:55	935214	10-972	2	LANL	USE	S
EXP0112063a	243254011	MAP	1/13/10 22:24	935214	10-972	2	LANL	USE	S
EXP0112064a	243257003	MAP	1/13/10 22:54	935214	10-976	2	LANL	USE	S
EXP0112065a	1202000962	MAP	1/13/10 23:23	935214	10-976	2	LANL	USE	S
EXP0112066a	1202000963	MAP	1/13/10 23:53	935214	10-976	2	LANL	USE	S

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EXP0112067a	243257005	MAP	1/14/10 0:22	935214	10-976	2	LANL	USE	S
EXP0112068a	WXXCCV	MAP	1/14/10 0:52			1		USE	C
EXP0112069a	XIBLK07	MAP	1/14/10 1:21			1		USE	B
EXP0112070a	WXXCRI	MAP	1/14/10 1:51			1		USE	C
EXP0112071a	1202000990	MAP	1/14/10 2:20	935230	Various	2	LANL	USE	S
EXP0112072a	1202000991	MAP	1/14/10 2:50	935230	Various	2	LANL	USE	S
EXP0112073a	1202000994	MAP	1/14/10 3:19	935230	Various	2	LANL	USE	S
EXP0112074a	243283004	MAP	1/14/10 3:49	935230	10-994	2	LANL	USE	S
EXP0112075a	243284005	MAP	1/14/10 4:18	935230	10-997	2	LANL	USE	S
EXP0112076a	243284012	MAP	1/14/10 4:48	935230	10-997	2	LANL	USE	S
EXP0112077a	WXXCCV	MAP	1/14/10 5:17			1		USE	C
EXP0112078a	XIBLK08	MAP	1/14/10 5:46			1		USE	B
EXP0112079a	WXXCRI	MAP	1/14/10 6:16			1		USE	C

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS4

Date: 01/04/10 Method: 8321A-Modified Reviewed By: HMC
Extr. Injection Volume: 10uL Int. Std.: N/A Date: 01/05/10
Sequence Number: 010410exs Mobile Phase Lot#:1236350, 1246467 SOP: GL-OA-E-056 Rev.12
Initial Calibration Date: 010410 Standard-Samp Reagent Lot# :1233976, 1246693 Alt Check Std. ID: WXX100104-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS01040001.wiff	XIBLK01	LER	1/4/2010 15:41			1		USE	B
EXS01040002.wiff	XIBLK01	LER	1/4/2010 15:57			1		USE	B
EXS01040003.wiff	WXXICAL-19	LER	1/4/2010 16:12			1		USE	I
EXS01040004.wiff	WXXICAL-20	LER	1/4/2010 16:28			1		USE	I
EXS01040005.wiff	WXXICAL-21	LER	1/4/2010 16:44			1		USE	I
EXS01040006.wiff	WXXICAL-22	LER	1/4/2010 17:00			1		USE	I
EXS01040007.wiff	WXXICAL-23	LER	1/4/2010 17:15			1		USE	I
EXS01040008.wiff	WXXICAL-24	LER	1/4/2010 17:31			1		USE	I
EXS01040009.wiff	WXXICAL-25	LER	1/4/2010 17:47			1		USE	I
EXS01040010.wiff	XIBLK02	LER	1/4/2010 18:02			1		USE	B
EXS01040011.wiff	WXXICV	LER	1/4/2010 18:18			1		USE	C
EXS01040012.wiff	XIBLK03	LER	1/4/2010 18:34			1		USE	B
EXS01040013.wiff	WXXCRI	LER	1/4/2010 18:49			1		USE	C
EXS01040014.wiff	1202005117	LER	1/4/2010 19:05	937035	10-1070	2	LANL	USE	S
EXS01040015.wiff	1202005118	LER	1/4/2010 19:21	937035	10-1070	2	LANL	USE	S
EXS01040016.wiff	243510002	LER	1/4/2010 19:36	937035	10-1070	2	LANL	USE	S
EXS01040017.wiff	1202005119	LER	1/4/2010 19:52	937035	10-1070	2	LANL	USE	S
EXS01040018.wiff	1202005120	LER	1/4/2010 20:08	937035	10-1070	2	LANL	USE	S
EXS01040019.wiff	243510003	LER	1/4/2010 20:24	937035	10-1070	2	LANL	USE	S
EXS01040020.wiff	243510004	LER	1/4/2010 20:39	937035	10-1070	2	LANL	USE	S
EXS01040021.wiff	243510005	LER	1/4/2010 20:55	937035	10-1070	2	LANL	USE	S
EXS01040022.wiff	243510006	LER	1/4/2010 21:11	937035	10-1070	2	LANL	USE	S
EXS01040023.wiff	243510007	LER	1/4/2010 21:26	937035	10-1070	2	LANL	USE	S
EXS01040024.wiff	WXXCCV	LER	1/4/2010 21:42			1		USE	C
EXS01040025.wiff	XIBLK04	LER	1/4/2010 21:58			1		USE	B
EXS01040026.wiff	WXXCRI	LER	1/4/2010 22:13			1		USE	C
EXS01040027.wiff	243510008	LER	1/4/2010 22:29	937035	10-1070	2	LANL	USE	S
EXS01040028.wiff	243510009	LER	1/4/2010 22:45	937035	10-1070	2	LANL	USE	S
EXS01040029.wiff	243510010	LER	1/4/2010 23:00	937035	10-1070	2	LANL	USE	S

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EXS01040030.wiff	243510011	LER	1/4/2010 23:16	937035	10-1070	2	LANL	USE	S
EXS01040031.wiff	243510012	LER	1/4/2010 23:32	937035	10-1070	2	LANL	USE	S
EXS01040032.wiff	243510013	LER	1/4/2010 23:48	937035	10-1070	2	LANL	USE	S
EXS01040033.wiff	243510014	LER	1/5/2010 0:03	937035	10-1070	2	LANL	USE	S
EXS01040034.wiff	243510015	LER	1/5/2010 0:19	937035	10-1070	2	LANL	USE	S
EXS01040035.wiff	243510016	LER	1/5/2010 0:35	937035	10-1070	2	LANL	USE	S
EXS01040036.wiff	243510017	LER	1/5/2010 0:50	937035	10-1070	2	LANL	USE	S
EXS01040037.wiff	WXXCCV	LER	1/5/2010 1:06			1		USE	C
EXS01040038.wiff	XIBLK05	LER	1/5/2010 1:22			1		USE	B
EXS01040039.wiff	WXXCRI	LER	1/5/2010 1:38			1		USE	C
EXS01040040.wiff	243510018	LER	1/5/2010 1:53	937035	10-1070	2	LANL	USE	S
EXS01040041.wiff	XIBLK06	LER	1/5/2010 2:09			1		USE	B
EXS01040042.wiff	UXX091007-02.4	LER	1/5/2010 2:25	LCS SCREEN	LIQUID	2	O2SI	USE	S
EXS01040043.wiff	XIBLK07	LER	1/5/2010 2:40			1		USE	B
EXS01040044.wiff	1202000990	LER	1/5/2010 2:56	935230	VARIOUS	2	LANL	USE	S
EXS01040045.wiff	1202000991	LER	1/5/2010 3:12	935230	VARIOUS	2	LANL	USE	S
EXS01040046.wiff	1202000994	LER	1/5/2010 3:27	935230	VARIOUS	2	LANL	USE	S
EXS01040047.wiff	243283004	LER	1/5/2010 3:43	935230	10-994	2	LANL	USE	S
EXS01040048.wiff	243284005	LER	1/5/2010 3:59	935230	10-997	2	LANL	USE	S
EXS01040049.wiff	243284012	LER	1/5/2010 4:15	935230	10-997	2	LANL	USE	S
EXS01040050.wiff	WXXCCV	LER	1/5/2010 4:30			1		USE	C
EXS01040051.wiff	XIBLK08	LER	1/5/2010 4:46			1		USE	B
EXS01040052.wiff	WXXCRI	LER	1/5/2010 5:02			1		USE	C
EXS01040053.wiff	1202003490	LER	1/5/2010 5:17	936351	10-1015	2	LANL	USE	S
EXS01040054.wiff	1202003491	LER	1/5/2010 5:33	936351	10-1015	2	LANL	USE	S
EXS01040055.wiff	243402001	LER	1/5/2010 5:49	936351	10-1015	2	LANL	USE	S
EXS01040056.wiff	1202003492	LER	1/5/2010 6:04	936351	10-1015	2	LANL	USE	S
EXS01040057.wiff	1202003493	LER	1/5/2010 6:20	936351	10-1015	2	LANL	USE	S
EXS01040058.wiff	243402002	LER	1/5/2010 6:36	936351	10-1015	2	LANL	USE	S
EXS01040059.wiff	WXXCCV	LER	1/5/2010 6:52			1		USE	C
EXS01040060.wiff	XIBLK09	LER	1/5/2010 7:07			1		USE	B
EXS01040061.wiff	WXXCRI	LER	1/5/2010 7:23			1		USE	C

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112031a
Date: 13-Jan-2010
Time: 06:40:10
ID: 1202000990
Vial: 1:7,A

LANE/935230 | GD | MB | 21

MM 1/14/10

DUPE/RA - PES

CONTAINS EXP0112071a

HMX

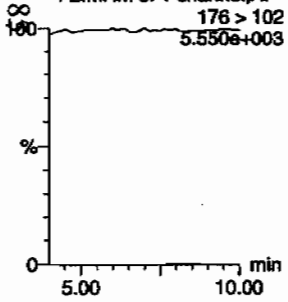

RDX

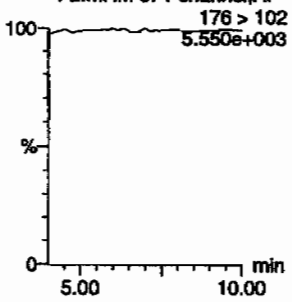

135-Trinitrobenzene

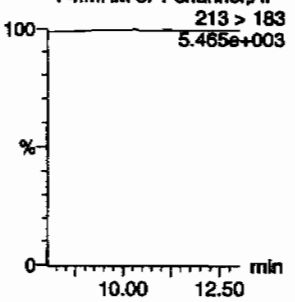

13-Dinitrobenzene-d4

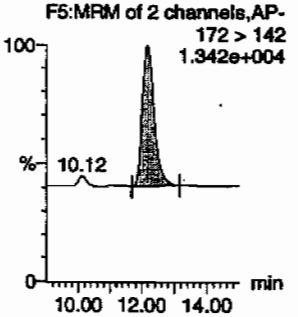

13-Dinitrobenzene

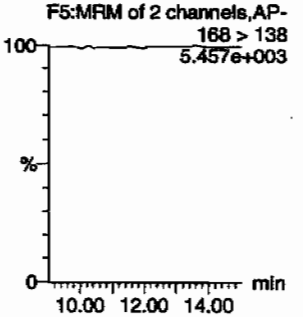

Tetryl

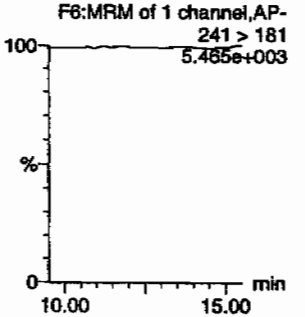

Nitrobenzene

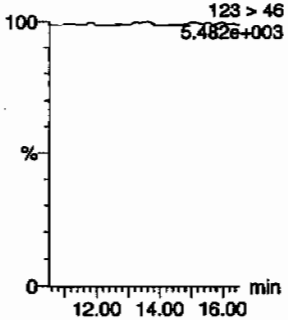

4-Amino-26-dinitrotoluene

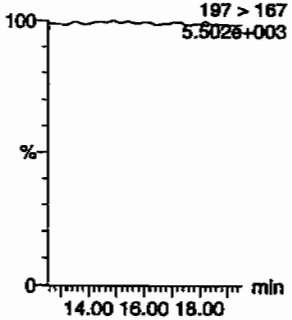

2-Amino-46-dinitrotoluene

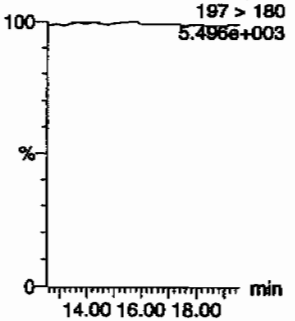

246-Trinitrotoluene

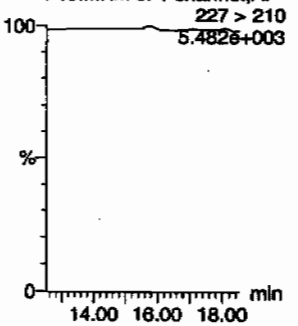

34-dinitrotoluene

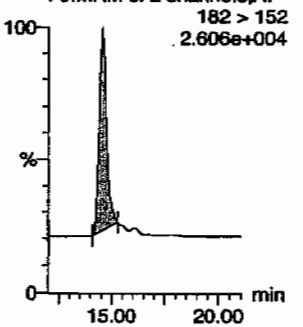

26-dinitrotoluene

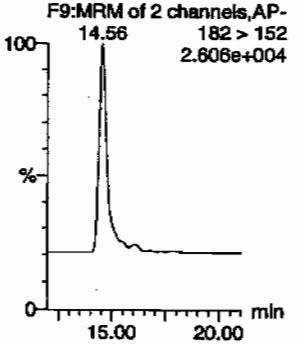

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

24-dinitrotoluene

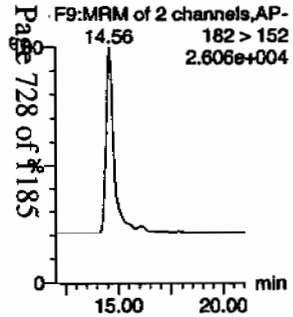

26-dinitrotoluene-d3

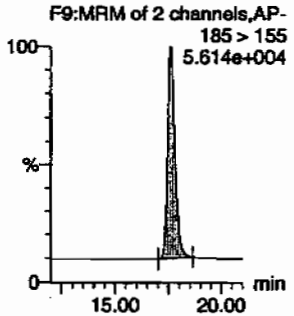

2-Nitrotoluene

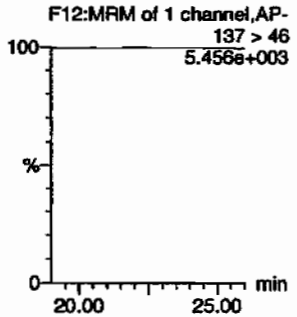

4-Nitrotoluene

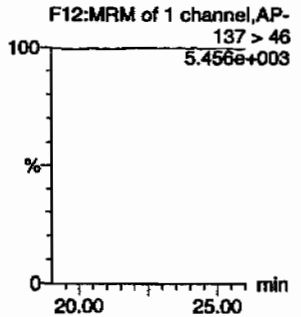

3-Nitrotoluene

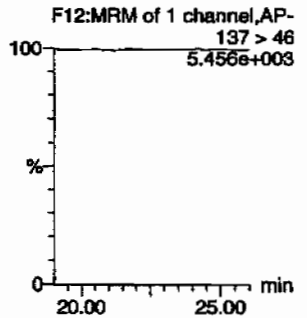

PETN

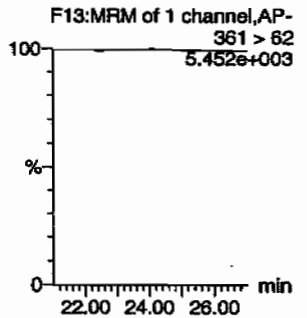

ID	Name	Trace	RT	Area	S/Area	Abs Area	Response	Flags	Modifier	Mod Time	Conc/Mass	%Rec	%Dev	S/N
1202000990	HMX	176 > 102			3363.696									
1202000990	RDX	176 > 102			3363.696									
1202000990	135-Trinitrobenzene	213 > 183			3363.696									
1202000990	13-Dinitrobenzene-d4	172 > 142	12.17	3363.696		3363.696	3363.696	bb			668.1809	133.6	33.6	430.7
1202000990	13-Dinitrobenzene	168 > 138			3363.696									
1202000990	Tetryl	241 > 181			3363.696									
1202000990	Nitrobenzene	123 > 46			3363.696									
1202000990	4-Amino-26-dinitrotoluene	197 > 167			20141.484									
1202000990	2-Amino-46-dinitrotoluene	197 > 180			20141.484									
1202000990	246-Trinitrotoluene	227 > 210			20141.484									
1202000990	34-dinitrotoluene	182 > 152	14.56	7778.184	20141.484	7778.184	193.089	bb		2.92	225.7521	90.3	-9.7	448.4
1202000990	26-dinitrotoluene	182 > 152			20141.484									
1202000990	24-dinitrotoluene	182 > 152			20141.484									
1202000990	26-dinitrotoluene-d3	185 > 155	17.62	20141.484		20141.484	20141.484	bb			693.0637	138.6	38.6	1527.6
1202000990	2-Nitrotoluene	137 > 46			20141.484									
1202000990	4-Nitrotoluene	137 > 46			20141.484									
1202000990	3-Nitrotoluene	137 > 46			20141.484									
1202000990	PETN	361 > 62			20141.484									

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Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112032a
Date: 13-Jan-2010
Time: 07:09:41
ID: 1202000991
Vial: 1:7,B

LANL | 935230 | LSD | LCS | 2 |

MMT 1/14/10

MW50/RA-128

CONTAINS EXP0112072a

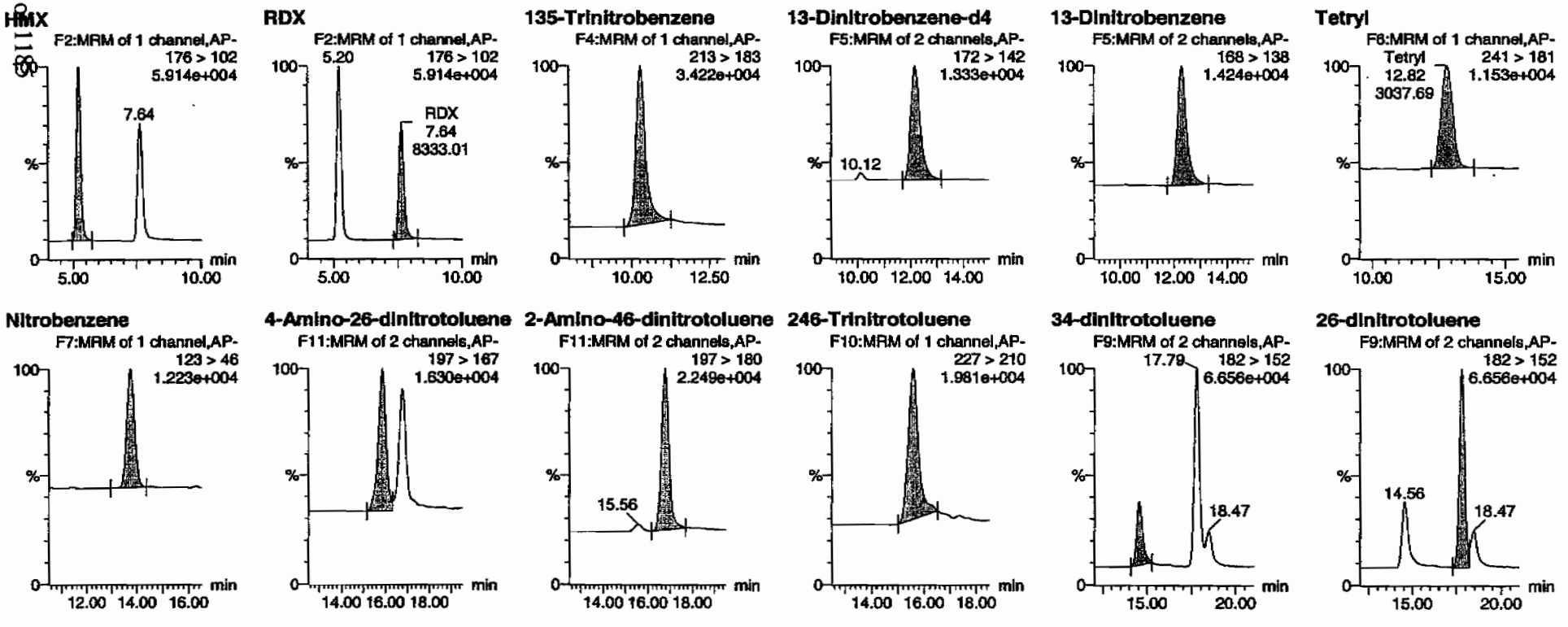

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

24-dinitrotoluene

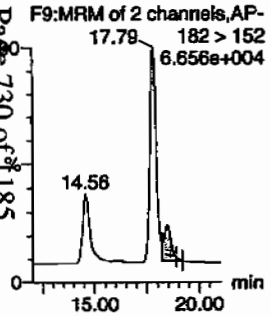

26-dinitrotoluene-d3

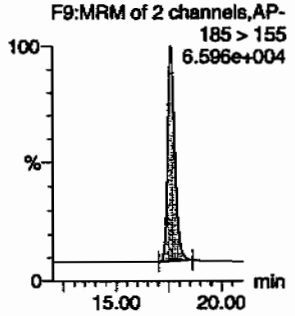

2-Nitrotoluene

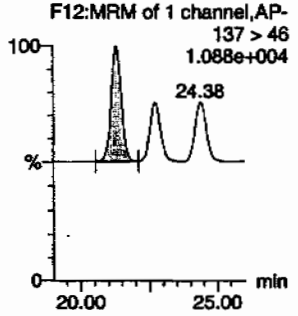

4-Nitrotoluene

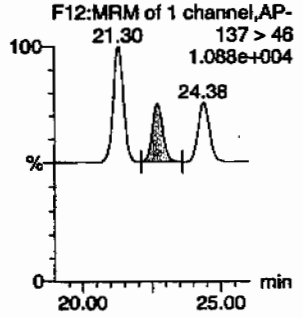

3-Nitrotoluene

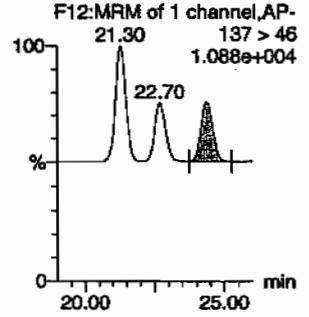

PETN

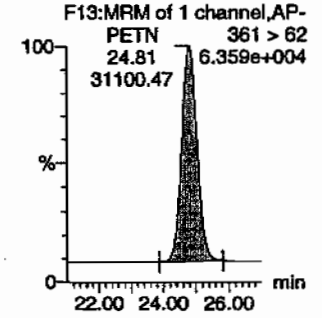

ID	Name	Trace	RT	Area	S/Area	Abs Resp	Response	Flags	Modified	Modified Time	Conc/ml	%Rec	%Dev	S/N
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1202000991	RDX	176 > 102	7.64	8333.012	3302.448	8333.012	1261.642	bb			484.6591	96.9	-3.1	1121.3
1202000991	135-Trinitrobenzene	213 > 183	10.27	10141.412	3302.448	10141.412	1535.439	bb			443.1219	88.6	-11.4	1573.8
1202000991	13-Dinitrobenzene-d4	172 > 142	12.17	3302.448		3302.448	3302.448	bb			656.0143	131.2	31.2	347.9
1202000991	13-Dinitrobenzene	168 > 138	12.31	3430.372	3302.448	3430.372	519.368	bb			414.4894	82.9	-17.1	220.2
1202000991	Tetryl	241 > 181	12.82	3037.690	3302.448	3037.690	459.915	bb			408.7376	81.7	-18.3	299.9
1202000991	Nitrobenzene	123 > 46	13.76	2417.050	3302.448	2417.050	365.948	bb			399.6629	79.9	-20.1	155.3
1202000991	4-Amino-26-dinitrotoluene	197 > 167	15.86	4462.568	24440.912	4462.568	91.293	MM	14-Jan-10	07:32:55	339.2637	67.9	-32.1	628.8
1202000991	2-Amino-46-dinitrotoluene	197 > 180	16.79	6568.310	24440.912	6568.310	134.371	bb			344.7790	69.0	-31.0	279.5
1202000991	246-Trinitrotoluene	227 > 210	15.58	6242.031	24440.912	6242.031	127.696	bb			366.7065	73.3	-26.7	167.8
1202000991	34-dinitrotoluene	182 > 152	14.56	7644.063	24440.912	7644.063	156.378	bb		2.36	182.8318	73.1	-26.9	398.4
1202000991	26-dinitrotoluene	182 > 152	17.79	21624.174	24440.912	21624.174	442.377	MM	14-Jan-10	07:43:44	406.0029	81.2	-18.8	1266.4
1202000991	24-dinitrotoluene	182 > 152	18.47	4193.989	24440.912	4193.989	85.799	MM	14-Jan-10	07:45:59	353.1721	70.6	-29.4	212.8
1202000991	26-dinitrotoluene-d3	185 > 155	17.62	24440.912		24440.912	24440.912	bb			841.0060	168.2	68.2	2243.0
1202000991	2-Nitrotoluene	137 > 46	21.30	2307.196	24440.912	2307.196	47.199	bb			292.7990	58.6	-41.4	500.9
1202000991	4-Nitrotoluene	137 > 46	22.70	1226.451	24440.912	1226.451	25.090	bb			311.1902	62.2	-37.8	256.0
1202000991	3-Nitrotoluene	137 > 46	24.38	1342.083	24440.912	1342.083	27.456	bb			294.3179	58.9	-41.1	259.3
1202000991	PETN	361 > 62	24.81	31100.473	24440.912	31100.473	636.238	bb			348.1484	69.6	-30.4	10072.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

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Date: 13-Jan-2010
Time: 07:39:11
ID: 1202000994 | LANC | 935230 | LCB | LCSD | 2 |
Vial: 1:7,C

MA 1/14/10

BUSE/RA - A28

Continue EXP0112073a

HMX

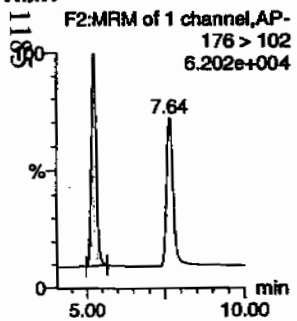

RDX

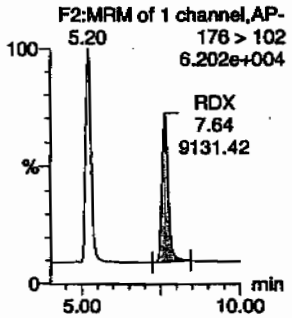

135-Trinitrobenzene

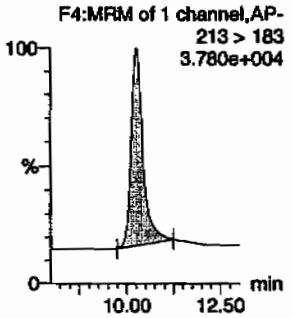

13-Dinitrobenzene-d4

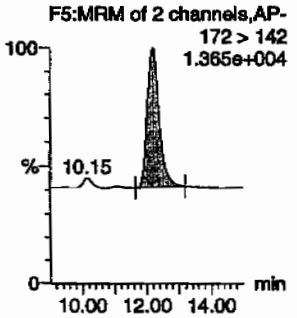

13-Dinitrobenzene

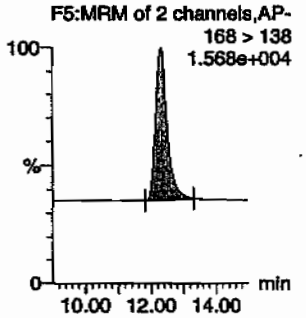

Tetryl

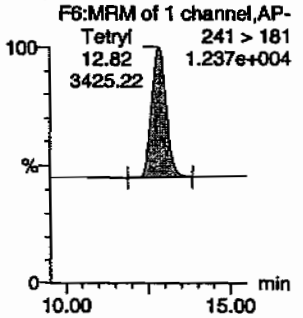

Nitrobenzene

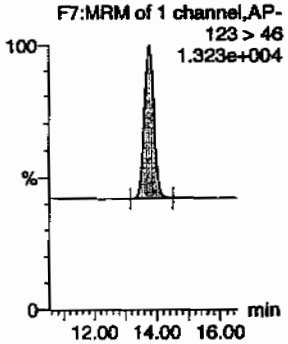

4-Amino-26-dinitrotoluene

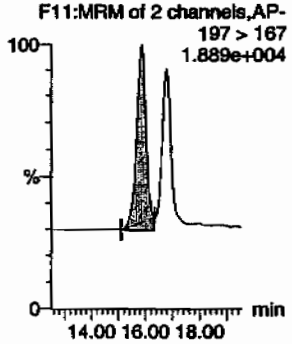

2-Amino-46-dinitrotoluene

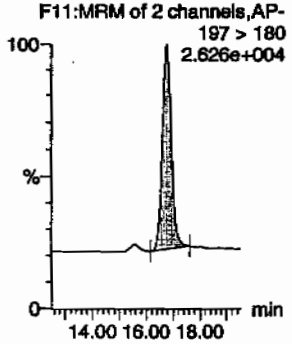

246-Trinitrotoluene

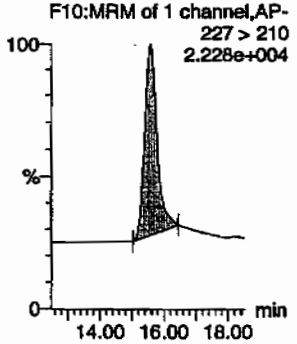

34-dinitrotoluene

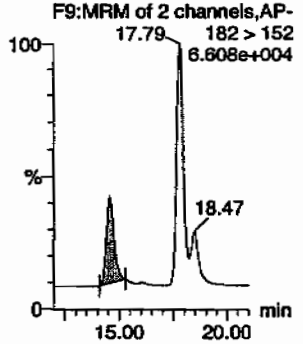

26-dinitrotoluene

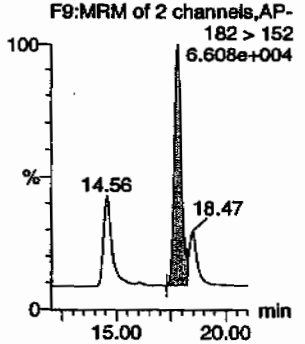

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA1.qld, Time: Thu Jan 14 07:51:38 2010

24-dinitrotoluene

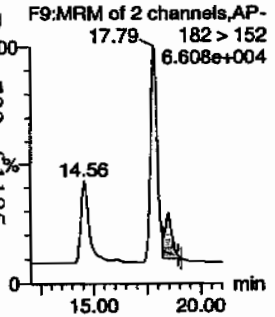

26-dinitrotoluene-d3

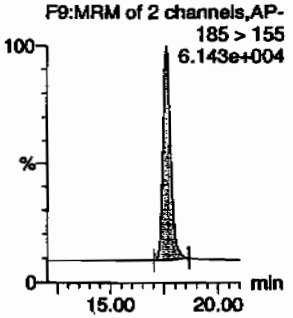

2-Nitrotoluene

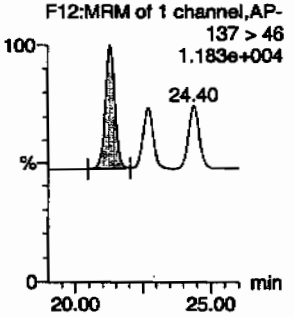

4-Nitrotoluene

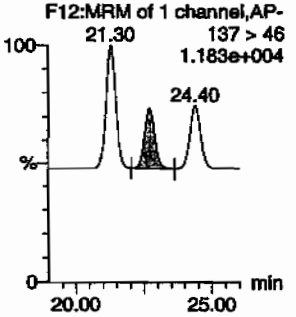

3-Nitrotoluene

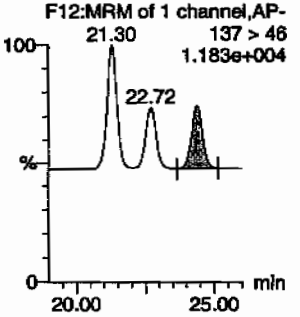

PETN

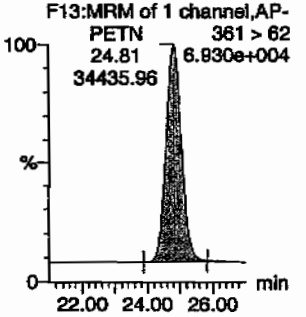

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flag	Modifier	Mod Time	Conc	%Rec	%Dev	S/N
1202000994	HMX	176 > 102	5.20	11322.091	3409.185	11322.091	1660.528	bb			435.5955	87.1	-12.9	1590.8
1202000994	RDX	176 > 102	7.64	9131.418	3409.185	9131.418	1339.238	bb			514.4676	102.9	2.9	1100.0
1202000994	135-Trinitrobenzene	213 > 183	10.27	11465.405	3409.185	11465.405	1681.546	bb			483.0838	96.6	-3.4	2368.6
1202000994	13-Dinitrobenzene-d4	172 > 142	12.17	3409.185		3409.185	3409.185	bb			677.2170	135.4	35.4	117.1
1202000994	13-Dinitrobenzene	168 > 138	12.31	3983.597	3409.185	3983.597	584.245	bb			466.2653	93.3	-6.7	331.6
1202000994	Tetryl	241 > 181	12.82	3425.218	3409.185	3425.218	502.351	bb			446.4520	89.3	-10.7	244.4
1202000994	Nitrobenzene	123 > 46	13.76	2694.408	3409.185	2694.408	395.169	bb			431.5757	86.3	-13.7	244.4
1202000994	4-Amino-26-dinitrotoluene	197 > 167	15.86	5468.500	22558.914	5468.500	121.205	MM	14-Jan-10	07:51:38	450.4224	90.1	-9.9	383.8
1202000994	2-Amino-46-dinitrotoluene	197 > 180	16.76	7911.987	22558.914	7911.987	175.363	bb			449.9580	90.0	-10.0	481.4
1202000994	246-Trinitrotoluene	227 > 210	15.58	7144.232	22558.914	7144.232	158.346	bb			454.7235	90.9	-9.1	629.8
1202000994	34-dinitrotoluene	182 > 152	14.56	8688.974	22558.914	8688.974	192.584	bb		292	225.1621	90.1	-9.9	175.0
1202000994	26-dinitrotoluene	182 > 152	17.79	21777.662	22558.914	21777.662	482.684	MM	14-Jan-10	07:43:38	442.9963	88.6	-11.4	477.1
1202000994	24-dinitrotoluene	182 > 152	18.47	4764.040	22558.914	4764.040	105.591	MM	14-Jan-10	07:46:08	434.6440	86.9	-13.1	98.8
1202000994	26-dinitrotoluene-d3	185 > 155	17.62	22558.914		22558.914	22558.914	bb			776.2469	155.2	55.2	1593.3
1202000994	2-Nitrotoluene	137 > 46	21.30	2573.138	22558.914	2573.138	57.032	bb			353.7915	70.8	-29.2	795.1
1202000994	4-Nitrotoluene	137 > 46	22.72	1382.815	22558.914	1382.815	30.649	bb			380.1360	76.0	-24.0	396.4
1202000994	3-Nitrotoluene	137 > 46	24.40	1497.446	22558.914	1497.446	33.190	bb			355.7851	71.2	-28.8	411.8
1202000994	PETN	361 > 62	24.81	34435.957	22558.914	34435.957	763.245	bb			430.4121	86.1	-13.9	7526.8

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GEL Laboratories LLC
Form GEL-DER

DER Report No.: 780076
Revision No.: 1

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
14-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LC-MS/MS	SW846 3535/8321A Modified	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
935230	243284005, 243284012, 1202000990, 1202000991, 1202000994		

Potentially affected work order(s)(SDG): 243283(10-994),243284(10-997)

Application Issues:

Other

Failed RPD for LCS/LCSD

Specification and Requirements Exception Description:	DER Disposition:
1. The LCS/LCSD (1202000991/994) did not meet RPD acceptance limits for 4-Amino-2,6-dinitrotoluene at 26.4% and PETN at 27.9%. The acceptance limits are 0-25%.	1. Since all other RPD recoveries met acceptance criteria, the noted exceptions are attributed to vagaries in the analytical process. The data are reported with the appropriate DER. The discrepancies are noted in the case narrative.
2. The internal standard responses were outside of the acceptance criteria in the following samples: 243284005, 243284012, 1202000990(MB), 1202000991(LCS) and 1202000994(LCSD). Please see the Form 8 in the data package for the exact recoveries.	2. The samples were re-analyzed and similar recoveries were observed. The re-analysis data are reported with the appropriate DER. The discrepancies are noted in the case narrative. The confirmation raw data are located in the Miscellaneous Section of the data package.

Originator's Name:

Michael Penny 14-JAN-10

Data Validator/Group Leader:

Herbert Maier 14-JAN-10

GC SEMIVOLATILE PESTICIDE ANALYSIS

Pesticide Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-994

Method/Analysis Information

Procedure: **Analysis of Organochlorine Pesticides and Chlorinated Hydrocarbons by ECD**

Analytical Method: SW846 8081A

Prep Method: SW846 3510C

Analytical Batch Number: 935414

Prep Batch Number: 935412

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8081A:

Sample ID	Client ID
243283001	CAPA-10-6793
1202001567	Method Blank (MB)
1202001568	Laboratory Control Sample (LCS)
1202001571	Laboratory Control Sample (LCS)-Toxaphene LCS Only
1202001569	243284002(CAPA-10-6390) Matrix Spike (MS)
1202001570	243284002(CAPA-10-6390) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-041 REV# 10.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
The calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

Two of five peaks failed with a positive bias in the Toxaphene standard bracketing the samples in this SDG; however, the average amount of the five peaks met the acceptance criteria.

Gamma Chlordane and Endosulfan I failed with a positive bias in the standards bracketing the samples in this SDG. The positive bias for the analytical data is a result of instrument response increasing after the initial calibration. These target analytes were not detected above the PQL in the samples; therefore, the non-compliance has no adverse effects on the data.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-997) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD were not within the required acceptance limits for several spiking target analytes due to high spike recovery in the MSD.

Technical Information:

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. Sample extracts were cleaned with Florisil prior to analysis.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Samples were re-analyzed with a passing initial bracketing standard.

Miscellaneous Information:

Electronic Package Comment

This package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integrations
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this pesticide fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The front column results has been chosen and reported in the data package for the client samples, MB and LCS per the PM and Quality dept.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-Pesticide analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD3A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD3A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Andy Whittock Date: 1-14-2010

Roadmap for LANL 10-994 PEST

This roadmap was analyzed by cla01575 on 01-12-2010, 09:17.
This roadmap was reviewed by jcb on 01-12-2010, 13:30.
This roadmap was packaged by yml on 01-14-2010, 10:18.
This roadmap was validated by rob01090 on 01-14-2010, 17:45.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/010410p.b/023f2301.d	243283001	sample	04-JAN-2010	17:50	10-994.sub	CAPA-10-6793	1.00000	935414	USE - uploaded both columns, reporting Front result per Quality

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/010410p.b/023b2301.d	243283001	sample	04-JAN-2010	17:50	10-994.sub	CAPA-10-6793	1.00000	935414	USE - uploaded both columns, reporting Front result per Quality

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/010410p.b/014f1401-94.d	1202001567	mb	04-JAN-2010	15:43	10-994.sub	PBLK01	1.00000	935414	
☐	N	/chem/ecd3a.i/010410p.b/015f1501-94.d	1202001568	lcs	04-JAN-2010	15:57	10-994.sub	PBLK01LCS	1.00000	935414	
☐	N	/chem/ecd3a.i/010410p.b/016f1601-94.d	1202001571	lcs	04-JAN-2010	16:11	10-994.sub	PBLK01TLCS	1.00000	935414	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/010410p.b/014b1401-94.d	1202001567	mb	04-JAN-2010	15:43	10-994.sub	PBLK01	1.00000	935414	
☐	N	/chem/ecd3a.i/010410p.b/015b1501-94.d	1202001568	lcs	04-JAN-2010	15:57	10-994.sub	PBLK01LCS	1.00000	935414	
☐	N	/chem/ecd3a.i/010410p.b/016b1601-94.d	1202001571	lcs	04-JAN-2010	16:11	10-994.sub	PBLK01TLCS	1.00000	935414	

SAMPLE DATA SUMMARY

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–994**	**Date Collected:**	**12/17/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243283001**	**Date Received:**	**12/19/2009 09:05**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA–10–6793**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**935414**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 17:50**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/21/2009 19:38**	**Aliquot:**	**980 mL**	**Final Volume:**	**5 mL**
Data File:	**023f2301.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	023b2301.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.0204	ug/L	0.0051	0.0204	1
58–89–9	gamma–BHC (Lindane)	U	0.0204	ug/L	0.0051	0.0204	1
319–85–7	beta–BHC	U	0.0204	ug/L	0.00612	0.0204	1
319–86–8	delta–BHC	U	0.0204	ug/L	0.0051	0.0204	1
76–44–8	Heptachlor	U	0.0204	ug/L	0.0051	0.0204	1
309–00–2	Aldrin	U	0.0204	ug/L	0.0051	0.0204	1
1024–57–3	Heptachlor epoxide	U	0.0204	ug/L	0.0051	0.0204	1
5103–74–2	gamma–Chlordane	U	0.0204	ug/L	0.0051	0.0204	1
5103–71–9	alpha–Chlordane	U	0.0204	ug/L	0.0051	0.0204	1
959–98–8	Endosulfan I	U	0.0204	ug/L	0.0051	0.0204	1
72–55–9	4,4'–DDE	U	0.0408	ug/L	0.0051	0.0408	1
60–57–1	Dieldrin	U	0.0408	ug/L	0.0102	0.0408	1
72–20–8	Endrin	U	0.0408	ug/L	0.0102	0.0408	1
72–54–8	4,4'–DDD	U	0.0408	ug/L	0.0102	0.0408	1
33213–65–9	Endosulfan II	U	0.0408	ug/L	0.0102	0.0408	1
7421–93–4	Endrin aldehyde	U	0.0408	ug/L	0.0051	0.0408	1
50–29–3	4,4'–DDT	U	0.0408	ug/L	0.0102	0.0408	1
1031–07–8	Endosulfan sulfate	U	0.0408	ug/L	0.0102	0.0408	1
72–43–5	Methoxychlor	U	0.204	ug/L	0.051	0.204	1
53494–70–5	Endrin ketone	U	0.0408	ug/L	0.0102	0.0408	1
8001–35–2	Toxaphene	U	0.510	ug/L	0.153	0.510	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.498	1.02	ug/L	48.8	(29%–103%)
Decachlorobiphenyl	0.597	1.02	ug/L	58.5	(34%–118%)

QUALITY CONTROL SUMMARY

Pesticide

Surrogate Recovery Report

SDG Number: 10–994

Matrix Type: LIQUID

CAP Column (1) : CLP–1 **CAP Column (2) : CLP–2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202001567	MB for batch 935412	48	48	62	63
1202001568	LCS for batch 935412	41	42	59	60
1202001571	LCS for batch 935412	49	47	71	72
243283001	CAPA–10–6793	49	49	58	62

Surrogate	Acceptance Limits
4CMX = 4cmx	(29%–103%)
DCB = Decachlorobiphenyl	(34%–118%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Quality Control Summary
Spike Recovery Report

SDG Number: 10-994 **Sample Type:** Laboratory Control Sample
Client ID: LCS for batch 935412 **Matrix:** GROUND WATER
Lab Sample ID: 1202001568
Instrument: ECD3A.I **Analysis Date:** 01/04/2010 15:57 **Dilution:** 1
Analyst: HXJ1 **Prep Batch ID:** 935412
Inj. Vol: 1 uL **Batch ID:** 935414

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
319-84-6	LCS	alpha-BHC	0.500	0.0	0.283	57	52-146
58-89-9	LCS	gamma-BHC (Lindane)	0.500	0.0	0.313	63	49-138
319-85-7	LCS	beta-BHC	0.500	0.0	0.309	62	49-138
319-86-8	LCS	delta-BHC	0.500	0.0	0.294	59	54-148
76-44-8	LCS	Heptachlor	0.500	0.0	0.262	52	38-132
309-00-2	LCS	Aldrin	0.500	0.0	0.244	49	37-137
1024-57-3	LCS	Heptachlor epoxide	0.500	0.0	0.305	61	49-134
5103-74-2	LCS	gamma-Chlordane	0.500	0.0	0.280	56	50-147
5103-71-9	LCS	alpha-Chlordane	0.500	0.0	0.297	59	50-144
959-98-8	LCS	Endosulfan I	0.500	0.0	0.323	65	41-137
72-55-9	LCS	4,4'-DDE	1.25	0.0	0.746	60	52-148
60-57-1	LCS	Dieldrin	1.25	0.0	0.788	63	51-141
72-20-8	LCS	Endrin	1.25	0.0	0.877	70	56-145
72-54-8	LCS	4,4'-DDD	1.25	0.0	0.839	67	55-151
33213-65-9	LCS	Endosulfan II	1.25	0.0	0.864	69	43-142
7421-93-4	LCS	Endrin aldehyde	1.25	0.0	0.742	59	51-145
50-29-3	LCS	4,4'-DDT	1.25	0.0	0.827	66	55-156
1031-07-8	LCS	Endosulfan sulfate	1.25	0.0	0.860	69	52-145
72-43-5	LCS	Methoxychlor	5.00	0.0	3.06	61	53-151
53494-70-5	LCS	Endrin ketone	1.25	0.0	0.799	64	50-151

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: **10-994**
Client ID: **LCS for batch 935412**
Lab Sample ID: **1202001571**
Instrument: **ECD3A.I**
Analyst: **HXJ1**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **GROUND WATER**
Analysis Date: **01/04/2010 16:11**
Dilution: **1**
Prep Batch ID: **935412**
Batch ID: **935414**

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
8001-35-2	LCS Toxaphene	4.00	0.0	2.98	75	41-143

Quality Control Summary
Spike Recovery Report

SDG Number: 10-997
Client ID: CAPA-10-6390MS
Lab Sample ID: 1202001569
Instrument: ECD3A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 01/04/2010 18:17
Dilution: 1
Prep Batch ID: 935412
Batch ID: 935414

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
319-84-6	MS	alpha-BHC	0.500	0.00	U	0.308	62	40-143
58-89-9	MS	gamma-BHC (Lindane)	0.500	0.00	U	0.342	68	46-132
319-85-7	MS	beta-BHC	0.500	0.00	U	0.378	76	38-140
319-86-8	MS	delta-BHC	0.500	0.00	U	0.325	65	39-148
76-44-8	MS	Heptachlor	0.500	0.00	U	0.308	62	37-127
309-00-2	MS	Aldrin	0.500	0.00	U	0.289	58	37-130
1024-57-3	MS	Heptachlor epoxide	0.500	0.00	U	0.337	67	44-129
5103-74-2	MS	gamma-Chlordane	0.500	0.00	U	0.319	64	39-146
5103-71-9	MS	alpha-Chlordane	0.500	0.00	U	0.332	66	40-140
959-98-8	MS	Endosulfan I	0.500	0.00	U	0.354	71	36-133
72-55-9	MS	4,4'-DDE	1.25	0.00	U	0.838	67	40-148
60-57-1	MS	Dieldrin	1.25	0.00	U	0.867	69	41-140
72-20-8	MS	Endrin	1.25	0.00	U	0.984	79	48-145
72-54-8	MS	4,4'-DDD	1.25	0.00	U	0.933	75	38-155
33213-65-9	MS	Endosulfan II	1.25	0.00	U	0.959	77	38-141
7421-93-4	MS	Endrin aldehyde	1.25	0.00	U	0.813	65	34-143
50-29-3	MS	4,4'-DDT	1.25	0.00	U	0.937	75	42-159
1031-07-8	MS	Endosulfan sulfate	1.25	0.00	U	0.974	78	39-143
72-43-5	MS	Methoxychlor	5.00	0.00	U	3.50	70	47-156
53494-70-5	MS	Endrin ketone	1.25	0.00	U	0.900	72	41-150

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-997
Client ID: CAPA-10-6390MSD
Lab Sample ID: 1202001570
Instrument: ECD3A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 01/04/2010 18:31
Dilution: 1
Prep Batch ID: 935412
Batch ID: 935414

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
319-84-6	MSD alpha-BHC	0.500	0.00	U	0.419	84	40-143	30	0-30
58-89-9	MSD gamma-BHC (Lindane)	0.500	0.00	U	0.476	95	46-132	33 *	0-30
319-85-7	MSD beta-BHC	0.500	0.00	U	0.503	101	38-140	28	0-30
319-86-8	MSD delta-BHC	0.500	0.00	U	0.455	91	39-148	33 *	0-30
76-44-8	MSD Heptachlor	0.500	0.00	U	0.428	86	37-127	33 *	0-30
309-00-2	MSD Aldrin	0.500	0.00	U	0.409	82	37-130	35 *	0-30
1024-57-3	MSD Heptachlor epoxide	0.500	0.00	U	0.467	93	44-129	32 *	0-30
5103-74-2	MSD gamma-Chlordane	0.500	0.00	U	0.443	89	39-146	33 *	0-30
5103-71-9	MSD alpha-Chlordane	0.500	0.00	U	0.458	92	40-140	32 *	0-30
959-98-8	MSD Endosulfan I	0.500	0.00	U	0.490	98	36-133	32 *	0-30
72-55-9	MSD 4,4'-DDE	1.25	0.00	U	1.14	91	40-148	31 *	0-30
60-57-1	MSD Dieldrin	1.25	0.00	U	1.18	94	41-140	31 *	0-30
72-20-8	MSD Endrin	1.25	0.00	U	1.34	108	48-145	31 *	0-30
72-54-8	MSD 4,4'-DDD	1.25	0.00	U	1.26	101	38-155	30	0-30
33213-65-9	MSD Endosulfan II	1.25	0.00	U	1.30	104	38-141	31 *	0-30
7421-93-4	MSD Endrin aldehyde	1.25	0.00	U	1.16	93	34-143	35 *	0-30
50-29-3	MSD 4,4'-DDT	1.25	0.00	U	1.27	102	42-159	30	0-30
1031-07-8	MSD Endosulfan sulfate	1.25	0.00	U	1.35	108	39-143	32 *	0-30
72-43-5	MSD Methoxychlor	5.00	0.00	U	4.69	94	47-156	29	0-30
53494-70-5	MSD Endrin ketone	1.25	0.00	U	1.22	97	41-150	30	0-30

Method Blank Summary

SDG Number:	10-994	Client:	LANL010	Matrix:	GROUND WATER
Client ID:	MB for batch 935412	Instrument ID:	ECD3A.I_2 ECD3A.I_1	Data File:	014b1401-52.d 014f1401-52.d
Lab Sample ID:	1202001567				
Column:	CLP-2 CLP-1	Prep Date:	12/21/2009 19:38	Analyzed:	01/04/10 15:43
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 935412	1202001568	015f1501-52.d 015b1501-52.d	01/04/10	1557
02 LCS for batch 935412	1202001571	016f1601-52.d 016b1601-52.d	01/04/10	1611
03 CAPA-10-6793	243283001	023f2301.d 023b2301.d	01/04/10	1750

SAMPLE DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**	**Date Collected:**	**12/17/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243283001**	**Date Received:**	**12/19/2009 09:05**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6793**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**935414**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 17:50**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/21/2009 19:38**	**Aliquot:**	**980 mL**	**Final Volume:**	**5 mL**
Data File:	**023f2301.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	023b2301.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.0204	ug/L	0.0051	0.0204	1
58-89-9	gamma-BHC (Lindane)	U	0.0204	ug/L	0.0051	0.0204	1
319-85-7	beta-BHC	U	0.0204	ug/L	0.00612	0.0204	1
319-86-8	delta-BHC	U	0.0204	ug/L	0.0051	0.0204	1
76-44-8	Heptachlor	U	0.0204	ug/L	0.0051	0.0204	1
309-00-2	Aldrin	U	0.0204	ug/L	0.0051	0.0204	1
1024-57-3	Heptachlor epoxide	U	0.0204	ug/L	0.0051	0.0204	1
5103-74-2	gamma-Chlordane	U	0.0204	ug/L	0.0051	0.0204	1
5103-71-9	alpha-Chlordane	U	0.0204	ug/L	0.0051	0.0204	1
959-98-8	Endosulfan I	U	0.0204	ug/L	0.0051	0.0204	1
72-55-9	4,4'-DDE	U	0.0408	ug/L	0.0051	0.0408	1
60-57-1	Dieldrin	U	0.0408	ug/L	0.0102	0.0408	1
72-20-8	Endrin	U	0.0408	ug/L	0.0102	0.0408	1
72-54-8	4,4'-DDD	U	0.0408	ug/L	0.0102	0.0408	1
33213-65-9	Endosulfan II	U	0.0408	ug/L	0.0102	0.0408	1
7421-93-4	Endrin aldehyde	U	0.0408	ug/L	0.0051	0.0408	1
50-29-3	4,4'-DDT	U	0.0408	ug/L	0.0102	0.0408	1
1031-07-8	Endosulfan sulfate	U	0.0408	ug/L	0.0102	0.0408	1
72-43-5	Methoxychlor	U	0.204	ug/L	0.051	0.204	1
53494-70-5	Endrin ketone	U	0.0408	ug/L	0.0102	0.0408	1
8001-35-2	Toxaphene	U	0.510	ug/L	0.153	0.510	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.498	1.02	ug/L	48.8	(29%-103%)
Decachlorobiphenyl	0.597	1.02	ug/L	58.5	(34%-118%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010410p.b/023f2301.d
Lab Smp Id: 243283001 Client Smp ID: CAPA-10-6793
Inj Date : 04-JAN-2010 17:50
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |243283001|1|
Misc Info : |ECD81A_1L|935414|SVP|LANL|GROUND WATER|CAPA-10-6793|||
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-994.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	980.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.676	2.676	0.000	6619987	97.6855	0.498	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.822	7.823	-0.001	6066695	116.987	0.597	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/023f2301.d

Page 1

Date : 04-JAN-2010 17:50

Client ID: CAPA-10-6793

Instrument: ecd3a.i

Sample Info: |243283001|1|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

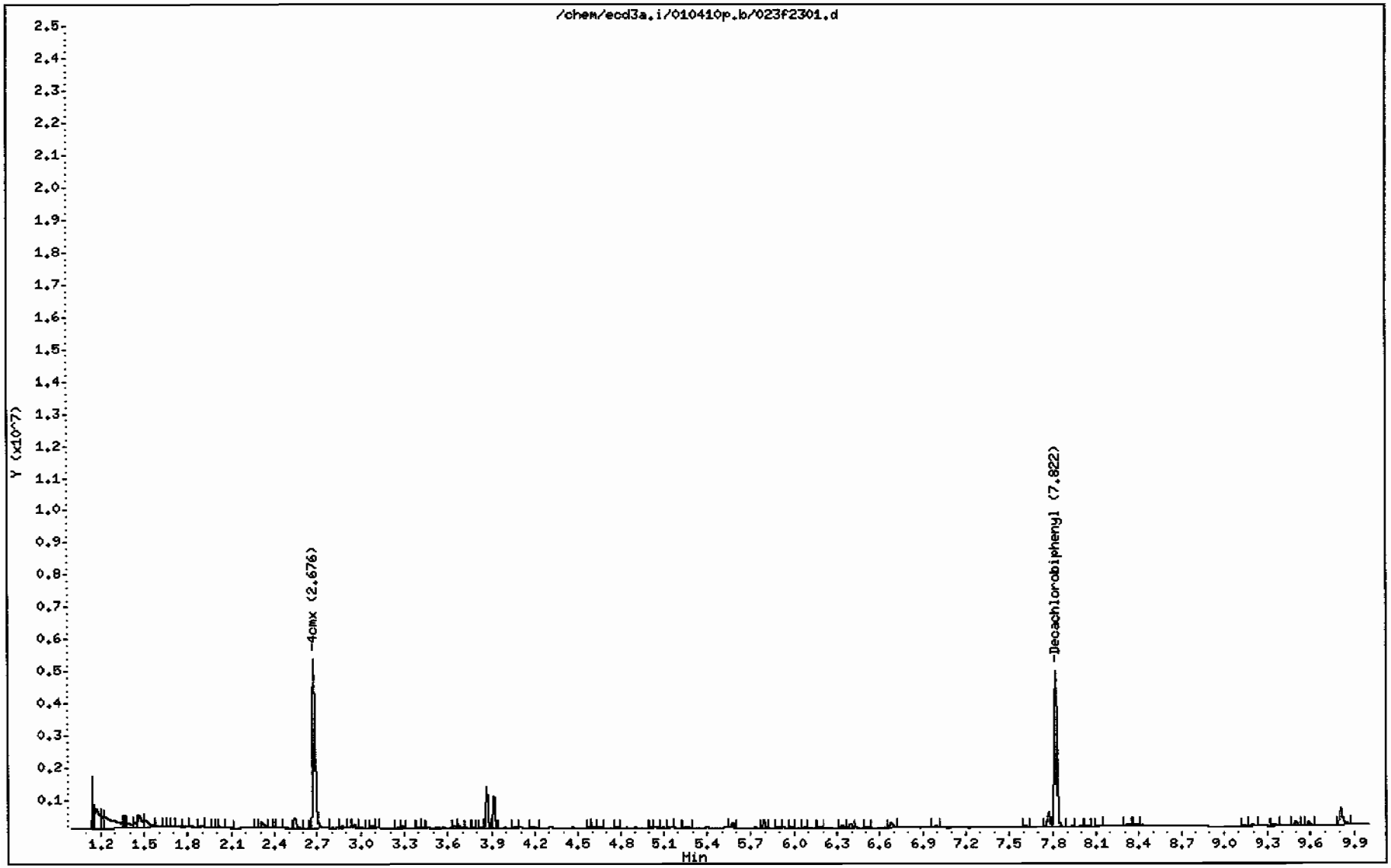

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010410p.b/023b2301.d
Lab Smp Id: 243283001 Client Smp ID: CAPA-10-6793
Inj Date : 04-JAN-2010 17:50
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |243283001|1|
Misc Info : |ECD81A_1L|935414|SVP|LANL|GROUND WATER|CAPA-10-6793|||
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 07-Jan-2010 11:48 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 23
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-994.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	980.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	48773599	97.5411	0.498	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.859	8.859	0.000	49152651	124.698	0.636	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/023b2301.d

Date : 04-JAN-2010 17:50

Client ID: CAPA-10-6793

Sample Info: |243283001|1|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

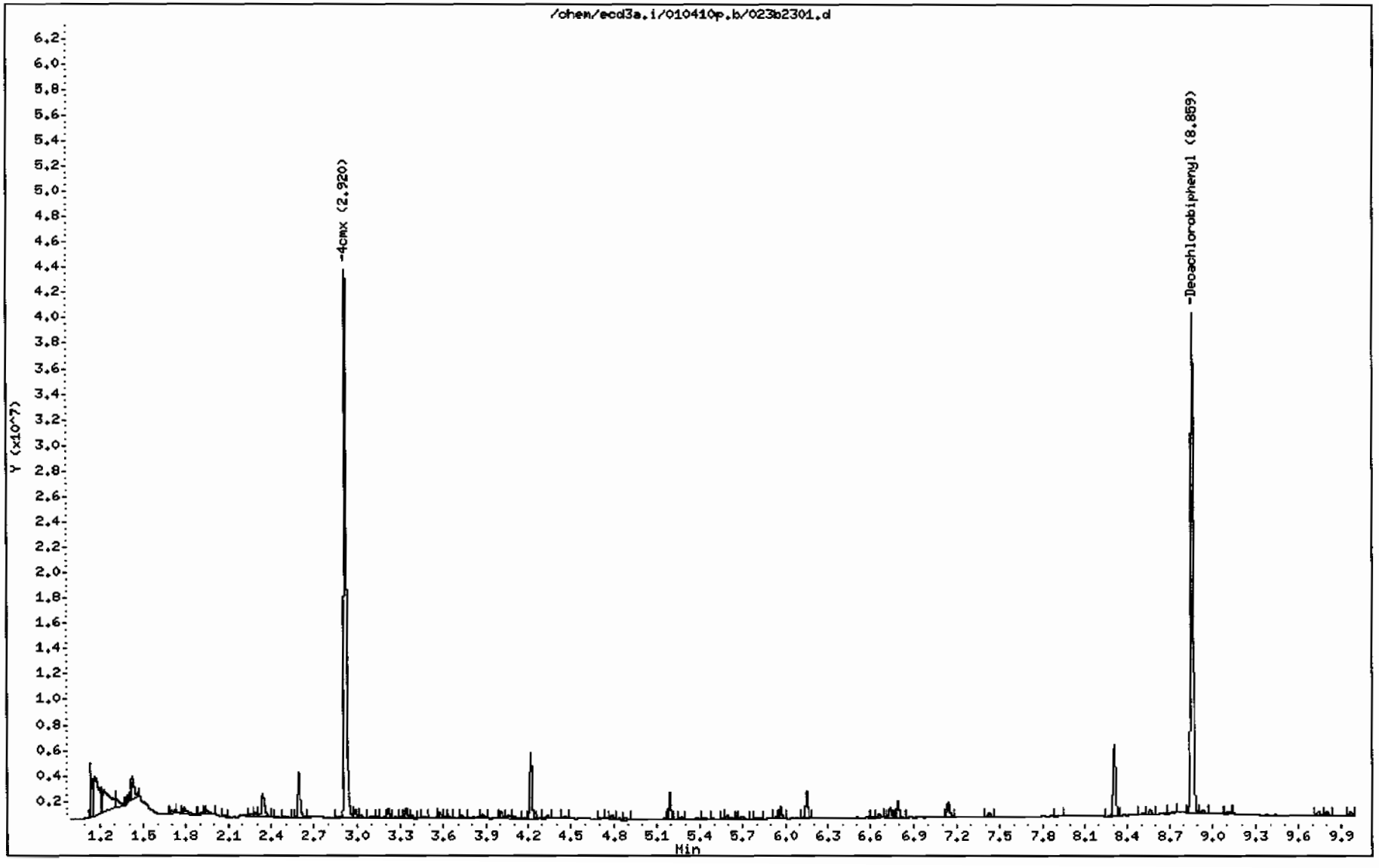

STANDARDS DATA

Report Date: 06-Jan-2010 14:37

Calibration History

Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Start Cal Date: 29-DEC-2009 17:34
End Cal Date : 04-JAN-2010 14:34

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
29-DEC-2009 20:42	chlor	/chem/ecd3a.i/122909p.b/016f1601.d
29-DEC-2009 18:56	tox	/chem/ecd3a.i/122909p.b/009f0901.d
04-JAN-2010 13:40	indab	/chem/ecd3a.i/010410p.b/006f0601.d
Cal Level: 2 , Cal Amount: 10.00000		
29-DEC-2009 21:14	chlor	/chem/ecd3a.i/122909p.b/017f1701.d
29-DEC-2009 19:10	tox	/chem/ecd3a.i/122909p.b/010f1001.d
04-JAN-2010 13:53	indab	/chem/ecd3a.i/010410p.b/007f0701.d
Cal Level: 3 , Cal Amount: 50.00000		
29-DEC-2009 21:28	chlor	/chem/ecd3a.i/122909p.b/018f1801.d
29-DEC-2009 19:24	tox	/chem/ecd3a.i/122909p.b/011f1101.d
04-JAN-2010 14:07	indab	/chem/ecd3a.i/010410p.b/008f0801.d
Cal Level: 4 , Cal Amount: 100.00000		
29-DEC-2009 21:41	chlor	/chem/ecd3a.i/122909p.b/019f1901.d
29-DEC-2009 20:01	tox	/chem/ecd3a.i/122909p.b/013f1301.d
04-JAN-2010 14:21	indab	/chem/ecd3a.i/010410p.b/009f0901.d
Cal Level: 5 , Cal Amount: 200.00000		
29-DEC-2009 21:55	chlor	/chem/ecd3a.i/122909p.b/020f2001.d
29-DEC-2009 20:14	tox	/chem/ecd3a.i/122909p.b/014f1401.d
04-JAN-2010 14:34	indab	/chem/ecd3a.i/010410p.b/010f1001.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
05-JAN-2010 03:37	indab	/chem/ecd3a.i/010410p.b/066f6601.d
Ccal Level: 4 , Ccal Amount: 100		
05-JAN-2010 00:40	indab	/chem/ecd3a.i/010410p.b/053f5301.d
Ccal Level: 4 , Ccal Amount: 100		

04-JAN-2010 22:23	indab	/chem/ecd3a.i/010410p.b/043f4301.d
Ccal Level: 4 , Ccal Amount: 100		
04-JAN-2010 19:26	indab	/chem/ecd3a.i/010410p.b/030f3001.d
Ccal Level: 4 , Ccal Amount: 100		
04-JAN-2010 17:23	indab	/chem/ecd3a.i/010410p.b/021f2101.d
Ccal Level: 4 , Ccal Amount: 100		
04-JAN-2010 13:24	chlor	/chem/ecd3a.i/010410p.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 100		
04-JAN-2010 13:10	tox	/chem/ecd3a.i/010410p.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 100		
04-JAN-2010 15:02	indab	/chem/ecd3a.i/010410p.b/012f1201.d
Ccal Level: 4 , Ccal Amount: 100		
04-JAN-2010 14:21	indab	/chem/ecd3a.i/010410p.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 100		
31-DEC-2009 17:13	all	/chem/ecd6a.i/123109.b/011f1101.d
Ccal Level: 4 , Ccal Amount: 100		
04-JAN-2010 12:38	indab	/chem/ecd3a.i/010410p.b/003f0301.d

Report Date: 14-Jan-2010 14:06

Calibration History

Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Start Cal Date: 29-DEC-2009 17:34
End Cal Date : 04-JAN-2010 14:34

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
29-DEC-2009 20:42	chlor	/chem/ecd3a.i/122909p.b/016b1601.d
29-DEC-2009 18:56	tox	/chem/ecd3a.i/122909p.b/009b0901.d
04-JAN-2010 13:40	indab	/chem/ecd3a.i/010410p.b/006b0601.d
Cal Level: 2 , Cal Amount: 10.00000		
29-DEC-2009 21:14	chlor	/chem/ecd3a.i/122909p.b/017b1701.d
29-DEC-2009 19:10	tox	/chem/ecd3a.i/122909p.b/010b1001.d
04-JAN-2010 13:53	indab	/chem/ecd3a.i/010410p.b/007b0701.d
Cal Level: 3 , Cal Amount: 50.00000		
29-DEC-2009 21:28	chlor	/chem/ecd3a.i/122909p.b/018b1801.d
29-DEC-2009 19:24	tox	/chem/ecd3a.i/122909p.b/011b1101.d
04-JAN-2010 14:07	indab	/chem/ecd3a.i/010410p.b/008b0801.d
Cal Level: 4 , Cal Amount: 100.00000		
29-DEC-2009 21:41	chlor	/chem/ecd3a.i/122909p.b/019b1901.d
29-DEC-2009 20:01	tox	/chem/ecd3a.i/122909p.b/013b1301.d
04-JAN-2010 14:21	indab	/chem/ecd3a.i/010410p.b/009b0901.d
Cal Level: 5 , Cal Amount: 200.00000		
29-DEC-2009 21:55	chlor	/chem/ecd3a.i/122909p.b/020b2001.d
29-DEC-2009 20:14	tox	/chem/ecd3a.i/122909p.b/014b1401.d
04-JAN-2010 14:34	indab	/chem/ecd3a.i/010410p.b/010b1001.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
05-JAN-2010 03:37	indab	/chem/ecd3a.i/010410p.b/066b6601.d
Ccal Level: 4 , Ccal Amount: 100		
05-JAN-2010 00:40	indab	/chem/ecd3a.i/010410p.b/053b5301.d
Ccal Level: 4 , Ccal Amount: 100		
04-JAN-2010 22:23	indab	/chem/ecd3a.i/010410p.b/043b4301.d
Ccal Level: 4 , Ccal Amount: 100		

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|04-JAN-2010 19:26 |indab            |/chem/ecd3a.i/010410p.b/030b3001.d      |
+------------------+-----------------+---------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                            |
+=============================================================================+
|04-JAN-2010 17:23 |indab            |/chem/ecd3a.i/010410p.b/021b2101.d      |
+------------------+-----------------+---------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                            |
+=============================================================================+
|04-JAN-2010 15:02 |indab            |/chem/ecd3a.i/010410p.b/012b1201.d      |
+------------------+-----------------+---------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                            |
+=============================================================================+
|04-JAN-2010 13:24 |chlor            |/chem/ecd3a.i/010410p.b/005b0501.d      |
+------------------+-----------------+---------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                            |
+=============================================================================+
|04-JAN-2010 13:10 |tox              |/chem/ecd3a.i/010410p.b/004b0401.d      |
+------------------+-----------------+---------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                            |
+=============================================================================+
|04-JAN-2010 14:21 |indab            |/chem/ecd3a.i/010410p.b/009b0901.d      |
+------------------+-----------------+---------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                            |
+=============================================================================+
|04-JAN-2010 12:38 |indab            |/chem/ecd3a.i/010410p.b/003b0301.d      |
+------------------+-----------------+---------------------------------------+
```

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Quant Method : ESTD Target Version : 3.50
Last Update : 06-Jan-2010 14:27 Number of Cpnds : 44
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1005.000000
Initial:End Threshold	502.500000
Initial:Area Threshold	10005.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	5.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.676	2.646-2.706	6.777e+04
63 2,4,5-Trichlorophenol	1.334	1.234-1.434	
59 Hexachlorobenzene	3.098	2.998-3.198	
2 Aroclor-1221	2.920	2.890-2.950	
	3.052	3.022-3.082	
	3.087	3.057-3.117	
3 Aroclor-1016	3.727	3.697-3.757	
	3.822	3.792-3.852	
	3.866	3.836-3.896	
	3.950	3.920-3.980	
	4.102	4.072-4.132	
4 Aroclor-1232	3.377	3.347-3.407	
	3.536	3.506-3.566	
	3.727	3.697-3.757	
	3.822	3.792-3.852	
	4.379	4.349-4.409	
5 alpha-BHC	3.082	3.052-3.112	1.064e+05
6 Aroclor-1242	3.377	3.277-3.477	
	3.728	3.628-3.828	
	3.866	3.766-3.966	
	4.379	4.279-4.479	
	4.398	4.298-4.498	
7 gamma-BHC (Lindane)	3.328	3.298-3.358	8.306e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.646	3.546-3.746	2.510e+03
	4.083	3.983-4.183	2.557e+03
	4.447	4.347-4.547	1.407e+03
	4.621	4.521-4.721	8.435e+03
	5.488	5.388-5.588	1.813e+03
9 Aroclor-1248	3.949	3.849-4.049	
	4.103	4.003-4.203	
	4.159	4.059-4.259	
	4.378	4.278-4.478	
	4.768	4.668-4.868	
10 Heptachlor	3.711	3.681-3.741	6.505e+04
11 Aldrin	3.969	3.939-3.999	7.973e+04
12 beta-BHC	3.392	3.362-3.422	3.582e+04
13 delta-BHC	3.539	3.509-3.569	8.551e+04
14 Heptachlor epoxide	4.504	4.474-4.534	7.123e+04
15 Aroclor-1254	4.352	4.322-4.382	
	4.516	4.486-4.546	
	4.769	4.739-4.799	
	4.937	4.907-4.967	
	5.219	5.189-5.249	
16 Endosulfan I	4.874	4.844-4.904	6.168e+04
17 gamma-Chlordane	4.619	4.589-4.649	6.842e+04
18 alpha-Chlordane	4.743	4.713-4.773	6.955e+04
19 4,4'-DDE	4.810	4.780-4.840	6.853e+04
20 Dieldrin	5.103	5.073-5.133	7.124e+04
21 Aroclor-1260	4.881	4.781-4.981	
	5.046	4.946-5.146	
	5.125	5.025-5.225	
	5.219	5.119-5.319	
	5.436	5.336-5.536	
22 Endrin	5.331	5.301-5.361	5.696e+04
23 Toxaphene	5.014	4.984-5.044	4.853e+02
	5.119	5.089-5.149	7.541e+02
	5.204	5.174-5.234	8.704e+02
	5.364	5.333-5.394	1.137e+03
	5.554	5.524-5.584	2.022e+03
24 Endosulfan II	5.555	5.525-5.585	5.849e+04
25 4,4'-DDD	5.393	5.363-5.423	5.508e+04
26 4,4'-DDT	5.672	5.642-5.702	4.500e+04
27 Endrin aldehyde	5.980	5.950-6.010	4.929e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m

	Compound	RT	RT Window	RF
	28 Methoxychlor	6.176	6.146-6.206	2.218e+04
	29 Endosulfan sulfate	6.433	6.403-6.463	4.776e+04
	30 Aroclor-1268	5.050	4.950-5.150	
		5.067	4.967-5.167	
		5.185	5.085-5.285	
		5.378	5.278-5.478	
		5.531	5.431-5.631	
	61 Aroclor-1262	4.121	4.021-4.221	
		4.289	4.189-4.389	
		4.525	4.425-4.625	
		4.671	4.571-4.771	
		4.854	4.754-4.954	
	31 Endrin ketone	6.730	6.700-6.760	6.439e+04
	51 Mirex	5.620	5.590-5.650	
	52 C-Nonachlor	5.043	5.013-5.073	
	53 O-Chlordane	4.411	4.381-4.441	
	54 T-Nonachlor	4.632	4.602-4.662	
	55 1,2-Dichlorobenzene	6.525	6.495-6.555	
	56 2,4-DDE	4.471	4.441-4.501	
	58 2,4-DDD	4.798	4.768-4.828	
	57 2,4-DDT	4.955	4.925-4.985	
$	32 Decachlorobiphenyl	7.823	7.793-7.853	5.186e+04
M	62 TTO Sum Pesticides	1.000	0.980-1.020	

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Quant Method : ESTD Target Version : 3.50
Last Update : 06-Jan-2010 14:27 Number of Cpnds : 43
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	9270.000000
Initial:End Threshold	4635.000000
Initial:Area Threshold	92700.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	10.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.920	2.890-2.950	5.000e+05
61 2,4,5-Trichlorophenol	1.631	1.531-1.731	
59 Hexachlorobenzene	3.571	3.541-3.601	
2 Aroclor-1221	3.414	3.384-3.444	
	3.531	3.501-3.561	
	3.579	3.549-3.609	
3 Aroclor-1016	4.216	4.186-4.246	
	4.378	4.348-4.408	
	4.466	4.436-4.496	
	4.617	4.587-4.647	
	4.999	4.969-5.029	
4 Aroclor-1232	3.579	3.549-3.609	
	4.216	4.186-4.246	
	4.307	4.277-4.337	
	4.617	4.587-4.647	
	4.887	4.857-4.917	
5 alpha-BHC	3.413	3.383-3.443	6.855e+05
6 Aroclor-1242	3.888	3.858-3.918	
	4.308	4.278-4.338	
	4.378	4.348-4.408	
	4.617	4.587-4.647	
	4.698	4.668-4.728	
7 gamma-BHC (Lindane)	3.722	3.692-3.752	5.812e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.999	3.969-4.029	1.597e+04
	4.577	4.547-4.607	1.176e+04
	4.957	4.927-4.987	6.808e+03
	5.335	5.305-5.365	2.675e+04
	6.275	6.245-6.305	1.236e+04
9 Aroclor-1248	4.436	4.406-4.466	
	4.617	4.587-4.647	
	4.697	4.667-4.727	
	4.856	4.826-4.886	
	5.034	5.004-5.064	
10 Heptachlor	4.135	4.105-4.165	4.236e+05
11 Aldrin	4.447	4.417-4.477	3.799e+05
12 beta-BHC	3.784	3.754-3.814	2.536e+05
13 delta-BHC	4.056	4.026-4.086	5.265e+05
14 Heptachlor epoxide	4.998	4.968-5.028	3.061e+05
15 Aroclor-1254	4.885	4.855-4.915	
	4.999	4.969-5.029	
	5.290	5.260-5.320	
	5.423	5.393-5.453	
	5.749	5.719-5.779	
16 Endosulfan I	5.399	5.369-5.429	2.828e+05
17 gamma-Chlordane	5.188	5.158-5.218	2.896e+05
18 alpha-Chlordane	5.336	5.306-5.366	2.986e+05
19 4,4'-DDE	5.493	5.463-5.523	2.959e+05
20 Dieldrin	5.679	5.649-5.709	3.456e+05
21 Aroclor-1260	5.310	5.280-5.340	
	5.406	5.376-5.436	
	5.526	5.496-5.556	
	5.628	5.598-5.658	
	5.749	5.719-5.779	
22 Endrin	5.999	5.969-6.029	3.364e+05
23 Toxaphene	5.662	5.632-5.691	5.066e+03
	5.783	5.753-5.813	2.991e+03
	6.173	6.144-6.204	6.013e+03
	6.216	6.186-6.246	1.060e+04
	6.319	6.289-6.349	1.915e+04
24 Endosulfan II	6.220	6.190-6.250	3.949e+05
25 4,4'-DDD	6.099	6.069-6.129	3.419e+05
26 4,4'-DDT	6.438	6.408-6.468	3.589e+05
27 Endrin aldehyde	6.576	6.546-6.606	3.833e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m

Compound	RT	RT Window	RF
28 Methoxychlor	7.180	7.150-7.210	1.980e+05
29 Endosulfan sulfate	6.879	6.849-6.909	4.704e+05
30 Aroclor-1268	5.217	5.187-5.247	
	5.596	5.566-5.626	
	5.628	5.598-5.658	
	5.769	5.739-5.799	
	6.149	6.119-6.179	
60 Aroclor-1262	4.689	4.589-4.789	
	4.779	4.679-4.879	
	5.074	4.974-5.174	
	5.224	5.124-5.324	
	5.396	5.296-5.496	
31 Endrin ketone	7.471	7.441-7.501	5.799e+05
51 Mirex	6.337	6.307-6.367	
52 C-Nonachlor	5.549	5.519-5.579	
53 O-Chlordane	4.834	4.804-4.864	
54 T-Nonachlor	5.070	5.040-5.100	
55 1,2-Dichlorobenzene	6.619	6.589-6.649	
56 2,4-DDE	5.000	4.970-5.030	
58 2,4-DDD	5.319	5.289-5.349	
57 2,4-DDT	5.509	5.479-5.539	
$ 32 Decachlorobiphenyl	8.859	8.829-8.889	3.942e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 04-JAN-2010 14:34
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Cal Date : 06-Jan-2010 14:27 cla01575

Calibration File Names:
Level 1: /chem/ecd3a.i/122909p.b/016f1601.d
Level 2: /chem/ecd3a.i/122909p.b/017f1701.d
Level 3: /chem/ecd3a.i/122909p.b/018f1801.d
Level 4: /chem/ecd3a.i/122909p.b/019f1901.d
Level 5: /chem/ecd3a.i/122909p.b/020f2001.d

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
63 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
59 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
3 Aroclor-1016(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
5 alpha-BHC	276561	784147	4754635	10200718	21049732	LINR	3.14094	106421		0.99962
6 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 04-JAN-2010 14:34
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Cal Date : 06-Jan-2010 14:27 cla01575

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
7 gamma-BHC (Lindane)	72701	74595	85079	90182	92753	AVRG		83062		10.89732
8 Chlordane (tech.) (1)	2125	2195	2493	2718	3020	AVRG		2510		14.79274
(2)	2434	2422	2516	2647	2767	AVRG		2557		5.76710
(3)	1197	1289	1370	1508	1671	AVRG		1407		13.25852
(4)	6942	7337	8576	9356	9966	AVRG		8435		15.27981
(5)	1589	1611	1721	1967	2176	AVRG		1813		13.93886
9 Aroclor-1248 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
10 Heptachlor	58234	59729	65888	69450	71957	AVRG		65052		9.17645
11 Aldrin	71701	73132	81746	85512	86578	AVRG		79734		8.69756
12 beta-BHC	33697	34158	35794	37327	38138	AVRG		35823		5.39040
13 delta-BHC	85433	78554	83551	88366	91648	AVRG		85510		5.79014
14 Heptachlor epoxide	64116	66201	73058	75678	77108	AVRG		71232		8.11258
15 Aroclor-1254 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
16 Endosulfan I	49870	58038	63917	67614	68951	AVRG		61678		12.71010
17 gamma-Chlordane	55961	60766	71694	76412	77254	AVRG		68417		13.98957
18 alpha-Chlordane	60988	64350	70992	75249	76181	AVRG		69552		9.61462

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 04-JAN-2010 14:34
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Cal Date : 06-Jan-2010 14:27 cla01575

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
19 4,4'-DDE	57534	65123	71858	73880	74252	AVRG		68529		10.44578
20 Dieldrin	59790	66080	74832	77282	78213	AVRG		71240		11.22467
21 Aroclor-1260 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
22 Endrin	47486	54280	59834	60860	62358	AVRG		56963		10.73404
23 Toxaphene (1)	444	472	490	512	508	AVRG		485		5.76611
(2)	743	763	748	749	767	AVRG		754		1.36434
(3)	740	862	877	929	944	AVRG		870		9.23030
(4)	990	1124	1153	1182	1234	AVRG		1137		8.06830
(5)	1875	1952	1948	2080	2252	AVRG		2022		7.34628
24 Endosulfan II	49326	55378	60871	63009	63876	AVRG		58492		10.42582
25 4,4'-DDD	47927	51737	57470	58511	59767	AVRG		55082		9.15834
26 4,4'-DDT	39019	42785	46192	47764	49225	AVRG		44997		9.13539
27 Endrin aldehyde	45065	47028	50106	51950	52303	AVRG		49291		6.39883
28 Methoxychlor	21372	22510	21814	22169	23055	AVRG		22184		2.90476
29 Endosulfan sulfate	41427	44286	48362	51359	53380	AVRG		47762		10.31419
30 Aroclor-1268 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 04-JAN-2010 14:34
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Cal Date : 06-Jan-2010 14:27 cla01575

	Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
	61 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	31 Endrin ketone	58928	62526	65482	67000	68029	AVRG		64393		5.73505
	51 Mirex	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	52 C-Nonachlor	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	53 O-Chlordane	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	54 T-Nonachlor	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	56 2,4-DDE	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	58 2,4-DDD	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
	57 2,4-DDT	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
M	62 TTO Sum Pesticides	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
$	1 4cmx	62184	64689	69269	71498	71201	AVRG		67768		6.11161
$	32 Decachlorobiphenyl	52742	51351	50693	51959	52544	AVRG		51858		1.63528

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 04-JAN-2010 14:34
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Cal Date : 06-Jan-2010 14:27 cla01575

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 04-JAN-2010 14:34
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Cal Date : 06-Jan-2010 14:27 cla01575

Calibration File Names:
Level 1: /chem/ecd3a.i/122909p.b/016b1601.d
Level 2: /chem/ecd3a.i/122909p.b/017b1701.d
Level 3: /chem/ecd3a.i/122909p.b/018b1801.d
Level 4: /chem/ecd3a.i/122909p.b/019b1901.d
Level 5: /chem/ecd3a.i/122909p.b/020b2001.d

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
61 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
59 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
3 Aroclor-1016(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
5 alpha-BHC	592486	645490	712650	734819	742303	AVRG		685550		9.41061
6 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 04-JAN-2010 14:34
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Cal Date : 06-Jan-2010 14:27 cla01575

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
7 gamma-BHC (Lindane)	534132	559284	592473	609051	611123	AVRG		581213		5.76691
8 Chlordane (tech.) (1)	15279	15419	15641	16410	17082	AVRG		15966		4.76841
(2)	12806	12324	11225	11210	11245	AVRG		11762		6.39789
(3)	7744	6628	6215	6326	7129	AVRG		6808		9.27475
(4)	25690	25900	26043	27518	28578	AVRG		26746		4.68382
(5)	10143	11069	11884	13584	15097	AVRG		12355		16.08411
9 Aroclor-1248 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
10 Heptachlor	470866	424431	411092	409991	401505	AVRG		423577		6.53470
11 Aldrin	376610	380399	382870	385640	374198	AVRG		379943		1.21574
12 beta-BHC	278511	259929	242491	246141	240809	AVRG		253576		6.24553
13 delta-BHC	482552	499526	537510	557981	554700	AVRG		526454		6.41798
14 Heptachlor epoxide	354412	313119	291395	292880	278725	AVRG		306106		9.69608
15 Aroclor-1254 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
16 Endosulfan I	281079	280240	283479	288733	280254	AVRG		282757		1.27081
17 gamma-Chlordane	4850292	3916812	17026465	30525511	60419381	LINR	-7.83263	289556		0.99808
18 alpha-Chlordane	291234	291087	297108	308602	305127	AVRG		298631		2.67655

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 04-JAN-2010 14:34
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Cal Date : 06-Jan-2010 14:27 cla01575

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
19 4,4'-DDE	278756	304027	307644	301488	287373	AVRG		295858		4.14595
20 Dieldrin	326000	343567	358421	356474	343517	AVRG		345596		3.75944
21 Aroclor-1260 (1)	++++++	++++++	++++++	++++++	++++++	AVRG		0.000e+00		0.000e+00
(2)	++++++	++++++	++++++	++++++	++++++	AVRG		0.000e+00		0.000e+00
(3)	++++++	++++++	++++++	++++++	++++++	AVRG		0.000e+00		0.000e+00
(4)	++++++	++++++	++++++	++++++	++++++	AVRG		0.000e+00		0.000e+00
(5)	++++++	++++++	++++++	++++++	++++++	AVRG		0.000e+00		0.000e+00
22 Endrin	316067	337890	351053	344276	332891	AVRG		336435		3.94526
23 Toxaphene (1)	4702	4871	4804	5615	5337	AVRG		5066		7.73537
(2)	2723	2764	2831	3440	3194	AVRG		2991		10.45886
(3)	5066	5867	5840	6796	6496	AVRG		6013		11.13937
(4)	9489	10306	10382	11696	11124	AVRG		10599		7.95706
(5)	17216	18854	18845	20949	19876	AVRG		19148		7.23958
24 Endosulfan II	395303	398504	402416	396779	381309	AVRG		394862		2.03351
25 4,4'-DDD	312158	339873	357461	355029	344733	AVRG		341851		5.29621
26 4,4'-DDT	342502	356330	366055	366434	363334	AVRG		358931		2.79688
27 Endrin aldehyde	373105	384294	394907	389729	374311	AVRG		383269		2.48136
28 Methoxychlor	197394	206017	192312	191121	203032	AVRG		197975		3.28939
29 Endosulfan sulfate	410698	449073	490706	503932	497818	AVRG		470446		8.44100
30 Aroclor-1268 (1)	++++++	++++++	++++++	++++++	++++++	AVRG		0.000e+00		0.000e+00
(2)	++++++	++++++	++++++	++++++	++++++	AVRG		0.000e+00		0.000e+00
(3)	++++++	++++++	++++++	++++++	++++++	AVRG		0.000e+00		0.000e+00
(4)	++++++	++++++	++++++	++++++	++++++	AVRG		0.000e+00		0.000e+00
(5)	++++++	++++++	++++++	++++++	++++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 04-JAN-2010 14:34
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Cal Date : 06-Jan-2010 14:27 cla01575

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
60 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
31 Endrin ketone	541199	572073	595633	596245	594217	AVRG		579873		4.11607
51 Mirex	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
52 C-Nonachlor	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
53 O-Chlordane	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
54 T-Nonachlor	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
56 2,4-DDE	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
58 2,4-DDD	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
57 2,4-DDT	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
$ 1 4cmx	518207	520695	506775	489669	464811	AVRG		500031		4.63725
$ 32 Decachlorobiphenyl	409909	395716	383952	390399	390899	AVRG		394175		2.47088

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 04-JAN-2010 14:34
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Cal Date : 06-Jan-2010 14:27 cla01575

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010410p.b/006f0601.d
Lab Smp Id: WPE100104-01AB Client Smp ID: INDAB01
Inj Date : 04-JAN-2010 13:40
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100104-01AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 20:42 Cal File: 016f1601.d
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.085	3.082	0.003	276561	4.00000	5.74	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.330	3.328	0.002	290803	4.00000	3.50	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.395	3.392	0.003	134787	4.00000	3.76	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.714	3.711	0.003	232938	4.00000	3.58	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.543	3.539	0.004	341731	4.00000	4.00	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.972	3.969	0.003	286805	4.00000	3.60	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.509	4.504	0.005	256463	4.00000	3.60	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.623	4.619	0.004	223845	4.00000	3.27	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.747	4.743	0.004	243951	4.00000	3.51	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.879	4.874	0.005	199480	4.00000	3.23	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.814	4.810	0.004	460269	8.00000	6.72	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.106	5.103	0.003	478321	8.00000	6.71	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.335	5.331	0.004	379886	8.00000	6.67	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.398	5.393	0.005	383417	8.00000	6.96	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.560	5.555	0.005	394609	8.00000	6.75	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.985	5.980	0.005	360517	8.00000	7.31	80.00- 120.00	100.00(M)
26 4,4'-DDT					CAS #: 50-29-3		
5.677	5.672	0.005	312153	8.00000	6.94	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.438	6.433	0.005	331414	8.00000	6.94	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.181	6.176	0.005	854896	40.0000	38.5	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.736	6.730	0.006	471425	8.00000	7.32	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.677	2.676	0.001	497472	8.00000	7.34	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.828	7.823	0.005	421935	8.00000	8.14	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010410p.b/006f0601.d

Date : 04-JAN-2010 13:40

Client ID: INDAB01

Sample Info: IWPE100104-01AB

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

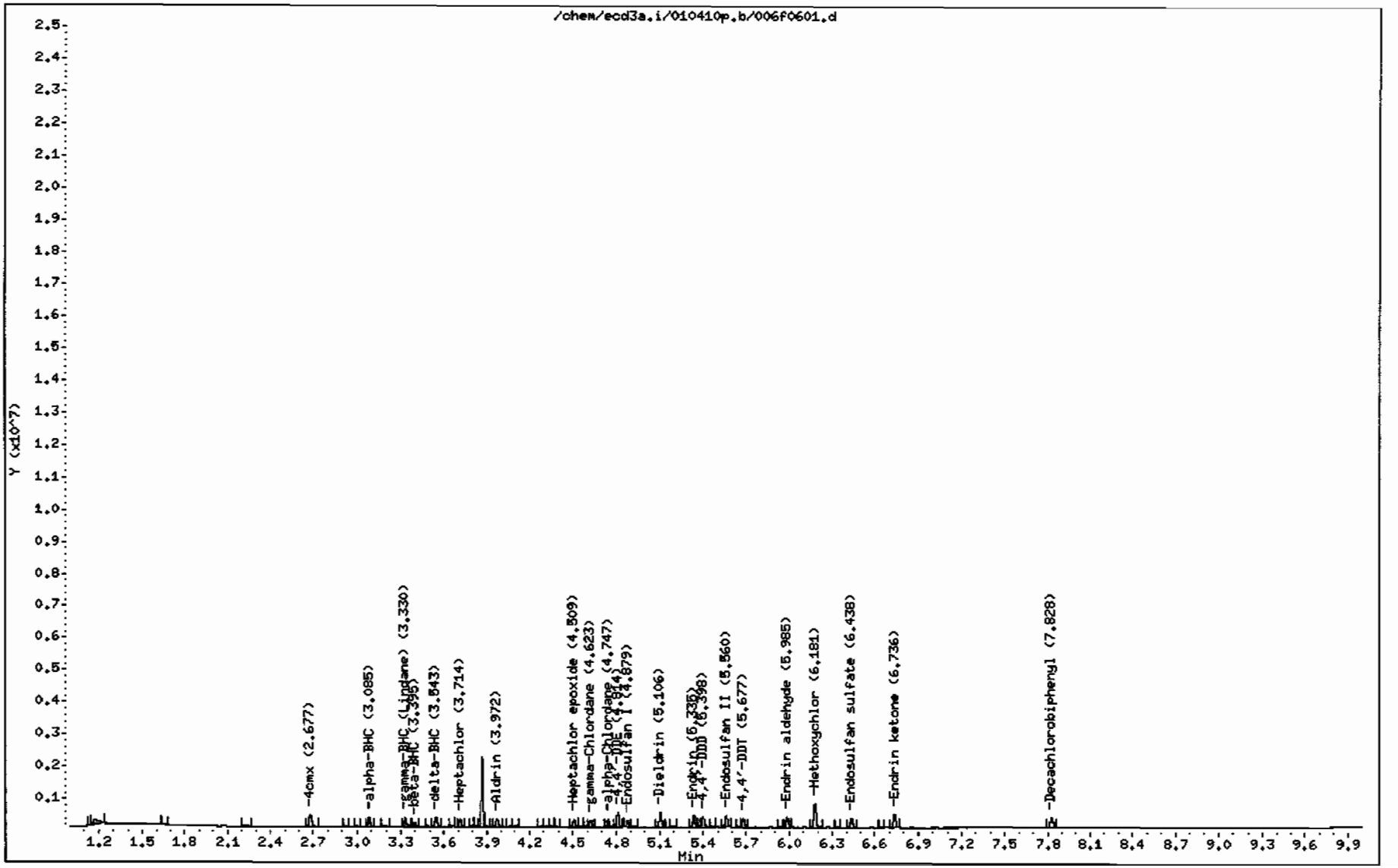

Comment: Manually Integrated
Data File: /chem/ecd3a.i/010410p.b/006f0601.d
Operator: HXJ1
Injection Date: 04-JAN-2010 13:40
Instrument: ecd3a.i
Client Sample ID: INDAB01

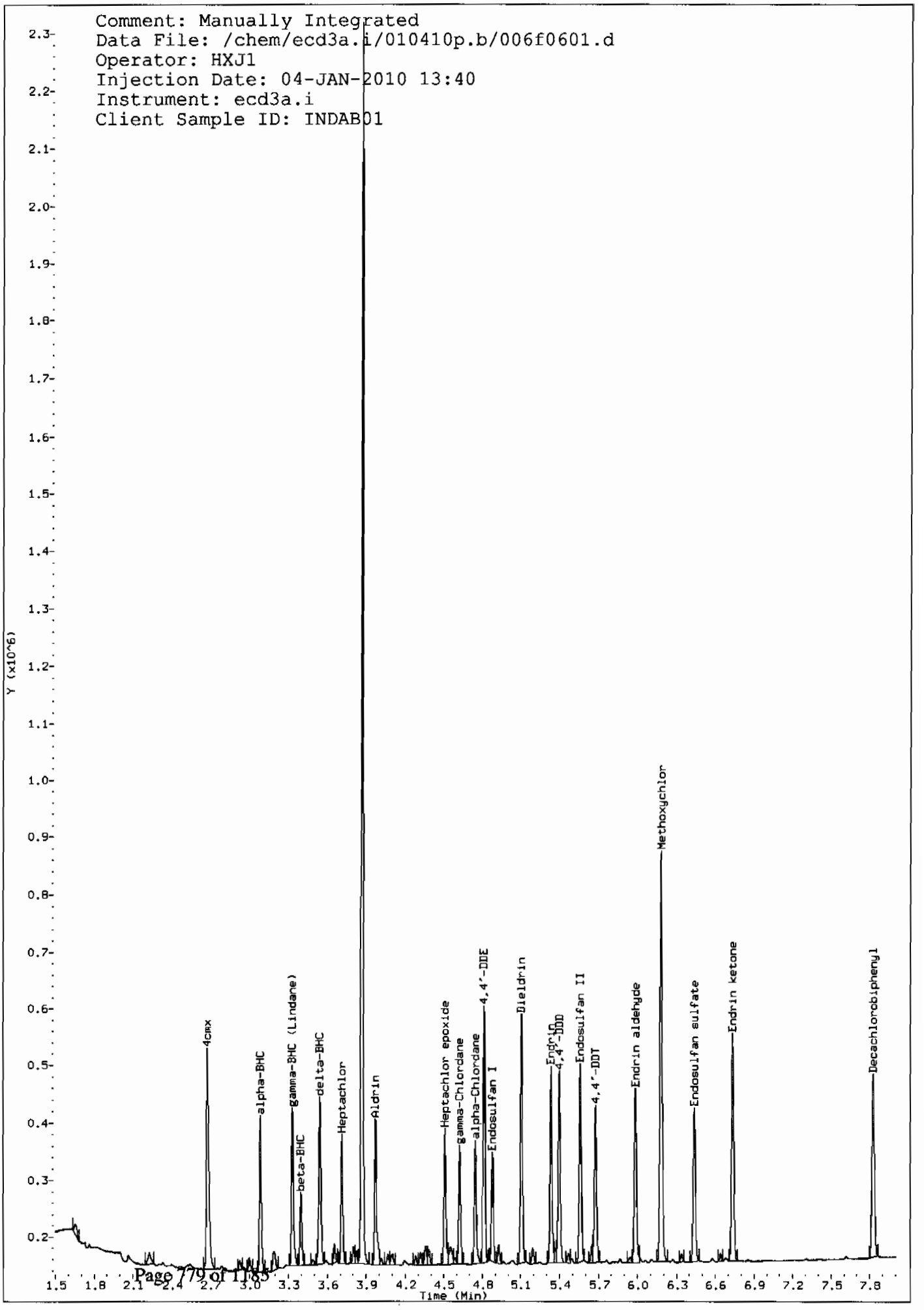

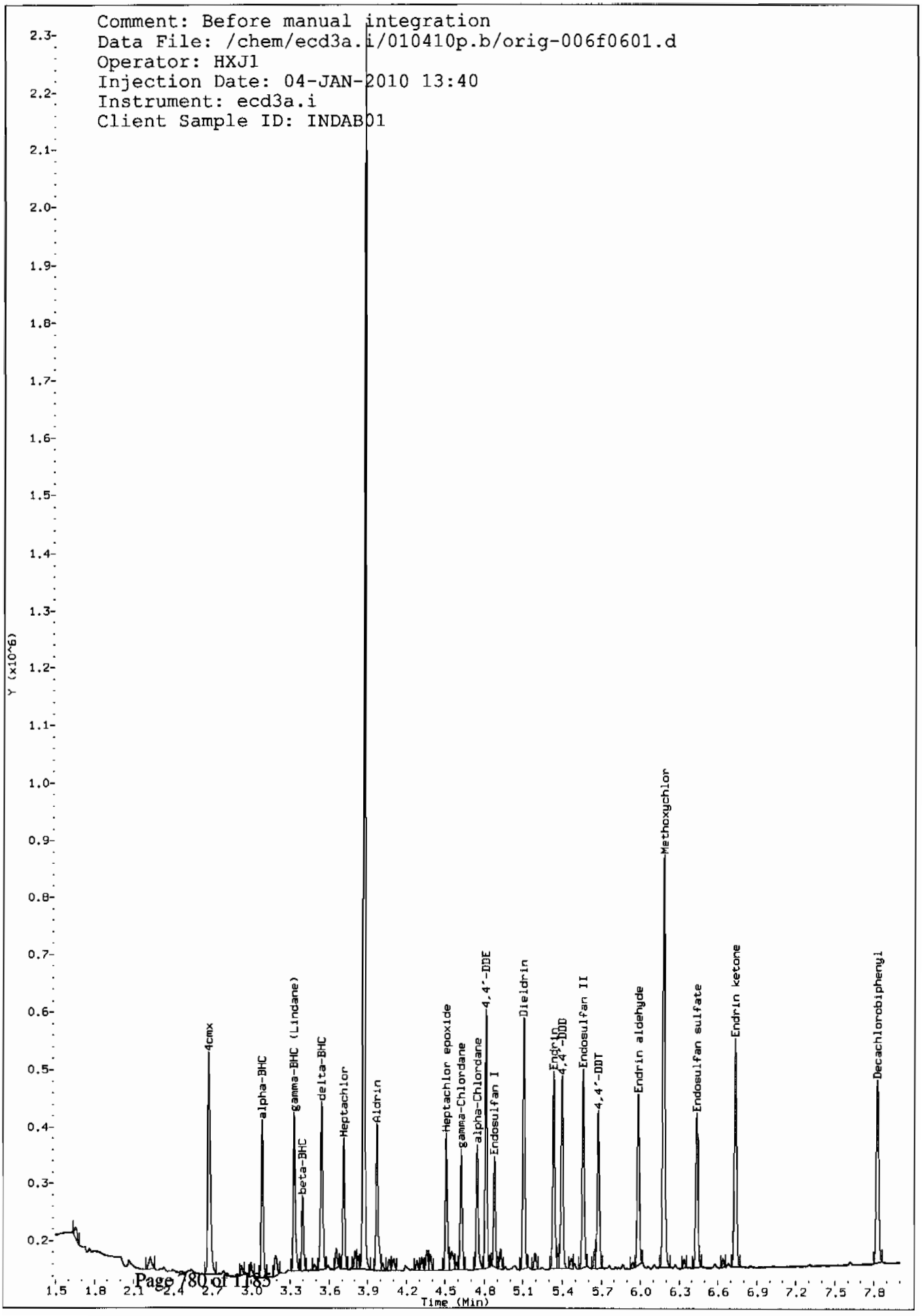
Comment: Before manual integration
Data File: /chem/ecd3a.i/010410p.b/orig-006f0601.d
Operator: HXJ1
Injection Date: 04-JAN-2010 13:40
Instrument: ecd3a.i
Client Sample ID: INDAB01
Y (x10^6)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010410p.b/006b0601.d
Lab Smp Id: WPE100104-01AB Client Smp ID: INDAB01
Inj Date : 04-JAN-2010 13:40
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100104-01AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 20:42 Cal File: 016b1601.d
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.414	3.413	0.001	2369946	4.00000	3.46	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.723	3.722	0.001	2136529	4.00000	3.68	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.786	3.784	0.002	1114045	4.00000	4.39	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.138	4.135	0.003	1883465	4.00000	4.45	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.057	4.056	0.001	1930210	4.00000	3.67	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.449	4.447	0.002	1506440	4.00000	3.96	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.999	4.998	0.001	1417648	4.00000	4.63	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.193	5.188	0.005	4850292	4.00000	8.92	80.00- 120.00	100.00(M)
18 alpha-Chlordane					CAS #: 5103-71-9		
5.338	5.336	0.002	1164936	4.00000	3.90	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.401	5.399	0.002	1124316	4.00000	3.98	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.495	5.493	0.002	2230046	8.00000	7.54	80.00- 120.00	100.00(M)
20 Dieldrin					CAS #: 60-57-1		
5.682	5.679	0.003	2608004	8.00000	7.55	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.002	5.999	0.003	2528533	8.00000	7.52	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.102	6.099	0.003	2497267	8.00000	7.30	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.223	6.220	0.003	3162424	8.00000	8.01	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.580	6.576	0.004	2984842	8.00000	7.79	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.442	6.438	0.004	2740015	8.00000	7.63	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.882	6.879	0.003	3285584	8.00000	6.98	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.183	7.180	0.003	7895744	40.0000	39.9	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.474	7.471	0.003	4329589	8.00000	7.47	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.921	2.920	0.001	4145656	8.00000	8.29	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.862	8.859	0.003	3279274	8.00000	8.32	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010410p.b/006b0601.d

Date : 04-JAN-2010 13:40

Client ID: INDAB01

Sample Info: IWPE100104-01AB

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

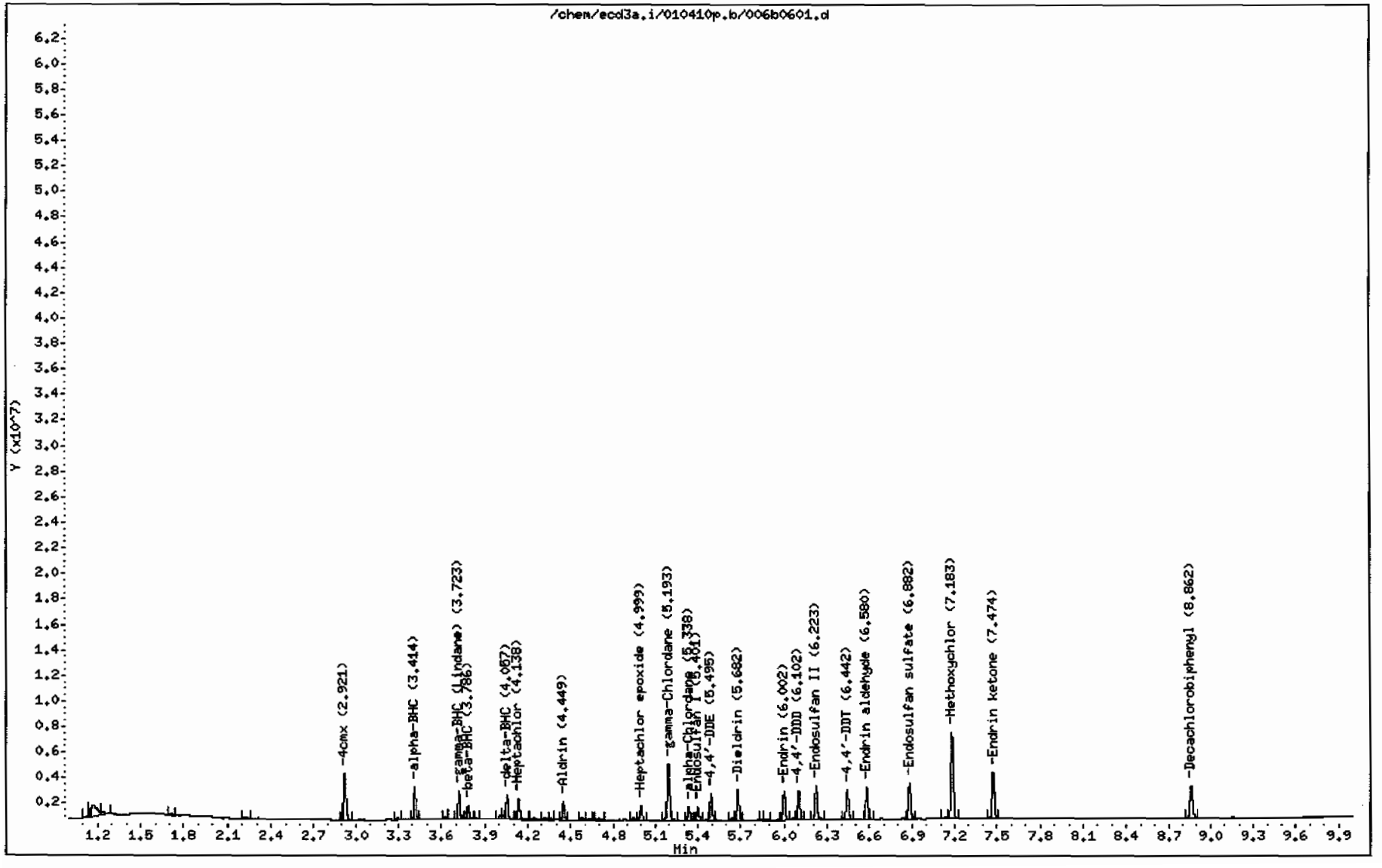

Comment: Manually Integrated
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Operator: HXJ1
Injection Date: 04-JAN-2010 13:40
Instrument: ecd3a.i
Client Sample ID: INDAB01

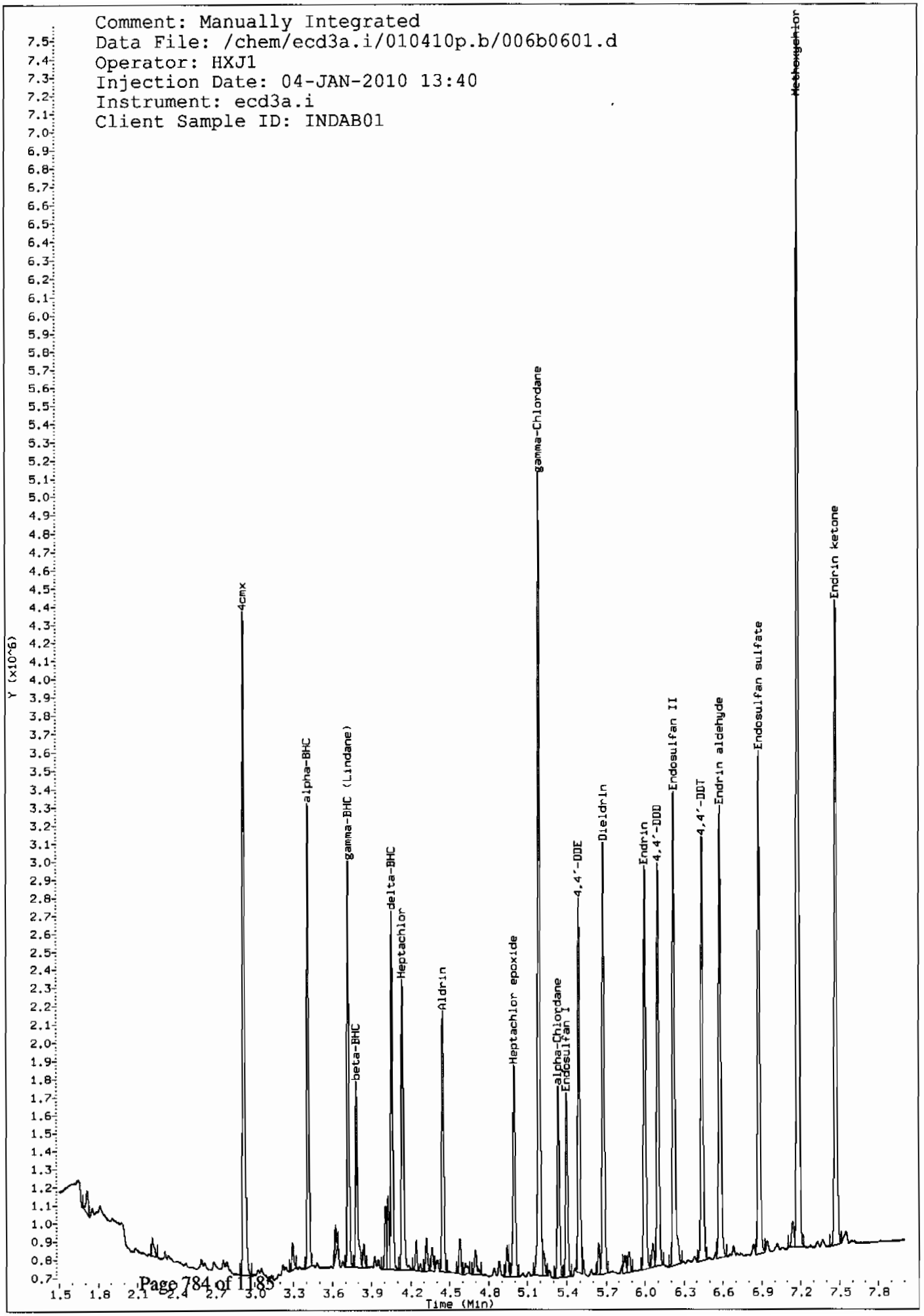

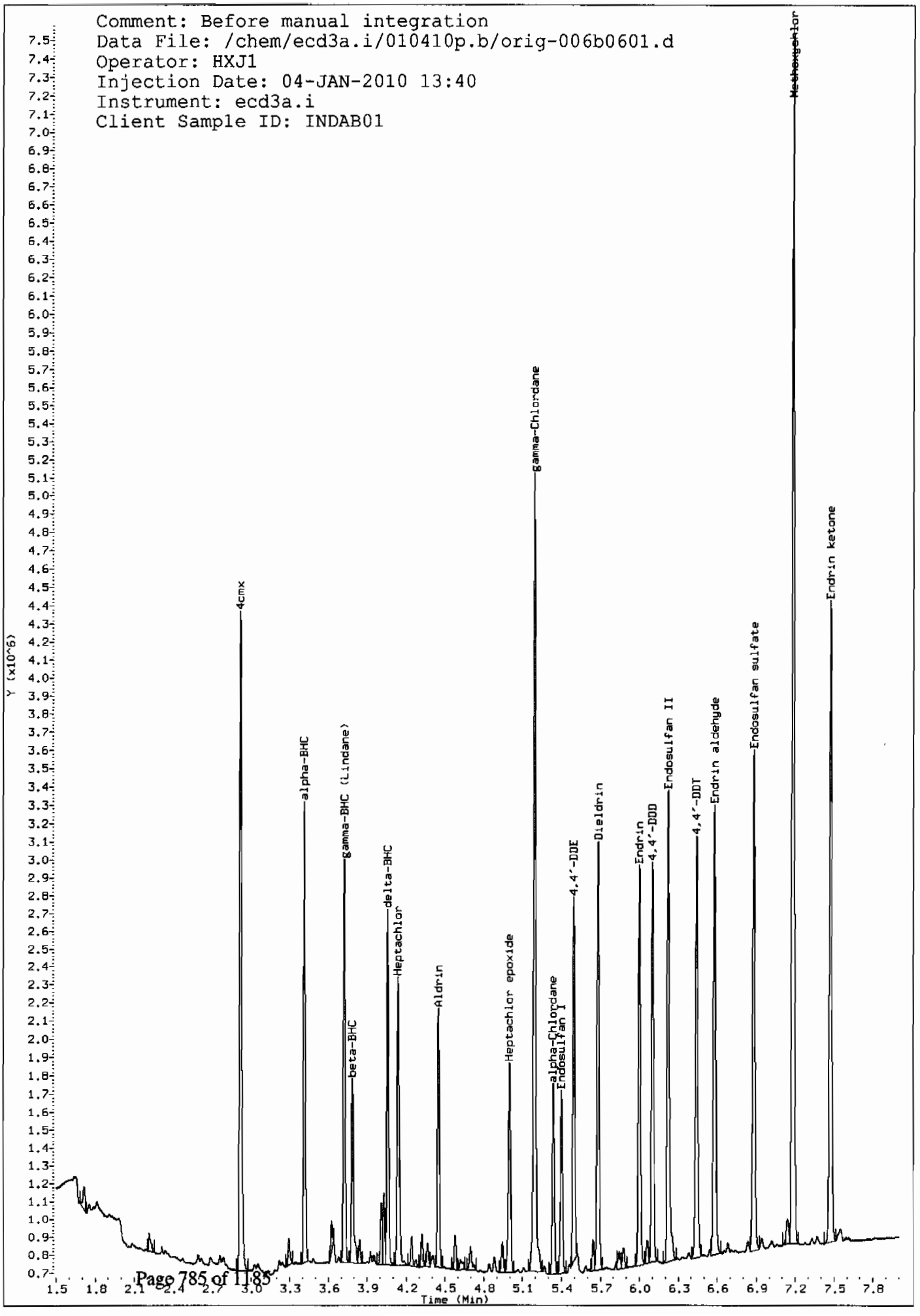
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Operator: HXJ1
Injection Date: 04-JAN-2010 13:40
Instrument: ecd3a.i
Client Sample ID: INDAB01
Y (x10^6)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone

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CLP-1

Data file : /chem/ecd3a.i/010410p.b/007f0701.d
Lab Smp Id: WPE100104-02AB Client Smp ID: INDAB02
Inj Date : 04-JAN-2010 13:53
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100104-02AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:14 Cal File: 017f1701.d
Als bottle: 7 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.083	3.082	0.001	784147	10.0000	10.5	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.327	3.328	-0.001	745949	10.0000	8.98	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.392	3.392	0.000	341584	10.0000	9.54	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.711	3.711	0.000	597293	10.0000	9.18	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.541	3.539	0.002	785543	10.0000	9.19	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.968	3.969	-0.001	731325	10.0000	9.17	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.505	4.504	0.001	662014	10.0000	9.29	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.620	4.619	0.001	607655	10.0000	8.88	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.743	4.743	0.000	643502	10.0000	9.25	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.875	4.874	0.001	580379	10.0000	9.41	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.811	4.810	0.001	1302458	20.0000	19.0	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.103	5.103	0.000	1321599	20.0000	18.6	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.332	5.331	0.001	1085600	20.0000	19.0	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.395	5.393	0.002	1034733	20.0000	18.8	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.556	5.555	0.001	1107556	20.0000	18.9	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.982	5.980	0.002	940568	20.0000	19.1	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.674	5.672	0.002	855706	20.0000	19.0	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.434	6.433	0.001	885711	20.0000	18.5	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.177	6.176	0.001	2251041	100.000	101	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.733	6.730	0.003	1250522	20.0000	19.4	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.676	2.676	0.000	1293783	20.0000	19.1	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.824	7.823	0.001	1027028	20.0000	19.8	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/007f0701.d
Date : 04-JAN-2010 13:53
Client ID: INDAB02
Sample Info: IWPE100104-02AB

Instrument: ecd3a.i

Column phase: CLP-1

Operator: HXJ1
Column diameter: 0.25

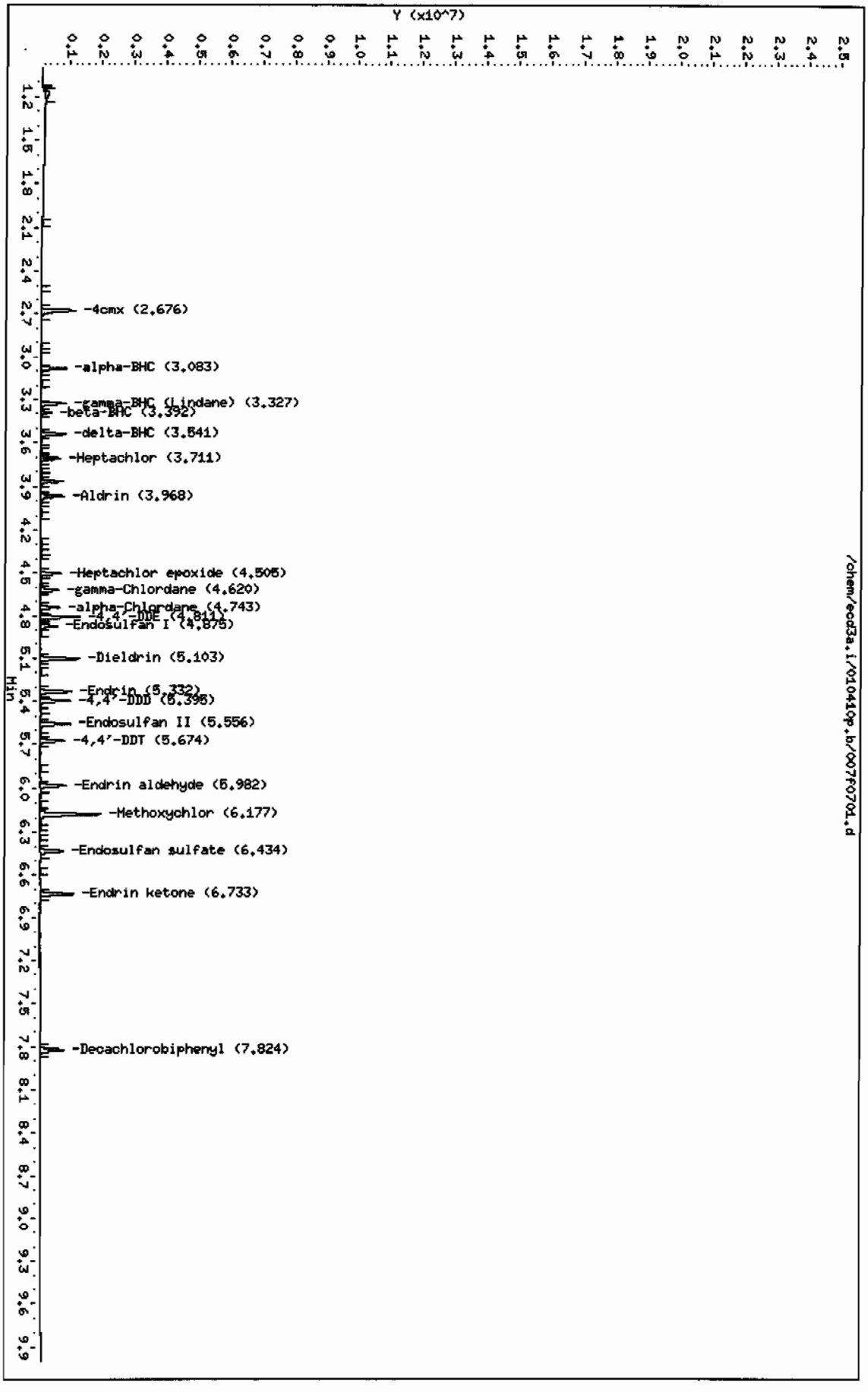

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CLP-2

Data file : /chem/ecd3a.i/010410p.b/007b0701.d
Lab Smp Id: WPE100104-02AB Client Smp ID: INDAB02
Inj Date : 04-JAN-2010 13:53
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100104-02AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:14 Cal File: 017b1701.d
Als bottle: 7 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.412	3.413	-0.001	6454898	10.0000	9.42	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.721	3.722	-0.001	5592839	10.0000	9.62	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.783	3.784	-0.001	2599287	10.0000	10.2	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.135	4.135	0.000	4244312	10.0000	10.0	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.056	4.056	0.000	4995261	10.0000	9.49	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.447	4.447	0.000	3803994	10.0000	10.0	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.997	4.998	-0.001	3131193	10.0000	10.2	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.190	5.188	0.002	3916812	10.0000	5.69	80.00- 120.00	100.00(M)
18 alpha-Chlordane					CAS #: 5103-71-9		
5.336	5.336	0.000	2910870	10.0000	9.75	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.399	5.399	0.000	2802399	10.0000	9.91	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.493	5.493	0.000	6080542	20.0000	20.6	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.680	5.679	0.001	6871344	20.0000	19.9	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.999	5.999	0.000	6757804	20.0000	20.1	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.100	6.099	0.001	6797459	20.0000	19.9	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.221	6.220	0.001	7970072	20.0000	20.2	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.577	6.576	0.001	7685885	20.0000	20.0	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.439	6.438	0.001	7126600	20.0000	19.8	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.880	6.879	0.001	8981469	20.0000	19.1	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.181	7.180	0.001	20601702	100.000	104	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.472	7.471	0.001	11441463	20.0000	19.7	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	10413895	20.0000	20.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.860	8.859	0.001	7914314	20.0000	20.1	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010410p.b/007b0701.d
Date : 04-JAN-2010 13:53
Client ID: INDA802
Sample Info: IWPE100104-02AB
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

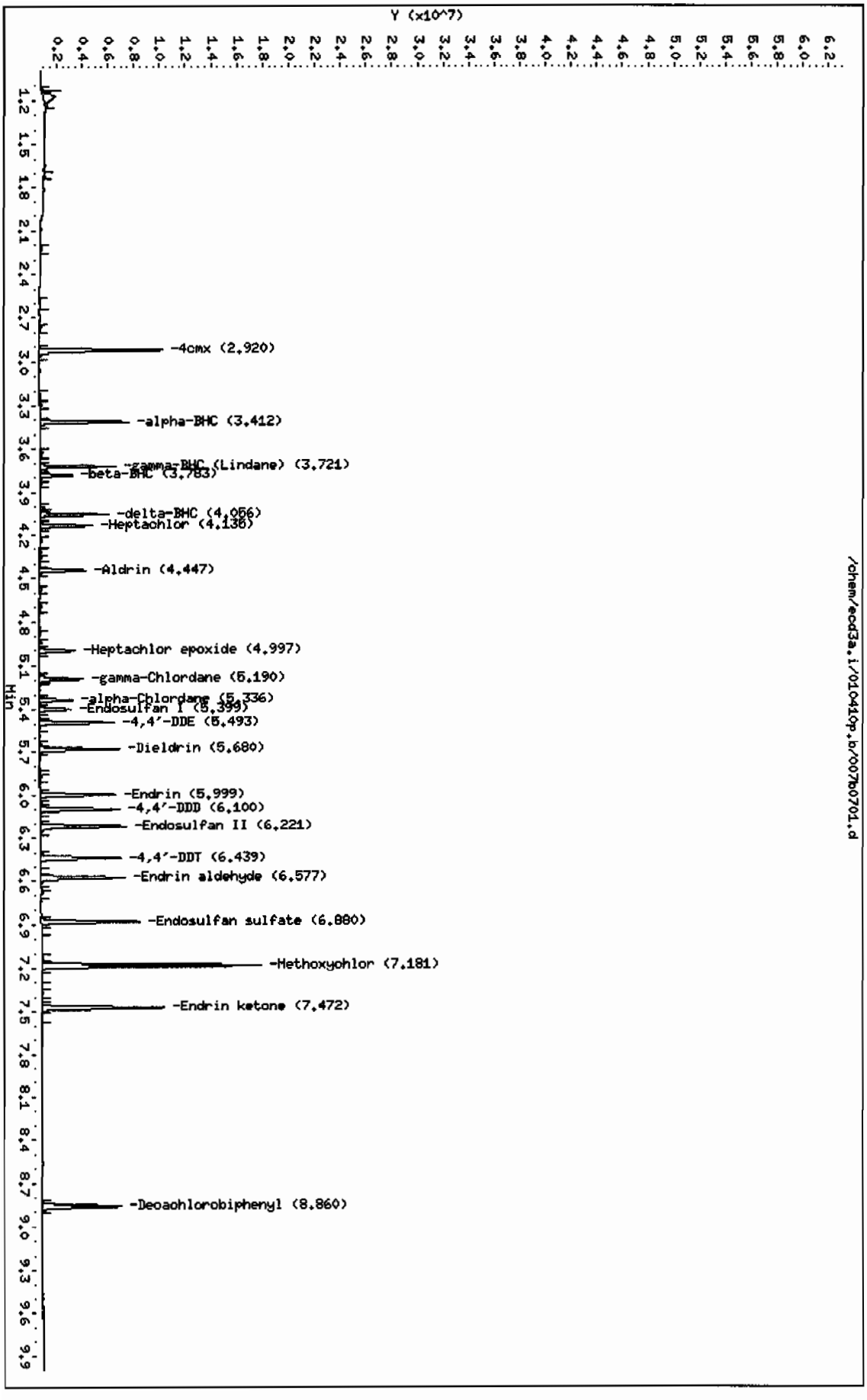

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Page 1

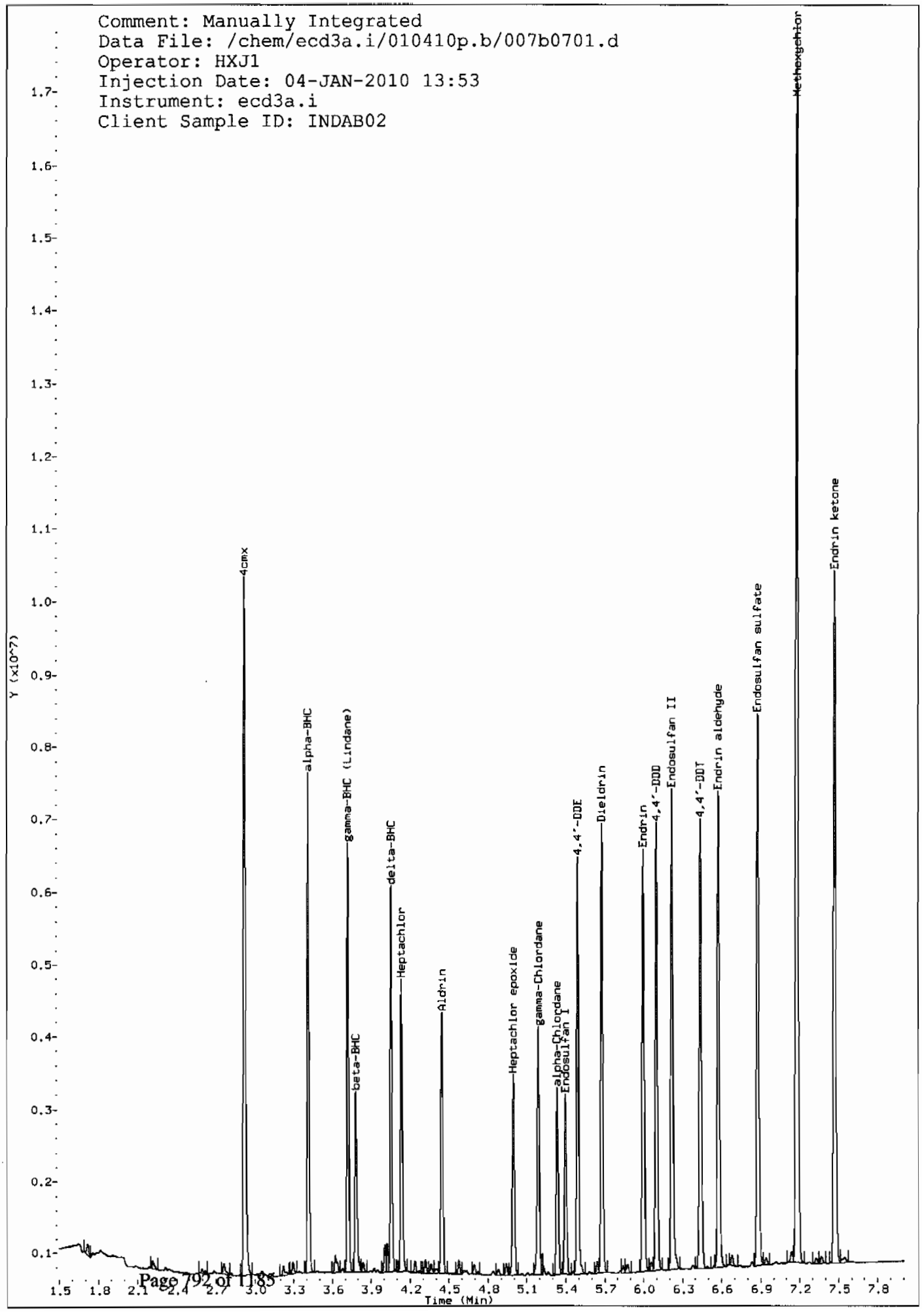
Comment: Manually Integrated
Data File: /chem/ecd3a.i/010410p.b/007b0701.d
Operator: HXJ1
Injection Date: 04-JAN-2010 13:53
Instrument: ecd3a.i
Client Sample ID: INDAB02
Y (x10^7)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone

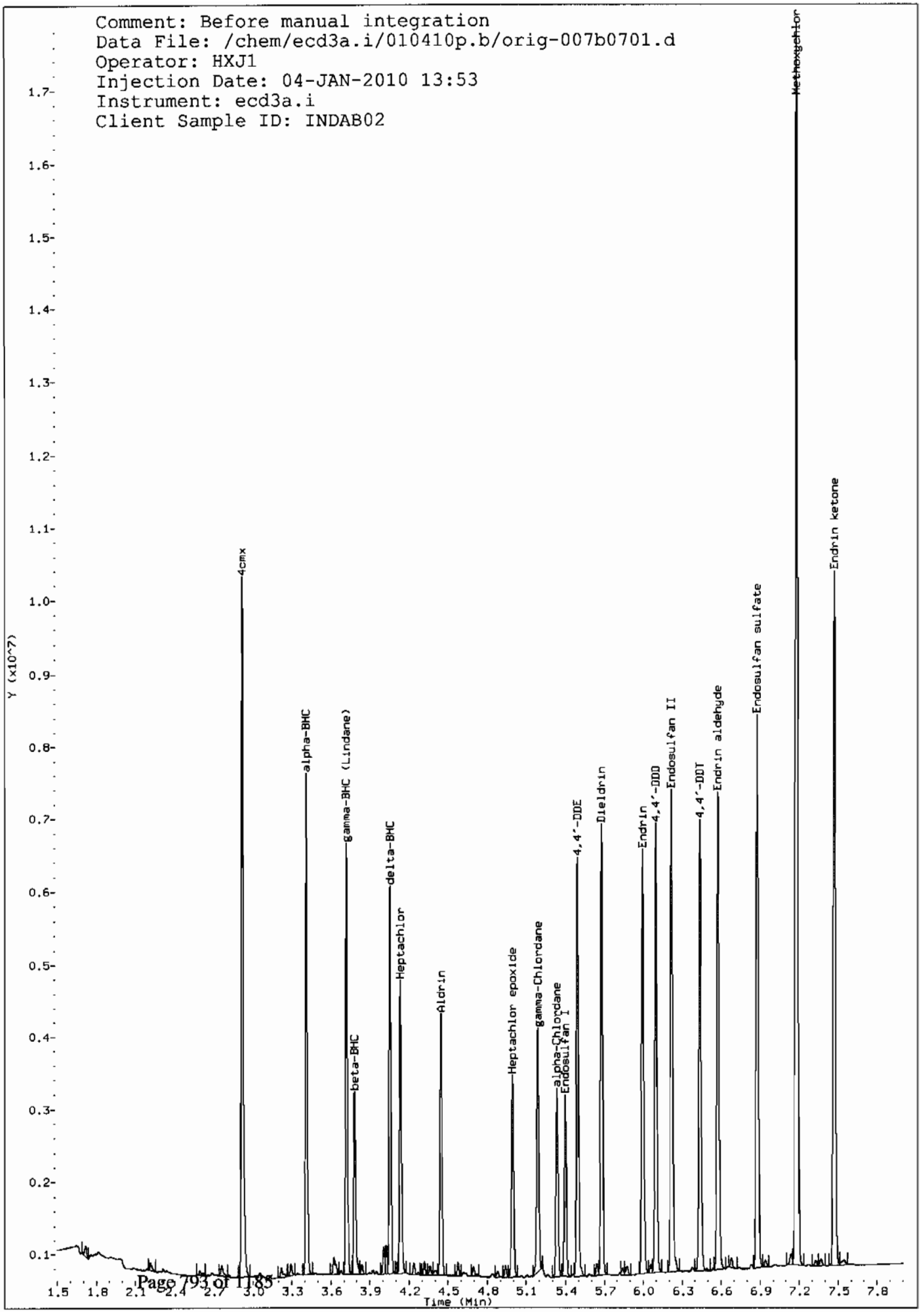
Comment: Before manual integration
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Operator: HXJ1
Injection Date: 04-JAN-2010 13:53
Instrument: ecd3a.i
Client Sample ID: INDAB02
Y (x10^7)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone

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CLP-1

Data file : /chem/ecd3a.i/010410p.b/008f0801.d
Lab Smp Id: WPE100104-03AB Client Smp ID: INDAB03
Inj Date : 04-JAN-2010 14:07
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100104-03AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:28 Cal File: 018f1801.d
Als bottle: 8 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.083	3.082	0.001	4754635	50.0000	47.8	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.327	3.328	-0.001	4253959	50.0000	51.2	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.392	3.392	0.000	1789693	50.0000	50.0	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.711	3.711	0.000	3294394	50.0000	50.6	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.540	3.539	0.001	4177542	50.0000	48.8	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.968	3.969	-0.001	4087294	50.0000	51.3	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.504	4.504	0.000	3652911	50.0000	51.3	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.620	4.619	0.001	3584688	50.0000	52.4	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.743	4.743	0.000	3549577	50.0000	51.0	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.875	4.874	0.001	3195859	50.0000	51.8	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.810	4.810	0.000	7185756	100.000	105	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.103	5.103	0.000	7483234	100.000	105	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.332	5.331	0.001	5983426	100.000	105	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.393	5.393	0.000	5747042	100.000	104	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.556	5.555	0.001	6087145	100.000	104	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.980	5.980	0.000	5010612	100.000	102	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.672	5.672	0.000	4619246	100.000	103	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.432	6.433	-0.001	4836166	100.000	101	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.176	6.176	0.000	10907214	500.000	492	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.732	6.730	0.002	6548224	100.000	102	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.676	2.676	0.000	6926948	100.000	102	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.823	7.823	0.000	5069274	100.000	97.8	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/008f0801.d
Date : 04-JAN-2010 14:07
Client ID: INDAB03
Sample Info: IWPE100104-03AB

Instrument: ecd3a.i

Column phase: CLP-1

Operator: HXJ1
Column diameter: 0.25

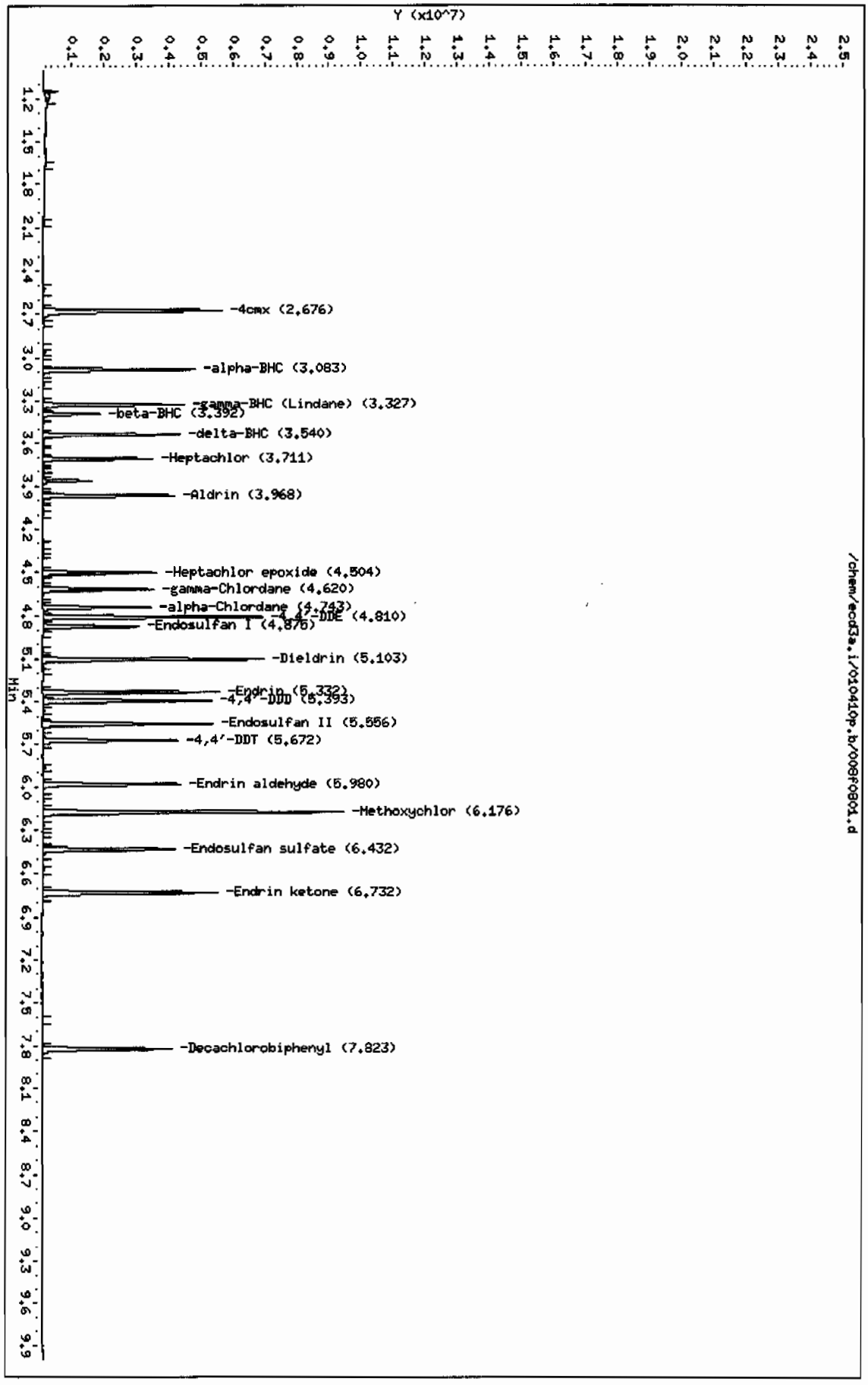

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CLP-2

Data file : /chem/ecd3a.i/010410p.b/008b0801.d
Lab Smp Id: WPE100104-03AB Client Smp ID: INDAB03
Inj Date : 04-JAN-2010 14:07
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100104-03AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:28 Cal File: 018b1801.d
Als bottle: 8 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.413	3.413	0.000	35632520	50.0000	52.0	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.722	3.722	0.000	29623669	50.0000	51.0	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.783	3.784	-0.001	12124568	50.0000	47.8	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.135	4.135	0.000	20554587	50.0000	48.5	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.056	4.056	0.000	26875475	50.0000	51.0	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.447	4.447	0.000	19143494	50.0000	50.4	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.998	4.998	0.000	14569757	50.0000	47.6	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.189	5.188	0.001	17026465	50.0000	51.0	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.335	5.336	-0.001	14855391	50.0000	49.7	80.00- 120.00	100.00

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.399	5.399	0.000	14173960	50.0000	50.1	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.493	5.493	0.000	30764424	100.000	104	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.679	5.679	0.000	35842067	100.000	104	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.999	5.999	0.000	35105313	100.000	104	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.099	6.099	0.000	35746077	100.000	104	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.220	6.220	0.000	40241642	100.000	102	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.577	6.576	0.001	39490739	100.000	103	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.438	6.438	0.000	36605539	100.000	102	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.880	6.879	0.001	49070628	100.000	104	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.180	7.180	0.000	96155750	500.000	486	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.472	7.471	0.001	59563271	100.000	103	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	50677542	100.000	101	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.859	8.859	0.000	38395215	100.000	97.4	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/0086b0801.d
Date : 04-JAN-2010 14:07
Client ID: INDAB03
Sample Info: IWPE100104-03AB
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJL
Column diameter: 0.25

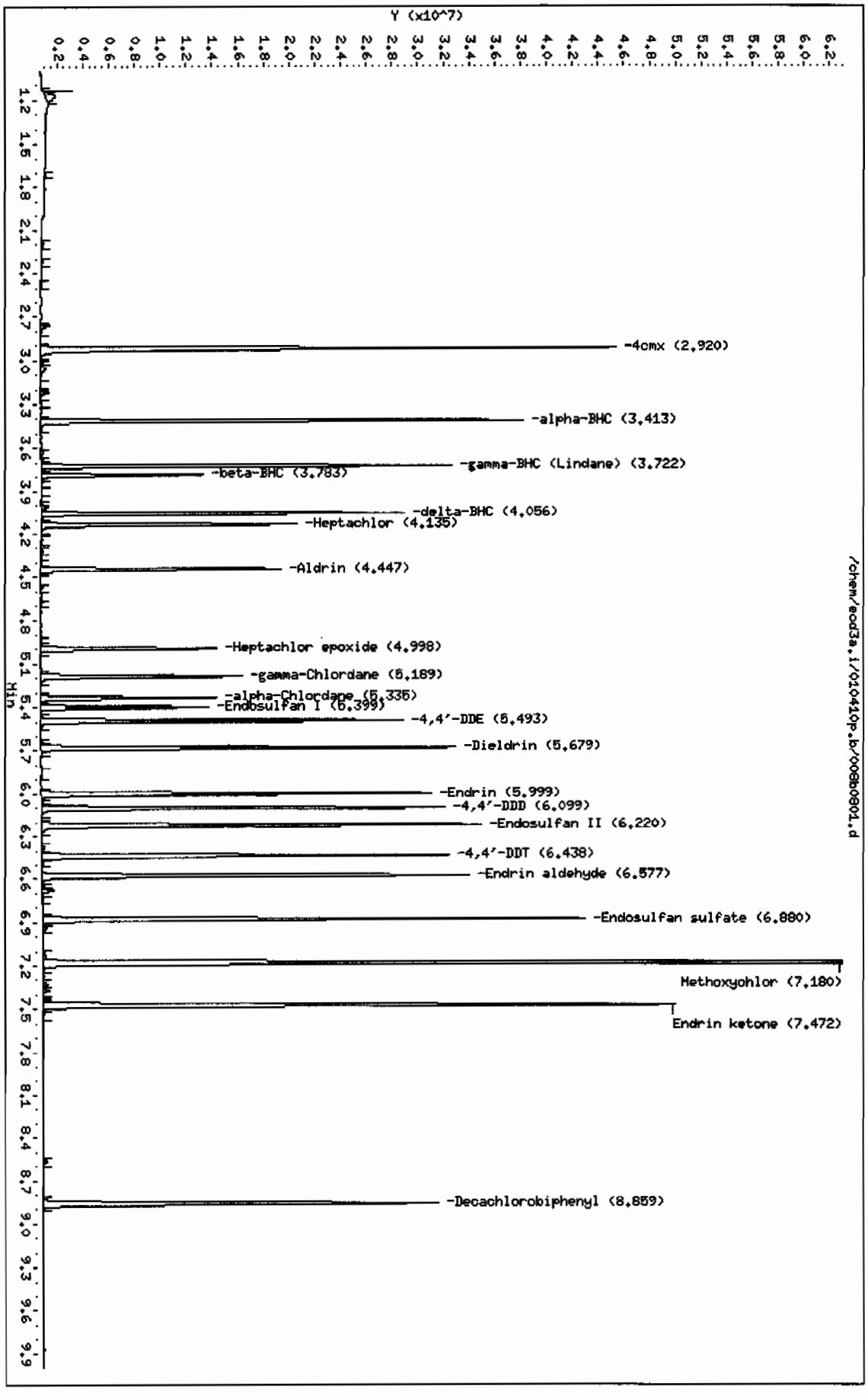

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CLP-1

Data file : /chem/ecd3a.i/010410p.b/009f0901.d
Lab Smp Id: WPE100104-04AB Client Smp ID: INDAB04
Inj Date : 04-JAN-2010 14:21
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100104-04AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:41 Cal File: 019f1901.d
Als bottle: 9 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.083	3.082	0.001	10200718	100.000	99.0	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.327	3.328	-0.001	9018214	100.000	108	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.392	3.392	0.000	3732698	100.000	104	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.711	3.711	0.000	6945040	100.000	107	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.540	3.539	0.001	8836628	100.000	103	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.968	3.969	-0.001	8551164	100.000	107	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.504	4.504	0.000	7567762	100.000	106	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.619	4.619	0.000	7641165	100.000	112	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.743	4.743	0.000	7524853	100.000	108	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.875	4.874	0.001	6761399	100.000	110	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.810	4.810	0.000	14776064	200.000	216	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.103	5.103	0.000	15456486	200.000	217	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.331	5.331	0.000	12171942	200.000	214	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.392	5.393	-0.001	11702222	200.000	212	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.555	5.555	0.000	12601710	200.000	215	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.980	5.980	0.000	10390053	200.000	211	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.671	5.672	-0.001	9552875	200.000	212	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.432	6.433	-0.001	10271704	200.000	215	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.175	6.176	-0.001	22168766	1000.00	999	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.730	6.730	0.000	13399918	200.000	208	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.676	2.676	0.000	14299693	200.000	211	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.823	7.823	0.000	10391820	200.000	200	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/009f0901.d
Date : 04-JAN-2010 14:21
Client ID: INDAB04
Sample Info: IWPE100104-04AB

Instrument: ecd3a.i

Operator: HXJI

Column phase: CLP-1

Column diameter: 0.25

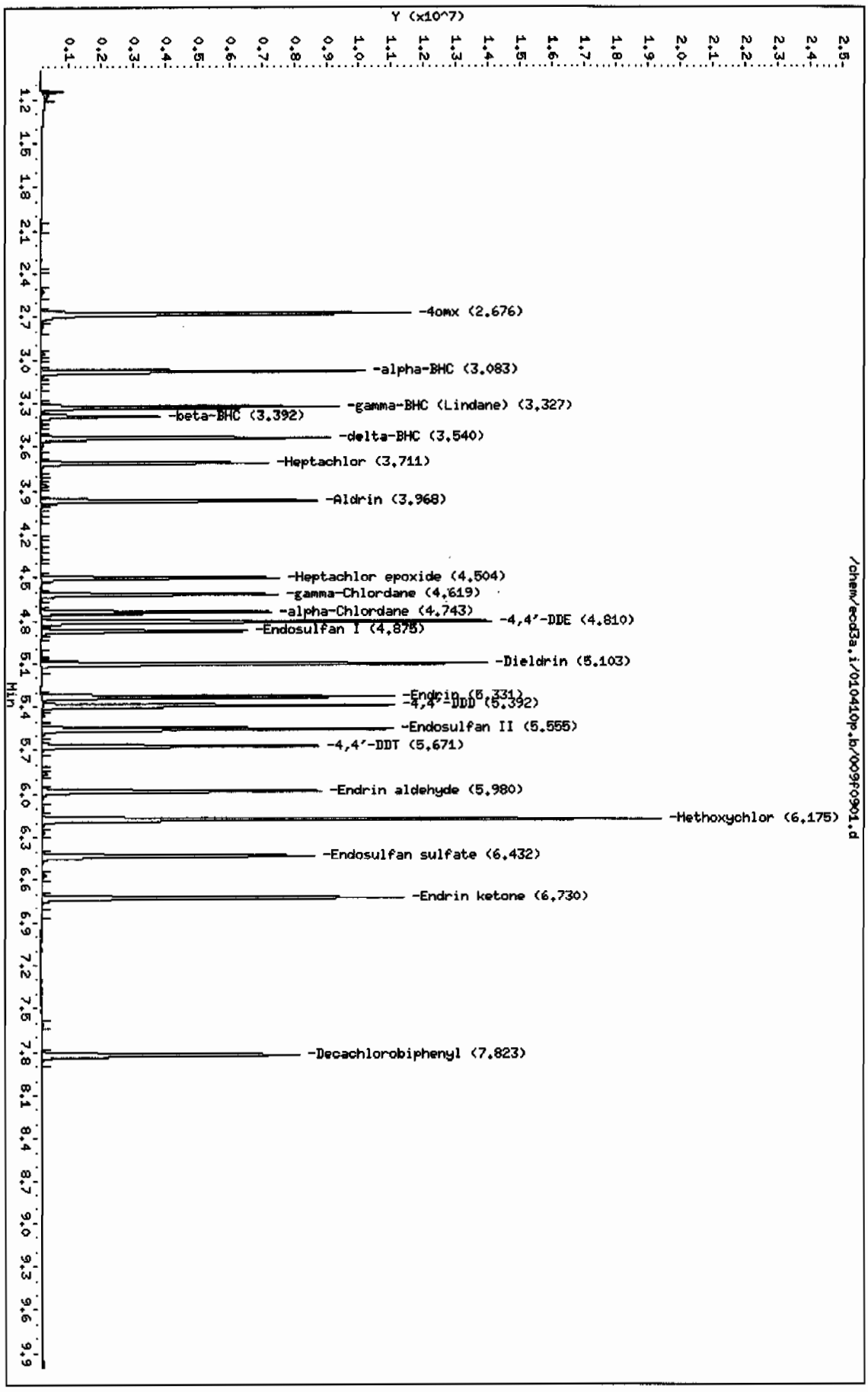

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CLP-2

Data file : /chem/ecd3a.i/010410p.b/009b0901.d
Lab Smp Id: WPE100104-04AB Client Smp ID: INDAB04
Inj Date : 04-JAN-2010 14:21
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100104-04AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:41 Cal File: 019b1901.d
Als bottle: 9 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.413	3.413	0.000	73481904	100.000	107	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.722	3.722	0.000	60905089	100.000	105	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.784	3.784	0.000	24614136	100.000	97.1	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.135	4.135	0.000	40999120	100.000	96.8	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.056	4.056	0.000	55798057	100.000	106	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.447	4.447	0.000	38563960	100.000	101	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.998	4.998	0.000	29288009	100.000	95.7	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.188	5.188	0.000	30525511	100.000	97.6	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.336	5.336	0.000	30860152	100.000	103	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.399	5.399	0.000	28873269	100.000	102	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.493	5.493	0.000	60297555	200.000	204	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.679	5.679	0.000	71294724	200.000	206	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.999	5.999	0.000	68855183	200.000	205	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.099	6.099	0.000	71005713	200.000	208	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.220	6.220	0.000	79355830	200.000	201	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.576	6.576	0.000	77945823	200.000	203	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.438	6.438	0.000	73286744	200.000	204	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.879	6.879	0.000	100786451	200.000	214	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.180	7.180	0.000	191121221	1000.00	965	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.471	7.471	0.000	119249051	200.000	206	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	97933889	200.000	196	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.859	8.859	0.000	78079767	200.000	198	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/009b0901.d
Date : 04-JAN-2010 14:21
Client ID: INDAB04
Sample Info: IWPE100104-04AB

Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

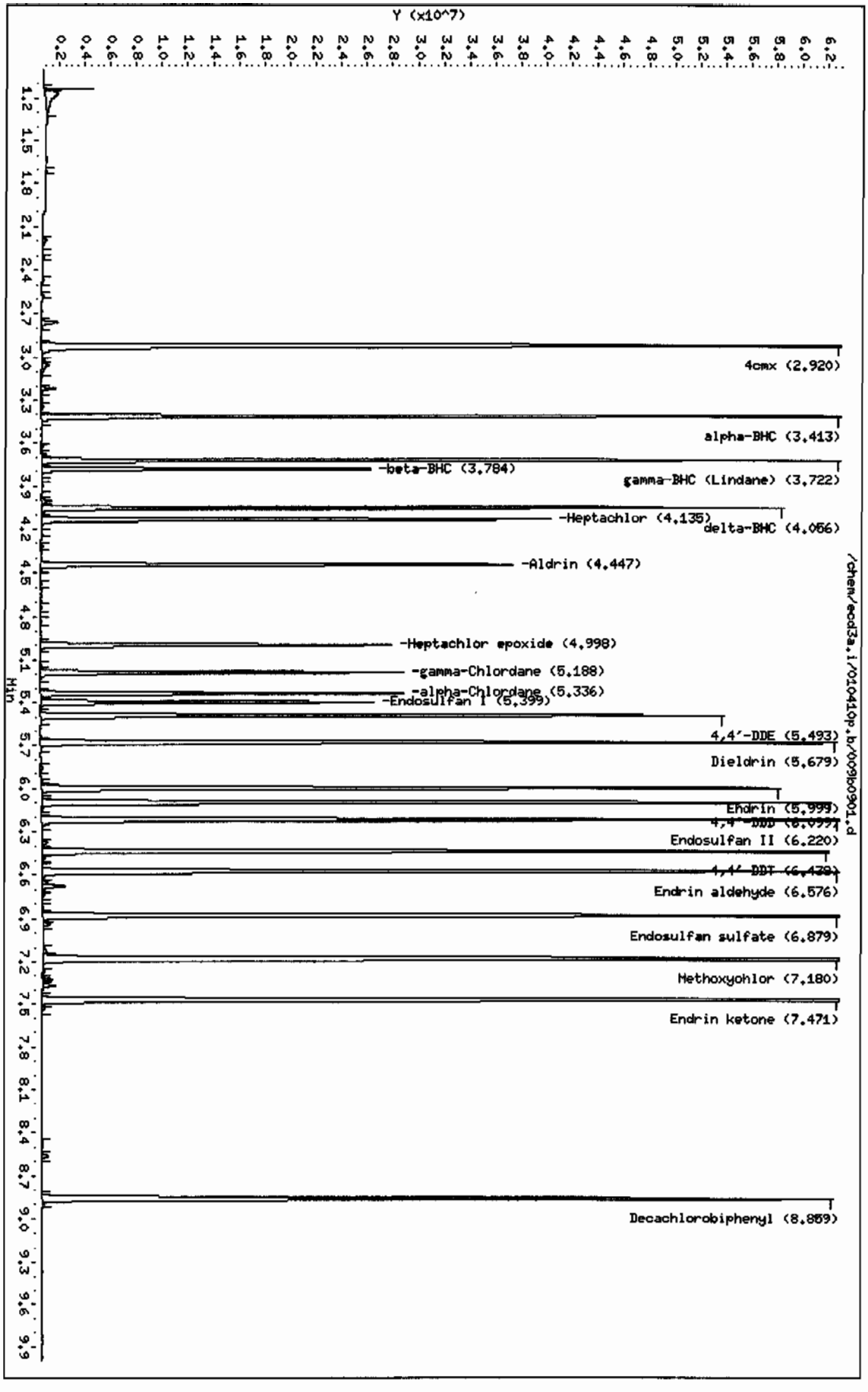

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CLP-1

Data file : /chem/ecd3a.i/010410p.b/010f1001.d
Lab Smp Id: IPE091219-02AB Client Smp ID: INDAB05
Inj Date : 04-JAN-2010 14:34
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |IPE091219-02AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 10 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.083	3.082	0.001	21049732	200.000	201	80.00- 120.00	100.00(A)
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.328	3.328	0.000	18550520	200.000	223	80.00- 120.00	100.00(A)
12 beta-BHC					CAS #: 319-85-7		
3.392	3.392	0.000	7627648	200.000	213	80.00- 120.00	100.00(A)
10 Heptachlor					CAS #: 76-44-8		
3.711	3.711	0.000	14391463	200.000	221	80.00- 120.00	100.00(A)
13 delta-BHC					CAS #: 319-86-8		
3.540	3.539	0.001	18329550	200.000	214	80.00- 120.00	100.00(A)
11 Aldrin					CAS #: 309-00-2		
3.968	3.969	-0.001	17315561	200.000	217	80.00- 120.00	100.00(A)
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.505	4.504	0.001	15421649	200.000	216	80.00- 120.00	100.00(A)
17 gamma-Chlordane					CAS #: 5103-74-2		
4.619	4.619	0.000	15450827	200.000	226	80.00- 120.00	100.00(A)
18 alpha-Chlordane					CAS #: 5103-71-9		
4.743	4.743	0.000	15236202	200.000	219	80.00- 120.00	100.00(A)

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.874	4.874	0.000	13790125	200.000	224	80.00- 120.00	100.00(A)
19 4,4'-DDE					CAS #: 72-55-9		
4.809	4.810	-0.001	29700930	400.000	433	80.00- 120.00	100.00(A)
20 Dieldrin					CAS #: 60-57-1		
5.103	5.103	0.000	31285384	400.000	439	80.00- 120.00	100.00(A)
22 Endrin					CAS #: 72-20-8		
5.331	5.331	0.000	24943058	400.000	438	80.00- 120.00	100.00(A)
25 4,4'-DDD					CAS #: 72-54-8		
5.392	5.393	-0.001	23906678	400.000	434	80.00- 120.00	100.00(A)
24 Endosulfan II					CAS #: 33213-65-9		
5.554	5.555	-0.001	25550217	400.000	437	80.00- 120.00	100.00(A)
27 Endrin aldehyde					CAS #: 7421-93-4		
5.979	5.980	-0.001	20921293	400.000	424	80.00- 120.00	100.00(A)
26 4,4'-DDT					CAS #: 50-29-3		
5.671	5.672	-0.001	19690028	400.000	438	80.00- 120.00	100.00(A)
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.432	6.433	-0.001	21351875	400.000	447	80.00- 120.00	100.00(A)
28 Methoxychlor					CAS #: 72-43-5		
6.174	6.176	-0.002	46110350	2000.00	2080	80.00- 120.00	100.00(A)
31 Endrin ketone					CAS #: 53494-70-5		
6.729	6.730	-0.001	27211647	400.000	422	80.00- 120.00	100.00(A)
$ 1 4cmx					CAS #: 877-09-8		
2.677	2.676	0.001	28480358	400.000	420	80.00- 120.00	100.00(A)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.821	7.823	-0.002	21017609	400.000	405	80.00- 120.00	100.00(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/ecd3a.i/010410p.b/010f1001.d
Date : 04-JAN-2010 14:34
Client ID: INDA805
Sample Info: IIPE091219-02AB
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

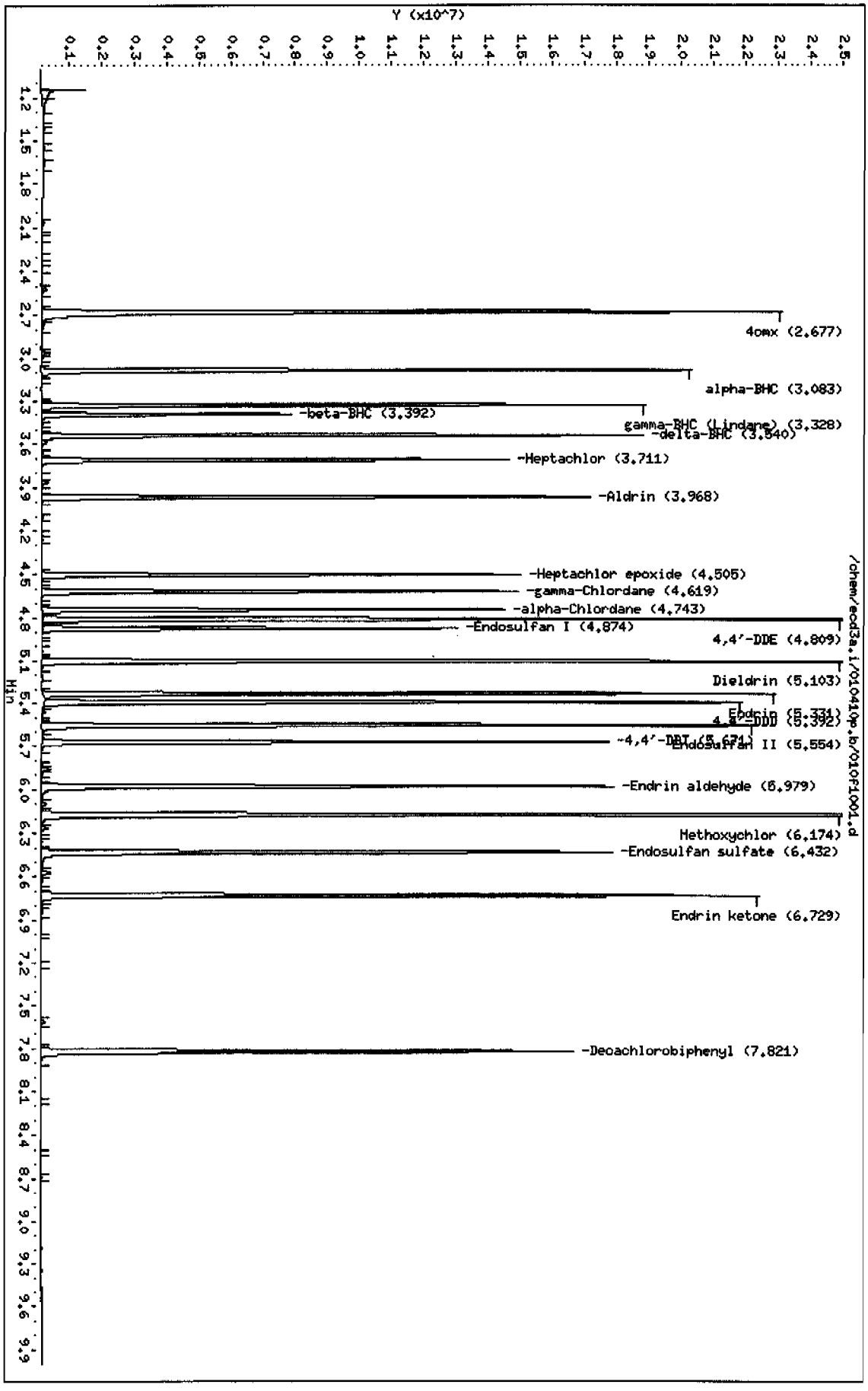

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CLP-2

Data file : /chem/ecd3a.i/010410p.b/010b1001.d
Lab Smp Id: IPE091219-02AB Client Smp ID: INDAB05
Inj Date : 04-JAN-2010 14:34
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |IPE091219-02AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 10 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.414	3.413	0.001	148460638	200.000	216	80.00- 120.00	100.00(A)
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.722	3.722	0.000	122224552	200.000	210	80.00- 120.00	100.00(A)
12 beta-BHC					CAS #: 319-85-7		
3.784	3.784	0.000	48161771	200.000	190	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.136	4.135	0.001	80301082	200.000	190	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.057	4.056	0.001	110939969	200.000	211	80.00- 120.00	100.00(A)
11 Aldrin					CAS #: 309-00-2		
4.447	4.447	0.000	74839519	200.000	197	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.998	4.998	0.000	55745083	200.000	182	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.188	5.188	0.000	60419381	200.000	201	80.00- 120.00	100.00(A)
18 alpha-Chlordane					CAS #: 5103-71-9		
5.336	5.336	0.000	61025360	200.000	204	80.00- 120.00	100.00(A)

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.399	5.399	0.000	56050790	200.000	198	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.493	5.493	0.000	114949143	400.000	388	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.680	5.679	0.001	137406882	400.000	398	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.999	5.999	0.000	133156450	400.000	396	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.098	6.099	-0.001	137893223	400.000	403	80.00- 120.00	100.00(A)
24 Endosulfan II					CAS #: 33213-65-9		
6.219	6.220	-0.001	152523435	400.000	386	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.576	6.576	0.000	149724453	400.000	391	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.437	6.438	-0.001	145333568	400.000	405	80.00- 120.00	100.00(A)
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.878	6.879	-0.001	199127142	400.000	423	80.00- 120.00	100.00(A)
28 Methoxychlor					CAS #: 72-43-5		
7.180	7.180	0.000	406063693	2000.00	2050	80.00- 120.00	100.00(AM)
31 Endrin ketone					CAS #: 53494-70-5		
7.470	7.471	-0.001	237686977	400.000	410	80.00- 120.00	100.00(A)
$ 1 4cmx					CAS #: 877-09-8		
2.921	2.920	0.001	185924287	400.000	372	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.858	8.859	-0.001	156359622	400.000	397	80.00- 120.00	100.00

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: /chem/eod3a.i/010410p.b/010b1001.d
Date : 04-JAN-2010 14:34
Client ID: INDAB05
Sample Info: IIPE091219-02AB

Column phase: CLP-2

Instrument: eod3a.i
Operator: HXJ1
Column diameter: 0.25

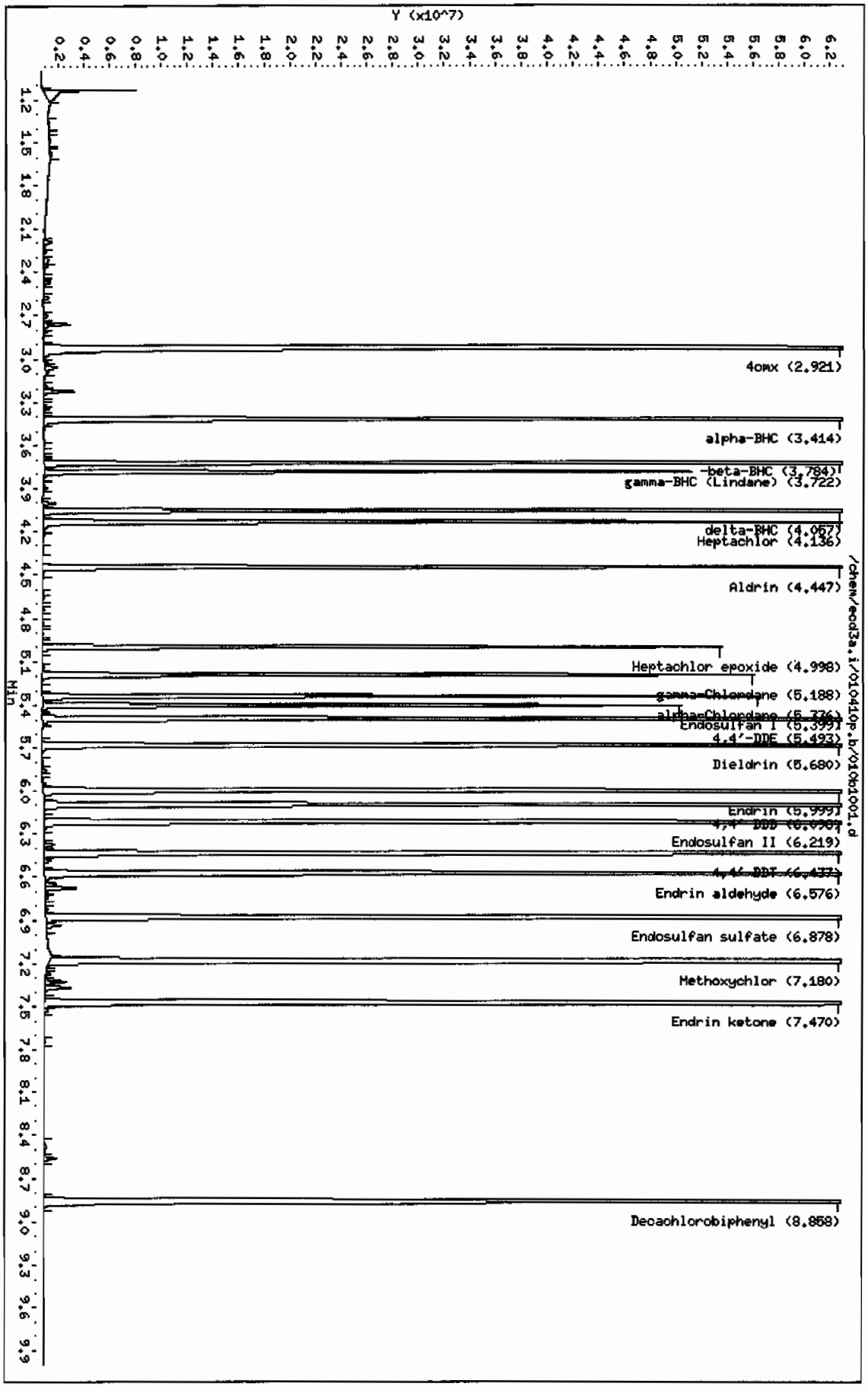

Page 1

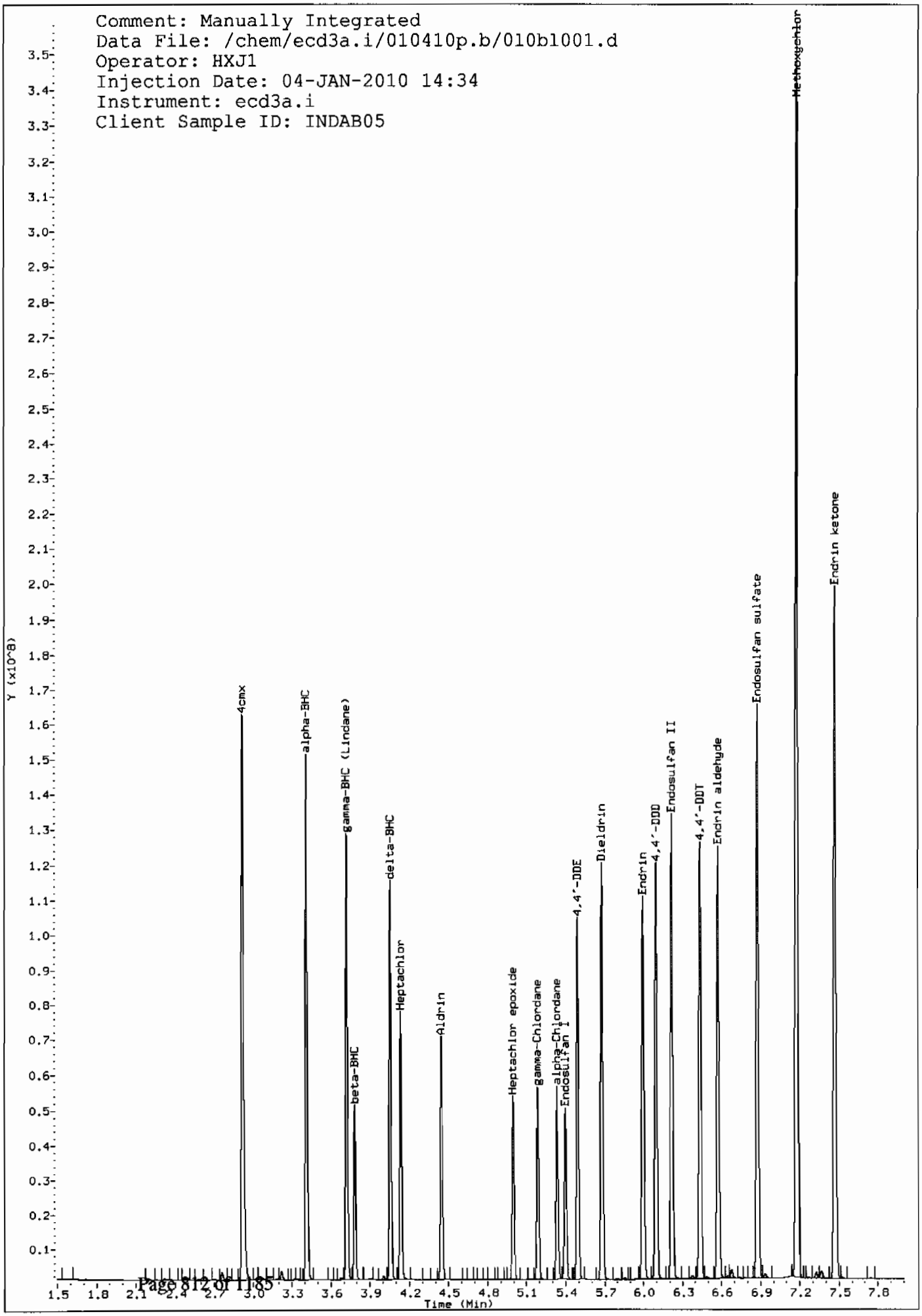
Comment: Manually Integrated
Data File: /chem/ecd3a.i/010410p.b/010b1001.d
Operator: HXJ1
Injection Date: 04-JAN-2010 14:34
Instrument: ecd3a.i
Client Sample ID: INDAB05
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone

Comment: Before manual integration
Data File: /chem/ecd3a.i/010410p.b/orig-010b1001.d
Operator: HXJ1
Injection Date: 04-JAN-2010 14:34
Instrument: ecd3a.i
Client Sample ID: INDAB05

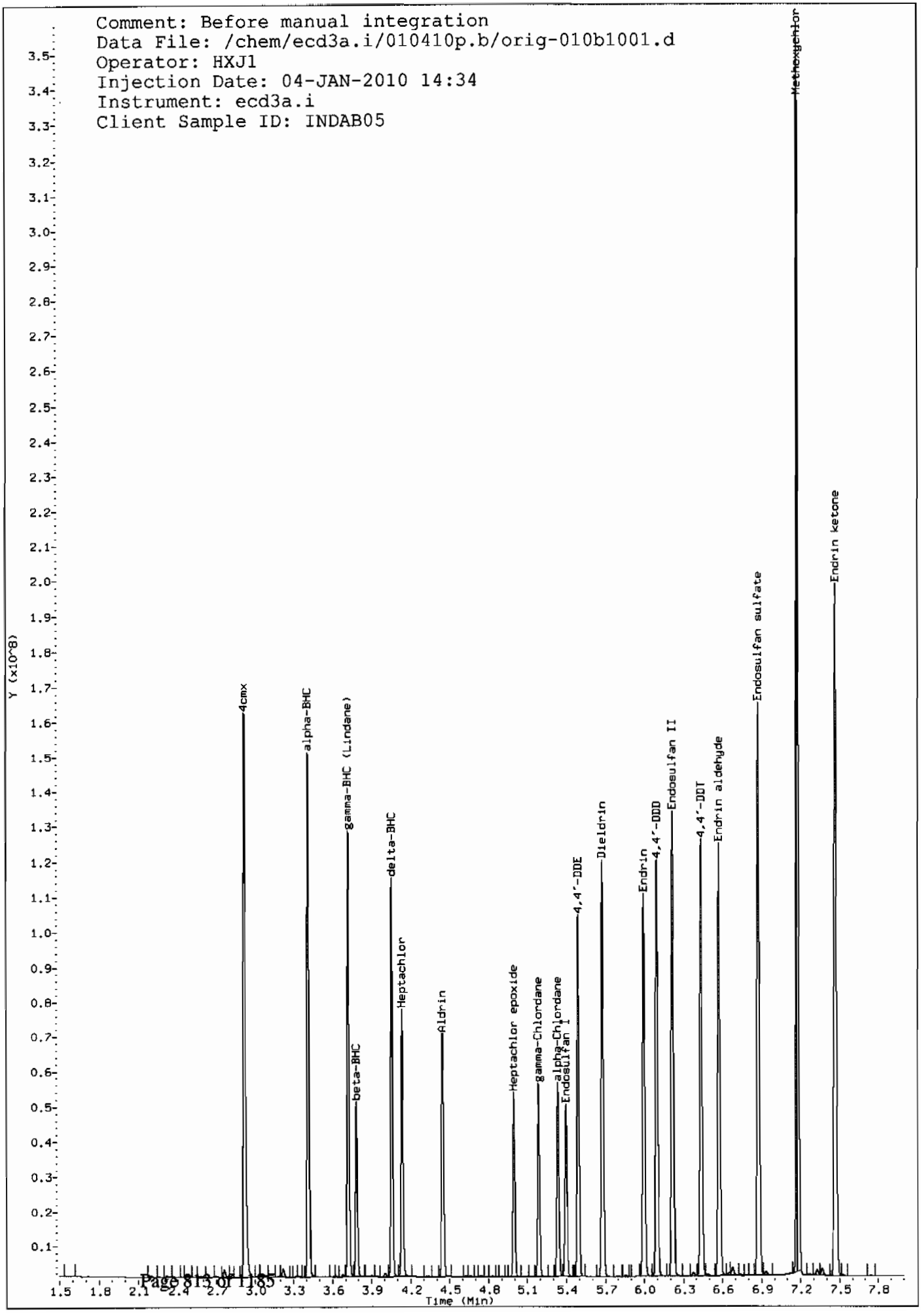

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/122909p.b/009f0901.d
Lab Smp Id: WPE091228-11TX Client Smp ID: TOXAPH01
Inj Date : 29-DEC-2009 18:56
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-11TX
Misc Info : |TOXLEVEL1
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 20:42 Cal File: 016f1601.d
Als bottle: 9 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.004	5.005	-0.001	44436	100.000	91.6	80.00- 120.00	100.00(M)
5.111	5.109	0.002	74342	100.000	98.6	136.78- 176.78	167.30
5.196	5.194	0.002	74020	100.000	85.0	169.96- 209.96	166.58
5.355	5.353	0.002	98971	100.000	87.1	213.58- 253.58	222.73
5.548	5.544	0.004	187549	100.000	92.8	347.48- 387.48	422.07
Average of Peak Amounts =					91		
$ 1 4cmx					CAS #: 877-09-8		
2.678	2.679	-0.001	848503	8.00000	12.9	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.824	7.824	0.000	654866	8.00000	13.6	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/009f0901.d

Date : 29-DEC-2009 18:56

Client ID: TOXAPH01

Sample Info: IWPE091228-11TX

Column phase: CLP-1

Instrument: ecd3a.i

Operator: CXC2

Column diameter: 0.25

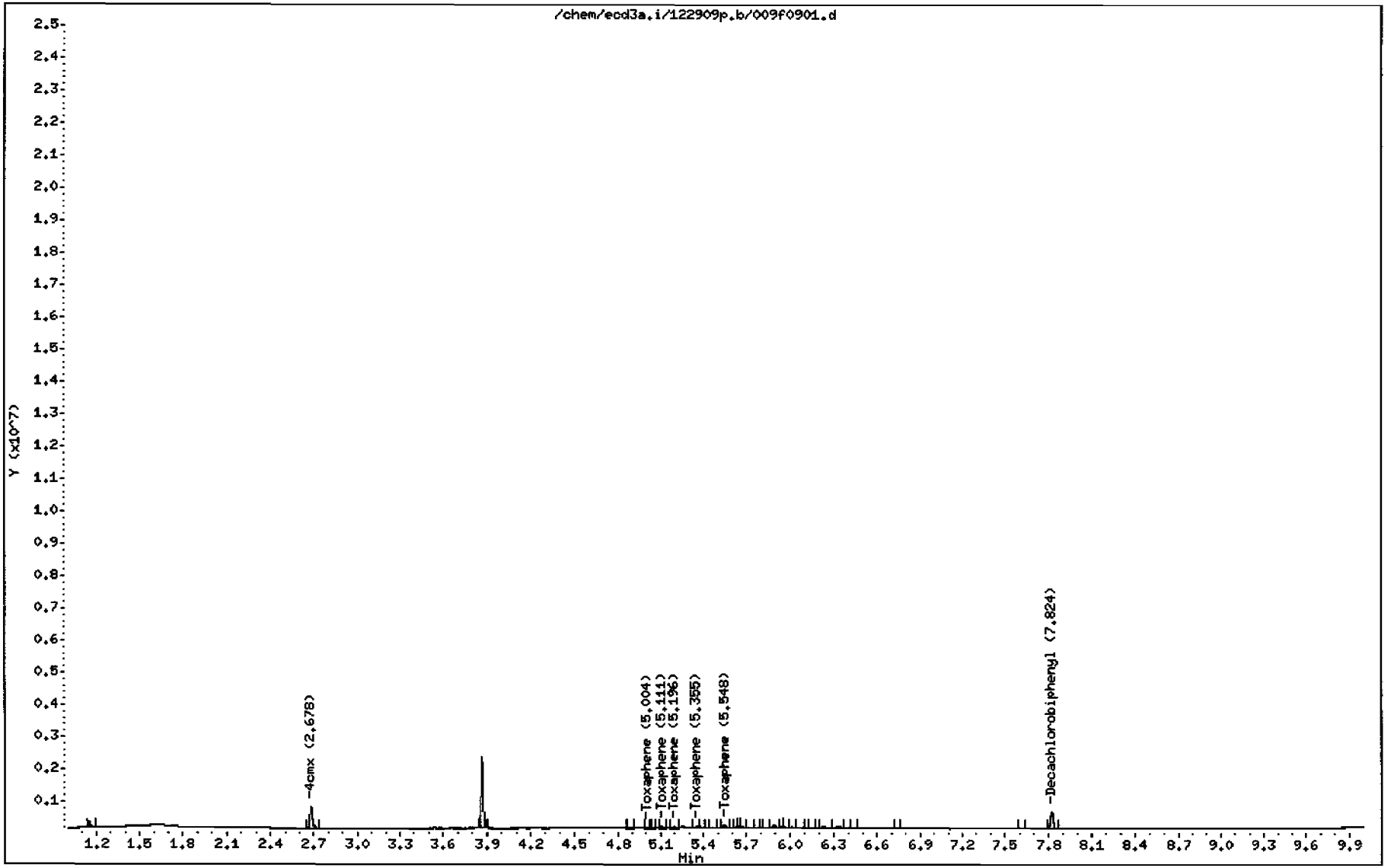

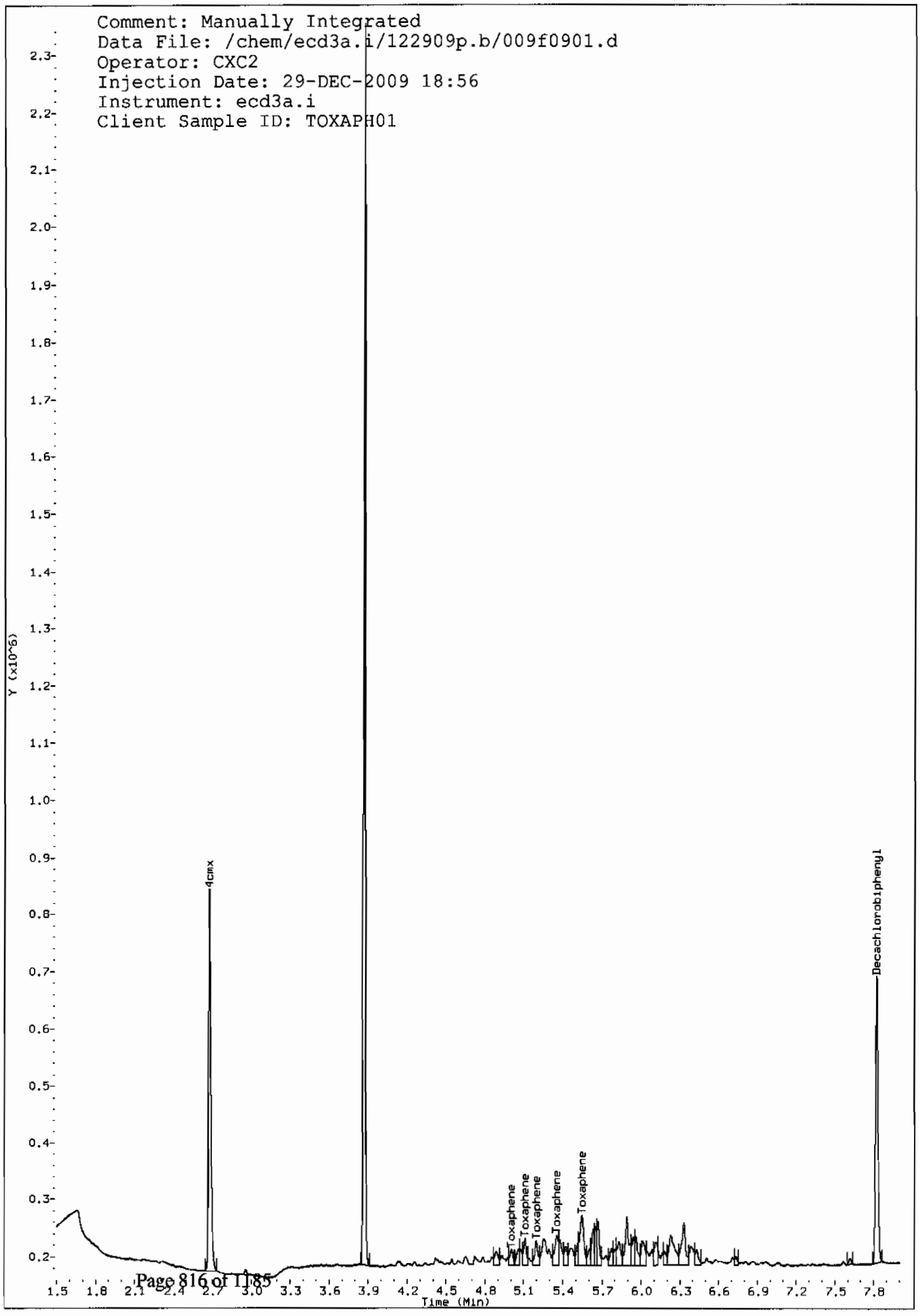
Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/009f0901.d
Operator: CXC2
Injection Date: 29-DEC-2009 18:56
Instrument: ecd3a.i
Client Sample ID: TOXAPH01
Y (x10^5)
4cmx
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Decachlorobiphenyl
Time (Min)

Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-009f0901.d
Operator: CXC2
Injection Date: 29-DEC-2009 18:56
Instrument: ecd3a.i
Client Sample ID: TOXAPH01

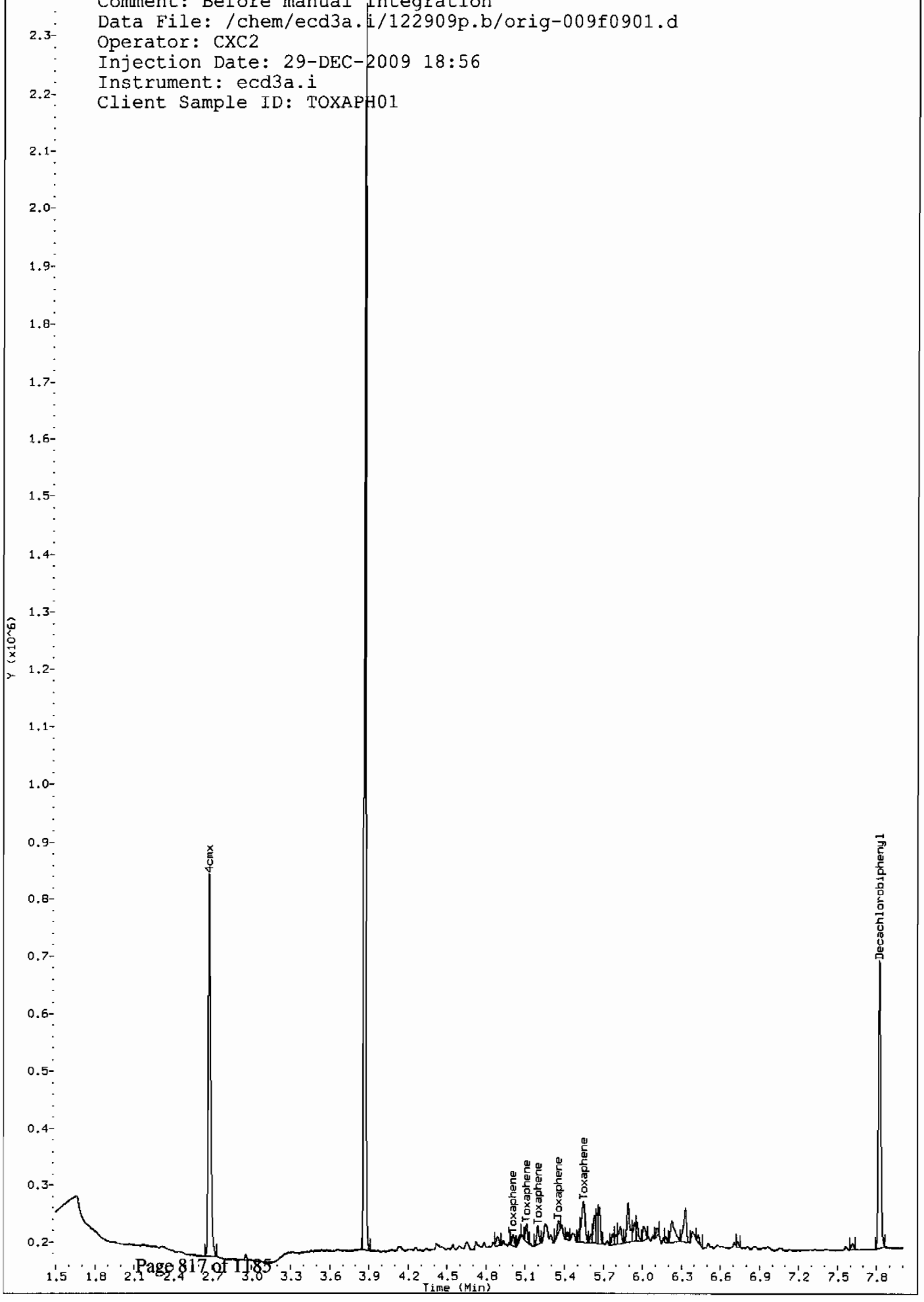

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/009b0901.d
Lab Smp Id: WPE091228-11TX Client Smp ID: TOXAPH01
Inj Date : 29-DEC-2009 18:56
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-11TX
Misc Info : |TOXLEVEL1
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 20:42 Cal File: 016b1601.d
Als bottle: 9 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.658	5.653	0.005	470223	100.000	92.8	80.00- 120.00	100.00(M)
5.779	5.778	0.001	272329	100.000	91.1	37.72- 77.72	57.91
6.170	6.168	0.002	506614	100.000	84.2	78.89- 118.89	107.74
6.212	6.210	0.002	948873	100.000	89.5	158.10- 198.10	201.79
6.314	6.313	0.001	1721564	100.000	89.9	271.11- 311.11	366.12
Average of Peak Amounts =					89.5		
$ 1 4cmx					CAS #: 877-09-8		
2.921	2.922	-0.001	6780433	8.00000	14.4	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.860	8.860	0.000	4611378	8.00000	14.0	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/009b0901.d

Page 1

Date : 29-DEC-2009 18:56

Client ID: TOXAPH01

Instrument: ecd3a.i

Sample Info: IWPE091228-11TX

Operator: CXC2

Column phase: CLP-2

Column diameter: 0.25

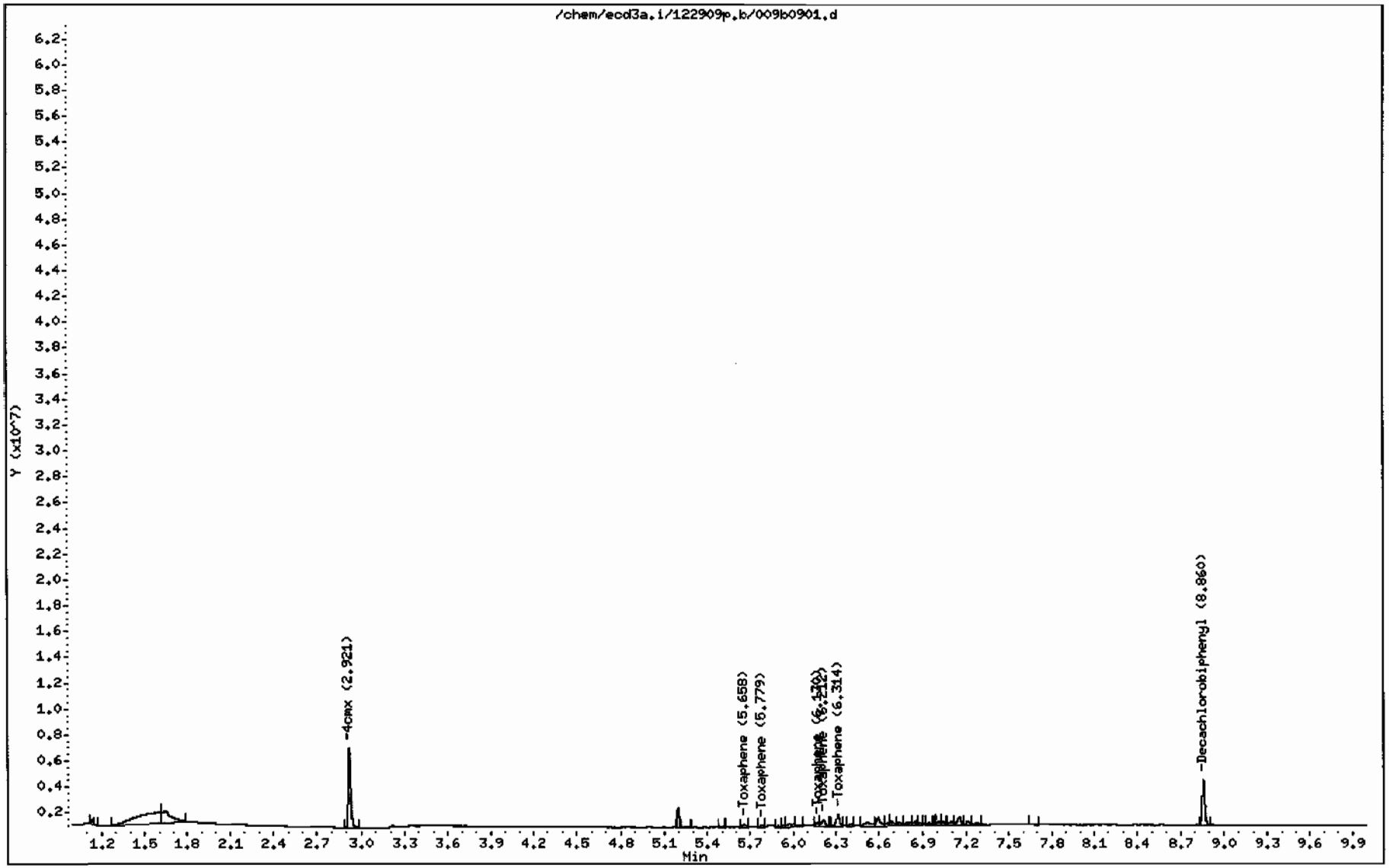

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/009b0901.d
Operator: CXC2
Injection Date: 29-DEC-2009 18:56
Instrument: ecd3a.i
Client Sample ID: TOXAPH01

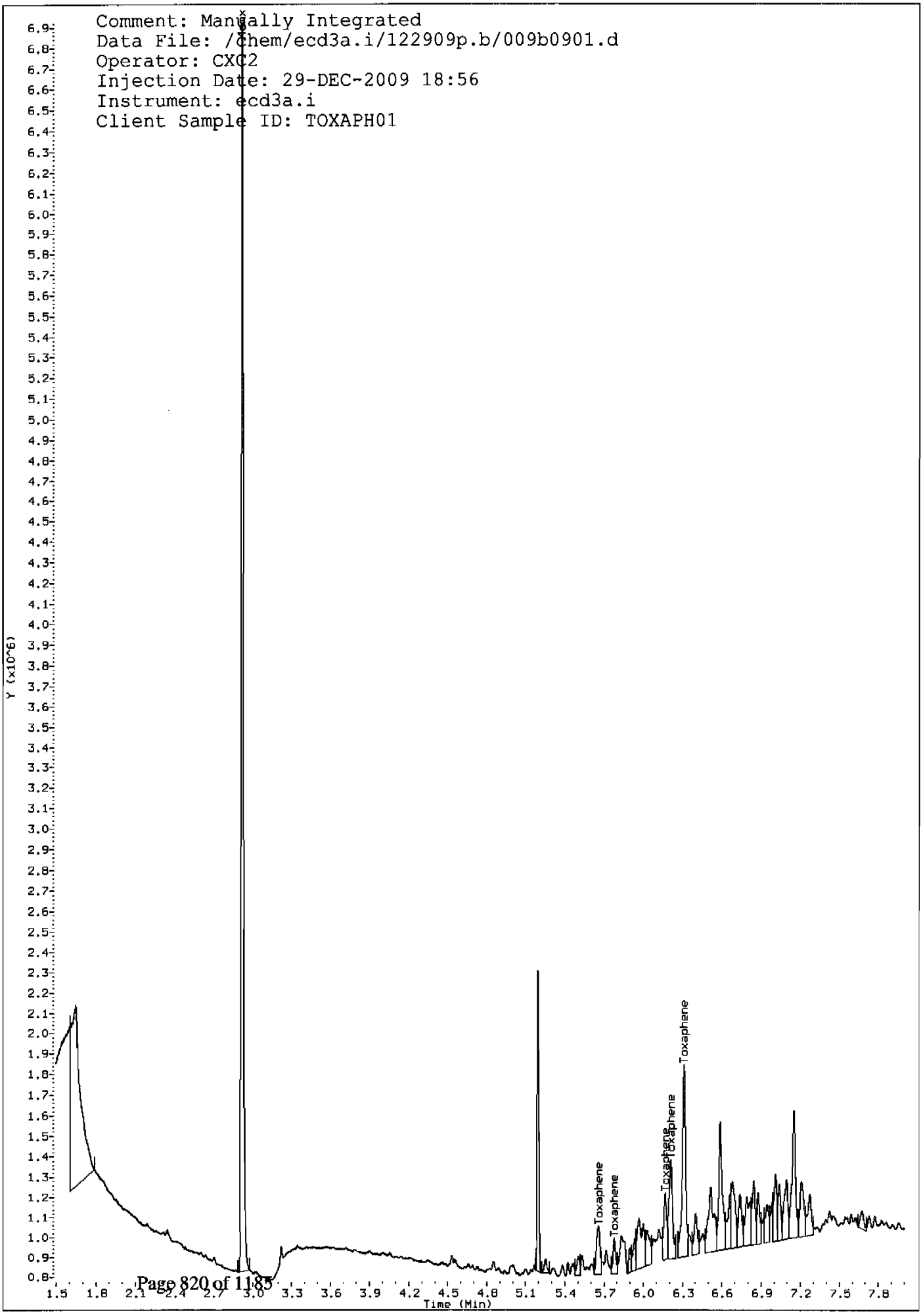

Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-009b0901.d
Operator: CXC2
Injection Date: 29-DEC-2009 18:56
Instrument: ecd3a.i
Client Sample ID: TOXAPH01

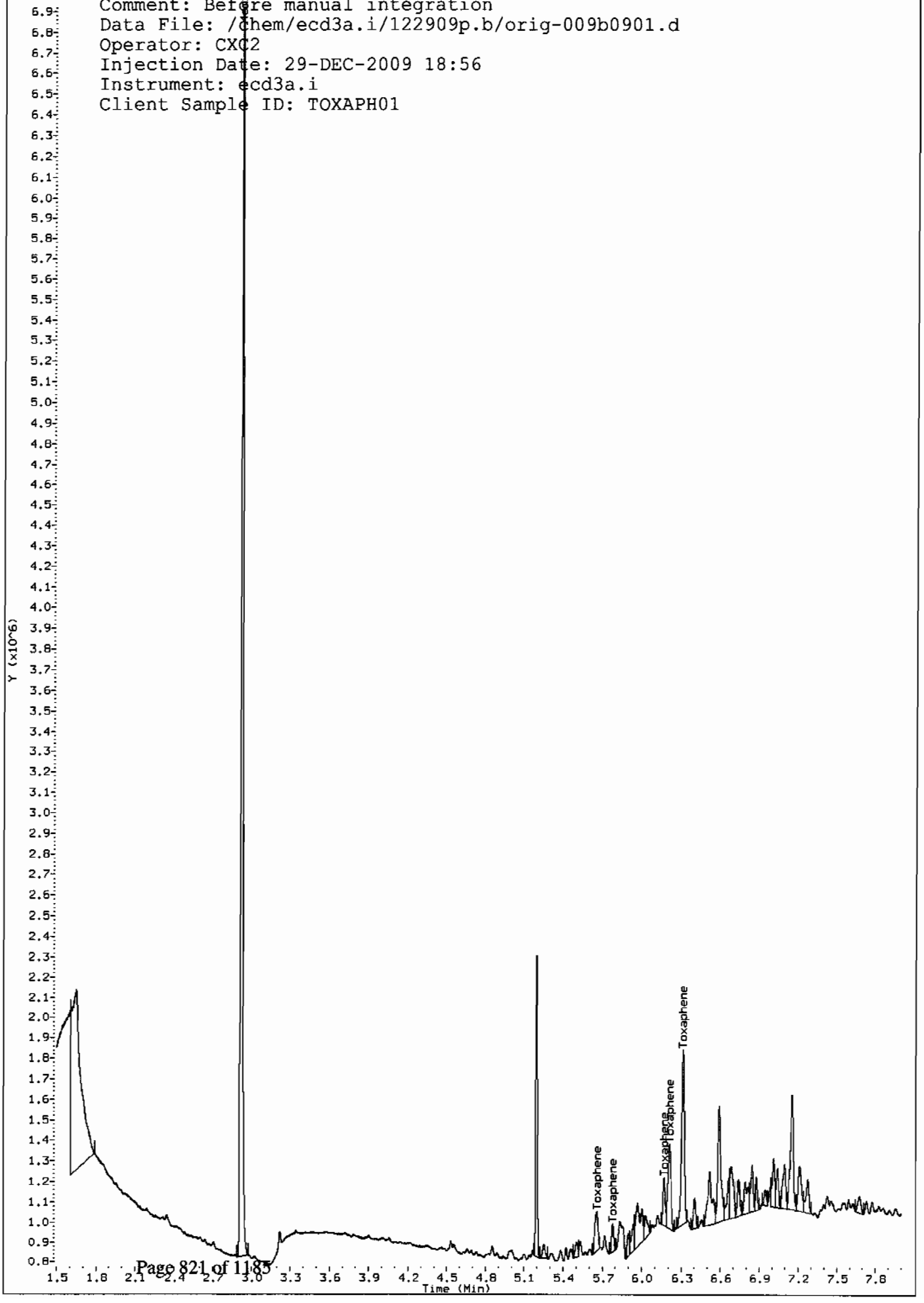

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/122909p.b/010f1001.d
Lab Smp Id: WPE091228-12TX Client Smp ID: TOXAPH02
Inj Date : 29-DEC-2009 19:10
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-12TX
Misc Info : |TOXLEVEL2
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:14 Cal File: 017f1701.d
Als bottle: 10 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.004	5.005	-0.001	235894	500.000	486	80.00- 120.00	100.00(M)
5.110	5.109	0.001	381338	500.000	506	136.78- 176.78	161.66
5.195	5.194	0.001	431043	500.000	495	169.96- 209.96	182.73
5.355	5.353	0.002	562023	500.000	494	213.58- 253.58	238.25
5.546	5.544	0.002	975994	500.000	483	347.48- 387.48	413.74
Average of Peak Amounts =					493		
$ 1 4cmx					CAS #: 877-09-8		
2.679	2.679	0.000	4443569	20.0000	67.4	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.824	7.824	0.000	3132352	20.0000	65.0	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/010f1001.d
Date : 29-DEC-2009 19:10
Client ID: TOXAPH02
Sample Info: IWPE091228-12TX

Column phase: CLP-1

Instrument: ecd3a.i

Operator: CXC2
Column diameter: 0.25

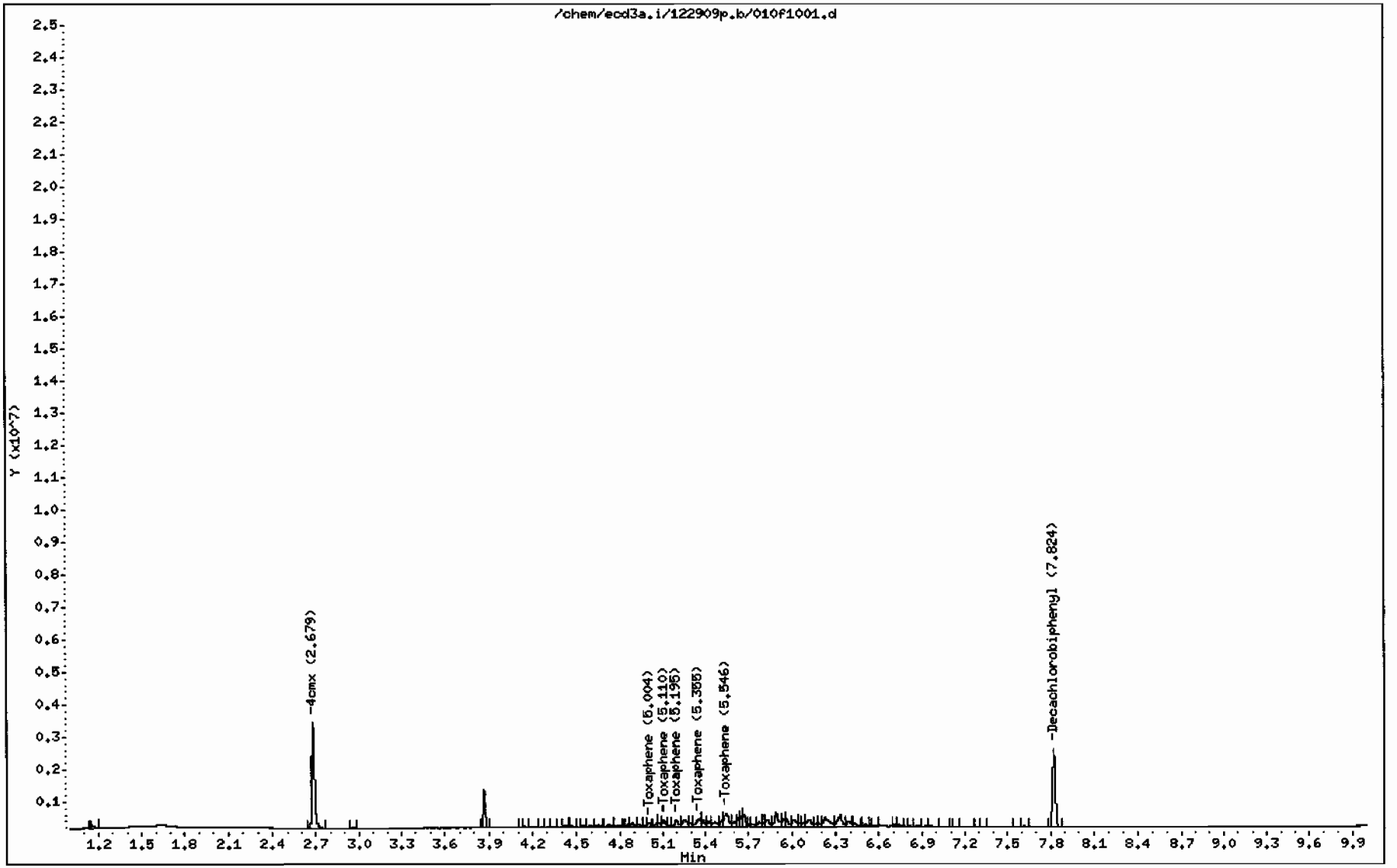

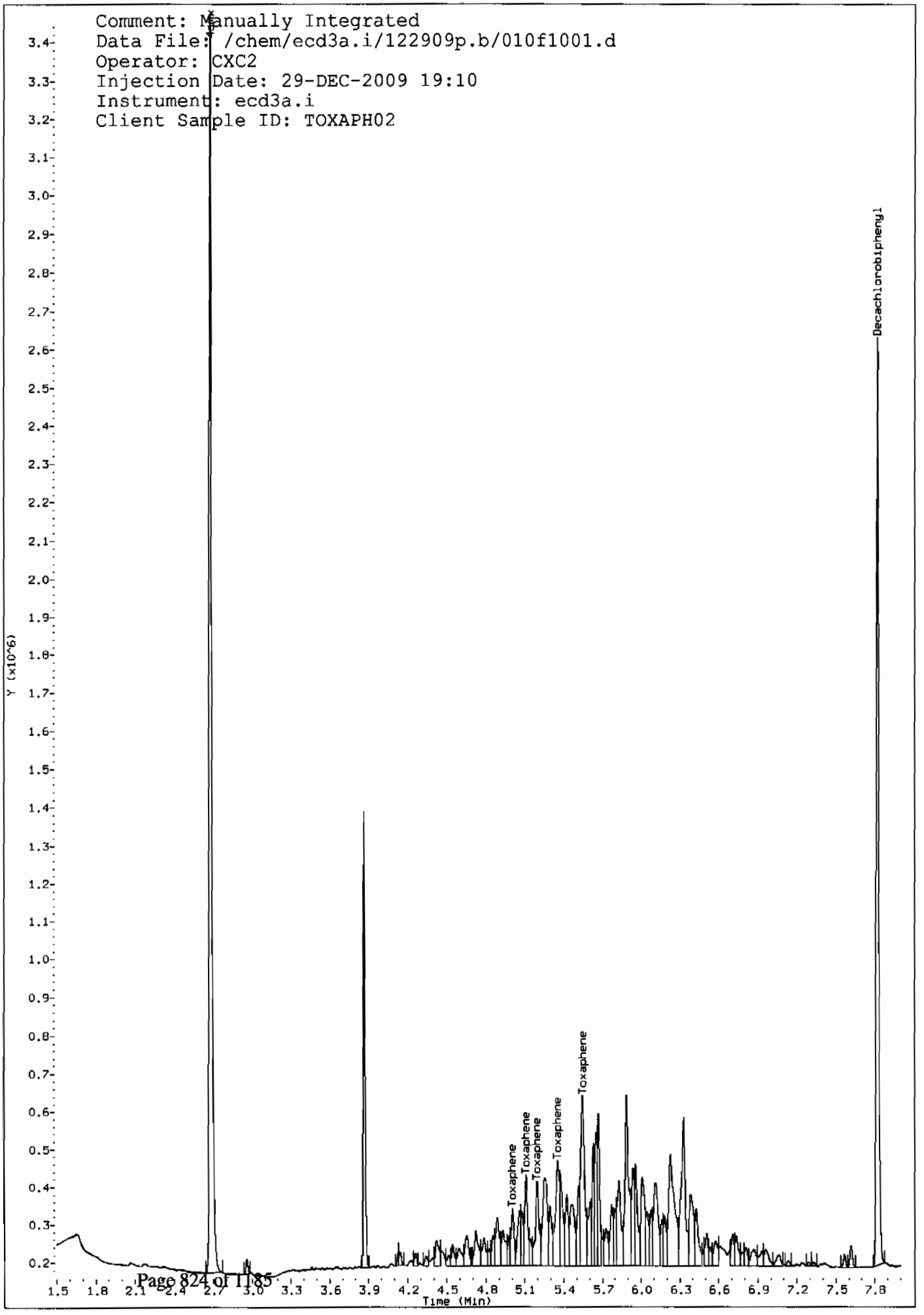
Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/010f1001.d
Operator: CXC2
Injection Date: 29-DEC-2009 19:10
Instrument: ecd3a.i
Client Sample ID: TOXAPH02
Y (x10^6)
Time (Min)
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Decachlorobiphenyl

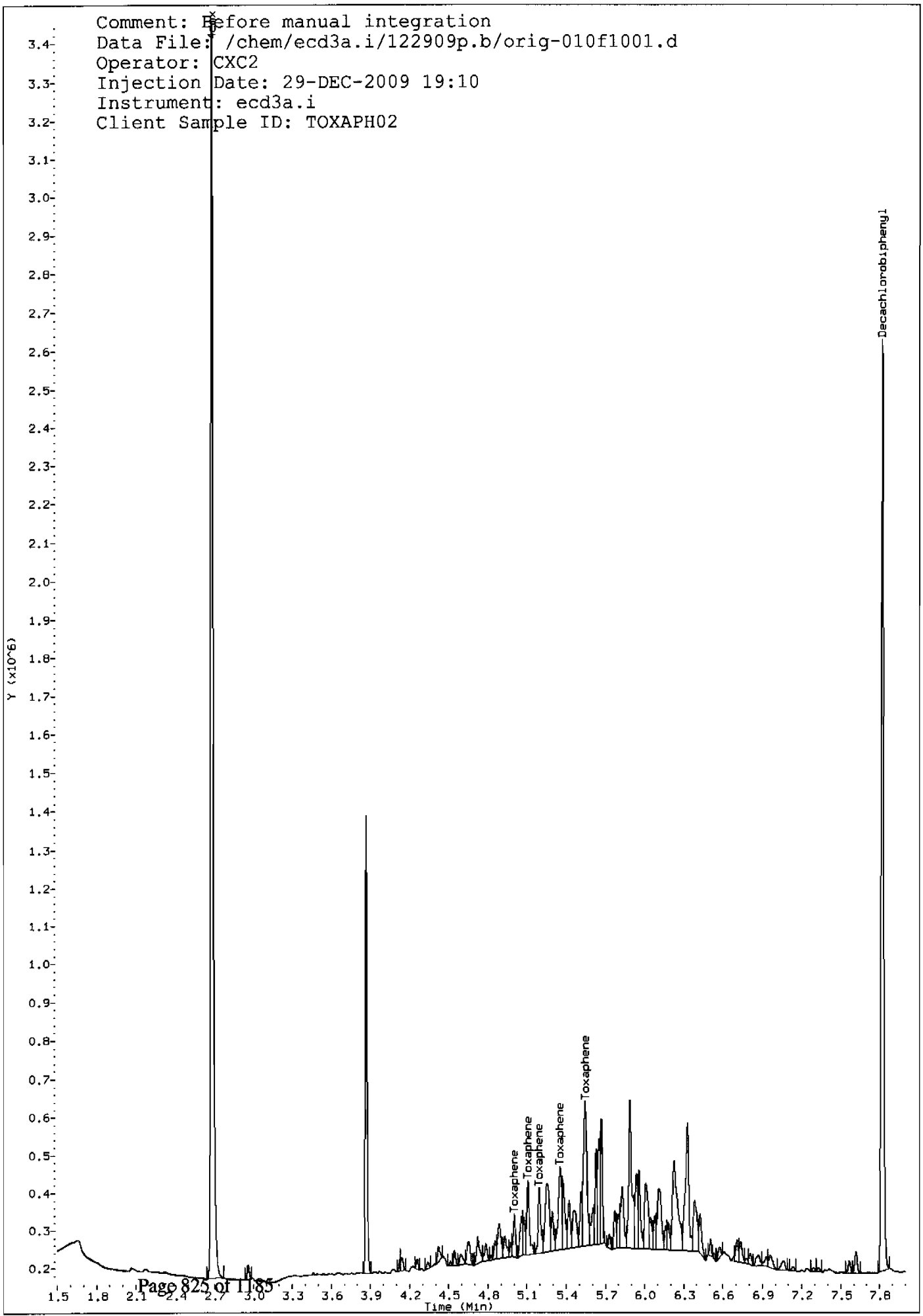
Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-010f1001.d
Operator: CXC2
Injection Date: 29-DEC-2009 19:10
Instrument: ecd3a.i
Client Sample ID: TOXAPH02
Y (x10^6)
Time (Min)
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Decachlorobiphenyl

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/010b1001.d
Lab Smp Id: WPE091228-12TX Client Smp ID: TOXAPH02
Inj Date : 29-DEC-2009 19:10
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-12TX
Misc Info : |TOXLEVEL2
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:14 Cal File: 017b1701.d
Als bottle: 10 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.659	5.653	0.006	2435357	500.000	481	80.00- 120.00	100.00(M)
5.778	5.778	0.000	1382120	500.000	462	37.72- 77.72	56.75
6.168	6.168	0.000	2933662	500.000	488	78.89- 118.89	120.46
6.212	6.210	0.002	5153228	500.000	486	158.10- 198.10	211.60
6.313	6.313	0.000	9426983	500.000	492	271.11- 311.11	387.09
Average of Peak Amounts =					482		
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.922	0.000	32492133	20.0000	69.3	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.860	8.860	0.000	21452607	20.0000	65.4	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/010b1001.d

Page 1

Date : 29-DEC-2009 19:10

Client ID: TOXAPH02

Instrument: ecd3a.i

Sample Info: IWPE091228-12TX

Operator: CXC2

Column phase: CLP-2

Column diameter: 0.25

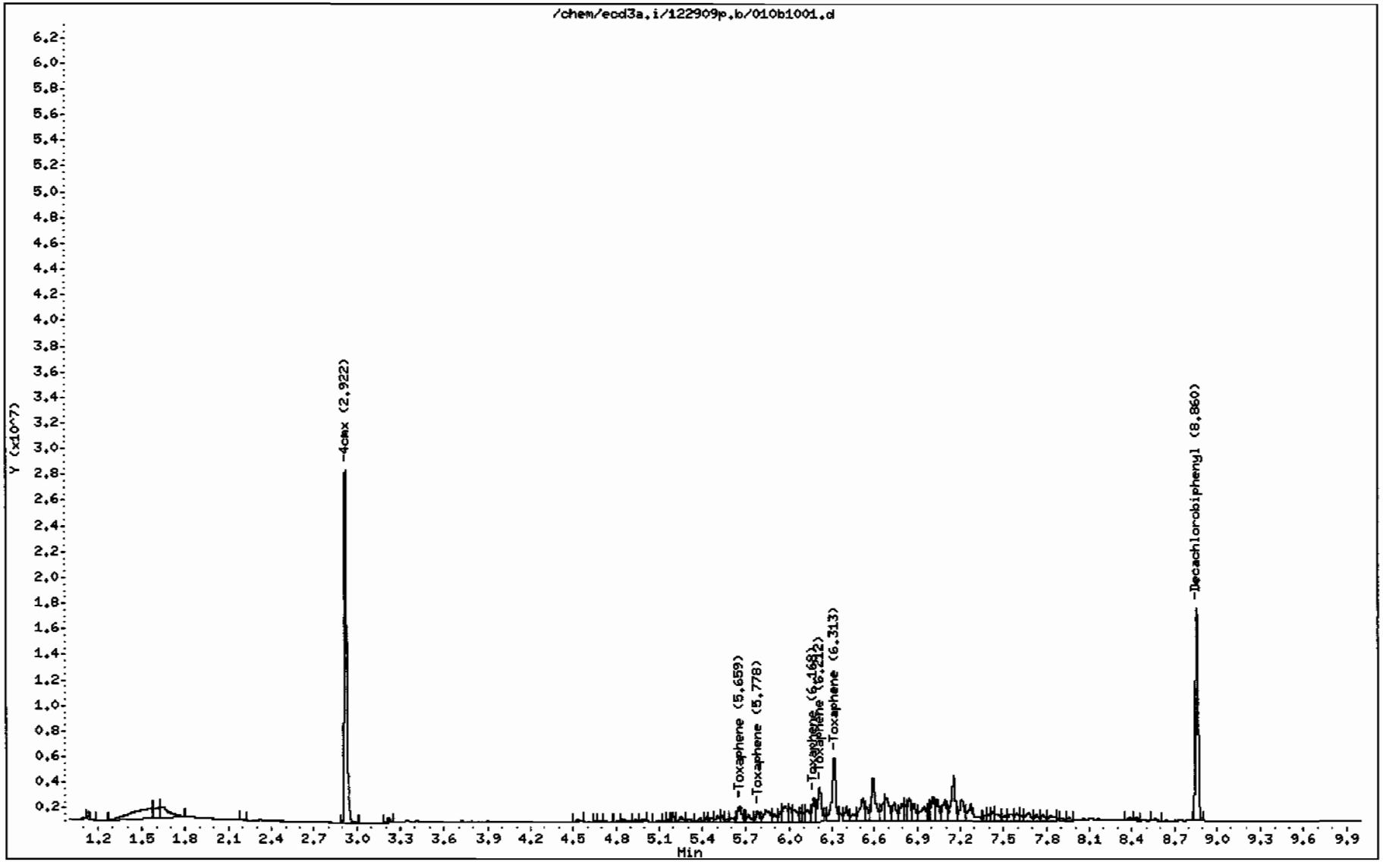

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/010b1001.d
Operator: CXC2
Injection Date: 29-DEC-2009 19:10
Instrument: ecd3a.i
Client Sample ID: TOXAPH02

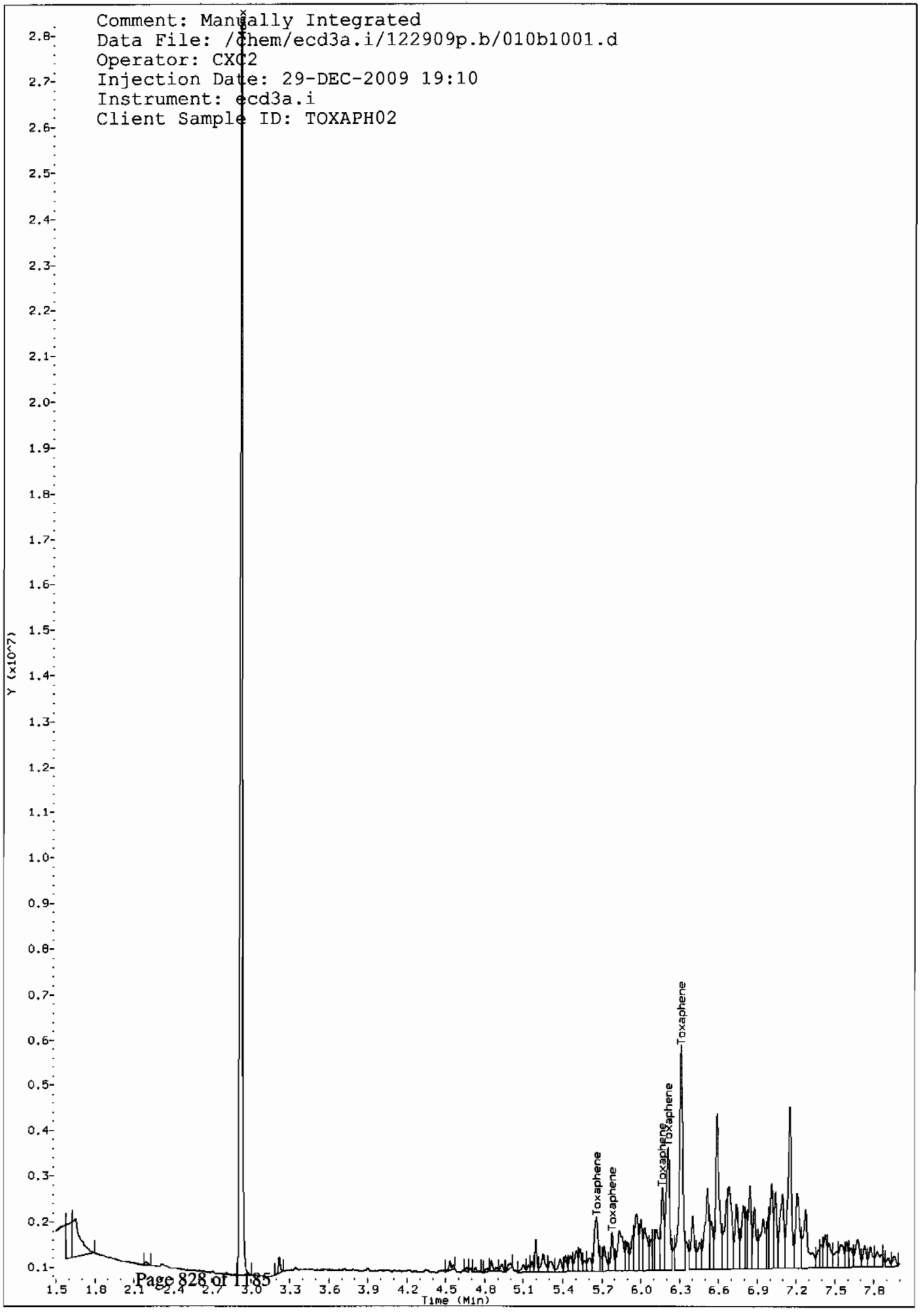

Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-010b1001.d
Operator: CXC2
Injection Date: 29-DEC-2009 19:10
Instrument: ecd3a.i
Client Sample ID: TOXAPH02

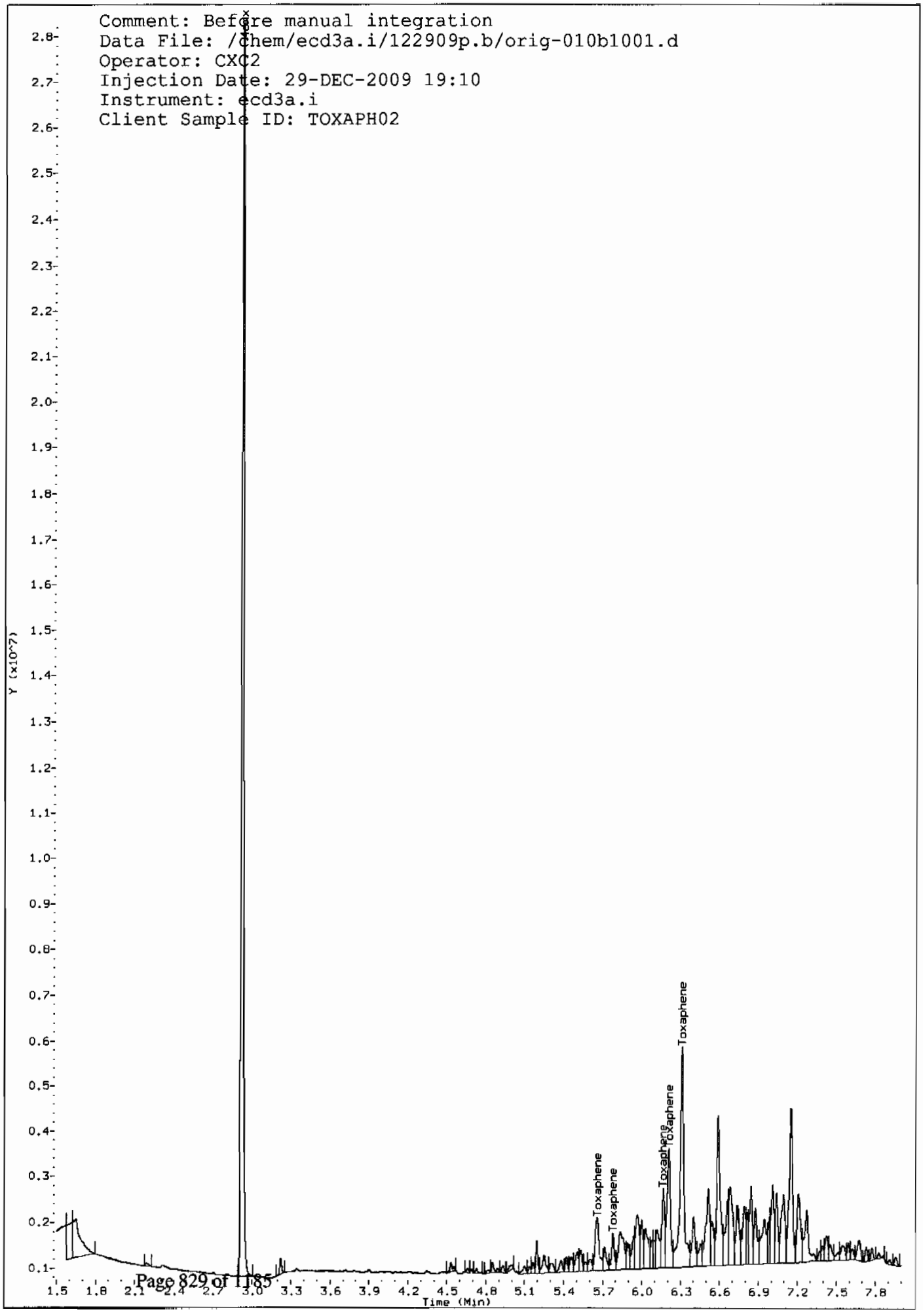

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/122909p.b/011f1101.d
Lab Smp Id: WPE091228-13TX Client Smp ID: TOXAPH03
Inj Date : 29-DEC-2009 19:24
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-13TX
Misc Info : |TOXLEVLE3
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:28 Cal File: 018f1801.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.004	5.005	-0.001	489599	1000.00	1010	80.00- 120.00	100.00(M)
5.110	5.109	0.001	748346	1000.00	992	136.78- 176.78	152.85
5.197	5.194	0.003	877437	1000.00	1010	169.96- 209.96	179.22
5.354	5.353	0.001	1152768	1000.00	1010	213.58- 253.58	235.45
5.546	5.544	0.002	1948280	1000.00	964	347.48- 387.48	397.93
Average of Peak Amounts =					997		
$ 1 4cmx					CAS #: 877-09-8		
2.680	2.679	0.001	8941431	100.000	136	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.824	7.824	0.000	6137933	100.000	127	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/011f1101.d
Date : 29-DEC-2009 19:24
Client ID: TOXAPH03
Sample Info: IWPE091228-13TX

Column phase: CLP-1

Instrument: ecd3a.i

Operator: CXC2
Column diameter: 0.25

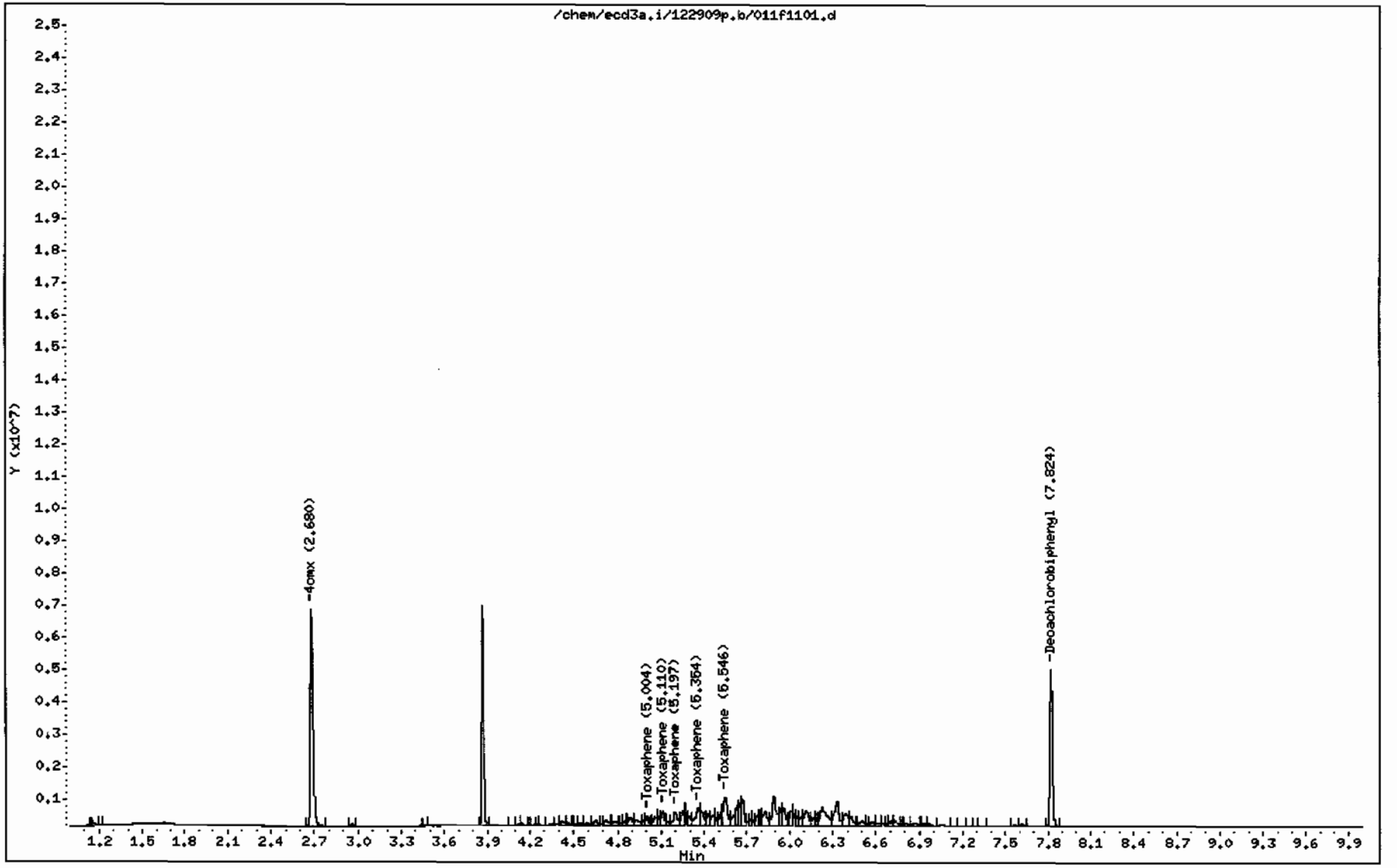

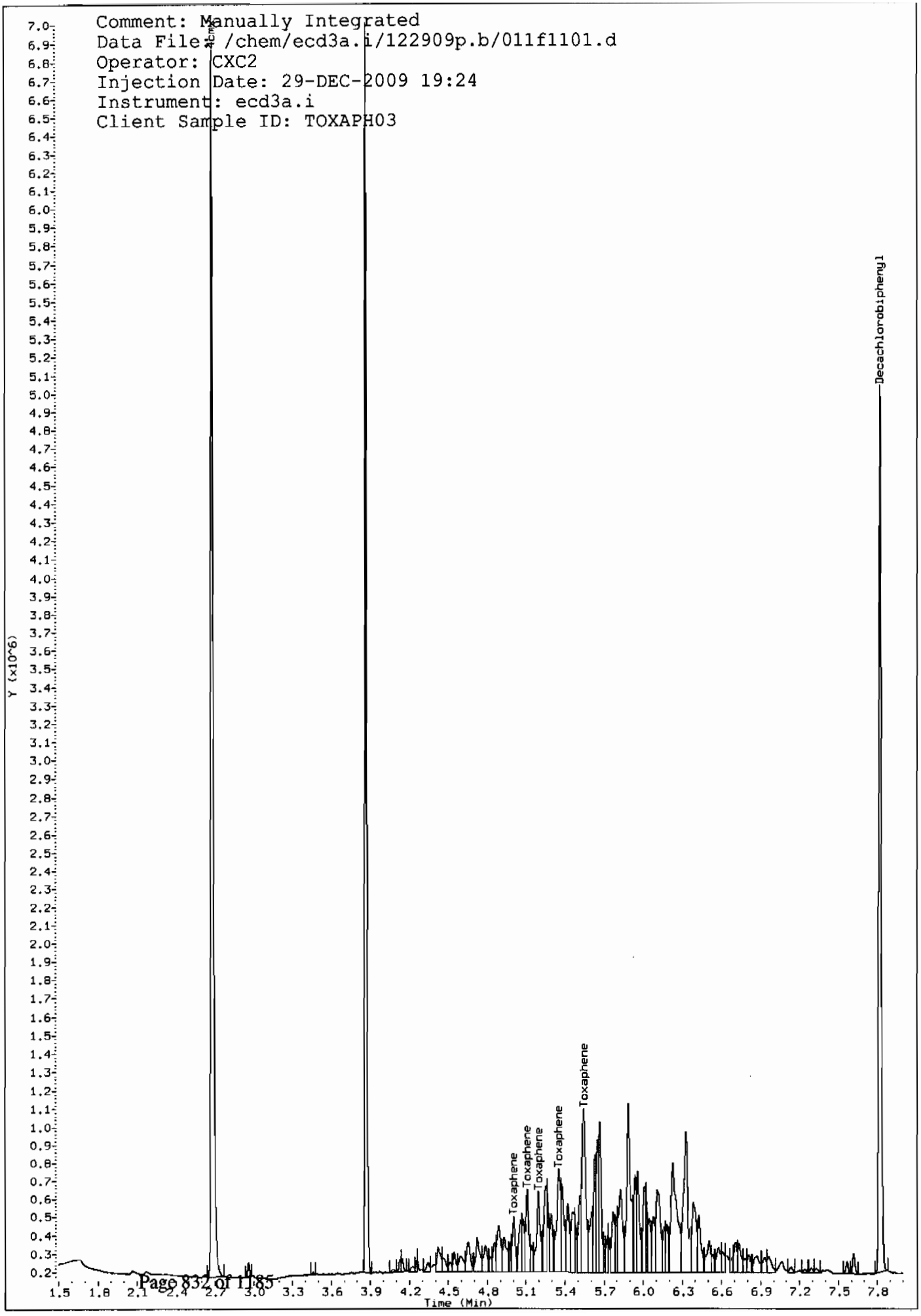
Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/011f1101.d
Operator: CXC2
Injection Date: 29-DEC-2009 19:24
Instrument: ecd3a.i
Client Sample ID: TOXAPH03
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)

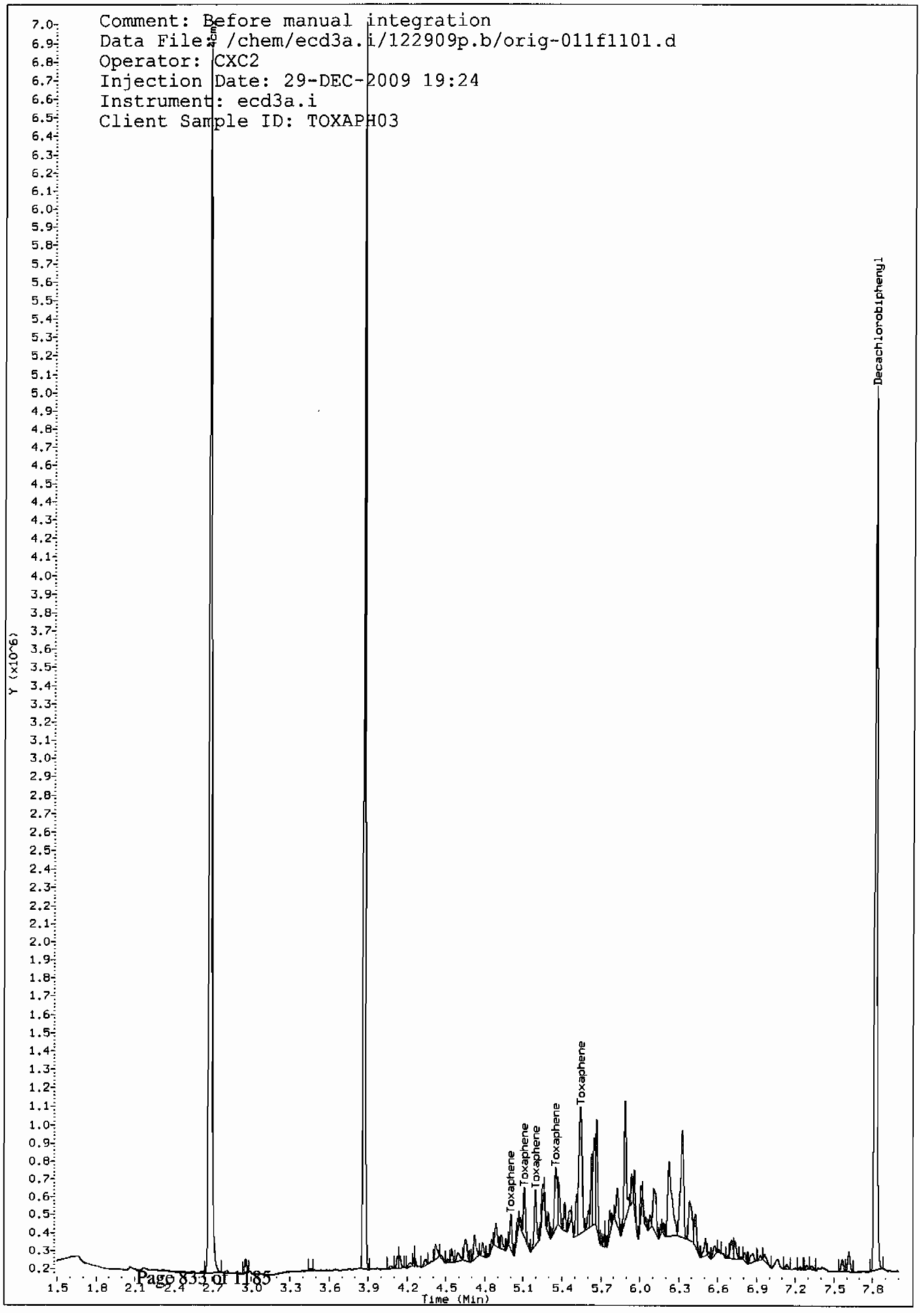
Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-011f1101.d
Operator: CXC2
Injection Date: 29-DEC-2009 19:24
Instrument: ecd3a.i
Client Sample ID: TOXAPH03
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/011b1101.d
Lab Smp Id: WPE091228-13TX Client Smp ID: TOXAPH03
Inj Date : 29-DEC-2009 19:24
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-13TX
Misc Info : |TOXLEVLE3
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:28 Cal File: 018b1801.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.658	5.653	0.005	4804106	1000.00	948	80.00- 120.00	100.00(M)
5.779	5.778	0.001	2831403	1000.00	947	37.72- 77.72	58.94
6.168	6.168	0.000	5839763	1000.00	971	78.89- 118.89	121.56
6.211	6.210	0.001	10381890	1000.00	979	158.10- 198.10	216.10
6.314	6.313	0.001	18844510	1000.00	984	271.11- 311.11	392.26
Average of Peak Amounts =					966		
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.922	0.000	61503498	100.000	131	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.860	8.860	0.000	42312451	100.000	129	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/011b1101.d

Date : 29-DEC-2009 19:24

Client ID: TOXAPH03

Sample Info: IWPE091228-13TX

Column phase: CLP-2

Instrument: ecd3a.i

Operator: CXC2

Column diameter: 0.25

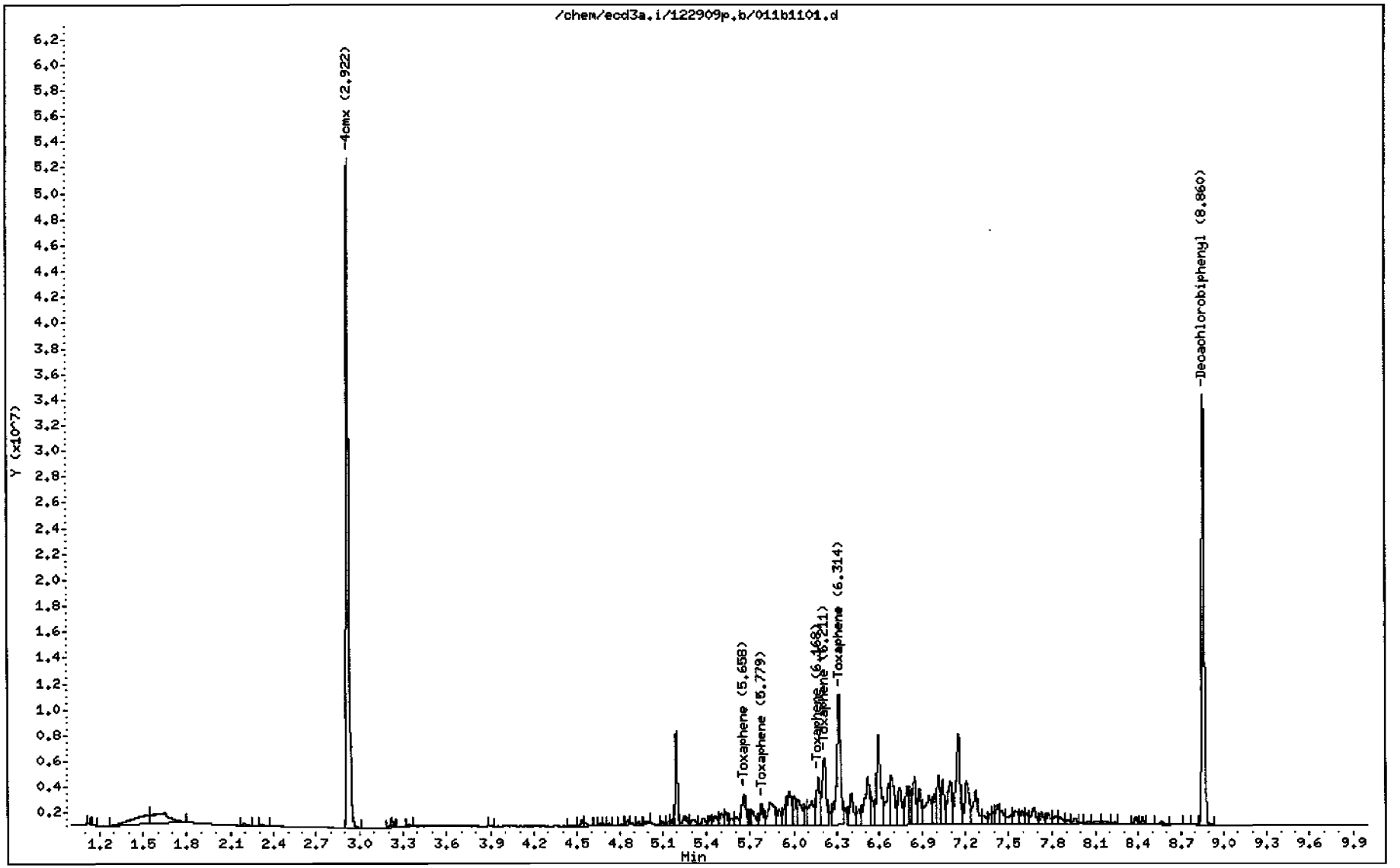

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/011b1101.d
Operator: CXC2
Injection Date: 29-DEC-2009 19:24
Instrument: ecd3a.i
Client Sample ID: TOXAPH03

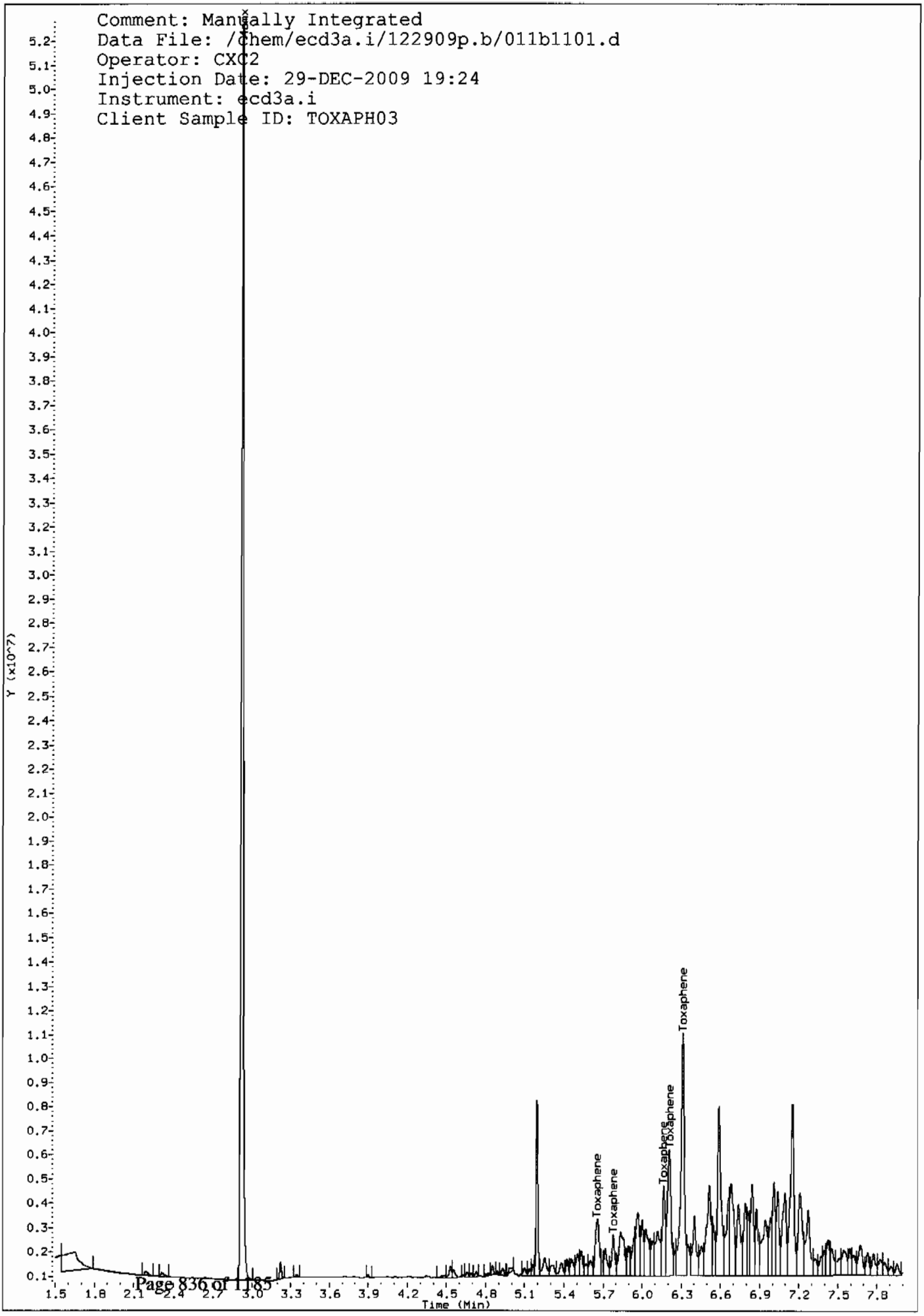

Comment: Before manual integration
Data File: /Chem/ecd3a.i/122909p.b/orig-011b1101.d
Operator: CXC2
Injection Date: 29-DEC-2009 19:24
Instrument: ecd3a.i
Client Sample ID: TOXAPH03

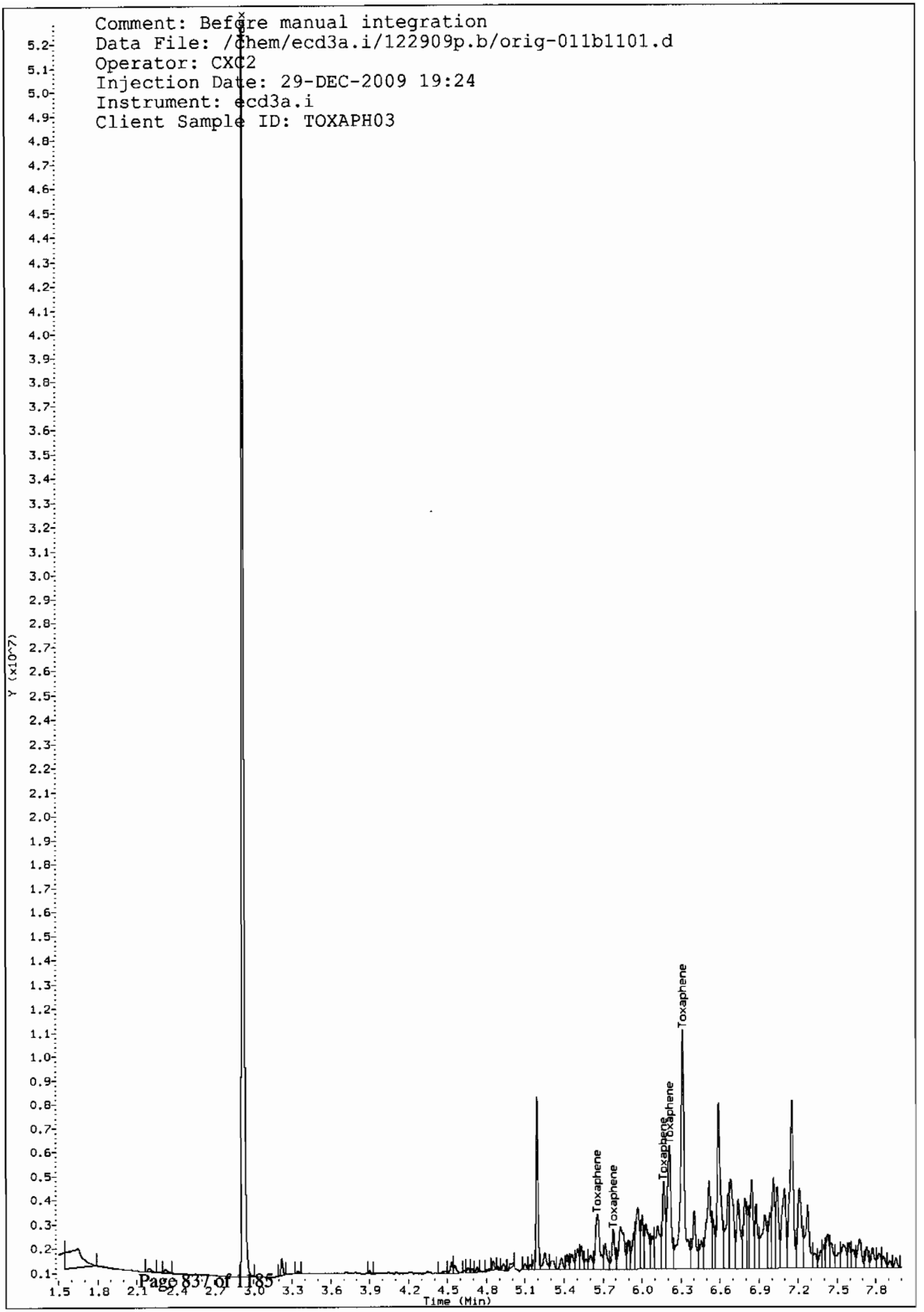

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/122909p.b/013f1301.d
Lab Smp Id: WPE091228-14TX Client Smp ID: TOXAPH04
Inj Date : 29-DEC-2009 20:01
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-14TX
Misc Info : |TOXLEVEL4
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:41 Cal File: 019f1901.d
Als bottle: 13 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.006	5.005	0.001	1024335	2000.00	2110	80.00- 120.00	100.00(M)
5.113	5.109	0.004	1497662	2000.00	1980	136.78- 176.78	146.21
5.198	5.194	0.004	1857452	2000.00	2130	169.96- 209.96	181.33
5.358	5.353	0.005	2364061	2000.00	2080	213.58- 253.58	230.79
5.549	5.544	0.005	4159333	2000.00	2060	347.48- 387.48	406.05
Average of Peak Amounts =					2.07e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.680	2.679	0.001	18258279	200.000	277	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.826	7.824	0.002	12666652	200.000	263	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/013f1301.d
Date : 29-DEC-2009 20:01
Client ID: TOXAPH04
Sample Info: IWPE091228-14TX

Column phase: CLP-1

Instrument: ecd3a.i

Operator: CXC2
Column diameter: 0.25

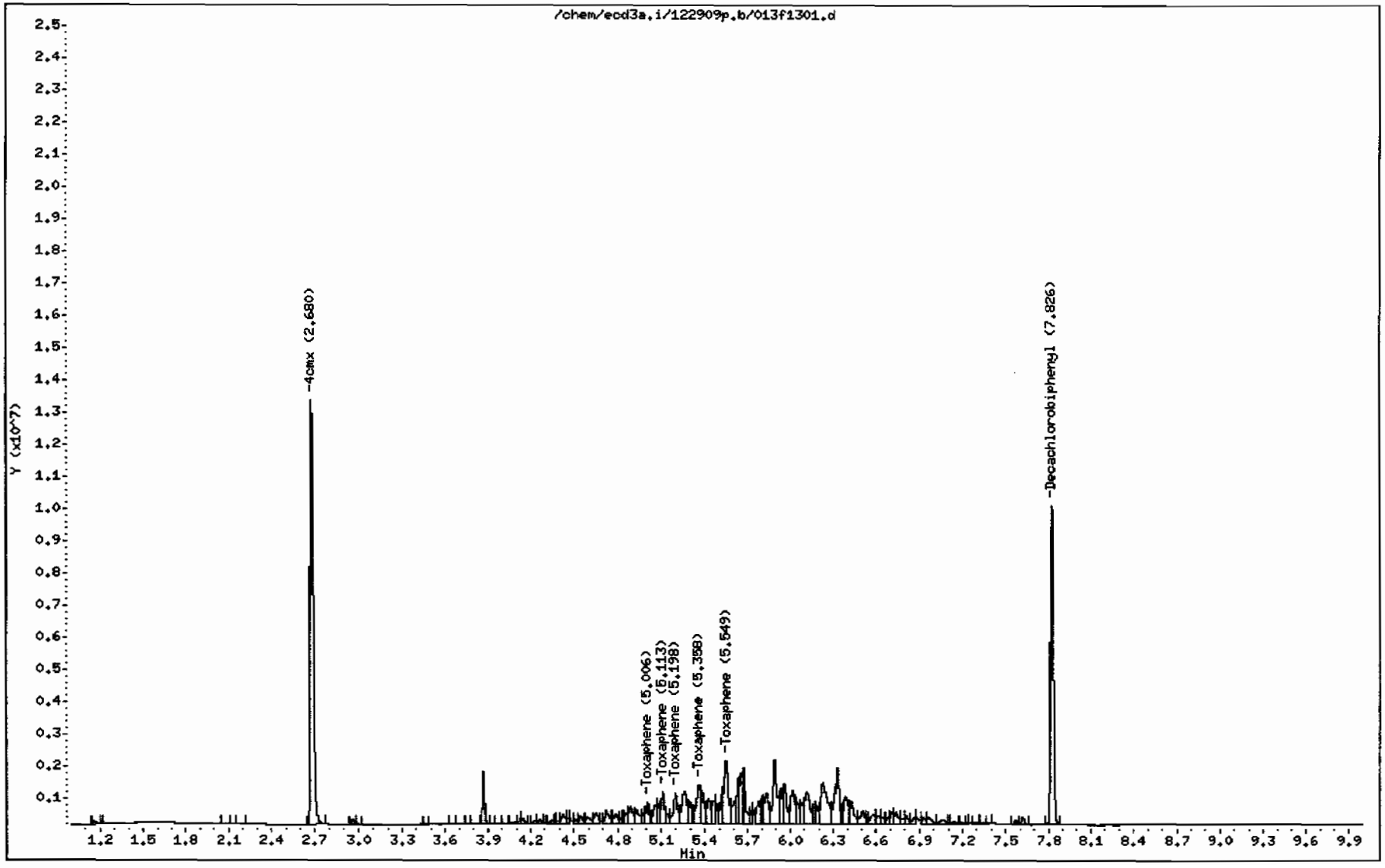

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/013f1301.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:01
Instrument: ecd3a.i
Client Sample ID: TOXAPH04

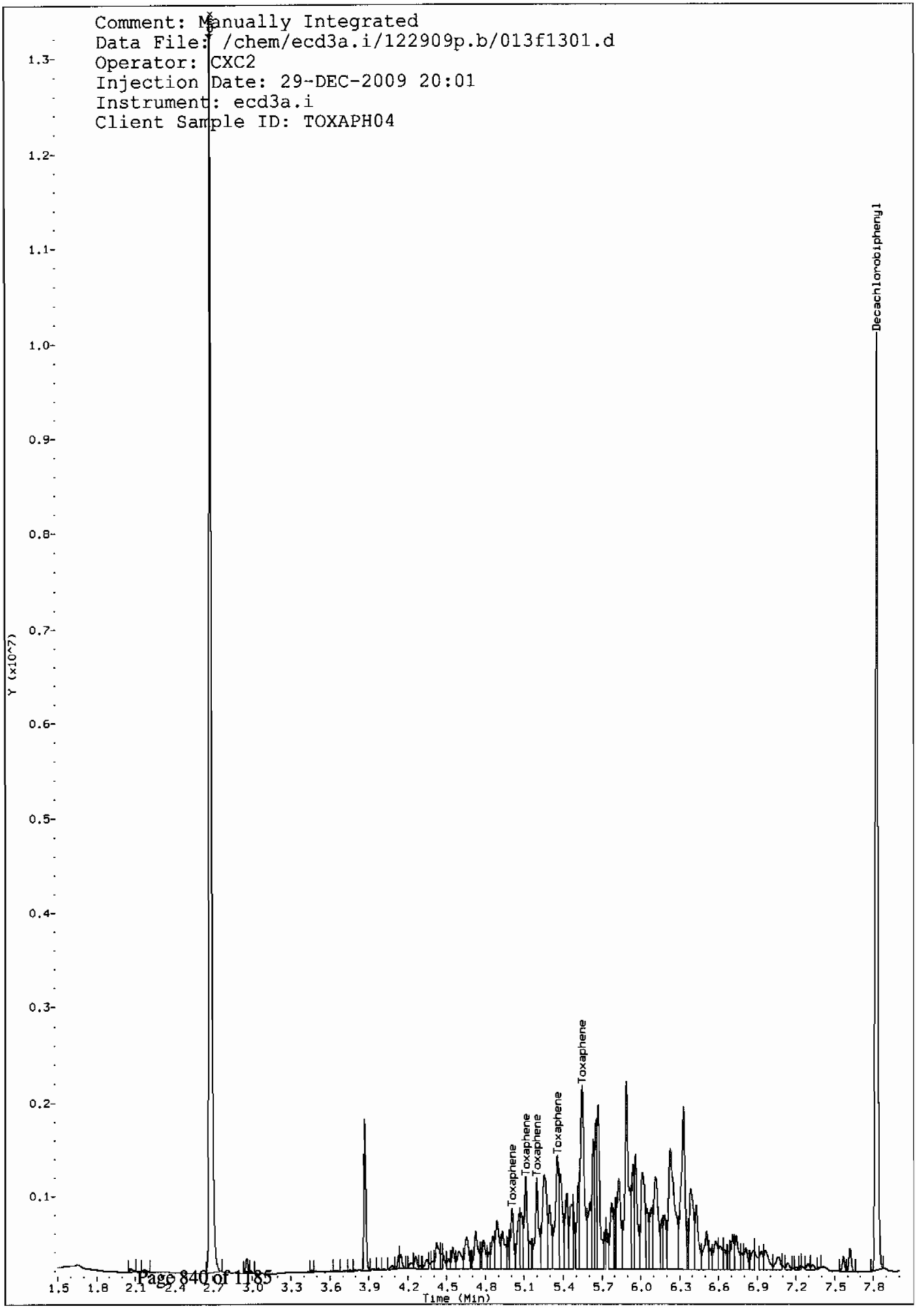

Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-013f1301.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:01
Instrument: ecd3a.i
Client Sample ID: TOXAPH04

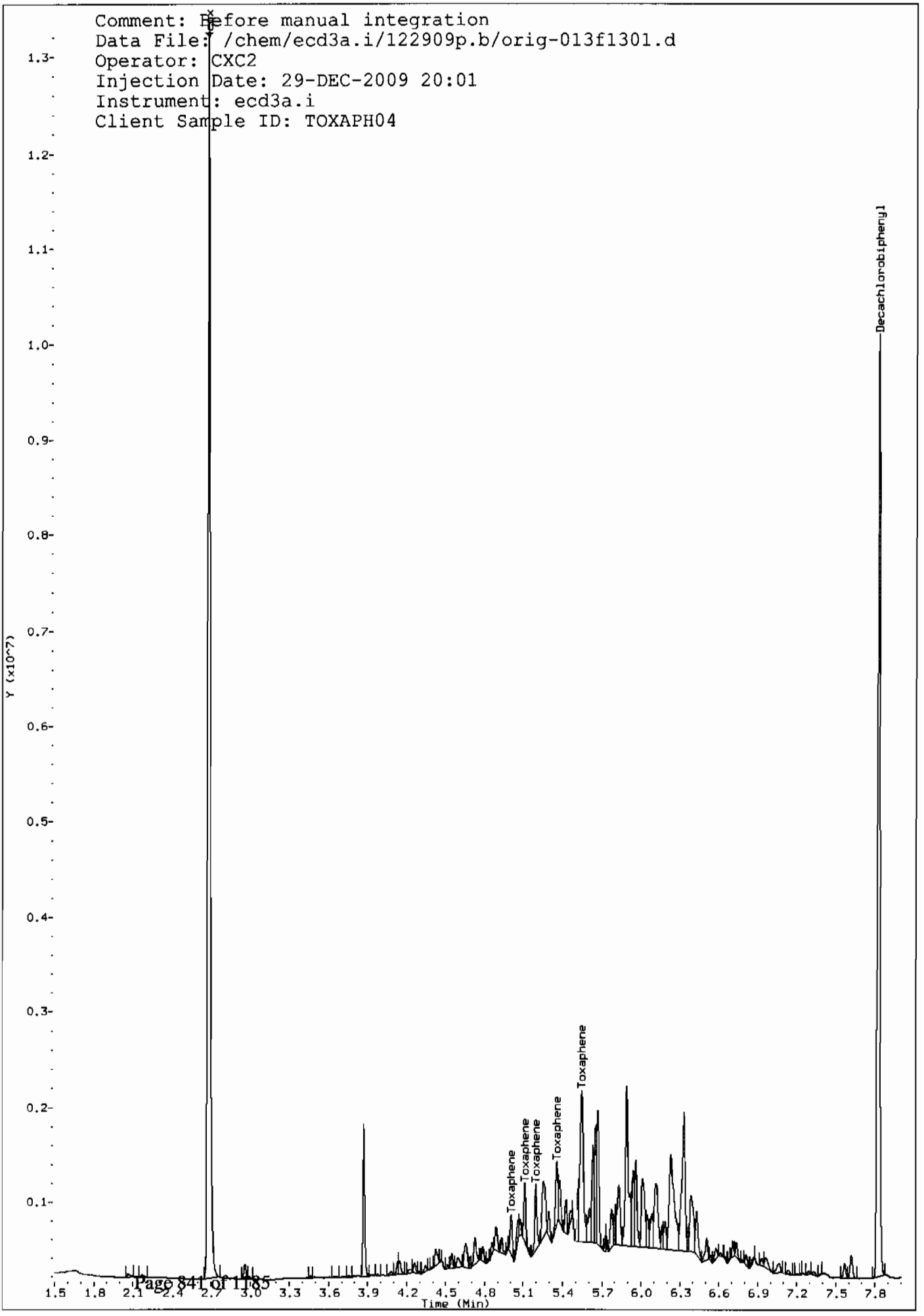

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/013b1301.d
Lab Smp Id: WPE091228-14TX Client Smp ID: TOXAPH04
Inj Date : 29-DEC-2009 20:01
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-14TX
Misc Info : |TOXLEVEL4
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:41 Cal File: 019b1901.d
Als bottle: 13 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.662	5.653	0.009	11230770	2000.00	2220	80.00- 120.00	100.00(M)
5.780	5.778	0.002	6880158	2000.00	2300	37.72- 77.72	61.26
6.170	6.168	0.002	13592060	2000.00	2260	78.89- 118.89	121.03
6.214	6.210	0.004	23392956	2000.00	2210	158.10- 198.10	208.29
6.315	6.313	0.002	41898337	2000.00	2190	271.11- 311.11	373.07
Average of Peak Amounts =					2.23e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.923	2.922	0.001	122860141	200.000	262	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.862	8.860	0.002	86472326	200.000	263	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/013b1301.d
Date : 29-DEC-2009 20:01
Client ID: TOXAPH04
Sample Info: IWPE091228-14TX

Column phase: CLP-2

Instrument: ecd3a.i

Operator: CXC2
Column diameter: 0.25

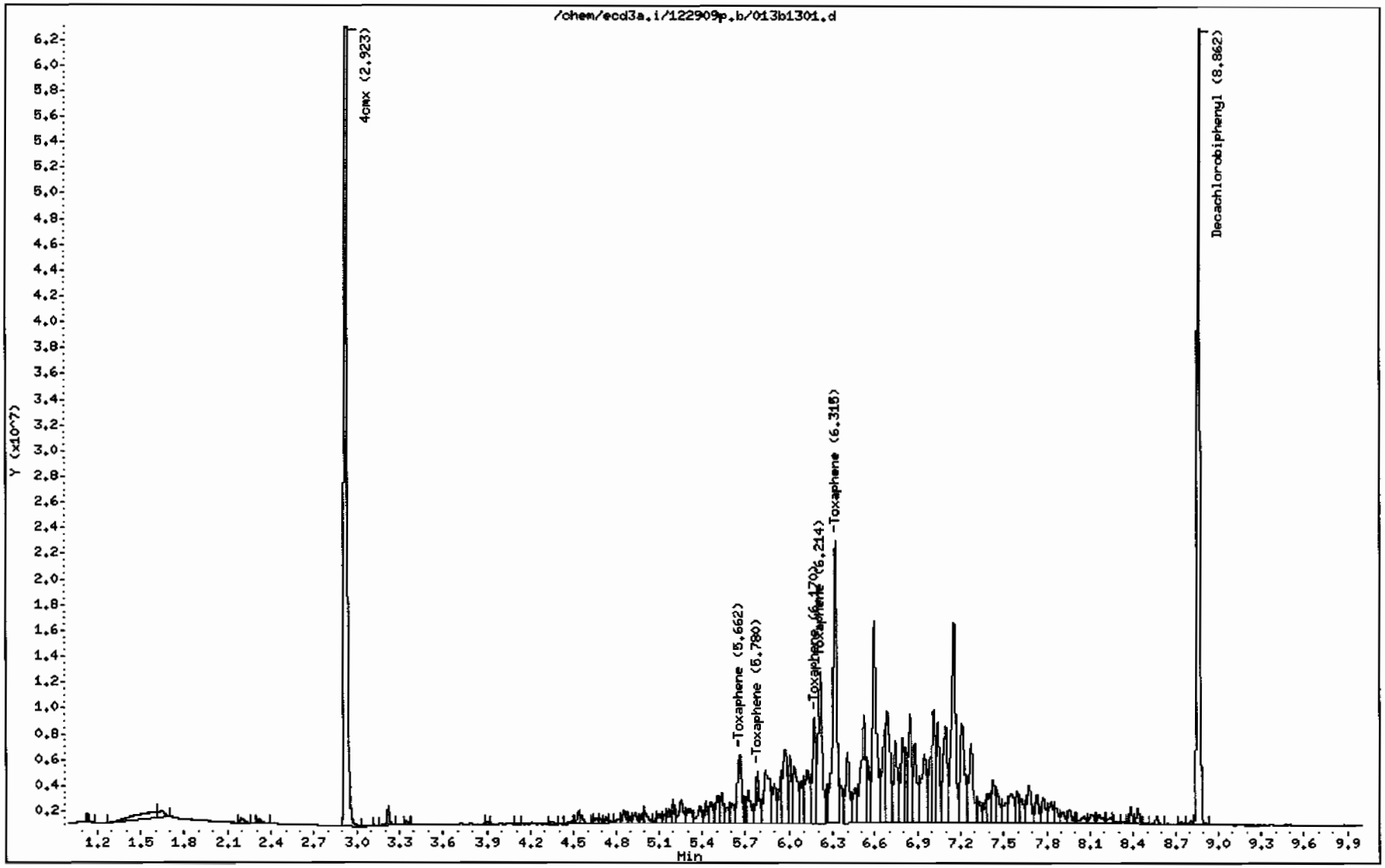

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/013b1301.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:01
Instrument: ecd3a.i
Client Sample ID: TOXAPH04

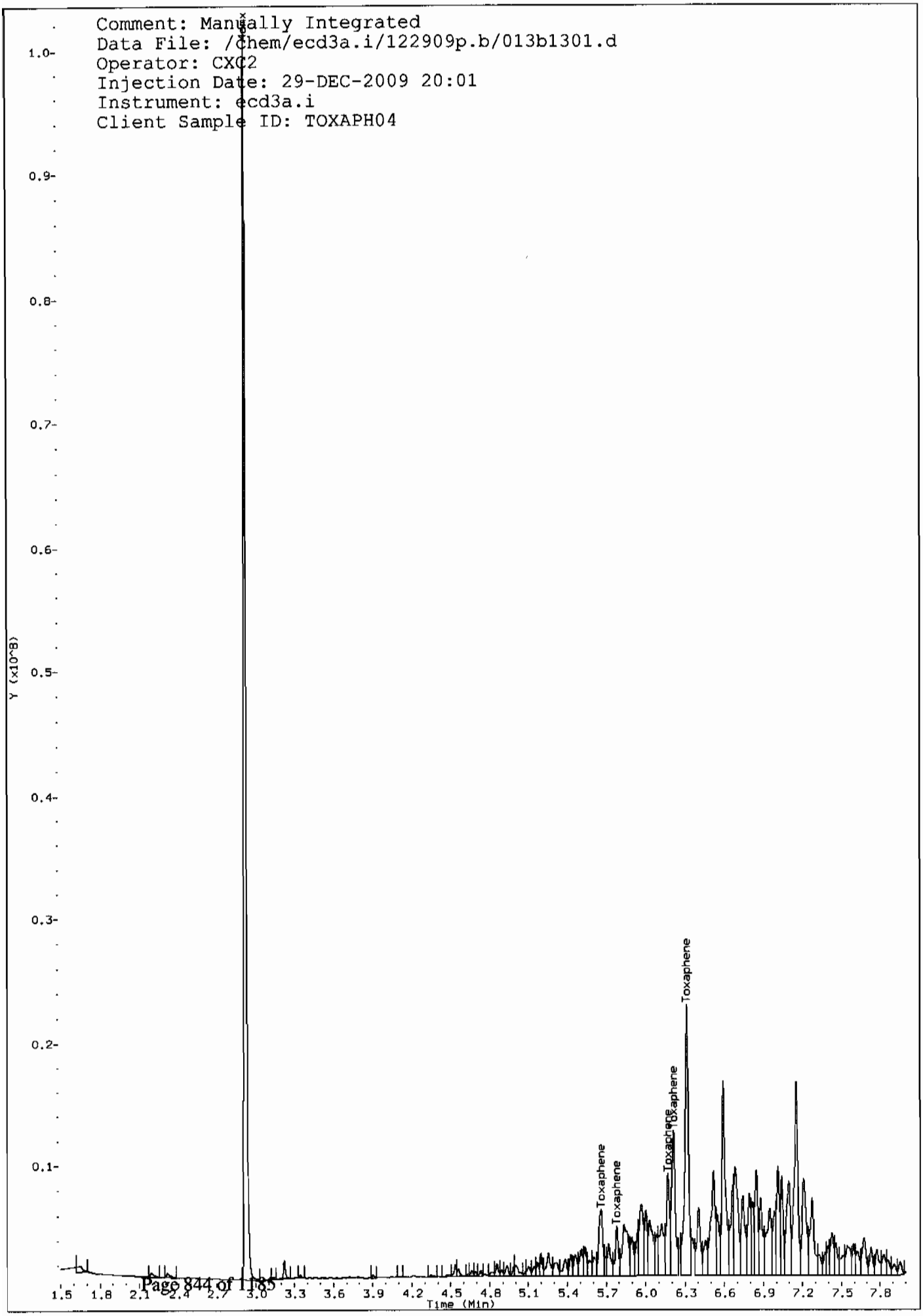

Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-013b1301.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:01
Instrument: ecd3a.i
Client Sample ID: TOXAPH04

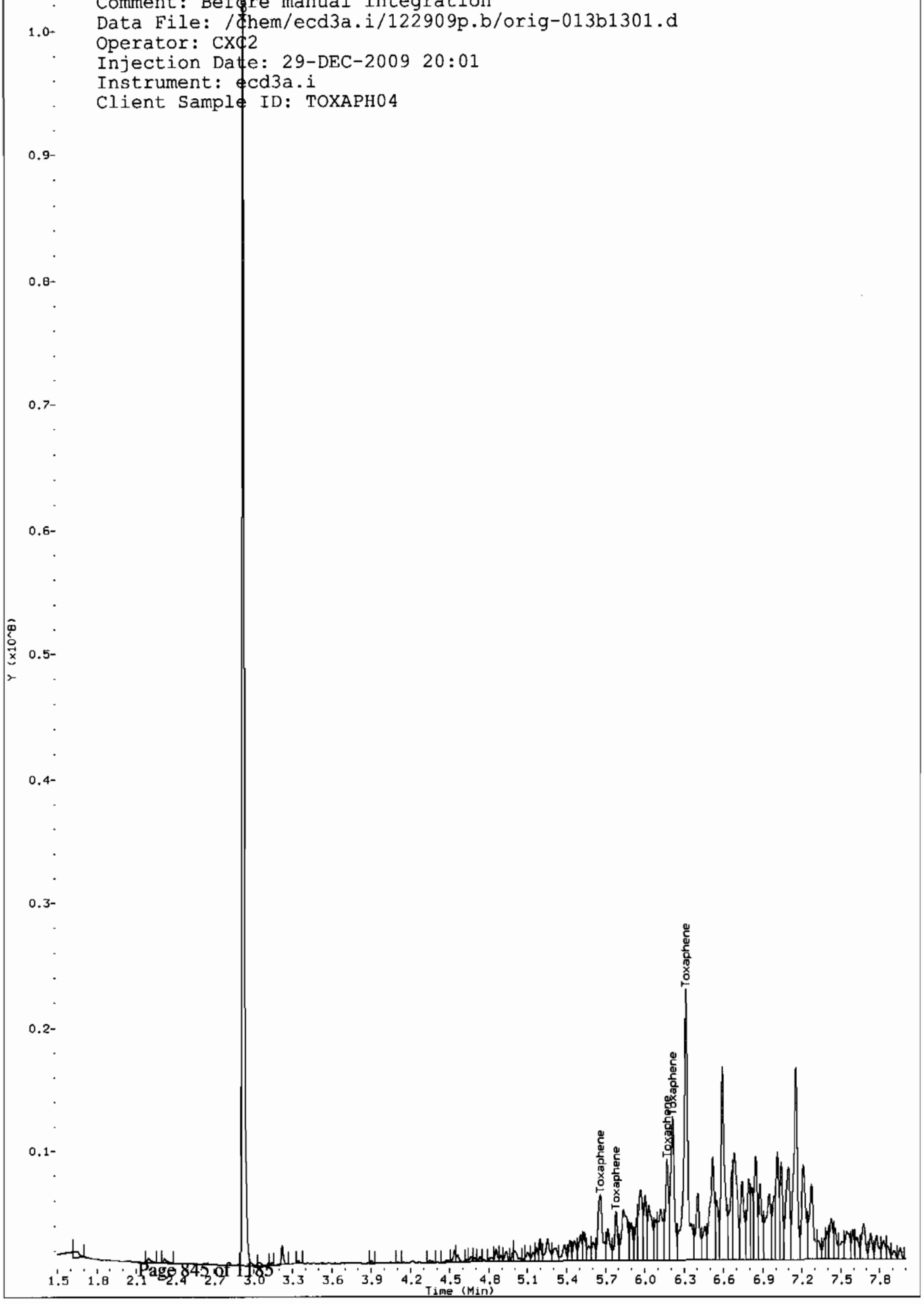

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CLP-1

Data file : /chem/ecd3a.i/122909p.b/014f1401.d
Lab Smp Id: IPE091121-40TX Client Smp ID: TOXAPH05
Inj Date : 29-DEC-2009 20:14
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |IPE091121-40TX
Misc Info : |TOXLEVEL5
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 14 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.003	5.005	-0.002	1525138	3000.00	3140	80.00- 120.00	100.00(AM)
5.110	5.109	0.001	2301981	3000.00	3050	136.78- 176.78	150.94
5.195	5.194	0.001	2830535	3000.00	3250	169.96- 209.96	185.59
5.356	5.353	0.003	3703424	3000.00	3260	213.58- 253.58	242.83
5.546	5.544	0.002	6757271	3000.00	3340	347.48- 387.48	443.06
Average of Peak Amounts =					3.21e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.679	2.679	0.000	27303201	400.000	414	80.00- 120.00	100.00(A)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.823	7.824	-0.001	19107307	400.000	396	80.00- 120.00	100.00

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/014f1401.d
Date : 29-DEC-2009 20:14
Client ID: TOXAPH05
Sample Info: IIPE091121-40TX

Column phase: CLP-1

Instrument: ecd3a.i

Operator: CXC2
Column diameter: 0.25

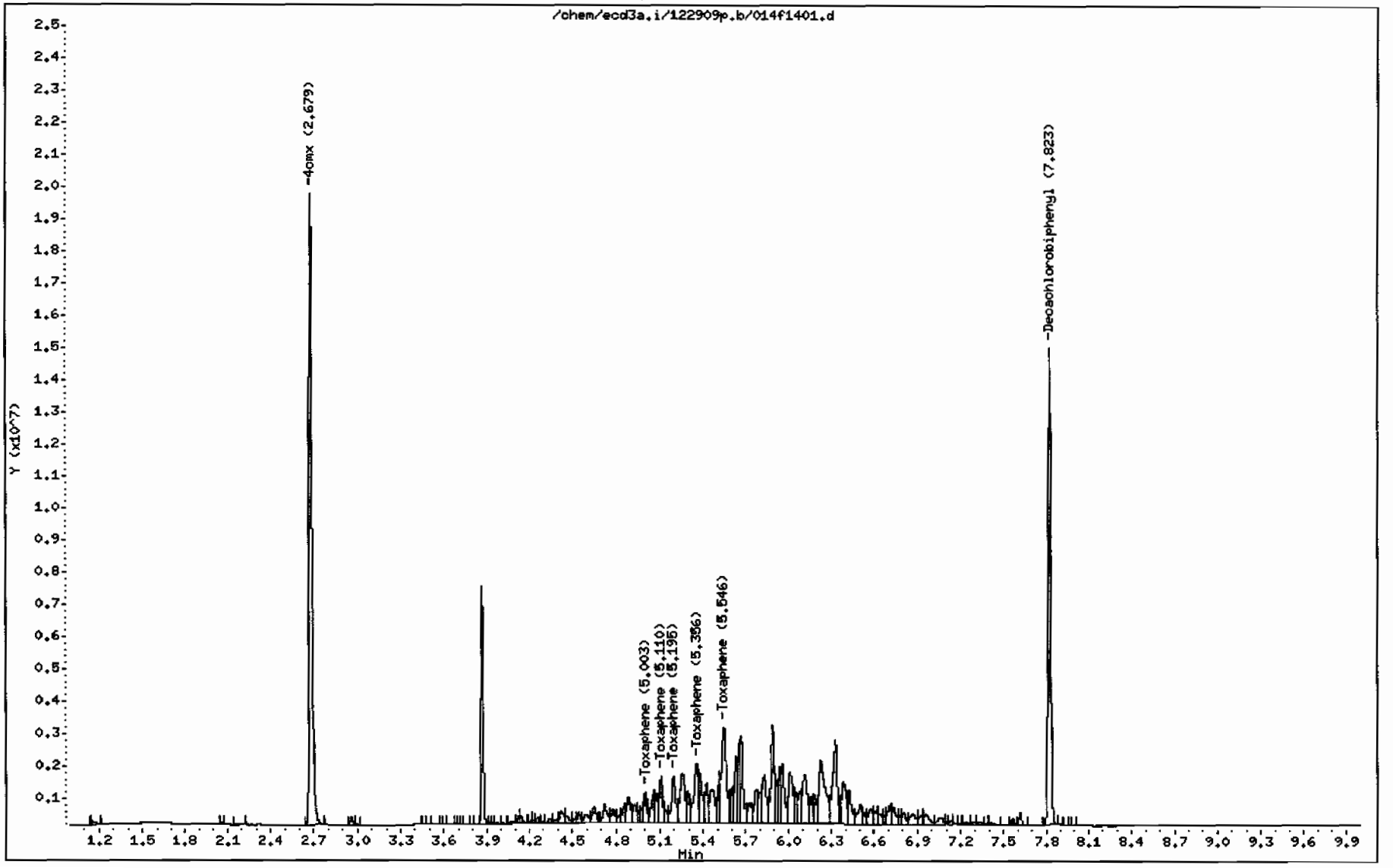

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/014f1401.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:14
Instrument: ecd3a.i
Client Sample ID: TOXAPH05

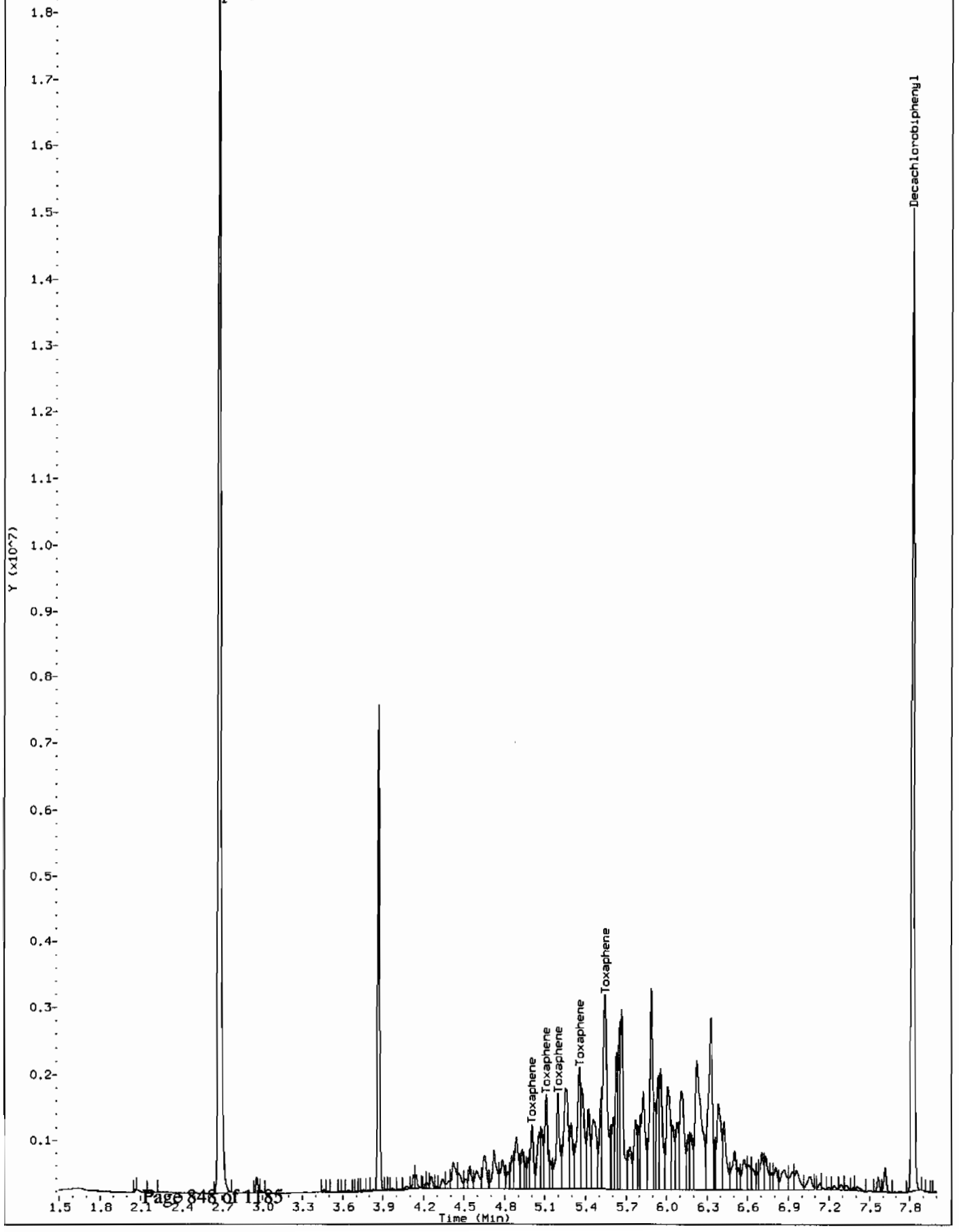

Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-014f1401.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:14
Instrument: ecd3a.i
Client Sample ID: TOXAPH05

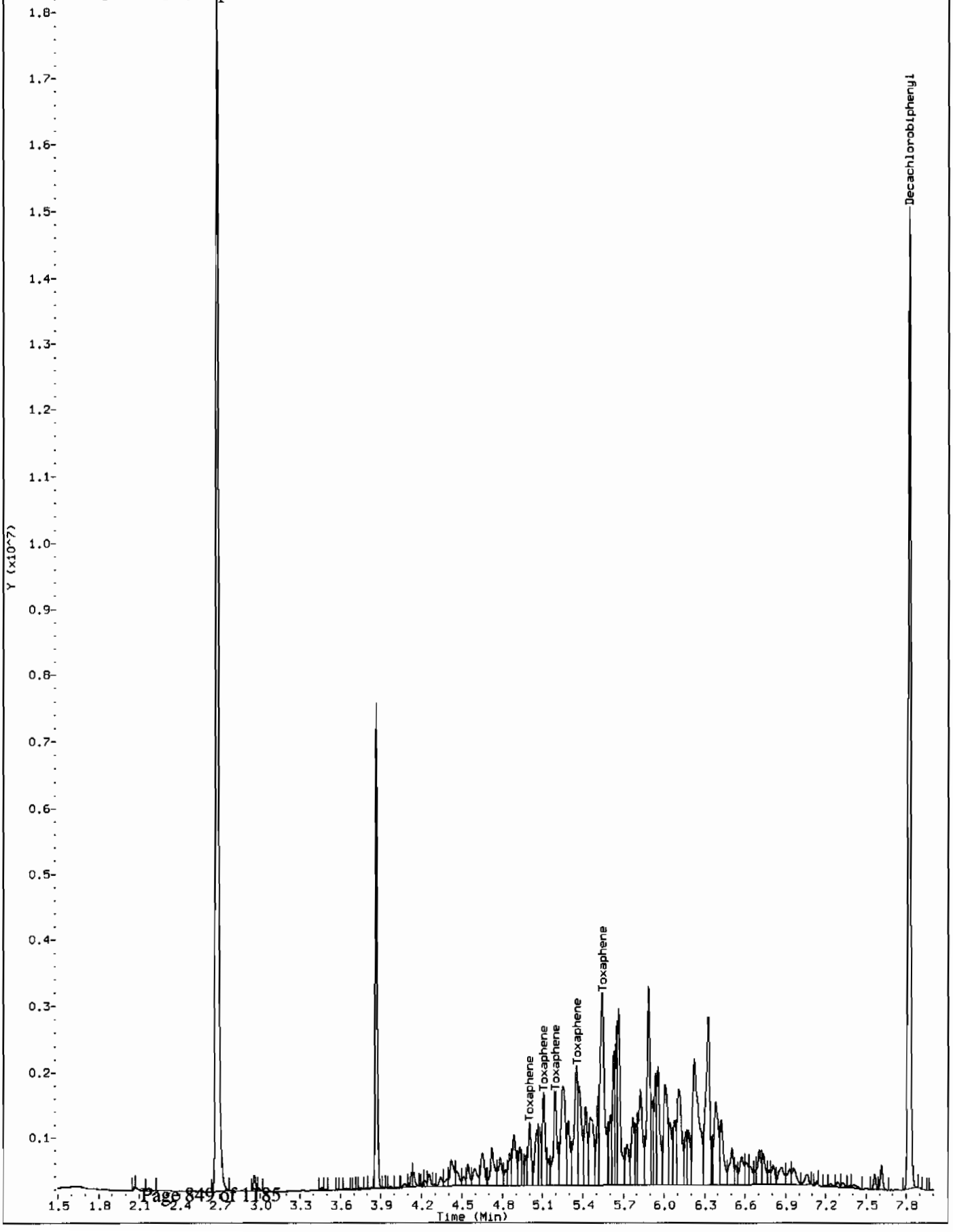

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/014b1401.d
Lab Smp Id: IPE091121-40TX Client Smp ID: TOXAPH05
Inj Date : 29-DEC-2009 20:14
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |IPE091121-40TX
Misc Info : |TOXLEVEL5
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 14 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.660	5.653	0.007	16010477	3000.00	3160	80.00- 120.00	100.00(AM)
5.779	5.778	0.001	9581089	3000.00	3200	37.72- 77.72	59.84
6.168	6.168	0.000	19489464	3000.00	3240	78.89- 118.89	121.73
6.212	6.210	0.002	33371554	3000.00	3150	158.10- 198.10	208.44
6.314	6.313	0.001	59627301	3000.00	3110	271.11- 311.11	372.43
Average of Peak Amounts =					3.17e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.923	2.922	0.001	171009753	400.000	365	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.860	8.860	0.000	132316885	400.000	403	80.00- 120.00	100.00

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/014b1401.d
Date : 29-DEC-2009 20:14
Client ID: TOXAPH05
Sample Info: IIPE091121-40TX

Column phase: CLP-2

Instrument: ecd3a.i

Operator: CXC2
Column diameter: 0.25

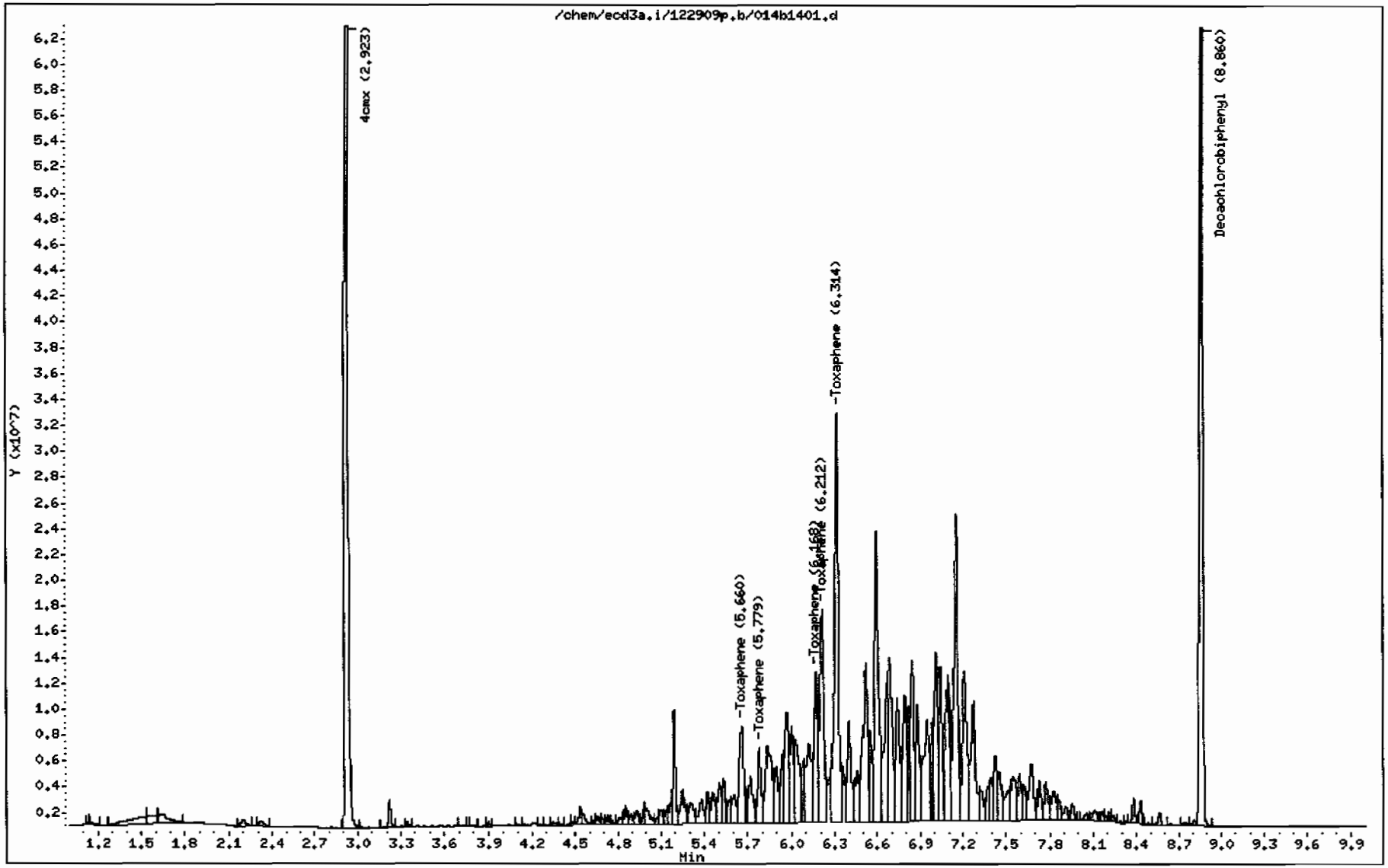

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/014b1401.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:14
Instrument: ecd3a.i
Client Sample ID: TOXAPH05

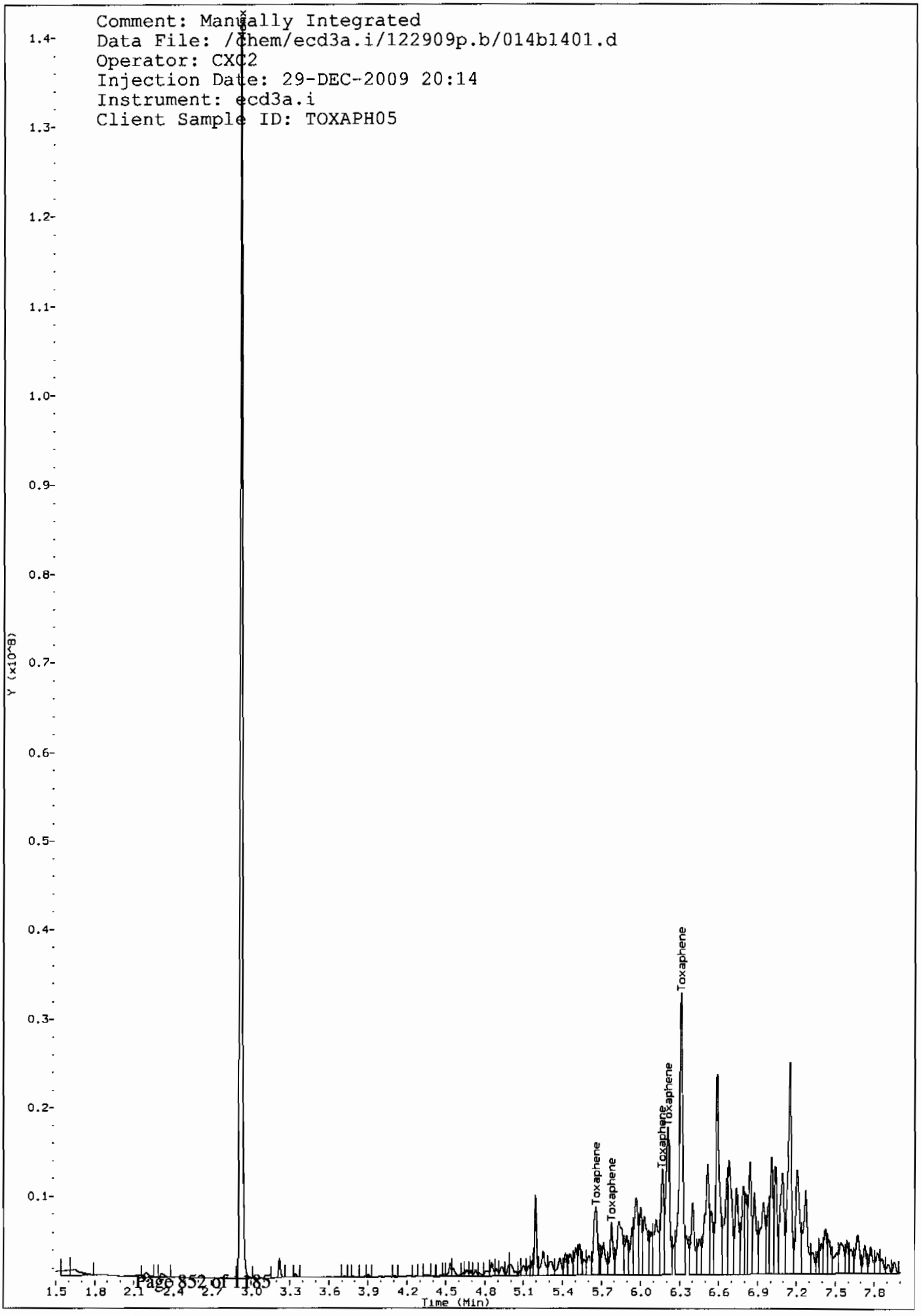

Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-014b1401.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:14
Instrument: ecd3a.i
Client Sample ID: TOXAPH05

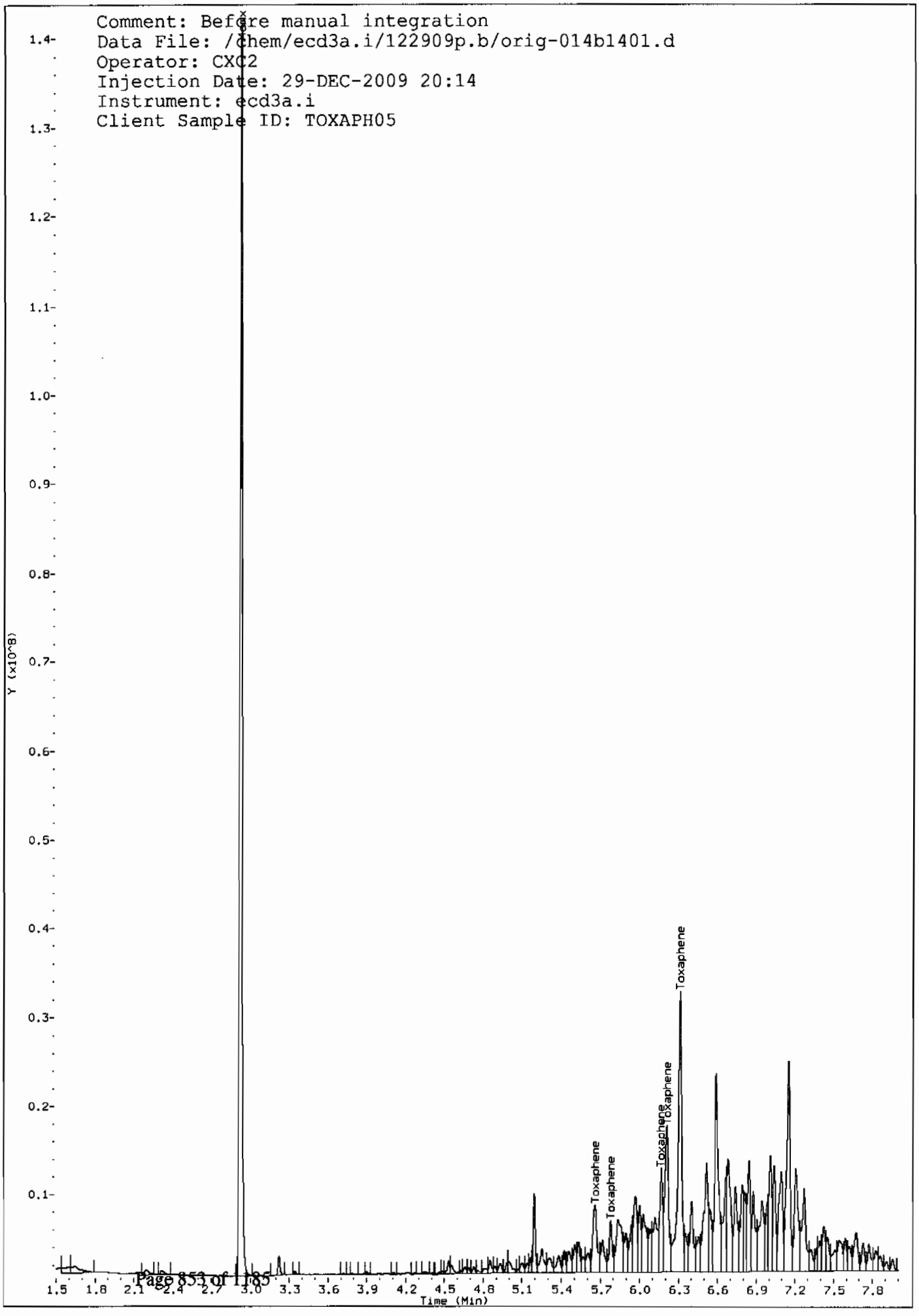

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-994

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 01/04/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM Date Analyzed :01/04/10

Lab Sample ID (PEM): WPE091219-99 Time Analyzed :1224

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	3.97	3.94	4.00	137	100	37.0
4,4'-DDE						
Endrin	5.33	5.30	5.36	133	100	33.0
4,4'-DDD						
4,4'-DDT	5.67	5.64	5.70	108	100	8.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 2.50 Endrin % breakdown (1): 3.80

Combined % breakdown (1): 6.30

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-994

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 01/04/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM Date Analyzed :01/04/10

Lab Sample ID (PEM): WPE091219-99 Time Analyzed :1224

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.45	4.42	4.48	129	100	29.0
4,4'-DDE						
Endrin	6.00	5.97	6.03	147	100	47.0
4,4'-DDD						
4,4'-DDT	6.44	6.41	6.47	117	100	17.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 2.20 Endrin % breakdown (1): 6.10

Combined % breakdown (1): 8.30

FORM VII PEST-1 OLM03.0

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-994

Instrument ID: ECD3A Calibration Date: 01/04/10 Time: 1310

Lab File ID: 004F0401 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1856 2014

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
Toxaphene	485.259	531.969	0.01	9.6	15.0
(2)	754.120	820.276	0.01	8.8	15.0
(3)	870.392	872.824	0.01	0.3	15.0
(4)	1136.606	1200.168	0.01	5.6	15.0
(5)	2021.570	1878.968	0.01	-7.0	15.0
4cmx	67768.398	70835.735	0.01	4.5	15.0
Decachlorobiphenyl	51857.827	51564.460	0.01	-0.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-994

Instrument ID: ECD3A Calibration Date: 01/04/10 Time: 1310

Lab File ID: 004B0401 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1856 2014

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D	
Toxaphene	5065.852	6299.646	0.01	24.4	15.0	<-
(2)	2990.542	3562.876	0.01	19.1	15.0	<-
(3)	6013.149	6061.205	0.01	0.8	15.0	
(4)	10599.481	11118.276	0.01	4.9	15.0	
(5)	19147.810	17687.441	0.01	-7.6	15.0	
4cmx	500031.47	504025.92	0.01	0.8	15.0	
Decachlorobiphenyl	394175.00	393366.89	0.01	-0.2	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-994

Instrument ID: ECD3A Calibration Date: 01/04/10 Time: 1502

Lab File ID: 012F1201 Init. Calib. Date(s): 01/04/10 01/04/10

Heated Purge: (Y/N) N Init. Calib. Times: 1340 1434

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d
alpha-BHC	97.7	100	LINR	-2.3	15.0
beta-BHC	102	100	AVRG	2.0	15.0
delta-BHC	100	100	AVRG	0.0	15.0
gamma-BHC (Lindane)	110	100	AVRG	10.0	15.0
Heptachlor	98.3	100	AVRG	-1.7	15.0
Aldrin	101	100	AVRG	1.0	15.0
Heptachlor epoxide	104	100	AVRG	4.0	15.0
Endosulfan I	112	100	AVRG	12.0	15.0
Dieldrin	212	200	AVRG	6.0	15.0
4,4'-DDE	213	200	AVRG	6.5	15.0
Endrin	215	200	AVRG	7.5	15.0
Endosulfan II	215	200	AVRG	7.5	15.0
4,4'-DDD	211	200	AVRG	5.5	15.0
Endosulfan sulfate	206	200	AVRG	3.0	15.0
4,4'-DDT	211	200	AVRG	5.5	15.0
Methoxychlor	950	1000	AVRG	-5.0	15.0
Endrin ketone	201	200	AVRG	0.5	15.0
Endrin aldehyde	204	200	AVRG	2.0	15.0
gamma-Chlordane	115	100	AVRG	15.0	15.0
alpha-Chlordane	98.8	100	AVRG	-1.2	15.0
4cmx	199	200	AVRG	-0.5	15.0
Decachlorobiphenyl	190	200	AVRG	-5.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-994

Instrument ID: ECD3A Calibration Date: 01/04/10 Time: 1502

Lab File ID: 012B1201 Init. Calib. Date(s): 01/04/10 01/04/10

Heated Purge: (Y/N) N Init. Calib. Times: 1340 1434

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d
alpha-BHC	106	100	AVRG	6.0	15.0
beta-BHC	95.0	100	AVRG	-5.0	15.0
delta-BHC	102	100	AVRG	2.0	15.0
gamma-BHC (Lindane)	106	100	AVRG	6.0	15.0
Heptachlor	90.1	100	AVRG	-9.9	15.0
Aldrin	96.3	100	AVRG	-3.7	15.0
Heptachlor epoxide	94.2	100	AVRG	-5.8	15.0
Endosulfan I	104	100	AVRG	4.0	15.0
Dieldrin	201	200	AVRG	0.5	15.0
4,4'-DDE	202	200	AVRG	1.0	15.0
Endrin	210	200	AVRG	5.0	15.0
Endosulfan II	200	200	AVRG	0.0	15.0
4,4'-DDD	206	200	AVRG	3.0	15.0
Endosulfan sulfate	209	200	AVRG	4.5	15.0
4,4'-DDT	205	200	AVRG	2.5	15.0
Methoxychlor	922	1000	AVRG	-7.8	15.0
Endrin ketone	199	200	AVRG	-0.5	15.0
Endrin aldehyde	198	200	AVRG	-1.0	15.0
gamma-Chlordane	111	100	LINR	11.0	15.0
alpha-Chlordane	94.4	100	AVRG	-5.6	15.0
4cmx	185	200	AVRG	-7.5	15.0
Decachlorobiphenyl	190	200	AVRG	-5.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-994

Instrument ID: ECD3A Calibration Date: 01/04/10 Time: 1723

Lab File ID: 021F2101 Init. Calib. Date(s): 01/04/10 01/04/10

Heated Purge: (Y/N) N Init. Calib. Times: 1340 1434

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d	
alpha-BHC	100	100	LINR	0.0	15.0	
beta-BHC	105	100	AVRG	5.0	15.0	
delta-BHC	104	100	AVRG	4.0	15.0	
gamma-BHC (Lindane)	113	100	AVRG	13.0	15.0	
Heptachlor	104	100	AVRG	4.0	15.0	
Aldrin	104	100	AVRG	4.0	15.0	
Heptachlor epoxide	107	100	AVRG	7.0	15.0	
Endosulfan I	115	100	AVRG	15.0	15.0	
Dieldrin	217	200	AVRG	8.5	15.0	
4,4'-DDE	219	200	AVRG	9.5	15.0	
Endrin	223	200	AVRG	11.5	15.0	
Endosulfan II	221	200	AVRG	10.5	15.0	
4,4'-DDD	218	200	AVRG	9.0	15.0	
Endosulfan sulfate	215	200	AVRG	7.5	15.0	
4,4'-DDT	221	200	AVRG	10.5	15.0	
Methoxychlor	988	1000	AVRG	-1.2	15.0	
Endrin ketone	207	200	AVRG	3.5	15.0	
Endrin aldehyde	210	200	AVRG	5.0	15.0	
gamma-Chlordane	117	100	AVRG	17.0	15.0	<-
alpha-Chlordane	101	100	AVRG	1.0	15.0	
4cmx	202	200	AVRG	1.0	15.0	
Decachlorobiphenyl	192	200	AVRG	-4.0	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-994

Instrument ID: ECD3A Calibration Date: 01/04/10 Time: 1723

Lab File ID: 021B2101 Init. Calib. Date(s): 01/04/10 01/04/10

Heated Purge: (Y/N) N Init. Calib. Times: 1340 1434

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d	
alpha-BHC	99.7	100	AVRG	-0.3	15.0	
beta-BHC	91.1	100	AVRG	-8.9	15.0	
delta-BHC	100	100	AVRG	0.0	15.0	
gamma-BHC (Lindane)	100	100	AVRG	0.0	15.0	
Heptachlor	91.0	100	AVRG	-9.0	15.0	
Aldrin	95.6	100	AVRG	-4.4	15.0	
Heptachlor epoxide	96.7	100	AVRG	-3.3	15.0	
Endosulfan I	110	100	AVRG	10.0	15.0	
Dieldrin	213	200	AVRG	6.5	15.0	
4,4'-DDE	214	200	AVRG	7.0	15.0	
Endrin	225	200	AVRG	12.5	15.0	
Endosulfan II	213	200	AVRG	6.5	15.0	
4,4'-DDD	220	200	AVRG	10.0	15.0	
Endosulfan sulfate	223	200	AVRG	11.5	15.0	
4,4'-DDT	221	200	AVRG	10.5	15.0	
Methoxychlor	966	1000	AVRG	-3.4	15.0	
Endrin ketone	208	200	AVRG	4.0	15.0	
Endrin aldehyde	210	200	AVRG	5.0	15.0	
gamma-Chlordane	132	100	LINR	32.0	15.0	<-
alpha-Chlordane	98.2	100	AVRG	-1.8	15.0	
4cmx	178	200	AVRG	-11.0	15.0	
Decachlorobiphenyl	192	200	AVRG	-4.0	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-994

Instrument ID: ECD3A Calibration Date: 01/04/10 Time: 1926

Lab File ID: 030F3001 Init. Calib. Date(s): 01/04/10 01/04/10

Heated Purge: (Y/N) N Init. Calib. Times: 1340 1434

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d	
alpha-BHC	101	100	LINR	1.0	15.0	
beta-BHC	106	100	AVRG	6.0	15.0	
delta-BHC	105	100	AVRG	5.0	15.0	
gamma-BHC (Lindane)	114	100	AVRG	14.0	15.0	
Heptachlor	106	100	AVRG	6.0	15.0	
Aldrin	105	100	AVRG	5.0	15.0	
Heptachlor epoxide	108	100	AVRG	8.0	15.0	
Endosulfan I	117	100	AVRG	17.0	15.0	<-
Dieldrin	219	200	AVRG	9.5	15.0	
4,4'-DDE	221	200	AVRG	10.5	15.0	
Endrin	222	200	AVRG	11.0	15.0	
Endosulfan II	224	200	AVRG	12.0	15.0	
4,4'-DDD	220	200	AVRG	10.0	15.0	
Endosulfan sulfate	223	200	AVRG	11.5	15.0	
4,4'-DDT	226	200	AVRG	13.0	15.0	
Methoxychlor	1010	1000	AVRG	1.0	15.0	
Endrin ketone	212	200	AVRG	6.0	15.0	
Endrin aldehyde	213	200	AVRG	6.5	15.0	
gamma-Chlordane	118	100	AVRG	18.0	15.0	<-
alpha-Chlordane	101	100	AVRG	1.0	15.0	
4cmx	203	200	AVRG	1.5	15.0	
Decachlorobiphenyl	195	200	AVRG	-2.5	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-994

Instrument ID: ECD3A Calibration Date: 01/04/10 Time: 1926

Lab File ID: 030B3001 Init. Calib. Date(s): 01/04/10 01/04/10

Heated Purge: (Y/N) N Init. Calib. Times: 1340 1434

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d
alpha-BHC	99.2	100	AVRG	-0.8	15.0
beta-BHC	91.6	100	AVRG	-8.4	15.0
delta-BHC	101	100	AVRG	1.0	15.0
gamma-BHC (Lindane)	101	100	AVRG	1.0	15.0
Heptachlor	92.6	100	AVRG	-7.4	15.0
Aldrin	98.0	100	AVRG	-2.0	15.0
Heptachlor epoxide	97.8	100	AVRG	-2.2	15.0
Endosulfan I	110	100	AVRG	10.0	15.0
Dieldrin	212	200	AVRG	6.0	15.0
4,4'-DDE	212	200	AVRG	6.0	15.0
Endrin	222	200	AVRG	11.0	15.0
Endosulfan II	214	200	AVRG	7.0	15.0
4,4'-DDD	220	200	AVRG	10.0	15.0
Endosulfan sulfate	226	200	AVRG	13.0	15.0
4,4'-DDT	226	200	AVRG	13.0	15.0
Methoxychlor	981	1000	AVRG	-1.9	15.0
Endrin ketone	214	200	AVRG	7.0	15.0
Endrin aldehyde	212	200	AVRG	6.0	15.0
gamma-Chlordane	103	100	LINR	3.0	15.0
alpha-Chlordane	97.6	100	AVRG	-2.4	15.0
4cmx	176	200	AVRG	-12.0	15.0
Decachlorobiphenyl	198	200	AVRG	-1.0	15.0

FORM VII PEST

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010410p.b/002f0201.d
Lab Smp Id: WPE091219-99DG Client Smp ID: PEM01
Inj Date : 04-JAN-2010 12:24
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091219-99DG
Misc Info : |PEM|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
3.967	3.969	-0.002	10435153	130.875	131	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.329	5.331	-0.002	7012651	123.108	123	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.978	5.980	-0.002	76242	1.54679	1.55	80.00- 120.00	100.00(M)
26 4,4'-DDT					CAS #: 50-29-3		
5.671	5.672	-0.001	4769283	105.991	106	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.729	6.730	-0.001	208105	3.23179	3.23	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.675	2.676	-0.001	14257875	210.391	210	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.821	7.823	-0.002	10321423	199.033	199	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010410p.b/002f0201.d
Date : 04-JUN-2010 12:24
Client ID: PEW01
Sample Info: IWPE091219-99DG
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

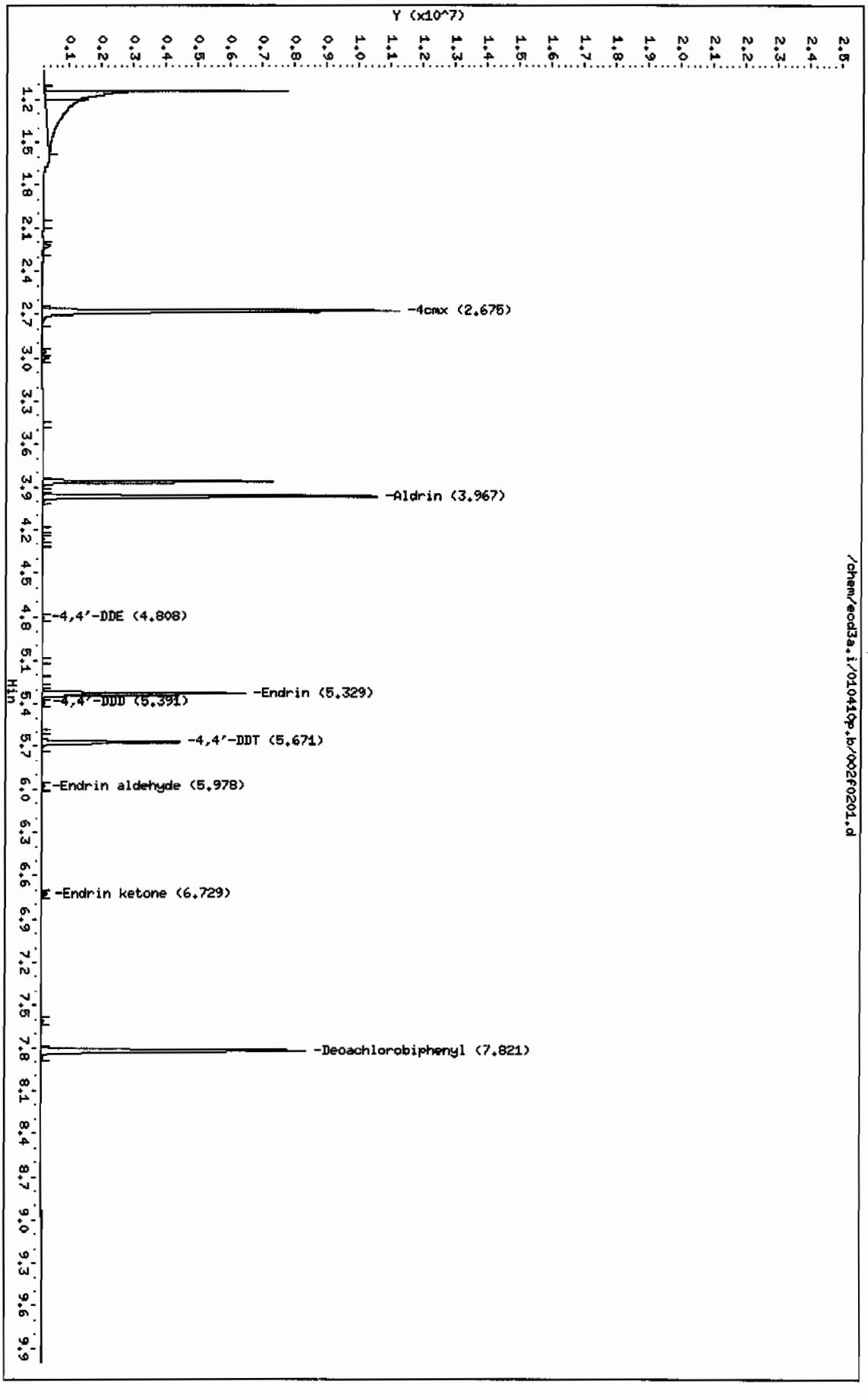

Page 1

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CLP-2

Data file : /chem/ecd3a.i/010410p.b/002b0201.d
Lab Smp Id: WPE091219-99DG Client Smp ID: PEM01
Inj Date : 04-JAN-2010 12:24
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091219-99DG
Misc Info : |PEM|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 07-Jan-2010 11:48 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.446	4.447	-0.001	47856838	125.958	126	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.998	5.999	-0.001	40566841	120.578	120	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.577	6.577	0.000	621902	1.62262	1.62	80.00- 120.00	100.00(M)
26 4,4'-DDT					CAS #: 50-29-3		
6.437	6.438	-0.001	37228972	103.722	104	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.470	7.471	-0.001	2051445	3.53775	3.54	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	102195244	204.378	204	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.858	8.859	-0.001	76478340	194.021	194	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010410p.b/002b0201.d

Date : 04-JAN-2010 12:24

Client ID: PEM01

Sample Info: IWPE091219-99DG

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

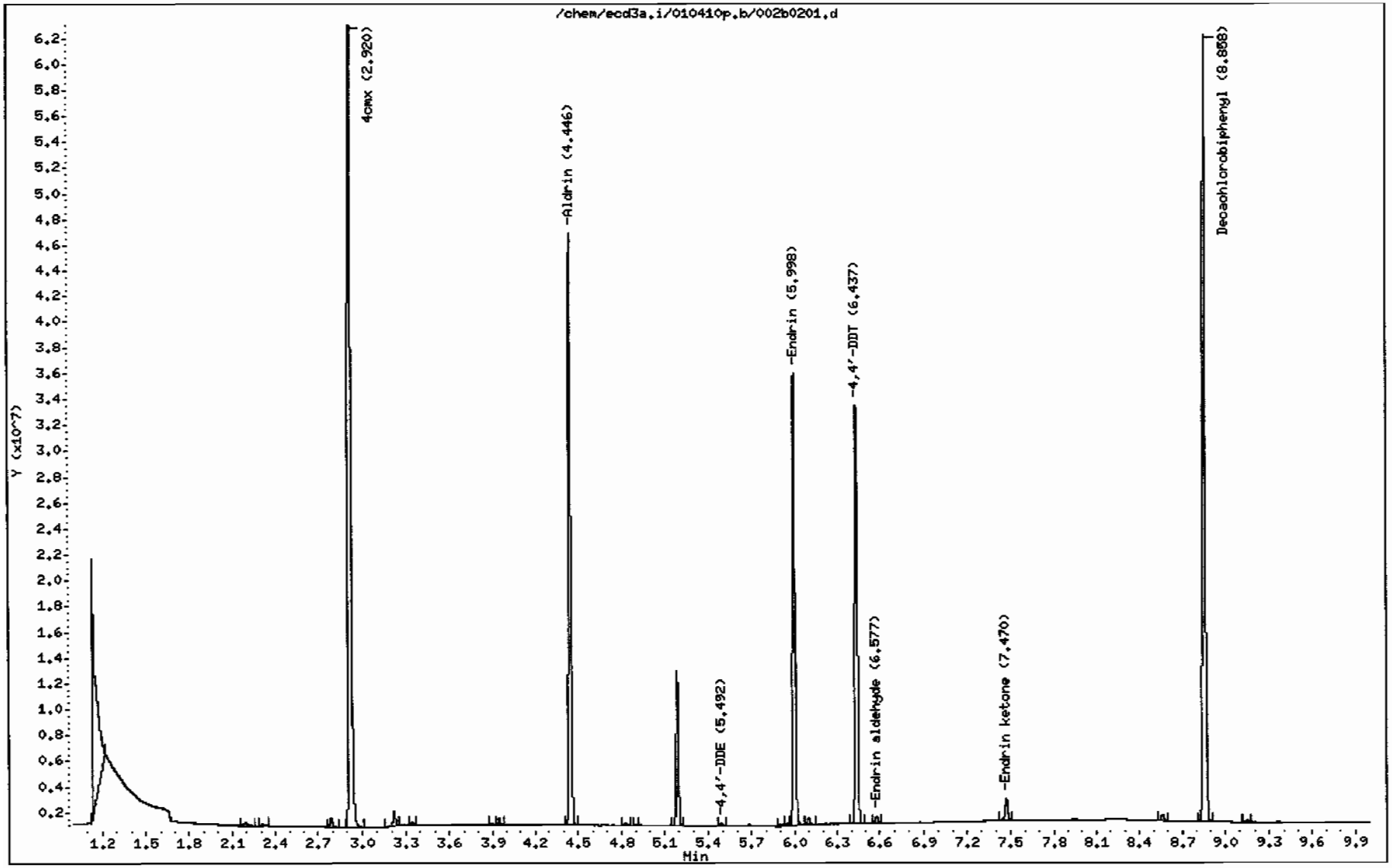

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CLP-1

Data file : /chem/ecd3a.i/010410p.b/004f0401.d
Lab Smp Id: WPE091219-52TX Client Smp ID: TOXAPH01
Inj Date : 04-JAN-2010 13:10
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091219-52TX
Misc Info : |TOXICV
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.014	5.014	0.000	1063938	2000.00	2190	80.00- 120.00	100.00(M)
5.119	5.119	0.000	1640551	2000.00	2180	134.20- 174.20	154.20
5.204	5.204	0.000	1745649	2000.00	2000	144.07- 184.07	164.07
5.364	5.364	0.000	2400336	2000.00	2110	205.61- 245.61	225.61
5.554	5.554	0.000	3757936	2000.00	1860	333.21- 373.21	353.21
Average of Peak Amounts =					2.07e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.681	2.676	0.005	14167147	200.000	209	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.835	7.823	0.012	10312892	200.000	199	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010410p.b/004f0401.d

Date : 04-JAN-2010 13:10

Client ID: TOXAPH01

Sample Info: IWPE091219-52TX

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

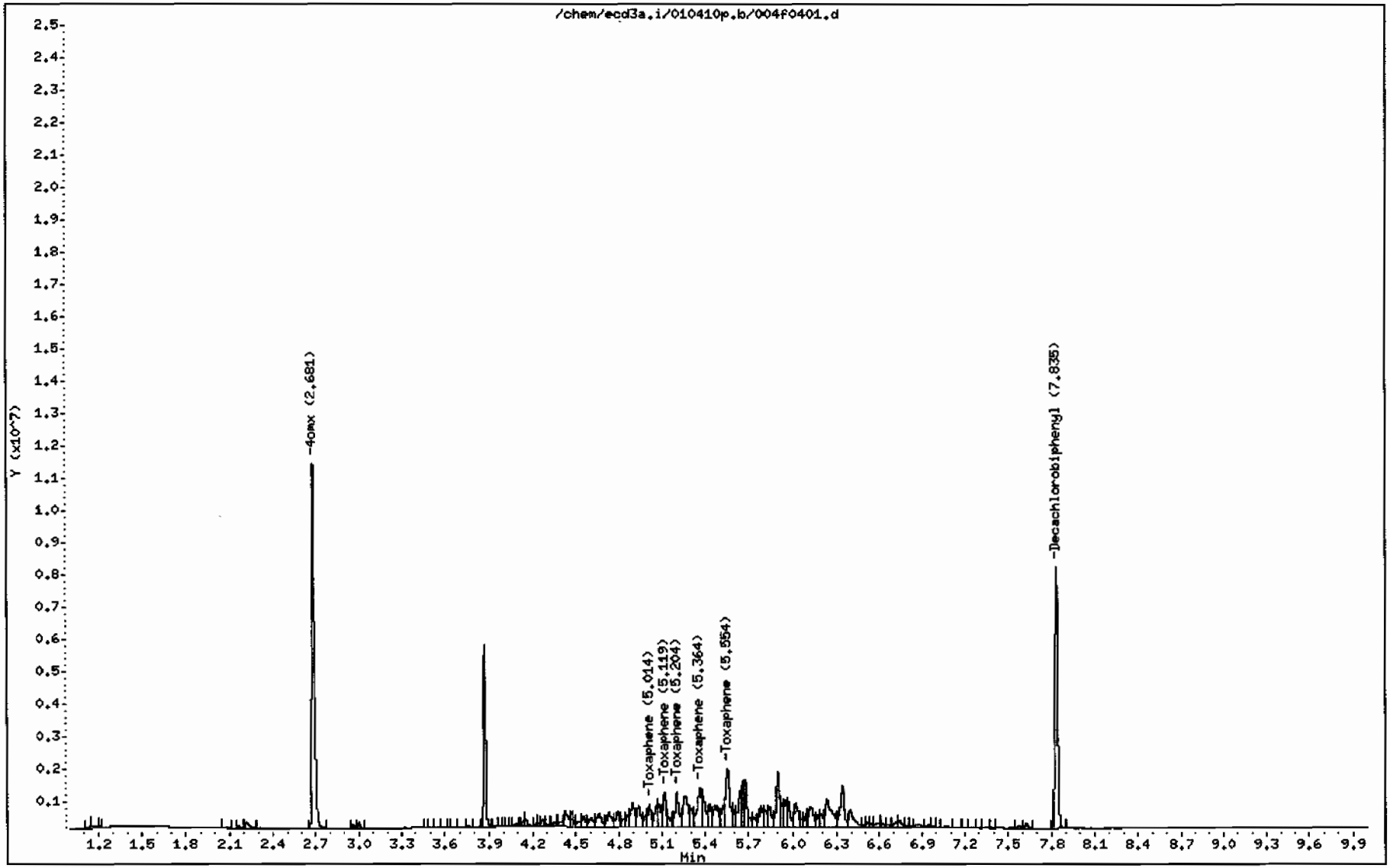

Comment: Manually Integrated
Data File: /chem/ecd3a.i/010410p.b/004f0401.d
Operator: HXJ1
Injection Date: 04-JAN-2010 13:10
Instrument: ecd3a.i
Client Sample ID: TOXAPH01

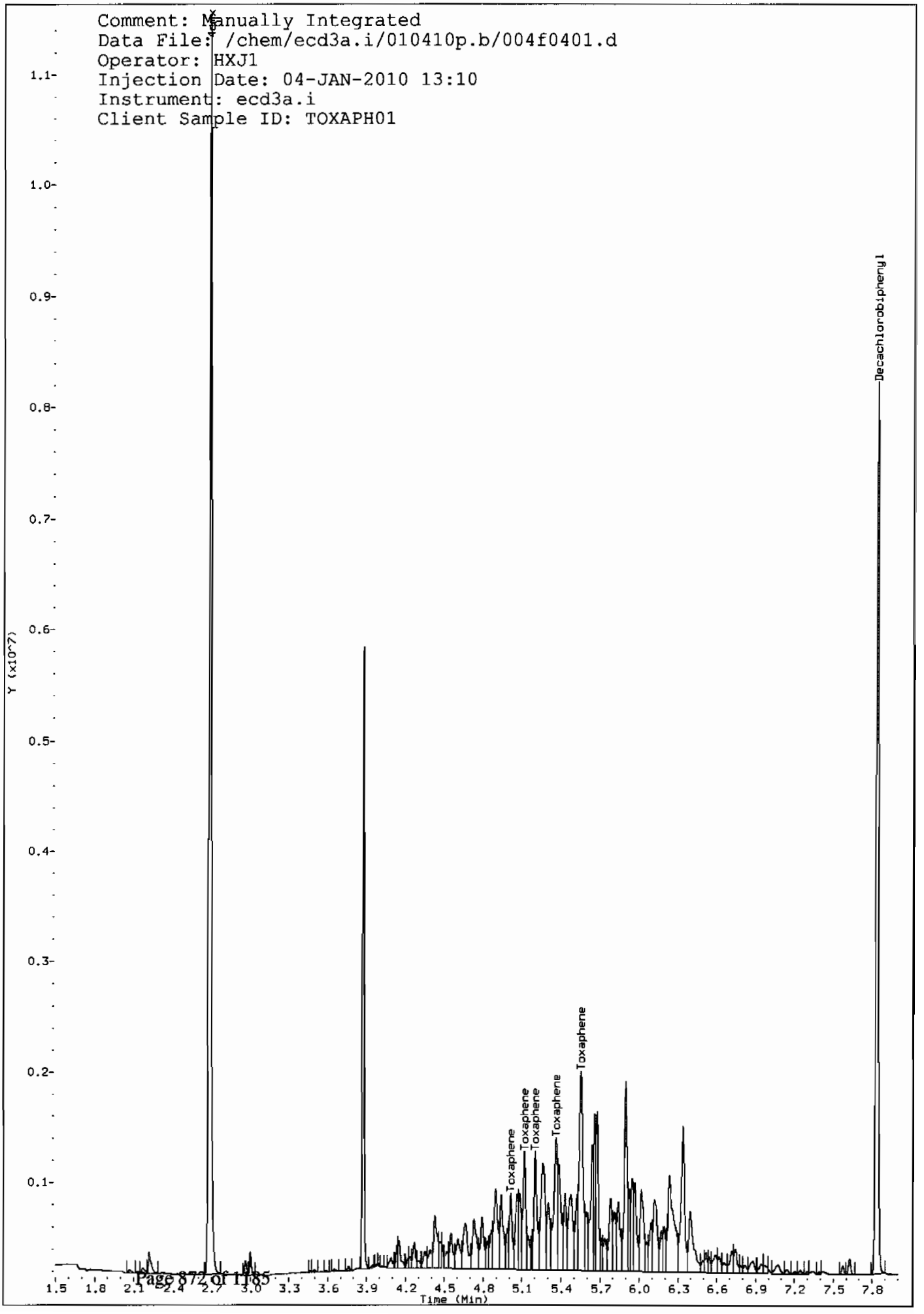

Comment: Before manual integration
Data File: /chem/ecd3a.i/010410p.b/orig-004f0401.d
Operator: HXJ1
Injection Date: 04-JAN-2010 13:10
Instrument: ecd3a.i
Client Sample ID: TOXAPH01

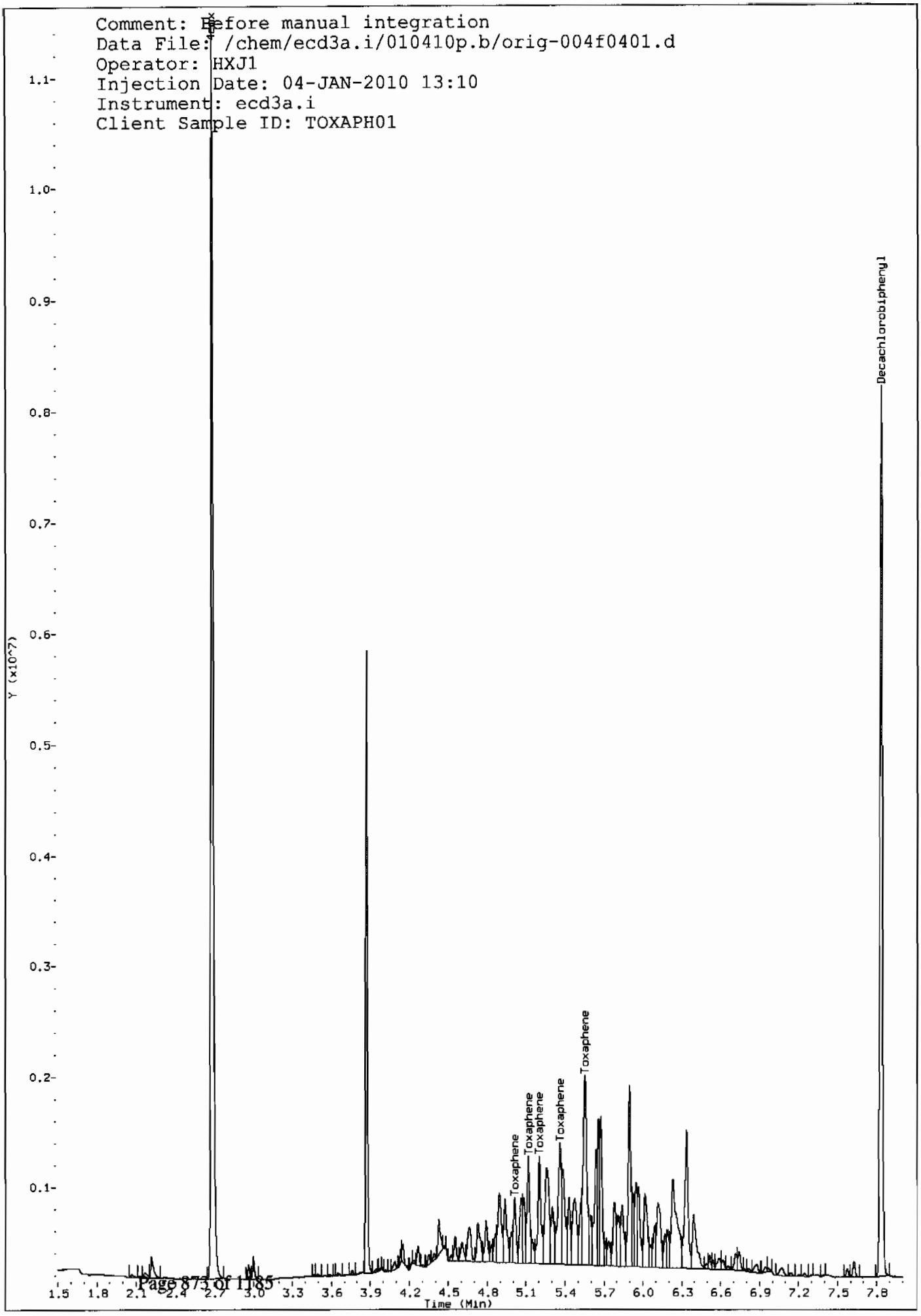

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CLP-2

Data file : /chem/ecd3a.i/010410p.b/004b0401.d
Lab Smp Id: WPE091219-52TX Client Smp ID: TOXAPH01
Inj Date : 04-JAN-2010 13:10
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091219-52TX
Misc Info : |TOXICV
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.662	5.662	0.000	12599291	2000.00	2490	80.00- 120.00	100.00(M)
5.783	5.783	0.000	7125752	2000.00	2380	36.56- 76.56	56.56
6.173	6.173	0.000	12122410	2000.00	2020	76.22- 116.22	96.22
6.216	6.216	0.000	22236553	2000.00	2100	156.49- 196.49	176.49
6.319	6.319	0.000	35374882	2000.00	1850	260.77- 300.77	280.77
Average of Peak Amounts =					2.17e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.924	2.920	0.004	100805185	200.000	202	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.866	8.859	0.007	78673377	200.000	200	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010410p.b/004b0401.d

Date : 04-JAN-2010 13:10

Client ID: TOXAPH01

Sample Info: IWPE091219-52TX

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

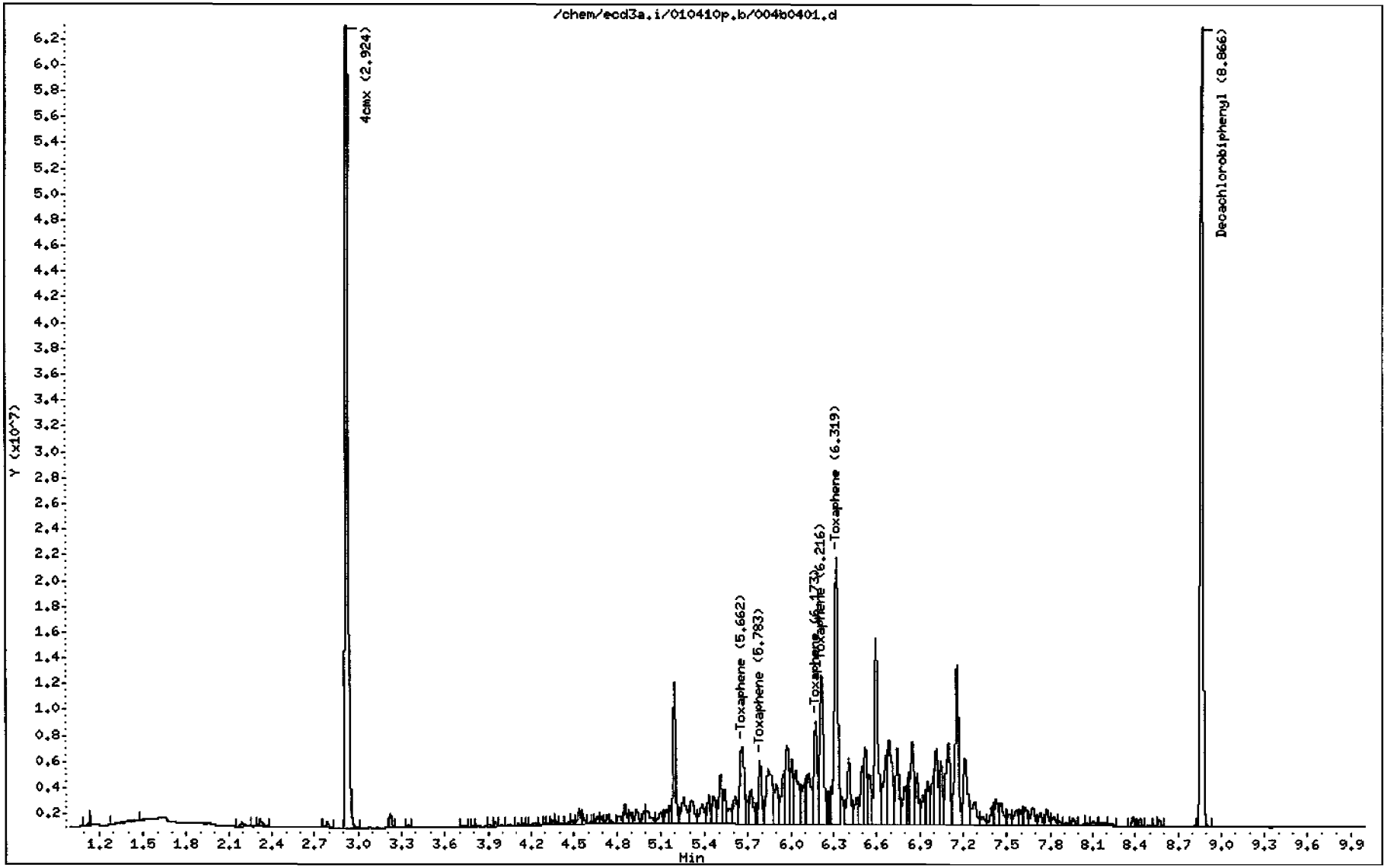

Comment: Manually Integrated
Data File: /chem/ecd3a.i/010410p.b/004b0401.d
Operator: HXJ1
Injection Date: 04-JAN-2010 13:10
Instrument: ecd3a.i
Client Sample ID: TOXAPH01

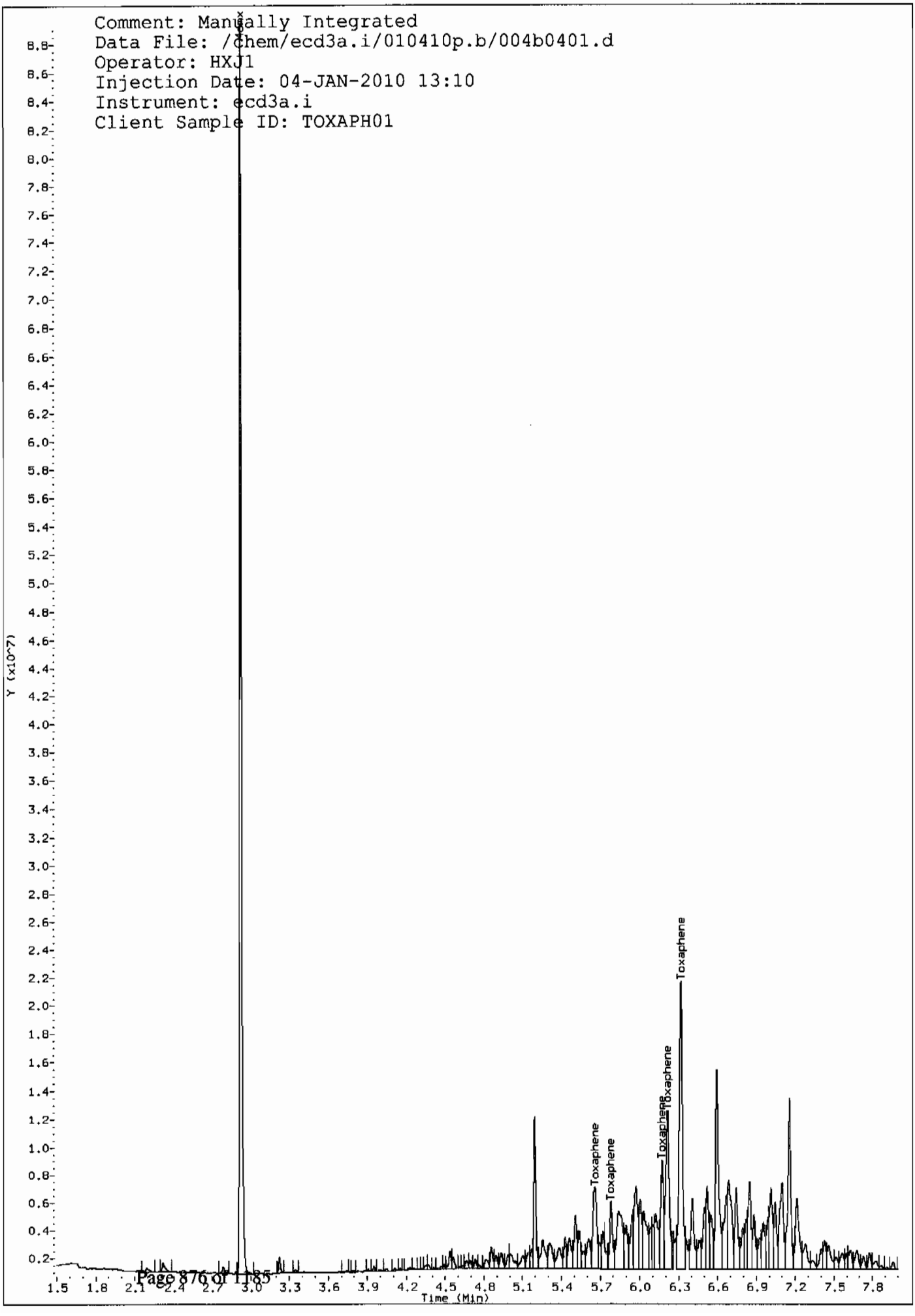

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Operator: HXJ1
Injection Date: 04-JAN-2010 13:10
Instrument: ecd3a.i
Client Sample ID: TOXAPH01

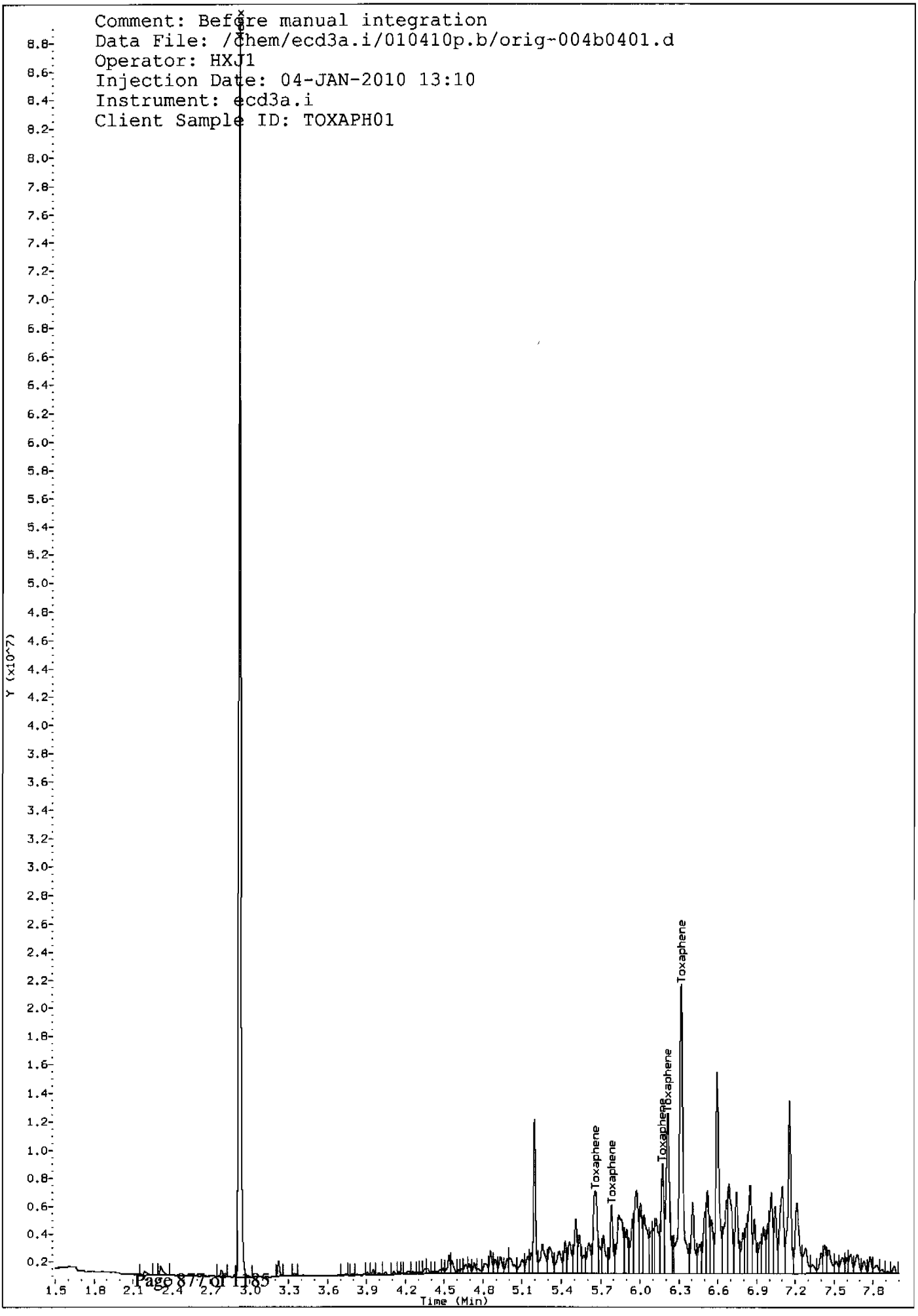

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CLP-1

Data file : /chem/ecd3a.i/010410p.b/012f1201.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB01
Inj Date : 04-JAN-2010 15:02
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.082	3.082	0.000	10064811	100.000	97.7	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.328	3.328	0.000	9098926	100.000	110	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.392	3.392	0.000	3670420	100.000	102	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.711	3.711	0.000	6394499	100.000	98.3	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.539	3.539	0.000	8562901	100.000	100	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.969	3.969	0.000	8072754	100.000	101	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.504	4.504	0.000	7438812	100.000	104	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.619	4.619	0.000	7863853	100.000	115	80.00- 120.00	100.00(M)
18 alpha-Chlordane					CAS #: 5103-71-9		
4.743	4.743	0.000	6870546	100.000	98.8	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.874	4.874	0.000	6941532	100.000	112	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.810	4.810	0.000	14596017	200.000	213	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.103	5.103	0.000	15073446	200.000	212	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.331	5.331	0.000	12239163	200.000	215	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.393	5.393	0.000	11622052	200.000	211	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.555	5.555	0.000	12581703	200.000	215	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.980	5.980	0.000	10083327	200.000	204	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.672	5.672	0.000	9485310	200.000	211	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.433	6.433	0.000	9854535	200.000	206	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.176	6.176	0.000	21076536	1000.00	950	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.730	6.730	0.000	12918854	200.000	201	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.676	2.676	0.000	13486430	200.000	199	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.823	7.823	0.000	9830224	200.000	190	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010410p.b/012f1201.d
Date : 04-JAN-2010 15:02
Client ID: INDAB01
Sample Info: IWPE091218-10AB

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

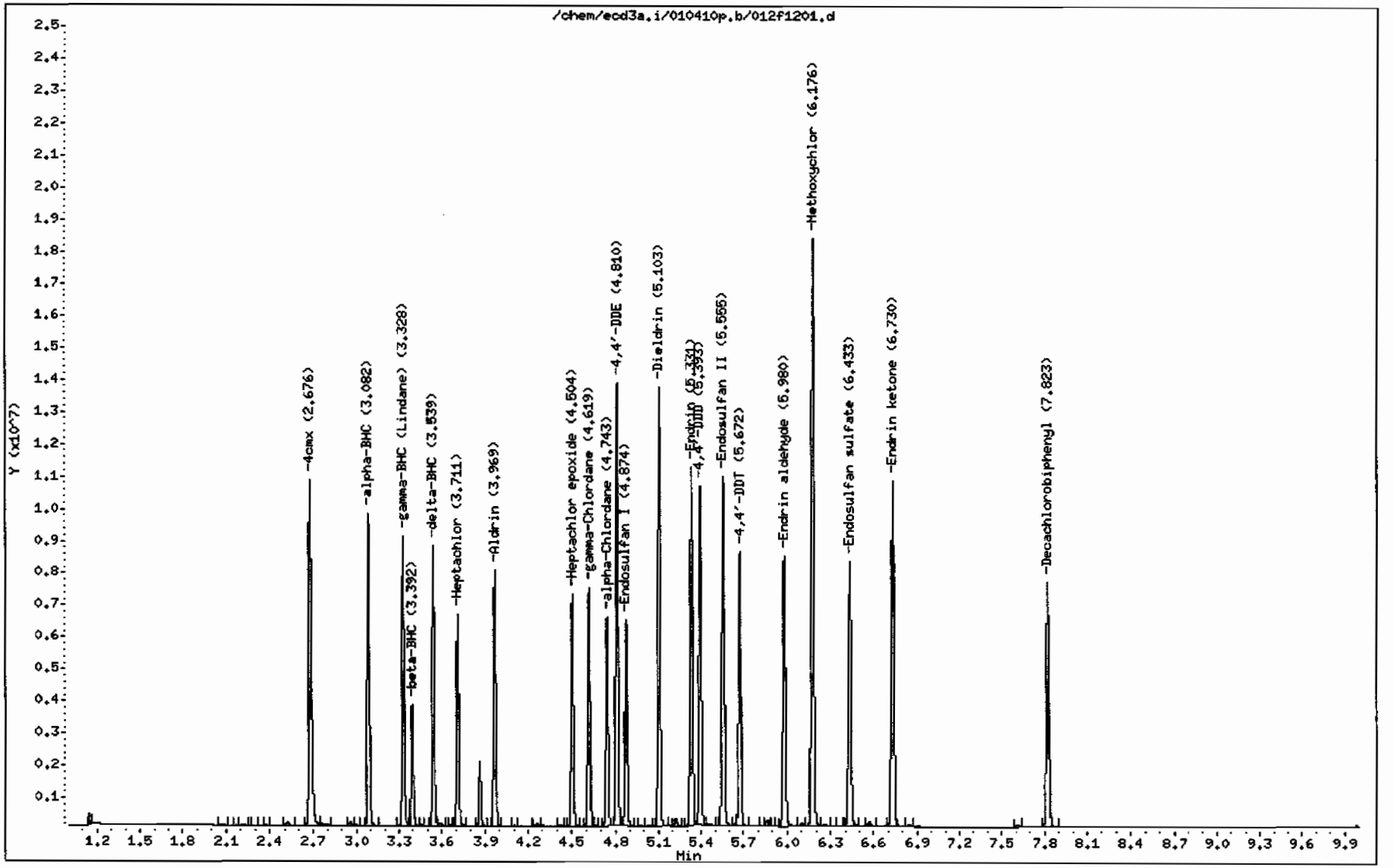

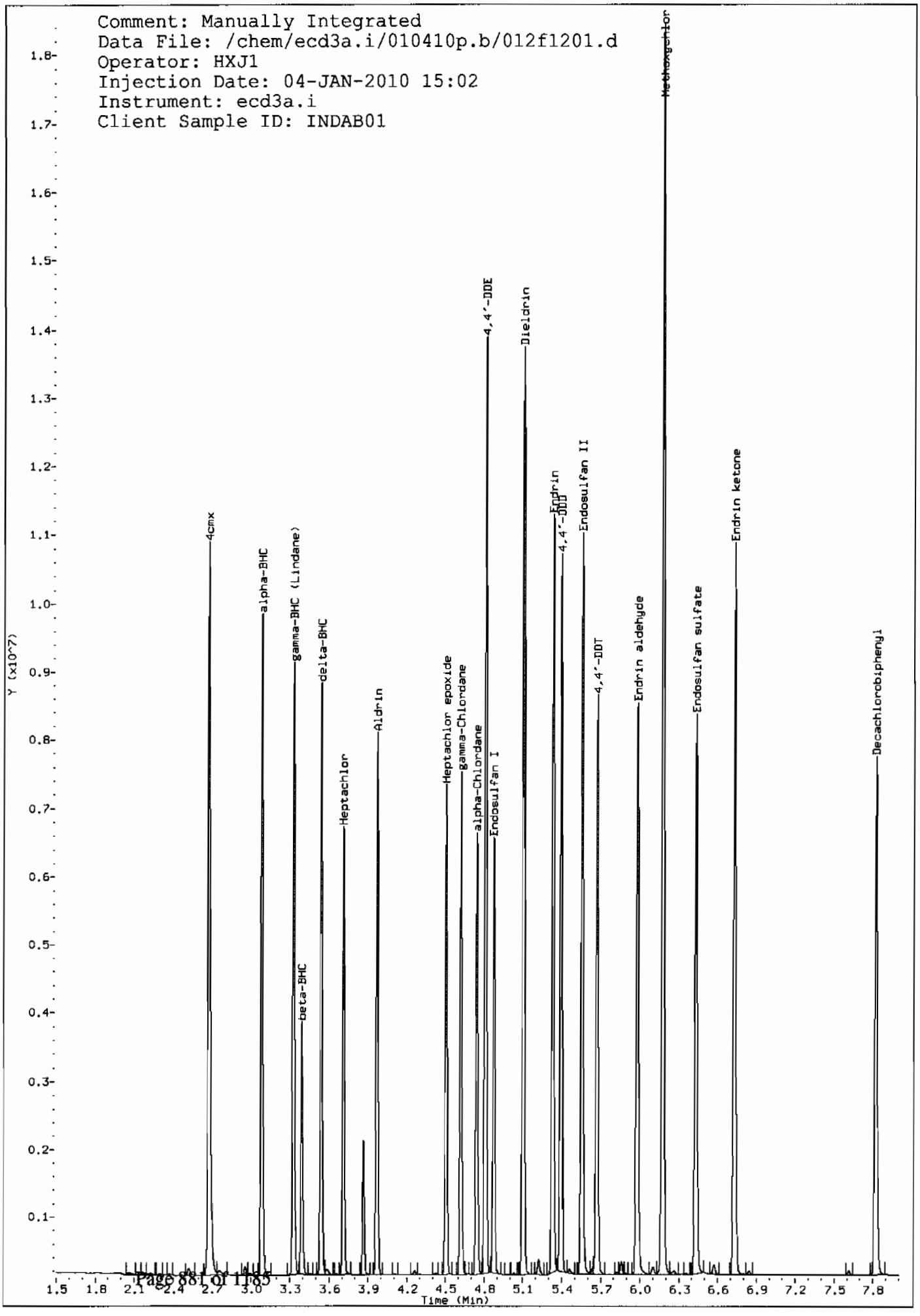
Comment: Manually Integrated
Data File: /chem/ecd3a.i/010410p.b/012f1201.d
Operator: HXJ1
Injection Date: 04-JAN-2010 15:02
Instrument: ecd3a.i
Client Sample ID: INDAB01
Y (x10^7)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

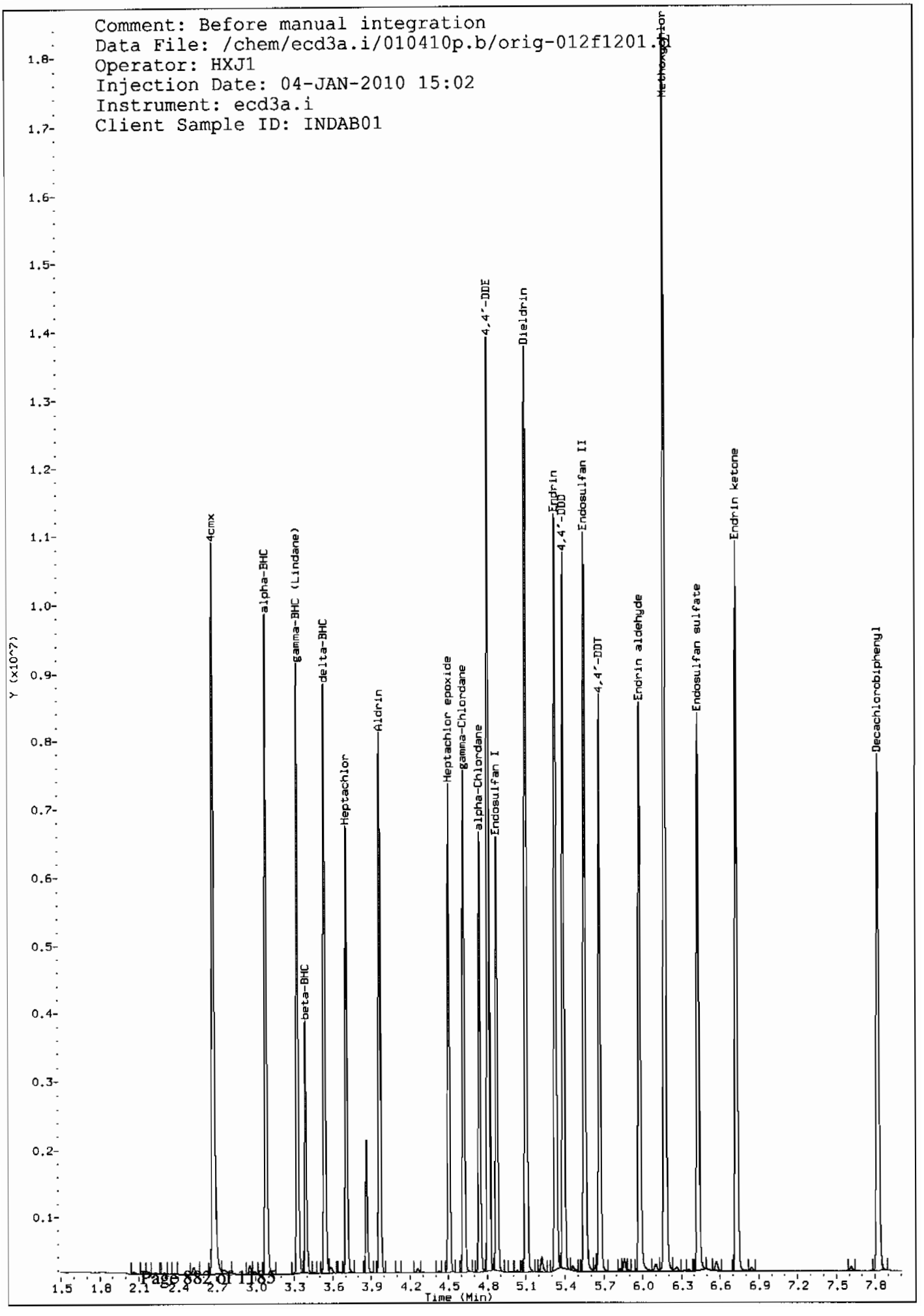
Comment: Before manual integration
Data File: /chem/ecd3a.i/010410p.b/orig-012f1201.d
Operator: HXJ1
Injection Date: 04-JAN-2010 15:02
Instrument: ecd3a.i
Client Sample ID: INDAB01
Y (x10^7)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

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CLP-2

Data file : /chem/ecd3a.i/010410p.b/012b1201.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB01
Inj Date : 04-JAN-2010 15:02
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 07-Jan-2010 11:42 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.413	3.413	0.000	72673730	100.000	106	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.721	3.721	0.000	61380643	100.000	106	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.783	3.783	0.000	24099905	100.000	95.0	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.135	4.135	0.000	38169331	100.000	90.1	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.056	4.056	0.000	53965935	100.000	102	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.447	4.447	0.000	36587912	100.000	96.3	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.997	4.997	0.000	28838830	100.000	94.2	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.189	5.189	0.000	34355577	100.000	111	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.335	5.335	0.000	28175940	100.000	94.4	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.399	5.399	0.000	29475001	100.000	104	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.493	5.493	0.000	59643756	200.000	202	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.680	5.680	0.000	69509501	200.000	201	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.999	5.999	0.000	70754972	200.000	210	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.098	6.098	0.000	70379624	200.000	206	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.220	6.220	0.000	78912141	200.000	200	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.577	6.577	0.000	75855861	200.000	198	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.438	6.438	0.000	73507381	200.000	205	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.880	6.880	0.000	98176706	200.000	209	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.181	7.181	0.000	182454113	1000.00	922	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.471	7.471	0.000	115549874	200.000	199	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	92583067	200.000	185	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.859	8.859	0.000	74929998	200.000	190	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/012b1201.d
Date : 04-JAN-2010 15:02
Client ID: IWDAB01
Sample Info: IWPE091218-10AB
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

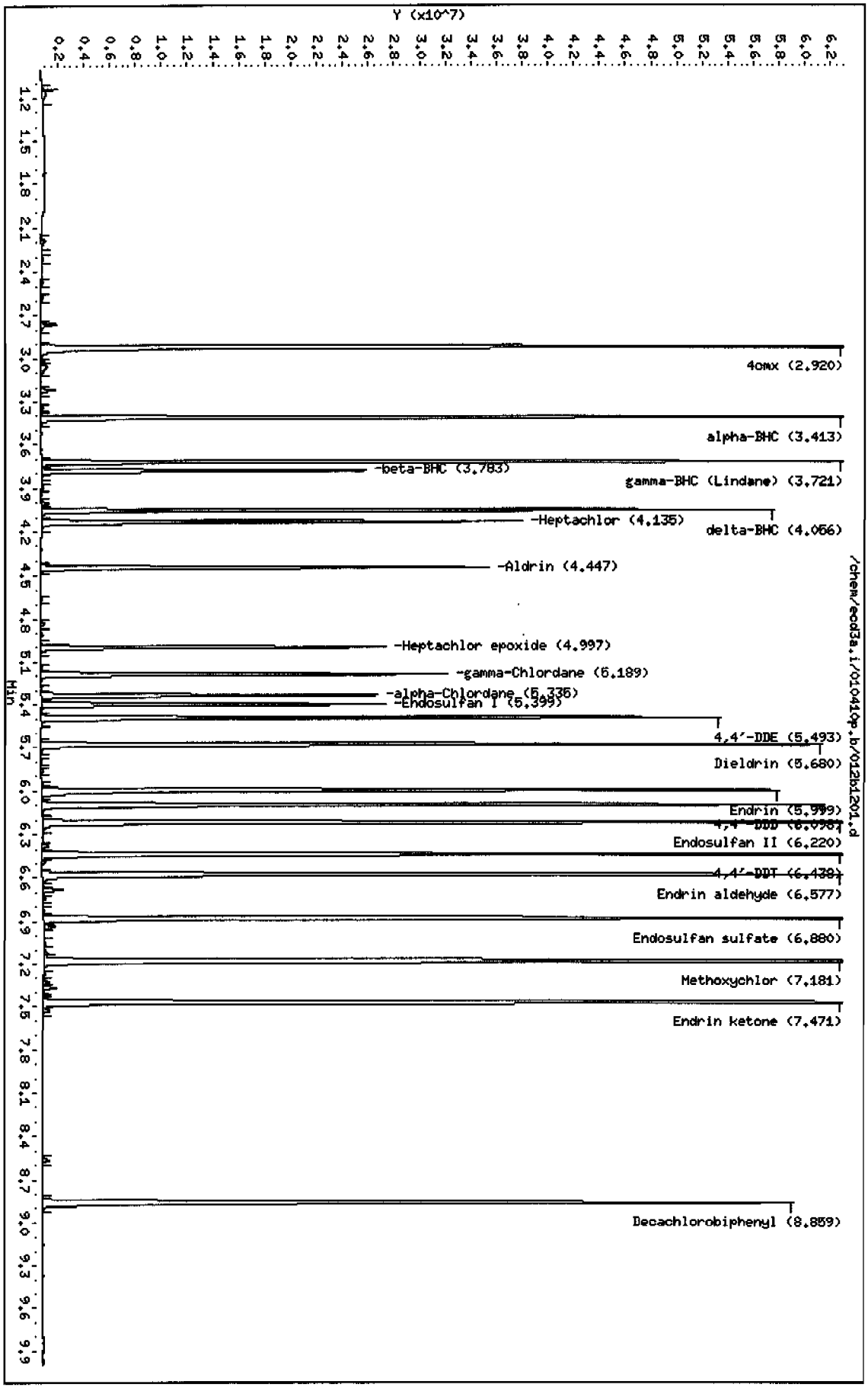

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CLP-1

Data file : /chem/ecd3a.i/010410p.b/021f2101.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB02
Inj Date : 04-JAN-2010 17:23
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.086	3.082	0.004	10342575	100.000	100	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.332	3.328	0.004	9365787	100.000	113	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.396	3.392	0.004	3770521	100.000	105	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.716	3.711	0.005	6785170	100.000	104	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.545	3.539	0.006	8890312	100.000	104	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.974	3.969	0.005	8292210	100.000	104	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.510	4.504	0.006	7622812	100.000	107	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.626	4.619	0.007	8032866	100.000	117	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.749	4.743	0.006	6999616	100.000	101	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.880	4.874	0.006	7120250	100.000	115	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.816	4.810	0.006	15023084	200.000	219	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.109	5.103	0.006	15460447	200.000	217	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.338	5.331	0.007	12685811	200.000	223	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.399	5.393	0.006	12013575	200.000	218	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.561	5.555	0.006	12922057	200.000	221	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.986	5.980	0.006	10358837	200.000	210	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.679	5.672	0.007	9935101	200.000	221	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.439	6.433	0.006	10271407	200.000	215	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.182	6.176	0.006	21909708	1000.00	988	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.737	6.730	0.007	13355424	200.000	207	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.679	2.676	0.003	13726949	200.000	202	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.830	7.823	0.007	9942134	200.000	192	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/021f2101.d
Date : 04-JAN-2010 17:23
Client ID: INDAB02
Sample Info: IWPE091218-10AB

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

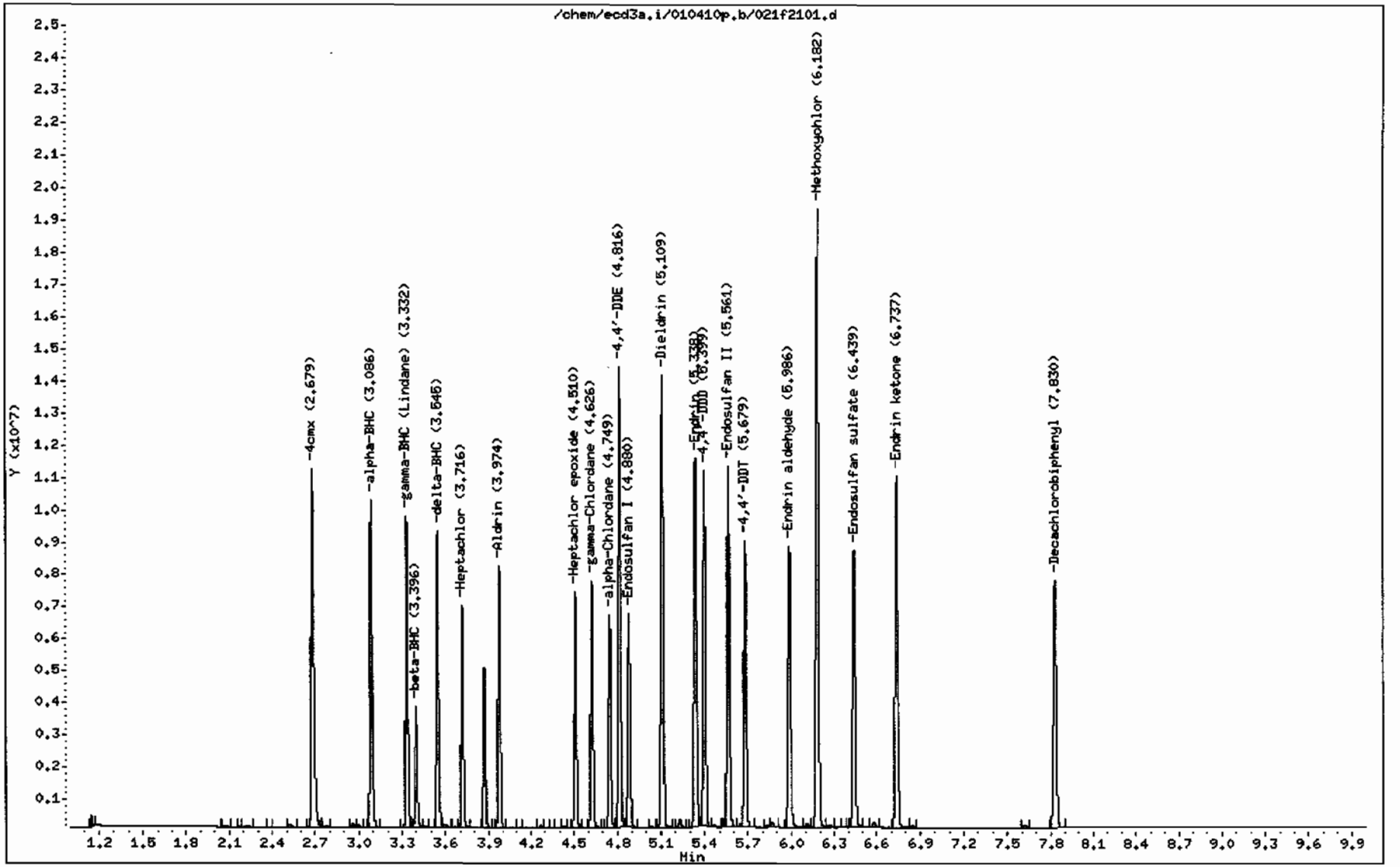

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010410p.b/021b2101.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB02
Inj Date : 04-JAN-2010 17:23
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 07-Jan-2010 11:44 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.416	3.413	0.003	68378183	100.000	99.7	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.725	3.721	0.004	58220979	100.000	100	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.787	3.783	0.004	23103201	100.000	91.1	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.139	4.135	0.004	38542995	100.000	91.0	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.060	4.056	0.004	52897847	100.000	100	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.451	4.447	0.004	36318845	100.000	95.6	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.001	4.997	0.004	29593706	100.000	96.7	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.193	5.189	0.004	40374354	100.000	132	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.340	5.335	0.005	29316457	100.000	98.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.403	5.399	0.004	31074975	100.000	110	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.497	5.493	0.004	63222032	200.000	214	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.684	5.680	0.004	73723399	200.000	213	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.003	5.999	0.004	75789349	200.000	225	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.103	6.098	0.005	75400453	200.000	220	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.224	6.220	0.004	84275268	200.000	213	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.581	6.577	0.004	80615088	200.000	210	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.442	6.438	0.004	79228062	200.000	221	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.883	6.880	0.003	105022299	200.000	223	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.185	7.181	0.004	191237359	1000.00	966	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.474	7.471	0.003	120416975	200.000	208	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.920	0.002	89263479	200.000	178	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.863	8.859	0.004	75759874	200.000	192	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/021b2101.d
Date : 04-JAN-2010 17:23
Client ID: INDAB02
Sample Info: IWPE091218-10AB

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

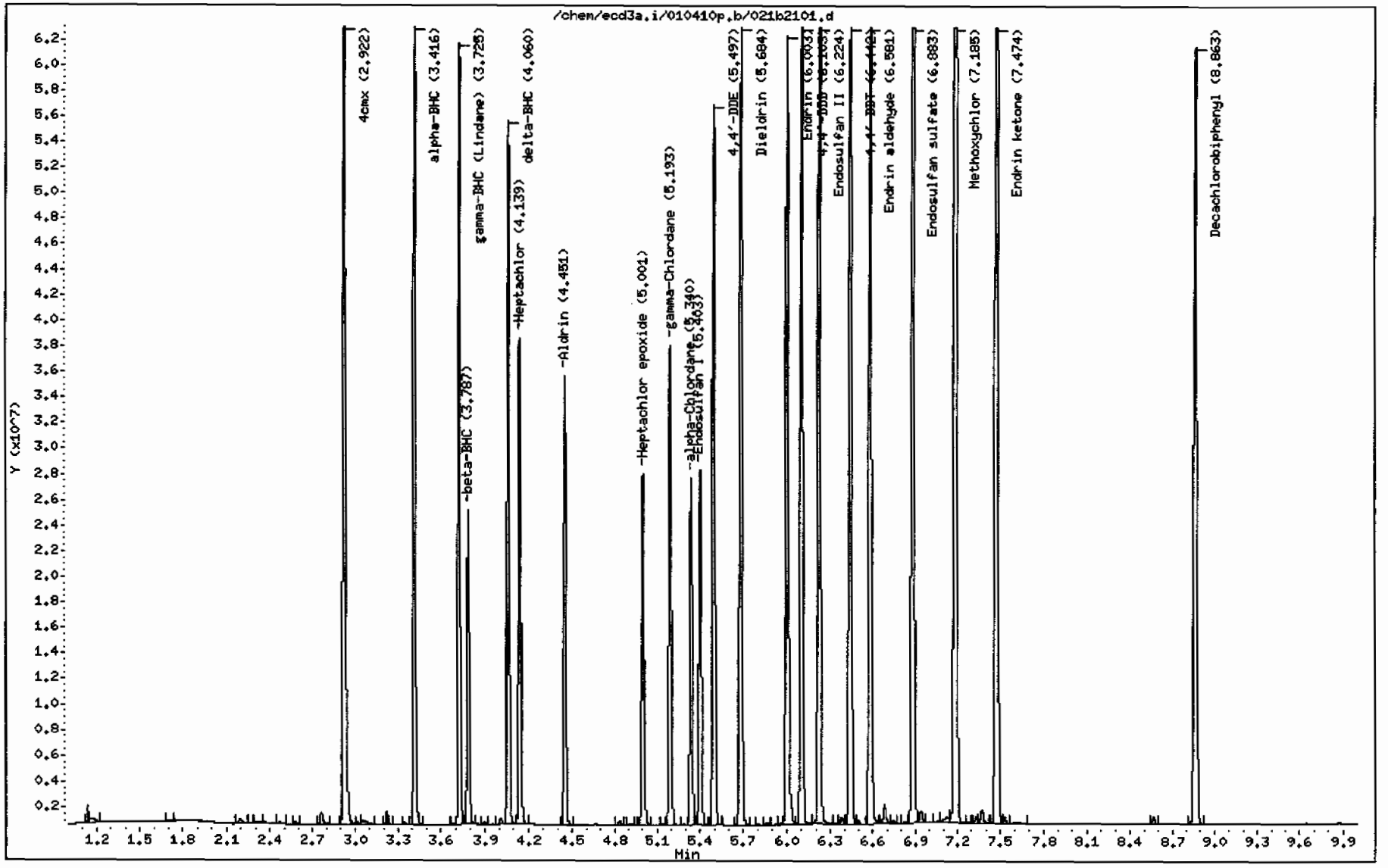

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010410p.b/030f3001.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB03
Inj Date : 04-JAN-2010 19:26
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.083	3.082	0.001	10422624	100.000	101	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.327	3.328	-0.001	9461667	100.000	114	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.392	3.392	0.000	3807564	100.000	106	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.711	3.711	0.000	6885798	100.000	106	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.540	3.539	0.001	8998624	100.000	105	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.968	3.969	-0.001	8341472	100.000	105	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.504	4.504	0.000	7695247	100.000	108	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.619	4.619	0.000	8085928	100.000	118	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.743	4.743	0.000	7054757	100.000	101	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.875	4.874	0.001	7191652	100.000	117	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.810	4.810	0.000	15139094	200.000	221	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.103	5.103	0.000	15573512	200.000	219	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.331	5.331	0.000	12676290	200.000	222	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.392	5.393	-0.001	12137453	200.000	220	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.556	5.555	0.001	13091148	200.000	224	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.980	5.980	0.000	10507918	200.000	213	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.672	5.672	0.000	10191494	200.000	226	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.432	6.433	-0.001	10661943	200.000	223	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.175	6.176	-0.001	22332466	1000.00	1010	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.731	6.730	0.001	13652866	200.000	212	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.676	2.676	0.000	13787798	200.000	203	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.823	7.823	0.000	10098135	200.000	195	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/030f3001.d
Date : 04-JAN-2010 19:26
Client ID: INDA803
Sample Info: IWPE091218-10AB
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

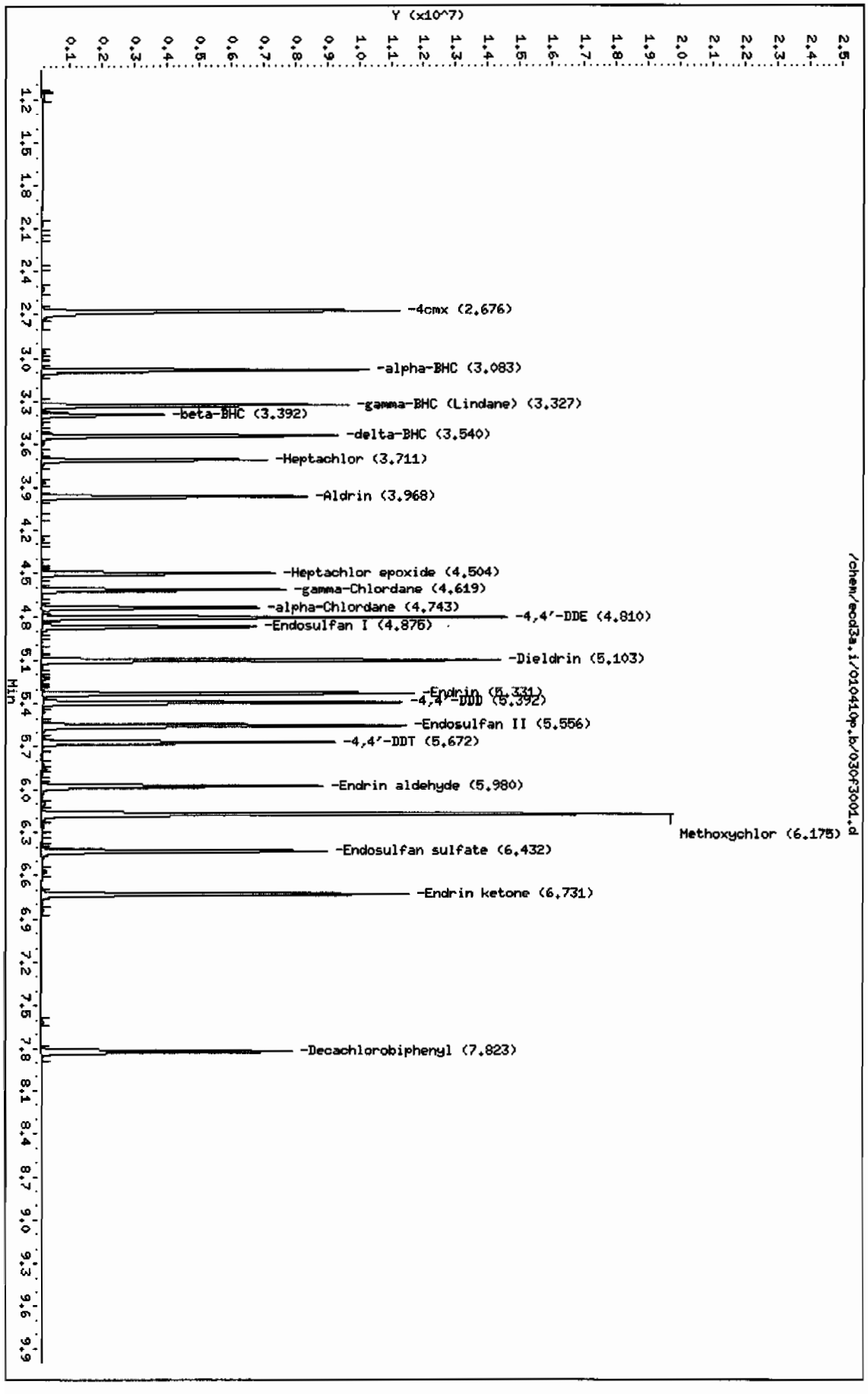

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CLP-2

Data file : /chem/ecd3a.i/010410p.b/030b3001.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB03
Inj Date : 04-JAN-2010 19:26
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 07-Jan-2010 11:45 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.413	3.413	0.000	68013339	100.000	99.2	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.722	3.721	0.001	58619378	100.000	101	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.783	3.783	0.000	23239404	100.000	91.6	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.136	4.135	0.001	39233785	100.000	92.6	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.056	4.056	0.000	53429721	100.000	101	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.447	4.447	0.000	37256802	100.000	98.0	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.997	4.997	0.000	29929334	100.000	97.8	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.188	5.189	-0.001	31978534	100.000	103	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.336	5.335	0.001	29140291	100.000	97.6	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.399	5.399	0.000	30972395	100.000	110	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.493	5.493	0.000	62735076	200.000	212	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.679	5.680	-0.001	73338347	200.000	212	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.999	5.999	0.000	74882522	200.000	222	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.099	6.098	0.001	75255288	200.000	220	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.220	6.220	0.000	84339977	200.000	214	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.577	6.577	0.000	81387707	200.000	212	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.437	6.438	-0.001	81096538	200.000	226	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.879	6.880	-0.001	106474440	200.000	226	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.180	7.181	-0.001	194180208	1000.00	981	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.471	7.471	0.000	124082200	200.000	214	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	87916191	200.000	176	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.859	8.859	0.000	78237426	200.000	198	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/030b3001.d

Date : 04-JAN-2010 19:26

Client ID: INDAB03

Sample Info: IWPE091218-10AB

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

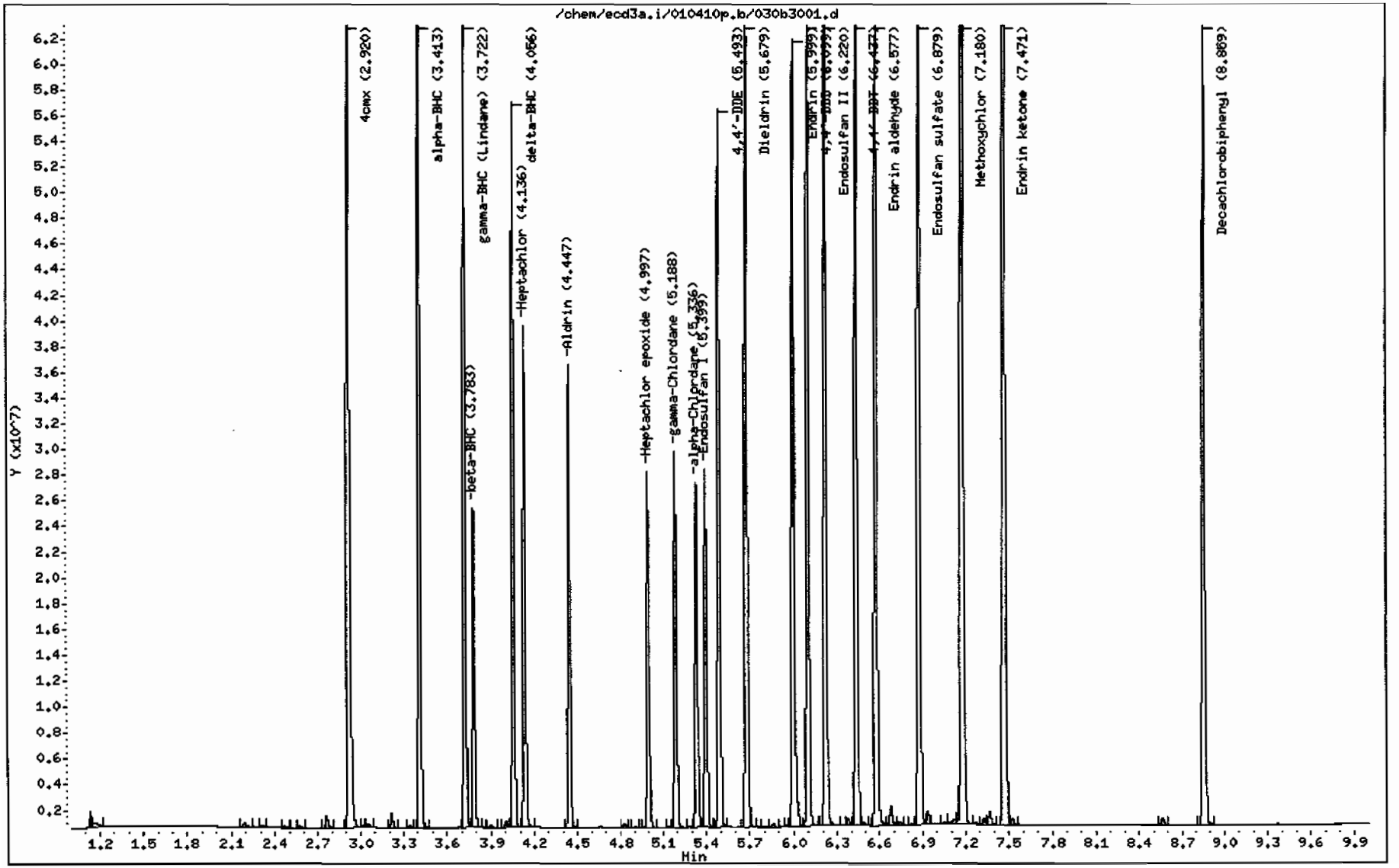

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-994

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.68 DCB: 7.82

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/29/09	1657	2.68	7.82
02	PEM01	WPE091219-99	12/29/09	1710	2.68	7.82
03	INDAB01	WPE091228-01	12/29/09	1734	2.68	7.83
04	INDAB02	WPE091228-02	12/29/09	1747	2.68	7.83
05	INDAB03	WPE091228-03	12/29/09	1801	2.68	7.82
06	INDAB04	WPE091228-04	12/29/09	1815	2.68	7.82
07	INDAB05	IPE091219-02	12/29/09	1829	2.68	7.82
08	INDAB01	WPE091218-10	12/29/09	1843	2.68	7.82
09	TOXAPH01	WPE091228-11	12/29/09	1856	2.68	7.82
10	TOXAPH02	WPE091228-12	12/29/09	1910	2.68	7.82
11	TOXAPH03	WPE091228-13	12/29/09	1924	2.68	7.82
12	ZZZZZ	ZZZZZ	12/29/09	1937		
13	TOXAPH04	WPE091228-14	12/29/09	2001	2.68	7.83
14	TOXAPH05	IPE091121-40	12/29/09	2014	2.68	7.82
15	TOXAPH01	WPE091219-52	12/29/09	2028	2.68	7.82
16	CHLOR01	WPE091228-21	12/29/09	2042	2.68	7.82
17	CHLOR02	WPE091228-22	12/29/09	2114	2.68	7.83
18	CHLOR03	WPE091228-23	12/29/09	2128	2.68	7.82
19	CHLOR04	WPE091228-24	12/29/09	2141	2.68	7.82
20	CHLOR05	IPE091029-06	12/29/09	2155	2.68	7.82
21	CHLOR01	WPE091206-60	12/29/09	2209	2.68	7.82
22	PEM02	WPE091219-99	12/29/09	2222	2.68	7.82
23	PIBLK02	WAR091130-99	12/29/09	2236	2.68	7.82
24	ZZZZZ	ZZZZZ	12/29/09	2249	2.68	7.82
25	ZZZZZ	ZZZZZ	12/29/09	2303	2.68	7.82
26	ZZZZZ	ZZZZZ	12/29/09	2317	2.68	7.82
27	ZZZZZ	ZZZZZ	12/29/09	2330	2.68	7.82
28	PIBLK03	WAR091130-99	12/29/09	2344	2.68	7.82
29	INDAB02	WPE091218-10	12/29/09	2358	2.68	7.82
30	PIBLK04	WAR091130-99	12/30/09	0011	2.68	7.82
31	ZZZZZ	ZZZZZ	12/30/09	0025	2.68	7.82
32	ZZZZZ	ZZZZZ	12/30/09	0039	2.68	7.82

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-994

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.92 DCB: 8.86

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/29/09	1657	2.92	8.86
02	PEM01	WPE091219-99	12/29/09	1710	2.92	8.86
03	INDAB01	WPE091228-01	12/29/09	1734	2.92	8.87
04	INDAB02	WPE091228-02	12/29/09	1747	2.92	8.86
05	INDAB03	WPE091228-03	12/29/09	1801	2.92	8.86
06	INDAB04	WPE091228-04	12/29/09	1815	2.92	8.86
07	INDAB05	IPE091219-02	12/29/09	1829	2.92	8.86
08	INDAB01	WPE091218-10	12/29/09	1843	2.92	8.86
09	TOXAPH01	WPE091228-11	12/29/09	1856	2.92	8.86
10	TOXAPH02	WPE091228-12	12/29/09	1910	2.92	8.86
11	TOXAPH03	WPE091228-13	12/29/09	1924	2.92	8.86
12	ZZZZZ	ZZZZZ	12/29/09	1937		
13	TOXAPH04	WPE091228-14	12/29/09	2001	2.92	8.86
14	TOXAPH05	IPE091121-40	12/29/09	2014	2.92	8.86
15	TOXAPH01	WPE091219-52	12/29/09	2028	2.92	8.86
16	CHLOR01	WPE091228-21	12/29/09	2042	2.92	8.86
17	CHLOR02	WPE091228-22	12/29/09	2114	2.92	8.86
18	CHLOR03	WPE091228-23	12/29/09	2128	2.92	8.86
19	CHLOR04	WPE091228-24	12/29/09	2141	2.92	8.86
20	CHLOR05	IPE091029-06	12/29/09	2155	2.92	8.86
21	CHLOR01	WPE091206-60	12/29/09	2209	2.92	8.86
22	PEM02	WPE091219-99	12/29/09	2222	2.92	8.86
23	PIBLK02	WAR091130-99	12/29/09	2236	2.92	8.86
24	ZZZZZ	ZZZZZ	12/29/09	2249	2.92	8.86
25	ZZZZZ	ZZZZZ	12/29/09	2303	2.92	8.86
26	ZZZZZ	ZZZZZ	12/29/09	2317	2.92	8.86
27	ZZZZZ	ZZZZZ	12/29/09	2330	2.92	8.86
28	PIBLK03	WAR091130-99	12/29/09	2344	2.92	8.86
29	INDAB02	WPE091218-10	12/29/09	2358	2.92	8.86
30	PIBLK04	WAR091130-99	12/30/09	0011	2.92	8.86
31	ZZZZZ	ZZZZZ	12/30/09	0025	2.92	8.86
32	ZZZZZ	ZZZZZ	12/30/09	0039	2.92	8.86

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-994

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 01/04/10

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.68 DCB: 7.82

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	01/04/10	1210	2.67	7.82
02	PEM01	WPE091219-99	01/04/10	1224	2.67	7.82
03	ZZZZZ	ZZZZZ	01/04/10	1238	2.68	7.82
04	TOXAPH01	WPE091219-52	01/04/10	1310	2.68	7.83
05	CHLOR01	WPE091021-00	01/04/10	1324	2.68	7.82
06	INDAB01	WPE100104-01	01/04/10	1340	2.68	7.83
07	INDAB02	WPE100104-02	01/04/10	1353	2.68	7.82
08	INDAB03	WPE100104-03	01/04/10	1407	2.68	7.82
09	INDAB04	WPE100104-04	01/04/10	1421	2.68	7.82
10	INDAB05	IPE091219-02	01/04/10	1434	2.68	7.82
11	ZZZZZ	ZZZZZ	01/04/10	1448	2.68	7.82
12	INDAB01	WPE091218-10	01/04/10	1502	2.68	7.82
13	PIBLK02	WAR091130-99	01/04/10	1530	2.68	7.83
14	PBLK01	1202001567	01/04/10	1543	2.68	7.82
15	PBLK01LCS	1202001568	01/04/10	1557	2.68	7.82
16	PBLK01TLCS	1202001571	01/04/10	1611	2.68	7.82
17	ZZZZZ	ZZZZZ	01/04/10	1624	2.68	7.82
18	ZZZZZ	ZZZZZ	01/04/10	1638	2.68	7.82
19	ZZZZZ	ZZZZZ	01/04/10	1652	2.68	7.82
20	ZZZZZ	ZZZZZ	01/04/10	1705	2.68	7.82
21	INDAB02	WPE091218-10	01/04/10	1723	2.68	7.83
22	PIBLK03	WAR091130-99	01/04/10	1737	2.68	7.82
23	CAPA-10-6793	243283001	01/04/10	1750	2.68	7.82
24	ZZZZZ	ZZZZZ	01/04/10	1804	2.68	7.82
25	ZZZZZ	ZZZZZ	01/04/10	1817	2.68	7.82
26	ZZZZZ	ZZZZZ	01/04/10	1831	2.68	7.82
27	ZZZZZ	ZZZZZ	01/04/10	1845	2.68	7.82
28	ZZZZZ	ZZZZZ	01/04/10	1858	2.68	7.82
29	PIBLK04	WAR091130-99	01/04/10	1912	2.68	7.82
30	INDAB03	WPE091218-10	01/04/10	1926	2.68	7.82
31	PIBLK05	WAR091130-99	01/04/10	1939	2.68	7.82
32	ZZZZZ	ZZZZZ	01/04/10	1953	2.68	7.82

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-994

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 01/04/10

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.92 DCB: 8.86

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	01/04/10	1210	2.92	8.86
02	PEM01	WPE091219-99	01/04/10	1224	2.92	8.86
03	ZZZZZ	ZZZZZ	01/04/10	1238	2.92	8.86
04	TOXAPH01	WPE091219-52	01/04/10	1310	2.92	8.87
05	CHLOR01	WPE091021-00	01/04/10	1324	2.92	8.86
06	INDAB01	WPE100104-01	01/04/10	1340	2.92	8.86
07	INDAB02	WPE100104-02	01/04/10	1353	2.92	8.86
08	INDAB03	WPE100104-03	01/04/10	1407	2.92	8.86
09	INDAB04	WPE100104-04	01/04/10	1421	2.92	8.86
10	INDAB05	IPE091219-02	01/04/10	1434	2.92	8.86
11	ZZZZZ	ZZZZZ	01/04/10	1448	2.92	8.86
12	INDAB01	WPE091218-10	01/04/10	1502	2.92	8.86
13	PIBLK02	WAR091130-99	01/04/10	1530	2.92	8.87
14	PBLK01	1202001567	01/04/10	1543	2.92	8.86
15	PBLK01LCS	1202001568	01/04/10	1557	2.92	8.86
16	PBLK01TLCS	1202001571	01/04/10	1611	2.92	8.86
17	ZZZZZ	ZZZZZ	01/04/10	1624	2.92	8.86
18	ZZZZZ	ZZZZZ	01/04/10	1638	2.92	8.86
19	ZZZZZ	ZZZZZ	01/04/10	1652	2.92	8.86
20	ZZZZZ	ZZZZZ	01/04/10	1705	2.92	8.86
21	INDAB02	WPE091218-10	01/04/10	1723	2.92	8.86
22	PIBLK03	WAR091130-99	01/04/10	1736	2.92	8.86
23	CAPA-10-6793	243283001	01/04/10	1750	2.92	8.86
24	ZZZZZ	ZZZZZ	01/04/10	1804	2.92	8.86
25	ZZZZZ	ZZZZZ	01/04/10	1817	2.92	8.86
26	ZZZZZ	ZZZZZ	01/04/10	1831	2.92	8.86
27	ZZZZZ	ZZZZZ	01/04/10	1845	2.92	8.86
28	ZZZZZ	ZZZZZ	01/04/10	1858	2.92	8.86
29	PIBLK04	WAR091130-99	01/04/10	1912	2.92	8.86
30	INDAB03	WPE091218-10	01/04/10	1926	2.92	8.86
31	PIBLK05	WAR091130-99	01/04/10	1939	2.92	8.86
32	ZZZZZ	ZZZZZ	01/04/10	1953	2.92	8.86

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10–994 **Client ID:** LCS for batch 935412

Lab Sample ID: 1202001568

Data File:	015f1501.d	**Data File:**	015b1501.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	04–JAN–10 15:57	**Analyzed:**	04–JAN–10 15:57

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							1.77
Column 1	1	3.08	3.05 – 3.11	.283		ug/L	
Column 2	1	3.41	3.38 – 3.44	.278		ug/L	
gamma–BHC (Lindane)							3.04
Column 1	1	3.33	3.3 – 3.36	.313		ug/L	
Column 2	1	3.72	3.69 – 3.75	.303		ug/L	
beta–BHC							8.98
Column 1	1	3.39	3.36 – 3.42	.309		ug/L	
Column 2	1	3.78	3.75 – 3.81	.282		ug/L	
delta–BHC							17.1
Column 1	1	3.54	3.51 – 3.57	.294		ug/L	
Column 2	1	4.06	4.03 – 4.09	.247		ug/L	
Heptachlor							11.2
Column 1	1	3.71	3.68 – 3.74	.262		ug/L	
Column 2	1	4.14	4.1 – 4.16	.234		ug/L	

Identification Summary

SDG Number: 10–994 **Client ID:** LCS for batch 935412

Lab Sample ID: 1202001568

Data File:	015f1501.d	**Data File:**	015b1501.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	04–JAN–10 15:57	**Analyzed:**	04–JAN–10 15:57

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							4.54
Column 1	1	3.97	3.94 – 4	.244		ug/L	
Column 2	1	4.45	4.42 – 4.48	.233		ug/L	
Heptachlor epoxide							16.6
Column 1	1	4.5	4.47 – 4.53	.305		ug/L	
Column 2	1	5	4.97 – 5.03	.259		ug/L	
gamma–Chlordane							11.5
Column 1	1	4.62	4.59 – 4.65	.28		ug/L	
Column 2	1	5.19	5.16 – 5.22	.249		ug/L	
alpha–Chlordane							.00823
Column 1	1	4.74	4.71 – 4.77	.297		ug/L	
Column 2	1	5.34	5.31 – 5.37	.297		ug/L	
Endosulfan I							4.06
Column 1	1	4.87	4.84 – 4.9	.323		ug/L	
Column 2	1	5.4	5.37 – 5.43	.31		ug/L	

Identification Summary

SDG Number: 10–994 **Client ID:** LCS for batch 935412

Lab Sample ID: 1202001568

Data File:	015f1501.d	**Data File:**	015b1501.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	04–JAN–10 15:57	**Analyzed:**	04–JAN–10 15:57

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE							3.33
Column 1	1	4.81	4.78 – 4.84	.746		ug/L	
Column 2	1	5.49	5.46 – 5.52	.772		ug/L	
Dieldrin							1.82
Column 1	1	5.1	5.07 – 5.13	.788		ug/L	
Column 2	1	5.68	5.65 – 5.71	.774		ug/L	
Endrin							2.85
Column 1	1	5.33	5.3 – 5.36	.877		ug/L	
Column 2	1	6	5.97 – 6.03	.852		ug/L	
4,4'–DDD							2.2
Column 1	1	5.39	5.36 – 5.42	.839		ug/L	
Column 2	1	6.1	6.07 – 6.13	.821		ug/L	
Endosulfan II							4.9
Column 1	1	5.55	5.52 – 5.58	.864		ug/L	
Column 2	1	6.22	6.19 – 6.25	.822		ug/L	

Identification Summary

SDG Number: 10–994 **Client ID:** LCS for batch 935412

Lab Sample ID: 1202001568

Data File:	015f1501.d	**Data File:**	015b1501.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	04–JAN–10 15:57	**Analyzed:**	04–JAN–10 15:57

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							2.11
Column 1	1	5.98	5.95 – 6.01	.742		ug/L	
Column 2	1	6.58	6.55 – 6.61	.758		ug/L	
4,4'–DDT							3.24
Column 1	1	5.67	5.64 – 5.7	.827		ug/L	
Column 2	1	6.44	6.41 – 6.47	.801		ug/L	
Endosulfan sulfate							.751
Column 1	1	6.43	6.4 – 6.46	.86		ug/L	
Column 2	1	6.88	6.85 – 6.91	.867		ug/L	
Methoxychlor							.000551
Column 1	1	6.17	6.15 – 6.21	3.06		ug/L	
Column 2	1	7.18	7.15 – 7.21	3.06		ug/L	
Endrin ketone							1.94
Column 1	1	6.73	6.7 – 6.76	.799		ug/L	
Column 2	1	7.47	7.44 – 7.5	.815		ug/L	

Identification Summary

SDG Number: 10–994 **Client ID:** LCS for batch 935412

Lab Sample ID: 1202001571

Data File:	016f1601.d	**Data File:**	016b1601.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	04–JAN–10 16:11	**Analyzed:**	04–JAN–10 16:11

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Toxaphene							12.2
Column 1	1	5	4.98 – 5.04	3.32		ug/L	
	2	5.11	5.09 – 5.15	3.14		ug/L	
	3	5.19	5.17 – 5.23	2.72		ug/L	
	4	5.37	5.33 – 5.39	2.31		ug/L	
	5	5.55	5.52 – 5.58	3.39		ug/L	
					2.97		
Column 2	1	5.66	5.63 – 5.69	3.48		ug/L	
	2	5.78	5.75 – 5.81	3.45		ug/L	
	3	6.17	6.14 – 6.2	3.22		ug/L	
	4	6.21	6.19 – 6.25	3.32		ug/L	
	5	6.31	6.29 – 6.35	3.34		ug/L	
					3.36		

QUALITY CONTROL DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–994**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202001567**				
Client Sample:	**QC for batch 935412**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 935412**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**935414**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 15:43**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/21/2009 19:38**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**014f1401–52.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	014b1401–52.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.020	ug/L	0.005	0.020	1
58–89–9	gamma–BHC (Lindane)	U	0.020	ug/L	0.005	0.020	1
319–85–7	beta–BHC	U	0.020	ug/L	0.006	0.020	1
319–86–8	delta–BHC	U	0.020	ug/L	0.005	0.020	1
76–44–8	Heptachlor	U	0.020	ug/L	0.005	0.020	1
309–00–2	Aldrin	U	0.020	ug/L	0.005	0.020	1
1024–57–3	Heptachlor epoxide	U	0.020	ug/L	0.005	0.020	1
5103–74–2	gamma–Chlordane	U	0.020	ug/L	0.005	0.020	1
5103–71–9	alpha–Chlordane	U	0.020	ug/L	0.005	0.020	1
959–98–8	Endosulfan I	U	0.020	ug/L	0.005	0.020	1
72–55–9	4,4'–DDE	U	0.040	ug/L	0.005	0.040	1
60–57–1	Dieldrin	U	0.040	ug/L	0.010	0.040	1
72–20–8	Endrin	U	0.040	ug/L	0.010	0.040	1
72–54–8	4,4'–DDD	U	0.040	ug/L	0.010	0.040	1
33213–65–9	Endosulfan II	U	0.040	ug/L	0.010	0.040	1
7421–93–4	Endrin aldehyde	U	0.040	ug/L	0.005	0.040	1
50–29–3	4,4'–DDT	U	0.040	ug/L	0.010	0.040	1
1031–07–8	Endosulfan sulfate	U	0.040	ug/L	0.010	0.040	1
72–43–5	Methoxychlor	U	0.200	ug/L	0.050	0.200	1
53494–70–5	Endrin ketone	U	0.040	ug/L	0.010	0.040	1
8001–35–2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.477	1.00	ug/L	47.7	(29%–103%)
Decachlorobiphenyl	0.618	1.00	ug/L	61.8	(34%–118%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010410p.b/014f1401-94.d
Lab Smp Id: 1202001567 Client Smp ID: PBLK01
Inj Date : 04-JAN-2010 15:43
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001567|1|
Misc Info : |ECD81A_1L|935414|SVP|MB|GROUND WATER|MB|||
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 14 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-994.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.676	2.676	0.000	6463782	95.3805	0.477	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.824	7.823	0.001	6407160	123.552	0.618	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/014f1401-94.d

Date : 04-JAN-2010 15:43

Client ID: PBLK01

Sample Info: |120200156711|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

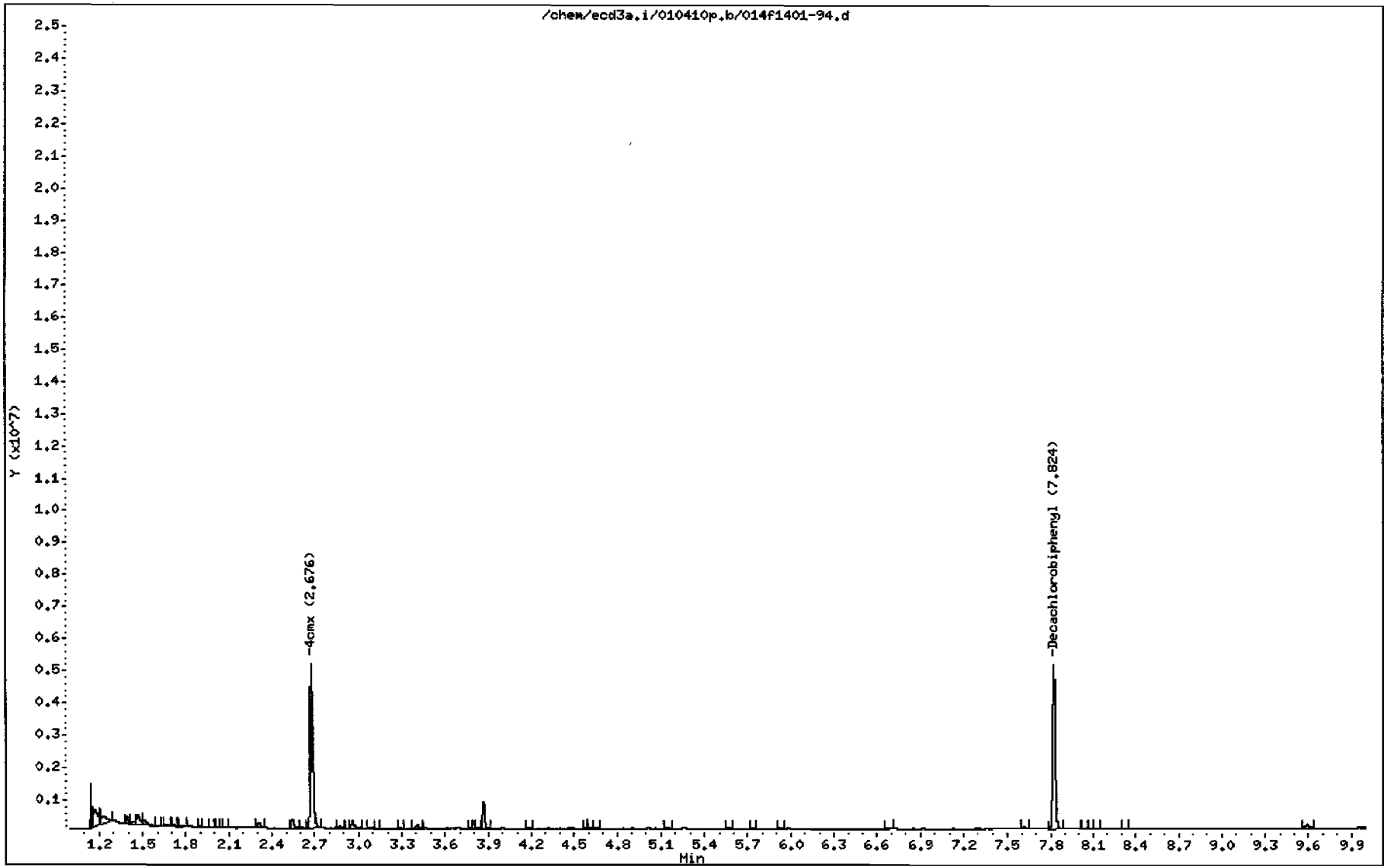

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010410p.b/014b1401-94.d
Lab Smp Id: 1202001567 Client Smp ID: PBLK01
Inj Date : 04-JAN-2010 15:43
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001567|1|
Misc Info : |ECD81A_1L|935414|SVP|MB|GROUND WATER|MB|||
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 07-Jan-2010 11:48 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 14 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-994.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	48235785	96.4655	0.482	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.860	8.859	0.001	49823478	126.399	0.632	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/014b1401-94.d

Page 1

Date : 04-JAN-2010 15:43

Client ID: PBLK01

Instrument: ecd3a.i

Sample Info: |1202001567|1|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

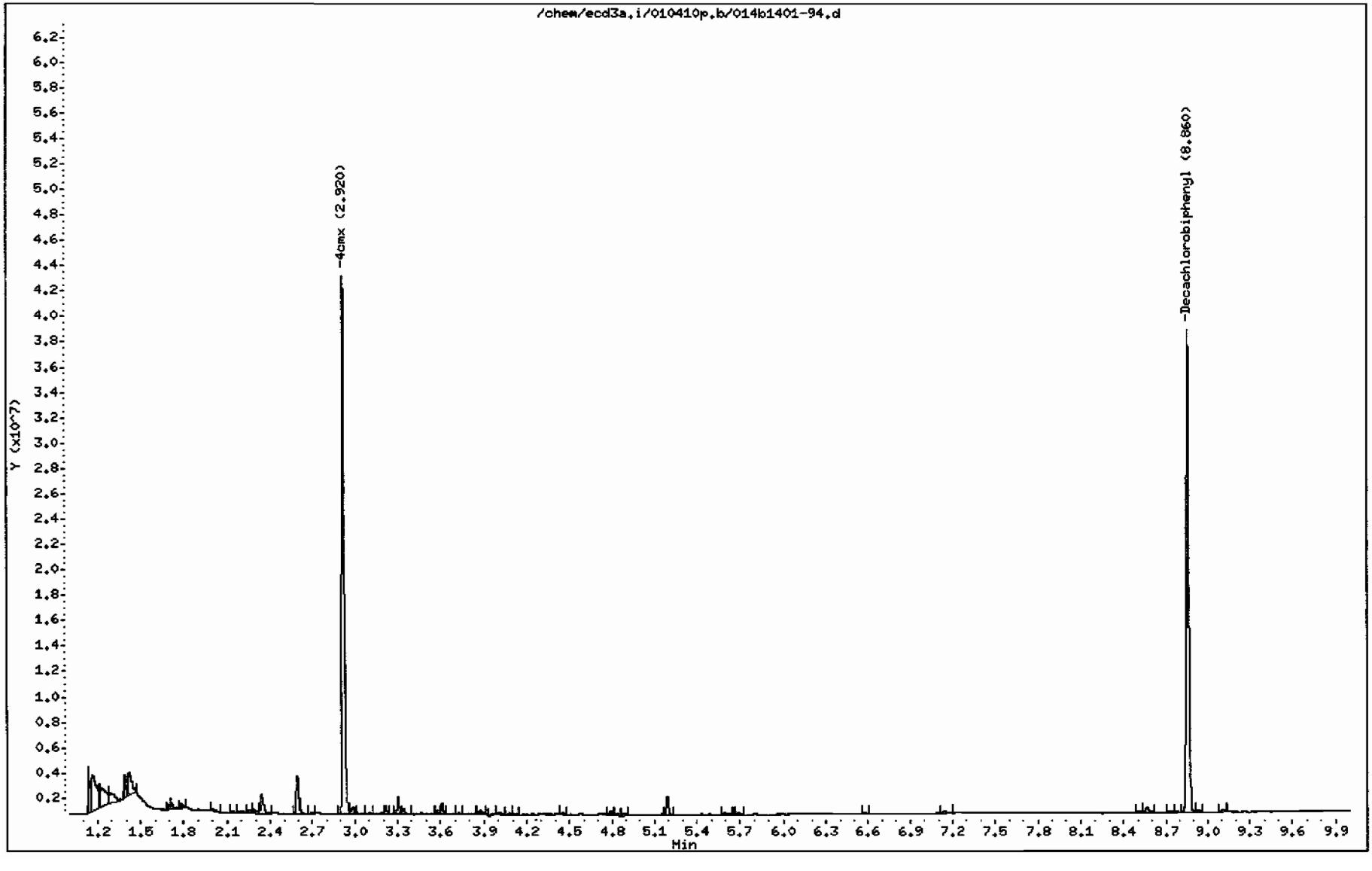

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202001568**				
Client Sample:	**QC for batch 935412**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 935412**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**935414**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 15:57**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/21/2009 19:38**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**015f1501-52.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	015b1501-52.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC		0.283	ug/L	0.005	0.020	1
58-89-9	gamma-BHC (Lindane)		0.313	ug/L	0.005	0.020	1
319-85-7	beta-BHC		0.309	ug/L	0.006	0.020	1
319-86-8	delta-BHC		0.294	ug/L	0.005	0.020	1
76-44-8	Heptachlor		0.262	ug/L	0.005	0.020	1
309-00-2	Aldrin		0.244	ug/L	0.005	0.020	1
1024-57-3	Heptachlor epoxide		0.305	ug/L	0.005	0.020	1
5103-74-2	gamma-Chlordane		0.280	ug/L	0.005	0.020	1
5103-71-9	alpha-Chlordane		0.297	ug/L	0.005	0.020	1
959-98-8	Endosulfan I		0.323	ug/L	0.005	0.020	1
72-55-9	4,4'-DDE		0.746	ug/L	0.005	0.040	1
60-57-1	Dieldrin		0.788	ug/L	0.010	0.040	1
72-20-8	Endrin		0.877	ug/L	0.010	0.040	1
72-54-8	4,4'-DDD		0.839	ug/L	0.010	0.040	1
33213-65-9	Endosulfan II		0.864	ug/L	0.010	0.040	1
7421-93-4	Endrin aldehyde		0.742	ug/L	0.005	0.040	1
50-29-3	4,4'-DDT		0.827	ug/L	0.010	0.040	1
1031-07-8	Endosulfan sulfate		0.860	ug/L	0.010	0.040	1
72-43-5	Methoxychlor		3.06	ug/L	0.050	0.200	1
53494-70-5	Endrin ketone		0.799	ug/L	0.010	0.040	1
8001-35-2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.409	1.00	ug/L	40.9	(29%-103%)
Decachlorobiphenyl	0.590	1.00	ug/L	59.0	(34%-118%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010410p.b/015f1501-94.d
Lab Smp Id: 1202001568 Client Smp ID: PBLK01LCS
Inj Date : 04-JAN-2010 15:57
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001568|1|
Misc Info : |ECD81A_1L|935414|SVP|LCSGROUND WATER|LCS|||
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 15 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-994.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.676	2.676	0.000	5542264	81.7824	0.409	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.823	7.823	0.000	6121292	118.040	0.590	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.083	3.082	0.001	5681342	56.5267	0.283	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.327	3.328	-0.001	5193775	62.5290	0.313	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.392	3.392	0.000	2211701	61.7400	0.309	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.540	3.539	0.001	5019778	58.7037	0.294	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.711	3.711	0.000	3413411	52.4721	0.262	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.968	3.969	-0.001	3891469	48.8058	0.244	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.504	4.504	0.000	4348457	61.0462	0.305	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.620	4.619	0.001	3827403	55.9421	0.280	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.743	4.743	0.000	4131904	59.4076	0.297	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.875	4.874	0.001	3985923	64.6248	0.323	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.810	4.810	0.000	10228740	149.261	0.746	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.104	5.103	0.001	11230543	157.645	0.788	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.331	5.331	0.000	9991378	175.400	0.877	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.392	5.393	-0.001	9245707	167.852	0.839	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.555	5.555	0.000	10101882	172.706	0.864	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.979	5.980	-0.001	7313038	148.366	0.742	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.671	5.672	-0.001	7445304	165.461	0.827	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.432	6.433	-0.001	8215603	172.010	0.860	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.175	6.176	-0.001	13593537	612.757	3.06	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.731	6.730	0.001	10294069	159.863	0.799	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/015f1501-94.d
Date : 04-JAN-2010 15:57
Client ID: PBLK01LCS
Sample Info: 1120200156814
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HX31
Column diameter: 0.25

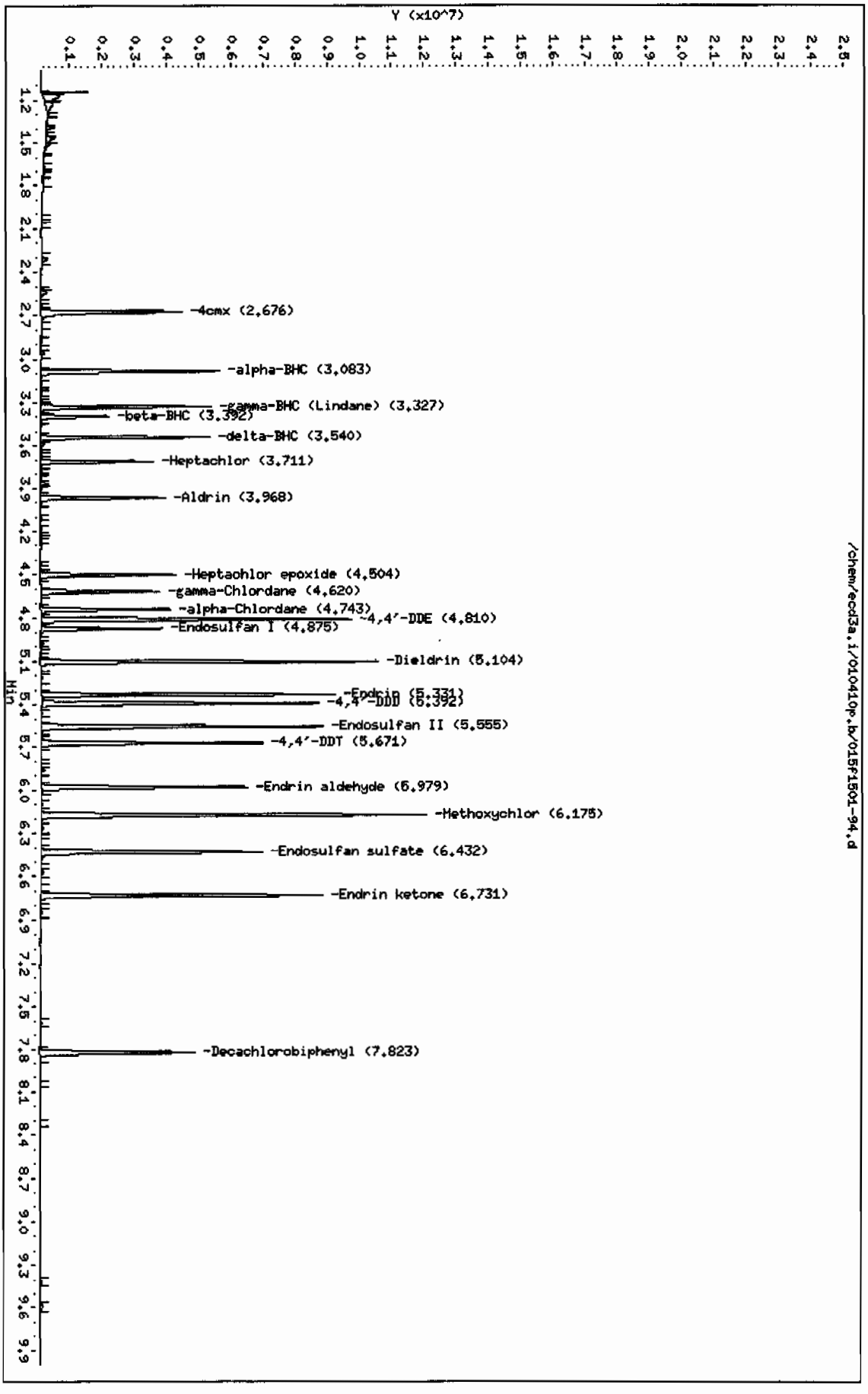

Page 1

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010410p.b/015b1501-94.d
Lab Smp Id: 1202001568 Client Smp ID: PBLK01LCS
Inj Date : 04-JAN-2010 15:57
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001568|1|
Misc Info : |ECD81A_1L|935414|SVP|LCSGROUND WATER|LCS|||
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 07-Jan-2010 11:48 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 15 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-994.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	41951835	83.8984	0.419	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.860	8.859	0.001	47223170	119.803	0.599	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.412	3.413	-0.001	38072039	55.5350	0.278	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.722	3.721	0.001	35255544	60.6586	0.303	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.784	3.783	0.001	14310843	56.4360	0.282	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.056	4.056	0.000	26043854	49.4704	0.247	80.00- 120.00	100.00(R)
10 Heptachlor					CAS #: 76-44-8		
4.135	4.135	0.000	19865266	46.8988	0.234	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.447	4.447	0.000	17719595	46.6375	0.233	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.998	4.997	0.001	15829563	51.7126	0.258	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.188	5.189	-0.001	16705328	49.8602	0.249	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.335	5.335	0.000	17739508	59.4027	0.297	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.399	5.399	0.000	17545194	62.0504	0.310	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.493	5.493	0.000	45654496	154.312	0.772	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.679	5.680	-0.001	53499576	154.804	0.774	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.999	5.999	0.000	57350309	170.465	0.852	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.098	6.098	0.000	56129288	164.192	0.821	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.220	6.220	0.000	64936182	164.453	0.822	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.577	6.577	0.000	58078985	151.536	0.758	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.438	6.438	0.000	57496150	160.187	0.801	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.879	6.880	-0.001	81531622	173.307	0.866	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.180	7.181	-0.001	121309843	612.753	3.06	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.471	7.471	0.000	94511798	162.987	0.815	80.00- 120.00	100.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/010410p.b/015b1501-94.d
Date : 04-JAN-2010 15:57
Client ID: PBLK01LCS
Sample Info: !120200156811!
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

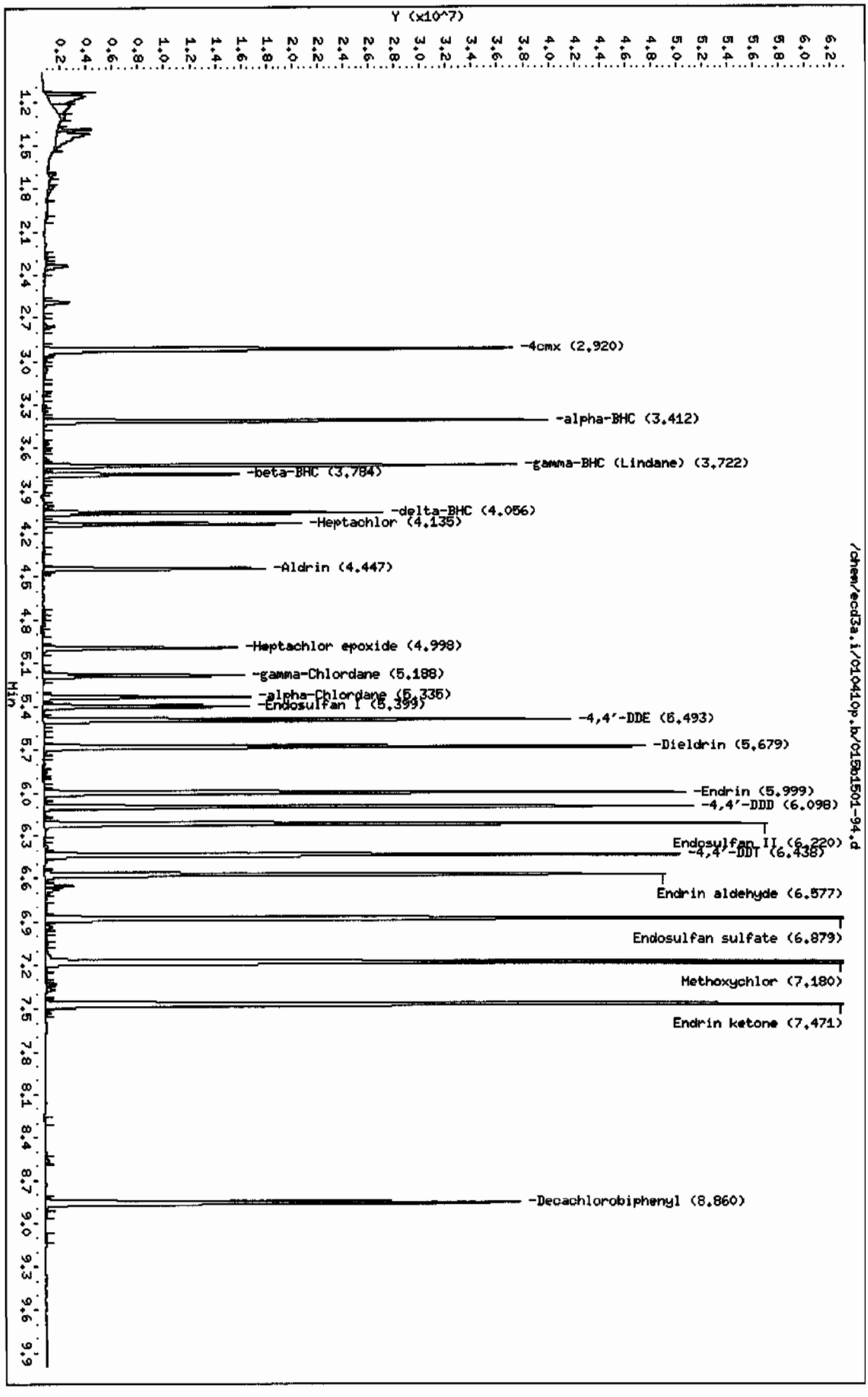

Page 1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-994			**Matrix:**	GROUND WATER
Lab Sample ID:	1202001571				
Client Sample:	QC for batch 935412	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 935412	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	935414	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	01/04/2010 16:11	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 19:38	**Aliquot:**	1000 mL	**Final Volume:**	5 mL
Data File:	016f1601-52.d	**Column:**	1 CLP-1	**Level:**	LOW
	016b1601-52.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.020	ug/L	0.005	0.020	1
58-89-9	gamma-BHC (Lindane)	U	0.020	ug/L	0.005	0.020	1
319-85-7	beta-BHC	U	0.020	ug/L	0.006	0.020	1
319-86-8	delta-BHC	U	0.020	ug/L	0.005	0.020	1
76-44-8	Heptachlor	U	0.020	ug/L	0.005	0.020	1
309-00-2	Aldrin	U	0.020	ug/L	0.005	0.020	1
1024-57-3	Heptachlor epoxide	U	0.020	ug/L	0.005	0.020	1
5103-74-2	gamma-Chlordane	U	0.020	ug/L	0.005	0.020	1
5103-71-9	alpha-Chlordane	U	0.020	ug/L	0.005	0.020	1
959-98-8	Endosulfan I	U	0.020	ug/L	0.005	0.020	1
72-55-9	4,4'-DDE	U	0.040	ug/L	0.005	0.040	1
60-57-1	Dieldrin	U	0.040	ug/L	0.010	0.040	1
72-20-8	Endrin	U	0.040	ug/L	0.010	0.040	1
72-54-8	4,4'-DDD	U	0.040	ug/L	0.010	0.040	1
33213-65-9	Endosulfan II	U	0.040	ug/L	0.010	0.040	1
7421-93-4	Endrin aldehyde	U	0.040	ug/L	0.005	0.040	1
50-29-3	4,4'-DDT	U	0.040	ug/L	0.010	0.040	1
1031-07-8	Endosulfan sulfate	U	0.040	ug/L	0.010	0.040	1
72-43-5	Methoxychlor	U	0.200	ug/L	0.050	0.200	1
53494-70-5	Endrin ketone	U	0.040	ug/L	0.010	0.040	1
8001-35-2	Toxaphene		2.98	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.493	1.00	ug/L	49.3	(29%-103%)
Decachlorobiphenyl	0.710	1.00	ug/L	71.0	(34%-118%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010410p.b/016f1601-94.d
Lab Smp Id: 1202001571 Client Smp ID: PBLK01TLCS
Inj Date : 04-JAN-2010 16:11
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001571|1|
Misc Info : |ECD81A_1L|935414|SVP|TLCS|GROUND WATER|TLCS|||
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 16 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-994.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.676	2.676	0.000	6681608	98.5947	0.493	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.822	7.823	-0.001	7360939	141.945	0.710	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.003	5.014	-0.011	322043	663.652	3.32	80.00- 120.00	100.00(M)
5.107	5.119	-0.012	473789	628.267	3.14	134.20- 174.20	147.12
5.194	5.204	-0.010	472949	543.375	2.72	144.07- 184.07	146.86
5.374	5.364	0.010	524654	461.597	2.31	205.61- 245.61	162.91
5.545	5.554	-0.009	1370130	677.756	3.39	333.21- 373.21	425.45
			Average of Peak Concentrations =		2.98		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010410p.b/016f1601-94.d

Date : 04-JAN-2010 16:11

Client ID: PBLK01TLCS

Sample Info: |1202001571|1|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

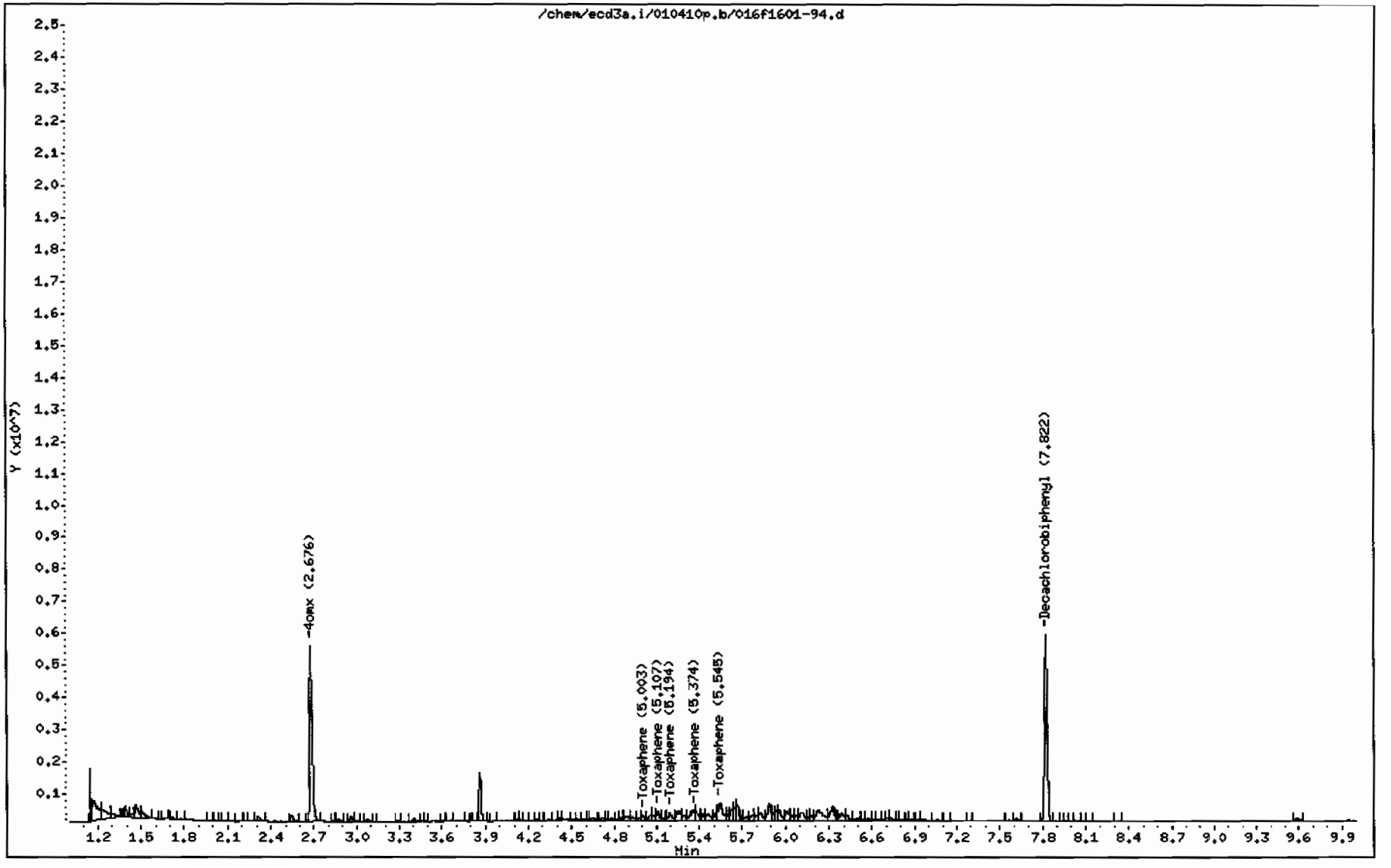

Comment: Manually Integrated
Data File: /chem/ecd3a.i/010410p.b/016f1601-94.d
Operator: HXJ1
Injection Date: 04-JAN-2010 16:11
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS

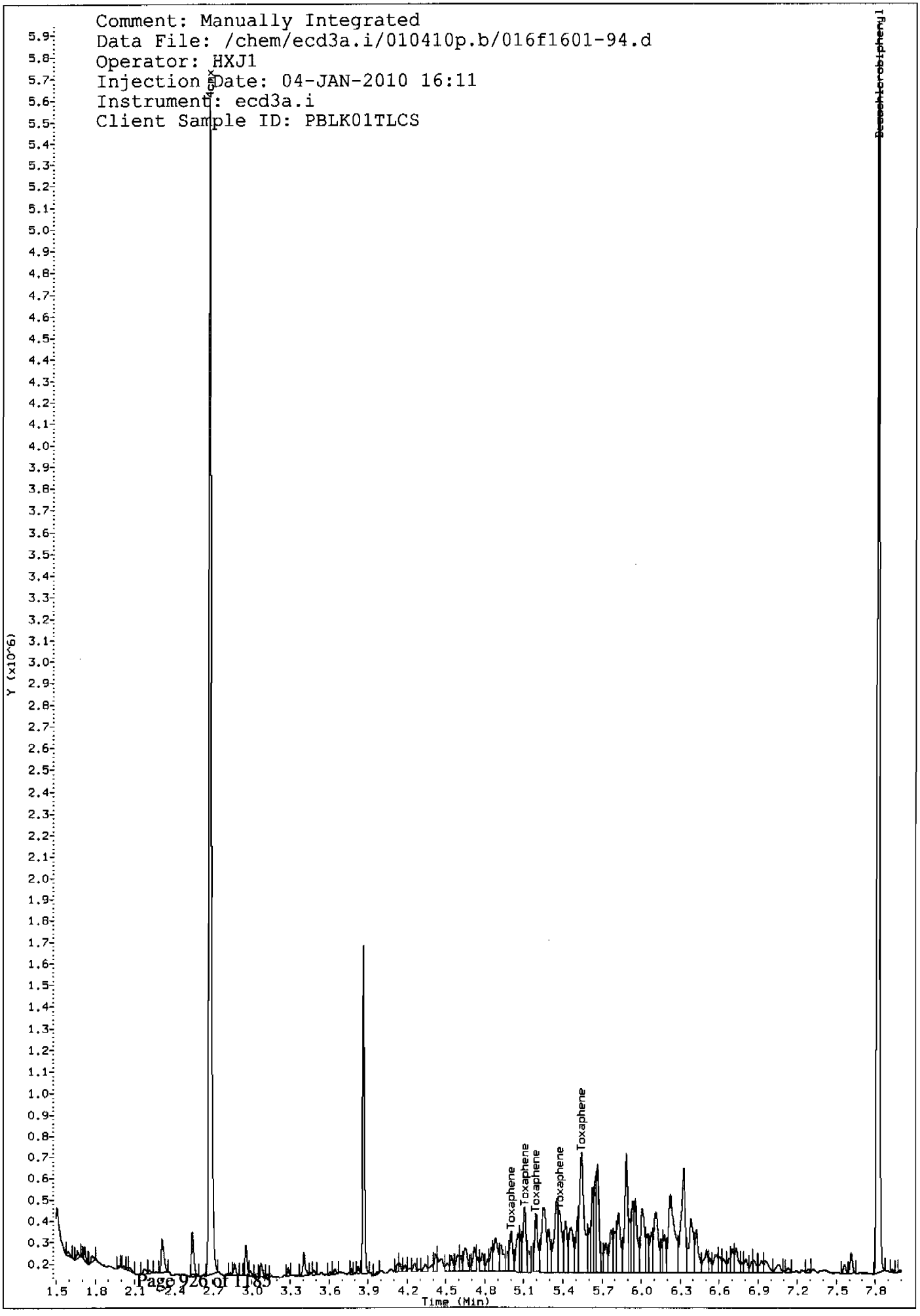

Comment: Before manual integration
Data File: /chem/ecd3a.i/010410p.b/orig-016f1601-94.d
Operator: HXJ1
Injection Date: 04-JAN-2010 16:11
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS

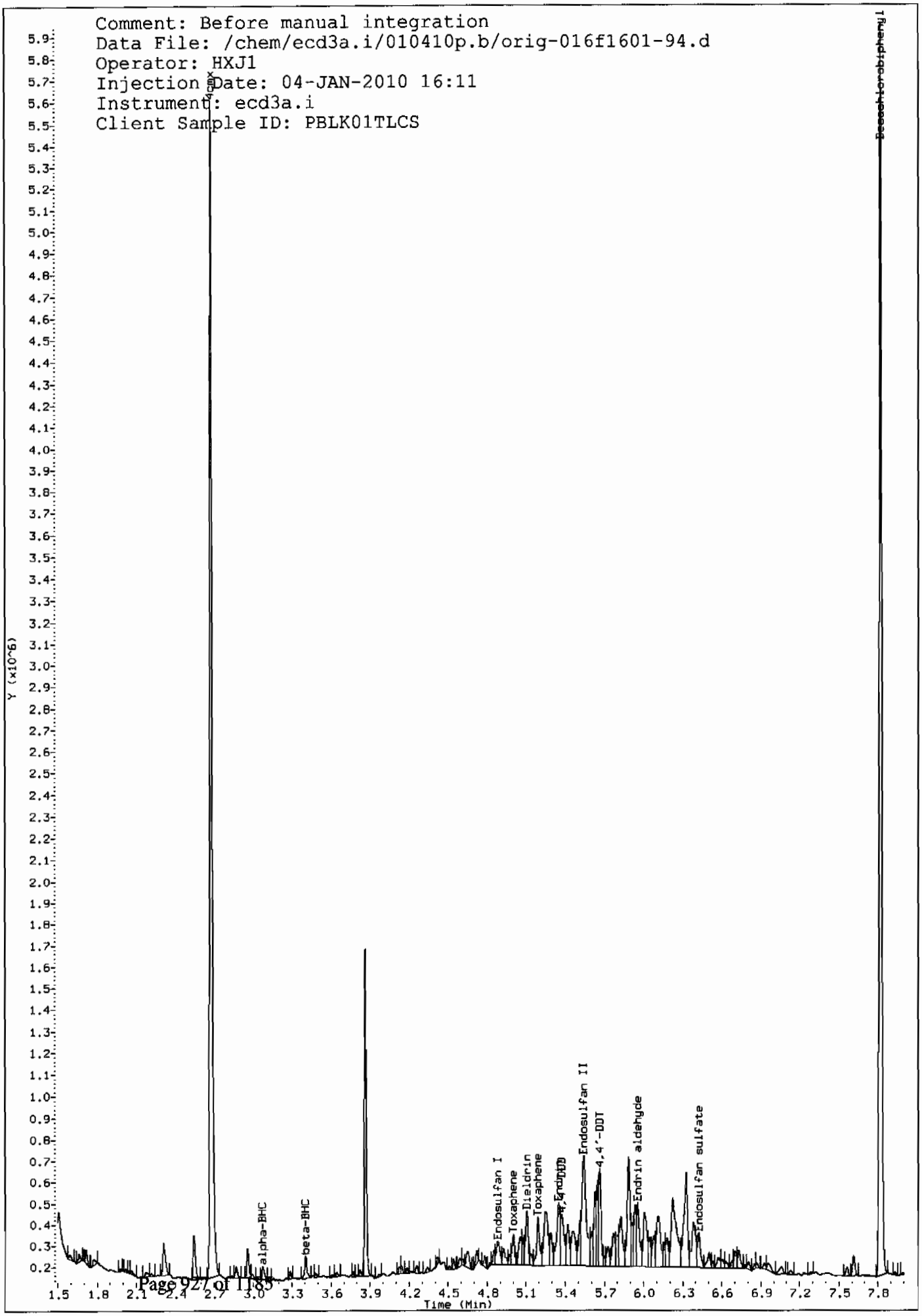

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010410p.b/016b1601-94.d
Lab Smp Id: 1202001571 Client Smp ID: PBLK01TLCS
Inj Date : 04-JAN-2010 16:11
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001571|1|
Misc Info : |ECD81A_1L|935414|SVP|TLCS|GROUND WATER|TLCS|||
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 07-Jan-2010 11:48 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 16 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-994.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	46634596	93.2633	0.466	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.859	8.859	0.000	56936555	144.445	0.722	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.656	5.662	-0.006	3524554	695.748	3.48	80.00- 120.00	100.00(M)
5.776	5.783	-0.007	2062600	689.708	3.45	36.56- 76.56	58.52
6.166	6.173	-0.007	3873270	644.133	3.22	76.22- 116.22	109.89
6.209	6.216	-0.007	7048481	664.984	3.32	156.49- 196.49	199.98
6.312	6.319	-0.007	12785669	667.735	3.34	260.77- 300.77	362.76

Average of Peak Concentrations = 3.36

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010410p.b/016b1601-94.d
Date : 04-JAN-2010 16:11
Client ID: PBLK01TLCS
Sample Info: |1202001571|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

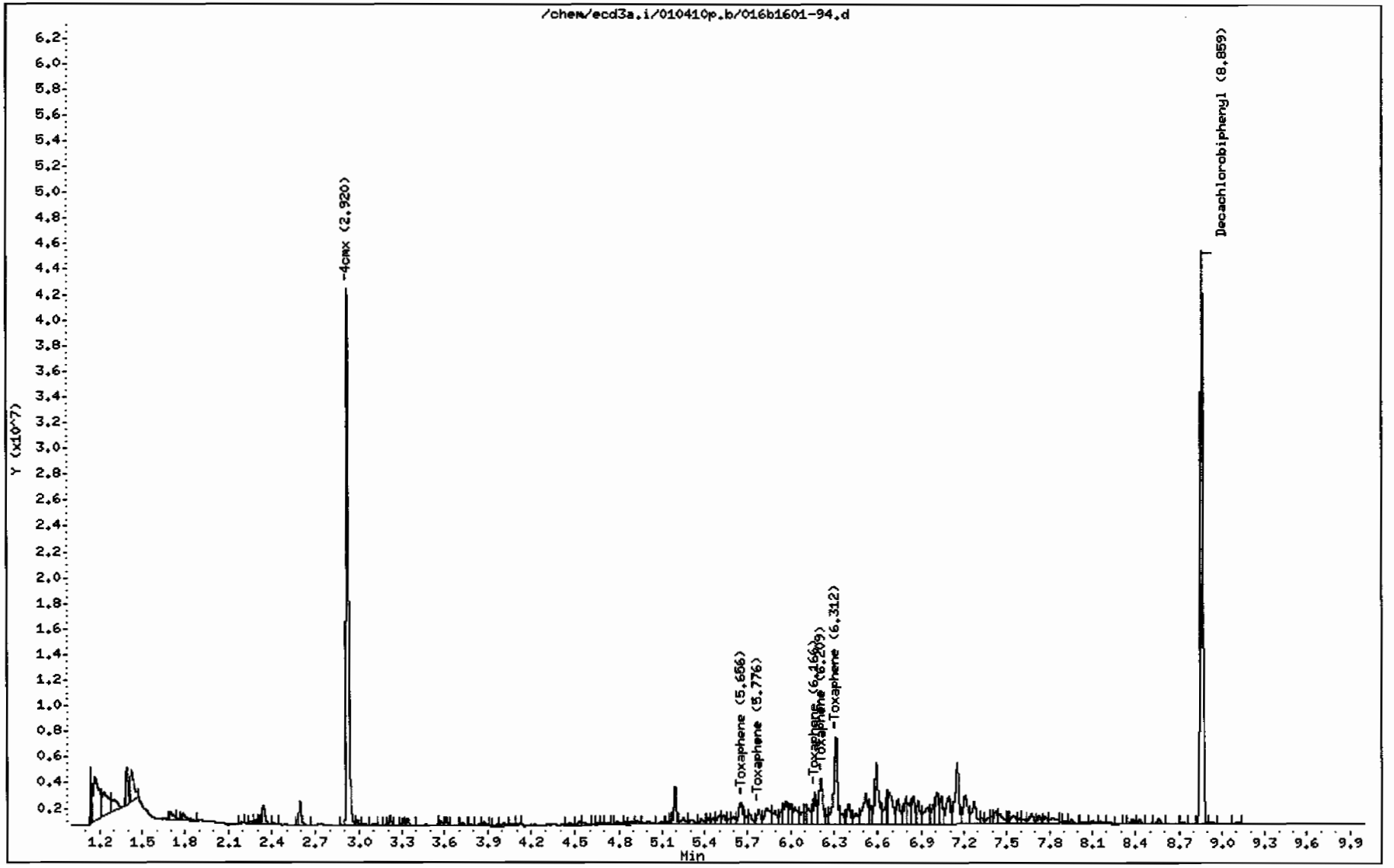

Comment: Manually Integrated
Data File: /chem/ecd3a.i/010410p.b/016b1601-94.d
Operator: HXJ1
Injection Date: 04-JAN-2010 16:11
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS

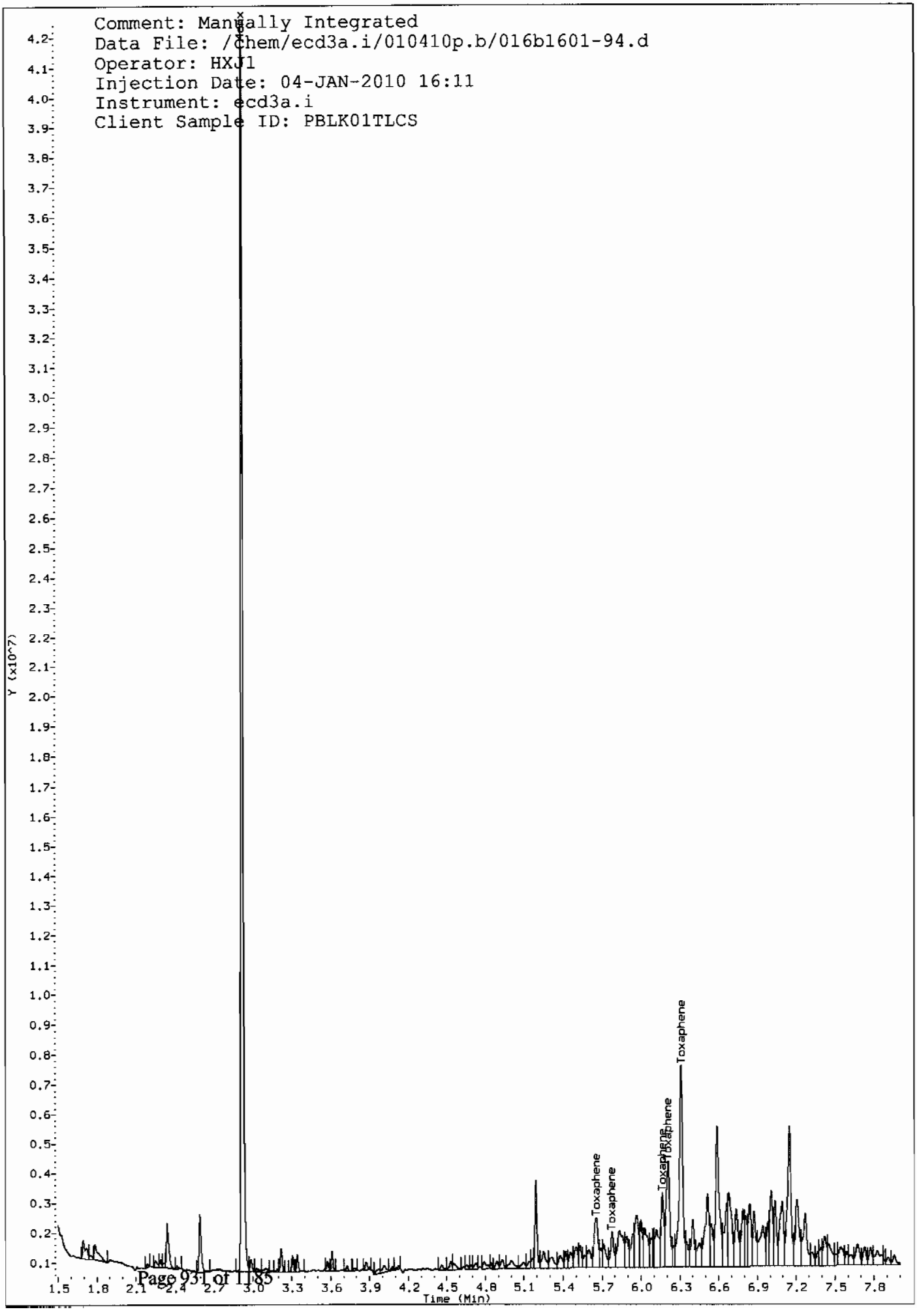

Comment: Before manual integration
Data File: /chem/ecd3a.i/010410p.b/orig-016b1601-94.d
Operator: HXJ1
Injection Date: 04-JAN-2010 16:11
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS

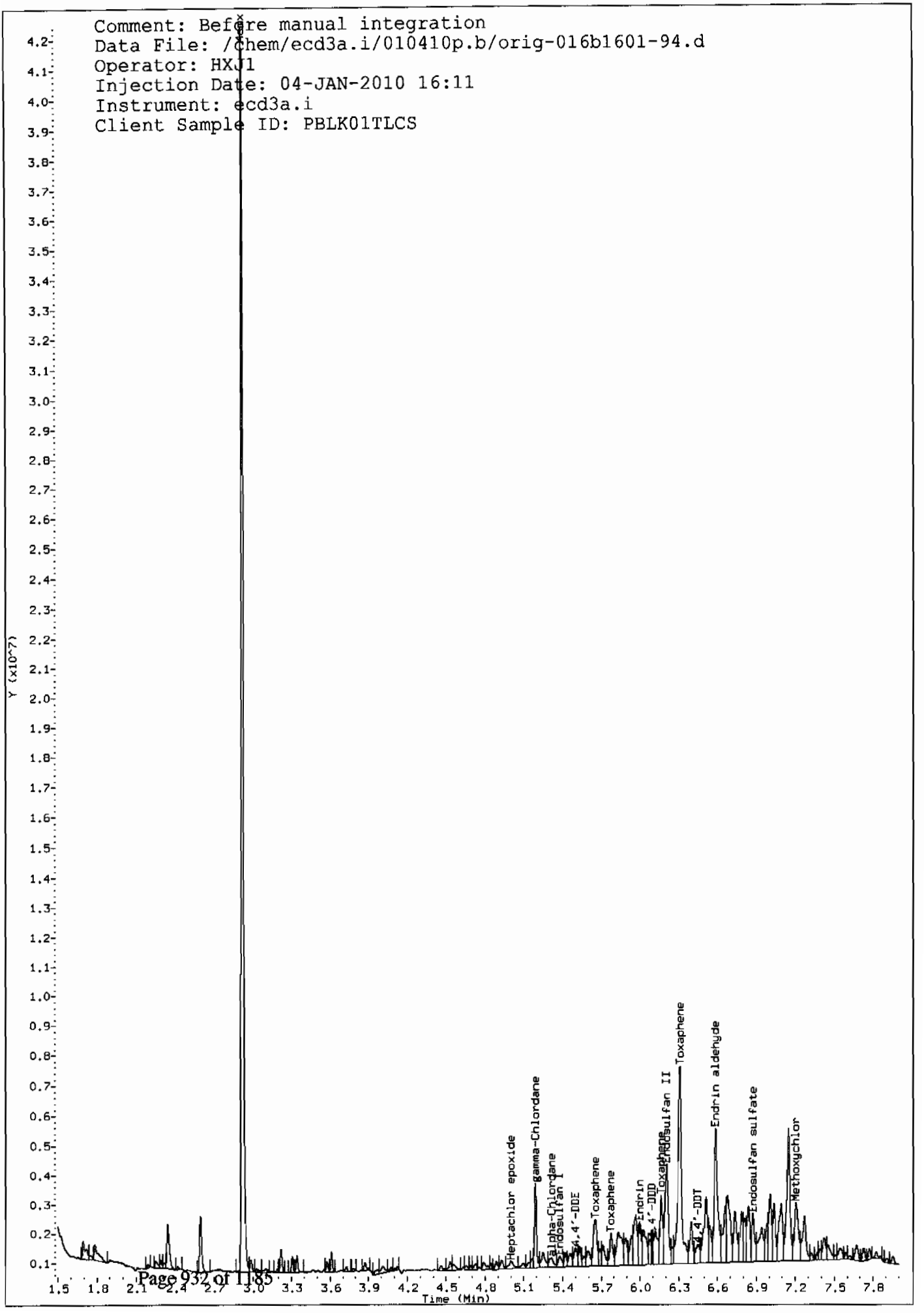

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD3

DATE: 12/31/2009 METHOD: ECD3-B-8081-122909.m OPERATOR:CXC2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA385

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-041
EPA Method: 8081
8081A
Sequence Number:122909p.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR091130-99IB	CXC2	29-DEC-2009 16:57		122909p	1.0		Clean
002b0201.d	WPE091219-99DG	CXC2	29-DEC-2009 17:10		122909p	1.0		(b) DDT 1.0%, Endrin 5.4%; (f) DDT 1.3%, Endrin 3.3%
003b0301.d	WPE091228-01AB	CXC2	29-DEC-2009 17:34		122909p	1.0		INDAB ICAL level 1
004b0401.d	WPE091228-02AB	CXC2	29-DEC-2009 17:47		122909p	1.0		INDAB ICAL level 2
005b0501.d	WPE091228-03AB	CXC2	29-DEC-2009 18:01		122909p	1.0		INDAB ICAL level 3
006b0601.d	WPE091228-04AB	CXC2	29-DEC-2009 18:15		122909p	1.0		INDAB ICAL level 4
007b0701.d	IPE091219-02AB	CXC2	29-DEC-2009 18:29		122909p	1.0		INDAB ICAL level 5
008b0801.d	WPE091218-10AB	CXC2	29-DEC-2009 18:43		122909p	1.0		(b) gamma-Chlordane elevated - NCR LANL batches; (f) All okay
009b0901.d	WPE091228-11TX	CXC2	29-DEC-2009 18:56		122909p	1.0		TOXAPH ICAL level 1
010b1001.d	WPE091228-12TX	CXC2	29-DEC-2009 19:10		122909p	1.0		TOXAPH ICAL level 2
011b1101.d	WPE091228-13TX	CXC2	29-DEC-2009 19:24		122909p	1.0		TOXAPH ICAL level 3
012b1201.d	WPE091228-14TX	CXC2	29-DEC-2009 19:37		122909p	1.0		DUSE - misinjection - see vial 13
013b1301.d	WPE091228-14TX	CXC2	29-DEC-2009 20:01		122909p	1.0		TOXAPH ICAL level 4
014b1401.d	IPE091121-40TX	CXC2	29-DEC-2009 20:14		122909p	1.0		TOXAPH ICAL level 5
015b1501.d	WPE091219-52TX	CXC2	29-DEC-2009 20:28		122909p	1.0		All okay

Instrument Batch: /chem/ecd3a.i/122909p.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016b1601.d	WPE091228-21CL	CXC2	29-DEC-2009 20:42		122909p	1.0		CHLOR ICAL level 1

017b1701.d	WPE091228-22CL	CXC2	29-DEC-2009 21:14		122909p		1.0		CHLOR ICAL level 2
018b1801.d	WPE091228-23CL	CXC2	29-DEC-2009 21:28		122909p		1.0		CHLOR ICAL level 3
019b1901.d	WPE091228-24CL	CXC2	29-DEC-2009 21:41		122909p		1.0		CHLOR ICAL level 4
020b2001.d	IPE091029-06CL	CXC2	29-DEC-2009 21:55		122909p		1.0		CHLOR ICAL level 5
021b2101.d	WPE091206-60CL	CXC2	29-DEC-2009 22:09		122909p		1.0		All okay
022b2201.d	WPE091219-99DG	CXC2	29-DEC-2009 22:22		122909p		1.0		(b) DDT 2.9%, Endrin 8.6%; (f) DDT 3.3%, Endrin 5.7%
023b2301.d	WAR091130-99IB	CXC2	29-DEC-2009 22:36		122909p		1.0		Clean
024b2401.d	243434001	CXC2	29-DEC-2009 22:49	937138	243434		1.0	ENRG	USE, uploaded both columns, reporting higher result
025b2501.d	1202005324	CXC2	29-DEC-2009 23:03	937138	243434		1.0	MS	USE, uploaded both columns, reporting higher result
026b2601.d	1202005325	CXC2	29-DEC-2009 23:17	937138	243434		1.0	TMS	USE, uploaded both columns, reporting higher result
027b2701.d	1202005326	CXC2	29-DEC-2009 23:30	937138	243434		1.0	CMS	USE, uploaded both columns, reporting higher result
028b2801.d	WAR091130-99IB	CXC2	29-DEC-2009 23:44		122909p		1.0		Clean
029b2901.d	WPE091218-10AB	CXC2	29-DEC-2009 23:58		122909p		1.0		All okay
030b3001.d	WAR091130-99IB	CXC2	30-DEC-2009 00:11		122909p		1.0		Clean
031b3101.d	1202001156	CXC2	30-DEC-2009 00:25	937138	243434		1.0	TB	USE, uploaded both columns, reporting higher result
032b3201.d	1202003586	CXC2	30-DEC-2009 00:39	937138	243278		1.0	TB	USE, uploaded both columns, reporting higher result
033b3301.d	1202005320	CXC2	30-DEC-2009 00:52	937138	243434		1.0	MB	USE, uploaded both columns, reporting higher result
034b3401.d	1202005330	CXC2	30-DEC-2009 01:06	937138	243434		1.0	LCS	USE, uploaded both columns, reporting higher result
035b3501.d	1202005331	CXC2	30-DEC-2009 01:19	937138	243434		1.0	TLCS	USE, uploaded both columns, reporting higher result

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	1202005332	CXC2	30-DEC-2009 01:33	937138	243434	1.0	CLCS	USE, uploaded both columns, reporting higher result
037b3701.d	WAR091130-99IB	CXC2	30-DEC-2009 01:47		122909p	1.0		Clean
038b3801.d	WPE091218-10AB	CXC2	30-DEC-2009 02:01		122909p	1.0		All okay
039b3901.d	WAR091130-99IB	CXC2	30-DEC-2009 02:14		122909p	1.0		Clean
040b4001.d	243278003	CXC2	30-DEC-2009 02:28	937138	243278	1.0	ECWS	USE, uploaded both columns, reporting higher result
041b4101.d	1202005321	CXC2	30-DEC-2009 02:42	937138	243278	1.0	MS	USE, uploaded both columns, reporting higher result

042b4201.d	1202005327	CXC2	30-DEC-2009 02:55	937138	243278	1.0	MSD	USE, uploaded both columns, reporting higher result
043b4301.d	1202005322	CXC2	30-DEC-2009 03:09	937138	243278	1.0	TMS	USE, uploaded both columns, reporting higher result
044b4401.d	1202005328	CXC2	30-DEC-2009 03:22	937138	243278	1.0	TMSD	USE, uploaded both columns, reporting higher result
045b4501.d	1202005323	CXC2	30-DEC-2009 03:36	937138	243278	1.0	CMS	USE, uploaded both columns, reporting higher result
046b4601.d	1202005329	CXC2	30-DEC-2009 03:50	937138	243278	1.0	CMSD	USE, uploaded both columns, reporting higher result
047b4701.d	WAR091130-99IB	CXC2	30-DEC-2009 04:03		122909p	1.0		Clean
048b4801.d	WPE091218-10AB	CXC2	30-DEC-2009 04:17		122909p	1.0		(b) Endrin elevated; (f) gamma-BHC, Endrin elevated
049b4901.d	WAR091130-99IB	CXC2	30-DEC-2009 04:31		122909p	1.0		Clean
050b5001.d	1202004566	CXC2	30-DEC-2009 04:44	936866	10-1044	1.0	MB	USE, uploaded both columns, reporting lower result
051b5101.d	1202004567	CXC2	30-DEC-2009 04:58	936866	10-1044	1.0	LCS	USE, uploaded both columns, reporting lower result
052b5201.d	1202004570	CXC2	30-DEC-2009 05:12	936866	10-1044	1.0	TLCS	USE, uploaded both columns, reporting lower result
053b5301.d	243458003	CXC2	30-DEC-2009 05:25	936866	10-1044	1.0	LANL	USE, uploaded both columns, reporting lower result
054b5401.d	243460001	CXC2	30-DEC-2009 05:39	936866	10-1049	1.0	LANL	USE, uploaded both columns, reporting lower result
055b5501.d	243467003	CXC2	30-DEC-2009 05:52	936866	10-1055	5.0	LANL	USE, uploaded both columns, reporting lower result NCR - DCB low - confirmed in MS/MSD - matrix and dilution

Instrument Batch: /chem/ecd3a.i/122909p.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056b5601.d	1202004568	CXC2	30-DEC-2009 06:06	936866	10-1055	5.0	MS	USE, uploaded both columns, reporting lower result NCR - DCB low - confirmed in sample/MSD - matrix and dilution
057b5701.d	1202004569	CXC2	30-DEC-2009 06:20	936866	10-1055	5.0	MSD	USE, uploaded both columns, reporting lower result NCR - DCB low - confirmed in sample/MS - matrix and dilution
058b5801.d	243469002	CXC2	30-DEC-2009 06:33	936866	10-1052	1.0	LANL	USE, uploaded both columns, reporting lower result
059b5901.d	WPE091218-10AB	CXC2	30-DEC-2009 06:47		122909p	1.0		(b) Endrin elevated; (f) gamma-BHC, Endrin elevated
060b6001.d	WAR091130-99IB	CXC2	30-DEC-2009 07:01		122909p	1.0		Clean
061b6101.d	1202003313	CXC2	30-DEC-2009 07:14	936267	10-1020	1.0	MB	USE, uploaded both columns, reporting lower result
062b6201.d	1202003314	CXC2	30-DEC-2009 07:28	936267	10-1020	1.0	LCS	USE, uploaded both columns, reporting lower result
063b6301.d	1202003318	CXC2	30-DEC-2009 07:42	936267	10-1020	1.0	TLCS	USE, uploaded both columns, reporting lower result
064b6401.d	243401003	CXC2	30-DEC-2009 07:55	936267	10-1020	1.0	LANL	USE, uploaded both columns, reporting lower result

065b6501.d	1202003315	CXC2	30-DEC-2009 08:09	936267	10-1020	1.0	MS	USE, uploaded both columns, reporting lower result NCR - spikes and surrogates elevated - RPD fails? - no hits
066b6601.d	1202003316	CXC2	30-DEC-2009 08:23	936267	10-1020	1.0	MSD	USE, uploaded both columns, reporting lower result
067b6701.d	243401007	CXC2	30-DEC-2009 08:36	936267	10-1020	1.0	LANL	USE, uploaded both columns, reporting lower result
068b6801.d	WPE091218-10AB	CXC2	30-DEC-2009 08:50		122909p	1.0		(b) All okay; (f) gamma-BHC elevated
069b6901.d	WAR091130-99IB	CXC2	30-DEC-2009 09:04		122909p	1.0		Clean

Instrument Batch: /chem/ecd3a.i/122909p.b

GEL ORGANIC RUN LOG INSTRUMENT ID __ECD3__

DATE: 01/08/2010 METHOD: ECD3-F-8081-122909.m OPERATOR:HXJ1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No.__1__ on pg.__1__ SOLVENT LOT DA699

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, BD-Percent Endrin and 4,4'-DDT Breakdown, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd3a.i/010410p.b Injection Volume:__0.5__ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99IB	HXJ1	04-JAN-2010 12:10		010410p	1.0		Clean
002f0201.d	WPE091219-99DG	HXJ1	04-JAN-2010 12:24		010410p	1.0		(B) DDT 2.2% Endrin 6.1% (F) DDT 2.5% Endrin 3.8%
003f0301.d	WPE091218-10AB	HXJ1	04-JAN-2010 12:38		010410p	1.0		DUSE - several elevated on Back
004f0401.d	WPE091219-52TX	HXJ1	04-JAN-2010 13:10		010410p	1.0		(B) Passes on average (F) All OK
005f0501.d	WPE091021-00CL	HXJ1	04-JAN-2010 13:24		010410p	1.0		(B) Passes on average (F) All OK
006f0601.d	WPE100104-01AB	HXJ1	04-JAN-2010 13:40		010410p	1.0		INDAB ICAL level 1
007f0701.d	WPE100104-02AB	HXJ1	04-JAN-2010 13:53		010410p	1.0		INDAB ICAL level 2
008f0801.d	WPE100104-03AB	HXJ1	04-JAN-2010 14:07		010410p	1.0		INDAB ICAL level 3
009f0901.d	WPE100104-04AB	HXJ1	04-JAN-2010 14:21		010410p	1.0		INDAB ICAL level 4
010f1001.d	IPE091219-02AB	HXJ1	04-JAN-2010 14:34		010410p	1.0		INDAB ICAL level 5
011f1101.d	WPE100104-01AB	HXJ1	04-JAN-2010 14:48		010410p	1.0		DUSE
012f1201.d	WPE091218-10AB	HXJ1	04-JAN-2010 15:02		010410p	1.0		All OK
013f1301.d	WAR091130-99IB	HXJ1	04-JAN-2010 15:30		010410p	1.0		Clean
014f1401.d	1202001567	HXJ1	04-JAN-2010 15:43	935414	10-937	1.0	MB	USE - uploaded both columns, reporting Front result per Quality
015f1501.d	1202001568	HXJ1	04-JAN-2010 15:57	935414	10-937	1.0	LCS	USE - uploaded both columns, reporting Front result per Quality ** delta-BHC low on Back

Instrument Batch: /chem/ecd3a.i/010410p.b Page: 1

| Data File | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG | Dilution | Client | Comments |

016f1601.d	1202001571	HXJ1	04-JAN-2010 16:11	935414	10-937	1.0	TLCS	USE - uploaded both columns, reporting Front result per Quality
017f1701.d	243012002	HXJ1	04-JAN-2010 16:24	935414	10-937	1.0	LANL	USE - uploaded both columns, reporting Front result per Quality
018f1801.d	243099001	HXJ1	04-JAN-2010 16:38	935414	10-952	1.0	LANL	USE - uploaded both columns, reporting Front result per Quality
019f1901.d	243254003	HXJ1	04-JAN-2010 16:52	935414	10-972	1.0	LANL	USE - uploaded both columns, reporting Front result per Quality
020f2001.d	243254008	HXJ1	04-JAN-2010 17:05	935414	10-972	1.0	LANL	USE - uploaded both columns, reporting Front result per Quality
021f2101.d	WPE091218-10AB	HXJ1	04-JAN-2010 17:23		010410p	1.0		(B) gamma-Chlordane elevated (F) gamma-Chlordane & EndoI high
022f2201.d	WAR091130-99IB	HXJ1	04-JAN-2010 17:37		010410p	1.0		Clean
023f2301.d	243283001	HXJ1	04-JAN-2010 17:50	935414	10-994	1.0	LANL	USE - uploaded both columns, reporting Front result per Quality
024f2401.d	243284002	HXJ1	04-JAN-2010 18:04	935414	10-997	1.0	LANL	USE - uploaded both columns, reporting Front result per Quality
025f2501.d	1202001569	HXJ1	04-JAN-2010 18:17	935414	10-997	1.0	MS	USE - uploaded both columns, reporting Front result per Quality
026f2601.d	1202001570	HXJ1	04-JAN-2010 18:31	935414	10-997	1.0	MSD	USE - uploaded both columns, reporting Front result per Quality
027f2701.d	243284006	HXJ1	04-JAN-2010 18:45	935414	10-997	1.0	LANL	USE - uploaded both columns, reporting Front result per Quality
028f2801.d	243284009	HXJ1	04-JAN-2010 18:58	935414	10-997	1.0	LANL	USE - uploaded both columns, reporting Front result per Quality
029f2901.d	WAR091130-99IB	HXJ1	04-JAN-2010 19:12		010410p	1.0		Clean
030f3001.d	WPE091218-10AB	HXJ1	04-JAN-2010 19:26		010410p	1.0		(B) All OK (F) gamma-Chlordane & Endosulfan I elevated
031f3101.d	WAR091130-99IB	HXJ1	04-JAN-2010 19:39		010410p	1.0		Clean
032f3201.d	1202006586	HXJ1	04-JAN-2010 19:53	937693	10-1090-1	1.0	MB	USE - uploaded both columns, reporting lower result
033f3301.d	1202006587	HXJ1	04-JAN-2010 20:07	937693	10-1090-1	1.0	LCS	USE - uploaded both columns, reporting lower result
034f3401.d	1202006721	HXJ1	04-JAN-2010 20:20	937693	10-1090-1	1.0	TLCS	USE - uploaded both columns, reporting lower result
035f3501.d	243596002	HXJ1	04-JAN-2010 20:34	937693	10-1090-1	1.0	LANL	USE - uploaded both columns, reporting lower result

Instrument Batch: /chem/ecd3a.i/010410p.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202006588	HXJ1	04-JAN-2010 20:48	937693	10-1090-1	1.0	MS	USE - uploaded both columns, reporting lower result
037f3701.d	1202006589	HXJ1	04-JAN-2010 21:01	937693	10-1090-1	1.0	MSD	USE - uploaded both columns, reporting lower result
038f3801.d	243596003	HXJ1	04-JAN-2010 21:15	937693	10-1090-1	1.0	LANL	USE - uploaded both columns, reporting lower result
039f3901.d	243596004	HXJ1	04-JAN-2010 21:29	937693	10-1090-1	1.0	LANL	USE - uploaded both columns, reporting lower result

040f4001.d	243596005	HXJ1	04-JAN-2010 21:42	937693	10-1090-1		1.0	LANL	USE - uploaded both columns, reporting lower result
041f4101.d	243596006	HXJ1	04-JAN-2010 21:56	937693	10-1090-1		1.0	LANL	USE - uploaded both columns, reporting lower result
042f4201.d	WAR091130-99IB	HXJ1	04-JAN-2010 22:10		010410p		1.0		Clean
043f4301.d	WPE091218-10AB	HXJ1	04-JAN-2010 22:23		010410p		1.0		(B) DDD elevated (F) gamma-CHL, EndoI, Endrin, DDD elevated
044f4401.d	WPE091219-99DG	HXJ1	04-JAN-2010 22:37		010410p		1.0		(B) DDT 15.9% Endrin 9.1% (F) DDT 18.9% Endrin 6.3%
045f4501.d	WAR091130-99IB	HXJ1	04-JAN-2010 22:50		010410p		1.0		Clean
046f4601.d	1202006550	HXJ1	04-JAN-2010 23:04	938038	10-1090		1.0	TB	USE - uploaded both columns, reporting lower result
047f4701.d	1202007250	HXJ1	04-JAN-2010 23:18	938038	10-1090		1.0	MB	USE - uploaded both columns, reporting lower result
048f4801.d	1202007257	HXJ1	04-JAN-2010 23:31	938038	10-1090		1.0	LCS	USE - uploaded both columns, reporting lower result
049f4901.d	1202007258	HXJ1	04-JAN-2010 23:45	938038	10-1090		1.0	TLCS	USE - uploaded both columns, reporting lower result
050f5001.d	1202007259	HXJ1	04-JAN-2010 23:59	938038	10-1090		1.0	CLCS	USE - uploaded both columns, reporting lower result
051f5101.d	243593001	HXJ1	05-JAN-2010 00:12	938038	10-1090		1.0	LANL	USE - uploaded both columns, reporting lower result
052f5201.d	WAR091130-99IB	HXJ1	05-JAN-2010 00:26		010410p		1.0		Clean
053f5301.d	WPE091218-10AB	HXJ1	05-JAN-2010 00:40		010410p		1.0		(B) DDD elevated (F) gamma-BHC, gamma-CHL, EndoI, DDD elevated
054f5401.d	WAR091130-99IB	HXJ1	05-JAN-2010 00:53		010410p		1.0		Clean
055f5501.d	243593002	HXJ1	05-JAN-2010 01:07	938038	10-1090		1.0	LANL	USE - uploaded both columns, reporting lower result

Instrument Batch: /chem/ecd3a.i/010410p.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	243593003	HXJ1	05-JAN-2010 01:21	938038	10-1090	1.0	LANL	USE - uploaded both columns, reporting lower result
057f5701.d	243593004	HXJ1	05-JAN-2010 01:34	938038	10-1090	1.0	LANL	USE - uploaded both columns, reporting lower result
058f5801.d	243593005	HXJ1	05-JAN-2010 01:48	938038	10-1090	1.0	LANL	USE - uploaded both columns, reporting lower result
059f5901.d	1202007251	HXJ1	05-JAN-2010 02:02	938038	10-1090	1.0	MS	USE - uploaded both columns, reporting lower result
060f6001.d	1202007254	HXJ1	05-JAN-2010 02:15	938038	10-1090	1.0	MSD	USE - uploaded both columns, reporting lower result
061f6101.d	1202007252	HXJ1	05-JAN-2010 02:29	938038	10-1090	1.0	TMS	USE - uploaded both columns, reporting lower result
062f6201.d	1202007255	HXJ1	05-JAN-2010 02:43	938038	10-1090	1.0	TMSD	USE - uploaded both columns, reporting lower result
063f6301.d	1202007253	HXJ1	05-JAN-2010 02:56	938038	10-1090	1.0	CMS	USE - uploaded both columns, reporting lower result
064f6401.d	1202007256	HXJ1	05-JAN-2010 03:10	938038	10-1090	1.0	CMSD	USE - uploaded both columns, reporting lower result

065f6501.d	WAR091130-99IB	HXJ1	05-JAN-2010 03:24	010410p	1.0	Clean
066f6601.d	WPE091218-10AB	HXJ1	05-JAN-2010 03:37	010410p	1.0	(B) DDD elevated, Methoxychlor low (F) gamma-BHC, gamma-CHL, Endosulfan I, Endrin, DDD, Endosulfan sulfate elevated
067f6701.d	WAR091130-99IB	HXJ1	05-JAN-2010 03:51	010410p	1.0	Clean

Instrument Batch: /chem/ecd3a.i/010410p.b

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010410p.b/001b0101.d
Lab Smp Id: WAR091130-99IB Client Smp ID: PIBLK01
Inj Date : 04-JAN-2010 12:10
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WAR091130-99IB
Misc Info : |IBLK|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 07-Jan-2010 11:48 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 1 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.918	2.920	-0.002	102705296	205.398	205	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.855	8.859	-0.004	76564719	194.240	194	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/010410p.b/001b0101.d
Date : 04-JAN-2010 12:10
Client ID: PIBLK01
Sample Info: IWAR091130-99IB

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

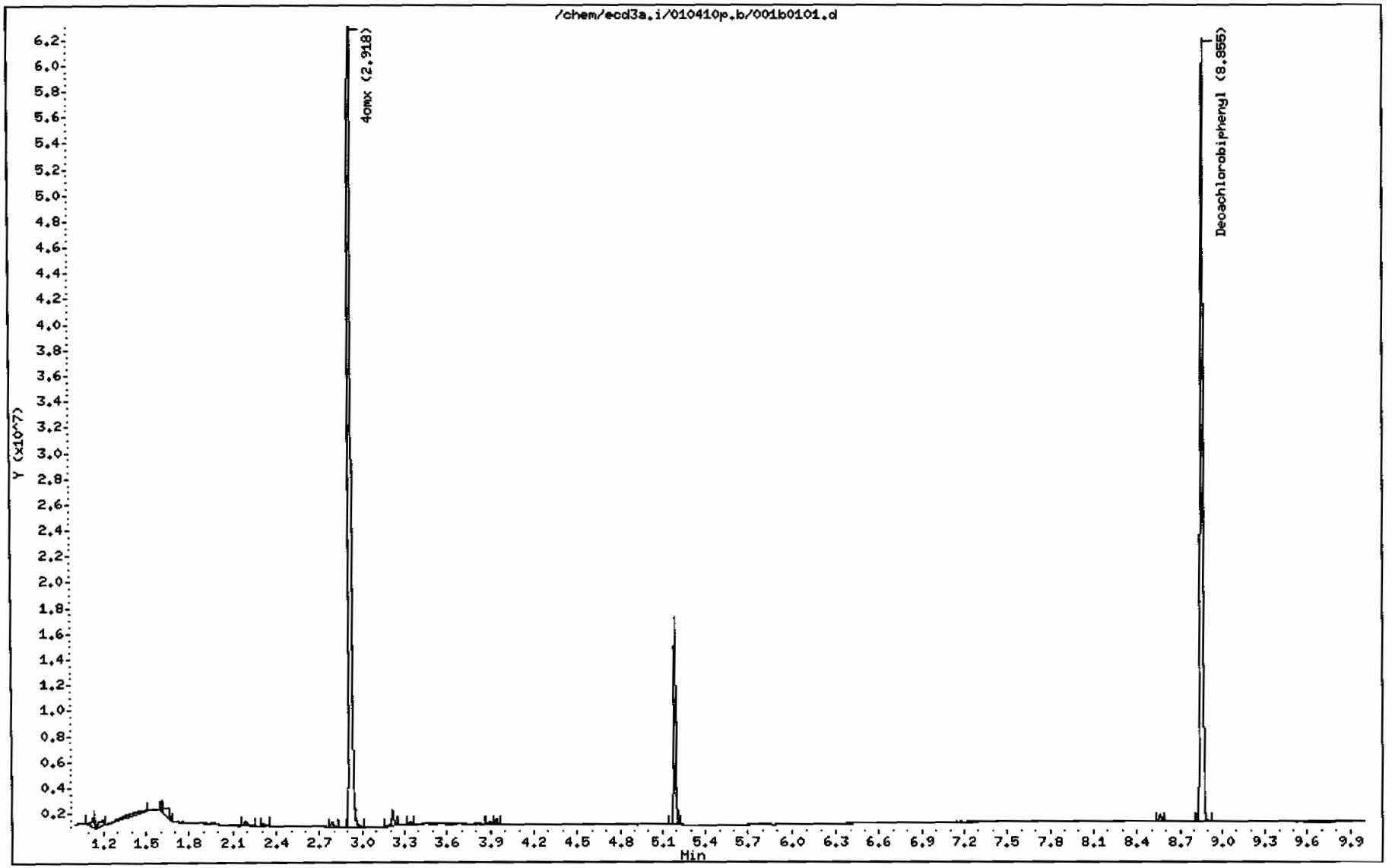

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010410p.b/001f0101.d
Lab Smp Id: WAR091130-99IB Client Smp ID: PIBLK01
Inj Date : 04-JAN-2010 12:10
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WAR091130-99IB
Misc Info : |IBLK|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 1 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.672	2.676	-0.004	14587532	221.139	221	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.816	7.823	-0.007	10544873	218.795	219	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/010410p.b/001f0101.d

Date : 04-JAN-2010 12:10

Client ID: PIBLK01

Sample Info: IWAR091130-99IB

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

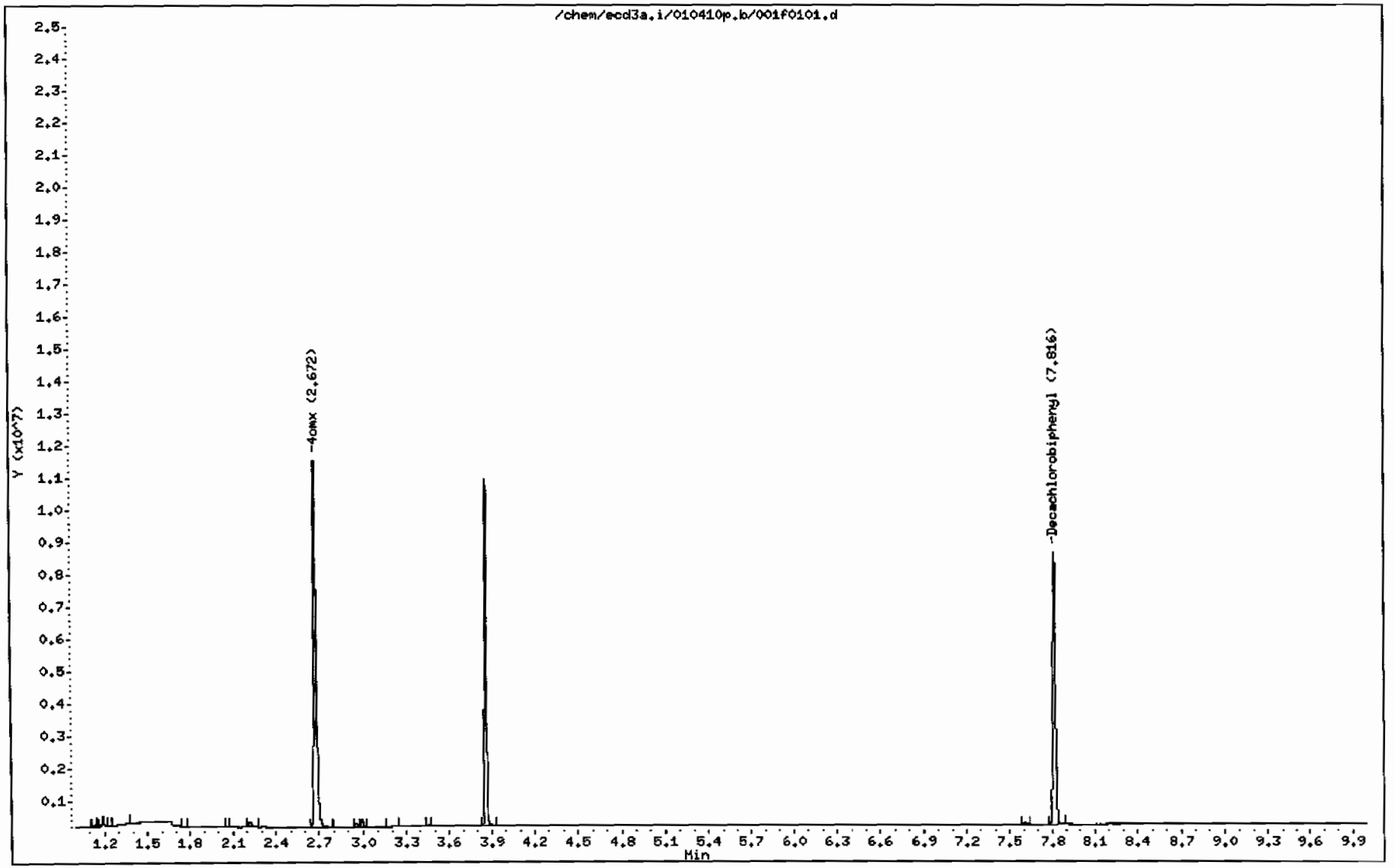

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010410p.b/013b1301.d
Lab Smp Id: WAR091130-99IB Client Smp ID: PIBLK02
Inj Date : 04-JAN-2010 15:30
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WAR091130-99IB
Misc Info : |IBLK|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 07-Jan-2010 11:43 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 13 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.923	2.920	0.003	101520559	203.028	203	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.865	8.859	0.006	83140467	210.923	211	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/010410p.b/013b1301.d

Date : 04-JAN-2010 15:30

Client ID: PIBLK02

Sample Info: IWAR091130-99IB

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

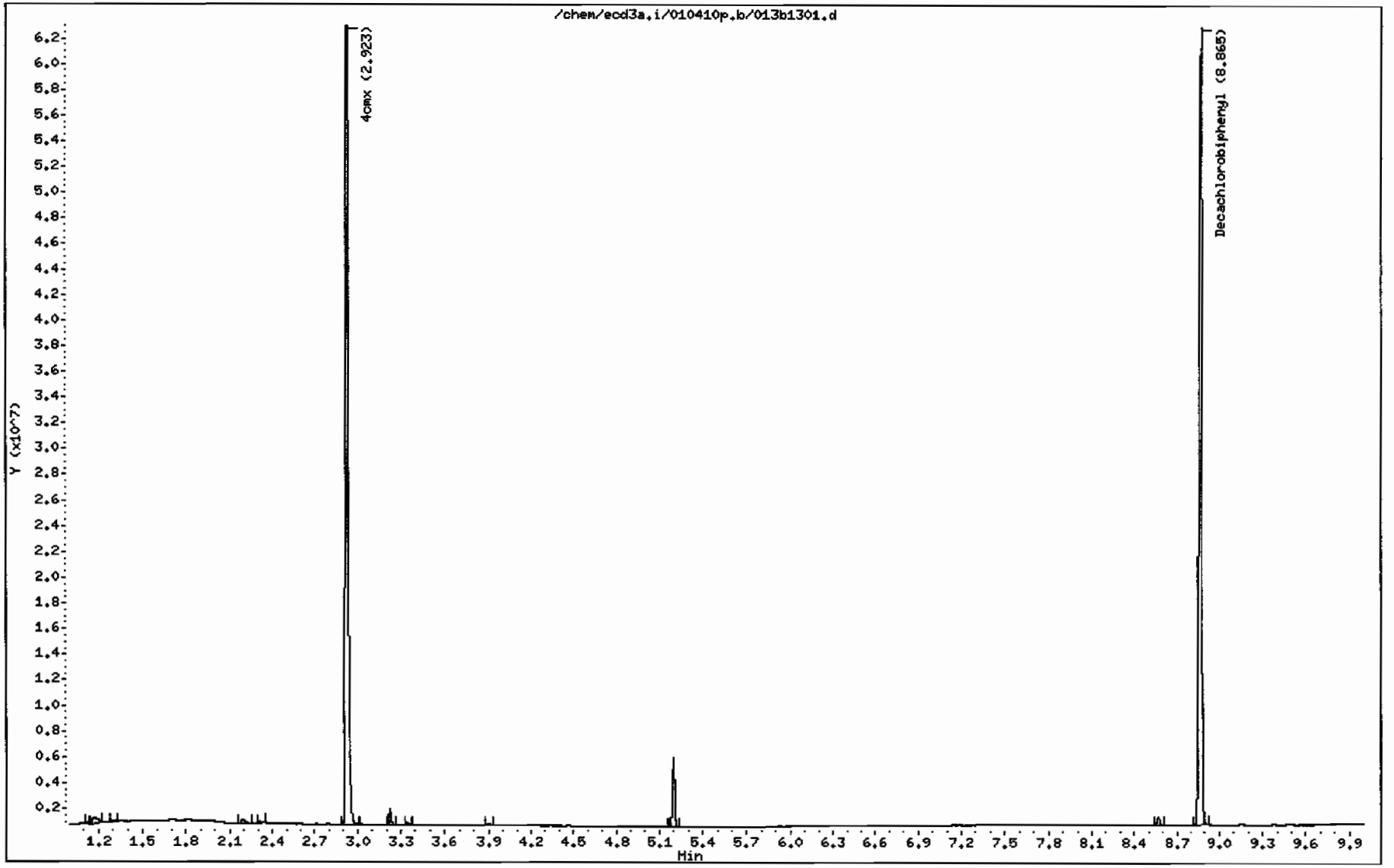

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010410p.b/013f1301.d
Lab Smp Id: WAR091130-99IB Client Smp ID: PIBLK02
Inj Date : 04-JAN-2010 15:30
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WAR091130-99IB
Misc Info : |IBLK|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 13 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.680	2.676	0.004	14731954	217.387	217	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.833	7.823	0.010	10843500	209.101	209	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/010410p.b/013f1301.d

Date : 04-JAN-2010 15:30

Client ID: PIBLK02

Sample Info: IWAR091130-99IB

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

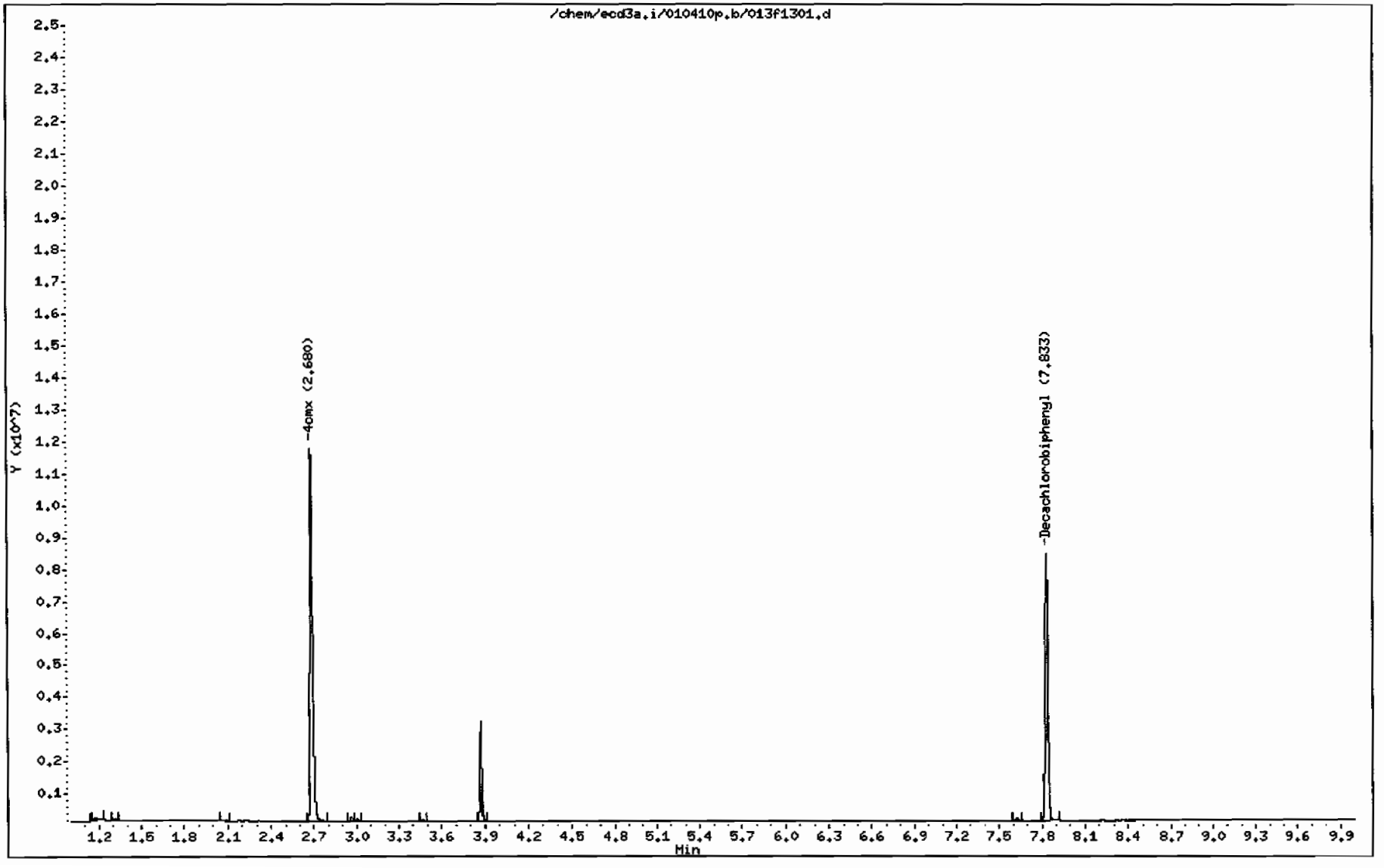

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010410p.b/022b2201.d
Lab Smp Id: WAR091130-99IB Client Smp ID: PIBLK03
Inj Date : 04-JAN-2010 17:36
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WAR091130-99IB
Misc Info : |IBLK|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 07-Jan-2010 11:44 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 22 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	92747388	185.483	185	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.860	8.859	0.001	80783712	204.944	205	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/010410p.b/022b2201.d
Date : 04-JAN-2010 17:36
Client ID: PIBLK03
Sample Info: IWAR091130-99IB

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

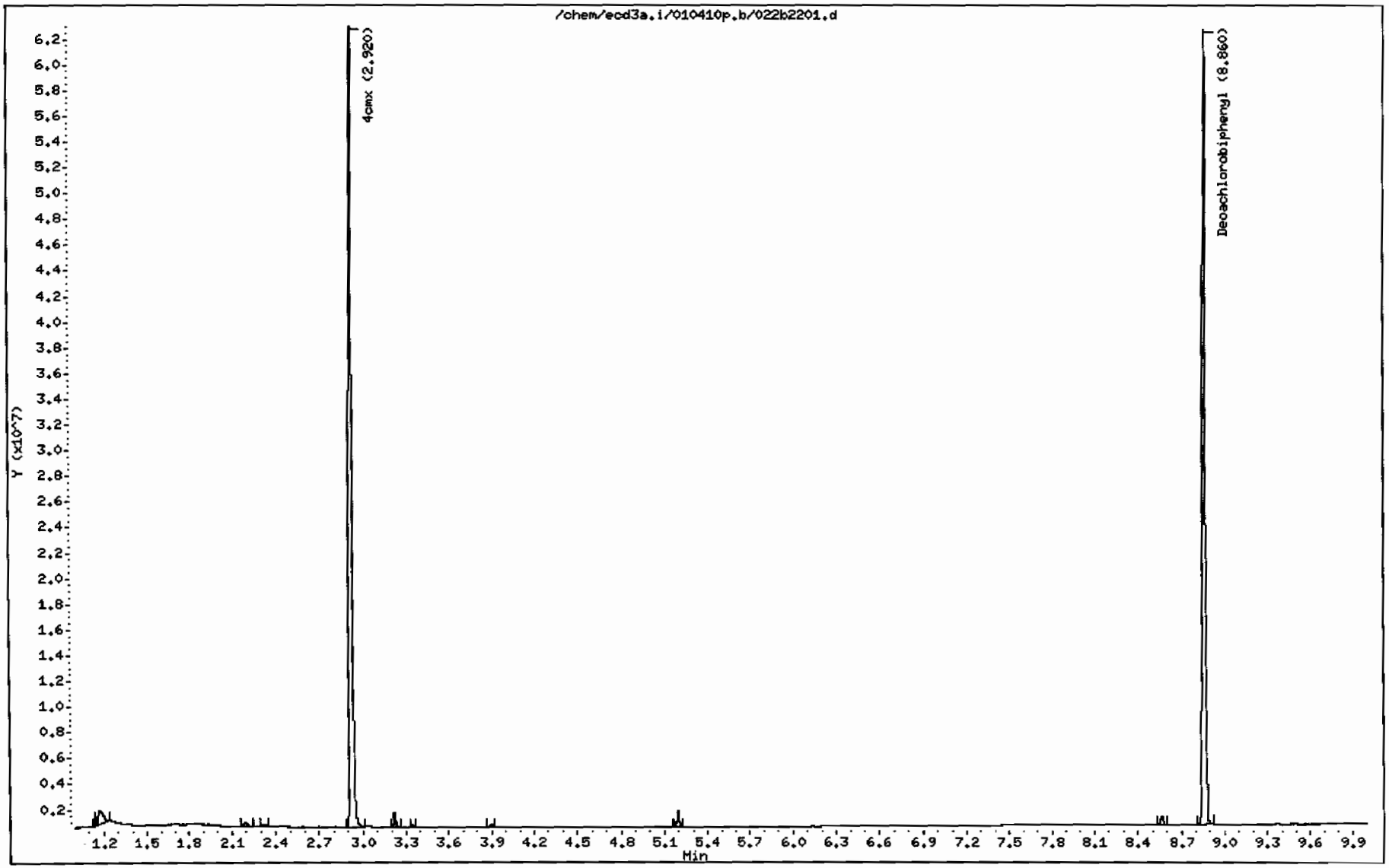

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010410p.b/022f2201.d
Lab Smp Id: WAR091130-99IB Client Smp ID: PIBLK03
Inj Date : 04-JAN-2010 17:37
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WAR091130-99IB
Misc Info : |IBLK|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 22 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.676	2.676	0.000	14445679	213.162	213	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.824	7.823	0.001	10556141	203.559	204	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/010410p.b/022f2201.d

Date : 04-JAN-2010 17:37

Client ID: PIBLK03

Sample Info: IWAR091130-99IB

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

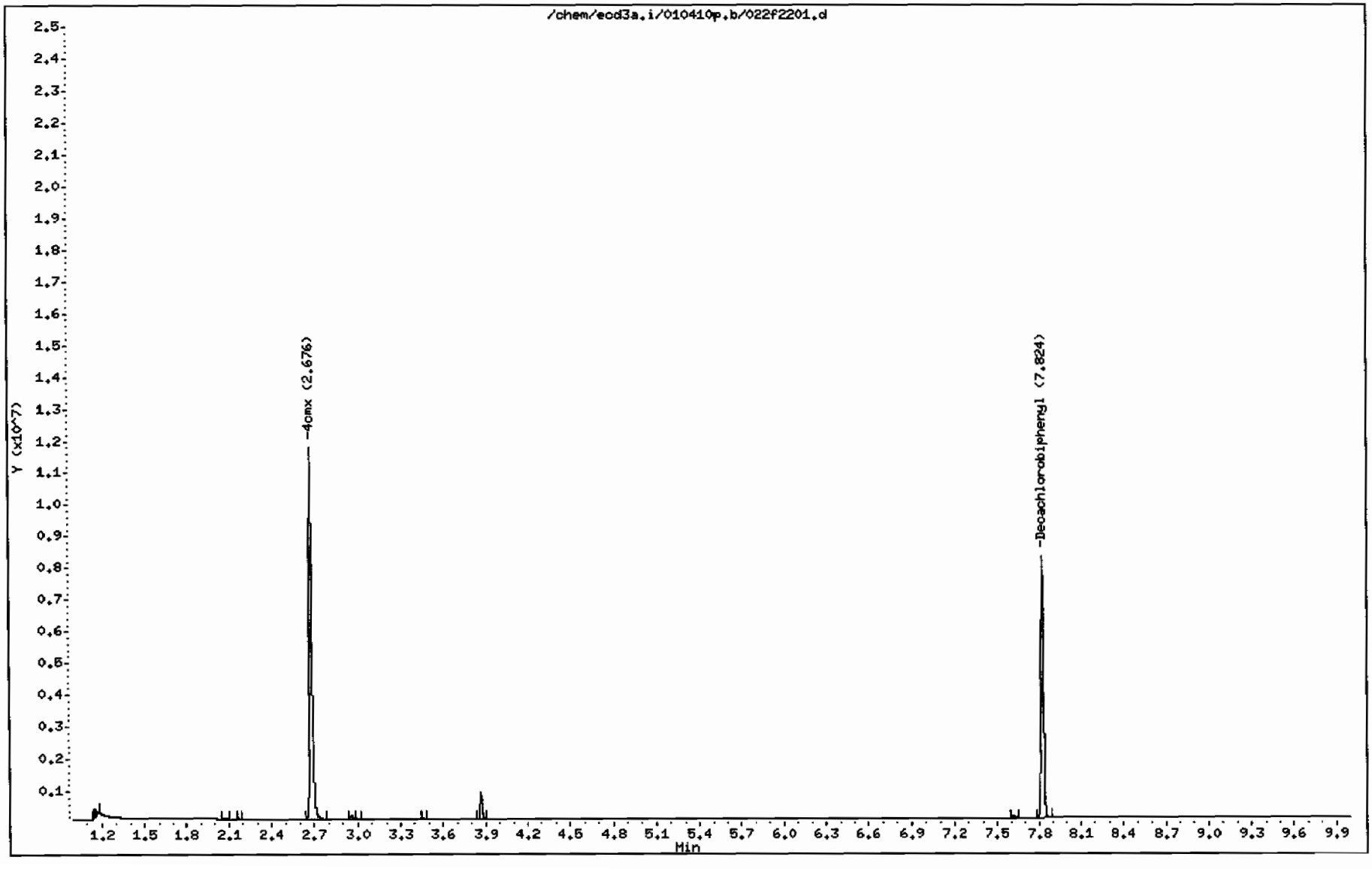

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CLP-2

Data file : /chem/ecd3a.i/010410p.b/025b2501.d
Lab Smp Id: 1202001569 Client Smp ID: CAPA-10-6390MS
Inj Date : 04-JAN-2010 18:17
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001569|1|
Misc Info : |ECD81A_1L|935414|SVP|MS|GROUND WATER|MS|||
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 07-Jan-2010 11:48 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 25 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-997.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.921	2.920	0.001	49148857	98.2915	0.491	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.859	8.859	0.000	43343332	109.960	0.550	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.413	3.413	0.000	38409272	56.0270	0.280	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.723	3.721	0.002	35538351	61.1452	0.306	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.785	3.783	0.002	14689027	57.9274	0.290	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.057	4.056	0.001	27958450	53.1071	0.266	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.135	4.135	0.000	22091721	52.1551	0.261	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.447	4.447	0.000	20297821	53.4233	0.267	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.997	4.997	0.000	17269971	56.4182	0.282	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.190	5.189	0.001	39014457	126.906	0.634	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.335	5.335	0.000	19900108	66.6377	0.333	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.399	5.399	0.000	19295584	68.2409	0.341	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.493	5.493	0.000	51135300	172.838	0.864	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.680	5.680	0.000	59243942	171.426	0.857	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.999	5.999	0.000	64238882	190.940	0.955	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.098	6.098	0.000	62229292	182.036	0.910	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.220	6.220	0.000	71702339	181.588	0.908	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.576	6.577	-0.001	63885639	166.686	0.833	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.437	6.438	-0.001	65658737	182.929	0.915	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.879	6.880	-0.001	91484849	194.464	0.972	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.180	7.181	-0.001	139175661	702.996	3.51	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.471	7.471	0.000	107128026	184.744	0.924	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/025b2501.d
Date : 04-JAN-2010 18:17
Client ID: CAPA-10-6390MS
Sample Info: 1120200156911
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

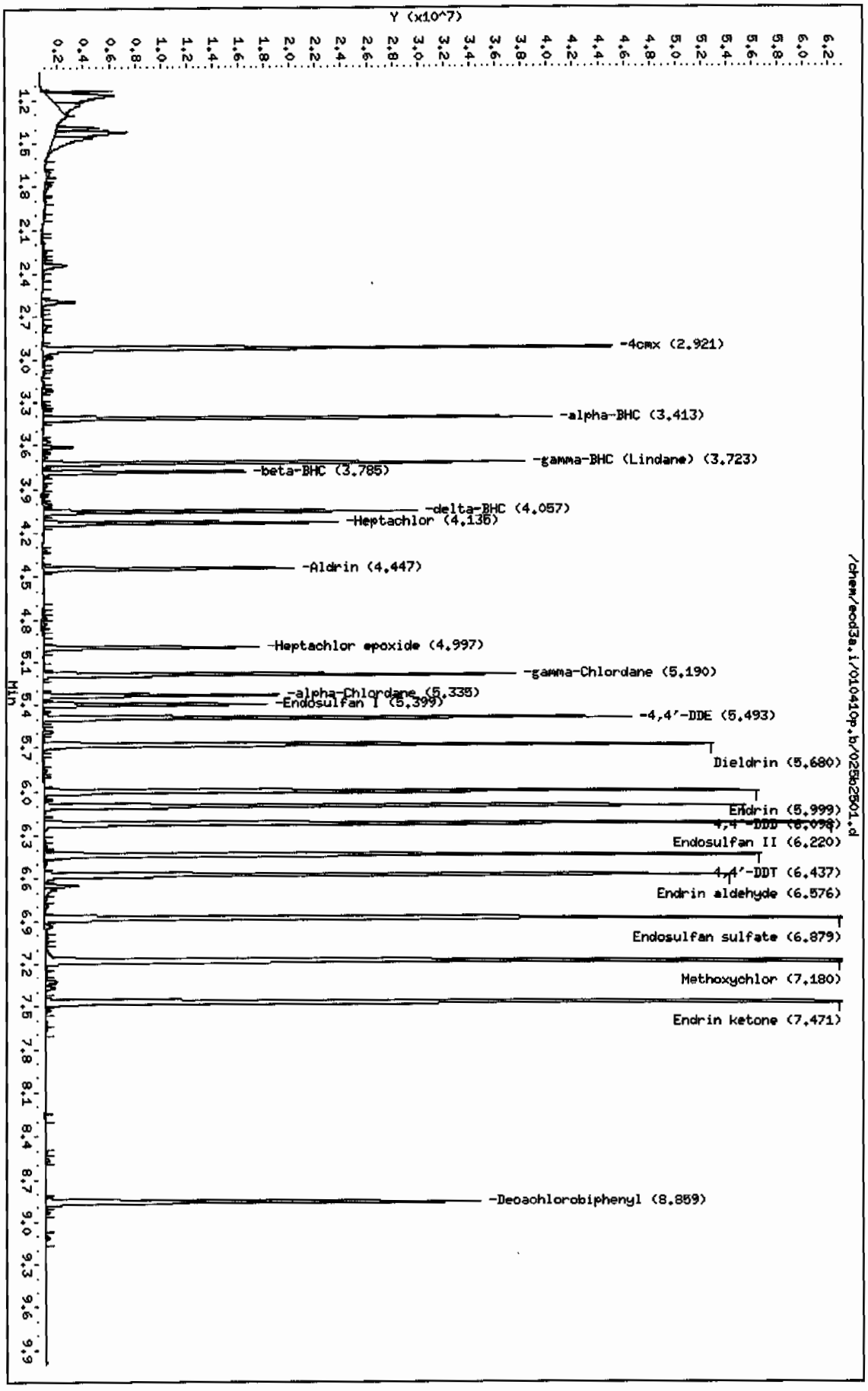

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CLP-1

Data file : /chem/ecd3a.i/010410p.b/025f2501.d
Lab Smp Id: 1202001569 Client Smp ID: CAPA-10-6390MS
Inj Date : 04-JAN-2010 18:17
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001569|1|
Misc Info : |ECD81A_1L|935414|SVP|MS|GROUND WATER|MS|||
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 25 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-997.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.677	2.676	0.001	7099264	104.758	0.524	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.822	7.823	-0.001	5428916	104.688	0.523	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.083	3.082	0.001	6224995	61.6352	0.308	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.328	3.328	0.000	5675936	68.3338	0.342	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.393	3.392	0.001	2711171	75.6827	0.378	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.540	3.539	0.001	5564258	65.0711	0.325	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.711	3.711	0.000	4006853	61.5947	0.308	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.968	3.969	-0.001	4608075	57.7932	0.289	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.504	4.504	0.000	4807447	67.4898	0.337	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.619	4.619	0.000	4369302	63.8626	0.319	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.742	4.743	-0.001	4615788	66.3647	0.332	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.874	4.874	0.000	4367532	70.8119	0.354	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.810	4.810	0.000	11481355	167.539	0.838	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.103	5.103	0.000	12351623	173.381	0.867	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.331	5.331	0.000	11205874	196.720	0.984	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.391	5.393	-0.002	10279003	186.611	0.933	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.554	5.555	-0.001	11222281	191.860	0.959	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.979	5.980	-0.001	8014552	162.598	0.813	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.671	5.672	-0.001	8434491	187.445	0.937	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.432	6.433	-0.001	9306580	194.851	0.974	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.175	6.176	-0.001	15549731	700.936	3.50	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.730	6.730	0.000	11593352	180.040	0.900	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/025f2501.d
Date : 04-JAN-2010 18:17
Client ID: CAPA-10-6390MS
Sample Info: 1120200156911
Volume Injected (ul): 1.0
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HKJ1
Column diameter: 0.25

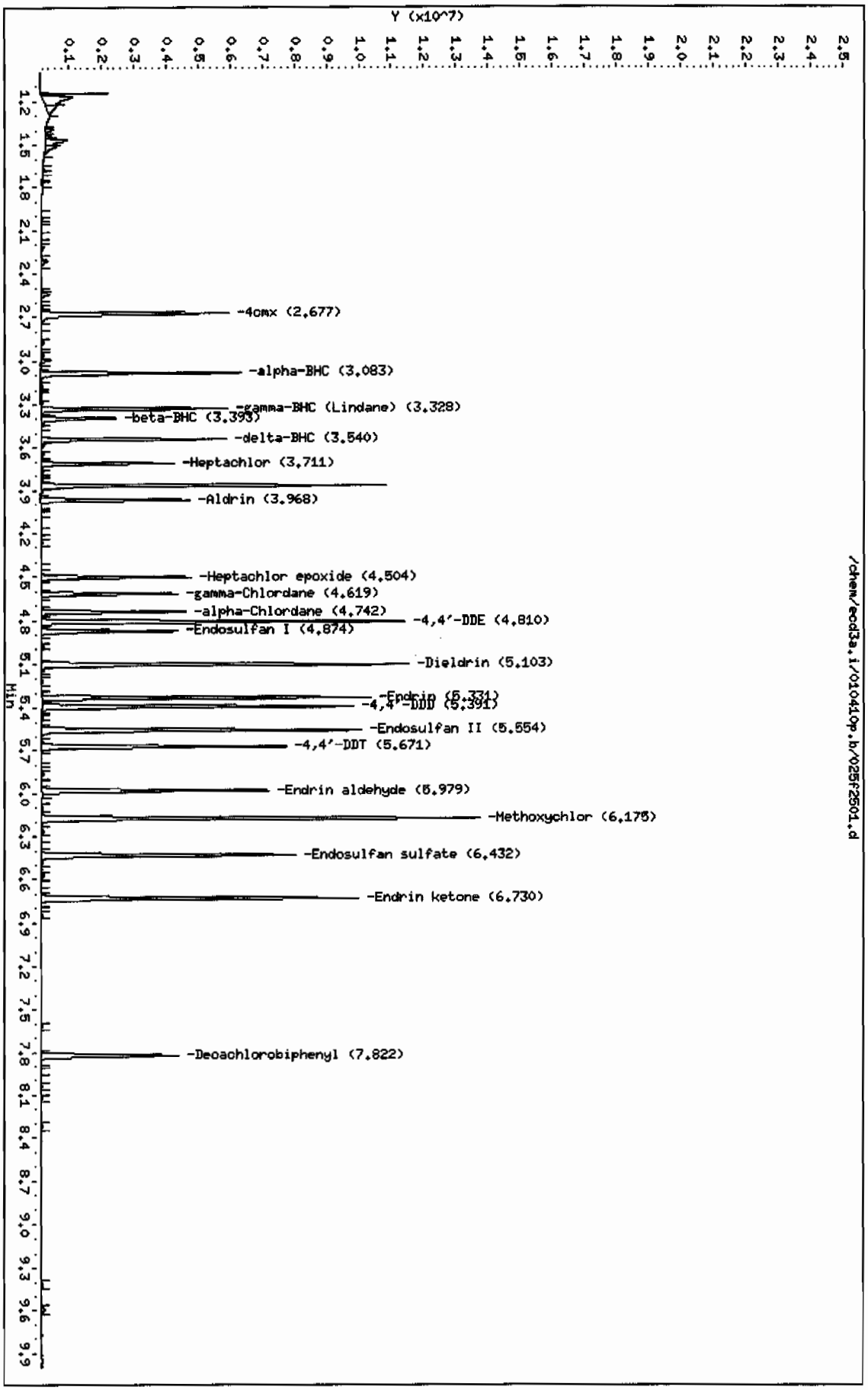

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CLP-2

Data file : /chem/ecd3a.i/010410p.b/026b2601.d
Lab Smp Id: 1202001570 Client Smp ID: CAPA-10-6390MSD
Inj Date : 04-JAN-2010 18:31
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001570|1|
Misc Info : |ECD81A_1L|935414|SVP|MSD|GROUND WATER|MSD|||
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 07-Jan-2010 11:48 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 26 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-997.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	67285643	134.563	0.673	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.859	8.859	0.000	55951835	141.947	0.710	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.413	3.413	0.000	53114401	77.4771	0.387	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.722	3.721	0.001	49228708	84.7000	0.423	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.784	3.783	0.001	20540746	81.0042	0.405	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.057	4.056	0.001	39366777	74.7773	0.374	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.135	4.135	0.000	31456223	74.2633	0.371	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.448	4.447	0.001	28092800	73.9395	0.370	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.998	4.997	0.001	24143502	78.8729	0.394	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.190	5.189	0.001	52858876	174.719	0.874	80.00- 120.00	100.00(R)
18 alpha-Chlordane					CAS #: 5103-71-9		
5.335	5.335	0.000	27293784	91.3962	0.457	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.399	5.399	0.000	26692870	94.4022	0.472	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.494	5.493	0.001	68264459	230.734	1.15	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.681	5.680	0.001	80066575	231.677	1.16	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.999	5.999	0.000	86304945	256.528	1.28	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.098	6.098	0.000	82968899	242.705	1.21	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.220	6.220	0.000	96438660	244.234	1.22	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.577	6.577	0.000	89374476	233.190	1.16	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.438	6.438	0.000	88875964	247.613	1.24	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.879	6.880	-0.001	125932100	267.687	1.34	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.180	7.181	-0.001	185441626	936.692	4.68	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.471	7.471	0.000	144380372	248.986	1.24	80.00- 120.00	100.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/010410p.b/026b2601.d
Date : 04-JAN-2010 18:31
Client ID: CAPA-10-6390MSD
Sample Info: |1202001570|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

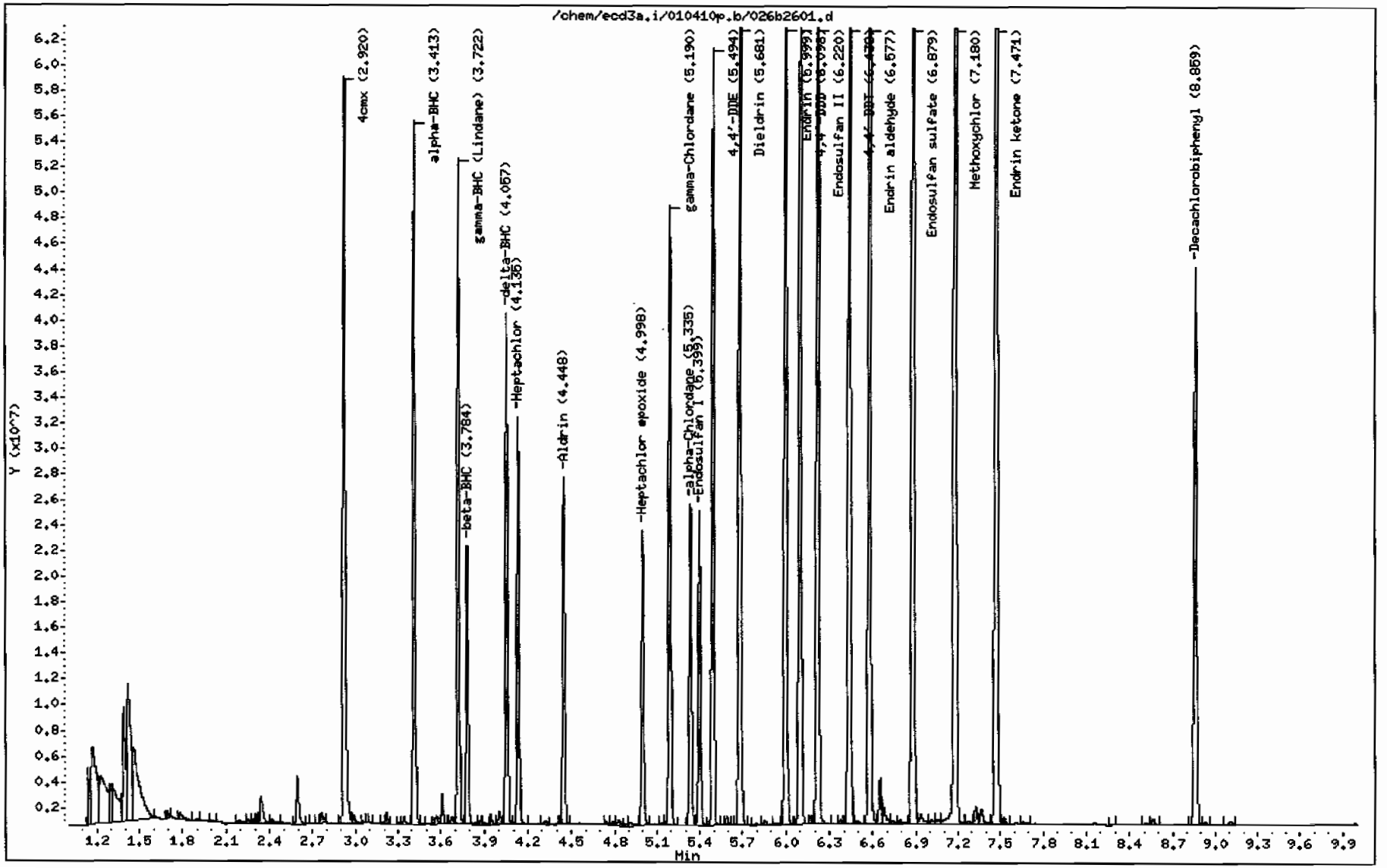

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010410p.b/026f2601.d
Lab Smp Id: 1202001570 Client Smp ID: CAPA-10-6390MSD
Inj Date : 04-JAN-2010 18:31
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001570|1|
Misc Info : |ECD81A_1L|935414|SVP|MSD|GROUND WATER|MSD|||
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 26 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-997.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.676	2.676	0.000	9812416	144.793	0.724	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.822	7.823	-0.001	6967161	134.351	0.672	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.083	3.082	0.001	8576559	83.7321	0.419	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.328	3.328	0.000	7902370	95.1383	0.476	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.393	3.392	0.001	3605172	100.639	0.503	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.540	3.539	0.001	7789291	91.0918	0.455	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.711	3.711	0.000	5572258	85.6587	0.428	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.968	3.969	-0.001	6529517	81.8914	0.409	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.505	4.504	0.001	6653493	93.4056	0.467	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.620	4.619	0.001	6066381	88.6674	0.443	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.743	4.743	0.000	6377088	91.6883	0.458	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.874	4.874	0.000	6046080	98.0266	0.490	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.810	4.810	0.000	15665903	228.601	1.14	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.103	5.103	0.000	16823269	236.150	1.18	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.332	5.331	0.001	15320579	268.954	1.34	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.392	5.393	-0.001	13876825	251.928	1.26	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.554	5.555	-0.001	15257837	260.854	1.30	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.980	5.980	0.000	11438644	232.066	1.16	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.671	5.672	-0.001	11451417	254.491	1.27	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.431	6.433	-0.002	12856856	269.183	1.34	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.175	6.176	-0.001	20824059	938.687	4.69	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.729	6.730	-0.001	15695120	243.739	1.22	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/026f2601.d
Date : 04-JAN-2010 18:31
Client ID: CAPA-10-6390MSD
Sample Info: 1120200157011
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HX31
Column diameter: 0.25

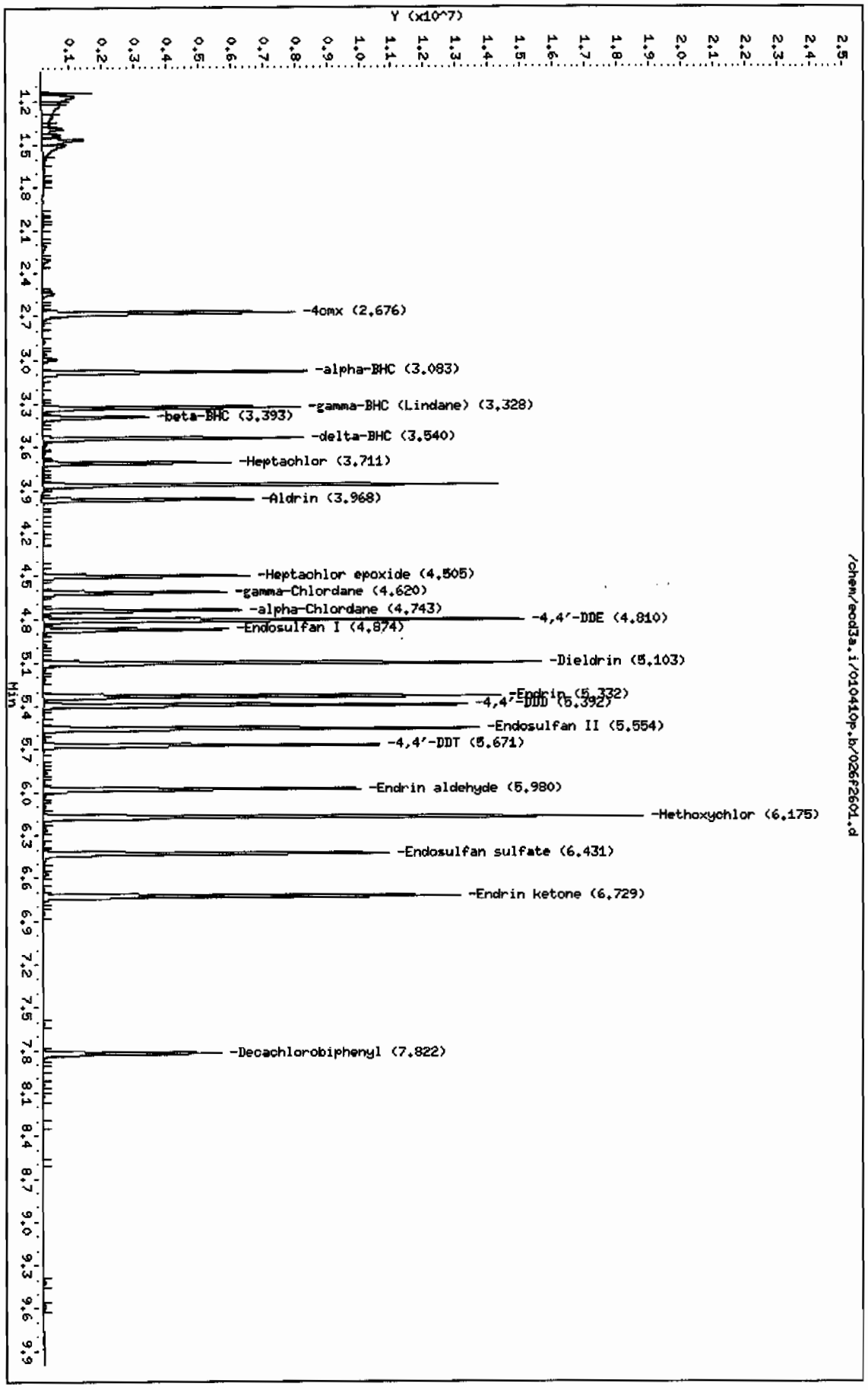

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 935412 **Verified by:** _____

Analyst: Tiffany Adams

Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202001567 MB	21-DEC-2009 19:38:25	1000	5	Florisil	5	1	10	5	0.005
1202001568 LCS	21-DEC-2009 19:38:25	1000	5	Florisil	5	1	10	5	0.005
1202001571 LCS	21-DEC-2009 19:38:25	1000	5	Florisil	5	1	10	5	0.005
243012002	21-DEC-2009 19:38:25	950	5	Florisil	5	1	10	5	0.00526
243099001	21-DEC-2009 19:38:25	920	5	Florisil	5	1	10	5	0.00543
243254003	21-DEC-2009 19:38:25	850	5	Florisil	5	1	10	5	0.00588
243254008	21-DEC-2009 19:38:25	920	5	Florisil	5	1	10	5	0.00543
243283001	21-DEC-2009 19:38:25	980	5	Florisil	5	1	10	5	0.0051
243284002	21-DEC-2009 19:38:25	910	6	Florisil	5	1	10	5	0.00549
1202001569 MS (243284002)	21-DEC-2009 19:38:25	500	6	Florisil	2.5	1	10	2.5	0.005
1202001570 MSD (243284002)	21-DEC-2009 19:38:25	500	6	Florisil	2.5	1	10	2.5	0.005
243284006	21-DEC-2009 19:38:25	900	5	Florisil	5	1	10	5	0.00556
243284009	21-DEC-2009 19:38:25	930	5	Florisil	5	1	10	5	0.00538

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202001568	PESTSPIKE	UE091204-04	1	mL
LCS	1202001571	Toxaphene TCLP LCS	WE091204-11	2	mL
MS	1202001569	PESTSPIKE	UE091204-04	.5	mL
MSD	1202001570	PESTSPIKE	UE091204-04	.5	mL
SURR	All	PEST SURROGATE 1000 UG/L	UE091130-07	.5	mL
SURR	All	PEST SURROGATE 1000 UG/L	UE091130-07	1	mL
REGNT	All	Hexane	1201017-B2	5	mL
REGNT	All	Methylene Chloride	1242565-D	180	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Clean up Date: 12/21/09

Clean up Initials: TRA

Verified By: MJS

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-036

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-994

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3510C
Analytical Batch Number:	935397
Prep Batch Number:	935395

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
243283002	CAPA-10-6793
1202001521	Method Blank (MB)
1202001522	Laboratory Control Sample (LCS)
1202001523	242935002(CAWA-10-5479) Matrix Spike (MS)
1202001524	242935002(CAWA-10-5479) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-915) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data exception report (NCR) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD2A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD2A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 1/13/10

Roadmap for LANL 10-994 PCB

This roadmap was analyzed by jen01212 on 12-24-2009, 09:09.
This roadmap was reviewed by jcb on 12-28-2009, 14:15.
This roadmap was packaged by yml on 01-13-2010, 09:44.
This roadmap was validated by jim01140 on 01-13-2010, 15:01.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/122309.b/027f2701.d	243283002	sample	23-DEC-2009	12:09	10-994.sub	CAPA-10-6793	1.00000	935397	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/122309.b/027b2701.d	243283002	sample	23-DEC-2009	12:09	10-994.sub	CAPA-10-6793	1.00000	935397	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/122309.b/014f1401-4.d	1202001521	mb	23-DEC-2009	09:45	10-994.sub	PBLK01	1.00000	935397	
☐	N	/chem/ecd2a.i/122309.b/015f1501-4.d	1202001522	lcs	23-DEC-2009	09:56	10-994.sub	PBLK01LCS	1.00000	935397	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/122309.b/014b1401-4.d	1202001521	mb	23-DEC-2009	09:45	10-994.sub	PBLK01	1.00000	935397	
☐	N	/chem/ecd2a.i/122309.b/015b1501-4.d	1202001522	lcs	23-DEC-2009	09:56	10-994.sub	PBLK01LCS	1.00000	935397	

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-994	**Date Collected:**	12/17/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	243283002	**Date Received:**	12/19/2009 09:05		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-6793	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	935397	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/23/2009 12:09	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/22/2009 17:32	**Aliquot:**	985 mL	**Final Volume:**	1 mL
Data File:	027f2701.d	**Column:**	1 CLP1	**Level:**	LOW
	027b2701.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.102	ug/L	0.0338	0.102	1
11104-28-2	Aroclor-1221	U	0.102	ug/L	0.0338	0.102	1
11141-16-5	Aroclor-1232	U	0.102	ug/L	0.0338	0.102	1
53469-21-9	Aroclor-1242	U	0.102	ug/L	0.0338	0.102	1
12672-29-6	Aroclor-1248	U	0.102	ug/L	0.0338	0.102	1
11097-69-1	Aroclor-1254	U	0.102	ug/L	0.0338	0.102	1
11096-82-5	Aroclor-1260	U	0.102	ug/L	0.0338	0.102	1
37324-23-5	Aroclor-1262	U	0.102	ug/L	0.0338	0.102	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.137	0.203	ug/L	67.3	(29%-103%)
Decachlorobiphenyl	0.186	0.203	ug/L	91.8	(34%-118%)

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10–994

Matrix Type: LIQUID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202001521	MB for batch 935395	64	66	84	86
1202001522	LCS for batch 935395	60	63	85	89
243283002	CAPA–10–6793	66	67	78	92

Surrogate	Acceptance Limits
4CMX = 4cmx	(29%–103%)
DCB = Decachlorobiphenyl	(34%–118%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–994
Client ID: LCS for batch 935395
Lab Sample ID: 1202001522
Instrument: ECD2A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 12/23/2009 09:56
Dilution: 1
Prep Batch ID: 935395
Batch ID: 935397

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
12674–11–2	LCS	Aroclor–1016	1.00	0.0	0.680	68	42–110
11096–82–5	LCS	Aroclor–1260	1.00	0.0	0.830	83	50–110

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-915
Client ID: CAWA-10-5479MS
Lab Sample ID: 1202001523
Instrument: ECD2A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 12/23/2009 10:29
Dilution: 1
Prep Batch ID: 935395
Batch ID: 935397

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	1.00	0.00	U	0.530	53	22-114
11096-82-5	MS	Aroclor-1260	1.00	0.00	U	0.740	74	32-112

Quality Control Summary
Spike Recovery Report

SDG Number: 10-915
Client ID: CAWA-10-5479MSD
Lab Sample ID: 1202001524
Instrument: ECD2A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 12/23/2009 10:40
Dilution: 1
Prep Batch ID: 935395
Batch ID: 935397

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	1.00	0.00	U	0.660	66	22-114	22	0-30
11096-82-5	MSD Aroclor-1260	1.00	0.00	U	0.830	83	32-112	12	0-30

Method Blank Summary

SDG Number:	10-994	Client:	LANL010	Matrix:	GROUND WATER
Client ID:	MB for batch 935395	Instrument ID:	ECD2A.I_2 ECD2A.I_1	Data File:	014b1401-1.d 014f1401-1.d
Lab Sample ID:	1202001521				
Column:	CLP2 CLP1	Prep Date:	12/22/2009 17:32	Analyzed:	12/23/09 09:45
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 935395	1202001522	015f1501-1.d 015b1501-1.d	12/23/09	0956
04 CAPA-10-6793	243283002	027f2701.d 027b2701.d	12/23/09	1209

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**	**Date Collected:**	**12/17/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243283002**	**Date Received:**	**12/19/2009 09:05**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6793**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**935397**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 12:09**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/22/2009 17:32**	**Aliquot:**	**985 mL**	**Final Volume:**	**1 mL**
Data File:	**027f2701.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	027b2701.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.102	ug/L	0.0338	0.102	1
11104-28-2	Aroclor-1221	U	0.102	ug/L	0.0338	0.102	1
11141-16-5	Aroclor-1232	U	0.102	ug/L	0.0338	0.102	1
53469-21-9	Aroclor-1242	U	0.102	ug/L	0.0338	0.102	1
12672-29-6	Aroclor-1248	U	0.102	ug/L	0.0338	0.102	1
11097-69-1	Aroclor-1254	U	0.102	ug/L	0.0338	0.102	1
11096-82-5	Aroclor-1260	U	0.102	ug/L	0.0338	0.102	1
37324-23-5	Aroclor-1262	U	0.102	ug/L	0.0338	0.102	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.137	0.203	ug/L	67.3	(29%-103%)
Decachlorobiphenyl	0.186	0.203	ug/L	91.8	(34%-118%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/027f2701.d
Lab Smp Id: 243283002 Client Smp ID: CAPA-10-6793
Inj Date : 23-DEC-2009 12:09
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |243283002|1|
Misc Info : |ECD82P_1L|935397|SVA|LANL|GROUND WATER|CAPA-10-6793|||
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-994.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)
Vo	985.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.775	1.770	0.005	8236507	132.225	0.13	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.610	5.613	-0.003	8471441	156.555	0.16	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/122309.b/027f2701.d
Date : 23-DEC-2009 12:09
Client ID: CAPA-10-6793
Sample Info: |243283002|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

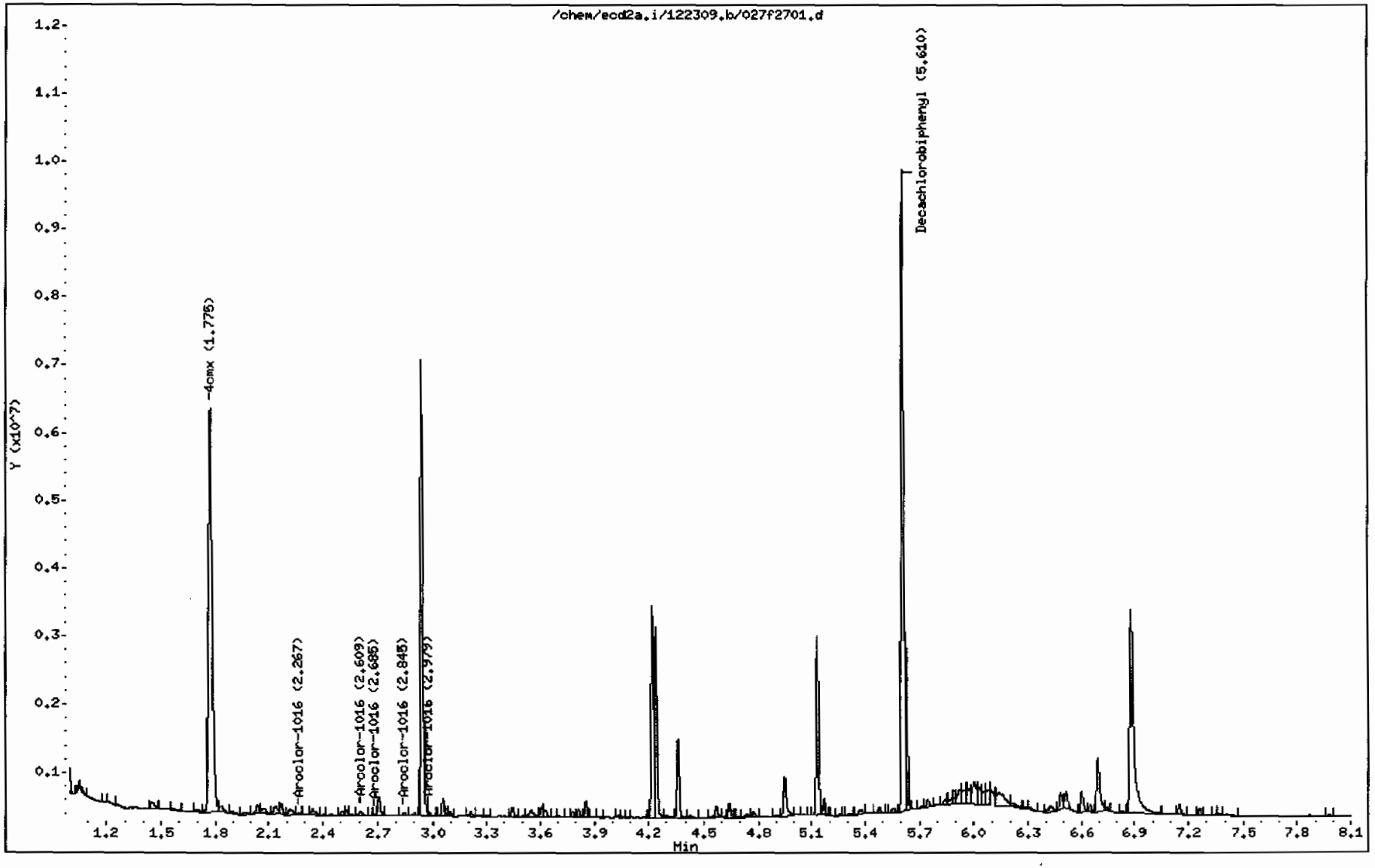

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/027b2701.d
Lab Smp Id: 243283002 Client Smp ID: CAPA-10-6793
Inj Date : 23-DEC-2009 12:09
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |243283002|1|
Misc Info : |ECD82P_1L|935397|SVA|LANL|GROUND WATER|CAPA-10-6793|||
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-994.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	985.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.067	0.004	17408733	134.620	0.14	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.302	6.304	-0.002	20697702	183.518	0.19	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/122309.b/027b2701.d

Date : 23-DEC-2009 12:09

Client ID: CAPA-10-6793

Sample Info: |2432830021|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

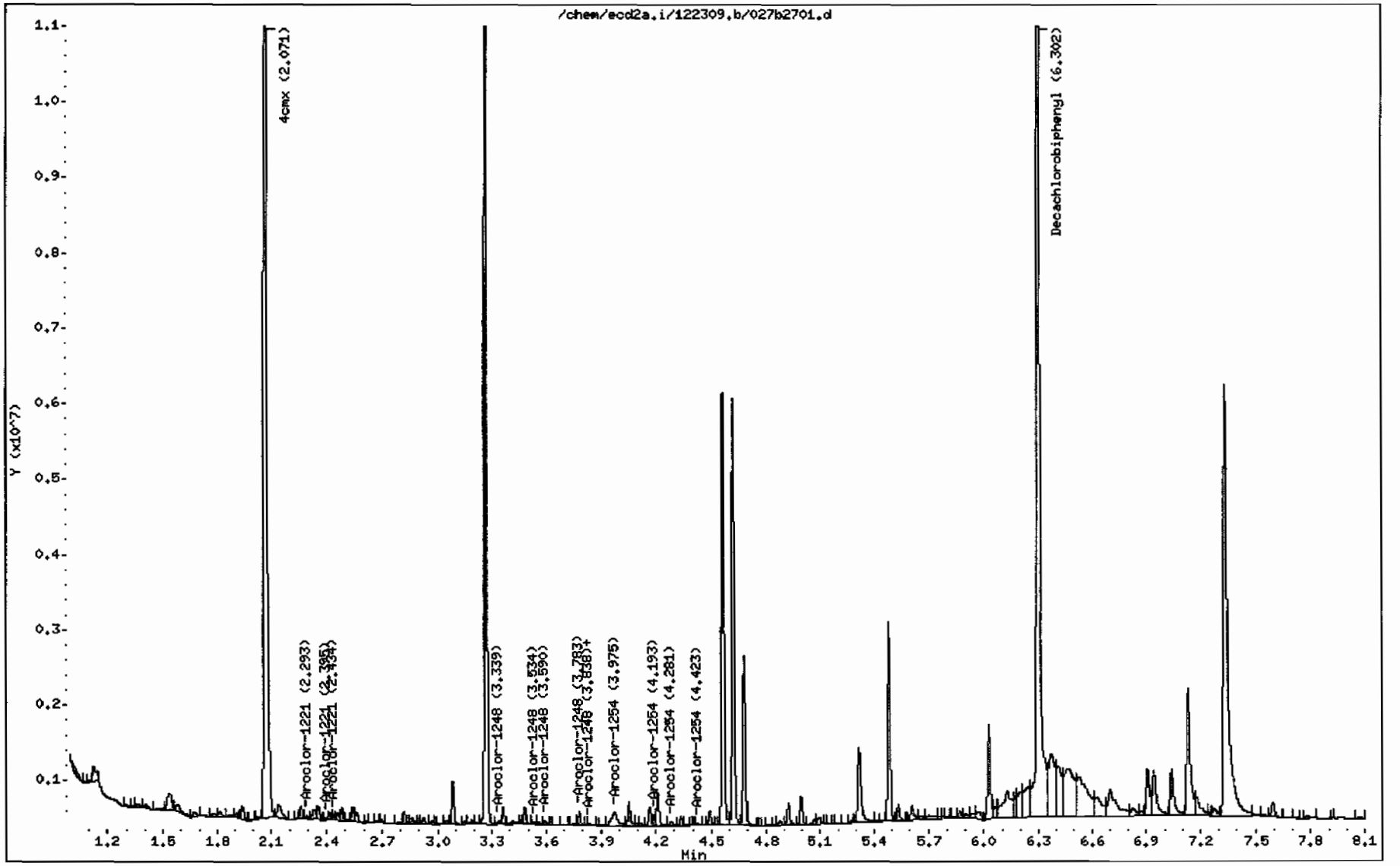

STANDARDS DATA

Report Date: 24-Dec-2009 08:39

Calibration History

Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Start Cal Date: 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
02-DEC-2009 07:05	AR1262	/chem/ecd2a.i/120209.b/008f0801.d
12-NOV-2009 16:22	AR1268	/chem/ecd2a.i/111209a.b/035f3501.d
30-NOV-2009 10:12	AR1248	/chem/ecd2a.i/113009a.b/011f1101.d
12-NOV-2009 14:09	AR1242	/chem/ecd2a.i/111209a.b/023f2301.d
30-NOV-2009 08:43	AR1254	/chem/ecd2a.i/113009a.b/003f0301.d
14-DEC-2009 08:51	AR1660	/chem/ecd2a.i/121409.b/011f1101.d
Cal Level: 2 , Cal Amount: 250.00000		
02-DEC-2009 07:16	AR1262	/chem/ecd2a.i/120209.b/009f0901.d
12-NOV-2009 16:33	AR1268	/chem/ecd2a.i/111209a.b/036f3601.d
30-NOV-2009 10:23	AR1248	/chem/ecd2a.i/113009a.b/012f1201.d
12-NOV-2009 14:20	AR1242	/chem/ecd2a.i/111209a.b/024f2401.d
30-NOV-2009 08:54	AR1254	/chem/ecd2a.i/113009a.b/004f0401.d
14-DEC-2009 09:02	AR1660	/chem/ecd2a.i/121409.b/012f1201.d
Cal Level: 3 , Cal Amount: 500.00000		
02-DEC-2009 07:27	AR1262	/chem/ecd2a.i/120209.b/010f1001.d
12-NOV-2009 16:44	AR1268	/chem/ecd2a.i/111209a.b/037f3701.d
30-NOV-2009 10:34	AR1248	/chem/ecd2a.i/113009a.b/013f1301.d
12-NOV-2009 14:31	AR1242	/chem/ecd2a.i/111209a.b/025f2501.d
30-NOV-2009 09:05	AR1254	/chem/ecd2a.i/113009a.b/005f0501.d
14-DEC-2009 09:13	AR1660	/chem/ecd2a.i/121409.b/013f1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
30-NOV-2009 10:45	AR1248	/chem/ecd2a.i/113009a.b/014f1401.d
12-NOV-2009 14:42	AR1242	/chem/ecd2a.i/111209a.b/026f2601.d
30-NOV-2009 09:16	AR1254	/chem/ecd2a.i/113009a.b/006f0601.d
14-DEC-2009 09:24	AR1660	/chem/ecd2a.i/121409.b/014f1401.d
12-NOV-2009 11:45	DDTANALOGSTD	/chem/ecd2a.i/111209a.b/010f1001.d
12-NOV-2009 16:55	AR1268	/chem/ecd2a.i/111209a.b/038f3801.d
02-DEC-2009 07:38	AR1262	/chem/ecd2a.i/120209.b/011f1101.d
12-NOV-2009 11:11	AR1221	/chem/ecd2a.i/111209a.b/007f0701.d
12-NOV-2009 11:00	AR1232	/chem/ecd2a.i/111209a.b/006f0601.d
Cal Level: 5 , Cal Amount: 4000.00000		
02-DEC-2009 07:50	AR1262	/chem/ecd2a.i/120209.b/012f1201.d
12-NOV-2009 17:07	AR1268	/chem/ecd2a.i/111209a.b/039f3901.d
30-NOV-2009 10:56	AR1248	/chem/ecd2a.i/113009a.b/015f1501.d

12-NOV-2009 14:53	AR1242	/chem/ecd2a.i/111209a.b/027f2701.d
30-NOV-2009 09:27	AR1254	/chem/ecd2a.i/113009a.b/007f0701.d
14-DEC-2009 09:35	AR1660	/chem/ecd2a.i/121409.b/015f1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 18:41	AR1660	/chem/ecd2a.i/122309.b/060f6001.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 17:19	AR1660	/chem/ecd2a.i/122309.b/053f5301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 15:24	AR1660	/chem/ecd2a.i/122309.b/043f4301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 12:57	AR1660	/chem/ecd2a.i/122309.b/031f3101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 11:13	AR1660	/chem/ecd2a.i/122309.b/022f2201.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 08:35	AR1268	/chem/ecd2a.i/122309.b/010f1001.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 08:13	AR1262	/chem/ecd2a.i/122309.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 08:02	AR1221	/chem/ecd2a.i/122309.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 08:58	AR1660	/chem/ecd2a.i/122309.b/012f1201.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 08:24	AR1660	/chem/ecd2a.i/122309.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 07:51	AR1232	/chem/ecd2a.i/122309.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 07:40	AR1248	/chem/ecd2a.i/122309.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 07:29	AR1242	/chem/ecd2a.i/122309.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 07:18	AR1254	/chem/ecd2a.i/122309.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 07:07	AR1660	/chem/ecd2a.i/122309.b/002f0201.d

Report Date: 24-Dec-2009 08:38

Calibration History

Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Start Cal Date: 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
02-DEC-2009 07:05	AR1262	/chem/ecd2a.i/120209.b/008b0801.d
12-NOV-2009 16:22	AR1268	/chem/ecd2a.i/111209a.b/035b3501.d
30-NOV-2009 10:12	AR1248	/chem/ecd2a.i/113009a.b/011b1101.d
12-NOV-2009 14:09	AR1242	/chem/ecd2a.i/111209a.b/023b2301.d
30-NOV-2009 08:43	AR1254	/chem/ecd2a.i/113009a.b/003b0301.d
14-DEC-2009 08:51	AR1660	/chem/ecd2a.i/121409.b/011b1101.d
Cal Level: 2 , Cal Amount: 250.00000		
02-DEC-2009 07:16	AR1262	/chem/ecd2a.i/120209.b/009b0901.d
12-NOV-2009 16:33	AR1268	/chem/ecd2a.i/111209a.b/036b3601.d
30-NOV-2009 10:23	AR1248	/chem/ecd2a.i/113009a.b/012b1201.d
12-NOV-2009 14:20	AR1242	/chem/ecd2a.i/111209a.b/024b2401.d
30-NOV-2009 08:54	AR1254	/chem/ecd2a.i/113009a.b/004b0401.d
14-DEC-2009 09:02	AR1660	/chem/ecd2a.i/121409.b/012b1201.d
Cal Level: 3 , Cal Amount: 500.00000		
02-DEC-2009 07:27	AR1262	/chem/ecd2a.i/120209.b/010b1001.d
12-NOV-2009 16:44	AR1268	/chem/ecd2a.i/111209a.b/037b3701.d
30-NOV-2009 10:34	AR1248	/chem/ecd2a.i/113009a.b/013b1301.d
12-NOV-2009 14:31	AR1242	/chem/ecd2a.i/111209a.b/025b2501.d
30-NOV-2009 09:05	AR1254	/chem/ecd2a.i/113009a.b/005b0501.d
14-DEC-2009 09:13	AR1660	/chem/ecd2a.i/121409.b/013b1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
30-NOV-2009 10:45	AR1248	/chem/ecd2a.i/113009a.b/014b1401.d
12-NOV-2009 14:42	AR1242	/chem/ecd2a.i/111209a.b/026b2601.d
30-NOV-2009 09:16	AR1254	/chem/ecd2a.i/113009a.b/006b0601.d
14-DEC-2009 09:24	AR1660	/chem/ecd2a.i/121409.b/014b1401.d
12-NOV-2009 11:45	DDTANALOGSTD	/chem/ecd2a.i/111209a.b/010b1001.d
12-NOV-2009 16:55	AR1268	/chem/ecd2a.i/111209a.b/038b3801.d
02-DEC-2009 07:38	AR1262	/chem/ecd2a.i/120209.b/011b1101.d
12-NOV-2009 11:11	AR1221	/chem/ecd2a.i/111209a.b/007b0701.d
12-NOV-2009 11:00	AR1232	/chem/ecd2a.i/111209a.b/006b0601.d
Cal Level: 5 , Cal Amount: 4000.00000		
02-DEC-2009 07:50	AR1262	/chem/ecd2a.i/120209.b/012b1201.d
12-NOV-2009 17:07	AR1268	/chem/ecd2a.i/111209a.b/039b3901.d
30-NOV-2009 10:56	AR1248	/chem/ecd2a.i/113009a.b/015b1501.d
12-NOV-2009 14:53	AR1242	/chem/ecd2a.i/111209a.b/027b2701.d
30-NOV-2009 09:27	AR1254	/chem/ecd2a.i/113009a.b/007b0701.d
14-DEC-2009 09:35	AR1660	/chem/ecd2a.i/121409.b/015b1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 18:41	AR1660	/chem/ecd2a.i/122309.b/060b6001.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 17:19	AR1660	/chem/ecd2a.i/122309.b/053b5301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 15:24	AR1660	/chem/ecd2a.i/122309.b/043b4301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 12:57	AR1660	/chem/ecd2a.i/122309.b/031b3101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 11:13	AR1660	/chem/ecd2a.i/122309.b/022b2201.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 08:35	AR1268	/chem/ecd2a.i/122309.b/010b1001.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 08:13	AR1262	/chem/ecd2a.i/122309.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 08:02	AR1221	/chem/ecd2a.i/122309.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 08:58	AR1660	/chem/ecd2a.i/122309.b/012b1201.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 08:24	AR1660	/chem/ecd2a.i/122309.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 07:51	AR1232	/chem/ecd2a.i/122309.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 07:40	AR1248	/chem/ecd2a.i/122309.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 07:29	AR1242	/chem/ecd2a.i/122309.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 07:18	AR1254	/chem/ecd2a.i/122309.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 07:07	AR1660	/chem/ecd2a.i/122309.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Quant Method : ESTD Target Version : 3.50
Last Update : 24-Dec-2009 06:31 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	500.000000
Initial:End Threshold	250.000000
Initial:Area Threshold	10000.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.100000
8.500:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.274	2.244-2.304	2.238e+03
	2.598	2.568-2.628	4.685e+03
	2.689	2.659-2.719	1.901e+03
	2.825	2.795-2.855	9.760e+02
	2.976	2.946-3.006	1.458e+03
2 Aroclor-1221	1.439	1.409-1.469	4.641e+02
	1.900	1.870-1.930	6.570e+02
	2.000	1.970-2.030	3.467e+02
3 Aroclor-1232	2.028	1.998-2.058	1.165e+03
	2.276	2.246-2.306	9.314e+02
	2.690	2.660-2.720	8.004e+02
	2.733	2.703-2.763	5.102e+02
	2.977	2.947-3.007	5.840e+02
4 Aroclor-1242	2.276	2.246-2.306	1.733e+03
	2.690	2.660-2.720	1.484e+03
	2.733	2.703-2.763	9.058e+02
	2.825	2.795-2.855	7.269e+02
	2.977	2.947-3.007	1.120e+03
5 Aroclor-1248	2.825	2.795-2.855	1.527e+03
	2.976	2.946-3.006	2.027e+03
	3.036	3.006-3.066	1.571e+03
	3.272	3.242-3.302	2.218e+03
	3.424	3.394-3.454	1.913e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m

Compound	RT	RT Window	RF
6 Aroclor-1254	3.242	3.212-3.272	2.080e+03
	3.426	3.396-3.456	2.772e+03
	3.696	3.666-3.726	3.742e+03
	3.887	3.857-3.917	2.783e+03
	4.017	3.987-4.047	2.760e+03
7 Aroclor-1260	4.018	3.988-4.048	4.165e+03
	4.290	4.260-4.320	2.591e+03
	4.456	4.426-4.486	2.631e+03
	4.669	4.639-4.699	6.088e+03
	4.859	4.829-4.889	2.942e+03
8 Aroclor-1262	3.825	3.795-3.855	2.273e+03
	4.017	3.987-4.047	3.072e+03
	4.289	4.259-4.319	4.004e+03
	4.455	4.425-4.485	3.573e+03
	4.855	4.825-4.885	2.501e+03
9 Aroclor-1268	4.885	4.855-4.915	9.392e+03
	4.912	4.882-4.942	9.361e+03
	5.045	5.015-5.075	7.073e+03
	5.283	5.253-5.313	3.056e+03
	5.479	5.449-5.509	2.201e+04
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.770	1.740-1.800	6.229e+04
$ 12 Decachlorobiphenyl	5.613	5.583-5.643	5.411e+04
13 4,4'-DDT	4.229	4.209-4.249	5.006e+04
14 4,4'-DDD	4.036	4.016-4.056	7.298e+04
15 4,4'-DDE	3.632	3.612-3.652	7.426e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Quant Method : ESTD Target Version : 3.50
Last Update : 24-Dec-2009 06:29 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1000.000000
Initial:End Threshold	500.000000
Initial:Area Threshold	500.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	3.000000
Initial:Negative Peaks	OFF
Initial:Tension	4.000000
4.200:Tension	1.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.746	2.716-2.776	4.538e+03
	3.181	3.151-3.211	3.602e+03
	3.332	3.302-3.362	2.053e+03
	3.362	3.332-3.392	2.137e+03
	3.520	3.490-3.550	2.871e+03
2 Aroclor-1221	2.294	2.264-2.324	1.263e+03
	2.400	2.370-2.430	7.739e+02
	2.444	2.414-2.474	3.051e+03
3 Aroclor-1232	2.444	2.414-2.474	2.061e+03
	2.747	2.717-2.777	1.960e+03
	3.182	3.152-3.212	1.498e+03
	3.254	3.224-3.284	9.309e+02
	3.520	3.490-3.550	1.107e+03
4 Aroclor-1242	2.747	2.717-2.777	3.445e+03
	3.182	3.152-3.212	2.681e+03
	3.254	3.224-3.284	1.637e+03
	3.333	3.303-3.363	1.508e+03
	3.519	3.489-3.549	2.145e+03
5 Aroclor-1248	3.333	3.303-3.363	3.282e+03
	3.520	3.490-3.550	4.187e+03
	3.606	3.576-3.636	4.451e+03
	3.795	3.765-3.825	4.697e+03
	3.825	3.795-3.855	5.389e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	3.819	3.789-3.849	4.985e+03
		3.961	3.931-3.991	5.799e+03
		4.197	4.167-4.227	4.023e+03
		4.278	4.248-4.308	7.731e+03
		4.442	4.412-4.472	5.608e+03
	7 Aroclor-1260	4.417	4.387-4.447	5.767e+03
		4.569	4.539-4.599	7.124e+03
		4.681	4.651-4.711	4.819e+03
		4.878	4.848-4.908	5.632e+03
		5.504	5.474-5.534	9.038e+03
	8 Aroclor-1262	4.417	4.387-4.447	4.703e+03
		4.567	4.537-4.597	5.853e+03
		4.877	4.847-4.907	8.946e+03
		5.077	5.047-5.107	7.772e+03
		5.255	5.225-5.285	1.672e+04
	9 Aroclor-1268	5.500	5.470-5.530	2.032e+04
		5.532	5.502-5.562	2.018e+04
		5.704	5.674-5.734	1.496e+04
		5.905	5.875-5.935	6.438e+03
		6.128	6.098-6.158	4.409e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	2.067	2.037-2.097	1.293e+05
$	12 Decachlorobiphenyl	6.304	6.274-6.334	1.128e+05
	13 4,4'-DDT	4.814	4.794-4.834	8.705e+04
	14 4,4'-DDD	4.600	4.580-4.620	1.499e+05
	15 4,4'-DDE	4.195	4.175-4.215	1.504e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Cal Date : 24-Dec-2009 06:31 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd2a.i/120209.b/008f0801.d
Level 2: /chem/ecd2a.i/120209.b/009f0901.d
Level 3: /chem/ecd2a.i/120209.b/010f1001.d
Level 4: /chem/ecd2a.i/113009a.b/014f1401.d
Level 5: /chem/ecd2a.i/120209.b/012f1201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	2466	2335	2250	2152	1986	2238	8.133
(2)	4869	4683	4664	4616	4594	4685	2.323
(3)	2072	1962	1892	1818	1764	1901	6.365
(4)	1061	990	984	930	915	976	5.885
(5)	1595	1490	1441	1389	1375	1458	6.121
2 Aroclor-1221(1)	+++++	+++++	+++++	464	+++++	464	0.000
(2)	+++++	+++++	+++++	657	+++++	657	0.000
(3)	+++++	+++++	+++++	347	+++++	347	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	1165	+++++	1165	0.000
(2)	+++++	+++++	+++++	931	+++++	931	0.000
(3)	+++++	+++++	+++++	800	+++++	800	0.000
(4)	+++++	+++++	+++++	510	+++++	510	0.000
(5)	+++++	+++++	+++++	584	+++++	584	0.000
4 Aroclor-1242(1)	1990	1799	1692	1619	1566	1733	9.686
(2)	1678	1536	1439	1387	1381	1484	8.410
(3)	1015	931	874	843	866	906	7.639
(4)	817	761	714	669	673	727	8.615
(5)	1272	1143	1059	1036	1087	1120	8.434
5 Aroclor-1248(1)	1738	1529	1527	1515	1325	1527	9.560
(2)	2238	2070	1990	2006	1832	2027	7.247
(3)	1706	1611	1571	1551	1415	1571	6.718
(4)	2322	2198	2161	2230	2178	2218	2.874
(5)	2083	1922	1902	1885	1770	1913	5.861
6 Aroclor-1254(1)	2304	2118	2048	2007	1924	2080	6.888
(2)	2981	2797	2739	2702	2642	2772	4.677
(3)	3870	3712	3711	3744	3675	3742	2.011
(4)	2886	2776	2725	2760	2767	2783	2.186
(5)	2994	2820	2741	2711	2533	2760	6.080

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Cal Date : 24-Dec-2009 06:31 jen01212
Curve Type : Average

	Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
	7 Aroclor-1260(1)	4187	4145	4185	4134	4175	4165	0.584
	(2)	2696	2603	2589	2529	2536	2591	2.593
	(3)	2699	2626	2625	2591	2614	2631	1.539
	(4)	5867	6003	6142	6129	6296	6088	2.650
	(5)	2925	2904	2929	2920	3034	2942	1.769
	8 Aroclor-1262(1)	2530	2266	2239	2239	2092	2273	6.993
	(2)	3295	3066	3031	3051	2917	3072	4.482
	(3)	4237	3997	3977	3997	3815	4004	3.763
	(4)	3754	3532	3556	3594	3430	3573	3.295
	(5)	2578	2453	2481	2538	2454	2501	2.217
	9 Aroclor-1268(1)	9077	9136	9272	9373	10103	9392	4.409
	(2)	9332	9272	9238	9197	9765	9361	2.470
	(3)	6985	6923	6953	6984	7523	7073	3.568
	(4)	3112	3015	2984	2964	3207	3056	3.331
	(5)	21397	21592	21760	21851	23464	22013	3.767
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 4,4'-DDT	+++++	+++++	+++++	50063	+++++	50063	0.000
	14 4,4'-DDD	+++++	+++++	+++++	72978	+++++	72978	0.000
	15 4,4'-DDE	+++++	+++++	+++++	74262	+++++	74262	0.000
$	11 4cmx	61300	61246	62868	63075	62969	62292	1.498
$	12 Decachlorobiphenyl	55102	53352	54400	53360	54345	54112	1.389

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Cal Date : 24-Dec-2009 06:29 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd2a.i/120209.b/008b0801.d
Level 2: /chem/ecd2a.i/120209.b/009b0901.d
Level 3: /chem/ecd2a.i/120209.b/010b1001.d
Level 4: /chem/ecd2a.i/113009a.b/014b1401.d
Level 5: /chem/ecd2a.i/120209.b/012b1201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	4662	4582	4609	4551	4285	4538	3.244
(2)	3647	3696	3564	3575	3528	3602	1.886
(3)	2078	2044	2044	2059	2041	2053	0.760
(4)	2149	2125	2133	2140	2138	2137	0.428
(5)	2852	2832	2882	2908	2879	2871	1.025
2 Aroclor-1221(1)	+++++	+++++	+++++	1263	+++++	1263	0.000
(2)	+++++	+++++	+++++	774	+++++	774	0.000
(3)	+++++	+++++	+++++	3051	+++++	3051	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	2061	+++++	2061	0.000
(2)	+++++	+++++	+++++	1960	+++++	1960	0.000
(3)	+++++	+++++	+++++	1498	+++++	1498	0.000
(4)	+++++	+++++	+++++	931	+++++	931	0.000
(5)	+++++	+++++	+++++	1107	+++++	1107	0.000
4 Aroclor-1242(1)	3674	3489	3409	3384	3271	3445	4.346
(2)	2815	2677	2634	2637	2644	2681	2.863
(3)	1696	1624	1594	1606	1663	1637	2.599
(4)	1601	1513	1471	1467	1487	1508	3.655
(5)	2235	2100	2068	2141	2180	2145	3.068
5 Aroclor-1248(1)	3439	3315	3263	3296	3099	3282	3.723
(2)	4291	4205	4192	4250	3996	4187	2.717
(3)	4601	4495	4377	4484	4299	4451	2.609
(4)	4665	4612	4696	4831	4682	4697	1.733
(5)	5471	5399	5390	5477	5208	5389	2.022
6 Aroclor-1254(1)	5121	4955	4998	5025	4828	4985	2.145
(2)	5885	5693	5812	5852	5753	5799	1.330
(3)	4010	3906	3992	4126	4082	4023	2.109
(4)	7559	7611	7766	7925	7797	7731	1.909
(5)	5659	5569	5439	5821	5553	5608	2.538

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Cal Date : 24-Dec-2009 06:29 jen01212
Curve Type : Average

	Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
	7 Aroclor-1260(1)	5735	5627	5779	5816	5877	5767	1.626
	(2)	6687	7031	7243	7286	7372	7124	3.855
	(3)	4572	4701	4890	4942	4988	4819	3.647
	(4)	5377	5518	5714	5746	5803	5632	3.163
	(5)	8369	8607	9231	9252	9728	9038	6.039
	8 Aroclor-1262(1)	4855	4536	4634	4812	4677	4703	2.776
	(2)	5760	5648	5834	6083	5942	5853	2.859
	(3)	8687	8674	9001	9349	9021	8946	3.121
	(4)	7559	7507	7790	8124	7880	7772	3.221
	(5)	15890	16154	16824	17584	17141	16719	4.167
	9 Aroclor-1268(1)	18829	19584	20101	20533	22559	20321	6.904
	(2)	18822	19343	20333	20389	22025	20182	6.077
	(3)	13874	14365	14864	15141	16565	14962	6.808
	(4)	5734	6115	6404	6840	7097	6438	8.497
	(5)	40707	42777	43856	44408	48724	44094	6.689
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 4,4'-DDT	+++++	+++++	+++++	87046	+++++	87046	0.000
	14 4,4'-DDD	+++++	+++++	+++++	149858	+++++	149858	0.000
	15 4,4'-DDE	+++++	+++++	+++++	150414	+++++	150414	0.000
$	11 4cmx	118604	126358	131414	133891	136323	129318	5.440
$	12 Decachlorobiphenyl	109662	108705	113295	113170	119083	112783	3.614

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121409.b/011f1101.d
Lab Smp Id: WAR091214-01 60 Client Smp ID: AR166001
Inj Date : 14-DEC-2009 08:51
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |WAR091214-01 60
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121409.b/ECD2-F-8082-111209A.m
Meth Date : 14-Dec-2009 10:15 yip00818 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:05 Cal File: 008f0801.d
Als bottle: 11 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.770	1.771	-0.001	612997	10.0000	9.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.612	0.000	551015	10.0000	10.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.277	2.277	0.000	246602	100.000	110	80.00- 120.00	100.00(M)
2.600	2.600	0.000	486912	100.000	104	177.45- 217.45	197.45
2.692	2.692	0.000	207199	100.000	109	64.02- 104.02	84.02
2.827	2.827	0.000	106052	100.000	109	23.01- 63.01	43.01
2.978	2.978	0.000	159517	100.000	109	44.69- 84.69	64.69
Average of Peak Amounts =					108		
7 Aroclor-1260					CAS #: 11096-82-5		
4.018	4.018	0.000	418744	100.000	100	80.00- 120.00	100.00
4.290	4.290	0.000	269612	100.000	104	44.39- 84.39	64.39
4.456	4.456	0.000	269917	100.000	102	44.46- 84.46	64.46
4.668	4.668	0.000	586713	100.000	96.4	120.11- 160.11	140.11
4.858	4.858	0.000	292508	100.000	99.4	49.85- 89.85	69.85
Average of Peak Amounts =					101		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/121409.b/011f1101.d
Date : 14-DEC-2009 08:51
Client ID: AR166001
Sample Info: !WAR091214-01 60

Column phase: CLP1

Instrument: ecd2a.i

Operator: YS1
Column diameter: 0.25

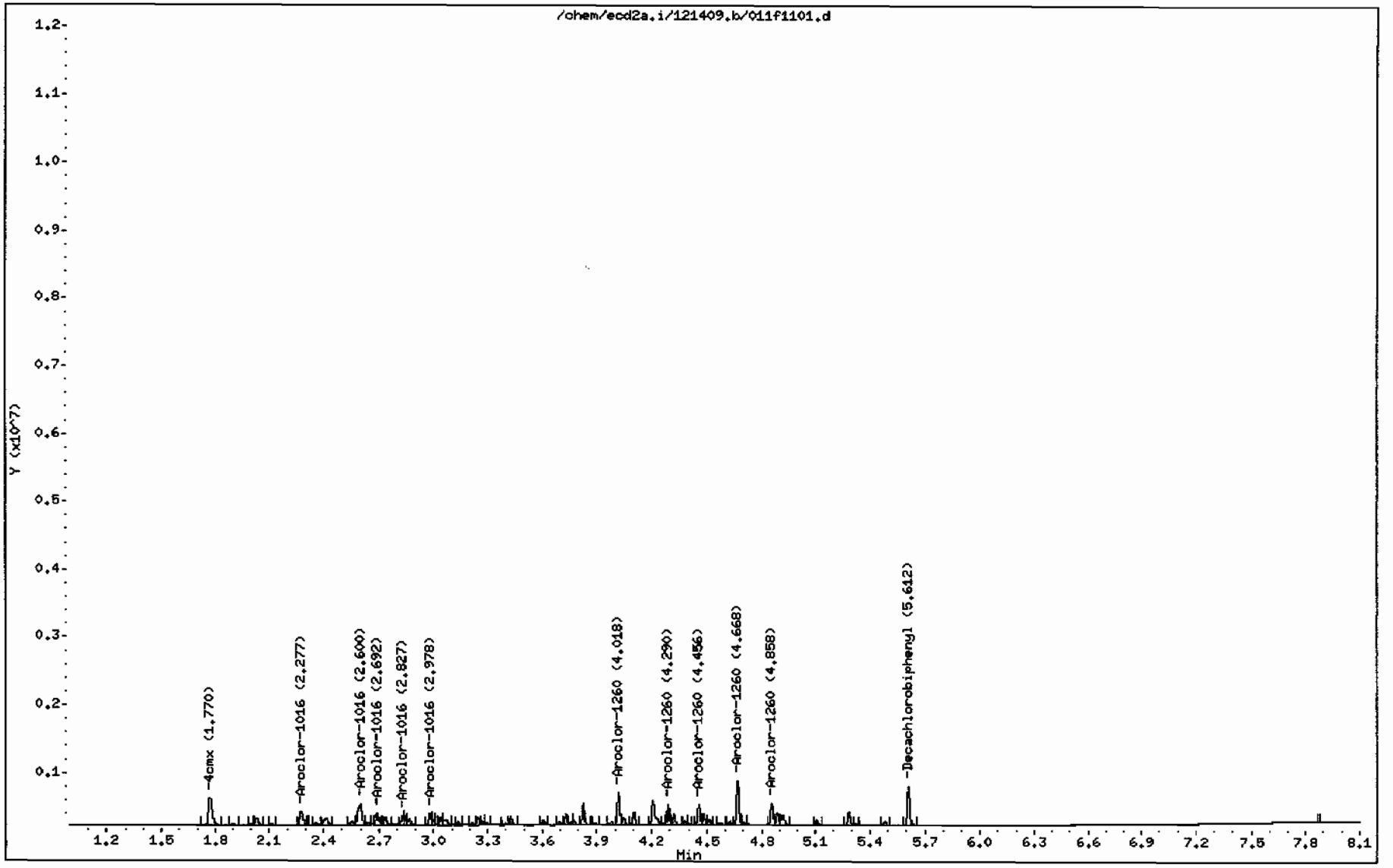

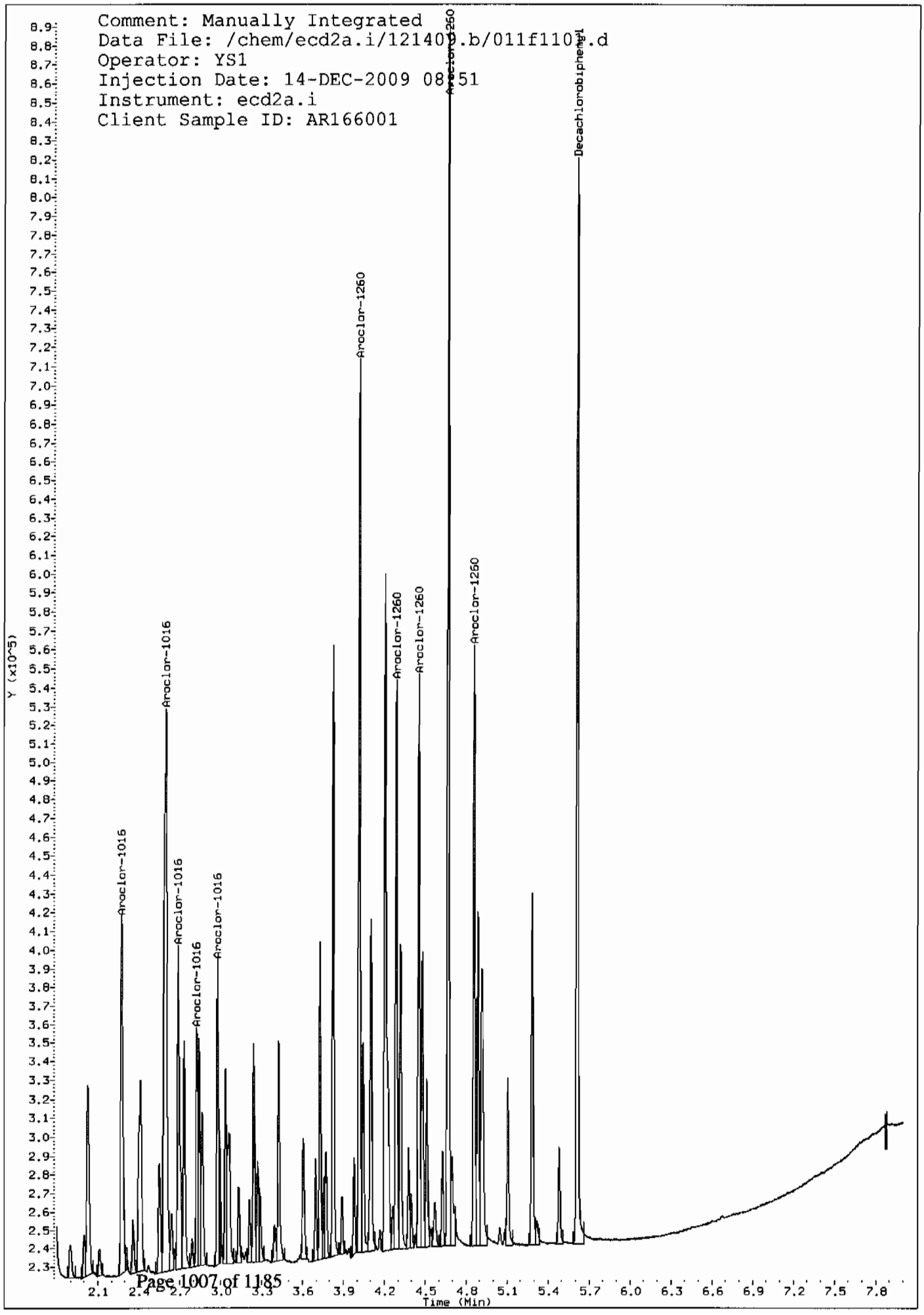
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Data File: /chem/ecd2a.i/121409.b/011f1101.d
Operator: YS1
Injection Date: 14-DEC-2009 08:51
Instrument: ecd2a.i
Client Sample ID: AR166001
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^5)
Time (Min)

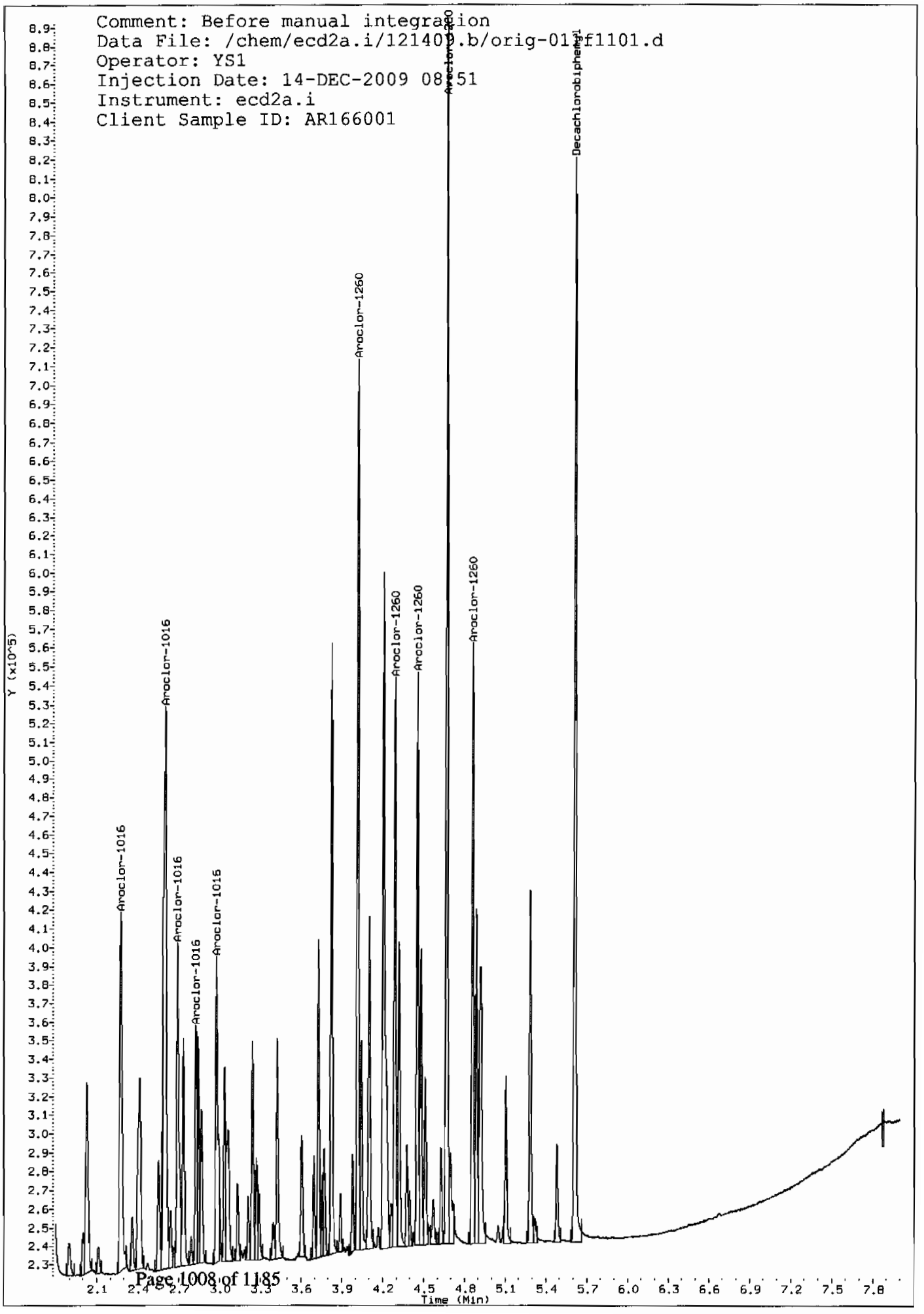
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Data File: /chem/ecd2a.i/121409.b/orig-01f1101.d
Operator: YS1
Injection Date: 14-DEC-2009 08:51
Instrument: ecd2a.i
Client Sample ID: AR166001
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^5)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121409.b/011b1101.d
Lab Smp Id: WAR091214-01 60 Client Smp ID: AR166001
Inj Date : 14-DEC-2009 08:51
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |WAR091214-01 60
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121409.b/ECD2-B-8082-111209A.m
Meth Date : 14-Dec-2009 10:15 yip00818 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:05 Cal File: 008b0801.d
Als bottle: 11 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.070	0.000	1186043	10.0000	9.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.304	0.000	1096620	10.0000	9.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.749	2.749	0.000	466172	100.000	103	80.00- 120.00	100.00
3.184	3.184	0.000	364735	100.000	102	58.24- 98.24	78.24
3.334	3.334	0.000	207827	100.000	103	24.58- 64.58	44.58
3.363	3.363	0.000	214942	100.000	103	26.11- 66.11	46.11
3.521	3.521	0.000	285184	100.000	101	41.18- 81.18	61.18
Average of Peak Amounts =					102		
7 Aroclor-1260					CAS #: 11096-82-5		
4.418	4.418	0.000	573509	100.000	100	80.00- 120.00	100.00
4.569	4.569	0.000	668687	100.000	94.2	96.60- 136.60	116.60
4.681	4.681	0.000	457212	100.000	97.1	59.72- 99.72	79.72
4.879	4.879	0.000	537720	100.000	96.8	73.76- 113.76	93.76
5.504	5.504	0.000	836947	100.000	92.9	125.93- 165.93	145.93
Average of Peak Amounts =					96.3		

Data File: /chem/ecd2a.i/121409.b/011b1101.d

Date : 14-DEC-2009 08:51

Client ID: AR166001

Sample Info: |WAR091214-01 60

Column phase: CLP2

Instrument: ecd2a.i

Operator: YS1

Column diameter: 0.25

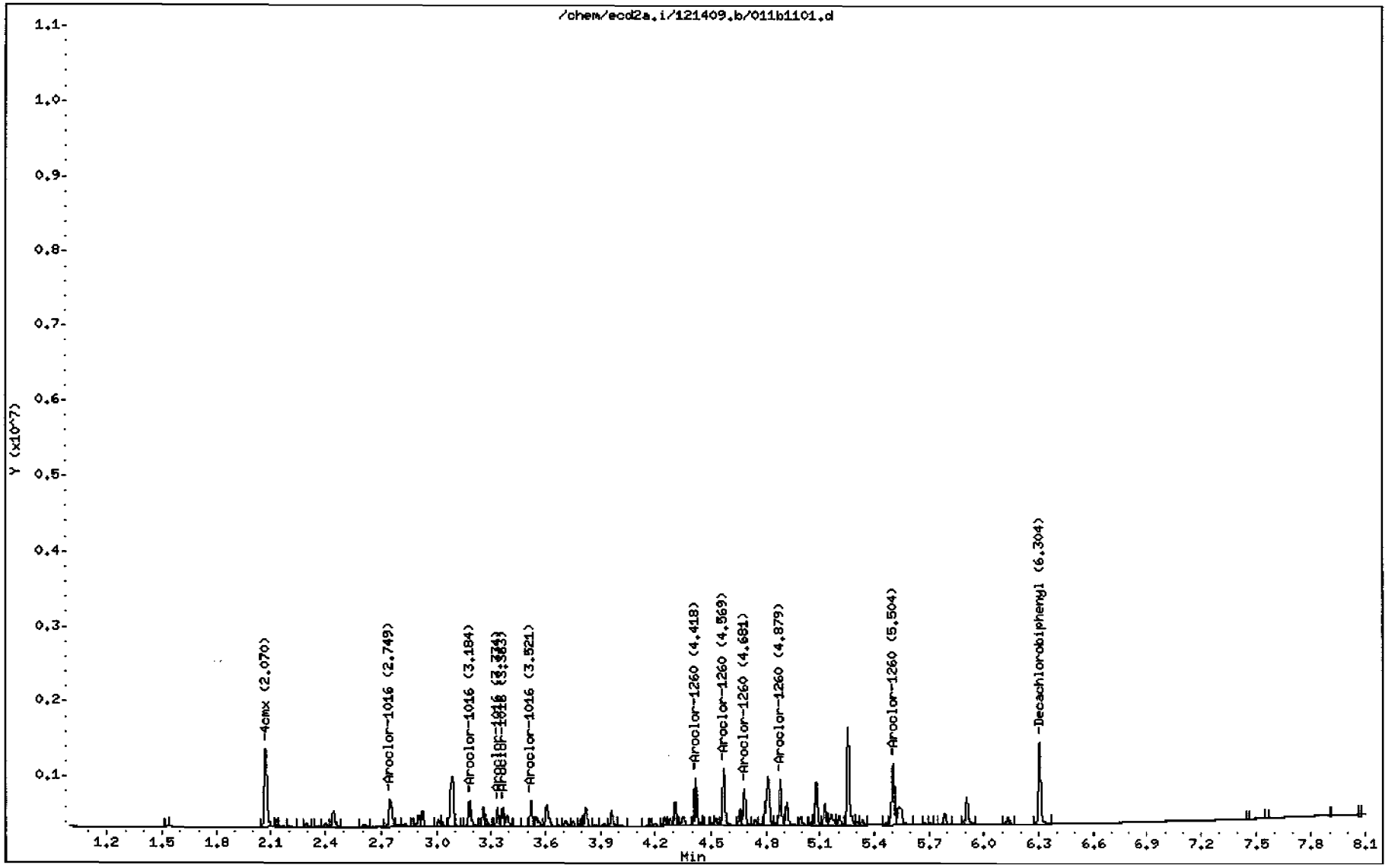

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121409.b/012f1201.d
Lab Smp Id: WAR091214-02 60 Client Smp ID: AR166002
Inj Date : 14-DEC-2009 09:02
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |WAR091214-02 60
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121409.b/ECD2-F-8082-111209A.m
Meth Date : 14-Dec-2009 10:15 yip00818 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:16 Cal File: 009f0901.d
Als bottle: 12 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.770	1.771	-0.001	1531148	25.0000	24.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.612	0.000	1333799	25.0000	24.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.275	2.275	0.000	583627	250.000	261	80.00- 120.00	100.00(M)
2.599	2.599	0.000	1170749	250.000	250	180.60- 220.60	200.60
2.690	2.690	0.000	490405	250.000	258	64.03- 104.03	84.03
2.825	2.825	0.000	247460	250.000	254	22.40- 62.40	42.40
2.977	2.977	0.000	372469	250.000	255	43.82- 83.82	63.82
Average of Peak Amounts =					256		
7 Aroclor-1260					CAS #: 11096-82-5		
4.018	4.018	0.000	1036148	250.000	249	80.00- 120.00	100.00
4.289	4.289	0.000	650668	250.000	251	42.80- 82.80	62.80
4.455	4.455	0.000	656624	250.000	250	43.37- 83.37	63.37
4.668	4.668	0.000	1500731	250.000	246	124.84- 164.84	144.84
4.857	4.857	0.000	725880	250.000	247	50.06- 90.06	70.06
Average of Peak Amounts =					249		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/121409.b/012f1201.d

Date : 14-DEC-2009 09:02

Client ID: AR166002

Sample Info: IWAR091214-02 60

Column phase: CLP1

Instrument: ecd2a.i

Operator: YS1

Column diameter: 0.25

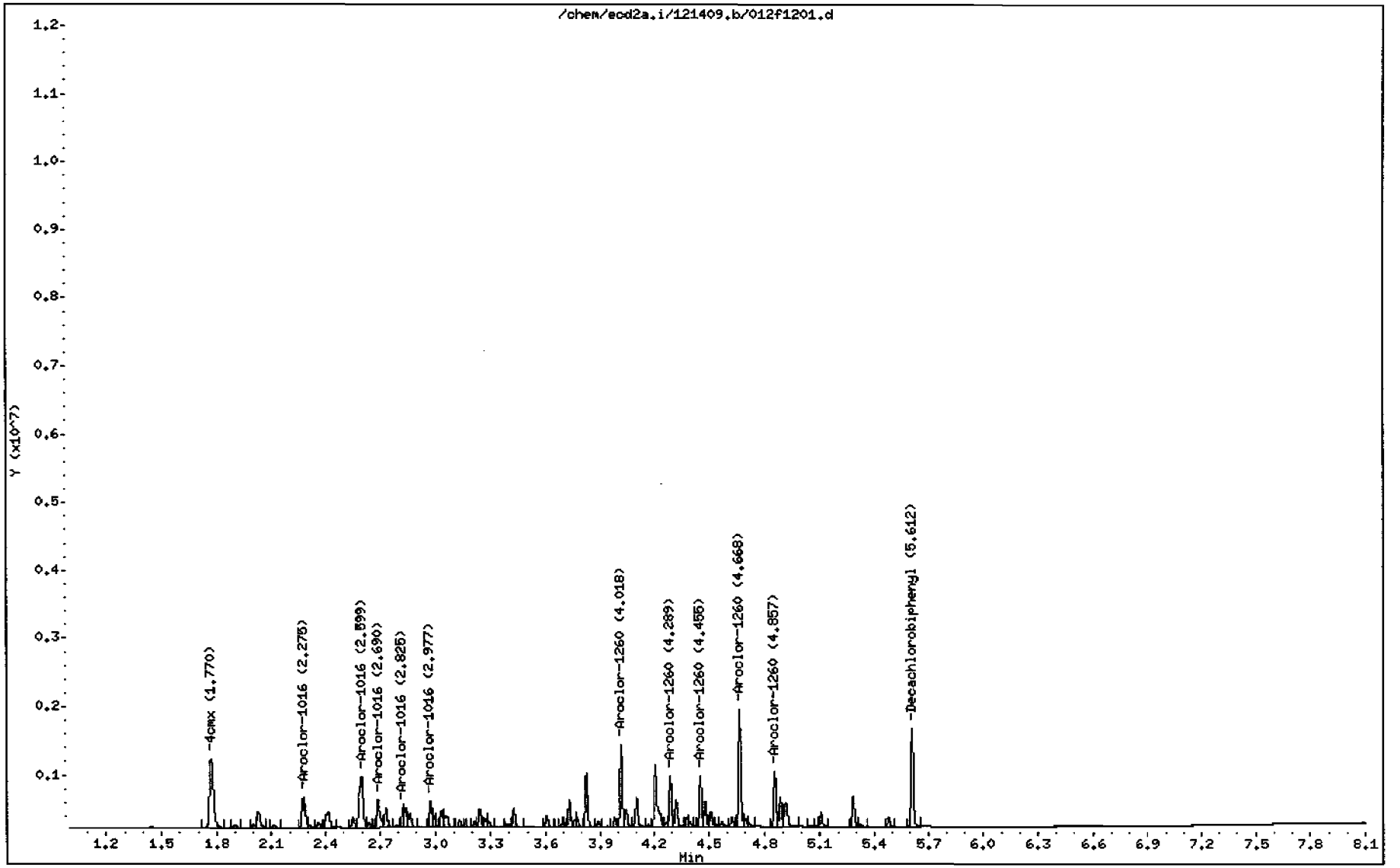

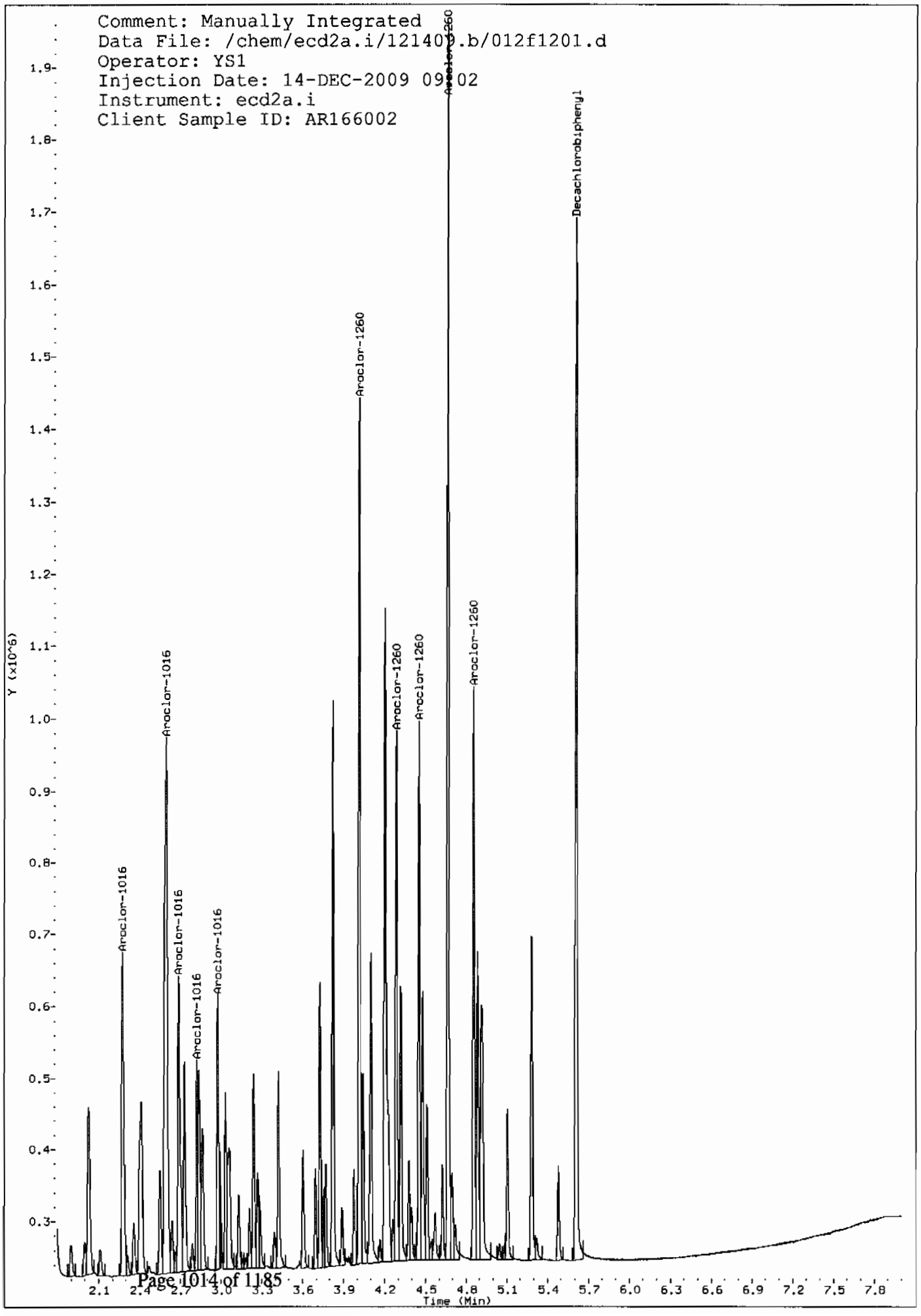
Comment: Manually Integrated
Data File: /chem/ecd2a.i/121409.b/012f1201.d
Operator: YS1
Injection Date: 14-DEC-2009 09:02
Instrument: ecd2a.i
Client Sample ID: AR166002
Y (x10^6)
Time (Min)
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

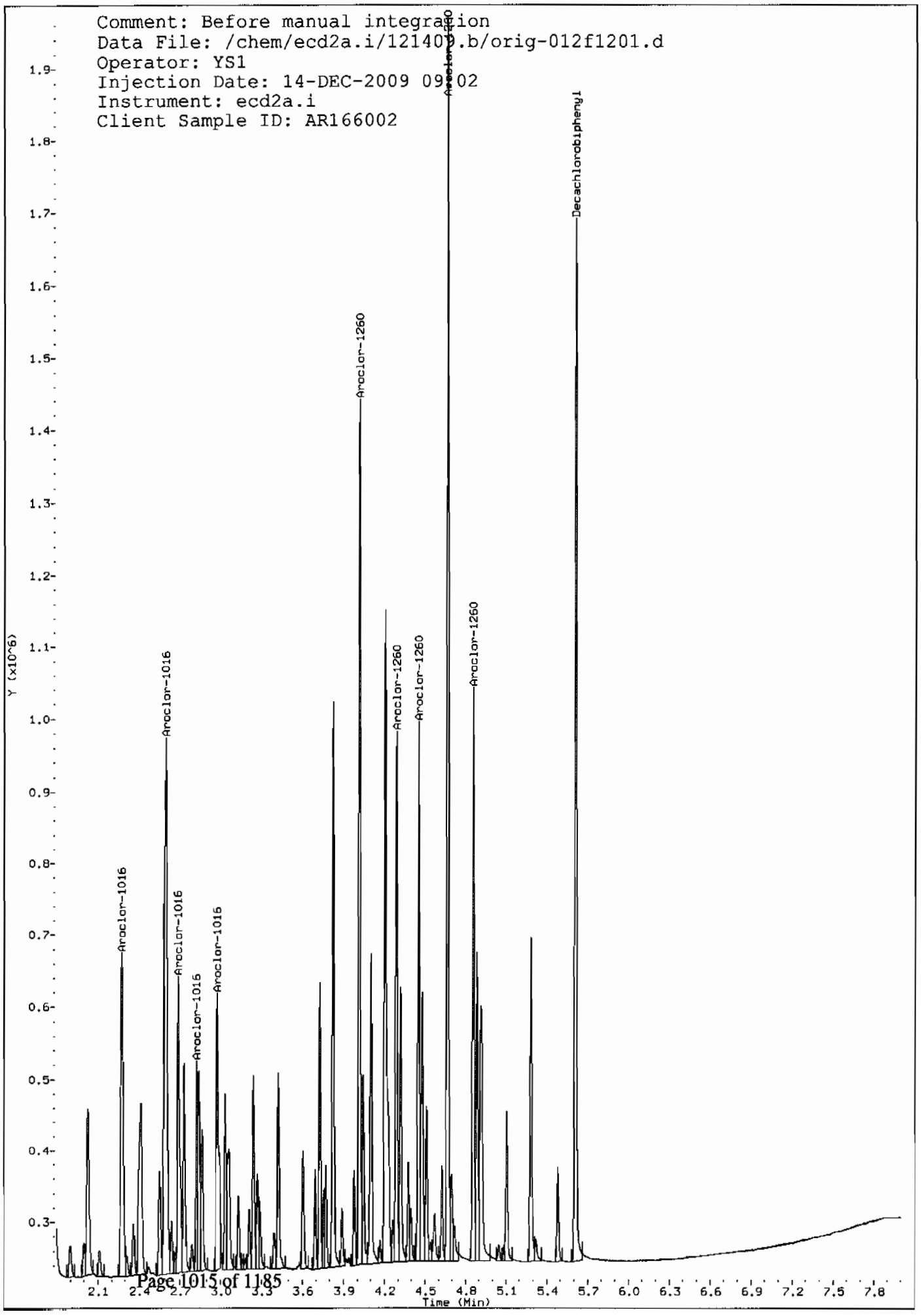
Comment: Before manual integration
Data File: /chem/ecd2a.i/121409.b/orig-012f1201.d
Operator: YS1
Injection Date: 14-DEC-2009 09:02
Instrument: ecd2a.i
Client Sample ID: AR166002
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^6)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121409.b/012b1201.d
Lab Smp Id: WAR091214-02 60 Client Smp ID: AR166002
Inj Date : 14-DEC-2009 09:02
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |WAR091214-02 60
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121409.b/ECD2-B-8082-111209A.m
Meth Date : 14-Dec-2009 10:15 yip00818 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:16 Cal File: 009b0901.d
Als bottle: 12 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.070	0.000	3158941	25.0000	24.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.304	-0.001	2717632	25.0000	24.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.748	2.748	0.000	1145554	250.000	253	80.00- 120.00	100.00
3.182	3.182	0.000	923988	250.000	260	60.66- 100.66	80.66
3.333	3.333	0.000	510949	250.000	253	24.60- 64.60	44.60
3.362	3.362	0.000	531145	250.000	255	26.37- 66.37	46.37
3.521	3.521	0.000	707989	250.000	250	41.80- 81.80	61.80
Average of Peak Amounts =					254		
7 Aroclor-1260					CAS #: 11096-82-5		
4.417	4.417	0.000	1406835	250.000	247	80.00- 120.00	100.00
4.569	4.569	0.000	1757765	250.000	248	104.94- 144.94	124.94
4.681	4.681	0.000	1175348	250.000	250	63.55- 103.55	83.55
4.877	4.877	0.000	1379556	250.000	248	78.06- 118.06	98.06
5.503	5.503	0.000	2151857	250.000	239	132.96- 172.96	152.96
Average of Peak Amounts =					246		

Data File: /chem/ecd2a.i/121409.b/012b1201.d

Date : 14-DEC-2009 09:02

Client ID: AR166002

Sample Info: IWAR091214-02 60

Column phase: CLP2

Instrument: ecd2a.i

Operator: YS1

Column diameter: 0.25

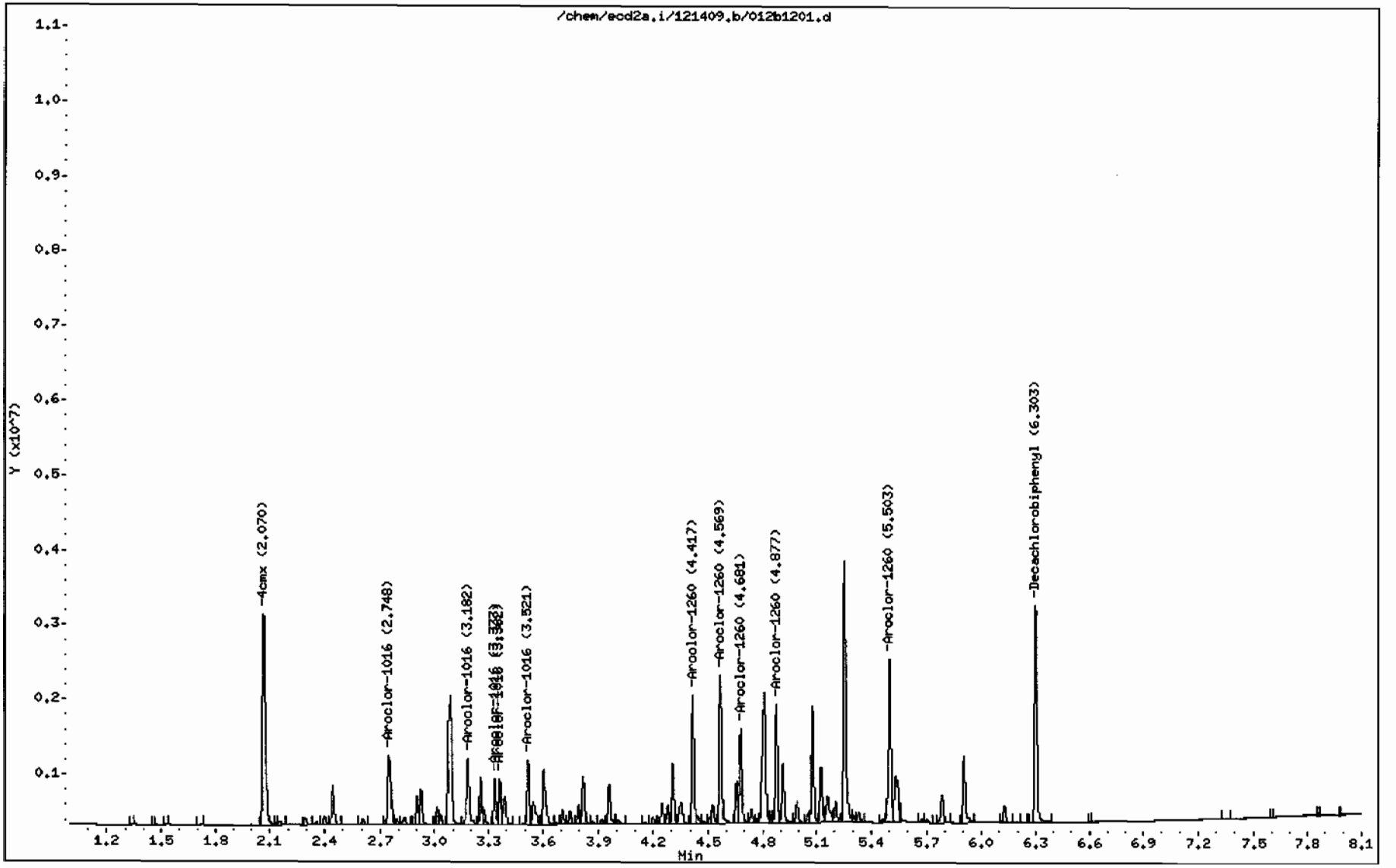

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121409.b/013f1301.d
Lab Smp Id: WAR091214-03 60 Client Smp ID: AR166003
Inj Date : 14-DEC-2009 09:13
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |WAR091214-03 60
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121409.b/ECD2-F-8082-111209A.m
Meth Date : 14-Dec-2009 10:15 yip00818 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:27 Cal File: 010f1001.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.770	1.771	-0.001	3143412	50.0000	50.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.612	-0.001	2719976	50.0000	50.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.275	2.275	0.000	1125062	500.000	503	80.00- 120.00	100.00
2.598	2.598	0.000	2332057	500.000	498	187.28- 227.28	207.28
2.690	2.690	0.000	945890	500.000	497	64.07- 104.07	84.07
2.825	2.825	0.000	492097	500.000	504	23.74- 63.74	43.74
2.977	2.977	0.000	720397	500.000	494	44.03- 84.03	64.03
Average of Peak Amounts =					499		
7 Aroclor-1260					CAS #: 11096-82-5		
4.017	4.017	0.000	2092333	500.000	502	80.00- 120.00	100.00
4.289	4.289	0.000	1294498	500.000	500	41.87- 81.87	61.87
4.455	4.455	0.000	1312518	500.000	499	42.73- 82.73	62.73
4.667	4.667	0.000	3071078	500.000	504	126.78- 166.78	146.78
4.857	4.857	0.000	1464303	500.000	498	49.98- 89.98	69.98
Average of Peak Amounts =					501		

Data File: /chem/ecd2a.i/121409.b/013f1301.d
Date : 14-DEC-2009 09:13
Client ID: AR166003
Sample Info: IWAR091214-03 60

Column phase: CLP1

Instrument: ecd2a.i

Operator: YS1
Column diameter: 0.25

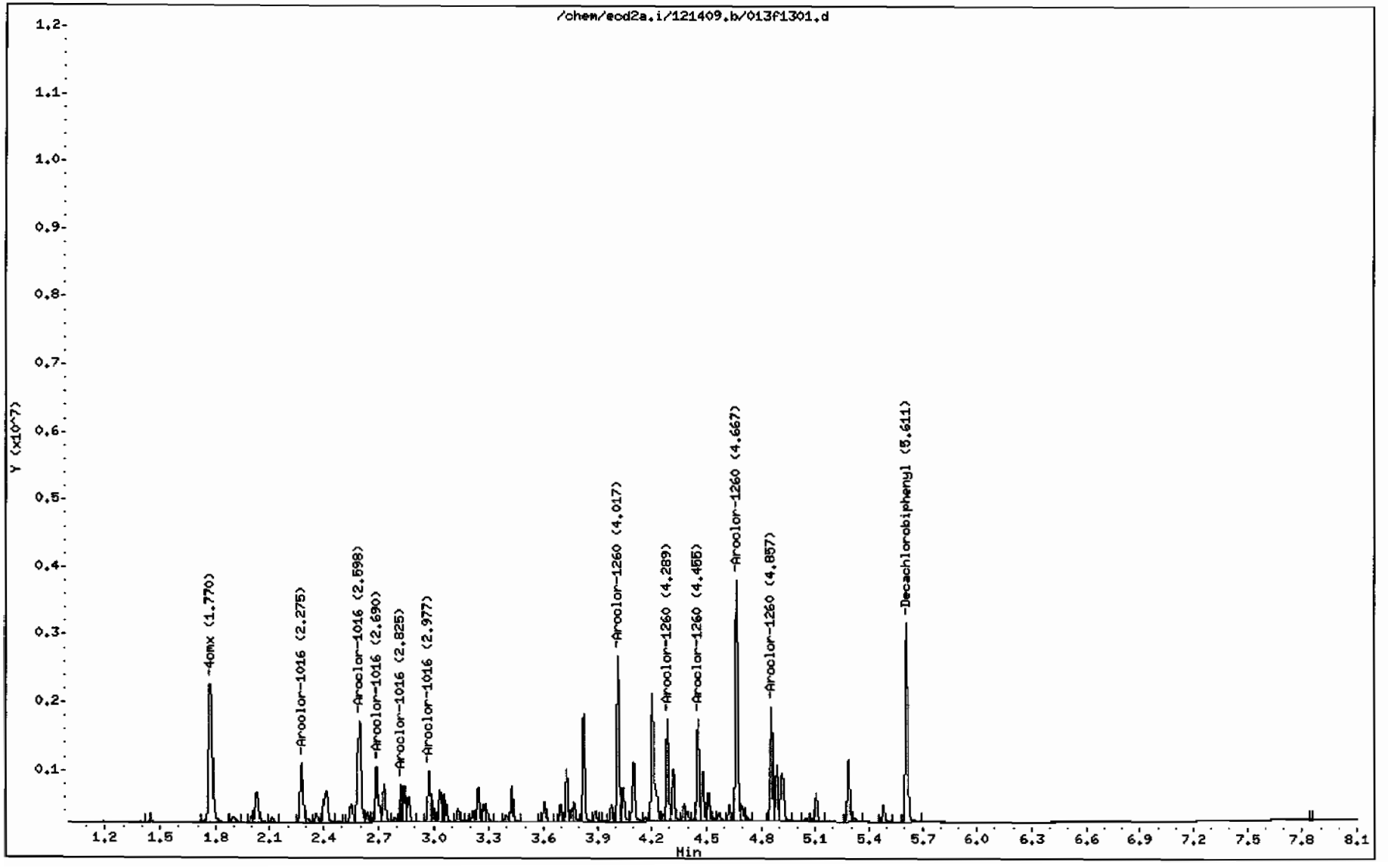

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121409.b/013b1301.d
Lab Smp Id: WAR091214-03 60 Client Smp ID: AR166003
Inj Date : 14-DEC-2009 09:13
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |WAR091214-03 60
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121409.b/ECD2-B-8082-111209A.m
Meth Date : 14-Dec-2009 10:15 yip00818 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:27 Cal File: 010b1001.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.069	2.070	-0.001	6570684	50.0000	50.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.304	0.000	5664734	50.0000	50.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.748	2.748	0.000	2304524	500.000	509	80.00- 120.00	100.00
3.183	3.183	0.000	1781818	500.000	501	57.32- 97.32	77.32
3.334	3.334	0.000	1021963	500.000	506	24.35- 64.35	44.35
3.362	3.362	0.000	1066562	500.000	512	26.28- 66.28	46.28
3.520	3.520	0.000	1440767	500.000	509	42.52- 82.52	62.52
Average of Peak Amounts =					507		
7 Aroclor-1260					CAS #: 11096-82-5		
4.417	4.417	0.000	2889590	500.000	507	80.00- 120.00	100.00
4.569	4.569	0.000	3621706	500.000	510	105.34- 145.34	125.34
4.680	4.680	0.000	2444966	500.000	519	64.61- 104.61	84.61
4.878	4.878	0.000	2856865	500.000	514	78.87- 118.87	98.87
5.503	5.503	0.000	4615254	500.000	512	139.72- 179.72	159.72
Average of Peak Amounts =					513		

Data File: /chem/ecd2a.i/121409.b/013b1301.d
Date : 14-DEC-2009 09:13
Client ID: AR166003
Sample Info: WAR091214-03 60
Column phase: CLP2

Instrument: ecd2a.i
Operator: YSI
Column diameter: 0.25

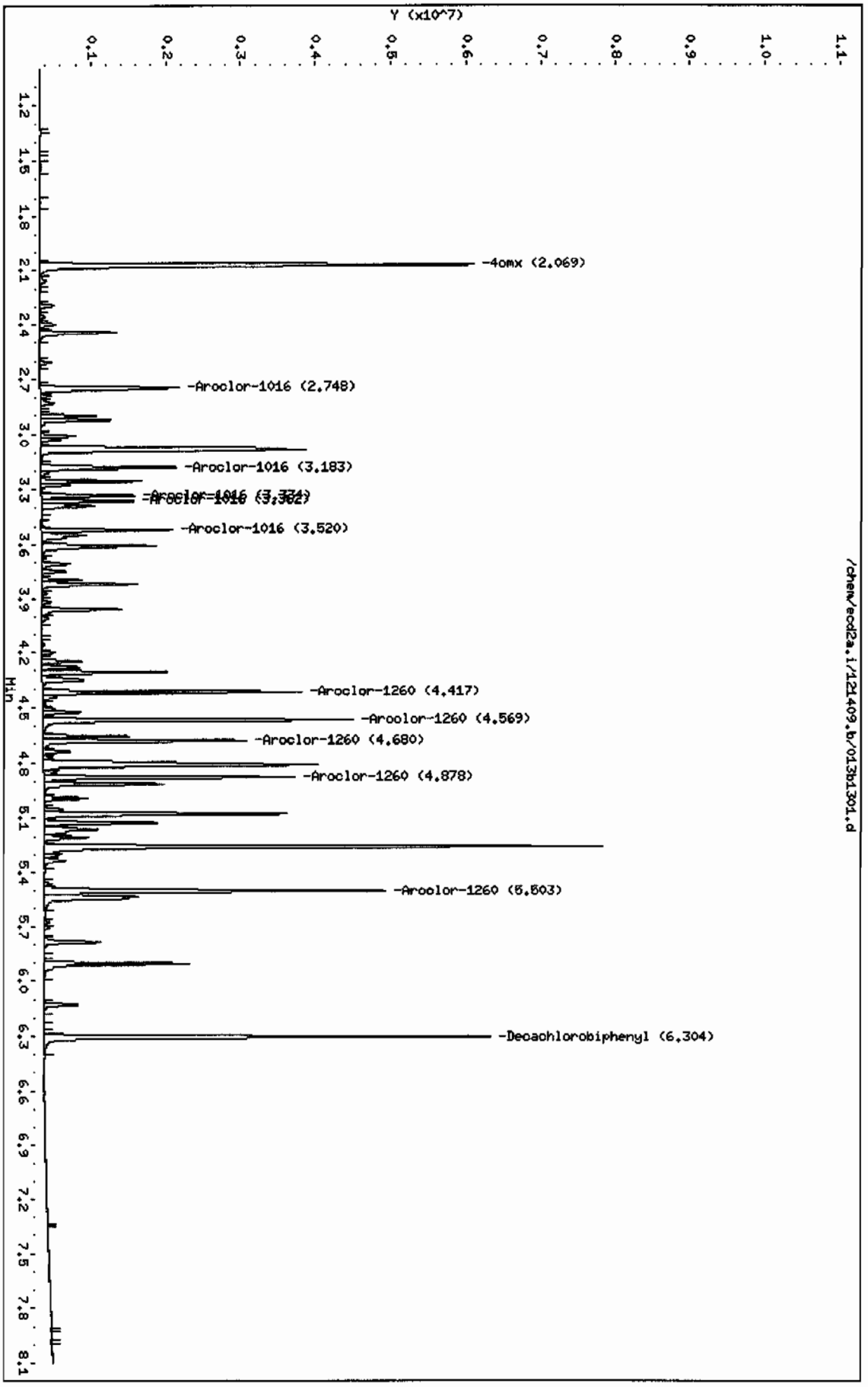

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121409.b/014f1401.d
Lab Smp Id: WAR091214-04 60 Client Smp ID: AR166004
Inj Date : 14-DEC-2009 09:24
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |WAR091214-04 60
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121409.b/ECD2-F-8082-111209A.m
Meth Date : 14-Dec-2009 10:16 yip00818 Quant Type: ESTD
Cal Date : 30-NOV-2009 10:45 Cal File: 014f1401.d
Als bottle: 14 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.770	1.771	-0.001	6307544	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.612	0.000	5336004	100.000	98.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.276	2.276	0.000	2152061	1000.00	962	80.00- 120.00	100.00
2.599	2.599	0.000	4616122	1000.00	985	194.50- 234.50	214.50
2.690	2.690	0.000	1817538	1000.00	956	64.46- 104.46	84.46
2.825	2.825	0.000	929960	1000.00	953	23.21- 63.21	43.21
2.977	2.977	0.000	1388706	1000.00	952	44.53- 84.53	64.53
Average of Peak Amounts =					962		
7 Aroclor-1260					CAS #: 11096-82-5		
4.018	4.018	0.000	4133997	1000.00	992	80.00- 120.00	100.00
4.290	4.290	0.000	2529425	1000.00	976	41.19- 81.19	61.19
4.455	4.455	0.000	2591482	1000.00	985	42.69- 82.69	62.69
4.668	4.668	0.000	6129394	1000.00	1010	128.27- 168.27	148.27
4.857	4.857	0.000	2919891	1000.00	992	50.63- 90.63	70.63
Average of Peak Amounts =					991		

Data File: /chem/ecd2a.i/121409.b/014f1401.d

Page 1

Date : 14-DEC-2009 09:24

Client ID: AR166004

Instrument: ecd2a.i

Sample Info: IWAR091214-04 60

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

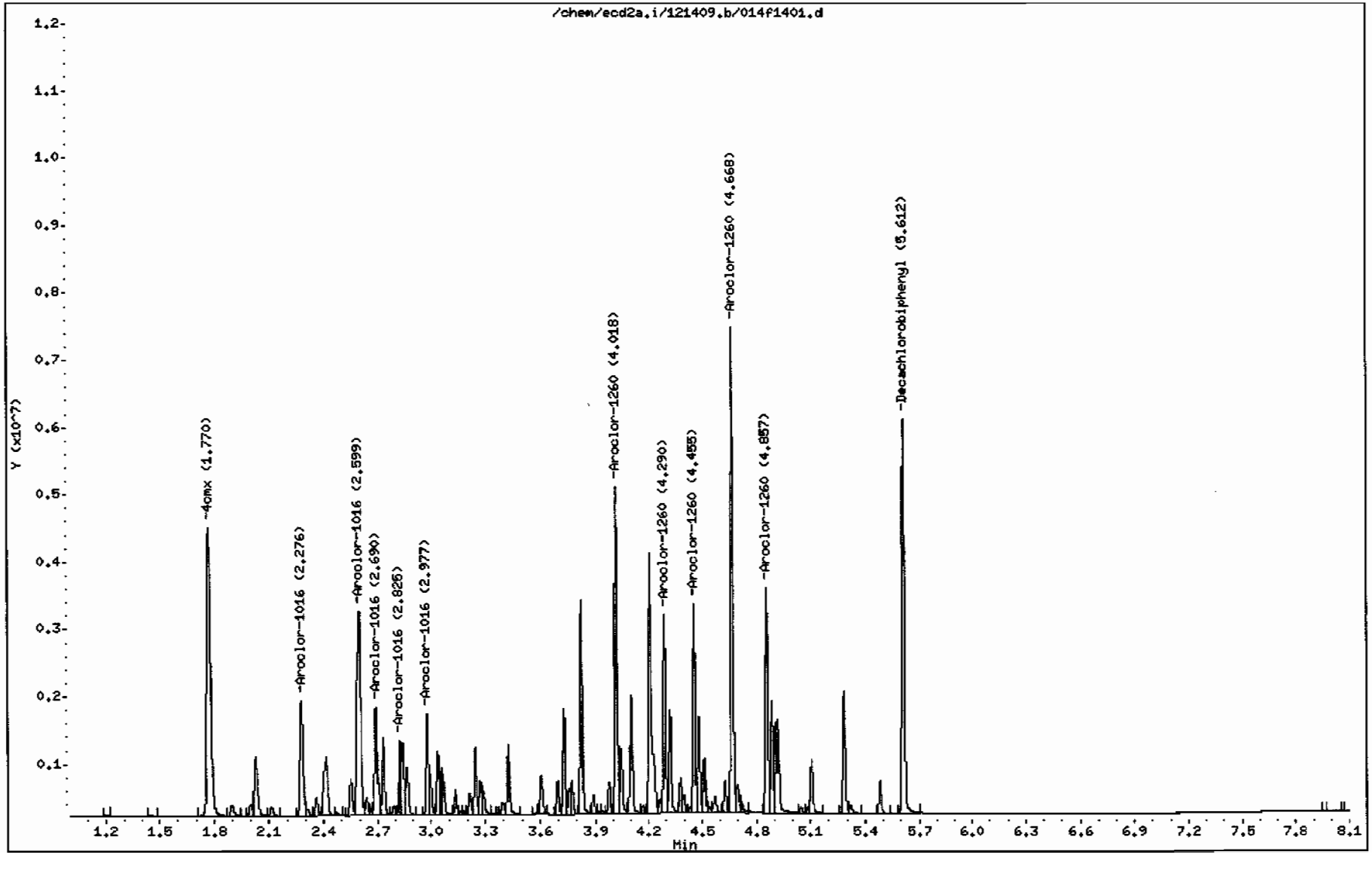

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121409.b/014b1401.d
Lab Smp Id: WAR091214-04 60 Client Smp ID: AR166004
Inj Date : 14-DEC-2009 09:24
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |WAR091214-04 60
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121409.b/ECD2-B-8082-111209A.m
Meth Date : 14-Dec-2009 10:16 yip00818 Quant Type: ESTD
Cal Date : 30-NOV-2009 10:45 Cal File: 014b1401.d
Als bottle: 14 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.070	0.000	13389121	100.000	104	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.304	0.000	11316982	100.000	100	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.748	2.748	0.000	4551428	1000.00	1000	80.00- 120.00	100.00
3.183	3.183	0.000	3575433	1000.00	1000	58.56- 98.56	78.56
3.334	3.334	0.000	2058749	1000.00	1020	25.23- 65.23	45.23
3.362	3.362	0.000	2140206	1000.00	1030	27.02- 67.02	47.02
3.521	3.521	0.000	2908375	1000.00	1030	43.90- 83.90	63.90
Average of Peak Amounts =					1.02e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.418	4.418	0.000	5816110	1000.00	1020	80.00- 120.00	100.00
4.569	4.569	0.000	7286359	1000.00	1030	105.28- 145.28	125.28
4.681	4.681	0.000	4941843	1000.00	1050	64.97- 104.97	84.97
4.878	4.878	0.000	5746452	1000.00	1030	78.80- 118.80	98.80
5.504	5.504	0.000	9252052	1000.00	1030	139.08- 179.08	159.08
Average of Peak Amounts =					1.03e+03		

Data File: /chem/ecd2a.i/121409.b/014b1401.d
Date : 14-DEC-2009 09:24
Client ID: AR166004
Sample Info: IWAR091214-04 60

Column phase: CLP2

Instrument: ecd2a.i

Operator: YS1
Column diameter: 0.25

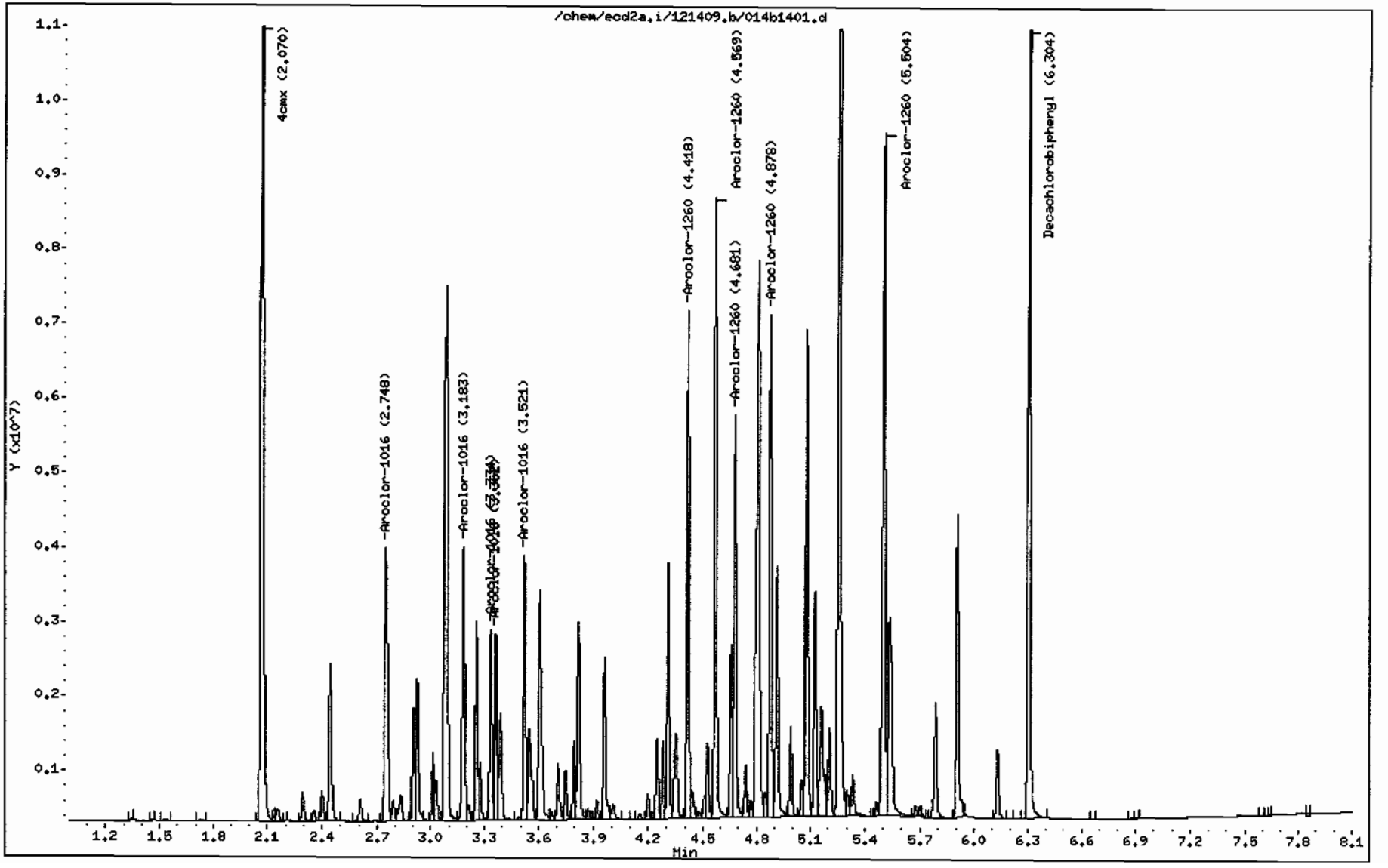

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121409.b/015f1501.d
Lab Smp Id: IAR091102-01 Client Smp ID: AR166005
Inj Date : 14-DEC-2009 09:35
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |IAR091102-01
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121409.b/ECD2-F-8082-111209A.m
Meth Date : 14-Dec-2009 11:22 yip00818 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.771	1.771	0.000	25187600	400.000	404	80.00- 120.00	100.00(A)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.612	0.000	21737918	400.000	402	80.00- 120.00	100.00(A)
1 Aroclor-1016					CAS #: 12674-11-2		
2.276	2.276	0.000	7942957	4000.00	3550	80.00- 120.00	100.00(M)
2.599	2.599	0.000	18375959	4000.00	3920	211.35- 251.35	231.35
2.690	2.690	0.000	7057920	4000.00	3710	68.86- 108.86	88.86
2.825	2.825	0.000	3661497	4000.00	3750	26.10- 66.10	46.10
2.977	2.977	0.000	5499132	4000.00	3770	49.23- 89.23	69.23
Average of Peak Amounts =					3.74e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.017	4.018	-0.001	16699157	4000.00	4010	80.00- 120.00	100.00(A)
4.289	4.290	-0.001	10142561	4000.00	3920	40.74- 80.74	60.74
4.454	4.456	-0.002	10455368	4000.00	3970	42.61- 82.61	62.61
4.667	4.667	0.000	25185511	4000.00	4140	130.82- 170.82	150.82
4.857	4.857	0.000	12134612	4000.00	4120	52.67- 92.67	72.67
Average of Peak Amounts =					4.03e+03		

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: /chem/ecd2a.i/121409.b/015f1501.d
Date : 14-DEC-2009 09:35
Client ID: AR166005
Sample Info: IIAR091102-01

Column phase: CLP1

Instrument: ecd2a.i

Operator: YS1
Column diameter: 0.25

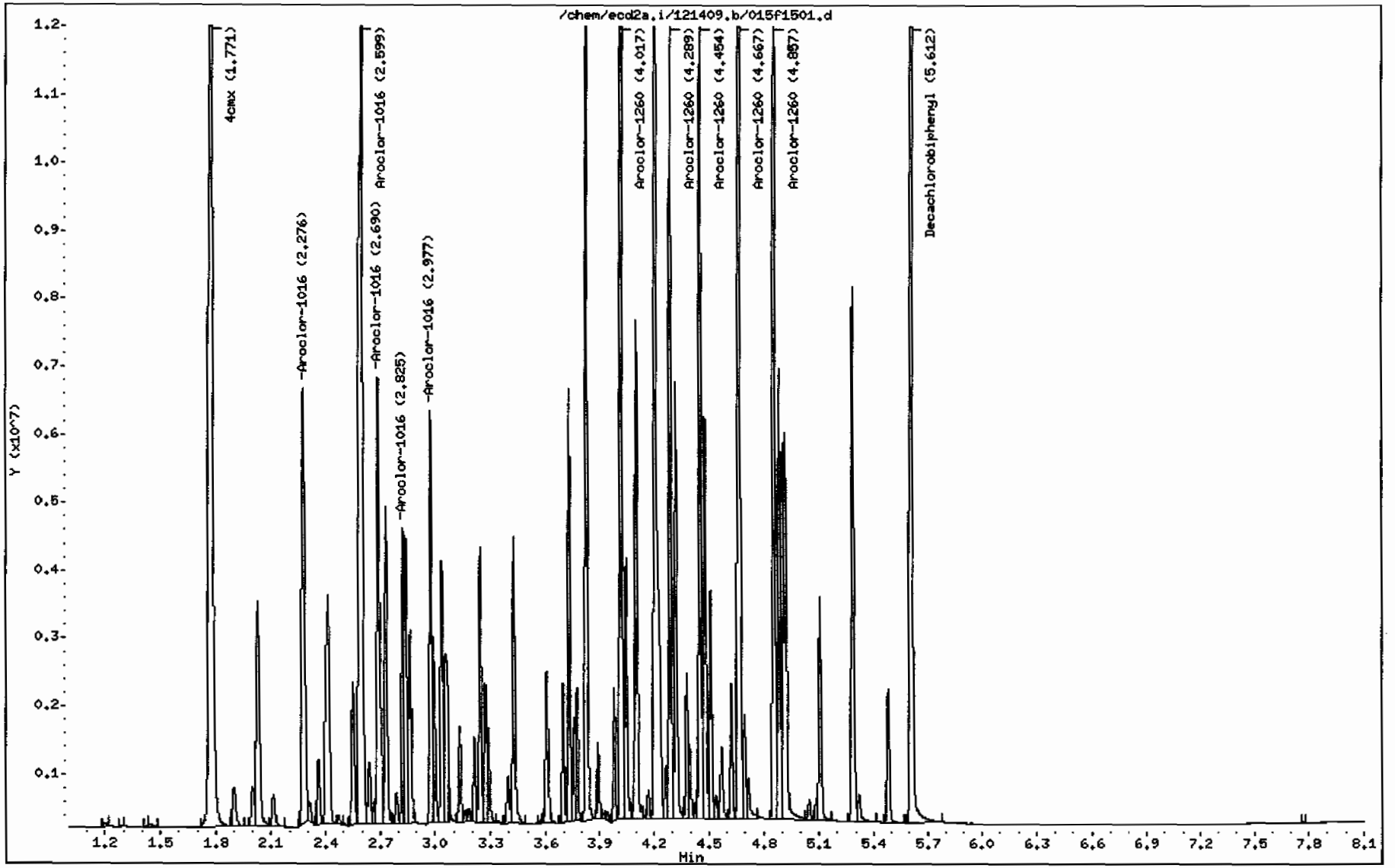

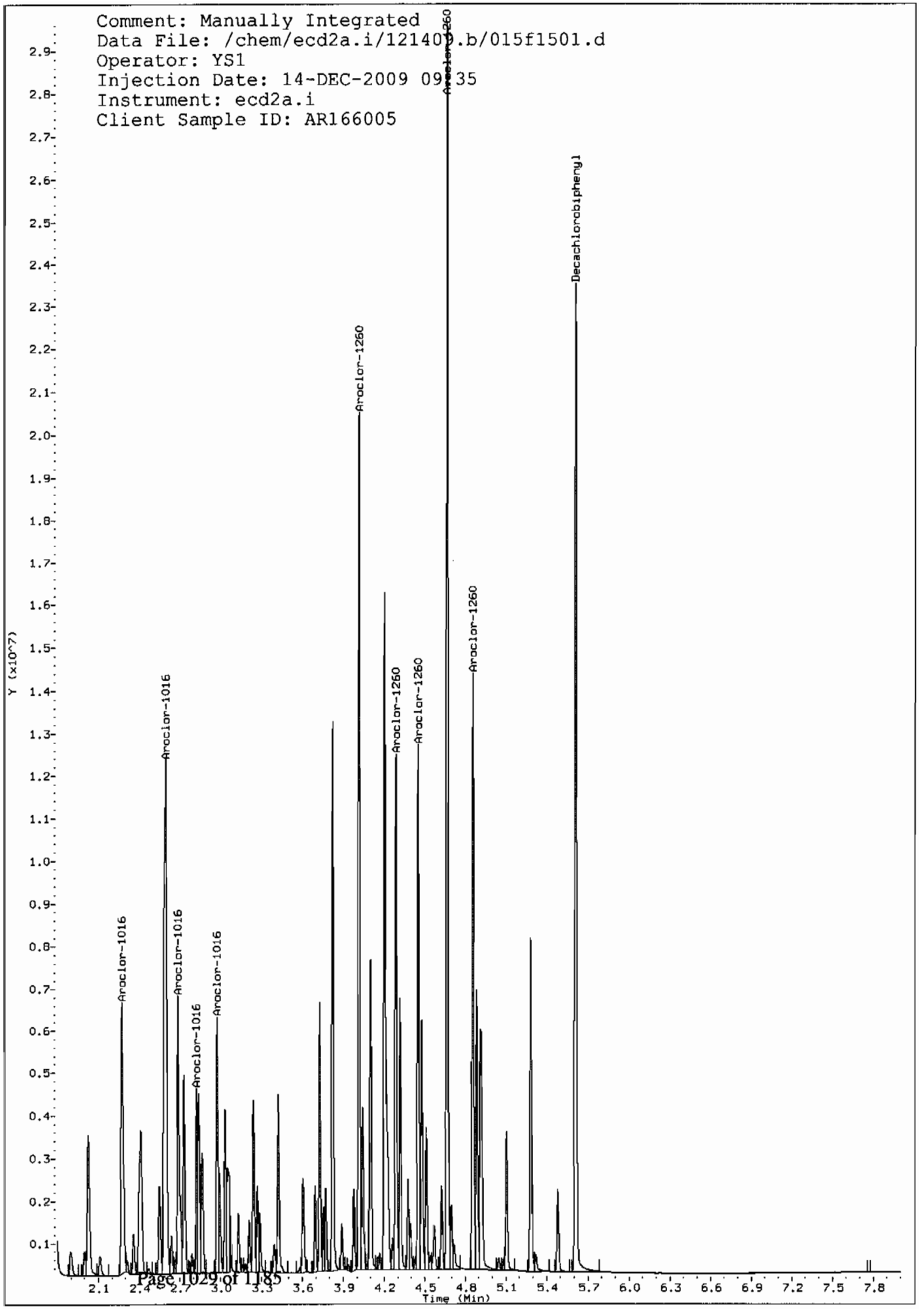
Comment: Manually Integrated
Data File: /chem/ecd2a.i/121409.b/015f1501.d
Operator: YS1
Injection Date: 14-DEC-2009 09:35
Instrument: ecd2a.i
Client Sample ID: AR166005
Aroclor-1260
Decachlorobiphenyl
Aroclor-1016
Y (x10^7)
Time (Min)

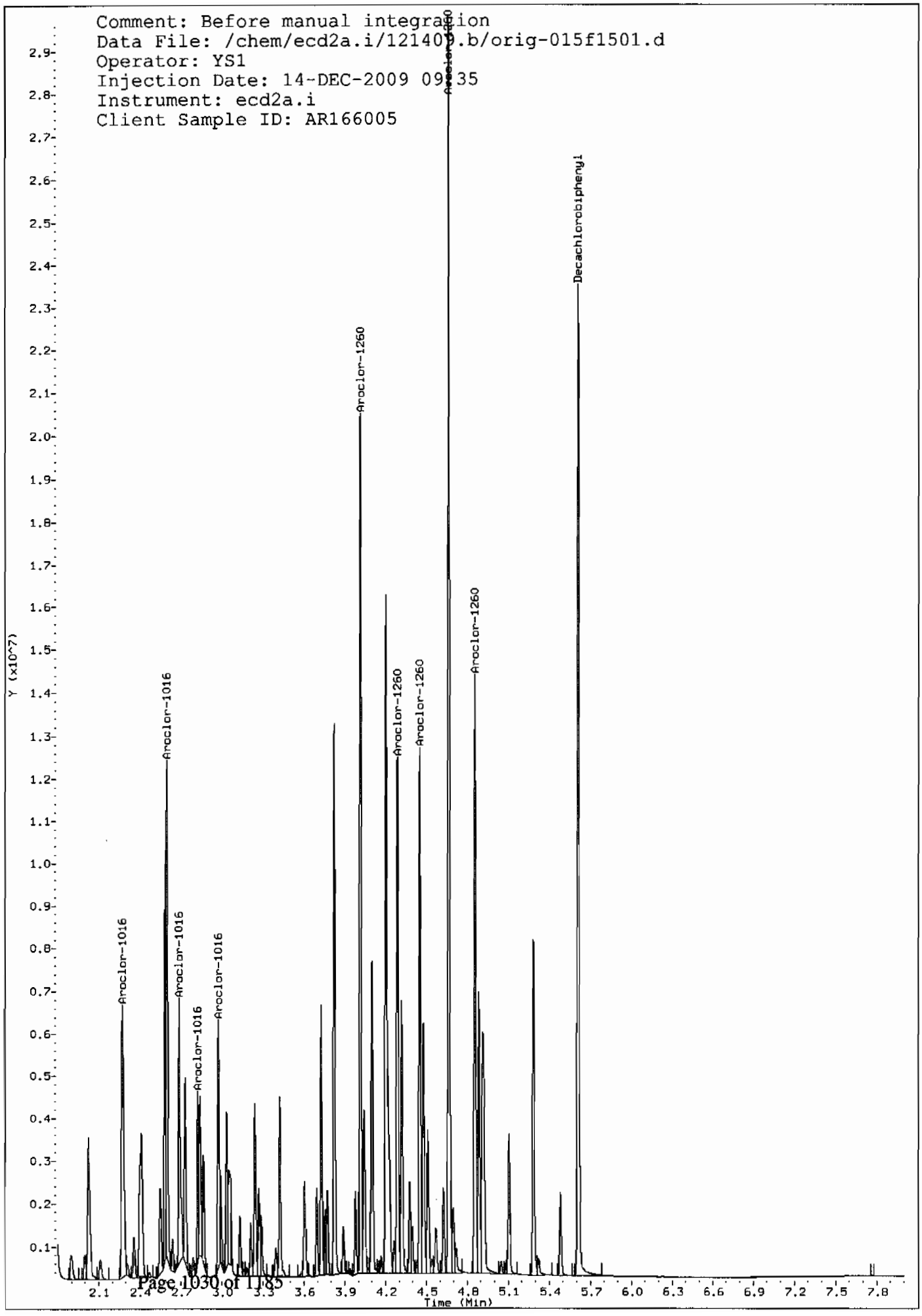
Comment: Before manual integration
Data File: /chem/ecd2a.i/121409.b/orig-015f1501.d
Operator: YS1
Injection Date: 14-DEC-2009 09:35
Instrument: ecd2a.i
Client Sample ID: AR166005
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121409.b/015b1501.d
Lab Smp Id: IAR091102-01 Client Smp ID: AR166005
Inj Date : 14-DEC-2009 09:35
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |IAR091102-01
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121409.b/ECD2-B-8082-111209A.m
Meth Date : 14-Dec-2009 11:07 yip00818 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.070	0.000	54529324	400.000	422	80.00- 120.00	100.00(A)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.304	0.000	47633264	400.000	422	80.00- 120.00	100.00(A)
1 Aroclor-1016					CAS #: 12674-11-2		
2.748	2.749	-0.001	17138738	4000.00	3780	80.00- 120.00	100.00(M)
3.183	3.182	0.001	14113843	4000.00	3920	59.26- 99.26	82.35
3.334	3.334	0.000	8165633	4000.00	3980	25.45- 65.45	47.64
3.363	3.362	0.001	8552491	4000.00	4000	27.12- 67.12	49.90
3.521	3.521	0.000	11515504	4000.00	4010	44.37- 84.37	67.19
Average of Peak Amounts =					3.94e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.417	4.418	-0.001	23507544	4000.00	4080	80.00- 120.00	100.00(AM)
4.569	4.569	0.000	29487010	4000.00	4140	105.84- 145.84	125.44
4.680	4.680	0.000	19952985	4000.00	4140	64.95- 104.95	84.88
4.878	4.878	0.000	23212717	4000.00	4120	79.01- 119.01	98.75
5.504	5.504	0.000	38912379	4000.00	4300	140.74- 180.74	165.53
Average of Peak Amounts =					4.16e+03		

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: /chem/ecd2a.i/121409.b/015b1501.d
Date : 14-DEC-2009 09:35
Client ID: AR166005
Sample Info: IIAR091102-01

Column phase: CLP2

Instrument: ecd2a.i

Operator: YS1
Column diameter: 0.25

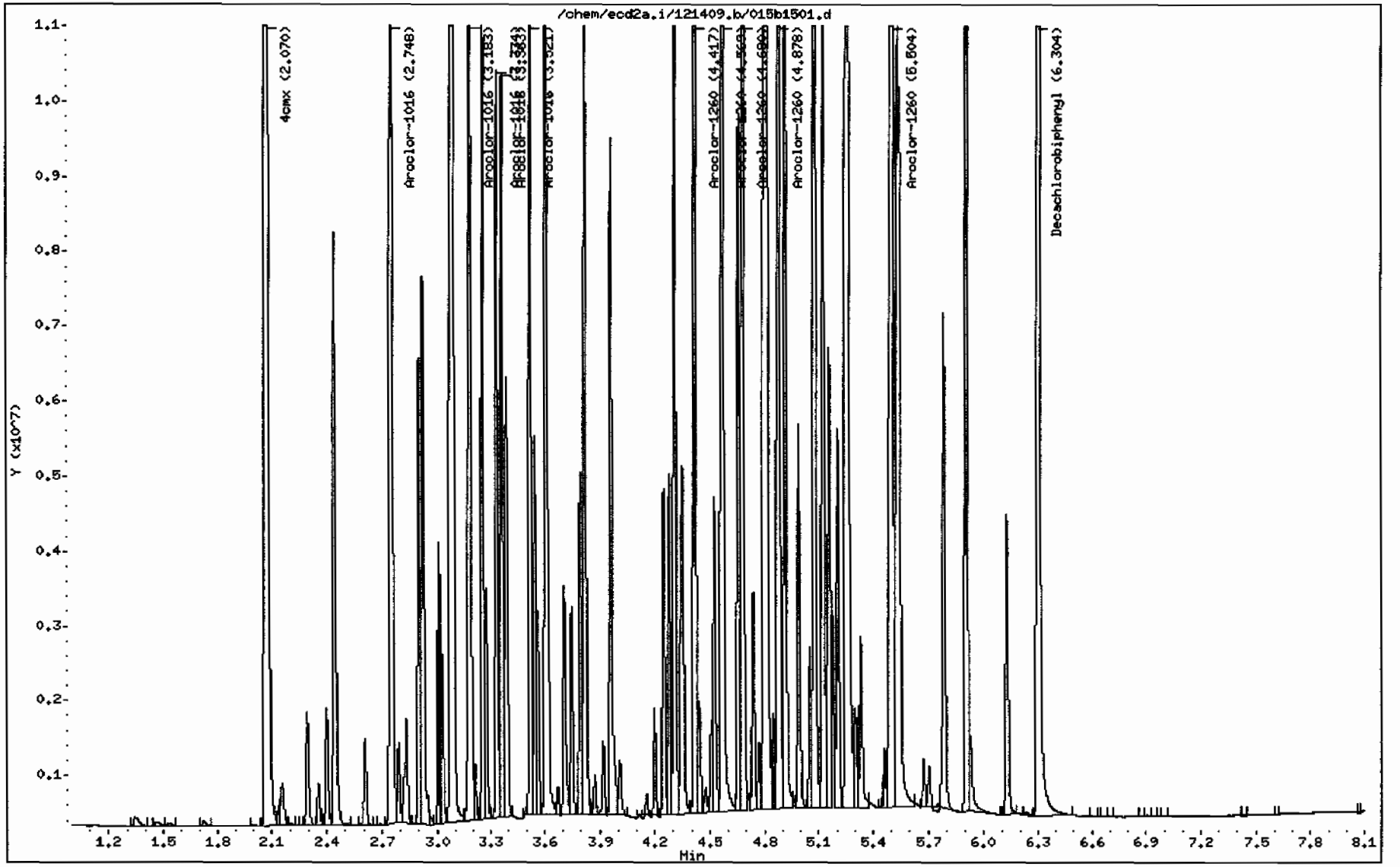

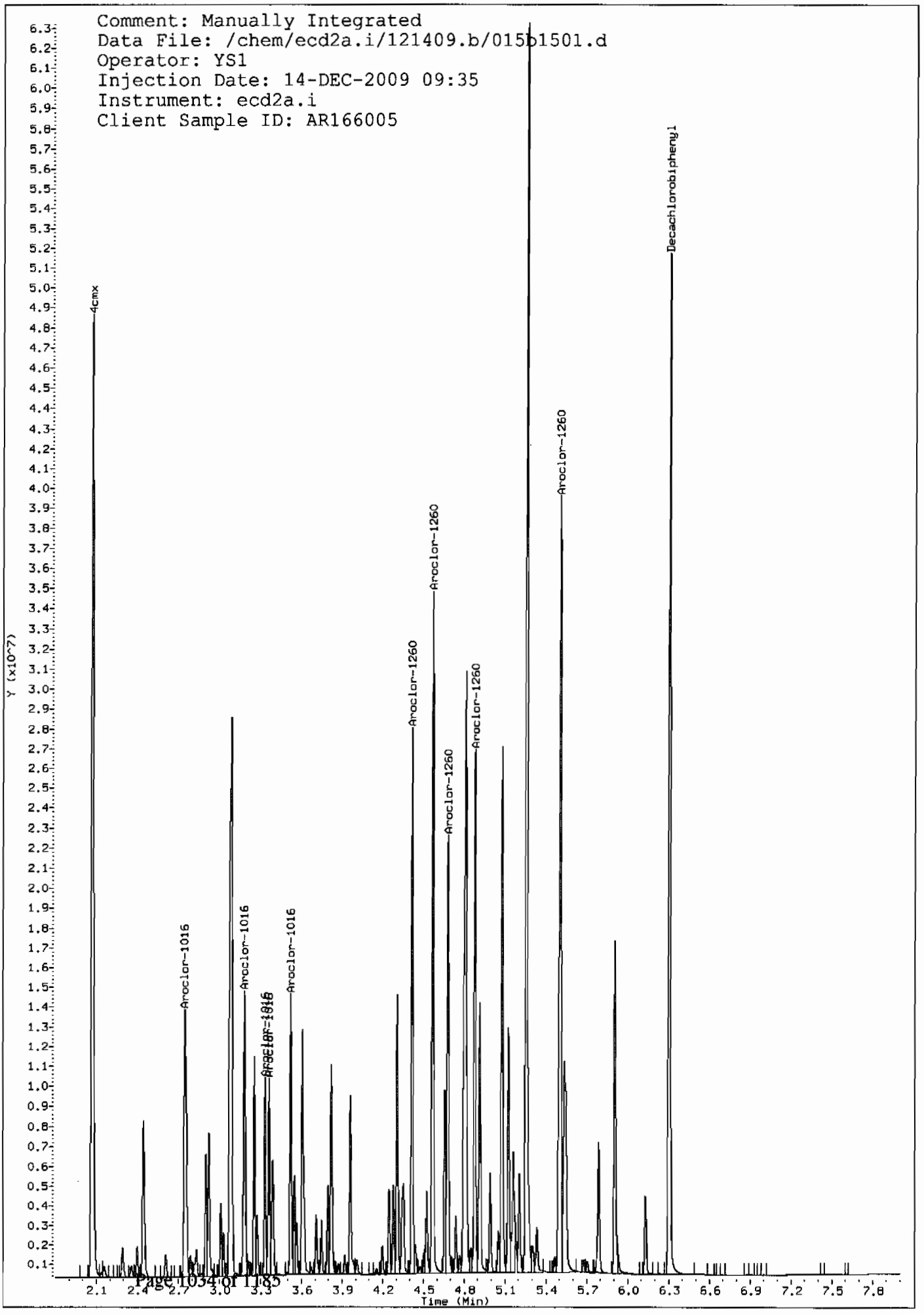
Comment: Manually Integrated
Data File: /chem/ecd2a.i/121409.b/015b1501.d
Operator: YS1
Injection Date: 14-DEC-2009 09:35
Instrument: ecd2a.i
Client Sample ID: AR166005
Y (x10^7)
Time (Min)
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

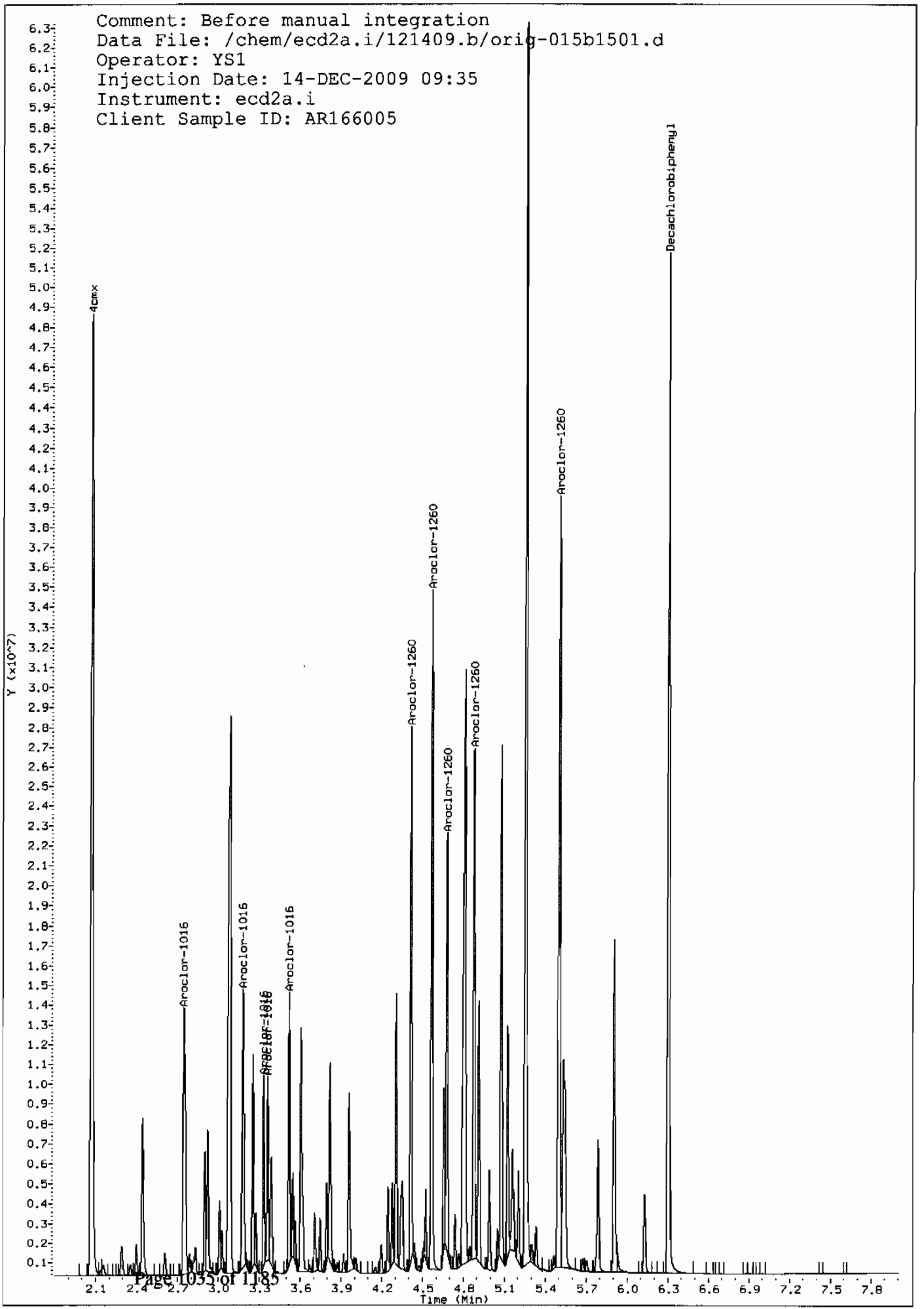
Comment: Before manual integration
Data File: /chem/ecd2a.i/121409.b/orig-015b1501.d
Operator: YS1
Injection Date: 14-DEC-2009 09:35
Instrument: ecd2a.i
Client Sample ID: AR166005
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-994

Instrument ID: ECD2A Calibration Date: 12/23/09 Time: 0858

Lab File ID: 012F1201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	2237.690	2086.452	0.01	-6.8	15.0
(2)	4685.268	4414.810	0.01	-5.8	15.0
(3)	1901.482	1757.987	0.01	-7.5	15.0
(4)	975.978	871.373	0.01	-10.7	15.0
(5)	1457.866	1330.304	0.01	-8.7	15.0
Aroclor-1260	4165.097	4262.036	0.01	2.3	15.0
(2)	2590.571	2693.879	0.01	4.0	15.0
(3)	2631.205	2766.997	0.01	5.2	15.0
(4)	6087.596	6543.094	0.01	7.5	15.0
(5)	2942.150	3135.206	0.01	6.6	15.0
4cmx	62291.660	60640.610	0.01	-2.6	15.0
Decachlorobiphenyl	54111.563	58271.590	0.01	7.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-994

Instrument ID: ECD2A Calibration Date: 12/23/09 Time: 0858

Lab File ID: 012B1201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4537.819	4459.813	0.01	-1.7	15.0
(2)	3602.166	3491.937	0.01	-3.1	15.0
(3)	2053.230	2027.076	0.01	-1.3	15.0
(4)	2137.091	2112.528	0.01	-1.1	15.0
(5)	2870.516	2845.754	0.01	-0.9	15.0
Aroclor-1260	5766.921	6008.110	0.01	4.2	15.0
(2)	7123.891	7841.925	0.01	10.1	15.0
(3)	4818.707	5327.232	0.01	10.6	15.0
(4)	5631.757	6114.860	0.01	8.6	15.0
(5)	9037.511	10087.158	0.01	11.6	15.0
4cmx	129318.03	131547.58	0.01	1.7	15.0
Decachlorobiphenyl	112782.99	123741.76	0.01	9.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-994

Instrument ID: ECD2A Calibration Date: 12/23/09 Time: 1113

Lab File ID: 022F2201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	2237.690	2078.717	0.01	-7.1	15.0
(2)	4685.268	4472.259	0.01	-4.5	15.0
(3)	1901.482	1760.493	0.01	-7.4	15.0
(4)	975.978	895.918	0.01	-8.2	15.0
(5)	1457.866	1369.838	0.01	-6.0	15.0
Aroclor-1260	4165.097	4308.701	0.01	3.4	15.0
(2)	2590.571	2691.822	0.01	3.9	15.0
(3)	2631.205	2846.509	0.01	8.2	15.0
(4)	6087.596	6649.186	0.01	9.2	15.0
(5)	2942.150	3207.910	0.01	9.0	15.0
4cmx	62291.660	61108.220	0.01	-1.9	15.0
Decachlorobiphenyl	54111.563	59645.700	0.01	10.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-994

Instrument ID: ECD2A Calibration Date: 12/23/09 Time: 1113

Lab File ID: 022B2201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4537.819	4434.996	0.01	-2.3	15.0
(2)	3602.166	3490.861	0.01	-3.1	15.0
(3)	2053.230	2021.330	0.01	-1.6	15.0
(4)	2137.091	2103.309	0.01	-1.6	15.0
(5)	2870.516	2846.977	0.01	-0.8	15.0
Aroclor-1260	5766.921	5900.740	0.01	2.3	15.0
(2)	7123.891	7469.006	0.01	4.8	15.0
(3)	4818.707	5074.834	0.01	5.3	15.0
(4)	5631.757	5904.705	0.01	4.8	15.0
(5)	9037.511	9900.759	0.01	9.6	15.0
4cmx	129318.03	131144.75	0.01	1.4	15.0
Decachlorobiphenyl	112782.99	123901.80	0.01	9.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-994

Instrument ID: ECD2A Calibration Date: 12/23/09 Time: 1257

Lab File ID: 031F3101 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	2237.690	2068.127	0.01	-7.6	15.0
(2)	4685.268	4477.469	0.01	-4.4	15.0
(3)	1901.482	1753.749	0.01	-7.8	15.0
(4)	975.978	899.051	0.01	-7.9	15.0
(5)	1457.866	1350.823	0.01	-7.3	15.0
Aroclor-1260	4165.097	4275.208	0.01	2.6	15.0
(2)	2590.571	2650.885	0.01	2.3	15.0
(3)	2631.205	2723.840	0.01	3.5	15.0
(4)	6087.596	6604.431	0.01	8.5	15.0
(5)	2942.150	3175.527	0.01	7.9	15.0
4cmx	62291.660	60945.650	0.01	-2.2	15.0
Decachlorobiphenyl	54111.563	59046.760	0.01	9.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-994

Instrument ID: ECD2A Calibration Date: 12/23/09 Time: 1257

Lab File ID: 031B3101 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4537.819	4404.376	0.01	-2.9	15.0
(2)	3602.166	3461.610	0.01	-3.9	15.0
(3)	2053.230	1997.671	0.01	-2.7	15.0
(4)	2137.091	2106.420	0.01	-1.4	15.0
(5)	2870.516	2811.196	0.01	-2.1	15.0
Aroclor-1260	5766.921	5801.144	0.01	0.6	15.0
(2)	7123.891	7466.104	0.01	4.8	15.0
(3)	4818.707	5103.297	0.01	5.9	15.0
(4)	5631.757	5895.514	0.01	4.7	15.0
(5)	9037.511	9859.420	0.01	9.1	15.0
4cmx	129318.03	130852.38	0.01	1.2	15.0
Decachlorobiphenyl	112782.99	122729.60	0.01	8.8	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/003f0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 23-DEC-2009 07:18
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091216-54
Misc Info : |PCB_CVS|1254||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.775	1.770	0.005	6693596	100.000	107	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.610	5.613	-0.003	6398228	100.000	118	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.242	3.242	0.000	1959041	1000.00	942	80.00- 120.00	100.00
3.426	3.426	0.000	2591895	1000.00	935	112.30- 152.30	132.30
3.696	3.696	0.000	3592536	1000.00	960	163.38- 203.38	183.38
3.887	3.887	0.000	2614610	1000.00	940	113.46- 153.46	133.46
4.017	4.017	0.000	2704517	1000.00	980	118.05- 158.05	138.05
Average of Peak Amounts =					951		

Data File: /chem/ecd2a.i/122309.b/003f0301.d
Date : 23-DEC-2009 07:18
Client ID: AR125401
Sample Info: IWAR091216-54

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

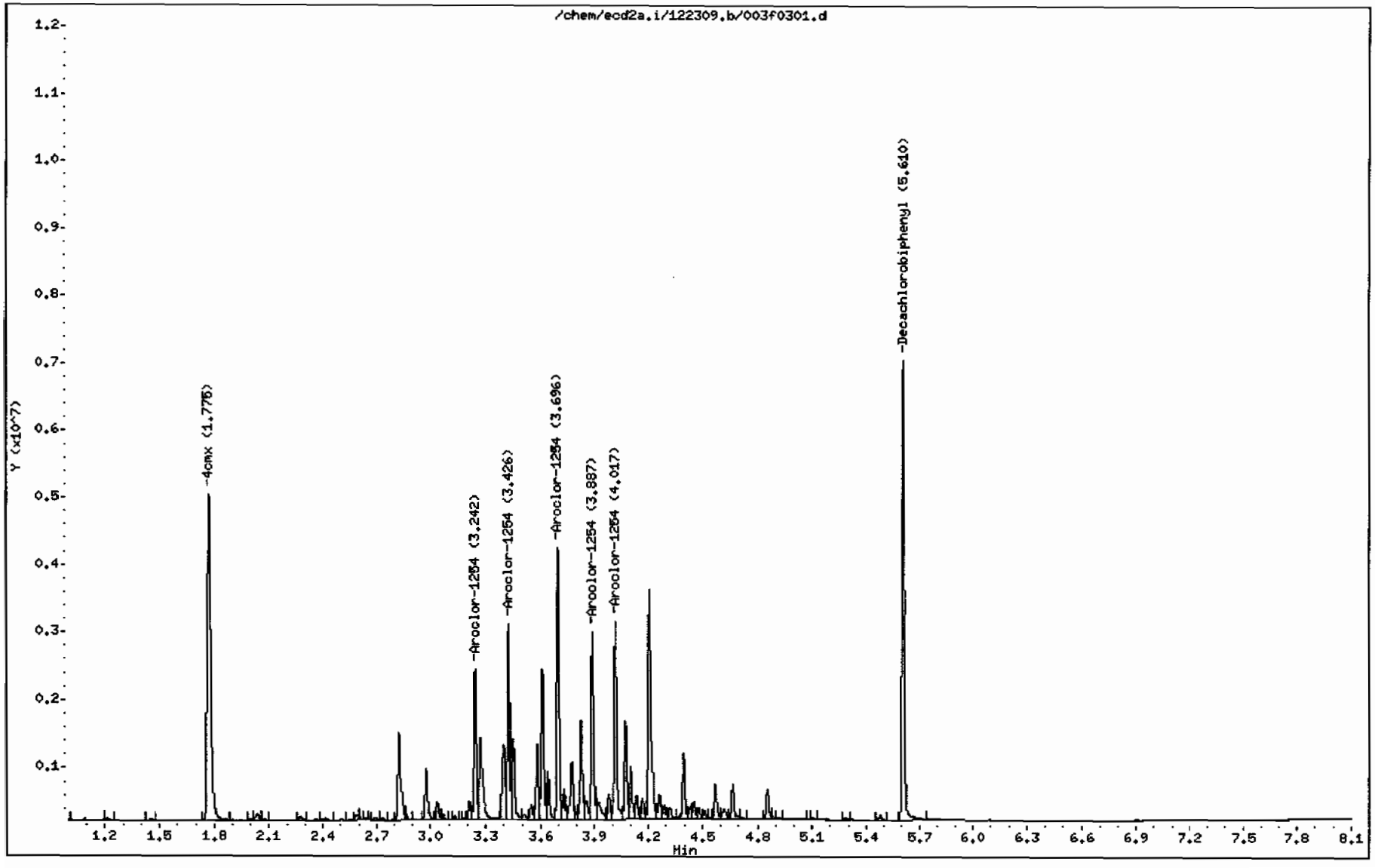

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/003b0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 23-DEC-2009 07:18
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091216-54
Misc Info : |PCB_CVS|1254||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.067	0.004	14579708	100.000	113	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.304	-0.001	13580564	100.000	120	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.819	3.819	0.000	4910541	1000.00	985	80.00- 120.00	100.00
3.961	3.961	0.000	5637694	1000.00	972	94.81- 134.81	114.81
4.197	4.197	0.000	4000105	1000.00	994	61.46- 101.46	81.46
4.278	4.278	0.000	7674031	1000.00	992	136.28- 176.28	156.28
4.442	4.442	0.000	5548215	1000.00	989	92.99- 132.99	112.99
Average of Peak Amounts =					987		

Data File: /chem/ecd2a.i/122309.b/003b0301.d
Date : 23-DEC-2009 07:18
Client ID: AR125401
Sample Info: IWAR091216-54

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

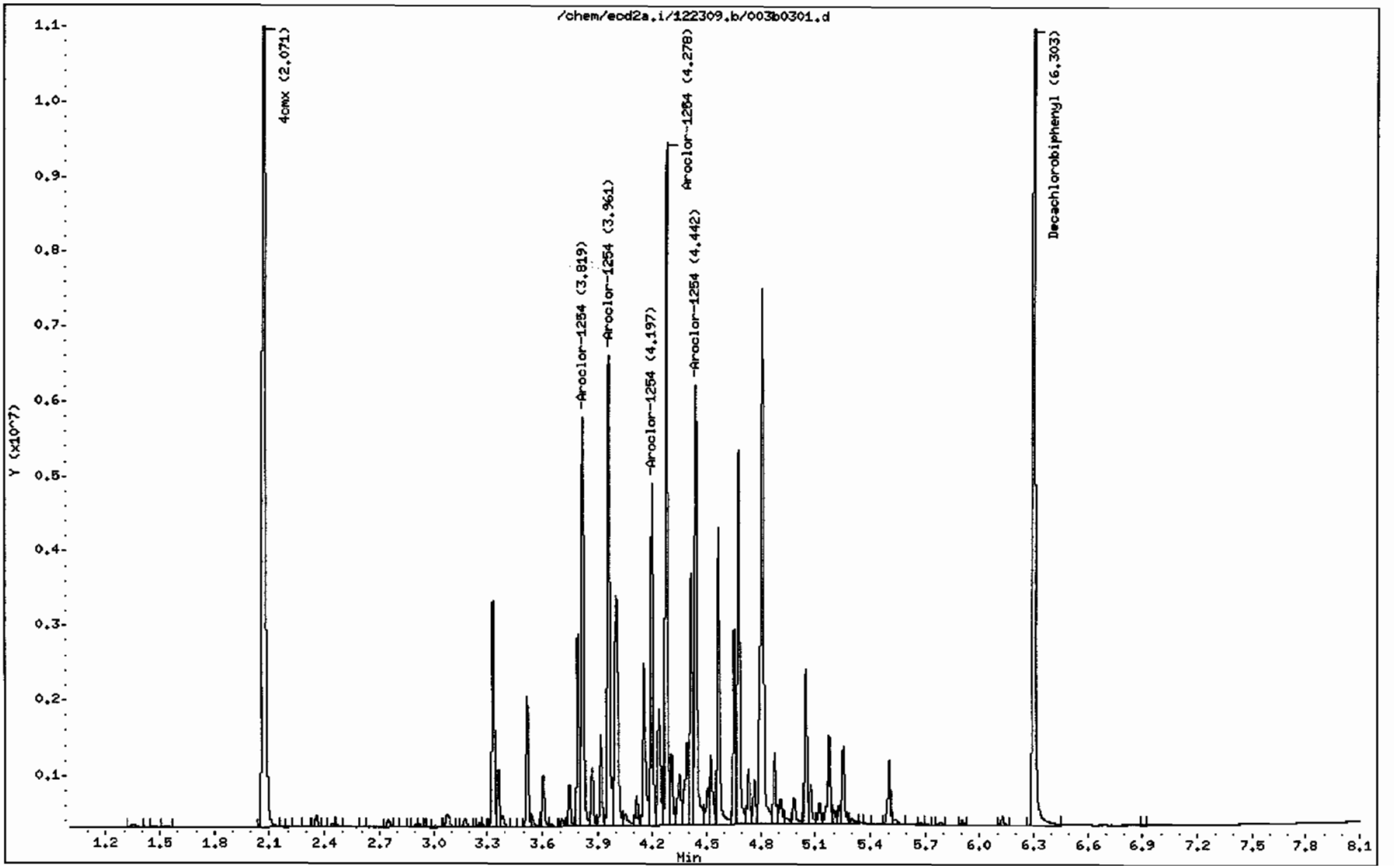

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/004f0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 23-DEC-2009 07:29
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091217-42
Misc Info : |PCB_CVS|1242||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.770	0.004	6774237	100.000	109	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.613	-0.002	6410286	100.000	118	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.276	2.276	0.000	1751986	1000.00	1010	80.00- 120.00	100.00
2.690	2.690	0.000	1460392	1000.00	984	63.36- 103.36	83.36
2.733	2.733	0.000	900899	1000.00	994	31.42- 71.42	51.42
2.825	2.825	0.000	752074	1000.00	1030	22.93- 62.93	42.93
2.977	2.977	0.000	1165237	1000.00	1040	46.51- 86.51	66.51

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd2a.i/122309.b/004f0401.d
Date : 23-DEC-2009 07:29
Client ID: AR124201
Sample Info: IWAR091217-42

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

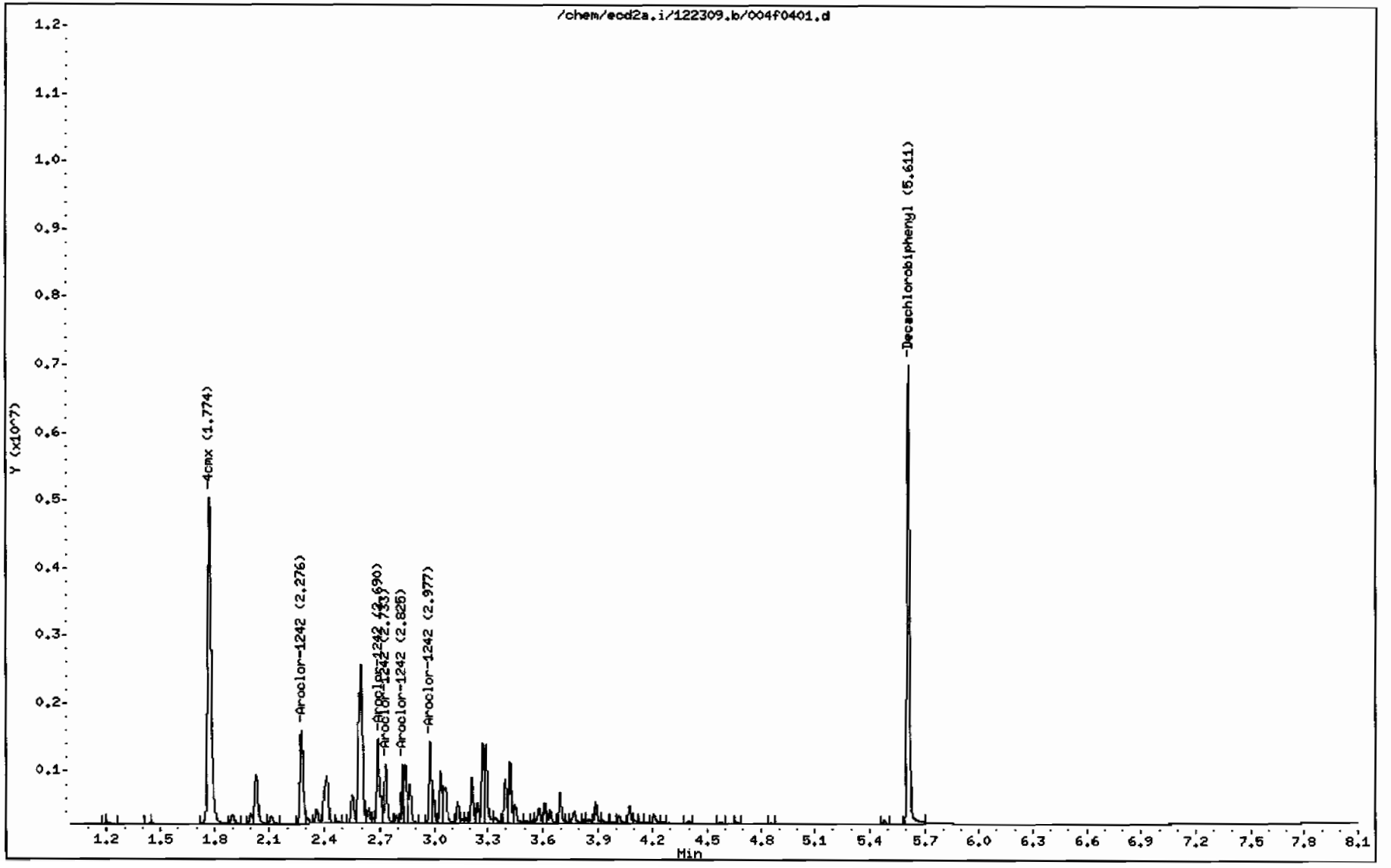

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/004b0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 23-DEC-2009 07:29
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091217-42
Misc Info : |PCB_CVS|1242||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.067	0.003	14686382	100.000	114	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.304	-0.001	13648764	100.000	121	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.747	2.747	0.000	3729055	1000.00	1080	80.00- 120.00	100.00
3.182	3.182	0.000	2874618	1000.00	1070	57.09- 97.09	77.09
3.254	3.254	0.000	1729293	1000.00	1060	26.37- 66.37	46.37
3.333	3.333	0.000	1656377	1000.00	1100	24.42- 64.42	44.42
3.519	3.519	0.000	2400535	1000.00	1120	44.37- 84.37	64.37

Average of Peak Amounts = 1.09e+03

Data File: /chem/ecd2a.i/122309.b/004b0401.d
Date : 23-DEC-2009 07:29
Client ID: AR124201
Sample Info: IWAR091217-42

Column phase: CLP2

Instrument: ecd2a.i

Operator: JADC
Column diameter: 0.25

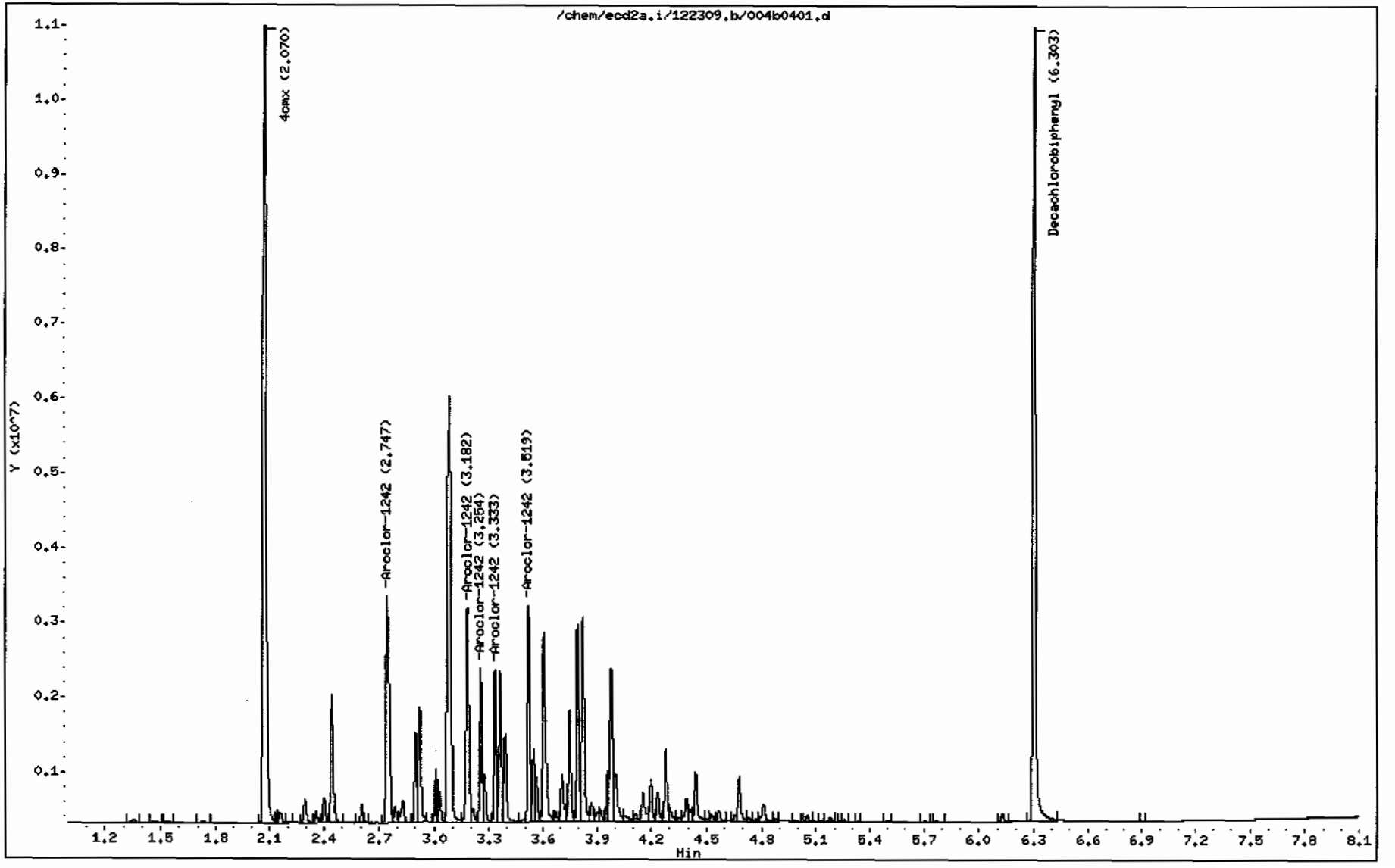

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/005f0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 23-DEC-2009 07:40
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091217-48
Misc Info : |PCB_CVS|1248||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.770	0.003	7344594	100.000	118	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.610	5.613	-0.003	7094595	100.000	131	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
2.825	2.825	0.000	1475321	1000.00	966	80.00- 120.00	100.00(M)
2.976	2.976	0.000	2008895	1000.00	991	116.17- 156.17	136.17
3.036	3.036	0.000	1504217	1000.00	958	81.96- 121.96	101.96
3.272	3.272	0.000	2181925	1000.00	984	127.89- 167.89	147.89
3.424	3.424	0.000	1816941	1000.00	950	103.16- 143.16	123.16
			Average of Peak Amounts =		970		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/122309.b/005f0501.d

Date : 23-DEC-2009 07:40

Client ID: AR124801

Sample Info: IWAR091217-48

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

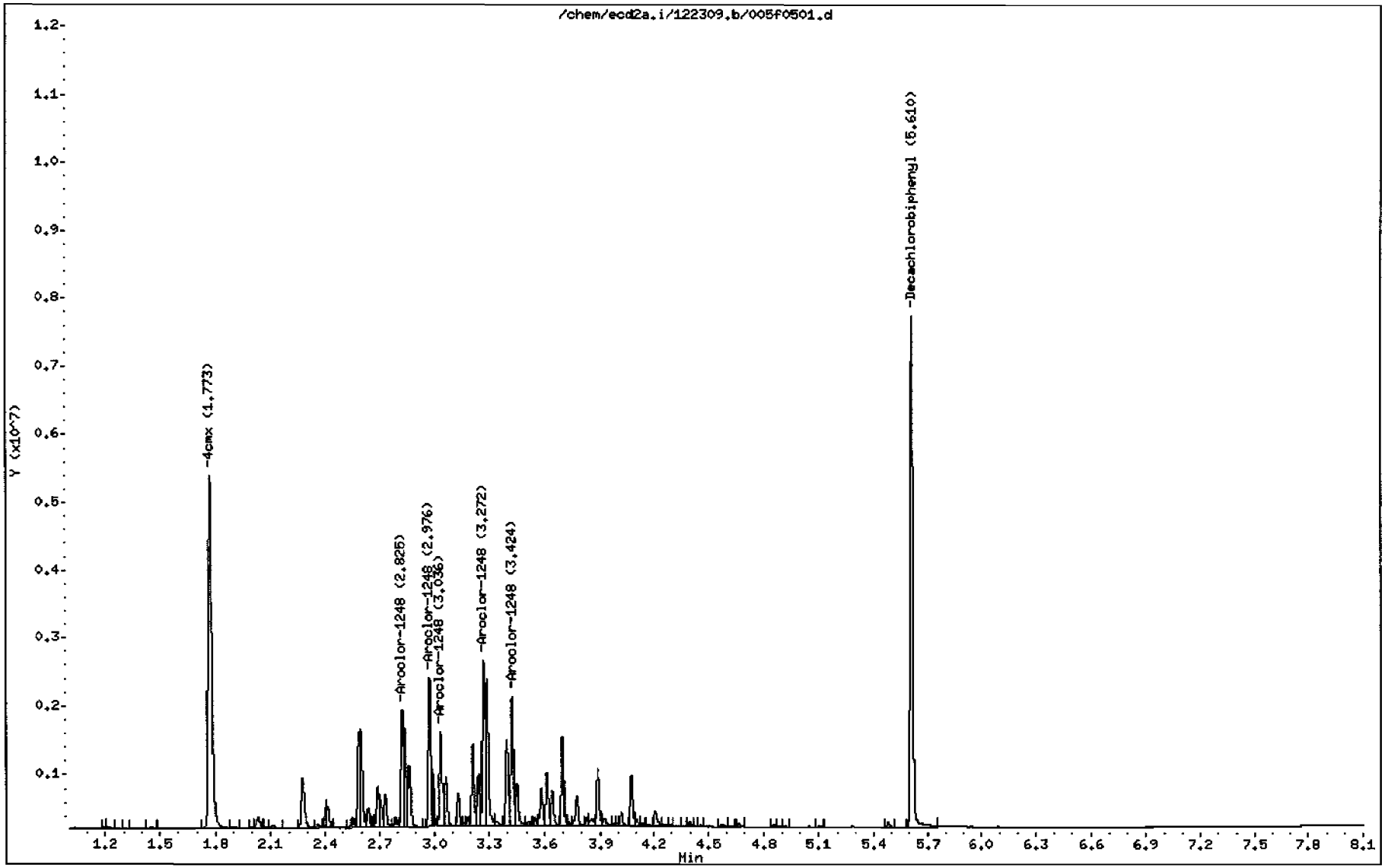

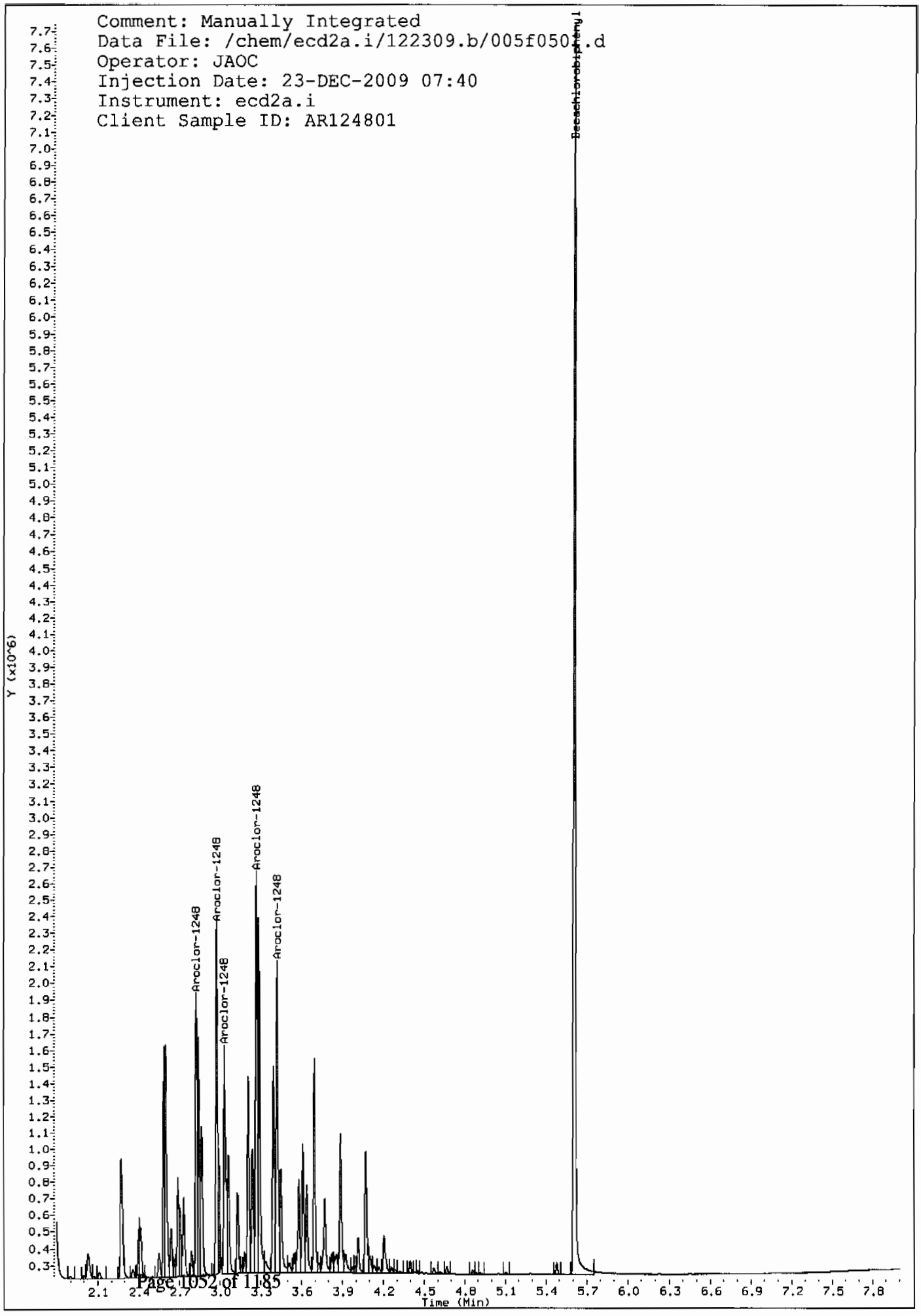
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Data File: /chem/ecd2a.i/122309.b/005f0501.d
Operator: JAOC
Injection Date: 23-DEC-2009 07:40
Instrument: ecd2a.i
Client Sample ID: AR124801
Decachlorobiphenyl
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Y (x10^6)
Time (Min)

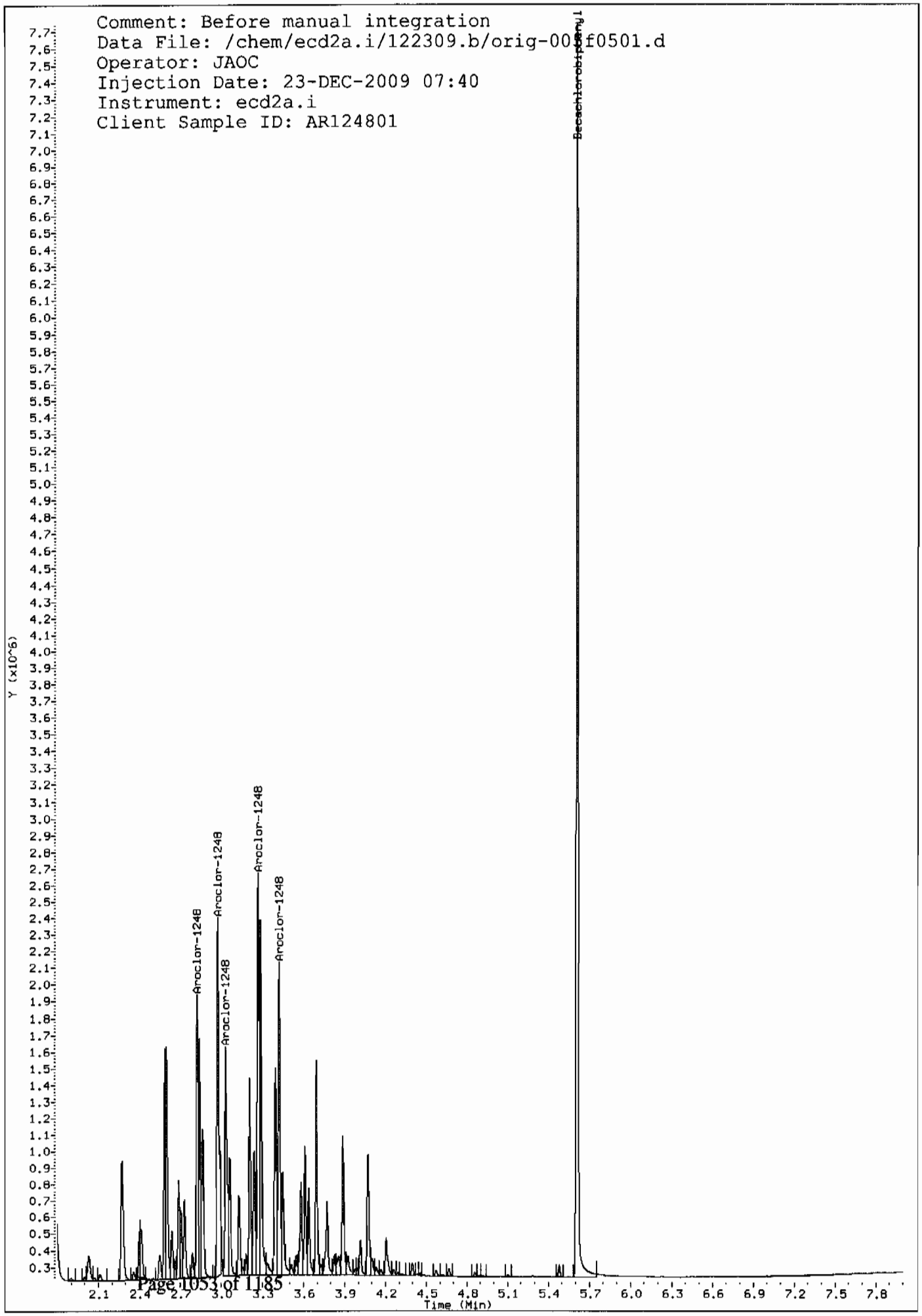
Comment: Before manual integration
Data File: /chem/ecd2a.i/122309.b/orig-00[illegible]f0501.d
Operator: JAOC
Injection Date: 23-DEC-2009 07:40
Instrument: ecd2a.i
Client Sample ID: AR124801
Decachlorobiphenyl
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Y (x10^6)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/005b0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 23-DEC-2009 07:40
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091217-48
Misc Info : |PCB_CVS|1248||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.067	0.003	16014266	100.000	124	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.304	-0.001	15104825	100.000	134	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.333	3.333	0.000	3309028	1000.00	1010	80.00- 120.00	100.00
3.520	3.520	0.000	4253683	1000.00	1020	108.55- 148.55	128.55
3.606	3.606	0.000	4526232	1000.00	1020	116.78- 156.78	136.78
3.795	3.795	0.000	4680066	1000.00	996	121.43- 161.43	141.43
3.825	3.825	0.000	5431713	1000.00	1010	144.15- 184.15	164.15

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd2a.i/122309.b/005b0501.d
Date : 23-DEC-2009 07:40
Client ID: AR124801
Sample Info: IWAR091217-48

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

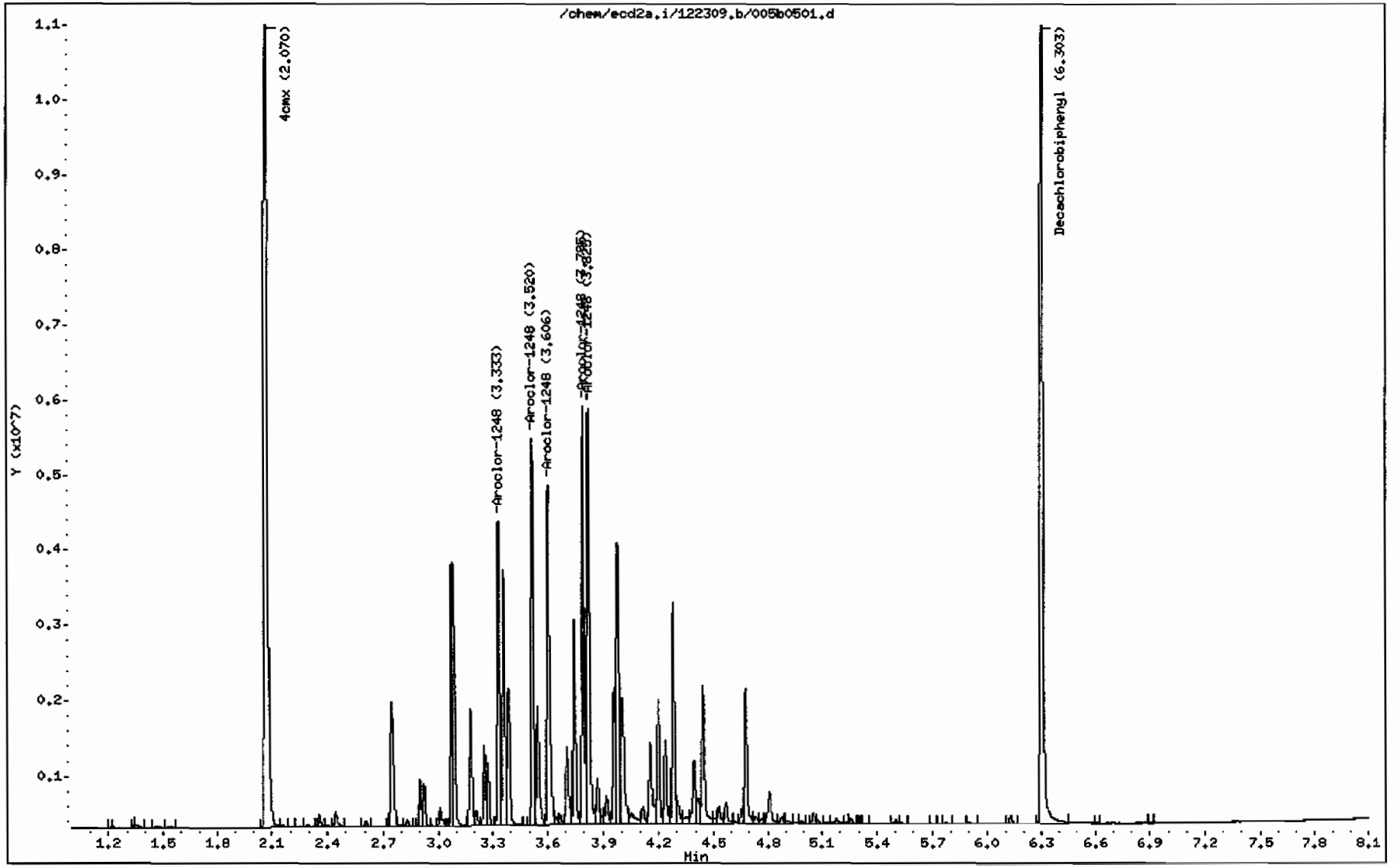

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/006f0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 23-DEC-2009 07:51
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR090930-32
Misc Info : |PCB_CVS|1232||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.770	0.004	9442968	100.000	152	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.610	5.613	-0.003	8836364	100.000	163	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.028	2.028	0.000	1439679	1000.00	1240	80.00- 120.00	100.00(M)
2.276	2.276	0.000	1154956	1000.00	1240	60.22- 100.22	80.22
2.690	2.690	0.000	988202	1000.00	1230	48.64- 88.64	68.64
2.733	2.733	0.000	632491	1000.00	1240	23.93- 63.93	43.93
2.977	2.977	0.000	944300	1000.00	1620	45.59- 85.59	65.59

Average of Peak Amounts = 1.31e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/122309.b/006f0601.d
Date : 23-DEC-2009 07:51
Client ID: AR123201
Sample Info: IWAR090930-32

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

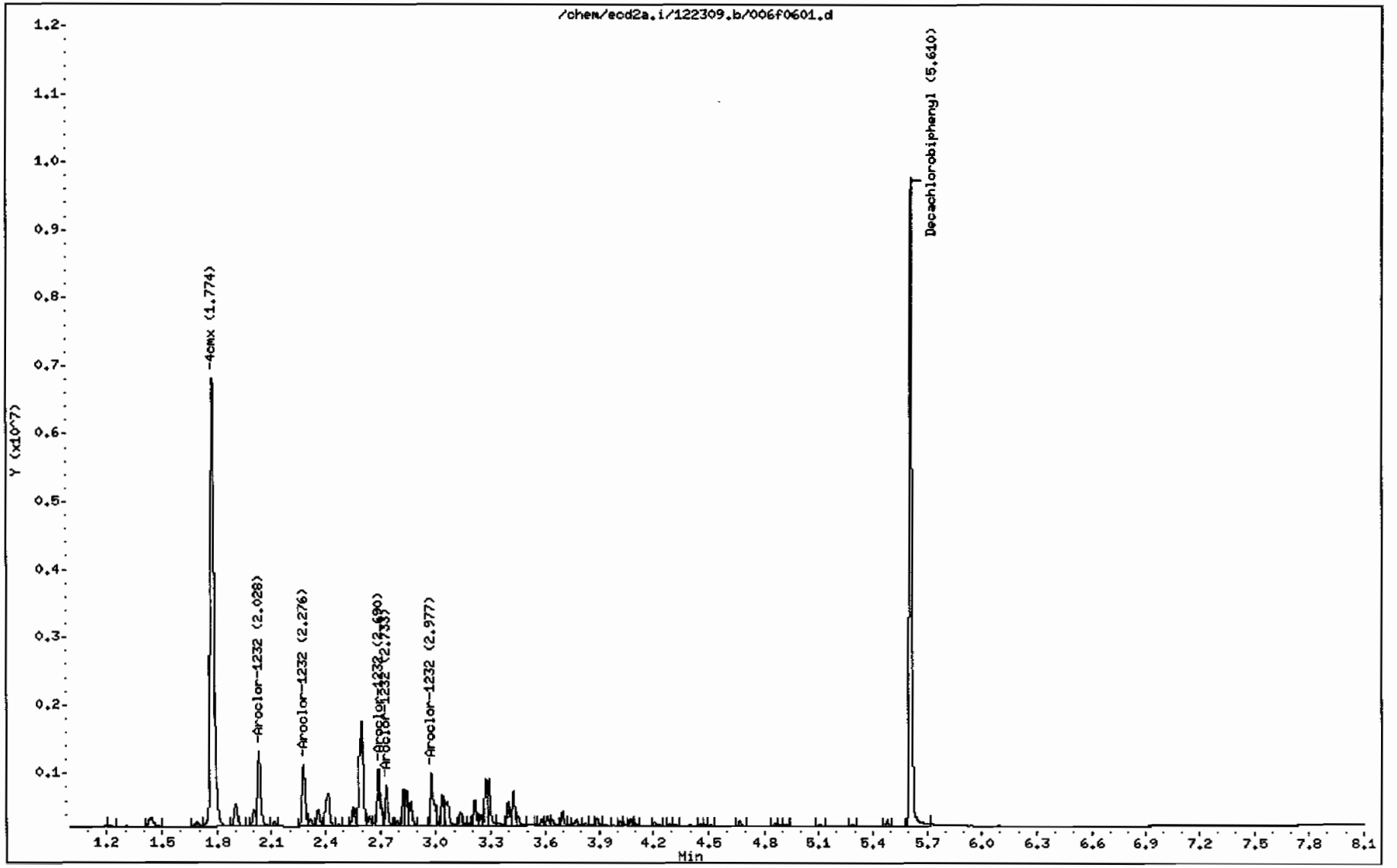

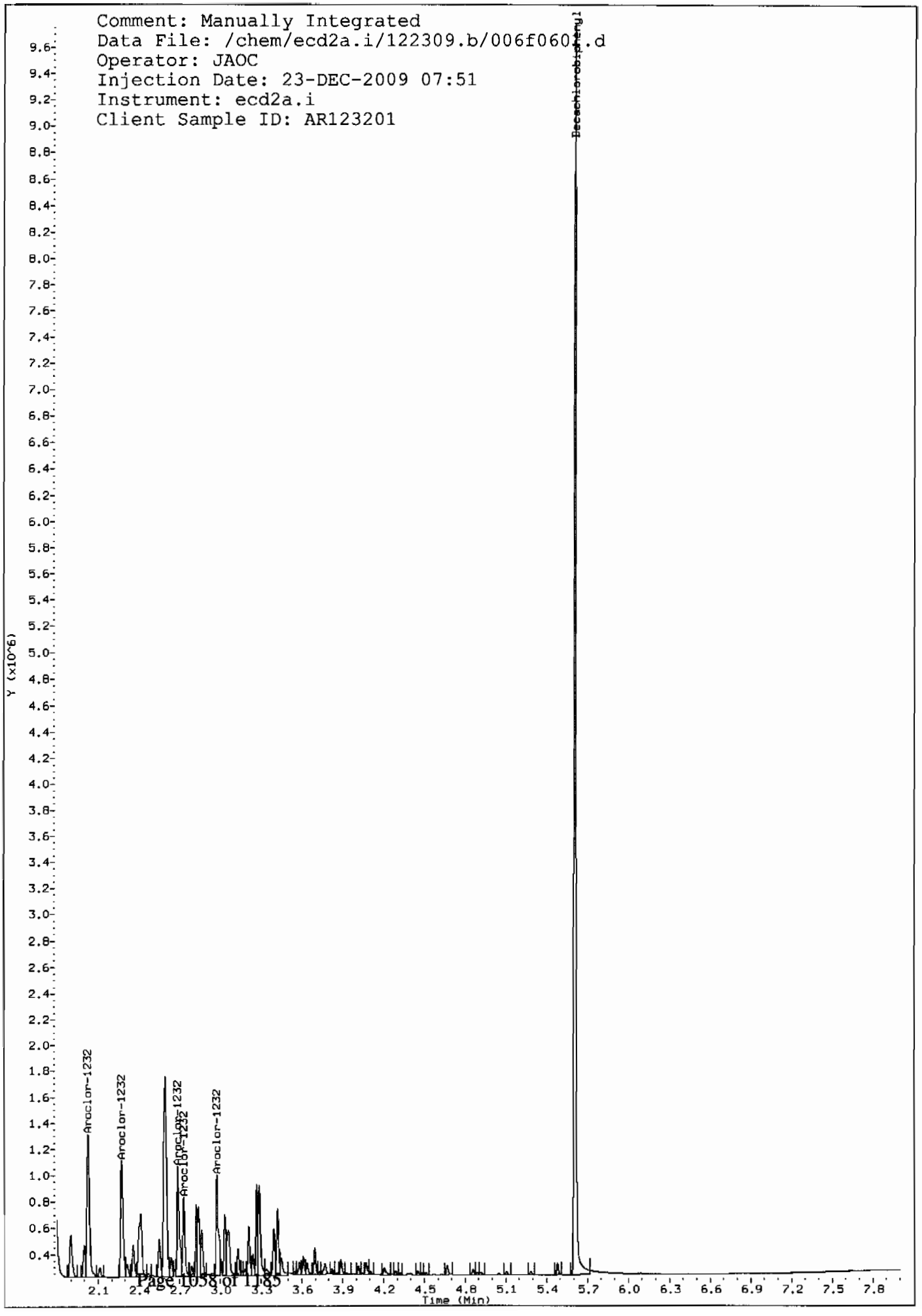
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Data File: /chem/ecd2a.i/122309.b/006f060[illegible].d
Operator: JAOC
Injection Date: 23-DEC-2009 07:51
Instrument: ecd2a.i
Client Sample ID: AR123201
Decachlorobiphenyl
Aroclor-1232
Aroclor-1232
Aroclor-1232
Aroclor-1232
Aroclor-1232
Y (x10^6)
Time (Min)

Comment: Before manual integration
Data File: /chem/ecd2a.i/122309.b/orig-00[illegible]f0601.d
Operator: JAOC
Injection Date: 23-DEC-2009 07:51
Instrument: ecd2a.i
Client Sample ID: AR123201

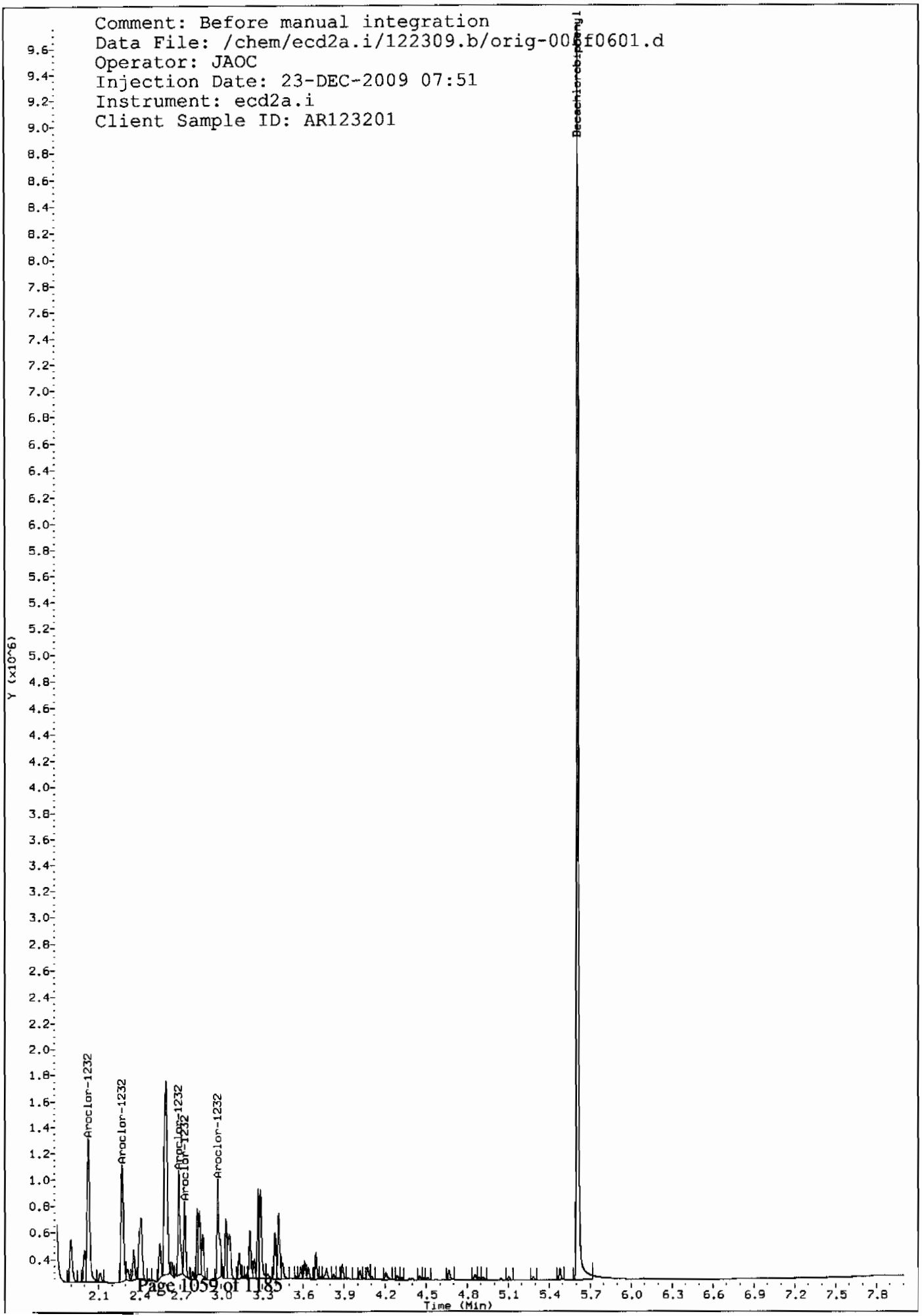

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/006b0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 23-DEC-2009 07:51
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR090930-32
Misc Info : |PCB_CVS|1232||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.067	0.004	20505670	100.000	158	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.302	6.304	-0.002	18960329	100.000	168	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.444	2.444	0.000	2623860	1000.00	1270	80.00- 120.00	100.00
2.747	2.747	0.000	2513609	1000.00	1280	75.80- 115.80	95.80
3.182	3.182	0.000	1856359	1000.00	1240	50.75- 90.75	70.75
3.254	3.254	0.000	1141932	1000.00	1230	23.52- 63.52	43.52
3.520	3.520	0.000	1432339	1000.00	1290	34.59- 74.59	54.59

Average of Peak Amounts = 1.26e+03

Data File: /chem/ecd2a.i/122309.b/006b0601.d
Date : 23-DEC-2009 07:51
Client ID: AR123201
Sample Info: IWAR090930-32

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

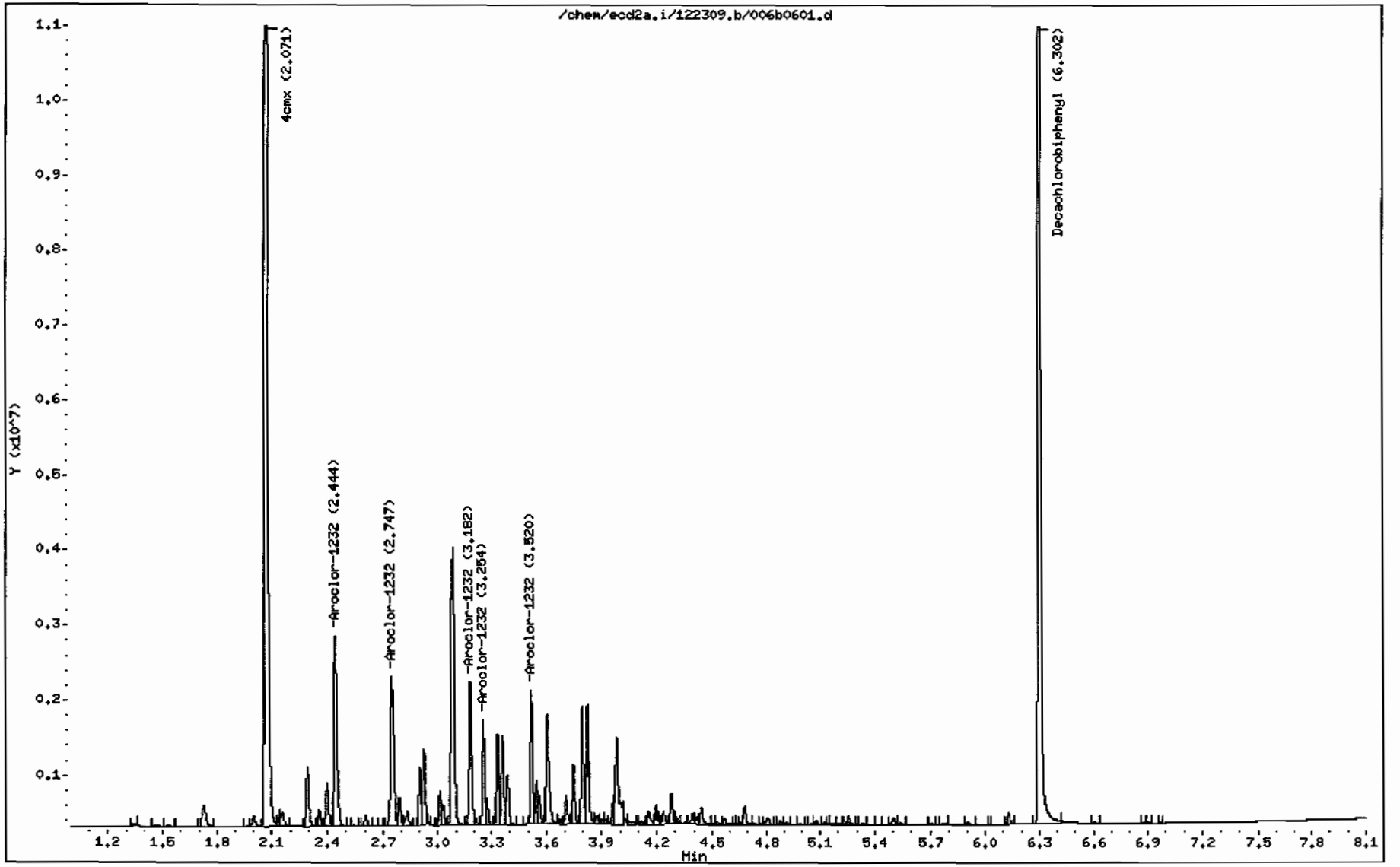

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/007f0701.d
Lab Smp Id: WAR091111-21 Client Smp ID: AR122101
Inj Date : 23-DEC-2009 08:02
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091111-21
Misc Info :
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 24-Dec-2009 06:31 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.770	0.003	6824026	100.000	110	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.613	-0.002	6560357	100.000	121	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
1.439	1.439	0.000	544216	1000.00	1170	80.00- 120.00	100.00
1.900	1.900	0.000	741424	1000.00	1130	116.24- 156.24	136.24
2.000	2.000	0.000	394251	1000.00	1140	52.44- 92.44	72.44

Average of Peak Amounts = 1.15e+03

Data File: /chem/ecd2a.i/122309.b/007f0701.d

Date : 23-DEC-2009 08:02

Client ID: AR122101

Sample Info: IWAR091111-21

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

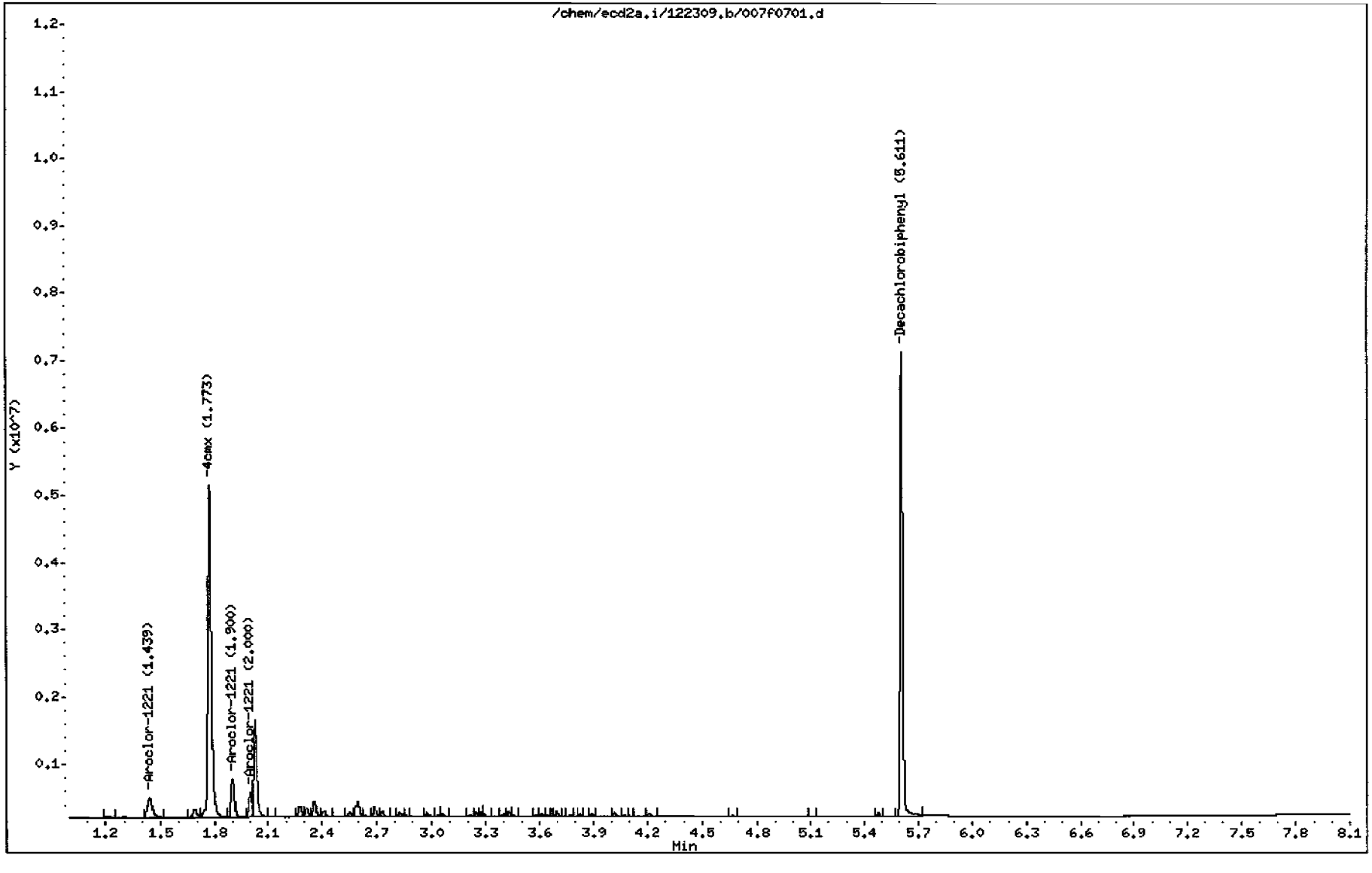

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/007b0701.d
Lab Smp Id: WAR091111-21 Client Smp ID: AR122101
Inj Date : 23-DEC-2009 08:02
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091111-21
Misc Info :
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 24-Dec-2009 06:29 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.067	0.003	14584438	100.000	113	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.304	-0.001	13945834	100.000	124	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.294	2.294	0.000	1438501	1000.00	1140	80.00- 120.00	100.00
2.400	2.400	0.000	875231	1000.00	1130	40.84- 80.84	60.84
2.444	2.444	0.000	3484567	1000.00	1140	222.24- 262.24	242.24

Average of Peak Amounts = 1.14e+03

Data File: /chem/ecd2a.i/122309.b/007b0701.d

Date : 23-DEC-2009 08:02

Client ID: AR122101

Sample Info: |WAR091111-21

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

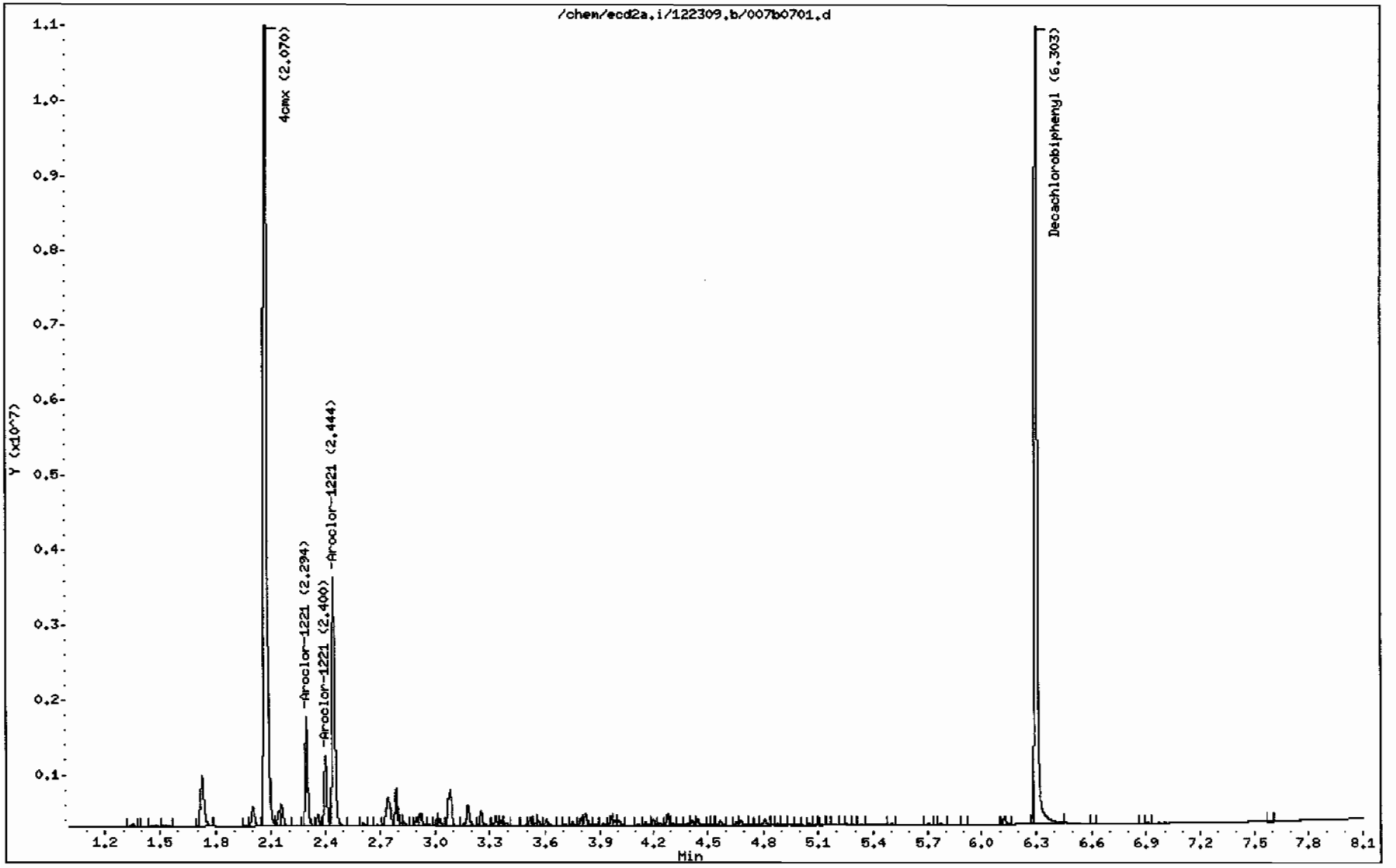

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/008f0801.d
Lab Smp Id: WAR091111-62 Client Smp ID: AR126201
Inj Date : 23-DEC-2009 08:13
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091111-62
Misc Info : |PCB_CVS|1262||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1262.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.770	0.003	8218204	100.000	132	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.610	5.613	-0.003	7988585	100.000	148	80.00- 120.00	100.00
8 Aroclor-1262					CAS #: 37324-23-5		
3.825	3.825	0.000	2509636	1000.00	1100	80.00- 120.00	100.00
4.017	4.017	0.000	3391947	1000.00	1100	115.16- 155.16	135.16
4.289	4.289	0.000	4569159	1000.00	1140	162.06- 202.06	182.06
4.455	4.455	0.000	4086284	1000.00	1140	142.82- 182.82	162.82
4.855	4.855	0.000	2940251	1000.00	1180	97.16- 137.16	117.16

Average of Peak Amounts = 1.13e+03

Data File: /chem/ecd2a.i/122309.b/008f0801.d
Date : 23-DEC-2009 08:13
Client ID: AR126201
Sample Info: IWAR091111-62

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

Column phase: CLP1

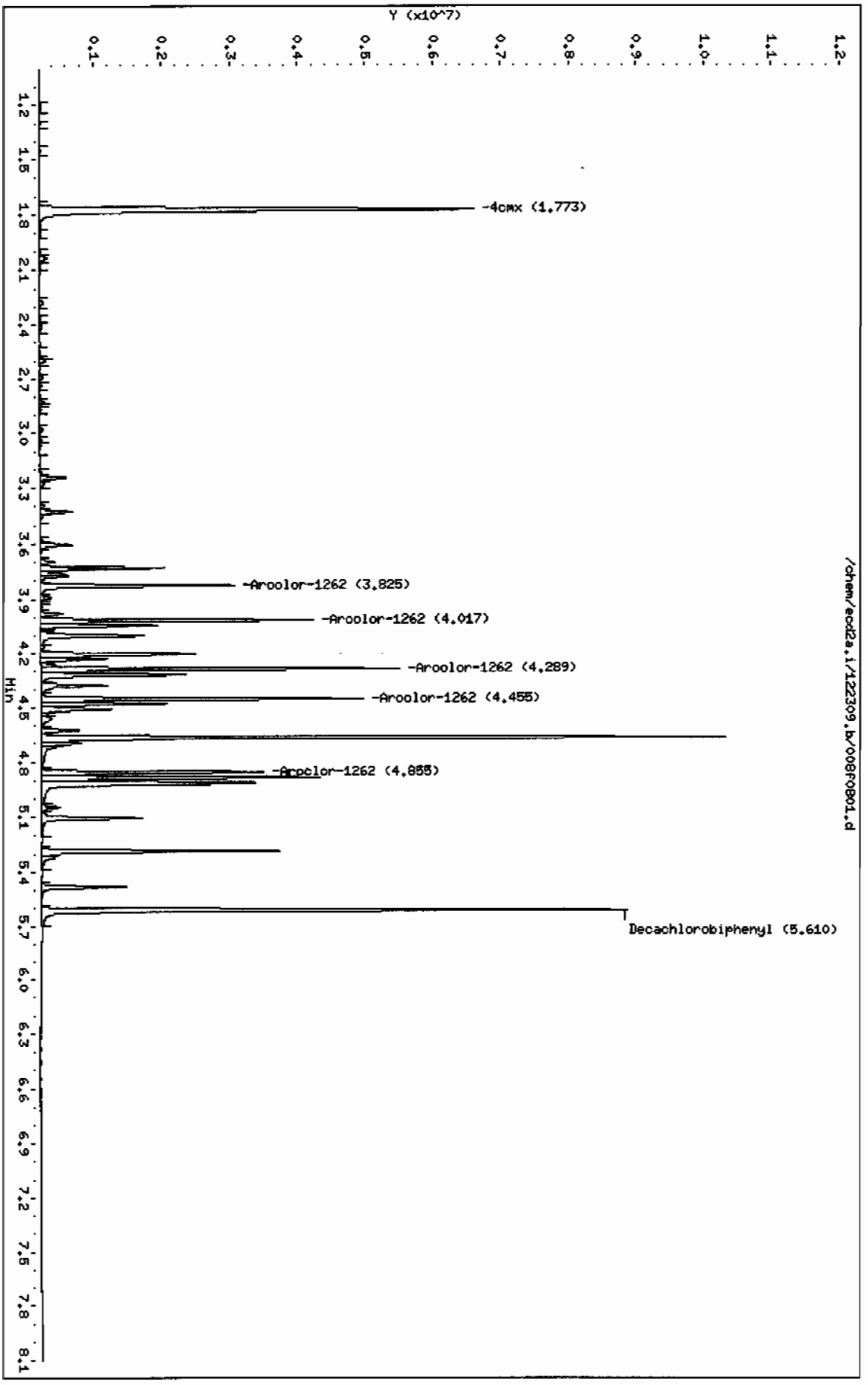

Page 1

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/008b0801.d
Lab Smp Id: WAR091111-62 Client Smp ID: AR126201
Inj Date : 23-DEC-2009 08:13
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091111-62
Misc Info : |PCB_CVS|1262||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1262.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.067	0.004	17983462	100.000	139	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.302	6.304	-0.002	17158413	100.000	152	80.00- 120.00	100.00
8 Aroclor-1262					CAS #: 37324-23-5		
4.417	4.417	0.000	5424313	1000.00	1150	80.00- 120.00	100.00
4.567	4.567	0.000	6554994	1000.00	1120	100.84- 140.84	120.84
4.877	4.877	0.000	10109414	1000.00	1130	166.37- 206.37	186.37
5.077	5.077	0.000	9068024	1000.00	1170	147.17- 187.17	167.17
5.255	5.255	0.000	19741290	1000.00	1180	343.94- 383.94	363.94

Average of Peak Amounts = 1.15e+03

Data File: /chem/ecd2a.i/122309.b/008b0801.d
Date : 23-DEC-2009 08:13
Client ID: AR126201
Sample Info: IWAR091111-62

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

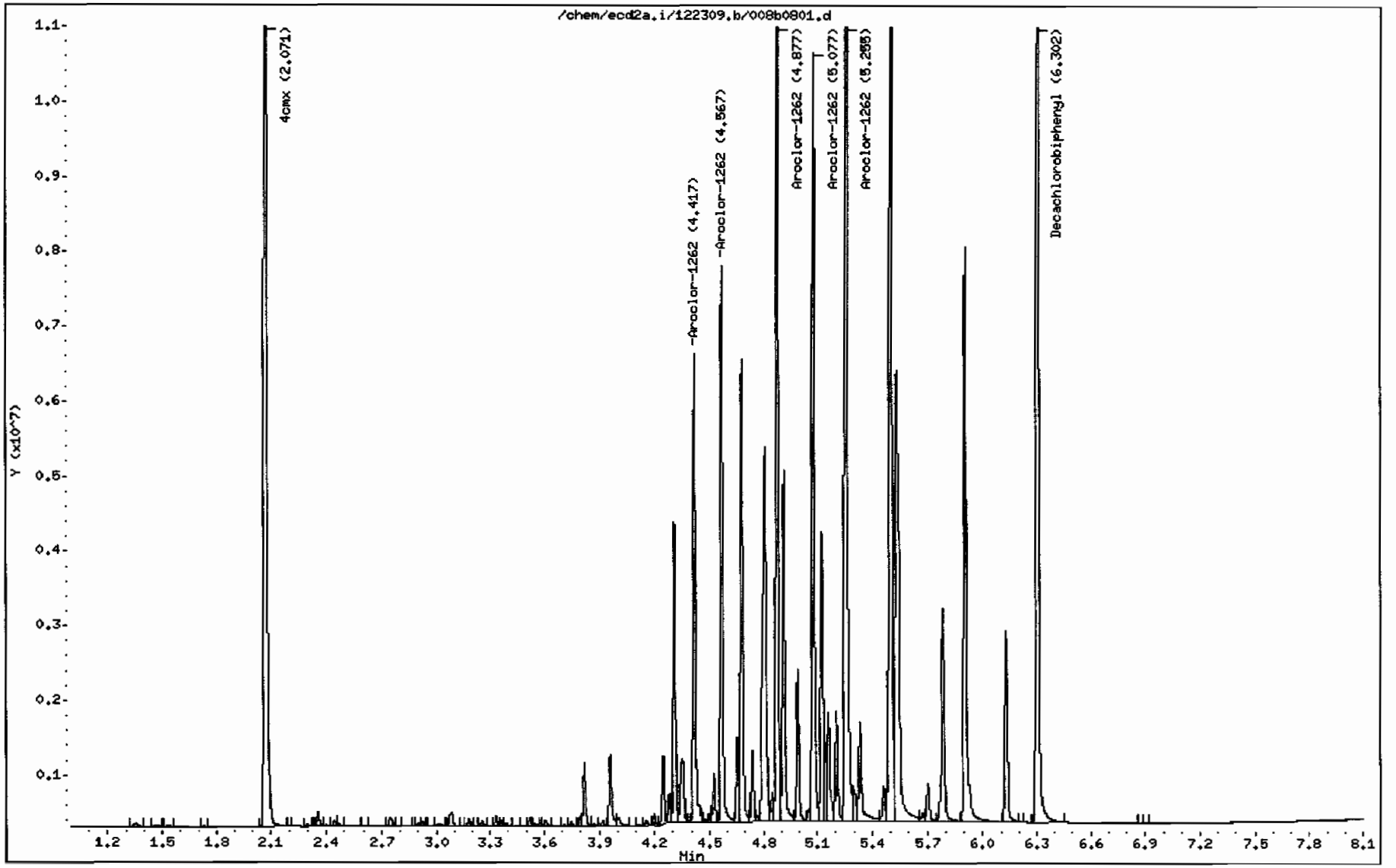

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/012f1201.d
Lab Smp Id: WAR091223-45 01 Client Smp ID: AR166001
Inj Date : 23-DEC-2009 08:58
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091223-45 01
Misc Info :
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 24-Dec-2009 06:31 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.770	1.770	0.000	6064061	100.000	97.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.613	5.613	0.000	5827159	100.000	108	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.274	2.274	0.000	2086452	1000.00	932	80.00- 120.00	100.00
2.598	2.598	0.000	4414810	1000.00	942	194.47- 234.47	211.59
2.689	2.689	0.000	1757986	1000.00	924	65.12- 105.12	84.26
2.825	2.825	0.000	871373	1000.00	893	24.29- 64.29	41.76
2.976	2.976	0.000	1330303	1000.00	912	46.34- 86.34	63.76
Average of Peak Amounts =					921		
7 Aroclor-1260					CAS #: 11096-82-5		
4.018	4.018	0.000	4262036	1000.00	1020	80.00- 120.00	100.00
4.290	4.290	0.000	2693879	1000.00	1040	41.58- 81.58	63.21
4.456	4.456	0.000	2766997	1000.00	1050	43.61- 83.61	64.92
4.669	4.669	0.000	6543094	1000.00	1070	134.36- 174.36	153.52
4.859	4.859	0.000	3135205	1000.00	1060	54.59- 94.59	73.56
Average of Peak Amounts =					1.05e+03		

Data File: /chem/ecd2a.i/122309.b/012f1201.d

Date : 23-DEC-2009 08:58

Client ID: AR166001

Sample Info: IWAR091223-45 01

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

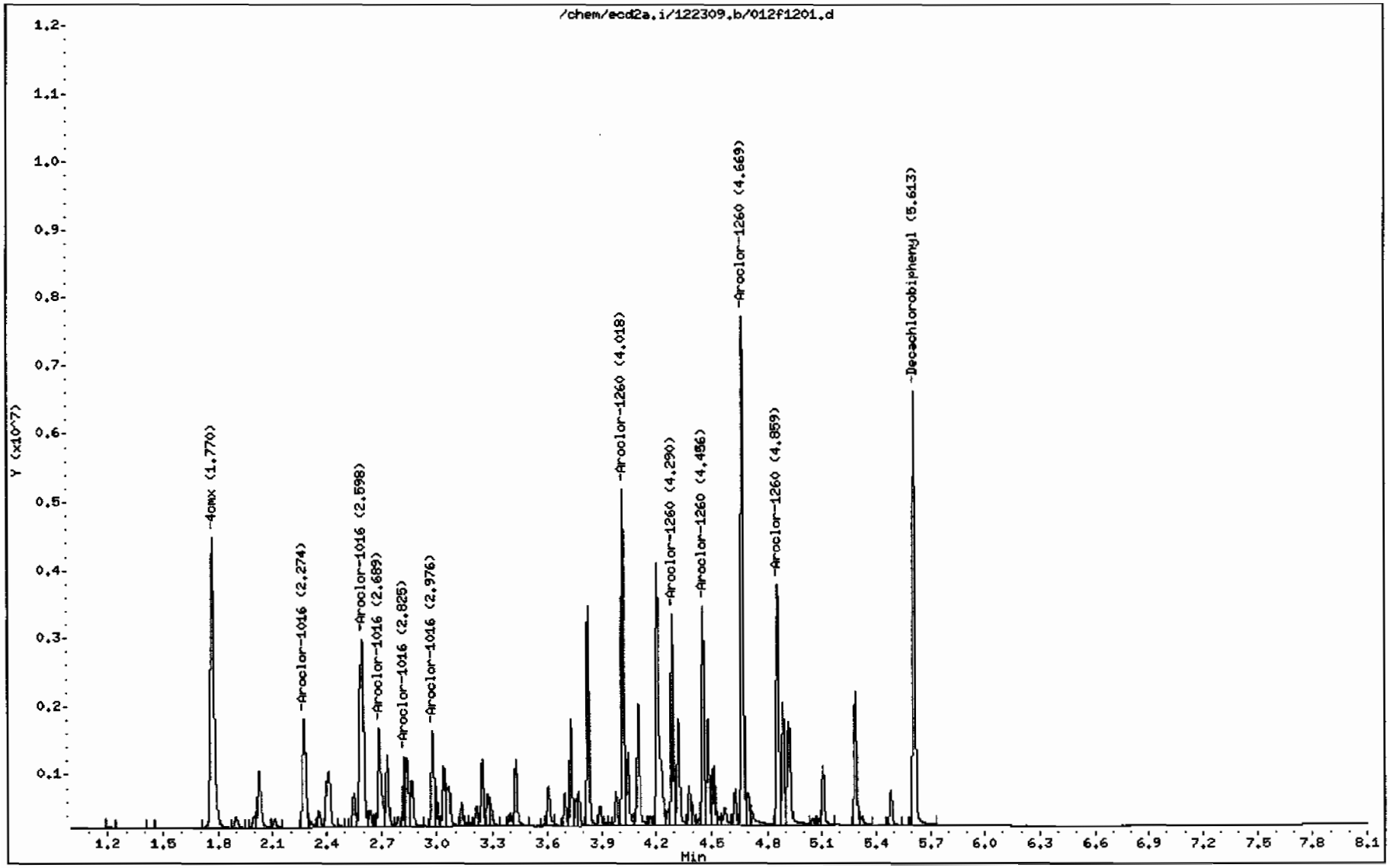

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/012b1201.d
Lab Smp Id: WAR091223-45 01 Client Smp ID: AR166001
Inj Date : 23-DEC-2009 08:58
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091223-45 01
Misc Info :
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 24-Dec-2009 06:29 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.067	2.067	0.000	13154758	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.304	0.000	12374176	100.000	110	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 12674-11-2		
2.746	2.746	0.000	4459813	1000.00	983	80.00- 120.00	100.00
3.181	3.181	0.000	3491937	1000.00	969	57.58- 97.58	78.30
3.332	3.332	0.000	2027076	1000.00	987	25.10- 65.10	45.45
3.362	3.362	0.000	2112528	1000.00	988	27.32- 67.32	47.37
3.520	3.520	0.000	2845754	1000.00	991	44.43- 84.43	63.81
Average of Peak Amounts =					984		
7 Aroclor-1260					CAS #: 11096-82-5		
4.417	4.417	0.000	6008110	1000.00	1040	80.00- 120.00	100.00(M)
4.569	4.569	0.000	7841925	1000.00	1100	107.97- 147.97	130.52
4.681	4.681	0.000	5327232	1000.00	1100	66.44- 106.44	88.67
4.878	4.878	0.000	6114860	1000.00	1080	80.59- 120.59	101.78
5.504	5.504	0.000	10087158	1000.00	1120	151.12- 191.12	167.89
Average of Peak Amounts =					1.09e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/122309.b/012b1201.d
Date : 23-DEC-2009 08:58
Client ID: AR166001
Sample Info: IWAR091223-45 01

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

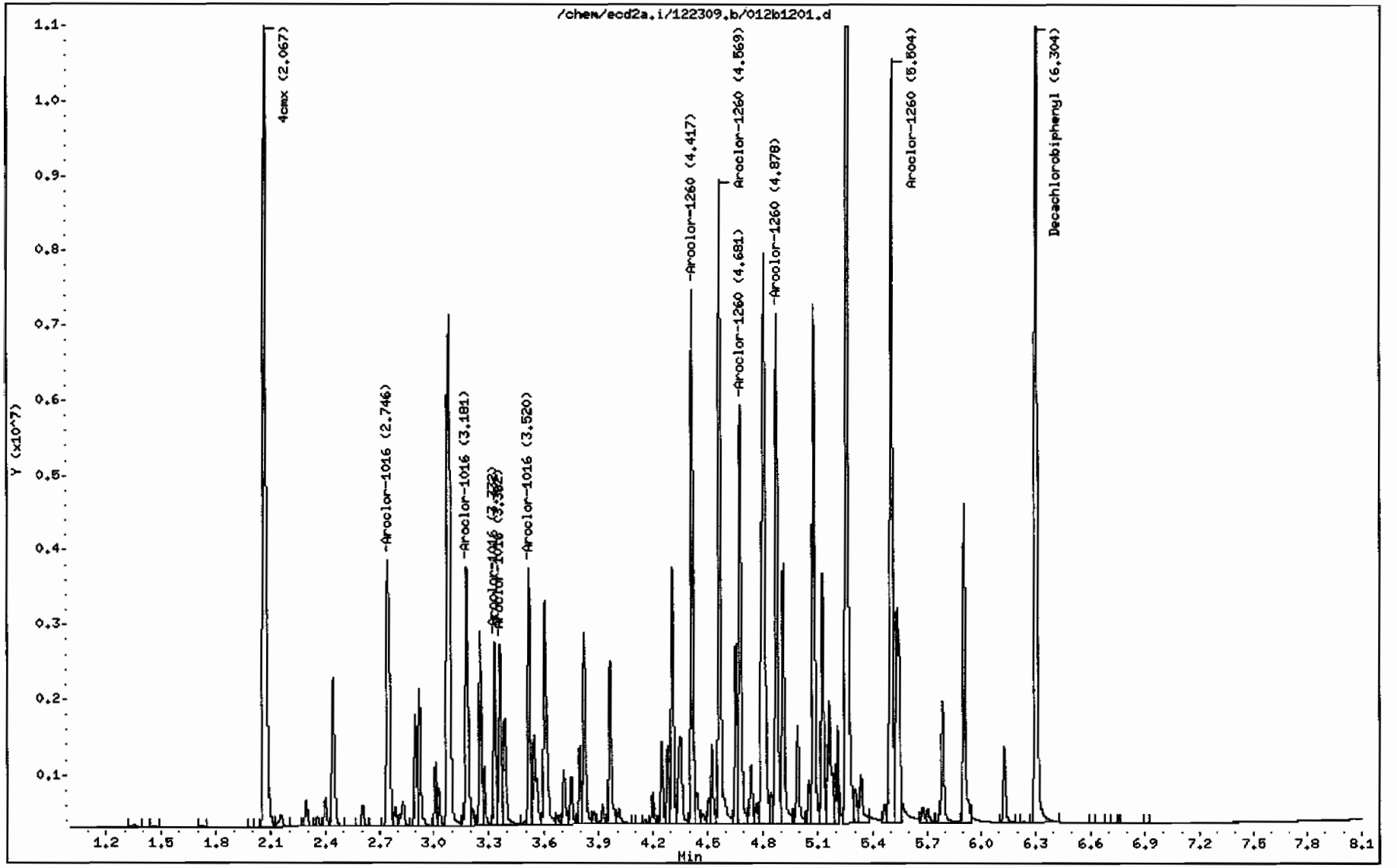

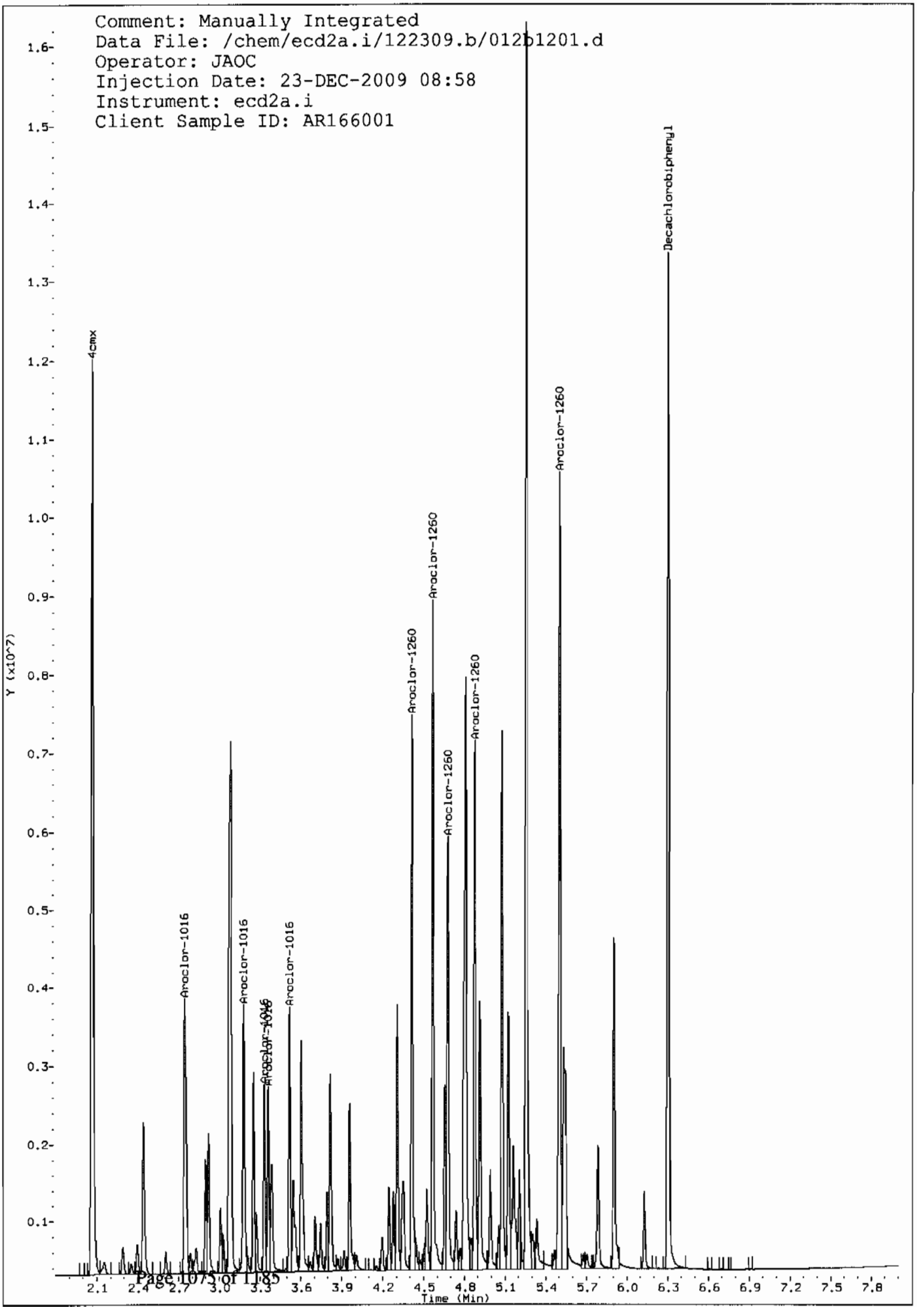
Comment: Manually Integrated
Data File: /chem/ecd2a.i/122309.b/012b1201.d
Operator: JAOC
Injection Date: 23-DEC-2009 08:58
Instrument: ecd2a.i
Client Sample ID: AR166001
Y (x10^7)
Time (Min)
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

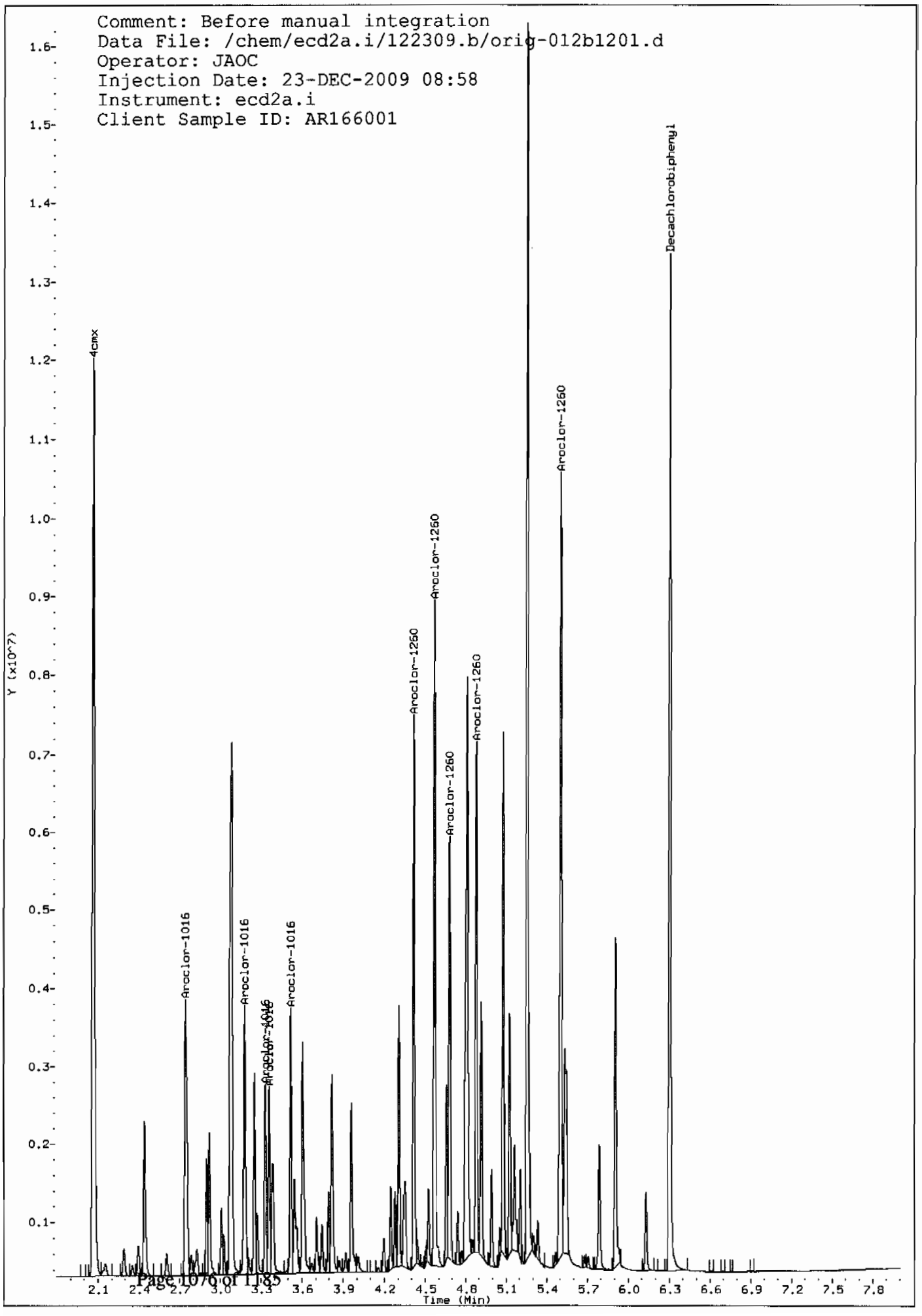
Comment: Before manual integration
Data File: /chem/ecd2a.i/122309.b/orig-012b1201.d
Operator: JAOC
Injection Date: 23-DEC-2009 08:58
Instrument: ecd2a.i
Client Sample ID: AR166001
Y (x10^7)
Time (Min)
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/022f2201.d
Lab Smp Id: WAR091223-45 02 Client Smp ID: AR166002
Inj Date : 23-DEC-2009 11:13
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091223-45 02
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.770	0.004	6110822	100.000	98.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.610	5.613	-0.003	5964570	100.000	110	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.277	2.274	0.003	2078717	1000.00	929	80.00- 120.00	100.00
2.599	2.598	0.001	4472258	1000.00	954	196.50- 236.50	215.15
2.691	2.689	0.002	1760493	1000.00	926	64.80- 104.80	84.69
2.825	2.825	0.000	895918	1000.00	918	23.47- 63.47	43.10
2.977	2.976	0.001	1369838	1000.00	940	45.32- 85.32	65.90
Average of Peak Amounts =					933		
7 Aroclor-1260					CAS #: 11096-82-5		
4.017	4.018	-0.001	4308701	1000.00	1030	80.00- 120.00	100.00
4.288	4.290	-0.002	2691821	1000.00	1040	42.01- 82.01	62.47
4.454	4.456	-0.002	2846508	1000.00	1080	43.71- 83.71	66.06
4.667	4.669	-0.002	6649186	1000.00	1090	134.48- 174.48	154.32
4.856	4.859	-0.003	3207909	1000.00	1090	54.28- 94.28	74.45
Average of Peak Amounts =					1.07e+03		

Data File: /chem/ecd2a.i/122309.b/022f2201.d
Date : 23-DEC-2009 11:13
Client ID: AR166002
Sample Info: IWAR091223-45 02

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

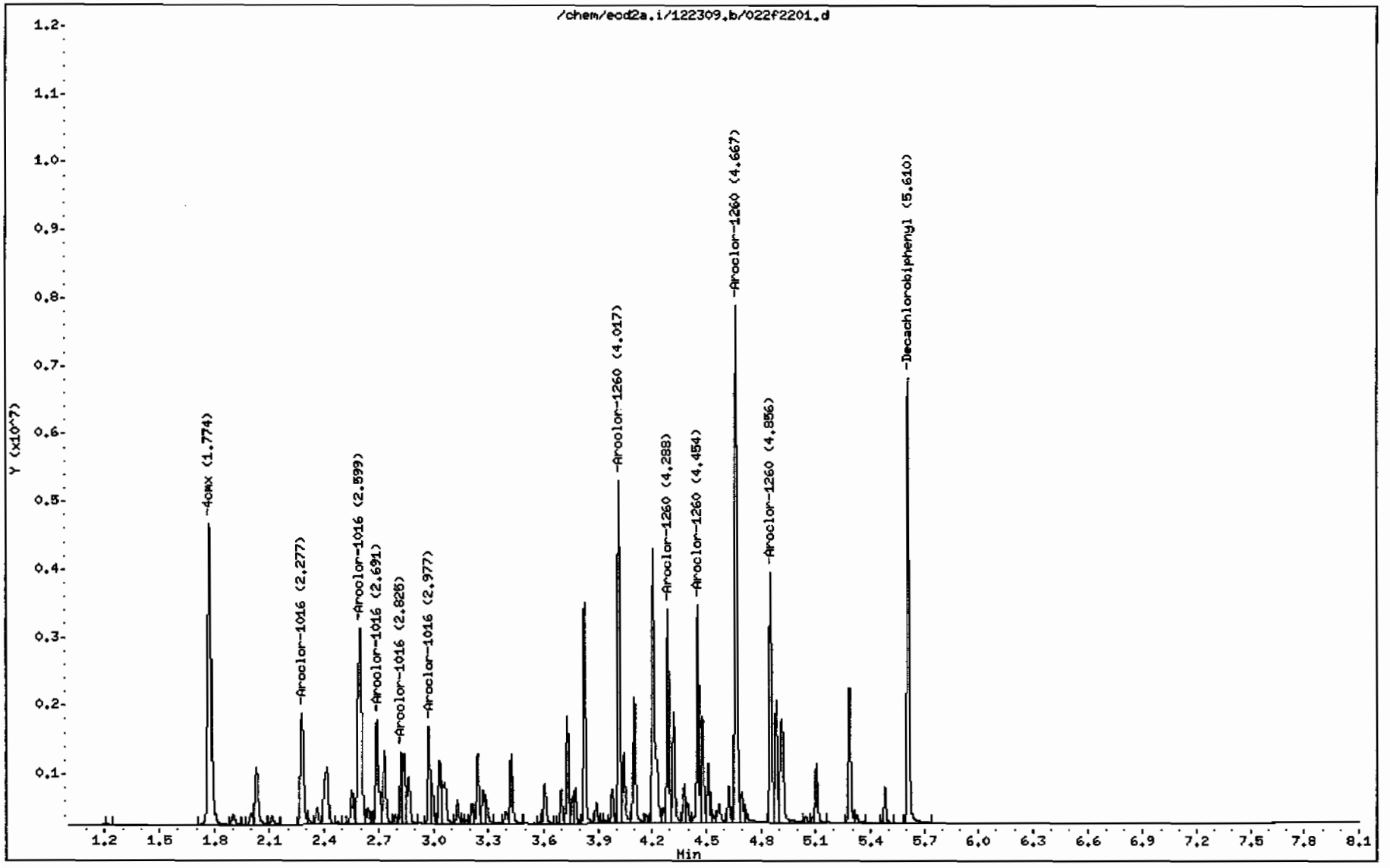

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/022b2201.d
Lab Smp Id: WAR091223-45 02 Client Smp ID: AR166002
Inj Date : 23-DEC-2009 11:13
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091223-45 02
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.067	0.004	13114475	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.302	6.304	-0.002	12390180	100.000	110	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.747	2.746	0.001	4434995	1000.00	977	80.00- 120.00	100.00
3.182	3.181	0.001	3490860	1000.00	969	58.59- 98.59	78.71
3.333	3.332	0.001	2021329	1000.00	984	25.36- 65.36	45.58
3.361	3.362	-0.001	2103308	1000.00	984	27.83- 67.83	47.43
3.519	3.520	-0.001	2846977	1000.00	992	43.83- 83.83	64.19
Average of Peak Amounts =					981		
7 Aroclor-1260					CAS #: 11096-82-5		
4.416	4.417	-0.001	5900740	1000.00	1020	80.00- 120.00	100.00
4.567	4.569	-0.002	7469005	1000.00	1050	108.70- 148.70	126.58
4.679	4.681	-0.002	5074833	1000.00	1050	67.97- 107.97	86.00
4.876	4.878	-0.002	5904704	1000.00	1050	81.63- 121.63	100.07
5.502	5.504	-0.002	9900758	1000.00	1100	149.96- 189.96	167.79
Average of Peak Amounts =					1.05e+03		

Data File: /chem/ecd2a.i/122309.b/022b2201.d

Date : 23-DEC-2009 11:13

Client ID: AR166002

Sample Info: IWAR091223-45 02

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

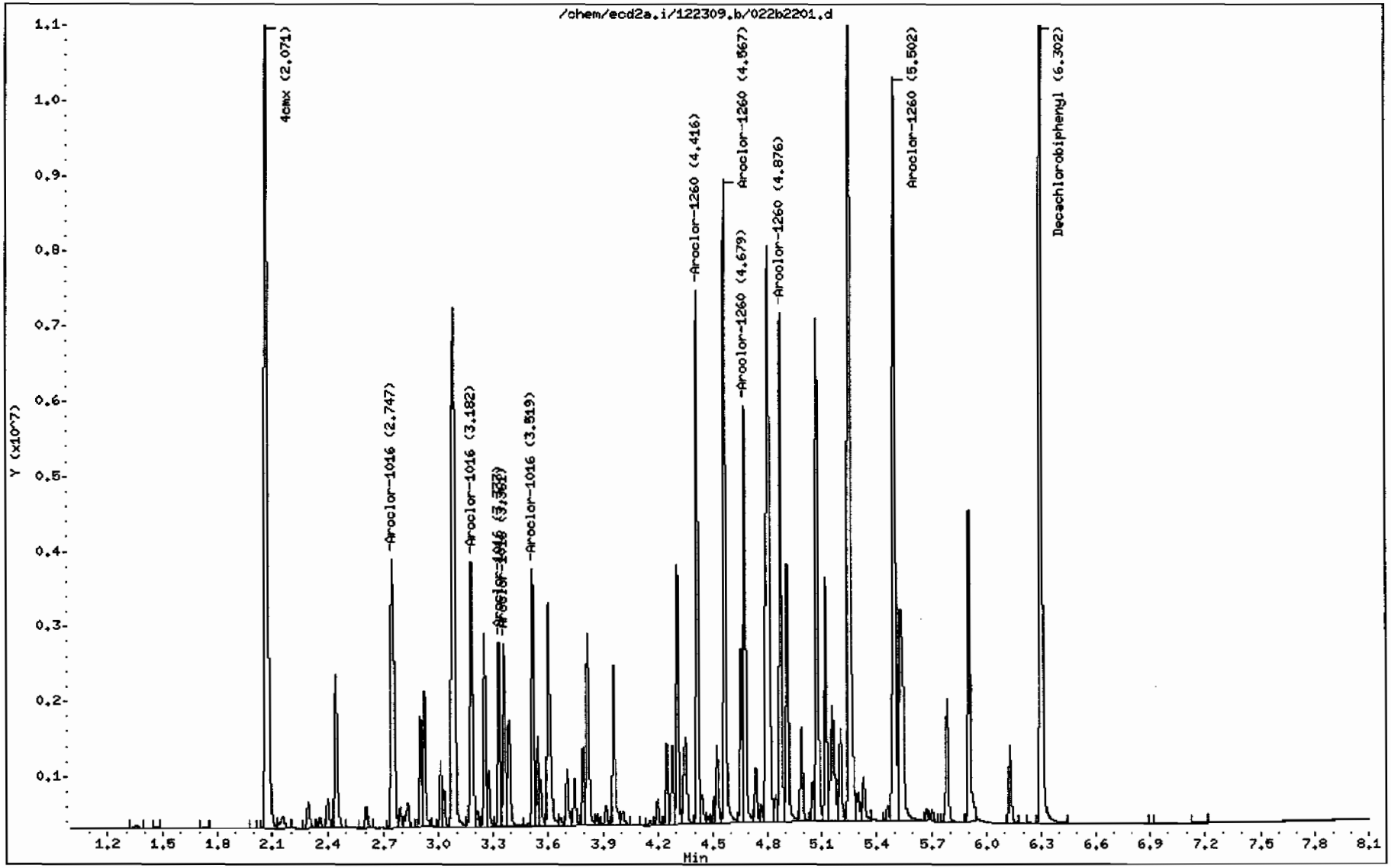

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/031f3101.d
Lab Smp Id: WAR091223-45 03 Client Smp ID: AR166003
Inj Date : 23-DEC-2009 12:57
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091223-45 03
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.772	1.770	0.002	6094565	100.000	97.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.613	5.613	0.000	5904676	100.000	109	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.275	2.274	0.001	2068127	1000.00	924	80.00- 120.00	100.00
2.600	2.598	0.002	4477468	1000.00	956	196.50- 236.50	216.50
2.692	2.689	0.003	1753748	1000.00	922	64.80- 104.80	84.80
2.827	2.825	0.002	899051	1000.00	921	23.47- 63.47	43.47
2.979	2.976	0.003	1350823	1000.00	926	45.32- 85.32	65.32
Average of Peak Amounts =					930		
7 Aroclor-1260					CAS #: 11096-82-5		
4.021	4.018	0.003	4275207	1000.00	1030	80.00- 120.00	100.00
4.292	4.290	0.002	2650884	1000.00	1020	42.01- 82.01	62.01
4.458	4.456	0.002	2723840	1000.00	1040	43.71- 83.71	63.71
4.671	4.669	0.002	6604430	1000.00	1080	134.48- 174.48	154.48
4.860	4.859	0.001	3175526	1000.00	1080	54.28- 94.28	74.28
Average of Peak Amounts =					1.05e+03		

Data File: /chem/ecd2a.i/122309.b/031f3104.d
Date : 23-DEC-2009 12:57
Client ID: AR166003
Sample Info: IWAR091223-45 03

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

Column phase: CLP1

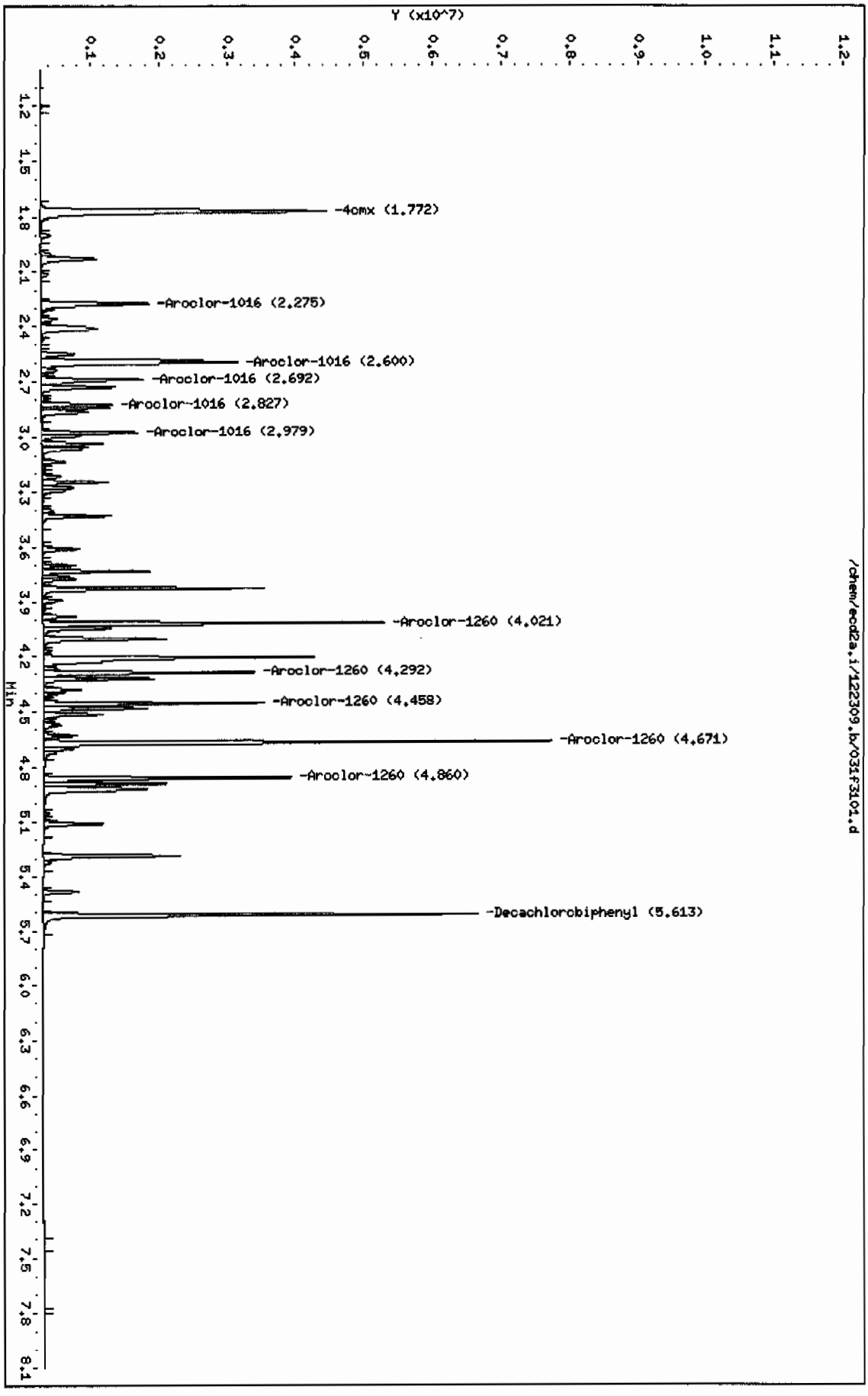

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/031b3101.d
Lab Smp Id: WAR091223-45 03 Client Smp ID: AR166003
Inj Date : 23-DEC-2009 12:57
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091223-45 03
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.068	2.067	0.001	13085238	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.305	6.304	0.001	12272960	100.000	109	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.747	2.746	0.001	4404375	1000.00	970	80.00- 120.00	100.00
3.183	3.181	0.002	3461610	1000.00	961	58.59- 98.59	78.59
3.334	3.332	0.002	1997670	1000.00	973	25.36- 65.36	45.36
3.362	3.362	0.000	2106419	1000.00	986	27.83- 67.83	47.83
3.521	3.520	0.001	2811195	1000.00	979	43.83- 83.83	63.83
Average of Peak Amounts =					974		
7 Aroclor-1260					CAS #: 11096-82-5		
4.419	4.417	0.002	5801143	1000.00	1000	80.00- 120.00	100.00
4.569	4.569	0.000	7466104	1000.00	1050	108.70- 148.70	128.70
4.681	4.681	0.000	5103297	1000.00	1060	67.97- 107.97	87.97
4.879	4.878	0.001	5895514	1000.00	1050	81.63- 121.63	101.63
5.504	5.504	0.000	9859419	1000.00	1090	149.96- 189.96	169.96
Average of Peak Amounts =					1.05e+03		

Data File: /chem/ecd2a.i/122309.b/031b3101.d

Date : 23-DEC-2009 12:57

Client ID: AR166003

Sample Info: IWAR091223-45 03

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

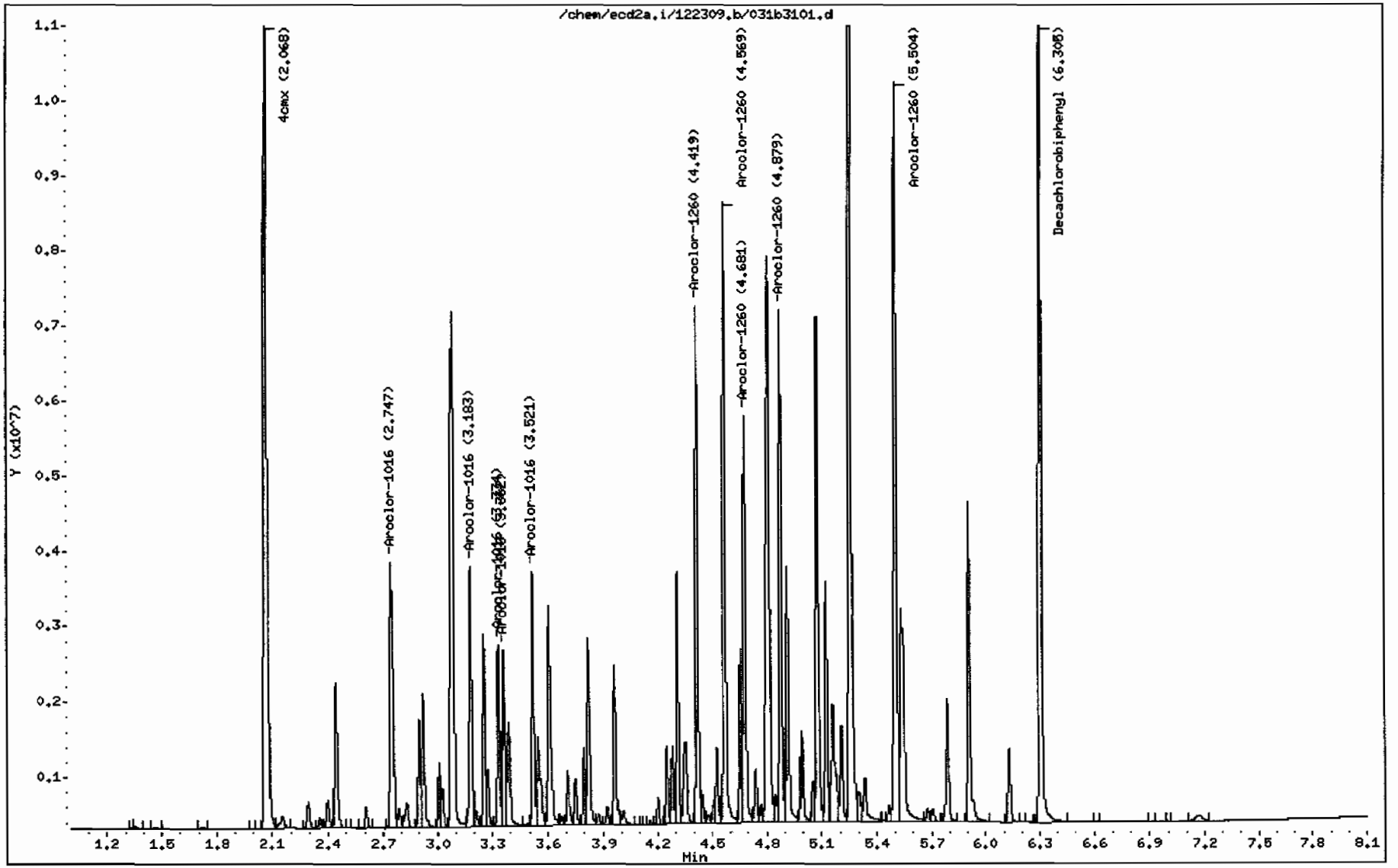

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-994

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.77 DCB: 5.61

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0700	1.77	5.61
02	ZZZZZ	ZZZZZ	12/14/09	0711	1.77	5.61
03	AR125401	WAR091102-54	12/14/09	0722	1.77	5.61
04	AR124201	WAR091102-42	12/14/09	0733	1.77	5.61
05	AR124801	WAR091027-48	12/14/09	0744	1.77	5.61
06	AR123201	WAR090930-32	12/14/09	0755	1.77	5.61
07	AR122101	WAR091111-21	12/14/09	0807	1.77	5.61
08	ZZZZZ	ZZZZZ	12/14/09	0818	1.77	5.61
09	AR126201	WAR091111-62	12/14/09	0829	1.77	5.61
10	AR126801	WAR091106-68	12/14/09	0840	1.77	5.61
11	AR166001	WAR091214-01	12/14/09	0851	1.77	5.61
12	AR166002	WAR091214-02	12/14/09	0902	1.77	5.61
13	AR166003	WAR091214-03	12/14/09	0913	1.77	5.61
14	AR166004	WAR091214-04	12/14/09	0924	1.77	5.61
15	AR166005	IAR091102-01	12/14/09	0935	1.77	5.61
16	AR166001	WAR091211-60	12/14/09	0946	1.77	5.61
17	DDTANALOGSTD	WAR091020-DD	12/14/09	0958		
18	PIBLK02	WAR091130-99	12/14/09	1009	1.77	5.61
19	ZZZZZ	ZZZZZ	12/14/09	1020	1.77	5.61
20	ZZZZZ	ZZZZZ	12/14/09	1031	1.77	5.61
21	ZZZZZ	ZZZZZ	12/14/09	1042	1.77	
22	ZZZZZ	ZZZZZ	12/14/09	1053	1.76	
23	ZZZZZ	ZZZZZ	12/14/09	1104	1.76	
24	ZZZZZ	ZZZZZ	12/14/09	1115	1.77	5.61
25	ZZZZZ	ZZZZZ	12/14/09	1126	1.77	5.61
26	ZZZZZ	ZZZZZ	12/14/09	1137	1.76	
27	ZZZZZ	ZZZZZ	12/14/09	1148	1.77	5.61
28	ZZZZZ	ZZZZZ	12/14/09	1159	1.76	5.62
29	AR166002	WAR091211-60	12/14/09	1211	1.77	5.61
30	PIBLK03	WAR091130-99	12/14/09	1222	1.77	5.61
31	ZZZZZ	ZZZZZ	12/14/09	1233	1.77	5.61
32	ZZZZZ	ZZZZZ	12/14/09	1244	1.76	

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-994

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.07 DCB: 6.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0700	2.07	6.31
02	ZZZZZ	ZZZZZ	12/14/09	0711	2.07	6.30
03	AR125401	WAR091102-54	12/14/09	0722	2.07	6.30
04	AR124201	WAR091102-42	12/14/09	0733	2.07	6.30
05	AR124801	WAR091027-48	12/14/09	0744	2.07	6.30
06	AR123201	WAR090930-32	12/14/09	0755	2.07	6.30
07	AR122101	WAR091111-21	12/14/09	0807	2.07	6.30
08	ZZZZZ	ZZZZZ	12/14/09	0818	2.07	6.30
09	AR166201	WAR091111-62	12/14/09	0829	2.07	6.30
10	AR126801	WAR091106-68	12/14/09	0840	2.07	6.30
11	AR166001	WAR091214-01	12/14/09	0851	2.07	6.30
12	AR166002	WAR091214-02	12/14/09	0902	2.07	6.30
13	AR166003	WAR091214-03	12/14/09	0913	2.07	6.30
14	AR166004	WAR091214-04	12/14/09	0924	2.07	6.30
15	AR166005	IAR091102-01	12/14/09	0935	2.07	6.30
16	AR166001	WAR091211-60	12/14/09	0946	2.07	6.30
17	DDTANALOGSTD	WAR091020-DD	12/14/09	0958		
18	PIBLK02	WAR091130-99	12/14/09	1009	2.07	6.30
19	ZZZZZ	ZZZZZ	12/14/09	1020	2.07	6.30
20	ZZZZZ	ZZZZZ	12/14/09	1031	2.07	6.30
21	ZZZZZ	ZZZZZ	12/14/09	1042	2.07	
22	ZZZZZ	ZZZZZ	12/14/09	1053	2.07	
23	ZZZZZ	ZZZZZ	12/14/09	1104	2.06	
24	ZZZZZ	ZZZZZ	12/14/09	1115	2.07	6.30
25	ZZZZZ	ZZZZZ	12/14/09	1126	2.07	6.31
26	ZZZZZ	ZZZZZ	12/14/09	1137	2.07	
27	ZZZZZ	ZZZZZ	12/14/09	1148	2.07	6.30
28	ZZZZZ	ZZZZZ	12/14/09	1159	2.06	6.30
29	AR166002	WAR091211-60	12/14/09	1211	2.07	6.30
30	PIBLK03	WAR091130-99	12/14/09	1222	2.07	6.30
31	ZZZZZ	ZZZZZ	12/14/09	1233	2.07	6.31
32	ZZZZZ	ZZZZZ	12/14/09	1244	2.07	

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-994

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.77 DCB: 5.61

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/23/09	0656	1.77	5.61
02	ZZZZZ	ZZZZZ	12/23/09	0707	1.77	5.61
03	AR125401	WAR091216-54	12/23/09	0718	1.77	5.61
04	AR124201	WAR091217-42	12/23/09	0729	1.77	5.61
05	AR124801	WAR091217-48	12/23/09	0740	1.77	5.61
06	AR123201	WAR090930-32	12/23/09	0751	1.77	5.61
07	AR122101	WAR091111-21	12/23/09	0802	1.77	5.61
08	AR126201	WAR091111-62	12/23/09	0813	1.77	5.61
09	ZZZZZ	ZZZZZ	12/23/09	0824	1.77	5.61
10	AR126801	WAR091106-68	12/23/09	0835	1.77	5.61
11	DDTANALOGSTD	WAR091219-DD	12/23/09	0846		
12	AR166001	WAR091223-45	12/23/09	0858	1.77	5.61
13	PIBLK02	WAR091130-99	12/23/09	0934	1.77	5.62
14	PBLK01	1202001521	12/23/09	0945	1.78	5.61
15	PBLK01LCS	1202001522	12/23/09	0956	1.78	5.61
16	ZZZZZ	ZZZZZ	12/23/09	1007	1.78	5.61
17	ZZZZZ	ZZZZZ	12/23/09	1018	1.78	5.61
18	ZZZZZ	ZZZZZ	12/23/09	1029	1.78	5.61
19	ZZZZZ	ZZZZZ	12/23/09	1040	1.77	5.61
20	ZZZZZ	ZZZZZ	12/23/09	1051	1.78	5.61
21	ZZZZZ	ZZZZZ	12/23/09	1102	1.78	5.61
22	AR166002	WAR091223-45	12/23/09	1113	1.77	5.61
23	PIBLK03	WAR091130-99	12/23/09	1124	1.77	5.61
24	ZZZZZ	ZZZZZ	12/23/09	1136	1.78	5.61
25	ZZZZZ	ZZZZZ	12/23/09	1147	1.78	5.61
26	ZZZZZ	ZZZZZ	12/23/09	1158	1.78	5.61
27	CAPA-10-6793	243283002	12/23/09	1209	1.77	5.61
28	ZZZZZ	ZZZZZ	12/23/09	1220	1.78	5.61
29	ZZZZZ	ZZZZZ	12/23/09	1231	1.78	5.61
30	ZZZZZ	ZZZZZ	12/23/09	1242	1.78	5.61
31	AR166003	WAR091223-45	12/23/09	1257	1.77	5.61
32	PIBLK04	WAR091130-99	12/23/09	1322	1.77	5.62

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-994

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.07 DCB: 6.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/23/09	0656	2.07	6.30
02	ZZZZZ	ZZZZZ	12/23/09	0707	2.07	6.30
03	AR125401	WAR091216-54	12/23/09	0718	2.07	6.30
04	AR124201	WAR091217-42	12/23/09	0729	2.07	6.30
05	AR124801	WAR091217-48	12/23/09	0740	2.07	6.30
06	AR123201	WAR090930-32	12/23/09	0751	2.07	6.30
07	AR122101	WAR091111-21	12/23/09	0802	2.07	6.30
08	AR126201	WAR091111-62	12/23/09	0813	2.07	6.30
09	ZZZZZ	ZZZZZ	12/23/09	0824	2.07	6.30
10	AR126801	WAR091106-68	12/23/09	0835	2.07	6.30
11	DDTANALOGSTD	WAR091219-DD	12/23/09	0846		
12	AR166001	WAR091223-45	12/23/09	0858	2.07	6.30
13	PIBLK02	WAR091130-99	12/23/09	0934	2.07	6.31
14	PBLK01	1202001521	12/23/09	0945	2.07	6.30
15	PBLK01LCS	1202001522	12/23/09	0956	2.07	6.30
16	ZZZZZ	ZZZZZ	12/23/09	1007	2.07	6.30
17	ZZZZZ	ZZZZZ	12/23/09	1018	2.07	6.30
18	ZZZZZ	ZZZZZ	12/23/09	1029	2.07	6.30
19	ZZZZZ	ZZZZZ	12/23/09	1040	2.07	6.30
20	ZZZZZ	ZZZZZ	12/23/09	1051	2.07	6.30
21	ZZZZZ	ZZZZZ	12/23/09	1102	2.07	6.30
22	AR166002	WAR091223-45	12/23/09	1113	2.07	6.30
23	PIBLK03	WAR091130-99	12/23/09	1124	2.07	6.30
24	ZZZZZ	ZZZZZ	12/23/09	1136	2.07	6.30
25	ZZZZZ	ZZZZZ	12/23/09	1147	2.07	6.30
26	ZZZZZ	ZZZZZ	12/23/09	1158	2.07	6.30
27	CAPA-10-6793	243283002	12/23/09	1209	2.07	6.30
28	ZZZZZ	ZZZZZ	12/23/09	1220	2.07	6.30
29	ZZZZZ	ZZZZZ	12/23/09	1231	2.07	6.30
30	ZZZZZ	ZZZZZ	12/23/09	1242	2.07	6.30
31	AR166003	WAR091223-45	12/23/09	1257	2.07	6.31
32	PIBLK04	WAR091130-99	12/23/09	1322	2.07	6.31

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10-994 **Client ID:** LCS for batch 935395

Lab Sample ID: 1202001522

Data File:	015f1501.d	**Data File:**	015b1501.d
Inst:	ECD2A.I_1	**Inst:**	ECD2A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23-DEC-09 09:56	**Analyzed:**	23-DEC-09 09:56

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor-1016							3.32
Column 1	1	2.28	2.24 – 2.3	.623		ug/L	
	2	2.6	2.57 – 2.63	.667		ug/L	
	3	2.69	2.66 – 2.72	.652		ug/L	
	4	2.83	2.79 – 2.85	.668		ug/L	
	5	2.98	2.95 – 3.01	.687		ug/L	
					.659		
Column 2	1	2.75	2.72 – 2.78	.658		ug/L	
	2	3.18	3.15 – 3.21	.67		ug/L	
	3	3.33	3.3 – 3.36	.687		ug/L	
	4	3.36	3.33 – 3.39	.683		ug/L	
	5	3.52	3.49 – 3.55	.711		ug/L	
					.682		
Aroclor-1260							.984
Column 1	1	4.02	3.99 – 4.05	.81		ug/L	
	2	4.29	4.26 – 4.32	.797		ug/L	
	3	4.45	4.43 – 4.49	.826		ug/L	
	4	4.67	4.64 – 4.7	.867		ug/L	
	5	4.86	4.83 – 4.89	.855		ug/L	
					.831		
Column 2	1	4.42	4.39 – 4.45	.795		ug/L	
	2	4.57	4.54 – 4.6	.819		ug/L	
	3	4.68	4.65 – 4.71	.812		ug/L	
	4	4.88	4.85 – 4.91	.82		ug/L	
	5	5.5	5.47 – 5.53	.868		ug/L	
					.823		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202001521**				
Client Sample:	**QC for batch 935395**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 935395**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**935397**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 09:45**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/22/2009 17:32**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**014f1401-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	014b1401-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.100	ug/L	0.0333	0.100	1
11104-28-2	Aroclor-1221	U	0.100	ug/L	0.0333	0.100	1
11141-16-5	Aroclor-1232	U	0.100	ug/L	0.0333	0.100	1
53469-21-9	Aroclor-1242	U	0.100	ug/L	0.0333	0.100	1
12672-29-6	Aroclor-1248	U	0.100	ug/L	0.0333	0.100	1
11097-69-1	Aroclor-1254	U	0.100	ug/L	0.0333	0.100	1
11096-82-5	Aroclor-1260	U	0.100	ug/L	0.0333	0.100	1
37324-23-5	Aroclor-1262	U	0.100	ug/L	0.0333	0.100	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.132	0.200	ug/L	65.8	(29%-103%)
Decachlorobiphenyl	0.173	0.200	ug/L	86.4	(34%-118%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/014f1401-4.d
Lab Smp Id: 1202001521 Client Smp ID: PBLK01
Inj Date : 23-DEC-2009 09:45
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202001521|1|
Misc Info : |ECD82P_1L|935397|SVA|QC A|GROUND WATER|MB|||
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 15:37 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 14 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-994.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.776	1.770	0.006	7943576	127.522	0.13	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.613	-0.001	9053155	167.305	0.17	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/122309.b/014f1401-4.d

Date : 23-DEC-2009 09:45

Client ID: PBLK01

Sample Info: |1202001521|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JADC

Column diameter: 0.25

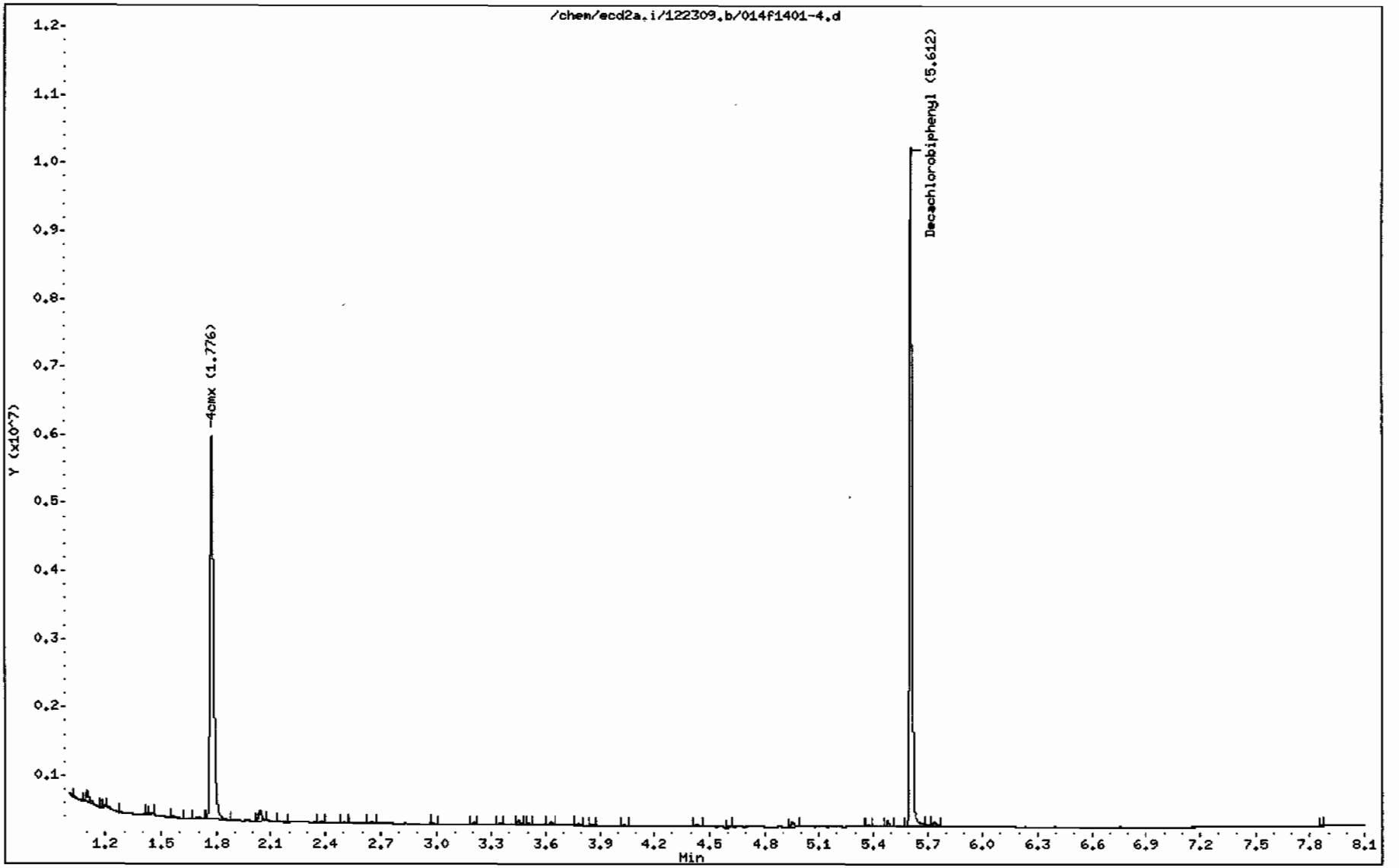

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/014b1401-4.d
Lab Smp Id: 1202001521 Client Smp ID: PBLK01
Inj Date : 23-DEC-2009 09:45
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202001521|1|
Misc Info : |ECD82P_1L|935397|SVA|QC A|GROUND WATER|MB|||
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 15:36 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 14 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-994.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.067	0.005	17015960	131.582	0.13	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.304	-0.001	19493678	172.842	0.17	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/122309.b/014b1401-4.d
Date : 23-DEC-2009 09:45
Client ID: PBLK01
Sample Info: |1202001521|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JADC
Column diameter: 0.25

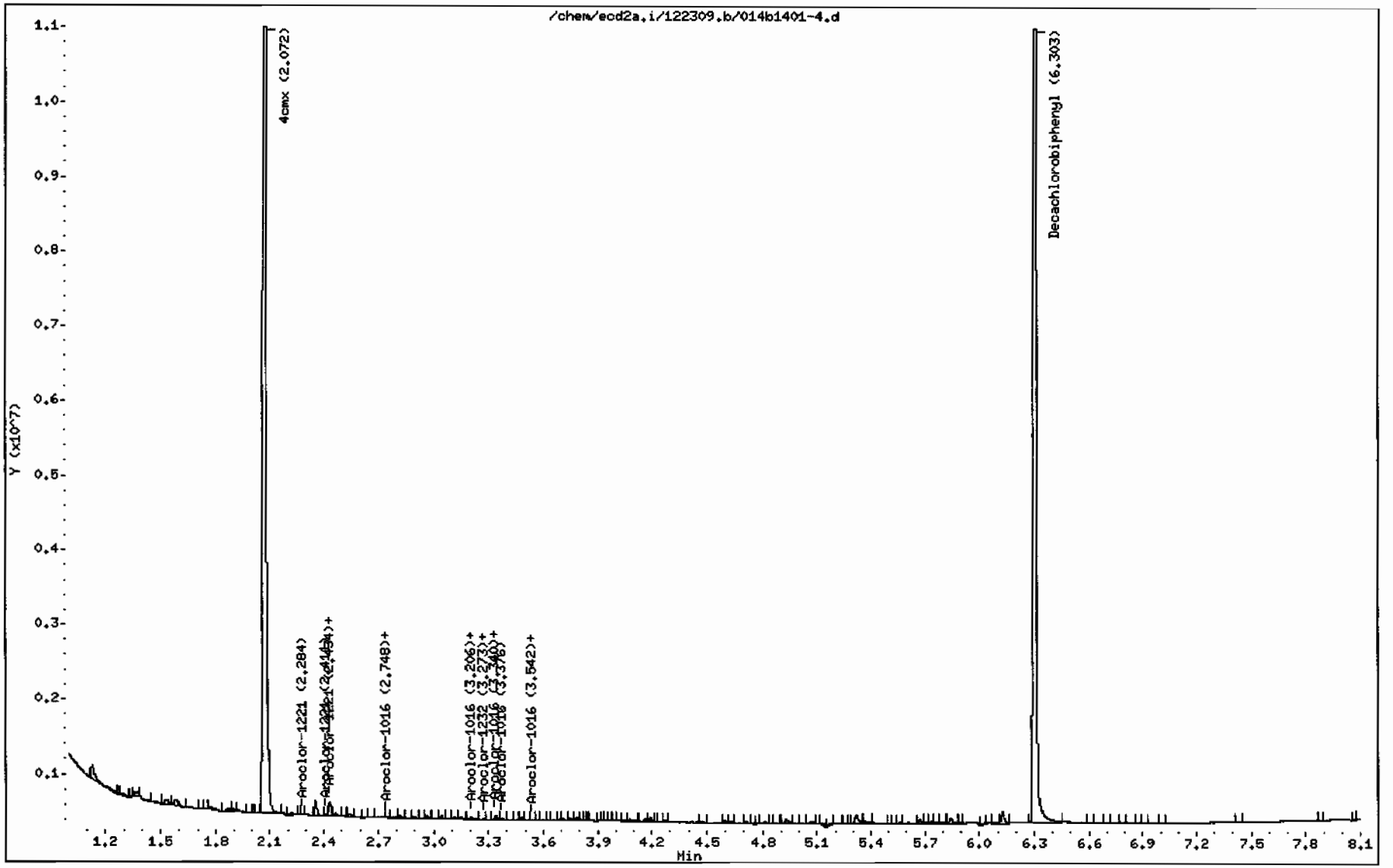

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-994**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202001522**				
Client Sample:	**QC for batch 935395**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 935395**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**935397**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 09:56**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/22/2009 17:32**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**015f1501-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	015b1501-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		0.680	ug/L	0.0333	0.100	2
11104-28-2	Aroclor-1221	U	0.100	ug/L	0.0333	0.100	1
11141-16-5	Aroclor-1232	U	0.100	ug/L	0.0333	0.100	1
53469-21-9	Aroclor-1242	U	0.100	ug/L	0.0333	0.100	1
12672-29-6	Aroclor-1248	U	0.100	ug/L	0.0333	0.100	1
11097-69-1	Aroclor-1254	U	0.100	ug/L	0.0333	0.100	1
11096-82-5	Aroclor-1260		0.830	ug/L	0.0333	0.100	1
37324-23-5	Aroclor-1262	U	0.100	ug/L	0.0333	0.100	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.126	0.200	ug/L	63.2	(29%-103%)
Decachlorobiphenyl	0.178	0.200	ug/L	89.1	(34%-118%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/015f1501-4.d
Lab Smp Id: 1202001522 Client Smp ID: PBLK01LCS
Inj Date : 23-DEC-2009 09:56
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202001522|1|
Misc Info : |ECD82P_1L|935397|SVA|QC A|GROUND WATER|LCS|||
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 15:37 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 15 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-994.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.776	1.770	0.006	7475971	120.016	0.12	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.613	-0.002	9250924	170.960	0.17	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.277	2.274	0.003	1394602	623.233	0.62	80.00- 120.00	100.00
2.601	2.598	0.003	3124437	666.864	0.67	195.14- 235.14	224.04
2.692	2.689	0.003	1239249	651.728	0.65	64.53- 104.53	88.86
2.826	2.825	0.001	652341	668.397	0.67	23.85- 63.85	46.78
2.978	2.976	0.002	1001030	686.641	0.69	44.86- 84.86	71.78

Average of Peak Concentrations = 0.66

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.017	4.018	-0.001	3373098	809.849	0.81	80.00- 120.00	100.00
4.289	4.290	-0.001	2064898	797.082	0.80	42.57- 82.57	61.22
4.454	4.456	-0.002	2172254	825.574	0.82	44.19- 84.19	64.40
4.667	4.669	-0.002	5278281	867.055	0.87	133.53- 173.53	156.48
4.856	4.859	-0.003	2515133	854.862	0.85	53.75- 93.75	74.56
			Average of Peak Concentrations =		0.83		

Data File: /chem/ecd2a.i/122309.b/015f1501-4.d

Page 1

Date : 23-DEC-2009 09:56

Client ID: PBLK01LCS

Instrument: ecd2a.i

Sample Info: |12020015221|1|

Volume Injected (uL): 1.0

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

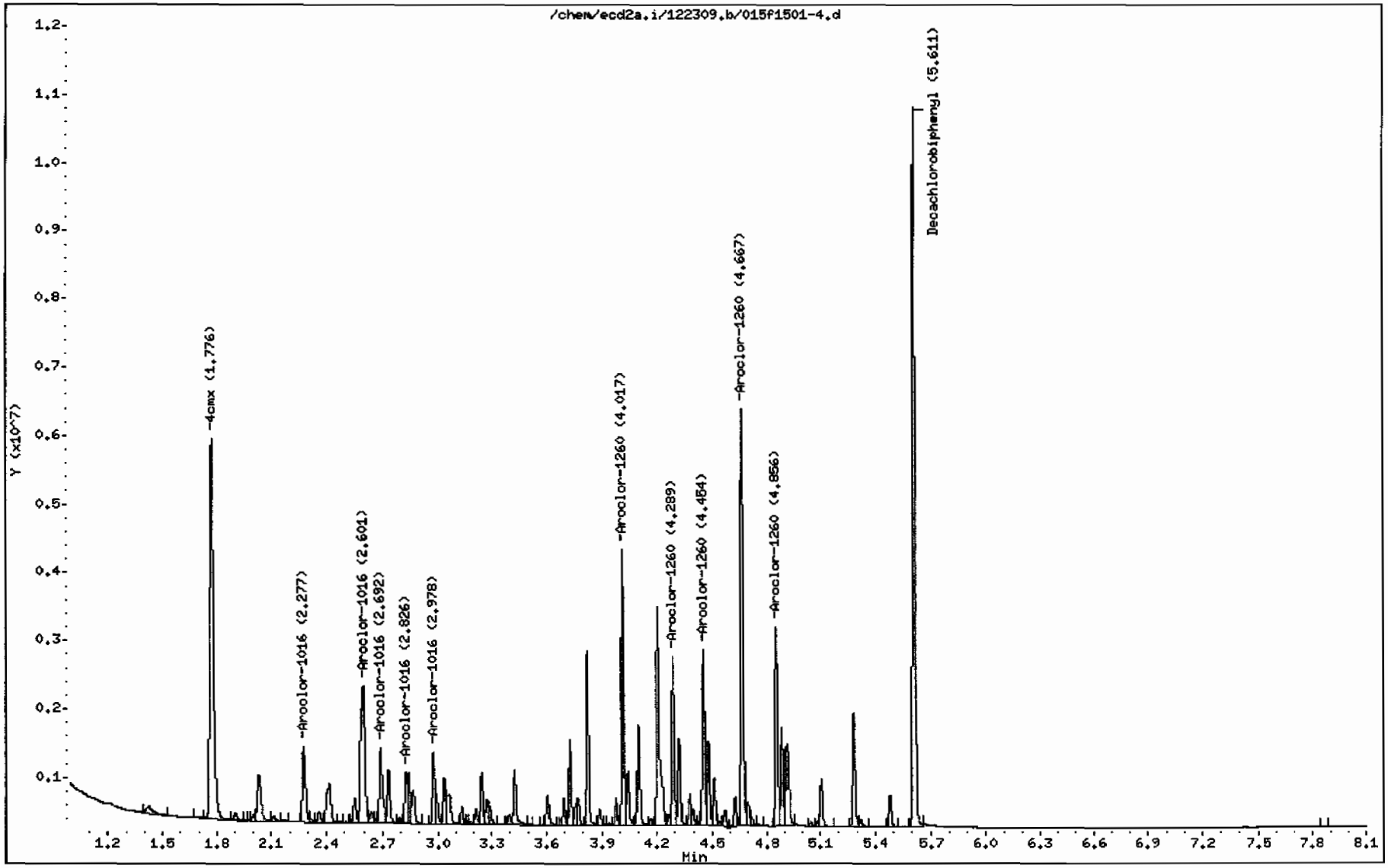

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/015b1501-4.d
Lab Smp Id: 1202001522 Client Smp ID: PBLK01LCS
Inj Date : 23-DEC-2009 09:56
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202001522|1|
Misc Info : |ECD82P_1L|935397|SVA|QC A|GROUND WATER|LCS|||
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 15:36 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 15 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-994.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.067	0.005	16337755	126.338	0.13	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.304	-0.001	20103448	178.249	0.18	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.748	2.746	0.002	2985137	657.835	0.66	80.00- 120.00	100.00
3.183	3.181	0.002	2411997	669.596	0.67	58.12- 98.12	80.80
3.333	3.332	0.001	1410304	686.871	0.69	25.36- 65.36	47.24
3.362	3.362	0.000	1459312	682.850	0.68	27.16- 67.16	48.89
3.520	3.520	0.000	2040994	711.020	0.71	43.90- 83.90	68.37
			Average of Peak Concentrations =		0.68		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.416	4.417	-0.001	4586540	795.319	0.80	80.00- 120.00	100.00
4.568	4.569	-0.001	5834338	818.982	0.82	105.96- 145.96	127.21
4.679	4.681	-0.002	3910764	811.580	0.81	65.83- 105.83	85.27
4.877	4.878	-0.001	4619737	820.301	0.82	79.39- 119.39	100.72
5.503	5.504	-0.001	7840727	867.576	0.87	145.37- 185.37	170.95
			Average of Peak Concentrations =		0.82		

Data File: /chem/ecd2a.i/122309.b/015b1501-4.d
Date : 23-DEC-2009 09:56
Client ID: PBLK01LCS
Sample Info: |1202001522|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Page 1

Instrument: ecd2a.i

Operator: JADC
Column diameter: 0.25

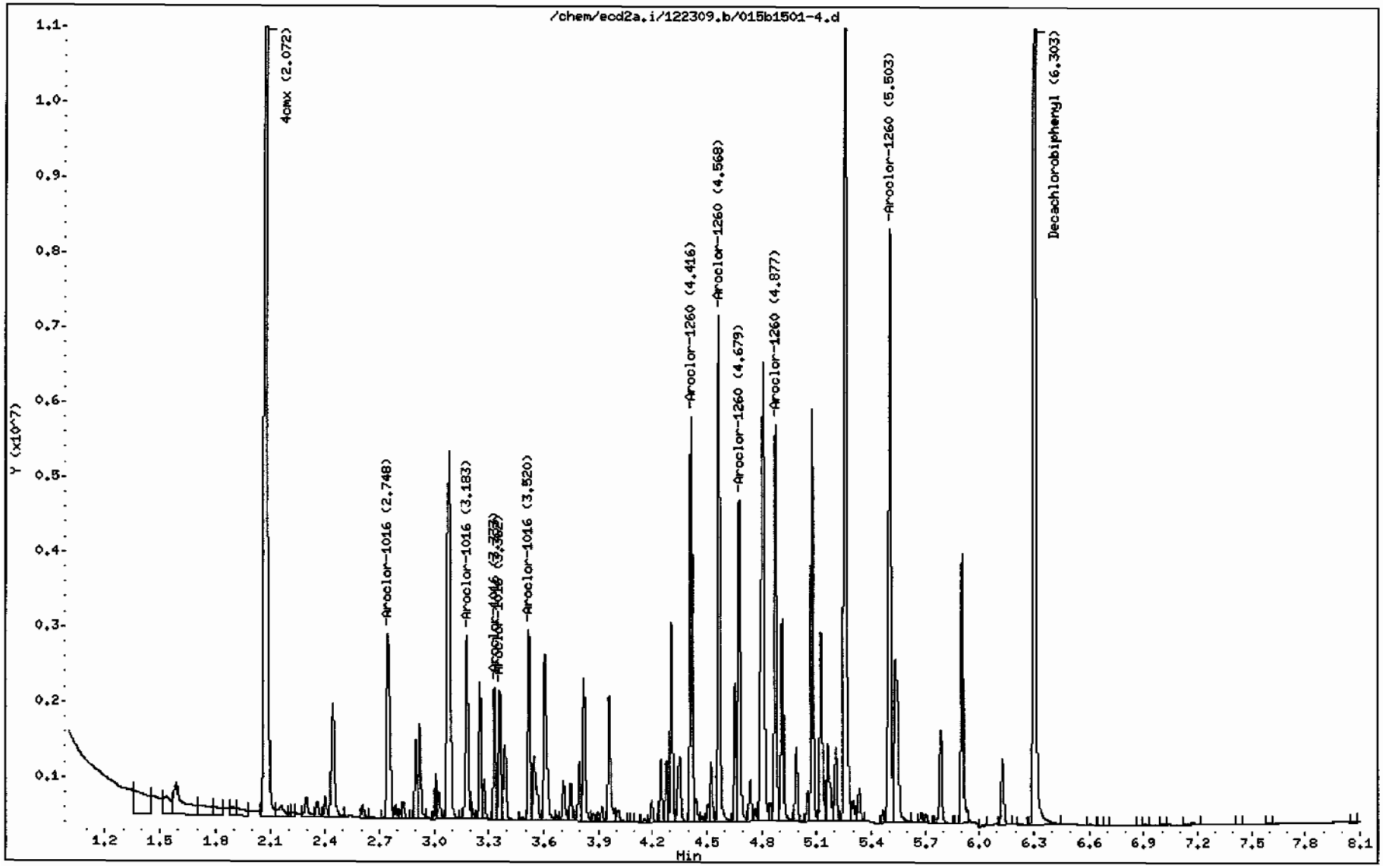

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD2

DATE: 12/14/2009 METHOD: ECD2-F-8082-111209A.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:DA385
ALUMINA LOT:1230997-A
COPPER LOT:236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 IB	YS1	14-DEC-2009 07:00		121409	1.0	CLEAN	
002f0201.d	WAR091211-60 01	YS1	14-DEC-2009 07:11		121409	1.0	DUSE RE-I-CAL	
003f0301.d	WAR091102-54	YS1	14-DEC-2009 07:22		121409	1.0	PASSED ON BOTH COLUMNS	
004f0401.d	WAR091102-42	YS1	14-DEC-2009 07:33		121409	1.0	PASSED ON BOTH COLUMNS	
005f0501.d	WAR091027-48	YS1	14-DEC-2009 07:44		121409	1.0	PASSED ON BOTH COLUMNS	
006f0601.d	WAR090930-32	YS1	14-DEC-2009 07:55		121409	1.0	PATTERN ONLY	
007f0701.d	WAR091111-21	YS1	14-DEC-2009 08:07		121409	1.0	PATTERN ONLY	
008f0801.d	AR1660-4	YS1	14-DEC-2009 08:18		121409	1.0	DUSE SCREEN	
009f0901.d	WAR091111-62	YS1	14-DEC-2009 08:29		121409	1.0	PATTERN ONLY	
010f1001.d	WAR091106-68	YS1	14-DEC-2009 08:40		121409	1.0	PATTERN ONLY	
011f1101.d	WAR091214-01 60	YS1	14-DEC-2009 08:51		121409	1.0	AR1660 I-CAL LEVEL 1	
012f1201.d	WAR091214-02 60	YS1	14-DEC-2009 09:02		121409	1.0	AR1660 I-CAL LEVEL 2	
013f1301.d	WAR091214-03 60	YS1	14-DEC-2009 09:13		121409	1.0	AR1660 I-CAL LEVEL 3	
014f1401.d	WAR091214-04 60	YS1	14-DEC-2009 09:24		121409	1.0	AR1660 I-CAL LEVEL 4	
015f1501.d	IAR091102-01	YS1	14-DEC-2009 09:35		121409	1.0	AR1660 I-CAL LEVEL 5	

Instrument Batch: /chem/ecd2a.i/121409.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR091211-60 01	YS1	14-DEC-2009 09:46		121409	1.0	PASSED ON BOTH COLUMNS	

017f1701.d	WAR091020-DDT	YS1	14-DEC-2009 09:58			121409	1.0		DDT ANALOG STANDARD
018f1801.d	WAR091130-99 02	YS1	14-DEC-2009 10:09	SOLV		121409	1.0	IB	CLEAN
019f1901.d	1201992205	YS1	14-DEC-2009 10:20	931371	241934		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	1201992206	YS1	14-DEC-2009 10:31	931371	241934		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	241934001	YS1	14-DEC-2009 10:42	931371	241934		10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	1201992207	YS1	14-DEC-2009 10:53	931371	241934		10.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
023f2301.d	1201992208	YS1	14-DEC-2009 11:04	931371	241934		10.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
024f2401.d	241934002	YS1	14-DEC-2009 11:15	931371	241934		1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
025f2501.d	241934003	YS1	14-DEC-2009 11:26	931371	241934		1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
026f2601.d	241934004	YS1	14-DEC-2009 11:37	931371	241934		10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	241934005	YS1	14-DEC-2009 11:48	931371	241934		1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	241934006	YS1	14-DEC-2009 11:59	931371	241934		20.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	WAR091211-60 02	YS1	14-DEC-2009 12:11	1660		121409	1.0	CVS	PASSED ON BOTH COLUMNS
030f3001.d	WAR091130-99 03	YS1	14-DEC-2009 12:22	SOLV		121409	1.0	IB	CLEAN
031f3101.d	241934007	YS1	14-DEC-2009 12:33	931371	241934		1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	241934008	YS1	14-DEC-2009 12:44	931371	241934		10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	241934009	YS1	14-DEC-2009 13:00	931371	241934		1.0	NREA	DUSE RR5X AFTER MORE SULFUR CLEANED
034f3401.d	241934010	YS1	14-DEC-2009 13:11	931371	241934		10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	241934011	YS1	14-DEC-2009 13:27	931371	241934		5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd2a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	241935001	YS1	14-DEC-2009 13:43	931371	241935	1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	241935004	YS1	14-DEC-2009 13:54	931371	241935	5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	241935005	YS1	14-DEC-2009 14:05	931371	241935	5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	241935006	YS1	14-DEC-2009 14:21	931371	241935	50.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	241935007	YS1	14-DEC-2009 14:36	931371	241935	5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
041f4101.d	WAR091211-60 03	YS1	14-DEC-2009 14:52			121409	1.0	PASSED ON BOTH COLUMNS

042f4201.d	WAR091130-99 04	YS1	14-DEC-2009 15:03	SOLV	121409		1.0	IB	CLEAN
043f4301.d	241934009	YS1	14-DEC-2009 15:14	931371	241934		5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
044f4401.d	241935008	YS1	14-DEC-2009 15:30	931371	241935		20000.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	WAR091211-60 04	YS1	14-DEC-2009 15:45		121409		1.0		PASSED ON BOTH COLUMNS

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD2

DATE: 12/24/2009 METHOD: ECD2-F-8082-111209A.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:DA385
ALUMINA LOT:1230997-A
COPPER LOT:236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number:122309 Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 IB	JAOC	23-DEC-2009 06:56		122309	1.0		CLEAN
002f0201.d	WAR091211-60 01	JAOC	23-DEC-2009 07:07		122309	1.0		DUSE
003f0301.d	WAR091216-54	JAOC	23-DEC-2009 07:18		122309	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR091217-42	JAOC	23-DEC-2009 07:29		122309	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR091217-48	JAOC	23-DEC-2009 07:40		122309	1.0		PASSES BOTH COLUMNS
006f0601.d	WAR090930-32	JAOC	23-DEC-2009 07:51		122309	1.0		PATTERN ONLY
007f0701.d	WAR091111-21	JAOC	23-DEC-2009 08:02		122309	1.0		PATTERN ONLY
008f0801.d	WAR091111-62	JAOC	23-DEC-2009 08:13		122309	1.0		PATTERN ONLY
009f0901.d	WAR091211-60 01	JAOC	23-DEC-2009 08:24		122309	1.0		DUSE
010f1001.d	WAR091106-68	JAOC	23-DEC-2009 08:35		122309	1.0		PATTERN ONLY
011f1101.d	WAR091219-DDT	JAOC	23-DEC-2009 08:46		122309	1.0		DDT
012f1201.d	WAR091223-45 01	JAOC	23-DEC-2009 08:58		122309	1.0		PASSES BOTH COLUMNS
013f1301.d	WAR091130-99 02	JAOC	23-DEC-2009 09:34		122309	1.0		CLEAN
014f1401.d	1202001521	JAOC	23-DEC-2009 09:45	935397	10-915	1.0	QC A	UPLOAD BOTH, USE HIGHER
015f1501.d	1202001522	JAOC	23-DEC-2009 09:56	935397	10-915	1.0	QC A	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd2a.i/122309.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	242426002	JAOC	23-DEC-2009 10:07	935397	10-820	1.0	LANL	DUSE, CONFIRMS ORGINAL DATA

017f1701.d	242935002	JAOC	23-DEC-2009 10:18	935397	10-915	1.0	LANL	UPLOAD BOTH, USE HIGHER
018f1801.d	1202001523	JAOC	23-DEC-2009 10:29	935397	10-915	1.0	QC A	UPLOAD BOTH, USE HIGHER
019f1901.d	1202001524	JAOC	23-DEC-2009 10:40	935397	10-915	1.0	QC A	UPLOAD BOTH, USE HIGHER
020f2001.d	242935010	JAOC	23-DEC-2009 10:51	935397	10-915	1.0	LANL	UPLOAD BOTH, USE HIGHER
021f2101.d	243012003	JAOC	23-DEC-2009 11:02	935397	10-937	1.0	LANL	UPLOAD BOTH, USE HIGHER
022f2201.d	WAR091223-45 02	JAOC	23-DEC-2009 11:13		122309	1.0		PASSES BOTH COLUMNS
023f2301.d	WAR091130-99 03	JAOC	23-DEC-2009 11:24		122309	1.0		CLEAN
024f2401.d	243099002	JAOC	23-DEC-2009 11:36	935397	10-952	1.0	LANL	UPLOAD BOTH, USE HIGHER
025f2501.d	243254004	JAOC	23-DEC-2009 11:47	935397	10-972	1.0	LANL	UPLOAD BOTH, USE HIGHER
026f2601.d	243254009	JAOC	23-DEC-2009 11:58	935397	10-972	1.0	LANL	UPLOAD BOTH, USE HIGHER
027f2701.d	243283002	JAOC	23-DEC-2009 12:09	935397	10-994	1.0	LANL	UPLOAD BOTH, USE HIGHER
028f2801.d	243284003	JAOC	23-DEC-2009 12:20	935397	10-997	1.0	LANL	UPLOAD BOTH, USE HIGHER
029f2901.d	243284007	JAOC	23-DEC-2009 12:31	935397	10-997	1.0	LANL	UPLOAD BOTH, USE HIGHER
030f3001.d	243284010	JAOC	23-DEC-2009 12:42	935397	10-997	1.0	LANL	UPLOAD BOTH, USE HIGHER
031f3101.d	WAR091223-45 03	JAOC	23-DEC-2009 12:57		122309	1.0		PASSES BOTH COLUMNS
032f3201.d	WAR091130-99 04	JAOC	23-DEC-2009 13:22		122309	1.0		CLEAN
033f3301.d	1202001900	JAOC	23-DEC-2009 13:33	935581	EUI-7440	1.0	QC A	UPLOAD BOTH, USE HIGHER
034f3401.d	1202001901	JAOC	23-DEC-2009 13:44	935581	EUI-7440	1.0	QC A	UPLOAD BOTH, USE HIGHER
035f3501.d	1202001904	JAOC	23-DEC-2009 13:55	935581	EUI-7440	1.0	QC A	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd2a.i/122309.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	243194001	JAOC	23-DEC-2009 14:06	935581	EUI-7440	100.0	CARE	UPLOAD BOTH, USE HIGHER
037f3701.d	1202001902	JAOC	23-DEC-2009 14:17	935581	EUI-7440	100.0	QC A	UPLOAD BOTH, USE HIGHER
038f3801.d	1202001903	JAOC	23-DEC-2009 14:28	935581	EUI-7440	100.0	QC A	UPLOAD BOTH, USE HIGHER
039f3901.d	243208001	JAOC	23-DEC-2009 14:39	935581	EUI-7443	100.0	CARE	UPLOAD BOTH, USE HIGHER
040f4001.d	243208002	JAOC	23-DEC-2009 14:50	935581	EUI-7443	100.0	CARE	UPLOAD BOTH, USE HIGHER
041f4101.d	243208003	JAOC	23-DEC-2009 15:02	935581	EUI-7443	100.0	CARE	UPLOAD BOTH, USE HIGHER

042f4201.d	243208004	JAOC	23-DEC-2009 15:13	935581	EUI-7443		100.0	CARE	UPLOAD BOTH, USE HIGHER
043f4301.d	WAR091223-45 04	JAOC	23-DEC-2009 15:24		122309		1.0		PASSES BOTH COLUMNS
044f4401.d	WAR091130-99 05	JAOC	23-DEC-2009 15:35		122309		1.0		CLEAN
045f4501.d	1202002950	JAOC	23-DEC-2009 15:46	936077	243352		1.0	QC A	UPLOAD BOTH, USE FRONT
046f4601.d	1202002951	JAOC	23-DEC-2009 15:57	936077	243352		1.0	QC A	UPLOAD BOTH, USE FRONT
047f4701.d	1202002954	JAOC	23-DEC-2009 16:08	936077	243352		1.0	QC A	UPLOAD BOTH, USE FRONT
048f4801.d	243352001	JAOC	23-DEC-2009 16:19	936077	243352		5.0	MECP	UPLOAD BOTH, USE FRONT
049f4901.d	243372001	JAOC	23-DEC-2009 16:30	936077	243372		1.0	MECP	UPLOAD BOTH, USE FRONT
050f5001.d	243372002	JAOC	23-DEC-2009 16:41	936077	243372		1.0	MECP	UPLOAD BOTH, USE FRONT
051f5101.d	243372003	JAOC	23-DEC-2009 16:53	936077	243372		5.0	MECP	UPLOAD BOTH, USE FRONT
052f5201.d	243372004	JAOC	23-DEC-2009 17:04	936077	243372		1.0	MECP	UPLOAD BOTH, USE FRONT
053f5301.d	WAR091223-45 05	JAOC	23-DEC-2009 17:19		122309		1.0		PASSES BOTH COLUMNS
054f5401.d	WAR091130-99 06	JAOC	23-DEC-2009 17:30		122309		1.0		CLEAN
055f5501.d	1202002874	JAOC	23-DEC-2009 17:41	936046	33340-060-1		1.0	QC A	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd2a.i/122309.b Page: 3

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	1202002875	JAOC	23-DEC-2009 17:52	936046	33340-060-1	1.0	QC A	UPLOAD BOTH, USE HIGHER
057f5701.d	243388002	JAOC	23-DEC-2009 18:04	936046	33340-060-1	5.0	PNLE	UPLOAD BOTH, USE HIGHER
058f5801.d	1202002876	JAOC	23-DEC-2009 18:15	936046	33340-060-1	5.0	QC A	UPLOAD BOTH, USE HIGHER
059f5901.d	1202002877	JAOC	23-DEC-2009 18:26	936046	33340-060-1	5.0	QC A	UPLOAD BOTH, USE HIGHER
060f6001.d	WAR091223-45 06	JAOC	23-DEC-2009 18:41		122309	1.0		PASSES BOTH COLUMNS
061f6101.d	WAR091130-99 07	JAOC	23-DEC-2009 18:53		122309	1.0		CLEAN

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/001b0101.d
Lab Smp Id: WAR091130-99 IB Client Smp ID: PIBLK01
Inj Date : 23-DEC-2009 06:56
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091130-99 IB
Misc Info : |INSTBLK|SOLV||IB|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.067	2.067	0.000	28117655	217.430	217	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.300	6.304	-0.004	26707845	236.807	237	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/122309.b/001b0101.d

Date : 23-DEC-2009 06:56

Client ID: PIBLK01

Sample Info: IWAR091130-99 IB

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

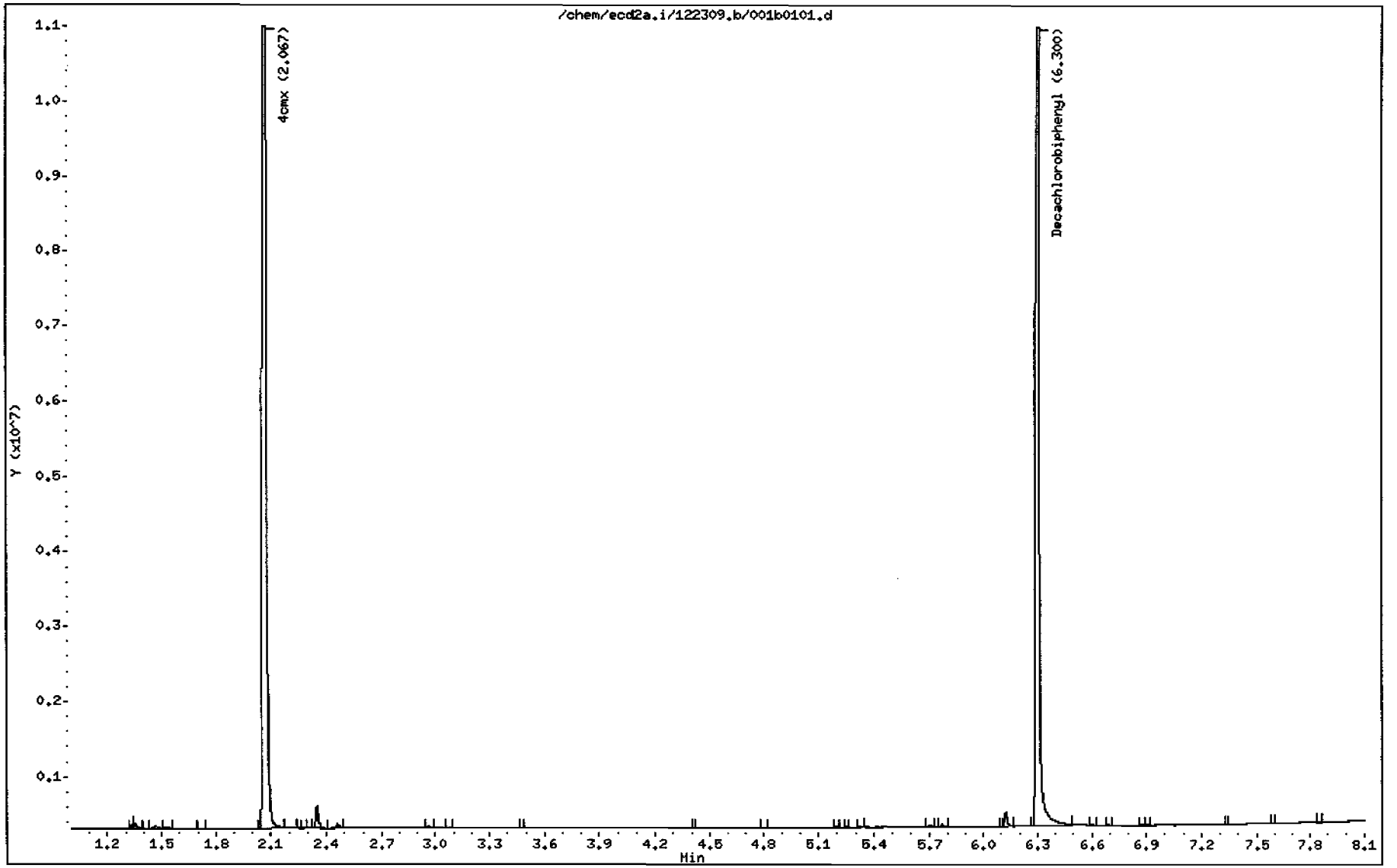

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/001f0101.d
Lab Smp Id: WAR091130-99 IB Client Smp ID: PIBLK01
Inj Date : 23-DEC-2009 06:56
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091130-99 IB
Misc Info : |INSTBLK|SOLV||IB|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.769	1.770	-0.001	12927811	207.537	208	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.606	5.613	-0.007	12409372	229.329	229	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/122309.b/001f0101.d

Page 1

Date : 23-DEC-2009 06:56

Client ID: PIBLK01

Instrument: ecd2a.i

Sample Info: IWAR091130-99 IB

Operator: JAOC

Column phase: CLP1

Column diameter: 0.25

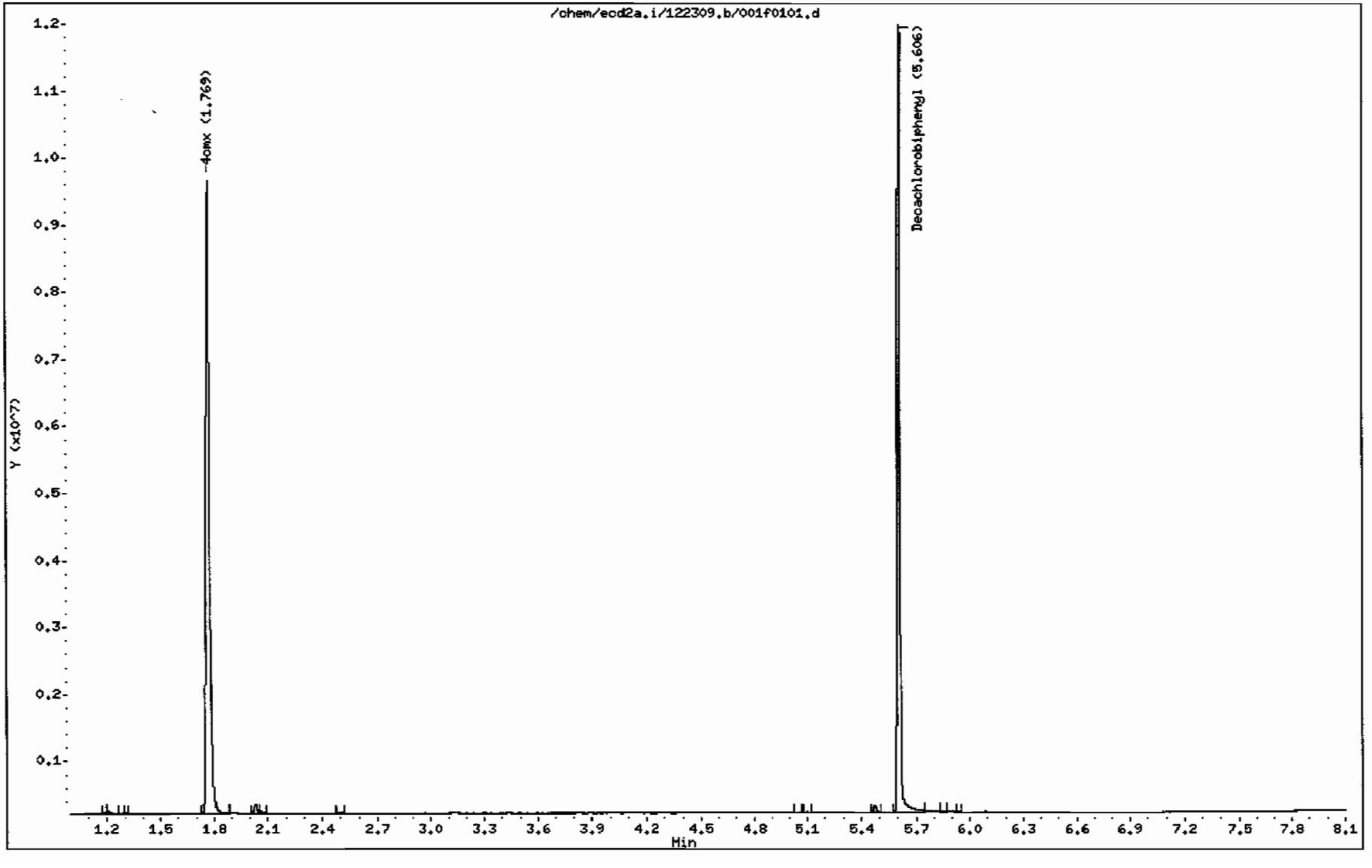

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/013b1301.d
Lab Smp Id: WAR091130-99 02 Client Smp ID: PIBLK02
Inj Date : 23-DEC-2009 09:34
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091130-99 02
Misc Info : |INSTBLK|SOLV||IB|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 13 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.069	2.067	0.002	27777461	214.800	215	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.306	6.304	0.002	26520056	235.142	235	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/122309.b/013b1301.d
Date : 23-DEC-2009 09:34
Client ID: PIBLK02
Sample Info: IWAR091130-99 02

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

Column phase: CLP2

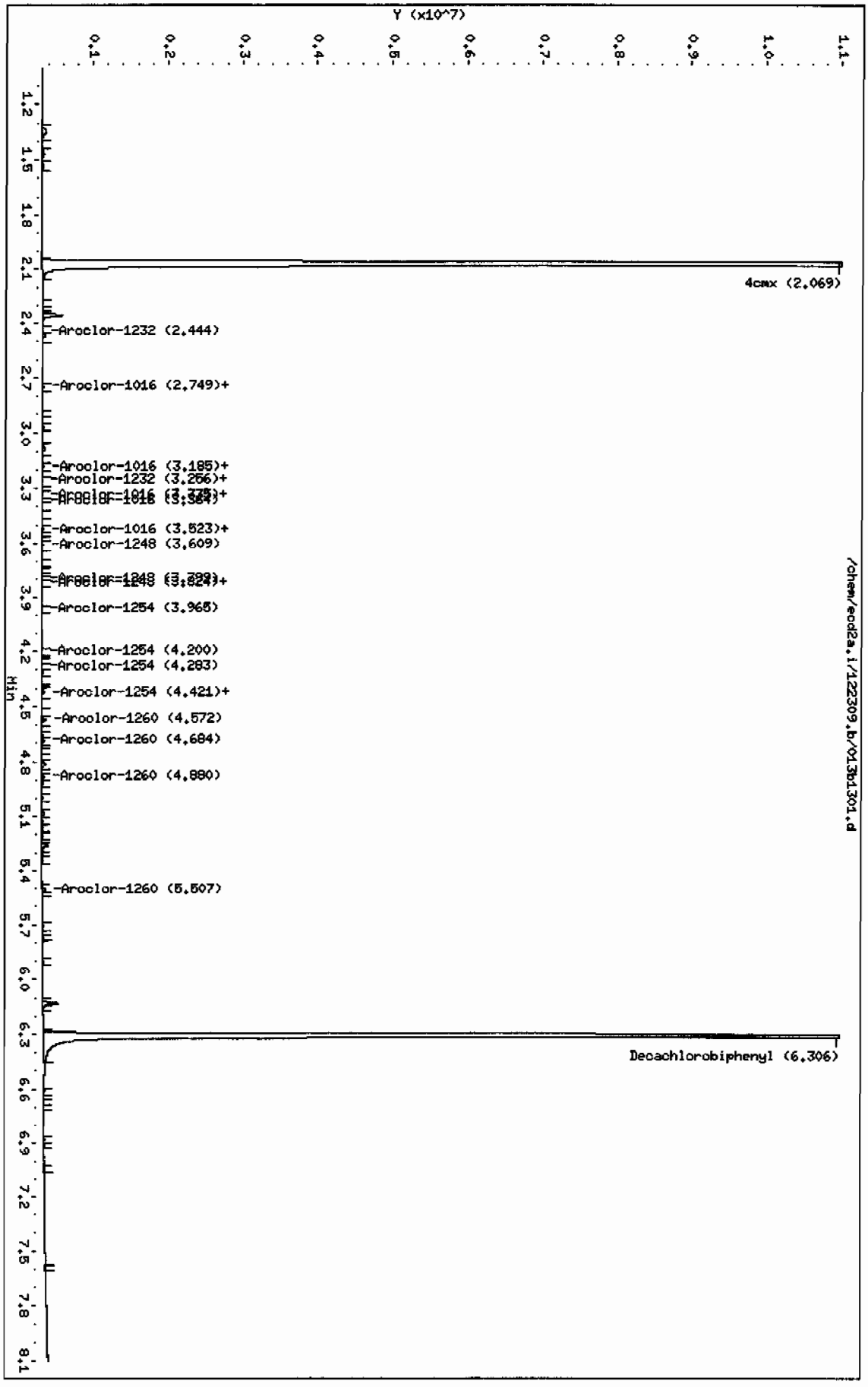

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/013f1301.d
Lab Smp Id: WAR091130-99 02 Client Smp ID: PIBLK02
Inj Date : 23-DEC-2009 09:34
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091130-99 02
Misc Info : |INSTBLK|SOLV||IB|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 13 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.770	0.003	12647853	203.042	203	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.618	5.613	0.005	12185131	225.185	225	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/122309.b/013f1301.d
Date : 23-DEC-2009 09:34
Client ID: PIBLK02
Sample Info: IWAR091130-99 02

Column phase: CLP1

Page 1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

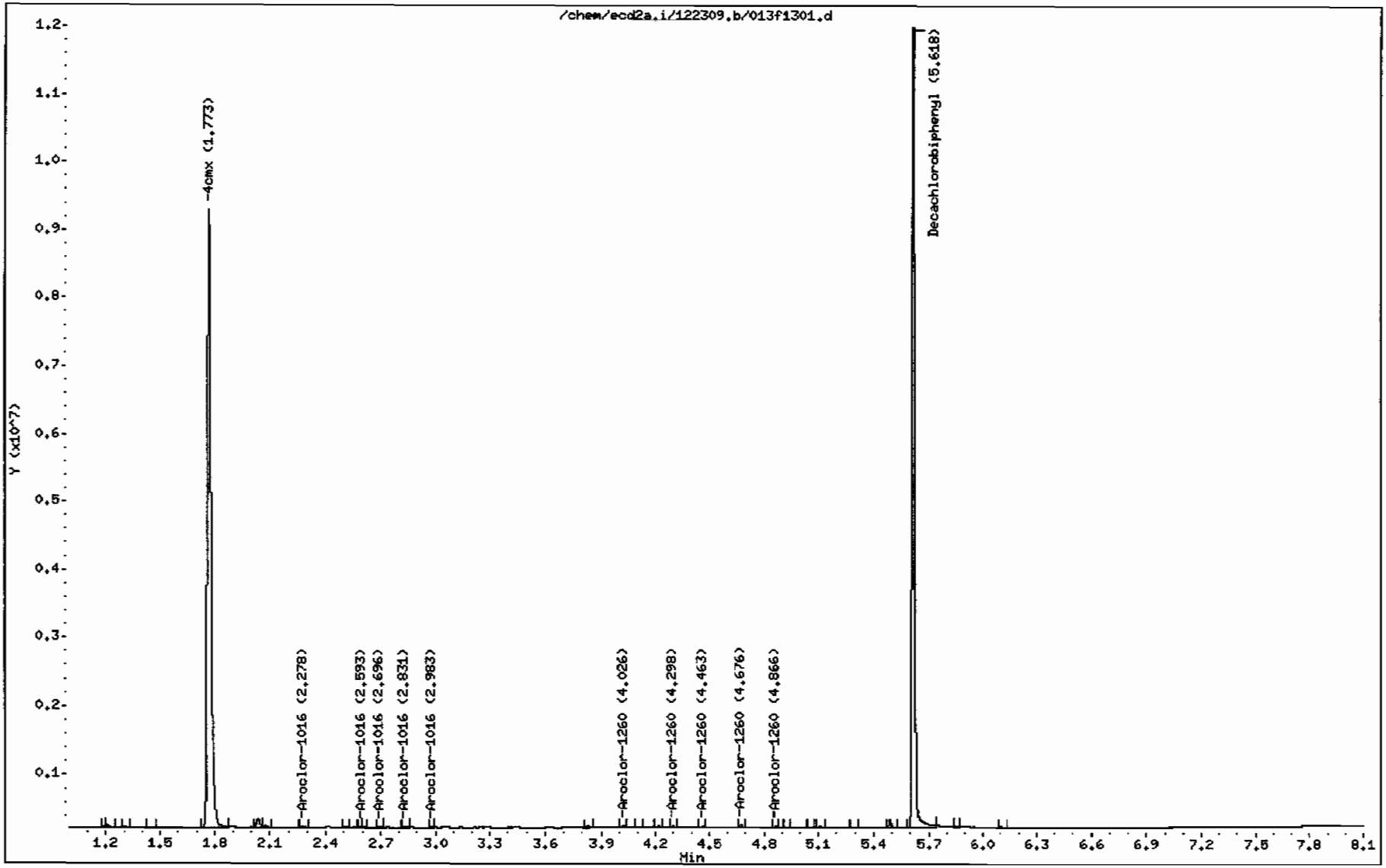

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/023b2301.d
Lab Smp Id: WAR091130-99 03 Client Smp ID: PIBLK03
Inj Date : 23-DEC-2009 11:24
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091130-99 03
Misc Info : |INSTBLK|SOLV||IB|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 23 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.067	0.004	28014959	216.636	217	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.302	6.304	-0.002	26181069	232.137	232	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/122309.b/023b2301.d

Date : 23-DEC-2009 11:24

Client ID: PIBLK03

Sample Info: IWAR091130-99 03

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

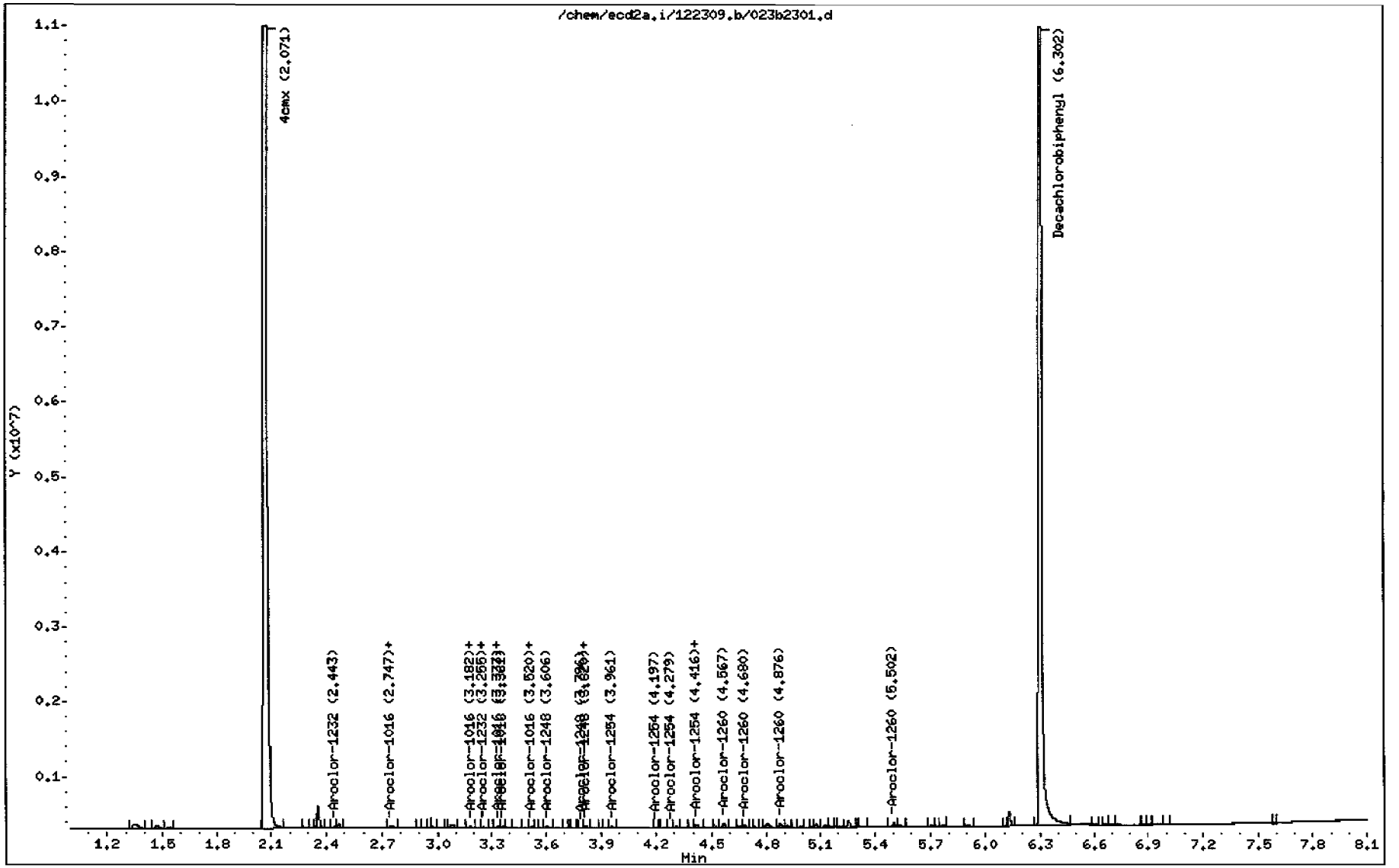

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/023f2301.d
Lab Smp Id: WAR091130-99 03 Client Smp ID: PIBLK03
Inj Date : 23-DEC-2009 11:24
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091130-99 03
Misc Info : |INSTBLK|SOLV||IB|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 23 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.770	0.004	12884819	206.847	207	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.609	5.613	-0.004	12295355	227.222	227	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/122309.b/023f2301.d
Date : 23-DEC-2009 11:24
Client ID: PIBLK03
Sample Info: IWAR091130-99 03

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

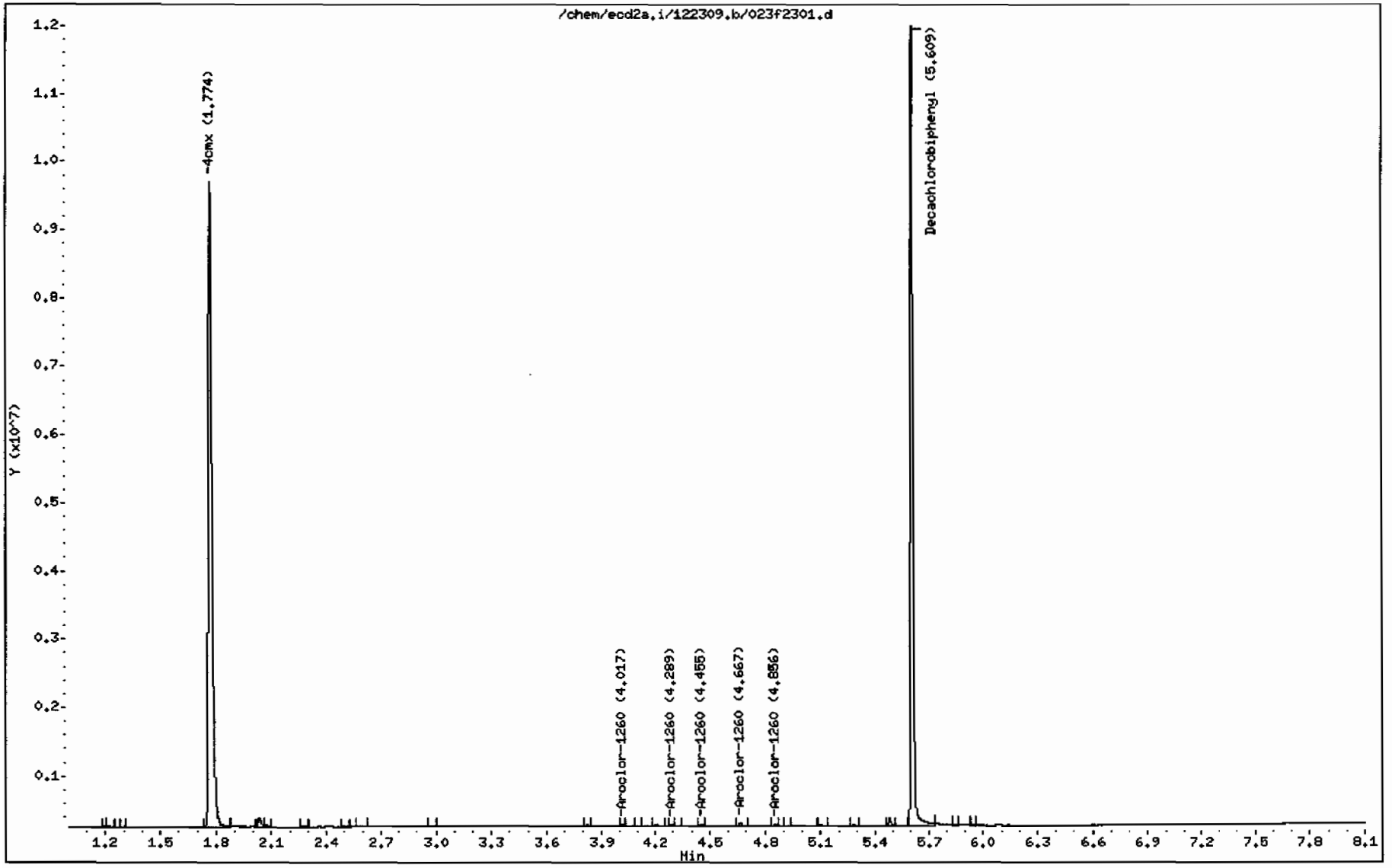

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/018b1801.d
Lab Smp Id: 1202001523 Client Smp ID: CAWA-10-5479MS
Inj Date : 23-DEC-2009 10:29
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202001523|1|
Misc Info : |ECD82P_1L|935397|SVA|QC A|GROUND WATER|MS|||
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 18 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-915.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.067	0.005	13710231	106.019	0.11	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.302	6.304	-0.002	16690771	147.990	0.15	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.748	2.746	0.002	2380755	524.647	0.52	80.00- 120.00	100.00
3.182	3.181	0.001	1936850	537.690	0.54	58.59- 98.59	81.35
3.334	3.332	0.002	1150515	560.344	0.56	25.36- 65.36	48.33
3.361	3.362	-0.001	1185533	554.742	0.55	27.83- 67.83	49.80
3.519	3.520	-0.001	1647935	574.090	0.57	43.83- 83.83	69.22
Average of Peak Concentrations =					0.55		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.416	4.417	-0.001	3996857	693.066	0.69	80.00- 120.00	100.00
4.568	4.569	-0.001	5108846	717.143	0.72	108.70- 148.70	127.82
4.679	4.681	-0.002	3488861	724.024	0.72	67.97- 107.97	87.29
4.876	4.878	-0.002	4113491	730.410	0.73	81.63- 121.63	102.92
5.502	5.504	-0.002	6601526	730.458	0.73	149.96- 189.96	165.17
		Average of Peak Concentrations =			0.72		

Data File: /chem/ecd2a.i/122309.b/018b1801.d

Date : 23-DEC-2009 10:29

Client ID: CAWA-10-5479MS

Sample Info: !120200152311!

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

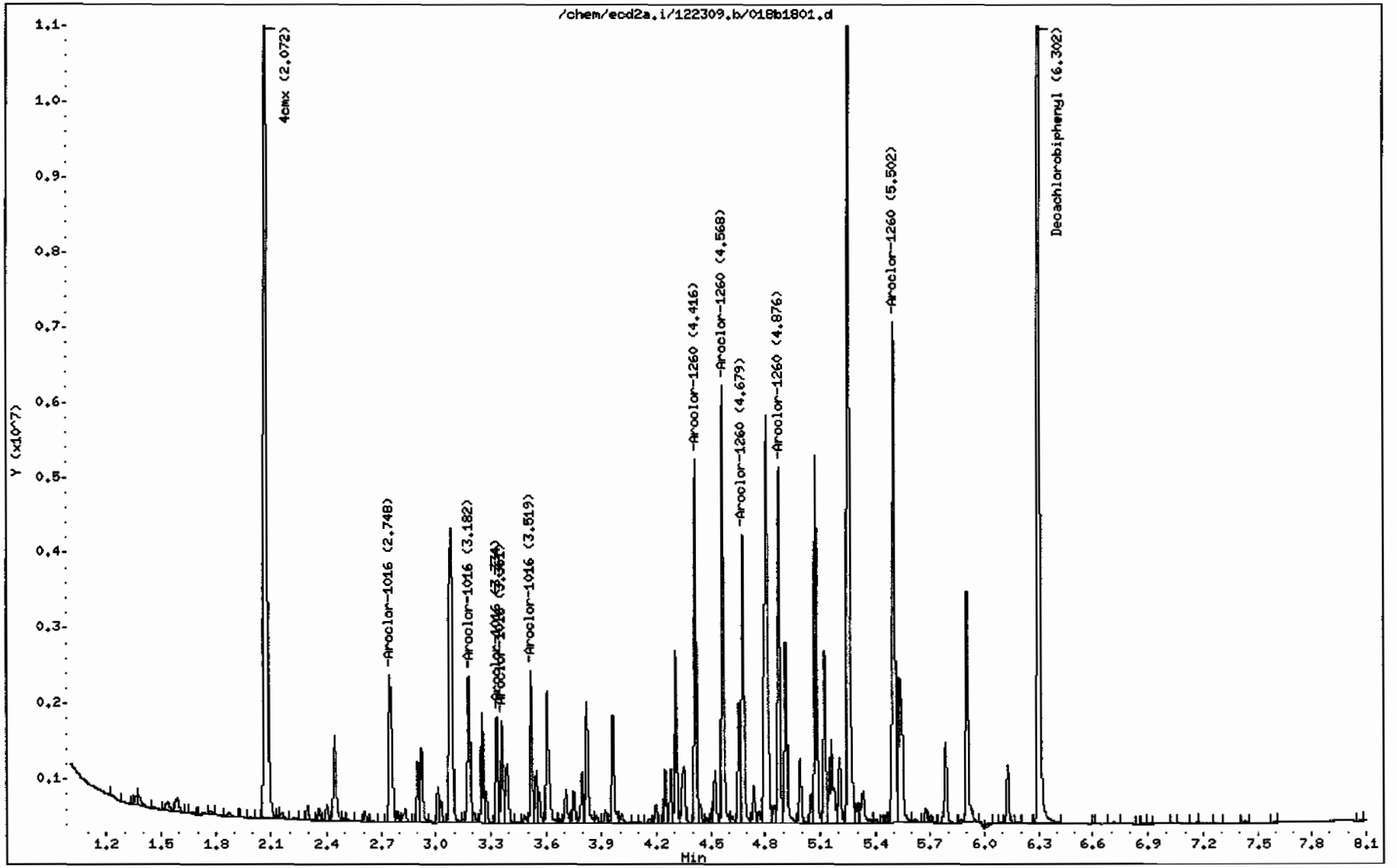

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/018f1801.d
Lab Smp Id: 1202001523 Client Smp ID: CAWA-10-5479MS
Inj Date : 23-DEC-2009 10:29
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202001523|1|
Misc Info : |ECD82P_1L|935397|SVA|QC A|GROUND WATER|MS|||
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 18 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-915.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.776	1.770	0.006	6439141	103.371	0.10	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.609	5.613	-0.004	7682884	141.982	0.14	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.277	2.274	0.003	1137241	508.221	0.51	80.00- 120.00	100.00
2.600	2.598	0.002	2490822	531.628	0.53	196.50- 236.50	219.02
2.692	2.689	0.003	1018943	535.868	0.54	64.80- 104.80	89.60
2.827	2.825	0.002	517318	530.051	0.53	23.47- 63.47	45.49
2.978	2.976	0.002	816188	559.851	0.56	45.32- 85.32	71.77

Average of Peak Concentrations = 0.53

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.017	4.018	-0.001	2983225	716.244	0.72	80.00- 120.00	100.00
4.288	4.290	-0.002	1849813	714.056	0.71	42.01- 82.01	62.01
4.454	4.456	-0.002	1931370	734.025	0.73	43.71- 83.71	64.74
4.667	4.669	-0.002	4723833	775.977	0.78	134.48- 174.48	158.35
4.856	4.859	-0.003	2259351	767.925	0.77	54.28- 94.28	75.74
			Average of Peak Concentrations =		0.74		

Data File: /chem/ecd2a.i/122309.b/018f1801.d
Date : 23-DEC-2009 10:29
Client ID: CAWA-10-5479MS
Sample Info: |1202001523|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

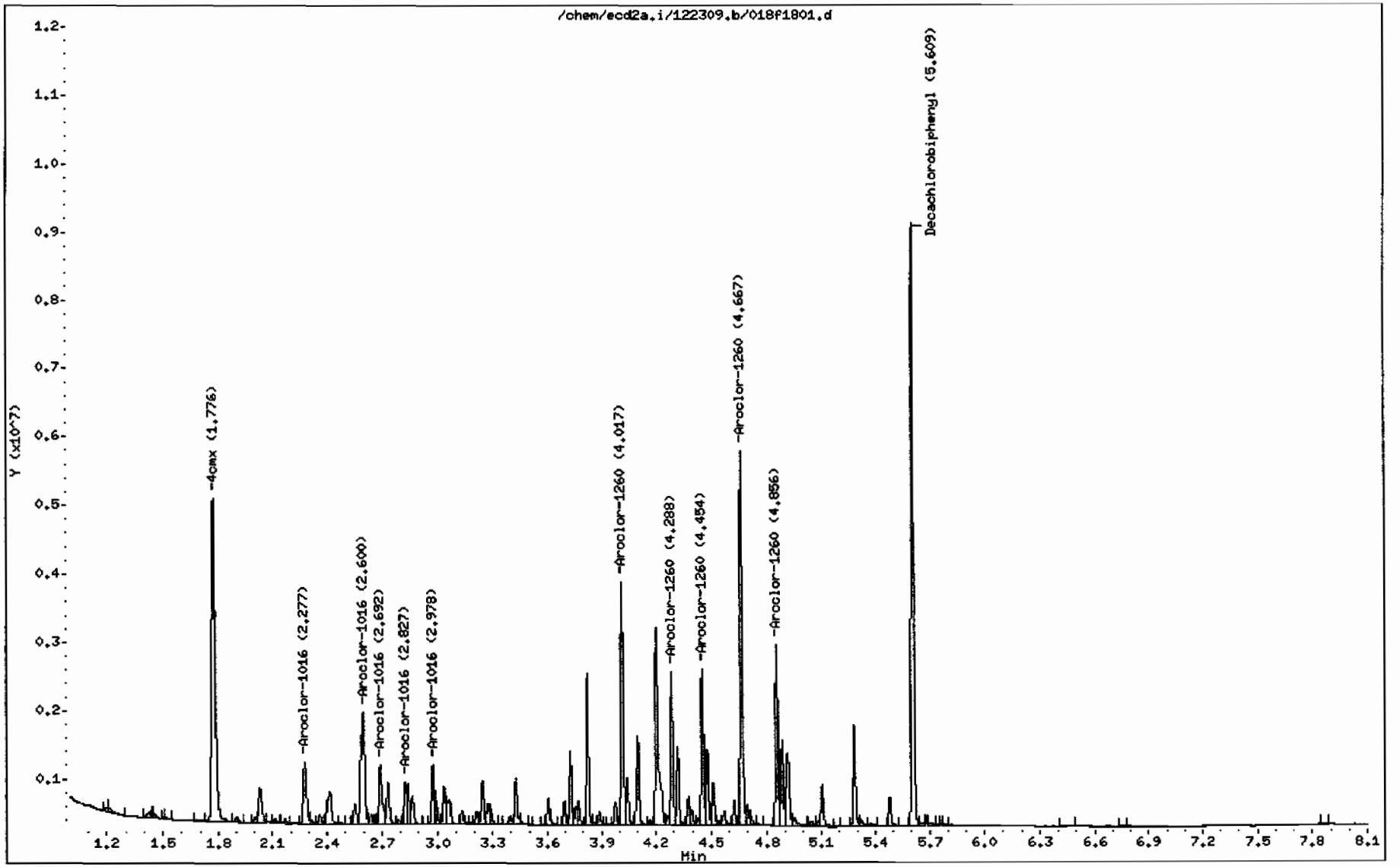

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/019b1901.d
Lab Smp Id: 1202001524 Client Smp ID: CAWA-10-5479MSD
Inj Date : 23-DEC-2009 10:40
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202001524|1|
Misc Info : |ECD82P_1L|935397|SVA|QC A|GROUND WATER|MSD|||
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 19 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-915.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.067	0.004	16048419	124.100	0.12	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.302	6.304	-0.002	17926110	158.943	0.16	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.747	2.746	0.001	3306533	728.661	0.73	80.00- 120.00	100.00
3.182	3.181	0.001	2287819	635.123	0.64	58.59- 98.59	69.19
3.333	3.332	0.001	1407901	685.701	0.68	25.36- 65.36	42.58
3.361	3.362	-0.001	1372851	642.393	0.64	27.83- 67.83	41.52
3.519	3.520	-0.001	1920518	669.050	0.67	43.83- 83.83	58.08

Average of Peak Concentrations = 0.67

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.416	4.417	-0.001	4500634	780.422	0.78	80.00- 120.00	100.00
4.568	4.569	-0.001	5701110	800.280	0.80	108.70- 148.70	126.67
4.679	4.681	-0.002	3828806	794.571	0.79	67.97- 107.97	85.07
4.877	4.878	-0.001	4545560	807.130	0.81	81.63- 121.63	101.00
5.502	5.504	-0.002	7283295	805.896	0.80	149.96- 189.96	161.83
		Average of Peak Concentrations =			0.80		

Data File: /chem/ecd2a.i/122309.b/019b1901.d
Date : 23-DEC-2009 10:40
Client ID: CAWA-10-5479MSD
Sample Info: |1202001524|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

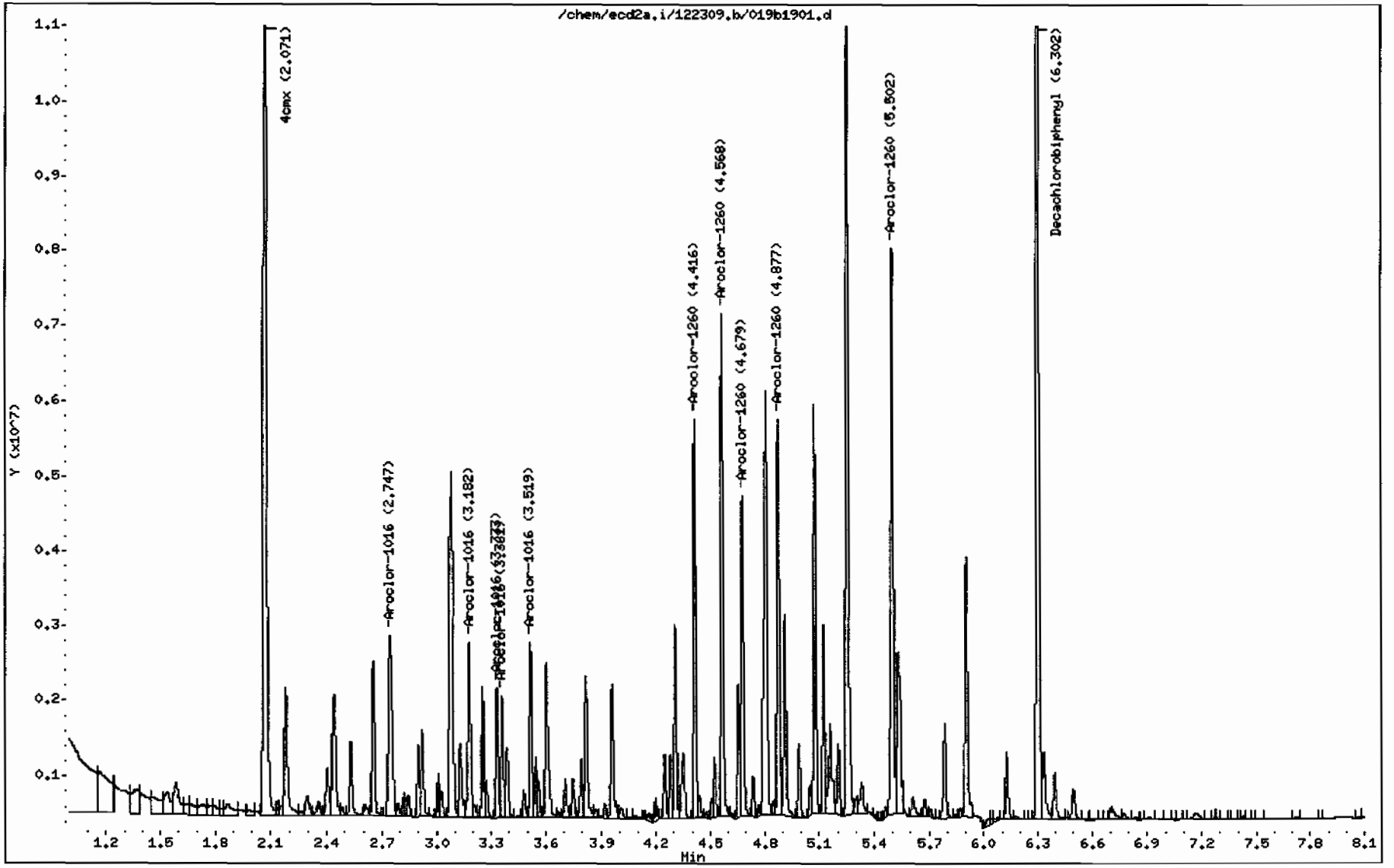

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/019f1901.d
Lab Smp Id: 1202001524 Client Smp ID: CAWA-10-5479MSD
Inj Date : 23-DEC-2009 10:40
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202001524|1|
Misc Info : |ECD82P_1L|935397|SVA|QC A|GROUND WATER|MSD|||
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 19 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-915.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.770	0.004	7378270	118.447	0.12	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.610	5.613	-0.003	8431797	155.822	0.16	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.276	2.274	0.002	1228732	549.107	0.55	80.00- 120.00	100.00
2.600	2.598	0.002	2843463	606.894	0.61	196.50- 236.50	231.41
2.691	2.689	0.002	1663706	874.952	0.87	64.80- 104.80	135.40
2.826	2.825	0.001	598181	612.904	0.61	23.47- 63.47	48.68
2.977	2.976	0.001	951424	652.614	0.65	45.32- 85.32	77.43
Average of Peak Concentrations =					0.66		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.016	4.018	-0.002	3342154	802.419	0.80	80.00- 120.00	100.00
4.288	4.290	-0.002	2036840	786.251	0.79	42.01- 82.01	60.94
4.454	4.456	-0.002	2196472	834.778	0.83	43.71- 83.71	65.72
4.667	4.669	-0.002	5290732	869.100	0.87	134.48- 174.48	158.30
4.856	4.859	-0.003	2514578	854.674	0.85	54.28- 94.28	75.24
			Average of Peak Concentrations =		0.83		

Data File: /chem/ecd2a.i/122309.b/019f1901.d

Date : 23-DEC-2009 10:40

Client ID: CAWA-10-5479MSD

Sample Info: |120200152411|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

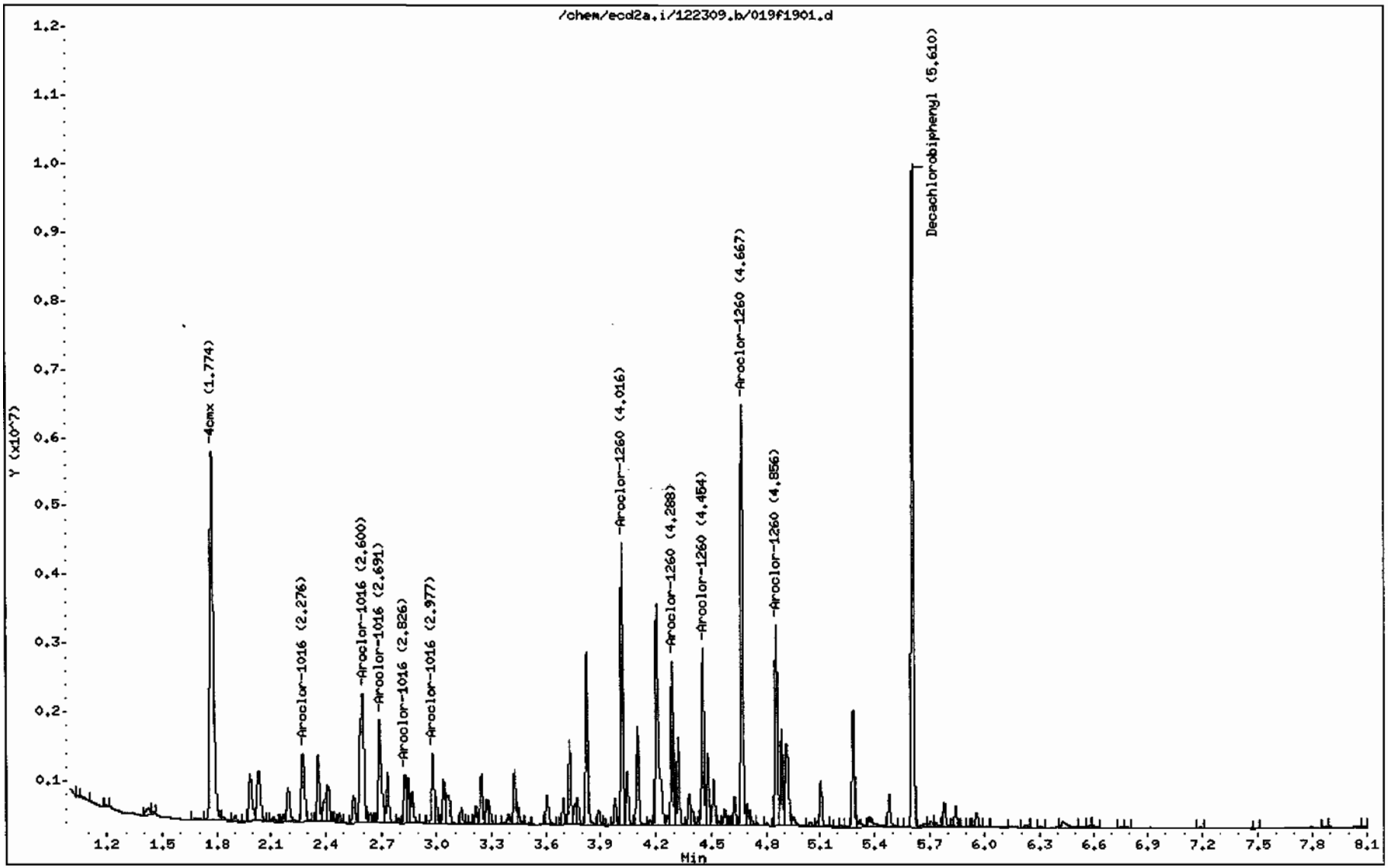

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 935395 **Verified by:** _____

Analyst: Jesse Craig

Method: SW846 3510C

Lab SOP: GL–OA–E–013 REV# 21

Instrument: Semi–Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Final Volume (mL)	Prepped Factor (mL/mL)
1202001521 MB	22–DEC–2009 17:32:47	1000	5	1	0.001
1202001522 LCS	22–DEC–2009 17:32:47	1000	5	1	0.001
242426002 – 2	22–DEC–2009 17:32:47	910	6	1	0.0011
242935002	22–DEC–2009 17:32:47	890	6	1	0.00112
1202001523 MS (242935002)	22–DEC–2009 17:32:47	500	6	0.5	0.001
1202001524 MSD (242935002)	22–DEC–2009 17:32:47	500	6	0.5	0.001
242935010	22–DEC–2009 17:32:47	890	5	1	0.00112
243012003	22–DEC–2009 17:32:47	940	6	1	0.00106
243099002	22–DEC–2009 17:32:47	825	6	1	0.00121
243254004	22–DEC–2009 17:32:47	830	6	1	0.0012
243254009	22–DEC–2009 17:32:47	835	5	1	0.0012
243283002	22–DEC–2009 17:32:47	985	6	1	0.00102
243284003	22–DEC–2009 17:32:47	970	6	1	0.00103
243284007	22–DEC–2009 17:32:47	915	6	1	0.00109
243284010	22–DEC–2009 17:32:47	910	6	1	0.0011

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202001522	PCB Laboratory Control	WE091120–07	1	mL
MS	1202001523	PCB Laboratory Control	WE091120–07	.5	mL
MSD	1202001524	PCB Laboratory Control	WE091120–07	.5	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE091103–15	.5	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE091103–15	1	mL
REGNT	All	Hexane	1241300–B2	5	mL
REGNT	All	Methylene Chloride	1245410–D	180	mL
REGNT	All	Sulfuric Acid Sol., 1:1	1245641	5	mL
REGNT	All	5% Potassium Permanganate	B1202457–F	5	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Sample 242426002 was emulsive. No addit1onal CH2CL2 was needed to break the emulsion.

Clean up Date: 12–22–09

Clean up Initials: JAC

Verified By: RLC

Final Solvent: Hexane

Clean Up SOP: GL–OA–E–037

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-994

Method/Analysis Information

Product: **Carbon, Total Organic**

Analytical Batch: 935196 **Method:** SW846 9060

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9060:

Sample ID	Client ID
243283004	CAPA-10-6793
1202000895	Method Blank (MB)
1202000896	243284012(CAPA-10-6746) Sample Duplicate (DUP)
1202000897	243284012(CAPA-10-6746) Post Spike (PS)
1202000898	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-093 REV# 9.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Carbon analysis was performed on a O-I Analytical Model 1010 Total Organic Carbon Analyzer.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 243284012 (CAPA-10-6746).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following samples were re-analyzed due to CCV failure: 1202000896 (CAPA-10-6746), 1202000897 (CAPA-10-6746) and 243283004 (CAPA-10-6793).

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the

laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Total Kjeldahl Nitrogen**		
Analytical Batch:	934822	**Method:**	EPA 351.2
Prep Batch :	934821	**Method:**	EPA 351.2 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 351.2:

Sample ID	Client ID
243283004	CAPA-10-6793
1202000067	Method Blank (MB)
1202000068	243099004(CAPA-10-6818) Sample Duplicate (DUP)
1202000069	243099004(CAPA-10-6818) Matrix Spike (MS)
1202000070	243099004(CAPA-10-6818) Matrix Spike Duplicate (MSD)
1202000071	Laboratory Control Sample (LCS)
1202000915	243253001(50FWC-09-2842) Sample Duplicate (DUP)
1202000916	243253001(50FWC-09-2842) Matrix Spike (MS)
1202000917	243253001(50FWC-09-2842) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-104 REV# 8.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 243099004 (CAPA-10-6818) and 243253001 (50FWC-09-2842).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the established acceptance limits due to matrix interference and/or sample matrix non-homogeneity: 1202000916 (50FWC-09-2842).

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the established acceptance limits. Since both the spike recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported. 1202000070 (CAPA-10-6818). The spike duplicate recovery falls outside of the established acceptance limits due to matrix interference and/or sample matrix non-homogeneity: 1202000917 (50FWC-09-2842).

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) between the Matrix Spike and Matrix Spike Duplicate was outside of the required acceptance limits due to the heterogeneous matrix of the sample. 1202000916 (50FWC-09-2842) and 1202000917 (50FWC-09-2842).

Duplicate Relative Percent Difference (RPD) Statement
The Relative Percent Difference (RPD) between the sample and its duplicate falls outside of the normal acceptance limits for sample 1202000915 (50FWC-09-2842) because of the heterogeneous matrix of the sample. The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202000068 (CAPA-10-6818).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following sample was re-analyzed due to instrument failure: 1202000069 (CAPA-10-6818). The following samples were re-analyzed due to CCB failure: 1202000069 (CAPA-10-6818) and 243283004 (CAPA-10-6793). The following sample was re-analyzed to verify the result: 243283004 (CAPA-10-6793). The following samples were re-analyzed due to LCS failure: 1202000067 (MB), 1202000068 (CAPA-10-6818), 1202000069 (CAPA-10-6818) and 1202000071 (LCS).

Miscellaneous Information

Nonconformance (NCR) Documentation
The following NCR was generated for this SDG: 773518 1202000070 (CAPA-10-6818), 1202000915 (50FWC-09-2842), 1202000916 (50FWC-09-2842) and 1202000917 (50FWC-09-2842).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 15Jan10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-994 GEL Work Order: 243283

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: December 31, 2009

Client SDG: 10-994

Client Sample ID:	CAPA-10-6793	Project:	ESHL01000
Sample ID:	243283004	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	17-DEC-09 12:00		
Receive Date:	19-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis											
SW 9060 Total Organic Carbon "As Received"											
Total Organic Carbon Average	J	0.824	0.330	1.00	mg/L	1	TSM	12/22/09	1511	935196	1
Nutrient Analysis											
Nitrogen, Total Kjeldahl (TKN) "As Received"											
Nitrogen, Total Kjeldahl	U	ND	0.033	0.100	mg/L	1	AXH3	12/22/09	1413	934822	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 351.2 Prep	EPA 351.2 Total Kjeldahl Nitrogen Prep	SXJ1	12/21/09	1536	934821

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9060	
2	EPA 351.2	

Quality Control Summary

QC Summary

Report Date: December 31, 2009
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico
Contact: **Ms. Joylene Valdez**

Workorder: **243283**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Carbon Analysis											
Batch 935196											
QC1202000896 243284012 DUP											
Total Organic Carbon Average			12.6		12.0	mg/L	5.02		(0%-20%)	TSM	12/22/09 14:09
QC1202000898 LCS											
Total Organic Carbon Average	10.0				11.0	mg/L		110	(85%-115%)		12/21/09 20:00
QC1202000895 MB											
Total Organic Carbon Average				U	ND	mg/L					12/21/09 19:51
QC1202000897 243284012 PS											
Total Organic Carbon Average	10.0		12.6		22.0	mg/L		93.4	(65%-121%)		12/22/09 14:29
Nutrient Analysis											
Batch 934822											
QC1202000068 243099004 DUP											
Nitrogen, Total Kjeldahl		U	ND	U	ND	mg/L	N/A			AXH3	12/22/09 13:30
QC1202000915 243253001 DUP											
Nitrogen, Total Kjeldahl			1.53		0.911	mg/L	50.7*		(0%-20%)		12/22/09 13:45
QC1202000071 LCS											
Nitrogen, Total Kjeldahl	1.00				0.981	mg/L		98.1	(90%-110%)		12/22/09 13:28
QC1202000067 MB											
Nitrogen, Total Kjeldahl				U	ND	mg/L					12/22/09 13:28
QC1202000069 243099004 MS											
Nitrogen, Total Kjeldahl	1.00	U	ND		0.900	mg/L		90	(90%-110%)		12/22/09 14:12
QC1202000916 243253001 MS											
Nitrogen, Total Kjeldahl	1.00		1.53		3.11	mg/L		158*	(90%-110%)		12/22/09 13:46
QC1202000070 243099004 MSD											
Nitrogen, Total Kjeldahl	1.00	U	ND		0.894	mg/L	0.669	89.4*	(0%-20%)		12/22/09 13:32
QC1202000917 243253001 MSD											
Nitrogen, Total Kjeldahl	1.00		1.53		2.24	mg/L	32.7*	70.8*	(0%-20%)		12/22/09 13:46

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value

QC Summary

Workorder: 243283

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

H	Analytical holding time was exceeded
J	Value is estimated
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 31-DEC-2009 11:22

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-994

Carbon Analysis

Method: SW846 9060 Concentration Units:mg/L

Instrument: O-I Analytical Model 1010 Total Organic Carbon Analyzer

Parmname: Total Organic Carbon
Average

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**21-DEC-2009 10:05:00**	**XN063.rlt**	**10.371**	**10**	**104**	**(90%-110%)**	**Yes**
CCV	21-DEC-2009 18:47:00	XN089.rlt	10.522	10	105	(90%-110%)	Yes
CCV	21-DEC-2009 22:41:00	XN101.rlt	10.595	10	106	(90%-110%)	Yes
CCV	22-DEC-2009 01:41:00	XN109.rlt	11.078	10	111	(90%-110%)	No
ICV	**22-DEC-2009 12:23:00**	**XN122.rlt**	**10.264**	**10**	**103**	**(90%-110%)**	**Yes**
CCV	22-DEC-2009 13:18:00	XN125.rlt	9.967	10	100	(90%-110%)	Yes
CCV	22-DEC-2009 16:19:00	XN133.rlt	10.08	10	101	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**21-DEC-2009 10:14:00**	**XN064.rlt**	**-0.035**	**1**	**Yes**
CCB	21-DEC-2009 18:56:00	XN090.rlt	-0.068	1	Yes
CCB	21-DEC-2009 22:50:00	XN102.rlt	-0.076	1	Yes
CCB	22-DEC-2009 01:50:00	XN110.rlt	-0.048	1	Yes
ICB	**22-DEC-2009 12:32:00**	**XN123.rlt**	**-0.005**	**1**	**Yes**
CCB	22-DEC-2009 13:27:00	XN126.rlt	-0.04	1	Yes
CCB	22-DEC-2009 16:28:00	XN134.rlt	0.01	1	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 31-DEC-2009 11:22

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-994

Nutrient Analysis

Method: EPA 351.2 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Nitrogen, Total Kjeldahl

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**22-DEC-2009 13:00:12**	**OM_12-22-2009_12-53-22**	**0.939**	**1**	**94**	**(90%-110%)**	**Yes**
CCV	22-DEC-2009 13:24:20	OM_12-22-2009_12-53-22	1.033	1	103	(90%-110%)	Yes
CCV	22-DEC-2009 13:36:32	OM_12-22-2009_12-53-22	1.03	1	103	(90%-110%)	Yes
CCV	22-DEC-2009 13:48:36	OM_12-22-2009_12-53-22	1.022	1	102	(90%-110%)	Yes
CCV	22-DEC-2009 14:06:34	OM_12-22-2009_14-05-47	1.027	1	103	(90%-110%)	Yes
CCV	22-DEC-2009 14:19:56	OM_12-22-2009_14-05-47	1.021	1	102	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**22-DEC-2009 13:02:08**	**OM_12-22-2009_12-53-22**	**-0.029**	**0.1**	**Yes**
CCB	22-DEC-2009 13:26:16	OM_12-22-2009_12-53-22	-0.03	0.1	Yes
CCB	22-DEC-2009 13:38:27	OM_12-22-2009_12-53-22	-0.033	0.1	Yes
CCB	22-DEC-2009 13:50:32	OM_12-22-2009_12-53-22	-0.032	0.1	Yes
CCB	22-DEC-2009 14:08:30	OM_12-22-2009_14-05-47	-0.031	0.1	Yes
CCB	22-DEC-2009 14:21:52	OM_12-22-2009_14-05-47	-0.03	0.1	Yes

Carbon, Total Organic

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
ICAL-01		1	TSM	21-Dec-09 9:20	XN058.rlt
ICAL-02		1	TSM	21-Dec-09 9:29	XN059.rlt
ICAL-03		1	TSM	21-Dec-09 9:38	XN060.rlt
ICAL-04		1	TSM	21-Dec-09 9:47	XN061.rlt
ICAL-05		1	TSM	21-Dec-09 9:56	XN062.rlt
ICV		1	TSM	21-Dec-09 10:05	XN063.rlt
ICB		1	TSM	21-Dec-09 10:14	XN064.rlt
TIC	935196	1	TSM	21-Dec-09 10:24	XN065.rlt
CCV		1	TSM	21-Dec-09 11:53	XN066.rlt
CCB		1	TSM	21-Dec-09 12:02	XN067.rlt
1201999252	934459	1	TSM	21-Dec-09 12:11	XN068.rlt
1201999255	934459	1	TSM	21-Dec-09 12:20	XN069.rlt
243012005	934459	1	TSM	21-Dec-09 12:28	XN070.rlt
243016002	934459	1	TSM	21-Dec-09 13:02	XN071.rlt
1201999253	934459	1	TSM	21-Dec-09 13:35	XN072.rlt
1201999254	934459	1	TSM	21-Dec-09 13:55	XN073.rlt
243016006	934459	1	TSM	21-Dec-09 14:03	XN074.rlt
243063001	934459	1	TSM	21-Dec-09 14:37	XN075.rlt
243099004	934459	1	TSM	21-Dec-09 14:55	XN076.rlt
243130001	934459	5	TSM	21-Dec-09 15:29	XN077.rlt
CCV		1	TSM	21-Dec-09 15:47	XN078.rlt
CCB		1	TSM	21-Dec-09 15:56	XN079.rlt
243130002	934459	5	TSM	21-Dec-09 16:05	XN080.rlt
243148001	934459	1	TSM	21-Dec-09 16:23	XN081.rlt
243148002	934459	1	TSM	21-Dec-09 16:41	XN082.rlt
243148003	934459	1	TSM	21-Dec-09 16:59	XN083.rlt
243178002	934459	1	TSM	21-Dec-09 17:17	XN084.rlt
243178003	934459	2000	TSM	21-Dec-09 17:35	XN085.rlt
243178005	934459	2	TSM	21-Dec-09 17:53	XN086.rlt
243178006	934459	1	TSM	21-Dec-09 18:11	XN087.rlt
243178008	934459	1	TSM	21-Dec-09 18:29	XN088.rlt
CCV		1	TSM	21-Dec-09 18:47	XN089.rlt
CCB		1	TSM	21-Dec-09 18:56	XN090.rlt
243178007	934459	1	TSM	21-Dec-09 19:04	XN091.rlt
1201999720	934459	1	TSM	21-Dec-09 19:22	XN092.rlt
1201999721	934459	1	TSM	21-Dec-09 19:42	XN093.rlt
1202000895	935196	1	TSM	21-Dec-09 19:51	XN094.rlt
1202000898	935196	1	TSM	21-Dec-09 20:00	XN095.rlt
243250001	935196	2000	TSM	21-Dec-09 20:08	XN096.rlt
243255001	935196	1	TSM	21-Dec-09 20:26	XN097.rlt
243255004	935196	1	TSM	21-Dec-09 21:00	XN098.rlt
243255006	935196	1	TSM	21-Dec-09 21:33	XN099.rlt
243257003	935196	1	TSM	21-Dec-09 22:07	XN100.rlt
CCV		1	TSM	21-Dec-09 22:41	XN101.rlt
CCB		1	TSM	21-Dec-09 22:50	XN102.rlt
243257005	935196	1	TSM	21-Dec-09 22:58	XN103.rlt
243283004	935196	1	TSM	21-Dec-09 23:32	XN104.rlt
243284005	935196	1	TSM	22-Dec-09 0:05	XN105.rlt
243284012	935196	1	TSM	22-Dec-09 0:39	XN106.rlt
1202000896	935196	1	TSM	22-Dec-09 1:13	XN107.rlt
1202000897	935196	1	TSM	22-Dec-09 1:33	XN108.rlt
CCV		1	TSM	22-Dec-09 1:41	XN109.rlt
CCB		1	TSM	22-Dec-09 1:50	XN110.rlt
CCV		1	TSM	22-Dec-09 9:40	XN111.rlt
CCB		1	TSM	22-Dec-09 9:49	XN112.rlt
243178003	934459	20	TSM	22-Dec-09 9:57	XN113.rlt
CCV		1	TSM	22-Dec-09 10:16	XN114.rlt

```
*********************************************************************
**                          CONFIGURATION                          **
*********************************************************************

Analysis Mode:  TOC          Spl Intro:  Autosampler 53
Remote Start :  OFF

Loop Size:  5 mL        Actual Volume  1mL   5mL   10mL   25mL
                        -------------  ----  ----  -----  -----
                         Loop A (uL):  1000  4900  10000  25000
                         Loop B (uL):  1000  4900  10000  25000

Tray Type:              53 Vial  Vial Option:                  Neither
Needle Depth:           97 %     Preacid Volume (uL):              200
Wash Needle Depth:      94 %     Preacid Purge Time (min:sec):    0:30

            TIC    TOC    TC
Blank      ----   ----   ----            Linearization Coeff:  53000
 Average:   183    870    511

                          Sample Transfer Times (sec)
          Initial Fill          |        Loop Fill         | Sample Inject
     Non-AS    AS  AS w/Sep     | Non-AS    AS  AS w/Sep   |    (all)
     ------  ----- --------     | ------  ----- --------   | -------------
1mL:    6.0    4.5      3.5     |    1.2    1.2      1.0   |      4.5
5mL:    8.1    7.0      8.0     |    5.1    3.0      5.5   |     10.3
10mL:  14.2   12.2     11.0     |   10.5   10.5     11.0   |     16.5
25mL:  35.0   35.0     32.0     |    n/a    n/a      n/a   |     38.0

Analog Concentration Signal indicates TOC
Analog Conc. Signal Timer is OFF, Timer duration (h:m:s): 00:00:00
Min Signal Range:   0.000 ppmC,  Max Signal Range:   0.000 ppmC

Alarms DISABLED
Alarm Relay Timer is OFF, Timer duration (h:m:s): 00:00:00
       Conc. Alarm Setpoints (ppm C)
          Low        |     High
      -----------    | -----------
TIC:     0.000           0.000
TOC:     0.000           0.000
TC:      0.000           0.000
```

```
*******************************************************************
**                          CALIBRATION                          **
*******************************************************************
```

12/21/09 Mon Dec 21 09:56:41 2009

Std. #	Used	Conc. (ppm)	Volume (mL)
1	Yes	20.000	5.000
2	Yes	10.000	5.000
3	Yes	1.000	5.000
4	Yes	0.200	5.000
5	Yes	0.000	5.000

RF (ugC/k-cts):	1.204
R-Squared:	1.0000
Offset (cts):	1220
Offset (ugC):	-1.469
Calibration Mode:	TOC
Allow Editing:	No

Rep	Std. 1	Std. 2	Std. 3	Std. 4	Std. 5
1	82740	41706	5499	1911	1260
2	-	-	-	-	-
3	-	-	-	-	-
4	-	-	-	-	-
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	-
9	-	-	-	-	-
10	-	-	-	-	-

(* = unused)

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
1	Blk	1	21Dec2009	08:50	-	-	-	581	-	-	-	-	-
1	Blk	2	21Dec2009	08:56	-	-	-	883	-	-	-	-	-
1	Blk	3	21Dec2009	09:03	-	-	-	4185	-	-	-	-	-
1	Blk	4	21Dec2009	09:11	-	-	-	1908	-	-	-	-	-

** Std1 Name: ICAL-01 Data File: XN058
Remarks: 935196|1|1| WTC091221-01 ID:TOC267

1	Std1	1	21Dec2009	09:20	-	-	-	82740	98.000	20.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.219
R-Squared: 1.0000
Offset (cts): 0
Offset (ugC): 0.000

** Std2 Name: ICAL-02 Data File: XN059
Remarks: 935196|1|1| WTC091221-02 ID:TOC267

2	Std2	1	21Dec2009	09:29	-	-	-	41706	49.000	10.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.194
R-Squared: 1.0000
Offset (cts): 672
Offset (ugC): -0.802

** Std3 Name: ICAL-03 Data File: XN060
Remarks: 935196|1|1| WTC091221-03 ID:TOC267

3	Std3	1	21Dec2009	09:38	-	-	-	5499	4.900	1.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.205
R-Squared: 1.0000
Offset (cts): 1298
Offset (ugC): -1.564

** Std4 Name: ICAL-04 Data File: XN061
Remarks: 935196|1|1| WTC091221-04 ID:TOC267

4	Std4	1	21Dec2009	09:47	-	-	-	1911	0.980	0.200	-	-	-

** Calibration:
RF (ugC/k-cts): 1.203
R-Squared: 1.0000
Offset (cts): 1201
Offset (ugC): -1.446

** Std5 Name: ICAL-05 Data File: XN062
Remarks: 935196|1|1| ID:TOC267

5	Std5	1	21Dec2009	09:56	-	-	-	1260	0.000	0.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.204
R-Squared: 1.0000
Offset (cts): 1220
Offset (ugC): -1.469

```
** Chk2      Name:     ICV                          Data File: XN063
             Remarks: 935196|1|1| WTC091221-05 ID:TOC267

6    Chk2    1 21Dec2009 10:05      -       -          -     43439  50.817     10.371      -       -          -

** Chk5      Name:     ICB                          Data File: XN064
             Remarks: 935196|1|1| ID:TOC267

7    Chk5    1 21Dec2009 10:14      -       -          -      1077  -0.173     -0.035      -       -          -

** Sp1       Name:     TIC                          Data File: XN065
             Remarks: 935196|1|1| WIC091221-01 ID:TOC267

8    Sp1     1 21Dec2009 10:24      -       -          -      1545   0.000      0.000      -       -          -
```

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Chk2		Name:	CCV					Data File: XN066					
		Remarks:	934459|1|2| WTC091221-02 ID:TOC267										
1	Chk2	1	21Dec2009	11:53	-	-	-	40957	47.829	9.761	-	-	-
** Chk5		Name:	CCB					Data File: XN067					
		Remarks:	934459|1|2| ID:TOC267										
2	Chk5	1	21Dec2009	12:02	-	-	-	1333	0.135	0.028	-	-	-
** Chk5		Name:	1201999252					Data File: XN068					
		Remarks:	934459|1|2|MB ID:TOC267										
3	Chk5	1	21Dec2009	12:11	-	-	-	1796	0.692	0.141	-	-	-
** Chk2		Name:	1201999255					Data File: XN069					
		Remarks:	934459|1|2|WTC091221-05:LCS ID:TOC267										
4	Chk2	1	21Dec2009	12:20	-	-	-	41848	48.902	9.980	-	-	-
** Spl		Name:	243012005					Data File: XN070					
		Remarks:	934459|1|2| ID:TOC267										
5	Spl	1	21Dec2009	12:28	-	-	-	2550	0.271	0.055	-	-	-
5	Spl	2	21Dec2009	12:36	-	-	-	2887	0.676	0.138	-	-	-
5	Spl	3	21Dec2009	12:44	-	-	-	2594	0.324	0.066	-	-	-
5	Spl	4	21Dec2009	12:53	-	-	-	2617	0.351	0.072	-	-	-
5	Spl	Avg						2662	0.406	0.083			
5	Spl	SDev						152.554					
5	Spl	%RSD						5.73					
** Spl		Name:	243016002					Data File: XN071					
		Remarks:	934459|1|2| ID:TOC267										
6	Spl	1	21Dec2009	13:02	-	-	-	16715	17.321	3.535	-	-	-
6	Spl	2	21Dec2009	13:09	-	-	-	18667	19.670	4.014	-	-	-
6	Spl	3	21Dec2009	13:17	-	-	-	17970	18.831	3.843	-	-	-
6	Spl	4	21Dec2009	13:27	-	-	-	17943	18.799	3.836	-	-	-
6	Spl	Avg						17823	18.655	3.807			
6	Spl	SDev						811.584					
6	Spl	%RSD						4.55					
** Spl		Name:	1201999253					Data File: XN072					
		Remarks:	934459|1|2|243016002:DUP ID:TOC267										
7	Spl	1	21Dec2009	13:35	-	-	-	16006	16.467	3.361	-	-	-
7	Spl	2	21Dec2009	13:45	-	-	-	18034	18.908	3.859	-	-	-
7	Spl	Avg						17020	17.688	3.610			
7	Spl	SDev						1434.013					
7	Spl	%RSD						8.43					
** Spl		Name:	1201999254					Data File: XN073					
		Remarks:	934459|1|2|243016002:PS ID:TOC267										

8	Spl	1 21Dec2009 13:55	-	-	-	56411	65.102	13.286	-	-	-

** Spl Name: 243016006 Data File: XN074
Remarks: 934459|1|2| ID:TOC267

9	Spl	1 21Dec2009 14:03	-	-	-	16070	16.544	3.376	-	-	-
9	Spl	2 21Dec2009 14:11	-	-	-	17611	18.399	3.755	-	-	-
9	Spl	3 21Dec2009 14:19	-	-	-	17236	17.948	3.663	-	-	-
9	Spl	4 21Dec2009 14:29	-	-	-	17127	17.817	3.636	-	-	-
9	Spl	Avg				17011	17.677	3.608			
9	Spl	SDev				660.697					
9	Spl	%RSD				3.88					

** Spl Name: 243063001 Data File: XN075
Remarks: 934459|1|2| ID:TOC267

10	Spl	1 21Dec2009 14:37	-	-	-	17215	17.923	3.658	-	-	-
10	Spl	2 21Dec2009 14:47	-	-	-	19767	20.994	4.285	-	-	-
10	Spl	Avg				18491	19.458	3.971			
10	Spl	SDev				1804.537					
10	Spl	%RSD				9.76					

** Spl Name: 243099004 Data File: XN076
Remarks: 934459|1|2| ID:TOC267

11	Spl	1 21Dec2009 14:55	-	-	-	3149	0.992	0.202	-	-	-
11	Spl	2 21Dec2009 15:03	-	-	-	3459	1.365	0.279	-	-	-
11	Spl	3 21Dec2009 15:11	-	-	-	3367	1.254	0.256	-	-	-
11	Spl	4 21Dec2009 15:20	-	-	-	3381	1.271	0.259	-	-	-
11	Spl	Avg				3339	1.221	0.249			
11	Spl	SDev				132.976					
11	Spl	%RSD				3.98					

** Spl Name: 243130001 Data File: XN077
Remarks: 934459|5|2| ID:TOC267

12	Spl	1 21Dec2009 15:29	-	-	-	38078	43.035	8.783	-	-	-
12	Spl	2 21Dec2009 15:38	-	-	-	43902	50.045	10.213	-	-	-
12	Spl	Avg				40990	46.540	9.498			
12	Spl	SDev				4118.190					
12	Spl	%RSD				10.05					

** Chk2 Name: CCV Data File: XN078
Remarks: 934459|1|2|WTC091221-02 ID:TOC267

13	Chk2	1 21Dec2009 15:47	-	-	-	42585	49.789	10.161	-	-	-

** Chk5 Name: CCB Data File: XN079
Remarks: 934459|1|2| ID:TOC267

14	Chk5	1 21Dec2009 15:56	-	-	-	1116	-0.126	-0.026	-	-	-

** Spl Name: 243130002 Data File: XN080
Remarks: 934459|5|2| ID:TOC267

15	Spl	1 21Dec2009 16:05	-	-	-	40968	46.513	9.493	-	-	-
15	Spl	2 21Dec2009 16:14	-	-	-	45991	52.559	10.726	-	-	-

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15   Spl  Avg                                          43479  49.536     10.109
15   Spl  SDev                                       3551.797
15   Spl  %RSD                                          8.17

** Spl      Name:    243148001                   Data File: XN081
            Remarks: 934459|1|2| ID:TOC267

16   Spl    1 21Dec2009 16:23      -       -         -   27596  30.418      6.208      -       -       -
16   Spl    2 21Dec2009 16:32      -       -         -   31868  35.560      7.257      -       -       -
16   Spl  Avg                                          29732  32.989      6.732
16   Spl  SDev                                       3020.760
16   Spl  %RSD                                          10.16

** Spl      Name:    243148002                   Data File: XN082
            Remarks: 934459|1|2| ID:TOC267

17   Spl    1 21Dec2009 16:41      -       -         -   30031  33.349      6.806      -       -       -
17   Spl    2 21Dec2009 16:50      -       -         -   34809  39.100      7.980      -       -       -
17   Spl  Avg                                          32420  36.224      7.393
17   Spl  SDev                                       3378.556
17   Spl  %RSD                                          10.42

** Spl      Name:    243148003                   Data File: XN083
            Remarks: 934459|1|2| ID:TOC267

18   Spl    1 21Dec2009 16:59      -       -         -   21269  22.802      4.654      -       -       -
18   Spl    2 21Dec2009 17:08      -       -         -   25254  27.599      5.632      -       -       -
18   Spl  Avg                                          23261  25.201      5.143
18   Spl  SDev                                       2817.821
18   Spl  %RSD                                          12.11

** Spl      Name:    243178002                   Data File: XN084
            Remarks: 934459|1|2| ID:TOC267

19   Spl    1 21Dec2009 17:17      -       -         -   16637  17.227      3.516      -       -       -
19   Spl    2 21Dec2009 17:26      -       -         -   18582  19.568      3.993      -       -       -
19   Spl  Avg                                          17609  18.397      3.755
19   Spl  SDev                                       1375.323
19   Spl  %RSD                                           7.81

** Spl      Name:    243178003                   Data File: XN085
            Remarks: 934459|2000|2| ID:TOC267

20   Spl    1 21Dec2009 17:35      -       -         -    2779   0.546      0.112      -       -       -
20   Spl    2 21Dec2009 17:44      -       -         -    2919   0.715      0.146      -       -       -
20   Spl  Avg                                           2849   0.631      0.129
20   Spl  SDev                                         98.995
20   Spl  %RSD                                           3.47

** Spl      Name:    243178005                   Data File: XN086
            Remarks: 934459|2|2| ID:TOC267

21   Spl    1 21Dec2009 17:53      -       -         -   42052  47.818      9.759      -       -       -
21   Spl    2 21Dec2009 18:02      -       -         -   47053  53.838     10.987      -       -       -
21   Spl  Avg                                          44552  50.828     10.373
21   Spl  SDev                                       3536.241
21   Spl  %RSD                                           7.94
```

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** Spl      Name:    243178006                    Data File: XN087
            Remarks: 934459|1|2| ID:TOC267

22   Spl    1 21Dec2009 18:11      -       -          -    21107  22.607      4.614      -       -       -
22   Spl    2 21Dec2009 18:20      -       -          -    25279  27.629      5.639      -       -       -
22   Spl  Avg                                           23193  25.118      5.126
22   Spl  SDev                                        2950.049
22   Spl  %RSD                                          12.72

** Spl      Name:    243178008                    Data File: XN088
            Remarks: 934459|1|2| ID:TOC267

23   Spl    1 21Dec2009 18:29      -       -          -    17121  17.809      3.635      -       -       -
23   Spl    2 21Dec2009 18:38      -       -          -    20475  21.847      4.458      -       -       -
23   Spl  Avg                                           18798  19.828      4.047
23   Spl  SDev                                        2371.636
23   Spl  %RSD                                          12.62

** Chk2     Name:    CCV                          Data File: XN089
            Remarks: 934459|1|2|WTC091221-02 ID:TOC267

24   Chk2   1 21Dec2009 18:47      -       -          -    44055  51.558     10.522      -       -       -

** Chk5     Name:    CCB                          Data File: XN090
            Remarks: 934459|1|2| ID:TOC267

25   Chk5   1 21Dec2009 18:56      -       -          -      946  -0.331     -0.068      -       -       -

** Spl      Name:    243178007                    Data File: XN091
            Remarks: 934459|1|2| ID:TOC267

26   Spl    1 21Dec2009 19:04      -       -          -    11588  11.150      2.275      -       -       -
26   Spl    2 21Dec2009 19:14      -       -          -    12866  12.688      2.589      -       -       -
26   Spl  Avg                                           12227  11.919      2.432
26   Spl  SDev                                         903.682
26   Spl  %RSD                                            7.39

** Spl      Name:    1201999720                   Data File: XN092
            Remarks: 934459|1|2|243178007:DUP ID:TOC267

27   Spl    1 21Dec2009 19:22      -       -          -    11588  11.150      2.275      -       -       -
27   Spl    2 21Dec2009 19:32      -       -          -    12903  12.732      2.598      -       -       -
27   Spl  Avg                                           12245  11.941      2.437
27   Spl  SDev                                         929.845
27   Spl  %RSD                                            7.59

** Spl      Name:    1201999721                   Data File: XN093
            Remarks: 934459|1|2|243178007:PS ID:TOC267

28   Spl    1 21Dec2009 19:42      -       -          -    53330  61.393     12.529      -       -       -

** Chk5     Name:    1202000895                   Data File: XN094
            Remarks: 935196|1|1|MB ID:TOC267

29   Chk5   1 21Dec2009 19:51      -       -          -      983  -0.286     -0.058      -       -       -

** Chk2     Name:    1202000898                   Data File: XN095
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            Remarks: 935196|1|1|WTC091221-05:LCS ID:TOC267

30   Chk2   1 21Dec2009 20:00      -       -          -    46046  53.955     11.011      -       -          -

** Sp1      Name:    243250001                    Data File: XN096
            Remarks: 935196|2000|1| ID:TOC267

31   Sp1    1 21Dec2009 20:08      -       -          -    49324  56.571     11.545      -       -          -
31   Sp1    2 21Dec2009 20:18      -       -          -    54477  62.774     12.811      -       -          -
31   Sp1  Avg                                           51900  59.672     12.178
31   Sp1  SDev                                       3643.721
31   Sp1  %RSD                                           7.02

** Sp1      Name:    243255001                    Data File: XN097
            Remarks: 935196|1|1| ID:TOC267

32   Sp1    1 21Dec2009 20:26      -       -          -     6866   5.466      1.115      -       -          -
32   Sp1    2 21Dec2009 20:34      -       -          -     7619   6.372      1.301      -       -          -
32   Sp1    3 21Dec2009 20:42      -       -          -     7406   6.116      1.248      -       -          -
32   Sp1    4 21Dec2009 20:51      -       -          -     7341   6.038      1.232      -       -          -
32   Sp1  Avg                                            7308   5.998      1.224
32   Sp1  SDev                                        317.689
32   Sp1  %RSD                                           4.35

** Sp1      Name:    243255004                    Data File: XN098
            Remarks: 935196|1|1| ID:TOC267

33   Sp1    1 21Dec2009 21:00      -       -          -     8572   7.519      1.535      -       -          -
33   Sp1    2 21Dec2009 21:08      -       -          -     9457   8.585      1.752      -       -          -
33   Sp1    3 21Dec2009 21:15      -       -          -     9467   8.597      1.754      -       -          -
33   Sp1    4 21Dec2009 21:25      -       -          -     9290   8.384      1.711      -       -          -
33   Sp1  Avg                                            9196   8.271      1.688
33   Sp1  SDev                                        424.175
33   Sp1  %RSD                                           4.61

** Sp1      Name:    243255006                    Data File: XN099
            Remarks: 935196|1|1| ID:TOC267

34   Sp1    1 21Dec2009 21:33      -       -          -     8601   7.554      1.542      -       -          -
34   Sp1    2 21Dec2009 21:41      -       -          -     9763   8.953      1.827      -       -          -
34   Sp1    3 21Dec2009 21:49      -       -          -     9244   8.328      1.700      -       -          -
34   Sp1    4 21Dec2009 21:59      -       -          -     9401   8.517      1.738      -       -          -
34   Sp1  Avg                                            9252   8.338      1.702
34   Sp1  SDev                                        485.519
34   Sp1  %RSD                                           5.25

** Sp1      Name:    243257003                    Data File: XN100
            Remarks: 935196|1|1| ID:TOC267

35   Sp1    1 21Dec2009 22:07      -       -          -     4568   2.700      0.551      -       -          -
35   Sp1    2 21Dec2009 22:15      -       -          -     5264   3.538      0.722      -       -          -
35   Sp1    3 21Dec2009 22:22      -       -          -     5118   3.362      0.686      -       -          -
35   Sp1    4 21Dec2009 22:32      -       -          -     5017   3.240      0.661      -       -          -
35   Sp1  Avg                                            4991   3.210      0.655
35   Sp1  SDev                                        300.145
35   Sp1  %RSD                                           6.01

** Chk2     Name:    CCV                          Data File: XN101
            Remarks: 935196|1|1|WTC091221-02 ID:TOC267
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36   Chk2   1 21Dec2009 22:41      -       -          -    44353  51.917     10.595      -       -          -

** Chk5      Name:    CCB                          Data File: XN102
            Remarks: 935196|1|1| ID:TOC267

37   Chk5   1 21Dec2009 22:50      -       -          -      912  -0.372     -0.076      -       -          -

** Spl       Name:    243257005                    Data File: XN103
            Remarks: 935196|1|1| ID:TOC267

38   Spl    1 21Dec2009 22:58      -       -          -     2682   0.430      0.088      -       -          -
38   Spl    2 21Dec2009 23:06      -       -          -     3057   0.881      0.180      -       -          -
38   Spl    3 21Dec2009 23:14      -       -          -     2859   0.643      0.131      -       -          -
38   Spl    4 21Dec2009 23:24      -       -          -     2799   0.571      0.116      -       -          -
38   Spl  Avg                                           2849   0.631      0.129
38   Spl  SDev                                       156.794
38   Spl  %RSD                                          5.50

** Spl       Name:    243283004                    Data File: XN104
            Remarks: 935196|1|1| ID:TOC267

39   Spl    1 21Dec2009 23:32      -       -          -     4307   2.386      0.487      -       -          -
39   Spl    2 21Dec2009 23:40      -       -          -     4789   2.966      0.605      -       -          -
39   Spl    3 21Dec2009 23:47      -       -          -     4672   2.825      0.576      -       -          -
39   Spl    4 21Dec2009 23:57      -       -          -     4831   3.016      0.616      -       -          -
39   Spl  Avg                                           4649   2.798      0.571
39   Spl  SDev                                       238.198
39   Spl  %RSD                                          5.12

** Spl       Name:    243284005                    Data File: XN105
            Remarks: 935196|1|1| ID:TOC267

40   Spl    1 22Dec2009 00:05      -       -          -    49440  56.711     11.574      -       -          -
40   Spl    2 22Dec2009 00:13      -       -          -    56419  65.111     13.288      -       -          -
40   Spl    3 22Dec2009 00:21      -       -          -    56321  64.993     13.264      -       -          -
40   Spl    4 22Dec2009 00:31      -       -          -    56317  64.988     13.263      -       -          -
40   Spl  Avg                                          54624  62.951     12.847
40   Spl  SDev                                      3456.489
40   Spl  %RSD                                          6.33

** Spl       Name:    243284012                    Data File: XN106
            Remarks: 935196|1|1| ID:TOC267

41   Spl    1 22Dec2009 00:39      -       -          -    49066  56.261     11.482      -       -          -
41   Spl    2 22Dec2009 00:47      -       -          -    55651  64.187     13.099      -       -          -
41   Spl    3 22Dec2009 00:55      -       -          -    55966  64.566     13.177      -       -          -
41   Spl    4 22Dec2009 01:04      -       -          -    55489  63.992     13.059      -       -          -
41   Spl  Avg                                          54043  62.251     12.704
41   Spl  SDev                                      3323.905
41   Spl  %RSD                                          6.15

** Spl       Name:    1202000896                   Data File: XN107
            Remarks: 935196|1|1|243284012:DUP ID:TOC267

42   Spl    1 22Dec2009 01:13      -       -          -    48736  55.863     11.401      -       -          -
42   Spl    2 22Dec2009 01:22      -       -          -    56445  65.142     13.294      -       -          -
42   Spl  Avg                                          52590  60.503     12.347
42   Spl  SDev                                      5451.086
```

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42   Spl  %RSD                                                10.37

** Spl      Name:    1202000897                    Data File: XN108
            Remarks: 935196|1|1|243284012:PS ID:TOC267

43   Spl    1 22Dec2009 01:33      -       -          -    93207 109.392     22.325      -       -          -

** Chk2     Name:    CCV                           Data File: XN109
            Remarks: 935196|1|1|WTC091221-02 ID:TOC267

44   Chk2   1 22Dec2009 01:41      -       -          -    46316  54.280     11.078      -       -          -

** Chk5     Name:    CCB                           Data File: XN110
            Remarks: 935196|1|1| ID:TOC267

45   Chk5   1 22Dec2009 01:50      -       -          -     1025  -0.236     -0.048      -       -          -
```

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
ICAL-01		1	TSM	22-Dec-09 11:38	XN117.rlt
ICAL-02		1	TSM	22-Dec-09 11:47	XN118.rlt
ICAL-03		1	TSM	22-Dec-09 11:56	XN119.rlt
ICAL-04		1	TSM	22-Dec-09 12:05	XN120.rlt
ICAL-05		1	TSM	22-Dec-09 12:14	XN121.rlt
ICV		1	TSM	22-Dec-09 12:23	XN122.rlt
ICB		1	TSM	22-Dec-09 12:32	XN123.rlt
TIC	935196	1	TSM	22-Dec-09 12:43	XN124.rlt
CCV		1	TSM	22-Dec-09 13:18	XN125.rlt
CCB		1	TSM	22-Dec-09 13:27	XN126.rlt
243284012	935196	1	TSM	22-Dec-09 13:36	XN127.rlt
1202000896	935196	1	TSM	22-Dec-09 14:09	XN128.rlt
1202000897	935196	1	TSM	22-Dec-09 14:29	XN129.rlt
243257005	935196	1	TSM	22-Dec-09 14:38	XN130.rlt
243283004	935196	1	TSM	22-Dec-09 15:11	XN131.rlt
243284005	935196	1	TSM	22-Dec-09 15:45	XN132.rlt
CCV		1	TSM	22-Dec-09 16:19	XN133.rlt
CCB		1	TSM	22-Dec-09 16:28	XN134.rlt

```
*******************************************************************
**                          CALIBRATION                          **
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```

12/22/09 Tue Dec 22 12:14:47 2009

Std. #	Used	Conc. (ppm)	Volume (mL)
1	Yes	20.000	5.000
2	Yes	10.000	5.000
3	Yes	1.000	5.000
4	Yes	0.200	5.000
5	Yes	0.000	5.000

RF (ugC/k-cts):	1.192
R-Squared:	1.0000
Offset (cts):	1089
Offset (ugC):	-1.298
Calibration Mode:	TOC
Allow Editing:	No

Rep	Std. 1	Std. 2	Std. 3	Std. 4	Std. 5
1	83285	42306	5315	1929	919
2	-	-	-	-	-
3	-	-	-	-	-
4	-	-	-	-	-
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	-
9	-	-	-	-	-
10	-	-	-	-	-

(* = unused)

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
1	Blk	1	22Dec2009	11:08	-	-	-	649	-	-	-	-	-
1	Blk	2	22Dec2009	11:14	-	-	-	522	-	-	-	-	-
1	Blk	3	22Dec2009	11:21	-	-	-	542	-	-	-	-	-
1	Blk	4	22Dec2009	11:29	-	-	-	478	-	-	-	-	-

** Std1 Name: ICAL-01 Data File: XN117
Remarks: 935196|1|1| WTC091222-01 ID:TOC267

1	Std1	1	22Dec2009	11:38	-	-	-	83285	98.000	20.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.184
R-Squared: 1.0000
Offset (cts): 0
Offset (ugC): 0.000

** Std2 Name: ICAL-02 Data File: XN118
Remarks: 935196|1|1| WTC091222-02 ID:TOC267

2	Std2	1	22Dec2009	11:47	-	-	-	42306	49.000	10.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.196
R-Squared: 1.0000
Offset (cts): 1326
Offset (ugC): -1.587

** Std3 Name: ICAL-03 Data File: XN119
Remarks: 935196|1|1| WTC091222-03 ID:TOC267

3	Std3	1	22Dec2009	11:56	-	-	-	5315	4.900	1.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.194
R-Squared: 1.0000
Offset (cts): 1231
Offset (ugC): -1.471

** Std4 Name: ICAL-04 Data File: XN120
Remarks: 935196|1|1| WTC091222-04 ID:TOC267

4	Std4	1	22Dec2009	12:05	-	-	-	1929	0.980	0.200	-	-	-

** Calibration:
RF (ugC/k-cts): 1.193
R-Squared: 1.0000
Offset (cts): 1172
Offset (ugC): -1.399

** Std5 Name: ICAL-05 Data File: XN121
Remarks: 935196|1|1| ID:TOC267

5	Std5	1	22Dec2009	12:14	-	-	-	919	0.000	0.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.192
R-Squared: 1.0000
Offset (cts): 1089
Offset (ugC): -1.298

```
** Chk2      Name:     ICV                          Data File: XN122
             Remarks: 935196|1|1| WTC091222-05 ID:TOC267

6    Chk2    1 22Dec2009 12:23      -       -          -     43299  50.293     10.264      -       -          -

** Chk5      Name:     ICB                          Data File: XN123
             Remarks: 935196|1|1| ID:TOC267

7    Chk5    1 22Dec2009 12:32      -       -          -      1068  -0.025     -0.005      -       -          -

** Spl       Name:     TIC                          Data File: XN124
             Remarks: 935196|1|1| WIC091222-01 ID:TOC267

8    Spl     1 22Dec2009 12:43      -       -          -      1321   0.962      0.196      -       -          -
```

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Chk2		Name: CCV					Data File: XN125						
		Remarks: 935196|1|2| WTC091222-02 ID:TOC267											
9	Chk2	1	22Dec2009	13:18	-	-	-	42078	48.839	9.967	-	-	-
** Chk5		Name: CCB					Data File: XN126						
		Remarks: 935196|1|2| ID:TOC267											
10	Chk5	1	22Dec2009	13:27	-	-	-	927	-0.193	-0.040	-	-	-
** Spl		Name: 243284012					Data File: XN127						
		Remarks: 935196|1|2| ID:TOC267											
11	Spl	1	22Dec2009	13:36	-	-	-	46756	55.098	11.245	-	-	-
11	Spl	2	22Dec2009	13:44	-	-	-	54845	64.736	13.211	-	-	-
11	Spl	3	22Dec2009	13:51	-	-	-	54317	64.107	13.083	-	-	-
11	Spl	4	22Dec2009	14:01	-	-	-	54210	63.979	13.057	-	-	-
11	Spl	Avg						52532	61.980	12.649			
11	Spl	SDev						3860.659					
11	Spl	%RSD						7.35					
** Spl		Name: 1202000896					Data File: XN128						
		Remarks: 935196|1|2|243284012:DUP ID:TOC267											
12	Spl	1	22Dec2009	14:09	-	-	-	45231	53.281	10.874	-	-	-
12	Spl	2	22Dec2009	14:19	-	-	-	54731	64.600	13.184	-	-	-
12	Spl	Avg						49981	58.941	12.029			
12	Spl	SDev						6717.514					
12	Spl	%RSD						13.44					
** Spl		Name: 1202000897					Data File: XN129						
		Remarks: 935196|1|2|243284012:PS ID:TOC267											
13	Spl	1	22Dec2009	14:29	-	-	-	90923	107.723	21.984	-	-	-
** Spl		Name: 243257005					Data File: XN130						
		Remarks: 935196|1|2| ID:TOC267											
14	Spl	1	22Dec2009	14:38	-	-	-	2095	1.884	0.384	-	-	-
14	Spl	2	22Dec2009	14:45	-	-	-	2414	2.264	0.462	-	-	-
14	Spl	3	22Dec2009	14:53	-	-	-	2135	1.931	0.394	-	-	-
14	Spl	4	22Dec2009	15:03	-	-	-	2242	2.059	0.420	-	-	-
14	Spl	Avg						2221	2.035	0.415			
14	Spl	SDev						142.549					
14	Spl	%RSD						6.42					
** Spl		Name: 243283004					Data File: XN131						
		Remarks: 935196|1|2| ID:TOC267											
15	Spl	1	22Dec2009	15:11	-	-	-	3563	3.633	0.741	-	-	-
15	Spl	2	22Dec2009	15:19	-	-	-	4250	4.451	0.909	-	-	-
15	Spl	3	22Dec2009	15:27	-	-	-	3831	3.952	0.807	-	-	-
15	Spl	4	22Dec2009	15:36	-	-	-	3964	4.111	0.839	-	-	-
15	Spl	Avg						3902	4.037	0.824			

15	Spl	SDev					285.721				
15	Spl	%RSD					7.32				

** Spl Name: 243284005 Data File: XN132
Remarks: 935196|1|2| ID:TOC267

16	Spl	1 22Dec2009 15:45	-	-	-	45489	53.588	10.936	-	-	-
16	Spl	2 22Dec2009 15:53	-	-	-	54697	64.560	13.175	-	-	-
16	Spl	3 22Dec2009 16:00	-	-	-	54728	64.597	13.183	-	-	-
16	Spl	4 22Dec2009 16:10	-	-	-	54789	64.669	13.198	-	-	-
16	Spl	Avg				52425	61.853	12.623			
16	Spl	SDev				4624.658					
16	Spl	%RSD				8.82					

** Chk2 Name: CCV Data File: XN133
Remarks: 935196|1|2|WTC091222-02 ID:TOC267

17	Chk2	1 22Dec2009 16:19	-	-	-	42543	49.393	10.080	-	-	-

** Chk5 Name: CCB Data File: XN134
Remarks: 935196|1|2| ID:TOC267

18	Chk5	1 22Dec2009 16:28	-	-	-	1130	0.049	0.010	-	-	-

Total Kjeldahl Nitrogen

Prep LogBook

Analyst: SXJ1 Verified by:_____

Batch: 934821

Lab SOP: GL-GC-E-071 REV# 10

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202000071	UTR1169166-01	.2	mL
MS	1202000069	UTR1169166-01	.2	mL
MS	1202000916	UTR1169166-01	.2	mL
MSD	1202000070	UTR1169166-01	.2	mL
MSD	1202000917	UTR1169166-01	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202000067		EPA 351.2 Prep	21-DEC-2009 10:15	<2	20 mL	20 mL	1	GROUND WATER
LCS	1202000071		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	242734009		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	WASTE WATER
SAMPLE	242734010		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	WASTE WATER
SAMPLE	242734011		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	WASTE WATER
SAMPLE	242734012		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	WASTE WATER
SAMPLE	243099004		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	GROUND WATER
DUP	1202000068	243099004	EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	GROUND WATER
MS	1202000069	243099004	EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	GROUND WATER
MSD	1202000070	243099004	EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243223004		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	WASTE WATER
SAMPLE	243223005		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	WASTE WATER
SAMPLE	243223007		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	WASTE WATER
SAMPLE	243223008		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	WASTE WATER
SAMPLE	243253001		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	WASTE WATER
DUP	1202000915	243253001	EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	WASTE WATER
MS	1202000916	243253001	EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	WASTE WATER
MSD	1202000917	243253001	EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	WASTE WATER
SAMPLE	243283004		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243284005		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243284012		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	GROUND WATER

Reagent/Solvent Lot ID	Amount	Description
1238215-C	4 mL	TKN/PO4 Digestion Solution

Comments:

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
5.0 ppm Std.		1	axh3	12/22/2009 12:54:08	OM_12-22-2009_12-53-22
3.0 ppm Std.		1	axh3	12/22/2009 12:54:56	OM_12-22-2009_12-53-22
1.0 ppm Std.		1	axh3	12/22/2009 12:55:44	OM_12-22-2009_12-53-22
0.5 ppm Std		1	axh3	12/22/2009 12:56:34	OM_12-22-2009_12-53-22
0.1 ppm Std		1	axh3	12/22/2009 12:57:24	OM_12-22-2009_12-53-22
ICAL-00		1	axh3	12/22/2009 12:58:16	OM_12-22-2009_12-53-22
ICV		1	axh3	12/22/2009 13:00:12	OM_12-22-2009_12-53-22
ICB		1	axh3	12/22/2009 13:02:08	OM_12-22-2009_12-53-22
1201998900	934276	1	axh3	12/22/2009 13:04:03	OM_12-22-2009_12-53-22
1201998904	934276	1	axh3	12/22/2009 13:04:54	OM_12-22-2009_12-53-22
243012005	934276	1	axh3	12/22/2009 13:05:45	OM_12-22-2009_12-53-22
1201998901	934276	1	axh3	12/22/2009 13:06:35	OM_12-22-2009_12-53-22
1201998902	934276	1	axh3	12/22/2009 13:07:26	OM_12-22-2009_12-53-22
1201998903	934276	1	axh3	12/22/2009 13:08:16	OM_12-22-2009_12-53-22
243016002	934276	1	axh3	12/22/2009 13:09:05	OM_12-22-2009_12-53-22
243016006	934276	1	axh3	12/22/2009 13:09:55	OM_12-22-2009_12-53-22
243067009	934276	1	axh3	12/22/2009 13:10:44	OM_12-22-2009_12-53-22
243067010	934276	1	axh3	12/22/2009 13:11:33	OM_12-22-2009_12-53-22
CCV		1	axh3	12/22/2009 13:12:22	OM_12-22-2009_12-53-22
CCB		1	axh3	12/22/2009 13:14:18	OM_12-22-2009_12-53-22
243067011	934276	1	axh3	12/22/2009 13:16:11	OM_12-22-2009_12-53-22
243067012	934276	1	axh3	12/22/2009 13:16:59	OM_12-22-2009_12-53-22
243089001	934276	1	axh3	12/22/2009 13:17:47	OM_12-22-2009_12-53-22
243160001	934276	1	axh3	12/22/2009 13:18:34	OM_12-22-2009_12-53-22
243067011	934276	50	axh3	12/22/2009 13:19:22	OM_12-22-2009_12-53-22
1202000067*	934822	1	axh3	12/22/2009 13:20:11	OM_12-22-2009_12-53-22
1202000071*	934822	1	axh3	12/22/2009 13:21:00	OM_12-22-2009_12-53-22
243099004*	934822	1	axh3	12/22/2009 13:21:51	OM_12-22-2009_12-53-22
1202000068*	934822	1	axh3	12/22/2009 13:22:41	OM_12-22-2009_12-53-22
1202000069*	934822	1	axh3	12/22/2009 13:23:31	OM_12-22-2009_12-53-22
CCV		1	axh3	12/22/2009 13:24:20	OM_12-22-2009_12-53-22
CCB		1	axh3	12/22/2009 13:26:16	OM_12-22-2009_12-53-22
1202000067	934822	1	axh3	12/22/2009 13:28:09	OM_12-22-2009_12-53-22
1202000071	934822	1	axh3	12/22/2009 13:28:59	OM_12-22-2009_12-53-22
243099004*	934822	1	axh3	12/22/2009 13:29:50	OM_12-22-2009_12-53-22
1202000068	934822	1	axh3	12/22/2009 13:30:39	OM_12-22-2009_12-53-22
1202000069*	934822	1	axh3	12/22/2009 13:31:29	OM_12-22-2009_12-53-22
1202000070	934822	1	axh3	12/22/2009 13:32:18	OM_12-22-2009_12-53-22
242734009*	934822	1	axh3	12/22/2009 13:33:09	OM_12-22-2009_12-53-22
242734010*	934822	1	axh3	12/22/2009 13:34:00	OM_12-22-2009_12-53-22
242734011	934822	1	axh3	12/22/2009 13:34:51	OM_12-22-2009_12-53-22
242734012*	934822	1	axh3	12/22/2009 13:35:42	OM_12-22-2009_12-53-22
CCV		1	axh3	12/22/2009 13:36:32	OM_12-22-2009_12-53-22
CCB		1	axh3	12/22/2009 13:38:27	OM_12-22-2009_12-53-22
243099004	934822	1	axh3	12/22/2009 13:40:22	OM_12-22-2009_12-53-22
243223004	934822	1	axh3	12/22/2009 13:41:11	OM_12-22-2009_12-53-22
243223005	934822	1	axh3	12/22/2009 13:42:00	OM_12-22-2009_12-53-22
243223007	934822	1	axh3	12/22/2009 13:42:49	OM_12-22-2009_12-53-22
243223008	934822	1	axh3	12/22/2009 13:43:37	OM_12-22-2009_12-53-22
243253001	934822	1	axh3	12/22/2009 13:44:25	OM_12-22-2009_12-53-22
1202000915	934822	1	axh3	12/22/2009 13:45:13	OM_12-22-2009_12-53-22
1202000916	934822	1	axh3	12/22/2009 13:46:03	OM_12-22-2009_12-53-22
1202000917	934822	1	axh3	12/22/2009 13:46:55	OM_12-22-2009_12-53-22
243283004*	934822	1	axh3	12/22/2009 13:47:46	OM_12-22-2009_12-53-22
CCV		1	axh3	12/22/2009 13:48:36	OM_12-22-2009_12-53-22
CCB		1	axh3	12/22/2009 13:50:32	OM_12-22-2009_12-53-22
243284005*	934822	1	axh3	12/22/2009 13:52:27	OM_12-22-2009_12-53-22
243284012*	934822	1	axh3	12/22/2009 13:53:18	OM_12-22-2009_12-53-22

1202000069*	934822	1	axh3	12/22/2009	13:54:08	OM_12-22-2009_12-53-22
243283004*	934822	1	axh3	12/22/2009	13:54:59	OM_12-22-2009_12-53-22
242734009*	934822	1	axh3	12/22/2009	13:55:50	OM_12-22-2009_12-53-22
242734010*	934822	1	axh3	12/22/2009	13:56:42	OM_12-22-2009_12-53-22
242734012*	934822	1	axh3	12/22/2009	13:57:32	OM_12-22-2009_12-53-22
242734011*	934822	10	axh3	12/22/2009	13:58:23	OM_12-22-2009_12-53-22
243223004*	934822	250	axh3	12/22/2009	13:59:13	OM_12-22-2009_12-53-22
243223005*	934822	50	axh3	12/22/2009	14:00:02	OM_12-22-2009_12-53-22
CCV		1	axh3	12/22/2009	14:01:56	OM_12-22-2009_12-53-22
CCB		1	axh3	12/22/2009	14:03:52	OM_12-22-2009_12-53-22

Author: axh3 Date : 12/22/2009

Original Run Filename: OM_12-22-2009_12-53-22.OMN created 12/22/2009 12:53:22
Original Run Author's Signature: [axh3]
Current Run Filename: OM_12-22-2009_12-53-22.OMN last modified 12/22/2009 14:05:02
Current Run Author's Signature: [axh3]
Description: TKN EPA Method 351.2 GEL SOP: GL-GC-E-104
Detection 660 nM
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TKN Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR091222-12	1	S1	5.000	8.747	12/22/2009@12:54:08			5.0 ppm Std.
WTR091222-13	1	S2	3.000	5.300	12/22/2009@12:54:56			3.0 ppm Std.
WTR091222-14	1	S3	1.000	1.837	12/22/2009@12:55:44			1.0 ppm Std.
WTR091222-15	1	S4	0.500	0.836	12/22/2009@12:56:34			0.5 ppm Std
WTR091222-16	1	S5	0.100	0.218	12/22/2009@12:57:24			0.1 ppm Std
WTR091222-19 0.0 ppm	1	S7	0.000	-0.030	12/22/2009@12:58:16			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99990 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR091222-18 ICV	1	S8	0.939	1.659	12/22/2009@13:00:12			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	0.939 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.939 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR091222-19 ICB	1	S7	-0.029	-0.035	12/22/2009@13:02:08			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.029 < 0.100					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.029 > -0.100					
		Message	ICB Passed					
		Action	Continue					
1201998900|934276|MB	1	1	-0.021	-0.021	12/22/2009@13:04:03			
1201998904||LCS	1	2	0.956	1.689	12/22/2009@13:04:54			
243012005	1	3	-0.003	0.010	12/22/2009@13:05:45			
1201998901||DUP	1	4	-0.017	-0.015	12/22/2009@13:06:35			
1201998902||MS	1	5	0.988	1.745	12/22/2009@13:07:26			
1201998903||MSD	1	6	0.944	1.669	12/22/2009@13:08:16			
243016002	1	7	0.284	0.513	12/22/2009@13:09:05			
243016006	1	8	0.285	0.514	12/22/2009@13:09:55			
243067009	1	9	0.626	1.111	12/22/2009@13:10:44			
243067010	1	10	0.651	1.155	12/22/2009@13:11:33			
WTR091222-14 CCV	1	S3	1.028	1.815	12/22/2009@13:12:22			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.028 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.028 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-19 CCB	1	S7	-0.030	-0.038	12/22/2009@13:14:18			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.030 < 0.099					

		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.030 > -0.100					
		Message	CCB Passed					
		Action	Continue					
243067011	1	11	44.017	77.134	12/22/2009@13:16:11			
243067012	1	12	0.281	0.506	12/22/2009@13:16:59			
243089001	1	13	4.189	7.355	12/22/2009@13:17:47			
243160001	1	14	1.329	2.343	12/22/2009@13:18:34			
243067011	1	11	0.928	1.642	12/22/2009@13:19:22		50.00	
1202000067|934822|MB	1	15	-0.038	-0.051	12/22/2009@13:20:11			
1202000071||LCS	1	16	0.701	1.243	12/22/2009@13:21:00			
243099004	1	21	-0.168	-0.279	12/22/2009@13:21:51			
1202000068||DUP	1	22	-0.164	-0.272	12/22/2009@13:22:41			
1202000069||MS	1	23	0.746	1.322	12/22/2009@13:23:31			
WTR091222-14 CCV	1	S3	1.033	1.824	12/22/2009@13:24:20			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.033 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.033 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-19 CCB	1	S7	-0.030	-0.037	12/22/2009@13:26:16			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.030 < 0.099					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.030 > -0.100					
		Message	CCB Passed					
		Action	Continue					
1202000067|934822|MB	1	15	-0.045	-0.065	12/22/2009@13:28:09			
1202000071||LCS	1	16	0.981	1.733	12/22/2009@13:28:59			
243099004	1	21	5.145	9.029	12/22/2009@13:29:50			
1202000068||DUP	1	22	-0.037	-0.049	12/22/2009@13:30:39			
1202000069||MS	1	23	0.747	1.324	12/22/2009@13:31:29			
1202000070||MSD	1	24	0.894	1.581	12/22/2009@13:32:18			
242734009	1	17	-0.186	-0.311	12/22/2009@13:33:09			
242734010	1	18	-0.185	-0.309	12/22/2009@13:34:00			
242734011	1	19	13.618	23.873	12/22/2009@13:34:51			
242734012	1	20	-0.108	-0.175	12/22/2009@13:35:42			
WTR091222-14 CCV	1	S3	1.030	1.820	12/22/2009@13:36:32			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.030 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.030 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-19 CCB	1	S7	-0.033	-0.044	12/22/2009@13:38:27			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.033 < 0.099					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.033 > -0.100					
		Message	CCB Passed					
		Action	Continue					
243099004	1	21	-0.043	-0.060	12/22/2009@13:40:22			
243223004	1	25	132.115	231.482	12/22/2009@13:41:11			

243223005	1	26	30.680	53.766	12/22/2009@13:42:00			
243223007	1	27	3.071	5.395	12/22/2009@13:42:49			
243223008	1	28	2.008	3.532	12/22/2009@13:43:37			
243253001	1	29	1.529	2.693	12/22/2009@13:44:25			
1202000915||DUP	1	30	0.911	1.610	12/22/2009@13:45:13			
1202000916||MS	1	31	3.112	5.466	12/22/2009@13:46:03			
1202000917||MSD	1	32	2.237	3.935	12/22/2009@13:46:55			
243283004	1	33	-0.151	-0.249	12/22/2009@13:47:46			
WTR091222-14 CCV	1	S3	1.022	1.806	12/22/2009@13:48:36			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.022 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.022 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-19 CCB	1	S7	-0.032	-0.042	12/22/2009@13:50:32			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.032 < 0.099					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.032 > -0.100					
		Message	CCB Passed					
		Action	Continue					
243284005	1	34	-0.034	-0.045	12/22/2009@13:52:27			
243284012	1	35	-0.028	-0.033	12/22/2009@13:53:18			
1202000069||MS	1	23	0.896	1.585	12/22/2009@13:54:08			
243283004	1	33	-0.020	-0.020	12/22/2009@13:54:59			
242734009	1	17	-0.030	-0.037	12/22/2009@13:55:50			
242734010	1	18	-0.035	-0.047	12/22/2009@13:56:42			
242734012	1	20	-0.030	-0.038	12/22/2009@13:57:32			
242734011	1	19	1.488	2.621	12/22/2009@13:58:23		10.00	
243223004	1	25	1.438	2.535	12/22/2009@13:59:13		250.00	
243223005	1	26	0.571	1.015	12/22/2009@14:00:02		50.00	
WTR091222-14 CCV	1	S3	1.019	1.800	12/22/2009@14:01:56			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.019 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.019 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-19 CCB	1	S7	-0.122	-0.199	12/22/2009@14:03:52			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.122 < 0.099					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.122 < -0.100					
		Message	CCB Failed					
		Action	Stop Run					

Author: axh3

Date : 12/22/2009

Channel 1 (TKN) : Current View

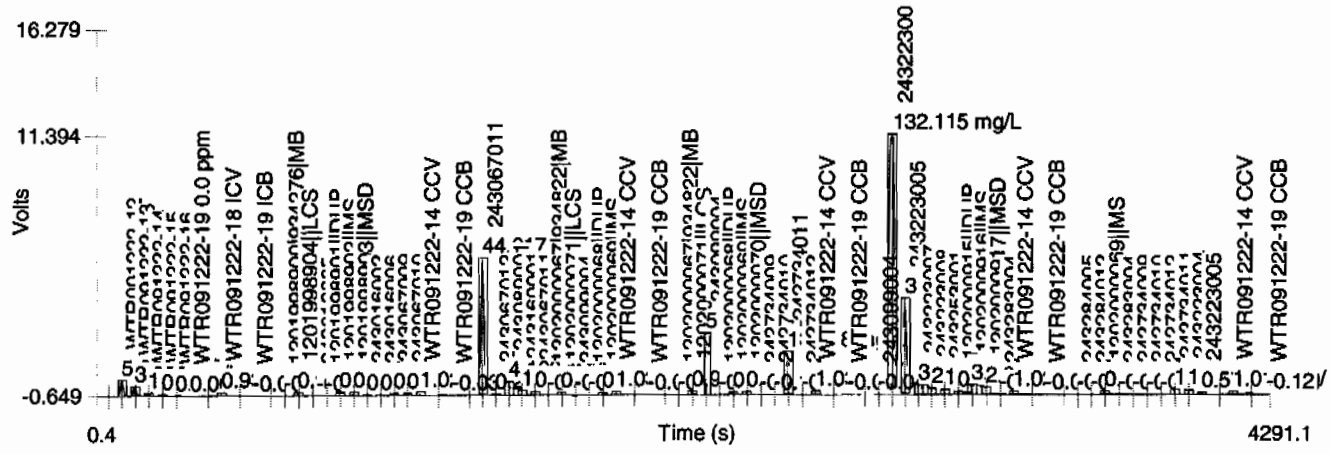

Table 1: TKN

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	5.000	1	8.747	0.712	0.3	12/22/2009	12:55:16
2	3.000	1	5.300	0.431	-0.6	12/22/2009	12:56:04
3	1.000	1	1.837	0.149	-4.0	12/22/2009	12:56:53
4	0.500	1	0.836	0.067	6.2	12/22/2009	12:57:42
5	0.100	1	0.218	0.017	-14.4	12/22/2009	12:58:32
6	0.000	1	-0.030	-0.001		12/22/2009	12:59:24

Figure 1: TKN

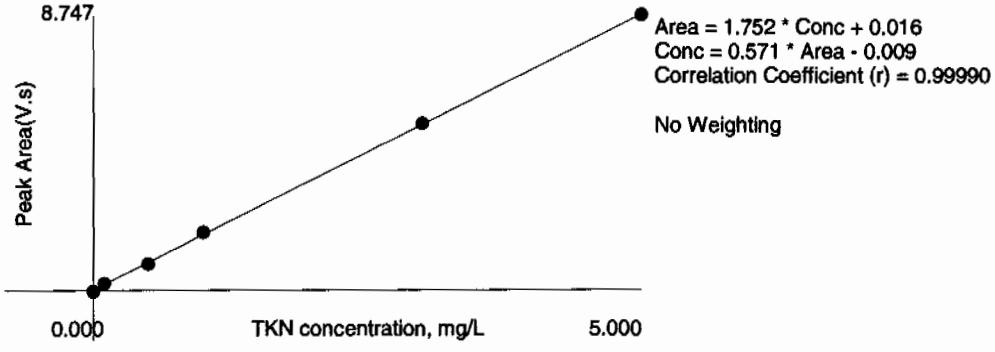

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axh3	12/22/2009 14:06:34	OM_12-22-2009_14-05-47
CCB		1	axh3	12/22/2009 14:08:30	OM_12-22-2009_14-05-47
243284005	934822	1	axh3	12/22/2009 14:10:28	OM_12-22-2009_14-05-47
243284012	934822	1	axh3	12/22/2009 14:11:19	OM_12-22-2009_14-05-47
1202000069	934822	1	axh3	12/22/2009 14:12:09	OM_12-22-2009_14-05-47
243283004	934822	1	axh3	12/22/2009 14:13:00	OM_12-22-2009_14-05-47
242734009	934822	1	axh3	12/22/2009 14:13:51	OM_12-22-2009_14-05-47
242734010	934822	1	axh3	12/22/2009 14:14:42	OM_12-22-2009_14-05-47
242734012	934822	1	axh3	12/22/2009 14:15:33	OM_12-22-2009_14-05-47
242734011	934822	10	axh3	12/22/2009 14:16:24	OM_12-22-2009_14-05-47
243223004	934822	250	axh3	12/22/2009 14:17:14	OM_12-22-2009_14-05-47
243223005	934822	50	axh3	12/22/2009 14:18:02	OM_12-22-2009_14-05-47
CCV		1	axh3	12/22/2009 14:19:56	OM_12-22-2009_14-05-47
CCB		1	axh3	12/22/2009 14:21:52	OM_12-22-2009_14-05-47

Author: axh3 Date : 12/22/2009

Original Run Filename: OM_12-22-2009_14-05-47.OMN created 12/22/2009 14:05:47
Original Run Author's Signature: [axh3]
Current Run Filename: OM_12-22-2009_14-05-47.OMN last modified 12/22/2009 14:23:05
Current Run Author's Signature: [axh3]
Description: TKN EPA Method 351.2 GEL SOP: GL-GC-E-104
Detection 660 nM
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TKN Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR091222-14 CCV	1	S3	1.027	1.814	12/22/2009@14:06:34			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.027 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.027 > 0.895					
		Message	CCV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR091222-19 CCB	1	S7	-0.031	-0.039	12/22/2009@14:08:30			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.031 < 0.099					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.031 > -0.100					
		Message	CCB Passed					
		Action	Continue					
243284005|934822|	1	34	-0.031	-0.040	12/22/2009@14:10:28			
243284012	1	35	0.002	0.018	12/22/2009@14:11:19			
1202000069||MS	1	23	0.900	1.591	12/22/2009@14:12:09			
243283004	1	33	-0.020	-0.020	12/22/2009@14:13:00			
242734009	1	17	-0.030	-0.037	12/22/2009@14:13:51			
242734010	1	18	-0.034	-0.044	12/22/2009@14:14:42			
242734012	1	20	-0.031	-0.040	12/22/2009@14:15:33			
242734011	1	19	1.497	2.637	12/22/2009@14:16:24		10.00	
243223004	1	25	1.493	2.631	12/22/2009@14:17:14		250.00	
243223005	1	26	0.611	1.086	12/22/2009@14:18:02		50.00	
WTR091222-14 CCV	1	S3	1.021	1.804	12/22/2009@14:19:56			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.021 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.021 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-19 CCB	1	S7	-0.030	-0.037	12/22/2009@14:21:52			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.030 < 0.099					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.030 > -0.100					
		Message	CCB Passed					
		Action	Continue					

Author: axh3 Date : 12/22/2009

Channel 1 (TKN) : Current View

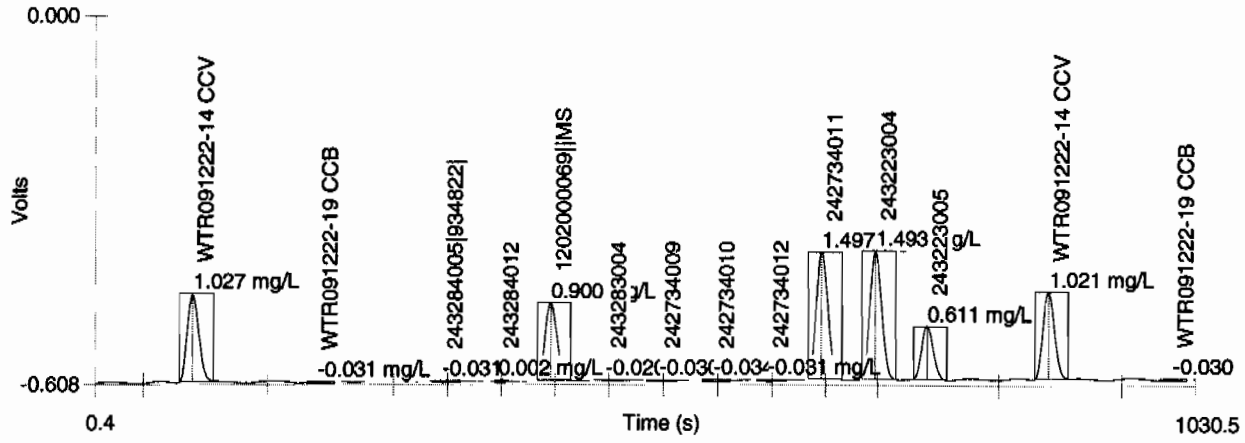

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2	3.000	1	5.300	0.431	-0.6	12/22/2009	12:56:04
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4	0.500	1	0.836	0.067	6.2	12/22/2009	12:57:42
5	0.100	1	0.218	0.017	-14.4	12/22/2009	12:58:32
6	0.000	1	-0.030	-0.001		12/22/2009	12:59:24

Figure 1: TKN

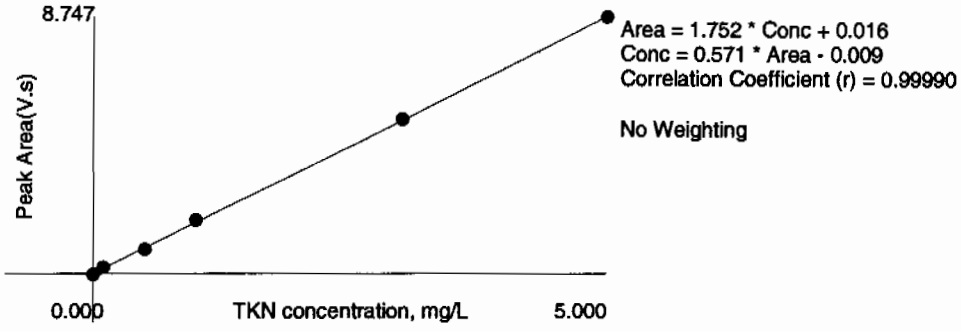

Miscellaneous

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
22-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 351.2	Liquid	BETT, ESHL, THRM
Batch ID:	**Sample Numbers:**		
934822	See Below		

Potentially affected work order(s)(SDG): 242734,243099(10-952),243223,243253(10-978),243283(10-994),243284(10-997)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS/MSD: QC 1202000916MS, QC 1202000917MSD 2. Failed RPD for DUP: QC 1202000915DUP 3. Failed RPD for MS/MSD: QC 1202000917MSD 4. Failed Recovery for MSD: QC 1202000070MSD 5. Failed Recovery for MSD for WOs 243099, 243253, 243283, and 243284: QC 1202000070MSD	1. The MS and MSD recoveries fall outside of the established acceptance limits due to matrix interference and/or sample matrix non-homogeneity: 2. The Relative Percent Difference (RPD) between the sample and duplicate falls outside of the normal acceptance limits because of the heterogeneous matrix of the sample. 3. The relative percent difference (RPD) between the Matrix Spike and Matrix Spike Duplicate was outside of the required acceptance limits due to the heterogeneous matrix of the sample. 4. The spike duplicate recovery falls outside of the established acceptance limits. Since both the spike recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported. 5. The MSD recovery falls outside of the GEL acceptance limits but within the client specified limits.

Originator's Name:
Aubrey Kingsbury 22-DEC-09

Data Validator/Group Leader:
Julia Hamilton 22-DEC-09

Wednesday, December 16, 2009

REQUEST NUMBER: 10-953

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-953

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/16/2009

TURNAROUND/REPORT DUE: 1/15/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-6817	WG	12/15/2009	
	EPA:150.1	1	CAPA-10-6817	WG	12/15/2009	
	EPA:160.1	1	CAPA-10-6817	WG	12/15/2009	
	EPA:245.2	1	CAPA-10-6817	WG	12/15/2009	
		1	CAPA-10-6818	WG	12/15/2009	
	EPA:300.0	1	CAPA-10-6817	WG	12/15/2009	
	EPA:310.1	1	CAPA-10-6817	WG	12/15/2009	
	EPA:335.3	1	CAPA-10-6818	WG	12/15/2009	
	EPA:350.1	1	CAPA-10-6817	WG	12/15/2009	

Wednesday, December 16, 2009

REQUEST NUMBER: 10-953

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:353.2	1	CAPA-10-6817	WG	12/15/2009	
	EPA:365.4	1	CAPA-10-6817	WG	12/15/2009	
	EPA:900	1	CAPA-10-6818	WG	12/15/2009	
	EPA:901.1	1	CAPA-10-6818	WG	12/15/2009	
	EPA:905.0	1	CAPA-10-6818	WG	12/15/2009	
	HASL-300:AM-241	1	CAPA-10-6818	WG	12/15/2009	
	HASL-300:ISOPU	1	CAPA-10-6818	WG	12/15/2009	
	HASL-300:ISOU	1	CAPA-10-6818	WG	12/15/2009	
	SM:A2340B	1	CAPA-10-6817	WG	12/15/2009	
		1	CAPA-10-6818	WG	12/15/2009	
	SW-846:6010B	1	CAPA-10-6817	WG	12/15/2009	
		1	CAPA-10-6818	WG	12/15/2009	
	SW-846:6020	1	CAPA-10-6817	WG	12/15/2009	
		1	CAPA-10-6818	WG	12/15/2009	
	SW-846:6850	1	CAPA-10-6817	WG	12/15/2009	

Final Page of REQUEST NUMBER 10-953

Wednesday, December 16, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-953

REQUEST NUMBER: 10-953

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/15/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6817	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6817	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6817	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6818	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6818	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-6818	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6818	1	POLY	WSP-RAD	Nitric Acid	WG

Relinquished By:		Date	Time	Received By:		Date	Time
		12/16/09	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6817 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/15/09	MEDIA:	WGR	WL
TIME COLLECTED (HH:MM)		1010	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-41		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / (NA)		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / (NA)

BOREHOLE: YES / NO / (NA) BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

See CAPA-10-6816

COLLECTED BY (PRINT) J Berryhill, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/15/09	(Printed Name) [illegible]	12/15/09
(Signature) D. Woody	1245	(Signature) [illegible]	1245
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6818 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/15/09	MEDIA:	WGR	OV
TIME COLLECTED (HH:MM)		1010	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OV	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-41		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2 ~~3~~	DW 12/15/09	WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
2 ~~3~~	DW 12/15/09	WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH < 2
2 ~~3~~	DW 12/15/09	WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
2 ~~3~~	DW 12/15/09	WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH >12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH < 2
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	pH < 2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH < 2

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH (STU)	Temp (°C)	SC (µS/cm)	DO (mg/L)	Turb (NTU)	ORP mV	Q (gpm)
7.84	21.99	176	4.18	0.66	57.3	2.8

COLLECTED BY (PRINT) J Berryhill, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/15/09	(Printed Name) Sherri Sherwood	12/15/09
(Signature) D. Woody	1245	(Signature) Sherri Sherwood	1245
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6819 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/15/09	MEDIA:	WGR	GK
TIME COLLECTED (HH:MM)		1010	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-41		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / (NA)		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / (NA)

BOREHOLE: YES / NO / (NA) BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH <2

SAMPLE DESC: QC Sample of CAPA-10-6818

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, D. Woody **REVIEWED BY (PRINT)** J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/15/09	(Printed Name) Sherri Sherwood	12/15/09
(Signature) D. Woody	1245	(Signature) Sherri Sherwood	1245
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-953 VALIDATION DATE: 2/16/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/17/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 2/16/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☒	☐	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☒	☐	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 935076

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6817

Date Received: 17-DEC-09

GEL Job No (SDG): 10-953

GEL Sample ID: 243104001

Date Filtered: 21-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.358	ug/L		1	21-DEC-09 14:26	per1221025a
	Perchlorate Isotope Ratio			3.04			1	21-DEC-09 14:26	per1221025a
14797-73-0	Perchlorate-101	.05	.2	0.352	ug/L		1	21-DEC-09 14:26	per1221025a
	Perchlorate-O(18)			0.501	ug/L		1	21-DEC-09 14:26	per1221025a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

AMF 2/16/10

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DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-953 VALIDATION DATE: 2/17/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. V was detected in the MB. The associated sample results were detects >5X but ≤50X the MB concentration and, thus, were qualified J,I4a.
2. Some results for the filtered sample were slightly > the corresponding results for the unfiltered sample. No sample data were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/17/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 2/17/10

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☒	☐	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☐	☒	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-953 **METHOD TYPE:** EPA

SAMPLE ID: 243104001 **CLIENT ID:** CAPA-10-6817

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 17-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	123109W1-5
7631-86-9	Silica	59.4	mg/L			P	0.053	1	OPTIMA3	010410A-1
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	010410A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100103-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100103-3
7440-39-3	Barium	30.7	ug/L			P	1	1	OPTIMA3	010410A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	010410A-1
7440-42-8	Boron	21.6	ug/L	J		P	15	1	OPTIMA3	010410A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100103-3
7440-70-2	Calcium	14000	ug/L			P	50	1	OPTIMA3	010410A-1
7440-47-3	Chromium	2.5	ug/L	U		MS	2.5	1	ICPMS5	100103-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	010410A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	010410A-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA3	010410A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100103-3
7439-95-4	Magnesium	3800	ug/L			P	85	1	OPTIMA3	010410A-1
7439-96-5	Manganese	12.2	ug/L			P	2	1	OPTIMA3	010410A-1
7439-98-7	Molybdenum	5.34	ug/L			MS	0.1	1	ICPMS5	100103-3
7440-02-0	Nickel	2.28	ug/L			MS	0.5	1	ICPMS5	100103-3
7440-09-7	Potassium	1750	ug/L			P	50	1	OPTIMA3	010410A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100103-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100103-3
7440-23-5	Sodium	13100	ug/L			P	100	1	OPTIMA3	010410A-1
7440-24-6	Strontium	73.1	ug/L			P	1	1	OPTIMA3	010410A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100105-4
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	122909A-2

AMF
2/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-953 **METHOD TYPE:** EPA

SAMPLE ID: 243104001 **CLIENT ID:** CAPA-10-6817

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 17-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	0.754	ug/L			MS	0.05	1	ICPMS5	100103-3
7440-62-2	Vanadium J,l4a	6.75	ug/L			P	1	1	OPTIMA3	010410A-1
7440-66-6	Zinc	3.3	ug/L	U		P	3.3	1	OPTIMA3	010410A-1
	Hardness as CaCO3	50.7	mg/L				0.35	1	CALC001	

AMF
2/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-953 **METHOD TYPE:** EPA

SAMPLE ID: 243104002 **CLIENT ID:** CAPA-10-6818

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 17-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	123109W1-5
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	010410A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100103-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100103-3
7440-39-3	Barium	30.4	ug/L			P	1	1	OPTIMA3	010410A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	010410A-1
7440-42-8	Boron	19.9	ug/L	J		P	15	1	OPTIMA3	010410A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100103-3
7440-70-2	Calcium	13900	ug/L			P	50	1	OPTIMA3	010410A-1
7440-47-3	Chromium	2.5	ug/L	U		MS	2.5	1	ICPMS5	100103-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	010410A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	010410A-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA3	010410A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100103-3
7439-95-4	Magnesium	3740	ug/L			P	85	1	OPTIMA3	010410A-1
7439-96-5	Manganese	10.4	ug/L			P	2	1	OPTIMA3	010410A-1
7439-98-7	Molybdenum	5.51	ug/L			MS	0.1	1	ICPMS5	100103-3
7440-02-0	Nickel	2.59	ug/L			MS	0.5	1	ICPMS5	100103-3
7440-09-7	Potassium	1730	ug/L			P	50	1	OPTIMA3	010410A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100103-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100103-3
7440-23-5	Sodium	13100	ug/L			P	100	1	OPTIMA3	010410A-1
7440-24-6	Strontium	72.9	ug/L			P	1	1	OPTIMA3	010410A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100105-4
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	122909A-2
7440-61-1	Uranium	0.775	ug/L			MS	0.05	1	ICPMS5	100103-3

AMF
2/17/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-953 **METHOD TYPE:** EPA

SAMPLE ID: 243104002 **CLIENT ID:** CAPA-10-6818

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 17-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium J,l4a	6.66	ug/L			P	1	1	OPTIMA3	010410A-1
7440-66-6	Zinc	3.3	ug/L	U		P	3.3	1	OPTIMA3	010410A-1
	Hardness as CaCO3	50	mg/L				0.35	1	CALC001	

AMF
2/17/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-953 VALIDATION DATE: 2/17/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. Ammonia as nitrogen and Total P were detected in the MBs. The associated ammonia as nitrogen sample result was an ND and, thus, was not qualified. The associated Total P sample result was a detect ≤5X the MB concentration and, thus, was qualified U,I4.
2. The MS %R for Total P was < the laboratory LAL but ≥10%. The associated sample result was qualified ND and, thus, was qualified UJ,I6a.
3. The analysis of pH was performed >2X past the method specified holding time. The associated sample result was qualified J-,I9a, based on professional judgment.
4. It should be noted that the matrix QC analyses for specific conductance; ammonia as nitrogen; and TDS were performed on LANL samples from other RNs. No sample results were qualified. Some analyses included multiple matrix QC samples. For each batch, the QC sample most comparable to the matrix of this RN was selected for data validation purposes, and the extraneous QC samples were not evaluated.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/17/10

DATA VALIDATION COVER SHEET

5120-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

VALIDATOR'S SIGNATURE: Allison Felix DATE: 2/17/10

Form 5120-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☒	☐	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 11, 2010

Client SDG: 10-953

Client Sample ID: CAPA-10-6817
Sample ID: 243104001
Matrix: Ground Water
Collect Date: 15-DEC-09 12:00
Receive Date: 17-DEC-09
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Conductivity Analysis												
EPA120.1 Specific Conductivity "As Received"												
Conductivity		170		1.00	1.00	umhos/cm	1	LXA1	12/18/09	1543	934738	1
Electrode Analysis												
EPA 150.1 pH Federal "As Received"												
pH at Temp 14.9C	H	8.16	J-,I9a	0.010	0.100	SU	1	LXA1	12/18/09	1252	934772	2
Ion Chromatography												
EPA 300.0 Anions Liquid 28 day "As Received"												
Bromide	U	ND		0.066	0.200	mg/L	1	GXM 3	01/08/10	2200	935781	3
Chloride		3.16		0.066	0.200	mg/L	1					
Fluoride		0.280		0.033	0.100	mg/L	1					
Sulfate		4.96		0.100	0.400	mg/L	1					
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia L "As Received"												
Nitrogen, Ammonia	U	ND		0.016	0.050	mg/L	1	AXH3	12/22/09	1502	934272	4
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite		0.665		0.050	0.250	mg/L	5	AXH3	12/21/09	1108	934820	5
EPA 365.4 Phosphorus, Total in "As Received"												
Phosphorus, Total as P		0.069	U,I4	0.015	0.050	mg/L	1	AXH3	12/22/09	0931	934824	6
Solids Analysis												
EPA 160.1 Solids, Dissolved-F "As Received"												
Total Dissolved Solids		153		2.38	10.0	mg/L		SDS	12/21/09	1122	934796	7
Titration Analysis												
EPA 310.1 Total Alkalinity Federal "As Received"												
Alkalinity, Total as CaCO3		68.9		0.725	1.00	mg/L		LXA1	12/18/09	1442	934701	8
Carbonate alkalinity (CaCO3)	U	ND		0.725	1.00	mg/L						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	SXJ1	12/21/09	1515	934271
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	SXJ1	12/21/09	1015	934823

The following Analytical Methods were performed

Method	Description	Analyst Comments

AMF
2/17/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 11, 2010

Client SDG: 10-953

Client Sample ID:	CAPA-10-6818	Project:	ESHL01000
Sample ID:	243104002	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	15-DEC-09 12:00		
Receive Date:	17-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
EPA 335.4 Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 12/22/09	1629	935209	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	12/22/09	1414	935207

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

AMF
2/17/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-953 VALIDATION DATE: 2/16/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. Gross gamma was detected in the MB. The associated sample result was an ND and, thus, was not qualified.
2. It should be noted that the matrix QC analyses for gamma spec; gross alpha/beta; and Sr-90 were performed on LANL samples from other RNs. No sample results were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/17/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 2/16/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☐	☒	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☒	☐	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☒	☐	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☒	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: January 8, 2010

Client Sample ID: CAPA-10-6818
Sample ID: 243104002
Matrix: Ground Water
Collect Date: 15-DEC-09
Receive Date: 17-DEC-09
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
Alphaspec Am241 Liquid "As Received"												
Americium-241	U	0.000455	0.0303	+/-0.00166	0.050	pCi/L		JXD2	12/22/09	0813	934662	1
Alphaspec Pu, Liquid "As Received"												
Plutonium-238	U	0.00	0.029	+/-0.00198	0.050	pCi/L		JXD2	12/21/09	1713	934664	2
Plutonium-239/240	U	0.00395	0.0311	+/-0.0028	0.050	pCi/L						
Alphaspec U, Liquid "As Received"												
Uranium-234		0.553	0.0521	+/-0.048	1.00	pCi/L		JXD2	12/22/09	0932	934665	3
Uranium-235/236		0.0334	0.0273	+/-0.00841	1.00	pCi/L						
Uranium-238		0.245	0.0326	+/-0.0258	0.500	pCi/L						
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Liquid "As Received"												
Cesium-137	U	0.0657	3.40	+/-1.01	8.00	pCi/L		KXG3	12/30/09	1838	935338	4
Cobalt-60	U	-0.383	4.32	+/-1.33	8.00	pCi/L						
Gross Gamma	U	15.8	35.9	+/-29.2	120	pCi/L						
Neptunium-237	U	10.5	34.6	+/-10.3	10.0	pCi/L						
Potassium-40	U	-7.23	55.6	+/-15.8	10.0	pCi/L						
Sodium-22	U	2.46	5.01	+/-1.49	10.0	pCi/L						
Rad Gas Flow Proportional Counting												
GFPC, Gross A/B, liquid "As Received"												
Beta	U	0.438	2.37	+/-0.660	3.00	pCi/L		DXB5	12/28/09	1555	935330	5
Alpha	U	-0.124	2.70	+/-0.587	3.00	pCi/L		DXB5	12/29/09	1615	935330	6
GFPC, Sr90, liquid "As Received"												
Strontium-90	U	-0.291	0.439	+/-0.111	0.500	pCi/L		MXB1	01/07/10	2002	937917	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	EPA 901.1
5	EPA 900.0
6	EPA 900.0

AMF
2/16/10

Wednesday, December 16, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-953

REQUEST NUMBER: 10-953

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/15/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 243 104%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6817	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-6817	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6817	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6818	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6818	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-6818	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6818	1	POLY	WSP-RAD	Nitric Acid	WG

Relinquished By:		Date	Time	Received By:		Date	Time
Jeff W G		12/16/09	1400	Greg Tyler		12-17-09	0920
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Wednesday, December 16, 2009

REQUEST NUMBER: 10-953

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-953
Per Agreement Number:126310011
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/16/2009
TURNAROUND/REPORT DUE: 1/15/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-6817	WG	12/15/2009	
	EPA:150.1	1	CAPA-10-6817	WG	12/15/2009	
	EPA:160.1	1	CAPA-10-6817	WG	12/15/2009	
	EPA:245.2	1	CAPA-10-6817	WG	12/15/2009	
		1	CAPA-10-6818	WG	12/15/2009	
	EPA:300.0	1	CAPA-10-6817	WG	12/15/2009	
	EPA:310.1	1	CAPA-10-6817	WG	12/15/2009	
	EPA:335.3	1	CAPA-10-6818	WG	12/15/2009	
	EPA:350.1	1	CAPA-10-6817	WG	12/15/2009	

Wednesday, December 16, 2009

REQUEST NUMBER: 10-953

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:353.2	1	CAPA-10-6817	WG	12/15/2009	
	EPA:365.4	1	CAPA-10-6817	WG	12/15/2009	
	EPA:900	1	CAPA-10-6818	WG	12/15/2009	
	EPA:901.1	1	CAPA-10-6818	WG	12/15/2009	
	EPA:905.0	1	CAPA-10-6818	WG	12/15/2009	
	HASL-300:AM-241	1	CAPA-10-6818	WG	12/15/2009	
	HASL-300:ISOPU	1	CAPA-10-6818	WG	12/15/2009	
	HASL-300:ISOU	1	CAPA-10-6818	WG	12/15/2009	
	SM:A2340B	1	CAPA-10-6817	WG	12/15/2009	
		1	CAPA-10-6818	WG	12/15/2009	
	SW-846:6010B	1	CAPA-10-6817	WG	12/15/2009	
		1	CAPA-10-6818	WG	12/15/2009	
	SW-846:6020	1	CAPA-10-6817	WG	12/15/2009	
		1	CAPA-10-6818	WG	12/15/2009	
	SW-846:6850	1	CAPA-10-6817	WG	12/15/2009	

Final Page of REQUEST NUMBER 10-953

GEL Laboratories LLC

a member of The GEL Group

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

January 04, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL-WQH Water Samples
Work Order: 243104
SDG: 10-953

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 17, 2009, and analyzed for General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-953
Enclosures

problem solved

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 243104
SDG # : 10-953

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 243104
SDG # : 10-953

January 04, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 17, 2009 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. The Gross A/B container was preserved prior to analysis. The containers for radiochemistry were received at 12/13C temperature. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
243104001	CAPA-10-6817
243104002	CAPA-10-6818

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 04 January 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Wednesday, December 16, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-953

REQUEST NUMBER: 10-953

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/15/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 243 104'/.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
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CAPA-10-6817	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6818	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-6818	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-6818	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-6818	1	POLY	WSP-RAD	Nitric Acid	WG

Relinquished By:		Date	Time	Received By:		Date	Time
Jeryl W G		12/16/09	1400	Greg Tyler		12-17-09	0920
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

Wednesday, December 16, 2009

REQUEST NUMBER: 10-953

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-953

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/16/2009

TURNAROUND/REPORT DUE: 1/15/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-6817	WG	12/15/2009	
	EPA:150.1	1	CAPA-10-6817	WG	12/15/2009	
	EPA:160.1	1	CAPA-10-6817	WG	12/15/2009	
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	EPA:310.1	1	CAPA-10-6817	WG	12/15/2009	
	EPA:335.3	1	CAPA-10-6818	WG	12/15/2009	
	EPA:350.1	1	CAPA-10-6817	WG	12/15/2009	

Wednesday, December 16, 2009

REQUEST NUMBER: 10-953

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
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	EPA:900	1	CAPA-10-6818	WG	12/15/2009	
	EPA:901.1	1	CAPA-10-6818	WG	12/15/2009	
	EPA:905.0	1	CAPA-10-6818	WG	12/15/2009	
	HASL-300:AM-241	1	CAPA-10-6818	WG	12/15/2009	
	HASL-300:ISOPU	1	CAPA-10-6818	WG	12/15/2009	
	HASL-300:ISOU	1	CAPA-10-6818	WG	12/15/2009	
	SM:A2340B	1	CAPA-10-6817	WG	12/15/2009	
		1	CAPA-10-6818	WG	12/15/2009	
	SW-846:6010B	1	CAPA-10-6817	WG	12/15/2009	
		1	CAPA-10-6818	WG	12/15/2009	
	SW-846:6020	1	CAPA-10-6817	WG	12/15/2009	
		1	CAPA-10-6818	WG	12/15/2009	
	SW-846:6850	1	CAPA-10-6817	WG	12/15/2009	

Final Page of REQUEST NUMBER 10-953

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-953**
Received By: Greg Tyler	**Date Received: 12/17/09**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **30cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **2-4C, 12,13C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?			X	Sample ID's, containers affected and observed pH: **CAPA-10-6818 Gross A/B** If Preservation added, Lot#: **H20053**
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers
7209 7849 2542 2C
7209 7849 2531 3C
7209 7849 2510 4C
7209 7849 2520 4C
7209 7849 2553 4C
7209 7849 2509 12C
7209 7849 2494 13C

PM review: Initials _____ Date 12/18/09

Subject: Sample Receipt for 12/18/09
From: Dionne Francis <Dionne.Francis@gel.com>
Date: Fri, 18 Dec 2009 13:46:29 -0500
To: "Keith R. Greene" <kgreene@lanl.gov>, Joylene Valdez <joylenev@lanl.gov>, Valerie Davis <vsd@gel.com>

Keith,

RN 10-947: the lab did not receive any containers.

RN 10-957: the lab did not receive a container for sample RE16-10-202.

RN 10-953: the Gross A/B container was preserved prior to analysis.

RN 10-952: the lab rec'd (1) 40ml vial 8260B container for sample CAPA-10-6819 instead of (2) as indicated on the COC.

The following containers rec'd without a COC:
RE16-10-2877, 2879, 2881
125ml amber 8260B, 125ml poly Anions+ClO4+CN, 500ml amber 8270C+NMED Exp
1L poly AM241+ISOU+ISOPU+GS+MET

Thanks,
Dionne

--
Dionne Francis
Project Manager Assistant
GEL Laboratories, LLC
2040 Savage Road
Charleston, SC (USA) 29407
Direct: 843.769.7376 Ext. 4432
Main: 843.556.8171
Fax: 843.766.1178
E-mail: daf@gel.com
Web: www.gel.com

Let the Bible fill the memory, rule the heart, and guide the feet.

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 16DEC09
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWM0

2c

FedEx Express

1 of 2
TRK# 0201 7209 7849 2542
MASTER

THU - 17DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 16DEC09
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A0352VA00

3c

FedEx Express

TRK# 0201 7209 7849 2531

THU - 17DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 16DEC09
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A0352VA00

4c

FedEx Express

1 of 2
TRK# 0201 7209 7849 2510
MASTER

THU - 17DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 16DEC09
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A0352VA00

4c

FedEx Express

2 of 2
MPS# 0283 7209 7849 2520
Mstr# 7209 7849 2510 0201

THU - 17DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 16DEC09
ACTWGT: 37.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWM0

4c

FedEx Express

2 of 2
MPS# 0263 7209 7849 2553
Mstr# 7209 7849 2542 0201

THU - 17DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part# 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 16DEC09
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AAREW01105800

12c

FedEx Express

3 of 3
MPS# 0263 7209 7849 2509
Mstr# 7209 7849 2483 0201

THU - 17DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part# 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 16DEC09
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AAREW01105800

13c

FedEx Express

2 of 3
MPS# 0263 7209 7849 2494
Mstr# 7209 7849 2483 0201

THU - 17DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

DATA REVIEW QUALIFIER FLAG DEFINITION SHEET

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-953

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	935077
Prep Batch Number:	935076

Sample Analysis

Sample ID	Client ID
243104001	CAPA-10-6817
1202000659	Interference Check Sample (ICS)
1202000653	Method Blank (MB)
1202000654	Laboratory Control Sample (LCS)
1202000657	243104001(CAPA-10-6817) Matrix Spike (MS)
1202000658	243104001(CAPA-10-6817) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

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CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243104001 (CAPA-10-6817) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

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Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Nonconformance (NCR) Documentation
Nonconformance reports (NCRs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The sample in this SDG was not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

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System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Heather K. Moore **Date:** 01/10/09

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SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 935076

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6817

Date Received: 17-DEC-09

GEL Job No (SDG): 10-953

GEL Sample ID: 243104001

Date Filtered: 21-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.358	ug/L		1	21-DEC-09 14:26	per1221025a
	Perchlorate Isotope Ratio			3.04			1	21-DEC-09 14:26	per1221025a
14797-73-0	Perchlorate-101	.05	.2	0.352	ug/L		1	21-DEC-09 14:26	per1221025a
	Perchlorate-O(18)			0.501	ug/L		1	21-DEC-09 14:26	per1221025a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10-953

Extract Batch Code: 935076

Date Filtered: 21-DEC-09

Matrix: WATER

Sample ID: 1202000654

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.188	ug/L	94.0		85 – 115
Perchlorate Isotope Ratio		2.9				–
Perchlorate-101	0.200	.193	ug/L	96.6		85 – 115
Perchlorate-O(18)		.464	ug/L			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–953

Extract Batch Code: 935076

Date Filtered: 21–DEC–09

Matrix: GROUND WATER

Sample ID: 1202000659

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.198	ug/L	99.1		70 – 130
Perchlorate Isotope Ratio		2.92				
Perchlorate–101	0.200	.203	ug/L	101		70 – 130
Perchlorate–O(18)		.585	ug/L			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122109a.qld

Last Altered: Tuesday, December 22, 2009 7:15:42 AM Eastern Standard Time
Printed: Tuesday, December 22, 2009 8:36:33 AM Eastern Standard Time

Name: per1221023a
Date: 21-Dec-2009
Time: 14:12:18
ID: 1202000659
Vial: 2:1,C

LAUL | 935077 | LIQ | IC8 | 1 |

MAT 12/22/09

Perchlorate

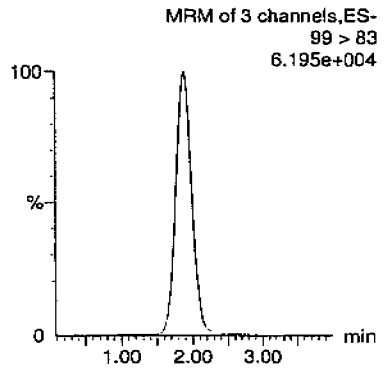

Perchlorate

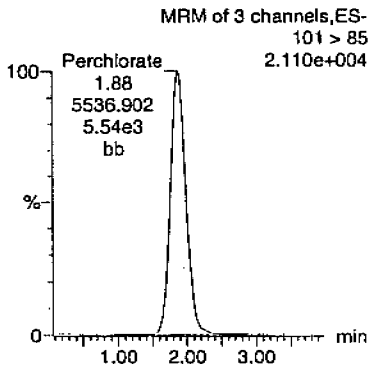

Perchlorate-101

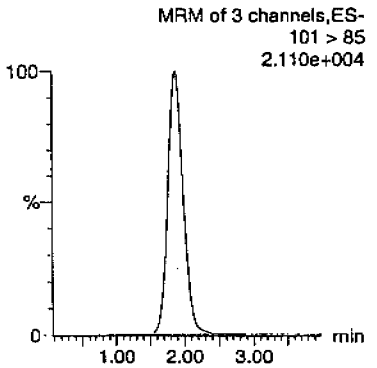

Perchlorate-O(18)

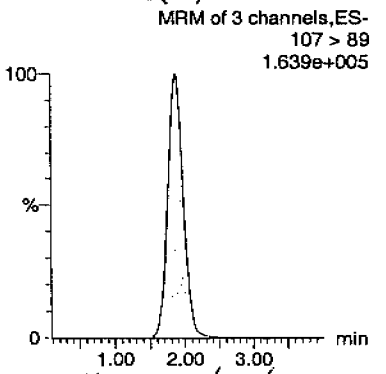

Hmm 12/22/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	ion Ratio
1202000659	Perchlorate	99 > 83	1.88	16146.688	16146.688	bb			0.1982	99.10	-0.90	4138.5...	2.92
1202000659	Perchlorate-101	101 > 85	1.88	5536.902	5536.902	bb			0.2029	101.46	1.46	1932.5...	
1202000659	Perchlorate-O(18)	107 > 89	1.87	42702.895	42702.895	bb			0.5849	116.98	16.98	8628.4...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–953

Extract Batch Code: 935076

Date Extracted: 21–DEC–09

GEL MS/PS ID: 1202000657

Client ID: CAPA–10–6817

GEL MSD/PSD ID: 1202000658

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	0.200	0.358	ug/L	0.544	93	.554	97.9	1.8	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		2.97		3.06		0		–
Perchlorate–101	0.200	0.352	ug/L	0.548	98	.541	94.7	1.18	30	75 – 125
Perchlorate–O(18)	0	0.501	ug/L	0.509		.51		.18		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–953

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	21–DEC–09	per1221001a	IPB001
Perchlorate–101	0.00	0	NA	21–DEC–09	per1221001a	IPB001
Perchlorate	0.00	0	NA	21–DEC–09	per1221002a	IPB001
Perchlorate–101	0.00	0	NA	21–DEC–09	per1221002a	IPB001

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122109a.qld

Last Altered: Tuesday, December 22, 2009 7:15:42 AM Eastern Standard Time
Printed: Tuesday, December 22, 2009 8:36:33 AM Eastern Standard Time

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per122109a.mdb 22 Dec 2009 07:15:33
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per122109a.cdb 22 Dec 2009 07:15:41

Name: per1221001a
Date: 21-Dec-2009
Time: 11:36:07
ID: IPB001
Vial: 1:1,A

MMT 12/22/09

Perchlorate

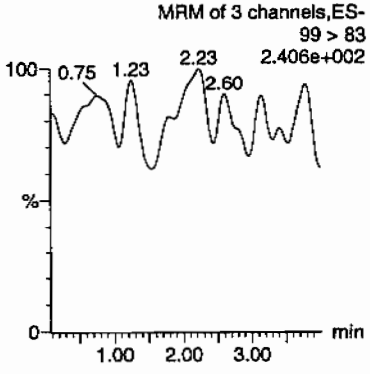

Perchlorate

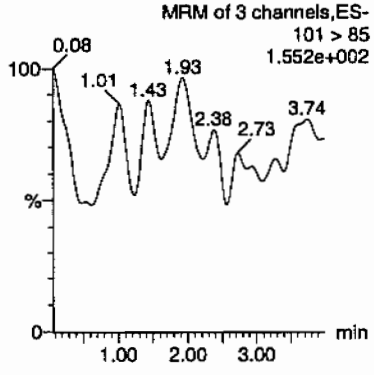

Perchlorate-101

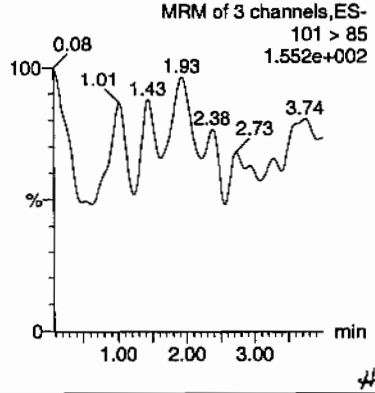

Perchlorate-O(18)

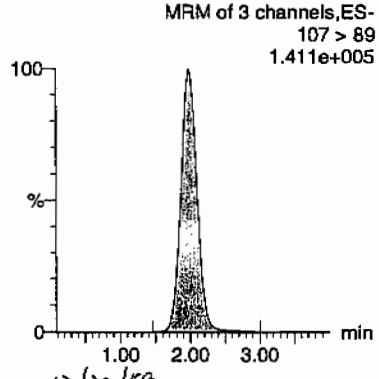

Hnm 12/22/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	1.98	37794.512	37794.512	bb			0.5177	103.53	3.53	13298....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122109a.qld

Last Altered: Tuesday, December 22, 2009 7:15:42 AM Eastern Standard Time
Printed: Tuesday, December 22, 2009 8:36:33 AM Eastern Standard Time

Page 28 of 73

Name: per1221002a
Date: 21-Dec-2009
Time: 11:43:10
ID: IPB001
Vial: 1:1,A

MMT 12/22/09

Perchlorate

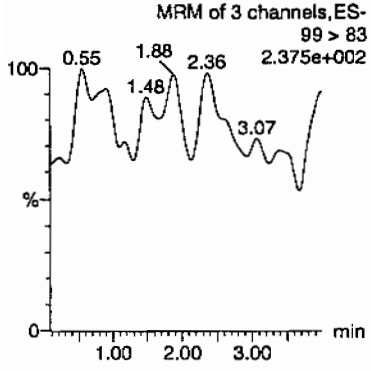

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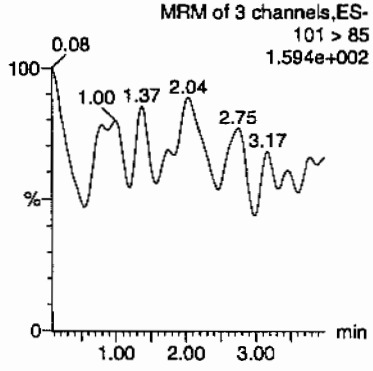

Perchlorate-101

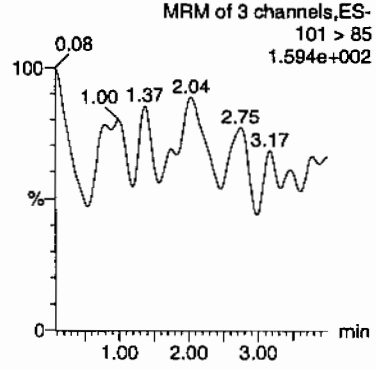

Perchlorate-O(18)

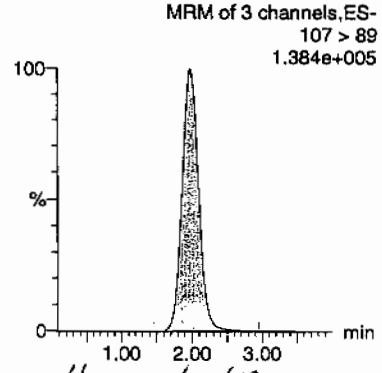

Hmm 12/22/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB001	Perchlorate	99 > 83											0.00
IPB001	Perchlorate-101	101 > 85											
IPB001	Perchlorate-O(18)	107 > 89	1.98	37304.773	37304.773	bb			0.5110	102.19	2.19	7940.4...	

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–953

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	21–DEC–09	per1221008a	IPB002
Perchlorate–101	0.00	0	NA	21–DEC–09	per1221008a	IPB002
Perchlorate	0.00	0	NA	21–DEC–09	per1221010a	IPB003
Perchlorate–101	0.00	0	NA	21–DEC–09	per1221010a	IPB003
Perchlorate	0.00	0	NA	21–DEC–09	per1221019a	IPB004
Perchlorate–101	0.00	0	NA	21–DEC–09	per1221019a	IPB004
Perchlorate	0.00	0	NA	21–DEC–09	per1221032a	IPB005
Perchlorate–101	0.00	0	NA	21–DEC–09	per1221032a	IPB005

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luantify Sample Report MassLynx 4.0 SP4
'he GEL Group, LLC Analyst: Michael A. Penny

)ataset: C:\MassLynx\Perchlorate.PRO\per122109a.qld

.ast Altered: Tuesday, December 22, 2009 7:15:42 AM Eastern Standard Time
'rinted: Tuesday, December 22, 2009 8:36:33 AM Eastern Standard Time

Page 10 of 73

lame: per1221008a
)ate: 21-Dec-2009
'ime: 12:25:34
D: IPB002
/ial: 1:1,A

MOT 12/22/09

'erchlorate

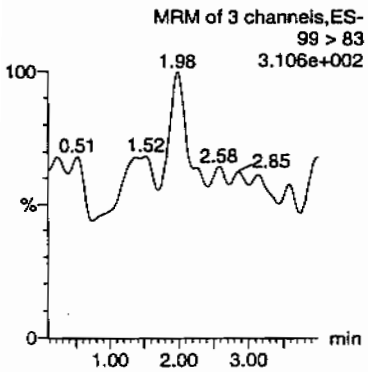

Perchlorate

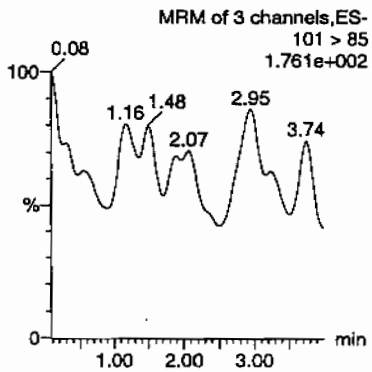

Perchlorate-101

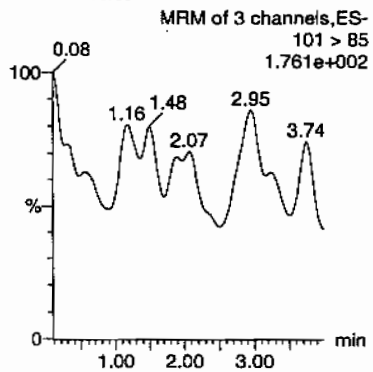

Perchlorate-O(18)

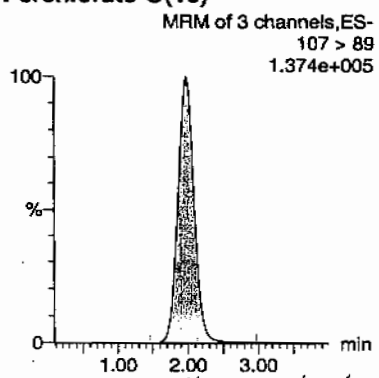

HMM 12/22/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB002	Perchlorate	99 > 83											0.00
IPB002	Perchlorate-101	101 > 85											
IPB002	Perchlorate-O(18)	107 > 89	1.97	36761.910	36761.910	bb			0.5035	100.70	0.70	7461.1...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122109a.qld

Last Altered: Tuesday, December 22, 2009 7:15:42 AM Eastern Standard Time
Printed: Tuesday, December 22, 2009 8:36:33 AM Eastern Standard Time

Name: per1221010a
Date: 21-Dec-2009
Time: 12:39:55
ID: IPB003
Vial: 1:1,A

Page 3 of 17

MMT 12/22/09

Perchlorate

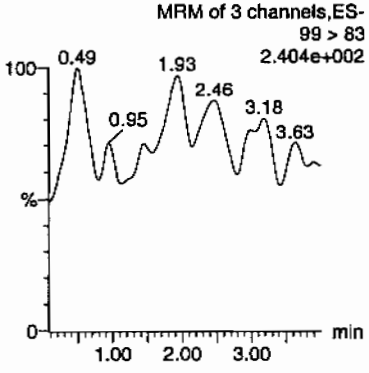

Perchlorate

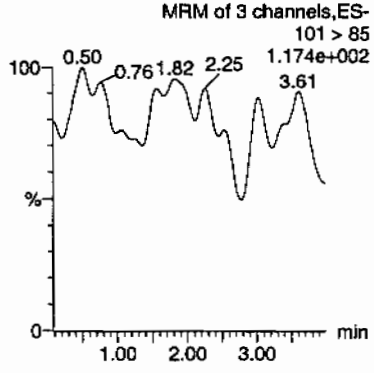

Perchlorate-101

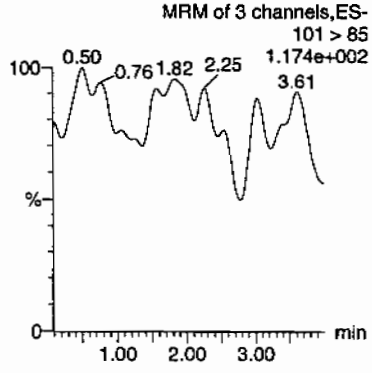

Perchlorate-O(18)

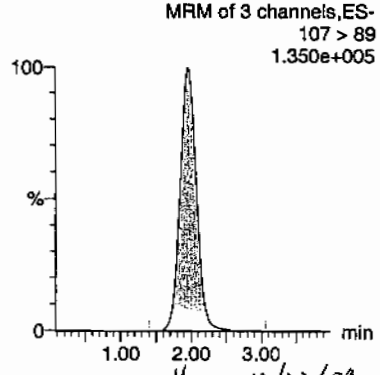

HMM 12/22/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB003	Perchlorate	99 > 83											0.00
IPB003	Perchlorate-101	101 > 85											
IPB003	Perchlorate-O(18)	107 > 89	1.96	36062.152	36062.152	bb			0.4939	98.79	-1.21	3922.3...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122109a.qld

Last Altered: Tuesday, December 22, 2009 7:15:42 AM Eastern Standard Time
Printed: Tuesday, December 22, 2009 8:36:33 AM Eastern Standard Time

Page 13 of 13

Name: per1221019a
Date: 21-Dec-2009
Time: 13:43:34
ID: IPB004
Vial: 1:1,A

MATT 12/22/09

Perchlorate

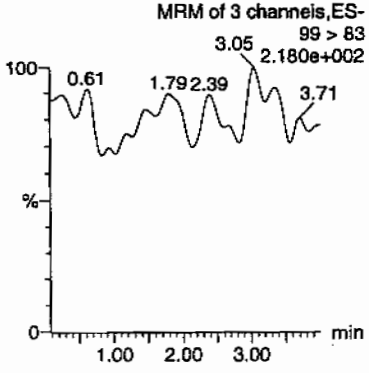

Perchlorate

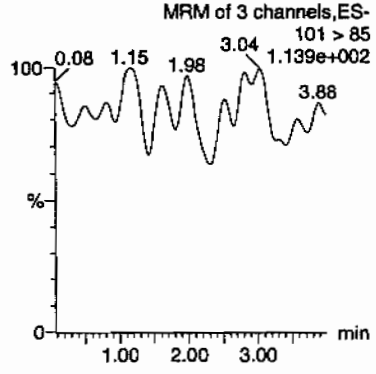

Perchlorate-101

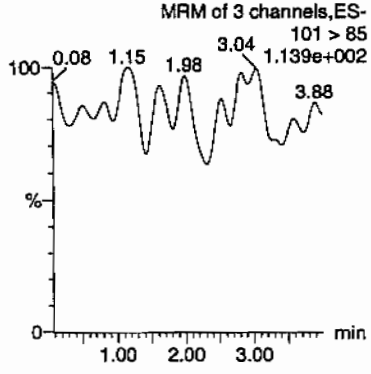

Perchlorate-O(18)

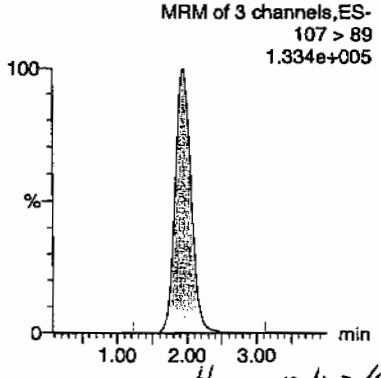

Hmm 12/22/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB004	Perchlorate	99 > 83											0.00
IPB004	Perchlorate-101	101 > 85											
IPB004	Perchlorate-O(18)	107 > 89	1.94	35443.352	35443.352	bb			0.4855	97.09	-2.91	7992.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122109a.qld

Last Altered: Tuesday, December 22, 2009 7:15:42 AM Eastern Standard Time
Printed: Tuesday, December 22, 2009 8:36:33 AM Eastern Standard Time

Page 30 of 73

Name: per1221032a
Date: 21-Dec-2009
Time: 15:16:28
ID: IPB005
Vial: 1:1,A

MM 12/22/09

Perchlorate

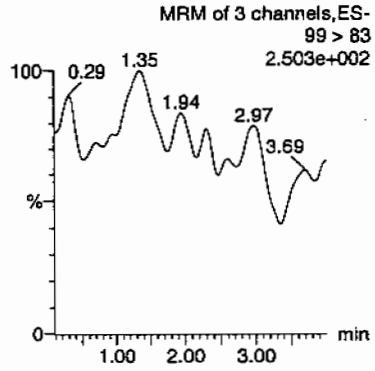

Perchlorate

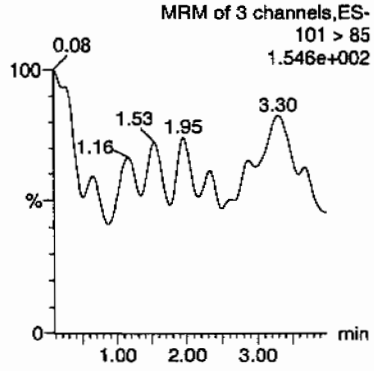

Perchlorate-101

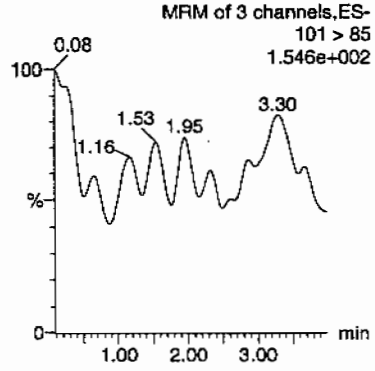

Perchlorate-O(18)

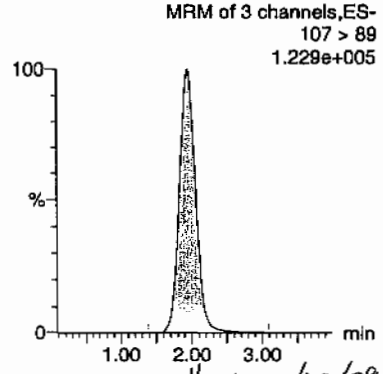

Hmc 12/22/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
IPB005	Perchlorate	99 > 83											0.00
IPB005	Perchlorate-101	101 > 85											
IPB005	Perchlorate-O(18)	107 > 89	1.94	32767.500	32767.500	bb			0.4488	89.76	-10.24	10101....	

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: Tue Jan 08 12:19:12 2008

PEAKS HIGHLIGHTED BY CWW 01-09-08

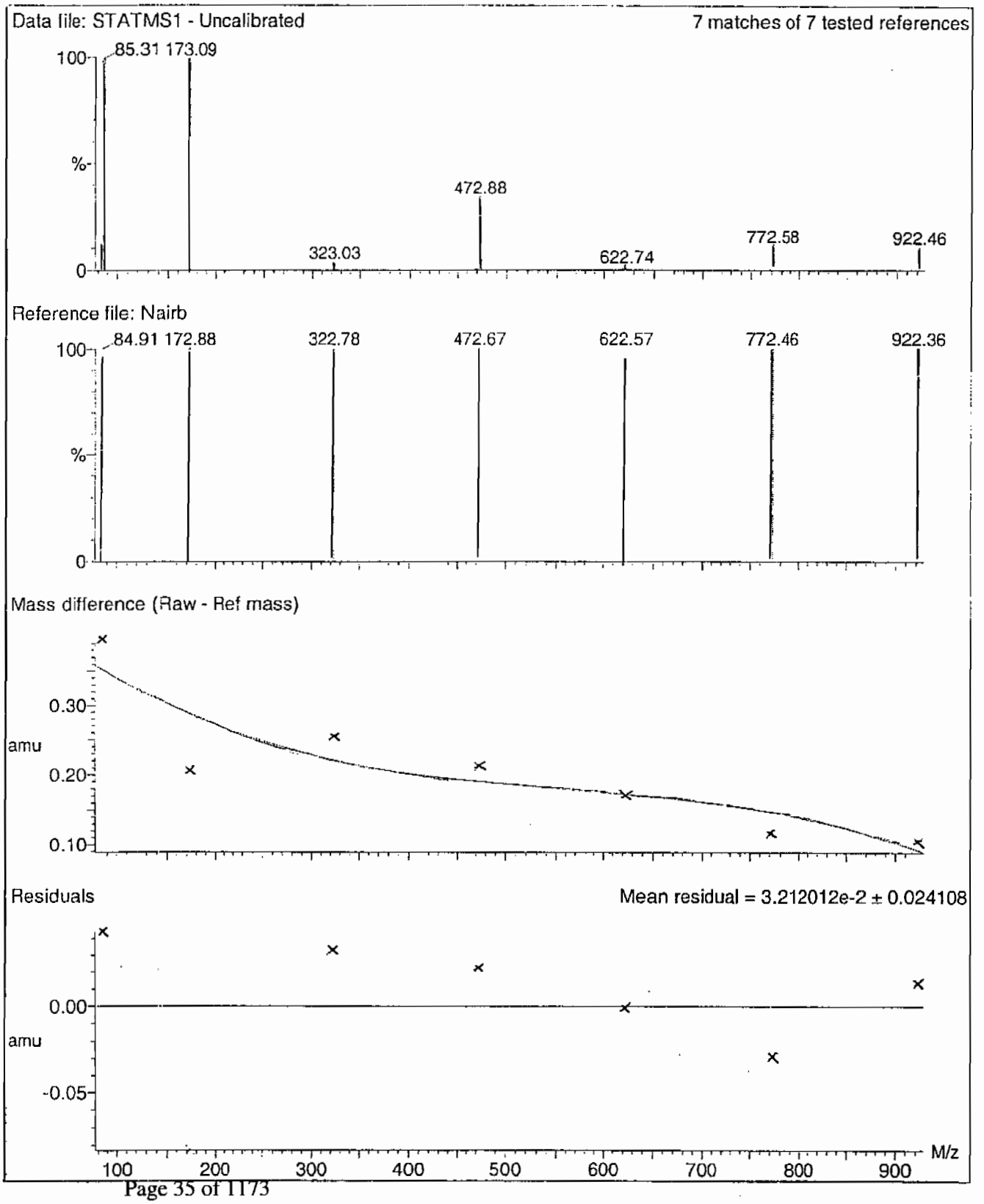

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Calibration Report - MS1 Scanning

Printed: Tue Jan 08 12:20:09 2008

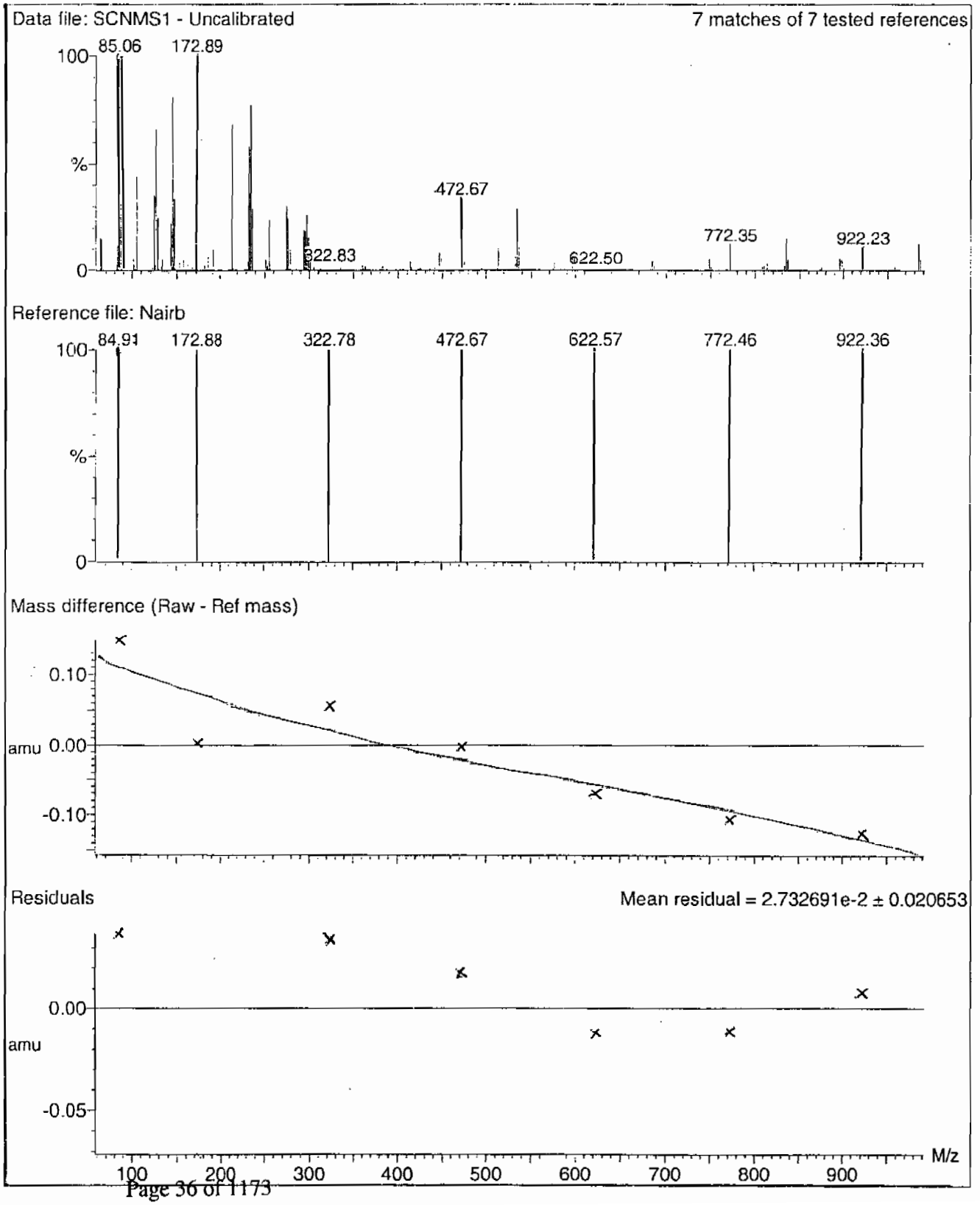

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Calibration Report - MS1 Scan Speed Compensation

Printed: Tue Jan 08 12:21:04 2008

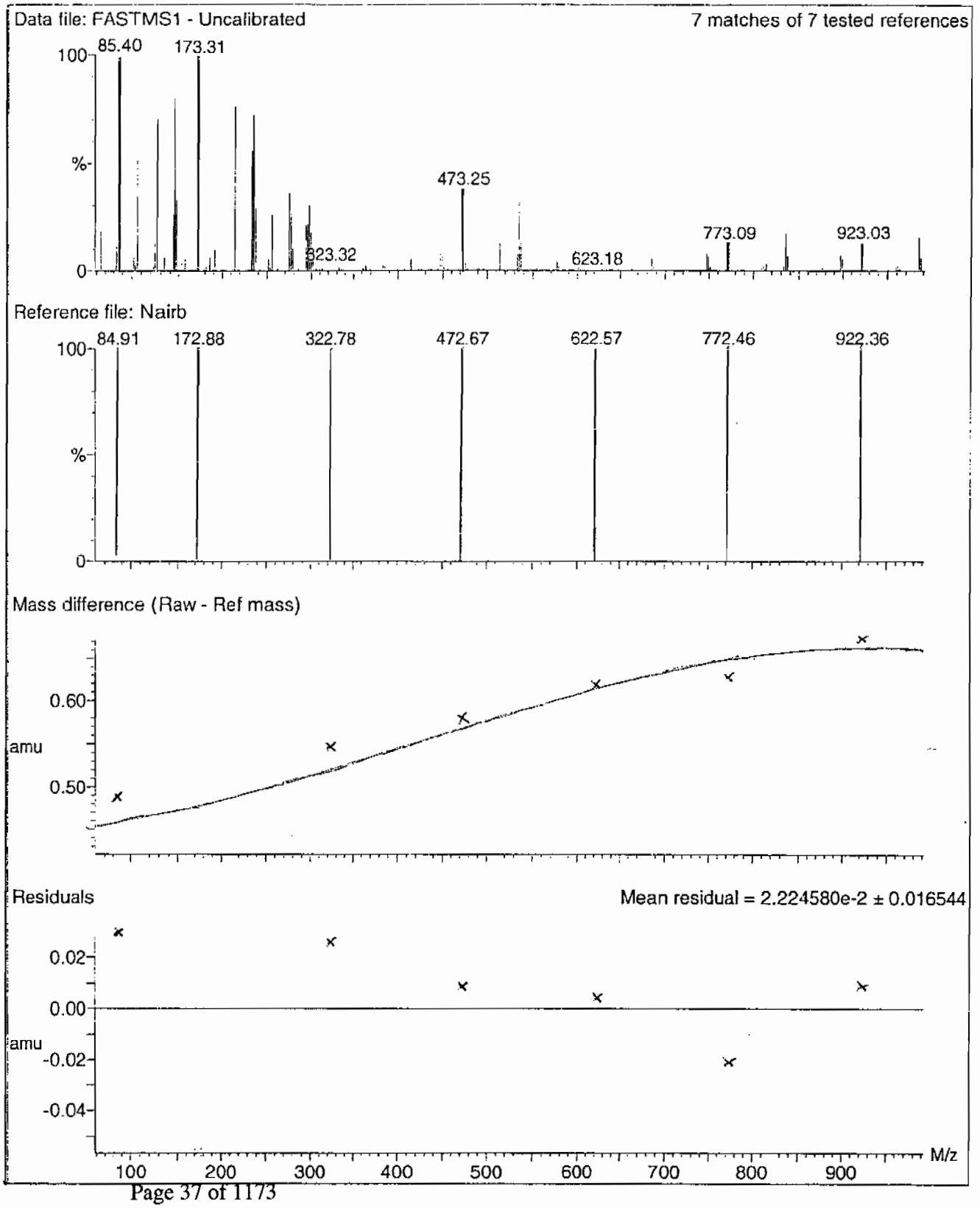

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Calibration Report - MS2 Static

Printed: Tue Jan 08 12:21:59 2008

Data file: STATMS2 - Uncalibrated

7 matches of 7 tested references

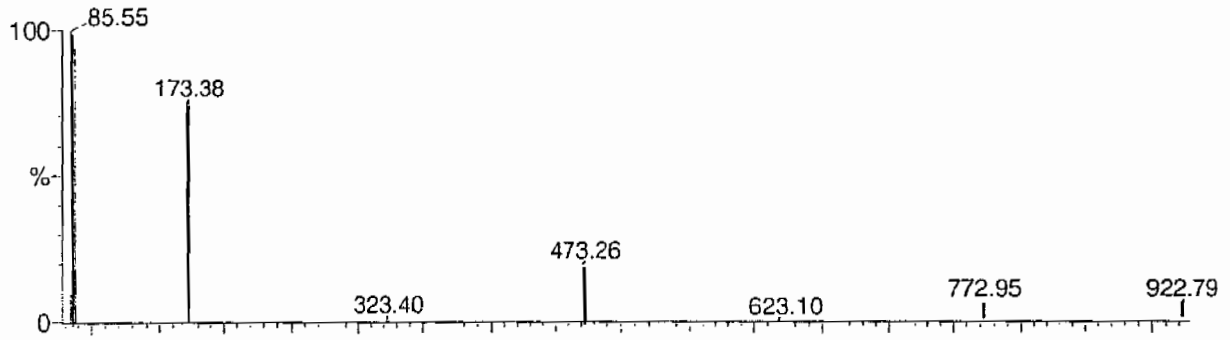

Reference file: Nairb

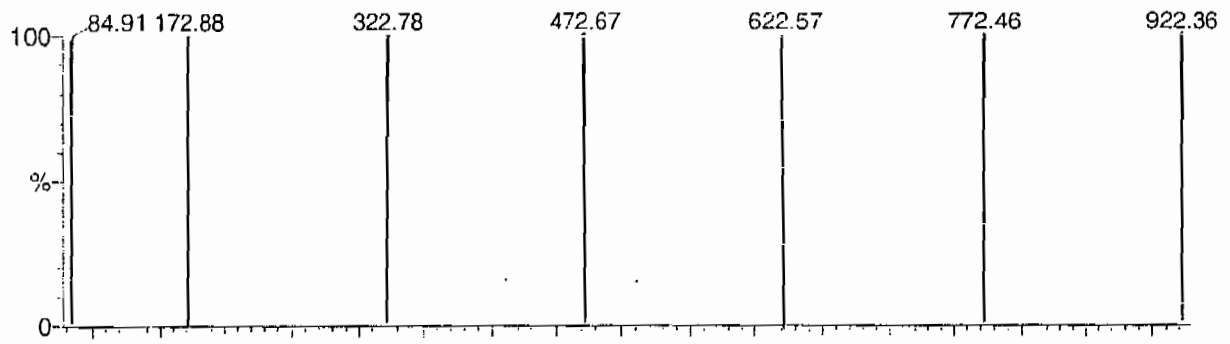

Mass difference (Raw - Ref mass)

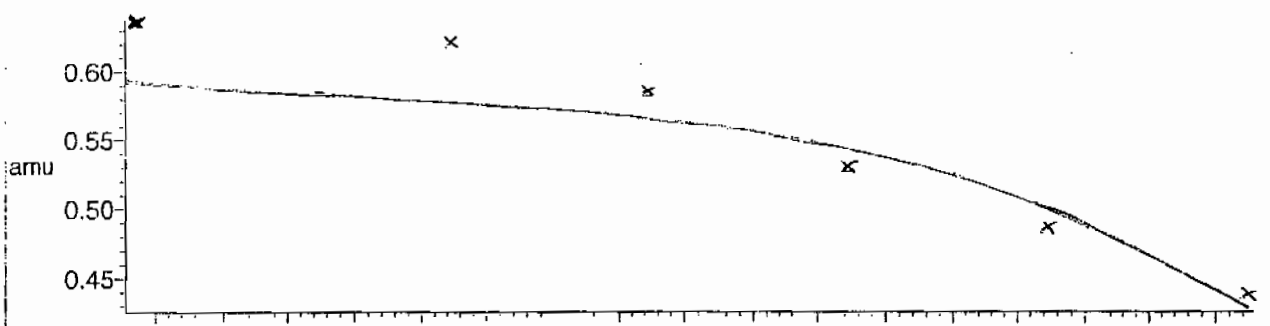

Residuals

Mean residual = 3.295980e-2 ± 0.025603

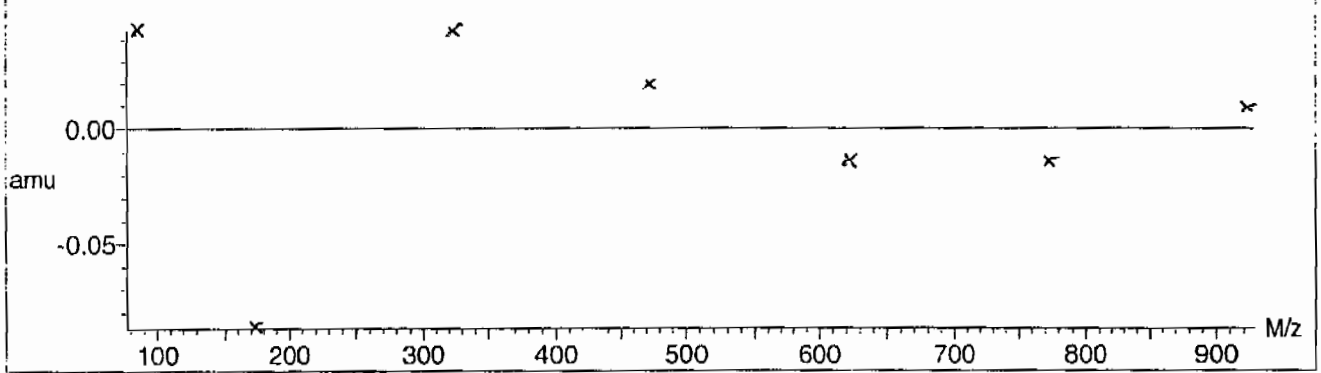

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Calibration Report - MS2 Scanning

Printed: Tue Jan 08 12:22:56 2008

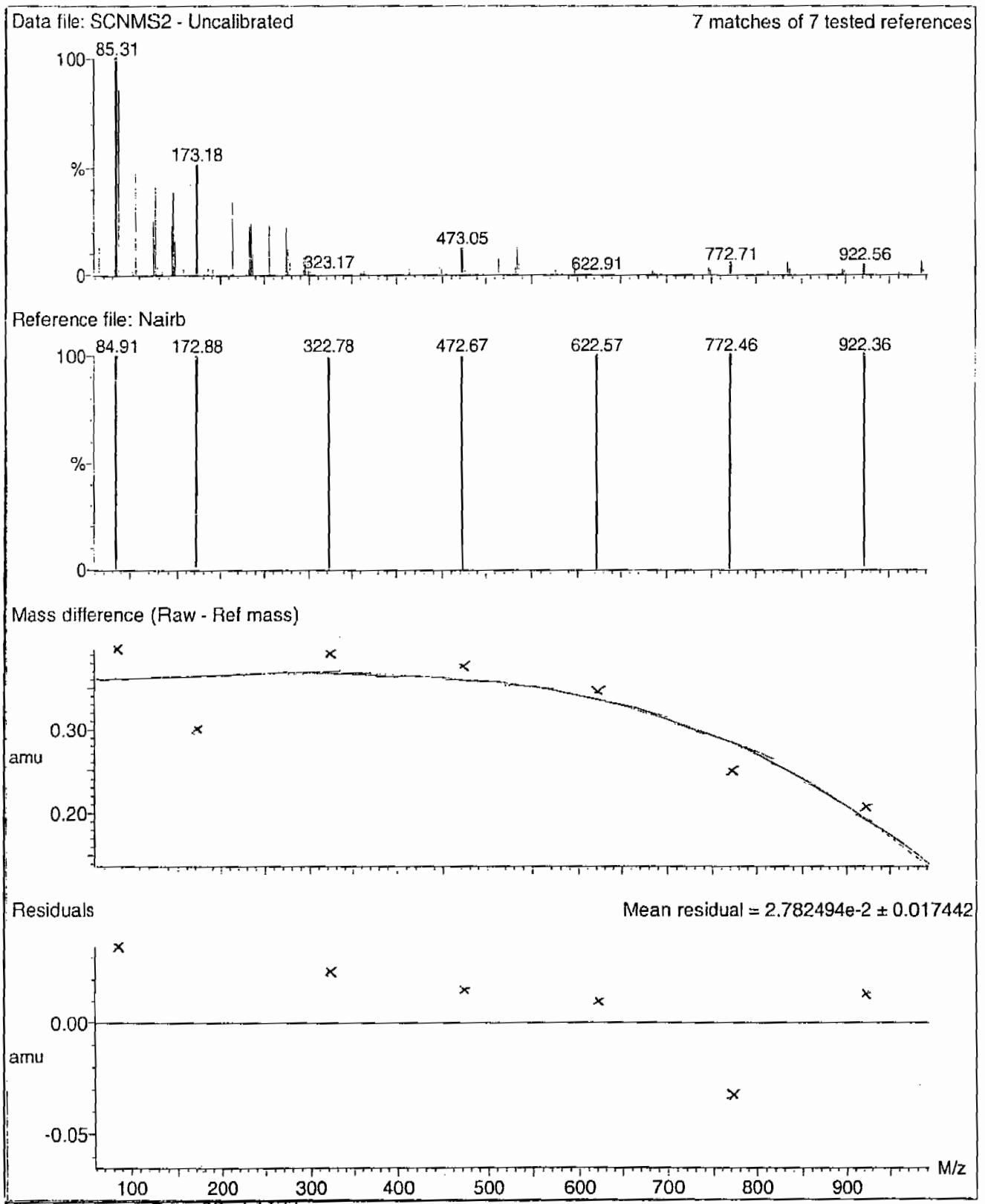

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

Printed: Tue Jan 08 12:23:51 2008

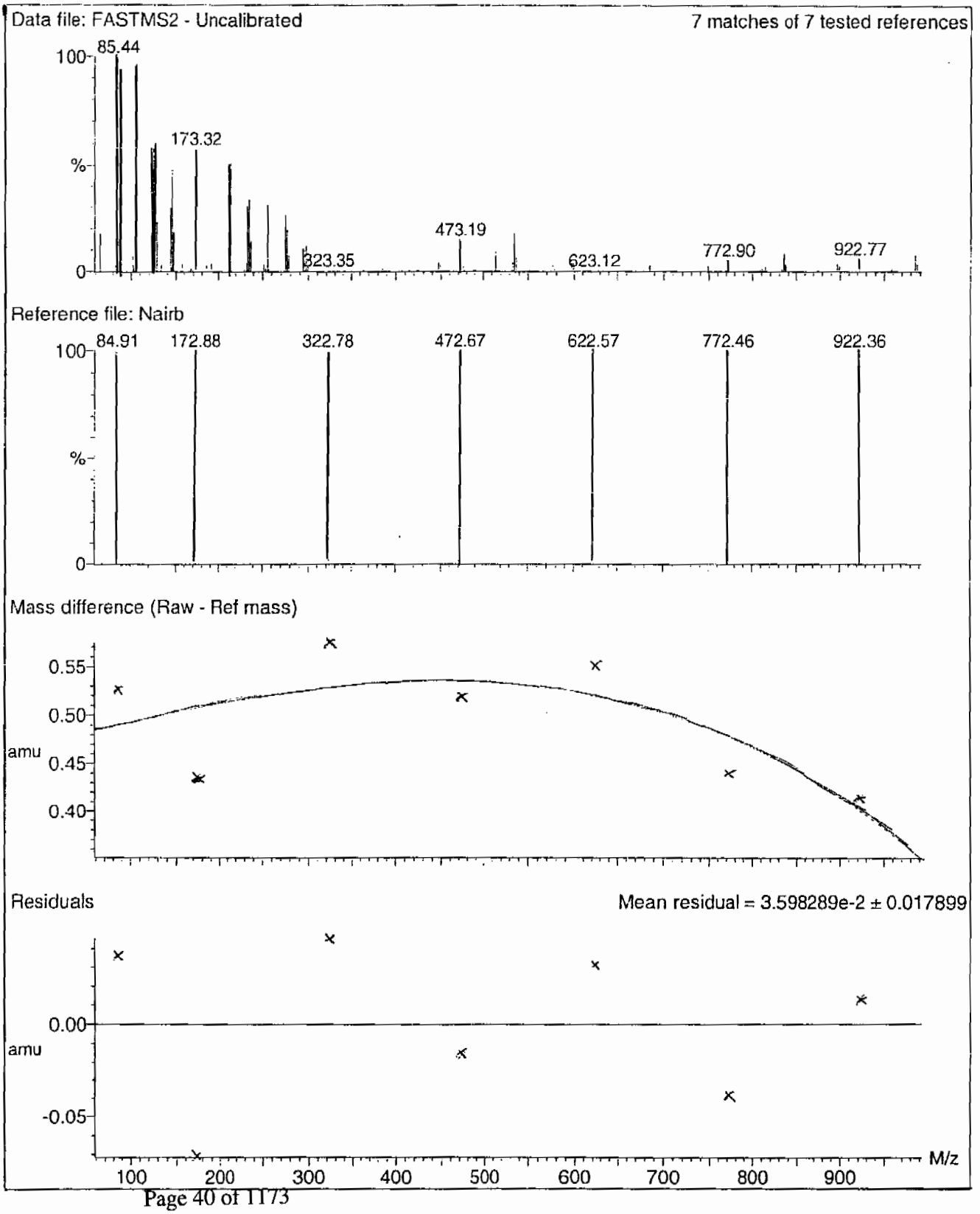

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Tune Parameters **MassLynx 4.0 SP4**

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Monday, December 21, 2009 10:16:06 Eastern Standard Time

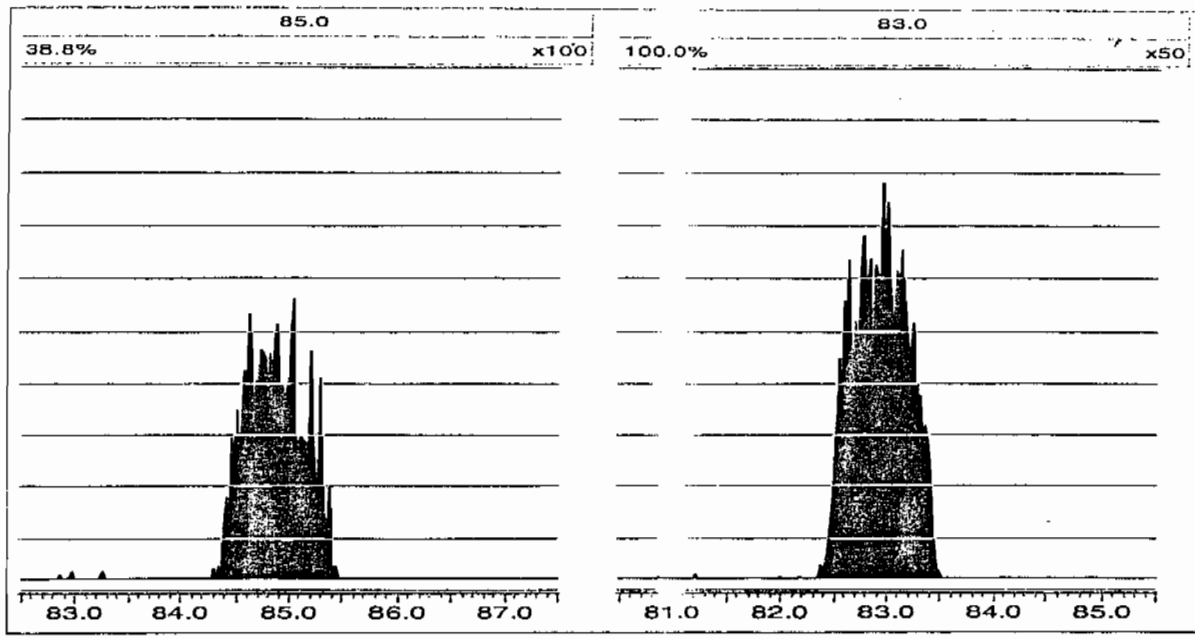

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–953

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per1221006a**	**21–DEC–09**	**36095.7**				
Lower Area Limit			**18047.85**				
Upper Area Limit			**72191.4**				
1202000653	per1221021a	21–DEC–09 13:57	34588.5	1.94	1.94255	1.001	
1202000654	per1221022a	21–DEC–09 14:05	33851.6	1.95	1.96735	1.009	
1202000659	per1221023a	21–DEC–09 14:12	42702.9	1.87	1.8803	1.006	
243104001	per1221025a	21–DEC–09 14:26	36577.8	1.94	1.95487	1.008	
1202000657	per1221026a	21–DEC–09 14:33	37132.9	1.94	1.95487	1.008	
1202000658	per1221027a	21–DEC–09 14:40	37199.6	1.94	1.95492	1.008	

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SAMPLE
DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 935076

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6817

Date Received: 17-DEC-09

GEL Job No (SDG): 10-953

GEL Sample ID: 243104001

Date Filtered: 21-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.358	ug/L		1	21-DEC-09 14:26	per1221025a
	Perchlorate Isotope Ratio			3.04			1	21-DEC-09 14:26	per1221025a
14797-73-0	Perchlorate-101	.05	.2	0.352	ug/L		1	21-DEC-09 14:26	per1221025a
	Perchlorate-O(18)			0.501	ug/L		1	21-DEC-09 14:26	per1221025a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122109a.qld

Last Altered: Tuesday, December 22, 2009 7:15:42 AM Eastern Standard Time
Printed: Tuesday, December 22, 2009 8:36:33 AM Eastern Standard Time

Name: per1221025a
Date: 21-Dec-2009
Time: 14:26:27
ID: 243104001
Vial: 2:1,E

LANL | 935077 | LIQ | 1 |

MAT 12/22/09

Perchlorate

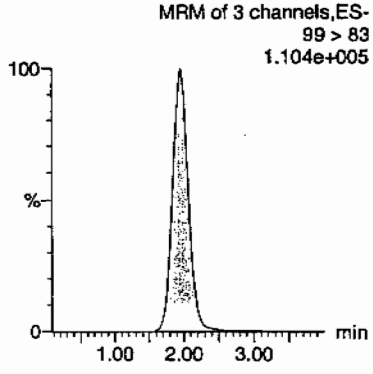

Perchlorate

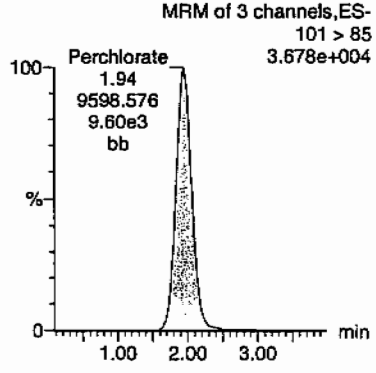

Perchlorate-101

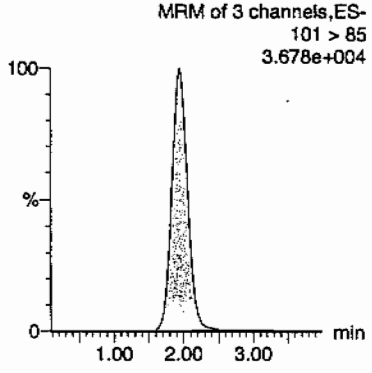

Perchlorate-O(18)

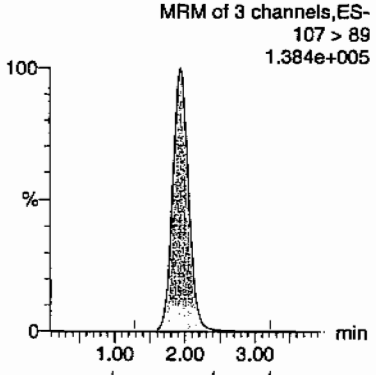

MMW 12/22/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
243104001	Perchlorate	99 > 83	1.96	29183.863	29183.863	bb			0.3582			3554.7...	3.04
243104001	Perchlorate-101	101 > 85	1.94	9598.576	9598.576	bb			0.3518			4353.5...	
243104001	Perchlorate-O(18)	107 > 89	1.94	36577.762	36577.762	bb			0.5010	100.20	0.20	23798....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–953

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 21–DEC–09

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 81464.54

Response Type: External Standard

Curve Type: RF

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Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–953

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 21–DEC–09

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 27284.9

Response Type: External Standard

Curve Type: RF

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Quantify Calibration Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122109a.qld

Last Altered: Tuesday, December 22, 2009 7:15:42 AM Eastern Standard Time
Printed: Tuesday, December 22, 2009 8:36:33 AM Eastern Standard Time

Page 19 of 33

Method: C:\MassLynx\Perchlorate.PRO\MethDB\per122109a.mdb 22 Dec 2009 07:15:33
Calibration: C:\MassLynx\Perchlorate.PRO\CurveDB\per122109a.cdb 22 Dec 2009 07:15:41

Compound name: Perchlorate
Response Factor: 81464.6
RRF SD: 1466.34, % Relative SD: 1.79997
Response type: External Std, Area
Curve type: RF

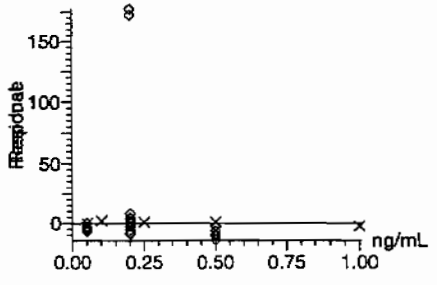

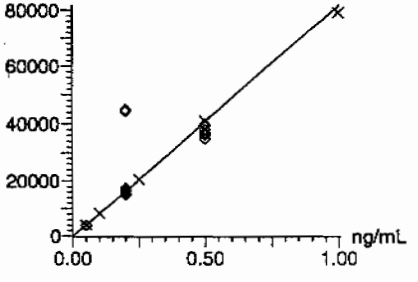

MM 12/22/09

Compound name: Perchlorate-101
Response Factor: 27284.9
RRF SD: 422.412, % Relative SD: 1.54815
Response type: External Std, Area
Curve type: RF

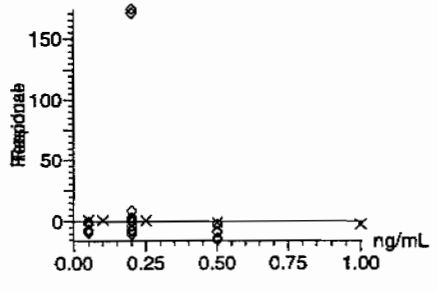

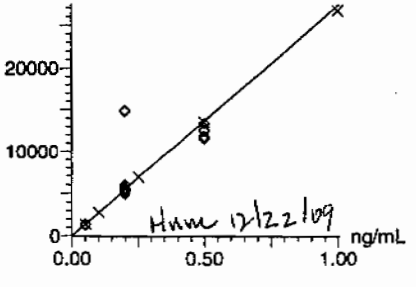

Hmc 12/22/09

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Calibration Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122109a.qld

Last Altered: Tuesday, December 22, 2009 7:15:42 AM Eastern Standard Time
Printed: Tuesday, December 22, 2009 8:36:33 AM Eastern Standard Time

Compound name: Perchlorate-O(18)
Response Factor: 73010.4
RRF SD: 1338, % Relative SD: 1.83261
Response type: External Std, Area
Curve type: RF

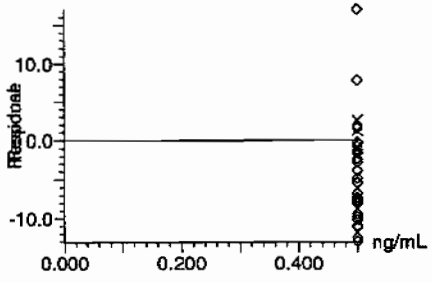

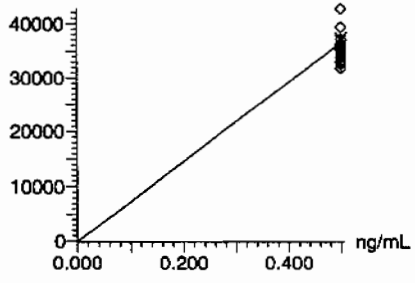

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122109a.qld

Last Altered: Tuesday, December 22, 2009 7:15:42 AM Eastern Standard Time
Printed: Tuesday, December 22, 2009 8:36:33 AM Eastern Standard Time

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Name: per1221003a
Date: 21-Dec-2009
Time: 11:50:20
ID: WCL091218-01
Vial: 1:1,B

MAT 12/22/09

Perchlorate

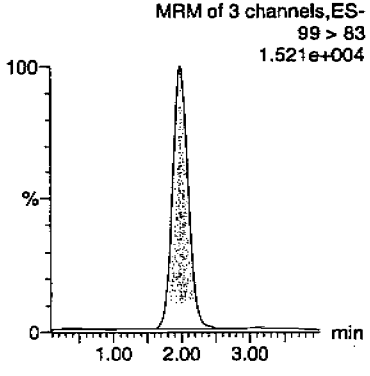

Perchlorate

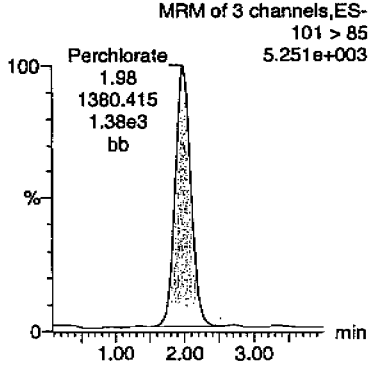

Perchlorate-101

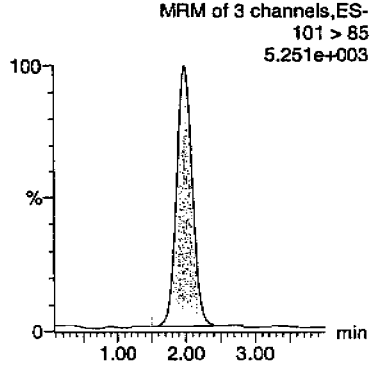

Perchlorate-O(18)

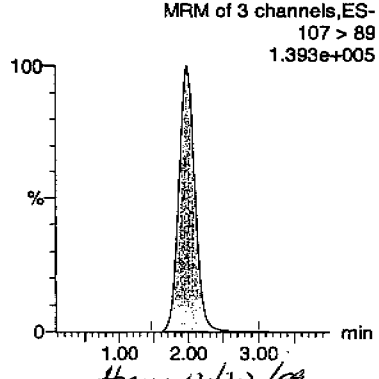

thmc 12/22/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-01	Perchlorate	99 > 83	1.98	4064.810	4064.810	bb			0.0499	99.79	-0.21	727.069	2.94
WCL091218-01	Perchlorate-101	101 > 85	1.98	1380.415	1380.415	bb			0.0506	101.19	1.19	589.351	
WCL091218-01	Perchlorate-O(18)	107 > 89	1.98	37445.918	37445.918	bb			0.5129	102.58	2.58	2097.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122109a.qld

Last Altered: Tuesday, December 22, 2009 7:15:42 AM Eastern Standard Time
Printed: Tuesday, December 22, 2009 8:36:33 AM Eastern Standard Time

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Name: per1221004a
Date: 21-Dec-2009
Time: 11:57:22
ID: WCL091218-02
Vial: 1:1,C

MTP 12/22/09

Perchlorate

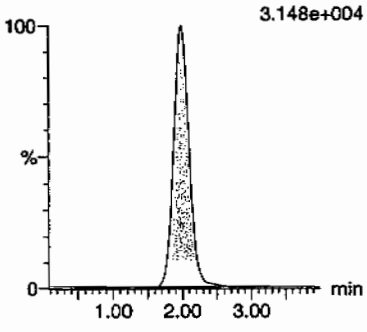

Perchlorate

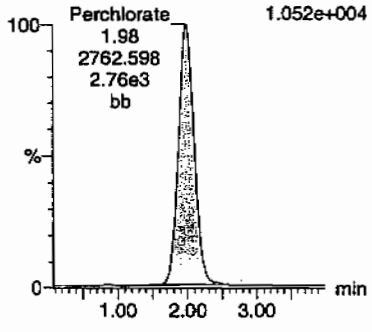

Perchlorate-101

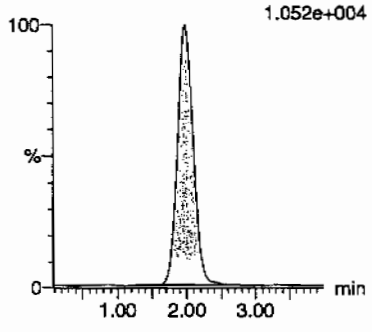

Perchlorate-O(18)

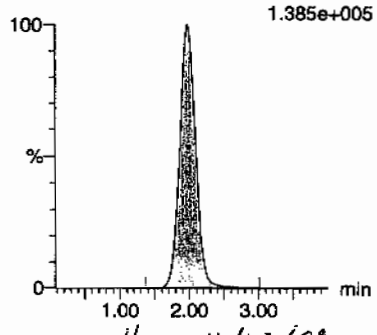

Hmm 12/22/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-02	Perchlorate	99 > 83	1.99	8301.312	8301.312	bb			0.1019	101.90	1.90	994.695	3.01
WCL091218-02	Perchlorate-101	101 > 85	1.98	2762.598	2762.598	bb			0.1013	101.25	1.25	844.578	
WCL091218-02	Perchlorate-O(18)	107 > 89	1.98	36946.754	36946.754	bb			0.5060	101.21	1.21	11146....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122109a.qld

Last Altered: Tuesday, December 22, 2009 7:15:42 AM Eastern Standard Time
Printed: Tuesday, December 22, 2009 8:36:33 AM Eastern Standard Time

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Name: per1221005a
Date: 21-Dec-2009
Time: 12:04:31
ID: WCL091218-03
Vial: 1:1,D

MMT 12/22/09

Perchlorate

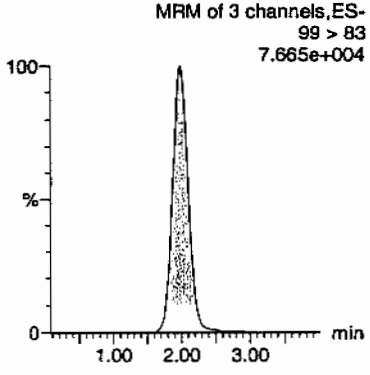

Perchlorate

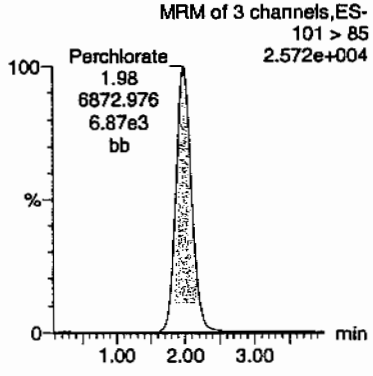

Perchlorate-101

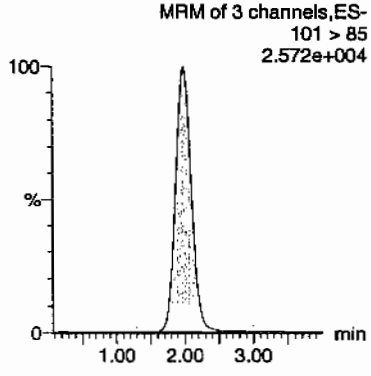

Perchlorate-O(18)

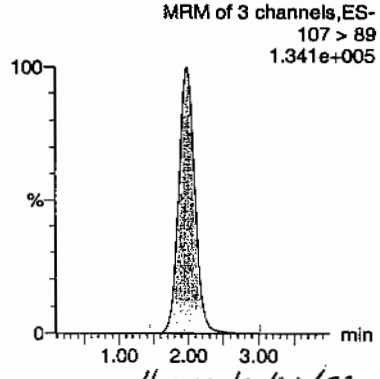

Hsmc 12/22/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-03	Perchlorate	99 > 83	1.99	20487.330	20487.330	bb			0.2515	100.60	0.60	3127.5...	2.98
WCL091218-03	Perchlorate-101	101 > 85	1.98	6872.976	6872.976	bb			0.2519	100.76	0.76	394.441	
WCL091218-03	Perchlorate-O(18)	107 > 89	1.98	35832.434	35832.434	bb			0.4908	98.16	-1.84	12663....	

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122109a.qld

Last Altered: Tuesday, December 22, 2009 7:15:42 AM Eastern Standard Time
Printed: Tuesday, December 22, 2009 8:36:33 AM Eastern Standard Time

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Name: per1221006a
Date: 21-Dec-2009
Time: 12:11:32
ID: WCL091218-04
Vial: 1:1,E

MATP 12/22/09

Perchlorate

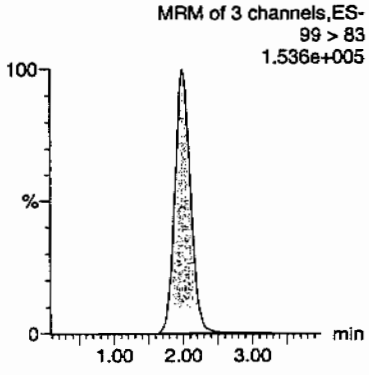

Perchlorate

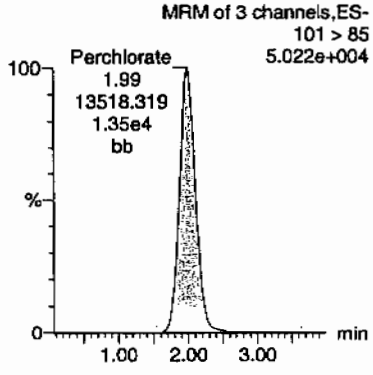

Perchlorate-101

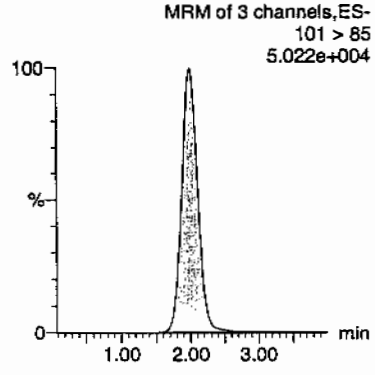

Perchlorate-O(18)

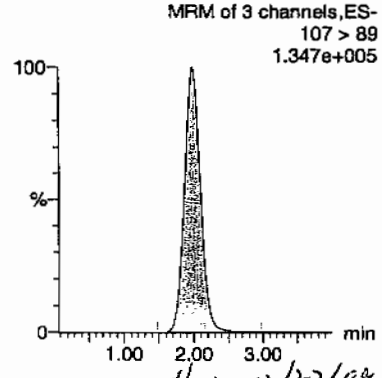

Hrm 12/22/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-04	Perchlorate	99 > 83	1.99	40990.617	40990.617	bb			0.5032	100.63	0.63	11938....	3.03
WCL091218-04	Perchlorate-101	101 > 85	1.99	13518.319	13518.319	bb			0.4955	99.09	-0.91	8835.1...	
WCL091218-04	Perchlorate-O(18)	107 > 89	1.98	36095.719	36095.719	bb			0.4944	98.88	-1.12	10906....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122109a.qld

Last Altered: Tuesday, December 22, 2009 7:15:42 AM Eastern Standard Time
Printed: Tuesday, December 22, 2009 8:36:33 AM Eastern Standard Time

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Name: per1221007a
Date: 21-Dec-2009
Time: 12:18:33
ID: WCL091218-05
Vial: 1:1,F

MMT 12/22/09

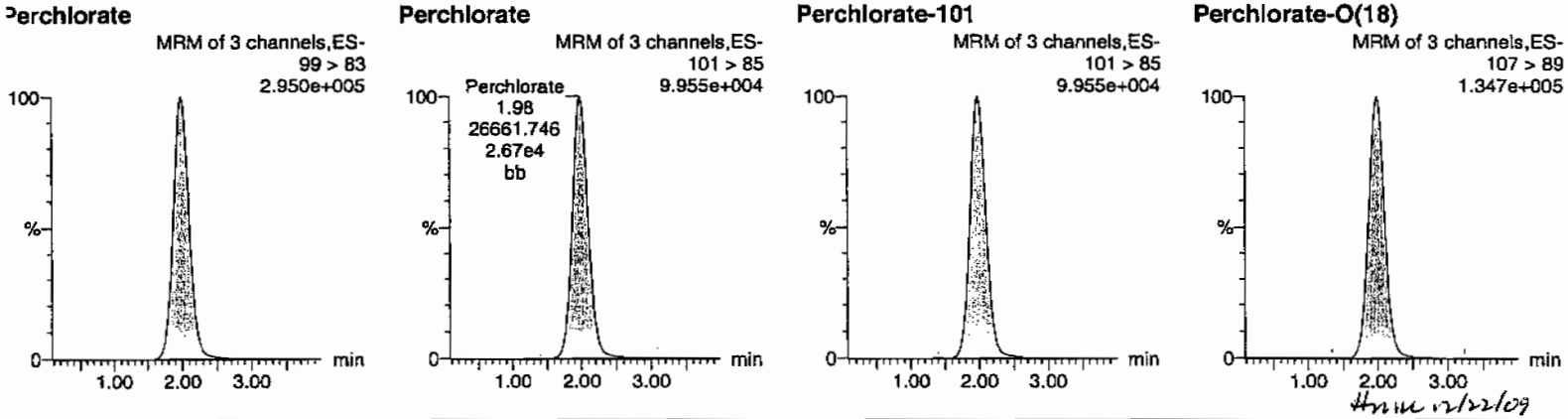

HMM 12/22/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev.	S/N	Ion Ratio
WCL091218-05	Perchlorate	99 > 83	1.99	79082.914	79082.914	bb			0.9708	97.08	-2.92	16314....	2.97
WCL091218-05	Perchlorate-101	101 > 85	1.98	26661.746	26661.746	bb			0.9772	97.72	-2.28	4610.3...	
WCL091218-05	Perchlorate-O(18)	107 > 89	1.98	36205.160	36205.160	bb			0.4959	99.18	-0.82	8205.7...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–953

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.49	97.68	21–DEC–09 12:32	per1221009a
Perchlorate Isotope Ratio		2.98		21–DEC–09 12:32	per1221009a
Perchlorate–101	.5	.49	97.86	21–DEC–09 12:32	per1221009a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122109a.qld

Last Altered: Tuesday, December 22, 2009 7:15:42 AM Eastern Standard Time
Printed: Tuesday, December 22, 2009 8:36:33 AM Eastern Standard Time

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Name: per1221009a
Date: 21-Dec-2009
Time: 12:32:45
ID: WCL091218-06ICV
Vial: 1:2,A

MMT 12/22/09

Perchlorate

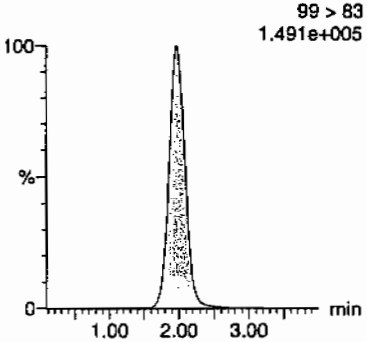

Perchlorate

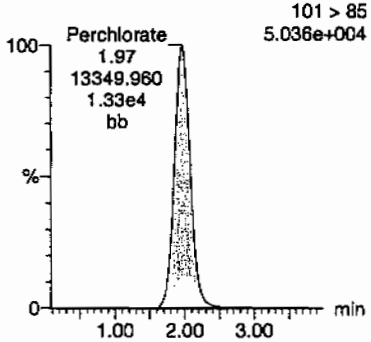

Perchlorate-101

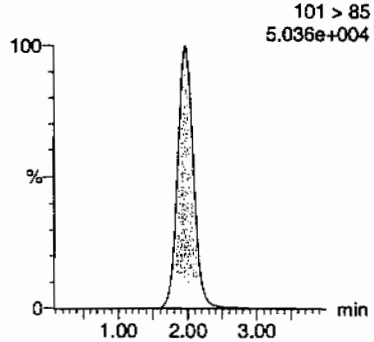

Perchlorate-O(18)

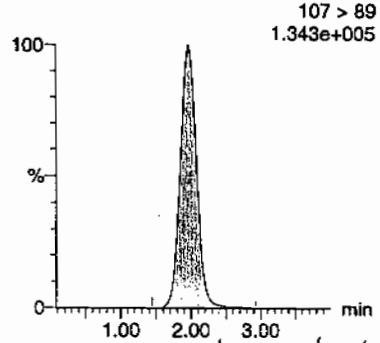

th 12/22/09

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-06ICV	Perchlorate	99 > 83	1.97	39787.574	39787.574	bb			0.4884	97.68	-2.32	7622.0...	2.98
WCL091218-06ICV	Perchlorate-101	101 > 85	1.97	13349.960	13349.960	bb			0.4893	97.86	-2.14	8733.9...	
WCL091218-06ICV	Perchlorate-O(18)	107 > 89	1.96	35645.148	35645.148	bb			0.4882	97.64	-2.36	7439.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–953

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.45	89.62	21–DEC–09 13:36	per1221018a
Perchlorate Isotope Ratio		2.9		21–DEC–09 13:36	per1221018a
Perchlorate–101	.5	.46	92.11	21–DEC–09 13:36	per1221018a
Perchlorate	.5	.47	93.14	21–DEC–09 15:09	per1221031a
Perchlorate Isotope Ratio		3.04		21–DEC–09 15:09	per1221031a
Perchlorate–101	.5	.46	91.35	21–DEC–09 15:09	per1221031a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122109a.qld

Last Altered: Tuesday, December 22, 2009 7:15:42 AM Eastern Standard Time
Printed: Tuesday, December 22, 2009 8:36:33 AM Eastern Standard Time

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Name: per1221018a
Date: 21-Dec-2009
Time: 13:36:23
ID: WCL091218-06CCV
Vial: 1:2,A

MMP 12/22/09

Perchlorate

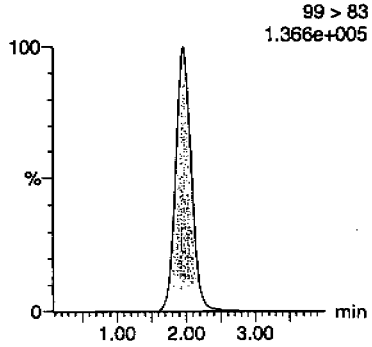

Perchlorate

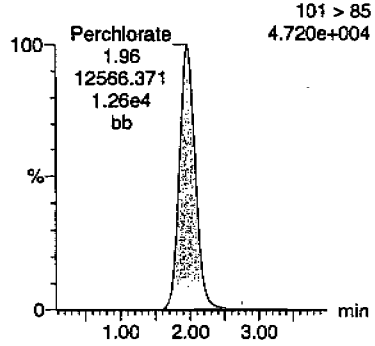

Perchlorate-101

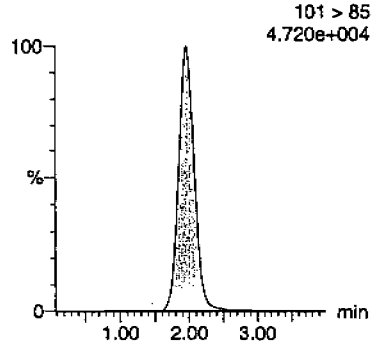

Perchlorate-O(18)

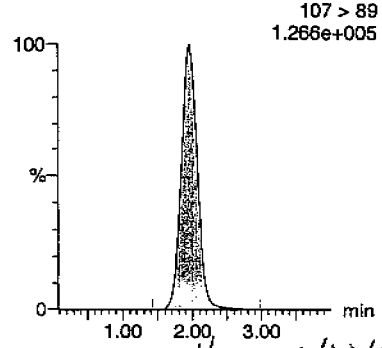

HMM 12/22/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-06CCV	Perchlorate	99 > 83	1.97	36504.902	36504.902	bb			0.4481	89.62	-10.38	5402.4...	2.90
WCL091218-06CCV	Perchlorate-101	101 > 85	1.96	12566.371	12566.371	bb			0.4606	92.11	-7.89	4355.9...	
WCL091218-06CCV	Perchlorate-O(18)	107 > 89	1.96	33747.195	33747.195	bb			0.4622	92.44	-7.56	10354....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122109a.qld

Last Altered: Tuesday, December 22, 2009 7:15:42 AM Eastern Standard Time
Printed: Tuesday, December 22, 2009 8:36:33 AM Eastern Standard Time

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Name: per1221031a
Date: 21-Dec-2009
Time: 15:09:11
ID: WCL091218-06CCV
Vial: 1:2,A

MMT 12/22/09

Perchlorate

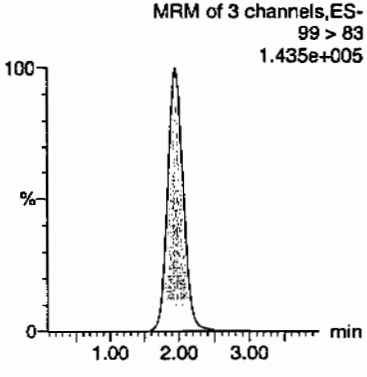

Perchlorate

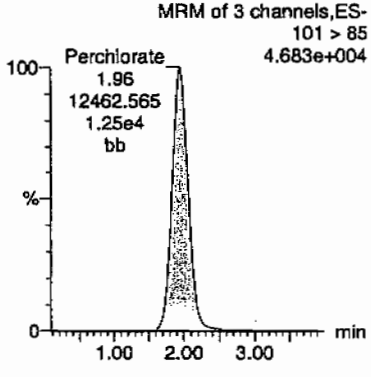

Perchlorate-101

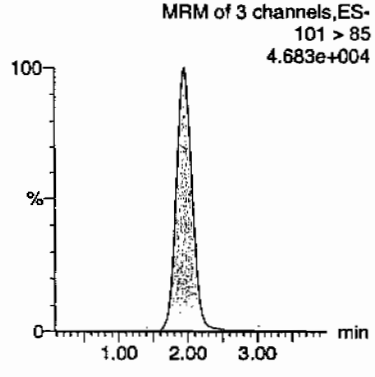

Perchlorate-O(18)

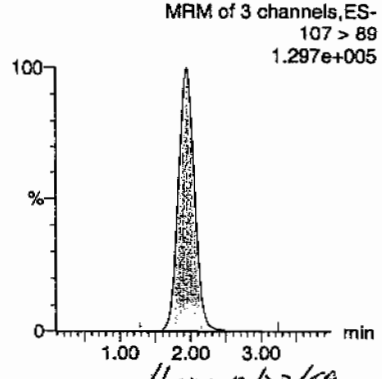

Hmm 12/22/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-06CCV	Perchlorate	99 > 83	1.96	37938.980	37938.980	bb			0.4657	93.14	-6.86	3515.9...	3.04
WCL091218-06CCV	Perchlorate-101	101 > 85	1.96	12462.565	12462.565	bb			0.4568	91.35	-8.65	1653.1...	
WCL091218-06CCV	Perchlorate-O(18)	107 > 89	1.94	34558.738	34558.738	bb			0.4733	94.67	-5.33	1832.9...	

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–953

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	100.23	21–DEC–09 12:47	per1221011a
Perchlorate Isotope Ratio		2.99		21–DEC–09 12:47	per1221011a
Perchlorate–101	.05	.05	100.08	21–DEC–09 12:47	per1221011a
Perchlorate	.05	.05	95.67	21–DEC–09 13:50	per1221020a
Perchlorate Isotope Ratio		2.91		21–DEC–09 13:50	per1221020a
Perchlorate–101	.05	.05	98.26	21–DEC–09 13:50	per1221020a
Perchlorate	.05	.05	95.47	21–DEC–09 15:23	per1221033a
Perchlorate Isotope Ratio		3.09		21–DEC–09 15:23	per1221033a
Perchlorate–101	.05	.05	92.2	21–DEC–09 15:23	per1221033a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122109a.qld

Last Altered: Tuesday, December 22, 2009 7:15:42 AM Eastern Standard Time
Printed: Tuesday, December 22, 2009 8:36:33 AM Eastern Standard Time

Name: per1221011a
Date: 21-Dec-2009
Time: 12:47:04
ID: WCL091218-07CRI
Vial: 1:2,B

MATP 12/22/09

Perchlorate

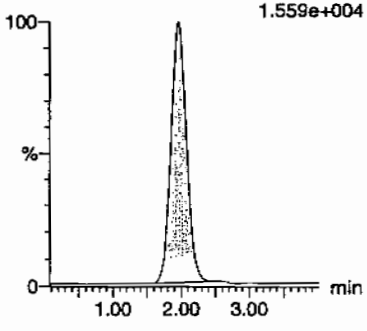

Perchlorate

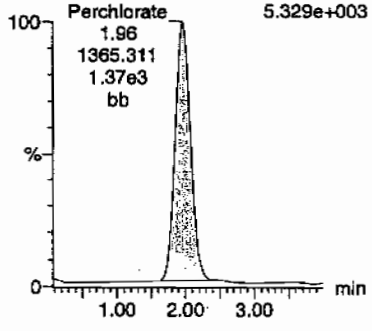

Perchlorate-101

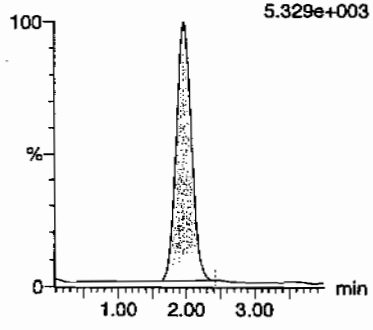

Perchlorate-O(18)

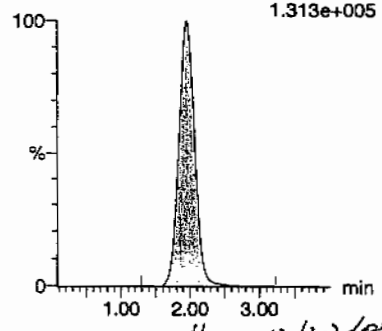

HMW 12/22/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-07CRI	Perchlorate	99 > 83	1.97	4082.719	4082.719	bb			0.0501	100.23	0.23	642.632	2.99
WCL091218-07CRI	Perchlorate-101	101 > 85	1.96	1365.311	1365.311	bb			0.0500	100.08	0.08	486.731	
WCL091218-07CRI	Perchlorate-O(18)	107 > 89	1.96	35089.492	35089.492	bb			0.4806	96.12	-3.88	8346.0...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122109a.qld

Last Altered: Tuesday, December 22, 2009 7:15:42 AM Eastern Standard Time
Printed: Tuesday, December 22, 2009 8:36:33 AM Eastern Standard Time

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Name: per1221020a
Date: 21-Dec-2009
Time: 13:50:36
ID: WCL091218-07CRI
Vial: 1:2,B

MATT 12/22/09

Perchlorate

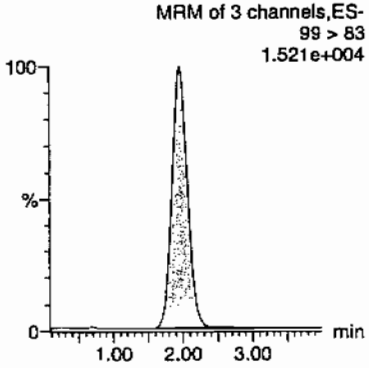

Perchlorate

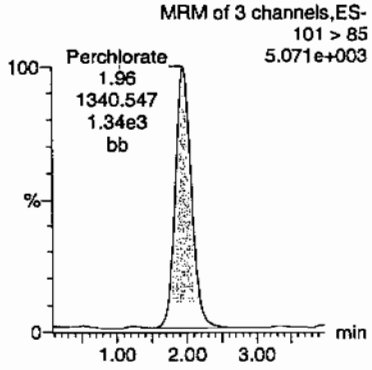

Perchlorate-101

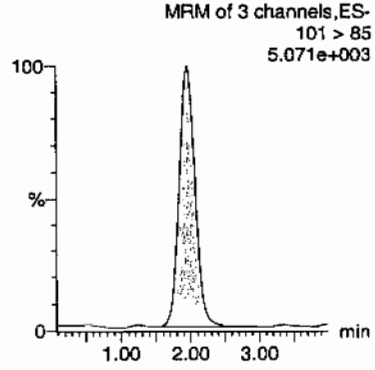

Perchlorate-O(18)

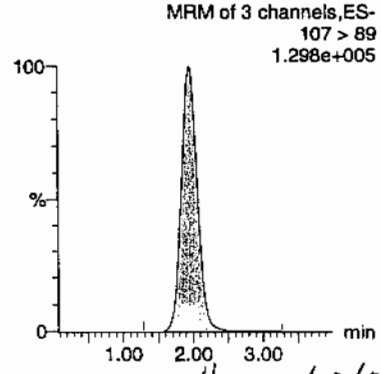

HMM 12/22/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-07CRI	Perchlorate	99 > 83	1.96	3896.819	3896.819	bb			0.0478	95.67	-4.33	563.831	2.91
WCL091218-07CRI	Perchlorate-101	101 > 85	1.96	1340.547	1340.547	bb			0.0491	98.26	-1.74	441.127	
WCL091218-07CRI	Perchlorate-O(18)	107 > 89	1.94	34496.891	34496.891	bb			0.4725	94.50	-5.50	12114....	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122109a.qld

Last Altered: Tuesday, December 22, 2009 7:15:42 AM Eastern Standard Time
Printed: Tuesday, December 22, 2009 8:36:33 AM Eastern Standard Time

Name: per1221033a
Date: 21-Dec-2009
Time: 15:23:38
ID: WCL091218-07CRI
Vial: 1:2,B

MAT 12/22/09

Perchlorate

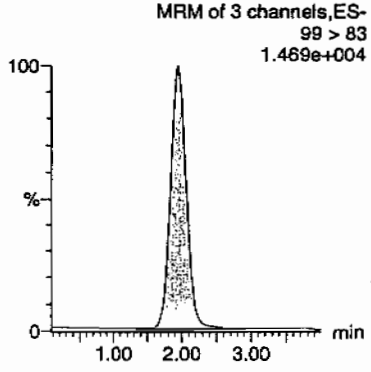

Perchlorate

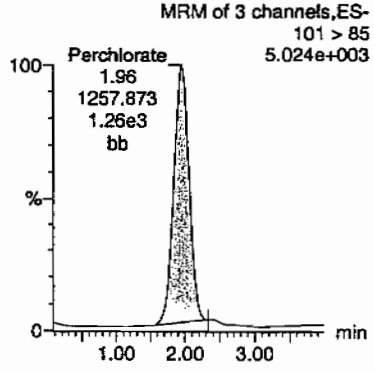

Perchlorate-101

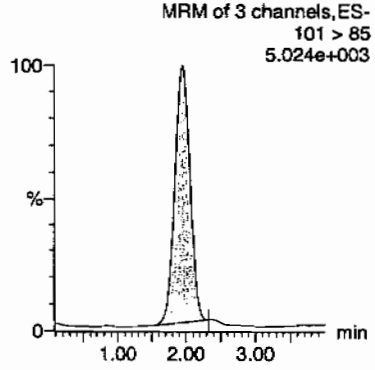

Perchlorate-O(18)

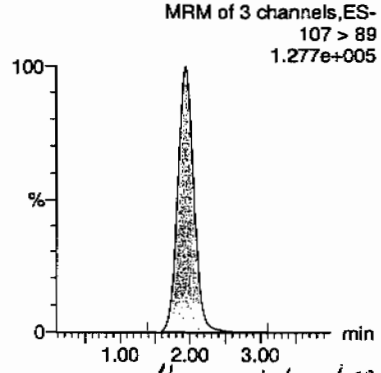

Hrm 12/22/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
WCL091218-07CRI	Perchlorate	99 > 83	1.96	3888.726	3888.726	bb			0.0477	95.47	-4.53	896.281	3.09
WCL091218-07CRI	Perchlorate-101	101 > 85	1.96	1257.873	1257.873	bb			0.0461	92.20	-7.80	234.627	
WCL091218-07CRI	Perchlorate-O(18)	107 > 89	1.94	34028.879	34028.879	bb			0.4661	93.22	-6.78	7197.8...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WATER

Extraction Batch ID: 935076

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
MB

Date Received: 21-DEC-09

GEL Job No (SDG): 10-953

GEL Sample ID: 1202000653

Date Filtered: 21-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	21-DEC-09 13:57	per1221021a
	Perchlorate Isotope Ratio						1	21-DEC-09 13:57	per1221021a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	21-DEC-09 13:57	per1221021a
	Perchlorate-O(18)			0.474	ug/L		1	21-DEC-09 13:57	per1221021a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122109a.qld

Last Altered: Tuesday, December 22, 2009 7:15:42 AM Eastern Standard Time
Printed: Tuesday, December 22, 2009 8:36:33 AM Eastern Standard Time

Name: per1221021a
Date: 21-Dec-2009
Time: 13:57:48
ID: 1202000653 | LANC | 935077 | LCS | MB | 1 |
Vial: 2:1,A

MM 12/22/09

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Perchlorate

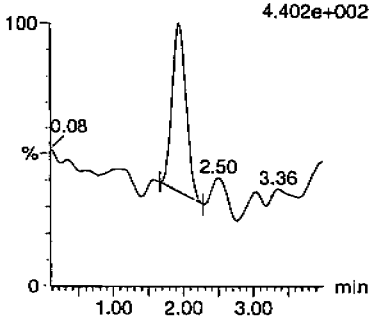

Perchlorate

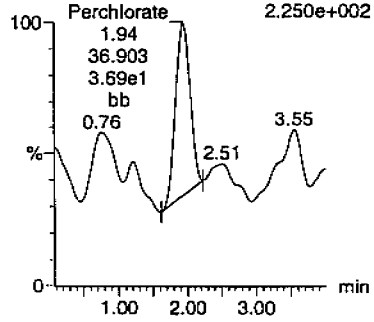

Perchlorate-101

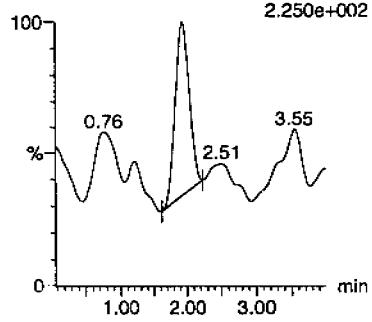

Perchlorate-O(18)

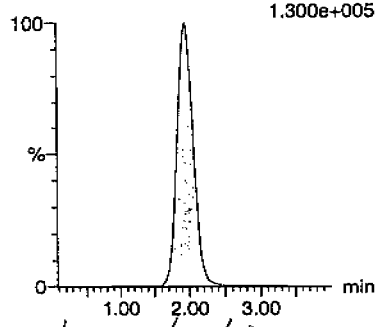

Hme 12/22/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202000653	Perchlorate	99 > 83	1.94	66.047	66.047	bb			0.0008			32.198	1.79
1202000653	Perchlorate-101	101 > 85	1.94	36.903	36.903	bb			0.0014			12.977	
1202000653	Perchlorate-O(18)	107 > 89	1.94	34588.527	34588.527	bb			0.4737	94.75	-5.25	4570.1...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: WATER

Extraction Batch ID: 935076

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
LCS

Date Received: 21-DEC-09

GEL Job No (SDG): 10-953

GEL Sample ID: 1202000654

Date Filtered: 21-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.188	ug/L	J	1	21-DEC-09 14:05	per1221022a
	Perchlorate Isotope Ratio			2.9			1	21-DEC-09 14:05	per1221022a
14797-73-0	Perchlorate-101	.05	.2	0.193	ug/L	J	1	21-DEC-09 14:05	per1221022a
	Perchlorate-O(18)			0.464	ug/L		1	21-DEC-09 14:05	per1221022a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122109a.qld

Last Altered: Tuesday, December 22, 2009 7:15:42 AM Eastern Standard Time
Printed: Tuesday, December 22, 2009 8:36:33 AM Eastern Standard Time

Name: per1221022a
Date: 21-Dec-2009
Time: 14:05:08
ID: 1202000654 | LANC | 935077 | Lab | LCS | 1 |
Vial: 2:1,B

MAT 12/22/09

Perchlorate

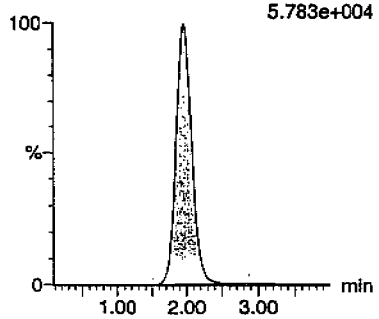

Perchlorate

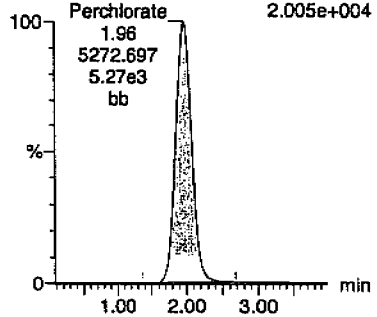

Perchlorate-101

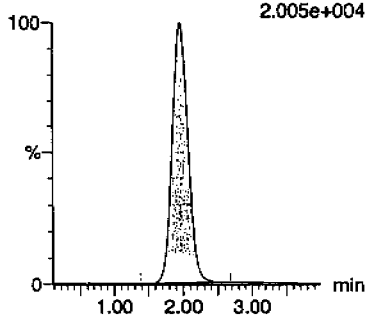

Perchlorate-O(18)

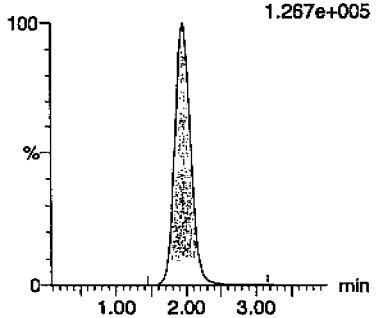

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202000654	Perchlorate	99 > 83	1.97	15319.158	15319.158	bb			0.1880	94.02	-5.98	3280.0...	2.90
1202000654	Perchlorate-101	101 > 85	1.96	5272.697	5272.697	bb			0.1932	96.62	-3.38	571.411	
1202000654	Perchlorate-O(18)	107 > 89	1.96	33851.551	33851.551	bb			0.4637	92.73	-7.27	7188.8...	

$\frac{15319.158}{81464.6} = 0.1880$

Hill 12/22/09

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 935076

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6817MS

Date Received: 17-DEC-09

GEL Job No (SDG): 10-953

GEL Sample ID: 1202000657

Date Filtered: 21-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.544	ug/L		1	21-DEC-09 14:33	per1221026a
	Perchlorate Isotope Ratio			2.97			1	21-DEC-09 14:33	per1221026a
14797-73-0	Perchlorate-101	.05	.2	0.548	ug/L		1	21-DEC-09 14:33	per1221026a
	Perchlorate-O(18)			0.509	ug/L		1	21-DEC-09 14:33	per1221026a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122109a.qld

Last Altered: Tuesday, December 22, 2009 7:15:42 AM Eastern Standard Time
Printed: Tuesday, December 22, 2009 8:36:33 AM Eastern Standard Time

Page 10 of 73

Name: per1221026a
Date: 21-Dec-2009
Time: 14:33:28
ID: 1202000657 | LANX | 935077 | LAD | 24310400 1 MS | 1 |
Vial: 2:1,F

LAD 12/22/09

Perchlorate

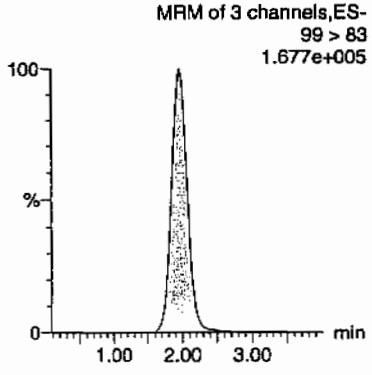

Perchlorate

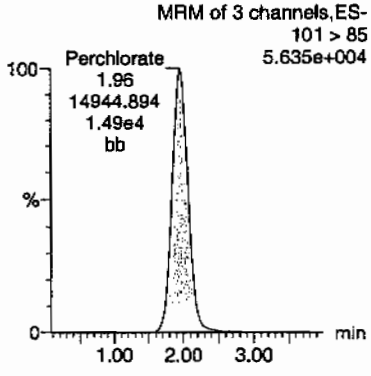

Perchlorate-101

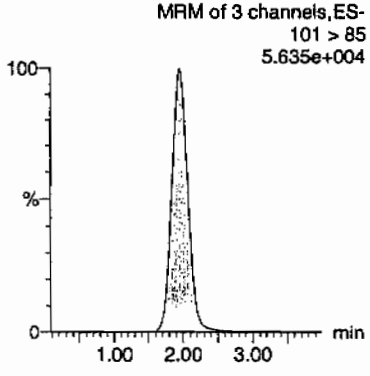

Perchlorate-O(18)

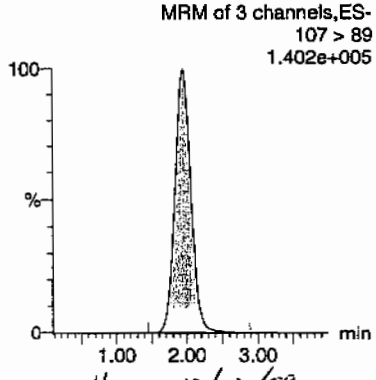

Hmm 12/22/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202000657	Perchlorate	99 > 83	1.96	44333.199	44333.199	bb			0.5442	272.10	172.10	5984.1...	2.97
1202000657	Perchlorate-101	101 > 85	1.96	14944.894	14944.894	bb			0.5477	273.87	173.87	2068.1...	
1202000657	Perchlorate-O(18)	107 > 89	1.94	37132.859	37132.859	bb			0.5086	101.72	1.72	1743.5...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 935076

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-6817MSD

Date Received: 17-DEC-09

GEL Job No (SDG): 10-953

GEL Sample ID: 1202000658

Date Filtered: 21-DEC-09

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.554	ug/L		1	21-DEC-09 14:40	per1221027a
	Perchlorate Isotope Ratio			3.06			1	21-DEC-09 14:40	per1221027a
14797-73-0	Perchlorate-101	.05	.2	0.541	ug/L		1	21-DEC-09 14:40	per1221027a
	Perchlorate-O(18)			0.510	ug/L		1	21-DEC-09 14:40	per1221027a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Michael A. Penny

Dataset: C:\MassLynx\Perchlorate.PRO\per122109a.qld

Last Altered: Tuesday, December 22, 2009 7:15:42 AM Eastern Standard Time
Printed: Tuesday, December 22, 2009 8:36:33 AM Eastern Standard Time

Name: per1221027a
Date: 21-Dec-2009
Time: 14:40:29
ID: 1202000658
Vial: 2:2,A

| LANC | 935077 | LIQ | 243104001MSD | 1 |

MAT 12/22/09

Perchlorate

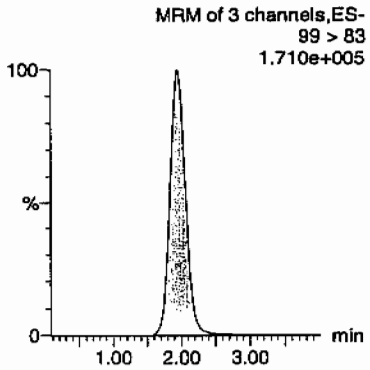

Perchlorate

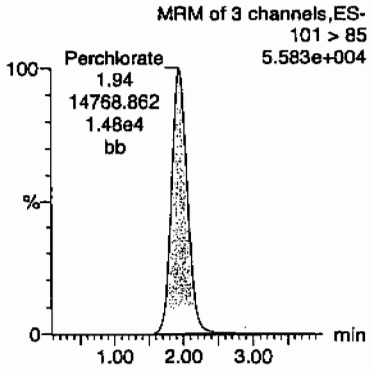

Perchlorate-101

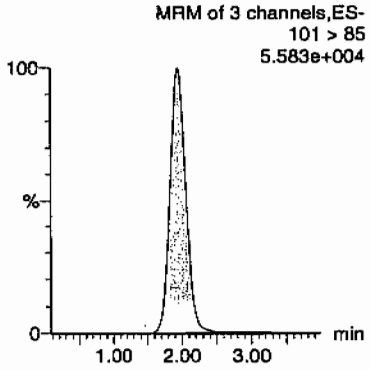

Perchlorate-O(18)

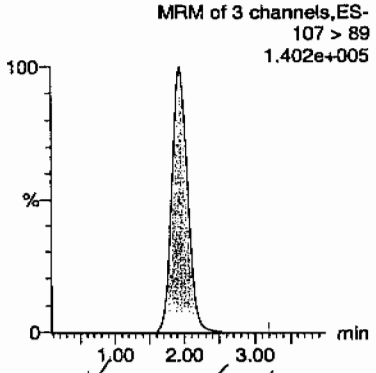

HMM 12/22/09

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202000658	Perchlorate	99 > 83	1.96	45139.293	45139.293	bb			0.5541	277.05	177.05	5232.9...	3.06
1202000658	Perchlorate-101	101 > 85	1.94	14768.862	14768.862	bb			0.5413	270.64	170.64	2282.3...	
1202000658	Perchlorate-O(18)	107 > 89	1.94	37199.586	37199.586	bb			0.5095	101.90	1.90	8778.5...	

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 935076 **Verified by:** _____

Analyst: Lynne Russell

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202000653 MB	21-DEC-2009 13:40:53	10	10	1
1202000654 LCS	21-DEC-2009 13:40:53	10	10	1
243085001	21-DEC-2009 13:40:53	10	10	1
243104001	21-DEC-2009 13:40:53	10	10	1
1202000657 MS (243104001)	21-DEC-2009 13:40:53	10	10	1
1202000658 MSD (243104001)	21-DEC-2009 13:40:53	10	10	1
243108001	21-DEC-2009 13:40:53	10	10	1
243108002	21-DEC-2009 13:40:53	10	10	1
243242001	21-DEC-2009 13:40:53	10	10	1
243242002	21-DEC-2009 13:40:53	10	10	1
243251001	21-DEC-2009 13:40:53	10	10	1
243255002	21-DEC-2009 13:40:53	10	10	1
243255003	21-DEC-2009 13:40:53	10	10	1
243255005	21-DEC-2009 13:40:53	10	10	1
243257001	21-DEC-2009 13:40:53	10	10	1
243257006	21-DEC-2009 13:40:53	10	10	1
243272001	21-DEC-2009 13:40:53	10	10	1
1202000655 MS (243272001)	21-DEC-2009 13:40:53	10	10	1
1202000656 MSD (243272001)	21-DEC-2009 13:40:53	10	10	1
1202000659 ICS	21-DEC-2009 13:40:53	10	10	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202000659	10 ug/L ICV/CCV Second Source	UCL091201-01.2	.2	mL
LCS	1202000654	10 ug/L ICV/CCV Second Source	UCL091201-01.2	.2	mL
MS	1202000655	10 ug/L ICV/CCV Second Source	UCL091201-01.2	.2	mL
MS	1202000657	10 ug/L ICV/CCV Second Source	UCL091201-01.2	.2	mL
MSD	1202000656	10 ug/L ICV/CCV Second Source	UCL091201-01.2	.2	mL
MSD	1202000658	10 ug/L ICV/CCV Second Source	UCL091201-01.2	.2	mL
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1133543	10	mL

Comments:

De-salting cartridges used: 091027-1-H and 090407-1-Ba.

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS#2

Date: 12/21/09
Extr. Injection Volume: 20uL
Sequence Number: per122109a
Initial Calibration Date: 12/21/09

Method: EPA 6850-Modified
Int. Std.: UCL091019-03.2
Mobile Phase Lot#: 1233781, 1233976
Standard-Samp Reagent Lot#:: 1233976

Reviewed BY: dhine
Date: 12/22/09
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL091218-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per1221001a	IPB001	MAP	12/21/2009 11:36			1		USE	B
per1221002a	IPB001	MAP	12/21/2009 11:43			1		USE	B
per1221003a	WCLICAL-01	MAP	12/21/2009 11:50			1		USE	I
per1221004a	WCLICAL-02	MAP	12/21/2009 11:57			1		USE	I
per1221005a	WCLICAL-03	MAP	12/21/2009 12:04			1		USE	I
per1221006a	WCLICAL-04	MAP	12/21/2009 12:11			1		USE	I
per1221007a	WCLICAL-05	MAP	12/21/2009 12:18			1		USE	I
per1221008a	IPB002	MAP	12/21/2009 12:25			1		USE	B
per1221009a	WCLICV	MAP	12/21/2009 12:32			1		USE	C
per1221010a	IPB003	MAP	12/21/2009 12:39			1		USE	B
per1221011a	WCLCRI	MAP	12/21/2009 12:47			1		USE	C
per1221012a	1202000648	MAP	12/21/2009 12:54	935074	10-978	1	LANL	USE	S
per1221013a	1202000649	MAP	12/21/2009 13:01	935074	10-978	1	LANL	USE	S
per1221014a	1202000652	MAP	12/21/2009 13:08	935074	10-978	1	LANL	USE	S
per1221015a	243253001	MAP	12/21/2009 13:15	935074	10-978	1	LANL	USE	S
per1221016a	1202000650	MAP	12/21/2009 13:22	935074	10-978	1	LANL	USE	S
per1221017a	1202000651	MAP	12/21/2009 13:29	935074	10-978	1	LANL	USE	S
per1221018a	WCLCCV	MAP	12/21/2009 13:36			1		USE	C
per1221019a	IPB004	MAP	12/21/2009 13:43			1		USE	B
per1221020a	WCLCRI	MAP	12/21/2009 13:50			1		USE	C
per1221021a	1202000653	MAP	12/21/2009 13:57	935077	Various	1	LANL	USE	S
per1221022a	1202000654	MAP	12/21/2009 14:05	935077	Various	1	LANL	USE	S
per1221023a	1202000659	MAP	12/21/2009 14:12	935077	Various	1	LANL	USE	S
per1221024a	243085001	MAP	12/21/2009 14:19	935077	10-945	1	LANL	USE	S
per1221025a	243104001	MAP	12/21/2009 14:26	935077	10-953	1	LANL	USE	S
per1221026a	1202000657	MAP	12/21/2009 14:33	935077	10-953	1	LANL	USE	S
per1221027a	1202000658	MAP	12/21/2009 14:40	935077	10-953	1	LANL	USE	S
per1221028a	243108001	MAP	12/21/2009 14:47	935077	10-956	1	LANL	USE	S
per1221029a	243108002	MAP	12/21/2009 14:54	935077	10-956	1	LANL	USE	S

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per1221030a	243242001	MAP	12/21/2009 15:02	935077	10-967	1	LANL	USE	S
per1221031a	WCLCCV	MAP	12/21/2009 15:09			1		USE	C
per1221032a	IPB005	MAP	12/21/2009 15:16			1		USE	B
per1221033a	WCLCRI	MAP	12/21/2009 15:23			1		USE	C
per1221034a	243242002	MAP	12/21/2009 15:30	935077	10-967	1	LANL	USE	S
per1221035a	243251001	MAP	12/21/2009 15:37	935077	10-971-1	1	LANL	USE	S
per1221036a	243255002	MAP	12/21/2009 15:44	935077	10-973	1	LANL	USE	S
per1221037a	243255003	MAP	12/21/2009 15:51	935077	10-973	1	LANL	USE	S
per1221038a	243255005	MAP	12/21/2009 15:59	935077	10-973	1	LANL	USE	S
per1221039a	243257001	MAP	12/21/2009 16:06	935077	10-976	1	LANL	USE	S
per1221040a	243257006	MAP	12/21/2009 16:13	935077	10-976	1	LANL	USE	S
per1221041a	243272001	MAP	12/21/2009 16:20	935077	10-990-1	1	LANL	USE	S
per1221042a	1202000655	MAP	12/21/2009 16:27	935077	10-990-1	1	LANL	USE	S
per1221043a	1202000656	MAP	12/21/2009 16:34	935077	10-990-1	1	LANL	USE	S
per1221044a	WCLCCV	MAP	12/21/2009 16:41			1		USE	C
per1221045a	IPB006	MAP	12/21/2009 16:48			1		USE	B
per1221046a	WCLCRI	MAP	12/21/2009 16:55			1		USE	C
per1221047a	1202000628	MAP	12/21/2009 17:02	935062	Various	1	LANL	USE	S
per1221048a	1202000629	MAP	12/21/2009 17:09	935062	Various	1	LANL	USE	S
per1221049a	1202000632	MAP	12/21/2009 17:16	935062	Various	1	LANL	USE	S
per1221050a	243086001	MAP	12/21/2009 17:23	935062	10-945-1	1	LANL	USE	S
per1221051a	243086002	MAP	12/21/2009 17:30	935062	10-945-1	1	LANL	USE	S
per1221052a	243086003	MAP	12/21/2009 17:37	935062	10-945-1	1	LANL	USE	S
per1221053a	243086004	MAP	12/21/2009 17:44	935062	10-945-1	1	LANL	USE	S
per1221054a	243086005	MAP	12/21/2009 17:51	935062	10-945-1	1	LANL	USE	S
per1221055a	WCLCCV	MAP	12/21/2009 17:59			1		USE	C
per1221056a	IPB007	MAP	12/21/2009 18:06			1		USE	B
per1221057a	WCLCRI	MAP	12/21/2009 18:13			1		USE	C
per1221058a	243113001	MAP	12/21/2009 18:20	935062	10-956-1	1	LANL	USE	S
per1221059a	1202000630	MAP	12/21/2009 18:28	935062	10-956-1	1	LANL	USE	S
per1221060a	1202000631	MAP	12/21/2009 18:35	935062	10-956-1	1	LANL	USE	S
per1221061a	243113002	MAP	12/21/2009 18:42	935062	10-956-1	1	LANL	USE	S
per1221062a	243113003	MAP	12/21/2009 18:49	935062	10-956-1	1	LANL	USE	S
per1221063a	243113004	MAP	12/21/2009 18:56	935062	10-956-1	1	LANL	USE	S
per1221064a	243113005	MAP	12/21/2009 19:03	935062	10-956-1	1	LANL	USE	S
per1221065a	243113006	MAP	12/21/2009 19:10	935062	10-956-1	1	LANL	USE	S
per1221066a	243113007	MAP	12/21/2009 19:17	935062	10-956-1	1	LANL	USE	S

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per1221067a	243113008	MAP	12/21/2009 19:24	935062	10-956-1	1	LANL	USE	S
per1221068a	WCLCCV	MAP	12/21/2009 19:31			1		USE	C
per1221069a	IPB008	MAP	12/21/2009 19:38			1		USE	B
per1221070a	WCLCRI	MAP	12/21/2009 19:45			1		USE	C
per1221071a	243113009	MAP	12/21/2009 19:52	935062	10-956-1	1	LANL	DUSE-RA	S
per1221072a	243113010	MAP	12/21/2009 19:59	935062	10-956-1	1	LANL	DUSE-RA	S
per1221073a	243113011	MAP	12/21/2009 20:06	935062	10-956-1	1	LANL	DUSE-RA	S
per1221074a	243113012	MAP	12/21/2009 20:14	935062	10-956-1	1	LANL	DUSE-RA	S
per1221075a	243113013	MAP	12/21/2009 20:21	935062	10-956-1	1	LANL	DUSE-RA	S
per1221076a	243113014	MAP	12/21/2009 20:28	935062	10-956-1	1	LANL	DUSE-RA	S
per1221077a	WCLCCV	MAP	12/21/2009 20:35			1		DUSE	C
per1221078a	IPB009	MAP	12/21/2009 20:42			1		DUSE	B
per1221079a	WCLCRI	MAP	12/21/2009 20:49			1		DUSE	C

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-953

Sample Analysis

Sample ID	**Client ID**
243104001	CAPA-10-6817
243104002	CAPA-10-6818
1202000548	Method Blank (MB) **ICP**
1202000549	Laboratory Control Sample (LCS)
1202000552	243104001(CAPA-10-6817L) Serial Dilution (SD)
1202000550	243104001(CAPA-10-6817D) Sample Duplicate (DUP)
1202000551	243104001(CAPA-10-6817S) Matrix Spike (MS)
1202000555	Method Blank (MB) **ICP-MS**
1202000556	Laboratory Control Sample (LCS)
1202000559	243104001(CAPA-10-6817L) Serial Dilution (SD)
1202000557	243104001(CAPA-10-6817D) Sample Duplicate (DUP)
1202000558	243104001(CAPA-10-6817S) Matrix Spike (MS)
1202000258	Method Blank (MB) **CVAA**
1202000259	Laboratory Control Sample (LCS)
1202000262	243104001(CAPA-10-6817L) Serial Dilution (SD)
1202000260	243104001(CAPA-10-6817D) Sample Duplicate (DUP)
1202000261	243104001(CAPA-10-6817S) Matrix Spike (MS)

Method/Analysis Information

Analytical Batch:	935027, 935029, 934915 and 939895
Prep Batch :	935026, 935028 and 934914
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21, GL-MA-E-010 REV# 23 and GL-GC-E-107 REV# 5
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 DOE-AL, EPA 245.1/245.2 and SM 2340 B
Prep Method :	SW846 3005A and EPA 245.1/245.2 Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Hardness as CaCO3 is calculated from Calcium and Magnesium results.

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this SDG: 243104001.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instruments. Dilutions were required for this SDG in order to minimize tin suppression due to matrix interferences.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Total Hardness by Calculation is determined using the results of Total Calcium (Ca) and Total Magnesium (Mg) determined by ICP or ICP-MS.

Hardness = 2.497 (Ca) + 4.118 (Mg)

Please refer to the Total Ca and Total Mg data to validate results appearing on the Hardness Summary sheet. Both results are in the Inorganic/metals section of the package. There is no Batch QC for calculated results, and thus no QC Summary for the Hardness by Calculation Batch. The MDLs and PQLs are calculated using the higher of the two calculated values of Ca or Mg.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 1/15/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-953 **METHOD TYPE:** EPA

SAMPLE ID: 243104001 **CLIENT ID:** CAPA-10-6817

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 17-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	123109W1-5
7631-86-9	Silica	59.4	mg/L			P	0.053	1	OPTIMA3	010410A-1
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	010410A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100103-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100103-3
7440-39-3	Barium	30.7	ug/L			P	1	1	OPTIMA3	010410A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	010410A-1
7440-42-8	Boron	21.6	ug/L	J		P	15	1	OPTIMA3	010410A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100103-3
7440-70-2	Calcium	14000	ug/L			P	50	1	OPTIMA3	010410A-1
7440-47-3	Chromium	2.5	ug/L	U		MS	2.5	1	ICPMS5	100103-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	010410A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	010410A-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA3	010410A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100103-3
7439-95-4	Magnesium	3800	ug/L			P	85	1	OPTIMA3	010410A-1
7439-96-5	Manganese	12.2	ug/L			P	2	1	OPTIMA3	010410A-1
7439-98-7	Molybdenum	5.34	ug/L			MS	0.1	1	ICPMS5	100103-3
7440-02-0	Nickel	2.28	ug/L			MS	0.5	1	ICPMS5	100103-3
7440-09-7	Potassium	1750	ug/L			P	50	1	OPTIMA3	010410A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100103-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100103-3
7440-23-5	Sodium	13100	ug/L			P	100	1	OPTIMA3	010410A-1
7440-24-6	Strontium	73.1	ug/L			P	1	1	OPTIMA3	010410A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100105-4
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	122909A-2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-953 **METHOD TYPE:** EPA

SAMPLE ID: 243104001 **CLIENT ID:** CAPA-10-6817

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 17-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	0.754	ug/L			MS	0.05	1	ICPMS5	100103-3
7440-62-2	Vanadium	6.75	ug/L			P	1	1	OPTIMA3	010410A-1
7440-66-6	Zinc	3.3	ug/L	U		P	3.3	1	OPTIMA3	010410A-1
	Hardness as CaCO3	50.7	mg/L				0.35	1	CALC001	

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-953 **METHOD TYPE:** EPA

SAMPLE ID: 243104002 **CLIENT ID:** CAPA-10-6818

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 17-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	123109W1-5
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA3	010410A-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100103-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100103-3
7440-39-3	Barium	30.4	ug/L			P	1	1	OPTIMA3	010410A-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	010410A-1
7440-42-8	Boron	19.9	ug/L	J		P	15	1	OPTIMA3	010410A-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100103-3
7440-70-2	Calcium	13900	ug/L			P	50	1	OPTIMA3	010410A-1
7440-47-3	Chromium	2.5	ug/L	U		MS	2.5	1	ICPMS5	100103-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	010410A-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	010410A-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA3	010410A-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100103-3
7439-95-4	Magnesium	3740	ug/L			P	85	1	OPTIMA3	010410A-1
7439-96-5	Manganese	10.4	ug/L			P	2	1	OPTIMA3	010410A-1
7439-98-7	Molybdenum	5.51	ug/L			MS	0.1	1	ICPMS5	100103-3
7440-02-0	Nickel	2.59	ug/L			MS	0.5	1	ICPMS5	100103-3
7440-09-7	Potassium	1730	ug/L			P	50	1	OPTIMA3	010410A-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100103-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100103-3
7440-23-5	Sodium	13100	ug/L			P	100	1	OPTIMA3	010410A-1
7440-24-6	Strontium	72.9	ug/L			P	1	1	OPTIMA3	010410A-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100105-4
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	122909A-2
7440-61-1	Uranium	0.775	ug/L			MS	0.05	1	ICPMS5	100103-3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-953 **METHOD TYPE:** EPA

SAMPLE ID: 243104002 **CLIENT ID:** CAPA-10-6818

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 17-DEC-09 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	6.66	ug/L			P	1	1	OPTIMA3	010410A-1
7440-66-6	Zinc	3.3	ug/L	U		P	3.3	1	OPTIMA3	010410A-1
	Hardness as CaCO3	50	mg/L				0.35	1	CALC001	

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-953

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Tin	540	ug/L	500	ug/L	108.1	90.0 - 110.0	P	29-DEC-09 09:08	122909A-2
	Mercury	5.12	ug/L	5	ug/L	102.3	90.0 - 110.0	AV	31-DEC-09 09:11	123109W1-5
	Antimony	50.7	ug/L	50	ug/L	101.5	90.0 - 110.0	MS	03-JAN-10 14:38	100103-3
	Arsenic	48.7	ug/L	50	ug/L	97.4	90.0 - 110.0	MS	03-JAN-10 14:38	100103-3
	Cadmium	50.1	ug/L	50	ug/L	100.1	90.0 - 110.0	MS	03-JAN-10 14:38	100103-3
	Chromium	51.9	ug/L	50	ug/L	103.9	90.0 - 110.0	MS	03-JAN-10 14:38	100103-3
	Lead	52.6	ug/L	50	ug/L	105.1	90.0 - 110.0	MS	03-JAN-10 14:38	100103-3
	Molybdenum	50.6	ug/L	50	ug/L	101.2	90.0 - 110.0	MS	03-JAN-10 14:38	100103-3
	Nickel	52	ug/L	50	ug/L	104	90.0 - 110.0	MS	03-JAN-10 14:38	100103-3
	Selenium	49.2	ug/L	50	ug/L	98.4	90.0 - 110.0	MS	03-JAN-10 14:38	100103-3
	Silver	52.2	ug/L	50	ug/L	104.4	90.0 - 110.0	MS	03-JAN-10 14:38	100103-3
	Uranium	51.1	ug/L	50	ug/L	102.3	90.0 - 110.0	MS	03-JAN-10 14:38	100103-3
	Aluminum	5000	ug/L	5000	ug/L	100.1	90.0 - 110.0	P	04-JAN-10 08:22	010410A-1
	Barium	505	ug/L	500	ug/L	101.1	90.0 - 110.0	P	04-JAN-10 08:22	010410A-1
	Beryllium	260	ug/L	250	ug/L	103.9	90.0 - 110.0	P	04-JAN-10 08:22	010410A-1
	Boron	512	ug/L	500	ug/L	102.4	90.0 - 110.0	P	04-JAN-10 08:22	010410A-1
	Calcium	4970	ug/L	5000	ug/L	99.4	90.0 - 110.0	P	04-JAN-10 08:22	010410A-1
	Cobalt	495	ug/L	500	ug/L	99	90.0 - 110.0	P	04-JAN-10 08:22	010410A-1
	Copper	499	ug/L	500	ug/L	99.9	90.0 - 110.0	P	04-JAN-10 08:22	010410A-1
	Iron	5120	ug/L	5000	ug/L	102.5	90.0 - 110.0	P	04-JAN-10 08:22	010410A-1
	Magnesium	5300	ug/L	5000	ug/L	106.1	90.0 - 110.0	P	04-JAN-10 08:22	010410A-1
	Manganese	510	ug/L	500	ug/L	102	90.0 - 110.0	P	04-JAN-10 08:22	010410A-1
	Potassium	2500	ug/L	2500	ug/L	100	90.0 - 110.0	P	04-JAN-10 08:22	010410A-1
	Silica	10200	ug/L	10700	ug/L	95.1	90.0 - 110.0	P	04-JAN-10 08:22	010410A-1
	Sodium	2550	ug/L	2500	ug/L	101.9	90.0 - 110.0	P	04-JAN-10 08:22	010410A-1
	Strontium	531	ug/L	500	ug/L	106.1	90.0 - 110.0	P	04-JAN-10 08:22	010410A-1
	Tin	528	ug/L	500	ug/L	105.6	90.0 - 110.0	P	04-JAN-10 08:22	010410A-1
	Vanadium	511	ug/L	500	ug/L	102.2	90.0 - 110.0	P	04-JAN-10 08:22	010410A-1
	Zinc	505	ug/L	500	ug/L	101	90.0 - 110.0	P	04-JAN-10 08:22	010410A-1
	Thallium	48.5	ug/L	50	ug/L	96.9	90.0 - 110.0	MS	05-JAN-10 10:14	100105-4

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–953

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV01										
	Tin	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	29–DEC–09 09:52	122909A–2
	Mercury	5.07	ug/L	5	ug/L	101.4	80.0 – 120.0	AV	31–DEC–09 09:16	123109W1–5
	Antimony	49	ug/L	50	ug/L	98	90.0 – 110.0	MS	03–JAN–10 15:09	100103–3
	Arsenic	48.4	ug/L	50	ug/L	96.8	90.0 – 110.0	MS	03–JAN–10 15:09	100103–3
	Cadmium	48.7	ug/L	50	ug/L	97.5	90.0 – 110.0	MS	03–JAN–10 15:09	100103–3
	Chromium	51.2	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	03–JAN–10 15:09	100103–3
	Lead	53.3	ug/L	50	ug/L	106.6	90.0 – 110.0	MS	03–JAN–10 15:09	100103–3
	Molybdenum	49.1	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	03–JAN–10 15:09	100103–3
	Nickel	51.3	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	03–JAN–10 15:09	100103–3
	Selenium	50	ug/L	50	ug/L	100	90.0 – 110.0	MS	03–JAN–10 15:09	100103–3
	Silver	51	ug/L	50	ug/L	102	90.0 – 110.0	MS	03–JAN–10 15:09	100103–3
	Uranium	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	03–JAN–10 15:09	100103–3
	Aluminum	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	04–JAN–10 09:07	010410A–1
	Barium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	04–JAN–10 09:07	010410A–1
	Beryllium	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	04–JAN–10 09:07	010410A–1
	Boron	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	04–JAN–10 09:07	010410A–1
	Calcium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	04–JAN–10 09:07	010410A–1
	Cobalt	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	04–JAN–10 09:07	010410A–1
	Copper	484	ug/L	500	ug/L	96.9	90.0 – 110.0	P	04–JAN–10 09:07	010410A–1
	Iron	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	04–JAN–10 09:07	010410A–1
	Magnesium	5210	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	04–JAN–10 09:07	010410A–1
	Manganese	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	04–JAN–10 09:07	010410A–1
	Potassium	5140	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	04–JAN–10 09:07	010410A–1
	Silica	5140	ug/L	5350	ug/L	96	90.0 – 110.0	P	04–JAN–10 09:07	010410A–1
	Sodium	10300	ug/L	10000	ug/L	102.8	90.0 – 110.0	P	04–JAN–10 09:07	010410A–1
	Strontium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	04–JAN–10 09:07	010410A–1
	Tin	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	04–JAN–10 09:07	010410A–1
	Vanadium	493	ug/L	500	ug/L	98.5	90.0 – 110.0	P	04–JAN–10 09:07	010410A–1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	04–JAN–10 09:07	010410A–1
	Thallium	49.2	ug/L	50	ug/L	98.4	90.0 – 110.0	MS	05–JAN–10 10:37	100105–4

METALS
--2a--
Initial and Continuing Calibration Verification

SDG No: 10–953

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV02										
	Tin	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	29–DEC–09 11:00	122909A–2
	Mercury	5.15	ug/L	5	ug/L	103	80.0 – 120.0	AV	31–DEC–09 09:39	123109W1–5
	Antimony	50.6	ug/L	50	ug/L	101.1	90.0 – 110.0	MS	03–JAN–10 15:27	100103–3
	Arsenic	48.7	ug/L	50	ug/L	97.5	90.0 – 110.0	MS	03–JAN–10 15:27	100103–3
	Cadmium	49.6	ug/L	50	ug/L	99.1	90.0 – 110.0	MS	03–JAN–10 15:27	100103–3
	Chromium	52.3	ug/L	50	ug/L	104.6	90.0 – 110.0	MS	03–JAN–10 15:27	100103–3
	Lead	53.3	ug/L	50	ug/L	106.5	90.0 – 110.0	MS	03–JAN–10 15:27	100103–3
	Molybdenum	48.9	ug/L	50	ug/L	97.8	90.0 – 110.0	MS	03–JAN–10 15:27	100103–3
	Nickel	52.1	ug/L	50	ug/L	104.1	90.0 – 110.0	MS	03–JAN–10 15:27	100103–3
	Selenium	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	03–JAN–10 15:27	100103–3
	Silver	51.1	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	03–JAN–10 15:27	100103–3
	Uranium	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	03–JAN–10 15:27	100103–3
	Aluminum	4860	ug/L	5000	ug/L	97.1	90.0 – 110.0	P	04–JAN–10 09:28	010410A–1
	Barium	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	04–JAN–10 09:28	010410A–1
	Beryllium	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	04–JAN–10 09:28	010410A–1
	Boron	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	04–JAN–10 09:28	010410A–1
	Calcium	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	04–JAN–10 09:28	010410A–1
	Cobalt	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	04–JAN–10 09:28	010410A–1
	Copper	485	ug/L	500	ug/L	97	90.0 – 110.0	P	04–JAN–10 09:28	010410A–1
	Iron	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	04–JAN–10 09:28	010410A–1
	Magnesium	5060	ug/L	5000	ug/L	101.3	90.0 – 110.0	P	04–JAN–10 09:28	010410A–1
	Manganese	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	04–JAN–10 09:28	010410A–1
	Potassium	4930	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	04–JAN–10 09:28	010410A–1
	Silica	5150	ug/L	5350	ug/L	96.2	90.0 – 110.0	P	04–JAN–10 09:28	010410A–1
	Sodium	10300	ug/L	10000	ug/L	102.5	90.0 – 110.0	P	04–JAN–10 09:28	010410A–1
	Strontium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	04–JAN–10 09:28	010410A–1
	Tin	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	04–JAN–10 09:28	010410A–1
	Vanadium	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	04–JAN–10 09:28	010410A–1
	Zinc	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	04–JAN–10 09:28	010410A–1
	Thallium	47.6	ug/L	50	ug/L	95.2	90.0 – 110.0	MS	05–JAN–10 11:17	100105–4

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-953

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV03										
	Tin	502	ug/L	500	ug/L	100.4	90.0 - 110.0	P	29-DEC-09 12:19	122909A-2
	Mercury	5.13	ug/L	5	ug/L	102.7	80.0 - 120.0	AV	31-DEC-09 10:02	123109W1-5
	Antimony	51.6	ug/L	50	ug/L	103.2	90.0 - 110.0	MS	03-JAN-10 16:16	100103-3
	Arsenic	49.6	ug/L	50	ug/L	99.1	90.0 - 110.0	MS	03-JAN-10 16:16	100103-3
	Cadmium	50.6	ug/L	50	ug/L	101.2	90.0 - 110.0	MS	03-JAN-10 16:16	100103-3
	Chromium	53.2	ug/L	50	ug/L	106.4	90.0 - 110.0	MS	03-JAN-10 16:16	100103-3
	Lead	54.6	ug/L	50	ug/L	109.3	90.0 - 110.0	MS	03-JAN-10 16:16	100103-3
	Molybdenum	50.3	ug/L	50	ug/L	100.5	90.0 - 110.0	MS	03-JAN-10 16:16	100103-3
	Nickel	53.7	ug/L	50	ug/L	107.3	90.0 - 110.0	MS	03-JAN-10 16:16	100103-3
	Selenium	51.3	ug/L	50	ug/L	102.7	90.0 - 110.0	MS	03-JAN-10 16:16	100103-3
	Silver	53.4	ug/L	50	ug/L	106.7	90.0 - 110.0	MS	03-JAN-10 16:16	100103-3
	Uranium	52.3	ug/L	50	ug/L	104.5	90.0 - 110.0	MS	03-JAN-10 16:16	100103-3
	Aluminum	5060	ug/L	5000	ug/L	101.1	90.0 - 110.0	P	04-JAN-10 10:36	010410A-1
	Barium	495	ug/L	500	ug/L	99	90.0 - 110.0	P	04-JAN-10 10:36	010410A-1
	Beryllium	496	ug/L	500	ug/L	99.1	90.0 - 110.0	P	04-JAN-10 10:36	010410A-1
	Boron	489	ug/L	500	ug/L	97.9	90.0 - 110.0	P	04-JAN-10 10:36	010410A-1
	Calcium	5130	ug/L	5000	ug/L	102.6	90.0 - 110.0	P	04-JAN-10 10:36	010410A-1
	Cobalt	492	ug/L	500	ug/L	98.5	90.0 - 110.0	P	04-JAN-10 10:36	010410A-1
	Copper	487	ug/L	500	ug/L	97.4	90.0 - 110.0	P	04-JAN-10 10:36	010410A-1
	Iron	5130	ug/L	5000	ug/L	102.6	90.0 - 110.0	P	04-JAN-10 10:36	010410A-1
	Magnesium	5270	ug/L	5000	ug/L	105.3	90.0 - 110.0	P	04-JAN-10 10:36	010410A-1
	Manganese	496	ug/L	500	ug/L	99.1	90.0 - 110.0	P	04-JAN-10 10:36	010410A-1
	Potassium	5040	ug/L	5000	ug/L	100.9	90.0 - 110.0	P	04-JAN-10 10:36	010410A-1
	Silica	5150	ug/L	5350	ug/L	96.2	90.0 - 110.0	P	04-JAN-10 10:36	010410A-1
	Sodium	9880	ug/L	10000	ug/L	98.8	90.0 - 110.0	P	04-JAN-10 10:36	010410A-1
	Strontium	500	ug/L	500	ug/L	100	90.0 - 110.0	P	04-JAN-10 10:36	010410A-1
	Tin	501	ug/L	500	ug/L	100.3	90.0 - 110.0	P	04-JAN-10 10:36	010410A-1
	Vanadium	497	ug/L	500	ug/L	99.5	90.0 - 110.0	P	04-JAN-10 10:36	010410A-1
	Zinc	492	ug/L	500	ug/L	98.4	90.0 - 110.0	P	04-JAN-10 10:36	010410A-1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-953

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV04										
	Tin	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	29-DEC-09 13:35	122909A-2
	Mercury	5.14	ug/L	5	ug/L	102.7	80.0 – 120.0	AV	31-DEC-09 10:26	123109W1-5
	Antimony	50.5	ug/L	50	ug/L	101	90.0 – 110.0	MS	03-JAN-10 17:12	100103-3
	Arsenic	48.1	ug/L	50	ug/L	96.2	90.0 – 110.0	MS	03-JAN-10 17:12	100103-3
	Cadmium	50.7	ug/L	50	ug/L	101.4	90.0 – 110.0	MS	03-JAN-10 17:12	100103-3
	Chromium	52.3	ug/L	50	ug/L	104.6	90.0 – 110.0	MS	03-JAN-10 17:12	100103-3
	Lead	55	ug/L	50	ug/L	110	90.0 – 110.0	MS	03-JAN-10 17:12	100103-3
	Molybdenum	49	ug/L	50	ug/L	97.9	90.0 – 110.0	MS	03-JAN-10 17:12	100103-3
	Nickel	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	03-JAN-10 17:12	100103-3
	Selenium	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	03-JAN-10 17:12	100103-3
	Silver	51.3	ug/L	50	ug/L	102.6	90.0 – 110.0	MS	03-JAN-10 17:12	100103-3
	Uranium	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	03-JAN-10 17:12	100103-3
	Aluminum	4870	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	04-JAN-10 11:59	010410A-1
	Barium	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	04-JAN-10 11:59	010410A-1
	Beryllium	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	04-JAN-10 11:59	010410A-1
	Boron	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	04-JAN-10 11:59	010410A-1
	Calcium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	04-JAN-10 11:59	010410A-1
	Cobalt	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	04-JAN-10 11:59	010410A-1
	Copper	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	04-JAN-10 11:59	010410A-1
	Iron	4990	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	04-JAN-10 11:59	010410A-1
	Magnesium	5170	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	04-JAN-10 11:59	010410A-1
	Manganese	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	04-JAN-10 11:59	010410A-1
	Potassium	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	04-JAN-10 11:59	010410A-1
	Silica	5250	ug/L	5350	ug/L	98.1	90.0 – 110.0	P	04-JAN-10 11:59	010410A-1
	Sodium	9710	ug/L	10000	ug/L	97.1	90.0 – 110.0	P	04-JAN-10 11:59	010410A-1
	Strontium	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	04-JAN-10 11:59	010410A-1
	Tin	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	04-JAN-10 11:59	010410A-1
	Vanadium	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	04-JAN-10 11:59	010410A-1
	Zinc	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	04-JAN-10 11:59	010410A-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–953

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV05										
	Tin	505	ug/L	500	ug/L	101	90.0 – 110.0	P	29–DEC–09 14:00	122909A–2
	Aluminum	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	04–JAN–10 13:10	010410A–1
	Barium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	04–JAN–10 13:10	010410A–1
	Beryllium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	04–JAN–10 13:10	010410A–1
	Boron	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	04–JAN–10 13:10	010410A–1
	Calcium	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	04–JAN–10 13:10	010410A–1
	Cobalt	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	04–JAN–10 13:10	010410A–1
	Copper	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	04–JAN–10 13:10	010410A–1
	Iron	5000	ug/L	5000	ug/L	99.9	90.0 – 110.0	P	04–JAN–10 13:10	010410A–1
	Magnesium	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	04–JAN–10 13:10	010410A–1
	Manganese	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	04–JAN–10 13:10	010410A–1
	Potassium	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	04–JAN–10 13:10	010410A–1
	Silica	5250	ug/L	5350	ug/L	98.1	90.0 – 110.0	P	04–JAN–10 13:10	010410A–1
	Sodium	9560	ug/L	10000	ug/L	95.6	90.0 – 110.0	P	04–JAN–10 13:10	010410A–1
	Strontium	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	04–JAN–10 13:10	010410A–1
	Tin	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	04–JAN–10 13:10	010410A–1
	Vanadium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	04–JAN–10 13:10	010410A–1
	Zinc	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	04–JAN–10 13:10	010410A–1
CCV06										
	Tin	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	29–DEC–09 15:15	122909A–2
	Aluminum	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	04–JAN–10 14:04	010410A–1
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	04–JAN–10 14:04	010410A–1
	Beryllium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	04–JAN–10 14:04	010410A–1
	Boron	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	04–JAN–10 14:04	010410A–1
	Calcium	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	04–JAN–10 14:04	010410A–1
	Cobalt	490	ug/L	500	ug/L	98.1	90.0 – 110.0	P	04–JAN–10 14:04	010410A–1
	Copper	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	04–JAN–10 14:04	010410A–1
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	04–JAN–10 14:04	010410A–1
	Magnesium	5170	ug/L	5000	ug/L	103.4	90.0 – 110.0	P	04–JAN–10 14:04	010410A–1
	Manganese	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	04–JAN–10 14:04	010410A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–953

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Potassium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	04–JAN–10 14:04	010410A–1
	Silica	5170	ug/L	5350	ug/L	96.6	90.0 – 110.0	P	04–JAN–10 14:04	010410A–1
	Sodium	9930	ug/L	10000	ug/L	99.4	90.0 – 110.0	P	04–JAN–10 14:04	010410A–1
	Strontium	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	04–JAN–10 14:04	010410A–1
	Tin	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	04–JAN–10 14:04	010410A–1
	Vanadium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	04–JAN–10 14:04	010410A–1
	Zinc	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	04–JAN–10 14:04	010410A–1
CCV07										
	Tin	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	29–DEC–09 16:24	122909A–2
	Aluminum	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	04–JAN–10 14:29	010410A–1
	Barium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	04–JAN–10 14:29	010410A–1
	Beryllium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	04–JAN–10 14:29	010410A–1
	Boron	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	04–JAN–10 14:29	010410A–1
	Calcium	5080	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	04–JAN–10 14:29	010410A–1
	Cobalt	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	04–JAN–10 14:29	010410A–1
	Copper	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	04–JAN–10 14:29	010410A–1
	Iron	5140	ug/L	5000	ug/L	102.9	90.0 – 110.0	P	04–JAN–10 14:29	010410A–1
	Magnesium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	04–JAN–10 14:29	010410A–1
	Manganese	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	04–JAN–10 14:29	010410A–1
	Potassium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	04–JAN–10 14:29	010410A–1
	Silica	5200	ug/L	5350	ug/L	97.3	90.0 – 110.0	P	04–JAN–10 14:29	010410A–1
	Sodium	10200	ug/L	10000	ug/L	102.3	90.0 – 110.0	P	04–JAN–10 14:29	010410A–1
	Strontium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	04–JAN–10 14:29	010410A–1
	Tin	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	04–JAN–10 14:29	010410A–1
	Vanadium	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	04–JAN–10 14:29	010410A–1
	Zinc	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	04–JAN–10 14:29	010410A–1
CCV08										
	Tin	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	29–DEC–09 17:39	122909A–2
	Aluminum	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	04–JAN–10 15:38	010410A–1
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	04–JAN–10 15:38	010410A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–953

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Beryllium	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	04–JAN–10 15:38	010410A–1
	Boron	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	04–JAN–10 15:38	010410A–1
	Calcium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	04–JAN–10 15:38	010410A–1
	Cobalt	500	ug/L	500	ug/L	100	90.0 – 110.0	P	04–JAN–10 15:38	010410A–1
	Copper	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	04–JAN–10 15:38	010410A–1
	Iron	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	04–JAN–10 15:38	010410A–1
	Magnesium	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	04–JAN–10 15:38	010410A–1
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	04–JAN–10 15:38	010410A–1
	Potassium	4950	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	04–JAN–10 15:38	010410A–1
	Silica	5270	ug/L	5350	ug/L	98.4	90.0 – 110.0	P	04–JAN–10 15:38	010410A–1
	Sodium	9390	ug/L	10000	ug/L	93.9	90.0 – 110.0	P	04–JAN–10 15:38	010410A–1
	Strontium	485	ug/L	500	ug/L	96.9	90.0 – 110.0	P	04–JAN–10 15:38	010410A–1
	Tin	505	ug/L	500	ug/L	101	90.0 – 110.0	P	04–JAN–10 15:38	010410A–1
	Vanadium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	04–JAN–10 15:38	010410A–1
	Zinc	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	04–JAN–10 15:38	010410A–1
CCV09										
	Tin	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	29–DEC–09 18:49	122909A–2
	Aluminum	4960	ug/L	5000	ug/L	99.3	90.0 – 110.0	P	04–JAN–10 16:39	010410A–1
	Barium	501	ug/L	500	ug/L	100.1	90.0 – 110.0	P	04–JAN–10 16:39	010410A–1
	Beryllium	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	04–JAN–10 16:39	010410A–1
	Boron	495	ug/L	500	ug/L	99	90.0 – 110.0	P	04–JAN–10 16:39	010410A–1
	Calcium	5030	ug/L	5000	ug/L	100.6	90.0 – 110.0	P	04–JAN–10 16:39	010410A–1
	Cobalt	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	04–JAN–10 16:39	010410A–1
	Copper	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	04–JAN–10 16:39	010410A–1
	Iron	4980	ug/L	5000	ug/L	99.6	90.0 – 110.0	P	04–JAN–10 16:39	010410A–1
	Magnesium	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	04–JAN–10 16:39	010410A–1
	Manganese	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	04–JAN–10 16:39	010410A–1
	Potassium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	04–JAN–10 16:39	010410A–1
	Silica	5250	ug/L	5350	ug/L	98	90.0 – 110.0	P	04–JAN–10 16:39	010410A–1
	Sodium	9590	ug/L	10000	ug/L	95.9	90.0 – 110.0	P	04–JAN–10 16:39	010410A–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–953

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Strontium	490	ug/L	500	ug/L	98	90.0 – 110.0	P	04–JAN–10 16:39	010410A–1
	Tin	500	ug/L	500	ug/L	100	90.0 – 110.0	P	04–JAN–10 16:39	010410A–1
	Vanadium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	04–JAN–10 16:39	010410A–1
	Zinc	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	04–JAN–10 16:39	010410A–1
CCV10										
	Tin	535	ug/L	500	ug/L	107.1	90.0 – 110.0	P	29–DEC–09 19:44	122909A–2
	Aluminum	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	04–JAN–10 17:41	010410A–1
	Barium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	04–JAN–10 17:41	010410A–1
	Beryllium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	04–JAN–10 17:41	010410A–1
	Boron	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	04–JAN–10 17:41	010410A–1
	Calcium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	04–JAN–10 17:41	010410A–1
	Cobalt	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	04–JAN–10 17:41	010410A–1
	Copper	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	04–JAN–10 17:41	010410A–1
	Iron	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	04–JAN–10 17:41	010410A–1
	Magnesium	5230	ug/L	5000	ug/L	104.6	90.0 – 110.0	P	04–JAN–10 17:41	010410A–1
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	04–JAN–10 17:41	010410A–1
	Potassium	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	04–JAN–10 17:41	010410A–1
	Silica	5270	ug/L	5350	ug/L	98.5	90.0 – 110.0	P	04–JAN–10 17:41	010410A–1
	Sodium	9710	ug/L	10000	ug/L	97.1	90.0 – 110.0	P	04–JAN–10 17:41	010410A–1
	Strontium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	04–JAN–10 17:41	010410A–1
	Tin	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	04–JAN–10 17:41	010410A–1
	Vanadium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	04–JAN–10 17:41	010410A–1
	Zinc	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	04–JAN–10 17:41	010410A–1
CCV11										
	Tin	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	29–DEC–09 20:47	122909A–2
CCV12										
	Tin	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	29–DEC–09 21:42	122909A–2
CCV13										
	Tin	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	29–DEC–09 22:37	122909A–2

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-953

Contract: ESHL01000 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.181	ug/L	.2	ug/L	90.5	70.0 - 130.0	AV	31-DEC-09 09:14	123109W1-5
	Lead	2.41	ug/L	2	ug/L	120.6	70.0 - 130.0	MS	03-JAN-10 14:50	100103-3
	Nickel	2.2	ug/L	2	ug/L	109.9	70.0 - 130.0	MS	03-JAN-10 14:50	100103-3
	Silver	1.08	ug/L	1	ug/L	107.8	70.0 - 130.0	MS	03-JAN-10 14:50	100103-3
	Cadmium	1.07	ug/L	1	ug/L	107.4	70.0 - 130.0	MS	03-JAN-10 14:50	100103-3
	Selenium	5.51	ug/L	5	ug/L	110.2	70.0 - 130.0	MS	03-JAN-10 14:50	100103-3
	Uranium	.247	ug/L	.2	ug/L	123.5	70.0 - 130.0	MS	03-JAN-10 14:50	100103-3
	Molybdenum	.547	ug/L	.5	ug/L	109.4	70.0 - 130.0	MS	03-JAN-10 14:50	100103-3
	Chromium	11.2	ug/L	10	ug/L	111.7	70.0 - 130.0	MS	03-JAN-10 14:50	100103-3
	Arsenic	5.35	ug/L	5	ug/L	107	70.0 - 130.0	MS	03-JAN-10 14:50	100103-3
	Antimony	2.7	ug/L	3	ug/L	90.1	70.0 - 130.0	MS	03-JAN-10 14:50	100103-3
	Thallium	1.16	ug/L	1	ug/L	116.4	70.0 - 130.0	MS	05-JAN-10 10:23	100105-4
PQL01										
	Tin	10.6	ug/L	10	ug/L	106.2	70.0 - 130.0	P	29-DEC-09 09:21	122909A-2
	Silica	208	ug/L	213	ug/L	97.7	70.0 - 130.0	P	04-JAN-10 08:36	010410A-1
	Magnesium	254	ug/L	300	ug/L	84.7	70.0 - 130.0	P	04-JAN-10 08:36	010410A-1
	Potassium	141	ug/L	150	ug/L	93.7	70.0 - 130.0	P	04-JAN-10 08:36	010410A-1
	Barium	5.23	ug/L	5	ug/L	104.6	70.0 - 130.0	P	04-JAN-10 08:36	010410A-1
	Cobalt	5.24	ug/L	5	ug/L	104.8	70.0 - 130.0	P	04-JAN-10 08:36	010410A-1
	Vanadium	5.07	ug/L	5	ug/L	101.4	70.0 - 130.0	P	04-JAN-10 08:36	010410A-1
	Strontium	5.17	ug/L	5	ug/L	103.5	70.0 - 130.0	P	04-JAN-10 08:36	010410A-1
	Tin	9.53	ug/L	10	ug/L	95.3	70.0 - 130.0	P	04-JAN-10 08:36	010410A-1
	Boron	53.4	ug/L	50	ug/L	106.9	70.0 - 130.0	P	04-JAN-10 08:36	010410A-1
	Calcium	223	ug/L	200	ug/L	111.4	70.0 - 130.0	P	04-JAN-10 08:36	010410A-1
	Zinc	10.9	ug/L	10	ug/L	109	70.0 - 130.0	P	04-JAN-10 08:36	010410A-1
	Copper	10.3	ug/L	10	ug/L	103.3	70.0 - 130.0	P	04-JAN-10 08:36	010410A-1
	Beryllium	5.02	ug/L	5	ug/L	100.4	70.0 - 130.0	P	04-JAN-10 08:36	010410A-1
	Sodium	309	ug/L	300	ug/L	103.1	70.0 - 130.0	P	04-JAN-10 08:36	010410A-1
	Manganese	10.5	ug/L	10	ug/L	104.5	70.0 - 130.0	P	04-JAN-10 08:36	010410A-1
	Iron	111	ug/L	100	ug/L	111.3	70.0 - 130.0	P	04-JAN-10 08:36	010410A-1

METALS
-2b-
CRDL Standard for AA & ICP

SDG No: 10-953

Contract: ESHL01000 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
	Aluminum	206	ug/L	200	ug/L	103.1	70.0 - 130.0	P	04-JAN-10 08:36	010410A-1
PQL02										
	Tin	10.4	ug/L	10	ug/L	103.6	70.0 - 130.0	P	29-DEC-09 12:26	122909A-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-953

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	29-DEC-09 09:14	122909A-2
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	31-DEC-09 09:13	123109W1-5
	Antimony	0.5	+/-3	U	0.5	3.0	LIQ	MS	03-JAN-10 14:44	100103-3
	Arsenic	1.5	+/-5	U	1.5	5.0	LIQ	MS	03-JAN-10 14:44	100103-3
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	03-JAN-10 14:44	100103-3
	Chromium	2.5	+/-10	U	2.5	10.0	LIQ	MS	03-JAN-10 14:44	100103-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	03-JAN-10 14:44	100103-3
	Molybdenum	0.1	+/-.5	U	0.1	0.5	LIQ	MS	03-JAN-10 14:44	100103-3
	Nickel	0.5	+/-2	U	0.5	2.0	LIQ	MS	03-JAN-10 14:44	100103-3
	Selenium	1.0	+/-5	U	1.0	5.0	LIQ	MS	03-JAN-10 14:44	100103-3
	Silver	0.2	+/-1	U	0.2	1.0	LIQ	MS	03-JAN-10 14:44	100103-3
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	03-JAN-10 14:44	100103-3
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	04-JAN-10 08:29	010410A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 08:29	010410A-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 08:29	010410A-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	04-JAN-10 08:29	010410A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	04-JAN-10 08:29	010410A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 08:29	010410A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	04-JAN-10 08:29	010410A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	04-JAN-10 08:29	010410A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	04-JAN-10 08:29	010410A-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	04-JAN-10 08:29	010410A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	04-JAN-10 08:29	010410A-1
	Silica	53.0	+/-213	U	53.0	213	LIQ	P	04-JAN-10 08:29	010410A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	04-JAN-10 08:29	010410A-1
	Strontium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 08:29	010410A-1
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	04-JAN-10 08:29	010410A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 08:29	010410A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	04-JAN-10 08:29	010410A-1
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	05-JAN-10 10:19	100105-4

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-953

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB01										
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	29-DEC-09 09:59	122909A-2
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	31-DEC-09 09:18	123109W1-5
	Antimony	0.5	+/-3	U	0.5	3.0	LIQ	MS	03-JAN-10 15:15	100103-3
	Arsenic	1.5	+/-5	U	1.5	5.0	LIQ	MS	03-JAN-10 15:15	100103-3
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	03-JAN-10 15:15	100103-3
	Chromium	2.5	+/-10	U	2.5	10.0	LIQ	MS	03-JAN-10 15:15	100103-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	03-JAN-10 15:15	100103-3
	Molybdenum	0.11	+/-.5	J	0.1	0.5	LIQ	MS	03-JAN-10 15:15	100103-3
	Nickel	0.5	+/-2	U	0.5	2.0	LIQ	MS	03-JAN-10 15:15	100103-3
	Selenium	1.0	+/-5	U	1.0	5.0	LIQ	MS	03-JAN-10 15:15	100103-3
	Silver	0.2	+/-1	U	0.2	1.0	LIQ	MS	03-JAN-10 15:15	100103-3
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	03-JAN-10 15:15	100103-3
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	04-JAN-10 09:14	010410A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 09:14	010410A-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 09:14	010410A-1
	Boron	21.1	+/-50	J	15.0	50.0	LIQ	P	04-JAN-10 09:14	010410A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	04-JAN-10 09:14	010410A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 09:14	010410A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	04-JAN-10 09:14	010410A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	04-JAN-10 09:14	010410A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	04-JAN-10 09:14	010410A-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	04-JAN-10 09:14	010410A-1
	Potassium	75.22	+/-150	J	50.0	150	LIQ	P	04-JAN-10 09:14	010410A-1
	Silica	53.0	+/-213	U	53.0	213	LIQ	P	04-JAN-10 09:14	010410A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	04-JAN-10 09:14	010410A-1
	Strontium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 09:14	010410A-1
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	04-JAN-10 09:14	010410A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 09:14	010410A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	04-JAN-10 09:14	010410A-1
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	05-JAN-10 10:41	100105-4

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-953

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB02										
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	29-DEC-09 11:07	122909A-2
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	31-DEC-09 09:41	123109W1-5
	Antimony	0.5	+/-3	U	0.5	3.0	LIQ	MS	03-JAN-10 15:33	100103-3
	Arsenic	1.5	+/-5	U	1.5	5.0	LIQ	MS	03-JAN-10 15:33	100103-3
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	03-JAN-10 15:33	100103-3
	Chromium	2.5	+/-10	U	2.5	10.0	LIQ	MS	03-JAN-10 15:33	100103-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	03-JAN-10 15:33	100103-3
	Molybdenum	0.134	+/-.5	J	0.1	0.5	LIQ	MS	03-JAN-10 15:33	100103-3
	Nickel	0.5	+/-2	U	0.5	2.0	LIQ	MS	03-JAN-10 15:33	100103-3
	Selenium	1.0	+/-5	U	1.0	5.0	LIQ	MS	03-JAN-10 15:33	100103-3
	Silver	0.2	+/-1	U	0.2	1.0	LIQ	MS	03-JAN-10 15:33	100103-3
	Uranium	0.072	+/-.2	J	0.05	0.2	LIQ	MS	03-JAN-10 15:33	100103-3
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	04-JAN-10 09:35	010410A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 09:35	010410A-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 09:35	010410A-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	04-JAN-10 09:35	010410A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	04-JAN-10 09:35	010410A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 09:35	010410A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	04-JAN-10 09:35	010410A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	04-JAN-10 09:35	010410A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	04-JAN-10 09:35	010410A-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	04-JAN-10 09:35	010410A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	04-JAN-10 09:35	010410A-1
	Silica	53.0	+/-213	U	53.0	213	LIQ	P	04-JAN-10 09:35	010410A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	04-JAN-10 09:35	010410A-1
	Strontium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 09:35	010410A-1
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	04-JAN-10 09:35	010410A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 09:35	010410A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	04-JAN-10 09:35	010410A-1
	Thallium	0.3	+/-1	U	0.3	1.0	LIQ	MS	05-JAN-10 11:22	100105-4

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-953

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB03										
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	29-DEC-09 12:33	122909A-2
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	31-DEC-09 10:04	123109W1-5
	Antimony	0.5	+/-3	U	0.5	3.0	LIQ	MS	03-JAN-10 16:22	100103-3
	Arsenic	1.5	+/-5	U	1.5	5.0	LIQ	MS	03-JAN-10 16:22	100103-3
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	03-JAN-10 16:22	100103-3
	Chromium	2.5	+/-10	U	2.5	10.0	LIQ	MS	03-JAN-10 16:22	100103-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	03-JAN-10 16:22	100103-3
	Molybdenum	0.1	+/-.5	U	0.1	0.5	LIQ	MS	03-JAN-10 16:22	100103-3
	Nickel	0.5	+/-2	U	0.5	2.0	LIQ	MS	03-JAN-10 16:22	100103-3
	Selenium	1.0	+/-5	U	1.0	5.0	LIQ	MS	03-JAN-10 16:22	100103-3
	Silver	0.2	+/-1	U	0.2	1.0	LIQ	MS	03-JAN-10 16:22	100103-3
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	03-JAN-10 16:22	100103-3
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	04-JAN-10 10:43	010410A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 10:43	010410A-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 10:43	010410A-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	04-JAN-10 10:43	010410A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	04-JAN-10 10:43	010410A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 10:43	010410A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	04-JAN-10 10:43	010410A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	04-JAN-10 10:43	010410A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	04-JAN-10 10:43	010410A-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	04-JAN-10 10:43	010410A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	04-JAN-10 10:43	010410A-1
	Silica	53.0	+/-213	U	53.0	213	LIQ	P	04-JAN-10 10:43	010410A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	04-JAN-10 10:43	010410A-1
	Strontium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 10:43	010410A-1
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	04-JAN-10 10:43	010410A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 10:43	010410A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	04-JAN-10 10:43	010410A-1
CCB04										
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	29-DEC-09 13:42	122909A-2

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-953

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Mercury	0.066	+/-.2	U	0.066	0.2	LIQ	AV	31-DEC-09 10:27	123109W1-5
	Antimony	0.5	+/-3	U	0.5	3.0	LIQ	MS	03-JAN-10 17:18	100103-3
	Arsenic	1.5	+/-5	U	1.5	5.0	LIQ	MS	03-JAN-10 17:18	100103-3
	Cadmium	0.11	+/-1	U	0.11	1.0	LIQ	MS	03-JAN-10 17:18	100103-3
	Chromium	2.5	+/-10	U	2.5	10.0	LIQ	MS	03-JAN-10 17:18	100103-3
	Lead	0.5	+/-2	U	0.5	2.0	LIQ	MS	03-JAN-10 17:18	100103-3
	Molybdenum	0.1	+/-.5	U	0.1	0.5	LIQ	MS	03-JAN-10 17:18	100103-3
	Nickel	0.5	+/-2	U	0.5	2.0	LIQ	MS	03-JAN-10 17:18	100103-3
	Selenium	1.0	+/-5	U	1.0	5.0	LIQ	MS	03-JAN-10 17:18	100103-3
	Silver	0.2	+/-1	U	0.2	1.0	LIQ	MS	03-JAN-10 17:18	100103-3
	Uranium	0.05	+/-.2	U	0.05	0.2	LIQ	MS	03-JAN-10 17:18	100103-3
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	04-JAN-10 12:06	010410A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 12:06	010410A-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 12:06	010410A-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	04-JAN-10 12:06	010410A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	04-JAN-10 12:06	010410A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 12:06	010410A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	04-JAN-10 12:06	010410A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	04-JAN-10 12:06	010410A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	04-JAN-10 12:06	010410A-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	04-JAN-10 12:06	010410A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	04-JAN-10 12:06	010410A-1
	Silica	53.0	+/-213	U	53.0	213	LIQ	P	04-JAN-10 12:06	010410A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	04-JAN-10 12:06	010410A-1
	Strontium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 12:06	010410A-1
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	04-JAN-10 12:06	010410A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 12:06	010410A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	04-JAN-10 12:06	010410A-1
CCB05										
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	29-DEC-09 14:07	122909A-2
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	04-JAN-10 13:17	010410A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-953

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 13:17	010410A-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 13:17	010410A-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	04-JAN-10 13:17	010410A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	04-JAN-10 13:17	010410A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 13:17	010410A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	04-JAN-10 13:17	010410A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	04-JAN-10 13:17	010410A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	04-JAN-10 13:17	010410A-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	04-JAN-10 13:17	010410A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	04-JAN-10 13:17	010410A-1
	Silica	53.0	+/-213	U	53.0	213	LIQ	P	04-JAN-10 13:17	010410A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	04-JAN-10 13:17	010410A-1
	Strontium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 13:17	010410A-1
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	04-JAN-10 13:17	010410A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 13:17	010410A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	04-JAN-10 13:17	010410A-1
CCB06										
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	29-DEC-09 15:22	122909A-2
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	04-JAN-10 14:11	010410A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 14:11	010410A-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 14:11	010410A-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	04-JAN-10 14:11	010410A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	04-JAN-10 14:11	010410A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 14:11	010410A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	04-JAN-10 14:11	010410A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	04-JAN-10 14:11	010410A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	04-JAN-10 14:11	010410A-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	04-JAN-10 14:11	010410A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	04-JAN-10 14:11	010410A-1
	Silica	53.0	+/-213	U	53.0	213	LIQ	P	04-JAN-10 14:11	010410A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	04-JAN-10 14:11	010410A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-953

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Strontium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 14:11	010410A-1
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	04-JAN-10 14:11	010410A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 14:11	010410A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	04-JAN-10 14:11	010410A-1
CCB07										
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	29-DEC-09 16:31	122909A-2
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	04-JAN-10 14:36	010410A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 14:36	010410A-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 14:36	010410A-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	04-JAN-10 14:36	010410A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	04-JAN-10 14:36	010410A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 14:36	010410A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	04-JAN-10 14:36	010410A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	04-JAN-10 14:36	010410A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	04-JAN-10 14:36	010410A-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	04-JAN-10 14:36	010410A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	04-JAN-10 14:36	010410A-1
	Silica	53.0	+/-213	U	53.0	213	LIQ	P	04-JAN-10 14:36	010410A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	04-JAN-10 14:36	010410A-1
	Strontium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 14:36	010410A-1
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	04-JAN-10 14:36	010410A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 14:36	010410A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	04-JAN-10 14:36	010410A-1
CCB08										
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	29-DEC-09 17:46	122909A-2
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	04-JAN-10 15:45	010410A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 15:45	010410A-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 15:45	010410A-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	04-JAN-10 15:45	010410A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	04-JAN-10 15:45	010410A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 15:45	010410A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-953

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	04-JAN-10 15:45	010410A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	04-JAN-10 15:45	010410A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	04-JAN-10 15:45	010410A-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	04-JAN-10 15:45	010410A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	04-JAN-10 15:45	010410A-1
	Silica	53.0	+/-213	U	53.0	213	LIQ	P	04-JAN-10 15:45	010410A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	04-JAN-10 15:45	010410A-1
	Strontium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 15:45	010410A-1
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	04-JAN-10 15:45	010410A-1
	Vanadium	1.0	+/-5	J	1.0	5.0	LIQ	P	04-JAN-10 15:45	010410A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	04-JAN-10 15:45	010410A-1
CCB09										
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	29-DEC-09 18:55	122909A-2
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	04-JAN-10 16:46	010410A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 16:46	010410A-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 16:46	010410A-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	04-JAN-10 16:46	010410A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	04-JAN-10 16:46	010410A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 16:46	010410A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	04-JAN-10 16:46	010410A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	04-JAN-10 16:46	010410A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	04-JAN-10 16:46	010410A-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	04-JAN-10 16:46	010410A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	04-JAN-10 16:46	010410A-1
	Silica	53.0	+/-213	U	53.0	213	LIQ	P	04-JAN-10 16:46	010410A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	04-JAN-10 16:46	010410A-1
	Strontium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 16:46	010410A-1
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	04-JAN-10 16:46	010410A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 16:46	010410A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	04-JAN-10 16:46	010410A-1

Metals
-3a-
Initial and Continuing Calibration Blank Summary

SDG No.: 10-953

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB10										
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	29-DEC-09 19:51	122909A-2
	Aluminum	68.0	+/-200	U	68.0	200	LIQ	P	04-JAN-10 17:48	010410A-1
	Barium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 17:48	010410A-1
	Beryllium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 17:48	010410A-1
	Boron	15.0	+/-50	U	15.0	50.0	LIQ	P	04-JAN-10 17:48	010410A-1
	Calcium	50.0	+/-200	U	50.0	200	LIQ	P	04-JAN-10 17:48	010410A-1
	Cobalt	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 17:48	010410A-1
	Copper	3.0	+/-10	U	3.0	10.0	LIQ	P	04-JAN-10 17:48	010410A-1
	Iron	30.0	+/-100	U	30.0	100	LIQ	P	04-JAN-10 17:48	010410A-1
	Magnesium	85.0	+/-300	U	85.0	300	LIQ	P	04-JAN-10 17:48	010410A-1
	Manganese	2.0	+/-10	U	2.0	10.0	LIQ	P	04-JAN-10 17:48	010410A-1
	Potassium	50.0	+/-150	U	50.0	150	LIQ	P	04-JAN-10 17:48	010410A-1
	Silica	53.0	+/-213	U	53.0	213	LIQ	P	04-JAN-10 17:48	010410A-1
	Sodium	100	+/-300	U	100	300	LIQ	P	04-JAN-10 17:48	010410A-1
	Strontium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 17:48	010410A-1
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	04-JAN-10 17:48	010410A-1
	Vanadium	1.0	+/-5	U	1.0	5.0	LIQ	P	04-JAN-10 17:48	010410A-1
	Zinc	3.3	+/-10	U	3.3	10.0	LIQ	P	04-JAN-10 17:48	010410A-1
CCB11										
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	29-DEC-09 20:54	122909A-2
CCB12										
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	29-DEC-09 21:49	122909A-2
CCB13										
	Tin	2.5	+/-10	U	2.5	10.0	LIQ	P	29-DEC-09 22:44	122909A-2

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–953

Contract: ESHL01000

Matrix: GROUND WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202000258								
	Mercury	0.066	ug/L	+/–0.2	U	AV	0.066	0.2
1202000548								
	Aluminum	68	ug/L	+/–200	U	P	68	200
	Barium	1	ug/L	+/–5	U	P	1	5
	Boron	15	ug/L	+/–50	U	P	15	50
	Copper	3	ug/L	+/–10	U	P	3	10
	Cobalt	1	ug/L	+/–5	U	P	1	5
	Calcium	50	ug/L	+/–200	U	P	50	200
	Beryllium	1	ug/L	+/–5	U	P	1	5
	Iron	30	ug/L	+/–100	U	P	30	100
	Zinc	3.3	ug/L	+/–10	U	P	3.3	10
	Vanadium	1.14	ug/L	+/–5	J	P	1	5
	Tin	2.5	ug/L	+/–10	U	P	2.5	10
	Strontium	1	ug/L	+/–5	U	P	1	5
	Sodium	100	ug/L	+/–300	U	P	100	300
	Silica	0.053	mg/L	+/–0.213	U	P	0.053	0.213
	Potassium	50	ug/L	+/–150	U	P	50	150
	Manganese	2	ug/L	+/–10	U	P	2	10
	Magnesium	85	ug/L	+/–300	U	P	85	300
1202000555								
	Lead	0.5	ug/L	+/–2	U	MS	0.5	2
	Molybdenum	0.1	ug/L	+/–0.5	U	MS	0.1	0.5
	Nickel	0.5	ug/L	+/–2	U	MS	0.5	2
	Selenium	1	ug/L	+/–5	U	MS	1	5
	Arsenic	1.5	ug/L	+/–5	U	MS	1.5	5
	Chromium	2.5	ug/L	+/–10	U	MS	2.5	10
	Cadmium	0.11	ug/L	+/–1	U	MS	0.11	1
	Antimony	–0.621	ug/L	+/–3	J	MS	0.5	3
	Silver	0.2	ug/L	+/–1	U	MS	0.2	1
	Thallium	0.3	ug/L	+/–1	U	MS	0.3	1
	Uranium	0.05	ug/L	+/–0.2	U	MS	0.05	0.2

METALS
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Interference Check Sample

SDG No: 10-953

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	503000	ug/L	500000	ug/L	101	80.0 - 120.0	04-JAN-10 08:43	010410A-1
	Barium	-1.17	ug/L					04-JAN-10 08:43	010410A-1
	Beryllium	-0.144	ug/L					04-JAN-10 08:43	010410A-1
	Boron	-2.74	ug/L					04-JAN-10 08:43	010410A-1
	Calcium	476000	ug/L	500000	ug/L	95.2	80.0 - 120.0	04-JAN-10 08:43	010410A-1
	Cobalt	-1.17	ug/L					04-JAN-10 08:43	010410A-1
	Copper	0.791	ug/L					04-JAN-10 08:43	010410A-1
	Iron	187000	ug/L	200000	ug/L	93.4	80.0 - 120.0	04-JAN-10 08:43	010410A-1
	Magnesium	481000	ug/L	500000	ug/L	96.1	80.0 - 120.0	04-JAN-10 08:43	010410A-1
	Manganese	9.23	ug/L					04-JAN-10 08:43	010410A-1
	Potassium	-43.0	ug/L					04-JAN-10 08:43	010410A-1
	Silica	-11.3	ug/L					04-JAN-10 08:43	010410A-1
	Sodium	5.01	ug/L					04-JAN-10 08:43	010410A-1
	Strontium	-0.459	ug/L					04-JAN-10 08:43	010410A-1
	Tin	-17.4	ug/L					04-JAN-10 08:43	010410A-1
	Vanadium	-1.8	ug/L					04-JAN-10 08:43	010410A-1
	Zinc	-1.5	ug/L					04-JAN-10 08:43	010410A-1
ICSAB01									
	Aluminum	504000	ug/L	500000	ug/L	101	80.0 - 120.0	04-JAN-10 08:49	010410A-1
	Barium	488	ug/L	500	ug/L	97.6	80.0 - 120.0	04-JAN-10 08:49	010410A-1
	Beryllium	240	ug/L	250	ug/L	95.9	80.0 - 120.0	04-JAN-10 08:49	010410A-1
	Boron	493	ug/L	500	ug/L	98.6	80.0 - 120.0	04-JAN-10 08:49	010410A-1
	Calcium	476000	ug/L	500000	ug/L	95.2	80.0 - 120.0	04-JAN-10 08:49	010410A-1
	Cobalt	453	ug/L	500	ug/L	90.7	80.0 - 120.0	04-JAN-10 08:49	010410A-1
	Copper	549	ug/L	500	ug/L	110	80.0 - 120.0	04-JAN-10 08:49	010410A-1
	Iron	188000	ug/L	200000	ug/L	94	80.0 - 120.0	04-JAN-10 08:49	010410A-1
	Magnesium	483000	ug/L	500000	ug/L	96.5	80.0 - 120.0	04-JAN-10 08:49	010410A-1
	Manganese	489	ug/L	500	ug/L	97.8	80.0 - 120.0	04-JAN-10 08:49	010410A-1
	Potassium	5330	ug/L	5000	ug/L	107	80.0 - 120.0	04-JAN-10 08:49	010410A-1

METALS
-4-
Interference Check Sample

SDG No: 10-953

Contract: ESHL01000 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Silica	10900	ug/L	10700	ug/L	102	80.0 - 120.0	04-JAN-10 08:49	010410A-1
	Sodium	5500	ug/L	5000	ug/L	110	80.0 - 120.0	04-JAN-10 08:49	010410A-1
	Strontium	500	ug/L	500	ug/L	99.9	80.0 - 120.0	04-JAN-10 08:49	010410A-1
	Tin	464	ug/L	500	ug/L	92.8	80.0 - 120.0	04-JAN-10 08:49	010410A-1
	Vanadium	495	ug/L	500	ug/L	99.1	80.0 - 120.0	04-JAN-10 08:49	010410A-1
	Zinc	478	ug/L	500	ug/L	95.6	80.0 - 120.0	04-JAN-10 08:49	010410A-1

METALS
-4-
Interference Check Sample

SDG No: 10-953

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Tin	-12.9	ug/L					29-DEC-09 09:28	122909A-2
ICSAB01									
	Tin	490	ug/L	500	ug/L	98.1	80.0 - 120.0	29-DEC-09 09:34	122909A-2

METALS
-4-
Interference Check Sample

SDG No: 10-953

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	-0.567	ug/L					03-JAN-10 14:56	100103-3
	Arsenic	0.095	ug/L					03-JAN-10 14:56	100103-3
	Cadmium	0.542	ug/L					03-JAN-10 14:56	100103-3
	Chromium	3.59	ug/L					03-JAN-10 14:56	100103-3
	Lead	0.196	ug/L					03-JAN-10 14:56	100103-3
	Molybdenum	2050	ug/L	2000	ug/L	102	80.0 - 120.0	03-JAN-10 14:56	100103-3
	Nickel	3.03	ug/L					03-JAN-10 14:56	100103-3
	Selenium	-0.63	ug/L					03-JAN-10 14:56	100103-3
	Silver	0.103	ug/L					03-JAN-10 14:56	100103-3
	Uranium	-0.003	ug/L					03-JAN-10 14:56	100103-3
ICSAB01									
	Antimony	20.7	ug/L	20.1	ug/L	103	80.0 - 120.0	03-JAN-10 15:02	100103-3
	Arsenic	21.1	ug/L	20	ug/L	105	80.0 - 120.0	03-JAN-10 15:02	100103-3
	Cadmium	19.9	ug/L	20.4	ug/L	97.4	80.0 - 120.0	03-JAN-10 15:02	100103-3
	Chromium	25.0	ug/L	23.7	ug/L	105	80.0 - 120.0	03-JAN-10 15:02	100103-3
	Lead	21.6	ug/L	20.5	ug/L	105	80.0 - 120.0	03-JAN-10 15:02	100103-3
	Molybdenum	2040	ug/L	2000	ug/L	102	80.0 - 120.0	03-JAN-10 15:02	100103-3
	Nickel	22.7	ug/L	22.7	ug/L	99.9	80.0 - 120.0	03-JAN-10 15:02	100103-3
	Selenium	20.7	ug/L	20	ug/L	103	80.0 - 120.0	03-JAN-10 15:02	100103-3
	Silver	20.0	ug/L	20	ug/L	99.9	80.0 - 120.0	03-JAN-10 15:02	100103-3
	Uranium	22.3	ug/L	20	ug/L	111	80.0 - 120.0	03-JAN-10 15:02	100103-3

METALS
-4-
Interference Check Sample

SDG No: 10-953

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Thallium	0.003	ug/L					05-JAN-10 10:28	100105-4
ICSAB01									
	Thallium	21.8	ug/L	20	ug/L	109	80.0 - 120.0	05-JAN-10 10:32	100105-4

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–953 **Client ID** CAPA–10–6817S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 243104001 **Spike ID:** 1202000261

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75–125	2.05		0.066	U	2	102		AV

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–953 **Client ID** CAPA–10–6817S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 243104001 **Spike ID:** 1202000551

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75–125	4820		68	U	5000	96		P
Barium	ug/L	75–125	521		30.7		500	98.1		P
Beryllium	ug/L	75–125	488		1	U	500	97.5		P
Boron	ug/L	75–125	490		21.6	J	500	93.6		P
Calcium	ug/L	75–125	19000		14000		5000	98.4		P
Cobalt	ug/L	75–125	476		1	U	500	95.1		P
Copper	ug/L	75–125	494		3	U	500	98.8		P
Iron	ug/L	75–125	5010		30	U	5000	100		P
Magnesium	ug/L	75–125	8820		3800		5000	100		P
Manganese	ug/L	75–125	504		12.2		500	98.3		P
Potassium	ug/L	75–125	6600		1750		5000	97.1		P
Silica	mg/L		69.3		59.4		10.7	92.5	N/A	P
Sodium	ug/L	75–125	18800		13100		5000	114		P
Strontium	ug/L	75–125	566		73.1		500	98.6		P
Tin	ug/L	75–125	492		12.5	U	500	98.4		P
Vanadium	ug/L	75–125	500		6.75		500	98.6		P
Zinc	ug/L	75–125	478		3.3	U	500	95.2		P

METALS
--5a--

Matrix Spike Summary

SDG NO. 10–953 **Client ID** CAPA–10–6817S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 243104001 **Spike ID:** 1202000558

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75–125	192		0.5	U	200	96		MS
Arsenic	ug/L	75–125	77.6		1.5	U	80	96.2		MS
Cadmium	ug/L	75–125	10.4		0.11	U	10	104		MS
Chromium	ug/L	75–125	49.8		2.5	U	50	96.7		MS
Lead	ug/L	75–125	43.6		0.5	U	40	109		MS
Molybdenum	ug/L	75–125	54.2		5.34		50	97.7		MS
Nickel	ug/L	75–125	49.8		2.28		50	95		MS
Selenium	ug/L	75–125	21		1	U	20	101		MS
Silver	ug/L	75–125	50.8		0.2	U	50	102		MS
Thallium	ug/L	75–125	87.3		0.3	U	100	87.1		MS
Uranium	ug/L	75–125	51.6		0.754		50	102		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–953

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAPA–10–6817D

Sample ID: 243104001 **Duplicate ID:** 1202000260 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–953

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAPA–10–6817D

Sample ID: 243104001 **Duplicate ID:** 1202000550 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L		68	U	68	U			P
Barium	ug/L	+/–20%	30.7		30.7		.12		P
Beryllium	ug/L		1	U	1	U			P
Boron	ug/L	+/–50	21.6	J	19.9	J	8.06		P
Calcium	ug/L	+/–20%	14000		13800		1.3		P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L		30	U	30	U			P
Magnesium	ug/L	+/–20%	3800		3660		3.84		P
Manganese	ug/L	+/–10	12.2		12		1.52		P
Potassium	ug/L	+/–20%	1750		1710		2.54		P
Silica	mg/L	+/–20%	59.4		59.3		.11		P
Sodium	ug/L	+/–20%	13100		13100		.511		P
Strontium	ug/L	+/–20%	73.1		72.5		.777		P
Tin	ug/L		12.5	U	12.5	U			P
Vanadium	ug/L	+/–5	6.75		6.18		8.81		P
Zinc	ug/L		3.3	U	3.3	U			P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–953

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAPA–10–6817D

Sample ID: 243104001 **Duplicate ID:** 1202000557 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		0.5	U	0.5	U			MS
Arsenic	ug/L		1.5	U	1.5	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Chromium	ug/L		2.5	U	2.5	U			MS
Lead	ug/L		0.5	U	0.5	U			MS
Molybdenum	ug/L	+/–20%	5.34		5.31		.638		MS
Nickel	ug/L	+/–2	2.28		2.37		4.26		MS
Selenium	ug/L		1	U	1	U			MS
Silver	ug/L		0.2	U	0.2	U			MS
Thallium	ug/L		0.3	U	0.3	U			MS
Uranium	ug/L	+/–.2	0.754		0.763		1.19		MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-953

Contract: ESHL01000

Aqueous LCS Source: GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202000259								
	Mercury	ug/L	2	2.13		107	85-115	AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–953

Contract: ESHL01000

Aqueous LCS Source:OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202000549								
	Aluminum	ug/L	5000	4840		96.7	80–120	P
	Barium	ug/L	500	497		99.4	80–120	P
	Beryllium	ug/L	500	486		97.2	80–120	P
	Boron	ug/L	500	483		96.6	80–120	P
	Calcium	ug/L	5000	4860		97.2	80–120	P
	Cobalt	ug/L	500	476		95.2	80–120	P
	Copper	ug/L	500	488		97.7	80–120	P
	Iron	ug/L	5000	4920		98.3	80–120	P
	Magnesium	ug/L	5000	4960		99.1	80–120	P
	Manganese	ug/L	500	494		98.9	80–120	P
	Potassium	ug/L	5000	4780		95.7	80–120	P
	Silica	mg/L	10.7	10.1		94.4	80–120	P
	Sodium	ug/L	5000	4960		99.2	80–120	P
	Strontium	ug/L	500	491		98.3	80–120	P
	Tin	ug/L	500	500		99.9	80–120	P
	Vanadium	ug/L	500	494		98.9	80–120	P
	Zinc	ug/L	500	478		95.5	80–120	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–953

Contract: ESHL01000

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202000556								
	Antimony	ug/L	50	49.2		98.4	80–120	MS
	Arsenic	ug/L	50	48.4		96.9	80–120	MS
	Cadmium	ug/L	50	49.8		99.6	80–120	MS
	Chromium	ug/L	50	50.2		100	80–120	MS
	Lead	ug/L	50	52.6		105	80–120	MS
	Molybdenum	ug/L	50	48.8		97.6	80–120	MS
	Nickel	ug/L	50	51.1		102	80–120	MS
	Selenium	ug/L	50	51		102	80–120	MS
	Silver	ug/L	50	51.9		104	80–120	MS
	Thallium	ug/L	50	46		91.9	80–120	MS
	Uranium	ug/L	50	50.7		101	80–120	MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-953 **Client ID** CAPA-10-6817L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 243104001 **Serial Dilution ID:** 1202000262

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–953 **Client ID** CAPA–10–6817L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 243104001 **Serial Dilution ID:** 1202000552

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	68	U	340	U				P
Barium	30.7		31.7		3.26			P
Beryllium	1	U	5	U				P
Boron	21.6	J	75	U	100			P
Calcium	14000		14200		1.07		10	P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	30	U	150	U				P
Magnesium	3800		3590		5.66			P
Manganese	12.2		11.3	J	7.79			P
Potassium	1750		1610		8			P
Silica	59400		59000		.673		10	P
Sodium	13100		13900		6.11		10	P
Strontium	73.1		76.5		4.65		10	P
Tin	2.5	U	12.5	U				P
Vanadium	6.75		14.1	J	109			P
Zinc	3.3	U	16.5	U				P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–953 **Client ID** CAPA–10–6817L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 243104001 **Serial Dilution ID:** 1202000559

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	.5	U	2.5	U				MS
Arsenic	1.5	U	7.5	U				MS
Cadmium	.11	U	.55	U				MS
Chromium	2.5	U	12.5	U				MS
Lead	.5	U	2.5	U				MS
Molybdenum	5.34		5.1		4.49			MS
Nickel	2.28		2.5	U	100			MS
Selenium	1	U	5	U				MS
Silver	.2	U	1	U				MS
Thallium	.3	U	1.69	J				MS
Uranium	.754		.725	J	3.85			MS

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–953 **Method Type:** P

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 935026							
1202000548	MB for batch 935026	MB	G	21–DEC–09	50mL	50mL	
1202000549	LCS for batch 935026	LCS	G	21–DEC–09	50mL	50mL	
1202000551	CAPA–10–6817S	MS	G	21–DEC–09	50mL	50mL	
1202000550	CAPA–10–6817D	DUP	G	21–DEC–09	50mL	50mL	
243104001	CAPA–10–6817	SAMPLE	G	21–DEC–09	50mL	50mL	
243104002	CAPA–10–6818	SAMPLE	G	21–DEC–09	50mL	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–953 **Method Type:** MS

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	935028						
1202000555	MB for batch 935028	MB	G	21–DEC–09	50mL	50mL	
1202000556	LCS for batch 935028	LCS	G	21–DEC–09	50mL	50mL	
1202000558	CAPA–10–6817S	MS	G	21–DEC–09	50mL	50mL	
1202000557	CAPA–10–6817D	DUP	G	21–DEC–09	50mL	50mL	
243104001	CAPA–10–6817	SAMPLE	G	21–DEC–09	50mL	50mL	
243104002	CAPA–10–6818	SAMPLE	G	21–DEC–09	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-953 **Method Type:** AV

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 934914							
1202000258	MB for batch 934914	MB	G	30-DEC-09	20mL	20mL	
1202000259	LCS for batch 934914	LCS	G	30-DEC-09	20mL	20mL	
1202000261	CAPA-10-6817S	MS	G	30-DEC-09	20mL	20mL	
1202000260	CAPA-10-6817D	DUP	G	30-DEC-09	20mL	20mL	
243104001	CAPA-10-6817	SAMPLE	G	30-DEC-09	20mL	20mL	
243104002	CAPA-10-6818	SAMPLE	G	30-DEC-09	20mL	20mL	

Metals
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Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 03–JAN–10
End Date: 03–JAN–10
Client Sdg: 10–953
Method MS
Data File: 100103–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	14:20		X	X				X		X					X				X	X		X		X					X		
S10	1	14:26		X	X				X		X					X				X	X		X		X					X		
S100	1	14:32		X	X				X		X					X				X	X		X		X					X		
ICV01	1	14:38		X	X				X		X					X				X	X		X		X					X		
ICB01	1	14:44		X	X				X		X					X				X	X		X		X					X		
CRDL01	1	14:50		X	X				X		X					X				X	X		X		X					X		
ICSA01	1	14:56		X	X				X		X					X				X	X		X		X					X		
ICSAB01	1	15:02		X	X				X		X					X				X	X		X		X					X		
CCV01	1	15:09		X	X				X		X					X				X	X		X		X					X		
CCB01	1	15:15		X	X				X		X					X				X	X		X		X					X		
LR01	1	15:21		X	X				X		X					X				X	X		X		X					X		
CCV02	1	15:27		X	X				X		X					X				X	X		X		X					X		
CCB02	1	15:33		X	X				X		X					X				X	X		X		X					X		
ZZZZZZ	1	15:39																														
ZZZZZZ	1	15:45																														
ZZZZZZ	1	15:51																														
ZZZZZZ	1	15:58																														
ZZZZZZ	1	16:04																														
ZZZZZZ	5	16:10																														
CCV03	1	16:16		X	X				X		X					X				X	X		X		X					X		
CCB03	1	16:22		X	X				X		X					X				X	X		X		X					X		
1202000555	1	16:28		X	X				X		X					X				X	X		X		X					X		
1202000556	1	16:35		X	X				X		X					X				X	X		X		X					X		
243104001	1	16:41		X	X				X		X					X				X	X		X		X					X		
1202000557	1	16:47		X	X				X		X					X				X	X		X		X					X		
1202000558	1	16:53		X	X				X		X					X				X	X		X		X					X		
1202000559	5	16:59		X	X				X		X					X				X	X		X		X					X		
243104002	1	17:05		X	X				X		X					X				X	X		X		X					X		
CCV04	1	17:12		X	X				X		X					X				X	X		X		X					X		
CCB04	1	17:18		X	X				X		X					X				X	X		X		X					X		

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 05–JAN–10 **End Date:** 05–JAN–10

Client Sdg: 10–953
Method MS
Data File: 100105–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	10:01																										X				
S10	1	10:05																										X				
S100	1	10:10																										X				
ICV01	1	10:14																										X				
ICB01	1	10:19																										X				
CRDL01	1	10:23																										X				
ICSA01	1	10:28																										X				
ICSAB01	1	10:32																										X				
CCV01	1	10:37																										X				
CCB01	1	10:41																										X				
1202000555	1	10:46																										X				
1202000556	1	10:50																										X				
243104001	1	10:55																										X				
1202000557	1	10:59																										X				
1202000558	1	11:04																										X				
1202000559	5	11:08																										X				
243104002	1	11:13																										X				
CCV02	1	11:17																										X				
CCB02	1	11:22																										X				

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 04–JAN–10 **End Date:** 04–JAN–10

Client Sdg: 10–953
Method P
Data File: 010410A–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	07:50	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
S0.1	1	07:57				X	X	X				X	X					X				X		X			X		X		X	X
S0.5	1	08:03	X			X	X	X		X		X	X				X	X				X		X			X		X		X	X
SCAL	1	08:10	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
S10	1	08:17	X							X					X		X									X						
ICV01	1	08:22	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ICB01	1	08:29	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
PQL01	1	08:36	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ICSA01	1	08:43	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ICSAB01	1	08:49	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
LR01	1	08:54	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
LR02	1	09:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCV01	1	09:07	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB01	1	09:14	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
LR03	1	09:21	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCV02	1	09:28	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB02	1	09:35	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	09:48																														
ZZZZZZ	1	09:55																														
ZZZZZZ	1	10:02																														
ZZZZZZ	1	10:09																														
ZZZZZZ	1	10:15																														
ZZZZZZ	1	10:22																														
ZZZZZZ	1	10:29																														
CCV03	1	10:36	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB03	1	10:43	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	10:51																														
ZZZZZZ	1	10:58																														
ZZZZZZ	1	11:05																														
ZZZZZZ	1	11:12																														
ZZZZZZ	1	11:19																														
ZZZZZZ	5	11:26																														
ZZZZZZ	5	11:32																														
ZZZZZZ	5	11:39																														
ZZZZZZ	5	11:46																														
ZZZZZZ	25	11:53																														
CCV04	1	11:59	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB04	1	12:06	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	12:16																														
ZZZZZZ	1	12:22																														

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																													
ZZZZZZ	1	12:29																													
ZZZZZZ	1	12:36																													
ZZZZZZ	1	12:43																													
ZZZZZZ	1	12:50																													
ZZZZZZ	5	12:57																													
ZZZZZZ	1	13:03																													
CCV05	1	13:10	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB05	1	13:17	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	13:23																													
ZZZZZZ	1	13:30																													
ZZZZZZ	1	13:37																													
ZZZZZZ	1	13:43																													
ZZZZZZ	1	13:50																													
ZZZZZZ	5	13:57																													
CCV06	1	14:04	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB06	1	14:11	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCV07	1	14:29	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB07	1	14:36	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	14:43																													
ZZZZZZ	1	14:49																													
ZZZZZZ	1	14:56																													
ZZZZZZ	1	15:03																													
ZZZZZZ	1	15:10																													
ZZZZZZ	1	15:17																													
ZZZZZZ	1	15:24																													
ZZZZZZ	5	15:31																													
CCV08	1	15:38	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB08	1	15:45	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	15:51																													
ZZZZZZ	1	15:58																													
ZZZZZZ	1	16:05																													
ZZZZZZ	1	16:12																													
ZZZZZZ	1	16:19																													
ZZZZZZ	5	16:25																													
ZZZZZZ	1	16:32																													
CCV09	1	16:39	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB09	1	16:46	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
1202000548	1	16:53	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
1202000549	1	17:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
243104001	1	17:07	X			X	X	X		X		X	X		X		X	X				X		X		X	X				X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
1202000550	1	17:14	X			X	X	X		X		X	X		X		X	X				X		X		X	X				X	X
1202000551	1	17:21	X			X	X	X		X		X	X		X		X	X				X		X		X	X				X	X
1202000552	5	17:27	X			X	X	X		X		X	X		X		X	X				X		X		X	X				X	X
243104002	1	17:34	X			X	X	X		X		X	X		X		X	X				X				X	X				X	X
CCV10	1	17:41	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB10	1	17:48	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 29–DEC–09 **End Date:** 29–DEC–09

Client Sdg: 10–953
Method P
Data File: 122909A–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	08:35																											X			
S0.1	1	08:42																											X			
S0.5	1	08:48																											X			
SCAL	1	08:55																											X			
S10	1	09:02																														
ICV01	1	09:08																											X			
ICB01	1	09:14																											X			
PQL01	1	09:21																											X			
ICSA01	1	09:28																											X			
ICSAB01	1	09:34																											X			
LR01	1	09:40																											X			
LR02	1	09:46																											X			
CCV01	1	09:52																											X			
CCB01	1	09:59																											X			
ZZZZZZ	1	10:18																														
ZZZZZZ	1	10:25																														
ZZZZZZ	1	10:32																														
ZZZZZZ	1	10:39																														
ZZZZZZ	1	10:46																														
ZZZZZZ	5	10:53																														
CCV02	1	11:00																											X			
CCB02	1	11:07																											X			
ZZZZZZ	1	11:15																														
ZZZZZZ	1	11:22																														
ZZZZZZ	1	11:30																														
ZZZZZZ	1	11:37																														
ZZZZZZ	1	11:44																														
ZZZZZZ	1	11:51																														
ZZZZZZ	1	11:58																														
ZZZZZZ	1	12:05																														
ZZZZZZ	5	12:12																														
CCV03	1	12:19																											X			
PQL02	1	12:26																											X			
CCB03	1	12:33																											X			
ZZZZZZ	1	12:40																														
ZZZZZZ	1	12:47																														
ZZZZZZ	1	12:53																														
ZZZZZZ	1	13:00																														
ZZZZZZ	1	13:07																														
ZZZZZZ	1	13:14																														

Metals
–14–
Analysis Run Log

| Samp No. | D/F | Run Time | | |

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
ZZZZZZ	1	18:07																														
ZZZZZZ	1	18:14																														
ZZZZZZ	1	18:21																														
ZZZZZZ	1	18:28																														
ZZZZZZ	1	18:35																														
ZZZZZZ	5	18:42																														
CCV09	1	18:49																											X			
CCB09	1	18:55																											X			
ZZZZZZ	1	19:02																														
ZZZZZZ	1	19:09																														
ZZZZZZ	1	19:16																														
ZZZZZZ	1	19:23																														
ZZZZZZ	1	19:30																														
ZZZZZZ	5	19:37																														
CCV10	1	19:44																											X			
CCB10	1	19:51																											X			
ZZZZZZ	1	19:58																														
ZZZZZZ	1	20:05																														
ZZZZZZ	1	20:12																														
ZZZZZZ	1	20:19																														
ZZZZZZ	1	20:26																														
ZZZZZZ	5	20:33																														
ZZZZZZ	1	20:40																														
CCV11	1	20:47																											X			
CCB11	1	20:54																											X			
ZZZZZZ	1	21:01																														
ZZZZZZ	1	21:08																														
ZZZZZZ	1	21:15																														
ZZZZZZ	1	21:22																														
ZZZZZZ	1	21:28																														
ZZZZZZ	5	21:35																														
CCV12	1	21:42																											X			
CCB12	1	21:49																											X			
ZZZZZZ	1	21:56																														
243104001	5	22:03																											X			
1202000550	5	22:10																											X			
1202000551	5	22:17																											X			
1202000552	25	22:23																											X			
243104002	5	22:30																											X			
CCV13	1	22:37																											X			

Metals
–14–
Analysis Run Log

| Samp No. | D/F | Run Time | | |

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: HG3
Start Date: 31–DEC–09 **End Date:** 31–DEC–09

Client Sdg: 10–953
Method AV
Data File: 123109W1–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	08:59																	X													
S0.2	1	09:01																	X													
S0.5	1	09:03																	X													
S2.0	1	09:05																	X													
S5.0	1	09:07																	X													
S10.0	1	09:09																	X													
ICV01	1	09:11																	X													
ICB01	1	09:13																	X													
CRDL01	1	09:14																	X													
CCV01	1	09:16																	X													
CCB01	1	09:18																	X													
ZZZZZZ	1	09:20																														
ZZZZZZ	1	09:22																														
ZZZZZZ	1	09:24																														
ZZZZZZ	1	09:26																														
ZZZZZZ	1	09:28																														
ZZZZZZ	5	09:30																														
1202000258	1	09:32																	X													
1202000259	1	09:34																	X													
ZZZZZZ	1	09:36																														
ZZZZZZ	1	09:37																														
CCV02	1	09:39																	X													
CCB02	1	09:41																	X													
ZZZZZZ	1	09:43																														
ZZZZZZ	1	09:45																														
ZZZZZZ	1	09:47																														
ZZZZZZ	1	09:49																														
ZZZZZZ	1	09:51																														
ZZZZZZ	1	09:53																														
243104001	1	09:55																	X													
1202000260	1	09:57																	X													
1202000261	1	09:59																	X													
1202000262	5	10:01																	X													
CCV03	1	10:02																	X													
CCB03	1	10:04																	X													
243104002	1	10:06																	X													
ZZZZZZ	1	10:08																														
ZZZZZZ	1	10:10																														
ZZZZZZ	1	10:12																														
ZZZZZZ	1	10:14																														

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																														
ZZZZZZ	1	10:16																														
ZZZZZZ	1	10:18																														
ZZZZZZ	1	10:20																														
ZZZZZZ	1	10:22																														
ZZZZZZ	1	10:24																														
CCV04	1	10:26															X															
CCB04	1	10:27															X															

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–953

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01–FEB–09

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		10.0	30
	Antimony		0.5	3
	Arsenic		1.5	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.11	1
	Calcium		20.0	200
	Chromium		2.5	10
	Cobalt		0.1	1
	Copper		0.3	1
	Iron		10.0	100
	Lead		0.5	2
	Magnesium		5.0	15
	Manganese		1.0	5
	Molybdenum		0.1	.5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Strontium		2.0	10
	Thallium		0.3	1
	Tin		1.0	5
	Uranium		0.05	.2
	Vanadium		3.0	10
	Zinc		2.6	10

METALS
-10-
Instrument Detection Limits

SDG NO. 10-953

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
MERCURY				
LIQUID	Mercury		0.066	.2

METALS
-10-
Instrument Detection Limits

SDG NO. 10-953

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01-JUL-09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	15.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Molybdenum	202.031	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silica		53.0	213
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Strontium	421.552	1.0	5
	Thallium	190.801	5.0	20
	Tin	189.927	2.5	10
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-953
Effective Dates: 01-NOV-09

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02738	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.44940	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.22121	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.33886	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	-0.13648	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05571	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.19671	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-0.02739	0.00000	0.00000	0.00000	0.00000
Tin	189.927	-0.00058	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10-953
Contract: ESHL01000
Instrument: OPTIMA3 **Effective Dates:** 01-NOV-09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	24.5549	0.00000	0.00000
Arsenic	188.979	0.52529	0.00000	-0.67113	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.54031	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.38952	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-31.5465	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.78023
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.63859	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	160.41
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.22870	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.35099	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.93161	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.39273	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.19810

METALS
–11–
Interelement Correction Factors

Lab Code: GEL **GEL Job No:** 10–953
Contract: ESHL01000
Instrument: OPTIMA3 **Effective Dates:** 01–NOV–09
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	42.8126
Antimony	206.836	–0.01635	0.00000	0.00000	0.00000	–22.2146
Arsenic	188.979	–0.21271	0.00000	0.00000	0.00000	1.34645
Barium	233.527	–0.03709	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.13266	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.09998	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	–0.01788	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01425	0.00000	0.00000	0.00000	–2.64232
Copper	324.752	–0.05101	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09069	0.00000	0.00000	0.00000	–2.44485
Magnesium	279.077	0.85543	0.00000	0.00000	0.00000	–20.2401
Manganese	257.61	–0.09972	0.00000	0.01862	0.00000	0.00000
Molybdenum	202.031	–0.07094	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80633	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	–0.03176	0.00000	0.01823	12.4291	–3.60863
Selenium	196.026	–3.00009	0.00000	0.00000	0.00000	–3.17982
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	17.4444
Silver	328.068	–0.31825	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	–5.85948	0.00000
Tin	189.927	–0.01337	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.12581	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.15211	0.00000	–0.02256	0.00000	–14.2921
Zinc	213.857	0.09548	0.00000	0.03423	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-953
Effective Dates: 01-NOV-09

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silicon
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	-0.64279	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.44040	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.33191	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.38465	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-953
Effective Dates: 01-NOV-09

Parmname	Wavelength	Silver	Strontium	Sulfur	Thallium	Tin
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	-17.4077
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	-13.8713
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	3.10491
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-953
Effective Dates: 01-NOV-09

Parmname	Wavelength	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	2.73145	0.00000	-2.31857	0.00000
Arsenic	188.979	-8.38419	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	-2.24883	0.00000
Beryllium	313.107	-1.96555	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.32181	-1.76281	0.00000
Cobalt	228.616	2.12623	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.85359	-3.92851	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	-7.67419	0.00000	2.18873	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.44145	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	1.10141	-1.94183	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000

METALS
-12-
Linear Ranges

SDG NO. 10-953

Contract: ESHL01000 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01-NOV-09
Antimony	1000	250	ug/L	01-NOV-09
Arsenic	1000	1000	ug/L	01-NOV-09
Barium	1000	1000	ug/L	01-NOV-09
Beryllium	1000	1000	ug/L	01-NOV-09
Boron	1000	200	ug/L	01-NOV-09
Cadmium	1000	1000	ug/L	01-NOV-09
Calcium	500	50000	ug/L	01-NOV-09
Chromium	1000	1000	ug/L	01-NOV-09
Cobalt	1000	1000	ug/L	01-NOV-09
Copper	1000	1000	ug/L	01-NOV-09
Iron	500	50000	ug/L	01-NOV-09
Lead	1000	5000	ug/L	01-NOV-09
Magnesium	1	50000	ug/L	01-NOV-09
Manganese	1000	1000	ug/L	01-NOV-09
Molybdenum	1000	1000	ug/L	01-NOV-09
Nickel	1000	1000	ug/L	01-NOV-09
Potassium	1	50000	ug/L	01-NOV-09
Selenium	1000	500	ug/L	01-NOV-09
Silver	1000	250	ug/L	01-NOV-09
Sodium	1	50000	ug/L	01-NOV-09
Strontium	1000	1000	ug/L	01-NOV-09
Thallium	1000	500	ug/L	01-NOV-09
Tin	1000	1000	ug/L	01-NOV-09
Uranium	1000	5000	ug/L	01-NOV-09
Vanadium	1000	100	ug/L	01-NOV-09
Zinc	1000	2500	ug/L	01-NOV-09

METALS
–12–
Linear Ranges

SDG NO. 10–953

Contract: ESHL01000 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–NOV–09
Antimony	20	10000	ug/L	01–NOV–09
Arsenic	20	10000	ug/L	01–NOV–09
Barium	20	15000	ug/L	01–NOV–09
Beryllium	20	3000	ug/L	01–NOV–09
Boron	20	5000	ug/L	01–NOV–09
Cadmium	20	10000	ug/L	01–NOV–09
Calcium	20	500000	ug/L	01–NOV–09
Chromium	20	25000	ug/L	01–NOV–09
Cobalt	20	10000	ug/L	01–NOV–09
Copper	20	20000	ug/L	01–NOV–09
Iron	20	500000	ug/L	01–NOV–09
Lead	20	25000	ug/L	01–NOV–09
Magnesium	20	500000	ug/L	01–NOV–09
Manganese	20	10000	ug/L	01–NOV–09
Molybdenum	20	10000	ug/L	01–NOV–09
Nickel	20	10000	ug/L	01–NOV–09
Potassium	20	300000	ug/L	01–NOV–09
Selenium	20	10000	ug/L	01–NOV–09
Silica	20	107000	ug/L	01–NOV–09
Sodium	20	500000	ug/L	01–NOV–09
Strontium	20	10000	ug/L	01–NOV–09
Thallium	20	10000	ug/L	01–NOV–09
Tin	20	10000	ug/L	01–NOV–09
Uranium	20	15000	ug/L	01–NOV–09
Vanadium	20	10000	ug/L	01–NOV–09
Zinc	20	15000	ug/L	01–NOV–09
Silver	20	1000	ug/L	01–NOV–09

Raw Data

Calculation Data Logbook

Report run on: January 15, 2010 11:18 AM

Batch Id: 939895 **Sop:** GL-GC-E-107
Employee: Jamie Johnson
Instrument: No instrument-calculation method

Samp Id	Sample Type	Parmname	Run Date	Calcium mg/L	Magnesium mg/L	Result	Units
242934001	SAMPLE	Hardness as CaCO3	08-JAN-2010 15:42	47.2	13.5	173	mg/L
242934002	SAMPLE	Hardness as CaCO3	08-JAN-2010 15:42	46.7	13.4	172	mg/L
243009001	SAMPLE	Hardness as CaCO3	08-JAN-2010 15:42	2.62	0.972	10.5	mg/L
243009002	SAMPLE	Hardness as CaCO3	08-JAN-2010 15:42	3.34	2.13	17.1	mg/L
243009003	SAMPLE	Hardness as CaCO3	08-JAN-2010 15:42	2.63	1.06	10.9	mg/L
243009004	SAMPLE	Hardness as CaCO3	08-JAN-2010 15:42	3.31	1.92	16.2	mg/L
243014001	SAMPLE	Hardness as CaCO3	08-JAN-2010 15:42	8.94	2.39	32.2	mg/L
243014002	SAMPLE	Hardness as CaCO3	08-JAN-2010 15:42	9.06	2.37	32.4	mg/L
243104001	SAMPLE	Hardness as CaCO3	08-JAN-2010 15:42	14.0	3.80	50.7	mg/L
243104002	SAMPLE	Hardness as CaCO3	08-JAN-2010 15:42	13.9	3.74	50.0	mg/L

Calculation: **(2.497 * Calcium) + (4.118 * Magnesium)**

Method: Hg_ReAlign
Result: 011510

Sample ID: Hg_ReAlign

Hg 253.652

Rep: 1

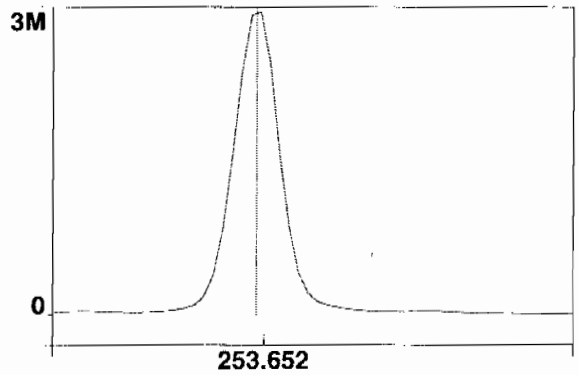

Intensity: 3392963.2 cps
Conc:

1

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Reprocessing Begun
Logged In Analyst: Optima3 **Technique: ICP Continuous**

Results Data Set (original): 122909
Results Library (original): C:\pe\Optima3\Results\Results.mdb
Results Data Set (reprocessed): 122909A
Results Library (reprocessed): C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 12/29/2009 10:08:09**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 12/29/2009 08:35:23**
Analyst: **Data Type: Reprocessed on 12/29/2009 10:09:24**
Logged In Analyst (Original) : Optima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	928875.4	928875.4	98.948	%	08:38:33
1	Sc Radial	4976.6	4976.6	101	%	08:37:16
1	Y 371.029	810124.9	810124.9	99.023	%	08:38:33
1	Y RADIAL	5325.9	5325.9	100.4	%	08:37:16
1	Ag 328.068†	478.0	483.0	[0.00]	ug/L	08:38:38

1	Al 396.153Radial†	-27.1	-27.0	[0.00]	ug/L	08:37:16
1	As 188.979†	-42.5	-42.9	[0.00]	ug/L	08:38:58
1	B 249.677†	-461.7	-466.6	[0.00]	ug/L	08:38:38
1	Ba 233.527†	18.9	19.1	[0.00]	ug/L	08:38:58
1	Be 313.107†	-4701.2	-4751.2	[0.00]	ug/L	08:38:38
1	Ca 317.933Radial†	20.9	20.7	[0.00]	ug/L	08:37:36
1	Cd 226.502†	-251.6	-254.2	[0.00]	ug/L	08:38:58
1	Co 228.616†	-94.4	-95.4	[0.00]	ug/L	08:38:58
1	Cr 267.716†	150.9	152.5	[0.00]	ug/L	08:38:38
1	Cu 324.752†	8454.6	8544.4	[0.00]	ug/L	08:38:38
1	Fe 238.204 Radial†	12.3	12.2	[0.00]	ug/L	08:37:36
1	K 766.490 Radial†	3320.2	3299.6	[0.00]	ug/L	08:37:16
1	Mg 279.077 IEC†	2.2	2.2	[0.00]	ug/L	08:37:36
1	Mn 257.610†	626.3	632.9	[0.00]	ug/L	08:38:38
1	Mo 202.031†	30.0	30.3	[0.00]	ug/L	08:38:58
1	Na 589.592 Radial†	-1796.2	-1785.0	[0.00]	ug/L	08:37:16
1	Ni 231.604†	140.2	141.7	[0.00]	ug/L	08:38:58
1	P 214.914†	269.9	272.7	[0.00]	ug/L	08:38:58
1	Pb 220.353†	-73.0	-73.8	[0.00]	ug/L	08:38:58
1	S 181.975 Axial†	65.9	66.6	[0.00]	ug/L	08:38:58
1	Sb 206.836†	40.8	41.2	[0.00]	ug/L	08:38:58
1	Se 196.026†	-36.6	-36.9	[0.00]	ug/L	08:38:58
1	Si 251.611†	736.2	744.0	[0.00]	ug/L	08:38:58
1	Sn 189.927†	3.8	3.9	[0.00]	ug/L	08:38:58
1	Sr 421.552†	21.2	21.1	[0.00]	ug/L	08:37:16
1	Ti 334.940†	-1706.2	-1724.3	[0.00]	ug/L	08:38:38
1	Tl 190.801†	-57.1	-57.7	[0.00]	ug/L	08:38:58
1	U 409.014†	-2956.4	-2987.8	[0.00]	ug/L	08:38:33
1	V 292.402†	-1792.4	-1811.4	[0.00]	ug/L	08:38:38
1	Zn 213.857†	917.0	926.8	[0.00]	ug/L	08:38:58
1	SiO2†	795.2	803.7	[0.00]	ug/L	08:40:04
2	Sc 361.383	946946.0	946946.0	100.87	%	08:39:03
2	Sc Radial	4832.6	4832.6	97.7	%	08:37:41
2	Y 371.029	825185.2	825185.2	100.86	%	08:39:03
2	Y RADIAL	5182.3	5182.3	97.69	%	08:37:41
2	Ag 328.068†	462.7	458.7	[0.00]	ug/L	08:39:08
2	Al 396.153Radial†	-13.8	-14.1	[0.00]	ug/L	08:37:41
2	As 188.979†	-27.8	-27.6	[0.00]	ug/L	08:39:28
2	B 249.677†	-337.4	-334.4	[0.00]	ug/L	08:39:08
2	Ba 233.527†	31.9	31.6	[0.00]	ug/L	08:39:28
2	Be 313.107†	-4695.3	-4654.7	[0.00]	ug/L	08:39:08
2	Ca 317.933Radial†	18.0	18.5	[0.00]	ug/L	08:38:01
2	Cd 226.502†	-265.9	-263.6	[0.00]	ug/L	08:39:28
2	Co 228.616†	-96.9	-96.0	[0.00]	ug/L	08:39:28
2	Cr 267.716†	132.7	131.5	[0.00]	ug/L	08:39:08
2	Cu 324.752†	8466.0	8392.8	[0.00]	ug/L	08:39:08
2	Fe 238.204 Radial†	13.6	14.0	[0.00]	ug/L	08:38:01
2	K 766.490 Radial†	3321.8	3399.5	[0.00]	ug/L	08:37:41
2	Mg 279.077 IEC†	5.0	5.1	[0.00]	ug/L	08:38:01
2	Mn 257.610†	654.8	649.1	[0.00]	ug/L	08:39:08
2	Mo 202.031†	28.2	27.9	[0.00]	ug/L	08:39:28
2	Na 589.592 Radial†	-1794.7	-1836.7	[0.00]	ug/L	08:37:41
2	Ni 231.604†	130.8	129.6	[0.00]	ug/L	08:39:28
2	P 214.914†	277.1	274.7	[0.00]	ug/L	08:39:28
2	Pb 220.353†	-91.2	-90.4	[0.00]	ug/L	08:39:28
2	S 181.975 Axial†	54.7	54.3	[0.00]	ug/L	08:39:28
2	Sb 206.836†	42.8	42.5	[0.00]	ug/L	08:39:28
2	Se 196.026†	-29.4	-29.2	[0.00]	ug/L	08:39:28
2	Si 251.611†	742.3	735.8	[0.00]	ug/L	08:39:28
2	Sn 189.927†	-0.5	-0.5	[0.00]	ug/L	08:39:28
2	Sr 421.552†	15.8	16.1	[0.00]	ug/L	08:37:41
2	Ti 334.940†	-1691.3	-1676.7	[0.00]	ug/L	08:39:08
2	Tl 190.801†	-42.0	-41.6	[0.00]	ug/L	08:39:28
2	U 409.014†	-2884.2	-2859.2	[0.00]	ug/L	08:39:03
2	V 292.402†	-1831.9	-1816.1	[0.00]	ug/L	08:39:08
2	Zn 213.857†	917.5	909.6	[0.00]	ug/L	08:39:28
2	SiO2†	743.3	736.9	[0.00]	ug/L	08:40:09
3	Sc 361.383	940434.2	940434.2	100.18	%	08:39:33
3	Sc Radial	5027.7	5027.7	102	%	08:38:06
3	Y 371.029	819038.7	819038.7	100.11	%	08:39:33
3	Y RADIAL	5406.5	5406.5	101.9	%	08:38:06

3	Ag 328.068†	455.9	455.1	[0.00] ug/L	08:39:38
3	Al 396.153Radial†	-23.3	-22.9	[0.00] ug/L	08:38:06
3	As 188.979†	-34.0	-34.0	[0.00] ug/L	08:39:58
3	B 249.677†	-387.8	-387.1	[0.00] ug/L	08:39:38
3	Ba 233.527†	9.6	9.6	[0.00] ug/L	08:39:58
3	Be 313.107†	-4706.6	-4698.2	[0.00] ug/L	08:39:38
3	Ca 317.933Radial†	25.6	25.1	[0.00] ug/L	08:38:26
3	Cd 226.502†	-252.6	-252.1	[0.00] ug/L	08:39:58
3	Co 228.616†	-91.4	-91.2	[0.00] ug/L	08:39:58
3	Cr 267.716†	117.4	117.2	[0.00] ug/L	08:39:38
3	Cu 324.752†	8527.7	8512.4	[0.00] ug/L	08:39:38
3	Fe 238.204 Radial†	13.9	13.7	[0.00] ug/L	08:38:26
3	K 766.490 Radial†	3355.9	3301.1	[0.00] ug/L	08:38:06
3	Mg 279.077 IEC†	0.8	0.8	[0.00] ug/L	08:38:26
3	Mn 257.610†	628.8	627.7	[0.00] ug/L	08:39:38
3	Mo 202.031†	18.2	18.2	[0.00] ug/L	08:39:58
3	Na 589.592 Radial†	-1800.0	-1770.6	[0.00] ug/L	08:38:06
3	Ni 231.604†	145.6	145.4	[0.00] ug/L	08:39:58
3	P 214.914†	266.6	266.1	[0.00] ug/L	08:39:58
3	Pb 220.353†	-89.8	-89.7	[0.00] ug/L	08:39:58
3	S 181.975 Axial†	64.3	64.1	[0.00] ug/L	08:39:58
3	Sb 206.836†	52.2	52.1	[0.00] ug/L	08:39:58
3	Se 196.026†	-32.0	-31.9	[0.00] ug/L	08:39:58
3	Si 251.611†	739.6	738.3	[0.00] ug/L	08:39:58
3	Sn 189.927†	6.8	6.8	[0.00] ug/L	08:39:58
3	Sr 421.552†	-4.2	-4.2	[0.00] ug/L	08:38:06
3	Ti 334.940†	-1716.4	-1713.3	[0.00] ug/L	08:39:38
3	Tl 190.801†	-49.1	-49.0	[0.00] ug/L	08:39:58
3	U 409.014†	-2914.2	-2909.0	[0.00] ug/L	08:39:33
3	V 292.402†	-1806.0	-1802.7	[0.00] ug/L	08:39:38
3	Zn 213.857†	909.3	907.7	[0.00] ug/L	08:39:58
3	SiO2†	734.9	733.6	[0.00] ug/L	08:40:14

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	938751.9	9151.98	0.97%	100.00	%
Sc Radial	4945.6	101.17	2.05%	100	%
Y 371.029	818116.3	7572.39	0.93%	100.000	%
Y RADIAL	5304.9	113.53	2.14%	100.0	%
Ag 328.068†	465.6	15.22	3.27%	[0.00]	ug/L
Al 396.153Radial†	-21.3	6.57	30.81%	[0.00]	ug/L
As 188.979†	-34.8	7.70	22.09%	[0.00]	ug/L
B 249.677†	-396.1	66.55	16.80%	[0.00]	ug/L
Ba 233.527†	20.1	11.07	55.09%	[0.00]	ug/L
Be 313.107†	-4701.4	48.33	1.03%	[0.00]	ug/L
Ca 317.933Radial†	21.4	3.40	15.85%	[0.00]	ug/L
Cd 226.502†	-256.7	6.11	2.38%	[0.00]	ug/L
Co 228.616†	-94.2	2.60	2.76%	[0.00]	ug/L
Cr 267.716†	133.7	17.79	13.30%	[0.00]	ug/L
Cu 324.752†	8483.2	79.96	0.94%	[0.00]	ug/L
Fe 238.204 Radial†	13.3	0.93	7.02%	[0.00]	ug/L
K 766.490 Radial†	3333.4	57.24	1.72%	[0.00]	ug/L
Mg 279.077 IEC†	2.7	2.19	80.97%	[0.00]	ug/L
Mn 257.610†	636.6	11.19	1.76%	[0.00]	ug/L
Mo 202.031†	25.5	6.42	25.20%	[0.00]	ug/L
Na 589.592 Radial†	-1797.4	34.75	1.93%	[0.00]	ug/L
Ni 231.604†	138.9	8.23	5.92%	[0.00]	ug/L
P 214.914†	271.2	4.47	1.65%	[0.00]	ug/L
Pb 220.353†	-84.6	9.40	11.11%	[0.00]	ug/L
S 181.975 Axial†	61.7	6.54	10.61%	[0.00]	ug/L
Sb 206.836†	45.2	5.95	13.14%	[0.00]	ug/L
Se 196.026†	-32.7	3.95	12.08%	[0.00]	ug/L
Si 251.611†	739.4	4.18	0.57%	[0.00]	ug/L
Sn 189.927†	3.4	3.70	108.73%	[0.00]	ug/L
Sr 421.552†	11.0	13.37	121.39%	[0.00]	ug/L
Ti 334.940†	-1704.8	24.92	1.46%	[0.00]	ug/L
Tl 190.801†	-49.5	8.04	16.27%	[0.00]	ug/L
U 409.014†	-2918.7	64.82	2.22%	[0.00]	ug/L
V 292.402†	-1810.1	6.77	0.37%	[0.00]	ug/L

Zn 213.857†	914.7	10.52	1.15%	[0.00] ug/L
SiO2†	758.0	39.55	5.22%	[0.00] ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 12/29/2009 08:42:24
Data Type: Reprocessed on 12/29/2009 10:09:26

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	942358.1	942358.1	100.38	%	08:44:49
1	Sc Radial	4985.1	4985.1	101	%	08:44:22
1	Y 371.029	817049.9	817049.9	99.870	%	08:44:49
1	Y RADIAL	5349.2	5349.2	100.8	%	08:44:22
1	Ag 328.068†	24570.7	24011.1	[100]	ug/L	08:44:49
1	As 188.979†	276.8	310.6	[100]	ug/L	08:45:09
1	B 249.677†	4497.7	4876.6	[100]	ug/L	08:44:49
1	Ba 233.527†	14764.1	14687.5	[100]	ug/L	08:44:49
1	Be 313.107†	309107.9	312626.4	[100]	ug/L	08:44:49
1	Cd 226.502†	10615.0	10831.1	[100]	ug/L	08:45:09
1	Co 228.616†	5562.1	5635.0	[100]	ug/L	08:45:09
1	Cr 267.716†	10710.5	10535.8	[100]	ug/L	08:44:49
1	Cu 324.752†	43022.5	34374.6	[100]	ug/L	08:44:49
1	K 766.490 Radial†	8577.9	5176.6	[1000]	ug/L	08:44:17
1	Mn 257.610†	102888.9	101858.5	[100]	ug/L	08:44:49
1	Mo 202.031†	1739.6	1707.5	[100]	ug/L	08:45:09
1	Ni 231.604†	4956.6	4798.7	[100]	ug/L	08:45:09
1	P 214.914†	1364.8	1088.4	[500]	ug/L	08:45:09
1	Pb 220.353†	934.3	1015.4	[100]	ug/L	08:45:09
1	S 181.975 Axial†	234.2	171.7	[200]	ug/L	08:45:09
1	Sb 206.836†	382.4	335.7	[100]	ug/L	08:45:09
1	Se 196.026†	172.4	204.4	[100]	ug/L	08:45:09
1	Si 251.611†	19281.8	18468.6	[500]	ug/L	08:44:49
1	Sn 189.927†	717.7	711.5	[100]	ug/L	08:45:09
1	Sr 421.552†	15105.0	14974.4	[100]	ug/L	08:44:22
1	Ti 334.940†	66154.5	67606.1	[100]	ug/L	08:44:49
1	Tl 190.801†	329.0	377.2	[100]	ug/L	08:45:09
1	U 409.014†	870.9	3786.2	[100]	ug/L	08:44:49
1	V 292.402†	14962.3	16715.1	[100]	ug/L	08:44:49
1	Zn 213.857†	13732.6	12765.4	[100]	ug/L	08:44:49
1	SiO2†	19350.5	18518.5	[1069.5]	ug/L	08:46:07
2	Sc 361.383	932073.1	932073.1	99.289	%	08:45:15
2	Sc Radial	4916.4	4916.4	99.4	%	08:44:32
2	Y 371.029	810206.3	810206.3	99.033	%	08:45:15
2	Y RADIAL	5235.4	5235.4	98.69	%	08:44:32
2	Ag 328.068†	24203.5	23911.3	[100]	ug/L	08:45:15
2	As 188.979†	268.9	305.7	[100]	ug/L	08:45:35
2	B 249.677†	4390.4	4817.9	[100]	ug/L	08:45:15
2	Ba 233.527†	14542.0	14626.1	[100]	ug/L	08:45:15
2	Be 313.107†	305516.1	312406.7	[100]	ug/L	08:45:15
2	Cd 226.502†	10585.3	10917.8	[100]	ug/L	08:45:35
2	Co 228.616†	5575.7	5709.8	[100]	ug/L	08:45:35
2	Cr 267.716†	10683.1	10625.9	[100]	ug/L	08:45:15
2	Cu 324.752†	42621.4	34443.6	[100]	ug/L	08:45:15
2	K 766.490 Radial†	8484.5	5201.6	[1000]	ug/L	08:44:27
2	Mn 257.610†	101621.4	101713.0	[100]	ug/L	08:45:15
2	Mo 202.031†	1725.1	1712.0	[100]	ug/L	08:45:35
2	Ni 231.604†	4945.7	4842.2	[100]	ug/L	08:45:35
2	P 214.914†	1372.2	1110.9	[500]	ug/L	08:45:35
2	Pb 220.353†	938.9	1030.3	[100]	ug/L	08:45:35
2	S 181.975 Axial†	244.9	185.0	[200]	ug/L	08:45:35
2	Sb 206.836†	380.2	337.7	[100]	ug/L	08:45:35
2	Se 196.026†	163.6	197.5	[100]	ug/L	08:45:35
2	Si 251.611†	19056.7	18453.9	[500]	ug/L	08:45:15
2	Sn 189.927†	698.5	700.1	[100]	ug/L	08:45:35
2	Sr 421.552†	14866.4	14943.8	[100]	ug/L	08:44:32
2	Ti 334.940†	65372.0	67545.2	[100]	ug/L	08:45:15
2	Tl 190.801†	325.7	377.5	[100]	ug/L	08:45:35

2	U 409.014†	500.7	3422.9	[100]	ug/L	08:45:15
2	V 292.402†	14769.9	16685.8	[100]	ug/L	08:45:15
2	Zn 213.857†	13572.1	12754.7	[100]	ug/L	08:45:15
2	SiO2†	19347.3	18727.9	[1069.5]	ug/L	08:46:12
3	Sc 361.383	949057.5	949057.5	101.10	%	08:45:41
3	Sc Radial	4883.5	4883.5	98.7	%	08:44:42
3	Y 371.029	824233.1	824233.1	100.75	%	08:45:41
3	Y RADIAL	5221.4	5221.4	98.43	%	08:44:42
3	Ag 328.068†	24688.0	23954.3	[100]	ug/L	08:45:41
3	As 188.979†	271.5	303.4	[100]	ug/L	08:46:01
3	B 249.677†	4533.6	4880.4	[100]	ug/L	08:45:41
3	Ba 233.527†	14829.7	14648.6	[100]	ug/L	08:45:41
3	Be 313.107†	311267.6	312589.0	[100]	ug/L	08:45:41
3	Cd 226.502†	10614.7	10756.1	[100]	ug/L	08:46:01
3	Co 228.616†	5563.6	5597.4	[100]	ug/L	08:46:01
3	Cr 267.716†	10772.6	10521.9	[100]	ug/L	08:45:41
3	Cu 324.752†	43347.8	34393.9	[100]	ug/L	08:45:41
3	K 766.490 Radial†	8536.0	5311.3	[1000]	ug/L	08:44:37
3	Mn 257.610†	103649.0	101887.0	[100]	ug/L	08:45:41
3	Mo 202.031†	1727.2	1683.0	[100]	ug/L	08:46:01
3	Ni 231.604†	4983.6	4790.6	[100]	ug/L	08:46:01
3	P 214.914†	1359.2	1073.3	[500]	ug/L	08:46:01
3	Pb 220.353†	923.2	997.8	[100]	ug/L	08:46:01
3	S 181.975 Axial†	235.4	171.1	[200]	ug/L	08:46:01
3	Sb 206.836†	395.4	345.9	[100]	ug/L	08:46:01
3	Se 196.026†	163.4	194.3	[100]	ug/L	08:46:01
3	Si 251.611†	19398.0	18448.0	[500]	ug/L	08:45:41
3	Sn 189.927†	700.7	689.7	[100]	ug/L	08:46:01
3	Sr 421.552†	14721.8	14898.3	[100]	ug/L	08:44:42
3	Ti 334.940†	66448.8	67432.0	[100]	ug/L	08:45:41
3	Tl 190.801†	334.9	380.7	[100]	ug/L	08:46:01
3	U 409.014†	741.5	3652.2	[100]	ug/L	08:45:41
3	V 292.402†	15044.5	16691.2	[100]	ug/L	08:45:41
3	Zn 213.857†	13733.7	12669.9	[100]	ug/L	08:45:41
3	SiO2†	19280.4	18313.0	[1069.5]	ug/L	08:46:17

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	941162.9	8555.06	0.91%	100.26	%
Sc Radial	4928.3	51.86	1.05%	99.6	%
Y 371.029	817163.1	7014.06	0.86%	99.883	%
Y RADIAL	5268.7	70.12	1.33%	99.32	%
Ag 328.068†	23958.9	50.03	0.21%	[100]	ug/L
As 188.979†	306.5	3.69	1.20%	[100]	ug/L
B 249.677†	4858.3	35.03	0.72%	[100]	ug/L
Ba 233.527†	14654.0	31.07	0.21%	[100]	ug/L
Be 313.107†	312540.7	117.55	0.04%	[100]	ug/L
Cd 226.502†	10835.0	80.91	0.75%	[100]	ug/L
Co 228.616†	5647.4	57.21	1.01%	[100]	ug/L
Cr 267.716†	10561.2	56.45	0.53%	[100]	ug/L
Cu 324.752†	34404.0	35.61	0.10%	[100]	ug/L
K 766.490 Radial†	5229.8	71.65	1.37%	[1000]	ug/L
Mn 257.610†	101819.5	93.32	0.09%	[100]	ug/L
Mo 202.031†	1700.8	15.61	0.92%	[100]	ug/L
Ni 231.604†	4810.5	27.75	0.58%	[100]	ug/L
P 214.914†	1090.9	18.92	1.73%	[500]	ug/L
Pb 220.353†	1014.5	16.27	1.60%	[100]	ug/L
S 181.975 Axial†	175.9	7.85	4.46%	[200]	ug/L
Sb 206.836†	339.8	5.41	1.59%	[100]	ug/L
Se 196.026†	198.7	5.16	2.60%	[100]	ug/L
Si 251.611†	18456.8	10.62	0.06%	[500]	ug/L
Sn 189.927†	700.5	10.90	1.56%	[100]	ug/L
Sr 421.552†	14938.8	38.32	0.26%	[100]	ug/L
Ti 334.940†	67527.8	88.36	0.13%	[100]	ug/L
Tl 190.801†	378.5	1.94	0.51%	[100]	ug/L
U 409.014†	3620.4	183.70	5.07%	[100]	ug/L
V 292.402†	16697.4	15.61	0.09%	[100]	ug/L
Zn 213.857†	12730.0	52.32	0.41%	[100]	ug/L
SiO2†	18519.8	207.46	1.12%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/29/2009 08:48:27
Data Type: Reprocessed on 12/29/2009 10:09:27

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	926662.7	926662.7	98.712	%	08:51:39
1	Sc Radial	4792.0	4792.0	96.9	%	08:50:20
1	Y 371.029	797940.6	797940.6	97.534	%	08:51:39
1	Y RADIAL	5079.3	5079.3	95.75	%	08:50:20
1	Ag 328.068†	118639.9	119722.1	[500]	ug/L	08:51:39
1	Al 396.153Radial†	6150.9	6369.5	[5000]	ug/L	08:50:20
1	As 188.979†	1469.9	1523.9	[500]	ug/L	08:51:59
1	B 249.677†	24484.9	25200.4	[500]	ug/L	08:51:39
1	Ba 233.527†	72489.6	73415.2	[500]	ug/L	08:51:39
1	Be 313.107†	1557126.5	1582141.9	[500]	ug/L	08:51:39
1	Ca 317.933Radial†	3166.9	3247.0	[5000]	ug/L	08:50:40
1	Cd 226.502†	54741.5	55712.3	[500]	ug/L	08:51:39
1	Co 228.616†	27723.4	28179.3	[500]	ug/L	08:51:59
1	Cr 267.716†	52512.3	53063.7	[500]	ug/L	08:51:39
1	Cu 324.752†	180585.6	174458.3	[500]	ug/L	08:51:39
1	K 766.490 Radial†	28325.6	25900.5	[5000]	ug/L	08:50:20
1	Mg 279.077 IEC†	162.5	165.0	[5000]	ug/L	08:50:40
1	Mn 257.610†	500900.6	506798.7	[500]	ug/L	08:51:39
1	Mo 202.031†	8441.2	8525.8	[500]	ug/L	08:51:59
1	Ni 231.604†	23849.1	24021.4	[500]	ug/L	08:51:59
1	P 214.914†	5731.8	5535.4	[2500]	ug/L	08:51:59
1	Pb 220.353†	4923.4	5072.3	[500]	ug/L	08:51:59
1	S 181.975 Axial†	964.7	915.6	[1000]	ug/L	08:51:59
1	Sb 206.836†	1776.8	1754.7	[500]	ug/L	08:51:59
1	Se 196.026†	1005.1	1050.9	[500]	ug/L	08:51:59
1	Si 251.611†	92946.7	93419.9	[2500]	ug/L	08:51:39
1	Sn 189.927†	3518.0	3560.5	[500]	ug/L	08:51:59
1	Sr 421.552†	72258.4	74564.5	[500]	ug/L	08:50:20
1	Ti 334.940†	333562.5	339618.9	[500]	ug/L	08:51:39
1	Tl 190.801†	1856.5	1930.2	[500]	ug/L	08:51:59
1	U 409.014†	13953.2	17053.9	[500]	ug/L	08:51:39
1	V 292.402†	81375.8	84247.5	[500]	ug/L	08:51:39
1	Zn 213.857†	64128.1	64050.0	[500]	ug/L	08:51:39
1	SiO2†	92321.9	92768.2	[5347.5]	ug/L	08:52:59
2	Sc 361.383	934890.0	934890.0	99.589	%	08:52:06
2	Sc Radial	4841.7	4841.7	97.9	%	08:50:45
2	Y 371.029	803643.8	803643.8	98.231	%	08:52:06
2	Y RADIAL	5152.1	5152.1	97.12	%	08:50:45
2	Ag 328.068†	119822.6	119852.0	[500]	ug/L	08:52:06
2	Al 396.153Radial†	6206.7	6361.2	[5000]	ug/L	08:50:45
2	As 188.979†	1459.9	1500.8	[500]	ug/L	08:52:26
2	B 249.677†	24854.5	25353.3	[500]	ug/L	08:52:06
2	Ba 233.527†	73189.5	73471.8	[500]	ug/L	08:52:06
2	Be 313.107†	1569973.0	1581159.7	[500]	ug/L	08:52:06
2	Ca 317.933Radial†	3143.1	3189.1	[5000]	ug/L	08:51:05
2	Cd 226.502†	55144.4	55628.8	[500]	ug/L	08:52:06
2	Co 228.616†	27509.5	27717.3	[500]	ug/L	08:52:26
2	Cr 267.716†	52953.1	53038.1	[500]	ug/L	08:52:06
2	Cu 324.752†	182559.0	174829.9	[500]	ug/L	08:52:06
2	K 766.490 Radial†	28602.8	25883.4	[5000]	ug/L	08:50:45
2	Mg 279.077 IEC†	163.6	164.4	[5000]	ug/L	08:51:05
2	Mn 257.610†	505346.3	506797.2	[500]	ug/L	08:52:06
2	Mo 202.031†	8407.1	8416.4	[500]	ug/L	08:52:26
2	Ni 231.604†	23738.2	23697.4	[500]	ug/L	08:52:26
2	P 214.914†	5687.5	5439.8	[2500]	ug/L	08:52:26
2	Pb 220.353†	4914.2	5019.1	[500]	ug/L	08:52:26
2	S 181.975 Axial†	955.0	897.2	[1000]	ug/L	08:52:26
2	Sb 206.836†	1751.1	1713.1	[500]	ug/L	08:52:26

2	Se 196.026†	1005.8	1042.6	[500]	ug/L	08:52:26
2	Si 251.611†	93802.0	93450.1	[2500]	ug/L	08:52:06
2	Sn 189.927†	3452.9	3463.8	[500]	ug/L	08:52:26
2	Sr 421.552†	73282.4	74844.4	[500]	ug/L	08:50:45
2	Ti 334.940†	337098.5	340195.8	[500]	ug/L	08:52:06
2	Tl 190.801†	1832.8	1889.8	[500]	ug/L	08:52:26
2	U 409.014†	14297.5	17275.2	[500]	ug/L	08:52:06
2	V 292.402†	82274.6	84424.5	[500]	ug/L	08:52:06
2	Zn 213.857†	64743.1	64095.9	[500]	ug/L	08:52:06
2	SiO2†	93176.7	92803.6	[5347.5]	ug/L	08:53:04
3	Sc 361.383	919928.3	919928.3	97.995	%	08:52:34
3	Sc Radial	4925.8	4925.8	99.6	%	08:51:10
3	Y 371.029	791909.2	791909.2	96.797	%	08:52:34
3	Y RADIAL	5229.3	5229.3	98.58	%	08:51:10
3	Ag 328.068†	117537.2	119476.7	[500]	ug/L	08:52:34
3	Al 396.153Radial†	6383.2	6430.3	[5000]	ug/L	08:51:10
3	As 188.979†	1458.7	1523.4	[500]	ug/L	08:52:54
3	B 249.677†	24283.1	25176.0	[500]	ug/L	08:52:34
3	Ba 233.527†	71900.9	73352.0	[500]	ug/L	08:52:34
3	Be 313.107†	1543394.1	1579676.3	[500]	ug/L	08:52:34
3	Ca 317.933Radial†	3145.5	3136.7	[5000]	ug/L	08:51:30
3	Cd 226.502†	54125.4	55489.6	[500]	ug/L	08:52:34
3	Co 228.616†	27502.5	28159.5	[500]	ug/L	08:52:54
3	Cr 267.716†	52023.6	52954.4	[500]	ug/L	08:52:34
3	Cu 324.752†	178998.5	174177.9	[500]	ug/L	08:52:34
3	K 766.490 Radial†	29153.4	25937.6	[5000]	ug/L	08:51:10
3	Mg 279.077 IEC†	163.1	161.1	[5000]	ug/L	08:51:30
3	Mn 257.610†	496712.9	506240.0	[500]	ug/L	08:52:34
3	Mo 202.031†	8419.3	8566.1	[500]	ug/L	08:52:54
3	Ni 231.604†	23703.0	24049.1	[500]	ug/L	08:52:54
3	P 214.914†	5686.2	5531.4	[2500]	ug/L	08:52:54
3	Pb 220.353†	4890.9	5075.6	[500]	ug/L	08:52:54
3	S 181.975 Axial†	955.7	913.6	[1000]	ug/L	08:52:54
3	Sb 206.836†	1751.0	1741.6	[500]	ug/L	08:52:54
3	Se 196.026†	1015.6	1069.0	[500]	ug/L	08:52:54
3	Si 251.611†	92031.3	93175.1	[2500]	ug/L	08:52:34
3	Sn 189.927†	3461.2	3528.7	[500]	ug/L	08:52:54
3	Sr 421.552†	74661.6	74951.6	[500]	ug/L	08:51:10
3	Ti 334.940†	331045.3	339523.9	[500]	ug/L	08:52:34
3	Tl 190.801†	1847.2	1934.5	[500]	ug/L	08:52:54
3	U 409.014†	14101.8	17309.0	[500]	ug/L	08:52:34
3	V 292.402†	80737.2	84199.3	[500]	ug/L	08:52:34
3	Zn 213.857†	63332.1	63713.3	[500]	ug/L	08:52:34
3	SiO2†	92507.3	93642.2	[5347.5]	ug/L	08:53:09

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	927160.4	7493.22	0.81%	98.765	%
Sc Radial	4853.1	67.63	1.39%	98.1	%
Y 371.029	797831.2	5868.09	0.74%	97.521	%
Y RADIAL	5153.6	75.02	1.46%	97.15	%
Ag 328.068†	119683.6	190.61	0.16%	[500]	ug/L
Al 396.153Radial†	6387.0	37.70	0.59%	[5000]	ug/L
As 188.979†	1516.0	13.19	0.87%	[500]	ug/L
B 249.677†	25243.2	96.07	0.38%	[500]	ug/L
Ba 233.527†	73413.0	59.90	0.08%	[500]	ug/L
Be 313.107†	1580992.6	1241.27	0.08%	[500]	ug/L
Ca 317.933Radial†	3190.9	55.15	1.73%	[5000]	ug/L
Cd 226.502†	55610.2	112.54	0.20%	[500]	ug/L
Co 228.616†	28018.7	261.18	0.93%	[500]	ug/L
Cr 267.716†	53018.7	57.16	0.11%	[500]	ug/L
Cu 324.752†	174488.7	327.05	0.19%	[500]	ug/L
K 766.490 Radial†	25907.2	27.70	0.11%	[5000]	ug/L
Mg 279.077 IEC†	163.5	2.11	1.29%	[5000]	ug/L
Mn 257.610†	506612.0	322.15	0.06%	[500]	ug/L
Mo 202.031†	8502.8	77.47	0.91%	[500]	ug/L
Ni 231.604†	23922.6	195.55	0.82%	[500]	ug/L
P 214.914†	5502.2	54.07	0.98%	[2500]	ug/L
Pb 220.353†	5055.7	31.69	0.63%	[500]	ug/L

S 181.975 Axial†	908.8	10.08	1.11%	[1000]	ug/L
Sb 206.836†	1736.5	21.30	1.23%	[500]	ug/L
Se 196.026†	1054.2	13.52	1.28%	[500]	ug/L
Si 251.611†	93348.4	150.81	0.16%	[2500]	ug/L
Sn 189.927†	3517.6	49.31	1.40%	[500]	ug/L
Sr 421.552†	74786.8	199.89	0.27%	[500]	ug/L
Ti 334.940†	339779.5	363.58	0.11%	[500]	ug/L
Tl 190.801†	1918.2	24.62	1.28%	[500]	ug/L
U 409.014†	17212.7	138.56	0.81%	[500]	ug/L
V 292.402†	84290.4	118.62	0.14%	[500]	ug/L
Zn 213.857†	63953.0	208.91	0.33%	[500]	ug/L
SiO2†	93071.3	494.67	0.53%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 12/29/2009 08:55:20
Data Type: Reprocessed on 12/29/2009 10:09:28

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	918155.4	918155.4	97.806	%	08:58:31
1	Sc Radial	4792.5	4792.5	96.9	%	08:57:33
1	Y 371.029	773056.9	773056.9	94.492	%	08:58:37
1	Y RADIAL	5038.7	5038.7	94.98	%	08:57:33
1	Ag 328.068†	236840.1	241687.4	[1000]	ug/L	08:58:37
1	Al 396.153Radial†	12178.9	12589.4	[10000]	ug/L	08:57:13
1	As 188.979†	2958.9	3060.1	[1000]	ug/L	08:58:57
1	B 249.677†	49754.0	51266.2	[1000]	ug/L	08:58:37
1	Ba 233.527†	143766.2	146971.2	[1000]	ug/L	08:58:37
1	Be 313.107†	3074906.4	3148585.5	[1000]	ug/L	08:58:31
1	Ca 317.933Radial†	6281.8	6461.1	[10000]	ug/L	08:57:33
1	Cd 226.502†	108162.6	110845.6	[1000]	ug/L	08:58:37
1	Co 228.616†	55645.5	56987.9	[1000]	ug/L	08:58:37
1	Cr 267.716†	104136.3	106338.6	[1000]	ug/L	08:58:37
1	Cu 324.752†	350815.4	350201.8	[1000]	ug/L	08:58:37
1	Fe 238.204 Radial†	1140.2	1163.3	[10000]	ug/L	08:57:33
1	K 766.490 Radial†	52985.7	51345.6	[10000]	ug/L	08:57:13
1	Mg 279.077 IEC†	321.0	328.6	[10000]	ug/L	08:57:33
1	Mn 257.610†	985560.2	1007032.2	[1000]	ug/L	08:58:31
1	Mo 202.031†	16705.3	17054.6	[1000]	ug/L	08:58:57
1	Na 589.592 Radial†	31058.4	33848.3	[10000]	ug/L	08:57:13
1	Ni 231.604†	47397.0	48321.3	[1000]	ug/L	08:58:37
1	P 214.914†	11115.1	11093.2	[5000]	ug/L	08:58:57
1	Pb 220.353†	9810.3	10115.0	[1000]	ug/L	08:58:57
1	S 181.975 Axial†	1861.8	1841.9	[2000]	ug/L	08:58:57
1	Sb 206.836†	3497.6	3530.8	[1000]	ug/L	08:58:57
1	Se 196.026†	2046.7	2125.2	[1000]	ug/L	08:58:57
1	Si 251.611†	184660.8	188063.8	[5000]	ug/L	08:58:37
1	Sn 189.927†	6954.7	7107.3	[1000]	ug/L	08:58:57
1	Sr 421.552†	144280.5	148880.3	[1000]	ug/L	08:57:13
1	Ti 334.940†	664769.5	681386.7	[1000]	ug/L	08:58:31
1	Tl 190.801†	3712.4	3845.1	[1000]	ug/L	08:58:57
1	U 409.014†	32836.2	36491.5	[1000]	ug/L	08:58:37
1	V 292.402†	164301.4	169797.1	[1000]	ug/L	08:58:37
1	Zn 213.857†	125827.3	127735.2	[1000]	ug/L	08:58:37
1	SiO2†	183307.6	186661.6	[10695]	ug/L	09:00:07
2	Sc 361.383	919168.3	919168.3	97.914	%	08:59:03
2	Sc Radial	4827.4	4827.4	97.6	%	08:57:58
2	Y 371.029	781394.9	781394.9	95.511	%	08:59:09
2	Y RADIAL	5094.9	5094.9	96.04	%	08:57:58
2	Ag 328.068†	239167.3	243797.4	[1000]	ug/L	08:59:09
2	Al 396.153Radial†	12709.7	13042.3	[10000]	ug/L	08:57:38
2	As 188.979†	2953.3	3051.1	[1000]	ug/L	08:59:29
2	B 249.677†	50345.5	51814.3	[1000]	ug/L	08:59:09
2	Ba 233.527†	144782.2	147846.8	[1000]	ug/L	08:59:09
2	Be 313.107†	3069627.1	3139729.3	[1000]	ug/L	08:59:03
2	Ca 317.933Radial†	6297.0	6429.8	[10000]	ug/L	08:57:58
2	Cd 226.502†	108843.5	111419.1	[1000]	ug/L	08:59:09
2	Co 228.616†	56007.3	57294.8	[1000]	ug/L	08:59:09
2	Cr 267.716†	104813.0	106912.4	[1000]	ug/L	08:59:09
2	Cu 324.752†	354408.1	353475.8	[1000]	ug/L	08:59:09
2	Fe 238.204 Radial†	1142.0	1156.7	[10000]	ug/L	08:57:58
2	K 766.490 Radial†	55315.1	53336.7	[10000]	ug/L	08:57:38
2	Mg 279.077 IEC†	320.1	325.2	[10000]	ug/L	08:57:58
2	Mn 257.610†	986480.9	1006862.1	[1000]	ug/L	08:59:03
2	Mo 202.031†	16636.8	16965.8	[1000]	ug/L	08:59:29
2	Na 589.592 Radial†	32576.9	35172.4	[10000]	ug/L	08:57:38
2	Ni 231.604†	47820.2	48700.2	[1000]	ug/L	08:59:09

2	P 214.914†	11053.3	11017.6	[5000]	ug/L	08:59:29
2	Pb 220.353†	9760.4	10053.0	[1000]	ug/L	08:59:29
2	S 181.975 Axial†	1840.4	1818.0	[2000]	ug/L	08:59:29
2	Sb 206.836†	3451.6	3479.9	[1000]	ug/L	08:59:29
2	Se 196.026†	2025.9	2101.8	[1000]	ug/L	08:59:29
2	Si 251.611†	186072.7	189297.8	[5000]	ug/L	08:59:09
2	Sn 189.927†	6901.8	7045.5	[1000]	ug/L	08:59:29
2	Sr 421.552†	150847.3	154531.6	[1000]	ug/L	08:57:38
2	Ti 334.940†	665534.0	681418.5	[1000]	ug/L	08:59:03
2	Tl 190.801†	3675.7	3803.5	[1000]	ug/L	08:59:29
2	U 409.014†	33151.8	36776.8	[1000]	ug/L	08:59:09
2	V 292.402†	165695.3	171035.6	[1000]	ug/L	08:59:09
2	Zn 213.857†	126925.2	128714.8	[1000]	ug/L	08:59:09
2	SiO2†	181990.6	185110.0	[10695]	ug/L	09:00:12
3	Sc 361.383	920164.2	920164.2	98.020	%	08:59:35
3	Sc Radial	4830.8	4830.8	97.7	%	08:58:23
3	Y 371.029	777296.1	777296.1	95.010	%	08:59:41
3	Y RADIAL	5102.6	5102.6	96.19	%	08:58:23
3	Ag 328.068†	237320.5	241648.9	[1000]	ug/L	08:59:41
3	Al 396.153Radial†	12778.6	13103.6	[10000]	ug/L	08:58:03
3	As 188.979†	2928.1	3022.1	[1000]	ug/L	09:00:01
3	B 249.677†	49907.6	51311.8	[1000]	ug/L	08:59:41
3	Ba 233.527†	143838.6	146724.1	[1000]	ug/L	08:59:41
3	Be 313.107†	3078907.9	3145804.4	[1000]	ug/L	08:59:35
3	Ca 317.933Radial†	6355.1	6484.7	[10000]	ug/L	08:58:23
3	Cd 226.502†	108187.1	110629.1	[1000]	ug/L	08:59:41
3	Co 228.616†	55714.1	56933.8	[1000]	ug/L	08:59:41
3	Cr 267.716†	104397.5	106372.6	[1000]	ug/L	08:59:41
3	Cu 324.752†	351234.5	349846.3	[1000]	ug/L	08:59:41
3	Fe 238.204 Radial†	1148.5	1162.5	[10000]	ug/L	08:58:23
3	K 766.490 Radial†	55436.3	53420.7	[10000]	ug/L	08:58:03
3	Mg 279.077 IEC†	322.0	326.9	[10000]	ug/L	08:58:23
3	Mn 257.610†	986330.4	1005618.1	[1000]	ug/L	08:59:35
3	Mo 202.031†	16625.0	16935.4	[1000]	ug/L	09:00:01
3	Na 589.592 Radial†	32743.0	35318.8	[10000]	ug/L	08:58:03
3	Ni 231.604†	47425.4	48244.5	[1000]	ug/L	08:59:41
3	P 214.914†	11037.6	10989.4	[5000]	ug/L	09:00:01
3	Pb 220.353†	9746.7	10028.2	[1000]	ug/L	09:00:01
3	S 181.975 Axial†	1831.4	1806.7	[2000]	ug/L	09:00:01
3	Sb 206.836†	3454.3	3478.8	[1000]	ug/L	09:00:01
3	Se 196.026†	2029.7	2103.3	[1000]	ug/L	09:00:01
3	Si 251.611†	184582.1	187571.3	[5000]	ug/L	08:59:41
3	Sn 189.927†	6920.5	7056.9	[1000]	ug/L	09:00:01
3	Sr 421.552†	151966.2	155567.6	[1000]	ug/L	08:58:03
3	Ti 334.940†	665567.9	680717.4	[1000]	ug/L	08:59:35
3	Tl 190.801†	3667.6	3791.1	[1000]	ug/L	09:00:01
3	U 409.014†	32804.2	36385.5	[1000]	ug/L	08:59:41
3	V 292.402†	164755.9	169894.1	[1000]	ug/L	08:59:41
3	Zn 213.857†	125920.9	127549.8	[1000]	ug/L	08:59:41
3	SiO2†	185464.6	188453.0	[10695]	ug/L	09:00:17

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	919162.6	1004.44	0.11%	97.913	%
Sc Radial	4816.9	21.21	0.44%	97.4	%
Y 371.029	777249.3	4169.17	0.54%	95.005	%
Y RADIAL	5078.7	34.85	0.69%	95.74	%
Ag 328.068†	242377.9	1229.45	0.51%	[1000]	ug/L
Al 396.153Radial†	12911.8	280.88	2.18%	[10000]	ug/L
As 188.979†	3044.4	19.85	0.65%	[1000]	ug/L
B 249.677†	51464.1	304.13	0.59%	[1000]	ug/L
Ba 233.527†	147180.7	589.95	0.40%	[1000]	ug/L
Be 313.107†	3144706.4	4529.04	0.14%	[1000]	ug/L
Ca 317.933Radial†	6458.5	27.57	0.43%	[10000]	ug/L
Cd 226.502†	110964.6	408.21	0.37%	[1000]	ug/L
Co 228.616†	57072.2	194.69	0.34%	[1000]	ug/L
Cr 267.716†	106541.2	321.93	0.30%	[1000]	ug/L
Cu 324.752†	351174.7	2000.79	0.57%	[1000]	ug/L
Fe 238.204 Radial†	1160.8	3.64	0.31%	[10000]	ug/L

K 766.490 Radial†	52701.0	1174.56	2.23%	[10000]	ug/L
Mg 279.077 IEC†	326.9	1.67	0.51%	[10000]	ug/L
Mn 257.610†	1006504.1	772.06	0.08%	[1000]	ug/L
Mo 202.031†	16985.2	61.91	0.36%	[1000]	ug/L
Na 589.592 Radial†	34779.8	810.03	2.33%	[10000]	ug/L
Ni 231.604†	48422.0	243.94	0.50%	[1000]	ug/L
P 214.914†	11033.4	53.68	0.49%	[5000]	ug/L
Pb 220.353†	10065.4	44.70	0.44%	[1000]	ug/L
S 181.975 Axial†	1822.2	17.96	0.99%	[2000]	ug/L
Sb 206.836†	3496.5	29.71	0.85%	[1000]	ug/L
Se 196.026†	2110.1	13.13	0.62%	[1000]	ug/L
Si 251.611†	188311.0	889.37	0.47%	[5000]	ug/L
Sn 189.927†	7069.9	32.91	0.47%	[1000]	ug/L
Sr 421.552†	152993.2	3599.32	2.35%	[1000]	ug/L
Ti 334.940†	681174.2	395.95	0.06%	[1000]	ug/L
Tl 190.801†	3813.2	28.29	0.74%	[1000]	ug/L
U 409.014†	36551.3	202.34	0.55%	[1000]	ug/L
V 292.402†	170242.3	688.76	0.40%	[1000]	ug/L
Zn 213.857†	128000.0	625.98	0.49%	[1000]	ug/L
SiO2†	186741.5	1672.93	0.90%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 12/29/2009 09:02:28
Data Type: Reprocessed on 12/29/2009 10:09:29

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	908101.3	908101.3	96.735	%	09:05:39
1	Sc Radial	4814.3	4814.3	97.3	%	09:04:42
1	Y 371.029	777198.0	777198.0	94.998	%	09:05:39
1	Y RADIAL	5124.0	5124.0	96.59	%	09:04:42
1	Al 396.153Radial†	61339.2	63033.9	[50000]	ug/L	09:04:22
1	Ca 317.933Radial†	30688.4	31504.1	[50000]	ug/L	09:04:22
1	Fe 238.204 Radial†	2215.7	2262.9	[20000]	ug/L	09:04:42
1	Mg 279.077 IEC†	1516.8	1555.5	[50000]	ug/L	09:04:42
1	Na 589.592 Radial†	66358.3	69966.0	[20000]	ug/L	09:04:22
2	Sc 361.383	898632.4	898632.4	95.726	%	09:05:45
2	Sc Radial	4818.2	4818.2	97.4	%	09:05:07
2	Y 371.029	769935.7	769935.7	94.111	%	09:05:45
2	Y RADIAL	5101.4	5101.4	96.16	%	09:05:07
2	Al 396.153Radial†	61840.8	63497.2	[50000]	ug/L	09:04:47
2	Ca 317.933Radial†	30905.7	31701.4	[50000]	ug/L	09:04:47
2	Fe 238.204 Radial†	2219.8	2265.2	[20000]	ug/L	09:05:07
2	Mg 279.077 IEC†	1524.0	1561.5	[50000]	ug/L	09:05:07
2	Na 589.592 Radial†	66582.6	70140.4	[20000]	ug/L	09:04:47
3	Sc 361.383	898592.9	898592.9	95.722	%	09:05:50
3	Sc Radial	4765.2	4765.2	96.4	%	09:05:32
3	Y 371.029	769208.1	769208.1	94.022	%	09:05:50
3	Y RADIAL	5057.5	5057.5	95.34	%	09:05:32
3	Al 396.153Radial†	62629.6	65022.7	[50000]	ug/L	09:05:12
3	Ca 317.933Radial†	31299.9	32463.8	[50000]	ug/L	09:05:12
3	Fe 238.204 Radial†	2201.0	2271.1	[20000]	ug/L	09:05:32
3	Mg 279.077 IEC†	1508.7	1563.1	[50000]	ug/L	09:05:32
3	Na 589.592 Radial†	67708.8	72070.5	[20000]	ug/L	09:05:12

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	901775.5	5478.31	0.61%	96.061	%
Sc Radial	4799.2	29.57	0.62%	97.0	%
Y 371.029	772113.9	4417.93	0.57%	94.377	%
Y RADIAL	5094.3	33.81	0.66%	96.03	%
Al 396.153Radial†	63851.3	1040.64	1.63%	[50000]	ug/L
Ca 317.933Radial†	31889.8	506.83	1.59%	[50000]	ug/L
Fe 238.204 Radial†	2266.4	4.23	0.19%	[20000]	ug/L
Mg 279.077 IEC†	1560.0	4.03	0.26%	[50000]	ug/L
Na 589.592 Radial†	70725.6	1167.90	1.65%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	241.8	0.00000	0.999987	
Al 396.153Radial	3	Lin Thru 0	0.0	1.278	0.00000	0.999998	
As 188.979	3	Lin Thru 0	0.0	3.042	0.00000	0.999998	
B 249.677	3	Lin Thru 0	0.0	51.25	0.00000	0.999960	
Ba 233.527	3	Lin Thru 0	0.0	147.1	0.00000	0.999999	
Be 313.107	3	Lin Thru 0	0.0	3148	0.00000	0.999997	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.6381	0.00000	0.999997	
Cd 226.502	3	Lin Thru 0	0.0	111.0	0.00000	0.999997	
Co 228.616	3	Lin Thru 0	0.0	56.86	0.00000	0.999974	
Cr 267.716	3	Lin Thru 0	0.0	106.4	0.00000	0.999998	
Cu 324.752	3	Lin Thru 0	0.0	350.7	0.00000	0.999995	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1139	0.00000	0.999953	

K 766.490 Radial	3	Lin Thru 0	0.0	5.252	0.00000	0.999977
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0313	0.00000	0.999948
Mn 257.610	3	Lin Thru 0	0.0	1008	0.00000	0.999996
Mo 202.031	3	Lin Thru 0	0.0	16.99	0.00000	1.000000
Na 589.592 Radia	2	Lin Thru 0	0.0	3.525	0.00000	0.999978
Ni 231.604	3	Lin Thru 0	0.0	48.31	0.00000	0.999989
P 214.914	3	Lin Thru 0	0.0	2.205	0.00000	0.999999
Pb 220.353	3	Lin Thru 0	0.0	10.08	0.00000	0.999998
S 181.975 Axial	3	Lin Thru 0	0.0	0.9104	0.00000	0.999995
Sb 206.836	3	Lin Thru 0	0.0	3.491	0.00000	0.999994
Se 196.026	3	Lin Thru 0	0.0	2.109	0.00000	0.999987
Si 251.611	3	Lin Thru 0	0.0	37.59	0.00000	0.999993
Sn 189.927	3	Lin Thru 0	0.0	7.063	0.00000	0.999998
Sr 421.552	3	Lin Thru 0	0.0	152.3	0.00000	0.999959
Ti 334.940	3	Lin Thru 0	0.0	680.8	0.00000	0.999999
Tl 190.801	3	Lin Thru 0	0.0	3.818	0.00000	0.999997
U 409.014	3	Lin Thru 0	0.0	36.13	0.00000	0.999725
V 292.402	3	Lin Thru 0	0.0	169.9	0.00000	0.999991
Zn 213.857	3	Lin Thru 0	0.0	128.0	0.00000	1.000000
SiO2	3	Lin Thru 0	0.0	17.45	0.00000	0.999999

Sequence No.: 6
Sample ID: ICV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 12/29/2009 09:08:02
Data Type: Reprocessed on 12/29/2009 10:09:30

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	933660.0	933660.0	99.458	%			09:11:12
1	Sc Radial	4836.4	4836.4	97.8	%			09:09:54
1	Y 371.029	805849.4	805849.4	98.501	%			09:11:12
1	Y RADIAL	5182.0	5182.0	97.68	%			09:09:54
1	Ag 328.068†	62663.6	62539.8	261.93	ug/L	261.93	ppb	09:11:12
1	Al 396.153Radial†	6420.5	6586.9	5132.5	ug/L	5132.5	ppb	09:09:54
1	As 188.979†	1429.4	1472.0	488.20	ug/L	488.20	ppb	09:11:32
1	B 249.677†	25942.4	26480.0	514.75	ug/L	514.75	ppb	09:11:12
1	Ba 233.527†	74219.3	74603.9	508.42	ug/L	508.42	ppb	09:11:12
1	Be 313.107†	817275.7	826434.2	263.51	ug/L	263.51	ppb	09:11:12
1	Ca 317.933Radial†	3214.1	3265.3	5117.1	ug/L	5117.1	ppb	09:10:14
1	Cd 226.502†	55073.0	55630.0	501.00	ug/L	501.00	ppb	09:11:12
1	Co 228.616†	28269.2	28517.6	501.86	ug/L	501.86	ppb	09:11:32
1	Cr 267.716†	51649.8	51797.8	487.50	ug/L	487.50	ppb	09:11:12
1	Cu 324.752†	184125.4	176646.4	503.99	ug/L	503.99	ppb	09:11:12
1	Fe 238.204 Radial†	591.6	591.7	5212.0	ug/L	5212.0	ppb	09:10:14
1	K 766.490 Radial†	16072.1	13101.8	2489.2	ug/L	2489.2	ppb	09:09:54
1	Mg 279.077 IEC†	174.0	175.3	5610.8	ug/L	5610.8	ppb	09:10:14
1	Mn 257.610†	518694.2	520886.4	517.20	ug/L	517.20	ppb	09:11:12
1	Mo 202.031†	9201.5	9226.2	543.55	ug/L	543.55	ppb	09:11:32
1	Na 589.592 Radial†	6738.3	8687.9	2464.9	ug/L	2464.9	ppb	09:09:54
1	Ni 231.604†	24253.3	24246.7	501.63	ug/L	501.63	ppb	09:11:32
1	P 214.914†	5861.0	5621.8	2473.5	ug/L	2473.5	ppb	09:11:32
1	Pb 220.353†	4969.7	5081.4	506.02	ug/L	506.02	ppb	09:11:32
1	S 181.975 Axial†	2359.9	2311.1	2537.5	ug/L	2537.5	ppb	09:11:32
1	Sb 206.836†	1791.1	1755.6	512.20	ug/L	512.20	ppb	09:11:32
1	Se 196.026†	5489.9	5552.5	2651.8	ug/L	2651.8	ppb	09:11:32
1	Si 251.611†	183606.6	183868.5	4879.1	ug/L	4879.1	ppb	09:11:12
1	Sn 189.927†	3812.9	3830.3	542.95	ug/L	542.95	ppb	09:11:32
1	Sr 421.552†	79373.1	81155.3	532.87	ug/L	532.87	ppb	09:09:54
1	Ti 334.940†	336655.6	340196.4	499.58	ug/L	499.58	ppb	09:11:12
1	Tl 190.801†	1975.3	2035.5	536.45	ug/L	536.45	ppb	09:11:32
1	U 409.014†	14676.8	17675.5	487.67	ug/L	487.67	ppb	09:11:12
1	V 292.402†	84003.3	86271.5	515.12	ug/L	515.12	ppb	09:11:12
1	Zn 213.857†	66882.1	66332.2	514.05	ug/L	514.05	ppb	09:11:12
1	SiO2†	183793.8	184038.1	10522	ug/L	10522	ppb	09:12:30
2	Sc 361.383	945841.3	945841.3	100.76	%			09:11:38
2	Sc Radial	5009.2	5009.2	101	%			09:10:20
2	Y 371.029	815520.7	815520.7	99.683	%			09:11:38
2	Y RADIAL	5358.6	5358.6	101.0	%			09:10:20
2	Ag 328.068†	63297.2	62357.2	261.12	ug/L	261.12	ppb	09:11:38
2	Al 396.153Radial†	6375.8	6316.2	4920.9	ug/L	4920.9	ppb	09:10:20
2	As 188.979†	1415.8	1440.1	477.68	ug/L	477.68	ppb	09:11:58
2	B 249.677†	26421.4	26619.4	517.50	ug/L	517.50	ppb	09:11:38
2	Ba 233.527†	75251.3	74667.2	508.85	ug/L	508.85	ppb	09:11:38
2	Be 313.107†	828062.0	826556.7	263.55	ug/L	263.55	ppb	09:11:38
2	Ca 317.933Radial†	3209.1	3147.0	4931.7	ug/L	4931.7	ppb	09:10:40
2	Cd 226.502†	55861.8	55699.8	501.64	ug/L	501.64	ppb	09:11:38
2	Co 228.616†	28367.6	28249.2	497.13	ug/L	497.13	ppb	09:11:58
2	Cr 267.716†	52312.2	51786.4	487.39	ug/L	487.39	ppb	09:11:38
2	Cu 324.752†	186391.2	176510.9	503.59	ug/L	503.59	ppb	09:11:38
2	Fe 238.204 Radial†	595.2	574.4	5059.9	ug/L	5059.9	ppb	09:10:40
2	K 766.490 Radial†	16175.2	12636.7	2400.7	ug/L	2400.7	ppb	09:10:20
2	Mg 279.077 IEC†	173.2	168.3	5388.3	ug/L	5388.3	ppb	09:10:40
2	Mn 257.610†	525853.1	521275.1	517.58	ug/L	517.58	ppb	09:11:38
2	Mo 202.031†	9253.4	9158.5	539.56	ug/L	539.56	ppb	09:11:58
2	Na 589.592 Radial†	6682.9	8395.6	2382.0	ug/L	2382.0	ppb	09:10:20
2	Ni 231.604†	24355.5	24034.0	497.23	ug/L	497.23	ppb	09:11:58

2	P 214.914†	5876.6	5561.4	2446.1 ug/L	2446.1 ppb	09:11:58
2	Pb 220.353†	5003.7	5050.8	502.94 ug/L	502.94 ppb	09:11:58
2	S 181.975 Axial†	2371.0	2291.5	2516.1 ug/L	2516.1 ppb	09:11:58
2	Sb 206.836†	1803.2	1744.4	508.86 ug/L	508.86 ppb	09:11:58
2	Se 196.026†	5500.1	5491.6	2622.4 ug/L	2622.4 ppb	09:11:58
2	Si 251.611†	185914.5	183781.6	4876.9 ug/L	4876.9 ppb	09:11:38
2	Sn 189.927†	3841.6	3809.4	539.97 ug/L	539.97 ppb	09:11:58
2	Sr 421.552†	79145.0	78129.9	513.00 ug/L	513.00 ppb	09:10:20
2	Ti 334.940†	341485.6	340630.8	500.20 ug/L	500.20 ppb	09:11:38
2	Tl 190.801†	1990.9	2025.4	533.85 ug/L	533.85 ppb	09:11:58
2	U 409.014†	15137.1	17942.3	495.07 ug/L	495.07 ppb	09:11:38
2	V 292.402†	85261.8	86432.8	516.05 ug/L	516.05 ppb	09:11:38
2	Zn 213.857†	67655.8	66234.0	513.33 ug/L	513.33 ppb	09:11:38
2	SiO2†	182840.8	180712.3	10331 ug/L	10331 ppb	09:12:35
3	Sc 361.383	948205.7	948205.7	101.01 %		09:12:04
3	Sc Radial	5027.6	5027.6	102 %		09:10:45
3	Y 371.029	818011.2	818011.2	99.987 %		09:12:04
3	Y RADIAL	5376.4	5376.4	101.3 %		09:10:45
3	Ag 328.068†	63151.8	62056.5	259.88 ug/L	259.88 ppb	09:12:04
3	Al 396.153Radial†	6497.4	6412.7	4996.4 ug/L	4996.4 ppb	09:10:45
3	As 188.979†	1419.5	1440.1	477.69 ug/L	477.69 ppb	09:12:24
3	B 249.677†	26386.2	26519.2	515.54 ug/L	515.54 ppb	09:12:04
3	Ba 233.527†	75068.7	74300.1	506.35 ug/L	506.35 ppb	09:12:04
3	Be 313.107†	828495.0	824936.0	263.03 ug/L	263.03 ppb	09:12:04
3	Ca 317.933Radial†	3215.5	3141.6	4923.3 ug/L	4923.3 ppb	09:11:05
3	Cd 226.502†	55687.0	55388.5	498.83 ug/L	498.83 ppb	09:12:04
3	Co 228.616†	28425.1	28235.9	496.90 ug/L	496.90 ppb	09:12:24
3	Cr 267.716†	52274.3	51619.3	485.82 ug/L	485.82 ppb	09:12:04
3	Cu 324.752†	186639.6	176295.5	502.98 ug/L	502.98 ppb	09:12:04
3	Fe 238.204 Radial†	599.4	576.4	5077.4 ug/L	5077.4 ppb	09:11:05
3	K 766.490 Radial†	16219.2	12621.4	2397.8 ug/L	2397.8 ppb	09:10:45
3	Mg 279.077 IEC†	175.0	169.5	5426.0 ug/L	5426.0 ppb	09:11:05
3	Mn 257.610†	525129.5	519257.3	515.58 ug/L	515.58 ppb	09:12:04
3	Mo 202.031†	9275.2	9157.2	539.48 ug/L	539.48 ppb	09:12:24
3	Na 589.592 Radial†	6864.1	8549.6	2425.7 ug/L	2425.7 ppb	09:10:45
3	Ni 231.604†	24375.7	23993.8	496.40 ug/L	496.40 ppb	09:12:24
3	P 214.914†	5864.6	5534.9	2434.2 ug/L	2434.2 ppb	09:12:24
3	Pb 220.353†	4984.5	5019.5	499.84 ug/L	499.84 ppb	09:12:24
3	S 181.975 Axial†	2396.7	2311.1	2537.6 ug/L	2537.6 ppb	09:12:24
3	Sb 206.836†	1809.5	1746.3	509.39 ug/L	509.39 ppb	09:12:24
3	Se 196.026†	5500.7	5478.5	2616.2 ug/L	2616.2 ppb	09:12:24
3	Si 251.611†	185939.7	183346.5	4865.4 ug/L	4865.4 ppb	09:12:04
3	Sn 189.927†	3838.1	3796.4	538.12 ug/L	538.12 ppb	09:12:24
3	Sr 421.552†	80129.0	78811.3	517.48 ug/L	517.48 ppb	09:10:45
3	Ti 334.940†	341379.0	339680.1	498.81 ug/L	498.81 ppb	09:12:04
3	Tl 190.801†	1995.7	2025.3	533.79 ug/L	533.79 ppb	09:12:24
3	U 409.014†	14812.7	17583.7	485.15 ug/L	485.15 ppb	09:12:04
3	V 292.402†	85096.8	86058.4	513.82 ug/L	513.82 ppb	09:12:04
3	Zn 213.857†	67596.5	66007.9	511.56 ug/L	511.56 ppb	09:12:04
3	SiO2†	182723.8	180143.9	10299 ug/L	10299 ppb	09:12:40

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	942569.0	100.41	%	0.831				0.83%
Sc Radial	4957.7	100	%	2.1				2.13%
Y 371.029	813127.1	99.390	%	0.7853				0.79%
Y RADIAL	5305.7	100.0	%	2.03				2.03%
Ag 328.068†	62317.8	260.98	ug/L	1.029	260.98	ppb	1.029	0.39%
QC value within limits for Ag 328.068 Recovery = 104.39%								
Al 396.153Radial†	6438.6	5016.6	ug/L	107.28	5016.6	ppb	107.28	2.14%
QC value within limits for Al 396.153Radial Recovery = 100.33%								
As 188.979†	1450.7	481.19	ug/L	6.073	481.19	ppb	6.073	1.26%
QC value within limits for As 188.979 Recovery = 96.24%								
B 249.677†	26539.5	515.93	ug/L	1.416	515.93	ppb	1.416	0.27%
QC value within limits for B 249.677 Recovery = 103.19%								
Ba 233.527†	74523.7	507.87	ug/L	1.337	507.87	ppb	1.337	0.26%
QC value within limits for Ba 233.527 Recovery = 101.57%								
Be 313.107†	825975.7	263.36	ug/L	0.288	263.36	ppb	0.288	0.11%
QC value within limits for Be 313.107 Recovery = 105.35%								

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Ca 317.933Radial†        3184.6      4990.7 ug/L        109.56      4990.7 ppb         109.56   2.20%
   QC value within limits for Ca 317.933Radial  Recovery = 99.81%
Cd 226.502†             55572.8      500.49 ug/L         1.471      500.49 ppb          1.471   0.29%
   QC value within limits for Cd 226.502  Recovery = 100.10%
Co 228.616†             28334.2      498.63 ug/L         2.800      498.63 ppb          2.800   0.56%
   QC value within limits for Co 228.616  Recovery = 99.73%
Cr 267.716†             51734.5      486.90 ug/L         0.940      486.90 ppb          0.940   0.19%
   QC value within limits for Cr 267.716  Recovery = 97.38%
Cu 324.752†            176484.3      503.52 ug/L         0.508      503.52 ppb          0.508   0.10%
   QC value within limits for Cu 324.752  Recovery = 100.70%
Fe 238.204 Radial†        580.8      5116.4 ug/L        83.25      5116.4 ppb         83.25   1.63%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.33%
K 766.490 Radial†       12786.6      2429.2 ug/L        51.99      2429.2 ppb         51.99   2.14%
   QC value within limits for K 766.490 Radial  Recovery = 97.17%
Mg 279.077 IEC†           171.0      5475.0 ug/L       119.10      5475.0 ppb        119.10   2.18%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.50%
Mn 257.610†            520472.9      516.78 ug/L         1.064      516.78 ppb          1.064   0.21%
   QC value within limits for Mn 257.610  Recovery = 103.36%
Mo 202.031†              9180.7      540.86 ug/L         2.330      540.86 ppb          2.330   0.43%
   QC value within limits for Mo 202.031  Recovery = 108.17%
Na 589.592 Radial†       8544.4      2424.2 ug/L        41.50      2424.2 ppb         41.50   1.71%
   QC value within limits for Na 589.592 Radial  Recovery = 96.97%
Ni 231.604†             24091.5      498.42 ug/L         2.811      498.42 ppb          2.811   0.56%
   QC value within limits for Ni 231.604  Recovery = 99.68%
P 214.914†               5572.7      2451.3 ug/L        20.12      2451.3 ppb         20.12   0.82%
   QC value within limits for P 214.914  Recovery = 98.05%
Pb 220.353†              5050.6      502.93 ug/L         3.089      502.93 ppb          3.089   0.61%
   QC value within limits for Pb 220.353  Recovery = 100.59%
S 181.975 Axial†         2304.6      2530.4 ug/L        12.40      2530.4 ppb         12.40   0.49%
   QC value within limits for S 181.975 Axial  Recovery = 101.22%
Sb 206.836†              1748.8      510.15 ug/L         1.793      510.15 ppb          1.793   0.35%
   QC value within limits for Sb 206.836  Recovery = 102.03%
Se 196.026†              5507.5      2630.1 ug/L        19.00      2630.1 ppb         19.00   0.72%
   QC value within limits for Se 196.026  Recovery = 105.21%
Si 251.611†            183665.5      4873.8 ug/L         7.40      4873.8 ppb          7.40   0.15%
   QC value within limits for Si 251.611  Recovery = 97.48%
Sn 189.927†              3812.0      540.35 ug/L         2.436      540.35 ppb          2.436   0.45%
   QC value within limits for Sn 189.927  Recovery = 108.07%
Sr 421.552†             79365.5      521.11 ug/L        10.420      521.11 ppb         10.420   2.00%
   QC value within limits for Sr 421.552  Recovery = 104.22%
Ti 334.940†            340169.1      499.53 ug/L         0.697      499.53 ppb          0.697   0.14%
   QC value within limits for Ti 334.940  Recovery = 99.91%
Tl 190.801†              2028.7      534.70 ug/L         1.523      534.70 ppb          1.523   0.28%
   QC value within limits for Tl 190.801  Recovery = 106.94%
U 409.014†              17733.8      489.30 ug/L         5.159      489.30 ppb          5.159   1.05%
   QC value within limits for U 409.014  Recovery = 97.86%
V 292.402†              86254.2      515.00 ug/L         1.117      515.00 ppb          1.117   0.22%
   QC value within limits for V 292.402  Recovery = 103.00%
Zn 213.857†             66191.3      512.98 ug/L         1.279      512.98 ppb          1.279   0.25%
   QC value within limits for Zn 213.857  Recovery = 102.60%
SiO2†                  181631.5       10384 ug/L         120.4       10384 ppb         120.4   1.16%
   QC value within limits for SiO2  Recovery = 97.09%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 12/29/2009 09:14:51
Data Type: Reprocessed on 12/29/2009 10:09:31

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc 361.383	950820.2	950820.2	101.29	%			09:18:01
1	Sc Radial	5034.7	5034.7	102	%			09:16:44
1	Y 371.029	829204.5	829204.5	101.36	%			09:18:01
1	Y RADIAL	5397.3	5397.3	101.7	%			09:16:44
1	Ag 328.068†	660.9	186.9	0.7791	ug/L	0.7791	ppb	09:18:06
1	Al 396.153Radial†	-18.0	3.7	2.8560	ug/L	2.8560	ppb	09:16:44
1	As 188.979†	-31.5	3.8	1.2342	ug/L	1.2342	ppb	09:18:26
1	B 249.677†	-324.7	75.5	1.4717	ug/L	1.4717	ppb	09:18:06
1	Ba 233.527†	21.6	1.3	0.0101	ug/L	0.0101	ppb	09:18:26
1	Be 313.107†	-4608.3	151.5	0.0481	ug/L	0.0481	ppb	09:18:06
1	Ca 317.933Radial†	15.3	-6.5	-10.117	ug/L	-10.117	ppb	09:17:04
1	Cd 226.502†	-267.2	-7.2	-0.0649	ug/L	-0.0649	ppb	09:18:26
1	Co 228.616†	-73.5	21.6	0.3806	ug/L	0.3806	ppb	09:18:26
1	Cr 267.716†	84.0	-50.8	-0.4752	ug/L	-0.4752	ppb	09:18:06
1	Cu 324.752†	8455.9	-134.6	-0.3840	ug/L	-0.3840	ppb	09:18:06
1	Fe 238.204 Radial†	13.4	-0.1	-0.7044	ug/L	-0.7044	ppb	09:17:04
1	K 766.490 Radial†	3463.0	68.3	13.029	ug/L	13.029	ppb	09:16:44
1	Mg 279.077 IEC†	4.1	1.3	41.397	ug/L	41.397	ppb	09:17:04
1	Mn 257.610†	552.6	-91.0	-0.0911	ug/L	-0.0911	ppb	09:18:06
1	Mo 202.031†	28.2	2.3	0.1372	ug/L	0.1372	ppb	09:18:26
1	Na 589.592 Radial†	-1936.6	-104.9	-29.759	ug/L	-29.759	ppb	09:16:44
1	Ni 231.604†	117.3	-23.1	-0.4779	ug/L	-0.4779	ppb	09:18:26
1	P 214.914†	259.4	-15.1	-6.7785	ug/L	-6.7785	ppb	09:18:26
1	Pb 220.353†	-97.9	-12.0	-1.1913	ug/L	-1.1913	ppb	09:18:26
1	S 181.975 Axial†	60.4	-2.0	-2.2216	ug/L	-2.2216	ppb	09:18:26
1	Sb 206.836†	57.6	11.7	3.3552	ug/L	3.3552	ppb	09:18:26
1	Se 196.026†	-36.6	-3.4	-1.6249	ug/L	-1.6249	ppb	09:18:26
1	Si 251.611†	765.1	16.0	0.4191	ug/L	0.4191	ppb	09:18:26
1	Sn 189.927†	3.6	0.2	0.0265	ug/L	0.0265	ppb	09:18:26
1	Sr 421.552†	-4.1	-15.1	-0.0988	ug/L	-0.0988	ppb	09:16:44
1	Ti 334.940†	-1732.1	-5.3	-0.0065	ug/L	-0.0065	ppb	09:18:06
1	Tl 190.801†	-47.4	2.7	0.7035	ug/L	0.7035	ppb	09:18:26
1	U 409.014†	-3095.5	-137.5	-3.8053	ug/L	-3.8053	ppb	09:18:01
1	V 292.402†	-1710.6	121.2	0.7089	ug/L	0.7089	ppb	09:18:06
1	Zn 213.857†	959.3	32.4	0.2556	ug/L	0.2556	ppb	09:18:26
1	SiO2†	786.0	18.0	1.0139	ug/L	1.0139	ppb	09:19:32
2	Sc 361.383	959976.9	959976.9	102.26	%			09:18:31
2	Sc Radial	5037.8	5037.8	102	%			09:17:09
2	Y 371.029	835244.5	835244.5	102.09	%			09:18:31
2	Y RADIAL	5353.4	5353.4	100.9	%			09:17:09
2	Ag 328.068†	592.4	113.7	0.4663	ug/L	0.4663	ppb	09:18:36
2	Al 396.153Radial†	-16.1	5.5	4.2572	ug/L	4.2572	ppb	09:17:09
2	As 188.979†	-37.6	-1.9	-0.6258	ug/L	-0.6258	ppb	09:18:57
2	B 249.677†	-279.9	122.3	2.3895	ug/L	2.3895	ppb	09:18:36
2	Ba 233.527†	8.1	-12.2	-0.0822	ug/L	-0.0822	ppb	09:18:57
2	Be 313.107†	-4633.2	170.6	0.0543	ug/L	0.0543	ppb	09:18:36
2	Ca 317.933Radial†	24.0	2.1	3.3379	ug/L	3.3379	ppb	09:17:29
2	Cd 226.502†	-254.9	7.4	0.0683	ug/L	0.0683	ppb	09:18:57
2	Co 228.616†	-106.8	-10.3	-0.1787	ug/L	-0.1787	ppb	09:18:57
2	Cr 267.716†	113.2	-23.0	-0.2164	ug/L	-0.2164	ppb	09:18:36
2	Cu 324.752†	8301.1	-365.7	-1.0435	ug/L	-1.0435	ppb	09:18:36
2	Fe 238.204 Radial†	12.0	-1.5	-12.780	ug/L	-12.780	ppb	09:17:29
2	K 766.490 Radial†	3355.6	-39.1	-7.4415	ug/L	-7.4415	ppb	09:17:09
2	Mg 279.077 IEC†	1.7	-1.1	-33.693	ug/L	-33.693	ppb	09:17:29
2	Mn 257.610†	546.2	-102.5	-0.1023	ug/L	-0.1023	ppb	09:18:36
2	Mo 202.031†	37.1	10.9	0.6380	ug/L	0.6380	ppb	09:18:57
2	Na 589.592 Radial†	-1897.9	-65.7	-18.648	ug/L	-18.648	ppb	09:17:09
2	Ni 231.604†	143.6	1.5	0.0319	ug/L	0.0319	ppb	09:18:57

2	P 214.914†	269.0	-8.1	-3.4829 ug/L	-3.4829 ppb	09:18:57
2	Pb 220.353†	-91.7	-5.1	-0.4998 ug/L	-0.4998 ppb	09:18:57
2	S 181.975 Axial†	69.6	6.4	6.9954 ug/L	6.9954 ppb	09:18:57
2	Sb 206.836†	34.4	-11.6	-3.2963 ug/L	-3.2963 ppb	09:18:57
2	Se 196.026†	-29.2	4.1	1.9204 ug/L	1.9204 ppb	09:18:57
2	Si 251.611†	775.8	19.3	0.5033 ug/L	0.5033 ppb	09:18:57
2	Sn 189.927†	6.7	3.1	0.4452 ug/L	0.4452 ppb	09:18:57
2	Sr 421.552†	-7.3	-18.2	-0.1196 ug/L	-0.1196 ppb	09:17:09
2	Ti 334.940†	-1699.5	42.9	0.0626 ug/L	0.0626 ppb	09:18:36
2	Tl 190.801†	-48.6	1.9	0.5087 ug/L	0.5087 ppb	09:18:57
2	U 409.014†	-2936.3	47.3	1.3122 ug/L	1.3122 ppb	09:18:31
2	V 292.402†	-1789.3	60.4	0.3682 ug/L	0.3682 ppb	09:18:36
2	Zn 213.857†	938.4	2.9	0.0258 ug/L	0.0258 ppb	09:18:57
2	SiO2†	812.7	36.7	2.0797 ug/L	2.0797 ppb	09:19:37
3	Sc 361.383	962140.2	962140.2	102.49 %		09:19:02
3	Sc Radial	5118.2	5118.2	103 %		09:17:34
3	Y 371.029	837315.9	837315.9	102.35 %		09:19:02
3	Y RADIAL	5459.5	5459.5	102.9 %		09:17:34
3	Ag 328.068†	598.5	118.4	0.4889 ug/L	0.4889 ppb	09:19:07
3	Al 396.153Radial†	1.3	22.5	17.633 ug/L	17.633 ppb	09:17:34
3	As 188.979†	-41.8	-6.0	-1.9708 ug/L	-1.9708 ppb	09:19:27
3	B 249.677†	-305.7	97.8	1.9096 ug/L	1.9096 ppb	09:19:07
3	Ba 233.527†	6.1	-14.1	-0.0958 ug/L	-0.0958 ppb	09:19:27
3	Be 313.107†	-4685.7	129.6	0.0413 ug/L	0.0413 ppb	09:19:07
3	Ca 317.933Radial†	16.7	-5.3	-8.3790 ug/L	-8.3790 ppb	09:17:54
3	Cd 226.502†	-252.4	10.4	0.0941 ug/L	0.0941 ppb	09:19:27
3	Co 228.616†	-80.4	15.7	0.2767 ug/L	0.2767 ppb	09:19:27
3	Cr 267.716†	165.7	28.0	0.2632 ug/L	0.2632 ppb	09:19:07
3	Cu 324.752†	8417.1	-270.7	-0.7724 ug/L	-0.7724 ppb	09:19:07
3	Fe 238.204 Radial†	12.9	-0.8	-7.3165 ug/L	-7.3165 ppb	09:17:54
3	K 766.490 Radial†	3269.7	-173.9	-33.095 ug/L	-33.095 ppb	09:17:34
3	Mg 279.077 IEC†	3.8	1.0	30.839 ug/L	30.839 ppb	09:17:54
3	Mn 257.610†	611.6	-39.9	-0.0408 ug/L	-0.0408 ppb	09:19:07
3	Mo 202.031†	26.9	0.8	0.0465 ug/L	0.0465 ppb	09:19:27
3	Na 589.592 Radial†	-1943.3	-80.3	-22.788 ug/L	-22.788 ppb	09:17:34
3	Ni 231.604†	146.8	4.3	0.0887 ug/L	0.0887 ppb	09:19:27
3	P 214.914†	275.8	-2.1	-0.8036 ug/L	-0.8036 ppb	09:19:27
3	Pb 220.353†	-71.5	14.9	1.4814 ug/L	1.4814 ppb	09:19:27
3	S 181.975 Axial†	63.3	0.1	0.1413 ug/L	0.1413 ppb	09:19:27
3	Sb 206.836†	46.5	0.1	0.0620 ug/L	0.0620 ppb	09:19:27
3	Se 196.026†	-33.4	0.1	0.0281 ug/L	0.0281 ppb	09:19:27
3	Si 251.611†	756.2	-1.5	-0.0363 ug/L	-0.0363 ppb	09:19:27
3	Sn 189.927†	16.0	12.2	1.7247 ug/L	1.7247 ppb	09:19:27
3	Sr 421.552†	22.2	10.4	0.0684 ug/L	0.0684 ppb	09:17:34
3	Ti 334.940†	-1685.9	59.9	0.0881 ug/L	0.0881 ppb	09:19:07
3	Tl 190.801†	-46.0	4.6	1.2091 ug/L	1.2091 ppb	09:19:27
3	U 409.014†	-3045.0	-52.3	-1.4478 ug/L	-1.4478 ppb	09:19:02
3	V 292.402†	-1834.7	19.9	0.1168 ug/L	0.1168 ppb	09:19:07
3	Zn 213.857†	957.4	19.4	0.1514 ug/L	0.1514 ppb	09:19:27
3	SiO2†	759.7	-16.8	-0.9495 ug/L	-0.9495 ppb	09:19:42

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	957645.8	102.01	%	0.640				0.63%
Sc Radial	5063.6	102	%	1.0				0.93%
Y 371.029	833921.6	101.93	%	0.515				0.51%
Y RADIAL	5403.4	101.9	%	1.01				0.99%
Ag 328.068†	139.7	0.5781	ug/L	0.17446	0.5781	ppb	0.17446	30.18%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	10.6	8.2488	ug/L	8.15719	8.2488	ppb	8.15719	98.89%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.4	-0.4541	ug/L	1.60937	-0.4541	ppb	1.60937	354.41%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	98.6	1.9236	ug/L	0.45906	1.9236	ppb	0.45906	23.86%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-8.3	-0.0559	ug/L	0.05763	-0.0559	ppb	0.05763	103.02%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	150.6	0.0479	ug/L	0.00649	0.0479	ppb	0.00649	13.54%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          -3.2     -5.0528 ug/L       7.31837     -5.0528 ppb        7.31837 144.84%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 3.5      0.0325 ug/L       0.08532      0.0325 ppb        0.08532 262.63%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 9.0      0.1595 ug/L       0.29750      0.1595 ppb        0.29750 186.49%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -15.3     -0.1428 ug/L       0.37466     -0.1428 ppb        0.37466 262.31%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -257.0     -0.7333 ug/L       0.33147     -0.7333 ppb        0.33147  45.20%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.8     -6.9336 ug/L       6.04683     -6.9336 ppb        6.04683  87.21%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -48.2     -9.1692 ug/L      23.11023     -9.1692 ppb       23.11023 252.04%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.4      12.848 ug/L       40.6495      12.848 ppb        40.6495 316.39%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -77.8     -0.0781 ug/L       0.03274     -0.0781 ppb        0.03274  41.93%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.7      0.2739 ug/L       0.31855      0.2739 ppb        0.31855 116.31%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -83.6     -23.732 ug/L        5.6151     -23.732 ppb         5.6151  23.66%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -5.7     -0.1191 ug/L       0.31203     -0.1191 ppb        0.31203 261.97%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -8.4     -3.6883 ug/L       2.99274     -3.6883 ppb        2.99274  81.14%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -0.7     -0.0699 ug/L       1.38723     -0.0699 ppb        1.38723 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.5      1.6384 ug/L       4.78742      1.6384 ppb        4.78742 292.20%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.1      0.0403 ug/L       3.32576      0.0403 ppb        3.32576 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.3      0.1078 ug/L       1.77399      0.1078 ppb        1.77399 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                11.3      0.2954 ug/L       0.29029      0.2954 ppb        0.29029  98.28%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.2      0.7321 ug/L       0.88472      0.7321 ppb        0.88472 120.84%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -7.6     -0.0500 ug/L       0.10305     -0.0500 ppb        0.10305 206.11%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                32.5      0.0481 ug/L       0.04894      0.0481 ppb        0.04894 101.77%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.1      0.8071 ug/L       0.36149      0.8071 ppb        0.36149  44.79%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -47.5     -1.3136 ug/L       2.56140     -1.3136 ppb        2.56140 194.99%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 67.2      0.3980 ug/L       0.29719      0.3980 ppb        0.29719  74.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                18.3      0.1443 ug/L       0.11507      0.1443 ppb        0.11507  79.75%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      12.6      0.7147 ug/L       1.53662      0.7147 ppb        1.53662 215.00%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 12/29/2009 09:21:53
Data Type: Reprocessed on 12/29/2009 10:09:32

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	946055.4	946055.4	100.78	%			09:25:03
1	Sc Radial	5014.1	5014.1	101	%			09:23:46
1	Y 371.029	824277.8	824277.8	100.75	%			09:25:03
1	Y RADIAL	5353.5	5353.5	100.9	%			09:23:46
1	Ag 328.068†	1693.4	1214.7	5.0323	ug/L	5.0323	ppb	09:25:03
1	Al 396.153Radial†	264.8	282.5	220.70	ug/L	220.70	ppb	09:23:46
1	As 188.979†	46.6	81.1	26.682	ug/L	26.682	ppb	09:25:24
1	B 249.677†	2036.2	2416.5	47.128	ug/L	47.128	ppb	09:25:24
1	Ba 233.527†	759.3	733.4	4.9995	ug/L	4.9995	ppb	09:25:24
1	Be 313.107†	11059.3	15675.3	4.9890	ug/L	4.9890	ppb	09:25:03
1	Ca 317.933Radial†	157.2	133.6	209.37	ug/L	209.37	ppb	09:24:06
1	Cd 226.502†	294.2	548.5	4.9349	ug/L	4.9349	ppb	09:25:24
1	Co 228.616†	196.5	289.2	5.1023	ug/L	5.1023	ppb	09:25:24
1	Cr 267.716†	654.4	515.6	4.8383	ug/L	4.8383	ppb	09:25:24
1	Cu 324.752†	11869.2	3294.4	9.3995	ug/L	9.3995	ppb	09:25:03
1	Fe 238.204 Radial†	25.5	11.9	104.81	ug/L	104.81	ppb	09:24:06
1	K 766.490 Radial†	4137.8	747.9	142.19	ug/L	142.19	ppb	09:23:46
1	Mg 279.077 IEC†	11.2	8.3	265.63	ug/L	265.63	ppb	09:24:06
1	Mn 257.610†	10953.4	10232.3	10.157	ug/L	10.157	ppb	09:25:03
1	Mo 202.031†	202.3	175.3	10.327	ug/L	10.327	ppb	09:25:24
1	Na 589.592 Radial†	-815.6	993.0	281.73	ug/L	281.73	ppb	09:23:46
1	Ni 231.604†	388.0	246.1	5.0919	ug/L	5.0919	ppb	09:25:24
1	P 214.914†	597.1	321.3	144.32	ug/L	144.32	ppb	09:25:24
1	Pb 220.353†	18.2	102.7	10.250	ug/L	10.250	ppb	09:25:24
1	S 181.975 Axial†	149.3	86.5	94.950	ug/L	94.950	ppb	09:25:24
1	Sb 206.836†	74.6	28.8	8.5285	ug/L	8.5285	ppb	09:25:24
1	Se 196.026†	25.3	57.8	27.805	ug/L	27.805	ppb	09:25:24
1	Si 251.611†	4472.6	3698.7	98.129	ug/L	98.129	ppb	09:25:24
1	Sn 189.927†	80.4	76.4	10.842	ug/L	10.842	ppb	09:25:24
1	Sr 421.552†	771.1	749.6	4.9202	ug/L	4.9202	ppb	09:23:46
1	Ti 334.940†	1610.5	3302.8	4.8376	ug/L	4.8376	ppb	09:25:03
1	Tl 190.801†	43.1	92.2	24.224	ug/L	24.224	ppb	09:25:24
1	U 409.014†	-1047.9	1878.9	51.986	ug/L	51.986	ppb	09:25:03
1	V 292.402†	-939.8	877.6	5.3969	ug/L	5.3969	ppb	09:25:24
1	Zn 213.857†	2199.6	1267.9	9.8492	ug/L	9.8492	ppb	09:25:24
1	SiO2†	4554.4	3761.2	214.99	ug/L	214.99	ppb	09:26:20
2	Sc 361.383	952100.6	952100.6	101.42	%			09:25:29
2	Sc Radial	5002.6	5002.6	101	%			09:24:11
2	Y 371.029	828812.9	828812.9	101.31	%			09:25:29
2	Y RADIAL	5367.6	5367.6	101.2	%			09:24:11
2	Ag 328.068†	1736.1	1246.1	5.1602	ug/L	5.1602	ppb	09:25:29
2	Al 396.153Radial†	244.0	262.5	205.04	ug/L	205.04	ppb	09:24:11
2	As 188.979†	48.0	82.2	27.039	ug/L	27.039	ppb	09:25:49
2	B 249.677†	2084.8	2451.7	47.815	ug/L	47.815	ppb	09:25:49
2	Ba 233.527†	773.1	742.2	5.0589	ug/L	5.0589	ppb	09:25:49
2	Be 313.107†	11102.5	15648.2	4.9805	ug/L	4.9805	ppb	09:25:29
2	Ca 317.933Radial†	150.0	126.9	198.79	ug/L	198.79	ppb	09:24:31
2	Cd 226.502†	298.0	550.5	4.9537	ug/L	4.9537	ppb	09:25:49
2	Co 228.616†	194.0	285.5	5.0360	ug/L	5.0360	ppb	09:25:49
2	Cr 267.716†	650.8	508.0	4.7671	ug/L	4.7671	ppb	09:25:49
2	Cu 324.752†	11849.4	3200.1	9.1301	ug/L	9.1301	ppb	09:25:29
2	Fe 238.204 Radial†	24.3	10.7	94.506	ug/L	94.506	ppb	09:24:31
2	K 766.490 Radial†	4025.9	646.7	122.92	ug/L	122.92	ppb	09:24:11
2	Mg 279.077 IEC†	13.5	10.7	341.69	ug/L	341.69	ppb	09:24:31
2	Mn 257.610†	11058.4	10266.7	10.189	ug/L	10.189	ppb	09:25:29
2	Mo 202.031†	196.3	168.1	9.9044	ug/L	9.9044	ppb	09:25:49
2	Na 589.592 Radial†	-900.8	906.9	257.30	ug/L	257.30	ppb	09:24:11
2	Ni 231.604†	391.6	247.3	5.1154	ug/L	5.1154	ppb	09:25:49

2	P 214.914†	601.4	321.8	144.58 ug/L	144.58 ppb	09:25:49
2	Pb 220.353†	11.9	96.3	9.6150 ug/L	9.6150 ppb	09:25:49
2	S 181.975 Axial†	167.1	103.1	113.18 ug/L	113.18 ppb	09:25:49
2	Sb 206.836†	70.7	24.4	7.2809 ug/L	7.2809 ppb	09:25:49
2	Se 196.026†	34.4	66.6	31.923 ug/L	31.923 ppb	09:25:49
2	Si 251.611†	4450.0	3648.2	96.802 ug/L	96.802 ppb	09:25:49
2	Sn 189.927†	78.6	74.0	10.507 ug/L	10.507 ppb	09:25:49
2	Sr 421.552†	710.0	690.9	4.5349 ug/L	4.5349 ppb	09:24:11
2	Ti 334.940†	1663.2	3344.7	4.8997 ug/L	4.8997 ppb	09:25:29
2	Tl 190.801†	30.2	79.3	20.830 ug/L	20.830 ppb	09:25:49
2	U 409.014†	-1152.7	1782.1	49.308 ug/L	49.308 ppb	09:25:29
2	V 292.402†	-994.2	829.8	5.1075 ug/L	5.1075 ppb	09:25:49
2	Zn 213.857†	2196.6	1251.1	9.7161 ug/L	9.7161 ppb	09:25:49
2	SiO2†	4468.9	3648.2	208.55 ug/L	208.55 ppb	09:26:25
3	Sc 361.383	962008.2	962008.2	102.48 %		09:25:55
3	Sc Radial	5035.8	5035.8	102 %		09:24:37
3	Y 371.029	836452.5	836452.5	102.24 %		09:25:55
3	Y RADIAL	5364.4	5364.4	101.1 %		09:24:37
3	Ag 328.068†	1627.4	1122.5	4.6414 ug/L	4.6414 ppb	09:25:55
3	Al 396.153Radial†	265.9	282.5	220.71 ug/L	220.71 ppb	09:24:37
3	As 188.979†	52.5	86.1	28.315 ug/L	28.315 ppb	09:26:15
3	B 249.677†	2039.7	2386.5	46.545 ug/L	46.545 ppb	09:26:15
3	Ba 233.527†	727.5	689.8	4.7030 ug/L	4.7030 ppb	09:26:15
3	Be 313.107†	11127.0	15559.4	4.9526 ug/L	4.9526 ppb	09:25:55
3	Ca 317.933Radial†	149.4	125.3	196.34 ug/L	196.34 ppb	09:24:57
3	Cd 226.502†	301.5	550.8	4.9574 ug/L	4.9574 ppb	09:26:15
3	Co 228.616†	198.4	287.8	5.0753 ug/L	5.0753 ppb	09:26:15
3	Cr 267.716†	629.5	480.5	4.5078 ug/L	4.5078 ppb	09:26:15
3	Cu 324.752†	12089.0	3313.6	9.4531 ug/L	9.4531 ppb	09:25:55
3	Fe 238.204 Radial†	23.0	9.3	81.703 ug/L	81.703 ppb	09:24:57
3	K 766.490 Radial†	3982.4	577.7	109.78 ug/L	109.78 ppb	09:24:37
3	Mg 279.077 IEC†	12.4	9.5	302.42 ug/L	302.42 ppb	09:24:57
3	Mn 257.610†	11094.6	10189.8	10.112 ug/L	10.112 ppb	09:25:55
3	Mo 202.031†	193.2	163.1	9.6068 ug/L	9.6068 ppb	09:26:15
3	Na 589.592 Radial†	-828.1	984.1	279.21 ug/L	279.21 ppb	09:24:37
3	Ni 231.604†	367.0	219.2	4.5350 ug/L	4.5350 ppb	09:26:15
3	P 214.914†	603.1	317.3	142.52 ug/L	142.52 ppb	09:26:15
3	Pb 220.353†	6.7	91.1	9.1029 ug/L	9.1029 ppb	09:26:15
3	S 181.975 Axial†	148.7	83.4	91.604 ug/L	91.604 ppb	09:26:15
3	Sb 206.836†	83.7	36.4	10.710 ug/L	10.710 ppb	09:26:15
3	Se 196.026†	21.8	54.0	25.920 ug/L	25.920 ppb	09:26:15
3	Si 251.611†	4454.6	3607.5	95.727 ug/L	95.727 ppb	09:26:15
3	Sn 189.927†	79.5	74.2	10.524 ug/L	10.524 ppb	09:26:15
3	Sr 421.552†	781.0	756.0	4.9625 ug/L	4.9625 ppb	09:24:37
3	Ti 334.940†	1781.9	3443.6	5.0428 ug/L	5.0428 ppb	09:25:55
3	Tl 190.801†	28.3	77.1	20.263 ug/L	20.263 ppb	09:26:15
3	U 409.014†	-982.8	1959.6	54.224 ug/L	54.224 ppb	09:25:55
3	V 292.402†	-950.4	882.6	5.4249 ug/L	5.4249 ppb	09:26:15
3	Zn 213.857†	2196.2	1228.5	9.5443 ug/L	9.5443 ppb	09:26:15
3	SiO2†	4579.0	3710.3	212.13 ug/L	212.13 ppb	09:26:30

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	953388.1	101.56	%	0.858				0.84%
Sc Radial	5017.5	101	%	0.3				0.34%
Y 371.029	829847.7	101.43	%	0.752				0.74%
Y RADIAL	5361.8	101.1	%	0.14				0.14%
Ag 328.068†	1194.4	4.9446	ug/L	0.27031	4.9446	ppb	0.27031	5.47%
QC value within limits for Ag 328.068 Recovery = 98.89%								
Al 396.153Radial†	275.8	215.48	ug/L	9.041	215.48	ppb	9.041	4.20%
QC value within limits for Al 396.153Radial Recovery = 107.74%								
As 188.979†	83.1	27.345	ug/L	0.8586	27.345	ppb	0.8586	3.14%
QC value within limits for As 188.979 Recovery = 91.15%								
B 249.677†	2418.2	47.162	ug/L	0.6357	47.162	ppb	0.6357	1.35%
QC value within limits for B 249.677 Recovery = 94.32%								
Ba 233.527†	721.8	4.9205	ug/L	0.19064	4.9205	ppb	0.19064	3.87%
QC value within limits for Ba 233.527 Recovery = 98.41%								
Be 313.107†	15627.6	4.9740	ug/L	0.01906	4.9740	ppb	0.01906	0.38%
QC value within limits for Be 313.107 Recovery = 99.48%								

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Ca 317.933Radial†        128.6      201.50 ug/L        6.924      201.50 ppb        6.924   3.44%
   QC value within limits for Ca 317.933Radial  Recovery = 100.75%
Cd 226.502†              550.0      4.9486 ug/L      0.01206      4.9486 ppb      0.01206   0.24%
   QC value within limits for Cd 226.502  Recovery = 98.97%
Co 228.616†              287.5      5.0712 ug/L      0.03334      5.0712 ppb      0.03334   0.66%
   QC value within limits for Co 228.616  Recovery = 101.42%
Cr 267.716†              501.4      4.7044 ug/L      0.17392      4.7044 ppb      0.17392   3.70%
   QC value within limits for Cr 267.716  Recovery = 94.09%
Cu 324.752†             3269.3      9.3276 ug/L      0.17309      9.3276 ppb      0.17309   1.86%
   QC value within limits for Cu 324.752  Recovery = 93.28%
Fe 238.204 Radial†        10.6      93.672 ug/L      11.5749      93.672 ppb      11.5749  12.36%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.67%
K 766.490 Radial†        657.4      124.97 ug/L       16.301      124.97 ppb       16.301  13.04%
   QC value within limits for K 766.490 Radial  Recovery = 83.31%
Mg 279.077 IEC†           9.5      303.25 ug/L       38.036      303.25 ppb       38.036  12.54%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.08%
Mn 257.610†            10229.6      10.153 ug/L       0.0387      10.153 ppb       0.0387   0.38%
   QC value within limits for Mn 257.610  Recovery = 101.53%
Mo 202.031†              168.8      9.9460 ug/L      0.36181      9.9460 ppb      0.36181   3.64%
   QC value within limits for Mo 202.031  Recovery = 99.46%
Na 589.592 Radial†       961.3      272.75 ug/L       13.439      272.75 ppb       13.439   4.93%
   QC value within limits for Na 589.592 Radial  Recovery = 90.92%
Ni 231.604†              237.5      4.9141 ug/L      0.32851      4.9141 ppb      0.32851   6.69%
   QC value within limits for Ni 231.604  Recovery = 98.28%
P 214.914†               320.1      143.80 ug/L        1.120      143.80 ppb        1.120   0.78%
   QC value within limits for P 214.914  Recovery = 95.87%
Pb 220.353†               96.7      9.6561 ug/L      0.57476      9.6561 ppb      0.57476   5.95%
   QC value within limits for Pb 220.353  Recovery = 96.56%
S 181.975 Axial†          91.0      99.911 ug/L      11.6114      99.911 ppb      11.6114  11.62%
   QC value within limits for S 181.975 Axial  Recovery = 99.91%
Sb 206.836†               29.9      8.8398 ug/L      1.73561      8.8398 ppb      1.73561  19.63%
   QC value within limits for Sb 206.836  Recovery = 88.40%
Se 196.026†               59.4      28.549 ug/L       3.0699      28.549 ppb       3.0699  10.75%
   QC value within limits for Se 196.026  Recovery = 95.16%
Si 251.611†             3651.5      96.886 ug/L       1.2028      96.886 ppb       1.2028   1.24%
   QC value within limits for Si 251.611  Recovery = 96.89%
Sn 189.927†               74.9      10.624 ug/L       0.1884      10.624 ppb       0.1884   1.77%
   QC value within limits for Sn 189.927  Recovery = 106.24%
Sr 421.552†              732.2      4.8059 ug/L      0.23563      4.8059 ppb      0.23563   4.90%
   QC value within limits for Sr 421.552  Recovery = 96.12%
Ti 334.940†             3363.7      4.9267 ug/L      0.10521      4.9267 ppb      0.10521   2.14%
   QC value within limits for Ti 334.940  Recovery = 98.53%
Tl 190.801†               82.9      21.772 ug/L       2.1419      21.772 ppb       2.1419   9.84%
   QC value within limits for Tl 190.801  Recovery = 108.86%
U 409.014†              1873.5      51.839 ug/L       2.4616      51.839 ppb       2.4616   4.75%
   QC value within limits for U 409.014  Recovery = 103.68%
V 292.402†               863.3      5.3098 ug/L      0.17570      5.3098 ppb      0.17570   3.31%
   QC value within limits for V 292.402  Recovery = 106.20%
Zn 213.857†             1249.2      9.7032 ug/L      0.15283      9.7032 ppb      0.15283   1.58%
   QC value within limits for Zn 213.857  Recovery = 97.03%
SiO2†                   3706.6      211.89 ug/L        3.228      211.89 ppb        3.228   1.52%
   QC value within limits for SiO2  Recovery = 99.48%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 12/29/2009 09:28:42
Data Type: Reprocessed on 12/29/2009 10:09:33

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	799914.7	799914.7	85.210	%			09:31:08
1	Sc Radial	4512.0	4512.0	91.2	%			09:30:41
1	Y 371.029	679741.6	679741.6	83.086	%			09:31:08
1	Y RADIAL	4837.9	4837.9	91.20	%			09:30:41
1	Ag 328.068†	-10939.4	-13303.7	0.8441	ug/L	0.8441	ppb	09:31:08
1	Al 396.153Radial†	598089.6	655583.6	513150	ug/L	513150	ppb	09:30:36
1	As 188.979†	-99.8	-82.3	1.8080	ug/L	1.8080	ppb	09:31:28
1	B 249.677†	206.0	637.8	-12.491	ug/L	-12.491	ppb	09:31:08
1	Ba 233.527†	-775.5	-930.1	-1.5520	ug/L	-1.5520	ppb	09:31:28
1	Be 313.107†	-5046.1	-1220.6	-0.4285	ug/L	-0.4285	ppb	09:31:08
1	Ca 317.933Radial†	278078.6	304778.7	477630	ug/L	477630	ppb	09:30:36
1	Cd 226.502†	1386.7	1884.0	-1.8152	ug/L	-1.8152	ppb	09:31:28
1	Co 228.616†	-39.5	47.9	-1.8438	ug/L	-1.8438	ppb	09:31:28
1	Cr 267.716†	-63.8	-208.7	1.4234	ug/L	1.4234	ppb	09:31:28
1	Cu 324.752†	4547.7	-3146.2	0.6165	ug/L	0.6165	ppb	09:31:08
1	Fe 238.204 Radial†	19539.2	21403.5	187960	ug/L	187960	ppb	09:30:41
1	K 766.490 Radial†	2661.7	-415.9	-63.603	ug/L	-63.603	ppb	09:30:36
1	Mg 279.077 IEC†	14042.6	15389.3	491950	ug/L	491950	ppb	09:30:41
1	Mn 257.610†	-320.4	-1012.6	8.5773	ug/L	8.5773	ppb	09:31:08
1	Mo 202.031†	-246.1	-314.3	-0.4824	ug/L	-0.4824	ppb	09:31:28
1	Na 589.592 Radial†	-1636.4	3.8	1.0699	ug/L	1.0699	ppb	09:30:41
1	Ni 231.604†	272.7	181.1	3.7494	ug/L	3.7494	ppb	09:31:28
1	P 214.914†	239.4	9.8	27.284	ug/L	27.284	ppb	09:31:28
1	Pb 220.353†	-1051.3	-1149.1	-14.366	ug/L	-14.366	ppb	09:31:28
1	S 181.975 Axial†	86.3	39.6	-57.407	ug/L	-57.407	ppb	09:31:28
1	Sb 206.836†	81.5	50.5	2.0324	ug/L	2.0324	ppb	09:31:28
1	Se 196.026†	-1255.3	-1440.5	-12.253	ug/L	-12.253	ppb	09:31:28
1	Si 251.611†	480.6	-175.4	-4.1067	ug/L	-4.1067	ppb	09:31:28
1	Sn 189.927†	-402.5	-475.8	-14.984	ug/L	-14.984	ppb	09:31:28
1	Sr 421.552†	534.6	575.0	-0.6514	ug/L	-0.6514	ppb	09:30:41
1	Ti 334.940†	-13474.9	-14108.8	4.1865	ug/L	4.1865	ppb	09:31:08
1	Tl 190.801†	-109.0	-78.5	-6.7051	ug/L	-6.7051	ppb	09:31:28
1	U 409.014†	-2166.0	376.7	-13.217	ug/L	-13.217	ppb	09:31:08
1	V 292.402†	593.6	2506.7	-2.9570	ug/L	-2.9570	ppb	09:31:28
1	Zn 213.857†	3664.3	3385.6	-0.1436	ug/L	-0.1436	ppb	09:31:28
1	SiO2†	539.4	-125.0	-5.9477	ug/L	-5.9477	ppb	09:32:24
2	Sc 361.383	816755.7	816755.7	87.004	%			09:31:33
2	Sc Radial	4487.8	4487.8	90.7	%			09:30:51
2	Y 371.029	694523.7	694523.7	84.893	%			09:31:33
2	Y RADIAL	4790.9	4790.9	90.31	%			09:30:51
2	Ag 328.068†	-11139.1	-13268.5	1.2550	ug/L	1.2550	ppb	09:31:33
2	Al 396.153Radial†	600891.6	662207.4	518340	ug/L	518340	ppb	09:30:46
2	As 188.979†	-110.2	-91.8	-1.1563	ug/L	-1.1563	ppb	09:31:53
2	B 249.677†	41.1	443.3	-16.420	ug/L	-16.420	ppb	09:31:33
2	Ba 233.527†	-731.8	-861.3	-1.0585	ug/L	-1.0585	ppb	09:31:53
2	Be 313.107†	-5069.7	-1125.6	-0.4000	ug/L	-0.4000	ppb	09:31:33
2	Ca 317.933Radial†	279120.7	307571.2	482010	ug/L	482010	ppb	09:30:46
2	Cd 226.502†	1411.9	1879.4	-1.9558	ug/L	-1.9558	ppb	09:31:53
2	Co 228.616†	-24.8	65.7	-1.5431	ug/L	-1.5431	ppb	09:31:53
2	Cr 267.716†	-11.1	-146.4	2.0244	ug/L	2.0244	ppb	09:31:53
2	Cu 324.752†	4506.0	-3304.1	0.2171	ug/L	0.2171	ppb	09:31:33
2	Fe 238.204 Radial†	19537.4	21517.1	188960	ug/L	188960	ppb	09:30:51
2	K 766.490 Radial†	2884.2	-155.0	-13.717	ug/L	-13.717	ppb	09:30:46
2	Mg 279.077 IEC†	14048.0	15478.2	494800	ug/L	494800	ppb	09:30:51
2	Mn 257.610†	-409.4	-1107.1	8.5300	ug/L	8.5300	ppb	09:31:33
2	Mo 202.031†	-255.5	-319.2	-0.6733	ug/L	-0.6733	ppb	09:31:53
2	Na 589.592 Radial†	-1637.6	-7.3	-2.0593	ug/L	-2.0593	ppb	09:30:51
2	Ni 231.604†	290.5	195.0	4.0359	ug/L	4.0359	ppb	09:31:53

2	P 214.914†	226.5	-10.8	19.006 ug/L	19.006 ppb	09:31:53
2	Pb 220.353†	-1057.6	-1131.0	-11.484 ug/L	-11.484 ppb	09:31:53
2	S 181.975 Axial†	96.2	48.9	-48.282 ug/L	-48.282 ppb	09:31:53
2	Sb 206.836†	70.9	36.2	-2.1312 ug/L	-2.1312 ppb	09:31:53
2	Se 196.026†	-1244.2	-1397.4	12.168 ug/L	12.168 ppb	09:31:53
2	Si 251.611†	556.0	-100.3	-2.1321 ug/L	-2.1321 ppb	09:31:53
2	Sn 189.927†	-389.5	-451.0	-11.011 ug/L	-11.011 ppb	09:31:53
2	Sr 421.552†	492.7	531.9	-0.9750 ug/L	-0.9750 ppb	09:30:51
2	Ti 334.940†	-14274.2	-14701.5	3.5419 ug/L	3.5419 ppb	09:31:33
2	Tl 190.801†	-99.3	-64.7	-2.9542 ug/L	-2.9542 ppb	09:31:53
2	U 409.014†	-2058.5	552.7	-8.4719 ug/L	-8.4719 ppb	09:31:33
2	V 292.402†	615.1	2517.0	-2.9774 ug/L	-2.9774 ppb	09:31:53
2	Zn 213.857†	3683.6	3319.1	-0.8135 ug/L	-0.8135 ppb	09:31:53
2	SiO2†	550.3	-125.6	-6.0315 ug/L	-6.0315 ppb	09:32:29
3	Sc 361.383	806522.1	806522.1	85.914 %		09:31:59
3	Sc Radial	4518.4	4518.4	91.4 %		09:31:01
3	Y 371.029	687058.5	687058.5	83.981 %		09:31:59
3	Y RADIAL	4814.3	4814.3	90.75 %		09:31:01
3	Ag 328.068†	-10916.3	-13171.6	1.4476 ug/L	1.4476 ppb	09:31:59
3	Al 396.153Radial†	606315.9	663662.0	519470 ug/L	519470 ppb	09:30:56
3	As 188.979†	-112.4	-96.0	-2.6215 ug/L	-2.6215 ppb	09:32:19
3	B 249.677†	199.7	628.5	-12.732 ug/L	-12.732 ppb	09:31:59
3	Ba 233.527†	-768.9	-915.1	-1.4378 ug/L	-1.4378 ppb	09:32:19
3	Be 313.107†	-5041.8	-1167.1	-0.4135 ug/L	-0.4135 ppb	09:31:59
3	Ca 317.933Radial†	281965.4	308602.6	483620 ug/L	483620 ppb	09:30:56
3	Cd 226.502†	1409.8	1897.6	-1.7363 ug/L	-1.7363 ppb	09:32:19
3	Co 228.616†	-31.9	57.1	-1.6871 ug/L	-1.6871 ppb	09:32:19
3	Cr 267.716†	11.7	-120.1	2.2628 ug/L	2.2628 ppb	09:32:19
3	Cu 324.752†	4390.5	-3372.8	-0.0074 ug/L	-0.0074 ppb	09:31:59
3	Fe 238.204 Radial†	19612.3	21453.3	188400 ug/L	188400 ppb	09:31:01
3	K 766.490 Radial†	2907.3	-151.2	-13.009 ug/L	-13.009 ppb	09:30:56
3	Mg 279.077 IEC†	14115.3	15447.1	493800 ug/L	493800 ppb	09:31:01
3	Mn 257.610†	-578.0	-1309.4	8.2921 ug/L	8.2921 ppb	09:31:59
3	Mo 202.031†	-258.4	-326.2	-1.1431 ug/L	-1.1431 ppb	09:32:19
3	Na 589.592 Radial†	-1638.1	4.5	1.2716 ug/L	1.2716 ppb	09:31:01
3	Ni 231.604†	285.7	193.7	4.0085 ug/L	4.0085 ppb	09:32:19
3	P 214.914†	250.6	20.5	34.021 ug/L	34.021 ppb	09:32:19
3	Pb 220.353†	-1137.5	-1239.4	-21.942 ug/L	-21.942 ppb	09:32:19
3	S 181.975 Axial†	103.6	58.9	-37.505 ug/L	-37.505 ppb	09:32:19
3	Sb 206.836†	73.0	39.7	-1.2179 ug/L	-1.2179 ppb	09:32:19
3	Se 196.026†	-1247.7	-1419.6	0.0872 ug/L	0.0872 ppb	09:32:19
3	Si 251.611†	567.5	-78.9	-1.5493 ug/L	-1.5493 ppb	09:32:19
3	Sn 189.927†	-396.0	-464.4	-12.737 ug/L	-12.737 ppb	09:32:19
3	Sr 421.552†	490.7	526.1	-1.0282 ug/L	-1.0282 ppb	09:31:01
3	Ti 334.940†	-14186.6	-14807.7	3.4710 ug/L	3.4710 ppb	09:31:59
3	Tl 190.801†	-91.2	-56.7	-0.8449 ug/L	-0.8449 ppb	09:32:19
3	U 409.014†	-2096.3	478.7	-10.449 ug/L	-10.449 ppb	09:31:59
3	V 292.402†	642.7	2558.2	-2.6824 ug/L	-2.6824 ppb	09:32:19
3	Zn 213.857†	3695.2	3386.4	-0.2243 ug/L	-0.2243 ppb	09:32:19
3	SiO2†	541.0	-128.4	-6.1633 ug/L	-6.1633 ppb	09:32:34

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	807730.8	86.043	%	0.9039				1.05%
Sc Radial	4506.1	91.1	%	0.33				0.36%
Y 371.029	687107.9	83.987	%	0.9034				1.08%
Y RADIAL	4814.4	90.75	%	0.443				0.49%
Ag 328.068†	-13247.9	1.1822	ug/L	0.30826	1.1822	ppb	0.30826	26.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	660484.3	516990	ug/L	3370.5	516990	ppb	3370.5	0.65%
QC value within limits for Al 396.153Radial Recovery = 103.40%								
As 188.979†	-90.1	-0.6566	ug/L	2.25663	-0.6566	ppb	2.25663	343.70%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	569.9	-13.881	ug/L	2.2024	-13.881	ppb	2.2024	15.87%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-902.2	-1.3494	ug/L	0.25838	-1.3494	ppb	0.25838	19.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1171.1	-0.4140	ug/L	0.01424	-0.4140	ppb	0.01424	3.44%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†     306984.2      481090 ug/L        3100.4      481090 ppb        3100.4   0.64%
   QC value within limits for Ca 317.933Radial  Recovery = 96.22%
Cd 226.502†             1887.0     -1.8358 ug/L       0.11120     -1.8358 ppb       0.11120   6.06%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               56.9     -1.6914 ug/L       0.15039     -1.6914 ppb       0.15039   8.89%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -158.4      1.9035 ug/L       0.43255      1.9035 ppb       0.43255  22.72%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -3274.4      0.2754 ug/L       0.31602      0.2754 ppb       0.31602 114.75%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     21458.0      188440 ug/L         499.9      188440 ppb         499.9   0.27%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.22%
K 766.490 Radial†       -240.7     -30.110 ug/L       29.0079     -30.110 ppb       29.0079  96.34%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        15438.2      493520 ug/L        1442.3      493520 ppb        1442.3   0.29%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.70%
Mn 257.610†            -1143.0      8.4665 ug/L       0.15289      8.4665 ppb       0.15289   1.81%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -319.9     -0.7662 ug/L       0.34001     -0.7662 ppb       0.34001  44.37%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        0.3      0.0941 ug/L       1.86762      0.0941 ppb       1.86762 >999.9%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               189.9      3.9313 ug/L       0.15809      3.9313 ppb       0.15809   4.02%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  6.5     26.770 ug/L        7.5203     26.770 ppb        7.5203  28.09%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -1173.2     -15.931 ug/L        5.4018     -15.931 ppb       5.4018  33.91%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          49.1     -47.731 ug/L        9.9621     -47.731 ppb       9.9621  20.87%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               42.1     -0.4389 ug/L       2.18837     -0.4389 ppb       2.18837 498.62%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -1419.1      0.0008 ug/L      12.21110      0.0008 ppb      12.21110 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -118.2     -2.5960 ug/L       1.34029     -2.5960 ppb       1.34029  51.63%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -463.7     -12.911 ug/L        1.9919     -12.911 ppb        1.9919  15.43%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              544.3     -0.8849 ug/L       0.20395     -0.8849 ppb       0.20395  23.05%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           -14539.4      3.7331 ug/L       0.39424      3.7331 ppb       0.39424  10.56%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -66.6     -3.5014 ug/L       2.96815     -3.5014 ppb       2.96815  84.77%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               469.4     -10.713 ug/L        2.3833     -10.713 ppb        2.3833  22.25%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              2527.3     -2.8723 ug/L       0.16475     -2.8723 ppb       0.16475   5.74%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             3363.7     -0.3938 ug/L       0.36569     -0.3938 ppb       0.36569  92.86%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -126.3     -6.0475 ug/L       0.10871     -6.0475 ppb       0.10871   1.80%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 12/29/2009 09:34:46
Data Type: Reprocessed on 12/29/2009 10:09:34

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	815341.1	815341.1	86.854	%			09:37:11
1	Sc Radial	4459.1	4459.1	90.2	%			09:36:43
1	Y 371.029	692769.4	692769.4	84.679	%			09:37:11
1	Y RADIAL	4797.8	4797.8	90.44	%			09:36:43
1	Ag 328.068†	46518.5	53094.0	278.57	ug/L	278.57	ppb	09:37:11
1	Al 396.153Radial†	613808.8	680808.2	532870	ug/L	532870	ppb	09:36:38
1	As 188.979†	1246.8	1470.3	516.76	ug/L	516.76	ppb	09:37:16
1	B 249.677†	23384.0	27319.5	506.27	ug/L	506.27	ppb	09:37:11
1	Ba 233.527†	63289.2	72848.6	501.25	ug/L	501.25	ppb	09:37:11
1	Be 313.107†	673971.2	780685.5	248.97	ug/L	248.97	ppb	09:37:11
1	Ca 317.933Radial†	285757.4	316917.5	496650	ug/L	496650	ppb	09:36:38
1	Cd 226.502†	46392.4	53671.1	464.50	ug/L	464.50	ppb	09:37:16
1	Co 228.616†	22628.0	26147.2	457.32	ug/L	457.32	ppb	09:37:16
1	Cr 267.716†	43358.6	49787.7	471.98	ug/L	471.98	ppb	09:37:16
1	Cu 324.752†	178500.8	197035.6	571.73	ug/L	571.73	ppb	09:37:11
1	Fe 238.204 Radial†	19868.9	22023.7	193420	ug/L	193420	ppb	09:36:43
1	K 766.490 Radial†	29210.9	29065.0	5543.3	ug/L	5543.3	ppb	09:36:38
1	Mg 279.077 IEC†	14205.5	15752.8	503580	ug/L	503580	ppb	09:36:43
1	Mn 257.610†	432285.5	497080.1	503.08	ug/L	503.08	ppb	09:37:11
1	Mo 202.031†	7028.7	8067.1	493.37	ug/L	493.37	ppb	09:37:16
1	Na 589.592 Radial†	15893.6	19425.3	5511.3	ug/L	5511.3	ppb	09:36:43
1	Ni 231.604†	19257.9	22034.0	455.85	ug/L	455.85	ppb	09:37:16
1	P 214.914†	5158.5	5668.2	2510.7	ug/L	2510.7	ppb	09:37:16
1	Pb 220.353†	3023.6	3565.9	458.36	ug/L	458.36	ppb	09:37:16
1	S 181.975 Axial†	2176.4	2444.2	2579.9	ug/L	2579.9	ppb	09:37:16
1	Sb 206.836†	1664.5	1871.2	530.97	ug/L	530.97	ppb	09:37:16
1	Se 196.026†	3563.9	4136.0	2654.0	ug/L	2654.0	ppb	09:37:16
1	Si 251.611†	175840.6	201716.6	5354.5	ug/L	5354.5	ppb	09:37:11
1	Sn 189.927†	2639.6	3035.8	484.29	ug/L	484.29	ppb	09:37:16
1	Sr 421.552†	71235.1	78997.1	514.14	ug/L	514.14	ppb	09:36:38
1	Ti 334.940†	291945.3	337839.2	521.74	ug/L	521.74	ppb	09:37:11
1	Tl 190.801†	1516.4	1795.4	488.04	ug/L	488.04	ppb	09:37:16
1	U 409.014†	13930.9	18958.2	499.53	ug/L	499.53	ppb	09:37:11
1	V 292.402†	74906.0	88053.9	507.33	ug/L	507.33	ppb	09:37:11
1	Zn 213.857†	58242.8	66143.9	486.00	ug/L	486.00	ppb	09:37:16
1	SiO2†	177166.2	203224.2	11622	ug/L	11622	ppb	09:37:43
2	Sc 361.383	809756.6	809756.6	86.259	%			09:37:22
2	Sc Radial	4487.4	4487.4	90.7	%			09:36:54
2	Y 371.029	688162.3	688162.3	84.115	%			09:37:22
2	Y RADIAL	4789.3	4789.3	90.28	%			09:36:54
2	Ag 328.068†	46238.7	53138.9	278.43	ug/L	278.43	ppb	09:37:22
2	Al 396.153Radial†	606704.8	668684.3	523380	ug/L	523380	ppb	09:36:48
2	As 188.979†	1263.6	1499.7	526.20	ug/L	526.20	ppb	09:37:27
2	B 249.677†	23216.0	27310.4	506.24	ug/L	506.24	ppb	09:37:22
2	Ba 233.527†	62820.8	72808.2	500.95	ug/L	500.95	ppb	09:37:22
2	Be 313.107†	668893.4	780150.4	248.80	ug/L	248.80	ppb	09:37:22
2	Ca 317.933Radial†	282605.7	311444.7	488080	ug/L	488080	ppb	09:36:48
2	Cd 226.502†	47305.8	55098.4	477.51	ug/L	477.51	ppb	09:37:27
2	Co 228.616†	23131.3	26910.3	470.79	ug/L	470.79	ppb	09:37:27
2	Cr 267.716†	44244.2	51158.6	484.84	ug/L	484.84	ppb	09:37:27
2	Cu 324.752†	177096.9	196825.5	571.06	ug/L	571.06	ppb	09:37:22
2	Fe 238.204 Radial†	19855.0	21869.4	192070	ug/L	192070	ppb	09:36:54
2	K 766.490 Radial†	28988.5	28615.5	5457.4	ug/L	5457.4	ppb	09:36:48
2	Mg 279.077 IEC†	14242.5	15694.3	501710	ug/L	501710	ppb	09:36:54
2	Mn 257.610†	429614.4	497416.0	503.31	ug/L	503.31	ppb	09:37:22
2	Mo 202.031†	7218.1	8342.5	509.45	ug/L	509.45	ppb	09:37:27
2	Na 589.592 Radial†	15931.5	19355.9	5491.6	ug/L	5491.6	ppb	09:36:54
2	Ni 231.604†	19746.9	22753.7	470.74	ug/L	470.74	ppb	09:37:27

2	P 214.914†	5266.3	5834.0	2584.1 ug/L	2584.1 ppb	09:37:27
2	Pb 220.353†	3148.2	3734.3	473.10 ug/L	473.10 ppb	09:37:27
2	S 181.975 Axial†	2276.9	2578.0	2728.8 ug/L	2728.8 ppb	09:37:27
2	Sb 206.836†	1728.7	1958.8	556.61 ug/L	556.61 ppb	09:37:27
2	Se 196.026†	3692.0	4312.8	2732.0 ug/L	2732.0 ppb	09:37:27
2	Si 251.611†	174686.9	201775.3	5355.7 ug/L	5355.7 ppb	09:37:22
2	Sn 189.927†	2715.4	3144.5	498.77 ug/L	498.77 ppb	09:37:27
2	Sr 421.552†	70353.6	77527.3	504.57 ug/L	504.57 ppb	09:36:48
2	Ti 334.940†	290151.8	338078.2	521.64 ug/L	521.64 ppb	09:37:22
2	Tl 190.801†	1576.2	1876.7	509.02 ug/L	509.02 ppb	09:37:27
2	U 409.014†	13791.4	18907.1	498.26 ug/L	498.26 ppb	09:37:22
2	V 292.402†	74501.9	88180.2	508.46 ug/L	508.46 ppb	09:37:22
2	Zn 213.857†	59743.0	68345.4	503.24 ug/L	503.24 ppb	09:37:27
2	SiO2†	176659.2	204043.3	11669 ug/L	11669 ppb	09:37:49
3	Sc 361.383	825581.3	825581.3	87.945 %		09:37:33
3	Sc Radial	4451.6	4451.6	90.0 %		09:37:04
3	Y 371.029	701090.6	701090.6	85.696 %		09:37:33
3	Y RADIAL	4747.7	4747.7	89.50 %		09:37:04
3	Ag 328.068†	47275.7	53290.6	278.51 ug/L	278.51 ppb	09:37:33
3	Al 396.153Radial†	608347.7	675879.7	529020 ug/L	529020 ppb	09:36:59
3	As 188.979†	1206.0	1406.2	495.25 ug/L	495.25 ppb	09:37:38
3	B 249.677†	23861.0	27527.9	510.70 ug/L	510.70 ppb	09:37:33
3	Ba 233.527†	64044.1	72803.2	500.88 ug/L	500.88 ppb	09:37:33
3	Be 313.107†	683019.6	781349.2	249.18 ug/L	249.18 ppb	09:37:33
3	Ca 317.933Radial†	283517.9	314959.5	493580 ug/L	493580 ppb	09:36:59
3	Cd 226.502†	46576.6	53218.0	460.70 ug/L	460.70 ppb	09:37:38
3	Co 228.616†	22846.6	26072.6	456.04 ug/L	456.04 ppb	09:37:38
3	Cr 267.716†	43771.9	49638.4	470.53 ug/L	470.53 ppb	09:37:38
3	Cu 324.752†	181151.0	197499.9	572.91 ug/L	572.91 ppb	09:37:33
3	Fe 238.204 Radial†	19554.0	21710.7	190670 ug/L	190670 ppb	09:37:04
3	K 766.490 Radial†	28947.8	28826.9	5497.8 ug/L	5497.8 ppb	09:36:59
3	Mg 279.077 IEC†	14020.7	15573.9	497870 ug/L	497870 ppb	09:37:04
3	Mn 257.610†	438594.4	498080.3	503.90 ug/L	503.90 ppb	09:37:33
3	Mo 202.031†	7086.4	8032.4	491.06 ug/L	491.06 ppb	09:37:38
3	Na 589.592 Radial†	15595.3	19123.4	5425.7 ug/L	5425.7 ppb	09:37:04
3	Ni 231.604†	19417.2	21940.0	453.90 ug/L	453.90 ppb	09:37:38
3	P 214.914†	5255.2	5704.4	2527.9 ug/L	2527.9 ppb	09:37:38
3	Pb 220.353†	3098.9	3608.3	461.93 ug/L	461.93 ppb	09:37:38
3	S 181.975 Axial†	2236.2	2481.0	2621.1 ug/L	2621.1 ppb	09:37:38
3	Sb 206.836†	1710.6	1899.9	539.29 ug/L	539.29 ppb	09:37:38
3	Se 196.026†	3615.1	4143.3	2648.2 ug/L	2648.2 ppb	09:37:38
3	Si 251.611†	178394.4	202109.2	5364.9 ug/L	5364.9 ppb	09:37:33
3	Sn 189.927†	2697.7	3064.1	487.94 ug/L	487.94 ppb	09:37:38
3	Sr 421.552†	70424.3	78228.5	509.12 ug/L	509.12 ppb	09:36:59
3	Ti 334.940†	295639.3	337870.3	521.63 ug/L	521.63 ppb	09:37:33
3	Tl 190.801†	1558.7	1821.9	494.89 ug/L	494.89 ppb	09:37:38
3	U 409.014†	13974.5	18808.8	495.75 ug/L	495.75 ppb	09:37:33
3	V 292.402†	75913.5	88129.8	508.03 ug/L	508.03 ppb	09:37:33
3	Zn 213.857†	58884.4	66041.6	485.55 ug/L	485.55 ppb	09:37:38
3	SiO2†	178443.9	202147.0	11561 ug/L	11561 ppb	09:37:54

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	816893.0	87.019	%	0.8549				0.98%
Sc Radial	4466.0	90.3	%	0.38				0.42%
Y 371.029	694007.4	84.830	%	0.8009				0.94%
Y RADIAL	4778.3	90.07	%	0.505				0.56%
Ag 328.068†	53174.5	278.51	ug/L	0.069	278.51	ppb	0.069	0.02%
QC value within limits for Ag 328.068 Recovery = 111.40%								
Al 396.153Radial†	675124.1	528420	ug/L	4772.9	528420	ppb	4772.9	0.90%
QC value within limits for Al 396.153Radial Recovery = 105.68%								
As 188.979†	1458.8	512.73	ug/L	15.864	512.73	ppb	15.864	3.09%
QC value within limits for As 188.979 Recovery = 102.55%								
B 249.677†	27385.9	507.73	ug/L	2.570	507.73	ppb	2.570	0.51%
QC value within limits for B 249.677 Recovery = 101.55%								
Ba 233.527†	72820.0	501.03	ug/L	0.200	501.03	ppb	0.200	0.04%
QC value within limits for Ba 233.527 Recovery = 100.21%								
Be 313.107†	780728.4	248.98	ug/L	0.190	248.98	ppb	0.190	0.08%
QC value within limits for Be 313.107 Recovery = 99.59%								

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Ca 317.933Radial†     314440.5      492770 ug/L        4345.8      492770 ppb         4345.8   0.88%
   QC value within limits for Ca 317.933Radial  Recovery = 98.55%
Cd 226.502†            53995.8      467.57 ug/L         8.816      467.57 ppb          8.816   1.89%
   QC value within limits for Cd 226.502  Recovery = 93.51%
Co 228.616†            26376.7      461.38 ug/L         8.174      461.38 ppb          8.174   1.77%
   QC value within limits for Co 228.616  Recovery = 92.28%
Cr 267.716†            50194.9      475.79 ug/L         7.876      475.79 ppb          7.876   1.66%
   QC value within limits for Cr 267.716  Recovery = 95.16%
Cu 324.752†           197120.3      571.90 ug/L         0.938      571.90 ppb          0.938   0.16%
   QC value within limits for Cu 324.752  Recovery = 114.38%
Fe 238.204 Radial†     21867.9      192050 ug/L        1374.2      192050 ppb         1374.2   0.72%
   QC value within limits for Fe 238.204 Radial  Recovery = 96.03%
K 766.490 Radial†      28835.8      5499.5 ug/L         42.97      5499.5 ppb          42.97   0.78%
   QC value within limits for K 766.490 Radial  Recovery = 109.99%
Mg 279.077 IEC†        15673.7      501050 ug/L        2915.5      501050 ppb         2915.5   0.58%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.21%
Mn 257.610†           497525.4      503.43 ug/L         0.425      503.43 ppb          0.425   0.08%
   QC value within limits for Mn 257.610  Recovery = 100.69%
Mo 202.031†             8147.3      497.96 ug/L        10.017      497.96 ppb         10.017   2.01%
   QC value within limits for Mo 202.031  Recovery = 99.59%
Na 589.592 Radial†     19301.5      5476.2 ug/L         44.86      5476.2 ppb          44.86   0.82%
   QC value within limits for Na 589.592 Radial  Recovery = 109.52%
Ni 231.604†            22242.5      460.16 ug/L         9.210      460.16 ppb          9.210   2.00%
   QC value within limits for Ni 231.604  Recovery = 92.03%
P 214.914†              5735.5      2540.9 ug/L         38.38      2540.9 ppb          38.38   1.51%
   QC value within limits for P 214.914  Recovery = 101.63%
Pb 220.353†             3636.2      464.46 ug/L         7.689      464.46 ppb          7.689   1.66%
   QC value within limits for Pb 220.353  Recovery = 92.89%
S 181.975 Axial†        2501.1      2643.3 ug/L         76.85      2643.3 ppb          76.85   2.91%
   QC value within limits for S 181.975 Axial  Recovery = 105.73%
Sb 206.836†             1910.0      542.29 ug/L        13.081      542.29 ppb         13.081   2.41%
   QC value within limits for Sb 206.836  Recovery = 108.46%
Se 196.026†             4197.4      2678.1 ug/L         46.82      2678.1 ppb          46.82   1.75%
   QC value within limits for Se 196.026  Recovery = 107.12%
Si 251.611†           201867.1      5358.4 ug/L          5.72      5358.4 ppb           5.72   0.11%
   QC value within limits for Si 251.611  Recovery = 107.17%
Sn 189.927†             3081.5      490.33 ug/L         7.532      490.33 ppb          7.532   1.54%
   QC value within limits for Sn 189.927  Recovery = 98.07%
Sr 421.552†            78251.0      509.27 ug/L         4.788      509.27 ppb          4.788   0.94%
   QC value within limits for Sr 421.552  Recovery = 101.85%
Ti 334.940†           337929.2      521.67 ug/L         0.062      521.67 ppb          0.062   0.01%
   QC value within limits for Ti 334.940  Recovery = 104.33%
Tl 190.801†             1831.3      497.32 ug/L        10.697      497.32 ppb         10.697   2.15%
   QC value within limits for Tl 190.801  Recovery = 99.46%
U 409.014†             18891.3      497.85 ug/L         1.927      497.85 ppb          1.927   0.39%
   QC value within limits for U 409.014  Recovery = 99.57%
V 292.402†             88121.3      507.94 ug/L         0.571      507.94 ppb          0.571   0.11%
   QC value within limits for V 292.402  Recovery = 101.59%
Zn 213.857†            66843.6      491.59 ug/L        10.088      491.59 ppb         10.088   2.05%
   QC value within limits for Zn 213.857  Recovery = 98.32%
SiO2†                 203138.2       11617 ug/L          54.2       11617 ppb          54.2   0.47%
   QC value within limits for SiO2  Recovery = 108.62%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 12/29/2009 09:40:04
Data Type: Reprocessed on 12/29/2009 10:09:35

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	786308.2	786308.2	83.761	%			09:42:30
1	Sc Radial	4424.0	4424.0	89.5	%			09:42:01
1	Y 371.029	668997.2	668997.2	81.773	%			09:42:30
1	Y RADIAL	4753.7	4753.7	89.61	%			09:42:01
1	Ag 328.068†	-26033.2	-31545.9	3.6163	ug/L	3.6163	ppb	09:42:30
1	Al 396.153Radial†	573766.3	641433.8	502080	ug/L	502080	ppb	09:41:56
1	As 188.979†	-240.6	-252.4	-12.101	ug/L	-12.101	ppb	09:42:50
1	B 249.677†	1102.0	1711.8	-27.600	ug/L	-27.600	ppb	09:42:30
1	Ba 233.527†	-2059.3	-2478.6	-5.2061	ug/L	-5.2061	ppb	09:42:50
1	Be 313.107†	-11736.4	-9310.4	-3.0029	ug/L	-3.0029	ppb	09:42:30
1	Ca 317.933Radial†	270119.4	301944.7	473190	ug/L	473190	ppb	09:41:56
1	Cd 226.502†	3632.1	4593.0	-4.5797	ug/L	-4.5797	ppb	09:42:50
1	Co 228.616†	177.6	306.2	-1.2306	ug/L	-1.2306	ppb	09:42:50
1	Cr 267.716†	70.7	-49.3	3.0059	ug/L	3.0059	ppb	09:42:50
1	Cu 324.752†	626.0	-7735.8	1.3930	ug/L	1.3930	ppb	09:42:30
1	Fe 238.204 Radial†	46842.3	52351.7	459740	ug/L	459740	ppb	09:42:01
1	K 766.490 Radial†	2975.4	-7.2	-213.15	ug/L	-213.15	ppb	09:41:56
1	Mg 279.077 IEC†	13821.1	15447.9	493590	ug/L	493590	ppb	09:42:01
1	Mn 257.610†	-29010.8	-35271.8	1.6557	ug/L	1.6557	ppb	09:42:30
1	Mo 202.031†	-540.9	-671.3	4.5572	ug/L	4.5572	ppb	09:42:30
1	Na 589.592 Radial†	1682683.6	1882866.7	534200	ug/L	534200	ppb	09:41:56
1	Ni 231.604†	318.8	241.7	5.0011	ug/L	5.0011	ppb	09:42:50
1	P 214.914†	664.0	521.5	38.418	ug/L	38.418	ppb	09:42:50
1	Pb 220.353†	-787.4	-855.4	-10.046	ug/L	-10.046	ppb	09:42:50
1	S 181.975 Axial†	126.3	89.1	-0.8995	ug/L	-0.8995	ppb	09:42:50
1	Sb 206.836†	51.2	15.9	-3.7160	ug/L	-3.7160	ppb	09:42:50
1	Se 196.026†	-2906.2	-3437.0	-116.52	ug/L	-116.52	ppb	09:42:50
1	Si 251.611†	-563.6	-1412.3	-36.646	ug/L	-36.646	ppb	09:42:50
1	Sn 189.927†	-440.1	-528.8	-19.330	ug/L	-19.330	ppb	09:42:50
1	Sr 421.552†	762.2	841.1	1.1370	ug/L	1.1370	ppb	09:42:01
1	Ti 334.940†	-14568.1	-15687.6	-4.9379	ug/L	-4.9379	ppb	09:42:30
1	Tl 190.801†	-103.4	-74.0	-6.1076	ug/L	-6.1076	ppb	09:42:50
1	U 409.014†	448444.0	538303.7	14843	ug/L	14843	ppb	09:42:30
1	V 292.402†	1949.6	4137.7	-6.0395	ug/L	-6.0395	ppb	09:42:30
1	Zn 213.857†	6726.1	7115.5	14.863	ug/L	14.863	ppb	09:42:50
1	SiO2†	-464.8	-1313.0	-73.248	ug/L	-73.248	ppb	09:43:47
2	Sc 361.383	786735.5	786735.5	83.807	%			09:42:55
2	Sc Radial	4322.5	4322.5	87.4	%			09:42:12
2	Y 371.029	669133.9	669133.9	81.790	%			09:42:55
2	Y RADIAL	4650.4	4650.4	87.66	%			09:42:12
2	Ag 328.068†	-26013.1	-31505.1	3.6645	ug/L	3.6645	ppb	09:42:55
2	Al 396.153Radial†	572717.4	655297.5	512930	ug/L	512930	ppb	09:42:07
2	As 188.979†	-233.6	-243.9	-9.2794	ug/L	-9.2794	ppb	09:43:16
2	B 249.677†	1096.7	1704.7	-27.770	ug/L	-27.770	ppb	09:42:55
2	Ba 233.527†	-2117.1	-2546.3	-5.6600	ug/L	-5.6600	ppb	09:43:16
2	Be 313.107†	-11628.9	-9174.6	-2.9594	ug/L	-2.9594	ppb	09:42:55
2	Ca 317.933Radial†	270116.7	309033.3	484300	ug/L	484300	ppb	09:42:07
2	Cd 226.502†	3648.0	4609.5	-4.4534	ug/L	-4.4534	ppb	09:43:16
2	Co 228.616†	199.6	332.4	-0.7703	ug/L	-0.7703	ppb	09:43:16
2	Cr 267.716†	58.3	-64.2	2.8568	ug/L	2.8568	ppb	09:43:16
2	Cu 324.752†	703.7	-7643.5	1.6679	ug/L	1.6679	ppb	09:42:55
2	Fe 238.204 Radial†	45790.5	52378.0	459970	ug/L	459970	ppb	09:42:12
2	K 766.490 Radial†	2926.9	15.5	-213.48	ug/L	-213.48	ppb	09:42:07
2	Mg 279.077 IEC†	13503.5	15447.3	493580	ug/L	493580	ppb	09:42:12
2	Mn 257.610†	-29294.1	-35591.0	1.3624	ug/L	1.3624	ppb	09:42:55
2	Mo 202.031†	-519.1	-644.8	6.1343	ug/L	6.1343	ppb	09:42:55
2	Na 589.592 Radial†	1678741.1	1922533.4	545460	ug/L	545460	ppb	09:42:07
2	Ni 231.604†	335.9	261.9	5.4173	ug/L	5.4173	ppb	09:43:16

2	P 214.914†	683.7	544.7	52.325 ug/L	52.325 ppb	09:43:16
2	Pb 220.353†	-763.4	-826.2	-4.7350 ug/L	-4.7350 ppb	09:43:16
2	S 181.975 Axial†	128.7	91.9	0.0496 ug/L	0.0496 ppb	09:43:16
2	Sb 206.836†	86.4	57.9	8.0047 ug/L	8.0047 ppb	09:43:16
2	Se 196.026†	-2957.4	-3496.2	-142.04 ug/L	-142.04 ppb	09:43:16
2	Si 251.611†	-630.4	-1491.6	-38.777 ug/L	-38.777 ppb	09:43:16
2	Sn 189.927†	-455.7	-547.2	-20.769 ug/L	-20.769 ppb	09:43:16
2	Sr 421.552†	709.3	800.5	0.7678 ug/L	0.7678 ppb	09:42:12
2	Ti 334.940†	-14477.7	-15570.4	-4.2046 ug/L	-4.2046 ppb	09:42:55
2	Tl 190.801†	-98.3	-67.8	-4.1760 ug/L	-4.1760 ppb	09:43:16
2	U 409.014†	449955.1	539816.0	14884 ug/L	14884 ppb	09:42:55
2	V 292.402†	1967.8	4158.1	-5.8513 ug/L	-5.8513 ppb	09:42:55
2	Zn 213.857†	6767.4	7160.4	15.199 ug/L	15.199 ppb	09:43:16
2	SiO2†	-719.0	-1616.0	-90.656 ug/L	-90.656 ppb	09:43:52
3	Sc 361.383	791943.6	791943.6	84.361 %		09:43:21
3	Sc Radial	4368.4	4368.4	88.3 %		09:42:22
3	Y 371.029	672698.8	672698.8	82.225 %		09:43:21
3	Y RADIAL	4699.7	4699.7	88.59 %		09:42:22
3	Ag 328.068†	-26284.2	-31622.3	2.8674 ug/L	2.8674 ppb	09:43:21
3	Al 396.153Radial†	570473.2	645876.3	505550 ug/L	505550 ppb	09:42:17
3	As 188.979†	-222.7	-229.1	-4.6064 ug/L	-4.6064 ppb	09:43:41
3	B 249.677†	963.2	1537.8	-30.859 ug/L	-30.859 ppb	09:43:21
3	Ba 233.527†	-2087.8	-2494.9	-5.3433 ug/L	-5.3433 ppb	09:43:41
3	Be 313.107†	-11828.1	-9319.5	-3.0052 ug/L	-3.0052 ppb	09:43:21
3	Ca 317.933Radial†	268589.8	304059.5	476500 ug/L	476500 ppb	09:42:17
3	Cd 226.502†	3636.3	4567.0	-4.7098 ug/L	-4.7098 ppb	09:43:41
3	Co 228.616†	202.5	334.3	-0.7286 ug/L	-0.7286 ppb	09:43:41
3	Cr 267.716†	35.7	-91.4	2.5776 ug/L	2.5776 ppb	09:43:41
3	Cu 324.752†	788.4	-7548.7	1.8737 ug/L	1.8737 ppb	09:43:21
3	Fe 238.204 Radial†	46148.9	52233.7	458710 ug/L	458710 ppb	09:42:22
3	K 766.490 Radial†	2933.4	-12.4	-214.33 ug/L	-214.33 ppb	09:42:17
3	Mg 279.077 IEC†	13565.4	15355.2	490630 ug/L	490630 ppb	09:42:22
3	Mn 257.610†	-29332.8	-35407.0	1.4734 ug/L	1.4734 ppb	09:43:21
3	Mo 202.031†	-577.0	-709.5	2.2096 ug/L	2.2096 ppb	09:43:21
3	Na 589.592 Radial†	1663808.9	1885460.4	534940 ug/L	534940 ppb	09:42:17
3	Ni 231.604†	326.8	248.5	5.1397 ug/L	5.1397 ppb	09:43:41
3	P 214.914†	683.5	539.1	48.294 ug/L	48.294 ppb	09:43:41
3	Pb 220.353†	-799.3	-862.8	-9.9236 ug/L	-9.9236 ppb	09:43:41
3	S 181.975 Axial†	130.4	92.9	2.5575 ug/L	2.5575 ppb	09:43:41
3	Sb 206.836†	79.2	48.6	5.4979 ug/L	5.4979 ppb	09:43:41
3	Se 196.026†	-2911.9	-3419.1	-110.66 ug/L	-110.66 ppb	09:43:41
3	Si 251.611†	-549.8	-1391.1	-36.044 ug/L	-36.044 ppb	09:43:41
3	Sn 189.927†	-444.1	-529.9	-19.144 ug/L	-19.144 ppb	09:43:41
3	Sr 421.552†	763.9	853.8	1.1899 ug/L	1.1899 ppb	09:42:22
3	Ti 334.940†	-14517.8	-15504.3	-4.5151 ug/L	-4.5151 ppb	09:43:21
3	Tl 190.801†	-130.7	-105.5	-14.247 ug/L	-14.247 ppb	09:43:41
3	U 409.014†	453013.3	539910.3	14887 ug/L	14887 ppb	09:43:21
3	V 292.402†	1966.1	4140.6	-5.8775 ug/L	-5.8775 ppb	09:43:21
3	Zn 213.857†	6692.6	7018.6	14.260 ug/L	14.260 ppb	09:43:41
3	SiO2†	-567.8	-1431.0	-79.928 ug/L	-79.928 ppb	09:43:57

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	788329.1	83.976	%	0.3342				0.40%
Sc Radial	4371.7	88.4	%	1.03				1.16%
Y 371.029	670276.6	81.929	%	0.2565				0.31%
Y RADIAL	4701.3	88.62	%	0.974				1.10%
Ag 328.068†	-31557.8	3.3827	ug/L	0.44694	3.3827	ppb	0.44694	13.21%
Al 396.153Radial†	647535.8	506850	ug/L	5541.1	506850	ppb	5541.1	1.09%
QC value within limits for Al 396.153Radial Recovery = 101.37%								
As 188.979†	-241.8	-8.6624	ug/L	3.78537	-8.6624	ppb	3.78537	43.70%
B 249.677†	1651.4	-28.743	ug/L	1.8343	-28.743	ppb	1.8343	6.38%
Ba 233.527†	-2506.6	-5.4031	ug/L	0.23280	-5.4031	ppb	0.23280	4.31%
Be 313.107†	-9268.2	-2.9892	ug/L	0.02581	-2.9892	ppb	0.02581	0.86%
Ca 317.933Radial†	305012.5	478000	ug/L	5703.0	478000	ppb	5703.0	1.19%
QC value within limits for Ca 317.933Radial Recovery = 95.60%								
Cd 226.502†	4589.8	-4.5810	ug/L	0.12821	-4.5810	ppb	0.12821	2.80%
Co 228.616†	324.3	-0.9098	ug/L	0.27856	-0.9098	ppb	0.27856	30.62%
Cr 267.716†	-68.3	2.8134	ug/L	0.21741	2.8134	ppb	0.21741	7.73%

Cu 324.752†	-7642.7	1.6448	ug/L	0.24119	1.6448	ppb	0.24119	14.66%
Fe 238.204 Radial†	52321.1	459470	ug/L	675.1	459470	ppb	675.1	0.15%
QC value within limits for Fe 238.204 Radial Recovery = 91.89%								
K 766.490 Radial†	-1.4	-213.65	ug/L	0.608	-213.65	ppb	0.608	0.28%
Mg 279.077 IEC†	15416.8	492600	ug/L	1706.1	492600	ppb	1706.1	0.35%
QC value within limits for Mg 279.077 IEC Recovery = 98.52%								
Mn 257.610†	-35423.3	1.4971	ug/L	0.14808	1.4971	ppb	0.14808	9.89%
Mo 202.031†	-675.2	4.3003	ug/L	1.97492	4.3003	ppb	1.97492	45.92%
Na 589.592 Radial†	1896953.5	538200	ug/L	6295.9	538200	ppb	6295.9	1.17%
QC value within limits for Na 589.592 Radial Recovery = 107.64%								
Ni 231.604†	250.7	5.1861	ug/L	0.21194	5.1861	ppb	0.21194	4.09%
P 214.914†	535.1	46.346	ug/L	7.1555	46.346	ppb	7.1555	15.44%
Pb 220.353†	-848.1	-8.2349	ug/L	3.03159	-8.2349	ppb	3.03159	36.81%
S 181.975 Axial†	91.3	0.5692	ug/L	1.78612	0.5692	ppb	1.78612	313.81%
Sb 206.836†	40.8	3.2622	ug/L	6.17189	3.2622	ppb	6.17189	189.20%
Se 196.026†	-3450.8	-123.07	ug/L	16.685	-123.07	ppb	16.685	13.56%
Si 251.611†	-1431.7	-37.156	ug/L	1.4364	-37.156	ppb	1.4364	3.87%
Sn 189.927†	-535.3	-19.747	ug/L	0.8893	-19.747	ppb	0.8893	4.50%
Sr 421.552†	831.8	1.0315	ug/L	0.22996	1.0315	ppb	0.22996	22.29%
Ti 334.940†	-15587.4	-4.5525	ug/L	0.36806	-4.5525	ppb	0.36806	8.08%
Tl 190.801†	-82.4	-8.1768	ug/L	5.34473	-8.1768	ppb	5.34473	65.36%
U 409.014†	539343.3	14871	ug/L	25.0	14871	ppb	25.0	0.17%
QC value within limits for U 409.014 Recovery = 99.14%								
V 292.402†	4145.5	-5.9228	ug/L	0.10194	-5.9228	ppb	0.10194	1.72%
Zn 213.857†	7098.1	14.774	ug/L	0.4762	14.774	ppb	0.4762	3.22%
SiO2†	-1453.3	-81.277	ug/L	8.7822	-81.277	ppb	8.7822	10.81%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 12/29/2009 09:46:06
Data Type: Reprocessed on 12/29/2009 10:09:36

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	889057.4	889057.4	94.706	%			09:49:42
1	Sc Radial	4806.7	4806.7	97.2	%			09:48:04
1	Y 371.029	756704.3	756704.3	92.493	%			09:49:42
1	Y RADIAL	5128.8	5128.8	96.68	%			09:48:04
1	Ag 328.068†	-7871.0	-8776.6	3.0941	ug/L	3.0941	ppb	09:49:47
1	Al 396.153Radial†	603.8	642.6	79.729	ug/L	79.729	ppb	09:48:04
1	As 188.979†	29086.5	30747.1	10192	ug/L	10192	ppb	09:49:47
1	B 249.677†	245299.9	259407.1	5038.1	ug/L	5038.1	ppb	09:49:42
1	Ba 233.527†	2011788.6	2124218.7	14463	ug/L	14463	ppb	09:49:42
1	Be 313.107†	8807541.9	9304546.4	2975.5	ug/L	2975.5	ppb	09:49:35
1	Ca 317.933Radial†	33.2	12.7	19.952	ug/L	19.952	ppb	09:48:24
1	Cd 226.502†	1026306.8	1083929.5	9772.0	ug/L	9772.0	ppb	09:49:42
1	Co 228.616†	505081.3	533407.4	9382.5	ug/L	9382.5	ppb	09:49:47
1	Cr 267.716†	2433990.7	2569906.4	24163	ug/L	24163	ppb	09:49:42
1	Cu 324.752†	6971125.8	7352298.1	20966	ug/L	20966	ppb	09:49:35
1	Fe 238.204 Radial†	-22.5	-36.4	-23.955	ug/L	-23.955	ppb	09:48:24
1	K 766.490 Radial†	1517363.3	1557876.8	296530	ug/L	296530	ppb	09:47:59
1	Mg 279.077 IEC†	-6.0	-8.9	-84.535	ug/L	-84.535	ppb	09:48:24
1	Mn 257.610†	9317040.7	9837185.9	9759.8	ug/L	9759.8	ppb	09:49:35
1	Mo 202.031†	159094.8	167962.1	9886.2	ug/L	9886.2	ppb	09:49:47
1	Na 589.592 Radial†	-1546.8	206.0	58.432	ug/L	58.432	ppb	09:48:04
1	Ni 231.604†	454719.0	479996.9	9930.8	ug/L	9930.8	ppb	09:49:42
1	P 214.914†	37419.3	39239.6	14578	ug/L	14578	ppb	09:49:47
1	Pb 220.353†	236823.4	250145.4	24836	ug/L	24836	ppb	09:49:47
1	S 181.975 Axial†	45280.6	47749.9	52450	ug/L	52450	ppb	09:49:47
1	Sb 206.836†	35327.5	37256.9	10479	ug/L	10479	ppb	09:49:47
1	Se 196.026†	20770.7	21964.4	10446	ug/L	10446	ppb	09:49:47
1	Si 251.611†	1728261.9	1824124.8	48220	ug/L	48220	ppb	09:49:42
1	Sn 189.927†	71009.7	74975.5	10616	ug/L	10616	ppb	09:49:47
1	Sr 421.552†	1427120.5	1468348.6	9642.0	ug/L	9642.0	ppb	09:47:59
1	Ti 334.940†	6498591.3	6863539.0	10073	ug/L	10073	ppb	09:49:35
1	Tl 190.801†	36348.6	38429.8	10130	ug/L	10130	ppb	09:49:47
1	U 409.014†	-2092.3	709.4	-26.962	ug/L	-26.962	ppb	09:49:42
1	V 292.402†	1616894.8	1709082.2	10181	ug/L	10181	ppb	09:49:42
1	Zn 213.857†	1735195.8	1831271.0	14221	ug/L	14221	ppb	09:49:42
1	SiO2†	1718238.3	1813522.3	103270	ug/L	103270	ppb	09:50:34
2	Sc 361.383	910196.7	910196.7	96.958	%			09:50:02
2	Sc Radial	4771.3	4771.3	96.5	%			09:48:35
2	Y 371.029	775089.2	775089.2	94.741	%			09:50:02
2	Y RADIAL	5056.1	5056.1	95.31	%			09:48:35
2	Ag 328.068†	-7898.8	-8612.2	2.9590	ug/L	2.9590	ppb	09:50:07
2	Al 396.153Radial†	613.6	657.3	104.25	ug/L	104.25	ppb	09:48:35
2	As 188.979†	28827.8	29767.0	9867.8	ug/L	9867.8	ppb	09:50:07
2	B 249.677†	247008.5	255153.8	4955.8	ug/L	4955.8	ppb	09:50:02
2	Ba 233.527†	2018796.5	2082111.1	14176	ug/L	14176	ppb	09:50:02
2	Be 313.107†	8817151.0	9098468.5	2909.6	ug/L	2909.6	ppb	09:49:55
2	Ca 317.933Radial†	35.5	15.4	24.113	ug/L	24.113	ppb	09:48:55
2	Cd 226.502†	1032332.0	1064975.5	9601.1	ug/L	9601.1	ppb	09:50:02
2	Co 228.616†	502163.2	518011.5	9111.5	ug/L	9111.5	ppb	09:50:07
2	Cr 267.716†	2440790.7	2517230.7	23668	ug/L	23668	ppb	09:50:02
2	Cu 324.752†	6955643.0	7165375.7	20433	ug/L	20433	ppb	09:49:55
2	Fe 238.204 Radial†	-22.7	-36.8	-35.465	ug/L	-35.465	ppb	09:48:55
2	K 766.490 Radial†	1485359.6	1536281.7	292420	ug/L	292420	ppb	09:48:30
2	Mg 279.077 IEC†	-5.6	-8.5	-77.754	ug/L	-77.754	ppb	09:48:55
2	Mn 257.610†	9318870.5	9610590.3	9534.9	ug/L	9534.9	ppb	09:49:55
2	Mo 202.031†	157886.8	162814.7	9583.2	ug/L	9583.2	ppb	09:50:07
2	Na 589.592 Radial†	-1414.7	331.0	93.917	ug/L	93.917	ppb	09:48:35
2	Ni 231.604†	456683.6	470872.1	9742.1	ug/L	9742.1	ppb	09:50:02

2	P 214.914†	37135.4	38029.3	14110 ug/L	14110 ppb	09:50:07
2	Pb 220.353†	235220.6	242684.7	24095 ug/L	24095 ppb	09:50:07
2	S 181.975 Axial†	44892.3	46239.0	50790 ug/L	50790 ppb	09:50:07
2	Sb 206.836†	35000.9	36053.7	10135 ug/L	10135 ppb	09:50:07
2	Se 196.026†	20577.3	21255.6	10109 ug/L	10109 ppb	09:50:07
2	Si 251.611†	1735687.1	1789400.6	47304 ug/L	47304 ppb	09:50:02
2	Sn 189.927†	70438.0	72644.4	10286 ug/L	10286 ppb	09:50:07
2	Sr 421.552†	1389089.8	1439817.9	9454.7 ug/L	9454.7 ppb	09:48:30
2	Ti 334.940†	6494960.7	6700428.7	9833.6 ug/L	9833.6 ppb	09:49:55
2	Tl 190.801†	36002.2	37181.2	9801.6 ug/L	9801.6 ppb	09:50:07
2	U 409.014†	-2004.8	851.0	-22.088 ug/L	-22.088 ppb	09:50:02
2	V 292.402†	1621344.2	1674019.9	9970.7 ug/L	9970.7 ppb	09:50:02
2	Zn 213.857†	1741694.1	1795420.8	13943 ug/L	13943 ppb	09:50:02
2	SiO2†	1721268.2	1774510.7	101050 ug/L	101050 ppb	09:50:42
3	Sc 361.383	888989.9	888989.9	94.699 %		09:50:22
3	Sc Radial	4771.8	4771.8	96.5 %		09:49:05
3	Y 371.029	755683.0	755683.0	92.369 %		09:50:22
3	Y RADIAL	5031.3	5031.3	94.84 %		09:49:05
3	Ag 328.068†	-7993.7	-8906.7	2.7183 ug/L	2.7183 ppb	09:50:27
3	Al 396.153Radial†	582.1	624.6	67.766 ug/L	67.766 ppb	09:49:05
3	As 188.979†	28885.2	30536.9	10123 ug/L	10123 ppb	09:50:27
3	B 249.677†	246561.1	260758.6	5064.5 ug/L	5064.5 ppb	09:50:22
3	Ba 233.527†	2022725.5	2135929.1	14542 ug/L	14542 ppb	09:50:22
3	Be 313.107†	8786881.5	9283435.8	2968.8 ug/L	2968.8 ppb	09:50:15
3	Ca 317.933Radial†	32.6	12.3	19.336 ug/L	19.336 ppb	09:49:25
3	Cd 226.502†	1034458.8	1092620.1	9850.4 ug/L	9850.4 ppb	09:50:22
3	Co 228.616†	504390.1	532718.0	9370.3 ug/L	9370.3 ppb	09:50:27
3	Cr 267.716†	2446207.7	2583002.5	24286 ug/L	24286 ppb	09:50:22
3	Cu 324.752†	6933360.8	7312978.2	20854 ug/L	20854 ppb	09:50:15
3	Fe 238.204 Radial†	-20.1	-34.1	-4.1334 ug/L	-4.1334 ppb	09:49:25
3	K 766.490 Radial†	1525031.5	1577239.3	300220 ug/L	300220 ppb	09:49:00
3	Mg 279.077 IEC†	-5.9	-8.8	-81.803 ug/L	-81.803 ppb	09:49:25
3	Mn 257.610†	9295443.4	9815126.9	9737.9 ug/L	9737.9 ppb	09:50:15
3	Mo 202.031†	158297.4	167132.8	9837.4 ug/L	9837.4 ppb	09:50:27
3	Na 589.592 Radial†	-1484.3	259.1	73.519 ug/L	73.519 ppb	09:49:05
3	Ni 231.604†	457633.2	483110.7	9995.3 ug/L	9995.3 ppb	09:50:22
3	P 214.914†	37319.2	39137.0	14548 ug/L	14548 ppb	09:50:27
3	Pb 220.353†	235524.8	248793.1	24702 ug/L	24702 ppb	09:50:27
3	S 181.975 Axial†	44972.4	47428.1	52096 ug/L	52096 ppb	09:50:27
3	Sb 206.836†	35068.8	36986.6	10397 ug/L	10397 ppb	09:50:27
3	Se 196.026†	20618.3	21805.0	10371 ug/L	10371 ppb	09:50:27
3	Si 251.611†	1736285.5	1832736.1	48449 ug/L	48449 ppb	09:50:22
3	Sn 189.927†	70612.5	74561.7	10557 ug/L	10557 ppb	09:50:27
3	Sr 421.552†	1432849.3	1485022.2	9751.5 ug/L	9751.5 ppb	09:49:00
3	Ti 334.940†	6477718.7	6842019.2	10041 ug/L	10041 ppb	09:50:15
3	Tl 190.801†	36026.4	38092.5	10041 ug/L	10041 ppb	09:50:27
3	U 409.014†	-2162.0	635.7	-29.245 ug/L	-29.245 ppb	09:50:22
3	V 292.402†	1623074.2	1715737.2	10219 ug/L	10219 ppb	09:50:22
3	Zn 213.857†	1744567.8	1841306.8	14299 ug/L	14299 ppb	09:50:22
3	SiO2†	1741748.9	1838486.7	104700 ug/L	104700 ppb	09:50:49

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	896081.4	95.455	%	1.3022				1.36%
Sc Radial	4783.3	96.7	%	0.41				0.42%
Y 371.029	762492.2	93.201	%	1.3349				1.43%
Y RADIAL	5072.1	95.61	%	0.955				1.00%
Ag 328.068†	-8765.2	2.9238	ug/L	0.19036	2.9238	ppb	0.19036	6.51%
Al 396.153Radial†	641.5	83.914	ug/L	18.5968	83.914	ppb	18.5968	22.16%
As 188.979†	30350.4	10061	ug/L	170.7	10061	ppb	170.7	1.70%
QC value within limits for As 188.979 Recovery = 100.61%								
B 249.677†	258439.9	5019.5	ug/L	56.70	5019.5	ppb	56.70	1.13%
QC value within limits for B 249.677 Recovery = 100.39%								
Ba 233.527†	2114086.3	14394	ug/L	192.7	14394	ppb	192.7	1.34%
QC value within limits for Ba 233.527 Recovery = 95.96%								
Be 313.107†	9228816.9	2951.3	ug/L	36.27	2951.3	ppb	36.27	1.23%
QC value within limits for Be 313.107 Recovery = 98.38%								
Ca 317.933Radial†	13.5	21.134	ug/L	2.5985	21.134	ppb	2.5985	12.30%
Cd 226.502†	1080508.4	9741.2	ug/L	127.44	9741.2	ppb	127.44	1.31%

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   QC value within limits for Cd 226.502  Recovery = 97.41%
Co 228.616†          528045.7      9288.1 ug/L        153.05      9288.1 ppb        153.05   1.65%
   QC value within limits for Co 228.616  Recovery = 92.88%
Cr 267.716†         2556713.2       24039 ug/L         327.3       24039 ppb         327.3   1.36%
   QC value within limits for Cr 267.716  Recovery = 96.16%
Cu 324.752†         7276884.0       20751 ug/L         281.0       20751 ppb         281.0   1.35%
   QC value within limits for Cu 324.752  Recovery = 103.75%
Fe 238.204 Radial†       -35.8     -21.184 ug/L       15.8484     -21.184 ppb       15.8484  74.81%
K 766.490 Radial†    1557132.6      296390 ug/L        3900.2      296390 ppb        3900.2   1.32%
   QC value within limits for K 766.490 Radial  Recovery = 98.80%
Mg 279.077 IEC†           -8.7     -81.364 ug/L        3.4118     -81.364 ppb        3.4118   4.19%
Mn 257.610†          9754301.1       9677.5 ug/L        123.96      9677.5 ppb        123.96   1.28%
   QC value within limits for Mn 257.610  Recovery = 96.78%
Mo 202.031†           165969.8       9769.0 ug/L        162.67      9769.0 ppb        162.67   1.67%
   QC value within limits for Mo 202.031  Recovery = 97.69%
Na 589.592 Radial†       265.4      75.290 ug/L       17.8085      75.290 ppb       17.8085  23.65%
Ni 231.604†           477993.2       9889.4 ug/L        131.58      9889.4 ppb        131.58   1.33%
   QC value within limits for Ni 231.604  Recovery = 98.89%
P 214.914†             38802.0       14412 ug/L         262.1       14412 ppb         262.1   1.82%
   QC value within limits for P 214.914  Recovery = 96.08%
Pb 220.353†           247207.7       24544 ug/L         394.7       24544 ppb         394.7   1.61%
   QC value within limits for Pb 220.353  Recovery = 98.18%
S 181.975 Axial†       47139.0       51779 ug/L         874.2       51779 ppb         874.2   1.69%
   QC value within limits for S 181.975 Axial  Recovery = 103.56%
Sb 206.836†            36765.7       10337 ug/L         180.1       10337 ppb         180.1   1.74%
   QC value within limits for Sb 206.836  Recovery = 103.37%
Se 196.026†            21675.0       10309 ug/L         176.9       10309 ppb         176.9   1.72%
   QC value within limits for Se 196.026  Recovery = 103.09%
Si 251.611†          1815420.5       47991 ug/L         605.9       47991 ppb         605.9   1.26%
   QC value within limits for Si 251.611  Recovery = 95.98%
Sn 189.927†            74060.5       10486 ug/L         176.1       10486 ppb         176.1   1.68%
   QC value within limits for Sn 189.927  Recovery = 104.86%
Sr 421.552†          1464396.2       9616.1 ug/L        150.11      9616.1 ppb        150.11   1.56%
   QC value within limits for Sr 421.552  Recovery = 96.16%
Ti 334.940†          6801995.6       9982.6 ug/L        130.05      9982.6 ppb        130.05   1.30%
   QC value within limits for Ti 334.940  Recovery = 99.83%
Tl 190.801†            37901.2       9990.9 ug/L        169.86      9990.9 ppb        169.86   1.70%
   QC value within limits for Tl 190.801  Recovery = 99.91%
U 409.014†               732.0     -26.098 ug/L        3.6558     -26.098 ppb        3.6558  14.01%
V 292.402†           1699613.1       10124 ug/L         133.9       10124 ppb         133.9   1.32%
   QC value within limits for V 292.402  Recovery = 101.24%
Zn 213.857†          1822666.2       14154 ug/L         187.3       14154 ppb         187.3   1.32%
   QC value within limits for Zn 213.857  Recovery = 94.36%
SiO2†                1808839.9      103010 ug/L        1838.8      103010 ppb        1838.8   1.79%
   QC value within limits for SiO2  Recovery = 96.27%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/29/2009 09:52:59
Data Type: Reprocessed on 12/29/2009 10:09:37

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	912660.2	912660.2	97.221	%			09:56:10
1	Sc Radial	4904.0	4904.0	99.2	%			09:54:51
1	Y 371.029	786104.6	786104.6	96.087	%			09:56:10
1	Y RADIAL	5211.1	5211.1	98.23	%			09:54:51
1	Ag 328.068†	117981.4	120888.8	503.25	ug/L	503.25	ppb	09:56:10
1	Al 396.153Radial†	6260.4	6334.8	4936.5	ug/L	4936.5	ppb	09:54:51
1	As 188.979†	1581.2	1661.3	550.48	ug/L	550.48	ppb	09:56:30
1	B 249.677†	25810.8	26944.7	523.81	ug/L	523.81	ppb	09:56:10
1	Ba 233.527†	72078.9	74119.4	505.11	ug/L	505.11	ppb	09:56:10
1	Be 313.107†	1549676.0	1598680.4	508.83	ug/L	508.83	ppb	09:56:10
1	Ca 317.933Radial†	3199.1	3204.8	5022.4	ug/L	5022.4	ppb	09:55:11
1	Cd 226.502†	54550.2	56366.4	507.64	ug/L	507.64	ppb	09:56:10
1	Co 228.616†	27902.9	28794.8	506.64	ug/L	506.64	ppb	09:56:30
1	Cr 267.716†	52373.7	53737.3	505.71	ug/L	505.71	ppb	09:56:10
1	Cu 324.752†	179490.8	176139.0	502.54	ug/L	502.54	ppb	09:56:10
1	Fe 238.204 Radial†	592.8	584.5	5149.1	ug/L	5149.1	ppb	09:55:11
1	K 766.490 Radial†	29921.8	26842.5	5102.0	ug/L	5102.0	ppb	09:54:51
1	Mg 279.077 IEC†	170.5	169.2	5417.2	ug/L	5417.2	ppb	09:55:11
1	Mn 257.610†	498176.2	511781.8	508.17	ug/L	508.17	ppb	09:56:10
1	Mo 202.031†	8523.2	8741.4	515.01	ug/L	515.01	ppb	09:56:30
1	Na 589.592 Radial†	33346.3	35426.8	10051	ug/L	10051	ppb	09:54:51
1	Ni 231.604†	24046.6	24595.2	508.84	ug/L	508.84	ppb	09:56:30
1	P 214.914†	5779.7	5673.8	2496.8	ug/L	2496.8	ppb	09:56:30
1	Pb 220.353†	5012.6	5240.6	521.71	ug/L	521.71	ppb	09:56:30
1	S 181.975 Axial†	975.6	941.9	1033.6	ug/L	1033.6	ppb	09:56:30
1	Sb 206.836†	1814.6	1821.2	529.36	ug/L	529.36	ppb	09:56:30
1	Se 196.026†	1014.7	1076.4	528.86	ug/L	528.86	ppb	09:56:30
1	Si 251.611†	92522.8	94428.5	2499.7	ug/L	2499.7	ppb	09:56:10
1	Sn 189.927†	3518.4	3615.6	512.53	ug/L	512.53	ppb	09:56:30
1	Sr 421.552†	75230.9	75858.7	498.09	ug/L	498.09	ppb	09:54:51
1	Ti 334.940†	331865.3	343057.6	503.77	ug/L	503.77	ppb	09:56:10
1	Tl 190.801†	1873.1	1976.1	520.86	ug/L	520.86	ppb	09:56:30
1	U 409.014†	13926.6	17243.4	475.68	ug/L	475.68	ppb	09:56:10
1	V 292.402†	81105.9	85234.7	508.58	ug/L	508.58	ppb	09:56:10
1	Zn 213.857†	64186.7	65107.0	504.44	ug/L	504.44	ppb	09:56:10
1	SiO2†	93184.3	95090.3	5423.1	ug/L	5423.1	ppb	09:57:30
2	Sc 361.383	911521.3	911521.3	97.099	%			09:56:37
2	Sc Radial	4824.5	4824.5	97.6	%			09:55:16
2	Y 371.029	785640.5	785640.5	96.030	%			09:56:37
2	Y RADIAL	5135.4	5135.4	96.80	%			09:55:16
2	Ag 328.068†	117829.1	120883.5	503.22	ug/L	503.22	ppb	09:56:37
2	Al 396.153Radial†	6187.0	6363.7	4959.1	ug/L	4959.1	ppb	09:55:16
2	As 188.979†	1551.6	1632.7	541.10	ug/L	541.10	ppb	09:56:57
2	B 249.677†	25743.0	26908.1	523.10	ug/L	523.10	ppb	09:56:37
2	Ba 233.527†	71815.4	73940.7	503.89	ug/L	503.89	ppb	09:56:37
2	Be 313.107†	1547913.3	1598856.6	508.89	ug/L	508.89	ppb	09:56:37
2	Ca 317.933Radial†	3153.1	3210.9	5031.9	ug/L	5031.9	ppb	09:55:36
2	Cd 226.502†	54144.2	56018.4	504.51	ug/L	504.51	ppb	09:56:37
2	Co 228.616†	27761.5	28685.1	504.71	ug/L	504.71	ppb	09:56:57
2	Cr 267.716†	52197.8	53623.4	504.64	ug/L	504.64	ppb	09:56:37
2	Cu 324.752†	179063.5	175929.6	501.94	ug/L	501.94	ppb	09:56:37
2	Fe 238.204 Radial†	583.0	584.4	5147.9	ug/L	5147.9	ppb	09:55:36
2	K 766.490 Radial†	29795.6	27210.3	5172.1	ug/L	5172.1	ppb	09:55:16
2	Mg 279.077 IEC†	162.4	163.7	5241.9	ug/L	5241.9	ppb	09:55:36
2	Mn 257.610†	496462.0	510656.6	507.05	ug/L	507.05	ppb	09:56:37
2	Mo 202.031†	8511.7	8740.5	514.96	ug/L	514.96	ppb	09:56:57
2	Na 589.592 Radial†	33038.6	35665.5	10119	ug/L	10119	ppb	09:55:16
2	Ni 231.604†	23893.9	24468.8	506.23	ug/L	506.23	ppb	09:56:57

2	P 214.914†	5730.3	5630.3	2477.2 ug/L	2477.2 ppb	09:56:57
2	Pb 220.353†	4966.8	5199.8	517.67 ug/L	517.67 ppb	09:56:57
2	S 181.975 Axial†	960.1	927.1	1017.4 ug/L	1017.4 ppb	09:56:57
2	Sb 206.836†	1785.6	1793.8	521.52 ug/L	521.52 ppb	09:56:57
2	Se 196.026†	1023.1	1086.4	533.58 ug/L	533.58 ppb	09:56:57
2	Si 251.611†	92388.1	94408.7	2499.1 ug/L	2499.1 ppb	09:56:37
2	Sn 189.927†	3514.0	3615.5	512.53 ug/L	512.53 ppb	09:56:57
2	Sr 421.552†	74716.1	76580.9	502.83 ug/L	502.83 ppb	09:55:16
2	Ti 334.940†	331286.8	342888.4	503.52 ug/L	503.52 ppb	09:56:37
2	Tl 190.801†	1862.0	1967.1	518.51 ug/L	518.51 ppb	09:56:57
2	U 409.014†	13994.9	17331.7	478.13 ug/L	478.13 ppb	09:56:37
2	V 292.402†	80888.8	85115.3	507.88 ug/L	507.88 ppb	09:56:37
2	Zn 213.857†	63821.8	64813.7	502.17 ug/L	502.17 ppb	09:56:37
2	SiO2†	94998.1	97078.0	5537.0 ug/L	5537.0 ppb	09:57:35
3	Sc 361.383	920206.5	920206.5	98.024 %		09:57:05
3	Sc Radial	4738.7	4738.7	95.8 %		09:55:41
3	Y 371.029	793701.9	793701.9	97.016 %		09:57:05
3	Y RADIAL	5017.5	5017.5	94.58 %		09:55:41
3	Ag 328.068†	119861.2	121811.2	507.11 ug/L	507.11 ppb	09:57:05
3	Al 396.153Radial†	6128.1	6417.0	5001.1 ug/L	5001.1 ppb	09:55:41
3	As 188.979†	1555.2	1621.4	537.43 ug/L	537.43 ppb	09:57:25
3	B 249.677†	26096.3	27018.3	525.25 ug/L	525.25 ppb	09:57:05
3	Ba 233.527†	73164.5	74619.0	508.52 ug/L	508.52 ppb	09:57:05
3	Be 313.107†	1577463.0	1613955.7	513.69 ug/L	513.69 ppb	09:57:05
3	Ca 317.933Radial†	3172.4	3289.5	5155.0 ug/L	5155.0 ppb	09:56:01
3	Cd 226.502†	55253.5	56623.7	509.95 ug/L	509.95 ppb	09:57:05
3	Co 228.616†	27665.0	28316.7	498.21 ug/L	498.21 ppb	09:57:25
3	Cr 267.716†	53050.9	53986.3	508.06 ug/L	508.06 ppb	09:57:05
3	Cu 324.752†	182556.5	177752.4	507.14 ug/L	507.14 ppb	09:57:05
3	Fe 238.204 Radial†	584.8	597.1	5259.0 ug/L	5259.0 ppb	09:56:01
3	K 766.490 Radial†	29459.1	27412.3	5210.4 ug/L	5210.4 ppb	09:55:41
3	Mg 279.077 IEC†	169.1	173.8	5562.0 ug/L	5562.0 ppb	09:56:01
3	Mn 257.610†	505629.3	515182.9	511.55 ug/L	511.55 ppb	09:57:05
3	Mo 202.031†	8490.5	8636.1	508.83 ug/L	508.83 ppb	09:57:25
3	Na 589.592 Radial†	32514.3	35731.7	10138 ug/L	10138 ppb	09:55:41
3	Ni 231.604†	23872.4	24214.6	500.97 ug/L	500.97 ppb	09:57:25
3	P 214.914†	5722.7	5566.9	2447.5 ug/L	2447.5 ppb	09:57:25
3	Pb 220.353†	4963.9	5148.5	512.56 ug/L	512.56 ppb	09:57:25
3	S 181.975 Axial†	959.8	917.4	1006.7 ug/L	1006.7 ppb	09:57:25
3	Sb 206.836†	1786.6	1777.4	516.49 ug/L	516.49 ppb	09:57:25
3	Se 196.026†	1019.0	1072.2	527.22 ug/L	527.22 ppb	09:57:25
3	Si 251.611†	94026.1	95181.7	2519.8 ug/L	2519.8 ppb	09:57:05
3	Sn 189.927†	3500.2	3567.3	505.71 ug/L	505.71 ppb	09:57:25
3	Sr 421.552†	73490.4	76688.8	503.54 ug/L	503.54 ppb	09:55:41
3	Ti 334.940†	337463.4	345969.2	508.05 ug/L	508.05 ppb	09:57:05
3	Tl 190.801†	1850.3	1937.0	510.72 ug/L	510.72 ppb	09:57:25
3	U 409.014†	14161.3	17365.4	479.04 ug/L	479.04 ppb	09:57:05
3	V 292.402†	82416.4	85887.4	512.32 ug/L	512.32 ppb	09:57:05
3	Zn 213.857†	65108.8	65506.3	507.59 ug/L	507.59 ppb	09:57:05
3	SiO2†	93913.8	95048.5	5420.9 ug/L	5420.9 ppb	09:57:40

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	914796.0	97.448	%	0.5028				0.52%
Sc Radial	4822.4	97.5	%	1.67				1.71%
Y 371.029	788482.3	96.378	%	0.5532				0.57%
Y RADIAL	5121.3	96.54	%	1.839				1.90%
Ag 328.068†	121194.5	504.52	ug/L	2.238	504.52	ppb	2.238	0.44%
QC value within limits for Ag 328.068 Recovery = 100.90%								
Al 396.153Radial†	6371.8	4965.5	ug/L	32.77	4965.5	ppb	32.77	0.66%
QC value within limits for Al 396.153Radial Recovery = 99.31%								
As 188.979†	1638.5	543.00	ug/L	6.730	543.00	ppb	6.730	1.24%
QC value within limits for As 188.979 Recovery = 108.60%								
B 249.677†	26957.1	524.06	ug/L	1.096	524.06	ppb	1.096	0.21%
QC value within limits for B 249.677 Recovery = 104.81%								
Ba 233.527†	74226.4	505.84	ug/L	2.397	505.84	ppb	2.397	0.47%
QC value within limits for Ba 233.527 Recovery = 101.17%								
Be 313.107†	1603830.9	510.47	ug/L	2.791	510.47	ppb	2.791	0.55%
QC value within limits for Be 313.107 Recovery = 102.09%								

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Ca 317.933Radial†       3235.0      5069.8 ug/L         74.01      5069.8 ppb          74.01   1.46%
   QC value within limits for Ca 317.933Radial  Recovery = 101.40%
Cd 226.502†            56336.2      507.37 ug/L         2.730      507.37 ppb          2.730   0.54%
   QC value within limits for Cd 226.502  Recovery = 101.47%
Co 228.616†            28598.9      503.19 ug/L         4.419      503.19 ppb          4.419   0.88%
   QC value within limits for Co 228.616  Recovery = 100.64%
Cr 267.716†            53782.4      506.14 ug/L         1.749      506.14 ppb          1.749   0.35%
   QC value within limits for Cr 267.716  Recovery = 101.23%
Cu 324.752†           176607.0      503.87 ug/L         2.848      503.87 ppb          2.848   0.57%
   QC value within limits for Cu 324.752  Recovery = 100.77%
Fe 238.204 Radial†       588.7      5185.3 ug/L         63.78      5185.3 ppb          63.78   1.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.71%
K 766.490 Radial†      27155.0      5161.5 ug/L         54.95      5161.5 ppb          54.95   1.06%
   QC value within limits for K 766.490 Radial  Recovery = 103.23%
Mg 279.077 IEC†          168.9      5407.0 ug/L        160.30      5407.0 ppb         160.30   2.96%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.14%
Mn 257.610†           512540.4      508.92 ug/L         2.341      508.92 ppb          2.341   0.46%
   QC value within limits for Mn 257.610  Recovery = 101.78%
Mo 202.031†             8706.0      512.93 ug/L         3.556      512.93 ppb          3.556   0.69%
   QC value within limits for Mo 202.031  Recovery = 102.59%
Na 589.592 Radial†     35608.0       10103 ug/L          45.5       10103 ppb           45.5   0.45%
   QC value within limits for Na 589.592 Radial  Recovery = 101.03%
Ni 231.604†            24426.2      505.34 ug/L         4.010      505.34 ppb          4.010   0.79%
   QC value within limits for Ni 231.604  Recovery = 101.07%
P 214.914†              5623.7      2473.8 ug/L         24.86      2473.8 ppb          24.86   1.00%
   QC value within limits for P 214.914  Recovery = 98.95%
Pb 220.353†             5196.3      517.31 ug/L         4.585      517.31 ppb          4.585   0.89%
   QC value within limits for Pb 220.353  Recovery = 103.46%
S 181.975 Axial†         928.8      1019.2 ug/L         13.53      1019.2 ppb          13.53   1.33%
   QC value within limits for S 181.975 Axial  Recovery = 101.92%
Sb 206.836†             1797.4      522.45 ug/L         6.486      522.45 ppb          6.486   1.24%
   QC value within limits for Sb 206.836  Recovery = 104.49%
Se 196.026†             1078.3      529.89 ug/L         3.304      529.89 ppb          3.304   0.62%
   QC value within limits for Se 196.026  Recovery = 105.98%
Si 251.611†            94673.0      2506.2 ug/L         11.78      2506.2 ppb          11.78   0.47%
   QC value within limits for Si 251.611  Recovery = 100.25%
Sn 189.927†             3599.5      510.26 ug/L         3.936      510.26 ppb          3.936   0.77%
   QC value within limits for Sn 189.927  Recovery = 102.05%
Sr 421.552†            76376.1      501.48 ug/L         2.963      501.48 ppb          2.963   0.59%
   QC value within limits for Sr 421.552  Recovery = 100.30%
Ti 334.940†           343971.7      505.12 ug/L         2.547      505.12 ppb          2.547   0.50%
   QC value within limits for Ti 334.940  Recovery = 101.02%
Tl 190.801†             1960.1      516.70 ug/L         5.308      516.70 ppb          5.308   1.03%
   QC value within limits for Tl 190.801  Recovery = 103.34%
U 409.014†             17313.5      477.62 ug/L         1.737      477.62 ppb          1.737   0.36%
   QC value within limits for U 409.014  Recovery = 95.52%
V 292.402†             85412.5      509.60 ug/L         2.389      509.60 ppb          2.389   0.47%
   QC value within limits for V 292.402  Recovery = 101.92%
Zn 213.857†            65142.4      504.74 ug/L         2.723      504.74 ppb          2.723   0.54%
   QC value within limits for Zn 213.857  Recovery = 100.95%
SiO2†                  95739.0      5460.3 ug/L         66.39      5460.3 ppb          66.39   1.22%
   QC value within limits for SiO2  Recovery = 102.11%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/29/2009 09:59:50
Data Type: Reprocessed on 12/29/2009 10:09:38

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	934777.5	934777.5	99.577	%			10:03:00
1	Sc Radial	4770.1	4770.1	96.5	%			10:01:43
1	Y 371.029	814406.0	814406.0	99.546	%			10:03:00
1	Y RADIAL	5110.1	5110.1	96.33	%			10:01:43
1	Ag 328.068†	487.3	23.7	0.0911	ug/L	0.0911	ppb	10:03:05
1	Al 396.153Radial†	-5.6	15.5	12.050	ug/L	12.050	ppb	10:01:43
1	As 188.979†	10.2	45.0	14.795	ug/L	14.795	ppb	10:03:25
1	B 249.677†	396.0	793.7	15.489	ug/L	15.489	ppb	10:03:05
1	Ba 233.527†	13.6	-6.5	-0.0453	ug/L	-0.0453	ppb	10:03:25
1	Be 313.107†	-4630.4	51.2	0.0163	ug/L	0.0163	ppb	10:03:05
1	Ca 317.933Radial†	17.7	-3.1	-4.8943	ug/L	-4.8943	ppb	10:02:03
1	Cd 226.502†	-209.4	46.3	0.4186	ug/L	0.4186	ppb	10:03:25
1	Co 228.616†	-92.7	1.1	0.0230	ug/L	0.0230	ppb	10:03:25
1	Cr 267.716†	129.7	-3.5	-0.0347	ug/L	-0.0347	ppb	10:03:05
1	Cu 324.752†	8612.0	165.4	0.4712	ug/L	0.4712	ppb	10:03:05
1	Fe 238.204 Radial†	11.7	-1.1	-9.9066	ug/L	-9.9066	ppb	10:02:03
1	K 766.490 Radial†	3721.6	525.1	100.01	ug/L	100.01	ppb	10:01:43
1	Mg 279.077 IEC†	0.4	-2.3	-74.130	ug/L	-74.130	ppb	10:02:03
1	Mn 257.610†	567.2	-67.0	-0.0661	ug/L	-0.0661	ppb	10:03:05
1	Mo 202.031†	46.7	21.4	1.2596	ug/L	1.2596	ppb	10:03:25
1	Na 589.592 Radial†	-1828.3	-98.2	-27.853	ug/L	-27.853	ppb	10:01:43
1	Ni 231.604†	159.6	21.4	0.4421	ug/L	0.4421	ppb	10:03:25
1	P 214.914†	250.7	-19.4	-8.8082	ug/L	-8.8082	ppb	10:03:25
1	Pb 220.353†	-72.6	11.8	1.1737	ug/L	1.1737	ppb	10:03:25
1	S 181.975 Axial†	67.3	5.9	6.5091	ug/L	6.5091	ppb	10:03:25
1	Sb 206.836†	63.3	18.4	5.3389	ug/L	5.3389	ppb	10:03:25
1	Se 196.026†	-19.6	13.0	6.1245	ug/L	6.1245	ppb	10:03:25
1	Si 251.611†	868.3	132.6	3.4636	ug/L	3.4636	ppb	10:03:25
1	Sn 189.927†	24.5	21.2	2.9987	ug/L	2.9987	ppb	10:03:25
1	Sr 421.552†	-24.8	-36.7	-0.2409	ug/L	-0.2409	ppb	10:01:43
1	Ti 334.940†	-1688.1	9.5	0.0128	ug/L	0.0128	ppb	10:03:05
1	Tl 190.801†	-54.1	-4.9	-1.2709	ug/L	-1.2709	ppb	10:03:25
1	U 409.014†	-2829.4	77.2	2.1387	ug/L	2.1387	ppb	10:03:00
1	V 292.402†	-1888.2	-86.2	-0.4854	ug/L	-0.4854	ppb	10:03:05
1	Zn 213.857†	1107.0	197.1	1.5396	ug/L	1.5396	ppb	10:03:25
1	SiO2†	909.9	155.7	8.7836	ug/L	8.7836	ppb	10:04:31
2	Sc 361.383	940786.7	940786.7	100.22	%			10:03:30
2	Sc Radial	4752.8	4752.8	96.1	%			10:02:08
2	Y 371.029	819555.6	819555.6	100.18	%			10:03:30
2	Y RADIAL	5106.8	5106.8	96.27	%			10:02:08
2	Ag 328.068†	482.1	15.5	0.0533	ug/L	0.0533	ppb	10:03:35
2	Al 396.153Radial†	-19.4	1.2	0.8738	ug/L	0.8738	ppb	10:02:08
2	As 188.979†	2.7	37.5	12.323	ug/L	12.323	ppb	10:03:55
2	B 249.677†	372.1	767.3	14.977	ug/L	14.977	ppb	10:03:35
2	Ba 233.527†	18.1	-2.0	-0.0140	ug/L	-0.0140	ppb	10:03:55
2	Be 313.107†	-4670.7	40.8	0.0129	ug/L	0.0129	ppb	10:03:35
2	Ca 317.933Radial†	20.2	-0.4	-0.6763	ug/L	-0.6763	ppb	10:02:28
2	Cd 226.502†	-210.3	46.9	0.4252	ug/L	0.4252	ppb	10:03:55
2	Co 228.616†	-87.0	7.4	0.1325	ug/L	0.1325	ppb	10:03:55
2	Cr 267.716†	129.1	-4.9	-0.0464	ug/L	-0.0464	ppb	10:03:35
2	Cu 324.752†	8486.6	-14.9	-0.0443	ug/L	-0.0443	ppb	10:03:35
2	Fe 238.204 Radial†	9.0	-3.9	-33.881	ug/L	-33.881	ppb	10:02:28
2	K 766.490 Radial†	3720.5	538.1	102.45	ug/L	102.45	ppb	10:02:08
2	Mg 279.077 IEC†	3.3	0.8	24.091	ug/L	24.091	ppb	10:02:28
2	Mn 257.610†	562.0	-75.8	-0.0790	ug/L	-0.0790	ppb	10:03:35
2	Mo 202.031†	36.8	11.2	0.6577	ug/L	0.6577	ppb	10:03:55
2	Na 589.592 Radial†	-1800.0	-75.6	-21.442	ug/L	-21.442	ppb	10:02:08
2	Ni 231.604†	119.6	-19.6	-0.4053	ug/L	-0.4053	ppb	10:03:55

2	P 214.914†	271.9	0.2	0.1437 ug/L	0.1437 ppb	10:03:55
2	Pb 220.353†	-96.8	-11.9	-1.1811 ug/L	-1.1811 ppb	10:03:55
2	S 181.975 Axial†	59.0	-2.8	-3.0556 ug/L	-3.0556 ppb	10:03:55
2	Sb 206.836†	47.4	2.0	0.6434 ug/L	0.6434 ppb	10:03:55
2	Se 196.026†	-44.4	-11.6	-5.6034 ug/L	-5.6034 ppb	10:03:55
2	Si 251.611†	853.5	112.3	2.9342 ug/L	2.9342 ppb	10:03:55
2	Sn 189.927†	20.9	17.4	2.4682 ug/L	2.4682 ppb	10:03:55
2	Sr 421.552†	-16.3	-28.0	-0.1839 ug/L	-0.1839 ppb	10:02:08
2	Ti 334.940†	-1720.6	-12.1	-0.0181 ug/L	-0.0181 ppb	10:03:35
2	Tl 190.801†	-46.4	3.2	0.8244 ug/L	0.8244 ppb	10:03:55
2	U 409.014†	-2907.0	17.9	0.5005 ug/L	0.5005 ppb	10:03:30
2	V 292.402†	-1767.5	46.4	0.2894 ug/L	0.2894 ppb	10:03:35
2	Zn 213.857†	1085.5	168.5	1.3199 ug/L	1.3199 ppb	10:03:55
2	SiO2†	887.8	127.8	7.2086 ug/L	7.2086 ppb	10:04:36
3	Sc 361.383	952728.4	952728.4	101.49 %		10:04:01
3	Sc Radial	4910.4	4910.4	99.3 %		10:02:33
3	Y 371.029	830696.4	830696.4	101.54 %		10:04:01
3	Y RADIAL	5268.7	5268.7	99.32 %		10:02:33
3	Ag 328.068†	630.6	155.7	0.6314 ug/L	0.6314 ppb	10:04:06
3	Al 396.153Radial†	-17.5	3.7	2.9140 ug/L	2.9140 ppb	10:02:33
3	As 188.979†	-5.6	29.3	9.6238 ug/L	9.6238 ppb	10:04:26
3	B 249.677†	316.6	708.0	13.821 ug/L	13.821 ppb	10:04:06
3	Ba 233.527†	22.0	1.6	0.0087 ug/L	0.0087 ppb	10:04:26
3	Be 313.107†	-4651.8	117.8	0.0378 ug/L	0.0378 ppb	10:04:06
3	Ca 317.933Radial†	25.2	4.0	6.2057 ug/L	6.2057 ppb	10:02:53
3	Cd 226.502†	-204.8	54.9	0.4975 ug/L	0.4975 ppb	10:04:26
3	Co 228.616†	-116.4	-20.5	-0.3595 ug/L	-0.3595 ppb	10:04:26
3	Cr 267.716†	98.6	-36.6	-0.3447 ug/L	-0.3447 ppb	10:04:06
3	Cu 324.752†	8574.2	-34.7	-0.1008 ug/L	-0.1008 ppb	10:04:06
3	Fe 238.204 Radial†	9.4	-3.8	-33.759 ug/L	-33.759 ppb	10:02:53
3	K 766.490 Radial†	3668.4	361.4	68.809 ug/L	68.809 ppb	10:02:33
3	Mg 279.077 IEC†	0.7	-2.0	-65.480 ug/L	-65.480 ppb	10:02:53
3	Mn 257.610†	611.6	-34.0	-0.0359 ug/L	-0.0359 ppb	10:04:06
3	Mo 202.031†	29.7	3.8	0.2229 ug/L	0.2229 ppb	10:04:26
3	Na 589.592 Radial†	-1762.9	21.9	6.2160 ug/L	6.2160 ppb	10:02:33
3	Ni 231.604†	127.4	-13.3	-0.2761 ug/L	-0.2761 ppb	10:04:26
3	P 214.914†	269.8	-5.4	-2.3633 ug/L	-2.3633 ppb	10:04:26
3	Pb 220.353†	-69.0	16.7	1.6573 ug/L	1.6573 ppb	10:04:26
3	S 181.975 Axial†	73.6	10.8	11.895 ug/L	11.895 ppb	10:04:26
3	Sb 206.836†	54.1	8.0	2.3419 ug/L	2.3419 ppb	10:04:26
3	Se 196.026†	-30.5	2.6	1.1157 ug/L	1.1157 ppb	10:04:26
3	Si 251.611†	864.8	112.8	2.9676 ug/L	2.9676 ppb	10:04:26
3	Sn 189.927†	16.3	12.7	1.7970 ug/L	1.7970 ppb	10:04:26
3	Sr 421.552†	17.8	7.0	0.0456 ug/L	0.0456 ppb	10:02:33
3	Ti 334.940†	-1590.5	137.7	0.2029 ug/L	0.2029 ppb	10:04:06
3	Tl 190.801†	-51.7	-1.4	-0.3738 ug/L	-0.3738 ppb	10:04:26
3	U 409.014†	-2983.9	-21.4	-0.5884 ug/L	-0.5884 ppb	10:04:01
3	V 292.402†	-1916.2	-78.0	-0.4534 ug/L	-0.4534 ppb	10:04:06
3	Zn 213.857†	1085.1	154.5	1.2130 ug/L	1.2130 ppb	10:04:26
3	SiO2†	942.7	170.8	9.7173 ug/L	9.7173 ppb	10:04:41

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	942764.2	100.43	%	0.973				0.97%
Sc Radial	4811.1	97.3	%	1.75				1.80%
Y 371.029	821552.7	100.42	%	1.018				1.01%
Y RADIAL	5161.8	97.30	%	1.744				1.79%
Ag 328.068†	65.0	0.2586	ug/L	0.32336	0.2586	ppb	0.32336	125.04%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.8	5.2794	ug/L	5.95188	5.2794	ppb	5.95188	112.74%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	37.3	12.247	ug/L	2.5866	12.247	ppb	2.5866	21.12%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	756.4	14.763	ug/L	0.8544	14.763	ppb	0.8544	5.79%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.3	-0.0169	ug/L	0.02712	-0.0169	ppb	0.02712	160.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	69.9	0.0223	ug/L	0.01350	0.0223	ppb	0.01350	60.42%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          0.1      0.2117 ug/L       5.60305      0.2117 ppb        5.60305 >999.9%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†               49.3      0.4471 ug/L       0.04378      0.4471 ppb        0.04378   9.79%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               -4.0     -0.0680 ug/L       0.25828     -0.0680 ppb        0.25828 379.81%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -15.0     -0.1420 ug/L       0.17572     -0.1420 ppb        0.17572 123.78%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               38.6      0.1087 ug/L       0.31522      0.1087 ppb        0.31522 290.01%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -2.9     -25.849 ug/L       13.8065     -25.849 ppb        13.8065  53.41%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        474.9      90.423 ug/L       18.7585      90.423 ppb        18.7585  20.75%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.2     -38.506 ug/L       54.3833     -38.506 ppb        54.3833 141.23%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -58.9     -0.0603 ug/L       0.02213     -0.0603 ppb        0.02213  36.69%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               12.2      0.7134 ug/L       0.52059      0.7134 ppb        0.52059  72.98%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -50.6     -14.360 ug/L       18.1050     -14.360 ppb        18.1050 126.08%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -3.9     -0.0798 ug/L       0.45657     -0.0798 ppb        0.45657 572.28%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -8.2     -3.6759 ug/L       4.61805     -3.6759 ppb        4.61805 125.63%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                5.5      0.5500 ug/L       1.51856      0.5500 ppb        1.51856 276.11%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           4.7      5.1160 ug/L       7.57178      5.1160 ppb        7.57178 148.00%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                9.5      2.7747 ug/L       2.37751      2.7747 ppb        2.37751  85.68%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                1.3      0.5456 ug/L       5.88468      0.5456 ppb        5.88468 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              119.2      3.1218 ug/L       0.29646      3.1218 ppb        0.29646   9.50%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               17.1      2.4213 ug/L       0.60226      2.4213 ppb        0.60226  24.87%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -19.2     -0.1264 ug/L       0.15167     -0.1264 ppb        0.15167 120.00%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               45.0      0.0659 ug/L       0.11966      0.0659 ppb        0.11966 181.65%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -1.0     -0.2734 ug/L       1.05122     -0.2734 ppb        1.05122 384.44%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                24.6      0.6836 ug/L       1.37272      0.6836 ppb        1.37272 200.81%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -39.3     -0.2165 ug/L       0.43840     -0.2165 ppb        0.43840 202.53%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              173.3      1.3575 ug/L       0.16647      1.3575 ppb        0.16647  12.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    151.5      8.5698 ug/L       1.26794      8.5698 ppb        1.26794  14.80%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/29/2009 11:00:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4959.1	4959.1	100	%			11:02:02
1	Y RADIAL	5265.3	5265.3	99.25	%			11:02:02
1	Al 396.153Radial†	6658.2	6661.4	5192.3	ug/L	5192.3	ppb	11:02:02
1	Ca 317.933Radial†	3301.2	3270.8	5125.8	ug/L	5125.8	ppb	11:02:22
1	Fe 238.204 Radial†	608.2	593.3	5225.8	ug/L	5225.8	ppb	11:02:22
1	K 766.490 Radial†	30797.1	27379.9	5204.3	ug/L	5204.3	ppb	11:02:02
1	Mg 279.077 IEC†	168.1	164.9	5280.4	ug/L	5280.4	ppb	11:02:22
1	Na 589.592 Radial†	34800.8	36503.5	10357	ug/L	10357	ppb	11:02:02
1	Sr 421.552†	79494.6	79267.3	520.47	ug/L	520.47	ppb	11:02:02
1	Sc 361.383	947803.0	947803.0	100.96	%			11:03:21
1	Y 371.029	817954.7	817954.7	99.980	%			11:03:21
1	Ag 328.068†	121622.1	119995.0	499.56	ug/L	499.56	ppb	11:03:21
1	As 188.979†	1523.4	1543.7	511.83	ug/L	511.83	ppb	11:03:41
1	B 249.677†	25889.9	26038.7	506.14	ug/L	506.14	ppb	11:03:21
1	Ba 233.527†	74159.6	73431.3	500.43	ug/L	500.43	ppb	11:03:21
1	Be 313.107†	1599586.8	1589012.7	505.76	ug/L	505.76	ppb	11:03:21
1	Cd 226.502†	55734.0	55458.4	499.45	ug/L	499.45	ppb	11:03:21
1	Co 228.616†	28554.3	28375.8	499.27	ug/L	499.27	ppb	11:03:41
1	Cr 267.716†	53875.3	53227.0	500.91	ug/L	500.91	ppb	11:03:21
1	Cu 324.752†	185104.2	174853.3	498.88	ug/L	498.88	ppb	11:03:21
1	Mn 257.610†	512068.7	506542.1	502.98	ug/L	502.98	ppb	11:03:21
1	Mo 202.031†	8763.5	8654.3	509.89	ug/L	509.89	ppb	11:03:41
1	Ni 231.604†	24590.5	24216.8	501.01	ug/L	501.01	ppb	11:03:41
1	P 214.914†	5927.3	5599.6	2463.7	ug/L	2463.7	ppb	11:03:41
1	Pb 220.353†	5116.4	5152.1	512.97	ug/L	512.97	ppb	11:03:41
1	S 181.975 Axial†	1003.0	931.8	1022.5	ug/L	1022.5	ppb	11:03:41
1	Sb 206.836†	1833.0	1770.3	514.62	ug/L	514.62	ppb	11:03:41
1	Se 196.026†	1043.5	1066.2	524.28	ug/L	524.28	ppb	11:03:41
1	Si 251.611†	95349.2	93699.3	2480.3	ug/L	2480.3	ppb	11:03:21
1	Sn 189.927†	3590.9	3553.2	503.71	ug/L	503.71	ppb	11:03:41
1	Ti 334.940†	342232.1	340668.7	500.27	ug/L	500.27	ppb	11:03:21
1	Tl 190.801†	1918.3	1949.5	513.88	ug/L	513.88	ppb	11:03:41
1	U 409.014†	14706.0	17484.3	482.35	ug/L	482.35	ppb	11:03:21
1	V 292.402†	83810.4	84820.1	506.07	ug/L	506.07	ppb	11:03:21
1	Zn 213.857†	65596.1	64055.0	496.28	ug/L	496.28	ppb	11:03:21
1	SiO2†	95442.2	93772.7	5347.8	ug/L	5347.8	ppb	11:04:41
2	Sc Radial	5092.7	5092.7	103	%			11:02:27
2	Y RADIAL	5393.5	5393.5	101.7	%			11:02:27
2	Al 396.153Radial†	6498.7	6332.4	4935.0	ug/L	4935.0	ppb	11:02:27
2	Ca 317.933Radial†	3285.0	3168.7	4965.7	ug/L	4965.7	ppb	11:02:47
2	Fe 238.204 Radial†	601.5	570.9	5029.2	ug/L	5029.2	ppb	11:02:47
2	K 766.490 Radial†	30462.5	26249.7	4989.2	ug/L	4989.2	ppb	11:02:27
2	Mg 279.077 IEC†	167.0	159.5	5105.4	ug/L	5105.4	ppb	11:02:47
2	Na 589.592 Radial†	34164.9	34976.0	9923.3	ug/L	9923.3	ppb	11:02:27
2	Sr 421.552†	77846.6	75588.1	496.31	ug/L	496.31	ppb	11:02:27
2	Sc 361.383	957987.0	957987.0	102.05	%			11:03:48
2	Y 371.029	824608.1	824608.1	100.79	%			11:03:48
2	Ag 328.068†	123263.6	120323.0	500.85	ug/L	500.85	ppb	11:03:48
2	As 188.979†	1530.8	1534.9	508.91	ug/L	508.91	ppb	11:04:09
2	B 249.677†	26452.6	26317.5	511.62	ug/L	511.62	ppb	11:03:48
2	Ba 233.527†	75174.9	73645.4	501.88	ug/L	501.88	ppb	11:03:48
2	Be 313.107†	1617540.9	1589764.2	506.00	ug/L	506.00	ppb	11:03:48
2	Cd 226.502†	56398.4	55522.6	500.05	ug/L	500.05	ppb	11:03:48
2	Co 228.616†	28626.0	28145.4	495.20	ug/L	495.20	ppb	11:04:09
2	Cr 267.716†	54342.2	53117.3	499.88	ug/L	499.88	ppb	11:03:48
2	Cu 324.752†	188276.6	176013.1	502.17	ug/L	502.17	ppb	11:03:48
2	Mn 257.610†	519248.6	508186.2	504.59	ug/L	504.59	ppb	11:03:48
2	Mo 202.031†	8789.4	8587.5	505.94	ug/L	505.94	ppb	11:04:09
2	Ni 231.604†	24613.8	23980.7	496.13	ug/L	496.13	ppb	11:04:09

2	P 214.914†	5933.4	5543.1	2437.6 ug/L	2437.6 ppb	11:04:09
2	Pb 220.353†	5130.0	5111.6	508.90 ug/L	508.90 ppb	11:04:09
2	S 181.975 Axial†	1009.8	927.9	1018.2 ug/L	1018.2 ppb	11:04:09
2	Sb 206.836†	1826.0	1744.1	507.03 ug/L	507.03 ppb	11:04:09
2	Se 196.026†	1046.6	1058.3	519.88 ug/L	519.88 ppb	11:04:09
2	Si 251.611†	96841.8	94158.0	2492.7 ug/L	2492.7 ppb	11:03:48
2	Sn 189.927†	3619.8	3543.7	502.34 ug/L	502.34 ppb	11:04:09
2	Ti 334.940†	346918.1	341657.2	501.71 ug/L	501.71 ppb	11:03:48
2	Tl 190.801†	1911.2	1922.3	506.79 ug/L	506.79 ppb	11:04:09
2	U 409.014†	14855.3	17475.7	482.14 ug/L	482.14 ppb	11:03:48
2	V 292.402†	84615.2	84726.3	505.49 ug/L	505.49 ppb	11:03:48
2	Zn 213.857†	66370.8	64123.5	496.85 ug/L	496.85 ppb	11:03:48
2	SiO2†	95925.5	93241.4	5317.6 ug/L	5317.6 ppb	11:04:47
3	Sc Radial	4988.2	4988.2	101 %		11:02:52
3	Y RADIAL	5314.4	5314.4	100.2 %		11:02:52
3	Al 396.153Radial†	6445.2	6411.4	4997.0 ug/L	4997.0 ppb	11:02:52
3	Ca 317.933Radial†	3262.4	3213.1	5035.3 ug/L	5035.3 ppb	11:03:12
3	Fe 238.204 Radial†	593.4	575.1	5065.8 ug/L	5065.8 ppb	11:03:12
3	K 766.490 Radial†	30121.6	26531.0	5042.8 ug/L	5042.8 ppb	11:02:52
3	Mg 279.077 IEC†	168.0	163.8	5244.3 ug/L	5244.3 ppb	11:03:12
3	Na 589.592 Radial†	33455.7	34967.5	9920.9 ug/L	9920.9 ppb	11:02:52
3	Sr 421.552†	76779.7	76113.0	499.76 ug/L	499.76 ppb	11:02:52
3	Sc 361.383	955495.6	955495.6	101.78 %		11:04:16
3	Y 371.029	822555.2	822555.2	100.54 %		11:04:16
3	Ag 328.068†	123052.0	120430.1	501.30 ug/L	501.30 ppb	11:04:16
3	As 188.979†	1514.4	1522.7	504.92 ug/L	504.92 ppb	11:04:36
3	B 249.677†	26265.2	26201.0	509.35 ug/L	509.35 ppb	11:04:16
3	Ba 233.527†	74869.8	73537.7	501.15 ug/L	501.15 ppb	11:04:16
3	Be 313.107†	1610374.2	1586856.1	505.07 ug/L	505.07 ppb	11:04:16
3	Cd 226.502†	56199.8	55471.6	499.58 ug/L	499.58 ppb	11:04:16
3	Co 228.616†	28290.5	27889.0	490.68 ug/L	490.68 ppb	11:04:36
3	Cr 267.716†	54264.6	53179.9	500.46 ug/L	500.46 ppb	11:04:16
3	Cu 324.752†	187772.8	175999.1	502.13 ug/L	502.13 ppb	11:04:16
3	Mn 257.610†	517578.2	507871.8	504.28 ug/L	504.28 ppb	11:04:16
3	Mo 202.031†	8688.9	8511.2	501.45 ug/L	501.45 ppb	11:04:36
3	Ni 231.604†	24375.0	23809.0	492.57 ug/L	492.57 ppb	11:04:36
3	P 214.914†	5863.0	5489.1	2413.0 ug/L	2413.0 ppb	11:04:36
3	Pb 220.353†	5076.2	5071.8	504.95 ug/L	504.95 ppb	11:04:36
3	S 181.975 Axial†	1006.6	927.3	1017.6 ug/L	1017.6 ppb	11:04:36
3	Sb 206.836†	1803.7	1726.9	501.89 ug/L	501.89 ppb	11:04:36
3	Se 196.026†	1023.6	1038.3	510.50 ug/L	510.50 ppb	11:04:36
3	Si 251.611†	96433.1	94003.9	2488.7 ug/L	2488.7 ppb	11:04:16
3	Sn 189.927†	3571.6	3505.6	496.97 ug/L	496.97 ppb	11:04:36
3	Ti 334.940†	345912.6	341555.8	501.57 ug/L	501.57 ppb	11:04:16
3	Tl 190.801†	1909.5	1925.5	507.67 ug/L	507.67 ppb	11:04:36
3	U 409.014†	14921.0	17578.2	484.97 ug/L	484.97 ppb	11:04:16
3	V 292.402†	84334.5	84666.8	505.08 ug/L	505.08 ppb	11:04:16
3	Zn 213.857†	66222.0	64146.8	497.05 ug/L	497.05 ppb	11:04:16
3	SiO2†	95998.0	93557.8	5335.9 ug/L	5335.9 ppb	11:04:52

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	953761.9	101.60	%	0.566				0.56%
Sc Radial	5013.3	101	%	1.4				1.40%
Y 371.029	821706.0	100.44	%	0.416				0.41%
Y RADIAL	5324.4	100.4	%	1.22				1.22%
Ag 328.068†	120249.4	500.57	ug/L	0.904	500.57	ppb	0.904	0.18%
QC value within limits for Ag 328.068 Recovery = 100.11%								
Al 396.153Radial†	6468.4	5041.4	ug/L	134.31	5041.4	ppb	134.31	2.66%
QC value within limits for Al 396.153Radial Recovery = 100.83%								
As 188.979†	1533.8	508.55	ug/L	3.470	508.55	ppb	3.470	0.68%
QC value within limits for As 188.979 Recovery = 101.71%								
B 249.677†	26185.7	509.04	ug/L	2.752	509.04	ppb	2.752	0.54%
QC value within limits for B 249.677 Recovery = 101.81%								
Ba 233.527†	73538.1	501.15	ug/L	0.725	501.15	ppb	0.725	0.14%
QC value within limits for Ba 233.527 Recovery = 100.23%								
Be 313.107†	1588544.3	505.61	ug/L	0.479	505.61	ppb	0.479	0.09%
QC value within limits for Be 313.107 Recovery = 101.12%								
Ca 317.933Radial†	3217.5	5042.3	ug/L	80.27	5042.3	ppb	80.27	1.59%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.85%
Cd 226.502†            55484.2      499.69 ug/L         0.313      499.69 ppb          0.313   0.06%
   QC value within limits for Cd 226.502  Recovery = 99.94%
Co 228.616†            28136.7      495.05 ug/L         4.294      495.05 ppb          4.294   0.87%
   QC value within limits for Co 228.616  Recovery = 99.01%
Cr 267.716†            53174.8      500.42 ug/L         0.519      500.42 ppb          0.519   0.10%
   QC value within limits for Cr 267.716  Recovery = 100.08%
Cu 324.752†           175621.8      501.06 ug/L         1.893      501.06 ppb          1.893   0.38%
   QC value within limits for Cu 324.752  Recovery = 100.21%
Fe 238.204 Radial†       579.8      5106.9 ug/L        104.56      5106.9 ppb         104.56   2.05%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.14%
K 766.490 Radial†      26720.2      5078.8 ug/L        111.96      5078.8 ppb         111.96   2.20%
   QC value within limits for K 766.490 Radial  Recovery = 101.58%
Mg 279.077 IEC†          162.7      5210.0 ug/L         92.39      5210.0 ppb          92.39   1.77%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.20%
Mn 257.610†           507533.4      503.95 ug/L         0.857      503.95 ppb          0.857   0.17%
   QC value within limits for Mn 257.610  Recovery = 100.79%
Mo 202.031†             8584.3      505.76 ug/L         4.223      505.76 ppb          4.223   0.83%
   QC value within limits for Mo 202.031  Recovery = 101.15%
Na 589.592 Radial†     35482.3       10067 ug/L         250.9       10067 ppb          250.9   2.49%
   QC value within limits for Na 589.592 Radial  Recovery = 100.67%
Ni 231.604†            24002.2      496.57 ug/L         4.236      496.57 ppb          4.236   0.85%
   QC value within limits for Ni 231.604  Recovery = 99.31%
P 214.914†              5543.9      2438.1 ug/L         25.33      2438.1 ppb          25.33   1.04%
   QC value within limits for P 214.914  Recovery = 97.52%
Pb 220.353†             5111.9      508.94 ug/L         4.012      508.94 ppb          4.012   0.79%
   QC value within limits for Pb 220.353  Recovery = 101.79%
S 181.975 Axial†         929.0      1019.4 ug/L          2.66      1019.4 ppb           2.66   0.26%
   QC value within limits for S 181.975 Axial  Recovery = 101.94%
Sb 206.836†             1747.1      507.85 ug/L         6.402      507.85 ppb          6.402   1.26%
   QC value within limits for Sb 206.836  Recovery = 101.57%
Se 196.026†             1054.3      518.22 ug/L         7.037      518.22 ppb          7.037   1.36%
   QC value within limits for Se 196.026  Recovery = 103.64%
Si 251.611†            93953.7      2487.2 ug/L          6.30      2487.2 ppb           6.30   0.25%
   QC value within limits for Si 251.611  Recovery = 99.49%
Sn 189.927†             3534.2      501.01 ug/L         3.564      501.01 ppb          3.564   0.71%
   QC value within limits for Sn 189.927  Recovery = 100.20%
Sr 421.552†            76989.5      505.51 ug/L        13.067      505.51 ppb         13.067   2.58%
   QC value within limits for Sr 421.552  Recovery = 101.10%
Ti 334.940†           341293.9      501.18 ug/L         0.795      501.18 ppb          0.795   0.16%
   QC value within limits for Ti 334.940  Recovery = 100.24%
Tl 190.801†             1932.4      509.45 ug/L         3.866      509.45 ppb          3.866   0.76%
   QC value within limits for Tl 190.801  Recovery = 101.89%
U 409.014†             17512.7      483.15 ug/L         1.577      483.15 ppb          1.577   0.33%
   QC value within limits for U 409.014  Recovery = 96.63%
V 292.402†             84737.7      505.55 ug/L         0.500      505.55 ppb          0.500   0.10%
   QC value within limits for V 292.402  Recovery = 101.11%
Zn 213.857†            64108.4      496.73 ug/L         0.404      496.73 ppb          0.404   0.08%
   QC value within limits for Zn 213.857  Recovery = 99.35%
SiO2†                  93524.0      5333.8 ug/L         15.18      5333.8 ppb          15.18   0.28%
   QC value within limits for SiO2  Recovery = 99.74%
All analyte(s) passed QC.
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Sequence No.: 8
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/29/2009 11:07:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5129.0	5129.0	104	%			11:08:55
1	Y RADIAL	5490.5	5490.5	103.5	%			11:08:55
1	Al 396.153Radial†	-9.4	12.2	9.5291	ug/L	9.5291	ppb	11:08:55
1	Ca 317.933Radial†	26.2	3.9	6.0487	ug/L	6.0487	ppb	11:09:15
1	Fe 238.204 Radial†	12.2	-1.5	-13.334	ug/L	-13.334	ppb	11:09:15
1	K 766.490 Radial†	3458.0	1.0	0.1713	ug/L	0.1713	ppb	11:08:55
1	Mg 279.077 IEC†	1.9	-0.9	-29.281	ug/L	-29.281	ppb	11:09:15
1	Na 589.592 Radial†	-1736.5	123.0	34.908	ug/L	34.908	ppb	11:08:55
1	Sr 421.552†	2.0	-9.1	-0.0597	ug/L	-0.0597	ppb	11:08:55
1	Sc 361.383	933812.7	933812.7	99.474	%			11:10:11
1	Y 371.029	815864.0	815864.0	99.725	%			11:10:11
1	Ag 328.068†	586.9	124.4	0.5102	ug/L	0.5102	ppb	11:10:17
1	As 188.979†	-31.6	3.1	1.0017	ug/L	1.0017	ppb	11:10:37
1	B 249.677†	153.4	550.3	10.740	ug/L	10.740	ppb	11:10:17
1	Ba 233.527†	17.1	-2.9	-0.0204	ug/L	-0.0204	ppb	11:10:37
1	Be 313.107†	-4576.0	101.2	0.0321	ug/L	0.0321	ppb	11:10:17
1	Cd 226.502†	-250.0	5.3	0.0494	ug/L	0.0494	ppb	11:10:37
1	Co 228.616†	-83.7	10.1	0.1799	ug/L	0.1799	ppb	11:10:37
1	Cr 267.716†	101.4	-31.8	-0.2985	ug/L	-0.2985	ppb	11:10:17
1	Cu 324.752†	8443.2	4.6	0.0124	ug/L	0.0124	ppb	11:10:17
1	Mn 257.610†	629.2	-4.0	-0.0048	ug/L	-0.0048	ppb	11:10:17
1	Mo 202.031†	35.4	10.1	0.5956	ug/L	0.5956	ppb	11:10:37
1	Ni 231.604†	150.4	12.3	0.2543	ug/L	0.2543	ppb	11:10:37
1	P 214.914†	270.8	1.0	0.4789	ug/L	0.4789	ppb	11:10:37
1	Pb 220.353†	-92.8	-8.6	-0.8521	ug/L	-0.8521	ppb	11:10:37
1	S 181.975 Axial†	71.4	10.1	11.083	ug/L	11.083	ppb	11:10:37
1	Sb 206.836†	46.0	1.0	0.3033	ug/L	0.3033	ppb	11:10:37
1	Se 196.026†	-39.0	-6.5	-3.1312	ug/L	-3.1312	ppb	11:10:37
1	Si 251.611†	799.1	64.0	1.6909	ug/L	1.6909	ppb	11:10:37
1	Sn 189.927†	5.2	1.8	0.2546	ug/L	0.2546	ppb	11:10:37
1	Ti 334.940†	-1700.5	-4.7	-0.0062	ug/L	-0.0062	ppb	11:10:17
1	Tl 190.801†	-50.2	-1.0	-0.2609	ug/L	-0.2609	ppb	11:10:37
1	U 409.014†	-2930.0	-26.8	-0.7406	ug/L	-0.7406	ppb	11:10:11
1	V 292.402†	-1814.8	-14.3	-0.0756	ug/L	-0.0756	ppb	11:10:17
1	Zn 213.857†	969.4	59.9	0.4678	ug/L	0.4678	ppb	11:10:37
1	SiO2†	893.4	140.1	8.0048	ug/L	8.0048	ppb	11:11:43
2	Sc Radial	5014.9	5014.9	101	%			11:09:20
2	Y RADIAL	5403.8	5403.8	101.9	%			11:09:20
2	Al 396.153Radial†	-17.9	3.7	2.8615	ug/L	2.8615	ppb	11:09:20
2	Ca 317.933Radial†	15.6	-6.1	-9.5691	ug/L	-9.5691	ppb	11:09:40
2	Fe 238.204 Radial†	9.3	-4.1	-35.934	ug/L	-35.934	ppb	11:09:40
2	K 766.490 Radial†	3503.1	121.4	23.106	ug/L	23.106	ppb	11:09:20
2	Mg 279.077 IEC†	1.6	-1.1	-36.695	ug/L	-36.695	ppb	11:09:40
2	Na 589.592 Radial†	-1781.3	40.7	11.547	ug/L	11.547	ppb	11:09:20
2	Sr 421.552†	-24.5	-35.2	-0.2311	ug/L	-0.2311	ppb	11:09:20
2	Sc 361.383	969188.3	969188.3	103.24	%			11:10:42
2	Y 371.029	845350.8	845350.8	103.33	%			11:10:42
2	Ag 328.068†	619.8	134.7	0.5432	ug/L	0.5432	ppb	11:10:47
2	As 188.979†	-31.7	4.1	1.3487	ug/L	1.3487	ppb	11:11:07
2	B 249.677†	35.5	430.4	8.4039	ug/L	8.4039	ppb	11:10:47
2	Ba 233.527†	15.5	-5.1	-0.0339	ug/L	-0.0339	ppb	11:11:07
2	Be 313.107†	-4733.9	116.1	0.0370	ug/L	0.0370	ppb	11:10:47
2	Cd 226.502†	-264.9	0.0	0.0038	ug/L	0.0038	ppb	11:11:07
2	Co 228.616†	-98.2	-0.8	-0.0140	ug/L	-0.0140	ppb	11:11:07
2	Cr 267.716†	85.1	-51.4	-0.4837	ug/L	-0.4837	ppb	11:10:47
2	Cu 324.752†	8684.0	-71.9	-0.2069	ug/L	-0.2069	ppb	11:10:47
2	Mn 257.610†	628.2	-28.1	-0.0308	ug/L	-0.0308	ppb	11:10:47
2	Mo 202.031†	29.0	2.6	0.1488	ug/L	0.1488	ppb	11:11:07
2	Ni 231.604†	131.1	-11.9	-0.2460	ug/L	-0.2460	ppb	11:11:07

2	P 214.914†	261.7	-17.7	-7.9473	ug/L	-7.9473 ppb	11:11:07
2	Pb 220.353†	-96.0	-8.4	-0.8283	ug/L	-0.8283 ppb	11:11:07
2	S 181.975 Axial†	74.4	10.4	11.454	ug/L	11.454 ppb	11:11:07
2	Sb 206.836†	54.8	7.9	2.2665	ug/L	2.2665 ppb	11:11:07
2	Se 196.026†	-37.1	-3.2	-1.6407	ug/L	-1.6407 ppb	11:11:07
2	Si 251.611†	810.9	46.1	1.2161	ug/L	1.2161 ppb	11:11:07
2	Sn 189.927†	2.4	-1.1	-0.1574	ug/L	-0.1574 ppb	11:11:07
2	Ti 334.940†	-1698.3	59.8	0.0850	ug/L	0.0850 ppb	11:10:47
2	Tl 190.801†	-54.9	-3.7	-0.9649	ug/L	-0.9649 ppb	11:11:07
2	U 409.014†	-2800.8	205.8	5.7030	ug/L	5.7030 ppb	11:10:42
2	V 292.402†	-1747.8	117.2	0.7076	ug/L	0.7076 ppb	11:10:47
2	Zn 213.857†	979.6	34.2	0.2719	ug/L	0.2719 ppb	11:11:07
2	SiO2†	834.0	49.8	2.8325	ug/L	2.8325 ppb	11:11:48
3	Sc Radial	5011.6	5011.6	101	%		11:09:45
3	Y RADIAL	5369.0	5369.0	101.2	%		11:09:45
3	Al 396.153Radial†	-41.6	-19.8	-15.471	ug/L	-15.471 ppb	11:09:45
3	Ca 317.933Radial†	22.7	0.9	1.4880	ug/L	1.4880 ppb	11:10:05
3	Fe 238.204 Radial†	10.6	-2.8	-24.548	ug/L	-24.548 ppb	11:10:05
3	K 766.490 Radial†	3450.2	71.4	13.571	ug/L	13.571 ppb	11:09:45
3	Mg 279.077 IEC†	2.4	-0.4	-12.136	ug/L	-12.136 ppb	11:10:05
3	Na 589.592 Radial†	-1678.5	141.0	40.018	ug/L	40.018 ppb	11:09:45
3	Sr 421.552†	0.2	-10.8	-0.0710	ug/L	-0.0710 ppb	11:09:45
3	Sc 361.383	969874.6	969874.6	103.32	%		11:11:12
3	Y 371.029	845501.1	845501.1	103.35	%		11:11:12
3	Ag 328.068†	548.0	64.8	0.2596	ug/L	0.2596 ppb	11:11:17
3	As 188.979†	-27.2	8.5	2.7895	ug/L	2.7895 ppb	11:11:37
3	B 249.677†	79.3	472.8	9.2293	ug/L	9.2293 ppb	11:11:17
3	Ba 233.527†	19.1	-1.6	-0.0106	ug/L	-0.0106 ppb	11:11:37
3	Be 313.107†	-4588.6	260.0	0.0828	ug/L	0.0828 ppb	11:11:17
3	Cd 226.502†	-254.5	10.3	0.0949	ug/L	0.0949 ppb	11:11:37
3	Co 228.616†	-79.4	17.3	0.3052	ug/L	0.3052 ppb	11:11:37
3	Cr 267.716†	96.5	-40.3	-0.3795	ug/L	-0.3795 ppb	11:11:17
3	Cu 324.752†	8297.6	-451.9	-1.2899	ug/L	-1.2899 ppb	11:11:17
3	Mn 257.610†	644.1	-13.1	-0.0153	ug/L	-0.0153 ppb	11:11:17
3	Mo 202.031†	25.8	-0.5	-0.0309	ug/L	-0.0309 ppb	11:11:37
3	Ni 231.604†	119.4	-23.3	-0.4830	ug/L	-0.4830 ppb	11:11:37
3	P 214.914†	269.5	-10.3	-4.4282	ug/L	-4.4282 ppb	11:11:37
3	Pb 220.353†	-68.1	18.7	1.8588	ug/L	1.8588 ppb	11:11:37
3	S 181.975 Axial†	72.4	8.4	9.2627	ug/L	9.2627 ppb	11:11:37
3	Sb 206.836†	43.4	-3.3	-0.9008	ug/L	-0.9008 ppb	11:11:37
3	Se 196.026†	-29.8	3.8	1.7444	ug/L	1.7444 ppb	11:11:37
3	Si 251.611†	812.8	47.4	1.2513	ug/L	1.2513 ppb	11:11:37
3	Sn 189.927†	14.6	10.8	1.5245	ug/L	1.5245 ppb	11:11:37
3	Ti 334.940†	-1704.8	54.7	0.0797	ug/L	0.0797 ppb	11:11:17
3	Tl 190.801†	-52.7	-1.6	-0.4184	ug/L	-0.4184 ppb	11:11:37
3	U 409.014†	-2945.8	67.4	1.8692	ug/L	1.8692 ppb	11:11:12
3	V 292.402†	-1813.3	54.9	0.3301	ug/L	0.3301 ppb	11:11:17
3	Zn 213.857†	973.8	27.8	0.2238	ug/L	0.2238 ppb	11:11:37
3	SiO2†	879.4	93.2	5.3204	ug/L	5.3204 ppb	11:11:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	957625.2	102.01	%	2.197				2.15%
Sc Radial	5051.8	102	%	1.4				1.32%
Y 371.029	835572.0	102.13	%	2.086				2.04%
Y RADIAL	5421.1	102.2	%	1.18				1.15%
Ag 328.068†	108.0	0.4377	ug/L	0.15506	0.4377	ppb	0.15506	35.43%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.3	-1.0267	ug/L	12.94548	-1.0267	ppb	12.94548	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.2	1.7133	ug/L	0.94805	1.7133	ppb	0.94805	55.33%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	484.5	9.4576	ug/L	1.18452	9.4576	ppb	1.18452	12.52%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.2	-0.0217	ug/L	0.01173	-0.0217	ppb	0.01173	54.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	159.1	0.0506	ug/L	0.02792	0.0506	ppb	0.02792	55.13%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.4	-0.6774	ug/L	8.03097	-0.6774	ppb	8.03097	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                5.2      0.0494 ug/L       0.04555      0.0494 ppb        0.04555  92.27%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                8.9      0.1571 ug/L       0.16083      0.1571 ppb        0.16083 102.41%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -41.2     -0.3873 ug/L       0.09283     -0.3873 ppb        0.09283  23.97%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -173.1     -0.4948 ug/L       0.69730     -0.4948 ppb        0.69730 140.93%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -2.8     -24.605 ug/L       11.3000     -24.605 ppb        11.3000  45.92%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         64.6      12.283 ug/L       11.5215      12.283 ppb        11.5215  93.80%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.8     -26.037 ug/L       12.5967     -26.037 ppb        12.5967  48.38%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -15.1     -0.0169 ug/L       0.01309     -0.0169 ppb        0.01309  77.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.1      0.2378 ug/L       0.32261      0.2378 ppb        0.32261 135.64%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       101.6      28.824 ug/L       15.1792      28.824 ppb        15.1792  52.66%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -7.6     -0.1583 ug/L       0.37641     -0.1583 ppb        0.37641 237.85%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -9.0     -3.9655 ug/L       4.23210     -3.9655 ppb        4.23210 106.72%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                0.6      0.0595 ug/L       1.55835      0.0595 ppb        1.55835 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           9.6      10.600 ug/L        1.1729      10.600 ppb         1.1729  11.07%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                1.9      0.5563 ug/L       1.59873      0.5563 ppb        1.59873 287.37%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -2.0     -1.0091 ug/L       2.49841     -1.0091 ppb        2.49841 247.58%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               52.5      1.3861 ug/L       0.26454      1.3861 ppb        0.26454  19.08%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                3.8      0.5406 ug/L       0.87668      0.5406 ppb        0.87668 162.17%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -18.4     -0.1206 ug/L       0.09584     -0.1206 ppb        0.09584  79.47%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               36.6      0.0529 ug/L       0.05120      0.0529 ppb        0.05120  96.86%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -2.1     -0.5481 ug/L       0.36948     -0.5481 ppb        0.36948  67.42%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                82.1      2.2772 ug/L       3.24112      2.2772 ppb        3.24112 142.33%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                52.6      0.3207 ug/L       0.39167      0.3207 ppb        0.39167 122.13%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               40.6      0.3212 ug/L       0.12921      0.3212 ppb        0.12921  40.23%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     94.4      5.3859 ug/L       2.58676      5.3859 ppb        2.58676  48.03%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/29/2009 12:19:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5412.6	5412.6	109	%			12:21:24
1	Y RADIAL	5717.0	5717.0	107.8	%			12:21:24
1	Al 396.153Radial†	6070.2	5567.8	4336.4	ug/L	4336.4	ppb	12:21:24
1	Ca 317.933Radial†	3213.5	2914.8	4568.0	ug/L	4568.0	ppb	12:21:44
1	Fe 238.204 Radial†	601.3	536.1	4723.6	ug/L	4723.6	ppb	12:21:44
1	K 766.490 Radial†	29232.0	23376.6	4442.3	ug/L	4442.3	ppb	12:21:24
1	Mg 279.077 IEC†	167.4	150.3	4812.4	ug/L	4812.4	ppb	12:21:44
1	Na 589.592 Radial†	34928.8	33712.7	9564.9	ug/L	9564.9	ppb	12:21:24
1	Sr 421.552†	75792.2	69242.2	454.64	ug/L	454.64	ppb	12:21:24
1	Sc 361.383	938755.0	938755.0	100.00	%			12:22:43
1	Y 371.029	808946.9	808946.9	98.879	%			12:22:43
1	Ag 328.068†	122004.6	121538.6	505.80	ug/L	505.80	ppb	12:22:43
1	As 188.979†	1504.1	1539.0	510.26	ug/L	510.26	ppb	12:23:03
1	B 249.677†	25005.1	25401.0	493.77	ug/L	493.77	ppb	12:22:43
1	Ba 233.527†	74358.7	74338.3	506.60	ug/L	506.60	ppb	12:22:43
1	Be 313.107†	1597263.4	1601959.5	509.88	ug/L	509.88	ppb	12:22:43
1	Cd 226.502†	55795.5	56051.9	504.85	ug/L	504.85	ppb	12:22:43
1	Co 228.616†	28140.3	28234.4	496.77	ug/L	496.77	ppb	12:23:03
1	Cr 267.716†	53929.7	53795.8	506.26	ug/L	506.26	ppb	12:22:43
1	Cu 324.752†	185916.9	177433.1	506.21	ug/L	506.21	ppb	12:22:43
1	Mn 257.610†	513732.9	513094.6	509.44	ug/L	509.44	ppb	12:22:43
1	Mo 202.031†	8647.6	8622.1	507.95	ug/L	507.95	ppb	12:23:03
1	Ni 231.604†	24260.2	24121.3	499.04	ug/L	499.04	ppb	12:23:03
1	P 214.914†	5827.0	5555.8	2442.8	ug/L	2442.8	ppb	12:23:03
1	Pb 220.353†	5057.7	5142.3	511.83	ug/L	511.83	ppb	12:23:03
1	S 181.975 Axial†	990.9	929.2	1019.8	ug/L	1019.8	ppb	12:23:03
1	Sb 206.836†	1796.9	1751.6	509.12	ug/L	509.12	ppb	12:23:03
1	Se 196.026†	1021.8	1054.5	517.04	ug/L	517.04	ppb	12:23:03
1	Si 251.611†	95557.8	94818.1	2510.4	ug/L	2510.4	ppb	12:22:43
1	Sn 189.927†	3557.8	3554.3	503.81	ug/L	503.81	ppb	12:23:03
1	Ti 334.940†	343636.3	345339.9	507.10	ug/L	507.10	ppb	12:22:43
1	Tl 190.801†	1876.7	1926.1	507.83	ug/L	507.83	ppb	12:23:03
1	U 409.014†	14571.1	17489.8	482.55	ug/L	482.55	ppb	12:22:43
1	V 292.402†	83960.2	85770.0	511.69	ug/L	511.69	ppb	12:22:43
1	Zn 213.857†	65744.6	64829.7	502.37	ug/L	502.37	ppb	12:22:43
1	SiO2†	93181.3	92423.0	5271.1	ug/L	5271.1	ppb	12:24:04
2	Sc Radial	5004.6	5004.6	101	%			12:21:49
2	Y RADIAL	5313.3	5313.3	100.2	%			12:21:49
2	Al 396.153Radial†	6287.7	6234.9	4858.8	ug/L	4858.8	ppb	12:21:49
2	Ca 317.933Radial†	3339.3	3278.5	5137.8	ug/L	5137.8	ppb	12:22:09
2	Fe 238.204 Radial†	628.9	608.2	5356.5	ug/L	5356.5	ppb	12:22:09
2	K 766.490 Radial†	29958.7	26272.2	4993.1	ug/L	4993.1	ppb	12:21:49
2	Mg 279.077 IEC†	173.0	168.2	5384.8	ug/L	5384.8	ppb	12:22:09
2	Na 589.592 Radial†	36101.2	37473.1	10632	ug/L	10632	ppb	12:21:49
2	Sr 421.552†	78420.9	77485.6	508.77	ug/L	508.77	ppb	12:21:49
2	Sc 361.383	939561.4	939561.4	100.09	%			12:23:11
2	Y 371.029	810106.4	810106.4	99.021	%			12:23:11
2	Ag 328.068†	122645.6	122074.4	508.23	ug/L	508.23	ppb	12:23:11
2	As 188.979†	1489.0	1522.5	504.99	ug/L	504.99	ppb	12:23:31
2	B 249.677†	25226.4	25600.8	497.60	ug/L	497.60	ppb	12:23:11
2	Ba 233.527†	74888.3	74803.7	509.78	ug/L	509.78	ppb	12:23:11
2	Be 313.107†	1610488.1	1613801.9	513.65	ug/L	513.65	ppb	12:23:11
2	Cd 226.502†	56282.6	56490.7	508.73	ug/L	508.73	ppb	12:23:11
2	Co 228.616†	27905.7	27975.8	492.19	ug/L	492.19	ppb	12:23:31
2	Cr 267.716†	54285.9	54105.3	509.18	ug/L	509.18	ppb	12:23:11
2	Cu 324.752†	186873.0	178228.8	508.51	ug/L	508.51	ppb	12:23:11
2	Mn 257.610†	517117.0	516034.9	512.41	ug/L	512.41	ppb	12:23:11
2	Mo 202.031†	8566.6	8533.8	502.81	ug/L	502.81	ppb	12:23:31
2	Ni 231.604†	24053.7	23894.1	494.34	ug/L	494.34	ppb	12:23:31

2	P 214.914†	5753.4	5477.2	2406.4 ug/L	2406.4 ppb	12:23:31
2	Pb 220.353†	4986.2	5066.5	504.36 ug/L	504.36 ppb	12:23:31
2	S 181.975 Axial†	975.3	912.8	1001.7 ug/L	1001.7 ppb	12:23:31
2	Sb 206.836†	1775.7	1728.9	502.33 ug/L	502.33 ppb	12:23:31
2	Se 196.026†	1004.0	1035.8	510.21 ug/L	510.21 ppb	12:23:31
2	Si 251.611†	96106.0	95283.8	2522.7 ug/L	2522.7 ppb	12:23:11
2	Sn 189.927†	3523.1	3516.6	498.54 ug/L	498.54 ppb	12:23:31
2	Ti 334.940†	345770.8	347177.7	509.82 ug/L	509.82 ppb	12:23:11
2	Tl 190.801†	1856.0	1903.9	502.07 ug/L	502.07 ppb	12:23:31
2	U 409.014†	14839.0	17744.9	489.53 ug/L	489.53 ppb	12:23:11
2	V 292.402†	84414.5	86151.8	513.79 ug/L	513.79 ppb	12:23:11
2	Zn 213.857†	66254.5	65282.7	505.89 ug/L	505.89 ppb	12:23:11
2	SiO2†	94336.5	93497.2	5332.4 ug/L	5332.4 ppb	12:24:09
3	Sc Radial	4911.5	4911.5	99.3 %		12:22:14
3	Y RADIAL	5224.7	5224.7	98.49 %		12:22:14
3	Al 396.153Radial†	6302.9	6368.1	4962.9 ug/L	4962.9 ppb	12:22:14
3	Ca 317.933Radial†	3232.5	3233.5	5067.4 ug/L	5067.4 ppb	12:22:34
3	Fe 238.204 Radial†	610.9	601.9	5301.3 ug/L	5301.3 ppb	12:22:34
3	K 766.490 Radial†	29653.6	26526.4	5041.5 ug/L	5041.5 ppb	12:22:14
3	Mg 279.077 IEC†	164.7	163.2	5223.7 ug/L	5223.7 ppb	12:22:34
3	Na 589.592 Radial†	35740.6	37786.5	10721 ug/L	10721 ppb	12:22:14
3	Sr 421.552†	77809.9	78339.9	514.38 ug/L	514.38 ppb	12:22:14
3	Sc 361.383	934403.2	934403.2	99.537 %		12:23:38
3	Y 371.029	805224.2	805224.2	98.424 %		12:23:38
3	Ag 328.068†	121755.6	121856.6	507.31 ug/L	507.31 ppb	12:23:38
3	As 188.979†	1488.5	1530.3	507.52 ug/L	507.52 ppb	12:23:58
3	B 249.677†	25031.5	25544.1	496.48 ug/L	496.48 ppb	12:23:38
3	Ba 233.527†	74330.1	74655.9	508.77 ug/L	508.77 ppb	12:23:38
3	Be 313.107†	1595423.3	1607549.7	511.66 ug/L	511.66 ppb	12:23:38
3	Cd 226.502†	55895.3	56412.1	508.03 ug/L	508.03 ppb	12:23:38
3	Co 228.616†	28043.0	28267.7	497.34 ug/L	497.34 ppb	12:23:58
3	Cr 267.716†	53921.7	54038.9	508.55 ug/L	508.55 ppb	12:23:38
3	Cu 324.752†	185235.2	177614.1	506.75 ug/L	506.75 ppb	12:23:38
3	Mn 257.610†	513620.2	515374.0	511.75 ug/L	511.75 ppb	12:23:38
3	Mo 202.031†	8581.0	8595.4	506.43 ug/L	506.43 ppb	12:23:58
3	Ni 231.604†	24134.7	24108.1	498.76 ug/L	498.76 ppb	12:23:58
3	P 214.914†	5788.6	5544.3	2437.2 ug/L	2437.2 ppb	12:23:58
3	Pb 220.353†	5005.0	5112.9	509.00 ug/L	509.00 ppb	12:23:58
3	S 181.975 Axial†	974.4	917.2	1006.5 ug/L	1006.5 ppb	12:23:58
3	Sb 206.836†	1792.3	1755.4	510.07 ug/L	510.07 ppb	12:23:58
3	Se 196.026†	1023.4	1060.8	521.91 ug/L	521.91 ppb	12:23:58
3	Si 251.611†	95350.6	95055.0	2516.5 ug/L	2516.5 ppb	12:23:38
3	Sn 189.927†	3536.8	3549.9	503.24 ug/L	503.24 ppb	12:23:58
3	Ti 334.940†	343188.0	346489.9	508.81 ug/L	508.81 ppb	12:23:38
3	Tl 190.801†	1870.5	1928.6	508.53 ug/L	508.53 ppb	12:23:58
3	U 409.014†	14537.1	17523.4	483.41 ug/L	483.41 ppb	12:23:38
3	V 292.402†	83786.5	85986.5	512.87 ug/L	512.87 ppb	12:23:38
3	Zn 213.857†	65812.5	65204.1	505.26 ug/L	505.26 ppb	12:23:38
3	SiO2†	93769.1	93447.4	5329.4 ug/L	5329.4 ppb	12:24:14

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	937573.2	99.874	%	0.2956				0.30%
Sc Radial	5109.6	103	%	5.4				5.22%
Y 371.029	808092.5	98.775	%	0.3118				0.32%
Y RADIAL	5418.3	102.1	%	4.95				4.84%
Ag 328.068†	121823.2	507.11	ug/L	1.223	507.11	ppb	1.223	0.24%
QC value within limits for Ag 328.068 Recovery = 101.42%								
Al 396.153Radial†	6056.9	4719.3	ug/L	335.71	4719.3	ppb	335.71	7.11%
QC value within limits for Al 396.153Radial Recovery = 94.39%								
As 188.979†	1530.6	507.59	ug/L	2.639	507.59	ppb	2.639	0.52%
QC value within limits for As 188.979 Recovery = 101.52%								
B 249.677†	25515.3	495.95	ug/L	1.968	495.95	ppb	1.968	0.40%
QC value within limits for B 249.677 Recovery = 99.19%								
Ba 233.527†	74599.3	508.38	ug/L	1.628	508.38	ppb	1.628	0.32%
QC value within limits for Ba 233.527 Recovery = 101.68%								
Be 313.107†	1607770.4	511.73	ug/L	1.885	511.73	ppb	1.885	0.37%
QC value within limits for Be 313.107 Recovery = 102.35%								
Ca 317.933Radial†	3142.3	4924.4	ug/L	310.67	4924.4	ppb	310.67	6.31%

```
   QC value within limits for Ca 317.933Radial  Recovery = 98.49%
Cd 226.502†            56318.3      507.21 ug/L        2.072      507.21 ppb          2.072   0.41%
   QC value within limits for Cd 226.502  Recovery = 101.44%
Co 228.616†            28159.3      495.43 ug/L        2.821      495.43 ppb          2.821   0.57%
   QC value within limits for Co 228.616  Recovery = 99.09%
Cr 267.716†            53980.0      508.00 ug/L        1.538      508.00 ppb          1.538   0.30%
   QC value within limits for Cr 267.716  Recovery = 101.60%
Cu 324.752†           177758.7      507.15 ug/L        1.202      507.15 ppb          1.202   0.24%
   QC value within limits for Cu 324.752  Recovery = 101.43%
Fe 238.204 Radial†       582.1      5127.2 ug/L       350.55      5127.2 ppb         350.55   6.84%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.54%
K 766.490 Radial†      25391.7      4825.6 ug/L       332.86      4825.6 ppb         332.86   6.90%
   QC value within limits for K 766.490 Radial  Recovery = 96.51%
Mg 279.077 IEC†          160.6      5140.3 ug/L       295.19      5140.3 ppb         295.19   5.74%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.81%
Mn 257.610†           514834.5      511.20 ug/L        1.560      511.20 ppb          1.560   0.31%
   QC value within limits for Mn 257.610  Recovery = 102.24%
Mo 202.031†             8583.8      505.73 ug/L        2.641      505.73 ppb          2.641   0.52%
   QC value within limits for Mo 202.031  Recovery = 101.15%
Na 589.592 Radial†     36324.1       10306 ug/L        643.2       10306 ppb          643.2   6.24%
   QC value within limits for Na 589.592 Radial  Recovery = 103.06%
Ni 231.604†            24041.1      497.38 ug/L        2.639      497.38 ppb          2.639   0.53%
   QC value within limits for Ni 231.604  Recovery = 99.48%
P 214.914†              5525.8      2428.8 ug/L       19.61      2428.8 ppb         19.61   0.81%
   QC value within limits for P 214.914  Recovery = 97.15%
Pb 220.353†             5107.2      508.40 ug/L        3.774      508.40 ppb          3.774   0.74%
   QC value within limits for Pb 220.353  Recovery = 101.68%
S 181.975 Axial†         919.8      1009.4 ug/L         9.40      1009.4 ppb          9.40   0.93%
   QC value within limits for S 181.975 Axial  Recovery = 100.94%
Sb 206.836†             1745.3      507.18 ug/L        4.222      507.18 ppb          4.222   0.83%
   QC value within limits for Sb 206.836  Recovery = 101.44%
Se 196.026†             1050.4      516.38 ug/L        5.880      516.38 ppb          5.880   1.14%
   QC value within limits for Se 196.026  Recovery = 103.28%
Si 251.611†            95052.3      2516.5 ug/L         6.16      2516.5 ppb          6.16   0.24%
   QC value within limits for Si 251.611  Recovery = 100.66%
Sn 189.927†             3540.3      501.86 ug/L        2.893      501.86 ppb          2.893   0.58%
   QC value within limits for Sn 189.927  Recovery = 100.37%
Sr 421.552†            75022.5      492.60 ug/L       32.989      492.60 ppb         32.989   6.70%
   QC value within limits for Sr 421.552  Recovery = 98.52%
Ti 334.940†           346335.8      508.58 ug/L        1.378      508.58 ppb          1.378   0.27%
   QC value within limits for Ti 334.940  Recovery = 101.72%
Tl 190.801†             1919.5      506.14 ug/L        3.542      506.14 ppb          3.542   0.70%
   QC value within limits for Tl 190.801  Recovery = 101.23%
U 409.014†             17586.0      485.16 ug/L        3.806      485.16 ppb          3.806   0.78%
   QC value within limits for U 409.014  Recovery = 97.03%
V 292.402†             85969.4      512.78 ug/L        1.052      512.78 ppb          1.052   0.21%
   QC value within limits for V 292.402  Recovery = 102.56%
Zn 213.857†            65105.5      504.51 ug/L        1.874      504.51 ppb          1.874   0.37%
   QC value within limits for Zn 213.857  Recovery = 100.90%
SiO2†                  93122.5      5311.0 ug/L       34.59      5311.0 ppb         34.59   0.65%
   QC value within limits for SiO2  Recovery = 99.32%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: PQL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 12/29/2009 12:26:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4943.4	4943.4	100.0	%			12:28:17
1	Y RADIAL	5310.1	5310.1	100.1	%			12:28:17
1	Al 396.153Radial†	258.2	279.6	218.38	ug/L	218.38	ppb	12:28:17
1	Ca 317.933Radial†	151.3	130.0	203.65	ug/L	203.65	ppb	12:28:37
1	Fe 238.204 Radial†	25.3	12.0	105.81	ug/L	105.81	ppb	12:28:37
1	K 766.490 Radial†	4215.5	884.0	168.09	ug/L	168.09	ppb	12:28:17
1	Mg 279.077 IEC†	13.5	10.8	345.00	ug/L	345.00	ppb	12:28:37
1	Na 589.592 Radial†	-670.0	1127.2	319.80	ug/L	319.80	ppb	12:28:17
1	Sr 421.552†	752.7	742.0	4.8707	ug/L	4.8707	ppb	12:28:17
1	Sc 361.383	927584.8	927584.8	98.810	%			12:29:35
1	Y 371.029	810278.9	810278.9	99.042	%			12:29:35
1	Ag 328.068†	1777.0	1332.8	5.5186	ug/L	5.5186	ppb	12:29:35
1	As 188.979†	57.6	93.1	30.631	ug/L	30.631	ppb	12:29:55
1	B 249.677†	2032.9	2453.4	47.847	ug/L	47.847	ppb	12:29:55
1	Ba 233.527†	798.5	788.0	5.3707	ug/L	5.3707	ppb	12:29:55
1	Be 313.107†	10794.0	15625.3	4.9733	ug/L	4.9733	ppb	12:29:35
1	Cd 226.502†	298.1	558.3	5.0227	ug/L	5.0227	ppb	12:29:55
1	Co 228.616†	190.1	286.6	5.0578	ug/L	5.0578	ppb	12:29:55
1	Cr 267.716†	622.2	495.9	4.6528	ug/L	4.6528	ppb	12:29:55
1	Cu 324.752†	11580.7	3236.9	9.2357	ug/L	9.2357	ppb	12:29:35
1	Mn 257.610†	10791.3	10284.6	10.208	ug/L	10.208	ppb	12:29:35
1	Mo 202.031†	207.8	184.9	10.891	ug/L	10.891	ppb	12:29:55
1	Ni 231.604†	384.5	250.2	5.1772	ug/L	5.1772	ppb	12:29:55
1	P 214.914†	589.5	325.4	146.22	ug/L	146.22	ppb	12:29:55
1	Pb 220.353†	19.5	104.4	10.420	ug/L	10.420	ppb	12:29:55
1	S 181.975 Axial†	158.2	98.4	108.02	ug/L	108.02	ppb	12:29:55
1	Sb 206.836†	82.2	38.0	11.193	ug/L	11.193	ppb	12:29:55
1	Se 196.026†	25.6	58.6	28.185	ug/L	28.185	ppb	12:29:55
1	Si 251.611†	4428.9	3742.8	99.284	ug/L	99.284	ppb	12:29:55
1	Sn 189.927†	81.1	78.6	11.156	ug/L	11.156	ppb	12:29:55
1	Ti 334.940†	1617.0	3341.2	4.8927	ug/L	4.8927	ppb	12:29:35
1	Tl 190.801†	14.0	63.6	16.732	ug/L	16.732	ppb	12:29:55
1	U 409.014†	-936.0	1971.4	54.546	ug/L	54.546	ppb	12:29:35
1	V 292.402†	-938.5	860.3	5.3099	ug/L	5.3099	ppb	12:29:55
1	Zn 213.857†	2307.6	1420.7	11.040	ug/L	11.040	ppb	12:29:55
1	SiO2†	4585.6	3882.7	221.92	ug/L	221.92	ppb	12:30:51
2	Sc Radial	4960.0	4960.0	100	%			12:28:43
2	Y RADIAL	5302.9	5302.9	99.96	%			12:28:43
2	Al 396.153Radial†	235.1	255.7	199.72	ug/L	199.72	ppb	12:28:43
2	Ca 317.933Radial†	150.3	128.4	201.18	ug/L	201.18	ppb	12:29:03
2	Fe 238.204 Radial†	23.2	9.9	87.091	ug/L	87.091	ppb	12:29:03
2	K 766.490 Radial†	4288.3	942.5	179.21	ug/L	179.21	ppb	12:28:43
2	Mg 279.077 IEC†	11.4	8.6	276.08	ug/L	276.08	ppb	12:29:03
2	Na 589.592 Radial†	-635.4	1163.9	330.22	ug/L	330.22	ppb	12:28:43
2	Sr 421.552†	788.8	775.5	5.0905	ug/L	5.0905	ppb	12:28:43
2	Sc 361.383	949750.2	949750.2	101.17	%			12:30:00
2	Y 371.029	829823.7	829823.7	101.43	%			12:30:00
2	Ag 328.068†	1757.6	1271.7	5.2587	ug/L	5.2587	ppb	12:30:00
2	As 188.979†	54.6	88.8	29.202	ug/L	29.202	ppb	12:30:20
2	B 249.677†	2014.2	2386.9	46.553	ug/L	46.553	ppb	12:30:20
2	Ba 233.527†	782.2	753.0	5.1329	ug/L	5.1329	ppb	12:30:20
2	Be 313.107†	11097.6	15670.4	4.9878	ug/L	4.9878	ppb	12:30:00
2	Cd 226.502†	308.4	561.5	5.0530	ug/L	5.0530	ppb	12:30:20
2	Co 228.616†	180.0	272.1	4.8008	ug/L	4.8008	ppb	12:30:20
2	Cr 267.716†	648.6	507.3	4.7593	ug/L	4.7593	ppb	12:30:20
2	Cu 324.752†	11823.3	3203.2	9.1386	ug/L	9.1386	ppb	12:30:00
2	Mn 257.610†	10994.2	10230.3	10.153	ug/L	10.153	ppb	12:30:00
2	Mo 202.031†	198.6	170.8	10.062	ug/L	10.062	ppb	12:30:20
2	Ni 231.604†	368.5	225.4	4.6621	ug/L	4.6621	ppb	12:30:20

2	P 214.914†	582.2	304.3	136.65 ug/L	136.65 ppb	12:30:20
2	Pb 220.353†	17.2	101.6	10.143 ug/L	10.143 ppb	12:30:20
2	S 181.975 Axial†	163.5	99.9	109.72 ug/L	109.72 ppb	12:30:20
2	Sb 206.836†	86.7	40.4	11.841 ug/L	11.841 ppb	12:30:20
2	Se 196.026†	29.0	61.3	29.401 ug/L	29.401 ppb	12:30:20
2	Si 251.611†	4430.1	3639.4	96.550 ug/L	96.550 ppb	12:30:20
2	Sn 189.927†	68.8	64.6	9.1660 ug/L	9.1660 ppb	12:30:20
2	Ti 334.940†	1739.2	3423.8	5.0130 ug/L	5.0130 ppb	12:30:00
2	Tl 190.801†	32.3	81.4	21.379 ug/L	21.379 ppb	12:30:20
2	U 409.014†	-898.4	2030.7	56.190 ug/L	56.190 ppb	12:30:00
2	V 292.402†	-934.4	886.5	5.4564 ug/L	5.4564 ppb	12:30:20
2	Zn 213.857†	2306.9	1365.5	10.616 ug/L	10.616 ppb	12:30:20
2	SiO2†	4571.5	3760.5	214.95 ug/L	214.95 ppb	12:30:56
3	Sc Radial	4908.7	4908.7	99.3 %		12:29:08
3	Y RADIAL	5222.4	5222.4	98.44 %		12:29:08
3	Al 396.153Radial†	221.4	244.4	190.83 ug/L	190.83 ppb	12:29:08
3	Ca 317.933Radial†	145.6	125.3	196.33 ug/L	196.33 ppb	12:29:28
3	Fe 238.204 Radial†	25.9	12.9	113.02 ug/L	113.02 ppb	12:29:28
3	K 766.490 Radial†	4131.6	829.3	157.66 ug/L	157.66 ppb	12:29:08
3	Mg 279.077 IEC†	13.4	10.8	346.85 ug/L	346.85 ppb	12:29:28
3	Na 589.592 Radial†	-584.3	1208.8	342.95 ug/L	342.95 ppb	12:29:08
3	Sr 421.552†	779.2	774.1	5.0813 ug/L	5.0813 ppb	12:29:08
3	Sc 361.383	955995.9	955995.9	101.84 %		12:30:26
3	Y 371.029	834648.7	834648.7	102.02 %		12:30:26
3	Ag 328.068†	1857.7	1358.5	5.6265 ug/L	5.6265 ppb	12:30:26
3	As 188.979†	54.9	88.8	29.206 ug/L	29.206 ppb	12:30:46
3	B 249.677†	2043.5	2402.7	46.856 ug/L	46.856 ppb	12:30:46
3	Ba 233.527†	792.3	758.0	5.1674 ug/L	5.1674 ppb	12:30:46
3	Be 313.107†	11174.5	15674.3	4.9890 ug/L	4.9890 ppb	12:30:26
3	Cd 226.502†	318.0	568.9	5.1177 ug/L	5.1177 ppb	12:30:46
3	Co 228.616†	200.3	290.9	5.1318 ug/L	5.1318 ppb	12:30:46
3	Cr 267.716†	637.5	492.3	4.6185 ug/L	4.6185 ppb	12:30:46
3	Cu 324.752†	11891.1	3193.4	9.1120 ug/L	9.1120 ppb	12:30:26
3	Mn 257.610†	11115.4	10278.3	10.202 ug/L	10.202 ppb	12:30:26
3	Mo 202.031†	206.1	176.9	10.425 ug/L	10.425 ppb	12:30:46
3	Ni 231.604†	398.7	252.6	5.2262 ug/L	5.2262 ppb	12:30:46
3	P 214.914†	602.4	320.3	143.92 ug/L	143.92 ppb	12:30:46
3	Pb 220.353†	20.5	104.8	10.452 ug/L	10.452 ppb	12:30:46
3	S 181.975 Axial†	167.4	102.7	112.79 ug/L	112.79 ppb	12:30:46
3	Sb 206.836†	73.9	27.3	8.1288 ug/L	8.1288 ppb	12:30:46
3	Se 196.026†	22.9	55.1	26.550 ug/L	26.550 ppb	12:30:46
3	Si 251.611†	4442.5	3623.0	96.109 ug/L	96.109 ppb	12:30:46
3	Sn 189.927†	80.7	75.9	10.763 ug/L	10.763 ppb	12:30:46
3	Ti 334.940†	1754.9	3428.0	5.0185 ug/L	5.0185 ppb	12:30:26
3	Tl 190.801†	25.4	74.4	19.545 ug/L	19.545 ppb	12:30:46
3	U 409.014†	-863.2	2071.0	57.304 ug/L	57.304 ppb	12:30:26
3	V 292.402†	-911.4	915.1	5.6303 ug/L	5.6303 ppb	12:30:46
3	Zn 213.857†	2311.0	1354.6	10.523 ug/L	10.523 ppb	12:30:46
3	SiO2†	4519.5	3680.0	210.32 ug/L	210.32 ppb	12:31:01

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	944443.6	100.61	%	1.590				1.58%
Sc Radial	4937.4	99.8	%	0.53				0.53%
Y 371.029	824917.1	100.83	%	1.577				1.56%
Y RADIAL	5278.4	99.50	%	0.918				0.92%
Ag 328.068†	1321.0	5.4680	ug/L	0.18906	5.4680	ppb	0.18906	3.46%
QC value within limits for Ag 328.068 Recovery = 109.36%								
Al 396.153Radial†	259.9	202.98	ug/L	14.060	202.98	ppb	14.060	6.93%
QC value within limits for Al 396.153Radial Recovery = 101.49%								
As 188.979†	90.2	29.680	ug/L	0.8241	29.680	ppb	0.8241	2.78%
QC value within limits for As 188.979 Recovery = 98.93%								
B 249.677†	2414.3	47.086	ug/L	0.6767	47.086	ppb	0.6767	1.44%
QC value within limits for B 249.677 Recovery = 94.17%								
Ba 233.527†	766.3	5.2237	ug/L	0.12853	5.2237	ppb	0.12853	2.46%
QC value within limits for Ba 233.527 Recovery = 104.47%								
Be 313.107†	15656.7	4.9834	ug/L	0.00878	4.9834	ppb	0.00878	0.18%
QC value within limits for Be 313.107 Recovery = 99.67%								
Ca 317.933Radial†	127.9	200.39	ug/L	3.726	200.39	ppb	3.726	1.86%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.19%
Cd 226.502†              562.9      5.0645 ug/L       0.04854      5.0645 ppb        0.04854   0.96%
   QC value within limits for Cd 226.502  Recovery = 101.29%
Co 228.616†              283.2      4.9968 ug/L       0.17375      4.9968 ppb        0.17375   3.48%
   QC value within limits for Co 228.616  Recovery = 99.94%
Cr 267.716†              498.5      4.6769 ug/L       0.07345      4.6769 ppb        0.07345   1.57%
   QC value within limits for Cr 267.716  Recovery = 93.54%
Cu 324.752†             3211.2      9.1621 ug/L       0.06513      9.1621 ppb        0.06513   0.71%
   QC value within limits for Cu 324.752  Recovery = 91.62%
Fe 238.204 Radial†        11.6      101.98 ug/L        13.386      101.98 ppb         13.386  13.13%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.98%
K 766.490 Radial†        885.3      168.32 ug/L        10.778      168.32 ppb         10.778   6.40%
   QC value within limits for K 766.490 Radial  Recovery = 112.21%
Mg 279.077 IEC†           10.1      322.64 ug/L        40.335      322.64 ppb         40.335  12.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.55%
Mn 257.610†            10264.4      10.188 ug/L        0.0299      10.188 ppb         0.0299   0.29%
   QC value within limits for Mn 257.610  Recovery = 101.88%
Mo 202.031†              177.5      10.459 ug/L        0.4152      10.459 ppb         0.4152   3.97%
   QC value within limits for Mo 202.031  Recovery = 104.59%
Na 589.592 Radial†      1166.6      330.99 ug/L        11.594      330.99 ppb         11.594   3.50%
   QC value within limits for Na 589.592 Radial  Recovery = 110.33%
Ni 231.604†              242.7      5.0218 ug/L       0.31248      5.0218 ppb        0.31248   6.22%
   QC value within limits for Ni 231.604  Recovery = 100.44%
P 214.914†               316.7      142.27 ug/L         4.995      142.27 ppb          4.995   3.51%
   QC value within limits for P 214.914  Recovery = 94.84%
Pb 220.353†              103.6      10.338 ug/L        0.1698      10.338 ppb         0.1698   1.64%
   QC value within limits for Pb 220.353  Recovery = 103.38%
S 181.975 Axial†         100.3      110.18 ug/L         2.419      110.18 ppb          2.419   2.20%
   QC value within limits for S 181.975 Axial  Recovery = 110.18%
Sb 206.836†               35.2      10.387 ug/L        1.9828      10.387 ppb         1.9828  19.09%
   QC value within limits for Sb 206.836  Recovery = 103.87%
Se 196.026†               58.3      28.045 ug/L        1.4309      28.045 ppb         1.4309   5.10%
   QC value within limits for Se 196.026  Recovery = 93.48%
Si 251.611†             3668.4      97.314 ug/L        1.7196      97.314 ppb         1.7196   1.77%
   QC value within limits for Si 251.611  Recovery = 97.31%
Sn 189.927†               73.0      10.362 ug/L        1.0541      10.362 ppb         1.0541  10.17%
   QC value within limits for Sn 189.927  Recovery = 103.62%
Sr 421.552†              763.9      5.0142 ug/L       0.12435      5.0142 ppb        0.12435   2.48%
   QC value within limits for Sr 421.552  Recovery = 100.28%
Ti 334.940†             3397.7      4.9747 ug/L       0.07113      4.9747 ppb        0.07113   1.43%
   QC value within limits for Ti 334.940  Recovery = 99.49%
Tl 190.801†               73.1      19.219 ug/L        2.3403      19.219 ppb         2.3403  12.18%
   QC value within limits for Tl 190.801  Recovery = 96.09%
U 409.014†              2024.4      56.013 ug/L        1.3875      56.013 ppb         1.3875   2.48%
   QC value within limits for U 409.014  Recovery = 112.03%
V 292.402†               887.3      5.4655 ug/L       0.16040      5.4655 ppb        0.16040   2.93%
   QC value within limits for V 292.402  Recovery = 109.31%
Zn 213.857†             1380.3      10.726 ug/L        0.2755      10.726 ppb         0.2755   2.57%
   QC value within limits for Zn 213.857  Recovery = 107.26%
SiO2†                   3774.4      215.73 ug/L         5.836      215.73 ppb          5.836   2.71%
   QC value within limits for SiO2  Recovery = 101.28%
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/29/2009 12:33:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4907.6	4907.6	99.2	%			12:35:05
1	Y RADIAL	5263.8	5263.8	99.23	%			12:35:05
1	Al 396.153Radial†	-9.5	11.7	9.1679	ug/L	9.1679	ppb	12:35:05
1	Ca 317.933Radial†	18.7	-2.6	-4.0684	ug/L	-4.0684	ppb	12:35:25
1	Fe 238.204 Radial†	11.9	-1.3	-11.167	ug/L	-11.167	ppb	12:35:25
1	K 766.490 Radial†	3480.3	173.9	33.095	ug/L	33.095	ppb	12:35:05
1	Mg 279.077 IEC†	2.5	-0.2	-6.1930	ug/L	-6.1930	ppb	12:35:25
1	Na 589.592 Radial†	-1666.6	117.9	33.450	ug/L	33.450	ppb	12:35:05
1	Sr 421.552†	11.8	0.9	0.0059	ug/L	0.0059	ppb	12:35:05
1	Sc 361.383	941652.2	941652.2	100.31	%			12:36:22
1	Y 371.029	820772.0	820772.0	100.32	%			12:36:22
1	Ag 328.068†	524.3	57.1	0.2274	ug/L	0.2274	ppb	12:36:27
1	As 188.979†	-41.0	-6.1	-1.9966	ug/L	-1.9966	ppb	12:36:47
1	B 249.677†	-549.0	-151.2	-2.9500	ug/L	-2.9500	ppb	12:36:27
1	Ba 233.527†	54.1	33.9	0.2295	ug/L	0.2295	ppb	12:36:47
1	Be 313.107†	-4618.8	96.8	0.0308	ug/L	0.0308	ppb	12:36:27
1	Cd 226.502†	-269.1	-11.6	-0.1037	ug/L	-0.1037	ppb	12:36:47
1	Co 228.616†	-82.1	12.4	0.2180	ug/L	0.2180	ppb	12:36:47
1	Cr 267.716†	133.6	-0.5	-0.0071	ug/L	-0.0071	ppb	12:36:27
1	Cu 324.752†	8123.7	-384.6	-1.0972	ug/L	-1.0972	ppb	12:36:27
1	Mn 257.610†	609.8	-28.7	-0.0295	ug/L	-0.0295	ppb	12:36:27
1	Mo 202.031†	25.2	-0.3	-0.0214	ug/L	-0.0214	ppb	12:36:47
1	Ni 231.604†	140.4	1.1	0.0219	ug/L	0.0219	ppb	12:36:47
1	P 214.914†	276.0	4.0	1.9835	ug/L	1.9835	ppb	12:36:47
1	Pb 220.353†	-67.9	16.9	1.6810	ug/L	1.6810	ppb	12:36:47
1	S 181.975 Axial†	76.7	14.8	16.251	ug/L	16.251	ppb	12:36:47
1	Sb 206.836†	39.7	-5.7	-1.6448	ug/L	-1.6448	ppb	12:36:47
1	Se 196.026†	-36.9	-4.1	-1.9613	ug/L	-1.9613	ppb	12:36:47
1	Si 251.611†	728.9	-12.7	-0.3471	ug/L	-0.3471	ppb	12:36:47
1	Sn 189.927†	-1.7	-5.1	-0.7160	ug/L	-0.7160	ppb	12:36:47
1	Ti 334.940†	-1707.3	2.8	0.0016	ug/L	0.0016	ppb	12:36:27
1	Tl 190.801†	-44.5	5.0	1.3201	ug/L	1.3201	ppb	12:36:47
1	U 409.014†	-2740.8	186.3	5.1589	ug/L	5.1589	ppb	12:36:22
1	V 292.402†	-1853.9	-38.1	-0.2129	ug/L	-0.2129	ppb	12:36:27
1	Zn 213.857†	1001.3	83.6	0.6549	ug/L	0.6549	ppb	12:36:47
1	SiO2†	711.1	-49.2	-2.8363	ug/L	-2.8363	ppb	12:37:53
2	Sc Radial	4907.9	4907.9	99.2	%			12:35:30
2	Y RADIAL	5235.0	5235.0	98.68	%			12:35:30
2	Al 396.153Radial†	-11.0	10.3	8.0290	ug/L	8.0290	ppb	12:35:30
2	Ca 317.933Radial†	18.9	-2.4	-3.7001	ug/L	-3.7001	ppb	12:35:50
2	Fe 238.204 Radial†	13.8	0.7	5.9185	ug/L	5.9185	ppb	12:35:50
2	K 766.490 Radial†	3483.2	176.6	33.618	ug/L	33.618	ppb	12:35:30
2	Mg 279.077 IEC†	2.8	0.1	3.9333	ug/L	3.9333	ppb	12:35:50
2	Na 589.592 Radial†	-1655.8	128.9	36.567	ug/L	36.567	ppb	12:35:30
2	Sr 421.552†	10.1	-0.8	-0.0054	ug/L	-0.0054	ppb	12:35:30
2	Sc 361.383	934099.8	934099.8	99.504	%			12:36:52
2	Y 371.029	815991.5	815991.5	99.740	%			12:36:52
2	Ag 328.068†	620.1	157.6	0.6505	ug/L	0.6505	ppb	12:36:57
2	As 188.979†	-37.6	-2.9	-0.9607	ug/L	-0.9607	ppb	12:37:17
2	B 249.677†	-529.5	-136.1	-2.6564	ug/L	-2.6564	ppb	12:36:57
2	Ba 233.527†	48.4	28.5	0.1940	ug/L	0.1940	ppb	12:37:17
2	Be 313.107†	-4608.9	69.5	0.0223	ug/L	0.0223	ppb	12:36:57
2	Cd 226.502†	-235.9	19.5	0.1756	ug/L	0.1756	ppb	12:37:17
2	Co 228.616†	-95.6	-1.8	-0.0317	ug/L	-0.0317	ppb	12:37:17
2	Cr 267.716†	135.3	2.2	0.0195	ug/L	0.0195	ppb	12:36:57
2	Cu 324.752†	8423.7	-17.6	-0.0499	ug/L	-0.0499	ppb	12:36:57
2	Mn 257.610†	653.9	20.5	0.0209	ug/L	0.0209	ppb	12:36:57
2	Mo 202.031†	29.2	3.9	0.2310	ug/L	0.2310	ppb	12:37:17
2	Ni 231.604†	152.1	13.9	0.2880	ug/L	0.2880	ppb	12:37:17

2	P 214.914†	273.5	3.7	1.6767 ug/L	1.6767 ppb	12:37:17
2	Pb 220.353†	-78.8	5.4	0.5414 ug/L	0.5414 ppb	12:37:17
2	S 181.975 Axial†	74.7	13.4	14.724 ug/L	14.724 ppb	12:37:17
2	Sb 206.836†	46.0	1.0	0.2890 ug/L	0.2890 ppb	12:37:17
2	Se 196.026†	-33.3	-0.7	-0.3335 ug/L	-0.3335 ppb	12:37:17
2	Si 251.611†	768.8	33.2	0.8698 ug/L	0.8698 ppb	12:37:17
2	Sn 189.927†	1.5	-1.9	-0.2754 ug/L	-0.2754 ppb	12:37:17
2	Ti 334.940†	-1616.5	80.2	0.1158 ug/L	0.1158 ppb	12:36:57
2	Tl 190.801†	-51.9	-2.7	-0.7104 ug/L	-0.7104 ppb	12:37:17
2	U 409.014†	-2755.7	149.3	4.1313 ug/L	4.1313 ppb	12:36:52
2	V 292.402†	-1798.0	3.2	0.0289 ug/L	0.0289 ppb	12:36:57
2	Zn 213.857†	1018.1	108.5	0.8453 ug/L	0.8453 ppb	12:37:17
2	SiO2†	787.8	33.7	1.8985 ug/L	1.8985 ppb	12:37:58
3	Sc Radial	4855.6	4855.6	98.2 %		12:35:55
3	Y RADIAL	5214.0	5214.0	98.29 %		12:35:55
3	Al 396.153Radial†	-8.9	12.2	9.5526 ug/L	9.5526 ppb	12:35:55
3	Ca 317.933Radial†	20.4	-0.6	-1.0115 ug/L	-1.0115 ppb	12:36:15
3	Fe 238.204 Radial†	11.3	-1.7	-15.136 ug/L	-15.136 ppb	12:36:15
3	K 766.490 Radial†	3348.9	77.5	14.749 ug/L	14.749 ppb	12:35:55
3	Mg 279.077 IEC†	4.9	2.3	73.446 ug/L	73.446 ppb	12:36:15
3	Na 589.592 Radial†	-1634.2	133.0	37.725 ug/L	37.725 ppb	12:35:55
3	Sr 421.552†	37.2	26.9	0.1766 ug/L	0.1766 ppb	12:35:55
3	Sc 361.383	926869.1	926869.1	98.734 %		12:37:23
3	Y 371.029	809959.4	809959.4	99.003 %		12:37:23
3	Ag 328.068†	551.5	92.9	0.3835 ug/L	0.3835 ppb	12:37:28
3	As 188.979†	-40.9	-6.6	-2.1652 ug/L	-2.1652 ppb	12:37:48
3	B 249.677†	-593.9	-205.4	-4.0073 ug/L	-4.0073 ppb	12:37:28
3	Ba 233.527†	46.0	26.5	0.1797 ug/L	0.1797 ppb	12:37:48
3	Be 313.107†	-4535.9	107.3	0.0341 ug/L	0.0341 ppb	12:37:28
3	Cd 226.502†	-257.3	-4.0	-0.0345 ug/L	-0.0345 ppb	12:37:48
3	Co 228.616†	-80.2	13.0	0.2291 ug/L	0.2291 ppb	12:37:48
3	Cr 267.716†	72.8	-60.0	-0.5621 ug/L	-0.5621 ppb	12:37:28
3	Cu 324.752†	8359.4	-16.6	-0.0481 ug/L	-0.0481 ppb	12:37:28
3	Mn 257.610†	633.2	4.8	0.0018 ug/L	0.0018 ppb	12:37:28
3	Mo 202.031†	30.2	5.1	0.2977 ug/L	0.2977 ppb	12:37:48
3	Ni 231.604†	132.7	-4.5	-0.0938 ug/L	-0.0938 ppb	12:37:48
3	P 214.914†	257.0	-10.9	-4.9139 ug/L	-4.9139 ppb	12:37:48
3	Pb 220.353†	-77.2	6.5	0.6449 ug/L	0.6449 ppb	12:37:48
3	S 181.975 Axial†	68.1	7.3	7.9913 ug/L	7.9913 ppb	12:37:48
3	Sb 206.836†	41.7	-3.0	-0.8242 ug/L	-0.8242 ppb	12:37:48
3	Se 196.026†	-27.8	4.5	2.0945 ug/L	2.0945 ppb	12:37:48
3	Si 251.611†	734.2	4.3	0.1010 ug/L	0.1010 ppb	12:37:48
3	Sn 189.927†	8.9	5.6	0.7966 ug/L	0.7966 ppb	12:37:48
3	Ti 334.940†	-1682.1	1.1	0.0040 ug/L	0.0040 ppb	12:37:28
3	Tl 190.801†	-35.6	13.4	3.4975 ug/L	3.4975 ppb	12:37:48
3	U 409.014†	-3061.7	-182.3	-5.0439 ug/L	-5.0439 ppb	12:37:23
3	V 292.402†	-1792.1	-5.0	-0.0311 ug/L	-0.0311 ppb	12:37:28
3	Zn 213.857†	1010.7	109.0	0.8508 ug/L	0.8508 ppb	12:37:48
3	SiO2†	748.3	-0.1	-0.0336 ug/L	-0.0336 ppb	12:38:03

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	934207.0	99.516	%	0.7874				0.79%
Sc Radial	4890.4	98.9	%	0.61				0.62%
Y 371.029	815574.3	99.689	%	0.6623				0.66%
Y RADIAL	5237.6	98.73	%	0.472				0.48%
Ag 328.068†	102.6	0.4205	ug/L	0.21398	0.4205	ppb	0.21398	50.89%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	11.4	8.9165	ug/L	0.79230	8.9165	ppb	0.79230	8.89%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-5.2	-1.7075	ug/L	0.65223	-1.7075	ppb	0.65223	38.20%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-164.3	-3.2046	ug/L	0.71051	-3.2046	ppb	0.71051	22.17%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	29.6	0.2010	ug/L	0.02566	0.2010	ppb	0.02566	12.76%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	91.2	0.0290	ug/L	0.00608	0.0290	ppb	0.00608	20.92%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.9	-2.9267	ug/L	1.66878	-2.9267	ppb	1.66878	57.02%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 1.3      0.0125 ug/L       0.14548      0.0125 ppb        0.14548 >999.9%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 7.8      0.1385 ug/L       0.14749      0.1385 ppb        0.14749 106.51%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -19.4     -0.1832 ug/L       0.32835     -0.1832 ppb        0.32835 179.19%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -139.6     -0.3984 ug/L       0.60520     -0.3984 ppb        0.60520 151.91%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.8     -6.7948 ug/L      11.18747     -6.7948 ppb       11.18747 164.65%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         142.7      27.154 ug/L       10.7460      27.154 ppb        10.7460  39.57%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.7      23.729 ug/L       43.3530      23.729 ppb        43.3530 182.70%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                -1.1     -0.0022 ug/L       0.02544     -0.0022 ppb        0.02544 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.9      0.1691 ug/L       0.16828      0.1691 ppb        0.16828  99.52%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        126.6      35.914 ug/L        2.2110      35.914 ppb         2.2110   6.16%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 3.5      0.0721 ug/L       0.19577      0.0721 ppb        0.19577 271.66%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -1.1     -0.4179 ug/L       3.89665     -0.4179 ppb        3.89665 932.43%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 9.6      0.9558 ug/L       0.63019      0.9558 ppb        0.63019  65.93%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           11.8      12.989 ug/L        4.3948      12.989 ppb         4.3948  33.84%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -2.6     -0.7266 ug/L       0.97058     -0.7266 ppb        0.97058 133.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.1     -0.0668 ug/L       2.04097     -0.0668 ppb        2.04097 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 8.3      0.2079 ug/L       0.61545      0.2079 ppb        0.61545 296.03%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.5     -0.0649 ug/L       0.77793     -0.0649 ppb        0.77793 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 9.0      0.0590 ug/L       0.10199      0.0590 ppb        0.10199 172.75%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                28.0      0.0405 ug/L       0.06527      0.0405 ppb        0.06527 161.24%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 5.2      1.3691 ug/L       2.10434      1.3691 ppb        2.10434 153.71%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 51.1      1.4154 ug/L       5.61749      1.4154 ppb        5.61749 396.88%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -13.3     -0.0717 ug/L       0.12593     -0.0717 ppb        0.12593 175.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               100.3      0.7837 ug/L       0.11156      0.7837 ppb        0.11156  14.24%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      -5.2     -0.3238 ug/L       2.38072     -0.3238 ppb        2.38072 735.19%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/29/2009 13:35:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4691.4	4691.4	94.9	%			13:37:37
1	Y RADIAL	4985.1	4985.1	93.97	%			13:37:37
1	Al 396.153Radial†	6086.9	6438.1	5018.2	ug/L	5018.2	ppb	13:37:37
1	Ca 317.933Radial†	3164.8	3314.9	5194.9	ug/L	5194.9	ppb	13:37:57
1	Fe 238.204 Radial†	595.5	614.5	5411.6	ug/L	5411.6	ppb	13:37:57
1	K 766.490 Radial†	28471.8	26681.3	5071.4	ug/L	5071.4	ppb	13:37:37
1	Mg 279.077 IEC†	162.3	168.4	5391.3	ug/L	5391.3	ppb	13:37:57
1	Na 589.592 Radial†	33071.2	36660.8	10401	ug/L	10401	ppb	13:37:37
1	Sr 421.552†	73951.1	77947.5	511.80	ug/L	511.80	ppb	13:37:37
1	Sc 361.383	949169.3	949169.3	101.11	%			13:38:56
1	Y 371.029	819132.0	819132.0	100.12	%			13:38:56
1	Ag 328.068†	118661.6	116893.7	486.75	ug/L	486.75	ppb	13:38:56
1	As 188.979†	1477.8	1496.4	496.23	ug/L	496.23	ppb	13:39:16
1	B 249.677†	24125.3	24256.5	471.38	ug/L	471.38	ppb	13:38:56
1	Ba 233.527†	72213.6	71400.9	486.60	ug/L	486.60	ppb	13:38:56
1	Be 313.107†	1552325.4	1539989.6	490.16	ug/L	490.16	ppb	13:38:56
1	Cd 226.502†	54361.7	54021.7	486.48	ug/L	486.48	ppb	13:38:56
1	Co 228.616†	27761.0	27550.5	484.74	ug/L	484.74	ppb	13:39:16
1	Cr 267.716†	52461.5	51752.0	487.04	ug/L	487.04	ppb	13:38:56
1	Cu 324.752†	179759.7	169303.6	483.06	ug/L	483.06	ppb	13:38:56
1	Mn 257.610†	498963.0	492850.2	489.41	ug/L	489.41	ppb	13:38:56
1	Mo 202.031†	8515.9	8396.9	494.76	ug/L	494.76	ppb	13:39:16
1	Ni 231.604†	23969.5	23567.6	487.58	ug/L	487.58	ppb	13:39:16
1	P 214.914†	5761.2	5426.7	2387.5	ug/L	2387.5	ppb	13:39:16
1	Pb 220.353†	4942.8	4973.2	495.13	ug/L	495.13	ppb	13:39:16
1	S 181.975 Axial†	957.0	884.8	970.88	ug/L	970.88	ppb	13:39:16
1	Sb 206.836†	1741.8	1677.4	487.82	ug/L	487.82	ppb	13:39:16
1	Se 196.026†	1005.3	1027.0	506.19	ug/L	506.19	ppb	13:39:16
1	Si 251.611†	92619.3	90863.4	2405.3	ug/L	2405.3	ppb	13:38:56
1	Sn 189.927†	3505.3	3463.4	491.00	ug/L	491.00	ppb	13:39:16
1	Ti 334.940†	333488.3	331533.0	486.86	ug/L	486.86	ppb	13:38:56
1	Tl 190.801†	1845.1	1874.3	494.10	ug/L	494.10	ppb	13:39:16
1	U 409.014†	14214.8	16977.5	468.32	ug/L	468.32	ppb	13:38:56
1	V 292.402†	81589.5	82504.1	492.19	ug/L	492.19	ppb	13:38:56
1	Zn 213.857†	63725.5	62111.4	481.18	ug/L	481.18	ppb	13:38:56
1	SiO2†	92911.4	91133.6	5197.3	ug/L	5197.3	ppb	13:40:16
2	Sc Radial	4754.8	4754.8	96.1	%			13:38:02
2	Y RADIAL	5038.6	5038.6	94.98	%			13:38:02
2	Al 396.153Radial†	6104.9	6371.2	4965.6	ug/L	4965.6	ppb	13:38:02
2	Ca 317.933Radial†	3165.0	3270.5	5125.4	ug/L	5125.4	ppb	13:38:22
2	Fe 238.204 Radial†	586.1	596.4	5252.5	ug/L	5252.5	ppb	13:38:22
2	K 766.490 Radial†	28542.4	26354.4	5009.0	ug/L	5009.0	ppb	13:38:02
2	Mg 279.077 IEC†	165.7	169.7	5432.0	ug/L	5432.0	ppb	13:38:22
2	Na 589.592 Radial†	33088.8	36214.1	10275	ug/L	10275	ppb	13:38:02
2	Sr 421.552†	74108.7	77071.7	506.05	ug/L	506.05	ppb	13:38:02
2	Sc 361.383	923469.1	923469.1	98.372	%			13:39:23
2	Y 371.029	797301.7	797301.7	97.456	%			13:39:23
2	Ag 328.068†	118772.7	120272.7	500.72	ug/L	500.72	ppb	13:39:23
2	As 188.979†	1446.9	1505.7	499.36	ug/L	499.36	ppb	13:39:43
2	B 249.677†	24190.2	24986.6	485.63	ug/L	485.63	ppb	13:39:23
2	Ba 233.527†	72259.1	73434.9	500.45	ug/L	500.45	ppb	13:39:23
2	Be 313.107†	1553153.6	1583558.6	504.02	ug/L	504.02	ppb	13:39:23
2	Cd 226.502†	54484.2	55642.5	501.10	ug/L	501.10	ppb	13:39:23
2	Co 228.616†	27281.3	27827.0	489.59	ug/L	489.59	ppb	13:39:43
2	Cr 267.716†	52570.3	53306.6	501.66	ug/L	501.66	ppb	13:39:23
2	Cu 324.752†	180020.5	174516.5	497.92	ug/L	497.92	ppb	13:39:23
2	Mn 257.610†	499362.5	506990.0	503.42	ug/L	503.42	ppb	13:39:23
2	Mo 202.031†	8367.2	8480.2	499.65	ug/L	499.65	ppb	13:39:43
2	Ni 231.604†	23600.6	23852.2	493.47	ug/L	493.47	ppb	13:39:43

2	P 214.914†	5648.3	5470.6	2405.1 ug/L	2405.1 ppb	13:39:43
2	Pb 220.353†	4887.8	5053.3	503.09 ug/L	503.09 ppb	13:39:43
2	S 181.975 Axial†	948.9	902.9	990.82 ug/L	990.82 ppb	13:39:43
2	Sb 206.836†	1724.0	1707.3	496.23 ug/L	496.23 ppb	13:39:43
2	Se 196.026†	983.7	1032.6	508.38 ug/L	508.38 ppb	13:39:43
2	Si 251.611†	92914.1	93712.4	2481.0 ug/L	2481.0 ppb	13:39:23
2	Sn 189.927†	3450.9	3504.6	496.83 ug/L	496.83 ppb	13:39:43
2	Ti 334.940†	333742.8	340970.8	500.71 ug/L	500.71 ppb	13:39:23
2	Tl 190.801†	1815.8	1895.3	499.75 ug/L	499.75 ppb	13:39:43
2	U 409.014†	14245.0	17399.5	480.00 ug/L	480.00 ppb	13:39:23
2	V 292.402†	81578.5	84738.6	505.44 ug/L	505.44 ppb	13:39:23
2	Zn 213.857†	63875.4	64017.8	496.03 ug/L	496.03 ppb	13:39:23
2	SiO2†	92653.9	93429.3	5328.7 ug/L	5328.7 ppb	13:40:21
3	Sc Radial	4758.7	4758.7	96.2 %		13:38:27
3	Y RADIAL	5080.8	5080.8	95.78 %		13:38:27
3	Al 396.153Radial†	6239.8	6506.2	5071.5 ug/L	5071.5 ppb	13:38:27
3	Ca 317.933Radial†	3159.3	3261.9	5111.9 ug/L	5111.9 ppb	13:38:47
3	Fe 238.204 Radial†	591.8	601.8	5299.8 ug/L	5299.8 ppb	13:38:47
3	K 766.490 Radial†	29025.7	26832.2	5100.1 ug/L	5100.1 ppb	13:38:27
3	Mg 279.077 IEC†	161.6	165.2	5288.5 ug/L	5288.5 ppb	13:38:47
3	Na 589.592 Radial†	33437.8	36548.3	10369 ug/L	10369 ppb	13:38:27
3	Sr 421.552†	75551.8	78507.8	515.48 ug/L	515.48 ppb	13:38:27
3	Sc 361.383	944102.7	944102.7	100.57 %		13:39:51
3	Y 371.029	814744.7	814744.7	99.588 %		13:39:51
3	Ag 328.068†	119607.3	118463.8	493.22 ug/L	493.22 ppb	13:39:51
3	As 188.979†	1464.0	1490.6	494.34 ug/L	494.34 ppb	13:40:11
3	B 249.677†	24500.1	24757.3	481.16 ug/L	481.16 ppb	13:39:51
3	Ba 233.527†	72681.0	72249.0	492.37 ug/L	492.37 ppb	13:39:51
3	Be 313.107†	1564264.8	1560100.6	496.56 ug/L	496.56 ppb	13:39:51
3	Cd 226.502†	54632.4	54579.4	491.52 ug/L	491.52 ppb	13:39:51
3	Co 228.616†	27604.0	27541.8	484.57 ug/L	484.57 ppb	13:40:11
3	Cr 267.716†	52903.5	52470.0	493.79 ug/L	493.79 ppb	13:39:51
3	Cu 324.752†	181422.7	171911.2	490.49 ug/L	490.49 ppb	13:39:51
3	Mn 257.610†	501896.1	498415.0	494.92 ug/L	494.92 ppb	13:39:51
3	Mo 202.031†	8470.3	8396.8	494.74 ug/L	494.74 ppb	13:40:11
3	Ni 231.604†	23845.2	23571.1	487.66 ug/L	487.66 ppb	13:40:11
3	P 214.914†	5704.4	5400.9	2374.6 ug/L	2374.6 ppb	13:40:11
3	Pb 220.353†	4936.8	4993.5	497.16 ug/L	497.16 ppb	13:40:11
3	S 181.975 Axial†	955.7	888.6	975.04 ug/L	975.04 ppb	13:40:11
3	Sb 206.836†	1746.8	1691.7	491.71 ug/L	491.71 ppb	13:40:11
3	Se 196.026†	1003.4	1030.4	507.49 ug/L	507.49 ppb	13:40:11
3	Si 251.611†	93407.0	92138.3	2439.2 ug/L	2439.2 ppb	13:39:51
3	Sn 189.927†	3475.6	3452.5	489.45 ug/L	489.45 ppb	13:40:11
3	Ti 334.940†	335903.1	335704.1	492.98 ug/L	492.98 ppb	13:39:51
3	Tl 190.801†	1835.9	1875.0	494.36 ug/L	494.36 ppb	13:40:11
3	U 409.014†	14350.4	17187.7	474.14 ug/L	474.14 ppb	13:39:51
3	V 292.402†	82013.4	83358.7	497.24 ug/L	497.24 ppb	13:39:51
3	Zn 213.857†	64271.1	62992.2	488.06 ug/L	488.06 ppb	13:39:51
3	SiO2†	94119.1	92827.7	5294.4 ug/L	5294.4 ppb	13:40:27

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	938913.7	100.02	%	1.450				1.45%
Sc Radial	4735.0	95.7	%	0.76				0.80%
Y 371.029	810392.8	99.056	%	1.4115				1.42%
Y RADIAL	5034.8	94.91	%	0.904				0.95%
Ag 328.068†	118543.4	493.56	ug/L	6.989	493.56	ppb	6.989	1.42%
QC value within limits for Ag 328.068 Recovery = 98.71%								
Al 396.153Radial†	6438.5	5018.4	ug/L	52.95	5018.4	ppb	52.95	1.06%
QC value within limits for Al 396.153Radial Recovery = 100.37%								
As 188.979†	1497.6	496.64	ug/L	2.533	496.64	ppb	2.533	0.51%
QC value within limits for As 188.979 Recovery = 99.33%								
B 249.677†	24666.8	479.39	ug/L	7.291	479.39	ppb	7.291	1.52%
QC value within limits for B 249.677 Recovery = 95.88%								
Ba 233.527†	72361.6	493.14	ug/L	6.958	493.14	ppb	6.958	1.41%
QC value within limits for Ba 233.527 Recovery = 98.63%								
Be 313.107†	1561216.3	496.91	ug/L	6.941	496.91	ppb	6.941	1.40%
QC value within limits for Be 313.107 Recovery = 99.38%								
Ca 317.933Radial†	3282.5	5144.1	ug/L	44.53	5144.1	ppb	44.53	0.87%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.88%
Cd 226.502†            54747.9      493.03 ug/L         7.428      493.03 ppb          7.428   1.51%
   QC value within limits for Cd 226.502  Recovery = 98.61%
Co 228.616†            27639.8      486.30 ug/L         2.848      486.30 ppb          2.848   0.59%
   QC value within limits for Co 228.616  Recovery = 97.26%
Cr 267.716†            52509.5      494.16 ug/L         7.318      494.16 ppb          7.318   1.48%
   QC value within limits for Cr 267.716  Recovery = 98.83%
Cu 324.752†           171910.4      490.49 ug/L         7.429      490.49 ppb          7.429   1.51%
   QC value within limits for Cu 324.752  Recovery = 98.10%
Fe 238.204 Radial†       604.2      5321.3 ug/L        81.71      5321.3 ppb         81.71   1.54%
   QC value within limits for Fe 238.204 Radial  Recovery = 106.43%
K 766.490 Radial†      26622.7      5060.1 ug/L        46.54      5060.1 ppb         46.54   0.92%
   QC value within limits for K 766.490 Radial  Recovery = 101.20%
Mg 279.077 IEC†          167.8      5370.6 ug/L        73.95      5370.6 ppb         73.95   1.38%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.41%
Mn 257.610†           499418.4      495.92 ug/L         7.059      495.92 ppb          7.059   1.42%
   QC value within limits for Mn 257.610  Recovery = 99.18%
Mo 202.031†             8424.7      496.38 ug/L         2.827      496.38 ppb          2.827   0.57%
   QC value within limits for Mo 202.031  Recovery = 99.28%
Na 589.592 Radial†     36474.4       10348 ug/L          65.9       10348 ppb           65.9   0.64%
   QC value within limits for Na 589.592 Radial  Recovery = 103.48%
Ni 231.604†            23663.7      489.57 ug/L         3.380      489.57 ppb          3.380   0.69%
   QC value within limits for Ni 231.604  Recovery = 97.91%
P 214.914†              5432.7      2389.1 ug/L        15.32      2389.1 ppb         15.32   0.64%
   QC value within limits for P 214.914  Recovery = 95.56%
Pb 220.353†             5006.7      498.46 ug/L         4.135      498.46 ppb          4.135   0.83%
   QC value within limits for Pb 220.353  Recovery = 99.69%
S 181.975 Axial†         892.1      978.91 ug/L        10.520      978.91 ppb         10.520   1.07%
   QC value within limits for S 181.975 Axial  Recovery = 97.89%
Sb 206.836†             1692.2      491.92 ug/L         4.208      491.92 ppb          4.208   0.86%
   QC value within limits for Sb 206.836  Recovery = 98.38%
Se 196.026†             1030.0      507.35 ug/L         1.105      507.35 ppb          1.105   0.22%
   QC value within limits for Se 196.026  Recovery = 101.47%
Si 251.611†            92238.0      2441.8 ug/L        37.92      2441.8 ppb         37.92   1.55%
   QC value within limits for Si 251.611  Recovery = 97.67%
Sn 189.927†             3473.5      492.43 ug/L         3.889      492.43 ppb          3.889   0.79%
   QC value within limits for Sn 189.927  Recovery = 98.49%
Sr 421.552†            77842.3      511.11 ug/L         4.753      511.11 ppb          4.753   0.93%
   QC value within limits for Sr 421.552  Recovery = 102.22%
Ti 334.940†           336069.3      493.52 ug/L         6.940      493.52 ppb          6.940   1.41%
   QC value within limits for Ti 334.940  Recovery = 98.70%
Tl 190.801†             1881.5      496.07 ug/L         3.188      496.07 ppb          3.188   0.64%
   QC value within limits for Tl 190.801  Recovery = 99.21%
U 409.014†             17188.2      474.16 ug/L         5.836      474.16 ppb          5.836   1.23%
   QC value within limits for U 409.014  Recovery = 94.83%
V 292.402†             83533.8      498.29 ug/L         6.687      498.29 ppb          6.687   1.34%
   QC value within limits for V 292.402  Recovery = 99.66%
Zn 213.857†            63040.4      488.42 ug/L         7.431      488.42 ppb          7.431   1.52%
   QC value within limits for Zn 213.857  Recovery = 97.68%
SiO2†                  92463.5      5273.4 ug/L        68.15      5273.4 ppb         68.15   1.29%
   QC value within limits for SiO2  Recovery = 98.61%
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/29/2009 13:42:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4889.0	4889.0	98.9	%			13:44:29
1	Y RADIAL	5204.8	5204.8	98.11	%			13:44:29
1	Al 396.153Radial†	1.7	23.0	18.009	ug/L	18.009	ppb	13:44:29
1	Ca 317.933Radial†	16.7	-4.5	-7.0596	ug/L	-7.0596	ppb	13:44:49
1	Fe 238.204 Radial†	11.5	-1.6	-14.328	ug/L	-14.328	ppb	13:44:49
1	K 766.490 Radial†	3322.5	27.6	5.2589	ug/L	5.2589	ppb	13:44:29
1	Mg 279.077 IEC†	3.3	0.6	19.135	ug/L	19.135	ppb	13:44:49
1	Na 589.592 Radial†	-1777.8	-1.0	-0.2766	ug/L	-0.2766	ppb	13:44:29
1	Sr 421.552†	-2.5	-13.5	-0.0886	ug/L	-0.0886	ppb	13:44:29
1	Sc 361.383	901426.9	901426.9	96.024	%			13:45:46
1	Y 371.029	785575.6	785575.6	96.022	%			13:45:46
1	Ag 328.068†	603.9	163.3	0.6785	ug/L	0.6785	ppb	13:45:46
1	As 188.979†	-46.8	-13.9	-4.5664	ug/L	-4.5664	ppb	13:46:06
1	B 249.677†	-393.0	-13.2	-0.2556	ug/L	-0.2556	ppb	13:45:46
1	Ba 233.527†	10.2	-9.4	-0.0651	ug/L	-0.0651	ppb	13:46:06
1	Be 313.107†	-4447.1	70.2	0.0223	ug/L	0.0223	ppb	13:45:46
1	Cd 226.502†	-254.9	-8.8	-0.0777	ug/L	-0.0777	ppb	13:46:06
1	Co 228.616†	-89.1	1.5	0.0272	ug/L	0.0272	ppb	13:46:06
1	Cr 267.716†	156.8	29.6	0.2803	ug/L	0.2803	ppb	13:45:46
1	Cu 324.752†	8123.7	-23.1	-0.0667	ug/L	-0.0667	ppb	13:45:46
1	Mn 257.610†	620.2	9.3	0.0074	ug/L	0.0074	ppb	13:45:46
1	Mo 202.031†	34.4	10.3	0.6073	ug/L	0.6073	ppb	13:46:06
1	Ni 231.604†	119.3	-14.6	-0.3029	ug/L	-0.3029	ppb	13:46:06
1	P 214.914†	262.5	2.2	1.0241	ug/L	1.0241	ppb	13:46:06
1	Pb 220.353†	-100.5	-20.0	-1.9829	ug/L	-1.9829	ppb	13:46:06
1	S 181.975 Axial†	68.1	9.3	10.201	ug/L	10.201	ppb	13:46:06
1	Sb 206.836†	54.9	11.9	3.4124	ug/L	3.4124	ppb	13:46:06
1	Se 196.026†	-45.4	-14.6	-6.9483	ug/L	-6.9483	ppb	13:46:06
1	Si 251.611†	763.2	55.4	1.4609	ug/L	1.4609	ppb	13:46:06
1	Sn 189.927†	2.3	-1.0	-0.1468	ug/L	-0.1468	ppb	13:46:06
1	Ti 334.940†	-1637.4	-0.4	0.0034	ug/L	0.0034	ppb	13:45:46
1	Tl 190.801†	-51.5	-4.2	-1.0897	ug/L	-1.0897	ppb	13:46:06
1	U 409.014†	-3152.1	-363.9	-10.073	ug/L	-10.073	ppb	13:45:46
1	V 292.402†	-1783.5	-47.3	-0.2866	ug/L	-0.2866	ppb	13:45:46
1	Zn 213.857†	953.7	78.5	0.6156	ug/L	0.6156	ppb	13:46:06
1	SiO2†	826.0	102.1	5.8277	ug/L	5.8277	ppb	13:47:02
2	Sc Radial	4774.3	4774.3	96.5	%			13:44:54
2	Y RADIAL	5100.6	5100.6	96.15	%			13:44:54
2	Al 396.153Radial†	-24.5	-4.1	-3.2450	ug/L	-3.2450	ppb	13:44:54
2	Ca 317.933Radial†	20.3	-0.4	-0.6190	ug/L	-0.6190	ppb	13:45:14
2	Fe 238.204 Radial†	12.0	-0.8	-7.0130	ug/L	-7.0130	ppb	13:45:14
2	K 766.490 Radial†	3287.8	72.4	13.791	ug/L	13.791	ppb	13:44:54
2	Mg 279.077 IEC†	3.6	1.0	33.242	ug/L	33.242	ppb	13:45:14
2	Na 589.592 Radial†	-1789.8	-56.6	-16.061	ug/L	-16.061	ppb	13:44:54
2	Sr 421.552†	-3.9	-15.0	-0.0987	ug/L	-0.0987	ppb	13:44:54
2	Sc 361.383	895248.3	895248.3	95.366	%			13:46:11
2	Y 371.029	779857.7	779857.7	95.324	%			13:46:11
2	Ag 328.068†	487.5	45.6	0.1974	ug/L	0.1974	ppb	13:46:11
2	As 188.979†	-33.2	0.0	0.0107	ug/L	0.0107	ppb	13:46:31
2	B 249.677†	-518.1	-147.2	-2.8715	ug/L	-2.8715	ppb	13:46:11
2	Ba 233.527†	22.9	3.9	0.0257	ug/L	0.0257	ppb	13:46:31
2	Be 313.107†	-4479.5	4.1	0.0008	ug/L	0.0008	ppb	13:46:11
2	Cd 226.502†	-238.4	6.7	0.0611	ug/L	0.0611	ppb	13:46:31
2	Co 228.616†	-94.1	-4.5	-0.0767	ug/L	-0.0767	ppb	13:46:31
2	Cr 267.716†	137.0	9.9	0.0968	ug/L	0.0968	ppb	13:46:11
2	Cu 324.752†	8149.0	61.7	0.1757	ug/L	0.1757	ppb	13:46:11
2	Mn 257.610†	579.0	-29.5	-0.0306	ug/L	-0.0306	ppb	13:46:11
2	Mo 202.031†	35.4	11.6	0.6826	ug/L	0.6826	ppb	13:46:31
2	Ni 231.604†	140.4	8.3	0.1726	ug/L	0.1726	ppb	13:46:31

2	P 214.914†	269.4	11.3	5.0979 ug/L	5.0979 ppb	13:46:31
2	Pb 220.353†	-75.9	5.0	0.4987 ug/L	0.4987 ppb	13:46:31
2	S 181.975 Axial†	66.9	8.5	9.3249 ug/L	9.3249 ppb	13:46:31
2	Sb 206.836†	40.5	-2.7	-0.7703 ug/L	-0.7703 ppb	13:46:31
2	Se 196.026†	-27.0	4.4	2.0474 ug/L	2.0474 ppb	13:46:31
2	Si 251.611†	760.2	57.7	1.5200 ug/L	1.5200 ppb	13:46:31
2	Sn 189.927†	1.7	-1.6	-0.2326 ug/L	-0.2326 ppb	13:46:31
2	Ti 334.940†	-1789.8	-172.0	-0.2462 ug/L	-0.2462 ppb	13:46:11
2	Tl 190.801†	-45.8	1.4	0.3632 ug/L	0.3632 ppb	13:46:31
2	U 409.014†	-3288.4	-529.5	-14.656 ug/L	-14.656 ppb	13:46:11
2	V 292.402†	-1786.1	-62.8	-0.3864 ug/L	-0.3864 ppb	13:46:11
2	Zn 213.857†	956.8	88.6	0.6904 ug/L	0.6904 ppb	13:46:31
2	SiO2†	800.1	81.0	4.6075 ug/L	4.6075 ppb	13:47:07
3	Sc Radial	4830.9	4830.9	97.7 %		13:45:19
3	Y RADIAL	5177.9	5177.9	97.61 %		13:45:19
3	Al 396.153Radial†	2.9	24.3	19.007 ug/L	19.007 ppb	13:45:19
3	Ca 317.933Radial†	18.3	-2.7	-4.2332 ug/L	-4.2332 ppb	13:45:39
3	Fe 238.204 Radial†	14.0	1.1	9.6928 ug/L	9.6928 ppb	13:45:39
3	K 766.490 Radial†	3198.7	-58.8	-11.176 ug/L	-11.176 ppb	13:45:19
3	Mg 279.077 IEC†	3.8	1.2	38.650 ug/L	38.650 ppb	13:45:39
3	Na 589.592 Radial†	-1814.2	-59.9	-16.987 ug/L	-16.987 ppb	13:45:19
3	Sr 421.552†	-10.2	-21.5	-0.1410 ug/L	-0.1410 ppb	13:45:19
3	Sc 361.383	889315.3	889315.3	94.734 %		13:46:37
3	Y 371.029	775948.9	775948.9	94.846 %		13:46:37
3	Ag 328.068†	449.0	8.4	0.0454 ug/L	0.0454 ppb	13:46:37
3	As 188.979†	-32.8	0.2	0.0643 ug/L	0.0643 ppb	13:46:57
3	B 249.677†	-432.3	-60.2	-1.1772 ug/L	-1.1772 ppb	13:46:37
3	Ba 233.527†	16.6	-2.6	-0.0182 ug/L	-0.0182 ppb	13:46:57
3	Be 313.107†	-4603.1	-157.6	-0.0502 ug/L	-0.0502 ppb	13:46:37
3	Cd 226.502†	-252.1	-9.5	-0.0865 ug/L	-0.0865 ppb	13:46:57
3	Co 228.616†	-77.1	12.9	0.2280 ug/L	0.2280 ppb	13:46:57
3	Cr 267.716†	103.1	-24.9	-0.2313 ug/L	-0.2313 ppb	13:46:37
3	Cu 324.752†	8070.3	35.7	0.1024 ug/L	0.1024 ppb	13:46:37
3	Mn 257.610†	640.7	39.7	0.0396 ug/L	0.0396 ppb	13:46:37
3	Mo 202.031†	31.7	8.0	0.4718 ug/L	0.4718 ppb	13:46:57
3	Ni 231.604†	133.1	1.6	0.0329 ug/L	0.0329 ppb	13:46:57
3	P 214.914†	268.6	12.3	5.5708 ug/L	5.5708 ppb	13:46:57
3	Pb 220.353†	-81.1	-0.9	-0.0893 ug/L	-0.0893 ppb	13:46:57
3	S 181.975 Axial†	56.5	-2.1	-2.2657 ug/L	-2.2657 ppb	13:46:57
3	Sb 206.836†	58.7	16.7	4.7984 ug/L	4.7984 ppb	13:46:57
3	Se 196.026†	-37.6	-7.0	-3.2963 ug/L	-3.2963 ppb	13:46:57
3	Si 251.611†	733.7	35.1	0.9313 ug/L	0.9313 ppb	13:46:57
3	Sn 189.927†	0.4	-2.9	-0.4166 ug/L	-0.4166 ppb	13:46:57
3	Ti 334.940†	-1666.2	-54.1	-0.0750 ug/L	-0.0750 ppb	13:46:37
3	Tl 190.801†	-45.1	1.8	0.4811 ug/L	0.4811 ppb	13:46:57
3	U 409.014†	-3116.1	-370.7	-10.261 ug/L	-10.261 ppb	13:46:37
3	V 292.402†	-1766.0	-54.1	-0.3320 ug/L	-0.3320 ppb	13:46:37
3	Zn 213.857†	934.6	71.9	0.5596 ug/L	0.5596 ppb	13:46:57
3	SiO2†	798.2	84.6	4.8398 ug/L	4.8398 ppb	13:47:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	895330.2	95.375	%	0.6451				0.68%
Sc Radial	4831.4	97.7	%	1.16				1.19%
Y 371.029	780460.7	95.397	%	0.5918				0.62%
Y RADIAL	5161.1	97.29	%	1.020				1.05%
Ag 328.068†	72.4	0.3071	ug/L	0.33047	0.3071	ppb	0.33047	107.61%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	14.4	11.257	ug/L	12.5688	11.257	ppb	12.5688	111.66%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.5	-1.4971	ug/L	2.65816	-1.4971	ppb	2.65816	177.55%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-73.5	-1.4348	ug/L	1.32679	-1.4348	ppb	1.32679	92.47%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.7	-0.0192	ug/L	0.04541	-0.0192	ppb	0.04541	236.79%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-27.8	-0.0090	ug/L	0.03724	-0.0090	ppb	0.03724	412.07%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-2.5	-3.9706	ug/L	3.22832	-3.9706	ppb	3.22832	81.31%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -3.9     -0.0343 ug/L       0.08279     -0.0343 ppb        0.08279 241.04%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.3      0.0595 ug/L       0.15493      0.0595 ppb        0.15493 260.33%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 4.8      0.0486 ug/L       0.25921      0.0486 ppb        0.25921 533.34%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                24.8      0.0705 ug/L       0.12434      0.0705 ppb        0.12434 176.49%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.4     -3.8827 ug/L      12.31248     -3.8827 ppb       12.31248 317.11%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          13.7      2.6244 ug/L      12.69038      2.6244 ppb       12.69038 483.56%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.9      30.343 ug/L       10.0753      30.343 ppb        10.0753  33.21%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 6.5      0.0055 ug/L       0.03514      0.0055 ppb        0.03514 638.53%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                10.0      0.5872 ug/L       0.10679      0.5872 ppb        0.10679  18.19%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -39.2     -11.108 ug/L        9.3919     -11.108 ppb         9.3919  84.55%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -1.6     -0.0325 ug/L       0.24442     -0.0325 ppb        0.24442 752.97%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  8.6      3.8976 ug/L       2.49975      3.8976 ppb        2.49975  64.14%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.3     -0.5245 ug/L       1.29678     -0.5245 ppb        1.29678 247.24%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            5.2      5.7535 ug/L       6.95860      5.7535 ppb        6.95860 120.95%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 8.6      2.4802 ug/L       2.89906      2.4802 ppb        2.89906 116.89%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -5.7     -2.7324 ug/L       4.52429     -2.7324 ppb        4.52429 165.58%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                49.4      1.3041 ug/L       0.32419      1.3041 ppb        0.32419  24.86%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -1.9     -0.2653 ug/L       0.13783     -0.2653 ppb        0.13783  51.95%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -16.7     -0.1094 ug/L       0.02777     -0.1094 ppb        0.02777  25.37%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -75.5     -0.1059 ug/L       0.12763     -0.1059 ppb        0.12763 120.47%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.3     -0.0818 ug/L       0.87488     -0.0818 ppb        0.87488 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -421.4     -11.663 ug/L        2.5933     -11.663 ppb         2.5933  22.24%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -54.7     -0.3350 ug/L       0.04992     -0.3350 ppb        0.04992  14.90%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                79.7      0.6219 ug/L       0.06565      0.6219 ppb        0.06565  10.56%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      89.2      5.0917 ug/L       0.64796      5.0917 ppb        0.64796  12.73%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 12/29/2009 14:00:38 **Plasma On Time: 12/28/2009 05:59:12**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\122909A.sif
Batch ID:
Results Data Set: 122909A
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/29/2009 14:00:39**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4806.4	4806.4	97.2	%			14:02:31
1	Y RADIAL	5099.1	5099.1	96.12	%			14:02:31
1	Al 396.153Radial†	6066.8	6263.9	4880.9	ug/L	4880.9	ppb	14:02:31
1	Ca 317.933Radial†	3163.7	3233.8	5067.9	ug/L	5067.9	ppb	14:02:51
1	Fe 238.204 Radial†	586.7	590.4	5200.8	ug/L	5200.8	ppb	14:02:51
1	K 766.490 Radial†	28464.0	25955.1	4933.1	ug/L	4933.1	ppb	14:02:31
1	Mg 279.077 IEC†	164.5	166.5	5331.9	ug/L	5331.9	ppb	14:02:51
1	Na 589.592 Radial†	32495.9	35234.6	9996.7	ug/L	9996.7	ppb	14:02:31
1	Sr 421.552†	73462.5	75579.4	496.25	ug/L	496.25	ppb	14:02:31
1	Sc 361.383	915587.6	915587.6	97.532	%			14:03:50
1	Y 371.029	789464.7	789464.7	96.498	%			14:03:50
1	Ag 328.068†	119507.4	122065.3	508.14	ug/L	508.14	ppb	14:03:50
1	As 188.979†	1472.2	1544.3	512.09	ug/L	512.09	ppb	14:04:10
1	B 249.677†	24317.5	25328.8	492.28	ug/L	492.28	ppb	14:03:50
1	Ba 233.527†	72980.7	74807.1	509.80	ug/L	509.80	ppb	14:03:50
1	Be 313.107†	1562737.2	1606975.7	511.48	ug/L	511.48	ppb	14:03:50
1	Cd 226.502†	54907.0	56552.8	509.32	ug/L	509.32	ppb	14:03:50
1	Co 228.616†	27900.4	28700.5	504.97	ug/L	504.97	ppb	14:04:10
1	Cr 267.716†	53027.7	54235.5	510.40	ug/L	510.40	ppb	14:03:50
1	Cu 324.752†	181040.2	177137.2	505.39	ug/L	505.39	ppb	14:03:50
1	Mn 257.610†	503298.8	515395.7	511.76	ug/L	511.76	ppb	14:03:50
1	Mo 202.031†	8559.3	8750.4	515.55	ug/L	515.55	ppb	14:04:10
1	Ni 231.604†	24020.8	24489.6	506.66	ug/L	506.66	ppb	14:04:10
1	P 214.914†	5790.2	5665.6	2492.6	ug/L	2492.6	ppb	14:04:10
1	Pb 220.353†	4979.8	5190.4	516.71	ug/L	516.71	ppb	14:04:10
1	S 181.975 Axial†	969.3	932.1	1022.9	ug/L	1022.9	ppb	14:04:10
1	Sb 206.836†	1784.2	1784.1	518.58	ug/L	518.58	ppb	14:04:10
1	Se 196.026†	1019.4	1077.8	529.70	ug/L	529.70	ppb	14:04:10
1	Si 251.611†	93464.6	95089.9	2517.3	ug/L	2517.3	ppb	14:03:50
1	Sn 189.927†	3515.8	3601.4	510.53	ug/L	510.53	ppb	14:04:10
1	Ti 334.940†	335929.1	346132.9	508.28	ug/L	508.28	ppb	14:03:50
1	Tl 190.801†	1864.7	1961.4	517.05	ug/L	517.05	ppb	14:04:10
1	U 409.014†	14435.5	17719.4	488.84	ug/L	488.84	ppb	14:03:50
1	V 292.402†	82119.9	86007.5	513.15	ug/L	513.15	ppb	14:03:50
1	Zn 213.857†	64274.6	64986.1	503.51	ug/L	503.51	ppb	14:03:50
1	SiO2†	92378.4	93957.5	5358.3	ug/L	5358.3	ppb	14:05:11
2	Sc Radial	4887.0	4887.0	98.8	%			14:02:56
2	Y RADIAL	5233.5	5233.5	98.66	%			14:02:56
2	Al 396.153Radial†	6083.0	6177.3	4813.6	ug/L	4813.6	ppb	14:02:56
2	Ca 317.933Radial†	3130.6	3146.7	4931.3	ug/L	4931.3	ppb	14:03:16
2	Fe 238.204 Radial†	580.6	574.3	5058.7	ug/L	5058.7	ppb	14:03:16
2	K 766.490 Radial†	28582.4	25592.0	4864.0	ug/L	4864.0	ppb	14:02:56
2	Mg 279.077 IEC†	160.9	160.2	5127.2	ug/L	5127.2	ppb	14:03:16
2	Na 589.592 Radial†	32647.6	34836.8	9883.8	ug/L	9883.8	ppb	14:02:56
2	Sr 421.552†	73806.5	74681.2	490.36	ug/L	490.36	ppb	14:02:56
2	Sc 361.383	923322.1	923322.1	98.356	%			14:04:18
2	Y 371.029	797121.1	797121.1	97.434	%			14:04:18

2	Ag 328.068†	119103.1	120627.8	502.14 ug/L	502.14 ppb	14:04:18
2	As 188.979†	1465.7	1525.0	505.69 ug/L	505.69 ppb	14:04:38
2	B 249.677†	24218.9	25019.7	486.29 ug/L	486.29 ppb	14:04:18
2	Ba 233.527†	72725.7	73920.9	503.76 ug/L	503.76 ppb	14:04:18
2	Be 313.107†	1564741.3	1595591.2	507.85 ug/L	507.85 ppb	14:04:18
2	Cd 226.502†	54820.9	55993.7	504.29 ug/L	504.29 ppb	14:04:18
2	Co 228.616†	27645.4	28201.6	496.19 ug/L	496.19 ppb	14:04:38
2	Cr 267.716†	52939.7	53690.6	505.27 ug/L	505.27 ppb	14:04:18
2	Cu 324.752†	180554.3	175088.4	499.54 ug/L	499.54 ppb	14:04:18
2	Mn 257.610†	502352.0	510110.3	506.50 ug/L	506.50 ppb	14:04:18
2	Mo 202.031†	8474.8	8590.9	506.15 ug/L	506.15 ppb	14:04:38
2	Ni 231.604†	23858.8	24118.6	498.98 ug/L	498.98 ppb	14:04:38
2	P 214.914†	5732.2	5556.8	2444.2 ug/L	2444.2 ppb	14:04:38
2	Pb 220.353†	4931.5	5098.5	507.57 ug/L	507.57 ppb	14:04:38
2	S 181.975 Axial†	954.9	909.2	997.73 ug/L	997.73 ppb	14:04:38
2	Sb 206.836†	1751.7	1735.8	504.51 ug/L	504.51 ppb	14:04:38
2	Se 196.026†	996.0	1045.3	513.79 ug/L	513.79 ppb	14:04:38
2	Si 251.611†	93068.8	93884.7	2485.5 ug/L	2485.5 ppb	14:04:18
2	Sn 189.927†	3480.3	3535.1	501.13 ug/L	501.13 ppb	14:04:38
2	Ti 334.940†	335492.3	342803.6	503.39 ug/L	503.39 ppb	14:04:18
2	Tl 190.801†	1837.5	1917.7	505.59 ug/L	505.59 ppb	14:04:38
2	U 409.014†	14184.2	17339.9	478.36 ug/L	478.36 ppb	14:04:18
2	V 292.402†	82187.9	85371.4	509.27 ug/L	509.27 ppb	14:04:18
2	Zn 213.857†	64213.4	64371.8	498.78 ug/L	498.78 ppb	14:04:18
2	SiO2†	94149.9	94965.3	5416.5 ug/L	5416.5 ppb	14:05:16
3	Sc Radial	4630.2	4630.2	93.6 %		14:03:22
3	Y RADIAL	4920.2	4920.2	92.75 %		14:03:22
3	Al 396.153Radial†	6092.4	6528.8	5088.6 ug/L	5088.6 ppb	14:03:22
3	Ca 317.933Radial†	3116.8	3307.7	5183.6 ug/L	5183.6 ppb	14:03:42
3	Fe 238.204 Radial†	581.1	607.4	5349.9 ug/L	5349.9 ppb	14:03:42
3	K 766.490 Radial†	28565.4	27178.2	5165.8 ug/L	5165.8 ppb	14:03:22
3	Mg 279.077 IEC†	161.6	170.0	5440.5 ug/L	5440.5 ppb	14:03:42
3	Na 589.592 Radial†	32713.1	36739.3	10424 ug/L	10424 ppb	14:03:22
3	Sr 421.552†	73662.7	78670.5	516.55 ug/L	516.55 ppb	14:03:22
3	Sc 361.383	919965.5	919965.5	97.999 %		14:04:45
3	Y 371.029	794183.7	794183.7	97.075 %		14:04:45
3	Ag 328.068†	119239.2	121208.6	504.64 ug/L	504.64 ppb	14:04:45
3	As 188.979†	1467.2	1532.0	508.07 ug/L	508.07 ppb	14:05:05
3	B 249.677†	24217.1	25107.7	487.96 ug/L	487.96 ppb	14:04:45
3	Ba 233.527†	72707.4	74172.1	505.48 ug/L	505.48 ppb	14:04:45
3	Be 313.107†	1564726.2	1601380.4	509.69 ug/L	509.69 ppb	14:04:45
3	Cd 226.502†	54842.4	56219.0	506.29 ug/L	506.29 ppb	14:04:45
3	Co 228.616†	27652.2	28311.1	498.11 ug/L	498.11 ppb	14:05:05
3	Cr 267.716†	52962.2	53910.0	507.34 ug/L	507.34 ppb	14:04:45
3	Cu 324.752†	180608.9	175813.8	501.62 ug/L	501.62 ppb	14:04:45
3	Mn 257.610†	502209.8	511828.7	508.23 ug/L	508.23 ppb	14:04:45
3	Mo 202.031†	8470.6	8618.1	507.77 ug/L	507.77 ppb	14:05:05
3	Ni 231.604†	23848.5	24196.6	500.59 ug/L	500.59 ppb	14:05:05
3	P 214.914†	5719.8	5565.4	2447.6 ug/L	2447.6 ppb	14:05:05
3	Pb 220.353†	4934.1	5119.4	509.69 ug/L	509.69 ppb	14:05:05
3	S 181.975 Axial†	951.4	909.1	997.58 ug/L	997.58 ppb	14:05:05
3	Sb 206.836†	1760.9	1751.6	509.07 ug/L	509.07 ppb	14:05:05
3	Se 196.026†	997.1	1050.1	517.02 ug/L	517.02 ppb	14:05:05
3	Si 251.611†	93210.9	94375.0	2498.4 ug/L	2498.4 ppb	14:04:45
3	Sn 189.927†	3485.6	3553.4	503.75 ug/L	503.75 ppb	14:05:05
3	Ti 334.940†	335446.5	344001.3	505.16 ug/L	505.16 ppb	14:04:45
3	Tl 190.801†	1839.6	1926.7	507.96 ug/L	507.96 ppb	14:05:05
3	U 409.014†	14377.0	17589.3	485.23 ug/L	485.23 ppb	14:04:45
3	V 292.402†	82300.3	85791.0	511.74 ug/L	511.74 ppb	14:04:45
3	Zn 213.857†	64095.3	64489.5	499.66 ug/L	499.66 ppb	14:04:45
3	SiO2†	93250.5	94396.7	5383.6 ug/L	5383.6 ppb	14:05:21

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	919625.1	97.963	%	0.4132				0.42%
Sc Radial	4774.5	96.5	%	2.66				2.75%
Y 371.029	793589.8	97.002	%	0.4721				0.49%
Y RADIAL	5084.3	95.84	%	2.964				3.09%
Ag 328.068†	121300.6	504.97	ug/L	3.012	504.97	ppb	3.012	0.60%

```
   QC value within limits for Ag 328.068  Recovery = 100.99%
Al 396.153Radial†       6323.4      4927.7 ug/L        143.38      4927.7 ppb        143.38   2.91%
   QC value within limits for Al 396.153Radial  Recovery = 98.55%
As 188.979†             1533.8      508.62 ug/L         3.234      508.62 ppb         3.234   0.64%
   QC value within limits for As 188.979  Recovery = 101.72%
B 249.677†             25152.1      488.84 ug/L         3.091      488.84 ppb         3.091   0.63%
   QC value within limits for B 249.677  Recovery = 97.77%
Ba 233.527†            74300.0      506.35 ug/L         3.110      506.35 ppb         3.110   0.61%
   QC value within limits for Ba 233.527  Recovery = 101.27%
Be 313.107†          1601315.8      509.67 ug/L         1.813      509.67 ppb         1.813   0.36%
   QC value within limits for Be 313.107  Recovery = 101.93%
Ca 317.933Radial†       3229.4      5060.9 ug/L        126.26      5060.9 ppb        126.26   2.49%
   QC value within limits for Ca 317.933Radial  Recovery = 101.22%
Cd 226.502†            56255.1      506.63 ug/L         2.531      506.63 ppb         2.531   0.50%
   QC value within limits for Cd 226.502  Recovery = 101.33%
Co 228.616†            28404.4      499.76 ug/L         4.619      499.76 ppb         4.619   0.92%
   QC value within limits for Co 228.616  Recovery = 99.95%
Cr 267.716†            53945.4      507.67 ug/L         2.579      507.67 ppb         2.579   0.51%
   QC value within limits for Cr 267.716  Recovery = 101.53%
Cu 324.752†           176013.2      502.18 ug/L         2.965      502.18 ppb         2.965   0.59%
   QC value within limits for Cu 324.752  Recovery = 100.44%
Fe 238.204 Radial†       590.7      5203.2 ug/L        145.61      5203.2 ppb        145.61   2.80%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.06%
K 766.490 Radial†      26241.8      4987.6 ug/L        158.11      4987.6 ppb        158.11   3.17%
   QC value within limits for K 766.490 Radial  Recovery = 99.75%
Mg 279.077 IEC†          165.6      5299.9 ug/L        159.07      5299.9 ppb        159.07   3.00%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.00%
Mn 257.610†           512444.9      508.83 ug/L         2.678      508.83 ppb         2.678   0.53%
   QC value within limits for Mn 257.610  Recovery = 101.77%
Mo 202.031†             8653.1      509.82 ug/L         5.025      509.82 ppb         5.025   0.99%
   QC value within limits for Mo 202.031  Recovery = 101.96%
Na 589.592 Radial†     35603.6       10101 ug/L         284.7       10101 ppb         284.7   2.82%
   QC value within limits for Na 589.592 Radial  Recovery = 101.01%
Ni 231.604†            24268.3      502.08 ug/L         4.047      502.08 ppb         4.047   0.81%
   QC value within limits for Ni 231.604  Recovery = 100.42%
P 214.914†              5595.9      2461.4 ug/L        27.00      2461.4 ppb        27.00   1.10%
   QC value within limits for P 214.914  Recovery = 98.46%
Pb 220.353†             5136.1      511.32 ug/L         4.784      511.32 ppb         4.784   0.94%
   QC value within limits for Pb 220.353  Recovery = 102.26%
S 181.975 Axial†         916.8      1006.1 ug/L        14.59      1006.1 ppb        14.59   1.45%
   QC value within limits for S 181.975 Axial  Recovery = 100.61%
Sb 206.836†             1757.1      510.72 ug/L         7.182      510.72 ppb         7.182   1.41%
   QC value within limits for Sb 206.836  Recovery = 102.14%
Se 196.026†             1057.8      520.17 ug/L         8.409      520.17 ppb         8.409   1.62%
   QC value within limits for Se 196.026  Recovery = 104.03%
Si 251.611†            94449.8      2500.4 ug/L        16.02      2500.4 ppb        16.02   0.64%
   QC value within limits for Si 251.611  Recovery = 100.02%
Sn 189.927†             3563.3      505.13 ug/L         4.850      505.13 ppb         4.850   0.96%
   QC value within limits for Sn 189.927  Recovery = 101.03%
Sr 421.552†            76310.4      501.05 ug/L        13.741      501.05 ppb        13.741   2.74%
   QC value within limits for Sr 421.552  Recovery = 100.21%
Ti 334.940†           344312.6      505.61 ug/L         2.476      505.61 ppb         2.476   0.49%
   QC value within limits for Ti 334.940  Recovery = 101.12%
Tl 190.801†             1935.2      510.20 ug/L         6.050      510.20 ppb         6.050   1.19%
   QC value within limits for Tl 190.801  Recovery = 102.04%
U 409.014†             17549.5      484.14 ug/L         5.322      484.14 ppb         5.322   1.10%
   QC value within limits for U 409.014  Recovery = 96.83%
V 292.402†             85723.3      511.39 ug/L         1.961      511.39 ppb         1.961   0.38%
   QC value within limits for V 292.402  Recovery = 102.28%
Zn 213.857†            64615.8      500.65 ug/L         2.515      500.65 ppb         2.515   0.50%
   QC value within limits for Zn 213.857  Recovery = 100.13%
SiO2†                  94439.8      5386.2 ug/L        29.19      5386.2 ppb        29.19   0.54%
   QC value within limits for SiO2  Recovery = 100.72%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/29/2009 14:07:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4958.1	4958.1	100	%			14:09:23
1	Y RADIAL	5312.7	5312.7	100.1	%			14:09:23
1	Al 396.153Radial†	-25.4	-4.0	-3.1663	ug/L	-3.1663	ppb	14:09:23
1	Ca 317.933Radial†	21.4	-0.1	-0.0971	ug/L	-0.0971	ppb	14:09:43
1	Fe 238.204 Radial†	14.9	1.6	14.227	ug/L	14.227	ppb	14:09:43
1	K 766.490 Radial†	3380.7	38.9	7.4090	ug/L	7.4090	ppb	14:09:23
1	Mg 279.077 IEC†	3.3	0.6	19.311	ug/L	19.311	ppb	14:09:43
1	Na 589.592 Radial†	-1844.6	-42.5	-12.057	ug/L	-12.057	ppb	14:09:23
1	Sr 421.552†	16.6	5.5	0.0361	ug/L	0.0361	ppb	14:09:23
1	Sc 361.383	935193.0	935193.0	99.621	%			14:10:40
1	Y 371.029	816468.3	816468.3	99.799	%			14:10:40
1	Ag 328.068†	507.0	43.3	0.1852	ug/L	0.1852	ppb	14:10:45
1	As 188.979†	-39.2	-4.5	-1.4702	ug/L	-1.4702	ppb	14:11:05
1	B 249.677†	-491.4	-97.2	-1.8976	ug/L	-1.8976	ppb	14:10:45
1	Ba 233.527†	15.7	-4.3	-0.0277	ug/L	-0.0277	ppb	14:11:05
1	Be 313.107†	-4502.5	181.8	0.0577	ug/L	0.0577	ppb	14:10:45
1	Cd 226.502†	-255.5	0.2	0.0003	ug/L	0.0003	ppb	14:11:05
1	Co 228.616†	-104.4	-10.6	-0.1847	ug/L	-0.1847	ppb	14:11:05
1	Cr 267.716†	180.9	47.9	0.4508	ug/L	0.4508	ppb	14:10:45
1	Cu 324.752†	8001.7	-451.1	-1.2855	ug/L	-1.2855	ppb	14:10:45
1	Mn 257.610†	615.1	-19.2	-0.0180	ug/L	-0.0180	ppb	14:10:45
1	Mo 202.031†	34.2	8.9	0.5225	ug/L	0.5225	ppb	14:11:05
1	Ni 231.604†	131.2	-7.2	-0.1498	ug/L	-0.1498	ppb	14:11:05
1	P 214.914†	259.5	-10.7	-4.6359	ug/L	-4.6359	ppb	14:11:05
1	Pb 220.353†	-85.6	-1.3	-0.1269	ug/L	-0.1269	ppb	14:11:05
1	S 181.975 Axial†	62.2	0.7	0.8204	ug/L	0.8204	ppb	14:11:05
1	Sb 206.836†	64.9	19.9	5.6989	ug/L	5.6989	ppb	14:11:05
1	Se 196.026†	-42.3	-9.8	-4.6035	ug/L	-4.6035	ppb	14:11:05
1	Si 251.611†	745.6	9.1	0.2290	ug/L	0.2290	ppb	14:11:05
1	Sn 189.927†	4.3	0.9	0.1292	ug/L	0.1292	ppb	14:11:05
1	Ti 334.940†	-1727.7	-29.4	-0.0438	ug/L	-0.0438	ppb	14:10:45
1	Tl 190.801†	-53.1	-3.8	-1.0028	ug/L	-1.0028	ppb	14:11:05
1	U 409.014†	-2879.1	28.6	0.7882	ug/L	0.7882	ppb	14:10:40
1	V 292.402†	-1716.3	87.2	0.5206	ug/L	0.5206	ppb	14:10:45
1	Zn 213.857†	917.8	6.7	0.0531	ug/L	0.0531	ppb	14:11:05
1	SiO2†	781.4	26.4	1.4850	ug/L	1.4850	ppb	14:12:11
2	Sc Radial	4941.9	4941.9	99.9	%			14:09:48
2	Y RADIAL	5278.5	5278.5	99.50	%			14:09:48
2	Al 396.153Radial†	-8.1	13.2	10.306	ug/L	10.306	ppb	14:09:48
2	Ca 317.933Radial†	19.7	-1.7	-2.6562	ug/L	-2.6562	ppb	14:10:08
2	Fe 238.204 Radial†	13.1	-0.2	-1.3381	ug/L	-1.3381	ppb	14:10:08
2	K 766.490 Radial†	3433.1	102.3	19.491	ug/L	19.491	ppb	14:09:48
2	Mg 279.077 IEC†	4.6	1.9	59.211	ug/L	59.211	ppb	14:10:08
2	Na 589.592 Radial†	-1899.8	-103.8	-29.445	ug/L	-29.445	ppb	14:09:48
2	Sr 421.552†	-16.4	-27.5	-0.1803	ug/L	-0.1803	ppb	14:09:48
2	Sc 361.383	915209.5	915209.5	97.492	%			14:11:10
2	Y 371.029	799534.1	799534.1	97.729	%			14:11:10
2	Ag 328.068†	567.5	116.4	0.4792	ug/L	0.4792	ppb	14:11:15
2	As 188.979†	-34.7	-0.8	-0.2493	ug/L	-0.2493	ppb	14:11:36
2	B 249.677†	-518.1	-135.4	-2.6421	ug/L	-2.6421	ppb	14:11:15
2	Ba 233.527†	2.6	-17.5	-0.1197	ug/L	-0.1197	ppb	14:11:36
2	Be 313.107†	-4503.1	82.4	0.0259	ug/L	0.0259	ppb	14:11:15
2	Cd 226.502†	-260.0	-10.0	-0.0899	ug/L	-0.0899	ppb	14:11:36
2	Co 228.616†	-82.2	9.9	0.1747	ug/L	0.1747	ppb	14:11:36
2	Cr 267.716†	135.7	5.5	0.0503	ug/L	0.0503	ppb	14:11:15
2	Cu 324.752†	8135.1	-138.9	-0.3961	ug/L	-0.3961	ppb	14:11:15
2	Mn 257.610†	635.5	15.3	0.0139	ug/L	0.0139	ppb	14:11:15
2	Mo 202.031†	29.8	5.1	0.2996	ug/L	0.2996	ppb	14:11:36
2	Ni 231.604†	142.6	7.4	0.1525	ug/L	0.1525	ppb	14:11:36

2	P 214.914†	281.6	17.7	8.0954	ug/L	8.0954	ppb	14:11:36
2	Pb 220.353†	-105.5	-23.6	-2.3413	ug/L	-2.3413	ppb	14:11:36
2	S 181.975 Axial†	67.5	7.6	8.3254	ug/L	8.3254	ppb	14:11:36
2	Sb 206.836†	53.7	9.9	2.8550	ug/L	2.8550	ppb	14:11:36
2	Se 196.026†	-29.2	2.7	1.2945	ug/L	1.2945	ppb	14:11:36
2	Si 251.611†	721.3	0.5	-0.0029	ug/L	-0.0029	ppb	14:11:36
2	Sn 189.927†	11.6	8.5	1.1982	ug/L	1.1982	ppb	14:11:36
2	Ti 334.940†	-1741.2	-81.2	-0.1196	ug/L	-0.1196	ppb	14:11:15
2	Tl 190.801†	-46.8	1.4	0.3687	ug/L	0.3687	ppb	14:11:36
2	U 409.014†	-2834.6	11.2	0.3100	ug/L	0.3100	ppb	14:11:10
2	V 292.402†	-1840.6	-77.9	-0.4520	ug/L	-0.4520	ppb	14:11:15
2	Zn 213.857†	904.4	13.0	0.0992	ug/L	0.0992	ppb	14:11:36
2	SiO2†	791.8	54.1	3.0681	ug/L	3.0681	ppb	14:12:16
3	Sc Radial	4720.7	4720.7	95.5	%			14:10:13
3	Y RADIAL	5037.5	5037.5	94.96	%			14:10:13
3	Al 396.153Radial†	6.3	27.9	21.835	ug/L	21.835	ppb	14:10:13
3	Ca 317.933Radial†	20.4	-0.1	-0.1967	ug/L	-0.1967	ppb	14:10:33
3	Fe 238.204 Radial†	10.8	-2.0	-17.354	ug/L	-17.354	ppb	14:10:33
3	K 766.490 Radial†	3289.1	112.5	21.430	ug/L	21.430	ppb	14:10:13
3	Mg 279.077 IEC†	-1.7	-4.5	-142.32	ug/L	-142.32	ppb	14:10:33
3	Na 589.592 Radial†	-1783.4	-71.0	-20.141	ug/L	-20.141	ppb	14:10:13
3	Sr 421.552†	44.7	35.8	0.2352	ug/L	0.2352	ppb	14:10:13
3	Sc 361.383	925513.7	925513.7	98.590	%			14:11:41
3	Y 371.029	809017.7	809017.7	98.888	%			14:11:41
3	Ag 328.068†	446.2	-13.0	-0.0595	ug/L	-0.0595	ppb	14:11:46
3	As 188.979†	-42.1	-7.9	-2.6017	ug/L	-2.6017	ppb	14:12:06
3	B 249.677†	-558.6	-170.5	-3.3249	ug/L	-3.3249	ppb	14:11:46
3	Ba 233.527†	22.0	2.3	0.0142	ug/L	0.0142	ppb	14:12:06
3	Be 313.107†	-4409.8	228.4	0.0722	ug/L	0.0722	ppb	14:11:46
3	Cd 226.502†	-263.4	-10.5	-0.0933	ug/L	-0.0933	ppb	14:12:06
3	Co 228.616†	-89.0	3.9	0.0714	ug/L	0.0714	ppb	14:12:06
3	Cr 267.716†	84.4	-48.2	-0.4530	ug/L	-0.4530	ppb	14:11:46
3	Cu 324.752†	8047.7	-320.4	-0.9144	ug/L	-0.9144	ppb	14:11:46
3	Mn 257.610†	604.5	-23.4	-0.0223	ug/L	-0.0223	ppb	14:11:46
3	Mo 202.031†	33.6	8.7	0.5080	ug/L	0.5080	ppb	14:12:06
3	Ni 231.604†	139.3	2.4	0.0499	ug/L	0.0499	ppb	14:12:06
3	P 214.914†	265.5	-1.9	-0.6708	ug/L	-0.6708	ppb	14:12:06
3	Pb 220.353†	-70.7	12.9	1.2889	ug/L	1.2889	ppb	14:12:06
3	S 181.975 Axial†	59.8	-1.0	-1.0944	ug/L	-1.0944	ppb	14:12:06
3	Sb 206.836†	50.6	6.0	1.7690	ug/L	1.7690	ppb	14:12:06
3	Se 196.026†	-43.0	-11.0	-5.2458	ug/L	-5.2458	ppb	14:12:06
3	Si 251.611†	731.1	2.1	0.0376	ug/L	0.0376	ppb	14:12:06
3	Sn 189.927†	10.4	7.2	1.0122	ug/L	1.0122	ppb	14:12:06
3	Ti 334.940†	-1793.9	-114.7	-0.1677	ug/L	-0.1677	ppb	14:11:46
3	Tl 190.801†	-47.0	1.8	0.4619	ug/L	0.4619	ppb	14:12:06
3	U 409.014†	-2930.1	-53.3	-1.4722	ug/L	-1.4722	ppb	14:11:41
3	V 292.402†	-1836.9	-53.1	-0.3082	ug/L	-0.3082	ppb	14:11:46
3	Zn 213.857†	933.3	32.0	0.2566	ug/L	0.2566	ppb	14:12:06
3	SiO2†	725.6	-22.0	-1.3057	ug/L	-1.3057	ppb	14:12:21

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	925305.4	98.568	%	1.0645				1.08%
Sc Radial	4873.5	98.5	%	2.68				2.72%
Y 371.029	808340.0	98.805	%	1.0374				1.05%
Y RADIAL	5209.6	98.20	%	2.828				2.88%
Ag 328.068†	48.9	0.2016	ug/L	0.26973	0.2016	ppb	0.26973	133.78%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	12.4	9.6582	ug/L	12.51305	9.6582	ppb	12.51305	129.56%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.4	-1.4404	ug/L	1.17647	-1.4404	ppb	1.17647	81.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-134.4	-2.6215	ug/L	0.71385	-2.6215	ppb	0.71385	27.23%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.5	-0.0444	ug/L	0.06853	-0.0444	ppb	0.06853	154.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	164.2	0.0519	ug/L	0.02366	0.0519	ppb	0.02366	45.56%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.6	-0.9833	ug/L	1.44959	-0.9833	ppb	1.44959	147.41%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -6.8     -0.0609 ug/L      0.05305     -0.0609 ppb      0.05305  87.05%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               1.1      0.0205 ug/L      0.18505      0.0205 ppb      0.18505 904.59%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               1.7      0.0160 ug/L      0.45290      0.0160 ppb      0.45290 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -303.4     -0.8653 ug/L      0.44674     -0.8653 ppb      0.44674  51.63%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.2     -1.4884 ug/L     15.79102     -1.4884 ppb     15.79102 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        84.5     16.110 ug/L       7.5972      16.110 ppb       7.5972  47.16%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.7     -21.267 ug/L    106.7200     -21.267 ppb    106.7200 501.80%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -9.1     -0.0088 ug/L      0.01979     -0.0088 ppb      0.01979 224.97%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               7.5      0.4434 ug/L      0.12474      0.4434 ppb      0.12474  28.14%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -72.4     -20.547 ug/L       8.7012     -20.547 ppb       8.7012  42.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.8      0.0175 ug/L      0.15374      0.0175 ppb      0.15374 877.54%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                1.7      0.9295 ug/L      6.51479      0.9295 ppb      6.51479 700.85%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -4.0     -0.3931 ug/L      1.82966     -0.3931 ppb      1.82966 465.44%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.4      2.6838 ug/L      4.97869      2.6838 ppb      4.97869 185.51%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              11.9      3.4410 ug/L      2.02940      3.4410 ppb      2.02940  58.98%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -6.0     -2.8516 ug/L      3.60495     -2.8516 ppb      3.60495 126.42%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               3.9      0.0879 ug/L      0.12385      0.0879 ppb      0.12385 140.92%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               5.5      0.7799 ug/L      0.57110      0.7799 ppb      0.57110  73.23%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               4.6      0.0303 ug/L      0.20782      0.0303 ppb      0.20782 684.78%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -75.1     -0.1104 ug/L      0.06251     -0.1104 ppb      0.06251  56.63%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -0.2     -0.0574 ug/L      0.82005     -0.0574 ppb      0.82005 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -4.5     -0.1247 ug/L      1.19129     -0.1247 ppb      1.19129 955.69%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -14.6     -0.0799 ug/L      0.52498     -0.0799 ppb      0.52498 657.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              17.2      0.1363 ug/L      0.10667      0.1363 ppb      0.10667  78.27%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    19.5      1.0825 ug/L      2.21453      1.0825 ppb      2.21453 204.58%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/29/2009 15:15:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4852.0	4852.0	98.1	%			15:17:11
1	Y RADIAL	5147.3	5147.3	97.03	%			15:17:11
1	Al 396.153Radial†	6138.4	6278.1	4892.6	ug/L	4892.6	ppb	15:17:11
1	Ca 317.933Radial†	3144.3	3183.5	4989.0	ug/L	4989.0	ppb	15:17:31
1	Fe 238.204 Radial†	586.8	584.9	5151.8	ug/L	5151.8	ppb	15:17:31
1	K 766.490 Radial†	28909.8	26134.1	4967.2	ug/L	4967.2	ppb	15:17:11
1	Mg 279.077 IEC†	163.9	164.3	5261.0	ug/L	5261.0	ppb	15:17:31
1	Na 589.592 Radial†	33016.0	35450.3	10058	ug/L	10058	ppb	15:17:11
1	Sr 421.552†	74276.4	75698.1	497.03	ug/L	497.03	ppb	15:17:11
1	Sc 361.383	926977.1	926977.1	98.746	%			15:18:30
1	Y 371.029	800425.8	800425.8	97.838	%			15:18:30
1	Ag 328.068†	119019.9	120066.1	499.83	ug/L	499.83	ppb	15:18:30
1	As 188.979†	1464.0	1517.4	503.20	ug/L	503.20	ppb	15:18:50
1	B 249.677†	24154.6	24857.5	483.12	ug/L	483.12	ppb	15:18:30
1	Ba 233.527†	72336.8	73235.5	499.09	ug/L	499.09	ppb	15:18:30
1	Be 313.107†	1560871.3	1585399.4	504.61	ug/L	504.61	ppb	15:18:30
1	Cd 226.502†	54453.8	55402.1	498.95	ug/L	498.95	ppb	15:18:30
1	Co 228.616†	27602.6	28047.4	493.48	ug/L	493.48	ppb	15:18:50
1	Cr 267.716†	52752.5	53288.8	501.49	ug/L	501.49	ppb	15:18:30
1	Cu 324.752†	180379.4	174187.4	496.97	ug/L	496.97	ppb	15:18:30
1	Mn 257.610†	500279.2	505997.3	502.43	ug/L	502.43	ppb	15:18:30
1	Mo 202.031†	8465.5	8547.6	503.60	ug/L	503.60	ppb	15:18:50
1	Ni 231.604†	23827.9	23991.6	496.35	ug/L	496.35	ppb	15:18:50
1	P 214.914†	5747.0	5548.8	2440.8	ug/L	2440.8	ppb	15:18:50
1	Pb 220.353†	4935.4	5082.8	506.01	ug/L	506.01	ppb	15:18:50
1	S 181.975 Axial†	959.3	909.8	998.36	ug/L	998.36	ppb	15:18:50
1	Sb 206.836†	1749.0	1725.9	501.69	ug/L	501.69	ppb	15:18:50
1	Se 196.026†	1015.7	1061.3	521.66	ug/L	521.66	ppb	15:18:50
1	Si 251.611†	93081.3	93524.3	2475.9	ug/L	2475.9	ppb	15:18:30
1	Sn 189.927†	3479.0	3519.8	498.97	ug/L	498.97	ppb	15:18:50
1	Ti 334.940†	334174.8	340124.4	499.46	ug/L	499.46	ppb	15:18:30
1	Tl 190.801†	1855.0	1928.0	508.28	ug/L	508.28	ppb	15:18:50
1	U 409.014†	14176.3	17275.0	476.57	ug/L	476.57	ppb	15:18:30
1	V 292.402†	81815.0	84664.3	505.07	ug/L	505.07	ppb	15:18:30
1	Zn 213.857†	63960.4	63858.2	494.77	ug/L	494.77	ppb	15:18:30
1	SiO2†	93268.1	93694.8	5343.8	ug/L	5343.8	ppb	15:19:51
2	Sc Radial	4424.8	4424.8	89.5	%			15:17:36
2	Y RADIAL	4680.9	4680.9	88.24	%			15:17:36
2	Al 396.153Radial†	6188.5	6938.2	5409.1	ug/L	5409.1	ppb	15:17:36
2	Ca 317.933Radial†	3139.1	3487.1	5464.8	ug/L	5464.8	ppb	15:17:56
2	Fe 238.204 Radial†	581.9	637.2	5611.1	ug/L	5611.1	ppb	15:17:56
2	K 766.490 Radial†	29139.9	29236.3	5557.5	ug/L	5557.5	ppb	15:17:36
2	Mg 279.077 IEC†	162.5	178.9	5725.3	ug/L	5725.3	ppb	15:17:56
2	Na 589.592 Radial†	33152.6	38852.1	11023	ug/L	11023	ppb	15:17:36
2	Sr 421.552†	74869.5	83670.7	549.38	ug/L	549.38	ppb	15:17:36
2	Sc 361.383	915776.7	915776.7	97.553	%			15:18:58
2	Y 371.029	790842.9	790842.9	96.666	%			15:18:58
2	Ag 328.068†	117806.1	120296.0	500.93	ug/L	500.93	ppb	15:18:58
2	As 188.979†	1441.9	1512.9	501.79	ug/L	501.79	ppb	15:19:18
2	B 249.677†	23891.7	24887.2	483.63	ug/L	483.63	ppb	15:18:58
2	Ba 233.527†	71641.5	73418.7	500.35	ug/L	500.35	ppb	15:18:58
2	Be 313.107†	1545046.4	1588510.2	505.60	ug/L	505.60	ppb	15:18:58
2	Cd 226.502†	54024.5	55636.5	501.02	ug/L	501.02	ppb	15:18:58
2	Co 228.616†	27462.7	28245.9	496.97	ug/L	496.97	ppb	15:19:18
2	Cr 267.716†	52219.9	53396.2	502.51	ug/L	502.51	ppb	15:18:58
2	Cu 324.752†	178319.1	174309.6	497.34	ug/L	497.34	ppb	15:18:58
2	Mn 257.610†	495103.4	506888.0	503.35	ug/L	503.35	ppb	15:18:58
2	Mo 202.031†	8414.9	8600.5	506.76	ug/L	506.76	ppb	15:19:18
2	Ni 231.604†	23731.9	24188.4	500.43	ug/L	500.43	ppb	15:19:18

2	P 214.914†	5718.3	5590.6	2459.6 ug/L	2459.6 ppb	15:19:18
2	Pb 220.353†	4920.1	5128.1	510.60 ug/L	510.60 ppb	15:19:18
2	S 181.975 Axial†	959.7	922.1	1011.8 ug/L	1011.8 ppb	15:19:18
2	Sb 206.836†	1731.2	1729.4	502.76 ug/L	502.76 ppb	15:19:18
2	Se 196.026†	1018.7	1077.0	530.61 ug/L	530.61 ppb	15:19:18
2	Si 251.611†	92143.5	93715.8	2480.7 ug/L	2480.7 ppb	15:18:58
2	Sn 189.927†	3458.0	3541.3	502.07 ug/L	502.07 ppb	15:19:18
2	Ti 334.940†	330737.2	340739.6	500.39 ug/L	500.39 ppb	15:18:58
2	Tl 190.801†	1823.3	1918.5	505.80 ug/L	505.80 ppb	15:19:18
2	U 409.014†	14078.2	17350.1	478.58 ug/L	478.58 ppb	15:18:58
2	V 292.402†	81038.3	84881.5	506.33 ug/L	506.33 ppb	15:18:58
2	Zn 213.857†	63324.7	63998.8	495.81 ug/L	495.81 ppb	15:18:58
2	SiO2†	93245.7	94827.0	5408.1 ug/L	5408.1 ppb	15:19:56
3	Sc Radial	4871.2	4871.2	98.5 %		15:18:01
3	Y RADIAL	5153.5	5153.5	97.15 %		15:18:01
3	Al 396.153Radial†	6136.0	6251.1	4871.7 ug/L	4871.7 ppb	15:18:01
3	Ca 317.933Radial†	3105.0	3131.0	4906.7 ug/L	4906.7 ppb	15:18:21
3	Fe 238.204 Radial†	577.0	572.5	5043.3 ug/L	5043.3 ppb	15:18:21
3	K 766.490 Radial†	28983.9	26093.4	4959.4 ug/L	4959.4 ppb	15:18:01
3	Mg 279.077 IEC†	160.3	160.1	5124.9 ug/L	5124.9 ppb	15:18:21
3	Na 589.592 Radial†	33216.7	35521.7	10078 ug/L	10078 ppb	15:18:01
3	Sr 421.552†	74383.9	75509.5	495.79 ug/L	495.79 ppb	15:18:01
3	Sc 361.383	929222.1	929222.1	98.985 %		15:19:25
3	Y 371.029	800420.4	800420.4	97.837 %		15:19:25
3	Ag 328.068†	119477.0	120236.7	500.50 ug/L	500.50 ppb	15:19:25
3	As 188.979†	1460.9	1510.7	500.99 ug/L	500.99 ppb	15:19:45
3	B 249.677†	24408.4	25054.8	486.99 ug/L	486.99 ppb	15:19:25
3	Ba 233.527†	72824.1	73550.8	501.24 ug/L	501.24 ppb	15:19:25
3	Be 313.107†	1563460.8	1584196.6	504.23 ug/L	504.23 ppb	15:19:25
3	Cd 226.502†	54858.3	55677.6	501.44 ug/L	501.44 ppb	15:19:25
3	Co 228.616†	27377.1	27752.1	488.27 ug/L	488.27 ppb	15:19:45
3	Cr 267.716†	52843.9	53252.2	501.15 ug/L	501.15 ppb	15:19:25
3	Cu 324.752†	181320.9	174697.3	498.42 ug/L	498.42 ppb	15:19:25
3	Mn 257.610†	503022.7	507544.9	503.96 ug/L	503.96 ppb	15:19:25
3	Mo 202.031†	8390.5	8451.1	497.91 ug/L	497.91 ppb	15:19:45
3	Ni 231.604†	23636.7	23740.2	491.15 ug/L	491.15 ppb	15:19:45
3	P 214.914†	5677.8	5464.9	2402.6 ug/L	2402.6 ppb	15:19:45
3	Pb 220.353†	4883.9	5018.6	499.63 ug/L	499.63 ppb	15:19:45
3	S 181.975 Axial†	960.5	908.7	997.17 ug/L	997.17 ppb	15:19:45
3	Sb 206.836†	1707.9	1680.1	488.36 ug/L	488.36 ppb	15:19:45
3	Se 196.026†	993.5	1036.3	509.46 ug/L	509.46 ppb	15:19:45
3	Si 251.611†	93713.0	93934.7	2486.9 ug/L	2486.9 ppb	15:19:25
3	Sn 189.927†	3452.2	3484.2	493.92 ug/L	493.92 ppb	15:19:45
3	Ti 334.940†	335843.7	340992.8	500.73 ug/L	500.73 ppb	15:19:25
3	Tl 190.801†	1833.8	1902.1	501.52 ug/L	501.52 ppb	15:19:45
3	U 409.014†	14379.1	17445.2	481.29 ug/L	481.29 ppb	15:19:25
3	V 292.402†	82173.7	84826.5	505.96 ug/L	505.96 ppb	15:19:25
3	Zn 213.857†	64431.9	64178.0	497.31 ug/L	497.31 ppb	15:19:25
3	SiO2†	93475.3	93676.0	5342.9 ug/L	5342.9 ppb	15:20:01

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	923991.9	98.428	%	0.7673				0.78%
Sc Radial	4716.0	95.4	%	5.10				5.35%
Y 371.029	797229.7	97.447	%	0.6761				0.69%
Y RADIAL	4993.9	94.14	%	5.111				5.43%
Ag 328.068†	120199.6	500.42	ug/L	0.555	500.42	ppb	0.555	0.11%
QC value within limits for Ag 328.068 Recovery = 100.08%								
Al 396.153Radial†	6489.2	5057.8	ug/L	304.45	5057.8	ppb	304.45	6.02%
QC value within limits for Al 396.153Radial Recovery = 101.16%								
As 188.979†	1513.7	501.99	ug/L	1.117	501.99	ppb	1.117	0.22%
QC value within limits for As 188.979 Recovery = 100.40%								
B 249.677†	24933.2	484.58	ug/L	2.107	484.58	ppb	2.107	0.43%
QC value within limits for B 249.677 Recovery = 96.92%								
Ba 233.527†	73401.7	500.23	ug/L	1.077	500.23	ppb	1.077	0.22%
QC value within limits for Ba 233.527 Recovery = 100.05%								
Be 313.107†	1586035.4	504.81	ug/L	0.707	504.81	ppb	0.707	0.14%
QC value within limits for Be 313.107 Recovery = 100.96%								
Ca 317.933Radial†	3267.2	5120.2	ug/L	301.30	5120.2	ppb	301.30	5.88%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.40%
Cd 226.502†            55572.1      500.47 ug/L         1.332      500.47 ppb          1.332   0.27%
   QC value within limits for Cd 226.502  Recovery = 100.09%
Co 228.616†            28015.2      492.90 ug/L         4.378      492.90 ppb          4.378   0.89%
   QC value within limits for Co 228.616  Recovery = 98.58%
Cr 267.716†            53312.4      501.72 ug/L         0.710      501.72 ppb          0.710   0.14%
   QC value within limits for Cr 267.716  Recovery = 100.34%
Cu 324.752†           174398.1      497.58 ug/L         0.752      497.58 ppb          0.752   0.15%
   QC value within limits for Cu 324.752  Recovery = 99.52%
Fe 238.204 Radial†       598.2      5268.7 ug/L        301.44      5268.7 ppb         301.44   5.72%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.37%
K 766.490 Radial†      27154.6      5161.4 ug/L        343.06      5161.4 ppb         343.06   6.65%
   QC value within limits for K 766.490 Radial  Recovery = 103.23%
Mg 279.077 IEC†          167.8      5370.4 ug/L        314.79      5370.4 ppb         314.79   5.86%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.41%
Mn 257.610†           506810.1      503.25 ug/L         0.769      503.25 ppb          0.769   0.15%
   QC value within limits for Mn 257.610  Recovery = 100.65%
Mo 202.031†             8533.1      502.76 ug/L         4.486      502.76 ppb          4.486   0.89%
   QC value within limits for Mo 202.031  Recovery = 100.55%
Na 589.592 Radial†     36608.0       10386 ug/L         551.5       10386 ppb          551.5   5.31%
   QC value within limits for Na 589.592 Radial  Recovery = 103.86%
Ni 231.604†            23973.4      495.98 ug/L         4.648      495.98 ppb          4.648   0.94%
   QC value within limits for Ni 231.604  Recovery = 99.20%
P 214.914†              5534.8      2434.3 ug/L        29.05      2434.3 ppb         29.05   1.19%
   QC value within limits for P 214.914  Recovery = 97.37%
Pb 220.353†             5076.5      505.41 ug/L         5.506      505.41 ppb          5.506   1.09%
   QC value within limits for Pb 220.353  Recovery = 101.08%
S 181.975 Axial†         913.5      1002.5 ug/L         8.14      1002.5 ppb          8.14   0.81%
   QC value within limits for S 181.975 Axial  Recovery = 100.25%
Sb 206.836†             1711.8      497.61 ug/L         8.021      497.61 ppb          8.021   1.61%
   QC value within limits for Sb 206.836  Recovery = 99.52%
Se 196.026†             1058.2      520.58 ug/L        10.616      520.58 ppb         10.616   2.04%
   QC value within limits for Se 196.026  Recovery = 104.12%
Si 251.611†            93725.0      2481.2 ug/L         5.53      2481.2 ppb          5.53   0.22%
   QC value within limits for Si 251.611  Recovery = 99.25%
Sn 189.927†             3515.1      498.32 ug/L         4.112      498.32 ppb          4.112   0.83%
   QC value within limits for Sn 189.927  Recovery = 99.66%
Sr 421.552†            78292.8      514.07 ug/L        30.587      514.07 ppb         30.587   5.95%
   QC value within limits for Sr 421.552  Recovery = 102.81%
Ti 334.940†           340618.9      500.20 ug/L         0.657      500.20 ppb          0.657   0.13%
   QC value within limits for Ti 334.940  Recovery = 100.04%
Tl 190.801†             1916.2      505.20 ug/L         3.415      505.20 ppb          3.415   0.68%
   QC value within limits for Tl 190.801  Recovery = 101.04%
U 409.014†             17356.8      478.81 ug/L         2.370      478.81 ppb          2.370   0.50%
   QC value within limits for U 409.014  Recovery = 95.76%
V 292.402†             84790.8      505.79 ug/L         0.651      505.79 ppb          0.651   0.13%
   QC value within limits for V 292.402  Recovery = 101.16%
Zn 213.857†            64011.6      495.97 ug/L         1.278      495.97 ppb          1.278   0.26%
   QC value within limits for Zn 213.857  Recovery = 99.19%
SiO2†                  94065.9      5364.9 ug/L        37.37      5364.9 ppb         37.37   0.70%
   QC value within limits for SiO2  Recovery = 100.33%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/29/2009 15:22:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4573.0	4573.0	92.5	%			15:24:03
1	Y RADIAL	4905.8	4905.8	92.48	%			15:24:03
1	Al 396.153Radial†	4.0	25.7	20.088	ug/L	20.088	ppb	15:24:03
1	Ca 317.933Radial†	20.7	1.0	1.5358	ug/L	1.5358	ppb	15:24:23
1	Fe 238.204 Radial†	13.3	1.1	9.3440	ug/L	9.3440	ppb	15:24:23
1	K 766.490 Radial†	3287.1	221.6	42.205	ug/L	42.205	ppb	15:24:03
1	Mg 279.077 IEC†	4.4	2.0	65.283	ug/L	65.283	ppb	15:24:23
1	Na 589.592 Radial†	-1797.9	-147.0	-41.703	ug/L	-41.703	ppb	15:24:03
1	Sr 421.552†	24.3	15.3	0.1002	ug/L	0.1002	ppb	15:24:03
1	Sc 361.383	939223.0	939223.0	100.05	%			15:25:20
1	Y 371.029	821255.3	821255.3	100.38	%			15:25:20
1	Ag 328.068†	529.9	64.0	0.2657	ug/L	0.2657	ppb	15:25:25
1	As 188.979†	-29.8	5.1	1.6723	ug/L	1.6723	ppb	15:25:45
1	B 249.677†	-489.8	-93.5	-1.8261	ug/L	-1.8261	ppb	15:25:25
1	Ba 233.527†	15.7	-4.4	-0.0300	ug/L	-0.0300	ppb	15:25:45
1	Be 313.107†	-4470.8	232.8	0.0738	ug/L	0.0738	ppb	15:25:25
1	Cd 226.502†	-246.6	10.2	0.0909	ug/L	0.0909	ppb	15:25:45
1	Co 228.616†	-95.4	-1.2	-0.0201	ug/L	-0.0201	ppb	15:25:45
1	Cr 267.716†	146.8	13.0	0.1216	ug/L	0.1216	ppb	15:25:25
1	Cu 324.752†	8166.5	-320.8	-0.9142	ug/L	-0.9142	ppb	15:25:25
1	Mn 257.610†	583.6	-53.3	-0.0532	ug/L	-0.0532	ppb	15:25:25
1	Mo 202.031†	27.2	1.7	0.1025	ug/L	0.1025	ppb	15:25:45
1	Ni 231.604†	138.1	-0.9	-0.0180	ug/L	-0.0180	ppb	15:25:45
1	P 214.914†	258.7	-12.6	-5.5385	ug/L	-5.5385	ppb	15:25:45
1	Pb 220.353†	-70.2	14.5	1.4399	ug/L	1.4399	ppb	15:25:45
1	S 181.975 Axial†	65.6	3.9	4.2595	ug/L	4.2595	ppb	15:25:45
1	Sb 206.836†	31.5	-13.8	-3.9206	ug/L	-3.9206	ppb	15:25:45
1	Se 196.026†	-33.0	-0.3	-0.1320	ug/L	-0.1320	ppb	15:25:45
1	Si 251.611†	801.5	61.7	1.6206	ug/L	1.6206	ppb	15:25:45
1	Sn 189.927†	14.9	11.5	1.6332	ug/L	1.6332	ppb	15:25:45
1	Ti 334.940†	-1744.5	-38.8	-0.0578	ug/L	-0.0578	ppb	15:25:25
1	Tl 190.801†	-53.4	-4.0	-1.0352	ug/L	-1.0352	ppb	15:25:45
1	U 409.014†	-2850.0	70.1	1.9395	ug/L	1.9395	ppb	15:25:20
1	V 292.402†	-1830.9	-19.9	-0.1121	ug/L	-0.1121	ppb	15:25:25
1	Zn 213.857†	928.6	13.5	0.1037	ug/L	0.1037	ppb	15:25:45
1	SiO2†	834.3	75.8	4.2994	ug/L	4.2994	ppb	15:26:51
2	Sc Radial	4766.2	4766.2	96.4	%			15:24:28
2	Y RADIAL	5084.2	5084.2	95.84	%			15:24:28
2	Al 396.153Radial†	-24.6	-4.2	-3.3155	ug/L	-3.3155	ppb	15:24:28
2	Ca 317.933Radial†	15.8	-5.0	-7.8553	ug/L	-7.8553	ppb	15:24:48
2	Fe 238.204 Radial†	13.4	0.7	5.9902	ug/L	5.9902	ppb	15:24:48
2	K 766.490 Radial†	3376.8	170.5	32.482	ug/L	32.482	ppb	15:24:28
2	Mg 279.077 IEC†	2.5	-0.1	-4.5462	ug/L	-4.5462	ppb	15:24:48
2	Na 589.592 Radial†	-1862.8	-135.5	-38.449	ug/L	-38.449	ppb	15:24:28
2	Sr 421.552†	18.2	7.9	0.0520	ug/L	0.0520	ppb	15:24:28
2	Sc 361.383	924465.1	924465.1	98.478	%			15:25:50
2	Y 371.029	808707.9	808707.9	98.850	%			15:25:50
2	Ag 328.068†	584.5	128.0	0.5341	ug/L	0.5341	ppb	15:25:55
2	As 188.979†	-43.5	-9.4	-3.0802	ug/L	-3.0802	ppb	15:26:15
2	B 249.677†	-500.2	-111.9	-2.1840	ug/L	-2.1840	ppb	15:25:55
2	Ba 233.527†	-4.0	-24.1	-0.1635	ug/L	-0.1635	ppb	15:26:15
2	Be 313.107†	-4527.5	103.9	0.0327	ug/L	0.0327	ppb	15:25:55
2	Cd 226.502†	-252.2	0.6	0.0049	ug/L	0.0049	ppb	15:26:15
2	Co 228.616†	-89.9	3.0	0.0538	ug/L	0.0538	ppb	15:26:15
2	Cr 267.716†	83.5	-48.9	-0.4584	ug/L	-0.4584	ppb	15:25:55
2	Cu 324.752†	8170.4	-186.5	-0.5315	ug/L	-0.5315	ppb	15:25:55
2	Mn 257.610†	643.7	17.1	0.0176	ug/L	0.0176	ppb	15:25:55
2	Mo 202.031†	31.1	6.1	0.3585	ug/L	0.3585	ppb	15:26:15
2	Ni 231.604†	145.3	8.6	0.1786	ug/L	0.1786	ppb	15:26:15

2	P 214.914†	267.0	-0.0	0.0768 ug/L	0.0768 ppb	15:26:15
2	Pb 220.353†	-81.8	1.6	0.1573 ug/L	0.1573 ppb	15:26:15
2	S 181.975 Axial†	56.2	-4.6	-5.0438 ug/L	-5.0438 ppb	15:26:15
2	Sb 206.836†	44.8	0.3	0.1082 ug/L	0.1082 ppb	15:26:15
2	Se 196.026†	-44.4	-12.4	-5.8530 ug/L	-5.8530 ppb	15:26:15
2	Si 251.611†	909.1	183.8	4.8697 ug/L	4.8697 ppb	15:26:15
2	Sn 189.927†	7.5	4.2	0.5984 ug/L	0.5984 ppb	15:26:15
2	Ti 334.940†	-1778.3	-101.0	-0.1474 ug/L	-0.1474 ppb	15:25:55
2	Tl 190.801†	-44.3	4.5	1.1670 ug/L	1.1670 ppb	15:26:15
2	U 409.014†	-2970.7	-98.0	-2.7119 ug/L	-2.7119 ppb	15:25:50
2	V 292.402†	-1768.2	14.6	0.0850 ug/L	0.0850 ppb	15:25:55
2	Zn 213.857†	938.8	38.6	0.3012 ug/L	0.3012 ppb	15:26:15
2	SiO2†	817.7	72.3	4.1001 ug/L	4.1001 ppb	15:26:56
3	Sc Radial	4446.4	4446.4	89.9 %		15:24:53
3	Y RADIAL	4741.2	4741.2	89.37 %		15:24:53
3	Al 396.153Radial†	-21.3	-2.3	-1.8273 ug/L	-1.8273 ppb	15:24:53
3	Ca 317.933Radial†	21.3	2.3	3.5977 ug/L	3.5977 ppb	15:25:13
3	Fe 238.204 Radial†	13.3	1.5	13.443 ug/L	13.443 ppb	15:25:13
3	K 766.490 Radial†	3422.1	472.9	90.080 ug/L	90.080 ppb	15:24:53
3	Mg 279.077 IEC†	2.5	0.1	3.4537 ug/L	3.4537 ppb	15:25:13
3	Na 589.592 Radial†	-1869.5	-282.0	-80.003 ug/L	-80.003 ppb	15:24:53
3	Sr 421.552†	-24.1	-37.8	-0.2481 ug/L	-0.2481 ppb	15:24:53
3	Sc 361.383	927029.5	927029.5	98.751 %		15:26:20
3	Y 371.029	809552.7	809552.7	98.953 %		15:26:20
3	Ag 328.068†	545.4	86.7	0.3651 ug/L	0.3651 ppb	15:26:25
3	As 188.979†	-25.3	9.2	3.0379 ug/L	3.0379 ppb	15:26:45
3	B 249.677†	-561.3	-172.3	-3.3637 ug/L	-3.3637 ppb	15:26:25
3	Ba 233.527†	5.6	-14.5	-0.0986 ug/L	-0.0986 ppb	15:26:45
3	Be 313.107†	-4516.2	128.0	0.0405 ug/L	0.0405 ppb	15:26:25
3	Cd 226.502†	-252.7	0.8	0.0057 ug/L	0.0057 ppb	15:26:45
3	Co 228.616†	-93.4	-0.3	-0.0067 ug/L	-0.0067 ppb	15:26:45
3	Cr 267.716†	146.9	15.0	0.1417 ug/L	0.1417 ppb	15:26:25
3	Cu 324.752†	8103.4	-277.3	-0.7901 ug/L	-0.7901 ppb	15:26:25
3	Mn 257.610†	671.3	43.2	0.0441 ug/L	0.0441 ppb	15:26:25
3	Mo 202.031†	21.8	-3.4	-0.1986 ug/L	-0.1986 ppb	15:26:45
3	Ni 231.604†	153.6	16.7	0.3454 ug/L	0.3454 ppb	15:26:45
3	P 214.914†	268.0	0.2	0.2034 ug/L	0.2034 ppb	15:26:45
3	Pb 220.353†	-102.7	-19.3	-1.9203 ug/L	-1.9203 ppb	15:26:45
3	S 181.975 Axial†	55.7	-5.3	-5.7931 ug/L	-5.7931 ppb	15:26:45
3	Sb 206.836†	49.5	4.9	1.4013 ug/L	1.4013 ppb	15:26:45
3	Se 196.026†	-42.3	-10.1	-4.7575 ug/L	-4.7575 ppb	15:26:45
3	Si 251.611†	830.3	101.4	2.6708 ug/L	2.6708 ppb	15:26:45
3	Sn 189.927†	5.6	2.3	0.3283 ug/L	0.3283 ppb	15:26:45
3	Ti 334.940†	-1732.5	-49.6	-0.0710 ug/L	-0.0710 ppb	15:26:25
3	Tl 190.801†	-38.2	10.7	2.8120 ug/L	2.8120 ppb	15:26:45
3	U 409.014†	-3026.2	-145.8	-4.0383 ug/L	-4.0383 ppb	15:26:20
3	V 292.402†	-1839.7	-52.9	-0.3239 ug/L	-0.3239 ppb	15:26:25
3	Zn 213.857†	934.3	31.4	0.2432 ug/L	0.2432 ppb	15:26:45
3	SiO2†	878.2	131.3	7.4627 ug/L	7.4627 ppb	15:27:01

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	930239.2	99.093	%	0.8400				0.85%
Sc Radial	4595.2	92.9	%	3.26				3.51%
Y 371.029	813172.0	99.396	%	0.8572				0.86%
Y RADIAL	4910.4	92.56	%	3.235				3.49%
Ag 328.068†	92.9	0.3883	ug/L	0.13570	0.3883	ppb	0.13570	34.95%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.4	4.9817	ug/L	13.10352	4.9817	ppb	13.10352	263.03%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.6	0.5433	ug/L	3.21151	0.5433	ppb	3.21151	591.10%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-125.9	-2.4579	ug/L	0.80456	-2.4579	ppb	0.80456	32.73%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-14.3	-0.0974	ug/L	0.06677	-0.0974	ppb	0.06677	68.57%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	154.9	0.0490	ug/L	0.02184	0.0490	ppb	0.02184	44.56%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.6	-0.9073	ug/L	6.10486	-0.9073	ppb	6.10486	672.88%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                3.8      0.0338 ug/L       0.04941      0.0338 ppb        0.04941 146.16%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                0.5      0.0090 ug/L       0.03933      0.0090 ppb        0.03933 436.93%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -7.0     -0.0650 ug/L       0.34085     -0.0650 ppb        0.34085 524.05%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -261.5     -0.7453 ug/L       0.19526     -0.7453 ppb        0.19526  26.20%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.1      9.5924 ug/L       3.73255      9.5924 ppb        3.73255  38.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        288.3     54.922 ug/L       30.8331     54.922 ppb        30.8331  56.14%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.7     21.397 ug/L       38.2167     21.397 ppb        38.2167 178.61%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                2.3      0.0029 ug/L       0.05029      0.0029 ppb        0.05029 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.5      0.0875 ug/L       0.27883      0.0875 ppb        0.27883 318.68%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -188.2    -53.385 ug/L       23.1090    -53.385 ppb        23.1090  43.29%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                8.1      0.1687 ug/L       0.18193      0.1687 ppb        0.18193 107.86%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -4.1     -1.7528 ug/L       3.27917     -1.7528 ppb        3.27917 187.09%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -1.1     -0.1077 ug/L       1.69568     -0.1077 ppb        1.69568 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.0     -2.1925 ug/L       5.60011     -2.1925 ppb        5.60011 255.43%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.9     -0.8037 ug/L       2.77568     -0.8037 ppb        2.77568 345.37%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -7.6     -3.5808 ug/L       3.03654     -3.5808 ppb        3.03654  84.80%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              115.6      3.0537 ug/L       1.65805      3.0537 ppb        1.65805  54.30%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                6.0      0.8533 ug/L       0.68875      0.8533 ppb        0.68875  80.71%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -4.9     -0.0320 ug/L       0.18870     -0.0320 ppb        0.18870 590.47%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -63.1     -0.0921 ug/L       0.04835     -0.0921 ppb        0.04835  52.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.7      0.9813 ug/L       1.93029      0.9813 ppb        1.93029 196.72%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -57.9     -1.6036 ug/L       3.13926     -1.6036 ppb        3.13926 195.76%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -19.4     -0.1170 ug/L       0.20452     -0.1170 ppb        0.20452 174.82%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               27.8      0.2160 ug/L       0.10153      0.2160 ppb        0.10153  47.00%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     93.1      5.2874 ug/L       1.88651      5.2874 ppb        1.88651  35.68%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 22
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 12/29/2009 16:24:53
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4734.0	4734.0	95.7	%			16:26:45
1	Y RADIAL	5031.2	5031.2	94.84	%			16:26:45
1	Al 396.153Radial†	6157.6	6454.3	5030.1	ug/L	5030.1	ppb	16:26:45
1	Ca 317.933Radial†	3139.5	3258.4	5106.3	ug/L	5106.3	ppb	16:27:05
1	Fe 238.204 Radial†	570.4	582.6	5132.2	ug/L	5132.2	ppb	16:27:05
1	K 766.490 Radial†	28762.7	26715.5	5078.0	ug/L	5078.0	ppb	16:26:45
1	Mg 279.077 IEC†	164.1	168.7	5401.2	ug/L	5401.2	ppb	16:27:05
1	Na 589.592 Radial†	30764.1	33937.1	9628.6	ug/L	9628.6	ppb	16:26:45
1	Sr 421.552†	72056.0	75266.9	494.20	ug/L	494.20	ppb	16:26:45
1	Sc 361.383	916343.0	916343.0	97.613	%			16:28:04
1	Y 371.029	790423.9	790423.9	96.615	%			16:28:04
1	Ag 328.068†	118456.3	120887.5	503.24	ug/L	503.24	ppb	16:28:04
1	As 188.979†	1482.3	1553.4	515.03	ug/L	515.03	ppb	16:28:24
1	B 249.677†	23873.5	24853.4	483.02	ug/L	483.02	ppb	16:28:04
1	Ba 233.527†	72317.9	74066.4	504.75	ug/L	504.75	ppb	16:28:04
1	Be 313.107†	1557140.2	1599920.9	509.23	ug/L	509.23	ppb	16:28:04
1	Cd 226.502†	54496.8	56086.2	505.12	ug/L	505.12	ppb	16:28:04
1	Co 228.616†	27729.9	28502.3	501.49	ug/L	501.49	ppb	16:28:24
1	Cr 267.716†	52519.6	53670.3	505.08	ug/L	505.08	ppb	16:28:04
1	Cu 324.752†	179454.5	175359.8	500.31	ug/L	500.31	ppb	16:28:04
1	Mn 257.610†	499435.8	511012.8	507.40	ug/L	507.40	ppb	16:28:04
1	Mo 202.031†	8492.4	8674.6	511.08	ug/L	511.08	ppb	16:28:24
1	Ni 231.604†	23943.2	24389.8	504.59	ug/L	504.59	ppb	16:28:24
1	P 214.914†	5756.3	5625.9	2475.4	ug/L	2475.4	ppb	16:28:24
1	Pb 220.353†	4974.3	5180.6	515.77	ug/L	515.77	ppb	16:28:24
1	S 181.975 Axial†	941.7	903.1	991.00	ug/L	991.00	ppb	16:28:24
1	Sb 206.836†	1752.3	1749.9	508.75	ug/L	508.75	ppb	16:28:24
1	Se 196.026†	1016.6	1074.1	527.74	ug/L	527.74	ppb	16:28:24
1	Si 251.611†	92824.2	94354.8	2497.8	ug/L	2497.8	ppb	16:28:04
1	Sn 189.927†	3488.6	3570.5	506.16	ug/L	506.16	ppb	16:28:24
1	Ti 334.940†	332861.4	342706.2	503.26	ug/L	503.26	ppb	16:28:04
1	Tl 190.801†	1842.7	1937.2	510.70	ug/L	510.70	ppb	16:28:24
1	U 409.014†	13904.0	17162.6	473.45	ug/L	473.45	ppb	16:28:04
1	V 292.402†	81688.7	85496.5	510.07	ug/L	510.07	ppb	16:28:04
1	Zn 213.857†	63951.7	64600.9	500.52	ug/L	500.52	ppb	16:28:04
1	SiO2†	93451.5	94978.8	5416.9	ug/L	5416.9	ppb	16:29:25
2	Sc Radial	4681.3	4681.3	94.7	%			16:27:10
2	Y RADIAL	4991.5	4991.5	94.09	%			16:27:10
2	Al 396.153Radial†	6118.6	6485.4	5054.7	ug/L	5054.7	ppb	16:27:10
2	Ca 317.933Radial†	3123.5	3278.5	5137.8	ug/L	5137.8	ppb	16:27:30
2	Fe 238.204 Radial†	573.3	592.4	5217.9	ug/L	5217.9	ppb	16:27:30
2	K 766.490 Radial†	28609.7	26891.9	5111.6	ug/L	5111.6	ppb	16:27:10
2	Mg 279.077 IEC†	164.2	170.8	5467.2	ug/L	5467.2	ppb	16:27:30
2	Na 589.592 Radial†	30557.7	34080.7	9669.3	ug/L	9669.3	ppb	16:27:10
2	Sr 421.552†	71416.1	75437.9	495.32	ug/L	495.32	ppb	16:27:10
2	Sc 361.383	920715.6	920715.6	98.079	%			16:28:32
2	Y 371.029	794365.7	794365.7	97.097	%			16:28:32
2	Ag 328.068†	118962.6	120827.4	503.02	ug/L	503.02	ppb	16:28:32
2	As 188.979†	1481.3	1545.1	512.33	ug/L	512.33	ppb	16:28:52
2	B 249.677†	24015.8	24882.3	483.58	ug/L	483.58	ppb	16:28:32
2	Ba 233.527†	72640.1	74043.0	504.59	ug/L	504.59	ppb	16:28:32
2	Be 313.107†	1566156.7	1601538.0	509.74	ug/L	509.74	ppb	16:28:32
2	Cd 226.502†	54750.2	56079.3	505.05	ug/L	505.05	ppb	16:28:32
2	Co 228.616†	27575.2	28209.6	496.33	ug/L	496.33	ppb	16:28:52
2	Cr 267.716†	52869.9	53771.8	506.04	ug/L	506.04	ppb	16:28:32
2	Cu 324.752†	180378.3	175428.6	500.52	ug/L	500.52	ppb	16:28:32
2	Mn 257.610†	501714.3	510906.0	507.30	ug/L	507.30	ppb	16:28:32
2	Mo 202.031†	8468.4	8608.8	507.21	ug/L	507.21	ppb	16:28:52
2	Ni 231.604†	23841.5	24169.7	500.04	ug/L	500.04	ppb	16:28:52

2	P 214.914†	5735.7	5576.9	2453.1	ug/L	2453.1 ppb	16:28:52
2	Pb 220.353†	4937.8	5119.1	509.66	ug/L	509.66 ppb	16:28:52
2	S 181.975 Axial†	962.1	919.3	1008.7	ug/L	1008.7 ppb	16:28:52
2	Sb 206.836†	1731.4	1720.1	500.05	ug/L	500.05 ppb	16:28:52
2	Se 196.026†	997.4	1049.6	516.38	ug/L	516.38 ppb	16:28:52
2	Si 251.611†	93139.9	94225.1	2494.4	ug/L	2494.4 ppb	16:28:32
2	Sn 189.927†	3485.6	3550.5	503.34	ug/L	503.34 ppb	16:28:52
2	Ti 334.940†	334672.6	342933.4	503.60	ug/L	503.60 ppb	16:28:32
2	Tl 190.801†	1850.4	1936.1	510.44	ug/L	510.44 ppb	16:28:52
2	U 409.014†	13935.5	17127.2	472.46	ug/L	472.46 ppb	16:28:32
2	V 292.402†	81944.2	85359.5	509.19	ug/L	509.19 ppb	16:28:32
2	Zn 213.857†	64301.3	64646.2	500.89	ug/L	500.89 ppb	16:28:32
2	SiO2†	93527.0	94601.1	5395.4	ug/L	5395.4 ppb	16:29:30
3	Sc Radial	4663.2	4663.2	94.3	%		16:27:35
3	Y RADIAL	4971.6	4971.6	93.72	%		16:27:35
3	Al 396.153Radial†	6086.0	6475.9	5047.0	ug/L	5047.0 ppb	16:27:35
3	Ca 317.933Radial†	3100.9	3267.3	5120.3	ug/L	5120.3 ppb	16:27:55
3	Fe 238.204 Radial†	567.7	588.8	5186.5	ug/L	5186.5 ppb	16:27:55
3	K 766.490 Radial†	28594.4	26992.9	5130.8	ug/L	5130.8 ppb	16:27:35
3	Mg 279.077 IEC†	159.4	166.3	5324.1	ug/L	5324.1 ppb	16:27:55
3	Na 589.592 Radial†	30379.8	34017.2	9651.3	ug/L	9651.3 ppb	16:27:35
3	Sr 421.552†	71003.3	75292.6	494.37	ug/L	494.37 ppb	16:27:35
3	Sc 361.383	910527.0	910527.0	96.993	%		16:28:59
3	Y 371.029	785247.4	785247.4	95.982	%		16:28:59
3	Ag 328.068†	117910.6	121100.1	504.14	ug/L	504.14 ppb	16:28:59
3	As 188.979†	1459.4	1539.5	510.47	ug/L	510.47 ppb	16:29:19
3	B 249.677†	23897.5	25034.3	486.54	ug/L	486.54 ppb	16:28:59
3	Ba 233.527†	72095.8	74310.6	506.42	ug/L	506.42 ppb	16:28:59
3	Be 313.107†	1550715.5	1603486.6	510.36	ug/L	510.36 ppb	16:28:59
3	Cd 226.502†	54400.8	56343.8	507.44	ug/L	507.44 ppb	16:28:59
3	Co 228.616†	27656.4	28607.9	503.35	ug/L	503.35 ppb	16:29:19
3	Cr 267.716†	52452.3	53944.5	507.66	ug/L	507.66 ppb	16:28:59
3	Cu 324.752†	178271.6	175314.5	500.19	ug/L	500.19 ppb	16:28:59
3	Mn 257.610†	497497.7	512282.8	508.67	ug/L	508.67 ppb	16:28:59
3	Mo 202.031†	8470.6	8707.7	513.03	ug/L	513.03 ppb	16:29:19
3	Ni 231.604†	23900.7	24502.7	506.93	ug/L	506.93 ppb	16:29:19
3	P 214.914†	5730.1	5636.5	2480.3	ug/L	2480.3 ppb	16:29:19
3	Pb 220.353†	4967.4	5206.0	518.29	ug/L	518.29 ppb	16:29:19
3	S 181.975 Axial†	951.6	919.5	1009.0	ug/L	1009.0 ppb	16:29:19
3	Sb 206.836†	1745.1	1754.0	509.95	ug/L	509.95 ppb	16:29:19
3	Se 196.026†	1002.8	1066.6	524.35	ug/L	524.35 ppb	16:29:19
3	Si 251.611†	92266.7	94387.4	2498.6	ug/L	2498.6 ppb	16:28:59
3	Sn 189.927†	3484.1	3588.7	508.74	ug/L	508.74 ppb	16:29:19
3	Ti 334.940†	331541.4	343523.5	504.46	ug/L	504.46 ppb	16:28:59
3	Tl 190.801†	1855.3	1962.2	517.25	ug/L	517.25 ppb	16:29:19
3	U 409.014†	13917.3	17267.4	476.34	ug/L	476.34 ppb	16:28:59
3	V 292.402†	81247.6	85576.2	510.56	ug/L	510.56 ppb	16:28:59
3	Zn 213.857†	63722.5	64783.1	501.93	ug/L	501.93 ppb	16:28:59
3	SiO2†	93224.5	95356.3	5438.4	ug/L	5438.4 ppb	16:29:35

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	915861.9	97.562	%	0.5445				0.56%
Sc Radial	4692.8	94.9	%	0.74				0.78%
Y 371.029	790012.3	96.565	%	0.5590				0.58%
Y RADIAL	4998.1	94.22	%	0.572				0.61%
Ag 328.068†	120938.3	503.47	ug/L	0.593	503.47	ppb	0.593	0.12%
QC value within limits for Ag 328.068 Recovery = 100.69%								
Al 396.153Radial†	6471.9	5044.0	ug/L	12.56	5044.0	ppb	12.56	0.25%
QC value within limits for Al 396.153Radial Recovery = 100.88%								
As 188.979†	1546.0	512.61	ug/L	2.292	512.61	ppb	2.292	0.45%
QC value within limits for As 188.979 Recovery = 102.52%								
B 249.677†	24923.3	484.38	ug/L	1.890	484.38	ppb	1.890	0.39%
QC value within limits for B 249.677 Recovery = 96.88%								
Ba 233.527†	74140.0	505.25	ug/L	1.009	505.25	ppb	1.009	0.20%
QC value within limits for Ba 233.527 Recovery = 101.05%								
Be 313.107†	1601648.5	509.78	ug/L	0.568	509.78	ppb	0.568	0.11%
QC value within limits for Be 313.107 Recovery = 101.96%								
Ca 317.933Radial†	3268.0	5121.5	ug/L	15.77	5121.5	ppb	15.77	0.31%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.43%
Cd 226.502†            56169.8      505.87 ug/L         1.359      505.87 ppb          1.359   0.27%
   QC value within limits for Cd 226.502  Recovery = 101.17%
Co 228.616†            28439.9      500.39 ug/L         3.636      500.39 ppb          3.636   0.73%
   QC value within limits for Co 228.616  Recovery = 100.08%
Cr 267.716†            53795.5      506.26 ug/L         1.303      506.26 ppb          1.303   0.26%
   QC value within limits for Cr 267.716  Recovery = 101.25%
Cu 324.752†           175367.6      500.34 ug/L         0.165      500.34 ppb          0.165   0.03%
   QC value within limits for Cu 324.752  Recovery = 100.07%
Fe 238.204 Radial†       587.9      5178.9 ug/L         43.34      5178.9 ppb          43.34   0.84%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.58%
K 766.490 Radial†      26866.8      5106.8 ug/L         26.72      5106.8 ppb          26.72   0.52%
   QC value within limits for K 766.490 Radial  Recovery = 102.14%
Mg 279.077 IEC†          168.6      5397.5 ug/L         71.65      5397.5 ppb          71.65   1.33%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.95%
Mn 257.610†           511400.5      507.79 ug/L         0.762      507.79 ppb          0.762   0.15%
   QC value within limits for Mn 257.610  Recovery = 101.56%
Mo 202.031†             8663.7      510.44 ug/L         2.960      510.44 ppb          2.960   0.58%
   QC value within limits for Mo 202.031  Recovery = 102.09%
Na 589.592 Radial†     34011.7      9649.7 ug/L         20.40      9649.7 ppb          20.40   0.21%
   QC value within limits for Na 589.592 Radial  Recovery = 96.50%
Ni 231.604†            24354.1      503.85 ug/L         3.504      503.85 ppb          3.504   0.70%
   QC value within limits for Ni 231.604  Recovery = 100.77%
P 214.914†              5613.1      2469.6 ug/L         14.49      2469.6 ppb          14.49   0.59%
   QC value within limits for P 214.914  Recovery = 98.78%
Pb 220.353†             5168.6      514.57 ug/L         4.441      514.57 ppb          4.441   0.86%
   QC value within limits for Pb 220.353  Recovery = 102.91%
S 181.975 Axial†         913.9      1002.9 ug/L         10.31      1002.9 ppb          10.31   1.03%
   QC value within limits for S 181.975 Axial  Recovery = 100.29%
Sb 206.836†             1741.3      506.25 ug/L         5.404      506.25 ppb          5.404   1.07%
   QC value within limits for Sb 206.836  Recovery = 101.25%
Se 196.026†             1063.5      522.82 ug/L         5.831      522.82 ppb          5.831   1.12%
   QC value within limits for Se 196.026  Recovery = 104.56%
Si 251.611†            94322.4      2496.9 ug/L          2.23      2496.9 ppb           2.23   0.09%
   QC value within limits for Si 251.611  Recovery = 99.88%
Sn 189.927†             3569.9      506.08 ug/L         2.702      506.08 ppb          2.702   0.53%
   QC value within limits for Sn 189.927  Recovery = 101.22%
Sr 421.552†            75332.4      494.63 ug/L         0.605      494.63 ppb          0.605   0.12%
   QC value within limits for Sr 421.552  Recovery = 98.93%
Ti 334.940†           343054.4      503.77 ug/L         0.619      503.77 ppb          0.619   0.12%
   QC value within limits for Ti 334.940  Recovery = 100.75%
Tl 190.801†             1945.2      512.80 ug/L         3.860      512.80 ppb          3.860   0.75%
   QC value within limits for Tl 190.801  Recovery = 102.56%
U 409.014†             17185.7      474.08 ug/L         2.016      474.08 ppb          2.016   0.43%
   QC value within limits for U 409.014  Recovery = 94.82%
V 292.402†             85477.4      509.94 ug/L         0.692      509.94 ppb          0.692   0.14%
   QC value within limits for V 292.402  Recovery = 101.99%
Zn 213.857†            64676.8      501.11 ug/L         0.729      501.11 ppb          0.729   0.15%
   QC value within limits for Zn 213.857  Recovery = 100.22%
SiO2†                  94978.7      5416.9 ug/L         21.51      5416.9 ppb          21.51   0.40%
   QC value within limits for SiO2  Recovery = 101.30%
All analyte(s) passed QC.
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Sequence No.: 23
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 12/29/2009 16:31:44
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4840.9	4840.9	97.9	%			16:33:37
1	Y RADIAL	5194.3	5194.3	97.92	%			16:33:37
1	Al 396.153Radial†	6.8	28.3	22.104	ug/L	22.104	ppb	16:33:37
1	Ca 317.933Radial†	19.5	-1.5	-2.3282	ug/L	-2.3282	ppb	16:33:57
1	Fe 238.204 Radial†	13.7	0.7	6.4791	ug/L	6.4791	ppb	16:33:57
1	K 766.490 Radial†	3290.6	28.4	5.4231	ug/L	5.4231	ppb	16:33:37
1	Mg 279.077 IEC†	5.8	3.2	103.19	ug/L	103.19	ppb	16:33:57
1	Na 589.592 Radial†	-1911.6	-155.5	-44.126	ug/L	-44.126	ppb	16:33:37
1	Sr 421.552†	8.1	-2.7	-0.0179	ug/L	-0.0179	ppb	16:33:37
1	Sc 361.383	884770.2	884770.2	94.250	%			16:34:54
1	Y 371.029	771708.6	771708.6	94.328	%			16:34:54
1	Ag 328.068†	477.3	40.8	0.1838	ug/L	0.1838	ppb	16:34:54
1	As 188.979†	-38.1	-5.6	-1.8455	ug/L	-1.8455	ppb	16:35:14
1	B 249.677†	-540.3	-177.2	-3.4582	ug/L	-3.4582	ppb	16:34:54
1	Ba 233.527†	13.7	-5.5	-0.0395	ug/L	-0.0395	ppb	16:35:14
1	Be 313.107†	-4335.3	101.6	0.0323	ug/L	0.0323	ppb	16:34:54
1	Cd 226.502†	-232.5	9.9	0.0889	ug/L	0.0889	ppb	16:35:14
1	Co 228.616†	-87.0	1.9	0.0341	ug/L	0.0341	ppb	16:35:14
1	Cr 267.716†	167.6	44.1	0.4194	ug/L	0.4194	ppb	16:34:54
1	Cu 324.752†	7968.0	-29.1	-0.0826	ug/L	-0.0826	ppb	16:34:54
1	Mn 257.610†	666.7	70.7	0.0689	ug/L	0.0689	ppb	16:34:54
1	Mo 202.031†	33.0	9.5	0.5604	ug/L	0.5604	ppb	16:35:14
1	Ni 231.604†	129.9	-1.1	-0.0222	ug/L	-0.0222	ppb	16:35:14
1	P 214.914†	260.4	5.1	2.3194	ug/L	2.3194	ppb	16:35:14
1	Pb 220.353†	-117.7	-40.2	-3.9847	ug/L	-3.9847	ppb	16:35:14
1	S 181.975 Axial†	62.5	4.7	5.1338	ug/L	5.1338	ppb	16:35:14
1	Sb 206.836†	42.7	0.0	0.0013	ug/L	0.0013	ppb	16:35:14
1	Se 196.026†	-33.1	-2.4	-1.1205	ug/L	-1.1205	ppb	16:35:14
1	Si 251.611†	752.1	58.6	1.5495	ug/L	1.5495	ppb	16:35:14
1	Sn 189.927†	-0.1	-3.5	-0.4952	ug/L	-0.4952	ppb	16:35:14
1	Ti 334.940†	-1604.3	2.7	0.0120	ug/L	0.0120	ppb	16:34:54
1	Tl 190.801†	-50.5	-4.1	-1.0722	ug/L	-1.0722	ppb	16:35:14
1	U 409.014†	-3395.8	-684.3	-18.943	ug/L	-18.943	ppb	16:34:54
1	V 292.402†	-1849.0	-151.8	-0.9209	ug/L	-0.9209	ppb	16:34:54
1	Zn 213.857†	926.6	68.5	0.5313	ug/L	0.5313	ppb	16:35:14
1	SiO2†	851.5	145.4	8.3101	ug/L	8.3101	ppb	16:36:10
2	Sc Radial	4717.9	4717.9	95.4	%			16:34:02
2	Y RADIAL	5007.4	5007.4	94.39	%			16:34:02
2	Al 396.153Radial†	4.6	26.1	20.417	ug/L	20.417	ppb	16:34:02
2	Ca 317.933Radial†	18.1	-2.5	-3.9428	ug/L	-3.9428	ppb	16:34:22
2	Fe 238.204 Radial†	12.0	-0.7	-6.4531	ug/L	-6.4531	ppb	16:34:22
2	K 766.490 Radial†	3373.4	202.8	38.638	ug/L	38.638	ppb	16:34:02
2	Mg 279.077 IEC†	4.5	2.0	65.499	ug/L	65.499	ppb	16:34:22
2	Na 589.592 Radial†	-1814.6	-104.7	-29.717	ug/L	-29.717	ppb	16:34:02
2	Sr 421.552†	-31.3	-43.8	-0.2874	ug/L	-0.2874	ppb	16:34:02
2	Sc 361.383	885815.8	885815.8	94.361	%			16:35:19
2	Y 371.029	773447.9	773447.9	94.540	%			16:35:19
2	Ag 328.068†	492.9	56.8	0.2419	ug/L	0.2419	ppb	16:35:19
2	As 188.979†	-34.0	-1.2	-0.3796	ug/L	-0.3796	ppb	16:35:39
2	B 249.677†	-635.8	-277.7	-5.4192	ug/L	-5.4192	ppb	16:35:19
2	Ba 233.527†	19.9	1.1	0.0057	ug/L	0.0057	ppb	16:35:39
2	Be 313.107†	-4408.4	29.5	0.0090	ug/L	0.0090	ppb	16:35:19
2	Cd 226.502†	-242.5	-0.3	-0.0025	ug/L	-0.0025	ppb	16:35:39
2	Co 228.616†	-82.4	6.9	0.1231	ug/L	0.1231	ppb	16:35:39
2	Cr 267.716†	134.8	9.2	0.0893	ug/L	0.0893	ppb	16:35:19
2	Cu 324.752†	8013.9	9.6	0.0272	ug/L	0.0272	ppb	16:35:19
2	Mn 257.610†	649.2	51.4	0.0491	ug/L	0.0491	ppb	16:35:19
2	Mo 202.031†	34.3	10.9	0.6428	ug/L	0.6428	ppb	16:35:39
2	Ni 231.604†	111.3	-21.0	-0.4341	ug/L	-0.4341	ppb	16:35:39

2	P 214.914†	266.7	11.5	5.2309 ug/L	5.2309 ppb	16:35:39
2	Pb 220.353†	-89.4	-10.1	-0.9930 ug/L	-0.9930 ppb	16:35:39
2	S 181.975 Axial†	66.5	8.8	9.6122 ug/L	9.6122 ppb	16:35:39
2	Sb 206.836†	36.7	-6.4	-1.8028 ug/L	-1.8028 ppb	16:35:39
2	Se 196.026†	-33.3	-2.6	-1.2325 ug/L	-1.2325 ppb	16:35:39
2	Si 251.611†	776.8	83.8	2.2044 ug/L	2.2044 ppb	16:35:39
2	Sn 189.927†	7.0	4.1	0.5754 ug/L	0.5754 ppb	16:35:39
2	Ti 334.940†	-1738.5	-137.7	-0.1965 ug/L	-0.1965 ppb	16:35:19
2	Tl 190.801†	-48.2	-1.6	-0.4147 ug/L	-0.4147 ppb	16:35:39
2	U 409.014†	-3211.5	-484.8	-13.418 ug/L	-13.418 ppb	16:35:19
2	V 292.402†	-1800.8	-98.3	-0.5928 ug/L	-0.5928 ppb	16:35:19
2	Zn 213.857†	927.8	68.6	0.5370 ug/L	0.5370 ppb	16:35:39
2	SiO2†	825.5	116.8	6.6345 ug/L	6.6345 ppb	16:36:15
3	Sc Radial	4719.0	4719.0	95.4 %		16:34:27
3	Y RADIAL	5042.2	5042.2	95.05 %		16:34:27
3	Al 396.153Radial†	4.7	26.2	20.479 ug/L	20.479 ppb	16:34:27
3	Ca 317.933Radial†	23.4	3.1	4.8994 ug/L	4.8994 ppb	16:34:47
3	Fe 238.204 Radial†	10.6	-2.2	-19.026 ug/L	-19.026 ppb	16:34:47
3	K 766.490 Radial†	3288.9	113.5	21.630 ug/L	21.630 ppb	16:34:27
3	Mg 279.077 IEC†	2.1	-0.5	-17.436 ug/L	-17.436 ppb	16:34:47
3	Na 589.592 Radial†	-1845.0	-136.2	-38.638 ug/L	-38.638 ppb	16:34:27
3	Sr 421.552†	-8.7	-20.2	-0.1326 ug/L	-0.1326 ppb	16:34:27
3	Sc 361.383	894349.5	894349.5	95.270 %		16:35:45
3	Y 371.029	780567.4	780567.4	95.410 %		16:35:45
3	Ag 328.068†	484.6	43.0	0.1842 ug/L	0.1842 ppb	16:35:45
3	As 188.979†	-31.3	2.0	0.6470 ug/L	0.6470 ppb	16:36:05
3	B 249.677†	-580.1	-212.8	-4.1496 ug/L	-4.1496 ppb	16:35:45
3	Ba 233.527†	9.1	-10.5	-0.0734 ug/L	-0.0734 ppb	16:36:05
3	Be 313.107†	-4505.5	-27.9	-0.0092 ug/L	-0.0092 ppb	16:35:45
3	Cd 226.502†	-251.5	-7.4	-0.0644 ug/L	-0.0644 ppb	16:36:05
3	Co 228.616†	-95.3	-5.8	-0.1002 ug/L	-0.1002 ppb	16:36:05
3	Cr 267.716†	113.5	-14.6	-0.1334 ug/L	-0.1334 ppb	16:35:45
3	Cu 324.752†	8184.7	107.9	0.3067 ug/L	0.3067 ppb	16:35:45
3	Mn 257.610†	612.5	6.3	0.0047 ug/L	0.0047 ppb	16:35:45
3	Mo 202.031†	31.9	8.0	0.4711 ug/L	0.4711 ppb	16:36:05
3	Ni 231.604†	141.0	9.1	0.1892 ug/L	0.1892 ppb	16:36:05
3	P 214.914†	261.4	3.2	1.4237 ug/L	1.4237 ppb	16:36:05
3	Pb 220.353†	-90.7	-10.6	-1.0475 ug/L	-1.0475 ppb	16:36:05
3	S 181.975 Axial†	62.8	4.2	4.6629 ug/L	4.6629 ppb	16:36:05
3	Sb 206.836†	18.4	-26.0	-7.4313 ug/L	-7.4313 ppb	16:36:05
3	Se 196.026†	-27.0	4.3	1.9991 ug/L	1.9991 ppb	16:36:05
3	Si 251.611†	758.1	56.3	1.4832 ug/L	1.4832 ppb	16:36:05
3	Sn 189.927†	1.2	-2.2	-0.3094 ug/L	-0.3094 ppb	16:36:05
3	Ti 334.940†	-1729.5	-110.6	-0.1544 ug/L	-0.1544 ppb	16:35:45
3	Tl 190.801†	-56.1	-9.4	-2.4631 ug/L	-2.4631 ppb	16:36:05
3	U 409.014†	-3389.5	-639.1	-17.687 ug/L	-17.687 ppb	16:35:45
3	V 292.402†	-1824.1	-104.6	-0.6408 ug/L	-0.6408 ppb	16:35:45
3	Zn 213.857†	925.1	56.3	0.4399 ug/L	0.4399 ppb	16:36:05
3	SiO2†	801.6	83.4	4.7464 ug/L	4.7464 ppb	16:36:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	888311.8	94.627	%	0.5598				0.59%
Sc Radial	4759.3	96.2	%	1.43				1.49%
Y 371.029	775241.3	94.759	%	0.5737				0.61%
Y RADIAL	5081.3	95.79	%	1.874				1.96%
Ag 328.068†	46.9	0.2033	ug/L	0.03342	0.2033	ppb	0.03342	16.44%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	26.9	21.000	ug/L	0.9562	21.000	ppb	0.9562	4.55%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.6	-0.5260	ug/L	1.25267	-0.5260	ppb	1.25267	238.14%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-222.6	-4.3423	ug/L	0.99460	-4.3423	ppb	0.99460	22.90%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.0	-0.0357	ug/L	0.03967	-0.0357	ppb	0.03967	111.07%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	34.4	0.0107	ug/L	0.02078	0.0107	ppb	0.02078	194.41%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.3	-0.4572	ug/L	4.70869	-0.4572	ppb	4.70869	>999.9%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                0.7      0.0073 ug/L       0.07716      0.0073 ppb        0.07716 >999.9%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                1.0      0.0190 ug/L       0.11238      0.0190 ppb        0.11238 591.67%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               12.9      0.1251 ug/L       0.27810      0.1251 ppb        0.27810 222.32%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               29.5      0.0837 ug/L       0.20072      0.0837 ppb        0.20072 239.66%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.7     -6.3334 ug/L      12.75297     -6.3334 ppb       12.75297 201.36%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        114.9      21.897 ug/L       16.6091      21.897 ppb        16.6091  75.85%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.6      50.418 ug/L       61.7123      50.418 ppb        61.7123 122.40%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               42.8      0.0409 ug/L       0.03288      0.0409 ppb        0.03288  80.36%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                9.5      0.5581 ug/L       0.08585      0.5581 ppb        0.08585  15.38%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -132.2     -37.493 ug/L        7.2720     -37.493 ppb         7.2720  19.40%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -4.3     -0.0890 ug/L       0.31699     -0.0890 ppb        0.31699 356.05%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 6.6      2.9913 ug/L       1.99052      2.9913 ppb        1.99052  66.54%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -20.3     -2.0084 ug/L       1.71175     -2.0084 ppb        1.71175  85.23%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           5.9      6.4696 ug/L       2.73167      6.4696 ppb        2.73167  42.22%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -10.8     -3.0776 ug/L       3.87680     -3.0776 ppb        3.87680 125.97%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -0.2     -0.1180 ug/L       1.83429     -0.1180 ppb        1.83429 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               66.3      1.7457 ug/L       0.39861      1.7457 ppb        0.39861  22.83%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.5     -0.0764 ug/L       0.57209     -0.0764 ppb        0.57209 748.48%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -22.2     -0.1459 ug/L       0.13526     -0.1459 ppb        0.13526  92.67%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -81.9     -0.1130 ug/L       0.11024     -0.1130 ppb        0.11024  97.59%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -5.0     -1.3167 ug/L       1.04583     -1.3167 ppb        1.04583  79.43%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -602.7     -16.683 ug/L        2.8961     -16.683 ppb         2.8961  17.36%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -118.2     -0.7182 ug/L       0.17718     -0.7182 ppb        0.17718  24.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               64.5      0.5027 ug/L       0.05445      0.5027 ppb        0.05445  10.83%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    115.2      6.5637 ug/L       1.78291      6.5637 ppb        1.78291  27.16%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 33
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/29/2009 17:39:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	5166.8	5166.8	104	%			17:41:31
1	Y RADIAL	5507.4	5507.4	103.8	%			17:41:31
1	Al 396.153Radial†	6026.5	5789.9	4510.3	ug/L	4510.3	ppb	17:41:31
1	Ca 317.933Radial†	3148.8	2992.6	4689.9	ug/L	4689.9	ppb	17:41:51
1	Fe 238.204 Radial†	574.5	536.6	4728.2	ug/L	4728.2	ppb	17:41:51
1	K 766.490 Radial†	28265.0	23721.9	4508.4	ug/L	4508.4	ppb	17:41:31
1	Mg 279.077 IEC†	163.6	153.9	4927.6	ug/L	4927.6	ppb	17:41:51
1	Na 589.592 Radial†	30106.6	30615.5	8686.2	ug/L	8686.2	ppb	17:41:31
1	Sr 421.552†	70431.0	67405.6	442.58	ug/L	442.58	ppb	17:41:31
1	Sc 361.383	922650.5	922650.5	98.285	%			17:42:50
1	Y 371.029	793428.9	793428.9	96.982	%			17:42:50
1	Ag 328.068†	119194.9	120809.4	502.78	ug/L	502.78	ppb	17:42:50
1	As 188.979†	1465.7	1526.1	506.00	ug/L	506.00	ppb	17:43:10
1	B 249.677†	24097.9	24914.5	484.27	ug/L	484.27	ppb	17:42:50
1	Ba 233.527†	72843.2	74094.3	504.93	ug/L	504.93	ppb	17:42:50
1	Be 313.107†	1567033.3	1599081.3	508.96	ug/L	508.96	ppb	17:42:50
1	Cd 226.502†	54868.0	56082.2	505.12	ug/L	505.12	ppb	17:42:50
1	Co 228.616†	27681.7	28259.0	497.20	ug/L	497.20	ppb	17:43:10
1	Cr 267.716†	52758.9	53545.9	503.90	ug/L	503.90	ppb	17:42:50
1	Cu 324.752†	181051.7	175728.1	501.34	ug/L	501.34	ppb	17:42:50
1	Mn 257.610†	503633.7	511786.1	508.14	ug/L	508.14	ppb	17:42:50
1	Mo 202.031†	8479.8	8602.3	506.78	ug/L	506.78	ppb	17:43:10
1	Ni 231.604†	23853.5	24130.9	499.23	ug/L	499.23	ppb	17:43:10
1	P 214.914†	5746.0	5575.1	2452.3	ug/L	2452.3	ppb	17:43:10
1	Pb 220.353†	4958.8	5130.0	510.65	ug/L	510.65	ppb	17:43:10
1	S 181.975 Axial†	956.1	911.1	999.85	ug/L	999.85	ppb	17:43:10
1	Sb 206.836†	1756.1	1741.5	506.23	ug/L	506.23	ppb	17:43:10
1	Se 196.026†	1004.1	1054.3	516.99	ug/L	516.99	ppb	17:43:10
1	Si 251.611†	93432.1	94323.2	2497.2	ug/L	2497.2	ppb	17:42:50
1	Sn 189.927†	3488.0	3545.4	502.56	ug/L	502.56	ppb	17:43:10
1	Ti 334.940†	335209.2	342763.8	503.32	ug/L	503.32	ppb	17:42:50
1	Tl 190.801†	1841.1	1922.7	506.92	ug/L	506.92	ppb	17:43:10
1	U 409.014†	14200.6	17367.1	479.16	ug/L	479.16	ppb	17:42:50
1	V 292.402†	81924.9	85164.7	508.11	ug/L	508.11	ppb	17:42:50
1	Zn 213.857†	64286.9	64494.1	499.75	ug/L	499.75	ppb	17:42:50
1	SiO2†	93313.6	94184.0	5372.0	ug/L	5372.0	ppb	17:44:11
2	Sc Radial	4759.9	4759.9	96.2	%			17:41:56
2	Y RADIAL	5058.4	5058.4	95.35	%			17:41:56
2	Al 396.153Radial†	6157.9	6419.4	5003.1	ug/L	5003.1	ppb	17:41:56
2	Ca 317.933Radial†	3170.9	3273.1	5129.4	ug/L	5129.4	ppb	17:42:16
2	Fe 238.204 Radial†	579.8	589.1	5189.2	ug/L	5189.2	ppb	17:42:16
2	K 766.490 Radial†	28883.8	26677.2	5070.8	ug/L	5070.8	ppb	17:41:56
2	Mg 279.077 IEC†	163.5	167.1	5350.3	ug/L	5350.3	ppb	17:42:16
2	Na 589.592 Radial†	30557.7	33547.1	9517.9	ug/L	9517.9	ppb	17:41:56
2	Sr 421.552†	71659.1	74443.4	488.79	ug/L	488.79	ppb	17:41:56
2	Sc 361.383	922037.1	922037.1	98.219	%			17:43:18
2	Y 371.029	795323.4	795323.4	97.214	%			17:43:18
2	Ag 328.068†	119462.2	121162.2	504.38	ug/L	504.38	ppb	17:43:18
2	As 188.979†	1470.0	1531.5	507.86	ug/L	507.86	ppb	17:43:38
2	B 249.677†	24203.8	25038.6	486.64	ug/L	486.64	ppb	17:43:18
2	Ba 233.527†	72825.4	74125.5	505.15	ug/L	505.15	ppb	17:43:18
2	Be 313.107†	1571715.4	1604909.1	510.81	ug/L	510.81	ppb	17:43:18
2	Cd 226.502†	54755.1	56004.4	504.37	ug/L	504.37	ppb	17:43:18
2	Co 228.616†	27580.0	28174.2	495.70	ug/L	495.70	ppb	17:43:38
2	Cr 267.716†	52963.6	53790.0	506.21	ug/L	506.21	ppb	17:43:18
2	Cu 324.752†	181913.9	176728.4	504.22	ug/L	504.22	ppb	17:43:18
2	Mn 257.610†	503178.7	511663.8	508.05	ug/L	508.05	ppb	17:43:18
2	Mo 202.031†	8432.9	8560.3	504.35	ug/L	504.35	ppb	17:43:38
2	Ni 231.604†	23821.0	24113.9	498.88	ug/L	498.88	ppb	17:43:38

2	P 214.914†	5712.0	5544.3	2437.7 ug/L	2437.7 ppb	17:43:38
2	Pb 220.353†	4909.3	5082.9	506.05 ug/L	506.05 ppb	17:43:38
2	S 181.975 Axial†	954.5	910.2	998.75 ug/L	998.75 ppb	17:43:38
2	Sb 206.836†	1751.4	1737.9	505.08 ug/L	505.08 ppb	17:43:38
2	Se 196.026†	1008.3	1059.2	520.82 ug/L	520.82 ppb	17:43:38
2	Si 251.611†	93464.5	94419.4	2499.6 ug/L	2499.6 ppb	17:43:18
2	Sn 189.927†	3486.6	3546.4	502.75 ug/L	502.75 ppb	17:43:38
2	Ti 334.940†	335763.9	343555.5	504.51 ug/L	504.51 ppb	17:43:18
2	Tl 190.801†	1848.6	1931.6	509.27 ug/L	509.27 ppb	17:43:38
2	U 409.014†	14301.1	17479.0	482.20 ug/L	482.20 ppb	17:43:18
2	V 292.402†	81995.7	85292.2	508.77 ug/L	508.77 ppb	17:43:18
2	Zn 213.857†	64354.8	64606.7	500.59 ug/L	500.59 ppb	17:43:18
2	SiO2†	92432.2	93349.8	5323.9 ug/L	5323.9 ppb	17:44:16
3	Sc Radial	4727.5	4727.5	95.6 %		17:42:21
3	Y RADIAL	5008.9	5008.9	94.42 %		17:42:21
3	Al 396.153Radial†	6181.6	6488.1	5056.9 ug/L	5056.9 ppb	17:42:21
3	Ca 317.933Radial†	3148.3	3272.1	5127.8 ug/L	5127.8 ppb	17:42:41
3	Fe 238.204 Radial†	574.4	587.7	5176.3 ug/L	5176.3 ppb	17:42:41
3	K 766.490 Radial†	28883.6	26882.7	5109.9 ug/L	5109.9 ppb	17:42:21
3	Mg 279.077 IEC†	159.6	164.2	5257.9 ug/L	5257.9 ppb	17:42:41
3	Na 589.592 Radial†	30654.1	33865.6	9608.3 ug/L	9608.3 ppb	17:42:21
3	Sr 421.552†	72122.2	75438.2	495.32 ug/L	495.32 ppb	17:42:21
3	Sc 361.383	920652.4	920652.4	98.072 %		17:43:45
3	Y 371.029	793201.7	793201.7	96.955 %		17:43:45
3	Ag 328.068†	119345.4	121226.1	504.64 ug/L	504.64 ppb	17:43:45
3	As 188.979†	1465.1	1528.8	506.97 ug/L	506.97 ppb	17:44:05
3	B 249.677†	24244.2	25116.9	488.17 ug/L	488.17 ppb	17:43:45
3	Ba 233.527†	72755.1	74165.3	505.42 ug/L	505.42 ppb	17:43:45
3	Be 313.107†	1566471.5	1601968.8	509.88 ug/L	509.88 ppb	17:43:45
3	Cd 226.502†	54793.6	56127.5	505.48 ug/L	505.48 ppb	17:43:45
3	Co 228.616†	27470.6	28104.9	494.48 ug/L	494.48 ppb	17:44:05
3	Cr 267.716†	52881.8	53787.7	506.18 ug/L	506.18 ppb	17:43:45
3	Cu 324.752†	181697.6	176786.4	504.38 ug/L	504.38 ppb	17:43:45
3	Mn 257.610†	503096.2	512350.2	508.74 ug/L	508.74 ppb	17:43:45
3	Mo 202.031†	8417.6	8557.6	504.20 ug/L	504.20 ppb	17:44:05
3	Ni 231.604†	23705.6	24032.8	497.21 ug/L	497.21 ppb	17:44:05
3	P 214.914†	5698.2	5539.1	2435.3 ug/L	2435.3 ppb	17:44:05
3	Pb 220.353†	4889.1	5069.8	504.75 ug/L	504.75 ppb	17:44:05
3	S 181.975 Axial†	954.5	911.5	1000.3 ug/L	1000.3 ppb	17:44:05
3	Sb 206.836†	1748.3	1737.4	504.91 ug/L	504.91 ppb	17:44:05
3	Se 196.026†	989.4	1041.5	512.38 ug/L	512.38 ppb	17:44:05
3	Si 251.611†	93553.4	94653.2	2505.9 ug/L	2505.9 ppb	17:43:45
3	Sn 189.927†	3474.4	3539.3	501.75 ug/L	501.75 ppb	17:44:05
3	Ti 334.940†	335625.7	343928.7	505.05 ug/L	505.05 ppb	17:43:45
3	Tl 190.801†	1823.3	1908.6	503.25 ug/L	503.25 ppb	17:44:05
3	U 409.014†	14270.0	17469.2	481.93 ug/L	481.93 ppb	17:43:45
3	V 292.402†	81867.4	85286.9	508.74 ug/L	508.74 ppb	17:43:45
3	Zn 213.857†	64300.9	64650.3	500.95 ug/L	500.95 ppb	17:43:45
3	SiO2†	92717.4	93782.2	5348.6 ug/L	5348.6 ppb	17:44:21

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	921780.0	98.192	%	0.1090				0.11%
Sc Radial	4884.7	98.8	%	4.95				5.01%
Y 371.029	793984.7	97.050	%	0.1424				0.15%
Y RADIAL	5191.6	97.86	%	5.177				5.29%
Ag 328.068†	121065.9	503.93	ug/L	1.012	503.93	ppb	1.012	0.20%
QC value within limits for Ag 328.068 Recovery = 100.79%								
Al 396.153Radial†	6232.5	4856.8	ug/L	301.26	4856.8	ppb	301.26	6.20%
QC value within limits for Al 396.153Radial Recovery = 97.14%								
As 188.979†	1528.8	506.94	ug/L	0.929	506.94	ppb	0.929	0.18%
QC value within limits for As 188.979 Recovery = 101.39%								
B 249.677†	25023.3	486.36	ug/L	1.964	486.36	ppb	1.964	0.40%
QC value within limits for B 249.677 Recovery = 97.27%								
Ba 233.527†	74128.4	505.17	ug/L	0.248	505.17	ppb	0.248	0.05%
QC value within limits for Ba 233.527 Recovery = 101.03%								
Be 313.107†	1601986.4	509.88	ug/L	0.927	509.88	ppb	0.927	0.18%
QC value within limits for Be 313.107 Recovery = 101.98%								
Ca 317.933Radial†	3179.3	4982.4	ug/L	253.31	4982.4	ppb	253.31	5.08%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.65%
Cd 226.502†            56071.4      504.99 ug/L         0.566      504.99 ppb          0.566   0.11%
   QC value within limits for Cd 226.502  Recovery = 101.00%
Co 228.616†            28179.4      495.79 ug/L         1.367      495.79 ppb          1.367   0.28%
   QC value within limits for Co 228.616  Recovery = 99.16%
Cr 267.716†            53707.9      505.43 ug/L         1.323      505.43 ppb          1.323   0.26%
   QC value within limits for Cr 267.716  Recovery = 101.09%
Cu 324.752†           176414.3      503.32 ug/L         1.710      503.32 ppb          1.710   0.34%
   QC value within limits for Cu 324.752  Recovery = 100.66%
Fe 238.204 Radial†       571.1      5031.3 ug/L        262.52      5031.3 ppb         262.52   5.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.63%
K 766.490 Radial†      25760.6      4896.4 ug/L        336.51      4896.4 ppb         336.51   6.87%
   QC value within limits for K 766.490 Radial  Recovery = 97.93%
Mg 279.077 IEC†          161.8      5178.6 ug/L        222.21      5178.6 ppb         222.21   4.29%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.57%
Mn 257.610†           511933.4      508.31 ug/L         0.372      508.31 ppb          0.372   0.07%
   QC value within limits for Mn 257.610  Recovery = 101.66%
Mo 202.031†             8573.4      505.11 ug/L         1.450      505.11 ppb          1.450   0.29%
   QC value within limits for Mo 202.031  Recovery = 101.02%
Na 589.592 Radial†     32676.1      9270.8 ug/L        508.32      9270.8 ppb         508.32   5.48%
   QC value within limits for Na 589.592 Radial  Recovery = 92.71%
Ni 231.604†            24092.5      498.44 ug/L         1.085      498.44 ppb          1.085   0.22%
   QC value within limits for Ni 231.604  Recovery = 99.69%
P 214.914†              5552.8      2441.8 ug/L          9.21      2441.8 ppb           9.21   0.38%
   QC value within limits for P 214.914  Recovery = 97.67%
Pb 220.353†             5094.2      507.15 ug/L         3.101      507.15 ppb          3.101   0.61%
   QC value within limits for Pb 220.353  Recovery = 101.43%
S 181.975 Axial†         910.9      999.62 ug/L         0.784      999.62 ppb          0.784   0.08%
   QC value within limits for S 181.975 Axial  Recovery = 99.96%
Sb 206.836†             1738.9      505.41 ug/L         0.722      505.41 ppb          0.722   0.14%
   QC value within limits for Sb 206.836  Recovery = 101.08%
Se 196.026†             1051.7      516.73 ug/L         4.229      516.73 ppb          4.229   0.82%
   QC value within limits for Se 196.026  Recovery = 103.35%
Si 251.611†            94465.3      2500.9 ug/L          4.45      2500.9 ppb           4.45   0.18%
   QC value within limits for Si 251.611  Recovery = 100.04%
Sn 189.927†             3543.7      502.35 ug/L         0.531      502.35 ppb          0.531   0.11%
   QC value within limits for Sn 189.927  Recovery = 100.47%
Sr 421.552†            72429.1      475.57 ug/L        28.751      475.57 ppb         28.751   6.05%
   QC value within limits for Sr 421.552  Recovery = 95.11%
Ti 334.940†           343416.0      504.29 ug/L         0.885      504.29 ppb          0.885   0.18%
   QC value within limits for Ti 334.940  Recovery = 100.86%
Tl 190.801†             1921.0      506.48 ug/L         3.033      506.48 ppb          3.033   0.60%
   QC value within limits for Tl 190.801  Recovery = 101.30%
U 409.014†             17438.4      481.10 ug/L         1.680      481.10 ppb          1.680   0.35%
   QC value within limits for U 409.014  Recovery = 96.22%
V 292.402†             85247.9      508.54 ug/L         0.371      508.54 ppb          0.371   0.07%
   QC value within limits for V 292.402  Recovery = 101.71%
Zn 213.857†            64583.7      500.43 ug/L         0.614      500.43 ppb          0.614   0.12%
   QC value within limits for Zn 213.857  Recovery = 100.09%
SiO2†                  93772.0      5348.2 ug/L        24.07      5348.2 ppb         24.07   0.45%
   QC value within limits for SiO2  Recovery = 100.01%
All analyte(s) passed QC.
```

Sequence No.: 34
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/29/2009 17:46:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4854.6	4854.6	98.2	%			17:48:22
1	Y RADIAL	5183.5	5183.5	97.71	%			17:48:22
1	Al 396.153Radial†	-15.6	5.4	4.1637	ug/L	4.1637	ppb	17:48:22
1	Ca 317.933Radial†	15.9	-5.3	-8.2608	ug/L	-8.2608	ppb	17:48:42
1	Fe 238.204 Radial†	11.5	-1.5	-13.297	ug/L	-13.297	ppb	17:48:42
1	K 766.490 Radial†	3261.3	-10.9	-2.0442	ug/L	-2.0442	ppb	17:48:22
1	Mg 279.077 IEC†	2.1	-0.6	-18.200	ug/L	-18.200	ppb	17:48:42
1	Na 589.592 Radial†	-2003.5	-243.7	-69.140	ug/L	-69.140	ppb	17:48:22
1	Sr 421.552†	-7.5	-18.6	-0.1223	ug/L	-0.1223	ppb	17:48:22
1	Sc 361.383	930074.0	930074.0	99.076	%			17:49:39
1	Y 371.029	810071.9	810071.9	99.017	%			17:49:39
1	Ag 328.068†	518.0	57.3	0.2331	ug/L	0.2331	ppb	17:49:44
1	As 188.979†	-41.5	-7.0	-2.3077	ug/L	-2.3077	ppb	17:50:04
1	B 249.677†	-639.5	-249.4	-4.8659	ug/L	-4.8659	ppb	17:49:44
1	Ba 233.527†	10.4	-9.6	-0.0668	ug/L	-0.0668	ppb	17:50:04
1	Be 313.107†	-4655.9	2.0	0.0006	ug/L	0.0006	ppb	17:49:44
1	Cd 226.502†	-256.5	-2.2	-0.0185	ug/L	-0.0185	ppb	17:50:04
1	Co 228.616†	-88.3	5.1	0.0921	ug/L	0.0921	ppb	17:50:04
1	Cr 267.716†	86.9	-46.0	-0.4324	ug/L	-0.4324	ppb	17:49:44
1	Cu 324.752†	8309.3	-96.3	-0.2754	ug/L	-0.2754	ppb	17:49:44
1	Mn 257.610†	558.4	-72.9	-0.0733	ug/L	-0.0733	ppb	17:49:44
1	Mo 202.031†	42.4	17.3	1.0188	ug/L	1.0188	ppb	17:50:04
1	Ni 231.604†	155.1	17.7	0.3662	ug/L	0.3662	ppb	17:50:04
1	P 214.914†	266.0	-2.7	-1.1774	ug/L	-1.1774	ppb	17:50:04
1	Pb 220.353†	-108.4	-24.8	-2.4559	ug/L	-2.4559	ppb	17:50:04
1	S 181.975 Axial†	53.8	-7.4	-8.1438	ug/L	-8.1438	ppb	17:50:04
1	Sb 206.836†	38.8	-6.1	-1.7015	ug/L	-1.7015	ppb	17:50:04
1	Se 196.026†	-34.6	-2.3	-1.1216	ug/L	-1.1216	ppb	17:50:04
1	Si 251.611†	738.6	6.1	0.1450	ug/L	0.1450	ppb	17:50:04
1	Sn 189.927†	3.8	0.4	0.0565	ug/L	0.0565	ppb	17:50:04
1	Ti 334.940†	-1714.8	-26.1	-0.0374	ug/L	-0.0374	ppb	17:49:44
1	Tl 190.801†	-57.9	-8.9	-2.3430	ug/L	-2.3430	ppb	17:50:04
1	U 409.014†	-2984.4	-93.5	-2.5869	ug/L	-2.5869	ppb	17:49:39
1	V 292.402†	-1865.8	-73.1	-0.4190	ug/L	-0.4190	ppb	17:49:44
1	Zn 213.857†	871.8	-34.7	-0.2718	ug/L	-0.2718	ppb	17:50:04
1	SiO2†	778.7	27.9	1.5635	ug/L	1.5635	ppb	17:51:10
2	Sc Radial	4771.4	4771.4	96.5	%			17:48:47
2	Y RADIAL	5122.7	5122.7	96.57	%			17:48:47
2	Al 396.153Radial†	15.4	37.3	29.224	ug/L	29.224	ppb	17:48:47
2	Ca 317.933Radial†	18.5	-2.3	-3.5575	ug/L	-3.5575	ppb	17:49:07
2	Fe 238.204 Radial†	15.4	2.7	23.547	ug/L	23.547	ppb	17:49:07
2	K 766.490 Radial†	3355.9	145.1	27.656	ug/L	27.656	ppb	17:48:47
2	Mg 279.077 IEC†	2.0	-0.6	-20.029	ug/L	-20.029	ppb	17:49:07
2	Na 589.592 Radial†	-1896.7	-168.5	-47.802	ug/L	-47.802	ppb	17:48:47
2	Sr 421.552†	0.5	-10.5	-0.0690	ug/L	-0.0690	ppb	17:48:47
2	Sc 361.383	928899.1	928899.1	98.950	%			17:50:09
2	Y 371.029	811421.4	811421.4	99.182	%			17:50:09
2	Ag 328.068†	475.8	15.2	0.0699	ug/L	0.0699	ppb	17:50:14
2	As 188.979†	-39.2	-4.7	-1.5536	ug/L	-1.5536	ppb	17:50:34
2	B 249.677†	-614.2	-224.7	-4.3878	ug/L	-4.3878	ppb	17:50:14
2	Ba 233.527†	8.3	-11.7	-0.0793	ug/L	-0.0793	ppb	17:50:34
2	Be 313.107†	-4595.8	56.8	0.0179	ug/L	0.0179	ppb	17:50:14
2	Cd 226.502†	-257.8	-3.9	-0.0373	ug/L	-0.0373	ppb	17:50:34
2	Co 228.616†	-87.2	6.1	0.1048	ug/L	0.1048	ppb	17:50:34
2	Cr 267.716†	117.8	-14.7	-0.1378	ug/L	-0.1378	ppb	17:50:14
2	Cu 324.752†	8392.9	-1.3	-0.0024	ug/L	-0.0024	ppb	17:50:14
2	Mn 257.610†	610.8	-19.3	-0.0164	ug/L	-0.0164	ppb	17:50:14
2	Mo 202.031†	11.4	-13.9	-0.8178	ug/L	-0.8178	ppb	17:50:34
2	Ni 231.604†	149.8	12.5	0.2584	ug/L	0.2584	ppb	17:50:34

2	P 214.914†	260.2	-8.3	-3.7477 ug/L	-3.7477 ppb	17:50:34
2	Pb 220.353†	-103.0	-19.4	-1.9271 ug/L	-1.9271 ppb	17:50:34
2	S 181.975 Axial†	58.9	-2.2	-2.3900 ug/L	-2.3900 ppb	17:50:34
2	Sb 206.836†	36.5	-8.3	-2.3908 ug/L	-2.3908 ppb	17:50:34
2	Se 196.026†	-30.8	1.5	0.7883 ug/L	0.7883 ppb	17:50:34
2	Si 251.611†	734.9	3.3	0.0904 ug/L	0.0904 ppb	17:50:34
2	Sn 189.927†	6.9	3.5	0.5001 ug/L	0.5001 ppb	17:50:34
2	Ti 334.940†	-1720.7	-34.2	-0.0505 ug/L	-0.0505 ppb	17:50:14
2	Tl 190.801†	-37.3	11.8	3.0790 ug/L	3.0790 ppb	17:50:34
2	U 409.014†	-2875.5	12.7	0.3484 ug/L	0.3484 ppb	17:50:09
2	V 292.402†	-1821.2	-30.5	-0.1942 ug/L	-0.1942 ppb	17:50:14
2	Zn 213.857†	870.3	-35.2	-0.2771 ug/L	-0.2771 ppb	17:50:34
2	SiO2†	743.6	-6.5	-0.3651 ug/L	-0.3651 ppb	17:51:15
3	Sc Radial	4791.1	4791.1	96.9 %		17:49:12
3	Y RADIAL	5123.6	5123.6	96.58 %		17:49:12
3	Al 396.153Radial†	-34.9	-14.7	-11.580 ug/L	-11.580 ppb	17:49:12
3	Ca 317.933Radial†	9.9	-11.3	-17.643 ug/L	-17.643 ppb	17:49:32
3	Fe 238.204 Radial†	11.9	-1.0	-8.7472 ug/L	-8.7472 ppb	17:49:32
3	K 766.490 Radial†	3394.3	170.4	32.479 ug/L	32.479 ppb	17:49:12
3	Mg 279.077 IEC†	0.8	-1.9	-60.981 ug/L	-60.981 ppb	17:49:32
3	Na 589.592 Radial†	-1989.2	-255.9	-72.603 ug/L	-72.603 ppb	17:49:12
3	Sr 421.552†	0.7	-10.3	-0.0676 ug/L	-0.0676 ppb	17:49:12
3	Sc 361.383	920116.9	920116.9	98.015 %		17:50:39
3	Y 371.029	803784.7	803784.7	98.248 %		17:50:39
3	Ag 328.068†	416.4	-40.8	-0.1681 ug/L	-0.1681 ppb	17:50:44
3	As 188.979†	-39.0	-5.0	-1.6339 ug/L	-1.6339 ppb	17:51:05
3	B 249.677†	-730.1	-348.8	-6.8060 ug/L	-6.8060 ppb	17:50:44
3	Ba 233.527†	-5.9	-26.1	-0.1781 ug/L	-0.1781 ppb	17:51:05
3	Be 313.107†	-4527.9	81.8	0.0258 ug/L	0.0258 ppb	17:50:44
3	Cd 226.502†	-248.6	3.0	0.0283 ug/L	0.0283 ppb	17:51:05
3	Co 228.616†	-88.0	4.4	0.0810 ug/L	0.0810 ppb	17:51:05
3	Cr 267.716†	148.2	17.5	0.1655 ug/L	0.1655 ppb	17:50:44
3	Cu 324.752†	8157.1	-160.9	-0.4593 ug/L	-0.4593 ppb	17:50:44
3	Mn 257.610†	536.8	-88.9	-0.0879 ug/L	-0.0879 ppb	17:50:44
3	Mo 202.031†	41.8	17.2	1.0100 ug/L	1.0100 ppb	17:51:05
3	Ni 231.604†	148.4	12.5	0.2586 ug/L	0.2586 ppb	17:51:05
3	P 214.914†	275.2	9.6	4.4281 ug/L	4.4281 ppb	17:51:05
3	Pb 220.353†	-83.5	-0.6	-0.0537 ug/L	-0.0537 ppb	17:51:05
3	S 181.975 Axial†	63.7	3.4	3.6933 ug/L	3.6933 ppb	17:51:05
3	Sb 206.836†	45.1	0.8	0.2367 ug/L	0.2367 ppb	17:51:05
3	Se 196.026†	-41.0	-9.2	-4.3687 ug/L	-4.3687 ppb	17:51:05
3	Si 251.611†	728.9	4.3	0.0859 ug/L	0.0859 ppb	17:51:05
3	Sn 189.927†	3.6	0.3	0.0429 ug/L	0.0429 ppb	17:51:05
3	Ti 334.940†	-1737.3	-67.7	-0.0981 ug/L	-0.0981 ppb	17:50:44
3	Tl 190.801†	-54.9	-6.6	-1.7253 ug/L	-1.7253 ppb	17:51:05
3	U 409.014†	-3039.9	-182.8	-5.0601 ug/L	-5.0601 ppb	17:50:39
3	V 292.402†	-1823.4	-50.2	-0.2910 ug/L	-0.2910 ppb	17:50:44
3	Zn 213.857†	873.9	-23.1	-0.1790 ug/L	-0.1790 ppb	17:51:05
3	SiO2†	713.0	-30.6	-1.8180 ug/L	-1.8180 ppb	17:51:20

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	926363.4	98.680	%	0.5796				0.59%
Sc Radial	4805.7	97.2	%	0.88				0.90%
Y 371.029	808426.0	98.816	%	0.4982				0.50%
Y RADIAL	5143.3	96.95	%	0.657				0.68%
Ag 328.068†	10.6	0.0449	ug/L	0.20176	0.0449	ppb	0.20176	449.05%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	9.3	7.2692	ug/L	20.57853	7.2692	ppb	20.57853	283.09%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-5.6	-1.8317	ug/L	0.41416	-1.8317	ppb	0.41416	22.61%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-274.3	-5.3532	ug/L	1.28066	-5.3532	ppb	1.28066	23.92%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-15.8	-0.1081	ug/L	0.06097	-0.1081	ppb	0.06097	56.41%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	46.9	0.0148	ug/L	0.01291	0.0148	ppb	0.01291	87.45%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-6.3	-9.8204	ug/L	7.17114	-9.8204	ppb	7.17114	73.02%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -1.0     -0.0092 ug/L       0.03383     -0.0092 ppb        0.03383 368.74%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               5.2      0.0926 ug/L       0.01188      0.0926 ppb        0.01188  12.83%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -14.4     -0.1349 ug/L       0.29895     -0.1349 ppb        0.29895 221.60%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -86.2     -0.2457 ug/L       0.22989     -0.2457 ppb        0.22989  93.56%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.1      0.5006 ug/L      20.08765      0.5006 ppb       20.08765 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       101.5      19.364 ug/L       18.6961      19.364 ppb        18.6961  96.55%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.0     -33.070 ug/L       24.1891     -33.070 ppb        24.1891  73.15%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -60.4     -0.0592 ug/L       0.03776     -0.0592 ppb        0.03776  63.75%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               6.9      0.4037 ug/L       1.05782      0.4037 ppb        1.05782 262.05%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -222.7     -63.182 ug/L       13.4315     -63.182 ppb        13.4315  21.26%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              14.2      0.2944 ug/L       0.06220      0.2944 ppb        0.06220  21.13%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -0.5     -0.1657 ug/L       4.18074     -0.1657 ppb        4.18074 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -14.9     -1.4789 ug/L       1.26231     -1.4789 ppb        1.26231  85.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.1     -2.2802 ug/L       5.91929     -2.2802 ppb        5.91929 259.60%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -4.5     -1.2852 ug/L       1.36230     -1.2852 ppb        1.36230 106.00%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -3.3     -1.5673 ug/L       2.60724     -1.5673 ppb        2.60724 166.35%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               4.6      0.1071 ug/L       0.03291      0.1071 ppb        0.03291  30.73%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.4      0.1998 ug/L       0.26015      0.1998 ppb        0.26015 130.19%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -13.2     -0.0863 ug/L       0.03119     -0.0863 ppb        0.03119  36.13%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -42.6     -0.0620 ug/L       0.03197     -0.0620 ppb        0.03197  51.56%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -1.3     -0.3298 ug/L       2.96816     -0.3298 ppb        2.96816 900.08%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -87.9     -2.4329 ug/L       2.70753     -2.4329 ppb        2.70753 111.29%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -51.3     -0.3014 ug/L       0.11275     -0.3014 ppb        0.11275  37.41%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -31.0     -0.2426 ug/L       0.05517     -0.2426 ppb        0.05517  22.74%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -3.1     -0.2065 ug/L       1.69635     -0.2065 ppb        1.69635 821.36%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 43
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/29/2009 18:49:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4714.3	4714.3	95.3	%			18:50:55
1	Y RADIAL	4996.7	4996.7	94.19	%			18:50:55
1	Al 396.153Radial†	6280.1	6609.5	5152.0	ug/L	5152.0	ppb	18:50:55
1	Ca 317.933Radial†	3167.2	3301.1	5173.3	ug/L	5173.3	ppb	18:51:15
1	Fe 238.204 Radial†	581.4	596.6	5255.0	ug/L	5255.0	ppb	18:51:15
1	K 766.490 Radial†	29054.9	27147.2	5160.1	ug/L	5160.1	ppb	18:50:55
1	Mg 279.077 IEC†	163.8	169.2	5415.5	ug/L	5415.5	ppb	18:51:15
1	Na 589.592 Radial†	31559.0	34905.0	9903.2	ug/L	9903.2	ppb	18:50:55
1	Sr 421.552†	73569.8	77168.8	506.69	ug/L	506.69	ppb	18:50:55
1	Sc 361.383	926746.8	926746.8	98.721	%			18:52:14
1	Y 371.029	797653.8	797653.8	97.499	%			18:52:14
1	Ag 328.068†	119973.5	121062.0	503.99	ug/L	503.99	ppb	18:52:14
1	As 188.979†	1455.2	1508.8	500.42	ug/L	500.42	ppb	18:52:34
1	B 249.677†	24335.6	25046.9	486.80	ug/L	486.80	ppb	18:52:14
1	Ba 233.527†	73162.9	74090.6	504.91	ug/L	504.91	ppb	18:52:14
1	Be 313.107†	1573555.6	1598640.7	508.82	ug/L	508.82	ppb	18:52:14
1	Cd 226.502†	55236.6	56208.8	506.20	ug/L	506.20	ppb	18:52:14
1	Co 228.616†	27568.4	28019.7	492.98	ug/L	492.98	ppb	18:52:34
1	Cr 267.716†	53151.0	53705.7	505.41	ug/L	505.41	ppb	18:52:14
1	Cu 324.752†	181929.9	175803.4	501.59	ug/L	501.59	ppb	18:52:14
1	Mn 257.610†	505456.8	511367.9	507.77	ug/L	507.77	ppb	18:52:14
1	Mo 202.031†	8454.7	8538.8	503.09	ug/L	503.09	ppb	18:52:34
1	Ni 231.604†	23801.7	23971.1	495.93	ug/L	495.93	ppb	18:52:34
1	P 214.914†	5701.2	5503.9	2419.7	ug/L	2419.7	ppb	18:52:34
1	Pb 220.353†	4934.4	5082.9	506.07	ug/L	506.07	ppb	18:52:34
1	S 181.975 Axial†	952.8	903.5	991.37	ug/L	991.37	ppb	18:52:34
1	Sb 206.836†	1752.7	1730.2	502.80	ug/L	502.80	ppb	18:52:34
1	Se 196.026†	990.8	1036.3	510.18	ug/L	510.18	ppb	18:52:34
1	Si 251.611†	93827.9	94304.0	2496.6	ug/L	2496.6	ppb	18:52:14
1	Sn 189.927†	3483.3	3525.1	499.73	ug/L	499.73	ppb	18:52:34
1	Ti 334.940†	336713.7	342780.2	503.37	ug/L	503.37	ppb	18:52:14
1	Tl 190.801†	1830.0	1903.2	501.83	ug/L	501.83	ppb	18:52:34
1	U 409.014†	14186.3	17288.7	476.92	ug/L	476.92	ppb	18:52:14
1	V 292.402†	82167.1	85041.6	507.26	ug/L	507.26	ppb	18:52:14
1	Zn 213.857†	64758.9	64683.2	501.21	ug/L	501.21	ppb	18:52:14
1	SiO2†	94479.3	94945.2	5415.3	ug/L	5415.3	ppb	18:53:34
2	Sc Radial	4852.0	4852.0	98.1	%			18:51:20
2	Y RADIAL	5157.4	5157.4	97.22	%			18:51:20
2	Al 396.153Radial†	6174.5	6315.1	4921.2	ug/L	4921.2	ppb	18:51:20
2	Ca 317.933Radial†	3155.3	3194.8	5006.7	ug/L	5006.7	ppb	18:51:40
2	Fe 238.204 Radial†	575.0	572.8	5046.4	ug/L	5046.4	ppb	18:51:40
2	K 766.490 Radial†	28837.4	26060.7	4953.3	ug/L	4953.3	ppb	18:51:20
2	Mg 279.077 IEC†	162.1	162.5	5201.8	ug/L	5201.8	ppb	18:51:40
2	Na 589.592 Radial†	31150.0	33548.8	9518.4	ug/L	9518.4	ppb	18:51:20
2	Sr 421.552†	72444.8	73832.3	484.78	ug/L	484.78	ppb	18:51:20
2	Sc 361.383	917915.2	917915.2	97.780	%			18:52:41
2	Y 371.029	792263.3	792263.3	96.840	%			18:52:41
2	Ag 328.068†	120516.9	122787.0	511.08	ug/L	511.08	ppb	18:52:41
2	As 188.979†	1472.5	1540.7	510.92	ug/L	510.92	ppb	18:53:01
2	B 249.677†	24464.8	25416.3	494.02	ug/L	494.02	ppb	18:52:41
2	Ba 233.527†	73444.3	75091.4	511.73	ug/L	511.73	ppb	18:52:41
2	Be 313.107†	1582089.9	1622704.7	516.48	ug/L	516.48	ppb	18:52:41
2	Cd 226.502†	55210.8	56720.7	510.84	ug/L	510.84	ppb	18:52:41
2	Co 228.616†	27670.1	28392.4	499.54	ug/L	499.54	ppb	18:53:01
2	Cr 267.716†	53265.6	54341.0	511.39	ug/L	511.39	ppb	18:52:41
2	Cu 324.752†	182687.8	178351.6	508.84	ug/L	508.84	ppb	18:52:41
2	Mn 257.610†	506733.0	517599.3	513.93	ug/L	513.93	ppb	18:52:41
2	Mo 202.031†	8483.1	8650.2	509.63	ug/L	509.63	ppb	18:53:01
2	Ni 231.604†	23914.6	24318.6	503.12	ug/L	503.12	ppb	18:53:01

2	P 214.914†	5712.4	5570.9	2449.2 ug/L	2449.2 ppb	18:53:01
2	Pb 220.353†	4931.9	5128.4	510.56 ug/L	510.56 ppb	18:53:01
2	S 181.975 Axial†	960.2	920.3	1010.0 ug/L	1010.0 ppb	18:53:01
2	Sb 206.836†	1775.2	1770.3	514.40 ug/L	514.40 ppb	18:53:01
2	Se 196.026†	1001.6	1057.1	519.35 ug/L	519.35 ppb	18:53:01
2	Si 251.611†	93958.0	95351.5	2524.4 ug/L	2524.4 ppb	18:52:41
2	Sn 189.927†	3493.3	3569.2	505.96 ug/L	505.96 ppb	18:53:01
2	Ti 334.940†	338510.5	347899.5	510.88 ug/L	510.88 ppb	18:52:41
2	Tl 190.801†	1853.1	1944.6	512.71 ug/L	512.71 ppb	18:53:01
2	U 409.014†	14288.1	17531.1	483.65 ug/L	483.65 ppb	18:52:41
2	V 292.402†	82757.1	86445.8	515.65 ug/L	515.65 ppb	18:52:41
2	Zn 213.857†	64759.8	65315.1	506.11 ug/L	506.11 ppb	18:52:41
2	SiO2†	93122.0	94477.9	5388.4 ug/L	5388.4 ppb	18:53:39
3	Sc Radial	4722.4	4722.4	95.5 %		18:51:45
3	Y RADIAL	4997.3	4997.3	94.20 %		18:51:45
3	Al 396.153Radial†	6233.8	6549.8	5105.1 ug/L	5105.1 ppb	18:51:45
3	Ca 317.933Radial†	3170.0	3298.4	5169.1 ug/L	5169.1 ppb	18:52:05
3	Fe 238.204 Radial†	583.4	597.7	5264.6 ug/L	5264.6 ppb	18:52:05
3	K 766.490 Radial†	28890.6	26923.0	5117.4 ug/L	5117.4 ppb	18:51:45
3	Mg 279.077 IEC†	161.4	166.3	5323.1 ug/L	5323.1 ppb	18:52:05
3	Na 589.592 Radial†	31272.0	34547.8	9801.9 ug/L	9801.9 ppb	18:51:45
3	Sr 421.552†	73018.2	76459.2	502.03 ug/L	502.03 ppb	18:51:45
3	Sc 361.383	921907.3	921907.3	98.206 %		18:53:08
3	Y 371.029	795022.2	795022.2	97.177 %		18:53:08
3	Ag 328.068†	119849.8	121574.1	506.12 ug/L	506.12 ppb	18:53:08
3	As 188.979†	1468.8	1530.5	507.57 ug/L	507.57 ppb	18:53:29
3	B 249.677†	24348.1	25189.1	489.56 ug/L	489.56 ppb	18:53:08
3	Ba 233.527†	73006.1	74319.9	506.48 ug/L	506.48 ppb	18:53:08
3	Be 313.107†	1576268.6	1609770.6	512.36 ug/L	512.36 ppb	18:53:08
3	Cd 226.502†	54988.2	56249.6	506.57 ug/L	506.57 ppb	18:53:08
3	Co 228.616†	27654.0	28253.5	497.09 ug/L	497.09 ppb	18:53:29
3	Cr 267.716†	53138.8	53976.0	507.96 ug/L	507.96 ppb	18:53:08
3	Cu 324.752†	182456.0	177306.5	505.87 ug/L	505.87 ppb	18:53:08
3	Mn 257.610†	504691.1	513275.9	509.66 ug/L	509.66 ppb	18:53:08
3	Mo 202.031†	8478.8	8608.2	507.18 ug/L	507.18 ppb	18:53:29
3	Ni 231.604†	23883.5	24181.0	500.27 ug/L	500.27 ppb	18:53:29
3	P 214.914†	5747.1	5580.9	2454.0 ug/L	2454.0 ppb	18:53:29
3	Pb 220.353†	4953.0	5128.1	510.55 ug/L	510.55 ppb	18:53:29
3	S 181.975 Axial†	955.7	911.5	1000.2 ug/L	1000.2 ppb	18:53:29
3	Sb 206.836†	1762.8	1749.8	508.51 ug/L	508.51 ppb	18:53:29
3	Se 196.026†	999.0	1049.9	516.67 ug/L	516.67 ppb	18:53:29
3	Si 251.611†	93644.2	94615.9	2504.8 ug/L	2504.8 ppb	18:53:08
3	Sn 189.927†	3492.4	3552.8	503.66 ug/L	503.66 ppb	18:53:29
3	Ti 334.940†	337365.3	345234.2	506.98 ug/L	506.98 ppb	18:53:08
3	Tl 190.801†	1839.6	1922.7	506.94 ug/L	506.94 ppb	18:53:29
3	U 409.014†	14122.9	17299.6	477.22 ug/L	477.22 ppb	18:53:08
3	V 292.402†	82315.9	85630.0	510.78 ug/L	510.78 ppb	18:53:08
3	Zn 213.857†	64557.9	64822.7	502.27 ug/L	502.27 ppb	18:53:08
3	SiO2†	93599.2	94551.4	5392.6 ug/L	5392.6 ppb	18:53:44

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	922189.8	98.236	%	0.4711				0.48%
Sc Radial	4762.9	96.3	%	1.56				1.62%
Y 371.029	794979.8	97.172	%	0.3295				0.34%
Y RADIAL	5050.5	95.20	%	1.747				1.83%
Ag 328.068†	121807.7	507.07	ug/L	3.640	507.07	ppb	3.640	0.72%
QC value within limits for Ag 328.068 Recovery = 101.41%								
Al 396.153Radial†	6491.5	5059.4	ug/L	121.98	5059.4	ppb	121.98	2.41%
QC value within limits for Al 396.153Radial Recovery = 101.19%								
As 188.979†	1526.7	506.30	ug/L	5.365	506.30	ppb	5.365	1.06%
QC value within limits for As 188.979 Recovery = 101.26%								
B 249.677†	25217.4	490.13	ug/L	3.642	490.13	ppb	3.642	0.74%
QC value within limits for B 249.677 Recovery = 98.03%								
Ba 233.527†	74500.6	507.71	ug/L	3.570	507.71	ppb	3.570	0.70%
QC value within limits for Ba 233.527 Recovery = 101.54%								
Be 313.107†	1610372.0	512.55	ug/L	3.833	512.55	ppb	3.833	0.75%
QC value within limits for Be 313.107 Recovery = 102.51%								
Ca 317.933Radial†	3264.8	5116.4	ug/L	95.03	5116.4	ppb	95.03	1.86%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.33%
Cd 226.502†            56393.0      507.87 ug/L         2.578      507.87 ppb          2.578   0.51%
   QC value within limits for Cd 226.502  Recovery = 101.57%
Co 228.616†            28221.9      496.54 ug/L         3.315      496.54 ppb          3.315   0.67%
   QC value within limits for Co 228.616  Recovery = 99.31%
Cr 267.716†            54007.6      508.26 ug/L         2.999      508.26 ppb          2.999   0.59%
   QC value within limits for Cr 267.716  Recovery = 101.65%
Cu 324.752†           177153.8      505.43 ug/L         3.648      505.43 ppb          3.648   0.72%
   QC value within limits for Cu 324.752  Recovery = 101.09%
Fe 238.204 Radial†       589.1      5188.7 ug/L        123.32      5188.7 ppb         123.32   2.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.77%
K 766.490 Radial†      26710.3      5077.0 ug/L        109.17      5077.0 ppb         109.17   2.15%
   QC value within limits for K 766.490 Radial  Recovery = 101.54%
Mg 279.077 IEC†          166.0      5313.5 ug/L        107.14      5313.5 ppb         107.14   2.02%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.27%
Mn 257.610†           514081.0      510.45 ug/L         3.158      510.45 ppb          3.158   0.62%
   QC value within limits for Mn 257.610  Recovery = 102.09%
Mo 202.031†             8599.0      506.64 ug/L         3.302      506.64 ppb          3.302   0.65%
   QC value within limits for Mo 202.031  Recovery = 101.33%
Na 589.592 Radial†     34333.9      9741.1 ug/L        199.44      9741.1 ppb         199.44   2.05%
   QC value within limits for Na 589.592 Radial  Recovery = 97.41%
Ni 231.604†            24156.9      499.77 ug/L         3.621      499.77 ppb          3.621   0.72%
   QC value within limits for Ni 231.604  Recovery = 99.95%
P 214.914†              5551.9      2441.0 ug/L         18.56      2441.0 ppb          18.56   0.76%
   QC value within limits for P 214.914  Recovery = 97.64%
Pb 220.353†             5113.2      509.06 ug/L         2.590      509.06 ppb          2.590   0.51%
   QC value within limits for Pb 220.353  Recovery = 101.81%
S 181.975 Axial†         911.8      1000.5 ug/L          9.30      1000.5 ppb           9.30   0.93%
   QC value within limits for S 181.975 Axial  Recovery = 100.05%
Sb 206.836†             1750.1      508.57 ug/L         5.799      508.57 ppb          5.799   1.14%
   QC value within limits for Sb 206.836  Recovery = 101.71%
Se 196.026†             1047.8      515.40 ug/L         4.712      515.40 ppb          4.712   0.91%
   QC value within limits for Se 196.026  Recovery = 103.08%
Si 251.611†            94757.1      2508.6 ug/L         14.28      2508.6 ppb          14.28   0.57%
   QC value within limits for Si 251.611  Recovery = 100.34%
Sn 189.927†             3549.0      503.12 ug/L         3.150      503.12 ppb          3.150   0.63%
   QC value within limits for Sn 189.927  Recovery = 100.62%
Sr 421.552†            75820.1      497.83 ug/L        11.541      497.83 ppb         11.541   2.32%
   QC value within limits for Sr 421.552  Recovery = 99.57%
Ti 334.940†           345304.6      507.08 ug/L         3.754      507.08 ppb          3.754   0.74%
   QC value within limits for Ti 334.940  Recovery = 101.42%
Tl 190.801†             1923.5      507.16 ug/L         5.445      507.16 ppb          5.445   1.07%
   QC value within limits for Tl 190.801  Recovery = 101.43%
U 409.014†             17373.2      479.26 ug/L         3.800      479.26 ppb          3.800   0.79%
   QC value within limits for U 409.014  Recovery = 95.85%
V 292.402†             85705.8      511.23 ug/L         4.213      511.23 ppb          4.213   0.82%
   QC value within limits for V 292.402  Recovery = 102.25%
Zn 213.857†            64940.3      503.19 ug/L         2.579      503.19 ppb          2.579   0.51%
   QC value within limits for Zn 213.857  Recovery = 100.64%
SiO2†                  94658.1      5398.7 ug/L         14.48      5398.7 ppb          14.48   0.27%
   QC value within limits for SiO2  Recovery = 100.96%
All analyte(s) passed QC.
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Sequence No.: 44
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/29/2009 18:55:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4712.9	4712.9	95.3	%			18:57:46
1	Y RADIAL	5035.3	5035.3	94.92	%			18:57:46
1	Al 396.153Radial†	-2.3	18.9	14.774	ug/L	14.774	ppb	18:57:46
1	Ca 317.933Radial†	15.3	-5.4	-8.4810	ug/L	-8.4810	ppb	18:58:06
1	Fe 238.204 Radial†	11.6	-1.1	-9.6168	ug/L	-9.6168	ppb	18:58:06
1	K 766.490 Radial†	3331.4	162.6	31.004	ug/L	31.004	ppb	18:57:46
1	Mg 279.077 IEC†	2.4	-0.2	-5.7618	ug/L	-5.7618	ppb	18:58:06
1	Na 589.592 Radial†	-2008.1	-309.8	-87.899	ug/L	-87.899	ppb	18:57:46
1	Sr 421.552†	-9.1	-20.6	-0.1353	ug/L	-0.1353	ppb	18:57:46
1	Sc 361.383	936710.2	936710.2	99.783	%			18:59:03
1	Y 371.029	817224.8	817224.8	99.891	%			18:59:03
1	Ag 328.068†	477.3	12.7	0.0514	ug/L	0.0514	ppb	18:59:08
1	As 188.979†	-35.8	-1.1	-0.3534	ug/L	-0.3534	ppb	18:59:28
1	B 249.677†	-557.6	-162.8	-3.1758	ug/L	-3.1758	ppb	18:59:08
1	Ba 233.527†	9.3	-10.7	-0.0723	ug/L	-0.0723	ppb	18:59:28
1	Be 313.107†	-4648.8	42.4	0.0133	ug/L	0.0133	ppb	18:59:08
1	Cd 226.502†	-254.6	1.5	0.0149	ug/L	0.0149	ppb	18:59:28
1	Co 228.616†	-83.5	10.5	0.1864	ug/L	0.1864	ppb	18:59:28
1	Cr 267.716†	81.9	-51.7	-0.4851	ug/L	-0.4851	ppb	18:59:08
1	Cu 324.752†	8415.7	-49.2	-0.1407	ug/L	-0.1407	ppb	18:59:08
1	Mn 257.610†	570.9	-64.4	-0.0648	ug/L	-0.0648	ppb	18:59:08
1	Mo 202.031†	30.8	5.4	0.3194	ug/L	0.3194	ppb	18:59:28
1	Ni 231.604†	146.9	8.3	0.1718	ug/L	0.1718	ppb	18:59:28
1	P 214.914†	255.8	-14.8	-6.6814	ug/L	-6.6814	ppb	18:59:28
1	Pb 220.353†	-98.6	-14.2	-1.4002	ug/L	-1.4002	ppb	18:59:28
1	S 181.975 Axial†	58.5	-3.1	-3.3860	ug/L	-3.3860	ppb	18:59:28
1	Sb 206.836†	51.4	6.2	1.8233	ug/L	1.8233	ppb	18:59:28
1	Se 196.026†	-45.8	-13.2	-6.3043	ug/L	-6.3043	ppb	18:59:28
1	Si 251.611†	722.0	-15.8	-0.4394	ug/L	-0.4394	ppb	18:59:28
1	Sn 189.927†	10.0	6.6	0.9344	ug/L	0.9344	ppb	18:59:28
1	Ti 334.940†	-1764.3	-63.3	-0.0932	ug/L	-0.0932	ppb	18:59:08
1	Tl 190.801†	-53.7	-4.4	-1.1488	ug/L	-1.1488	ppb	18:59:28
1	U 409.014†	-2925.0	-12.7	-0.3497	ug/L	-0.3497	ppb	18:59:03
1	V 292.402†	-1740.5	65.8	0.3930	ug/L	0.3930	ppb	18:59:08
1	Zn 213.857†	871.7	-41.1	-0.3216	ug/L	-0.3216	ppb	18:59:28
1	SiO2†	766.0	9.6	0.5116	ug/L	0.5116	ppb	19:00:34
2	Sc Radial	4873.8	4873.8	98.5	%			18:58:11
2	Y RADIAL	5207.2	5207.2	98.16	%			18:58:11
2	Al 396.153Radial†	-3.6	17.7	13.814	ug/L	13.814	ppb	18:58:11
2	Ca 317.933Radial†	14.2	-7.0	-11.031	ug/L	-11.031	ppb	18:58:31
2	Fe 238.204 Radial†	9.1	-4.0	-35.324	ug/L	-35.324	ppb	18:58:31
2	K 766.490 Radial†	3214.8	-71.2	-13.536	ug/L	-13.536	ppb	18:58:11
2	Mg 279.077 IEC†	2.6	-0.1	-2.0665	ug/L	-2.0665	ppb	18:58:31
2	Na 589.592 Radial†	-1945.8	-177.1	-50.233	ug/L	-50.233	ppb	18:58:11
2	Sr 421.552†	-21.1	-32.4	-0.2125	ug/L	-0.2125	ppb	18:58:11
2	Sc 361.383	925121.7	925121.7	98.548	%			18:59:33
2	Y 371.029	807952.7	807952.7	98.758	%			18:59:33
2	Ag 328.068†	547.8	90.2	0.3682	ug/L	0.3682	ppb	18:59:38
2	As 188.979†	-36.2	-1.9	-0.6179	ug/L	-0.6179	ppb	18:59:58
2	B 249.677†	-657.4	-271.0	-5.2833	ug/L	-5.2833	ppb	18:59:38
2	Ba 233.527†	6.5	-13.5	-0.0927	ug/L	-0.0927	ppb	18:59:58
2	Be 313.107†	-4585.1	48.7	0.0153	ug/L	0.0153	ppb	18:59:38
2	Cd 226.502†	-272.4	-19.7	-0.1744	ug/L	-0.1744	ppb	18:59:58
2	Co 228.616†	-82.5	10.5	0.1877	ug/L	0.1877	ppb	18:59:58
2	Cr 267.716†	125.7	-6.2	-0.0565	ug/L	-0.0565	ppb	18:59:38
2	Cu 324.752†	8288.0	-73.1	-0.2102	ug/L	-0.2102	ppb	18:59:38
2	Mn 257.610†	529.6	-99.2	-0.1019	ug/L	-0.1019	ppb	18:59:38
2	Mo 202.031†	35.7	10.8	0.6321	ug/L	0.6321	ppb	18:59:58
2	Ni 231.604†	132.2	-4.7	-0.0975	ug/L	-0.0975	ppb	18:59:58

2	P 214.914†	255.9	-11.5	-5.1691 ug/L	-5.1691 ppb	18:59:58
2	Pb 220.353†	-98.0	-14.8	-1.4582 ug/L	-1.4582 ppb	18:59:58
2	S 181.975 Axial†	63.8	3.1	3.3764 ug/L	3.3764 ppb	18:59:58
2	Sb 206.836†	39.1	-5.5	-1.5675 ug/L	-1.5675 ppb	18:59:58
2	Se 196.026†	-39.1	-7.0	-3.4122 ug/L	-3.4122 ppb	18:59:58
2	Si 251.611†	716.7	-12.1	-0.3277 ug/L	-0.3277 ppb	18:59:58
2	Sn 189.927†	2.3	-1.0	-0.1479 ug/L	-0.1479 ppb	18:59:58
2	Ti 334.940†	-1754.6	-75.7	-0.1085 ug/L	-0.1085 ppb	18:59:38
2	Tl 190.801†	-40.1	8.7	2.2806 ug/L	2.2806 ppb	18:59:58
2	U 409.014†	-3136.6	-264.1	-7.3066 ug/L	-7.3066 ppb	18:59:33
2	V 292.402†	-1769.1	14.9	0.0881 ug/L	0.0881 ppb	18:59:38
2	Zn 213.857†	866.3	-35.6	-0.2755 ug/L	-0.2755 ppb	18:59:58
2	SiO2†	769.7	23.1	1.3084 ug/L	1.3084 ppb	19:00:39
3	Sc Radial	4882.9	4882.9	98.7 %		18:58:36
3	Y RADIAL	5232.7	5232.7	98.64 %		18:58:36
3	Al 396.153Radial†	4.3	25.6	20.056 ug/L	20.056 ppb	18:58:36
3	Ca 317.933Radial†	18.7	-2.5	-3.9354 ug/L	-3.9354 ppb	18:58:56
3	Fe 238.204 Radial†	12.0	-1.2	-10.116 ug/L	-10.116 ppb	18:58:56
3	K 766.490 Radial†	3274.0	-17.4	-3.2721 ug/L	-3.2721 ppb	18:58:36
3	Mg 279.077 IEC†	1.3	-1.4	-45.564 ug/L	-45.564 ppb	18:58:56
3	Na 589.592 Radial†	-2017.1	-245.5	-69.661 ug/L	-69.661 ppb	18:58:36
3	Sr 421.552†	-9.0	-20.1	-0.1320 ug/L	-0.1320 ppb	18:58:36
3	Sc 361.383	945702.5	945702.5	100.74 %		19:00:04
3	Y 371.029	825087.6	825087.6	100.85 %		19:00:04
3	Ag 328.068†	434.3	-34.5	-0.1476 ug/L	-0.1476 ppb	19:00:09
3	As 188.979†	-33.7	1.4	0.4541 ug/L	0.4541 ppb	19:00:29
3	B 249.677†	-626.7	-226.0	-4.4099 ug/L	-4.4099 ppb	19:00:09
3	Ba 233.527†	25.8	5.6	0.0373 ug/L	0.0373 ppb	19:00:29
3	Be 313.107†	-4634.5	100.9	0.0319 ug/L	0.0319 ppb	19:00:09
3	Cd 226.502†	-260.3	-1.8	-0.0152 ug/L	-0.0152 ppb	19:00:29
3	Co 228.616†	-87.4	7.5	0.1314 ug/L	0.1314 ppb	19:00:29
3	Cr 267.716†	153.5	18.6	0.1742 ug/L	0.1742 ppb	19:00:09
3	Cu 324.752†	8246.4	-297.5	-0.8488 ug/L	-0.8488 ppb	19:00:09
3	Mn 257.610†	545.8	-94.8	-0.0942 ug/L	-0.0942 ppb	19:00:09
3	Mo 202.031†	25.8	0.1	0.0051 ug/L	0.0051 ppb	19:00:29
3	Ni 231.604†	127.3	-12.5	-0.2589 ug/L	-0.2589 ppb	19:00:29
3	P 214.914†	276.4	3.1	1.5907 ug/L	1.5907 ppb	19:00:29
3	Pb 220.353†	-104.2	-18.8	-1.8604 ug/L	-1.8604 ppb	19:00:29
3	S 181.975 Axial†	58.7	-3.4	-3.7495 ug/L	-3.7495 ppb	19:00:29
3	Sb 206.836†	47.9	2.3	0.6835 ug/L	0.6835 ppb	19:00:29
3	Se 196.026†	-30.5	2.4	1.0914 ug/L	1.0914 ppb	19:00:29
3	Si 251.611†	742.5	-2.4	-0.0657 ug/L	-0.0657 ppb	19:00:29
3	Sn 189.927†	11.4	7.9	1.1250 ug/L	1.1250 ppb	19:00:29
3	Ti 334.940†	-1760.7	-43.0	-0.0640 ug/L	-0.0640 ppb	19:00:09
3	Tl 190.801†	-40.3	9.4	2.4736 ug/L	2.4736 ppb	19:00:29
3	U 409.014†	-2893.2	46.8	1.2952 ug/L	1.2952 ppb	19:00:04
3	V 292.402†	-1842.5	-18.9	-0.1083 ug/L	-0.1083 ppb	19:00:09
3	Zn 213.857†	879.4	-41.8	-0.3215 ug/L	-0.3215 ppb	19:00:29
3	SiO2†	775.6	11.9	0.6747 ug/L	0.6747 ppb	19:00:44

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	935844.8	99.690	%	1.0991				1.10%
Sc Radial	4823.2	97.5	%	1.93				1.98%
Y 371.029	816755.0	99.834	%	1.0484				1.05%
Y RADIAL	5158.4	97.24	%	2.024				2.08%
Ag 328.068†	22.8	0.0906	ug/L	0.26011	0.0906	ppb	0.26011	286.96%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	20.7	16.215	ug/L	3.3607	16.215	ppb	3.3607	20.73%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.5	-0.1724	ug/L	0.55847	-0.1724	ppb	0.55847	323.95%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-219.9	-4.2897	ug/L	1.05890	-4.2897	ppb	1.05890	24.68%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-6.2	-0.0426	ug/L	0.06993	-0.0426	ppb	0.06993	164.20%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	64.0	0.0202	ug/L	0.01024	0.0202	ppb	0.01024	50.82%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-5.0	-7.8158	ug/L	3.59424	-7.8158	ppb	3.59424	45.99%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -6.7     -0.0582 ug/L       0.10175     -0.0582 ppb        0.10175 174.71%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               9.5      0.1685 ug/L       0.03212      0.1685 ppb        0.03212  19.06%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -13.1     -0.1225 ug/L       0.33456     -0.1225 ppb        0.33456 273.18%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -139.9     -0.3999 ug/L       0.39026     -0.3999 ppb        0.39026  97.59%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -2.1     -18.352 ug/L       14.7002     -18.352 ppb        14.7002  80.10%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        24.7      4.7319 ug/L      23.32382      4.7319 ppb       23.32382 492.90%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.6     -17.797 ug/L       24.1173     -17.797 ppb        24.1173 135.51%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -86.2     -0.0870 ug/L       0.01960     -0.0870 ppb        0.01960  22.53%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               5.4      0.3189 ug/L       0.31349      0.3189 ppb        0.31349  98.31%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -244.1     -69.265 ug/L       18.8364     -69.265 ppb        18.8364  27.19%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -3.0     -0.0615 ug/L       0.21763     -0.0615 ppb        0.21763 353.70%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -7.7     -3.4199 ug/L       4.40472     -3.4199 ppb        4.40472 128.80%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -15.9     -1.5729 ug/L       0.25066     -1.5729 ppb        0.25066  15.94%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.1     -1.2530 ug/L       4.01333     -1.2530 ppb        4.01333 320.30%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               1.0      0.3131 ug/L       1.72550      0.3131 ppb        1.72550 551.05%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -6.0     -2.8750 ug/L       3.72701     -2.8750 ppb        3.72701 129.63%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -10.1     -0.2776 ug/L       0.19184     -0.2776 ppb        0.19184  69.11%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.5      0.6372 ug/L       0.68653      0.6372 ppb        0.68653 107.75%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -24.4     -0.1599 ug/L       0.04559     -0.1599 ppb        0.04559  28.51%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -60.7     -0.0885 ug/L       0.02262     -0.0885 ppb        0.02262  25.55%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               4.6      1.2018 ug/L       2.03796      1.2018 ppb        2.03796 169.57%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -76.7     -2.1204 ug/L       4.56611     -2.1204 ppb        4.56611 215.34%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               20.6      0.1242 ug/L       0.25258      0.1242 ppb        0.25258 203.30%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             -39.5     -0.3062 ug/L       0.02660     -0.3062 ppb        0.02660   8.69%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    14.9      0.8316 ug/L       0.42093      0.8316 ppb        0.42093  50.62%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 51
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/29/2009 19:44:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4707.1	4707.1	95.2	%			19:46:35
1	Y RADIAL	4983.2	4983.2	93.94	%			19:46:35
1	Al 396.153Radial†	6147.6	6480.5	5050.4	ug/L	5050.4	ppb	19:46:35
1	Ca 317.933Radial†	3189.6	3329.8	5218.3	ug/L	5218.3	ppb	19:46:55
1	Fe 238.204 Radial†	591.5	608.2	5356.7	ug/L	5356.7	ppb	19:46:55
1	K 766.490 Radial†	28533.9	26646.5	5064.7	ug/L	5064.7	ppb	19:46:35
1	Mg 279.077 IEC†	165.4	171.1	5477.1	ug/L	5477.1	ppb	19:46:55
1	Na 589.592 Radial†	32247.6	35679.3	10123	ug/L	10123	ppb	19:46:35
1	Sr 421.552†	73445.3	77156.4	506.61	ug/L	506.61	ppb	19:46:35
1	Sc 361.383	925489.4	925489.4	98.587	%			19:47:54
1	Y 371.029	797195.7	797195.7	97.443	%			19:47:54
1	Ag 328.068†	120560.2	121822.2	507.18	ug/L	507.18	ppb	19:47:54
1	As 188.979†	1509.2	1565.6	519.12	ug/L	519.12	ppb	19:48:14
1	B 249.677†	24534.3	25282.0	491.34	ug/L	491.34	ppb	19:47:54
1	Ba 233.527†	73707.7	74743.9	509.37	ug/L	509.37	ppb	19:47:54
1	Be 313.107†	1585554.6	1612977.4	513.38	ug/L	513.38	ppb	19:47:54
1	Cd 226.502†	55595.0	56648.3	510.16	ug/L	510.16	ppb	19:47:54
1	Co 228.616†	28267.3	28766.6	506.14	ug/L	506.14	ppb	19:48:14
1	Cr 267.716†	53517.5	54150.7	509.60	ug/L	509.60	ppb	19:47:54
1	Cu 324.752†	182927.1	177065.3	505.19	ug/L	505.19	ppb	19:47:54
1	Mn 257.610†	508864.3	515519.8	511.89	ug/L	511.89	ppb	19:47:54
1	Mo 202.031†	8698.9	8798.1	518.37	ug/L	518.37	ppb	19:48:14
1	Ni 231.604†	24407.8	24618.7	509.33	ug/L	509.33	ppb	19:48:14
1	P 214.914†	5881.2	5694.3	2505.6	ug/L	2505.6	ppb	19:48:14
1	Pb 220.353†	5033.5	5190.3	516.73	ug/L	516.73	ppb	19:48:14
1	S 181.975 Axial†	981.1	933.5	1024.4	ug/L	1024.4	ppb	19:48:14
1	Sb 206.836†	1790.3	1770.7	514.90	ug/L	514.90	ppb	19:48:14
1	Se 196.026†	1044.2	1091.9	536.87	ug/L	536.87	ppb	19:48:14
1	Si 251.611†	94456.1	95070.3	2516.7	ug/L	2516.7	ppb	19:47:54
1	Sn 189.927†	3572.1	3619.9	513.16	ug/L	513.16	ppb	19:48:14
1	Ti 334.940†	338953.1	345515.2	507.39	ug/L	507.39	ppb	19:47:54
1	Tl 190.801†	1887.7	1964.2	517.78	ug/L	517.78	ppb	19:48:14
1	U 409.014†	14375.8	17500.5	482.76	ug/L	482.76	ppb	19:47:54
1	V 292.402†	82973.1	85972.2	512.95	ug/L	512.95	ppb	19:47:54
1	Zn 213.857†	65162.6	65181.7	505.01	ug/L	505.01	ppb	19:47:54
1	SiO2†	95155.0	95760.6	5461.4	ug/L	5461.4	ppb	19:49:15
2	Sc Radial	4885.3	4885.3	98.8	%			19:47:00
2	Y RADIAL	5174.6	5174.6	97.54	%			19:47:00
2	Al 396.153Radial†	6386.4	6486.5	5055.5	ug/L	5055.5	ppb	19:47:00
2	Ca 317.933Radial†	3230.4	3248.8	5091.4	ug/L	5091.4	ppb	19:47:20
2	Fe 238.204 Radial†	601.7	595.9	5248.7	ug/L	5248.7	ppb	19:47:20
2	K 766.490 Radial†	29625.4	26657.9	5066.8	ug/L	5066.8	ppb	19:47:00
2	Mg 279.077 IEC†	168.4	167.8	5372.4	ug/L	5372.4	ppb	19:47:20
2	Na 589.592 Radial†	33421.9	35632.0	10109	ug/L	10109	ppb	19:47:00
2	Sr 421.552†	76327.8	77259.2	507.28	ug/L	507.28	ppb	19:47:00
2	Sc 361.383	926365.0	926365.0	98.680	%			19:48:22
2	Y 371.029	798553.5	798553.5	97.609	%			19:48:22
2	Ag 328.068†	120447.1	121592.1	506.20	ug/L	506.20	ppb	19:48:22
2	As 188.979†	1489.1	1543.8	511.93	ug/L	511.93	ppb	19:48:42
2	B 249.677†	24568.7	25293.3	491.59	ug/L	491.59	ppb	19:48:22
2	Ba 233.527†	73501.0	74463.7	507.46	ug/L	507.46	ppb	19:48:22
2	Be 313.107†	1584647.5	1610538.0	512.61	ug/L	512.61	ppb	19:48:22
2	Cd 226.502†	55522.4	56521.5	509.03	ug/L	509.03	ppb	19:48:22
2	Co 228.616†	27869.0	28335.8	498.55	ug/L	498.55	ppb	19:48:42
2	Cr 267.716†	53486.9	54068.4	508.83	ug/L	508.83	ppb	19:48:22
2	Cu 324.752†	182940.7	176903.7	504.72	ug/L	504.72	ppb	19:48:22
2	Mn 257.610†	508024.6	514181.1	510.56	ug/L	510.56	ppb	19:48:22
2	Mo 202.031†	8544.0	8632.8	508.63	ug/L	508.63	ppb	19:48:42
2	Ni 231.604†	24116.8	24300.4	502.74	ug/L	502.74	ppb	19:48:42

2	P 214.914†	5800.5	5606.9	2466.0 ug/L	2466.0 ppb	19:48:42
2	Pb 220.353†	4999.4	5150.9	512.80 ug/L	512.80 ppb	19:48:42
2	S 181.975 Axial†	957.9	909.1	997.56 ug/L	997.56 ppb	19:48:42
2	Sb 206.836†	1790.5	1769.2	514.14 ug/L	514.14 ppb	19:48:42
2	Se 196.026†	1013.7	1059.9	521.35 ug/L	521.35 ppb	19:48:42
2	Si 251.611†	94203.2	94723.5	2507.6 ug/L	2507.6 ppb	19:48:22
2	Sn 189.927†	3533.0	3576.8	507.05 ug/L	507.05 ppb	19:48:42
2	Ti 334.940†	338743.8	344978.1	506.59 ug/L	506.59 ppb	19:48:22
2	Tl 190.801†	1869.2	1943.6	512.43 ug/L	512.43 ppb	19:48:42
2	U 409.014†	14268.6	17378.1	479.39 ug/L	479.39 ppb	19:48:22
2	V 292.402†	82893.2	85811.7	511.88 ug/L	511.88 ppb	19:48:22
2	Zn 213.857†	65082.1	65037.6	503.93 ug/L	503.93 ppb	19:48:22
2	SiO2†	94281.7	94784.3	5405.9 ug/L	5405.9 ppb	19:49:20
3	Sc Radial	4855.6	4855.6	98.2 %		19:47:25
3	Y RADIAL	5134.3	5134.3	96.78 %		19:47:25
3	Al 396.153Radial†	6297.9	6436.1	5012.6 ug/L	5012.6 ppb	19:47:25
3	Ca 317.933Radial†	3247.9	3286.7	5150.7 ug/L	5150.7 ppb	19:47:45
3	Fe 238.204 Radial†	600.6	598.4	5273.5 ug/L	5273.5 ppb	19:47:45
3	K 766.490 Radial†	29421.3	26633.8	5061.3 ug/L	5061.3 ppb	19:47:25
3	Mg 279.077 IEC†	168.7	169.2	5416.8 ug/L	5416.8 ppb	19:47:45
3	Na 589.592 Radial†	33148.1	35560.4	10089 ug/L	10089 ppb	19:47:25
3	Sr 421.552†	75558.4	76949.0	505.25 ug/L	505.25 ppb	19:47:25
3	Sc 361.383	816514.2	816514.2	86.979 %		19:48:49
3	Y 371.029	703802.1	703802.1	86.027 %		19:48:49
3	Ag 328.068†	126214.4	144643.9	601.86 ug/L	601.86 ppb	19:48:49
3	As 188.979†	1532.8	1797.1	595.94 ug/L	595.94 ppb	19:49:09
3	B 249.677†	25848.0	30113.6	585.46 ug/L	585.46 ppb	19:48:49
3	Ba 233.527†	77103.9	88626.8	603.96 ug/L	603.96 ppb	19:48:49
3	Be 313.107†	1668079.9	1922504.2	611.90 ug/L	611.90 ppb	19:48:49
3	Cd 226.502†	58150.1	67112.3	604.49 ug/L	604.49 ppb	19:48:49
3	Co 228.616†	28371.4	32713.0	575.53 ug/L	575.53 ppb	19:49:09
3	Cr 267.716†	56107.7	64373.7	605.79 ug/L	605.79 ppb	19:48:49
3	Cu 324.752†	192784.9	213162.9	608.12 ug/L	608.12 ppb	19:48:49
3	Mn 257.610†	533703.9	612966.4	608.57 ug/L	608.57 ppb	19:48:49
3	Mo 202.031†	8721.0	10001.1	589.17 ug/L	589.17 ppb	19:49:09
3	Ni 231.604†	24528.7	28061.9	580.56 ug/L	580.56 ppb	19:49:09
3	P 214.914†	5911.7	6525.6	2867.1 ug/L	2867.1 ppb	19:49:09
3	Pb 220.353†	5096.6	5944.3	591.66 ug/L	591.66 ppb	19:49:09
3	S 181.975 Axial†	980.0	1065.0	1168.9 ug/L	1168.9 ppb	19:49:09
3	Sb 206.836†	1808.1	2033.5	590.60 ug/L	590.60 ppb	19:49:09
3	Se 196.026†	1040.9	1229.4	602.05 ug/L	602.05 ppb	19:49:09
3	Si 251.611†	98931.0	113002.3	2992.2 ug/L	2992.2 ppb	19:48:49
3	Sn 189.927†	3600.2	4135.8	586.20 ug/L	586.20 ppb	19:49:09
3	Ti 334.940†	356630.7	411725.5	604.57 ug/L	604.57 ppb	19:48:49
3	Tl 190.801†	1903.3	2237.7	590.18 ug/L	590.18 ppb	19:49:09
3	U 409.014†	15298.2	20507.2	565.82 ug/L	565.82 ppb	19:48:49
3	V 292.402†	87268.5	102143.2	609.18 ug/L	609.18 ppb	19:48:49
3	Zn 213.857†	68343.4	77660.2	601.94 ug/L	601.94 ppb	19:48:49
3	SiO2†	93317.6	106529.8	6075.5 ug/L	6075.5 ppb	19:49:25

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	889456.2	94.749	%	6.7293				7.10%
Sc Radial	4816.0	97.4	%	1.93				1.98%
Y 371.029	766517.1	93.693	%	6.6393				7.09%
Y RADIAL	5097.3	96.09	%	1.902				1.98%
Ag 328.068†	129352.7	538.41	ug/L	54.947	538.41	ppb	54.947	10.21%
QC value within limits for Ag 328.068 Recovery = 107.68%								
Al 396.153Radial†	6467.7	5039.5	ug/L	23.45	5039.5	ppb	23.45	0.47%
QC value within limits for Al 396.153Radial Recovery = 100.79%								
As 188.979†	1635.5	542.33	ug/L	46.564	542.33	ppb	46.564	8.59%
QC value within limits for As 188.979 Recovery = 108.47%								
B 249.677†	26896.3	522.80	ug/L	54.265	522.80	ppb	54.265	10.38%
QC value within limits for B 249.677 Recovery = 104.56%								
Ba 233.527†	79278.1	540.26	ug/L	55.169	540.26	ppb	55.169	10.21%
QC value within limits for Ba 233.527 Recovery = 108.05%								
Be 313.107†	1715339.8	545.96	ug/L	57.104	545.96	ppb	57.104	10.46%
QC value within limits for Be 313.107 Recovery = 109.19%								
Ca 317.933Radial†	3288.5	5153.5	ug/L	63.52	5153.5	ppb	63.52	1.23%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.07%
Cd 226.502†            60094.0      541.23 ug/L        54.792      541.23 ppb        54.792  10.12%
   QC value within limits for Cd 226.502  Recovery = 108.25%
Co 228.616†            29938.5      526.74 ug/L        42.426      526.74 ppb        42.426   8.05%
   QC value within limits for Co 228.616  Recovery = 105.35%
Cr 267.716†            57530.9      541.41 ug/L        55.760      541.41 ppb        55.760  10.30%
   QC value within limits for Cr 267.716  Recovery = 108.28%
Cu 324.752†           189044.0      539.34 ug/L        59.562      539.34 ppb        59.562  11.04%
   QC value within limits for Cu 324.752  Recovery = 107.87%
Fe 238.204 Radial†       600.8      5293.0 ug/L         56.59      5293.0 ppb         56.59   1.07%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.86%
K 766.490 Radial†      26646.1      5064.3 ug/L          2.78      5064.3 ppb          2.78   0.05%
   QC value within limits for K 766.490 Radial  Recovery = 101.29%
Mg 279.077 IEC†          169.4      5422.1 ug/L         52.57      5422.1 ppb         52.57   0.97%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.44%
Mn 257.610†           547555.8      543.67 ug/L        56.204      543.67 ppb        56.204  10.34%
   QC value within limits for Mn 257.610  Recovery = 108.73%
Mo 202.031†             9144.0      538.72 ug/L        43.959      538.72 ppb        43.959   8.16%
   QC value within limits for Mo 202.031  Recovery = 107.74%
Na 589.592 Radial†     35623.9       10107 ug/L          17.0       10107 ppb          17.0   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 101.07%
Ni 231.604†            25660.3      530.88 ug/L        43.155      530.88 ppb        43.155   8.13%
   QC value within limits for Ni 231.604  Recovery = 106.18%
P 214.914†              5942.3      2612.9 ug/L        221.02      2612.9 ppb        221.02   8.46%
   QC value within limits for P 214.914  Recovery = 104.52%
Pb 220.353†             5428.5      540.40 ug/L        44.437      540.40 ppb        44.437   8.22%
   QC value within limits for Pb 220.353  Recovery = 108.08%
S 181.975 Axial†         969.2      1063.6 ug/L         92.15      1063.6 ppb         92.15   8.66%
   QC value within limits for S 181.975 Axial  Recovery = 106.36%
Sb 206.836†             1857.8      539.88 ug/L        43.930      539.88 ppb        43.930   8.14%
   QC value within limits for Sb 206.836  Recovery = 107.98%
Se 196.026†             1127.1      553.42 ug/L        42.825      553.42 ppb        42.825   7.74%
   QC value greater than the upper limit for Se 196.026  Recovery = 110.68%
Si 251.611†           100932.0      2672.2 ug/L        277.21      2672.2 ppb        277.21  10.37%
   QC value within limits for Si 251.611  Recovery = 106.89%
Sn 189.927†             3777.5      535.47 ug/L        44.039      535.47 ppb        44.039   8.22%
   QC value within limits for Sn 189.927  Recovery = 107.09%
Sr 421.552†            77121.5      506.38 ug/L         1.038      506.38 ppb         1.038   0.20%
   QC value within limits for Sr 421.552  Recovery = 101.28%
Ti 334.940†           367406.3      539.52 ug/L        56.337      539.52 ppb        56.337  10.44%
   QC value within limits for Ti 334.940  Recovery = 107.90%
Tl 190.801†             2048.5      540.13 ug/L        43.427      540.13 ppb        43.427   8.04%
   QC value within limits for Tl 190.801  Recovery = 108.03%
U 409.014†             18461.9      509.32 ug/L        48.952      509.32 ppb        48.952   9.61%
   QC value within limits for U 409.014  Recovery = 101.86%
V 292.402†             91309.0      544.67 ug/L        55.870      544.67 ppb        55.870  10.26%
   QC value within limits for V 292.402  Recovery = 108.93%
Zn 213.857†            69293.2      536.96 ug/L        56.278      536.96 ppb        56.278  10.48%
   QC value within limits for Zn 213.857  Recovery = 107.39%
SiO2†                  99024.9      5647.6 ug/L        371.59      5647.6 ppb        371.59   6.58%
   QC value within limits for SiO2  Recovery = 105.61%
QC Failed.  Continue with analysis.
```

Sequence No.: 52
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/29/2009 19:51:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4920.7	4920.7	99.5	%			19:53:26
1	Y RADIAL	5255.5	5255.5	99.07	%			19:53:26
1	Al 396.153Radial†	-24.4	-3.2	-2.5559	ug/L	-2.5559	ppb	19:53:26
1	Ca 317.933Radial†	13.7	-7.7	-12.065	ug/L	-12.065	ppb	19:53:46
1	Fe 238.204 Radial†	10.9	-2.3	-20.205	ug/L	-20.205	ppb	19:53:46
1	K 766.490 Radial†	3366.2	49.9	9.5405	ug/L	9.5405	ppb	19:53:26
1	Mg 279.077 IEC†	2.2	-0.5	-14.943	ug/L	-14.943	ppb	19:53:46
1	Na 589.592 Radial†	-2062.3	-275.3	-78.113	ug/L	-78.113	ppb	19:53:26
1	Sr 421.552†	9.9	-1.0	-0.0067	ug/L	-0.0067	ppb	19:53:26
1	Sc 361.383	950123.1	950123.1	101.21	%			19:54:43
1	Y 371.029	828655.0	828655.0	101.29	%			19:54:43
1	Ag 328.068†	507.7	36.0	0.1456	ug/L	0.1456	ppb	19:54:48
1	As 188.979†	-45.8	-10.4	-3.4154	ug/L	-3.4154	ppb	19:55:08
1	B 249.677†	-528.2	-125.8	-2.4513	ug/L	-2.4513	ppb	19:54:48
1	Ba 233.527†	16.4	-3.9	-0.0271	ug/L	-0.0271	ppb	19:55:08
1	Be 313.107†	-4629.5	127.3	0.0403	ug/L	0.0403	ppb	19:54:48
1	Cd 226.502†	-244.6	15.0	0.1370	ug/L	0.1370	ppb	19:55:08
1	Co 228.616†	-95.5	-0.1	-0.0004	ug/L	-0.0004	ppb	19:55:08
1	Cr 267.716†	66.6	-67.9	-0.6375	ug/L	-0.6375	ppb	19:54:48
1	Cu 324.752†	8278.3	-304.0	-0.8680	ug/L	-0.8680	ppb	19:54:48
1	Mn 257.610†	578.6	-64.9	-0.0661	ug/L	-0.0661	ppb	19:54:48
1	Mo 202.031†	31.6	5.8	0.3385	ug/L	0.3385	ppb	19:55:08
1	Ni 231.604†	148.2	7.5	0.1555	ug/L	0.1555	ppb	19:55:08
1	P 214.914†	273.1	-1.4	-0.4637	ug/L	-0.4637	ppb	19:55:08
1	Pb 220.353†	-100.5	-14.7	-1.4557	ug/L	-1.4557	ppb	19:55:08
1	S 181.975 Axial†	60.7	-1.7	-1.8771	ug/L	-1.8771	ppb	19:55:08
1	Sb 206.836†	44.5	-1.3	-0.3193	ug/L	-0.3193	ppb	19:55:08
1	Se 196.026†	-37.6	-4.5	-2.1913	ug/L	-2.1913	ppb	19:55:08
1	Si 251.611†	741.7	-6.6	-0.1866	ug/L	-0.1866	ppb	19:55:08
1	Sn 189.927†	10.5	7.0	0.9876	ug/L	0.9876	ppb	19:55:08
1	Ti 334.940†	-1777.5	-51.4	-0.0744	ug/L	-0.0744	ppb	19:54:48
1	Tl 190.801†	-49.1	0.9	0.2370	ug/L	0.2370	ppb	19:55:08
1	U 409.014†	-3078.4	-122.9	-3.3974	ug/L	-3.3974	ppb	19:54:43
1	V 292.402†	-1825.4	6.5	0.0396	ug/L	0.0396	ppb	19:54:48
1	Zn 213.857†	860.1	-64.8	-0.5050	ug/L	-0.5050	ppb	19:55:08
1	SiO2†	724.8	-41.9	-2.4307	ug/L	-2.4307	ppb	19:56:14
2	Sc Radial	4915.0	4915.0	99.4	%			19:53:51
2	Y RADIAL	5275.6	5275.6	99.45	%			19:53:51
2	Al 396.153Radial†	-29.7	-8.6	-6.7452	ug/L	-6.7452	ppb	19:53:51
2	Ca 317.933Radial†	13.3	-8.0	-12.583	ug/L	-12.583	ppb	19:54:11
2	Fe 238.204 Radial†	11.6	-1.6	-14.378	ug/L	-14.378	ppb	19:54:11
2	K 766.490 Radial†	3323.9	11.2	2.1609	ug/L	2.1609	ppb	19:53:51
2	Mg 279.077 IEC†	6.7	4.1	130.59	ug/L	130.59	ppb	19:54:11
2	Na 589.592 Radial†	-1961.2	-175.9	-49.916	ug/L	-49.916	ppb	19:53:51
2	Sr 421.552†	-10.4	-21.5	-0.1411	ug/L	-0.1411	ppb	19:53:51
2	Sc 361.383	943841.0	943841.0	100.54	%			19:55:13
2	Y 371.029	822300.6	822300.6	100.51	%			19:55:13
2	Ag 328.068†	484.9	16.6	0.0614	ug/L	0.0614	ppb	19:55:18
2	As 188.979†	-37.5	-2.5	-0.8226	ug/L	-0.8226	ppb	19:55:38
2	B 249.677†	-520.0	-121.2	-2.3626	ug/L	-2.3626	ppb	19:55:18
2	Ba 233.527†	18.5	-1.7	-0.0134	ug/L	-0.0134	ppb	19:55:38
2	Be 313.107†	-4603.5	122.7	0.0393	ug/L	0.0393	ppb	19:55:18
2	Cd 226.502†	-258.9	-0.9	-0.0067	ug/L	-0.0067	ppb	19:55:38
2	Co 228.616†	-90.9	3.8	0.0680	ug/L	0.0680	ppb	19:55:38
2	Cr 267.716†	160.0	25.4	0.2376	ug/L	0.2376	ppb	19:55:18
2	Cu 324.752†	8360.7	-167.6	-0.4788	ug/L	-0.4788	ppb	19:55:18
2	Mn 257.610†	560.8	-78.9	-0.0821	ug/L	-0.0821	ppb	19:55:18
2	Mo 202.031†	35.4	9.7	0.5710	ug/L	0.5710	ppb	19:55:38
2	Ni 231.604†	131.5	-8.1	-0.1685	ug/L	-0.1685	ppb	19:55:38

2	P 214.914†	256.4	-16.2	-7.2672	ug/L	-7.2672 ppb	19:55:38
2	Pb 220.353†	-91.8	-6.7	-0.6594	ug/L	-0.6594 ppb	19:55:38
2	S 181.975 Axial†	60.7	-1.3	-1.3940	ug/L	-1.3940 ppb	19:55:38
2	Sb 206.836†	45.9	0.4	0.1074	ug/L	0.1074 ppb	19:55:38
2	Se 196.026†	-30.4	2.4	1.0926	ug/L	1.0926 ppb	19:55:38
2	Si 251.611†	736.5	-6.8	-0.1891	ug/L	-0.1891 ppb	19:55:38
2	Sn 189.927†	-3.8	-7.1	-1.0125	ug/L	-1.0125 ppb	19:55:38
2	Ti 334.940†	-1594.5	118.9	0.1735	ug/L	0.1735 ppb	19:55:18
2	Tl 190.801†	-39.9	9.8	2.5607	ug/L	2.5607 ppb	19:55:38
2	U 409.014†	-2905.0	29.3	0.8134	ug/L	0.8134 ppb	19:55:13
2	V 292.402†	-1914.7	-94.3	-0.5403	ug/L	-0.5403 ppb	19:55:18
2	Zn 213.857†	895.9	-23.6	-0.1866	ug/L	-0.1866 ppb	19:55:38
2	SiO2†	815.3	52.8	3.0113	ug/L	3.0113 ppb	19:56:19
3	Sc Radial	4839.8	4839.8	97.9	%		19:54:16
3	Y RADIAL	5170.0	5170.0	97.46	%		19:54:16
3	Al 396.153Radial†	9.2	30.7	24.014	ug/L	24.014 ppb	19:54:16
3	Ca 317.933Radial†	12.3	-8.9	-13.982	ug/L	-13.982 ppb	19:54:36
3	Fe 238.204 Radial†	12.1	-0.9	-7.7994	ug/L	-7.7994 ppb	19:54:36
3	K 766.490 Radial†	3296.9	35.6	6.8190	ug/L	6.8190 ppb	19:54:16
3	Mg 279.077 IEC†	3.7	1.0	33.531	ug/L	33.531 ppb	19:54:36
3	Na 589.592 Radial†	-2021.5	-268.2	-76.101	ug/L	-76.101 ppb	19:54:16
3	Sr 421.552†	-6.4	-17.5	-0.1150	ug/L	-0.1150 ppb	19:54:16
3	Sc 361.383	964172.8	964172.8	102.71	%		19:55:43
3	Y 371.029	840445.9	840445.9	102.73	%		19:55:43
3	Ag 328.068†	484.5	6.2	0.0242	ug/L	0.0242 ppb	19:55:48
3	As 188.979†	-36.2	-0.4	-0.1280	ug/L	-0.1280 ppb	19:56:08
3	B 249.677†	-527.6	-117.6	-2.2950	ug/L	-2.2950 ppb	19:55:48
3	Ba 233.527†	22.1	1.4	0.0097	ug/L	0.0097 ppb	19:56:08
3	Be 313.107†	-4666.9	157.5	0.0499	ug/L	0.0499 ppb	19:55:48
3	Cd 226.502†	-250.4	12.9	0.1166	ug/L	0.1166 ppb	19:56:08
3	Co 228.616†	-88.6	7.9	0.1406	ug/L	0.1406 ppb	19:56:08
3	Cr 267.716†	139.8	2.4	0.0226	ug/L	0.0226 ppb	19:55:48
3	Cu 324.752†	8247.9	-452.8	-1.2916	ug/L	-1.2916 ppb	19:55:48
3	Mn 257.610†	576.1	-75.7	-0.0765	ug/L	-0.0765 ppb	19:55:48
3	Mo 202.031†	32.0	5.7	0.3352	ug/L	0.3352 ppb	19:56:08
3	Ni 231.604†	134.7	-7.7	-0.1603	ug/L	-0.1603 ppb	19:56:08
3	P 214.914†	245.1	-32.5	-14.527	ug/L	-14.527 ppb	19:56:08
3	Pb 220.353†	-85.5	1.3	0.1417	ug/L	0.1417 ppb	19:56:08
3	S 181.975 Axial†	63.6	0.3	0.3005	ug/L	0.3005 ppb	19:56:08
3	Sb 206.836†	47.8	1.3	0.3736	ug/L	0.3736 ppb	19:56:08
3	Se 196.026†	-30.8	2.7	1.2418	ug/L	1.2418 ppb	19:56:08
3	Si 251.611†	729.7	-28.9	-0.7776	ug/L	-0.7776 ppb	19:56:08
3	Sn 189.927†	3.8	0.3	0.0429	ug/L	0.0429 ppb	19:56:08
3	Ti 334.940†	-1805.0	-52.6	-0.0774	ug/L	-0.0774 ppb	19:55:48
3	Tl 190.801†	-33.1	17.2	4.5028	ug/L	4.5028 ppb	19:56:08
3	U 409.014†	-3047.2	-48.2	-1.3339	ug/L	-1.3339 ppb	19:55:43
3	V 292.402†	-1859.4	-0.3	0.0025	ug/L	0.0025 ppb	19:55:48
3	Zn 213.857†	879.6	-58.3	-0.4534	ug/L	-0.4534 ppb	19:56:08
3	SiO2†	721.5	-55.6	-3.2019	ug/L	-3.2019 ppb	19:56:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	952712.3	101.49	%	1.109				1.09%
Sc Radial	4891.8	98.9	%	0.91				0.92%
Y 371.029	830467.2	101.51	%	1.125				1.11%
Y RADIAL	5233.7	98.66	%	1.057				1.07%
Ag 328.068†	19.6	0.0770	ug/L	0.06218	0.0770	ppb	0.06218	80.72%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.3	4.9044	ug/L	16.68170	4.9044	ppb	16.68170	340.14%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-4.4	-1.4554	ug/L	1.73264	-1.4554	ppb	1.73264	119.05%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-121.5	-2.3696	ug/L	0.07838	-2.3696	ppb	0.07838	3.31%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.4	-0.0103	ug/L	0.01859	-0.0103	ppb	0.01859	180.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	135.8	0.0432	ug/L	0.00584	0.0432	ppb	0.00584	13.52%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-8.2	-12.877	ug/L	0.9916	-12.877	ppb	0.9916	7.70%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                 9.0      0.0823 ug/L       0.07774      0.0823 ppb        0.07774  94.43%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.9      0.0694 ug/L       0.07052      0.0694 ppb        0.07052 101.58%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -13.4     -0.1258 ug/L       0.45602     -0.1258 ppb        0.45602 362.51%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -308.2     -0.8795 ug/L       0.40656     -0.8795 ppb        0.40656  46.23%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -1.6     -14.127 ug/L        6.2064     -14.127 ppb         6.2064  43.93%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          32.3      6.1734 ug/L       3.73190      6.1734 ppb        3.73190  60.45%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.6      49.726 ug/L       74.1060      49.726 ppb        74.1060 149.03%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -73.1     -0.0749 ug/L       0.00811     -0.0749 ppb        0.00811  10.83%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 7.1      0.4149 ug/L       0.13520      0.4149 ppb        0.13520  32.59%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -239.8     -68.043 ug/L       15.7306     -68.043 ppb        15.7306  23.12%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -2.8     -0.0578 ug/L       0.18475     -0.0578 ppb        0.18475 319.82%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -16.7     -7.4193 ug/L       7.03279     -7.4193 ppb        7.03279  94.79%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.7     -0.6578 ug/L       0.79872     -0.6578 ppb        0.79872 121.42%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.9     -0.9902 ug/L       1.14355     -0.9902 ppb        1.14355 115.49%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.1      0.0539 ug/L       0.34952      0.0539 ppb        0.34952 648.32%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 0.2      0.0477 ug/L       1.94048      0.0477 ppb        1.94048 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               -14.1     -0.3845 ug/L       0.34049     -0.3845 ppb        0.34049  88.56%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.1      0.0060 ug/L       1.00057      0.0060 ppb        1.00057 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -13.4     -0.0876 ug/L       0.07126     -0.0876 ppb        0.07126  81.35%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 4.9      0.0072 ug/L       0.14404      0.0072 ppb        0.14404 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 9.3      2.4335 ug/L       2.13574      2.4335 ppb        2.13574  87.76%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -47.3     -1.3059 ug/L       2.10554     -1.3059 ppb        2.10554 161.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -29.4     -0.1661 ug/L       0.32461     -0.1661 ppb        0.32461 195.47%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               -48.9     -0.3816 ug/L       0.17089     -0.3816 ppb        0.17089  44.78%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -14.9     -0.8738 ug/L       3.38656     -0.8738 ppb        3.38656 387.58%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 60
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/29/2009 20:47:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4802.5	4802.5	97.1	%			20:49:23
1	Y RADIAL	5061.3	5061.3	95.41	%			20:49:23
1	Al 396.153Radial†	6223.3	6430.0	5011.3	ug/L	5011.3	ppb	20:49:23
1	Ca 317.933Radial†	3155.6	3228.2	5059.0	ug/L	5059.0	ppb	20:49:43
1	Fe 238.204 Radial†	593.9	598.3	5269.7	ug/L	5269.7	ppb	20:49:43
1	K 766.490 Radial†	28850.6	26376.8	5013.3	ug/L	5013.3	ppb	20:49:23
1	Mg 279.077 IEC†	166.2	168.5	5393.5	ug/L	5393.5	ppb	20:49:43
1	Na 589.592 Radial†	33253.3	36041.4	10226	ug/L	10226	ppb	20:49:23
1	Sr 421.552†	75002.7	77226.2	507.07	ug/L	507.07	ppb	20:49:23
1	Sc 361.383	926909.5	926909.5	98.738	%			20:50:42
1	Y 371.029	798543.3	798543.3	97.608	%			20:50:42
1	Ag 328.068†	120204.1	121274.3	504.89	ug/L	504.89	ppb	20:50:42
1	As 188.979†	1480.6	1534.3	508.81	ug/L	508.81	ppb	20:51:02
1	B 249.677†	24444.0	25152.4	488.85	ug/L	488.85	ppb	20:50:42
1	Ba 233.527†	73211.5	74126.8	505.17	ug/L	505.17	ppb	20:50:42
1	Be 313.107†	1577878.9	1602739.6	510.12	ug/L	510.12	ppb	20:50:42
1	Cd 226.502†	55052.6	56012.6	504.44	ug/L	504.44	ppb	20:50:42
1	Co 228.616†	27688.9	28136.9	495.05	ug/L	495.05	ppb	20:51:02
1	Cr 267.716†	53173.7	53719.3	505.55	ug/L	505.55	ppb	20:50:42
1	Cu 324.752†	182735.5	176586.9	503.82	ug/L	503.82	ppb	20:50:42
1	Mn 257.610†	505808.2	511633.9	508.03	ug/L	508.03	ppb	20:50:42
1	Mo 202.031†	8540.6	8624.2	508.13	ug/L	508.13	ppb	20:51:02
1	Ni 231.604†	23989.3	24156.9	499.77	ug/L	499.77	ppb	20:51:02
1	P 214.914†	5738.7	5540.9	2436.1	ug/L	2436.1	ppb	20:51:02
1	Pb 220.353†	4962.7	5110.8	508.81	ug/L	508.81	ppb	20:51:02
1	S 181.975 Axial†	951.0	901.5	989.24	ug/L	989.24	ppb	20:51:02
1	Sb 206.836†	1769.0	1746.4	507.60	ug/L	507.60	ppb	20:51:02
1	Se 196.026†	1005.4	1050.9	517.13	ug/L	517.13	ppb	20:51:02
1	Si 251.611†	93881.4	94341.5	2497.5	ug/L	2497.5	ppb	20:50:42
1	Sn 189.927†	3499.6	3540.9	501.96	ug/L	501.96	ppb	20:51:02
1	Ti 334.940†	337500.3	343517.1	504.45	ug/L	504.45	ppb	20:50:42
1	Tl 190.801†	1842.1	1915.1	504.94	ug/L	504.94	ppb	20:51:02
1	U 409.014†	14014.6	17112.3	472.04	ug/L	472.04	ppb	20:50:42
1	V 292.402†	82534.1	85398.6	509.42	ug/L	509.42	ppb	20:50:42
1	Zn 213.857†	64678.5	64590.1	500.45	ug/L	500.45	ppb	20:50:42
1	SiO2†	93758.8	94198.6	5372.4	ug/L	5372.4	ppb	20:52:02
2	Sc Radial	4852.8	4852.8	98.1	%			20:49:48
2	Y RADIAL	5139.1	5139.1	96.88	%			20:49:48
2	Al 396.153Radial†	6277.5	6418.9	5002.6	ug/L	5002.6	ppb	20:49:48
2	Ca 317.933Radial†	3193.5	3233.2	5066.8	ug/L	5066.8	ppb	20:50:08
2	Fe 238.204 Radial†	599.5	597.7	5264.4	ug/L	5264.4	ppb	20:50:08
2	K 766.490 Radial†	29056.8	26279.5	4994.8	ug/L	4994.8	ppb	20:49:48
2	Mg 279.077 IEC†	166.8	167.3	5355.2	ug/L	5355.2	ppb	20:50:08
2	Na 589.592 Radial†	33547.3	35986.7	10210	ug/L	10210	ppb	20:49:48
2	Sr 421.552†	75861.5	77302.2	507.56	ug/L	507.56	ppb	20:49:48
2	Sc 361.383	928594.8	928594.8	98.918	%			20:51:10
2	Y 371.029	801321.0	801321.0	97.947	%			20:51:10
2	Ag 328.068†	120386.6	121237.8	504.73	ug/L	504.73	ppb	20:51:10
2	As 188.979†	1472.6	1523.6	505.27	ug/L	505.27	ppb	20:51:30
2	B 249.677†	24485.1	25149.0	488.79	ug/L	488.79	ppb	20:51:10
2	Ba 233.527†	73302.1	74083.8	504.87	ug/L	504.87	ppb	20:51:10
2	Be 313.107†	1582043.5	1604049.4	510.54	ug/L	510.54	ppb	20:51:10
2	Cd 226.502†	55117.7	55977.2	504.12	ug/L	504.12	ppb	20:51:10
2	Co 228.616†	27741.7	28139.3	495.09	ug/L	495.09	ppb	20:51:30
2	Cr 267.716†	53308.6	53758.0	505.91	ug/L	505.91	ppb	20:51:10
2	Cu 324.752†	182848.4	176365.2	503.19	ug/L	503.19	ppb	20:51:10
2	Mn 257.610†	505935.4	510832.7	507.24	ug/L	507.24	ppb	20:51:10
2	Mo 202.031†	8529.4	8597.2	506.54	ug/L	506.54	ppb	20:51:30
2	Ni 231.604†	23976.2	24099.5	498.59	ug/L	498.59	ppb	20:51:30

2	P 214.914†	5735.5	5527.0	2430.0 ug/L	2430.0 ppb	20:51:30
2	Pb 220.353†	4994.8	5134.1	511.12 ug/L	511.12 ppb	20:51:30
2	S 181.975 Axial†	970.7	919.6	1009.1 ug/L	1009.1 ppb	20:51:30
2	Sb 206.836†	1781.4	1755.6	510.19 ug/L	510.19 ppb	20:51:30
2	Se 196.026†	1025.1	1069.0	525.70 ug/L	525.70 ppb	20:51:30
2	Si 251.611†	93932.6	94220.6	2494.3 ug/L	2494.3 ppb	20:51:10
2	Sn 189.927†	3503.4	3538.3	501.59 ug/L	501.59 ppb	20:51:30
2	Ti 334.940†	337764.6	343163.9	503.93 ug/L	503.93 ppb	20:51:10
2	Tl 190.801†	1837.0	1906.5	502.70 ug/L	502.70 ppb	20:51:30
2	U 409.014†	14173.0	17246.7	475.76 ug/L	475.76 ppb	20:51:10
2	V 292.402†	82605.0	85318.6	508.94 ug/L	508.94 ppb	20:51:10
2	Zn 213.857†	64827.1	64621.5	500.71 ug/L	500.71 ppb	20:51:10
2	SiO2†	93996.2	94266.3	5376.4 ug/L	5376.4 ppb	20:52:08
3	Sc Radial	4911.7	4911.7	99.3 %		20:50:13
3	Y RADIAL	5212.4	5212.4	98.26 %		20:50:13
3	Al 396.153Radial†	6355.3	6420.6	5003.7 ug/L	5003.7 ppb	20:50:13
3	Ca 317.933Radial†	3207.1	3207.8	5027.0 ug/L	5027.0 ppb	20:50:33
3	Fe 238.204 Radial†	602.7	593.6	5228.4 ug/L	5228.4 ppb	20:50:33
3	K 766.490 Radial†	29456.8	26327.1	5003.8 ug/L	5003.8 ppb	20:50:13
3	Mg 279.077 IEC†	166.5	164.9	5278.9 ug/L	5278.9 ppb	20:50:33
3	Na 589.592 Radial†	33875.6	35907.3	10188 ug/L	10188 ppb	20:50:13
3	Sr 421.552†	76203.3	76719.2	503.74 ug/L	503.74 ppb	20:50:13
3	Sc 361.383	915388.0	915388.0	97.511 %		20:51:37
3	Y 371.029	789928.9	789928.9	96.555 %		20:51:37
3	Ag 328.068†	119684.1	122273.2	509.02 ug/L	509.02 ppb	20:51:37
3	As 188.979†	1479.5	1552.1	514.68 ug/L	514.68 ppb	20:51:57
3	B 249.677†	24262.6	25278.0	491.29 ug/L	491.29 ppb	20:51:37
3	Ba 233.527†	72808.3	74646.6	508.71 ug/L	508.71 ppb	20:51:37
3	Be 313.107†	1573702.8	1618570.5	515.16 ug/L	515.16 ppb	20:51:37
3	Cd 226.502†	54748.0	56402.0	507.95 ug/L	507.95 ppb	20:51:37
3	Co 228.616†	27726.7	28528.6	501.94 ug/L	501.94 ppb	20:51:57
3	Cr 267.716†	53059.7	54280.2	510.83 ug/L	510.83 ppb	20:51:37
3	Cu 324.752†	181498.3	177647.5	506.84 ug/L	506.84 ppb	20:51:37
3	Mn 257.610†	502917.0	515116.6	511.49 ug/L	511.49 ppb	20:51:37
3	Mo 202.031†	8514.3	8706.1	512.94 ug/L	512.94 ppb	20:51:57
3	Ni 231.604†	23979.9	24453.1	505.90 ug/L	505.90 ppb	20:51:57
3	P 214.914†	5739.7	5615.0	2469.4 ug/L	2469.4 ppb	20:51:57
3	Pb 220.353†	4977.7	5189.4	516.62 ug/L	516.62 ppb	20:51:57
3	S 181.975 Axial†	954.0	916.6	1005.9 ug/L	1005.9 ppb	20:51:57
3	Sb 206.836†	1749.5	1748.9	508.42 ug/L	508.42 ppb	20:51:57
3	Se 196.026†	1019.5	1078.2	529.97 ug/L	529.97 ppb	20:51:57
3	Si 251.611†	93351.4	94994.7	2514.8 ug/L	2514.8 ppb	20:51:37
3	Sn 189.927†	3504.9	3591.0	509.05 ug/L	509.05 ppb	20:51:57
3	Ti 334.940†	335936.0	346215.0	508.41 ug/L	508.41 ppb	20:51:37
3	Tl 190.801†	1846.8	1943.4	512.36 ug/L	512.36 ppb	20:51:57
3	U 409.014†	13947.7	17222.3	475.08 ug/L	475.08 ppb	20:51:37
3	V 292.402†	82340.9	86252.6	514.52 ug/L	514.52 ppb	20:51:37
3	Zn 213.857†	64479.5	65210.6	505.26 ug/L	505.26 ppb	20:51:37
3	SiO2†	93473.5	95101.3	5423.9 ug/L	5423.9 ppb	20:52:13

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	923630.8	98.389	%	0.7657				0.78%
Sc Radial	4855.7	98.2	%	1.10				1.12%
Y 371.029	796597.7	97.370	%	0.7261				0.75%
Y RADIAL	5137.6	96.85	%	1.425				1.47%
Ag 328.068†	121595.1	506.21	ug/L	2.435	506.21	ppb	2.435	0.48%
QC value within limits for Ag 328.068 Recovery = 101.24%								
Al 396.153Radial†	6423.2	5005.9	ug/L	4.73	5005.9	ppb	4.73	0.09%
QC value within limits for Al 396.153Radial Recovery = 100.12%								
As 188.979†	1536.7	509.58	ug/L	4.756	509.58	ppb	4.756	0.93%
QC value within limits for As 188.979 Recovery = 101.92%								
B 249.677†	25193.1	489.64	ug/L	1.427	489.64	ppb	1.427	0.29%
QC value within limits for B 249.677 Recovery = 97.93%								
Ba 233.527†	74285.7	506.25	ug/L	2.136	506.25	ppb	2.136	0.42%
QC value within limits for Ba 233.527 Recovery = 101.25%								
Be 313.107†	1608453.2	511.94	ug/L	2.796	511.94	ppb	2.796	0.55%
QC value within limits for Be 313.107 Recovery = 102.39%								
Ca 317.933Radial†	3223.1	5051.0	ug/L	21.09	5051.0	ppb	21.09	0.42%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.02%
Cd 226.502†            56130.6      505.50 ug/L         2.128      505.50 ppb          2.128   0.42%
   QC value within limits for Cd 226.502  Recovery = 101.10%
Co 228.616†            28268.3      497.36 ug/L         3.968      497.36 ppb          3.968   0.80%
   QC value within limits for Co 228.616  Recovery = 99.47%
Cr 267.716†            53919.2      507.43 ug/L         2.948      507.43 ppb          2.948   0.58%
   QC value within limits for Cr 267.716  Recovery = 101.49%
Cu 324.752†           176866.6      504.62 ug/L         1.953      504.62 ppb          1.953   0.39%
   QC value within limits for Cu 324.752  Recovery = 100.92%
Fe 238.204 Radial†       596.5      5254.1 ug/L        22.47      5254.1 ppb          22.47   0.43%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.08%
K 766.490 Radial†      26327.8      5004.0 ug/L         9.26      5004.0 ppb           9.26   0.18%
   QC value within limits for K 766.490 Radial  Recovery = 100.08%
Mg 279.077 IEC†          166.9      5342.5 ug/L        58.31      5342.5 ppb          58.31   1.09%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.85%
Mn 257.610†           512527.8      508.92 ug/L         2.258      508.92 ppb          2.258   0.44%
   QC value within limits for Mn 257.610  Recovery = 101.78%
Mo 202.031†             8642.5      509.20 ug/L         3.335      509.20 ppb          3.335   0.65%
   QC value within limits for Mo 202.031  Recovery = 101.84%
Na 589.592 Radial†     35978.5       10208 ug/L          19.1       10208 ppb           19.1   0.19%
   QC value within limits for Na 589.592 Radial  Recovery = 102.08%
Ni 231.604†            24236.5      501.42 ug/L         3.926      501.42 ppb          3.926   0.78%
   QC value within limits for Ni 231.604  Recovery = 100.28%
P 214.914†              5561.0      2445.2 ug/L        21.21      2445.2 ppb          21.21   0.87%
   QC value within limits for P 214.914  Recovery = 97.81%
Pb 220.353†             5144.7      512.19 ug/L         4.012      512.19 ppb          4.012   0.78%
   QC value within limits for Pb 220.353  Recovery = 102.44%
S 181.975 Axial†         912.6      1001.4 ug/L        10.67      1001.4 ppb          10.67   1.07%
   QC value within limits for S 181.975 Axial  Recovery = 100.14%
Sb 206.836†             1750.3      508.74 ug/L         1.324      508.74 ppb          1.324   0.26%
   QC value within limits for Sb 206.836  Recovery = 101.75%
Se 196.026†             1066.0      524.27 ug/L         6.538      524.27 ppb          6.538   1.25%
   QC value within limits for Se 196.026  Recovery = 104.85%
Si 251.611†            94518.9      2502.2 ug/L        11.01      2502.2 ppb          11.01   0.44%
   QC value within limits for Si 251.611  Recovery = 100.09%
Sn 189.927†             3556.7      504.20 ug/L         4.203      504.20 ppb          4.203   0.83%
   QC value within limits for Sn 189.927  Recovery = 100.84%
Sr 421.552†            77082.5      506.12 ug/L         2.081      506.12 ppb          2.081   0.41%
   QC value within limits for Sr 421.552  Recovery = 101.22%
Ti 334.940†           344298.7      505.60 ug/L         2.449      505.60 ppb          2.449   0.48%
   QC value within limits for Ti 334.940  Recovery = 101.12%
Tl 190.801†             1921.7      506.67 ug/L         5.060      506.67 ppb          5.060   1.00%
   QC value within limits for Tl 190.801  Recovery = 101.33%
U 409.014†             17193.8      474.29 ug/L         1.981      474.29 ppb          1.981   0.42%
   QC value within limits for U 409.014  Recovery = 94.86%
V 292.402†             85656.6      510.96 ug/L         3.094      510.96 ppb          3.094   0.61%
   QC value within limits for V 292.402  Recovery = 102.19%
Zn 213.857†            64807.4      502.14 ug/L         2.707      502.14 ppb          2.707   0.54%
   QC value within limits for Zn 213.857  Recovery = 100.43%
SiO2†                  94522.1      5390.9 ug/L        28.66      5390.9 ppb          28.66   0.53%
   QC value within limits for SiO2  Recovery = 100.81%
All analyte(s) passed QC.
```

Sequence No.: 61
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/29/2009 20:54:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4823.2	4823.2	97.5	%			20:56:14
1	Y RADIAL	5149.9	5149.9	97.08	%			20:56:14
1	Al 396.153Radial†	12.1	33.7	26.387	ug/L	26.387	ppb	20:56:14
1	Ca 317.933Radial†	21.3	0.4	0.5598	ug/L	0.5598	ppb	20:56:34
1	Fe 238.204 Radial†	12.8	-0.2	-1.5971	ug/L	-1.5971	ppb	20:56:34
1	K 766.490 Radial†	3179.5	-73.2	-13.895	ug/L	-13.895	ppb	20:56:14
1	Mg 279.077 IEC†	3.3	0.6	20.276	ug/L	20.276	ppb	20:56:34
1	Na 589.592 Radial†	-2061.0	-315.9	-89.618	ug/L	-89.618	ppb	20:56:14
1	Sr 421.552†	-11.6	-22.9	-0.1502	ug/L	-0.1502	ppb	20:56:14
1	Sc 361.383	937144.7	937144.7	99.829	%			20:57:31
1	Y 371.029	817547.7	817547.7	99.931	%			20:57:31
1	Ag 328.068†	451.3	-13.5	-0.0570	ug/L	-0.0570	ppb	20:57:36
1	As 188.979†	-45.7	-10.9	-3.5848	ug/L	-3.5848	ppb	20:57:56
1	B 249.677†	-570.6	-175.5	-3.4256	ug/L	-3.4256	ppb	20:57:36
1	Ba 233.527†	12.8	-7.2	-0.0490	ug/L	-0.0490	ppb	20:57:56
1	Be 313.107†	-4471.6	222.1	0.0703	ug/L	0.0703	ppb	20:57:36
1	Cd 226.502†	-258.2	-2.0	-0.0180	ug/L	-0.0180	ppb	20:57:56
1	Co 228.616†	-73.1	21.0	0.3703	ug/L	0.3703	ppb	20:57:56
1	Cr 267.716†	81.5	-52.1	-0.4900	ug/L	-0.4900	ppb	20:57:36
1	Cu 324.752†	8213.6	-255.5	-0.7287	ug/L	-0.7287	ppb	20:57:36
1	Mn 257.610†	574.7	-60.9	-0.0609	ug/L	-0.0609	ppb	20:57:36
1	Mo 202.031†	28.7	3.3	0.1925	ug/L	0.1925	ppb	20:57:56
1	Ni 231.604†	156.0	17.4	0.3603	ug/L	0.3603	ppb	20:57:56
1	P 214.914†	259.2	-11.6	-5.1072	ug/L	-5.1072	ppb	20:57:56
1	Pb 220.353†	-80.6	3.9	0.3948	ug/L	0.3948	ppb	20:57:56
1	S 181.975 Axial†	57.1	-4.5	-4.9636	ug/L	-4.9636	ppb	20:57:56
1	Sb 206.836†	53.6	8.5	2.4533	ug/L	2.4533	ppb	20:57:56
1	Se 196.026†	-41.1	-8.5	-4.0160	ug/L	-4.0160	ppb	20:57:56
1	Si 251.611†	739.9	1.8	0.0474	ug/L	0.0474	ppb	20:57:56
1	Sn 189.927†	5.9	2.5	0.3505	ug/L	0.3505	ppb	20:57:56
1	Ti 334.940†	-1788.8	-87.1	-0.1282	ug/L	-0.1282	ppb	20:57:36
1	Tl 190.801†	-53.0	-3.6	-0.9452	ug/L	-0.9452	ppb	20:57:56
1	U 409.014†	-2881.0	32.7	0.9058	ug/L	0.9058	ppb	20:57:31
1	V 292.402†	-1800.1	6.9	0.0462	ug/L	0.0462	ppb	20:57:36
1	Zn 213.857†	885.7	-27.5	-0.2168	ug/L	-0.2168	ppb	20:57:56
1	SiO2†	775.4	18.7	1.0723	ug/L	1.0723	ppb	20:59:02
2	Sc Radial	4731.8	4731.8	95.7	%			20:56:40
2	Y RADIAL	5086.0	5086.0	95.87	%			20:56:40
2	Al 396.153Radial†	-6.9	14.1	11.078	ug/L	11.078	ppb	20:56:40
2	Ca 317.933Radial†	17.8	-2.9	-4.4714	ug/L	-4.4714	ppb	20:57:00
2	Fe 238.204 Radial†	12.8	0.2	1.3632	ug/L	1.3632	ppb	20:57:00
2	K 766.490 Radial†	3295.1	110.6	21.102	ug/L	21.102	ppb	20:56:40
2	Mg 279.077 IEC†	4.8	2.3	72.452	ug/L	72.452	ppb	20:57:00
2	Na 589.592 Radial†	-2041.7	-336.5	-95.464	ug/L	-95.464	ppb	20:56:40
2	Sr 421.552†	-18.3	-30.2	-0.1981	ug/L	-0.1981	ppb	20:56:40
2	Sc 361.383	934224.1	934224.1	99.518	%			20:58:02
2	Y 371.029	815876.3	815876.3	99.726	%			20:58:02
2	Ag 328.068†	538.1	75.1	0.3104	ug/L	0.3104	ppb	20:58:07
2	As 188.979†	-39.9	-5.3	-1.7411	ug/L	-1.7411	ppb	20:58:27
2	B 249.677†	-583.9	-190.6	-3.7204	ug/L	-3.7204	ppb	20:58:07
2	Ba 233.527†	13.0	-7.0	-0.0486	ug/L	-0.0486	ppb	20:58:27
2	Be 313.107†	-4469.5	210.2	0.0661	ug/L	0.0661	ppb	20:58:07
2	Cd 226.502†	-239.8	15.7	0.1415	ug/L	0.1415	ppb	20:58:27
2	Co 228.616†	-79.0	14.8	0.2612	ug/L	0.2612	ppb	20:58:27
2	Cr 267.716†	125.3	-7.9	-0.0741	ug/L	-0.0741	ppb	20:58:07
2	Cu 324.752†	8143.4	-300.4	-0.8565	ug/L	-0.8565	ppb	20:58:07
2	Mn 257.610†	546.2	-87.8	-0.0883	ug/L	-0.0883	ppb	20:58:07
2	Mo 202.031†	24.2	-1.1	-0.0662	ug/L	-0.0662	ppb	20:58:27
2	Ni 231.604†	154.1	15.9	0.3291	ug/L	0.3291	ppb	20:58:27

2	P 214.914†	256.1	-13.9	-6.1285	ug/L	-6.1285 ppb	20:58:27
2	Pb 220.353†	-84.8	-0.6	-0.0590	ug/L	-0.0590 ppb	20:58:27
2	S 181.975 Axial†	62.3	0.9	0.9929	ug/L	0.9929 ppb	20:58:27
2	Sb 206.836†	29.1	-16.0	-4.5494	ug/L	-4.5494 ppb	20:58:27
2	Se 196.026†	-32.7	-0.2	-0.0917	ug/L	-0.0917 ppb	20:58:27
2	Si 251.611†	727.5	-8.4	-0.2329	ug/L	-0.2329 ppb	20:58:27
2	Sn 189.927†	13.1	9.7	1.3756	ug/L	1.3756 ppb	20:58:27
2	Ti 334.940†	-1914.2	-218.7	-0.3210	ug/L	-0.3210 ppb	20:58:07
2	Tl 190.801†	-37.6	11.7	3.0538	ug/L	3.0538 ppb	20:58:27
2	U 409.014†	-2939.6	-35.1	-0.9725	ug/L	-0.9725 ppb	20:58:02
2	V 292.402†	-1863.9	-62.9	-0.3711	ug/L	-0.3711 ppb	20:58:07
2	Zn 213.857†	887.9	-22.5	-0.1794	ug/L	-0.1794 ppb	20:58:27
2	SiO2†	775.4	21.1	1.1862	ug/L	1.1862 ppb	20:59:07
3	Sc Radial	4835.7	4835.7	97.8	%		20:57:05
3	Y RADIAL	5186.3	5186.3	97.76	%		20:57:05
3	Al 396.153Radial†	-17.1	3.8	2.9722	ug/L	2.9722 ppb	20:57:05
3	Ca 317.933Radial†	13.6	-7.5	-11.814	ug/L	-11.814 ppb	20:57:25
3	Fe 238.204 Radial†	10.8	-2.3	-19.971	ug/L	-19.971 ppb	20:57:25
3	K 766.490 Radial†	3079.0	-184.4	-35.077	ug/L	-35.077 ppb	20:57:05
3	Mg 279.077 IEC†	4.7	2.1	67.669	ug/L	67.669 ppb	20:57:25
3	Na 589.592 Radial†	-2007.5	-255.7	-72.544	ug/L	-72.544 ppb	20:57:05
3	Sr 421.552†	-4.7	-15.8	-0.1035	ug/L	-0.1035 ppb	20:57:05
3	Sc 361.383	937680.1	937680.1	99.886	%		20:58:32
3	Y 371.029	818803.8	818803.8	100.08	%		20:58:32
3	Ag 328.068†	552.5	87.6	0.3617	ug/L	0.3617 ppb	20:58:37
3	As 188.979†	-29.3	5.5	1.8113	ug/L	1.8113 ppb	20:58:57
3	B 249.677†	-567.5	-172.1	-3.3557	ug/L	-3.3557 ppb	20:58:37
3	Ba 233.527†	10.1	-10.0	-0.0696	ug/L	-0.0696 ppb	20:58:57
3	Be 313.107†	-4566.1	130.0	0.0412	ug/L	0.0412 ppb	20:58:37
3	Cd 226.502†	-252.0	4.4	0.0418	ug/L	0.0418 ppb	20:58:57
3	Co 228.616†	-101.6	-7.5	-0.1295	ug/L	-0.1295 ppb	20:58:57
3	Cr 267.716†	141.9	8.3	0.0800	ug/L	0.0800 ppb	20:58:37
3	Cu 324.752†	8217.6	-256.2	-0.7316	ug/L	-0.7316 ppb	20:58:37
3	Mn 257.610†	567.0	-69.0	-0.0717	ug/L	-0.0717 ppb	20:58:37
3	Mo 202.031†	39.3	13.9	0.8138	ug/L	0.8138 ppb	20:58:57
3	Ni 231.604†	145.4	6.6	0.1372	ug/L	0.1372 ppb	20:58:57
3	P 214.914†	252.7	-18.2	-8.1382	ug/L	-8.1382 ppb	20:58:57
3	Pb 220.353†	-84.8	-0.3	-0.0248	ug/L	-0.0248 ppb	20:58:57
3	S 181.975 Axial†	60.7	-0.9	-1.0297	ug/L	-1.0297 ppb	20:58:57
3	Sb 206.836†	51.1	5.9	1.6971	ug/L	1.6971 ppb	20:58:57
3	Se 196.026†	-42.3	-9.7	-4.6645	ug/L	-4.6645 ppb	20:58:57
3	Si 251.611†	753.0	14.5	0.3855	ug/L	0.3855 ppb	20:58:57
3	Sn 189.927†	-4.0	-7.4	-1.0514	ug/L	-1.0514 ppb	20:58:57
3	Ti 334.940†	-1746.8	-44.0	-0.0612	ug/L	-0.0612 ppb	20:58:37
3	Tl 190.801†	-41.8	7.6	1.9809	ug/L	1.9809 ppb	20:58:57
3	U 409.014†	-3251.7	-336.7	-9.3190	ug/L	-9.3190 ppb	20:58:32
3	V 292.402†	-1894.1	-86.2	-0.5095	ug/L	-0.5095 ppb	20:58:37
3	Zn 213.857†	899.5	-14.1	-0.1118	ug/L	-0.1118 ppb	20:58:57
3	SiO2†	797.5	40.4	2.3182	ug/L	2.3182 ppb	20:59:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	936349.6	99.744	%	0.1981				0.20%
Sc Radial	4796.9	97.0	%	1.15				1.18%
Y 371.029	817409.3	99.914	%	0.1795				0.18%
Y RADIAL	5140.7	96.91	%	0.957				0.99%
Ag 328.068†	49.7	0.2050	ug/L	0.22838	0.2050	ppb	0.22838	111.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	17.2	13.479	ug/L	11.8909	13.479	ppb	11.8909	88.22%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.6	-1.1715	ug/L	2.74279	-1.1715	ppb	2.74279	234.12%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-179.4	-3.5006	ug/L	0.19353	-3.5006	ppb	0.19353	5.53%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-8.1	-0.0557	ug/L	0.01202	-0.0557	ppb	0.01202	21.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	187.4	0.0592	ug/L	0.01575	0.0592	ppb	0.01575	26.61%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-3.3	-5.2419	ug/L	6.22282	-5.2419	ppb	6.22282	118.71%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                6.0      0.0551 ug/L       0.08056      0.0551 ppb        0.08056 146.19%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                9.4      0.1673 ug/L       0.26278      0.1673 ppb        0.26278 157.03%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -17.2     -0.1614 ug/L       0.29481     -0.1614 ppb        0.29481 182.67%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -270.7     -0.7723 ug/L       0.07297     -0.7723 ppb        0.07297   9.45%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.8     -6.7351 ug/L      11.55819     -6.7351 ppb       11.55819 171.61%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -49.0     -9.2901 ug/L      28.37117     -9.2901 ppb       28.37117 305.39%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.7      53.466 ug/L       28.8424      53.466 ppb        28.8424  53.95%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -72.5     -0.0736 ug/L       0.01378     -0.0736 ppb        0.01378  18.72%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                5.3      0.3134 ug/L       0.45227      0.3134 ppb        0.45227 144.33%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -302.7     -85.875 ug/L       11.9097     -85.875 ppb        11.9097  13.87%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               13.3      0.2755 ug/L       0.12081      0.2755 ppb        0.12081  43.84%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -14.5     -6.4580 ug/L       1.54213     -6.4580 ppb        1.54213  23.88%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                1.0      0.1037 ug/L       0.25269      0.1037 ppb        0.25269 243.72%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.5     -1.6668 ug/L       3.02895     -1.6668 ppb        3.02895 181.73%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -0.5     -0.1330 ug/L       3.84339     -0.1330 ppb        3.84339 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -6.1     -2.9241 ug/L       2.47422     -2.9241 ppb        2.47422  84.62%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                2.6      0.0667 ug/L       0.30963      0.0667 ppb        0.30963 464.34%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.6      0.2249 ug/L       1.21834      0.2249 ppb        1.21834 541.75%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -22.9     -0.1506 ug/L       0.04730     -0.1506 ppb        0.04730  31.40%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -116.6     -0.1701 ug/L       0.13491     -0.1701 ppb        0.13491  79.30%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                5.2      1.3632 ug/L       2.06982      1.3632 ppb        2.06982 151.84%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -113.1     -3.1286 ug/L       5.44268     -3.1286 ppb        5.44268 173.97%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -47.4     -0.2781 ug/L       0.28925     -0.2781 ppb        0.28925 104.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -21.4     -0.1694 ug/L       0.05320     -0.1694 ppb        0.05320  31.42%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     26.7      1.5255 ug/L       0.68879      1.5255 ppb        0.68879  45.15%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 68
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/29/2009 21:42:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4648.5	4648.5	94.0	%			21:44:33
1	Y RADIAL	4920.3	4920.3	92.75	%			21:44:33
1	Al 396.153Radial†	6149.7	6564.0	5115.9	ug/L	5115.9	ppb	21:44:33
1	Ca 317.933Radial†	3164.7	3345.5	5242.8	ug/L	5242.8	ppb	21:44:53
1	Fe 238.204 Radial†	583.1	607.1	5347.4	ug/L	5347.4	ppb	21:44:53
1	K 766.490 Radial†	28413.8	26896.4	5112.3	ug/L	5112.3	ppb	21:44:33
1	Mg 279.077 IEC†	162.7	170.4	5454.4	ug/L	5454.4	ppb	21:44:53
1	Na 589.592 Radial†	31534.8	35347.7	10029	ug/L	10029	ppb	21:44:33
1	Sr 421.552†	72946.7	77597.9	509.50	ug/L	509.50	ppb	21:44:33
1	Sc 361.383	914925.9	914925.9	97.462	%			21:45:52
1	Y 371.029	788558.3	788558.3	96.387	%			21:45:52
1	Ag 328.068†	118470.5	121090.0	504.14	ug/L	504.14	ppb	21:45:52
1	As 188.979†	1501.1	1575.0	522.18	ug/L	522.18	ppb	21:46:12
1	B 249.677†	24159.2	25184.4	489.44	ug/L	489.44	ppb	21:45:52
1	Ba 233.527†	72197.3	74057.3	504.70	ug/L	504.70	ppb	21:45:52
1	Be 313.107†	1558656.7	1603947.7	510.51	ug/L	510.51	ppb	21:45:52
1	Cd 226.502†	54361.4	56033.7	504.63	ug/L	504.63	ppb	21:45:52
1	Co 228.616†	27790.9	28608.9	503.37	ug/L	503.37	ppb	21:46:12
1	Cr 267.716†	52608.6	53844.9	506.73	ug/L	506.73	ppb	21:45:52
1	Cu 324.752†	179531.3	175723.3	501.36	ug/L	501.36	ppb	21:45:52
1	Mn 257.610†	498611.1	510959.1	507.37	ug/L	507.37	ppb	21:45:52
1	Mo 202.031†	8550.0	8747.2	515.37	ug/L	515.37	ppb	21:46:12
1	Ni 231.604†	24048.3	24535.6	507.61	ug/L	507.61	ppb	21:46:12
1	P 214.914†	5771.0	5650.1	2486.2	ug/L	2486.2	ppb	21:46:12
1	Pb 220.353†	4966.7	5180.6	515.78	ug/L	515.78	ppb	21:46:12
1	S 181.975 Axial†	974.0	937.7	1029.0	ug/L	1029.0	ppb	21:46:12
1	Sb 206.836†	1777.8	1778.8	517.22	ug/L	517.22	ppb	21:46:12
1	Se 196.026†	1024.9	1084.3	533.26	ug/L	533.26	ppb	21:46:12
1	Si 251.611†	92605.2	94277.4	2495.6	ug/L	2495.6	ppb	21:45:52
1	Sn 189.927†	3531.7	3620.3	513.23	ug/L	513.23	ppb	21:46:12
1	Ti 334.940†	332464.7	342827.4	503.44	ug/L	503.44	ppb	21:45:52
1	Tl 190.801†	1849.1	1946.8	513.18	ug/L	513.18	ppb	21:46:12
1	U 409.014†	14148.2	17435.3	480.97	ug/L	480.97	ppb	21:45:52
1	V 292.402†	81670.0	85606.9	510.76	ug/L	510.76	ppb	21:45:52
1	Zn 213.857†	63962.1	64713.1	501.36	ug/L	501.36	ppb	21:45:52
1	SiO2†	92372.0	94019.4	5361.7	ug/L	5361.7	ppb	21:47:12
2	Sc Radial	4825.2	4825.2	97.6	%			21:44:58
2	Y RADIAL	5114.1	5114.1	96.40	%			21:44:58
2	Al 396.153Radial†	6163.4	6338.5	4939.7	ug/L	4939.7	ppb	21:44:58
2	Ca 317.933Radial†	3201.1	3259.5	5108.1	ug/L	5108.1	ppb	21:45:18
2	Fe 238.204 Radial†	593.1	594.6	5237.7	ug/L	5237.7	ppb	21:45:18
2	K 766.490 Radial†	28685.8	26068.3	4954.8	ug/L	4954.8	ppb	21:44:58
2	Mg 279.077 IEC†	170.6	172.2	5511.3	ug/L	5511.3	ppb	21:45:18
2	Na 589.592 Radial†	31668.6	34256.4	9719.2	ug/L	9719.2	ppb	21:44:58
2	Sr 421.552†	73095.1	74908.3	491.84	ug/L	491.84	ppb	21:44:58
2	Sc 361.383	924915.2	924915.2	98.526	%			21:46:19
2	Y 371.029	798592.0	798592.0	97.614	%			21:46:19
2	Ag 328.068†	119739.0	121064.7	504.01	ug/L	504.01	ppb	21:46:19
2	As 188.979†	1467.0	1523.8	505.32	ug/L	505.32	ppb	21:46:39
2	B 249.677†	24355.8	25116.3	488.15	ug/L	488.15	ppb	21:46:19
2	Ba 233.527†	72791.2	73860.1	503.35	ug/L	503.35	ppb	21:46:19
2	Be 313.107†	1574147.5	1602397.9	510.01	ug/L	510.01	ppb	21:46:19
2	Cd 226.502†	54842.1	55919.2	503.60	ug/L	503.60	ppb	21:46:19
2	Co 228.616†	27649.6	28157.5	495.41	ug/L	495.41	ppb	21:46:39
2	Cr 267.716†	53028.8	53688.4	505.26	ug/L	505.26	ppb	21:46:19
2	Cu 324.752†	181542.5	175775.1	501.50	ug/L	501.50	ppb	21:46:19
2	Mn 257.610†	502621.5	509504.1	505.91	ug/L	505.91	ppb	21:46:19
2	Mo 202.031†	8517.3	8619.3	507.83	ug/L	507.83	ppb	21:46:39
2	Ni 231.604†	23970.9	24190.6	500.47	ug/L	500.47	ppb	21:46:39

2	P 214.914†	5728.2	5542.7	2437.3 ug/L	2437.3 ppb	21:46:39
2	Pb 220.353†	4949.6	5108.2	508.55 ug/L	508.55 ppb	21:46:39
2	S 181.975 Axial†	947.8	900.3	987.89 ug/L	987.89 ppb	21:46:39
2	Sb 206.836†	1753.6	1734.5	504.22 ug/L	504.22 ppb	21:46:39
2	Se 196.026†	1013.1	1060.9	521.78 ug/L	521.78 ppb	21:46:39
2	Si 251.611†	93425.4	94083.6	2490.7 ug/L	2490.7 ppb	21:46:19
2	Sn 189.927†	3496.7	3545.6	502.64 ug/L	502.64 ppb	21:46:39
2	Ti 334.940†	335716.6	342443.7	502.88 ug/L	502.88 ppb	21:46:19
2	Tl 190.801†	1864.3	1941.7	511.88 ug/L	511.88 ppb	21:46:39
2	U 409.014†	13918.9	17045.8	470.20 ug/L	470.20 ppb	21:46:19
2	V 292.402†	82230.7	85270.9	508.67 ug/L	508.67 ppb	21:46:19
2	Zn 213.857†	64542.5	64593.3	500.47 ug/L	500.47 ppb	21:46:19
2	SiO2†	93484.0	94124.4	5368.2 ug/L	5368.2 ppb	21:47:17
3	Sc Radial	4737.4	4737.4	95.8 %		21:45:23
3	Y RADIAL	5038.1	5038.1	94.97 %		21:45:23
3	Al 396.153Radial†	6245.9	6541.8	5098.7 ug/L	5098.7 ppb	21:45:23
3	Ca 317.933Radial†	3155.3	3272.5	5128.5 ug/L	5128.5 ppb	21:45:43
3	Fe 238.204 Radial†	586.6	599.1	5276.9 ug/L	5276.9 ppb	21:45:43
3	K 766.490 Radial†	28774.6	26706.3	5076.2 ug/L	5076.2 ppb	21:45:23
3	Mg 279.077 IEC†	164.3	168.9	5405.6 ug/L	5405.6 ppb	21:45:43
3	Na 589.592 Radial†	31777.4	34971.9	9922.2 ug/L	9922.2 ppb	21:45:23
3	Sr 421.552†	73373.5	76588.1	502.88 ug/L	502.88 ppb	21:45:23
3	Sc 361.383	925503.8	925503.8	98.589 %		21:46:47
3	Y 371.029	799609.7	799609.7	97.738 %		21:46:47
3	Ag 328.068†	119697.0	120944.8	503.53 ug/L	503.53 ppb	21:46:47
3	As 188.979†	1493.3	1549.5	513.79 ug/L	513.79 ppb	21:47:07
3	B 249.677†	24281.5	25025.2	486.37 ug/L	486.37 ppb	21:46:47
3	Ba 233.527†	72927.6	73951.4	503.98 ug/L	503.98 ppb	21:46:47
3	Be 313.107†	1578612.4	1605910.7	511.13 ug/L	511.13 ppb	21:46:47
3	Cd 226.502†	54906.8	55949.4	503.87 ug/L	503.87 ppb	21:46:47
3	Co 228.616†	27683.9	28174.4	495.71 ug/L	495.71 ppb	21:47:07
3	Cr 267.716†	53064.3	53690.1	505.28 ug/L	505.28 ppb	21:46:47
3	Cu 324.752†	181360.4	175473.3	500.65 ug/L	500.65 ppb	21:46:47
3	Mn 257.610†	503757.8	510332.2	506.74 ug/L	506.74 ppb	21:46:47
3	Mo 202.031†	8542.3	8639.1	509.00 ug/L	509.00 ppb	21:47:07
3	Ni 231.604†	24011.6	24216.4	501.01 ug/L	501.01 ppb	21:47:07
3	P 214.914†	5747.9	5559.0	2444.9 ug/L	2444.9 ppb	21:47:07
3	Pb 220.353†	4984.8	5140.7	511.81 ug/L	511.81 ppb	21:47:07
3	S 181.975 Axial†	963.9	916.1	1005.2 ug/L	1005.2 ppb	21:47:07
3	Sb 206.836†	1768.9	1749.0	508.39 ug/L	508.39 ppb	21:47:07
3	Se 196.026†	1027.9	1075.3	528.72 ug/L	528.72 ppb	21:47:07
3	Si 251.611†	93434.3	94032.4	2489.3 ug/L	2489.3 ppb	21:46:47
3	Sn 189.927†	3503.1	3549.8	503.23 ug/L	503.23 ppb	21:47:07
3	Ti 334.940†	336072.0	342587.4	503.09 ug/L	503.09 ppb	21:46:47
3	Tl 190.801†	1859.6	1935.6	510.31 ug/L	510.31 ppb	21:47:07
3	U 409.014†	13938.8	17056.9	470.51 ug/L	470.51 ppb	21:46:47
3	V 292.402†	82507.2	85498.3	510.02 ug/L	510.02 ppb	21:46:47
3	Zn 213.857†	64590.5	64600.4	500.53 ug/L	500.53 ppb	21:46:47
3	SiO2†	94241.1	94832.0	5408.6 ug/L	5408.6 ppb	21:47:22

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	921781.7	98.192	%	0.6332				0.64%
Sc Radial	4737.0	95.8	%	1.79				1.86%
Y 371.029	795586.7	97.246	%	0.7466				0.77%
Y RADIAL	5024.2	94.71	%	1.841				1.94%
Ag 328.068†	121033.2	503.89	ug/L	0.323	503.89	ppb	0.323	0.06%
QC value within limits for Ag 328.068 Recovery = 100.78%								
Al 396.153Radial†	6481.5	5051.4	ug/L	97.14	5051.4	ppb	97.14	1.92%
QC value within limits for Al 396.153Radial Recovery = 101.03%								
As 188.979†	1549.5	513.76	ug/L	8.429	513.76	ppb	8.429	1.64%
QC value within limits for As 188.979 Recovery = 102.75%								
B 249.677†	25108.6	487.99	ug/L	1.545	487.99	ppb	1.545	0.32%
QC value within limits for B 249.677 Recovery = 97.60%								
Ba 233.527†	73956.3	504.01	ug/L	0.675	504.01	ppb	0.675	0.13%
QC value within limits for Ba 233.527 Recovery = 100.80%								
Be 313.107†	1604085.4	510.55	ug/L	0.559	510.55	ppb	0.559	0.11%
QC value within limits for Be 313.107 Recovery = 102.11%								
Ca 317.933Radial†	3292.5	5159.8	ug/L	72.59	5159.8	ppb	72.59	1.41%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.20%
Cd 226.502†            55967.4      504.03 ug/L         0.532      504.03 ppb          0.532   0.11%
   QC value within limits for Cd 226.502  Recovery = 100.81%
Co 228.616†            28313.6      498.17 ug/L         4.509      498.17 ppb          4.509   0.91%
   QC value within limits for Co 228.616  Recovery = 99.63%
Cr 267.716†            53741.1      505.75 ug/L         0.845      505.75 ppb          0.845   0.17%
   QC value within limits for Cr 267.716  Recovery = 101.15%
Cu 324.752†           175657.2      501.17 ug/L         0.460      501.17 ppb          0.460   0.09%
   QC value within limits for Cu 324.752  Recovery = 100.23%
Fe 238.204 Radial†       600.3      5287.3 ug/L        55.62      5287.3 ppb         55.62   1.05%
   QC value within limits for Fe 238.204 Radial  Recovery = 105.75%
K 766.490 Radial†      26557.0      5047.8 ug/L        82.53      5047.8 ppb         82.53   1.63%
   QC value within limits for K 766.490 Radial  Recovery = 100.96%
Mg 279.077 IEC†          170.5      5457.1 ug/L        52.87      5457.1 ppb         52.87   0.97%
   QC value within limits for Mg 279.077 IEC  Recovery = 109.14%
Mn 257.610†           510265.1      506.67 ug/L         0.730      506.67 ppb          0.730   0.14%
   QC value within limits for Mn 257.610  Recovery = 101.33%
Mo 202.031†             8668.5      510.74 ug/L         4.059      510.74 ppb          4.059   0.79%
   QC value within limits for Mo 202.031  Recovery = 102.15%
Na 589.592 Radial†     34858.6      9890.0 ug/L       157.29      9890.0 ppb        157.29   1.59%
   QC value within limits for Na 589.592 Radial  Recovery = 98.90%
Ni 231.604†            24314.2      503.03 ug/L         3.976      503.03 ppb          3.976   0.79%
   QC value within limits for Ni 231.604  Recovery = 100.61%
P 214.914†              5583.9      2456.1 ug/L        26.28      2456.1 ppb         26.28   1.07%
   QC value within limits for P 214.914  Recovery = 98.25%
Pb 220.353†             5143.2      512.05 ug/L         3.623      512.05 ppb          3.623   0.71%
   QC value within limits for Pb 220.353  Recovery = 102.41%
S 181.975 Axial†         918.0      1007.4 ug/L        20.61      1007.4 ppb         20.61   2.05%
   QC value within limits for S 181.975 Axial  Recovery = 100.74%
Sb 206.836†             1754.1      509.94 ug/L         6.640      509.94 ppb          6.640   1.30%
   QC value within limits for Sb 206.836  Recovery = 101.99%
Se 196.026†             1073.5      527.92 ug/L         5.779      527.92 ppb          5.779   1.09%
   QC value within limits for Se 196.026  Recovery = 105.58%
Si 251.611†            94131.1      2491.9 ug/L         3.34      2491.9 ppb          3.34   0.13%
   QC value within limits for Si 251.611  Recovery = 99.67%
Sn 189.927†             3571.9      506.37 ug/L         5.949      506.37 ppb          5.949   1.17%
   QC value within limits for Sn 189.927  Recovery = 101.27%
Sr 421.552†            76364.8      501.41 ug/L         8.921      501.41 ppb          8.921   1.78%
   QC value within limits for Sr 421.552  Recovery = 100.28%
Ti 334.940†           342619.5      503.14 ug/L         0.286      503.14 ppb          0.286   0.06%
   QC value within limits for Ti 334.940  Recovery = 100.63%
Tl 190.801†             1941.4      511.79 ug/L         1.440      511.79 ppb          1.440   0.28%
   QC value within limits for Tl 190.801  Recovery = 102.36%
U 409.014†             17179.3      473.89 ug/L         6.129      473.89 ppb          6.129   1.29%
   QC value within limits for U 409.014  Recovery = 94.78%
V 292.402†             85458.7      509.82 ug/L         1.058      509.82 ppb          1.058   0.21%
   QC value within limits for V 292.402  Recovery = 101.96%
Zn 213.857†            64635.6      500.79 ug/L         0.497      500.79 ppb          0.497   0.10%
   QC value within limits for Zn 213.857  Recovery = 100.16%
SiO2†                  94325.3      5379.5 ug/L        25.42      5379.5 ppb         25.42   0.47%
   QC value within limits for SiO2  Recovery = 100.60%
All analyte(s) passed QC.
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Sequence No.: 69
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/29/2009 21:49:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4779.7	4779.7	96.6	%			21:51:24
1	Y RADIAL	5100.3	5100.3	96.14	%			21:51:24
1	Al 396.153Radial†	-1.9	19.3	15.111	ug/L	15.111	ppb	21:51:24
1	Ca 317.933Radial†	13.5	-7.5	-11.706	ug/L	-11.706	ppb	21:51:44
1	Fe 238.204 Radial†	12.6	-0.3	-2.2596	ug/L	-2.2596	ppb	21:51:44
1	K 766.490 Radial†	3337.9	120.4	22.985	ug/L	22.985	ppb	21:51:24
1	Mg 279.077 IEC†	1.6	-1.1	-34.184	ug/L	-34.184	ppb	21:51:44
1	Na 589.592 Radial†	-2115.9	-391.9	-111.19	ug/L	-111.19	ppb	21:51:24
1	Sr 421.552†	-1.9	-13.0	-0.0852	ug/L	-0.0852	ppb	21:51:24
1	Sc 361.383	918881.2	918881.2	97.883	%			21:52:41
1	Y 371.029	803429.8	803429.8	98.205	%			21:52:41
1	Ag 328.068†	554.2	100.6	0.4153	ug/L	0.4153	ppb	21:52:46
1	As 188.979†	-31.1	3.1	1.0197	ug/L	1.0197	ppb	21:53:06
1	B 249.677†	-539.3	-154.9	-3.0224	ug/L	-3.0224	ppb	21:52:46
1	Ba 233.527†	15.8	-4.0	-0.0276	ug/L	-0.0276	ppb	21:53:06
1	Be 313.107†	-4576.6	25.8	0.0079	ug/L	0.0079	ppb	21:52:46
1	Cd 226.502†	-264.5	-13.5	-0.1215	ug/L	-0.1215	ppb	21:53:06
1	Co 228.616†	-95.4	-3.3	-0.0576	ug/L	-0.0576	ppb	21:53:06
1	Cr 267.716†	181.7	51.9	0.4875	ug/L	0.4875	ppb	21:52:46
1	Cu 324.752†	8244.8	-60.1	-0.1714	ug/L	-0.1714	ppb	21:52:46
1	Mn 257.610†	506.2	-119.5	-0.1181	ug/L	-0.1181	ppb	21:52:46
1	Mo 202.031†	25.3	0.4	0.0224	ug/L	0.0224	ppb	21:53:06
1	Ni 231.604†	155.9	20.3	0.4210	ug/L	0.4210	ppb	21:53:06
1	P 214.914†	251.1	-14.7	-6.6173	ug/L	-6.6173	ppb	21:53:06
1	Pb 220.353†	-104.9	-22.6	-2.2358	ug/L	-2.2358	ppb	21:53:06
1	S 181.975 Axial†	58.8	-1.6	-1.7222	ug/L	-1.7222	ppb	21:53:06
1	Sb 206.836†	37.9	-6.5	-1.8841	ug/L	-1.8841	ppb	21:53:06
1	Se 196.026†	-34.5	-2.5	-1.2061	ug/L	-1.2061	ppb	21:53:06
1	Si 251.611†	747.4	24.2	0.6366	ug/L	0.6366	ppb	21:53:06
1	Sn 189.927†	1.9	-1.4	-0.2014	ug/L	-0.2014	ppb	21:53:06
1	Ti 334.940†	-1768.3	-101.7	-0.1500	ug/L	-0.1500	ppb	21:52:46
1	Tl 190.801†	-42.4	6.1	1.6096	ug/L	1.6096	ppb	21:53:06
1	U 409.014†	-2874.3	-17.8	-0.4936	ug/L	-0.4936	ppb	21:52:41
1	V 292.402†	-1804.9	-33.9	-0.2006	ug/L	-0.2006	ppb	21:52:46
1	Zn 213.857†	898.8	3.6	0.0268	ug/L	0.0268	ppb	21:53:06
1	SiO2†	757.8	16.1	0.9069	ug/L	0.9069	ppb	21:54:12
2	Sc Radial	4813.5	4813.5	97.3	%			21:51:49
2	Y RADIAL	5148.8	5148.8	97.06	%			21:51:49
2	Al 396.153Radial†	-12.3	8.6	6.7412	ug/L	6.7412	ppb	21:51:49
2	Ca 317.933Radial†	18.1	-2.8	-4.4202	ug/L	-4.4202	ppb	21:52:09
2	Fe 238.204 Radial†	13.1	0.2	1.5777	ug/L	1.5777	ppb	21:52:09
2	K 766.490 Radial†	3251.5	7.4	1.4594	ug/L	1.4594	ppb	21:51:49
2	Mg 279.077 IEC†	5.8	3.2	103.70	ug/L	103.70	ppb	21:52:09
2	Na 589.592 Radial†	-2105.1	-365.4	-103.68	ug/L	-103.68	ppb	21:51:49
2	Sr 421.552†	-45.0	-57.2	-0.3756	ug/L	-0.3756	ppb	21:51:49
2	Sc 361.383	912377.8	912377.8	97.191	%			21:53:11
2	Y 371.029	796882.4	796882.4	97.405	%			21:53:11
2	Ag 328.068†	659.5	213.0	0.8854	ug/L	0.8854	ppb	21:53:16
2	As 188.979†	-32.1	1.8	0.5802	ug/L	0.5802	ppb	21:53:36
2	B 249.677†	-462.2	-79.5	-1.5523	ug/L	-1.5523	ppb	21:53:16
2	Ba 233.527†	18.1	-1.5	-0.0111	ug/L	-0.0111	ppb	21:53:36
2	Be 313.107†	-4502.1	69.1	0.0216	ug/L	0.0216	ppb	21:53:16
2	Cd 226.502†	-259.4	-10.3	-0.0926	ug/L	-0.0926	ppb	21:53:36
2	Co 228.616†	-89.4	2.2	0.0406	ug/L	0.0406	ppb	21:53:36
2	Cr 267.716†	96.0	-34.9	-0.3269	ug/L	-0.3269	ppb	21:53:16
2	Cu 324.752†	8276.4	32.4	0.0925	ug/L	0.0925	ppb	21:53:16
2	Mn 257.610†	587.2	-32.5	-0.0340	ug/L	-0.0340	ppb	21:53:16
2	Mo 202.031†	32.4	7.9	0.4643	ug/L	0.4643	ppb	21:53:36
2	Ni 231.604†	130.4	-4.7	-0.0980	ug/L	-0.0980	ppb	21:53:36

2	P 214.914†	252.8	-11.1	-5.0555 ug/L	-5.0555 ppb	21:53:36
2	Pb 220.353†	-82.5	-0.3	-0.0248 ug/L	-0.0248 ppb	21:53:36
2	S 181.975 Axial†	58.2	-1.8	-1.9431 ug/L	-1.9431 ppb	21:53:36
2	Sb 206.836†	49.2	5.4	1.5695 ug/L	1.5695 ppb	21:53:36
2	Se 196.026†	-31.9	-0.1	-0.0545 ug/L	-0.0545 ppb	21:53:36
2	Si 251.611†	759.5	42.0	1.1097 ug/L	1.1097 ppb	21:53:36
2	Sn 189.927†	2.9	-0.4	-0.0638 ug/L	-0.0638 ppb	21:53:36
2	Ti 334.940†	-1774.4	-120.9	-0.1746 ug/L	-0.1746 ppb	21:53:16
2	Tl 190.801†	-46.5	1.6	0.4239 ug/L	0.4239 ppb	21:53:36
2	U 409.014†	-3077.3	-247.6	-6.8531 ug/L	-6.8531 ppb	21:53:11
2	V 292.402†	-1842.0	-85.1	-0.5054 ug/L	-0.5054 ppb	21:53:16
2	Zn 213.857†	900.5	11.8	0.0893 ug/L	0.0893 ppb	21:53:36
2	SiO2†	816.5	82.0	4.6838 ug/L	4.6838 ppb	21:54:17
3	Sc Radial	4896.9	4896.9	99.0 %		21:52:14
3	Y RADIAL	5217.2	5217.2	98.35 %		21:52:14
3	Al 396.153Radial†	25.2	46.8	36.570 ug/L	36.570 ppb	21:52:14
3	Ca 317.933Radial†	11.3	-10.0	-15.704 ug/L	-15.704 ppb	21:52:34
3	Fe 238.204 Radial†	13.8	0.7	5.9007 ug/L	5.9007 ppb	21:52:34
3	K 766.490 Radial†	3261.7	-39.3	-7.4272 ug/L	-7.4272 ppb	21:52:14
3	Mg 279.077 IEC†	3.5	0.8	26.349 ug/L	26.349 ppb	21:52:34
3	Na 589.592 Radial†	-2079.0	-302.3	-85.755 ug/L	-85.755 ppb	21:52:14
3	Sr 421.552†	-38.1	-49.5	-0.3247 ug/L	-0.3247 ppb	21:52:14
3	Sc 361.383	950359.0	950359.0	101.24 %		21:53:41
3	Y 371.029	830347.6	830347.6	101.50 %		21:53:41
3	Ag 328.068†	587.3	114.5	0.4742 ug/L	0.4742 ppb	21:53:46
3	As 188.979†	-25.4	9.8	3.2108 ug/L	3.2108 ppb	21:54:07
3	B 249.677†	-598.3	-194.9	-3.8038 ug/L	-3.8038 ppb	21:53:46
3	Ba 233.527†	28.7	8.3	0.0574 ug/L	0.0574 ppb	21:54:07
3	Be 313.107†	-4413.3	341.9	0.1083 ug/L	0.1083 ppb	21:53:46
3	Cd 226.502†	-261.6	-1.8	-0.0167 ug/L	-0.0167 ppb	21:54:07
3	Co 228.616†	-95.0	0.4	0.0106 ug/L	0.0106 ppb	21:54:07
3	Cr 267.716†	100.9	-34.1	-0.3210 ug/L	-0.3210 ppb	21:53:46
3	Cu 324.752†	8103.7	-478.5	-1.3641 ug/L	-1.3641 ppb	21:53:46
3	Mn 257.610†	517.3	-125.6	-0.1245 ug/L	-0.1245 ppb	21:53:46
3	Mo 202.031†	44.9	18.9	1.1151 ug/L	1.1151 ppb	21:54:07
3	Ni 231.604†	142.3	1.7	0.0352 ug/L	0.0352 ppb	21:54:07
3	P 214.914†	248.7	-25.6	-11.345 ug/L	-11.345 ppb	21:54:07
3	Pb 220.353†	-92.4	-6.6	-0.6472 ug/L	-0.6472 ppb	21:54:07
3	S 181.975 Axial†	62.5	0.1	0.1034 ug/L	0.1034 ppb	21:54:07
3	Sb 206.836†	31.1	-14.5	-4.0950 ug/L	-4.0950 ppb	21:54:07
3	Se 196.026†	-38.8	-5.7	-2.6582 ug/L	-2.6582 ppb	21:54:07
3	Si 251.611†	758.7	10.1	0.2471 ug/L	0.2471 ppb	21:54:07
3	Sn 189.927†	12.2	8.7	1.2267 ug/L	1.2267 ppb	21:54:07
3	Ti 334.940†	-1841.8	-114.6	-0.1706 ug/L	-0.1706 ppb	21:53:46
3	Tl 190.801†	-44.5	5.5	1.4286 ug/L	1.4286 ppb	21:54:07
3	U 409.014†	-2820.7	132.4	3.6645 ug/L	3.6645 ppb	21:53:41
3	V 292.402†	-1773.3	58.4	0.3669 ug/L	0.3669 ppb	21:53:46
3	Zn 213.857†	916.4	-9.4	-0.0736 ug/L	-0.0736 ppb	21:54:07
3	SiO2†	796.3	28.5	1.5912 ug/L	1.5912 ppb	21:54:22

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	927206.0	98.770	%	2.1638				2.19%
Sc Radial	4830.0	97.7	%	1.22				1.25%
Y 371.029	810219.9	99.035	%	2.1679				2.19%
Y RADIAL	5155.4	97.18	%	1.108				1.14%
Ag 328.068†	142.7	0.5916	ug/L	0.25612	0.5916	ppb	0.25612	43.29%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	24.9	19.474	ug/L	15.3854	19.474	ppb	15.3854	79.00%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	4.9	1.6036	ug/L	1.40915	1.6036	ppb	1.40915	87.87%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-143.1	-2.7928	ug/L	1.14315	-2.7928	ppb	1.14315	40.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.9	0.0062	ug/L	0.04506	0.0062	ppb	0.04506	725.99%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	145.6	0.0459	ug/L	0.05443	0.0459	ppb	0.05443	118.51%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-6.8	-10.610	ug/L	5.7214	-10.610	ppb	5.7214	53.92%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -8.5     -0.0769 ug/L       0.05411     -0.0769 ppb        0.05411  70.35%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              -0.2     -0.0021 ug/L       0.05034     -0.0021 ppb        0.05034 >999.9%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -5.7     -0.0535 ug/L       0.46849     -0.0535 ppb        0.46849 876.48%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -168.7     -0.4810 ug/L       0.77610     -0.4810 ppb        0.77610 161.35%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.2      1.7396 ug/L       4.08255      1.7396 ppb        4.08255 234.69%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        29.5      5.6723 ug/L      15.63750      5.6723 ppb       15.63750 275.68%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.0     31.954 ug/L       69.1121     31.954 ppb        69.1121 216.28%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -92.5     -0.0922 ug/L       0.05052     -0.0922 ppb        0.05052  54.80%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               9.1      0.5339 ug/L       0.54971      0.5339 ppb        0.54971 102.95%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -353.2    -100.21 ug/L        13.068    -100.21 ppb         13.068  13.04%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               5.8      0.1194 ug/L       0.26957      0.1194 ppb        0.26957 225.79%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -17.1     -7.6726 ug/L       3.27487     -7.6726 ppb        3.27487  42.68%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -9.8     -0.9693 ug/L       1.14011     -0.9693 ppb        1.14011 117.63%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -1.1     -1.1873 ug/L       1.12322     -1.1873 ppb        1.12322  94.60%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -5.2     -1.4699 ug/L       2.85490     -1.4699 ppb        2.85490 194.23%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -2.8     -1.3063 ug/L       1.30471     -1.3063 ppb        1.30471  99.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              25.4      0.6645 ug/L       0.43199      0.6645 ppb        0.43199  65.01%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.3      0.3205 ug/L       0.78779      0.3205 ppb        0.78779 245.81%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -39.9     -0.2618 ug/L       0.15511     -0.2618 ppb        0.15511  59.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            -112.4     -0.1651 ug/L       0.01319     -0.1651 ppb        0.01319   7.99%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               4.4      1.1540 ug/L       0.63874      1.1540 ppb        0.63874  55.35%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -44.3     -1.2274 ug/L       5.29709     -1.2274 ppb        5.29709 431.56%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -20.2     -0.1130 ug/L       0.44267     -0.1130 ppb        0.44267 391.58%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               2.0      0.0142 ug/L       0.08218      0.0142 ppb        0.08218 580.36%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    42.2      2.3940 ug/L       2.01239      2.3940 ppb        2.01239  84.06%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 71
Sample ID: 243104001|935027|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 73
Date Collected: 12/29/2009 22:03:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243104001|935027|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4850.6	4850.6	98.1	%			22:05:16
1	Y RADIAL	5135.3	5135.3	96.80	%			22:05:16
1	Al 396.153Radial†	53.3	75.7	59.172	ug/L	59.172	ppb	22:05:16
1	Ca 317.933Radial†	1782.7	1796.2	2814.9	ug/L	2814.9	ppb	22:05:36
1	Fe 238.204 Radial†	11.5	-1.5	-13.432	ug/L	-13.432	ppb	22:05:36
1	K 766.490 Radial†	5187.2	1955.5	370.80	ug/L	370.80	ppb	22:05:16
1	Mg 279.077 IEC†	31.3	29.2	933.16	ug/L	933.16	ppb	22:05:36
1	Na 589.592 Radial†	7532.0	9477.0	2688.8	ug/L	2688.8	ppb	22:05:16
1	Sr 421.552†	2198.4	2230.5	14.620	ug/L	14.620	ppb	22:05:16
1	Sc 361.383	938609.4	938609.4	99.985	%			22:06:33
1	Y 371.029	815350.6	815350.6	99.662	%			22:06:33
1	Ag 328.068†	480.7	15.2	0.0273	ug/L	0.0273	ppb	22:06:33
1	As 188.979†	-31.5	3.3	1.0808	ug/L	1.0808	ppb	22:06:53
1	B 249.677†	-395.7	0.3	0.0073	ug/L	0.0073	ppb	22:06:53
1	Ba 233.527†	920.6	900.6	6.1245	ug/L	6.1245	ppb	22:06:53
1	Be 313.107†	-4548.9	151.8	0.0475	ug/L	0.0475	ppb	22:06:33
1	Cd 226.502†	-270.8	-14.1	-0.1258	ug/L	-0.1258	ppb	22:06:53
1	Co 228.616†	-85.4	8.8	0.1622	ug/L	0.1622	ppb	22:06:53
1	Cr 267.716†	159.5	25.8	0.2467	ug/L	0.2467	ppb	22:06:53
1	Cu 324.752†	8253.2	-228.7	-0.6529	ug/L	-0.6529	ppb	22:06:33
1	Mn 257.610†	3070.8	2434.7	2.3969	ug/L	2.3969	ppb	22:06:53
1	Mo 202.031†	47.7	22.2	1.3080	ug/L	1.3080	ppb	22:06:53
1	Ni 231.604†	160.8	21.9	0.4530	ug/L	0.4530	ppb	22:06:53
1	P 214.914†	285.7	14.6	6.6854	ug/L	6.6854	ppb	22:06:53
1	Pb 220.353†	-58.8	25.8	2.5815	ug/L	2.5815	ppb	22:06:53
1	S 181.975 Axial†	359.9	298.3	327.62	ug/L	327.62	ppb	22:06:53
1	Sb 206.836†	41.8	-3.5	-1.0612	ug/L	-1.0612	ppb	22:06:53
1	Se 196.026†	-33.5	-0.9	-0.4390	ug/L	-0.4390	ppb	22:06:53
1	Si 251.611†	210847.6	210140.2	5589.9	ug/L	5589.9	ppb	22:06:33
1	Sn 189.927†	-33.9	-37.3	-4.9910	ug/L	-4.9910	ppb	22:06:53
1	Ti 334.940†	-1951.7	-247.2	-0.2135	ug/L	-0.2135	ppb	22:06:33
1	Tl 190.801†	-38.4	11.1	2.9046	ug/L	2.9046	ppb	22:06:53
1	U 409.014†	-3153.5	-235.3	-6.5117	ug/L	-6.5117	ppb	22:06:33
1	V 292.402†	-1605.7	204.1	1.2311	ug/L	1.2311	ppb	22:06:53
1	Zn 213.857†	1034.5	120.0	0.9045	ug/L	0.9045	ppb	22:06:53
1	SiO2†	210078.7	209352.5	11998	ug/L	11998	ppb	22:07:50
2	Sc Radial	4858.9	4858.9	98.2	%			22:05:41
2	Y RADIAL	5163.0	5163.0	97.33	%			22:05:41
2	Al 396.153Radial†	24.5	46.3	36.189	ug/L	36.189	ppb	22:05:41
2	Ca 317.933Radial†	1774.6	1784.8	2797.1	ug/L	2797.1	ppb	22:06:01
2	Fe 238.204 Radial†	13.7	0.6	5.4854	ug/L	5.4854	ppb	22:06:01
2	K 766.490 Radial†	5045.7	1802.3	341.64	ug/L	341.64	ppb	22:05:41
2	Mg 279.077 IEC†	29.5	27.4	874.85	ug/L	874.85	ppb	22:06:01
2	Na 589.592 Radial†	7554.5	9486.7	2691.6	ug/L	2691.6	ppb	22:05:41
2	Sr 421.552†	2229.8	2258.6	14.805	ug/L	14.805	ppb	22:05:41
2	Sc 361.383	926734.4	926734.4	98.720	%			22:06:59
2	Y 371.029	804995.0	804995.0	98.396	%			22:06:59
2	Ag 328.068†	604.4	146.7	0.5795	ug/L	0.5795	ppb	22:06:59
2	As 188.979†	-30.5	4.0	1.3021	ug/L	1.3021	ppb	22:07:19
2	B 249.677†	-346.8	44.7	0.8722	ug/L	0.8722	ppb	22:07:19
2	Ba 233.527†	907.1	898.8	6.1134	ug/L	6.1134	ppb	22:07:19
2	Be 313.107†	-4468.5	174.9	0.0543	ug/L	0.0543	ppb	22:06:59
2	Cd 226.502†	-259.9	-6.6	-0.0597	ug/L	-0.0597	ppb	22:07:19
2	Co 228.616†	-94.9	-1.9	-0.0273	ug/L	-0.0273	ppb	22:07:19
2	Cr 267.716†	160.1	28.5	0.2723	ug/L	0.2723	ppb	22:07:19
2	Cu 324.752†	7924.3	-456.1	-1.3005	ug/L	-1.3005	ppb	22:06:59
2	Mn 257.610†	3049.3	2452.3	2.4172	ug/L	2.4172	ppb	22:07:19
2	Mo 202.031†	43.1	18.2	1.0730	ug/L	1.0730	ppb	22:07:19
2	Ni 231.604†	185.6	49.1	1.0164	ug/L	1.0164	ppb	22:07:19

2	P 214.914†	274.1	6.4	3.0781 ug/L	3.0781 ppb	22:07:19
2	Pb 220.353†	-96.0	-12.6	-1.2419 ug/L	-1.2419 ppb	22:07:19
2	S 181.975 Axial†	351.3	294.1	323.09 ug/L	323.09 ppb	22:07:19
2	Sb 206.836†	40.2	-4.5	-1.3461 ug/L	-1.3461 ppb	22:07:19
2	Se 196.026†	-37.1	-4.9	-2.2805 ug/L	-2.2805 ppb	22:07:19
2	Si 251.611†	207866.8	209822.9	5581.4 ug/L	5581.4 ppb	22:06:59
2	Sn 189.927†	-25.7	-29.4	-3.8791 ug/L	-3.8791 ppb	22:07:19
2	Ti 334.940†	-2105.9	-428.4	-0.4803 ug/L	-0.4803 ppb	22:06:59
2	Tl 190.801†	-55.1	-6.4	-1.6669 ug/L	-1.6669 ppb	22:07:19
2	U 409.014†	-3132.8	-254.8	-7.0533 ug/L	-7.0533 ppb	22:06:59
2	V 292.402†	-1533.5	256.7	1.5322 ug/L	1.5322 ppb	22:07:19
2	Zn 213.857†	1009.2	107.7	0.8060 ug/L	0.8060 ppb	22:07:19
2	SiO2†	210061.7	212027.7	12151 ug/L	12151 ppb	22:07:55
3	Sc Radial	4876.1	4876.1	98.6 %		22:06:06
3	Y RADIAL	5193.6	5193.6	97.90 %		22:06:06
3	Al 396.153Radial†	40.8	62.7	48.965 ug/L	48.965 ppb	22:06:06
3	Ca 317.933Radial†	1784.1	1788.1	2802.1 ug/L	2802.1 ppb	22:06:26
3	Fe 238.204 Radial†	12.1	-1.0	-8.3757 ug/L	-8.3757 ppb	22:06:26
3	K 766.490 Radial†	5083.0	1822.1	345.41 ug/L	345.41 ppb	22:06:06
3	Mg 279.077 IEC†	24.3	22.0	702.04 ug/L	702.04 ppb	22:06:26
3	Na 589.592 Radial†	7522.2	9426.8	2674.6 ug/L	2674.6 ppb	22:06:06
3	Sr 421.552†	2192.3	2212.6	14.503 ug/L	14.503 ppb	22:06:06
3	Sc 361.383	935455.4	935455.4	99.649 %		22:07:24
3	Y 371.029	812534.0	812534.0	99.318 %		22:07:24
3	Ag 328.068†	462.6	-1.4	-0.0395 ug/L	-0.0395 ppb	22:07:24
3	As 188.979†	-35.1	-0.3	-0.1191 ug/L	-0.1191 ppb	22:07:44
3	B 249.677†	-347.0	47.8	0.9344 ug/L	0.9344 ppb	22:07:44
3	Ba 233.527†	928.1	911.3	6.1973 ug/L	6.1973 ppb	22:07:44
3	Be 313.107†	-4484.7	200.9	0.0633 ug/L	0.0633 ppb	22:07:24
3	Cd 226.502†	-256.0	-0.2	-0.0012 ug/L	-0.0012 ppb	22:07:44
3	Co 228.616†	-87.6	6.3	0.1184 ug/L	0.1184 ppb	22:07:44
3	Cr 267.716†	161.3	28.2	0.2686 ug/L	0.2686 ppb	22:07:44
3	Cu 324.752†	8144.3	-310.2	-0.8850 ug/L	-0.8850 ppb	22:07:24
3	Mn 257.610†	3093.0	2467.3	2.4340 ug/L	2.4340 ppb	22:07:44
3	Mo 202.031†	55.0	29.8	1.7506 ug/L	1.7506 ppb	22:07:44
3	Ni 231.604†	150.2	11.8	0.2449 ug/L	0.2449 ppb	22:07:44
3	P 214.914†	282.1	12.0	5.5270 ug/L	5.5270 ppb	22:07:44
3	Pb 220.353†	-104.3	-20.1	-1.9743 ug/L	-1.9743 ppb	22:07:44
3	S 181.975 Axial†	348.0	287.6	315.88 ug/L	315.88 ppb	22:07:44
3	Sb 206.836†	41.1	-4.0	-1.1979 ug/L	-1.1979 ppb	22:07:44
3	Se 196.026†	-33.4	-0.8	-0.4042 ug/L	-0.4042 ppb	22:07:44
3	Si 251.611†	209967.3	209967.8	5585.3 ug/L	5585.3 ppb	22:07:24
3	Sn 189.927†	-28.2	-31.7	-4.1984 ug/L	-4.1984 ppb	22:07:44
3	Ti 334.940†	-1875.2	-177.0	-0.1114 ug/L	-0.1114 ppb	22:07:24
3	Tl 190.801†	-37.8	11.5	3.0319 ug/L	3.0319 ppb	22:07:44
3	U 409.014†	-3116.3	-208.6	-5.7733 ug/L	-5.7733 ppb	22:07:24
3	V 292.402†	-1577.1	227.5	1.3700 ug/L	1.3700 ppb	22:07:44
3	Zn 213.857†	1042.4	131.4	1.0028 ug/L	1.0028 ppb	22:07:44
3	SiO2†	211112.4	211098.3	12098 ug/L	12098 ppb	22:08:00

Mean Data: 243104001|935027|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	933599.7	99.451	%	0.6552				0.66%
Sc Radial	4861.9	98.3	%	0.26				0.27%
Y 371.029	810959.9	99.125	%	0.6545				0.66%
Y RADIAL	5164.0	97.34	%	0.550				0.56%
Ag 328.068†	53.5	0.1891	ug/L	0.33974	0.1891	ppb	0.33974	179.63%
Al 396.153Radial†	61.5	48.109	ug/L	11.5156	48.109	ppb	11.5156	23.94%
As 188.979†	2.3	0.7546	ug/L	0.76468	0.7546	ppb	0.76468	101.34%
B 249.677†	31.0	0.6046	ug/L	0.51822	0.6046	ppb	0.51822	85.71%
Ba 233.527†	903.5	6.1451	ug/L	0.04560	6.1451	ppb	0.04560	0.74%
Be 313.107†	175.8	0.0550	ug/L	0.00792	0.0550	ppb	0.00792	14.38%
Ca 317.933Radial†	1789.7	2804.7	ug/L	9.18	2804.7	ppb	9.18	0.33%
Cd 226.502†	-7.0	-0.0622	ug/L	0.06230	-0.0622	ppb	0.06230	100.10%
Co 228.616†	4.4	0.0845	ug/L	0.09922	0.0845	ppb	0.09922	117.48%
Cr 267.716†	27.5	0.2625	ug/L	0.01387	0.2625	ppb	0.01387	5.28%
Cu 324.752†	-331.7	-0.9461	ug/L	0.32807	-0.9461	ppb	0.32807	34.67%
Fe 238.204 Radial†	-0.6	-5.4409	ug/L	9.79441	-5.4409	ppb	9.79441	180.01%
K 766.490 Radial†	1860.0	352.61	ug/L	15.859	352.61	ppb	15.859	4.50%

Mg 279.077 IEC†	26.2	836.68	ug/L	120.198	836.68	ppb	120.198	14.37%
Mn 257.610†	2451.4	2.4160	ug/L	0.01860	2.4160	ppb	0.01860	0.77%
Mo 202.031†	23.4	1.3772	ug/L	0.34407	1.3772	ppb	0.34407	24.98%
Na 589.592 Radial†	9463.5	2685.0	ug/L	9.12	2685.0	ppb	9.12	0.34%
Ni 231.604†	27.6	0.5714	ug/L	0.39914	0.5714	ppb	0.39914	69.85%
P 214.914†	11.0	5.0968	ug/L	1.84175	5.0968	ppb	1.84175	36.14%
Pb 220.353†	-2.3	-0.2116	ug/L	2.44646	-0.2116	ppb	2.44646	>999.9%
S 181.975 Axial†	293.3	322.20	ug/L	5.923	322.20	ppb	5.923	1.84%
Sb 206.836†	-4.0	-1.2017	ug/L	0.14250	-1.2017	ppb	0.14250	11.86%
Se 196.026†	-2.2	-1.0413	ug/L	1.07334	-1.0413	ppb	1.07334	103.08%
Si 251.611†	209977.0	5585.5	ug/L	4.22	5585.5	ppb	4.22	0.08%
Sn 189.927†	-32.8	-4.3561	ug/L	0.57251	-4.3561	ppb	0.57251	13.14%
Sr 421.552†	2233.9	14.643	ug/L	0.1524	14.643	ppb	0.1524	1.04%
Ti 334.940†	-284.2	-0.2684	ug/L	0.19048	-0.2684	ppb	0.19048	70.97%
Tl 190.801†	5.4	1.4232	ug/L	2.67687	1.4232	ppb	2.67687	188.09%
U 409.014†	-232.9	-6.4461	ug/L	0.64253	-6.4461	ppb	0.64253	9.97%
V 292.402†	229.4	1.3777	ug/L	0.15069	1.3777	ppb	0.15069	10.94%
Zn 213.857†	119.7	0.9044	ug/L	0.09838	0.9044	ppb	0.09838	10.88%
SiO2†	210826.2	12083	ug/L	77.9	12083	ppb	77.9	0.64%

Sequence No.: 72
Sample ID: 1202000550|935027|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 74
Date Collected: 12/29/2009 22:10:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202000550|935027|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4873.7	4873.7	98.5	%			22:12:05
1	Y RADIAL	5193.5	5193.5	97.90	%			22:12:05
1	Al 396.153Radial†	-22.8	-1.8	-1.4840	ug/L	-1.4840	ppb	22:12:05
1	Ca 317.933Radial†	1811.5	1816.8	2847.2	ug/L	2847.2	ppb	22:12:25
1	Fe 238.204 Radial†	12.9	-0.2	-1.3577	ug/L	-1.3577	ppb	22:12:25
1	K 766.490 Radial†	5278.9	2023.4	383.73	ug/L	383.73	ppb	22:12:05
1	Mg 279.077 IEC†	28.3	26.0	830.55	ug/L	830.55	ppb	22:12:25
1	Na 589.592 Radial†	7518.4	9426.8	2674.6	ug/L	2674.6	ppb	22:12:05
1	Sr 421.552†	2209.2	2230.8	14.622	ug/L	14.622	ppb	22:12:05
1	Sc 361.383	947362.0	947362.0	100.92	%			22:13:22
1	Y 371.029	823578.5	823578.5	100.67	%			22:13:22
1	Ag 328.068†	585.4	114.5	0.4352	ug/L	0.4352	ppb	22:13:22
1	As 188.979†	-20.8	14.2	4.6727	ug/L	4.6727	ppb	22:13:43
1	B 249.677†	-563.6	-162.4	-3.1692	ug/L	-3.1692	ppb	22:13:43
1	Ba 233.527†	961.4	932.6	6.3424	ug/L	6.3424	ppb	22:13:43
1	Be 313.107†	-4452.0	289.9	0.0912	ug/L	0.0912	ppb	22:13:22
1	Cd 226.502†	-245.1	13.7	0.1242	ug/L	0.1242	ppb	22:13:43
1	Co 228.616†	-86.3	8.7	0.1600	ug/L	0.1600	ppb	22:13:43
1	Cr 267.716†	133.1	-1.8	-0.0155	ug/L	-0.0155	ppb	22:13:43
1	Cu 324.752†	8184.9	-372.7	-1.0628	ug/L	-1.0628	ppb	22:13:22
1	Mn 257.610†	3071.7	2407.2	2.3726	ug/L	2.3726	ppb	22:13:43
1	Mo 202.031†	49.9	24.0	1.4141	ug/L	1.4141	ppb	22:13:43
1	Ni 231.604†	159.8	19.4	0.4022	ug/L	0.4022	ppb	22:13:43
1	P 214.914†	296.4	22.5	10.296	ug/L	10.296	ppb	22:13:43
1	Pb 220.353†	-95.6	-10.1	-1.0018	ug/L	-1.0018	ppb	22:13:43
1	S 181.975 Axial†	347.0	282.2	309.96	ug/L	309.96	ppb	22:13:43
1	Sb 206.836†	30.9	-14.7	-4.2523	ug/L	-4.2523	ppb	22:13:43
1	Se 196.026†	-35.7	-2.7	-1.2590	ug/L	-1.2590	ppb	22:13:43
1	Si 251.611†	216829.2	214119.2	5695.7	ug/L	5695.7	ppb	22:13:22
1	Sn 189.927†	-34.0	-37.1	-4.9595	ug/L	-4.9595	ppb	22:13:43
1	Ti 334.940†	-2024.1	-301.0	-0.2944	ug/L	-0.2944	ppb	22:13:22
1	Tl 190.801†	-45.2	4.6	1.2163	ug/L	1.2163	ppb	22:13:43
1	U 409.014†	-2877.3	67.5	1.8681	ug/L	1.8681	ppb	22:13:22
1	V 292.402†	-1596.2	228.4	1.3874	ug/L	1.3874	ppb	22:13:43
1	Zn 213.857†	999.3	75.5	0.5606	ug/L	0.5606	ppb	22:13:43
1	SiO2†	214767.2	212057.2	12153	ug/L	12153	ppb	22:14:39
2	Sc Radial	4679.4	4679.4	94.6	%			22:12:30
2	Y RADIAL	4999.6	4999.6	94.25	%			22:12:30
2	Al 396.153Radial†	2.4	23.8	18.603	ug/L	18.603	ppb	22:12:30
2	Ca 317.933Radial†	1827.0	1909.5	2992.4	ug/L	2992.4	ppb	22:12:50
2	Fe 238.204 Radial†	11.9	-0.7	-6.1249	ug/L	-6.1249	ppb	22:12:50
2	K 766.490 Radial†	5287.9	2255.4	427.87	ug/L	427.87	ppb	22:12:30
2	Mg 279.077 IEC†	30.0	29.0	927.81	ug/L	927.81	ppb	22:12:50
2	Na 589.592 Radial†	7231.4	9440.3	2678.4	ug/L	2678.4	ppb	22:12:30
2	Sr 421.552†	2216.7	2331.8	15.284	ug/L	15.284	ppb	22:12:30
2	Sc 361.383	911016.6	911016.6	97.046	%			22:13:48
2	Y 371.029	791556.7	791556.7	96.754	%			22:13:48
2	Ag 328.068†	472.9	21.7	0.0528	ug/L	0.0528	ppb	22:13:48
2	As 188.979†	-36.7	-3.0	-0.9981	ug/L	-0.9981	ppb	22:14:08
2	B 249.677†	-573.3	-194.7	-3.7979	ug/L	-3.7979	ppb	22:14:08
2	Ba 233.527†	956.1	965.1	6.5635	ug/L	6.5635	ppb	22:14:08
2	Be 313.107†	-4549.0	13.9	0.0035	ug/L	0.0035	ppb	22:13:48
2	Cd 226.502†	-252.3	-3.3	-0.0292	ug/L	-0.0292	ppb	22:14:08
2	Co 228.616†	-93.5	-2.1	-0.0297	ug/L	-0.0297	ppb	22:14:08
2	Cr 267.716†	159.1	30.2	0.2874	ug/L	0.2874	ppb	22:14:08
2	Cu 324.752†	8010.9	-228.5	-0.6518	ug/L	-0.6518	ppb	22:13:48
2	Mn 257.610†	3096.0	2553.7	2.5157	ug/L	2.5157	ppb	22:14:08
2	Mo 202.031†	47.9	23.9	1.4043	ug/L	1.4043	ppb	22:14:08
2	Ni 231.604†	146.2	11.8	0.2436	ug/L	0.2436	ppb	22:14:08

2	P 214.914†	291.8	29.5	13.401 ug/L	13.401 ppb	22:14:08
2	Pb 220.353†	-95.8	-14.1	-1.3902 ug/L	-1.3902 ppb	22:14:08
2	S 181.975 Axial†	357.2	306.4	336.51 ug/L	336.51 ppb	22:14:08
2	Sb 206.836†	38.1	-6.0	-1.7842 ug/L	-1.7842 ppb	22:14:08
2	Se 196.026†	-41.5	-10.1	-4.7923 ug/L	-4.7923 ppb	22:14:08
2	Si 251.611†	213477.0	219236.7	5831.8 ug/L	5831.8 ppb	22:13:48
2	Sn 189.927†	-34.9	-39.3	-5.2572 ug/L	-5.2572 ppb	22:14:08
2	Ti 334.940†	-1958.4	-313.3	-0.3021 ug/L	-0.3021 ppb	22:13:48
2	Tl 190.801†	-54.6	-6.8	-1.7827 ug/L	-1.7827 ppb	22:14:08
2	U 409.014†	-2989.8	-162.2	-4.4892 ug/L	-4.4892 ppb	22:13:48
2	V 292.402†	-1535.8	227.5	1.3725 ug/L	1.3725 ppb	22:14:08
2	Zn 213.857†	990.2	105.7	0.7937 ug/L	0.7937 ppb	22:14:08
2	SiO2†	215310.7	221107.7	12672 ug/L	12672 ppb	22:14:44
3	Sc Radial	4854.8	4854.8	98.2 %		22:12:56
3	Y RADIAL	5176.1	5176.1	97.57 %		22:12:56
3	Al 396.153Radial†	-10.0	11.1	8.6912 ug/L	8.6912 ppb	22:12:56
3	Ca 317.933Radial†	1829.8	1842.5	2887.5 ug/L	2887.5 ppb	22:13:16
3	Fe 238.204 Radial†	9.6	-3.5	-30.425 ug/L	-30.425 ppb	22:13:16
3	K 766.490 Radial†	5072.9	1834.4	347.74 ug/L	347.74 ppb	22:12:56
3	Mg 279.077 IEC†	23.4	21.1	675.92 ug/L	675.92 ppb	22:13:16
3	Na 589.592 Radial†	7531.9	9470.2	2686.9 ug/L	2686.9 ppb	22:12:56
3	Sr 421.552†	2239.4	2270.2	14.881 ug/L	14.881 ppb	22:12:56
3	Sc 361.383	908070.5	908070.5	96.732 %		22:14:14
3	Y 371.029	789641.6	789641.6	96.519 %		22:14:14
3	Ag 328.068†	511.8	63.5	0.2167 ug/L	0.2167 ppb	22:14:14
3	As 188.979†	-33.4	0.3	0.1063 ug/L	0.1063 ppb	22:14:34
3	B 249.677†	-602.3	-226.5	-4.4163 ug/L	-4.4163 ppb	22:14:34
3	Ba 233.527†	944.0	955.9	6.4993 ug/L	6.4993 ppb	22:14:34
3	Be 313.107†	-4488.2	61.5	0.0184 ug/L	0.0184 ppb	22:14:14
3	Cd 226.502†	-246.3	2.0	0.0217 ug/L	0.0217 ppb	22:14:34
3	Co 228.616†	-91.4	-0.3	0.0019 ug/L	0.0019 ppb	22:14:34
3	Cr 267.716†	165.7	37.5	0.3550 ug/L	0.3550 ppb	22:14:34
3	Cu 324.752†	7999.7	-213.2	-0.6095 ug/L	-0.6095 ppb	22:14:14
3	Mn 257.610†	3079.8	2547.2	2.5116 ug/L	2.5116 ppb	22:14:34
3	Mo 202.031†	37.1	12.9	0.7568 ug/L	0.7568 ppb	22:14:34
3	Ni 231.604†	172.0	38.9	0.8047 ug/L	0.8047 ppb	22:14:34
3	P 214.914†	285.3	23.7	10.798 ug/L	10.798 ppb	22:14:34
3	Pb 220.353†	-99.9	-18.6	-1.8434 ug/L	-1.8434 ppb	22:14:34
3	S 181.975 Axial†	356.3	306.6	336.79 ug/L	336.79 ppb	22:14:34
3	Sb 206.836†	31.6	-12.5	-3.6811 ug/L	-3.6811 ppb	22:14:34
3	Se 196.026†	-38.4	-7.1	-3.4467 ug/L	-3.4467 ppb	22:14:34
3	Si 251.611†	212661.2	219107.1	5828.4 ug/L	5828.4 ppb	22:14:14
3	Sn 189.927†	-38.4	-43.1	-5.8078 ug/L	-5.8078 ppb	22:14:34
3	Ti 334.940†	-2048.1	-412.5	-0.4541 ug/L	-0.4541 ppb	22:14:14
3	Tl 190.801†	-54.5	-6.8	-1.7853 ug/L	-1.7853 ppb	22:14:34
3	U 409.014†	-2928.6	-108.9	-3.0117 ug/L	-3.0117 ppb	22:14:14
3	V 292.402†	-1582.3	174.3	1.0515 ug/L	1.0515 ppb	22:14:34
3	Zn 213.857†	1000.8	120.0	0.9116 ug/L	0.9116 ppb	22:14:34
3	SiO2†	215228.0	221742.0	12708 ug/L	12708 ppb	22:14:50

Mean Data: 1202000550|935027|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	922149.7	98.231	%	2.3312				2.37%
Sc Radial	4802.6	97.1	%	2.17				2.23%
Y 371.029	801592.3	97.980	%	2.3303				2.38%
Y RADIAL	5123.1	96.57	%	2.022				2.09%
Ag 328.068†	66.5	0.2349	ug/L	0.19186	0.2349	ppb	0.19186	81.68%
Al 396.153Radial†	11.1	8.6035	ug/L	10.04384	8.6035	ppb	10.04384	116.74%
As 188.979†	3.9	1.2603	ug/L	3.00639	1.2603	ppb	3.00639	238.54%
B 249.677†	-194.5	-3.7945	ug/L	0.62355	-3.7945	ppb	0.62355	16.43%
Ba 233.527†	951.2	6.4684	ug/L	0.11371	6.4684	ppb	0.11371	1.76%
Be 313.107†	121.8	0.0377	ug/L	0.04694	0.0377	ppb	0.04694	124.53%
Ca 317.933Radial†	1856.3	2909.0	ug/L	74.96	2909.0	ppb	74.96	2.58%
Cd 226.502†	4.1	0.0389	ug/L	0.07810	0.0389	ppb	0.07810	200.74%
Co 228.616†	2.1	0.0441	ug/L	0.10165	0.0441	ppb	0.10165	230.55%
Cr 267.716†	22.0	0.2089	ug/L	0.19732	0.2089	ppb	0.19732	94.44%
Cu 324.752†	-271.5	-0.7747	ug/L	0.25037	-0.7747	ppb	0.25037	32.32%
Fe 238.204 Radial†	-1.4	-12.636	ug/L	15.5893	-12.636	ppb	15.5893	123.37%
K 766.490 Radial†	2037.7	386.45	ug/L	40.136	386.45	ppb	40.136	10.39%

Mg 279.077 IEC†	25.4	811.43	ug/L	127.030	811.43	ppb	127.030	15.66%
Mn 257.610†	2502.7	2.4666	ug/L	0.08143	2.4666	ppb	0.08143	3.30%
Mo 202.031†	20.3	1.1917	ug/L	0.37666	1.1917	ppb	0.37666	31.61%
Na 589.592 Radial†	9445.8	2679.9	ug/L	6.30	2679.9	ppb	6.30	0.24%
Ni 231.604†	23.4	0.4835	ug/L	0.28925	0.4835	ppb	0.28925	59.83%
P 214.914†	25.2	11.498	ug/L	1.6666	11.498	ppb	1.6666	14.49%
Pb 220.353†	-14.3	-1.4118	ug/L	0.42124	-1.4118	ppb	0.42124	29.84%
S 181.975 Axial†	298.4	327.75	ug/L	15.410	327.75	ppb	15.410	4.70%
Sb 206.836†	-11.1	-3.2392	ug/L	1.29201	-3.2392	ppb	1.29201	39.89%
Se 196.026†	-6.6	-3.1660	ug/L	1.78330	-3.1660	ppb	1.78330	56.33%
Si 251.611†	217487.7	5785.3	ug/L	77.62	5785.3	ppb	77.62	1.34%
Sn 189.927†	-39.9	-5.3415	ug/L	0.43037	-5.3415	ppb	0.43037	8.06%
Sr 421.552†	2277.6	14.929	ug/L	0.3337	14.929	ppb	0.3337	2.24%
Ti 334.940†	-342.2	-0.3502	ug/L	0.09005	-0.3502	ppb	0.09005	25.72%
Tl 190.801†	-3.0	-0.7839	ug/L	1.73223	-0.7839	ppb	1.73223	220.98%
U 409.014†	-67.9	-1.8776	ug/L	3.32692	-1.8776	ppb	3.32692	177.19%
V 292.402†	210.0	1.2705	ug/L	0.18979	1.2705	ppb	0.18979	14.94%
Zn 213.857†	100.4	0.7553	ug/L	0.17864	0.7553	ppb	0.17864	23.65%
SiO2†	218302.3	12511	ug/L	310.5	12511	ppb	310.5	2.48%

Sequence No.: 73
Sample ID: 1202000551|935027|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 75
Date Collected: 12/29/2009 22:17:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202000551|935027|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4716.0	4716.0	95.4	%			22:18:54
1	Y RADIAL	4998.9	4998.9	94.23	%			22:18:54
1	Al 396.153Radial†	1223.6	1304.5	1016.9	ug/L	1016.9	ppb	22:18:54
1	Ca 317.933Radial†	2424.4	2521.1	3950.8	ug/L	3950.8	ppb	22:19:14
1	Fe 238.204 Radial†	128.9	121.9	1073.2	ug/L	1073.2	ppb	22:19:14
1	K 766.490 Radial†	10243.5	7409.0	1407.7	ug/L	1407.7	ppb	22:18:54
1	Mg 279.077 IEC†	61.8	62.2	1988.5	ug/L	1988.5	ppb	22:19:14
1	Na 589.592 Radial†	11159.1	13499.9	3830.2	ug/L	3830.2	ppb	22:18:54
1	Sr 421.552†	16848.6	17658.2	115.92	ug/L	115.92	ppb	22:18:54
1	Sc 361.383	955773.0	955773.0	101.81	%			22:20:12
1	Y 371.029	828650.5	828650.5	101.29	%			22:20:12
1	Ag 328.068†	24543.4	23640.7	98.388	ug/L	98.388	ppb	22:20:12
1	As 188.979†	267.0	297.0	98.520	ug/L	98.520	ppb	22:20:32
1	B 249.677†	4326.5	4645.6	90.266	ug/L	90.266	ppb	22:20:12
1	Ba 233.527†	15833.9	15531.9	105.83	ug/L	105.83	ppb	22:20:12
1	Be 313.107†	315205.0	314293.0	100.03	ug/L	100.03	ppb	22:20:12
1	Cd 226.502†	10582.5	10650.7	95.913	ug/L	95.913	ppb	22:20:32
1	Co 228.616†	5413.1	5410.9	95.203	ug/L	95.203	ppb	22:20:32
1	Cr 267.716†	10787.8	10462.0	98.456	ug/L	98.456	ppb	22:20:12
1	Cu 324.752†	43264.4	34010.7	97.039	ug/L	97.039	ppb	22:20:12
1	Mn 257.610†	106509.8	103976.4	103.23	ug/L	103.23	ppb	22:20:12
1	Mo 202.031†	1725.5	1669.3	98.360	ug/L	98.360	ppb	22:20:32
1	Ni 231.604†	4968.4	4741.0	98.087	ug/L	98.087	ppb	22:20:32
1	P 214.914†	531.2	250.5	98.909	ug/L	98.909	ppb	22:20:32
1	Pb 220.353†	923.1	991.3	98.699	ug/L	98.699	ppb	22:20:32
1	S 181.975 Axial†	1273.2	1188.8	1305.6	ug/L	1305.6	ppb	22:20:32
1	Sb 206.836†	406.2	353.7	102.78	ug/L	102.78	ppb	22:20:32
1	Se 196.026†	175.8	205.3	101.17	ug/L	101.17	ppb	22:20:32
1	Si 251.611†	251717.5	246495.4	6554.6	ug/L	6554.6	ppb	22:20:12
1	Sn 189.927†	721.0	704.8	100.22	ug/L	100.22	ppb	22:20:32
1	Ti 334.940†	66298.9	66823.0	98.280	ug/L	98.280	ppb	22:20:12
1	Tl 190.801†	325.4	369.0	97.342	ug/L	97.342	ppb	22:20:32
1	U 409.014†	720.8	3626.6	100.06	ug/L	100.06	ppb	22:20:12
1	V 292.402†	15211.5	16750.7	99.934	ug/L	99.934	ppb	22:20:12
1	Zn 213.857†	13808.7	12648.1	97.966	ug/L	97.966	ppb	22:20:12
1	SiO2†	248007.3	242832.6	13912	ug/L	13912	ppb	22:21:29
2	Sc Radial	4994.7	4994.7	101	%			22:19:19
2	Y RADIAL	5274.6	5274.6	99.43	%			22:19:19
2	Al 396.153Radial†	1243.4	1252.5	976.16	ug/L	976.16	ppb	22:19:19
2	Ca 317.933Radial†	2410.3	2365.2	3706.6	ug/L	3706.6	ppb	22:19:39
2	Fe 238.204 Radial†	132.6	118.0	1039.1	ug/L	1039.1	ppb	22:19:39
2	K 766.490 Radial†	10431.9	6996.1	1329.2	ug/L	1329.2	ppb	22:19:19
2	Mg 279.077 IEC†	56.5	53.2	1703.0	ug/L	1703.0	ppb	22:19:39
2	Na 589.592 Radial†	11371.3	13057.0	3704.5	ug/L	3704.5	ppb	22:19:19
2	Sr 421.552†	17215.1	17035.0	111.83	ug/L	111.83	ppb	22:19:19
2	Sc 361.383	956770.9	956770.9	101.92	%			22:20:37
2	Y 371.029	828279.6	828279.6	101.24	%			22:20:37
2	Ag 328.068†	24482.2	23555.5	98.028	ug/L	98.028	ppb	22:20:37
2	As 188.979†	271.9	301.6	100.00	ug/L	100.00	ppb	22:20:58
2	B 249.677†	4347.9	4662.1	90.592	ug/L	90.592	ppb	22:20:37
2	Ba 233.527†	15865.2	15546.4	105.93	ug/L	105.93	ppb	22:20:37
2	Be 313.107†	314947.9	313717.8	99.850	ug/L	99.850	ppb	22:20:37
2	Cd 226.502†	10567.0	10624.7	95.682	ug/L	95.682	ppb	22:20:58
2	Co 228.616†	5434.7	5426.6	95.478	ug/L	95.478	ppb	22:20:58
2	Cr 267.716†	10880.2	10541.5	99.203	ug/L	99.203	ppb	22:20:37
2	Cu 324.752†	43290.1	33991.6	96.983	ug/L	96.983	ppb	22:20:37
2	Mn 257.610†	106659.5	104014.1	103.27	ug/L	103.27	ppb	22:20:37
2	Mo 202.031†	1718.9	1661.0	97.867	ug/L	97.867	ppb	22:20:58
2	Ni 231.604†	4955.0	4722.7	97.708	ug/L	97.708	ppb	22:20:58

2	P 214.914†	515.0	234.1	91.444 ug/L	91.444 ppb	22:20:58
2	Pb 220.353†	927.6	994.7	99.031 ug/L	99.031 ppb	22:20:58
2	S 181.975 Axial†	1263.6	1178.1	1293.9 ug/L	1293.9 ppb	22:20:58
2	Sb 206.836†	376.1	323.8	94.152 ug/L	94.152 ppb	22:20:58
2	Se 196.026†	173.9	203.3	100.09 ug/L	100.09 ppb	22:20:58
2	Si 251.611†	252490.9	246996.3	6568.0 ug/L	6568.0 ppb	22:20:37
2	Sn 189.927†	707.2	690.5	98.164 ug/L	98.164 ppb	22:20:58
2	Ti 334.940†	66315.3	66771.1	98.190 ug/L	98.190 ppb	22:20:37
2	Tl 190.801†	333.4	376.6	99.305 ug/L	99.305 ppb	22:20:58
2	U 409.014†	791.6	3695.3	101.97 ug/L	101.97 ppb	22:20:37
2	V 292.402†	15285.9	16808.1	100.27 ug/L	100.27 ppb	22:20:37
2	Zn 213.857†	13843.2	12667.8	98.134 ug/L	98.134 ppb	22:20:37
2	SiO2†	245099.5	239725.5	13734 ug/L	13734 ppb	22:21:34
3	Sc Radial	4911.9	4911.9	99.3 %		22:19:44
3	Y RADIAL	5251.1	5251.1	98.99 %		22:19:44
3	Al 396.153Radial†	1242.3	1272.1	991.64 ug/L	991.64 ppb	22:19:44
3	Ca 317.933Radial†	2419.5	2414.7	3784.1 ug/L	3784.1 ppb	22:20:04
3	Fe 238.204 Radial†	129.0	116.6	1026.8 ug/L	1026.8 ppb	22:20:04
3	K 766.490 Radial†	10279.7	7016.9	1333.2 ug/L	1333.2 ppb	22:19:44
3	Mg 279.077 IEC†	59.5	57.2	1830.7 ug/L	1830.7 ppb	22:20:04
3	Na 589.592 Radial†	11076.8	12950.3	3674.2 ug/L	3674.2 ppb	22:19:44
3	Sr 421.552†	16896.8	17001.8	111.61 ug/L	111.61 ppb	22:19:44
3	Sc 361.383	961466.8	961466.8	102.42 %		22:21:03
3	Y 371.029	833152.7	833152.7	101.84 %		22:21:03
3	Ag 328.068†	24627.8	23580.3	98.126 ug/L	98.126 ppb	22:21:03
3	As 188.979†	259.8	288.5	95.720 ug/L	95.720 ppb	22:21:24
3	B 249.677†	4412.1	4703.9	91.415 ug/L	91.415 ppb	22:21:03
3	Ba 233.527†	15947.9	15551.1	105.96 ug/L	105.96 ppb	22:21:03
3	Be 313.107†	316590.9	313812.7	99.880 ug/L	99.880 ppb	22:21:03
3	Cd 226.502†	10418.5	10429.0	93.919 ug/L	93.919 ppb	22:21:24
3	Co 228.616†	5363.8	5331.3	93.798 ug/L	93.798 ppb	22:21:24
3	Cr 267.716†	10887.0	10496.1	98.777 ug/L	98.777 ppb	22:21:03
3	Cu 324.752†	43495.0	33984.2	96.961 ug/L	96.961 ppb	22:21:03
3	Mn 257.610†	106968.5	103804.8	103.06 ug/L	103.06 ppb	22:21:03
3	Mo 202.031†	1698.4	1632.8	96.205 ug/L	96.205 ppb	22:21:24
3	Ni 231.604†	4912.6	4657.7	96.362 ug/L	96.362 ppb	22:21:24
3	P 214.914†	519.8	236.4	92.492 ug/L	92.492 ppb	22:21:24
3	Pb 220.353†	901.3	964.6	96.043 ug/L	96.043 ppb	22:21:24
3	S 181.975 Axial†	1255.6	1164.3	1278.7 ug/L	1278.7 ppb	22:21:24
3	Sb 206.836†	393.4	338.9	98.422 ug/L	98.422 ppb	22:21:24
3	Se 196.026†	184.2	212.5	104.41 ug/L	104.41 ppb	22:21:24
3	Si 251.611†	252806.6	246094.6	6544.0 ug/L	6544.0 ppb	22:21:03
3	Sn 189.927†	700.5	680.6	96.772 ug/L	96.772 ppb	22:21:24
3	Ti 334.940†	66646.7	66776.9	98.202 ug/L	98.202 ppb	22:21:03
3	Tl 190.801†	321.6	363.5	95.882 ug/L	95.882 ppb	22:21:24
3	U 409.014†	847.7	3746.3	103.38 ug/L	103.38 ppb	22:21:03
3	V 292.402†	15460.0	16904.8	100.82 ug/L	100.82 ppb	22:21:03
3	Zn 213.857†	13872.6	12630.2	97.844 ug/L	97.844 ppb	22:21:03
3	SiO2†	248972.7	242332.6	13883 ug/L	13883 ppb	22:21:40

Mean Data: 1202000551|935027|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	958003.6	102.05	%	0.324				0.32%
Sc Radial	4874.2	98.6	%	2.89				2.94%
Y 371.029	830027.6	101.46	%	0.332				0.33%
Y RADIAL	5174.9	97.55	%	2.882				2.95%
Ag 328.068†	23592.2	98.180	ug/L	0.1862	98.180	ppb	0.1862	0.19%
Al 396.153Radial†	1276.4	994.90	ug/L	20.565	994.90	ppb	20.565	2.07%
As 188.979†	295.7	98.080	ug/L	2.1742	98.080	ppb	2.1742	2.22%
B 249.677†	4670.5	90.758	ug/L	0.5921	90.758	ppb	0.5921	0.65%
Ba 233.527†	15543.1	105.91	ug/L	0.068	105.91	ppb	0.068	0.06%
Be 313.107†	313941.2	99.921	ug/L	0.0980	99.921	ppb	0.0980	0.10%
Ca 317.933Radial†	2433.6	3813.9	ug/L	124.79	3813.9	ppb	124.79	3.27%
Cd 226.502†	10568.1	95.171	ug/L	1.0907	95.171	ppb	1.0907	1.15%
Co 228.616†	5389.6	94.826	ug/L	0.9013	94.826	ppb	0.9013	0.95%
Cr 267.716†	10499.9	98.812	ug/L	0.3747	98.812	ppb	0.3747	0.38%
Cu 324.752†	33995.5	96.994	ug/L	0.0403	96.994	ppb	0.0403	0.04%
Fe 238.204 Radial†	118.8	1046.4	ug/L	23.99	1046.4	ppb	23.99	2.29%
K 766.490 Radial†	7140.7	1356.7	ug/L	44.24	1356.7	ppb	44.24	3.26%

Mg 279.077 IEC†	57.5	1840.8	ug/L	142.99	1840.8	ppb	142.99	7.77%
Mn 257.610†	103931.8	103.18	ug/L	0.112	103.18	ppb	0.112	0.11%
Mo 202.031†	1654.4	97.477	ug/L	1.1292	97.477	ppb	1.1292	1.16%
Na 589.592 Radial†	13169.1	3736.3	ug/L	82.69	3736.3	ppb	82.69	2.21%
Ni 231.604†	4707.1	97.386	ug/L	0.9067	97.386	ppb	0.9067	0.93%
P 214.914†	240.3	94.282	ug/L	4.0413	94.282	ppb	4.0413	4.29%
Pb 220.353†	983.6	97.924	ug/L	1.6376	97.924	ppb	1.6376	1.67%
S 181.975 Axial†	1177.1	1292.7	ug/L	13.51	1292.7	ppb	13.51	1.05%
Sb 206.836†	338.8	98.452	ug/L	4.3161	98.452	ppb	4.3161	4.38%
Se 196.026†	207.0	101.89	ug/L	2.250	101.89	ppb	2.250	2.21%
Si 251.611†	246528.7	6555.5	ug/L	12.00	6555.5	ppb	12.00	0.18%
Sn 189.927†	691.9	98.384	ug/L	1.7325	98.384	ppb	1.7325	1.76%
Sr 421.552†	17231.7	113.12	ug/L	2.427	113.12	ppb	2.427	2.15%
Ti 334.940†	66790.4	98.224	ug/L	0.0489	98.224	ppb	0.0489	0.05%
Tl 190.801†	369.7	97.510	ug/L	1.7178	97.510	ppb	1.7178	1.76%
U 409.014†	3689.4	101.80	ug/L	1.665	101.80	ppb	1.665	1.64%
V 292.402†	16821.2	100.34	ug/L	0.448	100.34	ppb	0.448	0.45%
Zn 213.857†	12648.7	97.981	ug/L	0.1453	97.981	ppb	0.1453	0.15%
SiO2†	241630.2	13843	ug/L	95.6	13843	ppb	95.6	0.69%

Sequence No.: 74
Sample ID: 1202000552|935027|25
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 76
Date Collected: 12/29/2009 22:23:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202000552|935027|25

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4975.3	4975.3	101	%			22:25:44
1	Y RADIAL	5331.6	5331.6	100.5	%			22:25:44
1	Al 396.153Radial†	-0.5	20.8	16.306	ug/L	16.306	ppb	22:25:44
1	Ca 317.933Radial†	384.8	361.1	565.82	ug/L	565.82	ppb	22:26:04
1	Fe 238.204 Radial†	14.9	1.6	13.674	ug/L	13.674	ppb	22:26:04
1	K 766.490 Radial†	3674.9	319.6	60.568	ug/L	60.568	ppb	22:25:44
1	Mg 279.077 IEC†	10.0	7.2	230.57	ug/L	230.57	ppb	22:26:04
1	Na 589.592 Radial†	-100.2	1697.8	481.71	ug/L	481.71	ppb	22:25:44
1	Sr 421.552†	450.1	436.4	2.8607	ug/L	2.8607	ppb	22:25:44
1	Sc 361.383	944390.4	944390.4	100.60	%			22:27:00
1	Y 371.029	823999.7	823999.7	100.72	%			22:27:00
1	Ag 328.068†	596.1	126.9	0.5242	ug/L	0.5242	ppb	22:27:05
1	As 188.979†	-34.2	0.9	0.2931	ug/L	0.2931	ppb	22:27:26
1	B 249.677†	-732.4	-332.0	-6.4792	ug/L	-6.4792	ppb	22:27:05
1	Ba 233.527†	196.7	175.4	1.1927	ug/L	1.1927	ppb	22:27:26
1	Be 313.107†	-4501.3	227.0	0.0717	ug/L	0.0717	ppb	22:27:05
1	Cd 226.502†	-262.4	-4.2	-0.0397	ug/L	-0.0397	ppb	22:27:26
1	Co 228.616†	-96.8	-2.0	-0.0342	ug/L	-0.0342	ppb	22:27:26
1	Cr 267.716†	104.6	-29.8	-0.2783	ug/L	-0.2783	ppb	22:27:05
1	Cu 324.752†	8180.8	-351.2	-1.0009	ug/L	-1.0009	ppb	22:27:05
1	Mn 257.610†	1155.4	512.0	0.5050	ug/L	0.5050	ppb	22:27:05
1	Mo 202.031†	27.5	1.9	0.1105	ug/L	0.1105	ppb	22:27:26
1	Ni 231.604†	122.6	-17.0	-0.3516	ug/L	-0.3516	ppb	22:27:26
1	P 214.914†	268.2	-4.6	-1.9380	ug/L	-1.9380	ppb	22:27:26
1	Pb 220.353†	-105.5	-20.2	-2.0032	ug/L	-2.0032	ppb	22:27:26
1	S 181.975 Axial†	121.4	59.0	64.811	ug/L	64.811	ppb	22:27:26
1	Sb 206.836†	39.2	-6.2	-1.7954	ug/L	-1.7954	ppb	22:27:26
1	Se 196.026†	-34.3	-1.4	-0.6239	ug/L	-0.6239	ppb	22:27:26
1	Si 251.611†	42913.1	41917.5	1115.0	ug/L	1115.0	ppb	22:27:05
1	Sn 189.927†	-5.8	-9.2	-1.2378	ug/L	-1.2378	ppb	22:27:26
1	Ti 334.940†	-1858.8	-142.9	-0.1788	ug/L	-0.1788	ppb	22:27:05
1	Tl 190.801†	-41.6	8.1	2.1279	ug/L	2.1279	ppb	22:27:26
1	U 409.014†	-3061.8	-124.9	-3.4571	ug/L	-3.4571	ppb	22:27:00
1	V 292.402†	-1819.9	1.0	0.0044	ug/L	0.0044	ppb	22:27:05
1	Zn 213.857†	925.8	5.6	0.0383	ug/L	0.0383	ppb	22:27:26
1	SiO2†	43224.6	42208.5	2419.0	ug/L	2419.0	ppb	22:28:32
2	Sc Radial	4941.4	4941.4	99.9	%			22:26:09
2	Y RADIAL	5239.1	5239.1	98.76	%			22:26:09
2	Al 396.153Radial†	-19.4	1.9	1.4858	ug/L	1.4858	ppb	22:26:09
2	Ca 317.933Radial†	380.3	359.2	562.94	ug/L	562.94	ppb	22:26:29
2	Fe 238.204 Radial†	15.2	2.0	17.362	ug/L	17.362	ppb	22:26:29
2	K 766.490 Radial†	3667.6	337.4	63.963	ug/L	63.963	ppb	22:26:09
2	Mg 279.077 IEC†	8.6	5.9	189.70	ug/L	189.70	ppb	22:26:29
2	Na 589.592 Radial†	-144.5	1652.8	468.92	ug/L	468.92	ppb	22:26:09
2	Sr 421.552†	441.4	430.8	2.8238	ug/L	2.8238	ppb	22:26:09
2	Sc 361.383	966689.3	966689.3	102.98	%			22:27:31
2	Y 371.029	843520.0	843520.0	103.11	%			22:27:31
2	Ag 328.068†	695.1	209.4	0.8649	ug/L	0.8649	ppb	22:27:36
2	As 188.979†	-37.6	-1.6	-0.5361	ug/L	-0.5361	ppb	22:27:56
2	B 249.677†	-741.9	-324.4	-6.3334	ug/L	-6.3334	ppb	22:27:36
2	Ba 233.527†	200.1	174.2	1.1856	ug/L	1.1856	ppb	22:27:56
2	Be 313.107†	-4492.5	338.7	0.1077	ug/L	0.1077	ppb	22:27:36
2	Cd 226.502†	-253.3	10.7	0.0949	ug/L	0.0949	ppb	22:27:56
2	Co 228.616†	-87.8	8.9	0.1587	ug/L	0.1587	ppb	22:27:56
2	Cr 267.716†	115.5	-21.6	-0.2017	ug/L	-0.2017	ppb	22:27:36
2	Cu 324.752†	8108.7	-608.8	-1.7352	ug/L	-1.7352	ppb	22:27:36
2	Mn 257.610†	1191.6	520.6	0.5147	ug/L	0.5147	ppb	22:27:36
2	Mo 202.031†	34.3	7.8	0.4629	ug/L	0.4629	ppb	22:27:56
2	Ni 231.604†	153.2	9.8	0.2037	ug/L	0.2037	ppb	22:27:56

2	P 214.914†	267.1	-11.8	-5.1139	ug/L	-5.1139 ppb	22:27:56
2	Pb 220.353†	-97.5	-10.1	-0.9976	ug/L	-0.9976 ppb	22:27:56
2	S 181.975 Axial†	118.4	53.4	58.601	ug/L	58.601 ppb	22:27:56
2	Sb 206.836†	33.4	-12.8	-3.6660	ug/L	-3.6660 ppb	22:27:56
2	Se 196.026†	-42.9	-9.0	-4.2069	ug/L	-4.2069 ppb	22:27:56
2	Si 251.611†	42547.5	40578.5	1079.4	ug/L	1079.4 ppb	22:27:36
2	Sn 189.927†	-3.8	-7.1	-0.9440	ug/L	-0.9440 ppb	22:27:56
2	Ti 334.940†	-1702.2	51.8	0.1056	ug/L	0.1056 ppb	22:27:36
2	Tl 190.801†	-44.8	6.0	1.5682	ug/L	1.5682 ppb	22:27:56
2	U 409.014†	-3012.4	-6.7	-0.1863	ug/L	-0.1863 ppb	22:27:31
2	V 292.402†	-1811.5	50.9	0.3074	ug/L	0.3074 ppb	22:27:36
2	Zn 213.857†	916.1	-25.1	-0.2026	ug/L	-0.2026 ppb	22:27:56
2	SiO2†	43303.7	41294.2	2366.6	ug/L	2366.6 ppb	22:28:37
3	Sc Radial	4944.8	4944.8	100.0	%		22:26:34
3	Y RADIAL	5271.3	5271.3	99.37	%		22:26:34
3	Al 396.153Radial†	-9.9	11.4	8.9095	ug/L	8.9095 ppb	22:26:34
3	Ca 317.933Radial†	381.8	360.4	564.75	ug/L	564.75 ppb	22:26:54
3	Fe 238.204 Radial†	12.8	-0.5	-4.2424	ug/L	-4.2424 ppb	22:26:54
3	K 766.490 Radial†	3562.3	229.5	43.425	ug/L	43.425 ppb	22:26:34
3	Mg 279.077 IEC†	6.6	3.9	123.49	ug/L	123.49 ppb	22:26:54
3	Na 589.592 Radial†	-141.5	1655.9	469.80	ug/L	469.80 ppb	22:26:34
3	Sr 421.552†	471.2	460.2	3.0169	ug/L	3.0169 ppb	22:26:34
3	Sc 361.383	951528.3	951528.3	101.36	%		22:28:01
3	Y 371.029	827742.9	827742.9	101.18	%		22:28:01
3	Ag 328.068†	548.3	75.3	0.3050	ug/L	0.3050 ppb	22:28:06
3	As 188.979†	-36.8	-1.5	-0.4806	ug/L	-0.4806 ppb	22:28:26
3	B 249.677†	-707.1	-301.6	-5.8844	ug/L	-5.8844 ppb	22:28:06
3	Ba 233.527†	194.9	172.2	1.1704	ug/L	1.1704 ppb	22:28:26
3	Be 313.107†	-4518.2	243.9	0.0775	ug/L	0.0775 ppb	22:28:06
3	Cd 226.502†	-250.3	9.8	0.0884	ug/L	0.0884 ppb	22:28:26
3	Co 228.616†	-80.1	15.2	0.2684	ug/L	0.2684 ppb	22:28:26
3	Cr 267.716†	133.9	-1.7	-0.0146	ug/L	-0.0146 ppb	22:28:06
3	Cu 324.752†	8092.5	-499.4	-1.4242	ug/L	-1.4242 ppb	22:28:06
3	Mn 257.610†	1124.3	472.6	0.4662	ug/L	0.4662 ppb	22:28:06
3	Mo 202.031†	24.8	-1.0	-0.0592	ug/L	-0.0592 ppb	22:28:26
3	Ni 231.604†	149.8	8.8	0.1830	ug/L	0.1830 ppb	22:28:26
3	P 214.914†	252.0	-22.6	-10.028	ug/L	-10.028 ppb	22:28:26
3	Pb 220.353†	-102.5	-16.5	-1.6339	ug/L	-1.6339 ppb	22:28:26
3	S 181.975 Axial†	115.4	52.2	57.289	ug/L	57.289 ppb	22:28:26
3	Sb 206.836†	51.4	5.4	1.5208	ug/L	1.5208 ppb	22:28:26
3	Se 196.026†	-43.4	-10.2	-4.8436	ug/L	-4.8436 ppb	22:28:26
3	Si 251.611†	42634.6	41322.7	1099.2	ug/L	1099.2 ppb	22:28:06
3	Sn 189.927†	-10.3	-13.5	-1.8578	ug/L	-1.8578 ppb	22:28:26
3	Ti 334.940†	-1706.5	21.2	0.0622	ug/L	0.0622 ppb	22:28:06
3	Tl 190.801†	-46.5	3.6	0.9378	ug/L	0.9378 ppb	22:28:26
3	U 409.014†	-3088.3	-128.2	-3.5477	ug/L	-3.5477 ppb	22:28:01
3	V 292.402†	-1830.9	3.8	0.0180	ug/L	0.0180 ppb	22:28:06
3	Zn 213.857†	911.6	-15.3	-0.1228	ug/L	-0.1228 ppb	22:28:26
3	SiO2†	42825.1	41492.0	2378.0	ug/L	2378.0 ppb	22:28:42

Mean Data: 1202000552|935027|25

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	954202.7	101.65	%	1.213				1.19%
Sc Radial	4953.8	100	%	0.4				0.38%
Y 371.029	831754.2	101.67	%	1.266				1.25%
Y RADIAL	5280.7	99.54	%	0.885				0.89%
Ag 328.068†	137.2	0.5647	ug/L	0.28216	0.5647	ppb	0.28216	49.97%
Al 396.153Radial†	11.4	8.9003	ug/L	7.40998	8.9003	ppb	7.40998	83.26%
As 188.979†	-0.7	-0.2412	ug/L	0.46359	-0.2412	ppb	0.46359	192.19%
B 249.677†	-319.3	-6.2323	ug/L	0.30997	-6.2323	ppb	0.30997	4.97%
Ba 233.527†	173.9	1.1829	ug/L	0.01141	1.1829	ppb	0.01141	0.96%
Be 313.107†	269.8	0.0856	ug/L	0.01935	0.0856	ppb	0.01935	22.59%
Ca 317.933Radial†	360.2	564.50	ug/L	1.453	564.50	ppb	1.453	0.26%
Cd 226.502†	5.4	0.0479	ug/L	0.07592	0.0479	ppb	0.07592	158.51%
Co 228.616†	7.4	0.1310	ug/L	0.15316	0.1310	ppb	0.15316	116.93%
Cr 267.716†	-17.7	-0.1649	ug/L	0.13562	-0.1649	ppb	0.13562	82.25%
Cu 324.752†	-486.5	-1.3868	ug/L	0.36858	-1.3868	ppb	0.36858	26.58%
Fe 238.204 Radial†	1.0	8.9310	ug/L	11.55655	8.9310	ppb	11.55655	129.40%
K 766.490 Radial†	295.5	55.986	ug/L	11.0092	55.986	ppb	11.0092	19.66%

Mg 279.077 IEC†	5.7	181.25	ug/L	54.040	181.25	ppb	54.040 29.81%
Mn 257.610†	501.7	0.4953	ug/L	0.02568	0.4953	ppb	0.02568 5.18%
Mo 202.031†	2.9	0.1714	ug/L	0.26635	0.1714	ppb	0.26635 155.39%
Na 589.592 Radial†	1668.8	473.48	ug/L	7.144	473.48	ppb	7.144 1.51%
Ni 231.604†	0.6	0.0117	ug/L	0.31478	0.0117	ppb	0.31478 >999.9%
P 214.914†	-13.0	-5.6932	ug/L	4.07582	-5.6932	ppb	4.07582 71.59%
Pb 220.353†	-15.6	-1.5449	ug/L	0.50866	-1.5449	ppb	0.50866 32.93%
S 181.975 Axial†	54.8	60.234	ug/L	4.0180	60.234	ppb	4.0180 6.67%
Sb 206.836†	-4.5	-1.3135	ug/L	2.62680	-1.3135	ppb	2.62680 199.98%
Se 196.026†	-6.9	-3.2248	ug/L	2.27480	-3.2248	ppb	2.27480 70.54%
Si 251.611†	41272.9	1097.9	ug/L	17.85	1097.9	ppb	17.85 1.63%
Sn 189.927†	-9.9	-1.3465	ug/L	0.46650	-1.3465	ppb	0.46650 34.64%
Sr 421.552†	442.5	2.9005	ug/L	0.10253	2.9005	ppb	0.10253 3.53%
Ti 334.940†	-23.3	-0.0037	ug/L	0.15321	-0.0037	ppb	0.15321 >999.9%
Tl 190.801†	5.9	1.5446	ug/L	0.59537	1.5446	ppb	0.59537 38.54%
U 409.014†	-86.6	-2.3970	ug/L	1.91509	-2.3970	ppb	1.91509 79.89%
V 292.402†	18.6	0.1099	ug/L	0.17113	0.1099	ppb	0.17113 155.71%
Zn 213.857†	-11.6	-0.0957	ug/L	0.12274	-0.0957	ppb	0.12274 128.25%
SiO2†	41664.9	2387.9	ug/L	27.57	2387.9	ppb	27.57 1.15%

Sequence No.: 75
Sample ID: 243104002|935027|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 77
Date Collected: 12/29/2009 22:30:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243104002|935027|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4888.5	4888.5	98.8	%			22:32:46
1	Y RADIAL	5184.1	5184.1	97.72	%			22:32:46
1	Al 396.153Radial†	11.6	33.0	25.812	ug/L	25.812	ppb	22:32:46
1	Ca 317.933Radial†	1771.7	1771.0	2775.4	ug/L	2775.4	ppb	22:33:06
1	Fe 238.204 Radial†	13.5	0.4	3.3330	ug/L	3.3330	ppb	22:33:06
1	K 766.490 Radial†	5150.8	1877.6	355.96	ug/L	355.96	ppb	22:32:46
1	Mg 279.077 IEC†	28.7	26.3	841.41	ug/L	841.41	ppb	22:33:06
1	Na 589.592 Radial†	7720.9	9608.6	2726.1	ug/L	2726.1	ppb	22:32:46
1	Sr 421.552†	2217.9	2232.8	14.636	ug/L	14.636	ppb	22:32:46
1	Sc 361.383	933946.2	933946.2	99.488	%			22:34:03
1	Y 371.029	811824.0	811824.0	99.231	%			22:34:03
1	Ag 328.068†	487.0	23.9	0.0691	ug/L	0.0691	ppb	22:34:03
1	As 188.979†	-35.1	-0.5	-0.1588	ug/L	-0.1588	ppb	22:34:23
1	B 249.677†	-609.8	-216.9	-4.2322	ug/L	-4.2322	ppb	22:34:23
1	Ba 233.527†	919.7	904.4	6.1512	ug/L	6.1512	ppb	22:34:23
1	Be 313.107†	-4456.2	222.2	0.0698	ug/L	0.0698	ppb	22:34:03
1	Cd 226.502†	-242.9	12.5	0.1129	ug/L	0.1129	ppb	22:34:23
1	Co 228.616†	-94.4	-0.6	-0.0050	ug/L	-0.0050	ppb	22:34:23
1	Cr 267.716†	169.7	36.9	0.3507	ug/L	0.3507	ppb	22:34:23
1	Cu 324.752†	8068.5	-373.2	-1.0642	ug/L	-1.0642	ppb	22:34:03
1	Mn 257.610†	2729.6	2107.1	2.0752	ug/L	2.0752	ppb	22:34:23
1	Mo 202.031†	41.3	16.0	0.9447	ug/L	0.9447	ppb	22:34:23
1	Ni 231.604†	148.4	10.2	0.2121	ug/L	0.2121	ppb	22:34:23
1	P 214.914†	289.0	19.3	8.8538	ug/L	8.8538	ppb	22:34:23
1	Pb 220.353†	-93.3	-9.2	-0.9001	ug/L	-0.9001	ppb	22:34:23
1	S 181.975 Axial†	352.5	292.7	321.48	ug/L	321.48	ppb	22:34:23
1	Sb 206.836†	38.8	-6.3	-1.8531	ug/L	-1.8531	ppb	22:34:23
1	Se 196.026†	-46.3	-13.9	-6.5607	ug/L	-6.5607	ppb	22:34:23
1	Si 251.611†	208284.6	208617.0	5549.4	ug/L	5549.4	ppb	22:34:03
1	Sn 189.927†	-26.9	-30.4	-4.0230	ug/L	-4.0230	ppb	22:34:23
1	Ti 334.940†	-1985.8	-291.2	-0.2811	ug/L	-0.2811	ppb	22:34:03
1	Tl 190.801†	-52.4	-3.2	-0.8442	ug/L	-0.8442	ppb	22:34:23
1	U 409.014†	-3062.3	-159.4	-4.4122	ug/L	-4.4122	ppb	22:34:03
1	V 292.402†	-1542.1	260.0	1.5543	ug/L	1.5543	ppb	22:34:23
1	Zn 213.857†	1021.7	112.3	0.8481	ug/L	0.8481	ppb	22:34:23
1	SiO2†	205714.4	206014.9	11807	ug/L	11807	ppb	22:35:20
2	Sc Radial	5111.7	5111.7	103	%			22:33:11
2	Y RADIAL	5431.9	5431.9	102.4	%			22:33:11
2	Al 396.153Radial†	4.3	25.5	19.892	ug/L	19.892	ppb	22:33:11
2	Ca 317.933Radial†	1782.7	1703.3	2669.3	ug/L	2669.3	ppb	22:33:31
2	Fe 238.204 Radial†	14.8	1.1	9.5113	ug/L	9.5113	ppb	22:33:31
2	K 766.490 Radial†	5189.9	1687.9	319.89	ug/L	319.89	ppb	22:33:11
2	Mg 279.077 IEC†	23.8	20.3	650.37	ug/L	650.37	ppb	22:33:31
2	Na 589.592 Radial†	7788.0	9332.4	2647.8	ug/L	2647.8	ppb	22:33:11
2	Sr 421.552†	2273.0	2188.1	14.344	ug/L	14.344	ppb	22:33:11
2	Sc 361.383	943839.7	943839.7	100.54	%			22:34:29
2	Y 371.029	819080.4	819080.4	100.12	%			22:34:29
2	Ag 328.068†	507.6	39.2	0.1328	ug/L	0.1328	ppb	22:34:29
2	As 188.979†	-31.9	3.1	1.0176	ug/L	1.0176	ppb	22:34:49
2	B 249.677†	-660.1	-260.4	-5.0836	ug/L	-5.0836	ppb	22:34:49
2	Ba 233.527†	927.3	902.2	6.1363	ug/L	6.1363	ppb	22:34:49
2	Be 313.107†	-4492.6	233.0	0.0732	ug/L	0.0732	ppb	22:34:29
2	Cd 226.502†	-271.7	-13.5	-0.1226	ug/L	-0.1226	ppb	22:34:49
2	Co 228.616†	-89.5	5.2	0.0986	ug/L	0.0986	ppb	22:34:49
2	Cr 267.716†	168.6	33.9	0.3216	ug/L	0.3216	ppb	22:34:49
2	Cu 324.752†	8331.4	-196.7	-0.5604	ug/L	-0.5604	ppb	22:34:29
2	Mn 257.610†	2724.7	2073.5	2.0460	ug/L	2.0460	ppb	22:34:49
2	Mo 202.031†	44.8	19.1	1.1269	ug/L	1.1269	ppb	22:34:49
2	Ni 231.604†	166.9	27.2	0.5620	ug/L	0.5620	ppb	22:34:49

2	P 214.914†	292.9	20.2	9.1703 ug/L	9.1703 ppb	22:34:49
2	Pb 220.353†	-75.0	10.0	0.9986 ug/L	0.9986 ppb	22:34:49
2	S 181.975 Axial†	353.8	290.3	318.82 ug/L	318.82 ppb	22:34:49
2	Sb 206.836†	34.5	-10.9	-3.1703 ug/L	-3.1703 ppb	22:34:49
2	Se 196.026†	-31.1	1.8	0.8797 ug/L	0.8797 ppb	22:34:49
2	Si 251.611†	211086.1	209208.8	5565.1 ug/L	5565.1 ppb	22:34:29
2	Sn 189.927†	-27.3	-30.6	-4.0511 ug/L	-4.0511 ppb	22:34:49
2	Ti 334.940†	-1993.0	-277.5	-0.2677 ug/L	-0.2677 ppb	22:34:29
2	Tl 190.801†	-44.5	5.2	1.3607 ug/L	1.3607 ppb	22:34:49
2	U 409.014†	-2998.5	-63.7	-1.7656 ug/L	-1.7656 ppb	22:34:29
2	V 292.402†	-1601.7	217.0	1.3035 ug/L	1.3035 ppb	22:34:49
2	Zn 213.857†	1011.9	91.8	0.6913 ug/L	0.6913 ppb	22:34:49
2	SiO2†	208310.3	206429.4	11831 ug/L	11831 ppb	22:35:25
3	Sc Radial	4937.0	4937.0	99.8 %		22:33:36
3	Y RADIAL	5224.5	5224.5	98.48 %		22:33:36
3	Al 396.153Radial†	-9.0	12.3	9.5349 ug/L	9.5349 ppb	22:33:36
3	Ca 317.933Radial†	1791.1	1772.8	2778.3 ug/L	2778.3 ppb	22:33:56
3	Fe 238.204 Radial†	14.3	1.0	9.2146 ug/L	9.2146 ppb	22:33:56
3	K 766.490 Radial†	5063.7	1739.1	329.60 ug/L	329.60 ppb	22:33:36
3	Mg 279.077 IEC†	30.4	27.7	886.81 ug/L	886.81 ppb	22:33:56
3	Na 589.592 Radial†	7729.0	9540.0	2706.7 ug/L	2706.7 ppb	22:33:36
3	Sr 421.552†	2248.2	2241.1	14.690 ug/L	14.690 ppb	22:33:36
3	Sc 361.383	929030.4	929030.4	98.964 %		22:34:54
3	Y 371.029	807980.9	807980.9	98.761 %		22:34:54
3	Ag 328.068†	419.1	-42.1	-0.1981 ug/L	-0.1981 ppb	22:34:54
3	As 188.979†	-35.1	-0.6	-0.1994 ug/L	-0.1994 ppb	22:35:14
3	B 249.677†	-604.7	-215.0	-4.1957 ug/L	-4.1957 ppb	22:35:14
3	Ba 233.527†	914.4	903.9	6.1480 ug/L	6.1480 ppb	22:35:14
3	Be 313.107†	-4361.4	294.3	0.0927 ug/L	0.0927 ppb	22:34:54
3	Cd 226.502†	-260.8	-6.9	-0.0622 ug/L	-0.0622 ppb	22:35:14
3	Co 228.616†	-93.7	-0.5	-0.0007 ug/L	-0.0007 ppb	22:35:14
3	Cr 267.716†	165.7	33.7	0.3226 ug/L	0.3226 ppb	22:35:14
3	Cu 324.752†	8049.6	-349.3	-0.9957 ug/L	-0.9957 ppb	22:34:54
3	Mn 257.610†	2705.5	2097.3	2.0652 ug/L	2.0652 ppb	22:35:14
3	Mo 202.031†	50.8	25.9	1.5251 ug/L	1.5251 ppb	22:35:14
3	Ni 231.604†	172.3	35.2	0.7291 ug/L	0.7291 ppb	22:35:14
3	P 214.914†	265.9	-2.5	-1.0673 ug/L	-1.0673 ppb	22:35:14
3	Pb 220.353†	-105.0	-21.5	-2.1247 ug/L	-2.1247 ppb	22:35:14
3	S 181.975 Axial†	349.8	291.8	320.47 ug/L	320.47 ppb	22:35:14
3	Sb 206.836†	32.1	-12.8	-3.7612 ug/L	-3.7612 ppb	22:35:14
3	Se 196.026†	-34.4	-2.1	-0.9506 ug/L	-0.9506 ppb	22:35:14
3	Si 251.611†	206756.9	208181.0	5537.8 ug/L	5537.8 ppb	22:34:54
3	Sn 189.927†	-43.5	-47.3	-6.4145 ug/L	-6.4145 ppb	22:35:14
3	Ti 334.940†	-1971.6	-287.4	-0.2733 ug/L	-0.2733 ppb	22:34:54
3	Tl 190.801†	-38.1	10.9	2.8726 ug/L	2.8726 ppb	22:35:14
3	U 409.014†	-3223.2	-338.2	-9.3639 ug/L	-9.3639 ppb	22:34:54
3	V 292.402†	-1550.4	243.4	1.4555 ug/L	1.4555 ppb	22:35:14
3	Zn 213.857†	996.2	92.0	0.6845 ug/L	0.6845 ppb	22:35:14
3	SiO2†	208501.4	209925.1	12031 ug/L	12031 ppb	22:35:30

Mean Data: 243104002|935027|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	935605.4	99.665	%	0.8035				0.81%
Sc Radial	4979.1	101	%	2.4				2.36%
Y 371.029	812961.8	99.370	%	0.6890				0.69%
Y RADIAL	5280.1	99.53	%	2.506				2.52%
Ag 328.068†	7.0	0.0013	ug/L	0.17556	0.0013	ppb	0.17556	>999.9%
Al 396.153Radial†	23.6	18.413	ug/L	8.2388	18.413	ppb	8.2388	44.74%
As 188.979†	0.7	0.2198	ug/L	0.69122	0.2198	ppb	0.69122	314.44%
B 249.677†	-230.8	-4.5038	ug/L	0.50243	-4.5038	ppb	0.50243	11.16%
Ba 233.527†	903.5	6.1451	ug/L	0.00785	6.1451	ppb	0.00785	0.13%
Be 313.107†	249.9	0.0785	ug/L	0.01235	0.0785	ppb	0.01235	15.73%
Ca 317.933Radial†	1749.0	2741.0	ug/L	62.08	2741.0	ppb	62.08	2.26%
Cd 226.502†	-2.6	-0.0240	ug/L	0.12230	-0.0240	ppb	0.12230	510.03%
Co 228.616†	1.4	0.0310	ug/L	0.05861	0.0310	ppb	0.05861	189.25%
Cr 267.716†	34.8	0.3316	ug/L	0.01655	0.3316	ppb	0.01655	4.99%
Cu 324.752†	-306.4	-0.8734	ug/L	0.27321	-0.8734	ppb	0.27321	31.28%
Fe 238.204 Radial†	0.8	7.3530	ug/L	3.48457	7.3530	ppb	3.48457	47.39%
K 766.490 Radial†	1768.2	335.15	ug/L	18.663	335.15	ppb	18.663	5.57%

Mg 279.077 IEC†	24.8	792.86	ug/L	125.474	792.86	ppb	125.474	15.83%
Mn 257.610†	2092.6	2.0621	ug/L	0.01483	2.0621	ppb	0.01483	0.72%
Mo 202.031†	20.4	1.1989	ug/L	0.29681	1.1989	ppb	0.29681	24.76%
Na 589.592 Radial†	9493.7	2693.5	ug/L	40.80	2693.5	ppb	40.80	1.51%
Ni 231.604†	24.2	0.5011	ug/L	0.26381	0.5011	ppb	0.26381	52.65%
P 214.914†	12.3	5.6523	ug/L	5.82150	5.6523	ppb	5.82150	102.99%
Pb 220.353†	-6.9	-0.6754	ug/L	1.57371	-0.6754	ppb	1.57371	233.00%
S 181.975 Axial†	291.6	320.25	ug/L	1.340	320.25	ppb	1.340	0.42%
Sb 206.836†	-10.0	-2.9282	ug/L	0.97682	-2.9282	ppb	0.97682	33.36%
Se 196.026†	-4.7	-2.2105	ug/L	3.87691	-2.2105	ppb	3.87691	175.39%
Si 251.611†	208669.0	5550.7	ug/L	13.72	5550.7	ppb	13.72	0.25%
Sn 189.927†	-36.1	-4.8296	ug/L	1.37272	-4.8296	ppb	1.37272	28.42%
Sr 421.552†	2220.7	14.557	ug/L	0.1865	14.557	ppb	0.1865	1.28%
Ti 334.940†	-285.4	-0.2740	ug/L	0.00673	-0.2740	ppb	0.00673	2.46%
Tl 190.801†	4.3	1.1297	ug/L	1.86912	1.1297	ppb	1.86912	165.45%
U 409.014†	-187.1	-5.1806	ug/L	3.85699	-5.1806	ppb	3.85699	74.45%
V 292.402†	240.2	1.4378	ug/L	0.12634	1.4378	ppb	0.12634	8.79%
Zn 213.857†	98.7	0.7413	ug/L	0.09257	0.7413	ppb	0.09257	12.49%
SiO2†	207456.5	11889	ug/L	123.1	11889	ppb	123.1	1.04%

Sequence No.: 76
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/29/2009 22:37:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4250.0	4250.0	85.9	%			22:39:33
1	Y RADIAL	4527.6	4527.6	85.35	%			22:39:33
1	Al 396.153Radial†	6441.9	7517.5	5862.2	ug/L	5862.2	ppb	22:39:33
1	Ca 317.933Radial†	3247.5	3757.6	5888.7	ug/L	5888.7	ppb	22:39:53
1	Fe 238.204 Radial†	625.2	714.3	6288.7	ug/L	6288.7	ppb	22:39:53
1	K 766.490 Radial†	29814.2	31360.3	5961.2	ug/L	5961.2	ppb	22:39:33
1	Mg 279.077 IEC†	166.3	190.8	6104.9	ug/L	6104.9	ppb	22:39:53
1	Na 589.592 Radial†	36581.8	44366.4	12588	ug/L	12588	ppb	22:39:33
1	Sr 421.552†	79795.8	92844.6	609.62	ug/L	609.62	ppb	22:39:33
1	Sc 361.383	918259.5	918259.5	97.817	%			22:40:52
1	Y 371.029	793661.3	793661.3	97.011	%			22:40:52
1	Ag 328.068†	119031.8	121222.6	505.00	ug/L	505.00	ppb	22:40:52
1	As 188.979†	1495.6	1563.8	518.63	ug/L	518.63	ppb	22:41:12
1	B 249.677†	24166.9	25102.3	487.72	ug/L	487.72	ppb	22:40:52
1	Ba 233.527†	72504.3	74102.2	505.03	ug/L	505.03	ppb	22:40:52
1	Be 313.107†	1571055.2	1610817.1	512.69	ug/L	512.69	ppb	22:40:52
1	Cd 226.502†	54744.7	56223.1	506.24	ug/L	506.24	ppb	22:40:52
1	Co 228.616†	27725.4	28438.3	500.35	ug/L	500.35	ppb	22:41:12
1	Cr 267.716†	52962.7	54010.9	508.31	ug/L	508.31	ppb	22:40:52
1	Cu 324.752†	180353.7	175895.3	501.90	ug/L	501.90	ppb	22:40:52
1	Mn 257.610†	500305.2	510833.6	507.33	ug/L	507.33	ppb	22:40:52
1	Mo 202.031†	8567.8	8733.5	514.66	ug/L	514.66	ppb	22:41:12
1	Ni 231.604†	24101.0	24500.0	506.87	ug/L	506.87	ppb	22:41:12
1	P 214.914†	5795.3	5653.4	2487.1	ug/L	2487.1	ppb	22:41:12
1	Pb 220.353†	4968.2	5163.7	514.19	ug/L	514.19	ppb	22:41:12
1	S 181.975 Axial†	954.8	914.4	1003.3	ug/L	1003.3	ppb	22:41:12
1	Sb 206.836†	1761.1	1755.2	510.34	ug/L	510.34	ppb	22:41:12
1	Se 196.026†	1015.1	1070.4	529.71	ug/L	529.71	ppb	22:41:12
1	Si 251.611†	92727.2	94057.2	2489.5	ug/L	2489.5	ppb	22:40:52
1	Sn 189.927†	3526.1	3601.4	510.63	ug/L	510.63	ppb	22:41:12
1	Ti 334.940†	333678.3	342829.6	503.48	ug/L	503.48	ppb	22:40:52
1	Tl 190.801†	1860.4	1951.4	514.44	ug/L	514.44	ppb	22:41:12
1	U 409.014†	13953.2	17183.2	473.87	ug/L	473.87	ppb	22:40:52
1	V 292.402†	81960.1	85599.2	510.56	ug/L	510.56	ppb	22:40:52
1	Zn 213.857†	64291.1	64811.2	502.06	ug/L	502.06	ppb	22:40:52
1	SiO2†	93627.2	94958.6	5415.0	ug/L	5415.0	ppb	22:42:13
2	Sc Radial	4750.0	4750.0	96.0	%			22:39:58
2	Y RADIAL	5022.9	5022.9	94.68	%			22:39:58
2	Al 396.153Radial†	6203.1	6479.9	5050.4	ug/L	5050.4	ppb	22:39:58
2	Ca 317.933Radial†	3173.2	3282.4	5144.0	ug/L	5144.0	ppb	22:40:18
2	Fe 238.204 Radial†	609.6	621.4	5472.6	ug/L	5472.6	ppb	22:40:18
2	K 766.490 Radial†	28994.8	26855.5	5104.1	ug/L	5104.1	ppb	22:39:58
2	Mg 279.077 IEC†	167.5	171.7	5495.9	ug/L	5495.9	ppb	22:40:18
2	Na 589.592 Radial†	35246.9	38495.9	10922	ug/L	10922	ppb	22:39:58
2	Sr 421.552†	76865.3	80019.8	525.41	ug/L	525.41	ppb	22:39:58
2	Sc 361.383	929816.2	929816.2	99.048	%			22:41:20
2	Y 371.029	800920.9	800920.9	97.898	%			22:41:20
2	Ag 328.068†	120584.3	121277.6	504.98	ug/L	504.98	ppb	22:41:20
2	As 188.979†	1488.7	1537.8	509.98	ug/L	509.98	ppb	22:41:40
2	B 249.677†	24581.0	25213.3	490.02	ug/L	490.02	ppb	22:41:20
2	Ba 233.527†	73848.1	74537.7	507.97	ug/L	507.97	ppb	22:41:20
2	Be 313.107†	1593599.1	1613615.1	513.58	ug/L	513.58	ppb	22:41:20
2	Cd 226.502†	55733.5	56525.7	509.04	ug/L	509.04	ppb	22:41:20
2	Co 228.616†	27716.9	28077.5	494.00	ug/L	494.00	ppb	22:41:40
2	Cr 267.716†	53745.2	54128.0	509.40	ug/L	509.40	ppb	22:41:20
2	Cu 324.752†	183000.6	176276.1	502.94	ug/L	502.94	ppb	22:41:20
2	Mn 257.610†	509643.4	513904.5	510.30	ug/L	510.30	ppb	22:41:20
2	Mo 202.031†	8552.9	8609.6	507.28	ug/L	507.28	ppb	22:41:40
2	Ni 231.604†	24059.0	24151.3	499.66	ug/L	499.66	ppb	22:41:40

2	P 214.914†	5760.4	5544.6	2437.9 ug/L	2437.9 ppb	22:41:40
2	Pb 220.353†	4994.2	5126.8	510.40 ug/L	510.40 ppb	22:41:40
2	S 181.975 Axial†	947.0	894.5	981.51 ug/L	981.51 ppb	22:41:40
2	Sb 206.836†	1761.1	1732.8	503.63 ug/L	503.63 ppb	22:41:40
2	Se 196.026†	999.3	1041.6	513.36 ug/L	513.36 ppb	22:41:40
2	Si 251.611†	94482.6	94651.2	2505.7 ug/L	2505.7 ppb	22:41:20
2	Sn 189.927†	3523.6	3554.0	503.84 ug/L	503.84 ppb	22:41:40
2	Ti 334.940†	339137.7	344101.6	505.31 ug/L	505.31 ppb	22:41:20
2	Tl 190.801†	1858.7	1926.0	507.83 ug/L	507.83 ppb	22:41:40
2	U 409.014†	14116.6	17170.9	473.63 ug/L	473.63 ppb	22:41:20
2	V 292.402†	83301.9	85912.5	512.41 ug/L	512.41 ppb	22:41:20
2	Zn 213.857†	65383.6	65097.3	504.40 ug/L	504.40 ppb	22:41:20
2	SiO2†	91547.2	91668.9	5227.4 ug/L	5227.4 ppb	22:42:18
3	Sc Radial	4839.9	4839.9	97.9 %		22:40:23
3	Y RADIAL	5147.8	5147.8	97.04 %		22:40:23
3	Al 396.153Radial†	6263.1	6421.2	5004.4 ug/L	5004.4 ppb	22:40:23
3	Ca 317.933Radial†	3195.2	3243.6	5083.1 ug/L	5083.1 ppb	22:40:43
3	Fe 238.204 Radial†	608.7	608.7	5361.5 ug/L	5361.5 ppb	22:40:43
3	K 766.490 Radial†	29157.1	26460.5	5029.0 ug/L	5029.0 ppb	22:40:23
3	Mg 279.077 IEC†	166.9	167.9	5373.5 ug/L	5373.5 ppb	22:40:43
3	Na 589.592 Radial†	35542.3	38116.0	10814 ug/L	10814 ppb	22:40:23
3	Sr 421.552†	77831.6	79520.5	522.13 ug/L	522.13 ppb	22:40:23
3	Sc 361.383	928106.9	928106.9	98.866 %		22:41:47
3	Y 371.029	800902.2	800902.2	97.896 %		22:41:47
3	Ag 328.068†	120655.6	121573.8	506.16 ug/L	506.16 ppb	22:41:47
3	As 188.979†	1488.5	1540.4	510.80 ug/L	510.80 ppb	22:42:07
3	B 249.677†	24624.4	25302.9	491.78 ug/L	491.78 ppb	22:41:47
3	Ba 233.527†	73462.8	74285.2	506.25 ug/L	506.25 ppb	22:41:47
3	Be 313.107†	1589226.3	1612155.3	513.12 ug/L	513.12 ppb	22:41:47
3	Cd 226.502†	55441.9	56334.4	507.33 ug/L	507.33 ppb	22:41:47
3	Co 228.616†	27711.4	28123.5	494.81 ug/L	494.81 ppb	22:42:07
3	Cr 267.716†	53607.4	54088.6	509.02 ug/L	509.02 ppb	22:41:47
3	Cu 324.752†	183038.0	176654.1	504.02 ug/L	504.02 ppb	22:41:47
3	Mn 257.610†	507262.1	512443.5	508.84 ug/L	508.84 ppb	22:41:47
3	Mo 202.031†	8559.7	8632.4	508.61 ug/L	508.61 ppb	22:42:07
3	Ni 231.604†	24038.3	24175.1	500.15 ug/L	500.15 ppb	22:42:07
3	P 214.914†	5747.2	5542.0	2436.6 ug/L	2436.6 ppb	22:42:07
3	Pb 220.353†	4970.6	5112.3	508.95 ug/L	508.95 ppb	22:42:07
3	S 181.975 Axial†	957.1	906.4	994.64 ug/L	994.64 ppb	22:42:07
3	Sb 206.836†	1767.2	1742.2	506.35 ug/L	506.35 ppb	22:42:07
3	Se 196.026†	1010.8	1055.1	519.41 ug/L	519.41 ppb	22:42:07
3	Si 251.611†	94106.7	94446.7	2500.3 ug/L	2500.3 ppb	22:41:47
3	Sn 189.927†	3514.0	3550.9	503.39 ug/L	503.39 ppb	22:42:07
3	Ti 334.940†	338372.5	343958.2	505.09 ug/L	505.09 ppb	22:41:47
3	Tl 190.801†	1869.6	1940.5	511.61 ug/L	511.61 ppb	22:42:07
3	U 409.014†	14383.6	17467.2	481.85 ug/L	481.85 ppb	22:41:47
3	V 292.402†	83050.1	85812.8	511.87 ug/L	511.87 ppb	22:41:47
3	Zn 213.857†	65124.9	64957.2	503.31 ug/L	503.31 ppb	22:41:47
3	SiO2†	93661.1	93977.3	5359.7 ug/L	5359.7 ppb	22:42:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	925394.2	98.577	%	0.6645				0.67%
Sc Radial	4613.3	93.3	%	6.43				6.89%
Y 371.029	798494.8	97.602	%	0.5117				0.52%
Y RADIAL	4899.4	92.36	%	6.183				6.69%
Ag 328.068†	121358.0	505.38	ug/L	0.674	505.38	ppb	0.674	0.13%
QC value within limits for Ag 328.068 Recovery = 101.08%								
Al 396.153Radial†	6806.2	5305.6	ug/L	482.55	5305.6	ppb	482.55	9.10%
QC value within limits for Al 396.153Radial Recovery = 106.11%								
As 188.979†	1547.3	513.14	ug/L	4.773	513.14	ppb	4.773	0.93%
QC value within limits for As 188.979 Recovery = 102.63%								
B 249.677†	25206.2	489.84	ug/L	2.032	489.84	ppb	2.032	0.41%
QC value within limits for B 249.677 Recovery = 97.97%								
Ba 233.527†	74308.4	506.42	ug/L	1.479	506.42	ppb	1.479	0.29%
QC value within limits for Ba 233.527 Recovery = 101.28%								
Be 313.107†	1612195.8	513.13	ug/L	0.446	513.13	ppb	0.446	0.09%
QC value within limits for Be 313.107 Recovery = 102.63%								
Ca 317.933Radial†	3427.9	5371.9	ug/L	448.53	5371.9	ppb	448.53	8.35%

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   QC value within limits for Ca 317.933Radial  Recovery = 107.44%
Cd 226.502†            56361.1      507.54 ug/L         1.413      507.54 ppb          1.413   0.28%
   QC value within limits for Cd 226.502  Recovery = 101.51%
Co 228.616†            28213.1      496.39 ug/L         3.459      496.39 ppb          3.459   0.70%
   QC value within limits for Co 228.616  Recovery = 99.28%
Cr 267.716†            54075.8      508.91 ug/L         0.553      508.91 ppb          0.553   0.11%
   QC value within limits for Cr 267.716  Recovery = 101.78%
Cu 324.752†           176275.2      502.95 ug/L         1.058      502.95 ppb          1.058   0.21%
   QC value within limits for Cu 324.752  Recovery = 100.59%
Fe 238.204 Radial†       648.1      5707.6 ug/L        506.30      5707.6 ppb         506.30   8.87%
   QC value greater than the upper limit for Fe 238.204 Radial  Recovery = 114.15%
K 766.490 Radial†      28225.4      5364.7 ug/L        517.89      5364.7 ppb         517.89   9.65%
   QC value within limits for K 766.490 Radial  Recovery = 107.29%
Mg 279.077 IEC†          176.8      5658.1 ug/L        391.74      5658.1 ppb         391.74   6.92%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 113.16%
Mn 257.610†           512393.9      508.82 ug/L         1.488      508.82 ppb          1.488   0.29%
   QC value within limits for Mn 257.610  Recovery = 101.76%
Mo 202.031†             8658.5      510.18 ug/L         3.929      510.18 ppb          3.929   0.77%
   QC value within limits for Mo 202.031  Recovery = 102.04%
Na 589.592 Radial†     40326.1       11441 ug/L         994.2       11441 ppb          994.2   8.69%
   QC value greater than the upper limit for Na 589.592 Radial  Recovery = 114.41%
Ni 231.604†            24275.4      502.23 ug/L         4.031      502.23 ppb          4.031   0.80%
   QC value within limits for Ni 231.604  Recovery = 100.45%
P 214.914†              5580.0      2453.8 ug/L         28.81      2453.8 ppb          28.81   1.17%
   QC value within limits for P 214.914  Recovery = 98.15%
Pb 220.353†             5134.3      511.18 ug/L         2.704      511.18 ppb          2.704   0.53%
   QC value within limits for Pb 220.353  Recovery = 102.24%
S 181.975 Axial†         905.1      993.15 ug/L        10.963      993.15 ppb         10.963   1.10%
   QC value within limits for S 181.975 Axial  Recovery = 99.31%
Sb 206.836†             1743.4      506.77 ug/L         3.378      506.77 ppb          3.378   0.67%
   QC value within limits for Sb 206.836  Recovery = 101.35%
Se 196.026†             1055.7      520.83 ug/L         8.268      520.83 ppb          8.268   1.59%
   QC value within limits for Se 196.026  Recovery = 104.17%
Si 251.611†            94385.0      2498.5 ug/L          8.26      2498.5 ppb           8.26   0.33%
   QC value within limits for Si 251.611  Recovery = 99.94%
Sn 189.927†             3568.8      505.95 ug/L         4.059      505.95 ppb          4.059   0.80%
   QC value within limits for Sn 189.927  Recovery = 101.19%
Sr 421.552†            84128.3      552.39 ug/L        49.591      552.39 ppb         49.591   8.98%
   QC value greater than the upper limit for Sr 421.552  Recovery = 110.48%
Ti 334.940†           343629.8      504.63 ug/L         0.999      504.63 ppb          0.999   0.20%
   QC value within limits for Ti 334.940  Recovery = 100.93%
Tl 190.801†             1939.3      511.29 ug/L         3.316      511.29 ppb          3.316   0.65%
   QC value within limits for Tl 190.801  Recovery = 102.26%
U 409.014†             17273.8      476.45 ug/L         4.676      476.45 ppb          4.676   0.98%
   QC value within limits for U 409.014  Recovery = 95.29%
V 292.402†             85774.8      511.61 ug/L         0.950      511.61 ppb          0.950   0.19%
   QC value within limits for V 292.402  Recovery = 102.32%
Zn 213.857†            64955.2      503.26 ug/L         1.173      503.26 ppb          1.173   0.23%
   QC value within limits for Zn 213.857  Recovery = 100.65%
SiO2†                  93535.0      5334.0 ug/L         96.39      5334.0 ppb          96.39   1.81%
   QC value within limits for SiO2  Recovery = 99.75%
QC Failed.  Continue with analysis.
```

Sequence No.: 77
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 12/29/2009 22:44:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5080.6	5080.6	103	%			22:46:24
1	Y RADIAL	5445.2	5445.2	102.6	%			22:46:24
1	Al 396.153Radial†	11.6	32.6	25.444	ug/L	25.444	ppb	22:46:24
1	Ca 317.933Radial†	19.7	-2.2	-3.4897	ug/L	-3.4897	ppb	22:46:44
1	Fe 238.204 Radial†	12.5	-1.1	-9.3058	ug/L	-9.3058	ppb	22:46:44
1	K 766.490 Radial†	3350.5	-71.9	-13.655	ug/L	-13.655	ppb	22:46:24
1	Mg 279.077 IEC†	3.3	0.6	17.707	ug/L	17.707	ppb	22:46:44
1	Na 589.592 Radial†	-2131.0	-276.9	-78.566	ug/L	-78.566	ppb	22:46:24
1	Sr 421.552†	-40.3	-50.3	-0.3300	ug/L	-0.3300	ppb	22:46:24
1	Sc 361.383	918862.0	918862.0	97.881	%			22:47:41
1	Y 371.029	804843.2	804843.2	98.378	%			22:47:41
1	Ag 328.068†	495.2	40.4	0.1641	ug/L	0.1641	ppb	22:47:46
1	As 188.979†	-32.3	1.8	0.5917	ug/L	0.5917	ppb	22:48:06
1	B 249.677†	-630.0	-247.6	-4.8296	ug/L	-4.8296	ppb	22:47:46
1	Ba 233.527†	2.8	-17.2	-0.1180	ug/L	-0.1180	ppb	22:48:06
1	Be 313.107†	-4485.7	118.5	0.0375	ug/L	0.0375	ppb	22:47:46
1	Cd 226.502†	-259.7	-8.7	-0.0768	ug/L	-0.0768	ppb	22:48:06
1	Co 228.616†	-89.9	2.4	0.0453	ug/L	0.0453	ppb	22:48:06
1	Cr 267.716†	98.7	-32.9	-0.3090	ug/L	-0.3090	ppb	22:47:46
1	Cu 324.752†	8062.5	-246.2	-0.7024	ug/L	-0.7024	ppb	22:47:46
1	Mn 257.610†	495.0	-130.9	-0.1311	ug/L	-0.1311	ppb	22:47:46
1	Mo 202.031†	43.2	18.7	1.0987	ug/L	1.0987	ppb	22:48:06
1	Ni 231.604†	148.8	13.2	0.2723	ug/L	0.2723	ppb	22:48:06
1	P 214.914†	244.7	-21.2	-9.4951	ug/L	-9.4951	ppb	22:48:06
1	Pb 220.353†	-86.9	-4.1	-0.4020	ug/L	-0.4020	ppb	22:48:06
1	S 181.975 Axial†	59.2	-1.2	-1.2877	ug/L	-1.2877	ppb	22:48:06
1	Sb 206.836†	42.4	-1.9	-0.5221	ug/L	-0.5221	ppb	22:48:06
1	Se 196.026†	-39.6	-7.8	-3.7077	ug/L	-3.7077	ppb	22:48:06
1	Si 251.611†	752.8	29.7	0.7772	ug/L	0.7772	ppb	22:48:06
1	Sn 189.927†	-0.7	-4.1	-0.5850	ug/L	-0.5850	ppb	22:48:06
1	Ti 334.940†	-1735.2	-68.0	-0.0990	ug/L	-0.0990	ppb	22:47:46
1	Tl 190.801†	-35.4	13.3	3.4893	ug/L	3.4893	ppb	22:48:06
1	U 409.014†	-2928.6	-73.3	-2.0279	ug/L	-2.0279	ppb	22:47:41
1	V 292.402†	-1834.9	-64.6	-0.3663	ug/L	-0.3663	ppb	22:47:46
1	Zn 213.857†	923.6	28.9	0.2252	ug/L	0.2252	ppb	22:48:06
1	SiO2†	759.4	17.8	0.9931	ug/L	0.9931	ppb	22:49:12
2	Sc Radial	4785.4	4785.4	96.8	%			22:46:49
2	Y RADIAL	5097.3	5097.3	96.09	%			22:46:49
2	Al 396.153Radial†	-14.5	6.3	4.8972	ug/L	4.8972	ppb	22:46:49
2	Ca 317.933Radial†	9.5	-11.7	-18.275	ug/L	-18.275	ppb	22:47:09
2	Fe 238.204 Radial†	13.6	0.8	6.7102	ug/L	6.7102	ppb	22:47:09
2	K 766.490 Radial†	3196.6	-29.7	-5.6028	ug/L	-5.6028	ppb	22:46:49
2	Mg 279.077 IEC†	1.6	-1.1	-34.709	ug/L	-34.709	ppb	22:47:09
2	Na 589.592 Radial†	-2142.1	-416.4	-118.13	ug/L	-118.13	ppb	22:46:49
2	Sr 421.552†	-16.1	-27.6	-0.1813	ug/L	-0.1813	ppb	22:46:49
2	Sc 361.383	929806.1	929806.1	99.047	%			22:48:11
2	Y 371.029	813000.0	813000.0	99.375	%			22:48:11
2	Ag 328.068†	568.8	108.7	0.4524	ug/L	0.4524	ppb	22:48:16
2	As 188.979†	-35.7	-1.2	-0.3997	ug/L	-0.3997	ppb	22:48:36
2	B 249.677†	-610.1	-219.9	-4.2930	ug/L	-4.2930	ppb	22:48:16
2	Ba 233.527†	17.8	-2.1	-0.0152	ug/L	-0.0152	ppb	22:48:36
2	Be 313.107†	-4391.9	267.2	0.0848	ug/L	0.0848	ppb	22:48:16
2	Cd 226.502†	-249.5	4.8	0.0423	ug/L	0.0423	ppb	22:48:36
2	Co 228.616†	-84.1	9.3	0.1651	ug/L	0.1651	ppb	22:48:36
2	Cr 267.716†	95.3	-37.5	-0.3522	ug/L	-0.3522	ppb	22:48:16
2	Cu 324.752†	8081.6	-323.9	-0.9232	ug/L	-0.9232	ppb	22:48:16
2	Mn 257.610†	630.8	0.2	0.0015	ug/L	0.0015	ppb	22:48:16
2	Mo 202.031†	34.5	9.4	0.5513	ug/L	0.5513	ppb	22:48:36
2	Ni 231.604†	126.3	-11.4	-0.2362	ug/L	-0.2362	ppb	22:48:36

2	P 214.914†	254.3	-14.4	-6.3668 ug/L	-6.3668 ppb	22:48:36
2	Pb 220.353†	-103.1	-19.4	-1.9266 ug/L	-1.9266 ppb	22:48:36
2	S 181.975 Axial†	60.4	-0.7	-0.7888 ug/L	-0.7888 ppb	22:48:36
2	Sb 206.836†	43.9	-0.9	-0.2085 ug/L	-0.2085 ppb	22:48:36
2	Se 196.026†	-33.8	-1.5	-0.6883 ug/L	-0.6883 ppb	22:48:36
2	Si 251.611†	749.2	17.0	0.4415 ug/L	0.4415 ppb	22:48:36
2	Sn 189.927†	12.9	9.6	1.3545 ug/L	1.3545 ppb	22:48:36
2	Ti 334.940†	-1725.6	-37.4	-0.0544 ug/L	-0.0544 ppb	22:48:16
2	Tl 190.801†	-34.6	14.6	3.8166 ug/L	3.8166 ppb	22:48:36
2	U 409.014†	-3004.3	-114.5	-3.1705 ug/L	-3.1705 ppb	22:48:11
2	V 292.402†	-1887.7	-95.8	-0.5638 ug/L	-0.5638 ppb	22:48:16
2	Zn 213.857†	929.4	23.7	0.1885 ug/L	0.1885 ppb	22:48:36
2	SiO2†	763.2	12.5	0.6895 ug/L	0.6895 ppb	22:49:17
3	Sc Radial	4888.3	4888.3	98.8 %		22:47:14
3	Y RADIAL	5184.4	5184.4	97.73 %		22:47:14
3	Al 396.153Radial†	0.6	21.9	17.152 ug/L	17.152 ppb	22:47:14
3	Ca 317.933Radial†	17.5	-3.7	-5.8458 ug/L	-5.8458 ppb	22:47:34
3	Fe 238.204 Radial†	11.3	-1.9	-16.355 ug/L	-16.355 ppb	22:47:34
3	K 766.490 Radial†	3263.3	-31.8	-5.9909 ug/L	-5.9909 ppb	22:47:14
3	Mg 279.077 IEC†	-0.1	-2.8	-90.070 ug/L	-90.070 ppb	22:47:34
3	Na 589.592 Radial†	-2255.4	-484.4	-137.43 ug/L	-137.43 ppb	22:47:14
3	Sr 421.552†	-4.0	-15.1	-0.0990 ug/L	-0.0990 ppb	22:47:14
3	Sc 361.383	921176.5	921176.5	98.128 %		22:48:42
3	Y 371.029	805721.5	805721.5	98.485 %		22:48:42
3	Ag 328.068†	622.8	169.1	0.7019 ug/L	0.7019 ppb	22:48:47
3	As 188.979†	-38.4	-4.3	-1.4157 ug/L	-1.4157 ppb	22:49:07
3	B 249.677†	-656.9	-273.4	-5.3330 ug/L	-5.3330 ppb	22:48:47
3	Ba 233.527†	26.0	6.4	0.0427 ug/L	0.0427 ppb	22:49:07
3	Be 313.107†	-4475.2	140.7	0.0447 ug/L	0.0447 ppb	22:48:47
3	Cd 226.502†	-275.2	-23.8	-0.2129 ug/L	-0.2129 ppb	22:49:07
3	Co 228.616†	-84.0	8.7	0.1524 ug/L	0.1524 ppb	22:49:07
3	Cr 267.716†	160.0	29.3	0.2779 ug/L	0.2779 ppb	22:48:47
3	Cu 324.752†	8164.7	-162.7	-0.4648 ug/L	-0.4648 ppb	22:48:47
3	Mn 257.610†	558.4	-67.6	-0.0670 ug/L	-0.0670 ppb	22:48:47
3	Mo 202.031†	25.1	0.1	0.0057 ug/L	0.0057 ppb	22:49:07
3	Ni 231.604†	154.4	18.4	0.3811 ug/L	0.3811 ppb	22:49:07
3	P 214.914†	251.6	-14.7	-6.5844 ug/L	-6.5844 ppb	22:49:07
3	Pb 220.353†	-92.1	-9.3	-0.9138 ug/L	-0.9138 ppb	22:49:07
3	S 181.975 Axial†	59.6	-0.9	-1.0400 ug/L	-1.0400 ppb	22:49:07
3	Sb 206.836†	41.6	-2.8	-0.8183 ug/L	-0.8183 ppb	22:49:07
3	Se 196.026†	-22.3	10.0	4.6857 ug/L	4.6857 ppb	22:49:07
3	Si 251.611†	746.7	21.5	0.5738 ug/L	0.5738 ppb	22:49:07
3	Sn 189.927†	4.6	1.3	0.1879 ug/L	0.1879 ppb	22:49:07
3	Ti 334.940†	-1674.1	-1.2	0.0023 ug/L	0.0023 ppb	22:48:47
3	Tl 190.801†	-29.5	19.3	5.0664 ug/L	5.0664 ppb	22:49:07
3	U 409.014†	-3224.5	-367.4	-10.167 ug/L	-10.167 ppb	22:48:42
3	V 292.402†	-1804.0	-28.3	-0.1859 ug/L	-0.1859 ppb	22:48:47
3	Zn 213.857†	930.1	33.1	0.2609 ug/L	0.2609 ppb	22:49:07
3	SiO2†	783.6	40.5	2.3256 ug/L	2.3256 ppb	22:49:22

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	923281.5	98.352	%	0.6144				0.62%
Sc Radial	4918.1	99.4	%	3.03				3.05%
Y 371.029	807854.9	98.746	%	0.5473				0.55%
Y RADIAL	5242.3	98.82	%	3.413				3.45%
Ag 328.068†	106.0	0.4395	ug/L	0.26914	0.4395	ppb	0.26914	61.24%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	20.3	15.831	ug/L	10.3370	15.831	ppb	10.3370	65.30%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.2	-0.4079	ug/L	1.00373	-0.4079	ppb	1.00373	246.07%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-247.0	-4.8185	ug/L	0.52010	-4.8185	ppb	0.52010	10.79%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.3	-0.0302	ug/L	0.08138	-0.0302	ppb	0.08138	269.53%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	175.5	0.0556	ug/L	0.02549	0.0556	ppb	0.02549	45.80%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-5.9	-9.2035	ug/L	7.94395	-9.2035	ppb	7.94395	86.31%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -9.2     -0.0825 ug/L       0.12769     -0.0825 ppb        0.12769 154.78%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               6.8      0.1209 ug/L       0.06577      0.1209 ppb        0.06577  54.39%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -13.7     -0.1278 ug/L       0.35201     -0.1278 ppb        0.35201 275.51%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -244.2     -0.6968 ug/L       0.22929     -0.6968 ppb        0.22929  32.91%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.7     -6.3168 ug/L      11.81948     -6.3168 ppb       11.81948 187.11%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -44.5     -8.4164 ug/L       4.54135     -8.4164 ppb        4.54135  53.96%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.1     -35.691 ug/L       53.8952     -35.691 ppb        53.8952 151.01%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -66.1     -0.0655 ug/L       0.06633     -0.0655 ppb        0.06633 101.26%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               9.4      0.5519 ug/L       0.54647      0.5519 ppb        0.54647  99.02%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -392.6     -111.38 ug/L        30.008     -111.38 ppb         30.008  26.94%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               6.7      0.1391 ug/L       0.32951      0.1391 ppb        0.32951 236.88%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -16.8     -7.4821 ug/L       1.74669     -7.4821 ppb        1.74669  23.34%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -10.9     -1.0808 ug/L       0.77592     -1.0808 ppb        0.77592  71.79%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -0.9     -1.0388 ug/L       0.24942     -1.0388 ppb        0.24942  24.01%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.9     -0.5163 ug/L       0.30491     -0.5163 ppb        0.30491  59.06%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.2      0.0966 ug/L       4.25134      0.0966 ppb        4.25134 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              22.8      0.5975 ug/L       0.16912      0.5975 ppb        0.16912  28.30%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.3      0.3191 ug/L       0.97637      0.3191 ppb        0.97637 305.95%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -31.0     -0.2034 ug/L       0.11704     -0.2034 ppb        0.11704  57.53%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -35.5     -0.0504 ug/L       0.05079     -0.0504 ppb        0.05079 100.80%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              15.7      4.1241 ug/L       0.83230      4.1241 ppb        0.83230  20.18%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -185.1     -5.1219 ug/L       4.40666     -5.1219 ppb        4.40666  86.04%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -62.9     -0.3720 ug/L       0.18901     -0.3720 ppb        0.18901  50.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              28.6      0.2249 ug/L       0.03623      0.2249 ppb        0.03623  16.11%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    23.6      1.3360 ug/L       0.87032      1.3360 ppb        0.87032  65.14%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Reprocessing Begun
Logged In Analyst: Optima3 **Technique: ICP Continuous**

Results Data Set (original): 010410
Results Library (original): C:\pe\Optima3\Results\Results.mdb
Results Data Set (reprocessed): 010410A
Results Library (reprocessed): C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 1/4/2010 09:42:53**
IEC File: 101209.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 1/4/2010 07:50:25**
Analyst: **Data Type: Reprocessed on 1/4/2010 09:44:29**
Logged In Analyst (Original) : Optima3
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	823232.4	823232.4	99.604	%	07:53:34
1	Sc Radial	4588.2	4588.2	101	%	07:52:17
1	Y 371.029	703287.4	703287.4	99.522	%	07:53:34
1	Y RADIAL	4787.4	4787.4	100.7	%	07:52:17
1	Ag 328.068†	380.9	382.4	[0.00]	ug/L	07:53:34

1	Al 396.153Radial†	-11.9	-11.8	[0.00] ug/L	07:52:17
1	As 188.979†	-33.9	-34.0	[0.00] ug/L	07:53:54
1	B 249.677†	-902.2	-905.7	[0.00] ug/L	07:53:34
1	Ba 233.527†	-7.4	-7.4	[0.00] ug/L	07:53:54
1	Be 313.107†	-4719.4	-4738.2	[0.00] ug/L	07:53:34
1	Ca 317.933Radial†	15.2	15.0	[0.00] ug/L	07:52:37
1	Cd 226.502†	-266.8	-267.9	[0.00] ug/L	07:53:54
1	Co 228.616†	-89.8	-90.2	[0.00] ug/L	07:53:54
1	Cr 267.716†	116.0	116.5	[0.00] ug/L	07:53:34
1	Cu 324.752†	7857.2	7888.4	[0.00] ug/L	07:53:34
1	Fe 238.204 Radial†	13.6	13.4	[0.00] ug/L	07:52:37
1	K 766.490 Radial†	3100.0	3062.7	[0.00] ug/L	07:52:17
1	Mg 279.077 IEC†	3.5	3.5	[0.00] ug/L	07:52:37
1	Mn 257.610†	587.5	589.8	[0.00] ug/L	07:53:34
1	Mo 202.031†	16.1	16.2	[0.00] ug/L	07:53:54
1	Na 589.592 Radial†	-1569.6	-1550.7	[0.00] ug/L	07:52:17
1	Ni 231.604†	123.0	123.5	[0.00] ug/L	07:53:54
1	P 214.914†	261.2	262.2	[0.00] ug/L	07:53:54
1	Pb 220.353†	-108.4	-108.9	[0.00] ug/L	07:53:54
1	S 181.975 Axial†	59.1	59.3	[0.00] ug/L	07:53:54
1	Sb 206.836†	47.2	47.4	[0.00] ug/L	07:53:54
1	Se 196.026†	-35.0	-35.2	[0.00] ug/L	07:53:54
1	Si 251.611†	860.8	864.2	[0.00] ug/L	07:53:54
1	Sn 189.927†	8.6	8.7	[0.00] ug/L	07:53:54
1	Sr 421.552†	3.7	3.6	[0.00] ug/L	07:52:17
1	Ti 334.940†	-1799.1	-1806.3	[0.00] ug/L	07:53:34
1	Tl 190.801†	-54.4	-54.6	[0.00] ug/L	07:53:54
1	U 409.014†	-3212.8	-3225.6	[0.00] ug/L	07:53:34
1	V 292.402†	-1775.4	-1782.4	[0.00] ug/L	07:53:34
1	Zn 213.857†	809.7	812.9	[0.00] ug/L	07:53:54
1	SiO2†	940.4	944.1	[0.00] ug/L	07:54:51
2	Sc 361.383	825967.9	825967.9	99.935 %	07:54:00
2	Sc Radial	4509.0	4509.0	99.5 %	07:52:42
2	Y 371.029	706658.0	706658.0	99.999 %	07:54:00
2	Y RADIAL	4731.1	4731.1	99.51 %	07:52:42
2	Ag 328.068†	401.0	401.3	[0.00] ug/L	07:54:00
2	Al 396.153Radial†	-15.9	-15.9	[0.00] ug/L	07:52:42
2	As 188.979†	-37.9	-37.9	[0.00] ug/L	07:54:20
2	B 249.677†	-929.8	-930.4	[0.00] ug/L	07:54:00
2	Ba 233.527†	-6.0	-6.0	[0.00] ug/L	07:54:20
2	Be 313.107†	-4662.4	-4665.4	[0.00] ug/L	07:54:00
2	Ca 317.933Radial†	13.7	13.8	[0.00] ug/L	07:53:02
2	Cd 226.502†	-268.4	-268.5	[0.00] ug/L	07:54:20
2	Co 228.616†	-108.0	-108.1	[0.00] ug/L	07:54:20
2	Cr 267.716†	137.8	137.9	[0.00] ug/L	07:54:00
2	Cu 324.752†	7954.5	7959.7	[0.00] ug/L	07:54:00
2	Fe 238.204 Radial†	11.3	11.3	[0.00] ug/L	07:53:02
2	K 766.490 Radial†	3106.0	3122.5	[0.00] ug/L	07:52:42
2	Mg 279.077 IEC†	3.2	3.2	[0.00] ug/L	07:53:02
2	Mn 257.610†	647.8	648.2	[0.00] ug/L	07:54:00
2	Mo 202.031†	28.0	28.0	[0.00] ug/L	07:54:20
2	Na 589.592 Radial†	-1617.2	-1625.8	[0.00] ug/L	07:52:42
2	Ni 231.604†	107.8	107.8	[0.00] ug/L	07:54:20
2	P 214.914†	261.1	261.3	[0.00] ug/L	07:54:20
2	Pb 220.353†	-97.0	-97.1	[0.00] ug/L	07:54:20
2	S 181.975 Axial†	64.6	64.6	[0.00] ug/L	07:54:20
2	Sb 206.836†	48.3	48.3	[0.00] ug/L	07:54:20
2	Se 196.026†	-41.6	-41.6	[0.00] ug/L	07:54:20
2	Si 251.611†	849.0	849.5	[0.00] ug/L	07:54:20
2	Sn 189.927†	8.4	8.4	[0.00] ug/L	07:54:20
2	Sr 421.552†	-56.2	-56.5	[0.00] ug/L	07:52:42
2	Ti 334.940†	-1820.8	-1822.0	[0.00] ug/L	07:54:00
2	Tl 190.801†	-64.4	-64.4	[0.00] ug/L	07:54:20
2	U 409.014†	-3091.8	-3093.8	[0.00] ug/L	07:54:00
2	V 292.402†	-1830.7	-1831.9	[0.00] ug/L	07:54:00
2	Zn 213.857†	814.8	815.3	[0.00] ug/L	07:54:20
2	SiO2†	888.6	889.2	[0.00] ug/L	07:54:56
3	Sc 361.383	830318.9	830318.9	100.46 %	07:54:25
3	Sc Radial	4501.6	4501.6	99.3 %	07:53:07
3	Y 371.029	710051.5	710051.5	100.48 %	07:54:25
3	Y RADIAL	4744.1	4744.1	99.79 %	07:53:07

3	Ag 328.068†	414.7	412.8	[0.00] ug/L	07:54:25
3	Al 396.153Radial†	-37.5	-37.8	[0.00] ug/L	07:53:07
3	As 188.979†	-33.5	-33.4	[0.00] ug/L	07:54:45
3	B 249.677†	-933.4	-929.2	[0.00] ug/L	07:54:25
3	Ba 233.527†	10.3	10.3	[0.00] ug/L	07:54:45
3	Be 313.107†	-4558.5	-4537.6	[0.00] ug/L	07:54:25
3	Ca 317.933Radial†	16.4	16.5	[0.00] ug/L	07:53:27
3	Cd 226.502†	-255.7	-254.6	[0.00] ug/L	07:54:45
3	Co 228.616†	-120.3	-119.8	[0.00] ug/L	07:54:45
3	Cr 267.716†	97.7	97.2	[0.00] ug/L	07:54:25
3	Cu 324.752†	8000.9	7964.2	[0.00] ug/L	07:54:25
3	Fe 238.204 Radial†	10.8	10.9	[0.00] ug/L	07:53:27
3	K 766.490 Radial†	3096.1	3117.6	[0.00] ug/L	07:53:07
3	Mg 279.077 IEC†	2.0	2.0	[0.00] ug/L	07:53:27
3	Mn 257.610†	668.4	665.4	[0.00] ug/L	07:54:25
3	Mo 202.031†	30.9	30.8	[0.00] ug/L	07:54:45
3	Na 589.592 Radial†	-1503.5	-1514.0	[0.00] ug/L	07:53:07
3	Ni 231.604†	102.8	102.4	[0.00] ug/L	07:54:45
3	P 214.914†	275.3	274.1	[0.00] ug/L	07:54:45
3	Pb 220.353†	-83.0	-82.6	[0.00] ug/L	07:54:45
3	S 181.975 Axial†	68.8	68.5	[0.00] ug/L	07:54:45
3	Sb 206.836†	42.3	42.1	[0.00] ug/L	07:54:45
3	Se 196.026†	-29.7	-29.5	[0.00] ug/L	07:54:45
3	Si 251.611†	852.4	848.4	[0.00] ug/L	07:54:45
3	Sn 189.927†	5.5	5.4	[0.00] ug/L	07:54:45
3	Sr 421.552†	16.2	16.3	[0.00] ug/L	07:53:07
3	Ti 334.940†	-1838.9	-1830.4	[0.00] ug/L	07:54:25
3	Tl 190.801†	-53.1	-52.8	[0.00] ug/L	07:54:45
3	U 409.014†	-3109.1	-3094.8	[0.00] ug/L	07:54:25
3	V 292.402†	-1825.1	-1816.7	[0.00] ug/L	07:54:25
3	Zn 213.857†	810.9	807.2	[0.00] ug/L	07:54:45
3	SiO2†	1067.7	1062.8	[0.00] ug/L	07:55:01

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	826506.4	3573.77	0.43%	100.00	%
Sc Radial	4533.0	47.98	1.06%	100	%
Y 371.029	706665.6	3382.09	0.48%	100.00	%
Y RADIAL	4754.2	29.46	0.62%	100.0	%
Ag 328.068†	398.8	15.33	3.84%	[0.00]	ug/L
Al 396.153Radial†	-21.8	13.96	63.98%	[0.00]	ug/L
As 188.979†	-35.1	2.46	7.00%	[0.00]	ug/L
B 249.677†	-921.8	13.90	1.51%	[0.00]	ug/L
Ba 233.527†	-1.0	9.84	942.23%	[0.00]	ug/L
Be 313.107†	-4647.1	101.58	2.19%	[0.00]	ug/L
Ca 317.933Radial†	15.1	1.36	8.99%	[0.00]	ug/L
Cd 226.502†	-263.7	7.89	2.99%	[0.00]	ug/L
Co 228.616†	-106.0	14.89	14.05%	[0.00]	ug/L
Cr 267.716†	117.2	20.34	17.36%	[0.00]	ug/L
Cu 324.752†	7937.4	42.52	0.54%	[0.00]	ug/L
Fe 238.204 Radial†	11.9	1.36	11.42%	[0.00]	ug/L
K 766.490 Radial†	3100.9	33.24	1.07%	[0.00]	ug/L
Mg 279.077 IEC†	2.9	0.75	25.90%	[0.00]	ug/L
Mn 257.610†	634.5	39.63	6.25%	[0.00]	ug/L
Mo 202.031†	25.0	7.74	30.97%	[0.00]	ug/L
Na 589.592 Radial†	-1563.5	56.97	3.64%	[0.00]	ug/L
Ni 231.604†	111.2	10.95	9.85%	[0.00]	ug/L
P 214.914†	265.9	7.11	2.67%	[0.00]	ug/L
Pb 220.353†	-96.2	13.15	13.68%	[0.00]	ug/L
S 181.975 Axial†	64.1	4.62	7.20%	[0.00]	ug/L
Sb 206.836†	45.9	3.35	7.28%	[0.00]	ug/L
Se 196.026†	-35.5	6.06	17.10%	[0.00]	ug/L
Si 251.611†	854.1	8.81	1.03%	[0.00]	ug/L
Sn 189.927†	7.5	1.78	23.83%	[0.00]	ug/L
Sr 421.552†	-12.2	38.91	319.17%	[0.00]	ug/L
Ti 334.940†	-1819.6	12.26	0.67%	[0.00]	ug/L
Tl 190.801†	-57.3	6.25	10.90%	[0.00]	ug/L
U 409.014†	-3138.1	75.79	2.42%	[0.00]	ug/L
V 292.402†	-1810.4	25.35	1.40%	[0.00]	ug/L

Zn 213.857†	811.8	4.17	0.51%	[0.00]	ug/L
SiO2†	965.4	88.73	9.19%	[0.00]	ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 1/4/2010 07:57:11
Data Type: Reprocessed on 1/4/2010 09:44:31

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	840864.2	840864.2	101.74	%	07:59:35
1	Sc Radial	4567.1	4567.1	101	%	07:59:08
1	Y 371.029	717032.6	717032.6	101.47	%	07:59:35
1	Y RADIAL	4774.9	4774.9	100.4	%	07:59:08
1	Ag 328.068†	22782.6	21994.7	[100]	ug/L	07:59:35
1	As 188.979†	233.7	264.8	[100]	ug/L	07:59:55
1	B 249.677†	3672.7	4531.8	[100]	ug/L	07:59:35
1	Ba 233.527†	13298.4	13072.4	[100]	ug/L	07:59:35
1	Be 313.107†	277518.6	277427.0	[100]	ug/L	07:59:35
1	Cd 226.502†	9866.8	9962.0	[100]	ug/L	07:59:55
1	Co 228.616†	5076.2	5095.6	[100]	ug/L	07:59:55
1	Cr 267.716†	9728.3	9445.0	[100]	ug/L	07:59:35
1	Cu 324.752†	40115.5	31493.1	[100]	ug/L	07:59:35
1	K 766.490 Radial†	7853.6	4693.9	[1000]	ug/L	07:59:03
1	Mn 257.610†	93675.3	91441.3	[100]	ug/L	07:59:35
1	Mo 202.031†	1555.4	1503.8	[100]	ug/L	07:59:55
1	Ni 231.604†	4512.7	4324.4	[100]	ug/L	07:59:55
1	P 214.914†	1257.5	970.1	[500]	ug/L	07:59:55
1	Pb 220.353†	869.2	950.5	[100]	ug/L	07:59:55
1	S 181.975 Axial†	231.0	162.9	[200]	ug/L	07:59:55
1	Sb 206.836†	369.0	316.7	[100]	ug/L	07:59:55
1	Se 196.026†	153.3	186.2	[100]	ug/L	07:59:55
1	Si 251.611†	29655.7	28295.3	[500]	ug/L	07:59:35
1	Sn 189.927†	647.0	628.5	[100]	ug/L	07:59:55
1	Sr 421.552†	13504.1	13415.3	[100]	ug/L	07:59:08
1	Ti 334.940†	61323.5	62095.9	[100]	ug/L	07:59:35
1	Tl 190.801†	301.2	353.3	[100]	ug/L	07:59:55
1	U 409.014†	126.8	3262.7	[100]	ug/L	07:59:35
1	V 292.402†	13170.4	14755.8	[100]	ug/L	07:59:35
1	Zn 213.857†	12532.3	11506.5	[100]	ug/L	07:59:35
1	SiO2†	17522.1	16257.5	[1069.5]	ug/L	08:00:52
2	Sc 361.383	848274.9	848274.9	102.63	%	08:00:01
2	Sc Radial	4606.8	4606.8	102	%	07:59:19
2	Y 371.029	722720.3	722720.3	102.27	%	08:00:01
2	Y RADIAL	4839.6	4839.6	101.8	%	07:59:19
2	Ag 328.068†	23151.3	22158.4	[100]	ug/L	08:00:01
2	As 188.979†	230.6	259.8	[100]	ug/L	08:00:21
2	B 249.677†	3685.4	4512.6	[100]	ug/L	08:00:01
2	Ba 233.527†	13389.7	13047.1	[100]	ug/L	08:00:01
2	Be 313.107†	280485.3	277934.5	[100]	ug/L	08:00:01
2	Cd 226.502†	9802.2	9814.3	[100]	ug/L	08:00:21
2	Co 228.616†	5034.5	5011.3	[100]	ug/L	08:00:21
2	Cr 267.716†	9770.3	9402.4	[100]	ug/L	08:00:01
2	Cu 324.752†	40617.2	31637.4	[100]	ug/L	08:00:01
2	K 766.490 Radial†	7997.9	4768.8	[1000]	ug/L	07:59:13
2	Mn 257.610†	94585.1	91523.3	[100]	ug/L	08:00:01
2	Mo 202.031†	1531.3	1467.0	[100]	ug/L	08:00:21
2	Ni 231.604†	4488.7	4262.3	[100]	ug/L	08:00:21
2	P 214.914†	1240.9	943.2	[500]	ug/L	08:00:21
2	Pb 220.353†	840.5	915.1	[100]	ug/L	08:00:21
2	S 181.975 Axial†	228.8	158.8	[200]	ug/L	08:00:21
2	Sb 206.836†	355.0	299.9	[100]	ug/L	08:00:21
2	Se 196.026†	157.1	188.6	[100]	ug/L	08:00:21
2	Si 251.611†	17758.4	16448.6	[500]	ug/L	08:00:01
2	Sn 189.927†	644.0	620.0	[100]	ug/L	08:00:21
2	Sr 421.552†	13631.8	13425.6	[100]	ug/L	07:59:19
2	Ti 334.940†	59614.2	59903.9	[100]	ug/L	08:00:01
2	Tl 190.801†	302.0	351.6	[100]	ug/L	08:00:21

2	U 409.014†	209.0	3341.7	[100]	ug/L	08:00:01
2	V 292.402†	13384.5	14851.4	[100]	ug/L	08:00:01
2	Zn 213.857†	12608.8	11473.4	[100]	ug/L	08:00:01
2	SiO2†	17644.2	16226.0	[1069.5]	ug/L	08:00:57
3	Sc 361.383	832769.8	832769.8	100.76	%	08:00:26
3	Sc Radial	4535.5	4535.5	100	%	07:59:29
3	Y 371.029	709551.9	709551.9	100.41	%	08:00:26
3	Y RADIAL	4732.9	4732.9	99.55	%	07:59:29
3	Ag 328.068†	22788.6	22218.4	[100]	ug/L	08:00:26
3	As 188.979†	233.9	267.3	[100]	ug/L	08:00:47
3	B 249.677†	3695.3	4589.3	[100]	ug/L	08:00:26
3	Ba 233.527†	13143.9	13046.1	[100]	ug/L	08:00:26
3	Be 313.107†	274688.7	277269.8	[100]	ug/L	08:00:26
3	Cd 226.502†	9864.3	10053.8	[100]	ug/L	08:00:47
3	Co 228.616†	5083.0	5150.8	[100]	ug/L	08:00:47
3	Cr 267.716†	9596.4	9407.0	[100]	ug/L	08:00:26
3	Cu 324.752†	39895.2	31657.7	[100]	ug/L	08:00:26
3	K 766.490 Radial†	7959.6	4854.2	[1000]	ug/L	07:59:24
3	Mn 257.610†	92763.5	91431.3	[100]	ug/L	08:00:26
3	Mo 202.031†	1543.3	1506.7	[100]	ug/L	08:00:47
3	Ni 231.604†	4508.5	4363.4	[100]	ug/L	08:00:47
3	P 214.914†	1236.7	961.5	[500]	ug/L	08:00:47
3	Pb 220.353†	849.5	939.3	[100]	ug/L	08:00:47
3	S 181.975 Axial†	231.9	166.0	[200]	ug/L	08:00:47
3	Sb 206.836†	366.1	317.4	[100]	ug/L	08:00:47
3	Se 196.026†	153.7	188.0	[100]	ug/L	08:00:47
3	Si 251.611†	17419.0	16433.9	[500]	ug/L	08:00:26
3	Sn 189.927†	658.2	645.7	[100]	ug/L	08:00:47
3	Sr 421.552†	13395.0	13399.8	[100]	ug/L	07:59:29
3	Ti 334.940†	58310.1	59691.1	[100]	ug/L	08:00:26
3	Tl 190.801†	295.5	350.6	[100]	ug/L	08:00:47
3	U 409.014†	66.7	3204.3	[100]	ug/L	08:00:26
3	V 292.402†	13163.7	14875.1	[100]	ug/L	08:00:26
3	Zn 213.857†	12409.8	11504.7	[100]	ug/L	08:00:26
3	SiO2†	17573.3	16475.7	[1069.5]	ug/L	08:01:02

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	840636.3	7755.09	0.92%	101.71	%
Sc Radial	4569.8	35.73	0.78%	101	%
Y 371.029	716434.9	6604.54	0.92%	101.38	%
Y RADIAL	4782.5	53.74	1.12%	100.6	%
Ag 328.068†	22123.8	115.75	0.52%	[100]	ug/L
As 188.979†	263.9	3.83	1.45%	[100]	ug/L
B 249.677†	4544.6	39.91	0.88%	[100]	ug/L
Ba 233.527†	13055.2	14.89	0.11%	[100]	ug/L
Be 313.107†	277543.8	347.39	0.13%	[100]	ug/L
Cd 226.502†	9943.4	120.81	1.22%	[100]	ug/L
Co 228.616†	5085.9	70.26	1.38%	[100]	ug/L
Cr 267.716†	9418.1	23.37	0.25%	[100]	ug/L
Cu 324.752†	31596.1	89.75	0.28%	[100]	ug/L
K 766.490 Radial†	4772.3	80.21	1.68%	[1000]	ug/L
Mn 257.610†	91465.3	50.50	0.06%	[100]	ug/L
Mo 202.031†	1492.5	22.14	1.48%	[100]	ug/L
Ni 231.604†	4316.7	51.02	1.18%	[100]	ug/L
P 214.914†	958.3	13.77	1.44%	[500]	ug/L
Pb 220.353†	935.0	18.11	1.94%	[100]	ug/L
S 181.975 Axial†	162.6	3.61	2.22%	[200]	ug/L
Sb 206.836†	311.3	9.91	3.18%	[100]	ug/L
Se 196.026†	187.6	1.26	0.67%	[100]	ug/L
Si 251.611†	20392.6	6843.89	33.56%	[500]	ug/L
Sn 189.927†	631.4	13.11	2.08%	[100]	ug/L
Sr 421.552†	13413.6	12.98	0.10%	[100]	ug/L
Ti 334.940†	60563.6	1331.28	2.20%	[100]	ug/L
Tl 190.801†	351.8	1.37	0.39%	[100]	ug/L
U 409.014†	3269.6	68.93	2.11%	[100]	ug/L
V 292.402†	14827.4	63.12	0.43%	[100]	ug/L
Zn 213.857†	11494.9	18.60	0.16%	[100]	ug/L
SiO2†	16319.7	136.00	0.83%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 1/4/2010 08:03:12
Data Type: Reprocessed on 1/4/2010 09:44:33

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	846500.6	846500.6	102.42	%	08:06:23
1	Sc Radial	4613.5	4613.5	102	%	08:05:04
1	Y 371.029	715308.2	715308.2	101.22	%	08:06:23
1	Y RADIAL	4778.8	4778.8	100.5	%	08:05:04
1	Ag 328.068†	110344.4	107339.3	[500]	ug/L	08:06:23
1	Al 396.153Radial†	5479.9	5406.0	[5000]	ug/L	08:05:04
1	As 188.979†	1321.6	1325.5	[500]	ug/L	08:06:43
1	B 249.677†	22155.7	22554.2	[500]	ug/L	08:06:23
1	Ba 233.527†	64883.3	63351.8	[500]	ug/L	08:06:23
1	Be 313.107†	1401652.7	1373193.0	[500]	ug/L	08:06:23
1	Ca 317.933Radial†	2993.6	2926.2	[5000]	ug/L	08:05:24
1	Cd 226.502†	50532.4	49602.5	[500]	ug/L	08:06:23
1	Co 228.616†	25046.4	24560.9	[500]	ug/L	08:06:43
1	Cr 267.716†	47132.6	45902.1	[500]	ug/L	08:06:23
1	Cu 324.752†	167047.6	155164.5	[500]	ug/L	08:06:23
1	K 766.490 Radial†	26674.3	23107.5	[5000]	ug/L	08:05:04
1	Mg 279.077 IEC†	160.5	154.8	[5000]	ug/L	08:05:24
1	Mn 257.610†	454100.7	442740.4	[500]	ug/L	08:06:23
1	Mo 202.031†	7571.5	7367.7	[500]	ug/L	08:06:43
1	Ni 231.604†	21582.5	20961.5	[500]	ug/L	08:06:43
1	P 214.914†	5123.1	4736.3	[2500]	ug/L	08:06:43
1	Pb 220.353†	4512.5	4502.1	[500]	ug/L	08:06:43
1	S 181.975 Axial†	888.6	803.5	[1000]	ug/L	08:06:43
1	Sb 206.836†	1632.3	1547.8	[500]	ug/L	08:06:43
1	Se 196.026†	878.8	893.5	[500]	ug/L	08:06:43
1	Si 251.611†	82696.3	79888.9	[2500]	ug/L	08:06:23
1	Sn 189.927†	3189.8	3107.0	[500]	ug/L	08:06:43
1	Sr 421.552†	69149.7	67954.2	[500]	ug/L	08:05:04
1	Ti 334.940†	300307.3	295033.7	[500]	ug/L	08:06:23
1	Tl 190.801†	1673.2	1691.0	[500]	ug/L	08:06:43
1	U 409.014†	12530.3	15372.4	[500]	ug/L	08:06:23
1	V 292.402†	72815.8	72906.2	[500]	ug/L	08:06:23
1	Zn 213.857†	58374.4	56183.8	[500]	ug/L	08:06:23
1	SiO2†	82871.5	79948.7	[5347.5]	ug/L	08:07:44
2	Sc 361.383	860027.2	860027.2	104.06	%	08:06:51
2	Sc Radial	4633.7	4633.7	102	%	08:05:29
2	Y 371.029	725614.5	725614.5	102.68	%	08:06:51
2	Y RADIAL	4809.3	4809.3	101.2	%	08:05:29
2	Ag 328.068†	112360.6	107582.4	[500]	ug/L	08:06:51
2	Al 396.153Radial†	5542.4	5443.7	[5000]	ug/L	08:05:29
2	As 188.979†	1334.6	1317.7	[500]	ug/L	08:07:11
2	B 249.677†	22684.0	22721.6	[500]	ug/L	08:06:51
2	Ba 233.527†	66110.9	63535.1	[500]	ug/L	08:06:51
2	Be 313.107†	1428235.1	1377214.7	[500]	ug/L	08:06:51
2	Ca 317.933Radial†	2985.1	2905.1	[5000]	ug/L	08:05:50
2	Cd 226.502†	51435.4	49694.3	[500]	ug/L	08:06:51
2	Co 228.616†	25457.5	24571.3	[500]	ug/L	08:07:11
2	Cr 267.716†	47930.6	45945.3	[500]	ug/L	08:06:51
2	Cu 324.752†	170430.0	155849.8	[500]	ug/L	08:06:51
2	K 766.490 Radial†	26866.1	23181.1	[5000]	ug/L	08:05:29
2	Mg 279.077 IEC†	157.0	150.7	[5000]	ug/L	08:05:50
2	Mn 257.610†	462571.5	443907.7	[500]	ug/L	08:06:51
2	Mo 202.031†	7683.0	7358.6	[500]	ug/L	08:07:11
2	Ni 231.604†	21897.4	20932.7	[500]	ug/L	08:07:11
2	P 214.914†	5201.5	4732.9	[2500]	ug/L	08:07:11
2	Pb 220.353†	4612.6	4529.0	[500]	ug/L	08:07:11
2	S 181.975 Axial†	909.8	810.2	[1000]	ug/L	08:07:11
2	Sb 206.836†	1662.9	1552.2	[500]	ug/L	08:07:11

2	Se 196.026†	914.7	914.5	[500]	ug/L	08:07:11
2	Si 251.611†	84331.6	80190.6	[2500]	ug/L	08:06:51
2	Sn 189.927†	3248.1	3114.0	[500]	ug/L	08:07:11
2	Sr 421.552†	69673.4	68170.8	[500]	ug/L	08:05:29
2	Ti 334.940†	305510.4	295422.2	[500]	ug/L	08:06:51
2	Tl 190.801†	1696.7	1687.8	[500]	ug/L	08:07:11
2	U 409.014†	12597.8	15244.8	[500]	ug/L	08:06:51
2	V 292.402†	74071.1	72994.4	[500]	ug/L	08:06:51
2	Zn 213.857†	59642.8	56506.3	[500]	ug/L	08:06:51
2	SiO2†	83598.0	79374.3	[5347.5]	ug/L	08:07:49
3	Sc 361.383	854961.5	854961.5	103.44	%	08:07:18
3	Sc Radial	4501.8	4501.8	99.3	%	08:05:55
3	Y 371.029	722297.4	722297.4	102.21	%	08:07:18
3	Y RADIAL	4697.1	4697.1	98.80	%	08:05:55
3	Ag 328.068†	111753.7	107635.4	[500]	ug/L	08:07:18
3	Al 396.153Radial†	5408.9	5468.1	[5000]	ug/L	08:05:55
3	As 188.979†	1327.4	1318.3	[500]	ug/L	08:07:38
3	B 249.677†	22514.5	22686.9	[500]	ug/L	08:07:18
3	Ba 233.527†	65505.4	63326.3	[500]	ug/L	08:07:18
3	Be 313.107†	1415865.6	1373389.4	[500]	ug/L	08:07:18
3	Ca 317.933Radial†	2986.9	2992.4	[5000]	ug/L	08:06:15
3	Cd 226.502†	50801.5	49374.4	[500]	ug/L	08:07:18
3	Co 228.616†	25254.0	24519.5	[500]	ug/L	08:07:38
3	Cr 267.716†	47487.0	45789.4	[500]	ug/L	08:07:18
3	Cu 324.752†	169493.4	155914.9	[500]	ug/L	08:07:18
3	K 766.490 Radial†	26266.4	23347.0	[5000]	ug/L	08:05:55
3	Mg 279.077 IEC†	164.1	162.3	[5000]	ug/L	08:06:15
3	Mn 257.610†	457727.2	441858.5	[500]	ug/L	08:07:18
3	Mo 202.031†	7608.9	7330.6	[500]	ug/L	08:07:38
3	Ni 231.604†	21730.8	20896.3	[500]	ug/L	08:07:38
3	P 214.914†	5140.2	4703.2	[2500]	ug/L	08:07:38
3	Pb 220.353†	4561.9	4506.2	[500]	ug/L	08:07:38
3	S 181.975 Axial†	893.4	799.6	[1000]	ug/L	08:07:38
3	Sb 206.836†	1675.3	1573.6	[500]	ug/L	08:07:38
3	Se 196.026†	901.9	907.4	[500]	ug/L	08:07:38
3	Si 251.611†	83602.9	79966.3	[2500]	ug/L	08:07:18
3	Sn 189.927†	3232.3	3117.3	[500]	ug/L	08:07:38
3	Sr 421.552†	67738.3	68218.5	[500]	ug/L	08:05:55
3	Ti 334.940†	303436.3	295156.8	[500]	ug/L	08:07:18
3	Tl 190.801†	1697.2	1698.0	[500]	ug/L	08:07:38
3	U 409.014†	12592.5	15311.5	[500]	ug/L	08:07:18
3	V 292.402†	73610.5	72970.9	[500]	ug/L	08:07:18
3	Zn 213.857†	59027.2	56250.8	[500]	ug/L	08:07:18
3	SiO2†	84162.7	80396.2	[5347.5]	ug/L	08:07:54

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	853829.7	6833.95	0.80%	103.31	%
Sc Radial	4583.0	71.02	1.55%	101	%
Y 371.029	721073.4	5261.04	0.73%	102.04	%
Y RADIAL	4761.7	58.01	1.22%	100.2	%
Ag 328.068†	107519.0	157.90	0.15%	[500]	ug/L
Al 396.153Radial†	5439.3	31.25	0.57%	[5000]	ug/L
As 188.979†	1320.5	4.34	0.33%	[500]	ug/L
B 249.677†	22654.2	88.37	0.39%	[500]	ug/L
Ba 233.527†	63404.4	113.93	0.18%	[500]	ug/L
Be 313.107†	1374599.0	2267.36	0.16%	[500]	ug/L
Ca 317.933Radial†	2941.2	45.57	1.55%	[5000]	ug/L
Cd 226.502†	49557.1	164.73	0.33%	[500]	ug/L
Co 228.616†	24550.6	27.37	0.11%	[500]	ug/L
Cr 267.716†	45878.9	80.51	0.18%	[500]	ug/L
Cu 324.752†	155643.1	415.70	0.27%	[500]	ug/L
K 766.490 Radial†	23211.8	122.68	0.53%	[5000]	ug/L
Mg 279.077 IEC†	156.0	5.90	3.78%	[5000]	ug/L
Mn 257.610†	442835.5	1027.89	0.23%	[500]	ug/L
Mo 202.031†	7352.3	19.29	0.26%	[500]	ug/L
Ni 231.604†	20930.2	32.69	0.16%	[500]	ug/L
P 214.914†	4724.1	18.18	0.38%	[2500]	ug/L
Pb 220.353†	4512.4	14.48	0.32%	[500]	ug/L

S 181.975 Axial†	804.4	5.39	0.67%	[1000]	ug/L
Sb 206.836†	1557.9	13.80	0.89%	[500]	ug/L
Se 196.026†	905.1	10.69	1.18%	[500]	ug/L
Si 251.611†	80015.3	156.67	0.20%	[2500]	ug/L
Sn 189.927†	3112.8	5.24	0.17%	[500]	ug/L
Sr 421.552†	68114.5	140.88	0.21%	[500]	ug/L
Ti 334.940†	295204.2	198.57	0.07%	[500]	ug/L
Tl 190.801†	1692.3	5.22	0.31%	[500]	ug/L
U 409.014†	15309.6	63.81	0.42%	[500]	ug/L
V 292.402†	72957.2	45.66	0.06%	[500]	ug/L
Zn 213.857†	56313.7	170.20	0.30%	[500]	ug/L
SiO2†	79906.4	512.28	0.64%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 1/4/2010 08:10:05
Data Type: Reprocessed on 1/4/2010 09:44:34

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	824639.2	824639.2	99.774	%	08:13:22
1	Sc Radial	4487.3	4487.3	99.0	%	08:12:18
1	Y 371.029	701738.9	701738.9	99.303	%	08:13:22
1	Y RADIAL	4645.1	4645.1	97.70	%	08:12:18
1	Ag 328.068†	222859.6	222965.4	[1000]	ug/L	08:13:22
1	Al 396.153Radial†	10999.4	11133.1	[10000]	ug/L	08:11:58
1	As 188.979†	2657.4	2698.5	[1000]	ug/L	08:13:42
1	B 249.677†	46229.8	47256.3	[1000]	ug/L	08:13:22
1	Ba 233.527†	130444.4	130740.8	[1000]	ug/L	08:13:22
1	Be 313.107†	2821841.9	2832878.5	[1000]	ug/L	08:13:16
1	Ca 317.933Radial†	5906.8	5951.8	[10000]	ug/L	08:12:18
1	Cd 226.502†	101386.9	101880.1	[1000]	ug/L	08:13:22
1	Co 228.616†	51083.6	51305.3	[1000]	ug/L	08:13:22
1	Cr 267.716†	94858.7	94956.3	[1000]	ug/L	08:13:22
1	Cu 324.752†	329537.3	322346.0	[1000]	ug/L	08:13:22
1	Fe 238.204 Radial†	1138.5	1138.2	[10000]	ug/L	08:12:18
1	K 766.490 Radial†	50340.4	47751.5	[10000]	ug/L	08:11:58
1	Mg 279.077 IEC†	312.0	312.3	[10000]	ug/L	08:12:18
1	Mn 257.610†	909088.0	910512.0	[1000]	ug/L	08:13:16
1	Mo 202.031†	15064.0	15073.1	[1000]	ug/L	08:13:42
1	Na 589.592 Radial†	30868.1	32745.6	[10000]	ug/L	08:11:58
1	Ni 231.604†	43705.1	43692.9	[1000]	ug/L	08:13:22
1	P 214.914†	9995.2	9752.0	[5000]	ug/L	08:13:42
1	Pb 220.353†	9073.3	9190.0	[1000]	ug/L	08:13:42
1	S 181.975 Axial†	1728.8	1668.5	[2000]	ug/L	08:13:42
1	Sb 206.836†	3275.7	3237.1	[1000]	ug/L	08:13:42
1	Se 196.026†	1838.1	1877.7	[1000]	ug/L	08:13:42
1	Si 251.611†	167081.6	166605.9	[5000]	ug/L	08:13:22
1	Sn 189.927†	6422.8	6429.8	[1000]	ug/L	08:13:42
1	Sr 421.552†	134844.7	136228.4	[1000]	ug/L	08:11:58
1	Ti 334.940†	595998.7	599167.8	[1000]	ug/L	08:13:22
1	Tl 190.801†	3394.3	3459.2	[1000]	ug/L	08:13:42
1	U 409.014†	29858.4	33064.0	[1000]	ug/L	08:13:22
1	V 292.402†	149331.5	151480.0	[1000]	ug/L	08:13:22
1	Zn 213.857†	116340.9	115792.5	[1000]	ug/L	08:13:22
1	SiO2†	164686.4	164093.9	[10695]	ug/L	08:14:50
2	Sc 361.383	820583.2	820583.2	99.283	%	08:13:53
2	Sc Radial	4491.0	4491.0	99.1	%	08:12:44
2	Y 371.029	697866.7	697866.7	98.755	%	08:13:53
2	Y RADIAL	4639.5	4639.5	97.59	%	08:12:44
2	Ag 328.068†	221920.9	223124.0	[1000]	ug/L	08:13:53
2	Al 396.153Radial†	10858.4	10981.6	[10000]	ug/L	08:12:24
2	As 188.979†	2671.4	2725.8	[1000]	ug/L	08:14:13
2	B 249.677†	46060.9	47315.1	[1000]	ug/L	08:13:53
2	Ba 233.527†	130199.8	131140.7	[1000]	ug/L	08:13:53
2	Be 313.107†	2820301.0	2845305.8	[1000]	ug/L	08:13:48
2	Ca 317.933Radial†	5913.6	5953.7	[10000]	ug/L	08:12:44
2	Cd 226.502†	101185.7	102179.7	[1000]	ug/L	08:13:53
2	Co 228.616†	51000.4	51474.6	[1000]	ug/L	08:13:53
2	Cr 267.716†	94637.5	95203.4	[1000]	ug/L	08:13:53
2	Cu 324.752†	327250.3	321675.0	[1000]	ug/L	08:13:53
2	Fe 238.204 Radial†	1136.5	1135.2	[10000]	ug/L	08:12:44
2	K 766.490 Radial†	50047.8	47414.1	[10000]	ug/L	08:12:24
2	Mg 279.077 IEC†	310.1	310.1	[10000]	ug/L	08:12:44
2	Mn 257.610†	908612.8	914537.0	[1000]	ug/L	08:13:48
2	Mo 202.031†	15138.3	15222.6	[1000]	ug/L	08:14:13
2	Na 589.592 Radial†	30525.3	32373.7	[10000]	ug/L	08:12:24
2	Ni 231.604†	43592.7	43796.1	[1000]	ug/L	08:13:53

2	P 214.914†	10044.7	9851.4	[5000]	ug/L	08:14:13
2	Pb 220.353†	9136.8	9298.9	[1000]	ug/L	08:14:13
2	S 181.975 Axial†	1739.3	1687.7	[2000]	ug/L	08:14:13
2	Sb 206.836†	3280.1	3257.9	[1000]	ug/L	08:14:13
2	Se 196.026†	1821.1	1869.7	[1000]	ug/L	08:14:13
2	Si 251.611†	166491.9	166839.6	[5000]	ug/L	08:13:53
2	Sn 189.927†	6443.8	6482.8	[1000]	ug/L	08:14:13
2	Sr 421.552†	133697.5	134957.8	[1000]	ug/L	08:12:24
2	Ti 334.940†	592874.9	598974.0	[1000]	ug/L	08:13:53
2	Tl 190.801†	3403.4	3485.2	[1000]	ug/L	08:14:13
2	U 409.014†	29446.0	32796.6	[1000]	ug/L	08:13:53
2	V 292.402†	148665.5	151548.9	[1000]	ug/L	08:13:53
2	Zn 213.857†	115931.5	115956.5	[1000]	ug/L	08:13:53
2	SiO2†	167806.7	168052.6	[10695]	ug/L	08:14:55
3	Sc 361.383	823604.2	823604.2	99.649	%	08:14:25
3	Sc Radial	4503.0	4503.0	99.3	%	08:13:09
3	Y 371.029	701201.3	701201.3	99.227	%	08:14:25
3	Y RADIAL	4653.0	4653.0	97.87	%	08:13:09
3	Ag 328.068†	222611.9	222997.5	[1000]	ug/L	08:14:25
3	Al 396.153Radial†	10825.6	10919.5	[10000]	ug/L	08:12:49
3	As 188.979†	2667.7	2712.2	[1000]	ug/L	08:14:45
3	B 249.677†	46141.9	47226.3	[1000]	ug/L	08:14:25
3	Ba 233.527†	130376.7	130837.1	[1000]	ug/L	08:14:25
3	Be 313.107†	2778504.0	2792941.8	[1000]	ug/L	08:14:19
3	Ca 317.933Radial†	5890.6	5914.7	[10000]	ug/L	08:13:09
3	Cd 226.502†	101106.4	101726.3	[1000]	ug/L	08:14:25
3	Co 228.616†	51033.8	51319.7	[1000]	ug/L	08:14:25
3	Cr 267.716†	94803.7	95020.6	[1000]	ug/L	08:14:25
3	Cu 324.752†	328805.7	322026.9	[1000]	ug/L	08:14:25
3	Fe 238.204 Radial†	1138.5	1134.2	[10000]	ug/L	08:13:09
3	K 766.490 Radial†	49787.6	47017.9	[10000]	ug/L	08:12:49
3	Mg 279.077 IEC†	315.2	314.4	[10000]	ug/L	08:13:09
3	Mn 257.610†	895037.9	897557.3	[1000]	ug/L	08:14:19
3	Mo 202.031†	15174.5	15202.9	[1000]	ug/L	08:14:45
3	Na 589.592 Radial†	30356.7	32122.2	[10000]	ug/L	08:12:49
3	Ni 231.604†	43540.3	43582.5	[1000]	ug/L	08:14:25
3	P 214.914†	10061.3	9830.9	[5000]	ug/L	08:14:45
3	Pb 220.353†	9143.7	9272.1	[1000]	ug/L	08:14:45
3	S 181.975 Axial†	1739.1	1681.1	[2000]	ug/L	08:14:45
3	Sb 206.836†	3297.9	3263.6	[1000]	ug/L	08:14:45
3	Se 196.026†	1827.4	1869.3	[1000]	ug/L	08:14:45
3	Si 251.611†	166819.5	166553.2	[5000]	ug/L	08:14:25
3	Sn 189.927†	6436.0	6451.2	[1000]	ug/L	08:14:45
3	Sr 421.552†	132981.4	133878.5	[1000]	ug/L	08:12:49
3	Ti 334.940†	595010.2	598926.4	[1000]	ug/L	08:14:25
3	Tl 190.801†	3438.2	3507.6	[1000]	ug/L	08:14:45
3	U 409.014†	29686.2	32928.9	[1000]	ug/L	08:14:25
3	V 292.402†	149083.1	151418.8	[1000]	ug/L	08:14:25
3	Zn 213.857†	116153.2	115750.7	[1000]	ug/L	08:14:25
3	SiO2†	167118.7	166742.2	[10695]	ug/L	08:15:01

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	822942.2	2107.46	0.26%	99.569	%
Sc Radial	4493.8	8.19	0.18%	99.1	%
Y 371.029	700268.9	2097.70	0.30%	99.095	%
Y RADIAL	4645.8	6.78	0.15%	97.72	%
Ag 328.068†	223029.0	83.84	0.04%	[1000]	ug/L
Al 396.153Radial†	11011.4	109.88	1.00%	[10000]	ug/L
As 188.979†	2712.2	13.64	0.50%	[1000]	ug/L
B 249.677†	47265.9	45.21	0.10%	[1000]	ug/L
Ba 233.527†	130906.2	208.69	0.16%	[1000]	ug/L
Be 313.107†	2823708.7	27359.83	0.97%	[1000]	ug/L
Ca 317.933Radial†	5940.1	21.97	0.37%	[10000]	ug/L
Cd 226.502†	101928.7	230.57	0.23%	[1000]	ug/L
Co 228.616†	51366.5	93.89	0.18%	[1000]	ug/L
Cr 267.716†	95060.1	128.22	0.13%	[1000]	ug/L
Cu 324.752†	322016.0	335.63	0.10%	[1000]	ug/L
Fe 238.204 Radial†	1135.9	2.09	0.18%	[10000]	ug/L

K 766.490 Radial†	47394.5	367.15	0.77%	[10000]	ug/L
Mg 279.077 IEC†	312.3	2.14	0.69%	[10000]	ug/L
Mn 257.610†	907535.4	8872.53	0.98%	[1000]	ug/L
Mo 202.031†	15166.2	81.22	0.54%	[1000]	ug/L
Na 589.592 Radial†	32413.8	313.59	0.97%	[10000]	ug/L
Ni 231.604†	43690.5	106.81	0.24%	[1000]	ug/L
P 214.914†	9811.4	52.50	0.54%	[5000]	ug/L
Pb 220.353†	9253.7	56.74	0.61%	[1000]	ug/L
S 181.975 Axial†	1679.1	9.73	0.58%	[2000]	ug/L
Sb 206.836†	3252.9	13.92	0.43%	[1000]	ug/L
Se 196.026†	1872.2	4.73	0.25%	[1000]	ug/L
Si 251.611†	166666.2	152.41	0.09%	[5000]	ug/L
Sn 189.927†	6454.6	26.65	0.41%	[1000]	ug/L
Sr 421.552†	135021.6	1176.25	0.87%	[1000]	ug/L
Ti 334.940†	599022.7	127.83	0.02%	[1000]	ug/L
Tl 190.801†	3484.0	24.21	0.69%	[1000]	ug/L
U 409.014†	32929.8	133.74	0.41%	[1000]	ug/L
V 292.402†	151482.6	65.12	0.04%	[1000]	ug/L
Zn 213.857†	115833.2	108.81	0.09%	[1000]	ug/L
SiO2†	166296.2	2016.67	1.21%	[10695]	ug/L

Sequence No.: 5
Sample ID: S10
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 1/4/2010 08:17:11
Data Type: Reprocessed on 1/4/2010 09:44:35

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	831494.5	831494.5	100.60	%	08:20:22
1	Sc Radial	4425.8	4425.8	97.6	%	08:19:25
1	Y 371.029	700552.2	700552.2	99.135	%	08:20:22
1	Y RADIAL	4601.0	4601.0	96.78	%	08:19:25
1	Al 396.153Radial†	55352.2	56714.8	[50000]	ug/L	08:19:05
1	Ca 317.933Radial†	29437.2	30135.1	[50000]	ug/L	08:19:05
1	Fe 238.204 Radial†	2184.2	2225.2	[20000]	ug/L	08:19:25
1	Mg 279.077 IEC†	1496.2	1529.5	[50000]	ug/L	08:19:25
1	Na 589.592 Radial†	62198.5	65268.5	[20000]	ug/L	08:19:05
2	Sc 361.383	836418.5	836418.5	101.20	%	08:20:28
2	Sc Radial	4481.4	4481.4	98.9	%	08:19:50
2	Y 371.029	703956.0	703956.0	99.617	%	08:20:28
2	Y RADIAL	4647.5	4647.5	97.76	%	08:19:50
2	Al 396.153Radial†	54972.3	55626.2	[50000]	ug/L	08:19:30
2	Ca 317.933Radial†	29227.4	29548.4	[50000]	ug/L	08:19:30
2	Fe 238.204 Radial†	2211.4	2224.9	[20000]	ug/L	08:19:50
2	Mg 279.077 IEC†	1516.9	1531.5	[50000]	ug/L	08:19:50
2	Na 589.592 Radial†	61437.9	63707.8	[20000]	ug/L	08:19:30
3	Sc 361.383	838127.9	838127.9	101.41	%	08:20:33
3	Sc Radial	4450.1	4450.1	98.2	%	08:20:15
3	Y 371.029	705304.6	705304.6	99.807	%	08:20:33
3	Y RADIAL	4620.4	4620.4	97.19	%	08:20:15
3	Al 396.153Radial†	54198.0	55229.4	[50000]	ug/L	08:19:55
3	Ca 317.933Radial†	28755.1	29275.6	[50000]	ug/L	08:19:55
3	Fe 238.204 Radial†	2184.8	2213.6	[20000]	ug/L	08:20:15
3	Mg 279.077 IEC†	1509.7	1534.9	[50000]	ug/L	08:20:15
3	Na 589.592 Radial†	60356.8	63044.6	[20000]	ug/L	08:19:55

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	835347.0	3444.06	0.41%	101.07	%
Sc Radial	4452.4	27.91	0.63%	98.2	%
Y 371.029	703270.9	2449.16	0.35%	99.520	%
Y RADIAL	4623.0	23.35	0.51%	97.24	%
Al 396.153Radial†	55856.8	769.07	1.38%	[50000]	ug/L
Ca 317.933Radial†	29653.0	439.19	1.48%	[50000]	ug/L
Fe 238.204 Radial†	2221.2	6.62	0.30%	[20000]	ug/L
Mg 279.077 IEC†	1532.0	2.73	0.18%	[50000]	ug/L
Na 589.592 Radial†	64007.0	1141.75	1.78%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	221.4	0.00000	0.999897	
Al 396.153Radial	3	Lin Thru 0	0.0	1.116	0.00000	0.999993	
As 188.979	3	Lin Thru 0	0.0	2.697	0.00000	0.999943	
B 249.677	3	Lin Thru 0	0.0	46.86	0.00000	0.999858	
Ba 233.527	3	Lin Thru 0	0.0	130.1	0.00000	0.999921	
Be 313.107	3	Lin Thru 0	0.0	2809	0.00000	0.999944	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5931	0.00000	1.000000	
Cd 226.502	3	Lin Thru 0	0.0	101.4	0.00000	0.999937	
Co 228.616	3	Lin Thru 0	0.0	50.91	0.00000	0.999843	
Cr 267.716	3	Lin Thru 0	0.0	94.40	0.00000	0.999903	
Cu 324.752	3	Lin Thru 0	0.0	319.8	0.00000	0.999910	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.1116	0.00000	0.999959	

K 766.490 Radial	3	Lin Thru 0	0.0	4.720	0.00000	0.999966
Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0307	0.00000	0.999992
Mn 257.610	3	Lin Thru 0	0.0	903.3	0.00000	0.999953
Mo 202.031	3	Lin Thru 0	0.0	15.07	0.00000	0.999925
Na 589.592 Radia	2	Lin Thru 0	0.0	3.209	0.00000	0.999987
Ni 231.604	3	Lin Thru 0	0.0	43.32	0.00000	0.999858
P 214.914	3	Lin Thru 0	0.0	1.948	0.00000	0.999889
Pb 220.353	3	Lin Thru 0	0.0	9.209	0.00000	0.999950
S 181.975 Axial	3	Lin Thru 0	0.0	0.8324	0.00000	0.999856
Sb 206.836	3	Lin Thru 0	0.0	3.225	0.00000	0.999852
Se 196.026	3	Lin Thru 0	0.0	1.860	0.00000	0.999912
Si 251.611	3	Lin Thru 0	0.0	33.13	0.00000	0.999659
Sn 189.927	3	Lin Thru 0	0.0	6.408	0.00000	0.999898
Sr 421.552	3	Lin Thru 0	0.0	135.3	0.00000	0.999993
Ti 334.940	3	Lin Thru 0	0.0	597.4	0.00000	0.999983
Tl 190.801	3	Lin Thru 0	0.0	3.465	0.00000	0.999934
U 409.014	3	Lin Thru 0	0.0	32.47	0.00000	0.999598
V 292.402	3	Lin Thru 0	0.0	150.4	0.00000	0.999890
Zn 213.857	3	Lin Thru 0	0.0	115.2	0.00000	0.999939
SiO2	3	Lin Thru 0	0.0	15.43	0.00000	0.999877

Sequence No.: 6
Sample ID: ICV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 1/4/2010 08:22:45
Data Type: Reprocessed on 1/4/2010 09:44:35

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	865533.4	865533.4	104.72	%			08:25:55
1	Sc Radial	4546.4	4546.4	100	%			08:24:38
1	Y 371.029	734289.4	734289.4	103.91	%			08:25:55
1	Y RADIAL	4735.7	4735.7	99.61	%			08:24:38
1	Ag 328.068†	59119.7	56055.2	256.37	ug/L	256.37	ppb	08:25:55
1	Al 396.153Radial†	5623.4	5628.5	5019.7	ug/L	5019.7	ppb	08:24:38
1	As 188.979†	1302.4	1278.7	478.35	ug/L	478.35	ppb	08:26:15
1	B 249.677†	24251.5	24079.7	511.88	ug/L	511.88	ppb	08:25:55
1	Ba 233.527†	68430.3	65345.9	503.57	ug/L	503.57	ppb	08:25:55
1	Be 313.107†	753786.6	724445.4	258.92	ug/L	258.92	ppb	08:25:55
1	Ca 317.933Radial†	3020.0	2995.9	5051.7	ug/L	5051.7	ppb	08:24:58
1	Cd 226.502†	52370.2	50272.5	495.82	ug/L	495.82	ppb	08:25:55
1	Co 228.616†	26302.4	25222.4	495.71	ug/L	495.71	ppb	08:26:15
1	Cr 267.716†	47834.6	45560.5	483.46	ug/L	483.46	ppb	08:25:55
1	Cu 324.752†	175087.0	159254.9	498.19	ug/L	498.19	ppb	08:25:55
1	Fe 238.204 Radial†	595.8	582.1	5233.5	ug/L	5233.5	ppb	08:24:58
1	K 766.490 Radial†	15189.9	12044.0	2546.1	ug/L	2546.1	ppb	08:24:38
1	Mg 279.077 IEC†	168.5	165.1	5388.3	ug/L	5388.3	ppb	08:24:58
1	Mn 257.610†	480935.3	458615.4	508.16	ug/L	508.16	ppb	08:25:55
1	Mo 202.031†	8391.2	7987.8	530.45	ug/L	530.45	ppb	08:26:15
1	Na 589.592 Radial†	6719.7	8263.3	2575.4	ug/L	2575.4	ppb	08:24:38
1	Ni 231.604†	22488.5	21363.2	492.80	ug/L	492.80	ppb	08:26:15
1	P 214.914†	5354.2	4846.9	2413.7	ug/L	2413.7	ppb	08:26:15
1	Pb 220.353†	4713.6	4597.3	500.82	ug/L	500.82	ppb	08:26:15
1	S 181.975 Axial†	2218.4	2054.2	2466.9	ug/L	2466.9	ppb	08:26:15
1	Sb 206.836†	1703.0	1580.2	498.95	ug/L	498.95	ppb	08:26:15
1	Se 196.026†	4923.7	4737.1	2564.3	ug/L	2564.3	ppb	08:26:15
1	Si 251.611†	165830.2	157498.8	4742.4	ug/L	4742.4	ppb	08:25:55
1	Sn 189.927†	3560.0	3392.0	529.93	ug/L	529.93	ppb	08:26:15
1	Sr 421.552†	72478.8	72276.4	534.33	ug/L	534.33	ppb	08:24:38
1	Ti 334.940†	307736.1	295679.9	494.85	ug/L	494.85	ppb	08:25:55
1	Tl 190.801†	1837.6	1812.0	526.23	ug/L	526.23	ppb	08:26:15
1	U 409.014†	13680.7	16201.9	497.40	ug/L	497.40	ppb	08:25:55
1	V 292.402†	77235.0	75562.8	509.71	ug/L	509.71	ppb	08:25:55
1	Zn 213.857†	62160.3	58545.6	504.05	ug/L	504.05	ppb	08:25:55
1	SiO2†	166118.7	157663.0	10195	ug/L	10195	ppb	08:27:13
2	Sc 361.383	862521.0	862521.0	104.36	%			08:26:21
2	Sc Radial	4676.9	4676.9	103	%			08:25:03
2	Y 371.029	732276.4	732276.4	103.62	%			08:26:21
2	Y RADIAL	4841.1	4841.1	101.8	%			08:25:03
2	Ag 328.068†	59120.7	56253.2	257.20	ug/L	257.20	ppb	08:26:21
2	Al 396.153Radial†	5761.1	5605.7	4999.2	ug/L	4999.2	ppb	08:25:03
2	As 188.979†	1292.6	1273.8	476.49	ug/L	476.49	ppb	08:26:41
2	B 249.677†	24207.7	24118.7	512.75	ug/L	512.75	ppb	08:26:21
2	Ba 233.527†	68594.4	65731.2	506.53	ug/L	506.53	ppb	08:26:21
2	Be 313.107†	756093.2	729169.6	260.60	ug/L	260.60	ppb	08:26:21
2	Ca 317.933Radial†	2983.4	2876.5	4850.3	ug/L	4850.3	ppb	08:25:23
2	Cd 226.502†	52421.1	50495.9	498.05	ug/L	498.05	ppb	08:26:21
2	Co 228.616†	26126.2	25141.3	494.12	ug/L	494.12	ppb	08:26:41
2	Cr 267.716†	47946.9	45827.7	486.29	ug/L	486.29	ppb	08:26:21
2	Cu 324.752†	175113.9	159864.5	500.08	ug/L	500.08	ppb	08:26:21
2	Fe 238.204 Radial†	587.4	557.5	5012.4	ug/L	5012.4	ppb	08:25:23
2	K 766.490 Radial†	15219.0	11649.8	2462.6	ug/L	2462.6	ppb	08:25:03
2	Mg 279.077 IEC†	166.7	158.7	5180.8	ug/L	5180.8	ppb	08:25:23
2	Mn 257.610†	482077.3	461313.7	511.13	ug/L	511.13	ppb	08:26:21
2	Mo 202.031†	8363.2	7989.0	530.51	ug/L	530.51	ppb	08:26:41
2	Na 589.592 Radial†	6752.6	8108.3	2527.1	ug/L	2527.1	ppb	08:25:03
2	Ni 231.604†	22361.6	21316.7	491.72	ug/L	491.72	ppb	08:26:41

2	P 214.914†	5342.2	4853.3	2416.8	ug/L	2416.8 ppb	08:26:41
2	Pb 220.353†	4671.4	4572.6	498.15	ug/L	498.15 ppb	08:26:41
2	S 181.975 Axial†	2205.3	2049.1	2460.8	ug/L	2460.8 ppb	08:26:41
2	Sb 206.836†	1682.8	1566.6	494.60	ug/L	494.60 ppb	08:26:41
2	Se 196.026†	4902.5	4733.2	2561.5	ug/L	2561.5 ppb	08:26:41
2	Si 251.611†	166169.5	158377.0	4768.9	ug/L	4768.9 ppb	08:26:21
2	Sn 189.927†	3523.6	3369.0	526.32	ug/L	526.32 ppb	08:26:41
2	Sr 421.552†	73719.8	71463.6	528.32	ug/L	528.32 ppb	08:25:03
2	Ti 334.940†	308375.1	297318.5	497.58	ug/L	497.58 ppb	08:26:21
2	Tl 190.801†	1812.8	1794.4	521.21	ug/L	521.21 ppb	08:26:41
2	U 409.014†	13551.9	16124.1	495.03	ug/L	495.03 ppb	08:26:21
2	V 292.402†	77302.5	75885.1	511.87	ug/L	511.87 ppb	08:26:21
2	Zn 213.857†	62263.1	58851.5	506.73	ug/L	506.73 ppb	08:26:21
2	SiO2†	163620.9	155823.5	10076	ug/L	10076 ppb	08:27:18
3	Sc 361.383	860587.7	860587.7	104.12	%		08:26:47
3	Sc Radial	4550.6	4550.6	100	%		08:25:28
3	Y 371.029	729921.2	729921.2	103.29	%		08:26:47
3	Y RADIAL	4732.3	4732.3	99.54	%		08:25:28
3	Ag 328.068†	58930.7	56198.1	256.99	ug/L	256.99 ppb	08:26:47
3	Al 396.153Radial†	5593.5	5593.6	4988.3	ug/L	4988.3 ppb	08:25:28
3	As 188.979†	1299.9	1283.5	480.12	ug/L	480.12 ppb	08:27:07
3	B 249.677†	24115.5	24082.2	511.95	ug/L	511.95 ppb	08:26:47
3	Ba 233.527†	68369.0	65662.5	506.01	ug/L	506.01 ppb	08:26:47
3	Be 313.107†	750801.2	725714.8	259.37	ug/L	259.37 ppb	08:26:47
3	Ca 317.933Radial†	2993.5	2966.8	5002.6	ug/L	5002.6 ppb	08:25:48
3	Cd 226.502†	52137.7	50336.6	496.46	ug/L	496.46 ppb	08:26:47
3	Co 228.616†	26117.9	25189.6	495.07	ug/L	495.07 ppb	08:27:07
3	Cr 267.716†	47743.1	45735.2	485.31	ug/L	485.31 ppb	08:26:47
3	Cu 324.752†	174554.5	159704.3	499.59	ug/L	499.59 ppb	08:26:47
3	Fe 238.204 Radial†	584.2	570.0	5124.8	ug/L	5124.8 ppb	08:25:48
3	K 766.490 Radial†	14954.4	11795.5	2493.5	ug/L	2493.5 ppb	08:25:28
3	Mg 279.077 IEC†	167.1	163.6	5341.0	ug/L	5341.0 ppb	08:25:48
3	Mn 257.610†	480142.3	460493.1	510.23	ug/L	510.23 ppb	08:26:47
3	Mo 202.031†	8357.4	8001.4	531.34	ug/L	531.34 ppb	08:27:07
3	Na 589.592 Radial†	6608.0	8145.8	2538.8	ug/L	2538.8 ppb	08:25:28
3	Ni 231.604†	22338.6	21342.7	492.32	ug/L	492.32 ppb	08:27:07
3	P 214.914†	5317.7	4841.3	2410.7	ug/L	2410.7 ppb	08:27:07
3	Pb 220.353†	4663.0	4574.5	498.35	ug/L	498.35 ppb	08:27:07
3	S 181.975 Axial†	2201.7	2050.4	2462.4	ug/L	2462.4 ppb	08:27:07
3	Sb 206.836†	1693.6	1580.5	498.99	ug/L	498.99 ppb	08:27:07
3	Se 196.026†	4912.1	4753.0	2572.5	ug/L	2572.5 ppb	08:27:07
3	Si 251.611†	165527.8	158118.5	4761.1	ug/L	4761.1 ppb	08:26:47
3	Sn 189.927†	3527.0	3379.8	528.03	ug/L	528.03 ppb	08:27:07
3	Sr 421.552†	71837.7	71571.5	529.12	ug/L	529.12 ppb	08:25:28
3	Ti 334.940†	307375.2	297022.0	497.09	ug/L	497.09 ppb	08:26:47
3	Tl 190.801†	1819.0	1804.3	524.04	ug/L	524.04 ppb	08:27:07
3	U 409.014†	13487.4	16091.3	494.00	ug/L	494.00 ppb	08:26:47
3	V 292.402†	77032.3	75792.0	511.25	ug/L	511.25 ppb	08:26:47
3	Zn 213.857†	61877.0	58614.8	504.66	ug/L	504.66 ppb	08:26:47
3	SiO2†	166139.5	158594.6	10255	ug/L	10255 ppb	08:27:23

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	862880.7	104.40	%	0.302				0.29%
Sc Radial	4591.3	101	%	1.6				1.61%
Y 371.029	732162.3	103.61	%	0.309				0.30%
Y RADIAL	4769.7	100.3	%	1.30				1.30%
Ag 328.068†	56168.8	256.85	ug/L	0.433	256.85	ppb	0.433	0.17%
QC value within limits for Ag 328.068 Recovery = 102.74%								
Al 396.153Radial†	5609.3	5002.4	ug/L	15.92	5002.4	ppb	15.92	0.32%
QC value within limits for Al 396.153Radial Recovery = 100.05%								
As 188.979†	1278.7	478.32	ug/L	1.814	478.32	ppb	1.814	0.38%
QC value within limits for As 188.979 Recovery = 95.66%								
B 249.677†	24093.6	512.19	ug/L	0.481	512.19	ppb	0.481	0.09%
QC value within limits for B 249.677 Recovery = 102.44%								
Ba 233.527†	65579.9	505.37	ug/L	1.580	505.37	ppb	1.580	0.31%
QC value within limits for Ba 233.527 Recovery = 101.07%								
Be 313.107†	726443.2	259.63	ug/L	0.873	259.63	ppb	0.873	0.34%
QC value within limits for Be 313.107 Recovery = 103.85%								

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Ca 317.933Radial†       2946.4      4968.2 ug/L        105.02      4968.2 ppb        105.02   2.11%
   QC value within limits for Ca 317.933Radial  Recovery = 99.36%
Cd 226.502†            50368.4      496.78 ug/L         1.145      496.78 ppb         1.145   0.23%
   QC value within limits for Cd 226.502  Recovery = 99.36%
Co 228.616†            25184.4      494.97 ug/L         0.802      494.97 ppb         0.802   0.16%
   QC value within limits for Co 228.616  Recovery = 98.99%
Cr 267.716†            45707.8      485.02 ug/L         1.438      485.02 ppb         1.438   0.30%
   QC value within limits for Cr 267.716  Recovery = 97.00%
Cu 324.752†           159607.9      499.29 ug/L         0.983      499.29 ppb         0.983   0.20%
   QC value within limits for Cu 324.752  Recovery = 99.86%
Fe 238.204 Radial†       569.9      5123.6 ug/L        110.55      5123.6 ppb        110.55   2.16%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.47%
K 766.490 Radial†      11829.8      2500.7 ug/L         42.23      2500.7 ppb         42.23   1.69%
   QC value within limits for K 766.490 Radial  Recovery = 100.03%
Mg 279.077 IEC†          162.4      5303.4 ug/L        108.75      5303.4 ppb        108.75   2.05%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.07%
Mn 257.610†           460140.7      509.84 ug/L         1.522      509.84 ppb         1.522   0.30%
   QC value within limits for Mn 257.610  Recovery = 101.97%
Mo 202.031†             7992.8      530.77 ug/L         0.498      530.77 ppb         0.498   0.09%
   QC value within limits for Mo 202.031  Recovery = 106.15%
Na 589.592 Radial†      8172.5      2547.1 ug/L         25.21      2547.1 ppb         25.21   0.99%
   QC value within limits for Na 589.592 Radial  Recovery = 101.88%
Ni 231.604†            21340.9      492.28 ug/L         0.538      492.28 ppb         0.538   0.11%
   QC value within limits for Ni 231.604  Recovery = 98.46%
P 214.914†              4847.1      2413.7 ug/L          3.07      2413.7 ppb          3.07   0.13%
   QC value within limits for P 214.914  Recovery = 96.55%
Pb 220.353†             4581.4      499.11 ug/L         1.489      499.11 ppb         1.489   0.30%
   QC value within limits for Pb 220.353  Recovery = 99.82%
S 181.975 Axial†        2051.2      2463.3 ug/L          3.18      2463.3 ppb          3.18   0.13%
   QC value within limits for S 181.975 Axial  Recovery = 98.53%
Sb 206.836†             1575.8      497.51 ug/L         2.525      497.51 ppb         2.525   0.51%
   QC value within limits for Sb 206.836  Recovery = 99.50%
Se 196.026†             4741.1      2566.1 ug/L          5.70      2566.1 ppb          5.70   0.22%
   QC value within limits for Se 196.026  Recovery = 102.64%
Si 251.611†           157998.1      4757.4 ug/L         13.64      4757.4 ppb         13.64   0.29%
   QC value within limits for Si 251.611  Recovery = 95.15%
Sn 189.927†             3380.3      528.09 ug/L         1.806      528.09 ppb         1.806   0.34%
   QC value within limits for Sn 189.927  Recovery = 105.62%
Sr 421.552†            71770.5      530.59 ug/L         3.263      530.59 ppb         3.263   0.61%
   QC value within limits for Sr 421.552  Recovery = 106.12%
Ti 334.940†           296673.4      496.51 ug/L         1.457      496.51 ppb         1.457   0.29%
   QC value within limits for Ti 334.940  Recovery = 99.30%
Tl 190.801†             1803.6      523.82 ug/L         2.520      523.82 ppb         2.520   0.48%
   QC value within limits for Tl 190.801  Recovery = 104.76%
U 409.014†             16139.1      495.48 ug/L         1.741      495.48 ppb         1.741   0.35%
   QC value within limits for U 409.014  Recovery = 99.10%
V 292.402†             75746.6      510.94 ug/L         1.115      510.94 ppb         1.115   0.22%
   QC value within limits for V 292.402  Recovery = 102.19%
Zn 213.857†            58670.6      505.15 ug/L         1.404      505.15 ppb         1.404   0.28%
   QC value within limits for Zn 213.857  Recovery = 101.03%
SiO2†                 157360.4       10175 ug/L          91.4       10175 ppb          91.4   0.90%
   QC value within limits for SiO2  Recovery = 95.14%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 1/4/2010 08:29:35
Data Type: Reprocessed on 1/4/2010 09:44:36
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	825882.7	825882.7	99.925	%			08:32:45
1	Sc Radial	4498.6	4498.6	99.2	%			08:31:28
1	Y 371.029	711152.1	711152.1	100.63	%			08:32:45
1	Y RADIAL	4732.2	4732.2	99.54	%			08:31:28
1	Ag 328.068†	421.3	22.8	0.1088	ug/L	0.1088	ppb	08:32:45
1	Al 396.153Radial†	-12.4	9.3	8.3335	ug/L	8.3335	ppb	08:31:28
1	As 188.979†	-27.2	7.8	2.9049	ug/L	2.9049	ppb	08:33:05
1	B 249.677†	-760.5	160.7	3.4260	ug/L	3.4260	ppb	08:32:45
1	Ba 233.527†	2.5	3.5	0.0271	ug/L	0.0271	ppb	08:33:05
1	Be 313.107†	-4675.4	-31.9	-0.0122	ug/L	-0.0122	ppb	08:32:45
1	Ca 317.933Radial†	10.9	-4.1	-6.8957	ug/L	-6.8957	ppb	08:31:48
1	Cd 226.502†	-248.2	15.3	0.1485	ug/L	0.1485	ppb	08:33:05
1	Co 228.616†	-108.9	-3.0	-0.0588	ug/L	-0.0588	ppb	08:33:05
1	Cr 267.716†	138.0	20.9	0.2215	ug/L	0.2215	ppb	08:32:45
1	Cu 324.752†	8143.7	212.4	0.6651	ug/L	0.6651	ppb	08:32:45
1	Fe 238.204 Radial†	14.2	2.4	21.323	ug/L	21.323	ppb	08:31:48
1	K 766.490 Radial†	3040.0	-37.7	-7.9706	ug/L	-7.9706	ppb	08:31:28
1	Mg 279.077 IEC†	2.1	-0.8	-25.972	ug/L	-25.972	ppb	08:31:48
1	Mn 257.610†	515.9	-118.1	-0.1282	ug/L	-0.1282	ppb	08:32:45
1	Mo 202.031†	23.9	-1.1	-0.0678	ug/L	-0.0678	ppb	08:33:05
1	Na 589.592 Radial†	-1619.4	-68.3	-21.293	ug/L	-21.293	ppb	08:31:28
1	Ni 231.604†	110.9	-0.2	-0.0051	ug/L	-0.0051	ppb	08:33:05
1	P 214.914†	250.1	-15.5	-8.1145	ug/L	-8.1145	ppb	08:33:05
1	Pb 220.353†	-104.8	-8.7	-0.9427	ug/L	-0.9427	ppb	08:33:05
1	S 181.975 Axial†	58.6	-5.5	-6.6213	ug/L	-6.6213	ppb	08:33:05
1	Sb 206.836†	67.9	22.0	6.7949	ug/L	6.7949	ppb	08:33:05
1	Se 196.026†	-45.8	-10.3	-5.4975	ug/L	-5.4975	ppb	08:33:05
1	Si 251.611†	824.1	-29.3	-0.8789	ug/L	-0.8789	ppb	08:33:05
1	Sn 189.927†	2.4	-5.1	-0.7967	ug/L	-0.7967	ppb	08:33:05
1	Sr 421.552†	0.6	12.8	0.0948	ug/L	0.0948	ppb	08:31:28
1	Ti 334.940†	-2071.5	-253.5	-0.4252	ug/L	-0.4252	ppb	08:32:45
1	Tl 190.801†	-46.1	11.1	3.2103	ug/L	3.2103	ppb	08:33:05
1	U 409.014†	-3114.6	21.1	0.6460	ug/L	0.6460	ppb	08:32:45
1	V 292.402†	-1833.2	-24.3	-0.1647	ug/L	-0.1647	ppb	08:32:45
1	Zn 213.857†	810.7	-0.5	-0.0056	ug/L	-0.0056	ppb	08:33:05
1	SiO2†	820.7	-144.0	-9.3229	ug/L	-9.3229	ppb	08:34:01
2	Sc 361.383	827035.5	827035.5	100.06	%			08:33:10
2	Sc Radial	4539.0	4539.0	100	%			08:31:53
2	Y 371.029	711993.3	711993.3	100.75	%			08:33:10
2	Y RADIAL	4741.6	4741.6	99.73	%			08:31:53
2	Ag 328.068†	486.8	87.7	0.4147	ug/L	0.4147	ppb	08:33:10
2	Al 396.153Radial†	-0.7	21.1	18.883	ug/L	18.883	ppb	08:31:53
2	As 188.979†	-26.8	8.4	3.0979	ug/L	3.0979	ppb	08:33:30
2	B 249.677†	-591.5	330.7	7.0494	ug/L	7.0494	ppb	08:33:10
2	Ba 233.527†	0.3	1.3	0.0112	ug/L	0.0112	ppb	08:33:30
2	Be 313.107†	-4588.5	61.5	0.0214	ug/L	0.0214	ppb	08:33:10
2	Ca 317.933Radial†	7.6	-7.5	-12.618	ug/L	-12.618	ppb	08:32:13
2	Cd 226.502†	-236.3	27.5	0.2678	ug/L	0.2678	ppb	08:33:30
2	Co 228.616†	-88.1	17.9	0.3542	ug/L	0.3542	ppb	08:33:30
2	Cr 267.716†	88.8	-28.4	-0.2982	ug/L	-0.2982	ppb	08:33:10
2	Cu 324.752†	8159.4	216.7	0.6797	ug/L	0.6797	ppb	08:33:10
2	Fe 238.204 Radial†	16.4	4.5	40.493	ug/L	40.493	ppb	08:32:13
2	K 766.490 Radial†	3047.6	-57.4	-12.145	ug/L	-12.145	ppb	08:31:53
2	Mg 279.077 IEC†	1.5	-1.4	-46.662	ug/L	-46.662	ppb	08:32:13
2	Mn 257.610†	568.9	-66.0	-0.0681	ug/L	-0.0681	ppb	08:33:10
2	Mo 202.031†	36.5	11.5	0.7652	ug/L	0.7652	ppb	08:33:30
2	Na 589.592 Radial†	-1654.3	-88.6	-27.621	ug/L	-27.621	ppb	08:31:53
2	Ni 231.604†	115.4	4.1	0.0933	ug/L	0.0933	ppb	08:33:30

2	P 214.914†	267.1	1.1	0.3984	ug/L	0.3984 ppb	08:33:30
2	Pb 220.353†	-76.9	19.3	2.1006	ug/L	2.1006 ppb	08:33:30
2	S 181.975 Axial†	62.3	-1.8	-2.2256	ug/L	-2.2256 ppb	08:33:30
2	Sb 206.836†	36.5	-9.5	-2.9410	ug/L	-2.9410 ppb	08:33:30
2	Se 196.026†	-41.3	-5.8	-3.0013	ug/L	-3.0013 ppb	08:33:30
2	Si 251.611†	828.4	-26.2	-0.7975	ug/L	-0.7975 ppb	08:33:30
2	Sn 189.927†	2.1	-5.4	-0.8369	ug/L	-0.8369 ppb	08:33:30
2	Sr 421.552†	25.5	37.7	0.2786	ug/L	0.2786 ppb	08:31:53
2	Ti 334.940†	-1976.4	-155.6	-0.2585	ug/L	-0.2585 ppb	08:33:10
2	Tl 190.801†	-58.8	-1.5	-0.4295	ug/L	-0.4295 ppb	08:33:30
2	U 409.014†	-3327.6	-187.4	-5.7774	ug/L	-5.7774 ppb	08:33:10
2	V 292.402†	-1810.5	1.0	-0.0007	ug/L	-0.0007 ppb	08:33:10
2	Zn 213.857†	803.3	-9.0	-0.0799	ug/L	-0.0799 ppb	08:33:30
2	SiO2†	828.8	-137.1	-8.9015	ug/L	-8.9015 ppb	08:34:06
3	Sc 361.383	831535.0	831535.0	100.61	%		08:33:36
3	Sc Radial	4502.7	4502.7	99.3	%		08:32:18
3	Y 371.029	716205.9	716205.9	101.35	%		08:33:36
3	Y RADIAL	4735.1	4735.1	99.60	%		08:32:18
3	Ag 328.068†	485.7	83.9	0.3848	ug/L	0.3848 ppb	08:33:36
3	Al 396.153Radial†	10.2	32.1	28.761	ug/L	28.761 ppb	08:32:18
3	As 188.979†	-35.3	-0.0	-0.0073	ug/L	-0.0073 ppb	08:33:56
3	B 249.677†	-707.9	218.2	4.6528	ug/L	4.6528 ppb	08:33:36
3	Ba 233.527†	15.2	16.2	0.1248	ug/L	0.1248 ppb	08:33:56
3	Be 313.107†	-4721.4	-45.8	-0.0168	ug/L	-0.0168 ppb	08:33:36
3	Ca 317.933Radial†	1.9	-13.2	-22.318	ug/L	-22.318 ppb	08:32:38
3	Cd 226.502†	-251.3	13.9	0.1350	ug/L	0.1350 ppb	08:33:56
3	Co 228.616†	-99.6	7.0	0.1390	ug/L	0.1390 ppb	08:33:56
3	Cr 267.716†	101.7	-16.1	-0.1709	ug/L	-0.1709 ppb	08:33:36
3	Cu 324.752†	8254.0	266.6	0.8346	ug/L	0.8346 ppb	08:33:36
3	Fe 238.204 Radial†	13.9	2.1	18.708	ug/L	18.708 ppb	08:32:38
3	K 766.490 Radial†	3142.4	62.6	13.270	ug/L	13.270 ppb	08:32:18
3	Mg 279.077 IEC†	4.0	1.1	36.503	ug/L	36.503 ppb	08:32:38
3	Mn 257.610†	564.4	-73.5	-0.0802	ug/L	-0.0802 ppb	08:33:36
3	Mo 202.031†	28.5	3.4	0.2258	ug/L	0.2258 ppb	08:33:56
3	Na 589.592 Radial†	-1626.3	-73.8	-22.990	ug/L	-22.990 ppb	08:32:18
3	Ni 231.604†	117.0	5.0	0.1161	ug/L	0.1161 ppb	08:33:56
3	P 214.914†	261.8	-5.6	-3.0212	ug/L	-3.0212 ppb	08:33:56
3	Pb 220.353†	-106.4	-9.6	-1.0351	ug/L	-1.0351 ppb	08:33:56
3	S 181.975 Axial†	71.4	6.8	8.1861	ug/L	8.1861 ppb	08:33:56
3	Sb 206.836†	46.6	0.4	0.1284	ug/L	0.1284 ppb	08:33:56
3	Se 196.026†	-31.0	4.7	2.5630	ug/L	2.5630 ppb	08:33:56
3	Si 251.611†	944.6	84.8	2.5498	ug/L	2.5498 ppb	08:33:56
3	Sn 189.927†	9.1	1.5	0.2341	ug/L	0.2341 ppb	08:33:56
3	Sr 421.552†	7.3	19.5	0.1443	ug/L	0.1443 ppb	08:32:18
3	Ti 334.940†	-1976.2	-144.7	-0.2437	ug/L	-0.2437 ppb	08:33:36
3	Tl 190.801†	-45.3	12.3	3.5462	ug/L	3.5462 ppb	08:33:56
3	U 409.014†	-3133.7	23.3	0.7153	ug/L	0.7153 ppb	08:33:36
3	V 292.402†	-1824.2	-2.8	-0.0160	ug/L	-0.0160 ppb	08:33:36
3	Zn 213.857†	805.2	-11.5	-0.1038	ug/L	-0.1038 ppb	08:33:56
3	SiO2†	856.8	-113.8	-7.3970	ug/L	-7.3970 ppb	08:34:11

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	828151.0	100.20	%	0.361				0.36%
Sc Radial	4513.4	99.6	%	0.49				0.49%
Y 371.029	713117.1	100.91	%	0.383				0.38%
Y RADIAL	4736.3	99.62	%	0.101				0.10%
Ag 328.068†	64.8	0.3028	ug/L	0.16866	0.3028	ppb	0.16866	55.71%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	20.8	18.659	ug/L	10.2153	18.659	ppb	10.2153	54.75%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.4	1.9985	ug/L	1.73977	1.9985	ppb	1.73977	87.05%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	236.5	5.0427	ug/L	1.84295	5.0427	ppb	1.84295	36.55%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.0	0.0543	ug/L	0.06151	0.0543	ppb	0.06151	113.19%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-5.4	-0.0025	ug/L	0.02084	-0.0025	ppb	0.02084	825.98%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          -8.3     -13.944 ug/L        7.7962     -13.944 ppb        7.7962  55.91%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                18.9       0.1838 ug/L       0.07308      0.1838 ppb       0.07308  39.76%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 7.3       0.1448 ug/L       0.20658      0.1448 ppb       0.20658 142.66%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -7.9      -0.0825 ug/L       0.27090     -0.0825 ppb       0.27090 328.20%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               231.9       0.7265 ug/L       0.09390      0.7265 ppb       0.09390  12.93%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          3.0      26.841 ug/L       11.8947      26.841 ppb       11.8947  44.31%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -10.9      -2.2818 ug/L      13.62927     -2.2818 ppb      13.62927 597.31%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.4     -12.044 ug/L       43.2966     -12.044 ppb       43.2966 359.50%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -85.9      -0.0921 ug/L       0.03178     -0.0921 ppb       0.03178  34.49%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.6       0.3077 ug/L       0.42253      0.3077 ppb       0.42253 137.30%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -76.9     -23.968 ug/L        3.2758     -23.968 ppb        3.2758  13.67%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 3.0       0.0681 ug/L       0.06440      0.0681 ppb       0.06440  94.56%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -6.7      -3.5791 ug/L       4.28378     -3.5791 ppb       4.28378 119.69%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.4       0.0409 ug/L       1.78432      0.0409 ppb       1.78432 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.2      -0.2203 ug/L       7.60466     -0.2203 ppb       7.60466 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.3       1.3274 ug/L       4.97749      1.3274 ppb       4.97749 374.97%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.8      -1.9786 ug/L       4.12642     -1.9786 ppb       4.12642 208.55%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                 9.7       0.2911 ug/L       1.95654      0.2911 ppb       1.95654 672.06%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -3.0      -0.4665 ug/L       0.60709     -0.4665 ppb       0.60709 130.13%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                23.3       0.1726 ug/L       0.09511      0.1726 ppb       0.09511  55.12%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -184.6      -0.3091 ug/L       0.10077     -0.3091 ppb       0.10077  32.60%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 7.3       2.1090 ug/L       2.20480      2.1090 ppb       2.20480 104.54%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -47.7      -1.4720 ug/L       3.72872     -1.4720 ppb       3.72872 253.30%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -8.7      -0.0605 ug/L       0.09058     -0.0605 ppb       0.09058 149.78%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -7.0      -0.0631 ug/L       0.05125     -0.0631 ppb       0.05125  81.22%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -131.6      -8.5405 ug/L       1.01242     -8.5405 ppb       1.01242  11.85%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 1/4/2010 08:36:22
Data Type: Reprocessed on 1/4/2010 09:44:37
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	830632.3	830632.3	100.50	%			08:39:32
1	Sc Radial	4555.1	4555.1	100	%			08:38:15
1	Y 371.029	716470.8	716470.8	101.39	%			08:39:32
1	Y RADIAL	4751.7	4751.7	99.95	%			08:38:15
1	Ag 328.068†	1621.9	1215.0	5.4973	ug/L	5.4973	ppb	08:39:32
1	Al 396.153Radial†	199.9	220.7	197.29	ug/L	197.29	ppb	08:38:15
1	As 188.979†	44.2	79.1	29.347	ug/L	29.347	ppb	08:39:52
1	B 249.677†	1559.1	2473.1	52.744	ug/L	52.744	ppb	08:39:52
1	Ba 233.527†	699.5	697.0	5.3706	ug/L	5.3706	ppb	08:39:52
1	Be 313.107†	9538.4	14138.1	5.0433	ug/L	5.0433	ppb	08:39:32
1	Ca 317.933Radial†	152.6	136.8	230.62	ug/L	230.62	ppb	08:38:35
1	Cd 226.502†	263.7	526.1	5.1823	ug/L	5.1823	ppb	08:39:52
1	Co 228.616†	166.3	271.5	5.3495	ug/L	5.3495	ppb	08:39:52
1	Cr 267.716†	589.7	469.6	4.9685	ug/L	4.9685	ppb	08:39:52
1	Cu 324.752†	11216.0	3222.8	10.082	ug/L	10.082	ppb	08:39:32
1	Fe 238.204 Radial†	25.3	13.3	118.97	ug/L	118.97	ppb	08:38:35
1	K 766.490 Radial†	3841.0	721.4	152.60	ug/L	152.60	ppb	08:38:15
1	Mg 279.077 IEC†	12.0	9.0	294.24	ug/L	294.24	ppb	08:38:35
1	Mn 257.610†	10092.5	9407.9	10.422	ug/L	10.422	ppb	08:39:32
1	Mo 202.031†	186.1	160.2	10.639	ug/L	10.639	ppb	08:39:52
1	Na 589.592 Radial†	-611.5	954.9	297.62	ug/L	297.62	ppb	08:38:15
1	Ni 231.604†	350.5	237.5	5.4789	ug/L	5.4789	ppb	08:39:52
1	P 214.914†	574.2	305.4	155.31	ug/L	155.31	ppb	08:39:52
1	Pb 220.353†	4.6	100.8	10.999	ug/L	10.999	ppb	08:39:52
1	S 181.975 Axial†	142.0	77.2	92.662	ug/L	92.662	ppb	08:39:52
1	Sb 206.836†	88.0	41.6	13.171	ug/L	13.171	ppb	08:39:52
1	Se 196.026†	13.2	48.6	26.530	ug/L	26.530	ppb	08:39:52
1	Si 251.611†	4102.2	3227.7	97.166	ug/L	97.166	ppb	08:39:52
1	Sn 189.927†	62.9	55.1	8.6207	ug/L	8.6207	ppb	08:39:52
1	Sr 421.552†	713.8	722.5	5.3395	ug/L	5.3395	ppb	08:38:15
1	Ti 334.940†	1016.6	2831.1	4.7273	ug/L	4.7273	ppb	08:39:32
1	Tl 190.801†	23.6	80.8	23.381	ug/L	23.381	ppb	08:39:52
1	U 409.014†	-1508.1	1637.5	50.408	ug/L	50.408	ppb	08:39:32
1	V 292.402†	-1170.9	645.2	4.5228	ug/L	4.5228	ppb	08:39:32
1	Zn 213.857†	2093.6	1271.4	10.974	ug/L	10.974	ppb	08:39:52
1	SiO2†	4182.4	3196.2	206.62	ug/L	206.62	ppb	08:40:48
2	Sc 361.383	832801.6	832801.6	100.76	%			08:39:57
2	Sc Radial	4573.6	4573.6	101	%			08:38:40
2	Y 371.029	718557.0	718557.0	101.68	%			08:39:57
2	Y RADIAL	4793.9	4793.9	100.8	%			08:38:40
2	Ag 328.068†	1626.2	1215.1	5.4936	ug/L	5.4936	ppb	08:39:57
2	Al 396.153Radial†	218.9	238.8	213.49	ug/L	213.49	ppb	08:38:40
2	As 188.979†	42.8	77.6	28.774	ug/L	28.774	ppb	08:40:17
2	B 249.677†	1614.6	2524.1	53.835	ug/L	53.835	ppb	08:40:17
2	Ba 233.527†	678.8	674.8	5.1998	ug/L	5.1998	ppb	08:40:17
2	Be 313.107†	9513.1	14088.3	5.0259	ug/L	5.0259	ppb	08:39:57
2	Ca 317.933Radial†	150.4	133.9	225.83	ug/L	225.83	ppb	08:39:00
2	Cd 226.502†	266.9	528.6	5.2080	ug/L	5.2080	ppb	08:40:17
2	Co 228.616†	156.6	261.4	5.1497	ug/L	5.1497	ppb	08:40:17
2	Cr 267.716†	581.7	460.2	4.8679	ug/L	4.8679	ppb	08:40:17
2	Cu 324.752†	11337.1	3314.0	10.367	ug/L	10.367	ppb	08:39:57
2	Fe 238.204 Radial†	24.0	11.9	106.53	ug/L	106.53	ppb	08:39:00
2	K 766.490 Radial†	3777.0	642.5	135.88	ug/L	135.88	ppb	08:38:40
2	Mg 279.077 IEC†	11.1	8.1	264.75	ug/L	264.75	ppb	08:39:00
2	Mn 257.610†	10145.8	9434.6	10.451	ug/L	10.451	ppb	08:39:57
2	Mo 202.031†	178.8	152.5	10.126	ug/L	10.126	ppb	08:40:17
2	Na 589.592 Radial†	-565.5	1003.1	312.62	ug/L	312.62	ppb	08:38:40
2	Ni 231.604†	348.0	234.1	5.4004	ug/L	5.4004	ppb	08:40:17

2	P 214.914†	547.1	277.1	140.74	ug/L	140.74 ppb	08:40:17
2	Pb 220.353†	6.1	102.2	11.154	ug/L	11.154 ppb	08:40:17
2	S 181.975 Axial†	143.4	78.2	93.847	ug/L	93.847 ppb	08:40:17
2	Sb 206.836†	85.1	38.5	12.211	ug/L	12.211 ppb	08:40:17
2	Se 196.026†	27.1	62.3	33.878	ug/L	33.878 ppb	08:40:17
2	Si 251.611†	4100.4	3215.3	96.802	ug/L	96.802 ppb	08:40:17
2	Sn 189.927†	71.5	63.5	9.9285	ug/L	9.9285 ppb	08:40:17
2	Sr 421.552†	697.4	703.3	5.1981	ug/L	5.1981 ppb	08:38:40
2	Ti 334.940†	1144.5	2955.4	4.9346	ug/L	4.9346 ppb	08:39:57
2	Tl 190.801†	23.3	80.4	23.283	ug/L	23.283 ppb	08:40:17
2	U 409.014†	-1463.1	1686.0	51.903	ug/L	51.903 ppb	08:39:57
2	V 292.402†	-1128.0	690.9	4.8228	ug/L	4.8228 ppb	08:39:57
2	Zn 213.857†	2097.3	1269.7	10.961	ug/L	10.961 ppb	08:40:17
2	SiO2†	4203.3	3206.1	207.28	ug/L	207.28 ppb	08:40:53
3	Sc 361.383	836127.6	836127.6	101.16	%		08:40:22
3	Sc Radial	4671.3	4671.3	103	%		08:39:05
3	Y 371.029	721969.9	721969.9	102.17	%		08:40:22
3	Y RADIAL	4898.8	4898.8	103.0	%		08:39:05
3	Ag 328.068†	1574.6	1157.6	5.2379	ug/L	5.2379 ppb	08:40:22
3	Al 396.153Radial†	217.1	232.5	207.86	ug/L	207.86 ppb	08:39:05
3	As 188.979†	47.7	82.3	30.520	ug/L	30.520 ppb	08:40:42
3	B 249.677†	1614.2	2517.4	53.691	ug/L	53.691 ppb	08:40:42
3	Ba 233.527†	671.5	664.9	5.1261	ug/L	5.1261 ppb	08:40:42
3	Be 313.107†	9459.4	13997.6	4.9938	ug/L	4.9938 ppb	08:40:22
3	Ca 317.933Radial†	145.0	125.6	211.72	ug/L	211.72 ppb	08:39:25
3	Cd 226.502†	272.4	532.9	5.2506	ug/L	5.2506 ppb	08:40:42
3	Co 228.616†	161.2	265.4	5.2274	ug/L	5.2274 ppb	08:40:42
3	Cr 267.716†	590.8	466.8	4.9403	ug/L	4.9403 ppb	08:40:42
3	Cu 324.752†	11434.8	3365.8	10.529	ug/L	10.529 ppb	08:40:22
3	Fe 238.204 Radial†	24.7	12.1	108.28	ug/L	108.28 ppb	08:39:25
3	K 766.490 Radial†	3843.7	628.9	133.01	ug/L	133.01 ppb	08:39:05
3	Mg 279.077 IEC†	9.4	6.2	203.50	ug/L	203.50 ppb	08:39:25
3	Mn 257.610†	10208.3	9456.4	10.476	ug/L	10.476 ppb	08:40:22
3	Mo 202.031†	178.1	151.0	10.031	ug/L	10.031 ppb	08:40:42
3	Na 589.592 Radial†	-559.7	1020.4	318.01	ug/L	318.01 ppb	08:39:05
3	Ni 231.604†	352.5	237.3	5.4730	ug/L	5.4730 ppb	08:40:42
3	P 214.914†	550.8	278.6	141.47	ug/L	141.47 ppb	08:40:42
3	Pb 220.353†	-14.2	82.2	8.9767	ug/L	8.9767 ppb	08:40:42
3	S 181.975 Axial†	148.6	82.7	99.351	ug/L	99.351 ppb	08:40:42
3	Sb 206.836†	76.8	29.9	9.5545	ug/L	9.5545 ppb	08:40:42
3	Se 196.026†	15.0	50.3	27.388	ug/L	27.388 ppb	08:40:42
3	Si 251.611†	4118.8	3217.4	96.866	ug/L	96.866 ppb	08:40:42
3	Sn 189.927†	72.5	64.1	10.033	ug/L	10.033 ppb	08:40:42
3	Sr 421.552†	682.8	674.8	4.9870	ug/L	4.9870 ppb	08:39:05
3	Ti 334.940†	1187.2	2993.1	4.9965	ug/L	4.9965 ppb	08:40:22
3	Tl 190.801†	21.1	78.2	22.627	ug/L	22.627 ppb	08:40:42
3	U 409.014†	-1437.2	1717.4	52.869	ug/L	52.869 ppb	08:40:22
3	V 292.402†	-975.2	846.4	5.8562	ug/L	5.8562 ppb	08:40:22
3	Zn 213.857†	2081.6	1245.9	10.756	ug/L	10.756 ppb	08:40:42
3	SiO2†	4271.3	3256.8	210.57	ug/L	210.57 ppb	08:40:58

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	833187.2	100.81	%	0.335				0.33%
Sc Radial	4600.0	101	%	1.4				1.36%
Y 371.029	718999.2	101.75	%	0.393				0.39%
Y RADIAL	4814.8	101.3	%	1.59				1.57%
Ag 328.068†	1195.9	5.4096	ug/L	0.14868	5.4096	ppb	0.14868	2.75%
QC value within limits for Ag 328.068 Recovery = 108.19%								
Al 396.153Radial†	230.7	206.21	ug/L	8.224	206.21	ppb	8.224	3.99%
QC value within limits for Al 396.153Radial Recovery = 103.10%								
As 188.979†	79.6	29.547	ug/L	0.8900	29.547	ppb	0.8900	3.01%
QC value within limits for As 188.979 Recovery = 98.49%								
B 249.677†	2504.9	53.423	ug/L	0.5929	53.423	ppb	0.5929	1.11%
QC value within limits for B 249.677 Recovery = 106.85%								
Ba 233.527†	678.9	5.2322	ug/L	0.12543	5.2322	ppb	0.12543	2.40%
QC value within limits for Ba 233.527 Recovery = 104.64%								
Be 313.107†	14074.7	5.0210	ug/L	0.02511	5.0210	ppb	0.02511	0.50%
QC value within limits for Be 313.107 Recovery = 100.42%								

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Ca 317.933Radial†        132.1      222.72 ug/L        9.823      222.72 ppb        9.823   4.41%
   QC value within limits for Ca 317.933Radial  Recovery = 111.36%
Cd 226.502†              529.2      5.2136 ug/L      0.03451      5.2136 ppb      0.03451   0.66%
   QC value within limits for Cd 226.502  Recovery = 104.27%
Co 228.616†              266.1      5.2422 ug/L      0.10073      5.2422 ppb      0.10073   1.92%
   QC value within limits for Co 228.616  Recovery = 104.84%
Cr 267.716†              465.5      4.9256 ug/L      0.05191      4.9256 ppb      0.05191   1.05%
   QC value within limits for Cr 267.716  Recovery = 98.51%
Cu 324.752†             3300.9      10.326 ug/L       0.2260      10.326 ppb       0.2260   2.19%
   QC value within limits for Cu 324.752  Recovery = 103.26%
Fe 238.204 Radial†        12.4      111.26 ug/L        6.737      111.26 ppb        6.737   6.06%
   QC value within limits for Fe 238.204 Radial  Recovery = 111.26%
K 766.490 Radial†        664.3      140.50 ug/L       10.580      140.50 ppb       10.580   7.53%
   QC value within limits for K 766.490 Radial  Recovery = 93.67%
Mg 279.077 IEC†           7.8       254.16 ug/L       46.286      254.16 ppb       46.286  18.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 84.72%
Mn 257.610†             9433.0      10.450 ug/L       0.0272      10.450 ppb       0.0272   0.26%
   QC value within limits for Mn 257.610  Recovery = 104.50%
Mo 202.031†              154.6      10.265 ug/L       0.3267      10.265 ppb       0.3267   3.18%
   QC value within limits for Mo 202.031  Recovery = 102.65%
Na 589.592 Radial†       992.8      309.42 ug/L       10.568      309.42 ppb       10.568   3.42%
   QC value within limits for Na 589.592 Radial  Recovery = 103.14%
Ni 231.604†              236.3      5.4508 ug/L      0.04369      5.4508 ppb      0.04369   0.80%
   QC value within limits for Ni 231.604  Recovery = 109.02%
P 214.914†               287.0      145.84 ug/L        8.211      145.84 ppb        8.211   5.63%
   QC value within limits for P 214.914  Recovery = 97.23%
Pb 220.353†               95.1      10.377 ug/L       1.2150      10.377 ppb       1.2150  11.71%
   QC value within limits for Pb 220.353  Recovery = 103.77%
S 181.975 Axial†          79.3      95.287 ug/L       3.5694      95.287 ppb       3.5694   3.75%
   QC value within limits for S 181.975 Axial  Recovery = 95.29%
Sb 206.836†               36.7      11.646 ug/L       1.8736      11.646 ppb       1.8736  16.09%
   QC value within limits for Sb 206.836  Recovery = 116.46%
Se 196.026†               53.7      29.265 ug/L       4.0180      29.265 ppb       4.0180  13.73%
   QC value within limits for Se 196.026  Recovery = 97.55%
Si 251.611†             3220.1      96.945 ug/L       0.1941      96.945 ppb       0.1941   0.20%
   QC value within limits for Si 251.611  Recovery = 96.94%
Sn 189.927†               60.9      9.5274 ug/L      0.78697      9.5274 ppb      0.78697   8.26%
   QC value within limits for Sn 189.927  Recovery = 95.27%
Sr 421.552†              700.2      5.1749 ug/L      0.17744      5.1749 ppb      0.17744   3.43%
   QC value within limits for Sr 421.552  Recovery = 103.50%
Ti 334.940†             2926.6      4.8861 ug/L      0.14098      4.8861 ppb      0.14098   2.89%
   QC value within limits for Ti 334.940  Recovery = 97.72%
Tl 190.801†               79.8      23.097 ug/L       0.4103      23.097 ppb       0.4103   1.78%
   QC value within limits for Tl 190.801  Recovery = 115.49%
U 409.014†              1680.3      51.727 ug/L       1.2403      51.727 ppb       1.2403   2.40%
   QC value within limits for U 409.014  Recovery = 103.45%
V 292.402†               727.5      5.0673 ug/L      0.69948      5.0673 ppb      0.69948  13.80%
   QC value within limits for V 292.402  Recovery = 101.35%
Zn 213.857†             1262.3      10.897 ug/L       0.1225      10.897 ppb       0.1225   1.12%
   QC value within limits for Zn 213.857  Recovery = 108.97%
SiO2†                   3219.7      208.16 ug/L        2.117      208.16 ppb        2.117   1.02%
   QC value within limits for SiO2  Recovery = 97.73%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 1/4/2010 08:43:09
Data Type: Reprocessed on 1/4/2010 09:44:38

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	751826.3	751826.3	90.964	%			08:45:34
1	Sc Radial	4231.8	4231.8	93.4	%			08:45:07
1	Y 371.029	631288.1	631288.1	89.333	%			08:45:34
1	Y RADIAL	4433.6	4433.6	93.26	%			08:45:07
1	Ag 328.068†	-10153.9	-11561.3	3.2558	ug/L	3.2558	ppb	08:45:34
1	Al 396.153Radial†	521631.9	558769.6	500580	ug/L	500580	ppb	08:45:02
1	As 188.979†	-99.3	-74.1	1.2116	ug/L	1.2116	ppb	08:45:54
1	B 249.677†	100.5	1032.2	-2.7332	ug/L	-2.7332	ppb	08:45:34
1	Ba 233.527†	-684.6	-751.6	-1.0373	ug/L	-1.0373	ppb	08:45:54
1	Be 313.107†	-4427.9	-220.6	-0.1187	ug/L	-0.1187	ppb	08:45:34
1	Ca 317.933Radial†	262413.6	281070.2	473940	ug/L	473940	ppb	08:45:02
1	Cd 226.502†	1238.0	1624.6	-2.6261	ug/L	-2.6261	ppb	08:45:54
1	Co 228.616†	-39.7	62.4	-1.4436	ug/L	-1.4436	ppb	08:45:54
1	Cr 267.716†	-77.5	-202.4	1.2119	ug/L	1.2119	ppb	08:45:54
1	Cu 324.752†	4695.5	-2775.5	0.8420	ug/L	0.8420	ppb	08:45:34
1	Fe 238.204 Radial†	19448.6	20820.6	186620	ug/L	186620	ppb	08:45:07
1	K 766.490 Radial†	2555.0	-364.1	-62.717	ug/L	-62.717	ppb	08:45:02
1	Mg 279.077 IEC†	13741.8	14716.7	479720	ug/L	479720	ppb	08:45:07
1	Mn 257.610†	238.7	-372.1	9.2640	ug/L	9.2640	ppb	08:45:34
1	Mo 202.031†	-237.5	-286.1	-1.0913	ug/L	-1.0913	ppb	08:45:54
1	Na 589.592 Radial†	-1430.6	31.1	9.7081	ug/L	9.7081	ppb	08:45:07
1	Ni 231.604†	213.3	123.3	2.8443	ug/L	2.8443	ppb	08:45:54
1	P 214.914†	246.6	5.3	22.259	ug/L	22.259	ppb	08:45:54
1	Pb 220.353†	-973.3	-973.8	-8.7640	ug/L	-8.7640	ppb	08:45:54
1	S 181.975 Axial†	85.4	29.8	-62.677	ug/L	-62.677	ppb	08:45:54
1	Sb 206.836†	63.1	23.4	-4.9061	ug/L	-4.9061	ppb	08:45:54
1	Se 196.026†	-1047.3	-1115.8	-6.4549	ug/L	-6.4549	ppb	08:45:54
1	Si 251.611†	716.0	-67.0	-1.4437	ug/L	-1.4437	ppb	08:45:54
1	Sn 189.927†	-407.8	-455.8	-19.154	ug/L	-19.154	ppb	08:45:54
1	Sr 421.552†	500.0	547.7	-0.3434	ug/L	-0.3434	ppb	08:45:07
1	Ti 334.940†	-12750.1	-12197.0	4.2915	ug/L	4.2915	ppb	08:45:34
1	Tl 190.801†	-94.9	-47.0	-0.0654	ug/L	-0.0654	ppb	08:45:54
1	U 409.014†	-1991.8	948.4	5.7341	ug/L	5.7341	ppb	08:45:34
1	V 292.402†	549.9	2414.9	-1.6927	ug/L	-1.6927	ppb	08:45:54
1	Zn 213.857†	3330.4	2849.4	-1.3684	ug/L	-1.3684	ppb	08:45:54
1	SiO2†	741.2	-150.6	-8.5027	ug/L	-8.5027	ppb	08:46:51
2	Sc 361.383	751438.1	751438.1	90.917	%			08:46:00
2	Sc Radial	4202.7	4202.7	92.7	%			08:45:17
2	Y 371.029	631492.0	631492.0	89.362	%			08:46:00
2	Y RADIAL	4420.3	4420.3	92.98	%			08:45:17
2	Ag 328.068†	-10161.6	-11575.5	3.0111	ug/L	3.0111	ppb	08:46:00
2	Al 396.153Radial†	527846.0	569347.0	510060	ug/L	510060	ppb	08:45:12
2	As 188.979†	-109.5	-85.3	-2.9862	ug/L	-2.9862	ppb	08:46:20
2	B 249.677†	98.0	1029.6	-2.7710	ug/L	-2.7710	ppb	08:46:00
2	Ba 233.527†	-725.1	-796.5	-1.3866	ug/L	-1.3866	ppb	08:46:20
2	Be 313.107†	-4484.5	-285.4	-0.1419	ug/L	-0.1419	ppb	08:46:00
2	Ca 317.933Radial†	265338.4	286174.1	482550	ug/L	482550	ppb	08:45:12
2	Cd 226.502†	1247.7	1636.0	-2.4982	ug/L	-2.4982	ppb	08:46:20
2	Co 228.616†	-19.1	85.0	-1.0002	ug/L	-1.0002	ppb	08:46:20
2	Cr 267.716†	-38.9	-160.0	1.6570	ug/L	1.6570	ppb	08:46:20
2	Cu 324.752†	4651.7	-2821.0	0.6919	ug/L	0.6919	ppb	08:46:00
2	Fe 238.204 Radial†	19299.0	20803.7	186470	ug/L	186470	ppb	08:45:17
2	K 766.490 Radial†	2676.2	-214.5	-30.673	ug/L	-30.673	ppb	08:45:12
2	Mg 279.077 IEC†	13683.5	14755.9	481000	ug/L	481000	ppb	08:45:17
2	Mn 257.610†	303.8	-300.3	9.3045	ug/L	9.3045	ppb	08:46:00
2	Mo 202.031†	-253.3	-303.6	-2.2721	ug/L	-2.2721	ppb	08:46:20
2	Na 589.592 Radial†	-1455.4	-6.2	-1.9478	ug/L	-1.9478	ppb	08:45:17
2	Ni 231.604†	231.4	143.3	3.3068	ug/L	3.3068	ppb	08:46:20

2	P 214.914†	223.1	-20.5	12.401 ug/L	12.401 ppb	08:46:20
2	Pb 220.353†	-995.8	-999.1	-9.3775 ug/L	-9.3775 ppb	08:46:20
2	S 181.975 Axial†	104.8	51.1	-38.906 ug/L	-38.906 ppb	08:46:20
2	Sb 206.836†	68.8	29.7	-3.2149 ug/L	-3.2149 ppb	08:46:20
2	Se 196.026†	-1033.8	-1101.6	1.6983 ug/L	1.6983 ppb	08:46:20
2	Si 251.611†	729.3	-51.9	-0.9872 ug/L	-0.9872 ppb	08:46:20
2	Sn 189.927†	-393.7	-440.5	-15.876 ug/L	-15.876 ppb	08:46:20
2	Sr 421.552†	464.0	512.7	-0.6823 ug/L	-0.6823 ppb	08:45:17
2	Ti 334.940†	-12790.1	-12248.3	4.6530 ug/L	4.6530 ppb	08:46:00
2	Tl 190.801†	-89.9	-41.6	1.7674 ug/L	1.7674 ppb	08:46:20
2	U 409.014†	-1895.6	1053.1	8.9773 ug/L	8.9773 ppb	08:46:00
2	V 292.402†	517.5	2379.5	-1.8869 ug/L	-1.8869 ppb	08:46:20
2	Zn 213.857†	3329.3	2850.1	-1.4011 ug/L	-1.4011 ppb	08:46:20
2	SiO2†	710.8	-183.6	-10.638 ug/L	-10.638 ppb	08:46:56
3	Sc 361.383	752447.1	752447.1	91.039 %		08:46:25
3	Sc Radial	4176.0	4176.0	92.1 %		08:45:28
3	Y 371.029	631588.3	631588.3	89.376 %		08:46:25
3	Y RADIAL	4381.7	4381.7	92.16 %		08:45:28
3	Ag 328.068†	-10320.1	-11734.6	2.6793 ug/L	2.6793 ppb	08:46:25
3	Al 396.153Radial†	511992.8	555781.0	497900 ug/L	497900 ppb	08:45:23
3	As 188.979†	-113.5	-89.5	-4.4457 ug/L	-4.4457 ppb	08:46:45
3	B 249.677†	103.7	1035.7	-2.7301 ug/L	-2.7301 ppb	08:46:25
3	Ba 233.527†	-692.8	-759.9	-1.0881 ug/L	-1.0881 ppb	08:46:45
3	Be 313.107†	-4564.2	-366.3	-0.1705 ug/L	-0.1705 ppb	08:46:25
3	Ca 317.933Radial†	257788.2	279809.5	471810 ug/L	471810 ppb	08:45:23
3	Cd 226.502†	1286.6	1676.9	-2.1624 ug/L	-2.1624 ppb	08:46:45
3	Co 228.616†	-22.1	81.7	-1.0737 ug/L	-1.0737 ppb	08:46:45
3	Cr 267.716†	-1.5	-118.8	2.1057 ug/L	2.1057 ppb	08:46:45
3	Cu 324.752†	4690.2	-2785.6	0.8375 ug/L	0.8375 ppb	08:46:25
3	Fe 238.204 Radial†	19246.6	20880.0	187150 ug/L	187150 ppb	08:45:28
3	K 766.490 Radial†	2639.4	-235.9	-35.708 ug/L	-35.708 ppb	08:45:23
3	Mg 279.077 IEC†	13607.8	14768.2	481400 ug/L	481400 ppb	08:45:28
3	Mn 257.610†	97.8	-527.1	9.1142 ug/L	9.1142 ppb	08:46:25
3	Mo 202.031†	-252.1	-302.0	-2.0938 ug/L	-2.0938 ppb	08:46:45
3	Na 589.592 Radial†	-1418.9	23.3	7.2722 ug/L	7.2722 ppb	08:45:28
3	Ni 231.604†	248.2	161.3	3.7233 ug/L	3.7233 ppb	08:46:45
3	P 214.914†	237.3	-5.2	15.564 ug/L	15.564 ppb	08:46:45
3	Pb 220.353†	-966.9	-965.9	-8.5599 ug/L	-8.5599 ppb	08:46:45
3	S 181.975 Axial†	87.9	32.4	-58.990 ug/L	-58.990 ppb	08:46:45
3	Sb 206.836†	80.2	42.2	0.9914 ug/L	0.9914 ppb	08:46:45
3	Se 196.026†	-1031.3	-1097.4	4.7583 ug/L	4.7583 ppb	08:46:45
3	Si 251.611†	721.5	-61.6	-1.2789 ug/L	-1.2789 ppb	08:46:45
3	Sn 189.927†	-395.3	-441.7	-17.168 ug/L	-17.168 ppb	08:46:45
3	Sr 421.552†	489.8	543.9	-0.3519 ug/L	-0.3519 ppb	08:45:28
3	Ti 334.940†	-12753.3	-12188.9	4.1925 ug/L	4.1925 ppb	08:46:25
3	Tl 190.801†	-98.2	-50.6	-1.1750 ug/L	-1.1750 ppb	08:46:45
3	U 409.014†	-1908.6	1041.6	8.5351 ug/L	8.5351 ppb	08:46:25
3	V 292.402†	540.1	2403.6	-1.8212 ug/L	-1.8212 ppb	08:46:45
3	Zn 213.857†	3303.7	2817.1	-1.7397 ug/L	-1.7397 ppb	08:46:45
3	SiO2†	656.0	-244.8	-14.605 ug/L	-14.605 ppb	08:47:01

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	751903.9	90.974	%	0.0616				0.07%
Sc Radial	4203.5	92.7	%	0.62				0.66%
Y 371.029	631456.1	89.357	%	0.0217				0.02%
Y RADIAL	4411.9	92.80	%	0.568				0.61%
Ag 328.068†	-11623.8	2.9821	ug/L	0.28936	2.9821	ppb	0.28936	9.70%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	561299.2	502850	ug/L	6385.7	502850	ppb	6385.7	1.27%
QC value within limits for Al 396.153Radial Recovery = 100.57%								
As 188.979†	-83.0	-2.0735	ug/L	2.93702	-2.0735	ppb	2.93702	141.65%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1032.5	-2.7448	ug/L	0.02274	-2.7448	ppb	0.02274	0.83%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-769.3	-1.1706	ug/L	0.18872	-1.1706	ppb	0.18872	16.12%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-290.8	-0.1437	ug/L	0.02597	-0.1437	ppb	0.02597	18.07%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†     282351.3      476100 ug/L        5682.7      476100 ppb        5682.7   1.19%
   QC value within limits for Ca 317.933Radial  Recovery = 95.22%
Cd 226.502†             1645.8     -2.4289 ug/L       0.23949     -2.4289 ppb       0.23949   9.86%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               76.4     -1.1725 ug/L       0.23766     -1.1725 ppb       0.23766  20.27%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -160.4      1.6582 ug/L       0.44690      1.6582 ppb       0.44690  26.95%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -2794.1      0.7905 ug/L       0.08537      0.7905 ppb       0.08537  10.80%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†     20834.7      186750 ug/L         359.2      186750 ppb         359.2   0.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.37%
K 766.490 Radial†       -271.5     -43.033 ug/L       17.2321     -43.033 ppb      17.2321  40.04%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†        14746.9      480710 ug/L         876.5      480710 ppb         876.5   0.18%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.14%
Mn 257.610†             -399.8      9.2276 ug/L       0.10023      9.2276 ppb       0.10023   1.09%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -297.2     -1.8191 ug/L       0.63653     -1.8191 ppb       0.63653  34.99%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        16.1      5.0108 ug/L       6.14820      5.0108 ppb       6.14820 122.70%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              142.6      3.2915 ug/L       0.43969      3.2915 ppb       0.43969  13.36%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -6.8      16.741 ug/L        5.0337      16.741 ppb        5.0337  30.07%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -979.6     -8.9005 ug/L       0.42554     -8.9005 ppb       0.42554   4.78%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          37.8     -53.524 ug/L       12.7935     -53.524 ppb       12.7935  23.90%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               31.8     -2.3766 ug/L       3.03685     -2.3766 ppb       3.03685 127.78%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -1104.9      0.0006 ug/L       5.79616      0.0006 ppb       5.79616 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -60.2     -1.2366 ug/L       0.23116     -1.2366 ppb       0.23116  18.69%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†             -446.0     -17.399 ug/L        1.6516     -17.399 ppb        1.6516   9.49%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              534.8     -0.4592 ug/L       0.19327     -0.4592 ppb       0.19327  42.09%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†           -12211.4      4.3790 ug/L       0.24239      4.3790 ppb       0.24239   5.54%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -46.4      0.1757 ug/L       1.48591      0.1757 ppb       1.48591 845.90%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              1014.4      7.7488 ug/L       1.75875      7.7488 ppb       1.75875  22.70%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              2399.3     -1.8002 ug/L       0.09878     -1.8002 ppb       0.09878   5.49%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             2838.9     -1.5030 ug/L       0.20556     -1.5030 ppb       0.20556  13.68%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -193.0     -11.249 ug/L        3.0967     -11.249 ppb        3.0967  27.53%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 1/4/2010 08:49:12
Data Type: Reprocessed on 1/4/2010 09:44:40

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	771974.5	771974.5	93.402	%			08:51:38
1	Sc Radial	4204.0	4204.0	92.7	%			08:51:10
1	Y 371.029	646850.1	646850.1	91.536	%			08:51:38
1	Y RADIAL	4435.9	4435.9	93.30	%			08:51:10
1	Ag 328.068†	43780.5	46474.3	267.03	ug/L	267.03	ppb	08:51:38
1	Al 396.153Radial†	520740.7	561509.5	503010	ug/L	503010	ppb	08:51:05
1	As 188.979†	1121.3	1235.7	490.48	ug/L	490.48	ppb	08:51:43
1	B 249.677†	21810.2	24272.7	491.99	ug/L	491.99	ppb	08:51:38
1	Ba 233.527†	58376.3	62501.0	486.30	ug/L	486.30	ppb	08:51:38
1	Be 313.107†	621268.6	669801.8	239.44	ug/L	239.44	ppb	08:51:38
1	Ca 317.933Radial†	261629.5	282086.4	475650	ug/L	475650	ppb	08:51:05
1	Cd 226.502†	43533.0	46871.8	444.04	ug/L	444.04	ppb	08:51:43
1	Co 228.616†	20821.7	22398.6	437.47	ug/L	437.47	ppb	08:51:43
1	Cr 267.716†	39722.5	42411.3	453.35	ug/L	453.35	ppb	08:51:43
1	Cu 324.752†	169082.3	173088.8	550.73	ug/L	550.73	ppb	08:51:38
1	Fe 238.204 Radial†	19384.5	20889.4	187250	ug/L	187250	ppb	08:51:10
1	K 766.490 Radial†	26190.0	25138.4	5333.3	ug/L	5333.3	ppb	08:51:05
1	Mg 279.077 IEC†	13721.6	14792.4	482200	ug/L	482200	ppb	08:51:10
1	Mn 257.610†	404390.6	432322.1	488.32	ug/L	488.32	ppb	08:51:38
1	Mo 202.031†	6325.5	6747.4	465.60	ug/L	465.60	ppb	08:51:43
1	Na 589.592 Radial†	14870.5	17597.6	5484.6	ug/L	5484.6	ppb	08:51:10
1	Ni 231.604†	17930.9	19086.3	440.28	ug/L	440.28	ppb	08:51:43
1	P 214.914†	4604.7	4664.1	2333.2	ug/L	2333.2	ppb	08:51:43
1	Pb 220.353†	2920.2	3222.7	448.14	ug/L	448.14	ppb	08:51:43
1	S 181.975 Axial†	2036.0	2115.7	2442.9	ug/L	2442.9	ppb	08:51:43
1	Sb 206.836†	1525.1	1586.9	487.18	ug/L	487.18	ppb	08:51:43
1	Se 196.026†	3211.7	3474.1	2464.8	ug/L	2464.8	ppb	08:51:43
1	Si 251.611†	158310.1	168639.0	5079.5	ug/L	5079.5	ppb	08:51:38
1	Sn 189.927†	2418.1	2581.4	455.00	ug/L	455.00	ppb	08:51:43
1	Sr 421.552†	63130.4	68082.4	498.96	ug/L	498.96	ppb	08:51:05
1	Ti 334.940†	267738.5	288471.0	507.33	ug/L	507.33	ppb	08:51:38
1	Tl 190.801†	1373.1	1527.4	457.76	ug/L	457.76	ppb	08:51:43
1	U 409.014†	12942.3	16994.6	498.98	ug/L	498.98	ppb	08:51:38
1	V 292.402†	69240.9	75942.4	494.20	ug/L	494.20	ppb	08:51:38
1	Zn 213.857†	53577.7	56550.6	461.26	ug/L	461.26	ppb	08:51:43
1	SiO2†	157708.4	167883.5	10859	ug/L	10859	ppb	08:52:10
2	Sc 361.383	759219.9	759219.9	91.859	%			08:51:48
2	Sc Radial	4280.5	4280.5	94.4	%			08:51:20
2	Y 371.029	636098.0	636098.0	90.014	%			08:51:48
2	Y RADIAL	4490.4	4490.4	94.45	%			08:51:20
2	Ag 328.068†	43018.3	46432.0	266.99	ug/L	266.99	ppb	08:51:48
2	Al 396.153Radial†	526606.9	557683.5	499590	ug/L	499590	ppb	08:51:15
2	As 188.979†	1122.4	1256.9	498.39	ug/L	498.39	ppb	08:51:53
2	B 249.677†	21602.7	24439.1	495.46	ug/L	495.46	ppb	08:51:48
2	Ba 233.527†	57773.8	62895.1	489.34	ug/L	489.34	ppb	08:51:48
2	Be 313.107†	612703.8	671652.3	240.10	ug/L	240.10	ppb	08:51:48
2	Ca 317.933Radial†	263911.2	279459.3	471220	ug/L	471220	ppb	08:51:15
2	Cd 226.502†	44481.6	48687.5	461.94	ug/L	461.94	ppb	08:51:53
2	Co 228.616†	21414.7	23418.6	457.54	ug/L	457.54	ppb	08:51:53
2	Cr 267.716†	40461.1	43929.9	469.45	ug/L	469.45	ppb	08:51:53
2	Cu 324.752†	165828.9	172588.2	549.17	ug/L	549.17	ppb	08:51:48
2	Fe 238.204 Radial†	19760.1	20913.5	187470	ug/L	187470	ppb	08:51:20
2	K 766.490 Radial†	26353.7	24806.9	5263.1	ug/L	5263.1	ppb	08:51:15
2	Mg 279.077 IEC†	13922.2	14740.4	480500	ug/L	480500	ppb	08:51:20
2	Mn 257.610†	398842.2	433555.5	489.74	ug/L	489.74	ppb	08:51:48
2	Mo 202.031†	6459.9	7007.4	482.87	ug/L	482.87	ppb	08:51:53
2	Na 589.592 Radial†	15197.6	17657.3	5503.2	ug/L	5503.2	ppb	08:51:20
2	Ni 231.604†	18437.8	19960.6	460.44	ug/L	460.44	ppb	08:51:53

2	P 214.914†	4739.8	4894.0	2450.3 ug/L	2450.3 ppb	08:51:53
2	Pb 220.353†	3024.6	3388.8	465.43 ug/L	465.43 ppb	08:51:53
2	S 181.975 Axial†	2059.0	2177.4	2517.6 ug/L	2517.6 ppb	08:51:53
2	Sb 206.836†	1562.5	1655.0	508.57 ug/L	508.57 ppb	08:51:53
2	Se 196.026†	3287.0	3613.8	2540.3 ug/L	2540.3 ppb	08:51:53
2	Si 251.611†	156173.2	169160.1	5095.0 ug/L	5095.0 ppb	08:51:48
2	Sn 189.927†	2436.4	2644.8	464.44 ug/L	464.44 ppb	08:51:53
2	Sr 421.552†	63920.2	67701.8	496.18 ug/L	496.18 ppb	08:51:15
2	Ti 334.940†	263812.8	289013.0	508.00 ug/L	508.00 ppb	08:51:48
2	Tl 190.801†	1398.1	1579.3	472.54 ug/L	472.54 ppb	08:51:53
2	U 409.014†	12443.1	16683.9	489.35 ug/L	489.35 ppb	08:51:48
2	V 292.402†	68325.7	76191.5	496.01 ug/L	496.01 ppb	08:51:48
2	Zn 213.857†	54954.5	59013.0	482.55 ug/L	482.55 ppb	08:51:53
2	SiO2†	156606.6	169520.6	10965 ug/L	10965 ppb	08:52:15
3	Sc 361.383	756063.9	756063.9	91.477 %		08:51:59
3	Sc Radial	4147.6	4147.6	91.5 %		08:51:30
3	Y 371.029	633851.2	633851.2	89.696 %		08:51:59
3	Y RADIAL	4356.0	4356.0	91.62 %		08:51:30
3	Ag 328.068†	42886.0	46482.9	267.62 ug/L	267.62 ppb	08:51:59
3	Al 396.153Radial†	519431.8	567707.6	508570 ug/L	508570 ppb	08:51:25
3	As 188.979†	1160.5	1303.8	515.99 ug/L	515.99 ppb	08:52:04
3	B 249.677†	21358.0	24269.7	491.61 ug/L	491.61 ppb	08:51:59
3	Ba 233.527†	57355.2	62700.0	487.88 ug/L	487.88 ppb	08:51:59
3	Be 313.107†	609167.4	670570.6	239.71 ug/L	239.71 ppb	08:51:59
3	Ca 317.933Radial†	261398.1	285666.2	481690 ug/L	481690 ppb	08:51:25
3	Cd 226.502†	45087.7	49552.2	470.32 ug/L	470.32 ppb	08:52:04
3	Co 228.616†	21689.2	23816.0	465.34 ug/L	465.34 ppb	08:52:04
3	Cr 267.716†	40954.4	44652.9	477.14 ug/L	477.14 ppb	08:52:04
3	Cu 324.752†	164720.3	172129.8	547.82 ug/L	547.82 ppb	08:51:59
3	Fe 238.204 Radial†	19314.1	21096.5	189110 ug/L	189110 ppb	08:51:30
3	K 766.490 Radial†	26156.2	25485.1	5406.9 ug/L	5406.9 ppb	08:51:25
3	Mg 279.077 IEC†	13625.0	14887.8	485310 ug/L	485310 ppb	08:51:30
3	Mn 257.610†	396569.7	432883.6	489.07 ug/L	489.07 ppb	08:51:59
3	Mo 202.031†	6569.8	7156.9	492.95 ug/L	492.95 ppb	08:52:04
3	Na 589.592 Radial†	14761.9	17696.8	5515.5 ug/L	5515.5 ppb	08:51:30
3	Ni 231.604†	18634.9	20259.9	467.35 ug/L	467.35 ppb	08:52:04
3	P 214.914†	4883.7	5072.9	2544.2 ug/L	2544.2 ppb	08:52:04
3	Pb 220.353†	3012.5	3389.4	467.40 ug/L	467.40 ppb	08:52:04
3	S 181.975 Axial†	2105.3	2237.3	2587.8 ug/L	2587.8 ppb	08:52:04
3	Sb 206.836†	1570.0	1670.3	513.27 ug/L	513.27 ppb	08:52:04
3	Se 196.026†	3335.8	3682.0	2582.7 ug/L	2582.7 ppb	08:52:04
3	Si 251.611†	155059.2	168652.0	5079.4 ug/L	5079.4 ppb	08:51:59
3	Sn 189.927†	2466.0	2688.3	472.34 ug/L	472.34 ppb	08:52:04
3	Sr 421.552†	62894.6	68749.5	503.83 ug/L	503.83 ppb	08:51:25
3	Ti 334.940†	262193.5	288441.6	507.59 ug/L	507.59 ppb	08:51:59
3	Tl 190.801†	1427.5	1617.8	483.84 ug/L	483.84 ppb	08:52:04
3	U 409.014†	12389.6	16682.0	489.07 ug/L	489.07 ppb	08:51:59
3	V 292.402†	68033.6	76182.6	495.95 ug/L	495.95 ppb	08:51:59
3	Zn 213.857†	55623.2	59993.8	490.78 ug/L	490.78 ppb	08:52:04
3	SiO2†	155100.4	168585.7	10904 ug/L	10904 ppb	08:52:20

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	762419.4	92.246	%	1.0192				1.10%
Sc Radial	4210.7	92.9	%	1.47				1.58%
Y 371.029	638933.1	90.415	%	0.9832				1.09%
Y RADIAL	4427.4	93.13	%	1.422				1.53%
Ag 328.068†	46463.1	267.21	ug/L	0.350	267.21	ppb	0.350	0.13%
QC value within limits for Ag 328.068 Recovery = 106.89%								
Al 396.153Radial†	562300.2	503720	ug/L	4531.5	503720	ppb	4531.5	0.90%
QC value within limits for Al 396.153Radial Recovery = 100.74%								
As 188.979†	1265.5	501.62	ug/L	13.059	501.62	ppb	13.059	2.60%
QC value within limits for As 188.979 Recovery = 100.32%								
B 249.677†	24327.1	493.02	ug/L	2.123	493.02	ppb	2.123	0.43%
QC value within limits for B 249.677 Recovery = 98.60%								
Ba 233.527†	62698.7	487.84	ug/L	1.519	487.84	ppb	1.519	0.31%
QC value within limits for Ba 233.527 Recovery = 97.57%								
Be 313.107†	670674.9	239.75	ug/L	0.332	239.75	ppb	0.332	0.14%
QC value within limits for Be 313.107 Recovery = 95.90%								

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Ca 317.933Radial†     282404.0      476190 ug/L        5253.6      476190 ppb        5253.6   1.10%
   QC value within limits for Ca 317.933Radial  Recovery = 95.24%
Cd 226.502†            48370.5      458.76 ug/L        13.425      458.76 ppb        13.425   2.93%
   QC value within limits for Cd 226.502  Recovery = 91.75%
Co 228.616†            23211.1      453.45 ug/L        14.381      453.45 ppb        14.381   3.17%
   QC value within limits for Co 228.616  Recovery = 90.69%
Cr 267.716†            43664.7      466.65 ug/L        12.138      466.65 ppb        12.138   2.60%
   QC value within limits for Cr 267.716  Recovery = 93.33%
Cu 324.752†           172602.2      549.24 ug/L         1.453      549.24 ppb         1.453   0.26%
   QC value within limits for Cu 324.752  Recovery = 109.85%
Fe 238.204 Radial†     20966.5      187940 ug/L        1015.4      187940 ppb        1015.4   0.54%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.97%
K 766.490 Radial†      25143.5      5334.5 ug/L         71.90      5334.5 ppb         71.90   1.35%
   QC value within limits for K 766.490 Radial  Recovery = 106.69%
Mg 279.077 IEC†        14806.8      482670 ug/L        2437.6      482670 ppb        2437.6   0.51%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.53%
Mn 257.610†           432920.4      489.04 ug/L         0.710      489.04 ppb         0.710   0.15%
   QC value within limits for Mn 257.610  Recovery = 97.81%
Mo 202.031†             6970.5      480.47 ug/L        13.829      480.47 ppb        13.829   2.88%
   QC value within limits for Mo 202.031  Recovery = 96.09%
Na 589.592 Radial†     17650.6      5501.1 ug/L         15.56      5501.1 ppb         15.56   0.28%
   QC value within limits for Na 589.592 Radial  Recovery = 110.02%
Ni 231.604†            19769.0      456.02 ug/L        14.067      456.02 ppb        14.067   3.08%
   QC value within limits for Ni 231.604  Recovery = 91.20%
P 214.914†              4877.0      2442.5 ug/L        105.70      2442.5 ppb        105.70   4.33%
   QC value within limits for P 214.914  Recovery = 97.70%
Pb 220.353†             3333.6      460.32 ug/L        10.601      460.32 ppb        10.601   2.30%
   QC value within limits for Pb 220.353  Recovery = 92.06%
S 181.975 Axial†        2176.8      2516.1 ug/L         72.49      2516.1 ppb         72.49   2.88%
   QC value within limits for S 181.975 Axial  Recovery = 100.64%
Sb 206.836†             1637.4      503.01 ug/L        13.904      503.01 ppb        13.904   2.76%
   QC value within limits for Sb 206.836  Recovery = 100.60%
Se 196.026†             3590.0      2529.3 ug/L         59.69      2529.3 ppb         59.69   2.36%
   QC value within limits for Se 196.026  Recovery = 101.17%
Si 251.611†           168817.0      5084.6 ug/L          8.95      5084.6 ppb          8.95   0.18%
   QC value within limits for Si 251.611  Recovery = 101.69%
Sn 189.927†             2638.2      463.93 ug/L        8.681      463.93 ppb        8.681   1.87%
   QC value within limits for Sn 189.927  Recovery = 92.79%
Sr 421.552†            68177.9      499.66 ug/L        3.873      499.66 ppb        3.873   0.78%
   QC value within limits for Sr 421.552  Recovery = 99.93%
Ti 334.940†           288641.9      507.64 ug/L        0.340      507.64 ppb        0.340   0.07%
   QC value within limits for Ti 334.940  Recovery = 101.53%
Tl 190.801†             1574.8      471.38 ug/L        13.079      471.38 ppb        13.079   2.77%
   QC value within limits for Tl 190.801  Recovery = 94.28%
U 409.014†             16786.8      492.47 ug/L        5.640      492.47 ppb        5.640   1.15%
   QC value within limits for U 409.014  Recovery = 98.49%
V 292.402†             76105.5      495.38 ug/L        1.026      495.38 ppb        1.026   0.21%
   QC value within limits for V 292.402  Recovery = 99.08%
Zn 213.857†            58519.1      478.20 ug/L        15.234      478.20 ppb        15.234   3.19%
   QC value within limits for Zn 213.857  Recovery = 95.64%
SiO2†                 168663.2       10909 ug/L         53.0       10909 ppb         53.0   0.49%
   QC value within limits for SiO2  Recovery = 102.00%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 1/4/2010 08:54:30
Data Type: Reprocessed on 1/4/2010 09:44:41

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	738669.6	738669.6	89.373	%			08:56:57
1	Sc Radial	4152.1	4152.1	91.6	%			08:56:28
1	Y 371.029	620823.3	620823.3	87.852	%			08:56:57
1	Y RADIAL	4376.3	4376.3	92.05	%			08:56:28
1	Ag 328.068†	-24343.3	-27636.8	3.6858	ug/L	3.6858	ppb	08:56:57
1	Al 396.153Radial†	504082.0	550347.2	493030	ug/L	493030	ppb	08:56:23
1	As 188.979†	-210.4	-200.4	-6.2486	ug/L	-6.2486	ppb	08:57:17
1	B 249.677†	917.3	1948.1	-16.989	ug/L	-16.989	ppb	08:56:57
1	Ba 233.527†	-1815.1	-2029.8	-4.4153	ug/L	-4.4153	ppb	08:57:17
1	Be 313.107†	-11268.4	-7961.3	-2.8754	ug/L	-2.8754	ppb	08:56:57
1	Ca 317.933Radial†	254769.1	278126.0	468970	ug/L	468970	ppb	08:56:23
1	Cd 226.502†	3305.0	3961.7	-5.0296	ug/L	-5.0296	ppb	08:57:17
1	Co 228.616†	160.8	285.9	-0.7464	ug/L	-0.7464	ppb	08:57:17
1	Cr 267.716†	52.3	-58.6	2.7034	ug/L	2.7034	ppb	08:57:17
1	Cu 324.752†	1207.8	-6586.0	1.9215	ug/L	1.9215	ppb	08:56:57
1	Fe 238.204 Radial†	45111.2	49237.7	441330	ug/L	441330	ppb	08:56:28
1	K 766.490 Radial†	2711.5	-140.7	-234.92	ug/L	-234.92	ppb	08:56:23
1	Mg 279.077 IEC†	13320.9	14540.0	473740	ug/L	473740	ppb	08:56:28
1	Mn 257.610†	-24456.8	-27999.5	4.1853	ug/L	4.1853	ppb	08:56:57
1	Mo 202.031†	-532.3	-620.6	1.1319	ug/L	1.1319	ppb	08:57:17
1	Na 589.592 Radial†	1516988.9	1657717.7	516660	ug/L	516660	ppb	08:56:23
1	Ni 231.604†	326.0	253.5	5.8482	ug/L	5.8482	ppb	08:57:17
1	P 214.914†	631.7	440.9	39.916	ug/L	39.916	ppb	08:57:17
1	Pb 220.353†	-722.5	-712.2	-3.0107	ug/L	-3.0107	ppb	08:57:17
1	S 181.975 Axial†	106.5	55.0	-30.915	ug/L	-30.915	ppb	08:57:17
1	Sb 206.836†	67.8	29.9	0.9581	ug/L	0.9581	ppb	08:57:17
1	Se 196.026†	-2469.9	-2728.1	-131.27	ug/L	-131.27	ppb	08:57:17
1	Si 251.611†	-291.2	-1179.9	-34.663	ug/L	-34.663	ppb	08:57:17
1	Sn 189.927†	-407.4	-463.3	-17.443	ug/L	-17.443	ppb	08:57:17
1	Sr 421.552†	640.4	711.3	0.9120	ug/L	0.9120	ppb	08:56:28
1	Ti 334.940†	-12683.9	-12372.6	-2.5832	ug/L	-2.5832	ppb	08:56:57
1	Tl 190.801†	-120.0	-76.9	-9.1348	ug/L	-9.1348	ppb	08:57:17
1	U 409.014†	413571.2	465887.9	14293	ug/L	14293	ppb	08:56:57
1	V 292.402†	2197.1	4268.7	-0.7491	ug/L	-0.7491	ppb	08:56:57
1	Zn 213.857†	6143.2	6061.9	13.515	ug/L	13.515	ppb	08:57:17
1	SiO2†	-354.1	-1361.6	-86.196	ug/L	-86.196	ppb	08:58:14
2	Sc 361.383	733123.5	733123.5	88.701	%			08:57:22
2	Sc Radial	4156.4	4156.4	91.7	%			08:56:39
2	Y 371.029	616333.7	616333.7	87.217	%			08:57:22
2	Y RADIAL	4361.9	4361.9	91.75	%			08:56:39
2	Ag 328.068†	-23929.3	-27376.1	4.9494	ug/L	4.9494	ppb	08:57:22
2	Al 396.153Radial†	506950.4	552904.8	495330	ug/L	495330	ppb	08:56:34
2	As 188.979†	-224.1	-217.5	-12.557	ug/L	-12.557	ppb	08:57:42
2	B 249.677†	920.1	1959.0	-16.797	ug/L	-16.797	ppb	08:57:22
2	Ba 233.527†	-1833.6	-2066.1	-4.6922	ug/L	-4.6922	ppb	08:57:42
2	Be 313.107†	-10986.0	-7738.3	-2.7954	ug/L	-2.7954	ppb	08:57:22
2	Ca 317.933Radial†	256238.0	279439.5	471190	ug/L	471190	ppb	08:56:34
2	Cd 226.502†	3264.4	3943.9	-5.2333	ug/L	-5.2333	ppb	08:57:42
2	Co 228.616†	220.7	354.8	0.5966	ug/L	0.5966	ppb	08:57:42
2	Cr 267.716†	63.6	-45.5	2.8577	ug/L	2.8577	ppb	08:57:42
2	Cu 324.752†	1239.5	-6540.0	2.0792	ug/L	2.0792	ppb	08:57:22
2	Fe 238.204 Radial†	45186.1	49268.3	441610	ug/L	441610	ppb	08:56:39
2	K 766.490 Radial†	2752.4	-99.1	-226.91	ug/L	-226.91	ppb	08:56:34
2	Mg 279.077 IEC†	13343.8	14549.9	474070	ug/L	474070	ppb	08:56:39
2	Mn 257.610†	-24067.3	-27767.4	4.4636	ug/L	4.4636	ppb	08:57:22
2	Mo 202.031†	-558.8	-654.9	-1.1231	ug/L	-1.1231	ppb	08:57:42
2	Na 589.592 Radial†	1524376.0	1664056.8	518630	ug/L	518630	ppb	08:56:34
2	Ni 231.604†	270.2	193.4	4.4595	ug/L	4.4595	ppb	08:57:42

2	P 214.914†	602.1	413.0	25.984	ug/L	25.984 ppb	08:57:42
2	Pb 220.353†	-733.3	-730.5	-4.5074	ug/L	-4.5074 ppb	08:57:42
2	S 181.975 Axial†	111.7	61.8	-23.248	ug/L	-23.248 ppb	08:57:42
2	Sb 206.836†	76.4	40.2	3.9001	ug/L	3.9001 ppb	08:57:42
2	Se 196.026†	-2478.2	-2758.5	-146.57	ug/L	-146.57 ppb	08:57:42
2	Si 251.611†	-284.1	-1174.4	-34.437	ug/L	-34.437 ppb	08:57:42
2	Sn 189.927†	-446.4	-510.7	-24.604	ug/L	-24.604 ppb	08:57:42
2	Sr 421.552†	661.6	733.8	1.0578	ug/L	1.0578 ppb	08:56:39
2	Ti 334.940†	-12425.2	-12188.3	-2.1406	ug/L	-2.1406 ppb	08:57:22
2	Tl 190.801†	-114.8	-72.1	-7.6879	ug/L	-7.6879 ppb	08:57:42
2	U 409.014†	409256.3	464524.2	14251	ug/L	14251 ppb	08:57:22
2	V 292.402†	1885.0	3935.5	-3.1144	ug/L	-3.1144 ppb	08:57:22
2	Zn 213.857†	6112.9	6079.7	13.653	ug/L	13.653 ppb	08:57:42
2	SiO2†	-281.5	-1282.7	-80.953	ug/L	-80.953 ppb	08:58:19
3	Sc 361.383	736602.7	736602.7	89.122	%		08:57:48
3	Sc Radial	4173.2	4173.2	92.1	%		08:56:49
3	Y 371.029	618361.1	618361.1	87.504	%		08:57:48
3	Y RADIAL	4397.0	4397.0	92.49	%		08:56:49
3	Ag 328.068†	-24301.7	-27666.5	3.4564	ug/L	3.4564 ppb	08:57:48
3	Al 396.153Radial†	514565.5	558946.1	500740	ug/L	500740 ppb	08:56:44
3	As 188.979†	-230.1	-223.1	-14.674	ug/L	-14.674 ppb	08:58:08
3	B 249.677†	933.7	1969.5	-16.548	ug/L	-16.548 ppb	08:57:48
3	Ba 233.527†	-1950.0	-2186.9	-5.6242	ug/L	-5.6242 ppb	08:58:08
3	Be 313.107†	-11011.2	-7708.1	-2.7854	ug/L	-2.7854 ppb	08:57:48
3	Ca 317.933Radial†	259563.3	281924.2	475380	ug/L	475380 ppb	08:56:44
3	Cd 226.502†	3332.4	4002.8	-4.6344	ug/L	-4.6344 ppb	08:58:08
3	Co 228.616†	178.5	306.2	-0.3509	ug/L	-0.3509 ppb	08:58:08
3	Cr 267.716†	53.2	-57.5	2.7035	ug/L	2.7035 ppb	08:58:08
3	Cu 324.752†	1114.8	-6686.5	1.6123	ug/L	1.6123 ppb	08:57:48
3	Fe 238.204 Radial†	45351.5	49249.2	441430	ug/L	441430 ppb	08:56:49
3	K 766.490 Radial†	2959.3	113.4	-183.91	ug/L	-183.91 ppb	08:56:44
3	Mg 279.077 IEC†	13421.9	14576.1	474920	ug/L	474920 ppb	08:56:49
3	Mn 257.610†	-24648.2	-28291.0	3.8509	ug/L	3.8509 ppb	08:57:48
3	Mo 202.031†	-542.0	-633.2	0.3049	ug/L	0.3049 ppb	08:58:08
3	Na 589.592 Radial†	1546063.9	1680907.9	523880	ug/L	523880 ppb	08:56:44
3	Ni 231.604†	305.9	232.0	5.3518	ug/L	5.3518 ppb	08:58:08
3	P 214.914†	666.7	482.2	63.608	ug/L	63.608 ppb	08:58:08
3	Pb 220.353†	-679.7	-666.5	3.6780	ug/L	3.6780 ppb	08:58:08
3	S 181.975 Axial†	133.0	85.1	3.7257	ug/L	3.7257 ppb	08:58:08
3	Sb 206.836†	49.8	9.9	-5.5795	ug/L	-5.5795 ppb	08:58:08
3	Se 196.026†	-2487.7	-2755.8	-145.13	ug/L	-145.13 ppb	08:58:08
3	Si 251.611†	-245.1	-1129.1	-33.116	ug/L	-33.116 ppb	08:58:08
3	Sn 189.927†	-436.6	-497.3	-22.080	ug/L	-22.080 ppb	08:58:08
3	Sr 421.552†	691.6	763.4	1.2379	ug/L	1.2379 ppb	08:56:49
3	Ti 334.940†	-12706.5	-12437.8	-2.3730	ug/L	-2.3730 ppb	08:57:48
3	Tl 190.801†	-133.0	-92.0	-13.269	ug/L	-13.269 ppb	08:58:08
3	U 409.014†	413385.0	466977.5	14326	ug/L	14326 ppb	08:57:48
3	V 292.402†	1951.5	4000.1	-2.4716	ug/L	-2.4716 ppb	08:57:48
3	Zn 213.857†	6111.6	6045.7	13.332	ug/L	13.332 ppb	08:58:08
3	SiO2†	-410.4	-1425.9	-90.338	ug/L	-90.338 ppb	08:58:24

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	736131.9	89.065	%	0.3391				0.38%
Sc Radial	4160.5	91.8	%	0.25				0.27%
Y 371.029	618506.0	87.525	%	0.3182				0.36%
Y RADIAL	4378.4	92.10	%	0.372				0.40%
Ag 328.068†	-27559.8	4.0305	ug/L	0.80401	4.0305	ppb	0.80401	19.95%
Al 396.153Radial†	554066.1	496370	ug/L	3955.6	496370	ppb	3955.6	0.80%
QC value within limits for Al 396.153Radial Recovery = 99.27%								
As 188.979†	-213.7	-11.160	ug/L	4.3829	-11.160	ppb	4.3829	39.27%
B 249.677†	1958.9	-16.778	ug/L	0.2208	-16.778	ppb	0.2208	1.32%
Ba 233.527†	-2094.3	-4.9106	ug/L	0.63336	-4.9106	ppb	0.63336	12.90%
Be 313.107†	-7802.6	-2.8187	ug/L	0.04932	-2.8187	ppb	0.04932	1.75%
Ca 317.933Radial†	279829.9	471850	ug/L	3252.6	471850	ppb	3252.6	0.69%
QC value within limits for Ca 317.933Radial Recovery = 94.37%								
Cd 226.502†	3969.5	-4.9658	ug/L	0.30454	-4.9658	ppb	0.30454	6.13%
Co 228.616†	315.7	-0.1669	ug/L	0.69014	-0.1669	ppb	0.69014	413.53%
Cr 267.716†	-53.9	2.7548	ug/L	0.08903	2.7548	ppb	0.08903	3.23%

Cu 324.752†	-6604.2	1.8710	ug/L	0.23747	1.8710	ppb	0.23747	12.69%
Fe 238.204 Radial†	49251.7	441460	ug/L	138.7	441460	ppb	138.7	0.03%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 88.29%								
K 766.490 Radial†	-42.1	-215.25	ug/L	27.430	-215.25	ppb	27.430	12.74%
Mg 279.077 IEC†	14555.3	474240	ug/L	608.0	474240	ppb	608.0	0.13%
QC value within limits for Mg 279.077 IEC Recovery = 94.85%								
Mn 257.610†	-28019.3	4.1666	ug/L	0.30678	4.1666	ppb	0.30678	7.36%
Mo 202.031†	-636.2	0.1046	ug/L	1.14078	0.1046	ppb	1.14078	>999.9%
Na 589.592 Radial†	1667560.8	519720	ug/L	3735.5	519720	ppb	3735.5	0.72%
QC value within limits for Na 589.592 Radial Recovery = 103.94%								
Ni 231.604†	226.3	5.2198	ug/L	0.70372	5.2198	ppb	0.70372	13.48%
P 214.914†	445.4	43.169	ug/L	19.0217	43.169	ppb	19.0217	44.06%
Pb 220.353†	-703.1	-1.2800	ug/L	4.35855	-1.2800	ppb	4.35855	340.51%
S 181.975 Axial†	67.3	-16.812	ug/L	18.1947	-16.812	ppb	18.1947	108.22%
Sb 206.836†	26.7	-0.2404	ug/L	4.85211	-0.2404	ppb	4.85211	>999.9%
Se 196.026†	-2747.5	-140.99	ug/L	8.449	-140.99	ppb	8.449	5.99%
Si 251.611†	-1161.1	-34.072	ug/L	0.8357	-34.072	ppb	0.8357	2.45%
Sn 189.927†	-490.5	-21.376	ug/L	3.6321	-21.376	ppb	3.6321	16.99%
Sr 421.552†	736.2	1.0693	ug/L	0.16326	1.0693	ppb	0.16326	15.27%
Ti 334.940†	-12332.9	-2.3656	ug/L	0.22136	-2.3656	ppb	0.22136	9.36%
Tl 190.801†	-80.4	-10.031	ug/L	2.8966	-10.031	ppb	2.8966	28.88%
U 409.014†	465796.5	14290	ug/L	37.9	14290	ppb	37.9	0.27%
QC value within limits for U 409.014 Recovery = 95.27%								
V 292.402†	4068.1	-2.1117	ug/L	1.22301	-2.1117	ppb	1.22301	57.92%
Zn 213.857†	6062.4	13.500	ug/L	0.1610	13.500	ppb	0.1610	1.19%
SiO2†	-1356.7	-85.829	ug/L	4.7030	-85.829	ppb	4.7030	5.48%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 1/4/2010 09:00:33
Data Type: Reprocessed on 1/4/2010 09:44:42

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	822640.8	822640.8	99.532	%			09:04:08
1	Sc Radial	4491.3	4491.3	99.1	%			09:02:31
1	Y 371.029	688935.3	688935.3	97.491	%			09:04:08
1	Y RADIAL	4690.0	4690.0	98.65	%			09:02:31
1	Ag 328.068†	-7834.9	-8270.5	1.0879	ug/L	1.0879	ppb	09:04:13
1	Al 396.153Radial†	520.3	547.0	79.919	ug/L	79.919	ppb	09:02:31
1	As 188.979†	26677.0	26837.5	10032	ug/L	10032	ppb	09:04:13
1	B 249.677†	226233.5	228218.3	4846.3	ug/L	4846.3	ppb	09:04:08
1	Ba 233.527†	1832925.1	1841539.0	14178	ug/L	14178	ppb	09:04:08
1	Be 313.107†	7981555.6	8023708.1	2876.2	ug/L	2876.2	ppb	09:04:02
1	Ca 317.933Radial†	24.0	9.1	15.416	ug/L	15.416	ppb	09:02:51
1	Cd 226.502†	958258.2	963024.7	9508.2	ug/L	9508.2	ppb	09:04:08
1	Co 228.616†	471406.7	473727.8	9306.2	ug/L	9306.2	ppb	09:04:13
1	Cr 267.716†	2218117.7	2228423.5	23624	ug/L	23624	ppb	09:04:08
1	Cu 324.752†	6381240.4	6403288.5	20020	ug/L	20020	ppb	09:04:02
1	Fe 238.204 Radial†	-16.0	-28.0	42.112	ug/L	42.112	ppb	09:02:51
1	K 766.490 Radial†	1366612.1	1376174.3	291450	ug/L	291450	ppb	09:02:26
1	Mg 279.077 IEC†	-7.1	-10.1	-133.96	ug/L	-133.96	ppb	09:02:51
1	Mn 257.610†	8478383.8	8517589.3	9429.9	ug/L	9429.9	ppb	09:04:02
1	Mo 202.031†	143727.6	144378.0	9578.8	ug/L	9578.8	ppb	09:04:13
1	Na 589.592 Radial†	-1001.6	552.6	172.23	ug/L	172.23	ppb	09:02:31
1	Ni 231.604†	416915.1	418763.0	9660.1	ug/L	9660.1	ppb	09:04:08
1	P 214.914†	34350.9	34246.4	14515	ug/L	14515	ppb	09:04:13
1	Pb 220.353†	219193.1	220319.2	23932	ug/L	23932	ppb	09:04:13
1	S 181.975 Axial†	41762.7	41894.8	50332	ug/L	50332	ppb	09:04:13
1	Sb 206.836†	32179.5	32284.8	9818.8	ug/L	9818.8	ppb	09:04:13
1	Se 196.026†	18758.9	18882.5	10182	ug/L	10182	ppb	09:04:13
1	Si 251.611†	1559209.9	1565682.5	46965	ug/L	46965	ppb	09:04:08
1	Sn 189.927†	65066.8	65365.1	10200	ug/L	10200	ppb	09:04:13
1	Sr 421.552†	1307654.7	1319783.7	9757.8	ug/L	9757.8	ppb	09:02:26
1	Ti 334.940†	5843063.9	5872340.1	9822.1	ug/L	9822.1	ppb	09:04:02
1	Tl 190.801†	33231.3	33444.7	9713.9	ug/L	9713.9	ppb	09:04:13
1	U 409.014†	-2196.4	931.4	-16.883	ug/L	-16.883	ppb	09:04:08
1	V 292.402†	1466586.9	1475288.7	9929.1	ug/L	9929.1	ppb	09:04:08
1	Zn 213.857†	1597751.4	1604447.4	13843	ug/L	13843	ppb	09:04:08
1	SiO2†	1597571.0	1604112.6	103340	ug/L	103340	ppb	09:05:01
2	Sc 361.383	833153.4	833153.4	100.80	%			09:04:28
2	Sc Radial	4485.1	4485.1	98.9	%			09:03:01
2	Y 371.029	697886.8	697886.8	98.758	%			09:04:28
2	Y RADIAL	4691.6	4691.6	98.68	%			09:03:01
2	Ag 328.068†	-7864.3	-8200.4	1.3116	ug/L	1.3116	ppb	09:04:33
2	Al 396.153Radial†	517.9	545.3	79.780	ug/L	79.780	ppb	09:03:01
2	As 188.979†	27009.5	26829.1	10027	ug/L	10027	ppb	09:04:33
2	B 249.677†	229310.1	228402.5	4850.3	ug/L	4850.3	ppb	09:04:28
2	Ba 233.527†	1851670.5	1836898.7	14142	ug/L	14142	ppb	09:04:28
2	Be 313.107†	7957585.0	7898745.5	2831.4	ug/L	2831.4	ppb	09:04:22
2	Ca 317.933Radial†	26.5	11.6	19.641	ug/L	19.641	ppb	09:03:21
2	Cd 226.502†	966086.6	958642.7	9464.9	ug/L	9464.9	ppb	09:04:28
2	Co 228.616†	475398.2	471711.5	9266.9	ug/L	9266.9	ppb	09:04:33
2	Cr 267.716†	2236872.3	2218909.1	23523	ug/L	23523	ppb	09:04:28
2	Cu 324.752†	6363541.6	6304835.1	19713	ug/L	19713	ppb	09:04:22
2	Fe 238.204 Radial†	-18.0	-30.1	22.250	ug/L	22.250	ppb	09:03:21
2	K 766.490 Radial†	1355620.3	1366986.6	289510	ug/L	289510	ppb	09:02:56
2	Mg 279.077 IEC†	-4.5	-7.5	-49.647	ug/L	-49.647	ppb	09:03:21
2	Mn 257.610†	8441345.1	8373364.6	9270.2	ug/L	9270.2	ppb	09:04:22
2	Mo 202.031†	145077.7	143895.3	9546.7	ug/L	9546.7	ppb	09:04:33
2	Na 589.592 Radial†	-1053.7	498.5	155.37	ug/L	155.37	ppb	09:03:01
2	Ni 231.604†	420498.7	417032.7	9620.2	ug/L	9620.2	ppb	09:04:28

2	P 214.914†	34670.3	34127.8	14503 ug/L	14503 ppb	09:04:33
2	Pb 220.353†	221227.7	219558.9	23850 ug/L	23850 ppb	09:04:33
2	S 181.975 Axial†	42268.7	41867.3	50299 ug/L	50299 ppb	09:04:33
2	Sb 206.836†	32432.7	32128.0	9771.7 ug/L	9771.7 ppb	09:04:33
2	Se 196.026†	18895.0	18779.7	10126 ug/L	10126 ppb	09:04:33
2	Si 251.611†	1578024.2	1564580.4	46933 ug/L	46933 ppb	09:04:28
2	Sn 189.927†	65665.7	65134.3	10164 ug/L	10164 ppb	09:04:33
2	Sr 421.552†	1295767.0	1309607.6	9682.6 ug/L	9682.6 ppb	09:02:56
2	Ti 334.940†	5822213.6	5777582.9	9663.5 ug/L	9663.5 ppb	09:04:22
2	Tl 190.801†	33548.0	33337.7	9681.2 ug/L	9681.2 ppb	09:04:33
2	U 409.014†	-2192.5	963.1	-15.710 ug/L	-15.710 ppb	09:04:28
2	V 292.402†	1482011.8	1471998.4	9907.0 ug/L	9907.0 ppb	09:04:28
2	Zn 213.857†	1610909.6	1597245.8	13781 ug/L	13781 ppb	09:04:28
2	SiO2†	1603194.9	1589439.1	102390 ug/L	102390 ppb	09:05:08
3	Sc 361.383	836629.4	836629.4	101.22 %		09:04:48
3	Sc Radial	4541.1	4541.1	100 %		09:03:32
3	Y 371.029	700139.3	700139.3	99.076 %		09:04:48
3	Y RADIAL	4700.2	4700.2	98.86 %		09:03:32
3	Ag 328.068†	-7813.0	-8117.3	1.7090 ug/L	1.7090 ppb	09:04:53
3	Al 396.153Radial†	492.7	513.7	53.717 ug/L	53.717 ppb	09:03:32
3	As 188.979†	26922.8	26632.2	9955.1 ug/L	9955.1 ppb	09:04:53
3	B 249.677†	230422.6	228556.3	4853.7 ug/L	4853.7 ppb	09:04:48
3	Ba 233.527†	1860982.9	1838466.6	14154 ug/L	14154 ppb	09:04:48
3	Be 313.107†	8029937.1	7937424.3	2845.3 ug/L	2845.3 ppb	09:04:41
3	Ca 317.933Radial†	20.5	5.4	9.0452 ug/L	9.0452 ppb	09:03:52
3	Cd 226.502†	973652.9	962135.6	9499.4 ug/L	9499.4 ppb	09:04:48
3	Co 228.616†	475514.5	469866.9	9230.4 ug/L	9230.4 ppb	09:04:53
3	Cr 267.716†	2250879.9	2223527.7	23572 ug/L	23572 ppb	09:04:48
3	Cu 324.752†	6427110.9	6341407.3	19827 ug/L	19827 ppb	09:04:41
3	Fe 238.204 Radial†	-18.5	-30.3	19.121 ug/L	19.121 ppb	09:03:52
3	K 766.490 Radial†	1383410.7	1377839.3	291810 ug/L	291810 ppb	09:03:27
3	Mg 279.077 IEC†	-0.5	-3.4	81.353 ug/L	81.353 ppb	09:03:52
3	Mn 257.610†	8529216.5	8425381.0	9327.8 ug/L	9327.8 ppb	09:04:41
3	Mo 202.031†	144876.9	143098.9	9493.9 ug/L	9493.9 ppb	09:04:53
3	Na 589.592 Radial†	-1065.7	499.7	155.74 ug/L	155.74 ppb	09:03:32
3	Ni 231.604†	423337.5	418104.0	9644.9 ug/L	9644.9 ppb	09:04:48
3	P 214.914†	34658.8	33973.6	14405 ug/L	14405 ppb	09:04:53
3	Pb 220.353†	220881.7	218305.2	23713 ug/L	23713 ppb	09:04:53
3	S 181.975 Axial†	42283.4	41707.6	50107 ug/L	50107 ppb	09:04:53
3	Sb 206.836†	32452.4	32013.8	9732.7 ug/L	9732.7 ppb	09:04:53
3	Se 196.026†	18909.9	18716.6	10092 ug/L	10092 ppb	09:04:53
3	Si 251.611†	1586589.2	1566537.8	46992 ug/L	46992 ppb	09:04:48
3	Sn 189.927†	65562.7	64761.9	10106 ug/L	10106 ppb	09:04:53
3	Sr 421.552†	1320708.7	1318362.4	9747.3 ug/L	9747.3 ppb	09:03:27
3	Ti 334.940†	5884110.1	5814733.6	9725.7 ug/L	9725.7 ppb	09:04:41
3	Tl 190.801†	33446.4	33099.0	9613.3 ug/L	9613.3 ppb	09:04:53
3	U 409.014†	-2004.2	1158.2	-9.7955 ug/L	-9.7955 ppb	09:04:48
3	V 292.402†	1489270.8	1473061.4	9913.2 ug/L	9913.2 ppb	09:04:48
3	Zn 213.857†	1620667.0	1600245.6	13807 ug/L	13807 ppb	09:04:48
3	SiO2†	1588583.4	1568396.6	101030 ug/L	101030 ppb	09:05:15

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	830807.9	100.52	%	0.881				0.88%
Sc Radial	4505.8	99.4	%	0.68				0.68%
Y 371.029	695653.8	98.442	%	0.8386				0.85%
Y RADIAL	4693.9	98.73	%	0.115				0.12%
Ag 328.068†	-8196.1	1.3695	ug/L	0.31457	1.3695	ppb	0.31457	22.97%
Al 396.153Radial†	535.3	71.139	ug/L	15.0878	71.139	ppb	15.0878	21.21%
As 188.979†	26766.2	10005	ug/L	43.1	10005	ppb	43.1	0.43%
QC value within limits for As 188.979 Recovery = 100.05%								
B 249.677†	228392.4	4850.1	ug/L	3.71	4850.1	ppb	3.71	0.08%
QC value within limits for B 249.677 Recovery = 97.00%								
Ba 233.527†	1838968.1	14158	ug/L	18.2	14158	ppb	18.2	0.13%
QC value within limits for Ba 233.527 Recovery = 94.39%								
Be 313.107†	7953292.6	2851.0	ug/L	22.94	2851.0	ppb	22.94	0.80%
QC value within limits for Be 313.107 Recovery = 95.03%								
Ca 317.933Radial†	8.7	14.701	ug/L	5.3342	14.701	ppb	5.3342	36.28%
Cd 226.502†	961267.7	9490.8	ug/L	22.87	9490.8	ppb	22.87	0.24%

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   QC value within limits for Cd 226.502  Recovery = 94.91%
Co 228.616†          471768.7      9267.8 ug/L        37.93      9267.8 ppb        37.93   0.41%
   QC value within limits for Co 228.616  Recovery = 92.68%
Cr 267.716†         2223620.1       23573 ug/L         50.4       23573 ppb         50.4   0.21%
   QC value within limits for Cr 267.716  Recovery = 94.29%
Cu 324.752†         6349843.6       19853 ug/L        155.6       19853 ppb        155.6   0.78%
   QC value within limits for Cu 324.752  Recovery = 99.27%
Fe 238.204 Radial†       -29.5      27.828 ug/L      12.4695      27.828 ppb      12.4695  44.81%
K 766.490 Radial†    1373666.7      290920 ug/L       1237.4      290920 ppb       1237.4   0.43%
   QC value within limits for K 766.490 Radial  Recovery = 96.97%
Mg 279.077 IEC†           -7.0     -34.084 ug/L     108.4967     -34.084 ppb     108.4967 318.32%
Mn 257.610†          8438778.3      9342.6 ug/L        80.87      9342.6 ppb        80.87   0.87%
   QC value within limits for Mn 257.610  Recovery = 93.43%
Mo 202.031†           143790.7      9539.8 ug/L        42.86      9539.8 ppb        42.86   0.45%
   QC value within limits for Mo 202.031  Recovery = 95.40%
Na 589.592 Radial†       516.9     161.11 ug/L        9.629     161.11 ppb        9.629   5.98%
Ni 231.604†           417966.6      9641.7 ug/L        20.15      9641.7 ppb        20.15   0.21%
   QC value within limits for Ni 231.604  Recovery = 96.42%
P 214.914†             34115.9       14474 ug/L         60.5       14474 ppb         60.5   0.42%
   QC value within limits for P 214.914  Recovery = 96.50%
Pb 220.353†           219394.5       23832 ug/L        110.5       23832 ppb        110.5   0.46%
   QC value within limits for Pb 220.353  Recovery = 95.33%
S 181.975 Axial†       41823.3       50246 ug/L        121.4       50246 ppb        121.4   0.24%
   QC value within limits for S 181.975 Axial  Recovery = 100.49%
Sb 206.836†            32142.2      9774.4 ug/L        43.09      9774.4 ppb        43.09   0.44%
   QC value within limits for Sb 206.836  Recovery = 97.74%
Se 196.026†            18792.9       10134 ug/L         45.2       10134 ppb         45.2   0.45%
   QC value within limits for Se 196.026  Recovery = 101.34%
Si 251.611†          1565600.3       46963 ug/L         29.7       46963 ppb         29.7   0.06%
   QC value within limits for Si 251.611  Recovery = 93.93%
Sn 189.927†            65087.1       10157 ug/L         47.5       10157 ppb         47.5   0.47%
   QC value within limits for Sn 189.927  Recovery = 101.57%
Sr 421.552†          1315917.9      9729.2 ug/L        40.74      9729.2 ppb        40.74   0.42%
   QC value within limits for Sr 421.552  Recovery = 97.29%
Ti 334.940†          5821552.2      9737.1 ug/L        79.91      9737.1 ppb        79.91   0.82%
   QC value within limits for Ti 334.940  Recovery = 97.37%
Tl 190.801†            33293.8      9669.5 ug/L        51.36      9669.5 ppb        51.36   0.53%
   QC value within limits for Tl 190.801  Recovery = 96.69%
U 409.014†              1017.5     -14.129 ug/L       3.7989     -14.129 ppb       3.7989  26.89%
V 292.402†           1473449.5      9916.4 ug/L        11.40      9916.4 ppb        11.40   0.12%
   QC value within limits for V 292.402  Recovery = 99.16%
Zn 213.857†          1600646.3       13810 ug/L         31.1       13810 ppb         31.1   0.23%
   QC value within limits for Zn 213.857  Recovery = 92.07%
SiO2†                1587316.1      102250 ug/L       1162.0      102250 ppb       1162.0   1.14%
   QC value within limits for SiO2  Recovery = 95.56%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/4/2010 09:07:26
Data Type: Reprocessed on 1/4/2010 09:44:43

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	858985.2	858985.2	103.93	%			09:10:37
1	Sc Radial	4721.2	4721.2	104	%			09:09:18
1	Y 371.029	727222.2	727222.2	102.91	%			09:10:37
1	Y RADIAL	4935.0	4935.0	103.8	%			09:09:18
1	Ag 328.068†	111912.1	107281.8	487.64	ug/L	487.64	ppb	09:10:37
1	Al 396.153Radial†	5681.4	5476.7	4885.0	ug/L	4885.0	ppb	09:09:18
1	As 188.979†	1419.7	1401.2	523.75	ug/L	523.75	ppb	09:10:57
1	B 249.677†	23771.6	23794.6	505.83	ug/L	505.83	ppb	09:10:37
1	Ba 233.527†	66085.6	63587.9	490.02	ug/L	490.02	ppb	09:10:37
1	Be 313.107†	1425944.2	1376675.4	491.14	ug/L	491.14	ppb	09:10:37
1	Ca 317.933Radial†	3084.2	2946.1	4967.7	ug/L	4967.7	ppb	09:09:38
1	Cd 226.502†	51611.3	49923.5	492.39	ug/L	492.39	ppb	09:10:37
1	Co 228.616†	25728.8	24862.0	488.55	ug/L	488.55	ppb	09:10:57
1	Cr 267.716†	48083.4	46148.2	489.67	ug/L	489.67	ppb	09:10:37
1	Cu 324.752†	168704.1	154387.8	482.96	ug/L	482.96	ppb	09:10:37
1	Fe 238.204 Radial†	603.8	567.9	5105.5	ug/L	5105.5	ppb	09:09:38
1	K 766.490 Radial†	28520.7	24282.4	5135.5	ug/L	5135.5	ppb	09:09:18
1	Mg 279.077 IEC†	170.1	160.4	5236.3	ug/L	5236.3	ppb	09:09:38
1	Mn 257.610†	460032.4	442003.8	489.76	ug/L	489.76	ppb	09:10:37
1	Mo 202.031†	7819.7	7499.1	498.01	ug/L	498.01	ppb	09:10:57
1	Na 589.592 Radial†	32746.2	33003.8	10286	ug/L	10286	ppb	09:09:18
1	Ni 231.604†	22240.9	21288.7	491.08	ug/L	491.08	ppb	09:10:57
1	P 214.914†	5259.9	4795.2	2389.2	ug/L	2389.2	ppb	09:10:57
1	Pb 220.353†	4710.5	4628.6	504.14	ug/L	504.14	ppb	09:10:57
1	S 181.975 Axial†	918.3	819.5	983.55	ug/L	983.55	ppb	09:10:57
1	Sb 206.836†	1708.1	1597.6	502.89	ug/L	502.89	ppb	09:10:57
1	Se 196.026†	918.4	919.1	511.08	ug/L	511.08	ppb	09:10:57
1	Si 251.611†	84218.4	80179.9	2408.3	ug/L	2408.3	ppb	09:10:37
1	Sn 189.927†	3323.3	3190.1	498.42	ug/L	498.42	ppb	09:10:57
1	Sr 421.552†	70291.2	67500.3	499.02	ug/L	499.02	ppb	09:09:18
1	Ti 334.940†	304224.9	294541.6	492.95	ug/L	492.95	ppb	09:10:37
1	Tl 190.801†	1745.5	1736.8	504.47	ug/L	504.47	ppb	09:10:57
1	U 409.014†	12469.4	15136.0	464.58	ug/L	464.58	ppb	09:10:37
1	V 292.402†	74140.1	73147.1	493.13	ug/L	493.13	ppb	09:10:37
1	Zn 213.857†	59585.9	56521.1	486.52	ug/L	486.52	ppb	09:10:37
1	SiO2†	84271.5	80119.7	5167.7	ug/L	5167.7	ppb	09:11:57
2	Sc 361.383	867201.7	867201.7	104.92	%			09:11:04
2	Sc Radial	4654.9	4654.9	103	%			09:09:43
2	Y 371.029	733335.6	733335.6	103.77	%			09:11:04
2	Y RADIAL	4827.1	4827.1	101.5	%			09:09:43
2	Ag 328.068†	112827.2	107133.7	486.97	ug/L	486.97	ppb	09:11:04
2	Al 396.153Radial†	5576.6	5452.3	4863.4	ug/L	4863.4	ppb	09:09:43
2	As 188.979†	1422.8	1391.1	520.03	ug/L	520.03	ppb	09:11:24
2	B 249.677†	24014.8	23809.7	506.16	ug/L	506.16	ppb	09:11:04
2	Ba 233.527†	66651.9	63525.2	489.54	ug/L	489.54	ppb	09:11:04
2	Be 313.107†	1439131.6	1376244.4	490.99	ug/L	490.99	ppb	09:11:04
2	Ca 317.933Radial†	3054.4	2959.3	4989.9	ug/L	4989.9	ppb	09:10:03
2	Cd 226.502†	52019.4	49842.0	491.58	ug/L	491.58	ppb	09:11:04
2	Co 228.616†	25728.9	24627.6	483.93	ug/L	483.93	ppb	09:11:24
2	Cr 267.716†	48378.0	45990.6	488.00	ug/L	488.00	ppb	09:11:04
2	Cu 324.752†	170576.8	154634.7	483.74	ug/L	483.74	ppb	09:11:04
2	Fe 238.204 Radial†	595.2	567.7	5103.6	ug/L	5103.6	ppb	09:10:03
2	K 766.490 Radial†	28064.7	24228.2	5124.0	ug/L	5124.0	ppb	09:09:43
2	Mg 279.077 IEC†	163.8	156.6	5113.0	ug/L	5113.0	ppb	09:10:03
2	Mn 257.610†	464682.3	442241.6	490.02	ug/L	490.02	ppb	09:11:04
2	Mo 202.031†	7813.3	7421.7	492.88	ug/L	492.88	ppb	09:11:24
2	Na 589.592 Radial†	32241.9	32960.4	10273	ug/L	10273	ppb	09:09:43
2	Ni 231.604†	22262.3	21106.4	486.87	ug/L	486.87	ppb	09:11:24

2	P 214.914†	5243.4	4731.5	2356.4 ug/L	2356.4 ppb	09:11:24
2	Pb 220.353†	4692.8	4568.7	497.62 ug/L	497.62 ppb	09:11:24
2	S 181.975 Axial†	926.4	818.8	982.73 ug/L	982.73 ppb	09:11:24
2	Sb 206.836†	1711.1	1584.8	498.79 ug/L	498.79 ppb	09:11:24
2	Se 196.026†	928.1	920.0	511.53 ug/L	511.53 ppb	09:11:24
2	Si 251.611†	85052.3	80207.0	2409.2 ug/L	2409.2 ppb	09:11:04
2	Sn 189.927†	3328.6	3165.0	494.49 ug/L	494.49 ppb	09:11:24
2	Sr 421.552†	69009.6	67213.2	496.89 ug/L	496.89 ppb	09:09:43
2	Ti 334.940†	307330.6	294728.0	493.26 ug/L	493.26 ppb	09:11:04
2	Tl 190.801†	1753.9	1728.9	502.22 ug/L	502.22 ppb	09:11:24
2	U 409.014†	12591.7	15138.9	464.67 ug/L	464.67 ppb	09:11:04
2	V 292.402†	74713.5	73017.7	492.19 ug/L	492.19 ppb	09:11:04
2	Zn 213.857†	60157.0	56522.2	486.56 ug/L	486.56 ppb	09:11:04
2	SiO2†	84772.8	79829.2	5149.1 ug/L	5149.1 ppb	09:12:02
3	Sc 361.383	880995.2	880995.2	106.59 %		09:11:32
3	Sc Radial	4699.6	4699.6	104 %		09:10:08
3	Y 371.029	743422.0	743422.0	105.20 %		09:11:32
3	Y RADIAL	4919.3	4919.3	103.5 %		09:10:08
3	Ag 328.068†	114844.4	107342.6	487.90 ug/L	487.90 ppb	09:11:32
3	Al 396.153Radial†	5627.8	5450.1	4861.8 ug/L	4861.8 ppb	09:10:08
3	As 188.979†	1412.5	1360.3	508.60 ug/L	508.60 ppb	09:11:52
3	B 249.677†	24466.4	23874.9	507.58 ug/L	507.58 ppb	09:11:32
3	Ba 233.527†	67838.3	63643.6	490.45 ug/L	490.45 ppb	09:11:32
3	Be 313.107†	1463697.7	1377816.3	491.55 ug/L	491.55 ppb	09:11:32
3	Ca 317.933Radial†	3044.2	2921.2	4925.7 ug/L	4925.7 ppb	09:10:28
3	Cd 226.502†	52832.1	49828.2	491.44 ug/L	491.44 ppb	09:11:32
3	Co 228.616†	25744.6	24258.4	476.65 ug/L	476.65 ppb	09:11:52
3	Cr 267.716†	49273.0	46108.3	489.24 ug/L	489.24 ppb	09:11:32
3	Cu 324.752†	174102.7	155397.2	486.12 ug/L	486.12 ppb	09:11:32
3	Fe 238.204 Radial†	596.4	563.3	5064.3 ug/L	5064.3 ppb	09:10:28
3	K 766.490 Radial†	28450.7	24341.0	5147.8 ug/L	5147.8 ppb	09:10:08
3	Mg 279.077 IEC†	170.4	161.4	5269.5 ug/L	5269.5 ppb	09:10:28
3	Mn 257.610†	473184.4	443283.9	491.17 ug/L	491.17 ppb	09:11:32
3	Mo 202.031†	7812.7	7304.5	485.10 ug/L	485.10 ppb	09:11:52
3	Na 589.592 Radial†	32550.8	32960.3	10273 ug/L	10273 ppb	09:10:08
3	Ni 231.604†	22208.9	20724.1	478.06 ug/L	478.06 ppb	09:11:52
3	P 214.914†	5255.8	4664.8	2321.7 ug/L	2321.7 ppb	09:11:52
3	Pb 220.353†	4693.5	4499.4	490.07 ug/L	490.07 ppb	09:11:52
3	S 181.975 Axial†	907.4	787.1	944.71 ug/L	944.71 ppb	09:11:52
3	Sb 206.836†	1699.9	1548.8	487.26 ug/L	487.26 ppb	09:11:52
3	Se 196.026†	918.0	896.7	498.86 ug/L	498.86 ppb	09:11:52
3	Si 251.611†	86665.7	80451.4	2416.8 ug/L	2416.8 ppb	09:11:32
3	Sn 189.927†	3320.4	3107.6	485.53 ug/L	485.53 ppb	09:11:52
3	Sr 421.552†	69955.9	67487.9	498.93 ug/L	498.93 ppb	09:10:08
3	Ti 334.940†	312808.3	295280.9	494.18 ug/L	494.18 ppb	09:11:32
3	Tl 190.801†	1753.1	1702.0	494.49 ug/L	494.49 ppb	09:11:52
3	U 409.014†	12836.4	15180.5	465.95 ug/L	465.95 ppb	09:11:32
3	V 292.402†	75929.3	73043.5	492.26 ug/L	492.26 ppb	09:11:32
3	Zn 213.857†	61283.2	56681.1	487.99 ug/L	487.99 ppb	09:11:32
3	SiO2†	85276.5	79036.8	5098.1 ug/L	5098.1 ppb	09:12:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	869060.7	105.15	%	1.346				1.28%
Sc Radial	4691.9	104	%	0.7				0.72%
Y 371.029	734659.9	103.96	%	1.158				1.11%
Y RADIAL	4893.8	102.9	%	1.23				1.19%
Ag 328.068†	107252.7	487.50	ug/L	0.481	487.50	ppb	0.481	0.10%
QC value within limits for Ag 328.068 Recovery = 97.50%								
Al 396.153Radial†	5459.7	4870.1	ug/L	12.99	4870.1	ppb	12.99	0.27%
QC value within limits for Al 396.153Radial Recovery = 97.40%								
As 188.979†	1384.2	517.46	ug/L	7.892	517.46	ppb	7.892	1.53%
QC value within limits for As 188.979 Recovery = 103.49%								
B 249.677†	23826.4	506.53	ug/L	0.929	506.53	ppb	0.929	0.18%
QC value within limits for B 249.677 Recovery = 101.31%								
Ba 233.527†	63585.6	490.00	ug/L	0.455	490.00	ppb	0.455	0.09%
QC value within limits for Ba 233.527 Recovery = 98.00%								
Be 313.107†	1376912.0	491.23	ug/L	0.290	491.23	ppb	0.290	0.06%
QC value within limits for Be 313.107 Recovery = 98.25%								

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Ca 317.933Radial†        2942.2      4961.1 ug/L        32.63      4961.1 ppb        32.63   0.66%
   QC value within limits for Ca 317.933Radial  Recovery = 99.22%
Cd 226.502†             49864.6      491.81 ug/L        0.510      491.81 ppb        0.510   0.10%
   QC value within limits for Cd 226.502  Recovery = 98.36%
Co 228.616†             24582.7      483.04 ug/L        5.995      483.04 ppb        5.995   1.24%
   QC value within limits for Co 228.616  Recovery = 96.61%
Cr 267.716†             46082.4      488.97 ug/L        0.868      488.97 ppb        0.868   0.18%
   QC value within limits for Cr 267.716  Recovery = 97.79%
Cu 324.752†            154806.5      484.27 ug/L        1.644      484.27 ppb        1.644   0.34%
   QC value within limits for Cu 324.752  Recovery = 96.85%
Fe 238.204 Radial†        566.3      5091.2 ug/L        23.23      5091.2 ppb        23.23   0.46%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.82%
K 766.490 Radial†       24283.9      5135.8 ug/L        11.93      5135.8 ppb        11.93   0.23%
   QC value within limits for K 766.490 Radial  Recovery = 102.72%
Mg 279.077 IEC†           159.5      5206.2 ug/L        82.45      5206.2 ppb        82.45   1.58%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.12%
Mn 257.610†            442509.8      490.32 ug/L        0.751      490.32 ppb        0.751   0.15%
   QC value within limits for Mn 257.610  Recovery = 98.06%
Mo 202.031†              7408.4      492.00 ug/L        6.501      492.00 ppb        6.501   1.32%
   QC value within limits for Mo 202.031  Recovery = 98.40%
Na 589.592 Radial†      32974.8       10277 ug/L          7.8       10277 ppb          7.8   0.08%
   QC value within limits for Na 589.592 Radial  Recovery = 102.77%
Ni 231.604†             21039.7      485.34 ug/L        6.647      485.34 ppb        6.647   1.37%
   QC value within limits for Ni 231.604  Recovery = 97.07%
P 214.914†               4730.5      2355.8 ug/L        33.79      2355.8 ppb        33.79   1.43%
   QC value within limits for P 214.914  Recovery = 94.23%
Pb 220.353†              4565.6      497.28 ug/L        7.038      497.28 ppb        7.038   1.42%
   QC value within limits for Pb 220.353  Recovery = 99.46%
S 181.975 Axial†          808.5      970.33 ug/L       22.192      970.33 ppb       22.192   2.29%
   QC value within limits for S 181.975 Axial  Recovery = 97.03%
Sb 206.836†              1577.1      496.32 ug/L        8.105      496.32 ppb        8.105   1.63%
   QC value within limits for Sb 206.836  Recovery = 99.26%
Se 196.026†               912.0      507.15 ug/L        7.189      507.15 ppb        7.189   1.42%
   QC value within limits for Se 196.026  Recovery = 101.43%
Si 251.611†             80279.4      2411.4 ug/L         4.64      2411.4 ppb         4.64   0.19%
   QC value within limits for Si 251.611  Recovery = 96.46%
Sn 189.927†              3154.2      492.81 ug/L        6.604      492.81 ppb        6.604   1.34%
   QC value within limits for Sn 189.927  Recovery = 98.56%
Sr 421.552†             67400.5      498.28 ug/L        1.200      498.28 ppb        1.200   0.24%
   QC value within limits for Sr 421.552  Recovery = 99.66%
Ti 334.940†            294850.2      493.47 ug/L        0.642      493.47 ppb        0.642   0.13%
   QC value within limits for Ti 334.940  Recovery = 98.69%
Tl 190.801†              1722.6      500.40 ug/L        5.232      500.40 ppb        5.232   1.05%
   QC value within limits for Tl 190.801  Recovery = 100.08%
U 409.014†              15151.8      465.07 ug/L        0.769      465.07 ppb        0.769   0.17%
   QC value within limits for U 409.014  Recovery = 93.01%
V 292.402†              73069.4      492.53 ug/L        0.521      492.53 ppb        0.521   0.11%
   QC value within limits for V 292.402  Recovery = 98.51%
Zn 213.857†             56574.8      487.02 ug/L        0.837      487.02 ppb        0.837   0.17%
   QC value within limits for Zn 213.857  Recovery = 97.40%
SiO2†                   79661.9      5138.3 ug/L        36.05      5138.3 ppb        36.05   0.70%
   QC value within limits for SiO2  Recovery = 96.09%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/4/2010 09:14:17
Data Type: Reprocessed on 1/4/2010 09:44:44

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	849973.9	849973.9	102.84	%			09:17:27
1	Sc Radial	4636.2	4636.2	102	%			09:16:10
1	Y 371.029	727653.9	727653.9	102.97	%			09:17:27
1	Y RADIAL	4856.4	4856.4	102.1	%			09:16:10
1	Ag 328.068†	609.9	194.2	0.8792	ug/L	0.8792	ppb	09:17:27
1	Al 396.153Radial†	14.7	36.2	32.432	ug/L	32.432	ppb	09:16:10
1	As 188.979†	6.6	41.5	15.384	ug/L	15.384	ppb	09:17:47
1	B 249.677†	2.1	923.8	19.712	ug/L	19.712	ppb	09:17:27
1	Ba 233.527†	3.6	4.6	0.0360	ug/L	0.0360	ppb	09:17:47
1	Be 313.107†	-4561.1	211.9	0.0758	ug/L	0.0758	ppb	09:17:27
1	Ca 317.933Radial†	12.8	-2.6	-4.4427	ug/L	-4.4427	ppb	09:16:30
1	Cd 226.502†	-217.5	52.2	0.5147	ug/L	0.5147	ppb	09:17:47
1	Co 228.616†	-92.7	15.9	0.3131	ug/L	0.3131	ppb	09:17:47
1	Cr 267.716†	50.9	-67.7	-0.7162	ug/L	-0.7162	ppb	09:17:27
1	Cu 324.752†	8151.9	-10.6	-0.0329	ug/L	-0.0329	ppb	09:17:27
1	Fe 238.204 Radial†	12.5	0.4	3.1960	ug/L	3.1960	ppb	09:16:30
1	K 766.490 Radial†	3683.6	500.6	106.05	ug/L	106.05	ppb	09:16:10
1	Mg 279.077 IEC†	2.7	-0.3	-9.1538	ug/L	-9.1538	ppb	09:16:30
1	Mn 257.610†	538.3	-111.0	-0.1224	ug/L	-0.1224	ppb	09:17:27
1	Mo 202.031†	31.8	5.9	0.3944	ug/L	0.3944	ppb	09:17:47
1	Na 589.592 Radial†	-1559.5	38.7	12.077	ug/L	12.077	ppb	09:16:10
1	Ni 231.604†	106.6	-7.6	-0.1756	ug/L	-0.1756	ppb	09:17:47
1	P 214.914†	268.8	-4.5	-2.2656	ug/L	-2.2656	ppb	09:17:47
1	Pb 220.353†	-72.8	25.4	2.7664	ug/L	2.7664	ppb	09:17:47
1	S 181.975 Axial†	62.7	-3.1	-3.7791	ug/L	-3.7791	ppb	09:17:47
1	Sb 206.836†	58.1	10.6	3.3461	ug/L	3.3461	ppb	09:17:47
1	Se 196.026†	-39.7	-3.2	-1.6931	ug/L	-1.6931	ppb	09:17:47
1	Si 251.611†	1008.5	126.6	3.7693	ug/L	3.7693	ppb	09:17:47
1	Sn 189.927†	26.0	17.8	2.7729	ug/L	2.7729	ppb	09:17:47
1	Sr 421.552†	29.6	41.1	0.3040	ug/L	0.3040	ppb	09:16:10
1	Ti 334.940†	-1761.5	106.7	0.1785	ug/L	0.1785	ppb	09:17:27
1	Tl 190.801†	-43.7	14.8	4.2739	ug/L	4.2739	ppb	09:17:47
1	U 409.014†	-3218.5	8.4	0.2600	ug/L	0.2600	ppb	09:17:27
1	V 292.402†	-1815.2	45.2	0.3063	ug/L	0.3063	ppb	09:17:27
1	Zn 213.857†	940.5	102.7	0.8933	ug/L	0.8933	ppb	09:17:47
1	SiO2†	1041.7	47.5	2.9684	ug/L	2.9684	ppb	09:18:44
2	Sc 361.383	862223.9	862223.9	104.32	%			09:17:53
2	Sc Radial	4629.7	4629.7	102	%			09:16:35
2	Y 371.029	737680.3	737680.3	104.39	%			09:17:53
2	Y RADIAL	4857.6	4857.6	102.2	%			09:16:35
2	Ag 328.068†	420.9	4.6	0.0260	ug/L	0.0260	ppb	09:17:53
2	Al 396.153Radial†	-8.9	13.1	11.688	ug/L	11.688	ppb	09:16:35
2	As 188.979†	11.6	46.2	17.116	ug/L	17.116	ppb	09:18:13
2	B 249.677†	82.0	1000.3	21.345	ug/L	21.345	ppb	09:17:53
2	Ba 233.527†	5.3	6.1	0.0492	ug/L	0.0492	ppb	09:18:13
2	Be 313.107†	-4473.5	358.8	0.1283	ug/L	0.1283	ppb	09:17:53
2	Ca 317.933Radial†	16.6	1.1	1.8800	ug/L	1.8800	ppb	09:16:55
2	Cd 226.502†	-218.2	54.5	0.5378	ug/L	0.5378	ppb	09:18:13
2	Co 228.616†	-90.6	19.2	0.3793	ug/L	0.3793	ppb	09:18:13
2	Cr 267.716†	114.4	-7.5	-0.0777	ug/L	-0.0777	ppb	09:17:53
2	Cu 324.752†	8186.6	-90.0	-0.2812	ug/L	-0.2812	ppb	09:17:53
2	Fe 238.204 Radial†	12.5	0.4	3.5725	ug/L	3.5725	ppb	09:16:55
2	K 766.490 Radial†	3421.4	248.9	52.729	ug/L	52.729	ppb	09:16:35
2	Mg 279.077 IEC†	6.0	3.0	96.341	ug/L	96.341	ppb	09:16:55
2	Mn 257.610†	623.8	-36.6	-0.0419	ug/L	-0.0419	ppb	09:17:53
2	Mo 202.031†	43.6	16.8	1.1149	ug/L	1.1149	ppb	09:18:13
2	Na 589.592 Radial†	-1581.6	15.0	4.6728	ug/L	4.6728	ppb	09:16:35
2	Ni 231.604†	131.5	14.8	0.3421	ug/L	0.3421	ppb	09:18:13

2	P 214.914†	254.5	-21.9	-11.154	ug/L	-11.154 ppb	09:18:13
2	Pb 220.353†	-97.5	2.7	0.3003	ug/L	0.3003 ppb	09:18:13
2	S 181.975 Axial†	52.6	-13.7	-16.507	ug/L	-16.507 ppb	09:18:13
2	Sb 206.836†	67.4	18.7	5.8550	ug/L	5.8550 ppb	09:18:13
2	Se 196.026†	-33.5	3.3	1.8029	ug/L	1.8029 ppb	09:18:13
2	Si 251.611†	954.3	60.7	1.7896	ug/L	1.7896 ppb	09:18:13
2	Sn 189.927†	21.1	12.7	1.9867	ug/L	1.9867 ppb	09:18:13
2	Sr 421.552†	-27.3	-14.5	-0.1073	ug/L	-0.1073 ppb	09:16:35
2	Ti 334.940†	-1728.5	162.6	0.2727	ug/L	0.2727 ppb	09:17:53
2	Tl 190.801†	-54.1	5.4	1.5650	ug/L	1.5650 ppb	09:18:13
2	U 409.014†	-3300.6	-25.8	-0.7941	ug/L	-0.7941 ppb	09:17:53
2	V 292.402†	-1758.1	125.0	0.8474	ug/L	0.8474 ppb	09:17:53
2	Zn 213.857†	918.3	68.5	0.5889	ug/L	0.5889 ppb	09:18:13
2	SiO2†	1004.3	-2.7	-0.2676	ug/L	-0.2676 ppb	09:18:49
3	Sc 361.383	858857.0	858857.0	103.91	%		09:18:18
3	Sc Radial	4677.0	4677.0	103	%		09:17:00
3	Y 371.029	734769.8	734769.8	103.98	%		09:18:18
3	Y RADIAL	4872.7	4872.7	102.5	%		09:17:00
3	Ag 328.068†	448.0	32.3	0.1507	ug/L	0.1507 ppb	09:18:18
3	Al 396.153Radial†	-25.5	-2.9	-2.6078	ug/L	-2.6078 ppb	09:17:00
3	As 188.979†	12.4	47.0	17.431	ug/L	17.431 ppb	09:18:38
3	B 249.677†	125.8	1042.9	22.250	ug/L	22.250 ppb	09:18:18
3	Ba 233.527†	13.9	14.4	0.1124	ug/L	0.1124 ppb	09:18:38
3	Be 313.107†	-4480.2	335.6	0.1195	ug/L	0.1195 ppb	09:18:18
3	Ca 317.933Radial†	12.8	-2.7	-4.5817	ug/L	-4.5817 ppb	09:17:20
3	Cd 226.502†	-212.9	58.8	0.5786	ug/L	0.5786 ppb	09:18:38
3	Co 228.616†	-94.6	15.0	0.2961	ug/L	0.2961 ppb	09:18:38
3	Cr 267.716†	134.7	12.5	0.1323	ug/L	0.1323 ppb	09:18:18
3	Cu 324.752†	8195.9	-50.3	-0.1562	ug/L	-0.1562 ppb	09:18:18
3	Fe 238.204 Radial†	14.3	2.0	17.999	ug/L	17.999 ppb	09:17:20
3	K 766.490 Radial†	3525.2	315.7	66.876	ug/L	66.876 ppb	09:17:00
3	Mg 279.077 IEC†	3.6	0.6	20.529	ug/L	20.529 ppb	09:17:20
3	Mn 257.610†	521.9	-132.3	-0.1450	ug/L	-0.1450 ppb	09:18:18
3	Mo 202.031†	40.2	13.7	0.9130	ug/L	0.9130 ppb	09:18:38
3	Na 589.592 Radial†	-1546.6	64.5	20.112	ug/L	20.112 ppb	09:17:00
3	Ni 231.604†	123.6	7.7	0.1780	ug/L	0.1780 ppb	09:18:38
3	P 214.914†	274.8	-1.4	-0.7035	ug/L	-0.7035 ppb	09:18:38
3	Pb 220.353†	-74.8	24.2	2.6334	ug/L	2.6334 ppb	09:18:38
3	S 181.975 Axial†	64.4	-2.1	-2.5553	ug/L	-2.5553 ppb	09:18:38
3	Sb 206.836†	78.8	29.8	9.3035	ug/L	9.3035 ppb	09:18:38
3	Se 196.026†	-30.5	6.1	3.3536	ug/L	3.3536 ppb	09:18:38
3	Si 251.611†	966.1	75.7	2.2413	ug/L	2.2413 ppb	09:18:38
3	Sn 189.927†	18.6	10.4	1.6297	ug/L	1.6297 ppb	09:18:38
3	Sr 421.552†	38.5	49.6	0.3664	ug/L	0.3664 ppb	09:17:00
3	Ti 334.940†	-1880.2	10.2	0.0151	ug/L	0.0151 ppb	09:18:18
3	Tl 190.801†	-37.5	21.2	6.1261	ug/L	6.1261 ppb	09:18:38
3	U 409.014†	-3127.4	128.5	3.9539	ug/L	3.9539 ppb	09:18:18
3	V 292.402†	-1795.8	82.2	0.5649	ug/L	0.5649 ppb	09:18:18
3	Zn 213.857†	915.7	69.4	0.5999	ug/L	0.5999 ppb	09:18:38
3	SiO2†	950.6	-50.6	-3.3763	ug/L	-3.3763 ppb	09:18:54

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	857018.3	103.69	%	0.766				0.74%
Sc Radial	4647.6	103	%	0.6				0.55%
Y 371.029	733368.0	103.78	%	0.730				0.70%
Y RADIAL	4862.2	102.3	%	0.19				0.19%
Ag 328.068†	77.0	0.3519	ug/L	0.46083	0.3519	ppb	0.46083	130.94%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	15.5	13.837	ug/L	17.6183	13.837	ppb	17.6183	127.32%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	44.9	16.643	ug/L	1.1023	16.643	ppb	1.1023	6.62%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	989.0	21.102	ug/L	1.2863	21.102	ppb	1.2863	6.10%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.4	0.0658	ug/L	0.04087	0.0658	ppb	0.04087	62.07%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	302.1	0.1079	ug/L	0.02813	0.1079	ppb	0.02813	26.08%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          -1.4     -2.3815 ug/L       3.69121     -2.3815 ppb        3.69121 155.00%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                55.2      0.5437 ug/L       0.03236      0.5437 ppb        0.03236   5.95%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                16.7      0.3295 ug/L       0.04395      0.3295 ppb        0.04395  13.34%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -20.9     -0.2205 ug/L       0.44189     -0.2205 ppb        0.44189 200.38%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -50.3     -0.1568 ug/L       0.12416     -0.1568 ppb        0.12416  79.20%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.9      8.2559 ug/L       8.44013      8.2559 ppb        8.44013 102.23%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         355.1     75.220 ug/L       27.6248     75.220 ppb        27.6248  36.73%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.1     35.906 ug/L       54.4025     35.906 ppb        54.4025 151.52%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -93.3     -0.1031 ug/L       0.05420     -0.1031 ppb        0.05420  52.57%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                12.2      0.8074 ug/L       0.37164      0.8074 ppb        0.37164  46.03%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         39.4     12.287 ug/L        7.7217     12.287 ppb         7.7217  62.84%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 5.0      0.1148 ug/L       0.26455      0.1148 ppb        0.26455 230.35%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -9.3     -4.7077 ug/L       5.63705     -4.7077 ppb        5.63705 119.74%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                17.5      1.9000 ug/L       1.38704      1.9000 ppb        1.38704  73.00%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -6.3     -7.6138 ug/L       7.72607     -7.6138 ppb        7.72607 101.47%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                19.7      6.1682 ug/L       2.99103      6.1682 ppb        2.99103  48.49%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.1      1.1545 ug/L       2.58507      1.1545 ppb        2.58507 223.92%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                87.6      2.6001 ug/L       1.03745      2.6001 ppb        1.03745  39.90%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                13.6      2.1297 ug/L       0.58490      2.1297 ppb        0.58490  27.46%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                25.4      0.1877 ug/L       0.25739      0.1877 ppb        0.25739 137.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                93.2      0.1554 ug/L       0.13035      0.1554 ppb        0.13035  83.86%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                13.8      3.9883 ug/L       2.29393      3.9883 ppb        2.29393  57.52%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 37.0      1.1399 ug/L       2.49330      1.1399 ppb        2.49330 218.73%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 84.1      0.5729 ug/L       0.27060      0.5729 ppb        0.27060  47.24%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                80.2      0.6940 ug/L       0.17265      0.6940 ppb        0.17265  24.88%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      -1.9     -0.2252 ug/L       3.17253     -0.2252 ppb        3.17253 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 15
Sample ID: LR1
Analyst: HSC
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 1/4/2010 09:21:38
Data Type: Reprocessed on 1/4/2010 09:44:45

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	855209.5	855209.5	103.47	%			09:24:48
1	Sc Radial	4646.5	4646.5	103	%			09:23:31
1	Y 371.029	728942.0	728942.0	103.15	%			09:24:48
1	Y RADIAL	4857.0	4857.0	102.2	%			09:23:31
1	Ag 328.068†	-27319.9	-26801.8	7.7995	ug/L	7.7995	ppb	09:24:48
1	Al 396.153Radial†	-33.1	-10.5	-8.1877	ug/L	-8.1877	ppb	09:23:31
1	As 188.979†	-246.2	-202.9	-15.727	ug/L	-15.727	ppb	09:25:08
1	B 249.677†	1850.2	2709.9	6.7300	ug/L	6.7300	ppb	09:24:48
1	Ba 233.527†	-2014.6	-1946.0	-5.1303	ug/L	-5.1303	ppb	09:25:08
1	Be 313.107†	-4497.2	300.8	0.1073	ug/L	0.1073	ppb	09:24:48
1	Ca 317.933Radial†	5.7	-9.5	-16.066	ug/L	-16.066	ppb	09:23:51
1	Cd 226.502†	3289.2	3442.4	-4.5305	ug/L	-4.5305	ppb	09:25:08
1	Co 228.616†	180.2	280.2	-0.0648	ug/L	-0.0648	ppb	09:25:08
1	Cr 267.716†	-615.2	-711.7	-0.5847	ug/L	-0.5847	ppb	09:25:08
1	Cu 324.752†	-161.8	-8093.8	-5.6633	ug/L	-5.6633	ppb	09:24:48
1	Fe 238.204 Radial†	44048.4	42960.0	385060	ug/L	385060	ppb	09:23:31
1	K 766.490 Radial†	3056.1	-119.6	-12.704	ug/L	-12.704	ppb	09:23:31
1	Mg 279.077 IEC†	13.1	9.9	-6.3433	ug/L	-6.3433	ppb	09:23:51
1	Mn 257.610†	-37462.3	-36839.5	-2.3917	ug/L	-2.3917	ppb	09:24:48
1	Mo 202.031†	-416.7	-427.7	8.5352	ug/L	8.5352	ppb	09:25:08
1	Na 589.592 Radial†	-1547.0	54.3	16.915	ug/L	16.915	ppb	09:23:31
1	Ni 231.604†	159.3	42.7	0.9821	ug/L	0.9821	ppb	09:25:08
1	P 214.914†	777.6	485.6	-57.183	ug/L	-57.183	ppb	09:25:08
1	Pb 220.353†	162.8	253.6	-4.1267	ug/L	-4.1267	ppb	09:25:08
1	S 181.975 Axial†	79.4	12.6	15.181	ug/L	15.181	ppb	09:25:08
1	Sb 206.836†	32.0	-15.0	1.2118	ug/L	1.2118	ppb	09:25:08
1	Se 196.026†	-2161.6	-2053.6	18.761	ug/L	18.761	ppb	09:25:08
1	Si 251.611†	-429.2	-1268.8	-37.776	ug/L	-37.776	ppb	09:25:08
1	Sn 189.927†	-36.5	-42.7	-1.5262	ug/L	-1.5262	ppb	09:25:08
1	Sr 421.552†	81.7	91.9	0.6794	ug/L	0.6794	ppb	09:23:31
1	Ti 334.940†	-1829.6	51.3	0.0506	ug/L	0.0506	ppb	09:25:08
1	Tl 190.801†	-56.8	2.4	0.3091	ug/L	0.3091	ppb	09:25:08
1	U 409.014†	-424.3	2728.0	35.586	ug/L	35.586	ppb	09:24:48
1	V 292.402†	6599.2	8188.0	-4.3455	ug/L	-4.3455	ppb	09:25:08
1	Zn 213.857†	4860.1	3885.2	13.790	ug/L	13.790	ppb	09:25:08
1	SiO2†	-520.2	-1468.2	-94.038	ug/L	-94.038	ppb	09:26:05
2	Sc 361.383	858841.5	858841.5	103.91	%			09:25:14
2	Sc Radial	4630.7	4630.7	102	%			09:23:56
2	Y 371.029	731056.8	731056.8	103.45	%			09:25:14
2	Y RADIAL	4829.8	4829.8	101.6	%			09:23:56
2	Ag 328.068†	-27564.2	-26925.3	7.5874	ug/L	7.5874	ppb	09:25:14
2	Al 396.153Radial†	-52.6	-29.6	-25.345	ug/L	-25.345	ppb	09:23:56
2	As 188.979†	-235.7	-191.7	-11.442	ug/L	-11.442	ppb	09:25:34
2	B 249.677†	1760.9	2616.4	4.5978	ug/L	4.5978	ppb	09:25:14
2	Ba 233.527†	-2090.5	-2010.7	-5.6044	ug/L	-5.6044	ppb	09:25:34
2	Be 313.107†	-4460.7	354.3	0.1263	ug/L	0.1263	ppb	09:25:14
2	Ca 317.933Radial†	5.6	-9.7	-16.322	ug/L	-16.322	ppb	09:24:16
2	Cd 226.502†	3227.4	3369.5	-5.3520	ug/L	-5.3520	ppb	09:25:34
2	Co 228.616†	206.3	304.6	0.4004	ug/L	0.4004	ppb	09:25:34
2	Cr 267.716†	-588.7	-683.7	-0.2689	ug/L	-0.2689	ppb	09:25:34
2	Cu 324.752†	-386.5	-8309.4	-6.2850	ug/L	-6.2850	ppb	09:25:14
2	Fe 238.204 Radial†	44016.0	43074.5	386090	ug/L	386090	ppb	09:23:56
2	K 766.490 Radial†	3146.5	-20.8	8.2479	ug/L	8.2479	ppb	09:23:56
2	Mg 279.077 IEC†	9.6	6.5	-119.93	ug/L	-119.93	ppb	09:24:16
2	Mn 257.610†	-37760.8	-36973.6	-2.4357	ug/L	-2.4357	ppb	09:25:14
2	Mo 202.031†	-412.6	-422.0	9.0085	ug/L	9.0085	ppb	09:25:34
2	Na 589.592 Radial†	-1585.0	12.0	3.7419	ug/L	3.7419	ppb	09:23:56
2	Ni 231.604†	193.2	74.7	1.7205	ug/L	1.7205	ppb	09:25:34

2	P 214.914†	792.2	496.5	-52.291	ug/L	-52.291 ppb	09:25:34
2	Pb 220.353†	180.2	269.6	-2.4684	ug/L	-2.4684 ppb	09:25:34
2	S 181.975 Axial†	85.2	17.9	21.519	ug/L	21.519 ppb	09:25:34
2	Sb 206.836†	36.7	-10.6	2.6088	ug/L	2.6088 ppb	09:25:34
2	Se 196.026†	-2177.1	-2059.7	18.476	ug/L	18.476 ppb	09:25:34
2	Si 251.611†	-430.2	-1268.0	-37.769	ug/L	-37.769 ppb	09:25:34
2	Sn 189.927†	-28.2	-34.6	-0.2447	ug/L	-0.2447 ppb	09:25:34
2	Sr 421.552†	48.2	59.4	0.4394	ug/L	0.4394 ppb	09:23:56
2	Ti 334.940†	-1834.2	54.4	0.0589	ug/L	0.0589 ppb	09:25:34
2	Tl 190.801†	-53.6	5.7	1.2630	ug/L	1.2630 ppb	09:25:34
2	U 409.014†	-672.0	2491.4	28.171	ug/L	28.171 ppb	09:25:14
2	V 292.402†	6467.5	8034.4	-5.5350	ug/L	-5.5350 ppb	09:25:34
2	Zn 213.857†	4845.0	3850.8	13.438	ug/L	13.438 ppb	09:25:34
2	SiO2†	-502.8	-1449.2	-92.848	ug/L	-92.848 ppb	09:26:10
3	Sc 361.383	849594.4	849594.4	102.79	%		09:25:40
3	Sc Radial	4763.0	4763.0	105	%		09:24:21
3	Y 371.029	723771.8	723771.8	102.42	%		09:25:40
3	Y RADIAL	4982.8	4982.8	104.8	%		09:24:21
3	Ag 328.068†	-27241.4	-26899.9	7.3272	ug/L	7.3272 ppb	09:25:40
3	Al 396.153Radial†	-44.2	-20.2	-16.919	ug/L	-16.919 ppb	09:24:21
3	As 188.979†	-238.7	-197.1	-13.620	ug/L	-13.620 ppb	09:26:00
3	B 249.677†	1633.0	2510.4	2.4897	ug/L	2.4897 ppb	09:25:40
3	Ba 233.527†	-2101.8	-2043.7	-5.8842	ug/L	-5.8842 ppb	09:26:00
3	Be 313.107†	-4376.2	389.8	0.1389	ug/L	0.1389 ppb	09:25:40
3	Ca 317.933Radial†	4.5	-10.8	-18.272	ug/L	-18.272 ppb	09:24:41
3	Cd 226.502†	3281.2	3455.7	-4.3866	ug/L	-4.3866 ppb	09:26:00
3	Co 228.616†	189.4	290.3	0.1370	ug/L	0.1370 ppb	09:26:00
3	Cr 267.716†	-590.2	-691.3	-0.3665	ug/L	-0.3665 ppb	09:26:00
3	Cu 324.752†	-345.7	-8273.8	-6.2321	ug/L	-6.2321 ppb	09:25:40
3	Fe 238.204 Radial†	45138.3	42946.5	384940	ug/L	384940 ppb	09:24:21
3	K 766.490 Radial†	3013.7	-232.7	-36.688	ug/L	-36.688 ppb	09:24:21
3	Mg 279.077 IEC†	17.7	13.9	124.71	ug/L	124.71 ppb	09:24:41
3	Mn 257.610†	-37466.9	-37083.2	-2.6760	ug/L	-2.6760 ppb	09:25:40
3	Mo 202.031†	-406.6	-420.6	8.9963	ug/L	8.9963 ppb	09:26:00
3	Na 589.592 Radial†	-1565.7	73.4	22.884	ug/L	22.884 ppb	09:24:21
3	Ni 231.604†	203.0	86.3	1.9875	ug/L	1.9875 ppb	09:26:00
3	P 214.914†	780.3	493.2	-53.075	ug/L	-53.075 ppb	09:26:00
3	Pb 220.353†	192.8	283.7	-0.8385	ug/L	-0.8385 ppb	09:26:00
3	S 181.975 Axial†	88.4	21.9	26.326	ug/L	26.326 ppb	09:26:00
3	Sb 206.836†	37.5	-9.5	2.9532	ug/L	2.9532 ppb	09:26:00
3	Se 196.026†	-2187.9	-2093.0	-2.7515	ug/L	-2.7515 ppb	09:26:00
3	Si 251.611†	-470.4	-1311.7	-39.074	ug/L	-39.074 ppb	09:26:00
3	Sn 189.927†	-27.0	-33.8	-0.1308	ug/L	-0.1308 ppb	09:26:00
3	Sr 421.552†	12.9	24.5	0.1812	ug/L	0.1812 ppb	09:24:21
3	Ti 334.940†	-1838.8	30.7	0.0215	ug/L	0.0215 ppb	09:26:00
3	Tl 190.801†	-66.2	-7.1	-2.4415	ug/L	-2.4415 ppb	09:26:00
3	U 409.014†	-843.5	2317.5	22.958	ug/L	22.958 ppb	09:25:40
3	V 292.402†	6570.2	8202.0	-4.2489	ug/L	-4.2489 ppb	09:26:00
3	Zn 213.857†	4846.1	3902.6	13.936	ug/L	13.936 ppb	09:26:00
3	SiO2†	-547.7	-1498.2	-95.994	ug/L	-95.994 ppb	09:26:15

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	854548.5	103.39	%	0.564				0.55%
Sc Radial	4680.1	103	%	1.6				1.54%
Y 371.029	727923.5	103.01	%	0.530				0.51%
Y RADIAL	4889.9	102.9	%	1.72				1.67%
Ag 328.068†	-26875.7	7.5714	ug/L	0.23656	7.5714	ppb	0.23656	3.12%
Al 396.153Radial†	-20.1	-16.817	ug/L	8.5791	-16.817	ppb	8.5791	51.01%
As 188.979†	-197.3	-13.596	ug/L	2.1427	-13.596	ppb	2.1427	15.76%
B 249.677†	2612.2	4.6058	ug/L	2.12014	4.6058	ppb	2.12014	46.03%
Ba 233.527†	-2000.1	-5.5396	ug/L	0.38107	-5.5396	ppb	0.38107	6.88%
Be 313.107†	348.3	0.1242	ug/L	0.01592	0.1242	ppb	0.01592	12.82%
Ca 317.933Radial†	-10.0	-16.887	ug/L	1.2063	-16.887	ppb	1.2063	7.14%
Cd 226.502†	3422.6	-4.7564	ug/L	0.52078	-4.7564	ppb	0.52078	10.95%
Co 228.616†	291.7	0.1575	ug/L	0.23324	0.1575	ppb	0.23324	148.06%
Cr 267.716†	-695.6	-0.4067	ug/L	0.16170	-0.4067	ppb	0.16170	39.76%
Cu 324.752†	-8225.7	-6.0601	ug/L	0.34464	-6.0601	ppb	0.34464	5.69%
Fe 238.204 Radial†	42993.7	385360	ug/L	630.7	385360	ppb	630.7	0.16%

K 766.490 Radial†	-124.4	-13.715	ug/L	22.4850	-13.715	ppb	22.4850	163.95%
Mg 279.077 IEC†	10.1	-0.5227	ug/L	122.42560	-0.5227	ppb	122.42560	>999.9%
Mn 257.610†	-36965.4	-2.5011	ug/L	0.15302	-2.5011	ppb	0.15302	6.12%
Mo 202.031†	-423.4	8.8467	ug/L	0.26981	8.8467	ppb	0.26981	3.05%
Na 589.592 Radial†	46.6	14.514	ug/L	9.7943	14.514	ppb	9.7943	67.48%
Ni 231.604†	67.9	1.5634	ug/L	0.52078	1.5634	ppb	0.52078	33.31%
P 214.914†	491.8	-54.183	ug/L	2.6275	-54.183	ppb	2.6275	4.85%
Pb 220.353†	269.0	-2.4779	ug/L	1.64412	-2.4779	ppb	1.64412	66.35%
S 181.975 Axial†	17.5	21.009	ug/L	5.5899	21.009	ppb	5.5899	26.61%
Sb 206.836†	-11.7	2.2579	ug/L	0.92216	2.2579	ppb	0.92216	40.84%
Se 196.026†	-2068.8	11.495	ug/L	12.3391	11.495	ppb	12.3391	107.34%
Si 251.611†	-1282.9	-38.206	ug/L	0.7516	-38.206	ppb	0.7516	1.97%
Sn 189.927†	-37.1	-0.6339	ug/L	0.77482	-0.6339	ppb	0.77482	122.23%
Sr 421.552†	58.6	0.4333	ug/L	0.24913	0.4333	ppb	0.24913	57.49%
Ti 334.940†	45.5	0.0437	ug/L	0.01965	0.0437	ppb	0.01965	44.98%
Tl 190.801†	0.3	-0.2898	ug/L	1.92349	-0.2898	ppb	1.92349	663.68%
U 409.014†	2512.3	28.905	ug/L	6.3460	28.905	ppb	6.3460	21.95%
V 292.402†	8141.5	-4.7098	ug/L	0.71625	-4.7098	ppb	0.71625	15.21%
Zn 213.857†	3879.5	13.721	ug/L	0.2564	13.721	ppb	0.2564	1.87%
SiO2†	-1471.9	-94.293	ug/L	1.5884	-94.293	ppb	1.5884	1.68%

Sequence No.: 16
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/4/2010 09:28:27
Data Type: Reprocessed on 1/4/2010 09:44:46

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	875472.0	875472.0	105.92	%			09:31:38
1	Sc Radial	4733.3	4733.3	104	%			09:30:19
1	Y 371.029	739942.2	739942.2	104.71	%			09:31:38
1	Y RADIAL	4925.0	4925.0	103.6	%			09:30:19
1	Ag 328.068†	114222.3	107435.0	488.33	ug/L	488.33	ppb	09:31:38
1	Al 396.153Radial†	5665.6	5447.6	4859.4	ug/L	4859.4	ppb	09:30:19
1	As 188.979†	1376.3	1334.5	499.04	ug/L	499.04	ppb	09:31:58
1	B 249.677†	23353.9	22969.4	488.25	ug/L	488.25	ppb	09:31:38
1	Ba 233.527†	67423.5	63653.5	490.52	ug/L	490.52	ppb	09:31:38
1	Be 313.107†	1456269.0	1379466.2	492.14	ug/L	492.14	ppb	09:31:38
1	Ca 317.933Radial†	3079.4	2933.9	4947.2	ug/L	4947.2	ppb	09:30:39
1	Cd 226.502†	52677.8	49995.2	493.09	ug/L	493.09	ppb	09:31:38
1	Co 228.616†	25784.4	24448.3	480.39	ug/L	480.39	ppb	09:31:58
1	Cr 267.716†	49069.7	46208.0	490.30	ug/L	490.30	ppb	09:31:38
1	Cu 324.752†	172562.8	154973.8	484.80	ug/L	484.80	ppb	09:31:38
1	Fe 238.204 Radial†	604.0	566.5	5093.0	ug/L	5093.0	ppb	09:30:39
1	K 766.490 Radial†	27513.6	23248.0	4916.3	ug/L	4916.3	ppb	09:30:19
1	Mg 279.077 IEC†	165.5	155.6	5078.7	ug/L	5078.7	ppb	09:30:39
1	Mn 257.610†	470097.5	443170.3	491.05	ug/L	491.05	ppb	09:31:38
1	Mo 202.031†	7821.6	7359.1	488.73	ug/L	488.73	ppb	09:31:58
1	Na 589.592 Radial†	32862.7	33035.0	10296	ug/L	10296	ppb	09:30:19
1	Ni 231.604†	22335.9	20975.4	483.85	ug/L	483.85	ppb	09:31:58
1	P 214.914†	5294.3	4732.3	2356.6	ug/L	2356.6	ppb	09:31:58
1	Pb 220.353†	4699.0	4532.3	493.66	ug/L	493.66	ppb	09:31:58
1	S 181.975 Axial†	927.1	811.1	973.46	ug/L	973.46	ppb	09:31:58
1	Sb 206.836†	1696.4	1555.6	489.51	ug/L	489.51	ppb	09:31:58
1	Se 196.026†	918.8	902.8	502.24	ug/L	502.24	ppb	09:31:58
1	Si 251.611†	85623.5	79980.5	2402.5	ug/L	2402.5	ppb	09:31:38
1	Sn 189.927†	3341.3	3146.9	491.67	ug/L	491.67	ppb	09:31:58
1	Sr 421.552†	70504.3	67531.9	499.25	ug/L	499.25	ppb	09:30:19
1	Ti 334.940†	310609.3	295056.3	493.81	ug/L	493.81	ppb	09:31:38
1	Tl 190.801†	1752.3	1711.6	497.24	ug/L	497.24	ppb	09:31:58
1	U 409.014†	12766.0	15190.1	466.24	ug/L	466.24	ppb	09:31:38
1	V 292.402†	75634.3	73214.3	493.44	ug/L	493.44	ppb	09:31:38
1	Zn 213.857†	60848.9	56633.7	487.55	ug/L	487.55	ppb	09:31:38
1	SiO2†	85170.9	79441.8	5124.3	ug/L	5124.3	ppb	09:32:58
2	Sc 361.383	869037.8	869037.8	105.15	%			09:32:05
2	Sc Radial	4690.9	4690.9	103	%			09:30:44
2	Y 371.029	734244.3	734244.3	103.90	%			09:32:05
2	Y RADIAL	4857.9	4857.9	102.2	%			09:30:44
2	Ag 328.068†	113299.0	107355.3	487.96	ug/L	487.96	ppb	09:32:05
2	Al 396.153Radial†	5599.6	5432.9	4846.0	ug/L	4846.0	ppb	09:30:44
2	As 188.979†	1368.9	1337.0	500.00	ug/L	500.00	ppb	09:32:25
2	B 249.677†	23252.6	23036.4	489.67	ug/L	489.67	ppb	09:32:05
2	Ba 233.527†	67011.9	63733.4	491.14	ug/L	491.14	ppb	09:32:05
2	Be 313.107†	1444937.4	1378868.1	491.93	ug/L	491.93	ppb	09:32:05
2	Ca 317.933Radial†	3065.9	2947.5	4970.1	ug/L	4970.1	ppb	09:31:04
2	Cd 226.502†	52247.7	49954.3	492.70	ug/L	492.70	ppb	09:32:05
2	Co 228.616†	25821.7	24663.9	484.64	ug/L	484.64	ppb	09:32:25
2	Cr 267.716†	48744.2	46241.5	490.65	ug/L	490.65	ppb	09:32:05
2	Cu 324.752†	171461.3	155132.4	485.29	ug/L	485.29	ppb	09:32:05
2	Fe 238.204 Radial†	595.6	563.7	5067.8	ug/L	5067.8	ppb	09:31:04
2	K 766.490 Radial†	27398.8	23375.2	4943.3	ug/L	4943.3	ppb	09:30:44
2	Mg 279.077 IEC†	166.7	158.2	5163.3	ug/L	5163.3	ppb	09:31:04
2	Mn 257.610†	467214.1	443713.8	491.65	ug/L	491.65	ppb	09:32:05
2	Mo 202.031†	7822.6	7414.7	492.42	ug/L	492.42	ppb	09:32:25
2	Na 589.592 Radial†	32289.4	32765.6	10212	ug/L	10212	ppb	09:30:44
2	Ni 231.604†	22375.4	21169.1	488.32	ug/L	488.32	ppb	09:32:25

2	P 214.914†	5299.0	4773.8	2377.9 ug/L	2377.9 ppb	09:32:25
2	Pb 220.353†	4718.0	4583.2	499.19 ug/L	499.19 ppb	09:32:25
2	S 181.975 Axial†	923.4	814.1	977.10 ug/L	977.10 ppb	09:32:25
2	Sb 206.836†	1684.1	1555.7	489.71 ug/L	489.71 ppb	09:32:25
2	Se 196.026†	917.3	907.8	504.87 ug/L	504.87 ppb	09:32:25
2	Si 251.611†	85032.5	80016.8	2403.5 ug/L	2403.5 ppb	09:32:05
2	Sn 189.927†	3347.2	3175.9	496.20 ug/L	496.20 ppb	09:32:25
2	Sr 421.552†	69559.7	67229.5	497.01 ug/L	497.01 ppb	09:30:44
2	Ti 334.940†	308509.7	295230.5	494.10 ug/L	494.10 ppb	09:32:05
2	Tl 190.801†	1735.1	1707.5	496.05 ug/L	496.05 ppb	09:32:25
2	U 409.014†	12720.1	15235.6	467.65 ug/L	467.65 ppb	09:32:05
2	V 292.402†	75128.2	73261.7	493.82 ug/L	493.82 ppb	09:32:05
2	Zn 213.857†	60379.2	56612.3	487.33 ug/L	487.33 ppb	09:32:05
2	SiO2†	86061.0	80883.7	5217.6 ug/L	5217.6 ppb	09:33:03
3	Sc 361.383	877358.1	877358.1	106.15 %		09:32:33
3	Sc Radial	4749.4	4749.4	105 %		09:31:09
3	Y 371.029	741351.6	741351.6	104.91 %		09:32:33
3	Y RADIAL	4950.0	4950.0	104.1 %		09:31:09
3	Ag 328.068†	114387.6	107358.9	487.97 ug/L	487.97 ppb	09:32:33
3	Al 396.153Radial†	5692.2	5454.6	4865.5 ug/L	4865.5 ppb	09:31:09
3	As 188.979†	1377.7	1332.9	498.47 ug/L	498.47 ppb	09:32:53
3	B 249.677†	23512.5	23071.5	490.42 ug/L	490.42 ppb	09:32:33
3	Ba 233.527†	67450.2	63541.9	489.67 ug/L	489.67 ppb	09:32:33
3	Be 313.107†	1456299.5	1376539.3	491.10 ug/L	491.10 ppb	09:32:33
3	Ca 317.933Radial†	3071.3	2916.3	4917.4 ug/L	4917.4 ppb	09:31:29
3	Cd 226.502†	52560.9	49778.1	490.96 ug/L	490.96 ppb	09:32:33
3	Co 228.616†	25946.5	24548.7	482.37 ug/L	482.37 ppb	09:32:53
3	Cr 267.716†	49083.2	46121.2	489.38 ug/L	489.38 ppb	09:32:33
3	Cu 324.752†	172735.5	154786.3	484.21 ug/L	484.21 ppb	09:32:33
3	Fe 238.204 Radial†	602.3	563.0	5061.6 ug/L	5061.6 ppb	09:31:29
3	K 766.490 Radial†	27604.0	23245.0	4915.7 ug/L	4915.7 ppb	09:31:09
3	Mg 279.077 IEC†	161.9	151.6	4949.8 ug/L	4949.8 ppb	09:31:29
3	Mn 257.610†	470389.0	442490.8	490.30 ug/L	490.30 ppb	09:32:33
3	Mo 202.031†	7881.9	7400.1	491.44 ug/L	491.44 ppb	09:32:53
3	Na 589.592 Radial†	32802.4	32870.9	10245 ug/L	10245 ppb	09:31:09
3	Ni 231.604†	22441.1	21029.2	485.09 ug/L	485.09 ppb	09:32:53
3	P 214.914†	5297.7	4724.8	2352.8 ug/L	2352.8 ppb	09:32:53
3	Pb 220.353†	4748.8	4569.7	497.73 ug/L	497.73 ppb	09:32:53
3	S 181.975 Axial†	922.2	804.6	965.65 ug/L	965.65 ppb	09:32:53
3	Sb 206.836†	1691.8	1547.8	487.19 ug/L	487.19 ppb	09:32:53
3	Se 196.026†	927.0	908.7	505.34 ug/L	505.34 ppb	09:32:53
3	Si 251.611†	85620.9	79804.3	2397.2 ug/L	2397.2 ppb	09:32:33
3	Sn 189.927†	3352.3	3150.5	492.23 ug/L	492.23 ppb	09:32:53
3	Sr 421.552†	70432.5	67234.7	497.05 ug/L	497.05 ppb	09:31:09
3	Ti 334.940†	311050.7	294841.7	493.45 ug/L	493.45 ppb	09:32:33
3	Tl 190.801†	1758.4	1713.8	497.88 ug/L	497.88 ppb	09:32:53
3	U 409.014†	12733.7	15133.8	464.51 ug/L	464.51 ppb	09:32:33
3	V 292.402†	75727.6	73148.8	493.05 ug/L	493.05 ppb	09:32:33
3	Zn 213.857†	60861.2	56521.9	486.57 ug/L	486.57 ppb	09:32:33
3	SiO2†	85006.1	79113.7	5102.9 ug/L	5102.9 ppb	09:33:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	873956.0	105.74	%	0.528				0.50%
Sc Radial	4724.6	104	%	0.7				0.64%
Y 371.029	738512.7	104.51	%	0.533				0.51%
Y RADIAL	4910.9	103.3	%	1.00				0.97%
Ag 328.068†	107383.0	488.09	ug/L	0.209	488.09	ppb	0.209	0.04%
QC value within limits for Ag 328.068 Recovery = 97.62%								
Al 396.153Radial†	5445.0	4857.0	ug/L	9.98	4857.0	ppb	9.98	0.21%
QC value within limits for Al 396.153Radial Recovery = 97.14%								
As 188.979†	1334.8	499.17	ug/L	0.773	499.17	ppb	0.773	0.15%
QC value within limits for As 188.979 Recovery = 99.83%								
B 249.677†	23025.8	489.45	ug/L	1.105	489.45	ppb	1.105	0.23%
QC value within limits for B 249.677 Recovery = 97.89%								
Ba 233.527†	63642.9	490.44	ug/L	0.740	490.44	ppb	0.740	0.15%
QC value within limits for Ba 233.527 Recovery = 98.09%								
Be 313.107†	1378291.2	491.72	ug/L	0.551	491.72	ppb	0.551	0.11%
QC value within limits for Be 313.107 Recovery = 98.34%								

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Ca 317.933Radial†       2932.6      4944.9 ug/L        26.46      4944.9 ppb        26.46   0.54%
   QC value within limits for Ca 317.933Radial  Recovery = 98.90%
Cd 226.502†            49909.2      492.25 ug/L        1.137      492.25 ppb        1.137   0.23%
   QC value within limits for Cd 226.502  Recovery = 98.45%
Co 228.616†            24553.6      482.47 ug/L        2.124      482.47 ppb        2.124   0.44%
   QC value within limits for Co 228.616  Recovery = 96.49%
Cr 267.716†            46190.2      490.11 ug/L        0.658      490.11 ppb        0.658   0.13%
   QC value within limits for Cr 267.716  Recovery = 98.02%
Cu 324.752†           154964.2      484.76 ug/L        0.542      484.76 ppb        0.542   0.11%
   QC value within limits for Cu 324.752  Recovery = 96.95%
Fe 238.204 Radial†       564.4      5074.1 ug/L        16.63      5074.1 ppb        16.63   0.33%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.48%
K 766.490 Radial†      23289.4      4925.1 ug/L        15.75      4925.1 ppb        15.75   0.32%
   QC value within limits for K 766.490 Radial  Recovery = 98.50%
Mg 279.077 IEC†          155.1      5063.9 ug/L       107.55      5063.9 ppb       107.55   2.12%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.28%
Mn 257.610†           443124.9      491.00 ug/L        0.677      491.00 ppb        0.677   0.14%
   QC value within limits for Mn 257.610  Recovery = 98.20%
Mo 202.031†             7391.3      490.86 ug/L        1.911      490.86 ppb        1.911   0.39%
   QC value within limits for Mo 202.031  Recovery = 98.17%
Na 589.592 Radial†     32890.5       10251 ug/L         42.3       10251 ppb         42.3   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 102.51%
Ni 231.604†            21057.9      485.76 ug/L        2.307      485.76 ppb        2.307   0.47%
   QC value within limits for Ni 231.604  Recovery = 97.15%
P 214.914†              4743.6      2362.4 ug/L        13.50      2362.4 ppb        13.50   0.57%
   QC value within limits for P 214.914  Recovery = 94.50%
Pb 220.353†             4561.8      496.86 ug/L        2.867      496.86 ppb        2.867   0.58%
   QC value within limits for Pb 220.353  Recovery = 99.37%
S 181.975 Axial†         809.9      972.07 ug/L        5.849      972.07 ppb        5.849   0.60%
   QC value within limits for S 181.975 Axial  Recovery = 97.21%
Sb 206.836†             1553.0      488.81 ug/L        1.401      488.81 ppb        1.401   0.29%
   QC value within limits for Sb 206.836  Recovery = 97.76%
Se 196.026†              906.5      504.15 ug/L        1.671      504.15 ppb        1.671   0.33%
   QC value within limits for Se 196.026  Recovery = 100.83%
Si 251.611†            79933.9      2401.1 ug/L         3.43      2401.1 ppb         3.43   0.14%
   QC value within limits for Si 251.611  Recovery = 96.04%
Sn 189.927†             3157.8      493.37 ug/L        2.471      493.37 ppb        2.471   0.50%
   QC value within limits for Sn 189.927  Recovery = 98.67%
Sr 421.552†            67332.0      497.77 ug/L        1.280      497.77 ppb        1.280   0.26%
   QC value within limits for Sr 421.552  Recovery = 99.55%
Ti 334.940†           295042.8      493.79 ug/L        0.326      493.79 ppb        0.326   0.07%
   QC value within limits for Ti 334.940  Recovery = 98.76%
Tl 190.801†             1711.0      497.06 ug/L        0.928      497.06 ppb        0.928   0.19%
   QC value within limits for Tl 190.801  Recovery = 99.41%
U 409.014†             15186.5      466.13 ug/L        1.570      466.13 ppb        1.570   0.34%
   QC value within limits for U 409.014  Recovery = 93.23%
V 292.402†             73208.3      493.44 ug/L        0.387      493.44 ppb        0.387   0.08%
   QC value within limits for V 292.402  Recovery = 98.69%
Zn 213.857†            56589.3      487.15 ug/L        0.510      487.15 ppb        0.510   0.10%
   QC value within limits for Zn 213.857  Recovery = 97.43%
SiO2†                  79813.1      5148.3 ug/L        60.97      5148.3 ppb        60.97   1.18%
   QC value within limits for SiO2  Recovery = 96.27%
All analyte(s) passed QC.
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Sequence No.: 17
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : Optima3
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/4/2010 09:35:19
Data Type: Reprocessed on 1/4/2010 09:44:47

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	859197.8	859197.8	103.96	%			09:38:28
1	Sc Radial	4600.6	4600.6	101	%			09:37:11
1	Y 371.029	735071.3	735071.3	104.02	%			09:38:28
1	Y RADIAL	4796.7	4796.7	100.9	%			09:37:11
1	Ag 328.068†	464.4	47.9	0.2308	ug/L	0.2308	ppb	09:38:28
1	Al 396.153Radial†	-23.3	-1.2	-1.0645	ug/L	-1.0645	ppb	09:37:11
1	As 188.979†	-25.8	10.3	3.8268	ug/L	3.8268	ppb	09:38:48
1	B 249.677†	-351.4	583.7	12.452	ug/L	12.452	ppb	09:38:28
1	Ba 233.527†	-2.1	-1.0	-0.0056	ug/L	-0.0056	ppb	09:38:48
1	Be 313.107†	-4477.4	340.0	0.1212	ug/L	0.1212	ppb	09:38:28
1	Ca 317.933Radial†	21.4	6.0	10.046	ug/L	10.046	ppb	09:37:31
1	Cd 226.502†	-234.1	38.5	0.3764	ug/L	0.3764	ppb	09:38:48
1	Co 228.616†	-104.6	5.4	0.1072	ug/L	0.1072	ppb	09:38:48
1	Cr 267.716†	60.0	-59.5	-0.6278	ug/L	-0.6278	ppb	09:38:28
1	Cu 324.752†	8187.0	-62.0	-0.1922	ug/L	-0.1922	ppb	09:38:28
1	Fe 238.204 Radial†	15.7	3.5	31.704	ug/L	31.704	ppb	09:37:31
1	K 766.490 Radial†	3312.5	162.9	34.513	ug/L	34.513	ppb	09:37:11
1	Mg 279.077 IEC†	3.6	0.7	22.055	ug/L	22.055	ppb	09:37:31
1	Mn 257.610†	557.5	-98.1	-0.1059	ug/L	-0.1059	ppb	09:38:28
1	Mo 202.031†	31.3	5.1	0.3430	ug/L	0.3430	ppb	09:38:48
1	Na 589.592 Radial†	-1589.8	-2.9	-0.9097	ug/L	-0.9097	ppb	09:37:11
1	Ni 231.604†	117.5	1.8	0.0419	ug/L	0.0419	ppb	09:38:48
1	P 214.914†	271.2	-5.0	-2.5701	ug/L	-2.5701	ppb	09:38:48
1	Pb 220.353†	-99.6	0.4	0.0422	ug/L	0.0422	ppb	09:38:48
1	S 181.975 Axial†	64.5	-2.1	-2.5000	ug/L	-2.5000	ppb	09:38:48
1	Sb 206.836†	48.9	1.1	0.3740	ug/L	0.3740	ppb	09:38:48
1	Se 196.026†	-40.1	-3.1	-1.5970	ug/L	-1.5970	ppb	09:38:48
1	Si 251.611†	802.8	-81.8	-2.4885	ug/L	-2.4885	ppb	09:38:48
1	Sn 189.927†	11.8	3.9	0.6034	ug/L	0.6034	ppb	09:38:48
1	Sr 421.552†	-12.6	-0.2	-0.0016	ug/L	-0.0016	ppb	09:37:11
1	Ti 334.940†	-1852.8	37.2	0.0639	ug/L	0.0639	ppb	09:38:28
1	Tl 190.801†	-49.1	10.1	2.9048	ug/L	2.9048	ppb	09:38:48
1	U 409.014†	-3322.5	-58.0	-1.7891	ug/L	-1.7891	ppb	09:38:28
1	V 292.402†	-1785.9	92.4	0.6117	ug/L	0.6117	ppb	09:38:28
1	Zn 213.857†	871.3	26.4	0.2264	ug/L	0.2264	ppb	09:38:48
1	SiO2†	873.4	-125.2	-8.1574	ug/L	-8.1574	ppb	09:39:45
2	Sc 361.383	854498.1	854498.1	103.39	%			09:38:54
2	Sc Radial	4675.3	4675.3	103	%			09:37:37
2	Y 371.029	731641.8	731641.8	103.53	%			09:38:54
2	Y RADIAL	4884.4	4884.4	102.7	%			09:37:37
2	Ag 328.068†	473.3	59.0	0.2622	ug/L	0.2622	ppb	09:38:54
2	Al 396.153Radial†	-14.8	7.4	6.6486	ug/L	6.6486	ppb	09:37:37
2	As 188.979†	-25.6	10.4	3.8399	ug/L	3.8399	ppb	09:39:14
2	B 249.677†	-440.5	495.7	10.576	ug/L	10.576	ppb	09:38:54
2	Ba 233.527†	7.7	8.5	0.0650	ug/L	0.0650	ppb	09:39:14
2	Be 313.107†	-4468.3	325.1	0.1160	ug/L	0.1160	ppb	09:38:54
2	Ca 317.933Radial†	18.1	2.5	4.1454	ug/L	4.1454	ppb	09:37:57
2	Cd 226.502†	-250.9	21.0	0.2066	ug/L	0.2066	ppb	09:39:14
2	Co 228.616†	-96.8	12.4	0.2436	ug/L	0.2436	ppb	09:39:14
2	Cr 267.716†	149.5	27.4	0.2879	ug/L	0.2879	ppb	09:38:54
2	Cu 324.752†	8096.9	-105.8	-0.3305	ug/L	-0.3305	ppb	09:38:54
2	Fe 238.204 Radial†	12.8	0.5	4.5175	ug/L	4.5175	ppb	09:37:57
2	K 766.490 Radial†	3240.6	41.0	8.6992	ug/L	8.6992	ppb	09:37:37
2	Mg 279.077 IEC†	-0.8	-3.7	-119.57	ug/L	-119.57	ppb	09:37:57
2	Mn 257.610†	554.0	-98.6	-0.1065	ug/L	-0.1065	ppb	09:38:54
2	Mo 202.031†	27.1	1.2	0.0802	ug/L	0.0802	ppb	09:39:14
2	Na 589.592 Radial†	-1635.4	-22.2	-6.9061	ug/L	-6.9061	ppb	09:37:37
2	Ni 231.604†	120.5	5.3	0.1218	ug/L	0.1218	ppb	09:39:14

2	P 214.914†	271.9	-2.9	-1.4418 ug/L	-1.4418 ppb	09:39:14
2	Pb 220.353†	-104.9	-5.3	-0.5687 ug/L	-0.5687 ppb	09:39:14
2	S 181.975 Axial†	51.2	-14.6	-17.555 ug/L	-17.555 ppb	09:39:14
2	Sb 206.836†	59.8	11.9	3.6672 ug/L	3.6672 ppb	09:39:14
2	Se 196.026†	-35.3	1.3	0.7006 ug/L	0.7006 ppb	09:39:14
2	Si 251.611†	828.0	-53.2	-1.6107 ug/L	-1.6107 ppb	09:39:14
2	Sn 189.927†	6.4	-1.3	-0.1966 ug/L	-0.1966 ppb	09:39:14
2	Sr 421.552†	9.2	21.1	0.1557 ug/L	0.1557 ppb	09:37:37
2	Ti 334.940†	-1795.4	83.0	0.1365 ug/L	0.1365 ppb	09:38:54
2	Tl 190.801†	-52.6	6.4	1.8575 ug/L	1.8575 ppb	09:39:14
2	U 409.014†	-3051.0	187.0	5.7585 ug/L	5.7585 ppb	09:38:54
2	V 292.402†	-1903.4	-30.7	-0.1953 ug/L	-0.1953 ppb	09:38:54
2	Zn 213.857†	871.2	30.9	0.2716 ug/L	0.2716 ppb	09:39:14
2	SiO2†	864.6	-129.1	-8.3759 ug/L	-8.3759 ppb	09:39:50
3	Sc 361.383	848595.5	848595.5	102.67 %		09:39:19
3	Sc Radial	4712.6	4712.6	104 %		09:38:02
3	Y 371.029	727531.0	727531.0	102.95 %		09:39:19
3	Y RADIAL	4954.3	4954.3	104.2 %		09:38:02
3	Ag 328.068†	399.8	-9.4	-0.0444 ug/L	-0.0444 ppb	09:39:19
3	Al 396.153Radial†	11.9	33.2	29.769 ug/L	29.769 ppb	09:38:02
3	As 188.979†	-23.2	12.5	4.6432 ug/L	4.6432 ppb	09:39:39
3	B 249.677†	-306.0	623.8	13.308 ug/L	13.308 ppb	09:39:19
3	Ba 233.527†	-0.1	0.9	0.0079 ug/L	0.0079 ppb	09:39:39
3	Be 313.107†	-4385.0	376.2	0.1340 ug/L	0.1340 ppb	09:39:19
3	Ca 317.933Radial†	15.5	-0.3	-0.4289 ug/L	-0.4289 ppb	09:38:22
3	Cd 226.502†	-232.2	37.5	0.3698 ug/L	0.3698 ppb	09:39:39
3	Co 228.616†	-76.4	31.6	0.6204 ug/L	0.6204 ppb	09:39:39
3	Cr 267.716†	144.6	23.6	0.2492 ug/L	0.2492 ppb	09:39:19
3	Cu 324.752†	8027.7	-118.7	-0.3708 ug/L	-0.3708 ppb	09:39:19
3	Fe 238.204 Radial†	12.8	0.5	4.1507 ug/L	4.1507 ppb	09:38:22
3	K 766.490 Radial†	3291.0	64.6	13.691 ug/L	13.691 ppb	09:38:02
3	Mg 279.077 IEC†	3.1	0.1	3.7498 ug/L	3.7498 ppb	09:38:22
3	Mn 257.610†	492.3	-155.0	-0.1713 ug/L	-0.1713 ppb	09:39:19
3	Mo 202.031†	24.1	-1.5	-0.1001 ug/L	-0.1001 ppb	09:39:39
3	Na 589.592 Radial†	-1642.3	-16.2	-5.0341 ug/L	-5.0341 ppb	09:38:02
3	Ni 231.604†	104.5	-9.4	-0.2177 ug/L	-0.2177 ppb	09:39:39
3	P 214.914†	258.3	-14.3	-7.2628 ug/L	-7.2628 ppb	09:39:39
3	Pb 220.353†	-97.5	1.2	0.1368 ug/L	0.1368 ppb	09:39:39
3	S 181.975 Axial†	57.9	-7.7	-9.3131 ug/L	-9.3131 ppb	09:39:39
3	Sb 206.836†	49.5	2.2	0.6942 ug/L	0.6942 ppb	09:39:39
3	Se 196.026†	-28.2	8.0	4.3129 ug/L	4.3129 ppb	09:39:39
3	Si 251.611†	826.6	-49.0	-1.4834 ug/L	-1.4834 ppb	09:39:39
3	Sn 189.927†	11.8	4.0	0.6248 ug/L	0.6248 ppb	09:39:39
3	Sr 421.552†	-10.2	2.4	0.0178 ug/L	0.0178 ppb	09:38:02
3	Ti 334.940†	-1848.7	18.9	0.0293 ug/L	0.0293 ppb	09:39:19
3	Tl 190.801†	-51.0	7.6	2.1897 ug/L	2.1897 ppb	09:39:39
3	U 409.014†	-3049.1	168.3	5.1827 ug/L	5.1827 ppb	09:39:19
3	V 292.402†	-1817.3	40.4	0.2764 ug/L	0.2764 ppb	09:39:19
3	Zn 213.857†	875.2	40.6	0.3543 ug/L	0.3543 ppb	09:39:39
3	SiO2†	869.7	-118.3	-7.6790 ug/L	-7.6790 ppb	09:39:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	854097.1	103.34	%	0.643				0.62%
Sc Radial	4662.8	103	%	1.3				1.22%
Y 371.029	731414.7	103.50	%	0.534				0.52%
Y RADIAL	4878.5	102.6	%	1.66				1.62%
Ag 328.068†	32.5	0.1495	ug/L	0.16870	0.1495	ppb	0.16870	112.82%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	13.2	11.784	ug/L	16.0454	11.784	ppb	16.0454	136.16%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	11.1	4.1033	ug/L	0.46762	4.1033	ppb	0.46762	11.40%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	567.7	12.112	ug/L	1.3976	12.112	ppb	1.3976	11.54%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.8	0.0224	ug/L	0.03750	0.0224	ppb	0.03750	167.20%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	347.1	0.1237	ug/L	0.00926	0.1237	ppb	0.00926	7.48%
QC value within limits for Be 313.107 Recovery = Not calculated								

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Ca 317.933Radial†          2.7      4.5873 ug/L       5.25118      4.5873 ppb        5.25118 114.47%
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†               32.3      0.3176 ug/L       0.09616      0.3176 ppb        0.09616  30.28%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               16.5      0.3237 ug/L       0.26581      0.3237 ppb        0.26581  82.11%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -2.8     -0.0302 ug/L       0.51786     -0.0302 ppb        0.51786 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -95.5     -0.2978 ug/L       0.09369     -0.2978 ppb        0.09369  31.46%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.5      13.457 ug/L       15.8032      13.457 ppb        15.8032 117.43%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         89.5      18.968 ug/L       13.6919      18.968 ppb        13.6919  72.18%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -1.0     -31.255 ug/L       77.0285     -31.255 ppb        77.0285 246.45%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -117.3     -0.1279 ug/L       0.03756     -0.1279 ppb        0.03756  29.37%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.6      0.1077 ug/L       0.22286      0.1077 ppb        0.22286 206.95%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -13.7     -4.2833 ug/L       3.06790     -4.2833 ppb        3.06790  71.63%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -0.8     -0.0180 ug/L       0.17746     -0.0180 ppb        0.17746 986.04%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -7.4     -3.7582 ug/L       3.08703     -3.7582 ppb        3.08703  82.14%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -1.2     -0.1299 ug/L       0.38293     -0.1299 ppb        0.38293 294.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -8.1     -9.7893 ug/L       7.53874     -9.7893 ppb        7.53874  77.01%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.1      1.5785 ug/L       1.81599      1.5785 ppb        1.81599 115.05%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.0      1.1388 ug/L       2.97919      1.1388 ppb        2.97919 261.60%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -61.3     -1.8609 ug/L       0.54725     -1.8609 ppb        0.54725  29.41%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.2      0.3439 ug/L       0.46817      0.3439 ppb        0.46817 136.15%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                7.8      0.0573 ug/L       0.08575      0.0573 ppb        0.08575 149.62%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               46.4      0.0766 ug/L       0.05470      0.0766 ppb        0.05470  71.45%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                8.0      2.3173 ug/L       0.53519      2.3173 ppb        0.53519  23.10%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                99.1      3.0507 ug/L       4.20127      3.0507 ppb        4.20127 137.72%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                34.0      0.2309 ug/L       0.40546      0.2309 ppb        0.40546 175.57%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               32.6      0.2841 ug/L       0.06485      0.2841 ppb        0.06485  22.83%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -124.2     -8.0707 ug/L       0.35642     -8.0707 ppb        0.35642   4.42%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/4/2010 10:36:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4417.9	4417.9	97.5	%			10:38:46
1	Y RADIAL	4583.2	4583.2	96.40	%			10:38:46
1	Al 396.153Radial†	5723.4	5894.3	5259.0	ug/L	5259.0	ppb	10:38:46
1	Ca 317.933Radial†	3077.2	3142.2	5298.4	ug/L	5298.4	ppb	10:39:06
1	Fe 238.204 Radial†	588.7	592.2	5323.4	ug/L	5323.4	ppb	10:39:06
1	K 766.490 Radial†	27260.3	24869.3	5259.8	ug/L	5259.8	ppb	10:38:46
1	Mg 279.077 IEC†	167.4	168.9	5512.0	ug/L	5512.0	ppb	10:39:06
1	Na 589.592 Radial†	30525.8	32884.2	10249	ug/L	10249	ppb	10:38:46
1	Sr 421.552†	68527.9	70324.6	519.90	ug/L	519.90	ppb	10:38:46
1	Sc 361.383	864227.1	864227.1	104.56	%			10:40:05
1	Y 371.029	730229.7	730229.7	103.33	%			10:40:05
1	Ag 328.068†	113349.6	108003.4	490.97	ug/L	490.97	ppb	10:40:05
1	As 188.979†	1390.6	1365.0	510.41	ug/L	510.41	ppb	10:40:25
1	B 249.677†	23025.4	22942.2	487.60	ug/L	487.60	ppb	10:40:05
1	Ba 233.527†	67043.4	64118.3	494.11	ug/L	494.11	ppb	10:40:05
1	Be 313.107†	1444653.2	1386245.9	494.56	ug/L	494.56	ppb	10:40:05
1	Cd 226.502†	52347.9	50326.8	496.35	ug/L	496.35	ppb	10:40:05
1	Co 228.616†	26156.6	25121.0	493.63	ug/L	493.63	ppb	10:40:25
1	Cr 267.716†	48681.5	46439.5	492.76	ug/L	492.76	ppb	10:40:05
1	Cu 324.752†	171037.9	155635.2	486.88	ug/L	486.88	ppb	10:40:05
1	Mn 257.610†	467517.0	446477.0	494.73	ug/L	494.73	ppb	10:40:05
1	Mo 202.031†	7919.1	7548.5	501.31	ug/L	501.31	ppb	10:40:25
1	Ni 231.604†	22621.1	21522.6	496.48	ug/L	496.48	ppb	10:40:25
1	P 214.914†	5350.5	4851.1	2417.4	ug/L	2417.4	ppb	10:40:25
1	Pb 220.353†	4750.9	4639.7	505.42	ug/L	505.42	ppb	10:40:25
1	S 181.975 Axial†	927.6	823.0	987.67	ug/L	987.67	ppb	10:40:25
1	Sb 206.836†	1704.8	1584.5	498.89	ug/L	498.89	ppb	10:40:25
1	Se 196.026†	941.4	935.8	520.72	ug/L	520.72	ppb	10:40:25
1	Si 251.611†	84993.0	80429.3	2415.7	ug/L	2415.7	ppb	10:40:05
1	Sn 189.927†	3375.4	3220.6	503.21	ug/L	503.21	ppb	10:40:25
1	Ti 334.940†	308367.5	296727.8	496.62	ug/L	496.62	ppb	10:40:05
1	Tl 190.801†	1754.6	1735.3	504.07	ug/L	504.07	ppb	10:40:25
1	U 409.014†	12787.7	15367.6	471.67	ug/L	471.67	ppb	10:40:05
1	V 292.402†	75128.2	73659.5	496.57	ug/L	496.57	ppb	10:40:05
1	Zn 213.857†	60555.7	57100.9	491.49	ug/L	491.49	ppb	10:40:05
1	SiO2†	84253.1	79610.3	5134.4	ug/L	5134.4	ppb	10:41:25
2	Sc Radial	4654.7	4654.7	103	%			10:39:11
2	Y RADIAL	4870.5	4870.5	102.4	%			10:39:11
2	Al 396.153Radial†	5680.4	5553.7	4954.0	ug/L	4954.0	ppb	10:39:11
2	Ca 317.933Radial†	3080.1	2984.4	5032.3	ug/L	5032.3	ppb	10:39:31
2	Fe 238.204 Radial†	582.7	555.5	4994.8	ug/L	4994.8	ppb	10:39:31
2	K 766.490 Radial†	27083.9	23274.4	4922.1	ug/L	4922.1	ppb	10:39:11
2	Mg 279.077 IEC†	166.8	159.5	5207.2	ug/L	5207.2	ppb	10:39:31
2	Na 589.592 Radial†	30198.1	30971.6	9652.8	ug/L	9652.8	ppb	10:39:11
2	Sr 421.552†	67868.2	66104.9	488.70	ug/L	488.70	ppb	10:39:11
2	Sc 361.383	873054.6	873054.6	105.63	%			10:40:32
2	Y 371.029	737527.3	737527.3	104.37	%			10:40:32
2	Ag 328.068†	114594.8	108086.2	491.25	ug/L	491.25	ppb	10:40:32
2	As 188.979†	1388.9	1350.0	504.81	ug/L	504.81	ppb	10:40:52
2	B 249.677†	23430.8	23103.3	491.09	ug/L	491.09	ppb	10:40:32
2	Ba 233.527†	68002.4	64377.8	496.10	ug/L	496.10	ppb	10:40:32
2	Be 313.107†	1466103.0	1392582.6	496.82	ug/L	496.82	ppb	10:40:32
2	Cd 226.502†	53327.9	50748.3	500.54	ug/L	500.54	ppb	10:40:32
2	Co 228.616†	26297.9	25001.8	491.28	ug/L	491.28	ppb	10:40:52
2	Cr 267.716†	49452.2	46698.4	495.50	ug/L	495.50	ppb	10:40:32
2	Cu 324.752†	172741.4	155594.0	486.73	ug/L	486.73	ppb	10:40:32
2	Mn 257.610†	474416.1	448487.4	496.92	ug/L	496.92	ppb	10:40:32
2	Mo 202.031†	7943.4	7494.9	497.73	ug/L	497.73	ppb	10:40:52
2	Ni 231.604†	22656.2	21337.1	492.19	ug/L	492.19	ppb	10:40:52

2	P 214.914†	5374.5	4822.1	2402.6 ug/L	2402.6 ppb	10:40:52
2	Pb 220.353†	4785.0	4626.1	503.89 ug/L	503.89 ppb	10:40:52
2	S 181.975 Axial†	946.9	832.3	998.91 ug/L	998.91 ppb	10:40:52
2	Sb 206.836†	1701.6	1565.0	492.65 ug/L	492.65 ppb	10:40:52
2	Se 196.026†	940.7	926.0	514.46 ug/L	514.46 ppb	10:40:52
2	Si 251.611†	86106.2	80661.2	2422.9 ug/L	2422.9 ppb	10:40:32
2	Sn 189.927†	3389.9	3201.7	500.23 ug/L	500.23 ppb	10:40:52
2	Ti 334.940†	311940.9	297128.9	497.28 ug/L	497.28 ppb	10:40:32
2	Tl 190.801†	1773.3	1736.0	504.30 ug/L	504.30 ppb	10:40:52
2	U 409.014†	12743.0	15201.6	466.60 ug/L	466.60 ppb	10:40:32
2	V 292.402†	76122.9	73874.7	497.98 ug/L	497.98 ppb	10:40:32
2	Zn 213.857†	61358.9	57275.6	493.06 ug/L	493.06 ppb	10:40:32
2	SiO2†	84760.1	79275.6	5113.1 ug/L	5113.1 ppb	10:41:30
3	Sc Radial	4632.4	4632.4	102 %		10:39:36
3	Y RADIAL	4838.8	4838.8	101.8 %		10:39:36
3	Al 396.153Radial†	5654.5	5555.0	4955.2 ug/L	4955.2 ppb	10:39:36
3	Ca 317.933Radial†	3084.8	3003.4	5064.4 ug/L	5064.4 ppb	10:39:56
3	Fe 238.204 Radial†	588.6	564.1	5071.5 ug/L	5071.5 ppb	10:39:56
3	K 766.490 Radial†	27077.4	23395.3	4947.7 ug/L	4947.7 ppb	10:39:36
3	Mg 279.077 IEC†	161.9	155.5	5076.0 ug/L	5076.0 ppb	10:39:56
3	Na 589.592 Radial†	30286.7	31200.2	9724.1 ug/L	9724.1 ppb	10:39:36
3	Sr 421.552†	67915.8	66470.4	491.40 ug/L	491.40 ppb	10:39:36
3	Sc 361.383	864540.7	864540.7	104.60 %		10:41:00
3	Y 371.029	730751.1	730751.1	103.41 %		10:41:00
3	Ag 328.068†	113333.7	107949.0	490.66 ug/L	490.66 ppb	10:41:00
3	As 188.979†	1388.1	1362.1	509.32 ug/L	509.32 ppb	10:41:20
3	B 249.677†	23110.9	23016.0	489.21 ug/L	489.21 ppb	10:41:00
3	Ba 233.527†	67072.9	64123.1	494.14 ug/L	494.14 ppb	10:41:00
3	Be 313.107†	1447690.7	1388648.5	495.42 ug/L	495.42 ppb	10:41:00
3	Cd 226.502†	52389.4	50348.3	496.59 ug/L	496.59 ppb	10:41:00
3	Co 228.616†	26094.2	25052.2	492.27 ug/L	492.27 ppb	10:41:20
3	Cr 267.716†	48688.0	46428.9	492.65 ug/L	492.65 ppb	10:41:00
3	Cu 324.752†	171333.3	155858.3	487.56 ug/L	487.56 ppb	10:41:00
3	Mn 257.610†	468299.5	447062.8	495.36 ug/L	495.36 ppb	10:41:00
3	Mo 202.031†	7867.7	7496.6	497.85 ug/L	497.85 ppb	10:41:20
3	Ni 231.604†	22508.7	21407.2	493.81 ug/L	493.81 ppb	10:41:20
3	P 214.914†	5323.1	4823.0	2402.9 ug/L	2402.9 ppb	10:41:20
3	Pb 220.353†	4737.8	4625.6	503.82 ug/L	503.82 ppb	10:41:20
3	S 181.975 Axial†	942.0	836.4	1003.9 ug/L	1003.9 ppb	10:41:20
3	Sb 206.836†	1707.3	1586.3	499.33 ug/L	499.33 ppb	10:41:20
3	Se 196.026†	929.1	923.6	513.41 ug/L	513.41 ppb	10:41:20
3	Si 251.611†	85052.3	80456.5	2416.7 ug/L	2416.7 ppb	10:41:00
3	Sn 189.927†	3357.5	3202.3	500.33 ug/L	500.33 ppb	10:41:20
3	Ti 334.940†	308891.8	297122.0	497.27 ug/L	497.27 ppb	10:41:00
3	Tl 190.801†	1755.9	1735.9	504.26 ug/L	504.26 ppb	10:41:20
3	U 409.014†	12544.3	15130.5	464.41 ug/L	464.41 ppb	10:41:00
3	V 292.402†	75286.3	73784.5	497.36 ug/L	497.36 ppb	10:41:00
3	Zn 213.857†	60536.3	57061.3	491.19 ug/L	491.19 ppb	10:41:00
3	SiO2†	85158.5	80446.7	5189.0 ug/L	5189.0 ppb	10:41:36

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	867274.1	104.93	%	0.606				0.58%
Sc Radial	4568.3	101	%	2.9				2.86%
Y 371.029	732836.0	103.70	%	0.576				0.56%
Y RADIAL	4764.2	100.2	%	3.31				3.31%
Ag 328.068†	108012.9	490.96	ug/L	0.298	490.96	ppb	0.298	0.06%
QC value within limits for Ag 328.068 Recovery = 98.19%								
Al 396.153Radial†	5667.6	5056.1	ug/L	175.77	5056.1	ppb	175.77	3.48%
QC value within limits for Al 396.153Radial Recovery = 101.12%								
As 188.979†	1359.0	508.18	ug/L	2.972	508.18	ppb	2.972	0.58%
QC value within limits for As 188.979 Recovery = 101.64%								
B 249.677†	23020.5	489.30	ug/L	1.746	489.30	ppb	1.746	0.36%
QC value within limits for B 249.677 Recovery = 97.86%								
Ba 233.527†	64206.4	494.78	ug/L	1.140	494.78	ppb	1.140	0.23%
QC value within limits for Ba 233.527 Recovery = 98.96%								
Be 313.107†	1389159.0	495.60	ug/L	1.140	495.60	ppb	1.140	0.23%
QC value within limits for Be 313.107 Recovery = 99.12%								
Ca 317.933Radial†	3043.4	5131.7	ug/L	145.27	5131.7	ppb	145.27	2.83%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.63%
Cd 226.502†            50474.5      497.83 ug/L         2.354      497.83 ppb          2.354   0.47%
   QC value within limits for Cd 226.502  Recovery = 99.57%
Co 228.616†            25058.3      492.40 ug/L         1.179      492.40 ppb          1.179   0.24%
   QC value within limits for Co 228.616  Recovery = 98.48%
Cr 267.716†            46522.3      493.64 ug/L         1.616      493.64 ppb          1.616   0.33%
   QC value within limits for Cr 267.716  Recovery = 98.73%
Cu 324.752†           155695.8      487.06 ug/L         0.443      487.06 ppb          0.443   0.09%
   QC value within limits for Cu 324.752  Recovery = 97.41%
Fe 238.204 Radial†       570.6      5129.9 ug/L        171.91      5129.9 ppb         171.91   3.35%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.60%
K 766.490 Radial†      23846.3      5043.2 ug/L        187.99      5043.2 ppb         187.99   3.73%
   QC value within limits for K 766.490 Radial  Recovery = 100.86%
Mg 279.077 IEC†          161.3      5265.1 ug/L        223.70      5265.1 ppb         223.70   4.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.30%
Mn 257.610†           447342.4      495.67 ug/L         1.132      495.67 ppb          1.132   0.23%
   QC value within limits for Mn 257.610  Recovery = 99.13%
Mo 202.031†             7513.3      498.96 ug/L         2.037      498.96 ppb          2.037   0.41%
   QC value within limits for Mo 202.031  Recovery = 99.79%
Na 589.592 Radial†     31685.3      9875.3 ug/L        325.56      9875.3 ppb         325.56   3.30%
   QC value within limits for Na 589.592 Radial  Recovery = 98.75%
Ni 231.604†            21422.3      494.16 ug/L         2.161      494.16 ppb          2.161   0.44%
   QC value within limits for Ni 231.604  Recovery = 98.83%
P 214.914†              4832.1      2407.6 ug/L          8.45      2407.6 ppb           8.45   0.35%
   QC value within limits for P 214.914  Recovery = 96.30%
Pb 220.353†             4630.5      504.38 ug/L         0.901      504.38 ppb          0.901   0.18%
   QC value within limits for Pb 220.353  Recovery = 100.88%
S 181.975 Axial†         830.5      996.81 ug/L         8.297      996.81 ppb          8.297   0.83%
   QC value within limits for S 181.975 Axial  Recovery = 99.68%
Sb 206.836†             1578.6      496.96 ug/L         3.735      496.96 ppb          3.735   0.75%
   QC value within limits for Sb 206.836  Recovery = 99.39%
Se 196.026†              928.5      516.20 ug/L         3.952      516.20 ppb          3.952   0.77%
   QC value within limits for Se 196.026  Recovery = 103.24%
Si 251.611†            80515.7      2418.4 ug/L          3.89      2418.4 ppb           3.89   0.16%
   QC value within limits for Si 251.611  Recovery = 96.74%
Sn 189.927†             3208.2      501.25 ug/L         1.693      501.25 ppb          1.693   0.34%
   QC value within limits for Sn 189.927  Recovery = 100.25%
Sr 421.552†            67633.3      500.00 ug/L        17.284      500.00 ppb         17.284   3.46%
   QC value within limits for Sr 421.552  Recovery = 100.00%
Ti 334.940†           296992.9      497.06 ug/L         0.378      497.06 ppb          0.378   0.08%
   QC value within limits for Ti 334.940  Recovery = 99.41%
Tl 190.801†             1735.8      504.21 ug/L         0.123      504.21 ppb          0.123   0.02%
   QC value within limits for Tl 190.801  Recovery = 100.84%
U 409.014†             15233.2      467.56 ug/L         3.728      467.56 ppb          3.728   0.80%
   QC value within limits for U 409.014  Recovery = 93.51%
V 292.402†             73772.9      497.30 ug/L         0.708      497.30 ppb          0.708   0.14%
   QC value within limits for V 292.402  Recovery = 99.46%
Zn 213.857†            57145.9      491.92 ug/L         1.005      491.92 ppb          1.005   0.20%
   QC value within limits for Zn 213.857  Recovery = 98.38%
SiO2†                  79777.5      5145.5 ug/L        39.14      5145.5 ppb         39.14   0.76%
   QC value within limits for SiO2  Recovery = 96.22%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/4/2010 10:43:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4575.8	4575.8	101	%			10:45:38
1	Y RADIAL	4783.6	4783.6	100.6	%			10:45:38
1	Al 396.153Radial†	-7.1	14.8	13.276	ug/L	13.276	ppb	10:45:38
1	Ca 317.933Radial†	18.8	3.5	5.8372	ug/L	5.8372	ppb	10:45:58
1	Fe 238.204 Radial†	14.8	2.8	24.743	ug/L	24.743	ppb	10:45:58
1	K 766.490 Radial†	3182.9	52.2	11.072	ug/L	11.072	ppb	10:45:38
1	Mg 279.077 IEC†	2.3	-0.7	-21.404	ug/L	-21.404	ppb	10:45:58
1	Na 589.592 Radial†	-1715.5	-135.9	-42.363	ug/L	-42.363	ppb	10:45:38
1	Sr 421.552†	10.2	22.3	0.1649	ug/L	0.1649	ppb	10:45:38
1	Sc 361.383	883371.4	883371.4	106.88	%			10:46:55
1	Y 371.029	753167.6	753167.6	106.58	%			10:46:55
1	Ag 328.068†	439.8	12.7	0.0546	ug/L	0.0546	ppb	10:47:00
1	As 188.979†	-43.6	-5.7	-2.1108	ug/L	-2.1108	ppb	10:47:20
1	B 249.677†	-618.1	343.5	7.3251	ug/L	7.3251	ppb	10:47:00
1	Ba 233.527†	-3.4	-2.1	-0.0143	ug/L	-0.0143	ppb	10:47:20
1	Be 313.107†	-4394.6	535.4	0.1911	ug/L	0.1911	ppb	10:47:00
1	Cd 226.502†	-255.0	25.0	0.2445	ug/L	0.2445	ppb	10:47:20
1	Co 228.616†	-95.6	16.6	0.3242	ug/L	0.3242	ppb	10:47:20
1	Cr 267.716†	118.0	-6.8	-0.0755	ug/L	-0.0755	ppb	10:47:00
1	Cu 324.752†	8020.9	-432.8	-1.3520	ug/L	-1.3520	ppb	10:47:00
1	Mn 257.610†	511.7	-155.8	-0.1696	ug/L	-0.1696	ppb	10:47:00
1	Mo 202.031†	25.8	-0.8	-0.0530	ug/L	-0.0530	ppb	10:47:20
1	Ni 231.604†	104.1	-13.8	-0.3198	ug/L	-0.3198	ppb	10:47:20
1	P 214.914†	256.1	-26.3	-13.300	ug/L	-13.300	ppb	10:47:20
1	Pb 220.353†	-99.0	3.6	0.3877	ug/L	0.3877	ppb	10:47:20
1	S 181.975 Axial†	67.3	-1.1	-1.3778	ug/L	-1.3778	ppb	10:47:20
1	Sb 206.836†	47.3	-1.7	-0.5208	ug/L	-0.5208	ppb	10:47:20
1	Se 196.026†	-30.3	7.1	3.9022	ug/L	3.9022	ppb	10:47:20
1	Si 251.611†	765.4	-137.9	-4.1657	ug/L	-4.1657	ppb	10:47:20
1	Sn 189.927†	6.3	-1.6	-0.2421	ug/L	-0.2421	ppb	10:47:20
1	Ti 334.940†	-1793.6	141.4	0.2303	ug/L	0.2303	ppb	10:47:00
1	Tl 190.801†	-49.9	10.6	3.0709	ug/L	3.0709	ppb	10:47:20
1	U 409.014†	-2824.2	495.7	15.263	ug/L	15.263	ppb	10:46:55
1	V 292.402†	-1847.0	82.3	0.5716	ug/L	0.5716	ppb	10:47:00
1	Zn 213.857†	861.2	-6.1	-0.0496	ug/L	-0.0496	ppb	10:47:20
1	SiO2†	795.6	-221.0	-14.331	ug/L	-14.331	ppb	10:48:26
2	Sc Radial	4633.0	4633.0	102	%			10:46:03
2	Y RADIAL	4825.7	4825.7	101.5	%			10:46:03
2	Al 396.153Radial†	-34.4	-11.9	-10.660	ug/L	-10.660	ppb	10:46:03
2	Ca 317.933Radial†	17.1	1.6	2.7665	ug/L	2.7665	ppb	10:46:23
2	Fe 238.204 Radial†	15.3	3.1	27.936	ug/L	27.936	ppb	10:46:23
2	K 766.490 Radial†	3150.6	-18.4	-3.8854	ug/L	-3.8854	ppb	10:46:03
2	Mg 279.077 IEC†	1.5	-1.5	-48.038	ug/L	-48.038	ppb	10:46:23
2	Na 589.592 Radial†	-1683.3	-83.5	-26.009	ug/L	-26.009	ppb	10:46:03
2	Sr 421.552†	43.5	54.7	0.4047	ug/L	0.4047	ppb	10:46:03
2	Sc 361.383	868165.8	868165.8	105.04	%			10:47:25
2	Y 371.029	740962.0	740962.0	104.85	%			10:47:25
2	Ag 328.068†	694.9	262.7	1.1936	ug/L	1.1936	ppb	10:47:30
2	As 188.979†	-37.7	-0.8	-0.2927	ug/L	-0.2927	ppb	10:47:50
2	B 249.677†	-619.2	332.3	7.0860	ug/L	7.0860	ppb	10:47:30
2	Ba 233.527†	6.1	6.8	0.0552	ug/L	0.0552	ppb	10:47:50
2	Be 313.107†	-4662.9	207.9	0.0742	ug/L	0.0742	ppb	10:47:30
2	Cd 226.502†	-268.0	8.5	0.0813	ug/L	0.0813	ppb	10:47:50
2	Co 228.616†	-105.4	5.6	0.1113	ug/L	0.1113	ppb	10:47:50
2	Cr 267.716†	73.8	-46.9	-0.4974	ug/L	-0.4974	ppb	10:47:30
2	Cu 324.752†	8198.2	-132.6	-0.4132	ug/L	-0.4132	ppb	10:47:30
2	Mn 257.610†	584.8	-77.8	-0.0824	ug/L	-0.0824	ppb	10:47:30
2	Mo 202.031†	32.8	6.2	0.4160	ug/L	0.4160	ppb	10:47:50
2	Ni 231.604†	140.9	22.9	0.5295	ug/L	0.5295	ppb	10:47:50

2	P 214.914†	264.1	-14.4	-7.3678 ug/L	-7.3678 ppb	10:47:50
2	Pb 220.353†	-90.3	10.2	1.1055 ug/L	1.1055 ppb	10:47:50
2	S 181.975 Axial†	65.8	-1.5	-1.8020 ug/L	-1.8020 ppb	10:47:50
2	Sb 206.836†	48.0	-0.3	-0.0560 ug/L	-0.0560 ppb	10:47:50
2	Se 196.026†	-36.6	0.6	0.4117 ug/L	0.4117 ppb	10:47:50
2	Si 251.611†	756.4	-134.0	-4.0516 ug/L	-4.0516 ppb	10:47:50
2	Sn 189.927†	11.2	3.2	0.5018 ug/L	0.5018 ppb	10:47:50
2	Ti 334.940†	-1855.0	53.6	0.0871 ug/L	0.0871 ppb	10:47:30
2	Tl 190.801†	-42.5	16.9	4.8700 ug/L	4.8700 ppb	10:47:50
2	U 409.014†	-3075.2	210.4	6.4784 ug/L	6.4784 ppb	10:47:25
2	V 292.402†	-1767.1	128.0	0.8649 ug/L	0.8649 ppb	10:47:30
2	Zn 213.857†	867.5	14.1	0.1194 ug/L	0.1194 ppb	10:47:50
2	SiO2†	835.5	-170.0	-11.038 ug/L	-11.038 ppb	10:48:31
3	Sc Radial	4703.8	4703.8	104 %		10:46:28
3	Y RADIAL	4905.6	4905.6	103.2 %		10:46:28
3	Al 396.153Radial†	-37.3	-14.1	-12.655 ug/L	-12.655 ppb	10:46:28
3	Ca 317.933Radial†	13.1	-2.5	-4.1728 ug/L	-4.1728 ppb	10:46:48
3	Fe 238.204 Radial†	14.3	1.9	17.220 ug/L	17.220 ppb	10:46:48
3	K 766.490 Radial†	3440.5	214.6	45.481 ug/L	45.481 ppb	10:46:28
3	Mg 279.077 IEC†	2.3	-0.7	-22.292 ug/L	-22.292 ppb	10:46:48
3	Na 589.592 Radial†	-1694.2	-69.2	-21.565 ug/L	-21.565 ppb	10:46:28
3	Sr 421.552†	-22.5	-9.5	-0.0701 ug/L	-0.0701 ppb	10:46:28
3	Sc 361.383	878085.2	878085.2	106.24 %		10:47:56
3	Y 371.029	749472.7	749472.7	106.06 %		10:47:56
3	Ag 328.068†	517.3	88.1	0.3960 ug/L	0.3960 ppb	10:48:01
3	As 188.979†	-28.8	8.0	2.9698 ug/L	2.9698 ppb	10:48:21
3	B 249.677†	-652.3	307.8	6.5649 ug/L	6.5649 ppb	10:48:01
3	Ba 233.527†	-16.6	-14.5	-0.1101 ug/L	-0.1101 ppb	10:48:21
3	Be 313.107†	-4492.2	418.7	0.1494 ug/L	0.1494 ppb	10:48:01
3	Cd 226.502†	-249.1	29.2	0.2868 ug/L	0.2868 ppb	10:48:21
3	Co 228.616†	-91.1	20.3	0.3995 ug/L	0.3995 ppb	10:48:21
3	Cr 267.716†	137.0	11.7	0.1220 ug/L	0.1220 ppb	10:48:01
3	Cu 324.752†	8105.6	-308.0	-0.9620 ug/L	-0.9620 ppb	10:48:01
3	Mn 257.610†	579.7	-88.8	-0.0962 ug/L	-0.0962 ppb	10:48:01
3	Mo 202.031†	37.6	10.4	0.6936 ug/L	0.6936 ppb	10:48:21
3	Ni 231.604†	125.0	6.5	0.1487 ug/L	0.1487 ppb	10:48:21
3	P 214.914†	261.2	-20.0	-10.159 ug/L	-10.159 ppb	10:48:21
3	Pb 220.353†	-118.2	-15.1	-1.6419 ug/L	-1.6419 ppb	10:48:21
3	S 181.975 Axial†	61.4	-6.3	-7.6146 ug/L	-7.6146 ppb	10:48:21
3	Sb 206.836†	47.5	-1.2	-0.3604 ug/L	-0.3604 ppb	10:48:21
3	Se 196.026†	-37.4	0.3	0.2015 ug/L	0.2015 ppb	10:48:21
3	Si 251.611†	765.9	-133.2	-4.0467 ug/L	-4.0467 ppb	10:48:21
3	Sn 189.927†	7.2	-0.7	-0.1156 ug/L	-0.1156 ppb	10:48:21
3	Ti 334.940†	-1841.0	86.7	0.1398 ug/L	0.1398 ppb	10:48:01
3	Tl 190.801†	-45.5	14.4	4.1629 ug/L	4.1629 ppb	10:48:21
3	U 409.014†	-2936.4	374.1	11.520 ug/L	11.520 ppb	10:47:56
3	V 292.402†	-1834.9	83.2	0.5822 ug/L	0.5822 ppb	10:48:01
3	Zn 213.857†	857.8	-4.4	-0.0384 ug/L	-0.0384 ppb	10:48:21
3	SiO2†	802.4	-210.1	-13.681 ug/L	-13.681 ppb	10:48:36

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	876540.8	106.05	%	0.934				0.88%
Sc Radial	4637.5	102	%	1.4				1.38%
Y 371.029	747867.4	105.83	%	0.886				0.84%
Y RADIAL	4838.3	101.8	%	1.30				1.28%
Ag 328.068†	121.2	0.5481	ug/L	0.58453	0.5481	ppb	0.58453	106.65%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.7	-3.3462	ug/L	14.43009	-3.3462	ppb	14.43009	431.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.5	0.1888	ug/L	2.57427	0.1888	ppb	2.57427	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	327.8	6.9920	ug/L	0.38874	6.9920	ppb	0.38874	5.56%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.3	-0.0231	ug/L	0.08304	-0.0231	ppb	0.08304	360.16%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	387.3	0.1382	ug/L	0.05924	0.1382	ppb	0.05924	42.86%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.9	1.4770	ug/L	5.12808	1.4770	ppb	5.12808	347.20%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                20.9      0.2042 ug/L       0.10847      0.2042 ppb        0.10847  53.12%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                14.2      0.2783 ug/L       0.14943      0.2783 ppb        0.14943  53.69%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -14.0     -0.1503 ug/L       0.31640     -0.1503 ppb        0.31640 210.57%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -291.1     -0.9091 ug/L       0.47163     -0.9091 ppb        0.47163  51.88%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.6      23.299 ug/L        5.5020      23.299 ppb         5.5020  23.61%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          82.8      17.556 ug/L       25.3136      17.556 ppb        25.3136 144.19%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.9     -30.578 ug/L       15.1273     -30.578 ppb        15.1273  49.47%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -107.5     -0.1161 ug/L       0.04684     -0.1161 ppb        0.04684  40.35%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.3      0.3522 ug/L       0.37735      0.3522 ppb        0.37735 107.14%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -96.2     -29.979 ug/L       10.9522     -29.979 ppb        10.9522  36.53%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 5.2      0.1195 ug/L       0.42540      0.1195 ppb        0.42540 356.05%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -20.3     -10.276 ug/L        2.9680     -10.276 ppb         2.9680  28.88%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -0.4     -0.0495 ug/L       1.42493     -0.0495 ppb        1.42493 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -3.0     -3.5981 ug/L       3.48478     -3.5981 ppb        3.48478  96.85%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.1     -0.3124 ug/L       0.23610     -0.3124 ppb        0.23610  75.57%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 2.7      1.5052 ug/L       2.07858      1.5052 ppb        2.07858 138.10%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -135.0     -4.0880 ug/L       0.06736     -4.0880 ppb        0.06736   1.65%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.3      0.0480 ug/L       0.39801      0.0480 ppb        0.39801 828.90%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                22.5      0.1665 ug/L       0.23740      0.1665 ppb        0.23740 142.60%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                93.9      0.1524 ug/L       0.07244      0.1524 ppb        0.07244  47.53%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                14.0      4.0346 ug/L       0.90635      4.0346 ppb        0.90635  22.46%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                360.1      11.087 ug/L        4.4083      11.087 ppb         4.4083  39.76%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 97.8      0.6729 ug/L       0.16634      0.6729 ppb        0.16634  24.72%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 1.2      0.0104 ug/L       0.09450      0.0104 ppb        0.09450 906.71%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -200.4     -13.017 ug/L        1.7444     -13.017 ppb         1.7444  13.40%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/4/2010 11:59:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4641.5	4641.5	102	%			12:01:49
1	Y RADIAL	4828.8	4828.8	101.6	%			12:01:49
1	Al 396.153Radial†	5626.6	5516.9	4921.1	ug/L	4921.1	ppb	12:01:49
1	Ca 317.933Radial†	3119.6	3031.5	5111.7	ug/L	5111.7	ppb	12:02:09
1	Fe 238.204 Radial†	596.7	570.8	5131.9	ug/L	5131.9	ppb	12:02:09
1	K 766.490 Radial†	27100.1	23365.3	4941.3	ug/L	4941.3	ppb	12:01:49
1	Mg 279.077 IEC†	167.5	160.7	5245.8	ug/L	5245.8	ppb	12:02:09
1	Na 589.592 Radial†	30574.8	31423.2	9793.6	ug/L	9793.6	ppb	12:01:49
1	Sr 421.552†	67727.6	66155.9	489.08	ug/L	489.08	ppb	12:01:49
1	Sc 361.383	872292.8	872292.8	105.54	%			12:03:08
1	Y 371.029	735531.5	735531.5	104.08	%			12:03:08
1	Ag 328.068†	114177.8	107785.8	489.93	ug/L	489.93	ppb	12:03:08
1	As 188.979†	1367.5	1330.8	497.71	ug/L	497.71	ppb	12:03:28
1	B 249.677†	23299.1	22997.9	488.82	ug/L	488.82	ppb	12:03:08
1	Ba 233.527†	67803.9	64246.0	495.08	ug/L	495.08	ppb	12:03:08
1	Be 313.107†	1453069.2	1381445.1	492.85	ug/L	492.85	ppb	12:03:08
1	Cd 226.502†	52744.3	50239.5	495.51	ug/L	495.51	ppb	12:03:08
1	Co 228.616†	26304.4	25029.7	491.83	ug/L	491.83	ppb	12:03:28
1	Cr 267.716†	49042.2	46350.8	491.82	ug/L	491.82	ppb	12:03:08
1	Cu 324.752†	172952.0	155936.3	487.81	ug/L	487.81	ppb	12:03:08
1	Mn 257.610†	472642.2	447198.9	495.51	ug/L	495.51	ppb	12:03:08
1	Mo 202.031†	7923.7	7482.8	496.94	ug/L	496.94	ppb	12:03:28
1	Ni 231.604†	22656.2	21355.8	492.63	ug/L	492.63	ppb	12:03:28
1	P 214.914†	5357.5	4810.4	2396.3	ug/L	2396.3	ppb	12:03:28
1	Pb 220.353†	4768.4	4614.3	502.59	ug/L	502.59	ppb	12:03:28
1	S 181.975 Axial†	941.3	827.8	993.53	ug/L	993.53	ppb	12:03:28
1	Sb 206.836†	1723.5	1587.1	499.58	ug/L	499.58	ppb	12:03:28
1	Se 196.026†	959.2	944.3	524.67	ug/L	524.67	ppb	12:03:28
1	Si 251.611†	85737.3	80382.9	2414.5	ug/L	2414.5	ppb	12:03:08
1	Sn 189.927†	3389.2	3203.8	500.57	ug/L	500.57	ppb	12:03:28
1	Ti 334.940†	311595.7	297059.7	497.17	ug/L	497.17	ppb	12:03:08
1	Tl 190.801†	1766.7	1731.2	502.91	ug/L	502.91	ppb	12:03:28
1	U 409.014†	12743.5	15212.7	466.93	ug/L	466.93	ppb	12:03:08
1	V 292.402†	75637.3	73477.5	495.31	ug/L	495.31	ppb	12:03:08
1	Zn 213.857†	60933.0	56922.8	489.99	ug/L	489.99	ppb	12:03:08
1	SiO2†	86701.7	81185.4	5236.9	ug/L	5236.9	ppb	12:04:28
2	Sc Radial	4834.5	4834.5	107	%			12:02:14
2	Y RADIAL	5074.2	5074.2	106.7	%			12:02:14
2	Al 396.153Radial†	5705.1	5371.1	4790.6	ug/L	4790.6	ppb	12:02:14
2	Ca 317.933Radial†	3083.2	2875.8	4849.1	ug/L	4849.1	ppb	12:02:34
2	Fe 238.204 Radial†	591.6	542.9	4881.2	ug/L	4881.2	ppb	12:02:34
2	K 766.490 Radial†	27552.4	22732.7	4807.4	ug/L	4807.4	ppb	12:02:14
2	Mg 279.077 IEC†	164.7	151.5	4946.3	ug/L	4946.3	ppb	12:02:34
2	Na 589.592 Radial†	31117.7	30740.1	9580.7	ug/L	9580.7	ppb	12:02:14
2	Sr 421.552†	69179.6	64876.3	479.62	ug/L	479.62	ppb	12:02:14
2	Sc 361.383	883006.3	883006.3	106.84	%			12:03:35
2	Y 371.029	744566.8	744566.8	105.36	%			12:03:35
2	Ag 328.068†	115403.8	107620.8	489.10	ug/L	489.10	ppb	12:03:35
2	As 188.979†	1391.4	1337.5	500.15	ug/L	500.15	ppb	12:03:55
2	B 249.677†	23506.3	22924.0	487.28	ug/L	487.28	ppb	12:03:35
2	Ba 233.527†	68337.9	63966.3	492.93	ug/L	492.93	ppb	12:03:35
2	Be 313.107†	1468931.0	1379587.3	492.19	ug/L	492.19	ppb	12:03:35
2	Cd 226.502†	53367.9	50216.8	495.30	ug/L	495.30	ppb	12:03:35
2	Co 228.616†	26450.2	24863.8	488.57	ug/L	488.57	ppb	12:03:55
2	Cr 267.716†	49402.8	46124.5	489.41	ug/L	489.41	ppb	12:03:35
2	Cu 324.752†	174466.4	155365.5	486.01	ug/L	486.01	ppb	12:03:35
2	Mn 257.610†	477602.9	446408.6	494.62	ug/L	494.62	ppb	12:03:35
2	Mo 202.031†	7969.3	7434.3	493.70	ug/L	493.70	ppb	12:03:55
2	Ni 231.604†	22726.4	21161.0	488.13	ug/L	488.13	ppb	12:03:55

2	P 214.914†	5394.5	4783.5	2382.9 ug/L	2382.9 ppb	12:03:55
2	Pb 220.353†	4792.4	4582.0	499.06 ug/L	499.06 ppb	12:03:55
2	S 181.975 Axial†	948.3	823.5	988.44 ug/L	988.44 ppb	12:03:55
2	Sb 206.836†	1734.6	1577.7	496.57 ug/L	496.57 ppb	12:03:55
2	Se 196.026†	958.4	932.5	517.60 ug/L	517.60 ppb	12:03:55
2	Si 251.611†	86682.3	80281.7	2411.6 ug/L	2411.6 ppb	12:03:35
2	Sn 189.927†	3400.2	3175.2	496.07 ug/L	496.07 ppb	12:03:55
2	Ti 334.940†	314485.7	296182.6	495.69 ug/L	495.69 ppb	12:03:35
2	Tl 190.801†	1792.1	1734.7	503.92 ug/L	503.92 ppb	12:03:55
2	U 409.014†	12963.7	15272.2	468.80 ug/L	468.80 ppb	12:03:35
2	V 292.402†	76398.8	73320.8	494.26 ug/L	494.26 ppb	12:03:35
2	Zn 213.857†	61672.9	56914.9	489.97 ug/L	489.97 ppb	12:03:35
2	SiO2†	87727.6	81148.9	5234.8 ug/L	5234.8 ppb	12:04:33
3	Sc Radial	4768.1	4768.1	105 %		12:02:39
3	Y RADIAL	4959.3	4959.3	104.3 %		12:02:39
3	Al 396.153Radial†	5770.3	5507.5	4912.5 ug/L	4912.5 ppb	12:02:39
3	Ca 317.933Radial†	3103.7	2935.5	4949.9 ug/L	4949.9 ppb	12:02:59
3	Fe 238.204 Radial†	593.7	552.5	4967.9 ug/L	4967.9 ppb	12:02:59
3	K 766.490 Radial†	27641.3	23177.1	4901.5 ug/L	4901.5 ppb	12:02:39
3	Mg 279.077 IEC†	174.0	162.5	5306.3 ug/L	5306.3 ppb	12:02:59
3	Na 589.592 Radial†	31320.5	31339.2	9767.4 ug/L	9767.4 ppb	12:02:39
3	Sr 421.552†	69630.2	66208.0	489.46 ug/L	489.46 ppb	12:02:39
3	Sc 361.383	869854.0	869854.0	105.24 %		12:04:03
3	Y 371.029	733961.5	733961.5	103.86 %		12:04:03
3	Ag 328.068†	113946.3	107869.2	490.25 ug/L	490.25 ppb	12:04:03
3	As 188.979†	1390.8	1356.6	507.26 ug/L	507.26 ppb	12:04:23
3	B 249.677†	23149.9	22918.0	487.13 ug/L	487.13 ppb	12:04:03
3	Ba 233.527†	67740.1	64365.5	496.00 ug/L	496.00 ppb	12:04:03
3	Be 313.107†	1451539.8	1383852.0	493.71 ug/L	493.71 ppb	12:04:03
3	Cd 226.502†	52646.0	50286.1	495.99 ug/L	495.99 ppb	12:04:03
3	Co 228.616†	26435.5	25224.2	495.66 ug/L	495.66 ppb	12:04:23
3	Cr 267.716†	48925.8	46370.5	492.02 ug/L	492.02 ppb	12:04:03
3	Cu 324.752†	172300.7	155776.9	487.30 ug/L	487.30 ppb	12:04:03
3	Mn 257.610†	471878.3	447728.7	496.08 ug/L	496.08 ppb	12:04:03
3	Mo 202.031†	7970.5	7548.3	501.27 ug/L	501.27 ppb	12:04:23
3	Ni 231.604†	22780.5	21534.0	496.74 ug/L	496.74 ppb	12:04:23
3	P 214.914†	5400.3	4865.3	2424.8 ug/L	2424.8 ppb	12:04:23
3	Pb 220.353†	4787.2	4644.9	505.93 ug/L	505.93 ppb	12:04:23
3	S 181.975 Axial†	951.6	840.1	1008.3 ug/L	1008.3 ppb	12:04:23
3	Sb 206.836†	1715.9	1584.4	498.93 ug/L	498.93 ppb	12:04:23
3	Se 196.026†	944.7	933.1	518.21 ug/L	518.21 ppb	12:04:23
3	Si 251.611†	85604.9	80484.9	2417.5 ug/L	2417.5 ppb	12:04:03
3	Sn 189.927†	3410.4	3232.9	505.10 ug/L	505.10 ppb	12:04:23
3	Ti 334.940†	311452.4	297751.3	498.32 ug/L	498.32 ppb	12:04:03
3	Tl 190.801†	1768.7	1737.8	504.80 ug/L	504.80 ppb	12:04:23
3	U 409.014†	12989.8	15480.6	475.20 ug/L	475.20 ppb	12:04:03
3	V 292.402†	75574.5	73618.8	496.35 ug/L	496.35 ppb	12:04:03
3	Zn 213.857†	60923.1	57075.3	491.29 ug/L	491.29 ppb	12:04:03
3	SiO2†	87090.1	81784.7	5275.6 ug/L	5275.6 ppb	12:04:38

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	875051.0	105.87	%	0.847				0.80%
Sc Radial	4748.1	105	%	2.2				2.07%
Y 371.029	738020.0	104.44	%	0.810				0.78%
Y RADIAL	4954.1	104.2	%	2.58				2.48%
Ag 328.068†	107758.6	489.76	ug/L	0.594	489.76	ppb	0.594	0.12%
QC value within limits for Ag 328.068 Recovery = 97.95%								
Al 396.153Radial†	5465.1	4874.7	ug/L	72.98	4874.7	ppb	72.98	1.50%
QC value within limits for Al 396.153Radial Recovery = 97.49%								
As 188.979†	1341.6	501.70	ug/L	4.958	501.70	ppb	4.958	0.99%
QC value within limits for As 188.979 Recovery = 100.34%								
B 249.677†	22946.6	487.74	ug/L	0.935	487.74	ppb	0.935	0.19%
QC value within limits for B 249.677 Recovery = 97.55%								
Ba 233.527†	64192.6	494.67	ug/L	1.579	494.67	ppb	1.579	0.32%
QC value within limits for Ba 233.527 Recovery = 98.93%								
Be 313.107†	1381628.2	492.92	ug/L	0.764	492.92	ppb	0.764	0.15%
QC value within limits for Be 313.107 Recovery = 98.58%								
Ca 317.933Radial†	2947.6	4970.2	ug/L	132.47	4970.2	ppb	132.47	2.67%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.40%
Cd 226.502†            50247.5      495.60 ug/L         0.350      495.60 ppb          0.350   0.07%
   QC value within limits for Cd 226.502  Recovery = 99.12%
Co 228.616†            25039.2      492.02 ug/L         3.549      492.02 ppb          3.549   0.72%
   QC value within limits for Co 228.616  Recovery = 98.40%
Cr 267.716†            46282.0      491.08 ug/L         1.451      491.08 ppb          1.451   0.30%
   QC value within limits for Cr 267.716  Recovery = 98.22%
Cu 324.752†           155692.9      487.04 ug/L         0.927      487.04 ppb          0.927   0.19%
   QC value within limits for Cu 324.752  Recovery = 97.41%
Fe 238.204 Radial†       555.4      4993.6 ug/L        127.33      4993.6 ppb         127.33   2.55%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.87%
K 766.490 Radial†      23091.7      4883.4 ug/L         68.76      4883.4 ppb          68.76   1.41%
   QC value within limits for K 766.490 Radial  Recovery = 97.67%
Mg 279.077 IEC†          158.3      5166.2 ug/L        192.75      5166.2 ppb         192.75   3.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.32%
Mn 257.610†           447112.0      495.40 ug/L         0.738      495.40 ppb          0.738   0.15%
   QC value within limits for Mn 257.610  Recovery = 99.08%
Mo 202.031†             7488.5      497.30 ug/L         3.797      497.30 ppb          3.797   0.76%
   QC value within limits for Mo 202.031  Recovery = 99.46%
Na 589.592 Radial†     31167.5      9713.9 ug/L        116.11      9713.9 ppb         116.11   1.20%
   QC value within limits for Na 589.592 Radial  Recovery = 97.14%
Ni 231.604†            21350.2      492.50 ug/L         4.304      492.50 ppb          4.304   0.87%
   QC value within limits for Ni 231.604  Recovery = 98.50%
P 214.914†              4819.8      2401.3 ug/L         21.40      2401.3 ppb          21.40   0.89%
   QC value within limits for P 214.914  Recovery = 96.05%
Pb 220.353†             4613.7      502.52 ug/L         3.434      502.52 ppb          3.434   0.68%
   QC value within limits for Pb 220.353  Recovery = 100.50%
S 181.975 Axial†         830.5      996.76 ug/L        10.320      996.76 ppb         10.320   1.04%
   QC value within limits for S 181.975 Axial  Recovery = 99.68%
Sb 206.836†             1583.1      498.36 ug/L         1.584      498.36 ppb          1.584   0.32%
   QC value within limits for Sb 206.836  Recovery = 99.67%
Se 196.026†              936.6      520.16 ug/L         3.920      520.16 ppb          3.920   0.75%
   QC value within limits for Se 196.026  Recovery = 104.03%
Si 251.611†            80383.2      2414.5 ug/L          2.97      2414.5 ppb           2.97   0.12%
   QC value within limits for Si 251.611  Recovery = 96.58%
Sn 189.927†             3204.0      500.58 ug/L         4.512      500.58 ppb          4.512   0.90%
   QC value within limits for Sn 189.927  Recovery = 100.12%
Sr 421.552†            65746.8      486.05 ug/L         5.576      486.05 ppb          5.576   1.15%
   QC value within limits for Sr 421.552  Recovery = 97.21%
Ti 334.940†           296997.9      497.06 ug/L         1.317      497.06 ppb          1.317   0.27%
   QC value within limits for Ti 334.940  Recovery = 99.41%
Tl 190.801†             1734.6      503.88 ug/L         0.943      503.88 ppb          0.943   0.19%
   QC value within limits for Tl 190.801  Recovery = 100.78%
U 409.014†             15321.8      470.31 ug/L         4.337      470.31 ppb          4.337   0.92%
   QC value within limits for U 409.014  Recovery = 94.06%
V 292.402†             73472.3      495.30 ug/L         1.047      495.30 ppb          1.047   0.21%
   QC value within limits for V 292.402  Recovery = 99.06%
Zn 213.857†            56971.0      490.42 ug/L         0.757      490.42 ppb          0.757   0.15%
   QC value within limits for Zn 213.857  Recovery = 98.08%
SiO2†                  81373.0      5249.1 ug/L         22.97      5249.1 ppb          22.97   0.44%
   QC value within limits for SiO2  Recovery = 98.16%
All analyte(s) passed QC.
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Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/4/2010 12:06:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4633.8	4633.8	102	%			12:08:42
1	Y RADIAL	4888.0	4888.0	102.8	%			12:08:42
1	Al 396.153Radial†	-1.6	20.2	18.123	ug/L	18.123	ppb	12:08:42
1	Ca 317.933Radial†	16.5	1.0	1.6563	ug/L	1.6563	ppb	12:09:02
1	Fe 238.204 Radial†	12.3	0.2	1.4508	ug/L	1.4508	ppb	12:09:02
1	K 766.490 Radial†	3227.5	56.3	11.940	ug/L	11.940	ppb	12:08:42
1	Mg 279.077 IEC†	3.7	0.8	25.001	ug/L	25.001	ppb	12:09:02
1	Na 589.592 Radial†	-1589.4	8.6	2.6941	ug/L	2.6941	ppb	12:08:42
1	Sr 421.552†	35.0	46.4	0.3433	ug/L	0.3433	ppb	12:08:42
1	Sc 361.383	843479.2	843479.2	102.05	%			12:09:59
1	Y 371.029	720693.4	720693.4	101.99	%			12:09:59
1	Ag 328.068†	457.0	49.0	0.2201	ug/L	0.2201	ppb	12:09:59
1	As 188.979†	-22.1	13.5	4.9911	ug/L	4.9911	ppb	12:10:19
1	B 249.677†	-731.7	204.8	4.3697	ug/L	4.3697	ppb	12:09:59
1	Ba 233.527†	-7.8	-6.6	-0.0487	ug/L	-0.0487	ppb	12:10:19
1	Be 313.107†	-4463.4	273.5	0.0977	ug/L	0.0977	ppb	12:09:59
1	Cd 226.502†	-240.8	27.7	0.2736	ug/L	0.2736	ppb	12:10:19
1	Co 228.616†	-83.2	24.5	0.4807	ug/L	0.4807	ppb	12:10:19
1	Cr 267.716†	124.2	4.6	0.0479	ug/L	0.0479	ppb	12:09:59
1	Cu 324.752†	7949.2	-148.1	-0.4631	ug/L	-0.4631	ppb	12:09:59
1	Mn 257.610†	524.5	-120.5	-0.1337	ug/L	-0.1337	ppb	12:09:59
1	Mo 202.031†	29.6	4.0	0.2630	ug/L	0.2630	ppb	12:10:19
1	Ni 231.604†	132.7	18.8	0.4339	ug/L	0.4339	ppb	12:10:19
1	P 214.914†	276.1	4.7	2.4709	ug/L	2.4709	ppb	12:10:19
1	Pb 220.353†	-95.8	2.3	0.2578	ug/L	0.2578	ppb	12:10:19
1	S 181.975 Axial†	61.1	-4.2	-5.0603	ug/L	-5.0603	ppb	12:10:19
1	Sb 206.836†	41.4	-5.4	-1.6525	ug/L	-1.6525	ppb	12:10:19
1	Se 196.026†	-50.1	-13.7	-7.3467	ug/L	-7.3467	ppb	12:10:19
1	Si 251.611†	737.3	-131.6	-3.9806	ug/L	-3.9806	ppb	12:10:19
1	Sn 189.927†	8.9	1.2	0.1862	ug/L	0.1862	ppb	12:10:19
1	Ti 334.940†	-1770.0	85.1	0.1403	ug/L	0.1403	ppb	12:09:59
1	Tl 190.801†	-43.2	15.0	4.3186	ug/L	4.3186	ppb	12:10:19
1	U 409.014†	-3026.5	172.5	5.3118	ug/L	5.3118	ppb	12:09:59
1	V 292.402†	-1732.5	112.7	0.7638	ug/L	0.7638	ppb	12:09:59
1	Zn 213.857†	869.0	39.7	0.3415	ug/L	0.3415	ppb	12:10:19
1	SiO2†	783.5	-197.6	-12.832	ug/L	-12.832	ppb	12:11:15
2	Sc Radial	4709.3	4709.3	104	%			12:09:07
2	Y RADIAL	4934.9	4934.9	103.8	%			12:09:07
2	Al 396.153Radial†	-23.7	-1.0	-0.9027	ug/L	-0.9027	ppb	12:09:07
2	Ca 317.933Radial†	15.6	-0.1	-0.2095	ug/L	-0.2095	ppb	12:09:27
2	Fe 238.204 Radial†	13.6	1.2	10.520	ug/L	10.520	ppb	12:09:27
2	K 766.490 Radial†	3184.9	-35.3	-7.4949	ug/L	-7.4949	ppb	12:09:07
2	Mg 279.077 IEC†	5.0	1.9	61.731	ug/L	61.731	ppb	12:09:27
2	Na 589.592 Radial†	-1492.6	126.8	39.506	ug/L	39.506	ppb	12:09:07
2	Sr 421.552†	31.8	42.8	0.3166	ug/L	0.3166	ppb	12:09:07
2	Sc 361.383	851620.7	851620.7	103.04	%			12:10:24
2	Y 371.029	727353.0	727353.0	102.93	%			12:10:24
2	Ag 328.068†	487.7	74.5	0.3406	ug/L	0.3406	ppb	12:10:24
2	As 188.979†	-36.0	0.2	0.0745	ug/L	0.0745	ppb	12:10:44
2	B 249.677†	-624.8	315.4	6.7288	ug/L	6.7288	ppb	12:10:24
2	Ba 233.527†	8.5	9.3	0.0729	ug/L	0.0729	ppb	12:10:44
2	Be 313.107†	-4463.7	315.0	0.1123	ug/L	0.1123	ppb	12:10:24
2	Cd 226.502†	-253.2	18.0	0.1760	ug/L	0.1760	ppb	12:10:44
2	Co 228.616†	-100.2	8.8	0.1727	ug/L	0.1727	ppb	12:10:44
2	Cr 267.716†	101.3	-18.9	-0.1993	ug/L	-0.1993	ppb	12:10:24
2	Cu 324.752†	8082.8	-93.0	-0.2903	ug/L	-0.2903	ppb	12:10:24
2	Mn 257.610†	558.4	-92.5	-0.1025	ug/L	-0.1025	ppb	12:10:24
2	Mo 202.031†	25.8	-0.0	0.0010	ug/L	0.0010	ppb	12:10:44
2	Ni 231.604†	100.2	-14.0	-0.3224	ug/L	-0.3224	ppb	12:10:44

2	P 214.914†	280.1	6.0	3.1036 ug/L	3.1036 ppb	12:10:44
2	Pb 220.353†	-101.0	-1.8	-0.1992 ug/L	-0.1992 ppb	12:10:44
2	S 181.975 Axial†	60.3	-5.6	-6.7329 ug/L	-6.7329 ppb	12:10:44
2	Sb 206.836†	48.4	1.0	0.2930 ug/L	0.2930 ppb	12:10:44
2	Se 196.026†	-35.2	1.3	0.7460 ug/L	0.7460 ppb	12:10:44
2	Si 251.611†	767.3	-109.4	-3.2976 ug/L	-3.2976 ppb	12:10:44
2	Sn 189.927†	1.8	-5.8	-0.9003 ug/L	-0.9003 ppb	12:10:44
2	Ti 334.940†	-1841.8	32.1	0.0531 ug/L	0.0531 ppb	12:10:24
2	Tl 190.801†	-56.0	3.0	0.8524 ug/L	0.8524 ppb	12:10:44
2	U 409.014†	-3187.2	44.8	1.3803 ug/L	1.3803 ppb	12:10:24
2	V 292.402†	-1797.9	65.5	0.4382 ug/L	0.4382 ppb	12:10:24
2	Zn 213.857†	860.2	23.1	0.2000 ug/L	0.2000 ppb	12:10:44
2	SiO2†	784.9	-203.7	-13.192 ug/L	-13.192 ppb	12:11:20
3	Sc Radial	4664.7	4664.7	103 %		12:09:32
3	Y RADIAL	4857.6	4857.6	102.2 %		12:09:32
3	Al 396.153Radial†	-16.5	5.8	5.1774 ug/L	5.1774 ppb	12:09:32
3	Ca 317.933Radial†	19.4	3.7	6.3030 ug/L	6.3030 ppb	12:09:52
3	Fe 238.204 Radial†	10.9	-1.2	-11.172 ug/L	-11.172 ppb	12:09:52
3	K 766.490 Radial†	3139.8	-49.8	-10.568 ug/L	-10.568 ppb	12:09:32
3	Mg 279.077 IEC†	3.7	0.7	21.325 ug/L	21.325 ppb	12:09:52
3	Na 589.592 Radial†	-1534.9	72.0	22.425 ug/L	22.425 ppb	12:09:32
3	Sr 421.552†	-14.7	-2.1	-0.0155 ug/L	-0.0155 ppb	12:09:32
3	Sc 361.383	860508.6	860508.6	104.11 %		12:10:49
3	Y 371.029	734795.9	734795.9	103.98 %		12:10:49
3	Ag 328.068†	503.2	84.5	0.3744 ug/L	0.3744 ppb	12:10:49
3	As 188.979†	-35.0	1.5	0.5614 ug/L	0.5614 ppb	12:11:10
3	B 249.677†	-672.9	275.5	5.8799 ug/L	5.8799 ppb	12:10:49
3	Ba 233.527†	10.1	10.8	0.0843 ug/L	0.0843 ppb	12:11:10
3	Be 313.107†	-4537.7	288.7	0.1029 ug/L	0.1029 ppb	12:10:49
3	Cd 226.502†	-248.3	25.2	0.2492 ug/L	0.2492 ppb	12:11:10
3	Co 228.616†	-97.7	12.1	0.2372 ug/L	0.2372 ppb	12:11:10
3	Cr 267.716†	108.3	-13.2	-0.1411 ug/L	-0.1411 ppb	12:10:49
3	Cu 324.752†	8206.0	-55.7	-0.1748 ug/L	-0.1748 ppb	12:10:49
3	Mn 257.610†	552.4	-103.9	-0.1165 ug/L	-0.1165 ppb	12:10:49
3	Mo 202.031†	18.3	-7.4	-0.4913 ug/L	-0.4913 ppb	12:11:10
3	Ni 231.604†	112.5	-3.2	-0.0740 ug/L	-0.0740 ppb	12:11:10
3	P 214.914†	259.2	-16.9	-8.6218 ug/L	-8.6218 ppb	12:11:10
3	Pb 220.353†	-85.4	14.1	1.5348 ug/L	1.5348 ppb	12:11:10
3	S 181.975 Axial†	69.0	2.1	2.5246 ug/L	2.5246 ppb	12:11:10
3	Sb 206.836†	47.6	-0.2	-0.0826 ug/L	-0.0826 ppb	12:11:10
3	Se 196.026†	-49.4	-12.0	-6.4966 ug/L	-6.4966 ppb	12:11:10
3	Si 251.611†	752.6	-131.2	-3.9482 ug/L	-3.9482 ppb	12:11:10
3	Sn 189.927†	7.2	-0.6	-0.0870 ug/L	-0.0870 ppb	12:11:10
3	Ti 334.940†	-1848.8	43.9	0.0703 ug/L	0.0703 ppb	12:10:49
3	Tl 190.801†	-53.7	5.7	1.6411 ug/L	1.6411 ppb	12:11:10
3	U 409.014†	-2998.1	258.4	7.9609 ug/L	7.9609 ppb	12:10:49
3	V 292.402†	-1755.2	124.5	0.8389 ug/L	0.8389 ppb	12:10:49
3	Zn 213.857†	865.7	19.7	0.1716 ug/L	0.1716 ppb	12:11:10
3	SiO2†	829.4	-168.7	-10.910 ug/L	-10.910 ppb	12:11:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	851869.5	103.07	%	1.031				1.00%
Sc Radial	4669.3	103	%	0.8				0.81%
Y 371.029	727614.1	102.96	%	0.998				0.97%
Y RADIAL	4893.5	102.9	%	0.82				0.80%
Ag 328.068†	69.3	0.3117	ug/L	0.08111	0.3117	ppb	0.08111	26.02%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	8.3	7.4659	ug/L	9.71709	7.4659	ppb	9.71709	130.15%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.1	1.8757	ug/L	2.70902	1.8757	ppb	2.70902	144.43%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	265.3	5.6595	ug/L	1.19487	5.6595	ppb	1.19487	21.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.5	0.0362	ug/L	0.07369	0.0362	ppb	0.07369	203.66%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	292.4	0.1043	ug/L	0.00741	0.1043	ppb	0.00741	7.10%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.5	2.5833	ug/L	3.35375	2.5833	ppb	3.35375	129.83%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              23.6      0.2329 ug/L       0.05082      0.2329 ppb        0.05082  21.82%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              15.1      0.2969 ug/L       0.16242      0.2969 ppb        0.16242  54.71%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -9.2     -0.0975 ug/L       0.12927     -0.0975 ppb        0.12927 132.60%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -99.0     -0.3094 ug/L       0.14512     -0.3094 ppb        0.14512  46.91%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.0      0.2662 ug/L      10.89411      0.2662 ppb       10.89411 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -9.6     -2.0411 ug/L      12.20494     -2.0411 ppb       12.20494 597.97%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           1.1      36.019 ug/L       22.3427      36.019 ppb        22.3427  62.03%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†            -105.6     -0.1176 ug/L       0.01561     -0.1176 ppb        0.01561  13.28%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -1.1     -0.0758 ug/L       0.38297     -0.0758 ppb        0.38297 505.41%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       69.1      21.542 ug/L       18.4219      21.542 ppb        18.4219  85.52%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.5      0.0125 ug/L       0.38549      0.0125 ppb        0.38549 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -2.1     -1.0158 ug/L       6.59461     -1.0158 ppb        6.59461 649.24%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               4.9      0.5311 ug/L       0.89875      0.5311 ppb        0.89875 169.21%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.6     -3.0895 ug/L       4.93337     -3.0895 ppb        4.93337 159.68%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -1.5     -0.4807 ug/L       1.03202     -0.4807 ppb        1.03202 214.70%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -8.1     -4.3658 ug/L       4.44728     -4.3658 ppb        4.44728 101.87%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†            -124.1     -3.7421 ug/L       0.38530     -3.7421 ppb        0.38530  10.30%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -1.7     -0.2671 ug/L       0.56520     -0.2671 ppb        0.56520 211.64%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              29.1      0.2148 ug/L       0.19990      0.2148 ppb        0.19990  93.05%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              53.7      0.0879 ug/L       0.04616      0.0879 ppb        0.04616  52.52%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               7.9      2.2707 ug/L       1.81685      2.2707 ppb        1.81685  80.01%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              158.6      4.8843 ug/L       3.31109      4.8843 ppb        3.31109  67.79%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              100.9      0.6803 ug/L       0.21296      0.6803 ppb        0.21296  31.30%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              27.5      0.2377 ug/L       0.09103      0.2377 ppb        0.09103  38.29%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                  -190.0     -12.311 ug/L        1.2264     -12.311 ppb         1.2264   9.96%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/4/2010 13:10:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4659.3	4659.3	103	%			13:12:28
1	Y RADIAL	4824.8	4824.8	101.5	%			13:12:28
1	Al 396.153Radial†	5801.7	5666.2	5054.5	ug/L	5054.5	ppb	13:12:28
1	Ca 317.933Radial†	3106.8	3007.4	5071.1	ug/L	5071.1	ppb	13:12:48
1	Fe 238.204 Radial†	586.8	559.0	5025.9	ug/L	5025.9	ppb	13:12:48
1	K 766.490 Radial†	27779.6	23925.4	5059.8	ug/L	5059.8	ppb	13:12:28
1	Mg 279.077 IEC†	161.1	153.9	5023.3	ug/L	5023.3	ppb	13:12:48
1	Na 589.592 Radial†	30694.6	31425.8	9794.4	ug/L	9794.4	ppb	13:12:28
1	Sr 421.552†	69633.3	67757.5	500.92	ug/L	500.92	ppb	13:12:28
1	Sc 361.383	860225.2	860225.2	104.08	%			13:13:47
1	Y 371.029	726613.8	726613.8	102.82	%			13:13:47
1	Ag 328.068†	116996.1	112011.3	509.03	ug/L	509.03	ppb	13:13:47
1	As 188.979†	1373.6	1354.9	506.80	ug/L	506.80	ppb	13:14:07
1	B 249.677†	23934.9	23918.5	508.46	ug/L	508.46	ppb	13:13:47
1	Ba 233.527†	69377.4	66659.0	513.67	ug/L	513.67	ppb	13:13:47
1	Be 313.107†	1488210.8	1434523.5	511.79	ug/L	511.79	ppb	13:13:47
1	Cd 226.502†	53870.7	52022.8	513.12	ug/L	513.12	ppb	13:13:47
1	Co 228.616†	26295.5	25370.8	498.51	ug/L	498.51	ppb	13:14:07
1	Cr 267.716†	50167.1	48083.5	510.20	ug/L	510.20	ppb	13:13:47
1	Cu 324.752†	177732.9	162828.7	509.35	ug/L	509.35	ppb	13:13:47
1	Mn 257.610†	484389.3	464767.9	514.95	ug/L	514.95	ppb	13:13:47
1	Mo 202.031†	7936.5	7600.4	504.73	ug/L	504.73	ppb	13:14:07
1	Ni 231.604†	22624.7	21626.6	498.87	ug/L	498.87	ppb	13:14:07
1	P 214.914†	5343.1	4867.8	2422.5	ug/L	2422.5	ppb	13:14:07
1	Pb 220.353†	4749.4	4659.4	507.53	ug/L	507.53	ppb	13:14:07
1	S 181.975 Axial†	939.5	838.5	1006.4	ug/L	1006.4	ppb	13:14:07
1	Sb 206.836†	1694.7	1582.3	497.88	ug/L	497.88	ppb	13:14:07
1	Se 196.026†	941.0	939.6	521.86	ug/L	521.86	ppb	13:14:07
1	Si 251.611†	88176.7	83866.3	2519.5	ug/L	2519.5	ppb	13:13:47
1	Sn 189.927†	3371.8	3232.1	504.98	ug/L	504.98	ppb	13:14:07
1	Ti 334.940†	320763.0	310009.4	518.83	ug/L	518.83	ppb	13:13:47
1	Tl 190.801†	1750.9	1739.6	505.52	ug/L	505.52	ppb	13:14:07
1	U 409.014†	13393.4	16006.5	491.36	ug/L	491.36	ppb	13:13:47
1	V 292.402†	77686.3	76451.5	515.23	ug/L	515.23	ppb	13:13:47
1	Zn 213.857†	62349.0	59093.2	508.78	ug/L	508.78	ppb	13:13:47
1	SiO2†	86758.7	82392.6	5314.8	ug/L	5314.8	ppb	13:15:08
2	Sc Radial	4685.1	4685.1	103	%			13:12:53
2	Y RADIAL	4882.6	4882.6	102.7	%			13:12:53
2	Al 396.153Radial†	5761.4	5596.1	4992.4	ug/L	4992.4	ppb	13:12:53
2	Ca 317.933Radial†	3097.6	2981.9	5028.1	ug/L	5028.1	ppb	13:13:13
2	Fe 238.204 Radial†	588.2	557.2	5010.0	ug/L	5010.0	ppb	13:13:13
2	K 766.490 Radial†	27384.3	23393.9	4947.6	ug/L	4947.6	ppb	13:12:53
2	Mg 279.077 IEC†	166.1	157.8	5150.2	ug/L	5150.2	ppb	13:13:13
2	Na 589.592 Radial†	30162.2	30746.0	9582.5	ug/L	9582.5	ppb	13:12:53
2	Sr 421.552†	68652.9	66435.2	491.14	ug/L	491.14	ppb	13:12:53
2	Sc 361.383	891758.4	891758.4	107.89	%			13:14:15
2	Y 371.029	753165.0	753165.0	106.58	%			13:14:15
2	Ag 328.068†	113533.7	104827.4	476.48	ug/L	476.48	ppb	13:14:15
2	As 188.979†	1385.7	1319.4	493.38	ug/L	493.38	ppb	13:14:35
2	B 249.677†	23039.7	22275.7	473.45	ug/L	473.45	ppb	13:14:15
2	Ba 233.527†	67287.3	62364.8	480.59	ug/L	480.59	ppb	13:14:15
2	Be 313.107†	1438600.1	1337981.5	477.35	ug/L	477.35	ppb	13:14:15
2	Cd 226.502†	52088.0	48540.3	478.75	ug/L	478.75	ppb	13:14:15
2	Co 228.616†	26411.2	24584.6	483.10	ug/L	483.10	ppb	13:14:35
2	Cr 267.716†	48622.6	44947.6	476.93	ug/L	476.93	ppb	13:14:15
2	Cu 324.752†	171590.9	151097.8	472.67	ug/L	472.67	ppb	13:14:15
2	Mn 257.610†	468628.7	433703.6	480.56	ug/L	480.56	ppb	13:14:15
2	Mo 202.031†	7974.3	7365.8	489.16	ug/L	489.16	ppb	13:14:35
2	Ni 231.604†	22748.8	20973.0	483.80	ug/L	483.80	ppb	13:14:35

2	P 214.914†	5357.8	4699.9	2341.9 ug/L	2341.9 ppb	13:14:35
2	Pb 220.353†	4783.8	4529.9	493.44 ug/L	493.44 ppb	13:14:35
2	S 181.975 Axial†	943.3	810.1	972.27 ug/L	972.27 ppb	13:14:35
2	Sb 206.836†	1710.7	1539.6	484.83 ug/L	484.83 ppb	13:14:35
2	Se 196.026†	935.1	902.1	501.62 ug/L	501.62 ppb	13:14:35
2	Si 251.611†	85607.4	78489.2	2357.5 ug/L	2357.5 ppb	13:14:15
2	Sn 189.927†	3379.6	3124.9	488.24 ug/L	488.24 ppb	13:14:35
2	Ti 334.940†	309665.5	288826.1	483.39 ug/L	483.39 ppb	13:14:15
2	Tl 190.801†	1780.8	1707.8	496.03 ug/L	496.03 ppb	13:14:35
2	U 409.014†	12923.8	15116.2	464.00 ug/L	464.00 ppb	13:14:15
2	V 292.402†	75068.5	71385.9	481.32 ug/L	481.32 ppb	13:14:15
2	Zn 213.857†	60352.8	55124.9	474.46 ug/L	474.46 ppb	13:14:15
2	SiO2†	87440.3	80076.7	5165.5 ug/L	5165.5 ppb	13:15:13
3	Sc Radial	4768.0	4768.0	105 %		13:13:18
3	Y RADIAL	4949.8	4949.8	104.1 %		13:13:18
3	Al 396.153Radial†	5649.1	5392.3	4809.6 ug/L	4809.6 ppb	13:13:18
3	Ca 317.933Radial†	3106.3	2938.0	4954.0 ug/L	4954.0 ppb	13:13:38
3	Fe 238.204 Radial†	591.5	550.5	4949.6 ug/L	4949.6 ppb	13:13:38
3	K 766.490 Radial†	27271.4	22825.8	4827.2 ug/L	4827.2 ppb	13:13:18
3	Mg 279.077 IEC†	166.0	154.9	5057.3 ug/L	5057.3 ppb	13:13:38
3	Na 589.592 Radial†	29772.4	29867.9	9308.8 ug/L	9308.8 ppb	13:13:18
3	Sr 421.552†	67425.5	64113.2	473.97 ug/L	473.97 ppb	13:13:18
3	Sc 361.383	874563.5	874563.5	105.81 %		13:14:42
3	Y 371.029	738413.7	738413.7	104.49 %		13:14:42
3	Ag 328.068†	115766.4	109006.2	495.39 ug/L	495.39 ppb	13:14:42
3	As 188.979†	1383.5	1342.6	502.12 ug/L	502.12 ppb	13:15:02
3	B 249.677†	23591.9	23217.3	493.53 ug/L	493.53 ppb	13:14:42
3	Ba 233.527†	68823.2	65042.4	501.22 ug/L	501.22 ppb	13:14:42
3	Be 313.107†	1473907.8	1397563.8	498.61 ug/L	498.61 ppb	13:14:42
3	Cd 226.502†	53416.6	50745.1	500.51 ug/L	500.51 ppb	13:14:42
3	Co 228.616†	26300.9	24961.7	490.48 ug/L	490.48 ppb	13:15:02
3	Cr 267.716†	49726.1	46876.5	497.39 ug/L	497.39 ppb	13:14:42
3	Cu 324.752†	175845.2	158245.1	495.02 ug/L	495.02 ppb	13:14:42
3	Mn 257.610†	479871.9	452868.6	501.77 ug/L	501.77 ppb	13:14:42
3	Mo 202.031†	7927.0	7466.4	495.83 ug/L	495.83 ppb	13:15:02
3	Ni 231.604†	22631.0	21276.2	490.79 ug/L	490.79 ppb	13:15:02
3	P 214.914†	5336.3	4777.2	2378.2 ug/L	2378.2 ppb	13:15:02
3	Pb 220.353†	4772.9	4606.8	501.76 ug/L	501.76 ppb	13:15:02
3	S 181.975 Axial†	933.5	818.1	981.86 ug/L	981.86 ppb	13:15:02
3	Sb 206.836†	1690.1	1551.3	488.24 ug/L	488.24 ppb	13:15:02
3	Se 196.026†	926.0	910.6	506.00 ug/L	506.00 ppb	13:15:02
3	Si 251.611†	87375.6	81720.3	2454.9 ug/L	2454.9 ppb	13:14:42
3	Sn 189.927†	3363.9	3171.6	495.52 ug/L	495.52 ppb	13:15:02
3	Ti 334.940†	317525.3	301896.9	505.25 ug/L	505.25 ppb	13:14:42
3	Tl 190.801†	1778.3	1737.9	504.92 ug/L	504.92 ppb	13:15:02
3	U 409.014†	13539.5	15933.6	489.15 ug/L	489.15 ppb	13:14:42
3	V 292.402†	76990.5	74570.2	502.61 ug/L	502.61 ppb	13:14:42
3	Zn 213.857†	61761.6	57556.0	495.50 ug/L	495.50 ppb	13:14:42
3	SiO2†	87372.2	81605.7	5264.4 ug/L	5264.4 ppb	13:15:18

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	875515.7	105.93	%	1.910				1.80%
Sc Radial	4704.2	104	%	1.3				1.21%
Y 371.029	739397.5	104.63	%	1.882				1.80%
Y RADIAL	4885.8	102.8	%	1.32				1.28%
Ag 328.068†	108614.9	493.63	ug/L	16.349	493.63	ppb	16.349	3.31%
QC value within limits for Ag 328.068 Recovery = 98.73%								
Al 396.153Radial†	5551.5	4952.2	ug/L	127.34	4952.2	ppb	127.34	2.57%
QC value within limits for Al 396.153Radial Recovery = 99.04%								
As 188.979†	1339.0	500.76	ug/L	6.811	500.76	ppb	6.811	1.36%
QC value within limits for As 188.979 Recovery = 100.15%								
B 249.677†	23137.1	491.81	ug/L	17.570	491.81	ppb	17.570	3.57%
QC value within limits for B 249.677 Recovery = 98.36%								
Ba 233.527†	64688.7	498.49	ug/L	16.710	498.49	ppb	16.710	3.35%
QC value within limits for Ba 233.527 Recovery = 99.70%								
Be 313.107†	1390023.0	495.91	ug/L	17.379	495.91	ppb	17.379	3.50%
QC value within limits for Be 313.107 Recovery = 99.18%								
Ca 317.933Radial†	2975.8	5017.7	ug/L	59.22	5017.7	ppb	59.22	1.18%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.35%
Cd 226.502†            50436.0      497.46 ug/L        17.387      497.46 ppb        17.387   3.50%
   QC value within limits for Cd 226.502  Recovery = 99.49%
Co 228.616†            24972.4      490.69 ug/L         7.707      490.69 ppb         7.707   1.57%
   QC value within limits for Co 228.616  Recovery = 98.14%
Cr 267.716†            46635.8      494.84 ug/L        16.782      494.84 ppb        16.782   3.39%
   QC value within limits for Cr 267.716  Recovery = 98.97%
Cu 324.752†           157390.5      492.35 ug/L        18.484      492.35 ppb        18.484   3.75%
   QC value within limits for Cu 324.752  Recovery = 98.47%
Fe 238.204 Radial†       555.6      4995.2 ug/L         40.25      4995.2 ppb         40.25   0.81%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.90%
K 766.490 Radial†      23381.7      4944.9 ug/L        116.34      4944.9 ppb        116.34   2.35%
   QC value within limits for K 766.490 Radial  Recovery = 98.90%
Mg 279.077 IEC†          155.5      5077.0 ug/L         65.70      5077.0 ppb         65.70   1.29%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.54%
Mn 257.610†           450446.7      499.10 ug/L        17.353      499.10 ppb        17.353   3.48%
   QC value within limits for Mn 257.610  Recovery = 99.82%
Mo 202.031†             7477.5      496.58 ug/L         7.811      496.58 ppb         7.811   1.57%
   QC value within limits for Mo 202.031  Recovery = 99.32%
Na 589.592 Radial†     30679.9      9561.9 ug/L        243.43      9561.9 ppb        243.43   2.55%
   QC value within limits for Na 589.592 Radial  Recovery = 95.62%
Ni 231.604†            21292.0      491.15 ug/L         7.545      491.15 ppb         7.545   1.54%
   QC value within limits for Ni 231.604  Recovery = 98.23%
P 214.914†              4781.6      2380.9 ug/L         40.36      2380.9 ppb         40.36   1.70%
   QC value within limits for P 214.914  Recovery = 95.23%
Pb 220.353†             4598.7      500.91 ug/L         7.082      500.91 ppb         7.082   1.41%
   QC value within limits for Pb 220.353  Recovery = 100.18%
S 181.975 Axial†         822.2      986.84 ug/L        17.595      986.84 ppb        17.595   1.78%
   QC value within limits for S 181.975 Axial  Recovery = 98.68%
Sb 206.836†             1557.7      490.31 ug/L         6.770      490.31 ppb         6.770   1.38%
   QC value within limits for Sb 206.836  Recovery = 98.06%
Se 196.026†              917.4      509.83 ug/L        10.648      509.83 ppb        10.648   2.09%
   QC value within limits for Se 196.026  Recovery = 101.97%
Si 251.611†            81358.6      2444.0 ug/L         81.53      2444.0 ppb         81.53   3.34%
   QC value within limits for Si 251.611  Recovery = 97.76%
Sn 189.927†             3176.2      496.25 ug/L         8.395      496.25 ppb         8.395   1.69%
   QC value within limits for Sn 189.927  Recovery = 99.25%
Sr 421.552†            66102.0      488.68 ug/L        13.639      488.68 ppb        13.639   2.79%
   QC value within limits for Sr 421.552  Recovery = 97.74%
Ti 334.940†           300244.1      502.49 ug/L        17.880      502.49 ppb        17.880   3.56%
   QC value within limits for Ti 334.940  Recovery = 100.50%
Tl 190.801†             1728.4      502.16 ug/L         5.312      502.16 ppb         5.312   1.06%
   QC value within limits for Tl 190.801  Recovery = 100.43%
U 409.014†             15685.5      481.50 ug/L        15.194      481.50 ppb        15.194   3.16%
   QC value within limits for U 409.014  Recovery = 96.30%
V 292.402†             74135.9      499.72 ug/L        17.139      499.72 ppb        17.139   3.43%
   QC value within limits for V 292.402  Recovery = 99.94%
Zn 213.857†            57258.0      492.92 ug/L        17.303      492.92 ppb        17.303   3.51%
   QC value within limits for Zn 213.857  Recovery = 98.58%
SiO2†                  81358.3      5248.2 ug/L         75.97      5248.2 ppb         75.97   1.45%
   QC value within limits for SiO2  Recovery = 98.14%
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/4/2010 13:17:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4759.1	4759.1	105	%			13:19:20
1	Y RADIAL	4983.5	4983.5	104.8	%			13:19:20
1	Al 396.153Radial†	-11.0	11.3	10.116	ug/L	10.116	ppb	13:19:20
1	Ca 317.933Radial†	18.1	2.1	3.5763	ug/L	3.5763	ppb	13:19:40
1	Fe 238.204 Radial†	10.1	-2.2	-19.928	ug/L	-19.928	ppb	13:19:40
1	K 766.490 Radial†	3114.8	-134.1	-28.431	ug/L	-28.431	ppb	13:19:20
1	Mg 279.077 IEC†	2.7	-0.4	-12.178	ug/L	-12.178	ppb	13:19:40
1	Na 589.592 Radial†	-1493.2	141.2	44.006	ug/L	44.006	ppb	13:19:20
1	Sr 421.552†	31.8	42.5	0.3141	ug/L	0.3141	ppb	13:19:20
1	Sc 361.383	866775.1	866775.1	104.87	%			13:20:37
1	Y 371.029	739806.2	739806.2	104.69	%			13:20:37
1	Ag 328.068†	349.4	-65.7	-0.3071	ug/L	-0.3071	ppb	13:20:37
1	As 188.979†	-33.3	3.3	1.2353	ug/L	1.2353	ppb	13:20:57
1	B 249.677†	-661.3	291.2	6.2159	ug/L	6.2159	ppb	13:20:37
1	Ba 233.527†	-20.6	-18.6	-0.1426	ug/L	-0.1426	ppb	13:20:57
1	Be 313.107†	-4382.9	467.8	0.1668	ug/L	0.1668	ppb	13:20:37
1	Cd 226.502†	-263.5	12.4	0.1247	ug/L	0.1247	ppb	13:20:57
1	Co 228.616†	-87.8	22.3	0.4386	ug/L	0.4386	ppb	13:20:57
1	Cr 267.716†	140.5	16.8	0.1763	ug/L	0.1763	ppb	13:20:37
1	Cu 324.752†	8072.4	-240.1	-0.7516	ug/L	-0.7516	ppb	13:20:37
1	Mn 257.610†	550.0	-110.1	-0.1236	ug/L	-0.1236	ppb	13:20:37
1	Mo 202.031†	30.6	4.2	0.2765	ug/L	0.2765	ppb	13:20:57
1	Ni 231.604†	121.2	4.3	0.0991	ug/L	0.0991	ppb	13:20:57
1	P 214.914†	268.6	-9.8	-4.8492	ug/L	-4.8492	ppb	13:20:57
1	Pb 220.353†	-102.3	-1.4	-0.1459	ug/L	-0.1459	ppb	13:20:57
1	S 181.975 Axial†	63.8	-3.3	-3.9394	ug/L	-3.9394	ppb	13:20:57
1	Sb 206.836†	57.3	8.7	2.7091	ug/L	2.7091	ppb	13:20:57
1	Se 196.026†	-41.5	-4.1	-2.2570	ug/L	-2.2570	ppb	13:20:57
1	Si 251.611†	959.7	61.0	1.8422	ug/L	1.8422	ppb	13:20:57
1	Sn 189.927†	16.8	8.6	1.3368	ug/L	1.3368	ppb	13:20:57
1	Ti 334.940†	-1841.6	63.5	0.1037	ug/L	0.1037	ppb	13:20:37
1	Tl 190.801†	-43.6	15.7	4.5238	ug/L	4.5238	ppb	13:20:57
1	U 409.014†	-3085.0	196.4	6.0506	ug/L	6.0506	ppb	13:20:37
1	V 292.402†	-1841.2	54.6	0.3818	ug/L	0.3818	ppb	13:20:37
1	Zn 213.857†	901.0	47.3	0.4127	ug/L	0.4127	ppb	13:20:57
1	SiO2†	1026.8	13.7	0.8881	ug/L	0.8881	ppb	13:21:53
2	Sc Radial	4880.7	4880.7	108	%			13:19:45
2	Y RADIAL	5114.8	5114.8	107.6	%			13:19:45
2	Al 396.153Radial†	-22.9	0.5	0.4987	ug/L	0.4987	ppb	13:19:45
2	Ca 317.933Radial†	22.4	5.7	9.6607	ug/L	9.6607	ppb	13:20:05
2	Fe 238.204 Radial†	15.9	2.9	25.911	ug/L	25.911	ppb	13:20:05
2	K 766.490 Radial†	3052.1	-266.3	-56.451	ug/L	-56.451	ppb	13:19:45
2	Mg 279.077 IEC†	0.4	-2.5	-81.153	ug/L	-81.153	ppb	13:20:05
2	Na 589.592 Radial†	-1445.0	221.5	69.029	ug/L	69.029	ppb	13:19:45
2	Sr 421.552†	31.8	41.7	0.3084	ug/L	0.3084	ppb	13:19:45
2	Sc 361.383	869381.1	869381.1	105.19	%			13:21:02
2	Y 371.029	742359.3	742359.3	105.05	%			13:21:02
2	Ag 328.068†	511.0	87.0	0.3949	ug/L	0.3949	ppb	13:21:02
2	As 188.979†	-23.0	13.2	4.9042	ug/L	4.9042	ppb	13:21:22
2	B 249.677†	-624.8	327.8	6.9895	ug/L	6.9895	ppb	13:21:02
2	Ba 233.527†	14.9	15.2	0.1186	ug/L	0.1186	ppb	13:21:22
2	Be 313.107†	-4556.2	315.6	0.1129	ug/L	0.1129	ppb	13:21:02
2	Cd 226.502†	-250.4	25.6	0.2500	ug/L	0.2500	ppb	13:21:22
2	Co 228.616†	-89.7	20.8	0.4063	ug/L	0.4063	ppb	13:21:22
2	Cr 267.716†	122.9	-0.3	-0.0053	ug/L	-0.0053	ppb	13:21:02
2	Cu 324.752†	8177.7	-163.1	-0.5085	ug/L	-0.5085	ppb	13:21:02
2	Mn 257.610†	586.5	-76.9	-0.0810	ug/L	-0.0810	ppb	13:21:02
2	Mo 202.031†	21.6	-4.5	-0.2954	ug/L	-0.2954	ppb	13:21:22
2	Ni 231.604†	105.9	-10.5	-0.2430	ug/L	-0.2430	ppb	13:21:22

2	P 214.914†	289.3	9.2	4.7876 ug/L	4.7876 ppb		13:21:22
2	Pb 220.353†	-85.8	14.6	1.5881 ug/L	1.5881 ppb		13:21:22
2	S 181.975 Axial†	66.0	-1.4	-1.7093 ug/L	-1.7093 ppb		13:21:22
2	Sb 206.836†	40.9	-7.1	-2.1946 ug/L	-2.1946 ppb		13:21:22
2	Se 196.026†	-42.5	-5.0	-2.6012 ug/L	-2.6012 ppb		13:21:22
2	Si 251.611†	949.0	48.1	1.4760 ug/L	1.4760 ppb		13:21:22
2	Sn 189.927†	7.2	-0.6	-0.0999 ug/L	-0.0999 ppb		13:21:22
2	Ti 334.940†	-1747.1	158.6	0.2617 ug/L	0.2617 ppb		13:21:02
2	Tl 190.801†	-45.0	14.5	4.1778 ug/L	4.1778 ppb		13:21:22
2	U 409.014†	-2967.1	317.3	9.7679 ug/L	9.7679 ppb		13:21:02
2	V 292.402†	-1835.2	65.7	0.4454 ug/L	0.4454 ppb		13:21:02
2	Zn 213.857†	919.8	62.6	0.5470 ug/L	0.5470 ppb		13:21:22
2	SiO2†	1019.5	3.8	0.3002 ug/L	0.3002 ppb		13:21:58
3	Sc Radial	4826.3	4826.3	106 %			13:20:10
3	Y RADIAL	5037.4	5037.4	106.0 %			13:20:10
3	Al 396.153Radial†	-10.1	12.3	10.996 ug/L	10.996 ppb		13:20:10
3	Ca 317.933Radial†	16.0	-0.1	-0.2159 ug/L	-0.2159 ppb		13:20:30
3	Fe 238.204 Radial†	14.3	1.5	13.724 ug/L	13.724 ppb		13:20:30
3	K 766.490 Radial†	3132.9	-158.4	-33.577 ug/L	-33.577 ppb		13:20:10
3	Mg 279.077 IEC†	3.3	0.2	7.0877 ug/L	7.0877 ppb		13:20:30
3	Na 589.592 Radial†	-1493.9	160.4	50.001 ug/L	50.001 ppb		13:20:10
3	Sr 421.552†	16.2	27.4	0.2027 ug/L	0.2027 ppb		13:20:10
3	Sc 361.383	867407.4	867407.4	104.95 %			13:21:28
3	Y 371.029	741494.6	741494.6	104.93 %			13:21:28
3	Ag 328.068†	503.4	80.9	0.3713 ug/L	0.3713 ppb		13:21:28
3	As 188.979†	-23.6	12.6	4.6709 ug/L	4.6709 ppb		13:21:48
3	B 249.677†	-606.3	344.0	7.3383 ug/L	7.3383 ppb		13:21:28
3	Ba 233.527†	2.7	3.6	0.0311 ug/L	0.0311 ppb		13:21:48
3	Be 313.107†	-4420.9	434.7	0.1554 ug/L	0.1554 ppb		13:21:28
3	Cd 226.502†	-235.7	39.1	0.3844 ug/L	0.3844 ppb		13:21:48
3	Co 228.616†	-92.1	18.2	0.3589 ug/L	0.3589 ppb		13:21:48
3	Cr 267.716†	122.8	-0.2	-0.0008 ug/L	-0.0008 ppb		13:21:28
3	Cu 324.752†	8060.3	-257.2	-0.8036 ug/L	-0.8036 ppb		13:21:28
3	Mn 257.610†	513.7	-145.0	-0.1593 ug/L	-0.1593 ppb		13:21:28
3	Mo 202.031†	34.1	7.5	0.5013 ug/L	0.5013 ppb		13:21:48
3	Ni 231.604†	105.8	-10.4	-0.2408 ug/L	-0.2408 ppb		13:21:48
3	P 214.914†	269.7	-8.9	-4.4306 ug/L	-4.4306 ppb		13:21:48
3	Pb 220.353†	-81.6	18.5	2.0099 ug/L	2.0099 ppb		13:21:48
3	S 181.975 Axial†	59.7	-7.2	-8.6794 ug/L	-8.6794 ppb		13:21:48
3	Sb 206.836†	60.8	11.9	3.7230 ug/L	3.7230 ppb		13:21:48
3	Se 196.026†	-35.3	1.8	1.0092 ug/L	1.0092 ppb		13:21:48
3	Si 251.611†	957.6	58.4	1.7624 ug/L	1.7624 ppb		13:21:48
3	Sn 189.927†	10.9	2.9	0.4481 ug/L	0.4481 ppb		13:21:48
3	Ti 334.940†	-1710.6	189.6	0.3157 ug/L	0.3157 ppb		13:21:28
3	Tl 190.801†	-47.0	12.5	3.6156 ug/L	3.6156 ppb		13:21:48
3	U 409.014†	-3160.4	126.7	3.9005 ug/L	3.9005 ppb		13:21:28
3	V 292.402†	-1704.6	186.2	1.2506 ug/L	1.2506 ppb		13:21:28
3	Zn 213.857†	904.0	49.6	0.4322 ug/L	0.4322 ppb		13:21:48
3	SiO2†	959.4	-51.2	-3.3183 ug/L	-3.3183 ppb		13:22:03

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	867854.5	105.00	%	0.164				0.16%
Sc Radial	4822.0	106	%	1.3				1.26%
Y 371.029	741220.0	104.89	%	0.184				0.18%
Y RADIAL	5045.2	106.1	%	1.39				1.31%
Ag 328.068†	34.1	0.1530	ug/L	0.39867	0.1530	ppb	0.39867	260.57%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	8.0	7.2037	ug/L	5.82331	7.2037	ppb	5.82331	80.84%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	9.7	3.6035	ug/L	2.05421	3.6035	ppb	2.05421	57.01%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	321.0	6.8479	ug/L	0.57446	6.8479	ppb	0.57446	8.39%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.1	0.0024	ug/L	0.13295	0.0024	ppb	0.13295	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	406.0	0.1450	ug/L	0.02840	0.1450	ppb	0.02840	19.58%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.6	4.3403	ug/L	4.98244	4.3403	ppb	4.98244	114.79%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                25.7      0.2530 ug/L       0.12986      0.2530 ppb        0.12986  51.32%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                20.4      0.4013 ug/L       0.04011      0.4013 ppb        0.04011  10.00%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 5.4      0.0567 ug/L       0.10356      0.0567 ppb        0.10356 182.64%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -220.1     -0.6879 ug/L       0.15751     -0.6879 ppb        0.15751  22.90%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.7      6.5692 ug/L      23.74280      6.5692 ppb       23.74280 361.43%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -186.3     -39.486 ug/L       14.9154     -39.486 ppb        14.9154  37.77%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.9     -28.748 ug/L       46.3955     -28.748 ppb        46.3955 161.39%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -110.6     -0.1213 ug/L       0.03917     -0.1213 ppb        0.03917  32.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 2.4      0.1608 ug/L       0.41073      0.1608 ppb        0.41073 255.40%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        174.4      54.346 ug/L       13.0653      54.346 ppb        13.0653  24.04%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -5.5     -0.1282 ug/L       0.19690     -0.1282 ppb        0.19690 153.57%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -3.1     -1.4974 ug/L       5.44703     -1.4974 ppb        5.44703 363.76%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                10.6      1.1507 ug/L       1.14248      1.1507 ppb        1.14248  99.29%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -4.0     -4.7760 ug/L       3.55956     -4.7760 ppb        3.55956  74.53%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.5      1.4125 ug/L       3.16470      1.4125 ppb        3.16470 224.05%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -2.4     -1.2830 ug/L       1.99256     -1.2830 ppb        1.99256 155.31%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                55.8      1.6935 ug/L       0.19253      1.6935 ppb        0.19253  11.37%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.6      0.5617 ug/L       0.72504      0.5617 ppb        0.72504 129.09%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                37.2      0.2751 ug/L       0.06275      0.2751 ppb        0.06275  22.82%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               137.2      0.2270 ug/L       0.11014      0.2270 ppb        0.11014  48.51%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                14.2      4.1057 ug/L       0.45840      4.1057 ppb        0.45840  11.16%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                213.5      6.5730 ug/L       2.96836      6.5730 ppb        2.96836  45.16%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                102.2      0.6926 ug/L       0.48433      0.6926 ppb        0.48433  69.93%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                53.2      0.4640 ug/L       0.07256      0.4640 ppb        0.07256  15.64%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     -11.3     -0.7100 ug/L       2.27793     -0.7100 ppb        2.27793 320.84%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/4/2010 14:04:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4739.3	4739.3	105	%			14:06:24
1	Y RADIAL	4917.7	4917.7	103.4	%			14:06:24
1	Al 396.153Radial†	5788.7	5558.5	4958.3	ug/L	4958.3	ppb	14:06:24
1	Ca 317.933Radial†	3104.8	2954.5	4981.9	ug/L	4981.9	ppb	14:06:44
1	Fe 238.204 Radial†	590.1	552.5	4967.7	ug/L	4967.7	ppb	14:06:44
1	K 766.490 Radial†	27790.1	23479.4	4965.3	ug/L	4965.3	ppb	14:06:24
1	Mg 279.077 IEC†	166.0	155.9	5088.8	ug/L	5088.8	ppb	14:06:44
1	Na 589.592 Radial†	31951.9	32124.5	10012	ug/L	10012	ppb	14:06:24
1	Sr 421.552†	70679.7	67615.1	499.87	ug/L	499.87	ppb	14:06:24
1	Sc 361.383	874698.0	874698.0	105.83	%			14:07:43
1	Y 371.029	738386.5	738386.5	104.49	%			14:07:43
1	Ag 328.068†	116234.7	109431.9	497.32	ug/L	497.32	ppb	14:07:43
1	As 188.979†	1385.5	1344.3	502.77	ug/L	502.77	ppb	14:08:03
1	B 249.677†	23749.8	23363.1	496.63	ug/L	496.63	ppb	14:07:43
1	Ba 233.527†	68983.8	65184.2	502.31	ug/L	502.31	ppb	14:07:43
1	Be 313.107†	1476979.4	1400252.0	499.56	ug/L	499.56	ppb	14:07:43
1	Cd 226.502†	53572.3	50884.4	501.89	ug/L	501.89	ppb	14:07:43
1	Co 228.616†	26380.7	25033.3	491.89	ug/L	491.89	ppb	14:08:03
1	Cr 267.716†	49839.1	46976.1	498.44	ug/L	498.44	ppb	14:07:43
1	Cu 324.752†	176381.1	158725.9	496.52	ug/L	496.52	ppb	14:07:43
1	Mn 257.610†	480843.8	453717.1	502.71	ug/L	502.71	ppb	14:07:43
1	Mo 202.031†	7966.1	7502.2	498.21	ug/L	498.21	ppb	14:08:03
1	Ni 231.604†	22704.3	21342.1	492.31	ug/L	492.31	ppb	14:08:03
1	P 214.914†	5367.7	4806.1	2392.8	ug/L	2392.8	ppb	14:08:03
1	Pb 220.353†	4777.1	4610.1	502.14	ug/L	502.14	ppb	14:08:03
1	S 181.975 Axial†	941.1	825.1	990.33	ug/L	990.33	ppb	14:08:03
1	Sb 206.836†	1710.4	1570.3	494.21	ug/L	494.21	ppb	14:08:03
1	Se 196.026†	936.3	920.1	511.23	ug/L	511.23	ppb	14:08:03
1	Si 251.611†	87251.3	81590.1	2450.9	ug/L	2450.9	ppb	14:07:43
1	Sn 189.927†	3393.7	3199.2	499.84	ug/L	499.84	ppb	14:08:03
1	Ti 334.940†	318083.2	302377.9	506.05	ug/L	506.05	ppb	14:07:43
1	Tl 190.801†	1769.8	1729.6	502.52	ug/L	502.52	ppb	14:08:03
1	U 409.014†	13604.7	15993.2	490.98	ug/L	490.98	ppb	14:07:43
1	V 292.402†	77192.2	74749.6	503.84	ug/L	503.84	ppb	14:07:43
1	Zn 213.857†	61914.1	57691.1	496.66	ug/L	496.66	ppb	14:07:43
1	SiO2†	86279.1	80560.1	5196.4	ug/L	5196.4	ppb	14:09:03
2	Sc Radial	4682.4	4682.4	103	%			14:06:49
2	Y RADIAL	4864.3	4864.3	102.3	%			14:06:49
2	Al 396.153Radial†	5722.9	5562.0	4961.6	ug/L	4961.6	ppb	14:06:49
2	Ca 317.933Radial†	3082.6	2969.1	5006.5	ug/L	5006.5	ppb	14:07:09
2	Fe 238.204 Radial†	589.8	559.1	5026.5	ug/L	5026.5	ppb	14:07:09
2	K 766.490 Radial†	27490.6	23512.2	4972.3	ug/L	4972.3	ppb	14:06:49
2	Mg 279.077 IEC†	165.7	157.5	5140.6	ug/L	5140.6	ppb	14:07:09
2	Na 589.592 Radial†	31249.0	31815.1	9915.7	ug/L	9915.7	ppb	14:06:49
2	Sr 421.552†	69623.5	67413.3	498.37	ug/L	498.37	ppb	14:06:49
2	Sc 361.383	877330.5	877330.5	106.15	%			14:08:10
2	Y 371.029	740561.7	740561.7	104.80	%			14:08:10
2	Ag 328.068†	116190.9	109061.1	495.66	ug/L	495.66	ppb	14:08:10
2	As 188.979†	1378.4	1333.7	498.84	ug/L	498.84	ppb	14:08:30
2	B 249.677†	23746.8	23292.9	495.13	ug/L	495.13	ppb	14:08:10
2	Ba 233.527†	69044.7	65045.9	501.25	ug/L	501.25	ppb	14:08:10
2	Be 313.107†	1477954.0	1396982.7	498.40	ug/L	498.40	ppb	14:08:10
2	Cd 226.502†	53442.1	50609.8	499.17	ug/L	499.17	ppb	14:08:10
2	Co 228.616†	26343.7	24923.6	489.73	ug/L	489.73	ppb	14:08:30
2	Cr 267.716†	49828.4	46824.6	496.84	ug/L	496.84	ppb	14:08:10
2	Cu 324.752†	176294.2	158144.0	494.70	ug/L	494.70	ppb	14:08:10
2	Mn 257.610†	480882.2	452390.1	501.25	ug/L	501.25	ppb	14:08:10
2	Mo 202.031†	7937.8	7452.9	494.95	ug/L	494.95	ppb	14:08:30
2	Ni 231.604†	22643.4	21220.4	489.50	ug/L	489.50	ppb	14:08:30

2	P 214.914†	5351.8	4775.9	2377.5 ug/L	2377.5 ppb	14:08:30
2	Pb 220.353†	4745.0	4566.3	497.38 ug/L	497.38 ppb	14:08:30
2	S 181.975 Axial†	929.5	811.5	973.94 ug/L	973.94 ppb	14:08:30
2	Sb 206.836†	1709.2	1564.2	492.22 ug/L	492.22 ppb	14:08:30
2	Se 196.026†	935.4	916.6	509.51 ug/L	509.51 ppb	14:08:30
2	Si 251.611†	87171.9	81267.9	2441.3 ug/L	2441.3 ppb	14:08:10
2	Sn 189.927†	3365.3	3162.9	494.17 ug/L	494.17 ppb	14:08:30
2	Ti 334.940†	318255.0	301637.9	504.82 ug/L	504.82 ppb	14:08:10
2	Tl 190.801†	1770.9	1725.6	501.36 ug/L	501.36 ppb	14:08:30
2	U 409.014†	13478.3	15835.6	486.12 ug/L	486.12 ppb	14:08:10
2	V 292.402†	77150.7	74491.7	502.06 ug/L	502.06 ppb	14:08:10
2	Zn 213.857†	61893.0	57495.7	494.98 ug/L	494.98 ppb	14:08:10
2	SiO2†	86110.0	80156.3	5170.3 ug/L	5170.3 ppb	14:09:08
3	Sc Radial	4709.6	4709.6	104 %		14:07:14
3	Y RADIAL	4901.9	4901.9	103.1 %		14:07:14
3	Al 396.153Radial†	5725.4	5532.5	4935.1 ug/L	4935.1 ppb	14:07:14
3	Ca 317.933Radial†	3165.1	3031.3	5111.3 ug/L	5111.3 ppb	14:07:34
3	Fe 238.204 Radial†	604.7	570.1	5125.5 ug/L	5125.5 ppb	14:07:34
3	K 766.490 Radial†	27636.1	23498.7	4969.5 ug/L	4969.5 ppb	14:07:14
3	Mg 279.077 IEC†	171.2	161.9	5283.7 ug/L	5283.7 ppb	14:07:34
3	Na 589.592 Radial†	31300.0	31689.7	9876.6 ug/L	9876.6 ppb	14:07:14
3	Sr 421.552†	69541.5	66945.7	494.91 ug/L	494.91 ppb	14:07:14
3	Sc 361.383	882125.8	882125.8	106.73 %		14:08:38
3	Y 371.029	744795.1	744795.1	105.40 %		14:08:38
3	Ag 328.068†	116904.8	109134.9	496.03 ug/L	496.03 ppb	14:08:38
3	As 188.979†	1392.6	1339.9	501.13 ug/L	501.13 ppb	14:08:58
3	B 249.677†	23970.1	23380.5	496.99 ug/L	496.99 ppb	14:08:38
3	Ba 233.527†	69139.2	64780.9	499.21 ug/L	499.21 ppb	14:08:38
3	Be 313.107†	1485154.3	1396160.2	498.10 ug/L	498.10 ppb	14:08:38
3	Cd 226.502†	53749.1	50623.8	499.30 ug/L	499.30 ppb	14:08:38
3	Co 228.616†	26465.7	24903.0	489.32 ug/L	489.32 ppb	14:08:58
3	Cr 267.716†	49990.9	46721.7	495.75 ug/L	495.75 ppb	14:08:38
3	Cu 324.752†	177577.3	158443.3	495.65 ug/L	495.65 ppb	14:08:38
3	Mn 257.610†	483358.0	452247.1	501.10 ug/L	501.10 ppb	14:08:38
3	Mo 202.031†	8002.9	7473.3	496.31 ug/L	496.31 ppb	14:08:58
3	Ni 231.604†	22751.4	21205.7	489.16 ug/L	489.16 ppb	14:08:58
3	P 214.914†	5369.9	4765.5	2371.9 ug/L	2371.9 ppb	14:08:58
3	Pb 220.353†	4788.7	4583.0	499.18 ug/L	499.18 ppb	14:08:58
3	S 181.975 Axial†	938.9	815.6	978.86 ug/L	978.86 ppb	14:08:58
3	Sb 206.836†	1719.7	1565.3	492.62 ug/L	492.62 ppb	14:08:58
3	Se 196.026†	949.9	925.5	514.56 ug/L	514.56 ppb	14:08:58
3	Si 251.611†	87672.3	81290.3	2441.9 ug/L	2441.9 ppb	14:08:38
3	Sn 189.927†	3391.5	3170.2	495.32 ug/L	495.32 ppb	14:08:58
3	Ti 334.940†	319804.3	301459.7	504.53 ug/L	504.53 ppb	14:08:38
3	Tl 190.801†	1777.1	1722.4	500.45 ug/L	500.45 ppb	14:08:58
3	U 409.014†	13552.3	15835.9	486.12 ug/L	486.12 ppb	14:08:38
3	V 292.402†	77485.6	74410.4	501.53 ug/L	501.53 ppb	14:08:38
3	Zn 213.857†	62227.1	57491.8	494.94 ug/L	494.94 ppb	14:08:38
3	SiO2†	86108.0	79713.3	5141.6 ug/L	5141.6 ppb	14:09:14

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	878051.4	106.24	%	0.456				0.43%
Sc Radial	4710.4	104	%	0.6				0.60%
Y 371.029	741247.8	104.89	%	0.461				0.44%
Y RADIAL	4894.6	103.0	%	0.58				0.56%
Ag 328.068†	109209.3	496.34	ug/L	0.872	496.34	ppb	0.872	0.18%
QC value within limits for Ag 328.068 Recovery = 99.27%								
Al 396.153Radial†	5551.0	4951.7	ug/L	14.45	4951.7	ppb	14.45	0.29%
QC value within limits for Al 396.153Radial Recovery = 99.03%								
As 188.979†	1339.3	500.91	ug/L	1.974	500.91	ppb	1.974	0.39%
QC value within limits for As 188.979 Recovery = 100.18%								
B 249.677†	23345.5	496.25	ug/L	0.985	496.25	ppb	0.985	0.20%
QC value within limits for B 249.677 Recovery = 99.25%								
Ba 233.527†	65003.7	500.92	ug/L	1.576	500.92	ppb	1.576	0.31%
QC value within limits for Ba 233.527 Recovery = 100.18%								
Be 313.107†	1397798.3	498.69	ug/L	0.772	498.69	ppb	0.772	0.15%
QC value within limits for Be 313.107 Recovery = 99.74%								
Ca 317.933Radial†	2985.0	5033.2	ug/L	68.73	5033.2	ppb	68.73	1.37%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.66%
Cd 226.502†            50706.0      500.12 ug/L         1.533      500.12 ppb          1.533   0.31%
   QC value within limits for Cd 226.502  Recovery = 100.02%
Co 228.616†            24953.3      490.31 ug/L         1.379      490.31 ppb          1.379   0.28%
   QC value within limits for Co 228.616  Recovery = 98.06%
Cr 267.716†            46840.8      497.01 ug/L         1.355      497.01 ppb          1.355   0.27%
   QC value within limits for Cr 267.716  Recovery = 99.40%
Cu 324.752†           158437.8      495.62 ug/L         0.908      495.62 ppb          0.908   0.18%
   QC value within limits for Cu 324.752  Recovery = 99.12%
Fe 238.204 Radial†       560.6      5039.9 ug/L         79.73      5039.9 ppb          79.73   1.58%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.80%
K 766.490 Radial†      23496.8      4969.0 ug/L          3.51      4969.0 ppb           3.51   0.07%
   QC value within limits for K 766.490 Radial  Recovery = 99.38%
Mg 279.077 IEC†          158.4      5171.0 ug/L        100.94      5171.0 ppb         100.94   1.95%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.42%
Mn 257.610†           452784.8      501.69 ug/L         0.892      501.69 ppb          0.892   0.18%
   QC value within limits for Mn 257.610  Recovery = 100.34%
Mo 202.031†             7476.1      496.49 ug/L         1.638      496.49 ppb          1.638   0.33%
   QC value within limits for Mo 202.031  Recovery = 99.30%
Na 589.592 Radial†     31876.4      9934.8 ug/L         69.76      9934.8 ppb          69.76   0.70%
   QC value within limits for Na 589.592 Radial  Recovery = 99.35%
Ni 231.604†            21256.1      490.33 ug/L         1.728      490.33 ppb          1.728   0.35%
   QC value within limits for Ni 231.604  Recovery = 98.07%
P 214.914†              4782.5      2380.7 ug/L         10.83      2380.7 ppb          10.83   0.45%
   QC value within limits for P 214.914  Recovery = 95.23%
Pb 220.353†             4586.5      499.57 ug/L         2.402      499.57 ppb          2.402   0.48%
   QC value within limits for Pb 220.353  Recovery = 99.91%
S 181.975 Axial†         817.4      981.04 ug/L         8.411      981.04 ppb          8.411   0.86%
   QC value within limits for S 181.975 Axial  Recovery = 98.10%
Sb 206.836†             1566.6      493.02 ug/L         1.056      493.02 ppb          1.056   0.21%
   QC value within limits for Sb 206.836  Recovery = 98.60%
Se 196.026†              920.8      511.76 ug/L         2.569      511.76 ppb          2.569   0.50%
   QC value within limits for Se 196.026  Recovery = 102.35%
Si 251.611†            81382.8      2444.7 ug/L          5.40      2444.7 ppb           5.40   0.22%
   QC value within limits for Si 251.611  Recovery = 97.79%
Sn 189.927†             3177.4      496.44 ug/L         2.995      496.44 ppb          2.995   0.60%
   QC value within limits for Sn 189.927  Recovery = 99.29%
Sr 421.552†            67324.7      497.72 ug/L         2.540      497.72 ppb          2.540   0.51%
   QC value within limits for Sr 421.552  Recovery = 99.54%
Ti 334.940†           301825.2      505.13 ug/L         0.811      505.13 ppb          0.811   0.16%
   QC value within limits for Ti 334.940  Recovery = 101.03%
Tl 190.801†             1725.8      501.44 ug/L         1.040      501.44 ppb          1.040   0.21%
   QC value within limits for Tl 190.801  Recovery = 100.29%
U 409.014†             15888.2      487.74 ug/L         2.806      487.74 ppb          2.806   0.58%
   QC value within limits for U 409.014  Recovery = 97.55%
V 292.402†             74550.5      502.48 ug/L         1.210      502.48 ppb          1.210   0.24%
   QC value within limits for V 292.402  Recovery = 100.50%
Zn 213.857†            57559.5      495.53 ug/L         0.983      495.53 ppb          0.983   0.20%
   QC value within limits for Zn 213.857  Recovery = 99.11%
SiO2†                  80143.2      5169.4 ug/L         27.41      5169.4 ppb          27.41   0.53%
   QC value within limits for SiO2  Recovery = 96.67%
All analyte(s) passed QC.
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Sequence No.: 8
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/4/2010 14:11:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4822.0	4822.0	106	%			14:13:16
1	Y RADIAL	5060.4	5060.4	106.4	%			14:13:16
1	Al 396.153Radial†	-23.8	-0.6	-0.4836	ug/L	-0.4836	ppb	14:13:16
1	Ca 317.933Radial†	15.7	-0.4	-0.6697	ug/L	-0.6697	ppb	14:13:36
1	Fe 238.204 Radial†	10.2	-2.3	-20.724	ug/L	-20.724	ppb	14:13:36
1	K 766.490 Radial†	3263.7	-32.9	-6.9963	ug/L	-6.9963	ppb	14:13:16
1	Mg 279.077 IEC†	1.7	-1.3	-42.685	ug/L	-42.685	ppb	14:13:36
1	Na 589.592 Radial†	-1507.9	146.0	45.491	ug/L	45.491	ppb	14:13:16
1	Sr 421.552†	21.9	32.8	0.2424	ug/L	0.2424	ppb	14:13:16
1	Sc 361.383	866297.0	866297.0	104.81	%			14:14:33
1	Y 371.029	739789.0	739789.0	104.69	%			14:14:33
1	Ag 328.068†	610.4	183.5	0.8148	ug/L	0.8148	ppb	14:14:33
1	As 188.979†	-32.2	4.3	1.6056	ug/L	1.6056	ppb	14:14:53
1	B 249.677†	-613.0	336.9	7.1918	ug/L	7.1918	ppb	14:14:33
1	Ba 233.527†	0.4	1.4	0.0122	ug/L	0.0122	ppb	14:14:53
1	Be 313.107†	-4499.2	354.5	0.1266	ug/L	0.1266	ppb	14:14:33
1	Cd 226.502†	-242.3	32.5	0.3226	ug/L	0.3226	ppb	14:14:53
1	Co 228.616†	-104.8	6.0	0.1167	ug/L	0.1167	ppb	14:14:53
1	Cr 267.716†	157.3	32.9	0.3461	ug/L	0.3461	ppb	14:14:33
1	Cu 324.752†	8198.0	-116.0	-0.3636	ug/L	-0.3636	ppb	14:14:33
1	Mn 257.610†	482.8	-173.8	-0.1937	ug/L	-0.1937	ppb	14:14:33
1	Mo 202.031†	18.7	-7.2	-0.4794	ug/L	-0.4794	ppb	14:14:53
1	Ni 231.604†	111.9	-4.4	-0.1022	ug/L	-0.1022	ppb	14:14:53
1	P 214.914†	271.8	-6.5	-3.2873	ug/L	-3.2873	ppb	14:14:53
1	Pb 220.353†	-95.1	5.4	0.5889	ug/L	0.5889	ppb	14:14:53
1	S 181.975 Axial†	60.3	-6.6	-7.9434	ug/L	-7.9434	ppb	14:14:53
1	Sb 206.836†	44.4	-3.6	-1.1342	ug/L	-1.1342	ppb	14:14:53
1	Se 196.026†	-38.5	-1.2	-0.7298	ug/L	-0.7298	ppb	14:14:53
1	Si 251.611†	760.0	-129.0	-3.8829	ug/L	-3.8829	ppb	14:14:53
1	Sn 189.927†	6.0	-1.8	-0.2795	ug/L	-0.2795	ppb	14:14:53
1	Ti 334.940†	-1801.6	100.7	0.1629	ug/L	0.1629	ppb	14:14:33
1	Tl 190.801†	-58.9	1.1	0.3145	ug/L	0.3145	ppb	14:14:53
1	U 409.014†	-2857.4	412.0	12.690	ug/L	12.690	ppb	14:14:33
1	V 292.402†	-1753.0	137.9	0.9366	ug/L	0.9366	ppb	14:14:33
1	Zn 213.857†	898.2	45.1	0.3954	ug/L	0.3954	ppb	14:14:53
1	SiO2†	744.9	-254.7	-16.488	ug/L	-16.488	ppb	14:15:50
2	Sc Radial	4699.3	4699.3	104	%			14:13:41
2	Y RADIAL	4923.9	4923.9	103.6	%			14:13:41
2	Al 396.153Radial†	4.1	25.8	23.108	ug/L	23.108	ppb	14:13:41
2	Ca 317.933Radial†	20.1	4.3	7.1759	ug/L	7.1759	ppb	14:14:01
2	Fe 238.204 Radial†	12.7	0.3	2.8625	ug/L	2.8625	ppb	14:14:01
2	K 766.490 Radial†	3225.2	10.1	2.1219	ug/L	2.1219	ppb	14:13:41
2	Mg 279.077 IEC†	-1.5	-4.4	-142.74	ug/L	-142.74	ppb	14:14:01
2	Na 589.592 Radial†	-1445.3	169.3	52.780	ug/L	52.780	ppb	14:13:41
2	Sr 421.552†	-8.6	3.9	0.0289	ug/L	0.0289	ppb	14:13:41
2	Sc 361.383	853533.5	853533.5	103.27	%			14:14:59
2	Y 371.029	730011.7	730011.7	103.30	%			14:14:59
2	Ag 328.068†	389.4	-21.8	-0.1014	ug/L	-0.1014	ppb	14:14:59
2	As 188.979†	-29.4	6.7	2.4705	ug/L	2.4705	ppb	14:15:19
2	B 249.677†	-602.8	338.1	7.2140	ug/L	7.2140	ppb	14:14:59
2	Ba 233.527†	-3.7	-2.6	-0.0179	ug/L	-0.0179	ppb	14:15:19
2	Be 313.107†	-4379.0	406.7	0.1450	ug/L	0.1450	ppb	14:14:59
2	Cd 226.502†	-240.2	31.1	0.3063	ug/L	0.3063	ppb	14:15:19
2	Co 228.616†	-119.0	-9.3	-0.1812	ug/L	-0.1812	ppb	14:15:19
2	Cr 267.716†	100.8	-19.6	-0.2087	ug/L	-0.2087	ppb	14:14:59
2	Cu 324.752†	8038.8	-153.2	-0.4789	ug/L	-0.4789	ppb	14:14:59
2	Mn 257.610†	536.6	-114.8	-0.1242	ug/L	-0.1242	ppb	14:14:59
2	Mo 202.031†	30.6	4.6	0.3081	ug/L	0.3081	ppb	14:15:19
2	Ni 231.604†	124.9	9.7	0.2244	ug/L	0.2244	ppb	14:15:19

2	P 214.914†	268.7	-5.7	-2.8183 ug/L	-2.8183 ppb	14:15:19
2	Pb 220.353†	-74.9	23.7	2.5755 ug/L	2.5755 ppb	14:15:19
2	S 181.975 Axial†	70.2	3.8	4.6008 ug/L	4.6008 ppb	14:15:19
2	Sb 206.836†	56.0	8.2	2.5743 ug/L	2.5743 ppb	14:15:19
2	Se 196.026†	-27.3	9.0	4.8557 ug/L	4.8557 ppb	14:15:19
2	Si 251.611†	749.7	-128.1	-3.8730 ug/L	-3.8730 ppb	14:15:19
2	Sn 189.927†	9.6	1.8	0.2892 ug/L	0.2892 ppb	14:15:19
2	Ti 334.940†	-1828.2	49.3	0.0794 ug/L	0.0794 ppb	14:14:59
2	Tl 190.801†	-45.8	13.0	3.7477 ug/L	3.7477 ppb	14:15:19
2	U 409.014†	-2972.7	259.5	7.9914 ug/L	7.9914 ppb	14:14:59
2	V 292.402†	-1757.0	109.0	0.7412 ug/L	0.7412 ppb	14:14:59
2	Zn 213.857†	877.0	37.4	0.3288 ug/L	0.3288 ppb	14:15:19
2	SiO2†	784.5	-205.8	-13.353 ug/L	-13.353 ppb	14:15:55
3	Sc Radial	4795.5	4795.5	106 %		14:14:06
3	Y RADIAL	5024.0	5024.0	105.7 %		14:14:06
3	Al 396.153Radial†	-21.9	1.1	0.9762 ug/L	0.9762 ppb	14:14:06
3	Ca 317.933Radial†	23.4	7.0	11.751 ug/L	11.751 ppb	14:14:26
3	Fe 238.204 Radial†	11.7	-0.8	-7.5566 ug/L	-7.5566 ppb	14:14:26
3	K 766.490 Radial†	3231.9	-46.0	-9.7760 ug/L	-9.7760 ppb	14:14:06
3	Mg 279.077 IEC†	2.6	-0.4	-13.267 ug/L	-13.267 ppb	14:14:26
3	Na 589.592 Radial†	-1428.2	213.5	66.529 ug/L	66.529 ppb	14:14:06
3	Sr 421.552†	11.0	22.6	0.1669 ug/L	0.1669 ppb	14:14:06
3	Sc 361.383	857923.9	857923.9	103.80 %		14:15:24
3	Y 371.029	733872.3	733872.3	103.85 %		14:15:24
3	Ag 328.068†	466.8	50.9	0.2282 ug/L	0.2282 ppb	14:15:24
3	As 188.979†	-37.5	-1.1	-0.3941 ug/L	-0.3941 ppb	14:15:44
3	B 249.677†	-606.0	338.0	7.2132 ug/L	7.2132 ppb	14:15:24
3	Ba 233.527†	-8.5	-7.2	-0.0532 ug/L	-0.0532 ppb	14:15:44
3	Be 313.107†	-4459.6	350.8	0.1251 ug/L	0.1251 ppb	14:15:24
3	Cd 226.502†	-250.9	21.9	0.2170 ug/L	0.2170 ppb	14:15:44
3	Co 228.616†	-101.8	8.0	0.1554 ug/L	0.1554 ppb	14:15:44
3	Cr 267.716†	118.0	-3.5	-0.0362 ug/L	-0.0362 ppb	14:15:24
3	Cu 324.752†	7935.3	-292.8	-0.9157 ug/L	-0.9157 ppb	14:15:24
3	Mn 257.610†	560.0	-95.0	-0.1057 ug/L	-0.1057 ppb	14:15:24
3	Mo 202.031†	19.1	-6.6	-0.4387 ug/L	-0.4387 ppb	14:15:44
3	Ni 231.604†	117.3	1.8	0.0416 ug/L	0.0416 ppb	14:15:44
3	P 214.914†	258.5	-16.8	-8.4784 ug/L	-8.4784 ppb	14:15:44
3	Pb 220.353†	-94.6	5.0	0.5457 ug/L	0.5457 ppb	14:15:44
3	S 181.975 Axial†	62.4	-4.0	-4.8037 ug/L	-4.8037 ppb	14:15:44
3	Sb 206.836†	39.8	-7.6	-2.3735 ug/L	-2.3735 ppb	14:15:44
3	Se 196.026†	-45.5	-8.4	-4.5378 ug/L	-4.5378 ppb	14:15:44
3	Si 251.611†	746.5	-134.9	-4.0619 ug/L	-4.0619 ppb	14:15:44
3	Sn 189.927†	9.7	1.9	0.2946 ug/L	0.2946 ppb	14:15:44
3	Ti 334.940†	-1837.1	49.7	0.0825 ug/L	0.0825 ppb	14:15:24
3	Tl 190.801†	-44.6	14.3	4.1381 ug/L	4.1381 ppb	14:15:44
3	U 409.014†	-3150.8	102.6	3.1611 ug/L	3.1611 ppb	14:15:24
3	V 292.402†	-1732.5	141.3	0.9403 ug/L	0.9403 ppb	14:15:24
3	Zn 213.857†	871.9	28.1	0.2460 ug/L	0.2460 ppb	14:15:44
3	SiO2†	762.5	-230.8	-14.939 ug/L	-14.939 ppb	14:16:00

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	859251.5	103.96	%	0.785				0.75%
Sc Radial	4772.3	105	%	1.4				1.35%
Y 371.029	734557.7	103.95	%	0.697				0.67%
Y RADIAL	5002.8	105.2	%	1.49				1.41%
Ag 328.068†	70.9	0.3139	ug/L	0.46405	0.3139	ppb	0.46405	147.85%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	8.8	7.8669	ug/L	13.21942	7.8669	ppb	13.21942	168.04%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.3	1.2273	ug/L	1.46925	1.2273	ppb	1.46925	119.71%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	337.7	7.2063	ug/L	0.01259	7.2063	ppb	0.01259	0.17%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.8	-0.0196	ug/L	0.03274	-0.0196	ppb	0.03274	166.81%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	370.7	0.1322	ug/L	0.01110	0.1322	ppb	0.01110	8.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.6	6.0857	ug/L	6.28166	6.0857	ppb	6.28166	103.22%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                28.5      0.2820 ug/L       0.05685      0.2820 ppb        0.05685  20.16%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 1.6      0.0303 ug/L       0.18417      0.0303 ppb        0.18417 607.83%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 3.3      0.0337 ug/L       0.28389      0.0337 ppb        0.28389 841.60%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -187.3     -0.5861 ug/L       0.29123     -0.5861 ppb        0.29123  49.69%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.9     -8.4726 ug/L      11.81974     -8.4726 ppb       11.81974 139.51%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -22.9     -4.8834 ug/L       6.22399     -4.8834 ppb        6.22399 127.45%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -2.0     -66.232 ug/L       67.8741     -66.232 ppb        67.8741 102.48%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -127.9     -0.1412 ug/L       0.04640     -0.1412 ppb        0.04640  32.86%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -3.1     -0.2033 ug/L       0.44343     -0.2033 ppb        0.44343 218.07%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       176.3      54.933 ug/L       10.6831      54.933 ppb        10.6831  19.45%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 2.4      0.0546 ug/L       0.16371      0.0546 ppb        0.16371 299.77%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -9.7     -4.8613 ug/L       3.14124     -4.8613 ppb        3.14124  64.62%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               11.4      1.2367 ug/L       1.15961      1.2367 ppb        1.15961  93.77%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.3     -2.7154 ug/L       6.52761     -2.7154 ppb        6.52761 240.39%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -1.0     -0.3111 ug/L       2.57454     -0.3111 ppb        2.57454 827.52%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -0.2     -0.1373 ug/L       4.72474     -0.1373 ppb        4.72474 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -130.7     -3.9393 ug/L       0.10630     -3.9393 ppb        0.10630   2.70%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 0.6      0.1014 ug/L       0.32992      0.1014 ppb        0.32992 325.26%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               19.8      0.1461 ug/L       0.10830      0.1461 ppb        0.10830  74.15%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               66.6      0.1083 ug/L       0.04732      0.1083 ppb        0.04732  43.71%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 9.5      2.7334 ug/L       2.10391      2.7334 ppb        2.10391  76.97%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               258.0      7.9474 ug/L       4.76435      7.9474 ppb        4.76435  59.95%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               129.4      0.8727 ug/L       0.11389      0.8727 ppb        0.11389  13.05%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               36.9      0.3234 ug/L       0.07485      0.3234 ppb        0.07485  23.15%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -230.4     -14.927 ug/L        1.5673     -14.927 ppb         1.5673  10.50%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 1/4/2010 14:29:19
Plasma On Time: 1/4/2010 06:33:21
Logged In Analyst: Optima3
Technique: ICP Continuous
Spectrometer Model: Optima 5300 DV, S/N 077C7090601**Autosampler Model:** S10

Sample Information File: C:\pe\Optima3\Sample Information\010410A.sif
Batch ID:
Results Data Set: 010410A
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1
Autosampler Location: 7
Sample ID: CCV
Date Collected: 1/4/2010 14:29:20
Analyst:
Data Type: Original
Initial Sample Wt:
Initial Sample Vol:
Dilution:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4723.8	4723.8	104	%			14:31:12
1	Y RADIAL	4904.9	4904.9	103.2	%			14:31:12
1	Al 396.153Radial†	5810.1	5597.1	4992.9	ug/L	4992.9	ppb	14:31:12
1	Ca 317.933Radial†	3126.3	2984.9	5033.1	ug/L	5033.1	ppb	14:31:32
1	Fe 238.204 Radial†	603.5	567.2	5099.3	ug/L	5099.3	ppb	14:31:32
1	K 766.490 Radial†	27846.5	23620.2	4995.0	ug/L	4995.0	ppb	14:31:12
1	Mg 279.077 IEC†	165.2	155.6	5078.8	ug/L	5078.8	ppb	14:31:32
1	Na 589.592 Radial†	32910.5	33144.1	10330	ug/L	10330	ppb	14:31:12
1	Sr 421.552†	71977.2	69080.7	510.70	ug/L	510.70	ppb	14:31:12
1	Sc 361.383	867810.3	867810.3	105.00	%			14:32:31
1	Y 371.029	733508.2	733508.2	103.80	%			14:32:31
1	Ag 328.068†	115292.9	109406.7	497.25	ug/L	497.25	ppb	14:32:31
1	As 188.979†	1386.3	1355.5	506.92	ug/L	506.92	ppb	14:32:51
1	B 249.677†	23423.4	23230.4	493.78	ug/L	493.78	ppb	14:32:31
1	Ba 233.527†	68276.4	65027.8	501.11	ug/L	501.11	ppb	14:32:31
1	Be 313.107†	1463087.9	1398098.6	498.80	ug/L	498.80	ppb	14:32:31
1	Cd 226.502†	53070.7	50808.4	501.12	ug/L	501.12	ppb	14:32:31
1	Co 228.616†	26205.8	25064.6	492.50	ug/L	492.50	ppb	14:32:51
1	Cr 267.716†	49419.7	46950.4	498.18	ug/L	498.18	ppb	14:32:31
1	Cu 324.752†	174413.4	158174.6	494.80	ug/L	494.80	ppb	14:32:31
1	Mn 257.610†	476623.7	453304.1	502.27	ug/L	502.27	ppb	14:32:31
1	Mo 202.031†	7903.2	7502.1	498.21	ug/L	498.21	ppb	14:32:51
1	Ni 231.604†	22565.0	21379.8	493.18	ug/L	493.18	ppb	14:32:51
1	P 214.914†	5340.8	4820.7	2400.5	ug/L	2400.5	ppb	14:32:51
1	Pb 220.353†	4754.7	4624.6	503.72	ug/L	503.72	ppb	14:32:51
1	S 181.975 Axial†	911.3	803.8	964.69	ug/L	964.69	ppb	14:32:51
1	Sb 206.836†	1697.6	1570.8	494.36	ug/L	494.36	ppb	14:32:51
1	Se 196.026†	921.6	913.2	507.85	ug/L	507.85	ppb	14:32:51
1	Si 251.611†	86416.1	81449.0	2446.6	ug/L	2446.6	ppb	14:32:31
1	Sn 189.927†	3355.3	3188.1	498.11	ug/L	498.11	ppb	14:32:51
1	Ti 334.940†	315224.6	302040.9	505.49	ug/L	505.49	ppb	14:32:31
1	Tl 190.801†	1746.8	1721.0	500.04	ug/L	500.04	ppb	14:32:51
1	U 409.014†	13545.8	16039.2	492.38	ug/L	492.38	ppb	14:32:31
1	V 292.402†	76596.4	74761.1	503.90	ug/L	503.90	ppb	14:32:31
1	Zn 213.857†	61429.0	57693.4	496.67	ug/L	496.67	ppb	14:32:31
1	SiO2†	86427.0	81348.1	5247.4	ug/L	5247.4	ppb	14:33:51
2	Sc Radial	4675.7	4675.7	103	%			14:31:37
2	Y RADIAL	4858.0	4858.0	102.2	%			14:31:37
2	Al 396.153Radial†	5657.1	5506.2	4911.4	ug/L	4911.4	ppb	14:31:37
2	Ca 317.933Radial†	3138.3	3027.3	5104.7	ug/L	5104.7	ppb	14:31:57
2	Fe 238.204 Radial†	604.5	574.1	5161.6	ug/L	5161.6	ppb	14:31:57
2	K 766.490 Radial†	27324.7	23389.4	4946.2	ug/L	4946.2	ppb	14:31:37
2	Mg 279.077 IEC†	165.7	157.8	5150.3	ug/L	5150.3	ppb	14:31:57
2	Na 589.592 Radial†	32079.2	32663.2	10180	ug/L	10180	ppb	14:31:37
2	Sr 421.552†	69932.4	67809.4	501.30	ug/L	501.30	ppb	14:31:37
2	Sc 361.383	865668.4	865668.4	104.74	%			14:32:58
2	Y 371.029	731523.9	731523.9	103.52	%			14:32:58

2	Ag 328.068†	115010.0	109408.3	497.28 ug/L	497.28 ppb	14:32:58
2	As 188.979†	1369.5	1342.6	502.16 ug/L	502.16 ppb	14:33:19
2	B 249.677†	23514.3	23372.3	496.80 ug/L	496.80 ppb	14:32:58
2	Ba 233.527†	68038.1	64961.2	500.60 ug/L	500.60 ppb	14:32:58
2	Be 313.107†	1460010.3	1398607.8	498.98 ug/L	498.98 ppb	14:32:58
2	Cd 226.502†	52839.0	50712.2	500.17 ug/L	500.17 ppb	14:32:58
2	Co 228.616†	26182.0	25103.6	493.27 ug/L	493.27 ppb	14:33:19
2	Cr 267.716†	49353.6	47003.7	498.74 ug/L	498.74 ppb	14:32:58
2	Cu 324.752†	174074.0	158261.7	495.08 ug/L	495.08 ppb	14:32:58
2	Mn 257.610†	475187.2	453055.7	502.00 ug/L	502.00 ppb	14:32:58
2	Mo 202.031†	7912.6	7529.6	500.05 ug/L	500.05 ppb	14:33:19
2	Ni 231.604†	22498.6	21369.6	492.94 ug/L	492.94 ppb	14:33:19
2	P 214.914†	5323.7	4817.0	2398.5 ug/L	2398.5 ppb	14:33:19
2	Pb 220.353†	4748.0	4629.4	504.22 ug/L	504.22 ppb	14:33:19
2	S 181.975 Axial†	914.8	809.3	971.32 ug/L	971.32 ppb	14:33:19
2	Sb 206.836†	1695.2	1572.6	494.94 ug/L	494.94 ppb	14:33:19
2	Se 196.026†	917.9	911.8	507.32 ug/L	507.32 ppb	14:33:19
2	Si 251.611†	86156.2	81404.5	2445.3 ug/L	2445.3 ppb	14:32:58
2	Sn 189.927†	3348.7	3189.7	498.36 ug/L	498.36 ppb	14:33:19
2	Ti 334.940†	314334.9	301934.2	505.32 ug/L	505.32 ppb	14:32:58
2	Tl 190.801†	1754.9	1732.8	503.44 ug/L	503.44 ppb	14:33:19
2	U 409.014†	13291.0	15827.8	485.86 ug/L	485.86 ppb	14:32:58
2	V 292.402†	76424.7	74777.7	504.02 ug/L	504.02 ppb	14:32:58
2	Zn 213.857†	61104.4	57528.3	495.24 ug/L	495.24 ppb	14:32:58
2	SiO2†	85276.6	80453.4	5189.4 ug/L	5189.4 ppb	14:33:57
3	Sc Radial	4709.7	4709.7	104 %		14:32:02
3	Y RADIAL	4887.8	4887.8	102.8 %		14:32:02
3	Al 396.153Radial†	5731.7	5538.4	4940.1 ug/L	4940.1 ppb	14:32:02
3	Ca 317.933Radial†	3164.3	3030.5	5110.0 ug/L	5110.0 ppb	14:32:22
3	Fe 238.204 Radial†	610.0	575.2	5171.5 ug/L	5171.5 ppb	14:32:22
3	K 766.490 Radial†	27516.0	23382.5	4944.8 ug/L	4944.8 ppb	14:32:02
3	Mg 279.077 IEC†	172.0	162.7	5309.5 ug/L	5309.5 ppb	14:32:22
3	Na 589.592 Radial†	32269.0	32621.6	10167 ug/L	10167 ppb	14:32:02
3	Sr 421.552†	70711.5	68070.3	503.23 ug/L	503.23 ppb	14:32:02
3	Sc 361.383	871509.7	871509.7	105.45 %		14:33:26
3	Y 371.029	736132.8	736132.8	104.17 %		14:33:26
3	Ag 328.068†	115512.0	109148.4	496.11 ug/L	496.11 ppb	14:33:26
3	As 188.979†	1389.9	1353.3	506.09 ug/L	506.09 ppb	14:33:46
3	B 249.677†	23494.9	23203.4	493.19 ug/L	493.19 ppb	14:33:26
3	Ba 233.527†	68346.0	64817.7	499.50 ug/L	499.50 ppb	14:33:26
3	Be 313.107†	1465336.1	1394315.7	497.45 ug/L	497.45 ppb	14:33:26
3	Cd 226.502†	53087.9	50610.2	499.16 ug/L	499.16 ppb	14:33:26
3	Co 228.616†	26501.5	25239.0	495.94 ug/L	495.94 ppb	14:33:46
3	Cr 267.716†	49433.8	46763.9	496.20 ug/L	496.20 ppb	14:33:26
3	Cu 324.752†	174609.9	157655.9	493.19 ug/L	493.19 ppb	14:33:26
3	Mn 257.610†	477135.9	451863.0	500.68 ug/L	500.68 ppb	14:33:26
3	Mo 202.031†	8014.5	7575.6	503.10 ug/L	503.10 ppb	14:33:46
3	Ni 231.604†	22775.1	21487.8	495.67 ug/L	495.67 ppb	14:33:46
3	P 214.914†	5373.0	4829.6	2405.3 ug/L	2405.3 ppb	14:33:46
3	Pb 220.353†	4791.0	4639.8	505.37 ug/L	505.37 ppb	14:33:46
3	S 181.975 Axial†	950.9	837.6	1005.4 ug/L	1005.4 ppb	14:33:46
3	Sb 206.836†	1727.1	1592.0	501.11 ug/L	501.11 ppb	14:33:46
3	Se 196.026†	953.2	939.5	522.22 ug/L	522.22 ppb	14:33:46
3	Si 251.611†	86494.5	81174.0	2438.3 ug/L	2438.3 ppb	14:33:26
3	Sn 189.927†	3375.0	3193.3	498.92 ug/L	498.92 ppb	14:33:46
3	Ti 334.940†	315612.2	301134.1	503.98 ug/L	503.98 ppb	14:33:26
3	Tl 190.801†	1783.4	1748.6	507.96 ug/L	507.96 ppb	14:33:46
3	U 409.014†	13246.2	15700.3	481.93 ug/L	481.93 ppb	14:33:26
3	V 292.402†	76711.6	74560.7	502.61 ug/L	502.61 ppb	14:33:26
3	Zn 213.857†	61511.7	57523.5	495.17 ug/L	495.17 ppb	14:33:26
3	SiO2†	85668.3	80279.1	5178.0 ug/L	5178.0 ppb	14:34:02

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	868329.5	105.06	%	0.358				0.34%
Sc Radial	4703.1	104	%	0.5				0.53%
Y 371.029	733721.6	103.83	%	0.327				0.32%
Y RADIAL	4883.6	102.7	%	0.50				0.49%
Ag 328.068†	109321.1	496.88	ug/L	0.668	496.88	ppb	0.668	0.13%

```
   QC value within limits for Ag 328.068  Recovery = 99.38%
Al 396.153Radial†       5547.2      4948.1 ug/L        41.36      4948.1 ppb        41.36   0.84%
   QC value within limits for Al 396.153Radial  Recovery = 98.96%
As 188.979†             1350.4      505.06 ug/L        2.542      505.06 ppb        2.542   0.50%
   QC value within limits for As 188.979  Recovery = 101.01%
B 249.677†             23268.7      494.59 ug/L        1.937      494.59 ppb        1.937   0.39%
   QC value within limits for B 249.677  Recovery = 98.92%
Ba 233.527†            64935.6      500.40 ug/L        0.826      500.40 ppb        0.826   0.17%
   QC value within limits for Ba 233.527  Recovery = 100.08%
Be 313.107†          1397007.4      498.41 ug/L        0.837      498.41 ppb        0.837   0.17%
   QC value within limits for Be 313.107  Recovery = 99.68%
Ca 317.933Radial†       3014.2      5082.6 ug/L        42.95      5082.6 ppb        42.95   0.84%
   QC value within limits for Ca 317.933Radial  Recovery = 101.65%
Cd 226.502†            50710.3      500.15 ug/L        0.981      500.15 ppb        0.981   0.20%
   QC value within limits for Cd 226.502  Recovery = 100.03%
Co 228.616†            25135.7      493.90 ug/L        1.806      493.90 ppb        1.806   0.37%
   QC value within limits for Co 228.616  Recovery = 98.78%
Cr 267.716†            46906.0      497.71 ug/L        1.334      497.71 ppb        1.334   0.27%
   QC value within limits for Cr 267.716  Recovery = 99.54%
Cu 324.752†           158030.7      494.36 ug/L        1.023      494.36 ppb        1.023   0.21%
   QC value within limits for Cu 324.752  Recovery = 98.87%
Fe 238.204 Radial†       572.2      5144.1 ug/L        39.12      5144.1 ppb        39.12   0.76%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.88%
K 766.490 Radial†      23464.1      4962.0 ug/L        28.62      4962.0 ppb        28.62   0.58%
   QC value within limits for K 766.490 Radial  Recovery = 99.24%
Mg 279.077 IEC†          158.7      5179.5 ug/L       118.10      5179.5 ppb       118.10   2.28%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.59%
Mn 257.610†           452740.9      501.65 ug/L        0.852      501.65 ppb        0.852   0.17%
   QC value within limits for Mn 257.610  Recovery = 100.33%
Mo 202.031†            7535.8      500.45 ug/L        2.469      500.45 ppb        2.469   0.49%
   QC value within limits for Mo 202.031  Recovery = 100.09%
Na 589.592 Radial†     32809.6       10226 ug/L         90.5       10226 ppb         90.5   0.89%
   QC value within limits for Na 589.592 Radial  Recovery = 102.26%
Ni 231.604†            21412.4      493.93 ug/L        1.511      493.93 ppb        1.511   0.31%
   QC value within limits for Ni 231.604  Recovery = 98.79%
P 214.914†              4822.5      2401.4 ug/L         3.49      2401.4 ppb         3.49   0.15%
   QC value within limits for P 214.914  Recovery = 96.06%
Pb 220.353†             4631.3      504.44 ug/L        0.842      504.44 ppb        0.842   0.17%
   QC value within limits for Pb 220.353  Recovery = 100.89%
S 181.975 Axial†         816.9      980.46 ug/L       21.823      980.46 ppb       21.823   2.23%
   QC value within limits for S 181.975 Axial  Recovery = 98.05%
Sb 206.836†            1578.5      496.80 ug/L        3.738      496.80 ppb        3.738   0.75%
   QC value within limits for Sb 206.836  Recovery = 99.36%
Se 196.026†             921.5      512.46 ug/L        8.450      512.46 ppb        8.450   1.65%
   QC value within limits for Se 196.026  Recovery = 102.49%
Si 251.611†            81342.5      2443.4 ug/L         4.49      2443.4 ppb         4.49   0.18%
   QC value within limits for Si 251.611  Recovery = 97.74%
Sn 189.927†            3190.3      498.47 ug/L        0.417      498.47 ppb        0.417   0.08%
   QC value within limits for Sn 189.927  Recovery = 99.69%
Sr 421.552†           68320.1      505.08 ug/L        4.965      505.08 ppb        4.965   0.98%
   QC value within limits for Sr 421.552  Recovery = 101.02%
Ti 334.940†          301703.0      504.93 ug/L        0.826      504.93 ppb        0.826   0.16%
   QC value within limits for Ti 334.940  Recovery = 100.99%
Tl 190.801†            1734.1      503.81 ug/L        3.975      503.81 ppb        3.975   0.79%
   QC value within limits for Tl 190.801  Recovery = 100.76%
U 409.014†            15855.7      486.72 ug/L        5.274      486.72 ppb        5.274   1.08%
   QC value within limits for U 409.014  Recovery = 97.34%
V 292.402†            74699.8      503.51 ug/L        0.779      503.51 ppb        0.779   0.15%
   QC value within limits for V 292.402  Recovery = 100.70%
Zn 213.857†           57581.7      495.69 ug/L        0.849      495.69 ppb        0.849   0.17%
   QC value within limits for Zn 213.857  Recovery = 99.14%
SiO2†                 80693.5      5204.9 ug/L        37.24      5204.9 ppb        37.24   0.72%
   QC value within limits for SiO2  Recovery = 97.33%
All analyte(s) passed QC.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/4/2010 14:36:11
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4673.6	4673.6	103	%			14:38:04
1	Y RADIAL	4908.6	4908.6	103.2	%			14:38:04
1	Al 396.153Radial†	-36.1	-13.2	-11.798	ug/L	-11.798	ppb	14:38:04
1	Ca 317.933Radial†	20.6	4.9	8.2150	ug/L	8.2150	ppb	14:38:24
1	Fe 238.204 Radial†	11.9	-0.3	-2.7620	ug/L	-2.7620	ppb	14:38:24
1	K 766.490 Radial†	3009.7	-181.8	-38.550	ug/L	-38.550	ppb	14:38:04
1	Mg 279.077 IEC†	4.3	1.3	42.543	ug/L	42.543	ppb	14:38:24
1	Na 589.592 Radial†	-1377.7	227.2	70.816	ug/L	70.816	ppb	14:38:04
1	Sr 421.552†	27.2	38.6	0.2852	ug/L	0.2852	ppb	14:38:04
1	Sc 361.383	879143.5	879143.5	106.37	%			14:39:21
1	Y 371.029	750790.9	750790.9	106.24	%			14:39:21
1	Ag 328.068†	536.0	105.1	0.4641	ug/L	0.4641	ppb	14:39:26
1	As 188.979†	-36.9	0.4	0.1604	ug/L	0.1604	ppb	14:39:46
1	B 249.677†	-550.4	404.4	8.6277	ug/L	8.6277	ppb	14:39:26
1	Ba 233.527†	-18.4	-16.3	-0.1230	ug/L	-0.1230	ppb	14:39:46
1	Be 313.107†	-4450.5	463.1	0.1654	ug/L	0.1654	ppb	14:39:26
1	Cd 226.502†	-244.3	34.0	0.3357	ug/L	0.3357	ppb	14:39:46
1	Co 228.616†	-86.1	25.1	0.4918	ug/L	0.4918	ppb	14:39:46
1	Cr 267.716†	139.0	13.5	0.1400	ug/L	0.1400	ppb	14:39:26
1	Cu 324.752†	8007.7	-409.2	-1.2795	ug/L	-1.2795	ppb	14:39:26
1	Mn 257.610†	584.4	-85.0	-0.0952	ug/L	-0.0952	ppb	14:39:26
1	Mo 202.031†	23.3	-3.1	-0.2063	ug/L	-0.2063	ppb	14:39:46
1	Ni 231.604†	116.2	-2.0	-0.0455	ug/L	-0.0455	ppb	14:39:46
1	P 214.914†	263.6	-18.1	-9.0674	ug/L	-9.0674	ppb	14:39:46
1	Pb 220.353†	-71.3	29.1	3.1607	ug/L	3.1607	ppb	14:39:46
1	S 181.975 Axial†	67.7	-0.5	-0.6243	ug/L	-0.6243	ppb	14:39:46
1	Sb 206.836†	54.7	5.5	1.7115	ug/L	1.7115	ppb	14:39:46
1	Se 196.026†	-30.3	7.0	3.7560	ug/L	3.7560	ppb	14:39:46
1	Si 251.611†	740.2	-158.2	-4.7592	ug/L	-4.7592	ppb	14:39:46
1	Sn 189.927†	11.4	3.3	0.5104	ug/L	0.5104	ppb	14:39:46
1	Ti 334.940†	-1752.1	172.4	0.2819	ug/L	0.2819	ppb	14:39:26
1	Tl 190.801†	-53.8	6.7	1.9311	ug/L	1.9311	ppb	14:39:46
1	U 409.014†	-2792.2	513.1	15.801	ug/L	15.801	ppb	14:39:21
1	V 292.402†	-1766.0	150.1	1.0269	ug/L	1.0269	ppb	14:39:26
1	Zn 213.857†	893.2	27.9	0.2424	ug/L	0.2424	ppb	14:39:46
1	SiO2†	731.5	-277.7	-17.969	ug/L	-17.969	ppb	14:40:52
2	Sc Radial	4779.1	4779.1	105	%			14:38:29
2	Y RADIAL	5002.6	5002.6	105.2	%			14:38:29
2	Al 396.153Radial†	12.3	33.5	30.013	ug/L	30.013	ppb	14:38:29
2	Ca 317.933Radial†	14.8	-1.1	-1.8012	ug/L	-1.8012	ppb	14:38:49
2	Fe 238.204 Radial†	12.1	-0.4	-3.5483	ug/L	-3.5483	ppb	14:38:49
2	K 766.490 Radial†	3079.2	-180.4	-38.237	ug/L	-38.237	ppb	14:38:29
2	Mg 279.077 IEC†	2.4	-0.6	-20.199	ug/L	-20.199	ppb	14:38:49
2	Na 589.592 Radial†	-1374.7	259.6	80.910	ug/L	80.910	ppb	14:38:29
2	Sr 421.552†	24.0	34.9	0.2582	ug/L	0.2582	ppb	14:38:29
2	Sc 361.383	865424.0	865424.0	104.71	%			14:39:51
2	Y 371.029	738964.9	738964.9	104.57	%			14:39:51
2	Ag 328.068†	486.2	65.5	0.2847	ug/L	0.2847	ppb	14:39:56
2	As 188.979†	-30.3	6.2	2.2823	ug/L	2.2823	ppb	14:40:16
2	B 249.677†	-641.9	308.8	6.5885	ug/L	6.5885	ppb	14:39:56
2	Ba 233.527†	3.0	3.9	0.0317	ug/L	0.0317	ppb	14:40:16
2	Be 313.107†	-4461.5	386.2	0.1378	ug/L	0.1378	ppb	14:39:56
2	Cd 226.502†	-232.5	41.6	0.4111	ug/L	0.4111	ppb	14:40:16
2	Co 228.616†	-96.7	13.6	0.2679	ug/L	0.2679	ppb	14:40:16
2	Cr 267.716†	110.1	-12.0	-0.1309	ug/L	-0.1309	ppb	14:39:56
2	Cu 324.752†	7870.4	-420.9	-1.3162	ug/L	-1.3162	ppb	14:39:56
2	Mn 257.610†	551.4	-107.9	-0.1195	ug/L	-0.1195	ppb	14:39:56
2	Mo 202.031†	29.0	2.7	0.1779	ug/L	0.1779	ppb	14:40:16
2	Ni 231.604†	121.7	5.0	0.1153	ug/L	0.1153	ppb	14:40:16

2	P 214.914†	268.6	-9.4	-4.5692 ug/L	-4.5692 ppb	14:40:16
2	Pb 220.353†	-74.3	25.2	2.7459 ug/L	2.7459 ppb	14:40:16
2	S 181.975 Axial†	61.5	-5.4	-6.4943 ug/L	-6.4943 ppb	14:40:16
2	Sb 206.836†	57.4	8.9	2.7830 ug/L	2.7830 ppb	14:40:16
2	Se 196.026†	-40.5	-3.3	-1.7585 ug/L	-1.7585 ppb	14:40:16
2	Si 251.611†	742.3	-145.1	-4.3728 ug/L	-4.3728 ppb	14:40:16
2	Sn 189.927†	11.7	3.7	0.5725 ug/L	0.5725 ppb	14:40:16
2	Ti 334.940†	-1795.8	104.5	0.1682 ug/L	0.1682 ppb	14:39:56
2	Tl 190.801†	-41.7	17.5	5.0519 ug/L	5.0519 ppb	14:40:16
2	U 409.014†	-2765.8	496.6	15.297 ug/L	15.297 ppb	14:39:51
2	V 292.402†	-1779.8	110.6	0.7677 ug/L	0.7677 ppb	14:39:56
2	Zn 213.857†	882.1	30.6	0.2675 ug/L	0.2675 ppb	14:40:16
2	SiO2†	799.9	-201.5	-13.042 ug/L	-13.042 ppb	14:40:57
3	Sc Radial	4695.0	4695.0	104 %		14:38:54
3	Y RADIAL	4961.4	4961.4	104.4 %		14:38:54
3	Al 396.153Radial†	-2.5	19.4	17.426 ug/L	17.426 ppb	14:38:54
3	Ca 317.933Radial†	24.3	8.4	14.145 ug/L	14.145 ppb	14:39:14
3	Fe 238.204 Radial†	11.5	-0.8	-7.2808 ug/L	-7.2808 ppb	14:39:14
3	K 766.490 Radial†	3112.7	-95.6	-20.286 ug/L	-20.286 ppb	14:38:54
3	Mg 279.077 IEC†	2.6	-0.4	-13.427 ug/L	-13.427 ppb	14:39:14
3	Na 589.592 Radial†	-1393.7	217.9	67.915 ug/L	67.915 ppb	14:38:54
3	Sr 421.552†	-8.9	3.6	0.0268 ug/L	0.0268 ppb	14:38:54
3	Sc 361.383	855236.0	855236.0	103.48 %		14:40:21
3	Y 371.029	730814.3	730814.3	103.42 %		14:40:21
3	Ag 328.068†	467.2	52.7	0.2276 ug/L	0.2276 ppb	14:40:26
3	As 188.979†	-33.9	2.3	0.8578 ug/L	0.8578 ppb	14:40:46
3	B 249.677†	-574.7	366.4	7.8183 ug/L	7.8183 ppb	14:40:26
3	Ba 233.527†	-1.2	-0.1	0.0010 ug/L	0.0010 ppb	14:40:46
3	Be 313.107†	-4444.8	351.6	0.1254 ug/L	0.1254 ppb	14:40:26
3	Cd 226.502†	-253.8	18.4	0.1822 ug/L	0.1822 ppb	14:40:46
3	Co 228.616†	-100.0	9.4	0.1831 ug/L	0.1831 ppb	14:40:46
3	Cr 267.716†	72.2	-47.4	-0.5053 ug/L	-0.5053 ppb	14:40:26
3	Cu 324.752†	8051.8	-156.1	-0.4884 ug/L	-0.4884 ppb	14:40:26
3	Mn 257.610†	556.5	-96.7	-0.1075 ug/L	-0.1075 ppb	14:40:26
3	Mo 202.031†	17.9	-7.7	-0.5108 ug/L	-0.5108 ppb	14:40:46
3	Ni 231.604†	102.5	-12.2	-0.2812 ug/L	-0.2812 ppb	14:40:46
3	P 214.914†	267.7	-7.1	-3.5890 ug/L	-3.5890 ppb	14:40:46
3	Pb 220.353†	-101.4	-1.8	-0.1944 ug/L	-0.1944 ppb	14:40:46
3	S 181.975 Axial†	64.1	-2.2	-2.6431 ug/L	-2.6431 ppb	14:40:46
3	Sb 206.836†	66.9	18.7	5.7868 ug/L	5.7868 ppb	14:40:46
3	Se 196.026†	-36.3	0.3	0.1580 ug/L	0.1580 ppb	14:40:46
3	Si 251.611†	747.3	-131.8	-3.9613 ug/L	-3.9613 ppb	14:40:46
3	Sn 189.927†	1.9	-5.7	-0.8856 ug/L	-0.8856 ppb	14:40:46
3	Ti 334.940†	-1825.2	55.6	0.0882 ug/L	0.0882 ppb	14:40:26
3	Tl 190.801†	-42.4	16.3	4.7084 ug/L	4.7084 ppb	14:40:46
3	U 409.014†	-2804.0	428.2	13.190 ug/L	13.190 ppb	14:40:21
3	V 292.402†	-1735.9	132.7	0.9019 ug/L	0.9019 ppb	14:40:26
3	Zn 213.857†	902.2	60.1	0.5246 ug/L	0.5246 ppb	14:40:46
3	SiO2†	764.3	-226.8	-14.661 ug/L	-14.661 ppb	14:41:02

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	866601.2	104.85	%	1.452				1.38%
Sc Radial	4715.9	104	%	1.2				1.18%
Y 371.029	740190.0	104.74	%	1.421				1.36%
Y RADIAL	4957.6	104.3	%	0.99				0.95%
Ag 328.068†	74.5	0.3254	ug/L	0.12340	0.3254	ppb	0.12340	37.92%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	13.3	11.880	ug/L	21.4501	11.880	ppb	21.4501	180.56%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.0	1.1002	ug/L	1.08152	1.1002	ppb	1.08152	98.30%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	359.8	7.6782	ug/L	1.02678	7.6782	ppb	1.02678	13.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.2	-0.0301	ug/L	0.08193	-0.0301	ppb	0.08193	272.24%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	400.3	0.1429	ug/L	0.02051	0.1429	ppb	0.02051	14.35%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.1	6.8529	ug/L	8.05977	6.8529	ppb	8.05977	117.61%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              31.3      0.3097 ug/L      0.11666      0.3097 ppb       0.11666  37.67%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              16.0      0.3142 ug/L      0.15948      0.3142 ppb       0.15948  50.75%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -15.3     -0.1654 ug/L      0.32402     -0.1654 ppb       0.32402 195.93%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -328.7     -1.0281 ug/L      0.46774     -1.0281 ppb       0.46774  45.50%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       -0.5     -4.5303 ug/L      2.41416     -4.5303 ppb       2.41416  53.29%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -152.6     -32.358 ug/L      10.4553     -32.358 ppb       10.4553  32.31%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.1      2.9725 ug/L     34.43581      2.9725 ppb      34.43581 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -96.5     -0.1074 ug/L      0.01213     -0.1074 ppb       0.01213  11.30%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -2.7     -0.1797 ug/L      0.34510     -0.1797 ppb       0.34510 191.99%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      234.9      73.214 ug/L       6.8207      73.214 ppb        6.8207   9.32%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -3.0     -0.0705 ug/L      0.19942     -0.0705 ppb       0.19942 282.87%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -11.5     -5.7419 ug/L      2.92137     -5.7419 ppb       2.92137  50.88%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              17.5      1.9041 ug/L      1.82917      1.9041 ppb       1.82917  96.07%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -2.7     -3.2539 ug/L      2.98230     -3.2539 ppb       2.98230  91.65%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              11.0      3.4271 ug/L      2.11263      3.4271 ppb       2.11263  61.64%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.4      0.7185 ug/L      2.79965      0.7185 ppb       2.79965 389.64%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†            -145.0     -4.3645 ug/L      0.39902     -4.3645 ppb       0.39902   9.14%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.4      0.0658 ug/L      0.82452      0.0658 ppb       0.82452 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              25.7      0.1901 ug/L      0.14206      0.1901 ppb       0.14206  74.75%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             110.8      0.1795 ug/L      0.09735      0.1795 ppb       0.09735  54.25%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              13.5      3.8971 ug/L      1.71125      3.8971 ppb       1.71125  43.91%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              479.3      14.763 ug/L       1.3849      14.763 ppb        1.3849   9.38%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              131.1      0.8989 ug/L      0.12962      0.8989 ppb       0.12962  14.42%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              39.5      0.3448 ug/L      0.15615      0.3448 ppb       0.15615  45.28%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                  -235.3     -15.224 ug/L       2.5116     -15.224 ppb        2.5116  16.50%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/4/2010 15:38:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4748.8	4748.8	105	%			15:40:04
1	Y RADIAL	4939.3	4939.3	103.9	%			15:40:04
1	Al 396.153Radial†	5771.6	5531.1	4933.7	ug/L	4933.7	ppb	15:40:04
1	Ca 317.933Radial†	3078.5	2923.5	4929.6	ug/L	4929.6	ppb	15:40:24
1	Fe 238.204 Radial†	577.1	539.0	4846.8	ug/L	4846.8	ppb	15:40:24
1	K 766.490 Radial†	27639.3	23282.1	4923.8	ug/L	4923.8	ppb	15:40:04
1	Mg 279.077 IEC†	163.3	153.0	4994.0	ug/L	4994.0	ppb	15:40:24
1	Na 589.592 Radial†	29773.3	29983.6	9344.9	ug/L	9344.9	ppb	15:40:04
1	Sr 421.552†	68343.1	65249.1	482.37	ug/L	482.37	ppb	15:40:04
1	Sc 361.383	870181.8	870181.8	105.28	%			15:41:23
1	Y 371.029	734375.0	734375.0	103.92	%			15:41:23
1	Ag 328.068†	115736.5	109528.7	497.72	ug/L	497.72	ppb	15:41:23
1	As 188.979†	1372.2	1338.4	500.58	ug/L	500.58	ppb	15:41:43
1	B 249.677†	23554.2	23293.8	495.17	ug/L	495.17	ppb	15:41:23
1	Ba 233.527†	68574.4	65133.7	501.92	ug/L	501.92	ppb	15:41:23
1	Be 313.107†	1467746.0	1398725.3	499.02	ug/L	499.02	ppb	15:41:23
1	Cd 226.502†	53258.1	50848.6	501.55	ug/L	501.55	ppb	15:41:23
1	Co 228.616†	26326.8	25111.4	493.42	ug/L	493.42	ppb	15:41:43
1	Cr 267.716†	49559.0	46954.4	498.21	ug/L	498.21	ppb	15:41:23
1	Cu 324.752†	175549.4	158800.9	496.75	ug/L	496.75	ppb	15:41:23
1	Mn 257.610†	479283.8	454593.6	503.67	ug/L	503.67	ppb	15:41:23
1	Mo 202.031†	7928.3	7505.4	498.41	ug/L	498.41	ppb	15:41:43
1	Ni 231.604†	22648.6	21400.7	493.66	ug/L	493.66	ppb	15:41:43
1	P 214.914†	5388.8	4852.4	2416.7	ug/L	2416.7	ppb	15:41:43
1	Pb 220.353†	4780.6	4636.9	505.06	ug/L	505.06	ppb	15:41:43
1	S 181.975 Axial†	942.7	831.3	997.74	ug/L	997.74	ppb	15:41:43
1	Sb 206.836†	1707.0	1575.4	495.81	ug/L	495.81	ppb	15:41:43
1	Se 196.026†	936.4	924.9	513.42	ug/L	513.42	ppb	15:41:43
1	Si 251.611†	86798.0	81587.5	2450.8	ug/L	2450.8	ppb	15:41:23
1	Sn 189.927†	3377.9	3200.9	500.09	ug/L	500.09	ppb	15:41:43
1	Ti 334.940†	316564.9	302495.7	506.25	ug/L	506.25	ppb	15:41:23
1	Tl 190.801†	1763.7	1732.4	503.35	ug/L	503.35	ppb	15:41:43
1	U 409.014†	13271.2	15743.2	483.29	ug/L	483.29	ppb	15:41:23
1	V 292.402†	76715.9	74675.8	503.35	ug/L	503.35	ppb	15:41:23
1	Zn 213.857†	61562.0	57660.4	496.40	ug/L	496.40	ppb	15:41:23
1	SiO2†	86211.8	80919.4	5219.7	ug/L	5219.7	ppb	15:42:43
2	Sc Radial	4647.4	4647.4	103	%			15:40:29
2	Y RADIAL	4851.0	4851.0	102.0	%			15:40:29
2	Al 396.153Radial†	5676.5	5558.5	4958.2	ug/L	4958.2	ppb	15:40:29
2	Ca 317.933Radial†	3127.9	3035.7	5118.8	ug/L	5118.8	ppb	15:40:49
2	Fe 238.204 Radial†	584.3	558.0	5017.1	ug/L	5017.1	ppb	15:40:49
2	K 766.490 Radial†	27191.3	23420.7	4953.2	ug/L	4953.2	ppb	15:40:29
2	Mg 279.077 IEC†	164.7	157.8	5150.4	ug/L	5150.4	ppb	15:40:49
2	Na 589.592 Radial†	29249.3	30092.4	9378.8	ug/L	9378.8	ppb	15:40:29
2	Sr 421.552†	67223.2	65579.7	484.82	ug/L	484.82	ppb	15:40:29
2	Sc 361.383	867356.3	867356.3	104.94	%			15:41:50
2	Y 371.029	732361.2	732361.2	103.64	%			15:41:50
2	Ag 328.068†	115554.0	109713.0	498.61	ug/L	498.61	ppb	15:41:50
2	As 188.979†	1384.1	1354.0	506.36	ug/L	506.36	ppb	15:42:10
2	B 249.677†	23517.4	23331.6	495.94	ug/L	495.94	ppb	15:41:50
2	Ba 233.527†	68362.5	65143.9	502.00	ug/L	502.00	ppb	15:41:50
2	Be 313.107†	1462274.3	1398052.7	498.78	ug/L	498.78	ppb	15:41:50
2	Cd 226.502†	53106.8	50869.3	501.73	ug/L	501.73	ppb	15:41:50
2	Co 228.616†	26384.3	25247.7	496.11	ug/L	496.11	ppb	15:42:10
2	Cr 267.716†	49345.5	46904.3	497.69	ug/L	497.69	ppb	15:41:50
2	Cu 324.752†	174785.5	158616.2	496.18	ug/L	496.18	ppb	15:41:50
2	Mn 257.610†	477286.9	454173.6	503.22	ug/L	503.22	ppb	15:41:50
2	Mo 202.031†	7948.3	7548.9	501.31	ug/L	501.31	ppb	15:42:10
2	Ni 231.604†	22625.0	21448.2	494.76	ug/L	494.76	ppb	15:42:10

2	P 214.914†	5373.5	4854.5	2417.7 ug/L	2417.7 ppb	15:42:10
2	Pb 220.353†	4781.1	4652.1	506.71 ug/L	506.71 ppb	15:42:10
2	S 181.975 Axial†	941.9	833.4	1000.3 ug/L	1000.3 ppb	15:42:10
2	Sb 206.836†	1701.8	1575.7	496.00 ug/L	496.00 ppb	15:42:10
2	Se 196.026†	942.1	933.2	518.40 ug/L	518.40 ppb	15:42:10
2	Si 251.611†	86460.6	81534.5	2449.2 ug/L	2449.2 ppb	15:41:50
2	Sn 189.927†	3373.7	3207.3	501.11 ug/L	501.11 ppb	15:42:10
2	Ti 334.940†	315500.8	302461.2	506.20 ug/L	506.20 ppb	15:41:50
2	Tl 190.801†	1765.9	1740.0	505.53 ug/L	505.53 ppb	15:42:10
2	U 409.014†	13441.3	15946.3	489.53 ug/L	489.53 ppb	15:41:50
2	V 292.402†	76514.7	74721.5	503.69 ug/L	503.69 ppb	15:41:50
2	Zn 213.857†	61370.2	57668.1	496.44 ug/L	496.44 ppb	15:41:50
2	SiO2†	86162.6	81139.2	5233.8 ug/L	5233.8 ppb	15:42:48
3	Sc Radial	4653.7	4653.7	103 %		15:40:54
3	Y RADIAL	4830.6	4830.6	101.6 %		15:40:54
3	Al 396.153Radial†	5728.1	5601.2	4995.9 ug/L	4995.9 ppb	15:40:54
3	Ca 317.933Radial†	3104.4	3008.7	5073.3 ug/L	5073.3 ppb	15:41:14
3	Fe 238.204 Radial†	586.5	559.4	5030.4 ug/L	5030.4 ppb	15:41:14
3	K 766.490 Radial†	27283.6	23474.6	4964.6 ug/L	4964.6 ppb	15:40:54
3	Mg 279.077 IEC†	165.3	158.1	5161.4 ug/L	5161.4 ppb	15:41:14
3	Na 589.592 Radial†	29497.6	30295.6	9442.1 ug/L	9442.1 ppb	15:40:54
3	Sr 421.552†	67543.7	65803.0	486.47 ug/L	486.47 ppb	15:40:54
3	Sc 361.383	855587.0	855587.0	103.52 %		15:42:18
3	Y 371.029	723090.8	723090.8	102.32 %		15:42:18
3	Ag 328.068†	113737.5	109472.8	497.52 ug/L	497.52 ppb	15:42:18
3	As 188.979†	1404.5	1391.9	520.39 ug/L	520.39 ppb	15:42:38
3	B 249.677†	23163.2	23297.7	495.18 ug/L	495.18 ppb	15:42:18
3	Ba 233.527†	67392.2	65102.6	501.68 ug/L	501.68 ppb	15:42:18
3	Be 313.107†	1441197.1	1396859.2	498.35 ug/L	498.35 ppb	15:42:18
3	Cd 226.502†	52377.6	50861.0	501.66 ug/L	501.66 ppb	15:42:18
3	Co 228.616†	26744.3	25941.3	509.76 ug/L	509.76 ppb	15:42:38
3	Cr 267.716†	48739.1	46965.3	498.33 ug/L	498.33 ppb	15:42:18
3	Cu 324.752†	171905.8	158125.5	494.65 ug/L	494.65 ppb	15:42:18
3	Mn 257.610†	469847.6	453243.4	502.19 ug/L	502.19 ppb	15:42:18
3	Mo 202.031†	8039.7	7741.4	514.09 ug/L	514.09 ppb	15:42:38
3	Ni 231.604†	22927.3	22036.8	508.33 ug/L	508.33 ppb	15:42:38
3	P 214.914†	5444.3	4993.4	2489.5 ug/L	2489.5 ppb	15:42:38
3	Pb 220.353†	4828.0	4760.1	518.48 ug/L	518.48 ppb	15:42:38
3	S 181.975 Axial†	953.1	856.6	1028.1 ug/L	1028.1 ppb	15:42:38
3	Sb 206.836†	1750.2	1644.8	517.92 ug/L	517.92 ppb	15:42:38
3	Se 196.026†	952.2	955.3	530.34 ug/L	530.34 ppb	15:42:38
3	Si 251.611†	85169.3	81420.4	2445.5 ug/L	2445.5 ppb	15:42:18
3	Sn 189.927†	3412.7	3289.3	513.90 ug/L	513.90 ppb	15:42:38
3	Ti 334.940†	310696.6	301955.9	505.35 ug/L	505.35 ppb	15:42:18
3	Tl 190.801†	1786.5	1783.1	517.88 ug/L	517.88 ppb	15:42:38
3	U 409.014†	13244.3	15932.2	489.09 ug/L	489.09 ppb	15:42:18
3	V 292.402†	75366.9	74615.6	503.17 ug/L	503.17 ppb	15:42:18
3	Zn 213.857†	60557.3	57687.2	496.52 ug/L	496.52 ppb	15:42:18
3	SiO2†	86764.2	82849.7	5344.1 ug/L	5344.1 ppb	15:42:54

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	864375.0	104.58	%	0.937				0.90%
Sc Radial	4683.3	103	%	1.3				1.21%
Y 371.029	729942.3	103.29	%	0.852				0.82%
Y RADIAL	4873.6	102.5	%	1.21				1.19%
Ag 328.068†	109571.5	497.95	ug/L	0.576	497.95	ppb	0.576	0.12%
QC value within limits for Ag 328.068 Recovery = 99.59%								
Al 396.153Radial†	5563.6	4962.6	ug/L	31.32	4962.6	ppb	31.32	0.63%
QC value within limits for Al 396.153Radial Recovery = 99.25%								
As 188.979†	1361.4	509.11	ug/L	10.190	509.11	ppb	10.190	2.00%
QC value within limits for As 188.979 Recovery = 101.82%								
B 249.677†	23307.7	495.43	ug/L	0.444	495.43	ppb	0.444	0.09%
QC value within limits for B 249.677 Recovery = 99.09%								
Ba 233.527†	65126.7	501.87	ug/L	0.165	501.87	ppb	0.165	0.03%
QC value within limits for Ba 233.527 Recovery = 100.37%								
Be 313.107†	1397879.1	498.72	ug/L	0.337	498.72	ppb	0.337	0.07%
QC value within limits for Be 313.107 Recovery = 99.74%								
Ca 317.933Radial†	2989.3	5040.6	ug/L	98.79	5040.6	ppb	98.79	1.96%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.81%
Cd 226.502†            50859.7      501.65 ug/L        0.094      501.65 ppb          0.094   0.02%
   QC value within limits for Cd 226.502  Recovery = 100.33%
Co 228.616†            25433.4      499.76 ug/L        8.763      499.76 ppb          8.763   1.75%
   QC value within limits for Co 228.616  Recovery = 99.95%
Cr 267.716†            46941.3      498.08 ug/L        0.344      498.08 ppb          0.344   0.07%
   QC value within limits for Cr 267.716  Recovery = 99.62%
Cu 324.752†           158514.2      495.86 ug/L        1.088      495.86 ppb          1.088   0.22%
   QC value within limits for Cu 324.752  Recovery = 99.17%
Fe 238.204 Radial†       552.1      4964.8 ug/L       102.35      4964.8 ppb        102.35   2.06%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.30%
K 766.490 Radial†      23392.5      4947.2 ug/L        21.05      4947.2 ppb         21.05   0.43%
   QC value within limits for K 766.490 Radial  Recovery = 98.94%
Mg 279.077 IEC†          156.3      5101.9 ug/L        93.62      5101.9 ppb         93.62   1.83%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.04%
Mn 257.610†           454003.5      503.03 ug/L        0.758      503.03 ppb         0.758   0.15%
   QC value within limits for Mn 257.610  Recovery = 100.61%
Mo 202.031†             7598.6      504.60 ug/L        8.342      504.60 ppb         8.342   1.65%
   QC value within limits for Mo 202.031  Recovery = 100.92%
Na 589.592 Radial†     30123.9      9388.6 ug/L        49.36      9388.6 ppb         49.36   0.53%
   QC value within limits for Na 589.592 Radial  Recovery = 93.89%
Ni 231.604†            21628.5      498.92 ug/L        8.173      498.92 ppb         8.173   1.64%
   QC value within limits for Ni 231.604  Recovery = 99.78%
P 214.914†              4900.1      2441.3 ug/L        41.72      2441.3 ppb         41.72   1.71%
   QC value within limits for P 214.914  Recovery = 97.65%
Pb 220.353†             4683.0      510.08 ug/L        7.319      510.08 ppb         7.319   1.43%
   QC value within limits for Pb 220.353  Recovery = 102.02%
S 181.975 Axial†         840.4      1008.7 ug/L        16.82      1008.7 ppb         16.82   1.67%
   QC value within limits for S 181.975 Axial  Recovery = 100.87%
Sb 206.836†             1598.6      503.24 ug/L       12.713      503.24 ppb        12.713   2.53%
   QC value within limits for Sb 206.836  Recovery = 100.65%
Se 196.026†              937.8      520.72 ug/L        8.695      520.72 ppb         8.695   1.67%
   QC value within limits for Se 196.026  Recovery = 104.14%
Si 251.611†            81514.1      2448.5 ug/L         2.75      2448.5 ppb          2.75   0.11%
   QC value within limits for Si 251.611  Recovery = 97.94%
Sn 189.927†             3232.5      505.03 ug/L        7.692      505.03 ppb         7.692   1.52%
   QC value within limits for Sn 189.927  Recovery = 101.01%
Sr 421.552†            65543.9      484.55 ug/L        2.060      484.55 ppb         2.060   0.43%
   QC value within limits for Sr 421.552  Recovery = 96.91%
Ti 334.940†           302304.3      505.93 ug/L        0.505      505.93 ppb         0.505   0.10%
   QC value within limits for Ti 334.940  Recovery = 101.19%
Tl 190.801†             1751.9      508.92 ug/L        7.833      508.92 ppb         7.833   1.54%
   QC value within limits for Tl 190.801  Recovery = 101.78%
U 409.014†             15873.9      487.30 ug/L        3.480      487.30 ppb         3.480   0.71%
   QC value within limits for U 409.014  Recovery = 97.46%
V 292.402†             74671.0      503.40 ug/L        0.265      503.40 ppb         0.265   0.05%
   QC value within limits for V 292.402  Recovery = 100.68%
Zn 213.857†            57671.9      496.45 ug/L        0.064      496.45 ppb         0.064   0.01%
   QC value within limits for Zn 213.857  Recovery = 99.29%
SiO2†                  81636.1      5265.8 ug/L        68.13      5265.8 ppb         68.13   1.29%
   QC value within limits for SiO2  Recovery = 98.47%
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/4/2010 15:45:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4877.6	4877.6	108	%			15:46:56
1	Y RADIAL	5106.9	5106.9	107.4	%			15:46:56
1	Al 396.153Radial†	-1.2	20.7	18.485	ug/L	18.485	ppb	15:46:56
1	Ca 317.933Radial†	19.1	2.6	4.4428	ug/L	4.4428	ppb	15:47:16
1	Fe 238.204 Radial†	13.0	0.2	1.7937	ug/L	1.7937	ppb	15:47:16
1	K 766.490 Radial†	3104.4	-215.9	-45.779	ug/L	-45.779	ppb	15:46:56
1	Mg 279.077 IEC†	8.3	4.8	157.14	ug/L	157.14	ppb	15:47:16
1	Na 589.592 Radial†	-1341.8	316.5	98.648	ug/L	98.648	ppb	15:46:56
1	Sr 421.552†	-31.1	-16.7	-0.1235	ug/L	-0.1235	ppb	15:46:56
1	Sc 361.383	853915.6	853915.6	103.32	%			15:48:13
1	Y 371.029	729500.0	729500.0	103.23	%			15:48:13
1	Ag 328.068†	435.1	22.3	0.1033	ug/L	0.1033	ppb	15:48:13
1	As 188.979†	-23.7	12.2	4.5176	ug/L	4.5176	ppb	15:48:33
1	B 249.677†	-564.9	375.0	8.0009	ug/L	8.0009	ppb	15:48:13
1	Ba 233.527†	-3.8	-2.6	-0.0168	ug/L	-0.0168	ppb	15:48:33
1	Be 313.107†	-4412.9	375.8	0.1342	ug/L	0.1342	ppb	15:48:13
1	Cd 226.502†	-268.9	3.4	0.0334	ug/L	0.0334	ppb	15:48:33
1	Co 228.616†	-83.5	25.2	0.4968	ug/L	0.4968	ppb	15:48:33
1	Cr 267.716†	79.4	-40.3	-0.4257	ug/L	-0.4257	ppb	15:48:13
1	Cu 324.752†	8067.7	-128.7	-0.4023	ug/L	-0.4023	ppb	15:48:13
1	Mn 257.610†	534.0	-117.7	-0.1330	ug/L	-0.1330	ppb	15:48:13
1	Mo 202.031†	39.2	12.9	0.8563	ug/L	0.8563	ppb	15:48:33
1	Ni 231.604†	118.3	3.3	0.0750	ug/L	0.0750	ppb	15:48:33
1	P 214.914†	276.4	1.6	0.8983	ug/L	0.8983	ppb	15:48:33
1	Pb 220.353†	-76.5	22.2	2.4134	ug/L	2.4134	ppb	15:48:33
1	S 181.975 Axial†	63.3	-2.8	-3.3869	ug/L	-3.3869	ppb	15:48:33
1	Sb 206.836†	45.0	-2.4	-0.7152	ug/L	-0.7152	ppb	15:48:33
1	Se 196.026†	-42.0	-5.2	-2.7696	ug/L	-2.7696	ppb	15:48:33
1	Si 251.611†	728.5	-148.9	-4.4942	ug/L	-4.4942	ppb	15:48:33
1	Sn 189.927†	6.4	-1.3	-0.2009	ug/L	-0.2009	ppb	15:48:33
1	Ti 334.940†	-1763.8	112.4	0.1868	ug/L	0.1868	ppb	15:48:13
1	Tl 190.801†	-39.9	18.7	5.3914	ug/L	5.3914	ppb	15:48:33
1	U 409.014†	-3114.5	123.5	3.8057	ug/L	3.8057	ppb	15:48:13
1	V 292.402†	-1657.1	206.5	1.3961	ug/L	1.3961	ppb	15:48:13
1	Zn 213.857†	876.4	36.5	0.3112	ug/L	0.3112	ppb	15:48:33
1	SiO2†	760.1	-229.7	-14.884	ug/L	-14.884	ppb	15:49:29
2	Sc Radial	4719.2	4719.2	104	%			15:47:21
2	Y RADIAL	4937.1	4937.1	103.8	%			15:47:21
2	Al 396.153Radial†	5.5	27.1	24.270	ug/L	24.270	ppb	15:47:21
2	Ca 317.933Radial†	20.9	4.9	8.2950	ug/L	8.2950	ppb	15:47:41
2	Fe 238.204 Radial†	11.7	-0.7	-5.9222	ug/L	-5.9222	ppb	15:47:41
2	K 766.490 Radial†	3058.0	-163.6	-34.694	ug/L	-34.694	ppb	15:47:21
2	Mg 279.077 IEC†	2.1	-0.9	-29.671	ug/L	-29.671	ppb	15:47:41
2	Na 589.592 Radial†	-1410.3	208.8	65.084	ug/L	65.084	ppb	15:47:21
2	Sr 421.552†	35.9	46.7	0.3449	ug/L	0.3449	ppb	15:47:21
2	Sc 361.383	862631.3	862631.3	104.37	%			15:48:38
2	Y 371.029	736962.9	736962.9	104.29	%			15:48:38
2	Ag 328.068†	415.8	-0.4	-0.0106	ug/L	-0.0106	ppb	15:48:38
2	As 188.979†	-28.3	8.0	2.9496	ug/L	2.9496	ppb	15:48:59
2	B 249.677†	-583.1	363.1	7.7496	ug/L	7.7496	ppb	15:48:38
2	Ba 233.527†	-2.1	-0.9	-0.0052	ug/L	-0.0052	ppb	15:48:59
2	Be 313.107†	-4554.4	283.4	0.1014	ug/L	0.1014	ppb	15:48:38
2	Cd 226.502†	-254.3	20.0	0.1975	ug/L	0.1975	ppb	15:48:59
2	Co 228.616†	-108.1	2.5	0.0458	ug/L	0.0458	ppb	15:48:59
2	Cr 267.716†	114.0	-7.9	-0.0864	ug/L	-0.0864	ppb	15:48:38
2	Cu 324.752†	8166.2	-113.2	-0.3542	ug/L	-0.3542	ppb	15:48:38
2	Mn 257.610†	507.5	-148.3	-0.1642	ug/L	-0.1642	ppb	15:48:38
2	Mo 202.031†	14.0	-11.6	-0.7714	ug/L	-0.7714	ppb	15:48:59
2	Ni 231.604†	97.5	-17.9	-0.4122	ug/L	-0.4122	ppb	15:48:59

2	P 214.914†	282.3	4.6	2.4120 ug/L	2.4120 ppb	15:48:59
2	Pb 220.353†	-94.1	6.0	0.6575 ug/L	0.6575 ppb	15:48:59
2	S 181.975 Axial†	68.5	1.5	1.8370 ug/L	1.8370 ppb	15:48:59
2	Sb 206.836†	45.3	-2.6	-0.8153 ug/L	-0.8153 ppb	15:48:59
2	Se 196.026†	-35.3	1.6	0.8560 ug/L	0.8560 ppb	15:48:59
2	Si 251.611†	730.3	-154.4	-4.6339 ug/L	-4.6339 ppb	15:48:59
2	Sn 189.927†	4.8	-2.9	-0.4568 ug/L	-0.4568 ppb	15:48:59
2	Ti 334.940†	-1750.4	142.5	0.2336 ug/L	0.2336 ppb	15:48:38
2	Tl 190.801†	-52.1	7.4	2.1295 ug/L	2.1295 ppb	15:48:59
2	U 409.014†	-2862.3	395.6	12.185 ug/L	12.185 ppb	15:48:38
2	V 292.402†	-1737.0	146.1	0.9846 ug/L	0.9846 ppb	15:48:38
2	Zn 213.857†	876.0	27.5	0.2432 ug/L	0.2432 ppb	15:48:59
2	SiO2†	742.0	-254.5	-16.440 ug/L	-16.440 ppb	15:49:34
3	Sc Radial	4569.3	4569.3	101 %		15:47:46
3	Y RADIAL	4799.7	4799.7	101.0 %		15:47:46
3	Al 396.153Radial†	1.0	22.8	20.441 ug/L	20.441 ppb	15:47:46
3	Ca 317.933Radial†	21.5	6.2	10.499 ug/L	10.499 ppb	15:48:06
3	Fe 238.204 Radial†	11.4	-0.6	-5.5789 ug/L	-5.5789 ppb	15:48:06
3	K 766.490 Radial†	3030.8	-94.2	-19.990 ug/L	-19.990 ppb	15:47:46
3	Mg 279.077 IEC†	5.2	2.3	73.516 ug/L	73.516 ppb	15:48:06
3	Na 589.592 Radial†	-1372.0	202.5	63.098 ug/L	63.098 ppb	15:47:46
3	Sr 421.552†	18.1	30.2	0.2231 ug/L	0.2231 ppb	15:47:46
3	Sc 361.383	855491.1	855491.1	103.51 %		15:49:04
3	Y 371.029	730898.4	730898.4	103.43 %		15:49:04
3	Ag 328.068†	382.2	-29.6	-0.1362 ug/L	-0.1362 ppb	15:49:04
3	As 188.979†	-34.4	1.8	0.6734 ug/L	0.6734 ppb	15:49:24
3	B 249.677†	-599.9	342.2	7.3025 ug/L	7.3025 ppb	15:49:04
3	Ba 233.527†	-0.2	0.9	0.0078 ug/L	0.0078 ppb	15:49:24
3	Be 313.107†	-4467.3	331.1	0.1180 ug/L	0.1180 ppb	15:49:04
3	Cd 226.502†	-250.0	22.2	0.2191 ug/L	0.2191 ppb	15:49:24
3	Co 228.616†	-93.3	15.8	0.3106 ug/L	0.3106 ppb	15:49:24
3	Cr 267.716†	149.6	27.4	0.2898 ug/L	0.2898 ppb	15:49:04
3	Cu 324.752†	8030.2	-179.3	-0.5609 ug/L	-0.5609 ppb	15:49:04
3	Mn 257.610†	530.7	-121.7	-0.1367 ug/L	-0.1367 ppb	15:49:04
3	Mo 202.031†	23.6	-2.2	-0.1450 ug/L	-0.1450 ppb	15:49:24
3	Ni 231.604†	109.9	-5.0	-0.1164 ug/L	-0.1164 ppb	15:49:24
3	P 214.914†	276.6	1.4	0.8107 ug/L	0.8107 ppb	15:49:24
3	Pb 220.353†	-107.9	-8.0	-0.8682 ug/L	-0.8682 ppb	15:49:24
3	S 181.975 Axial†	61.9	-4.3	-5.1970 ug/L	-5.1970 ppb	15:49:24
3	Sb 206.836†	49.4	1.7	0.5383 ug/L	0.5383 ppb	15:49:24
3	Se 196.026†	-34.5	2.2	1.1488 ug/L	1.1488 ppb	15:49:24
3	Si 251.611†	727.3	-151.5	-4.5641 ug/L	-4.5641 ppb	15:49:24
3	Sn 189.927†	11.4	3.5	0.5488 ug/L	0.5488 ppb	15:49:24
3	Ti 334.940†	-1858.7	23.9	0.0388 ug/L	0.0388 ppb	15:49:04
3	Tl 190.801†	-59.4	-0.1	-0.0257 ug/L	-0.0257 ppb	15:49:24
3	U 409.014†	-3126.4	117.6	3.6228 ug/L	3.6228 ppb	15:49:04
3	V 292.402†	-1778.3	92.3	0.6213 ug/L	0.6213 ppb	15:49:04
3	Zn 213.857†	883.3	41.6	0.3601 ug/L	0.3601 ppb	15:49:24
3	SiO2†	781.3	-210.6	-13.635 ug/L	-13.635 ppb	15:49:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	857346.0	103.73	%	0.562				0.54%
Sc Radial	4722.0	104	%	3.4				3.26%
Y 371.029	732453.8	103.65	%	0.561				0.54%
Y RADIAL	4947.9	104.1	%	3.24				3.11%
Ag 328.068†	-2.6	-0.0145	ug/L	0.11978	-0.0145	ppb	0.11978	824.49%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	23.5	21.066	ug/L	2.9427	21.066	ppb	2.9427	13.97%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	7.3	2.7135	ug/L	1.93294	2.7135	ppb	1.93294	71.23%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	360.1	7.6844	ug/L	0.35375	7.6844	ppb	0.35375	4.60%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.9	-0.0047	ug/L	0.01232	-0.0047	ppb	0.01232	259.64%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	330.1	0.1178	ug/L	0.01640	0.1178	ppb	0.01640	13.92%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.6	7.7456	ug/L	3.06517	7.7456	ppb	3.06517	39.57%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                15.2      0.1500 ug/L       0.10155      0.1500 ppb        0.10155  67.68%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                14.5      0.2844 ug/L       0.22666      0.2844 ppb        0.22666  79.71%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -7.0     -0.0741 ug/L       0.35787     -0.0741 ppb        0.35787 482.83%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -140.4     -0.4391 ug/L       0.10816     -0.4391 ppb        0.10816  24.63%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         -0.4     -3.2358 ug/L       4.35907     -3.2358 ppb        4.35907 134.71%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -157.9     -33.488 ug/L       12.9367     -33.488 ppb        12.9367  38.63%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.1      66.994 ug/L       93.5745      66.994 ppb        93.5745 139.68%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -129.2     -0.1446 ug/L       0.01705     -0.1446 ppb        0.01705  11.79%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -0.3     -0.0200 ug/L       0.82103     -0.0200 ppb        0.82103 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       242.6      75.610 ug/L       19.9763      75.610 ppb        19.9763  26.42%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -6.5     -0.1512 ug/L       0.24546     -0.1512 ppb        0.24546 162.36%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 2.5      1.3737 ug/L       0.90029      1.3737 ppb        0.90029  65.54%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                6.7      0.7342 ug/L       1.64213      0.7342 ppb        1.64213 223.66%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -1.9     -2.2489 ug/L       3.65246     -2.2489 ppb        3.65246 162.41%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -1.1     -0.3307 ug/L       0.75427     -0.3307 ppb        0.75427 228.07%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -0.5     -0.2549 ug/L       2.18270     -0.2549 ppb        2.18270 856.30%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -151.6     -4.5641 ug/L       0.06988     -4.5641 ppb        0.06988   1.53%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                -0.2     -0.0363 ug/L       0.52259     -0.0363 ppb        0.52259 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                20.0      0.1482 ug/L       0.24303      0.1482 ppb        0.24303 164.03%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                92.9      0.1531 ug/L       0.10167      0.1531 ppb        0.10167  66.42%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                8.7      2.4984 ug/L       2.72731      2.4984 ppb        2.72731 109.16%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               212.3      6.5380 ug/L       4.89172      6.5380 ppb        4.89172  74.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               148.3      1.0006 ug/L       0.38762      1.0006 ppb        0.38762  38.74%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                35.2      0.3048 ug/L       0.05872      0.3048 ppb        0.05872  19.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -231.6     -14.986 ug/L        1.4051     -14.986 ppb         1.4051   9.38%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 20
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/4/2010 16:39:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4710.5	4710.5	104	%			16:41:39
1	Y RADIAL	4895.1	4895.1	103.0	%			16:41:39
1	Al 396.153Radial†	5849.2	5650.6	5040.9	ug/L	5040.9	ppb	16:41:39
1	Ca 317.933Radial†	3163.1	3028.7	5107.0	ug/L	5107.0	ppb	16:41:59
1	Fe 238.204 Radial†	593.8	559.5	5030.6	ug/L	5030.6	ppb	16:41:59
1	K 766.490 Radial†	27920.0	23766.8	5026.4	ug/L	5026.4	ppb	16:41:39
1	Mg 279.077 IEC†	167.5	158.3	5167.9	ug/L	5167.9	ppb	16:41:59
1	Na 589.592 Radial†	30867.2	31267.4	9745.0	ug/L	9745.0	ppb	16:41:39
1	Sr 421.552†	69941.9	67318.1	497.67	ug/L	497.67	ppb	16:41:39
1	Sc 361.383	881908.7	881908.7	106.70	%			16:42:58
1	Y 371.029	744415.0	744415.0	105.34	%			16:42:58
1	Ag 328.068†	116700.3	108970.3	495.25	ug/L	495.25	ppb	16:42:58
1	As 188.979†	1384.4	1332.5	498.38	ug/L	498.38	ppb	16:43:18
1	B 249.677†	23765.0	23193.9	493.02	ug/L	493.02	ppb	16:42:58
1	Ba 233.527†	69061.7	64724.2	498.77	ug/L	498.77	ppb	16:42:58
1	Be 313.107†	1481165.4	1392764.3	496.89	ug/L	496.89	ppb	16:42:58
1	Cd 226.502†	53727.8	50616.2	499.23	ug/L	499.23	ppb	16:42:58
1	Co 228.616†	26517.0	24957.2	490.39	ug/L	490.39	ppb	16:43:18
1	Cr 267.716†	49935.8	46681.6	495.32	ug/L	495.32	ppb	16:42:58
1	Cu 324.752†	176846.8	157799.7	493.63	ug/L	493.63	ppb	16:42:58
1	Mn 257.610†	482692.4	451734.7	500.52	ug/L	500.52	ppb	16:42:58
1	Mo 202.031†	7995.5	7468.2	495.96	ug/L	495.96	ppb	16:43:18
1	Ni 231.604†	22784.2	21241.6	489.99	ug/L	489.99	ppb	16:43:18
1	P 214.914†	5394.7	4789.9	2384.9	ug/L	2384.9	ppb	16:43:18
1	Pb 220.353†	4793.8	4588.9	499.85	ug/L	499.85	ppb	16:43:18
1	S 181.975 Axial†	944.0	820.6	984.81	ug/L	984.81	ppb	16:43:18
1	Sb 206.836†	1722.2	1568.0	493.47	ug/L	493.47	ppb	16:43:18
1	Se 196.026†	945.1	921.2	511.97	ug/L	511.97	ppb	16:43:18
1	Si 251.611†	87406.1	81061.1	2435.0	ug/L	2435.0	ppb	16:42:58
1	Sn 189.927†	3391.9	3171.3	495.49	ug/L	495.49	ppb	16:43:18
1	Ti 334.940†	319311.3	301071.5	503.88	ug/L	503.88	ppb	16:42:58
1	Tl 190.801†	1766.0	1712.3	497.54	ug/L	497.54	ppb	16:43:18
1	U 409.014†	13439.0	15732.8	482.96	ug/L	482.96	ppb	16:42:58
1	V 292.402†	77365.5	74315.7	500.90	ug/L	500.90	ppb	16:42:58
1	Zn 213.857†	62109.8	57396.2	494.12	ug/L	494.12	ppb	16:42:58
1	SiO2†	87563.1	81097.0	5231.2	ug/L	5231.2	ppb	16:44:18
2	Sc Radial	4753.4	4753.4	105	%			16:42:04
2	Y RADIAL	4939.5	4939.5	103.9	%			16:42:04
2	Al 396.153Radial†	5763.5	5518.0	4921.8	ug/L	4921.8	ppb	16:42:04
2	Ca 317.933Radial†	3101.5	2942.5	4961.7	ug/L	4961.7	ppb	16:42:24
2	Fe 238.204 Radial†	586.8	547.7	4924.7	ug/L	4924.7	ppb	16:42:24
2	K 766.490 Radial†	27674.7	23290.3	4925.5	ug/L	4925.5	ppb	16:42:04
2	Mg 279.077 IEC†	166.0	155.4	5072.1	ug/L	5072.1	ppb	16:42:24
2	Na 589.592 Radial†	30378.7	30533.3	9516.2	ug/L	9516.2	ppb	16:42:04
2	Sr 421.552†	68930.5	65746.0	486.05	ug/L	486.05	ppb	16:42:04
2	Sc 361.383	879488.2	879488.2	106.41	%			16:43:25
2	Y 371.029	742155.6	742155.6	105.02	%			16:43:25
2	Ag 328.068†	116780.5	109346.6	496.93	ug/L	496.93	ppb	16:43:25
2	As 188.979†	1396.9	1347.9	504.08	ug/L	504.08	ppb	16:43:45
2	B 249.677†	23789.0	23277.7	494.80	ug/L	494.80	ppb	16:43:25
2	Ba 233.527†	69151.1	64986.4	500.79	ug/L	500.79	ppb	16:43:25
2	Be 313.107†	1479575.5	1395090.5	497.72	ug/L	497.72	ppb	16:43:25
2	Cd 226.502†	53713.4	50741.3	500.48	ug/L	500.48	ppb	16:43:25
2	Co 228.616†	26820.1	25310.5	497.35	ug/L	497.35	ppb	16:43:45
2	Cr 267.716†	49970.7	46843.2	497.04	ug/L	497.04	ppb	16:43:25
2	Cu 324.752†	176939.4	158342.8	495.32	ug/L	495.32	ppb	16:43:25
2	Mn 257.610†	482675.7	452964.0	501.88	ug/L	501.88	ppb	16:43:25
2	Mo 202.031†	8086.1	7574.0	502.97	ug/L	502.97	ppb	16:43:45
2	Ni 231.604†	23012.9	21515.4	496.31	ug/L	496.31	ppb	16:43:45

2	P 214.914†	5452.5	4858.2	2419.8 ug/L	2419.8 ppb	16:43:45
2	Pb 220.353†	4862.4	4665.6	508.19 ug/L	508.19 ppb	16:43:45
2	S 181.975 Axial†	959.6	837.6	1005.3 ug/L	1005.3 ppb	16:43:45
2	Sb 206.836†	1736.8	1586.2	499.33 ug/L	499.33 ppb	16:43:45
2	Se 196.026†	961.9	939.4	521.46 ug/L	521.46 ppb	16:43:45
2	Si 251.611†	87450.8	81328.5	2442.9 ug/L	2442.9 ppb	16:43:25
2	Sn 189.927†	3417.6	3204.2	500.61 ug/L	500.61 ppb	16:43:45
2	Ti 334.940†	319193.4	301784.2	505.06 ug/L	505.06 ppb	16:43:25
2	Tl 190.801†	1780.6	1730.6	502.78 ug/L	502.78 ppb	16:43:45
2	U 409.014†	13425.8	15755.1	483.65 ug/L	483.65 ppb	16:43:25
2	V 292.402†	77521.0	74661.4	503.32 ug/L	503.32 ppb	16:43:25
2	Zn 213.857†	62057.7	57507.4	495.05 ug/L	495.05 ppb	16:43:25
2	SiO2†	87222.5	81002.7	5224.9 ug/L	5224.9 ppb	16:44:23
3	Sc Radial	4768.1	4768.1	105 %		16:42:29
3	Y RADIAL	4940.9	4940.9	103.9 %		16:42:29
3	Al 396.153Radial†	5792.7	5528.8	4931.5 ug/L	4931.5 ppb	16:42:29
3	Ca 317.933Radial†	3143.1	2973.0	5013.1 ug/L	5013.1 ppb	16:42:49
3	Fe 238.204 Radial†	594.9	553.7	4978.6 ug/L	4978.6 ppb	16:42:49
3	K 766.490 Radial†	27637.3	23173.4	4900.7 ug/L	4900.7 ppb	16:42:29
3	Mg 279.077 IEC†	169.3	158.1	5161.0 ug/L	5161.0 ppb	16:42:49
3	Na 589.592 Radial†	30455.2	30516.9	9511.1 ug/L	9511.1 ppb	16:42:29
3	Sr 421.552†	69077.0	65682.8	485.58 ug/L	485.58 ppb	16:42:29
3	Sc 361.383	875497.9	875497.9	105.93 %		16:43:53
3	Y 371.029	738356.3	738356.3	104.48 %		16:43:53
3	Ag 328.068†	116209.0	109307.3	496.77 ug/L	496.77 ppb	16:43:53
3	As 188.979†	1400.7	1357.5	507.63 ug/L	507.63 ppb	16:44:13
3	B 249.677†	23781.8	23372.8	496.82 ug/L	496.82 ppb	16:43:53
3	Ba 233.527†	69063.7	65200.1	502.43 ug/L	502.43 ppb	16:43:53
3	Be 313.107†	1475247.6	1397342.2	498.53 ug/L	498.53 ppb	16:43:53
3	Cd 226.502†	53618.4	50881.6	501.86 ug/L	501.86 ppb	16:43:53
3	Co 228.616†	26764.2	25372.5	498.57 ug/L	498.57 ppb	16:44:13
3	Cr 267.716†	49765.0	46863.0	497.25 ug/L	497.25 ppb	16:43:53
3	Cu 324.752†	176086.1	158295.2	495.17 ug/L	495.17 ppb	16:43:53
3	Mn 257.610†	481978.5	454373.3	503.44 ug/L	503.44 ppb	16:43:53
3	Mo 202.031†	8066.2	7589.8	504.02 ug/L	504.02 ppb	16:44:13
3	Ni 231.604†	22918.3	21524.6	496.52 ug/L	496.52 ppb	16:44:13
3	P 214.914†	5410.9	4842.2	2411.6 ug/L	2411.6 ppb	16:44:13
3	Pb 220.353†	4825.7	4651.9	506.69 ug/L	506.69 ppb	16:44:13
3	S 181.975 Axial†	958.4	840.6	1009.0 ug/L	1009.0 ppb	16:44:13
3	Sb 206.836†	1743.5	1600.0	503.67 ug/L	503.67 ppb	16:44:13
3	Se 196.026†	950.5	932.8	518.05 ug/L	518.05 ppb	16:44:13
3	Si 251.611†	87145.3	81414.7	2445.5 ug/L	2445.5 ppb	16:43:53
3	Sn 189.927†	3424.0	3224.9	503.85 ug/L	503.85 ppb	16:44:13
3	Ti 334.940†	317882.8	301914.1	505.28 ug/L	505.28 ppb	16:43:53
3	Tl 190.801†	1799.1	1755.7	510.03 ug/L	510.03 ppb	16:44:13
3	U 409.014†	13303.5	15697.1	481.86 ug/L	481.86 ppb	16:43:53
3	V 292.402†	77092.6	74589.0	502.84 ug/L	502.84 ppb	16:43:53
3	Zn 213.857†	62013.3	57731.4	496.98 ug/L	496.98 ppb	16:43:53
3	SiO2†	87719.6	81845.6	5279.5 ug/L	5279.5 ppb	16:44:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	878964.9	106.35	%	0.392				0.37%
Sc Radial	4744.0	105	%	0.7				0.63%
Y 371.029	741642.3	104.95	%	0.433				0.41%
Y RADIAL	4925.2	103.6	%	0.55				0.53%
Ag 328.068†	109208.1	496.31	ug/L	0.924	496.31	ppb	0.924	0.19%
QC value within limits for Ag 328.068 Recovery = 99.26%								
Al 396.153Radial†	5565.8	4964.8	ug/L	66.16	4964.8	ppb	66.16	1.33%
QC value within limits for Al 396.153Radial Recovery = 99.30%								
As 188.979†	1345.9	503.36	ug/L	4.666	503.36	ppb	4.666	0.93%
QC value within limits for As 188.979 Recovery = 100.67%								
B 249.677†	23281.4	494.88	ug/L	1.903	494.88	ppb	1.903	0.38%
QC value within limits for B 249.677 Recovery = 98.98%								
Ba 233.527†	64970.2	500.66	ug/L	1.834	500.66	ppb	1.834	0.37%
QC value within limits for Ba 233.527 Recovery = 100.13%								
Be 313.107†	1395065.7	497.71	ug/L	0.816	497.71	ppb	0.816	0.16%
QC value within limits for Be 313.107 Recovery = 99.54%								
Ca 317.933Radial†	2981.4	5027.3	ug/L	73.71	5027.3	ppb	73.71	1.47%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.55%
Cd 226.502†            50746.4      500.52 ug/L          1.315      500.52 ppb          1.315   0.26%
   QC value within limits for Cd 226.502  Recovery = 100.10%
Co 228.616†            25213.4      495.43 ug/L          4.412      495.43 ppb          4.412   0.89%
   QC value within limits for Co 228.616  Recovery = 99.09%
Cr 267.716†            46795.9      496.54 ug/L          1.055      496.54 ppb          1.055   0.21%
   QC value within limits for Cr 267.716  Recovery = 99.31%
Cu 324.752†           158145.9      494.71 ug/L          0.938      494.71 ppb          0.938   0.19%
   QC value within limits for Cu 324.752  Recovery = 98.94%
Fe 238.204 Radial†       553.6      4978.0 ug/L         52.94      4978.0 ppb         52.94   1.06%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.56%
K 766.490 Radial†      23410.2      4950.9 ug/L         66.53      4950.9 ppb         66.53   1.34%
   QC value within limits for K 766.490 Radial  Recovery = 99.02%
Mg 279.077 IEC†          157.3      5133.7 ug/L         53.44      5133.7 ppb         53.44   1.04%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.67%
Mn 257.610†           453024.0      501.95 ug/L          1.459      501.95 ppb          1.459   0.29%
   QC value within limits for Mn 257.610  Recovery = 100.39%
Mo 202.031†             7544.0      500.98 ug/L          4.383      500.98 ppb          4.383   0.87%
   QC value within limits for Mo 202.031  Recovery = 100.20%
Na 589.592 Radial†     30772.5      9590.8 ug/L        133.59      9590.8 ppb        133.59   1.39%
   QC value within limits for Na 589.592 Radial  Recovery = 95.91%
Ni 231.604†            21427.2      494.27 ug/L          3.708      494.27 ppb          3.708   0.75%
   QC value within limits for Ni 231.604  Recovery = 98.85%
P 214.914†              4830.1      2405.5 ug/L         18.25      2405.5 ppb         18.25   0.76%
   QC value within limits for P 214.914  Recovery = 96.22%
Pb 220.353†             4635.5      504.91 ug/L          4.444      504.91 ppb          4.444   0.88%
   QC value within limits for Pb 220.353  Recovery = 100.98%
S 181.975 Axial†         832.9      999.70 ug/L         13.021      999.70 ppb         13.021   1.30%
   QC value within limits for S 181.975 Axial  Recovery = 99.97%
Sb 206.836†             1584.8      498.82 ug/L          5.120      498.82 ppb          5.120   1.03%
   QC value within limits for Sb 206.836  Recovery = 99.76%
Se 196.026†              931.1      517.16 ug/L          4.805      517.16 ppb          4.805   0.93%
   QC value within limits for Se 196.026  Recovery = 103.43%
Si 251.611†            81268.1      2441.1 ug/L          5.50      2441.1 ppb          5.50   0.23%
   QC value within limits for Si 251.611  Recovery = 97.65%
Sn 189.927†             3200.1      499.99 ug/L          4.216      499.99 ppb          4.216   0.84%
   QC value within limits for Sn 189.927  Recovery = 100.00%
Sr 421.552†            66249.0      489.76 ug/L          6.849      489.76 ppb          6.849   1.40%
   QC value within limits for Sr 421.552  Recovery = 97.95%
Ti 334.940†           301589.9      504.74 ug/L          0.756      504.74 ppb          0.756   0.15%
   QC value within limits for Ti 334.940  Recovery = 100.95%
Tl 190.801†             1732.9      503.45 ug/L          6.272      503.45 ppb          6.272   1.25%
   QC value within limits for Tl 190.801  Recovery = 100.69%
U 409.014†             15728.3      482.82 ug/L          0.904      482.82 ppb          0.904   0.19%
   QC value within limits for U 409.014  Recovery = 96.56%
V 292.402†             74522.0      502.35 ug/L          1.278      502.35 ppb          1.278   0.25%
   QC value within limits for V 292.402  Recovery = 100.47%
Zn 213.857†            57545.0      495.38 ug/L          1.464      495.38 ppb          1.464   0.30%
   QC value within limits for Zn 213.857  Recovery = 99.08%
SiO2†                  81315.1      5245.2 ug/L         29.86      5245.2 ppb         29.86   0.57%
   QC value within limits for SiO2  Recovery = 98.09%
All analyte(s) passed QC.
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Sequence No.: 21
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/4/2010 16:46:39
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4726.2	4726.2	104	%			16:48:31
1	Y RADIAL	4944.8	4944.8	104.0	%			16:48:31
1	Al 396.153Radial†	14.7	35.9	32.217	ug/L	32.217	ppb	16:48:31
1	Ca 317.933Radial†	23.6	7.5	12.615	ug/L	12.615	ppb	16:48:51
1	Fe 238.204 Radial†	15.2	2.6	23.738	ug/L	23.738	ppb	16:48:51
1	K 766.490 Radial†	3119.7	-108.9	-23.077	ug/L	-23.077	ppb	16:48:31
1	Mg 279.077 IEC†	-0.4	-3.3	-108.65	ug/L	-108.65	ppb	16:48:51
1	Na 589.592 Radial†	-1483.7	140.5	43.786	ug/L	43.786	ppb	16:48:31
1	Sr 421.552†	-36.8	-23.1	-0.1709	ug/L	-0.1709	ppb	16:48:31
1	Sc 361.383	870414.2	870414.2	105.31	%			16:49:48
1	Y 371.029	742860.3	742860.3	105.12	%			16:49:48
1	Ag 328.068†	527.8	102.3	0.4730	ug/L	0.4730	ppb	16:49:48
1	As 188.979†	-29.1	7.5	2.7788	ug/L	2.7788	ppb	16:50:08
1	B 249.677†	-564.0	386.2	8.2380	ug/L	8.2380	ppb	16:49:48
1	Ba 233.527†	9.8	10.4	0.0835	ug/L	0.0835	ppb	16:50:08
1	Be 313.107†	-4468.3	404.2	0.1442	ug/L	0.1442	ppb	16:49:48
1	Cd 226.502†	-231.0	44.3	0.4348	ug/L	0.4348	ppb	16:50:08
1	Co 228.616†	-94.2	16.6	0.3239	ug/L	0.3239	ppb	16:50:08
1	Cr 267.716†	71.4	-49.4	-0.5213	ug/L	-0.5213	ppb	16:49:48
1	Cu 324.752†	8116.4	-230.4	-0.7193	ug/L	-0.7193	ppb	16:49:48
1	Mn 257.610†	585.7	-78.3	-0.0823	ug/L	-0.0823	ppb	16:49:48
1	Mo 202.031†	21.4	-4.7	-0.3095	ug/L	-0.3095	ppb	16:50:08
1	Ni 231.604†	117.2	0.1	0.0016	ug/L	0.0016	ppb	16:50:08
1	P 214.914†	271.5	-8.1	-4.0294	ug/L	-4.0294	ppb	16:50:08
1	Pb 220.353†	-117.3	-15.2	-1.6413	ug/L	-1.6413	ppb	16:50:08
1	S 181.975 Axial†	56.0	-10.9	-13.147	ug/L	-13.147	ppb	16:50:08
1	Sb 206.836†	59.8	10.9	3.3788	ug/L	3.3788	ppb	16:50:08
1	Se 196.026†	-37.5	-0.2	-0.0338	ug/L	-0.0338	ppb	16:50:08
1	Si 251.611†	725.8	-164.9	-4.9647	ug/L	-4.9647	ppb	16:50:08
1	Sn 189.927†	9.7	1.7	0.2670	ug/L	0.2670	ppb	16:50:08
1	Ti 334.940†	-1836.4	75.8	0.1267	ug/L	0.1267	ppb	16:49:48
1	Tl 190.801†	-49.7	10.1	2.9000	ug/L	2.9000	ppb	16:50:08
1	U 409.014†	-3222.0	78.6	2.4182	ug/L	2.4182	ppb	16:49:48
1	V 292.402†	-1698.7	197.3	1.3066	ug/L	1.3066	ppb	16:49:48
1	Zn 213.857†	881.4	25.1	0.2212	ug/L	0.2212	ppb	16:50:08
1	SiO2†	783.7	-221.2	-14.312	ug/L	-14.312	ppb	16:51:04
2	Sc Radial	4636.6	4636.6	102	%			16:48:56
2	Y RADIAL	4868.3	4868.3	102.4	%			16:48:56
2	Al 396.153Radial†	-5.5	16.5	14.786	ug/L	14.786	ppb	16:48:56
2	Ca 317.933Radial†	22.8	7.2	12.142	ug/L	12.142	ppb	16:49:16
2	Fe 238.204 Radial†	12.5	0.4	3.4183	ug/L	3.4183	ppb	16:49:16
2	K 766.490 Radial†	3108.2	-62.2	-13.195	ug/L	-13.195	ppb	16:48:56
2	Mg 279.077 IEC†	1.1	-1.8	-59.904	ug/L	-59.904	ppb	16:49:16
2	Na 589.592 Radial†	-1490.2	106.6	33.220	ug/L	33.220	ppb	16:48:56
2	Sr 421.552†	-8.9	3.5	0.0255	ug/L	0.0255	ppb	16:48:56
2	Sc 361.383	867848.0	867848.0	105.00	%			16:50:14
2	Y 371.029	740286.6	740286.6	104.76	%			16:50:14
2	Ag 328.068†	450.0	29.8	0.1352	ug/L	0.1352	ppb	16:50:14
2	As 188.979†	-34.3	2.4	0.8858	ug/L	0.8858	ppb	16:50:34
2	B 249.677†	-653.4	299.5	6.3907	ug/L	6.3907	ppb	16:50:14
2	Ba 233.527†	7.2	7.9	0.0627	ug/L	0.0627	ppb	16:50:34
2	Be 313.107†	-4539.4	323.9	0.1155	ug/L	0.1155	ppb	16:50:14
2	Cd 226.502†	-256.2	19.7	0.1935	ug/L	0.1935	ppb	16:50:34
2	Co 228.616†	-99.8	11.0	0.2143	ug/L	0.2143	ppb	16:50:34
2	Cr 267.716†	122.8	-0.2	-0.0022	ug/L	-0.0022	ppb	16:50:14
2	Cu 324.752†	8078.3	-244.0	-0.7626	ug/L	-0.7626	ppb	16:50:14
2	Mn 257.610†	573.1	-88.7	-0.0968	ug/L	-0.0968	ppb	16:50:14
2	Mo 202.031†	15.2	-10.5	-0.6949	ug/L	-0.6949	ppb	16:50:34
2	Ni 231.604†	102.0	-14.0	-0.3242	ug/L	-0.3242	ppb	16:50:34

2	P 214.914†	268.9	-9.8	-4.9051 ug/L	-4.9051 ppb	16:50:34
2	Pb 220.353†	-77.7	22.2	2.4094 ug/L	2.4094 ppb	16:50:34
2	S 181.975 Axial†	54.1	-12.6	-15.196 ug/L	-15.196 ppb	16:50:34
2	Sb 206.836†	47.2	-1.0	-0.3074 ug/L	-0.3074 ppb	16:50:34
2	Se 196.026†	-44.4	-6.8	-3.6454 ug/L	-3.6454 ppb	16:50:34
2	Si 251.611†	799.5	-92.6	-2.7814 ug/L	-2.7814 ppb	16:50:34
2	Sn 189.927†	11.6	3.5	0.5524 ug/L	0.5524 ppb	16:50:34
2	Ti 334.940†	-1847.4	60.1	0.0995 ug/L	0.0995 ppb	16:50:14
2	Tl 190.801†	-49.2	10.4	3.0067 ug/L	3.0067 ppb	16:50:34
2	U 409.014†	-3155.0	133.4	4.1078 ug/L	4.1078 ppb	16:50:14
2	V 292.402†	-1770.2	124.5	0.8243 ug/L	0.8243 ppb	16:50:14
2	Zn 213.857†	890.4	36.2	0.3188 ug/L	0.3188 ppb	16:50:34
2	SiO2†	782.1	-220.5	-14.264 ug/L	-14.264 ppb	16:51:09
3	Sc Radial	4796.2	4796.2	106 %		16:49:21
3	Y RADIAL	5006.5	5006.5	105.3 %		16:49:21
3	Al 396.153Radial†	-1.8	20.1	18.025 ug/L	18.025 ppb	16:49:21
3	Ca 317.933Radial†	24.7	8.2	13.884 ug/L	13.884 ppb	16:49:41
3	Fe 238.204 Radial†	13.2	0.6	5.1811 ug/L	5.1811 ppb	16:49:41
3	K 766.490 Radial†	3127.9	-144.8	-30.688 ug/L	-30.688 ppb	16:49:21
3	Mg 279.077 IEC†	4.5	1.3	44.007 ug/L	44.007 ppb	16:49:41
3	Na 589.592 Radial†	-1472.3	172.0	53.596 ug/L	53.596 ppb	16:49:21
3	Sr 421.552†	16.1	27.4	0.2027 ug/L	0.2027 ppb	16:49:21
3	Sc 361.383	863227.8	863227.8	104.44 %		16:50:39
3	Y 371.029	736585.9	736585.9	104.23 %		16:50:39
3	Ag 328.068†	373.9	-40.8	-0.1872 ug/L	-0.1872 ppb	16:50:39
3	As 188.979†	-21.6	14.4	5.3341 ug/L	5.3341 ppb	16:50:59
3	B 249.677†	-589.4	357.5	7.6271 ug/L	7.6271 ppb	16:50:39
3	Ba 233.527†	3.8	4.7	0.0375 ug/L	0.0375 ppb	16:50:59
3	Be 313.107†	-4425.7	409.7	0.1461 ug/L	0.1461 ppb	16:50:39
3	Cd 226.502†	-245.9	28.2	0.2780 ug/L	0.2780 ppb	16:50:59
3	Co 228.616†	-108.3	2.3	0.0465 ug/L	0.0465 ppb	16:50:59
3	Cr 267.716†	88.5	-32.5	-0.3452 ug/L	-0.3452 ppb	16:50:39
3	Cu 324.752†	8178.1	-107.3	-0.3351 ug/L	-0.3351 ppb	16:50:39
3	Mn 257.610†	539.3	-118.1	-0.1310 ug/L	-0.1310 ppb	16:50:39
3	Mo 202.031†	32.0	5.6	0.3742 ug/L	0.3742 ppb	16:50:59
3	Ni 231.604†	110.3	-5.6	-0.1295 ug/L	-0.1295 ppb	16:50:59
3	P 214.914†	274.1	-3.4	-1.6699 ug/L	-1.6699 ppb	16:50:59
3	Pb 220.353†	-92.3	7.8	0.8485 ug/L	0.8485 ppb	16:50:59
3	S 181.975 Axial†	72.8	5.5	6.6614 ug/L	6.6614 ppb	16:50:59
3	Sb 206.836†	47.6	-0.4	-0.0877 ug/L	-0.0877 ppb	16:50:59
3	Se 196.026†	-34.6	2.3	1.2438 ug/L	1.2438 ppb	16:50:59
3	Si 251.611†	713.6	-170.8	-5.1564 ug/L	-5.1564 ppb	16:50:59
3	Sn 189.927†	17.5	9.3	1.4514 ug/L	1.4514 ppb	16:50:59
3	Ti 334.940†	-1817.0	79.8	0.1312 ug/L	0.1312 ppb	16:50:39
3	Tl 190.801†	-48.0	11.3	3.2645 ug/L	3.2645 ppb	16:50:59
3	U 409.014†	-3024.1	242.7	7.4735 ug/L	7.4735 ppb	16:50:39
3	V 292.402†	-1814.1	73.4	0.5082 ug/L	0.5082 ppb	16:50:39
3	Zn 213.857†	877.8	28.7	0.2482 ug/L	0.2482 ppb	16:50:59
3	SiO2†	747.8	-249.4	-16.167 ug/L	-16.167 ppb	16:51:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	867163.3	104.92	%	0.441				0.42%
Sc Radial	4719.7	104	%	1.8				1.70%
Y 371.029	739910.9	104.70	%	0.446				0.43%
Y RADIAL	4939.9	103.9	%	1.46				1.40%
Ag 328.068†	30.4	0.1403	ug/L	0.33015	0.1403	ppb	0.33015	235.24%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	24.2	21.676	ug/L	9.2711	21.676	ppb	9.2711	42.77%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	8.1	2.9995	ug/L	2.23238	2.9995	ppb	2.23238	74.42%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	347.7	7.4186	ug/L	0.94111	7.4186	ppb	0.94111	12.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.7	0.0612	ug/L	0.02300	0.0612	ppb	0.02300	37.56%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	379.3	0.1353	ug/L	0.01712	0.1353	ppb	0.01712	12.66%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.6	12.880	ug/L	0.9009	12.880	ppb	0.9009	6.99%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              30.7      0.3021 ug/L       0.12249      0.3021 ppb        0.12249  40.55%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              10.0      0.1949 ug/L       0.13971      0.1949 ppb        0.13971  71.68%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†             -27.4     -0.2896 ug/L       0.26398     -0.2896 ppb        0.26398  91.17%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -193.9     -0.6057 ug/L       0.23533     -0.6057 ppb        0.23533  38.86%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        1.2      10.779 ug/L       11.2573      10.779 ppb        11.2573 104.44%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -105.3     -22.320 ug/L        8.7711     -22.320 ppb         8.7711  39.30%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -1.3     -41.516 ug/L       77.9720     -41.516 ppb        77.9720 187.81%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -95.0     -0.1034 ug/L       0.02503     -0.1034 ppb        0.02503  24.22%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -3.2     -0.2101 ug/L       0.54146     -0.2101 ppb        0.54146 257.75%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      139.7      43.534 ug/L       10.1902      43.534 ppb        10.1902  23.41%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -6.5     -0.1507 ug/L       0.16394     -0.1507 ppb        0.16394 108.81%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -7.1     -3.5348 ug/L       1.67334     -3.5348 ppb        1.67334  47.34%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               4.9      0.5389 ug/L       2.04306      0.5389 ppb        2.04306 379.15%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -6.0     -7.2273 ug/L      12.07154     -7.2273 ppb       12.07154 167.03%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               3.2      0.9945 ug/L       2.06772      0.9945 ppb        2.06772 207.91%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -1.6     -0.8118 ug/L       2.53577     -0.8118 ppb        2.53577 312.36%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†            -142.8     -4.3008 ug/L       1.31936     -4.3008 ppb        1.31936  30.68%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.8      0.7569 ug/L       0.61811      0.7569 ppb        0.61811  81.66%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               2.6      0.0191 ug/L       0.18692      0.0191 ppb        0.18692 978.49%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              71.9      0.1191 ug/L       0.01715      0.1191 ppb        0.01715  14.40%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              10.6      3.0571 ug/L       0.18736      3.0571 ppb        0.18736   6.13%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              151.5      4.6665 ug/L       2.57351      4.6665 ppb        2.57351  55.15%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              131.7      0.8797 ug/L       0.40206      0.8797 ppb        0.40206  45.71%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              30.0      0.2627 ug/L       0.05041      0.2627 ppb        0.05041  19.19%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -230.4     -14.914 ug/L        1.0851     -14.914 ppb         1.0851   7.28%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 22
Sample ID: 1202000548|935027|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 36
Date Collected: 1/4/2010 16:53:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202000548|935027|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	5187.2	5187.2	114	%			16:55:19
1	Y RADIAL	5393.4	5393.4	113.4	%			16:55:19
1	Al 396.153Radial†	-10.0	13.0	11.671	ug/L	11.671	ppb	16:55:19
1	Ca 317.933Radial†	33.5	14.1	23.826	ug/L	23.826	ppb	16:55:39
1	Fe 238.204 Radial†	10.5	-2.8	-24.657	ug/L	-24.657	ppb	16:55:39
1	K 766.490 Radial†	3086.3	-403.9	-85.605	ug/L	-85.605	ppb	16:55:19
1	Mg 279.077 IEC†	0.0	-2.9	-93.308	ug/L	-93.308	ppb	16:55:39
1	Na 589.592 Radial†	-1401.9	338.4	105.46	ug/L	105.46	ppb	16:55:19
1	Sr 421.552†	-0.4	11.9	0.0874	ug/L	0.0874	ppb	16:55:19
1	Sc 361.383	902359.2	902359.2	109.18	%			16:56:35
1	Y 371.029	768420.6	768420.6	108.74	%			16:56:35
1	Ag 328.068†	478.5	39.4	0.1590	ug/L	0.1590	ppb	16:56:41
1	As 188.979†	-29.1	8.4	3.1187	ug/L	3.1187	ppb	16:57:01
1	B 249.677†	-641.1	334.6	7.1412	ug/L	7.1412	ppb	16:56:41
1	Ba 233.527†	37.2	35.1	0.2712	ug/L	0.2712	ppb	16:57:01
1	Be 313.107†	-4589.3	443.6	0.1591	ug/L	0.1591	ppb	16:56:41
1	Cd 226.502†	-252.6	32.3	0.3206	ug/L	0.3206	ppb	16:57:01
1	Co 228.616†	-92.9	20.9	0.4107	ug/L	0.4107	ppb	16:57:01
1	Cr 267.716†	82.6	-41.5	-0.4439	ug/L	-0.4439	ppb	16:56:41
1	Cu 324.752†	8163.1	-460.5	-1.4411	ug/L	-1.4411	ppb	16:56:41
1	Mn 257.610†	723.0	27.7	0.0300	ug/L	0.0300	ppb	16:56:41
1	Mo 202.031†	31.2	3.5	0.2322	ug/L	0.2322	ppb	16:57:01
1	Ni 231.604†	90.9	-28.0	-0.6468	ug/L	-0.6468	ppb	16:57:01
1	P 214.914†	282.4	-7.2	-3.4732	ug/L	-3.4732	ppb	16:57:01
1	Pb 220.353†	-85.2	18.2	1.9818	ug/L	1.9818	ppb	16:57:01
1	S 181.975 Axial†	75.5	5.0	5.9935	ug/L	5.9935	ppb	16:57:01
1	Sb 206.836†	55.1	4.6	1.4064	ug/L	1.4064	ppb	16:57:01
1	Se 196.026†	-45.7	-6.4	-3.4907	ug/L	-3.4907	ppb	16:57:01
1	Si 251.611†	1304.9	341.2	10.326	ug/L	10.326	ppb	16:57:01
1	Sn 189.927†	-0.4	-7.8	-1.2176	ug/L	-1.2176	ppb	16:57:01
1	Ti 334.940†	-1612.7	342.4	0.5671	ug/L	0.5671	ppb	16:56:41
1	Tl 190.801†	-48.3	13.1	3.7820	ug/L	3.7820	ppb	16:57:01
1	U 409.014†	-2824.5	551.0	16.973	ug/L	16.973	ppb	16:56:35
1	V 292.402†	-1813.6	149.2	1.0297	ug/L	1.0297	ppb	16:56:41
1	Zn 213.857†	1015.4	118.2	1.0368	ug/L	1.0368	ppb	16:57:01
1	SiO2†	1342.3	264.1	17.182	ug/L	17.182	ppb	16:58:07
2	Sc Radial	4864.2	4864.2	107	%			16:55:44
2	Y RADIAL	5077.0	5077.0	106.8	%			16:55:44
2	Al 396.153Radial†	-47.2	-22.2	-19.901	ug/L	-19.901	ppb	16:55:44
2	Ca 317.933Radial†	37.7	20.0	33.805	ug/L	33.805	ppb	16:56:04
2	Fe 238.204 Radial†	12.7	-0.1	-0.8390	ug/L	-0.8390	ppb	16:56:04
2	K 766.490 Radial†	3152.3	-163.3	-34.640	ug/L	-34.640	ppb	16:55:44
2	Mg 279.077 IEC†	3.3	0.2	6.4862	ug/L	6.4862	ppb	16:56:04
2	Na 589.592 Radial†	-1420.6	239.6	74.681	ug/L	74.681	ppb	16:55:44
2	Sr 421.552†	23.8	34.4	0.2541	ug/L	0.2541	ppb	16:55:44
2	Sc 361.383	898564.2	898564.2	108.72	%			16:57:06
2	Y 371.029	765833.2	765833.2	108.37	%			16:57:06
2	Ag 328.068†	354.2	-73.0	-0.3405	ug/L	-0.3405	ppb	16:57:11
2	As 188.979†	-35.0	2.9	1.0866	ug/L	1.0866	ppb	16:57:31
2	B 249.677†	-667.6	307.7	6.5646	ug/L	6.5646	ppb	16:57:11
2	Ba 233.527†	44.1	41.6	0.3238	ug/L	0.3238	ppb	16:57:31
2	Be 313.107†	-4533.6	477.0	0.1708	ug/L	0.1708	ppb	16:57:11
2	Cd 226.502†	-256.2	28.0	0.2763	ug/L	0.2763	ppb	16:57:31
2	Co 228.616†	-91.0	22.4	0.4391	ug/L	0.4391	ppb	16:57:31
2	Cr 267.716†	112.7	-13.5	-0.1467	ug/L	-0.1467	ppb	16:57:11
2	Cu 324.752†	8129.1	-460.2	-1.4389	ug/L	-1.4389	ppb	16:57:11
2	Mn 257.610†	677.0	-11.8	-0.0133	ug/L	-0.0133	ppb	16:57:11
2	Mo 202.031†	31.9	4.3	0.2855	ug/L	0.2855	ppb	16:57:31
2	Ni 231.604†	110.4	-9.7	-0.2242	ug/L	-0.2242	ppb	16:57:31

2	P 214.914†	267.9	-19.5	-9.7776 ug/L	-9.7776 ppb	16:57:31
2	Pb 220.353†	-98.5	5.6	0.6088 ug/L	0.6088 ppb	16:57:31
2	S 181.975 Axial†	71.1	1.3	1.5370 ug/L	1.5370 ppb	16:57:31
2	Sb 206.836†	64.9	13.7	4.2678 ug/L	4.2678 ppb	16:57:31
2	Se 196.026†	-32.3	5.7	3.0681 ug/L	3.0681 ppb	16:57:31
2	Si 251.611†	1257.2	302.3	9.1330 ug/L	9.1330 ppb	16:57:31
2	Sn 189.927†	6.8	-1.2	-0.1904 ug/L	-0.1904 ppb	16:57:31
2	Ti 334.940†	-1677.9	276.2	0.4555 ug/L	0.4555 ppb	16:57:11
2	Tl 190.801†	-40.6	20.0	5.7571 ug/L	5.7571 ppb	16:57:31
2	U 409.014†	-2721.2	635.1	19.561 ug/L	19.561 ppb	16:57:06
2	V 292.402†	-1681.6	263.6	1.7950 ug/L	1.7950 ppb	16:57:11
2	Zn 213.857†	1025.3	131.3	1.1429 ug/L	1.1429 ppb	16:57:31
2	SiO2†	1267.0	200.0	12.982 ug/L	12.982 ppb	16:58:12
3	Sc Radial	4638.8	4638.8	102 %		16:56:09
3	Y RADIAL	4871.3	4871.3	102.5 %		16:56:09
3	Al 396.153Radial†	2.6	24.4	21.832 ug/L	21.832 ppb	16:56:09
3	Ca 317.933Radial†	36.0	20.1	33.817 ug/L	33.817 ppb	16:56:29
3	Fe 238.204 Radial†	12.5	0.3	2.9283 ug/L	2.9283 ppb	16:56:29
3	K 766.490 Radial†	3111.6	-60.3	-12.808 ug/L	-12.808 ppb	16:56:09
3	Mg 279.077 IEC†	1.0	-2.0	-63.942 ug/L	-63.942 ppb	16:56:29
3	Na 589.592 Radial†	-1404.1	191.4	59.660 ug/L	59.660 ppb	16:56:09
3	Sr 421.552†	64.5	75.2	0.5557 ug/L	0.5557 ppb	16:56:09
3	Sc 361.383	893229.8	893229.8	108.07 %		16:57:36
3	Y 371.029	761485.3	761485.3	107.76 %		16:57:36
3	Ag 328.068†	417.2	-12.8	-0.0726 ug/L	-0.0726 ppb	16:57:41
3	As 188.979†	-35.8	2.0	0.7335 ug/L	0.7335 ppb	16:58:01
3	B 249.677†	-689.9	283.4	6.0466 ug/L	6.0466 ppb	16:57:41
3	Ba 233.527†	68.5	64.4	0.4962 ug/L	0.4962 ppb	16:58:01
3	Be 313.107†	-4559.1	428.5	0.1536 ug/L	0.1536 ppb	16:57:41
3	Cd 226.502†	-251.3	31.2	0.3071 ug/L	0.3071 ppb	16:58:01
3	Co 228.616†	-110.5	3.8	0.0737 ug/L	0.0737 ppb	16:58:01
3	Cr 267.716†	121.4	-4.9	-0.0574 ug/L	-0.0574 ppb	16:57:41
3	Cu 324.752†	8286.7	-269.8	-0.8433 ug/L	-0.8433 ppb	16:57:41
3	Mn 257.610†	680.6	-4.7	-0.0038 ug/L	-0.0038 ppb	16:57:41
3	Mo 202.031†	26.5	-0.5	-0.0322 ug/L	-0.0322 ppb	16:58:01
3	Ni 231.604†	103.1	-15.8	-0.3657 ug/L	-0.3657 ppb	16:58:01
3	P 214.914†	279.1	-7.6	-3.7640 ug/L	-3.7640 ppb	16:58:01
3	Pb 220.353†	-96.1	7.3	0.7945 ug/L	0.7945 ppb	16:58:01
3	S 181.975 Axial†	82.0	11.8	14.158 ug/L	14.158 ppb	16:58:01
3	Sb 206.836†	54.1	4.1	1.2905 ug/L	1.2905 ppb	16:58:01
3	Se 196.026†	-38.9	-0.5	-0.2753 ug/L	-0.2753 ppb	16:58:01
3	Si 251.611†	1249.6	302.2	9.1221 ug/L	9.1221 ppb	16:58:01
3	Sn 189.927†	15.6	6.9	1.0833 ug/L	1.0833 ppb	16:58:01
3	Ti 334.940†	-1640.4	301.7	0.4977 ug/L	0.4977 ppb	16:57:41
3	Tl 190.801†	-61.1	0.8	0.2323 ug/L	0.2323 ppb	16:58:01
3	U 409.014†	-2671.3	666.3	20.522 ug/L	20.522 ppb	16:57:36
3	V 292.402†	-1866.0	83.8	0.5942 ug/L	0.5942 ppb	16:57:41
3	Zn 213.857†	1024.5	136.2	1.1876 ug/L	1.1876 ppb	16:58:01
3	SiO2†	1332.4	267.5	17.344 ug/L	17.344 ppb	16:58:17

Mean Data: 1202000548|935027|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	898051.1	108.66	%	0.555				0.51%
Sc Radial	4896.7	108	%	6.1				5.63%
Y 371.029	765246.4	108.29	%	0.496				0.46%
Y RADIAL	5113.9	107.6	%	5.53				5.14%
Ag 328.068†	-15.5	-0.0847	ug/L	0.24995	-0.0847	ppb	0.24995	295.07%
Al 396.153Radial†	5.1	4.5340	ug/L	21.76242	4.5340	ppb	21.76242	479.98%
As 188.979†	4.4	1.6463	ug/L	1.28732	1.6463	ppb	1.28732	78.20%
B 249.677†	308.5	6.5841	ug/L	0.54753	6.5841	ppb	0.54753	8.32%
Ba 233.527†	47.0	0.3638	ug/L	0.11770	0.3638	ppb	0.11770	32.36%
Be 313.107†	449.7	0.1611	ug/L	0.00879	0.1611	ppb	0.00879	5.45%
Ca 317.933Radial†	18.1	30.483	ug/L	5.7647	30.483	ppb	5.7647	18.91%
Cd 226.502†	30.5	0.3013	ug/L	0.02269	0.3013	ppb	0.02269	7.53%
Co 228.616†	15.7	0.3078	ug/L	0.20329	0.3078	ppb	0.20329	66.04%
Cr 267.716†	-20.0	-0.2160	ug/L	0.20237	-0.2160	ppb	0.20237	93.68%
Cu 324.752†	-396.8	-1.2411	ug/L	0.34450	-1.2411	ppb	0.34450	27.76%
Fe 238.204 Radial†	-0.8	-7.5227	ug/L	14.95806	-7.5227	ppb	14.95806	198.84%
K 766.490 Radial†	-209.2	-44.351	ug/L	37.3570	-44.351	ppb	37.3570	84.23%

Mg 279.077 IEC†	-1.5	-50.255	ug/L	51.2860	-50.255	ppb	51.2860 102.05%
Mn 257.610†	3.7	0.0043	ug/L	0.02273	0.0043	ppb	0.02273 527.47%
Mo 202.031†	2.5	0.1618	ug/L	0.17011	0.1618	ppb	0.17011 105.11%
Na 589.592 Radial†	256.5	79.932	ug/L	23.3459	79.932	ppb	23.3459 29.21%
Ni 231.604†	-17.8	-0.4122	ug/L	0.21508	-0.4122	ppb	0.21508 52.18%
P 214.914†	-11.4	-5.6716	ug/L	3.55884	-5.6716	ppb	3.55884 62.75%
Pb 220.353†	10.4	1.1283	ug/L	0.74489	1.1283	ppb	0.74489 66.02%
S 181.975 Axial†	6.0	7.2294	ug/L	6.40047	7.2294	ppb	6.40047 88.53%
Sb 206.836†	7.5	2.3216	ug/L	1.68648	2.3216	ppb	1.68648 72.64%
Se 196.026†	-0.4	-0.2326	ug/L	3.27961	-0.2326	ppb	3.27961 >999.9%
Si 251.611†	315.2	9.5272	ug/L	0.69218	9.5272	ppb	0.69218 7.27%
Sn 189.927†	-0.7	-0.1082	ug/L	1.15261	-0.1082	ppb	1.15261 >999.9%
Sr 421.552†	40.5	0.2991	ug/L	0.23734	0.2991	ppb	0.23734 79.36%
Ti 334.940†	306.8	0.5068	ug/L	0.05633	0.5068	ppb	0.05633 11.12%
Tl 190.801†	11.3	3.2571	ug/L	2.79958	3.2571	ppb	2.79958 85.95%
U 409.014†	617.5	19.019	ug/L	1.8355	19.019	ppb	1.8355 9.65%
V 292.402†	165.5	1.1396	ug/L	0.60788	1.1396	ppb	0.60788 53.34%
Zn 213.857†	128.6	1.1224	ug/L	0.07743	1.1224	ppb	0.07743 6.90%
SiO2†	243.9	15.836	ug/L	2.4727	15.836	ppb	2.4727 15.61%

Sequence No.: 23
Sample ID: 1202000549|935027|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 37
Date Collected: 1/4/2010 17:00:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202000549|935027|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4908.2	4908.2	108	%			17:02:21
1	Y RADIAL	5126.7	5126.7	107.8	%			17:02:21
1	Al 396.153Radial†	5884.2	5456.2	4867.1	ug/L	4867.1	ppb	17:02:21
1	Ca 317.933Radial†	3129.3	2874.9	4847.6	ug/L	4847.6	ppb	17:02:41
1	Fe 238.204 Radial†	600.5	542.7	4880.0	ug/L	4880.0	ppb	17:02:41
1	K 766.490 Radial†	27936.5	22699.7	4802.4	ug/L	4802.4	ppb	17:02:21
1	Mg 279.077 IEC†	171.0	155.0	5061.0	ug/L	5061.0	ppb	17:02:41
1	Na 589.592 Radial†	15637.1	16005.1	4988.3	ug/L	4988.3	ppb	17:02:21
1	Sr 421.552†	72350.0	66830.7	494.07	ug/L	494.07	ppb	17:02:21
1	Sc 361.383	879678.3	879678.3	106.43	%			17:03:40
1	Y 371.029	743414.1	743414.1	105.20	%			17:03:40
1	Ag 328.068†	112816.6	105598.6	479.95	ug/L	479.95	ppb	17:03:40
1	As 188.979†	1361.6	1314.4	491.59	ug/L	491.59	ppb	17:04:00
1	B 249.677†	23102.6	22628.0	480.98	ug/L	480.98	ppb	17:03:40
1	Ba 233.527†	68721.6	64568.8	497.56	ug/L	497.56	ppb	17:03:40
1	Be 313.107†	1445790.5	1363047.3	486.29	ug/L	486.29	ppb	17:03:40
1	Cd 226.502†	51957.2	49080.3	484.09	ug/L	484.09	ppb	17:03:40
1	Co 228.616†	26020.7	24553.9	482.47	ug/L	482.47	ppb	17:04:00
1	Cr 267.716†	48745.1	45681.6	484.71	ug/L	484.71	ppb	17:03:40
1	Cu 324.752†	174242.6	155773.1	487.28	ug/L	487.28	ppb	17:03:40
1	Mn 257.610†	475668.5	446282.4	494.47	ug/L	494.47	ppb	17:03:40
1	Mo 202.031†	7833.6	7335.1	487.12	ug/L	487.12	ppb	17:04:00
1	Ni 231.604†	22752.5	21266.0	490.56	ug/L	490.56	ppb	17:04:00
1	P 214.914†	1439.6	1086.7	484.61	ug/L	484.61	ppb	17:04:00
1	Pb 220.353†	4758.1	4566.7	497.40	ug/L	497.40	ppb	17:04:00
1	S 181.975 Axial†	4459.8	4126.1	4956.1	ug/L	4956.1	ppb	17:04:00
1	Sb 206.836†	1704.1	1555.2	489.76	ug/L	489.76	ppb	17:04:00
1	Se 196.026†	919.8	899.6	499.91	ug/L	499.91	ppb	17:04:00
1	Si 251.611†	168630.7	157583.8	4745.0	ug/L	4745.0	ppb	17:03:40
1	Sn 189.927†	3458.0	3241.5	506.42	ug/L	506.42	ppb	17:04:00
1	Ti 334.940†	312630.6	295553.3	494.63	ug/L	494.63	ppb	17:03:40
1	Tl 190.801†	1759.3	1710.3	496.89	ug/L	496.89	ppb	17:04:00
1	U 409.014†	13664.9	15977.0	490.52	ug/L	490.52	ppb	17:03:40
1	V 292.402†	76199.4	73403.9	494.76	ug/L	494.76	ppb	17:03:40
1	Zn 213.857†	59950.1	55514.6	477.80	ug/L	477.80	ppb	17:03:40
1	SiO2†	169393.4	158189.0	10229	ug/L	10229	ppb	17:05:01
2	Sc Radial	4901.8	4901.8	108	%			17:02:46
2	Y RADIAL	5098.8	5098.8	107.2	%			17:02:46
2	Al 396.153Radial†	5831.7	5414.7	4830.1	ug/L	4830.1	ppb	17:02:46
2	Ca 317.933Radial†	3140.6	2889.2	4871.7	ug/L	4871.7	ppb	17:03:06
2	Fe 238.204 Radial†	607.4	549.8	4943.0	ug/L	4943.0	ppb	17:03:06
2	K 766.490 Radial†	27730.6	22542.8	4769.2	ug/L	4769.2	ppb	17:02:46
2	Mg 279.077 IEC†	165.4	150.0	4897.2	ug/L	4897.2	ppb	17:03:06
2	Na 589.592 Radial†	15503.6	15900.4	4955.6	ug/L	4955.6	ppb	17:02:46
2	Sr 421.552†	71931.1	66530.3	491.85	ug/L	491.85	ppb	17:02:46
2	Sc 361.383	889873.0	889873.0	107.67	%			17:04:08
2	Y 371.029	751811.2	751811.2	106.39	%			17:04:08
2	Ag 328.068†	114026.6	105508.1	479.55	ug/L	479.55	ppb	17:04:08
2	As 188.979†	1363.0	1301.0	486.63	ug/L	486.63	ppb	17:04:28
2	B 249.677†	23469.7	22720.2	482.95	ug/L	482.95	ppb	17:04:08
2	Ba 233.527†	69513.6	64564.7	497.53	ug/L	497.53	ppb	17:04:08
2	Be 313.107†	1462996.9	1363466.0	486.44	ug/L	486.44	ppb	17:04:08
2	Cd 226.502†	52605.9	49123.6	484.51	ug/L	484.51	ppb	17:04:08
2	Co 228.616†	26108.1	24355.0	478.55	ug/L	478.55	ppb	17:04:28
2	Cr 267.716†	49205.8	45584.7	483.69	ug/L	483.69	ppb	17:04:08
2	Cu 324.752†	176586.0	156074.1	488.23	ug/L	488.23	ppb	17:04:08
2	Mn 257.610†	481689.6	446754.7	495.01	ug/L	495.01	ppb	17:04:08
2	Mo 202.031†	7856.0	7271.6	482.90	ug/L	482.90	ppb	17:04:28
2	Ni 231.604†	22800.9	21066.0	485.95	ug/L	485.95	ppb	17:04:28

2	P 214.914†	1442.0	1073.5	477.55	ug/L	477.55 ppb	17:04:28
2	Pb 220.353†	4777.2	4533.2	493.74	ug/L	493.74 ppb	17:04:28
2	S 181.975 Axial†	4472.4	4089.8	4912.5	ug/L	4912.5 ppb	17:04:28
2	Sb 206.836†	1716.3	1548.1	487.40	ug/L	487.40 ppb	17:04:28
2	Se 196.026†	931.7	900.8	500.69	ug/L	500.69 ppb	17:04:28
2	Si 251.611†	170592.2	157590.5	4745.3	ug/L	4745.3 ppb	17:04:08
2	Sn 189.927†	3462.0	3208.0	501.19	ug/L	501.19 ppb	17:04:28
2	Ti 334.940†	316192.0	295496.0	494.53	ug/L	494.53 ppb	17:04:08
2	Tl 190.801†	1761.4	1693.3	492.00	ug/L	492.00 ppb	17:04:28
2	U 409.014†	13910.5	16058.0	493.00	ug/L	493.00 ppb	17:04:08
2	V 292.402†	76939.2	73270.8	493.81	ug/L	493.81 ppb	17:04:08
2	Zn 213.857†	60691.2	55557.6	478.20	ug/L	478.20 ppb	17:04:08
2	SiO2†	166999.4	154142.2	9967.0	ug/L	9967.0 ppb	17:05:06
3	Sc Radial	4886.1	4886.1	108	%		17:03:11
3	Y RADIAL	5061.6	5061.6	106.5	%		17:03:11
3	Al 396.153Radial†	5792.8	5396.0	4813.8	ug/L	4813.8 ppb	17:03:11
3	Ca 317.933Radial†	3124.1	2883.2	4861.7	ug/L	4861.7 ppb	17:03:31
3	Fe 238.204 Radial†	603.8	548.3	4928.9	ug/L	4928.9 ppb	17:03:31
3	K 766.490 Radial†	27691.8	22589.4	4779.0	ug/L	4779.0 ppb	17:03:11
3	Mg 279.077 IEC†	165.3	150.4	4910.0	ug/L	4910.0 ppb	17:03:31
3	Na 589.592 Radial†	15381.6	15833.4	4934.7	ug/L	4934.7 ppb	17:03:11
3	Sr 421.552†	71160.6	66029.6	488.14	ug/L	488.14 ppb	17:03:11
3	Sc 361.383	904628.0	904628.0	109.45	%		17:04:35
3	Y 371.029	764319.2	764319.2	108.16	%		17:04:35
3	Ag 328.068†	115909.2	105500.7	479.52	ug/L	479.52 ppb	17:04:35
3	As 188.979†	1362.5	1279.9	478.83	ug/L	478.83 ppb	17:04:55
3	B 249.677†	23926.8	22782.3	484.31	ug/L	484.31 ppb	17:04:35
3	Ba 233.527†	70479.0	64393.6	496.21	ug/L	496.21 ppb	17:04:35
3	Be 313.107†	1485613.9	1361966.8	485.91	ug/L	485.91 ppb	17:04:35
3	Cd 226.502†	53385.6	49039.0	483.67	ug/L	483.67 ppb	17:04:35
3	Co 228.616†	25878.7	23749.9	466.64	ug/L	466.64 ppb	17:04:55
3	Cr 267.716†	49954.7	45523.6	483.04	ug/L	483.04 ppb	17:04:35
3	Cu 324.752†	179887.8	156415.7	489.30	ug/L	489.30 ppb	17:04:35
3	Mn 257.610†	488626.6	445795.5	493.94	ug/L	493.94 ppb	17:04:35
3	Mo 202.031†	7819.2	7119.0	472.78	ug/L	472.78 ppb	17:04:55
3	Ni 231.604†	22673.8	20604.5	475.30	ug/L	475.30 ppb	17:04:55
3	P 214.914†	1415.4	1027.3	453.52	ug/L	453.52 ppb	17:04:55
3	Pb 220.353†	4727.5	4415.5	480.93	ug/L	480.93 ppb	17:04:55
3	S 181.975 Axial†	4442.5	3994.8	4798.3	ug/L	4798.3 ppb	17:04:55
3	Sb 206.836†	1682.0	1490.8	469.25	ug/L	469.25 ppb	17:04:55
3	Se 196.026†	912.8	869.4	483.76	ug/L	483.76 ppb	17:04:55
3	Si 251.611†	173456.2	157622.8	4746.5	ug/L	4746.5 ppb	17:04:35
3	Sn 189.927†	3448.2	3143.0	491.04	ug/L	491.04 ppb	17:04:55
3	Ti 334.940†	321248.9	295326.1	494.25	ug/L	494.25 ppb	17:04:35
3	Tl 190.801†	1752.9	1658.8	482.10	ug/L	482.10 ppb	17:04:55
3	U 409.014†	14130.9	16048.6	492.72	ug/L	492.72 ppb	17:04:35
3	V 292.402†	78385.7	73426.8	494.70	ug/L	494.70 ppb	17:04:35
3	Zn 213.857†	61503.0	55379.9	476.72	ug/L	476.72 ppb	17:04:35
3	SiO2†	172123.9	156294.3	10107	ug/L	10107 ppb	17:05:11

Mean Data: 1202000549|935027|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	891393.1	107.85	%	1.518				1.41%
Sc Radial	4898.7	108	%	0.3				0.23%
Y 371.029	753181.5	106.58	%	1.489				1.40%
Y RADIAL	5095.7	107.2	%	0.69				0.64%
Ag 328.068†	105535.8	479.67	ug/L	0.237	479.67	ppb	0.237	0.05%
Al 396.153Radial†	5422.3	4837.0	ug/L	27.33	4837.0	ppb	27.33	0.56%
As 188.979†	1298.5	485.69	ug/L	6.432	485.69	ppb	6.432	1.32%
B 249.677†	22710.2	482.75	ug/L	1.673	482.75	ppb	1.673	0.35%
Ba 233.527†	64509.0	497.10	ug/L	0.767	497.10	ppb	0.767	0.15%
Be 313.107†	1362826.7	486.22	ug/L	0.276	486.22	ppb	0.276	0.06%
Ca 317.933Radial†	2882.4	4860.4	ug/L	12.10	4860.4	ppb	12.10	0.25%
Cd 226.502†	49081.0	484.09	ug/L	0.420	484.09	ppb	0.420	0.09%
Co 228.616†	24219.6	475.89	ug/L	8.244	475.89	ppb	8.244	1.73%
Cr 267.716†	45596.6	483.81	ug/L	0.844	483.81	ppb	0.844	0.17%
Cu 324.752†	156087.6	488.27	ug/L	1.006	488.27	ppb	1.006	0.21%
Fe 238.204 Radial†	546.9	4917.3	ug/L	33.07	4917.3	ppb	33.07	0.67%
K 766.490 Radial†	22610.6	4783.5	ug/L	17.07	4783.5	ppb	17.07	0.36%

Mg 279.077 IEC†	151.8	4956.1	ug/L	91.11	4956.1	ppb	91.11	1.84%
Mn 257.610†	446277.5	494.47	ug/L	0.532	494.47	ppb	0.532	0.11%
Mo 202.031†	7241.9	480.93	ug/L	7.370	480.93	ppb	7.370	1.53%
Na 589.592 Radial†	15913.0	4959.5	ug/L	26.97	4959.5	ppb	26.97	0.54%
Ni 231.604†	20978.8	483.94	ug/L	7.826	483.94	ppb	7.826	1.62%
P 214.914†	1062.5	471.90	ug/L	16.300	471.90	ppb	16.300	3.45%
Pb 220.353†	4505.1	490.69	ug/L	8.649	490.69	ppb	8.649	1.76%
S 181.975 Axial†	4070.2	4889.0	ug/L	81.48	4889.0	ppb	81.48	1.67%
Sb 206.836†	1531.4	482.13	ug/L	11.221	482.13	ppb	11.221	2.33%
Se 196.026†	890.0	494.79	ug/L	9.553	494.79	ppb	9.553	1.93%
Si 251.611†	157599.1	4745.6	ug/L	0.78	4745.6	ppb	0.78	0.02%
Sn 189.927†	3197.5	499.55	ug/L	7.819	499.55	ppb	7.819	1.57%
Sr 421.552†	66463.5	491.35	ug/L	2.992	491.35	ppb	2.992	0.61%
Ti 334.940†	295458.5	494.47	ug/L	0.198	494.47	ppb	0.198	0.04%
Tl 190.801†	1687.5	490.33	ug/L	7.533	490.33	ppb	7.533	1.54%
U 409.014†	16027.9	492.08	ug/L	1.362	492.08	ppb	1.362	0.28%
V 292.402†	73367.2	494.43	ug/L	0.534	494.43	ppb	0.534	0.11%
Zn 213.857†	55484.1	477.57	ug/L	0.762	477.57	ppb	0.762	0.16%
SiO2†	156208.5	10101	ug/L	131.2	10101	ppb	131.2	1.30%

Sequence No.: 24
Sample ID: 243104001|935027|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 38
Date Collected: 1/4/2010 17:07:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243104001|935027|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4831.2	4831.2	107	%			17:09:16
1	Y RADIAL	5032.3	5032.3	105.9	%			17:09:16
1	Al 396.153Radial†	-4.8	17.3	15.338	ug/L	15.338	ppb	17:09:16
1	Ca 317.933Radial†	8831.8	8271.4	13947	ug/L	13947	ppb	17:09:16
1	Fe 238.204 Radial†	14.1	1.3	11.925	ug/L	11.925	ppb	17:09:36
1	K 766.490 Radial†	12037.1	8193.1	1728.2	ug/L	1728.2	ppb	17:09:16
1	Mg 279.077 IEC†	126.4	115.7	3771.6	ug/L	3771.6	ppb	17:09:36
1	Na 589.592 Radial†	43188.3	42085.6	13117	ug/L	13117	ppb	17:09:16
1	Sr 421.552†	10553.5	9914.2	73.171	ug/L	73.171	ppb	17:09:16
1	Sc 361.383	883797.1	883797.1	106.93	%			17:10:33
1	Y 371.029	746426.1	746426.1	105.63	%			17:10:33
1	Ag 328.068†	549.8	115.3	0.3322	ug/L	0.3322	ppb	17:10:33
1	As 188.979†	-29.9	7.1	2.6132	ug/L	2.6132	ppb	17:10:53
1	B 249.677†	74.8	991.7	21.160	ug/L	21.160	ppb	17:10:53
1	Ba 233.527†	4297.5	4020.0	30.917	ug/L	30.917	ppb	17:10:53
1	Be 313.107†	-4437.5	497.3	0.1746	ug/L	0.1746	ppb	17:10:33
1	Cd 226.502†	-228.2	50.3	0.4951	ug/L	0.4951	ppb	17:10:53
1	Co 228.616†	-108.6	4.5	0.1151	ug/L	0.1151	ppb	17:10:53
1	Cr 267.716†	358.3	217.9	2.3150	ug/L	2.3150	ppb	17:10:53
1	Cu 324.752†	8040.0	-418.7	-1.3084	ug/L	-1.3084	ppb	17:10:33
1	Mn 257.610†	12510.3	11064.8	12.181	ug/L	12.181	ppb	17:10:33
1	Mo 202.031†	99.1	67.7	4.4894	ug/L	4.4894	ppb	17:10:53
1	Ni 231.604†	152.9	31.8	0.7341	ug/L	0.7341	ppb	17:10:53
1	P 214.914†	376.7	86.4	44.330	ug/L	44.330	ppb	17:10:53
1	Pb 220.353†	-87.4	14.5	1.5886	ug/L	1.5886	ppb	17:10:53
1	S 181.975 Axial†	1508.5	1346.6	1617.8	ug/L	1617.8	ppb	17:10:53
1	Sb 206.836†	57.2	7.5	2.0865	ug/L	2.0865	ppb	17:10:53
1	Se 196.026†	-33.5	4.2	2.2894	ug/L	2.2894	ppb	17:10:53
1	Si 251.611†	974708.5	910670.6	27488	ug/L	27488	ppb	17:10:33
1	Sn 189.927†	-112.4	-112.6	-16.120	ug/L	-16.120	ppb	17:10:53
1	Ti 334.940†	-2736.0	-739.1	-0.5178	ug/L	-0.5178	ppb	17:10:33
1	Tl 190.801†	-54.3	6.5	1.9378	ug/L	1.9378	ppb	17:10:53
1	U 409.014†	-2783.4	535.1	16.475	ug/L	16.475	ppb	17:10:33
1	V 292.402†	-885.2	982.5	6.7146	ug/L	6.7146	ppb	17:10:53
1	Zn 213.857†	1209.8	319.5	2.6412	ug/L	2.6412	ppb	17:10:53
1	SiO2†	986484.6	921572.0	59739	ug/L	59739	ppb	17:11:51
2	Sc Radial	4863.1	4863.1	107	%			17:09:41
2	Y RADIAL	5073.5	5073.5	106.7	%			17:09:41
2	Al 396.153Radial†	2.0	23.7	21.040	ug/L	21.040	ppb	17:09:41
2	Ca 317.933Radial†	8937.5	8315.6	14022	ug/L	14022	ppb	17:09:41
2	Fe 238.204 Radial†	12.6	-0.1	-1.2003	ug/L	-1.2003	ppb	17:10:01
2	K 766.490 Radial†	12187.3	8258.9	1742.1	ug/L	1742.1	ppb	17:09:41
2	Mg 279.077 IEC†	130.2	118.4	3861.7	ug/L	3861.7	ppb	17:10:01
2	Na 589.592 Radial†	43605.5	42208.5	13155	ug/L	13155	ppb	17:09:41
2	Sr 421.552†	10605.1	9897.3	73.045	ug/L	73.045	ppb	17:09:41
2	Sc 361.383	894384.1	894384.1	108.21	%			17:10:59
2	Y 371.029	755086.9	755086.9	106.85	%			17:10:59
2	Ag 328.068†	399.0	-30.1	-0.3309	ug/L	-0.3309	ppb	17:10:59
2	As 188.979†	-27.2	10.0	3.6807	ug/L	3.6807	ppb	17:11:19
2	B 249.677†	102.8	1016.7	21.696	ug/L	21.696	ppb	17:11:19
2	Ba 233.527†	4281.2	3957.3	30.434	ug/L	30.434	ppb	17:11:19
2	Be 313.107†	-4538.7	452.8	0.1592	ug/L	0.1592	ppb	17:10:59
2	Cd 226.502†	-222.2	58.3	0.5763	ug/L	0.5763	ppb	17:11:19
2	Co 228.616†	-119.6	-4.5	-0.0622	ug/L	-0.0622	ppb	17:11:19
2	Cr 267.716†	343.3	200.0	2.1251	ug/L	2.1251	ppb	17:11:19
2	Cu 324.752†	8072.6	-477.5	-1.4929	ug/L	-1.4929	ppb	17:10:59
2	Mn 257.610†	12661.2	11065.8	12.179	ug/L	12.179	ppb	17:10:59
2	Mo 202.031†	96.7	64.4	4.2712	ug/L	4.2712	ppb	17:11:19
2	Ni 231.604†	158.5	35.2	0.8130	ug/L	0.8130	ppb	17:11:19

2	P 214.914†	382.3	87.5	44.893 ug/L	44.893 ppb	17:11:19
2	Pb 220.353†	-95.2	8.2	0.9120 ug/L	0.9120 ppb	17:11:19
2	S 181.975 Axial†	1499.2	1321.3	1587.4 ug/L	1587.4 ppb	17:11:19
2	Sb 206.836†	55.6	5.4	1.4079 ug/L	1.4079 ppb	17:11:19
2	Se 196.026†	-35.4	2.7	1.4834 ug/L	1.4834 ppb	17:11:19
2	Si 251.611†	986991.6	911231.5	27505 ug/L	27505 ppb	17:10:59
2	Sn 189.927†	-121.6	-119.9	-17.250 ug/L	-17.250 ppb	17:11:19
2	Ti 334.940†	-2627.7	-608.7	-0.2959 ug/L	-0.2959 ppb	17:10:59
2	Tl 190.801†	-44.5	16.2	4.7285 ug/L	4.7285 ppb	17:11:19
2	U 409.014†	-2786.0	563.5	17.351 ug/L	17.351 ppb	17:10:59
2	V 292.402†	-888.9	988.9	6.7595 ug/L	6.7595 ppb	17:11:19
2	Zn 213.857†	1196.3	293.7	2.4143 ug/L	2.4143 ppb	17:11:19
2	SiO2†	986569.0	910729.6	59036 ug/L	59036 ppb	17:11:57
3	Sc Radial	4846.7	4846.7	107 %		17:10:06
3	Y RADIAL	5063.1	5063.1	106.5 %		17:10:06
3	Al 396.153Radial†	5.1	26.6	23.587 ug/L	23.587 ppb	17:10:06
3	Ca 317.933Radial†	8969.4	8373.7	14120 ug/L	14120 ppb	17:10:06
3	Fe 238.204 Radial†	13.7	0.9	8.4444 ug/L	8.4444 ppb	17:10:26
3	K 766.490 Radial†	12344.1	8444.2	1781.3 ug/L	1781.3 ppb	17:10:06
3	Mg 279.077 IEC†	126.7	115.6	3770.9 ug/L	3770.9 ppb	17:10:26
3	Na 589.592 Radial†	43371.4	42127.5	13130 ug/L	13130 ppb	17:10:06
3	Sr 421.552†	10576.2	9903.8	73.093 ug/L	73.093 ppb	17:10:06
3	Sc 361.383	886176.8	886176.8	107.22 %		17:11:25
3	Y 371.029	749206.7	749206.7	106.02 %		17:11:25
3	Ag 328.068†	480.2	49.1	0.0262 ug/L	0.0262 ppb	17:11:25
3	As 188.979†	-27.5	9.5	3.4865 ug/L	3.4865 ppb	17:11:45
3	B 249.677†	110.1	1024.5	21.861 ug/L	21.861 ppb	17:11:45
3	Ba 233.527†	4301.3	4012.7	30.860 ug/L	30.860 ppb	17:11:45
3	Be 313.107†	-4441.2	504.9	0.1774 ug/L	0.1774 ppb	17:11:25
3	Cd 226.502†	-221.8	56.8	0.5601 ug/L	0.5601 ppb	17:11:45
3	Co 228.616†	-115.5	-1.7	-0.0052 ug/L	-0.0052 ppb	17:11:45
3	Cr 267.716†	331.6	192.1	2.0397 ug/L	2.0397 ppb	17:11:45
3	Cu 324.752†	8027.9	-450.1	-1.4068 ug/L	-1.4068 ppb	17:11:25
3	Mn 257.610†	12489.0	11013.6	12.124 ug/L	12.124 ppb	17:11:25
3	Mo 202.031†	108.5	76.2	5.0541 ug/L	5.0541 ppb	17:11:45
3	Ni 231.604†	153.9	32.3	0.7449 ug/L	0.7449 ppb	17:11:45
3	P 214.914†	384.7	93.0	47.730 ug/L	47.730 ppb	17:11:45
3	Pb 220.353†	-84.6	17.3	1.8938 ug/L	1.8938 ppb	17:11:45
3	S 181.975 Axial†	1501.4	1336.2	1605.3 ug/L	1605.3 ppb	17:11:45
3	Sb 206.836†	44.7	-4.2	-1.5321 ug/L	-1.5321 ppb	17:11:45
3	Se 196.026†	-30.5	7.0	3.8284 ug/L	3.8284 ppb	17:11:45
3	Si 251.611†	976191.7	909606.1	27456 ug/L	27456 ppb	17:11:25
3	Sn 189.927†	-109.2	-109.4	-15.602 ug/L	-15.602 ppb	17:11:45
3	Ti 334.940†	-2724.6	-721.6	-0.4810 ug/L	-0.4810 ppb	17:11:25
3	Tl 190.801†	-51.1	9.6	2.8207 ug/L	2.8207 ppb	17:11:45
3	U 409.014†	-2663.4	654.0	20.136 ug/L	20.136 ppb	17:11:25
3	V 292.402†	-882.2	987.6	6.7641 ug/L	6.7641 ppb	17:11:45
3	Zn 213.857†	1184.2	292.7	2.4081 ug/L	2.4081 ppb	17:11:45
3	SiO2†	983391.6	916209.9	59391 ug/L	59391 ppb	17:12:03

Mean Data: 243104001|935027|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	888119.3	107.45	%	0.672				0.63%
Sc Radial	4847.0	107	%	0.4				0.33%
Y 371.029	750239.9	106.17	%	0.626				0.59%
Y RADIAL	5056.3	106.4	%	0.45				0.42%
Ag 328.068†	44.8	0.0092	ug/L	0.33185	0.0092	ppb	0.33185	>999.9%
Al 396.153Radial†	22.5	19.988	ug/L	4.2238	19.988	ppb	4.2238	21.13%
As 188.979†	8.9	3.2601	ug/L	0.56859	3.2601	ppb	0.56859	17.44%
B 249.677†	1011.0	21.572	ug/L	0.3665	21.572	ppb	0.3665	1.70%
Ba 233.527†	3996.7	30.737	ug/L	0.2638	30.737	ppb	0.2638	0.86%
Be 313.107†	485.0	0.1704	ug/L	0.00980	0.1704	ppb	0.00980	5.75%
Ca 317.933Radial†	8320.2	14030	ug/L	86.5	14030	ppb	86.5	0.62%
Cd 226.502†	55.1	0.5438	ug/L	0.04296	0.5438	ppb	0.04296	7.90%
Co 228.616†	-0.6	0.0159	ug/L	0.09056	0.0159	ppb	0.09056	569.61%
Cr 267.716†	203.3	2.1599	ug/L	0.14090	2.1599	ppb	0.14090	6.52%
Cu 324.752†	-448.7	-1.4027	ug/L	0.09234	-1.4027	ppb	0.09234	6.58%
Fe 238.204 Radial†	0.7	6.3899	ug/L	6.79980	6.3899	ppb	6.79980	106.41%
K 766.490 Radial†	8298.7	1750.5	ug/L	27.57	1750.5	ppb	27.57	1.57%

Mg 279.077 IEC†	116.6	3801.4	ug/L	52.19	3801.4	ppb	52.19	1.37%
Mn 257.610†	11048.1	12.161	ug/L	0.0324	12.161	ppb	0.0324	0.27%
Mo 202.031†	69.4	4.6049	ug/L	0.40399	4.6049	ppb	0.40399	8.77%
Na 589.592 Radial†	42140.6	13134	ug/L	19.5	13134	ppb	19.5	0.15%
Ni 231.604†	33.1	0.7640	ug/L	0.04278	0.7640	ppb	0.04278	5.60%
P 214.914†	88.9	45.651	ug/L	1.8227	45.651	ppb	1.8227	3.99%
Pb 220.353†	13.3	1.4648	ug/L	0.50245	1.4648	ppb	0.50245	34.30%
S 181.975 Axial†	1334.7	1603.5	ug/L	15.29	1603.5	ppb	15.29	0.95%
Sb 206.836†	2.9	0.6541	ug/L	1.92345	0.6541	ppb	1.92345	294.08%
Se 196.026†	4.6	2.5337	ug/L	1.19146	2.5337	ppb	1.19146	47.02%
Si 251.611†	910502.7	27483	ug/L	24.9	27483	ppb	24.9	0.09%
Sn 189.927†	-113.9	-16.324	ug/L	0.8429	-16.324	ppb	0.8429	5.16%
Sr 421.552†	9905.1	73.103	ug/L	0.0635	73.103	ppb	0.0635	0.09%
Ti 334.940†	-689.8	-0.4316	ug/L	0.11889	-0.4316	ppb	0.11889	27.55%
Tl 190.801†	10.8	3.1624	ug/L	1.42636	3.1624	ppb	1.42636	45.10%
U 409.014†	584.2	17.988	ug/L	1.9116	17.988	ppb	1.9116	10.63%
V 292.402†	986.3	6.7461	ug/L	0.02733	6.7461	ppb	0.02733	0.41%
Zn 213.857†	302.0	2.4879	ug/L	0.13283	2.4879	ppb	0.13283	5.34%
SiO2†	916170.5	59388	ug/L	351.4	59388	ppb	351.4	0.59%

Sequence No.: 25
Sample ID: 1202000550|935027|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 39
Date Collected: 1/4/2010 17:14:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202000550|935027|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4971.2	4971.2	110	%			17:16:06
1	Y RADIAL	5160.9	5160.9	108.6	%			17:16:06
1	Al 396.153Radial†	10.1	31.0	27.591	ug/L	27.591	ppb	17:16:06
1	Ca 317.933Radial†	8999.4	8190.8	13811	ug/L	13811	ppb	17:16:06
1	Fe 238.204 Radial†	12.2	-0.8	-6.7412	ug/L	-6.7412	ppb	17:16:26
1	K 766.490 Radial†	12249.5	8068.6	1701.9	ug/L	1701.9	ppb	17:16:06
1	Mg 279.077 IEC†	123.4	109.6	3574.5	ug/L	3574.5	ppb	17:16:26
1	Na 589.592 Radial†	44244.6	41907.4	13061	ug/L	13061	ppb	17:16:06
1	Sr 421.552†	10717.2	9784.6	72.214	ug/L	72.214	ppb	17:16:06
1	Sc 361.383	881614.4	881614.4	106.67	%			17:17:23
1	Y 371.029	745063.1	745063.1	105.43	%			17:17:23
1	Ag 328.068†	468.7	40.6	-0.0172	ug/L	-0.0172	ppb	17:17:23
1	As 188.979†	-30.5	6.5	2.3820	ug/L	2.3820	ppb	17:17:43
1	B 249.677†	8.6	929.9	19.844	ug/L	19.844	ppb	17:17:43
1	Ba 233.527†	4276.2	4010.0	30.837	ug/L	30.837	ppb	17:17:43
1	Be 313.107†	-4449.1	476.1	0.1670	ug/L	0.1670	ppb	17:17:23
1	Cd 226.502†	-249.4	29.8	0.2953	ug/L	0.2953	ppb	17:17:43
1	Co 228.616†	-129.6	-15.5	-0.2763	ug/L	-0.2763	ppb	17:17:43
1	Cr 267.716†	324.8	187.3	1.9876	ug/L	1.9876	ppb	17:17:43
1	Cu 324.752†	8041.2	-398.8	-1.2474	ug/L	-1.2474	ppb	17:17:23
1	Mn 257.610†	12257.9	10857.2	11.953	ug/L	11.953	ppb	17:17:23
1	Mo 202.031†	98.5	67.4	4.4696	ug/L	4.4696	ppb	17:17:43
1	Ni 231.604†	149.0	28.5	0.6574	ug/L	0.6574	ppb	17:17:43
1	P 214.914†	392.9	102.5	52.568	ug/L	52.568	ppb	17:17:43
1	Pb 220.353†	-77.2	23.8	2.6059	ug/L	2.6059	ppb	17:17:43
1	S 181.975 Axial†	1493.9	1336.4	1605.5	ug/L	1605.5	ppb	17:17:43
1	Sb 206.836†	41.0	-7.5	-2.6212	ug/L	-2.6212	ppb	17:17:43
1	Se 196.026†	-32.1	5.4	2.8745	ug/L	2.8745	ppb	17:17:43
1	Si 251.611†	962401.6	901389.6	27208	ug/L	27208	ppb	17:17:23
1	Sn 189.927†	-129.9	-129.2	-18.733	ug/L	-18.733	ppb	17:17:43
1	Ti 334.940†	-2766.6	-774.1	-0.5856	ug/L	-0.5856	ppb	17:17:23
1	Tl 190.801†	-61.0	0.1	0.0868	ug/L	0.0868	ppb	17:17:43
1	U 409.014†	-2613.9	687.5	21.172	ug/L	21.172	ppb	17:17:23
1	V 292.402†	-1021.7	852.5	5.8574	ug/L	5.8574	ppb	17:17:23
1	Zn 213.857†	1181.4	295.7	2.4425	ug/L	2.4425	ppb	17:17:43
1	SiO2†	975352.4	913419.6	59210	ug/L	59210	ppb	17:18:41
2	Sc Radial	4811.3	4811.3	106	%			17:16:31
2	Y RADIAL	5001.0	5001.0	105.2	%			17:16:31
2	Al 396.153Radial†	3.2	24.8	22.024	ug/L	22.024	ppb	17:16:31
2	Ca 317.933Radial†	8736.0	8215.4	13853	ug/L	13853	ppb	17:16:31
2	Fe 238.204 Radial†	12.8	0.2	1.4241	ug/L	1.4241	ppb	17:16:51
2	K 766.490 Radial†	11875.4	8087.3	1705.8	ug/L	1705.8	ppb	17:16:31
2	Mg 279.077 IEC†	122.9	112.9	3680.6	ug/L	3680.6	ppb	17:16:51
2	Na 589.592 Radial†	42887.0	41969.0	13080	ug/L	13080	ppb	17:16:31
2	Sr 421.552†	10414.7	9824.3	72.507	ug/L	72.507	ppb	17:16:31
2	Sc 361.383	881573.6	881573.6	106.66	%			17:17:49
2	Y 371.029	745273.3	745273.3	105.46	%			17:17:49
2	Ag 328.068†	407.7	-16.5	-0.2681	ug/L	-0.2681	ppb	17:17:49
2	As 188.979†	-43.6	-5.8	-2.1675	ug/L	-2.1675	ppb	17:18:09
2	B 249.677†	-6.4	915.7	19.540	ug/L	19.540	ppb	17:18:09
2	Ba 233.527†	4243.9	3979.8	30.606	ug/L	30.606	ppb	17:18:09
2	Be 313.107†	-4498.6	429.5	0.1502	ug/L	0.1502	ppb	17:17:49
2	Cd 226.502†	-239.0	39.6	0.3909	ug/L	0.3909	ppb	17:18:09
2	Co 228.616†	-102.3	10.1	0.2256	ug/L	0.2256	ppb	17:18:09
2	Cr 267.716†	332.2	194.3	2.0635	ug/L	2.0635	ppb	17:18:09
2	Cu 324.752†	7974.0	-461.6	-1.4430	ug/L	-1.4430	ppb	17:17:49
2	Mn 257.610†	12327.7	10923.2	12.025	ug/L	12.025	ppb	17:17:49
2	Mo 202.031†	96.4	65.4	4.3379	ug/L	4.3379	ppb	17:18:09
2	Ni 231.604†	160.7	39.5	0.9108	ug/L	0.9108	ppb	17:18:09

2	P 214.914†	374.3	85.1	43.660	ug/L	43.660 ppb	17:18:09
2	Pb 220.353†	-78.8	22.4	2.4440	ug/L	2.4440 ppb	17:18:09
2	S 181.975 Axial†	1475.7	1319.4	1585.2	ug/L	1585.2 ppb	17:18:09
2	Sb 206.836†	65.8	15.7	4.6112	ug/L	4.6112 ppb	17:18:09
2	Se 196.026†	-36.9	0.8	0.4750	ug/L	0.4750 ppb	17:18:09
2	Si 251.611†	961372.8	900466.9	27180	ug/L	27180 ppb	17:17:49
2	Sn 189.927†	-122.1	-122.0	-17.597	ug/L	-17.597 ppb	17:18:09
2	Ti 334.940†	-2819.5	-823.9	-0.6649	ug/L	-0.6649 ppb	17:17:49
2	Tl 190.801†	-64.6	-3.2	-0.8871	ug/L	-0.8871 ppb	17:18:09
2	U 409.014†	-2749.6	560.2	17.250	ug/L	17.250 ppb	17:17:49
2	V 292.402†	-957.7	912.4	6.2477	ug/L	6.2477 ppb	17:17:49
2	Zn 213.857†	1165.6	281.0	2.3095	ug/L	2.3095 ppb	17:18:09
2	SiO2†	984428.2	921970.8	59765	ug/L	59765 ppb	17:18:47
3	Sc Radial	4868.5	4868.5	107	%		17:16:56
3	Y RADIAL	5040.2	5040.2	106.0	%		17:16:56
3	Al 396.153Radial†	-18.7	4.4	3.7426	ug/L	3.7426 ppb	17:16:56
3	Ca 317.933Radial†	8859.8	8234.0	13884	ug/L	13884 ppb	17:16:56
3	Fe 238.204 Radial†	11.8	-0.9	-7.7097	ug/L	-7.7097 ppb	17:17:16
3	K 766.490 Radial†	12048.5	8117.1	1712.1	ug/L	1712.1 ppb	17:16:56
3	Mg 279.077 IEC†	125.6	114.0	3719.0	ug/L	3719.0 ppb	17:17:16
3	Na 589.592 Radial†	43325.1	41902.3	13060	ug/L	13060 ppb	17:16:56
3	Sr 421.552†	10594.1	9876.0	72.890	ug/L	72.890 ppb	17:16:56
3	Sc 361.383	881105.7	881105.7	106.61	%		17:18:14
3	Y 371.029	744730.8	744730.8	105.39	%		17:18:14
3	Ag 328.068†	343.7	-76.4	-0.5412	ug/L	-0.5412 ppb	17:18:14
3	As 188.979†	-32.2	4.9	1.8041	ug/L	1.8041 ppb	17:18:34
3	B 249.677†	32.2	952.0	20.317	ug/L	20.317 ppb	17:18:34
3	Ba 233.527†	4248.7	3986.4	30.657	ug/L	30.657 ppb	17:18:34
3	Be 313.107†	-4418.1	502.7	0.1765	ug/L	0.1765 ppb	17:18:14
3	Cd 226.502†	-225.5	52.2	0.5163	ug/L	0.5163 ppb	17:18:34
3	Co 228.616†	-128.1	-14.2	-0.2508	ug/L	-0.2508 ppb	17:18:34
3	Cr 267.716†	331.5	193.8	2.0580	ug/L	2.0580 ppb	17:18:34
3	Cu 324.752†	7992.8	-439.9	-1.3759	ug/L	-1.3759 ppb	17:18:14
3	Mn 257.610†	12253.1	10859.4	11.952	ug/L	11.952 ppb	17:18:14
3	Mo 202.031†	98.2	67.1	4.4515	ug/L	4.4515 ppb	17:18:34
3	Ni 231.604†	165.9	44.4	1.0253	ug/L	1.0253 ppb	17:18:34
3	P 214.914†	387.8	97.9	50.237	ug/L	50.237 ppb	17:18:34
3	Pb 220.353†	-109.3	-6.3	-0.6751	ug/L	-0.6751 ppb	17:18:34
3	S 181.975 Axial†	1484.8	1328.7	1596.3	ug/L	1596.3 ppb	17:18:34
3	Sb 206.836†	39.0	-9.4	-3.1926	ug/L	-3.1926 ppb	17:18:34
3	Se 196.026†	-40.3	-2.3	-1.2518	ug/L	-1.2518 ppb	17:18:34
3	Si 251.611†	960953.7	900552.4	27183	ug/L	27183 ppb	17:18:14
3	Sn 189.927†	-128.6	-128.1	-18.552	ug/L	-18.552 ppb	17:18:34
3	Ti 334.940†	-2737.9	-748.7	-0.5374	ug/L	-0.5374 ppb	17:18:14
3	Tl 190.801†	-60.7	0.4	0.1576	ug/L	0.1576 ppb	17:18:34
3	U 409.014†	-2752.5	556.1	17.124	ug/L	17.124 ppb	17:18:14
3	V 292.402†	-929.2	938.7	6.4260	ug/L	6.4260 ppb	17:18:14
3	Zn 213.857†	1159.8	276.2	2.2656	ug/L	2.2656 ppb	17:18:34
3	SiO2†	971258.0	910106.8	58995	ug/L	58995 ppb	17:18:52

Mean Data: 1202000550|935027|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	881431.2	106.65	%	0.034				0.03%
Sc Radial	4883.7	108	%	1.8				1.66%
Y 371.029	745022.4	105.43	%	0.039				0.04%
Y RADIAL	5067.4	106.6	%	1.75				1.64%
Ag 328.068†	-17.5	-0.2755	ug/L	0.26207	-0.2755	ppb	0.26207	95.13%
Al 396.153Radial†	20.1	17.786	ug/L	12.4762	17.786	ppb	12.4762	70.15%
As 188.979†	1.9	0.6729	ug/L	2.47673	0.6729	ppb	2.47673	368.07%
B 249.677†	932.5	19.900	ug/L	0.3913	19.900	ppb	0.3913	1.97%
Ba 233.527†	3992.1	30.700	ug/L	0.1212	30.700	ppb	0.1212	0.39%
Be 313.107†	469.5	0.1646	ug/L	0.01333	0.1646	ppb	0.01333	8.10%
Ca 317.933Radial†	8213.4	13849	ug/L	36.5	13849	ppb	36.5	0.26%
Cd 226.502†	40.5	0.4008	ug/L	0.11081	0.4008	ppb	0.11081	27.65%
Co 228.616†	-6.5	-0.1005	ug/L	0.28271	-0.1005	ppb	0.28271	281.35%
Cr 267.716†	191.8	2.0364	ug/L	0.04228	2.0364	ppb	0.04228	2.08%
Cu 324.752†	-433.4	-1.3554	ug/L	0.09941	-1.3554	ppb	0.09941	7.33%
Fe 238.204 Radial†	-0.5	-4.3423	ug/L	5.01726	-4.3423	ppb	5.01726	115.54%
K 766.490 Radial†	8091.0	1706.6	ug/L	5.17	1706.6	ppb	5.17	0.30%

Mg 279.077 IEC†	112.2	3658.1	ug/L	74.84	3658.1	ppb	74.84	2.05%
Mn 257.610†	10879.9	11.977	ug/L	0.0416	11.977	ppb	0.0416	0.35%
Mo 202.031†	66.6	4.4197	ug/L	0.07138	4.4197	ppb	0.07138	1.62%
Na 589.592 Radial†	41926.2	13067	ug/L	11.6	13067	ppb	11.6	0.09%
Ni 231.604†	37.5	0.8645	ug/L	0.18826	0.8645	ppb	0.18826	21.78%
P 214.914†	95.2	48.821	ug/L	4.6195	48.821	ppb	4.6195	9.46%
Pb 220.353†	13.3	1.4582	ug/L	1.84932	1.4582	ppb	1.84932	126.82%
S 181.975 Axial†	1328.2	1595.6	ug/L	10.20	1595.6	ppb	10.20	0.64%
Sb 206.836†	-0.4	-0.4009	ug/L	4.34999	-0.4009	ppb	4.34999	>999.9%
Se 196.026†	1.3	0.6992	ug/L	2.07227	0.6992	ppb	2.07227	296.36%
Si 251.611†	900803.0	27190	ug/L	15.4	27190	ppb	15.4	0.06%
Sn 189.927†	-126.4	-18.294	ug/L	0.6105	-18.294	ppb	0.6105	3.34%
Sr 421.552†	9828.3	72.537	ug/L	0.3388	72.537	ppb	0.3388	0.47%
Ti 334.940†	-782.2	-0.5959	ug/L	0.06440	-0.5959	ppb	0.06440	10.81%
Tl 190.801†	-0.9	-0.2142	ug/L	0.58378	-0.2142	ppb	0.58378	272.51%
U 409.014†	601.3	18.515	ug/L	2.3018	18.515	ppb	2.3018	12.43%
V 292.402†	901.2	6.1771	ug/L	0.29081	6.1771	ppb	0.29081	4.71%
Zn 213.857†	284.3	2.3392	ug/L	0.09209	2.3392	ppb	0.09209	3.94%
SiO2†	915165.8	59323	ug/L	396.8	59323	ppb	396.8	0.67%

Sequence No.: 26
Sample ID: 1202000551|935027|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 40
Date Collected: 1/4/2010 17:21:03
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202000551|935027|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4760.4	4760.4	105	%			17:23:16
1	Y RADIAL	4938.6	4938.6	103.9	%			17:23:16
1	Al 396.153Radial†	5721.1	5469.6	4879.1	ug/L	4879.1	ppb	17:22:56
1	Ca 317.933Radial†	11945.1	11359.3	19154	ug/L	19154	ppb	17:22:56
1	Fe 238.204 Radial†	601.9	561.2	5045.3	ug/L	5045.3	ppb	17:23:16
1	K 766.490 Radial†	36488.5	31644.1	6689.3	ug/L	6689.3	ppb	17:22:56
1	Mg 279.077 IEC†	286.0	269.4	8790.9	ug/L	8790.9	ppb	17:23:16
1	Na 589.592 Radial†	62614.7	61186.4	19070	ug/L	19070	ppb	17:22:56
1	Sr 421.552†	81370.3	77494.5	572.78	ug/L	572.78	ppb	17:22:56
1	Sc 361.383	884210.8	884210.8	106.98	%			17:24:15
1	Y 371.029	744320.6	744320.6	105.33	%			17:24:15
1	Ag 328.068†	112659.2	104908.1	476.69	ug/L	476.69	ppb	17:24:15
1	As 188.979†	1366.8	1312.7	490.95	ug/L	490.95	ppb	17:24:35
1	B 249.677†	23667.9	23045.0	489.88	ug/L	489.88	ppb	17:24:15
1	Ba 233.527†	72270.1	67554.8	520.53	ug/L	520.53	ppb	17:24:15
1	Be 313.107†	1456848.3	1366420.1	487.49	ug/L	487.49	ppb	17:24:15
1	Cd 226.502†	51685.0	48575.6	479.09	ug/L	479.09	ppb	17:24:15
1	Co 228.616†	25682.0	24112.0	473.81	ug/L	473.81	ppb	17:24:35
1	Cr 267.716†	48924.9	45614.8	484.02	ug/L	484.02	ppb	17:24:15
1	Cu 324.752†	177640.4	158110.0	494.60	ug/L	494.60	ppb	17:24:15
1	Mn 257.610†	486403.9	454026.3	502.99	ug/L	502.99	ppb	17:24:15
1	Mo 202.031†	7898.6	7358.1	488.66	ug/L	488.66	ppb	17:24:35
1	Ni 231.604†	22463.9	20886.7	481.81	ug/L	481.81	ppb	17:24:35
1	P 214.914†	1535.4	1169.3	525.52	ug/L	525.52	ppb	17:24:35
1	Pb 220.353†	4655.8	4448.1	484.51	ug/L	484.51	ppb	17:24:35
1	S 181.975 Axial†	5900.3	5451.1	6548.0	ug/L	6548.0	ppb	17:24:35
1	Sb 206.836†	1706.7	1549.3	487.72	ug/L	487.72	ppb	17:24:35
1	Se 196.026†	910.4	886.4	493.30	ug/L	493.30	ppb	17:24:35
1	Si 251.611†	1138017.0	1062894.9	32071	ug/L	32071	ppb	17:24:15
1	Sn 189.927†	3360.8	3134.0	491.13	ug/L	491.13	ppb	17:24:35
1	Ti 334.940†	312688.5	294101.7	492.94	ug/L	492.94	ppb	17:24:15
1	Tl 190.801†	1743.2	1686.8	490.16	ug/L	490.16	ppb	17:24:35
1	U 409.014†	13837.8	16072.8	493.44	ug/L	493.44	ppb	17:24:15
1	V 292.402†	77313.6	74078.4	499.34	ug/L	499.34	ppb	17:24:15
1	Zn 213.857†	60288.6	55542.3	477.95	ug/L	477.95	ppb	17:24:15
1	SiO2†	1142581.8	1067050.5	69144	ug/L	69144	ppb	17:25:36
2	Sc Radial	4791.9	4791.9	106	%			17:23:41
2	Y RADIAL	4953.9	4953.9	104.2	%			17:23:41
2	Al 396.153Radial†	5705.8	5419.2	4833.9	ug/L	4833.9	ppb	17:23:21
2	Ca 317.933Radial†	11894.8	11236.8	18948	ug/L	18948	ppb	17:23:21
2	Fe 238.204 Radial†	599.5	555.2	4991.6	ug/L	4991.6	ppb	17:23:41
2	K 766.490 Radial†	36299.7	31237.0	6603.2	ug/L	6603.2	ppb	17:23:21
2	Mg 279.077 IEC†	288.8	270.3	8818.9	ug/L	8818.9	ppb	17:23:41
2	Na 589.592 Radial†	62147.3	60352.2	18810	ug/L	18810	ppb	17:23:21
2	Sr 421.552†	81024.3	76657.7	566.59	ug/L	566.59	ppb	17:23:21
2	Sc 361.383	871453.1	871453.1	105.44	%			17:24:42
2	Y 371.029	734021.9	734021.9	103.87	%			17:24:42
2	Ag 328.068†	111165.7	105033.3	477.25	ug/L	477.25	ppb	17:24:42
2	As 188.979†	1361.9	1326.8	496.17	ug/L	496.17	ppb	17:25:02
2	B 249.677†	23310.8	23030.2	489.57	ug/L	489.57	ppb	17:24:42
2	Ba 233.527†	71441.8	67758.1	522.09	ug/L	522.09	ppb	17:24:42
2	Be 313.107†	1436917.0	1367452.5	487.86	ug/L	487.86	ppb	17:24:42
2	Cd 226.502†	51063.9	48693.8	480.26	ug/L	480.26	ppb	17:24:42
2	Co 228.616†	25491.9	24283.1	477.17	ug/L	477.17	ppb	17:25:02
2	Cr 267.716†	48256.7	45650.6	484.40	ug/L	484.40	ppb	17:24:42
2	Cu 324.752†	174636.6	157692.0	493.29	ug/L	493.29	ppb	17:24:42
2	Mn 257.610†	480094.5	454698.3	503.73	ug/L	503.73	ppb	17:24:42
2	Mo 202.031†	7810.7	7382.9	490.30	ug/L	490.30	ppb	17:25:02
2	Ni 231.604†	22289.8	21028.9	485.09	ug/L	485.09	ppb	17:25:02

2	P 214.914†	1506.7	1163.1	522.57	ug/L	522.57 ppb	17:25:02
2	Pb 220.353†	4621.9	4479.7	487.94	ug/L	487.94 ppb	17:25:02
2	S 181.975 Axial†	5822.5	5458.1	6556.3	ug/L	6556.3 ppb	17:25:02
2	Sb 206.836†	1688.6	1555.6	489.71	ug/L	489.71 ppb	17:25:02
2	Se 196.026†	908.3	896.9	498.76	ug/L	498.76 ppb	17:25:02
2	Si 251.611†	1122260.1	1063523.5	32090	ug/L	32090 ppb	17:24:42
2	Sn 189.927†	3321.6	3142.8	492.48	ug/L	492.48 ppb	17:25:02
2	Ti 334.940†	308301.7	294220.0	493.13	ug/L	493.13 ppb	17:24:42
2	Tl 190.801†	1722.7	1691.2	491.42	ug/L	491.42 ppb	17:25:02
2	U 409.014†	13381.1	15829.0	485.94	ug/L	485.94 ppb	17:24:42
2	V 292.402†	76278.9	74155.0	499.86	ug/L	499.86 ppb	17:24:42
2	Zn 213.857†	59572.0	55687.6	479.19	ug/L	479.19 ppb	17:24:42
2	SiO2†	1123099.1	1064207.9	68959	ug/L	68959 ppb	17:25:42
3	Sc Radial	4779.4	4779.4	105	%		17:24:06
3	Y RADIAL	4939.3	4939.3	103.9	%		17:24:06
3	Al 396.153Radial†	5594.8	5328.1	4752.3	ug/L	4752.3 ppb	17:23:46
3	Ca 317.933Radial†	11738.9	11118.5	18748	ug/L	18748 ppb	17:23:46
3	Fe 238.204 Radial†	597.6	554.9	4988.9	ug/L	4988.9 ppb	17:24:06
3	K 766.490 Radial†	35776.0	30830.2	6517.2	ug/L	6517.2 ppb	17:23:46
3	Mg 279.077 IEC†	289.0	271.2	8849.9	ug/L	8849.9 ppb	17:24:06
3	Na 589.592 Radial†	61303.0	59705.4	18608	ug/L	18608 ppb	17:23:46
3	Sr 421.552†	79744.4	75644.6	559.10	ug/L	559.10 ppb	17:23:46
3	Sc 361.383	875167.0	875167.0	105.89	%		17:25:10
3	Y 371.029	737209.2	737209.2	104.32	%		17:25:10
3	Ag 328.068†	111448.5	104852.9	476.44	ug/L	476.44 ppb	17:25:10
3	As 188.979†	1362.7	1322.1	494.43	ug/L	494.43 ppb	17:25:30
3	B 249.677†	23392.0	23013.1	489.20	ug/L	489.20 ppb	17:25:10
3	Ba 233.527†	71705.5	67719.6	521.79	ug/L	521.79 ppb	17:25:10
3	Be 313.107†	1443779.1	1368149.8	488.11	ug/L	488.11 ppb	17:25:10
3	Cd 226.502†	51294.8	48706.4	480.39	ug/L	480.39 ppb	17:25:10
3	Co 228.616†	25528.0	24214.6	475.83	ug/L	475.83 ppb	17:25:30
3	Cr 267.716†	48466.5	45654.5	484.44	ug/L	484.44 ppb	17:25:10
3	Cu 324.752†	175589.3	157888.8	493.90	ug/L	493.90 ppb	17:25:10
3	Mn 257.610†	482201.7	454756.0	503.80	ug/L	503.80 ppb	17:25:10
3	Mo 202.031†	7833.8	7373.2	489.65	ug/L	489.65 ppb	17:25:30
3	Ni 231.604†	22359.1	21004.6	484.53	ug/L	484.53 ppb	17:25:30
3	P 214.914†	1506.5	1156.9	519.27	ug/L	519.27 ppb	17:25:30
3	Pb 220.353†	4640.8	4478.9	487.84	ug/L	487.84 ppb	17:25:30
3	S 181.975 Axial†	5841.0	5452.1	6549.2	ug/L	6549.2 ppb	17:25:30
3	Sb 206.836†	1693.4	1553.2	488.97	ug/L	488.97 ppb	17:25:30
3	Se 196.026†	909.6	894.4	497.42	ug/L	497.42 ppb	17:25:30
3	Si 251.611†	1127191.7	1063664.0	32094	ug/L	32094 ppb	17:25:10
3	Sn 189.927†	3335.5	3142.5	492.42	ug/L	492.42 ppb	17:25:30
3	Ti 334.940†	309762.0	294358.3	493.35	ug/L	493.35 ppb	17:25:10
3	Tl 190.801†	1749.1	1709.1	496.61	ug/L	496.61 ppb	17:25:30
3	U 409.014†	13502.4	15889.7	487.81	ug/L	487.81 ppb	17:25:10
3	V 292.402†	76666.7	74214.3	500.25	ug/L	500.25 ppb	17:25:10
3	Zn 213.857†	59721.5	55589.1	478.34	ug/L	478.34 ppb	17:25:10
3	SiO2†	1140892.6	1076491.8	69756	ug/L	69756 ppb	17:25:48

Mean Data: 1202000551|935027|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	876943.6	106.10	%	0.794				0.75%
Sc Radial	4777.2	105	%	0.3				0.33%
Y 371.029	738517.2	104.51	%	0.746				0.71%
Y RADIAL	4943.9	104.0	%	0.18				0.18%
Ag 328.068†	104931.4	476.79	ug/L	0.416	476.79	ppb	0.416	0.09%
Al 396.153Radial†	5405.6	4821.7	ug/L	64.27	4821.7	ppb	64.27	1.33%
As 188.979†	1320.5	493.85	ug/L	2.656	493.85	ppb	2.656	0.54%
B 249.677†	23029.5	489.55	ug/L	0.340	489.55	ppb	0.340	0.07%
Ba 233.527†	67677.5	521.47	ug/L	0.830	521.47	ppb	0.830	0.16%
Be 313.107†	1367340.8	487.82	ug/L	0.310	487.82	ppb	0.310	0.06%
Ca 317.933Radial†	11238.2	18950	ug/L	203.0	18950	ppb	203.0	1.07%
Cd 226.502†	48658.6	479.91	ug/L	0.716	479.91	ppb	0.716	0.15%
Co 228.616†	24203.2	475.60	ug/L	1.694	475.60	ppb	1.694	0.36%
Cr 267.716†	45640.0	484.29	ug/L	0.233	484.29	ppb	0.233	0.05%
Cu 324.752†	157896.9	493.93	ug/L	0.655	493.93	ppb	0.655	0.13%
Fe 238.204 Radial†	557.1	5008.6	ug/L	31.78	5008.6	ppb	31.78	0.63%
K 766.490 Radial†	31237.1	6603.2	ug/L	86.09	6603.2	ppb	86.09	1.30%

Mg 279.077 IEC†	270.3	8819.9	ug/L	29.51	8819.9	ppb	29.51	0.33%
Mn 257.610†	454493.5	503.51	ug/L	0.446	503.51	ppb	0.446	0.09%
Mo 202.031†	7371.4	489.53	ug/L	0.825	489.53	ppb	0.825	0.17%
Na 589.592 Radial†	60414.6	18829	ug/L	231.4	18829	ppb	231.4	1.23%
Ni 231.604†	20973.4	483.81	ug/L	1.755	483.81	ppb	1.755	0.36%
P 214.914†	1163.1	522.45	ug/L	3.128	522.45	ppb	3.128	0.60%
Pb 220.353†	4468.9	486.76	ug/L	1.950	486.76	ppb	1.950	0.40%
S 181.975 Axial†	5453.8	6551.1	ug/L	4.51	6551.1	ppb	4.51	0.07%
Sb 206.836†	1552.7	488.80	ug/L	1.006	488.80	ppb	1.006	0.21%
Se 196.026†	892.6	496.49	ug/L	2.844	496.49	ppb	2.844	0.57%
Si 251.611†	1063360.8	32085	ug/L	12.4	32085	ppb	12.4	0.04%
Sn 189.927†	3139.8	492.01	ug/L	0.762	492.01	ppb	0.762	0.15%
Sr 421.552†	76599.0	566.16	ug/L	6.847	566.16	ppb	6.847	1.21%
Ti 334.940†	294226.7	493.14	ug/L	0.206	493.14	ppb	0.206	0.04%
Tl 190.801†	1695.7	492.73	ug/L	3.420	492.73	ppb	3.420	0.69%
U 409.014†	15930.5	489.07	ug/L	3.905	489.07	ppb	3.905	0.80%
V 292.402†	74149.2	499.82	ug/L	0.460	499.82	ppb	0.460	0.09%
Zn 213.857†	55606.3	478.49	ug/L	0.636	478.49	ppb	0.636	0.13%
SiO2†	1069250.1	69286	ug/L	416.9	69286	ppb	416.9	0.60%

Sequence No.: 27
Sample ID: 1202000552|935027|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 41
Date Collected: 1/4/2010 17:27:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202000552|935027|5

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4772.9	4772.9	105	%			17:29:50
1	Y RADIAL	4992.4	4992.4	105.0	%			17:29:50
1	Al 396.153Radial†	-49.0	-24.8	-22.202	ug/L	-22.202	ppb	17:29:50
1	Ca 317.933Radial†	1804.1	1698.3	2863.6	ug/L	2863.6	ppb	17:30:10
1	Fe 238.204 Radial†	12.5	-0.0	-0.1018	ug/L	-0.1018	ppb	17:30:10
1	K 766.490 Radial†	4883.2	1536.8	323.98	ug/L	323.98	ppb	17:29:50
1	Mg 279.077 IEC†	26.9	22.6	736.97	ug/L	736.97	ppb	17:30:10
1	Na 589.592 Radial†	7749.2	8923.2	2781.1	ug/L	2781.1	ppb	17:29:50
1	Sr 421.552†	2168.7	2071.9	15.292	ug/L	15.292	ppb	17:29:50
1	Sc 361.383	889594.8	889594.8	107.63	%			17:31:07
1	Y 371.029	754982.3	754982.3	106.84	%			17:31:07
1	Ag 328.068†	526.5	90.3	0.3590	ug/L	0.3590	ppb	17:31:07
1	As 188.979†	-37.7	0.0	0.0102	ug/L	0.0102	ppb	17:31:28
1	B 249.677†	-452.4	501.4	10.699	ug/L	10.699	ppb	17:31:28
1	Ba 233.527†	886.6	824.7	6.3457	ug/L	6.3457	ppb	17:31:28
1	Be 313.107†	-4476.3	488.3	0.1734	ug/L	0.1734	ppb	17:31:07
1	Cd 226.502†	-252.6	29.0	0.2863	ug/L	0.2863	ppb	17:31:28
1	Co 228.616†	-99.9	13.2	0.2633	ug/L	0.2633	ppb	17:31:28
1	Cr 267.716†	162.2	33.5	0.3529	ug/L	0.3529	ppb	17:31:28
1	Cu 324.752†	8108.1	-404.3	-1.2641	ug/L	-1.2641	ppb	17:31:07
1	Mn 257.610†	2898.2	2058.2	2.2649	ug/L	2.2649	ppb	17:31:28
1	Mo 202.031†	34.7	7.2	0.4796	ug/L	0.4796	ppb	17:31:28
1	Ni 231.604†	126.3	6.1	0.1414	ug/L	0.1414	ppb	17:31:28
1	P 214.914†	301.2	14.0	7.2963	ug/L	7.2963	ppb	17:31:28
1	Pb 220.353†	-98.6	4.6	0.4925	ug/L	0.4925	ppb	17:31:28
1	S 181.975 Axial†	360.7	271.0	325.60	ug/L	325.60	ppb	17:31:28
1	Sb 206.836†	47.4	-1.9	-0.6681	ug/L	-0.6681	ppb	17:31:28
1	Se 196.026†	-37.5	0.6	0.3228	ug/L	0.3228	ppb	17:31:28
1	Si 251.611†	200083.7	185040.0	5585.3	ug/L	5585.3	ppb	17:31:07
1	Sn 189.927†	-24.3	-30.1	-4.3991	ug/L	-4.3991	ppb	17:31:28
1	Ti 334.940†	-2106.5	-137.5	-0.0900	ug/L	-0.0900	ppb	17:31:07
1	Tl 190.801†	-49.1	11.7	3.3820	ug/L	3.3820	ppb	17:31:28
1	U 409.014†	-2664.3	662.7	20.410	ug/L	20.410	ppb	17:31:07
1	V 292.402†	-1516.0	401.9	2.7362	ug/L	2.7362	ppb	17:31:28
1	Zn 213.857†	934.4	56.3	0.4645	ug/L	0.4645	ppb	17:31:28
1	SiO2†	198346.2	183314.4	11883	ug/L	11883	ppb	17:32:24
2	Sc Radial	4933.8	4933.8	109	%			17:30:15
2	Y RADIAL	5148.0	5148.0	108.3	%			17:30:15
2	Al 396.153Radial†	-10.6	12.1	10.811	ug/L	10.811	ppb	17:30:15
2	Ca 317.933Radial†	1822.2	1659.0	2797.5	ug/L	2797.5	ppb	17:30:35
2	Fe 238.204 Radial†	14.4	1.3	12.000	ug/L	12.000	ppb	17:30:35
2	K 766.490 Radial†	4978.4	1473.0	310.48	ug/L	310.48	ppb	17:30:15
2	Mg 279.077 IEC†	26.8	21.7	708.64	ug/L	708.64	ppb	17:30:35
2	Na 589.592 Radial†	8033.4	8944.2	2787.6	ug/L	2787.6	ppb	17:30:15
2	Sr 421.552†	2228.7	2059.8	15.203	ug/L	15.203	ppb	17:30:15
2	Sc 361.383	887265.6	887265.6	107.35	%			17:31:33
2	Y 371.029	753643.5	753643.5	106.65	%			17:31:33
2	Ag 328.068†	479.2	47.6	0.1721	ug/L	0.1721	ppb	17:31:33
2	As 188.979†	-40.2	-2.3	-0.8738	ug/L	-0.8738	ppb	17:31:53
2	B 249.677†	-444.3	507.9	10.835	ug/L	10.835	ppb	17:31:53
2	Ba 233.527†	895.4	835.2	6.4262	ug/L	6.4262	ppb	17:31:53
2	Be 313.107†	-4547.8	410.7	0.1461	ug/L	0.1461	ppb	17:31:33
2	Cd 226.502†	-250.3	30.5	0.2996	ug/L	0.2996	ppb	17:31:53
2	Co 228.616†	-91.5	20.7	0.4121	ug/L	0.4121	ppb	17:31:53
2	Cr 267.716†	146.3	19.1	0.2014	ug/L	0.2014	ppb	17:31:53
2	Cu 324.752†	8115.7	-377.5	-1.1795	ug/L	-1.1795	ppb	17:31:33
2	Mn 257.610†	2898.8	2065.8	2.2751	ug/L	2.2751	ppb	17:31:53
2	Mo 202.031†	39.1	11.5	0.7609	ug/L	0.7609	ppb	17:31:53
2	Ni 231.604†	134.3	13.9	0.3199	ug/L	0.3199	ppb	17:31:53

2	P 214.914†	306.0	19.2	9.9650 ug/L	9.9650 ppb	17:31:53
2	Pb 220.353†	-103.1	0.2	0.0211 ug/L	0.0211 ppb	17:31:53
2	S 181.975 Axial†	353.9	265.5	319.01 ug/L	319.01 ppb	17:31:53
2	Sb 206.836†	44.4	-4.6	-1.4599 ug/L	-1.4599 ppb	17:31:53
2	Se 196.026†	-39.1	-0.9	-0.4712 ug/L	-0.4712 ppb	17:31:53
2	Si 251.611†	199776.1	185241.6	5591.4 ug/L	5591.4 ppb	17:31:33
2	Sn 189.927†	-18.1	-24.3	-3.5065 ug/L	-3.5065 ppb	17:31:53
2	Ti 334.940†	-1992.3	-36.3	0.0766 ug/L	0.0766 ppb	17:31:33
2	Tl 190.801†	-47.3	13.3	3.8358 ug/L	3.8358 ppb	17:31:53
2	U 409.014†	-2709.0	614.6	18.925 ug/L	18.925 ppb	17:31:33
2	V 292.402†	-1518.3	396.0	2.6957 ug/L	2.6957 ppb	17:31:53
2	Zn 213.857†	926.2	51.0	0.4173 ug/L	0.4173 ppb	17:31:53
2	SiO2†	199780.8	185134.6	12001 ug/L	12001 ppb	17:32:30
3	Sc Radial	4838.6	4838.6	107 %		17:30:41
3	Y RADIAL	5037.0	5037.0	105.9 %		17:30:41
3	Al 396.153Radial†	8.1	29.4	26.291 ug/L	26.291 ppb	17:30:41
3	Ca 317.933Radial†	1807.0	1677.7	2829.0 ug/L	2829.0 ppb	17:31:01
3	Fe 238.204 Radial†	10.1	-2.4	-21.477 ug/L	-21.477 ppb	17:31:01
3	K 766.490 Radial†	4986.9	1571.0	331.24 ug/L	331.24 ppb	17:30:41
3	Mg 279.077 IEC†	26.1	21.6	704.17 ug/L	704.17 ppb	17:31:01
3	Na 589.592 Radial†	7810.8	8880.9	2767.9 ug/L	2767.9 ppb	17:30:41
3	Sr 421.552†	2223.3	2095.1	15.464 ug/L	15.464 ppb	17:30:41
3	Sc 361.383	895940.7	895940.7	108.40 %		17:31:59
3	Y 371.029	761563.0	761563.0	107.77 %		17:31:59
3	Ag 328.068†	291.6	-129.8	-0.6401 ug/L	-0.6401 ppb	17:31:59
3	As 188.979†	-37.2	0.8	0.2971 ug/L	0.2971 ppb	17:32:19
3	B 249.677†	-489.8	469.9	10.030 ug/L	10.030 ppb	17:32:19
3	Ba 233.527†	881.0	813.8	6.2616 ug/L	6.2616 ppb	17:32:19
3	Be 313.107†	-4479.0	515.2	0.1836 ug/L	0.1836 ppb	17:31:59
3	Cd 226.502†	-260.3	23.5	0.2347 ug/L	0.2347 ppb	17:32:19
3	Co 228.616†	-116.0	-1.0	-0.0134 ug/L	-0.0134 ppb	17:32:19
3	Cr 267.716†	153.8	24.7	0.2604 ug/L	0.2604 ppb	17:32:19
3	Cu 324.752†	8144.5	-424.2	-1.3273 ug/L	-1.3273 ppb	17:31:59
3	Mn 257.610†	2874.5	2017.2	2.2180 ug/L	2.2180 ppb	17:32:19
3	Mo 202.031†	42.4	14.1	0.9332 ug/L	0.9332 ppb	17:32:19
3	Ni 231.604†	145.0	22.5	0.5193 ug/L	0.5193 ppb	17:32:19
3	P 214.914†	288.9	0.7	0.5118 ug/L	0.5118 ppb	17:32:19
3	Pb 220.353†	-95.3	8.2	0.9042 ug/L	0.9042 ppb	17:32:19
3	S 181.975 Axial†	348.7	257.5	309.37 ug/L	309.37 ppb	17:32:19
3	Sb 206.836†	53.9	3.7	1.1008 ug/L	1.1008 ppb	17:32:19
3	Se 196.026†	-31.0	6.9	3.6411 ug/L	3.6411 ppb	17:32:19
3	Si 251.611†	201135.8	184694.0	5574.9 ug/L	5574.9 ppb	17:31:59
3	Sn 189.927†	-23.5	-29.2	-4.2611 ug/L	-4.2611 ppb	17:32:19
3	Ti 334.940†	-1921.8	46.7	0.2168 ug/L	0.2168 ppb	17:31:59
3	Tl 190.801†	-40.1	20.3	5.8670 ug/L	5.8670 ppb	17:32:19
3	U 409.014†	-2696.5	650.5	20.037 ug/L	20.037 ppb	17:31:59
3	V 292.402†	-1478.5	446.4	3.0403 ug/L	3.0403 ppb	17:32:19
3	Zn 213.857†	913.0	30.5	0.2398 ug/L	0.2398 ppb	17:32:19
3	SiO2†	195605.9	179481.3	11634 ug/L	11634 ppb	17:32:35

Mean Data: 1202000552|935027|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	890933.7	107.80	%	0.543				0.50%
Sc Radial	4848.4	107	%	1.8				1.67%
Y 371.029	756729.6	107.08	%	0.600				0.56%
Y RADIAL	5059.2	106.4	%	1.69				1.58%
Ag 328.068†	2.7	-0.0363	ug/L	0.53119	-0.0363	ppb	0.53119	>999.9%
Al 396.153Radial†	5.6	4.9665	ug/L	24.76905	4.9665	ppb	24.76905	498.72%
As 188.979†	-0.5	-0.1888	ug/L	0.61029	-0.1888	ppb	0.61029	323.22%
B 249.677†	493.1	10.522	ug/L	0.4311	10.522	ppb	0.4311	4.10%
Ba 233.527†	824.6	6.3445	ug/L	0.08230	6.3445	ppb	0.08230	1.30%
Be 313.107†	471.4	0.1677	ug/L	0.01938	0.1677	ppb	0.01938	11.56%
Ca 317.933Radial†	1678.4	2830.0	ug/L	33.07	2830.0	ppb	33.07	1.17%
Cd 226.502†	27.7	0.2735	ug/L	0.03426	0.2735	ppb	0.03426	12.53%
Co 228.616†	11.0	0.2207	ug/L	0.21592	0.2207	ppb	0.21592	97.85%
Cr 267.716†	25.8	0.2716	ug/L	0.07636	0.2716	ppb	0.07636	28.11%
Cu 324.752†	-402.0	-1.2570	ug/L	0.07413	-1.2570	ppb	0.07413	5.90%
Fe 238.204 Radial†	-0.4	-3.1931	ug/L	16.95145	-3.1931	ppb	16.95145	530.87%
K 766.490 Radial†	1526.9	321.90	ug/L	10.539	321.90	ppb	10.539	3.27%

Mg 279.077 IEC†	22.0	716.59	ug/L	17.788	716.59	ppb	17.788	2.48%
Mn 257.610†	2047.1	2.2527	ug/L	0.03045	2.2527	ppb	0.03045	1.35%
Mo 202.031†	10.9	0.7246	ug/L	0.22897	0.7246	ppb	0.22897	31.60%
Na 589.592 Radial†	8916.1	2778.8	ug/L	10.05	2778.8	ppb	10.05	0.36%
Ni 231.604†	14.2	0.3268	ug/L	0.18907	0.3268	ppb	0.18907	57.85%
P 214.914†	11.3	5.9244	ug/L	4.87366	5.9244	ppb	4.87366	82.26%
Pb 220.353†	4.3	0.4726	ug/L	0.44187	0.4726	ppb	0.44187	93.49%
S 181.975 Axial†	264.7	317.99	ug/L	8.161	317.99	ppb	8.161	2.57%
Sb 206.836†	-0.9	-0.3424	ug/L	1.31104	-0.3424	ppb	1.31104	382.87%
Se 196.026†	2.2	1.1642	ug/L	2.18143	1.1642	ppb	2.18143	187.37%
Si 251.611†	184991.9	5583.9	ug/L	8.36	5583.9	ppb	8.36	0.15%
Sn 189.927†	-27.9	-4.0556	ug/L	0.48051	-4.0556	ppb	0.48051	11.85%
Sr 421.552†	2075.6	15.319	ug/L	0.1325	15.319	ppb	0.1325	0.86%
Ti 334.940†	-42.4	0.0678	ug/L	0.15355	0.0678	ppb	0.15355	226.44%
Tl 190.801†	15.1	4.3616	ug/L	1.32330	4.3616	ppb	1.32330	30.34%
U 409.014†	642.6	19.791	ug/L	0.7725	19.791	ppb	0.7725	3.90%
V 292.402†	414.8	2.8241	ug/L	0.18837	2.8241	ppb	0.18837	6.67%
Zn 213.857†	45.9	0.3739	ug/L	0.11848	0.3739	ppb	0.11848	31.69%
SiO2†	182643.5	11839	ug/L	187.1	11839	ppb	187.1	1.58%

Sequence No.: 28
Sample ID: 243104002|935027|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 42
Date Collected: 1/4/2010 17:34:45
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 243104002|935027|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4861.7	4861.7	107	%			17:36:38
1	Y RADIAL	5080.2	5080.2	106.9	%			17:36:38
1	Al 396.153Radial†	-0.1	21.8	19.258	ug/L	19.258	ppb	17:36:38
1	Ca 317.933Radial†	8934.5	8315.3	14021	ug/L	14021	ppb	17:36:38
1	Fe 238.204 Radial†	12.7	-0.0	-0.3656	ug/L	-0.3656	ppb	17:36:58
1	K 766.490 Radial†	12205.2	8279.0	1746.3	ug/L	1746.3	ppb	17:36:38
1	Mg 279.077 IEC†	127.4	115.8	3777.6	ug/L	3777.6	ppb	17:36:58
1	Na 589.592 Radial†	43937.3	42530.1	13255	ug/L	13255	ppb	17:36:38
1	Sr 421.552†	10706.5	9994.8	73.766	ug/L	73.766	ppb	17:36:38
1	Sc 361.383	882748.5	882748.5	106.80	%			17:37:55
1	Y 371.029	746385.6	746385.6	105.62	%			17:37:55
1	Ag 328.068†	463.1	34.7	-0.0379	ug/L	-0.0379	ppb	17:37:55
1	As 188.979†	-31.7	5.5	1.9991	ug/L	1.9991	ppb	17:38:15
1	B 249.677†	-6.4	915.8	19.543	ug/L	19.543	ppb	17:38:15
1	Ba 233.527†	4262.6	3992.1	30.702	ug/L	30.702	ppb	17:38:15
1	Be 313.107†	-4601.3	339.0	0.1189	ug/L	0.1189	ppb	17:37:55
1	Cd 226.502†	-241.6	37.4	0.3704	ug/L	0.3704	ppb	17:38:15
1	Co 228.616†	-114.7	-1.4	0.0026	ug/L	0.0026	ppb	17:38:15
1	Cr 267.716†	342.8	203.8	2.1645	ug/L	2.1645	ppb	17:38:15
1	Cu 324.752†	8020.4	-428.0	-1.3382	ug/L	-1.3382	ppb	17:37:55
1	Mn 257.610†	10715.6	9398.4	10.335	ug/L	10.335	ppb	17:37:55
1	Mo 202.031†	115.7	83.3	5.5274	ug/L	5.5274	ppb	17:38:15
1	Ni 231.604†	193.7	70.1	1.6190	ug/L	1.6190	ppb	17:38:15
1	P 214.914†	375.0	85.2	43.748	ug/L	43.748	ppb	17:38:15
1	Pb 220.353†	-91.4	10.6	1.1745	ug/L	1.1745	ppb	17:38:15
1	S 181.975 Axial†	1493.8	1334.5	1603.2	ug/L	1603.2	ppb	17:38:15
1	Sb 206.836†	56.2	6.7	1.8542	ug/L	1.8542	ppb	17:38:15
1	Se 196.026†	-40.0	-2.0	-1.0564	ug/L	-1.0564	ppb	17:38:15
1	Si 251.611†	956279.2	894498.2	27000	ug/L	27000	ppb	17:37:55
1	Sn 189.927†	-109.1	-109.7	-15.659	ug/L	-15.659	ppb	17:38:15
1	Ti 334.940†	-2514.4	-534.6	-0.1719	ug/L	-0.1719	ppb	17:37:55
1	Tl 190.801†	-52.1	8.6	2.5106	ug/L	2.5106	ppb	17:38:15
1	U 409.014†	-2760.0	553.9	17.054	ug/L	17.054	ppb	17:37:55
1	V 292.402†	-897.7	969.8	6.6478	ug/L	6.6478	ppb	17:38:15
1	Zn 213.857†	1235.5	345.0	2.8568	ug/L	2.8568	ppb	17:38:15
1	SiO2†	973928.1	910911.3	59047	ug/L	59047	ppb	17:39:13
2	Sc Radial	4842.0	4842.0	107	%			17:37:03
2	Y RADIAL	5030.1	5030.1	105.8	%			17:37:03
2	Al 396.153Radial†	32.1	51.9	46.301	ug/L	46.301	ppb	17:37:03
2	Ca 317.933Radial†	8787.2	8211.3	13846	ug/L	13846	ppb	17:37:03
2	Fe 238.204 Radial†	14.7	1.8	16.464	ug/L	16.464	ppb	17:37:23
2	K 766.490 Radial†	12130.8	8255.7	1741.5	ug/L	1741.5	ppb	17:37:03
2	Mg 279.077 IEC†	127.7	116.6	3803.6	ug/L	3803.6	ppb	17:37:23
2	Na 589.592 Radial†	43246.8	42050.4	13106	ug/L	13106	ppb	17:37:03
2	Sr 421.552†	10551.7	9890.5	72.997	ug/L	72.997	ppb	17:37:03
2	Sc 361.383	895097.4	895097.4	108.30	%			17:38:21
2	Y 371.029	756386.9	756386.9	107.04	%			17:38:21
2	Ag 328.068†	496.1	59.2	0.0780	ug/L	0.0780	ppb	17:38:21
2	As 188.979†	-28.0	9.2	3.4021	ug/L	3.4021	ppb	17:38:41
2	B 249.677†	1.6	923.3	19.700	ug/L	19.700	ppb	17:38:41
2	Ba 233.527†	4275.3	3948.8	30.369	ug/L	30.369	ppb	17:38:41
2	Be 313.107†	-4436.6	550.4	0.1937	ug/L	0.1937	ppb	17:38:21
2	Cd 226.502†	-235.6	46.1	0.4540	ug/L	0.4540	ppb	17:38:41
2	Co 228.616†	-123.5	-8.0	-0.1317	ug/L	-0.1317	ppb	17:38:41
2	Cr 267.716†	375.5	229.5	2.4364	ug/L	2.4364	ppb	17:38:41
2	Cu 324.752†	8002.4	-548.2	-1.7132	ug/L	-1.7132	ppb	17:38:21
2	Mn 257.610†	10924.7	9453.1	10.396	ug/L	10.396	ppb	17:38:21
2	Mo 202.031†	97.8	65.3	4.3363	ug/L	4.3363	ppb	17:38:41
2	Ni 231.604†	196.0	69.7	1.6097	ug/L	1.6097	ppb	17:38:41

2	P 214.914†	391.2	95.4	49.007 ug/L	49.007 ppb	17:38:41
2	Pb 220.353†	-91.8	11.4	1.2600 ug/L	1.2600 ppb	17:38:41
2	S 181.975 Axial†	1497.2	1318.4	1583.9 ug/L	1583.9 ppb	17:38:41
2	Sb 206.836†	55.6	5.4	1.4246 ug/L	1.4246 ppb	17:38:41
2	Se 196.026†	-34.0	4.0	2.2420 ug/L	2.2420 ppb	17:38:41
2	Si 251.611†	969020.8	893911.0	26982 ug/L	26982 ppb	17:38:21
2	Sn 189.927†	-117.4	-115.9	-16.650 ug/L	-16.650 ppb	17:38:41
2	Ti 334.940†	-2704.6	-677.7	-0.4224 ug/L	-0.4224 ppb	17:38:21
2	Tl 190.801†	-59.7	2.1	0.6564 ug/L	0.6564 ppb	17:38:41
2	U 409.014†	-2664.7	677.6	20.861 ug/L	20.861 ppb	17:38:21
2	V 292.402†	-894.0	984.8	6.7361 ug/L	6.7361 ppb	17:38:41
2	Zn 213.857†	1248.3	340.8	2.8196 ug/L	2.8196 ppb	17:38:41
2	SiO2†	974537.2	898893.4	58269 ug/L	58269 ppb	17:39:19
3	Sc Radial	4962.8	4962.8	109 %		17:37:28
3	Y RADIAL	5111.3	5111.3	107.5 %		17:37:28
3	Al 396.153Radial†	37.4	56.0	49.931 ug/L	49.931 ppb	17:37:28
3	Ca 317.933Radial†	8928.6	8140.1	13726 ug/L	13726 ppb	17:37:28
3	Fe 238.204 Radial†	16.3	3.0	27.166 ug/L	27.166 ppb	17:37:48
3	K 766.490 Radial†	12226.3	8066.4	1701.4 ug/L	1701.4 ppb	17:37:28
3	Mg 279.077 IEC†	125.6	111.8	3646.9 ug/L	3646.9 ppb	17:37:48
3	Na 589.592 Radial†	43982.1	41736.3	13008 ug/L	13008 ppb	17:37:28
3	Sr 421.552†	10669.4	9757.5	72.015 ug/L	72.015 ppb	17:37:28
3	Sc 361.383	903308.4	903308.4	109.29 %		17:38:47
3	Y 371.029	763425.8	763425.8	108.03 %		17:38:47
3	Ag 328.068†	429.5	-5.8	-0.2086 ug/L	-0.2086 ppb	17:38:47
3	As 188.979†	-25.7	11.6	4.2808 ug/L	4.2808 ppb	17:39:07
3	B 249.677†	37.1	955.8	20.391 ug/L	20.391 ppb	17:39:07
3	Ba 233.527†	4283.5	3920.3	30.150 ug/L	30.150 ppb	17:39:07
3	Be 313.107†	-4588.5	448.7	0.1580 ug/L	0.1580 ppb	17:38:47
3	Cd 226.502†	-227.3	55.6	0.5470 ug/L	0.5470 ppb	17:39:07
3	Co 228.616†	-116.2	-0.3	0.0215 ug/L	0.0215 ppb	17:39:07
3	Cr 267.716†	347.3	200.5	2.1304 ug/L	2.1304 ppb	17:39:07
3	Cu 324.752†	8262.3	-377.6	-1.1792 ug/L	-1.1792 ppb	17:38:47
3	Mn 257.610†	10990.5	9421.6	10.366 ug/L	10.366 ppb	17:38:47
3	Mo 202.031†	107.3	73.2	4.8582 ug/L	4.8582 ppb	17:39:07
3	Ni 231.604†	174.0	48.0	1.1072 ug/L	1.1072 ppb	17:39:07
3	P 214.914†	400.7	100.8	51.671 ug/L	51.671 ppb	17:39:07
3	Pb 220.353†	-96.8	7.6	0.8491 ug/L	0.8491 ppb	17:39:07
3	S 181.975 Axial†	1489.9	1299.1	1560.8 ug/L	1560.8 ppb	17:39:07
3	Sb 206.836†	49.2	-0.9	-0.5449 ug/L	-0.5449 ppb	17:39:07
3	Se 196.026†	-24.1	13.4	7.3303 ug/L	7.3303 ppb	17:39:07
3	Si 251.611†	979921.7	895751.7	27038 ug/L	27038 ppb	17:38:47
3	Sn 189.927†	-125.4	-122.2	-17.646 ug/L	-17.646 ppb	17:39:07
3	Ti 334.940†	-2586.2	-546.7	-0.2081 ug/L	-0.2081 ppb	17:38:47
3	Tl 190.801†	-62.6	0.0	0.0494 ug/L	0.0494 ppb	17:39:07
3	U 409.014†	-2782.7	592.0	18.224 ug/L	18.224 ppb	17:38:47
3	V 292.402†	-922.5	966.3	6.6098 ug/L	6.6098 ppb	17:39:07
3	Zn 213.857†	1247.7	329.8	2.7315 ug/L	2.7315 ppb	17:39:07
3	SiO2†	981738.8	897303.0	58165 ug/L	58165 ppb	17:39:25

Mean Data: 243104002|935027|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	893718.1	108.13	%	1.252				1.16%
Sc Radial	4888.8	108	%	1.4				1.33%
Y 371.029	755399.4	106.90	%	1.212				1.13%
Y RADIAL	5073.9	106.7	%	0.86				0.81%
Ag 328.068†	29.4	-0.0562	ug/L	0.14421	-0.0562	ppb	0.14421	256.82%
Al 396.153Radial†	43.2	38.496	ug/L	16.7597	38.496	ppb	16.7597	43.54%
As 188.979†	8.8	3.2273	ug/L	1.15087	3.2273	ppb	1.15087	35.66%
B 249.677†	931.6	19.878	ug/L	0.4514	19.878	ppb	0.4514	2.27%
Ba 233.527†	3953.7	30.407	ug/L	0.2776	30.407	ppb	0.2776	0.91%
Be 313.107†	446.0	0.1569	ug/L	0.03742	0.1569	ppb	0.03742	23.85%
Ca 317.933Radial†	8222.2	13864	ug/L	148.6	13864	ppb	148.6	1.07%
Cd 226.502†	46.4	0.4571	ug/L	0.08837	0.4571	ppb	0.08837	19.33%
Co 228.616†	-3.2	-0.0359	ug/L	0.08355	-0.0359	ppb	0.08355	232.87%
Cr 267.716†	211.3	2.2438	ug/L	0.16769	2.2438	ppb	0.16769	7.47%
Cu 324.752†	-451.3	-1.4102	ug/L	0.27420	-1.4102	ppb	0.27420	19.44%
Fe 238.204 Radial†	1.6	14.422	ug/L	13.8791	14.422	ppb	13.8791	96.24%
K 766.490 Radial†	8200.4	1729.8	ug/L	24.64	1729.8	ppb	24.64	1.42%

Mg 279.077 IEC†	114.8	3742.7	ug/L	83.97	3742.7	ppb	83.97	2.24%
Mn 257.610†	9424.4	10.366	ug/L	0.0309	10.366	ppb	0.0309	0.30%
Mo 202.031†	73.9	4.9073	ug/L	0.59710	4.9073	ppb	0.59710	12.17%
Na 589.592 Radial†	42105.6	13123	ug/L	124.6	13123	ppb	124.6	0.95%
Ni 231.604†	62.6	1.4453	ug/L	0.29285	1.4453	ppb	0.29285	20.26%
P 214.914†	93.8	48.142	ug/L	4.0319	48.142	ppb	4.0319	8.38%
Pb 220.353†	9.9	1.0945	ug/L	0.21681	1.0945	ppb	0.21681	19.81%
S 181.975 Axial†	1317.3	1582.6	ug/L	21.27	1582.6	ppb	21.27	1.34%
Sb 206.836†	3.7	0.9113	ug/L	1.27925	0.9113	ppb	1.27925	140.37%
Se 196.026†	5.2	2.8386	ug/L	4.22507	2.8386	ppb	4.22507	148.84%
Si 251.611†	894720.3	27006	ug/L	28.4	27006	ppb	28.4	0.11%
Sn 189.927†	-115.9	-16.651	ug/L	0.9935	-16.651	ppb	0.9935	5.97%
Sr 421.552†	9880.9	72.926	ug/L	0.8778	72.926	ppb	0.8778	1.20%
Ti 334.940†	-586.4	-0.2675	ug/L	0.13539	-0.2675	ppb	0.13539	50.62%
Tl 190.801†	3.6	1.0721	ug/L	1.28219	1.0721	ppb	1.28219	119.59%
U 409.014†	607.8	18.713	ug/L	1.9497	18.713	ppb	1.9497	10.42%
V 292.402†	973.6	6.6646	ug/L	0.06479	6.6646	ppb	0.06479	0.97%
Zn 213.857†	338.5	2.8026	ug/L	0.06432	2.8026	ppb	0.06432	2.30%
SiO2†	902369.2	58494	ug/L	482.3	58494	ppb	482.3	0.82%

Sequence No.: 29
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 1/4/2010 17:41:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4734.1	4734.1	104	%			17:43:28
1	Y RADIAL	4956.6	4956.6	104.3	%			17:43:28
1	Al 396.153Radial†	5815.3	5590.0	4986.4	ug/L	4986.4	ppb	17:43:28
1	Ca 317.933Radial†	3155.6	3006.4	5069.4	ug/L	5069.4	ppb	17:43:48
1	Fe 238.204 Radial†	595.4	558.3	5019.4	ug/L	5019.4	ppb	17:43:48
1	K 766.490 Radial†	27586.7	23313.5	4930.3	ug/L	4930.3	ppb	17:43:28
1	Mg 279.077 IEC†	165.2	155.3	5068.7	ug/L	5068.7	ppb	17:43:48
1	Na 589.592 Radial†	30952.9	31201.0	9724.3	ug/L	9724.3	ppb	17:43:28
1	Sr 421.552†	69796.6	66842.8	494.15	ug/L	494.15	ppb	17:43:28
1	Sc 361.383	879264.8	879264.8	106.38	%			17:44:47
1	Y 371.029	742560.0	742560.0	105.08	%			17:44:47
1	Ag 328.068†	116860.9	109450.1	497.42	ug/L	497.42	ppb	17:44:47
1	As 188.979†	1392.9	1344.5	502.83	ug/L	502.83	ppb	17:45:07
1	B 249.677†	23801.4	23295.0	495.17	ug/L	495.17	ppb	17:44:47
1	Ba 233.527†	69170.5	65021.1	501.06	ug/L	501.06	ppb	17:44:47
1	Be 313.107†	1485895.2	1401384.3	499.97	ug/L	499.97	ppb	17:44:47
1	Cd 226.502†	53701.4	50742.8	500.48	ug/L	500.48	ppb	17:44:47
1	Co 228.616†	26695.4	25199.6	495.16	ug/L	495.16	ppb	17:45:07
1	Cr 267.716†	50040.8	46921.0	497.86	ug/L	497.86	ppb	17:44:47
1	Cu 324.752†	177733.8	159131.8	497.79	ug/L	497.79	ppb	17:44:47
1	Mn 257.610†	483211.3	453582.8	502.57	ug/L	502.57	ppb	17:44:47
1	Mo 202.031†	8055.9	7547.6	501.22	ug/L	501.22	ppb	17:45:07
1	Ni 231.604†	22933.9	21446.6	494.72	ug/L	494.72	ppb	17:45:07
1	P 214.914†	5434.4	4842.5	2411.3	ug/L	2411.3	ppb	17:45:07
1	Pb 220.353†	4811.5	4619.0	503.12	ug/L	503.12	ppb	17:45:07
1	S 181.975 Axial†	950.3	829.2	995.20	ug/L	995.20	ppb	17:45:07
1	Sb 206.836†	1736.6	1586.4	499.32	ug/L	499.32	ppb	17:45:07
1	Se 196.026†	957.5	935.5	519.67	ug/L	519.67	ppb	17:45:07
1	Si 251.611†	87676.2	81561.3	2450.0	ug/L	2450.0	ppb	17:44:47
1	Sn 189.927†	3418.4	3205.8	500.88	ug/L	500.88	ppb	17:45:07
1	Ti 334.940†	319957.9	302579.1	506.40	ug/L	506.40	ppb	17:44:47
1	Tl 190.801†	1795.4	1745.0	506.96	ug/L	506.96	ppb	17:45:07
1	U 409.014†	13635.6	15955.5	489.81	ug/L	489.81	ppb	17:44:47
1	V 292.402†	77703.5	74851.4	504.55	ug/L	504.55	ppb	17:44:47
1	Zn 213.857†	62207.4	57662.9	496.40	ug/L	496.40	ppb	17:44:47
1	SiO2†	88874.5	82576.4	5327.0	ug/L	5327.0	ppb	17:46:07
2	Sc Radial	4764.3	4764.3	105	%			17:43:53
2	Y RADIAL	4935.1	4935.1	103.8	%			17:43:53
2	Al 396.153Radial†	5866.9	5603.9	4998.8	ug/L	4998.8	ppb	17:43:53
2	Ca 317.933Radial†	3145.6	2977.8	5021.1	ug/L	5021.1	ppb	17:44:13
2	Fe 238.204 Radial†	596.5	555.6	4995.9	ug/L	4995.9	ppb	17:44:13
2	K 766.490 Radial†	27881.9	23427.3	4954.5	ug/L	4954.5	ppb	17:43:53
2	Mg 279.077 IEC†	172.6	161.3	5265.4	ug/L	5265.4	ppb	17:44:13
2	Na 589.592 Radial†	31024.0	31081.3	9687.0	ug/L	9687.0	ppb	17:43:53
2	Sr 421.552†	70184.2	66789.0	493.76	ug/L	493.76	ppb	17:43:53
2	Sc 361.383	880567.2	880567.2	106.54	%			17:45:14
2	Y 371.029	743527.2	743527.2	105.22	%			17:45:14
2	Ag 328.068†	116814.8	109244.3	496.48	ug/L	496.48	ppb	17:45:14
2	As 188.979†	1397.5	1346.8	503.69	ug/L	503.69	ppb	17:45:34
2	B 249.677†	23848.4	23306.1	495.40	ug/L	495.40	ppb	17:45:14
2	Ba 233.527†	69250.5	65000.0	500.89	ug/L	500.89	ppb	17:45:14
2	Be 313.107†	1486690.1	1400064.7	499.49	ug/L	499.49	ppb	17:45:14
2	Cd 226.502†	53802.0	50762.6	500.68	ug/L	500.68	ppb	17:45:14
2	Co 228.616†	26831.7	25290.4	496.95	ug/L	496.95	ppb	17:45:34
2	Cr 267.716†	50071.0	46879.8	497.42	ug/L	497.42	ppb	17:45:14
2	Cu 324.752†	176995.2	158191.4	494.85	ug/L	494.85	ppb	17:45:14
2	Mn 257.610†	483385.9	453074.9	502.00	ug/L	502.00	ppb	17:45:14
2	Mo 202.031†	8110.7	7587.7	503.89	ug/L	503.89	ppb	17:45:34
2	Ni 231.604†	23067.9	21540.5	496.89	ug/L	496.89	ppb	17:45:34

2	P 214.914†	5464.6	4863.2	2422.5 ug/L	2422.5 ppb	17:45:34
2	Pb 220.353†	4856.7	4654.7	507.01 ug/L	507.01 ppb	17:45:34
2	S 181.975 Axial†	959.5	836.5	1004.0 ug/L	1004.0 ppb	17:45:34
2	Sb 206.836†	1743.8	1590.8	500.78 ug/L	500.78 ppb	17:45:34
2	Se 196.026†	962.0	938.4	521.13 ug/L	521.13 ppb	17:45:34
2	Si 251.611†	87600.6	81368.5	2444.1 ug/L	2444.1 ppb	17:45:14
2	Sn 189.927†	3432.3	3214.1	502.16 ug/L	502.16 ppb	17:45:34
2	Ti 334.940†	319475.2	301681.1	504.89 ug/L	504.89 ppb	17:45:14
2	Tl 190.801†	1794.8	1741.9	506.05 ug/L	506.05 ppb	17:45:34
2	U 409.014†	13644.0	15944.4	489.47 ug/L	489.47 ppb	17:45:14
2	V 292.402†	77601.0	74647.2	503.24 ug/L	503.24 ppb	17:45:14
2	Zn 213.857†	62249.2	57615.7	495.97 ug/L	495.97 ppb	17:45:14
2	SiO2†	87753.7	81400.8	5250.6 ug/L	5250.6 ppb	17:46:12
3	Sc Radial	4723.9	4723.9	104 %		17:44:18
3	Y RADIAL	4937.9	4937.9	103.9 %		17:44:18
3	Al 396.153Radial†	5806.3	5593.4	4989.5 ug/L	4989.5 ppb	17:44:18
3	Ca 317.933Radial†	3182.2	3038.4	5123.4 ug/L	5123.4 ppb	17:44:38
3	Fe 238.204 Radial†	605.2	568.9	5114.7 ug/L	5114.7 ppb	17:44:38
3	K 766.490 Radial†	27564.4	23349.2	4937.9 ug/L	4937.9 ppb	17:44:18
3	Mg 279.077 IEC†	174.1	164.2	5358.9 ug/L	5358.9 ppb	17:44:38
3	Na 589.592 Radial†	30819.3	31136.9	9704.3 ug/L	9704.3 ppb	17:44:18
3	Sr 421.552†	69551.3	66751.8	493.48 ug/L	493.48 ppb	17:44:18
3	Sc 361.383	881385.1	881385.1	106.64 %		17:45:42
3	Y 371.029	744155.0	744155.0	105.31 %		17:45:42
3	Ag 328.068†	117415.7	109706.1	498.61 ug/L	498.61 ppb	17:45:42
3	As 188.979†	1396.8	1344.9	503.03 ug/L	503.03 ppb	17:46:02
3	B 249.677†	23965.7	23395.3	497.29 ug/L	497.29 ppb	17:45:42
3	Ba 233.527†	69520.6	65193.0	502.38 ug/L	502.38 ppb	17:45:42
3	Be 313.107†	1493761.7	1405401.0	501.40 ug/L	501.40 ppb	17:45:42
3	Cd 226.502†	53932.5	50838.1	501.41 ug/L	501.41 ppb	17:45:42
3	Co 228.616†	26728.2	25170.0	494.57 ug/L	494.57 ppb	17:46:02
3	Cr 267.716†	50383.0	47128.7	500.07 ug/L	500.07 ppb	17:45:42
3	Cu 324.752†	178026.3	159004.2	497.40 ug/L	497.40 ppb	17:45:42
3	Mn 257.610†	485822.8	454939.0	504.08 ug/L	504.08 ppb	17:45:42
3	Mo 202.031†	8047.7	7521.6	499.51 ug/L	499.51 ppb	17:46:02
3	Ni 231.604†	22936.5	21397.1	493.58 ug/L	493.58 ppb	17:46:02
3	P 214.914†	5419.7	4816.4	2397.9 ug/L	2397.9 ppb	17:46:02
3	Pb 220.353†	4828.2	4623.7	503.63 ug/L	503.63 ppb	17:46:02
3	S 181.975 Axial†	951.7	828.3	994.12 ug/L	994.12 ppb	17:46:02
3	Sb 206.836†	1746.4	1591.7	500.88 ug/L	500.88 ppb	17:46:02
3	Se 196.026†	964.7	940.1	522.37 ug/L	522.37 ppb	17:46:02
3	Si 251.611†	88111.6	81771.4	2456.4 ug/L	2456.4 ppb	17:45:42
3	Sn 189.927†	3427.2	3206.3	500.96 ug/L	500.96 ppb	17:46:02
3	Ti 334.940†	321331.4	303143.5	507.34 ug/L	507.34 ppb	17:45:42
3	Tl 190.801†	1784.7	1730.9	502.90 ug/L	502.90 ppb	17:46:02
3	U 409.014†	13593.0	15884.8	487.61 ug/L	487.61 ppb	17:45:42
3	V 292.402†	77819.5	74784.5	504.07 ug/L	504.07 ppb	17:45:42
3	Zn 213.857†	62583.8	57875.3	498.24 ug/L	498.24 ppb	17:45:42
3	SiO2†	87475.4	81063.5	5228.9 ug/L	5228.9 ppb	17:46:17

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	880405.7	106.52	%	0.129				0.12%
Sc Radial	4740.8	105	%	0.5				0.44%
Y 371.029	743414.0	105.20	%	0.114				0.11%
Y RADIAL	4943.2	104.0	%	0.25				0.24%
Ag 328.068†	109466.8	497.51	ug/L	1.067	497.51	ppb	1.067	0.21%
QC value within limits for Ag 328.068 Recovery = 99.50%								
Al 396.153Radial†	5595.8	4991.6	ug/L	6.42	4991.6	ppb	6.42	0.13%
QC value within limits for Al 396.153Radial Recovery = 99.83%								
As 188.979†	1345.4	503.19	ug/L	0.449	503.19	ppb	0.449	0.09%
QC value within limits for As 188.979 Recovery = 100.64%								
B 249.677†	23332.1	495.95	ug/L	1.167	495.95	ppb	1.167	0.24%
QC value within limits for B 249.677 Recovery = 99.19%								
Ba 233.527†	65071.4	501.45	ug/L	0.816	501.45	ppb	0.816	0.16%
QC value within limits for Ba 233.527 Recovery = 100.29%								
Be 313.107†	1402283.3	500.29	ug/L	0.992	500.29	ppb	0.992	0.20%
QC value within limits for Be 313.107 Recovery = 100.06%								
Ca 317.933Radial†	3007.5	5071.3	ug/L	51.16	5071.3	ppb	51.16	1.01%

```
   QC value within limits for Ca 317.933Radial  Recovery = 101.43%
Cd 226.502†            50781.2      500.86 ug/L         0.490      500.86 ppb          0.490   0.10%
   QC value within limits for Cd 226.502  Recovery = 100.17%
Co 228.616†            25220.0      495.56 ug/L         1.242      495.56 ppb          1.242   0.25%
   QC value within limits for Co 228.616  Recovery = 99.11%
Cr 267.716†            46976.5      498.45 ug/L         1.415      498.45 ppb          1.415   0.28%
   QC value within limits for Cr 267.716  Recovery = 99.69%
Cu 324.752†           158775.8      496.68 ug/L         1.597      496.68 ppb          1.597   0.32%
   QC value within limits for Cu 324.752  Recovery = 99.34%
Fe 238.204 Radial†       560.9      5043.3 ug/L        62.93      5043.3 ppb         62.93   1.25%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.87%
K 766.490 Radial†      23363.3      4940.9 ug/L        12.36      4940.9 ppb         12.36   0.25%
   QC value within limits for K 766.490 Radial  Recovery = 98.82%
Mg 279.077 IEC†          160.2      5231.0 ug/L       148.11      5231.0 ppb        148.11   2.83%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.62%
Mn 257.610†           453865.6      502.88 ug/L         1.072      502.88 ppb          1.072   0.21%
   QC value within limits for Mn 257.610  Recovery = 100.58%
Mo 202.031†             7552.3      501.54 ug/L         2.204      501.54 ppb          2.204   0.44%
   QC value within limits for Mo 202.031  Recovery = 100.31%
Na 589.592 Radial†     31139.7      9705.2 ug/L        18.67      9705.2 ppb         18.67   0.19%
   QC value within limits for Na 589.592 Radial  Recovery = 97.05%
Ni 231.604†            21461.4      495.06 ug/L         1.680      495.06 ppb          1.680   0.34%
   QC value within limits for Ni 231.604  Recovery = 99.01%
P 214.914†              4840.7      2410.5 ug/L        12.31      2410.5 ppb         12.31   0.51%
   QC value within limits for P 214.914  Recovery = 96.42%
Pb 220.353†             4632.5      504.59 ug/L         2.115      504.59 ppb          2.115   0.42%
   QC value within limits for Pb 220.353  Recovery = 100.92%
S 181.975 Axial†         831.3      997.76 ug/L         5.401      997.76 ppb          5.401   0.54%
   QC value within limits for S 181.975 Axial  Recovery = 99.78%
Sb 206.836†             1589.7      500.33 ug/L         0.871      500.33 ppb          0.871   0.17%
   QC value within limits for Sb 206.836  Recovery = 100.07%
Se 196.026†              938.0      521.05 ug/L         1.349      521.05 ppb          1.349   0.26%
   QC value within limits for Se 196.026  Recovery = 104.21%
Si 251.611†            81567.1      2450.2 ug/L         6.13      2450.2 ppb          6.13   0.25%
   QC value within limits for Si 251.611  Recovery = 98.01%
Sn 189.927†             3208.7      501.33 ug/L         0.718      501.33 ppb          0.718   0.14%
   QC value within limits for Sn 189.927  Recovery = 100.27%
Sr 421.552†            66794.5      493.80 ug/L         0.338      493.80 ppb          0.338   0.07%
   QC value within limits for Sr 421.552  Recovery = 98.76%
Ti 334.940†           302467.9      506.21 ug/L         1.237      506.21 ppb          1.237   0.24%
   QC value within limits for Ti 334.940  Recovery = 101.24%
Tl 190.801†             1739.3      505.30 ug/L         2.131      505.30 ppb          2.131   0.42%
   QC value within limits for Tl 190.801  Recovery = 101.06%
U 409.014†             15928.2      488.97 ug/L         1.182      488.97 ppb          1.182   0.24%
   QC value within limits for U 409.014  Recovery = 97.79%
V 292.402†             74761.0      503.95 ug/L         0.663      503.95 ppb          0.663   0.13%
   QC value within limits for V 292.402  Recovery = 100.79%
Zn 213.857†            57718.0      496.87 ug/L         1.202      496.87 ppb          1.202   0.24%
   QC value within limits for Zn 213.857  Recovery = 99.37%
SiO2†                  81680.2      5268.8 ug/L        51.48      5268.8 ppb         51.48   0.98%
   QC value within limits for SiO2  Recovery = 98.53%
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 1/4/2010 17:48:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4844.4	4844.4	107	%			17:50:21
1	Y RADIAL	5054.5	5054.5	106.3	%			17:50:21
1	Al 396.153Radial†	-17.3	5.7	5.0727	ug/L	5.0727	ppb	17:50:21
1	Ca 317.933Radial†	24.1	7.4	12.487	ug/L	12.487	ppb	17:50:41
1	Fe 238.204 Radial†	13.6	0.9	7.9150	ug/L	7.9150	ppb	17:50:41
1	K 766.490 Radial†	3128.9	-173.2	-36.712	ug/L	-36.712	ppb	17:50:21
1	Mg 279.077 IEC†	1.6	-1.4	-46.742	ug/L	-46.742	ppb	17:50:41
1	Na 589.592 Radial†	-1507.0	153.4	47.818	ug/L	47.818	ppb	17:50:21
1	Sr 421.552†	-0.9	11.4	0.0840	ug/L	0.0840	ppb	17:50:21
1	Sc 361.383	864507.5	864507.5	104.60	%			17:51:37
1	Y 371.029	738073.2	738073.2	104.44	%			17:51:37
1	Ag 328.068†	520.2	98.5	0.4429	ug/L	0.4429	ppb	17:51:37
1	As 188.979†	-38.8	-2.0	-0.7401	ug/L	-0.7401	ppb	17:51:57
1	B 249.677†	-583.3	364.1	7.7686	ug/L	7.7686	ppb	17:51:57
1	Ba 233.527†	-21.0	-19.0	-0.1450	ug/L	-0.1450	ppb	17:51:57
1	Be 313.107†	-4444.1	398.4	0.1419	ug/L	0.1419	ppb	17:51:37
1	Cd 226.502†	-249.8	24.9	0.2449	ug/L	0.2449	ppb	17:51:57
1	Co 228.616†	-111.2	-0.3	-0.0068	ug/L	-0.0068	ppb	17:51:57
1	Cr 267.716†	134.0	10.9	0.1141	ug/L	0.1141	ppb	17:51:57
1	Cu 324.752†	8025.8	-264.4	-0.8264	ug/L	-0.8264	ppb	17:51:37
1	Mn 257.610†	545.5	-113.0	-0.1234	ug/L	-0.1234	ppb	17:51:57
1	Mo 202.031†	23.6	-2.4	-0.1614	ug/L	-0.1614	ppb	17:51:57
1	Ni 231.604†	135.3	18.2	0.4191	ug/L	0.4191	ppb	17:51:57
1	P 214.914†	264.1	-13.4	-6.7445	ug/L	-6.7445	ppb	17:51:57
1	Pb 220.353†	-100.1	0.5	0.0570	ug/L	0.0570	ppb	17:51:57
1	S 181.975 Axial†	65.2	-1.8	-2.1127	ug/L	-2.1127	ppb	17:51:57
1	Sb 206.836†	50.7	2.5	0.7749	ug/L	0.7749	ppb	17:51:57
1	Se 196.026†	-51.3	-13.6	-7.2931	ug/L	-7.2931	ppb	17:51:57
1	Si 251.611†	772.2	-115.8	-3.4809	ug/L	-3.4809	ppb	17:51:57
1	Sn 189.927†	5.7	-2.0	-0.3126	ug/L	-0.3126	ppb	17:51:57
1	Ti 334.940†	-1870.8	31.0	0.0495	ug/L	0.0495	ppb	17:51:37
1	Tl 190.801†	-41.3	17.9	5.1537	ug/L	5.1537	ppb	17:51:57
1	U 409.014†	-3053.3	219.0	6.7427	ug/L	6.7427	ppb	17:51:37
1	V 292.402†	-1834.3	56.7	0.3857	ug/L	0.3857	ppb	17:51:37
1	Zn 213.857†	900.7	49.3	0.4274	ug/L	0.4274	ppb	17:51:57
1	SiO2†	769.7	-229.6	-14.845	ug/L	-14.845	ppb	17:52:53
2	Sc Radial	4812.4	4812.4	106	%			17:50:46
2	Y RADIAL	5031.4	5031.4	105.8	%			17:50:46
2	Al 396.153Radial†	-5.5	16.6	14.888	ug/L	14.888	ppb	17:50:46
2	Ca 317.933Radial†	22.9	6.5	10.884	ug/L	10.884	ppb	17:51:06
2	Fe 238.204 Radial†	11.6	-1.0	-8.5873	ug/L	-8.5873	ppb	17:51:06
2	K 766.490 Radial†	3135.0	-148.0	-31.385	ug/L	-31.385	ppb	17:50:46
2	Mg 279.077 IEC†	4.4	1.3	41.080	ug/L	41.080	ppb	17:51:06
2	Na 589.592 Radial†	-1419.2	226.7	70.663	ug/L	70.663	ppb	17:50:46
2	Sr 421.552†	-31.9	-17.9	-0.1323	ug/L	-0.1323	ppb	17:50:46
2	Sc 361.383	865395.9	865395.9	104.71	%			17:52:03
2	Y 371.029	739570.3	739570.3	104.66	%			17:52:03
2	Ag 328.068†	459.1	39.6	0.1755	ug/L	0.1755	ppb	17:52:03
2	As 188.979†	-30.5	6.0	2.2163	ug/L	2.2163	ppb	17:52:23
2	B 249.677†	-579.9	368.0	7.8524	ug/L	7.8524	ppb	17:52:23
2	Ba 233.527†	5.6	6.4	0.0507	ug/L	0.0507	ppb	17:52:23
2	Be 313.107†	-4404.8	440.2	0.1571	ug/L	0.1571	ppb	17:52:03
2	Cd 226.502†	-261.9	13.6	0.1345	ug/L	0.1345	ppb	17:52:23
2	Co 228.616†	-104.7	6.0	0.1190	ug/L	0.1190	ppb	17:52:23
2	Cr 267.716†	113.4	-8.9	-0.0942	ug/L	-0.0942	ppb	17:52:23
2	Cu 324.752†	8013.2	-284.4	-0.8896	ug/L	-0.8896	ppb	17:52:03
2	Mn 257.610†	571.9	-88.3	-0.0993	ug/L	-0.0993	ppb	17:52:23
2	Mo 202.031†	33.8	7.3	0.4806	ug/L	0.4806	ppb	17:52:23
2	Ni 231.604†	106.1	-9.9	-0.2291	ug/L	-0.2291	ppb	17:52:23

2	P 214.914†	261.8	-15.8	-7.9702 ug/L	-7.9702 ppb	17:52:23
2	Pb 220.353†	-87.9	12.3	1.3377 ug/L	1.3377 ppb	17:52:23
2	S 181.975 Axial†	62.6	-4.3	-5.1910 ug/L	-5.1910 ppb	17:52:23
2	Sb 206.836†	49.2	1.0	0.3446 ug/L	0.3446 ppb	17:52:23
2	Se 196.026†	-54.0	-16.1	-8.6806 ug/L	-8.6806 ppb	17:52:23
2	Si 251.611†	771.0	-117.7	-3.5537 ug/L	-3.5537 ppb	17:52:23
2	Sn 189.927†	12.5	4.4	0.6916 ug/L	0.6916 ppb	17:52:23
2	Ti 334.940†	-1793.6	106.6	0.1775 ug/L	0.1775 ppb	17:52:03
2	Tl 190.801†	-61.4	-1.4	-0.3994 ug/L	-0.3994 ppb	17:52:23
2	U 409.014†	-3166.7	113.7	3.5033 ug/L	3.5033 ppb	17:52:03
2	V 292.402†	-1793.2	97.8	0.6661 ug/L	0.6661 ppb	17:52:03
2	Zn 213.857†	898.5	46.3	0.4039 ug/L	0.4039 ppb	17:52:23
2	SiO2†	729.0	-269.2	-17.448 ug/L	-17.448 ppb	17:52:58
3	Sc Radial	4723.7	4723.7	104 %		17:51:11
3	Y RADIAL	4954.0	4954.0	104.2 %		17:51:11
3	Al 396.153Radial†	-22.3	0.4	0.3431 ug/L	0.3431 ppb	17:51:11
3	Ca 317.933Radial†	26.3	10.1	17.002 ug/L	17.002 ppb	17:51:31
3	Fe 238.204 Radial†	12.8	0.4	3.9287 ug/L	3.9287 ppb	17:51:31
3	K 766.490 Radial†	3112.1	-114.5	-24.269 ug/L	-24.269 ppb	17:51:11
3	Mg 279.077 IEC†	2.1	-0.9	-28.636 ug/L	-28.636 ppb	17:51:31
3	Na 589.592 Radial†	-1496.6	127.3	39.687 ug/L	39.687 ppb	17:51:11
3	Sr 421.552†	-11.0	1.6	0.0116 ug/L	0.0116 ppb	17:51:11
3	Sc 361.383	868597.3	868597.3	105.09 %		17:52:28
3	Y 371.029	742195.8	742195.8	105.03 %		17:52:28
3	Ag 328.068†	529.9	105.4	0.4767 ug/L	0.4767 ppb	17:52:28
3	As 188.979†	-34.2	2.6	0.9505 ug/L	0.9505 ppb	17:52:48
3	B 249.677†	-587.0	363.2	7.7482 ug/L	7.7482 ppb	17:52:48
3	Ba 233.527†	14.3	14.6	0.1149 ug/L	0.1149 ppb	17:52:48
3	Be 313.107†	-4511.1	354.6	0.1266 ug/L	0.1266 ppb	17:52:28
3	Cd 226.502†	-274.3	2.7	0.0261 ug/L	0.0261 ppb	17:52:48
3	Co 228.616†	-83.6	26.5	0.5203 ug/L	0.5203 ppb	17:52:48
3	Cr 267.716†	84.4	-36.8	-0.3899 ug/L	-0.3899 ppb	17:52:48
3	Cu 324.752†	8138.4	-193.5	-0.6047 ug/L	-0.6047 ppb	17:52:28
3	Mn 257.610†	522.8	-137.0	-0.1507 ug/L	-0.1507 ppb	17:52:48
3	Mo 202.031†	27.9	1.6	0.1047 ug/L	0.1047 ppb	17:52:48
3	Ni 231.604†	113.5	-3.2	-0.0740 ug/L	-0.0740 ppb	17:52:48
3	P 214.914†	254.5	-23.7	-12.072 ug/L	-12.072 ppb	17:52:48
3	Pb 220.353†	-100.8	0.3	0.0336 ug/L	0.0336 ppb	17:52:48
3	S 181.975 Axial†	58.9	-8.1	-9.7234 ug/L	-9.7234 ppb	17:52:48
3	Sb 206.836†	54.7	6.1	1.9046 ug/L	1.9046 ppb	17:52:48
3	Se 196.026†	-39.4	-2.0	-1.0830 ug/L	-1.0830 ppb	17:52:48
3	Si 251.611†	769.2	-122.1	-3.6784 ug/L	-3.6784 ppb	17:52:48
3	Sn 189.927†	5.0	-2.7	-0.4228 ug/L	-0.4228 ppb	17:52:48
3	Ti 334.940†	-1811.5	95.8	0.1591 ug/L	0.1591 ppb	17:52:28
3	Tl 190.801†	-48.8	10.8	3.1193 ug/L	3.1193 ppb	17:52:48
3	U 409.014†	-3113.6	175.3	5.3993 ug/L	5.3993 ppb	17:52:28
3	V 292.402†	-1731.5	162.7	1.0929 ug/L	1.0929 ppb	17:52:28
3	Zn 213.857†	887.5	32.7	0.2856 ug/L	0.2856 ppb	17:52:48
3	SiO2†	776.8	-226.3	-14.650 ug/L	-14.650 ppb	17:53:04

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	866166.9	104.80	%	0.260				0.25%
Sc Radial	4793.5	106	%	1.4				1.31%
Y 371.029	739946.4	104.71	%	0.295				0.28%
Y RADIAL	5013.3	105.5	%	1.11				1.05%
Ag 328.068†	81.2	0.3651	ug/L	0.16501	0.3651	ppb	0.16501	45.20%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.6	6.7679	ug/L	7.41899	6.7679	ppb	7.41899	109.62%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.2	0.8089	ug/L	1.48329	0.8089	ppb	1.48329	183.37%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	365.1	7.7898	ug/L	0.05525	7.7898	ppb	0.05525	0.71%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.7	0.0069	ug/L	0.13538	0.0069	ppb	0.13538	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	397.7	0.1419	ug/L	0.01526	0.1419	ppb	0.01526	10.76%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8.0	13.458	ug/L	3.1721	13.458	ppb	3.1721	23.57%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                13.7      0.1352 ug/L       0.10938      0.1352 ppb        0.10938  80.93%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                10.7      0.2108 ug/L       0.27527      0.2108 ppb        0.27527 130.57%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -11.6     -0.1234 ug/L       0.25329     -0.1234 ppb        0.25329 205.34%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -247.4     -0.7735 ug/L       0.14963     -0.7735 ppb        0.14963  19.34%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.1      1.0854 ug/L       8.61071      1.0854 ppb        8.61071 793.29%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -145.2     -30.789 ug/L        6.2432     -30.789 ppb         6.2432  20.28%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.4     -11.433 ug/L       46.3695     -11.433 ppb        46.3695 405.59%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -112.7     -0.1245 ug/L       0.02570     -0.1245 ppb        0.02570  20.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                2.1      0.1413 ug/L       0.32253      0.1413 ppb        0.32253 228.28%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       169.2      52.723 ug/L       16.0600      52.723 ppb        16.0600  30.46%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                1.7      0.0386 ug/L       0.33845      0.0386 ppb        0.33845 875.78%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -17.6     -8.9288 ug/L       2.78994     -8.9288 ppb        2.78994  31.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                4.4      0.4761 ug/L       0.74628      0.4761 ppb        0.74628 156.75%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -4.7     -5.6757 ug/L       3.82842     -5.6757 ppb        3.82842  67.45%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                3.2      1.0080 ug/L       0.80571      1.0080 ppb        0.80571  79.93%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -10.6     -5.6855 ug/L       4.04585     -5.6855 ppb        4.04585  71.16%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -118.6     -3.5710 ug/L       0.09988     -3.5710 ppb        0.09988   2.80%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.1     -0.0146 ug/L       0.61403     -0.0146 ppb        0.61403 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -1.6     -0.0122 ug/L       0.11011     -0.0122 ppb        0.11011 902.30%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               77.8      0.1287 ug/L       0.06919      0.1287 ppb        0.06919  53.76%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                9.1      2.6245 ug/L       2.80942      2.6245 ppb        2.80942 107.04%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               169.3      5.2151 ug/L       1.62755      5.2151 ppb        1.62755  31.21%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               105.7      0.7149 ug/L       0.35612      0.7149 ppb        0.35612  49.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               42.8      0.3723 ug/L       0.07602      0.3723 ppb        0.07602  20.42%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -241.7     -15.648 ug/L        1.5620     -15.648 ppb         1.5620   9.98%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Sunday, January 03, 2010 14:14:04
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1646
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	4529.7	4529.718	79.085	1.7
	Mg	24.0	48383.4	48383.404	575.294	1.2
	Co	58.9	93399.2	93399.174	1332.998	1.4
	Rh	102.9	177381.9	177381.878	885.008	0.5
	In	114.9	233658.3	233658.280	2035.639	0.9
	Pb	208.0	265884.5	265884.502	3858.984	1.5
⌈>	Ba	137.9	237479.3	237479.332	1260.587	0.5
⌊	Ba++	69.0	5196.0	0.022	0.000	0.9
⌈>	Ce	139.9	293550.0	293549.998	3117.206	1.1
⌊	CeO	155.9	6435.4	0.022	0.000	1.2
	Bkgd	220.0	18.2	18.200	2.564	14.1

Current Optimization File Data

Current Value	Description
0.85	Nebulizer Gas Flow
7.00	Lens Voltage
1450.00	ICP RF Power
-1687.50	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	13	8.3	5205.6
Co	59	13	8.8	90127.4
In	115	13	10.3	227698.6

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	595	2065	0.579
Be	9.0	9.0	2059	2070	0.620
Mg	24.0	24.0	5695	2070	0.648
Mg	25.0	25.0	5935	2070	0.610
Mg	26.0	25.9	6172	2070	0.628
Co	58.9	58.9	14188	2105	0.608
Rh	102.9	102.9	24884	2165	0.604
In	114.9	114.9	27798	2185	0.599
Ce	139.9	139.9	33870	2200	0.627
Pb	206.0	206.0	49948	2270	0.665
Pb	207.0	207.0	50171	2235	0.674
Pb	208.0	208.0	50451	2260	0.711
U	238.1	238.1	57736	2275	0.727

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Sunday, January 03, 2010 14:20:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100103\Blank.041

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7		ug/L		204	
	Be	9		ug/L		20	
	B	11		ug/L		846	
	Na	23		ug/L		17344	
	Mg	24		ug/L		0	
	Al	27		ug/L		4001	
	P	31		ug/L		7457	
	K	39		ug/L		585435	
	Ca	43		ug/L		331	
>	Sc	45		ug/L		1566474	
	Ti	47		ug/L		441	
	V	51		ug/L		13503	
	Cr	52		ug/L		1794	
	Cr	53		ug/L		114860	
	Mn	55		ug/L		1313	
	Fe	57		ug/L		5653	
	Co	59		ug/L		160	
	Ni	60		ug/L		80	
	Cu	63		ug/L		326	
	Cu	65		ug/L		182	
	Zn	66		ug/L		405	
	Zn	67		ug/L		16458	
	Zn	68		ug/L		1644	
>	Ge	74		ug/L		519215	
	As	75		ug/L		-39	
	Se	77		ug/L		6231	
	Se	82		ug/L		-57	
	Kr	83		ug/L		169	
	Sr	88		ug/L		188	
	Y	89		ug/L		73	
	Mo	98		ug/L		86	
	Ag	107		ug/L		47	
	Cd	111		ug/L		24	
	Cd	114		ug/L		46	
>	In	115		ug/L		317225	
	Sn	120		ug/L		700	
	Sb	121		ug/L		5174	
	Sb	123		ug/L		4088	
	Ba	135		ug/L		34	
	Ba	137		ug/L		49	
	Ho	165		ug/L		32	
>	Lu	175		ug/L		620256	
	Tl	205		ug/L		482	
	Pb	208		ug/L		399	
	Bi	209		ug/L		207	
	Th	232		ug/L		1861	
	U	238		ug/L		418	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Simple Linear	
Be	9	Simple Linear	
B	11	Simple Linear	
Na	23	Simple Linear	
Mg	24	Simple Linear	
Al	27	Simple Linear	
P	31	Simple Linear	
K	39	Simple Linear	
Ca	43	Simple Linear	
Sc	45	Simple Linear	
Ti	47	Simple Linear	
V	51	Simple Linear	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Mn	55	Simple Linear	
Fe	57	Simple Linear	
Co	59	Simple Linear	
Ni	60	Simple Linear	
Cu	63	Simple Linear	
Cu	65	Simple Linear	
Zn	66	Simple Linear	
Zn	67	Simple Linear	
Zn	68	Simple Linear	
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Sr	88	Simple Linear	
Y	89	Simple Linear	
Mo	98	Simple Linear	
Ag	107	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sn	120	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Ba	135	Simple Linear	
Ba	137	Simple Linear	
Ho	165	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
Bi	209	Simple Linear	
Th	232	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
Li	7					
Be	9					
B	11					
Na	23					
Mg	24					
Al	27					
P	31					
K	39					
Ca	43					
> Sc	45					
Ti	47					
V	51					
Cr	52					
Cr	53					
Mn	55					
Fe	57					
Co	59					
Ni	60					
Cu	63					
Cu	65					
Zn	66					
Zn	67					
Zn	68					
> Ge	74					
As	75					
Se	77					
Se	82					
Kr	83					
Sr	88					
Y	89					
Mo	98					
Ag	107					
Cd	111					
Cd	114					
> In	115					
Sn	120					
Sb	121					
Sb	123					
Ba	135					
Ba	137					
Ho	165					
> Lu	175					
Tl	205					
Pb	208					
Bi	209					
Th	232					
U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Sunday, January 03, 2010 14:26:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100103\Standard 1.042

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	10.000	ug/L	4.721	20614	0.013
	Be	9	10.000	ug/L	2.413	5250	0.003
	B	11	20.000	ug/L	1.197	12239	0.007
	Na	23	1000.000	ug/L	8.437	5262023	3.243
	Mg	24	1000.000	ug/L	3.747	3638677	2.249
	Al	27	1000.000	ug/L	3.273	5707916	3.527
	P	31	1000.000	ug/L	1.346	324521	0.196
	K	39	1000.000	ug/L	5.383	7153087	4.051
	Ca	43	1000.000	ug/L	1.403	16307	0.010
>	Sc	45		ug/L		1617460	1617460.335
	Ti	47	10.000	ug/L	0.571	8497	0.005
	V	51	10.000	ug/L	4.753	109598	0.059
	Cr	52	10.000	ug/L	0.352	74222	0.045
	Cr	53		ug/L		130577	0.007
	Mn	55	10.000	ug/L	1.264	117947	0.072
	Fe	57	1000.000	ug/L	0.722	240438	0.145
	Co	59	10.000	ug/L	1.026	92541	0.057
	Ni	60	10.000	ug/L	3.032	20047	0.012
	Cu	63		ug/L		49141	0.030
	Cu	65	10.000	ug/L	2.194	23845	0.015
	Zn	66	10.000	ug/L	1.160	16311	0.030
	Zn	67		ug/L		20588	0.007
	Zn	68		ug/L		13288	0.022
>	Ge	74		ug/L		532380	532379.639
	As	75	10.000	ug/L	2.920	16083	0.030
	Se	77		ug/L		7620	0.002
	Se	82	10.000	ug/L	3.763	1509	0.003
	Kr	83		ug/L		147	-0.000
	Sr	88	10.000	ug/L	1.993	183773	0.570
	Y	89		ug/L		88	0.000
	Mo	98	10.000	ug/L	3.146	44402	0.138
	Ag	107	10.000	ug/L	2.133	79861	0.248
	Cd	111	10.000	ug/L	2.023	18955	0.059
	Cd	114		ug/L		45031	0.140
>	In	115		ug/L		322340	322340.022
	Sn	120	10.000	ug/L	2.550	79902	0.246
	Sb	121	10.000	ug/L	1.462	73558	0.212
	Sb	123		ug/L		57900	0.167
	Ba	135		ug/L		20914	0.033
	Ba	137	10.000	ug/L	2.696	36680	0.059
	Ho	165		ug/L		31	-0.000
>	Lu	175		ug/L		625521	625520.912
	Tl	205	10.000	ug/L	1.346	312658	0.499
	Pb	208	10.000	ug/L	1.733	486430	0.777
	Bi	209		ug/L		239	0.000
	Th	232	10.000	ug/L	1.202	605097	0.964
	U	238	10.000	ug/L	2.853	650647	1.040

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	1.0000
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Sunday, January 03, 2010 14:32:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100103\Standard 2.043

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**99.995**	**ug/L**	3.739	198231	0.126
	Be	9	**100.016**	**ug/L**	4.299	51847	0.033
	B	11	**199.917**	**ug/L**	2.240	107244	0.067
	Na	23	**10001.469**	**ug/L**	15.608	51810688	32.916
	Mg	24	**10004.752**	**ug/L**	2.011	37260053	23.620
	Al	27	**9997.929**	**ug/L**	7.668	54436324	34.546
	P	31	**10008.767**	**ug/L**	2.632	3396381	2.149
	K	39	**10002.259**	**ug/L**	6.853	65987073	41.451
	Ca	43	**9998.336**	**ug/L**	1.586	153450	0.097
>	Sc	45		**ug/L**		1577501	1577500.869
	Ti	47	**100.004**	**ug/L**	3.561	79151	0.050
	V	51	**99.942**	**ug/L**	3.721	894194	0.559
	Cr	52	**99.971**	**ug/L**	2.148	687458	0.435
	Cr	53		**ug/L**		198553	0.053
	Mn	55	**99.924**	**ug/L**	3.693	1056911	0.670
	Fe	57	**9985.018**	**ug/L**	5.104	1991087	1.260
	Co	59	**99.944**	**ug/L**	3.562	852141	0.540
	Ni	60	**99.975**	**ug/L**	1.526	190085	0.120
	Cu	63		**ug/L**		448123	0.284
	Cu	65	**99.970**	**ug/L**	3.358	224100	0.142
	Zn	66	**99.951**	**ug/L**	2.094	147499	0.284
	Zn	67		**ug/L**		41954	0.049
	Zn	68		**ug/L**		111575	0.213
>	Ge	74		**ug/L**		517158	517157.550
	As	75	**99.994**	**ug/L**	1.557	155661	0.301
	Se	77		**ug/L**		17376	0.022
	Se	82	**99.960**	**ug/L**	1.205	14591	0.028
	Kr	83		**ug/L**		160	-0.000
	Sr	88	**99.910**	**ug/L**	2.300	1610992	5.219
	Y	89		**ug/L**		231	0.001
	Mo	98	**100.019**	**ug/L**	2.225	432930	1.402
	Ag	107	**99.938**	**ug/L**	2.870	719503	2.331
	Cd	111	**99.995**	**ug/L**	1.570	180475	0.585
	Cd	114		**ug/L**		420594	1.362
>	In	115		**ug/L**		308725	308724.913
	Sn	120	**99.985**	**ug/L**	1.326	747931	2.421
	Sb	121	**99.998**	**ug/L**	0.638	658048	2.115
	Sb	123		**ug/L**		524095	1.685
	Ba	135		**ug/L**		201351	0.334
	Ba	137	**100.004**	**ug/L**	1.739	354053	0.588
	Ho	165		**ug/L**		40	0.000
>	Lu	175		**ug/L**		602062	602061.873
	Tl	205	**99.877**	**ug/L**	0.316	2671759	4.437
	Pb	208	**99.868**	**ug/L**	1.513	4128496	6.857
	Bi	209		**ug/L**		563	0.001
	Th	232	**99.850**	**ug/L**	0.929	5043190	8.374
	U	238	**99.892**	**ug/L**	0.610	5642440	9.372

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45					
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Sunday, January 03, 2010 14:38:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100103\QC Std 1.044

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**51.234**	**ug/L**	0.222	102260	0.064
	Be	9	**51.336**	**ug/L**	0.744	26778	0.017
	B	11	**102.735**	**ug/L**	2.320	55814	0.035
	Na	23	**5058.232**	**ug/L**	6.288	26409994	16.647
	Mg	24	**5253.665**	**ug/L**	12.465	19648856	12.403
	Al	27	**4898.373**	**ug/L**	6.974	26829331	16.926
	P	31	**4312.413**	**ug/L**	0.839	1475897	0.926
	K	39	**4795.058**	**ug/L**	3.092	32112403	19.872
	Ca	43	**4961.517**	**ug/L**	2.071	76735	0.048
>	Sc	45		**ug/L**		1585774	1585773.865
	Ti	47	**50.689**	**ug/L**	1.410	40569	0.025
	V	51	**51.499**	**ug/L**	3.420	469967	0.288
	Cr	52	**51.943**	**ug/L**	2.775	360000	0.226
	Cr	53		**ug/L**		160463	0.028
	Mn	55	**53.401**	**ug/L**	1.668	568681	0.358
	Fe	57	**5406.321**	**ug/L**	2.264	1087049	0.682
	Co	59	**50.881**	**ug/L**	2.208	436355	0.275
	Ni	60	**51.990**	**ug/L**	0.859	99419	0.063
	Cu	63		**ug/L**		232825	0.147
	Cu	65	**51.288**	**ug/L**	0.374	115723	0.073
	Zn	66	**52.019**	**ug/L**	1.586	78778	0.148
	Zn	67		**ug/L**		30403	0.026
	Zn	68		**ug/L**		59425	0.109
>	Ge	74		**ug/L**		529374	529374.385
	As	75	**48.700**	**ug/L**	0.856	77585	0.147
	Se	77		**ug/L**		11999	0.011
	Se	82	**49.194**	**ug/L**	0.326	7321	0.014
	Kr	83		**ug/L**		156	-0.000
	Sr	88	**54.031**	**ug/L**	2.084	879188	2.822
	Y	89		**ug/L**		125	0.000
	Mo	98	**50.621**	**ug/L**	1.879	221120	0.710
	Ag	107	**52.192**	**ug/L**	1.817	379204	1.217
	Cd	111	**50.051**	**ug/L**	0.482	91170	0.293
	Cd	114		**ug/L**		214449	0.688
>	In	115		**ug/L**		311526	311525.863
	Sn	120	**51.706**	**ug/L**	2.414	390557	1.252
	Sb	121	**50.744**	**ug/L**	2.542	339410	1.073
	Sb	123		**ug/L**		267930	0.847
	Ba	135		**ug/L**		101577	0.165
	Ba	137	**49.750**	**ug/L**	0.289	180307	0.293
	Ho	165		**ug/L**		60	0.000
>	Lu	175		**ug/L**		616188	616187.932
	Tl	205	**50.033**	**ug/L**	2.117	1369859	2.223
	Pb	208	**52.549**	**ug/L**	0.593	2223652	3.608
	Bi	209		**ug/L**		626	0.001
	Th	232	**50.589**	**ug/L**	1.159	2615974	4.243
	U	238	**51.143**	**ug/L**	1.575	2956932	4.798

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	102.468				
	Be	9	102.672				
	B	11	102.735				
	Na	23	101.165				
	Mg	24	105.073				
	Al	27	96.997				
	P	31	86.248				
	K	39	95.901				
	Ca	43	99.230				
>	Sc	45		101.2			
	Ti	47	101.378				
	V	51	102.998				
	Cr	52	103.886				
	Cr	53					
	Mn	55	106.802				
	Fe	57	108.126				
	Co	59	101.763				
	Ni	60	103.981				
	Cu	63					
	Cu	65	102.576				
	Zn	66	104.039				
	Zn	67					
	Zn	68					
>	Ge	74		102.0			
	As	75	97.400				
	Se	77					
	Se	82	98.388				
	Kr	83					
	Sr	88	108.062				
	Y	89					
	Mo	98	101.241				
	Ag	107	104.384				
	Cd	111	100.101				
	Cd	114					
>	In	115		98.2			
	Sn	120	103.413				
	Sb	121	101.487				
	Sb	123					
	Ba	135					
	Ba	137	99.500				
	Ho	165					
>	Lu	175		99.3			
	Tl	205	100.066				
	Pb	208	105.098				
	Bi	209					
	Th	232	101.179				
	U	238	102.286				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	P	31	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Sunday, January 03, 2010 14:44:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100103\QC Std 2.045

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	-0.038	ug/L	18.717	134	-0.000
	Be	9	-0.012	ug/L	45.352	15	-0.000
	B	11	2.626	ug/L	20.486	2334	0.001
	Na	23	0.405	ug/L	166.149	20348	0.001
	Mg	24	0.345	ug/L	115.579	1333	0.001
	Al	27	-0.269	ug/L	36.607	2667	-0.001
	P	31	0.153	ug/L	1432.729	7847	0.000
	K	39	0.174	ug/L	1466.026	613571	0.001
	Ca	43	0.353	ug/L	441.615	351	0.000
>	Sc	45		ug/L		1638831	1638831.174
	Ti	47	-0.006	ug/L	589.843	456	-0.000
	V	51	0.259	ug/L	62.977	16484	0.001
	Cr	52	-0.066	ug/L	46.844	1407	-0.000
	Cr	53		ug/L		127774	0.005
	Mn	55	-0.013	ug/L	41.342	1234	-0.000
	Fe	57	1.238	ug/L	56.654	6170	0.000
	Co	59	-0.002	ug/L	113.542	150	-0.000
	Ni	60	0.005	ug/L	115.944	93	0.000
	Cu	63		ug/L		308	-0.000
	Cu	65	-0.012	ug/L	59.176	163	-0.000
	Zn	66	0.003	ug/L	427.436	427	0.000
	Zn	67		ug/L		18061	0.002
	Zn	68		ug/L		1780	0.000
>	Ge	74		ug/L		541972	541971.919
	As	75	0.162	ug/L	101.901	224	0.000
	Se	77		ug/L		6988	0.001
	Se	82	0.228	ug/L	12.068	-25	0.000
	Kr	83		ug/L		150	-0.000
	Sr	88	0.002	ug/L	24.287	232	0.000
	Y	89		ug/L		78	0.000
	Mo	98	0.047	ug/L	21.384	299	0.001
	Ag	107	0.004	ug/L	48.144	76	0.000
	Cd	111	0.000	ug/L	1309.655	25	0.000
	Cd	114		ug/L		43	-0.000
>	In	115		ug/L		320225	320225.328
	Sn	120	0.106	ug/L	16.083	1527	0.003
	Sb	121	-0.273	ug/L	21.233	3373	-0.006
	Sb	123		ug/L		2684	-0.005
	Ba	135		ug/L		32	-0.000
	Ba	137	0.002	ug/L	108.575	57	0.000
	Ho	165		ug/L		28	-0.000
>	Lu	175		ug/L		624842	624841.943
	Tl	205	0.448	ug/L	17.569	12925	0.020
	Pb	208	-0.000	ug/L	140.725	389	-0.000
	Bi	209		ug/L		182	-0.000
	Th	232	0.038	ug/L	30.729	3864	0.003
	U	238	0.003	ug/L	44.708	574	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		104.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		104.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		100.9			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Sunday, January 03, 2010 14:50:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100103\QC Std 3.046

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**10.814**	ug/L	1.598	22222	0.014
	Be	9	**0.519**	ug/L	6.083	298	0.000
	B	11	**16.512**	ug/L	3.703	9901	0.006
	Na	23	**255.409**	ug/L	11.026	1378414	0.841
	Mg	24	**18.329**	ug/L	7.438	70173	0.043
	Al	27	**34.998**	ug/L	7.084	200062	0.121
	P	31	**47.268**	ug/L	6.696	24152	0.010
	K	39	**312.084**	ug/L	8.255	2701529	1.293
	Ca	43	**215.307**	ug/L	2.146	3730	0.002
>	Sc	45		ug/L		1620791	1620790.792
	Ti	47	**8.788**	ug/L	3.562	7563	0.004
	V	51	**11.249**	ug/L	6.476	115796	0.063
	Cr	52	**11.171**	ug/L	4.587	80558	0.049
	Cr	53		ug/L		138290	0.012
	Mn	55	**5.939**	ug/L	2.380	65853	0.040
	Fe	57	**124.324**	ug/L	2.209	31266	0.016
	Co	59	**1.108**	ug/L	3.938	9873	0.006
	Ni	60	**2.197**	ug/L	1.969	4373	0.003
	Cu	63		ug/L		5692	0.003
	Cu	65	**1.147**	ug/L	1.157	2829	0.002
	Zn	66	**10.877**	ug/L	0.470	17019	0.031
	Zn	67		ug/L		20848	0.007
	Zn	68		ug/L		13809	0.023
>	Ge	74		ug/L		536226	536225.695
	As	75	**5.348**	ug/L	3.665	8594	0.016
	Se	77		ug/L		7500	0.002
	Se	82	**5.511**	ug/L	1.491	778	0.002
	Kr	83		ug/L		157	-0.000
	Sr	88	**11.853**	ug/L	1.054	199500	0.619
	Y	89		ug/L		75	0.000
	Mo	98	**0.547**	ug/L	2.657	2554	0.008
	Ag	107	**1.078**	ug/L	1.088	8140	0.025
	Cd	111	**1.074**	ug/L	4.571	2045	0.006
	Cd	114		ug/L		4783	0.015
>	In	115		ug/L		321951	321951.347
	Sn	120	**5.371**	ug/L	2.464	42567	0.130
	Sb	121	**2.703**	ug/L	3.596	23652	0.057
	Sb	123		ug/L		18765	0.045
	Ba	135		ug/L		4346	0.007
	Ba	137	**2.109**	ug/L	2.330	7735	0.012
	Ho	165		ug/L		35	0.000
>	Lu	175		ug/L		619922	619922.209
	Tl	205	**1.265**	ug/L	2.510	35329	0.056
	Pb	208	**2.412**	ug/L	0.985	103071	0.166
	Bi	209		ug/L		221	0.000
	Th	232	**1.255**	ug/L	2.032	67084	0.105
	U	238	**0.247**	ug/L	1.405	14769	0.023

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	108.137				
	Be	9	103.891				
	B	11	110.083				
	Na	23	102.164				
	Mg	24	122.195				
	Al	27	116.662				
	P	31	94.535				
	K	39	104.028				
	Ca	43	107.653				
>	Sc	45		103.5			
	Ti	47	87.884				
	V	51	112.493				
	Cr	52	111.714				
	Cr	53					
	Mn	55	118.784				
	Fe	57	124.324				
	Co	59	110.821				
	Ni	60	109.857				
	Cu	63					
	Cu	65	114.701				
	Zn	66	108.773				
	Zn	67					
	Zn	68					
>	Ge	74		103.3			
	As	75	106.951				
	Se	77					
	Se	82	110.228				
	Kr	83					
	Sr	88	118.527				
	Y	89					
	Mo	98	109.301				
	Ag	107	107.770				
	Cd	111	107.410				
	Cd	114					
>	In	115		101.5			
	Sn	120	107.425				
	Sb	121	90.098				
	Sb	123					
	Ba	135					
	Ba	137	105.427				
	Ho	165					
>	Lu	175		99.9			
	Tl	205	126.544				
	Pb	208	120.605				
	Bi	209					
	Th	232	125.462				
	U	238	123.387				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Sunday, January 03, 2010 14:56:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100103\QC Std 4.047

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.094**	ug/L	0.626	363	0.000
	Be	9	**0.056**	ug/L	40.804	46	0.000
	B	11	**1.743**	ug/L	14.089	1651	0.001
	Na	23	**93769.562**	ug/L	2.536	451829575	308.609
	Mg	24	**95182.065**	ug/L	1.771	329006269	224.714
	Al	27	**93581.421**	ug/L	1.108	473401603	323.355
	P	31	**94746.567**	ug/L	1.989	29787551	20.345
	K	39	**98984.763**	ug/L	6.340	600932721	410.212
	Ca	43	**91177.395**	ug/L	1.335	1296379	0.885
>	Sc	45		ug/L		1463958	1463958.483
	Ti	47	**1386.711**	ug/L	0.383	1013850	0.692
	V	51	**0.363**	ug/L	51.863	15588	0.002
	Cr	52	**3.593**	ug/L	1.832	24556	0.016
	Cr	53		ug/L		90043	-0.012
	Mn	55	**6.260**	ug/L	0.576	62635	0.042
	Fe	57	**99937.883**	ug/L	0.608	18462322	12.607
	Co	59	**0.332**	ug/L	1.674	2775	0.002
	Ni	60	**3.034**	ug/L	2.527	5426	0.004
	Cu	63		ug/L		9021	0.006
	Cu	65	**2.772**	ug/L	0.302	5934	0.004
	Zn	66	**3.529**	ug/L	2.582	5136	0.010
	Zn	67		ug/L		15368	0.001
	Zn	68		ug/L		2391	0.002
>	Ge	74		ug/L		474488	474488.270
	As	75	**0.095**	ug/L	144.388	98	0.000
	Se	77		ug/L		7352	0.003
	Se	82	**-0.630**	ug/L	41.541	-137	-0.000
	Kr	83		ug/L		343	0.000
	Sr	88	**1.309**	ug/L	2.947	19290	0.068
	Y	89		ug/L		618	0.002
	Mo	98	**2047.011**	ug/L	1.569	8025260	28.698
	Ag	107	**0.103**	ug/L	12.968	712	0.002
	Cd	111	**0.542**	ug/L	24.627	908	0.003
	Cd	114		ug/L		12471	0.044
>	In	115		ug/L		279688	279687.868
	Sn	120	**0.125**	ug/L	2.072	1464	0.003
	Sb	121	**-0.567**	ug/L	4.839	1206	-0.012
	Sb	123		ug/L		963	-0.009
	Ba	135		ug/L		1295	0.002
	Ba	137	**0.694**	ug/L	2.106	2264	0.004
	Ho	165		ug/L		1418	0.003
>	Lu	175		ug/L		544216	544215.891
	Tl	205	**0.138**	ug/L	3.463	3764	0.006
	Pb	208	**0.196**	ug/L	1.704	7657	0.013
	Bi	209		ug/L		1706	0.003
	Th	232	**0.041**	ug/L	34.447	3521	0.003
	U	238	**-0.003**	ug/L	29.584	232	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23	93.770				
	Mg	24	95.182				
	Al	27	93.581				
	P	31	94.747				
	K	39	98.985				
	Ca	43	91.177				
>	Sc	45		93.5			
	Ti	47	69.336				
	V	51					
	Cr	52	97.110				
	Cr	53					
	Mn	55	107.934				
	Fe	57	99.938				
	Co	59	132.699				
	Ni	60	112.378				
	Cu	63					
	Cu	65	95.572				
	Zn	66	98.022				
	Zn	67					
	Zn	68					
>	Ge	74		91.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88	109.114				
	Y	89					
	Mo	98	102.351				
	Ag	107					
	Cd	111	135.427				
	Cd	114					
>	In	115		88.2			
	Sn	120					
	Sb	121	-567.035				
	Sb	123					
	Ba	135					
	Ba	137	103.615				
	Ho	165					
>	Lu	175		87.7			
	Tl	205					
	Pb	208	97.762				
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Ti	47	ICSA is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Sunday, January 03, 2010 15:02:56
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100103\QC Std 5.048

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**22.920**	**ug/L**	3.271	40189	0.029
	Be	9	**19.486**	**ug/L**	4.207	8916	0.006
	B	11	**18.931**	**ug/L**	6.104	9619	0.006
	Na	23	**95713.683**	**ug/L**	6.025	437531171	315.007
	Mg	24	**97792.873**	**ug/L**	5.343	320622758	230.878
	Al	27	**97626.061**	**ug/L**	5.470	468541217	337.331
	P	31	**95206.032**	**ug/L**	3.208	28410951	20.443
	K	39	**101553.349**	**ug/L**	6.144	584876520	420.856
	Ca	43	**93693.815**	**ug/L**	2.165	1264665	0.910
>	Sc	45		**ug/L**		1390403	1390402.958
	Ti	47	**1413.974**	**ug/L**	3.471	981133	0.706
	V	51	**21.837**	**ug/L**	4.456	181505	0.122
	Cr	52	**24.968**	**ug/L**	3.761	152446	0.109
	Cr	53		**ug/L**		100157	-0.001
	Mn	55	**28.437**	**ug/L**	3.690	265906	0.191
	Fe	57	**104482.354**	**ug/L**	3.841	18315255	13.181
	Co	59	**20.969**	**ug/L**	4.243	157631	0.113
	Ni	60	**22.669**	**ug/L**	3.615	38019	0.027
	Cu	63		**ug/L**		84615	0.061
	Cu	65	**21.785**	**ug/L**	1.902	43174	0.031
	Zn	66	**21.911**	**ug/L**	1.742	29414	0.062
	Zn	67		**ug/L**		18228	0.007
	Zn	68		**ug/L**		20704	0.041
>	Ge	74		**ug/L**		465880	465880.248
	As	75	**21.061**	**ug/L**	3.252	29513	0.063
	Se	77		**ug/L**		9264	0.008
	Se	82	**20.683**	**ug/L**	1.741	2679	0.006
	Kr	83		**ug/L**		319	0.000
	Sr	88	**23.803**	**ug/L**	0.414	346637	1.243
	Y	89		**ug/L**		580	0.002
	Mo	98	**2040.695**	**ug/L**	2.285	7971892	28.609
	Ag	107	**19.978**	**ug/L**	0.142	129892	0.466
	Cd	111	**19.867**	**ug/L**	1.119	32387	0.116
	Cd	114		**ug/L**		86772	0.311
>	In	115		**ug/L**		278673	278673.322
	Sn	120	**21.097**	**ug/L**	0.709	142948	0.511
	Sb	121	**20.646**	**ug/L**	1.213	126247	0.437
	Sb	123		**ug/L**		100565	0.348
	Ba	135		**ug/L**		37474	0.068
	Ba	137	**20.331**	**ug/L**	1.251	65703	0.120
	Ho	165		**ug/L**		1373	0.002
>	Lu	175		**ug/L**		549240	549240.350
	Tl	205	**20.812**	**ug/L**	1.138	508208	0.925
	Pb	208	**21.601**	**ug/L**	0.257	814989	1.483
	Bi	209		**ug/L**		2187	0.004
	Th	232	**22.528**	**ug/L**	1.585	1039271	1.889
	U	238	**22.281**	**ug/L**	1.299	1148412	2.090

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7	114.602				
	Be	9	97.431				
	B	11	94.653				
	Na	23	95.714				
	Mg	24	97.793				
	Al	27	97.626				
	P	31	95.206				
	K	39	101.553				
	Ca	43	93.694				
>	Sc	45		88.8			
	Ti	47	70.699				
	V	51	109.187				
	Cr	52	105.348				
	Cr	53					
	Mn	55	110.222				
	Fe	57	104.482				
	Co	59	103.550				
	Ni	60	99.864				
	Cu	63					
	Cu	65	95.131				
	Zn	66	92.844				
	Zn	67					
	Zn	68					
>	Ge	74		89.7			
	As	75	105.303				
	Se	77					
	Se	82	103.415				
	Kr	83					
	Sr	88	112.277				
	Y	89					
	Mo	98	102.035				
	Ag	107	99.888				
	Cd	111	97.387				
	Cd	114					
>	In	115		87.8			
	Sn	120	105.487				
	Sb	121	102.718				
	Sb	123					
	Ba	135					
	Ba	137	98.362				
	Ho	165					
>	Lu	175		88.6			
	Tl	205	104.061				
	Pb	208	106.938				
	Bi	209					
	Th	232	112.641				
	U	238	111.406				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Ti	47	ICSAB is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Sunday, January 03, 2010 15:09:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100103\QC Std 6.049

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.520**	ug/L	0.565	106773	0.068
	Be	9	**49.930**	ug/L	3.659	25544	0.016
	B	11	**93.873**	ug/L	4.196	50092	0.032
	Na	23	**4799.305**	ug/L	8.993	24559612	15.795
	Mg	24	**4719.401**	ug/L	6.886	17331747	11.142
	Al	27	**5135.085**	ug/L	6.934	27606993	17.743
	P	31	**4179.938**	ug/L	2.589	1403590	0.898
	K	39	**4896.214**	ug/L	8.521	32112403	20.291
	Ca	43	**4884.293**	ug/L	4.341	74082	0.047
>	Sc	45		ug/L		1556281	1556280.506
	Ti	47	**50.397**	ug/L	1.991	39577	0.025
	V	51	**50.780**	ug/L	4.600	454709	0.284
	Cr	52	**51.154**	ug/L	3.709	347779	0.222
	Cr	53		ug/L		149702	0.023
	Mn	55	**52.916**	ug/L	3.120	552790	0.355
	Fe	57	**5386.510**	ug/L	3.984	1062326	0.680
	Co	59	**50.806**	ug/L	4.407	427322	0.275
	Ni	60	**51.308**	ug/L	3.263	96237	0.062
	Cu	63		ug/L		226110	0.145
	Cu	65	**50.265**	ug/L	1.579	111284	0.071
	Zn	66	**51.896**	ug/L	3.555	75802	0.148
	Zn	67		ug/L		28249	0.024
	Zn	68		ug/L		57266	0.109
>	Ge	74		ug/L		510762	510761.616
	As	75	**48.390**	ug/L	1.842	74364	0.146
	Se	77		ug/L		11397	0.010
	Se	82	**50.015**	ug/L	3.671	7178	0.014
	Kr	83		ug/L		128	-0.000
	Sr	88	**51.892**	ug/L	0.520	852533	2.711
	Y	89		ug/L		112	0.000
	Mo	98	**49.141**	ug/L	1.370	216708	0.689
	Ag	107	**50.982**	ug/L	1.489	373945	1.189
	Cd	111	**48.727**	ug/L	2.445	89592	0.285
	Cd	114		ug/L		212680	0.676
>	In	115		ug/L		314456	314456.256
	Sn	120	**50.339**	ug/L	1.082	383895	1.219
	Sb	121	**48.989**	ug/L	2.394	330951	1.036
	Sb	123		ug/L		260284	0.815
	Ba	135		ug/L		100191	0.165
	Ba	137	**49.480**	ug/L	0.471	176526	0.291
	Ho	165		ug/L		58	0.000
>	Lu	175		ug/L		606538	606537.566
	Tl	205	**49.945**	ug/L	0.710	1346222	2.219
	Pb	208	**53.292**	ug/L	1.259	2219705	3.659
	Bi	209		ug/L		654	0.001
	Th	232	**51.065**	ug/L	0.484	2599356	4.283
	U	238	**50.779**	ug/L	2.043	2889734	4.764

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	109.040				
	Be	9	99.860				
	B	11	93.873				
	Na	23	95.986				
	Mg	24	94.388				
	Al	27	101.685				
	P	31	83.599				
	K	39	97.924				
	Ca	43	97.686				
>	Sc	45		99.3			
	Ti	47	100.795				
	V	51	101.561				
	Cr	52	102.308				
	Cr	53					
	Mn	55	105.833				
	Fe	57	107.730				
	Co	59	101.612				
	Ni	60	102.617				
	Cu	63					
	Cu	65	100.530				
	Zn	66	103.792				
	Zn	67					
	Zn	68					
>	Ge	74		98.4			
	As	75	96.781				
	Se	77					
	Se	82	100.029				
	Kr	83					
	Sr	88	103.785				
	Y	89					
	Mo	98	98.283				
	Ag	107	101.963				
	Cd	111	97.455				
	Cd	114					
>	In	115		99.1			
	Sn	120	100.677				
	Sb	121	97.977				
	Sb	123					
	Ba	135					
	Ba	137	98.959				
	Ho	165					
>	Lu	175		97.8			
	Tl	205	99.890				
	Pb	208	106.585				
	Bi	209					
	Th	232	102.129				
	U	238	101.557				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	P	31	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Sunday, January 03, 2010 15:15:11
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100103\QC Std 7.050

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.052**	ug/L	17.813	101	-0.000
	Be	9	**-0.005**	ug/L	246.343	17	-0.000
	B	11	**1.712**	ug/L	21.545	1737	0.001
	Na	23	**2.379**	ug/L	46.502	29364	0.008
	Mg	24	**1.728**	ug/L	8.687	6335	0.004
	Al	27	**0.871**	ug/L	72.589	8670	0.003
	P	31	**-0.015**	ug/L	4465.922	7386	-0.000
	K	39	**-1.017**	ug/L	186.852	573632	-0.004
	Ca	43	**-0.006**	ug/L	20330.798	327	-0.000
>	Sc	45		ug/L		1552152	1552151.767
	Ti	47	**0.124**	ug/L	20.801	533	0.000
	V	51	**0.066**	ug/L	446.589	13941	0.000
	Cr	52	**-0.020**	ug/L	339.271	1638	-0.000
	Cr	53		ug/L		120383	0.004
	Mn	55	**-0.010**	ug/L	34.221	1199	-0.000
	Fe	57	**4.418**	ug/L	12.192	6465	0.001
	Co	59	**-0.003**	ug/L	53.663	130	-0.000
	Ni	60	**0.002**	ug/L	404.535	84	0.000
	Cu	63		ug/L		344	0.000
	Cu	65	**0.010**	ug/L	35.199	202	0.000
	Zn	66	**-0.002**	ug/L	238.246	400	-0.000
	Zn	67		ug/L		16721	0.001
	Zn	68		ug/L		1574	-0.000
>	Ge	74		ug/L		516996	516995.531
	As	75	**-0.056**	ug/L	448.062	-123	-0.000
	Se	77		ug/L		6869	0.001
	Se	82	**0.329**	ug/L	23.227	-9	0.000
	Kr	83		ug/L		132	-0.000
	Sr	88	**0.002**	ug/L	59.619	228	0.000
	Y	89		ug/L		57	-0.000
	Mo	98	**0.110**	ug/L	14.071	580	0.002
	Ag	107	**0.004**	ug/L	17.780	75	0.000
	Cd	111	**-0.002**	ug/L	194.225	20	-0.000
	Cd	114		ug/L		51	0.000
>	In	115		ug/L		320416	320415.502
	Sn	120	**0.056**	ug/L	33.943	1145	0.001
	Sb	121	**-0.475**	ug/L	12.724	2005	-0.010
	Sb	123		ug/L		1550	-0.008
	Ba	135		ug/L		45	0.000
	Ba	137	**-0.001**	ug/L	203.098	45	-0.000
	Ho	165		ug/L		29	-0.000
>	Lu	175		ug/L		620330	620329.896
	Tl	205	**0.364**	ug/L	18.343	10510	0.016
	Pb	208	**0.000**	ug/L	1228.963	403	0.000
	Bi	209		ug/L		191	-0.000
	Th	232	**0.037**	ug/L	33.877	3810	0.003
	U	238	**0.001**	ug/L	137.061	499	0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		99.1			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.0			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		100.0			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Sunday, January 03, 2010 15:21:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100103\QC Std 10.051

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**1029.226**	**ug/L**	2.743	1777594	1.293
	Be	9	**968.156**	**ug/L**	2.365	437550	0.318
	B	11	**2.693**	**ug/L**	4.443	1992	0.001
	Na	23	**48329.082**	**ug/L**	2.901	218681477	159.058
	Mg	24	**46905.068**	**ug/L**	6.134	152207317	110.738
	Al	27	**46481.766**	**ug/L**	7.851	220661527	160.610
	P	31	**22683.147**	**ug/L**	2.107	6703263	4.871
	K	39	**47332.016**	**ug/L**	5.767	270409934	196.153
	Ca	43	**46089.856**	**ug/L**	1.709	615663	0.448
>	Sc	45		**ug/L**		1375261	1375260.698
	Ti	47	**39.658**	**ug/L**	2.824	27604	0.020
	V	51	**915.576**	**ug/L**	0.344	7048685	5.117
	Cr	52	**915.903**	**ug/L**	0.646	5479934	3.983
	Cr	53		**ug/L**		766815	0.484
	Mn	55	**939.146**	**ug/L**	1.888	8653418	6.293
	Fe	57	**50592.972**	**ug/L**	2.106	8780259	6.382
	Co	59	**861.107**	**ug/L**	1.510	6402569	4.656
	Ni	60	**839.453**	**ug/L**	2.473	1390730	1.012
	Cu	63		**ug/L**		3382746	2.460
	Cu	65	**802.877**	**ug/L**	2.943	1568192	1.141
	Zn	66	**2403.192**	**ug/L**	1.533	3062209	6.840
	Zn	67		**ug/L**		478119	1.036
	Zn	68		**ug/L**		1905838	4.254
>	Ge	74		**ug/L**		447684	447684.192
	As	75	**849.974**	**ug/L**	1.963	1145699	2.559
	Se	77		**ug/L**		50906	0.102
	Se	82	**467.454**	**ug/L**	1.627	59244	0.132
	Kr	83		**ug/L**		198	0.000
	Sr	88	**999.324**	**ug/L**	0.404	14012365	52.199
	Y	89		**ug/L**		558	0.002
	Mo	98	**1027.306**	**ug/L**	1.258	3866175	14.402
	Ag	107	**228.713**	**ug/L**	1.381	1432057	5.335
	Cd	111	**889.712**	**ug/L**	0.779	1396271	5.201
	Cd	114		**ug/L**		3566443	13.286
>	In	115		**ug/L**		268443	268443.164
	Sn	120	**975.397**	**ug/L**	1.674	6339473	23.614
	Sb	121	**235.800**	**ug/L**	1.360	1343298	4.988
	Sb	123		**ug/L**		1093051	4.059
	Ba	135		**ug/L**		1532275	2.707
	Ba	137	**892.154**	**ug/L**	1.290	2969502	5.246
	Ho	165		**ug/L**		471	0.001
>	Lu	175		**ug/L**		566027	566026.756
	Tl	205	**465.865**	**ug/L**	0.754	11715043	20.696
	Pb	208	**4869.867**	**ug/L**	0.295	189268312	334.380
	Bi	209		**ug/L**		5172	0.009
	Th	232	**2474.032**	**ug/L**	1.025	117440362	207.486
	U	238	**5192.440**	**ug/L**	0.597	275732873	487.138

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	102.923				
	Be	9	96.816				
	B	11					
	Na	23	96.658				
	Mg	24	93.810				
	Al	27	92.964				
	P	31	90.733				
	K	39	94.664				
	Ca	43	92.180				
>	Sc	45		87.8			
	Ti	47					
	V	51	91.558				
	Cr	52	91.590				
	Cr	53					
	Mn	55	93.915				
	Fe	57	101.186				
	Co	59	86.111				
	Ni	60	83.945				
	Cu	63					
	Cu	65	80.288				
	Zn	66	96.128				
	Zn	67					
	Zn	68					
>	Ge	74		86.2			
	As	75	84.997				
	Se	77					
	Se	82	93.491				
	Kr	83					
	Sr	88	99.932				
	Y	89					
	Mo	98	102.731				
	Ag	107	91.485				
	Cd	111	88.971				
	Cd	114					
>	In	115		84.6			
	Sn	120	97.540				
	Sb	121	94.320				
	Sb	123					
	Ba	135					
	Ba	137	89.215				
	Ho	165					
>	Lu	175		91.3			
	Tl	205	93.173				
	Pb	208	97.397				
	Bi	209					
	Th	232	98.961				
	U	238	103.849				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Co	59	LRS is out of limits (+/- 10%)
QC Std 10	Ni	60	LRS is out of limits (+/- 10%)
QC Std 10	Cu	65	LRS is out of limits (+/- 10%)
QC Std 10	As	75	LRS is out of limits (+/- 10%)
QC Std 10	Cd	111	LRS is out of limits (+/- 10%)
QC Std 10	Ba	137	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Sunday, January 03, 2010 15:27:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100103\QC Std 11.052

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**55.218**	**ug/L**	3.182	102879	0.069
	Be	9	**51.381**	**ug/L**	2.509	25026	0.017
	B	11	**97.233**	**ug/L**	1.239	49391	0.033
	Na	23	**4998.279**	**ug/L**	5.031	24391396	16.450
	Mg	24	**4823.256**	**ug/L**	3.874	16857263	11.387
	Al	27	**4905.311**	**ug/L**	2.035	25103894	16.950
	P	31	**4209.239**	**ug/L**	1.498	1345500	0.904
	K	39	**4984.553**	**ug/L**	4.915	31133367	20.657
	Ca	43	**4971.370**	**ug/L**	2.534	71791	0.048
>	Sc	45		**ug/L**		1480996	1480996.055
	Ti	47	**49.964**	**ug/L**	1.020	37353	0.025
	V	51	**52.072**	**ug/L**	2.147	443715	0.291
	Cr	52	**52.287**	**ug/L**	0.934	338449	0.227
	Cr	53		**ug/L**		148058	0.027
	Mn	55	**54.068**	**ug/L**	1.143	537718	0.362
	Fe	57	**5507.022**	**ug/L**	0.865	1034120	0.695
	Co	59	**51.842**	**ug/L**	1.696	415273	0.280
	Ni	60	**52.053**	**ug/L**	1.198	92964	0.063
	Cu	63		**ug/L**		219148	0.148
	Cu	65	**51.632**	**ug/L**	1.016	108791	0.073
	Zn	66	**52.836**	**ug/L**	1.775	74092	0.150
	Zn	67		**ug/L**		28847	0.027
	Zn	68		**ug/L**		56105	0.111
>	Ge	74		**ug/L**		490215	490215.484
	As	75	**48.737**	**ug/L**	0.973	71901	0.147
	Se	77		**ug/L**		10588	0.010
	Se	82	**50.263**	**ug/L**	2.535	6927	0.014
	Kr	83		**ug/L**		133	-0.000
	Sr	88	**52.166**	**ug/L**	0.368	832442	2.725
	Y	89		**ug/L**		105	0.000
	Mo	98	**48.874**	**ug/L**	1.237	209363	0.685
	Ag	107	**51.060**	**ug/L**	2.031	363777	1.191
	Cd	111	**49.560**	**ug/L**	0.445	88518	0.290
	Cd	114		**ug/L**		208397	0.682
>	In	115		**ug/L**		305442	305441.791
	Sn	120	**52.731**	**ug/L**	1.242	390576	1.277
	Sb	121	**50.561**	**ug/L**	1.161	331690	1.070
	Sb	123		**ug/L**		262147	0.845
	Ba	135		**ug/L**		97398	0.162
	Ba	137	**48.921**	**ug/L**	2.069	172697	0.288
	Ho	165		**ug/L**		53	0.000
>	Lu	175		**ug/L**		600231	600231.349
	Tl	205	**51.359**	**ug/L**	0.940	1369909	2.282
	Pb	208	**53.248**	**ug/L**	1.222	2194851	3.656
	Bi	209		**ug/L**		578	0.001
	Th	232	**52.221**	**ug/L**	1.878	2630689	4.380
	U	238	**52.379**	**ug/L**	1.266	2949833	4.914

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	110.436				
	Be	9	102.762				
	B	11	97.233				
	Na	23	99.966				
	Mg	24	96.465				
	Al	27	97.135				
	P	31	84.185				
	K	39	99.691				
	Ca	43	99.427				
>	Sc	45		94.5			
	Ti	47	99.928				
	V	51	104.145				
	Cr	52	104.574				
	Cr	53					
	Mn	55	108.135				
	Fe	57	110.140				
	Co	59	103.683				
	Ni	60	104.106				
	Cu	63					
	Cu	65	103.263				
	Zn	66	105.673				
	Zn	67					
	Zn	68					
>	Ge	74		94.4			
	As	75	97.475				
	Se	77					
	Se	82	100.526				
	Kr	83					
	Sr	88	104.332				
	Y	89					
	Mo	98	97.747				
	Ag	107	102.120				
	Cd	111	99.121				
	Cd	114					
>	In	115		96.3			
	Sn	120	105.461				
	Sb	121	101.123				
	Sb	123					
	Ba	135					
	Ba	137	97.843				
	Ho	165					
>	Lu	175		96.8			
	Tl	205	102.719				
	Pb	208	106.497				
	Bi	209					
	Th	232	104.442				
	U	238	104.757				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	Li	7	CCV is out of limits (+/- 10%)
QC Std 11	P	31	CCV is out of limits (+/- 10%)
QC Std 11	Fe	57	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Sunday, January 03, 2010 15:33:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100103\QC Std 12.053

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**0.043**	ug/L	19.122	288	0.000
	Be	9	**-0.001**	ug/L	570.938	20	-0.000
	B	11	**1.624**	ug/L	19.810	1708	0.001
	Na	23	**2.119**	ug/L	42.695	28362	0.007
	Mg	24	**0.812**	ug/L	34.646	3000	0.002
	Al	27	**0.365**	ug/L	98.707	6001	0.001
	P	31	**-1.458**	ug/L	14.369	6979	-0.000
	K	39	**3.871**	ug/L	92.311	611485	0.016
	Ca	43	**-0.406**	ug/L	507.970	325	-0.000
>	Sc	45		ug/L		1569329	1569328.653
	Ti	47	**-0.037**	ug/L	48.909	412	-0.000
	V	51	**0.352**	ug/L	79.684	16630	0.002
	Cr	52	**-0.011**	ug/L	218.091	1723	-0.000
	Cr	53		ug/L		119237	0.003
	Mn	55	**-0.007**	ug/L	54.232	1242	-0.000
	Fe	57	**1.541**	ug/L	22.512	5968	0.000
	Co	59	**0.006**	ug/L	25.248	213	0.000
	Ni	60	**0.013**	ug/L	50.635	105	0.000
	Cu	63		ug/L		421	0.000
	Cu	65	**0.021**	ug/L	34.040	229	0.000
	Zn	66	**-0.001**	ug/L	802.580	399	-0.000
	Zn	67		ug/L		17297	0.002
	Zn	68		ug/L		1713	0.000
>	Ge	74		ug/L		514247	514246.606
	As	75	**0.135**	ug/L	112.516	171	0.000
	Se	77		ug/L		6131	-0.000
	Se	82	**0.195**	ug/L	67.077	-29	0.000
	Kr	83		ug/L		143	-0.000
	Sr	88	**0.011**	ug/L	10.099	362	0.001
	Y	89		ug/L		72	0.000
	Mo	98	**0.134**	ug/L	13.936	671	0.002
	Ag	107	**0.006**	ug/L	20.596	88	0.000
	Cd	111	**0.012**	ug/L	39.364	46	0.000
	Cd	114		ug/L		86	0.000
>	In	115		ug/L		313066	313065.576
	Sn	120	**0.580**	ug/L	7.760	5088	0.014
	Sb	121	**-0.255**	ug/L	28.544	3412	-0.005
	Sb	123		ug/L		2677	-0.004
	Ba	135		ug/L		53	0.000
	Ba	137	**0.008**	ug/L	37.688	76	0.000
	Ho	165		ug/L		31	-0.000
>	Lu	175		ug/L		611973	611973.212
	Tl	205	**0.840**	ug/L	10.590	23338	0.037
	Pb	208	**0.048**	ug/L	17.308	2414	0.003
	Bi	209		ug/L		177	-0.000
	Th	232	**0.118**	ug/L	7.737	7871	0.010
	U	238	**0.072**	ug/L	6.866	4546	0.007

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		100.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		99.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.7			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		98.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, January 03, 2010 16:16:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100103\QC Std 8.060

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**57.113**	ug/L	1.542	105346	0.072
	Be	9	**52.917**	ug/L	2.044	25511	0.017
	B	11	**99.194**	ug/L	4.912	49820	0.033
	Na	23	**4948.387**	ug/L	5.386	23886746	16.286
	Mg	24	**4855.363**	ug/L	0.328	16804866	11.463
	Al	27	**4996.105**	ug/L	2.875	25301347	17.263
	P	31	**4295.443**	ug/L	2.552	1358661	0.922
	K	39	**5352.926**	ug/L	8.417	33091440	22.184
	Ca	43	**5147.108**	ug/L	1.683	73562	0.050
>	Sc	45		ug/L		1465980	1465979.917
	Ti	47	**52.188**	ug/L	2.448	38591	0.026
	V	51	**52.803**	ug/L	4.177	445022	0.295
	Cr	52	**53.195**	ug/L	1.691	340758	0.231
	Cr	53		ug/L		170559	0.043
	Mn	55	**55.484**	ug/L	2.496	546065	0.372
	Fe	57	**5600.348**	ug/L	3.547	1040560	0.706
	Co	59	**52.821**	ug/L	2.398	418710	0.286
	Ni	60	**53.656**	ug/L	2.102	94831	0.065
	Cu	63		ug/L		222268	0.151
	Cu	65	**52.156**	ug/L	1.539	108767	0.074
	Zn	66	**53.559**	ug/L	2.371	74688	0.152
	Zn	67		ug/L		30673	0.031
	Zn	68		ug/L		56327	0.112
>	Ge	74		ug/L		487518	487518.030
	As	75	**49.565**	ug/L	2.455	72718	0.149
	Se	77		ug/L		12419	0.013
	Se	82	**51.330**	ug/L	1.810	7036	0.015
	Kr	83		ug/L		130	-0.000
	Sr	88	**53.632**	ug/L	0.636	839576	2.801
	Y	89		ug/L		115	0.000
	Mo	98	**50.251**	ug/L	0.858	211167	0.704
	Ag	107	**53.371**	ug/L	1.491	373048	1.245
	Cd	111	**50.574**	ug/L	2.209	88611	0.296
	Cd	114		ug/L		209566	0.699
>	In	115		ug/L		299633	299632.914
	Sn	120	**52.341**	ug/L	0.739	380353	1.267
	Sb	121	**51.584**	ug/L	0.721	331842	1.091
	Sb	123		ug/L		259099	0.852
	Ba	135		ug/L		98891	0.167
	Ba	137	**50.087**	ug/L	2.884	174760	0.295
	Ho	165		ug/L		64	0.000
>	Lu	175		ug/L		593313	593312.968
	Tl	205	**50.981**	ug/L	0.877	1344126	2.265
	Pb	208	**54.637**	ug/L	1.768	2225930	3.752
	Bi	209		ug/L		628	0.001
	Th	232	**52.106**	ug/L	2.030	2594087	4.370
	U	238	**52.264**	ug/L	0.910	2909490	4.903

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	114.226				
	Be	9	105.834				
	B	11	99.194				
	Na	23	98.968				
	Mg	24	97.107				
	Al	27	98.933				
	P	31	85.909				
	K	39	107.059				
	Ca	43	102.942				
>	Sc	45		93.6			
	Ti	47	104.376				
	V	51	105.607				
	Cr	52	106.390				
	Cr	53					
	Mn	55	110.969				
	Fe	57	112.007				
	Co	59	105.642				
	Ni	60	107.313				
	Cu	63					
	Cu	65	104.311				
	Zn	66	107.119				
	Zn	67					
	Zn	68					
>	Ge	74		93.9			
	As	75	99.131				
	Se	77					
	Se	82	102.661				
	Kr	83					
	Sr	88	107.264				
	Y	89					
	Mo	98	100.501				
	Ag	107	106.743				
	Cd	111	101.148				
	Cd	114					
>	In	115		94.5			
	Sn	120	104.682				
	Sb	121	103.168				
	Sb	123					
	Ba	135					
	Ba	137	100.174				
	Ho	165					
>	Lu	175		95.7			
	Tl	205	101.963				
	Pb	208	109.274				
	Bi	209					
	Th	232	104.212				
	U	238	104.528				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Li	7	CCV is out of limits (+/- 10%)
QC Std 8	P	31	CCV is out of limits (+/- 10%)
QC Std 8	Mn	55	CCV is out of limits (+/- 10%)
QC Std 8	Fe	57	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, January 03, 2010 16:22:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100103\QC Std 9.061

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.038**	ug/L	10.816	127	-0.000
	Be	9	**-0.002**	ug/L	458.231	19	-0.000
	B	11	**1.593**	ug/L	24.928	1659	0.001
	Na	23	**-0.604**	ug/L	88.297	14007	-0.002
	Mg	24	**0.367**	ug/L	43.940	1333	0.001
	Al	27	**0.390**	ug/L	87.736	6001	0.001
	P	31	**-2.693**	ug/L	12.483	6451	-0.001
	K	39	**2.498**	ug/L	65.230	592368	0.010
	Ca	43	**0.859**	ug/L	164.710	339	0.000
>	Sc	45		ug/L		1542460	1542460.022
	Ti	47	**-0.031**	ug/L	89.183	410	-0.000
	V	51	**0.108**	ug/L	485.455	14238	0.001
	Cr	52	**0.066**	ug/L	120.834	2212	0.000
	Cr	53		ug/L		127493	0.009
	Mn	55	**-0.007**	ug/L	16.923	1223	-0.000
	Fe	57	**1.097**	ug/L	54.065	5779	0.000
	Co	59	**-0.003**	ug/L	26.039	134	-0.000
	Ni	60	**-0.001**	ug/L	631.924	76	-0.000
	Cu	63		ug/L		455	0.000
	Cu	65	**-0.012**	ug/L	57.276	154	-0.000
	Zn	66	**-0.005**	ug/L	285.250	387	-0.000
	Zn	67		ug/L		17800	0.004
	Zn	68		ug/L		1722	0.000
>	Ge	74		ug/L		504841	504840.923
	As	75	**0.339**	ug/L	95.540	477	0.001
	Se	77		ug/L		6945	0.002
	Se	82	**0.151**	ug/L	53.931	-34	0.000
	Kr	83		ug/L		143	-0.000
	Sr	88	**0.003**	ug/L	14.036	234	0.000
	Y	89		ug/L		69	-0.000
	Mo	98	**0.035**	ug/L	26.266	241	0.000
	Ag	107	**0.003**	ug/L	11.683	70	0.000
	Cd	111	**0.003**	ug/L	124.232	30	0.000
	Cd	114		ug/L		53	0.000
>	In	115		ug/L		314384	314384.164
	Sn	120	**0.053**	ug/L	33.676	1101	0.001
	Sb	121	**-0.465**	ug/L	13.782	2036	-0.010
	Sb	123		ug/L		1606	-0.008
	Ba	135		ug/L		34	-0.000
	Ba	137	**0.002**	ug/L	118.528	57	0.000
	Ho	165		ug/L		31	-0.000
>	Lu	175		ug/L		619574	619574.299
	Tl	205	**0.474**	ug/L	13.688	13560	0.021
	Pb	208	**0.004**	ug/L	37.023	549	0.000
	Bi	209		ug/L		178	-0.000
	Th	232	**0.029**	ug/L	27.945	3379	0.002
	U	238	**0.005**	ug/L	30.197	730	0.001

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		98.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		97.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.1			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		99.9			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202000555
Sample Date/Time: Sunday, January 03, 2010 16:28:54
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 935029|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100103\1202000555.062

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.020**	**ug/L**	21.578	160	-0.000
	Be	9	**-0.016**	**ug/L**	58.377	12	-0.000
	B	11	**0.395**	**ug/L**	24.996	1029	0.000
	Na	23	**3.873**	**ug/L**	37.394	36381	0.013
	Mg	24	**1.762**	**ug/L**	78.465	6335	0.004
	Al	27	**1.656**	**ug/L**	33.033	12673	0.006
	P	31	**-1.376**	**ug/L**	24.544	6824	-0.000
	K	39	**15.586**	**ug/L**	55.920	669735	0.065
	Ca	43	**11.818**	**ug/L**	18.312	498	0.000
>	Sc	45		**ug/L**		1528216	1528215.902
	Ti	47	**0.363**	**ug/L**	3.186	707	0.000
	V	51	**-1.660**	**ug/L**	44.167	-1052	-0.009
	Cr	52	**0.756**	**ug/L**	5.579	6778	0.003
	Cr	53		**ug/L**		350218	0.156
	Mn	55	**0.170**	**ug/L**	1.600	3027	0.001
	Fe	57	**8.362**	**ug/L**	12.806	7126	0.001
	Co	59	**0.003**	**ug/L**	50.016	180	0.000
	Ni	60	**0.038**	**ug/L**	18.999	148	0.000
	Cu	63		**ug/L**		850	0.000
	Cu	65	**0.065**	**ug/L**	4.891	318	0.000
	Zn	66	**1.119**	**ug/L**	5.624	1948	0.003
	Zn	67		**ug/L**		80988	0.133
	Zn	68		**ug/L**		5479	0.008
>	Ge	74		**ug/L**		491430	491430.416
	As	75	**0.316**	**ug/L**	217.196	434	0.001
	Se	77		**ug/L**		21761	0.032
	Se	82	**0.162**	**ug/L**	9.963	-32	0.000
	Kr	83		**ug/L**		141	-0.000
	Sr	88	**0.063**	**ug/L**	0.829	1166	0.003
	Y	89		**ug/L**		73	0.000
	Mo	98	**0.011**	**ug/L**	20.187	126	0.000
	Ag	107	**0.002**	**ug/L**	49.523	59	0.000
	Cd	111	**-0.005**	**ug/L**	169.511	14	-0.000
	Cd	114		**ug/L**		32	-0.000
>	In	115		**ug/L**		299299	299299.333
	Sn	120	**0.136**	**ug/L**	25.819	1647	0.003
	Sb	121	**-0.621**	**ug/L**	2.266	953	-0.013
	Sb	123		**ug/L**		779	-0.010
	Ba	135		**ug/L**		4793	0.008
	Ba	137	**2.415**	**ug/L**	1.290	8452	0.014
	Ho	165		**ug/L**		29	-0.000
>	Lu	175		**ug/L**		591864	591863.827
	Tl	205	**0.197**	**ug/L**	3.555	5640	0.009
	Pb	208	**0.003**	**ug/L**	14.375	496	0.000
	Bi	209		**ug/L**		200	0.000
	Th	232	**0.017**	**ug/L**	42.075	2604	0.001
	U	238	**-0.003**	**ug/L**	21.639	226	-0.000

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		97.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		95.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202000556
Sample Date/Time: Sunday, January 03, 2010 16:35:04
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 935029|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100103\1202000556.063

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**54.791**	**ug/L**	2.032	104244	0.069
	Be	9	**52.438**	**ug/L**	2.941	26073	0.017
	B	11	**98.417**	**ug/L**	4.230	50994	0.033
	Na	23	**1890.251**	**ug/L**	7.418	9412240	6.221
	Mg	24	**1919.489**	**ug/L**	13.690	6837802	4.532
	Al	27	**2043.299**	**ug/L**	11.525	10656396	7.060
	P	31	**1762.920**	**ug/L**	4.725	579168	0.379
	K	39	**1915.487**	**ug/L**	7.172	12553086	7.938
	Ca	43	**2023.168**	**ug/L**	4.041	30007	0.020
>	Sc	45		**ug/L**		1512406	1512405.957
	Ti	47	**44.771**	**ug/L**	2.773	34210	0.022
	V	51	**45.744**	**ug/L**	3.852	399383	0.256
	Cr	52	**50.172**	**ug/L**	2.844	331569	0.218
	Cr	53		**ug/L**		388516	0.184
	Mn	55	**52.231**	**ug/L**	3.869	530159	0.350
	Fe	57	**2244.033**	**ug/L**	3.144	433341	0.283
	Co	59	**50.808**	**ug/L**	4.081	415293	0.275
	Ni	60	**51.058**	**ug/L**	3.273	93062	0.062
	Cu	63		**ug/L**		220780	0.146
	Cu	65	**50.805**	**ug/L**	2.569	109280	0.072
	Zn	66	**51.828**	**ug/L**	1.563	72597	0.148
	Zn	67		**ug/L**		96391	0.165
	Zn	68		**ug/L**		57856	0.115
>	Ge	74		**ug/L**		489626	489625.631
	As	75	**48.426**	**ug/L**	0.680	71355	0.146
	Se	77		**ug/L**		25626	0.040
	Se	82	**50.983**	**ug/L**	1.803	7018	0.014
	Kr	83		**ug/L**		149	-0.000
	Sr	88	**51.687**	**ug/L**	2.420	799124	2.700
	Y	89		**ug/L**		112	0.000
	Mo	98	**48.793**	**ug/L**	3.582	202485	0.684
	Ag	107	**51.925**	**ug/L**	1.203	358506	1.211
	Cd	111	**49.821**	**ug/L**	2.029	86215	0.291
	Cd	114		**ug/L**		205204	0.693
>	In	115		**ug/L**		296009	296008.917
	Sn	120	**50.201**	**ug/L**	1.966	360342	1.215
	Sb	121	**49.223**	**ug/L**	3.155	312929	1.041
	Sb	123		**ug/L**		248221	0.826
	Ba	135		**ug/L**		94535	0.158
	Ba	137	**46.973**	**ug/L**	0.647	165096	0.276
	Ho	165		**ug/L**		71	0.000
>	Lu	175		**ug/L**		597577	597576.783
	Tl	205	**48.379**	**ug/L**	2.151	1284593	2.149
	Pb	208	**52.629**	**ug/L**	0.952	2159693	3.614
	Bi	209		**ug/L**		1642347	2.748
	Th	232	**48.881**	**ug/L**	0.897	2451372	4.099
	U	238	**50.725**	**ug/L**	1.402	2843939	4.759

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		96.5			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		94.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		96.3			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243104001
Sample Date/Time: Sunday, January 03, 2010 16:41:14
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 935029|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100103\243104001.064

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**28.805**	ug/L	1.193	52876	0.036
	Be	9	**-0.002**	ug/L	897.254	18	-0.000
	B	11	**16.542**	ug/L	2.951	8911	0.006
	Na	23	**13088.004**	ug/L	0.925	62744762	43.074
	Mg	24	**3668.756**	ug/L	3.467	12616021	8.662
	Al	27	**4.430**	ug/L	10.428	26024	0.015
	P	31	**45.558**	ug/L	5.192	21184	0.010
	K	39	**1819.888**	ug/L	3.310	11525098	7.542
	Ca	43	**13589.178**	ug/L	2.539	192414	0.132
>	Sc	45		ug/L		1456238	1456237.869
	Ti	47	**4.183**	ug/L	4.567	3449	0.002
	V	51	**3.749**	ug/L	57.836	42986	0.021
	Cr	52	**1.433**	ug/L	35.734	10762	0.006
	Cr	53		ug/L		304141	0.136
	Mn	55	**12.736**	ug/L	1.319	125500	0.085
	Fe	57	**52.646**	ug/L	3.463	14928	0.007
	Co	59	**0.150**	ug/L	5.155	1326	0.001
	Ni	60	**2.275**	ug/L	3.596	4066	0.003
	Cu	63		ug/L		3738	0.002
	Cu	65	**0.623**	ug/L	1.893	1458	0.001
	Zn	66	**1.599**	ug/L	4.426	2434	0.005
	Zn	67		ug/L		76633	0.136
	Zn	68		ug/L		6310	0.011
>	Ge	74		ug/L		456355	456354.504
	As	75	**0.645**	ug/L	98.837	866	0.002
	Se	77		ug/L		19379	0.030
	Se	82	**0.794**	ug/L	29.237	52	0.000
	Kr	83		ug/L		146	-0.000
	Sr	88	**76.244**	ug/L	0.906	1118745	3.983
	Y	89		ug/L		108	0.000
	Mo	98	**5.344**	ug/L	3.223	21120	0.075
	Ag	107	**0.002**	ug/L	77.801	57	0.000
	Cd	111	**-0.003**	ug/L	274.460	16	-0.000
	Cd	114		ug/L		59	0.000
>	In	115		ug/L		280896	280896.283
	Sn	120	**0.104**	ug/L	5.686	1329	0.003
	Sb	121	**-0.416**	ug/L	5.900	2112	-0.009
	Sb	123		ug/L		1736	-0.007
	Ba	135		ug/L		56397	0.098
	Ba	137	**29.380**	ug/L	2.660	99379	0.173
	Ho	165		ug/L		30	0.000
>	Lu	175		ug/L		574970	574969.749
	Tl	205	**0.555**	ug/L	20.018	14630	0.025
	Pb	208	**0.017**	ug/L	1.957	1023	0.001
	Bi	209		ug/L		201	0.000
	Th	232	**0.035**	ug/L	59.692	3419	0.003
	U	238	**0.754**	ug/L	1.452	41060	0.071

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		93.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		87.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		88.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		92.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202000557
Sample Date/Time: Sunday, January 03, 2010 16:47:25
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 935029|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100103\1202000557.065

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**30.465**	ug/L	2.730	53908	0.038
	Be	9	**-0.010**	ug/L	74.361	14	-0.000
	B	11	**16.025**	ug/L	3.988	8348	0.005
	Na	23	**14402.959**	ug/L	4.357	66613742	47.402
	Mg	24	**3822.006**	ug/L	2.259	12671329	9.023
	Al	27	**4.822**	ug/L	20.989	27026	0.017
	P	31	**45.765**	ug/L	2.087	20483	0.010
	K	39	**1753.592**	ug/L	5.570	10735749	7.267
	Ca	43	**13584.451**	ug/L	2.022	185542	0.132
>	Sc	45		ug/L		1404327	1404326.861
	Ti	47	**3.850**	ug/L	6.073	3094	0.002
	V	51	**4.227**	ug/L	10.234	45246	0.024
	Cr	52	**1.240**	ug/L	18.149	9178	0.005
	Cr	53		ug/L		275363	0.123
	Mn	55	**12.928**	ug/L	0.781	122820	0.087
	Fe	57	**52.174**	ug/L	3.058	14311	0.007
	Co	59	**0.147**	ug/L	1.340	1259	0.001
	Ni	60	**2.374**	ug/L	4.253	4087	0.003
	Cu	63		ug/L		3328	0.002
	Cu	65	**0.542**	ug/L	3.273	1244	0.001
	Zn	66	**1.863**	ug/L	2.291	2651	0.005
	Zn	67		ug/L		72968	0.136
	Zn	68		ug/L		5950	0.010
>	Ge	74		ug/L		435859	435858.922
	As	75	**0.968**	ug/L	67.349	1232	0.003
	Se	77		ug/L		16835	0.027
	Se	82	**0.527**	ug/L	24.886	17	0.000
	Kr	83		ug/L		146	0.000
	Sr	88	**76.377**	ug/L	1.425	1104335	3.989
	Y	89		ug/L		126	0.000
	Mo	98	**5.310**	ug/L	2.193	20676	0.074
	Ag	107	**0.001**	ug/L	79.543	47	0.000
	Cd	111	**0.002**	ug/L	356.456	24	0.000
	Cd	114		ug/L		58	0.000
>	In	115		ug/L		276784	276783.797
	Sn	120	**0.085**	ug/L	14.613	1182	0.002
	Sb	121	**-0.502**	ug/L	2.733	1575	-0.011
	Sb	123		ug/L		1308	-0.008
	Ba	135		ug/L		55105	0.097
	Ba	137	**29.138**	ug/L	3.061	97344	0.171
	Ho	165		ug/L		32	0.000
>	Lu	175		ug/L		568078	568078.230
	Tl	205	**0.236**	ug/L	5.202	6398	0.010
	Pb	208	**0.030**	ug/L	6.610	1521	0.002
	Bi	209		ug/L		164	-0.000
	Th	232	**-0.007**	ug/L	22.102	1393	-0.001
	U	238	**0.763**	ug/L	2.013	41060	0.072

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		89.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		83.9			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		87.3			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		91.6			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202000558
Sample Date/Time: Sunday, January 03, 2010 16:53:36
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 935029|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100103\1202000558.066

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**89.183**	ug/L	5.041	160043	0.112
	Be	9	**55.960**	ug/L	3.478	26272	0.018
	B	11	**120.023**	ug/L	1.894	58604	0.040
	Na	23	**15520.615**	ug/L	14.920	73005970	51.081
	Mg	24	**5836.767**	ug/L	5.485	19663411	13.780
	Al	27	**1937.914**	ug/L	0.327	9565847	6.696
	P	31	**1744.553**	ug/L	1.438	541609	0.375
	K	39	**3757.488**	ug/L	16.707	22762603	15.572
	Ca	43	**15513.687**	ug/L	1.760	215366	0.151
>	Sc	45		ug/L		1427953	1427953.348
	Ti	47	**46.646**	ug/L	1.099	33648	0.023
	V	51	**49.677**	ug/L	0.720	408722	0.278
	Cr	52	**49.775**	ug/L	2.428	310652	0.216
	Cr	53		ug/L		316613	0.148
	Mn	55	**62.650**	ug/L	1.996	600478	0.420
	Fe	57	**2179.342**	ug/L	1.686	397675	0.275
	Co	59	**48.049**	ug/L	2.130	371053	0.260
	Ni	60	**49.761**	ug/L	3.925	85652	0.060
	Cu	63		ug/L		197511	0.138
	Cu	65	**47.711**	ug/L	2.865	96915	0.068
	Zn	66	**52.280**	ug/L	1.709	65834	0.149
	Zn	67		ug/L		85579	0.163
	Zn	68		ug/L		51872	0.115
>	Ge	74		ug/L		440192	440191.857
	As	75	**77.603**	ug/L	1.207	102827	0.234
	Se	77		ug/L		18989	0.031
	Se	82	**20.999**	ug/L	2.409	2570	0.006
	Kr	83		ug/L		168	0.000
	Sr	88	**120.191**	ug/L	2.101	1728366	6.278
	Y	89		ug/L		156	0.000
	Mo	98	**54.169**	ug/L	1.114	209136	0.759
	Ag	107	**50.791**	ug/L	1.019	326176	1.185
	Cd	111	**10.447**	ug/L	2.306	16832	0.061
	Cd	114		ug/L		38612	0.140
>	In	115		ug/L		275319	275318.912
	Sn	120	**51.115**	ug/L	3.731	341223	1.237
	Sb	121	**191.994**	ug/L	1.890	1122480	4.061
	Sb	123		ug/L		903936	3.271
	Ba	135		ug/L		141810	0.248
	Ba	137	**75.488**	ug/L	1.435	253828	0.444
	Ho	165		ug/L		312	0.000
>	Lu	175		ug/L		571730	571729.550
	Tl	205	**92.537**	ug/L	1.368	2350623	4.111
	Pb	208	**43.550**	ug/L	0.542	1709988	2.990
	Bi	209		ug/L		691	0.001
	Th	232	**50.253**	ug/L	1.141	2411125	4.214
	U	238	**51.618**	ug/L	0.686	2769167	4.843

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		91.2			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		84.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		86.8			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		92.2			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202000559
Sample Date/Time: Sunday, January 03, 2010 16:59:46
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 935029|5|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100103\1202000559.067

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**5.994**	**ug/L**	1.423	10531	0.008
	Be	9	**-0.009**	**ug/L**	67.190	14	-0.000
	B	11	**4.747**	**ug/L**	8.400	2944	0.002
	Na	23	**2683.916**	**ug/L**	11.052	12143130	8.833
	Mg	24	**756.857**	**ug/L**	3.104	2456835	1.787
	Al	27	**0.586**	**ug/L**	141.241	6335	0.002
	P	31	**9.621**	**ug/L**	23.246	9379	0.002
	K	39	**348.703**	**ug/L**	10.374	2499603	1.445
	Ca	43	**2762.375**	**ug/L**	0.757	37176	0.027
>	Sc	45		**ug/L**		1375223	1375223.368
	Ti	47	**0.817**	**ug/L**	5.987	948	0.000
	V	51	**0.922**	**ug/L**	76.030	18858	0.005
	Cr	52	**-0.184**	**ug/L**	43.490	468	-0.001
	Cr	53		**ug/L**		174321	0.053
	Mn	55	**2.626**	**ug/L**	2.537	25340	0.018
	Fe	57	**7.797**	**ug/L**	15.019	6313	0.001
	Co	59	**0.023**	**ug/L**	14.450	310	0.000
	Ni	60	**0.456**	**ug/L**	7.589	825	0.001
	Cu	63		**ug/L**		711	0.000
	Cu	65	**0.072**	**ug/L**	7.731	299	0.000
	Zn	66	**0.400**	**ug/L**	5.727	858	0.001
	Zn	67		**ug/L**		25445	0.025
	Zn	68		**ug/L**		2480	0.002
>	Ge	74		**ug/L**		447619	447619.362
	As	75	**0.005**	**ug/L**	2193.262	-27	0.000
	Se	77		**ug/L**		9907	0.010
	Se	82	**0.378**	**ug/L**	16.839	-2	0.000
	Kr	83		**ug/L**		116	-0.000
	Sr	88	**15.599**	**ug/L**	4.012	232263	0.815
	Y	89		**ug/L**		73	0.000
	Mo	98	**1.015**	**ug/L**	4.359	4130	0.014
	Ag	107	**0.000**	**ug/L**	172.845	44	0.000
	Cd	111	**-0.010**	**ug/L**	33.810	5	-0.000
	Cd	114		**ug/L**		35	-0.000
>	In	115		**ug/L**		285055	285054.935
	Sn	120	**0.002**	**ug/L**	327.992	645	0.000
	Sb	121	**-0.453**	**ug/L**	11.474	1911	-0.010
	Sb	123		**ug/L**		1545	-0.007
	Ba	135		**ug/L**		10959	0.019
	Ba	137	**5.624**	**ug/L**	1.533	19452	0.033
	Ho	165		**ug/L**		30	-0.000
>	Lu	175		**ug/L**		586939	586938.664
	Tl	205	**1.042**	**ug/L**	20.891	27542	0.046
	Pb	208	**0.002**	**ug/L**	22.447	475	0.000
	Bi	209		**ug/L**		146	-0.000
	Th	232	**0.005**	**ug/L**	151.101	2013	0.000
	U	238	**0.145**	**ug/L**	3.699	8396	0.014

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45			87.8		
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74			86.2		
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115			89.9		
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175			94.6		
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243104002
Sample Date/Time: Sunday, January 03, 2010 17:05:55
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 935029|1|baj
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100103\243104002.068

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**30.401**	ug/L	1.560	52847	0.038
	Be	9	**0.000**	ug/L	2556.503	18	0.000
	B	11	**15.782**	ug/L	2.732	8087	0.005
	Na	23	**14035.740**	ug/L	2.974	63754061	46.194
	Mg	24	**3804.130**	ug/L	8.627	12371502	8.981
	Al	27	**18.483**	ug/L	2.976	91627	0.064
	P	31	**48.150**	ug/L	4.519	20819	0.010
	K	39	**1825.393**	ug/L	4.337	10943795	7.565
	Ca	43	**13678.237**	ug/L	3.031	183407	0.133
>	Sc	45		ug/L		1379228	1379228.021
	Ti	47	**4.196**	ug/L	2.543	3276	0.002
	V	51	**2.559**	ug/L	41.309	31499	0.014
	Cr	52	**1.208**	ug/L	10.124	8823	0.005
	Cr	53		ug/L		273995	0.125
	Mn	55	**11.230**	ug/L	2.070	104915	0.075
	Fe	57	**69.874**	ug/L	3.727	17128	0.009
	Co	59	**0.094**	ug/L	6.638	843	0.001
	Ni	60	**2.587**	ug/L	2.924	4368	0.003
	Cu	63		ug/L		3432	0.002
	Cu	65	**0.620**	ug/L	2.891	1375	0.001
	Zn	66	**3.009**	ug/L	2.669	3979	0.009
	Zn	67		ug/L		70527	0.134
	Zn	68		ug/L		6883	0.013
>	Ge	74		ug/L		425869	425869.262
	As	75	**0.703**	ug/L	31.527	869	0.002
	Se	77		ug/L		16046	0.026
	Se	82	**0.738**	ug/L	16.830	42	0.000
	Kr	83		ug/L		128	-0.000
	Sr	88	**76.598**	ug/L	1.278	1086514	4.001
	Y	89		ug/L		440	0.001
	Mo	98	**5.510**	ug/L	1.645	21045	0.077
	Ag	107	**0.001**	ug/L	51.792	45	0.000
	Cd	111	**-0.008**	ug/L	67.582	7	-0.000
	Cd	114		ug/L		55	0.000
>	In	115		ug/L		271521	271521.122
	Sn	120	**0.092**	ug/L	14.406	1206	0.002
	Sb	121	**-0.451**	ug/L	0.855	1841	-0.010
	Sb	123		ug/L		1467	-0.007
	Ba	135		ug/L		55281	0.099
	Ba	137	**29.577**	ug/L	2.538	97564	0.174
	Ho	165		ug/L		62	0.000
>	Lu	175		ug/L		560803	560802.503
	Tl	205	**0.358**	ug/L	2.799	9360	0.016
	Pb	208	**0.049**	ug/L	1.422	2229	0.003
	Bi	209		ug/L		152	-0.000
	Th	232	**0.018**	ug/L	27.779	2532	0.002
	U	238	**0.775**	ug/L	2.139	41126	0.073

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		88.0			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		82.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		85.6			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		90.4			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Sunday, January 03, 2010 17:12:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100103\QC Std 8.069

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**61.801**	ug/L	0.328	105709	0.078
	Be	9	**55.509**	ug/L	3.117	24809	0.018
	B	11	**103.702**	ug/L	4.904	48261	0.035
	Na	23	**4775.524**	ug/L	5.130	21363498	15.717
	Mg	24	**5355.687**	ug/L	9.027	17162912	12.644
	Al	27	**5019.057**	ug/L	9.901	23578948	17.343
	P	31	**4305.302**	ug/L	4.398	1262378	0.924
	K	39	**5190.571**	ug/L	8.074	29762715	21.511
	Ca	43	**5050.414**	ug/L	2.746	66928	0.049
>	Sc	45		ug/L		1359484	1359484.472
	Ti	47	**49.854**	ug/L	3.815	34195	0.025
	V	51	**51.800**	ug/L	5.234	404931	0.289
	Cr	52	**52.277**	ug/L	4.734	310437	0.227
	Cr	53		ug/L		158966	0.044
	Mn	55	**54.743**	ug/L	3.284	499540	0.367
	Fe	57	**5509.025**	ug/L	3.954	949065	0.695
	Co	59	**50.766**	ug/L	3.878	373067	0.274
	Ni	60	**51.771**	ug/L	4.512	84813	0.062
	Cu	63		ug/L		198379	0.146
	Cu	65	**50.902**	ug/L	3.033	98418	0.072
	Zn	66	**52.438**	ug/L	2.649	68274	0.149
	Zn	67		ug/L		28815	0.032
	Zn	68		ug/L		51534	0.110
>	Ge	74		ug/L		455143	455142.825
	As	75	**48.114**	ug/L	1.939	65900	0.145
	Se	77		ug/L		10901	0.012
	Se	82	**49.277**	ug/L	2.293	6304	0.014
	Kr	83		ug/L		131	-0.000
	Sr	88	**52.010**	ug/L	3.647	769345	2.717
	Y	89		ug/L		118	0.000
	Mo	98	**48.963**	ug/L	3.206	194454	0.686
	Ag	107	**51.284**	ug/L	3.271	338733	1.196
	Cd	111	**50.713**	ug/L	2.898	83979	0.296
	Cd	114		ug/L		199655	0.705
>	In	115		ug/L		283279	283278.630
	Sn	120	**51.681**	ug/L	2.863	354924	1.251
	Sb	121	**50.504**	ug/L	5.142	307068	1.068
	Sb	123		ug/L		242049	0.842
	Ba	135		ug/L		91603	0.160
	Ba	137	**48.362**	ug/L	5.030	162733	0.284
	Ho	165		ug/L		59	0.000
>	Lu	175		ug/L		572624	572624.188
	Tl	205	**51.847**	ug/L	2.736	1318657	2.303
	Pb	208	**54.999**	ug/L	3.535	2161350	3.776
	Bi	209		ug/L		564	0.001
	Th	232	**51.757**	ug/L	4.603	2485115	4.341
	U	238	**52.599**	ug/L	4.316	2823908	4.935

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Li	7Linear Thru Zero	1.0000
Be	9Linear Thru Zero	1.0000
B	11Linear Thru Zero	1.0000
Na	23Linear Thru Zero	1.0000
Mg	24Linear Thru Zero	1.0000
Al	27Linear Thru Zero	1.0000
P	31Linear Thru Zero	1.0000
K	39Linear Thru Zero	1.0000
Ca	43Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Ti	47Linear Thru Zero	1.0000
V	51Linear Thru Zero	1.0000
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Fe	57Linear Thru Zero	0.9999
Co	59Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Cu	63Linear Thru Zero	
Cu	65Linear Thru Zero	1.0000
Zn	66Linear Thru Zero	1.0000
Zn	67Linear Thru Zero	
Zn	68Linear Thru Zero	
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Sr	88Linear Thru Zero	1.0000
Y	89Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sn	120Linear Thru Zero	1.0000
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Ba	135Linear Thru Zero	
Ba	137Linear Thru Zero	1.0000
Ho	165Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	0.9999
Bi	209Linear Thru Zero	
Th	232Linear Thru Zero	0.9999
U	238Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7	123.603				
	Be	9	111.017				
	B	11	103.702				
	Na	23	95.510				
	Mg	24	107.114				
	Al	27	99.387				
	P	31	86.106				
	K	39	103.811				
	Ca	43	101.008				
>	Sc	45		86.8			
	Ti	47	99.708				
	V	51	103.600				
	Cr	52	104.554				
	Cr	53					
	Mn	55	109.487				
	Fe	57	110.181				
	Co	59	101.531				
	Ni	60	103.542				
	Cu	63					
	Cu	65	101.804				
	Zn	66	104.876				
	Zn	67					
	Zn	68					
>	Ge	74		87.7			
	As	75	96.228				
	Se	77					
	Se	82	98.555				
	Kr	83					
	Sr	88	104.019				
	Y	89					
	Mo	98	97.926				
	Ag	107	102.567				
	Cd	111	101.427				
	Cd	114					
>	In	115		89.3			
	Sn	120	103.362				
	Sb	121	101.008				
	Sb	123					
	Ba	135					
	Ba	137	96.724				
	Ho	165					
>	Lu	175		92.3			
	Tl	205	103.693				
	Pb	208	109.997				
	Bi	209					
	Th	232	103.514				
	U	238	105.199				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Li	7	CCV is out of limits (+/- 10%)
QC Std 8	Be	9	CCV is out of limits (+/- 10%)
QC Std 8	P	31	CCV is out of limits (+/- 10%)
QC Std 8	Fe	57	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Sunday, January 03, 2010 17:18:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\6020 2.mth
Dataset File: c:\elandata\Dataset\100103\QC Std 9.070

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Li	7	**-0.020**	**ug/L**	37.739	142	-0.000
	Be	9	**0.002**	**ug/L**	59.002	19	0.000
	B	11	**1.663**	**ug/L**	25.815	1493	0.001
	Na	23	**0.807**	**ug/L**	173.074	18680	0.003
	Mg	24	**0.418**	**ug/L**	44.969	1333	0.001
	Al	27	**0.049**	**ug/L**	1284.960	3667	0.000
	P	31	**-1.254**	**ug/L**	55.850	6093	-0.000
	K	39	**6.340**	**ug/L**	11.202	542787	0.026
	Ca	43	**0.461**	**ug/L**	504.726	293	0.000
>	Sc	45		**ug/L**		1357087	1357087.236
	Ti	47	**0.063**	**ug/L**	72.354	424	0.000
	V	51	**0.096**	**ug/L**	259.638	12404	0.001
	Cr	52	**-0.105**	**ug/L**	17.418	935	-0.000
	Cr	53		**ug/L**		115237	0.012
	Mn	55	**0.008**	**ug/L**	80.782	1208	0.000
	Fe	57	**-0.087**	**ug/L**	1207.279	4880	-0.000
	Co	59	**-0.002**	**ug/L**	19.989	126	-0.000
	Ni	60	**0.016**	**ug/L**	11.179	95	0.000
	Cu	63		**ug/L**		505	0.000
	Cu	65	**-0.001**	**ug/L**	769.805	155	-0.000
	Zn	66	**-0.029**	**ug/L**	62.473	309	-0.000
	Zn	67		**ug/L**		16079	0.005
	Zn	68		**ug/L**		1563	0.000
>	Ge	74		**ug/L**		443344	443344.100
	As	75	**0.027**	**ug/L**	148.152	3	0.000
	Se	77		**ug/L**		5825	0.001
	Se	82	**0.244**	**ug/L**	88.765	-18	0.000
	Kr	83		**ug/L**		128	-0.000
	Sr	88	**0.004**	**ug/L**	49.437	223	0.000
	Y	89		**ug/L**		66	0.000
	Mo	98	**0.031**	**ug/L**	17.508	202	0.000
	Ag	107	**0.003**	**ug/L**	7.381	62	0.000
	Cd	111	**0.002**	**ug/L**	172.711	25	0.000
	Cd	114		**ug/L**		44	0.000
>	In	115		**ug/L**		284049	284049.056
	Sn	120	**0.058**	**ug/L**	36.734	1025	0.001
	Sb	121	**-0.472**	**ug/L**	10.301	1798	-0.010
	Sb	123		**ug/L**		1442	-0.008
	Ba	135		**ug/L**		39	0.000
	Ba	137	**0.003**	**ug/L**	213.729	54	0.000
	Ho	165		**ug/L**		29	-0.000
>	Lu	175		**ug/L**		574804	574803.565
	Tl	205	**0.503**	**ug/L**	16.743	13278	0.022
	Pb	208	**0.003**	**ug/L**	19.646	504	0.000
	Bi	209		**ug/L**		158	-0.000
	Th	232	**0.038**	**ug/L**	36.731	3556	0.003
	U	238	**0.006**	**ug/L**	10.613	707	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Li	7	Linear Thru Zero	1.0000
Be	9	Linear Thru Zero	1.0000
B	11	Linear Thru Zero	1.0000
Na	23	Linear Thru Zero	1.0000
Mg	24	Linear Thru Zero	1.0000
Al	27	Linear Thru Zero	1.0000
P	31	Linear Thru Zero	1.0000
K	39	Linear Thru Zero	1.0000
Ca	43	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Ti	47	Linear Thru Zero	1.0000
V	51	Linear Thru Zero	1.0000
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Fe	57	Linear Thru Zero	0.9999
Co	59	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Cu	63	Linear Thru Zero	
Cu	65	Linear Thru Zero	1.0000
Zn	66	Linear Thru Zero	1.0000
Zn	67	Linear Thru Zero	
Zn	68	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Sr	88	Linear Thru Zero	1.0000
Y	89	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sn	120	Linear Thru Zero	1.0000
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Ba	135	Linear Thru Zero	
Ba	137	Linear Thru Zero	1.0000
Ho	165	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	0.9999
Bi	209	Linear Thru Zero	
Th	232	Linear Thru Zero	0.9999
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Li	7					
	Be	9					
	B	11					
	Na	23					
	Mg	24					
	Al	27					
	P	31					
	K	39					
	Ca	43					
>	Sc	45		86.6			
	Ti	47					
	V	51					
	Cr	52					
	Cr	53					
	Mn	55					
	Fe	57					
	Co	59					
	Ni	60					
	Cu	63					
	Cu	65					
	Zn	66					
	Zn	67					
	Zn	68					
>	Ge	74		85.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Sr	88					
	Y	89					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		89.5			
	Sn	120					
	Sb	121					
	Sb	123					
	Ba	135					
	Ba	137					
	Ho	165					
>	Lu	175		92.7			
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Tuesday, January 05, 2010 09:41:51
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default2\Sample.1652
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	4996.3	4996.274	114.293	2.3
	Mg	24.0	61091.0	61090.957	646.835	1.1
	Co	58.9	109691.5	109691.457	2252.090	2.1
	Rh	102.9	196378.3	196378.310	2476.443	1.3
	In	114.9	274585.9	274585.907	3413.891	1.2
	Pb	208.0	318004.3	318004.302	2893.703	0.9
⌈>	Ba	137.9	283932.6	283932.597	4647.984	1.6
⌊	Ba++	69.0	5403.5	0.019	0.001	2.9
⌈>	Ce	139.9	344661.2	344661.234	3293.852	1.0
⌊	CeO	155.9	9646.3	0.028	0.001	2.5
	Bkgd	220.0	12.8	12.800	2.564	20.0

Current Optimization File Data

Current Value	Description
0.85	Nebulizer Gas Flow
7.00	Lens Voltage
1450.00	ICP RF Power
-1687.50	Analog Stage Voltage
1200.00	Pulse Stage Voltage
275.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	7.5	7468.6
Co	59	17	8.8	111317.4
In	115	17	10.0	300871.6

ICPMS #5 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	601	2065	0.571
Be	9.0	9.0	2049	2070	0.624
Mg	24.0	24.0	5687	2070	0.607
Mg	25.0	25.0	5951	2070	0.613
Mg	26.0	26.0	6179	2070	0.635
Co	58.9	59.0	14192	2105	0.601
Rh	102.9	102.9	24880	2165	0.595
In	114.9	114.9	27794	2185	0.599
Ce	139.9	139.9	33878	2200	0.614
Pb	206.0	206.0	49948	2270	0.653
Pb	207.0	207.0	50183	2235	0.675
Pb	208.0	208.0	50451	2260	0.697
U	238.1	238.1	57733	2275	0.711

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Tuesday, January 05, 2010 10:01:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\Blank.004

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		760443	
⌊	Tl	205		ug/L		1653	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Tuesday, January 05, 2010 10:05:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\Standard 1.005

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		743896	743896.123
⌊	Tl	205	**10.000**	**ug/L**	2.067	381092	0.510

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Tuesday, January 05, 2010 10:10:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\Standard 2.006

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		**ug/L**		722061	722060.523
[	Tl	205	**99.843**	**ug/L**	0.549	3180412	4.402

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175					
[	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Tuesday, January 05, 2010 10:14:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\QC Std 1.007

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		735990	735990.086
	Tl	205	48.467	ug/L	1.691	1574087	2.137

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		96.8			
	Tl	205	96.934				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Tuesday, January 05, 2010 10:19:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\QC Std 2.008

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		737715	737714.988
⌊	Tl	205	-0.006	ug/L	8.995	1423	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		97.0			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Tuesday, January 05, 2010 10:23:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\QC Std 3.009

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		732989	732989.025
	Tl	205	**1.164**	**ug/L**	1.926	39229	0.051

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		96.4			
	Tl	205	116.437				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Tuesday, January 05, 2010 10:28:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\QC Std 4.010

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		639890	639889.776
	Tl	205	0.003	ug/L	34.531	1467	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		84.1			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Tuesday, January 05, 2010 10:32:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\QC Std 5.011

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		611527	611526.914
⌊	Tl	205	21.774	ug/L	0.424	588442	0.960

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		80.4			
⌊	Tl	205	108.872				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, January 05, 2010 10:37:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\QC Std 6.012

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		727956	727956.333
⌊	Tl	205	49.189	ug/L	2.234	1580065	2.169

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		95.7			
⌊	Tl	205	98.378				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, January 05, 2010 10:41:46
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\QC Std 7.013

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		727631	727631.108
⌊	Tl	205	**-0.008**	**ug/L**	14.241	1335	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		95.7			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202000555
Sample Date/Time: Tuesday, January 05, 2010 10:46:16
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 935029|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\1202000555.014

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		695643	695643.373
⌊	Tl	205	-0.021	ug/L	4.339	855	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		91.5			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202000556
Sample Date/Time: Tuesday, January 05, 2010 10:50:44
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 935029|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\1202000556.015

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		703439	703439.260
⌊	Tl	205	45.953	ug/L	1.404	1426601	2.026

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		92.5			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243104001
Sample Date/Time: Tuesday, January 05, 2010 10:55:13
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 935029|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\243104001.016

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		658909	658909.131
⌊	Tl	205	0.227	ug/L	1.392	8016	0.010

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		86.6			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202000557
Sample Date/Time: Tuesday, January 05, 2010 10:59:42
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 935029|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\1202000557.017

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		638978	638977.903
⌊	Tl	205	0.038	ug/L	4.720	2454	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		84.0			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202000558
Sample Date/Time: Tuesday, January 05, 2010 11:04:12
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 935029|1|ba|
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\1202000558.018

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		627791	627790.883
	Tl	205	87.291	ug/L	0.979	2417914	3.849

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		82.6			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202000559
Sample Date/Time: Tuesday, January 05, 2010 11:08:42
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 935029|5|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\1202000559.019

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		676087	676086.886
	Tl	205	0.337	ug/L	0.288	11521	0.015

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		88.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 243104002
Sample Date/Time: Tuesday, January 05, 2010 11:13:12
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 935029|1|baj
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\243104002.020

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		635925	635925.035
⌊	Tl	205	0.097	ug/L	4.868	4100	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		83.6			
⌊	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Tuesday, January 05, 2010 11:17:41
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\QC Std 6.021

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		702741	702740.658
⌊	Tl	205	47.602	ug/L	0.902	1476464	2.099

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		92.4			
⌊	Tl	205	95.204				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Tuesday, January 05, 2010 11:22:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\tl only.mth
Dataset File: C:\elandata\Dataset\100105\QC Std 7.022

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		721649	721648.982
	Tl	205	**0.038**	**ug/L**	4.203	2788	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		94.9			
	Tl	205					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

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Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\123109W1.SIF
Batch ID:
Results Data Set: 123109W1
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Method Loaded
Method Name: WATER **Method Last Saved: 12/28/2009 15:47:50**
Method Description: 7470A, 245.2, ILM04 ANALYST JXL

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 12/31/2009 08:57:54**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0001	0.0001	0.0001	08:58:57	Yes
2		[0.00]	0.0001	-0.0003	0.0001	08:59:32	Yes
Mean:		[0.00]	0.0001				
SD:		0.00	0.0000				
%RSD:		0.00	0.67				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 12/31/2009 08:59:50**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0019	0.0090	0.0020	09:00:51	Yes
2		[0.2]	0.0020	0.0091	0.0021	09:01:26	Yes
Mean:		[0.2]	0.0020				
SD:		0.0	0.0000				
%RSD:		0.0	0.50				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.00975 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 12/31/2009 09:01:45**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0048	0.0217	0.0049	09:02:46	Yes
2		[0.5]	0.0048	0.0216	0.0049	09:03:21	Yes
Mean:		[0.5]	0.0048				
SD:		0.0	0.0000				
%RSD:		0.0	0.65				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999976 Slope: 0.00960 Intercept: 0.00001

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 12/31/2009 09:03:41**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[2.0]	0.0194	0.0894	0.0195	09:04:42	Yes
2		[2.0]	0.0192	0.0883	0.0193	09:05:17	Yes
Mean:		[2.0]	0.0193				
SD:		0.0	0.0002				
%RSD:		0.0	0.99				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999998 Slope: 0.00964 Intercept: 0.00000

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 12/31/2009 09:05:37**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0477	0.2206	0.0479	09:06:39	Yes
2		[5.0]	0.0467	0.2158	0.0468	09:07:13	Yes
Mean:		[5.0]	0.0472				
SD:		0.0	0.0007				
%RSD:		0.0	1.57				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999964 Slope: 0.00945 Intercept: 0.00011

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 12/31/2009 09:07:34**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.0941	0.4336	0.0942	09:08:34	Yes
2		[10.0]	0.0926	0.4278	0.0927	09:09:09	Yes
Mean:		[10.0]	0.0933				
SD:		0.0	0.0011				
%RSD:		0.0	1.15				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999971 Slope: 0.00933 Intercept: 0.00023

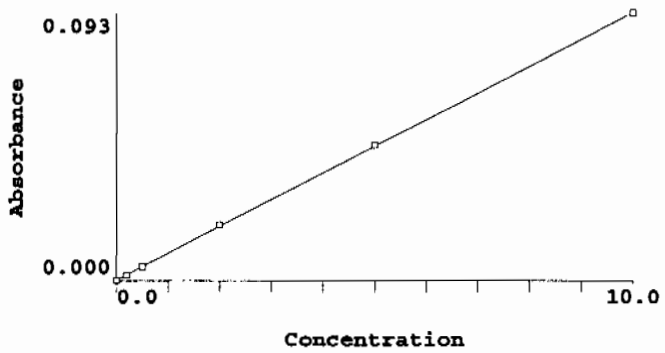

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	-0.025	0.00	0.7
S0.2	0.0020	0.2	0.184	0.00	0.5
S0.5	0.0048	0.5	0.490	0.00	0.7
S2.0	0.0193	2.0	2.042	0.00	1.0

S5.0	0.0472	5.0	5.035	0.00	1.6
S10.0	0.0933	10.0	9.975	0.00	1.2

Correlation Coef.: 0.999971 Slope: 0.00933 Intercept: 0.00023

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 12/31/2009 09:09:28**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.143	5.143	0.0482	0.2248	0.0483	09:10:29	Yes
2	5.090	5.090	0.0477	0.2212	0.0478	09:11:04	Yes
Mean:	5.116	5.116	0.0480				
SD:	0.037	0.037	0.0003				
%RSD:	0.731	0.731	0.73				

QC value within limits for Hg 253.7 Recovery = 102.32%
All analyte(s) passed QC.

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 12/31/2009 09:11:24**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.022	-0.022	0.0000	-0.0004	0.0001	09:12:25	Yes
2	-0.027	-0.027	-0.0000	-0.0008	0.0001	09:13:00	Yes
Mean:	-0.025	-0.025	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	14.58	14.58	>999.9%				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 12/31/2009 09:13:20**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.181	0.181	0.0019	0.0085	0.0020	09:14:21	Yes
2	0.180	0.180	0.0019	0.0087	0.0020	09:14:56	Yes
Mean:	0.181	0.181	0.0019				
SD:	0.001	0.001	0.0000				
%RSD:	0.432	0.432	0.38				

QC value within limits for Hg 253.7 Recovery = 90.39%
All analyte(s) passed QC.

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/31/2009 09:15:16**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.075	5.075	0.0476	0.2207	0.0477	09:16:17	Yes
2	5.065	5.065	0.0475	0.2189	0.0476	09:16:52	Yes
Mean:	5.070	5.070	0.0476				
SD:	0.007	0.007	0.0001				
%RSD:	0.132	0.132	0.13				

QC value within limits for Hg 253.7 Recovery = 101.40%
All analyte(s) passed QC.

Sequence No.: 11
Sample ID: CCB
Analyst:
Autosampler Location: 8
Date Collected: 12/31/2009 09:17:11
Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.029	-0.029	-0.0000	-0.0007	0.0001	09:18:12	Yes
2	-0.028	-0.028	-0.0000	-0.0007	0.0001	09:18:47	Yes
Mean:	-0.028	-0.028	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	2.257	2.257	20.62				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12
Sample ID: 1202005802|937363|1
Analyst: JXL
Autosampler Location: 12
Date Collected: 12/31/2009 09:19:06
Data Type: Original

Replicate Data: 1202005802|937363|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.029	-0.029	-0.0000	-0.0009	0.0001	09:20:08	Yes
2	-0.031	-0.031	-0.0001	-0.0011	0.0001	09:20:43	Yes
Mean:	-0.030	-0.030	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	5.054	5.054	32.46				

Sequence No.: 13
Sample ID: 1202005803|937363|1
Analyst: JXL
Autosampler Location: 13
Date Collected: 12/31/2009 09:21:03
Data Type: Original

Replicate Data: 1202005803|937363|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.058	2.058	0.0194	0.0894	0.0195	09:22:05	Yes
2	2.054	2.054	0.0194	0.0889	0.0195	09:22:40	Yes
Mean:	2.056	2.056	0.0194				
SD:	0.002	0.002	0.0000				
%RSD:	0.120	0.120	0.12				

Sequence No.: 14
Sample ID: 243469007|937363|1
Analyst: JXL
Autosampler Location: 14
Date Collected: 12/31/2009 09:23:00
Data Type: Original

Replicate Data: 243469007|937363|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.032	-0.032	-0.0001	-0.0013	0.0000	09:24:00	Yes
2	-0.023	-0.023	0.0000	-0.0003	0.0001	09:24:35	Yes
Mean:	-0.027	-0.027	-0.0000				
SD:	0.006	0.006	0.0001				
%RSD:	21.62	21.62	238.80				

Sequence No.: 15
Sample ID: 1202005804|937363|1
Analyst: JXL
Autosampler Location: 15
Date Collected: 12/31/2009 09:24:54
Data Type: Original

Replicate Data: 1202005804|937363|1

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	-0.032	-0.032	-0.0001	-0.0010	0.0000	09:25:55	Yes
2	-0.028	-0.028	-0.0000	-0.0006	0.0001	09:26:30	Yes
Mean:	-0.030	-0.030	-0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	8.945	8.945	52.02				

==========

Sequence No.: 16 **Autosampler Location: 16**
Sample ID: 1202005805|937363|1 **Date Collected: 12/31/2009 09:26:49**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202005805|937363|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	1.702	1.702	0.0161	0.0777	0.0162	09:27:49	Yes
2	1.670	1.670	0.0158	0.0760	0.0159	09:28:24	Yes
Mean:	1.686	1.686	0.0160				
SD:	0.023	0.023	0.0002				
%RSD:	1.338	1.338	1.32				

==========

Sequence No.: 17 **Autosampler Location: 17**
Sample ID: 1202005806|937363|5 **Date Collected: 12/31/2009 09:28:43**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202005806|937363|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.022	-0.022	0.0000	-0.0001	0.0001	09:29:43	Yes
2	-0.027	-0.027	-0.0000	-0.0011	0.0001	09:30:18	Yes
Mean:	-0.024	-0.024	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	12.70	12.70	491.35				

==========

Sequence No.: 18 **Autosampler Location: 18**
Sample ID: 1202000258|934915|1 **Date Collected: 12/31/2009 09:30:37**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202000258|934915|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.020	-0.020	0.0000	-0.0007	0.0001	09:31:37	Yes
2	-0.020	-0.020	0.0000	-0.0007	0.0001	09:32:12	Yes
Mean:	-0.020	-0.020	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	0.438	0.438	1.82				

==========

Sequence No.: 19 **Autosampler Location: 19**
Sample ID: 1202000259|934915|1 **Date Collected: 12/31/2009 09:32:31**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202000259|934915|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.151	2.151	0.0203	0.0934	0.0204	09:33:32	Yes
2	2.117	2.117	0.0200	0.0921	0.0201	09:34:07	Yes
Mean:	2.134	2.134	0.0201				
SD:	0.024	0.024	0.0002				
%RSD:	1.143	1.143	1.13				

==========

Sequence No.: 20 **Autosampler Location: 20**
Sample ID: 242934001|934915|1 **Date Collected: 12/31/2009 09:34:26**
Analyst: JXL **Data Type: Original**

Replicate Data: 242934001|934915|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.017	-0.017	0.0001	-0.0007	0.0002	09:35:27	Yes
2	-0.013	-0.013	0.0001	0.0001	0.0002	09:36:02	Yes
Mean:	-0.015	-0.015	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	15.43	15.43	22.98				

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 242934002|934915|1 **Date Collected: 12/31/2009 09:36:21**
Analyst: JXL **Data Type: Original**

Replicate Data: 242934002|934915|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.015	-0.015	0.0001	-0.0000	0.0002	09:37:22	Yes
2	-0.020	-0.020	0.0000	0.0001	0.0001	09:37:57	Yes
Mean:	-0.017	-0.017	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	21.16	21.16	48.57				

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/31/2009 09:38:17**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.158	5.158	0.0484	0.2251	0.0485	09:39:17	Yes
2	5.147	5.147	0.0483	0.2240	0.0484	09:39:52	Yes
Mean:	5.152	5.152	0.0483				
SD:	0.008	0.008	0.0001				
%RSD:	0.148	0.148	0.15				

QC value within limits for Hg 253.7 Recovery = 103.04%
All analyte(s) passed QC.

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 12/31/2009 09:40:11**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.019	-0.019	0.0001	0.0003	0.0002	09:41:11	Yes
2	-0.022	-0.022	0.0000	0.0001	0.0001	09:41:46	Yes
Mean:	-0.020	-0.020	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	10.09	10.09	43.84				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 243009001|934915|1 **Date Collected: 12/31/2009 09:42:05**
Analyst: JXL **Data Type: Original**

Replicate Data: 243009001|934915|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.014	0.014	0.0004	0.0015	0.0005	09:43:07	Yes
2	0.018	0.018	0.0004	0.0021	0.0005	09:43:42	Yes

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.027	-0.027	-0.0000	-0.0001	0.0001	09:52:47	Yes
2	-0.028	-0.028	-0.0000	0.0000	0.0001	09:53:22	Yes
Mean:	-0.027	-0.027	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	1.969	1.969	24.82				

==========

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 243104001|934915|1 **Date Collected: 12/31/2009 09:53:41**
Analyst: JXL **Data Type: Original**

Replicate Data: 243104001|934915|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.025	-0.025	-0.0000	-0.0000	0.0001	09:54:41	Yes
2	-0.025	-0.025	0.0000	0.0002	0.0001	09:55:16	Yes
Mean:	-0.025	-0.025	-0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	1.688	1.688	331.31				

==========

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 1202000260|934915|1 **Date Collected: 12/31/2009 09:55:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202000260|934915|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.024	-0.024	0.0000	0.0003	0.0001	09:56:36	Yes
2	-0.023	-0.023	0.0000	0.0003	0.0001	09:57:11	Yes
Mean:	-0.024	-0.024	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.413	4.413	74.07				

==========

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 1202000261|934915|1 **Date Collected: 12/31/2009 09:57:30**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202000261|934915|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.052	2.052	0.0194	0.0905	0.0195	09:58:31	Yes
2	2.043	2.043	0.0193	0.0908	0.0194	09:59:05	Yes
Mean:	2.047	2.047	0.0193				
SD:	0.006	0.006	0.0001				
%RSD:	0.310	0.310	0.31				

==========

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 1202000262|934915|5 **Date Collected: 12/31/2009 09:59:25**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202000262|934915|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.019	-0.019	0.0001	0.0009	0.0002	10:00:25	Yes
2	-0.031	-0.031	-0.0001	-0.0001	0.0001	10:01:00	Yes
Mean:	-0.025	-0.025	0.0000				
SD:	0.008	0.008	0.0001				
%RSD:	33.87	33.87	>999.9%				

==========

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 12/31/2009 10:01:19**

Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.143	5.143	0.0482	0.2265	0.0483	10:02:20	Yes
2	5.125	5.125	0.0481	0.2251	0.0482	10:02:55	Yes
Mean:	5.134	5.134	0.0482				
SD:	0.013	0.013	0.0001				
%RSD:	0.256	0.256	0.25				

QC value within limits for Hg 253.7 Recovery = 102.68%
All analyte(s) passed QC.

Sequence No.: 35 Autosampler Location: 8
Sample ID: CCB Date Collected: 12/31/2009 10:03:14
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.016	-0.016	0.0001	0.0010	0.0002	10:04:14	Yes
2	-0.014	-0.014	0.0001	0.0013	0.0002	10:04:49	Yes
Mean:	-0.015	-0.015	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	10.11	10.11	14.20				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 Autosampler Location: 32
Sample ID: 243104002|934915|1 Date Collected: 12/31/2009 10:05:08
Analyst: JXL Data Type: Original

Replicate Data: 243104002|934915|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.018	0.018	0.0004	0.0040	0.0005	10:06:09	Yes
2	-0.001	-0.001	0.0002	0.0030	0.0003	10:06:44	Yes
Mean:	0.008	0.008	0.0003				
SD:	0.013	0.013	0.0001				
%RSD:	161.1	161.1	39.93				

Sequence No.: 37 Autosampler Location: 33
Sample ID: 1202002074|935676|1 Date Collected: 12/31/2009 10:07:03
Analyst: JXL Data Type: Original

Replicate Data: 1202002074|935676|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.009	0.009	0.0003	0.0034	0.0004	10:08:05	Yes
2	0.002	0.002	0.0003	0.0031	0.0004	10:08:40	Yes
Mean:	0.006	0.006	0.0003				
SD:	0.005	0.005	0.0000				
%RSD:	89.07	89.07	16.11				

Sequence No.: 38 Autosampler Location: 34
Sample ID: 1202002075|935676|1 Date Collected: 12/31/2009 10:08:59
Analyst: JXL Data Type: Original

Replicate Data: 1202002075|935676|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.116	2.116	0.0200	0.0935	0.0201	10:10:01	Yes

Replicate Data: 243255005|935676|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.018	-0.018	0.0001	0.0010	0.0002	10:19:43	Yes
2	-0.019	-0.019	0.0001	0.0008	0.0002	10:20:18	Yes
Mean:	-0.018	-0.018	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	4.617	4.617	12.41				

==========

Sequence No.: 44 Autosampler Location: 40
Sample ID: 243255006|935676|1 Date Collected: 12/31/2009 10:20:37
Analyst: JXL Data Type: Original

Replicate Data: 243255006|935676|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.013	-0.013	0.0001	0.0012	0.0002	10:21:38	Yes
2	-0.014	-0.014	0.0001	0.0012	0.0002	10:22:13	Yes
Mean:	-0.013	-0.013	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	4.781	4.781	5.42				

==========

Sequence No.: 45 Autosampler Location: 41
Sample ID: 243257001|935676|1 Date Collected: 12/31/2009 10:22:32
Analyst: JXL Data Type: Original

Replicate Data: 243257001|935676|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.013	-0.013	0.0001	0.0009	0.0002	10:23:34	Yes
2	-0.013	-0.013	0.0001	0.0008	0.0002	10:24:09	Yes
Mean:	-0.013	-0.013	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	2.420	2.420	2.64				

==========

Sequence No.: 46 Autosampler Location: 7
Sample ID: CCV Date Collected: 12/31/2009 10:24:28
Analyst: Data Type: Original

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.150	5.150	0.0483	0.2275	0.0484	10:25:29	Yes
2	5.121	5.121	0.0480	0.2272	0.0481	10:26:03	Yes
Mean:	5.136	5.136	0.0482				
SD:	0.021	0.021	0.0002				
%RSD:	0.400	0.400	0.40				

QC value within limits for Hg 253.7 Recovery = 102.72%
All analyte(s) passed QC.

==========

Sequence No.: 47 Autosampler Location: 8
Sample ID: CCB Date Collected: 12/31/2009 10:26:22
Analyst: Data Type: Original

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	-0.003	-0.003	0.0002	0.0019	0.0003	10:27:23	Yes
2	-0.009	-0.009	0.0001	0.0014	0.0002	10:27:58	Yes
Mean:	-0.006	-0.006	0.0002				
SD:	0.004	0.004	0.0000				
%RSD:	65.87	65.87	22.78				

QC value within limits for Hg 253.7 Recovery = Not calculated

Miscellaneous

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 935026

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202000549	UI091124-01	.25	mL
LCS	1202000549	UI091124-06	.25	mL
MS	1202000551	UI091124-01	.25	mL
MS	1202000551	UI091124-06	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202000548		SW846 3005A	21-DEC-2009 13:30	<2	50 mL	50 mL	1	GROUND WATER
LCS	1202000549		SW846 3005A	21-DEC-2009 13:30	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243104001		SW846 3005A	21-DEC-2009 13:30	<2	50 mL	50 mL	1	GROUND WATER
DUP	1202000550	243104001	SW846 3005A	21-DEC-2009 13:30	<2	50 mL	50 mL	1	GROUND WATER
MS	1202000551	243104001	SW846 3005A	21-DEC-2009 13:30	<2	50 mL	50 mL	1	GROUND WATER
SDILT	1202000552	243104001	SW846 3005A	21-DEC-2009 13:30	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243104002		SW846 3005A	21-DEC-2009 13:30	<2	50 mL	50 mL	1	GROUND WATER

Reagent/Solvent Lot ID	Amount	Description
1244970	2.5 mL	HYDROCHLORIC ACID
1234886	1 mL	Nitric Acid CONC.

Comments

Prep LogBook

Analyst: FGA Verified by:_____

Batch: 935028

Lab SOP: GL-MA-E-006 REV# 9

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202000556	UI091124-A00	.5	mL
LCS	1202000556	UI091124-B	.5	mL
MS	1202000558	UI090828-A	.5	mL
MS	1202000558	UI090828-B	.5	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202000555		SW846 3005A	21-DEC-2009 13:30	<2	50 mL	50 mL	1	GROUND WATER
LCS	1202000556		SW846 3005A	21-DEC-2009 13:30	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243104001		SW846 3005A	21-DEC-2009 13:30	<2	50 mL	50 mL	1	GROUND WATER
DUP	1202000557	243104001	SW846 3005A	21-DEC-2009 13:30	<2	50 mL	50 mL	1	GROUND WATER
MS	1202000558	243104001	SW846 3005A	21-DEC-2009 13:30	<2	50 mL	50 mL	1	GROUND WATER
SDILT	1202000559	243104001	SW846 3005A	21-DEC-2009 13:30	<2	50 mL	50 mL	1	GROUND WATER
SAMPLE	243104002		SW846 3005A	21-DEC-2009 13:30	<2	50 mL	50 mL	1	GROUND WATER

Reagent/Solvent Lot ID	Amount	Description
1244970	2.5 mL	HYDROCHLORIC ACID
1234886	1 mL	Nitric Acid CONC.

Comments

Prep LogBook

Analyst: BCD1 Verified by:_____

Batch: 934914

Lab SOP: GL-MA-E-010 REV# 23

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202000259	WHG1248583-13	.2	mL
MS	1202000261	WHG1248583-13	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202000258		EPA 245.1/245.2 Prep	30-DEC-2009 15:09	<2	20 mL	20 mL	1	GROUND WATER
LCS	1202000259		EPA 245.1/245.2 Prep	30-DEC-2009 15:09	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	242934001		EPA 245.1/245.2 Prep	30-DEC-2009 15:09	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	242934002		EPA 245.1/245.2 Prep	30-DEC-2009 15:09	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243009001		EPA 245.1/245.2 Prep	30-DEC-2009 15:09	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243009002		EPA 245.1/245.2 Prep	30-DEC-2009 15:09	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243009003		EPA 245.1/245.2 Prep	30-DEC-2009 15:09	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243009004		EPA 245.1/245.2 Prep	30-DEC-2009 15:09	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243014001		EPA 245.1/245.2 Prep	30-DEC-2009 15:09	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243014002		EPA 245.1/245.2 Prep	30-DEC-2009 15:09	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243104001		EPA 245.1/245.2 Prep	30-DEC-2009 15:09	<2	20 mL	20 mL	1	GROUND WATER
DUP	1202000260	243104001	EPA 245.1/245.2 Prep	30-DEC-2009 15:09	<2	20 mL	20 mL	1	GROUND WATER
MS	1202000261	243104001	EPA 245.1/245.2 Prep	30-DEC-2009 15:09	<2	20 mL	20 mL	1	GROUND WATER
SDILT	1202000262	243104001	EPA 245.1/245.2 Prep	30-DEC-2009 15:09	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243104002		EPA 245.1/245.2 Prep	30-DEC-2009 15:09	<2	20 mL	20 mL	1	GROUND WATER

Reagent/Solvent Lot ID	Amount	Description
1176183	1 mL	Sulfuric Acid, Concentrated
1240182-1	.5 mL	NITRIC ACID
1234385-C	1.5 mL	5% Potassium Persulfate
1244904-C	3 mL	5% KMnO4 solution
1206350-C	1 mL	Hg reducing agent
WHG1248587-06	500 uL	Mercury Working 2nd Source 5.0/ICV
WHG1248589-01	20 uL	Mercury Working 1st Source CAL 0.2/CRA
WHG1248591-02	50 mL	Mercury Working 1st Source CAL 0.5
WHG1248593-05	1 mL	Mercury Working 1st Source CAL 10.0
WHG1248595-03	200 uL	Mercury Working 1st Source CAL 2.0
WHG1248597-04	500 uL	Mercury Working 1st Source CAL 5.0/CCV

Comments

There are no "Data Exception Reports" associated with this analytical report.

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Serial ID: UI090610-03 **Opened:** 10-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 10-JUN-09 **Lot Number :** 1016338
Type: Source Material **Expires:** 10-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L

Analyte	Concentration	Analyte	Concentration
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L

Analyte	Concentration	Analyte	Concentration
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090828-42 **Opened:** 16-SEP-09 **Amount :** 500 mL
Name: TRACE ICP Na-1000SOUR **Received:** 27-AUG-09 **Catalog Number :** 060011-02-03
Type: Source Material **Expires:** 16-SEP-10 **Lot Number :** 1017098
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: 02SI
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090828-A **Opened:** 28-AUG-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 28-AUG-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE liquid Spike Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090828-B **Opened:** 28-AUG-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 27-AUG-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 28-AUG-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L

Analyte	Concentration	Analyte	Concentration
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091124-01 **Opened:** 24-NOV-09 **Lot Number :** 1017642
Name: METALSPIKE-1 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Serial ID: UI091124-06 **Opened:** 24-NOV-09 **Lot Number :** 1017643
Name: METALSPIKE-2 **Received:** 24-NOV-09
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL

Analyte	Concentration	Analyte	Concentration
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI091124-A00 **Opened:** 24-NOV-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 24-NOV-09 **Lot Number :** 1017644
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Serial ID: UI091124-B **Opened:** 24-NOV-09 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 24-NOV-09 **Lot Number :** 1017644
Type: Source Material **Expires:** 24-NOV-10
Employee: Francena Armstrong
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Standard Logbook

Serial ID:	UI091130-48	**Opened:**	11-DEC-09	**Amount :**	1000 mL
Name:	Trace ICP ICSA	**Received:**	01-DEC-09	**Catalog Number :**	160005-02
Type:	Source Material	**Expires:**	01-JAN-10	**Lot Number :**	1018045
Employee:	Helen Camello			**Solvent :**	3% HCl + 1% HNO3
Supplier:	o2si				

Description: Trace ICP Interferent Check Standard A

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID:	UI091212-11	**Opened:**	12-DEC-09	**Amount :**	1000 mL
Name:	ICP-MS ICSA Master A	**Received:**	12-DEC-09	**Catalog Number :**	160013-01-01L
Type:	Source Material	**Expires:**	12-DEC-10	**Lot Number :**	1015303
Employee:	Paul Boyd			**Solvent :**	2% HNO3
Supplier:	02SI				

Description: ICP-MS ICSA Master A

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID:	UI091212-60	**Opened:**	12-DEC-09	**Amount :**	.5 mL
Name:	ICPMS High Range Standa	**Received:**	12-DEC-09	**Catalog Number :**	160212-02-01
Type:	Source Material	**Expires:**	12-DEC-10	**Lot Number :**	1018064
Employee:	Paul Boyd			**Solvent :**	2%HNO3 + Tr HF
Supplier:	O2SI				

Description: Linear Range Standard A

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L

Analyte	Concentration	Analyte	Concentration
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L
Zinc	250 mg/L		

Serial ID: UI091212-61 **Opened:** 12-DEC-09 **Amount :** .5 mL
Name: ICPMS High Range Standa **Received:** 12-DEC-09 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 12-DEC-10 **Lot Number :** 1018064
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI091215-48 **Opened:** 04-JAN-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 18-DEC-09 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 04-JAN-11 **Lot Number :** 1018219
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI091217-06 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-DEC-09 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018209
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: O2SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Standard Logbook

Serial ID: UI091217-07 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-DEC-09 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018210
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI091217-08 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-DEC-09 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018211
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI091217-12 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 17-DEC-09 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1018212
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L

Analyte	Concentration	Analyte	Concentration
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI091217-13 **Opened:** 17-DEC-09 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 17-DEC-09 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 17-DEC-10 **Lot Number :** 1016926
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI091228-40 **Opened:** 28-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 21-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-DEC-10 **Lot Number :** 1018160
Employee: Helen Carnello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Standard Logbook

Serial ID: UI091228-41 **Opened:** 28-DEC-09 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 21-DEC-09 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 28-DEC-10 **Lot Number :** 1018160
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UMS090303-01 **Opened:** 03-MAR-09 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 03-MAR-09 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 14-81JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS090303-02 **Opened:** 03-MAR-09 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 03-MAR-09 **Lot Number :** 14-83JB
Type: Source Material **Expires:** 28-FEB-10
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Standard Logbook

Serial ID: UMS090303-03 **Opened:** 03-MAR-09 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 03-MAR-09 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-10 **Lot Number :** 15-199JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: WHG1248583-13 **Opened:** 30-DEC-09 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 30-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 31-DEC-09
Employee: Bryan Davis **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG1248587-06 **Opened:** 30-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 30-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 31-DEC-09
Employee: Bryan Davis
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	5 ug/L		

Serial ID: WHG1248589-01 **Opened:** 30-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 30-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 31-DEC-09
Employee: Bryan Davis
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	.2 ug/L		

Standard Logbook

Serial ID: WHG1248591-02 **Opened:** 30-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 30-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 31-DEC-09
Employee: Bryan Davis
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	.5 ug/L		

Serial ID: WHG1248593-05 **Opened:** 30-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 30-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 31-DEC-09
Employee: Bryan Davis **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	10 ug/L		

Serial ID: WHG1248595-03 **Opened:** 30-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 30-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 31-DEC-09
Employee: Bryan Davis **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	2 ug/L		

Serial ID: WHG1248597-04 **Opened:** 30-DEC-09 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 30-DEC-09 **Solvent :** 2% HNO3-1240182
Type: Working **Expires:** 31-DEC-09
Employee: Bryan Davis **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	5 ug/L		

Standard Logbook

Serial ID: WI091229-42 **Opened:** 29-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 30-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1247358
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI091229-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091229-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091229-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091229-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091229-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI091229-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091229-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI091229-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI091229-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI091229-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI091229-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI091229-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Serial ID: WI091229-43 **Opened:** 29-DEC-09 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 30-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1247358
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI091229-44 **Opened:** 29-DEC-09 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 30-DEC-09 **Solvent :** 3%HCL and 1 %HNO3-1247358
Employee: Helen Carnello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI091229-45 **Opened:** 29-DEC-09 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 30-DEC-09 **Solvent :** 3%HCL and 1%HNO3 -1247358
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI091229-46 **Opened:** 29-DEC-09 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 30-DEC-09 **Solvent :** 3%HCL AND 1%HNO3-1247358
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI091229-47 **Opened:** 29-DEC-09 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 30-DEC-09 **Solvent :** 3%HCL &1%HNO3-1247358
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100104-42 **Opened:** 04-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 05-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1249941
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100104-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100104-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100104-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100104-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100104-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100104-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100104-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100104-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100104-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100104-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100104-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100104-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100104-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100104-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100104-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100104-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100104-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100104-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100104-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100104-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100104-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100104-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100104-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100104-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100104-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100104-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100104-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100104-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100104-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100104-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100104-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100104-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100104-43 **Opened:** 04-JAN-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 05-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1249941
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090828-42	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100104-44 **Opened:** 04-JAN-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 1099667
Type: Working **Expires:** 05-JAN-10 **Solvent :** 3%HCL and 1 %HNO3-1249941
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100104-45 **Opened:** 04-JAN-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 1099667
Type: Working **Expires:** 05-JAN-10 **Solvent :** 3%HCL and 1%HNO3 -1249941
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090828-42	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L

Serial ID: WI100104-46 **Opened:** 04-JAN-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 1099667
Type: Working **Expires:** 05-JAN-10 **Solvent :** 3%HCL AND 1%HNO3-1249941
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100104-47 **Opened:** 04-JAN-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 1099667
Type: Working **Expires:** 05-JAN-10 **Solvent :** 3%HCL &1%HNO3-1249941
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100103-04 **Opened:** 03-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 03-JAN-10 **Balance Id :** 4025216
Type: Working **Expires:** 04-JAN-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl-1247304
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100103-04A **Opened:** 03-JAN-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 03-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 04-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100103-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100103-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100103-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100103-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100103-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100103-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100103-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100103-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100103-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100103-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100103-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100103-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100103-05 **Opened:** 03-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 03-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 04-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100103-06 **Opened:** 03-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 03-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 04-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100103-07 **Opened:** 03-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 03-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 04-JAN-10 **Pipet Id :** 3541598
Employee: Elizabeth Janssen **Solvent :** 2%HNO3/1%HCl - 1247304
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100103-08 **Opened:** 03-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 03-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 04-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS100103-70 **Opened:** 03-JAN-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 03-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 04-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1247304
Employee: Elizabeth Janssen
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI091212-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI091212-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI091212-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI091212-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI091212-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI091212-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI091212-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100104-04B **Opened:** 04-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 04-JAN-10 **Solvent :** 2%HNO3/1%HCl- 1238829
Type: Working **Expires:** 05-JAN-10
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100105-04 **Opened:** 05-JAN-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 05-JAN-10 **Balance Id :** 4025216
Type: Working **Expires:** 06-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1249336
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090610-03	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS090303-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS090303-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS090303-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS090303-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS090303-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100105-04A **Opened:** 05-JAN-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 05-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 06-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100104-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100104-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100104-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100104-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100104-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100104-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100105-05 **Opened:** 05-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 05-JAN-10 **Pipet Id :** 3541598
Type: Working **Expires:** 06-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI091217-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI091217-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI091217-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091217-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI091217-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100105-06 **Opened:** 05-JAN-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 05-JAN-10 **Pipet Id :** 3820544
Type: Working **Expires:** 06-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100105-07 **Opened:** 05-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 05-JAN-10 **Lot Number :** 1010773
Type: Working **Expires:** 06-JAN-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1249336
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100105-08 **Opened:** 05-JAN-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 05-JAN-10 **Pipet Id :** 1758088
Type: Working **Expires:** 06-JAN-10 **Solvent :** 2%HNO3/1%HCl - 1249336
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI091212-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI091212-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI091212-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091212-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI091217-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI091217-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI091217-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI091217-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI091217-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI091217-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI091217-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI091217-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI091217-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI091217-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1164796-A **Opened:** 06-AUG-09 **Lot Number :** 49149927
Name: B-NH2OH.HCl-MER **Received:** 06-AUG-09
Type: Reagent/Solvent **Expires:** 06-AUG-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Standard Logbook

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1206350-C **Opened:** 22-OCT-09 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 22-OCT-09
Type: Reagent/Solvent **Expires:** 15-JAN-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1164796-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Serial ID: 1234385-C **Opened:** 25-NOV-09 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 25-NOV-09
Type: Reagent/Solvent **Expires:** 25-MAY-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1234886 **Opened:** 27-NOV-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 27-NOV-09
Type: Reagent/Solvent **Expires:** 27-NOV-10
Employee: Bryan Davis
Supplier: BAKER
Description: Nitric Acid CONC.

Comments: None

Serial ID: 1238345 **Opened:** 04-DEC-09 **Lot Number :** H20053 L
Name: I-HNO3 **Received:** 04-DEC-09
Type: Reagent/Solvent **Expires:** 04-DEC-10
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1240182-1 **Opened:** 09-DEC-09 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 09-DEC-09 **Lot Number :** H34040
Type: Reagent/Solvent **Expires:** 09-DEC-10
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1244904-C **Opened:** 18-DEC-09 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 18-DEC-09
Type: Reagent/Solvent **Expires:** 18-JUN-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1244970 **Opened:** 18-DEC-09 **Lot Number :** H41032
Name: I-HCL **Received:** 18-DEC-09 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 18-DEC-10
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1247304 **Opened:** 28-DEC-09 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 28-DEC-09
Type: Reagent/Solvent **Expires:** 04-JAN-10
Employee: Elizabeth Janssen
Supplier: GEL

Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

Serial ID: 1249336 **Opened:** 04-JAN-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 04-JAN-10
Type: Reagent/Solvent **Expires:** 11-JAN-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1238345	I-HNO3	69.0-70.0	180 mL	9 l	N/A
1244970	I-HCL	36.5-38.0	90 mL	9 l	N/A

Serial ID: 1249941 **Opened:** 04-JAN-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 15-DEC-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 10-JAN-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-953

Method/Analysis Information

Product: **Specific Conductivity**

Analytical Batch: 934738 **Method:** EPA 120.1

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 120.1:

Sample ID	Client ID
243104001	CAPA-10-6817
1201999864	242936002(CAWA-10-5480) Sample Duplicate (DUP)
1201999866	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-009 REV# 9.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Conductivity analysis was performed on a Orion 160 Conductivity Meter.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following sample was selected for QC analysis: 242936002 (CAWA-10-5480).

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **pH**

Analytical Batch: 934772 **Method:** EPA 150.1

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 150.1:

Sample ID	Client ID
243104001	CAPA-10-6817
1201999942	Laboratory Control Sample (LCS)
1201999943	243104001(CAPA-10-6817) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-008 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Electrode analysis was performed on a PerpHecT LogR pH/ISE.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following sample was selected for QC analysis: 243104001 (CAPA-10-6817).

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times

The following sample from this sample group was received by the lab outside of the method specified holding time: 243104001 (CAPA-10-6817).

Sample Re-analysis

The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation

A DER was not required for this SDG.

Additional Comments

Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

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Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	935209	**Method:**	EPA 335.4
Prep Batch :	935207	**Method:**	EPA 335.4

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 335.4:

Sample ID	Client ID
243104002	CAPA-10-6818
1202000926	Method Blank (MB)
1202000927	243108001(RE16-10-225) Sample Duplicate (DUP)
1202000928	243104002(CAPA-10-6818) Sample Duplicate (DUP)
1202000929	243252001(NPDES03A130-10-8672) Sample Duplicate (DUP)
1202000931	243108001(RE16-10-225) Matrix Spike (MS)
1202000932	243104002(CAPA-10-6818) Matrix Spike (MS)
1202000933	243252001(NPDES03A130-10-8672) Matrix Spike (MS)
1202000935	243108001(RE16-10-225) Matrix Spike Duplicate (MSD)
1202000936	243104002(CAPA-10-6818) Matrix Spike Duplicate (MSD)
1202000937	243252001(NPDES03A130-10-8672) Matrix Spike Duplicate (MSD)
1202000939	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 243104002 (CAPA-10-6818), 243108001 (RE16-10-225) and 243252001 (NPDES03A130-10-8672).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202000928 (CAPA-10-6818), 1202000929 (NPDES03A130-10-8672) and 243104002 (CAPA-10-6818).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis

The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Ion Chromatography**

Analytical Batch: 935781 **Method:** EPA 300.0

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
243104001	CAPA-10-6817
1202002309	Method Blank (MB)
1202002310	Laboratory Control Sample (LCS)
1202002311	243104001(CAPA-10-6817) Sample Duplicate (DUP)
1202002312	243104001(CAPA-10-6817) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-086 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Ion Chromatography analysis was performed on a Dionex ICS-3000 Ion Chromatograph.

Initial Calibration

The ICB was above the required limits for Sulfate. The results for the following samples are less than the MDL or greater than ten times the PQL. Therefore, the data is deemed acceptable. 1202002309 (MB), 1202002310 (LCS), 1202002311 (CAPA-10-6817), 1202002312 (CAPA-10-6817) and 243104001 (CAPA-10-6817).

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 243104001 (CAPA-10-6817).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recovery for this sample set was within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Manual Integrations
The following samples from this sample group had to be manually integrated due to errors in the instrument software peak integration: 1202002311 (CAPA-10-6817), 1202002312 (CAPA-10-6817) and 243104001 (CAPA-10-6817).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be

noted:
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Method/Analysis Information

Product:	**Ammonia Nitrogen**		
Analytical Batch:	934272	**Method:**	EPA 350.1
Prep Batch :	934271	**Method:**	EPA 350.2 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 350.1:

Sample ID	Client ID
243104001	CAPA-10-6817
1201998890	Method Blank (MB)
1201998891	243009001(CAPA-10-6099) Sample Duplicate (DUP)
1201998892	243009001(CAPA-10-6099) Matrix Spike (MS)
1201998893	243009001(CAPA-10-6099) Matrix Spike Duplicate (MSD)
1201998894	Laboratory Control Sample (LCS)
1202000918	243253001(50FWC-09-2842) Sample Duplicate (DUP)
1202000919	243253001(50FWC-09-2842) Matrix Spike (MS)
1202000920	243253001(50FWC-09-2842) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-106 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 243009001 (CAPA-10-6099) and 243253001 (50FWC-09-2842).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1201998891 (CAPA-10-6099).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following samples were re-analyzed due to instrument failure: 1202000918 (50FWC-09-2842) and 1202000919 (50FWC-09-2842).

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Nitrate Nitrite by Cadmium Reduction**

Analytical Batch: 934820 **Method:** EPA 353.2

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 353.2:

Sample ID	Client ID
243104001	CAPA-10-6817
1202000059	Method Blank (MB)
1202000060	243085001(RE16-10-2995) Sample Duplicate (DUP)
1202000061	243104001(CAPA-10-6817) Sample Duplicate (DUP)
1202000063	243085001(RE16-10-2995) Post Spike (PS)
1202000064	243104001(CAPA-10-6817) Post Spike (PS)
1202000066	Laboratory Control Sample (LCS)
1202000921	243253001(50FWC-09-2842) Sample Duplicate (DUP)
1202000922	243253001(50FWC-09-2842) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-128 REV# 5.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8500 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 243085001 (RE16-10-2995), 243104001 (CAPA-10-6817) and 243253001 (50FWC-09-2842).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
One or more of the values for the sample and/or duplicate are less than 5 times the Practical Quantitation Limit (PQL), and the difference is within one PQL value; therefore, the RPD is not applicable. 1202000921 (50FWC-09-2842). The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202000060 (RE16-10-2995).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1202000921 (50FWC-09-2842) and 1202000922 (50FWC-09-2842). The following samples in this sample group were diluted due to matrix interference: 1202000060 (RE16-10-2995), 1202000061 (CAPA-10-6817), 1202000063 (RE16-10-2995), 1202000064 (CAPA-10-6817) and 243104001 (CAPA-10-6817).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to

generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Total Phosphorus**		
Analytical Batch:	934824	**Method:**	EPA 365.4
Prep Batch :	934823	**Method:**	EPA 365.4 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 365.4:

Sample ID	Client ID
243104001	CAPA-10-6817
1202000072	Method Blank (MB)
1202000073	243104001(CAPA-10-6817) Sample Duplicate (DUP)
1202000074	243104001(CAPA-10-6817) Matrix Spike (MS)
1202000075	243104001(CAPA-10-6817) Matrix Spike Duplicate (MSD)
1202000076	Laboratory Control Sample (LCS)
1202000912	243255002(CAPA-10-6094) Sample Duplicate (DUP)
1202000913	243255002(CAPA-10-6094) Matrix Spike (MS)
1202000914	243255002(CAPA-10-6094) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-103 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 243104001 (CAPA-10-6817) and 243255002 (CAPA-10-6094).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the established acceptance limits due to matrix interference: 1202000074 (CAPA-10-6817).

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the established acceptance limits due to matrix interference: 1202000075 (CAPA-10-6817).

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
One or more of the values for the sample and/or duplicate are less than 5 times the Practical Quantitation Limit (PQL), and the difference is within one PQL value; therefore, the RPD is not applicable. 1202000912 (CAPA-10-6094).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following samples were re-analyzed due to instrument failure: 1202000074 (CAPA-10-6817), 1202000075 (CAPA-10-6817), 1202000912 (CAPA-10-6094), 1202000913 (CAPA-10-6094) and 1202000914 (CAPA-10-6094). The following samples were re-analyzed due to original batch QC failure (LCS): 1202000072 (MB) and 1202000076 (LCS).

Miscellaneous Information

Data Exception (DER) Documentation

The following DER was generated for this SDG: 773383 1202000074 (CAPA-10-6817) and 1202000075 (CAPA-10-6817).

Additional Comments

Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Solids, Total Dissolved**

Analytical Batch: 934796 **Method:** EPA 160.1

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 160.1:

Sample ID	Client ID
243104001	CAPA-10-6817
1202000006	Method Blank (MB)
1202000008	Laboratory Control Sample (LCS)
1202000899	243253001(50FWC-09-2842) Sample Duplicate (DUP)
1202000900	243257006(CAPA-10-6176) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-001 REV# 10.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Solids analysis was performed on a Sartorius Balance BAL216. Solids lab

Initial Calibration

All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 243253001 (50FWC-09-2842) and 243257006 (CAPA-10-6176).

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Sample Aliquot
A sufficient amount of sample was provided by the client for analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Alkalinity**

Analytical Batch: 934701 **Method:** EPA 310.1

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 310.1:

Sample ID	Client ID
243104001	CAPA-10-6817
1201999813	Method Blank (MB)
1201999814	Laboratory Control Sample (LCS)
1201999815	243104001(CAPA-10-6817) Sample Duplicate (DUP)
1201999816	243104001(CAPA-10-6817) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-033 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Titration analysis was performed on a manually operated buret.

Initial Standardization

The titrant was properly standardized

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following sample was selected for QC analysis: 243104001 (CAPA-10-6817).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The MS/PS recovery for this sample set was within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 14Jan10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-953 GEL Work Order: 243104

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 11, 2010

Client SDG: 10-953

Client Sample ID: CAPA-10-6817
Sample ID: 243104001
Matrix: Ground Water
Collect Date: 15-DEC-09 12:00
Receive Date: 17-DEC-09
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Conductivity Analysis											
EPA120.1 Specific Conductivity "As Received"											
Conductivity		170	1.00	1.00	umhos/cm	1	LXA1	12/18/09	1543	934738	1
Electrode Analysis											
EPA 150.1 pH Federal "As Received"											
pH at Temp 14.9C	H	8.16	0.010	0.100	SU	1	LXA1	12/18/09	1252	934772	2
Ion Chromatography											
EPA 300.0 Anions Liquid 28 day "As Received"											
Bromide	U	ND	0.066	0.200	mg/L	1	GXM 3	01/08/10	2200	935781	3
Chloride		3.16	0.066	0.200	mg/L	1					
Fluoride		0.280	0.033	0.100	mg/L	1					
Sulfate		4.96	0.100	0.400	mg/L	1					
Nutrient Analysis											
EPA 350.1 Nitrogen, Ammonia L "As Received"											
Nitrogen, Ammonia	U	ND	0.016	0.050	mg/L	1	AXH3	12/22/09	1502	934272	4
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"											
Nitrogen, Nitrate/Nitrite		0.665	0.050	0.250	mg/L	5	AXH3	12/21/09	1108	934820	5
EPA 365.4 Phosphorus, Total in "As Received"											
Phosphorus, Total as P		0.069	0.015	0.050	mg/L	1	AXH3	12/22/09	0931	934824	6
Solids Analysis											
EPA 160.1 Solids, Dissolved-F "As Received"											
Total Dissolved Solids		153	2.38	10.0	mg/L		SDS	12/21/09	1122	934796	7
Titration Analysis											
EPA 310.1 Total Alkalinity Federal "As Received"											
Alkalinity, Total as CaCO3		68.9	0.725	1.00	mg/L		LXA1	12/18/09	1442	934701	8
Carbonate alkalinity (CaCO3)	U	ND	0.725	1.00	mg/L						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	SXJ1	12/21/09	1515	934271
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	SXJ1	12/21/09	1015	934823

The following Analytical Methods were performed

Method	Description	Analyst Comments

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 11, 2010

Client SDG: 10-953

Client Sample ID: CAPA-10-6817
Sample ID: 243104001

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 120.1	
2	EPA 150.1	
3	EPA 300.0	
4	EPA 350.1	
5	EPA 353.2	
6	EPA 365.4	
7	EPA 160.1	
8	EPA 310.1	

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: January 11, 2010

Client SDG: 10-953

Client Sample ID:	CAPA-10-6818	Project:	ESHL01000
Sample ID:	243104002	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	15-DEC-09 12:00		
Receive Date:	17-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Flow Injection Analysis											
EPA 335.4 Cyanide, Total "As Received"											
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2	12/22/09	1629	935209	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	12/22/09	1414	935207

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: January 11, 2010
Page 1 of 4

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 243104

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Conductivity Analysis											
Batch 934738											
QC1201999864 242936002 DUP											
Conductivity			107		111	umhos/cm	3.95		(0%-10%)	LXA1	12/18/09 15:43
QC1201999866 LCS											
Conductivity	1410				1400	umhos/cm		98.8	(95%-105%)		12/18/09 15:43
Electrode Analysis											
Batch 934772											
QC1201999943 243104001 DUP											
pH		H	8.16	H	8.14	SU	0.245		(0%-10%)	LXA1	12/18/09 13:02
QC1201999942 LCS											
pH	7.00				7.02	SU		100	(95%-105%)		12/18/09 12:51
Flow Injection Analysis											
Batch 935209											
QC1202000927 243108001 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A			AXC2	12/22/09 16:34
QC1202000928 243104002 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A				12/22/09 16:30
QC1202000929 243252001 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A				12/22/09 16:45
QC1202000939 LCS											
Cyanide, Total	50.0				49.9	ug/L		99.8	(90%-110%)		12/22/09 16:28
QC1202000926 MB											
Cyanide, Total				U	ND	ug/L					12/22/09 16:27
QC1202000931 243108001 MS											
Cyanide, Total	100	U	ND		96.6	ug/L		96.6	(60%-127%)		12/22/09 16:34
QC1202000932 243104002 MS											
Cyanide, Total	100	U	ND		94.4	ug/L		94.4	(60%-127%)		12/22/09 16:31
QC1202000933 243252001 MS											
Cyanide, Total	100	U	ND		88.9	ug/L		88.2	(60%-127%)		12/22/09 16:46
QC1202000935 243108001 MSD											
Cyanide, Total	100	U	ND		102	ug/L	5.44	102	(0%-20%)		12/22/09 16:35
QC1202000936 243104002 MSD											
Cyanide, Total	100	U	ND		96.3	ug/L	1.99	96.3	(0%-20%)		12/22/09 16:32
QC1202000937 243252001 MSD											
Cyanide, Total	100	U	ND		91.5	ug/L	2.88	90.8	(0%-20%)		12/22/09 16:47
Ion Chromatography											
Batch 935781											
QC1202002311 243104001 DUP											
Bromide		U	ND	U	ND	mg/L	N/A			GXM3	01/08/10 22:30
Chloride			3.16		3.15	mg/L	0.412		(0%-20%)		
Fluoride			0.280		0.284	mg/L	1.21 ^		(+/-0.100)		
Sulfate			4.96		4.94	mg/L	0.424		(0%-20%)		
QC1202002310 LCS											

QC Summary

Workorder: 243104

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Ion Chromatography											
Batch 935781											
Bromide	2.50				2.57	mg/L		103	(90%-110%)		01/08/10 21:30
Chloride	10.0				9.86	mg/L		98.6	(90%-110%)	GXM3	
Fluoride	5.00				5.05	mg/L		101	(90%-110%)		
Sulfate	20.0				20.0	mg/L		100	(90%-110%)		
QC1202002309 MB											
Bromide				U	ND	mg/L					01/08/10 21:01
Chloride				U	ND	mg/L					
Fluoride				U	ND	mg/L					
Sulfate				U	ND	mg/L					
QC1202002312 243104001 PS											
Bromide	2.50	U	ND		2.54	mg/L		102	(90%-110%)		01/08/10 23:00
Chloride	10.0		3.16		13.4	mg/L		102	(90%-110%)		
Fluoride	5.00		0.280		5.15	mg/L		97.4	(90%-110%)		
Sulfate	20.0		4.96		24.8	mg/L		99	(90%-110%)		
Nutrient Analysis											
Batch 934272											
QC1201998891 243009001 DUP											
Nitrogen, Ammonia		J	0.026	J	0.035	mg/L	29.5 ^		(+/-0.050)	AXH3	12/22/09 14:57
QC1202000918 243253001 DUP											
Nitrogen, Ammonia			1.78		1.77	mg/L	0.506		(0%-20%)		12/22/09 15:34
QC1201998894 LCS											
Nitrogen, Ammonia	1.00				0.953	mg/L		95.3	(90%-110%)		12/22/09 14:55
QC1201998890 MB											
Nitrogen, Ammonia				J	0.020	mg/L					12/22/09 14:55
QC1201998892 243009001 MS											
Nitrogen, Ammonia	1.00	J	0.026		0.956	mg/L		93	(90%-110%)		12/22/09 14:58
QC1202000919 243253001 MS											
Nitrogen, Ammonia	1.00		1.78		2.77	mg/L		99.1	(90%-110%)		12/22/09 15:34
QC1201998893 243009001 MSD											
Nitrogen, Ammonia	1.00	J	0.026		0.954	mg/L	0.209	92.8	(0%-15%)		12/22/09 14:59
QC1202000920 243253001 MSD											
Nitrogen, Ammonia	1.00		1.78		2.77	mg/L	0.0361	99.2	(0%-15%)		12/22/09 15:21
Batch 934820											
QC1202000060 243085001 DUP											
Nitrogen, Nitrate/Nitrite		U	ND	J	0.053	mg/L	200		(+/-0.250)	AXH3	12/21/09 11:06
QC1202000061 243104001 DUP											
Nitrogen, Nitrate/Nitrite			0.665		0.630	mg/L	5.41 ^		(+/-0.250)		12/21/09 11:10
QC1202000921 243253001 DUP											
Nitrogen, Nitrate/Nitrite			3.90		4.88	mg/L	22.2 ^		(+/-1.25)		12/21/09 11:24
QC1202000066 LCS											
Nitrogen, Nitrate/Nitrite	1.00				0.961	mg/L		96.1	(90%-110%)		12/21/09 11:03
QC1202000059 MB											
Nitrogen, Nitrate/Nitrite				U	ND	mg/L					12/21/09 11:02
QC1202000063 243085001 PS											
Nitrogen, Nitrate/Nitrite	1.00	U	ND		0.977	mg/L		97	(90%-110%)		12/21/09 11:07
QC1202000064 243104001 PS											

QC Summary

Workorder: 243104

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Nutrient Analysis										
Batch 934820										
Nitrogen, Nitrate/Nitrite	1.00	0.133		1.12	mg/L		98.7	(90%-110%)		12/21/09 11:11
QC1202000922 243253001 PS										
Nitrogen, Nitrate/Nitrite	1.00	0.156		1.17	mg/L		101	(90%-110%)	AXH3	12/21/09 11:25
Batch 934824										
QC1202000073 243104001 DUP										
Phosphorus, Total as P		0.069		0.082	mg/L	17.2 ^		(+/-0.050)	AXH3	12/22/09 09:31
QC1202000912 243255002 DUP										
Phosphorus, Total as P		0.138		0.090	mg/L	42.1 ^		(+/-0.050)		12/22/09 10:45
QC1202000076 LCS										
Phosphorus, Total as P	1.00			1.05	mg/L		105	(90%-118%)		12/22/09 09:28
QC1202000072 MB										
Phosphorus, Total as P			J	0.036	mg/L					12/22/09 09:27
QC1202000074 243104001 MS										
Phosphorus, Total as P	1.00	0.069		0.443	mg/L		37.4 *	(71%-131%)		12/22/09 10:42
QC1202000913 243255002 MS										
Phosphorus, Total as P	1.00	0.138		1.17	mg/L		103	(71%-131%)		12/22/09 10:45
QC1202000075 243104001 MSD										
Phosphorus, Total as P	1.00	0.069		0.427	mg/L	3.68	35.8 *	(0%-18%)		12/22/09 10:43
QC1202000914 243255002 MSD										
Phosphorus, Total as P	1.00	0.138		1.08	mg/L	8.63	93.7	(0%-18%)		12/22/09 10:46
Solids Analysis										
Batch 934796										
QC1202000899 243253001 DUP										
Total Dissolved Solids		46.0		45.0	mg/L	2.20 ^		(+/-10.0)	SDS	12/21/09 11:22
QC1202000900 243257006 DUP										
Total Dissolved Solids		133		140	mg/L	5.13		(0%-10%)		12/21/09 11:22
QC1202000008 LCS										
Total Dissolved Solids	300			293	mg/L		97.7	(95%-105%)		12/21/09 11:22
QC1202000006 MB										
Total Dissolved Solids			U	ND	mg/L					12/21/09 11:22
Titration Analysis										
Batch 934701										
QC1201999815 243104001 DUP										
Alkalinity, Total as CaCO3		68.9		68.4	mg/L	0.727		(0%-20%)	LXA1	12/18/09 14:46
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A				
QC1201999814 LCS										
Alkalinity, Total as CaCO3	50.0			49.4	mg/L		98.8	(90%-110%)		12/18/09 14:25
QC1201999813 MB										
Alkalinity, Total as CaCO3			J	0.998	mg/L					12/18/09 14:20
Carbonate alkalinity (CaCO3)			U	ND	mg/L					
QC1201999816 243104001 MS										
Alkalinity, Total as CaCO3	50.0	68.9		118	mg/L		98.8	(80%-120%)		12/18/09 14:49

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

** Analyte is a surrogate compound

QC Summary

Workorder: 243104

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 11-JAN-2010 14:16

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-953

Flow Injection Analysis

Method: EPA 335.4 Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**22-DEC-2009 15:07:41**	**OM_12-22-2009_14-59-47**	**144**	**150**	**96**	**(90%-110%)**	**Yes**
CCV	22-DEC-2009 16:24:11	OM_12-22-2009_14-59-47	96.3	100	96	(90%-110%)	Yes
CCV	22-DEC-2009 16:36:41	OM_12-22-2009_14-59-47	95.9	100	96	(90%-110%)	Yes
CCV	22-DEC-2009 16:49:08	OM_12-22-2009_14-59-47	95.7	100	96	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**22-DEC-2009 15:09:31**	**OM_12-22-2009_14-59-47**	**-1.08**	**5**	**Yes**
CCB	22-DEC-2009 16:26:01	OM_12-22-2009_14-59-47	-1.39	5	Yes
CCB	22-DEC-2009 16:38:31	OM_12-22-2009_14-59-47	-0.314	5	Yes
CCB	22-DEC-2009 16:50:59	OM_12-22-2009_14-59-47	-0.589	5	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 11-JAN-2010 14:16

GEL Laboratories LLC
Contract: ESHL01000
SDG #: 10-953

Ion Chromatography
Method: EPA 300.0 Concentration Units:mg/L
Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Bromide

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**08-JAN-2010 16:31:00**	**100108**	**2.5498**	**2.5**	**102**	**(90%-110%)**	**Yes**
CCV	08-JAN-2010 20:01:00	100108	3.8756	3.75	103	(90%-110%)	Yes
CCV	08-JAN-2010 23:30:00	100108	2.5313	2.5	101	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**08-JAN-2010 17:01:00**	**100108**	**0**	**0.2**	**Yes**
CCB	08-JAN-2010 20:31:00	100108	0	0.2	Yes
CCB	09-JAN-2010 00:00:00	100108	0	0.2	Yes

Parmname: Chloride

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**08-JAN-2010 16:31:00**	**100108**	**9.7643**	**10**	**98**	**(90%-110%)**	**Yes**
CCV	08-JAN-2010 20:01:00	100108	15.575	15	104	(90%-110%)	Yes
CCV	08-JAN-2010 23:30:00	100108	9.8166	10	98	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**08-JAN-2010 17:01:00**	**100108**	**0**	**0.2**	**Yes**
CCB	08-JAN-2010 20:31:00	100108	0	0.2	Yes
CCB	09-JAN-2010 00:00:00	100108	0	0.2	Yes

Parmname: Fluoride

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**08-JAN-2010 16:31:00**	**100108**	**4.9496**	**5**	**99**	**(90%-110%)**	**Yes**
CCV	08-JAN-2010 20:01:00	100108	7.809	7.5	104	(90%-110%)	Yes
CCV	08-JAN-2010 23:30:00	100108	5.0453	5	101	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**08-JAN-2010 17:01:00**	**100108**	**0**	**0.1**	**Yes**
CCB	08-JAN-2010 20:31:00	100108	0	0.1	Yes
CCB	09-JAN-2010 00:00:00	100108	0	0.1	Yes

Parmname: Sulfate

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**08-JAN-2010 16:31:00**	**100108**	**19.9551**	**20**	**100**	**(90%-110%)**	**Yes**
CCV	08-JAN-2010 20:01:00	100108	31.018	30	103	(90%-110%)	Yes
CCV	08-JAN-2010 23:30:00	100108	19.8762	20	99	(90%-110%)	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 11-JAN-2010 14:16

GEL Laboratories LLC

Contract: **ESHL01000**

SDG #: **10-953**

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Sulfate

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**08-JAN-2010 17:01:00**	**100108**	**0.4024**	**0.4**	**No**
CCB	08-JAN-2010 20:31:00	100108	0	0.4	Yes
CCB	09-JAN-2010 00:00:00	100108	0	0.4	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 11-JAN-2010 14:16

GEL Laboratories LLC
Contract: ESHL01000
SDG #: 10-953

Nutrient Analysis

Method: EPA 350.1 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Nitrogen, Ammonia

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**22-DEC-2009 14:51:24**	**OM_12-22-2009_14-43-46**	**0.95**	**1**	**95**	**(90%-110%)**	**Yes**
CCV	22-DEC-2009 15:03:23	OM_12-22-2009_14-43-46	1.004	1	100	(90%-110%)	Yes
CCV	22-DEC-2009 15:15:16	OM_12-22-2009_14-43-46	1.027	1	103	(90%-110%)	Yes
CCV	22-DEC-2009 15:27:04	OM_12-22-2009_14-43-46	1.018	1	102	(90%-110%)	Yes
CCV	22-DEC-2009 15:40:03	OM_12-22-2009_14-43-46	1.014	1	101	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**22-DEC-2009 14:53:15**	**OM_12-22-2009_14-43-46**	**-0.015**	**0.05**	**Yes**
CCB	22-DEC-2009 15:05:13	OM_12-22-2009_14-43-46	-0.024	0.05	Yes
CCB	22-DEC-2009 15:17:07	OM_12-22-2009_14-43-46	-0.006	0.05	Yes
CCB	22-DEC-2009 15:28:54	OM_12-22-2009_14-43-46	-0.005	0.05	Yes
CCB	22-DEC-2009 15:41:53	OM_12-22-2009_14-43-46	-0.007	0.05	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 11-JAN-2010 14:16

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-953

Nutrient Analysis

Method: EPA 353.2 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8500 Series

Parmname: Nitrogen, Nitrate/Nitrite

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**21-DEC-2009 10:53:23**	**OM_12-21-2009_10-43-54**	**0.968**	**1**	**97**	**(90%-110%)**	**Yes**
CCV	21-DEC-2009 11:14:51	OM_12-21-2009_10-43-54	0.971	1	97	(90%-110%)	Yes
CCV	21-DEC-2009 11:31:36	OM_12-21-2009_10-43-54	0.998	1	100	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**21-DEC-2009 10:55:44**	**OM_12-21-2009_10-43-54**	**0.00039**	**0.05**	**Yes**
CCB	21-DEC-2009 11:17:13	OM_12-21-2009_10-43-54	-0.00031	0.05	Yes
CCB	21-DEC-2009 11:33:57	OM_12-21-2009_10-43-54	0.00235	0.05	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 11-JAN-2010 14:16

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-953

Nutrient Analysis

Method: EPA 365.4 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Phosphorus, Total as P

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**22-DEC-2009 09:07:51**	**OM_12-22-2009_09-00-47**	**1.032**	**1**	**103**	**(90%-110%)**	**Yes**
CCV	22-DEC-2009 09:20:19	OM_12-22-2009_09-00-47	1.071	1	107	(90%-110%)	Yes
CCV	22-DEC-2009 09:32:39	OM_12-22-2009_09-00-47	1.053	1	105	(90%-110%)	Yes
CCV	22-DEC-2009 10:38:26	OM_12-22-2009_10-36-58	1.067	1	107	(90%-110%)	Yes
CCV	22-DEC-2009 10:50:51	OM_12-22-2009_10-36-58	1.066	1	107	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**22-DEC-2009 09:09:57**	**OM_12-22-2009_09-00-47**	**-0.019**	**0.05**	**Yes**
CCB	22-DEC-2009 09:22:23	OM_12-22-2009_09-00-47	-0.00022	0.05	Yes
CCB	22-DEC-2009 09:34:44	OM_12-22-2009_09-00-47	0.003	0.05	Yes
CCB	22-DEC-2009 10:40:31	OM_12-22-2009_10-36-58	0.001	0.05	Yes
CCB	22-DEC-2009 10:52:55	OM_12-22-2009_10-36-58	0.002	0.05	Yes

Alkalinity

Alkalinity LogBook

Analyst: LXA1
Batch: 934701
Lab SOP: GL-GC-E-033 REV# 6
SOP Description: Alkalinity: Total, Bicarbonate, Carbonate, Hydroxide, and Phenolphthalein
Run Date: 18-DEC-2009

Type	Sample Id	Lot Id	Nc(mg/L)	Recovery(%)
LCS	1201999814	IMM090901-ALK	50	98.802
MS	1201999816	IMM090901-ALK	50	98.802

Type	Sample Id	Rpd(%)	Parmname
DUP	1201999815	.727	Alkalinity, Total as CaCO3
DUP	1201999815	0	Carbonate alkalinity (CaCO3)

Type	Sample id	Parent Sample Id	Time	Ph	Aliquot	Units	Normality H2SO4	H2SO4 Ph 8.3 (mL)	H2SO4 Ph 4.5(mL)	Alkalinity	Bicarbonate	CO2 Dissolved	CO2 Free	CO2 Total	Carbonate	Hydroxide	Phenol phthalein	Units
MB	1201999813		14:20	7.31	100	mL	0.01996	0	0.1	0.99800					0.0000			mg/L
LCS	1201999814		14:25	9.15	100	mL	0.01996	0	4.95	49.401								mg/L
SAMPLE	243009001		14:26	6.3	100	mL	0.01996	0	3	29.940					0.0000			mg/L
SAMPLE	243009003		14:30	6.27	100	mL	0.01996	0	3	29.940					0.0000			mg/L
SAMPLE	243014002		14:33	7.28	100	mL	0.01996	0	4.9	48.902					0.0000			mg/L
SAMPLE	243063001		14:37	6.85	100	mL	0.01996	0	3.05	30.439								mg/L
SAMPLE	243104001		14:42	7.95	100	mL	0.01996	0	6.9	68.862					0.0000			mg/L
DUP	1201999815	243104001	14:46	7.94	100	mL	0.01996	0	6.85	68.363					0.0000			mg/L
MS	1201999816	243104001	14:49	8.94	100	mL	0.01996	0	11.85	118.26								mg/L

Run Date: 18-DEC-09 08:07
Instrument: PHX370
Analyst: LXA1

Standard	Observed	Theoretical		%Recovery
UPH091218-b	10.03	10	SU	100.3
091218-b	12.07	12	SU	100.58
UPH091218-02c-	2.05	2	SU	102.5
IMM091218-PH1	4	4	SU	100
IMM091218-PH-	7	7	SU	100
IMM091218-b	7.03	7	SU	100.43

Comments:

Run Date: 11-DEC-2009 23:56
Instrument: TIT001
Analyst: LXA1

Na2CO3 Std. ID	Na2CO3, 0.05 N g Na2C03/L	H2SO4 N (approx.)	NA2CO3 titrated	H2SO4 to pH 3.7	Actual Normality	Normality Average
1071836	2.5035	.02	15	35.4	.01987	.01996
	2.5035	.02	15	35.45	.01999	
	2.5035	.02	15	35.65	.02002	

Normality of H2SO4 solution
A x B / 53.00 x C
where:
A = grams of Na2CO3
B = volume (mL) of the Na2CO3 solution
C = Total volume of the 0.02 N H2SO4 acid titrant used to reach a pH of 3.7

Total Alkalinity (mg/L)
Vt x N x 50000 / Vs
Where:

Alkalinity LogBook

Vt = volume (mL) of H_2SO_4 used to reach the pH 4.5 endpoint
N = normality of the H_2SO_4 titrant
Vs = volume (mL) of sample used

Phenolphthalein alkalinity (mg/L)
Vt x N x 50000 / Vs
Where:
Vt = volume (mL) of H_2SO_4 used to reach the pH 8.3 endpoint
N = normality of the H_2SO_4 titrant
Vs = volume (mL) of sample used

Bicarbonate Alkalinity
Relationship Table SM2320B

Carbonate Alkalinity
Relationship Table SM2320B

Hydroxide Alkalinity
Relationship Table SM2320B

Free Carbon Dioxide
mg CO_2/L = 2.0 x B x 10 (6-pH)
Where B = Bicarbonate Alkalinity

Total Carbon Dioxide
mg total CO_2/L = A + 0.44(2B + C)
Where:
A = mg Free CO_2/L
B = Bicarbonate Alkalinity
C = Carbonate Alkalinity

Relationship Table SM2320B

P = 0	then H = 0,	C = 0,	B = T
P < 1/2 T	then H = 0,	C = 2P,	B = T - 2P
P = 1/2 T	then H = 0,	C = 2P,	B = 0
P > 1/2 T	then H = 2P - T,	C = 2(T - P),	B = 0
P = T	then H = T,	C = 0,	B = 0

Ammonia Nitrogen

Prep LogBook

Analyst: SXJ1 Verified by:_____

Batch: 934271

Lab SOP: GL-GC-E-072 REV# 11

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1201998894	UTR1169166-01	.25	mL
MS	1201998892	UTR1169166-01	.25	mL
MS	1202000919	UTR1169166-01	.25	mL
MSD	1201998893	UTR1169166-01	.25	mL
MSD	1202000920	UTR1169166-01	.25	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1201998890		EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	GROUND WATER
LCS	1201998894		EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	243009001		EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	GROUND WATER
DUP	1201998891	243009001	EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	GROUND WATER
MS	1201998892	243009001	EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	GROUND WATER
MSD	1201998893	243009001	EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	243009003		EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	243014002		EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	243075001		EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	WASTE WATER
SAMPLE	243104001		EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	243200001		EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	WASTE WATER
SAMPLE	243223001		EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	WASTE WATER
SAMPLE	243223002		EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	WASTE WATER
SAMPLE	243223003		EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	SURFACE WATER
SAMPLE	243223004		EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	WASTE WATER
SAMPLE	243223005		EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	WASTE WATER
SAMPLE	243223007		EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	WASTE WATER
SAMPLE	243223008		EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	WASTE WATER
SAMPLE	243223009		EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	WASTE WATER
SAMPLE	243223010		EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	WASTE WATER
SAMPLE	243253001		EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	WASTE WATER
DUP	1202000918	243253001	EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	WASTE WATER
MS	1202000919	243253001	EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	WASTE WATER
MSD	1202000920	243253001	EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	WASTE WATER
SAMPLE	243255002		EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	243255003		EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	243255005		EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	GROUND WATER
SAMPLE	243257001		EPA 350.2 Prep	21-DEC-2009 15:15	9.5	25 mL	25 mL	1	GROUND WATER

Prep LogBook

Reagent/Solvent Lot ID	Amount	Description	Comments
1184204-C	1 mL	50% NaOH Solution	
1184214-C	1.25 mL	Borate Buffer	

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
2.0 ppm Std.		1	axh3	12/22/2009 14:45:18	OM_12-22-2009_14-43-46
1.0 ppm Std.		1	axh3	12/22/2009 14:46:07	OM_12-22-2009_14-43-46
0.5 ppm Std		1	axh3	12/22/2009 14:46:57	OM_12-22-2009_14-43-46
0.1 ppm Std		1	axh3	12/22/2009 14:47:49	OM_12-22-2009_14-43-46
0.05 ppm Std		1	axh3	12/22/2009 14:48:41	OM_12-22-2009_14-43-46
ICAL-00		1	axh3	12/22/2009 14:49:33	OM_12-22-2009_14-43-46
ICV		1	axh3	12/22/2009 14:51:24	OM_12-22-2009_14-43-46
ICB		1	axh3	12/22/2009 14:53:15	OM_12-22-2009_14-43-46
1201998890	934272	1	axh3	12/22/2009 14:55:04	OM_12-22-2009_14-43-46
1201998894	934272	1	axh3	12/22/2009 14:55:55	OM_12-22-2009_14-43-46
243009001	934272	1	axh3	12/22/2009 14:56:46	OM_12-22-2009_14-43-46
1201998891	934272	1	axh3	12/22/2009 14:57:36	OM_12-22-2009_14-43-46
1201998892	934272	1	axh3	12/22/2009 14:58:27	OM_12-22-2009_14-43-46
1201998893	934272	1	axh3	12/22/2009 14:59:17	OM_12-22-2009_14-43-46
243009003	934272	1	axh3	12/22/2009 15:00:06	OM_12-22-2009_14-43-46
243014002	934272	1	axh3	12/22/2009 15:00:56	OM_12-22-2009_14-43-46
243075001	934272	1	axh3	12/22/2009 15:01:45	OM_12-22-2009_14-43-46
243104001	934272	1	axh3	12/22/2009 15:02:33	OM_12-22-2009_14-43-46
CCV		1	axh3	12/22/2009 15:03:23	OM_12-22-2009_14-43-46
CCB		1	axh3	12/22/2009 15:05:13	OM_12-22-2009_14-43-46
243200001	934272	1	axh3	12/22/2009 15:07:01	OM_12-22-2009_14-43-46
243223001	934272	1	axh3	12/22/2009 15:07:49	OM_12-22-2009_14-43-46
243223002	934272	1	axh3	12/22/2009 15:08:37	OM_12-22-2009_14-43-46
243223003	934272	1	axh3	12/22/2009 15:09:25	OM_12-22-2009_14-43-46
243223004	934272	1	axh3	12/22/2009 15:10:12	OM_12-22-2009_14-43-46
243223005	934272	1	axh3	12/22/2009 15:11:02	OM_12-22-2009_14-43-46
243223007	934272	1	axh3	12/22/2009 15:11:53	OM_12-22-2009_14-43-46
243223008	934272	1	axh3	12/22/2009 15:12:44	OM_12-22-2009_14-43-46
243223009	934272	1	axh3	12/22/2009 15:13:35	OM_12-22-2009_14-43-46
243223010	934272	1	axh3	12/22/2009 15:14:26	OM_12-22-2009_14-43-46
CCV		1	axh3	12/22/2009 15:15:16	OM_12-22-2009_14-43-46
CCB		1	axh3	12/22/2009 15:17:07	OM_12-22-2009_14-43-46
243253001	934272	1	axh3	12/22/2009 15:18:55	OM_12-22-2009_14-43-46
1202000918*	934272	1	axh3	12/22/2009 15:19:45	OM_12-22-2009_14-43-46
1202000919*	934272	1	axh3	12/22/2009 15:20:35	OM_12-22-2009_14-43-46
1202000920	934272	1	axh3	12/22/2009 15:21:24	OM_12-22-2009_14-43-46
243255002	934272	1	axh3	12/22/2009 15:22:13	OM_12-22-2009_14-43-46
243255003	934272	1	axh3	12/22/2009 15:23:02	OM_12-22-2009_14-43-46
243255005	934272	1	axh3	12/22/2009 15:23:51	OM_12-22-2009_14-43-46
243257001	934272	1	axh3	12/22/2009 15:24:40	OM_12-22-2009_14-43-46
243223002*	934272	25	axh3	12/22/2009 15:25:28	OM_12-22-2009_14-43-46
243223004	934272	5	axh3	12/22/2009 15:26:15	OM_12-22-2009_14-43-46
CCV		1	axh3	12/22/2009 15:27:04	OM_12-22-2009_14-43-46
CCB		1	axh3	12/22/2009 15:28:54	OM_12-22-2009_14-43-46
243223005	934272	5	axh3	12/22/2009 15:30:44	OM_12-22-2009_14-43-46
243223007	934272	5	axh3	12/22/2009 15:31:35	OM_12-22-2009_14-43-46
243223008	934272	5	axh3	12/22/2009 15:32:26	OM_12-22-2009_14-43-46
243223010	934272	5	axh3	12/22/2009 15:33:17	OM_12-22-2009_14-43-46
1202000918	934272	1	axh3	12/22/2009 15:34:08	OM_12-22-2009_14-43-46
1202000919	934272	1	axh3	12/22/2009 15:34:57	OM_12-22-2009_14-43-46
243223002	934272	50	axh3	12/22/2009 15:35:46	OM_12-22-2009_14-43-46
1202001080*	935262	1	axh3	12/22/2009 15:37:34	OM_12-22-2009_14-43-46
1202001084*	935262	1	axh3	12/22/2009 15:38:22	OM_12-22-2009_14-43-46
243182001*	935262	1	axh3	12/22/2009 15:39:12	OM_12-22-2009_14-43-46
CCV		1	axh3	12/22/2009 15:40:03	OM_12-22-2009_14-43-46
CCB		1	axh3	12/22/2009 15:41:53	OM_12-22-2009_14-43-46
1202001080	935262	1	axh3	12/22/2009 15:43:41	OM_12-22-2009_14-43-46
1202001081*	935262	1	axh3	12/22/2009 15:44:30	OM_12-22-2009_14-43-46

1202001082*	935262	1	axh3	12/22/2009 15:45:22	OM_12-22-2009_14-43-46
1202001083*	935262	1	axh3	12/22/2009 15:46:13	OM_12-22-2009_14-43-46
1202001075	935259	1	axh3	12/22/2009 15:47:03	OM_12-22-2009_14-43-46
1202001079	935259	1	axh3	12/22/2009 15:47:54	OM_12-22-2009_14-43-46
243257006	935259	1	axh3	12/22/2009 15:48:45	OM_12-22-2009_14-43-46
1202001076	935259	1	axh3	12/22/2009 15:49:34	OM_12-22-2009_14-43-46
1202001077	935259	1	axh3	12/22/2009 15:50:25	OM_12-22-2009_14-43-46
1202001078	935259	1	axh3	12/22/2009 15:51:14	OM_12-22-2009_14-43-46
CCV		1	axh3	12/22/2009 15:52:03	OM_12-22-2009_14-43-46
CCB		1	axh3	12/22/2009 15:53:54	OM_12-22-2009_14-43-46
243285002	935259	1	axh3	12/22/2009 15:55:42	OM_12-22-2009_14-43-46
243286001	935259	1	axh3	12/22/2009 15:56:32	OM_12-22-2009_14-43-46
243286004	935259	1	axh3	12/22/2009 15:57:20	OM_12-22-2009_14-43-46
1202001084	935262	1	axh3	12/22/2009 15:58:08	OM_12-22-2009_14-43-46
243182001	935262	1	axh3	12/22/2009 15:58:58	OM_12-22-2009_14-43-46
1202001081	935262	1	axh3	12/22/2009 15:59:50	OM_12-22-2009_14-43-46
1202001082	935262	1	axh3	12/22/2009 16:00:41	OM_12-22-2009_14-43-46
1202001083	935262	1	axh3	12/22/2009 16:01:33	OM_12-22-2009_14-43-46
CCV		1	axh3	12/22/2009 16:03:22	OM_12-22-2009_14-43-46
CCB		1	axh3	12/22/2009 16:05:12	OM_12-22-2009_14-43-46

Author: axh3 Date : 12/22/2009

Original Run Filename: OM_12-22-2009_14-43-46.OMN created 12/22/2009 14:43:46
Original Run Author's Signature: [axh3]
Current Run Filename: OM_12-22-2009_14-43-46.OMN last modified 12/22/2009 16:06:18
Current Run Author's Signature: [axh3]
Description: Ammonia EPA Method 350.1 GEL SOP: GL-GC-E-106
Detection Wavelength: 630nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 NH3 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR091222-03	1	S10	2.000	15.959	12/22/2009@14:45:18			2.0 ppm Std.
WTR091222-04	1	S11	1.000	8.232	12/22/2009@14:46:07			1.0 ppm Std.
WTR091222-05	1	S12	0.500	4.295	12/22/2009@14:46:57			0.5 ppm Std
WTR091222-06	1	S13	0.100	0.842	12/22/2009@14:47:49			0.1 ppm Std
WTR091222-07	1	S14	0.050	0.386	12/22/2009@14:48:41			0.05 ppm Std
WTR091222-10 0.0 ppm	1	S15	0.000	0.021	12/22/2009@14:49:33			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99975 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR091222-08 ICV	1	S16	0.950	7.691	12/22/2009@14:51:24			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	0.950 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.950 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR091222-10 ICB	1	S15	-0.015	-0.032	12/22/2009@14:53:15			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.015 < 0.050					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.015 > -0.050					
		Message	ICB Passed					
		Action	Continue					
1201998890|934272|MB	1	1	0.020	0.248	12/22/2009@14:55:04			
1201998894||LCS	1	2	0.953	7.709	12/22/2009@14:55:55			
243009001	1	3	0.026	0.303	12/22/2009@14:56:46			
1201998891||DUP	1	4	0.035	0.374	12/22/2009@14:57:36			
1201998892||MS	1	5	0.956	7.737	12/22/2009@14:58:27			
1201998893||MSD	1	6	0.954	7.719	12/22/2009@14:59:17			
243009003	1	7	0.026	0.302	12/22/2009@15:00:06			
243014002	1	8	0.023	0.279	12/22/2009@15:00:56			
243075001	1	9	0.050	0.493	12/22/2009@15:01:45			
243104001	1	10	0.013	0.194	12/22/2009@15:02:33			
WTR091222-04 CCV	1	S11	1.004	8.123	12/22/2009@15:03:23			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.004 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.004 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-10 CCB	1	S15	-0.024	-0.102	12/22/2009@15:05:13			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.024 < 0.049					

		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.024 > -0.050					
		Message	CCB Passed					
		Action	Continue					
243200001	1	11	0.940	7.607	12/22/2009@15:07:01			
243223001	1	12	0.362	2.986	12/22/2009@15:07:49			
243223002	1	13	20.665	165.325	12/22/2009@15:08:37			
243223003	1	14	0.445	3.654	12/22/2009@15:09:25			
243223004	1	15	5.321	42.641	12/22/2009@15:10:12			
243223005	1	16	3.836	30.760	12/22/2009@15:11:02			
243223007	1	17	2.678	21.506	12/22/2009@15:11:53			
243223008	1	18	4.619	37.028	12/22/2009@15:12:44			
243223009	1	19	1.337	10.778	12/22/2009@15:13:35			
243223010	1	20	2.646	21.248	12/22/2009@15:14:26			
WTR091222-04 CCV	1	S11	1.027	8.300	12/22/2009@15:15:16			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.027 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.027 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-10 CCB	1	S15	-0.006	0.047	12/22/2009@15:17:07			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.006 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.006 > -0.050					
		Message	CCB Passed					
		Action	Continue					
243253001	1	21	1.782	14.340	12/22/2009@15:18:55			
1202000918||DUP	1	22	0.018	0.235	12/22/2009@15:19:45			
1202000919||MS	1	23	1.931	15.534	12/22/2009@15:20:35			
1202000920||MSD	1	24	2.774	22.276	12/22/2009@15:21:24			
243255002	1	25	0.047	0.467	12/22/2009@15:22:13			
243255003	1	26	0.035	0.373	12/22/2009@15:23:02			
243255005	1	27	0.020	0.249	12/22/2009@15:23:51			
243257001	1	28	0.063	0.599	12/22/2009@15:24:40			
243223002	1	13	2.723	21.864	12/22/2009@15:25:28		25.00	
243223004	1	15	1.028	8.308	12/22/2009@15:26:15		5.00	
WTR091222-04 CCV	1	S11	1.018	8.232	12/22/2009@15:27:04			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.018 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.018 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-10 CCB	1	S15	-0.005	0.053	12/22/2009@15:28:54			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.005 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.005 > -0.050					
		Message	CCB Passed					
		Action	Continue					
243223005	1	16	0.766	6.216	12/22/2009@15:30:44		5.00	
243223007	1	17	0.525	4.293	12/22/2009@15:31:35		5.00	

243223008	1	18	0.468	3.835	12/22/2009@15:32:26		5.00	
243223010	1	20	0.522	4.266	12/22/2009@15:33:17		5.00	
1202000918||DUP	1	22	1.773	14.266	12/22/2009@15:34:08			
1202000919||MS	1	23	2.773	22.262	12/22/2009@15:34:57			
243223002	1	13	1.384	11.158	12/22/2009@15:35:46		50.00	
1202001080|935262|MB	1	29	0.062	0.588	12/22/2009@15:37:34			
1202001084||LCS	1	30	0.973	7.869	12/22/2009@15:38:22			
243182001	1	31	0.062	0.588	12/22/2009@15:39:12			
WTR091222-04 CCV	1	S11	1.014	8.203	12/22/2009@15:40:03			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.014 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.014 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-10 CCB	1	S15	-0.007	0.036	12/22/2009@15:41:53			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.007 < 0.049					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.007 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1202001080|935262|MB	1	29	-0.011	0.000	12/22/2009@15:43:41			
1202001081||DUP	1	32	0.053	0.518	12/22/2009@15:44:30			
1202001082||MS	1	33	0.780	6.332	12/22/2009@15:45:22			
1202001083||MSD	1	34	0.380	3.128	12/22/2009@15:46:13			
1202001075|935259|MB	1	35	0.009	0.162	12/22/2009@15:47:03			
1202001079||LCS	1	36	0.958	7.755	12/22/2009@15:47:54			
243257006	1	37	0.019	0.245	12/22/2009@15:48:45			
1202001076||DUP	1	38	0.011	0.181	12/22/2009@15:49:34			
1202001077||MS	1	39	0.971	7.857	12/22/2009@15:50:25			
1202001078||MSD	1	40	0.958	7.750	12/22/2009@15:51:14			
WTR091222-04 CCV	1	S11	1.025	8.289	12/22/2009@15:52:03			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.025 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.025 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-10 CCB	1	S15	-0.011	0.000	12/22/2009@15:53:54			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.011 < 0.049					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.011 > -0.050					
		Message	CCB Passed					
		Action	Continue					
243285002	1	41	0.011	0.180	12/22/2009@15:55:42			
243286001	1	42	0.983	7.949	12/22/2009@15:56:32			
243286004	1	43	1.123	9.074	12/22/2009@15:57:20			
1202001084|935262|LCS	1	30	0.963	7.790	12/22/2009@15:58:08			
243182001	1	31	0.063	0.597	12/22/2009@15:58:58			
1202001081||DUP	1	32	0.052	0.506	12/22/2009@15:59:50			
1202001082||MS	1	33	0.794	6.437	12/22/2009@16:00:41			
1202001083||MSD	1	34	0.783	6.355	12/22/2009@16:01:33			
WTR091222-04 CCV	1	S11	1.007	8.143	12/22/2009@16:03:22			CCV
		Known Conc:	1.000					

Author: axh3

Date : 12/22/2009

DQM Test: > + Concentration Limit								
Result:			1.007 < 1.104					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			1.007 > 0.895					
Message			CCV Passed					
Action			Continue					
WTR091222-10 CCB	1	S15	-0.003	0.069	12/22/2009@16:05:12			CCB
Known Conc:			0.000					
DQM Test: > + Concentration Limit								
Result:			-0.003 < 0.049					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.003 > -0.050					
Message			CCB Passed					
Action			Continue					

Channel 1 (NH3) : Current View

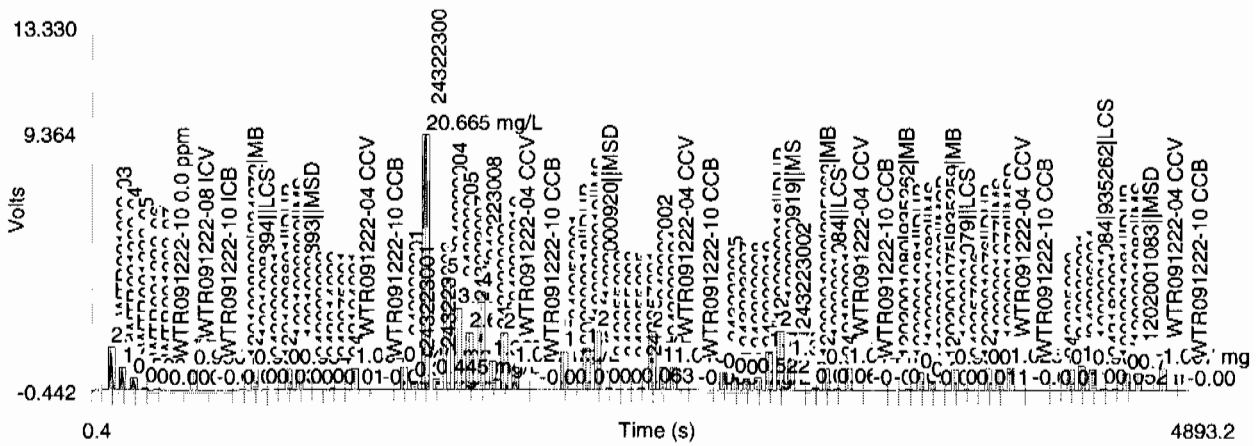

Table 1: NH3

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	2.000	1	15.959	1.601	0.7	12/22/2009	14:46:20
2	1.000	1	8.232	0.830	-1.8	12/22/2009	14:47:10
3	0.500	1	4.295	0.428	-5.0	12/22/2009	14:48:00
4	0.100	1	0.842	0.084	5.8	12/22/2009	14:48:51
5	0.050	1	0.386	0.038	21.8	12/22/2009	14:49:43
6	0.000	1	0.021	0.002		12/22/2009	14:50:36

Author: axh3

Date : 12/22/2009

Figure 1: NH3

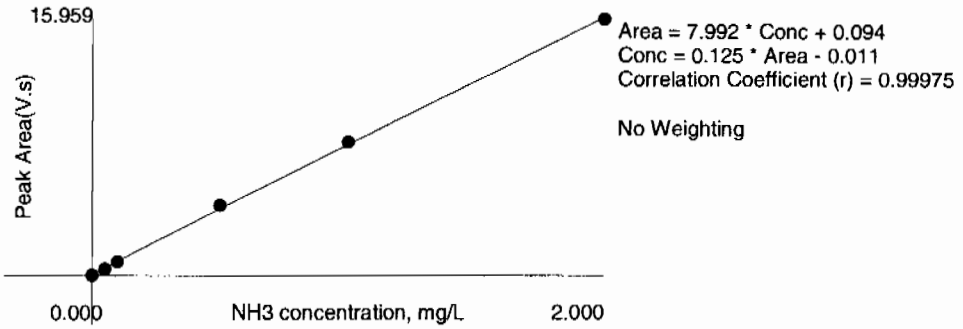

Cyanide, Total

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 935207

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202000939	URF1184831-02	.0125	mL
MS	1202000931	URF1184831-02	.025	mL
MS	1202000932	URF1184831-02	.025	mL
MS	1202000933	URF1184831-02	.025	mL
MS	1202000934	URF1184831-02	.025	mL
MSD	1202000935	URF1184831-02	.025	mL
MSD	1202000936	URF1184831-02	.025	mL
MSD	1202000937	URF1184831-02	.025	mL
MSD	1202000938	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202000926		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WATER
LCS	1202000939		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WATER
SAMPLE	243104002		EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
DUP	1202000928	243104002	EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
MS	1202000932	243104002	EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
MSD	1202000936	243104002	EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243108001		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WATER
DUP	1202000927	243108001	SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WATER
MS	1202000931	243108001	SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WATER
MSD	1202000935	243108001	SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WATER
SAMPLE	243108002		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WATER
SAMPLE	243223014		EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WASTE WATER
SAMPLE	243242001		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WATER
SAMPLE	243242002		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WATER
SAMPLE	243251001		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WATER
SAMPLE	243252001		EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WASTE WATER
DUP	1202000929	243252001	EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WASTE WATER
MS	1202000933	243252001	EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WASTE WATER
MSD	1202000937	243252001	EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WASTE WATER
SAMPLE	243255001		EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243255004		EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243255006		EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243257003		EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243257005		EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER

Prep LogBook

Analyst: AXS5 Verified by:_____

Batch: 935207

Lab SOP: GL-GC-E-067 REV# 13

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202000939	URF1184831-02	.0125	mL
MS	1202000931	URF1184831-02	.025	mL
MS	1202000932	URF1184831-02	.025	mL
MS	1202000933	URF1184831-02	.025	mL
MS	1202000934	URF1184831-02	.025	mL
MSD	1202000935	URF1184831-02	.025	mL
MSD	1202000936	URF1184831-02	.025	mL
MSD	1202000937	URF1184831-02	.025	mL
MSD	1202000938	URF1184831-02	.025	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
SAMPLE	243272001		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	WATER
SAMPLE	243281002		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243281003		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243281004		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243281005		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
DUP	1202000930	243281005	SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
MS	1202000934	243281005	SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
MSD	1202000938	243281005	SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243281006		SW846 9010B Prep	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER
SAMPLE	243285001		EPA 335.4	22-DEC-2009 14:14	>12	25 mL	25 mL	1	GROUND WATER

Reagent/Solvent Lot ID	Amount	Description
091211-C	25 mL	0.25N Sodium Hydroxide Solution
WCN091222-07	.0375 mL	150 ppb CN Distilled ICV Standard
1176724-C	1.25 mL	0.8N H3NO3S
1238146-C	2.5 mL	50% H2SO4 CN Prep
1176778-C	1 mL	51% MgCl2 Soln
1238142-C	1.25 mL	Bismuth Nitrate Solution

Comments

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	12/22/2009 15:00:33	OM_12-22-2009_14-59-47
150 ppb		1	axc2	12/22/2009 15:01:24	OM_12-22-2009_14-59-47
100 ppb		1	axc2	12/22/2009 15:02:17	OM_12-22-2009_14-59-47
50 ppb		1	axc2	12/22/2009 15:03:10	OM_12-22-2009_14-59-47
10 ppb		1	axc2	12/22/2009 15:04:03	OM_12-22-2009_14-59-47
CRDL 5.0 ppb		1	axc2	12/22/2009 15:04:57	OM_12-22-2009_14-59-47
ICAL-00		1	axc2	12/22/2009 15:05:51	OM_12-22-2009_14-59-47
ICV		1	axc2	12/22/2009 15:07:41	OM_12-22-2009_14-59-47
ICB		1	axc2	12/22/2009 15:09:31	OM_12-22-2009_14-59-47
CRDL		1	axc2	12/22/2009 15:11:21	OM_12-22-2009_14-59-47
1201998913	934285	1	axc2	12/22/2009 15:13:10	OM_12-22-2009_14-59-47
1201998920	934285	25	axc2	12/22/2009 15:14:04	OM_12-22-2009_14-59-47
243007002	934285	1	axc2	12/22/2009 15:14:57	OM_12-22-2009_14-59-47
243030001	934285	1	axc2	12/22/2009 15:15:50	OM_12-22-2009_14-59-47
1201998914	934285	1	axc2	12/22/2009 15:16:43	OM_12-22-2009_14-59-47
1201998916	934285	1	axc2	12/22/2009 15:17:36	OM_12-22-2009_14-59-47
1201998918	934285	1	axc2	12/22/2009 15:18:28	OM_12-22-2009_14-59-47
243030002*	934285	1	axc2	12/22/2009 15:19:20	OM_12-22-2009_14-59-47
1201998915	934285	1	axc2	12/22/2009 15:20:13	OM_12-22-2009_14-59-47
1201998917*	934285	1	axc2	12/22/2009 15:21:05	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009 15:21:57	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009 15:23:48	OM_12-22-2009_14-59-47
1201998919*	934285	1	axc2	12/22/2009 15:25:36	OM_12-22-2009_14-59-47
243030003	934285	1	axc2	12/22/2009 15:26:27	OM_12-22-2009_14-59-47
243030004	934285	1	axc2	12/22/2009 15:27:20	OM_12-22-2009_14-59-47
243030005	934285	1	axc2	12/22/2009 15:28:11	OM_12-22-2009_14-59-47
243030006	934285	1	axc2	12/22/2009 15:29:03	OM_12-22-2009_14-59-47
243030007	934285	1	axc2	12/22/2009 15:29:56	OM_12-22-2009_14-59-47
243030002	934285	1	axc2	12/22/2009 15:30:49	OM_12-22-2009_14-59-47
1201998919	934285	1	axc2	12/22/2009 15:31:41	OM_12-22-2009_14-59-47
1201998917	934285	1	axc2	12/22/2009 15:32:33	OM_12-22-2009_14-59-47
243030008	934285	1	axc2	12/22/2009 15:33:27	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009 15:34:19	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009 15:36:09	OM_12-22-2009_14-59-47
243030009	934285	1	axc2	12/22/2009 15:37:59	OM_12-22-2009_14-59-47
243030010	934285	1	axc2	12/22/2009 15:38:52	OM_12-22-2009_14-59-47
243030011	934285	1	axc2	12/22/2009 15:39:45	OM_12-22-2009_14-59-47
243030012	934285	1	axc2	12/22/2009 15:40:38	OM_12-22-2009_14-59-47
243030013	934285	1	axc2	12/22/2009 15:41:31	OM_12-22-2009_14-59-47
243030014	934285	1	axc2	12/22/2009 15:42:24	OM_12-22-2009_14-59-47
243030015	934285	1	axc2	12/22/2009 15:43:17	OM_12-22-2009_14-59-47
243030016	934285	1	axc2	12/22/2009 15:44:09	OM_12-22-2009_14-59-47
243030017*	934285	1	axc2	12/22/2009 15:45:01	OM_12-22-2009_14-59-47
243042008	934285	1	axc2	12/22/2009 15:45:54	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009 15:46:46	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009 15:48:36	OM_12-22-2009_14-59-47
243042009	934285	1	axc2	12/22/2009 15:50:24	OM_12-22-2009_14-59-47
1201997980	933837	1	axc2	12/22/2009 15:51:16	OM_12-22-2009_14-59-47
1201997984	933837	25	axc2	12/22/2009 15:52:08	OM_12-22-2009_14-59-47
243030016	934285	5	axc2	12/22/2009 15:53:00	OM_12-22-2009_14-59-47
243030017	934285	1	axc2	12/22/2009 15:53:52	OM_12-22-2009_14-59-47
242938001	933837	1	axc2	12/22/2009 15:54:48	OM_12-22-2009_14-59-47
1201997981	933837	1	axc2	12/22/2009 15:55:41	OM_12-22-2009_14-59-47
1201997982	933837	1	axc2	12/22/2009 15:56:35	OM_12-22-2009_14-59-47
1201997983	933837	1	axc2	12/22/2009 15:57:28	OM_12-22-2009_14-59-47
242938002	933837	1	axc2	12/22/2009 15:58:21	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009 15:59:14	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009 16:01:03	OM_12-22-2009_14-59-47

242938003	933837	1	axc2	12/22/2009	16:02:53	OM_12-22-2009_14-59-47
242938004	933837	1	axc2	12/22/2009	16:03:46	OM_12-22-2009_14-59-47
242938005	933837	1	axc2	12/22/2009	16:04:39	OM_12-22-2009_14-59-47
242938006	933837	1	axc2	12/22/2009	16:05:31	OM_12-22-2009_14-59-47
242938007	933837	1	axc2	12/22/2009	16:06:24	OM_12-22-2009_14-59-47
242938008	933837	1	axc2	12/22/2009	16:07:16	OM_12-22-2009_14-59-47
242938009	933837	1	axc2	12/22/2009	16:08:09	OM_12-22-2009_14-59-47
1201993024	931722	1	axc2	12/22/2009	16:09:01	OM_12-22-2009_14-59-47
1201993028	931722	1	axc2	12/22/2009	16:09:53	OM_12-22-2009_14-59-47
242691002	931722	1	axc2	12/22/2009	16:10:45	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	16:11:37	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	16:13:27	OM_12-22-2009_14-59-47
1201993025	931722	1	axc2	12/22/2009	16:15:19	OM_12-22-2009_14-59-47
1201993026	931722	1	axc2	12/22/2009	16:16:12	OM_12-22-2009_14-59-47
1201993027	931722	1	axc2	12/22/2009	16:17:06	OM_12-22-2009_14-59-47
1201998306	933989	1	axc2	12/22/2009	16:18:00	OM_12-22-2009_14-59-47
1201998310	933989	1	axc2	12/22/2009	16:18:53	OM_12-22-2009_14-59-47
242984001	933989	1	axc2	12/22/2009	16:19:47	OM_12-22-2009_14-59-47
1201998307	933989	1	axc2	12/22/2009	16:20:40	OM_12-22-2009_14-59-47
1202001846	933989	1	axc2	12/22/2009	16:21:33	OM_12-22-2009_14-59-47
1202001847	933989	1	axc2	12/22/2009	16:22:26	OM_12-22-2009_14-59-47
242984003	933989	1	axc2	12/22/2009	16:23:18	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	16:24:11	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	16:26:01	OM_12-22-2009_14-59-47
1202000926	935209	1	axc2	12/22/2009	16:27:50	OM_12-22-2009_14-59-47
1202000939	935209	1	axc2	12/22/2009	16:28:43	OM_12-22-2009_14-59-47
243104002	935209	1	axc2	12/22/2009	16:29:36	OM_12-22-2009_14-59-47
1202000928	935209	1	axc2	12/22/2009	16:30:28	OM_12-22-2009_14-59-47
1202000932	935209	1	axc2	12/22/2009	16:31:19	OM_12-22-2009_14-59-47
1202000936	935209	1	axc2	12/22/2009	16:32:13	OM_12-22-2009_14-59-47
243108001	935209	1	axc2	12/22/2009	16:33:08	OM_12-22-2009_14-59-47
1202000927	935209	1	axc2	12/22/2009	16:34:02	OM_12-22-2009_14-59-47
1202000931	935209	1	axc2	12/22/2009	16:34:55	OM_12-22-2009_14-59-47
1202000935	935209	1	axc2	12/22/2009	16:35:50	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	16:36:41	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	16:38:31	OM_12-22-2009_14-59-47
243108002	935209	1	axc2	12/22/2009	16:40:21	OM_12-22-2009_14-59-47
243223014	935209	1	axc2	12/22/2009	16:41:14	OM_12-22-2009_14-59-47
243242001	935209	1	axc2	12/22/2009	16:42:08	OM_12-22-2009_14-59-47
243242002	935209	1	axc2	12/22/2009	16:43:01	OM_12-22-2009_14-59-47
243251001	935209	1	axc2	12/22/2009	16:43:54	OM_12-22-2009_14-59-47
243252001	935209	1	axc2	12/22/2009	16:44:46	OM_12-22-2009_14-59-47
1202000929	935209	1	axc2	12/22/2009	16:45:40	OM_12-22-2009_14-59-47
1202000933	935209	1	axc2	12/22/2009	16:46:32	OM_12-22-2009_14-59-47
1202000937	935209	1	axc2	12/22/2009	16:47:24	OM_12-22-2009_14-59-47
243255001	935209	1	axc2	12/22/2009	16:48:16	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	16:49:08	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	16:50:59	OM_12-22-2009_14-59-47
243255004	935209	1	axc2	12/22/2009	16:52:49	OM_12-22-2009_14-59-47
243255006	935209	1	axc2	12/22/2009	16:53:43	OM_12-22-2009_14-59-47
243257003	935209	1	axc2	12/22/2009	16:54:37	OM_12-22-2009_14-59-47
243257005	935209	1	axc2	12/22/2009	16:55:32	OM_12-22-2009_14-59-47
243272001	935209	1	axc2	12/22/2009	16:56:25	OM_12-22-2009_14-59-47
243281002	935209	1	axc2	12/22/2009	16:57:19	OM_12-22-2009_14-59-47
243281003	935209	1	axc2	12/22/2009	16:58:13	OM_12-22-2009_14-59-47
243281004	935209	1	axc2	12/22/2009	16:59:06	OM_12-22-2009_14-59-47
243281005	935209	1	axc2	12/22/2009	16:59:59	OM_12-22-2009_14-59-47
1202000930	935209	1	axc2	12/22/2009	17:00:52	OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	17:01:45	OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	17:03:34	OM_12-22-2009_14-59-47

1202000934	935209	1	axc2	12/22/2009	17:05:24 OM_12-22-2009_14-59-47
1202000938	935209	1	axc2	12/22/2009	17:06:16 OM_12-22-2009_14-59-47
243281006	935209	1	axc2	12/22/2009	17:07:09 OM_12-22-2009_14-59-47
243285001	935209	1	axc2	12/22/2009	17:08:02 OM_12-22-2009_14-59-47
1202002259	935758	1	axc2	12/22/2009	17:08:54 OM_12-22-2009_14-59-47
1202002261	935758	250	axc2	12/22/2009	17:09:49 OM_12-22-2009_14-59-47
243330001	935758	1	axc2	12/22/2009	17:10:43 OM_12-22-2009_14-59-47
1202002260	935758	1	axc2	12/22/2009	17:11:37 OM_12-22-2009_14-59-47
CCV		1	axc2	12/22/2009	17:12:30 OM_12-22-2009_14-59-47
CCB		1	axc2	12/22/2009	17:14:20 OM_12-22-2009_14-59-47

Author: axc2 Date : 12/22/2009

Original Run Filename: OM_12-22-2009_14-59-47.OMN created 12/22/2009 14:59:47
Original Run Author's Signature: [axc2]
Current Run Filename: OM_12-22-2009_14-59-47.OMN last modified 12/22/2009 17:15:25
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN091222-01	1	S1	200	8.25	12/22/2009@15:00:33			200 ppb
WCN091222-02	1	S2	150	6.18	12/22/2009@15:01:24			150 ppb
WCN091222-03	1	S3	100	3.90	12/22/2009@15:02:17			100 ppb
WCN091222-04	1	S4	50.0	2.21	12/22/2009@15:03:10			50 ppb
WCN091222-05	1	S5	10.0	0.487	12/22/2009@15:04:03			10 ppb
WCN091222-06	1	S6	5.00	0.293	12/22/2009@15:04:57			CRDL 5.0 ppb
WCN091222-08	1	S7	0.00	0.0149	12/22/2009@15:05:51			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99941 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN091222-07	1	S8	144	5.91	12/22/2009@15:07:41			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-4.1 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-4.1 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN091222-08	1	S7	-1.08	0.00902	12/22/2009@15:09:31			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.08 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.08 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN091222-06	1	S6	6.03	0.298	12/22/2009@15:11:21			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	6.03 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	6.03 > 2.50					
		Message	Pass					
		Action	None					
1201998913|934285|MB	1	1	-1.36	-0.00257	12/22/2009@15:13:10			
1201998920||LCS	1	2	26.3	1.12	12/22/2009@15:14:04		25.00	
243007002	1	3	2.45	0.152	12/22/2009@15:14:57			
243030001	1	4	18.0	0.785	12/22/2009@15:15:50			
1201998914||DUP	1	5	18.3	0.796	12/22/2009@15:16:43			
1201998916||MS	1	6	92.8	3.83	12/22/2009@15:17:36			
1201998918||MSD	1	7	113	4.67	12/22/2009@15:18:28			
243030002	1	8	102	4.21	12/22/2009@15:19:20			
1201998915||DUP	1	9	3.98	0.215	12/22/2009@15:20:13			
1201998917||MS	1	10	136	5.61	12/22/2009@15:21:05			
WCN091222-03	1	S3	95.1	3.93	12/22/2009@15:21:57			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-4.9 < 10.0					

		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-1.51	-0.00852	12/22/2009@15:23:48			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.51 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.51 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1201998919||MSD	1	11	66.5	2.76	12/22/2009@15:25:36			
243030003	1	12	9.08	0.422	12/22/2009@15:26:27			
243030004	1	13	0.915	0.0900	12/22/2009@15:27:20			
243030005	1	14	2.66	0.161	12/22/2009@15:28:11			
243030006	1	15	11.8	0.534	12/22/2009@15:29:03			
243030007	1	16	3.89	0.211	12/22/2009@15:29:56			
243030002	1	8	-1.87	-0.0232	12/22/2009@15:30:49			
1201998919||MSD	1	11	102	4.20	12/22/2009@15:31:41			
1201998917||MS	1	10	134	5.50	12/22/2009@15:32:33			
243030008	1	17	0.219	0.0617	12/22/2009@15:33:27			
WCN091222-03	1	S3	95.6	3.95	12/22/2009@15:34:19			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-1.49	-0.00787	12/22/2009@15:36:09			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.49 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.49 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243030009	1	18	6.82	0.330	12/22/2009@15:37:59			
243030010	1	19	3.52	0.196	12/22/2009@15:38:52			
243030011	1	20	1.76	0.125	12/22/2009@15:39:45			
243030012	1	21	9.74	0.449	12/22/2009@15:40:38			
243030013	1	22	0.594	0.0770	12/22/2009@15:41:31			
243030014	1	23	2.05	0.136	12/22/2009@15:42:24			
243030015	1	24	9.27	0.430	12/22/2009@15:43:17			
243030016	1	25	271	11.1	12/22/2009@15:44:09			
243030017	1	26	10.7	0.487	12/22/2009@15:45:01			
243042008	1	27	1.24	0.103	12/22/2009@15:45:54			
WCN091222-03	1	S3	95.5	3.94	12/22/2009@15:46:46			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-0.654	0.0262	12/22/2009@15:48:36			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-0.654 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.654 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243042009	1	28	-0.570	0.0296	12/22/2009@15:50:24			
1201997980|933837|MB	1	29	-0.506	0.0322	12/22/2009@15:51:16			
1201997984||LCS	1	30	26.2	1.12	12/22/2009@15:52:08		25.00	
243030016|934285|	1	25	56.2	2.34	12/22/2009@15:53:00		5.00	
243030017	1	26	10.6	0.484	12/22/2009@15:53:52			
242938001|933837|	1	31	0.942	0.0912	12/22/2009@15:54:48			
1201997981||DUP	1	32	1.57	0.117	12/22/2009@15:55:41			
1201997982||MS	1	33	83.1	3.44	12/22/2009@15:56:35			
1201997983||MSD	1	34	94.1	3.88	12/22/2009@15:57:28			
242938002	1	35	0.558	0.0755	12/22/2009@15:58:21			
WCN091222-03	1	S3	95.3	3.93	12/22/2009@15:59:14			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-1.40	-0.00431	12/22/2009@16:01:03			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.40 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.40 > -5.00					
		Message	CCB Passed					
		Action	Continue					
242938003	1	36	1.73	0.123	12/22/2009@16:02:53			
242938004	1	37	0.0245	0.0538	12/22/2009@16:03:46			
242938005	1	38	0.227	0.0621	12/22/2009@16:04:39			
242938006	1	39	0.527	0.0743	12/22/2009@16:05:31			
242938007	1	40	-0.310	0.0402	12/22/2009@16:06:24			
242938008	1	41	2.90	0.171	12/22/2009@16:07:16			
242938009	1	42	-0.658	0.0260	12/22/2009@16:08:09			
1201993024|931722|MB	1	43	0.178	0.0601	12/22/2009@16:09:01			
1201993028||LCS	1	44	46.2	1.93	12/22/2009@16:09:53			
242691002	1	45	-0.488	0.0330	12/22/2009@16:10:45			
WCN091222-03	1	S3	95.6	3.94	12/22/2009@16:11:37			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	-4.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-4.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-1.29	2.32e-4	12/22/2009@16:13:27			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.29 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.29 > -5.00					
		Message	CCB Passed					
		Action	Continue					

1201993025||DUP	1	46	-0.576	0.0293	12/22/2009@16:15:19			
1201993026||MS	1	47	97.7	4.03	12/22/2009@16:16:12			
1201993027||MSD	1	48	99.3	4.09	12/22/2009@16:17:06			
1201998306|933989|MB	1	49	-0.762	0.0218	12/22/2009@16:18:00			
1201998310||LCS	1	50	47.0	1.97	12/22/2009@16:18:53			
242984001	1	51	0.125	0.0579	12/22/2009@16:19:47			
1201998307||DUP	1	52	-0.380	0.0373	12/22/2009@16:20:40			
1202001846||MS	1	53	104	4.28	12/22/2009@16:21:33			
1202001847||MSD	1	54	104	4.31	12/22/2009@16:22:26			
242984003	1	55	0.219	0.0617	12/22/2009@16:23:18			
WCN091222-03	1	S3	96.3	3.97	12/22/2009@16:24:11			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:			-3.7 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-3.7 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN091222-08	1	S7	-1.39	-0.00392	12/22/2009@16:26:01			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:			-1.39 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.39 > -5.00					
Message			CCB Passed					
Action			Continue					
1202000926|935209|MB	1	56	-1.11	0.00754	12/22/2009@16:27:50			
1202000939||LCS	1	57	49.9	2.09	12/22/2009@16:28:43			
243104002	1	58	-0.813	0.0197	12/22/2009@16:29:36			
1202000928||DUP	1	59	-1.97	-0.0273	12/22/2009@16:30:28			
1202000932||MS	1	60	94.4	3.89	12/22/2009@16:31:19			
1202000936||MSD	1	61	96.3	3.97	12/22/2009@16:32:13			
243108001	1	62	-0.642	0.0267	12/22/2009@16:33:08			
1202000927||DUP	1	63	-0.764	0.0217	12/22/2009@16:34:02			
1202000931||MS	1	64	96.6	3.99	12/22/2009@16:34:55			
1202000935||MSD	1	65	102	4.20	12/22/2009@16:35:50			
WCN091222-03	1	S3	95.9	3.96	12/22/2009@16:36:41			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
Result:			-4.1 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			-4.1 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN091222-08	1	S7	-0.314	0.0400	12/22/2009@16:38:31			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
Result:			-0.314 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.314 > -5.00					
Message			CCB Passed					
Action			Continue					
243108002	1	66	-1.08	0.00876	12/22/2009@16:40:21			
243223014	1	67	3.38	0.190	12/22/2009@16:41:14			
243242001	1	68	-0.593	0.0287	12/22/2009@16:42:08			
243242002	1	69	-1.31	-3.65e-4	12/22/2009@16:43:01			
243251001	1	70	-0.958	0.0138	12/22/2009@16:43:54			
243252001	1	71	0.738	0.0829	12/22/2009@16:44:46			
1202000929||DUP	1	72	0.460	0.0715	12/22/2009@16:45:40			
1202000933||MS	1	73	88.9	3.67	12/22/2009@16:46:32			

1202000937||MSD	1	74	91.5	3.78	12/22/2009@16:47:24			
243255001	1	75	-0.788	0.0207	12/22/2009@16:48:16			
WCN091222-03	1	S3	95.7	3.95	12/22/2009@16:49:08			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-0.589	0.0288	12/22/2009@16:50:59			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.589 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.589 > -5.00					
		Message	CCB Passed					
		Action	Continue					
243255004	1	76	-0.456	0.0342	12/22/2009@16:52:49			
243255006	1	77	-1.35	-0.00197	12/22/2009@16:53:43			
243257003	1	78	-1.26	0.00140	12/22/2009@16:54:37			
243257005	1	79	-1.64	-0.0142	12/22/2009@16:55:32			
243272001	1	80	-0.653	0.0262	12/22/2009@16:56:25			
243281002	1	81	-1.10	0.00789	12/22/2009@16:57:19			
243281003	1	82	-1.28	5.33e-4	12/22/2009@16:58:13			
243281004	1	83	-0.514	0.0319	12/22/2009@16:59:06			
243281005	1	84	-0.685	0.0249	12/22/2009@16:59:59			
1202000930||DUP	1	85	-1.09	0.00856	12/22/2009@17:00:52			
WCN091222-03	1	S3	96.0	3.96	12/22/2009@17:01:45			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-0.817	0.0195	12/22/2009@17:03:34			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.817 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.817 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202000934||MS	1	86	102	4.22	12/22/2009@17:05:24			
1202000938||MSD	1	87	99.3	4.10	12/22/2009@17:06:16			
243281006	1	88	-0.651	0.0263	12/22/2009@17:07:09			
243285001	1	89	-2.29	-0.0403	12/22/2009@17:08:02			
1202002259|935758|MB	1	90	-1.06	0.00979	12/22/2009@17:08:54			
1202002261||LCS	1	91	96.7	3.99	12/22/2009@17:09:49		250.00	
243330001	1	92	-0.968	0.0134	12/22/2009@17:10:43			
1202002260||DUP	1	93	5.00	0.257	12/22/2009@17:11:37			
WCN091222-03	1	S3	95.6	3.94	12/22/2009@17:12:30			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	-4.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	-4.4 < 10.0					

		Message	CCV Passed					
		Action	Continue					
WCN091222-08	1	S7	-1.20	0.00380	12/22/2009@17:14:20			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.20 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.20 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_12-22-2009_14-59-47.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

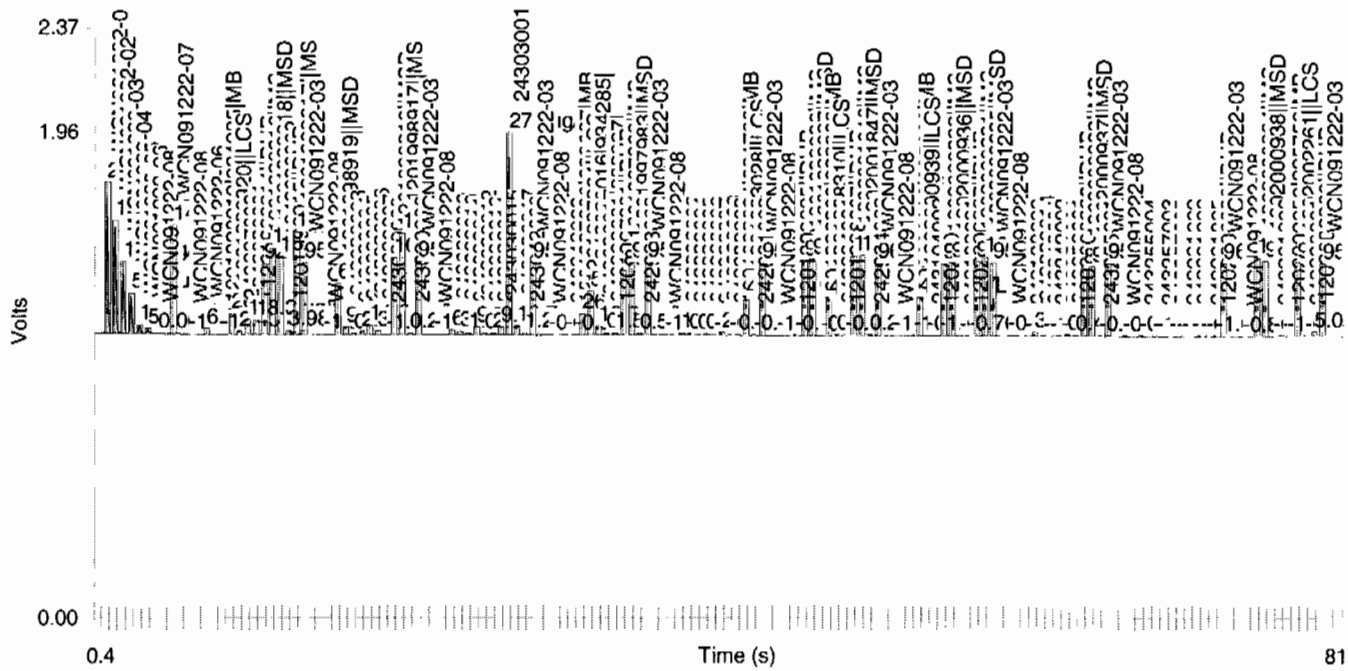

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	8.25	0.610	-0.7	12/22/2009	15:01:35
2	150	1	6.18	0.454	-0.4	12/22/2009	15:02:27
3	100	1	3.90	0.286	5.4	12/22/2009	15:03:20
4	50.0	1	2.21	0.162	-5.9	12/22/2009	15:04:12
5	10.0	1	0.487	0.0341	-5.1	12/22/2009	15:05:06
6	5.00	1	0.293	0.0212	-12.8	12/22/2009	15:05:59
7	0.00	1	0.0149	0.00280		12/22/2009	15:06:54

Figure 1: TCYANIDE

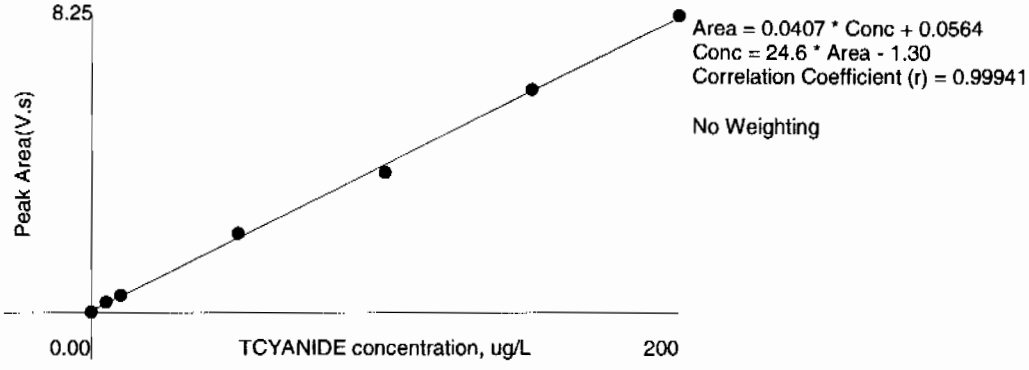

Ion Chromatography

This is runlog for Sequence 100108.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	12/02/09 18:35		1	100108	GXM3
ICAL-06	12/02/09 19:04		1	100108	GXM3
ICAL-05	12/02/09 19:34		1	100108	GXM3
ICAL-04	12/02/09 20:04		1	100108	GXM3
ICAL-03	12/02/09 20:34		1	100108	GXM3
ICAL-02	12/02/09 21:04		1	100108	GXM3
ICAL-01	12/02/09 21:33		1	100108	GXM3
ICAL-07	12/02/09 18:35		1	100108	GXM3
ICAL-06	12/02/09 19:04		1	100108	GXM3
ICAL-05	12/02/09 19:34		1	100108	GXM3
ICAL-04	12/02/09 20:04		1	100108	GXM3
ICAL-03	12/02/09 20:34		1	100108	GXM3
ICAL-02	12/02/09 21:04		1	100108	GXM3
ICAL-01	12/02/09 21:33		1	100108	GXM3

8 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

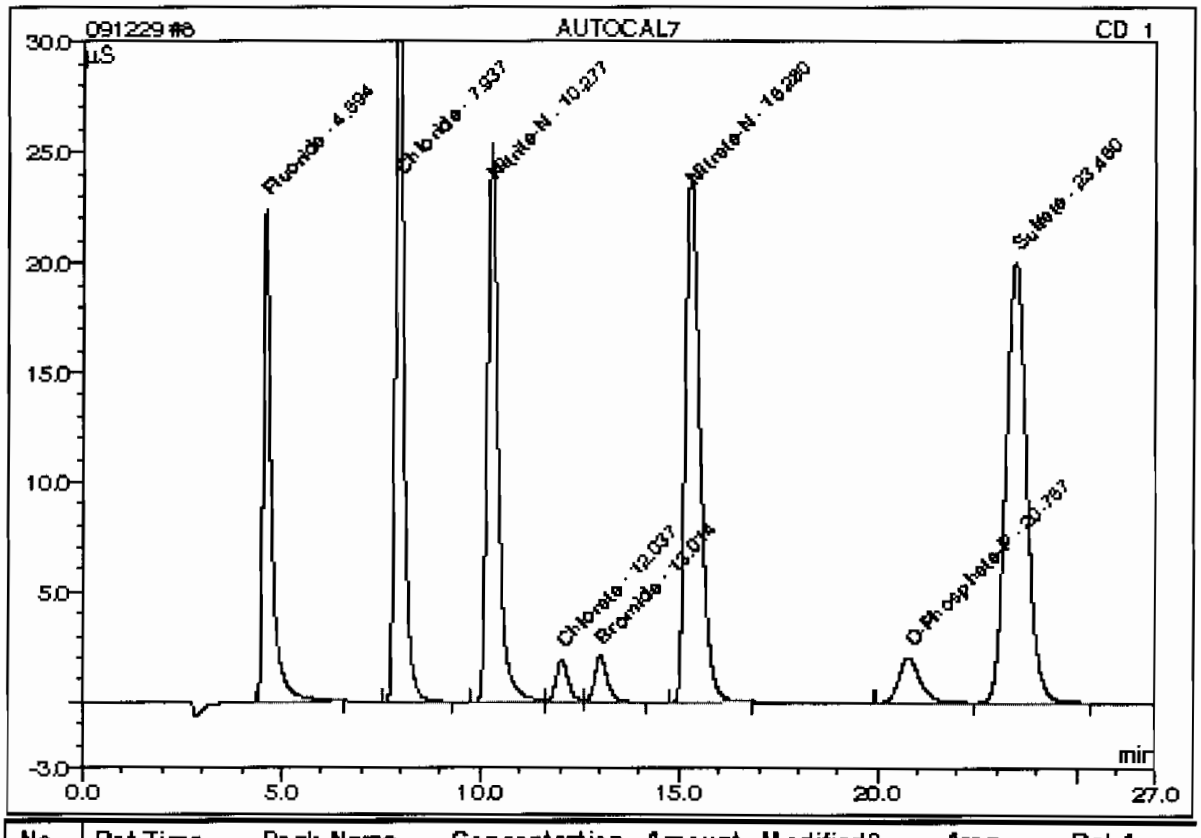

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	10.0000	10.1577		5.35634	11.49
2	7.94	Chloride	20.0000	20.4728		8.55118	18.34
3	10.28	Nitrite-N	10.0000	10.1488		7.97425	17.10
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromide	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2042		10.06854	21.59
7	20.76	O-Phosphate-P	5.0000	5.0829		1.26723	2.72
8	23.46	Sulfate	40.0000	40.7635		11.96232	25.65
Total:				106.9098	0.000	46.636	100.00

1 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

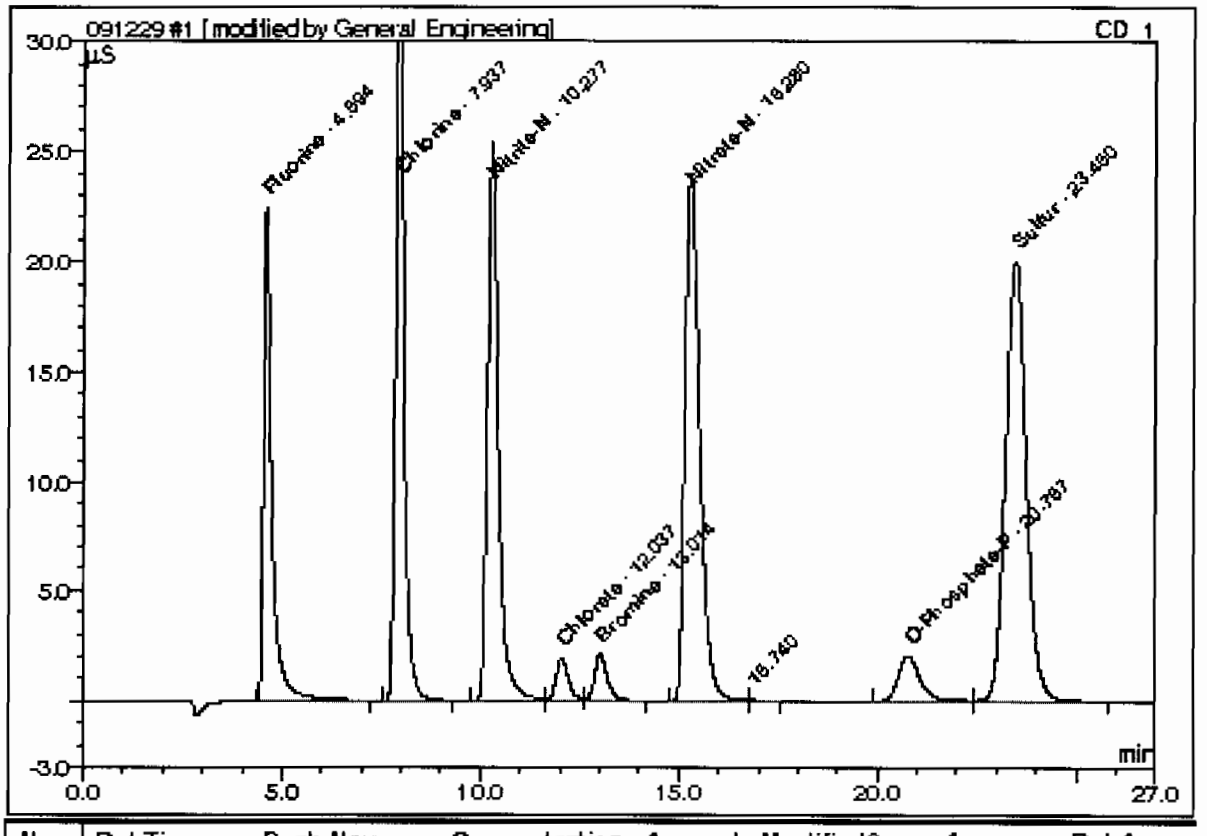

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluorine	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chlorine	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromine	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfur	13.3332	13.5815	*	11.96208	25.60
Total:				79.7299	0.000	46.723	99.98

1 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

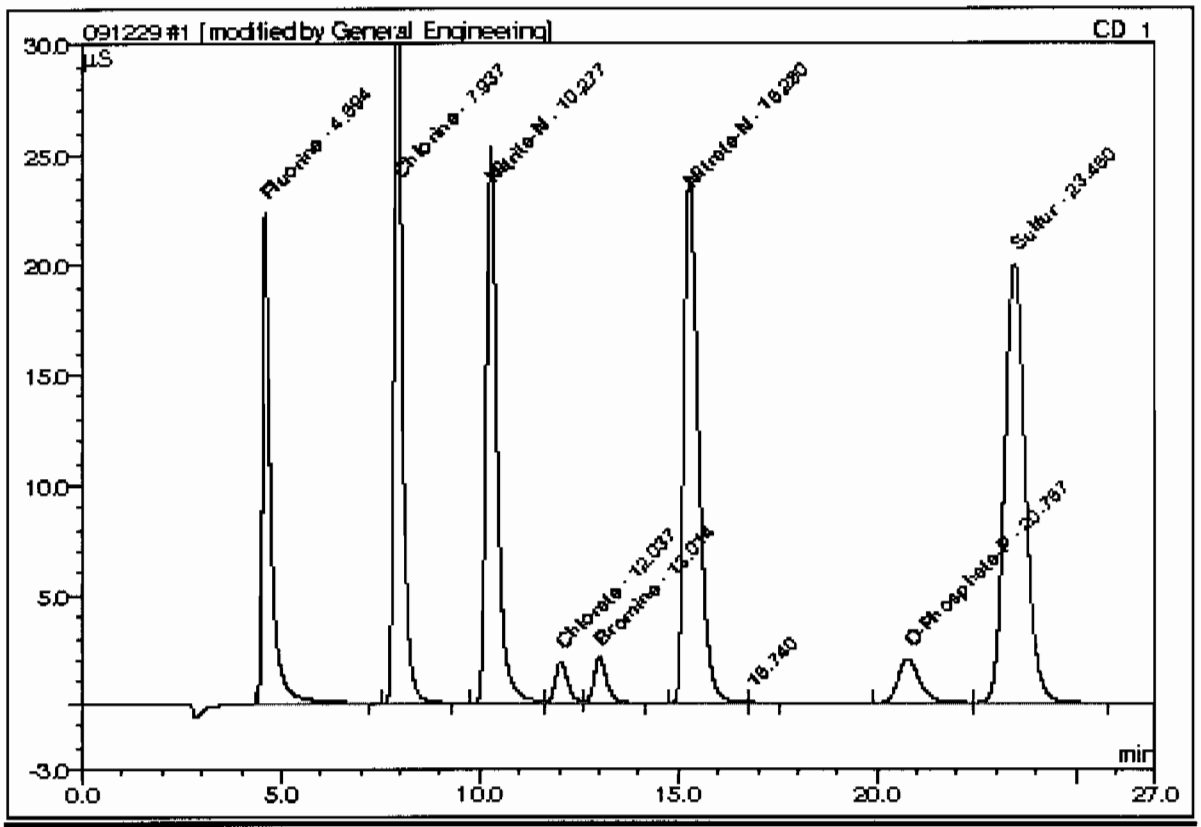

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluorine	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chlorine	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromine	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfur	13.3332	13.5815	*	11.96208	25.60
Total:				79.7299	0.000	46.723	99.98

1 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

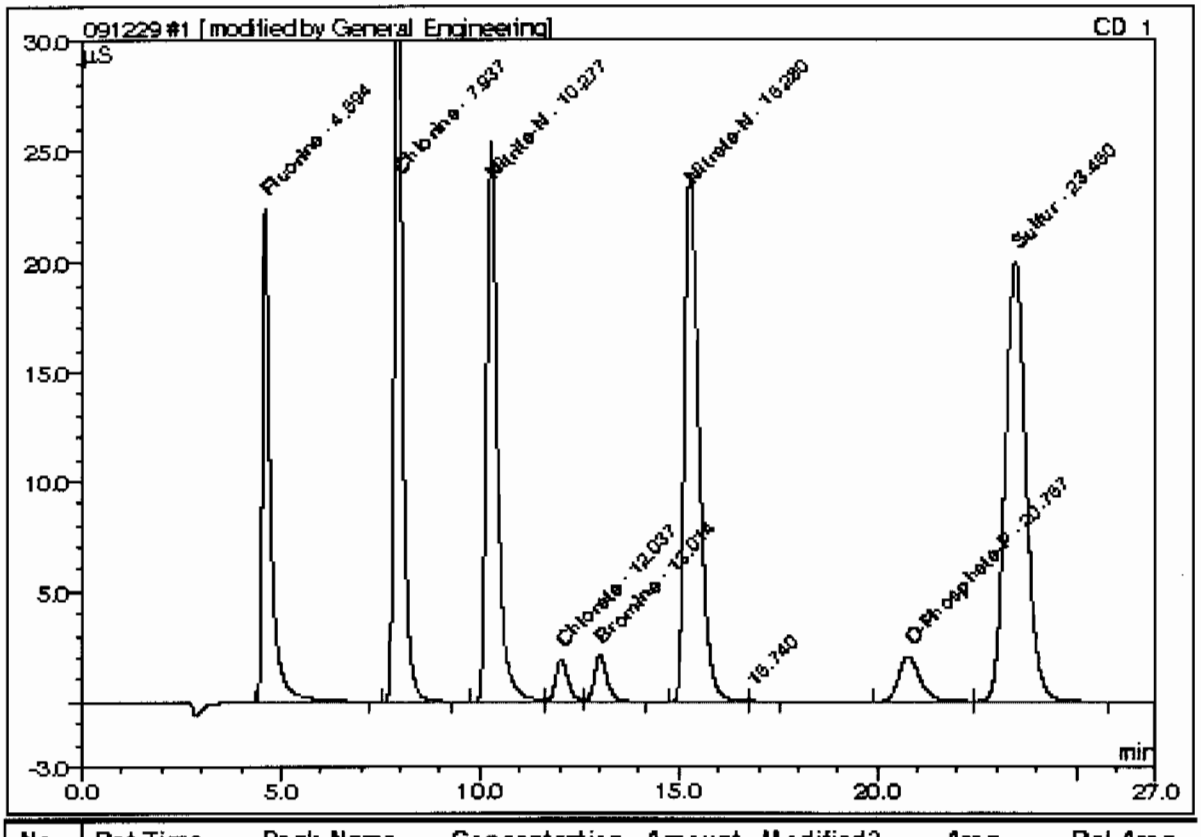

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluorine	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chlorine	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromine	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfur	13.3332	13.5815	*	11.96208	25.60
Total:				79.7299	0.000	46.723	99.98

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

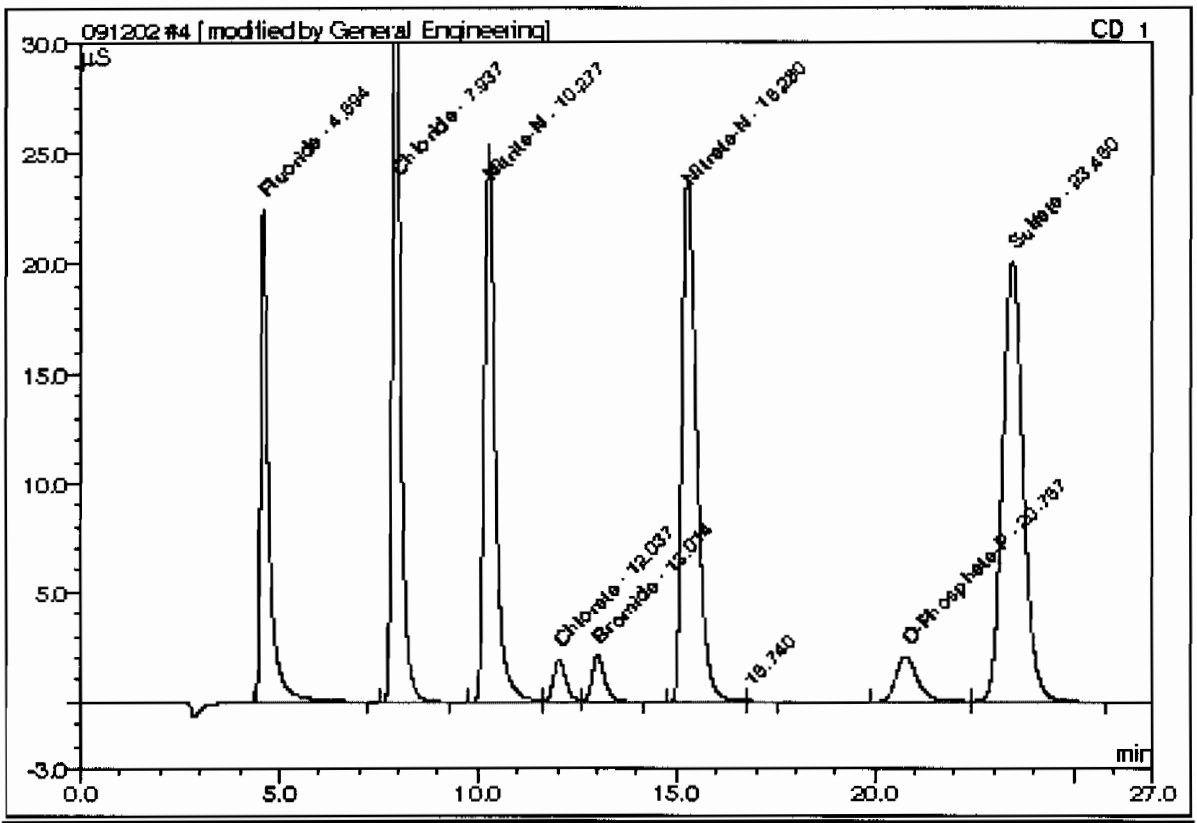

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chloride	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromide	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfate	40.0000	40.7450	*	11.96208	25.60
Total:				106.8933	0.000	46.723	99.98

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

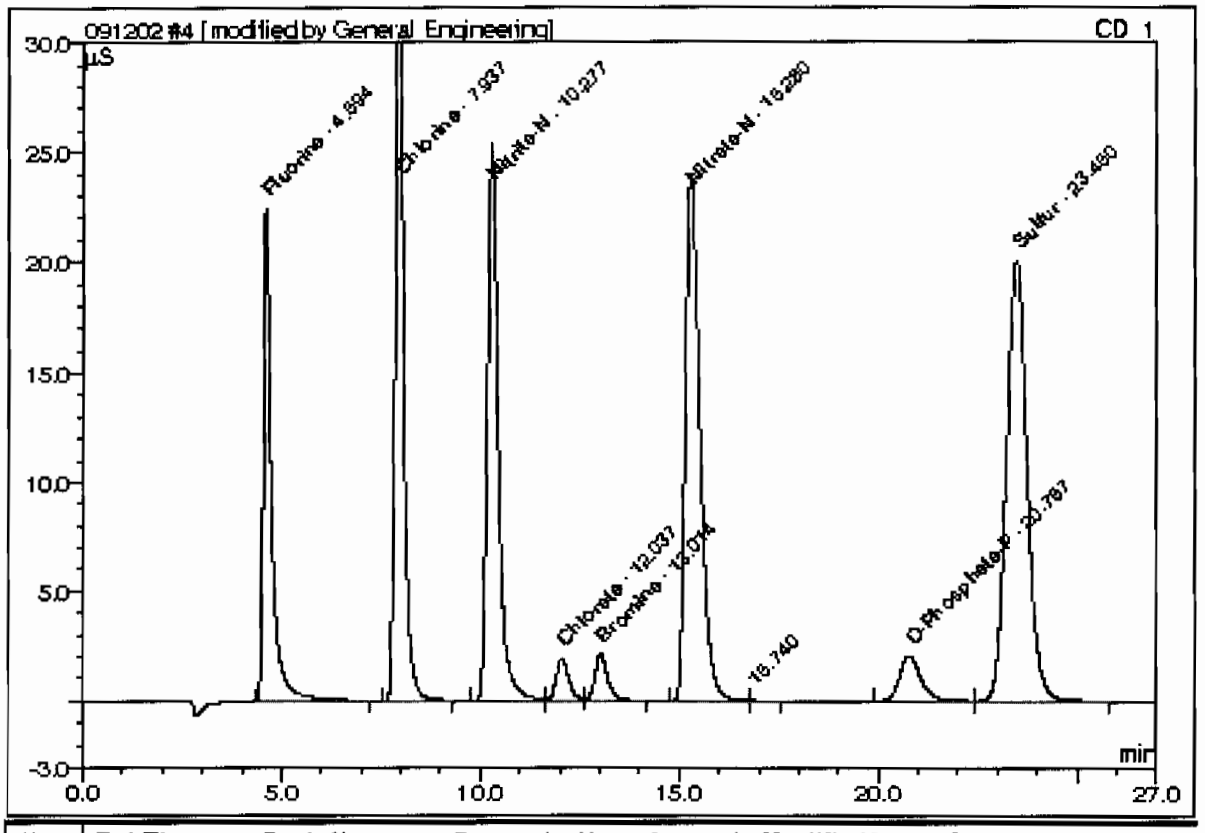

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluorine	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chlorine	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromine	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfur	13.3332	13.5815	*	11.96208	25.60
Total:				79.7299	0.000	46.723	99.98

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

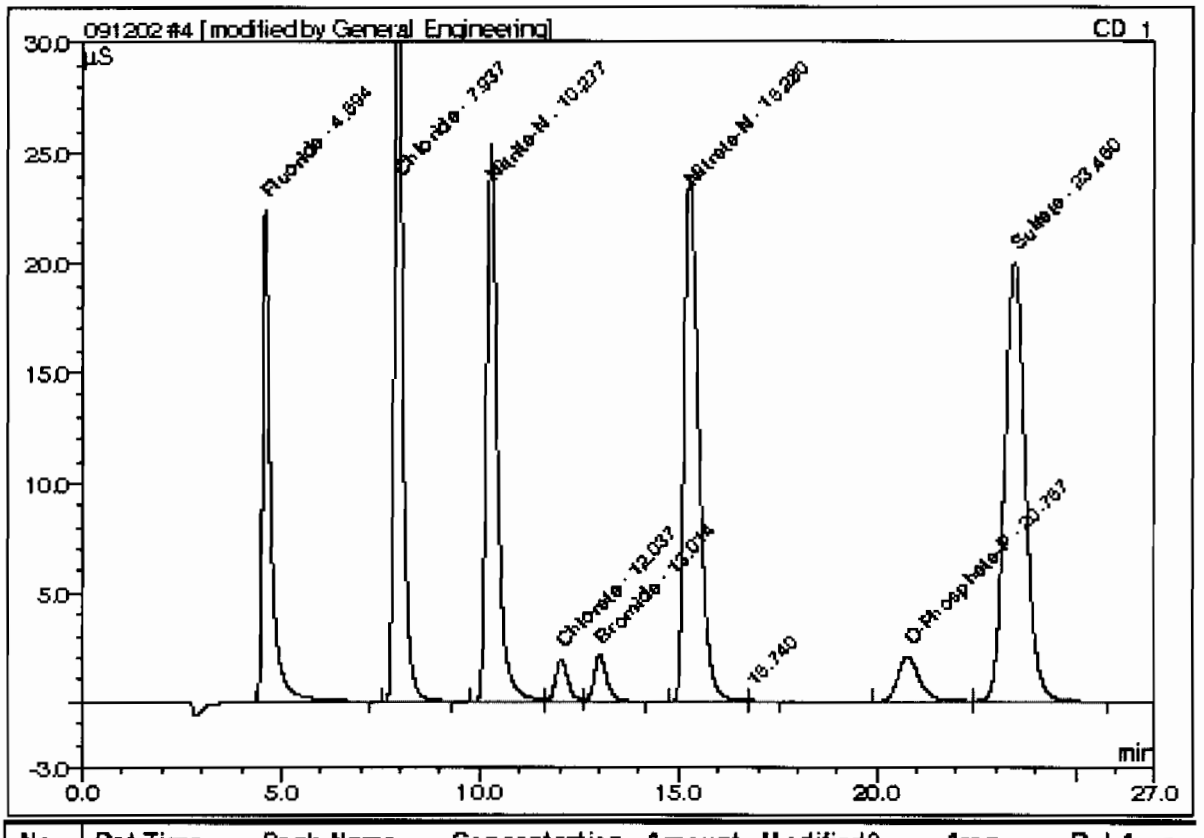

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chloride	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromide	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfate	40.0000	40.7450	*	11.96208	25.60
Total:				106.8933	0.000	46.723	99.98

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

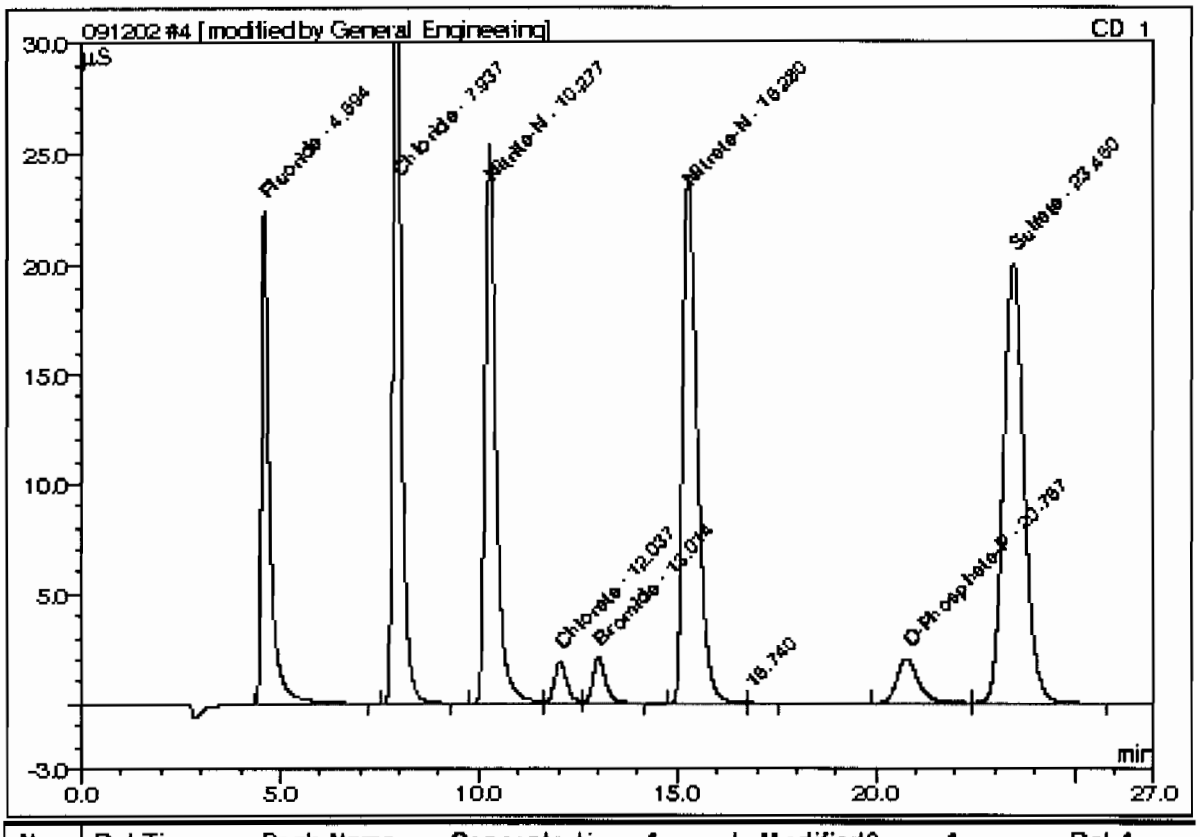

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chloride	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromide	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfate	40.0000	40.7450	*	11.96208	25.60
Total:				106.8933	0.000	46.723	99.98

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 18:35	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

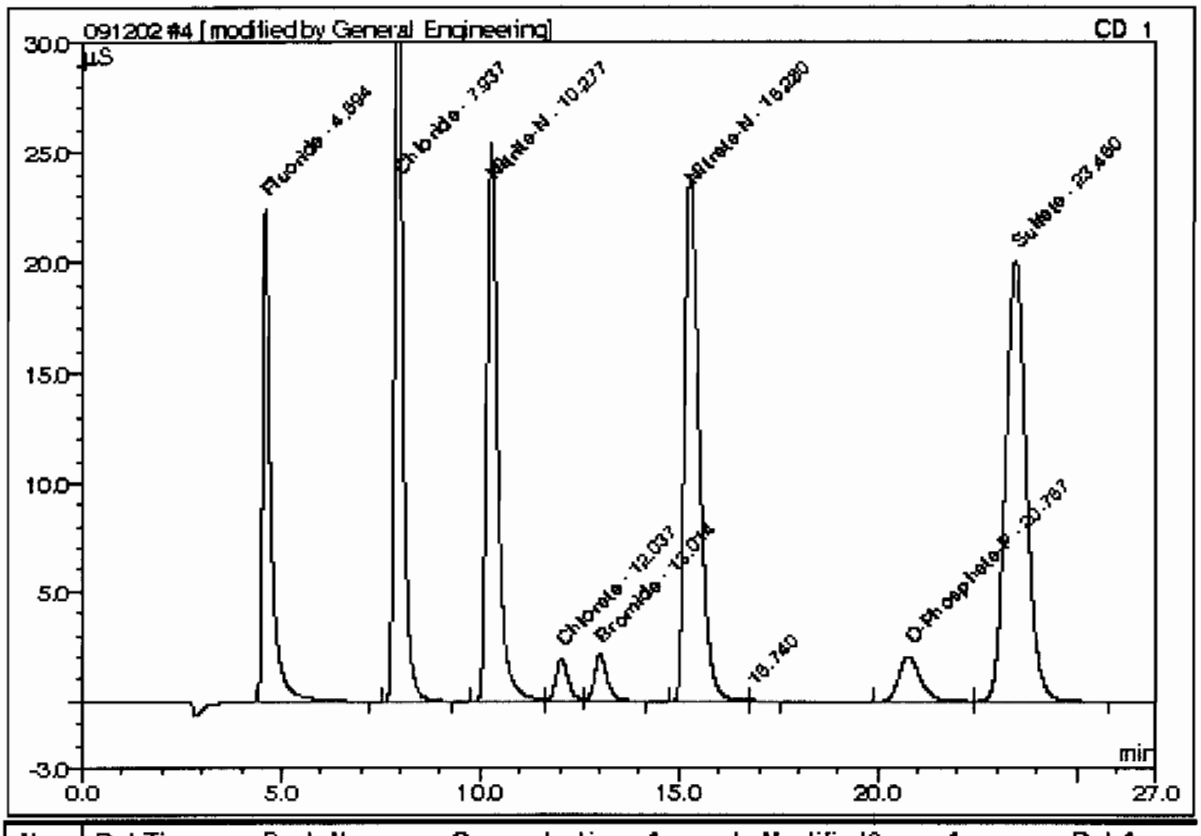

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.59	Fluoride	10.0000	10.1570	*	5.40485	11.57
2	7.94	Chloride	20.0000	20.4728		8.55118	18.30
3	10.28	Nitrite-N	10.0000	10.1490		7.97425	17.06
4	12.04	Chlorate	5.0000	5.0509		0.69150	1.48
5	13.01	Bromide	5.0000	5.0291		0.76494	1.64
6	15.28	Nitrate-N	10.0000	10.2057	*	10.09120	21.59
8	20.76	O-Phosphate-P	5.0000	5.0838	*	1.28268	2.74
9	23.46	Sulfate	40.0000	40.7450	*	11.96208	25.60
Total:				106.8933	0.000	46.723	99.98

9 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

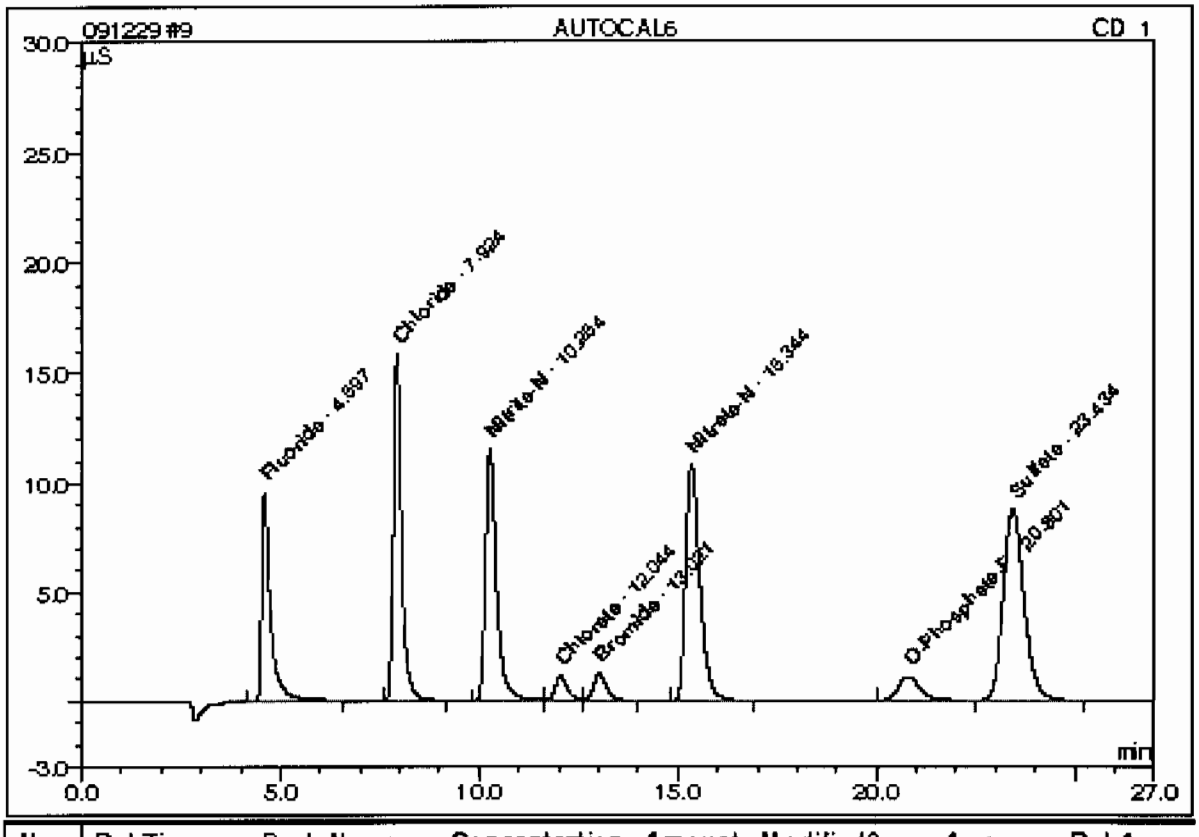

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	5.0000	4.6845		2.45967	11.55
2	7.92	Chloride	10.0000	9.0643		3.76891	17.70
3	10.26	Nitrite-N	5.0000	4.7100		3.66436	17.21
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromide	3.0000	2.9614		0.44868	2.11
6	15.34	Nitrate-N	5.0000	4.5981		4.48040	21.04
7	20.80	O-Phosphate-P	3.0000	2.8969		0.69988	3.29
8	23.43	Sulfate	20.0000	18.4844		5.36918	25.21
Total:				50.3622	0.000	21.294	100.00

2 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

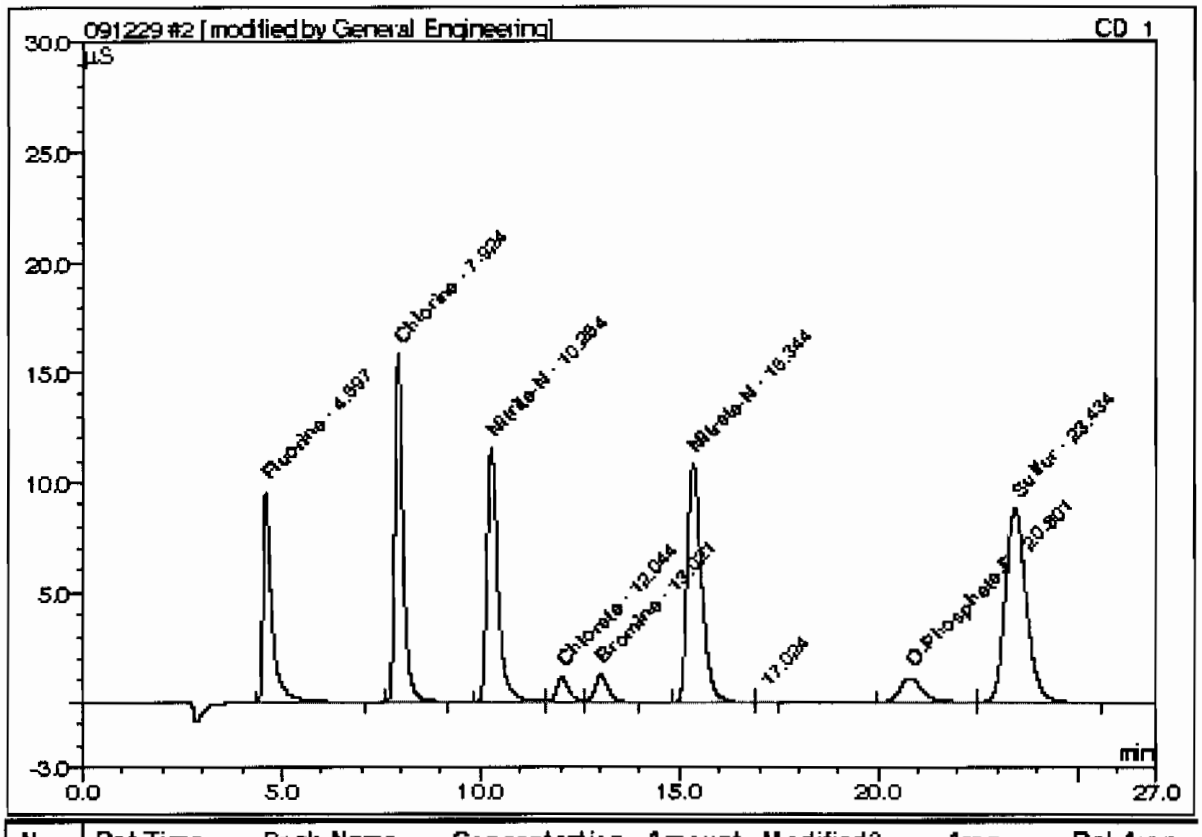

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluorine	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chlorine	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromine	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfur	6.6666	6.1723	*	5.38507	25.22
Total:				38.0531	0.000	21.349	99.99

2 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

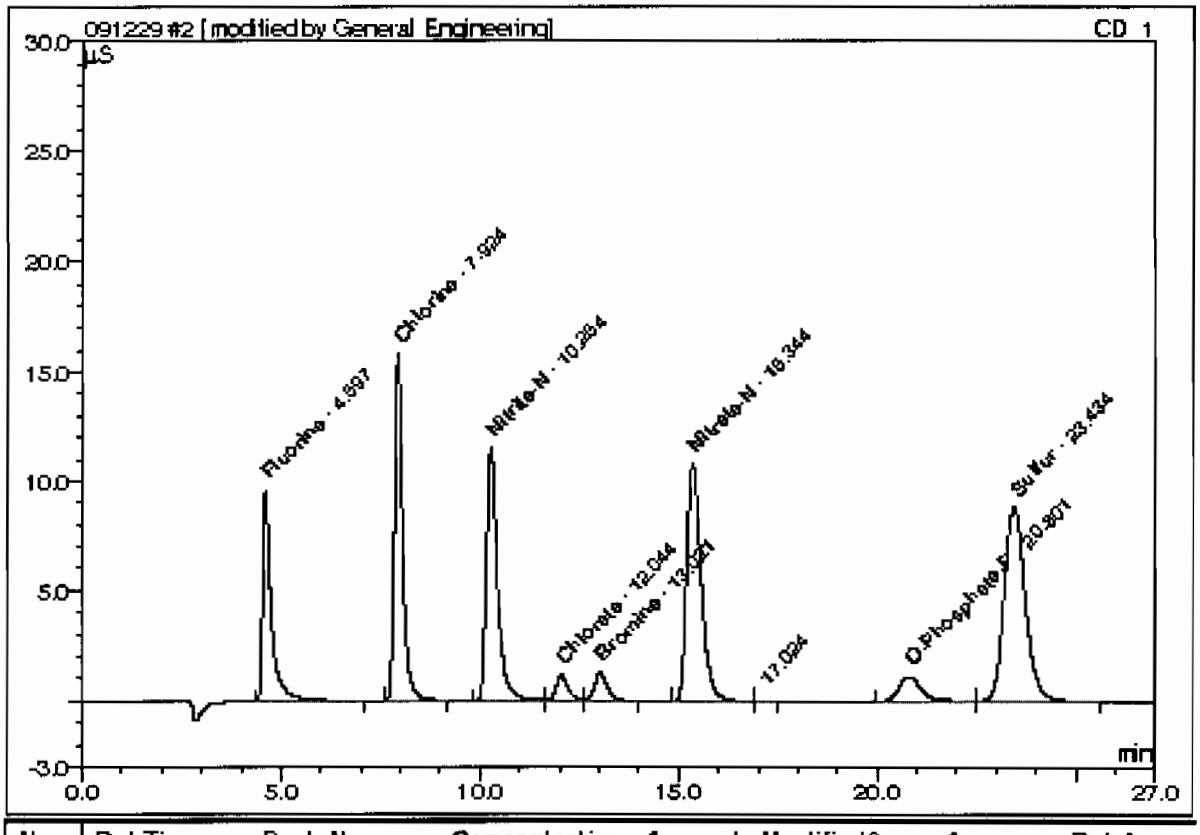

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluorine	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chlorine	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromine	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfur	6.6666	6.1723	*	5.38507	25.22
Total:				38.0531	0.000	21.349	99.99

2 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

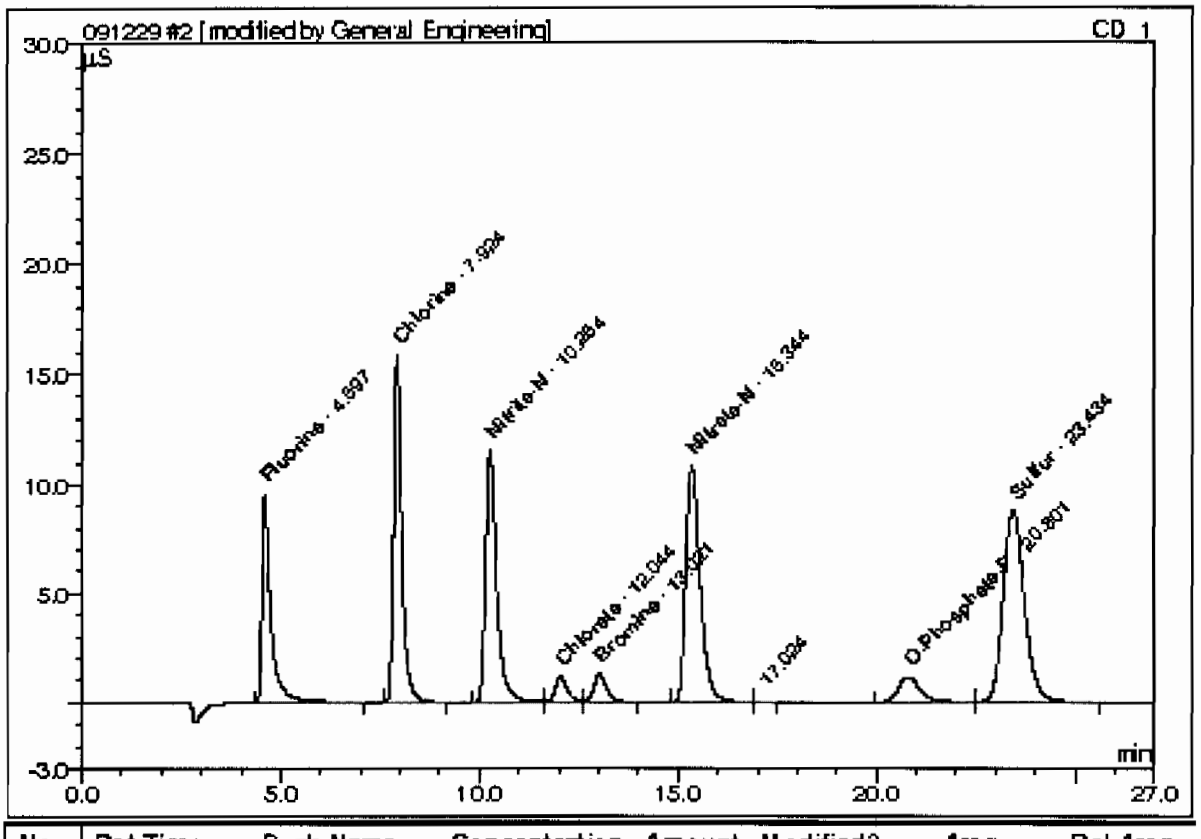

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluorine	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chlorine	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromine	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfur	6.6666	6.1723	*	5.38507	25.22
Total:				38.0531	0.000	21.349	99.99

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

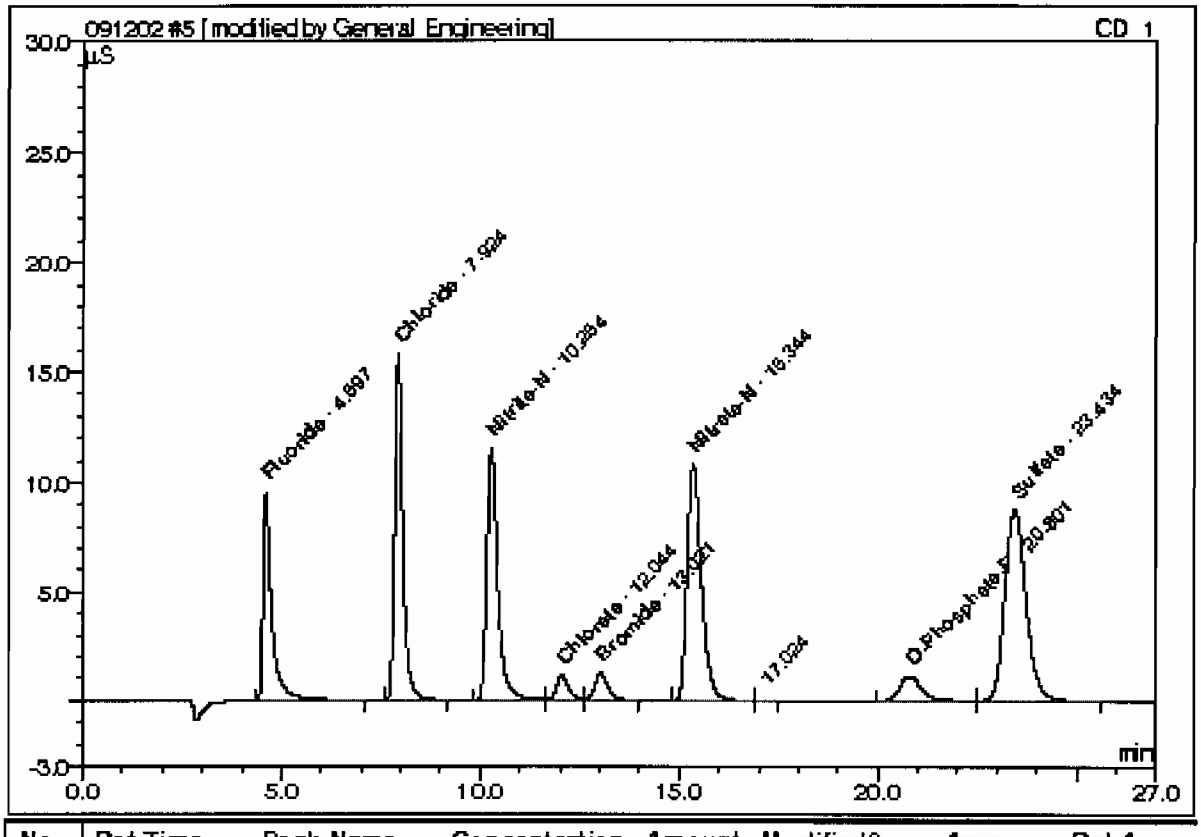

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chloride	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromide	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfate	20.0000	18.5172	*	5.38507	25.22
Total:				50.3979	0.000	21.349	99.99

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

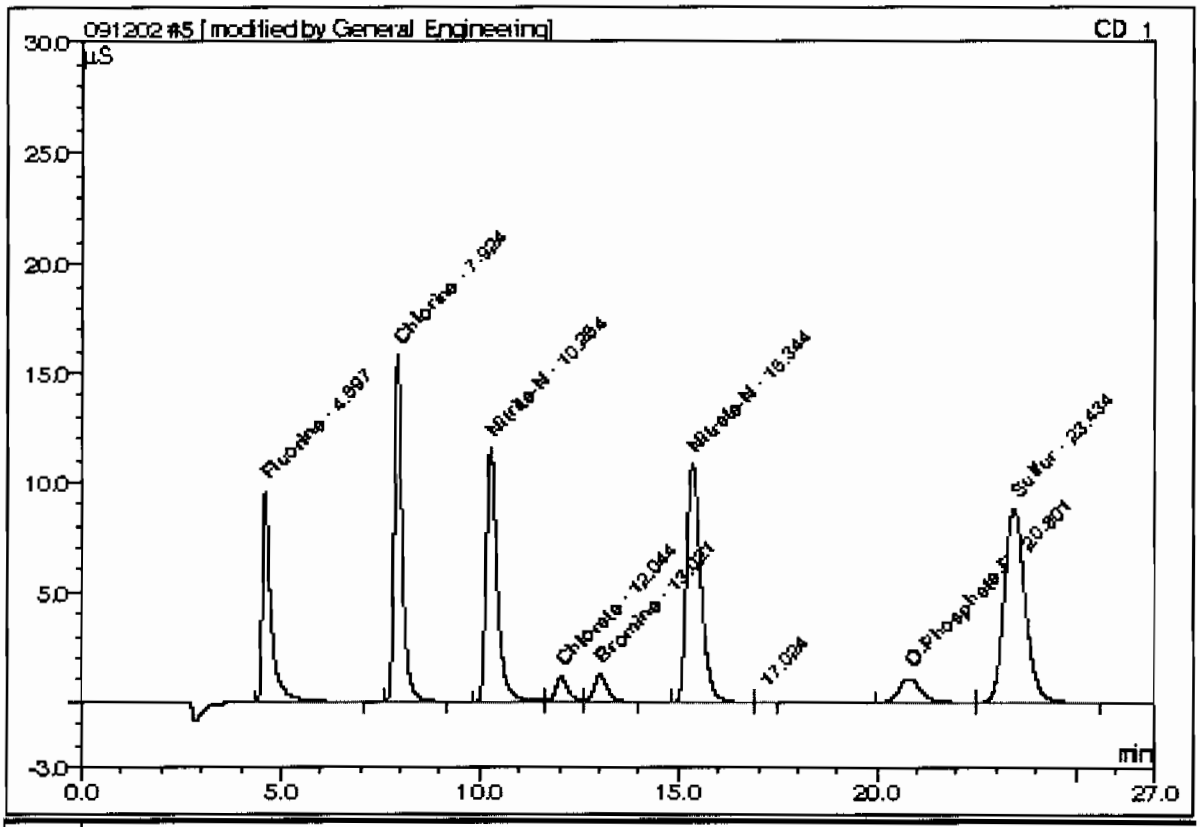

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluorine	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chlorine	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromine	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfur	6.6666	6.1723	*	5.38507	25.22
Total:				38.0531	0.000	21.349	99.99

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

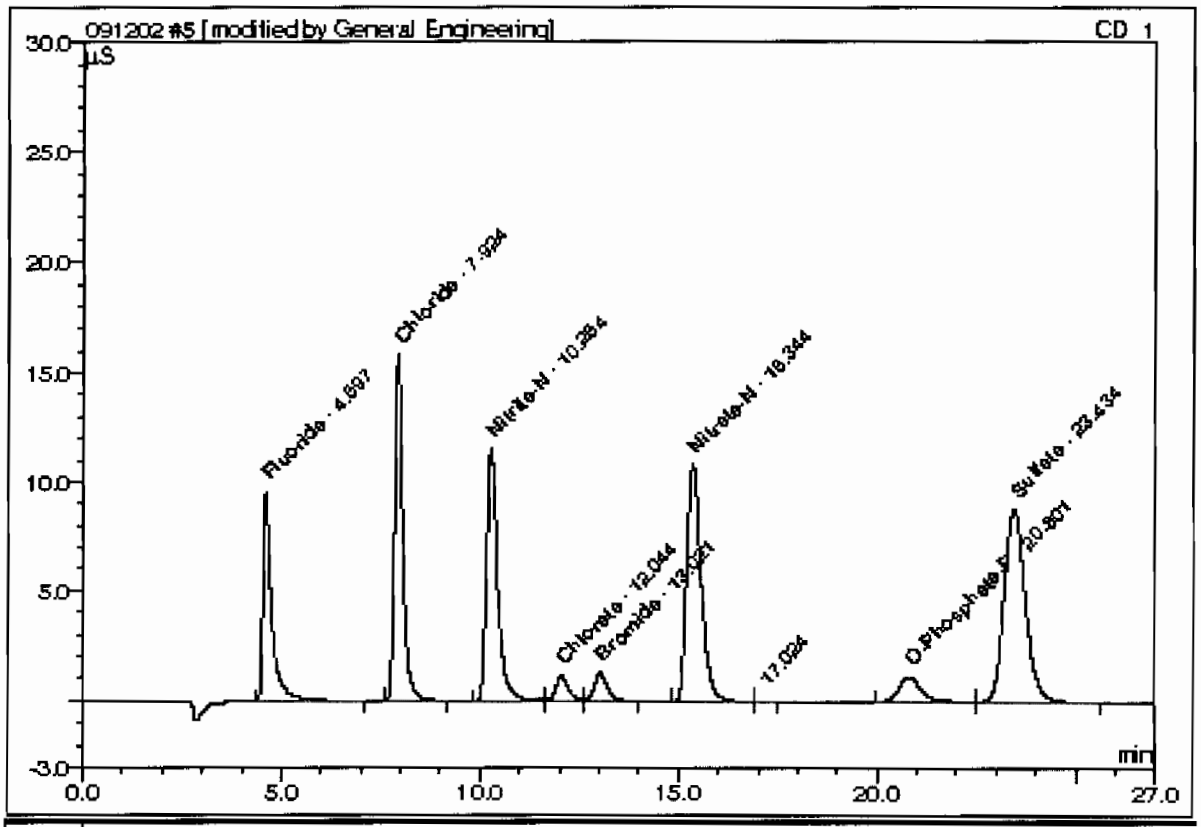

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chloride	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromide	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfate	20.0000	18.5172	*	5.38507	25.22
Total:				50.3979	0.000	21.349	99.99

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

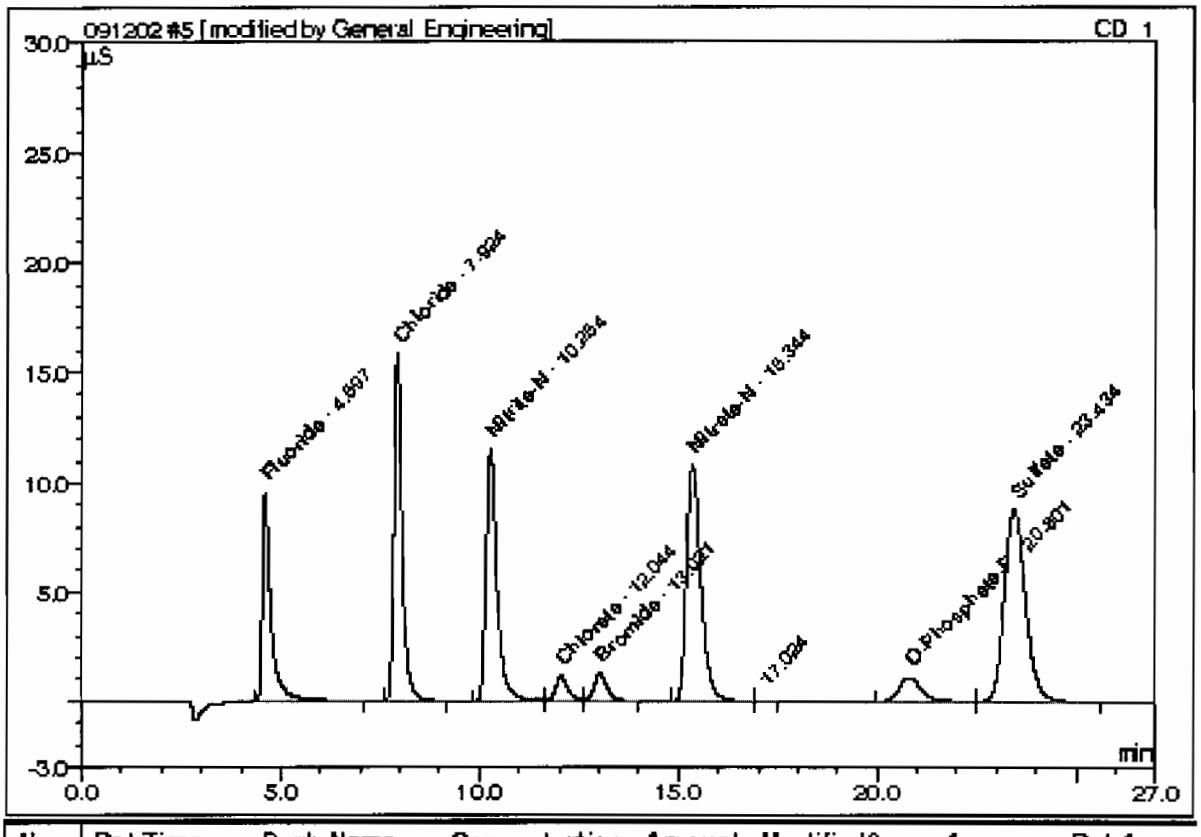

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chloride	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromide	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfate	20.0000	18.5172	*	5.38507	25.22
Total:				50.3979	0.000	21.349	99.99

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

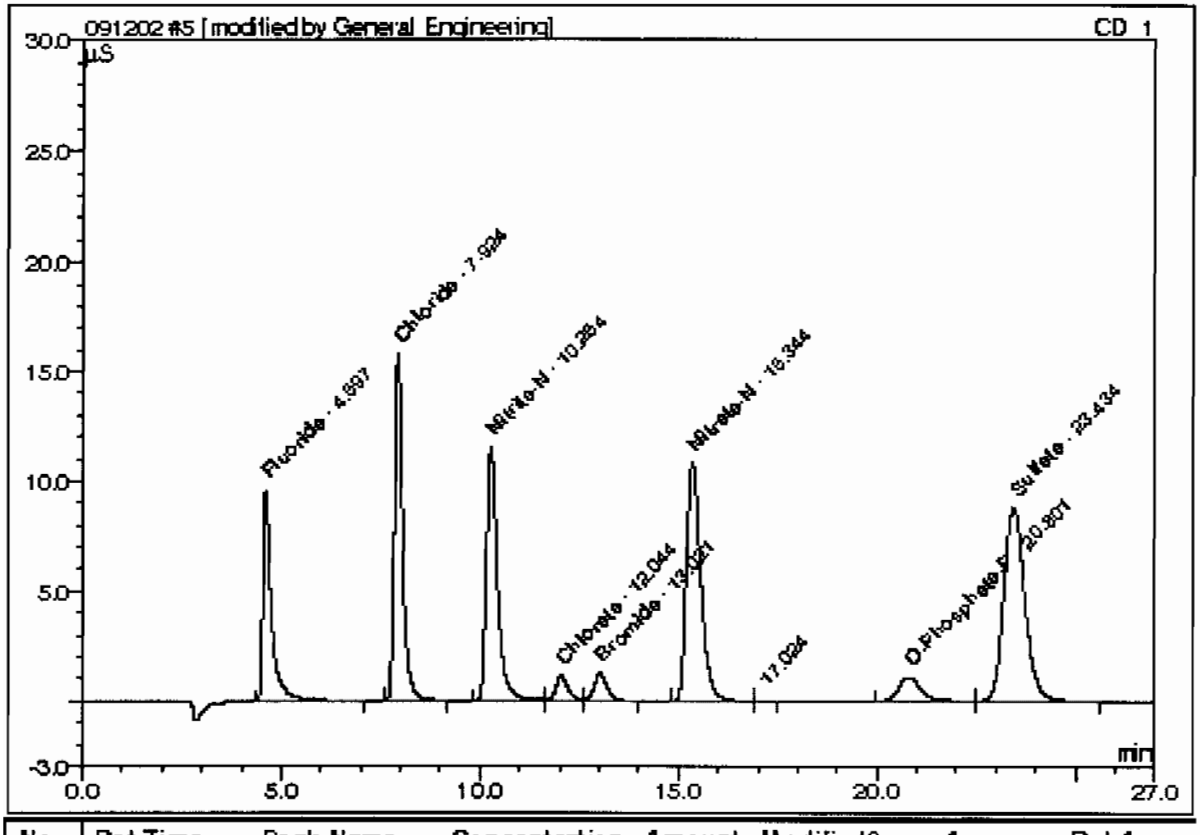

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	5.0000	4.6867	*	2.48163	11.62
2	7.92	Chloride	10.0000	9.0643		3.76891	17.65
3	10.26	Nitrite-N	5.0000	4.7094		3.66436	17.16
4	12.04	Chlorate	3.0000	2.9627		0.40341	1.89
5	13.02	Bromide	3.0000	2.9614		0.44868	2.10
6	15.34	Nitrate-N	5.0000	4.5952	*	4.48662	21.01
8	20.80	O-Phosphate-P	3.0000	2.9011	*	0.71066	3.33
9	23.43	Sulfate	20.0000	18.5172	*	5.38507	25.22
Total:				50.3979	0.000	21.349	99.99

10 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

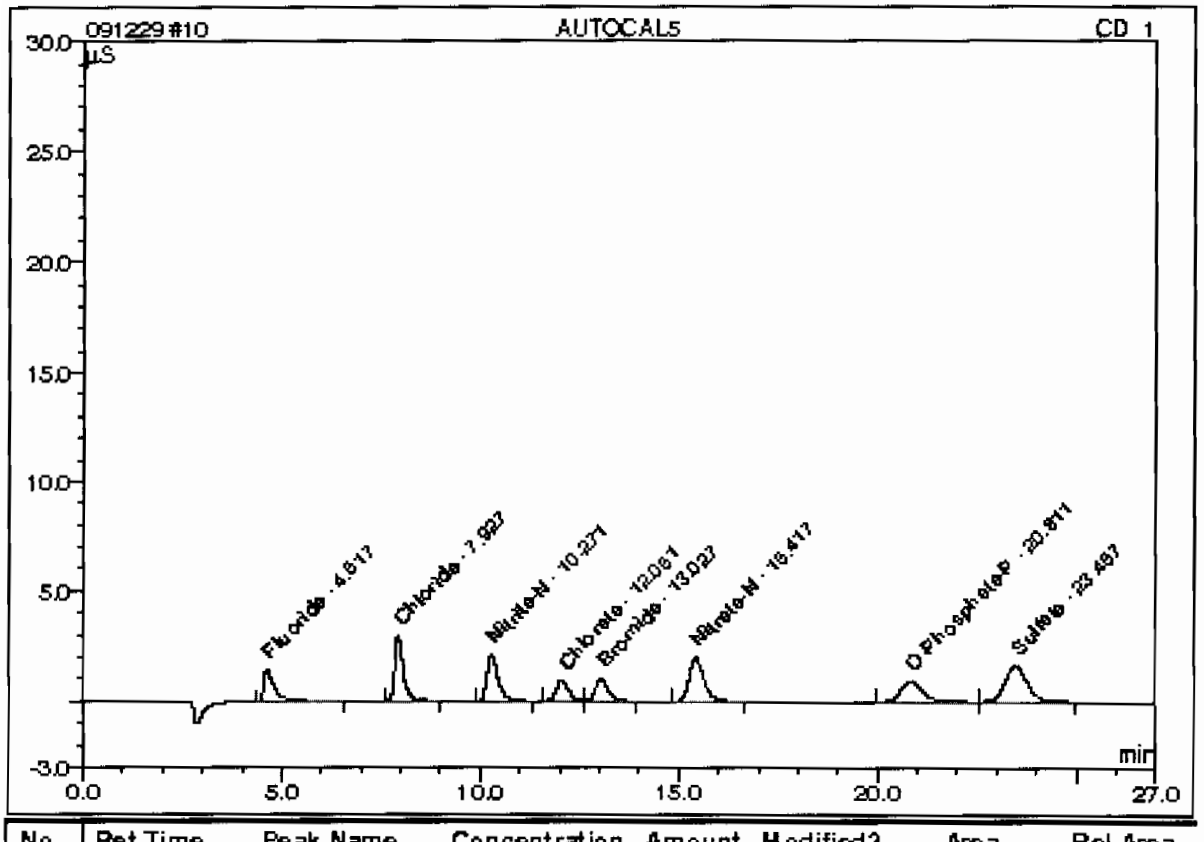

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	1.0000	0.9708		0.49415	9.72
2	7.93	Chloride	2.0000	1.8340		0.73808	14.51
3	10.27	Nitrite-N	1.0000	0.9410		0.67762	13.32
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.55
5	13.03	Bromide	2.5000	2.4949		0.37733	7.42
6	15.42	Nitrate-N	1.0000	0.9364		0.83040	16.33
7	20.81	O-Phosphate-P	2.5000	2.5263		0.60370	11.87
8	23.46	Sulfate	4.0000	3.8252		1.03106	20.27
Total:				15.9820	0.000	5.086	100.00

3 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

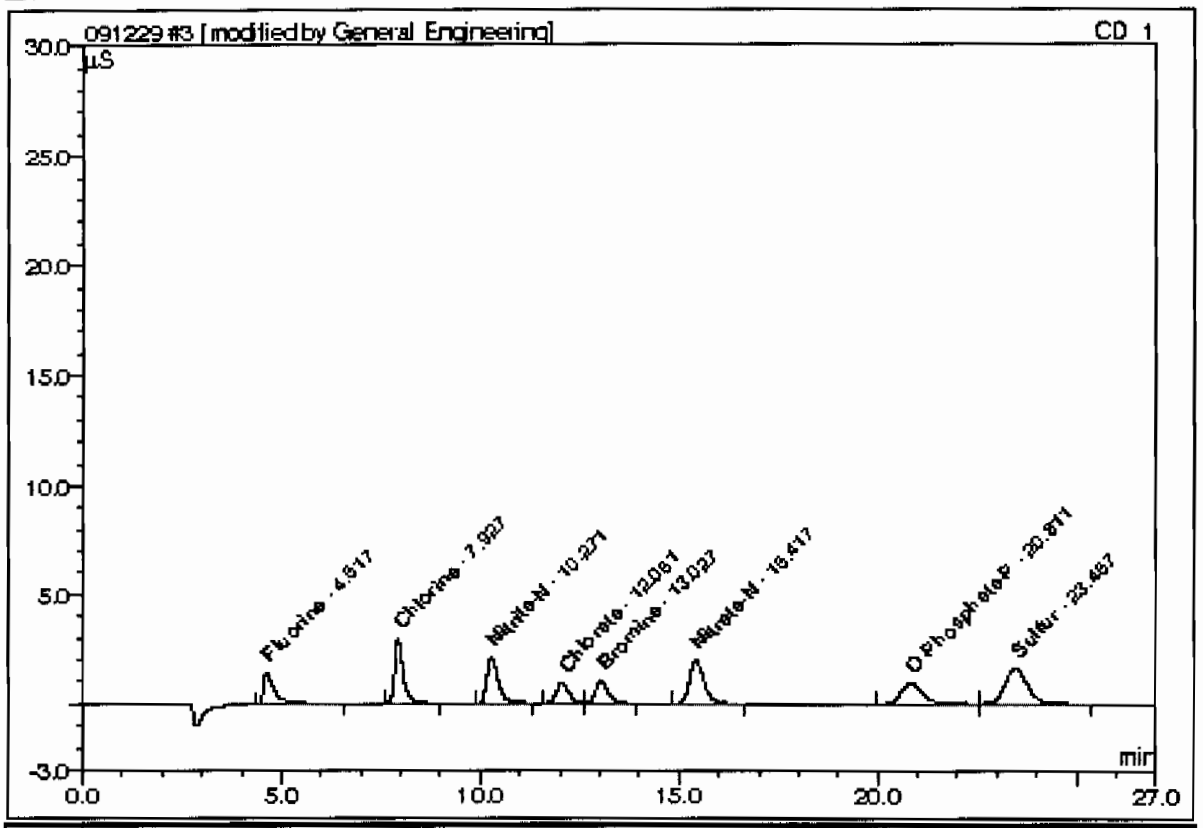

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluorine	1.0000	0.9675		0.49415	9.68
2	7.93	Chlorine	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromine	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129		0.60894	11.93
8	23.46	Sulfur	1.3332	1.2847		1.04645	20.49
Total:				13.4224	0.000	5.106	100.00

3 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

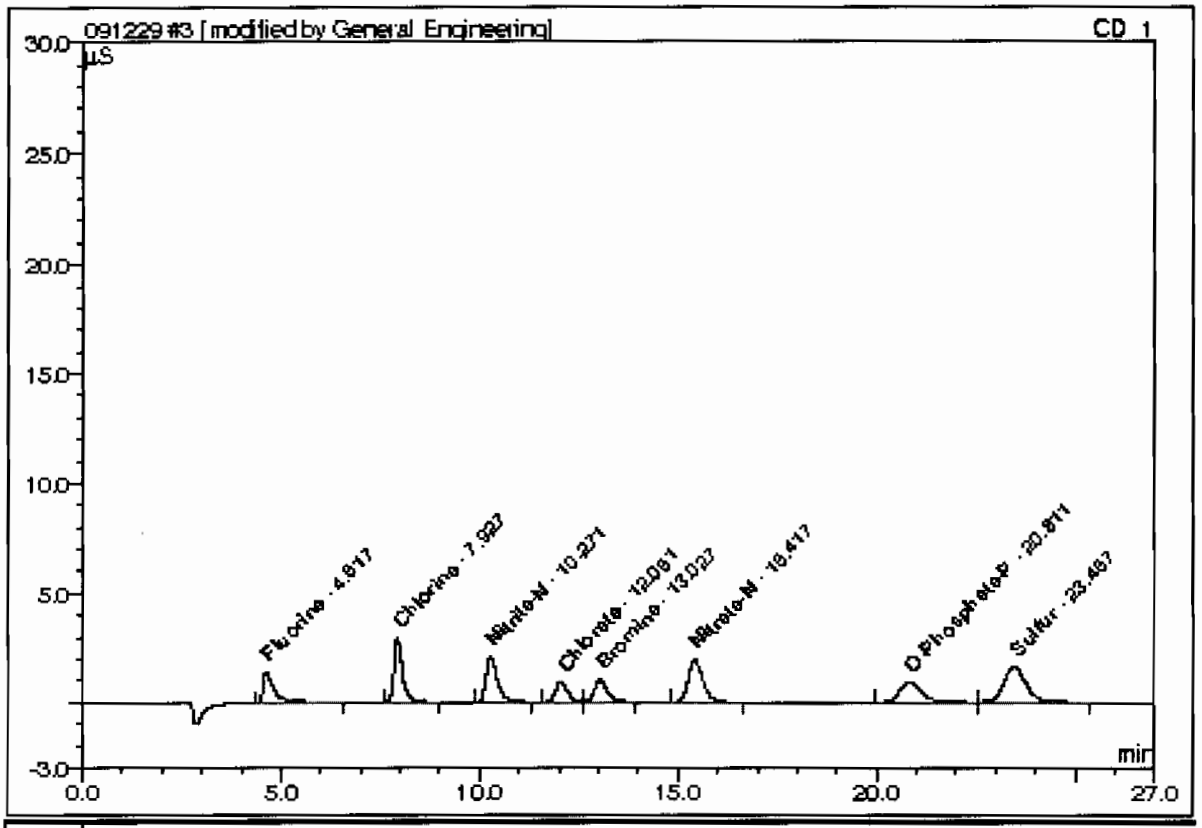

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluorine	1.0000	0.9675		0.49415	9.68
2	7.93	Chlorine	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromine	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129		0.60894	11.93
8	23.46	Sulfur	1.3332	1.2847		1.04645	20.49
Total:				13.4224	0.000	5.106	100.00

3 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC B086;300;9056

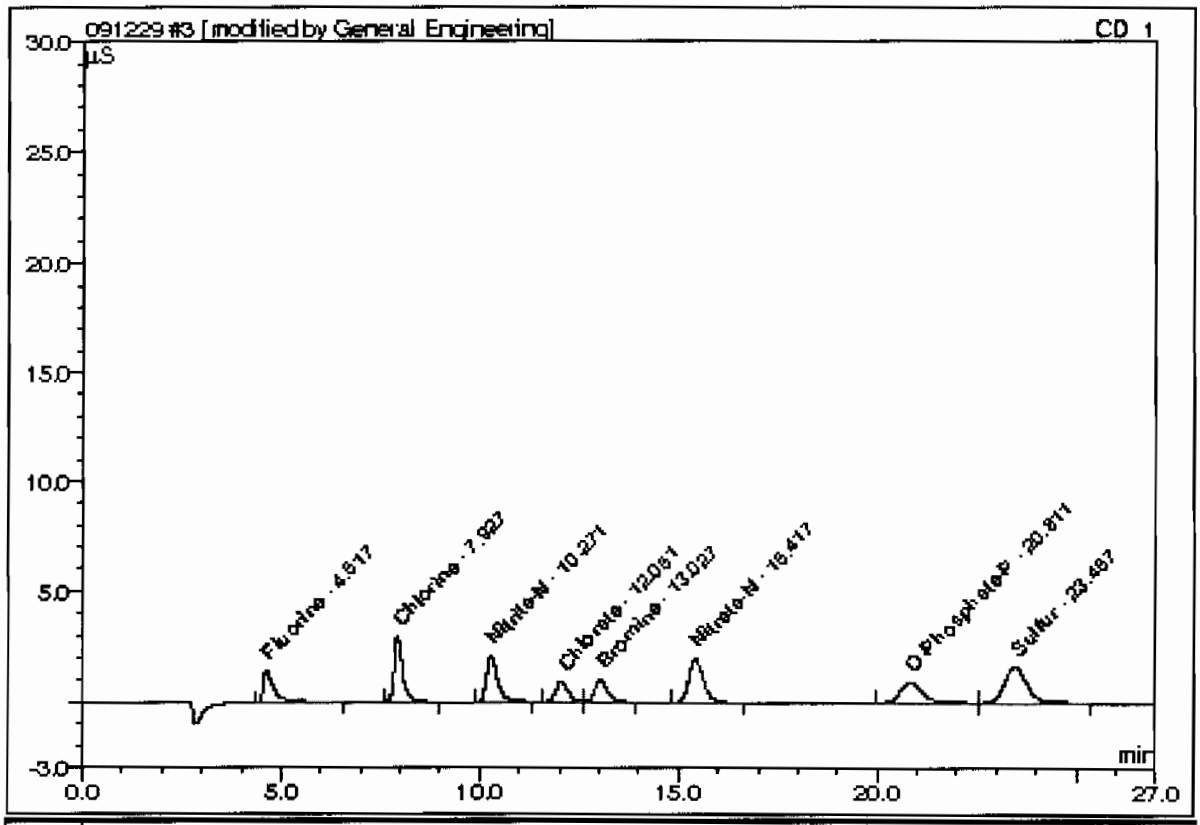

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluorine	1.0000	0.9675		0.49415	9.68
2	7.93	Chlorine	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromine	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	*	0.60894	11.93
8	23.46	Sulfur	1.3332	1.2847	*	1.04645	20.49
Total:				13.4224	0.000	5.106	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

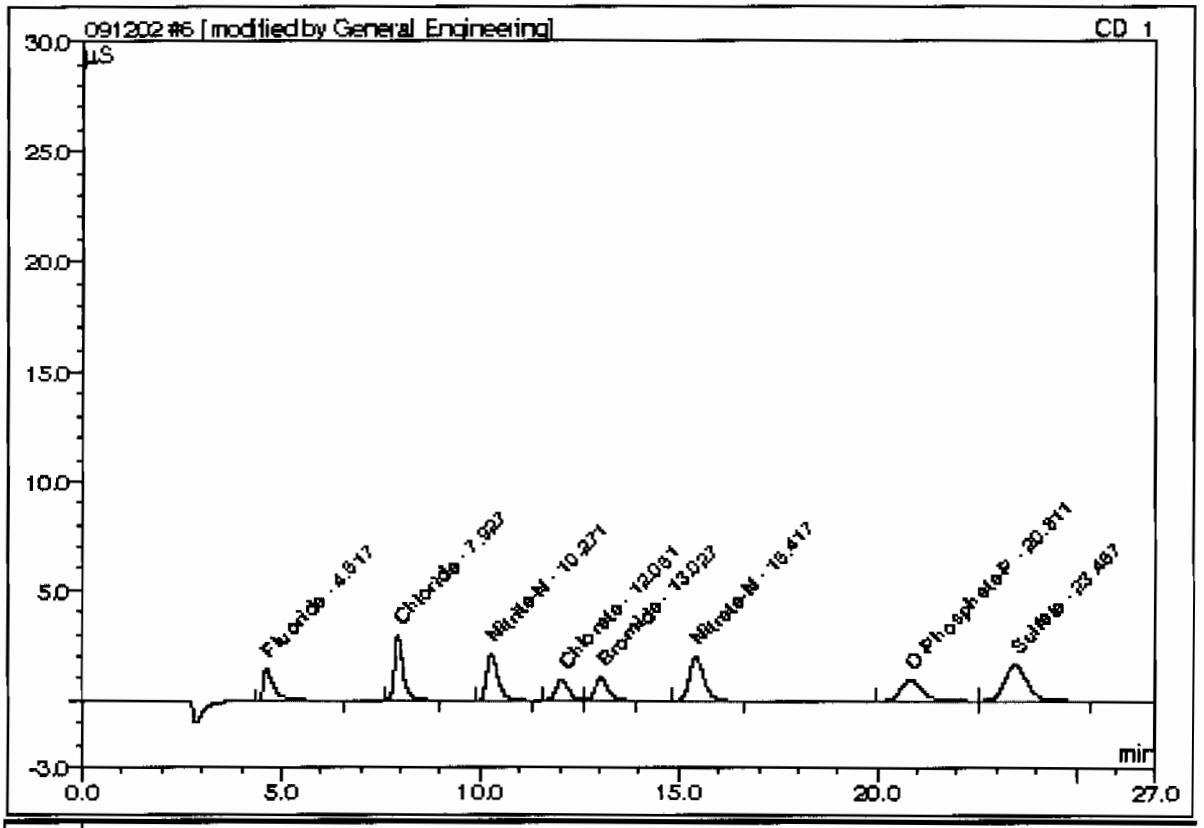

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	1.0000	0.9675		0.49415	9.68
2	7.93	Chloride	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromide	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	*	0.60894	11.93
8	23.46	Sulfate	4.0000	3.8543	*	1.04645	20.49
Total:				15.9920	0.000	5.106	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

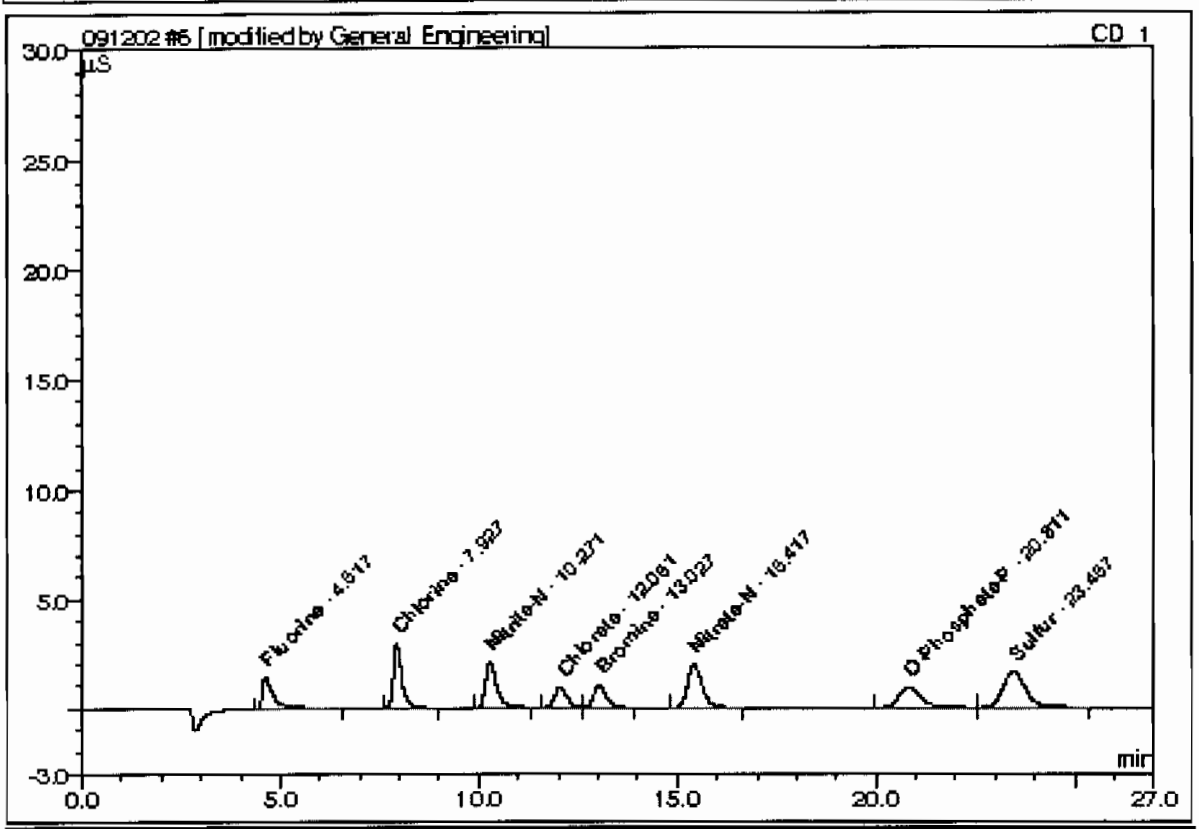

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluorine	1.0000	0.9675		0.49415	9.68
2	7.93	Chlorine	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromine	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	*	0.60894	11.93
8	23.46	Sulfur	1.3332	1.2847	*	1.04645	20.49
Total:				13.4224	0.000	5.106	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

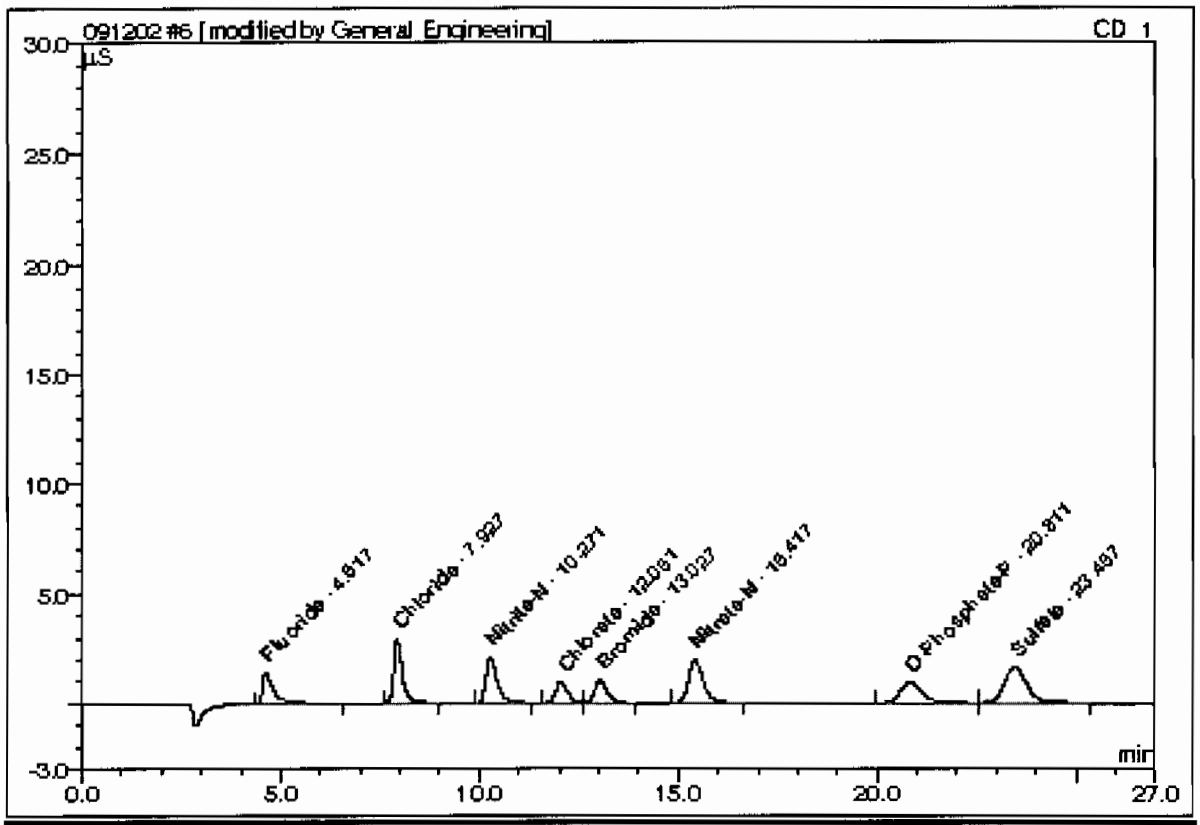

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
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2	7.93	Chloride	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromide	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	*	0.60894	11.93
8	23.46	Sulfate	4.0000	3.8543	*	1.04645	20.49
Total:				15.9920	0.000	5.106	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

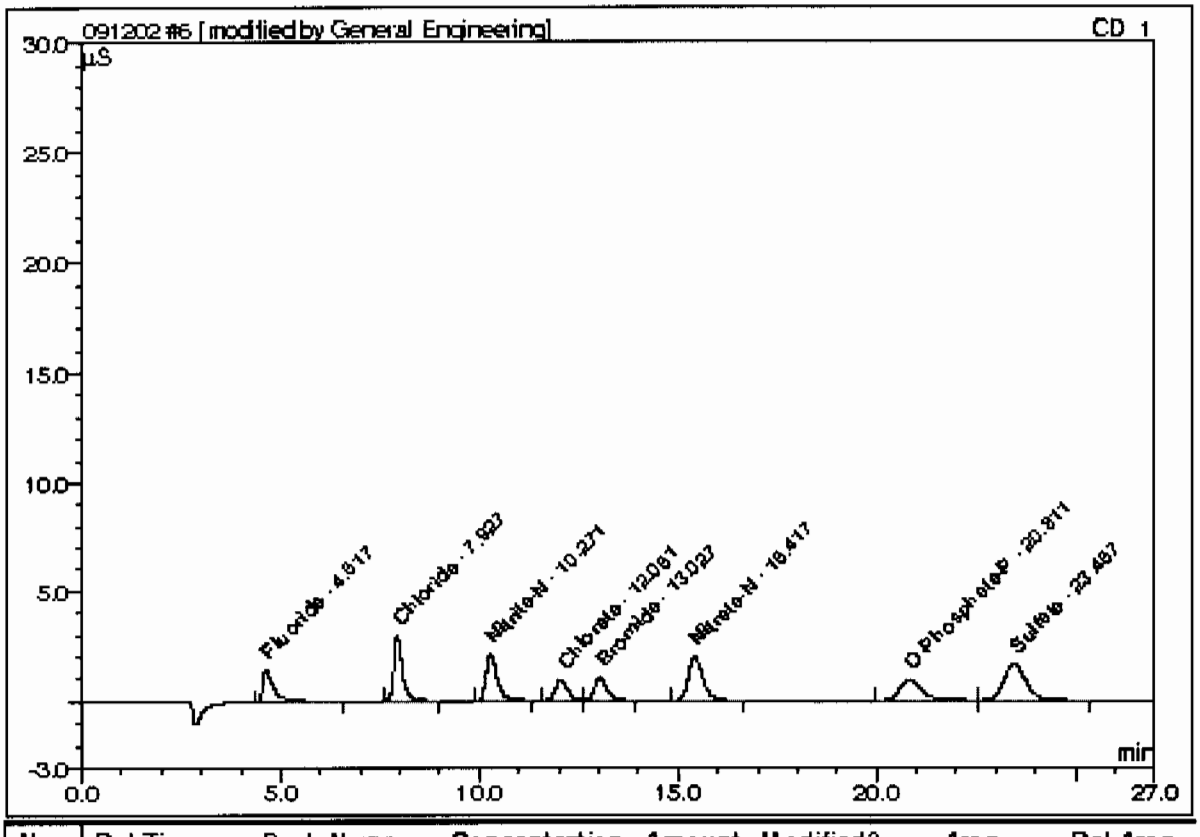

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5	13.03	Bromide	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	*	0.60894	11.93
8	23.46	Sulfate	4.0000	3.8543	*	1.04645	20.49
Total:				15.9920	0.000	5.106	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 19:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC B086;300;9056

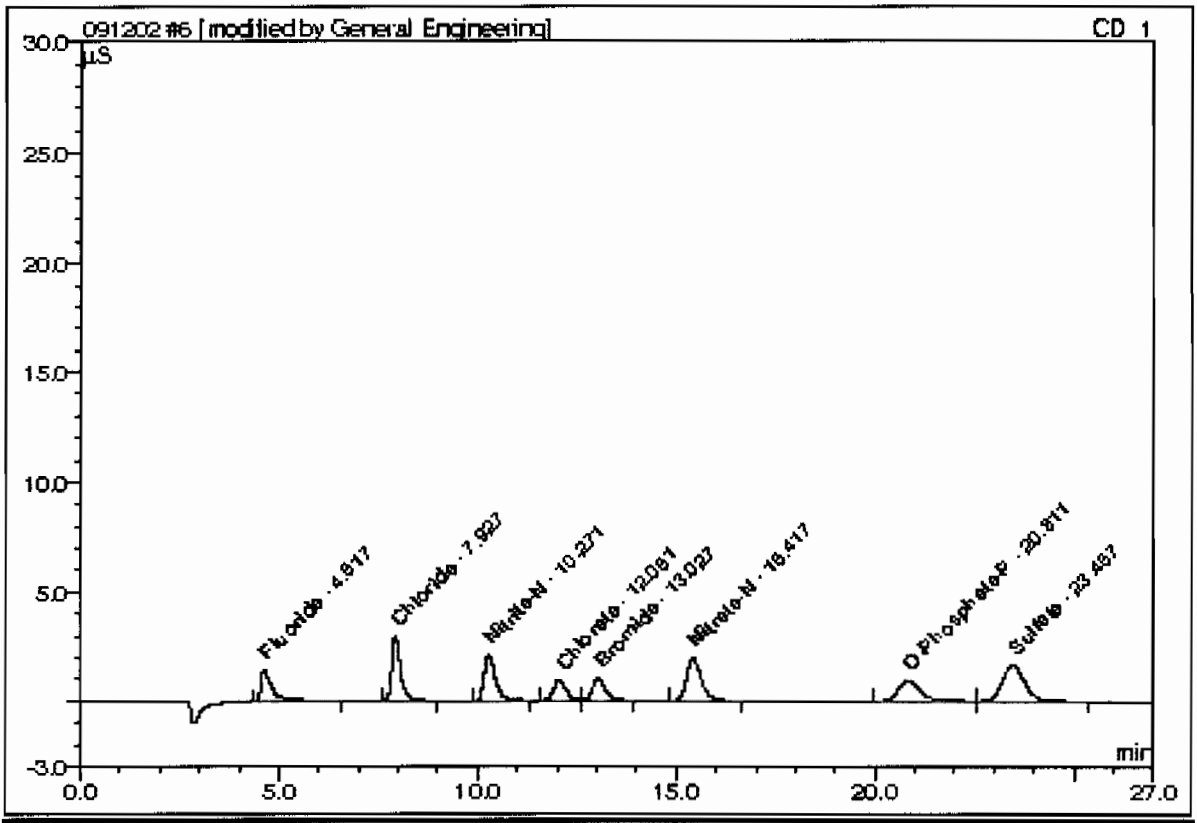

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	1.0000	0.9675		0.49415	9.68
2	7.93	Chloride	2.0000	1.8340		0.73808	14.45
3	10.27	Nitrite-N	1.0000	0.9398		0.67762	13.27
4	12.05	Chlorate	2.5000	2.4535		0.33316	6.52
5	13.03	Bromide	2.5000	2.4949		0.37733	7.39
6	15.42	Nitrate-N	1.0000	0.9351		0.83040	16.26
7	20.81	O-Phosphate-P	2.5000	2.5129	*	0.60894	11.93
8	23.46	Sulfate	4.0000	3.8543	*	1.04645	20.49
Total:				15.9920	0.000	5.106	100.00

11 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

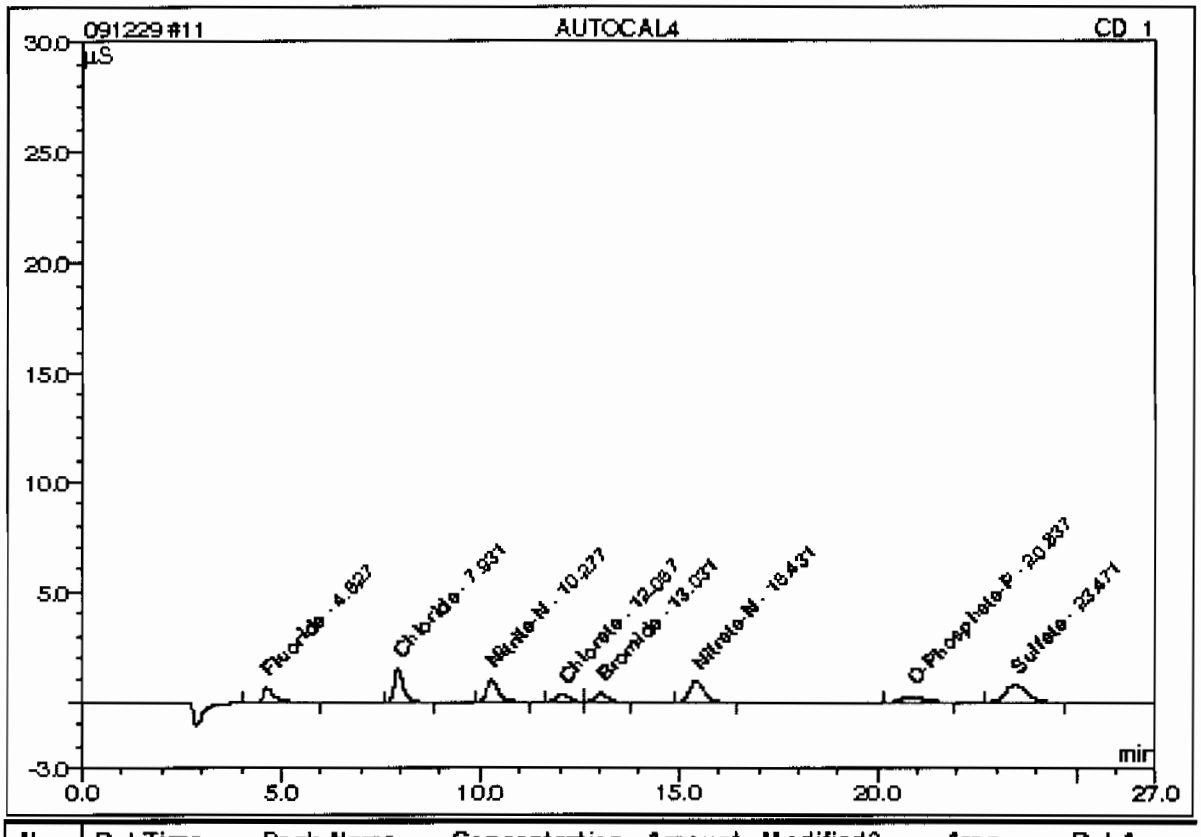

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	0.5000	0.4981		0.24398	10.42
2	7.93	Chloride	1.0000	1.0142		0.39444	16.84
3	10.28	Nitrite-N	0.5000	0.5083		0.33470	14.29
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.49
5	13.03	Bromide	1.0000	0.9854		0.14645	6.25
6	15.43	Nitrate-N	0.5000	0.5157		0.41101	17.55
7	20.84	O-Phosphate-P	1.0000	0.8683		0.17338	7.40
8	23.47	Sulfate	2.0000	2.0626		0.50944	21.75
Total:				7.4221	0.000	2.342	100.00

4 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

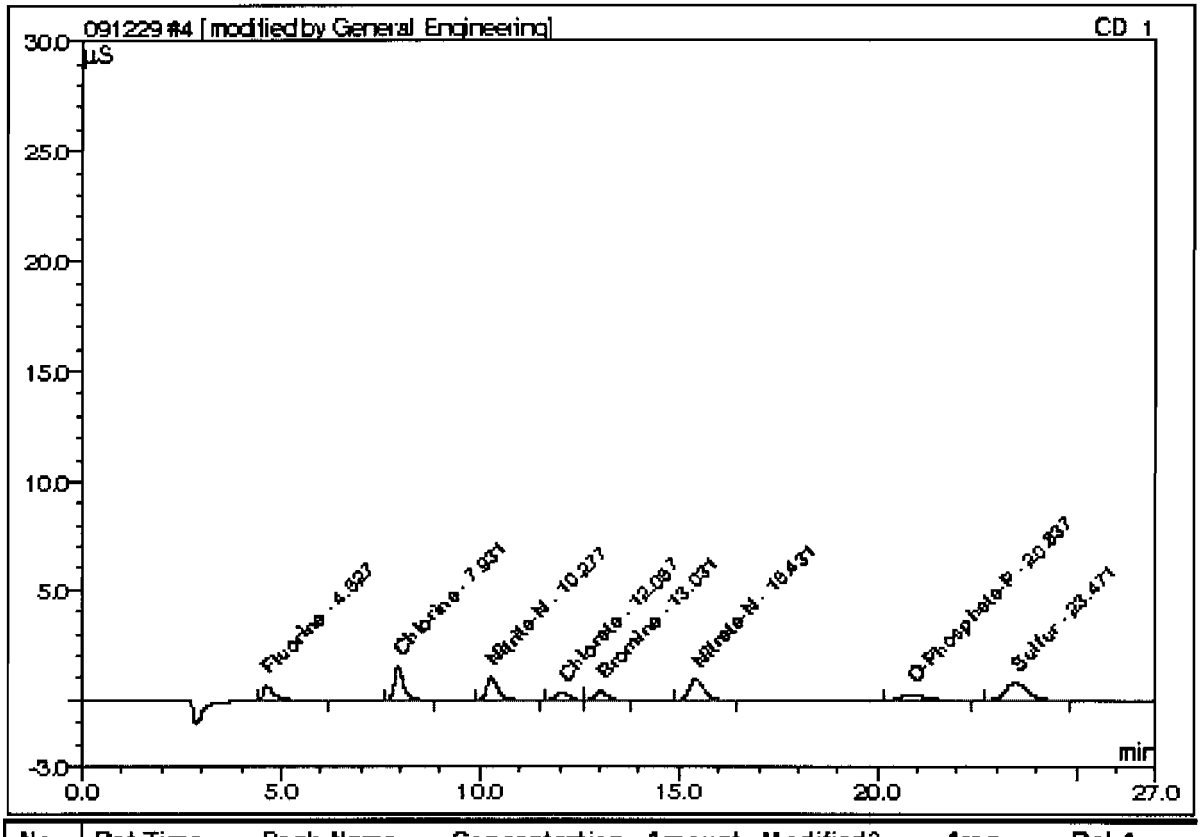

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluorine	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chlorine	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromine	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfur	0.6666	0.6819	*	0.51134	21.72
Total:				6.0576	0.000	2.355	100.00

4 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

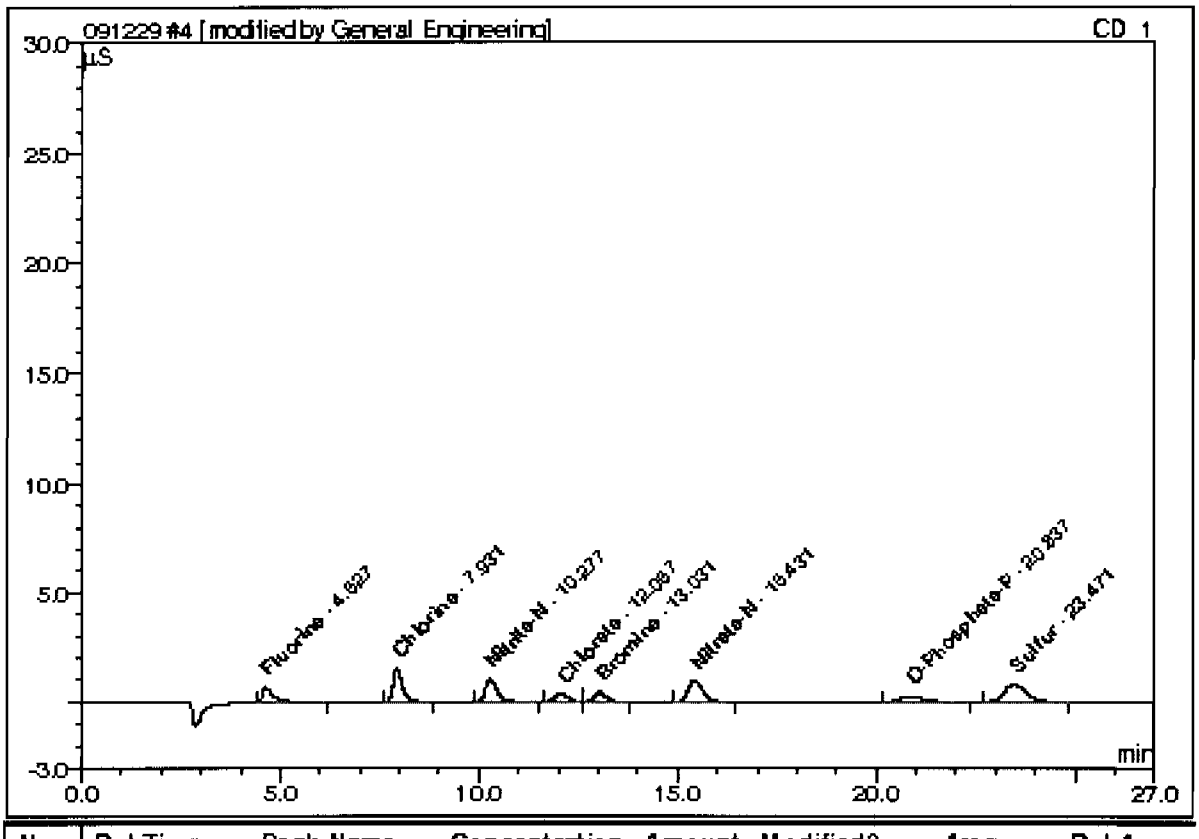

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluorine	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chlorine	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromine	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfur	0.6666	0.6819	*	0.51134	21.72
Total:				6.0576	0.000	2.355	100.00

4 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

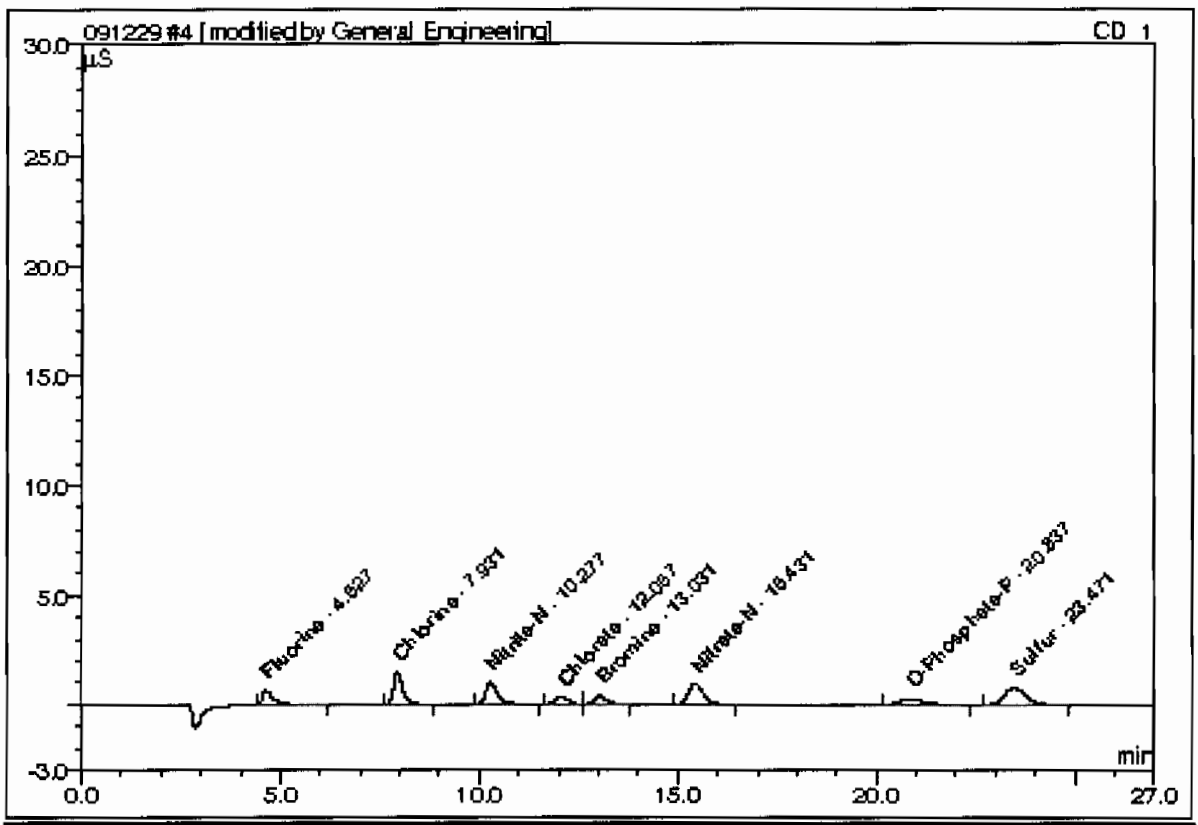

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluorine	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chlorine	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromine	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfur	0.6666	0.6819	*	0.51134	21.72
Total:				6.0576	0.000	2.355	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

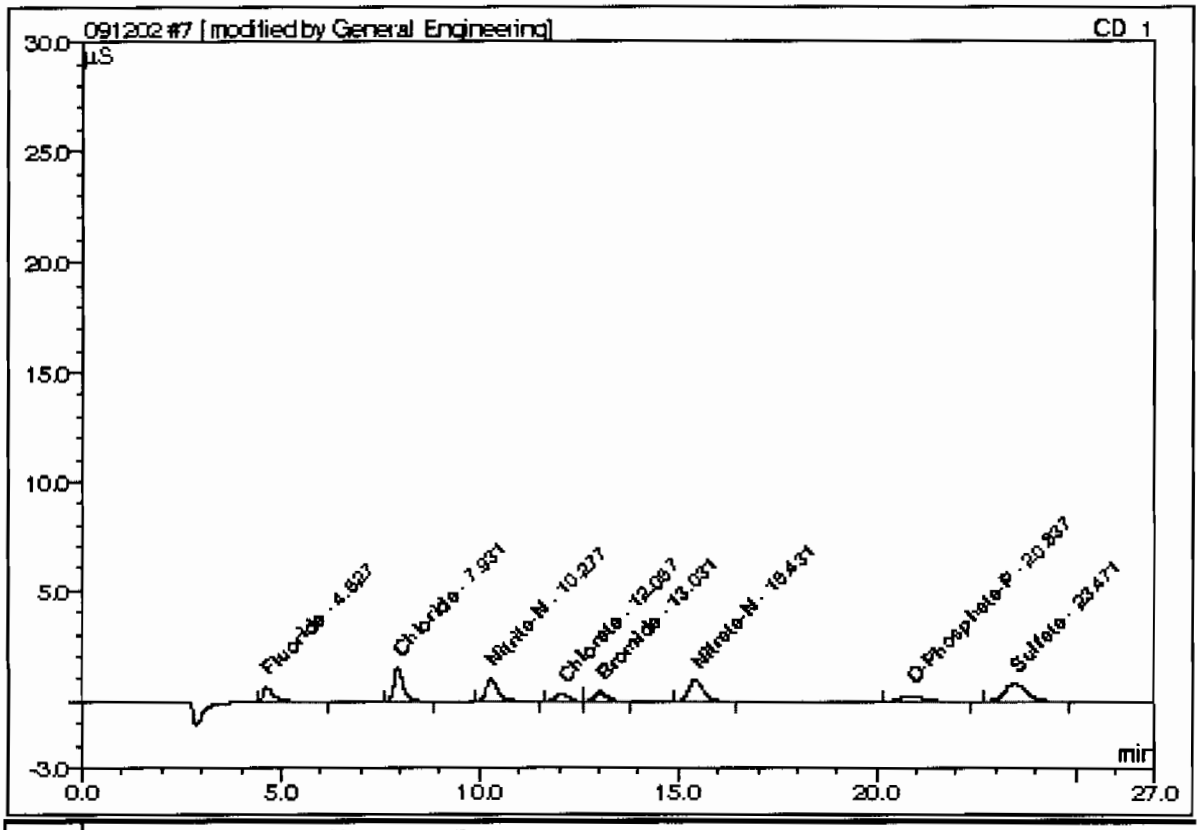

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chloride	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromide	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfate	2.0000	2.0458	*	0.51134	21.72
Total:				7.4215	0.000	2.355	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

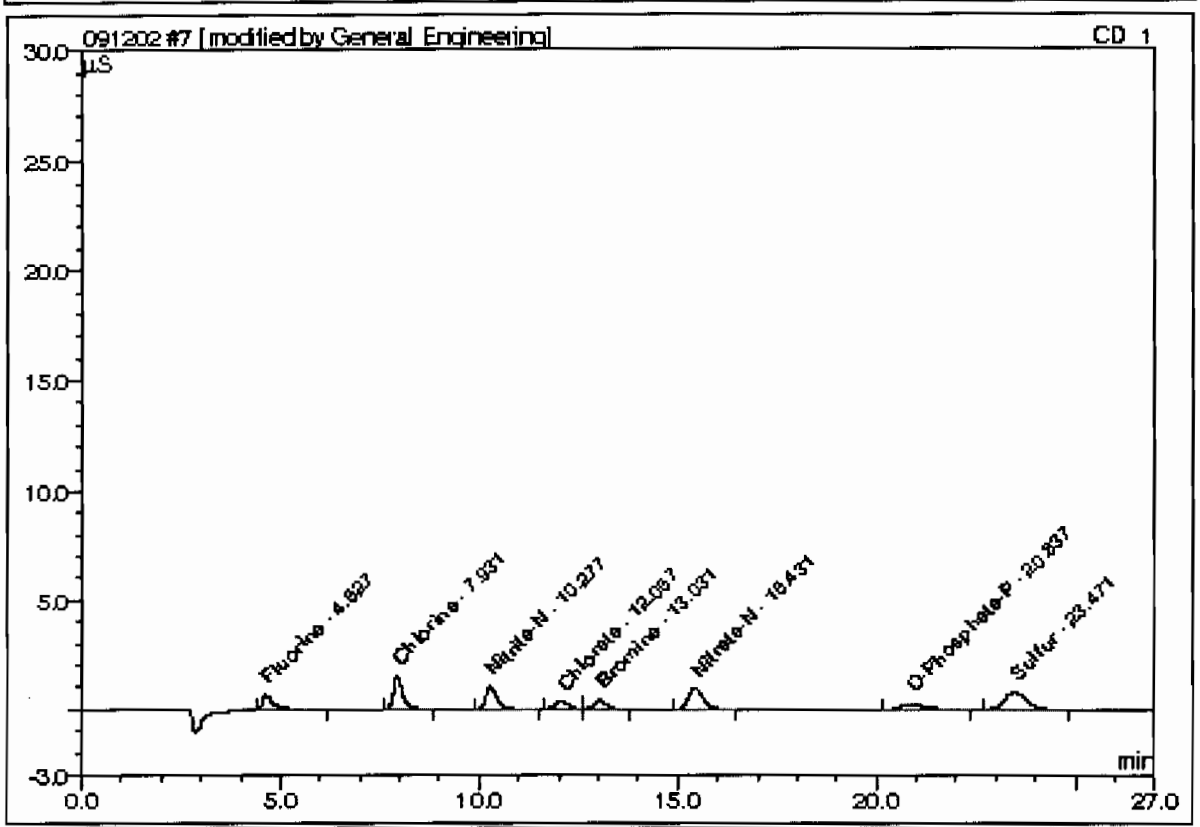

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluorine	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chlorine	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromine	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfur	0.6666	0.6819	*	0.51134	21.72
Total:				6.0576	0.000	2.355	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

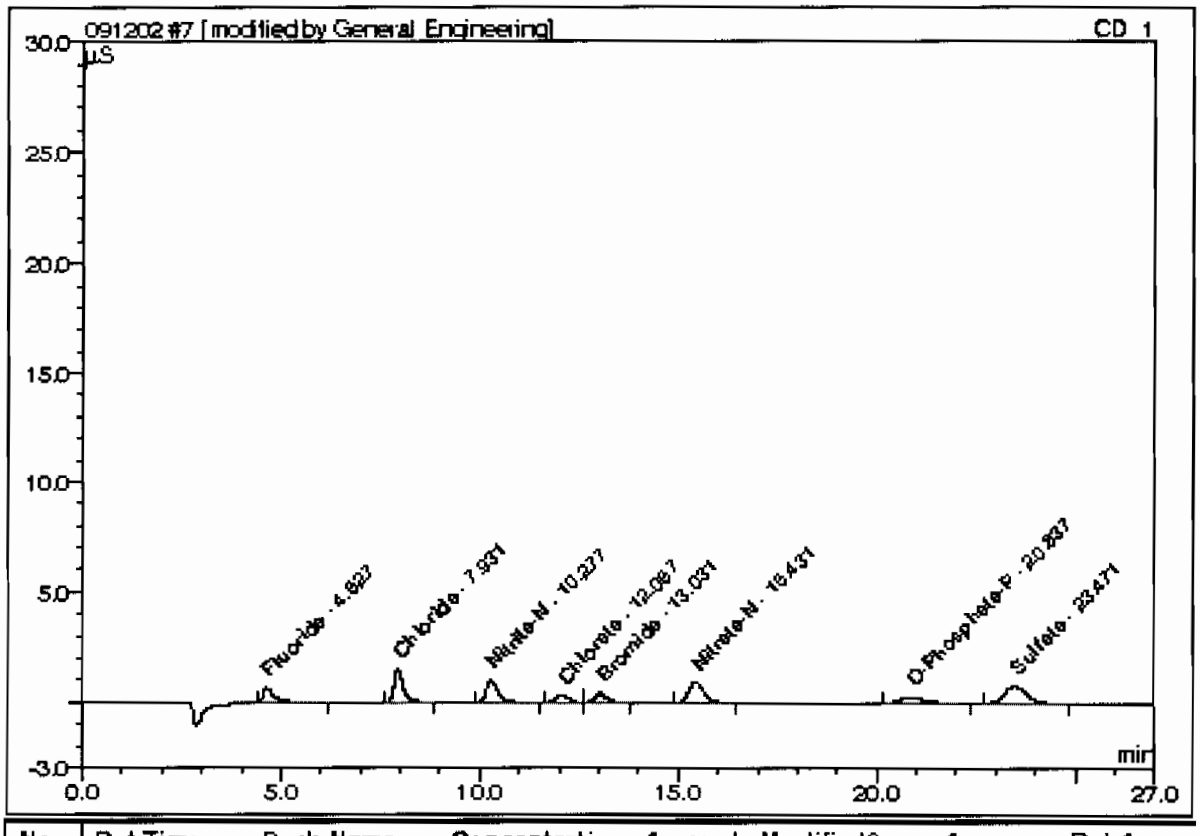

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chloride	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromide	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfate	2.0000	2.0458	*	0.51134	21.72
Total:				7.4215	0.000	2.355	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

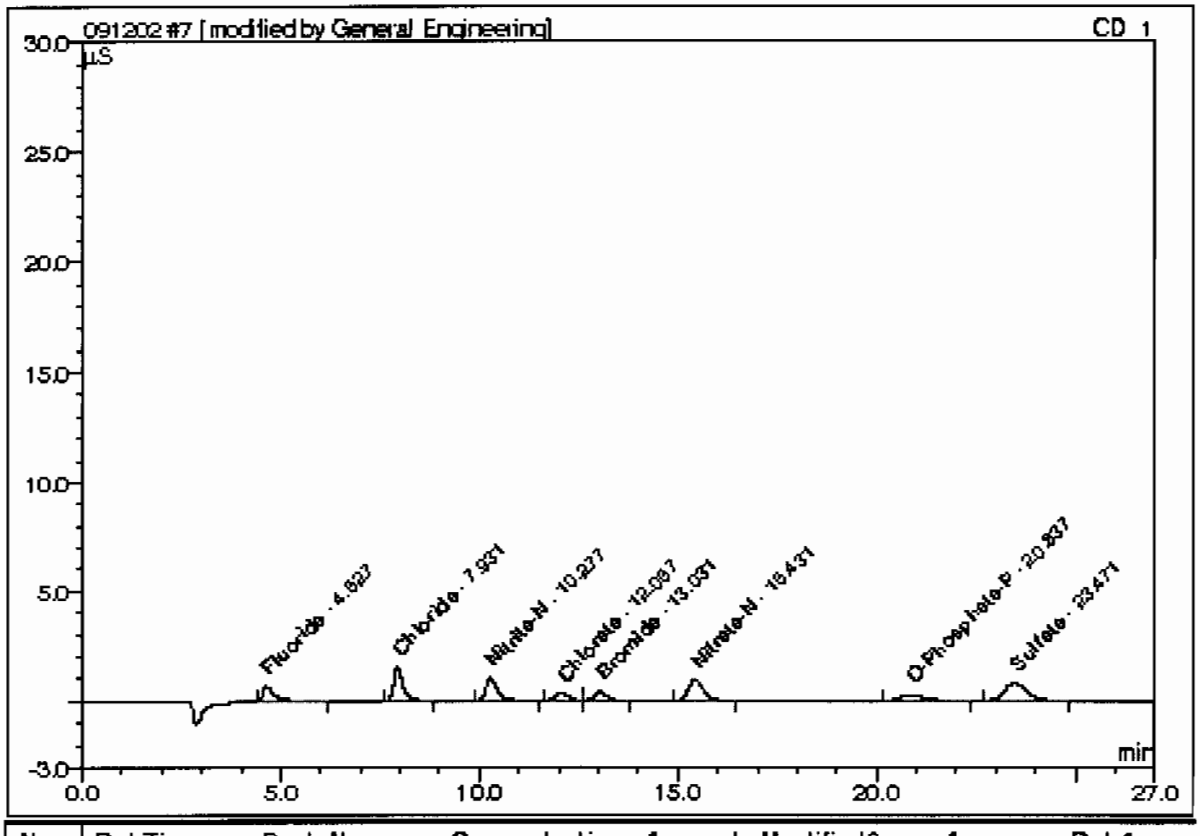

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chloride	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromide	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfate	2.0000	2.0458	*	0.51134	21.72
Total:				7.4215	0.000	2.355	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

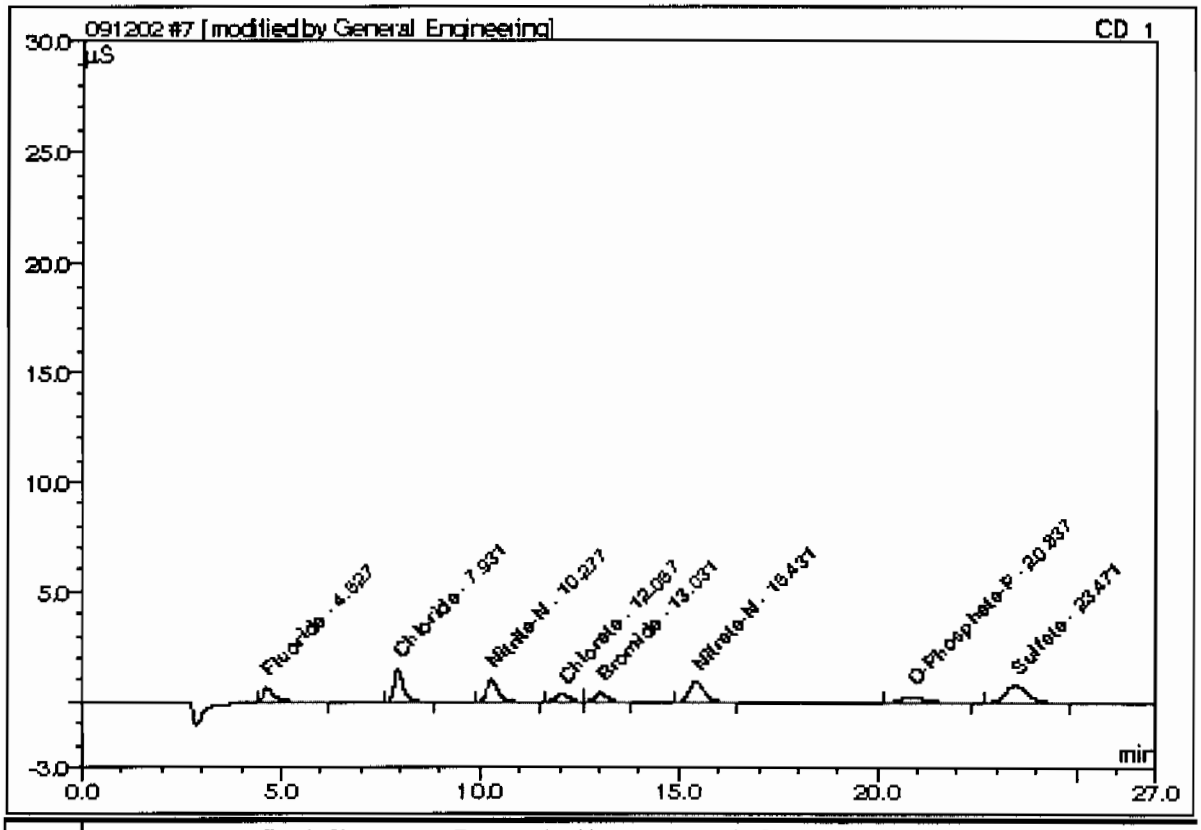

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.63	Fluoride	0.5000	0.4948	*	0.24155	10.26
2	7.93	Chloride	1.0000	1.0142		0.39444	16.75
3	10.28	Nitrite-N	0.5000	0.5129	*	0.33937	14.41
4	12.06	Chlorate	1.0000	0.9697		0.12846	5.46
5	13.03	Bromide	1.0000	0.9854		0.14645	6.22
6	15.43	Nitrate-N	0.5000	0.5153		0.41101	17.46
7	20.84	O-Phosphate-P	1.0000	0.8835	*	0.18192	7.73
8	23.47	Sulfate	2.0000	2.0458	*	0.51134	21.72
Total:				7.4215	0.000	2.355	100.00

12 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC B086;300;9056

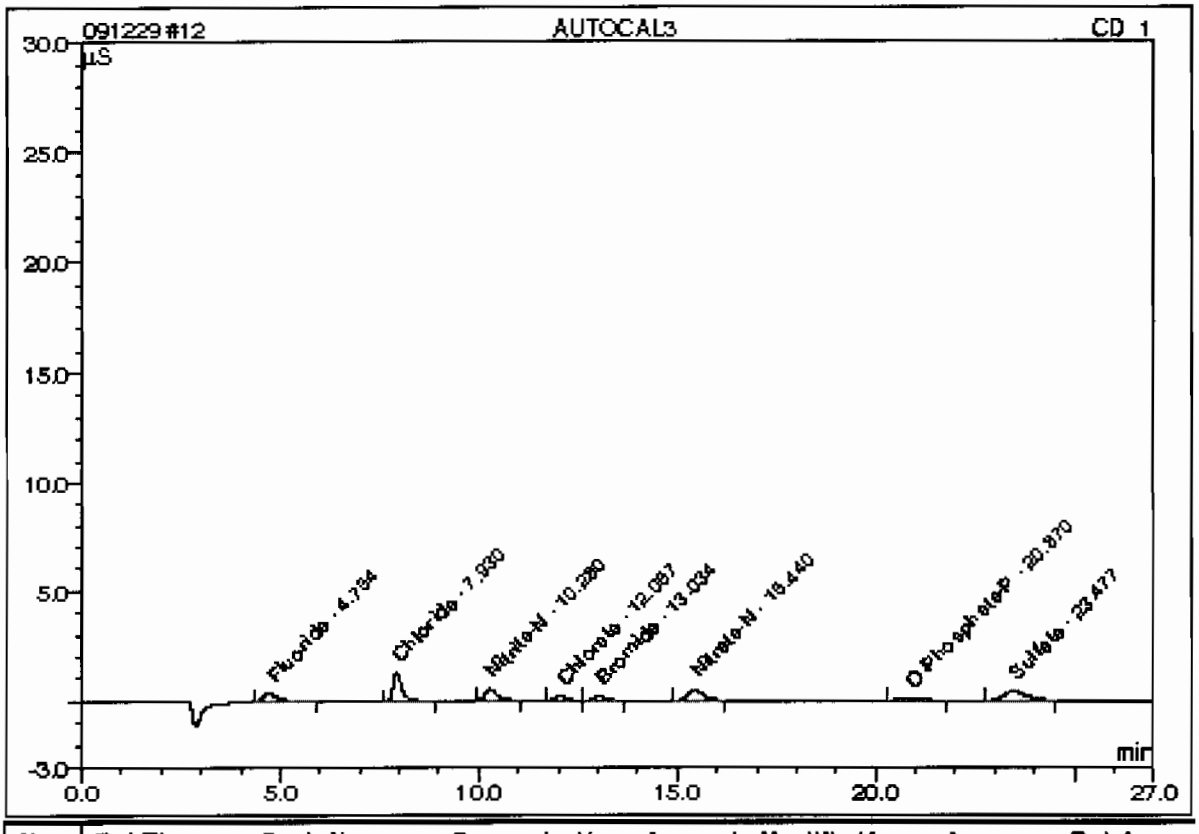

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluoride	0.2500	0.3529		0.16713	12.64
2	7.93	Chloride	0.5000	0.8672		0.33283	25.17
3	10.28	Nitrite-N	0.2500	0.2920		0.16336	12.35
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.79
5	13.03	Bromide	0.5000	0.4916		0.07093	5.36
6	15.44	Nitrate-N	0.2500	0.3094		0.20536	15.53
7	20.87	O-Phosphate-P	0.5000	0.4202		0.05708	4.32
8	23.48	Sulfate	1.0000	1.2280		0.26247	19.85
Total:				4.4590	0.000	1.322	100.00

5 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

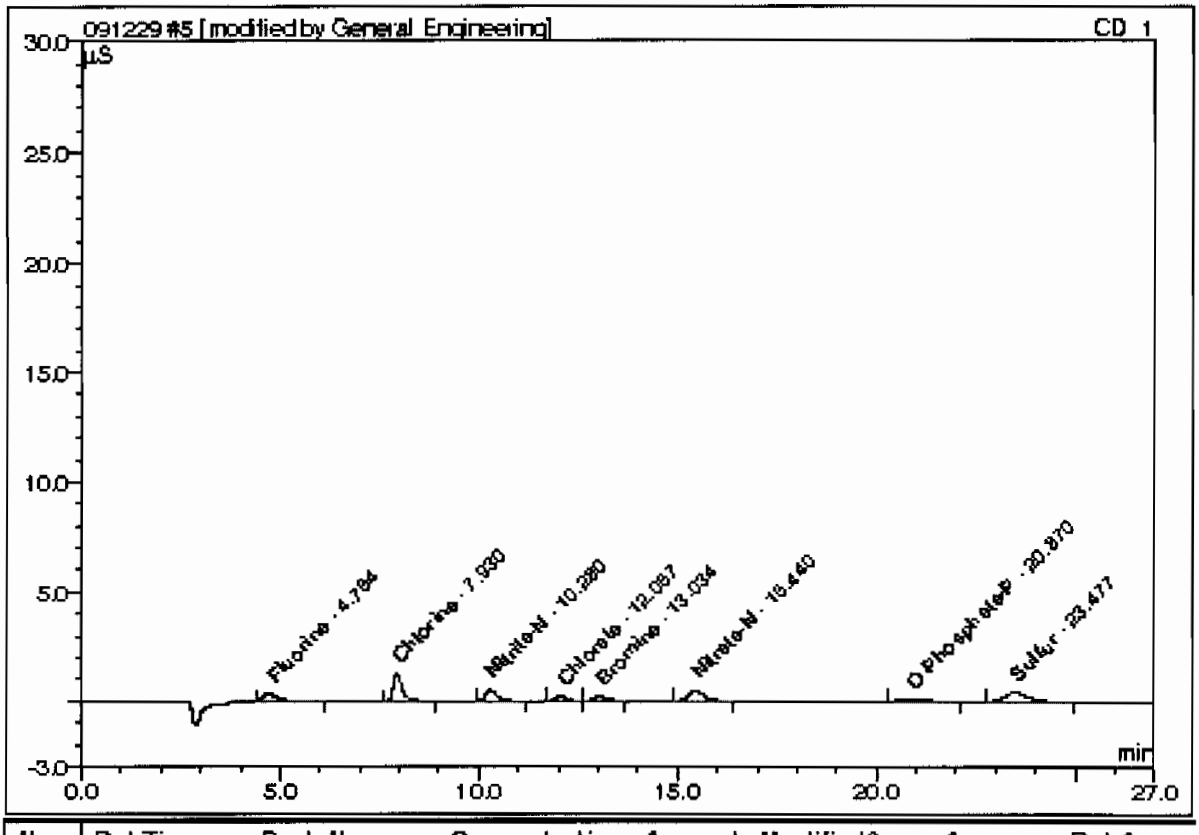

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluorine	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chlorine	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromine	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfur	0.3333	0.4118	*	0.27160	20.29
Total:				3.6484	0.000	1.338	100.00

5 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

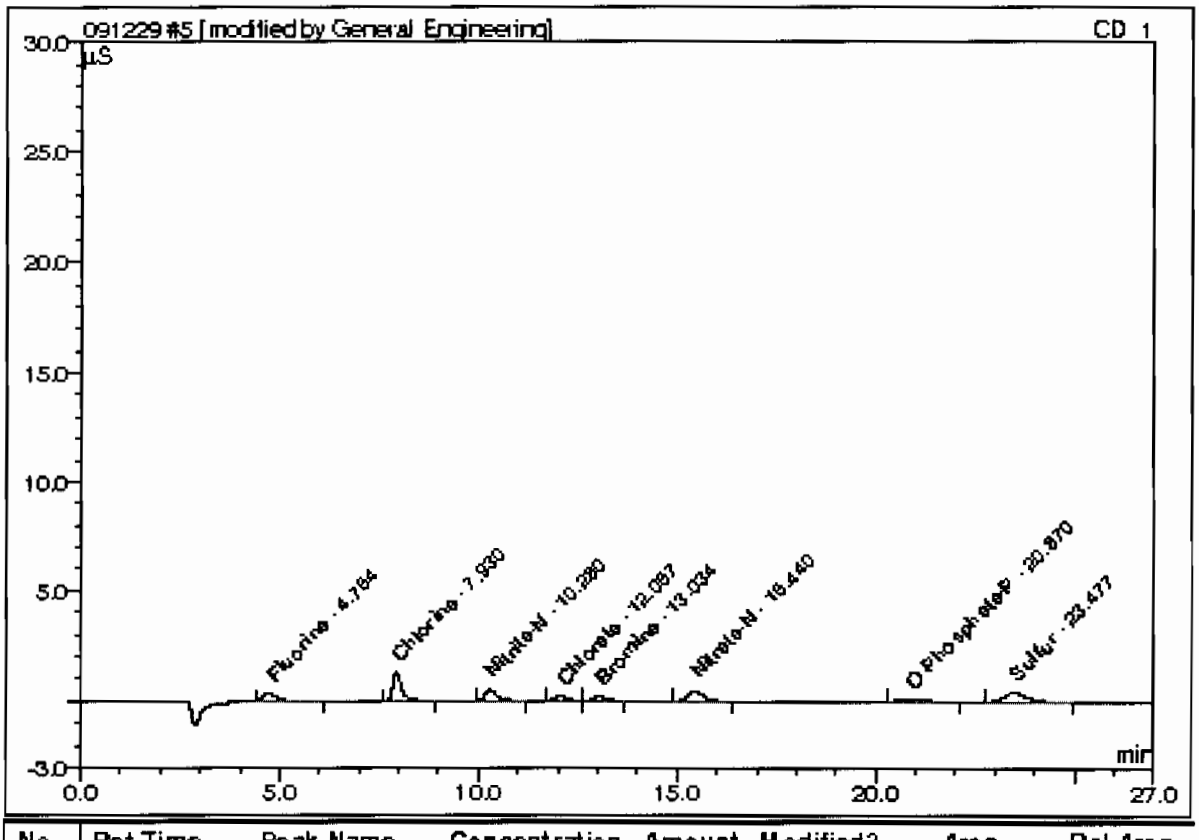

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluorine	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chlorine	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromine	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfur	0.3333	0.4118	*	0.27160	20.29
Total:				3.6484	0.000	1.338	100.00

5 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

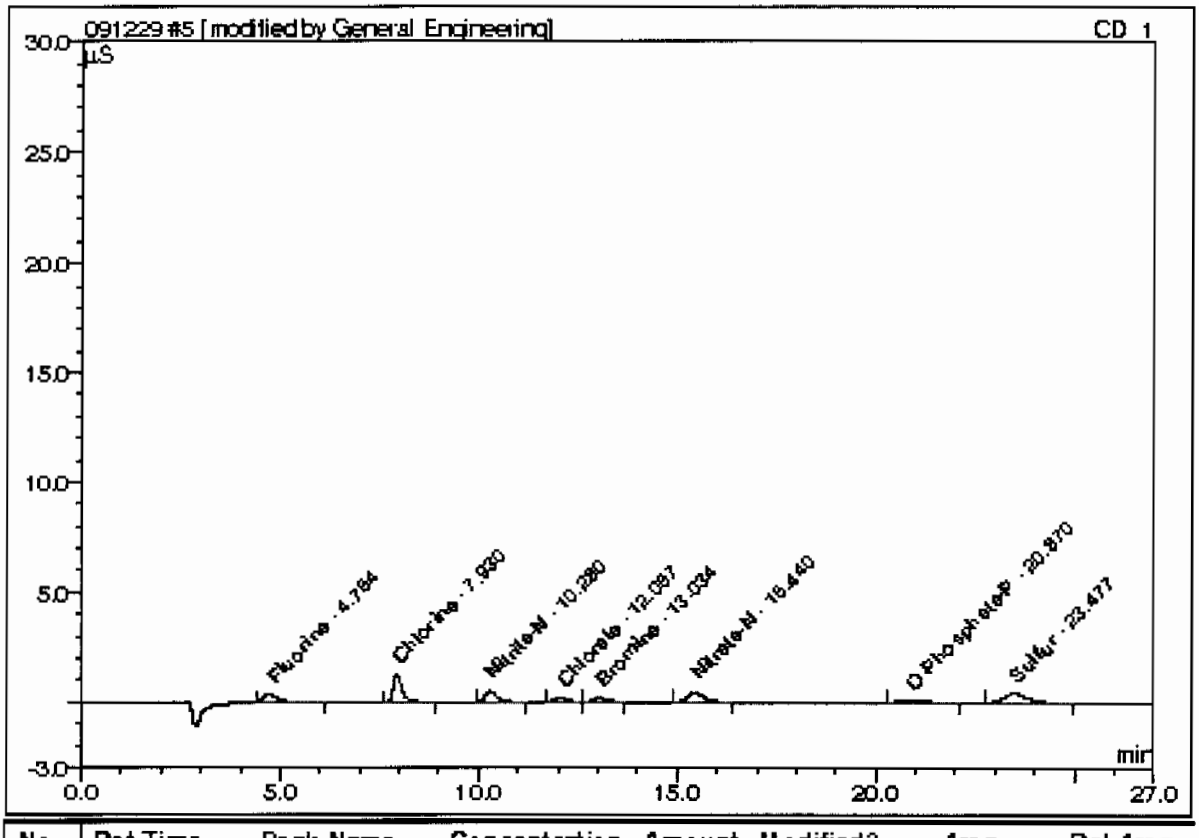

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluorine	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chlorine	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromine	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfur	0.3333	0.4118	*	0.27160	20.29
Total:				3.6484	0.000	1.338	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

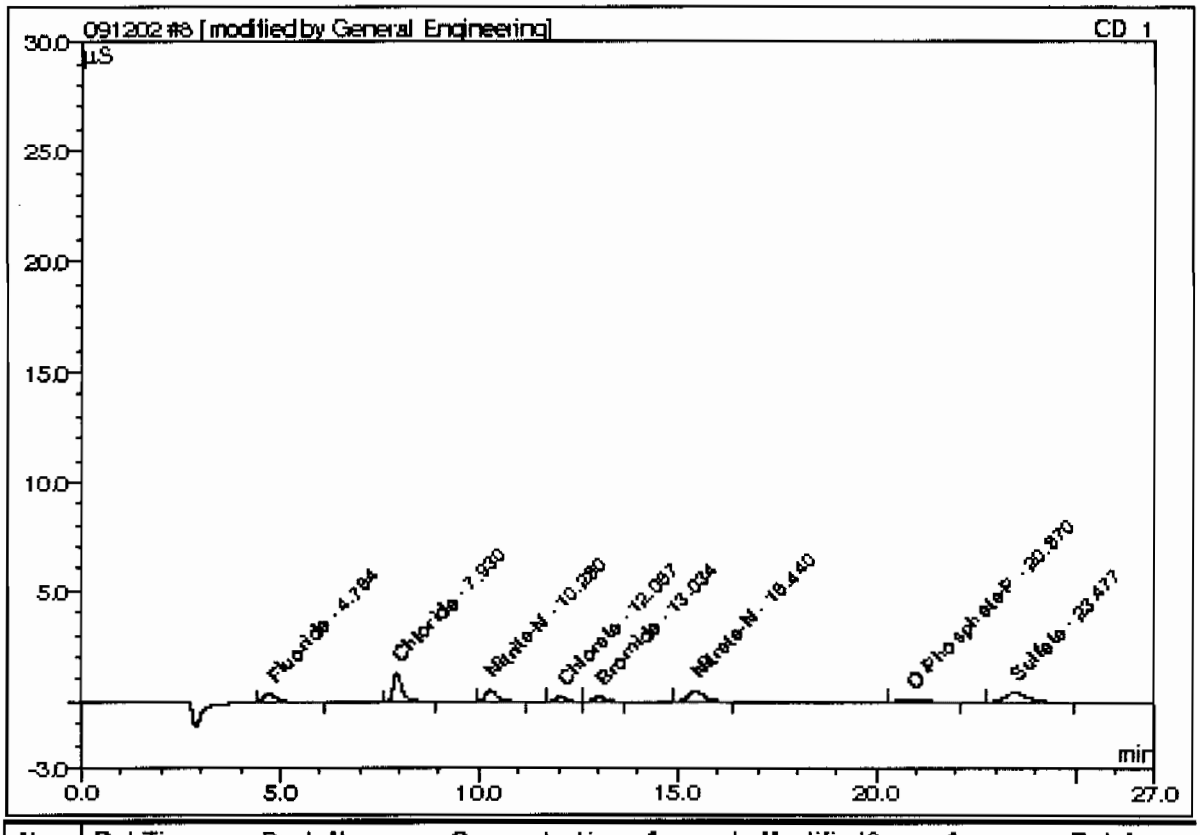

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluoride	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chloride	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromide	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfate	1.0000	1.2356	*	0.27160	20.29
Total:				4.4722	0.000	1.338	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

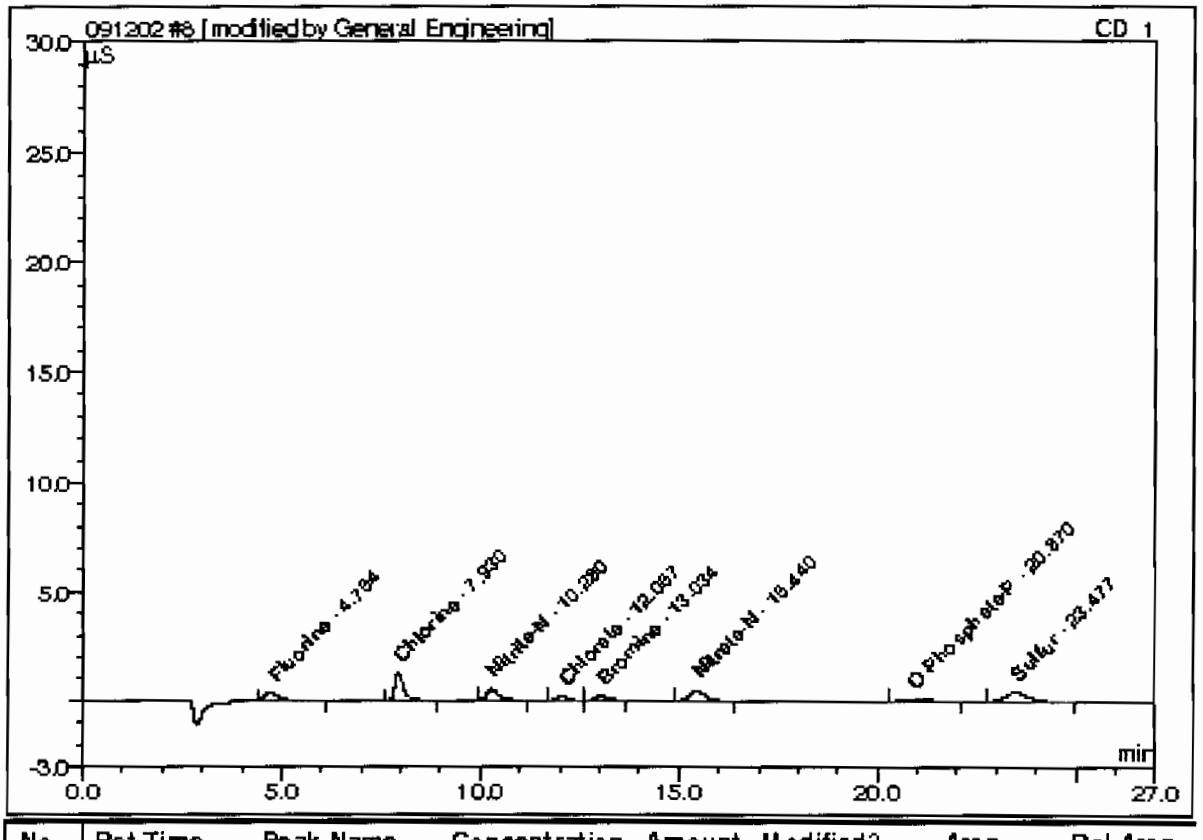

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluorine	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chlorine	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromine	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfur	0.3333	0.4118	*	0.27160	20.29
Total:				3.6484	0.000	1.338	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

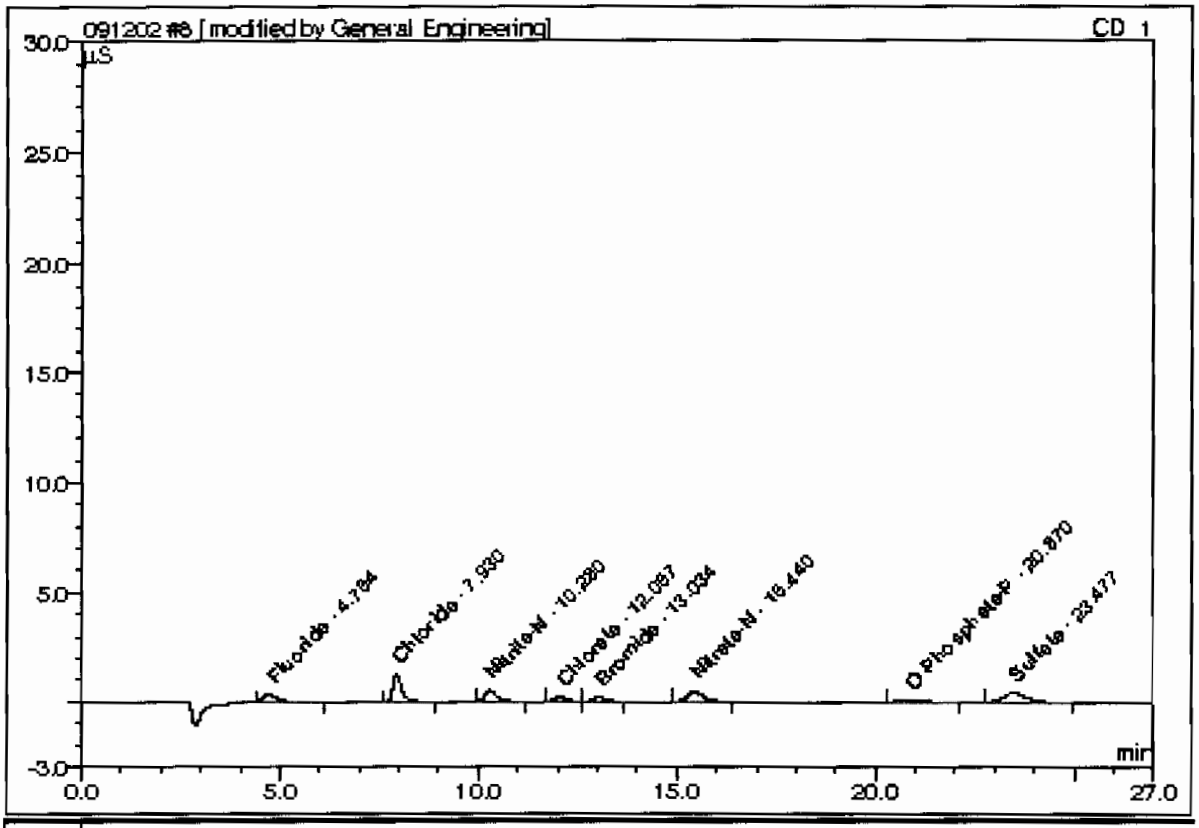

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluoride	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chloride	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromide	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfate	1.0000	1.2356	*	0.27160	20.29
Total:				4.4722	0.000	1.338	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

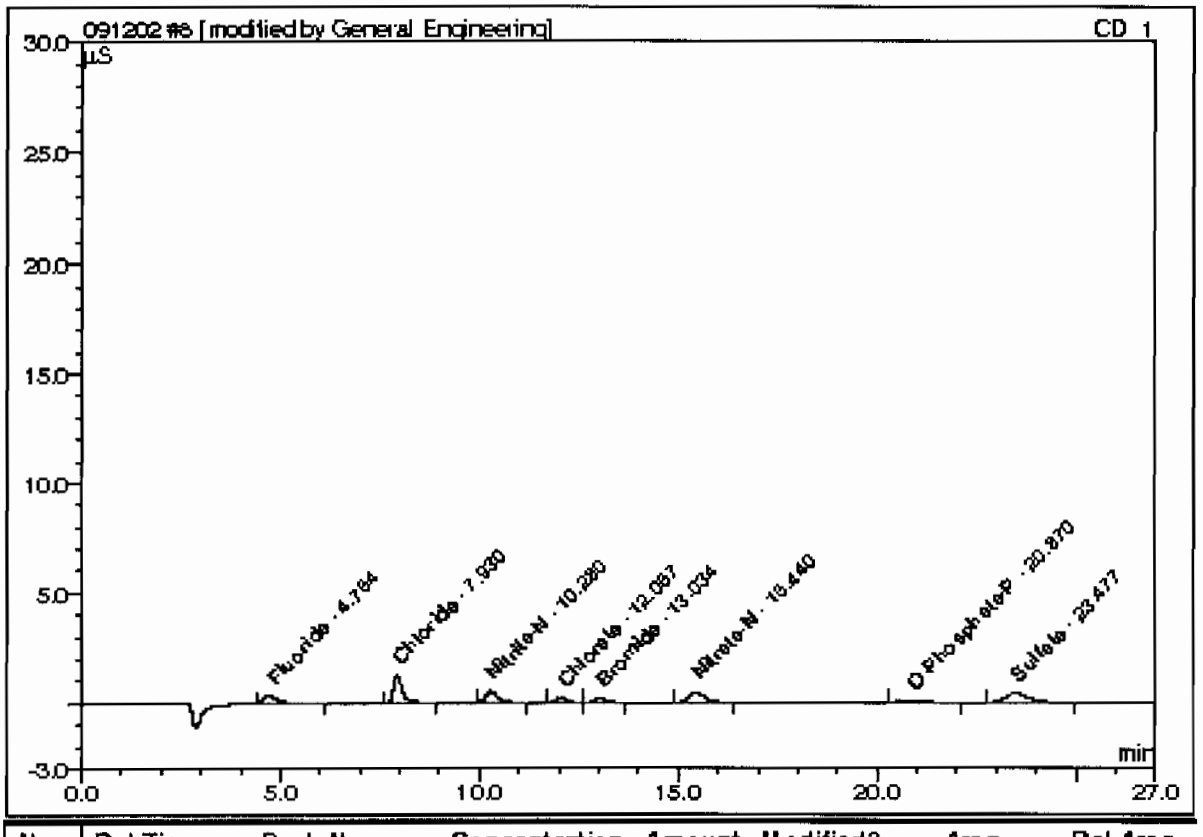

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluoride	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chloride	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromide	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfate	1.0000	1.2356	*	0.27160	20.29
Total:				4.4722	0.000	1.338	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 20:34	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

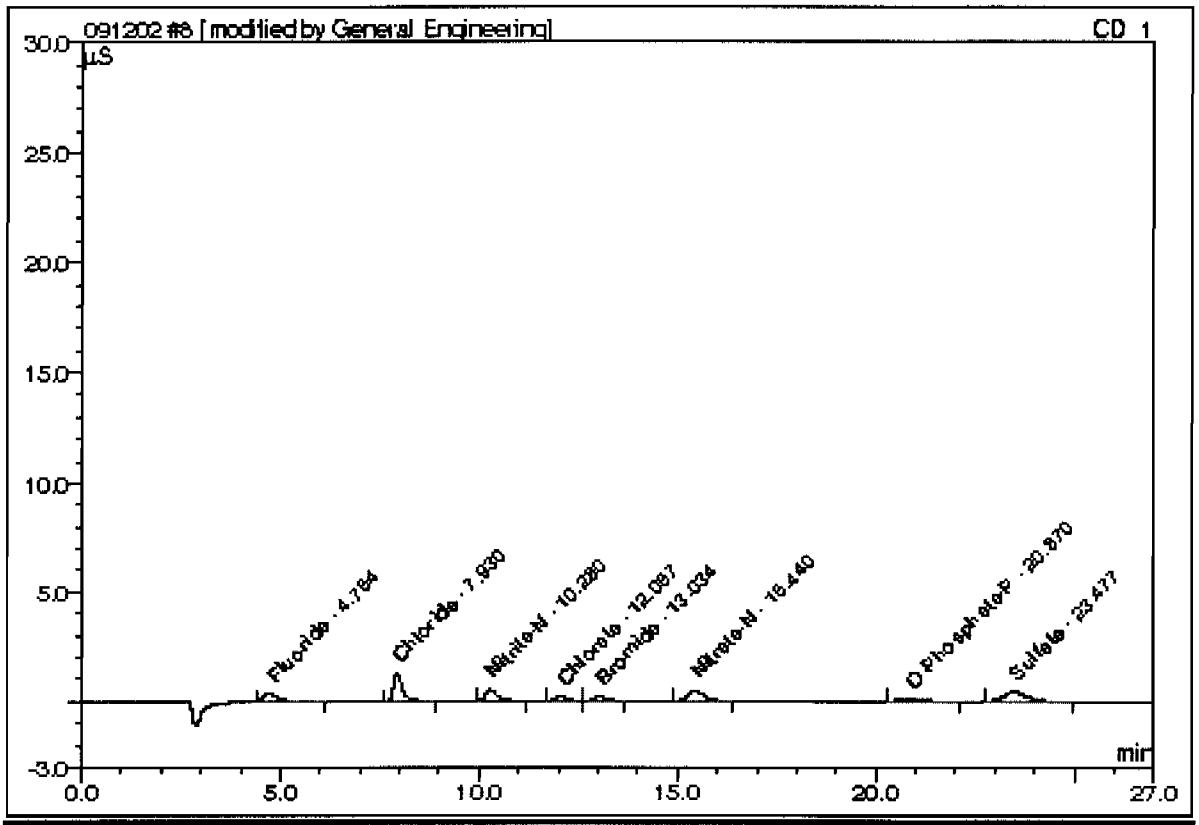

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.76	Fluoride	0.2500	0.3554	*	0.16704	12.48
2	7.93	Chloride	0.5000	0.8672		0.33283	24.87
3	10.28	Nitrite-N	0.2500	0.2917	*	0.16415	12.27
4	12.06	Chlorate	0.5000	0.4977		0.06334	4.73
5	13.03	Bromide	0.5000	0.4916		0.07093	5.30
6	15.44	Nitrate-N	0.2500	0.3116	*	0.20759	15.51
7	20.87	O-Phosphate-P	0.5000	0.4213	*	0.06081	4.54
8	23.48	Sulfate	1.0000	1.2356	*	0.27160	20.29
Total:				4.4722	0.000	1.338	100.00

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

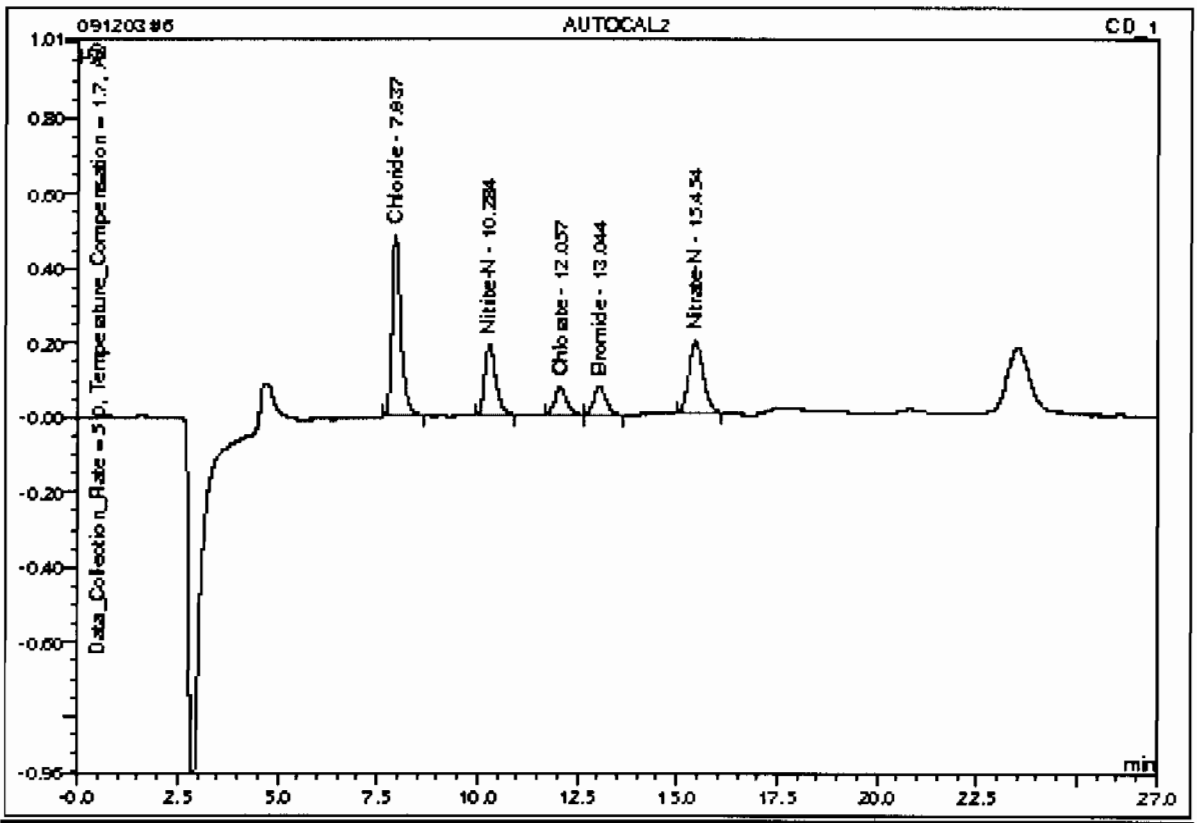

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	0.1000	n.a.	n.a.	n.a.	n.a.
1	7.94	Chloride	0.2000	0.3743		0.12619	39.29
2	10.28	Nitrite-N	0.1000	0.1640		0.06188	19.26
3	12.06	Chlorate	0.2000	0.2270		0.02599	8.09
4	13.04	Bromide	0.2000	0.2098		0.02783	8.66
5	15.45	Nitrate-N	0.1000	0.1829		0.07931	24.69
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.4000	n.a.	n.a.	n.a.	n.a.
Total:				1.1579	0.000	0.321	100.00

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

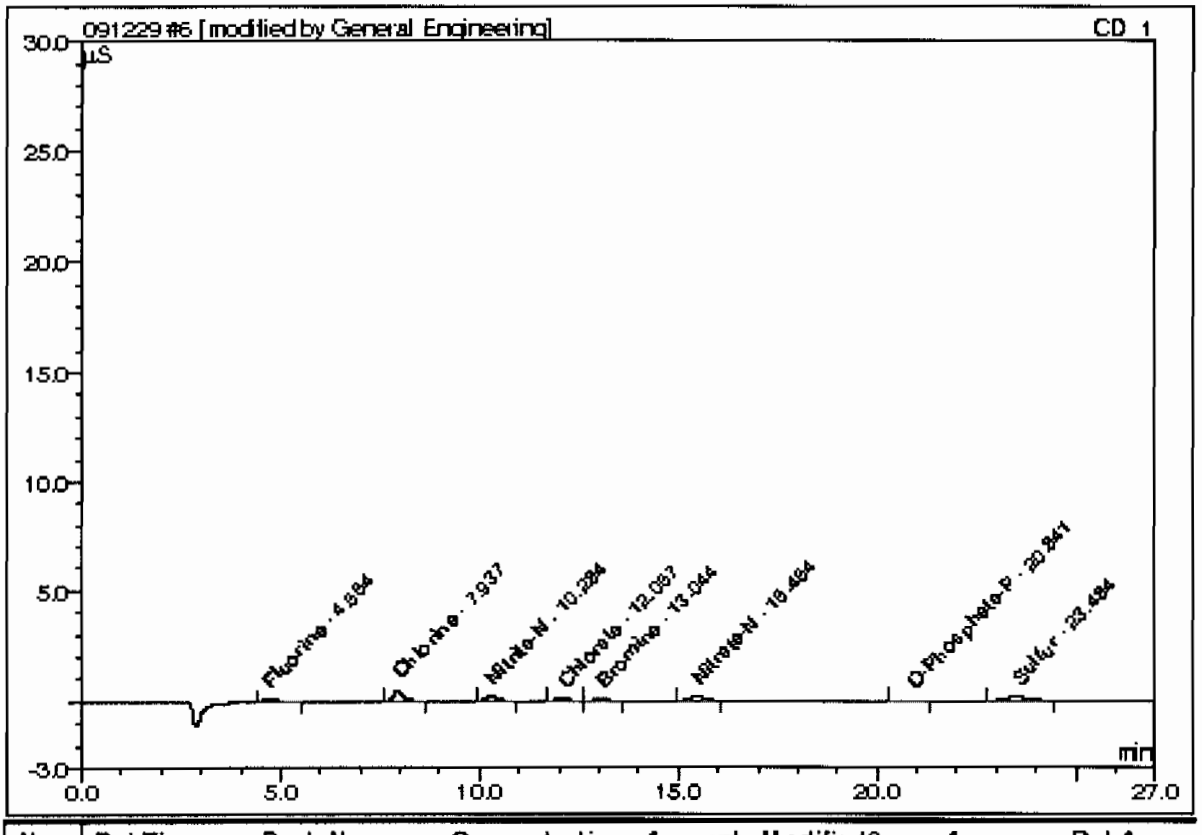

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chlorine	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromine	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfur	0.1333	0.2281	*	0.10850	22.16
Total:				1.7389	0.000	0.490	100.00

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

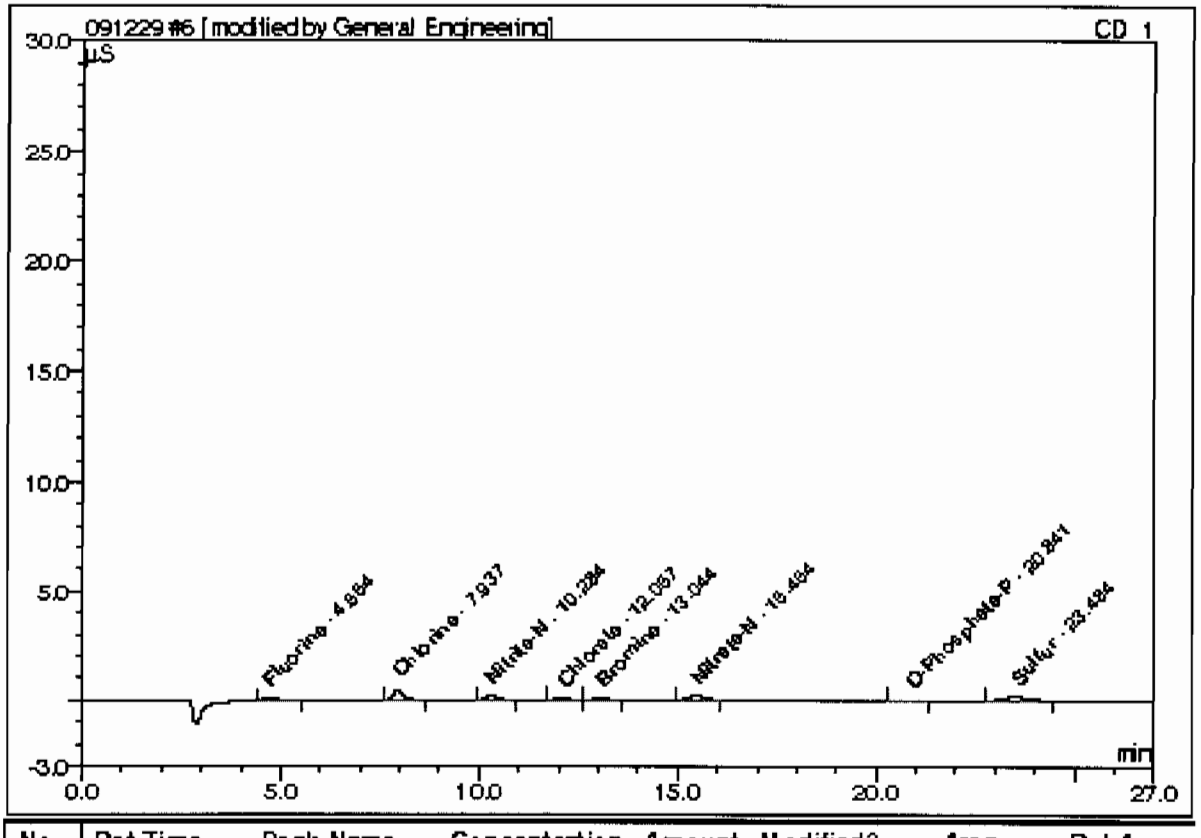

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chlorine	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromine	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfur	0.1333	0.2281	*	0.10850	22.16
Total:				1.7389	0.000	0.490	100.00

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

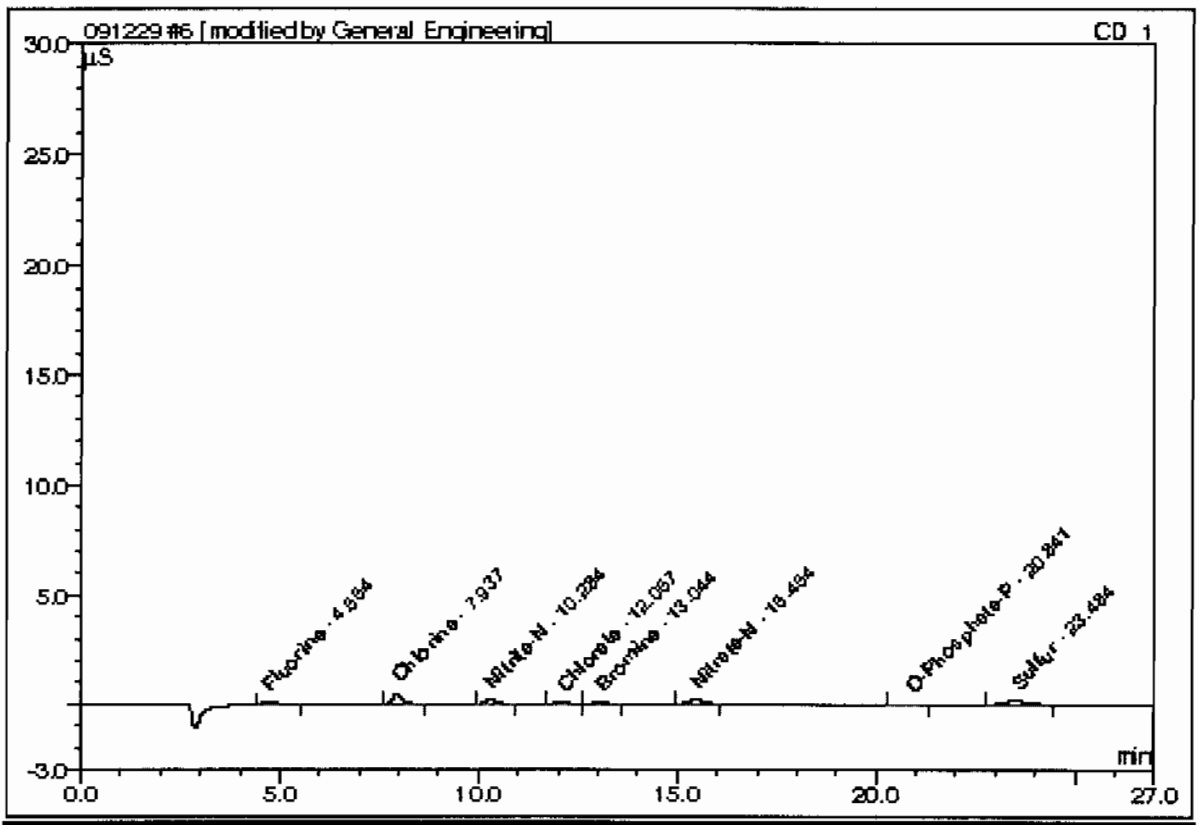

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chlorine	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromine	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfur	0.1333	0.2281	*	0.10850	22.16
Total:				1.7389	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

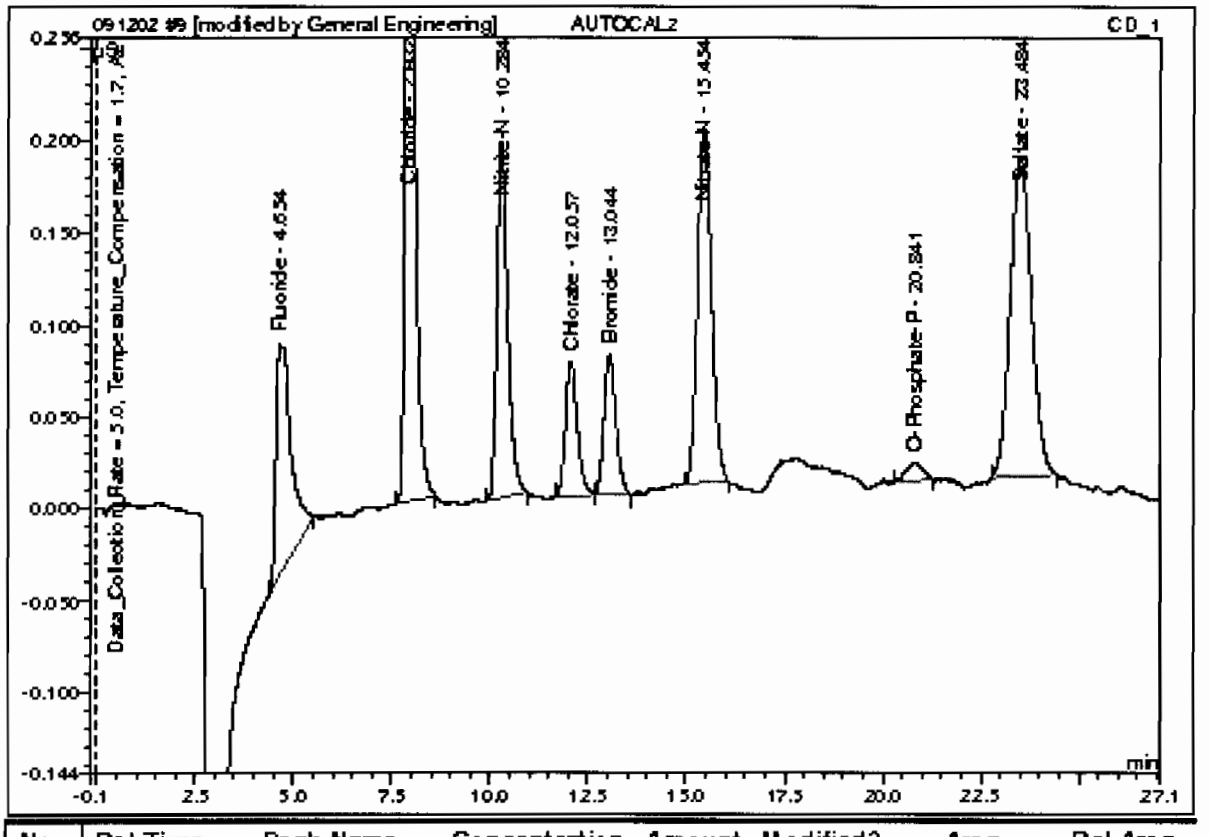

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

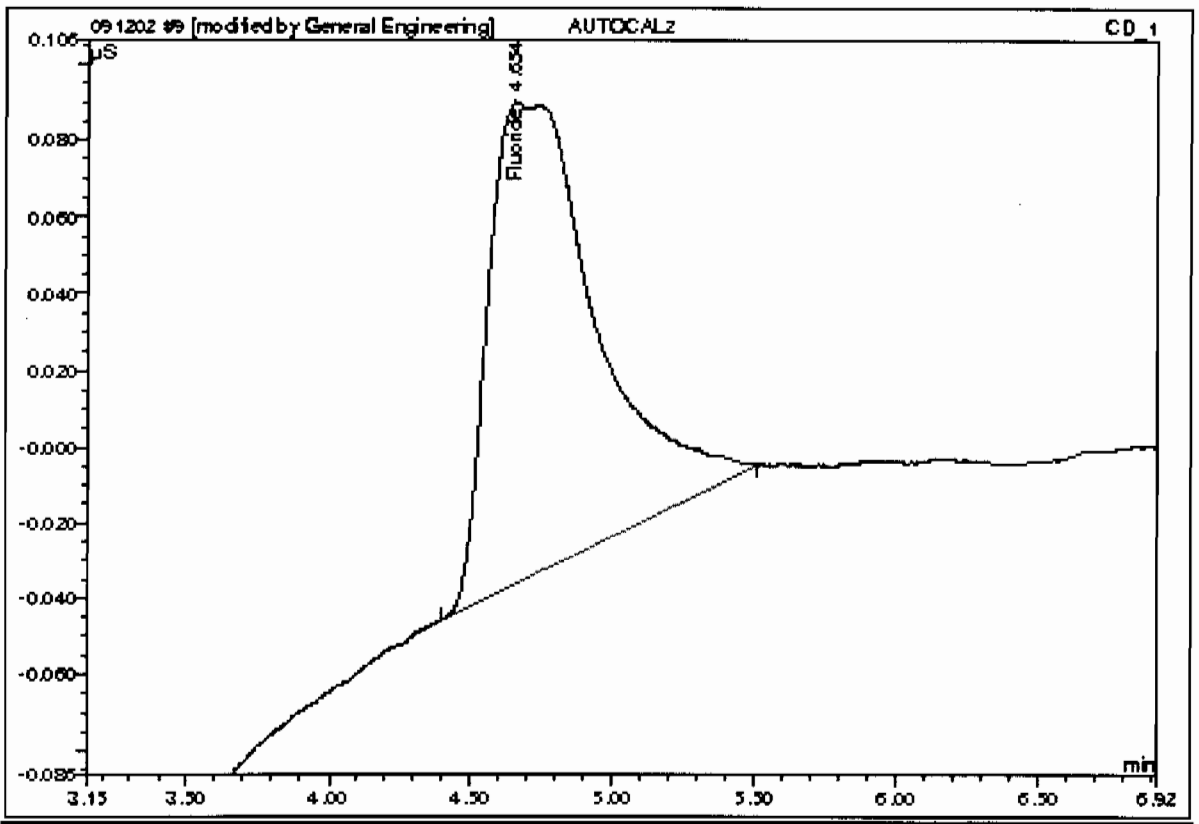

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

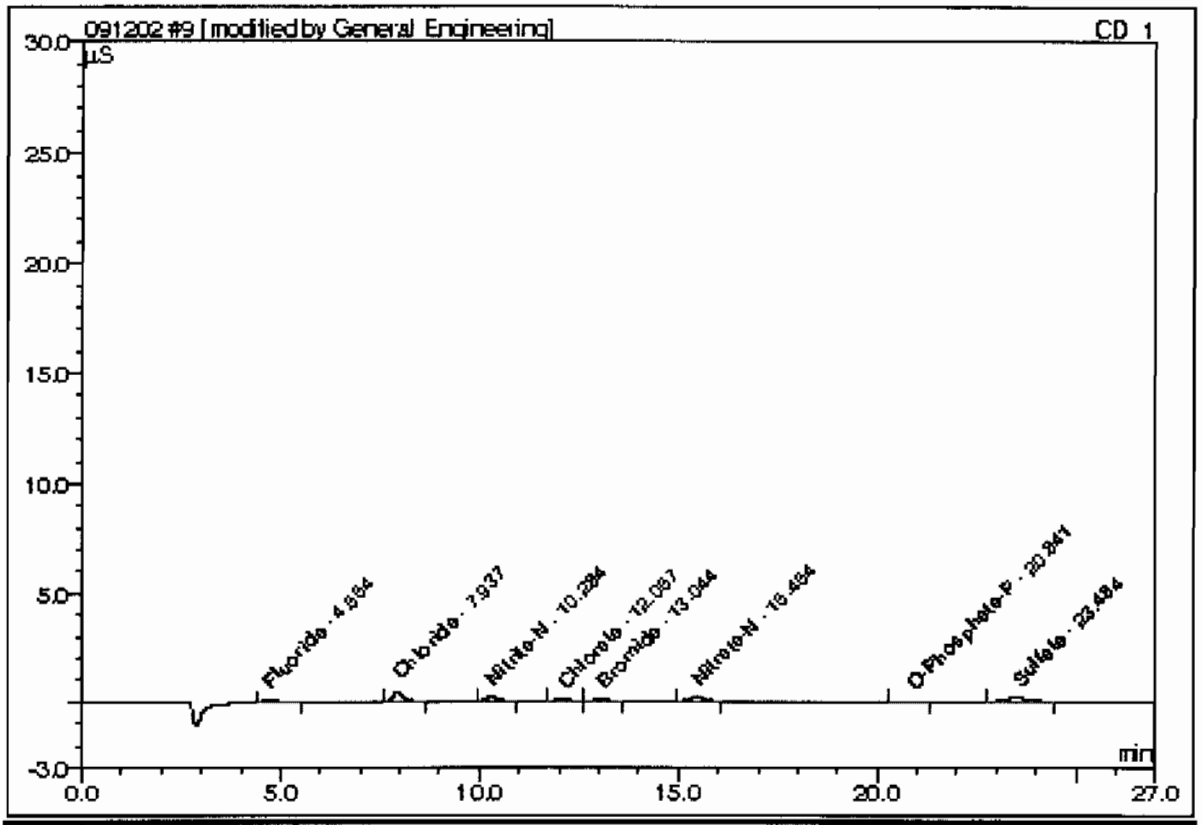

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

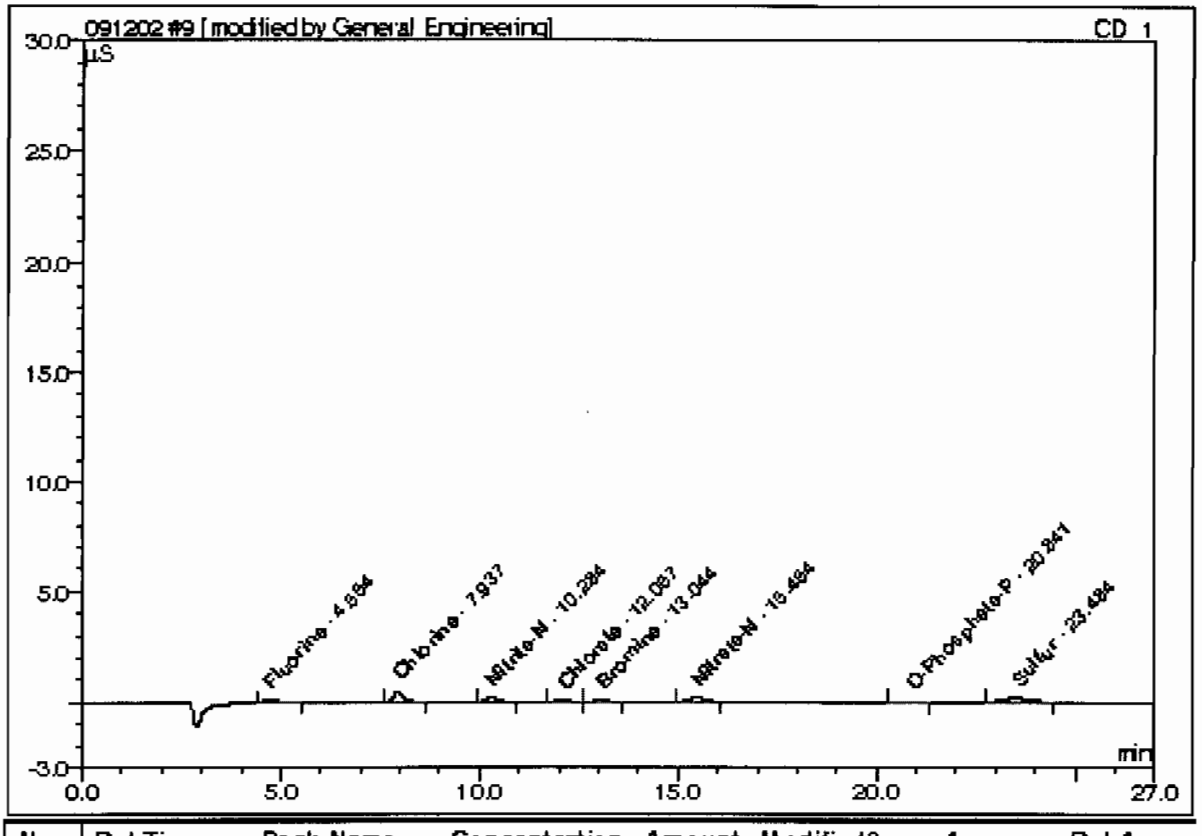

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chlorine	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromine	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfur	0.1333	0.2281	*	0.10850	22.16
Total:				1.7389	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

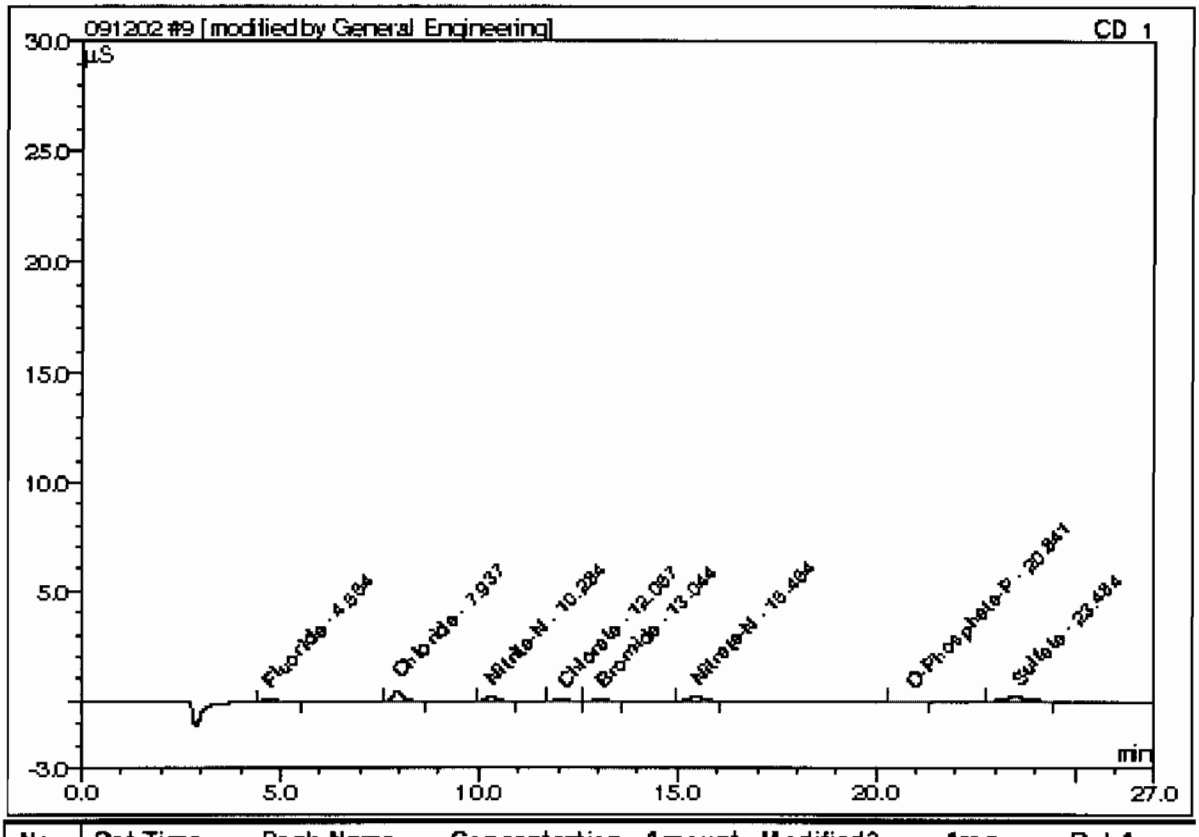

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

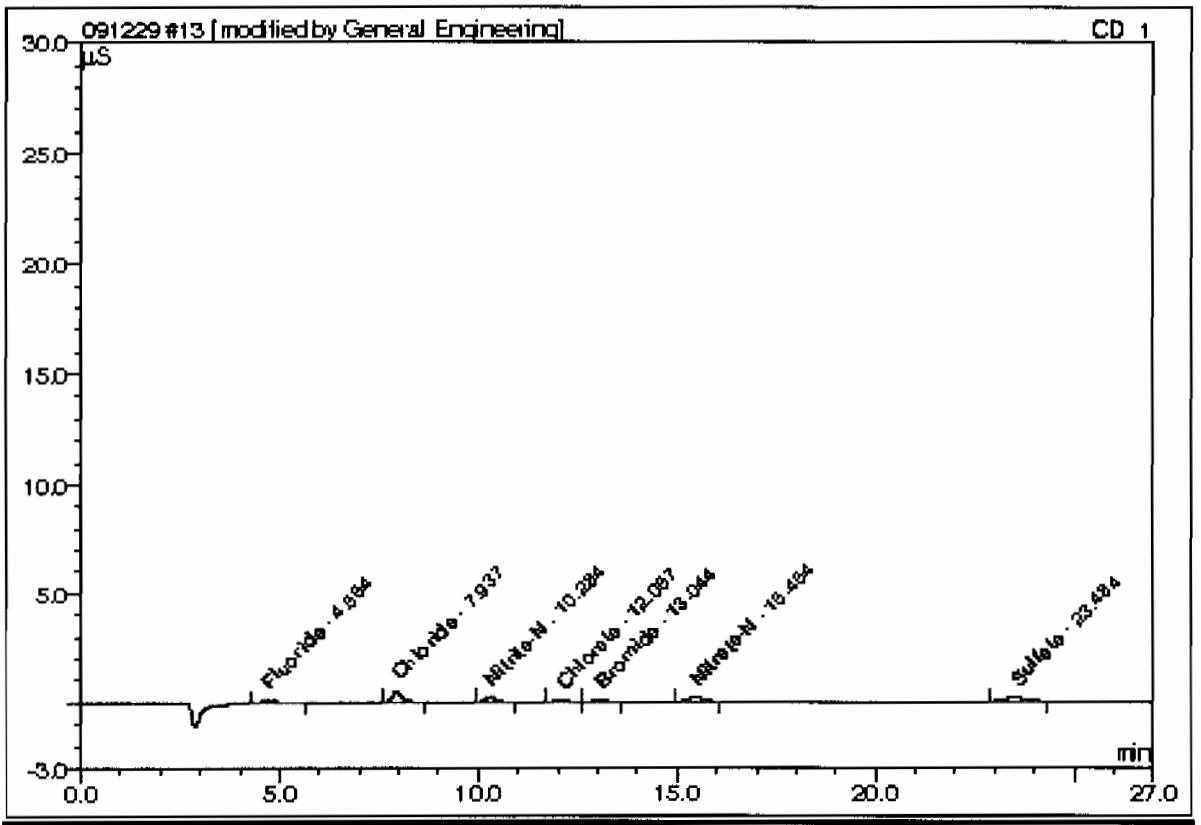

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1490	*	0.05925	12.21
2	7.94	Chloride	0.2000	0.3743		0.12619	26.01
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	12.75
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.36
5	13.04	Bromide	0.2000	0.2098		0.02783	5.73
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	16.34
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
7	23.48	Sulfate	0.4000	0.6952	*	0.10479	21.60
Total:				2.0022	0.000	0.485	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC E086;300;9056

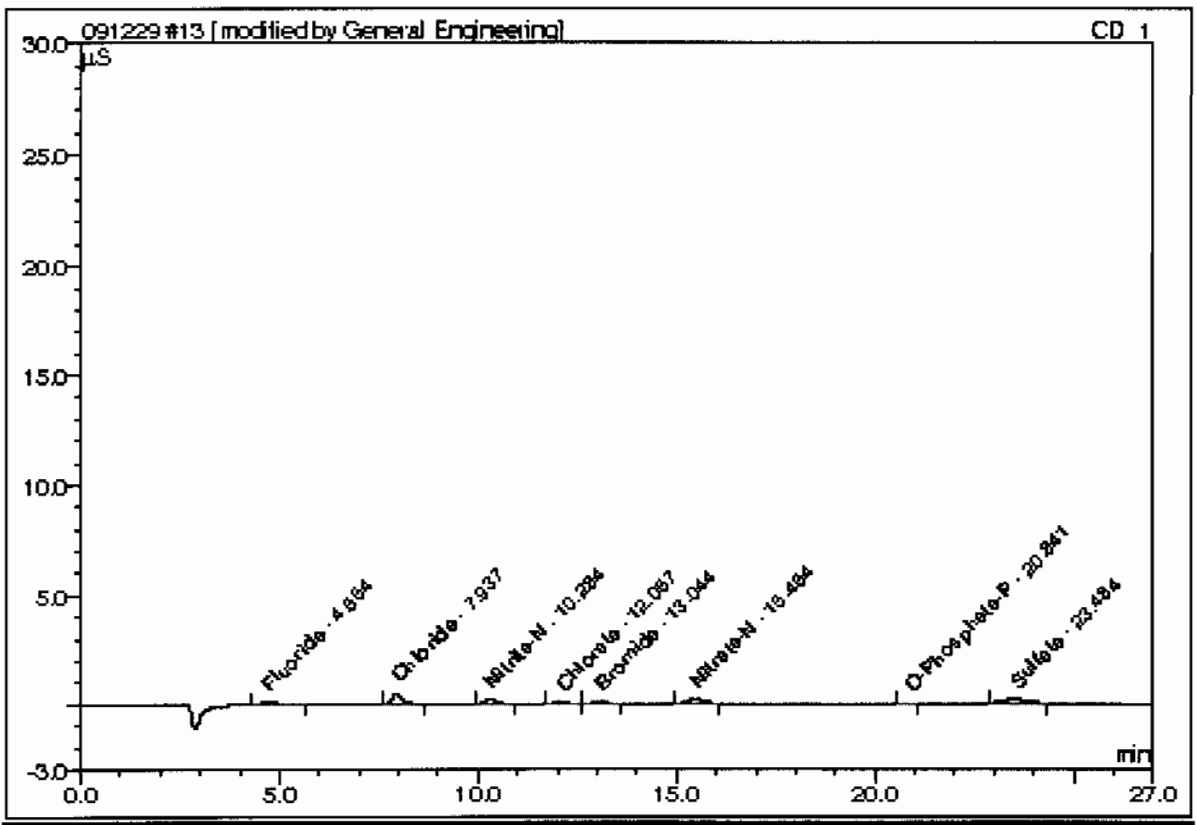

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1490	*	0.05925	12.18
2	7.94	Chloride	0.2000	0.3743		0.12619	25.93
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	12.72
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.34
5	13.04	Bromide	0.2000	0.2098		0.02783	5.72
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	16.30
7	20.84	O-Phosphate-P	0.2000	0.2053	*	0.00133	0.27
8	23.48	Sulfate	0.4000	0.6952	*	0.10479	21.54
Total:				2.2075	0.000	0.487	100.00

13 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091221b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

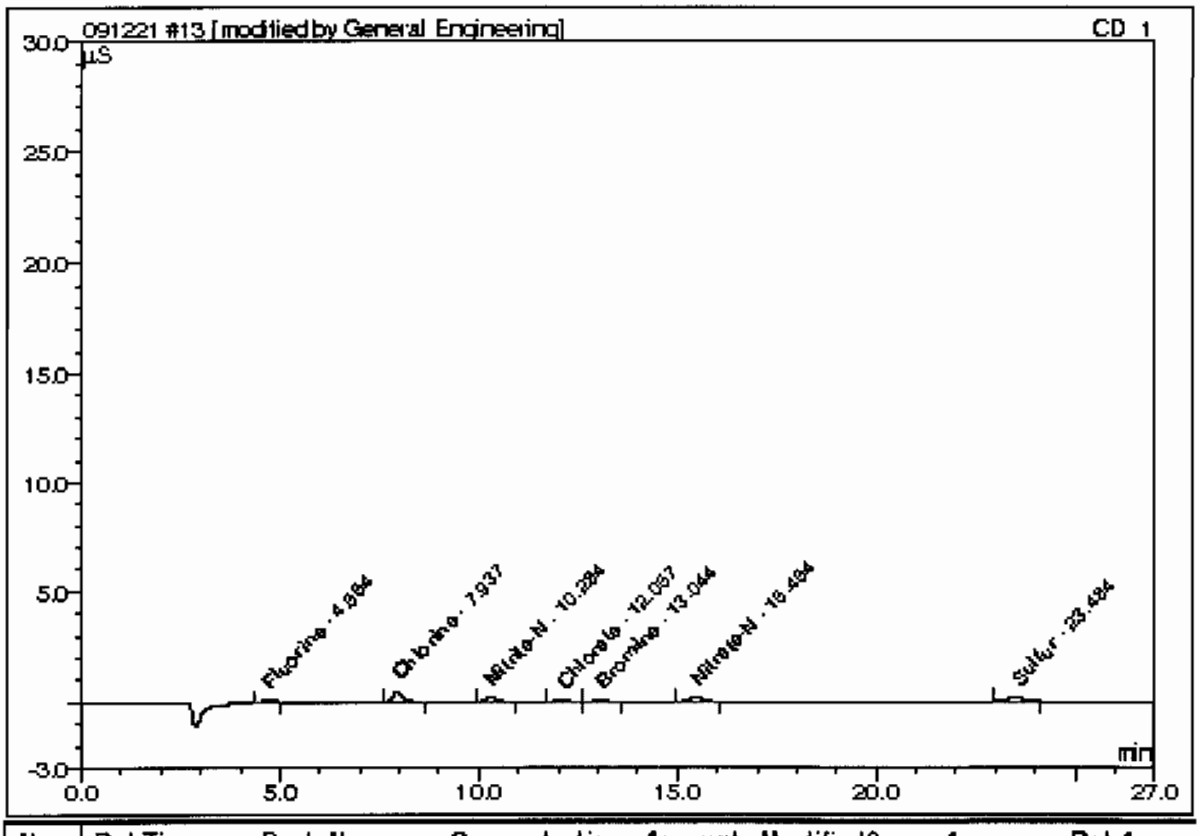

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1094	`	0.03286	7.37
2	7.94	Chlorine	0.2000	0.3743		0.12619	28.31
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.88
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.83
5	13.04	Bromine	0.2000	0.2098		0.02783	6.24
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.79
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
7	23.48	Sulfur	0.1333	0.5100	`	0.09173	20.58
Total:				1.7773	0.000	0.446	100.00

6 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

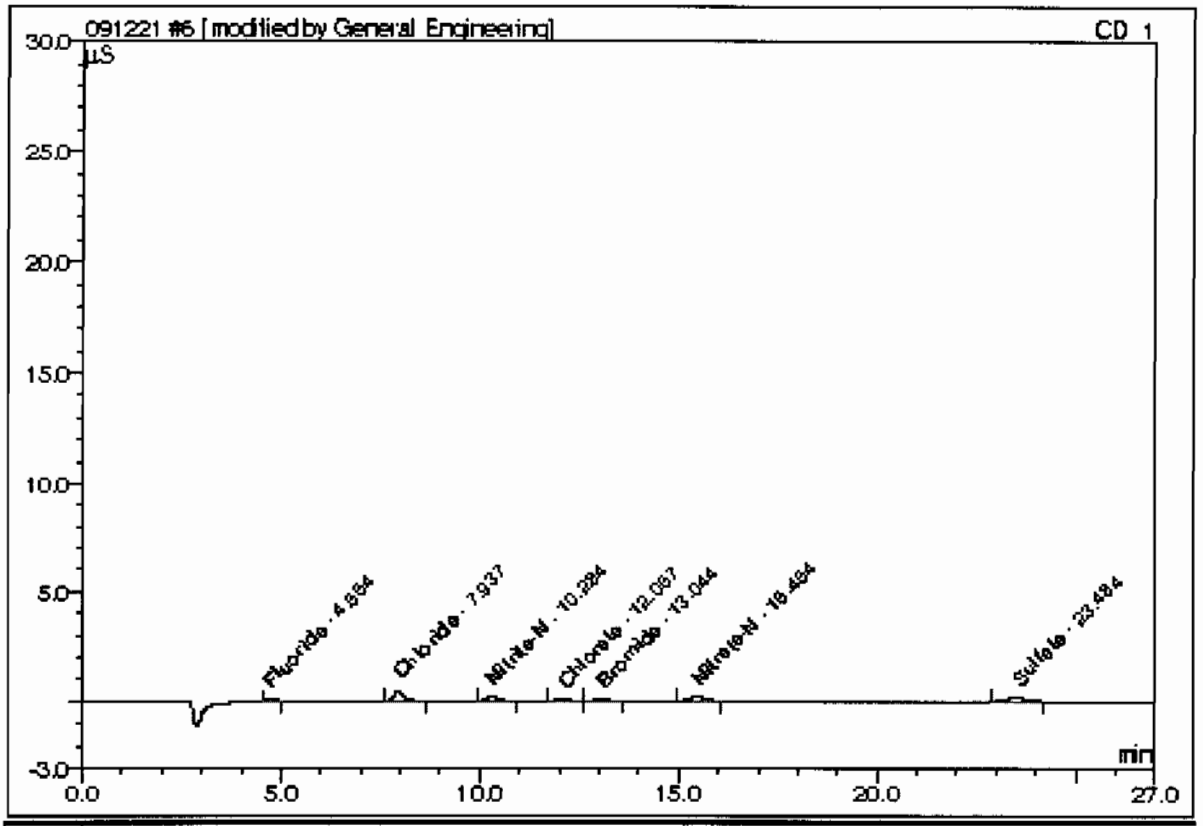

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.0989	*	0.02588	5.82
2	7.94	Chloride	0.2000	0.3743		0.12619	28.38
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.91
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.85
5	13.04	Bromide	0.2000	0.2098		0.02783	6.26
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.83
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
7	23.48	Sulfate	0.4000	0.6760	*	0.09764	21.96
Total:				1.9328	0.000	0.445	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

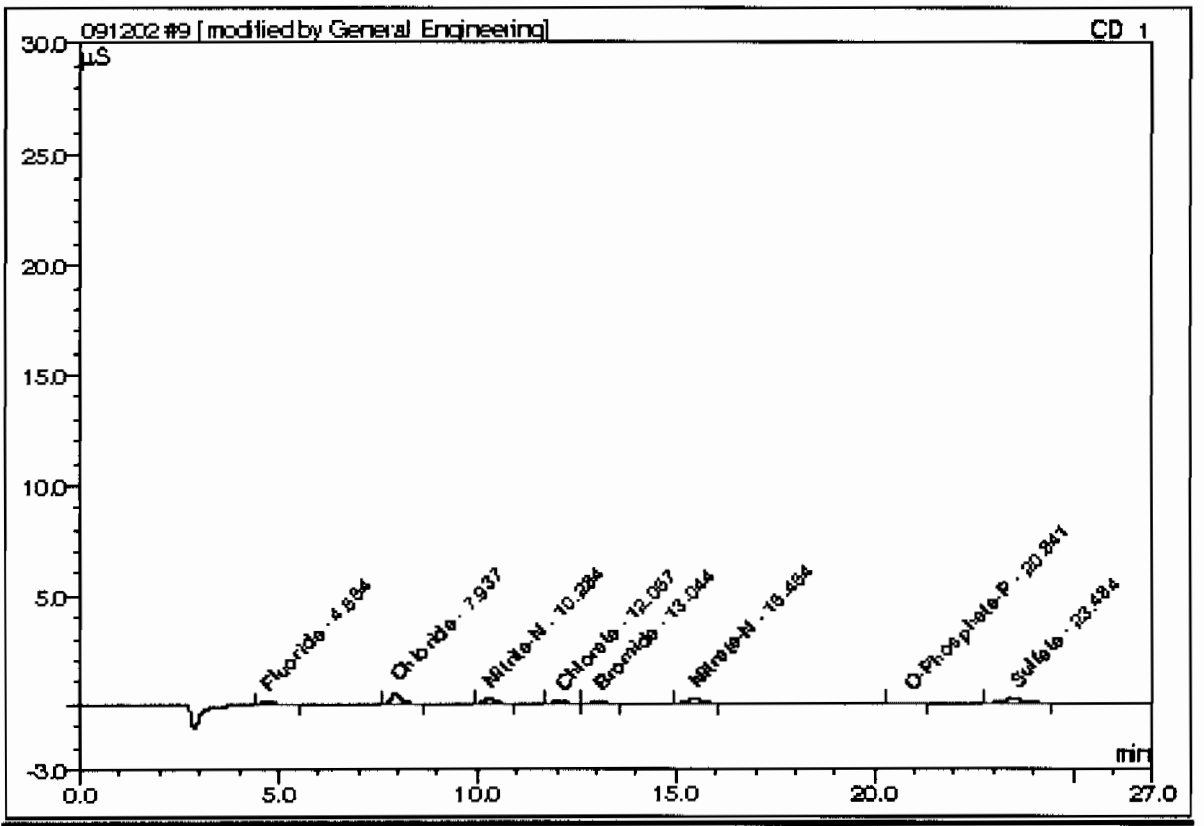

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

74 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

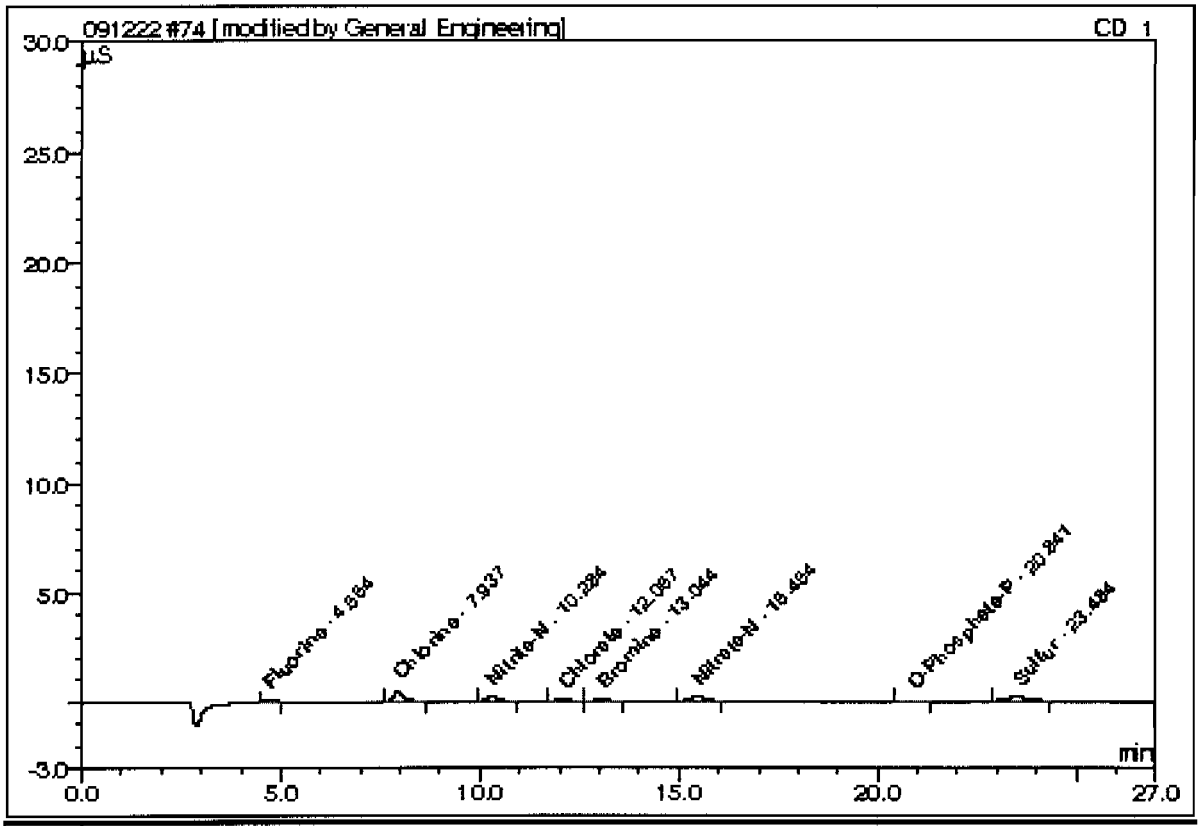

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluorine	0.1000	0.1034	`	0.02890	6.30
2	7.94	Chlorine	0.2000	0.3743		0.12619	27.50
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.48
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.66
5	13.04	Bromine	0.2000	0.2098		0.02783	6.06
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.28
7	20.84	O-Phosphate-P	0.2000	0.2135	`	0.00418	0.91
8	23.48	Sulfur	0.1333	0.6513	`	0.10462	22.80
Total:				2.1262	0.000	0.459	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

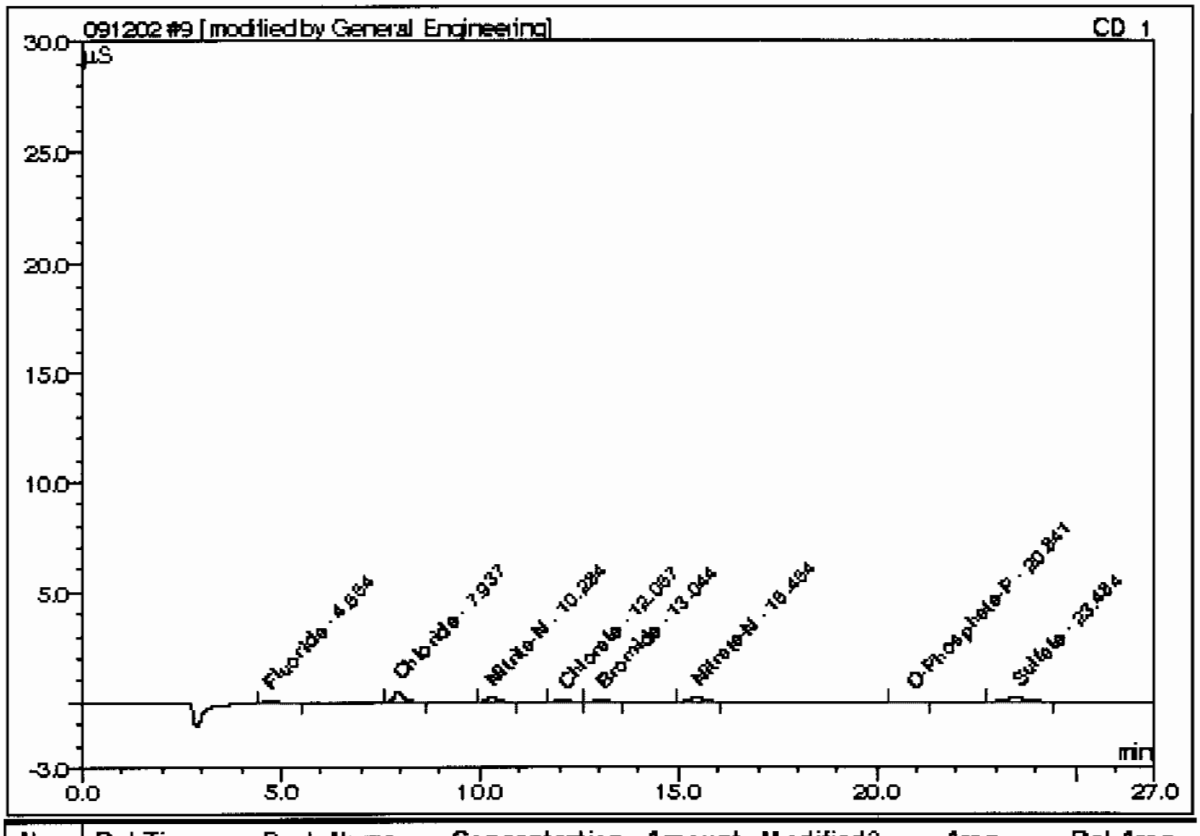

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1456	*	0.05494	11.22
2	7.94	Chloride	0.2000	0.3743		0.12619	25.77
3	10.28	Nitrite-N	0.1000	0.1626		0.06188	12.64
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.31
5	13.04	Bromide	0.2000	0.2098		0.02783	5.68
6	15.45	Nitrate-N	0.1000	0.1832		0.07931	16.20
7	20.84	O-Phosphate-P	0.2000	0.2082	*	0.00496	1.01
8	23.48	Sulfate	0.4000	0.6844	*	0.10850	22.16
Total:				2.1952	0.000	0.490	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

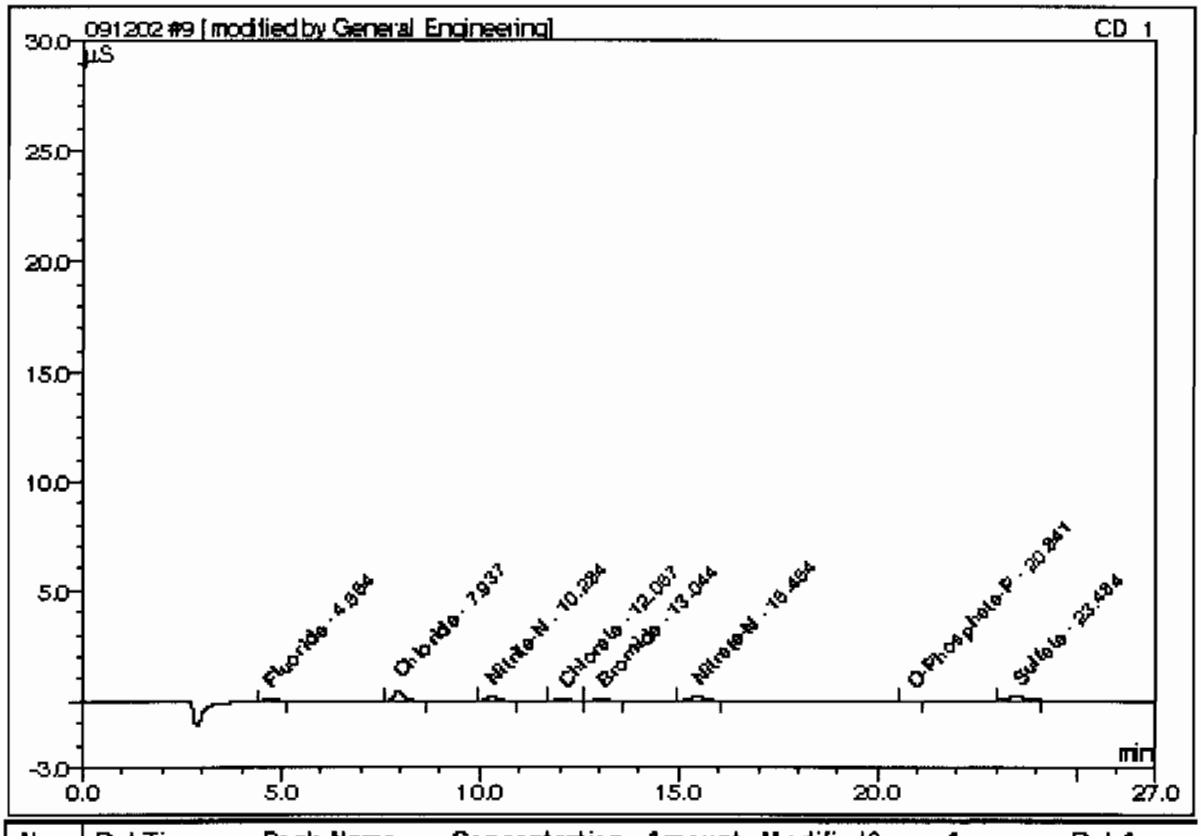

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1231	*	0.04201	9.23
2	7.94	Chloride	0.2000	0.3743		0.12619	27.73
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.60
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.71
5	13.04	Bromide	0.2000	0.2098		0.02783	6.12
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.43
7	20.84	O-Phosphate-P	0.2000	0.2070	*	0.00191	0.42
8	23.48	Sulfate	0.4000	0.6551	*	0.08988	19.75
Total:				2.1431	0.000	0.455	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

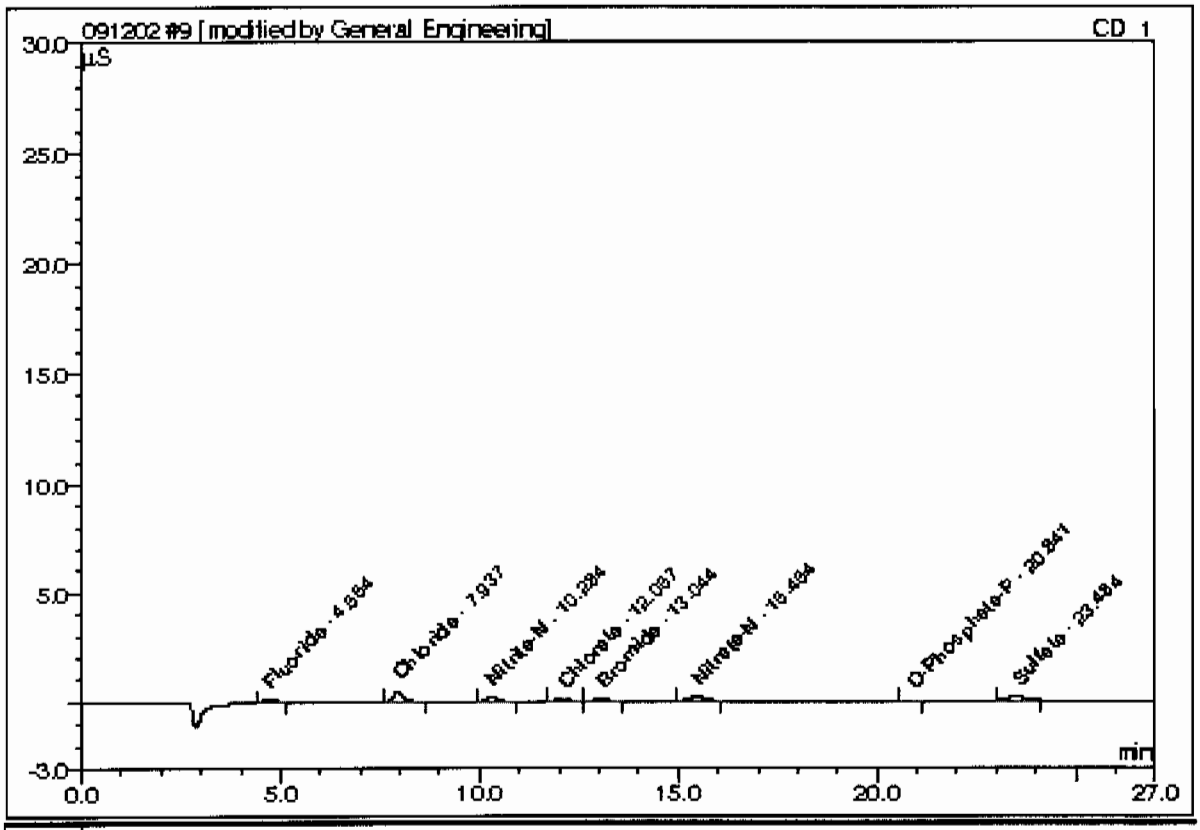

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1251	*	0.04330	9.49
2	7.94	Chloride	0.2000	0.3743		0.12619	27.66
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.56
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.70
5	13.04	Bromide	0.2000	0.2098		0.02783	6.10
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.38
7	20.84	O-Phosphate-P	0.2000	0.2070	*	0.00191	0.42
8	23.48	Sulfate	0.4000	0.6551	*	0.08988	19.70
Total:				2.1451	0.000	0.456	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:04	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

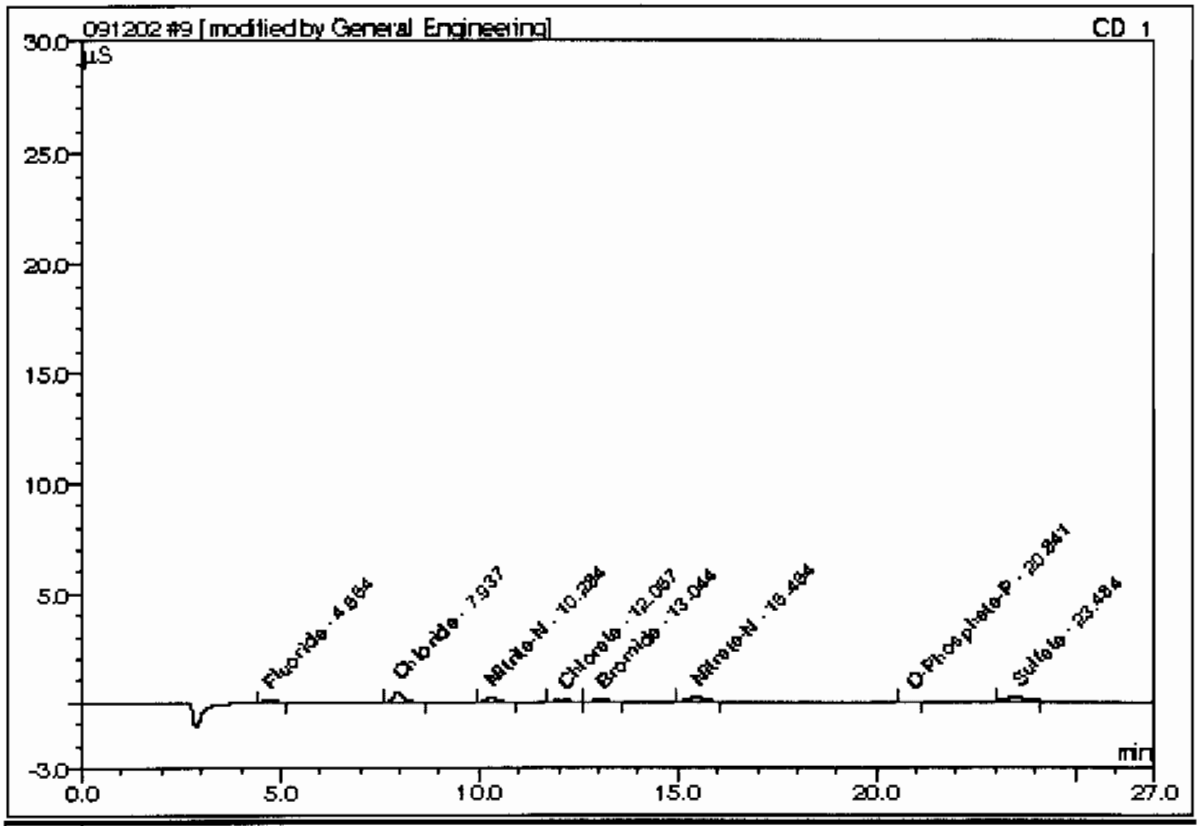

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.65	Fluoride	0.1000	0.1251	*	0.04330	9.49
2	7.94	Chloride	0.2000	0.3743		0.12619	27.66
3	10.28	Nitrite-N	0.1000	0.1640		0.06188	13.56
4	12.06	Chlorate	0.2000	0.2270		0.02599	5.70
5	13.04	Bromide	0.2000	0.2098		0.02783	6.10
6	15.45	Nitrate-N	0.1000	0.1829		0.07931	17.38
7	20.84	O-Phosphate-P	0.2000	0.2070	*	0.00191	0.42
8	23.48	Sulfate	0.4000	0.6551	*	0.08988	19.70
Total:				2.1451	0.000	0.456	100.00

7 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:33	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

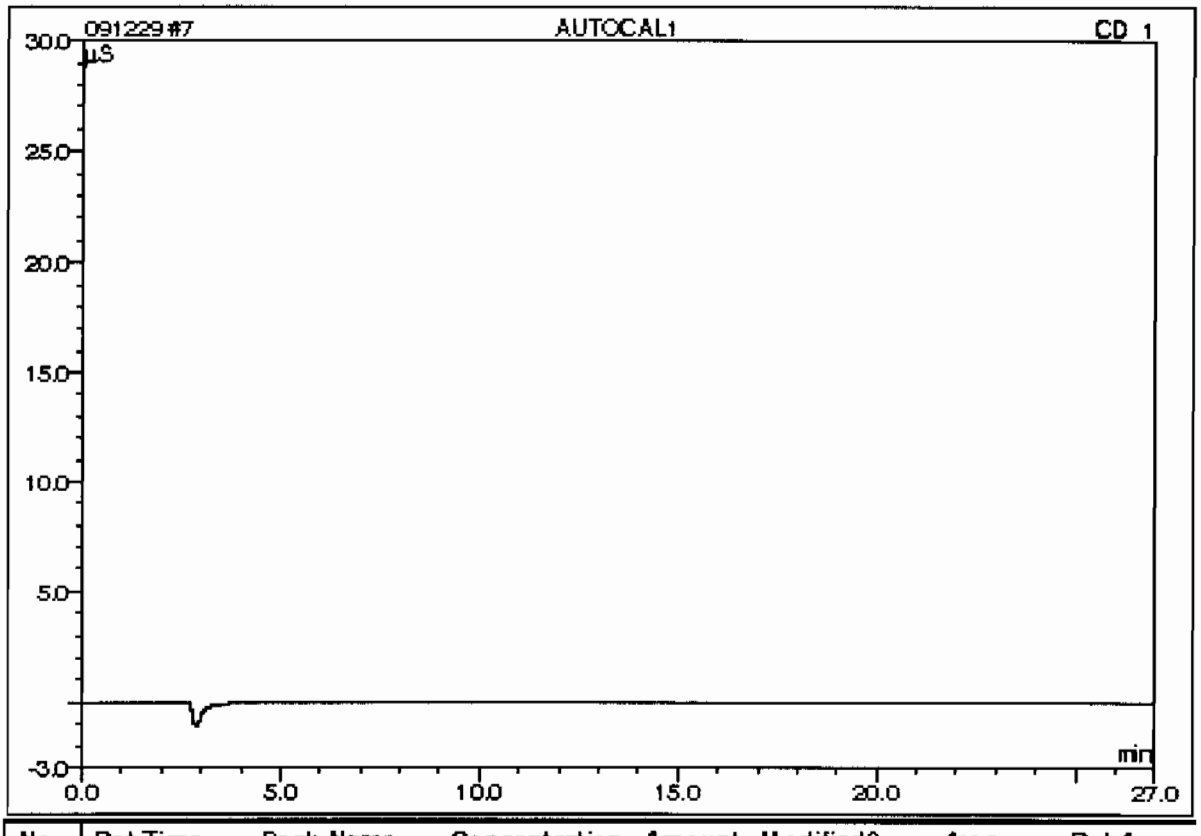

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluorine	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorine	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromine	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfur	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

7 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202b	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 21:33	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002593;GLGCE086;300;9056

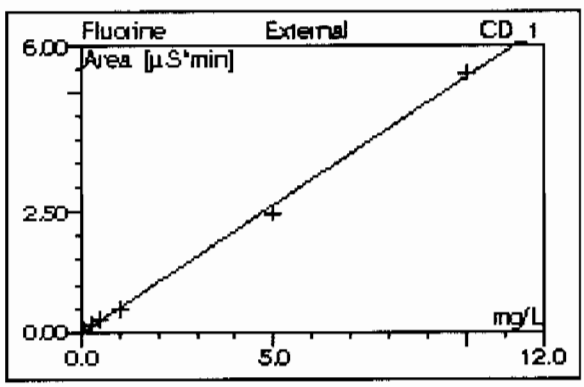

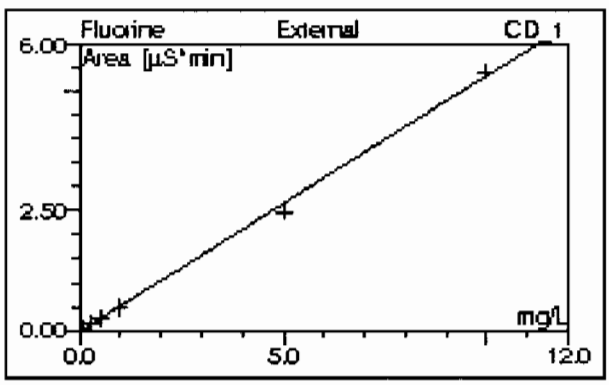

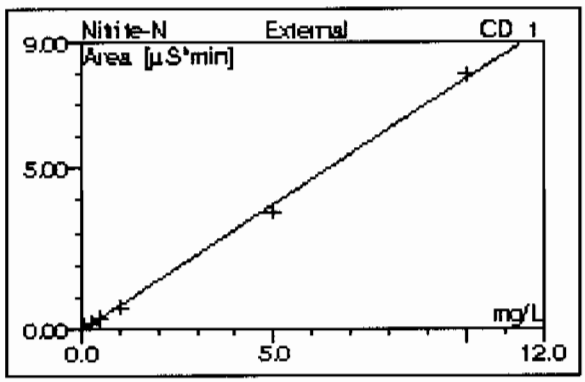

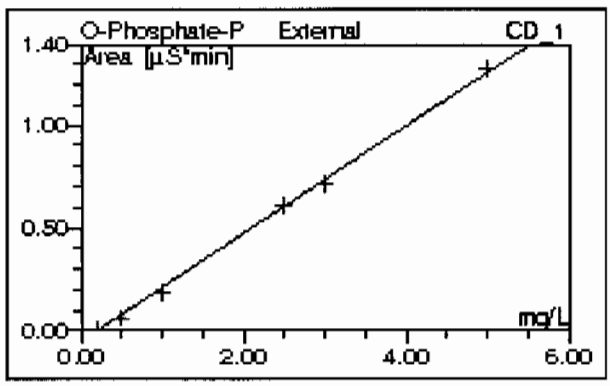

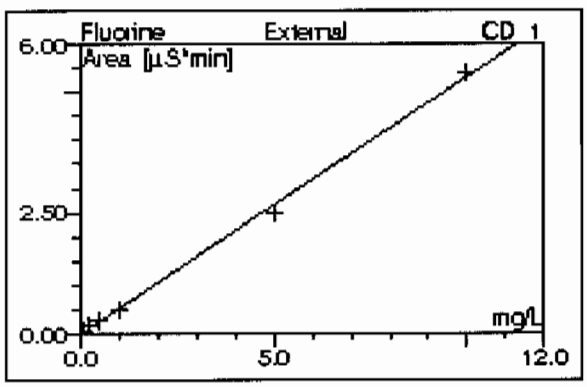

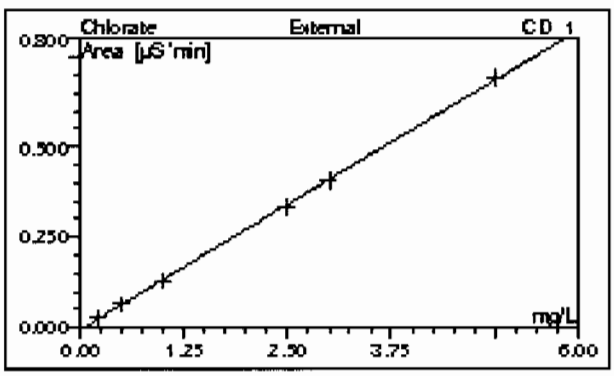

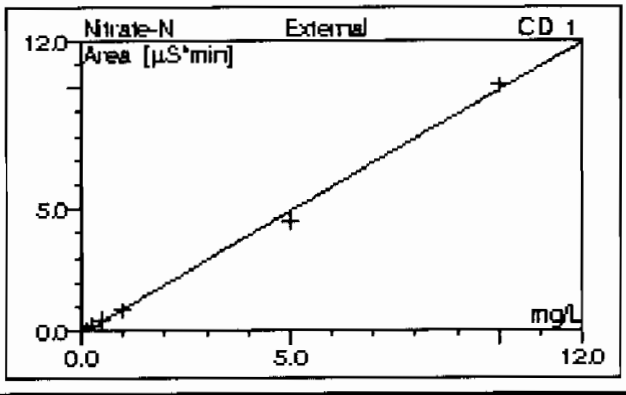

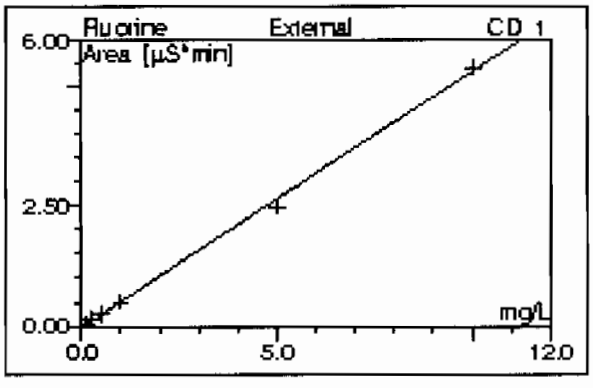

No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluorine	0LOff	99.8273	-0.0229	0.5344	0.0000
n.a.	n.a.	Chlorine	0LOff	99.5938	-0.0307	0.4192	0.0000
n.a.	n.a.	Nitrite-N	0LOff	99.8541	-0.0670	0.7923	0.0000
n.a.	n.a.	Chlorate	0LOff	99.9539	-0.0053	0.1380	0.0000
n.a.	n.a.	Bromine	0LOff	99.9837	-0.0043	0.1529	0.0000
n.a.	n.a.	Nitrate-N	0LOff	99.7226	-0.1037	0.9989	0.0000
n.a.	n.a.	O-Phosphate-P	0LOff	99.7900	-0.0496	0.2621	0.0000
n.a.	n.a.	Sulfur	0LOff	99.7713	-0.0940	0.8877	0.0000
Average:				99.8121	-0.0472	0.5232	0.0000

11 WIC091202-02ICV

Sample Name:	WIC091202-02ICV	*Injection Volume:*	50.0
Vial Number:	11	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 22:03	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

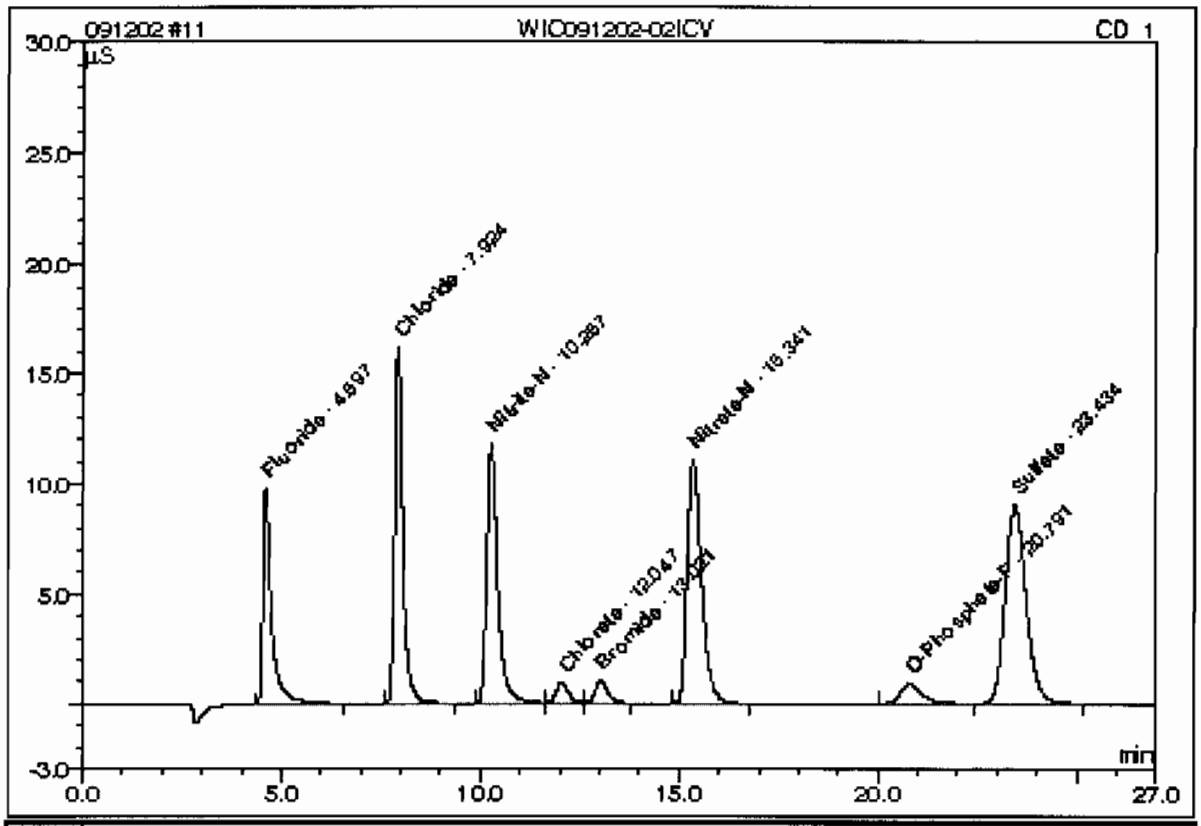

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.60	Fluoride	n.a.	4.7181		2.49838	11.68
2	7.92	Chloride	n.a.	9.2590		3.85054	18.00
3	10.27	Nitrite-N	n.a.	4.7805		3.72071	17.39
4	12.05	Chlorate	n.a.	2.4809		0.33694	1.57
5	13.02	Bromide	n.a.	2.4387		0.36874	1.72
6	15.34	Nitrate-N	n.a.	4.6791		4.57041	21.36
7	20.79	O-Phosphate-P	n.a.	2.4024		0.57999	2.71
8	23.43	Sulfate	n.a.	18.7982		5.46821	25.56
Total:				49.5569	0.000	21.394	100.00

12 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	12	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	12/2/2009 22:33	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

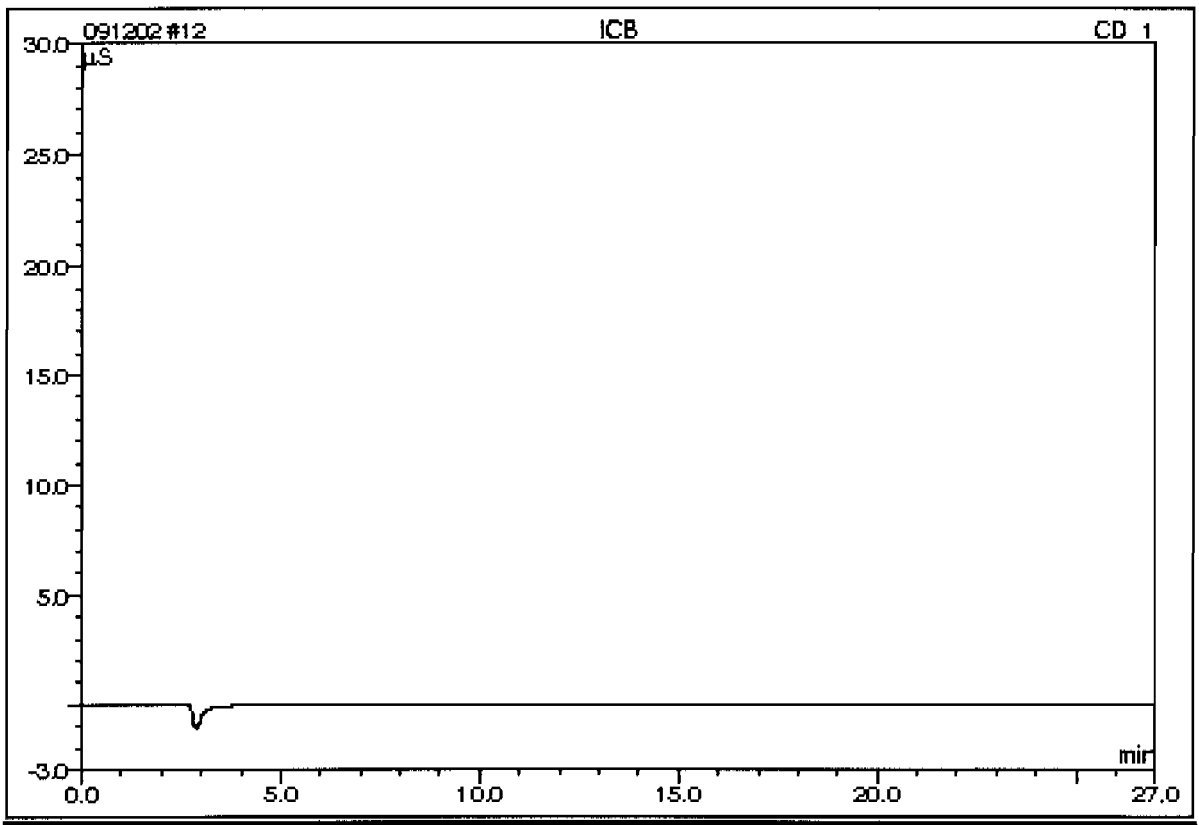

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100108.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	01/08/10 15:32		1	100108	GXM3
BLK	01/08/10 16:01		1	100108	GXM3
ICV	01/08/10 16:31		1	100108	GXM3
ICB	01/08/10 17:01		1	100108	GXM3
1202010422	01/08/10 17:31	939456	1	100108	GXM3
1202010423	01/08/10 18:01	939456	1	100108	GXM3
244062001	01/08/10 18:31	939456	10	100108	GXM3
1202010424	01/08/10 19:01	939456	10	100108	GXM3
1202010425	01/08/10 19:31	939456	10	100108	GXM3
CVH	01/08/10 20:01		1	100108	GXM3
CCB	01/08/10 20:31		1	100108	GXM3
1202002309	01/08/10 21:01	935781	1	100108	GXM3
1202002310	01/08/10 21:30	935781	1	100108	GXM3
243104001	01/08/10 22:00	935781	1	100108	GXM3
1202002311	01/08/10 22:30	935781	1	100108	GXM3
1202002312	01/08/10 23:00	935781	1	100108	GXM3
CCV	01/08/10 23:30		1	100108	GXM3

17 WIC100108-02ICV

Sample Name:	WIC100108-02ICV	*Injection Volume:*	50.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/8/2010 16:31	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

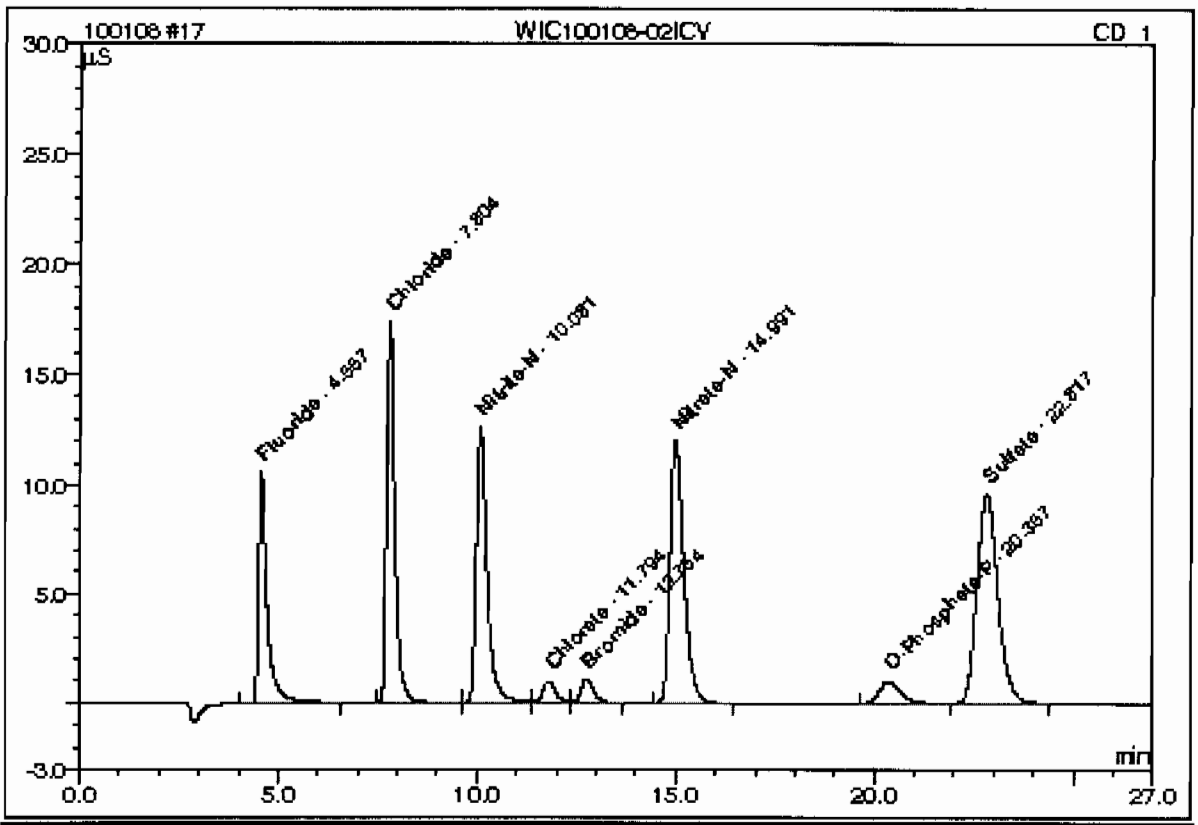

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.57	Fluoride	n.a.	4.9496		2.59996	11.48
2	7.80	Chloride	n.a.	9.7643		4.06232	17.94
3	10.08	Nitrite-N	n.a.	5.0574		3.93960	17.40
4	11.79	Chlorate	n.a.	2.5702		0.34927	1.54
5	12.75	Bromide	n.a.	2.5498		0.38573	1.70
6	14.99	Nitrate-N	n.a.	4.9980		4.87905	21.55
7	20.36	O-Phosphate-P	n.a.	2.5938		0.62123	2.74
8	22.82	Sulfate	n.a.	19.9551		5.80442	25.64
Total:				52.4381	0.000	22.642	100.00

18 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/8/2010 17:01	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

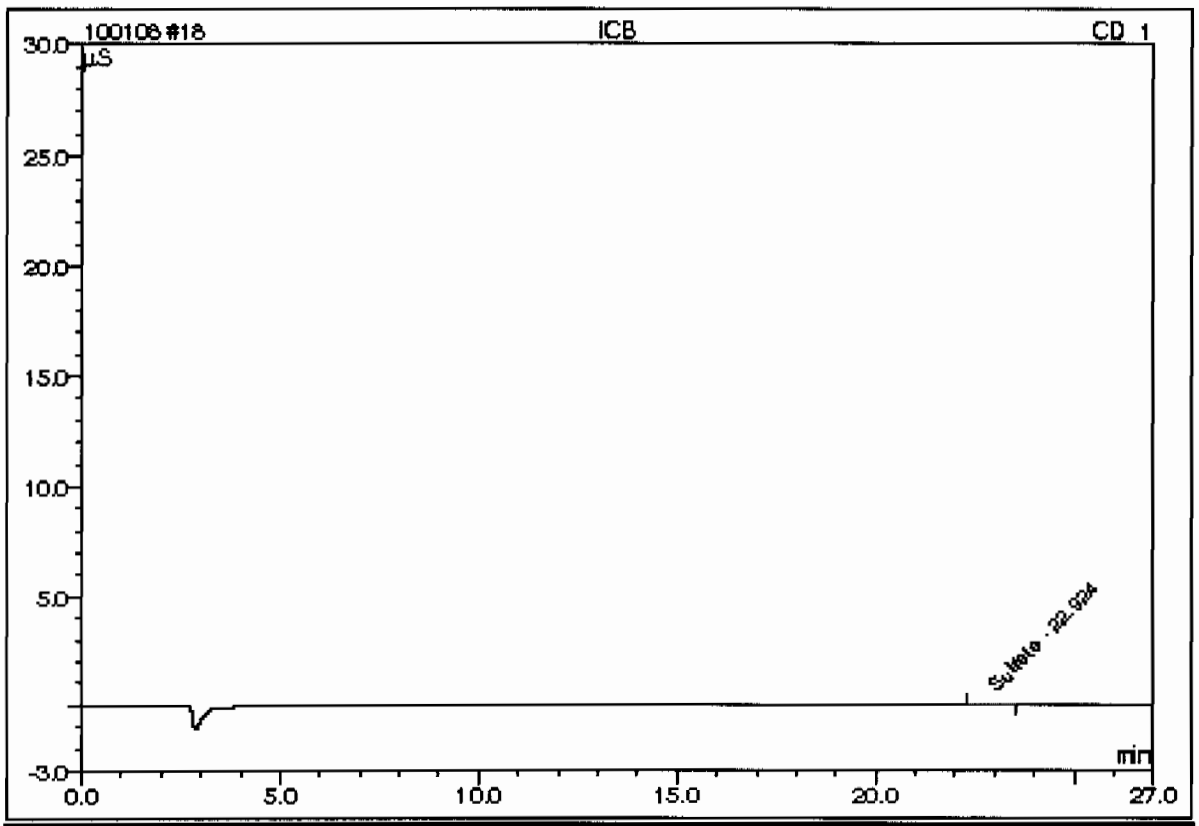

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
1	22.92	Sulfate	n.a.	0.4024		0.01812	100.00
Total:				0.4024	0.000	0.018	100.00

24 WIC100108-02CVH

Sample Name:	WIC100108-02CVH	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/8/2010 20:01	*Analyst:*	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

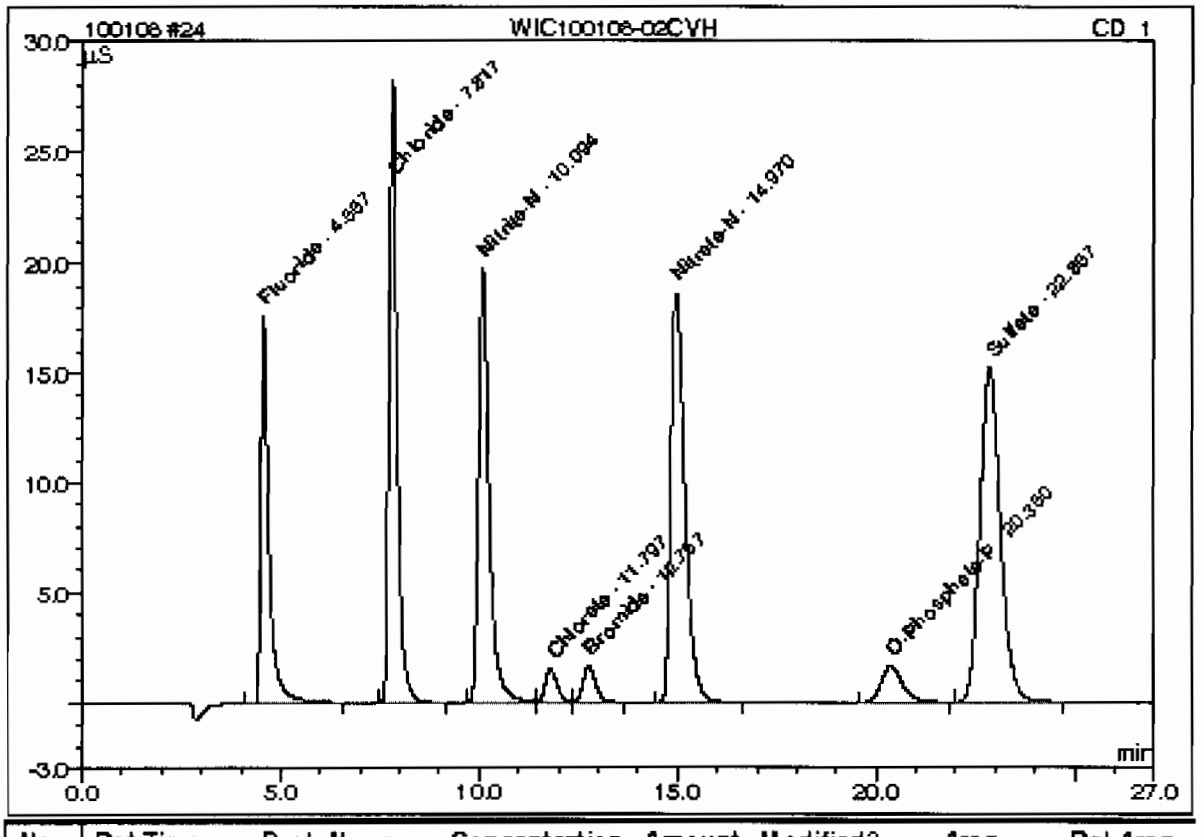

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.57	Fluoride	n.a.	7.8090		4.11328	11.55
2	7.82	Chloride	n.a.	15.5750		6.49810	18.24
3	10.09	Nitrite-N	n.a.	7.8244		6.13233	17.21
4	11.80	Chlorate	n.a.	3.8820		0.53024	1.49
5	12.76	Bromide	n.a.	3.8756		0.58851	1.65
6	14.97	Nitrate-N	n.a.	7.8011		7.67316	21.54
7	20.36	O-Phosphate-P	n.a.	4.0916		1.00996	2.84
8	22.86	Sulfate	n.a.	31.0180		9.07830	25.48
Total:				81.8768	0.000	35.624	100.00

25 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	11	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/8/2010 20:31	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

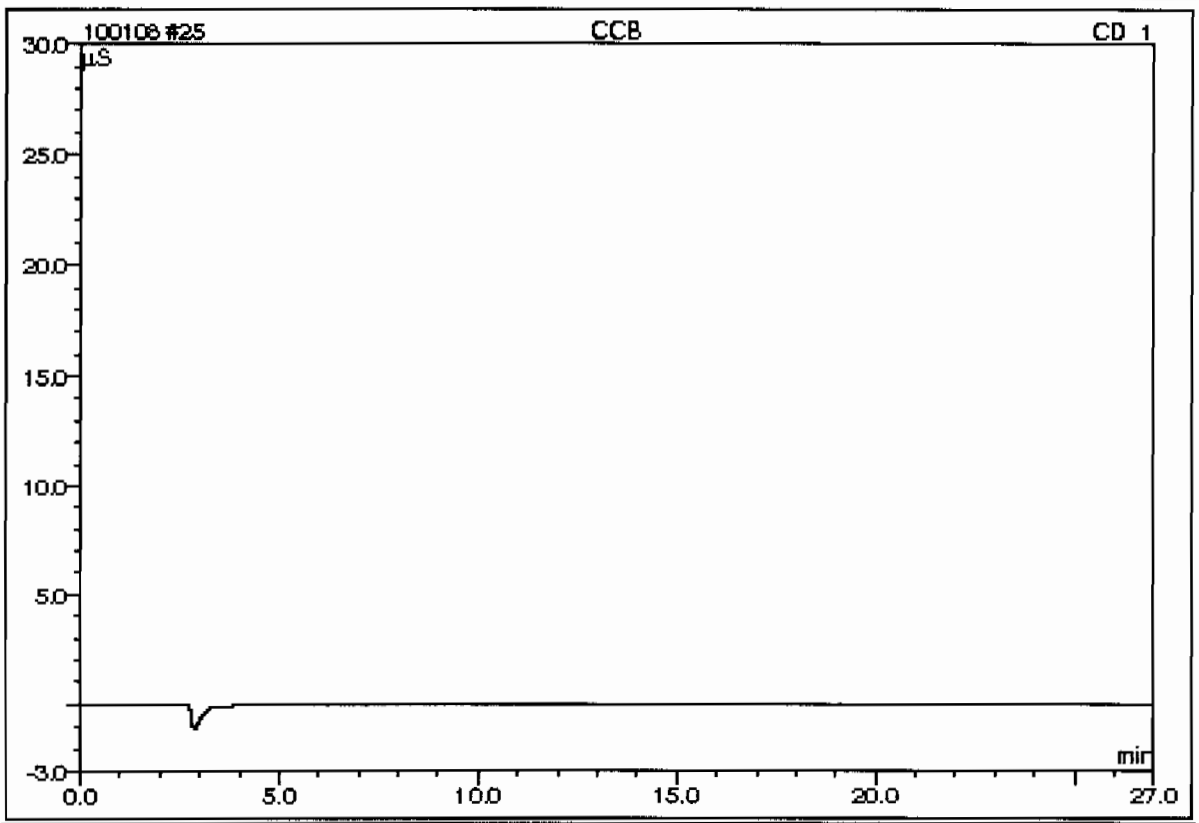

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

26 1202002309/935781/1/1/MB

Sample Name:	1202002309/935781/1/1/MB	*Injection Volume:*	50.0
Vial Number:	12	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/8/2010 21:01	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

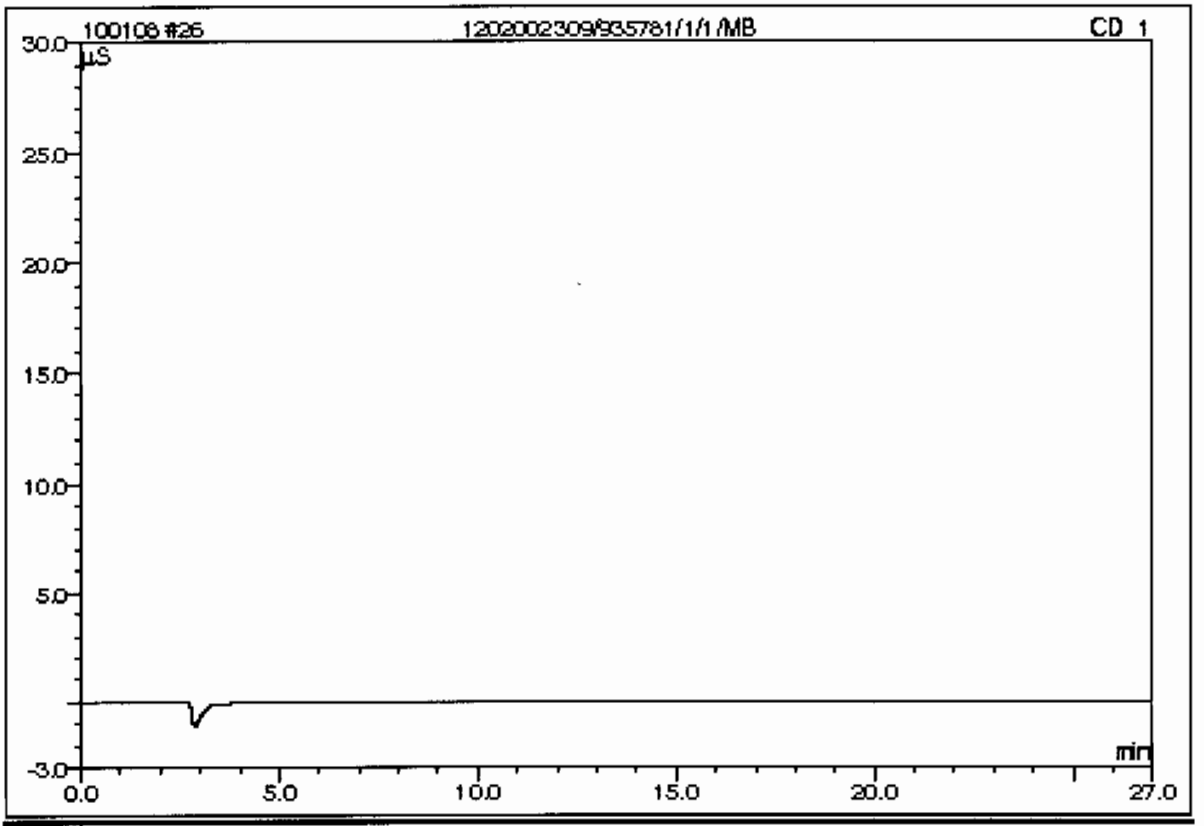

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

27 1202002310/935781/1/1/LCS

Sample Name:	1202002310/935781/1/1/LCS	*Injection Volume:*	50.0
Vial Number:	13	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/8/2010 21:30	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

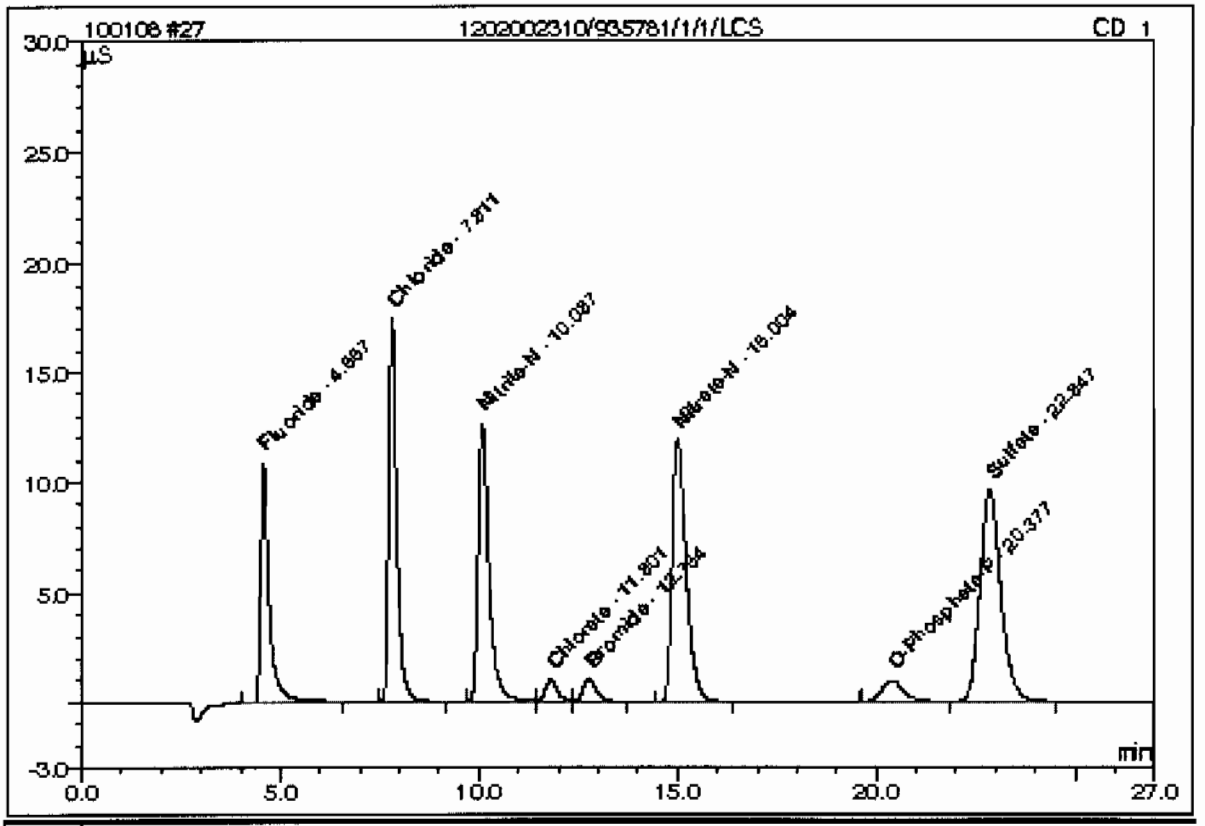

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.57	Fluoride	n.a.	5.0465		2.65123	11.64
2	7.81	Chloride	n.a.	9.8625		4.10349	18.02
3	10.09	Nitrite-N	n.a.	5.0827		3.95968	17.39
4	11.80	Chlorate	n.a.	2.6052		0.35410	1.55
5	12.76	Bromide	n.a.	2.5671		0.38838	1.71
6	15.00	Nitrate-N	n.a.	4.9837		4.86472	21.36
7	20.38	O-Phosphate-P	n.a.	2.5926		0.62091	2.73
8	22.85	Sulfate	n.a.	20.0473		5.83171	25.61
Total:				52.7875	0.000	22.774	100.00

28 243104001/935781/1/1/

Sample Name:	243104001/935781/1/1/	*Injection Volume:*	50.0
Vial Number:	14	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/8/2010 22:00	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

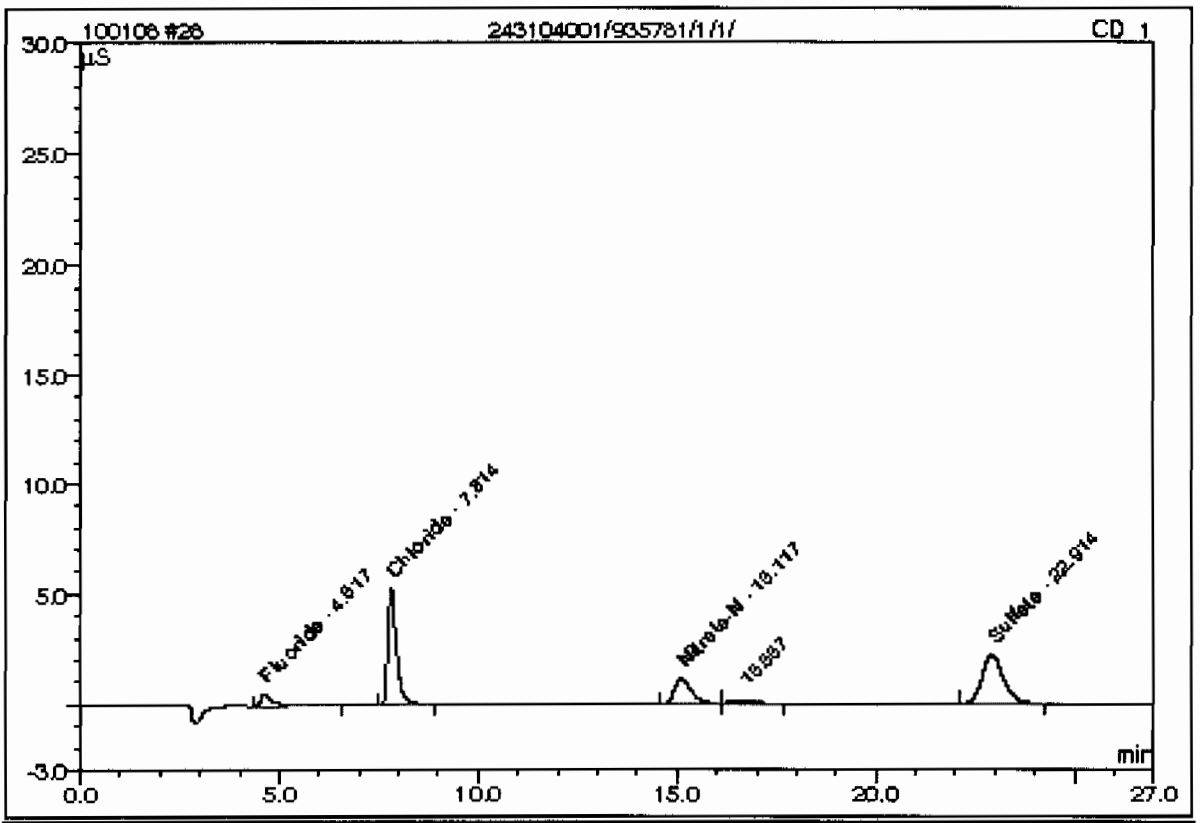

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	n.a.	0.5196		0.25538	7.29
2	7.81	Chloride	n.a.	3.1591		1.29356	36.92
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	15.12	Nitrate-N	n.a.	0.6388		0.53370	15.23
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	22.91	Sulfate	n.a.	4.9626		1.36764	39.03
Total:				9.2800	0.000	3.450	98.47

28 243104001/935781/1/1/

Sample Name:	243104001/935781/1/1/	*Injection Volume:*	50.0
Vial Number:	14	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/8/2010 22:00	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

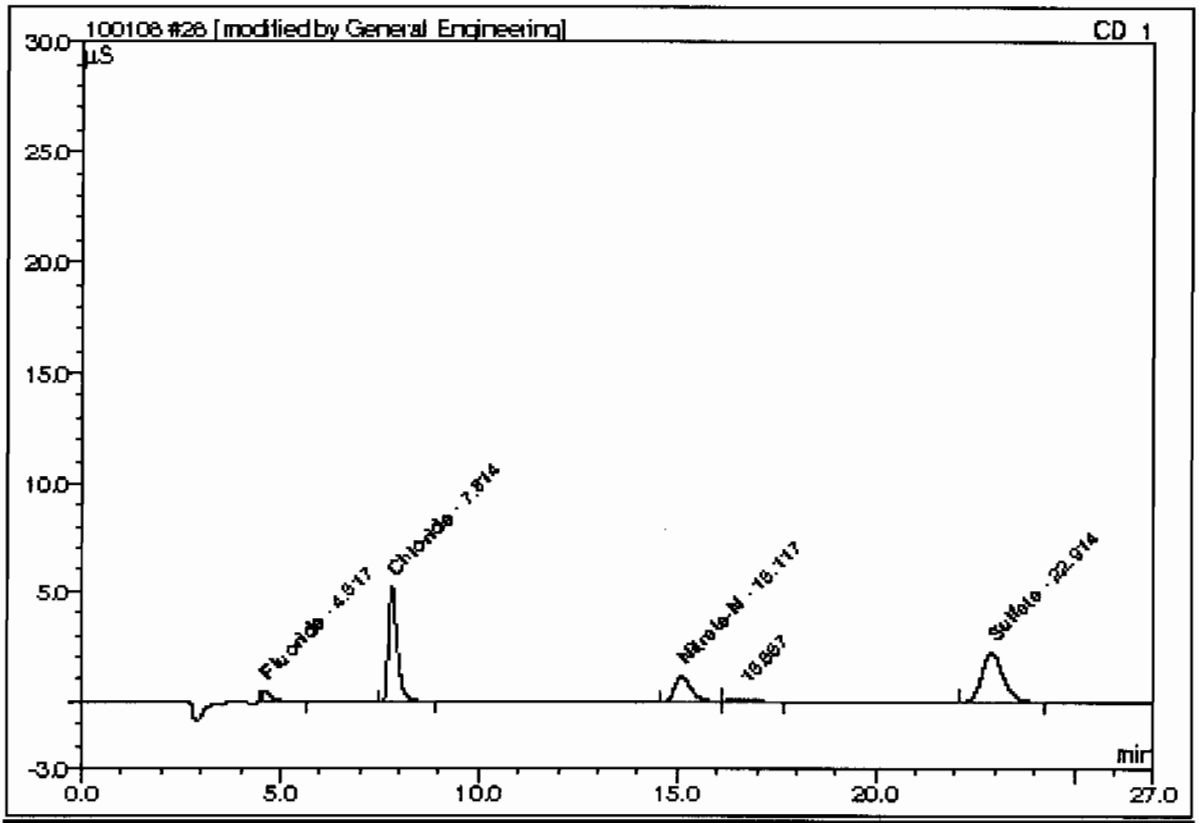

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	n.a.	0.2803		0.12875	3.81
2	7.81	Chloride	n.a.	3.1591		1.29356	38.30
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	15.12	Nitrate-N	n.a.	0.6388		0.53370	15.80
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	22.91	Sulfate	n.a.	4.9626		1.36764	40.50
Total:				9.0408	0.000	3.324	98.41

29 1202002311/935781/1/1/DUP

Sample Name:	1202002311/935781/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	15	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/8/2010 22:30	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

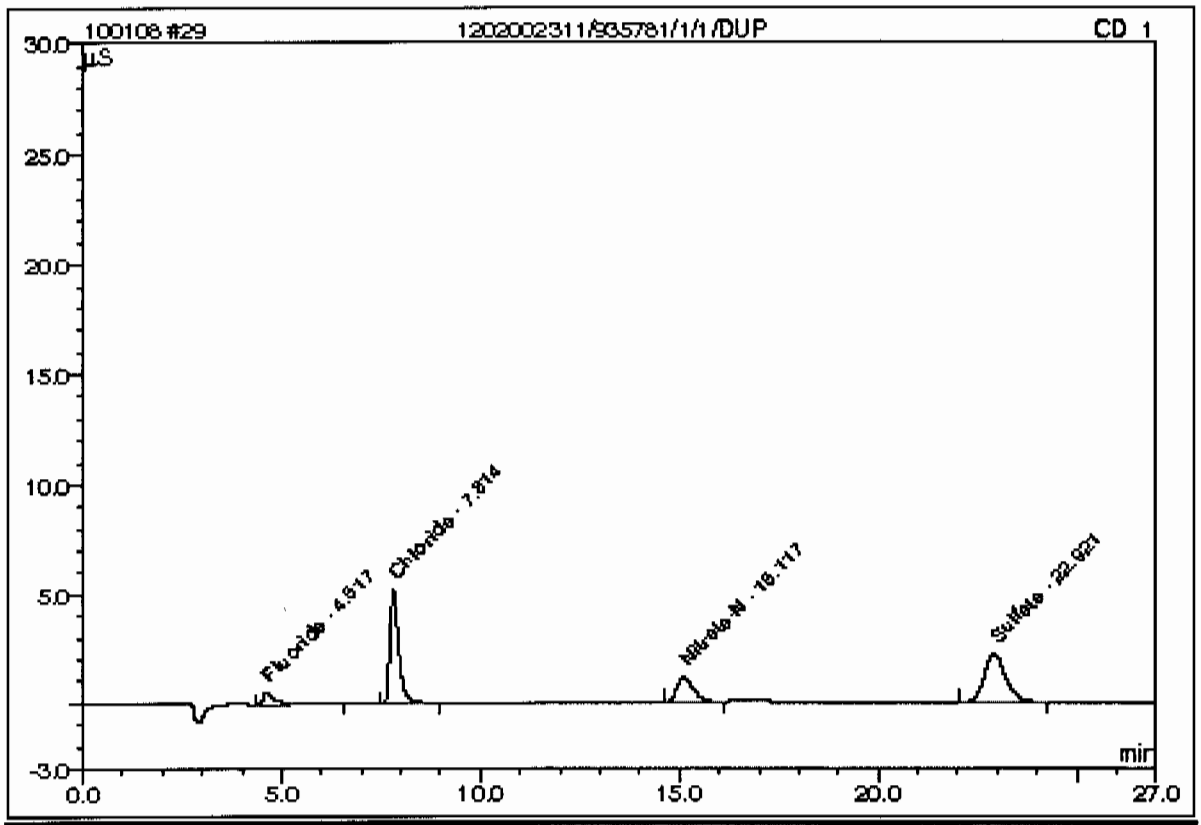

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	n.a.	0.5338		0.26289	7.63
2	7.81	Chloride	n.a.	3.1461		1.28810	37.37
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	15.12	Nitrate-N	n.a.	0.6400		0.53490	15.52
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	22.92	Sulfate	n.a.	4.9416		1.36145	39.49
Total:				9.2615	0.000	3.447	100.00

29 1202002311/935781/1/1/DUP

Sample Name:	1202002311/935781/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	15	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/8/2010 22:30	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

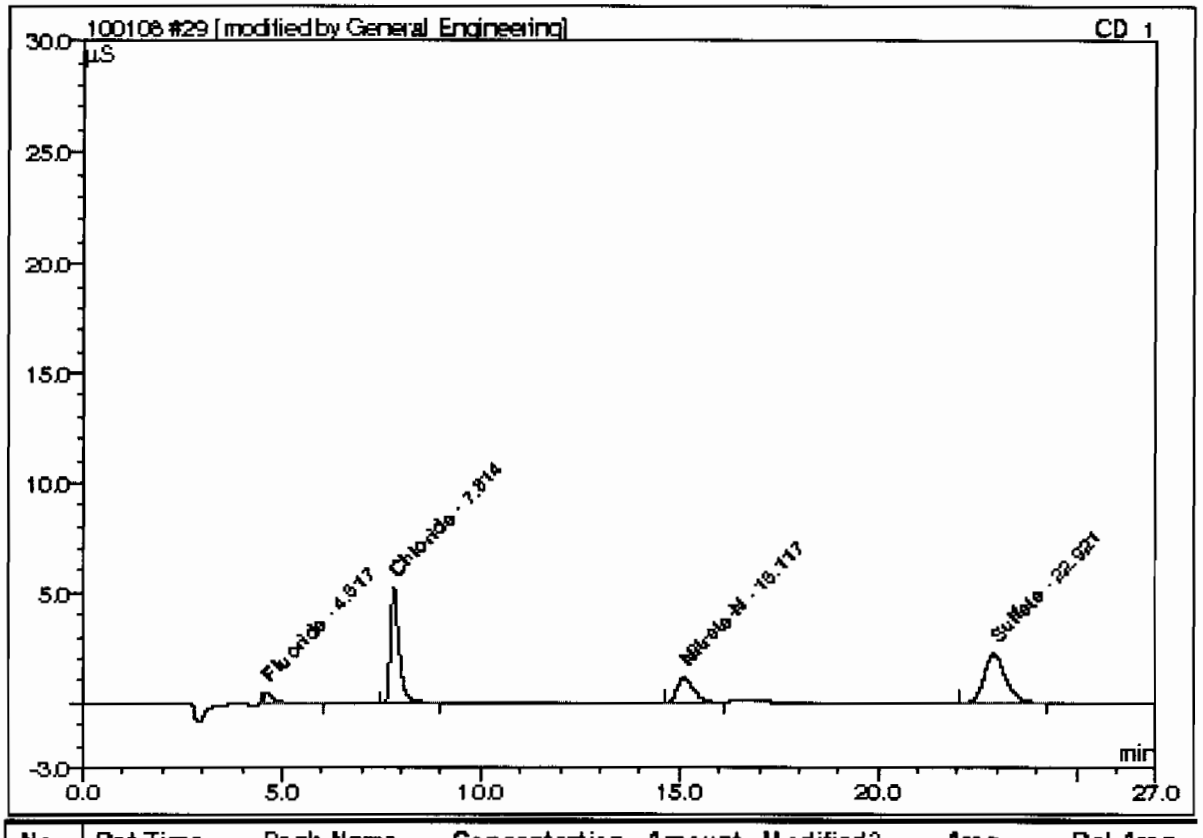

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.62	Fluoride	n.a.	0.2837		0.13050	3.94
2	7.81	Chloride	n.a.	3.1461		1.28810	38.86
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	15.12	Nitrate-N	n.a.	0.6400		0.53490	16.14
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	22.92	Sulfate	n.a.	4.9416		1.36145	41.07
Total:				9.0114	0.000	3.315	100.00

30 1202002312/935781/1/1/PS

Sample Name:	1202002312/935781/1/1/PS	*Injection Volume:*	50.0
Vial Number:	16	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/8/2010 23:00	*Analyst:*	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC E086;300;9056

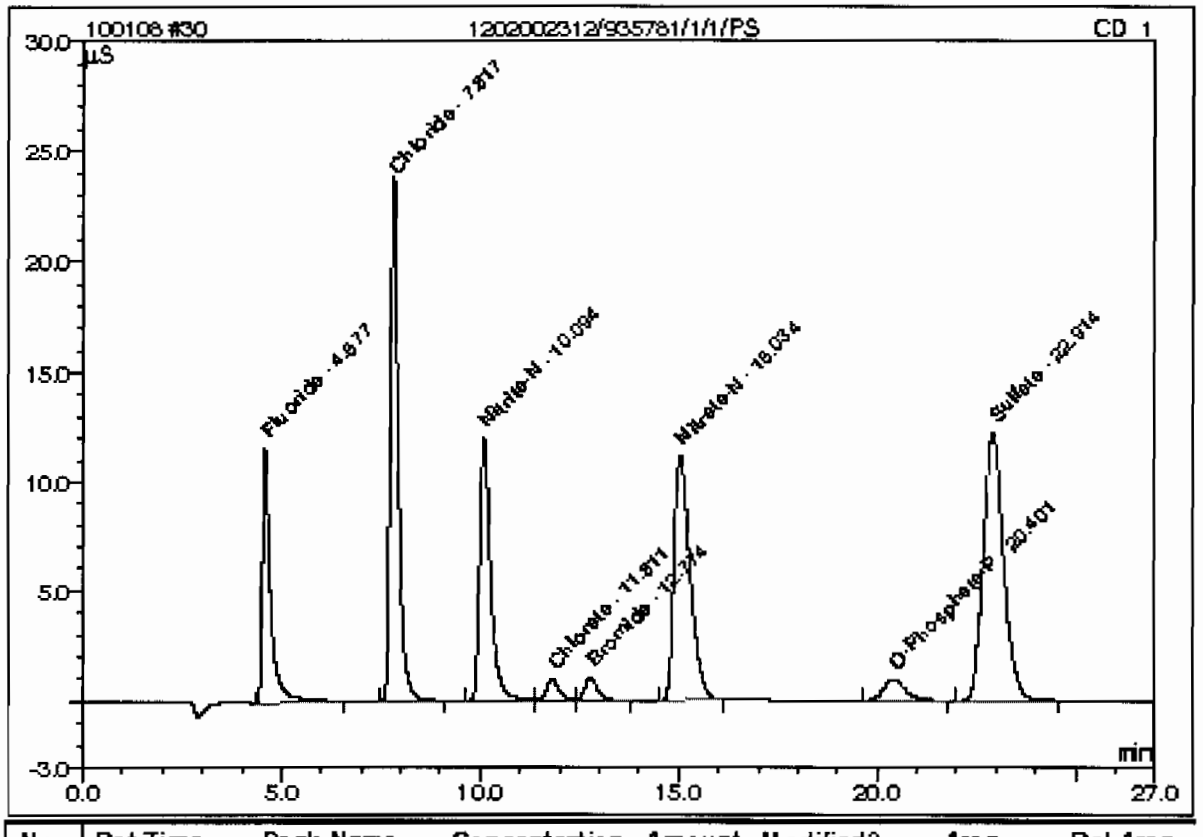

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.58	Fluoride	n.a.	5.3881		2.83203	10.89
2	7.82	Chloride	n.a.	13.3775		5.57695	21.44
3	10.09	Nitrite-N	n.a.	4.8897		3.80675	14.63
4	11.81	Chlorate	n.a.	2.5179		0.34204	1.31
5	12.77	Bromide	n.a.	2.5428		0.38466	1.48
6	15.03	Nitrate-N	n.a.	5.3647		5.24454	20.16
7	20.40	O-Phosphate-P	n.a.	2.5110		0.59973	2.31
8	22.91	Sulfate	n.a.	24.7618		7.22687	27.78
Total:				61.3535	0.000	26.014	100.00

30 1202002312/935781/1/1/PS

Sample Name:	1202002312/935781/1/1/PS	*Injection Volume:*	50.0
Vial Number:	16	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/8/2010 23:00	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

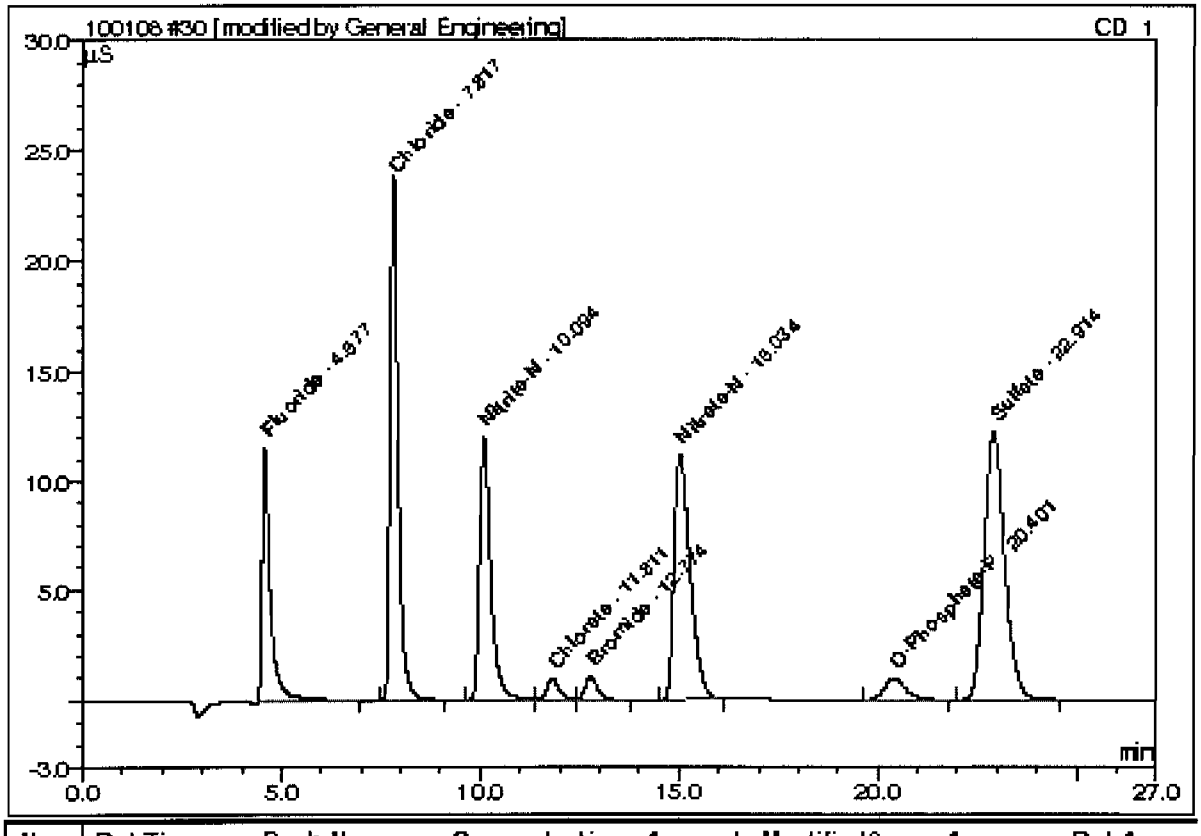

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.58	Fluoride	n.a.	5.1512		2.70665	10.46
2	7.82	Chloride	n.a.	13.3775		5.57695	21.54
3	10.09	Nitrite-N	n.a.	4.8897		3.80675	14.70
4	11.81	Chlorate	n.a.	2.5179		0.34204	1.32
5	12.77	Bromide	n.a.	2.5428		0.38466	1.49
6	15.03	Nitrate-N	n.a.	5.3647		5.24454	20.26
7	20.40	O-Phosphate-P	n.a.	2.5110		0.59973	2.32
8	22.91	Sulfate	n.a.	24.7618		7.22687	27.92
Total:				61.1166	0.000	25.888	100.00

31 WIC100108-02CCV

Sample Name:	WIC100108-02CCV	*Injection Volume:*	50.0
Vial Number:	17	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/8/2010 23:30	*Analyst:*	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

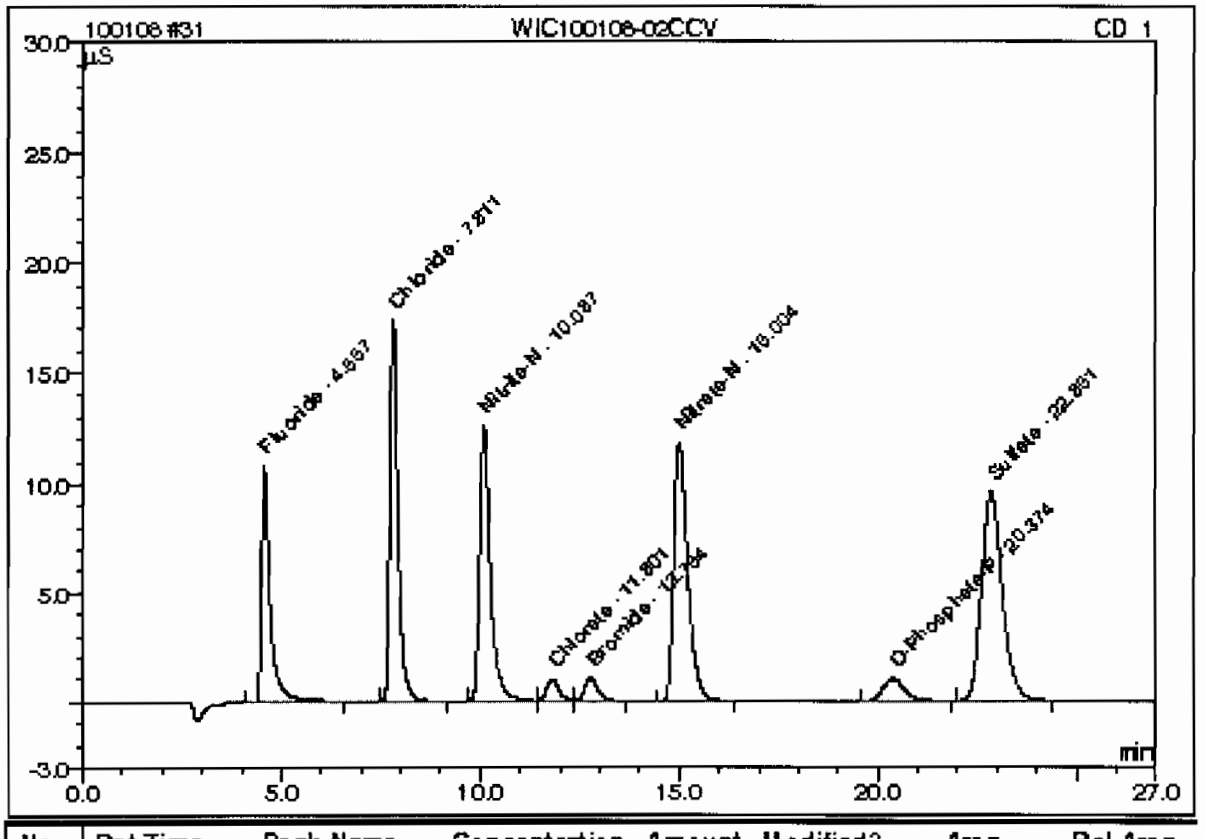

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.57	Fluoride	n.a.	5.0453		2.65058	11.70
2	7.81	Chloride	n.a.	9.8166		4.08424	18.02
3	10.09	Nitrite-N	n.a.	5.0567		3.93908	17.38
4	11.80	Chlorate	n.a.	2.5747		0.34989	1.54
5	12.76	Bromide	n.a.	2.5313		0.38290	1.69
6	15.00	Nitrate-N	n.a.	4.9624		4.84346	21.37
7	20.37	O-Phosphate-P	n.a.	2.6242		0.62912	2.78
8	22.85	Sulfate	n.a.	19.8762		5.78107	25.51
Total:				52.4873	0.000	22.660	100.00

This is runlog for Sequence 100108.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
CCB	01/09/10 00:00		1	100108	GXM3
1202008996	01/09/10 00:30	938851	1	100108	GXM3
1202009000	01/09/10 01:00	938851	1	100108	GXM3
243505001	01/09/10 01:30	938851	1	100108	GXM3
1202008997	01/09/10 02:00	938851	1	100108	GXM3
1202008998	01/09/10 02:29	938851	1	100108	GXM3
1202008999	01/09/10 02:59	938851	1	100108	GXM3
243505002	01/09/10 03:29	938851	1	100108	GXM3
243505003	01/09/10 03:59	938851	1	100108	GXM3
243505004	01/09/10 04:29	938851	1	100108	GXM3
243505005	01/09/10 04:59	938851	1	100108	GXM3
CVH	01/09/10 05:29		1	100108	GXM3
CCB	01/09/10 05:59		1	100108	GXM3
243505006	01/09/10 06:29	938851	1	100108	GXM3
243505007	01/09/10 06:59	938851	1	100108	GXM3
243505008	01/09/10 07:28	938851	1	100108	GXM3
CCV	01/09/10 07:58		1	100108	GXM3
CCB	01/09/10 08:28		1	100108	GXM3

32 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	18	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	091202an	*Sample Amount:*	1.0000
Recording Time:	1/9/2010 0:00	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

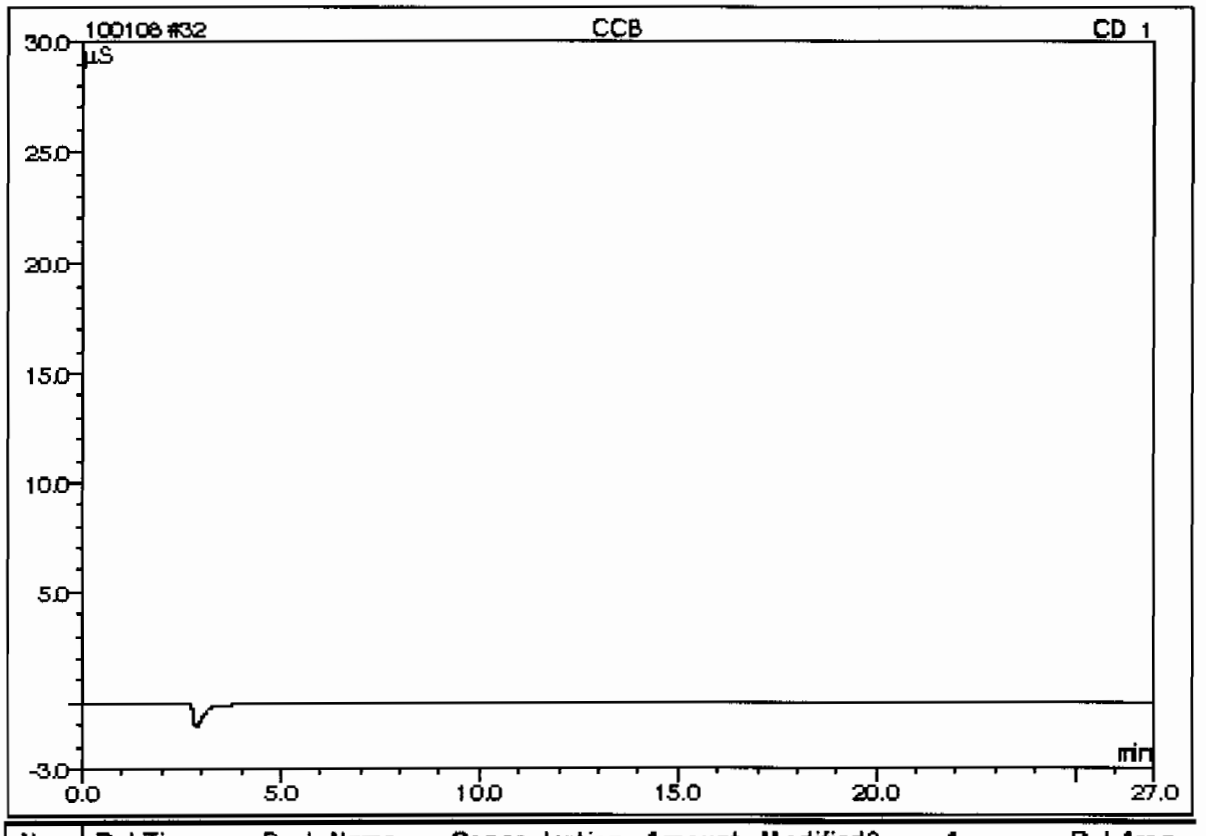

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

Nitrate Nitrite by Cadmium Reduction

This is runlog lachat3

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
1.5 PPM		1	axh3	12/21/2009 10:44:56	OM_12-21-2009_10-43-54
1.0 PPM		1	axh3	12/21/2009 10:46:07	OM_12-21-2009_10-43-54
0.5 ppm		1	axh3	12/21/2009 10:47:20	OM_12-21-2009_10-43-54
0.1 ppm		1	axh3	12/21/2009 10:48:34	OM_12-21-2009_10-43-54
0.05 ppm		1	axh3	12/21/2009 10:49:47	OM_12-21-2009_10-43-54
ICAL-00		1	axh3	12/21/2009 10:51:00	OM_12-21-2009_10-43-54
1.0 ppm ICV		1	axh3	12/21/2009 10:53:23	OM_12-21-2009_10-43-54
ICB		1	axh3	12/21/2009 10:55:44	OM_12-21-2009_10-43-54
Nitrate 1.0 ppm		1	axh3	12/21/2009 10:58:04	OM_12-21-2009_10-43-54
Nitrite 1.0 ppm		1	axh3	12/21/2009 11:00:24	OM_12-21-2009_10-43-54
1202000059	934820	1	axh3	12/21/2009 11:02:45	OM_12-21-2009_10-43-54
1202000066	934820	1	axh3	12/21/2009 11:03:58	OM_12-21-2009_10-43-54
243085001	934820	5	axh3	12/21/2009 11:05:11	OM_12-21-2009_10-43-54
1202000060	934820	5	axh3	12/21/2009 11:06:24	OM_12-21-2009_10-43-54
1202000063	934820	5	axh3	12/21/2009 11:07:37	OM_12-21-2009_10-43-54
243104001	934820	5	axh3	12/21/2009 11:08:49	OM_12-21-2009_10-43-54
1202000061	934820	5	axh3	12/21/2009 11:10:02	OM_12-21-2009_10-43-54
1202000064	934820	5	axh3	12/21/2009 11:11:15	OM_12-21-2009_10-43-54
243108001	934820	5	axh3	12/21/2009 11:12:27	OM_12-21-2009_10-43-54
243108002	934820	5	axh3	12/21/2009 11:13:39	OM_12-21-2009_10-43-54
1.0 ppm CCV		1	axh3	12/21/2009 11:14:51	OM_12-21-2009_10-43-54
CCB		1	axh3	12/21/2009 11:17:13	OM_12-21-2009_10-43-54
243188001	934820	50	axh3	12/21/2009 11:19:33	OM_12-21-2009_10-43-54
1202000062	934820	50	axh3	12/21/2009 11:20:45	OM_12-21-2009_10-43-54
1202000065	934820	50	axh3	12/21/2009 11:21:57	OM_12-21-2009_10-43-54
243253001	934820	25	axh3	12/21/2009 11:23:10	OM_12-21-2009_10-43-54
1202000921	934820	25	axh3	12/21/2009 11:24:21	OM_12-21-2009_10-43-54
1202000922	934820	25	axh3	12/21/2009 11:25:34	OM_12-21-2009_10-43-54
243223004	934820	25	axh3	12/21/2009 11:26:45	OM_12-21-2009_10-43-54
243223005*	934820	50	axh3	12/21/2009 11:27:57	OM_12-21-2009_10-43-54
243223007	934820	50	axh3	12/21/2009 11:29:10	OM_12-21-2009_10-43-54
243223008	934820	50	axh3	12/21/2009 11:30:23	OM_12-21-2009_10-43-54
1.0 ppm CCV		1	axh3	12/21/2009 11:31:36	OM_12-21-2009_10-43-54
CCB		1	axh3	12/21/2009 11:33:57	OM_12-21-2009_10-43-54
243223009	934820	25	axh3	12/21/2009 11:36:19	OM_12-21-2009_10-43-54
243223010	934820	50	axh3	12/21/2009 11:37:32	OM_12-21-2009_10-43-54
243242001	934820	5	axh3	12/21/2009 11:38:44	OM_12-21-2009_10-43-54
243242002	934820	5	axh3	12/21/2009 11:39:56	OM_12-21-2009_10-43-54
243251001	934820	5	axh3	12/21/2009 11:41:09	OM_12-21-2009_10-43-54
243255002	934820	5	axh3	12/21/2009 11:42:21	OM_12-21-2009_10-43-54
243255003	934820	5	axh3	12/21/2009 11:43:33	OM_12-21-2009_10-43-54
243255005	934820	5	axh3	12/21/2009 11:44:46	OM_12-21-2009_10-43-54
243257001	934820	5	axh3	12/21/2009 11:45:57	OM_12-21-2009_10-43-54
243257006*	934820	5	axh3	12/21/2009 11:47:09	OM_12-21-2009_10-43-54
1.0 ppm CCV		1	axh3	12/21/2009 11:48:21	OM_12-21-2009_10-43-54
CCB		1	axh3	12/21/2009 11:50:43	OM_12-21-2009_10-43-54
1202001088	935263	1	axh3	12/21/2009 11:53:04	OM_12-21-2009_10-43-54
1202001091	935263	1	axh3	12/21/2009 11:54:18	OM_12-21-2009_10-43-54
243285002	935263	5	axh3	12/21/2009 11:55:30	OM_12-21-2009_10-43-54
1202001089	935263	5	axh3	12/21/2009 11:56:43	OM_12-21-2009_10-43-54
1202001090	935263	5	axh3	12/21/2009 11:57:56	OM_12-21-2009_10-43-54
243286001	935263	5	axh3	12/21/2009 11:59:09	OM_12-21-2009_10-43-54
243286004	935263	5	axh3	12/21/2009 12:00:21	OM_12-21-2009_10-43-54
1.0 ppm CCV		1	axh3	12/21/2009 12:02:41	OM_12-21-2009_10-43-54
CCB		1	axh3	12/21/2009 12:05:03	OM_12-21-2009_10-43-54

Author: lachat

Date : 12/21/2009

Original Run Filename: OM_12-21-2009_10-43-54.OMN created 12/21/2009 10:43:54
Original Run Author's Signature: [lachat]
Current Run Filename: OM_12-21-2009_10-43-54.OMN last modified 12/21/2009 12:06:24
Current Run Author's Signature: [lachat]
Description: EPA 353.2
Cadmium Colum 9056CAJ
LCS nominal 1.0 mg/L

Sample	Rep.	Cup No.	Channel 1 NO3 + NO2 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR091221-26	1	S9	1.50	18.6	12/21/2009@10:44:56			1.5 PPM
WTR091221-25	1	S10	1.00	12.4	12/21/2009@10:46:07			1.0 PPM
WTR091221-24	1	S11	0.500	6.12	12/21/2009@10:47:20			0.5 ppm
WTR091221-23	1	S12	0.100	1.24	12/21/2009@10:48:34			0.1 ppm
WTR091221-21	1	S13	0.0500	0.628	12/21/2009@10:49:47			0.05 ppm
0.0ppm	1	S15	0.00	-0.0353	12/21/2009@10:51:00			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99999 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR091221-27 ICV	1	S16	0.968	12.0	12/21/2009@10:53:23			1.0 ppm ICV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.968 < 1.10					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.968 > 0.894					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
ICB	1	S15	3.94e-4	-0.0139	12/21/2009@10:55:44			ICB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	3.94e-4 < 0.0500					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	3.94e-4 > -0.0500					
		Message	ICB Passed					
		Action	Continue					
WTR091221-22	1	S1	0.945	11.7	12/21/2009@10:58:04			Nitrate 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.945 < 1.10					
		Message	Nitrate Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.945 > 0.894					
		Message	Nitrate Standard Passed					
		Action	Continue					
WTR091221-28	1	S2	0.938	11.6	12/21/2009@11:00:24			Nitrite 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.938 < 1.10					
		Message	Nitrite Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.938 > 0.894					
		Message	Nitrite Standard Passed					
		Action	Continue					
1202000059|934820|MB	1	1	0.00813	0.0820	12/21/2009@11:02:45			
1202000066|LCS	1	2	0.961	11.9	12/21/2009@11:03:58			
243085001	1	3	0.00740	0.0729	12/21/2009@11:05:11		5.00	
1202000060|DUP	1	4	0.0106	0.113	12/21/2009@11:06:24		5.00	
1202000063|PS	1	5	0.977	12.1	12/21/2009@11:07:37		5.00	

243104001	1	6	0.133	1.63	12/21/2009@11:08:49		5.00	
1202000061||DUP	1	7	0.126	1.55	12/21/2009@11:10:02		5.00	
1202000064||PS	1	8	1.12	13.9	12/21/2009@11:11:15		5.00	
243108001	1	9	0.00833	0.0845	12/21/2009@11:12:27		5.00	
243108002	1	10	-0.00322	-0.0587	12/21/2009@11:13:39		5.00	
WTR091221-25 CCV	1	S10	0.971	12.0	12/21/2009@11:14:51			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.971 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.971 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-3.13e-4	-0.0227	12/21/2009@11:17:13			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-3.13e-4 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-3.13e-4 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
243188001	1	11	0.167	2.05	12/21/2009@11:19:33		50.00	
1202000062||DUP	1	12	0.161	1.98	12/21/2009@11:20:45		50.00	
1202000065||PS	1	13	1.11	13.8	12/21/2009@11:21:57		50.00	
243253001	1	23	0.156	1.92	12/21/2009@11:23:10		25.00	
1202000921||DUP	1	24	0.195	2.40	12/21/2009@11:24:21		25.00	
1202000922||PS	1	25	1.17	14.5	12/21/2009@11:25:34		25.00	
243223004	1	14	0.233	2.86	12/21/2009@11:26:45		25.00	
243223005	1	15	0.329	4.06	12/21/2009@11:27:57		50.00	
243223007	1	16	0.255	3.15	12/21/2009@11:29:10		50.00	
243223008	1	17	0.385	4.75	12/21/2009@11:30:23		50.00	
WTR091221-25 CCV	1	S10	0.998	12.4	12/21/2009@11:31:36			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.998 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.998 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	0.00235	0.0103	12/21/2009@11:33:57			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.00235 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.00235 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
243223009	1	18	0.324	4.00	12/21/2009@11:36:19		25.00	
243223010	1	19	0.161	1.98	12/21/2009@11:37:32		50.00	
243242001	1	20	0.00861	0.0880	12/21/2009@11:38:44		5.00	
243242002	1	21	0.0122	0.133	12/21/2009@11:39:56		5.00	
243251001	1	22	0.0176	0.200	12/21/2009@11:41:09		5.00	
243255002	1	26	0.00811	0.0818	12/21/2009@11:42:21		5.00	
243255003	1	27	0.0395	0.470	12/21/2009@11:43:33		5.00	
243255005	1	28	0.0374	0.445	12/21/2009@11:44:46		5.00	
243257001	1	29	0.0511	0.614	12/21/2009@11:45:57		5.00	
243257006	1	30	0.101	1.24	12/21/2009@11:47:09		5.00	
WTR091221-25 CCV	1	S10	1.00	12.4	12/21/2009@11:48:21			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								

		Result:	1.00 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.00 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-8.40e-4	-0.0292	12/21/2009@11:50:43			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-8.40e-4 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-8.40e-4 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202001088|935263|MB	1	31	0.00932	0.0967	12/21/2009@11:53:04			
1202001091||LCS	1	32	0.963	11.9	12/21/2009@11:54:18			
243285002	1	33	0.118	1.44	12/21/2009@11:55:30		5.00	
1202001089||DUP	1	34	0.116	1.42	12/21/2009@11:56:43		5.00	
1202001090||PS	1	35	1.13	14.0	12/21/2009@11:57:56		5.00	
243286001	1	36	0.0115	0.124	12/21/2009@11:59:09		5.00	
243286004	1	37	0.00926	0.0960	12/21/2009@12:00:21		5.00	
WTR091221-25 CCV	1	S10	0.972	12.0	12/21/2009@12:02:41			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.972 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.972 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-5.57e-4	-0.0257	12/21/2009@12:05:03			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-5.57e-4 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-5.57e-4 > -0.0500					
		Message	CCB Passed					
		Action	Continue					

Author: lachat

Date : 12/21/2009

Channel 1 (NO3 + NO2) : Current View

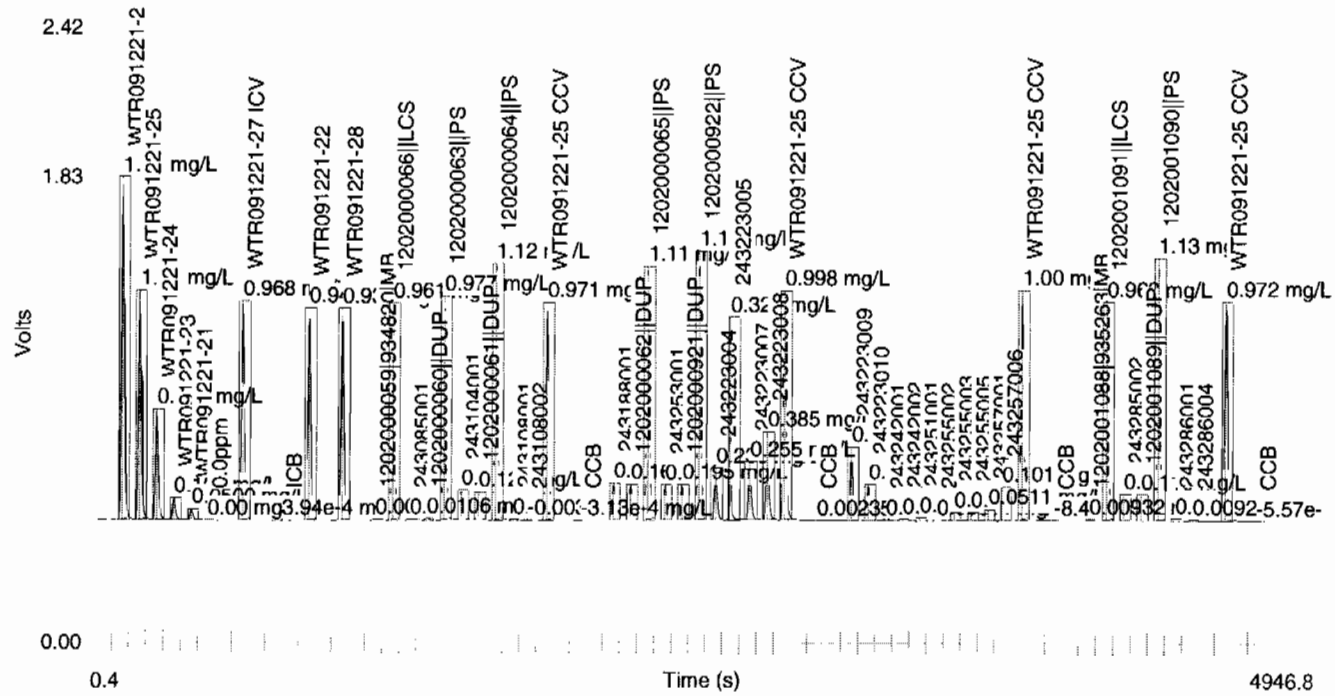

Table 1: NO3 + NO2

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	1.50	1	18.6	1.34	0.0	12/21/2009	10:46:15
2	1.00	1	12.4	0.897	-0.3	12/21/2009	10:47:27
3	0.500	1	6.12	0.439	1.0	12/21/2009	10:48:40
4	0.100	1	1.24	0.0880	-1.8	12/21/2009	10:49:53
5	0.0500	1	0.628	0.0452	-4.5	12/21/2009	10:51:06
6	0.00	1	-0.0353	-0.00131		12/21/2009	10:52:20

Figure 1: NO3 + NO2

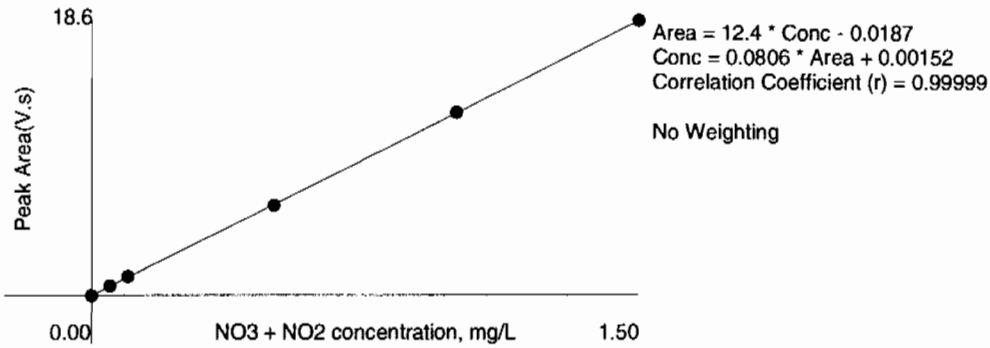

Solids, Total Dissolved

Batch: 934796.0
Analyst:SDS

TDS/TS/VS LogBook

Procedure Code BALDSEP_L
Procedure Description EPA 160.1 Solids, Dissolved
Lab Sop GL-GC-E-001

Sample Type	Sample Id	Lot Id	Nc(mg/L)	Recovery(%)
LCS	1202000008	WTD1230904-01	300	97.667

Sample Type	Sample Id	Rpd(%)
DUP	1202000007	2.1817309997602
DUP	1202000899	2.1978021978022
DUP	1202000900	5.1282051282051

Sample Id	Sample Type	Original Hsn	Instrument	Run Date	Crucible ID	Aliquot (L)	Crucible Wt(g)	Final Wt Event 1	Final Wt Event 2	Final Wt Event 3	Final Wt Event 4	Result	Units
1202000006	MB		BAL216	21-DEC-2009 11:22	S9	0.1	56.381	56.381	56.381			0	mg/L
1202000008	LCS		BAL216	21-DEC-2009 11:22	S6	0.1	59.4462	59.4755	59.4755			293	mg/L
242734005	SAMPLE		BAL216	21-DEC-2009 11:22	WET	0.1	51.0361	51.861	51.8612			8251	mg/L
1202000007	DUP	242734005	BAL216	21-DEC-2009 11:22	ACE	0.1	57.3581	58.2015	58.2014			8433	mg/L
242734006	SAMPLE		BAL216	21-DEC-2009 11:22	COP	0.1	47.3362	48.1563	48.156			8198	mg/L
242734007	SAMPLE		BAL216	21-DEC-2009 11:22	JIG	0.1	50.9257	51.0197	51.0195			938	mg/L
242734008	SAMPLE		BAL216	21-DEC-2009 11:22	DOG	0.1	53.9244	53.9252	53.9251			7	mg/L
243104001	SAMPLE		BAL216	21-DEC-2009 11:22	G81	0.1	55.4802	55.4956	55.4955			153	mg/L
243253001	SAMPLE		BAL216	21-DEC-2009 11:22	WAX	0.1	51.9167	51.9213	51.9213			46	mg/L
1202000899	DUP	243253001	BAL216	21-DEC-2009 11:22	BEN	0.1	54.4407	54.4451	54.4452			45	mg/L
243255002	SAMPLE		BAL216	21-DEC-2009 11:22	RIO	0.1	49.5339	49.5528	49.5525			186	mg/L
243255003	SAMPLE		BAL216	21-DEC-2009 11:22	YAM	0.1	53.6641	53.6788	53.6783			142	mg/L
243255005	SAMPLE		BAL216	21-DEC-2009 11:22	PO	0.1	55.6061	55.6198	55.6195			134	mg/L
243257001	SAMPLE		BAL216	21-DEC-2009 11:22	JI	0.1	50.196	50.2095	50.2091			131	mg/L
243257006	SAMPLE		BAL216	21-DEC-2009 11:22	420	0.1	55.8046	55.8181	55.8179			133	mg/L
1202000900	DUP	243257006	BAL216	21-DEC-2009 11:22	2	0.1	53.331	53.345	53.345			140	mg/L
243285002	SAMPLE		BAL216	21-DEC-2009 11:22	789	0.1	62.9186	62.9336	62.9331			145	mg/L
243286001	SAMPLE		BAL216	21-DEC-2009 11:22	J6	0.1	51.5932	51.6301	51.6299			367	mg/L
243286004	SAMPLE		BAL216	21-DEC-2009 11:22	OAK	0.1	47.1171	47.1535	47.153			359	mg/L

Comments: **All Weights are in Grams**

A) Result = (Final - Crucible)/Aliquot * 1000

B) Prep Factor = 0.5 / Aliquot

Date: 22-DEC-09 07:44:52 C
Date: 21-DEC-09 12:14:52
Temperature: 104 C
Temperature: 180 C

Note: Aliquot is used for the determination of the effective MDL and PQL in LIMS

Specific Conductivity

Analytical Logbook

Conductivity and Salinity

Batch ID: 934738.0
Analyst: Lindsey Allen
Method: EPA 120.1
Lab SOP: GL-GC-E-009 REV# 9
Instrument: Orion 160 Conductivity Meter

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
CCV	240	Conductivity LCS	WCO091117-06	25	mL
LCS	1201999866	Conductivity LCS	WCO091117-06	25	mL

Sample ID	Run Date	Dilution	Temperature (C)	Conductivity Result (umhos/cm)
1201999866 LCS	18-DEC-2009 15:43:05	1	24.6	1396
242934002	18-DEC-2009 15:43:06	1	23.9	611
242936002	18-DEC-2009 15:43:07	1	23.9	106.7
1201999864 DUP (242936002)	18-DEC-2009 15:43:08	1	25.1	111
243009001	18-DEC-2009 15:43:09	1	24.8	135
CCV	18-DEC-2009 15:43:10	1	25.5	1395
243009003	18-DEC-2009 15:43:19	1	25.5	136.5
243014002	18-DEC-2009 15:43:20	1	25.3	106.9
243067005	18-DEC-2009 15:43:21	1	25.4	5890
1201999865 DUP (243067005)	18-DEC-2009 15:43:22	1	24.9	5820
243067006	18-DEC-2009 15:43:23	1	24.8	5650
CCV	18-DEC-2009 15:43:24	1	24.6	1384
243067007	18-DEC-2009 15:43:25	1	24.9	1687
243067008	18-DEC-2009 15:43:26	1	25.3	1.51
243104001	18-DEC-2009 15:43:27	1	24.8	170
CCV	18-DEC-2009 15:43:28	1	24.8	1393

Calibration Information:

Run Date: 18-DEC-09 09:24
Instrument: CON160
Analyst: LXAI

Standard	Observed	Theoretical		%Recovery
WCO091218-07	14.99	14.5	umhos/cm	103.38
WD091218-01	1343	1413	umhos/cm	95.046
WCO091218-04	1724	1900	umhos/cm	90.737
WCO091218-08	22600	24800	umhos/cm	91.129
WCO091218-01	240	250	umhos/cm	96
WCO091218-02	702	750	umhos/cm	93.6

Comments:

Total Phosphorus

Prep LogBook

Analyst: SXJ1 Verified by:_____

Batch: 934823

Lab SOP: GL-GC-E-071 REV# 10

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202000076	UTR1169166-01	.2	mL
MS	1202000074	UTR1169166-01	.2	mL
MS	1202000913	UTR1169166-01	.2	mL
MSD	1202000075	UTR1169166-01	.2	mL
MSD	1202000914	UTR1169166-01	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202000072		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
LCS	1202000076		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243104001		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
DUP	1202000073	243104001	EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
MS	1202000074	243104001	EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
MSD	1202000075	243104001	EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243223004		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	WASTE WATER
SAMPLE	243223008		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	WASTE WATER
SAMPLE	243255002		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
DUP	1202000912	243255002	EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
MS	1202000913	243255002	EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
MSD	1202000914	243255002	EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243255003		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243255005		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243257001		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243257006		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243278001		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	WASTE WATER
SAMPLE	243278004		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	WASTE WATER
SAMPLE	243285002		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243286001		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243286004		EPA 365.4 Prep	21-DEC-2009 10:15	< 2	20 mL	20 mL	1	GROUND WATER

Reagent/Solvent Lot ID	Amount	Description
1238215-C	4 mL	TKN/PO4 Digestion Solution

Comments

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
3.0 ppm Std.		1	axh3	12/22/2009 9:01:35	OM_12-22-2009_09-00-47
1.0 ppm Std.		1	axh3	12/22/2009 9:02:24	OM_12-22-2009_09-00-47
0.5 ppm Std		1	axh3	12/22/2009 9:03:13	OM_12-22-2009_09-00-47
0.1 ppm Std		1	axh3	12/22/2009 9:04:03	OM_12-22-2009_09-00-47
0.05 ppm Std		1	axh3	12/22/2009 9:04:55	OM_12-22-2009_09-00-47
ICAL-00		1	axh3	12/22/2009 9:05:46	OM_12-22-2009_09-00-47
ICV		1	axh3	12/22/2009 9:07:51	OM_12-22-2009_09-00-47
ICB		1	axh3	12/22/2009 9:09:57	OM_12-22-2009_09-00-47
1201998895	934274	1	axh3	12/22/2009 9:12:00	OM_12-22-2009_09-00-47
1201998899	934274	1	axh3	12/22/2009 9:12:52	OM_12-22-2009_09-00-47
243009001	934274	1	axh3	12/22/2009 9:13:42	OM_12-22-2009_09-00-47
1201998896	934274	1	axh3	12/22/2009 9:14:33	OM_12-22-2009_09-00-47
1201998897	934274	1	axh3	12/22/2009 9:15:23	OM_12-22-2009_09-00-47
1201998898	934274	1	axh3	12/22/2009 9:16:13	OM_12-22-2009_09-00-47
243063001	934274	1	axh3	12/22/2009 9:17:03	OM_12-22-2009_09-00-47
243089001	934274	1	axh3	12/22/2009 9:17:52	OM_12-22-2009_09-00-47
243009003	934274	1	axh3	12/22/2009 9:18:41	OM_12-22-2009_09-00-47
243014002	934274	1	axh3	12/22/2009 9:19:30	OM_12-22-2009_09-00-47
CCV		1	axh3	12/22/2009 9:20:19	OM_12-22-2009_09-00-47
CCB		1	axh3	12/22/2009 9:22:23	OM_12-22-2009_09-00-47
1202000072*	934824	1	axh3	12/22/2009 9:24:26	OM_12-22-2009_09-00-47
1202000076*	934824	1	axh3	12/22/2009 9:25:14	OM_12-22-2009_09-00-47
243223004*	934824	1	axh3	12/22/2009 9:26:04	OM_12-22-2009_09-00-47
243223008*	934824	1	axh3	12/22/2009 9:26:55	OM_12-22-2009_09-00-47
1202000072	934824	1	axh3	12/22/2009 9:27:45	OM_12-22-2009_09-00-47
1202000076	934824	1	axh3	12/22/2009 9:28:33	OM_12-22-2009_09-00-47
243223004	934824	25	axh3	12/22/2009 9:29:23	OM_12-22-2009_09-00-47
243223008	934824	1	axh3	12/22/2009 9:30:14	OM_12-22-2009_09-00-47
243104001	934824	1	axh3	12/22/2009 9:31:03	OM_12-22-2009_09-00-47
1202000073	934824	1	axh3	12/22/2009 9:31:51	OM_12-22-2009_09-00-47
CCV		1	axh3	12/22/2009 9:32:39	OM_12-22-2009_09-00-47
CCB		1	axh3	12/22/2009 9:34:44	OM_12-22-2009_09-00-47
1202000074*	934824	1	axh3	12/22/2009 9:36:46	OM_12-22-2009_09-00-47
1202000075*	934824	1	axh3	12/22/2009 9:37:35	OM_12-22-2009_09-00-47
243255002*	934824	1	axh3	12/22/2009 9:38:26	OM_12-22-2009_09-00-47
1202000912*	934824	1	axh3	12/22/2009 9:39:16	OM_12-22-2009_09-00-47
1202000913*	934824	1	axh3	12/22/2009 9:40:07	OM_12-22-2009_09-00-47
1202000914*	934824	1	axh3	12/22/2009 9:40:57	OM_12-22-2009_09-00-47
243255003*	934824	1	axh3	12/22/2009 9:41:46	OM_12-22-2009_09-00-47
243255005*	934824	1	axh3	12/22/2009 9:42:36	OM_12-22-2009_09-00-47
243257001*	934824	1	axh3	12/22/2009 9:43:24	OM_12-22-2009_09-00-47

Author: axh3 Date : 12/22/2009

Original Run Filename: OM_12-22-2009_09-00-47.OMN created 12/22/2009 9:00:47
Original Run Author's Signature: [axh3]
Current Run Filename: OM_12-22-2009_09-00-47.OMN last modified 12/22/2009 9:45:00
Current Run Author's Signature: [axh3]
Description: Total Phosphorous EPA Method 365.4 GEL SOP: GL-GC-E-103
Detection Wavelength: 880nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TLPOS Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR091222-13	1	S2	3.000	14.559	12/22/2009@9:01:35			3.0 ppm Std.
WTR091222-14	1	S3	1.000	5.296	12/22/2009@9:02:24			1.0 ppm Std.
WTR091222-15	1	S4	0.500	2.443	12/22/2009@9:03:13			0.5 ppm Std
WTR091222-16	1	S5	0.100	0.453	12/22/2009@9:04:03			0.1 ppm Std
WTR091222-17	1	S6	0.050	0.201	12/22/2009@9:04:55			0.05 ppm Std
WTR091222-19 0.0	1	S7	0.000	0.049	12/22/2009@9:05:46			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99947 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR091222-18 ICV	1	S8	1.032	5.085	12/22/2009@9:07:51			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.032 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.032 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR091222-19 ICB	1	S7	-0.019	-0.036	12/22/2009@9:09:57			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.019 < 0.050					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.019 > -0.050					
		Message	ICB Passed					
		Action	Continue					
1201998895|934274|MB	1	1	0.030	0.200	12/22/2009@9:12:00			
1201998899|LCS	1	2	1.049	5.170	12/22/2009@9:12:52			
243009001	1	3	0.035	0.227	12/22/2009@9:13:42			
1201998896|DUP	1	4	0.051	0.305	12/22/2009@9:14:33			
1201998897|MS	1	5	1.063	5.238	12/22/2009@9:15:23			
1201998898|MSD	1	6	1.102	5.430	12/22/2009@9:16:13			
243063001	1	9	0.060	0.348	12/22/2009@9:17:03			
243089001	1	10	1.044	5.145	12/22/2009@9:17:52			
243009003	1	7	0.033	0.218	12/22/2009@9:18:41			
243014002	1	8	0.026	0.181	12/22/2009@9:19:30			
WTR091222-14 CCV	1	S3	1.071	5.278	12/22/2009@9:20:19			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.071 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.071 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-19 CCB	1	S7	-2.194e-4	0.055	12/22/2009@9:22:23			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-2.194e-4 < 0.050					

		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.194e-4 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1202000072|934824|MB	1	11	0.036	0.232	12/22/2009@9:24:26			
1202000076||LCS	1	12	0.524	2.608	12/22/2009@9:25:14			
243223004	1	17	23.374	113.996	12/22/2009@9:26:04			
243223008	1	18	0.601	2.986	12/22/2009@9:26:55			
1202000072|934824|MB	1	11	0.036	0.229	12/22/2009@9:27:45			
1202000076||LCS	1	12	1.054	5.194	12/22/2009@9:28:33			
243223004	1	17	0.948	4.679	12/22/2009@9:29:23		25.00	
243223008	1	18	0.523	2.607	12/22/2009@9:30:14			
243104001	1	13	0.069	0.391	12/22/2009@9:31:03			
1202000073||DUP	1	14	0.082	0.454	12/22/2009@9:31:51			
WTR091222-14 CCV	1	S3	1.053	5.187	12/22/2009@9:32:39			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.053 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.053 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-19 CCB	1	S7	0.003	0.072	12/22/2009@9:34:44			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	0.003 < 0.050					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.003 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1202000074||MS	1	15	0.272	1.379	12/22/2009@9:36:46			
1202000075||MSD	1	16	0.613	3.046	12/22/2009@9:37:35			
243255002	1	19	-0.011	0.000	12/22/2009@9:38:26			
1202000912||DUP	1	20	-0.012	-3.426e-4	12/22/2009@9:39:16			
1202000913||MS	1	21	-0.011	-2.318e-5	12/22/2009@9:40:07			
1202000914||MSD	1	22	-0.011	-9.832e-8	12/22/2009@9:40:57			
243255003	1	23	-0.011	0.000	12/22/2009@9:41:46			
243255005	1	24	-0.011	1.536e-4	12/22/2009@9:42:36			
243257001	1	25	-0.012	-4.69e-4	12/22/2009@9:43:24			

Author: axh3 Date : 12/22/2009

Channel 1 (TLPOS) : Current View

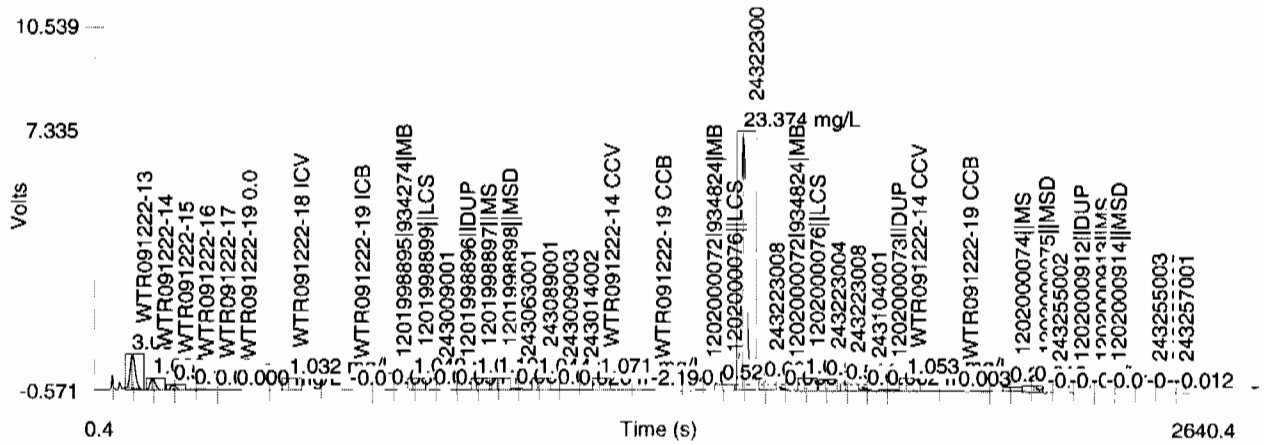

Table 1: TLPOS

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	3.000	1	14.559	1.017	0.7	12/22/2009	9:02:55
2	1.000	1	5.296	0.354	-7.5	12/22/2009	9:03:44
3	0.500	1	2.443	0.166	2.1	12/22/2009	9:04:33
4	0.100	1	0.453	0.033	17.1	12/22/2009	9:05:23
5	0.050	1	0.201	0.016	33.6	12/22/2009	9:06:15
6	0.000	1	0.049	0.005		12/22/2009	9:07:07

Figure 1: TLPOS

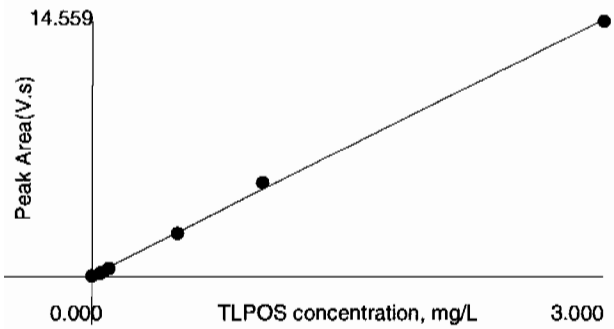

Area = 4.869 * Conc + 0.060
Conc = 0.205 * Area - 0.011
Correlation Coefficient (r) = 0.99947

No Weighting

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axh3	12/22/2009 10:38:26	OM_12-22-2009_10-36-58
CCB		1	axh3	12/22/2009 10:40:31	OM_12-22-2009_10-36-58
1202000074	934824	1	axh3	12/22/2009 10:42:33	OM_12-22-2009_10-36-58
1202000075	934824	1	axh3	12/22/2009 10:43:22	OM_12-22-2009_10-36-58
243255002	934824	1	axh3	12/22/2009 10:44:13	OM_12-22-2009_10-36-58
1202000912	934824	1	axh3	12/22/2009 10:45:04	OM_12-22-2009_10-36-58
1202000913	934824	1	axh3	12/22/2009 10:45:55	OM_12-22-2009_10-36-58
1202000914	934824	1	axh3	12/22/2009 10:46:45	OM_12-22-2009_10-36-58
243255003	934824	1	axh3	12/22/2009 10:47:34	OM_12-22-2009_10-36-58
243255005	934824	1	axh3	12/22/2009 10:48:24	OM_12-22-2009_10-36-58
243257001	934824	1	axh3	12/22/2009 10:49:13	OM_12-22-2009_10-36-58
243257006	934824	1	axh3	12/22/2009 10:50:02	OM_12-22-2009_10-36-58
CCV		1	axh3	12/22/2009 10:50:51	OM_12-22-2009_10-36-58
CCB		1	axh3	12/22/2009 10:52:55	OM_12-22-2009_10-36-58
243278001	934824	1	axh3	12/22/2009 10:54:57	OM_12-22-2009_10-36-58
243278004	934824	1	axh3	12/22/2009 10:55:46	OM_12-22-2009_10-36-58
243285002	934824	1	axh3	12/22/2009 10:56:34	OM_12-22-2009_10-36-58
243286001	934824	1	axh3	12/22/2009 10:57:22	OM_12-22-2009_10-36-58
243286004	934824	1	axh3	12/22/2009 10:58:12	OM_12-22-2009_10-36-58
CCV		1	axh3	12/22/2009 11:00:15	OM_12-22-2009_10-36-58
CCB		1	axh3	12/22/2009 11:02:19	OM_12-22-2009_10-36-58

Author: axh3 Date : 12/22/2009

Original Run Filename: OM_12-22-2009_10-36-58.OMN created 12/22/2009 10:36:58
Original Run Author's Signature: [axh3]
Current Run Filename: OM_12-22-2009_10-36-58.OMN last modified 12/22/2009 11:03:41
Current Run Author's Signature: [axh3]
Description: Total Phosphorous EPA Method 365.4 GEL SOP: GL-GC-E-103
Detection Wavelength: 880nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TLPOS Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR091222-14 CCV	1	S3	1.067	5.257	12/22/2009@10:38:26			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.067 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.067 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-19 CCB	1	S7	0.001	0.062	12/22/2009@10:40:31			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	0.001 < 0.050					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.001 > -0.050					
		Message	CCB Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
1202000074|934824|MS	1	15	0.443	2.214	12/22/2009@10:42:33			
1202000075||MSD	1	16	0.427	2.136	12/22/2009@10:43:22			
243255002	1	19	0.138	0.728	12/22/2009@10:44:13			
1202000912||DUP	1	20	0.090	0.496	12/22/2009@10:45:04			
1202000913||MS	1	21	1.172	5.767	12/22/2009@10:45:55			
1202000914||MSD	1	22	1.075	5.298	12/22/2009@10:46:45			
243255003	1	23	0.073	0.412	12/22/2009@10:47:34			
243255005	1	24	0.067	0.384	12/22/2009@10:48:24			
243257001	1	25	0.058	0.340	12/22/2009@10:49:13			
243257006	1	26	0.080	0.446	12/22/2009@10:50:02			
WTR091222-14 CCV	1	S3	1.066	5.251	12/22/2009@10:50:51			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.066 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.066 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-19 CCB	1	S7	0.002	0.064	12/22/2009@10:52:55			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	0.002 < 0.050					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.002 > -0.050					
		Message	CCB Passed					
		Action	Continue					
243278001	1	27	1.404	6.901	12/22/2009@10:54:57			
243278004	1	28	0.094	0.513	12/22/2009@10:55:46			
243285002	1	29	0.038	0.241	12/22/2009@10:56:34			

Author: axh3 Date : 12/22/2009

243286001	1	30	0.069	0.395	12/22/2009@10:57:22			
243286004	1	31	0.056	0.328	12/22/2009@10:58:12			
WTR091222-14 CCV	1	S3	1.056	5.201	12/22/2009@11:00:15			CCV
Known Conc:			1.000					
DQM Test: > + Concentration Limit								
Result:			1.056 < 1.104					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			1.056 > 0.895					
Message			CCV Passed					
Action			Continue					
WTR091222-19 CCB	1	S7	0.002	0.065	12/22/2009@11:02:19			CCB
Known Conc:			0.000					
DQM Test: > + Concentration Limit								
Result:			0.002 < 0.050					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.002 > -0.050					
Message			CCB Passed					
Action			Continue					

Channel 1 (TLPOS) : Current View

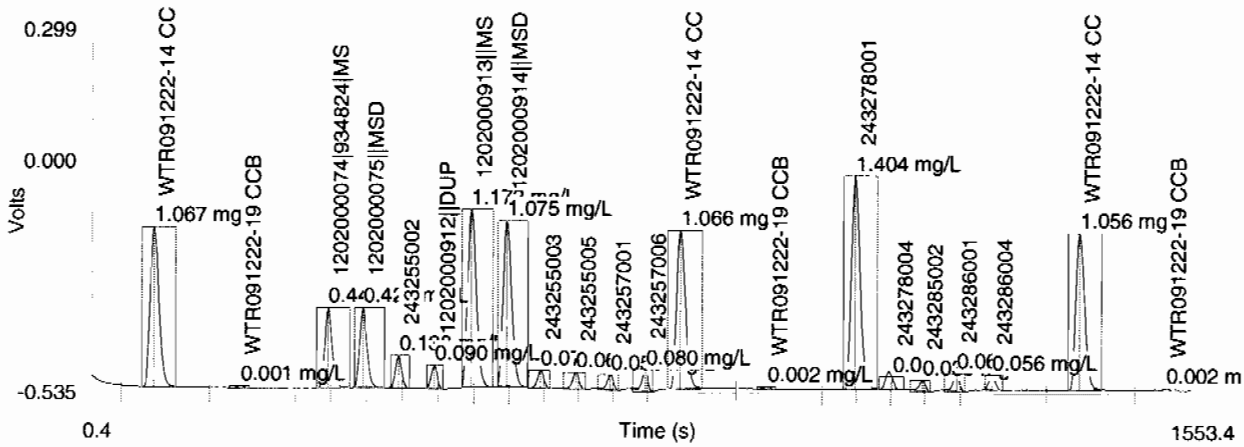

Table 1: TLPOS

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	3.000	1	14.559	1.017	0.7	12/22/2009	9:02:55
2	1.000	1	5.296	0.354	-7.5	12/22/2009	9:03:44
3	0.500	1	2.443	0.166	2.1	12/22/2009	9:04:33
4	0.100	1	0.453	0.033	17.1	12/22/2009	9:05:23
5	0.050	1	0.201	0.016	33.6	12/22/2009	9:06:15
6	0.000	1	0.049	0.005		12/22/2009	9:07:07

Author: axh3 Date : 12/22/2009

Figure 1: TLPOS

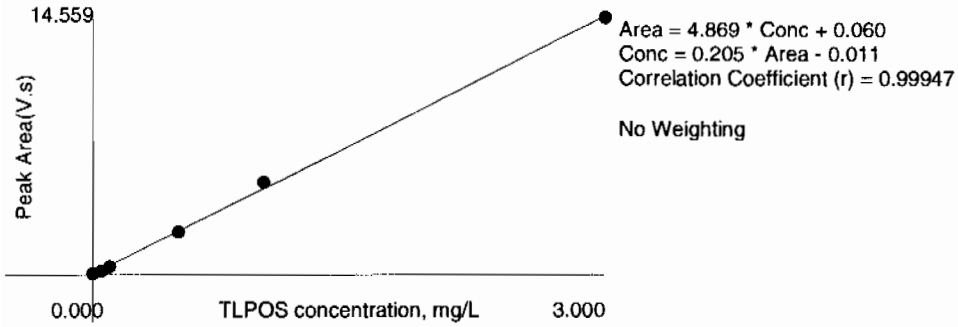

pH

pH / Corrosivity LogBook

Analyst: LXA1
Batch: 934772
Lab SOP: GL-GC-E-008 REV# 17
Description: pH
Method: SW846 9040C

Type	Sample Id	Serial Number	Description
CCV	240	IMM091029-PH	PH 7 BUFFER FOR PH
LCS	1201999942	IMM090728-01	LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parmname	Initial Wt()	Final Vol()	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
1201999942 LCS		Ground Water			18-DEC-09 12:51	pH			7.02	17.6'C	7	100.286	
1201999942 LCS		Ground Water			18-DEC-09 12:51	pH 2			7.02	17.6'C	7	100.286	
242779001		Misc Liquid			18-DEC-09 12:51	pH			6.66	12.0'C			
242779001		Misc Liquid			18-DEC-09 12:51	pH 2			6.66	12.0'C			
243104001		Ground Water			18-DEC-09 12:52	pH			8.16	14.9'C			
243104001		Ground Water			18-DEC-09 12:52	pH 2			8.16	15.0'C			
1201999943 DUP	243104001	Ground Water			18-DEC-09 13:02	pH			8.14	15.4'C			.245
1201999943 DUP	243104001	Ground Water			18-DEC-09 13:02	pH 2			8.14	15.4'C			.245
CCV					18-DEC-09 13:03	pH			7.03	16.9'C	7	100.429	
CCV					18-DEC-09 13:03	pH 2			7.03	16.9'C	7	100.429	

Calibration Information:
Run Date: 18-DEC-09 10:05
Instrument: PHX742
Analyst: LXA1

	Standard	Observed	Theoretical		C	%Recovery
10:05	IMM091218-PH1	4	4	SU	17.3	100
10:05	IMM091218-PH-	7	7	SU	17.3	100
10:05	UPH091218-a	10.05	10	SU	17.3	100.5
10:05	UPH091218-02c-	2	2	SU	17.3	100
10:05	091218-a	12.06	12	SU	17.3	100.5
10:05	IMM091218-a	7.04	7	SU	17.3	100.57

Comments:

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
22-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 365.4	Liquid	ECWS, ESHL, THRM
Batch ID:	**Sample Numbers:**		
934824	See Below		

Potentially affected work order(s)(SDG): 243104(10-953),243223,243255(10-973),243257(10-976),243278,243285(10-995),243286(10-998)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/MSD: QC 1202000074MS,1202000075MSD	1. The matrix spike was outside of the required acceptance limits due to matrix interference. The matrix spike duplicate verified the result with a passing RPD.

Originator's Name:

Aubrey Kingsbury 22-DEC-09

Data Validator/Group Leader:

Elzbieta Szulc 23-DEC-09

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-953
Work Order 243104

Method/Analysis Information

Product:	**Alphaspec Am241 Liquid**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Analytical Batch Number:	934662

Sample ID	Client ID
243104002	CAPA-10-6818
1201999710	Method Blank (MB)
1201999711	243104002(CAPA-10-6818) Sample Duplicate (DUP)
1201999712	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1201999710 (MB) and 1201999712 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243104002 (CAPA-10-6818). The QC was from LANL work order 243104.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec Pu, Liquid**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	934664

Sample ID	Client ID
243104002	CAPA-10-6818
1201999713	Method Blank (MB)
1201999714	243104002(CAPA-10-6818) Sample Duplicate (DUP)
1201999715	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1201999713 (MB) and 1201999715 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243104002 (CAPA-10-6818). The QC was from LANL work order 243104.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec U, Liquid**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Analytical Batch Number:	934665

Sample ID	Client ID
243104002	CAPA-10-6818
1201999716	Method Blank (MB)
1201999717	243104002(CAPA-10-6818) Sample Duplicate (DUP)
1201999718	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1201999716 (MB) and 1201999718 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243104002 (CAPA-10-6818). The QC was from LANL work order 243104.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Gammaspec, Gamma, Liquid**
Analytical Method:	EPA 901.1
Analytical Batch Number:	935338

Sample ID	Client ID
243104002	CAPA-10-6818
1202001366	Method Blank (MB)
1202001367	243286002(CAPA-10-6390) Sample Duplicate (DUP)
1202001368	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in January 2009, February 2009, March 2009 and November 2009.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 243286002 (CAPA-10-6390). The QC was from LANL work order 243286.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result for gross gamma is greater than 1.65 times the CSU but less than the MDC. 1202001366 (MB).

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result for gross gamma is greater than the decision level but less than the MDC. 1202001366 (MB).

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Gross A/B, liquid**
Analytical Method:	EPA 900.0
Analytical Batch Number:	935330

Sample ID	Client ID
243104002	CAPA-10-6818
1202001335	Method Blank (MB)
1202001336	243255001(CAPA-10-6093) Sample Duplicate (DUP)
1202001337	243255001(CAPA-10-6093) Matrix Spike (MS)
1202001338	243255001(CAPA-10-6093) Matrix Spike Duplicate (MSD)
1202001339	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in

accordance with GL-RAD-A-001 REV# 12.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in July 2009. The discrimination settings are calibrated in beta discriminating mode to reduce beta to alpha crosstalk.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202001335 (MB) and 1202001339 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243255001 (CAPA-10-6093). The QC was from LANL work order 243255.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 243104002 (CAPA-10-6818) was recounted due to high beta MDA. Samples 243104002 (CAPA-10-6818) was recounted due to high alpha MDA.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Gross Alpha/Beta Preparation Information
High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating, especially to a dull red heat. For this sample set, the prepared planchet was counted for beta activity before being flamed. After flaming, the planchet was counted for alpha activity.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Sr90, liquid**
Analytical Method:	EPA 905.0 Modified
Analytical Batch Number:	937917

Sample ID	Client ID
243104002	CAPA-10-6818
1202007051	Method Blank (MB)
1202007052	243255004(CAPA-10-6753) Sample Duplicate (DUP)
1202007053	243255004(CAPA-10-6753) Matrix Spike (MS)
1202007054	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in January 2009.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202007051 (MB) and 1202007054 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 243255004 (CAPA-10-6753). The QC was from LANL work order 243255.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were reprepped due to high recovery.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: 1/8/10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-953 GEL Work Order: 243104

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: January 8, 2010

Client Sample ID: CAPA-10-6818
Sample ID: 243104002
Matrix: Ground Water
Collect Date: 15-DEC-09
Receive Date: 17-DEC-09
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
Alphaspec Am241 Liquid "As Received"												
Americium-241	U	0.000455	0.0303	+/-0.00166	0.050	pCi/L		JXD2	12/22/09	0813	934662	1
Alphaspec Pu, Liquid "As Received"												
Plutonium-238	U	0.00	0.029	+/-0.00198	0.050	pCi/L		JXD2	12/21/09	1713	934664	2
Plutonium-239/240	U	0.00395	0.0311	+/-0.0028	0.050	pCi/L						
Alphaspec U, Liquid "As Received"												
Uranium-234		0.553	0.0521	+/-0.048	1.00	pCi/L		JXD2	12/22/09	0932	934665	3
Uranium-235/236		0.0334	0.0273	+/-0.00841	1.00	pCi/L						
Uranium-238		0.245	0.0326	+/-0.0258	0.500	pCi/L						
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Liquid "As Received"												
Cesium-137	U	0.0657	3.40	+/-1.01	8.00	pCi/L		KXG3	12/30/09	1838	935338	4
Cobalt-60	U	-0.383	4.32	+/-1.33	8.00	pCi/L						
Gross Gamma	U	15.8	35.9	+/-29.2	120	pCi/L						
Neptunium-237	U	10.5	34.6	+/-10.3	10.0	pCi/L						
Potassium-40	U	-7.23	55.6	+/-15.8	10.0	pCi/L						
Sodium-22	U	2.46	5.01	+/-1.49	10.0	pCi/L						
Rad Gas Flow Proportional Counting												
GFPC, Gross A/B, liquid "As Received"												
Beta	U	0.438	2.37	+/-0.660	3.00	pCi/L		DXB5	12/28/09	1555	935330	5
Alpha	U	-0.124	2.70	+/-0.587	3.00	pCi/L		DXB5	12/29/09	1615	935330	6
GFPC, Sr90, liquid "As Received"												
Strontium-90	U	-0.291	0.439	+/-0.111	0.500	pCi/L		MXB1	01/07/10	2002	937917	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	EPA 901.1
5	EPA 900.0
6	EPA 900.0

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: January 8, 2010

Client Sample ID: CAPA-10-6818 Project: ESHL01000
Sample ID: 243104002 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
7	EPA 905.0 Modified											
8	EPA 905.0 Modified											

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	Alphaspec Am241 Liquid "As Rec	87.9	(50%-105%)
Plutonium-242 Tracer	Alphaspec Pu, Liquid "As Receive	76.0	(50%-105%)
Uranium-232 Tracer	Alphaspec U, Liquid "As Received	93.9	(50%-105%)
Strontium Carrier	GFPC, Sr90, liquid "As Received"	77.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: January 8, 2010

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 243104

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 934662										
QC1201999711 243104002 DUP										
Americium-241	U	0.000455	U	0.00249	pCi/L	0.270		(0-1)	JXD2	12/22/0908:13
TPU:		+/-0.00166		+/-0.00211						
Yield:		87.9		85.6						
QC1201999712 LCS										
Americium-241	2.84			2.67	pCi/L		94	(75%-125%)		12/22/0908:13
TPU:				+/-0.165						
Yield:				98.0						
QC1201999710 MB										
Americium-241			U	0.00445	pCi/L					12/22/0908:13
TPU:				+/-0.00311						
Yield:				90.1						
Batch 934664										
QC1201999714 243104002 DUP										
Plutonium-238	U	0.00	U	0.00	pCi/L	0.00		(0-1)	JXD2	12/21/0917:13
TPU:		+/-0.00198		+/-0.00204						
Yield:		76.0		71.6						
Plutonium-239/240	U	0.00395	U	0.00407	pCi/L	0.0111		(0-1)		
TPU:		+/-0.0028		+/-0.00289						
Yield:		76.0		71.6						
QC1201999715 LCS										
Plutonium-238			U	0.00726	pCi/L			(75%-125%)		12/21/0917:13
TPU:				+/-0.00386						
Yield:				82.6						
Plutonium-239/240	2.27			2.20	pCi/L		96.9	(75%-125%)		
TPU:				+/-0.124						
Yield:				82.6						
QC1201999713 MB										
Plutonium-238			U	0.00	pCi/L					12/21/0917:13
TPU:				+/-0.0015						
Yield:				80.8						
Plutonium-239/240			U	0.00	pCi/L					
TPU:				+/-0.0015						
Yield:				80.8						

QC Summary

Workorder: 243104

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 934665										
QC1201999717 243104002 DUP										
Uranium-234		0.553		0.614	pCi/L	0.303		(0-1)	JXD2	12/22/0909:32
	TPU:	+/-0.048		+/-0.0524						
	Yield:	93.9		90.6						
Uranium-235/236		0.0334	U	0.024	pCi/L	0.291		(0-1)		
	TPU:	+/-0.00841		+/-0.00766						
	Yield:	93.9		90.6						
Uranium-238		0.245		0.235	pCi/L	0.0969		(0-1)		
	TPU:	+/-0.0258		+/-0.0252						
	Yield:	93.9		90.6						
QC1201999718 LCS										
Uranium-234				2.31	pCi/L			(75%-125%)		12/22/0909:32
	TPU:			+/-0.166						
	Yield:			95.1						
Uranium-235/236				0.148	pCi/L			(75%-125%)		
	TPU:			+/-0.0184						
	Yield:			95.1						
Uranium-238	2.52			2.57	pCi/L		102	(75%-125%)		
	TPU:			+/-0.185						
	Yield:			95.1						
QC1201999716 MB										
Uranium-234			U	-0.000689	pCi/L					12/22/0909:32
	TPU:			+/-0.00537						
	Yield:			86.1						
Uranium-235/236			U	-0.00337	pCi/L					
	TPU:			+/-0.00337						
	Yield:			86.1						
Uranium-238			U	0.00409	pCi/L					
	TPU:			+/-0.00492						
	Yield:			86.1						
Rad Gamma Spec										
Batch 935338										
QC1202001367 243286002 DUP										
Cesium-137	U	1.09	U	-0.601	pCi/L	0.349		(0-1)	KXG3	12/30/0922:43
	TPU:	+/-1.37		+/-1.05						
Cobalt-60	U	-1.33	U	-2.42	pCi/L	0.229		(0-1)		
	TPU:	+/-1.32		+/-1.06						

QC Summary

Workorder: 243104

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 935338										
Gross Gamma	U	52.5		51.3	pCi/L	0.00695		(0-1)		
	TPU:	+/-65.5		+/-22.2						
Neptunium-237	U	20.1	U	3.30	pCi/L	0.509		(0-1)		
	TPU:	+/-9.79		+/-6.69						
Potassium-40	U	26.5	U	11.4	pCi/L	0.249		(0-1)		
	TPU:	+/-17.3		+/-13.2						
Sodium-22	U	0.305	U	-0.109	pCi/L	0.097		(0-1)		
	TPU:	+/-1.37		+/-0.765						
QC1202001368 LCS										
Americium-241	1240			1410	pCi/L		114	(75%-125%)		12/30/0922:03
	TPU:			+/-102						
Cesium-137	433			457	pCi/L		105	(75%-125%)		
	TPU:			+/-20.5						
Cobalt-60	506			563	pCi/L		111	(75%-125%)		
	TPU:			+/-29.5						
Gross Gamma	2180			2100	pCi/L		96.4	(75%-125%)		
	TPU:			+/-338						
Neptunium-237				894	pCi/L					
	TPU:			+/-116						
Potassium-40			U	-35	pCi/L					
	TPU:			+/-33.8						
Sodium-22			U	-5.47	pCi/L					
	TPU:			+/-3.07						
QC1202001366 MB										
Cesium-137			U	-0.306	pCi/L					12/30/0922:43
	TPU:			+/-0.750						
Cobalt-60			U	-0.572	pCi/L					
	TPU:			+/-0.829						
Gross Gamma				3.91	pCi/L					
	TPU:			+/-1.27						
Neptunium-237			U	-3.64	pCi/L					
	TPU:			+/-6.64						
Potassium-40			U	2.88	pCi/L					

QC Summary

Workorder: 243104

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 935338										
	TPU:			+/-11.6						
Sodium-22			U	-0.202	pCi/L					
	TPU:			+/-0.840						
Rad Gas Flow										
Batch 935330										
QC1202001336 243255001 DUP										
Alpha	U	0.103	U	0.268	pCi/L	0.0652		(0-1)	DXB5	12/29/0912:25
	TPU:	+/-0.667		+/-0.599						
Beta		4.74		3.57	pCi/L	0.246		(0-1)		12/28/0910:24
	TPU:	+/-1.31		+/-1.09						
QC1202001339 LCS										
Alpha	12.6			12.9	pCi/L		102	(75%-125%)		12/29/0912:25
	TPU:			+/-1.50						
Beta	38.6			38.1	pCi/L		98.5	(75%-125%)		12/28/0912:00
	TPU:			+/-3.26						
QC1202001335 MB										
Alpha			U	-0.00812	pCi/L					12/29/0912:25
	TPU:			+/-0.0663						
Beta			U	0.0521	pCi/L					12/28/0910:24
	TPU:			+/-0.0986						
QC1202001337 243255001 MS										
Alpha	252 U	0.103		241	pCi/L		95.7	(75%-125%)		12/29/0912:25
	TPU:	+/-0.667		+/-28.4						
Beta	773	4.74		845	pCi/L		109	(75%-125%)		12/28/0910:24
	TPU:	+/-1.31		+/-73.9						
QC1202001338 243255001 MSD										
Alpha	252 U	0.103		202	pCi/L	0.368	80.3	(0-1)		12/29/0912:25
	TPU:	+/-0.667		+/-24.3						
Beta	773	4.74		856	pCi/L	0.0386	110	(0-1)		12/28/0912:00
	TPU:	+/-1.31		+/-73.1						
Batch 937917										
QC1202007052 243255004 DUP										
Strontium-90	U	0.0817	U	-0.129	pCi/L	0.414		(0-1)	MXB1	01/07/1020:05
	TPU:	+/-0.123		+/-0.131						
	Yield:	84.0		76.2						
QC1202007054 LCS										

QC Summary

Workorder: 243104

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 937917										
Strontium-90	19.3			20.0	pCi/L		104	(75%-125%)		
	TPU:			+/-1.72						
	Yield:			85.2						
QC1202007051 MB										
Strontium-90			U	0.0834	pCi/L					01/07/1020:01
	TPU:			+/-0.0623						
	Yield:			85.2						
QC1202007053 243255004 MS										
Strontium-90	129 U	0.0817		145	pCi/L		113	(75%-125%)		01/07/1020:01
	TPU:	+/-0.123		+/-12.4						
	Yield:	84.0		79.6						

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound

QC Summary

Workorder: **243104**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time

Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.

^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

d 5-day BOD--The 2:1 depletion requirement was not met for this sample

h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev 9

Batch# 9346162 Product: Am Date: 12/23/09

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initiated and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Denise Green 12/23/09

Secondary Review Performed By: Jack M. T. 12/23/09

1/15

LANL

P ✓

Am/Cm Que Sheet

21-DEC-09
recorded 12/21/09 gwo

Batch #: 934662 | Analyst: JXD2 | First Client Due Date: 15-JAN-10 | Internal Due Date: 04-JAN-10 | Comments:

Tracer(s): Am243/Cm244 | Tracer Code: 445-96-2-SS | Expiration Date: 05/11/10 | Vol: 0.1

LCS Isotope(s): Am241/Cm244 | LCS Code(s): 0533-0 / — | Expiration Date: 09/10/10 / — | Vol(s): 0.1 / —

Spike Isotope(s): Am241/Cm244 | Spike Code(s): — / — | Expiration Date: — / — | Vol(s): — / —

Prep Date: 12/18/09 | Initials: [illegible] | Pipet ID: 29710058 | Balance ID: 16750207 | Witness: —

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/ml)	Am/Cm Det #
243014001-1	CAPA-10-6784	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	14-DEC-09	1	1	0.800	230
243104002-1	CAPA-10-6818	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	15-DEC-09	2	2	0.800	231
1201999710-1	MB for batch 934662	MB		.05 pCi/L	GROUND WATER	QC ACCOUNT		3	3	1	232
1201999711-1	CAPA-10-6818(243104002DUP)	DUP		.05 pCi/L	GROUND WATER	QC ACCOUNT	15-DEC-09	4	4	0.800	228
1201999712-1	LCS for batch 934662	LCS		.05 pCi/L	GROUND WATER	QC ACCOUNT		5	5	1	229

Choose SOP Used: GL-RAD-A-011 / GL-RAD-A-036

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) NA

Data Reviewed By: [illegible] 12/23/09

GEL Laboratories LLC, Radiochemistry Division

Page 1 of 1

JDM 12/23/09

Blank Correction Report

Batch ID 934662

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1201999711	DUP	Americium-241	0.800 L	0.00249	0.00211	0.0326	.0055625	pCi/L	YES
1201999712	LCS	Americium-241	1.00 L	2.67	0.165	0.0225	.00445	pCi/L	NO
1201999710	MB	Americium-241	1.00 L	0.00445	0.00311	0.0246	.00445	pCi/L	YES
243014001	CAPA-10-6784	Americium-241	0.800 L	0.0039	0.00258	0.0309	.0055625	pCi/L	YES
243104002	CAPA-10-6818	Americium-241	0.800 L	0.000455	0.00166	0.0303	.0055625	pCi/L	YES

JOM 12/23/09

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934662
SAMPLE DATE : 15-DEC-2009 00:00:00

SAMPLE ID : S0243104002_AM
SAMPLE QTY: 0.800 L

DETECTOR NUMBER :79424
AVERAGE %EFFICIENCY :38.7306
% YIELD : 87.922

COUNT DATE:22-DEC-2009 08:13:57
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 0533-O	ID : 0533-O	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B231.CNF;62
PCI/L : 3.553E+00	PCI/L : 3.553E+00	NOMINAL : 2.91660 dpm	BKG DATE : 20-DEC-2009
		RESULTS : 2.56434 dpm	EFF FILE : W231.CNF;22
			CAL DATE : 30-NOV-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
CM-3/4	5795.020	1.000	1.000	0.000	4.7860	100.0000	1.65E-03	1.66E-03	1.84E-02	4.13E-02	1.65E-03
CM-5/6	5386.000	21.000	21.000	0.000	20.9467	86.09000	4.03E-02	9.11E-03	9.36E-02	1.92E-01	8.80E-03
AM-241	5479.150	2.000	0.275	0.000	3.3482	99.94000	4.55E-04	1.66E-03	1.29E-02	3.03E-02	1.65E-03
CM-242	6102.000	0.000	0.000	0.000	3.7246	100.0000	0.00E+00	1.71E-03	1.43E-02	3.31E-02	1.71E-03
AM243	5270.000	992.000	991.000	1.000	1.0000	99.78000	1.64E+00	1.09E-01	3.86E-03	1.22E-02	5.22E-02
CM-247	4946.000	7.000	6.000	1.000	31.0273	79.30000	1.25E-02	5.94E-03	1.51E-01	3.07E-01	5.90E-03
CM-248	5078.600	19.000	19.000	0.000	52.5527	91.00000	3.45E-02	8.17E-03	2.22E-01	4.49E-01	7.92E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

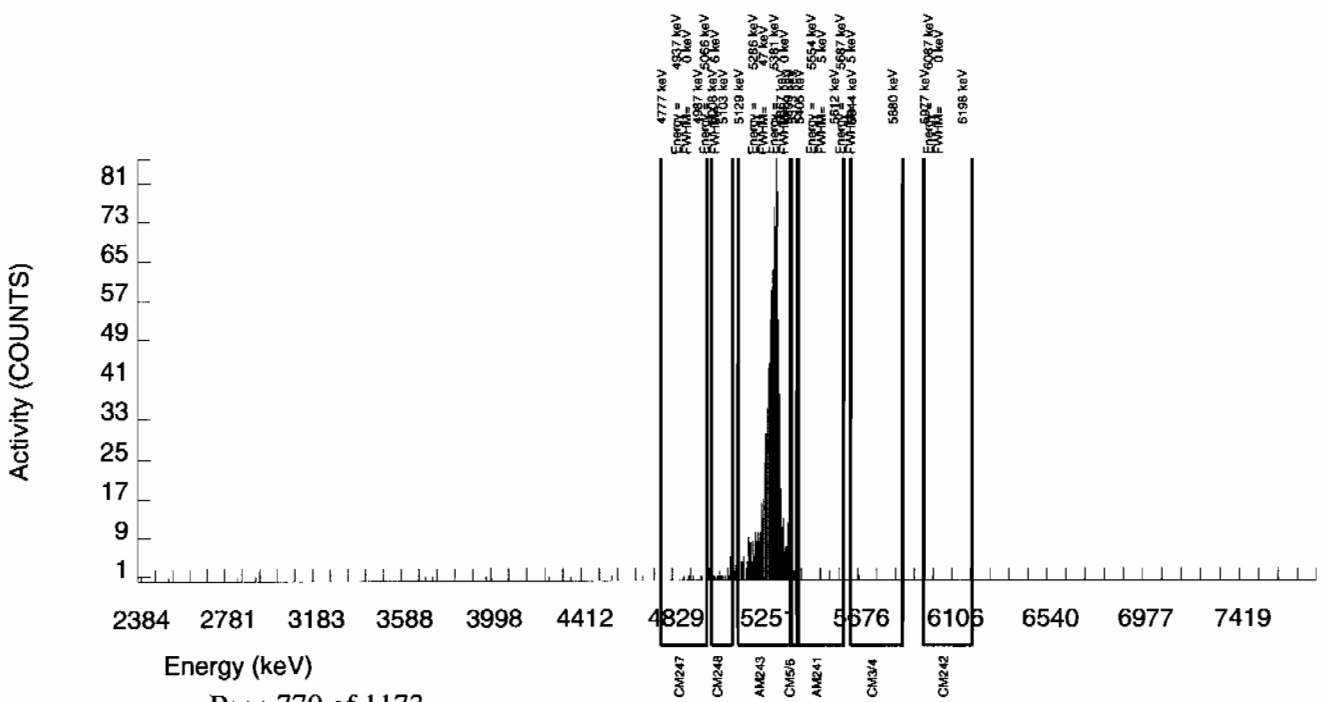

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934662
SAMPLE DATE : 18-DEC-2009 00:00:00

SAMPLE ID : S1201999710_AM
SAMPLE QTY: 1.000 L

DETECTOR NUMBER :79425
AVERAGE %EFFICIENCY :37.1457
% YIELD : 90.101

COUNT DATE:22-DEC-2009 08:13:59
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 0533-O	ID : 0533-O	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B232.CNF;64
PCI/L : 2.842E+00	PCI/L : 2.842E+00	NOMINAL : 2.91660 dpm	BKG DATE : 20-DEC-2009
		RESULTS : 2.62789 dpm	EFF FILE : W232.CNF;22
			CAL DATE : 30-NOV-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
CM-3/4	5795.020	0.000	0.000	0.000	4.7860	100.0000	0.00E+00	1.35E-03	1.50E-02	3.36E-02	1.35E-03
CM-5/6	5386.000	23.000	23.000	0.000	20.9467	86.09000	3.60E-02	7.79E-03	7.62E-02	1.57E-01	7.50E-03
AM-241	5479.150	6.000	3.305	1.000	3.3482	99.94000	4.45E-03	3.11E-03	1.05E-02	2.46E-02	3.10E-03
CM-242	6102.000	0.000	0.000	0.000	3.7246	100.0000	0.00E+00	1.38E-03	1.17E-02	2.70E-02	1.37E-03
AM243	5270.000	974.000	974.000	0.000	0.0000	99.78000	1.31E+00	8.77E-02	0.00E+00	3.66E-03	4.21E-02
CM-247	4946.000	7.000	7.000	0.000	31.0273	79.30000	1.19E-02	4.54E-03	1.23E-01	2.50E-01	4.49E-03
CM-248	5078.600	11.000	11.000	0.000	52.5527	91.00000	1.63E-02	5.00E-03	1.81E-01	3.66E-01	4.91E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

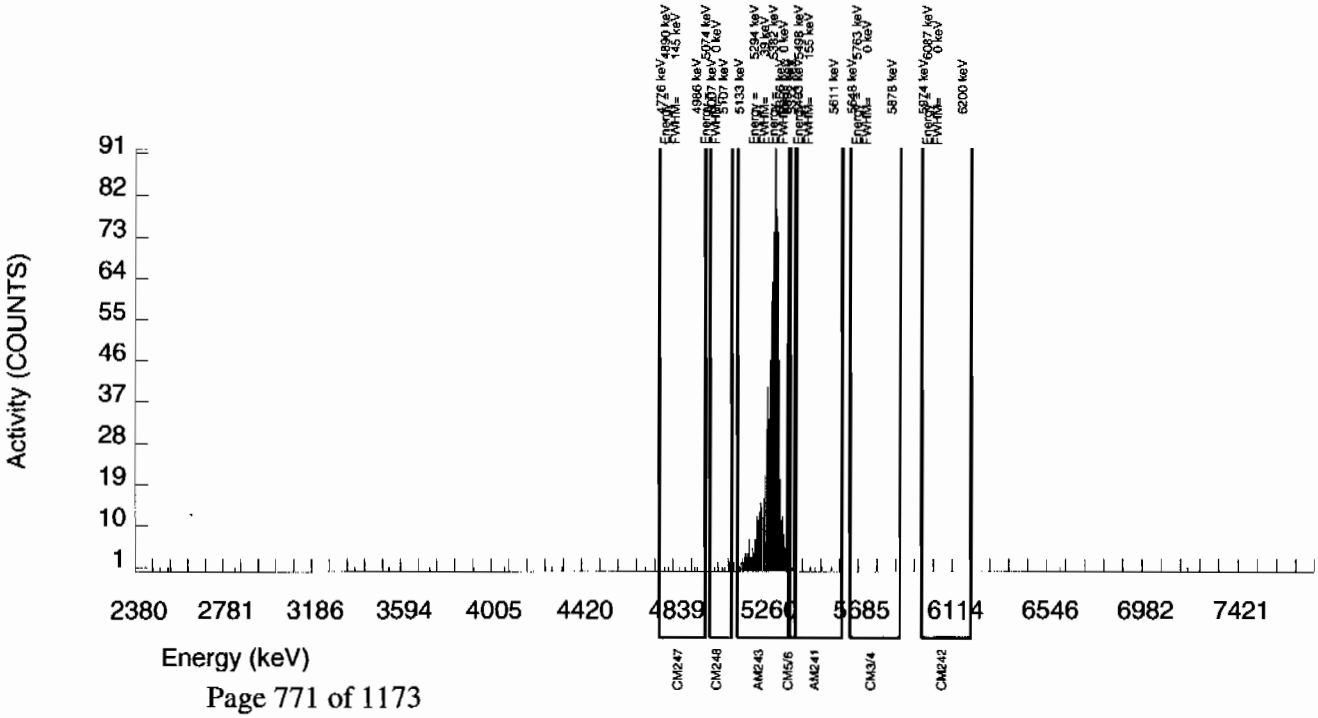

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934662
SAMPLE DATE : 15-DEC-2009 00:00:00

SAMPLE ID : S1201999711_AM
SAMPLE QTY: 0.800 L

DETECTOR NUMBER :79421
AVERAGE %EFFICIENCY :36.9895
% YIELD : 85.558

COUNT DATE:22-DEC-2009 08:13:49
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 0533-O	ID : 0533-O	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B228.CNF;62
PCI/L : 3.553E+00	PCI/L : 3.553E+00	NOMINAL : 2.91660 dpm	BKG DATE : 20-DEC-2009
		RESULTS : 2.49539 dpm	EFF FILE : W228.CNF;22
			CAL DATE : 30-NOV-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
CM-3/4	5795.020	2.000	1.000	1.000	4.7860	100.0000	1.78E-03	3.09E-03	1.98E-02	4.44E-02	3.08E-03
CM-5/6	5386.000	13.000	13.000	0.000	20.9467	86.09000	2.69E-02	7.62E-03	1.01E-01	2.07E-01	7.45E-03
AM-241	5479.150	3.000	1.397	0.000	3.3482	99.94000	2.49E-03	2.11E-03	1.39E-02	3.26E-02	2.10E-03
CM-242	6102.000	0.000	0.000	0.000	3.7246	100.0000	0.00E+00	1.84E-03	1.54E-02	3.57E-02	1.84E-03
AM243	5270.000	922.000	921.000	1.000	1.0000	99.78000	1.64E+00	1.11E-01	4.15E-03	1.31E-02	5.42E-02
CM-247	4946.000	4.000	4.000	0.000	31.0273	79.30000	8.97E-03	4.52E-03	1.62E-01	3.30E-01	4.49E-03
CM-248	5078.600	18.000	17.000	1.000	52.5527	91.00000	3.32E-02	8.75E-03	2.39E-01	4.83E-01	8.52E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

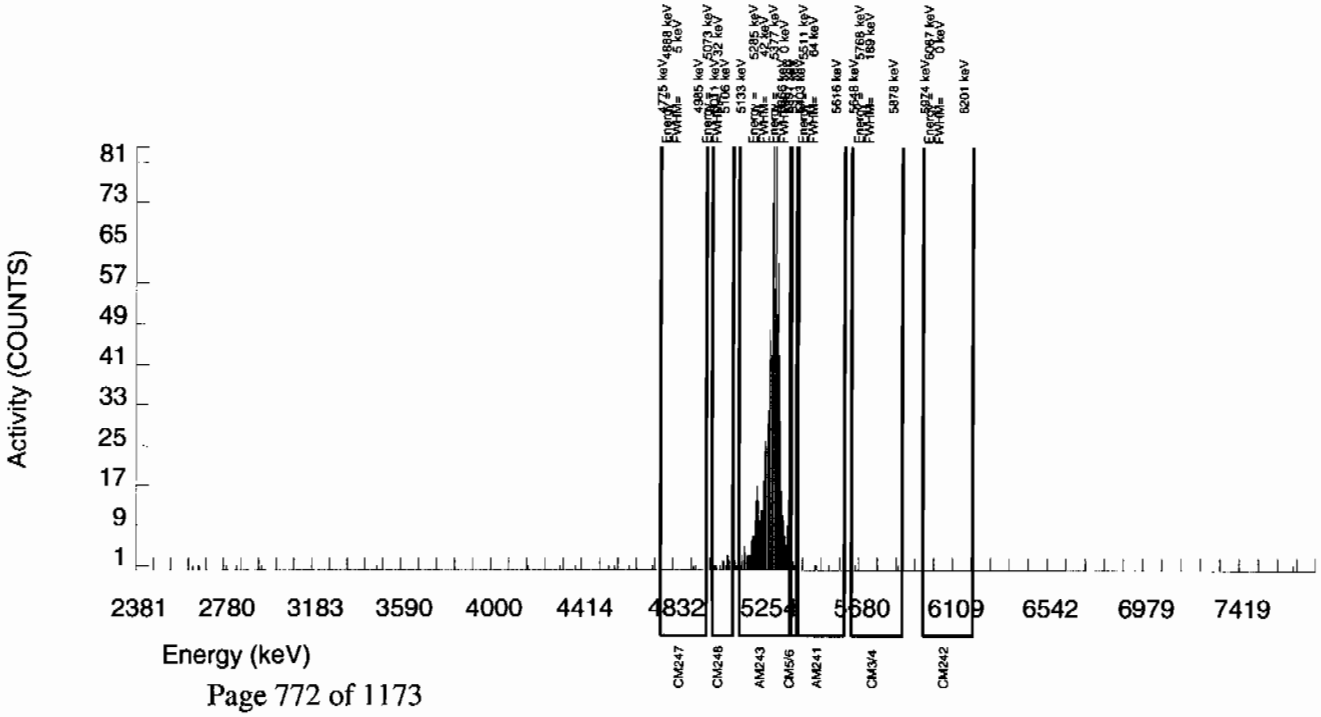

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934662
SAMPLE DATE : 18-DEC-2009 00:00:00

SAMPLE ID : S1201999712_AM
SAMPLE QTY: 1.000 L

DETECTOR NUMBER :79422
AVERAGE %EFFICIENCY :37.4233
% YIELD : 97.972

COUNT DATE:22-DEC-2009 08:13:52
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 0533-O	ID : 0533-O	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B229.CNF;62
PCI/L : 2.842E+00	PCI/L : 2.842E+00	NOMINAL : 2.91660 dpm	BKG DATE : 20-DEC-2009
		RESULTS : 2.85745 dpm	EFF FILE : W229.CNF;22
			CAL DATE : 30-NOV-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
CM-3/4	5795.020	2.000	1.000	1.000	4.7860	100.0000	1.23E-03	2.13E-03	1.37E-02	3.07E-02	2.13E-03
CM-5/6	5386.000	56.000	56.000	0.000	20.9467	86.09000	7.99E-02	1.16E-02	6.95E-02	1.43E-01	1.07E-02
AM-241	5479.150	2175.000	2173.143	0.000	3.3482	99.94000	2.67E+00	1.65E-01	9.58E-03	2.25E-02	5.73E-02
CM-242	6102.000	6.000	6.000	0.000	3.7246	100.0000	7.52E-03	3.10E-03	1.06E-02	2.46E-02	3.07E-03
AM243	5270.000	1067.000	1067.000	0.000	0.0000	99.78000	1.31E+00	8.59E-02	0.00E+00	3.34E-03	4.02E-02
CM-247	4946.000	14.000	14.000	0.000	31.0273	79.30000	2.17E-02	5.93E-03	1.12E-01	2.28E-01	5.80E-03
CM-248	5078.600	18.000	17.000	1.000	52.5527	91.00000	2.30E-02	6.03E-03	1.65E-01	3.34E-01	5.88E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

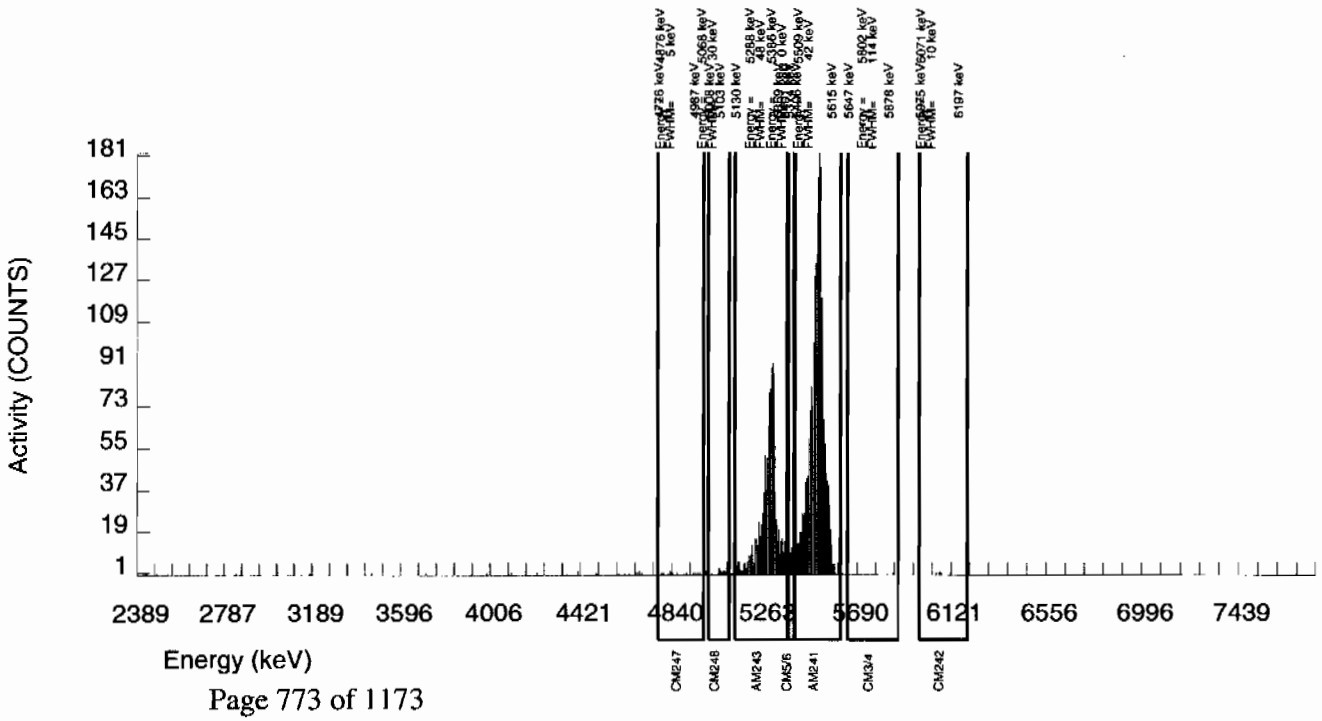

Radiochemistry Batch Checklist, Rev 9

Batch# 934664 Product: Pu Date: 12/22/09

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples. < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Denise Green 12/22/09

Secondary Review Performed By: Nfeatin BJ McCoy 12/22/09
for Kate Gellatly

1/15
LANL

P ✓

Plutonium Que Sheet

18-DEC-09

Batch #: 934664 Analyst: JXD2 First Client Due Date: 15-JAN-10 Internal Due Date: 04-JAN-10

Tracer Isotope(s): Pu-242/Pu-238 Tracer Code: 1374-A Expiration Date: 12/09/10 Vol: 0.1

LCS Isotope(s): Pu-239/Pu-238 LCS Code: 0338-BB Expiration Date: 06/23/10 Vol: 0.1

Spike Isotope(s): Pu-239/Pu-238 Spike Code: — Expiration Date: — Vol: —

Prep Date: 12/18/09 Initials: JXD Pipet ID: 287058 Balance ID: 16750207 Witness: ME 12/18/9

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Pu Det #
243014001-1	CAPA-10-6784	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	14-DEC-09	1	1	0.800	242
243104002-1	CAPA-10-6818	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	15-DEC-09	2	2	0.800	243
1201999713-1	MB for batch 934664	MB		.05 pCi/L	GROUND WATE	QC ACCOUNT		3	3	1	244
1201999714-1	CAPA-10-6818(243104002DUP)	DUP		.05 pCi/L	GROUND WATE	QC ACCOUNT	15-DEC-09	4	4	0.800	245
1201999715-1	LCS for batch 934664	LCS		.05 pCi/L	GROUND WATE	QC ACCOUNT		5	5	1	246

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH ~~or DIGESTION~~ NA
Circle One

Data Reviewed By: 12/22/09

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 934664

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1201999714	DUP	Plutonium-238	0.800 L	0.00	0.00204	0.0299	0	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00407	0.00289	0.0321	0	pCi/L	NO
1201999715	LCS	Plutonium-238	1.00 L	0.00726	0.00386	0.0213	0	pCi/L	NO
		Plutonium-239/240	1.00 L	2.20	0.124	0.0229	0	pCi/L	NO
1201999713	MB	Plutonium-238	1.00 L	0.00	0.0015	0.022	0	pCi/L	NO
		Plutonium-239/240	1.00 L	0.00	0.0015	0.0236	0	pCi/L	NO
243014001	CAPA-10-6784	Plutonium-238	0.800 L	0.00	0.00192	0.0281	0	pCi/L	NO
		Plutonium-239/240	0.800 L	-0.00192	0.00271	0.0302	0	pCi/L	YES
243104002	CAPA-10-6818	Plutonium-238	0.800 L	0.00	0.00198	0.029	0	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00395	0.0028	0.0311	0	pCi/L	NO

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934664
SAMPLE DATE : 15-DEC-2009 00:00:00

SAMPLE ID : S0243104002_PU
SAMPLE QTY: 0.800 L

DETECTOR NUMBER :79436
AVERAGE %EFFICIENCY :37.5846
% YIELD : 75.998

COUNT DATE:21-DEC-2009 17:13:48
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 0338-BB	ID : 0338-BB	ID : 1374-A	LIB FILE : ENV_ALPHA_PU.N
ISOTOPE : PU-9/0	ISOTOPE : PU-9/0	ISOTOPE : PU242	BKG FILE : B243.CNF;62
PCI/L : 2.836E+00	PCI/L : 2.836E+00	NOMINAL : 3.38543 dpm	BKG DATE : 20-DEC-2009
		RESULTS : 2.57286 dpm	EFF FILE : W243.CNF;22
			CAL DATE : 30-NOV-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-9/0	5155.000	2.000	2.000	0.000	2.8102	99.90000	3.95E-03	2.80E-03	1.29E-02	3.11E-02	2.79E-03
PU-236	5749.000	0.000	0.000	0.000	3.4259	100.0000	0.00E+00	1.98E-03	1.57E-02	3.68E-02	1.98E-03
PU-238	5499.000	0.000	0.000	0.000	2.5715	99.90000	0.00E+00	1.98E-03	1.18E-02	2.90E-02	1.97E-03
PU242	4890.000	967.000	967.000	0.000	0.0000	100.0000	1.91E+00	1.18E-01	0.00E+00	5.34E-03	6.13E-02
PU-244	4589.000	9.000	9.000	0.000	6.1055	99.90000	1.78E-02	5.99E-03	2.80E-02	6.14E-02	5.92E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

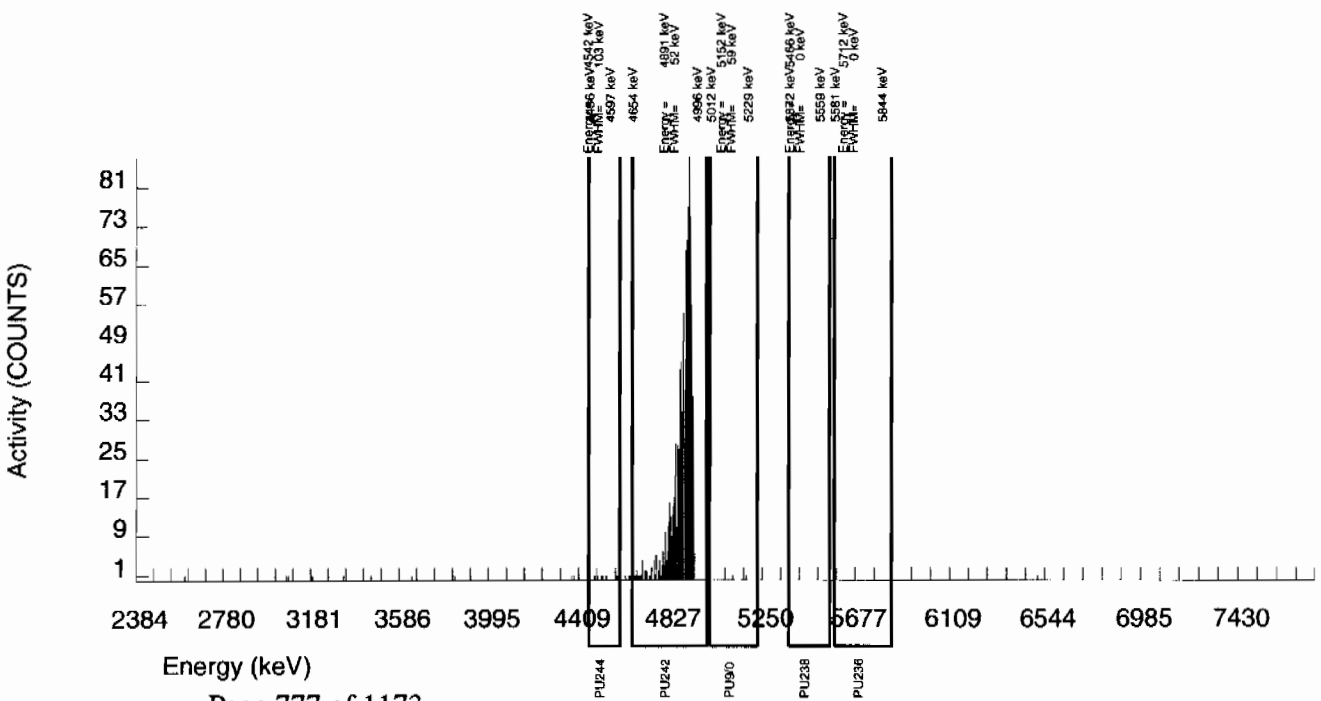

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934664
SAMPLE DATE : 18-DEC-2009 00:00:00

SAMPLE ID : S1201999713_PU
SAMPLE QTY: 1.000 L

DETECTOR NUMBER :79437
AVERAGE %EFFICIENCY :37.2676
% YIELD : 80.845

COUNT DATE:21-DEC-2009 17:13:51
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 0338-BB	ID : 0338-BB	ID : 1374-A	LIB FILE : ENV_ALPHA_PU.N
ISOTOPE : PU-9/0	ISOTOPE : PU-9/0	ISOTOPE : PU242	BKG FILE : B244.CNF;62
PCI/L : 2.269E+00	PCI/L : 2.269E+00	NOMINAL : 3.38543 dpm	BKG DATE : 20-DEC-2009
		RESULTS : 2.73696 dpm	EFF FILE : W244.CNF;22
			CAL DATE : 30-NOV-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-9/0	5155.000	0.000	0.000	0.000	2.8102	99.90000	0.00E+00	1.50E-03	9.78E-03	2.36E-02	1.50E-03
PU-236	5749.000	0.000	0.000	0.000	3.4259	100.0000	0.00E+00	1.50E-03	1.19E-02	2.79E-02	1.50E-03
PU-238	5499.000	0.000	0.000	0.000	2.5715	99.90000	0.00E+00	1.50E-03	8.95E-03	2.20E-02	1.50E-03
PU242	4890.000	1022.000	1020.000	2.000	1.4142	100.0000	1.52E+00	9.06E-02	4.92E-03	1.39E-02	4.78E-02
PU-244	4589.000	3.000	3.000	0.000	6.1055	99.90000	4.49E-03	2.60E-03	2.13E-02	4.66E-02	2.59E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

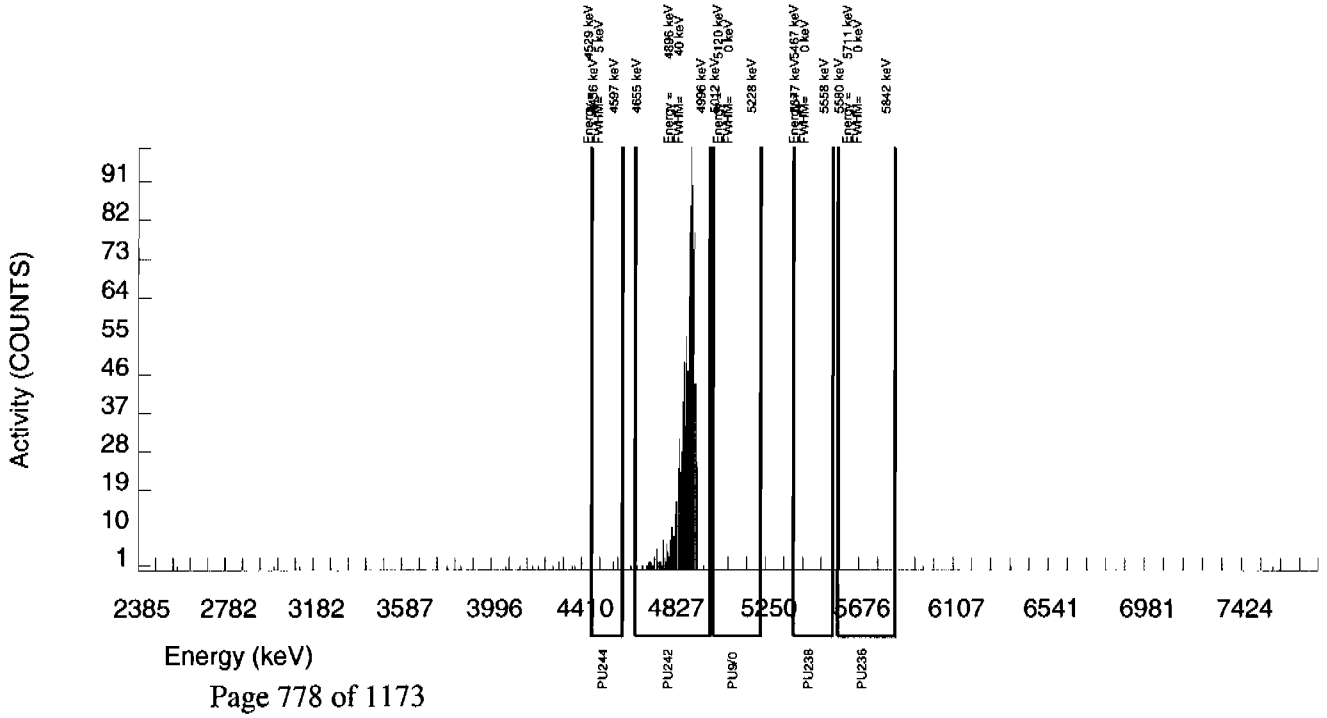

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934664
SAMPLE DATE : 15-DEC-2009 00:00:00

SAMPLE ID : S1201999714_PU
SAMPLE QTY: 0.800 L

DETECTOR NUMBER :79438
AVERAGE %EFFICIENCY :38.6648
% YIELD : 71.583

COUNT DATE:21-DEC-2009 17:13:53
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 0338-BB	ID : 0338-BB	ID : 1374-A	LIB FILE : ENV_ALPHA_PU.N
ISOTOPE : PU-9/0	ISOTOPE : PU-9/0	ISOTOPE : PU242	BKG FILE : B245.CNF;62
PCI/L : 2.836E+00	PCI/L : 2.836E+00	NOMINAL : 3.38543 dpm	BKG DATE : 20-DEC-2009
		RESULTS : 2.42339 dpm	EFF FILE : W245.CNF;23
			CAL DATE : 30-NOV-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-9/0	5155.000	2.000	2.000	0.000	2.8102	99.90000	4.07E-03	2.89E-03	1.33E-02	3.21E-02	2.88E-03
PU-236	5749.000	1.000	-1.000	2.000	3.4259	100.0000	-2.04E-03	3.54E-03	1.62E-02	3.79E-02	3.54E-03
PU-238	5499.000	0.000	0.000	0.000	2.5715	99.90000	0.00E+00	2.04E-03	1.22E-02	2.99E-02	2.04E-03
PU242	4890.000	939.000	937.000	2.000	1.4142	100.0000	1.91E+00	1.16E-01	6.69E-03	1.89E-02	6.24E-02
PU-244	4589.000	1.000	1.000	0.000	6.1055	99.90000	2.04E-03	2.04E-03	2.89E-02	6.34E-02	2.04E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

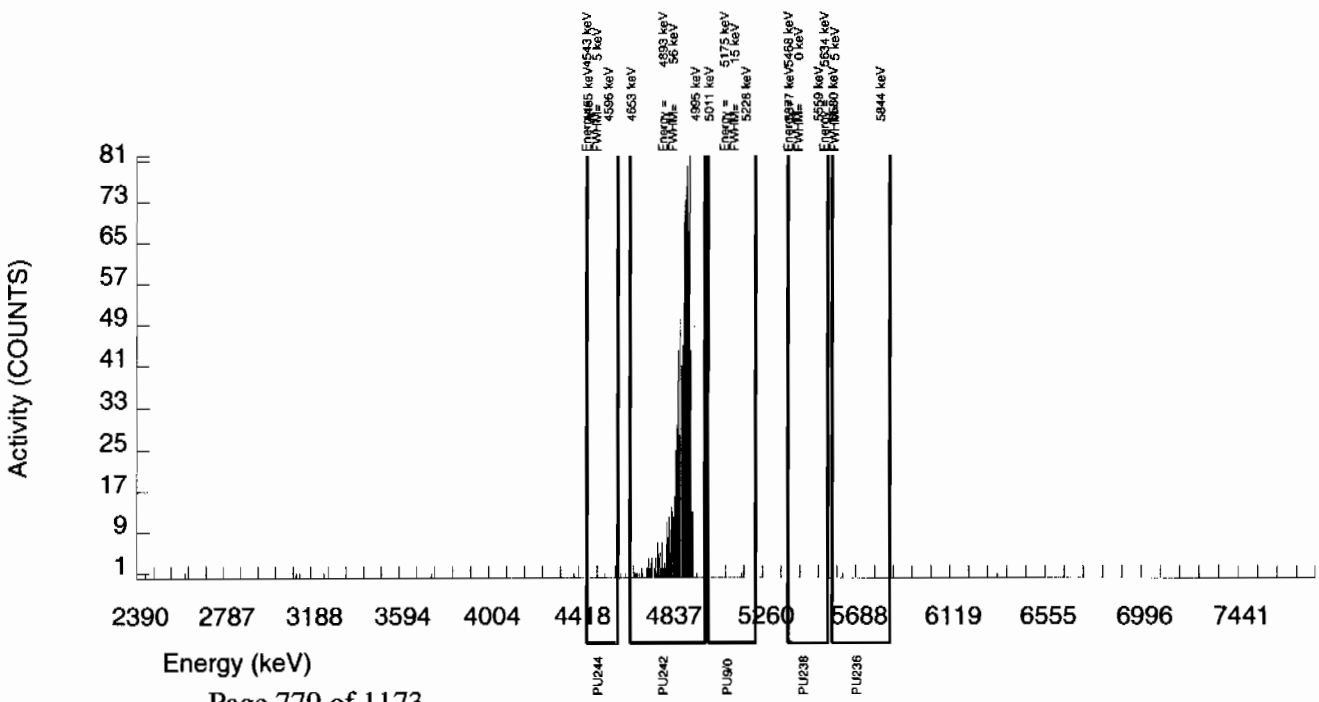

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934664
SAMPLE DATE : 18-DEC-2009 00:00:00

SAMPLE ID : S1201999715_PU
SAMPLE QTY: 1.000 L

DETECTOR NUMBER :78912
AVERAGE %EFFICIENCY :37.5961
% YIELD : 82.575

COUNT DATE:21-DEC-2009 17:13:56
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 0338-BB	ID : 0338-BB	ID : 1374-A	LIB FILE : ENV_ALPHA_PU.N
ISOTOPE : PU-9/0	ISOTOPE : PU-9/0	ISOTOPE : PU242	BKG FILE : B246.CNF;62
PCI/L : 2.269E+00	PCI/L : 2.269E+00	NOMINAL : 3.38543 dpm	BKG DATE : 20-DEC-2009
		RESULTS : 2.79550 dpm	EFF FILE : W246.CNF;24
			CAL DATE : 30-NOV-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-9/0	5155.000	1515.000	1514.000	1.000	2.8102	99.90000	2.20E+00	1.24E-01	9.50E-03	2.29E-02	5.66E-02
PU-236	5749.000	0.000	0.000	0.000	3.4259	100.0000	0.00E+00	1.46E-03	1.16E-02	2.71E-02	1.45E-03
PU-238	5499.000	6.000	5.000	1.000	2.5715	99.90000	7.26E-03	3.86E-03	8.69E-03	2.13E-02	3.84E-03
PU242	4890.000	1051.000	1051.000	0.000	0.0000	100.0000	1.52E+00	8.97E-02	0.00E+00	3.93E-03	4.70E-02
PU-244	4589.000	8.000	8.000	0.000	6.1055	99.90000	1.16E-02	4.15E-03	2.06E-02	4.52E-02	4.11E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

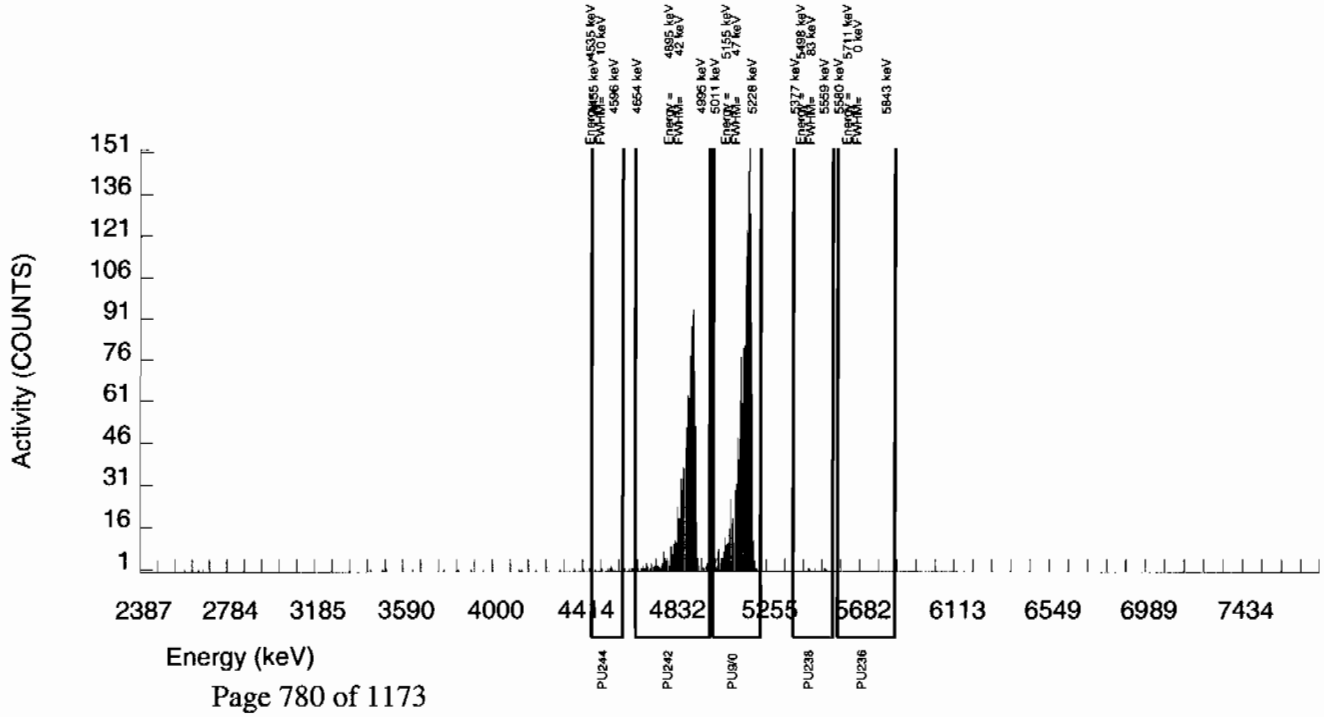

Radiochemistry Batch Checklist, Rev 9

Batch# 9346105 Product: U Date: 12/28/09

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples. < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed. If applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Denise Green 12/28/09

Secondary Review Performed By: JyLMr 12/23/09

1/15
LANL

Uranium Que Sheet

18-DEC-09

Batch #: 934665 Analyst: JXD2 First Client Due Date:15-JAN-10 Internal Due Date:04-JAN-10

Tracer Isotope: U-232/U-236 Tracer Code: 1283-H Expiration Date: 12/09/10 Vol: 0.1

LCS Isotope: U-238 LCS Code: 1163-G Expiration Date: 04/16/10 Vol: 0.1

Spike Isotope: U-238 Spike Code: — Expiration Date: — Vol: —

Prep Date: 12/18/09 Initials: JXD Pipet ID: 2971058 Balance ID: 16750207 Witness: MC 12/18/9

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/ml)	U Det #
243014001-1	CAPA-10-6784	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	14-DEC-09	1	1	0.800	168
243104002-1	CAPA-10-6818	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	15-DEC-09	2	2	0.800	169
1201999716-1	MB for batch 934665	MB		.5 pCi/L	GROUND WATER	QC ACCOUNT		3	3	1	171
1201999717-1	CAPA-10-6818(243104002DUP)	DUP		.5 pCi/L	GROUND WATER	QC ACCOUNT	15-DEC-09	4	4	0.800	172
1201999718-1	LCS for batch 934665	LCS		.5 pCi/L	GROUND WATER	QC ACCOUNT		5	5	1	170

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: ~~LEACH or DIGESTION~~ NA
Circle One

Data Reviewed By: 12/23/09

12/23/09

Blank Correction Report

Batch ID 934665

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1201999717	DUP	Uranium-233/234	0.800 L	0.614	0.0524	0.0531	-.00086125	pCi/L	NO
		Uranium-235/236	0.800 L	0.024	0.00766	0.0278	-.0042125	pCi/L	NO
		Uranium-238	0.800 L	0.235	0.0252	0.0332	.0051125	pCi/L	NO
1201999718	LCS	Uranium-233/234	1.00 L	2.31	0.166	0.0424	-.000689	pCi/L	NO
		Uranium-235/236	1.00 L	0.148	0.0184	0.0222	-.00337	pCi/L	NO
		Uranium-238	1.00 L	2.57	0.185	0.0265	.00409	pCi/L	NO
1201999716	MB	Uranium-233/234	1.00 L	-0.000689	0.00537	0.0448	-.000689	pCi/L	NO
		Uranium-235/236	1.00 L	-0.00337	0.00337	0.0234	-.00337	pCi/L	NO
		Uranium-238	1.00 L	0.00409	0.00492	0.028	.00409	pCi/L	YES
243014001	CAPA-10-6784	Uranium-233/234	0.800 L	0.374	0.0365	0.0577	-.00086125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0391	0.00961	0.0302	-.0042125	pCi/L	NO
		Uranium-238	0.800 L	0.297	0.0307	0.0361	.0051125	pCi/L	NO
243104002	CAPA-10-6818	Uranium-233/234	0.800 L	0.553	0.048	0.0521	-.00086125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0334	0.00841	0.0273	-.0042125	pCi/L	NO
		Uranium-238	0.800 L	0.245	0.0258	0.0326	.0051125	pCi/L	NO

JDM 12/23/09

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934665
SAMPLE DATE : 15-DEC-2009 00:00:00

SAMPLE ID : S0243104002_UU
SAMPLE QTY: 0.800 L

DETECTOR NUMBER :72548
AVERAGE %EFFICIENCY :37.7552
% YIELD : 93.892

COUNT DATE:22-DEC-2009 09:32:04
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 1163-G	ID : 1163-G	ID : 1283-H	LIB FILE : ENV_ALPHA_UU.N
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG FILE : B169.CNF;155
PCI/L : 3.149E+00	PCI/L : 3.149E+00	NOMINAL : 4.51164 dpm	BKG DATE : 20-DEC-2009
		RESULTS : 4.23608 dpm	EFF FILE : W169.CNF;62
			CAL DATE : 21-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U-3/4	4763.020	351.000	348.384	1.000	6.4732	100.0000	5.53E-01	4.80E-02	2.39E-02	5.21E-02	2.97E-02
U232	5302.100	1601.000	1599.000	2.000	1.4142	100.0000	2.54E+00	1.84E-01	5.23E-03	1.48E-02	6.36E-02
U-235	4391.000	17.000	17.000	0.000	2.4030	80.90000	3.34E-02	8.41E-03	1.10E-02	2.73E-02	8.10E-03
U-238	4184.730	154.000	154.000	0.000	3.8252	100.0000	2.45E-01	2.58E-02	1.41E-02	3.26E-02	1.97E-02

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

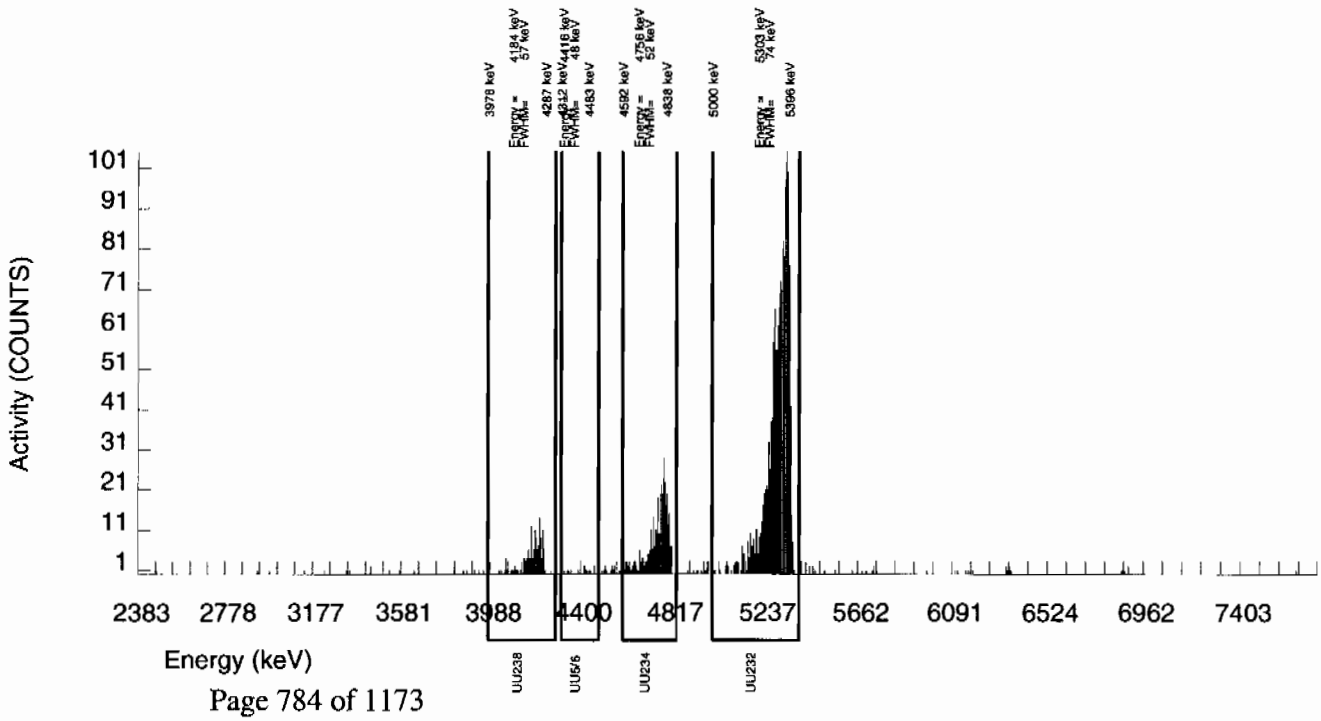

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934665
SAMPLE DATE : 18-DEC-2009 00:00:00

SAMPLE ID : S1201999716_UU
SAMPLE QTY: 1.000 L

DETECTOR NUMBER :78260
AVERAGE %EFFICIENCY :38.3524
% YIELD : 86.130

COUNT DATE:22-DEC-2009 09:32:09
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 1163-G	ID : 1163-G	ID : 1283-H	LIB FILE : ENV_ALPHA_UU.N
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG FILE : B171.CNF;159
PCI/L : 2.519E+00	PCI/L : 2.519E+00	NOMINAL : 4.51126 dpm	BKG DATE : 20-DEC-2009
		RESULTS : 3.88553 dpm	EFF FILE : W171.CNF;69
			CAL DATE : 21-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U-3/4	4763.020	9.000	-0.506	8.000	6.4732	100.0000	-6.89E-04	5.37E-03	2.05E-02	4.48E-02	5.37E-03
U232	5302.100	1499.000	1490.000	9.000	3.0000	100.0000	2.03E+00	1.49E-01	9.52E-03	2.27E-02	5.30E-02
U-235	4391.000	1.000	-2.000	3.000	2.4030	80.90000	-3.37E-03	3.37E-03	9.42E-03	2.34E-02	3.37E-03
U-238	4184.730	8.000	3.000	5.000	3.8252	100.0000	4.09E-03	4.92E-03	1.21E-02	2.80E-02	4.92E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

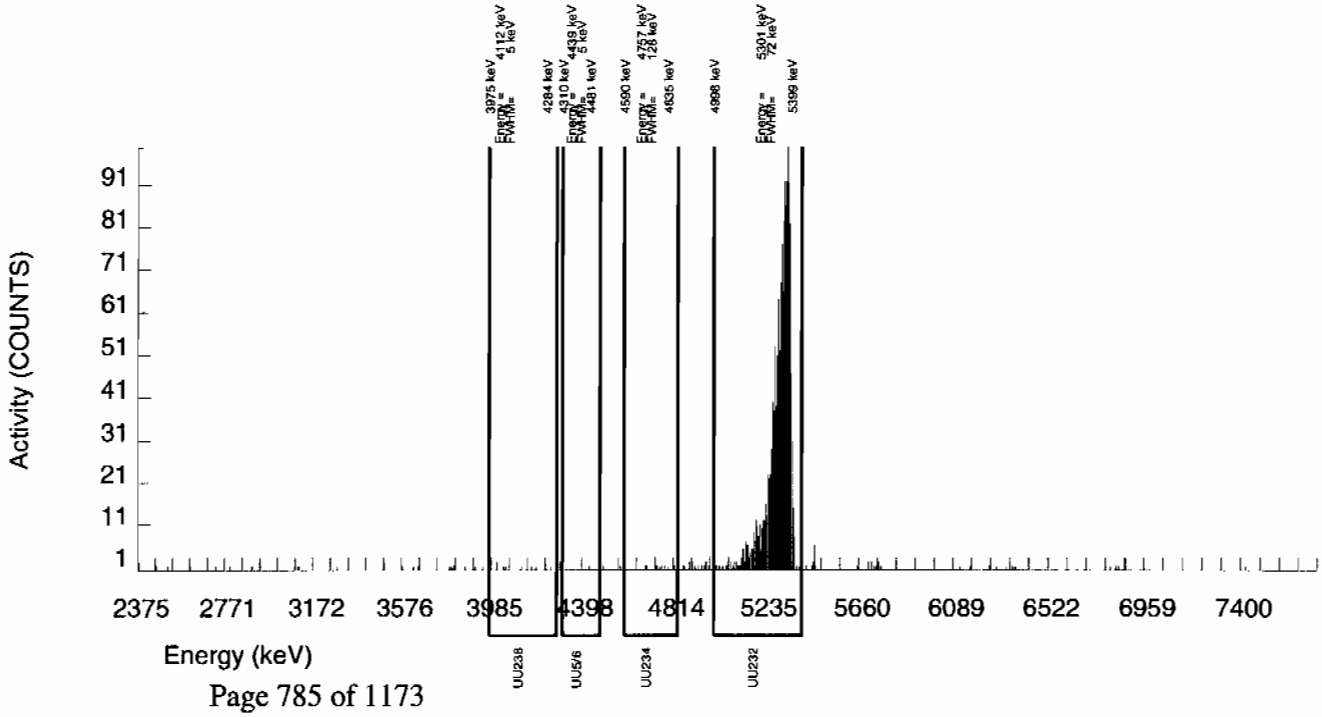

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934665
SAMPLE DATE : 15-DEC-2009 00:00:00

SAMPLE ID : S1201999717_UU
SAMPLE QTY: 0.800 L

DETECTOR NUMBER :78772
AVERAGE %EFFICIENCY :38.4140
% YIELD : 90.550

COUNT DATE:22-DEC-2009 09:32:11
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 1163-G	ID : 1163-G	ID : 1283-H	LIB FILE : ENV_ALPHA_UU.N
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG FILE : B172.CNF;157
PCI/L : 3.149E+00	PCI/L : 3.149E+00	NOMINAL : 4.51164 dpm	BKG DATE : 20-DEC-2009
		RESULTS : 4.08531 dpm	EFF FILE : W172.CNF;62
			CAL DATE : 21-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U-3/4	4763.020	381.000	379.415	0.000	6.4732	100.0000	6.14E-01	5.24E-02	2.44E-02	5.31E-02	3.15E-02
U232	5302.100	1572.000	1569.000	3.000	1.7321	100.0000	2.54E+00	1.85E-01	6.52E-03	1.74E-02	6.43E-02
U-235	4391.000	13.000	12.000	1.000	2.4030	80.90000	2.40E-02	7.66E-03	1.12E-02	2.78E-02	7.49E-03
U-238	4184.730	145.000	145.000	0.000	3.8252	100.0000	2.35E-01	2.52E-02	1.44E-02	3.32E-02	1.95E-02

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

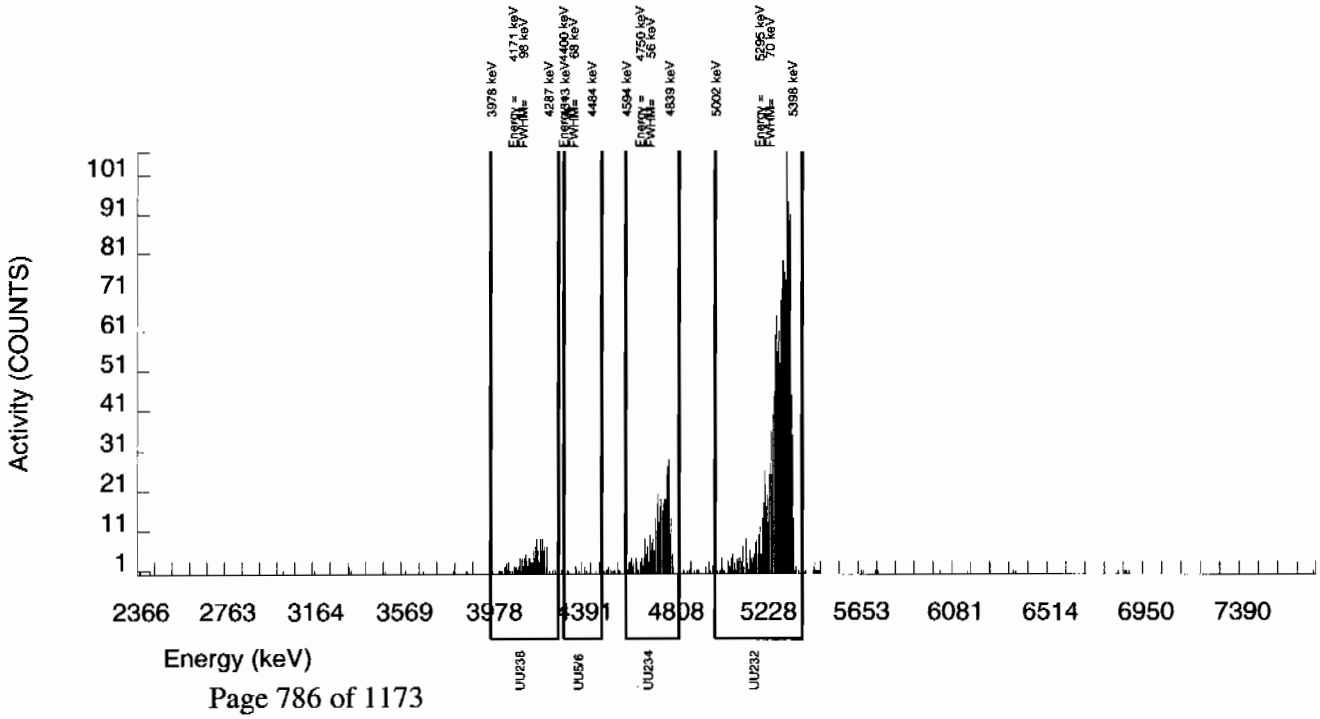

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 934665
SAMPLE DATE : 18-DEC-2009 00:00:00

SAMPLE ID : S1201999718_UU
SAMPLE QTY: 1.000 L

DETECTOR NUMBER :72549
AVERAGE %EFFICIENCY :36.7019
% YIELD : 95.137

COUNT DATE:22-DEC-2009 09:32:06
ELAPSED LIVE TIME(SEC): 60000.00
ANALYST :JXD2

MS/MSD	LCS/LCSD	TRACER	
ID : 1163-G	ID : 1163-G	ID : 1283-H	LIB FILE : ENV_ALPHA_UU.N
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG FILE : B170.CNF;153
PCI/L : 2.519E+00	PCI/L : 2.519E+00	NOMINAL : 4.51126 dpm	BKG DATE : 20-DEC-2009
		RESULTS : 4.29189 dpm	EFF FILE : W170.CNF;52
			CAL DATE : 21-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U-3/4	4763.020	1790.000	1788.408	0.000	6.4732	100.0000	2.31E+00	1.66E-01	1.94E-02	4.24E-02	5.46E-02
U232	5302.100	1582.000	1575.000	7.000	2.6458	100.0000	2.03E+00	1.48E-01	7.94E-03	1.94E-02	5.14E-02
U-235	4391.000	93.000	93.000	0.000	2.4030	80.90000	1.48E-01	1.84E-02	8.91E-03	2.22E-02	1.54E-02
U-238	4184.730	1997.000	1996.000	1.000	3.8252	100.0000	2.57E+00	1.85E-01	1.15E-02	2.65E-02	5.77E-02

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

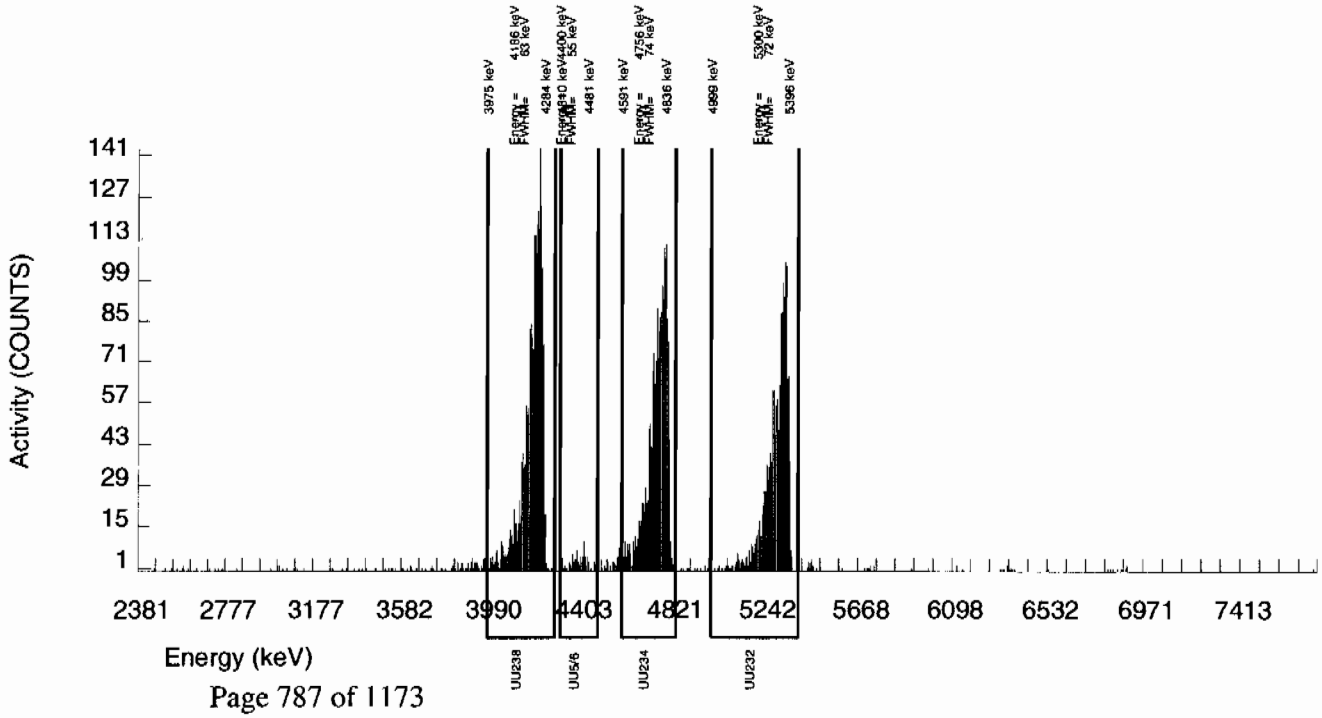

Radiochemistry Batch Checklist, Rev 9

Batch# 935338 Product: γL/LANL Date: 1/4/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			n/a
Samples have been blank corrected (if required)			n/a
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			n/a
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			n/a
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			n/a
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			n/a
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			n/a
Batch non-conformances second reviewed and disposition verified to be completed.			n/a
Aliquot Correction completed if required.			n/a
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: M. Stamps 1/4/10

Secondary Review Performed By: [illegible] 1/15/10

1/15/10

Gamma Spec Que Sheet

12/21/2009

Batch #:935338 Analyst: KXG3 First Client DueDate01/15/2010 Internal Due Date: 01/04/2010

Gamma Spike Isotope: Mixed Gamma Spike Code: n/a Expiration Date: n/a Vol: n/a Nominal Concentration: n/a

Gamma LCS Isotope: Mixed Gamma LCS Code: 1032-A Expiration Date: 12/2/10 Vol: 1.0mL Nominal Concentration: Cs137-433.4 Co60-505.7

Initials: KXG Prep Date: 12/23/09 Library: Liquid Witness: n/a Am241-1236 gross α-217

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date		Geometry	Wet/Dry Aliquot (W / g / F)	Detector	Sealing Date/Time (if Applicable)
243014001-1	CAPA-10-6784	SAMPLE		LANL010	GROUND WATER	14-DEC-09 12:00:00	1	2LMB	2	4	
243104002-1	CAPA-10-6818	SAMPLE		LANL010	GROUND WATER	15-DEC-09 12:00:00	2		2	10	
243255001-1	CAPA-10-6093	SAMPLE		LANL010	GROUND WATER	16-DEC-09 12:00:00	3		2	12	
243255004-1	CAPA-10-6753	SAMPLE		LANL010	GROUND WATER	16-DEC-09 12:00:00	4		2	6	
243255006-1	CAPA-10-6767	SAMPLE		LANL010	GROUND WATER	16-DEC-09 12:00:00	5		2	7	
243285001-1	CAPA-10-6793	SAMPLE		LANL010	GROUND WATER	17-DEC-09 12:00:00	6		2	10	
243286002-1	CAPA-10-6390	SAMPLE		LANL010	GROUND WATER	17-DEC-09 12:00:00	7		2	16	
243286003-1	CAPA-10-6746	SAMPLE		LANL010	GROUND WATER	17-DEC-09 12:00:00	8		2	11	
1202001366-1	MB	MB		QC ACCOUNT	GROUND WATER	12/23/09	9		2	14	
1202001367-1	DUP CAPA-10-6390(243286002)	DUP		QC ACCOUNT	GROUND WATER	17-DEC-09 12:00:00			2	19	
1202001368-1	LCS	LCS		QC ACCOUNT	GROUND WATER	12/23/09			2	1	

MK 1/4/10

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: M. Stamper 1/4/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
935338	243014001	SAMPLE	30-DEC-09		Neptunium-237	18.19	32.17	10.0
					Potassium-40	27.53	53.89	10.0
935338	243104002	SAMPLE	30-DEC-09		Neptunium-237	10.5	34.61	10.0
					Potassium-40	-7.229	55.57	10.0
935338	243255001	SAMPLE	30-DEC-09		Neptunium-237	-10.96	32.69	10.0
					Potassium-40	-25.71	58.95	10.0
935338	243255004	SAMPLE	30-DEC-09		Neptunium-237	-7.576	25.26	10.0
					Potassium-40	-13.77	41.03	10.0
935338	243255006	SAMPLE	30-DEC-09		Neptunium-237	-15.04	17.47	10.0
					Potassium-40	0.8724	28.42	10.0
935338	243285001	SAMPLE	30-DEC-09		Neptunium-237	9.627	24.87	10.0
					Potassium-40	-1.534	40.42	10.0
935338	243286002	SAMPLE	30-DEC-09		Neptunium-237	20.08	34.51	10.0
					Potassium-40	26.46	48.69	10.0
935338	243286003	SAMPLE	30-DEC-09		Neptunium-237	1.024	17.79	10.0
935338	1202001366	MB	30-DEC-09		Neptunium-237	-3.639	16.48	10.0
					Potassium-40	2.878	34.25	10.0
935338	1202001367	DUP	30-DEC-09		Neptunium-237	3.296	20.47	10.0
					Potassium-40	11.35	22.68	10.0
935338	1202001368	LCS	30-DEC-09		Potassium-40	-34.95	114.4	10.0

Gamma Review Report based on Result > MDA for Batch:935338

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
243014001	14-DEC-09 12:00	30-DEC-09 18:38	16.3	SAMPLE	LOAD	1	LANL	ESHL01000 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Cerium-143	HE	5027	8043	pCi/L	0	N	0	7	0	SHORT_HLIF	0	☐	
Iodine-123	HE	1.01E+09	1.00E+09	pCi/L	0	N	0	7	0	SHORT_HLIF	0	☐	
Iodine-133	HE	3.53E+05	5.22E+05	pCi/L	0	N	0	7	0	SHORT_HLIF	0	☐	
Rhodium-101	HE	5.739	1.34	pCi/L	4.844	N	0	7	0	NOT_IDENTI	0	☐	
Sodium-24	HE	7.85E+06	8.56E+07	pCi/L	0	N	0	7	0	SHORT_HLIF	0	☐	
Technetium-99m		6.20E+19	0	pCi/L	0	N	0	7	0	SHORT_HLIF	0	☐	
Thallium-200	HE	1165	33580	pCi/L	0	N	0	7	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
243104002	15-DEC-09 12:00	30-DEC-09 18:38	15.3	SAMPLE	LOAD	1	LANL	ESHL01000 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Technetium-99m		4.46E+18	0	pCi/L	0	N	0	2	0	SHORT_HLIF	0	☐	
Thallium-200	HE	3298	18040	pCi/L	0	N	0	2	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
243255001	16-DEC-09 12:00	30-DEC-09 18:39	14.3	SAMPLE	LOAD	1	LANL	ESHL01000 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Annihilation Rad.	HE	3.15	3.188	pCi/L	3.03	N	511.3	1	2.601	IDENTIFIED	101.1	☐	
Cerium-143		7887	3489	pCi/L	0	N	0	7	0	SHORT_HLIF	0	☐	
Iodine-133	HE	27660	1.06E+05	pCi/L	0	N	0	7	0	SHORT_HLIF	0	☐	
Iodine-135		1.90E+16	0	pCi/L	0	N	0	7	0	SHORT_HLIF	0		
Niobium-97	HE	7.58E+05	1.83E+06	pCi/L	0	N	0	7	0	SHORT_HLIF	0	☐	
Sodium-24	HE	5.79E+06	1.12E+07	pCi/L	0	N	0	7	0	SHORT_HLIF	0	☐	
Thallium-200	HE	11520	10270	pCi/L	0	N	0	7	0	SHORT_HLIF	0	☐	
Zirconium-97		1.13E+08	3.79E+07	pCi/L	0	N	0	7	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
243255004	16-DEC-09 12:00	30-DEC-09 22:40	14.4	SAMPLE	LOAD	1	LANL	ESHL01000 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Arsenic-74	HE	7.994	2.412	pCi/L	7.271	N	595.8	1	1.812	IDENTIFIED	30.04	☐	
Bismuth-211	HE	20.84	9.813	pCi/L	18.39	N	351.7	1	1.007	IDENTIFIED	46.98	☐	
Bismuth-214	HE	9.988	3.772	pCi/L	8.984	N	0	10	0	FAIL_ABUND	0	☐	
Iodine-133	HE	1.05E+05	99850	pCi/L	0	N	0	10	0	SHORT_HLIF	0	☐	
Niobium-97	HE	2.34E+05	1.31E+06	pCi/L	0	N	0	10	0	SHORT_HLIF	0	☐	
Protactinium-227		1.00E+41	0	pCi/L	0	N	0	10	0	SHORT_HLIF	0	☐	
Sodium-24	HE	1.03E+07	9.10E+06	pCi/L	0	N	0	10	0	SHORT_HLIF	0	☐	
Technetium-99m		8.25E+17	0	pCi/L	0	N	0	10	0	SHORT_HLIF	0	☐	
Thallium-200	HE	2291	9056	pCi/L	0	N	0	10	0	SHORT_HLIF	0	☐	
Thorium-230	HE	1915	6230	pCi/L	1555	N	0	10	0	NOT_IDENTI	0	☐	
Thulium-171	HE	5721	1654	pCi/L	3939	N	0	10	0	FAIL_ABUND	0	☐	
Tungsten-181	HE	70.19	20.29	pCi/L	52.97	N	0	10	0	FAIL_ABUND	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
243255006	16-DEC-09 12:00	30-DEC-09 22:41	14.4	SAMPLE	LOAD	1	LANL	ESHL01000 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Bismuth-211	HE	24.33	8.96	pCi/L	15.73	N	352	1	1.169	IDENTIFIED	36.58	☐	
Bismuth-214	HE	8.591	2.842	pCi/L	5.317	N	609.5	1	1.179	IDENTIFIED	32.72	☐	
Cerium-143		7208	2818	pCi/L	0	N	0	7	0	SHORT_HLIF	0	☐	
Lead-214	HE	8.462	3.125	pCi/L	7.444	N	0	7	0	FAIL_ABUND	0	☐	
Polonium-214	HE	8.462	3.125	pCi/L	7.444	N	0	7	0	FAIL_ABUND	0	☐	
Polonium-218	HE	8.462	3.125	pCi/L	7.444	N	0	7	0	FAIL_ABUND	0	☐	
Protactinium-227		1.00E+41	0	pCi/L	0	N	0	7	0	SHORT_HLIF	0	☐	
Technetium-99m		8.22E+17	0	pCi/L	0	N	0	7	0	SHORT_HLIF	0	☐	

Tungsten-181	HE	30.59	8.71	pCi/L	27.7	N	0	7	0	NOT_IDENTI	0	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
243285001	17-DEC-09 12:00	30-DEC-09 22:41	13.4	SAMPLE	LOAD	1	LANL	ESHL010001GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Arsenic-73	HE	222.9	55.47	pCi/L	197.5	N	0	8	0	NOT_IDENTI	0		
Arsenic-74	hv	14.33	3.184	pCi/L	6.483	N	596.1	1	1.445	IDENTIFIED	22.05		
Bismuth-211	HE	25.11	9.217	pCi/L	17.72	N	352.1	1	1.041	IDENTIFIED	36.56		
Bismuth-214	HE	9.869	3.78	pCi/L	8.173	N	0	8	0	FAIL_ABUND	0		
Cerium-143	HE	2895	1670	pCi/L	0	N	0	8	0	SHORT_HLIF	0		
Lead-214	HE	8.734	3.214	pCi/L	8.117	N	0	8	0	FAIL_ABUND	0		
Polonium-214	HE	8.734	3.214	pCi/L	8.117	N	0	8	0	FAIL_ABUND	0		
Polonium-218	HE	8.734	3.214	pCi/L	8.117	N	0	8	0	FAIL_ABUND	0		
Protactinium-227		1.00E+41	0	pCi/L	0	N	0	8	0	SHORT_HLIF	0		
Uranium-234	HE	16220	81220	pCi/L	15450	N	0	8	0	NOT_IDENTI	0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
243286002	17-DEC-09 12:00	30-DEC-09 18:39	13.3	SAMPLE	LOAD	1	LANL	ESHL010001GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Bismuth-211	INT hv	69.23	14.7	pCi/L	25.84	N	351.8	4	0.9693	IDENTIFIED	20.66		
Bismuth-214	✓ hL	29.68	5.193	pCi/L	8.163	N	609.1	1	1.368	IDENTIFIED	16.8		
Cerium-143	HE	3240	2535	pCi/L	0	N	0	3	0	SHORT_HLIF	0		
Iodine-133	HE	43610	53860	pCi/L	0	N	0	3	0	SHORT_HLIF	0		
Lead-214	✓ hv	24.08	5.153	pCi/L	9.007	N	351.8	4	0.9693	IDENTIFIED	20.66		
Polonium-214	hv	24.08	5.153	pCi/L	9.007	N	351.8	4	0.9693	IDENTIFIED	20.66		
Polonium-218	hv	24.08	5.153	pCi/L	9.007	N	351.8	4	0.9693	IDENTIFIED	20.66		
Technetium-99m		3.51E+16	0	pCi/L	0	N	0	3	0	SHORT_HLIF	0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
243286003	17-DEC-09 12:00	30-DEC-09 22:42	13.4	SAMPLE	LOAD	1	LANL	ESHL010001GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Arsenic-74	HE	8.528	2.759	pCi/L	6.218	N	595.6	1	0.9222	IDENTIFIED	32.04		
Bismuth-211	INT hv	55.83	9.708	pCi/L	14.31	N	351.6	1	1.234	IDENTIFIED	16.65		
Bismuth-214	✓ hv	21.48	3.477	pCi/L	4.143	N	608.7	1	1.194	IDENTIFIED	15.36		
Cerium-143	HE	2581	1561	pCi/L	0	N	0	13	0	SHORT_HLIF	0		
Gross Gamma		57.42	25.18	pCi/L	54.25	120		0					
Iodine-123	HE	1.49E+07	1.76E+07	pCi/L	0	N	0	13	0	SHORT_HLIF	0		
Lead-214	LA	19.42	3.415	pCi/L	8.62	N	0	13	0	FAIL_ABUND	0		
Polonium-214		19.42	3.415	pCi/L	8.62	N	0	13	0	FAIL_ABUND	0		
Polonium-218		19.42	3.415	pCi/L	8.62	N	0	13	0	FAIL_ABUND	0		
Potassium-40	X nvp	44.73	13.94	pCi/L	23.15	10.0	1461	1	0.8051	IDENTIFIED	30.85	ui	
Protactinium-227		1.00E+41	0	pCi/L	0	N	0	13	0	SHORT_HLIF	0		
Radium-224	HE	56.87	21.78	pCi/L	42.99	N	241.9	1	1.347	IDENTIFIED	37.98		
Rhodium-101	HE	4.195	1.375	pCi/L	3.042	N	0	13	0	FAIL_ABUND	0		
Technetium-99m		4.98E+16	0	pCi/L	0	N	0	13	0	SHORT_HLIF	0		
Thallium-200	HE	1522	3868	pCi/L	0	N	0	13	0	SHORT_HLIF	0		
Thorium-230	HE	1428	4649	pCi/L	791	N	66.24	1	1.241	IDENTIFIED	28.38		
Thorium-234	HE	123.9	48.47	pCi/L	118.5	N	0	13	0	FAIL_ABUND	0		
Thulium-171	HE	3389	971	pCi/L	2373	N	0	13	0	FAIL_ABUND	0		
Total Uranium	HE	364.76972	144.21539	ug/L	352.56527	N		0					
Tungsten-181	HE	41.38	11.86	pCi/L	28.93	N	0	13	0	FAIL_ABUND	0		
Uranium-238	HE	123.9	48.47	pCi/L	118.5	N	0	13	0	FAIL_ABUND	0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202001366		30-DEC-09 22:43	0	MB	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Gross Gamma		3.911	1.274	pCi/L	1.79	120		0					
Iodine-133	HE	218	492.3	pCi/L	0	N	0	6	0	SHORT_HLIF	0		
Iodine-135	HE	8.32E+07	1.84E+09	pCi/L	0	N	0	6	0	SHORT_HLIF	0		
Protactinium-227		1.00E+41	0	pCi/L	0	N	0	6	0	SHORT_HLIF	0		

Sodium-24	HE	4927	6114	pCi/L	0	N	0	6	0	SHORT_HLIF	0	☐
Technetium-99m	HE	2.09E+09	2.81E+09	pCi/L	0	N	0	6	0	SHORT_HLIF	0	☐
Zirconium-97	HE	15260	63630	pCi/L	0	N	0	6	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202001367	17-DEC-09 12:00	30-DEC-09 22:43	13.4	DUP	LOAD	1		ESHL01000IGEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Arsenic-74	nr	12.02	2.539	pCi/L	6.714	N	594.9	1	4.115	IDENTIFIED	20.95	☐	
Bismuth-211	INT	60.3	8.217	pCi/L	16.46	N	351.4	4	1.221	IDENTIFIED	13.23	☐	
Bismuth-214	✓ nr	18.81	4.056	pCi/L	5.061	N	609	1	1.776	IDENTIFIED	21.24	☐	
Cerium-143		8269	2521	pCi/L	0	N	0	13	0	SHORT_HLIF	0	☐	
Gross Gamma		51.3	22.22	pCi/L	47.14	120		0				☐	
Iodine-133	HE	14640	39200	pCi/L	0	N	0	13	0	SHORT_HLIF	0	☐	
Iodine-135	HE	7.59E+14	1.89E+15	pCi/L	0	N	0	13	0	SHORT_HLIF	0	☐	
Lead-212	HE	5.482	2.865	pCi/L	5.426	N	0	13	0	FAIL_ABUND	0	☐	
Lead-214	✓ nr	20.98	2.91	pCi/L	5.803	N	351.4	4	1.221	IDENTIFIED	13.23	☐	
Polonium-212	HE	5.482	2.865	pCi/L	5.426	N	0	13	0	FAIL_ABUND	0	☐	
Polonium-214	nr	20.98	2.91	pCi/L	5.803	N	351.4	4	1.221	IDENTIFIED	13.23	☐	
Polonium-216	HE	5.482	2.865	pCi/L	5.426	N	0	13	0	FAIL_ABUND	0	☐	
Polonium-218	nr	20.98	2.91	pCi/L	5.803	N	351.4	4	1.221	IDENTIFIED	13.23	☐	
Protactinium-227		1.00E+41	0	pCi/L	0	N	0	13	0	SHORT_HLIF	0	☐	
Radium-224	HE	64.71	19.11	pCi/L	58.71	N	0	13	0	NOT_IDENTI	0	☐	
Sodium-24	HE	2.15E+06	2.78E+06	pCi/L	0	N	0	13	0	SHORT_HLIF	0	☐	
Technetium-99m		6.18E+16	0	pCi/L	0	N	0	13	0	SHORT_HLIF	0	☐	
Thorium-228	HE	5.482	2.865	pCi/L	5.426	N	0	13	0	FAIL_ABUND	0	☐	
Thorium-230	HE	1279	4171	pCi/L	1033	N	66.35	1	1.604	IDENTIFIED	34.81	☐	
Thulium-171	HE	3035	1065	pCi/L	2902	N	0	13	0	FAIL_ABUND	0	☐	
Titanium-44	HE	3.24	1.194	pCi/L	3.119	N	0	13	0	FAIL_ABUND	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202001368		30-DEC-09 22:03	0	LCS	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Americium-241	✓	1406	101.6	pCi/L	109.9	N	59.48	3	1.1	IDENTIFIED	5.498	☐ 113.7 d	
Barium-137m		432.3	19.33	pCi/L	14.67	N	661.5	2	1.383	IDENTIFIED	3.719	☐	
Cadmium-109		3064	243.3	pCi/L	384.4	N	87.95	3	1.315	IDENTIFIED	6.707	☐	
Cesium-137	✓	457	20.47	pCi/L	15.51	8.00	661.5	2	1.383	IDENTIFIED	3.719	☐ 105.5 d	
Cobalt-57		26.33	5.82	pCi/L	10.95	N	122.1	1	0.9081	IDENTIFIED	21.84	☐	
Cobalt-60	✓	563	29.51	pCi/L	7.957	8.00	1332	1	1.951	IDENTIFIED	3.632	☐ 111.3 d	
Gross Gamma	✓	2099	337.7	pCi/L	227.2	120		0				☐ 94.9 d	
Iodine-135	HE	4.01E+09	5.52E+09	pCi/L	0	N	0	3	0	SHORT_HLIF	0	☐	
Neptunium-237		893.9	116.4	pCi/L	105.8	10.0	87.95	3	1.315	IDENTIFIED	6.707	☐	
Niobium-97		48290	12310	pCi/L	0	N	0	3	0	SHORT_HLIF	0	☐	
Plutonium-237		17380	1222	pCi/L	1358	N	59.48	3	1.1	IDENTIFIED	5.498	☐	
Sodium-24	HE	13010	15540	pCi/L	0	N	0	3	0	SHORT_HLIF	0	☐	
Thorium-232	HE	2.66E+05	1.40E+06	pCi/L	21490	N	59.48	3	1.1	IDENTIFIED	5.498	☐	
Tin-126		304.4	24.18	pCi/L	38.45	N	87.95	3	1.315	IDENTIFIED	6.707	☐	

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertenty	Units	DL	RDL
935338	243286002	SAMPLE	30-DEC-09	Polonium-214	24.08	5.153	pCi/L	4.506	N
				Polonium-218	24.08	5.153	pCi/L	4.506	N
				Potassium-40	26.46	17.25	pCi/L	24.36	10.0
				Protactinium-234m	324.3	156.1	pCi/L	300.1	N
				Technetium-99m	3.51E+16	0	pCi/L	0	N
935338	243286003	SAMPLE	30-DEC-09	Arsenic-73	36.12	19.38	pCi/L	32.36	N
				Beryllium-7	16.09	6.663	pCi/L	11.93	N
				Bismuth-211	55.83	9.708	pCi/L	7.157	N
				Bismuth-214	21.48	3.477	pCi/L	2.073	N
				Cerium-143	2581	1561	pCi/L	0	N
				Gross Gamma	57.42	25.18	pCi/L	26	120
				Iodine-123	1.49E+07	1.76E+07	pCi/L	0	N
				Lead-214	19.42	3.415	pCi/L	4.313	N
				Polonium-214	19.42	3.415	pCi/L	4.313	N
				Polonium-215	36.52	14.94	pCi/L	25.15	N
				Polonium-218	19.42	3.415	pCi/L	4.313	N
				Potassium-40	44.73	13.94	pCi/L	11.58	10.0
				Promethium-149	2766	1263	pCi/L	2135	N
				Protactinium-227	1.00E+41	0	pCi/L	0	N
				Radium-223	36.52	14.94	pCi/L	25.15	N
				Radium-224	56.87	21.78	pCi/L	21.51	N
				Radium-226	35.27	38.78	pCi/L	26.11	N
				Technetium-99m	4.98E+16	0	pCi/L	0	N
				Tellurium-125m	449.7	222.3	pCi/L	392.1	N
				Thallium-200	1522	3868	pCi/L	0	N
				Thallium-207	36.52	14.94	pCi/L	25.15	N
				Thorium-230	1428	4649	pCi/L	395.7	N
				Thorium-232	1467	7753	pCi/L	1112	N
				Thorium-234	123.9	48.47	pCi/L	59.3	N
				Thulium-171	3389	971	pCi/L	1187	N
				Tungsten-181	41.38	11.86	pCi/L	14.47	N
				Uranium-238	123.9	48.47	pCi/L	59.3	N
				Yttrium-91	984.8	318.8	pCi/L	600.2	N
935338	1202001366	MB	30-DEC-09	Cadmium-115	59.08	27.18	pCi/L	47.98	N
				Gross Gamma	3.911	1.274	pCi/L	0.8612	120
				Iodine-133	218	492.3	pCi/L	0	N
				Iodine-135	8.32E+07	1.84E+09	pCi/L	0	N

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Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
935338	1202001366	MB	30-DEC-09	Protactinium-227	1.00E+41	0	pCi/L	0	N
				Sodium-24	4927	6114	pCi/L	0	N
				Technetium-99m	2.09E+09	2.81E+09	pCi/L	0	N
				Tungsten-181	22	9.306	pCi/L	13.59	N
				Zirconium-97	15260	63630	pCi/L	0	N
935338	1202001367	DUP	30-DEC-09	Arsenic-74	12.02	2.539	pCi/L	3.359	N
				Bismuth-211	60.3	8.217	pCi/L	8.235	N
				Bismuth-214	18.81	4.056	pCi/L	2.532	N
				Cerium-143	8269	2521	pCi/L	0	N
				Gross Gamma	51.3	22.22	pCi/L	22.7	120
				Iodine-133	14640	39200	pCi/L	0	N
				Iodine-135	7.59E+14	1.89E+15	pCi/L	0	N
				Lead-214	20.98	2.91	pCi/L	2.903	N
				Polonium-214	20.98	2.91	pCi/L	2.903	N
				Polonium-218	20.98	2.91	pCi/L	2.903	N
				Potassium-40	11.35	13.15	pCi/L	11.35	10.0
				Protactinium-227	1.00E+41	0	pCi/L	0	N
				Radium-224	64.71	19.11	pCi/L	29.37	N
				Sodium-24	2.15E+06	2.78E+06	pCi/L	0	N
				Technetium-99m	6.18E+16	0	pCi/L	0	N
				Thorium-230	1279	4171	pCi/L	516.6	N
				Thulium-171	3035	1065	pCi/L	1452	N
				Tungsten-181	37.06	13.01	pCi/L	20	N
935338	1202001368	LCS	30-DEC-09	Americium-241	1406	101.6	pCi/L	54.97	25.0
				Arsenic-73	382	215.6	pCi/L	348.5	N
				Barium-137m	432.3	19.33	pCi/L	7.341	N
				Cadmium-109	3064	243.3	pCi/L	192.3	N
				Cesium-137	457	20.47	pCi/L	7.76	8.00
				Cobalt-57	26.33	5.82	pCi/L	5.476	N
				Cobalt-60	563	29.51	pCi/L	3.981	8.00
				Europium-155	31.54	14.19	pCi/L	24.17	N
				Gross Gamma	2099	337.7	pCi/L	109.6	120
				Iodine-135	4.01E+09	5.52E+09	pCi/L	0	N
				Neptunium-237	893.9	116.4	pCi/L	52.95	10.0
				Niobium-97	48290	12310	pCi/L	0	N
				Plutonium-237	17380	1222	pCi/L	679.6	N
				Silver-110m	14.59	5.007	pCi/L	8.559	N

MS
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VAX/VMS Nuclide Identification Report Generated 30-DEC-2009 21:39:39.32

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243104002.CNF;1
Sample date       : 15-DEC-2009 12:00:00 Acquisition date : 30-DEC-2009 18:38:48
Sample ID         : G243104002           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM10                Detector geometry: 2LMB
Elapsed live time: 0 03:00:00.00         Elapsed real time: 0 03:00:00.61  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 935338               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.08*	43	148	1.26	126.32	123	7	3.97E-03	53.8	
2	0	140.43*	31	196	1.04	280.88	275	9	2.83E-03	89.2	
3	0	185.43*	31	136	1.02	370.80	366	10	2.91E-03	83.5	
4	0	238.77*	1	89	1.36	477.41	475	7	8.57E-05	*****	
5	0	596.87	18	56	0.96	1193.17	1189	11	1.67E-03	83.3	
6	0	1272.69	11	5	1.38	2544.61	2541	7	1.02E-03	45.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 30-DEC-2009 21:39:41

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243104002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 15-DEC-2009 12:00:00 Acquisition date : 30-DEC-2009 18:38:48
Sample ID : G243104002 Sample quantity : 2.0000 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA10 Detector geometry: 2LMB
Elapsed live time: 0 03:00:00.00 Elapsed real time: 0 03:00:00.61 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AS-74	+	595.88	*	6.201E+00	1.033E+01	8.352E+00	4.544E-01	0.743
		634.78		-6.490E+00	2.101E+01	3.381E+01	1.740E+00	-0.192
RA-226	+	186.21	*	5.128E+01	9.356E+01	7.921E+01	5.811E+01	0.647

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	-7.868E+00	2.249E+01	3.492E+01	2.420E+00	-0.225
NA-22		1274.54	*	2.459E+00	2.984E+00	5.014E+00	3.213E-01	0.491
NA-24		1368.53	*	-5.439E+01	2.984E+00	Half-Life too short		
AL-26		1129.67		-3.737E+01	8.039E+01	1.237E+02	7.578E+00	-0.302
		1808.65	*	-2.024E-01	2.539E+00	4.029E+00	2.332E-01	-0.050
K-40		1460.81	*	-7.229E+00	3.160E+01	5.557E+01	3.885E+00	-0.130
TI-44		67.85		-3.757E-01	5.208E+00	8.608E+00	6.368E-01	-0.044
		78.38	*	2.729E-01	3.086E+00	5.121E+00	3.802E-01	0.053
SC-46		889.25	*	-2.965E-01	2.539E+00	4.081E+00	3.079E-01	-0.073
		1120.51		-1.061E+00	3.621E+00	5.542E+00	3.442E-01	-0.191
V-48		944.10		-4.698E+01	5.274E+01	7.225E+01	5.377E+00	-0.650
		983.50	*	-6.529E-01	4.423E+00	7.007E+00	5.062E-01	-0.093
		1312.09		-4.759E-01	4.708E+00	7.677E+00	5.107E-01	-0.062
CR-51		320.08	*	-1.938E+01	2.568E+01	3.975E+01	2.626E+00	-0.488
MN-52		744.21		8.174E+00	1.521E+01	2.685E+01	1.559E+00	0.304
		848.13		-2.636E+00	4.100E+02	6.721E+02	4.724E+01	-0.004
		935.52		-2.243E+00	1.492E+01	2.370E+01	1.774E+00	-0.095
		1246.25		-3.240E+02	3.795E+02	5.371E+02	3.333E+01	-0.603
		1333.61		7.105E+01	3.437E+02	5.882E+02	3.995E+01	0.121
		1434.06	*	1.411E+00	1.620E+01	2.712E+01	1.820E+00	0.052
MN-54		834.83	*	8.761E-01	2.197E+00	3.803E+00	2.611E-01	0.230
CO-56		846.75	*	-8.905E-01	2.397E+00	3.716E+00	2.606E-01	-0.240
		977.42		2.141E+01	1.848E+02	3.052E+02	2.216E+01	0.070
		1037.82		-5.537E+00	1.924E+01	2.961E+01	2.202E+00	-0.187
		1175.09		2.150E+01	1.084E+02	1.874E+02	1.074E+01	0.115
		1238.25		-2.874E-01	4.040E+00	6.658E+00	4.325E-01	-0.043

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1360.21		-2.787E+01	6.546E+01	1.000E+02	6.779E+00	-0.279
		1771.40		-9.770E+00	2.232E+01	3.313E+01	1.961E+00	-0.295
CO-57		122.06	*	-7.382E-02	2.334E+00	3.474E+00	2.191E-01	-0.021
		136.48		6.788E+00	1.882E+01	2.784E+01	1.871E+00	0.244
CO-58		810.76	*	-1.163E+00	2.197E+00	3.311E+00	2.186E-01	-0.351
FE-59		142.65		5.290E+01	2.577E+02	3.638E+02	2.054E+01	0.145
		192.34		-4.928E+00	6.969E+01	1.098E+02	1.271E+01	-0.045
		1099.22	*	-4.945E-01	5.373E+00	8.503E+00	6.214E-01	-0.058
		1291.56		4.019E+00	7.247E+00	1.307E+01	1.045E+00	0.307
CO-60		1173.22		-5.423E-01	2.053E+00	3.273E+00	1.871E-01	-0.166
		1332.49	*	-3.832E-01	2.664E+00	4.316E+00	2.932E-01	-0.089
ZN-65		1115.52	*	-6.893E-01	5.230E+00	8.218E+00	5.150E-01	-0.084
GE-68		1077.35	*	-5.519E+01	6.377E+01	8.345E+01	5.484E+00	-0.661
AS-73		53.44	*	1.828E+02	1.532E+02	2.725E+02	2.276E+01	0.671
SE-75		66.05		8.214E+02	6.398E+02	1.035E+03	9.791E+01	0.793
		96.73		-3.776E+01	6.140E+01	9.593E+01	1.210E+01	-0.394
		121.11		7.163E+00	1.240E+01	1.916E+01	1.830E+00	0.374
		136.00		1.198E+00	3.620E+00	5.341E+00	3.151E-01	0.224
		198.60		-1.250E+01	1.637E+02	2.371E+02	1.603E+01	-0.053
		264.65	*	1.502E+00	3.059E+00	5.297E+00	3.062E-01	0.284
		279.53		-9.262E+00	7.967E+00	1.216E+01	7.619E-01	-0.762
		303.91		-5.429E+01	1.633E+02	2.396E+02	2.301E+01	-0.227
		400.65		-1.241E+01	1.922E+01	2.834E+01	2.634E+00	-0.438
BR-77		87.88		7.691E+02	1.532E+04	2.525E+04	1.940E+03	0.030
		200.40		-1.057E+04	1.411E+04	2.115E+04	1.133E+03	-0.500
	+	239.00		2.130E+01	8.721E+02	1.253E+03	6.989E+01	0.017
		249.79		8.458E+03	5.027E+03	9.308E+03	5.249E+02	0.909
		281.68		7.231E+03	6.792E+03	1.214E+04	7.049E+02	0.596
		297.23		3.648E+02	3.622E+03	6.071E+03	3.567E+02	0.060
		303.76		-7.098E+03	1.477E+04	2.144E+04	1.265E+03	-0.331
		439.47		-4.808E+03	9.641E+03	1.476E+04	8.969E+02	-0.326
		484.57		-5.113E+03	1.771E+04	2.770E+04	1.658E+03	-0.185
		520.65	*	-5.329E+02	7.523E+02	1.102E+03	6.455E+01	-0.484
		574.64		1.390E+04	1.395E+04	2.583E+04	1.441E+03	0.538
		578.91		-9.249E+03	6.435E+03	9.258E+03	5.140E+02	-0.999
		585.48		-6.475E+03	1.194E+04	1.903E+04	1.049E+03	-0.340
		755.35		2.890E+03	9.716E+03	1.674E+04	9.929E+02	0.173
		817.79		4.264E+02	8.499E+03	1.408E+04	9.378E+02	0.030
SR-82		698.33		2.463E+03	2.170E+03	4.047E+03	2.145E+02	0.609
		776.49	*	-1.194E+01	2.066E+01	3.101E+01	1.914E+00	-0.385
		1395.20		-9.101E+02	7.446E+02	9.238E+02	6.238E+01	-0.985
RB-83		520.41	*	-3.709E+00	4.687E+00	6.778E+00	3.971E-01	-0.547
		529.64		9.283E-01	5.897E+00	9.668E+00	5.625E-01	0.096
		552.65		-8.229E-01	1.293E+01	2.050E+01	1.169E+00	-0.040
RB-84		881.50	*	-7.066E-01	4.405E+00	7.036E+00	5.239E-01	-0.100
KR-85		513.99	*	-7.517E+02	7.682E+02	1.149E+03	6.760E+01	-0.654
SR-85		513.99	*	-3.862E+00	3.946E+00	5.901E+00	3.473E-01	-0.654
RB-86		1076.63	*	-1.977E+01	3.894E+01	5.583E+01	3.672E+00	-0.354
Y-88		898.02		-1.482E+00	2.776E+00	4.187E+00	3.226E-01	-0.354

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1836.01	*	-1.681E-01	2.722E+00	4.329E+00	2.467E-01	-0.039
ZR-88		392.90	*	-1.070E+00	2.039E+00	3.157E+00	1.923E-01	-0.339
Y-91		1204.90	*	-5.752E+02	9.062E+02	1.346E+03	7.980E+01	-0.427
NB-94		702.63	*	-8.125E-02	2.151E+00	3.562E+00	1.905E-01	-0.023
		871.10		-1.874E+00	2.141E+00	3.020E+00	2.209E-01	-0.620
NB-95		765.79	*	2.770E+00	2.923E+00	5.366E+00	3.247E-01	0.516
NB-95M		235.69	*	4.184E+00	9.341E+00	1.441E+01	1.058E+00	0.290
ZR-95		724.18		1.239E+00	5.762E+00	9.803E+00	6.543E-01	0.126
		756.15	*	1.822E+00	4.051E+00	7.107E+00	5.081E-01	0.256
NB-97		657.90	*	-7.086E+00	4.051E+00	Half-Life too short		
		1024.50		5.504E+02	4.051E+00	Half-Life too short		
ZR-97		254.15		4.789E+01	4.051E+00	Half-Life too short		
		355.39		-3.587E+02	4.051E+00	Half-Life too short		
		507.63	*	-4.742E+02	4.051E+00	Half-Life too short		
		602.52		-2.368E+02	4.051E+00	Half-Life too short		
		1021.30		-3.654E+02	4.051E+00	Half-Life too short		
		1147.95		-2.161E+02	4.051E+00	Half-Life too short		
		1362.66		-9.980E+01	4.051E+00	Half-Life too short		
		1750.46		-1.276E+02	4.051E+00	Half-Life too short		
MO-99	+	140.51		1.952E+03	3.521E+03	4.137E+03	1.114E+03	0.472
		181.06		7.623E+02	1.436E+03	2.122E+03	3.601E+02	0.359
		366.43		5.019E+03	6.109E+03	1.075E+04	6.526E+02	0.467
		739.58	*	-8.772E+01	7.667E+02	1.252E+03	1.723E+02	-0.070
		778.00		-3.125E+02	1.693E+03	2.706E+03	1.675E+02	-0.115
TC-99M	+	140.51	*	4.456E+12	1.693E+03	Half-Life too short		
RH-101		127.23		-4.438E-01	2.406E+00	3.842E+00	2.339E-01	-0.115
		198.01	*	1.265E+00	2.966E+00	4.439E+00	2.372E-01	0.285
		325.23		1.001E+01	1.536E+01	2.668E+01	1.595E+00	0.375
RH-102		418.52		1.619E+00	2.288E+01	3.265E+01	1.990E+00	0.050
		475.06	*	-5.446E-01	2.179E+00	3.431E+00	2.063E-01	-0.159
		631.29		-3.947E-01	3.010E+00	4.956E+00	2.565E-01	-0.080
		697.49		4.573E+00	4.826E+00	8.857E+00	4.686E-01	0.516
		766.84		6.234E-01	6.608E+00	1.105E+01	6.695E-01	0.056
		1046.59		2.031E-02	6.284E+00	1.015E+01	6.907E-01	0.002
		1112.84		-4.849E+00	1.194E+01	1.770E+01	1.111E+00	-0.274
RU-103		497.08	*	-3.721E-01	3.124E+00	4.970E+00	6.318E-01	-0.075
		610.33		2.046E+00	6.889E+01	1.075E+02	1.639E+01	0.019
RH-106		511.85		-4.934E+01	2.023E+01	3.331E+01	1.963E+00	-1.481
		621.84	*	-2.443E+00	1.984E+01	3.280E+01	3.764E+00	-0.074
		1050.47		-4.960E+01	1.177E+02	1.737E+02	1.177E+01	-0.285
RU-106		511.85		-4.934E+01	2.023E+01	3.331E+01	1.963E+00	-1.481
		621.84	*	-2.443E+00	1.984E+01	3.280E+01	1.722E+00	-0.074
		1050.47		-4.960E+01	1.177E+02	1.737E+02	1.177E+01	-0.285
AG-108M		433.93	*	-1.004E+00	2.251E+00	3.487E+00	2.287E-01	-0.288
		614.37		-5.703E-01	2.723E+00	4.478E+00	2.616E-01	-0.127
		722.95		-1.694E+00	2.616E+00	3.995E+00	2.428E-01	-0.424
CD-109		88.03	*	2.782E+00	6.706E+01	1.105E+02	8.490E+00	0.025
AG-110M		657.75	*	-2.129E+00	2.001E+00	2.854E+00	1.537E-01	-0.746
		677.61		-3.635E+00	2.047E+01	3.344E+01	1.833E+00	-0.109

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		706.67		-9.565E+00	1.354E+01	2.061E+01	1.188E+00	-0.464
		763.93		-4.684E-01	1.004E+01	1.650E+01	1.051E+00	-0.028
		884.67		2.587E-01	3.026E+00	5.011E+00	3.911E-01	0.052
		937.48		-1.245E+00	6.393E+00	1.008E+01	7.894E-01	-0.124
		1384.27		6.259E-01	1.162E+01	1.937E+01	1.369E+00	0.032
IN-111		171.28		-3.042E+01	8.371E+01	1.301E+02	6.815E+00	-0.234
		245.39	*	-8.576E+01	7.412E+01	1.139E+02	6.396E+00	-0.753
IN-113M		391.69	*	-2.450E+00	3.080E+00	4.641E+00	2.999E-01	-0.528
SN-113		391.69	*	-2.450E+00	3.080E+00	4.641E+00	2.999E-01	-0.528
IN-114M		190.27	*	6.957E+00	1.449E+01	2.135E+01	1.133E+00	0.326
CD-115		260.90		-2.568E+03	9.401E+03	1.543E+04	8.799E+02	-0.166
		492.35		8.480E+01	3.024E+03	4.886E+03	2.913E+02	0.017
		527.90	*	1.769E+02	6.748E+02	1.120E+03	6.527E+01	0.158
SN-117M		156.02		2.029E+00	1.729E+02	2.771E+02	1.492E+01	0.007
		158.56	*	-2.903E+00	4.722E+00	7.090E+00	3.787E-01	-0.409
SB-122		563.90	*	4.575E-02	1.419E+02	2.266E+02	1.278E+01	0.000
		692.80		-4.500E+03	3.123E+03	3.851E+03	2.018E+02	-1.169
I-123		159.00	*	-5.012E+02	3.123E+03	Half-Life too short		
		528.96		4.356E+03	3.123E+03	Half-Life too short		
TE-123M		159.00	*	-1.972E+00	2.463E+00	3.653E+00	1.979E-01	-0.540
I-124		602.71	*	-2.249E+01	5.164E+01	7.062E+01	3.809E+00	-0.318
		722.78		-1.648E+02	2.837E+02	4.375E+02	2.435E+01	-0.377
		1325.50		-7.427E+02	1.928E+03	2.947E+03	1.987E+02	-0.252
		1376.25		-7.579E+02	2.077E+03	3.223E+03	2.181E+02	-0.235
		1509.49		4.241E+02	1.094E+03	1.921E+03	1.269E+02	0.221
		1691.02		2.179E+02	3.111E+02	5.758E+02	3.557E+01	0.378
SB-124		602.71		-1.271E+00	2.919E+00	3.992E+00	2.154E-01	-0.318
		645.85		-1.132E+01	2.944E+01	4.682E+01	2.759E+00	-0.242
		709.31		9.844E+01	1.854E+02	3.258E+02	1.766E+01	0.302
		713.82		2.508E+01	1.185E+02	2.012E+02	2.017E+01	0.125
		722.78		-1.350E+01	2.324E+01	3.585E+01	2.097E+00	-0.377
		968.20		1.176E+02	1.432E+02	2.594E+02	1.897E+01	0.453
		1045.16		1.057E+02	1.321E+02	2.424E+02	1.652E+01	0.436
		1325.50		-6.500E+01	1.687E+02	2.579E+02	1.739E+01	-0.252
		1368.21		-1.058E+02	1.380E+02	1.835E+02	2.271E+01	-0.577
		1436.60		1.172E+02	2.539E+02	4.526E+02	3.037E+01	0.259
		1691.02	*	4.211E+00	6.012E+00	1.113E+01	7.396E-01	0.378
SB-125		427.89	*	-3.093E-01	5.899E+00	9.541E+00	6.033E-01	-0.032
		463.38		-8.652E-01	1.956E+01	3.151E+01	2.196E+00	-0.027
		600.56		1.232E+00	1.375E+01	2.038E+01	1.299E+00	0.060
		635.90		9.417E-01	1.567E+01	2.644E+01	1.649E+00	0.036
TE-125M		109.28	*	8.803E+00	7.720E+02	1.258E+03	1.078E+02	0.007
I-126		388.63		7.517E+00	1.415E+01	2.427E+01	1.478E+00	0.310
		666.33	*	-9.319E+00	1.662E+01	1.710E+01	8.483E-01	-0.545
		753.82		3.969E+01	7.949E+01	1.409E+02	8.330E+00	0.282
SB-126		223.80		5.553E+01	2.761E+02	4.723E+02	2.592E+01	0.118
		278.60		-1.271E+02	1.760E+02	2.784E+02	1.612E+01	-0.456
		296.50		-3.260E+01	1.068E+02	1.588E+02	9.328E+00	-0.205
		414.70		-1.407E-01	5.185E+00	8.429E+00	5.138E-01	-0.017

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		415.30		1.198E+01	4.306E+02	7.037E+02	4.289E+01	0.017
		555.20		-2.112E+02	3.022E+02	4.436E+02	2.524E+01	-0.476
		573.80		5.307E+01	6.573E+01	1.198E+02	6.692E+00	0.443
		593.00		-2.960E+01	6.895E+01	9.403E+01	5.135E+00	-0.315
		656.30		-9.590E+01	1.866E+02	2.899E+02	1.439E+01	-0.331
		666.33		-3.896E+00	6.949E+00	7.147E+00	3.546E-01	-0.545
		675.00		3.929E+01	1.300E+02	2.243E+02	1.133E+01	0.175
		695.00		-5.850E+00	5.483E+00	7.323E+00	3.855E-01	-0.799
		697.00		9.929E+00	1.724E+01	3.051E+01	1.612E+00	0.325
		720.50	*	6.085E+00	9.138E+00	1.634E+01	9.051E-01	0.372
		856.80		3.057E+00	2.856E+01	4.753E+01	3.392E+00	0.064
		989.30		-8.695E+01	7.385E+01	9.263E+01	6.658E+00	-0.939
		1034.80		-7.584E+00	5.210E+02	8.397E+02	5.786E+01	-0.009
		1213.00		2.086E+02	2.645E+02	4.875E+02	2.916E+01	0.428
SN-126	+	64.28		8.484E+01	9.206E+01	1.160E+02	1.685E+01	0.731
		86.94		2.564E+00	2.848E+01	4.704E+01	1.936E+01	0.055
		87.57	*	-2.658E+00	6.832E+00	1.097E+01	8.413E-01	-0.242
SB-127		61.10		5.902E+03	8.482E+03	1.334E+04	1.368E+03	0.442
		252.40		-2.431E+01	3.392E+02	5.664E+02	2.353E+02	-0.043
		290.80		5.666E+01	1.433E+03	2.394E+03	2.216E+02	0.024
		411.60		-2.100E+02	8.384E+02	1.332E+03	1.937E+02	-0.158
		444.90		-4.794E+01	6.576E+02	1.058E+03	1.163E+02	-0.045
		473.00		1.067E+02	1.315E+02	2.280E+02	2.586E+01	0.468
		543.00		-9.477E+01	1.200E+03	1.902E+03	2.460E+02	-0.050
		603.60		-4.147E+02	8.462E+02	1.208E+03	1.280E+02	-0.343
		685.20	*	-5.259E+01	8.966E+01	1.384E+02	1.262E+01	-0.380
		698.50		1.285E+03	1.001E+03	1.868E+03	2.676E+02	0.688
		722.20		-1.543E+01	1.926E+03	3.193E+03	2.898E+02	-0.005
		783.80		5.139E+01	2.219E+02	3.773E+02	4.137E+01	0.136
XE-127		57.60		-1.980E+02	9.329E+02	1.537E+03	1.163E+02	-0.129
		145.22		3.141E+01	5.487E+01	9.130E+01	5.102E+00	0.344
		172.10		3.327E+00	9.335E+00	1.523E+01	7.981E-01	0.218
		202.84	*	2.877E+00	3.264E+00	5.814E+00	3.122E-01	0.495
		374.96		7.888E+00	1.402E+01	2.413E+01	1.467E+00	0.327
I-131		80.18		2.588E+02	4.234E+02	7.226E+02	5.434E+01	0.358
		284.30		3.074E+01	1.093E+02	1.858E+02	1.202E+01	0.165
		364.48	*	1.807E+00	7.957E+00	1.335E+01	8.964E-01	0.135
		636.97		-1.296E+01	9.282E+01	1.527E+02	9.020E+00	-0.085
		722.89		-2.800E+02	4.487E+02	6.876E+02	3.887E+01	-0.407
TE-132		49.72		-2.701E+03	4.057E+03	6.498E+03	7.227E+02	-0.416
		111.76		3.349E+03	2.502E+03	4.381E+03	4.039E+02	0.764
		116.30		1.575E+03	2.305E+03	3.901E+03	3.583E+02	0.404
		228.16	*	-2.190E+01	4.766E+01	7.776E+01	1.111E+01	-0.282
BA-133		53.15		5.589E+02	6.779E+02	1.185E+03	9.958E+01	0.472
		79.62		9.000E+01	1.185E+02	2.029E+02	2.961E+01	0.443
		81.00		6.396E+00	8.863E+00	1.513E+01	2.313E+00	0.423
		276.40		9.636E+00	2.591E+01	4.434E+01	5.744E+00	0.217
		302.84		-1.308E+00	9.887E+00	1.626E+01	1.903E+00	-0.080
		356.01	*	-2.324E+00	2.917E+00	4.424E+00	5.172E-01	-0.525

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		383.85		1.270E+00	2.008E+01	3.309E+01	3.649E+00	0.038
I-133		510.53		-1.109E+02	2.008E+01	Half-Life too short		
		529.87	*	-6.935E-02	2.008E+01	Half-Life too short		
		706.58		-2.216E+01	2.008E+01	Half-Life too short		
		856.28		1.250E+01	2.008E+01	Half-Life too short		
		875.33		2.642E+00	2.008E+01	Half-Life too short		
		1236.41		3.772E+00	2.008E+01	Half-Life too short		
		1298.22		4.077E+00	2.008E+01	Half-Life too short		
CS-134		475.35		-4.538E+01	1.416E+02	2.211E+02	1.329E+01	-0.205
		563.23		-1.790E+01	2.571E+01	3.760E+01	2.170E+00	-0.476
		569.32		-1.562E+00	1.371E+01	2.158E+01	1.249E+00	-0.072
		604.70		-1.168E+00	2.364E+00	3.668E+00	1.986E-01	-0.318
		795.84	*	-1.967E+00	3.089E+00	4.684E+00	3.036E-01	-0.420
		801.93		2.590E+01	2.870E+01	5.186E+01	3.389E+00	0.499
		1038.57		-9.719E+01	2.352E+02	3.532E+02	2.424E+01	-0.275
		1167.94		-1.968E+01	1.090E+02	1.763E+02	1.017E+01	-0.112
		1365.15		2.359E+01	7.747E+01	1.351E+02	9.821E+00	0.175
CS-135		268.24	*	2.709E+00	1.032E+01	1.759E+01	1.339E+00	0.154
I-135		288.45		-3.960E+10	1.032E+01	Half-Life too short		
		417.63		1.750E+12	1.032E+01	Half-Life too short		
		546.56		1.457E+12	1.032E+01	Half-Life too short		
		836.80		-1.382E+12	1.032E+01	Half-Life too short		
		1038.76		-6.066E+11	1.032E+01	Half-Life too short		
		1124.00		1.324E+12	1.032E+01	Half-Life too short		
		1131.51		-1.959E+11	1.032E+01	Half-Life too short		
		1260.41	*	-1.560E+11	1.032E+01	Half-Life too short		
		1457.56		-2.016E+12	1.032E+01	Half-Life too short		
		1678.03		1.596E+11	1.032E+01	Half-Life too short		
		1706.46		1.066E+12	1.032E+01	Half-Life too short		
		1791.20		-3.575E+11	1.032E+01	Half-Life too short		
CS-136		66.91		1.235E+02	9.814E+01	1.577E+02	2.332E+01	0.783
		86.29		5.759E+01	9.294E+01	1.579E+02	1.927E+01	0.365
		153.22		-5.515E+01	5.189E+01	7.693E+01	5.333E+00	-0.717
		163.89		-9.128E+00	8.196E+01	1.299E+02	8.869E+00	-0.070
		176.55		-1.606E+01	2.902E+01	4.437E+01	2.678E+00	-0.362
		273.65		2.181E+00	3.091E+01	5.192E+01	3.419E+00	0.042
		340.57		4.497E+00	8.428E+00	1.450E+01	9.240E-01	0.310
		818.51		9.721E-01	4.555E+00	7.717E+00	5.154E-01	0.126
		1048.07	*	-1.563E+00	6.078E+00	9.351E+00	6.783E-01	-0.167
		1235.34		-3.043E+00	2.945E+01	4.835E+01	4.924E+00	-0.063
BA-137M		661.65	*	6.214E-02	1.918E+00	3.218E+00	1.581E-01	0.019
CS-137		661.65	*	6.568E-02	2.028E+00	3.402E+00	1.681E-01	0.019
CE-139		165.85	*	-1.146E+00	2.261E+00	3.480E+00	1.822E-01	-0.329
BA-140		162.64		1.779E+01	6.027E+01	9.813E+01	5.951E+00	0.181
		304.84		-7.714E+00	1.003E+02	1.503E+02	4.104E+01	-0.051
		423.70		4.295E+01	1.207E+02	2.027E+02	6.454E+01	0.212
		537.32	*	-6.486E-01	1.930E+01	2.758E+01	8.969E+00	-0.024
LA-140		328.77		-6.555E+00	2.127E+01	3.434E+01	2.288E+00	-0.191
		432.53		2.432E+01	1.382E+02	2.289E+02	1.526E+01	0.106

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		487.03		3.447E+00	1.064E+01	1.770E+01	1.190E+00	0.195
		751.79		-6.501E+01	9.441E+01	1.395E+02	1.000E+01	-0.466
		815.85		-3.639E+00	1.768E+01	2.812E+01	2.217E+00	-0.129
		867.82		8.831E+01	8.702E+01	1.617E+02	1.263E+01	0.546
		919.63		6.354E+01	1.926E+02	3.277E+02	3.215E+01	0.194
		925.24		9.191E+00	6.866E+01	1.142E+02	9.308E+00	0.080
		1596.49	*	-1.911E+00	8.022E+00	1.126E+01	7.243E-01	-0.170
CE-141		145.44	*	8.584E-01	5.036E+00	8.178E+00	4.763E-01	0.105
CE-143		57.37		-2.971E-02	5.036E+00	Half-Life too short		
		231.56		5.827E-02	5.036E+00	Half-Life too short		
		293.26	*	-1.676E-06	5.036E+00	Half-Life too short		
		350.59		1.491E-01	5.036E+00	Half-Life too short		
		490.36		4.031E-02	5.036E+00	Half-Life too short		
		664.57		-5.259E-02	5.036E+00	Half-Life too short		
		721.93		1.780E-02	5.036E+00	Half-Life too short		
CE-144		80.11		4.274E+01	1.970E+02	3.289E+02	2.452E+01	0.130
		133.54	*	-5.939E+00	1.663E+01	2.618E+01	3.726E+00	-0.227
PM-144		476.78		1.504E-01	4.724E+00	7.655E+00	5.448E-01	0.020
		618.01		9.699E-02	2.053E+00	3.463E+00	1.961E-01	0.028
		696.49	*	4.414E-01	2.182E+00	3.715E+00	1.963E-01	0.119
		778.57		-3.780E+01	1.154E+02	1.801E+02	1.117E+01	-0.210
PR-144		696.49	*	2.992E+01	1.479E+02	2.517E+02	1.329E+01	0.119
		1489.15		-8.813E+00	7.542E+02	1.236E+03	8.204E+01	-0.007
PM-146		453.90	*	2.353E-01	3.156E+00	5.152E+00	4.532E-01	0.046
		633.02		2.546E+01	7.793E+01	1.350E+02	4.959E+01	0.189
		735.90		-1.243E+00	9.777E+00	1.595E+01	4.444E+00	-0.078
		747.13		2.497E-01	5.428E+00	9.044E+00	1.133E+00	0.028
ND-147		91.11		-2.083E+01	2.783E+01	4.362E+01	3.566E+00	-0.478
		319.41		-1.731E+02	2.275E+02	3.517E+02	2.096E+01	-0.492
		439.89		-1.741E+02	3.598E+02	5.501E+02	3.345E+01	-0.316
		531.02	*	4.321E+00	3.299E+01	5.384E+01	7.283E+00	0.080
PM-149		285.90	*	-7.766E+03	6.892E+03	1.034E+04	1.466E+03	-0.751
EU-152		121.78		-6.202E-01	6.820E+00	1.012E+01	8.093E-01	-0.061
		244.69		-1.572E+01	2.154E+01	3.428E+01	1.924E+00	-0.459
		344.27	*	-8.713E-01	6.756E+00	1.102E+01	7.428E-01	-0.079
		443.98		4.471E+01	6.084E+01	1.065E+02	6.467E+00	0.420
		778.89		-5.438E+00	1.349E+01	2.079E+01	1.289E+00	-0.262
		867.32		4.582E+01	5.356E+01	9.743E+01	7.080E+00	0.470
		964.01		-1.088E+01	1.709E+01	2.511E+01	1.842E+00	-0.433
		1085.78		-2.616E+01	2.255E+01	2.778E+01	1.807E+00	-0.942
		1112.02		-2.882E+00	1.650E+01	2.562E+01	1.610E+00	-0.113
		1407.95		-2.526E+00	1.202E+01	1.908E+01	1.286E+00	-0.132
GD-153		69.67		-1.368E+02	1.716E+02	2.700E+02	1.995E+01	-0.507
		83.37		-4.335E+02	1.451E+03	2.201E+03	1.658E+02	-0.197
		97.43	*	-2.000E+00	6.536E+00	1.048E+01	7.188E-01	-0.191
		103.18		-5.443E+00	8.860E+00	1.387E+01	9.127E-01	-0.393
EU-154		123.07		-4.207E-01	4.226E+00	6.801E+00	6.592E-01	-0.062
		247.94		2.393E+00	2.597E+01	4.389E+01	4.143E+00	0.055
		591.81		-1.246E+00	4.365E+01	6.369E+01	6.102E+00	-0.020

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		723.30		-4.292E+00	1.050E+01	1.652E+01	1.139E+00	-0.260
		756.87		2.191E+01	4.347E+01	7.678E+01	7.848E+00	0.285
		873.19		-1.284E+01	1.924E+01	2.829E+01	3.219E+00	-0.454
		996.32		1.357E+00	2.038E+01	3.340E+01	5.710E+00	0.041
		1004.76		3.264E+00	1.223E+01	2.066E+01	2.181E+00	0.158
		1274.45	*	7.021E+00	8.371E+00	1.407E+01	1.368E+00	0.499
EU-155		48.70		8.264E+01	5.080E+02	8.612E+02	7.674E+01	0.096
		60.01		4.422E+01	7.472E+02	1.123E+03	8.167E+01	0.039
		86.54		4.126E+00	8.371E+00	1.415E+01	1.094E+00	0.292
		105.31	*	7.179E+00	9.307E+00	1.588E+01	1.055E+00	0.452
TB-160		86.79		4.387E+00	2.227E+01	3.704E+01	2.830E+00	0.118
		197.04		1.402E+01	5.003E+01	7.404E+01	3.953E+00	0.189
		215.65		1.130E+01	5.009E+01	8.596E+01	4.678E+00	0.131
		298.57		-3.889E+00	7.539E+00	1.203E+01	7.077E-01	-0.323
		879.36	*	-9.892E-02	9.114E+00	1.489E+01	1.105E+00	-0.007
		962.29		1.424E+01	2.996E+01	5.199E+01	3.818E+00	0.274
		966.15		-3.846E+00	1.301E+01	1.898E+01	1.390E+00	-0.203
		1177.93		2.486E+01	1.728E+01	3.517E+01	2.021E+00	0.707
	+	1271.85		3.769E+01	3.447E+01	7.707E+01	4.916E+00	0.489
HO-166M		80.57		2.182E+01	2.419E+01	4.190E+01	3.127E+00	0.521
	+	184.41		2.336E+00	3.904E+00	4.653E+00	2.457E-01	0.502
		280.46		-4.040E+00	6.196E+00	9.856E+00	5.717E-01	-0.410
		410.95		6.127E+00	1.609E+01	2.720E+01	1.658E+00	0.225
		711.68	*	-1.190E+00	4.321E+00	6.967E+00	3.793E-01	-0.171
		752.31		-7.780E+00	1.501E+01	2.288E+01	1.349E+00	-0.340
		810.29		-3.765E-01	3.279E+00	5.302E+00	3.483E-01	-0.071
TM-171		51.35		2.111E+02	5.881E+03	9.876E+03	8.607E+02	0.021
		52.39		2.904E+03	3.101E+03	5.447E+03	4.654E+02	0.533
		59.40		1.976E+03	4.057E+03	6.304E+03	4.574E+02	0.313
		66.72	*	3.716E+03	3.647E+03	5.827E+03	4.313E+02	0.638
HF-175		89.36		-3.808E+02	1.345E+02	1.797E+02	1.353E+01	-2.119
		343.40	*	-9.372E-01	2.489E+00	3.972E+00	2.394E-01	-0.236
		433.00		1.949E+01	1.426E+02	2.352E+02	1.431E+01	0.083
LU-176		88.36		-8.714E+00	1.572E+01	2.493E+01	1.906E+00	-0.350
		201.83		-4.075E-01	2.135E+00	3.586E+00	1.924E-01	-0.114
		306.84	*	2.636E-01	1.684E+00	2.831E+00	1.674E-01	0.093
		401.10		-5.032E+02	5.053E+02	7.176E+02	4.374E+01	-0.701
LU-177		112.95		-3.253E+01	1.366E+02	2.186E+02	1.386E+01	-0.149
		208.36	*	1.380E+01	7.001E+01	1.201E+02	6.487E+00	0.115
LU-177M		52.97		2.791E+02	3.109E+02	5.450E+02	4.600E+01	0.512
		54.07		1.166E+02	1.591E+02	2.765E+02	2.276E+01	0.422
		61.30		1.669E+02	2.120E+02	3.358E+02	2.465E+01	0.497
		121.62		9.225E+00	3.457E+01	5.245E+01	3.301E+00	0.176
		147.16		-6.787E+01	5.728E+01	7.945E+01	4.408E+00	-0.854
		171.86		1.277E+01	3.716E+01	6.058E+01	3.174E+00	0.211
		218.09		-4.118E+01	5.696E+01	9.167E+01	5.001E+00	-0.449
		268.79		-3.145E+01	5.194E+01	8.288E+01	4.759E+00	-0.380
		319.02		-8.060E+00	1.749E+01	2.783E+01	1.658E+00	-0.290
		367.43		2.804E+01	6.357E+01	1.085E+02	6.583E+00	0.259

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		413.65	*	-4.462E+00	1.197E+01	1.879E+01	1.145E+00	-0.237
HF-181		56.28		-9.936E+00	1.497E+02	2.491E+02	1.944E+01	-0.040
		57.53		-1.057E+01	7.816E+01	1.294E+02	9.803E+00	-0.082
		65.20		1.301E+02	1.273E+02	2.034E+02	1.506E+01	0.639
		133.02		-3.974E+00	5.291E+00	8.108E+00	4.781E-01	-0.490
		136.25		1.264E+01	4.221E+01	6.213E+01	3.606E+00	0.203
		345.85		-1.560E+00	1.322E+01	2.157E+01	1.301E+00	-0.072
		482.03	*	1.808E-01	3.029E+00	4.919E+00	2.948E-01	0.037
W-181		56.28		-3.961E+00	5.848E+01	9.729E+01	7.594E+00	-0.041
		57.53		-4.146E+00	3.056E+01	5.060E+01	3.833E+00	-0.082
		65.20	*	5.045E+01	4.937E+01	7.892E+01	5.843E+00	0.639
TA-182		67.75		4.613E-01	1.255E+01	2.088E+01	1.545E+00	0.022
		100.10		9.905E+00	1.408E+01	2.408E+01	1.617E+00	0.411
		152.43		-1.271E+01	2.667E+01	4.141E+01	2.255E+00	-0.307
		222.10		2.113E+00	2.904E+01	4.128E+01	2.262E+00	0.051
		1001.68		-6.945E+01	1.332E+02	2.031E+02	1.444E+01	-0.342
		1121.28		-2.935E+00	1.000E+01	1.531E+01	9.497E-01	-0.192
		1189.05		7.061E+00	1.175E+01	2.198E+01	1.279E+00	0.321
		1221.42	*	-1.076E+01	1.174E+01	1.373E+01	8.289E-01	-0.784
		1230.97		6.813E+00	2.206E+01	3.861E+01	2.356E+00	0.176
RE-183		57.98		-1.506E+01	3.031E+01	4.905E+01	3.676E+00	-0.307
		59.32		8.473E+00	1.677E+01	2.610E+01	1.897E+00	0.325
		67.20		9.240E+00	2.387E+01	3.876E+01	2.869E+00	0.238
		162.32	*	1.868E+00	8.980E+00	1.454E+01	7.680E-01	0.129
		208.81		3.196E+01	6.130E+01	1.072E+02	5.794E+00	0.298
		291.72		-4.559E+01	6.253E+01	9.804E+01	5.738E+00	-0.465
RE-184		57.98		-5.544E+01	1.116E+02	1.805E+02	1.353E+01	-0.307
		59.32		3.116E+01	6.169E+01	9.600E+01	6.977E+00	0.325
		67.20		3.400E+01	8.784E+01	1.426E+02	1.056E+01	0.238
		161.27		2.026E+01	2.877E+01	4.800E+01	2.544E+00	0.422
		216.55		-7.726E+00	1.707E+01	2.799E+01	1.525E+00	-0.276
		252.85	*	-1.214E+00	1.766E+01	2.951E+01	1.669E+00	-0.041
		318.01		7.134E+00	3.023E+01	5.106E+01	3.040E+00	0.140
		792.07		-2.325E+01	6.324E+01	9.936E+01	6.313E+00	-0.234
		903.28		-1.475E+01	6.607E+01	1.045E+02	7.981E+00	-0.141
		920.93		-2.205E+00	3.108E+01	5.019E+01	3.792E+00	-0.044
OS-185		59.72		1.167E+01	4.473E+01	6.829E+01	4.955E+00	0.171
		61.14		1.652E+01	2.334E+01	3.679E+01	2.698E+00	0.449
		69.30		-4.746E+01	3.191E+01	4.775E+01	3.530E+00	-0.994
		592.07		-2.494E+01	1.763E+02	2.523E+02	1.379E+01	-0.099
		646.12	*	-1.198E+00	2.513E+00	3.944E+00	1.993E-01	-0.304
		717.42		-1.406E+01	6.286E+01	1.018E+02	5.606E+00	-0.138
		874.81		5.309E+00	3.438E+01	5.760E+01	4.240E+00	0.092
		880.27		8.954E+00	4.811E+01	8.084E+01	6.007E+00	0.111
RE-188		155.03	*	6.116E+00	1.269E+01	2.099E+01	1.134E+00	0.291
		477.96		-1.238E+02	2.179E+02	3.297E+02	1.979E+01	-0.376
		633.10		5.156E+01	1.567E+02	2.734E+02	1.411E+01	0.189
W-188	+	63.58		8.630E+03	9.302E+03	1.240E+04	9.167E+02	0.696
		227.08		-3.250E+02	8.584E+02	1.412E+03	7.779E+01	-0.230

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		290.67	*	-2.569E+01	4.807E+02	7.972E+02	4.661E+01	-0.032
IR-192		295.96		-6.949E-01	8.153E+00	1.235E+01	7.364E-01	-0.056
		308.46		-1.735E+00	6.521E+00	1.059E+01	6.335E-01	-0.164
		316.51	*	3.447E-01	2.373E+00	3.979E+00	2.378E-01	0.087
		468.07		8.000E-01	5.038E+00	8.270E+00	5.694E-01	0.097
		604.41		-1.955E+01	3.169E+01	4.835E+01	5.387E+00	-0.404
		612.46		-2.624E+01	5.137E+01	8.216E+01	5.927E+00	-0.319
AU-195		65.12		2.243E+01	2.285E+01	3.644E+01	2.698E+00	0.616
		66.83		1.561E+01	1.161E+01	1.898E+01	1.405E+00	0.822
		75.70		4.762E+00	1.972E+01	2.943E+01	2.176E+00	0.162
		98.88	*	8.278E+00	1.811E+01	3.051E+01	2.068E+00	0.271
		129.76		8.937E+01	2.151E+02	3.570E+02	2.142E+01	0.250
TL-200		367.94	*	3.298E-03	2.151E+02	Half-Life too short		
		579.30		-3.808E-01	2.151E+02	Half-Life too short		
		828.27		6.280E-02	2.151E+02	Half-Life too short		
		1205.75		-7.430E-02	2.151E+02	Half-Life too short		
TL-201		68.90		-8.204E+02	5.389E+02	8.041E+02	5.945E+01	-1.020
		70.82		-1.405E+02	2.843E+02	4.566E+02	3.372E+01	-0.308
		80.30		3.989E+02	4.662E+02	8.060E+02	6.011E+01	0.495
		135.34		1.759E+03	2.328E+03	3.557E+03	2.073E+02	0.495
		167.43	*	-7.240E+01	5.602E+02	8.858E+02	4.634E+01	-0.082
TL-202		68.90		-7.154E+01	4.699E+01	7.012E+01	5.184E+00	-1.020
		70.82		-1.222E+01	2.472E+01	3.971E+01	2.933E+00	-0.308
		80.30		3.470E+01	4.055E+01	7.011E+01	5.229E+00	0.495
		439.56	*	-3.149E+00	4.539E+00	6.782E+00	4.122E-01	-0.464
HG-203		70.83		-5.169E+01	1.065E+02	1.709E+02	2.198E+01	-0.302
		72.87		3.839E+01	6.178E+01	1.055E+02	1.312E+01	0.364
		82.60		-7.389E+01	1.013E+02	1.590E+02	2.079E+01	-0.465
		279.20	*	-3.176E+00	2.871E+00	4.389E+00	2.701E-01	-0.724
BI-207		72.80		1.045E+01	1.803E+01	3.078E+01	2.273E+00	0.339
		74.97		-2.897E+00	1.160E+01	1.694E+01	1.252E+00	-0.171
		84.90		-1.378E+01	1.830E+01	2.696E+01	2.043E+00	-0.511
		569.67		-4.786E-01	2.113E+00	3.278E+00	1.839E-01	-0.146
		1063.62	*	9.141E-01	3.189E+00	5.373E+00	3.588E-01	0.170
		1770.23		-4.364E+01	4.439E+01	5.754E+01	3.409E+00	-0.758
TL-207		81.07		1.418E+01	1.945E+01	3.338E+01	2.495E+00	0.425
		83.78		-8.818E+00	1.240E+01	1.833E+01	1.383E+00	-0.481
		94.90		-5.358E+01	2.151E+01	2.940E+01	2.067E+00	-1.823
		122.32		-2.532E+01	1.616E+02	2.386E+02	1.701E+01	-0.106
		144.24		1.737E+01	6.517E+01	9.243E+01	6.545E+00	0.188
		154.21		-2.652E+00	2.990E+01	4.761E+01	3.189E+00	-0.056
		269.46		-1.185E+01	1.238E+01	1.918E+01	1.153E+00	-0.618
		323.87	*	2.514E+01	4.735E+01	8.126E+01	1.347E+01	0.309
		338.28		1.516E+00	7.469E+01	1.125E+02	1.198E+01	0.013
		445.03		-2.095E+01	1.472E+02	2.351E+02	2.451E+01	-0.089
TL-208		72.80		1.138E+02	1.964E+02	3.354E+02	2.476E+01	0.339
		74.97		-3.153E+01	1.263E+02	1.844E+02	2.111E+01	-0.171
		277.35		6.912E-02	2.647E+01	4.420E+01	4.664E+00	0.002
		510.84		-4.050E+01	1.944E+01	3.207E+01	3.274E+00	-1.263

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		583.14	*	-5.739E-01	3.262E+00	4.722E+00	3.045E-01	-0.122
		763.13		3.450E+01	1.316E+02	2.245E+02	2.810E+01	0.154
		860.37		1.031E+00	1.698E+01	2.807E+01	2.226E+00	0.037
		1093.90		-4.455E+02	5.991E+02	8.060E+02	1.818E+02	-0.553
PO-209		260.50		-2.969E+02	6.628E+02	1.074E+03	6.122E+01	-0.276
		262.80		-3.154E+02	1.873E+03	3.100E+03	1.770E+02	-0.102
		896.60	*	-3.584E+02	4.865E+02	7.069E+02	5.399E+01	-0.507
BI-210		46.50	*	-9.685E+01	7.987E+02	1.332E+03	1.240E+02	-0.073
PB-210		46.50	*	-9.685E+01	7.987E+02	1.332E+03	1.240E+02	-0.073
PO-210		46.50	*	-9.685E+01	7.987E+02	1.332E+03	1.122E+02	-0.073
BI-211		72.87		1.925E+02	3.092E+02	5.290E+02	3.906E+01	0.364
		351.07	*	-2.165E+00	1.784E+01	2.723E+01	1.812E+00	-0.079
PB-211		404.84	*	-4.411E+01	7.535E+01	1.022E+02	6.375E+01	-0.431
		427.08		-1.251E+01	1.311E+02	2.107E+02	1.303E+02	-0.059
		831.96		2.731E+01	7.602E+01	1.277E+02	7.975E+01	0.214
BI-212		727.18	*	-2.732E+00	1.839E+01	2.997E+01	2.270E+00	-0.091
		785.46		1.151E+02	1.074E+02	2.005E+02	1.259E+01	0.574
		1620.62		4.264E+01	9.189E+01	1.634E+02	1.041E+01	0.261
PB-212		74.81		-8.224E+00	4.080E+01	5.980E+01	7.124E+00	-0.138
		77.11		-3.232E+01	1.905E+01	2.800E+01	2.075E+00	-1.154
		87.30		-1.304E+01	3.225E+01	5.167E+01	6.510E+00	-0.252
		115.19		-2.597E+02	2.990E+02	4.572E+02	2.888E+01	-0.568
	+	238.63	*	1.278E-01	5.231E+00	7.745E+00	5.542E-01	0.016
		300.09		-1.926E+01	5.213E+01	8.415E+01	6.993E+00	-0.229
PO-212		74.81		-8.224E+00	4.080E+01	5.980E+01	7.124E+00	-0.138
		77.11		-3.232E+01	1.905E+01	2.800E+01	2.075E+00	-1.154
		87.30		-1.304E+01	3.225E+01	5.167E+01	6.510E+00	-0.252
		115.19		-2.597E+02	2.990E+02	4.572E+02	2.888E+01	-0.568
	+	238.63	*	1.278E-01	5.231E+00	7.745E+00	5.542E-01	0.016
		300.09		-1.926E+01	5.213E+01	8.415E+01	6.993E+00	-0.229
BI-214		609.31	*	-1.518E+00	6.355E+00	9.687E+00	7.213E-01	-0.157
		1120.29		-5.580E+00	2.119E+01	3.257E+01	2.958E+00	-0.171
		1764.49		1.204E+01	1.765E+01	3.215E+01	1.911E+00	0.374
PB-214		74.81		-1.396E+01	6.923E+01	1.015E+02	1.062E+01	-0.138
		77.11		-5.457E+01	3.243E+01	4.728E+01	5.024E+00	-1.154
		87.30		-2.200E+01	5.439E+01	8.718E+01	9.475E+00	-0.252
		241.98		-6.310E+00	2.672E+01	3.652E+01	2.893E+00	-0.173
		295.21		1.984E+00	1.049E+01	1.618E+01	1.387E+00	0.123
		351.92	*	-1.587E+00	6.190E+00	9.340E+00	7.898E-01	-0.170
PO-214		74.81		-1.396E+01	6.923E+01	1.015E+02	1.062E+01	-0.138
		77.11		-5.457E+01	3.243E+01	4.728E+01	5.024E+00	-1.154
		87.30		-2.200E+01	5.439E+01	8.718E+01	9.475E+00	-0.252
		241.98		-6.310E+00	2.672E+01	3.652E+01	2.893E+00	-0.173
		295.21		1.984E+00	1.049E+01	1.618E+01	1.387E+00	0.123
		351.92	*	-1.587E+00	6.190E+00	9.340E+00	7.898E-01	-0.170
PO-215		81.07		1.418E+01	1.945E+01	3.338E+01	2.495E+00	0.425
		83.78		-8.818E+00	1.240E+01	1.833E+01	1.383E+00	-0.481
		94.90		-5.358E+01	2.151E+01	2.940E+01	2.067E+00	-1.823
		122.32		-2.532E+01	1.616E+02	2.386E+02	1.701E+01	-0.106

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		144.24		1.737E+01	6.517E+01	9.243E+01	6.545E+00	0.188
		154.21		-2.652E+00	2.990E+01	4.761E+01	3.189E+00	-0.056
		269.46		-1.185E+01	1.238E+01	1.918E+01	1.153E+00	-0.618
		323.87	*	2.514E+01	4.735E+01	8.126E+01	1.347E+01	0.309
		338.28		1.516E+00	7.469E+01	1.125E+02	1.198E+01	0.013
		445.03		-2.095E+01	1.472E+02	2.351E+02	2.451E+01	-0.089
PO-216		74.81		-8.224E+00	4.080E+01	5.980E+01	7.124E+00	-0.138
		77.11		-3.232E+01	1.905E+01	2.800E+01	2.075E+00	-1.154
		87.30		-1.304E+01	3.225E+01	5.167E+01	6.510E+00	-0.252
		115.19		-2.597E+02	2.990E+02	4.572E+02	2.888E+01	-0.568
	+	238.63	*	1.278E-01	5.231E+00	7.745E+00	5.542E-01	0.016
		300.09		-1.926E+01	5.213E+01	8.415E+01	6.993E+00	-0.229
PO-218		74.81		-1.396E+01	6.923E+01	1.015E+02	1.062E+01	-0.138
		77.11		-5.457E+01	3.243E+01	4.728E+01	5.024E+00	-1.154
		87.30		-2.200E+01	5.439E+01	8.718E+01	9.475E+00	-0.252
		241.98		-6.310E+00	2.672E+01	3.652E+01	2.893E+00	-0.173
		295.21		1.984E+00	1.049E+01	1.618E+01	1.387E+00	0.123
		351.92	*	-1.587E+00	6.190E+00	9.340E+00	7.898E-01	-0.170
RN-219		271.23		-6.531E-01	1.551E+01	2.585E+01	2.087E+00	-0.025
		401.81	*	-2.039E+01	3.119E+01	4.587E+01	6.301E+00	-0.445
RN-220		549.76	*	-7.013E+02	1.689E+03	2.552E+03	1.460E+02	-0.275
RA-223		81.07		1.418E+01	1.945E+01	3.338E+01	2.495E+00	0.425
		83.78		-8.818E+00	1.240E+01	1.833E+01	1.383E+00	-0.481
		94.90		-5.358E+01	2.151E+01	2.940E+01	2.067E+00	-1.823
		122.32		-2.532E+01	1.616E+02	2.386E+02	1.701E+01	-0.106
		144.24		1.737E+01	6.517E+01	9.243E+01	6.545E+00	0.188
		154.21		-2.652E+00	2.990E+01	4.761E+01	3.189E+00	-0.056
		269.46		-1.185E+01	1.238E+01	1.918E+01	1.153E+00	-0.618
		323.87	*	2.514E+01	4.735E+01	8.126E+01	1.347E+01	0.309
		338.28		1.516E+00	7.469E+01	1.125E+02	1.198E+01	0.013
		445.03		-2.095E+01	1.472E+02	2.351E+02	2.451E+01	-0.089
RA-224		240.98	*	1.194E+00	5.342E+01	7.533E+01	4.211E+00	0.016
AC-227		79.80		4.451E+01	1.540E+02	2.578E+02	5.430E+01	0.173
		236.00		4.790E+00	1.704E+01	2.593E+01	2.676E+00	0.185
		256.20	*	3.672E+00	2.684E+01	4.543E+01	6.319E+00	0.081
		286.10		-8.154E+01	1.053E+02	1.641E+02	1.899E+01	-0.497
		299.80		-2.012E+01	9.287E+01	1.517E+02	2.475E+01	-0.133
		304.40		7.424E+00	1.446E+02	2.188E+02	3.793E+01	0.034
		329.70		-2.653E+01	6.484E+01	1.036E+02	1.301E+01	-0.256
		334.20		-2.576E+01	1.574E+02	2.564E+02	4.718E+01	-0.100
PA-227		64.62	*	-1.000E+35	1.574E+02	Half-Life too short		
		110.05		-1.000E+35	1.574E+02	Half-Life too short		
TH-227		79.80		4.451E+01	1.540E+02	2.578E+02	5.502E+01	0.173
		94.00		-4.559E+02	2.211E+02	2.852E+02	6.052E+01	-1.599
		236.00		4.790E+00	1.703E+01	2.593E+01	2.309E+00	0.185
		256.20	*	3.672E+00	2.685E+01	4.543E+01	7.659E+00	0.081
		286.10		-8.154E+01	1.329E+02	1.641E+02	1.644E+02	-0.497
		299.80		-2.012E+01	9.287E+01	1.517E+02	2.475E+01	-0.133
		304.40		7.424E+00	1.446E+02	2.188E+02	3.793E+01	0.034

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		329.70		-2.653E+01	6.484E+01	1.036E+02	1.301E+01	-0.256
		334.20		-2.576E+01	1.574E+02	2.564E+02	4.718E+01	-0.100
AC-228		338.32		6.848E-01	1.801E+01	2.717E+01	1.108E+01	0.025
		911.07	*	-7.725E+00	1.059E+01	1.551E+01	1.626E+00	-0.498
		969.11		-5.676E+00	1.688E+01	2.519E+01	5.766E+00	-0.225
RA-228		338.32		6.848E-01	1.801E+01	2.717E+01	1.108E+01	0.025
		911.07	*	-7.725E+00	1.059E+01	1.551E+01	1.626E+00	-0.498
		969.11		-5.676E+00	1.688E+01	2.519E+01	5.766E+00	-0.225
TH-228		74.81		-8.224E+00	4.079E+01	5.980E+01	4.469E+00	-0.138
		77.11		-3.232E+01	1.905E+01	2.800E+01	2.075E+00	-1.154
		87.30		-1.304E+01	3.222E+01	5.167E+01	3.959E+00	-0.252
	+	238.63	*	1.278E-01	5.231E+00	7.745E+00	5.542E-01	0.016
		300.09		-1.926E+01	5.333E+01	8.415E+01	4.960E+01	-0.229
TH-229		85.43		6.133E+00	1.733E+01	2.726E+01	2.070E+00	0.225
		88.47		-6.185E+00	8.963E+00	1.408E+01	1.075E+00	-0.439
		100.00		1.099E+01	1.466E+01	2.514E+01	1.689E+00	0.437
		193.63	*	-1.335E+01	3.781E+01	5.828E+01	3.102E+00	-0.229
		210.97		-3.146E+01	5.728E+01	8.451E+01	4.576E+00	-0.372
TH-230		67.67	*	3.707E+02	2.734E+03	2.196E+03	1.425E+04	0.169
PA-231		283.67	*	1.021E+02	1.097E+02	1.935E+02	2.668E+01	0.527
		301.29		1.256E+01	3.689E+01	6.290E+01	6.607E+00	0.200
		330.00		-2.923E+01	1.419E+02	2.303E+02	7.221E+01	-0.127
TH-231		84.21	*	-3.982E+01	4.815E+01	7.007E+01	1.216E+01	-0.568
U-231		84.21		-4.578E+02	5.489E+02	8.054E+02	6.085E+01	-0.568
		92.29		4.152E+01	2.157E+02	3.547E+02	2.568E+01	0.117
		95.87	*	-1.217E+02	9.550E+01	1.430E+02	9.952E+00	-0.851
		108.00		-1.534E+02	1.814E+02	2.792E+02	1.796E+01	-0.549
TH-232		59.00	*	5.310E+02	7.325E+03	7.145E+03	7.522E+04	0.074
PA-233		75.28		7.522E+01	3.237E+02	4.825E+02	7.089E+01	0.156
		86.59		6.338E+01	1.366E+02	2.291E+02	6.075E+01	0.277
		300.12		-9.736E+00	2.655E+01	4.284E+01	5.773E+00	-0.227
		311.98	*	1.243E+00	4.321E+00	7.335E+00	4.609E-01	0.170
		340.50		2.160E+01	4.077E+01	6.964E+01	1.603E+01	0.310
		398.62		-1.991E+01	1.443E+02	2.326E+02	6.031E+01	-0.086
		415.76		5.175E+01	1.126E+02	1.909E+02	3.946E+01	0.271
PA-234	+	63.00		2.498E+02	2.712E+02	3.705E+02	5.503E+01	0.674
		94.67		-3.302E+01	1.535E+01	2.109E+01	2.397E+00	-1.565
		98.44		-1.694E+00	7.456E+00	1.191E+01	6.614E+00	-0.142
		99.86		3.030E+01	3.732E+01	6.423E+01	4.321E+00	0.472
		111.00		6.371E+00	1.554E+01	2.590E+01	2.746E+00	0.246
		131.20		2.232E+00	8.119E+00	1.335E+01	7.945E-01	0.167
		152.70		-2.250E+01	2.579E+01	3.854E+01	6.043E+00	-0.584
	+	186.00		8.410E+01	1.428E+02	1.705E+02	5.195E+01	0.493
		226.40		-4.486E+00	2.651E+01	4.423E+01	5.049E+00	-0.101
		227.20		-1.107E+01	2.867E+01	4.713E+01	2.597E+00	-0.235
		248.90		2.056E+01	5.925E+01	1.015E+02	2.177E+01	0.203
		293.70		1.571E+01	4.353E+01	7.428E+01	1.196E+01	0.211
		369.80		-1.628E+01	5.945E+01	9.501E+01	1.986E+01	-0.171
		568.70		6.614E+01	6.631E+01	1.179E+02	6.622E+00	0.561

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		569.50		-3.234E+00	1.886E+01	2.946E+01	1.653E+00	-0.110
		574.00		8.646E+01	9.476E+01	1.742E+02	9.724E+00	0.496
		699.00		2.240E+01	4.676E+01	8.156E+01	1.454E+01	0.275
		706.10		-2.883E+01	6.741E+01	1.043E+02	4.600E+01	-0.276
		733.00		7.220E-01	2.432E+01	4.047E+01	8.591E+00	0.018
		742.81		-1.464E+01	8.738E+01	1.408E+02	9.422E+01	-0.104
		796.30		-1.916E+01	5.818E+01	9.154E+01	2.419E+01	-0.209
		805.60		-3.828E+01	7.036E+01	1.065E+02	3.207E+01	-0.360
		819.60		6.946E+01	8.232E+01	1.432E+02	5.391E+01	0.485
		826.30		-2.626E+01	5.297E+01	7.876E+01	3.499E+01	-0.333
		831.60		-2.671E+00	3.963E+01	6.452E+01	1.895E+01	-0.041
		876.40		2.399E+01	5.904E+01	9.321E+01	9.573E+01	0.257
		880.51		2.630E+00	1.729E+01	2.891E+01	2.149E+00	0.091
		883.24		-2.847E+00	1.775E+01	2.817E+01	1.890E+01	-0.101
		899.00		-2.101E+01	5.678E+01	8.674E+01	3.776E+01	-0.242
		925.00		-1.674E+01	7.342E+01	1.155E+02	8.703E+00	-0.145
		926.50		-8.504E+00	1.122E+01	1.576E+01	3.928E+00	-0.540
		946.00	*	-3.881E+00	1.666E+01	2.598E+01	4.741E+00	-0.149
		949.00		-2.414E-01	2.610E+01	4.239E+01	3.144E+00	-0.006
		980.50		-9.066E+00	4.810E+01	7.584E+01	5.492E+00	-0.120
		1394.10		-5.014E+01	8.477E+01	1.135E+02	7.362E+01	-0.442
PA-234M		766.42		5.424E+02	7.245E+02	1.216E+03	6.126E+02	0.446
		1001.03	*	-1.861E+02	2.920E+02	4.357E+02	3.789E+01	-0.427
TH-234	+	63.29	*	2.143E+02	2.335E+02	3.137E+02	5.468E+01	0.683
		92.38		8.966E+00	5.473E+01	8.985E+01	1.569E+01	0.100
U-234		53.20	*	9.624E+03	9.698E+04	2.090E+04	2.090E+05	0.460
U-235		89.95		-2.763E+02	1.325E+02	1.424E+02	4.352E+01	-1.940
		93.35		-2.659E+01	6.421E+01	1.018E+02	2.811E+01	-0.261
		105.00		6.787E+01	9.294E+01	1.549E+02	4.540E+01	0.438
		143.76	*	3.841E+00	2.003E+01	2.823E+01	4.586E+00	0.136
		163.35		-3.193E+00	3.679E+01	5.841E+01	1.041E+01	-0.055
	+	185.71		3.115E+00	5.206E+00	6.360E+00	3.362E-01	0.490
		205.31		-2.823E+01	3.439E+01	5.468E+01	9.761E+00	-0.516
NP-236		94.67		-2.494E+01	1.143E+01	1.602E+01	1.129E+00	-1.557
		98.44		-1.283E+00	5.592E+00	9.003E+00	6.124E-01	-0.142
		111.00		4.819E+00	1.174E+01	1.959E+01	1.248E+00	0.246
		160.31	*	3.248E+00	6.784E+00	1.093E+01	5.807E-01	0.297
NP-237		86.50	*	1.050E+01	2.057E+01	3.461E+01	7.614E+00	0.303
		95.87		-1.042E+02	8.526E+01	1.224E+02	2.951E+01	-0.851
PU-237		59.54	*	1.476E+02	3.241E+02	5.024E+02	3.639E+01	0.294
U-238	+	63.29	*	2.143E+02	2.335E+02	3.137E+02	5.468E+01	0.683
		92.38		8.966E+00	5.472E+01	8.985E+01	6.499E+00	0.100
NP-239		99.55		9.433E+00	1.272E+01	2.178E+01	1.469E+00	0.433
		117.00	*	1.285E+01	1.545E+01	2.638E+01	1.663E+00	0.487
		209.75		1.339E+01	4.941E+01	8.513E+01	4.604E+00	0.157
		228.18		-6.848E+00	1.498E+01	2.449E+01	1.350E+00	-0.280
		277.60		-1.670E+00	1.258E+01	2.081E+01	1.204E+00	-0.080
		334.30		-2.124E+01	8.860E+01	1.435E+02	8.612E+00	-0.148
AM-241		59.54	*	1.066E+01	2.341E+01	3.629E+01	2.894E+00	0.294

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AM-243		74.67	*	-1.253E-01	6.497E+00	9.613E+00	7.103E-01	-0.013
		86.72		1.867E+02	7.642E+02	1.274E+03	9.735E+01	0.147
		117.66		1.421E+02	3.104E+02	5.185E+02	3.266E+01	0.274
		142.18		3.302E+02	1.599E+03	2.330E+03	1.318E+02	0.142
CM-243		99.55		9.707E+00	1.309E+01	2.241E+01	1.511E+00	0.433
		103.76	*	4.095E+00	7.983E+00	1.346E+01	8.827E-01	0.304
		117.00		1.322E+01	1.589E+01	2.714E+01	1.711E+00	0.487
		209.75		1.320E+01	4.871E+01	8.392E+01	4.538E+00	0.157
		228.18		-6.919E+00	1.513E+01	2.474E+01	1.365E+00	-0.280
		277.60		-1.684E+00	1.268E+01	2.098E+01	1.214E+00	-0.080
AM-246		798.80		3.226E+00	1.016E+01	1.732E+01	1.114E+00	0.186
		1036.00		4.231E+00	1.717E+01	2.888E+01	1.988E+00	0.146
		1062.04		8.900E+00	1.325E+01	2.367E+01	1.583E+00	0.376
		1078.86	*	-2.887E+00	7.091E+00	1.044E+01	6.851E-01	-0.276
CM-247		278.00		-1.486E+01	5.191E+01	8.489E+01	4.914E+00	-0.175
		287.40		-3.654E+01	8.095E+01	1.299E+02	7.578E+00	-0.281
		402.60	*	2.312E-01	2.750E+00	4.301E+00	2.622E-01	0.054
CF-249		252.85		-4.551E+00	6.622E+01	1.107E+02	6.260E+00	-0.041
		333.44		6.950E-01	1.194E+01	1.982E+01	1.189E+00	0.035
		387.95	*	1.152E+00	2.780E+00	4.719E+00	2.874E-01	0.244
CF-251		176.60	*	-9.607E+00	1.019E+01	1.514E+01	7.954E-01	-0.634
		227.00		-2.553E-02	2.513E+01	4.241E+01	2.336E+00	-0.001
		285.00		-8.006E+01	1.248E+02	1.979E+02	1.152E+01	-0.405
ANH-511		511.00	*	-8.553E+00	4.076E+00	6.834E+00	4.030E-01	-1.252

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243104002     *
* Acquisition date : 30-DEC-2009 18:38:48 Detector SN#    :                *
* Detector ID        : GAM10               Sensitivity     : 5.000         *
* Geometry           : 2LMB                Energy tolerance: 1.500         *
* Elapsed live time:     0 03:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 03:00:00.61     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 15-DEC-2009 12:00:00 Nuclide Library : LIQUI        *
* Sample ID          : G243104002           Analyst initials: KXG3          *
* Batch Number       : 935338               Sample Quantity : 2.0000E+00 LITER *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME : 25-FEB-2009 11:11:10 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
AS-74	6.201E+00	1.012E+01	8.352E+00	0.000E+00
RA-226	5.128E+01	9.169E+01	7.921E+01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)		
BE-7	-7.868E+00		2.204E+01	3.492E+01	0.000E+00	NOT IDENT.
NA-22	2.459E+00		2.924E+00	5.014E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00		6.945E+07	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-2.024E-01		2.488E+00	4.029E+00	0.000E+00	NOT IDENT.
K-40	-7.229E+00		3.096E+01	5.557E+01	0.000E+00	NOT IDENT.
TI-44	2.729E-01		3.024E+00	5.121E+00	0.000E+00	NOT IDENT.
SC-46	-2.965E-01		2.488E+00	4.081E+00	0.000E+00	NOT IDENT.
V-48	-6.529E-01		4.335E+00	7.007E+00	0.000E+00	NOT IDENT.
CR-51	-1.938E+01		2.516E+01	3.975E+01	0.000E+00	NOT IDENT.
MN-52	1.411E+00		1.587E+01	2.712E+01	0.000E+00	NOT IDENT.
MN-54	8.761E-01		2.153E+00	3.803E+00	0.000E+00	NOT IDENT.
CO-56	-8.905E-01		2.349E+00	3.716E+00	0.000E+00	NOT IDENT.
CO-57	-7.382E-02		2.287E+00	3.474E+00	0.000E+00	NOT IDENT.
CO-58	-1.163E+00		2.153E+00	3.311E+00	0.000E+00	NOT IDENT.
FE-59	-4.945E-01		5.265E+00	8.503E+00	0.000E+00	NOT IDENT.
CO-60	-3.832E-01		2.611E+00	4.316E+00	0.000E+00	NOT IDENT.
ZN-65	-6.893E-01		5.125E+00	8.218E+00	0.000E+00	NOT IDENT.
GE-68	-5.519E+01		6.249E+01	8.345E+01	0.000E+00	NOT IDENT.
AS-73	1.828E+02		1.502E+02	2.725E+02	0.000E+00	NOT IDENT.
SE-75	1.502E+00		2.998E+00	5.297E+00	0.000E+00	NOT IDENT.
BR-77	-5.329E+02		7.373E+02	1.102E+03	0.000E+00	FAIL ABUN
SR-82	-1.194E+01		2.025E+01	3.101E+01	0.000E+00	NOT IDENT.
RB-83	-3.709E+00		4.593E+00	6.778E+00	0.000E+00	NOT IDENT.
RB-84	-7.066E-01		4.317E+00	7.036E+00	0.000E+00	NOT IDENT.
KR-85	-7.517E+02		7.529E+02	1.149E+03	0.000E+00	NOT IDENT.

SR-85	-3.862E+00	3.867E+00	5.901E+00	0.000E+00	NOT IDENT.
RB-86	-1.977E+01	3.816E+01	5.583E+01	0.000E+00	NOT IDENT.
Y-88	-1.681E-01	2.667E+00	4.329E+00	0.000E+00	NOT IDENT.
ZR-88	-1.070E+00	1.998E+00	3.157E+00	0.000E+00	NOT IDENT.
Y-91	-5.752E+02	8.881E+02	1.346E+03	0.000E+00	NOT IDENT.
NB-94	-8.125E-02	2.108E+00	3.562E+00	0.000E+00	NOT IDENT.
NB-95	2.770E+00	2.865E+00	5.366E+00	0.000E+00	NOT IDENT.
NB-95M	4.184E+00	9.155E+00	1.441E+01	0.000E+00	NOT IDENT.
ZR-95	1.822E+00	3.970E+00	7.107E+00	0.000E+00	NOT IDENT.
NB-97	0.000E+00	6.527E+06	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.165E+08	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-8.772E+01	7.514E+02	1.252E+03	0.000E+00	FAIL ABUN
TC-99M	0.000E+00	7.889E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.265E+00	2.907E+00	4.439E+00	0.000E+00	NOT IDENT.
RH-102	-5.446E-01	2.136E+00	3.431E+00	0.000E+00	NOT IDENT.
RU-103	-3.721E-01	3.062E+00	4.970E+00	0.000E+00	NOT IDENT.
RH-106	-2.443E+00	1.944E+01	3.280E+01	0.000E+00	NOT IDENT.
RU-106	-2.443E+00	1.944E+01	3.280E+01	0.000E+00	NOT IDENT.
AG-108M	-1.004E+00	2.206E+00	3.487E+00	0.000E+00	NOT IDENT.
CD-109	2.782E+00	6.571E+01	1.105E+02	0.000E+00	NOT IDENT.
AG-110M	-2.129E+00	1.961E+00	2.854E+00	0.000E+00	NOT IDENT.
IN-111	-8.576E+01	7.264E+01	1.139E+02	0.000E+00	NOT IDENT.
IN-113M	-2.450E+00	3.018E+00	4.641E+00	0.000E+00	NOT IDENT.
SN-113	-2.450E+00	3.018E+00	4.641E+00	0.000E+00	NOT IDENT.
IN-114M	6.957E+00	1.420E+01	2.135E+01	0.000E+00	NOT IDENT.
CD-115	1.769E+02	6.613E+02	1.120E+03	0.000E+00	NOT IDENT.
SN-117M	-2.903E+00	4.627E+00	7.090E+00	0.000E+00	NOT IDENT.
SB-122	4.575E-02	1.391E+02	2.266E+02	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.133E+08	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.972E+00	2.413E+00	3.653E+00	0.000E+00	NOT IDENT.
I-124	-2.249E+01	5.060E+01	7.062E+01	0.000E+00	NOT IDENT.
SB-124	4.211E+00	5.892E+00	1.113E+01	0.000E+00	NOT IDENT.
SB-125	-3.093E-01	5.781E+00	9.541E+00	0.000E+00	NOT IDENT.
TE-125M	8.803E+00	7.566E+02	1.258E+03	0.000E+00	NOT IDENT.
I-126	-9.319E+00	1.629E+01	1.710E+01	0.000E+00	NOT IDENT.
SB-126	6.085E+00	8.955E+00	1.634E+01	0.000E+00	NOT IDENT.
SN-126	-2.658E+00	6.696E+00	1.097E+01	0.000E+00	FAIL ABUN
SB-127	-5.259E+01	8.787E+01	1.384E+02	0.000E+00	NOT IDENT.
XE-127	2.877E+00	3.199E+00	5.814E+00	0.000E+00	NOT IDENT.
I-131	1.807E+00	7.798E+00	1.335E+01	0.000E+00	NOT IDENT.
TE-132	-2.190E+01	4.671E+01	7.776E+01	0.000E+00	NOT IDENT.
BA-133	-2.324E+00	2.859E+00	4.424E+00	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.025E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-1.967E+00	3.028E+00	4.684E+00	0.000E+00	NOT IDENT.
CS-135	2.709E+00	1.012E+01	1.759E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.981E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.563E+00	5.956E+00	9.351E+00	0.000E+00	NOT IDENT.
BA-137M	6.214E-02	1.880E+00	3.218E+00	0.000E+00	NOT IDENT.
CS-137	6.568E-02	1.987E+00	3.402E+00	0.000E+00	NOT IDENT.
CE-139	-1.146E+00	2.216E+00	3.480E+00	0.000E+00	NOT IDENT.
BA-140	-6.486E-01	1.892E+01	2.758E+01	0.000E+00	NOT IDENT.
LA-140	-1.911E+00	7.862E+00	1.126E+01	0.000E+00	NOT IDENT.
CE-141	8.584E-01	4.935E+00	8.178E+00	0.000E+00	NOT IDENT.
CE-143	0.000E+00	9.300E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-5.939E+00	1.630E+01	2.618E+01	0.000E+00	NOT IDENT.
PM-144	4.414E-01	2.138E+00	3.715E+00	0.000E+00	NOT IDENT.
PR-144	2.992E+01	1.449E+02	2.517E+02	0.000E+00	NOT IDENT.
PM-146	2.353E-01	3.093E+00	5.152E+00	0.000E+00	NOT IDENT.
ND-147	4.321E+00	3.233E+01	5.384E+01	0.000E+00	NOT IDENT.
PM-149	-7.766E+03	6.754E+03	1.034E+04	0.000E+00	NOT IDENT.
EU-152	-8.713E-01	6.621E+00	1.102E+01	0.000E+00	NOT IDENT.
GD-153	-2.000E+00	6.405E+00	1.048E+01	0.000E+00	NOT IDENT.
EU-154	7.021E+00	8.203E+00	1.407E+01	0.000E+00	NOT IDENT.
EU-155	7.179E+00	9.121E+00	1.588E+01	0.000E+00	NOT IDENT.
TB-160	-9.892E-02	8.931E+00	1.489E+01	0.000E+00	FAIL ABUN
HO-166M	-1.190E+00	4.235E+00	6.967E+00	0.000E+00	FAIL ABUN
TM-171	3.716E+03	3.574E+03	5.827E+03	0.000E+00	NOT IDENT.
HF-175	-9.372E-01	2.439E+00	3.972E+00	0.000E+00	NOT IDENT.
LU-176	2.636E-01	1.650E+00	2.831E+00	0.000E+00	NOT IDENT.
LU-177	1.380E+01	6.861E+01	1.201E+02	0.000E+00	NOT IDENT.
LU-177M	-4.462E+00	1.173E+01	1.879E+01	0.000E+00	NOT IDENT.
HF-181	1.808E-01	2.968E+00	4.919E+00	0.000E+00	NOT IDENT.
W-181	5.045E+01	4.839E+01	7.892E+01	0.000E+00	NOT IDENT.
TA-182	-1.076E+01	1.151E+01	1.373E+01	0.000E+00	NOT IDENT.
RE-183	1.868E+00	8.800E+00	1.454E+01	0.000E+00	NOT IDENT.
RE-184	-1.214E+00	1.731E+01	2.951E+01	0.000E+00	NOT IDENT.
OS-185	-1.198E+00	2.462E+00	3.944E+00	0.000E+00	NOT IDENT.
RE-188	6.116E+00	1.244E+01	2.099E+01	0.000E+00	NOT IDENT.

W-188	-2.569E+01	4.711E+02	7.972E+02	0.000E+00	FAIL ABUN
IR-192	3.447E-01	2.325E+00	3.979E+00	0.000E+00	NOT IDENT.
AU-195	8.278E+00	1.775E+01	3.051E+01	0.000E+00	NOT IDENT.
TL-200	0.000E+00	3.536E+04	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-7.240E+01	5.490E+02	8.858E+02	0.000E+00	NOT IDENT.
TL-202	-3.149E+00	4.448E+00	6.782E+00	0.000E+00	NOT IDENT.
HG-203	-3.176E+00	2.814E+00	4.389E+00	0.000E+00	NOT IDENT.
BI-207	9.141E-01	3.125E+00	5.373E+00	0.000E+00	NOT IDENT.
TL-207	2.514E+01	4.641E+01	8.126E+01	0.000E+00	NOT IDENT.
TL-208	-5.739E-01	3.196E+00	4.722E+00	0.000E+00	NOT IDENT.
PO-209	-3.584E+02	4.768E+02	7.069E+02	0.000E+00	NOT IDENT.
BI-210	-9.685E+01	7.827E+02	1.332E+03	0.000E+00	NOT IDENT.
PB-210	-9.685E+01	7.827E+02	1.332E+03	0.000E+00	NOT IDENT.
PO-210	-9.685E+01	7.827E+02	1.332E+03	0.000E+00	NOT IDENT.
BI-211	-2.165E+00	1.748E+01	2.723E+01	0.000E+00	NOT IDENT.
PB-211	-4.411E+01	7.384E+01	1.022E+02	0.000E+00	NOT IDENT.
BI-212	-2.732E+00	1.803E+01	2.997E+01	0.000E+00	NOT IDENT.
PB-212	1.278E-01	5.126E+00	7.745E+00	0.000E+00	FAIL ABUN
PO-212	1.278E-01	5.126E+00	7.745E+00	0.000E+00	FAIL ABUN
BI-214	-1.518E+00	6.227E+00	9.687E+00	0.000E+00	NOT IDENT.
PB-214	-1.587E+00	6.067E+00	9.340E+00	0.000E+00	NOT IDENT.
PO-214	-1.587E+00	6.067E+00	9.340E+00	0.000E+00	NOT IDENT.
PO-215	2.514E+01	4.641E+01	8.126E+01	0.000E+00	NOT IDENT.
PO-216	1.278E-01	5.126E+00	7.745E+00	0.000E+00	FAIL ABUN
PO-218	-1.587E+00	6.067E+00	9.340E+00	0.000E+00	NOT IDENT.
RN-219	-2.039E+01	3.056E+01	4.587E+01	0.000E+00	NOT IDENT.
RN-220	-7.013E+02	1.655E+03	2.552E+03	0.000E+00	NOT IDENT.
RA-223	2.514E+01	4.641E+01	8.126E+01	0.000E+00	NOT IDENT.
RA-224	1.194E+00	5.235E+01	7.533E+01	0.000E+00	NOT IDENT.
AC-227	3.672E+00	2.631E+01	4.543E+01	0.000E+00	NOT IDENT.
PA-227	0.000E+00	1.162E+43	0.000E+00	0.000E+00	SHORT HLIF
TH-227	3.672E+00	2.631E+01	4.543E+01	0.000E+00	NOT IDENT.
AC-228	-7.725E+00	1.038E+01	1.551E+01	0.000E+00	NOT IDENT.
RA-228	-7.725E+00	1.038E+01	1.551E+01	0.000E+00	NOT IDENT.
TH-228	1.278E-01	5.126E+00	7.745E+00	0.000E+00	FAIL ABUN
TH-229	-1.335E+01	3.705E+01	5.828E+01	0.000E+00	NOT IDENT.
TH-230	3.707E+02	2.680E+03	2.196E+03	0.000E+00	NOT IDENT.
PA-231	1.021E+02	1.075E+02	1.935E+02	0.000E+00	NOT IDENT.
TH-231	-3.982E+01	4.719E+01	7.007E+01	0.000E+00	NOT IDENT.
U-231	-1.217E+02	9.359E+01	1.430E+02	0.000E+00	NOT IDENT.
TH-232	5.310E+02	7.178E+03	7.145E+03	0.000E+00	NOT IDENT.
PA-233	1.243E+00	4.234E+00	7.335E+00	0.000E+00	NOT IDENT.
PA-234	-3.881E+00	1.632E+01	2.598E+01	0.000E+00	FAIL ABUN
PA-234M	-1.861E+02	2.862E+02	4.357E+02	0.000E+00	NOT IDENT.
TH-234	2.143E+02	2.288E+02	3.137E+02	0.000E+00	FAIL ABUN
U-234	9.624E+03	9.504E+04	2.090E+04	0.000E+00	NOT IDENT.
U-235	3.841E+00	1.963E+01	2.823E+01	0.000E+00	FAIL ABUN
NP-236	3.248E+00	6.648E+00	1.093E+01	0.000E+00	NOT IDENT.
NP-237	1.050E+01	2.015E+01	3.461E+01	0.000E+00	NOT IDENT.
PU-237	1.476E+02	3.176E+02	5.024E+02	0.000E+00	NOT IDENT.
U-238	2.143E+02	2.288E+02	3.137E+02	0.000E+00	FAIL ABUN
NP-239	1.285E+01	1.514E+01	2.638E+01	0.000E+00	NOT IDENT.
AM-241	1.066E+01	2.294E+01	3.629E+01	0.000E+00	NOT IDENT.
AM-243	-1.253E-01	6.367E+00	9.613E+00	0.000E+00	NOT IDENT.
CM-243	4.095E+00	7.824E+00	1.346E+01	0.000E+00	NOT IDENT.
AM-246	-2.887E+00	6.950E+00	1.044E+01	0.000E+00	NOT IDENT.
CM-247	2.312E-01	2.695E+00	4.301E+00	0.000E+00	NOT IDENT.
CF-249	1.152E+00	2.724E+00	4.719E+00	0.000E+00	NOT IDENT.
CF-251	-9.607E+00	9.986E+00	1.514E+01	0.000E+00	NOT IDENT.
ANH-511	-8.553E+00	3.994E+00	6.834E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 30-DEC-2009 21:39:37.30

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243104002.CNF;1
Sample date       : 15-DEC-2009 12:00:00 Acquisition date : 30-DEC-2009 18:38:48
Sample ID         : G243104002           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM10                Detector geometry: 2LMB
Elapsed live time: 0 03:00:00.00         Elapsed real time: 0 03:00:00.61  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 935338               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.08	63	148	1.26	126.32	123	7	5.83E-03	34.4	
2	0	92.28	97	222	1.36	184.66	180	10	9.00E-03	30.4	
3	0	140.43	42	196	1.04	280.88	275	9	3.92E-03	61.5	
4	0	185.43	107	136	1.02	370.80	366	10	9.95E-03	22.4	
5	0	238.77	43	89	1.36	477.41	475	7	3.94E-03	40.1	
6	0	353.49	34	100	1.20	706.68	700	14	3.19E-03	65.0	
7	0	511.50	185	104	2.80	1022.52	1014	19	1.71E-02	15.4	
8	0	596.87	18	56	0.96	1193.17	1189	11	1.67E-03	83.3	
9	0	610.70	23	54	1.70	1220.81	1213	11	2.15E-03	65.1	
10	0	1272.69	11	5	1.38	2544.61	2541	7	1.02E-03	45.6	

VAX/VMS Nuclide Identification Report Generated 30-DEC-2009 21:39:40.20

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243104002.CNF;1
Sample date       : 15-DEC-2009 12:00:00 Acquisition date : 30-DEC-2009 18:38:48
Sample ID         : G243104002           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM10                Detector geometry: 2LMB
Elapsed live time: 0 03:00:00.00         Elapsed real time: 0 03:00:00.61  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 935338                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
AS-74	595.88	18	59.90*	1.105E+00	3.409E+00	6.201E+00	166.60
	634.78	------	15.40	1.054E+00	------	Line Not Found	------
RA-226	186.21	31	3.28*	2.337E+00	5.128E+01	5.128E+01	182.43

Flag: "*" = Keyline

Sample ID : G243104002 Acquisition date : 30-DEC-2009 18:38:48

Total number of lines in spectrum	6	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	6	100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
AS-74	17.77D	1.82	3.409E+00	6.201E+00	10.33E+00	166.60	
RA-226	1600.00Y	1.00	5.128E+01	5.128E+01	9.356E+01	182.43	
	Total Activity :		5.469E+01	5.748E+01			
	Grand Total Activity :		5.469E+01	5.748E+01			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G243104002 Acquisition date : 30-DEC-2009 18:38:48

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	63.08	43	148	1.26	126.32	123	7	3.97E-03	****	6.58E-01	T
0	140.43	31	196	1.04	280.88	275	9	2.83E-03	****	2.46E+00	T
0	238.77	1	89	1.36	477.41	475	7	8.57E-05	****	2.06E+00	T
0	1272.69	11	5	1.38	2544.61	2541	7	1.02E-03	91.2	6.04E-01	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 30-DEC-2009 21:39:44.85

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243104002.CNF;1  *
* Acquisition date : 30-DEC-2009 18:38:48  Detector SN#    :                *
* Detector ID      : GAM10                 Sensitivity     : 5.00000        *
* Geometry         : 2LMB                  Energy tolerance: 1.50000        *
* Elapsed live time: 0 03:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 03:00:00.61         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 15-DEC-2009 12:00:00  Nuclide Library : LIQUID         *
* Sample ID        : G243104002            Analyst initials: KXG3           *
* Batch Number     : 935338                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 25-FEB-2009 11:11:10.0MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AS-74	6.201E+00	1.033E+01	8.352E+00	4.544E-01	0.743
RA-226	5.128E+01	9.356E+01	7.921E+01	5.811E+01	0.647

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	-7.868E+00		2.249E+01	3.492E+01	2.420E+00	-0.225
NA-22	2.459E+00		2.984E+00	5.014E+00	3.213E-01	0.491
NA-24	-5.439E+01		3.543E+01	Half-Life too short		
AL-26	-2.024E-01		2.539E+00	4.029E+00	2.332E-01	-0.050
K-40	-7.229E+00		3.160E+01	5.557E+01	3.885E+00	-0.130
TI-44	2.729E-01		3.086E+00	5.121E+00	3.802E-01	0.053
SC-46	-2.965E-01		2.539E+00	4.081E+00	3.079E-01	-0.073
V-48	-6.529E-01		4.423E+00	7.007E+00	5.062E-01	-0.093
CR-51	-1.938E+01		2.568E+01	3.975E+01	2.626E+00	-0.488
MN-52	1.411E+00		1.620E+01	2.712E+01	1.820E+00	0.052

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
MN-54	8.761E-01		2.197E+00	3.803E+00	2.611E-01	0.230
CO-56	-8.905E-01		2.397E+00	3.716E+00	2.606E-01	-0.240
CO-57	-7.382E-02		2.334E+00	3.474E+00	2.191E-01	-0.021
CO-58	-1.163E+00		2.197E+00	3.311E+00	2.186E-01	-0.351
FE-59	-4.945E-01		5.373E+00	8.503E+00	6.214E-01	-0.058
CO-60	-3.832E-01		2.664E+00	4.316E+00	2.932E-01	-0.089
ZN-65	-6.893E-01		5.230E+00	8.218E+00	5.150E-01	-0.084
GE-68	-5.519E+01		6.377E+01	8.345E+01	5.484E+00	-0.661
AS-73	1.828E+02		1.532E+02	2.725E+02	2.276E+01	0.671
SE-75	1.502E+00		3.059E+00	5.297E+00	3.062E-01	0.284
BR-77	-5.329E+02		7.523E+02	1.102E+03	6.455E+01	-0.484
SR-82	-1.194E+01		2.066E+01	3.101E+01	1.914E+00	-0.385
RB-83	-3.709E+00		4.687E+00	6.778E+00	3.971E-01	-0.547
RB-84	-7.066E-01		4.405E+00	7.036E+00	5.239E-01	-0.100
KR-85	-7.517E+02		7.682E+02	1.149E+03	6.760E+01	-0.654
SR-85	-3.862E+00		3.946E+00	5.901E+00	3.473E-01	-0.654
RB-86	-1.977E+01		3.894E+01	5.583E+01	3.672E+00	-0.354
Y-88	-1.681E-01		2.722E+00	4.329E+00	2.467E-01	-0.039
ZR-88	-1.070E+00		2.039E+00	3.157E+00	1.923E-01	-0.339
Y-91	-5.752E+02		9.062E+02	1.346E+03	7.980E+01	-0.427
NB-94	-8.125E-02		2.151E+00	3.562E+00	1.905E-01	-0.023
NB-95	2.770E+00		2.923E+00	5.366E+00	3.247E-01	0.516
NB-95M	4.184E+00		9.341E+00	1.441E+01	1.058E+00	0.290
ZR-95	1.822E+00		4.051E+00	7.107E+00	5.081E-01	0.256
NB-97	-7.086E+00		3.330E+00	Half-Life too short		
ZR-97	-4.742E+02		1.105E+02	Half-Life too short		
MO-99	-8.772E+01		7.667E+02	1.252E+03	1.723E+02	-0.070
TC-99M	4.456E+12	+	4.025E+12	Half-Life too short		
RH-101	1.265E+00		2.966E+00	4.439E+00	2.372E-01	0.285
RH-102	-5.446E-01		2.179E+00	3.431E+00	2.063E-01	-0.159
RU-103	-3.721E-01		3.124E+00	4.970E+00	6.318E-01	-0.075
RH-106	-2.443E+00		1.984E+01	3.280E+01	3.764E+00	-0.074
RU-106	-2.443E+00		1.984E+01	3.280E+01	1.722E+00	-0.074
AG-108M	-1.004E+00		2.251E+00	3.487E+00	2.287E-01	-0.288
CD-109	2.782E+00		6.706E+01	1.105E+02	8.490E+00	0.025
AG-110M	-2.129E+00		2.001E+00	2.854E+00	1.537E-01	-0.746
IN-111	-8.576E+01		7.412E+01	1.139E+02	6.396E+00	-0.753
IN-113M	-2.450E+00		3.080E+00	4.641E+00	2.999E-01	-0.528
SN-113	-2.450E+00		3.080E+00	4.641E+00	2.999E-01	-0.528
IN-114M	6.957E+00		1.449E+01	2.135E+01	1.133E+00	0.326
CD-115	1.769E+02		6.748E+02	1.120E+03	6.527E+01	0.158
SN-117M	-2.903E+00		4.722E+00	7.090E+00	3.787E-01	-0.409
SB-122	4.575E-02		1.419E+02	2.266E+02	1.278E+01	0.000
I-123	-5.012E+02		3.129E+02	Half-Life too short		
TE-123M	-1.972E+00		2.463E+00	3.653E+00	1.979E-01	-0.540
I-124	-2.249E+01		5.164E+01	7.062E+01	3.809E+00	-0.318
SB-124	4.211E+00		6.012E+00	1.113E+01	7.396E-01	0.378
SB-125	-3.093E-01		5.899E+00	9.541E+00	6.033E-01	-0.032

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TE-125M	8.803E+00		7.720E+02	1.258E+03	1.078E+02	0.007
I-126	-9.319E+00		1.662E+01	1.710E+01	8.483E-01	-0.545
SB-126	6.085E+00		9.138E+00	1.634E+01	9.051E-01	0.372
SN-126	-2.658E+00		6.832E+00	1.097E+01	8.413E-01	-0.242
SB-127	-5.259E+01		8.966E+01	1.384E+02	1.262E+01	-0.380
XE-127	2.877E+00		3.264E+00	5.814E+00	3.122E-01	0.495
I-131	1.807E+00		7.957E+00	1.335E+01	8.964E-01	0.135
TE-132	-2.190E+01		4.766E+01	7.776E+01	1.111E+01	-0.282
BA-133	-2.324E+00		2.917E+00	4.424E+00	5.172E-01	-0.525
I-133	-6.935E-02		2.054E-01	Half-Life too short		
CS-134	-1.967E+00		3.089E+00	4.684E+00	3.036E-01	-0.420
CS-135	2.709E+00		1.032E+01	1.759E+01	1.339E+00	0.154
I-135	-1.560E+11		2.541E+11	Half-Life too short		
CS-136	-1.563E+00		6.078E+00	9.351E+00	6.783E-01	-0.167
BA-137M	6.214E-02		1.918E+00	3.218E+00	1.581E-01	0.019
CS-137	6.568E-02		2.028E+00	3.402E+00	1.681E-01	0.019
CE-139	-1.146E+00		2.261E+00	3.480E+00	1.822E-01	-0.329
BA-140	-6.486E-01		1.930E+01	2.758E+01	8.969E+00	-0.024
LA-140	-1.911E+00		8.022E+00	1.126E+01	7.243E-01	-0.170
CE-141	8.584E-01		5.036E+00	8.178E+00	4.763E-01	0.105
CE-143	-1.676E-06		4.745E-03	Half-Life too short		
CE-144	-5.939E+00		1.663E+01	2.618E+01	3.726E+00	-0.227
PM-144	4.414E-01		2.182E+00	3.715E+00	1.963E-01	0.119
PR-144	2.992E+01		1.479E+02	2.517E+02	1.329E+01	0.119
PM-146	2.353E-01		3.156E+00	5.152E+00	4.532E-01	0.046
ND-147	4.321E+00		3.299E+01	5.384E+01	7.283E+00	0.080
PM-149	-7.766E+03		6.892E+03	1.034E+04	1.466E+03	-0.751
EU-152	-8.713E-01		6.756E+00	1.102E+01	7.428E-01	-0.079
GD-153	-2.000E+00		6.536E+00	1.048E+01	7.188E-01	-0.191
EU-154	7.021E+00		8.371E+00	1.407E+01	1.368E+00	0.499
EU-155	7.179E+00		9.307E+00	1.588E+01	1.055E+00	0.452
TB-160	-9.892E-02		9.114E+00	1.489E+01	1.105E+00	-0.007
HO-166M	-1.190E+00		4.321E+00	6.967E+00	3.793E-01	-0.171
TM-171	3.716E+03		3.647E+03	5.827E+03	4.313E+02	0.638
HF-175	-9.372E-01		2.489E+00	3.972E+00	2.394E-01	-0.236
LU-176	2.636E-01		1.684E+00	2.831E+00	1.674E-01	0.093
LU-177	1.380E+01		7.001E+01	1.201E+02	6.487E+00	0.115
LU-177M	-4.462E+00		1.197E+01	1.879E+01	1.145E+00	-0.237
HF-181	1.808E-01		3.029E+00	4.919E+00	2.948E-01	0.037
W-181	5.045E+01		4.937E+01	7.892E+01	5.843E+00	0.639
TA-182	-1.076E+01		1.174E+01	1.373E+01	8.289E-01	-0.784
RE-183	1.868E+00		8.980E+00	1.454E+01	7.680E-01	0.129
RE-184	-1.214E+00		1.766E+01	2.951E+01	1.669E+00	-0.041
OS-185	-1.198E+00		2.513E+00	3.944E+00	1.993E-01	-0.304
RE-188	6.116E+00		1.269E+01	2.099E+01	1.134E+00	0.291
W-188	-2.569E+01		4.807E+02	7.972E+02	4.661E+01	-0.032
IR-192	3.447E-01		2.373E+00	3.979E+00	2.378E-01	0.087
AU-195	8.278E+00		1.811E+01	3.051E+01	2.068E+00	0.271

Sample ID : G243104002 Acquisition date : 30-DEC-2009 18:38:48

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TL-200	3.298E-03		1.804E-02	Half-Life too short		
TL-201	-7.240E+01		5.602E+02	8.858E+02	4.634E+01	-0.082
TL-202	-3.149E+00		4.539E+00	6.782E+00	4.122E-01	-0.464
HG-203	-3.176E+00		2.871E+00	4.389E+00	2.701E-01	-0.724
BI-207	9.141E-01		3.189E+00	5.373E+00	3.588E-01	0.170
TL-207	2.514E+01		4.735E+01	8.126E+01	1.347E+01	0.309
TL-208	-5.739E-01		3.262E+00	4.722E+00	3.045E-01	-0.122
PO-209	-3.584E+02		4.865E+02	7.069E+02	5.399E+01	-0.507
BI-210	-9.685E+01		7.987E+02	1.332E+03	1.240E+02	-0.073
PB-210	-9.685E+01		7.987E+02	1.332E+03	1.240E+02	-0.073
PO-210	-9.685E+01		7.987E+02	1.332E+03	1.122E+02	-0.073
BI-211	-2.165E+00		1.784E+01	2.723E+01	1.812E+00	-0.079
PB-211	-4.411E+01		7.535E+01	1.022E+02	6.375E+01	-0.431
BI-212	-2.732E+00		1.839E+01	2.997E+01	2.270E+00	-0.091
PB-212	1.278E-01	+	5.231E+00	7.745E+00	5.542E-01	0.016
PO-212	1.278E-01	+	5.231E+00	7.745E+00	5.542E-01	0.016
BI-214	-1.518E+00		6.355E+00	9.687E+00	7.213E-01	-0.157
PB-214	-1.587E+00		6.190E+00	9.340E+00	7.898E-01	-0.170
PO-214	-1.587E+00		6.190E+00	9.340E+00	7.898E-01	-0.170
PO-215	2.514E+01		4.735E+01	8.126E+01	1.347E+01	0.309
PO-216	1.278E-01	+	5.231E+00	7.745E+00	5.542E-01	0.016
PO-218	-1.587E+00		6.190E+00	9.340E+00	7.898E-01	-0.170
RN-219	-2.039E+01		3.119E+01	4.587E+01	6.301E+00	-0.445
RN-220	-7.013E+02		1.689E+03	2.552E+03	1.460E+02	-0.275
RA-223	2.514E+01		4.735E+01	8.126E+01	1.347E+01	0.309
RA-224	1.194E+00		5.342E+01	7.533E+01	4.211E+00	0.016
AC-227	3.672E+00		2.684E+01	4.543E+01	6.319E+00	0.081
PA-227	-1.000E+35		5.928E+36	Half-Life too short		
TH-227	3.672E+00		2.685E+01	4.543E+01	7.659E+00	0.081
AC-228	-7.725E+00		1.059E+01	1.551E+01	1.626E+00	-0.498
RA-228	-7.725E+00		1.059E+01	1.551E+01	1.626E+00	-0.498
TH-228	1.278E-01	+	5.231E+00	7.745E+00	5.542E-01	0.016
TH-229	-1.335E+01		3.781E+01	5.828E+01	3.102E+00	-0.229
TH-230	3.707E+02		2.734E+03	2.196E+03	1.425E+04	0.169
PA-231	1.021E+02		1.097E+02	1.935E+02	2.668E+01	0.527
TH-231	-3.982E+01		4.815E+01	7.007E+01	1.216E+01	-0.568
U-231	-1.217E+02		9.550E+01	1.430E+02	9.952E+00	-0.851
TH-232	5.310E+02		7.325E+03	7.145E+03	7.522E+04	0.074
PA-233	1.243E+00		4.321E+00	7.335E+00	4.609E-01	0.170
PA-234	-3.881E+00		1.666E+01	2.598E+01	4.741E+00	-0.149
PA-234M	-1.861E+02		2.920E+02	4.357E+02	3.789E+01	-0.427
TH-234	2.143E+02	+	2.335E+02	3.137E+02	5.468E+01	0.683
U-234	9.624E+03		9.698E+04	2.090E+04	2.090E+05	0.460
U-235	3.841E+00		2.003E+01	2.823E+01	4.586E+00	0.136
NP-236	3.248E+00		6.784E+00	1.093E+01	5.807E-01	0.297
NP-237	1.050E+01		2.057E+01	3.461E+01	7.614E+00	0.303
PU-237	1.476E+02		3.241E+02	5.024E+02	3.639E+01	0.294
U-238	2.143E+02	+	2.335E+02	3.137E+02	5.468E+01	0.683

Sample ID : G243104002 Acquisition date : 30-DEC-2009 18:38:48

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NP-239	1.285E+01		1.545E+01	2.638E+01	1.663E+00	0.487
AM-241	1.066E+01		2.341E+01	3.629E+01	2.894E+00	0.294
AM-243	-1.253E-01		6.497E+00	9.613E+00	7.103E-01	-0.013
CM-243	4.095E+00		7.983E+00	1.346E+01	8.827E-01	0.304
AM-246	-2.887E+00		7.091E+00	1.044E+01	6.851E-01	-0.276
CM-247	2.312E-01		2.750E+00	4.301E+00	2.622E-01	0.054
CF-249	1.152E+00		2.780E+00	4.719E+00	2.874E-01	0.244
CF-251	-9.607E+00		1.019E+01	1.514E+01	7.954E-01	-0.634
ANH-511	-8.553E+00		4.076E+00	6.834E+00	4.030E-01	-1.252

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G243104002           *
* Acquisition date  : 30-DEC-2009 18:38:48 Detector SN#     :               *
* Detector ID       : GAM10                Sensitivity      : 5.000         *
* Geometry          : 2LMB                 Energy tolerance: 1.500          *
* Elapsed live time:    0 03:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 03:00:00.61      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 15-DEC-2009 12:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G243104002           Analyst initials: KXG3           *
* Batch Number      : 935338               Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 25-FEB-2009 11:11:10 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
AS-74	6.201E+00	1.012E+01	4.178E+00	5.166E+00
RA-226	5.128E+01	9.169E+01	3.963E+01	4.678E+01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU
BE-7	-7.868E+00	2.204E+01	1.747E+01	1.125E+01 NOT IDENT.
NA-22	2.459E+00	2.924E+00	2.508E+00	1.492E+00 NOT IDENT.
NA-24	-5.439E+07	6.945E+07	0.000E+00	3.543E+07 SHORT HLIF
AL-26	-2.024E-01	2.488E+00	2.016E+00	1.269E+00 NOT IDENT.
K-40	-7.229E+00	3.096E+01	2.780E+01	1.580E+01 NOT IDENT.
TI-44	2.729E-01	3.024E+00	2.562E+00	1.543E+00 NOT IDENT.
SC-46	-2.965E-01	2.488E+00	2.042E+00	1.269E+00 NOT IDENT.
V-48	-6.529E-01	4.335E+00	3.506E+00	2.212E+00 NOT IDENT.
CR-51	-1.938E+01	2.516E+01	1.988E+01	1.284E+01 NOT IDENT.
MN-52	1.411E+00	1.587E+01	1.357E+01	8.098E+00 NOT IDENT.
MN-54	8.761E-01	2.153E+00	1.903E+00	1.099E+00 NOT IDENT.
CO-56	-8.905E-01	2.349E+00	1.859E+00	1.198E+00 NOT IDENT.
CO-57	-7.382E-02	2.287E+00	1.738E+00	1.167E+00 NOT IDENT.
CO-58	-1.163E+00	2.153E+00	1.656E+00	1.099E+00 NOT IDENT.
FE-59	-4.945E-01	5.265E+00	4.254E+00	2.686E+00 NOT IDENT.
CO-60	-3.832E-01	2.611E+00	2.159E+00	1.332E+00 NOT IDENT.
ZN-65	-6.893E-01	5.125E+00	4.112E+00	2.615E+00 NOT IDENT.
GE-68	-5.519E+01	6.249E+01	4.175E+01	3.188E+01 NOT IDENT.
AS-73	1.828E+02	1.502E+02	1.363E+02	7.662E+01 NOT IDENT.
SE-75	1.502E+00	2.998E+00	2.650E+00	1.530E+00 NOT IDENT.
BR-77	-5.329E+02	7.373E+02	5.514E+02	3.762E+02 FAIL ABUN
SR-82	-1.194E+01	2.025E+01	1.551E+01	1.033E+01 NOT IDENT.
RB-83	-3.709E+00	4.593E+00	3.391E+00	2.344E+00 NOT IDENT.
RB-84	-7.066E-01	4.317E+00	3.520E+00	2.203E+00 NOT IDENT.
KR-85	-7.517E+02	7.529E+02	5.747E+02	3.841E+02 NOT IDENT.

SR-85	-3.862E+00	3.867E+00	2.952E+00	1.973E+00	NOT IDENT.
RB-86	-1.977E+01	3.816E+01	2.793E+01	1.947E+01	NOT IDENT.
Y-88	-1.681E-01	2.667E+00	2.166E+00	1.361E+00	NOT IDENT.
ZR-88	-1.070E+00	1.998E+00	1.579E+00	1.019E+00	NOT IDENT.
Y-91	-5.752E+02	8.881E+02	6.736E+02	4.531E+02	NOT IDENT.
NB-94	-8.125E-02	2.108E+00	1.782E+00	1.076E+00	NOT IDENT.
NB-95	2.770E+00	2.865E+00	2.685E+00	1.462E+00	NOT IDENT.
NB-95M	4.184E+00	9.155E+00	7.210E+00	4.671E+00	NOT IDENT.
ZR-95	1.822E+00	3.970E+00	3.556E+00	2.025E+00	NOT IDENT.
NB-97	-7.086E+06	6.527E+06	0.000E+00	3.330E+06	SHORT HLIF
ZR-97	-4.742E+08	2.165E+08	0.000E+00	1.105E+08	SHORT HLIF
MO-99	-8.772E+01	7.514E+02	6.264E+02	3.834E+02	FAIL ABUN
TC-99M	4.456E+18	7.889E+18	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.265E+00	2.907E+00	2.221E+00	1.483E+00	NOT IDENT.
RH-102	-5.446E-01	2.136E+00	1.717E+00	1.090E+00	NOT IDENT.
RU-103	-3.721E-01	3.062E+00	2.487E+00	1.562E+00	NOT IDENT.
RH-106	-2.443E+00	1.944E+01	1.641E+01	9.919E+00	NOT IDENT.
RU-106	-2.443E+00	1.944E+01	1.641E+01	9.918E+00	NOT IDENT.
AG-108M	-1.004E+00	2.206E+00	1.744E+00	1.126E+00	NOT IDENT.
CD-109	2.782E+00	6.571E+01	5.527E+01	3.353E+01	NOT IDENT.
AG-110M	-2.129E+00	1.961E+00	1.428E+00	1.001E+00	NOT IDENT.
IN-111	-8.576E+01	7.264E+01	5.699E+01	3.706E+01	NOT IDENT.
IN-113M	-2.450E+00	3.018E+00	2.322E+00	1.540E+00	NOT IDENT.
SN-113	-2.450E+00	3.018E+00	2.322E+00	1.540E+00	NOT IDENT.
IN-114M	6.957E+00	1.420E+01	1.068E+01	7.247E+00	NOT IDENT.
CD-115	1.769E+02	6.613E+02	5.605E+02	3.374E+02	NOT IDENT.
SN-117M	-2.903E+00	4.627E+00	3.547E+00	2.361E+00	NOT IDENT.
SB-122	4.575E-02	1.391E+02	1.134E+02	7.097E+01	NOT IDENT.
I-123	-5.012E+08	6.133E+08	0.000E+00	3.129E+08	SHORT HLIF
TE-123M	-1.972E+00	2.413E+00	1.827E+00	1.231E+00	NOT IDENT.
I-124	-2.249E+01	5.060E+01	3.533E+01	2.582E+01	NOT IDENT.
SB-124	4.211E+00	5.892E+00	5.567E+00	3.006E+00	NOT IDENT.
SB-125	-3.093E-01	5.781E+00	4.773E+00	2.949E+00	NOT IDENT.
TE-125M	8.803E+00	7.566E+02	6.294E+02	3.860E+02	NOT IDENT.
I-126	-9.319E+00	1.629E+01	8.553E+00	8.312E+00	NOT IDENT.
SB-126	6.085E+00	8.955E+00	8.173E+00	4.569E+00	NOT IDENT.
SN-126	-2.658E+00	6.696E+00	5.486E+00	3.416E+00	FAIL ABUN
SB-127	-5.259E+01	8.787E+01	6.926E+01	4.483E+01	NOT IDENT.
XE-127	2.877E+00	3.199E+00	2.909E+00	1.632E+00	NOT IDENT.
I-131	1.807E+00	7.798E+00	6.677E+00	3.978E+00	NOT IDENT.
TE-132	-2.190E+01	4.671E+01	3.890E+01	2.383E+01	NOT IDENT.
BA-133	-2.324E+00	2.859E+00	2.213E+00	1.459E+00	NOT IDENT.
I-133	-6.935E+04	4.025E+05	0.000E+00	2.054E+05	SHORT HLIF
CS-134	-1.967E+00	3.028E+00	2.343E+00	1.545E+00	NOT IDENT.
CS-135	2.709E+00	1.012E+01	8.802E+00	5.161E+00	NOT IDENT.
I-135	-1.560E+17	4.981E+17	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.563E+00	5.956E+00	4.678E+00	3.039E+00	NOT IDENT.
BA-137M	6.214E-02	1.880E+00	1.610E+00	9.592E-01	NOT IDENT.
CS-137	6.568E-02	1.987E+00	1.702E+00	1.014E+00	NOT IDENT.
CE-139	-1.146E+00	2.216E+00	1.741E+00	1.131E+00	NOT IDENT.
BA-140	-6.486E-01	1.892E+01	1.380E+01	9.652E+00	NOT IDENT.
LA-140	-1.911E+00	7.862E+00	5.635E+00	4.011E+00	NOT IDENT.
CE-141	8.584E-01	4.935E+00	4.092E+00	2.518E+00	NOT IDENT.
CE-143	-1.676E+00	9.300E+03	0.000E+00	4.745E+03	SHORT HLIF
CE-144	-5.939E+00	1.630E+01	1.310E+01	8.314E+00	NOT IDENT.
PM-144	4.414E-01	2.138E+00	1.858E+00	1.091E+00	NOT IDENT.
PR-144	2.992E+01	1.449E+02	1.259E+02	7.393E+01	NOT IDENT.
PM-146	2.353E-01	3.093E+00	2.578E+00	1.578E+00	NOT IDENT.
ND-147	4.321E+00	3.233E+01	2.694E+01	1.650E+01	NOT IDENT.
PM-149	-7.766E+03	6.754E+03	5.171E+03	3.446E+03	NOT IDENT.
EU-152	-8.713E-01	6.621E+00	5.512E+00	3.378E+00	NOT IDENT.
GD-153	-2.000E+00	6.405E+00	5.241E+00	3.268E+00	NOT IDENT.
EU-154	7.021E+00	8.203E+00	7.040E+00	4.185E+00	NOT IDENT.
EU-155	7.179E+00	9.121E+00	7.943E+00	4.654E+00	NOT IDENT.
TB-160	-9.892E-02	8.931E+00	7.449E+00	4.557E+00	FAIL ABUN
HO-166M	-1.190E+00	4.235E+00	3.485E+00	2.161E+00	FAIL ABUN
TM-171	3.716E+03	3.574E+03	2.915E+03	1.823E+03	NOT IDENT.
HF-175	-9.372E-01	2.439E+00	1.987E+00	1.244E+00	NOT IDENT.
LU-176	2.636E-01	1.650E+00	1.416E+00	8.419E-01	NOT IDENT.
LU-177	1.380E+01	6.861E+01	6.009E+01	3.500E+01	NOT IDENT.
LU-177M	-4.462E+00	1.173E+01	9.402E+00	5.987E+00	NOT IDENT.
HF-181	1.808E-01	2.968E+00	2.461E+00	1.514E+00	NOT IDENT.
W-181	5.045E+01	4.839E+01	3.948E+01	2.469E+01	NOT IDENT.
TA-182	-1.076E+01	1.151E+01	6.869E+00	5.870E+00	NOT IDENT.
RE-183	1.868E+00	8.800E+00	7.273E+00	4.490E+00	NOT IDENT.
RE-184	-1.214E+00	1.731E+01	1.476E+01	8.831E+00	NOT IDENT.
OS-185	-1.198E+00	2.462E+00	1.973E+00	1.256E+00	NOT IDENT.
RE-188	6.116E+00	1.244E+01	1.050E+01	6.346E+00	NOT IDENT.

W-188	-2.569E+01	4.711E+02	3.988E+02	2.403E+02	FAIL ABUN
IR-192	3.447E-01	2.325E+00	1.991E+00	1.186E+00	NOT IDENT.
AU-195	8.278E+00	1.775E+01	1.526E+01	9.054E+00	NOT IDENT.
TL-200	3.298E+03	3.536E+04	0.000E+00	1.804E+04	SHORT HLIF
TL-201	-7.240E+01	5.490E+02	4.432E+02	2.801E+02	NOT IDENT.
TL-202	-3.149E+00	4.448E+00	3.393E+00	2.269E+00	NOT IDENT.
HG-203	-3.176E+00	2.814E+00	2.196E+00	1.436E+00	NOT IDENT.
BI-207	9.141E-01	3.125E+00	2.688E+00	1.594E+00	NOT IDENT.
TL-207	2.514E+01	4.641E+01	4.065E+01	2.368E+01	NOT IDENT.
TL-208	-5.739E-01	3.196E+00	2.362E+00	1.631E+00	NOT IDENT.
PO-209	-3.584E+02	4.768E+02	3.536E+02	2.433E+02	NOT IDENT.
BI-210	-9.685E+01	7.827E+02	6.665E+02	3.993E+02	NOT IDENT.
PB-210	-9.685E+01	7.827E+02	6.665E+02	3.993E+02	NOT IDENT.
PO-210	-9.685E+01	7.827E+02	6.665E+02	3.993E+02	NOT IDENT.
BI-211	-2.165E+00	1.748E+01	1.362E+01	8.920E+00	NOT IDENT.
PB-211	-4.411E+01	7.384E+01	5.114E+01	3.767E+01	NOT IDENT.
BI-212	-2.732E+00	1.803E+01	1.500E+01	9.197E+00	NOT IDENT.
PB-212	1.278E-01	5.126E+00	3.875E+00	2.616E+00	FAIL ABUN
PO-212	1.278E-01	5.126E+00	3.875E+00	2.616E+00	FAIL ABUN
BI-214	-1.518E+00	6.227E+00	4.846E+00	3.177E+00	NOT IDENT.
PB-214	-1.587E+00	6.067E+00	4.673E+00	3.095E+00	NOT IDENT.
PO-214	-1.587E+00	6.067E+00	4.673E+00	3.095E+00	NOT IDENT.
PO-215	2.514E+01	4.641E+01	4.065E+01	2.368E+01	NOT IDENT.
PO-216	1.278E-01	5.126E+00	3.875E+00	2.616E+00	FAIL ABUN
PO-218	-1.587E+00	6.067E+00	4.673E+00	3.095E+00	NOT IDENT.
RN-219	-2.039E+01	3.056E+01	2.295E+01	1.559E+01	NOT IDENT.
RN-220	-7.013E+02	1.655E+03	1.277E+03	8.444E+02	NOT IDENT.
RA-223	2.514E+01	4.641E+01	4.065E+01	2.368E+01	NOT IDENT.
RA-224	1.194E+00	5.235E+01	3.769E+01	2.671E+01	NOT IDENT.
AC-227	3.672E+00	2.631E+01	2.273E+01	1.342E+01	NOT IDENT.
PA-227	-1.000E+41	1.162E+43	0.000E+00	0.000E+00	SHORT HLIF
TH-227	3.672E+00	2.631E+01	2.273E+01	1.342E+01	NOT IDENT.
AC-228	-7.725E+00	1.038E+01	7.759E+00	5.297E+00	NOT IDENT.
RA-228	-7.725E+00	1.038E+01	7.759E+00	5.297E+00	NOT IDENT.
TH-228	1.278E-01	5.126E+00	3.875E+00	2.616E+00	FAIL ABUN
TH-229	-1.335E+01	3.705E+01	2.916E+01	1.890E+01	NOT IDENT.
TH-230	3.707E+02	2.680E+03	1.099E+03	1.367E+03	NOT IDENT.
PA-231	1.021E+02	1.075E+02	9.682E+01	5.487E+01	NOT IDENT.
TH-231	-3.982E+01	4.719E+01	3.505E+01	2.408E+01	NOT IDENT.
U-231	-1.217E+02	9.359E+01	7.152E+01	4.775E+01	NOT IDENT.
TH-232	5.310E+02	7.178E+03	3.575E+03	3.662E+03	NOT IDENT.
PA-233	1.243E+00	4.234E+00	3.670E+00	2.160E+00	NOT IDENT.
PA-234	-3.881E+00	1.632E+01	1.300E+01	8.328E+00	FAIL ABUN
PA-234M	-1.861E+02	2.862E+02	2.180E+02	1.460E+02	NOT IDENT.
TH-234	2.143E+02	2.288E+02	1.569E+02	1.167E+02	FAIL ABUN
U-234	9.624E+03	9.504E+04	1.046E+04	4.849E+04	NOT IDENT.
U-235	3.841E+00	1.963E+01	1.413E+01	1.002E+01	FAIL ABUN
NP-236	3.248E+00	6.648E+00	5.467E+00	3.392E+00	NOT IDENT.
NP-237	1.050E+01	2.015E+01	1.731E+01	1.028E+01	NOT IDENT.
PU-237	1.476E+02	3.176E+02	2.514E+02	1.621E+02	NOT IDENT.
U-238	2.143E+02	2.288E+02	1.569E+02	1.167E+02	FAIL ABUN
NP-239	1.285E+01	1.514E+01	1.320E+01	7.724E+00	NOT IDENT.
AM-241	1.066E+01	2.294E+01	1.815E+01	1.170E+01	NOT IDENT.
AM-243	-1.253E-01	6.367E+00	4.809E+00	3.249E+00	NOT IDENT.
CM-243	4.095E+00	7.824E+00	6.732E+00	3.992E+00	NOT IDENT.
AM-246	-2.887E+00	6.950E+00	5.226E+00	3.546E+00	NOT IDENT.
CM-247	2.312E-01	2.695E+00	2.152E+00	1.375E+00	NOT IDENT.
CF-249	1.152E+00	2.724E+00	2.361E+00	1.390E+00	NOT IDENT.
CF-251	-9.607E+00	9.986E+00	7.575E+00	5.095E+00	NOT IDENT.
ANH-511	-8.553E+00	3.994E+00	3.419E+00	2.038E+00	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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46.50	114.1837
46.50	114.1837
46.50	114.1837
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49.72	125.3172
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52.39	120.6233
52.97	120.8018
53.15	120.8571
53.20	120.8723
53.44	110.7118
54.07	128.5924
56.28	123.6755
56.28	123.6765
57.37	0.0000
57.53	129.6912
57.53	129.6917
57.60	132.5328
57.98	139.2397
57.98	139.2397
59.00	125.9038
59.32	114.6735
59.32	114.6735
59.40	114.6951
59.54	114.7331
59.54	114.7331
59.72	120.4502
60.01	124.7863
61.10	115.1527
61.14	115.1632
61.30	115.2059
63.00	159.9197
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63.29	178.5994
63.58	178.7167
64.28	154.6551
64.62	0.0000
65.12	127.6869
65.20	127.7095
65.20	127.7095
66.05	123.6375
66.72	125.2590
66.83	110.8884
66.91	110.9078
67.20	134.9035
67.20	134.9035
67.67	135.6184
67.75	142.3761
67.85	142.4069
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68.90	162.0177
69.30	162.1570
69.67	143.9322
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70.82	140.4090
70.83	140.4120
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72.80	139.0469
72.87	139.0673
72.87	139.0673
74.67	146.4149
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74.81	153.2916
74.81	153.2916
74.81	153.2916
74.81	153.2916
74.81	153.2916

74.81	153.2916
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77.11	178.5258
77.11	178.5258
77.11	178.5258
77.11	178.5258
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79.80	142.9888
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80.30	121.4122
80.57	121.4760
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81.07	128.5136
81.07	128.5136
81.07	128.5136
82.60	160.6182
83.37	141.9875
83.78	154.0232
83.78	154.0232
83.78	154.0232
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84.21	159.1203
84.90	154.3480
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86.54	135.8416
86.59	135.8540
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86.79	140.9003
86.94	140.9398
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87.30	152.0363
87.30	152.0363
87.30	152.0363
87.30	152.0363
87.57	152.1113
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88.03	137.2160
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88.47	150.3571
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89.95	242.2233
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92.38	130.2191
92.38	130.2191
93.35	135.4981
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94.67	197.6363
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94.90	209.8827
94.90	209.8827
95.87	155.3914
95.87	155.3914
96.73	121.0397
97.43	124.2395
98.44	116.2927
98.44	116.2927
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99.55	103.2249
99.86	98.1660
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100.10	98.2065

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105.31	121.7541
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111.00	127.0281
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115.19	144.6225
115.19	144.6225
116.30	112.3242
117.00	111.3925
117.00	111.3925
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121.62	122.7450
121.78	133.3578
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122.32	133.4629
122.32	133.4629
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127.23	121.6141
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144.24	134.3023
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145.44	139.9818
147.16	154.5429
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152.70	152.3287
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154.21	128.2863
154.21	128.2863
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163.35	134.2065
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167.43	129.2416
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186.00	106.7508
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193.63	122.6822

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202.84	104.2993
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208.81	94.3556
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209.75	102.3894
210.97	120.1901
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216.55	101.3086
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227.20	103.2571
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236.00	104.2954
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238.63	114.3500
238.63	114.3500
238.63	114.3500
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241.98	90.3041
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252.85	109.3890
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268.79	91.3322
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269.46	98.8429
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295.21	71.4180
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300.09	85.0739
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338.28	68.8411
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391.69	67.2881
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445.03	45.2853
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510.53	0.0000
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569.50	43.8560
569.67	43.8595
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604.70	53.8598
609.31	47.6595
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612.46	60.5763
614.37	50.5245
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621.84	35.0257
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969.11	24.1376
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1706.46	0.0000
1750.46	0.0000
1764.49	10.6144
1770.23	22.3151
1771.40	19.1316
1791.20	0.0000
1808.65	11.7748
1836.01	10.7593

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G243104002

Total Uranium Activity	6.3942E+02	ug/g
Total Uranium Counting Unc.	6.8080E+02	ug/g
Total Uranium Tpu	3.4735E-04	ug/g
Total Uranium Mda	4.6691E+02	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 935338                    SAMPLE ID  : G243104002         *
*   ANALYST       : KXG3                      DETECTOR   : GAM10              *
*   SAMPLE DATE   : 15-DEC-2009 12:00:00.00   COUNT TIME :    0 03:00:00.00   *
*   ANALYSIS DATE: 30-DEC-2009 18:38:48.85    SAMPLE ALQT:    2.000 LITER     *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 1.576E+01
        GROSS GAMMA ERROR  (pCi/LITER )   : 2.916E+01
        GROSS GAMMA MDA    (pCi/LITER )   : 3.585E+01
        GROSS GAMMA DLC    (pCi/LITER )   : 1.702E+01
```

VAX/VMS Nuclide Identification Report Generated 30-DEC-2009 20:40:50.30

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243286002.CNF;1
Sample date       : 17-DEC-2009 12:00:00 Acquisition date : 30-DEC-2009 18:39:45
Sample ID         : G243286002           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM16                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.89  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 935338               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.05*	3	139	1.03	126.29	124	8	4.31E-04	719.8	
2	0	77.11*	22	141	1.16	154.41	150	8	3.06E-03	102.2	
3	0	139.83*	46	122	1.41	279.85	275	9	6.41E-03	48.2	
4	0	185.69*	13	105	1.22	371.57	367	10	1.74E-03	180.1	
5	0	238.15*	2	152	1.35	476.49	472	11	2.91E-04	*****	
6	0	294.94	37	65	0.76	590.07	586	8	5.18E-03	40.6	
7	0	351.84*	82	47	0.97	703.86	699	10	1.14E-02	20.7	
8	0	501.18	24	39	0.73	1002.53	996	14	3.33E-03	58.7	
9	0	609.06*	86	17	1.37	1218.24	1212	14	1.20E-02	16.8	
10	0	1120.21*	22	8	1.39	2240.30	2236	13	3.05E-03	36.3	
11	0	1237.55*	12	2	1.27	2474.90	2470	9	1.61E-03	50.6	
12	0	1459.79*	9	3	2.87	2919.19	2914	11	1.25E-03	65.0	
13	0	1764.11*	11	14	1.44	3527.49	3521	13	1.58E-03	77.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 30-DEC-2009 20:40:52

Configuration	: DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243286002.CNF;1		
Analyses by	: PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8		
Sample title	: KXG3		
Sample date	: 17-DEC-2009 12:00:00	Acquisition date	: 30-DEC-2009 18:39:45
Sample ID	: G243286002	Sample quantity	: 2.0000 LITER
Sample type	: LIQUID	Sample geometry	:
Detector name	: GAMMA16	Detector geometry	: 2LMB
Elapsed live time	: 0 02:00:00.00	Elapsed real time	: 0 02:00:00.89 0.0%
Peak Width (FWHM)	: 3.00	Confidence level	: 5.00 %
Energy tolerance	: 1.50 keV	Half life ratio	: 8.00
Errors propagated	: Yes	Systematic Error	: 0.00 %
Efficiency type	: Empirical	Efficiencies at	: Peak Energy
Abundance limit	: 75.00	WTM error limit	: 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
K-40	+	1460.81	*	2.646E+01	3.450E+01	4.869E+01	4.530E+00	0.543
BI-211		72.87		1.376E+01	2.618E+02	4.065E+02	3.548E+01	0.034
	+	351.07	*	6.923E+01	2.941E+01	2.584E+01	2.557E+00	2.679
BI-214	+	609.31	*	2.968E+01	1.039E+01	8.163E+00	7.998E-01	3.636
	+	1120.29		3.727E+01	2.741E+01	3.403E+01	3.828E+00	1.095
	+	1764.49		2.536E+01	3.925E+01	3.576E+01	3.058E+00	0.709
PB-214		74.81		-1.410E+01	5.404E+01	8.155E+01	9.378E+00	-0.173
	+	77.11		2.194E+01	4.493E+01	4.471E+01	5.236E+00	0.491
		87.30		3.554E+01	5.238E+01	9.245E+01	1.133E+01	0.384
		241.98		-6.673E+00	3.426E+01	4.815E+01	5.586E+00	-0.139
	+	295.21		1.896E+01	1.559E+01	1.875E+01	2.355E+00	1.011
	+	351.92	*	2.408E+01	1.031E+01	9.007E+00	1.006E+00	2.674
PO-214		74.81		-1.410E+01	5.404E+01	8.155E+01	9.378E+00	-0.173
	+	77.11		2.194E+01	4.493E+01	4.471E+01	5.236E+00	0.491
		87.30		3.554E+01	5.238E+01	9.245E+01	1.133E+01	0.384
		241.98		-6.673E+00	3.426E+01	4.815E+01	5.586E+00	-0.139
	+	295.21		1.896E+01	1.559E+01	1.875E+01	2.355E+00	1.011
	+	351.92	*	2.408E+01	1.031E+01	9.007E+00	1.006E+00	2.674
PO-218		74.81		-1.410E+01	5.404E+01	8.155E+01	9.378E+00	-0.173
	+	77.11		2.194E+01	4.493E+01	4.471E+01	5.236E+00	0.491
		87.30		3.554E+01	5.238E+01	9.245E+01	1.133E+01	0.384
		241.98		-6.673E+00	3.426E+01	4.815E+01	5.586E+00	-0.139
	+	295.21		1.896E+01	1.559E+01	1.875E+01	2.355E+00	1.011
	+	351.92	*	2.408E+01	1.031E+01	9.007E+00	1.006E+00	2.674
RA-226	+	186.21	*	2.902E+01	1.067E+02	9.400E+01	6.927E+01	0.309

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	1.762E+01	2.467E+01	4.416E+01	4.002E+00	0.399
NA-22		1274.54	*	3.053E-01	2.739E+00	4.550E+00	4.056E-01	0.067
NA-24		1368.53	*	-1.112E+00	2.739E+00	Half-Life too short		
AL-26		1129.67		-3.283E+01	9.995E+01	1.520E+02	1.369E+01	-0.216

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1808.65	*	-1.419E+00	2.677E+00	3.727E+00	3.137E-01	-0.381
TI-44		67.85		-1.469E+00	4.895E+00	6.829E+00	5.885E-01	-0.215
	+	78.38	*	2.362E+00	4.832E+00	4.603E+00	4.123E-01	0.513
SC-46		889.25	*	-2.560E+00	2.814E+00	3.940E+00	4.104E-01	-0.650
	+	1120.51		6.285E+00	4.603E+00	7.356E+00	6.688E-01	0.854
V-48		944.10		-3.545E+00	5.373E+01	8.825E+01	9.099E+00	-0.040
		983.50	*	-2.095E+00	4.312E+00	6.463E+00	6.530E-01	-0.324
		1312.09		2.587E+00	5.043E+00	9.040E+00	8.147E-01	0.286
CR-51		320.08	*	2.071E+01	2.911E+01	4.960E+01	5.323E+00	0.418
MN-52		744.21		4.250E+00	1.340E+01	2.263E+01	2.028E+00	0.188
		848.13		-2.862E+02	3.754E+02	5.461E+02	5.462E+01	-0.524
		935.52		-7.874E+00	1.441E+01	2.171E+01	2.247E+00	-0.363
		1246.25		1.614E+02	3.234E+02	5.808E+02	5.123E+01	0.278
		1333.61		-1.166E+02	2.432E+02	3.385E+02	3.069E+01	-0.344
		1434.06	*	2.102E+00	1.351E+01	2.255E+01	2.048E+00	0.093
MN-54		834.83	*	-3.331E-01	2.082E+00	3.390E+00	3.345E-01	-0.098
CO-56		846.75	*	7.524E-01	2.667E+00	4.668E+00	4.662E-01	0.161
		977.42		3.896E+01	1.675E+02	2.909E+02	2.950E+01	0.134
		1037.82		-7.286E+00	2.032E+01	3.116E+01	3.168E+00	-0.234
		1175.09		-1.198E+02	1.182E+02	1.404E+02	1.205E+01	-0.853
	+	1238.25		5.390E+00	5.476E+00	9.699E+00	8.769E-01	0.556
		1360.21		-2.961E+01	6.763E+01	9.628E+01	8.741E+00	-0.308
		1771.40		2.472E+00	2.215E+01	3.745E+01	3.195E+00	0.066
CO-57		122.06	*	-1.413E+00	2.350E+00	3.767E+00	3.518E-01	-0.375
		136.48		-2.095E+01	2.076E+01	2.777E+01	2.632E+00	-0.754
CO-58		810.76	*	-1.319E+00	3.034E+00	4.789E+00	4.619E-01	-0.275
FE-59		142.65		-3.113E+01	2.611E+02	3.801E+02	3.308E+01	-0.082
		192.34		-2.973E+01	8.198E+01	1.301E+02	1.767E+01	-0.228
		1099.22	*	7.798E-02	5.196E+00	8.560E+00	8.501E-01	0.009
		1291.56		7.867E+00	7.450E+00	1.468E+01	1.480E+00	0.536
CO-60		1173.22		1.200E+00	2.067E+00	3.858E+00	3.311E-01	0.311
		1332.49	*	-1.333E+00	2.638E+00	3.704E+00	3.358E-01	-0.360
ZN-65		1115.52	*	3.640E+00	4.751E+00	8.432E+00	7.712E-01	0.432
GE-68		1077.35	*	-6.146E+01	7.013E+01	8.964E+01	8.480E+00	-0.686
AS-73		53.44	*	3.199E+01	7.878E+01	1.283E+02	1.174E+01	0.249
AS-74		595.88	*	5.921E+00	6.574E+00	1.195E+01	9.976E-01	0.495
		634.78		1.345E+01	2.612E+01	4.538E+01	3.740E+00	0.296
SE-75		66.05		1.190E+02	5.484E+02	8.044E+02	8.383E+01	0.148
		96.73		-5.499E+01	6.935E+01	1.106E+02	1.546E+01	-0.497
		121.11		3.875E+00	1.237E+01	2.116E+01	2.487E+00	0.183
		136.00		-2.575E+00	3.719E+00	5.156E+00	4.600E-01	-0.499
		198.60		6.391E+01	1.787E+02	2.895E+02	2.872E+01	0.221
		264.65	*	1.404E+00	3.980E+00	6.579E+00	7.118E-01	0.213
		279.53		-1.516E+00	9.270E+00	1.457E+01	1.667E+00	-0.104
		303.91		4.280E+01	1.766E+02	2.874E+02	3.773E+01	0.149
		400.65		-1.038E+01	1.987E+01	3.139E+01	3.378E+00	-0.331
BR-77		87.88		2.674E+03	8.122E+03	1.409E+04	1.350E+03	0.190
		200.40		-8.365E+03	8.915E+03	1.345E+04	1.219E+03	-0.622
	+	239.00		3.794E+01	9.116E+02	9.884E+02	9.957E+01	0.038

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		249.79		-3.018E+03	3.372E+03	4.928E+03	5.111E+02	-0.612
		281.68		-3.504E+02	4.657E+03	7.381E+03	8.232E+02	-0.047
		297.23		9.888E+02	2.906E+03	4.291E+03	4.659E+02	0.230
		303.76		2.009E+03	8.785E+03	1.429E+04	1.532E+03	0.141
		439.47		3.205E+03	6.892E+03	1.204E+04	9.987E+02	0.266
		484.57		-1.543E+03	1.011E+04	1.641E+04	1.377E+03	-0.094
		520.65	*	7.371E-01	4.347E+02	7.161E+02	6.028E+01	0.001
		574.64		5.817E+02	9.404E+03	1.550E+04	1.300E+03	0.038
		578.91		-1.440E+03	3.795E+03	5.868E+03	4.916E+02	-0.245
		585.48		-3.492E+03	8.022E+03	1.237E+04	1.035E+03	-0.282
		755.35		6.071E+03	6.661E+03	1.227E+04	1.113E+03	0.495
		817.79		-1.928E+03	5.462E+03	8.659E+03	8.395E+02	-0.223
SR-82		698.33		-1.150E+02	2.385E+03	3.812E+03	3.241E+02	-0.030
		776.49	*	-3.888E+00	2.301E+01	3.547E+01	3.291E+00	-0.110
		1395.20		-5.258E+02	7.520E+02	9.727E+02	8.838E+01	-0.541
RB-83		520.41	*	1.732E-01	4.865E+00	8.052E+00	6.778E-01	0.022
		529.64		-5.147E-01	8.387E+00	1.369E+01	1.152E+00	-0.038
		552.65		6.985E+00	1.449E+01	2.530E+01	2.127E+00	0.276
RB-84		881.50	*	-2.448E+00	4.824E+00	7.367E+00	7.616E-01	-0.332
KR-85		513.99	*	-2.194E+03	8.266E+02	9.978E+02	8.397E+01	-2.198
SR-85		513.99	*	-1.103E+01	4.157E+00	5.018E+00	4.223E-01	-2.198
RB-86		1076.63	*	-2.010E+01	4.319E+01	6.348E+01	6.009E+00	-0.317
Y-88		898.02		1.672E+00	3.369E+00	5.995E+00	6.318E-01	0.279
		1836.01	*	-7.919E-01	2.238E+00	3.183E+00	2.653E-01	-0.249
ZR-88		392.90	*	2.065E-01	2.226E+00	3.776E+00	3.067E-01	0.055
Y-91		1204.90	*	-7.460E+01	9.585E+02	1.534E+03	1.333E+02	-0.049
NB-94		702.63	*	-3.761E-01	2.509E+00	3.944E+00	3.370E-01	-0.095
		871.10		2.489E-01	2.429E+00	4.131E+00	4.227E-01	0.060
NB-95		765.79	*	-9.213E-01	3.703E+00	5.493E+00	5.040E-01	-0.168
NB-95M		235.69	*	3.432E+00	1.011E+01	1.516E+01	1.679E+00	0.226
ZR-95		724.18		-1.885E+00	6.054E+00	9.174E+00	8.709E-01	-0.205
		756.15	*	2.274E+00	4.730E+00	8.203E+00	8.130E-01	0.277
NB-97		657.90	*	-1.188E+00	4.730E+00	Half-Life too short		
		1024.50		-4.269E+01	4.730E+00	Half-Life too short		
ZR-97		254.15		9.796E+01	4.730E+00	Half-Life too short		
		355.39		1.416E+01	4.730E+00	Half-Life too short		
		507.63	*	-1.613E+02	4.730E+00	Half-Life too short		
		602.52		4.450E+01	4.730E+00	Half-Life too short		
		1021.30		8.983E+00	4.730E+00	Half-Life too short		
		1147.95		-1.762E+00	4.730E+00	Half-Life too short		
		1362.66		4.932E+01	4.730E+00	Half-Life too short		
		1750.46		1.167E+02	4.730E+00	Half-Life too short		
MO-99	+	140.51		2.448E+03	2.455E+03	2.727E+03	7.562E+02	0.898
		181.06		-2.594E+02	1.015E+03	1.448E+03	2.647E+02	-0.179
		366.43		-3.487E+02	3.635E+03	6.061E+03	5.462E+02	-0.058
		739.58	*	1.153E+02	6.200E+02	1.020E+03	1.566E+02	0.113
		778.00		-5.012E+02	1.376E+03	2.029E+03	1.886E+02	-0.247
TC-99M	+	140.51	*	3.508E+10	1.376E+03	Half-Life too short		
RH-101		127.23		7.838E-03	2.867E+00	4.794E+00	4.378E-01	0.002

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		198.01	*	1.456E+00	3.310E+00	5.391E+00	4.853E-01	0.270
		325.23		-1.556E+01	1.849E+01	2.622E+01	2.679E+00	-0.593
RH-102		418.52		-1.019E+01	2.080E+01	3.267E+01	2.688E+00	-0.312
		475.06	*	-8.195E-01	2.279E+00	3.608E+00	3.022E-01	-0.227
		631.29		-1.286E+00	3.967E+00	6.101E+00	5.034E-01	-0.211
		697.49		1.754E+00	5.693E+00	9.590E+00	8.146E-01	0.183
		766.84		-1.527E+00	8.513E+00	1.279E+01	1.175E+00	-0.119
		1046.59		5.932E+00	7.899E+00	1.465E+01	1.421E+00	0.405
		1112.84		-1.439E+01	1.363E+01	1.568E+01	1.437E+00	-0.918
RU-103		497.08	*	-9.688E-01	3.493E+00	4.811E+00	6.750E-01	-0.201
	+	610.33		3.103E+02	1.162E+02	1.612E+02	2.664E+01	1.925
RH-106		511.85		-3.796E+01	2.196E+01	3.861E+01	3.249E+00	-0.983
		621.84	*	-8.812E+00	2.409E+01	3.693E+01	4.853E+00	-0.239
		1050.47		-4.056E+01	1.651E+02	2.602E+02	2.516E+01	-0.156
RU-106		511.85		-3.796E+01	2.196E+01	3.861E+01	3.249E+00	-0.983
		621.84	*	-8.812E+00	2.407E+01	3.693E+01	3.058E+00	-0.239
		1050.47		-4.056E+01	1.651E+02	2.602E+02	2.516E+01	-0.156
AG-108M		433.93	*	-6.907E-01	2.862E+00	4.573E+00	3.948E-01	-0.151
		614.37		-3.053E-02	2.973E+00	4.221E+00	3.652E-01	-0.007
		722.95		-2.404E+00	3.129E+00	4.094E+00	3.717E-01	-0.587
CD-109		88.03	*	-9.732E+00	6.481E+01	1.091E+02	1.046E+01	-0.089
AG-110M		657.75	*	-2.618E+00	2.735E+00	3.748E+00	3.158E-01	-0.699
		677.61		2.153E+00	1.844E+01	3.044E+01	2.602E+00	0.071
		706.67		1.126E+00	1.548E+01	2.518E+01	2.222E+00	0.045
		763.93		-2.091E+00	1.210E+01	1.879E+01	1.764E+00	-0.111
		884.67		-4.692E-01	3.282E+00	5.347E+00	5.668E-01	-0.088
		937.48		-4.293E+00	7.283E+00	1.076E+01	1.140E+00	-0.399
		1384.27		6.220E-01	9.702E+00	1.590E+01	1.481E+00	0.039
IN-111		171.28		-2.634E+00	5.710E+01	9.365E+01	7.864E+00	-0.028
		245.39	*	2.471E+01	6.083E+01	1.013E+02	1.038E+01	0.244
IN-113M		391.69	*	3.776E-01	3.197E+00	5.439E+00	4.569E-01	0.069
SN-113		391.69	*	3.776E-01	3.197E+00	5.439E+00	4.569E-01	0.069
IN-114M		190.27	*	2.155E+00	1.680E+01	2.489E+01	2.194E+00	0.087
CD-115		260.90		-1.452E+03	6.621E+03	1.041E+04	1.111E+03	-0.140
		492.35		9.362E+02	1.568E+03	2.778E+03	2.333E+02	0.337
		527.90	*	-9.627E+01	4.852E+02	7.775E+02	6.545E+01	-0.124
SN-117M		156.02		-2.518E+01	1.983E+02	3.253E+02	2.748E+01	-0.077
		158.56	*	-1.753E-01	4.733E+00	7.802E+00	6.557E-01	-0.022
SB-122		563.90	*	-3.424E+00	8.859E+01	1.339E+02	1.125E+01	-0.026
		692.80		-1.807E+03	1.973E+03	2.665E+03	2.251E+02	-0.678
I-123		159.00	*	-1.760E+01	1.973E+03	Half-Life too short		
		528.96		5.429E+02	1.973E+03	Half-Life too short		
TE-123M		159.00	*	-8.843E-01	2.712E+00	4.382E+00	3.703E-01	-0.202
I-124		602.71	*	1.538E+01	3.895E+01	5.988E+01	4.989E+00	0.257
		722.78		-1.979E+02	2.446E+02	3.186E+02	2.786E+01	-0.621
		1325.50		8.437E+01	1.809E+03	2.954E+03	2.673E+02	0.029
		1376.25		1.734E+03	1.734E+03	3.322E+03	3.017E+02	0.522
		1509.49		8.712E+02	8.909E+02	1.765E+03	1.596E+02	0.494
		1691.02		-1.516E+02	1.822E+02	2.006E+02	1.754E+01	-0.756

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
SB-124		602.71		1.187E+00	3.007E+00	4.623E+00	3.852E-01	0.257
		645.85		-4.066E+00	3.642E+01	5.798E+01	5.069E+00	-0.070
		709.31		7.956E+01	2.141E+02	3.628E+02	3.124E+01	0.219
		713.82		-3.214E+00	1.184E+02	1.894E+02	2.286E+01	-0.017
		722.78		-2.215E+01	2.738E+01	3.565E+01	3.183E+00	-0.621
		968.20		-7.284E+01	1.894E+02	2.870E+02	2.924E+01	-0.254
		1045.16		1.911E+01	1.739E+02	2.922E+02	2.836E+01	0.065
		1325.50		1.008E+01	2.163E+02	3.531E+02	3.195E+01	0.029
		1368.21		-2.876E+01	1.327E+02	2.030E+02	2.796E+01	-0.142
		1436.60		-1.880E+02	2.618E+02	3.616E+02	3.283E+01	-0.520
		1691.02	*	-4.002E+00	4.809E+00	5.295E+00	4.808E-01	-0.756
SB-125		427.89	*	-1.670E+00	6.907E+00	1.120E+01	9.445E-01	-0.149
		463.38		-1.824E-01	1.983E+01	3.288E+01	2.975E+00	-0.006
		600.56		-1.131E-01	1.373E+01	2.234E+01	2.009E+00	-0.005
		635.90		1.992E+01	2.089E+01	3.827E+01	3.430E+00	0.521
TE-125M		109.28	*	2.657E+02	8.377E+02	1.439E+03	1.539E+02	0.185
I-126		388.63		2.839E+00	1.333E+01	2.292E+01	1.887E+00	0.124
		666.33	*	-2.622E+00	1.050E+01	1.620E+01	1.326E+00	-0.162
		753.82		2.249E+01	9.545E+01	1.589E+02	1.438E+01	0.142
SB-126		223.80		5.847E+01	3.045E+02	5.015E+02	4.846E+01	0.117
		278.60		-1.127E+01	2.036E+02	3.057E+02	3.417E+01	-0.037
		296.50		6.742E+01	1.308E+02	1.957E+02	2.128E+01	0.344
		414.70		2.128E+00	5.006E+00	8.768E+00	7.200E-01	0.243
		415.30		1.714E+02	4.224E+02	7.379E+02	6.062E+01	0.232
		555.20		-1.342E+01	2.629E+02	4.277E+02	3.596E+01	-0.031
		573.80		3.196E+01	7.195E+01	1.245E+02	1.044E+01	0.257
		593.00		-7.086E+01	6.782E+01	9.344E+01	7.804E+00	-0.758
		656.30		7.271E+01	2.095E+02	3.578E+02	2.920E+01	0.203
		666.33		-1.091E+00	4.369E+00	6.742E+00	5.519E-01	-0.162
		675.00		-4.347E+01	1.205E+02	1.818E+02	1.504E+01	-0.239
		695.00		2.030E+00	4.796E+00	8.252E+00	6.989E-01	0.246
		697.00		-1.879E+00	1.859E+01	2.948E+01	2.503E+00	-0.064
		720.50	*	3.311E-01	9.506E+00	1.455E+01	1.269E+00	0.023
		856.80		-1.583E+01	2.764E+01	4.159E+01	4.196E+00	-0.381
		989.30		1.045E+01	7.376E+01	1.254E+02	1.263E+01	0.083
		1034.80		-2.507E+02	5.580E+02	8.428E+02	8.242E+01	-0.297
		1213.00		1.027E+02	2.430E+02	4.285E+02	3.735E+01	0.240
SN-126	+	64.28		5.384E+00	7.752E+01	8.626E+01	1.309E+01	0.062
		86.94		2.178E+01	2.862E+01	4.846E+01	2.014E+01	0.449
		87.57	*	5.113E+00	6.439E+00	1.146E+01	1.095E+00	0.446
SB-127		61.10		2.538E+02	4.021E+03	5.801E+03	6.166E+02	0.044
		252.40		1.029E+02	2.710E+02	4.456E+02	1.885E+02	0.231
		290.80		-3.904E+02	1.425E+03	1.939E+03	2.449E+02	-0.201
		411.60		-2.657E+01	5.933E+02	9.877E+02	1.494E+02	-0.027
		444.90		-2.164E+02	5.631E+02	8.952E+02	1.060E+02	-0.242
		473.00		-2.924E+01	9.601E+01	1.533E+02	1.876E+01	-0.191
		543.00		-3.227E+02	8.920E+02	1.388E+03	1.924E+02	-0.233
		603.60		-9.442E+01	6.990E+02	9.697E+02	1.148E+02	-0.097
		685.20	*	5.300E-01	6.819E+01	1.101E+02	1.175E+01	0.005

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		698.50		-2.190E+02	8.326E+02	1.286E+03	1.978E+02	-0.170
		722.20		-1.476E+03	1.620E+03	2.043E+03	2.193E+02	-0.722
		783.80		2.033E+02	1.798E+02	3.379E+02	4.219E+01	0.602
XE-127		57.60		3.003E+02	5.175E+02	8.548E+02	7.497E+01	0.351
		145.22		-3.517E+01	6.106E+01	9.723E+01	8.408E+00	-0.362
		172.10		-1.187E+01	1.071E+01	1.607E+01	1.352E+00	-0.739
		202.84	*	-6.253E-01	3.881E+00	6.244E+00	5.695E-01	-0.100
		374.96		-1.667E+00	1.379E+01	2.291E+01	1.999E+00	-0.073
I-131		80.18		2.411E+01	3.366E+02	5.212E+02	4.740E+01	0.046
		284.30		4.617E+01	1.107E+02	1.837E+02	2.103E+01	0.251
		364.48	*	-2.859E+00	7.088E+00	1.141E+01	1.085E+00	-0.251
		636.97		7.491E+01	9.860E+01	1.772E+02	1.546E+01	0.423
		722.89		-3.764E+02	4.557E+02	5.907E+02	5.191E+01	-0.637
TE-132		49.72		4.699E+01	1.334E+03	2.105E+03	2.335E+02	0.022
		111.76		-5.198E+01	1.791E+03	3.007E+03	3.243E+02	-0.017
		116.30		7.378E+02	1.715E+03	2.958E+03	3.211E+02	0.249
		228.16	*	1.468E+01	3.885E+01	6.484E+01	1.042E+01	0.226
BA-133		53.15		1.356E+02	3.492E+02	5.678E+02	5.211E+01	0.239
		79.62		-8.218E+01	1.150E+02	1.645E+02	2.542E+01	-0.500
		81.00		6.960E+00	8.072E+00	1.388E+01	2.240E+00	0.502
		276.40		-1.530E+01	3.381E+01	4.859E+01	7.805E+00	-0.315
		302.84		-1.898E+00	1.205E+01	1.881E+01	2.776E+00	-0.101
		356.01	*	2.028E+00	3.306E+00	5.375E+00	7.356E-01	0.377
		383.85		-6.496E-03	2.018E+01	3.393E+01	4.227E+00	0.000
I-133		510.53		-9.478E+00	2.018E+01	Half-Life too short		
		529.87	*	4.361E-02	2.018E+01	Half-Life too short		
		706.58		2.411E-01	2.018E+01	Half-Life too short		
		856.28		-8.046E+00	2.018E+01	Half-Life too short		
		875.33		1.061E-01	2.018E+01	Half-Life too short		
	+	1236.41		9.117E+00	2.018E+01	Half-Life too short		
		1298.22		3.629E-01	2.018E+01	Half-Life too short		
CS-134		475.35		-4.280E+01	1.480E+02	2.365E+02	1.981E+01	-0.181
		563.23		4.511E+00	2.386E+01	3.731E+01	3.165E+00	0.121
		569.32		3.306E+00	1.501E+01	2.527E+01	2.151E+00	0.131
		604.70		-2.949E-01	2.729E+00	3.805E+00	3.177E-01	-0.078
		795.84	*	-1.021E+00	2.841E+00	4.493E+00	4.283E-01	-0.227
		801.93		6.793E+00	2.856E+01	4.970E+01	4.761E+00	0.137
		1038.57		-5.993E+00	2.455E+02	4.031E+02	3.931E+01	-0.015
		1167.94		-1.362E+02	1.756E+02	2.444E+02	2.110E+01	-0.557
		1365.15		-9.719E+00	9.245E+01	1.453E+02	1.374E+01	-0.067
CS-135		268.24	*	-1.245E+01	1.443E+01	2.114E+01	2.533E+00	-0.589
I-135		288.45		1.265E+10	1.443E+01	Half-Life too short		
		417.63		2.800E+09	1.443E+01	Half-Life too short		
		546.56		-3.437E+09	1.443E+01	Half-Life too short		
		836.80		3.969E+09	1.443E+01	Half-Life too short		
		1038.76		-2.116E+09	1.443E+01	Half-Life too short		
		1124.00		1.047E+10	1.443E+01	Half-Life too short		
		1131.51		1.227E+09	1.443E+01	Half-Life too short		
		1260.41	*	-5.213E+08	1.443E+01	Half-Life too short		

---- Non-Identified Nuclides ----

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		1457.56		1.615E+10	1.443E+01	Half-Life too short		
		1678.03		2.647E+09	1.443E+01	Half-Life too short		
		1706.46		9.407E+09	1.443E+01	Half-Life too short		
		1791.20		-5.042E+09	1.443E+01	Half-Life too short		
CS-136		66.91		7.284E+01	7.551E+01	1.175E+02	1.813E+01	0.620
		86.29		5.078E+01	7.845E+01	1.383E+02	1.857E+01	0.367
		153.22		-3.745E+00	5.414E+01	8.921E+01	8.494E+00	-0.042
		163.89		4.651E+00	8.783E+01	1.455E+02	1.366E+01	0.032
		176.55		4.151E-01	2.911E+01	4.789E+01	4.314E+00	0.009
		273.65		-4.511E+01	3.621E+01	5.025E+01	5.772E+00	-0.898
		340.57		-4.685E+00	8.478E+00	1.359E+01	1.362E+00	-0.345
		818.51		-2.667E+00	4.683E+00	7.120E+00	6.912E-01	-0.375
		1048.07	*	4.259E+00	6.823E+00	1.242E+01	1.243E+00	0.343
		1235.34		2.647E+01	3.043E+01	5.328E+01	6.377E+00	0.497
BA-137M		661.65	*	1.029E+00	2.595E+00	4.445E+00	3.619E-01	0.231
CS-137		661.65	*	1.087E+00	2.743E+00	4.699E+00	3.833E-01	0.231
CE-139		165.85	*	-1.430E+00	2.602E+00	4.109E+00	3.408E-01	-0.348
BA-140		162.64		2.932E+01	6.336E+01	1.078E+02	9.549E+00	0.272
		304.84		3.644E+01	1.016E+02	1.663E+02	4.779E+01	0.219
		423.70		4.790E+01	1.332E+02	2.299E+02	7.429E+01	0.208
		537.32	*	-1.579E+01	1.973E+01	2.779E+01	9.197E+00	-0.568
LA-140		328.77		4.665E+00	2.179E+01	3.524E+01	3.714E+00	0.132
		432.53		1.797E+01	1.621E+02	2.690E+02	2.343E+01	0.067
		487.03		6.730E+00	9.300E+00	1.673E+01	1.496E+00	0.402
		751.79		-5.059E+01	1.152E+02	1.701E+02	1.687E+01	-0.297
		815.85		1.137E+01	2.150E+01	3.883E+01	4.104E+00	0.293
		867.82		6.760E+01	8.700E+01	1.626E+02	1.722E+01	0.416
		919.63		1.552E+01	1.380E+02	2.354E+02	2.861E+01	0.066
		925.24		-3.147E+01	7.449E+01	1.151E+02	1.249E+01	-0.273
		1596.49	*	3.800E-01	6.578E+00	1.108E+01	9.894E-01	0.034
CE-141		145.44	*	-3.176E+00	5.517E+00	8.785E+00	7.730E-01	-0.362
CE-143		57.37		-7.483E-03	5.517E+00	Half-Life too short		
		231.56		-2.595E-02	5.517E+00	Half-Life too short		
		293.26	*	3.240E-03	5.517E+00	Half-Life too short		
	+	350.59		2.171E-01	5.517E+00	Half-Life too short		
		490.36		-1.026E-01	5.517E+00	Half-Life too short		
		664.57		-3.620E-02	5.517E+00	Half-Life too short		
		721.93		-3.529E-02	5.517E+00	Half-Life too short		
CE-144		80.11		9.407E+00	1.806E+02	2.791E+02	2.526E+01	0.034
		133.54	*	9.341E+00	1.809E+01	3.115E+01	4.903E+00	0.300
PM-144		476.78		9.760E-01	5.303E+00	8.978E+00	8.264E-01	0.109
		618.01		2.175E-01	2.430E+00	4.001E+00	3.416E-01	0.054
		696.49	*	2.124E-01	2.532E+00	4.131E+00	3.506E-01	0.051
		778.57		-1.798E+02	1.579E+02	1.896E+02	1.764E+01	-0.948
PR-144		696.49	*	1.438E+01	1.714E+02	2.797E+02	2.373E+01	0.051
		1489.15		-3.288E+02	9.432E+02	1.455E+03	1.317E+02	-0.226
PM-146		453.90	*	1.841E+00	3.437E+00	6.049E+00	6.347E-01	0.304
		633.02		3.058E+01	1.036E+02	1.745E+02	6.507E+01	0.175
		735.90		4.391E+00	1.157E+01	1.954E+01	5.604E+00	0.225

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		747.13		9.022E-01	6.847E+00	1.120E+01	1.598E+00	0.081
ND-147		91.11		1.094E+01	2.078E+01	3.628E+01	3.646E+00	0.302
		319.41		6.206E+01	2.515E+02	4.088E+02	4.236E+01	0.152
		439.89		-3.061E+01	4.467E+02	7.392E+02	6.132E+01	-0.041
		531.02	*	3.892E+00	3.870E+01	6.447E+01	9.563E+00	0.060
PM-149		285.90	*	-4.831E+03	4.669E+03	6.530E+03	1.112E+03	-0.740
EU-152		121.78		-1.388E+00	6.814E+00	1.125E+01	1.187E+00	-0.123
		244.69		-1.360E+01	3.113E+01	4.830E+01	4.941E+00	-0.282
		344.27	*	-2.933E+00	7.630E+00	1.243E+01	1.263E+00	-0.236
		443.98		-1.112E+01	7.680E+01	1.258E+02	1.045E+01	-0.088
		778.89		-2.179E+01	1.813E+01	2.123E+01	1.975E+00	-1.026
		867.32		2.615E+01	5.866E+01	1.048E+02	1.069E+01	0.249
		964.01		1.396E+00	1.918E+01	3.221E+01	3.289E+00	0.043
		1085.78		-5.212E+00	2.745E+01	4.352E+01	4.087E+00	-0.120
		1112.02		-2.026E+01	2.040E+01	2.624E+01	2.405E+00	-0.772
		1407.95		2.518E+00	1.325E+01	2.225E+01	2.022E+00	0.113
GD-153		69.67		-1.338E+02	1.316E+02	2.092E+02	1.809E+01	-0.639
		83.37		-8.643E+02	1.298E+03	2.001E+03	1.851E+02	-0.432
		97.43	*	-4.789E+00	6.723E+00	1.079E+01	9.863E-01	-0.444
		103.18		-2.771E+00	8.523E+00	1.403E+01	1.271E+00	-0.197
EU-154		123.07		-4.698E+00	4.702E+00	7.250E+00	8.614E-01	-0.648
		247.94		-5.773E+00	3.219E+01	5.096E+01	6.524E+00	-0.113
		591.81		-6.558E+01	5.134E+01	6.732E+01	7.725E+00	-0.974
		723.30		-9.200E+00	1.244E+01	1.736E+01	1.674E+00	-0.530
		756.87		7.950E-02	5.499E+01	8.798E+01	1.084E+01	0.001
		873.19		-2.478E+01	2.195E+01	2.906E+01	3.906E+00	-0.853
		996.32		-1.422E+01	2.433E+01	3.547E+01	6.559E+00	-0.401
		1004.76		-1.564E+01	1.513E+01	1.990E+01	2.523E+00	-0.786
		1274.45	*	-4.490E-02	7.833E+00	1.269E+01	1.463E+00	-0.004
EU-155		48.70		-5.711E+01	2.699E+02	4.166E+02	3.959E+01	-0.137
		60.01		3.621E+02	4.783E+02	7.440E+02	6.416E+01	0.487
		86.54		8.226E+00	7.842E+00	1.414E+01	1.351E+00	0.582
		105.31	*	1.258E+00	9.336E+00	1.589E+01	1.454E+00	0.079
TB-160		86.79		2.153E+01	2.053E+01	3.701E+01	3.514E+00	0.582
		197.04		1.400E+01	5.522E+01	8.886E+01	7.978E+00	0.158
		215.65		-6.619E+00	6.113E+01	9.834E+01	9.293E+00	-0.067
		298.57		7.213E+00	9.854E+00	1.527E+01	1.654E+00	0.472
		879.36	*	2.921E+00	9.851E+00	1.723E+01	1.777E+00	0.170
		962.29		7.882E+00	3.384E+01	5.826E+01	5.954E+00	0.135
		966.15		-6.270E+00	1.246E+01	1.885E+01	1.922E+00	-0.333
		1177.93		5.831E+00	1.648E+01	2.930E+01	2.519E+00	0.199
		1271.85		2.794E+01	4.856E+01	8.726E+01	7.765E+00	0.320
HO-166M		80.57		6.558E+00	2.356E+01	3.711E+01	3.368E+00	0.177
	+	184.41		1.322E+00	4.764E+00	5.362E+00	4.654E-01	0.247
		280.46		-5.243E+00	7.586E+00	1.125E+01	1.258E+00	-0.466
		410.95		-3.951E-01	1.603E+01	2.675E+01	2.193E+00	-0.015
		711.68	*	4.794E-01	4.862E+00	7.930E+00	6.847E-01	0.060
		752.31		-1.219E+01	2.098E+01	3.017E+01	2.727E+00	-0.404
		810.29		-1.804E+00	4.682E+00	7.450E+00	7.167E-01	-0.242

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TM-171		51.35		-1.329E+03	3.087E+03	4.636E+03	4.331E+02	-0.287
		52.39		8.994E+02	1.528E+03	2.531E+03	2.341E+02	0.355
		59.40		2.328E+03	2.367E+03	4.024E+03	3.475E+02	0.579
		66.72	*	4.473E+02	3.224E+03	4.695E+03	4.041E+02	0.095
HF-175		89.36		-2.914E+02	1.240E+02	1.742E+02	1.654E+01	-1.673
		343.40	*	1.699E-01	2.708E+00	4.613E+00	4.486E-01	0.037
		433.00		2.495E+01	1.802E+02	2.997E+02	2.480E+01	0.083
LU-176		88.36		-1.836E+00	1.452E+01	2.448E+01	2.341E+00	-0.075
		201.83		-7.760E-01	2.456E+00	3.901E+00	3.549E-01	-0.199
		306.84	*	1.302E+00	2.204E+00	3.701E+00	3.944E-01	0.352
		401.10		-4.295E+02	5.255E+02	8.003E+02	6.529E+01	-0.537
LU-177		112.95		-4.264E+01	1.209E+02	1.982E+02	1.806E+01	-0.215
		208.36	*	5.621E-01	7.181E+01	1.169E+02	1.083E+01	0.005
LU-177M		52.97		6.103E+01	1.571E+02	2.555E+02	2.349E+01	0.239
		54.07		-2.063E+00	8.192E+01	1.280E+02	1.164E+01	-0.016
		61.30		2.118E+01	1.441E+02	2.099E+02	1.807E+01	0.101
		121.62		3.365E+00	3.411E+01	5.754E+01	5.359E+00	0.058
		147.16		5.924E+01	5.889E+01	1.039E+02	8.939E+00	0.570
		171.86		-4.226E+01	4.478E+01	6.833E+01	5.745E+00	-0.618
		218.09		3.833E+00	7.492E+01	1.221E+02	1.162E+01	0.031
		268.79		-1.191E+01	6.922E+01	1.091E+02	1.189E+01	-0.109
		319.02		-1.939E+00	2.164E+01	3.391E+01	3.517E+00	-0.057
		367.43		-8.976E+00	6.448E+01	1.070E+02	9.610E+00	-0.084
		413.65	*	-5.724E+00	1.261E+01	1.994E+01	1.637E+00	-0.287
HF-181		56.28		3.426E+01	8.307E+01	1.352E+02	1.201E+01	0.253
		57.53		2.387E+01	4.365E+01	7.190E+01	6.310E+00	0.332
		65.20		-8.966E+01	1.120E+02	1.490E+02	1.281E+01	-0.602
		133.02		5.175E+00	5.635E+00	9.954E+00	8.906E-01	0.520
		136.25		-4.676E+01	4.421E+01	5.879E+01	5.207E+00	-0.795
		345.85		7.266E-01	1.451E+01	2.390E+01	2.307E+00	0.030
		482.03	*	-1.399E+00	3.140E+00	4.897E+00	4.106E-01	-0.286
W-181		56.28		1.365E+01	3.315E+01	5.397E+01	4.795E+00	0.253
		57.53		9.518E+00	1.744E+01	2.872E+01	2.520E+00	0.331
		65.20	*	-3.553E+01	4.437E+01	5.905E+01	5.078E+00	-0.602
TA-182		67.75		-2.407E+00	1.162E+01	1.638E+01	1.411E+00	-0.147
		100.10		1.529E+01	1.484E+01	2.675E+01	2.432E+00	0.572
		152.43		5.195E+00	3.029E+01	5.075E+01	4.318E+00	0.102
		222.10		-1.519E+01	2.937E+01	4.540E+01	4.367E+00	-0.334
		1001.68		8.998E+01	1.388E+02	2.534E+02	2.533E+01	0.355
	+	1121.28		1.743E+01	1.277E+01	2.096E+01	1.904E+00	0.832
		1189.05		1.191E+01	1.953E+01	3.530E+01	3.048E+00	0.337
		1221.42	*	1.699E+00	1.143E+01	1.915E+01	1.674E+00	0.089
		1230.97		1.834E+01	2.444E+01	4.369E+01	3.833E+00	0.420
RE-183		57.98		-3.566E+00	1.891E+01	2.901E+01	2.535E+00	-0.123
		59.32		4.352E+00	9.908E+00	1.608E+01	1.390E+00	0.271
		67.20		1.890E+01	2.012E+01	3.156E+01	2.717E+00	0.599
		162.32	*	7.227E+00	1.009E+01	1.744E+01	1.455E+00	0.414
		208.81		1.687E+01	7.383E+01	1.225E+02	1.136E+01	0.138
		291.72		-3.002E+01	8.322E+01	1.115E+02	1.224E+01	-0.269

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RE-184		57.98		-1.328E+01	7.043E+01	1.080E+02	9.443E+00	-0.123
		59.32		1.620E+01	3.687E+01	5.986E+01	5.172E+00	0.271
		67.20		7.037E+01	7.491E+01	1.175E+02	1.012E+01	0.599
		161.27		1.675E+01	3.299E+01	5.631E+01	4.708E+00	0.298
		216.55		1.109E+01	2.220E+01	3.750E+01	3.553E+00	0.296
		252.85	*	6.602E+00	2.039E+01	3.373E+01	3.527E+00	0.196
		318.01		4.942E+00	3.836E+01	6.160E+01	6.404E+00	0.080
		792.07		2.342E+00	6.103E+01	1.035E+02	9.768E+00	0.023
		903.28		-6.751E+01	7.572E+01	1.077E+02	1.129E+01	-0.627
		920.93		-1.748E+01	2.589E+01	3.658E+01	3.810E+00	-0.478
OS-185		59.72		3.506E+01	2.698E+01	4.434E+01	3.825E+00	0.791
		61.14		1.257E+00	1.573E+01	2.273E+01	1.958E+00	0.055
		69.30		-3.585E+01	2.417E+01	3.697E+01	3.194E+00	-0.970
		592.07		-2.913E+02	2.026E+02	2.567E+02	2.144E+01	-1.135
		646.12	*	-2.150E-02	3.022E+00	4.891E+00	4.011E-01	-0.004
		717.42		2.862E+00	6.474E+01	1.048E+02	9.106E+00	0.027
		874.81		-3.064E+01	4.079E+01	5.910E+01	6.069E+00	-0.519
		880.27		7.220E+00	5.502E+01	9.390E+01	9.696E+00	0.077
RE-188		155.03	*	-3.522E+00	1.552E+01	2.527E+01	2.139E+00	-0.139
		477.96		2.356E+02	2.286E+02	4.234E+02	3.548E+01	0.556
		633.10		6.363E+01	2.049E+02	3.478E+02	2.868E+01	0.183
W-188	+	63.58		5.368E+02	7.728E+03	9.153E+03	7.870E+02	0.059
		227.08		-7.695E+02	1.079E+03	1.632E+03	1.591E+02	-0.472
		290.67	*	-2.065E+02	6.729E+02	9.110E+02	1.001E+02	-0.227
IR-192	+	295.96		1.421E+01	1.165E+01	1.724E+01	1.885E+00	0.824
		308.46		-1.933E+00	8.144E+00	1.258E+01	1.341E+00	-0.154
		316.51	*	4.725E-01	2.793E+00	4.509E+00	4.711E-01	0.105
		468.07		-3.449E+00	5.007E+00	7.575E+00	6.817E-01	-0.455
		604.41		-3.161E+00	3.643E+01	5.101E+01	6.543E+00	-0.062
		612.46		4.111E+01	5.121E+01	8.466E+01	8.152E+00	0.486
AU-195		65.12		-1.697E+01	2.062E+01	2.738E+01	2.354E+00	-0.620
		66.83		1.602E+00	1.060E+01	1.546E+01	1.330E+00	0.104
	+	75.70		1.122E+01	2.295E+01	2.701E+01	2.385E+00	0.415
		98.88	*	1.215E+01	1.962E+01	3.450E+01	3.143E+00	0.352
		129.76		-2.151E+02	2.536E+02	3.973E+02	3.594E+01	-0.541
TL-200		367.94	*	-2.545E-04	2.536E+02	Half-Life too short		
		579.30		-4.919E-02	2.536E+02	Half-Life too short		
		828.27		5.293E-02	2.536E+02	Half-Life too short		
		1205.75		-1.213E-02	2.536E+02	Half-Life too short		
TL-201		68.90		-4.597E+02	2.650E+02	3.966E+02	3.424E+01	-1.159
		70.82		-1.319E+01	1.379E+02	2.350E+02	2.038E+01	-0.056
		80.30		2.974E+01	2.833E+02	4.399E+02	3.985E+01	0.068
		135.34		-8.440E+02	1.611E+03	2.280E+03	2.025E+02	-0.370
		167.43	*	-4.845E+01	4.003E+02	6.536E+02	5.438E+01	-0.074
TL-202		68.90		-5.663E+01	3.264E+01	4.886E+01	4.218E+00	-1.159
		70.82		-1.621E+00	1.694E+01	2.886E+01	2.503E+00	-0.056
		80.30		3.654E+00	3.481E+01	5.405E+01	4.897E+00	0.068
		439.56	*	1.024E+00	5.227E+00	8.890E+00	7.374E-01	0.115
HG-203		70.83		-7.395E+00	7.928E+01	1.351E+02	1.843E+01	-0.055

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		72.87		2.662E+00	5.067E+01	7.867E+01	1.044E+01	0.034
		82.60		-7.312E+01	9.735E+01	1.490E+02	2.103E+01	-0.491
		279.20	*	-2.936E-01	3.399E+00	5.385E+00	6.131E-01	-0.055
BI-207		72.80		1.028E+00	1.531E+01	2.380E+01	2.077E+00	0.043
		74.97		-5.678E-01	9.036E+00	1.387E+01	1.221E+00	-0.041
		84.90		-2.257E+01	1.690E+01	2.471E+01	2.312E+00	-0.913
		569.67		7.737E-01	2.336E+00	3.988E+00	3.347E-01	0.194
		1063.62	*	7.887E-01	3.491E+00	5.986E+00	5.728E-01	0.132
		1770.23		-5.444E+01	5.569E+01	7.314E+01	6.242E+00	-0.744
TL-207		81.07		1.482E+01	1.765E+01	3.050E+01	2.777E+00	0.486
		83.78		-1.350E+01	1.126E+01	1.665E+01	1.545E+00	-0.811
		94.90		-3.054E+01	2.293E+01	3.558E+01	3.281E+00	-0.858
		122.32		-1.605E+02	1.646E+02	2.557E+02	2.533E+01	-0.628
		144.24		-5.750E+01	6.905E+01	9.954E+01	9.641E+00	-0.578
		154.21		2.728E+00	3.703E+01	6.160E+01	5.759E+00	0.044
		269.46		8.477E+00	1.718E+01	2.743E+01	3.034E+00	0.309
		323.87	*	-1.166E+01	5.160E+01	7.928E+01	1.471E+01	-0.147
		338.28		-3.249E+01	8.498E+01	1.304E+02	1.724E+01	-0.249
		445.03		-7.022E+01	1.827E+02	2.904E+02	3.447E+01	-0.242
TL-208		72.80		1.118E+01	1.664E+02	2.588E+02	2.258E+01	0.043
		74.97		-6.168E+00	9.816E+01	1.507E+02	1.870E+01	-0.041
		277.35		4.144E+00	3.415E+01	5.215E+01	7.413E+00	0.079
		510.84		-2.059E+01	2.098E+01	3.835E+01	4.542E+00	-0.537
		583.14	*	4.650E-02	3.319E+00	5.560E+00	5.008E-01	0.008
		763.13		2.413E+01	1.559E+02	2.555E+02	3.650E+01	0.094
		860.37		1.839E+01	1.877E+01	3.606E+01	3.848E+00	0.510
		1093.90		-3.456E+02	6.680E+02	9.636E+02	2.269E+02	-0.359
PO-209		260.50		-3.608E+02	8.642E+02	1.331E+03	1.420E+02	-0.271
		262.80		1.680E+03	2.412E+03	4.099E+03	4.400E+02	0.410
		896.60	*	-2.815E+02	5.871E+02	9.076E+02	9.521E+01	-0.310
BI-210		46.50	*	-1.477E+02	4.394E+02	6.640E+02	6.787E+01	-0.222
PB-210		46.50	*	-1.477E+02	4.394E+02	6.640E+02	6.787E+01	-0.222
PO-210		46.50	*	-1.477E+02	4.394E+02	6.640E+02	6.260E+01	-0.222
PB-211		404.84	*	4.294E+01	7.369E+01	1.227E+02	7.683E+01	0.350
		427.08		-5.637E+01	1.578E+02	2.458E+02	1.526E+02	-0.229
		831.96		-2.216E+01	6.859E+01	1.055E+02	6.627E+01	-0.210
BI-212		727.18	*	3.529E+00	2.441E+01	3.870E+01	3.930E+00	0.091
		785.46		-2.009E+01	1.335E+02	2.169E+02	2.033E+01	-0.093
		1620.62		4.265E+00	9.705E+01	1.630E+02	1.449E+01	0.026
PB-212		74.81		-8.293E+00	3.178E+01	4.796E+01	6.155E+00	-0.173
	+	77.11		1.297E+01	2.654E+01	3.108E+01	2.764E+00	0.417
		87.30		2.102E+01	3.101E+01	5.468E+01	7.555E+00	0.384
		115.19		-1.552E+02	3.313E+02	5.382E+02	4.926E+01	-0.288
	+	238.63	*	4.093E-01	9.836E+00	1.063E+01	1.171E+00	0.038
		300.09		-2.996E+01	6.590E+01	9.966E+01	1.225E+01	-0.301
PO-212		74.81		-8.293E+00	3.178E+01	4.796E+01	6.155E+00	-0.173
	+	77.11		1.297E+01	2.654E+01	3.108E+01	2.764E+00	0.417
		87.30		2.102E+01	3.101E+01	5.468E+01	7.555E+00	0.384
		115.19		-1.552E+02	3.313E+02	5.382E+02	4.926E+01	-0.288

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
	+	238.63	*	4.093E-01	9.836E+00	1.063E+01	1.171E+00	0.038
		300.09		-2.996E+01	6.590E+01	9.966E+01	1.225E+01	-0.301
PO-215		81.07		1.482E+01	1.765E+01	3.050E+01	2.777E+00	0.486
		83.78		-1.350E+01	1.126E+01	1.665E+01	1.545E+00	-0.811
		94.90		-3.054E+01	2.293E+01	3.558E+01	3.281E+00	-0.858
		122.32		-1.605E+02	1.646E+02	2.557E+02	2.533E+01	-0.628
		144.24		-5.750E+01	6.905E+01	9.954E+01	9.641E+00	-0.578
		154.21		2.728E+00	3.703E+01	6.160E+01	5.759E+00	0.044
		269.46		8.477E+00	1.718E+01	2.743E+01	3.034E+00	0.309
		323.87	*	-1.166E+01	5.160E+01	7.928E+01	1.471E+01	-0.147
		338.28		-3.249E+01	8.498E+01	1.304E+02	1.724E+01	-0.249
		445.03		-7.022E+01	1.827E+02	2.904E+02	3.447E+01	-0.242
PO-216		74.81		-8.293E+00	3.178E+01	4.796E+01	6.155E+00	-0.173
	+	77.11		1.297E+01	2.654E+01	3.108E+01	2.764E+00	0.417
		87.30		2.102E+01	3.101E+01	5.468E+01	7.555E+00	0.384
		115.19		-1.552E+02	3.313E+02	5.382E+02	4.926E+01	-0.288
	+	238.63	*	4.093E-01	9.836E+00	1.063E+01	1.171E+00	0.038
		300.09		-2.996E+01	6.590E+01	9.966E+01	1.225E+01	-0.301
RN-219		271.23		8.908E+00	2.215E+01	3.507E+01	4.329E+00	0.254
		401.81	*	-4.556E+01	3.269E+01	4.484E+01	6.622E+00	-1.016
RN-220		549.76	*	-2.370E+02	1.928E+03	3.107E+03	2.613E+02	-0.076
RA-223		81.07		1.482E+01	1.765E+01	3.050E+01	2.777E+00	0.486
		83.78		-1.350E+01	1.126E+01	1.665E+01	1.545E+00	-0.811
		94.90		-3.054E+01	2.293E+01	3.558E+01	3.281E+00	-0.858
		122.32		-1.605E+02	1.646E+02	2.557E+02	2.533E+01	-0.628
		144.24		-5.750E+01	6.905E+01	9.954E+01	9.641E+00	-0.578
		154.21		2.728E+00	3.703E+01	6.160E+01	5.759E+00	0.044
		269.46		8.477E+00	1.718E+01	2.743E+01	3.034E+00	0.309
		323.87	*	-1.166E+01	5.160E+01	7.928E+01	1.471E+01	-0.147
		338.28		-3.249E+01	8.498E+01	1.304E+02	1.724E+01	-0.249
		445.03		-7.022E+01	1.827E+02	2.904E+02	3.447E+01	-0.242
RA-224		240.98	*	2.393E+01	6.559E+01	9.789E+01	9.915E+00	0.244
AC-227		79.80		-8.823E+01	1.472E+02	2.126E+02	4.606E+01	-0.415
		236.00		9.334E+00	1.930E+01	2.935E+01	3.887E+00	0.318
		256.20	*	-1.760E+01	3.473E+01	5.299E+01	8.748E+00	-0.332
		286.10		-1.303E+02	1.359E+02	1.926E+02	2.874E+01	-0.676
		299.80		1.575E+01	1.201E+02	1.844E+02	3.441E+01	0.085
		304.40		4.992E+01	1.646E+02	2.689E+02	5.244E+01	0.186
		329.70		5.547E+01	6.739E+01	1.221E+02	1.827E+01	0.454
		334.20		-7.122E+01	1.758E+02	2.860E+02	5.734E+01	-0.249
PA-227		64.62	*	-1.000E+35	1.758E+02	Half-Life too short		
		110.05		1.000E+35	1.758E+02	Half-Life too short		
TH-227		79.80		-8.823E+01	1.473E+02	2.126E+02	4.665E+01	-0.415
		94.00		-6.354E+02	2.469E+02	3.074E+02	6.775E+01	-2.067
		236.00		9.334E+00	1.930E+01	2.935E+01	3.573E+00	0.318
		256.20	*	-1.760E+01	3.477E+01	5.299E+01	1.010E+01	-0.332
		286.10		-1.303E+02	1.878E+02	1.926E+02	1.938E+02	-0.676
		299.80		1.575E+01	1.201E+02	1.844E+02	3.441E+01	0.085
		304.40		4.992E+01	1.646E+02	2.689E+02	5.244E+01	0.186

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		329.70		5.547E+01	6.739E+01	1.221E+02	1.827E+01	0.454
		334.20		-7.122E+01	1.758E+02	2.860E+02	5.734E+01	-0.249
AC-228		338.32		-8.266E+00	2.066E+01	3.123E+01	1.297E+01	-0.265
		911.07	*	-3.767E+00	1.010E+01	1.663E+01	2.113E+00	-0.226
		969.11		-9.186E+00	1.794E+01	2.612E+01	6.258E+00	-0.352
RA-228		338.32		-8.266E+00	2.066E+01	3.123E+01	1.297E+01	-0.265
		911.07	*	-3.767E+00	1.010E+01	1.663E+01	2.113E+00	-0.226
		969.11		-9.186E+00	1.794E+01	2.612E+01	6.258E+00	-0.352
TH-228		74.81		-8.293E+00	3.177E+01	4.796E+01	4.253E+00	-0.173
	+	77.11		1.297E+01	2.654E+01	3.108E+01	2.764E+00	0.417
		87.30		2.102E+01	3.094E+01	5.468E+01	5.214E+00	0.384
	+	238.63	*	4.093E-01	9.836E+00	1.063E+01	1.171E+00	0.038
		300.09		-2.996E+01	6.818E+01	9.966E+01	5.943E+01	-0.301
TH-229		85.43		-8.595E+00	1.647E+01	2.573E+01	2.417E+00	-0.334
		88.47		-2.845E+00	8.453E+00	1.404E+01	1.342E+00	-0.203
		100.00		1.798E+01	1.575E+01	2.854E+01	2.595E+00	0.630
		193.63	*	1.337E+01	4.415E+01	7.382E+01	6.566E+00	0.181
		210.97		-4.573E+01	6.019E+01	9.103E+01	8.491E+00	-0.502
TH-230		67.67	*	-1.667E+02	1.641E+03	1.753E+03	1.137E+04	-0.095
PA-231		283.67	*	4.589E+01	1.367E+02	2.249E+02	3.763E+01	0.204
		301.29		-4.358E+01	4.861E+01	6.928E+01	9.593E+00	-0.629
		330.00		5.690E+01	1.545E+02	2.692E+02	8.717E+01	0.211
TH-231		84.21	*	-5.635E+01	4.469E+01	6.452E+01	1.174E+01	-0.873
U-231		84.21		-4.641E+02	3.609E+02	5.314E+02	4.946E+01	-0.873
		92.29		-1.261E+02	1.533E+02	2.623E+02	2.447E+01	-0.481
		95.87	*	-5.300E+01	7.498E+01	1.212E+02	1.114E+01	-0.437
		108.00		5.030E+01	1.387E+02	2.391E+02	2.165E+01	0.210
TH-232		59.00	*	2.438E+02	3.717E+03	4.234E+03	4.457E+04	0.058
PA-233		75.28		5.883E+01	2.669E+02	4.191E+02	6.478E+01	0.140
		86.59		1.337E+02	1.319E+02	2.298E+02	6.230E+01	0.582
		300.12		-1.537E+01	3.364E+01	5.079E+01	8.245E+00	-0.303
		311.98	*	-1.440E-01	4.991E+00	7.885E+00	8.470E-01	-0.018
		340.50		-2.403E+01	4.571E+01	7.295E+01	1.772E+01	-0.329
		398.62		2.205E+02	1.699E+02	3.048E+02	8.072E+01	0.723
		415.76		8.873E+01	1.234E+02	2.204E+02	4.715E+01	0.403
PA-234	+	63.00		1.586E+01	2.283E+02	2.704E+02	4.189E+01	0.059
		94.67		-2.103E+01	1.648E+01	2.550E+01	3.273E+00	-0.825
		98.44		3.832E+00	8.399E+00	1.417E+01	7.915E+00	0.270
		99.86		4.176E+01	4.018E+01	7.239E+01	6.582E+00	0.577
		111.00		-1.978E+00	1.667E+01	2.782E+01	3.456E+00	-0.071
		131.20		6.060E+00	9.468E+00	1.645E+01	1.481E+00	0.368
		152.70		1.300E+01	2.928E+01	4.983E+01	8.464E+00	0.261
	+	186.00		4.759E+01	1.721E+02	2.145E+02	6.702E+01	0.222
		226.40		-3.455E+01	3.547E+01	5.197E+01	7.253E+00	-0.665
		227.20		-2.612E+01	3.714E+01	5.624E+01	5.486E+00	-0.464
		248.90		-1.691E+01	7.010E+01	1.101E+02	2.546E+01	-0.154
	+	293.70		9.099E+01	7.585E+01	1.061E+02	1.968E+01	0.858
		369.80		-1.289E+01	6.073E+01	9.980E+01	2.185E+01	-0.129
		568.70		-6.057E+00	7.726E+01	1.251E+02	1.050E+01	-0.048

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		569.50		5.078E+00	2.087E+01	3.523E+01	2.956E+00	0.144
		574.00		4.781E+01	1.141E+02	1.968E+02	1.650E+01	0.243
		699.00		5.459E-01	5.546E+01	8.942E+01	1.702E+01	0.006
		706.10		-5.236E+01	8.683E+01	1.217E+02	5.427E+01	-0.430
		733.00		-2.532E+01	2.799E+01	3.656E+01	8.147E+00	-0.693
		742.81		-4.911E+01	1.110E+02	1.566E+02	1.053E+02	-0.314
		796.30		-1.863E+01	5.576E+01	8.829E+01	2.414E+01	-0.211
		805.60		6.333E+00	8.778E+01	1.411E+02	4.363E+01	0.045
		819.60		-1.573E+01	8.497E+01	1.382E+02	5.292E+01	-0.114
		826.30		-3.019E+00	5.458E+01	9.083E+01	4.086E+01	-0.033
		831.60		5.182E+00	3.561E+01	6.134E+01	1.854E+01	0.084
		876.40		2.084E+01	6.274E+01	1.041E+02	1.072E+02	0.200
		880.51		2.645E+00	2.017E+01	3.442E+01	3.554E+00	0.077
		883.24		-1.003E+01	2.066E+01	2.965E+01	2.001E+01	-0.338
		899.00		7.336E+01	7.363E+01	1.270E+02	5.603E+01	0.578
		925.00		-1.860E+01	8.378E+01	1.343E+02	1.396E+01	-0.139
		926.50		-1.106E+01	1.406E+01	1.997E+01	5.178E+00	-0.554
		946.00	*	-2.646E+00	1.859E+01	3.003E+01	5.884E+00	-0.088
		949.00		1.640E+01	2.635E+01	4.886E+01	5.026E+00	0.336
		980.50		-2.261E+01	4.490E+01	6.647E+01	6.728E+00	-0.340
		1394.10		3.483E+01	7.906E+01	1.367E+02	8.907E+01	0.255
PA-234M		766.42		-2.018E+02	8.586E+02	1.261E+03	6.412E+02	-0.160
		1001.03	*	3.243E+02	3.122E+02	5.999E+02	6.707E+01	0.541
TH-234	+	63.29	*	1.360E+01	1.958E+02	2.315E+02	4.162E+01	0.059
		92.38		-4.097E+01	5.468E+01	9.321E+01	1.718E+01	-0.440
U-234		53.20	*	2.402E+03	2.480E+04	1.006E+04	1.006E+05	0.239
U-235		89.95		-2.743E+02	1.293E+02	1.363E+02	4.239E+01	-2.013
		93.35		-4.114E+01	6.482E+01	1.104E+02	3.117E+01	-0.373
		105.00		2.268E+01	8.989E+01	1.539E+02	4.612E+01	0.147
		143.76	*	-1.108E+01	2.246E+01	3.152E+01	5.528E+00	-0.352
		163.35		1.050E+01	4.307E+01	7.221E+01	1.368E+01	0.145
	+	185.71		1.763E+00	6.352E+00	7.955E+00	6.928E-01	0.222
		205.31		1.123E+01	4.380E+01	7.270E+01	1.406E+01	0.154
NP-236		94.67		-1.596E+01	1.242E+01	1.934E+01	1.785E+00	-0.825
		98.44		2.897E+00	6.145E+00	1.071E+01	9.767E-01	0.270
		111.00		-1.496E+00	1.261E+01	2.105E+01	1.911E+00	-0.071
		160.31	*	-1.694E+00	7.664E+00	1.247E+01	1.044E+00	-0.136
NP-237		86.50	*	2.008E+01	1.959E+01	3.451E+01	7.836E+00	0.582
		95.87		-6.336E+01	9.083E+01	1.449E+02	3.599E+01	-0.437
PU-237		59.54	*	2.439E+02	1.932E+02	3.166E+02	2.732E+01	0.770
U-238	+	63.29	*	1.360E+01	1.958E+02	2.315E+02	4.162E+01	0.059
		92.38		-4.097E+01	5.429E+01	9.321E+01	8.693E+00	-0.440
NP-239		99.55		1.274E+01	1.345E+01	2.411E+01	2.194E+00	0.528
		117.00	*	1.337E+00	1.739E+01	2.934E+01	2.696E+00	0.046
		209.75		-1.821E+01	6.080E+01	9.632E+01	8.955E+00	-0.189
		228.18		7.040E+00	1.877E+01	3.135E+01	3.066E+00	0.225
		277.60		2.547E+00	1.618E+01	2.479E+01	2.764E+00	0.103
		334.30		-3.724E+01	9.970E+01	1.631E+02	1.628E+01	-0.228
AM-241		59.54	*	1.817E+01	1.440E+01	2.359E+01	2.182E+00	0.770

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AM-243		74.67	*	-1.236E+00	5.107E+00	7.722E+00	6.788E-01	-0.160
		86.72		7.509E+02	7.158E+02	1.290E+03	1.225E+02	0.582
		117.66		-1.897E+02	3.624E+02	5.864E+02	5.398E+01	-0.324
		142.18		1.103E+02	1.678E+03	2.516E+03	2.192E+02	0.044
CM-243		99.55		1.311E+01	1.384E+01	2.481E+01	2.257E+00	0.528
		103.76	*	-2.692E+00	8.031E+00	1.321E+01	1.196E+00	-0.204
		117.00		1.375E+00	1.789E+01	3.018E+01	2.774E+00	0.046
		209.75		-1.794E+01	5.993E+01	9.494E+01	8.826E+00	-0.189
		228.18		7.113E+00	1.896E+01	3.167E+01	3.098E+00	0.225
		277.60		2.567E+00	1.631E+01	2.499E+01	2.786E+00	0.103
AM-246		798.80		-2.121E+00	8.909E+00	1.442E+01	1.370E+00	-0.147
		1036.00		-2.014E+00	2.087E+01	3.384E+01	3.306E+00	-0.060
		1062.04		1.580E+01	1.497E+01	2.910E+01	2.788E+00	0.543
		1078.86	*	3.270E-01	7.238E+00	1.204E+01	1.137E+00	0.027
CM-247		278.00		-5.461E+00	6.906E+01	1.036E+02	1.157E+01	-0.053
		287.40		5.126E+01	1.025E+02	1.716E+02	1.896E+01	0.299
		402.60	*	-2.438E+00	2.762E+00	4.145E+00	3.384E-01	-0.588
CF-249		252.85		2.496E+01	7.709E+01	1.275E+02	1.334E+01	0.196
		333.44		-8.926E+00	1.286E+01	2.031E+01	2.031E+00	-0.439
		387.95	*	1.015E+00	2.810E+00	4.911E+00	4.055E-01	0.207
CF-251		176.60	*	-3.034E-01	1.103E+01	1.808E+01	1.538E+00	-0.017
		227.00		-2.923E+01	3.349E+01	4.985E+01	4.860E+00	-0.586
		285.00		-4.488E+01	1.581E+02	2.451E+02	2.719E+01	-0.183
ANH-511		511.00	*	-4.838E+00	4.433E+00	8.093E+00	6.810E-01	-0.598

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243286002     *
* Acquisition date : 30-DEC-2009 18:39:45 Detector SN#     :               *
* Detector ID        : GAM16               Sensitivity      : 5.000        *
* Geometry           : 2LMB                Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:00.89     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 17-DEC-2009 12:00:00 Nuclide Library : LIQUI         *
* Sample ID          : G243286002           Analyst initials: KXG3          *
* Batch Number       : 935338               Sample Quantity : 2.0000E+00 LITER *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 16-NOV-2009 16:34:37 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
K-40	2.646E+01	3.381E+01	4.869E+01	0.000E+00
BI-211	6.923E+01	2.882E+01	2.584E+01	0.000E+00
BI-214	2.968E+01	1.018E+01	8.163E+00	0.000E+00
PB-214	2.408E+01	1.010E+01	9.007E+00	0.000E+00
PO-214	2.408E+01	1.010E+01	9.007E+00	0.000E+00
PO-218	2.408E+01	1.010E+01	9.007E+00	0.000E+00
RA-226	2.902E+01	1.046E+02	9.400E+01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	1.762E+01	2.417E+01	4.416E+01	0.000E+00	NOT IDENT.
NA-22	3.053E-01	2.685E+00	4.550E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00	7.384E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.419E+00	2.624E+00	3.727E+00	0.000E+00	NOT IDENT.
TI-44	2.362E+00	4.736E+00	4.603E+00	0.000E+00	FAIL ABUN
SC-46	-2.560E+00	2.758E+00	3.940E+00	0.000E+00	FAIL ABUN
V-48	-2.095E+00	4.226E+00	6.463E+00	0.000E+00	NOT IDENT.
CR-51	2.071E+01	2.852E+01	4.960E+01	0.000E+00	NOT IDENT.
MN-52	2.102E+00	1.324E+01	2.255E+01	0.000E+00	NOT IDENT.
MN-54	-3.331E-01	2.040E+00	3.390E+00	0.000E+00	NOT IDENT.
CO-56	7.524E-01	2.614E+00	4.668E+00	0.000E+00	FAIL ABUN
CO-57	-1.413E+00	2.303E+00	3.767E+00	0.000E+00	NOT IDENT.
CO-58	-1.319E+00	2.974E+00	4.789E+00	0.000E+00	NOT IDENT.
FE-59	7.798E-02	5.092E+00	8.560E+00	0.000E+00	NOT IDENT.
CO-60	-1.333E+00	2.586E+00	3.704E+00	0.000E+00	NOT IDENT.
ZN-65	3.640E+00	4.656E+00	8.432E+00	0.000E+00	NOT IDENT.
GE-68	-6.146E+01	6.873E+01	8.964E+01	0.000E+00	NOT IDENT.
AS-73	3.199E+01	7.721E+01	1.283E+02	0.000E+00	NOT IDENT.
AS-74	5.921E+00	6.443E+00	1.195E+01	0.000E+00	NOT IDENT.
SE-75	1.404E+00	3.901E+00	6.579E+00	0.000E+00	NOT IDENT.

BR-77	7.371E-01	4.260E+02	7.161E+02	0.000E+00	FAIL ABUN
SR-82	-3.888E+00	2.255E+01	3.547E+01	0.000E+00	NOT IDENT.
RB-83	1.732E-01	4.768E+00	8.052E+00	0.000E+00	NOT IDENT.
RB-84	-2.448E+00	4.728E+00	7.367E+00	0.000E+00	NOT IDENT.
KR-85	-2.194E+03	8.100E+02	9.978E+02	0.000E+00	NOT IDENT.
SR-85	-1.103E+01	4.074E+00	5.018E+00	0.000E+00	NOT IDENT.
RB-86	-2.010E+01	4.232E+01	6.348E+01	0.000E+00	NOT IDENT.
Y-88	-7.919E-01	2.193E+00	3.183E+00	0.000E+00	NOT IDENT.
ZR-88	2.065E-01	2.182E+00	3.776E+00	0.000E+00	NOT IDENT.
Y-91	-7.460E+01	9.393E+02	1.534E+03	0.000E+00	NOT IDENT.
NB-94	-3.761E-01	2.459E+00	3.944E+00	0.000E+00	NOT IDENT.
NB-95	-9.213E-01	3.629E+00	5.493E+00	0.000E+00	NOT IDENT.
NB-95M	3.432E+00	9.911E+00	1.516E+01	0.000E+00	NOT IDENT.
ZR-95	2.274E+00	4.636E+00	8.203E+00	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.230E+06	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	4.725E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	1.153E+02	6.076E+02	1.020E+03	0.000E+00	FAIL ABUN
TC-99M	0.000E+00	3.432E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.456E+00	3.244E+00	5.391E+00	0.000E+00	NOT IDENT.
RH-102	-8.195E-01	2.233E+00	3.608E+00	0.000E+00	NOT IDENT.
RU-103	-9.688E-01	3.423E+00	4.811E+00	0.000E+00	FAIL ABUN
RH-106	-8.812E+00	2.361E+01	3.693E+01	0.000E+00	NOT IDENT.
RU-106	-8.812E+00	2.359E+01	3.693E+01	0.000E+00	NOT IDENT.
AG-108M	-6.907E-01	2.805E+00	4.573E+00	0.000E+00	NOT IDENT.
CD-109	-9.732E+00	6.351E+01	1.091E+02	0.000E+00	NOT IDENT.
AG-110M	-2.618E+00	2.681E+00	3.748E+00	0.000E+00	NOT IDENT.
IN-111	2.471E+01	5.961E+01	1.013E+02	0.000E+00	NOT IDENT.
IN-113M	3.776E-01	3.133E+00	5.439E+00	0.000E+00	NOT IDENT.
SN-113	3.776E-01	3.133E+00	5.439E+00	0.000E+00	NOT IDENT.
IN-114M	2.155E+00	1.646E+01	2.489E+01	0.000E+00	NOT IDENT.
CD-115	-9.627E+01	4.755E+02	7.775E+02	0.000E+00	NOT IDENT.
SN-117M	-1.753E-01	4.638E+00	7.802E+00	0.000E+00	NOT IDENT.
SB-122	-3.424E+00	8.682E+01	1.339E+02	0.000E+00	NOT IDENT.
I-123	0.000E+00	5.289E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-8.843E-01	2.658E+00	4.382E+00	0.000E+00	NOT IDENT.
I-124	1.538E+01	3.817E+01	5.988E+01	0.000E+00	NOT IDENT.
SB-124	-4.002E+00	4.713E+00	5.295E+00	0.000E+00	NOT IDENT.
SB-125	-1.670E+00	6.769E+00	1.120E+01	0.000E+00	NOT IDENT.
TE-125M	2.657E+02	8.209E+02	1.439E+03	0.000E+00	NOT IDENT.
I-126	-2.622E+00	1.029E+01	1.620E+01	0.000E+00	NOT IDENT.
SB-126	3.311E-01	9.315E+00	1.455E+01	0.000E+00	NOT IDENT.
SN-126	5.113E+00	6.310E+00	1.146E+01	0.000E+00	FAIL ABUN
SB-127	5.300E-01	6.682E+01	1.101E+02	0.000E+00	NOT IDENT.
XE-127	-6.253E-01	3.804E+00	6.244E+00	0.000E+00	NOT IDENT.
I-131	-2.859E+00	6.946E+00	1.141E+01	0.000E+00	NOT IDENT.
TE-132	1.468E+01	3.807E+01	6.484E+01	0.000E+00	NOT IDENT.
BA-133	2.028E+00	3.240E+00	5.375E+00	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.056E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-1.021E+00	2.784E+00	4.493E+00	0.000E+00	NOT IDENT.
CS-135	-1.245E+01	1.414E+01	2.114E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.951E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	4.259E+00	6.686E+00	1.242E+01	0.000E+00	NOT IDENT.
BA-137M	1.029E+00	2.543E+00	4.445E+00	0.000E+00	NOT IDENT.
CS-137	1.087E+00	2.688E+00	4.699E+00	0.000E+00	NOT IDENT.
CE-139	-1.430E+00	2.550E+00	4.109E+00	0.000E+00	NOT IDENT.
BA-140	-1.579E+01	1.934E+01	2.779E+01	0.000E+00	NOT IDENT.
LA-140	3.800E-01	6.447E+00	1.108E+01	0.000E+00	NOT IDENT.
CE-141	-3.176E+00	5.407E+00	8.785E+00	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.968E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	9.341E+00	1.773E+01	3.115E+01	0.000E+00	NOT IDENT.
PM-144	2.124E-01	2.482E+00	4.131E+00	0.000E+00	NOT IDENT.
PR-144	1.438E+01	1.680E+02	2.797E+02	0.000E+00	NOT IDENT.
PM-146	1.841E+00	3.368E+00	6.049E+00	0.000E+00	NOT IDENT.
ND-147	3.892E+00	3.792E+01	6.447E+01	0.000E+00	NOT IDENT.
PM-149	-4.831E+03	4.575E+03	6.530E+03	0.000E+00	NOT IDENT.
EU-152	-2.933E+00	7.477E+00	1.243E+01	0.000E+00	NOT IDENT.
GD-153	-4.789E+00	6.589E+00	1.079E+01	0.000E+00	NOT IDENT.
EU-154	-4.490E-02	7.677E+00	1.269E+01	0.000E+00	NOT IDENT.
EU-155	1.258E+00	9.149E+00	1.589E+01	0.000E+00	NOT IDENT.
TB-160	2.921E+00	9.654E+00	1.723E+01	0.000E+00	NOT IDENT.
HO-166M	4.794E-01	4.764E+00	7.930E+00	0.000E+00	FAIL ABUN
TM-171	4.473E+02	3.159E+03	4.695E+03	0.000E+00	NOT IDENT.
HF-175	1.699E-01	2.654E+00	4.613E+00	0.000E+00	NOT IDENT.
LU-176	1.302E+00	2.160E+00	3.701E+00	0.000E+00	NOT IDENT.
LU-177	5.621E-01	7.037E+01	1.169E+02	0.000E+00	NOT IDENT.
LU-177M	-5.724E+00	1.235E+01	1.994E+01	0.000E+00	NOT IDENT.
HF-181	-1.399E+00	3.077E+00	4.897E+00	0.000E+00	NOT IDENT.
W-181	-3.553E+01	4.348E+01	5.905E+01	0.000E+00	NOT IDENT.

TA-182	1.699E+00	1.120E+01	1.915E+01	0.000E+00	FAIL ABUN
RE-183	7.227E+00	9.892E+00	1.744E+01	0.000E+00	NOT IDENT.
RE-184	6.602E+00	1.998E+01	3.373E+01	0.000E+00	NOT IDENT.
OS-185	-2.150E-02	2.962E+00	4.891E+00	0.000E+00	NOT IDENT.
RE-188	-3.522E+00	1.521E+01	2.527E+01	0.000E+00	NOT IDENT.
W-188	-2.065E+02	6.595E+02	9.110E+02	0.000E+00	FAIL ABUN
IR-192	4.725E-01	2.737E+00	4.509E+00	0.000E+00	FAIL ABUN
AU-195	1.215E+01	1.923E+01	3.450E+01	0.000E+00	FAIL ABUN
TL-200	0.000E+00	9.860E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-4.845E+01	3.923E+02	6.536E+02	0.000E+00	NOT IDENT.
TL-202	1.024E+00	5.123E+00	8.890E+00	0.000E+00	NOT IDENT.
HG-203	-2.936E-01	3.331E+00	5.385E+00	0.000E+00	NOT IDENT.
BI-207	7.887E-01	3.422E+00	5.986E+00	0.000E+00	NOT IDENT.
TL-207	-1.166E+01	5.057E+01	7.928E+01	0.000E+00	NOT IDENT.
TL-208	4.650E-02	3.252E+00	5.560E+00	0.000E+00	NOT IDENT.
PO-209	-2.815E+02	5.754E+02	9.076E+02	0.000E+00	NOT IDENT.
BI-210	-1.477E+02	4.306E+02	6.640E+02	0.000E+00	NOT IDENT.
PB-210	-1.477E+02	4.306E+02	6.640E+02	0.000E+00	NOT IDENT.
PO-210	-1.477E+02	4.306E+02	6.640E+02	0.000E+00	NOT IDENT.
PB-211	4.294E+01	7.222E+01	1.227E+02	0.000E+00	NOT IDENT.
BI-212	3.529E+00	2.392E+01	3.870E+01	0.000E+00	NOT IDENT.
PB-212	4.093E-01	9.639E+00	1.063E+01	0.000E+00	FAIL ABUN
PO-212	4.093E-01	9.639E+00	1.063E+01	0.000E+00	FAIL ABUN
PO-215	-1.166E+01	5.057E+01	7.928E+01	0.000E+00	NOT IDENT.
PO-216	4.093E-01	9.639E+00	1.063E+01	0.000E+00	FAIL ABUN
RN-219	-4.556E+01	3.204E+01	4.484E+01	0.000E+00	NOT IDENT.
RN-220	-2.370E+02	1.889E+03	3.107E+03	0.000E+00	NOT IDENT.
RA-223	-1.166E+01	5.057E+01	7.928E+01	0.000E+00	NOT IDENT.
RA-224	2.393E+01	6.427E+01	9.789E+01	0.000E+00	NOT IDENT.
AC-227	-1.760E+01	3.403E+01	5.299E+01	0.000E+00	NOT IDENT.
PA-227	0.000E+00	5.370E+40	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-1.760E+01	3.407E+01	5.299E+01	0.000E+00	NOT IDENT.
AC-228	-3.767E+00	9.900E+00	1.663E+01	0.000E+00	NOT IDENT.
RA-228	-3.767E+00	9.900E+00	1.663E+01	0.000E+00	NOT IDENT.
TH-228	4.093E-01	9.639E+00	1.063E+01	0.000E+00	FAIL ABUN
TH-229	1.337E+01	4.326E+01	7.382E+01	0.000E+00	NOT IDENT.
TH-230	-1.667E+02	1.608E+03	1.753E+03	0.000E+00	NOT IDENT.
PA-231	4.589E+01	1.340E+02	2.249E+02	0.000E+00	NOT IDENT.
TH-231	-5.635E+01	4.380E+01	6.452E+01	0.000E+00	NOT IDENT.
U-231	-5.300E+01	7.348E+01	1.212E+02	0.000E+00	NOT IDENT.
TH-232	2.438E+02	3.643E+03	4.234E+03	0.000E+00	NOT IDENT.
PA-233	-1.440E-01	4.891E+00	7.885E+00	0.000E+00	NOT IDENT.
PA-234	-2.646E+00	1.822E+01	3.003E+01	0.000E+00	FAIL ABUN
PA-234M	3.243E+02	3.059E+02	5.999E+02	0.000E+00	NOT IDENT.
TH-234	1.360E+01	1.919E+02	2.315E+02	0.000E+00	FAIL ABUN
U-234	2.402E+03	2.431E+04	1.006E+04	0.000E+00	NOT IDENT.
U-235	-1.108E+01	2.201E+01	3.152E+01	0.000E+00	FAIL ABUN
NP-236	-1.694E+00	7.510E+00	1.247E+01	0.000E+00	NOT IDENT.
NP-237	2.008E+01	1.919E+01	3.451E+01	0.000E+00	NOT IDENT.
PU-237	2.439E+02	1.893E+02	3.166E+02	0.000E+00	NOT IDENT.
U-238	1.360E+01	1.919E+02	2.315E+02	0.000E+00	FAIL ABUN
NP-239	1.337E+00	1.704E+01	2.934E+01	0.000E+00	NOT IDENT.
AM-241	1.817E+01	1.412E+01	2.359E+01	0.000E+00	NOT IDENT.
AM-243	-1.236E+00	5.004E+00	7.722E+00	0.000E+00	NOT IDENT.
CM-243	-2.692E+00	7.871E+00	1.321E+01	0.000E+00	NOT IDENT.
AM-246	3.270E-01	7.094E+00	1.204E+01	0.000E+00	NOT IDENT.
CM-247	-2.438E+00	2.707E+00	4.145E+00	0.000E+00	NOT IDENT.
CF-249	1.015E+00	2.753E+00	4.911E+00	0.000E+00	NOT IDENT.
CF-251	-3.034E-01	1.081E+01	1.808E+01	0.000E+00	NOT IDENT.
ANH-511	-4.838E+00	4.344E+00	8.093E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 30-DEC-2009 20:40:48.29

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243286002.CNF;1
Sample date       : 17-DEC-2009 12:00:00 Acquisition date : 30-DEC-2009 18:39:45
Sample ID         : G243286002           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM16                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.89  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 935338                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.05	49	139	1.03	126.29	124	8	6.85E-03	43.3	
2	0	77.11	41	141	1.16	154.41	150	8	5.70E-03	53.2	
3	0	92.43	70	163	0.78	185.05	183	8	9.72E-03	33.5	
4	0	139.83	60	122	1.41	279.85	275	9	8.27E-03	36.0	
5	0	185.69	87	105	1.22	371.57	367	10	1.21E-02	24.5	
6	0	238.15	36	152	1.35	476.49	472	11	5.00E-03	68.3	
7	0	294.94	37	65	0.76	590.07	586	8	5.18E-03	40.6	
8	0	351.84	97	47	0.97	703.86	699	10	1.34E-02	16.8	
9	0	501.18	24	39	0.73	1002.53	996	14	3.33E-03	58.7	
10	0	511.03	143	51	2.18	1022.21	1016	18	1.99E-02	14.2	
11	0	609.06	103	17	1.37	1218.24	1212	14	1.43E-02	13.1	
12	0	1120.21	26	8	1.39	2240.30	2236	13	3.64E-03	28.4	
13	0	1237.55	16	2	1.27	2474.90	2470	9	2.21E-03	30.2	
14	0	1459.79	19	3	2.87	2919.19	2914	11	2.65E-03	28.4	
15	0	1764.11	19	14	1.44	3527.49	3521	13	2.57E-03	46.6	

VAX/VMS Nuclide Identification Report Generated 30-DEC-2009 20:40:51.19

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243286002.CNF;1
Sample date       : 17-DEC-2009 12:00:00 Acquisition date : 30-DEC-2009 18:39:45
Sample ID         : G243286002           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM16                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.89  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 935338               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
K-40	1460.81	9	10.67*	5.978E-01	2.646E+01	2.646E+01	130.40
BI-211	72.87	------	1.27	1.614E+00	------ Line Not Found		------
	351.07	82	12.94*	1.721E+00	6.923E+01	6.923E+01	42.48
BI-214	609.31	86	46.30*	1.178E+00	2.968E+01	2.968E+01	35.00
	1120.29	22	15.10	7.312E-01	3.727E+01	3.727E+01	73.54
	1764.49	11	15.80	5.316E-01	2.536E+01	2.536E+01	154.77
PB-214	74.81	------	6.21	1.700E+00	------ Line Not Found		------
	77.11	22	10.50	1.798E+00	2.194E+01	2.194E+01	204.76
	87.30	------	4.67	2.156E+00	------ Line Not Found		------
	241.98	------	7.49	2.165E+00	------ Line Not Found		------
	295.21	37	19.20	1.925E+00	1.896E+01	1.896E+01	82.23
	351.92	82	37.20*	1.721E+00	2.408E+01	2.408E+01	42.80
PO-214	74.81	------	6.21	1.700E+00	------ Line Not Found		------
	77.11	22	10.50	1.798E+00	2.194E+01	2.194E+01	204.76
	87.30	------	4.67	2.156E+00	------ Line Not Found		------
	241.98	------	7.49	2.165E+00	------ Line Not Found		------
	295.21	37	19.20	1.925E+00	1.896E+01	1.896E+01	82.23
	351.92	82	37.20*	1.721E+00	2.408E+01	2.408E+01	42.80
PO-218	74.81	------	6.21	1.700E+00	------ Line Not Found		------
	77.11	22	10.50	1.798E+00	2.194E+01	2.194E+01	204.76
	87.30	------	4.67	2.156E+00	------ Line Not Found		------
	241.98	------	7.49	2.165E+00	------ Line Not Found		------
	295.21	37	19.20	1.925E+00	1.896E+01	1.896E+01	82.23
	351.92	82	37.20*	1.721E+00	2.408E+01	2.408E+01	42.80
RA-226	186.21	13	3.28*	2.472E+00	2.902E+01	2.902E+01	367.70

Flag: "*" = Keyline

Sample ID : G243286002 Acquisition date : 30-DEC-2009 18:39:45

Total number of lines in spectrum	13	
Number of unidentified lines	1	
Number of lines tentatively identified by NID	12	92.31%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	2.646E+01	2.646E+01	3.450E+01	130.40	
BI-211	7.04E+08Y	1.00	6.923E+01	6.923E+01	2.941E+01	42.48	
BI-214	1600.00Y	1.00	2.968E+01	2.968E+01	1.039E+01	35.00	
PB-214	1600.00Y	1.00	2.408E+01	2.408E+01	1.031E+01	42.80	
PO-214	1600.00Y	1.00	2.408E+01	2.408E+01	1.031E+01	42.80	
PO-218	1600.00Y	1.00	2.408E+01	2.408E+01	1.031E+01	42.80	
RA-226	1600.00Y	1.00	2.902E+01	2.902E+01	10.67E+01	367.70	
	Total Activity :		2.266E+02	2.266E+02			
	Grand Total Activity :		2.266E+02	2.266E+02			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G243286002 Acquisition date : 30-DEC-2009 18:39:45

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	63.05	3	139	1.03	126.29	124	8	4.31E-04	****	1.13E+00	T
0	139.83	46	122	1.41	279.85	275	9	6.41E-03	96.4	2.67E+00	T
0	238.15	2	152	1.35	476.49	472	11	2.91E-04	****	2.18E+00	T
0	501.18	24	39	0.73	1002.53	996	14	3.33E-03	****	1.36E+00	
0	1237.55	12	2	1.27	2474.90	2470	9	1.61E-03	****	6.76E-01	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 30-DEC-2009 20:40:56.39

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G243286002.CNF;1 *
* Acquisition date  : 30-DEC-2009 18:39:45  Detector SN#     :             *
* Detector ID       : GAM16                 Sensitivity      : 5.00000     *
* Geometry          : 2LMB                  Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:00.89          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 17-DEC-2009 12:00:00  Nuclide Library : LIQUID       *
* Sample ID         : G243286002            Analyst initials: KXG3         *
* Batch Number      : 935338                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 16-NOV-2009 16:34:37.2MS Isotope      :                *
* MSD ID           :                      MSD Isotope     :                *
* LCS ID           : 1032-A               LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
K-40	2.646E+01	3.450E+01	4.869E+01	4.530E+00	0.543
BI-211	6.923E+01	2.941E+01	2.584E+01	2.557E+00	2.679
BI-214	2.968E+01	1.039E+01	8.163E+00	7.998E-01	3.636
PB-214	2.408E+01	1.031E+01	9.007E+00	1.006E+00	2.674
PO-214	2.408E+01	1.031E+01	9.007E+00	1.006E+00	2.674
PO-218	2.408E+01	1.031E+01	9.007E+00	1.006E+00	2.674
RA-226	2.902E+01	1.067E+02	9.400E+01	6.927E+01	0.309

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	1.762E+01		2.467E+01	4.416E+01	4.002E+00	0.399
NA-22	3.053E-01		2.739E+00	4.550E+00	4.056E-01	0.067
NA-24	-1.112E+00		3.767E+00	Half-Life too short		
AL-26	-1.419E+00		2.677E+00	3.727E+00	3.137E-01	-0.381
TI-44	2.362E+00	+	4.832E+00	4.603E+00	4.123E-01	0.513

Sample ID : G243286002 Acquisition date : 30-DEC-2009 18:39:45

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
SC-46	-2.560E+00		2.814E+00	3.940E+00	4.104E-01	-0.650
V-48	-2.095E+00		4.312E+00	6.463E+00	6.530E-01	-0.324
CR-51	2.071E+01		2.911E+01	4.960E+01	5.323E+00	0.418
MN-52	2.102E+00		1.351E+01	2.255E+01	2.048E+00	0.093
MN-54	-3.331E-01		2.082E+00	3.390E+00	3.345E-01	-0.098
CO-56	7.524E-01		2.667E+00	4.668E+00	4.662E-01	0.161
CO-57	-1.413E+00		2.350E+00	3.767E+00	3.518E-01	-0.375
CO-58	-1.319E+00		3.034E+00	4.789E+00	4.619E-01	-0.275
FE-59	7.798E-02		5.196E+00	8.560E+00	8.501E-01	0.009
CO-60	-1.333E+00		2.638E+00	3.704E+00	3.358E-01	-0.360
ZN-65	3.640E+00		4.751E+00	8.432E+00	7.712E-01	0.432
GE-68	-6.146E+01		7.013E+01	8.964E+01	8.480E+00	-0.686
AS-73	3.199E+01		7.878E+01	1.283E+02	1.174E+01	0.249
AS-74	5.921E+00		6.574E+00	1.195E+01	9.976E-01	0.495
SE-75	1.404E+00		3.980E+00	6.579E+00	7.118E-01	0.213
BR-77	7.371E-01		4.347E+02	7.161E+02	6.028E+01	0.001
SR-82	-3.888E+00		2.301E+01	3.547E+01	3.291E+00	-0.110
RB-83	1.732E-01		4.865E+00	8.052E+00	6.778E-01	0.022
RB-84	-2.448E+00		4.824E+00	7.367E+00	7.616E-01	-0.332
KR-85	-2.194E+03		8.266E+02	9.978E+02	8.397E+01	-2.198
SR-85	-1.103E+01		4.157E+00	5.018E+00	4.223E-01	-2.198
RB-86	-2.010E+01		4.319E+01	6.348E+01	6.009E+00	-0.317
Y-88	-7.919E-01		2.238E+00	3.183E+00	2.653E-01	-0.249
ZR-88	2.065E-01		2.226E+00	3.776E+00	3.067E-01	0.055
Y-91	-7.460E+01		9.585E+02	1.534E+03	1.333E+02	-0.049
NB-94	-3.761E-01		2.509E+00	3.944E+00	3.370E-01	-0.095
NB-95	-9.213E-01		3.703E+00	5.493E+00	5.040E-01	-0.168
NB-95M	3.432E+00		1.011E+01	1.516E+01	1.679E+00	0.226
ZR-95	2.274E+00		4.730E+00	8.203E+00	8.130E-01	0.277
NB-97	-1.188E+00		6.276E-01	Half-Life too short		
ZR-97	-1.613E+02		2.411E+01	Half-Life too short		
MO-99	1.153E+02		6.200E+02	1.020E+03	1.566E+02	0.113
TC-99M	3.508E+10	+	1.751E+10	Half-Life too short		
RH-101	1.456E+00		3.310E+00	5.391E+00	4.853E-01	0.270
RH-102	-8.195E-01		2.279E+00	3.608E+00	3.022E-01	-0.227
RU-103	-9.688E-01		3.493E+00	4.811E+00	6.750E-01	-0.201
RH-106	-8.812E+00		2.409E+01	3.693E+01	4.853E+00	-0.239
RU-106	-8.812E+00		2.407E+01	3.693E+01	3.058E+00	-0.239
AG-108M	-6.907E-01		2.862E+00	4.573E+00	3.948E-01	-0.151
CD-109	-9.732E+00		6.481E+01	1.091E+02	1.046E+01	-0.089
AG-110M	-2.618E+00		2.735E+00	3.748E+00	3.158E-01	-0.699
IN-111	2.471E+01		6.083E+01	1.013E+02	1.038E+01	0.244
IN-113M	3.776E-01		3.197E+00	5.439E+00	4.569E-01	0.069
SN-113	3.776E-01		3.197E+00	5.439E+00	4.569E-01	0.069
IN-114M	2.155E+00		1.680E+01	2.489E+01	2.194E+00	0.087
CD-115	-9.627E+01		4.852E+02	7.775E+02	6.545E+01	-0.124
SN-117M	-1.753E-01		4.733E+00	7.802E+00	6.557E-01	-0.022
SB-122	-3.424E+00		8.859E+01	1.339E+02	1.125E+01	-0.026

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
I-123	-1.760E+01		2.699E+01	Half-Life too short		
TE-123M	-8.843E-01		2.712E+00	4.382E+00	3.703E-01	-0.202
I-124	1.538E+01		3.895E+01	5.988E+01	4.989E+00	0.257
SB-124	-4.002E+00		4.809E+00	5.295E+00	4.808E-01	-0.756
SB-125	-1.670E+00		6.907E+00	1.120E+01	9.445E-01	-0.149
TE-125M	2.657E+02		8.377E+02	1.439E+03	1.539E+02	0.185
I-126	-2.622E+00		1.050E+01	1.620E+01	1.326E+00	-0.162
SB-126	3.311E-01		9.506E+00	1.455E+01	1.269E+00	0.023
SN-126	5.113E+00		6.439E+00	1.146E+01	1.095E+00	0.446
SB-127	5.300E-01		6.819E+01	1.101E+02	1.175E+01	0.005
XE-127	-6.253E-01		3.881E+00	6.244E+00	5.695E-01	-0.100
I-131	-2.859E+00		7.088E+00	1.141E+01	1.085E+00	-0.251
TE-132	1.468E+01		3.885E+01	6.484E+01	1.042E+01	0.226
BA-133	2.028E+00		3.306E+00	5.375E+00	7.356E-01	0.377
I-133	4.361E-02		5.386E-02	Half-Life too short		
CS-134	-1.021E+00		2.841E+00	4.493E+00	4.283E-01	-0.227
CS-135	-1.245E+01		1.443E+01	2.114E+01	2.533E+00	-0.589
I-135	-5.213E+08		1.506E+09	Half-Life too short		
CS-136	4.259E+00		6.823E+00	1.242E+01	1.243E+00	0.343
BA-137M	1.029E+00		2.595E+00	4.445E+00	3.619E-01	0.231
CS-137	1.087E+00		2.743E+00	4.699E+00	3.833E-01	0.231
CE-139	-1.430E+00		2.602E+00	4.109E+00	3.408E-01	-0.348
BA-140	-1.579E+01		1.973E+01	2.779E+01	9.197E+00	-0.568
LA-140	3.800E-01		6.578E+00	1.108E+01	9.894E-01	0.034
CE-141	-3.176E+00		5.517E+00	8.785E+00	7.730E-01	-0.362
CE-143	3.240E-03		2.535E-03	Half-Life too short		
CE-144	9.341E+00		1.809E+01	3.115E+01	4.903E+00	0.300
PM-144	2.124E-01		2.532E+00	4.131E+00	3.506E-01	0.051
PR-144	1.438E+01		1.714E+02	2.797E+02	2.373E+01	0.051
PM-146	1.841E+00		3.437E+00	6.049E+00	6.347E-01	0.304
ND-147	3.892E+00		3.870E+01	6.447E+01	9.563E+00	0.060
PM-149	-4.831E+03		4.669E+03	6.530E+03	1.112E+03	-0.740
EU-152	-2.933E+00		7.630E+00	1.243E+01	1.263E+00	-0.236
GD-153	-4.789E+00		6.723E+00	1.079E+01	9.863E-01	-0.444
EU-154	-4.490E-02		7.833E+00	1.269E+01	1.463E+00	-0.004
EU-155	1.258E+00		9.336E+00	1.589E+01	1.454E+00	0.079
TB-160	2.921E+00		9.851E+00	1.723E+01	1.777E+00	0.170
HO-166M	4.794E-01		4.862E+00	7.930E+00	6.847E-01	0.060
TM-171	4.473E+02		3.224E+03	4.695E+03	4.041E+02	0.095
HF-175	1.699E-01		2.708E+00	4.613E+00	4.486E-01	0.037
LU-176	1.302E+00		2.204E+00	3.701E+00	3.944E-01	0.352
LU-177	5.621E-01		7.181E+01	1.169E+02	1.083E+01	0.005
LU-177M	-5.724E+00		1.261E+01	1.994E+01	1.637E+00	-0.287
HF-181	-1.399E+00		3.140E+00	4.897E+00	4.106E-01	-0.286
W-181	-3.553E+01		4.437E+01	5.905E+01	5.078E+00	-0.602
TA-182	1.699E+00		1.143E+01	1.915E+01	1.674E+00	0.089
RE-183	7.227E+00		1.009E+01	1.744E+01	1.455E+00	0.414
RE-184	6.602E+00		2.039E+01	3.373E+01	3.527E+00	0.196

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
OS-185	-2.150E-02		3.022E+00	4.891E+00	4.011E-01	-0.004
RE-188	-3.522E+00		1.552E+01	2.527E+01	2.139E+00	-0.139
W-188	-2.065E+02		6.729E+02	9.110E+02	1.001E+02	-0.227
IR-192	4.725E-01		2.793E+00	4.509E+00	4.711E-01	0.105
AU-195	1.215E+01		1.962E+01	3.450E+01	3.143E+00	0.352
TL-200	-2.545E-04		5.031E-03	Half-Life too short		
TL-201	-4.845E+01		4.003E+02	6.536E+02	5.438E+01	-0.074
TL-202	1.024E+00		5.227E+00	8.890E+00	7.374E-01	0.115
HG-203	-2.936E-01		3.399E+00	5.385E+00	6.131E-01	-0.055
BI-207	7.887E-01		3.491E+00	5.986E+00	5.728E-01	0.132
TL-207	-1.166E+01		5.160E+01	7.928E+01	1.471E+01	-0.147
TL-208	4.650E-02		3.319E+00	5.560E+00	5.008E-01	0.008
PO-209	-2.815E+02		5.871E+02	9.076E+02	9.521E+01	-0.310
BI-210	-1.477E+02		4.394E+02	6.640E+02	6.787E+01	-0.222
PB-210	-1.477E+02		4.394E+02	6.640E+02	6.787E+01	-0.222
PO-210	-1.477E+02		4.394E+02	6.640E+02	6.260E+01	-0.222
PB-211	4.294E+01		7.369E+01	1.227E+02	7.683E+01	0.350
BI-212	3.529E+00		2.441E+01	3.870E+01	3.930E+00	0.091
PB-212	4.093E-01	+	9.836E+00	1.063E+01	1.171E+00	0.038
PO-212	4.093E-01	+	9.836E+00	1.063E+01	1.171E+00	0.038
PO-215	-1.166E+01		5.160E+01	7.928E+01	1.471E+01	-0.147
PO-216	4.093E-01	+	9.836E+00	1.063E+01	1.171E+00	0.038
RN-219	-4.556E+01		3.269E+01	4.484E+01	6.622E+00	-1.016
RN-220	-2.370E+02		1.928E+03	3.107E+03	2.613E+02	-0.076
RA-223	-1.166E+01		5.160E+01	7.928E+01	1.471E+01	-0.147
RA-224	2.393E+01		6.559E+01	9.789E+01	9.915E+00	0.244
AC-227	-1.760E+01		3.473E+01	5.299E+01	8.748E+00	-0.332
PA-227	-1.000E+35		2.740E+34	Half-Life too short		
TH-227	-1.760E+01		3.477E+01	5.299E+01	1.010E+01	-0.332
AC-228	-3.767E+00		1.010E+01	1.663E+01	2.113E+00	-0.226
RA-228	-3.767E+00		1.010E+01	1.663E+01	2.113E+00	-0.226
TH-228	4.093E-01	+	9.836E+00	1.063E+01	1.171E+00	0.038
TH-229	1.337E+01		4.415E+01	7.382E+01	6.566E+00	0.181
TH-230	-1.667E+02		1.641E+03	1.753E+03	1.137E+04	-0.095
PA-231	4.589E+01		1.367E+02	2.249E+02	3.763E+01	0.204
TH-231	-5.635E+01		4.469E+01	6.452E+01	1.174E+01	-0.873
U-231	-5.300E+01		7.498E+01	1.212E+02	1.114E+01	-0.437
TH-232	2.438E+02		3.717E+03	4.234E+03	4.457E+04	0.058
PA-233	-1.440E-01		4.991E+00	7.885E+00	8.470E-01	-0.018
PA-234	-2.646E+00		1.859E+01	3.003E+01	5.884E+00	-0.088
PA-234M	3.243E+02		3.122E+02	5.999E+02	6.707E+01	0.541
TH-234	1.360E+01	+	1.958E+02	2.315E+02	4.162E+01	0.059
U-234	2.402E+03		2.480E+04	1.006E+04	1.006E+05	0.239
U-235	-1.108E+01		2.246E+01	3.152E+01	5.528E+00	-0.352
NP-236	-1.694E+00		7.664E+00	1.247E+01	1.044E+00	-0.136
NP-237	2.008E+01		1.959E+01	3.451E+01	7.836E+00	0.582
PU-237	2.439E+02		1.932E+02	3.166E+02	2.732E+01	0.770
U-238	1.360E+01	+	1.958E+02	2.315E+02	4.162E+01	0.059

Sample ID : G243286002 Acquisition date : 30-DEC-2009 18:39:45

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NP-239	1.337E+00		1.739E+01	2.934E+01	2.696E+00	0.046
AM-241	1.817E+01		1.440E+01	2.359E+01	2.182E+00	0.770
AM-243	-1.236E+00		5.107E+00	7.722E+00	6.788E-01	-0.160
CM-243	-2.692E+00		8.031E+00	1.321E+01	1.196E+00	-0.204
AM-246	3.270E-01		7.238E+00	1.204E+01	1.137E+00	0.027
CM-247	-2.438E+00		2.762E+00	4.145E+00	3.384E-01	-0.588
CF-249	1.015E+00		2.810E+00	4.911E+00	4.055E-01	0.207
CF-251	-3.034E-01		1.103E+01	1.808E+01	1.538E+00	-0.017
ANH-511	-4.838E+00		4.433E+00	8.093E+00	6.810E-01	-0.598

VAX/VMS Nuclide Identification Report Generated

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*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G243286002           *
* Acquisition date  : 30-DEC-2009 18:39:45 Detector SN#     :               *
* Detector ID       : GAM16                Sensitivity      : 5.000         *
* Geometry          : 2LMB                 Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:00.89      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 17-DEC-2009 12:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G243286002           Analyst initials: KXG3           *
* Batch Number      : 935338               Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 16-NOV-2009 16:34:37 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
K-40	2.646E+01	3.381E+01	2.436E+01	1.725E+01
BI-211	6.923E+01	2.882E+01	1.293E+01	1.470E+01
BI-214	2.968E+01	1.018E+01	4.084E+00	5.193E+00
PB-214	2.408E+01	1.010E+01	4.506E+00	5.153E+00
PO-214	2.408E+01	1.010E+01	4.506E+00	5.153E+00
PO-218	2.408E+01	1.010E+01	4.506E+00	5.153E+00
RA-226	2.902E+01	1.046E+02	4.703E+01	5.336E+01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU	
BE-7	1.762E+01	2.417E+01	2.209E+01	1.233E+01	NOT IDENT.
NA-22	3.053E-01	2.685E+00	2.276E+00	1.370E+00	NOT IDENT.
NA-24	-1.112E+06	7.384E+06	0.000E+00	3.767E+06	SHORT HLIF
AL-26	-1.419E+00	2.624E+00	1.865E+00	1.339E+00	NOT IDENT.
TI-44	2.362E+00	4.736E+00	2.303E+00	2.416E+00	FAIL ABUN
SC-46	-2.560E+00	2.758E+00	1.971E+00	1.407E+00	FAIL ABUN
V-48	-2.095E+00	4.226E+00	3.233E+00	2.156E+00	NOT IDENT.
CR-51	2.071E+01	2.852E+01	2.481E+01	1.455E+01	NOT IDENT.
MN-52	2.102E+00	1.324E+01	1.128E+01	6.756E+00	NOT IDENT.
MN-54	-3.331E-01	2.040E+00	1.696E+00	1.041E+00	NOT IDENT.
CO-56	7.524E-01	2.614E+00	2.335E+00	1.333E+00	FAIL ABUN
CO-57	-1.413E+00	2.303E+00	1.885E+00	1.175E+00	NOT IDENT.
CO-58	-1.319E+00	2.974E+00	2.396E+00	1.517E+00	NOT IDENT.
FE-59	7.798E-02	5.092E+00	4.282E+00	2.598E+00	NOT IDENT.
CO-60	-1.333E+00	2.586E+00	1.853E+00	1.319E+00	NOT IDENT.
ZN-65	3.640E+00	4.656E+00	4.219E+00	2.375E+00	NOT IDENT.
GE-68	-6.146E+01	6.873E+01	4.485E+01	3.507E+01	NOT IDENT.
AS-73	3.199E+01	7.721E+01	6.419E+01	3.939E+01	NOT IDENT.
AS-74	5.921E+00	6.443E+00	5.980E+00	3.287E+00	NOT IDENT.
SE-75	1.404E+00	3.901E+00	3.292E+00	1.990E+00	NOT IDENT.

BR-77	7.371E-01	4.260E+02	3.582E+02	2.174E+02	FAIL ABUN
SR-82	-3.888E+00	2.255E+01	1.774E+01	1.151E+01	NOT IDENT.
RB-83	1.732E-01	4.768E+00	4.029E+00	2.433E+00	NOT IDENT.
RB-84	-2.448E+00	4.728E+00	3.686E+00	2.412E+00	NOT IDENT.
KR-85	-2.194E+03	8.100E+02	4.992E+02	4.133E+02	NOT IDENT.
SR-85	-1.103E+01	4.074E+00	2.510E+00	2.078E+00	NOT IDENT.
RB-86	-2.010E+01	4.232E+01	3.176E+01	2.159E+01	NOT IDENT.
Y-88	-7.919E-01	2.193E+00	1.592E+00	1.119E+00	NOT IDENT.
ZR-88	2.065E-01	2.182E+00	1.889E+00	1.113E+00	NOT IDENT.
Y-91	-7.460E+01	9.393E+02	7.673E+02	4.792E+02	NOT IDENT.
NB-94	-3.761E-01	2.459E+00	1.973E+00	1.255E+00	NOT IDENT.
NB-95	-9.213E-01	3.629E+00	2.748E+00	1.851E+00	NOT IDENT.
NB-95M	3.432E+00	9.911E+00	7.583E+00	5.057E+00	NOT IDENT.
ZR-95	2.274E+00	4.636E+00	4.104E+00	2.365E+00	NOT IDENT.
NB-97	-1.188E+06	1.230E+06	0.000E+00	6.276E+05	SHORT HLIF
ZR-97	-1.613E+08	4.725E+07	0.000E+00	2.411E+07	SHORT HLIF
MO-99	1.153E+02	6.076E+02	5.104E+02	3.100E+02	FAIL ABUN
TC-99M	3.508E+16	3.432E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.456E+00	3.244E+00	2.697E+00	1.655E+00	NOT IDENT.
RH-102	-8.195E-01	2.233E+00	1.805E+00	1.139E+00	NOT IDENT.
RU-103	-9.688E-01	3.423E+00	2.407E+00	1.747E+00	FAIL ABUN
RH-106	-8.812E+00	2.361E+01	1.847E+01	1.204E+01	NOT IDENT.
RU-106	-8.812E+00	2.359E+01	1.847E+01	1.204E+01	NOT IDENT.
AG-108M	-6.907E-01	2.805E+00	2.288E+00	1.431E+00	NOT IDENT.
CD-109	-9.732E+00	6.351E+01	5.459E+01	3.240E+01	NOT IDENT.
AG-110M	-2.618E+00	2.681E+00	1.875E+00	1.368E+00	NOT IDENT.
IN-111	2.471E+01	5.961E+01	5.068E+01	3.041E+01	NOT IDENT.
IN-113M	3.776E-01	3.133E+00	2.721E+00	1.598E+00	NOT IDENT.
SN-113	3.776E-01	3.133E+00	2.721E+00	1.598E+00	NOT IDENT.
IN-114M	2.155E+00	1.646E+01	1.245E+01	8.400E+00	NOT IDENT.
CD-115	-9.627E+01	4.755E+02	3.890E+02	2.426E+02	NOT IDENT.
SN-117M	-1.753E-01	4.638E+00	3.903E+00	2.366E+00	NOT IDENT.
SB-122	-3.424E+00	8.682E+01	6.700E+01	4.430E+01	NOT IDENT.
I-123	-1.760E+07	5.289E+07	0.000E+00	2.699E+07	SHORT HLIF
TE-123M	-8.843E-01	2.658E+00	2.192E+00	1.356E+00	NOT IDENT.
I-124	1.538E+01	3.817E+01	2.996E+01	1.947E+01	NOT IDENT.
SB-124	-4.002E+00	4.713E+00	2.649E+00	2.404E+00	NOT IDENT.
SB-125	-1.670E+00	6.769E+00	5.603E+00	3.453E+00	NOT IDENT.
TE-125M	2.657E+02	8.209E+02	7.198E+02	4.188E+02	NOT IDENT.
I-126	-2.622E+00	1.029E+01	8.106E+00	5.250E+00	NOT IDENT.
SB-126	3.311E-01	9.315E+00	7.277E+00	4.753E+00	NOT IDENT.
SN-126	5.113E+00	6.310E+00	5.732E+00	3.220E+00	FAIL ABUN
SB-127	5.300E-01	6.682E+01	5.509E+01	3.409E+01	NOT IDENT.
XE-127	-6.253E-01	3.804E+00	3.124E+00	1.941E+00	NOT IDENT.
I-131	-2.859E+00	6.946E+00	5.707E+00	3.544E+00	NOT IDENT.
TE-132	1.468E+01	3.807E+01	3.244E+01	1.943E+01	NOT IDENT.
BA-133	2.028E+00	3.240E+00	2.689E+00	1.653E+00	NOT IDENT.
I-133	4.361E+04	1.056E+05	0.000E+00	5.386E+04	SHORT HLIF
CS-134	-1.021E+00	2.784E+00	2.248E+00	1.420E+00	NOT IDENT.
CS-135	-1.245E+01	1.414E+01	1.058E+01	7.214E+00	NOT IDENT.
I-135	-5.213E+14	2.951E+15	0.000E+00	1.506E+15	SHORT HLIF
CS-136	4.259E+00	6.686E+00	6.214E+00	3.411E+00	NOT IDENT.
BA-137M	1.029E+00	2.543E+00	2.224E+00	1.298E+00	NOT IDENT.
CS-137	1.087E+00	2.688E+00	2.351E+00	1.372E+00	NOT IDENT.
CE-139	-1.430E+00	2.550E+00	2.055E+00	1.301E+00	NOT IDENT.
BA-140	-1.579E+01	1.934E+01	1.391E+01	9.865E+00	NOT IDENT.
LA-140	3.800E-01	6.447E+00	5.542E+00	3.289E+00	NOT IDENT.
CE-141	-3.176E+00	5.407E+00	4.395E+00	2.759E+00	NOT IDENT.
CE-143	3.240E+03	4.968E+03	0.000E+00	2.535E+03	SHORT HLIF
CE-144	9.341E+00	1.773E+01	1.558E+01	9.047E+00	NOT IDENT.
PM-144	2.124E-01	2.482E+00	2.067E+00	1.266E+00	NOT IDENT.
PR-144	1.438E+01	1.680E+02	1.399E+02	8.571E+01	NOT IDENT.
PM-146	1.841E+00	3.368E+00	3.026E+00	1.718E+00	NOT IDENT.
ND-147	3.892E+00	3.792E+01	3.225E+01	1.935E+01	NOT IDENT.
PM-149	-4.831E+03	4.575E+03	3.267E+03	2.334E+03	NOT IDENT.
EU-152	-2.933E+00	7.477E+00	6.220E+00	3.815E+00	NOT IDENT.
GD-153	-4.789E+00	6.589E+00	5.396E+00	3.362E+00	NOT IDENT.
EU-154	-4.490E-02	7.677E+00	6.347E+00	3.917E+00	NOT IDENT.
EU-155	1.258E+00	9.149E+00	7.951E+00	4.668E+00	NOT IDENT.
TB-160	2.921E+00	9.654E+00	8.619E+00	4.925E+00	NOT IDENT.
HO-166M	4.794E-01	4.764E+00	3.967E+00	2.431E+00	FAIL ABUN
TM-171	4.473E+02	3.159E+03	2.349E+03	1.612E+03	NOT IDENT.
HF-175	1.699E-01	2.654E+00	2.308E+00	1.354E+00	NOT IDENT.
LU-176	1.302E+00	2.160E+00	1.852E+00	1.102E+00	NOT IDENT.
LU-177	5.621E-01	7.037E+01	5.850E+01	3.591E+01	NOT IDENT.
LU-177M	-5.724E+00	1.235E+01	9.976E+00	6.303E+00	NOT IDENT.
HF-181	-1.399E+00	3.077E+00	2.450E+00	1.570E+00	NOT IDENT.
W-181	-3.553E+01	4.348E+01	2.954E+01	2.219E+01	NOT IDENT.

TA-182	1.699E+00	1.120E+01	9.579E+00	5.715E+00	FAIL ABUN
RE-183	7.227E+00	9.892E+00	8.723E+00	5.047E+00	NOT IDENT.
RE-184	6.602E+00	1.998E+01	1.688E+01	1.020E+01	NOT IDENT.
OS-185	-2.150E-02	2.962E+00	2.447E+00	1.511E+00	NOT IDENT.
RE-188	-3.522E+00	1.521E+01	1.264E+01	7.759E+00	NOT IDENT.
W-188	-2.065E+02	6.595E+02	4.558E+02	3.365E+02	FAIL ABUN
IR-192	4.725E-01	2.737E+00	2.256E+00	1.397E+00	FAIL ABUN
AU-195	1.215E+01	1.923E+01	1.726E+01	9.809E+00	FAIL ABUN
TL-200	-2.545E+02	9.860E+03	0.000E+00	5.031E+03	SHORT HLIF
TL-201	-4.845E+01	3.923E+02	3.270E+02	2.001E+02	NOT IDENT.
TL-202	1.024E+00	5.123E+00	4.448E+00	2.614E+00	NOT IDENT.
HG-203	-2.936E-01	3.331E+00	2.694E+00	1.700E+00	NOT IDENT.
BI-207	7.887E-01	3.422E+00	2.995E+00	1.746E+00	NOT IDENT.
TL-207	-1.166E+01	5.057E+01	3.967E+01	2.580E+01	NOT IDENT.
TL-208	4.650E-02	3.252E+00	2.782E+00	1.659E+00	NOT IDENT.
PO-209	-2.815E+02	5.754E+02	4.541E+02	2.935E+02	NOT IDENT.
BI-210	-1.477E+02	4.306E+02	3.322E+02	2.197E+02	NOT IDENT.
PB-210	-1.477E+02	4.306E+02	3.322E+02	2.197E+02	NOT IDENT.
PO-210	-1.477E+02	4.306E+02	3.322E+02	2.197E+02	NOT IDENT.
PB-211	4.294E+01	7.222E+01	6.140E+01	3.685E+01	NOT IDENT.
BI-212	3.529E+00	2.392E+01	1.936E+01	1.220E+01	NOT IDENT.
PB-212	4.093E-01	9.639E+00	5.320E+00	4.918E+00	FAIL ABUN
PO-212	4.093E-01	9.639E+00	5.320E+00	4.918E+00	FAIL ABUN
PO-215	-1.166E+01	5.057E+01	3.967E+01	2.580E+01	NOT IDENT.
PO-216	4.093E-01	9.639E+00	5.320E+00	4.918E+00	FAIL ABUN
RN-219	-4.556E+01	3.204E+01	2.243E+01	1.635E+01	NOT IDENT.
RN-220	-2.370E+02	1.889E+03	1.554E+03	9.640E+02	NOT IDENT.
RA-223	-1.166E+01	5.057E+01	3.967E+01	2.580E+01	NOT IDENT.
RA-224	2.393E+01	6.427E+01	4.898E+01	3.279E+01	NOT IDENT.
AC-227	-1.760E+01	3.403E+01	2.651E+01	1.736E+01	NOT IDENT.
PA-227	-1.000E+41	5.370E+40	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-1.760E+01	3.407E+01	2.651E+01	1.738E+01	NOT IDENT.
AC-228	-3.767E+00	9.900E+00	8.322E+00	5.051E+00	NOT IDENT.
RA-228	-3.767E+00	9.900E+00	8.322E+00	5.051E+00	NOT IDENT.
TH-228	4.093E-01	9.639E+00	5.320E+00	4.918E+00	FAIL ABUN
TH-229	1.337E+01	4.326E+01	3.693E+01	2.207E+01	NOT IDENT.
TH-230	-1.667E+02	1.608E+03	8.770E+02	8.207E+02	NOT IDENT.
PA-231	4.589E+01	1.340E+02	1.125E+02	6.837E+01	NOT IDENT.
TH-231	-5.635E+01	4.380E+01	3.228E+01	2.235E+01	NOT IDENT.
U-231	-5.300E+01	7.348E+01	6.064E+01	3.749E+01	NOT IDENT.
TH-232	2.438E+02	3.643E+03	2.118E+03	1.859E+03	NOT IDENT.
PA-233	-1.440E-01	4.891E+00	3.945E+00	2.495E+00	NOT IDENT.
PA-234	-2.646E+00	1.822E+01	1.503E+01	9.293E+00	FAIL ABUN
PA-234M	3.243E+02	3.059E+02	3.001E+02	1.561E+02	NOT IDENT.
TH-234	1.360E+01	1.919E+02	1.158E+02	9.792E+01	FAIL ABUN
U-234	2.402E+03	2.431E+04	5.034E+03	1.240E+04	NOT IDENT.
U-235	-1.108E+01	2.201E+01	1.577E+01	1.123E+01	FAIL ABUN
NP-236	-1.694E+00	7.510E+00	6.238E+00	3.832E+00	NOT IDENT.
NP-237	2.008E+01	1.919E+01	1.727E+01	9.793E+00	NOT IDENT.
PU-237	2.439E+02	1.893E+02	1.584E+02	9.659E+01	NOT IDENT.
U-238	1.360E+01	1.919E+02	1.158E+02	9.792E+01	FAIL ABUN
NP-239	1.337E+00	1.704E+01	1.468E+01	8.694E+00	NOT IDENT.
AM-241	1.817E+01	1.412E+01	1.180E+01	7.202E+00	NOT IDENT.
AM-243	-1.236E+00	5.004E+00	3.863E+00	2.553E+00	NOT IDENT.
CM-243	-2.692E+00	7.871E+00	6.611E+00	4.016E+00	NOT IDENT.
AM-246	3.270E-01	7.094E+00	6.023E+00	3.619E+00	NOT IDENT.
CM-247	-2.438E+00	2.707E+00	2.074E+00	1.381E+00	NOT IDENT.
CF-249	1.015E+00	2.753E+00	2.457E+00	1.405E+00	NOT IDENT.
CF-251	-3.034E-01	1.081E+01	9.045E+00	5.513E+00	NOT IDENT.
ANH-511	-4.838E+00	4.344E+00	4.049E+00	2.216E+00	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.50	81.1078
46.50	81.1078
46.50	81.1078
48.70	84.0327
49.72	68.8604
51.35	73.9698
52.39	58.6393
52.97	62.3349
53.15	62.3675
53.20	62.3764
53.44	61.2195
54.07	67.3434
56.28	58.0845
56.28	58.0849
57.37	0.0000
57.53	55.8580
57.53	55.8582
57.60	55.8688
57.98	77.8115
57.98	77.8115
59.00	68.2744
59.32	68.3335
59.32	68.3335
59.40	57.3637
59.54	50.4666
59.54	50.4666
59.72	50.4910
60.01	61.9404
61.10	75.1983
61.14	75.2061
61.30	75.2378
63.00	104.7346
63.29	104.8134
63.29	104.8134
63.58	104.8919
64.28	105.0803
64.62	0.0000
65.12	128.8445
65.20	128.8701
65.20	128.8701
66.05	100.9996
66.72	101.1690
66.83	101.1969
66.91	74.6686
67.20	69.7407
67.20	69.7407
67.67	91.4334
67.75	91.4513
67.85	91.4742
68.90	119.2234
68.90	119.2234
69.30	112.6634
69.67	101.0709
70.82	86.2739
70.82	86.2739
70.83	86.2760
72.80	89.6264
72.80	89.6264
72.87	89.6411
72.87	89.6411
74.67	105.2330
74.81	105.2666
74.81	105.2666
74.81	105.2666
74.81	105.2666
74.81	105.2666
74.81	105.2666

74.81	105.2666
74.97	101.4996
74.97	101.4996
75.28	101.5723
75.70	97.8573
77.11	93.4973
77.11	93.4973
77.11	93.4973
77.11	93.4973
77.11	93.4973
77.11	93.4973
77.11	93.4973
78.38	85.6674
79.62	103.8548
79.80	103.8962
79.80	103.8962
80.11	88.5647
80.18	88.5784
80.30	88.6016
80.30	88.6016
80.57	88.6542
81.00	80.2499
81.07	80.2623
81.07	80.2623
81.07	80.2623
82.60	99.8020
83.37	94.7964
83.78	106.9561
83.78	106.9561
83.78	106.9561
84.21	112.2345
84.21	112.2345
84.90	110.6699
85.43	97.8106
86.29	92.7853
86.50	84.1507
86.54	84.1576
86.59	84.1665
86.72	84.1892
86.79	84.2011
86.94	90.3065
87.30	94.7191
87.30	94.7191
87.30	94.7191
87.30	94.7191
87.30	94.7191
87.30	94.7191
87.30	94.7191
87.57	88.6861
87.88	93.0933
88.03	102.6954
88.36	94.9276
88.47	100.1758
89.36	158.8288
89.95	176.4952
91.11	112.9780
92.29	102.7124
92.38	100.9748
92.38	100.9748
93.35	95.0120
94.00	140.9408
94.67	157.0021
94.67	157.0039
94.90	157.9570
94.90	157.9570
94.90	157.9570
95.87	125.5450
95.87	125.5450
96.73	113.3581
97.43	98.4354
98.44	87.0754
98.44	87.0759
98.88	82.7028
99.55	73.9044
99.55	73.9044
99.86	72.1662
100.00	69.5116
100.10	69.5255

103.18	81.5819
103.76	84.3623
105.00	80.9569
105.31	86.4033
108.00	94.0612
109.28	96.0905
110.05	0.0000
111.00	98.2024
111.00	98.2024
111.76	95.6022
112.95	101.2758
115.19	105.3330
115.19	105.3330
115.19	105.3330
116.30	91.7684
117.00	94.6346
117.00	94.6346
117.66	111.2970
121.11	90.6643
121.62	92.5929
121.78	100.0267
122.06	106.5596
122.32	113.0942
122.32	113.0942
122.32	113.0942
123.07	106.7368
127.23	98.1155
129.76	111.6460
131.20	88.3918
133.02	80.1562
133.54	85.8827
135.34	95.1123
136.00	95.2094
136.25	106.6177
136.48	106.6555
140.51	92.9991
140.51	0.0000
142.18	90.3616
142.65	77.5072
143.76	97.7614
144.24	102.4336
144.24	102.4336
144.24	102.4336
145.22	111.4180
145.44	111.4534
147.16	86.6885
152.43	98.0194
152.70	92.2313
153.22	101.0431
154.21	105.0743
154.21	105.0743
154.21	105.0743
155.03	106.1692
156.02	113.1432
158.56	105.7104
159.00	0.0000
159.00	113.6081
160.31	111.8500
161.27	95.2949
162.32	92.4787
162.64	95.4706
163.35	94.5771
163.89	95.6314
165.85	97.8590
167.43	89.1486
171.28	90.5936
171.86	111.5841
172.10	111.6183
176.55	86.1968
176.60	86.2030
181.06	87.6956
184.41	71.3592
185.71	76.0345
186.00	76.0620
186.21	76.0811
190.27	81.0438
192.34	94.0196
193.63	80.8580

197.04	89.4046
198.01	87.4487
198.60	88.5379
200.40	110.3884
201.83	86.8036
202.84	84.8353
205.31	78.8497
208.36	75.9986
208.81	67.7044
209.75	77.1601
209.75	77.1601
210.97	81.4420
215.65	74.5173
216.55	68.2876
218.09	81.0308
222.10	81.3825
223.80	68.8245
226.40	89.1885
227.00	87.1200
227.08	82.8774
227.20	82.8877
228.16	64.8882
228.18	64.8895
228.18	64.8895
231.56	0.0000
235.69	59.5011
236.00	59.5203
236.00	59.5203
238.63	84.9509
238.63	84.9509
238.63	84.9509
238.63	84.9509
239.00	84.9822
240.98	79.2250
241.98	85.7789
241.98	85.7789
241.98	85.7789
244.69	90.8804
245.39	70.3737
247.94	71.6370
248.90	66.2726
249.79	75.0301
252.40	58.8697
252.85	63.2581
252.85	63.2581
254.15	0.0000
256.20	76.5942
256.20	76.5942
260.50	72.5165
260.90	70.3451
262.80	59.4613
264.65	65.0798
268.24	84.1146
268.79	70.8698
269.46	56.5096
269.46	56.5096
269.46	56.5096
271.23	57.7118
273.65	83.4244
276.40	59.1020
277.35	50.2240
277.60	49.1195
277.60	49.1195
278.00	55.8380
278.60	53.6338
279.20	62.6058
279.53	63.7435
280.46	72.7507
281.68	63.8664
283.67	58.3688
284.30	53.9092
285.00	66.3042
285.90	73.1065
286.10	69.7437
286.10	69.7437
287.40	48.4266
288.45	0.0000
290.67	57.6022

290.80	57.6085
291.72	55.9594
293.26	0.0000
293.70	45.8641
295.21	62.9332
295.21	62.9332
295.21	62.9332
295.96	62.9750
296.50	69.8156
297.23	56.2283
298.57	46.0577
299.80	51.9123
299.80	51.9123
300.09	63.7679
300.09	63.7679
300.09	63.7679
300.09	63.7679
300.12	63.7702
301.29	68.3936
302.84	55.9285
303.76	51.4032
303.91	52.5520
304.40	54.8594
304.40	54.8594
304.84	53.7366
306.84	50.3916
308.46	55.0479
311.98	42.5577
316.51	45.0263
318.01	49.7056
319.02	49.7467
319.41	47.4480
320.08	39.3685
323.87	45.2977
323.87	45.2977
323.87	45.2977
325.23	58.1380
328.77	47.8083
329.70	37.6335
329.70	37.6335
330.00	44.6460
333.44	54.4241
334.20	52.6996
334.20	52.6996
334.30	52.7042
338.28	50.2255
338.28	50.2255
338.28	50.2255
338.32	50.2272
338.32	50.2272
340.50	53.8432
340.57	53.8460
343.40	45.1176
344.27	50.4595
345.85	42.5442
350.59	0.0000
351.07	43.6040
351.92	43.6324
351.92	43.6324
351.92	43.6324
355.39	0.0000
356.01	28.5828
364.48	38.6512
366.43	32.4058
367.43	36.0327
367.94	0.0000
369.80	36.0956
374.96	36.2311
383.85	30.0815
387.95	30.1691
388.63	32.9271
391.69	33.9146
391.69	33.9146
392.90	34.8608
398.62	25.7890
400.65	45.1936
401.10	47.9756
401.81	52.6138

402.60	44.3306
404.84	30.5236
410.95	28.7929
411.60	30.6636
413.65	37.2192
414.70	30.7275
415.30	31.6711
415.76	27.9538
417.63	0.0000
418.52	36.4066
423.70	32.7847
427.08	36.6125
427.89	35.6928
432.53	36.7428
433.00	34.8687
433.93	40.5474
439.47	35.0144
439.56	38.8016
439.89	43.5426
443.98	37.9620
444.90	39.8832
445.03	39.8871
445.03	39.8871
445.03	39.8871
453.90	30.5596
463.38	30.7393
468.07	38.5339
473.00	36.7168
475.06	35.7952
475.35	34.8338
476.78	31.9582
477.59	27.1293
477.96	22.2897
482.03	34.0013
484.57	31.1338
487.03	23.3844
490.36	0.0000
492.35	25.4124
497.08	32.9314
507.63	0.0000
510.53	0.0000
510.84	33.5876
511.00	33.5907
511.85	40.5255
511.85	40.5255
513.99	110.8379
513.99	110.8379
520.41	24.8299
520.65	24.8337
527.90	31.9150
528.96	0.0000
529.64	31.9463
529.87	0.0000
531.02	27.9744
537.32	38.0963
543.00	29.1628
546.56	0.0000
549.76	26.2420
552.65	22.2390
555.20	25.3059
563.23	13.2150
563.90	16.2700
568.70	29.5638
569.32	26.5142
569.50	26.5165
569.67	25.4990
573.80	24.5317
574.00	24.5339
574.64	27.6097
578.91	30.7452
579.30	0.0000
583.14	24.6497
585.48	38.0467
591.81	40.2330
592.07	40.2378
593.00	37.1602
595.88	20.6744
600.56	29.0126

602.52	0.0000
602.71	21.5750
602.71	21.5750
603.60	28.2260
604.41	26.5766
604.70	26.5805
609.31	26.0162
610.33	26.0292
612.46	16.6763
614.37	21.6995
618.01	25.0825
621.84	27.2235
621.84	27.2235
631.29	24.1925
633.02	21.0547
633.10	21.0553
634.78	22.1260
635.90	17.9209
636.97	17.9302
645.85	23.3011
646.12	21.1859
656.30	18.0936
657.75	33.0170
657.90	0.0000
661.65	20.2727
661.65	20.2727
664.57	0.0000
666.33	19.2469
666.33	19.2469
675.00	20.3968
677.61	13.9724
685.20	19.4128
692.80	28.1360
695.00	17.3315
696.49	22.7624
696.49	22.7624
697.00	26.0200
697.49	21.6882
698.33	23.8658
698.50	27.1225
699.00	26.0435
702.63	24.9983
706.10	31.5674
706.58	0.0000
706.67	22.8649
709.31	22.8912
711.68	25.0973
713.82	21.8439
717.42	20.7841
720.50	17.5259
721.93	0.0000
722.20	26.3079
722.78	26.3145
722.78	26.3145
722.89	26.3159
722.95	25.2201
723.30	26.3203
724.18	20.8450
727.18	19.7732
733.00	26.4302
735.90	19.8468
739.58	25.3991
742.81	25.4342
744.21	16.5971
747.13	19.9407
751.79	23.3097
752.31	25.5353
753.82	17.7749
755.35	12.2280
756.15	14.4560
756.87	18.9097
763.13	20.0737
763.93	23.4270
765.79	24.5613
766.42	22.3346
766.84	24.5721
776.49	15.6983
778.00	16.8301

778.57	23.5673
778.89	23.5705
783.80	11.2463
785.46	17.1060
792.07	16.2483
795.84	18.0811
796.30	18.0845
798.80	18.1021
801.93	19.0307
805.60	19.0584
810.29	26.3676
810.76	26.3726
815.85	16.4017
817.79	20.0616
818.51	20.9791
819.60	18.2505
826.30	16.4681
828.27	0.0000
831.60	11.9180
831.96	13.7534
834.83	13.7684
836.80	0.0000
846.75	15.6752
848.13	22.1414
856.28	0.0000
856.80	19.4368
860.37	10.1949
867.32	14.8672
867.82	12.0818
871.10	16.7489
873.19	25.1424
874.81	21.4305
875.33	0.0000
876.40	14.9168
879.36	15.8665
880.27	16.8056
880.51	16.8069
881.50	20.5493
883.24	18.6929
884.67	15.8972
889.25	23.4174
896.60	24.4188
898.02	19.7331
899.00	14.1002
903.28	26.3607
911.07	12.2729
911.07	12.2729
919.63	9.4695
920.93	14.2108
925.00	18.0259
925.24	19.9249
926.50	25.6296
935.52	20.9489
937.48	18.1047
944.10	14.3262
946.00	13.3796
949.00	8.6102
962.29	16.3376
964.01	18.2703
966.15	20.2084
968.20	18.2963
969.11	16.3758
969.11	16.3758
977.42	9.6597
980.50	14.5045
983.50	16.4551
989.30	12.6077
996.32	17.4973
1001.03	9.7358
1001.68	12.6594
1004.76	22.4199
1021.30	0.0000
1024.50	0.0000
1034.80	17.7179
1036.00	15.7555
1037.82	15.7641
1038.57	12.8115
1038.76	0.0000

1045.16	15.8016
1046.59	10.8684
1048.07	11.8617
1050.47	17.8066
1050.47	17.8066
1062.04	7.9430
1063.62	12.9137
1076.63	12.9657
1077.35	13.9665
1078.86	7.9844
1085.78	16.0031
1093.90	14.0376
1099.22	11.0473
1112.02	19.1559
1112.84	16.8083
1115.52	5.0464
1120.29	18.5303
1120.51	11.1187
1121.28	11.1214
1124.00	0.0000
1129.67	13.1765
1131.51	0.0000
1147.95	0.0000
1167.94	21.5250
1173.22	5.1328
1175.09	14.3801
1177.93	6.1679
1189.05	11.3438
1204.90	10.3589
1205.75	0.0000
1213.00	10.3828
1221.42	12.4887
1230.97	5.9626
1235.34	6.9648
1236.41	0.0000
1238.25	6.9704
1246.25	8.3832
1260.41	0.0000
1271.85	10.5518
1274.45	11.6155
1274.54	10.5596
1291.56	5.3040
1298.22	0.0000
1312.09	8.5324
1325.50	10.7031
1325.50	10.7031
1332.49	11.7944
1333.61	9.6530
1360.21	10.7988
1362.66	0.0000
1365.15	10.8125
1368.21	11.9029
1368.53	0.0000
1376.25	7.5899
1384.27	6.5188
1394.10	5.4458
1395.20	11.9840
1407.95	8.7434
1434.06	7.6997
1436.60	11.9235
1457.56	0.0000
1460.81	12.6523
1489.15	11.1455
1509.49	5.5994
1596.49	10.4709
1620.62	7.6559
1678.03	0.0000
1691.02	6.8012
1691.02	6.8012
1706.46	0.0000
1750.46	0.0000
1764.49	11.8384
1770.23	19.7534
1771.40	8.8912
1791.20	0.0000
1808.65	8.9583
1836.01	5.0039

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G243286002

Total Uranium Activity	3.5341E+01	ug/g
Total Uranium Counting Unc.	5.7109E+02	ug/g
Total Uranium Tpu	2.9137E-04	ug/g
Total Uranium Mda	3.4462E+02	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 935338                    SAMPLE ID  : G243286002       *
*   ANALYST       : KXG3                      DETECTOR   : GAM16            *
*   SAMPLE DATE   : 17-DEC-2009 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 30-DEC-2009 18:39:45.94    SAMPLE ALQT:    2.000 LITER   *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 5.252E+01
        GROSS GAMMA ERROR  (pCi/LITER )   : 6.550E+01
        GROSS GAMMA MDA    (pCi/LITER )   : 8.957E+01
        GROSS GAMMA DLC    (pCi/LITER )   : 4.182E+01
```

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 04:44:28.29

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001366.CNF;1
Sample date       : 23-DEC-2009 00:00:00 Acquisition date : 30-DEC-2009 22:43:00
Sample ID         : G1202001366          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM14                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:01.47  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 935338               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	92.51*	155	334	1.35	184.69	178	15	7.18E-03	32.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 31-DEC-2009 04:44:30

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001366.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 23-DEC-2009 00:00:00 Acquisition date : 30-DEC-2009 22:43:00
Sample ID : G1202001366 Sample quantity : 2.0000 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA14 Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00 Elapsed real time: 0 06:00:01.47 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Line Energy Ided (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	477.59	*	6.948E+00	1.371E+01	2.333E+01	1.621E+00	0.298
NA-22	1274.54	*	-2.015E-01	1.679E+00	2.717E+00	1.799E-01	-0.074
NA-24	1368.53	*	4.927E-03	1.679E+00	Half-Life too short		
AL-26	1129.67		3.774E+01	6.071E+01	1.070E+02	6.431E+00	0.353
	1808.65	*	-2.509E+00	1.729E+00	2.254E+00	1.322E-01	-1.113
K-40	1460.81	*	2.878E+00	2.323E+01	3.425E+01	2.514E+00	0.084
TI-44	67.85		-2.022E+00	2.388E+00	3.135E+00	2.596E-01	-0.645
	78.38	*	-2.295E+00	1.801E+00	2.458E+00	2.118E-01	-0.934
SC-46	889.25	*	5.191E-02	1.490E+00	2.500E+00	1.909E-01	0.021
	1120.51		-1.006E+00	2.220E+00	2.835E+00	1.730E-01	-0.355
V-48	944.10		1.826E+01	2.547E+01	4.539E+01	3.405E+00	0.402
	983.50	*	3.579E-01	2.107E+00	3.565E+00	2.584E-01	0.100
	1312.09		1.516E+00	2.339E+00	4.120E+00	2.892E-01	0.368
CR-51	320.08	*	-3.746E+00	1.446E+01	2.387E+01	1.591E+00	-0.157
MN-52	744.21		-1.628E+00	3.657E+00	5.601E+00	3.268E-01	-0.291
	848.13		-1.326E+02	1.185E+02	1.776E+02	1.261E+01	-0.747
	935.52		2.137E+00	4.101E+00	7.178E+00	5.420E-01	0.298
	1246.25		1.730E+01	9.752E+01	1.637E+02	1.032E+01	0.106
	1333.61		-8.925E+00	8.469E+01	1.367E+02	9.899E+00	-0.065
	1434.06	*	-4.862E-01	3.961E+00	6.333E+00	4.494E-01	-0.077
MN-54	834.83	*	-9.731E-02	1.429E+00	2.384E+00	1.653E-01	-0.041
CO-56	846.75	*	-1.153E+00	1.566E+00	2.450E+00	1.736E-01	-0.470
	977.42		-4.653E+01	1.126E+02	1.796E+02	1.310E+01	-0.259
	1037.82		-1.320E+01	1.139E+01	1.637E+01	1.214E+00	-0.806
	1175.09		4.650E+01	7.140E+01	1.262E+02	7.033E+00	0.368
	1238.25		-2.777E-01	2.605E+00	4.227E+00	2.775E-01	-0.066
	1360.21		1.770E+01	3.563E+01	6.221E+01	4.487E+00	0.285
	1771.40		2.449E+00	1.150E+01	1.975E+01	1.191E+00	0.124
CO-57	122.06	*	1.073E-01	1.123E+00	1.842E+00	1.113E-01	0.058
	136.48		-6.190E+00	9.843E+00	1.554E+01	1.032E+00	-0.398
CO-58	810.76	*	-3.469E-01	1.459E+00	2.282E+00	1.520E-01	-0.152
FE-59	142.65		4.140E+01	1.174E+02	1.937E+02	1.084E+01	0.214
	192.34		6.015E+00	3.831E+01	6.219E+01	7.227E+00	0.097
	1099.22	*	-1.298E+00	3.195E+00	5.056E+00	3.658E-01	-0.257

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1291.56		2.427E+00	4.122E+00	7.225E+00	5.940E-01	0.336
CO-60		1173.22		-5.164E-01	1.527E+00	2.416E+00	1.341E-01	-0.214
		1332.49	*	-5.716E-01	1.657E+00	2.594E+00	1.879E-01	-0.220
ZN-65		1115.52	*	-2.310E+00	3.225E+00	4.910E+00	3.027E-01	-0.470
GE-68		1077.35	*	7.507E+00	4.190E+01	7.085E+01	4.612E+00	0.106
AS-73		53.44	*	-1.983E+00	3.208E+01	5.320E+01	4.304E+00	-0.037
AS-74		595.88	*	2.113E+00	3.301E+00	5.629E+00	3.071E-01	0.375
		634.78		1.309E-01	1.158E+01	1.884E+01	9.714E-01	0.007
SE-75		66.05		-2.962E+02	2.503E+02	3.284E+02	3.333E+01	-0.902
		96.73		-3.600E+00	3.708E+01	5.306E+01	7.043E+00	-0.068
		121.11		3.016E+00	5.858E+00	9.796E+00	9.224E-01	0.308
		136.00		-7.240E-01	1.758E+00	2.805E+00	1.627E-01	-0.258
		198.60		-7.451E+01	1.027E+02	1.306E+02	8.924E+00	-0.570
		264.65	*	-1.621E+00	1.810E+00	2.901E+00	1.702E-01	-0.559
		279.53		8.206E-01	4.373E+00	7.426E+00	4.709E-01	0.111
		303.91		3.540E+01	9.199E+01	1.571E+02	1.516E+01	0.225
		400.65		-1.596E-01	1.049E+01	1.739E+01	1.620E+00	-0.009
BR-77		87.88		-2.961E+02	1.047E+03	1.485E+03	1.371E+02	-0.199
		200.40		5.484E+02	9.501E+02	1.571E+03	8.559E+01	0.349
		239.00		1.934E+01	8.281E+01	1.057E+02	5.997E+00	0.183
		249.79		6.209E+01	4.016E+02	6.467E+02	3.707E+01	0.096
		281.68		-6.855E+02	5.145E+02	8.025E+02	4.725E+01	-0.854
		297.23		-2.043E+02	3.013E+02	4.881E+02	2.904E+01	-0.419
		303.76		3.547E+02	1.033E+03	1.762E+03	1.053E+02	0.201
		439.47		5.847E+00	7.726E+02	1.278E+03	7.802E+01	0.005
		484.57		3.927E+02	1.337E+03	2.245E+03	1.349E+02	0.175
		520.65	*	9.532E+00	6.128E+01	1.017E+02	5.979E+00	0.094
		574.64		-5.313E+02	1.200E+03	1.892E+03	1.059E+02	-0.281
		578.91		-5.166E+02	5.287E+02	8.007E+02	4.459E+01	-0.645
		585.48		-1.164E+02	9.914E+02	1.604E+03	8.867E+01	-0.073
		755.35		5.521E+01	8.705E+02	1.412E+03	8.421E+01	0.039
		817.79		-1.302E+02	7.020E+02	1.104E+03	7.421E+01	-0.118
SR-82		698.33		-1.563E+03	1.348E+03	1.972E+03	1.048E+02	-0.793
		776.49	*	9.017E+00	1.280E+01	2.199E+01	1.367E+00	0.410
		1395.20		-1.400E+02	4.048E+02	6.306E+02	4.517E+01	-0.222
RB-83		520.41	*	9.383E-01	3.058E+00	5.126E+00	3.015E-01	0.183
		529.64		2.150E+00	4.669E+00	7.903E+00	4.615E-01	0.272
		552.65		-6.901E+00	8.341E+00	1.273E+01	7.285E-01	-0.542
RB-84		881.50	*	-2.655E-01	2.360E+00	3.906E+00	2.942E-01	-0.068
KR-85		513.99	*	-3.339E+03	5.832E+02	6.520E+02	3.852E+01	-5.120
SR-85		513.99	*	-1.589E+01	2.775E+00	3.103E+00	1.833E-01	-5.120
RB-86		1076.63	*	-3.462E+00	2.108E+01	3.423E+01	2.231E+00	-0.101
Y-88		898.02		-2.849E-01	1.597E+00	2.625E+00	2.047E-01	-0.109
		1836.01	*	8.387E-01	1.700E+00	3.027E+00	1.741E-01	0.277
ZR-88		392.90	*	-4.167E-01	1.558E+00	2.160E+00	1.323E-01	-0.193
Y-91		1204.90	*	-2.315E+02	5.609E+02	8.766E+02	5.151E+01	-0.264
NB-94		702.63	*	-2.220E-02	1.598E+00	2.582E+00	1.385E-01	-0.009
		871.10		3.363E-01	1.383E+00	2.367E+00	1.751E-01	0.142
NB-95		765.79	*	5.901E-02	1.547E+00	2.502E+00	1.523E-01	0.024

Sample ID : G1202001366 Acquisition date : 30-DEC-2009 22:43:00

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NB-95M		235.69	*	-4.949E+00	5.582E+00	8.522E+00	6.321E-01	-0.581
ZR-95		724.18		6.383E-01	3.613E+00	5.927E+00	3.968E-01	0.108
		756.15	*	1.238E+00	2.800E+00	4.696E+00	3.371E-01	0.264
NB-97		657.90	*	-1.965E-03	2.800E+00	Half-Life too short		
		1024.50		9.763E-02	2.800E+00	Half-Life too short		
ZR-97		254.15		-1.217E-01	2.800E+00	Half-Life too short		
		355.39		-8.812E-02	2.800E+00	Half-Life too short		
		507.63	*	1.526E-02	2.800E+00	Half-Life too short		
		602.52		-1.130E-01	2.800E+00	Half-Life too short		
		1021.30		3.081E-01	2.800E+00	Half-Life too short		
		1147.95		-4.572E-02	2.800E+00	Half-Life too short		
		1362.66		-1.028E-01	2.800E+00	Half-Life too short		
		1750.46		-1.916E-02	2.800E+00	Half-Life too short		
MO-99		140.51		7.861E+01	2.120E+02	3.488E+02	9.386E+01	0.225
		181.06		-2.135E+02	1.455E+02	2.111E+02	3.587E+01	-1.011
		366.43		-5.233E+02	6.361E+02	1.003E+03	6.134E+01	-0.522
		739.58	*	-2.668E+01	7.565E+01	1.173E+02	1.616E+01	-0.227
		778.00		1.797E+02	2.318E+02	4.009E+02	2.500E+01	0.448
TC-99M		140.51	*	2.092E+03	2.318E+02	Half-Life too short		
RH-101		127.23		2.904E-01	1.404E+00	2.313E+00	1.364E-01	0.126
		198.01	*	-8.422E-01	1.938E+00	2.502E+00	1.359E-01	-0.337
		325.23		9.872E-01	9.893E+00	1.664E+01	1.005E+00	0.059
RH-102		418.52		-7.214E+00	1.212E+01	1.923E+01	1.177E+00	-0.375
		475.06	*	4.042E-01	1.323E+00	2.224E+00	1.343E-01	0.182
		631.29		-1.581E+00	2.313E+00	3.526E+00	1.828E-01	-0.448
		697.49		-2.476E+00	3.666E+00	5.609E+00	2.976E-01	-0.441
		766.84		-1.841E+00	3.990E+00	6.116E+00	3.731E-01	-0.301
		1046.59		1.856E+00	5.126E+00	8.775E+00	5.944E-01	0.211
		1112.84		2.935E+00	8.557E+00	1.464E+01	9.044E-01	0.201
RU-103		497.08	*	-5.478E-01	1.625E+00	2.605E+00	3.314E-01	-0.210
		610.33		4.523E+01	3.376E+01	5.863E+01	8.944E+00	0.771
RH-106		511.85		-4.391E+01	1.643E+01	2.363E+01	1.398E+00	-1.858
		621.84	*	3.529E+00	1.418E+01	2.353E+01	2.701E+00	0.150
		1050.47		9.568E+00	9.774E+01	1.636E+02	1.103E+01	0.058
RU-106		511.85		-4.391E+01	1.643E+01	2.363E+01	1.398E+00	-1.858
		621.84	*	3.529E+00	1.417E+01	2.353E+01	1.238E+00	0.150
		1050.47		9.568E+00	9.774E+01	1.636E+02	1.103E+01	0.058
AG-108M		433.93	*	6.996E-01	1.426E+00	2.435E+00	1.604E-01	0.287
		614.37		-1.092E+00	2.061E+00	2.861E+00	1.675E-01	-0.382
		722.95		-4.967E-01	1.774E+00	2.794E+00	1.704E-01	-0.178
CD-109		88.03	*	-6.099E+00	3.776E+01	5.399E+01	4.986E+00	-0.113
AG-110M		657.75	*	-1.216E+00	1.496E+00	2.252E+00	1.213E-01	-0.540
		677.61		-9.327E+00	1.285E+01	1.940E+01	1.065E+00	-0.481
		706.67		2.051E+00	9.657E+00	1.588E+01	9.177E-01	0.129
		763.93		7.635E-01	6.382E+00	1.040E+01	6.664E-01	0.073
		884.67		-1.415E+00	2.347E+00	3.133E+00	2.471E-01	-0.452
		937.48		-2.956E+00	4.567E+00	7.143E+00	5.639E-01	-0.414
		1384.27		1.730E+00	7.398E+00	1.241E+01	9.267E-01	0.139
IN-111		171.28		7.628E+00	8.319E+00	1.402E+01	7.421E-01	0.544

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		245.39	*	-2.862E-01	8.597E+00	1.371E+01	7.824E-01	-0.021
IN-113M		391.69	*	-1.308E-01	1.935E+00	3.201E+00	2.078E-01	-0.041
SN-113		391.69	*	-1.308E-01	1.935E+00	3.201E+00	2.078E-01	-0.041
IN-114M		190.27	*	-3.534E+00	7.684E+00	1.210E+01	6.519E-01	-0.292
CD-115		260.90		1.249E+02	6.335E+02	1.078E+03	6.242E+01	0.116
		492.35		-6.978E+00	1.757E+02	2.881E+02	1.725E+01	-0.024
		527.90	*	5.908E+01	5.436E+01	9.590E+01	5.609E+00	0.616
SN-117M		156.02		-1.341E+01	6.831E+01	1.096E+02	5.920E+00	-0.122
		158.56	*	-5.205E-01	1.731E+00	2.764E+00	1.483E-01	-0.188
SB-122		563.90	*	3.062E+00	1.711E+01	2.831E+01	1.603E+00	0.108
		692.80		9.192E+01	3.415E+02	5.643E+02	2.965E+01	0.163
I-123		159.00	*	-5.936E-03	3.415E+02	Half-Life too short		
		528.96		1.807E+00	3.415E+02	Half-Life too short		
TE-123M		159.00	*	-2.242E-01	1.235E+00	1.982E+00	1.079E-01	-0.113
I-124		602.71	*	-5.326E+00	1.011E+01	1.586E+01	8.574E-01	-0.336
		722.78		-8.290E+00	5.611E+01	8.942E+01	4.998E+00	-0.093
		1325.50		3.055E+02	4.168E+02	7.437E+02	5.330E+01	0.411
		1376.25		-4.113E+01	3.887E+02	6.262E+02	4.503E+01	-0.066
		1509.49		1.359E+02	2.054E+02	3.638E+02	2.522E+01	0.374
		1691.02		6.874E-01	6.039E+01	9.753E+01	6.203E+00	0.007
SB-124		602.71		-9.241E-01	1.754E+00	2.752E+00	1.488E-01	-0.336
		645.85		5.127E+00	2.234E+01	3.694E+01	2.179E+00	0.139
		709.31		-1.809E+00	1.153E+02	1.862E+02	1.013E+01	-0.010
		713.82		-2.879E+01	6.605E+01	1.024E+02	1.028E+01	-0.281
		722.78		-2.085E+00	1.411E+01	2.249E+01	1.321E+00	-0.093
		968.20		1.480E+01	8.527E+01	1.444E+02	1.061E+01	0.103
		1045.16		8.746E+01	1.002E+02	1.788E+02	1.214E+01	0.489
		1325.50		8.207E+01	1.120E+02	1.998E+02	1.432E+01	0.411
		1368.21		1.993E+01	7.186E+01	1.213E+02	1.531E+01	0.164
		1436.60		4.200E+01	1.336E+02	2.279E+02	1.616E+01	0.184
		1691.02	*	4.078E-02	3.582E+00	5.786E+00	3.943E-01	0.007
SB-125		427.89	*	-5.958E-03	4.135E+00	6.842E+00	4.346E-01	-0.001
		463.38		7.485E+00	1.199E+01	2.059E+01	1.440E+00	0.363
		600.56		-2.882E+00	8.675E+00	1.380E+01	8.814E-01	-0.209
		635.90		8.482E-01	1.189E+01	1.945E+01	1.214E+00	0.044
TE-125M		109.28	*	-2.085E+02	3.958E+02	6.315E+02	5.628E+01	-0.330
I-126		388.63		5.618E+00	6.354E+00	1.109E+01	6.793E-01	0.506
		666.33	*	-2.756E-01	5.112E+00	8.251E+00	4.097E-01	-0.033
		753.82		-1.731E+01	4.328E+01	6.707E+01	3.989E+00	-0.258
SB-126		223.80		-4.397E+01	1.270E+02	1.997E+02	1.116E+01	-0.220
		278.60		4.627E+01	6.881E+01	1.197E+02	7.029E+00	0.387
		296.50		-2.735E+01	4.183E+01	6.787E+01	4.036E+00	-0.403
		414.70		1.075E+00	2.212E+00	3.778E+00	2.315E-01	0.285
		415.30		4.474E+01	1.805E+02	3.040E+02	1.862E+01	0.147
		555.20		3.298E+01	1.188E+02	1.985E+02	1.134E+01	0.166
		573.80		-2.431E+01	3.209E+01	4.929E+01	2.761E+00	-0.493
		593.00		-9.054E+00	2.865E+01	4.557E+01	2.495E+00	-0.199
		656.30		1.493E+01	9.594E+01	1.578E+02	7.838E+00	0.095
		666.33		-1.133E-01	2.102E+00	3.392E+00	1.685E-01	-0.033

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		675.00		-1.641E+01	5.791E+01	9.149E+01	4.628E+00	-0.179
		695.00		1.328E+00	2.415E+00	4.078E+00	2.152E-01	0.326
		697.00		-2.777E+00	8.546E+00	1.347E+01	7.139E-01	-0.206
		720.50	*	6.111E-01	4.159E+00	6.807E+00	3.787E-01	0.090
		856.80		-5.872E+00	1.257E+01	2.015E+01	1.453E+00	-0.291
		989.30		6.062E+00	3.198E+01	5.426E+01	3.912E+00	0.112
		1034.80		-3.701E+00	2.246E+02	3.722E+02	2.557E+01	-0.010
		1213.00		3.012E+01	9.374E+01	1.604E+02	9.559E+00	0.188
SN-126		64.28		3.232E+00	2.627E+01	4.001E+01	5.998E+00	0.081
		86.94		9.092E-01	1.558E+01	2.257E+01	9.363E+00	0.040
		87.57	*	-1.689E+00	3.753E+00	5.265E+00	4.848E-01	-0.321
SB-127		61.10		-4.879E+02	6.897E+02	1.107E+03	1.012E+02	-0.441
		252.40		-1.430E+01	5.803E+01	9.081E+01	3.733E+01	-0.157
		290.80		1.712E+02	2.765E+02	4.777E+02	3.356E+01	0.358
		411.60		7.878E+01	1.475E+02	2.522E+02	3.331E+01	0.312
		444.90		-1.637E+02	1.501E+02	1.953E+02	1.789E+01	-0.838
		473.00		-1.548E+01	2.114E+01	3.292E+01	3.153E+00	-0.470
		543.00		6.356E+01	2.013E+02	3.376E+02	3.853E+01	0.188
		603.60		-1.219E+02	1.626E+02	2.508E+02	2.176E+01	-0.486
		685.20	*	-1.766E+01	1.603E+01	2.313E+01	1.568E+00	-0.764
		698.50		-1.773E+02	1.997E+02	2.974E+02	3.856E+01	-0.596
		722.20		-2.475E+02	3.597E+02	5.443E+02	3.668E+01	-0.455
		783.80		-1.989E+01	4.341E+01	6.671E+01	6.099E+00	-0.298
XE-127		57.60		2.646E+01	2.187E+02	3.651E+02	3.032E+01	0.072
		145.22		5.915E+00	2.788E+01	4.574E+01	2.541E+00	0.129
		172.10		3.724E+00	4.914E+00	8.225E+00	4.356E-01	0.453
		202.84	*	5.752E-01	1.845E+00	3.013E+00	1.646E-01	0.191
		374.96		-4.401E-01	7.861E+00	1.303E+01	7.976E-01	-0.034
I-131		80.18		-1.079E+02	1.071E+02	1.684E+02	1.470E+01	-0.641
		284.30		2.903E+01	3.691E+01	6.438E+01	4.175E+00	0.451
		364.48	*	1.714E+00	2.879E+00	4.957E+00	3.323E-01	0.346
		636.97		1.580E+01	3.655E+01	6.157E+01	3.603E+00	0.257
		722.89		-1.907E+01	1.594E+02	2.547E+02	1.430E+01	-0.075
TE-132		49.72		-3.317E+02	1.865E+02	2.820E+02	2.379E+01	-1.176
		111.76		1.764E+02	2.966E+02	4.983E+02	3.769E+01	0.354
		116.30		-1.691E+02	2.784E+02	4.413E+02	3.216E+01	-0.383
		228.16	*	9.503E-01	7.773E+00	1.149E+01	1.511E+00	0.083
BA-133		53.15		2.920E+00	1.456E+02	2.424E+02	1.956E+01	0.012
		79.62		-5.596E+01	5.568E+01	8.685E+01	1.325E+01	-0.644
		81.00		-1.144E+00	4.158E+00	6.772E+00	1.080E+00	-0.169
		276.40		4.283E+00	1.497E+01	2.554E+01	3.318E+00	0.168
		302.84		1.620E+00	6.398E+00	1.086E+01	1.276E+00	0.149
		356.01	*	-1.720E+00	2.031E+00	3.205E+00	3.754E-01	-0.537
		383.85		-7.786E-01	1.396E+01	2.313E+01	2.555E+00	-0.034
I-133		510.53		-6.385E-02	1.396E+01	Half-Life too short		
		529.87	*	2.180E-04	1.396E+01	Half-Life too short		
		706.58		4.259E-03	1.396E+01	Half-Life too short		
		856.28		-4.990E-02	1.396E+01	Half-Life too short		
		875.33		-1.406E-03	1.396E+01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1236.41		-4.284E-02	1.396E+01	Half-Life too short		
		1298.22		-2.149E-03	1.396E+01	Half-Life too short		
CS-134		475.35		2.916E+01	8.607E+01	1.451E+02	8.757E+00	0.201
		563.23		-1.304E+01	1.867E+01	2.907E+01	1.683E+00	-0.448
		569.32		9.084E-01	1.206E+01	1.751E+01	1.016E+00	0.052
		604.70		-2.225E+00	1.726E+00	2.559E+00	1.389E-01	-0.869
		795.84	*	-9.438E-01	1.878E+00	2.863E+00	1.870E-01	-0.330
		801.93		1.541E+01	2.399E+01	3.265E+01	2.151E+00	0.472
		1038.57		-1.086E+02	1.517E+02	2.321E+02	1.588E+01	-0.468
		1167.94		4.516E+01	8.436E+01	1.474E+02	8.272E+00	0.306
		1365.15		-2.732E+00	5.031E+01	8.159E+01	6.259E+00	-0.033
CS-135		268.24	*	2.062E+00	6.469E+00	1.107E+01	8.498E-01	0.186
I-135		288.45		-2.319E+04	6.469E+00	Half-Life too short		
		417.63		5.140E+03	6.469E+00	Half-Life too short		
		546.56		-3.410E+03	6.469E+00	Half-Life too short		
		836.80		-5.729E+03	6.469E+00	Half-Life too short		
		1038.76		-6.356E+03	6.469E+00	Half-Life too short		
		1124.00		-1.437E+04	6.469E+00	Half-Life too short		
		1131.51		1.042E+03	6.469E+00	Half-Life too short		
		1260.41	*	8.318E+01	6.469E+00	Half-Life too short		
		1457.56		8.935E+03	6.469E+00	Half-Life too short		
		1678.03		5.942E+02	6.469E+00	Half-Life too short		
		1706.46		6.370E+03	6.469E+00	Half-Life too short		
		1791.20		8.372E+03	6.469E+00	Half-Life too short		
CS-136		66.91		-4.600E+01	2.946E+01	3.688E+01	5.621E+00	-1.247
		86.29		4.256E-01	4.026E+01	5.086E+01	6.704E+00	0.008
		153.22		5.282E+00	1.952E+01	3.209E+01	2.223E+00	0.165
		163.89		1.035E+01	3.294E+01	5.414E+01	3.708E+00	0.191
		176.55		4.758E-01	1.167E+01	1.889E+01	1.149E+00	0.025
		273.65		-1.314E+01	1.267E+01	2.008E+01	1.336E+00	-0.654
		340.57		-1.834E+00	3.978E+00	6.480E+00	4.158E-01	-0.283
		818.51		-2.159E-01	2.170E+00	3.446E+00	2.319E-01	-0.063
		1048.07	*	1.513E+00	3.226E+00	5.577E+00	4.024E-01	0.271
		1235.34		-8.103E+00	1.217E+01	1.830E+01	1.870E+00	-0.443
BA-137M		661.65	*	-2.895E-01	1.420E+00	2.260E+00	1.111E-01	-0.128
CS-137		661.65	*	-3.060E-01	1.501E+00	2.389E+00	1.181E-01	-0.128
CE-139		165.85	*	1.717E-01	1.297E+00	2.113E+00	1.115E-01	0.081
BA-140		162.64		2.924E+00	2.343E+01	3.817E+01	2.326E+00	0.077
		304.84		1.363E+01	3.959E+01	6.725E+01	1.838E+01	0.203
		423.70		1.734E+01	5.706E+01	9.592E+01	3.054E+01	0.181
		537.32	*	-2.776E+00	7.555E+00	1.192E+01	3.877E+00	-0.233
LA-140		328.77		1.122E+01	9.052E+00	1.604E+01	1.078E+00	0.699
		432.53		4.776E+00	6.189E+01	1.029E+02	6.886E+00	0.046
		487.03		5.947E-01	4.186E+00	6.959E+00	4.694E-01	0.085
		751.79		-2.141E+01	4.708E+01	7.231E+01	5.206E+00	-0.296
		815.85		1.079E+00	9.001E+00	1.463E+01	1.161E+00	0.074
		867.82		5.313E+00	3.607E+01	6.128E+01	4.831E+00	0.087
		919.63		4.147E+01	7.710E+01	1.351E+02	1.333E+01	0.307
		925.24		-8.265E-01	2.863E+01	4.765E+01	3.915E+00	-0.017

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1596.49	*	-2.584E+00	2.675E+00	3.664E+00	2.452E-01	-0.705
CE-141		145.44	*	1.614E-02	2.465E+00	4.007E+00	2.321E-01	0.004
CE-143		57.37		-4.782E+00	1.232E+03	2.046E+03	1.974E+02	-0.002
		231.56		-1.200E+03	3.252E+03	5.066E+03	1.566E+03	-0.237
		293.26	*	-4.506E+01	2.090E+02	2.829E+02	5.815E+01	-0.159
		350.59		2.380E+02	2.540E+03	3.521E+03	1.072E+03	0.068
		490.36		-2.736E+03	3.686E+03	5.565E+03	1.724E+03	-0.492
		664.57		-4.064E+02	1.473E+03	2.319E+03	7.318E+02	-0.175
		721.93		-1.028E+03	1.671E+03	2.504E+03	7.123E+02	-0.411
CE-144		80.11		-9.151E+01	8.923E+01	1.402E+02	1.221E+01	-0.653
		133.54	*	7.248E-02	9.264E+00	1.509E+01	2.141E+00	0.005
PM-144		476.78		1.341E+00	3.061E+00	5.189E+00	3.703E-01	0.258
		618.01		-1.047E-01	1.384E+00	2.238E+00	1.269E-01	-0.047
		696.49	*	-2.684E-01	1.600E+00	2.554E+00	1.353E-01	-0.105
		778.57		1.770E+01	9.313E+01	1.527E+02	9.530E+00	0.116
PR-144		696.49	*	-1.812E+01	1.080E+02	1.724E+02	9.128E+00	-0.105
		1489.15		2.488E+02	5.650E+02	9.707E+02	6.777E+01	0.256
PM-146		453.90	*	-4.001E-01	2.036E+00	3.317E+00	2.924E-01	-0.121
		633.02		-7.496E+00	5.810E+01	9.328E+01	3.426E+01	-0.080
		735.90		1.587E+00	6.154E+00	1.015E+01	2.829E+00	0.156
		747.13		1.007E-01	3.494E+00	5.652E+00	7.087E-01	0.018
ND-147	+	91.11		2.325E+01	1.530E+01	1.548E+01	1.465E+00	1.502
		319.41		-3.830E+01	1.009E+02	1.655E+02	9.971E+00	-0.231
		439.89		-4.037E+01	1.608E+02	2.610E+02	1.594E+01	-0.155
		531.02	*	-9.936E+00	1.672E+01	2.610E+01	3.532E+00	-0.381
PM-149		285.90	*	1.957E+02	4.597E+02	7.872E+02	1.118E+02	0.249
EU-152		121.78		1.011E+00	3.286E+00	5.446E+00	4.248E-01	0.186
		244.69		-1.168E+00	1.472E+01	2.340E+01	1.335E+00	-0.050
		344.27	*	1.752E+00	4.470E+00	7.618E+00	5.172E-01	0.230
		443.98		-6.040E+01	5.143E+01	6.590E+01	4.020E+00	-0.917
		778.89		2.068E+00	1.089E+01	1.785E+01	1.114E+00	0.116
		867.32		3.319E+00	3.139E+01	5.313E+01	3.904E+00	0.062
		964.01		-9.240E+00	1.052E+01	1.595E+01	1.177E+00	-0.579
		1085.78		5.786E+00	1.385E+01	2.402E+01	1.546E+00	0.241
		1112.02		9.064E+00	1.163E+01	2.076E+01	1.285E+00	0.437
		1407.95		7.752E+00	7.131E+00	1.329E+01	9.494E-01	0.583
GD-153		69.67		-8.856E+01	6.801E+01	1.055E+02	8.763E+00	-0.840
		83.37		4.559E+02	6.059E+02	1.028E+03	9.156E+01	0.444
		97.43	*	4.302E-01	3.798E+00	5.510E+00	4.390E-01	0.078
		103.18		-3.331E+00	4.663E+00	7.374E+00	5.450E-01	-0.452
EU-154		123.07		-3.867E-01	2.330E+00	3.772E+00	3.596E-01	-0.103
		247.94		3.327E+00	1.726E+01	2.785E+01	2.644E+00	0.119
		591.81		-3.556E+01	2.888E+01	4.210E+01	4.037E+00	-0.845
		723.30		-3.099E+00	7.493E+00	1.165E+01	8.055E-01	-0.266
		756.87		1.420E+01	3.341E+01	5.589E+01	5.725E+00	0.254
		873.19		7.361E+00	1.199E+01	2.117E+01	2.420E+00	0.348
		996.32		-3.247E+00	1.548E+01	2.521E+01	4.313E+00	-0.129
		1004.76		3.626E+00	8.959E+00	1.543E+01	1.630E+00	0.235
		1274.45	*	-4.682E-01	4.719E+00	7.653E+00	7.549E-01	-0.061

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
EU-155		48.70		-1.353E+02	1.056E+02	1.652E+02	1.234E+01	-0.819
		60.01		-4.083E+02	2.233E+02	3.372E+02	2.818E+01	-1.211
		86.54		-1.606E+00	5.419E+00	6.722E+00	6.192E-01	-0.239
		105.31	*	-1.944E+00	4.834E+00	7.766E+00	5.691E-01	-0.250
TB-160		86.79		1.476E+00	1.134E+01	1.652E+01	1.511E+00	0.089
		197.04		-2.188E+01	3.100E+01	3.935E+01	2.136E+00	-0.556
		215.65		2.637E+01	3.117E+01	5.219E+01	2.890E+00	0.505
		298.57		2.269E+00	4.673E+00	8.024E+00	4.778E-01	0.283
		879.36	*	-2.467E-01	5.279E+00	8.797E+00	6.602E-01	-0.028
		962.29		5.480E+00	1.788E+01	3.065E+01	2.265E+00	0.179
		966.15		-9.837E-01	6.685E+00	1.098E+01	8.083E-01	-0.090
		1177.93		1.055E+00	1.127E+01	1.877E+01	1.051E+00	0.056
		1271.85		1.979E+01	2.564E+01	4.560E+01	3.001E+00	0.434
HO-166M		80.57		-8.943E+00	1.164E+01	1.853E+01	1.618E+00	-0.483
		184.41		-2.086E-02	2.153E+00	3.023E+00	1.619E-01	-0.007
		280.46		-1.030E+00	3.680E+00	6.098E+00	3.586E-01	-0.169
		410.95		1.832E+00	1.063E+01	1.781E+01	1.091E+00	0.103
		711.68	*	-2.099E+00	2.682E+00	4.024E+00	2.199E-01	-0.522
		752.31		-1.037E+01	1.143E+01	1.669E+01	9.899E-01	-0.621
		810.29		-1.698E+00	2.401E+00	3.551E+00	2.353E-01	-0.478
TM-171		51.35		8.792E+02	1.232E+03	2.115E+03	1.671E+02	0.416
		52.39		-6.036E+01	6.360E+02	1.053E+03	8.433E+01	-0.057
		59.40		-5.374E+02	1.127E+03	1.831E+03	1.532E+02	-0.294
		66.72	*	-2.463E+03	1.518E+03	1.938E+03	1.603E+02	-1.271
HF-175		89.36		3.714E+01	5.980E+01	8.948E+01	8.075E+00	0.415
		343.40	*	8.535E-01	1.548E+00	2.658E+00	1.616E-01	0.321
		433.00		4.705E+01	8.675E+01	1.487E+02	9.090E+00	0.316
LU-176		88.36		-4.364E-01	8.904E+00	1.282E+01	1.177E+00	-0.034
		201.83		-3.646E-01	1.328E+00	2.106E+00	1.149E-01	-0.173
		306.84	*	-5.554E-01	1.140E+00	1.860E+00	1.113E-01	-0.299
		401.10		1.177E+02	2.840E+02	4.837E+02	2.964E+01	0.243
LU-177		112.95		-1.864E-01	3.560E+01	5.823E+01	3.850E+00	-0.003
		208.36	*	5.028E+00	2.142E+01	3.485E+01	1.915E+00	0.144
LU-177M		52.97		-4.352E-01	6.387E+01	1.062E+02	8.555E+00	-0.004
		54.07		-7.508E+00	3.395E+01	5.585E+01	4.543E+00	-0.134
		61.30		-2.440E+01	6.263E+01	1.021E+02	8.500E+00	-0.239
		121.62		4.657E+00	1.634E+01	2.706E+01	1.638E+00	0.172
		147.16		-2.021E+01	2.853E+01	4.470E+01	2.470E+00	-0.452
		171.86		1.474E+01	2.189E+01	3.651E+01	1.933E+00	0.404
		218.09		-1.001E+01	3.791E+01	5.995E+01	3.329E+00	-0.167
		268.79		2.937E+01	3.172E+01	5.585E+01	3.255E+00	0.526
		319.02		-3.757E+00	1.185E+01	1.949E+01	1.174E+00	-0.193
		367.43		-4.461E+01	3.886E+01	5.978E+01	3.655E+00	-0.746
		413.65	*	4.232E+00	7.534E+00	1.292E+01	7.915E-01	0.328
HF-181		56.28		-1.538E+01	3.513E+01	5.715E+01	4.715E+00	-0.269
		57.53		2.148E+00	1.875E+01	3.130E+01	2.598E+00	0.069
		65.20		5.251E+01	4.442E+01	6.484E+01	5.362E+00	0.810
		133.02		-1.563E+00	2.707E+00	4.285E+00	2.473E-01	-0.365
		136.25		-1.463E+01	1.946E+01	3.054E+01	1.743E+00	-0.479

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		345.85		-3.062E+00	7.839E+00	1.279E+01	7.782E-01	-0.239
		482.03	*	-4.798E-01	1.799E+00	2.907E+00	1.750E-01	-0.165
W-181		56.28		-6.503E+00	1.483E+01	2.412E+01	1.990E+00	-0.270
		57.53		9.059E-01	7.918E+00	1.322E+01	1.097E+00	0.069
		65.20	*	2.200E+01	1.861E+01	2.717E+01	2.247E+00	0.810
TA-182		67.75		-6.693E+00	5.561E+00	7.201E+00	5.962E-01	-0.929
		100.10		3.029E+00	7.924E+00	1.280E+01	9.838E-01	0.237
		152.43		3.982E+00	1.368E+01	2.252E+01	1.227E+00	0.177
		222.10		-3.521E+00	1.530E+01	2.421E+01	1.350E+00	-0.145
		1001.68		-7.193E+01	8.572E+01	1.313E+02	9.353E+00	-0.548
		1121.28		1.373E+00	4.525E+00	7.726E+00	4.710E-01	0.178
		1189.05		4.114E-01	1.024E+01	1.694E+01	9.676E-01	0.024
		1221.42	*	4.363E+00	6.920E+00	1.209E+01	7.310E-01	0.361
		1230.97		-3.389E+00	1.474E+01	2.358E+01	1.450E+00	-0.144
RE-183		57.98		1.614E+00	7.615E+00	1.277E+01	1.062E+00	0.126
		59.32		-2.075E+00	4.354E+00	7.069E+00	5.915E-01	-0.294
		67.20		-1.560E+01	1.000E+01	1.281E+01	1.060E+00	-1.218
		162.32	*	1.837E+00	4.661E+00	7.691E+00	4.089E-01	0.239
		208.81		1.432E+01	3.777E+01	6.191E+01	3.403E+00	0.231
		291.72		2.683E+01	4.020E+01	6.961E+01	4.127E+00	0.385
RE-184		57.98		6.196E+00	2.924E+01	4.901E+01	4.077E+00	0.126
		59.32		-7.961E+00	1.670E+01	2.712E+01	2.269E+00	-0.294
		67.20		-5.988E+01	3.840E+01	4.917E+01	4.069E+00	-1.218
		161.27		4.596E+00	1.558E+01	2.560E+01	1.364E+00	0.180
		216.55		8.775E+00	1.150E+01	1.919E+01	1.063E+00	0.457
		252.85	*	-2.321E+00	1.100E+01	1.734E+01	9.969E-01	-0.134
		318.01		1.126E+01	2.067E+01	3.555E+01	2.139E+00	0.317
		792.07		-5.814E+00	3.659E+01	5.782E+01	3.703E+00	-0.101
		903.28		3.615E-02	4.059E+01	6.785E+01	5.241E+00	0.001
		920.93		5.595E-01	1.761E+01	2.949E+01	2.251E+00	0.019
OS-185		59.72		-1.761E+01	1.236E+01	1.910E+01	1.598E+00	-0.922
		61.14		-4.299E+00	6.682E+00	1.077E+01	8.963E-01	-0.399
		69.30		-1.817E+01	1.185E+01	1.813E+01	1.505E+00	-1.002
		592.07		-1.167E+02	1.104E+02	1.645E+02	9.015E+00	-0.709
		646.12	*	9.640E-01	1.926E+00	3.249E+00	1.643E-01	0.297
		717.42		1.434E+01	3.533E+01	5.922E+01	3.274E+00	0.242
		874.81		8.611E+00	2.244E+01	3.890E+01	2.896E+00	0.221
		880.27		-6.365E+00	2.939E+01	4.816E+01	3.619E+00	-0.132
RE-188		155.03	*	-2.817E+00	6.939E+00	1.102E+01	5.964E-01	-0.256
		477.96		2.117E+01	1.364E+02	2.270E+02	1.369E+01	0.093
		633.10		-1.490E+01	1.095E+02	1.759E+02	9.091E+00	-0.085
W-188		63.58		-1.227E+03	2.548E+03	3.783E+03	3.133E+02	-0.324
		227.08		1.827E+02	5.534E+02	9.017E+02	5.054E+01	0.203
		290.67	*	1.859E+02	3.188E+02	5.501E+02	3.259E+01	0.338
IR-192		295.96		-2.389E+00	4.453E+00	7.273E+00	4.389E-01	-0.328
		308.46		-2.168E+00	4.078E+00	6.633E+00	4.015E-01	-0.327
		316.51	*	1.067E+00	1.522E+00	2.638E+00	1.594E-01	0.405
		468.07		-6.212E-01	3.174E+00	4.525E+00	3.126E-01	-0.137
		604.41		-3.083E+01	2.222E+01	3.235E+01	3.607E+00	-0.953

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		612.46		-6.370E+01	3.803E+01	4.905E+01	3.543E+00	-1.299
AU-195		65.12		1.120E+01	8.780E+00	1.287E+01	1.065E+00	0.870
		66.83		-8.073E+00	4.916E+00	6.265E+00	5.183E-01	-1.289
		75.70		1.984E+00	9.522E+00	1.322E+01	1.123E+00	0.150
		98.88	*	5.049E+00	1.114E+01	1.650E+01	1.289E+00	0.306
		129.76		2.259E+01	1.246E+02	2.049E+02	1.196E+01	0.110
TL-200		367.94	*	-2.193E+02	2.198E+02	3.419E+02	2.090E+01	-0.641
		579.30		-1.480E+03	1.834E+03	2.815E+03	1.567E+02	-0.526
		828.27		7.157E+02	2.185E+03	3.773E+03	2.585E+02	0.190
		1205.75		3.854E+01	8.359E+02	1.383E+03	8.141E+01	0.028
TL-201		68.90		-4.801E+01	3.956E+01	6.166E+01	5.114E+00	-0.779
		70.82		-8.351E+00	2.237E+01	3.639E+01	3.031E+00	-0.229
		80.30		-4.183E+01	4.284E+01	6.749E+01	5.885E+00	-0.620
		135.34		1.385E+02	2.322E+02	3.884E+02	2.224E+01	0.357
		167.43	*	-6.417E+01	6.509E+01	1.000E+02	5.278E+00	-0.641
TL-202		68.90		-1.451E+01	1.196E+01	1.864E+01	1.546E+00	-0.779
		70.82		-2.517E+00	6.741E+00	1.097E+01	9.137E-01	-0.229
		80.30		-1.261E+01	1.292E+01	2.035E+01	1.774E+00	-0.620
		439.56	*	-3.648E-02	1.974E+00	3.259E+00	1.990E-01	-0.011
HG-203		70.83		-1.445E+01	3.933E+01	6.395E+01	8.585E+00	-0.226
		72.87		-6.771E-02	2.343E+01	3.873E+01	5.054E+00	-0.002
		82.60		2.241E+01	4.143E+01	6.968E+01	9.681E+00	0.322
		279.20	*	8.083E-01	1.519E+00	2.624E+00	1.635E-01	0.308
BI-207		72.80		-1.079E+00	7.660E+00	1.259E+01	1.056E+00	-0.086
		74.97		8.621E-01	5.468E+00	7.555E+00	6.393E-01	0.114
		84.90		-7.685E+00	9.661E+00	1.277E+01	1.151E+00	-0.602
		569.67		-7.297E-01	1.873E+00	2.621E+00	1.474E-01	-0.278
		1063.62	*	-2.235E-01	2.166E+00	3.553E+00	2.356E-01	-0.063
		1770.23		1.955E+00	2.472E+01	4.174E+01	2.519E+00	0.047
TL-207		81.07		-2.691E+00	9.174E+00	1.494E+01	1.309E+00	-0.180
		83.78		-1.912E+00	6.462E+00	8.796E+00	7.859E-01	-0.217
		94.90		1.882E+01	1.164E+01	1.822E+01	1.505E+00	1.033
		122.32		3.651E+00	7.884E+01	1.290E+02	8.895E+00	0.028
		144.24		3.304E+01	3.182E+01	5.398E+01	3.806E+00	0.612
		154.21		-1.735E-01	1.707E+01	2.768E+01	1.856E+00	-0.006
		269.46		5.948E+00	7.604E+00	1.330E+01	8.105E-01	0.447
		323.87	*	-1.254E+01	2.974E+01	4.848E+01	8.048E+00	-0.259
		338.28		4.313E+01	4.541E+01	7.913E+01	8.454E+00	0.545
		445.03		-1.329E+02	1.256E+02	1.638E+02	1.710E+01	-0.811
TL-208		72.80		-1.168E+01	8.289E+01	1.362E+02	1.142E+01	-0.086
		74.97		9.320E+00	5.912E+01	8.167E+01	9.939E+00	0.114
		277.35		6.048E+00	1.547E+01	2.653E+01	2.811E+00	0.228
		510.84		-1.165E+01	1.546E+01	2.398E+01	2.451E+00	-0.486
		583.14	*	2.994E-01	2.285E+00	3.217E+00	2.079E-01	0.093
		763.13		-3.956E+01	8.958E+01	1.380E+02	1.730E+01	-0.287
		860.37		8.994E+00	1.111E+01	1.993E+01	1.595E+00	0.451
		1093.90		9.016E+01	4.368E+02	7.372E+02	1.661E+02	0.122
PO-209		260.50		1.021E+02	4.253E+02	7.254E+02	4.199E+01	0.141
		262.80		-1.746E+02	1.157E+03	1.935E+03	1.122E+02	-0.090

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		896.60	*	-1.118E+02	2.863E+02	4.595E+02	3.553E+01	-0.243
BI-210		46.50	*	-9.949E+01	1.808E+02	2.645E+02	2.083E+01	-0.376
PB-210		46.50	*	-9.949E+01	1.808E+02	2.645E+02	2.083E+01	-0.376
PO-210		46.50	*	-9.949E+01	1.808E+02	2.645E+02	1.802E+01	-0.376
BI-211		72.87		-3.782E-01	1.309E+02	2.163E+02	1.814E+01	-0.002
		351.07	*	4.625E+00	1.138E+01	1.607E+01	1.077E+00	0.288
PB-211		404.84	*	1.290E+01	4.021E+01	6.673E+01	4.162E+01	0.193
		427.08		6.491E+01	9.979E+01	1.582E+02	9.781E+01	0.410
		831.96		1.506E+01	4.894E+01	8.283E+01	5.173E+01	0.182
BI-212		727.18	*	7.474E+00	1.219E+01	2.073E+01	1.574E+00	0.361
		785.46		5.353E+01	7.176E+01	1.236E+02	7.816E+00	0.433
		1620.62		6.941E+00	5.343E+01	8.822E+01	5.833E+00	0.079
PB-212		74.81		5.336E+00	1.893E+01	2.622E+01	3.305E+00	0.203
		77.11		-4.527E+00	1.001E+01	1.428E+01	1.222E+00	-0.317
		87.30		-3.320E+00	1.723E+01	2.459E+01	3.339E+00	-0.135
		115.19		-4.770E+01	1.631E+02	2.629E+02	1.698E+01	-0.181
		238.63	*	-3.563E-01	4.149E+00	5.240E+00	3.789E-01	-0.068
		300.09		8.669E+00	3.460E+01	5.874E+01	4.912E+00	0.148
PO-212		74.81		5.336E+00	1.893E+01	2.622E+01	3.305E+00	0.203
		77.11		-4.527E+00	1.001E+01	1.428E+01	1.222E+00	-0.317
		87.30		-3.320E+00	1.723E+01	2.459E+01	3.339E+00	-0.135
		115.19		-4.770E+01	1.631E+02	2.629E+02	1.698E+01	-0.181
		238.63	*	-3.563E-01	4.149E+00	5.240E+00	3.789E-01	-0.068
		300.09		8.669E+00	3.460E+01	5.874E+01	4.912E+00	0.148
BI-214		609.31	*	-1.442E+00	4.552E+00	6.266E+00	4.671E-01	-0.230
		1120.29		-5.471E+00	1.372E+01	1.763E+01	1.588E+00	-0.310
		1764.49		5.690E+00	1.078E+01	1.922E+01	1.165E+00	0.296
PB-214		74.81		9.121E+00	3.235E+01	4.482E+01	5.039E+00	0.203
		77.11		-7.698E+00	1.704E+01	2.429E+01	2.782E+00	-0.317
		87.30		-5.642E+00	2.929E+01	4.178E+01	5.011E+00	-0.135
		241.98		-4.115E+01	1.753E+01	2.413E+01	1.928E+00	-1.705
		295.21		-6.181E+00	7.836E+00	1.021E+01	8.803E-01	-0.606
		351.92	*	2.156E+00	4.012E+00	5.732E+00	4.868E-01	0.376
PO-214		74.81		9.121E+00	3.235E+01	4.482E+01	5.039E+00	0.203
		77.11		-7.698E+00	1.704E+01	2.429E+01	2.782E+00	-0.317
		87.30		-5.642E+00	2.929E+01	4.178E+01	5.011E+00	-0.135
		241.98		-4.115E+01	1.753E+01	2.413E+01	1.928E+00	-1.705
		295.21		-6.181E+00	7.836E+00	1.021E+01	8.803E-01	-0.606
		351.92	*	2.156E+00	4.012E+00	5.732E+00	4.868E-01	0.376
PO-215		81.07		-2.691E+00	9.174E+00	1.494E+01	1.309E+00	-0.180
		83.78		-1.912E+00	6.462E+00	8.796E+00	7.859E-01	-0.217
		94.90		1.882E+01	1.164E+01	1.822E+01	1.505E+00	1.033
		122.32		3.651E+00	7.884E+01	1.290E+02	8.895E+00	0.028
		144.24		3.304E+01	3.182E+01	5.398E+01	3.806E+00	0.612
		154.21		-1.735E-01	1.707E+01	2.768E+01	1.856E+00	-0.006
		269.46		5.948E+00	7.604E+00	1.330E+01	8.105E-01	0.447
		323.87	*	-1.254E+01	2.974E+01	4.848E+01	8.048E+00	-0.259
		338.28		4.313E+01	4.541E+01	7.913E+01	8.454E+00	0.545
		445.03		-1.329E+02	1.256E+02	1.638E+02	1.710E+01	-0.811

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PO-216		74.81		5.336E+00	1.893E+01	2.622E+01	3.305E+00	0.203
		77.11		-4.527E+00	1.001E+01	1.428E+01	1.222E+00	-0.317
		87.30		-3.320E+00	1.723E+01	2.459E+01	3.339E+00	-0.135
		115.19		-4.770E+01	1.631E+02	2.629E+02	1.698E+01	-0.181
		238.63	*	-3.563E-01	4.149E+00	5.240E+00	3.789E-01	-0.068
		300.09		8.669E+00	3.460E+01	5.874E+01	4.912E+00	0.148
PO-218		74.81		9.121E+00	3.235E+01	4.482E+01	5.039E+00	0.203
		77.11		-7.698E+00	1.704E+01	2.429E+01	2.782E+00	-0.317
		87.30		-5.642E+00	2.929E+01	4.178E+01	5.011E+00	-0.135
		241.98		-4.115E+01	1.753E+01	2.413E+01	1.928E+00	-1.705
		295.21		-6.181E+00	7.836E+00	1.021E+01	8.803E-01	-0.606
		351.92	*	2.156E+00	4.012E+00	5.732E+00	4.868E-01	0.376
RN-219		271.23		6.457E+00	9.706E+00	1.688E+01	1.373E+00	0.383
		401.81	*	6.671E+00	1.732E+01	2.943E+01	4.046E+00	0.227
RN-220		549.76	*	3.587E+02	1.123E+03	1.885E+03	1.082E+02	0.190
RA-223		81.07		-2.691E+00	9.174E+00	1.494E+01	1.309E+00	-0.180
		83.78		-1.912E+00	6.462E+00	8.796E+00	7.859E-01	-0.217
		94.90		1.882E+01	1.164E+01	1.822E+01	1.505E+00	1.033
		122.32		3.651E+00	7.884E+01	1.290E+02	8.895E+00	0.028
		144.24		3.304E+01	3.182E+01	5.398E+01	3.806E+00	0.612
		154.21		-1.735E-01	1.707E+01	2.768E+01	1.856E+00	-0.006
		269.46		5.948E+00	7.604E+00	1.330E+01	8.105E-01	0.447
		323.87	*	-1.254E+01	2.974E+01	4.848E+01	8.048E+00	-0.259
		338.28		4.313E+01	4.541E+01	7.913E+01	8.454E+00	0.545
		445.03		-1.329E+02	1.256E+02	1.638E+02	1.710E+01	-0.811
RA-224		240.98	*	-4.413E+01	3.303E+01	4.911E+01	2.792E+00	-0.899
RA-226		186.21	*	-5.088E+01	6.084E+01	6.450E+01	4.732E+01	-0.789
AC-227		79.80		-7.262E+01	7.152E+01	1.100E+02	2.369E+01	-0.660
		236.00		3.865E+00	1.090E+01	1.773E+01	1.839E+00	0.218
		256.20	*	1.326E+00	1.759E+01	2.977E+01	4.151E+00	0.045
		286.10		3.643E+01	7.135E+01	1.227E+02	1.425E+01	0.297
		299.80		1.156E+01	6.383E+01	1.080E+02	1.765E+01	0.107
		304.40		1.528E+01	8.517E+01	1.441E+02	2.500E+01	0.106
		329.70		3.853E+01	4.118E+01	7.173E+01	9.026E+00	0.537
		334.20		-1.154E+02	1.089E+02	1.680E+02	3.095E+01	-0.687
PA-227		64.62	*	1.000E+35	1.089E+02	Half-Life too short		
		110.05		-1.000E+35	1.089E+02	Half-Life too short		
TH-227		79.80		-7.262E+01	7.156E+01	1.100E+02	2.399E+01	-0.660
	+	94.00		2.794E+02	1.919E+02	1.824E+02	3.955E+01	1.532
		236.00		3.865E+00	1.090E+01	1.773E+01	1.589E+00	0.218
		256.20	*	1.326E+00	1.759E+01	2.977E+01	5.027E+00	0.045
		286.10		3.643E+01	8.003E+01	1.227E+02	1.229E+02	0.297
		299.80		1.156E+01	6.383E+01	1.080E+02	1.765E+01	0.107
		304.40		1.528E+01	8.517E+01	1.441E+02	2.500E+01	0.106
		329.70		3.853E+01	4.118E+01	7.173E+01	9.026E+00	0.537
		334.20		-1.154E+02	1.089E+02	1.680E+02	3.095E+01	-0.687
AC-228		338.32		1.021E+01	1.161E+01	1.898E+01	7.744E+00	0.538
		911.07	*	-3.664E+00	6.842E+00	1.001E+01	1.055E+00	-0.366
		969.11		1.898E+00	9.150E+00	1.552E+01	3.554E+00	0.122

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RA-228		338.32		1.021E+01	1.161E+01	1.898E+01	7.744E+00	0.538
		911.07	*	-3.664E+00	6.842E+00	1.001E+01	1.055E+00	-0.366
		969.11		1.898E+00	9.150E+00	1.552E+01	3.554E+00	0.122
TH-228		74.81		5.336E+00	1.892E+01	2.622E+01	2.237E+00	0.203
		77.11		-4.527E+00	1.001E+01	1.428E+01	1.222E+00	-0.317
		87.30		-3.320E+00	1.723E+01	2.459E+01	2.259E+00	-0.135
		238.63	*	-3.563E-01	4.149E+00	5.240E+00	3.789E-01	-0.068
		300.09		8.669E+00	3.496E+01	5.874E+01	3.463E+01	0.148
TH-229		85.43		-5.064E+00	9.920E+00	1.262E+01	1.142E+00	-0.401
		88.47		3.119E+00	4.919E+00	7.367E+00	6.752E-01	0.423
		100.00		3.764E+00	8.609E+00	1.394E+01	1.073E+00	0.270
		193.63	*	-1.079E+00	2.339E+01	3.758E+01	2.032E+00	-0.029
		210.97		-1.745E+01	3.273E+01	5.102E+01	2.811E+00	-0.342
TH-230		67.67	*	-7.138E+02	4.670E+03	7.883E+02	5.114E+03	-0.906
PA-231		283.67	*	3.218E+01	6.960E+01	1.194E+02	1.651E+01	0.269
		301.29		4.218E+00	2.573E+01	4.350E+01	4.587E+00	0.097
		330.00		4.506E+01	9.326E+01	1.580E+02	4.956E+01	0.285
TH-231		84.21	*	-2.258E+01	2.530E+01	3.306E+01	5.956E+00	-0.683
U-231		84.21		-7.821E+01	8.678E+01	1.145E+02	1.027E+01	-0.683
	+	92.29		8.565E+01	5.629E+01	5.926E+01	5.095E+00	1.445
		95.87	*	-6.243E+00	1.668E+01	2.344E+01	1.909E+00	-0.266
		108.00		3.545E+00	2.892E+01	4.764E+01	3.326E+00	0.074
TH-232		59.00	*	-7.374E+02	7.867E+03	2.073E+03	2.182E+04	-0.356
PA-233		75.28		2.666E+01	1.587E+02	2.194E+02	3.349E+01	0.122
		86.59		1.918E+01	7.458E+01	1.092E+02	2.946E+01	0.176
		300.12		4.415E+00	1.774E+01	3.011E+01	4.067E+00	0.147
		311.98	*	1.290E-01	2.906E+00	4.880E+00	3.098E-01	0.026
		340.50		-1.260E+01	2.818E+01	4.570E+01	1.053E+01	-0.276
		398.62		-4.619E+01	9.151E+01	1.455E+02	3.774E+01	-0.317
		415.76		2.076E+01	7.201E+01	1.214E+02	2.510E+01	0.171
PA-234		63.00		-6.905E+01	8.208E+01	1.192E+02	1.826E+01	-0.579
		94.67		2.142E+01	8.933E+00	1.402E+01	1.707E+00	1.527
		98.44		-6.005E-02	4.127E+00	6.771E+00	3.770E+00	-0.009
		99.86		2.085E+01	2.072E+01	3.549E+01	2.736E+00	0.587
		111.00		6.286E+00	8.390E+00	1.416E+01	1.535E+00	0.444
		131.20		-1.392E+00	4.797E+00	7.708E+00	4.477E-01	-0.181
		152.70		3.630E+00	1.388E+01	2.279E+01	3.575E+00	0.159
		186.00		-7.531E+01	8.176E+01	1.057E+02	3.223E+01	-0.712
		226.40		5.929E+00	1.878E+01	3.057E+01	3.503E+00	0.194
		227.20		6.964E+00	2.008E+01	3.275E+01	1.836E+00	0.213
		248.90		4.985E-01	3.907E+01	6.242E+01	1.340E+01	0.008
		293.70		-1.391E+01	3.771E+01	5.063E+01	8.168E+00	-0.275
		369.80		-1.977E+01	3.791E+01	6.066E+01	1.269E+01	-0.326
		568.70		2.895E+01	6.245E+01	9.341E+01	5.261E+00	0.310
		569.50		-1.513E+00	1.664E+01	2.381E+01	1.340E+00	-0.064
		574.00		-4.584E+01	6.891E+01	1.067E+02	5.978E+00	-0.429
		699.00		-3.803E+01	3.437E+01	4.943E+01	8.816E+00	-0.769
		706.10		6.515E+00	5.018E+01	8.185E+01	3.608E+01	0.080
		733.00		6.792E-01	1.578E+01	2.557E+01	5.430E+00	0.027

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		742.81		-3.209E+01	5.487E+01	7.557E+01	5.057E+01	-0.425
		796.30		-1.256E+01	3.639E+01	5.618E+01	1.485E+01	-0.224
		805.60		-1.228E+00	4.630E+01	7.419E+01	2.236E+01	-0.017
		819.60		1.326E+01	5.174E+01	8.485E+01	3.194E+01	0.156
		826.30		8.396E+00	3.347E+01	5.710E+01	2.537E+01	0.147
		831.60		6.065E+00	2.476E+01	4.235E+01	1.245E+01	0.143
		876.40		-1.566E+01	3.787E+01	5.492E+01	5.640E+01	-0.285
		880.51		-2.135E+00	1.112E+01	1.827E+01	1.373E+00	-0.117
		883.24		-3.765E+00	1.402E+01	1.914E+01	1.284E+01	-0.197
		899.00		-9.045E+00	3.397E+01	5.497E+01	2.394E+01	-0.165
		925.00		4.334E+00	4.330E+01	7.306E+01	5.559E+00	0.059
		926.50		-1.955E+00	6.540E+00	1.054E+01	2.629E+00	-0.186
		946.00	*	-4.508E+00	1.148E+01	1.831E+01	3.346E+00	-0.246
		949.00		6.473E-01	1.677E+01	2.808E+01	2.098E+00	0.023
		980.50		2.141E+01	2.985E+01	5.301E+01	3.854E+00	0.404
		1394.10		7.809E-02	5.293E+01	8.638E+01	5.607E+01	0.001
PA-234M		766.42		-1.910E+02	4.325E+02	6.472E+02	3.260E+02	-0.295
		1001.03	*	-1.633E+01	2.024E+02	3.341E+02	2.909E+01	-0.049
TH-234		63.29	*	-5.858E+01	6.983E+01	1.011E+02	1.803E+01	-0.579
	+	92.38		7.230E+01	4.888E+01	4.997E+01	9.028E+00	1.447
U-234		53.20	*	7.110E+01	2.682E+03	4.306E+03	4.306E+04	0.017
U-235		89.95		3.267E+01	5.121E+01	7.526E+01	2.329E+01	0.434
	+	93.35		8.692E+01	6.164E+01	5.938E+01	1.661E+01	1.464
		105.00		-1.912E+01	4.786E+01	7.641E+01	2.252E+01	-0.250
		143.76	*	4.541E+00	9.947E+00	1.645E+01	2.670E+00	0.276
		163.35		-1.569E+00	2.161E+01	3.486E+01	6.216E+00	-0.045
		185.71		-2.508E+00	2.907E+00	3.930E+00	2.108E-01	-0.638
		205.31		-3.571E+01	2.891E+01	3.492E+01	6.243E+00	-1.023
NP-236		94.67		1.638E+01	6.626E+00	1.065E+01	8.831E-01	1.537
		98.44		-4.668E-02	3.120E+00	5.118E+00	4.022E-01	-0.009
		111.00		4.755E+00	6.333E+00	1.071E+01	7.234E-01	0.444
		160.31	*	1.921E+00	3.569E+00	5.932E+00	3.169E-01	0.324
NP-237		86.50	*	-3.639E+00	1.328E+01	1.648E+01	3.719E+00	-0.221
		95.87		-1.775E+01	4.759E+01	6.662E+01	1.630E+01	-0.266
PU-237		59.54	*	-1.159E+02	8.523E+01	1.322E+02	1.107E+01	-0.876
U-238		63.29	*	-5.858E+01	6.983E+01	1.011E+02	1.803E+01	-0.579
	+	92.38		7.230E+01	4.751E+01	4.997E+01	4.291E+00	1.447
NP-239		99.55		6.809E+00	7.479E+00	1.192E+01	9.231E-01	0.571
		117.00	*	2.899E+00	8.458E+00	1.405E+01	8.909E-01	0.206
		209.75		2.691E+01	3.181E+01	5.336E+01	2.936E+00	0.504
		228.18		1.384E+00	1.148E+01	1.697E+01	9.524E-01	0.082
		277.60		3.325E+00	7.427E+00	1.278E+01	7.501E-01	0.260
		334.30		-5.545E+01	6.012E+01	9.531E+01	5.776E+00	-0.582
AM-241		59.54	*	-9.354E+00	6.887E+00	1.068E+01	9.624E-01	-0.876
AM-243		74.67	*	7.910E-01	3.049E+00	4.221E+00	3.567E-01	0.187
		86.72		7.252E+01	4.166E+02	6.081E+02	5.560E+01	0.119
		117.66		9.846E+01	1.698E+02	2.850E+02	1.795E+01	0.345
		142.18		4.338E+02	8.551E+02	1.420E+03	7.960E+01	0.305
CM-243		99.55		7.679E+00	7.142E+00	1.226E+01	9.495E-01	0.626

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		103.76	*	-4.089E+00	4.446E+00	6.954E+00	5.103E-01	-0.588
		117.00		2.981E+00	8.697E+00	1.445E+01	9.162E-01	0.206
		209.75		2.651E+01	3.134E+01	5.258E+01	2.893E+00	0.504
		228.18		1.398E+00	1.160E+01	1.714E+01	9.619E-01	0.082
		277.60		3.351E+00	7.484E+00	1.288E+01	7.558E-01	0.260
AM-246		798.80		-1.039E+01	6.529E+00	8.836E+00	5.730E-01	-1.176
		1036.00		-8.602E+00	1.129E+01	1.709E+01	1.173E+00	-0.503
		1062.04		-4.900E+00	9.540E+00	1.499E+01	9.959E-01	-0.327
		1078.86	*	9.660E-01	4.738E+00	8.040E+00	5.223E-01	0.120
CM-247		278.00		1.637E+01	3.098E+01	5.352E+01	3.142E+00	0.306
		287.40		-1.672E+00	5.785E+01	9.705E+01	5.737E+00	-0.017
		402.60	*	-2.376E-01	1.591E+00	2.614E+00	1.602E-01	-0.091
CF-249		252.85		-8.965E+00	4.249E+01	6.699E+01	3.851E+00	-0.134
		333.44		-1.032E+01	7.923E+00	1.226E+01	7.431E-01	-0.842
		387.95	*	1.839E+00	1.797E+00	3.161E+00	1.936E-01	0.582
CF-251		176.60	*	8.983E-02	5.840E+00	9.441E+00	5.020E-01	0.010
		227.00		5.676E+00	1.781E+01	2.901E+01	1.626E+00	0.196
		285.00		5.497E+01	7.944E+01	1.380E+02	8.143E+00	0.398
ANH-511		511.00	*	-2.761E+00	3.300E+00	5.113E+00	3.027E-01	-0.540

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001366    *
* Acquisition date : 30-DEC-2009 22:43:00 Detector SN#    :                *
* Detector ID        : GAM14               Sensitivity     : 5.000        *
* Geometry           : 2LMB                Energy tolerance: 1.500        *
* Elapsed live time:     0 06:00:00.00     Abundance limit : 75.000       *
* Elapsed real time:     0 06:00:01.47     Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 23-DEC-2009 00:00:00 Nuclide Library : LIQUI        *
* Sample ID          : G1202001366          Analyst initials: KXG3         *
* Batch Number       : 935338               Sample Quantity : 2.0000E+00 LITER *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  9-MAR-2009 15:03:15 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)	
BE-7	6.948E+00	1.344E+01	2.333E+01	0.000E+00 NOT IDENT.
NA-22	-2.015E-01	1.646E+00	2.717E+00	0.000E+00 NOT IDENT.
NA-24	0.000E+00	1.198E+04	0.000E+00	0.000E+00 SHORT HLIF
AL-26	-2.509E+00	1.695E+00	2.254E+00	0.000E+00 NOT IDENT.
K-40	2.878E+00	2.276E+01	3.425E+01	0.000E+00 NOT IDENT.
TI-44	-2.295E+00	1.765E+00	2.458E+00	0.000E+00 NOT IDENT.
SC-46	5.191E-02	1.460E+00	2.500E+00	0.000E+00 NOT IDENT.
V-48	3.579E-01	2.065E+00	3.565E+00	0.000E+00 NOT IDENT.
CR-51	-3.746E+00	1.418E+01	2.387E+01	0.000E+00 NOT IDENT.
MN-52	-4.862E-01	3.881E+00	6.333E+00	0.000E+00 NOT IDENT.
MN-54	-9.731E-02	1.401E+00	2.384E+00	0.000E+00 NOT IDENT.
CO-56	-1.153E+00	1.535E+00	2.450E+00	0.000E+00 NOT IDENT.
CO-57	1.073E-01	1.100E+00	1.842E+00	0.000E+00 NOT IDENT.
CO-58	-3.469E-01	1.430E+00	2.282E+00	0.000E+00 NOT IDENT.
FE-59	-1.298E+00	3.131E+00	5.056E+00	0.000E+00 NOT IDENT.
CO-60	-5.716E-01	1.624E+00	2.594E+00	0.000E+00 NOT IDENT.
ZN-65	-2.310E+00	3.161E+00	4.910E+00	0.000E+00 NOT IDENT.
GE-68	7.507E+00	4.106E+01	7.085E+01	0.000E+00 NOT IDENT.
AS-73	-1.983E+00	3.144E+01	5.320E+01	0.000E+00 NOT IDENT.
AS-74	2.113E+00	3.235E+00	5.629E+00	0.000E+00 NOT IDENT.
SE-75	-1.621E+00	1.774E+00	2.901E+00	0.000E+00 NOT IDENT.
BR-77	9.532E+00	6.006E+01	1.017E+02	0.000E+00 NOT IDENT.
SR-82	9.017E+00	1.254E+01	2.199E+01	0.000E+00 NOT IDENT.
RB-83	9.383E-01	2.997E+00	5.126E+00	0.000E+00 NOT IDENT.
RB-84	-2.655E-01	2.313E+00	3.906E+00	0.000E+00 NOT IDENT.
KR-85	-3.339E+03	5.715E+02	6.520E+02	0.000E+00 NOT IDENT.

SR-85	-1.589E+01	2.720E+00	3.103E+00	0.000E+00	NOT IDENT.
RB-86	-3.462E+00	2.066E+01	3.423E+01	0.000E+00	NOT IDENT.
Y-88	8.387E-01	1.666E+00	3.027E+00	0.000E+00	NOT IDENT.
ZR-88	-4.167E-01	1.527E+00	2.160E+00	0.000E+00	NOT IDENT.
Y-91	-2.315E+02	5.497E+02	8.766E+02	0.000E+00	NOT IDENT.
NB-94	-2.220E-02	1.566E+00	2.582E+00	0.000E+00	NOT IDENT.
NB-95	5.901E-02	1.516E+00	2.502E+00	0.000E+00	NOT IDENT.
NB-95M	-4.949E+00	5.471E+00	8.522E+00	0.000E+00	NOT IDENT.
ZR-95	1.238E+00	2.744E+00	4.696E+00	0.000E+00	NOT IDENT.
NB-97	0.000E+00	3.789E+03	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.247E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-2.668E+01	7.414E+01	1.173E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	5.511E+09	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-8.422E-01	1.900E+00	2.502E+00	0.000E+00	NOT IDENT.
RH-102	4.042E-01	1.296E+00	2.224E+00	0.000E+00	NOT IDENT.
RU-103	-5.478E-01	1.593E+00	2.605E+00	0.000E+00	NOT IDENT.
RH-106	3.529E+00	1.389E+01	2.353E+01	0.000E+00	NOT IDENT.
RU-106	3.529E+00	1.389E+01	2.353E+01	0.000E+00	NOT IDENT.
AG-108M	6.996E-01	1.397E+00	2.435E+00	0.000E+00	NOT IDENT.
CD-109	-6.099E+00	3.700E+01	5.399E+01	0.000E+00	NOT IDENT.
AG-110M	-1.216E+00	1.466E+00	2.252E+00	0.000E+00	NOT IDENT.
IN-111	-2.862E-01	8.425E+00	1.371E+01	0.000E+00	NOT IDENT.
IN-113M	-1.308E-01	1.897E+00	3.201E+00	0.000E+00	NOT IDENT.
SN-113	-1.308E-01	1.897E+00	3.201E+00	0.000E+00	NOT IDENT.
IN-114M	-3.534E+00	7.531E+00	1.210E+01	0.000E+00	NOT IDENT.
CD-115	5.908E+01	5.327E+01	9.590E+01	0.000E+00	NOT IDENT.
SN-117M	-5.205E-01	1.697E+00	2.764E+00	0.000E+00	NOT IDENT.
SB-122	3.062E+00	1.677E+01	2.831E+01	0.000E+00	NOT IDENT.
I-123	0.000E+00	3.203E+04	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-2.242E-01	1.210E+00	1.982E+00	0.000E+00	NOT IDENT.
I-124	-5.326E+00	9.907E+00	1.586E+01	0.000E+00	NOT IDENT.
SB-124	4.078E-02	3.511E+00	5.786E+00	0.000E+00	NOT IDENT.
SB-125	-5.958E-03	4.052E+00	6.842E+00	0.000E+00	NOT IDENT.
TE-125M	-2.085E+02	3.879E+02	6.315E+02	0.000E+00	NOT IDENT.
I-126	-2.756E-01	5.010E+00	8.251E+00	0.000E+00	NOT IDENT.
SB-126	6.111E-01	4.075E+00	6.807E+00	0.000E+00	NOT IDENT.
SN-126	-1.689E+00	3.678E+00	5.265E+00	0.000E+00	NOT IDENT.
SB-127	-1.766E+01	1.571E+01	2.313E+01	0.000E+00	NOT IDENT.
XE-127	5.752E-01	1.808E+00	3.013E+00	0.000E+00	NOT IDENT.
I-131	1.714E+00	2.821E+00	4.957E+00	0.000E+00	NOT IDENT.
TE-132	9.503E-01	7.618E+00	1.149E+01	0.000E+00	NOT IDENT.
BA-133	-1.720E+00	1.990E+00	3.205E+00	0.000E+00	NOT IDENT.
I-133	0.000E+00	9.649E+02	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-9.438E-01	1.841E+00	2.863E+00	0.000E+00	NOT IDENT.
CS-135	2.062E+00	6.339E+00	1.107E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.608E+09	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.513E+00	3.161E+00	5.577E+00	0.000E+00	NOT IDENT.
BA-137M	-2.895E-01	1.391E+00	2.260E+00	0.000E+00	NOT IDENT.
CS-137	-3.060E-01	1.471E+00	2.389E+00	0.000E+00	NOT IDENT.
CE-139	1.717E-01	1.271E+00	2.113E+00	0.000E+00	NOT IDENT.
BA-140	-2.776E+00	7.404E+00	1.192E+01	0.000E+00	NOT IDENT.
LA-140	-2.584E+00	2.622E+00	3.664E+00	0.000E+00	NOT IDENT.
CE-141	1.614E-02	2.416E+00	4.007E+00	0.000E+00	NOT IDENT.
CE-143	-4.506E+01	2.048E+02	2.829E+02	0.000E+00	NOT IDENT.
CE-144	7.248E-02	9.079E+00	1.509E+01	0.000E+00	NOT IDENT.
PM-144	-2.684E-01	1.568E+00	2.554E+00	0.000E+00	NOT IDENT.
PR-144	-1.812E+01	1.058E+02	1.724E+02	0.000E+00	NOT IDENT.
PM-146	-4.001E-01	1.995E+00	3.317E+00	0.000E+00	NOT IDENT.
ND-147	-9.936E+00	1.638E+01	2.610E+01	0.000E+00	FAIL ABUN
PM-149	1.957E+02	4.505E+02	7.872E+02	0.000E+00	NOT IDENT.
EU-152	1.752E+00	4.380E+00	7.618E+00	0.000E+00	NOT IDENT.
GD-153	4.302E-01	3.722E+00	5.510E+00	0.000E+00	NOT IDENT.
EU-154	-4.682E-01	4.625E+00	7.653E+00	0.000E+00	NOT IDENT.
EU-155	-1.944E+00	4.737E+00	7.766E+00	0.000E+00	NOT IDENT.
TB-160	-2.467E-01	5.173E+00	8.797E+00	0.000E+00	NOT IDENT.
HO-166M	-2.099E+00	2.628E+00	4.024E+00	0.000E+00	NOT IDENT.
TM-171	-2.463E+03	1.487E+03	1.938E+03	0.000E+00	NOT IDENT.
HF-175	8.535E-01	1.517E+00	2.658E+00	0.000E+00	NOT IDENT.
LU-176	-5.554E-01	1.117E+00	1.860E+00	0.000E+00	NOT IDENT.
LU-177	5.028E+00	2.099E+01	3.485E+01	0.000E+00	NOT IDENT.
LU-177M	4.232E+00	7.383E+00	1.292E+01	0.000E+00	NOT IDENT.
HF-181	-4.798E-01	1.763E+00	2.907E+00	0.000E+00	NOT IDENT.
W-181	2.200E+01	1.824E+01	2.717E+01	0.000E+00	NOT IDENT.
TA-182	4.363E+00	6.781E+00	1.209E+01	0.000E+00	NOT IDENT.
RE-183	1.837E+00	4.568E+00	7.691E+00	0.000E+00	NOT IDENT.
RE-184	-2.321E+00	1.078E+01	1.734E+01	0.000E+00	NOT IDENT.
OS-185	9.640E-01	1.887E+00	3.249E+00	0.000E+00	NOT IDENT.
RE-188	-2.817E+00	6.800E+00	1.102E+01	0.000E+00	NOT IDENT.

W-188	1.859E+02	3.124E+02	5.501E+02	0.000E+00	NOT IDENT.
IR-192	1.067E+00	1.492E+00	2.638E+00	0.000E+00	NOT IDENT.
AU-195	5.049E+00	1.092E+01	1.650E+01	0.000E+00	NOT IDENT.
TL-200	-2.193E+02	2.154E+02	3.419E+02	0.000E+00	NOT IDENT.
TL-201	-6.417E+01	6.379E+01	1.000E+02	0.000E+00	NOT IDENT.
TL-202	-3.648E-02	1.935E+00	3.259E+00	0.000E+00	NOT IDENT.
HG-203	8.083E-01	1.488E+00	2.624E+00	0.000E+00	NOT IDENT.
BI-207	-2.235E-01	2.123E+00	3.553E+00	0.000E+00	NOT IDENT.
TL-207	-1.254E+01	2.915E+01	4.848E+01	0.000E+00	NOT IDENT.
TL-208	2.994E-01	2.239E+00	3.217E+00	0.000E+00	NOT IDENT.
PO-209	-1.118E+02	2.806E+02	4.595E+02	0.000E+00	NOT IDENT.
BI-210	-9.949E+01	1.772E+02	2.645E+02	0.000E+00	NOT IDENT.
PB-210	-9.949E+01	1.772E+02	2.645E+02	0.000E+00	NOT IDENT.
PO-210	-9.949E+01	1.772E+02	2.645E+02	0.000E+00	NOT IDENT.
BI-211	4.625E+00	1.116E+01	1.607E+01	0.000E+00	NOT IDENT.
PB-211	1.290E+01	3.940E+01	6.673E+01	0.000E+00	NOT IDENT.
BI-212	7.474E+00	1.195E+01	2.073E+01	0.000E+00	NOT IDENT.
PB-212	-3.563E-01	4.066E+00	5.240E+00	0.000E+00	NOT IDENT.
PO-212	-3.563E-01	4.066E+00	5.240E+00	0.000E+00	NOT IDENT.
BI-214	-1.442E+00	4.461E+00	6.266E+00	0.000E+00	NOT IDENT.
PB-214	2.156E+00	3.932E+00	5.732E+00	0.000E+00	NOT IDENT.
PO-214	2.156E+00	3.932E+00	5.732E+00	0.000E+00	NOT IDENT.
PO-215	-1.254E+01	2.915E+01	4.848E+01	0.000E+00	NOT IDENT.
PO-216	-3.563E-01	4.066E+00	5.240E+00	0.000E+00	NOT IDENT.
PO-218	2.156E+00	3.932E+00	5.732E+00	0.000E+00	NOT IDENT.
RN-219	6.671E+00	1.698E+01	2.943E+01	0.000E+00	NOT IDENT.
RN-220	3.587E+02	1.101E+03	1.885E+03	0.000E+00	NOT IDENT.
RA-223	-1.254E+01	2.915E+01	4.848E+01	0.000E+00	NOT IDENT.
RA-224	-4.413E+01	3.236E+01	4.911E+01	0.000E+00	NOT IDENT.
RA-226	-5.088E+01	5.962E+01	6.450E+01	0.000E+00	NOT IDENT.
AC-227	1.326E+00	1.724E+01	2.977E+01	0.000E+00	NOT IDENT.
PA-227	0.000E+00	2.561E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	1.326E+00	1.724E+01	2.977E+01	0.000E+00	FAIL ABUN
AC-228	-3.664E+00	6.705E+00	1.001E+01	0.000E+00	NOT IDENT.
RA-228	-3.664E+00	6.705E+00	1.001E+01	0.000E+00	NOT IDENT.
TH-228	-3.563E-01	4.066E+00	5.240E+00	0.000E+00	NOT IDENT.
TH-229	-1.079E+00	2.292E+01	3.758E+01	0.000E+00	NOT IDENT.
TH-230	-7.138E+02	4.577E+03	7.883E+02	0.000E+00	NOT IDENT.
PA-231	3.218E+01	6.821E+01	1.194E+02	0.000E+00	NOT IDENT.
TH-231	-2.258E+01	2.479E+01	3.306E+01	0.000E+00	NOT IDENT.
U-231	-6.243E+00	1.635E+01	2.344E+01	0.000E+00	FAIL ABUN
TH-232	-7.374E+02	7.710E+03	2.073E+03	0.000E+00	NOT IDENT.
PA-233	1.290E-01	2.848E+00	4.880E+00	0.000E+00	NOT IDENT.
PA-234	-4.508E+00	1.126E+01	1.831E+01	0.000E+00	NOT IDENT.
PA-234M	-1.633E+01	1.983E+02	3.341E+02	0.000E+00	NOT IDENT.
TH-234	-5.858E+01	6.844E+01	1.011E+02	0.000E+00	FAIL ABUN
U-234	7.110E+01	2.628E+03	4.306E+03	0.000E+00	NOT IDENT.
U-235	4.541E+00	9.748E+00	1.645E+01	0.000E+00	FAIL ABUN
NP-236	1.921E+00	3.497E+00	5.932E+00	0.000E+00	NOT IDENT.
NP-237	-3.639E+00	1.302E+01	1.648E+01	0.000E+00	NOT IDENT.
PU-237	-1.159E+02	8.352E+01	1.322E+02	0.000E+00	NOT IDENT.
U-238	-5.858E+01	6.844E+01	1.011E+02	0.000E+00	FAIL ABUN
NP-239	2.899E+00	8.289E+00	1.405E+01	0.000E+00	NOT IDENT.
AM-241	-9.354E+00	6.750E+00	1.068E+01	0.000E+00	NOT IDENT.
AM-243	7.910E-01	2.988E+00	4.221E+00	0.000E+00	NOT IDENT.
CM-243	-4.089E+00	4.357E+00	6.954E+00	0.000E+00	NOT IDENT.
AM-246	9.660E-01	4.643E+00	8.040E+00	0.000E+00	NOT IDENT.
CM-247	-2.376E-01	1.559E+00	2.614E+00	0.000E+00	NOT IDENT.
CF-249	1.839E+00	1.761E+00	3.161E+00	0.000E+00	NOT IDENT.
CF-251	8.983E-02	5.724E+00	9.441E+00	0.000E+00	NOT IDENT.
ANH-511	-2.761E+00	3.234E+00	5.113E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 04:44:26.14

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001366.CNF;1
Sample date       : 23-DEC-2009 00:00:00 Acquisition date : 30-DEC-2009 22:43:00
Sample ID         : G1202001366          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM14                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:01.47  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 935338               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	63.37	84	255	1.10	126.47	123	8	3.88E-03	34.6	
2	0	92.51	408	334	1.35	184.69	178	15	1.89E-02	10.9	
3	0	185.50	124	234	1.39	370.51	367	9	5.75E-03	24.1	
4	0	238.54	108	296	1.43	476.51	469	13	5.01E-03	34.1	
5	0	510.43	486	175	2.47	1019.95	1013	16	2.25E-02	7.6	

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 04:44:29.18

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001366.CNF;1
Sample date       : 23-DEC-2009 00:00:00 Acquisition date : 30-DEC-2009 22:43:00
Sample ID         : G1202001366          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM14                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:01.47  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 935338                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Flag: "*" = Keyline

Sample ID : G1202001366 Acquisition date : 30-DEC-2009 22:43:00

Total number of lines in spectrum	1	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	1	100.00%

**** There are no nuclides meeting summary criteria ****

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202001366 Acquisition date : 30-DEC-2009 22:43:00

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.51	155	334	1.35	184.69	178	15	7.18E-03	65.2	2.48E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 04:44:33.58

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001366.CNF;1 *
* Acquisition date : 30-DEC-2009 22:43:00  Detector SN#     :               *
* Detector ID      : GAM14                 Sensitivity      : 5.00000       *
* Geometry         : 2LMB                  Energy tolerance: 1.50000        *
* Elapsed live time: 0 06:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 06:00:01.47         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 23-DEC-2009 00:00:00  Nuclide Library : LIQUID         *
* Sample ID        : G1202001366           Analyst initials: KXG3           *
* Batch Number     : 935338                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 9-MAR-2009 15:03:15.29MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	6.948E+00		1.371E+01	2.333E+01	1.621E+00	0.298
NA-22	-2.015E-01		1.679E+00	2.717E+00	1.799E-01	-0.074
NA-24	4.927E-03		6.114E-03	Half-Life too short		
AL-26	-2.509E+00		1.729E+00	2.254E+00	1.322E-01	-1.113
K-40	2.878E+00		2.323E+01	3.425E+01	2.514E+00	0.084
TI-44	-2.295E+00		1.801E+00	2.458E+00	2.118E-01	-0.934
SC-46	5.191E-02		1.490E+00	2.500E+00	1.909E-01	0.021
V-48	3.579E-01		2.107E+00	3.565E+00	2.584E-01	0.100
CR-51	-3.746E+00		1.446E+01	2.387E+01	1.591E+00	-0.157
MN-52	-4.862E-01		3.961E+00	6.333E+00	4.494E-01	-0.077
MN-54	-9.731E-02		1.429E+00	2.384E+00	1.653E-01	-0.041
CO-56	-1.153E+00		1.566E+00	2.450E+00	1.736E-01	-0.470
CO-57	1.073E-01		1.123E+00	1.842E+00	1.113E-01	0.058
CO-58	-3.469E-01		1.459E+00	2.282E+00	1.520E-01	-0.152
FE-59	-1.298E+00		3.195E+00	5.056E+00	3.658E-01	-0.257
CO-60	-5.716E-01		1.657E+00	2.594E+00	1.879E-01	-0.220
ZN-65	-2.310E+00		3.225E+00	4.910E+00	3.027E-01	-0.470

Sample ID : G1202001366 Acquisition date : 30-DEC-2009 22:43:00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
GE-68	7.507E+00		4.190E+01	7.085E+01	4.612E+00	0.106
AS-73	-1.983E+00		3.208E+01	5.320E+01	4.304E+00	-0.037
AS-74	2.113E+00		3.301E+00	5.629E+00	3.071E-01	0.375
SE-75	-1.621E+00		1.810E+00	2.901E+00	1.702E-01	-0.559
BR-77	9.532E+00		6.128E+01	1.017E+02	5.979E+00	0.094
SR-82	9.017E+00		1.280E+01	2.199E+01	1.367E+00	0.410
RB-83	9.383E-01		3.058E+00	5.126E+00	3.015E-01	0.183
RB-84	-2.655E-01		2.360E+00	3.906E+00	2.942E-01	-0.068
KR-85	-3.339E+03		5.832E+02	6.520E+02	3.852E+01	-5.120
SR-85	-1.589E+01		2.775E+00	3.103E+00	1.833E-01	-5.120
RB-86	-3.462E+00		2.108E+01	3.423E+01	2.231E+00	-0.101
Y-88	8.387E-01		1.700E+00	3.027E+00	1.741E-01	0.277
ZR-88	-4.167E-01		1.558E+00	2.160E+00	1.323E-01	-0.193
Y-91	-2.315E+02		5.609E+02	8.766E+02	5.151E+01	-0.264
NB-94	-2.220E-02		1.598E+00	2.582E+00	1.385E-01	-0.009
NB-95	5.901E-02		1.547E+00	2.502E+00	1.523E-01	0.024
NB-95M	-4.949E+00		5.582E+00	8.522E+00	6.321E-01	-0.581
ZR-95	1.238E+00		2.800E+00	4.696E+00	3.371E-01	0.264
NB-97	-1.965E-03		1.933E-03	Half-Life too short		
ZR-97	1.526E-02		6.363E-02	Half-Life too short		
MO-99	-2.668E+01		7.565E+01	1.173E+02	1.616E+01	-0.227
TC-99M	2.092E+03		2.812E+03	Half-Life too short		
RH-101	-8.422E-01		1.938E+00	2.502E+00	1.359E-01	-0.337
RH-102	4.042E-01		1.323E+00	2.224E+00	1.343E-01	0.182
RU-103	-5.478E-01		1.625E+00	2.605E+00	3.314E-01	-0.210
RH-106	3.529E+00		1.418E+01	2.353E+01	2.701E+00	0.150
RU-106	3.529E+00		1.417E+01	2.353E+01	1.238E+00	0.150
AG-108M	6.996E-01		1.426E+00	2.435E+00	1.604E-01	0.287
CD-109	-6.099E+00		3.776E+01	5.399E+01	4.986E+00	-0.113
AG-110M	-1.216E+00		1.496E+00	2.252E+00	1.213E-01	-0.540
IN-111	-2.862E-01		8.597E+00	1.371E+01	7.824E-01	-0.021
IN-113M	-1.308E-01		1.935E+00	3.201E+00	2.078E-01	-0.041
SN-113	-1.308E-01		1.935E+00	3.201E+00	2.078E-01	-0.041
IN-114M	-3.534E+00		7.684E+00	1.210E+01	6.519E-01	-0.292
CD-115	5.908E+01		5.436E+01	9.590E+01	5.609E+00	0.616
SN-117M	-5.205E-01		1.731E+00	2.764E+00	1.483E-01	-0.188
SB-122	3.062E+00		1.711E+01	2.831E+01	1.603E+00	0.108
I-123	-5.936E-03		1.634E-02	Half-Life too short		
TE-123M	-2.242E-01		1.235E+00	1.982E+00	1.079E-01	-0.113
I-124	-5.326E+00		1.011E+01	1.586E+01	8.574E-01	-0.336
SB-124	4.078E-02		3.582E+00	5.786E+00	3.943E-01	0.007
SB-125	-5.958E-03		4.135E+00	6.842E+00	4.346E-01	-0.001
TE-125M	-2.085E+02		3.958E+02	6.315E+02	5.628E+01	-0.330
I-126	-2.756E-01		5.112E+00	8.251E+00	4.097E-01	-0.033
SB-126	6.111E-01		4.159E+00	6.807E+00	3.787E-01	0.090
SN-126	-1.689E+00		3.753E+00	5.265E+00	4.848E-01	-0.321
SB-127	-1.766E+01		1.603E+01	2.313E+01	1.568E+00	-0.764
XE-127	5.752E-01		1.845E+00	3.013E+00	1.646E-01	0.191

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
I-131	1.714E+00		2.879E+00	4.957E+00	3.323E-01	0.346
TE-132	9.503E-01		7.773E+00	1.149E+01	1.511E+00	0.083
BA-133	-1.720E+00		2.031E+00	3.205E+00	3.754E-01	-0.537
I-133	2.180E-04		4.923E-04	Half-Life too short		
CS-134	-9.438E-01		1.878E+00	2.863E+00	1.870E-01	-0.330
CS-135	2.062E+00		6.469E+00	1.107E+01	8.498E-01	0.186
I-135	8.318E+01		1.841E+03	Half-Life too short		
CS-136	1.513E+00		3.226E+00	5.577E+00	4.024E-01	0.271
BA-137M	-2.895E-01		1.420E+00	2.260E+00	1.111E-01	-0.128
CS-137	-3.060E-01		1.501E+00	2.389E+00	1.181E-01	-0.128
CE-139	1.717E-01		1.297E+00	2.113E+00	1.115E-01	0.081
BA-140	-2.776E+00		7.555E+00	1.192E+01	3.877E+00	-0.233
LA-140	-2.584E+00		2.675E+00	3.664E+00	2.452E-01	-0.705
CE-141	1.614E-02		2.465E+00	4.007E+00	2.321E-01	0.004
CE-143	-4.506E+01		2.090E+02	2.829E+02	5.815E+01	-0.159
CE-144	7.248E-02		9.264E+00	1.509E+01	2.141E+00	0.005
PM-144	-2.684E-01		1.600E+00	2.554E+00	1.353E-01	-0.105
PR-144	-1.812E+01		1.080E+02	1.724E+02	9.128E+00	-0.105
PM-146	-4.001E-01		2.036E+00	3.317E+00	2.924E-01	-0.121
ND-147	-9.936E+00		1.672E+01	2.610E+01	3.532E+00	-0.381
PM-149	1.957E+02		4.597E+02	7.872E+02	1.118E+02	0.249
EU-152	1.752E+00		4.470E+00	7.618E+00	5.172E-01	0.230
GD-153	4.302E-01		3.798E+00	5.510E+00	4.390E-01	0.078
EU-154	-4.682E-01		4.719E+00	7.653E+00	7.549E-01	-0.061
EU-155	-1.944E+00		4.834E+00	7.766E+00	5.691E-01	-0.250
TB-160	-2.467E-01		5.279E+00	8.797E+00	6.602E-01	-0.028
HO-166M	-2.099E+00		2.682E+00	4.024E+00	2.199E-01	-0.522
TM-171	-2.463E+03		1.518E+03	1.938E+03	1.603E+02	-1.271
HF-175	8.535E-01		1.548E+00	2.658E+00	1.616E-01	0.321
LU-176	-5.554E-01		1.140E+00	1.860E+00	1.113E-01	-0.299
LU-177	5.028E+00		2.142E+01	3.485E+01	1.915E+00	0.144
LU-177M	4.232E+00		7.534E+00	1.292E+01	7.915E-01	0.328
HF-181	-4.798E-01		1.799E+00	2.907E+00	1.750E-01	-0.165
W-181	2.200E+01		1.861E+01	2.717E+01	2.247E+00	0.810
TA-182	4.363E+00		6.920E+00	1.209E+01	7.310E-01	0.361
RE-183	1.837E+00		4.661E+00	7.691E+00	4.089E-01	0.239
RE-184	-2.321E+00		1.100E+01	1.734E+01	9.969E-01	-0.134
OS-185	9.640E-01		1.926E+00	3.249E+00	1.643E-01	0.297
RE-188	-2.817E+00		6.939E+00	1.102E+01	5.964E-01	-0.256
W-188	1.859E+02		3.188E+02	5.501E+02	3.259E+01	0.338
IR-192	1.067E+00		1.522E+00	2.638E+00	1.594E-01	0.405
AU-195	5.049E+00		1.114E+01	1.650E+01	1.289E+00	0.306
TL-200	-2.193E+02		2.198E+02	3.419E+02	2.090E+01	-0.641
TL-201	-6.417E+01		6.509E+01	1.000E+02	5.278E+00	-0.641
TL-202	-3.648E-02		1.974E+00	3.259E+00	1.990E-01	-0.011
HG-203	8.083E-01		1.519E+00	2.624E+00	1.635E-01	0.308
BI-207	-2.235E-01		2.166E+00	3.553E+00	2.356E-01	-0.063
TL-207	-1.254E+01		2.974E+01	4.848E+01	8.048E+00	-0.259

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TL-208	2.994E-01		2.285E+00	3.217E+00	2.079E-01	0.093
PO-209	-1.118E+02		2.863E+02	4.595E+02	3.553E+01	-0.243
BI-210	-9.949E+01		1.808E+02	2.645E+02	2.083E+01	-0.376
PB-210	-9.949E+01		1.808E+02	2.645E+02	2.083E+01	-0.376
PO-210	-9.949E+01		1.808E+02	2.645E+02	1.802E+01	-0.376
BI-211	4.625E+00		1.138E+01	1.607E+01	1.077E+00	0.288
PB-211	1.290E+01		4.021E+01	6.673E+01	4.162E+01	0.193
BI-212	7.474E+00		1.219E+01	2.073E+01	1.574E+00	0.361
PB-212	-3.563E-01		4.149E+00	5.240E+00	3.789E-01	-0.068
PO-212	-3.563E-01		4.149E+00	5.240E+00	3.789E-01	-0.068
BI-214	-1.442E+00		4.552E+00	6.266E+00	4.671E-01	-0.230
PB-214	2.156E+00		4.012E+00	5.732E+00	4.868E-01	0.376
PO-214	2.156E+00		4.012E+00	5.732E+00	4.868E-01	0.376
PO-215	-1.254E+01		2.974E+01	4.848E+01	8.048E+00	-0.259
PO-216	-3.563E-01		4.149E+00	5.240E+00	3.789E-01	-0.068
PO-218	2.156E+00		4.012E+00	5.732E+00	4.868E-01	0.376
RN-219	6.671E+00		1.732E+01	2.943E+01	4.046E+00	0.227
RN-220	3.587E+02		1.123E+03	1.885E+03	1.082E+02	0.190
RA-223	-1.254E+01		2.974E+01	4.848E+01	8.048E+00	-0.259
RA-224	-4.413E+01		3.303E+01	4.911E+01	2.792E+00	-0.899
RA-226	-5.088E+01		6.084E+01	6.450E+01	4.732E+01	-0.789
AC-227	1.326E+00		1.759E+01	2.977E+01	4.151E+00	0.045
PA-227	1.000E+35		1.307E+35	Half-Life too short		
TH-227	1.326E+00		1.759E+01	2.977E+01	5.027E+00	0.045
AC-228	-3.664E+00		6.842E+00	1.001E+01	1.055E+00	-0.366
RA-228	-3.664E+00		6.842E+00	1.001E+01	1.055E+00	-0.366
TH-228	-3.563E-01		4.149E+00	5.240E+00	3.789E-01	-0.068
TH-229	-1.079E+00		2.339E+01	3.758E+01	2.032E+00	-0.029
TH-230	-7.138E+02		4.670E+03	7.883E+02	5.114E+03	-0.906
PA-231	3.218E+01		6.960E+01	1.194E+02	1.651E+01	0.269
TH-231	-2.258E+01		2.530E+01	3.306E+01	5.956E+00	-0.683
U-231	-6.243E+00		1.668E+01	2.344E+01	1.909E+00	-0.266
TH-232	-7.374E+02		7.867E+03	2.073E+03	2.182E+04	-0.356
PA-233	1.290E-01		2.906E+00	4.880E+00	3.098E-01	0.026
PA-234	-4.508E+00		1.148E+01	1.831E+01	3.346E+00	-0.246
PA-234M	-1.633E+01		2.024E+02	3.341E+02	2.909E+01	-0.049
TH-234	-5.858E+01		6.983E+01	1.011E+02	1.803E+01	-0.579
U-234	7.110E+01		2.682E+03	4.306E+03	4.306E+04	0.017
U-235	4.541E+00		9.947E+00	1.645E+01	2.670E+00	0.276
NP-236	1.921E+00		3.569E+00	5.932E+00	3.169E-01	0.324
NP-237	-3.639E+00		1.328E+01	1.648E+01	3.719E+00	-0.221
PU-237	-1.159E+02		8.523E+01	1.322E+02	1.107E+01	-0.876
U-238	-5.858E+01		6.983E+01	1.011E+02	1.803E+01	-0.579
NP-239	2.899E+00		8.458E+00	1.405E+01	8.909E-01	0.206
AM-241	-9.354E+00		6.887E+00	1.068E+01	9.624E-01	-0.876
AM-243	7.910E-01		3.049E+00	4.221E+00	3.567E-01	0.187
CM-243	-4.089E+00		4.446E+00	6.954E+00	5.103E-01	-0.588
AM-246	9.660E-01		4.738E+00	8.040E+00	5.223E-01	0.120

Sample ID : G1202001366 Acquisition date : 30-DEC-2009 22:43:00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CM-247	-2.376E-01		1.591E+00	2.614E+00	1.602E-01	-0.091
CF-249	1.839E+00		1.797E+00	3.161E+00	1.936E-01	0.582
CF-251	8.983E-02		5.840E+00	9.441E+00	5.020E-01	0.010
ANH-511	-2.761E+00		3.300E+00	5.113E+00	3.027E-01	-0.540

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202001366          *
* Acquisition date  : 30-DEC-2009 22:43:00 Detector SN#     :               *
* Detector ID       : GAM14                Sensitivity      : 5.000         *
* Geometry          : 2LMB                 Energy tolerance: 1.500          *
* Elapsed live time:    0 06:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 06:00:01.47      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 23-DEC-2009 00:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G1202001366          Analyst initials: KXG3           *
* Batch Number      : 935338               Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  9-MAR-2009 15:03:15 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act Error	DLC (pCi/LITER)	TPU

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU
BE-7	6.948E+00	1.344E+01	1.167E+01	6.855E+00 NOT IDENT.
NA-22	-2.015E-01	1.646E+00	1.359E+00	8.397E-01 NOT IDENT.
NA-24	4.927E+03	1.198E+04	0.000E+00	6.114E+03 SHORT HLIF
AL-26	-2.509E+00	1.695E+00	1.128E+00	8.647E-01 NOT IDENT.
K-40	2.878E+00	2.276E+01	1.714E+01	1.161E+01 NOT IDENT.
TI-44	-2.295E+00	1.765E+00	1.230E+00	9.007E-01 NOT IDENT.
SC-46	5.191E-02	1.460E+00	1.251E+00	7.449E-01 NOT IDENT.
V-48	3.579E-01	2.065E+00	1.783E+00	1.054E+00 NOT IDENT.
CR-51	-3.746E+00	1.418E+01	1.194E+01	7.232E+00 NOT IDENT.
MN-52	-4.862E-01	3.881E+00	3.168E+00	1.980E+00 NOT IDENT.
MN-54	-9.731E-02	1.401E+00	1.193E+00	7.146E-01 NOT IDENT.
CO-56	-1.153E+00	1.535E+00	1.226E+00	7.832E-01 NOT IDENT.
CO-57	1.073E-01	1.100E+00	9.214E-01	5.614E-01 NOT IDENT.
CO-58	-3.469E-01	1.430E+00	1.142E+00	7.296E-01 NOT IDENT.
FE-59	-1.298E+00	3.131E+00	2.529E+00	1.598E+00 NOT IDENT.
CO-60	-5.716E-01	1.624E+00	1.298E+00	8.285E-01 NOT IDENT.
ZN-65	-2.310E+00	3.161E+00	2.456E+00	1.613E+00 NOT IDENT.
GE-68	7.507E+00	4.106E+01	3.544E+01	2.095E+01 NOT IDENT.
AS-73	-1.983E+00	3.144E+01	2.662E+01	1.604E+01 NOT IDENT.
AS-74	2.113E+00	3.235E+00	2.816E+00	1.650E+00 NOT IDENT.
SE-75	-1.621E+00	1.774E+00	1.451E+00	9.050E-01 NOT IDENT.
BR-77	9.532E+00	6.006E+01	5.087E+01	3.064E+01 NOT IDENT.
SR-82	9.017E+00	1.254E+01	1.100E+01	6.399E+00 NOT IDENT.
RB-83	9.383E-01	2.997E+00	2.564E+00	1.529E+00 NOT IDENT.
RB-84	-2.655E-01	2.313E+00	1.954E+00	1.180E+00 NOT IDENT.
KR-85	-3.339E+03	5.715E+02	3.262E+02	2.916E+02 NOT IDENT.

SR-85	-1.589E+01	2.720E+00	1.552E+00	1.388E+00	NOT IDENT.
RB-86	-3.462E+00	2.066E+01	1.713E+01	1.054E+01	NOT IDENT.
Y-88	8.387E-01	1.666E+00	1.515E+00	8.501E-01	NOT IDENT.
ZR-88	-4.167E-01	1.527E+00	1.081E+00	7.790E-01	NOT IDENT.
Y-91	-2.315E+02	5.497E+02	4.385E+02	2.805E+02	NOT IDENT.
NB-94	-2.220E-02	1.566E+00	1.292E+00	7.990E-01	NOT IDENT.
NB-95	5.901E-02	1.516E+00	1.252E+00	7.737E-01	NOT IDENT.
NB-95M	-4.949E+00	5.471E+00	4.263E+00	2.791E+00	NOT IDENT.
ZR-95	1.238E+00	2.744E+00	2.350E+00	1.400E+00	NOT IDENT.
NB-97	-1.965E+03	3.789E+03	0.000E+00	1.933E+03	SHORT HLIF
ZR-97	1.526E+04	1.247E+05	0.000E+00	6.363E+04	SHORT HLIF
MO-99	-2.668E+01	7.414E+01	5.870E+01	3.782E+01	NOT IDENT.
TC-99M	2.092E+09	5.511E+09	0.000E+00	2.812E+09	SHORT HLIF
RH-101	-8.422E-01	1.900E+00	1.252E+00	9.691E-01	NOT IDENT.
RH-102	4.042E-01	1.296E+00	1.113E+00	6.613E-01	NOT IDENT.
RU-103	-5.478E-01	1.593E+00	1.303E+00	8.127E-01	NOT IDENT.
RH-106	3.529E+00	1.389E+01	1.177E+01	7.089E+00	NOT IDENT.
RU-106	3.529E+00	1.389E+01	1.177E+01	7.086E+00	NOT IDENT.
AG-108M	6.996E-01	1.397E+00	1.218E+00	7.129E-01	NOT IDENT.
CD-109	-6.099E+00	3.700E+01	2.701E+01	1.888E+01	NOT IDENT.
AG-110M	-1.216E+00	1.466E+00	1.127E+00	7.482E-01	NOT IDENT.
IN-111	-2.862E-01	8.425E+00	6.857E+00	4.298E+00	NOT IDENT.
IN-113M	-1.308E-01	1.897E+00	1.601E+00	9.676E-01	NOT IDENT.
SN-113	-1.308E-01	1.897E+00	1.601E+00	9.676E-01	NOT IDENT.
IN-114M	-3.534E+00	7.531E+00	6.052E+00	3.842E+00	NOT IDENT.
CD-115	5.908E+01	5.327E+01	4.798E+01	2.718E+01	NOT IDENT.
SN-117M	-5.205E-01	1.697E+00	1.383E+00	8.657E-01	NOT IDENT.
SB-122	3.062E+00	1.677E+01	1.416E+01	8.557E+00	NOT IDENT.
I-123	-5.936E+03	3.203E+04	0.000E+00	1.634E+04	SHORT HLIF
TE-123M	-2.242E-01	1.210E+00	9.918E-01	6.173E-01	NOT IDENT.
I-124	-5.326E+00	9.907E+00	7.934E+00	5.055E+00	NOT IDENT.
SB-124	4.078E-02	3.511E+00	2.895E+00	1.791E+00	NOT IDENT.
SB-125	-5.958E-03	4.052E+00	3.423E+00	2.068E+00	NOT IDENT.
TE-125M	-2.085E+02	3.879E+02	3.159E+02	1.979E+02	NOT IDENT.
I-126	-2.756E-01	5.010E+00	4.128E+00	2.556E+00	NOT IDENT.
SB-126	6.111E-01	4.075E+00	3.405E+00	2.079E+00	NOT IDENT.
SN-126	-1.689E+00	3.678E+00	2.634E+00	1.876E+00	NOT IDENT.
SB-127	-1.766E+01	1.571E+01	1.157E+01	8.017E+00	NOT IDENT.
XE-127	5.752E-01	1.808E+00	1.508E+00	9.224E-01	NOT IDENT.
I-131	1.714E+00	2.821E+00	2.480E+00	1.439E+00	NOT IDENT.
TE-132	9.503E-01	7.618E+00	5.749E+00	3.887E+00	NOT IDENT.
BA-133	-1.720E+00	1.990E+00	1.603E+00	1.015E+00	NOT IDENT.
I-133	2.180E+02	9.649E+02	0.000E+00	4.923E+02	SHORT HLIF
CS-134	-9.438E-01	1.841E+00	1.432E+00	9.392E-01	NOT IDENT.
CS-135	2.062E+00	6.339E+00	5.538E+00	3.234E+00	NOT IDENT.
I-135	8.318E+07	3.608E+09	0.000E+00	1.841E+09	SHORT HLIF
CS-136	1.513E+00	3.161E+00	2.790E+00	1.613E+00	NOT IDENT.
BA-137M	-2.895E-01	1.391E+00	1.130E+00	7.099E-01	NOT IDENT.
CS-137	-3.060E-01	1.471E+00	1.195E+00	7.504E-01	NOT IDENT.
CE-139	1.717E-01	1.271E+00	1.057E+00	6.486E-01	NOT IDENT.
BA-140	-2.776E+00	7.404E+00	5.964E+00	3.778E+00	NOT IDENT.
LA-140	-2.584E+00	2.622E+00	1.833E+00	1.338E+00	NOT IDENT.
CE-141	1.614E-02	2.416E+00	2.005E+00	1.233E+00	NOT IDENT.
CE-143	-4.506E+01	2.048E+02	1.416E+02	1.045E+02	NOT IDENT.
CE-144	7.248E-02	9.079E+00	7.551E+00	4.632E+00	NOT IDENT.
PM-144	-2.684E-01	1.568E+00	1.278E+00	7.998E-01	NOT IDENT.
PR-144	-1.812E+01	1.058E+02	8.626E+01	5.400E+01	NOT IDENT.
PM-146	-4.001E-01	1.995E+00	1.659E+00	1.018E+00	NOT IDENT.
ND-147	-9.936E+00	1.638E+01	1.306E+01	8.358E+00	FAIL ABUN
PM-149	1.957E+02	4.505E+02	3.938E+02	2.298E+02	NOT IDENT.
EU-152	1.752E+00	4.380E+00	3.811E+00	2.235E+00	NOT IDENT.
GD-153	4.302E-01	3.722E+00	2.757E+00	1.899E+00	NOT IDENT.
EU-154	-4.682E-01	4.625E+00	3.829E+00	2.360E+00	NOT IDENT.
EU-155	-1.944E+00	4.737E+00	3.886E+00	2.417E+00	NOT IDENT.
TB-160	-2.467E-01	5.173E+00	4.401E+00	2.639E+00	NOT IDENT.
HO-166M	-2.099E+00	2.628E+00	2.013E+00	1.341E+00	NOT IDENT.
TM-171	-2.463E+03	1.487E+03	9.694E+02	7.589E+02	NOT IDENT.
HF-175	8.535E-01	1.517E+00	1.330E+00	7.738E-01	NOT IDENT.
LU-176	-5.554E-01	1.117E+00	9.305E-01	5.698E-01	NOT IDENT.
LU-177	5.028E+00	2.099E+01	1.744E+01	1.071E+01	NOT IDENT.
LU-177M	4.232E+00	7.383E+00	6.464E+00	3.767E+00	NOT IDENT.
HF-181	-4.798E-01	1.763E+00	1.455E+00	8.993E-01	NOT IDENT.
W-181	2.200E+01	1.824E+01	1.359E+01	9.306E+00	NOT IDENT.
TA-182	4.363E+00	6.781E+00	6.047E+00	3.460E+00	NOT IDENT.
RE-183	1.837E+00	4.568E+00	3.848E+00	2.331E+00	NOT IDENT.
RE-184	-2.321E+00	1.078E+01	8.676E+00	5.500E+00	NOT IDENT.
OS-185	9.640E-01	1.887E+00	1.626E+00	9.629E-01	NOT IDENT.
RE-188	-2.817E+00	6.800E+00	5.512E+00	3.470E+00	NOT IDENT.

W-188	1.859E+02	3.124E+02	2.752E+02	1.594E+02	NOT IDENT.
IR-192	1.067E+00	1.492E+00	1.320E+00	7.611E-01	NOT IDENT.
AU-195	5.049E+00	1.092E+01	8.254E+00	5.572E+00	NOT IDENT.
TL-200	-2.193E+02	2.154E+02	1.711E+02	1.099E+02	NOT IDENT.
TL-201	-6.417E+01	6.379E+01	5.005E+01	3.255E+01	NOT IDENT.
TL-202	-3.648E-02	1.935E+00	1.630E+00	9.870E-01	NOT IDENT.
HG-203	8.083E-01	1.488E+00	1.313E+00	7.594E-01	NOT IDENT.
BI-207	-2.235E-01	2.123E+00	1.777E+00	1.083E+00	NOT IDENT.
TL-207	-1.254E+01	2.915E+01	2.426E+01	1.487E+01	NOT IDENT.
TL-208	2.994E-01	2.239E+00	1.609E+00	1.142E+00	NOT IDENT.
PO-209	-1.118E+02	2.806E+02	2.299E+02	1.431E+02	NOT IDENT.
BI-210	-9.949E+01	1.772E+02	1.323E+02	9.041E+01	NOT IDENT.
PB-210	-9.949E+01	1.772E+02	1.323E+02	9.041E+01	NOT IDENT.
PO-210	-9.949E+01	1.772E+02	1.323E+02	9.039E+01	NOT IDENT.
BI-211	4.625E+00	1.116E+01	8.041E+00	5.692E+00	NOT IDENT.
PB-211	1.290E+01	3.940E+01	3.339E+01	2.010E+01	NOT IDENT.
BI-212	7.474E+00	1.195E+01	1.037E+01	6.094E+00	NOT IDENT.
PB-212	-3.563E-01	4.066E+00	2.622E+00	2.075E+00	NOT IDENT.
PO-212	-3.563E-01	4.066E+00	2.622E+00	2.075E+00	NOT IDENT.
BI-214	-1.442E+00	4.461E+00	3.135E+00	2.276E+00	NOT IDENT.
PB-214	2.156E+00	3.932E+00	2.868E+00	2.006E+00	NOT IDENT.
PO-214	2.156E+00	3.932E+00	2.868E+00	2.006E+00	NOT IDENT.
PO-215	-1.254E+01	2.915E+01	2.426E+01	1.487E+01	NOT IDENT.
PO-216	-3.563E-01	4.066E+00	2.622E+00	2.075E+00	NOT IDENT.
PO-218	2.156E+00	3.932E+00	2.868E+00	2.006E+00	NOT IDENT.
RN-219	6.671E+00	1.698E+01	1.472E+01	8.662E+00	NOT IDENT.
RN-220	3.587E+02	1.101E+03	9.428E+02	5.615E+02	NOT IDENT.
RA-223	-1.254E+01	2.915E+01	2.426E+01	1.487E+01	NOT IDENT.
RA-224	-4.413E+01	3.236E+01	2.457E+01	1.651E+01	NOT IDENT.
RA-226	-5.088E+01	5.962E+01	3.227E+01	3.042E+01	NOT IDENT.
AC-227	1.326E+00	1.724E+01	1.489E+01	8.794E+00	NOT IDENT.
PA-227	1.000E+41	2.561E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	1.326E+00	1.724E+01	1.489E+01	8.794E+00	FAIL ABUN
AC-228	-3.664E+00	6.705E+00	5.008E+00	3.421E+00	NOT IDENT.
RA-228	-3.664E+00	6.705E+00	5.008E+00	3.421E+00	NOT IDENT.
TH-228	-3.563E-01	4.066E+00	2.622E+00	2.075E+00	NOT IDENT.
TH-229	-1.079E+00	2.292E+01	1.880E+01	1.169E+01	NOT IDENT.
TH-230	-7.138E+02	4.577E+03	3.944E+02	2.335E+03	NOT IDENT.
PA-231	3.218E+01	6.821E+01	5.976E+01	3.480E+01	NOT IDENT.
TH-231	-2.258E+01	2.479E+01	1.654E+01	1.265E+01	NOT IDENT.
U-231	-6.243E+00	1.635E+01	1.173E+01	8.341E+00	FAIL ABUN
TH-232	-7.374E+02	7.710E+03	1.037E+03	3.934E+03	NOT IDENT.
PA-233	1.290E-01	2.848E+00	2.441E+00	1.453E+00	NOT IDENT.
PA-234	-4.508E+00	1.126E+01	9.163E+00	5.742E+00	NOT IDENT.
PA-234M	-1.633E+01	1.983E+02	1.671E+02	1.012E+02	NOT IDENT.
TH-234	-5.858E+01	6.844E+01	5.060E+01	3.492E+01	FAIL ABUN
U-234	7.110E+01	2.628E+03	2.154E+03	1.341E+03	NOT IDENT.
U-235	4.541E+00	9.748E+00	8.231E+00	4.973E+00	FAIL ABUN
NP-236	1.921E+00	3.497E+00	2.968E+00	1.784E+00	NOT IDENT.
NP-237	-3.639E+00	1.302E+01	8.245E+00	6.642E+00	NOT IDENT.
PU-237	-1.159E+02	8.352E+01	6.616E+01	4.261E+01	NOT IDENT.
U-238	-5.858E+01	6.844E+01	5.060E+01	3.492E+01	FAIL ABUN
NP-239	2.899E+00	8.289E+00	7.030E+00	4.229E+00	NOT IDENT.
AM-241	-9.354E+00	6.750E+00	5.341E+00	3.444E+00	NOT IDENT.
AM-243	7.910E-01	2.988E+00	2.112E+00	1.525E+00	NOT IDENT.
CM-243	-4.089E+00	4.357E+00	3.479E+00	2.223E+00	NOT IDENT.
AM-246	9.660E-01	4.643E+00	4.022E+00	2.369E+00	NOT IDENT.
CM-247	-2.376E-01	1.559E+00	1.308E+00	7.956E-01	NOT IDENT.
CF-249	1.839E+00	1.761E+00	1.581E+00	8.983E-01	NOT IDENT.
CF-251	8.983E-02	5.724E+00	4.723E+00	2.920E+00	NOT IDENT.
ANH-511	-2.761E+00	3.234E+00	2.558E+00	1.650E+00	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	215.3764
46.50	215.3764
46.50	215.3764
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49.72	285.7103
51.35	196.0007
52.39	212.4924
52.97	209.8067
53.15	209.8604
53.20	209.8751
53.44	215.6722
54.07	217.7735
56.28	232.8112
56.28	232.8121
57.37	222.6036
57.53	219.7725
57.53	219.7734
57.60	219.7935
57.98	217.0253
57.98	217.0253
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59.32	260.7051
59.32	260.7051
59.40	260.7325
59.54	301.1973
59.54	301.1973
59.72	301.2690
60.01	322.5684
61.10	285.4232
61.14	285.4385
61.30	285.4978
63.00	272.5929
63.29	272.6943
63.29	272.6943
63.58	258.2850
64.28	242.0552
64.62	0.0000
65.12	234.5584
65.20	234.5817
65.20	234.5817
66.05	322.1658
66.72	332.1461
66.83	332.1918
66.91	329.3102
67.20	328.4568
67.20	328.4568
67.67	298.5048
67.75	298.5340
67.85	275.2304
68.90	292.1379
68.90	292.1379
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69.67	300.2097
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70.82	281.1039
70.83	281.1072
72.80	309.1603
72.80	309.1603
72.87	304.2935
72.87	304.2935
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74.81	267.7190
74.81	267.7190
74.81	267.7190
74.81	267.7190
74.81	267.7190
74.81	267.7190

74.81	267.7190
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74.97	276.5965
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77.11	288.0933
77.11	288.0933
77.11	288.0933
77.11	288.0933
77.11	288.0933
77.11	288.0933
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79.80	306.7208
79.80	306.7208
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80.18	308.8246
80.30	308.8664
80.30	308.8664
80.57	305.0099
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81.07	288.3899
81.07	288.3899
81.07	288.3899
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83.37	254.4628
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83.78	266.4644
83.78	266.4644
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84.21	290.3734
84.90	279.6796
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86.54	260.6983
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86.72	260.7484
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87.30	259.3186
87.30	259.3186
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87.30	259.3186
87.30	259.3186
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88.36	270.7580
88.47	235.7458
89.36	237.5597
89.95	252.0642
91.11	249.5718
92.29	249.8751
92.38	249.8989
92.38	249.8989
93.35	250.1459
94.00	250.3109
94.67	229.2390
94.67	229.2399
94.90	229.2931
94.90	229.2931
94.90	229.2931
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95.87	248.7776
96.73	236.1403
97.43	217.0143
98.44	235.3336
98.44	235.3336
98.88	220.5450
99.55	205.3867
99.55	201.3596
99.86	201.4206
100.00	222.1684
100.10	222.1911

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103.76	254.7484
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105.31	235.8887
108.00	230.3962
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110.05	0.0000
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111.00	214.7525
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115.19	234.9818
115.19	234.9818
116.30	240.3294
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117.00	206.7097
117.66	202.7350
121.11	202.3236
121.62	206.5229
121.78	206.5513
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122.32	214.8727
122.32	214.8727
122.32	214.8727
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136.48	268.4118
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140.51	0.0000
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143.76	250.0919
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144.24	230.2957
144.24	230.2957
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145.44	240.9901
147.16	248.6554
152.43	198.0432
152.70	202.2979
153.22	205.5391
154.21	210.9665
154.21	210.9665
154.21	210.9665
155.03	221.6510
156.02	214.4222
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162.64	228.2062
163.35	232.5722
163.89	213.5410
165.85	219.1610
167.43	256.6877
171.28	213.6017
171.86	216.8940
172.10	216.9312
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176.60	225.1149
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184.41	206.9180
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186.00	244.8989
186.21	251.4076
190.27	244.5115
192.34	212.3428
193.63	224.4495

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198.60	232.7874
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201.83	233.2674
202.84	208.3307
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208.81	185.0268
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209.75	173.0849
210.97	212.6819
215.65	181.4091
216.55	181.5086
218.09	211.4077
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223.80	216.5537
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227.08	199.2632
227.20	199.2769
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228.18	175.0209
228.18	175.0209
231.56	202.0062
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238.63	190.5733
238.63	190.5733
238.63	190.5733
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241.98	303.7131
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249.79	185.0459
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256.20	191.7773
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269.46	143.2743
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279.20	143.0958
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284.30	155.3512
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285.90	167.3672
286.10	167.3829
286.10	167.3829
287.40	182.1389
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290.80	172.3670
291.72	170.6128
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293.70	179.9626
295.21	186.5310
295.21	186.5310
295.21	186.5310
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296.50	199.5224
297.23	196.8372
298.57	167.5146
299.80	173.1427
299.80	173.1427
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300.09	170.4046
300.09	170.4046
300.09	170.4046
300.12	170.4069
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304.40	162.4563
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308.46	164.6283
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323.87	160.2527
323.87	160.2527
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334.20	186.3001
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338.28	147.2565
338.28	147.2565
338.32	147.2584
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351.92	128.3450
351.92	128.3450
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367.43	139.6733
367.94	135.9024
369.80	130.3038
374.96	129.6399
383.85	133.9553
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391.69	126.7148
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445.03	115.6996
445.03	115.6996
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511.85	185.8457
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513.99	484.5624
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569.67	114.7043
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574.00	101.5330
574.64	95.3977
578.91	120.1821
579.30	116.0871
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602.71	117.9772
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612.46	137.0177
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621.84	77.0333
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633.10	68.9391
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661.65	65.3074
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666.33	68.5610
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685.20	77.4164
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696.49	89.3669
697.00	92.5713
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722.78	69.6576
722.89	69.6592
722.95	73.9476
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724.18	67.5404
727.18	60.0852
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739.58	54.9034
742.81	52.7958
744.21	50.6604
747.13	49.6213
751.79	60.4830
752.31	69.1344
753.82	68.0803
755.35	58.3783
756.15	57.3101
756.87	59.4835
763.13	69.3313
763.93	57.4279
765.79	52.0348
766.42	59.6339
766.84	59.6406
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778.89	54.3884
783.80	69.7063
785.46	49.0331
792.07	52.3910
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796.30	60.0958
798.80	91.8422
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815.85	49.4132
817.79	53.8318
818.51	54.9402
819.60	49.4604
826.30	51.3778
828.27	51.4028
831.60	52.3636
831.96	52.3683
834.83	57.0024
836.80	0.0000
846.75	67.3132
848.13	70.1027
856.28	0.0000
856.80	59.1589
860.37	42.5569
867.32	44.4824
867.82	44.4873
871.10	48.2327
873.19	43.6169
874.81	46.4183
875.33	0.0000
876.40	56.6526
879.36	51.1160
880.27	51.1272
880.51	50.1998
881.50	48.3522
883.24	50.2328
884.67	54.9032
889.25	49.3726
896.60	49.4589
898.02	52.2756
899.00	53.2206
903.28	56.0779
911.07	55.2441
911.07	55.2441
919.63	44.0950
920.93	47.8623
925.00	39.4528
925.24	41.3341
926.50	44.1648
935.52	42.3724
937.48	61.2324
944.10	37.7380
946.00	47.1924
949.00	42.5024
962.29	46.4190
964.01	59.7034
966.15	51.1996
968.20	47.4284
969.11	48.3863
969.11	48.3863
977.42	52.2775
980.50	40.8995
983.50	45.6855
989.30	39.0723
996.32	55.3580
1001.03	61.1471
1001.68	69.7563
1004.76	48.7661
1021.30	0.0000
1024.50	0.0000
1034.80	40.4192
1036.00	47.1677
1037.82	53.9264
1038.57	51.0461
1038.76	0.0000

1045.16	46.2949
1046.59	54.0267
1048.07	49.2195
1050.47	52.1411
1050.47	52.1411
1062.04	55.1700
1063.62	50.3475
1076.63	35.9205
1077.35	32.0413
1078.86	30.1095
1085.78	31.1250
1093.90	43.8409
1099.22	48.7651
1112.02	34.2238
1112.84	42.0534
1115.52	50.8828
1120.29	36.2397
1120.51	37.2207
1121.28	36.2472
1124.00	0.0000
1129.67	33.3636
1131.51	0.0000
1147.95	0.0000
1167.94	31.6380
1173.22	39.5882
1175.09	30.6922
1177.93	34.6710
1189.05	38.7175
1204.90	38.8334
1205.75	31.8685
1213.00	27.9237
1221.42	40.9533
1230.97	40.0260
1235.34	41.0601
1236.41	0.0000
1238.25	39.0778
1246.25	31.1085
1260.41	0.0000
1271.85	31.2548
1274.45	39.3396
1274.54	39.3396
1291.56	28.3315
1298.22	0.0000
1312.09	28.4364
1325.50	24.4316
1325.50	24.4316
1332.49	37.7121
1333.61	32.6224
1360.21	21.5084
1362.66	0.0000
1365.15	28.7030
1368.21	30.7690
1368.53	0.0000
1376.25	33.8929
1384.27	34.9684
1394.10	31.9360
1395.20	35.0334
1407.95	17.5548
1434.06	24.8926
1436.60	19.7144
1457.56	0.0000
1460.81	18.7522
1489.15	26.1658
1509.49	21.0018
1596.49	33.0018
1620.62	19.2334
1678.03	0.0000
1691.02	22.6774
1691.02	22.6774
1706.46	0.0000
1750.46	0.0000
1764.49	22.4531
1770.23	25.2805
1771.40	23.4113
1791.20	0.0000
1808.65	36.7148
1836.01	18.9000

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202001366

Total Uranium Activity	-1.7218E+02	ug/g
Total Uranium Counting Unc.	2.0365E+02	ug/g
Total Uranium Tpu	1.0390E-04	ug/g
Total Uranium Mda	1.5057E+02	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 935338                    SAMPLE ID   : G1202001366       *
*   ANALYST       : KXG3                      DETECTOR    : GAM14             *
*   SAMPLE DATE   : 23-DEC-2009 00:00:00.00   COUNT TIME :    0 06:00:00.00   *
*   ANALYSIS DATE: 30-DEC-2009 22:43:00.23    SAMPLE ALQT:    2.000 LITER     *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 3.911E+00
        GROSS GAMMA ERROR  (pCi/LITER )   : 1.274E+00
        GROSS GAMMA MDA    (pCi/LITER )   : 1.790E+00
        GROSS GAMMA DLC    (pCi/LITER )   : 8.612E-01
```

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 04:45:19.89

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001367.CNF;1
Sample date       : 17-DEC-2009 12:00:00 Acquisition date : 30-DEC-2009 22:43:28
Sample ID         : G1202001367          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM19                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:02.19  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 935338                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	63.57*	38	400	1.60	127.00	120	17	1.75E-03	113.4	1.46E+00
2	2	66.35*	105	328	1.60	132.56	120	17	4.86E-03	34.8	
3	0	77.18	96	359	1.16	154.20	151	8	4.44E-03	36.5	
4	0	92.84*	54	450	1.28	185.49	180	11	2.52E-03	88.4	
5	0	139.46	128	391	1.58	278.65	275	10	5.94E-03	30.2	
6	0	174.89	88	374	1.61	349.46	345	10	4.05E-03	42.7	
7	0	197.10*	58	342	1.07	393.85	389	11	2.70E-03	71.6	
8	0	239.15*	87	370	1.40	477.89	472	14	4.05E-03	52.1	
9	0	294.59*	119	235	1.52	588.71	583	11	5.50E-03	28.5	
10	0	351.42	223	185	1.22	702.31	697	10	1.03E-02	13.2	
11	0	557.82*	61	47	1.37	1114.90	1111	10	2.83E-03	29.8	
12	0	594.86	84	57	4.12	1188.96	1183	12	3.90E-03	20.9	
13	0	609.04*	170	125	1.78	1217.32	1211	14	7.88E-03	21.2	
14	0	1120.46*	32	47	0.99	2240.06	2233	11	1.50E-03	55.3	
15	0	1460.17*	12	24	1.75	2919.70	2912	12	5.61E-04	115.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 31-DEC-2009 04:45:22

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001367.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 17-DEC-2009 12:00:00 Acquisition date : 30-DEC-2009 22:43:28
Sample ID : G1202001367 Sample quantity : 2.0000 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA19 Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00 Elapsed real time: 0 06:00:02.19 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
K-40	+	1460.81	*	1.135E+01	2.630E+01	2.268E+01	1.534E+00	0.500
AS-74	+	595.88	*	1.202E+01	5.077E+00	6.714E+00	3.565E-01	1.791
		634.78		5.785E+00	1.488E+01	2.510E+01	1.279E+00	0.230
AU-195	+	65.12		1.717E+01	1.206E+01	1.509E+01	1.366E+00	1.138
	+	66.83		1.002E+01	7.035E+00	8.299E+00	7.487E-01	1.208
	+	75.70		1.541E+01	1.135E+01	1.638E+01	1.491E+00	0.941
		98.88	*	7.076E+00	1.303E+01	2.021E+01	1.657E+00	0.350
		129.76		-1.800E+00	1.581E+02	2.569E+02	1.593E+01	-0.007
BI-211		72.87		1.665E+02	1.883E+02	2.822E+02	2.551E+01	0.590
	+	351.07	*	6.030E+01	1.643E+01	1.646E+01	1.072E+00	3.664
BI-214	+	609.31	*	1.881E+01	8.112E+00	5.061E+00	3.731E-01	3.717
	+	1120.29		1.753E+01	1.946E+01	1.715E+01	1.525E+00	1.022
		1764.49		2.919E+01	1.426E+01	2.764E+01	1.617E+00	1.056
PB-214		74.81		3.076E+01	5.140E+01	5.838E+01	6.842E+00	0.527
	+	77.11		3.010E+01	2.229E+01	2.924E+01	3.482E+00	1.030
		87.30		-5.375E+00	3.761E+01	5.362E+01	6.644E+00	-0.100
		241.98		1.837E+01	1.966E+01	2.900E+01	2.368E+00	0.633
	+	295.21		1.934E+01	1.115E+01	1.121E+01	9.711E-01	1.725
	+	351.92	*	2.098E+01	5.820E+00	5.803E+00	4.843E-01	3.615
PO-214		74.81		3.076E+01	5.140E+01	5.838E+01	6.842E+00	0.527
	+	77.11		3.010E+01	2.229E+01	2.924E+01	3.482E+00	1.030
		87.30		-5.375E+00	3.761E+01	5.362E+01	6.644E+00	-0.100
		241.98		1.837E+01	1.966E+01	2.900E+01	2.368E+00	0.633
	+	295.21		1.934E+01	1.115E+01	1.121E+01	9.711E-01	1.725
	+	351.92	*	2.098E+01	5.820E+00	5.803E+00	4.843E-01	3.615
PO-218		74.81		3.076E+01	5.140E+01	5.838E+01	6.842E+00	0.527
	+	77.11		3.010E+01	2.229E+01	2.924E+01	3.482E+00	1.030
		87.30		-5.375E+00	3.761E+01	5.362E+01	6.644E+00	-0.100
		241.98		1.837E+01	1.966E+01	2.900E+01	2.368E+00	0.633
	+	295.21		1.934E+01	1.115E+01	1.121E+01	9.711E-01	1.725
	+	351.92	*	2.098E+01	5.820E+00	5.803E+00	4.843E-01	3.615
TH-230	+	67.67	*	1.279E+03	8.342E+03	1.033E+03	6.698E+03	1.238
TH-234	+	63.29	*	5.001E+01	1.138E+02	1.179E+02	2.149E+01	0.424
	+	92.38		2.620E+01	4.659E+01	4.150E+01	7.588E+00	0.631

Sample ID : G1202001367 Acquisition date : 30-DEC-2009 22:43:28

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
U-238	+	63.29	*	5.001E+01	1.138E+02	1.179E+02	2.149E+01	0.424
	+	92.38		2.620E+01	4.641E+01	4.150E+01	3.749E+00	0.631

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	1.803E+00	1.412E+01	2.357E+01	1.569E+00	0.076
NA-22		1274.54	*	-1.089E-01	1.530E+00	2.520E+00	1.560E-01	-0.043
NA-24		1368.53	*	2.151E+00	1.530E+00	Half-Life too short		
AL-26		1129.67		3.342E+01	6.430E+01	1.126E+02	6.611E+00	0.297
		1808.65	*	6.127E-01	1.626E+00	2.793E+00	1.598E-01	0.219
TI-44		67.85		4.067E+00	3.025E+00	4.617E+00	4.160E-01	0.881
	+	78.38	*	3.240E+00	2.387E+00	3.119E+00	2.870E-01	1.039
SC-46		889.25	*	-1.707E+00	2.183E+00	2.954E+00	2.021E-01	-0.578
	+	1120.51		2.962E+00	3.282E+00	3.881E+00	2.301E-01	0.763
V-48		944.10		-5.883E+00	3.477E+01	5.494E+01	3.724E+00	-0.107
		983.50	*	1.091E+00	3.134E+00	5.192E+00	3.443E-01	0.210
		1312.09		3.819E+00	3.086E+00	5.739E+00	3.672E-01	0.665
CR-51		320.08	*	5.467E+00	1.751E+01	2.982E+01	1.973E+00	0.183
MN-52		744.21		-3.828E+00	8.670E+00	1.355E+01	7.578E-01	-0.282
		848.13		4.698E+00	2.491E+02	4.035E+02	2.613E+01	0.012
		935.52		-1.420E+00	9.746E+00	1.548E+01	1.054E+00	-0.092
		1246.25		1.158E+02	2.310E+02	4.015E+02	2.413E+01	0.288
		1333.61		9.703E+01	1.758E+02	3.082E+02	2.009E+01	0.315
		1434.06	*	-5.679E-02	8.383E+00	1.382E+01	8.936E-01	-0.004
MN-54		834.83	*	-1.789E+00	1.936E+00	2.473E+00	1.573E-01	-0.723
CO-56		846.75	*	-1.723E-01	1.782E+00	2.857E+00	1.847E-01	-0.060
		977.42		-6.270E+01	1.275E+02	1.944E+02	1.294E+01	-0.323
		1037.82		-3.134E+00	1.233E+01	2.017E+01	1.411E+00	-0.155
		1175.09		1.672E+00	7.969E+01	1.331E+02	7.446E+00	0.013
		1238.25		2.986E-01	2.900E+00	4.870E+00	3.077E-01	0.061
		1360.21		5.520E+00	4.589E+01	7.691E+01	5.008E+00	0.072
		1771.40		-1.082E+01	1.411E+01	2.076E+01	1.211E+00	-0.521
CO-57		122.06	*	5.313E-01	1.486E+00	2.451E+00	1.570E-01	0.217
		136.48		-3.825E+00	1.343E+01	1.876E+01	1.306E+00	-0.204
CO-58		810.76	*	5.609E-02	1.671E+00	2.715E+00	1.679E-01	0.021
FE-59		142.65		-9.506E+01	1.923E+02	2.337E+02	1.398E+01	-0.407
		192.34		2.338E+01	5.727E+01	8.231E+01	9.717E+00	0.284
		1099.22	*	-9.995E-01	3.560E+00	5.795E+00	4.067E-01	-0.172
		1291.56		-1.388E+00	4.711E+00	7.566E+00	5.901E-01	-0.183
CO-60		1173.22		-1.607E-01	1.614E+00	2.663E+00	1.487E-01	-0.060
		1332.49	*	-2.424E+00	2.128E+00	2.712E+00	1.768E-01	-0.894
ZN-65		1115.52	*	1.588E+00	3.810E+00	5.799E+00	3.465E-01	0.274
GE-68		1077.35	*	1.099E+01	4.959E+01	8.469E+01	5.236E+00	0.130
AS-73		53.44	*	6.446E+00	4.883E+01	8.110E+01	7.338E+00	0.079
SE-75	+	66.05		5.017E+02	3.534E+02	5.053E+02	5.447E+01	0.993
		96.73		9.728E+00	4.631E+01	6.711E+01	9.075E+00	0.145
		121.11		5.190E+00	7.850E+00	1.308E+01	1.262E+00	0.397

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		136.00		-5.702E-01	2.485E+00	3.483E+00	2.149E-01	-0.164
	+	198.60		1.084E+02	1.554E+02	1.638E+02	1.168E+01	0.662
		264.65	*	1.219E+00	2.148E+00	3.711E+00	2.241E-01	0.329
		279.53		-1.091E-01	4.808E+00	8.088E+00	5.217E-01	-0.013
		303.91		-2.951E+01	9.797E+01	1.621E+02	1.566E+01	-0.182
		400.65		2.086E+00	1.243E+01	2.089E+01	1.890E+00	0.100
BR-77		87.88		-6.199E+01	6.548E+03	9.398E+03	9.157E+02	-0.007
		200.40		-3.633E+02	6.309E+03	8.821E+03	5.128E+02	-0.041
	+	239.00		5.467E+02	5.709E+02	5.458E+02	3.236E+01	1.002
		249.79		4.541E+02	2.257E+03	3.640E+03	2.168E+02	0.125
		281.68		1.222E+03	2.554E+03	4.398E+03	2.637E+02	0.278
		297.23		1.688E+03	1.869E+03	2.887E+03	1.731E+02	0.585
		303.76		-1.583E+03	5.302E+03	8.774E+03	5.258E+02	-0.180
		439.47		3.803E+03	4.140E+03	7.253E+03	4.152E+02	0.524
		484.57		-3.747E+03	6.614E+03	1.051E+04	5.970E+02	-0.356
		520.65	*	-3.642E+02	3.108E+02	4.692E+02	2.627E+01	-0.776
		574.64		1.910E+03	5.935E+03	9.980E+03	5.398E+02	0.191
		578.91		-1.744E+03	2.485E+03	3.874E+03	2.088E+02	-0.450
		585.48		-3.067E+03	4.434E+03	6.889E+03	3.693E+02	-0.445
		755.35		5.994E+02	4.525E+03	7.438E+03	4.227E+02	0.081
		817.79		6.451E+02	3.703E+03	6.093E+03	3.785E+02	0.106
SR-82		698.33		2.547E+01	1.435E+03	2.344E+03	1.223E+02	0.011
		776.49	*	6.388E+00	1.549E+01	2.605E+01	1.526E+00	0.245
		1395.20		2.005E+02	4.660E+02	8.075E+02	5.243E+01	0.248
RB-83		520.41	*	-3.544E+00	3.194E+00	4.842E+00	2.712E-01	-0.732
		529.64		6.643E-01	4.799E+00	7.990E+00	4.454E-01	0.083
		552.65		3.588E+00	1.051E+01	1.550E+01	8.519E-01	0.232
RB-84		881.50	*	-6.844E-01	3.068E+00	4.847E+00	3.282E-01	-0.141
KR-85		513.99	*	-2.321E+03	5.241E+02	6.645E+02	3.733E+01	-3.493
SR-85		513.99	*	-1.171E+01	2.643E+00	3.351E+00	1.882E-01	-3.493
RB-86		1076.63	*	1.968E+01	3.028E+01	5.358E+01	3.315E+00	0.367
Y-88		898.02		-2.187E+00	2.259E+00	2.630E+00	1.833E-01	-0.831
		1836.01	*	-2.233E-01	1.790E+00	2.860E+00	1.616E-01	-0.078
ZR-88		392.90	*	2.611E-02	1.433E+00	2.391E+00	1.363E-01	0.011
Y-91		1204.90	*	2.940E+01	7.101E+02	1.187E+03	6.844E+01	0.025
NB-94		702.63	*	-2.859E-01	1.516E+00	2.436E+00	1.279E-01	-0.117
		871.10		-9.371E-01	1.620E+00	2.477E+00	1.654E-01	-0.378
NB-95		765.79	*	-8.947E-02	1.970E+00	3.188E+00	1.840E-01	-0.028
NB-95M		235.69	*	1.162E-01	6.595E+00	9.213E+00	7.023E-01	0.013
ZR-95		724.18		7.835E-01	3.870E+00	6.406E+00	4.193E-01	0.122
		756.15	*	1.619E+00	3.062E+00	5.195E+00	3.606E-01	0.312
NB-97		657.90	*	-3.925E-01	3.062E+00	Half-Life too short		
		1024.50		-4.499E+01	3.062E+00	Half-Life too short		
ZR-97		254.15		4.095E+01	3.062E+00	Half-Life too short		
		355.39		6.693E+00	3.062E+00	Half-Life too short		
		507.63	*	-3.169E+01	3.062E+00	Half-Life too short		
		602.52		-4.238E+01	3.062E+00	Half-Life too short		
		1021.30		-4.231E+01	3.062E+00	Half-Life too short		
		1147.95		2.147E+01	3.062E+00	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1362.66		2.065E+01	3.062E+00	Half-Life too short		
		1750.46		-7.676E+00	3.062E+00	Half-Life too short		
MO-99	+	140.51		2.325E+03	1.537E+03	1.788E+03	4.827E+02	1.300
		181.06		-1.400E+03	7.338E+02	9.241E+02	1.582E+02	-1.515
		366.43		-4.802E+01	2.699E+03	4.503E+03	2.626E+02	-0.011
		739.58	*	6.805E+01	3.378E+02	5.589E+02	7.644E+01	0.122
		778.00		1.205E+01	9.339E+02	1.518E+03	8.915E+01	0.008
TC-99M	+	140.51	*	6.175E+10	9.339E+02	Half-Life too short		
RH-101		127.23		9.962E-01	1.810E+00	3.003E+00	1.879E-01	0.332
	+	198.01	*	2.006E+00	2.876E+00	3.059E+00	1.776E-01	0.656
		325.23		5.516E+00	1.095E+01	1.879E+01	1.121E+00	0.294
RH-102		418.52		8.008E-01	1.360E+01	2.269E+01	1.298E+00	0.035
		475.06	*	-4.586E-01	1.298E+00	2.095E+00	1.193E-01	-0.219
		631.29		-1.464E+00	2.322E+00	3.596E+00	1.840E-01	-0.407
		697.49		1.285E+00	3.290E+00	5.533E+00	2.883E-01	0.232
		766.84		1.721E+00	4.467E+00	7.487E+00	4.327E-01	0.230
		1046.59		2.082E+00	4.749E+00	8.263E+00	5.243E-01	0.252
		1112.84		-4.221E+00	1.003E+01	1.425E+01	8.520E-01	-0.296
RU-103		497.08	*	-2.412E+00	1.912E+00	2.847E+00	3.582E-01	-0.847
	+	610.33		1.976E+02	8.914E+01	9.202E+01	1.400E+01	2.147
RH-106		511.85		-4.060E+01	1.538E+01	2.268E+01	1.275E+00	-1.790
		621.84	*	-5.253E+00	1.401E+01	2.226E+01	2.546E+00	-0.236
		1050.47		-8.807E+00	9.427E+01	1.566E+02	9.907E+00	-0.056
RU-106		511.85		-4.060E+01	1.538E+01	2.268E+01	1.275E+00	-1.790
		621.84	*	-5.253E+00	1.400E+01	2.226E+01	1.151E+00	-0.236
		1050.47		-8.807E+00	9.427E+01	1.566E+02	9.907E+00	-0.056
AG-108M		433.93	*	-8.696E-01	1.472E+00	2.347E+00	1.462E-01	-0.370
		614.37		2.908E-01	1.909E+00	2.754E+00	1.585E-01	0.106
		722.95		-1.606E-01	1.795E+00	2.901E+00	1.723E-01	-0.055
CD-109		88.03	*	-2.038E+00	4.790E+01	6.863E+01	6.689E+00	-0.030
AG-110M		657.75	*	-7.232E-01	1.562E+00	2.458E+00	1.324E-01	-0.294
		677.61		1.333E+00	1.408E+01	2.316E+01	1.263E+00	0.058
		706.67		8.098E+00	9.565E+00	1.656E+01	9.378E-01	0.489
		763.93		6.126E-01	6.970E+00	1.141E+01	6.974E-01	0.054
		884.67		-6.991E-01	2.278E+00	3.571E+00	2.552E-01	-0.196
		937.48		-8.372E+00	5.179E+00	6.945E+00	4.995E-01	-1.205
		1384.27		2.841E+00	7.104E+00	1.226E+01	8.361E-01	0.232
IN-111		171.28		1.733E+00	4.238E+01	5.991E+01	3.435E+00	0.029
		245.39	*	-2.225E+01	4.295E+01	5.765E+01	3.427E+00	-0.386
IN-113M		391.69	*	-8.191E-01	2.111E+00	3.439E+00	2.096E-01	-0.238
SN-113		391.69	*	-8.191E-01	2.111E+00	3.439E+00	2.096E-01	-0.238
IN-114M		190.27	*	1.083E+00	1.004E+01	1.568E+01	9.065E-01	0.069
CD-115		260.90		-8.484E+01	4.152E+03	6.618E+03	3.954E+02	-0.013
		492.35		3.893E+02	1.051E+03	1.780E+03	1.008E+02	0.219
		527.90	*	3.018E+00	3.097E+02	5.110E+02	2.851E+01	0.006
SN-117M		156.02		-8.387E+01	1.088E+02	1.701E+02	9.899E+00	-0.493
		158.56	*	-8.130E-01	2.700E+00	4.312E+00	2.499E-01	-0.189
SB-122		563.90	*	4.338E+01	7.548E+01	1.134E+02	6.185E+00	0.382
		692.80		-4.719E+02	1.271E+03	2.010E+03	1.039E+02	-0.235

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
I-123		159.00	*	-1.448E+00	1.271E+03	Half-Life too short		
		528.96		-1.141E+03	1.271E+03	Half-Life too short		
TE-123M		159.00	*	-5.313E-02	1.496E+00	2.417E+00	1.418E-01	-0.022
I-124		602.71	*	-3.506E+00	2.796E+01	3.922E+01	2.069E+00	-0.089
		722.78		-1.289E+01	1.441E+02	2.329E+02	1.261E+01	-0.055
		1325.50		1.051E+03	1.180E+03	2.125E+03	1.376E+02	0.495
		1376.25		1.088E+03	9.757E+02	1.801E+03	1.171E+02	0.604
		1509.49		-4.150E+02	5.786E+02	8.694E+02	5.548E+01	-0.477
		1691.02		1.401E+02	1.780E+02	3.171E+02	1.916E+01	0.442
SB-124		602.71		-2.603E-01	2.076E+00	2.912E+00	1.537E-01	-0.089
		645.85		-2.629E+00	2.159E+01	3.497E+01	2.053E+00	-0.075
		709.31		2.274E+01	1.256E+02	2.076E+02	1.101E+01	0.110
		713.82		-2.142E+01	6.644E+01	1.051E+02	1.046E+01	-0.204
		722.78		-1.388E+00	1.551E+01	2.507E+01	1.431E+00	-0.055
		968.20		8.643E+01	9.640E+01	1.680E+02	1.124E+01	0.514
		1045.16		1.255E+00	1.013E+02	1.700E+02	1.080E+01	0.007
		1325.50		1.209E+02	1.356E+02	2.442E+02	1.582E+01	0.495
		1368.21		3.488E+01	7.610E+01	1.321E+02	1.616E+01	0.264
		1436.60		4.119E+01	1.654E+02	2.809E+02	1.815E+01	0.147
		1691.02	*	3.557E+00	4.521E+00	8.050E+00	5.248E-01	0.442
SB-125		427.89	*	-1.415E+00	4.182E+00	6.798E+00	4.060E-01	-0.208
		463.38		-5.019E+00	1.263E+01	2.039E+01	1.363E+00	-0.246
		600.56		2.686E+00	9.677E+00	1.412E+01	8.853E-01	0.190
		635.90		7.722E+00	1.192E+01	2.049E+01	1.270E+00	0.377
TE-125M		109.28	*	-4.978E+01	5.330E+02	8.666E+02	7.970E+01	-0.057
I-126		388.63		4.040E-01	8.832E+00	1.476E+01	8.441E-01	0.027
		666.33	*	5.054E-01	7.107E+00	1.168E+01	5.795E-01	0.043
		753.82		-5.068E+01	6.016E+01	9.043E+01	5.128E+00	-0.560
SB-126		223.80		1.060E+02	1.899E+02	3.121E+02	1.838E+01	0.340
		278.60		-9.537E+01	1.006E+02	1.611E+02	9.659E+00	-0.592
		296.50		1.350E+02	7.547E+01	1.212E+02	7.270E+00	1.113
		414.70		-1.432E+00	3.147E+00	5.086E+00	2.909E-01	-0.282
		415.30		-1.984E+02	2.693E+02	4.276E+02	2.446E+01	-0.464
		555.20		-3.866E+01	1.993E+02	2.785E+02	1.528E+01	-0.139
		573.80		2.802E+00	4.305E+01	7.110E+01	3.848E+00	0.039
		593.00		5.594E+01	4.191E+01	6.792E+01	3.617E+00	0.824
		656.30		-2.108E+01	1.414E+02	2.285E+02	1.134E+01	-0.092
		666.33		2.104E-01	2.959E+00	4.863E+00	2.413E-01	0.043
		675.00		8.051E+01	8.132E+01	1.428E+02	7.185E+00	0.564
		695.00		1.119E-01	3.120E+00	5.104E+00	2.649E-01	0.022
		697.00		1.533E+00	1.056E+01	1.743E+01	9.071E-01	0.088
		720.50	*	-1.057E+00	7.465E+00	9.559E+00	5.158E-01	-0.111
		856.80		-1.328E+01	1.813E+01	2.715E+01	1.779E+00	-0.489
		989.30		-1.083E+01	5.230E+01	8.223E+01	5.434E+00	-0.132
		1034.80		8.404E+01	3.202E+02	5.499E+02	3.522E+01	0.153
		1213.00		-1.184E+02	1.602E+02	2.539E+02	1.476E+01	-0.466
SN-126	+	64.28		1.979E+01	4.500E+01	5.427E+01	8.383E+00	0.365
		86.94		-1.282E-01	1.991E+01	2.859E+01	1.189E+01	-0.004
		87.57	*	-1.262E+00	4.784E+00	6.775E+00	6.586E-01	-0.186

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
SB-127		61.10		2.054E+03	2.718E+03	4.075E+03	4.554E+02	0.504
		252.40		3.626E+01	1.781E+02	2.863E+02	1.187E+02	0.127
		290.80		2.897E+02	8.870E+02	1.327E+03	1.159E+02	0.218
		411.60		1.148E+02	4.150E+02	7.013E+02	9.811E+01	0.164
		444.90		-1.536E+02	3.335E+02	5.360E+02	5.505E+01	-0.287
		473.00		-3.898E+00	5.664E+01	9.334E+01	9.953E+00	-0.042
		543.00		4.228E+02	5.636E+02	9.737E+02	1.206E+02	0.434
		603.60		-1.549E+02	4.875E+02	6.707E+02	6.706E+01	-0.231
		685.20	*	-1.439E+01	4.480E+01	7.113E+01	6.011E+00	-0.202
		698.50		2.368E+00	5.014E+02	8.180E+02	1.137E+02	0.003
		722.20		-1.086E+03	1.290E+03	1.567E+03	1.307E+02	-0.693
		783.80		-1.098E+00	1.137E+02	1.843E+02	1.888E+01	-0.006
XE-127		57.60		7.672E+01	3.784E+02	5.544E+02	5.124E+01	0.138
		145.22		-8.827E+00	4.161E+01	5.826E+01	3.464E+00	-0.152
		172.10		5.659E+00	7.322E+00	1.077E+01	6.176E-01	0.526
		202.84	*	-1.689E+00	2.796E+00	3.774E+00	2.197E-01	-0.448
		374.96		-3.891E+00	1.212E+01	1.470E+01	8.513E-01	-0.265
I-131		80.18		-7.081E+01	2.300E+02	3.253E+02	3.032E+01	-0.218
		284.30		-1.205E+01	6.056E+01	1.009E+02	6.674E+00	-0.119
		364.48	*	1.048E+00	4.711E+00	7.967E+00	5.175E-01	0.131
		636.97		1.969E+01	5.825E+01	9.795E+01	5.728E+00	0.201
		722.89		-2.359E+01	2.636E+02	4.261E+02	2.337E+01	-0.055
TE-132		49.72		-5.107E+02	8.383E+02	1.351E+03	1.398E+02	-0.378
		111.76		8.631E+02	1.204E+03	2.012E+03	1.850E+02	0.429
		116.30		-7.995E+02	1.105E+03	1.744E+03	1.563E+02	-0.458
		228.16	*	-6.653E+00	2.570E+01	4.064E+01	5.731E+00	-0.164
BA-133		53.15		5.622E+01	2.126E+02	3.549E+02	3.202E+01	0.158
		79.62		-2.952E+01	7.433E+01	1.045E+02	1.629E+01	-0.283
		81.00		-2.879E+00	5.745E+00	8.018E+00	1.304E+00	-0.359
		276.40		-1.322E+00	1.642E+01	2.755E+01	3.595E+00	-0.048
		302.84		7.329E-01	6.875E+00	1.161E+01	1.365E+00	0.063
		356.01	*	7.763E-01	2.346E+00	3.496E+00	4.055E-01	0.222
		383.85		-5.352E+00	1.410E+01	2.299E+01	2.492E+00	-0.233
I-133		510.53		-1.140E+01	1.410E+01	Half-Life too short		
		529.87	*	1.464E-02	1.410E+01	Half-Life too short		
		706.58		4.333E+00	1.410E+01	Half-Life too short		
		856.28		-7.940E+00	1.410E+01	Half-Life too short		
		875.33		-1.555E-01	1.410E+01	Half-Life too short		
		1236.41		1.209E+00	1.410E+01	Half-Life too short		
		1298.22		6.551E-01	1.410E+01	Half-Life too short		
CS-134		475.35		-3.511E+01	8.522E+01	1.370E+02	7.803E+00	-0.256
		563.23		-4.524E+00	2.016E+01	2.810E+01	1.570E+00	-0.161
		569.32		-3.323E+00	9.687E+00	1.556E+01	8.738E-01	-0.214
		604.70		-4.980E-01	1.834E+00	2.535E+00	1.344E-01	-0.196
		795.84	*	7.911E-01	1.977E+00	3.316E+00	2.027E-01	0.239
		801.93		-1.859E+00	2.251E+01	3.045E+01	1.871E+00	-0.061
		1038.57		-8.148E+01	1.569E+02	2.500E+02	1.597E+01	-0.326
		1167.94		1.527E+01	8.884E+01	1.507E+02	8.468E+00	0.101
		1365.15		-2.558E+01	5.818E+01	9.162E+01	6.432E+00	-0.279

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CS-135		268.24	*	-2.047E+00	7.567E+00	1.260E+01	9.828E-01	-0.162
I-135		288.45		-1.399E+09	7.567E+00	Half-Life too short		
		417.63		-1.540E+10	7.567E+00	Half-Life too short		
		546.56		-1.158E+10	7.567E+00	Half-Life too short		
		836.80		6.985E+09	7.567E+00	Half-Life too short		
		1038.76		-6.590E+09	7.567E+00	Half-Life too short		
		1124.00		5.470E+09	7.567E+00	Half-Life too short		
		1131.51		3.502E+09	7.567E+00	Half-Life too short		
		1260.41	*	7.588E+08	7.567E+00	Half-Life too short		
		1457.56		1.839E+10	7.567E+00	Half-Life too short		
		1678.03		2.485E+09	7.567E+00	Half-Life too short		
		1706.46		3.748E+09	7.567E+00	Half-Life too short		
		1791.20		-2.922E+09	7.567E+00	Half-Life too short		
CS-136	+	66.91		7.736E+01	5.520E+01	7.332E+01	1.148E+01	1.055
		86.29		2.095E+01	5.245E+01	8.424E+01	1.141E+01	0.249
		153.22		-2.019E+00	3.130E+01	5.054E+01	3.670E+00	-0.040
		163.89		-2.324E+01	5.301E+01	8.407E+01	6.058E+00	-0.276
		176.55		1.721E+01	2.188E+01	3.214E+01	2.078E+00	0.535
		273.65		1.197E+01	1.875E+01	3.249E+01	2.203E+00	0.368
		340.57		-1.420E+00	5.196E+00	8.574E+00	5.387E-01	-0.166
		818.51		2.530E+00	2.998E+00	5.215E+00	3.247E-01	0.485
		1048.07	*	-1.791E-01	4.127E+00	6.889E+00	4.702E-01	-0.026
		1235.34		1.251E+01	1.741E+01	3.089E+01	3.111E+00	0.405
BA-137M		661.65	*	-5.685E-01	1.984E+00	2.608E+00	1.284E-01	-0.218
CS-137		661.65	*	-6.010E-01	2.097E+00	2.757E+00	1.366E-01	-0.218
CE-139		165.85	*	-4.922E-01	1.554E+00	2.476E+00	1.419E-01	-0.199
BA-140		162.64		2.515E+00	3.747E+01	6.075E+01	3.939E+00	0.041
		304.84		-1.687E+01	5.502E+01	9.069E+01	2.479E+01	-0.186
		423.70		-7.303E+00	9.759E+01	1.396E+02	4.435E+01	-0.052
		537.32	*	-1.755E+01	1.810E+01	1.697E+01	5.510E+00	-1.034
LA-140		328.77		2.532E+00	1.284E+01	2.173E+01	1.442E+00	0.117
		432.53		1.059E+01	8.206E+01	1.375E+02	8.713E+00	0.077
		487.03		4.008E+00	5.845E+00	1.009E+01	6.515E-01	0.397
		751.79		3.625E+01	6.641E+01	1.130E+02	7.888E+00	0.321
		815.85		-1.110E+01	1.319E+01	1.961E+01	1.474E+00	-0.566
		867.82		6.724E+01	5.794E+01	1.028E+02	7.431E+00	0.654
		919.63		-8.566E-01	1.177E+02	1.895E+02	1.759E+01	-0.005
		925.24		5.284E+00	4.486E+01	7.309E+01	5.489E+00	0.072
		1596.49	*	-2.794E+00	5.109E+00	6.253E+00	3.904E-01	-0.447
CE-141		145.44	*	-6.938E-01	3.746E+00	5.252E+00	3.240E-01	-0.132
CE-143		57.37		4.978E-03	3.746E+00	Half-Life too short		
		231.56		5.549E-03	3.746E+00	Half-Life too short		
	+	293.26	*	8.269E-03	3.746E+00	Half-Life too short		
	+	350.59		2.147E-01	3.746E+00	Half-Life too short		
		490.36		-1.566E-02	3.746E+00	Half-Life too short		
		664.57		7.476E-03	3.746E+00	Half-Life too short		
		721.93		-2.635E-02	3.746E+00	Half-Life too short		
CE-144		80.11		-4.146E+01	1.208E+02	1.706E+02	1.582E+01	-0.243
		133.54	*	-4.901E+00	1.182E+01	1.816E+01	2.604E+00	-0.270

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PM-144		476.78		6.503E-01	2.929E+00	4.923E+00	3.373E-01	0.132
		618.01		4.947E-01	1.412E+00	2.376E+00	1.326E-01	0.208
		696.49	*	3.542E-01	1.460E+00	2.429E+00	1.264E-01	0.146
		778.57		9.826E+00	9.187E+01	1.506E+02	8.860E+00	0.065
PR-144		696.49	*	2.398E+01	9.888E+01	1.645E+02	8.555E+00	0.146
		1489.15		-1.727E+02	6.626E+02	1.061E+03	6.798E+01	-0.163
PM-146		453.90	*	3.448E-01	2.017E+00	3.380E+00	2.896E-01	0.102
		633.02		2.771E+01	6.029E+01	1.010E+02	3.708E+01	0.274
		735.90		2.024E+00	6.562E+00	1.092E+01	3.038E+00	0.185
		747.13		-2.409E-01	3.973E+00	6.427E+00	7.983E-01	-0.037
ND-147		91.11		4.063E+01	1.587E+01	2.463E+01	2.437E+00	1.649
		319.41		-3.965E+00	1.478E+02	2.475E+02	1.479E+01	-0.016
		439.89		2.251E+02	2.405E+02	4.220E+02	2.416E+01	0.534
		531.02	*	6.372E-01	2.319E+01	3.831E+01	5.143E+00	0.017
PM-149		285.90	*	-3.709E+02	2.668E+03	4.460E+03	6.356E+02	-0.083
EU-152		121.78		1.089E+00	4.320E+00	7.099E+00	5.737E-01	0.153
		244.69		-1.430E+01	1.968E+01	2.602E+01	1.546E+00	-0.550
		344.27	*	3.664E-02	4.952E+00	7.832E+00	5.201E-01	0.005
		443.98		-3.302E+01	4.401E+01	6.937E+01	3.969E+00	-0.476
		778.89		6.571E-01	1.078E+01	1.760E+01	1.035E+00	0.037
		867.32		4.663E+01	3.727E+01	6.661E+01	4.427E+00	0.700
		964.01		-1.195E+01	1.200E+01	1.740E+01	1.167E+00	-0.687
		1085.78		-3.293E+00	1.478E+01	2.416E+01	1.483E+00	-0.136
		1112.02		-1.344E+00	1.330E+01	2.038E+01	1.219E+00	-0.066
		1407.95		6.640E+00	7.917E+00	1.428E+01	9.262E-01	0.465
GD-153		69.67		-4.970E+01	1.037E+02	1.460E+02	1.315E+01	-0.340
		83.37		-1.906E+02	9.174E+02	1.270E+03	1.200E+02	-0.150
		97.43	*	3.816E+00	4.745E+00	7.088E+00	5.931E-01	0.538
		103.18		-4.349E+00	5.817E+00	9.199E+00	7.136E-01	-0.473
EU-154		123.07		2.011E-01	3.065E+00	5.001E+00	4.882E-01	0.040
		247.94		7.144E+00	1.908E+01	3.104E+01	2.990E+00	0.230
		591.81		1.729E+00	2.901E+01	4.154E+01	3.947E+00	0.042
		723.30		5.584E-01	7.499E+00	1.229E+01	8.320E-01	0.045
		756.87		1.819E+01	3.394E+01	5.756E+01	5.801E+00	0.316
		873.19		7.434E-01	1.359E+01	2.205E+01	2.420E+00	0.034
		996.32		1.157E+01	1.568E+01	2.679E+01	4.520E+00	0.432
		1004.76		4.018E+00	8.073E+00	1.417E+01	1.445E+00	0.284
		1274.45	*	-1.230E+00	4.341E+00	6.970E+00	6.677E-01	-0.177
EU-155		48.70		9.890E+00	1.427E+02	2.367E+02	1.944E+01	0.042
		60.01		1.899E+02	3.090E+02	4.616E+02	4.271E+01	0.412
		86.54		1.306E+00	5.469E+00	8.382E+00	8.154E-01	0.156
		105.31	*	2.006E+00	6.092E+00	1.007E+01	7.736E-01	0.199
TB-160		86.79		2.715E+00	1.433E+01	2.191E+01	2.118E+00	0.124
	+	197.04		3.377E+01	4.841E+01	5.256E+01	3.050E+00	0.643
		215.65		-1.648E+01	3.748E+01	5.886E+01	3.451E+00	-0.280
		298.57		-1.749E-01	6.067E+00	8.865E+00	5.316E-01	-0.020
		879.36	*	-1.781E-01	6.274E+00	1.010E+01	6.820E-01	-0.018
		962.29		1.293E+01	2.003E+01	3.418E+01	2.295E+00	0.378
		966.15		-1.196E-01	7.797E+00	1.251E+01	8.382E-01	-0.010

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1177.93		1.574E+00	1.305E+01	2.200E+01	1.234E+00	0.072
		1271.85		-2.127E+00	2.552E+01	4.198E+01	2.586E+00	-0.051
HO-166M		80.57		-2.673E+00	1.554E+01	2.216E+01	2.060E+00	-0.121
		184.41		-2.425E+00	2.333E+00	3.203E+00	1.846E-01	-0.757
		280.46		1.101E+00	3.812E+00	6.508E+00	3.902E-01	0.169
		410.95		7.654E+00	1.111E+01	1.922E+01	1.099E+00	0.398
		711.68	*	-3.674E-01	2.639E+00	4.251E+00	2.263E-01	-0.086
		752.31		-2.556E+00	1.224E+01	1.955E+01	1.106E+00	-0.131
		810.29		7.432E-01	2.527E+00	4.205E+00	2.585E-01	0.177
TM-171		51.35		1.769E+03	1.819E+03	3.110E+03	2.741E+02	0.569
		52.39		2.417E+02	9.385E+02	1.567E+03	1.402E+02	0.154
		59.40		9.583E+02	1.673E+03	2.495E+03	2.315E+02	0.384
	+	66.72	*	3.035E+03	2.130E+03	2.902E+03	2.619E+02	1.046
HF-175		89.36		-6.672E+01	8.159E+01	1.117E+02	1.063E+01	-0.597
		343.40	*	-2.823E-01	1.666E+00	2.764E+00	1.635E-01	-0.102
		433.00		-3.851E+01	9.303E+01	1.502E+02	8.599E+00	-0.256
LU-176		88.36		-1.336E+00	1.112E+01	1.587E+01	1.537E+00	-0.084
		201.83		-4.341E-02	1.704E+00	2.386E+00	1.388E-01	-0.018
		306.84	*	-7.026E-01	1.161E+00	1.888E+00	1.131E-01	-0.372
		401.10		-9.979E+00	3.302E+02	5.489E+02	3.135E+01	-0.018
LU-177		112.95		-7.928E+00	7.840E+01	1.273E+02	8.863E+00	-0.062
		208.36	*	1.462E+01	4.571E+01	7.446E+01	4.348E+00	0.196
LU-177M		52.97		2.182E+01	9.550E+01	1.592E+02	1.434E+01	0.137
		54.07		-4.563E+00	5.031E+01	8.282E+01	7.533E+00	-0.055
		61.30		7.649E+01	9.411E+01	1.415E+02	1.300E+01	0.541
		121.62		5.161E+00	2.200E+01	3.613E+01	2.317E+00	0.143
		147.16		-7.737E+00	3.452E+01	5.543E+01	3.282E+00	-0.140
		171.86		1.330E+01	2.993E+01	4.328E+01	2.482E+00	0.307
		218.09		-4.631E+01	4.904E+01	6.652E+01	3.905E+00	-0.696
		268.79		2.161E+00	3.678E+01	6.218E+01	3.722E+00	0.035
		319.02		5.480E-01	1.263E+01	2.123E+01	1.269E+00	0.026
		367.43		-2.881E+00	4.287E+01	7.133E+01	4.156E+00	-0.040
		413.65	*	-3.944E+00	8.108E+00	1.309E+01	7.487E-01	-0.301
HF-181		56.28		-4.493E+01	5.560E+01	8.529E+01	7.850E+00	-0.527
		57.53		6.099E+00	3.198E+01	4.682E+01	4.327E+00	0.130
	+	65.20		9.375E+01	6.582E+01	1.011E+02	9.153E+00	0.927
		133.02		-2.364E+00	3.584E+00	5.664E+00	3.476E-01	-0.417
		136.25		-4.650E+00	2.856E+01	4.018E+01	2.443E+00	-0.116
		345.85		2.038E+00	1.000E+01	1.479E+01	8.739E-01	0.138
		482.03	*	-7.950E-01	1.872E+00	3.006E+00	1.709E-01	-0.264
W-181		56.28		-2.076E+01	2.228E+01	3.395E+01	3.125E+00	-0.612
		57.53		2.425E+00	1.274E+01	1.865E+01	1.724E+00	0.130
	+	65.20	*	3.706E+01	2.601E+01	3.997E+01	3.618E+00	0.927
TA-182	+	67.75		1.214E+01	8.522E+00	1.097E+01	9.888E-01	1.106
		100.10		2.606E+00	9.534E+00	1.575E+01	1.270E+00	0.165
		152.43		-3.003E+00	1.732E+01	2.783E+01	1.631E+00	-0.108
		222.10		-6.840E+00	1.753E+01	2.757E+01	1.622E+00	-0.248
		1001.68		-5.050E+01	8.214E+01	1.303E+02	8.539E+00	-0.388
	+	1121.28		8.209E+00	9.097E+00	1.090E+01	6.458E-01	0.753

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1189.05		-3.763E+00	1.054E+01	1.691E+01	9.596E-01	-0.223
		1221.42	*	1.431E+00	5.820E+00	9.951E+00	5.835E-01	0.144
		1230.97		1.613E+00	1.433E+01	2.413E+01	1.428E+00	0.067
RE-183		57.98		3.576E-01	1.274E+01	1.848E+01	1.710E+00	0.019
		59.32		3.864E+00	6.786E+00	1.012E+01	9.390E-01	0.382
	+	67.20		2.139E+01	1.502E+01	2.003E+01	1.806E+00	1.068
		162.32	*	2.379E+00	5.820E+00	9.566E+00	5.509E-01	0.249
		208.81		5.356E+00	4.758E+01	7.680E+01	4.486E+00	0.070
		291.72		2.231E+01	5.172E+01	7.787E+01	4.671E+00	0.286
RE-184		57.98		1.330E+00	4.736E+01	6.872E+01	6.358E+00	0.019
		59.32		1.436E+01	2.522E+01	3.760E+01	3.489E+00	0.382
	+	67.20		7.952E+01	5.582E+01	7.446E+01	6.715E+00	1.068
		161.27		2.434E+01	1.873E+01	3.183E+01	1.836E+00	0.765
		216.55		-2.091E+01	1.532E+01	2.027E+01	1.189E+00	-1.031
		252.85	*	5.392E+00	1.243E+01	2.027E+01	1.208E+00	0.266
		318.01		8.865E+00	2.197E+01	3.758E+01	2.246E+00	0.236
		792.07		1.209E+00	4.341E+01	7.057E+01	4.229E+00	0.017
		903.28		-4.281E+01	5.279E+01	5.593E+01	3.862E+00	-0.765
		920.93		2.440E+00	2.112E+01	3.438E+01	2.356E+00	0.071
OS-185		59.72		1.022E+01	1.820E+01	2.712E+01	2.514E+00	0.377
		61.14		8.148E+00	1.017E+01	1.530E+01	1.407E+00	0.533
		69.30		-9.065E+00	1.865E+01	2.624E+01	2.363E+00	-0.345
		592.07		3.101E+01	1.188E+02	1.740E+02	9.273E+00	0.178
		646.12	*	-1.157E+00	1.907E+00	2.967E+00	1.491E-01	-0.390
		717.42		-2.208E+01	3.651E+01	5.615E+01	3.016E+00	-0.393
		874.81		-1.833E+00	2.610E+01	4.187E+01	2.810E+00	-0.044
		880.27		8.492E+00	3.447E+01	5.691E+01	3.847E+00	0.149
RE-188		155.03	*	3.683E+00	8.649E+00	1.425E+01	8.309E-01	0.258
		477.96		4.974E+01	1.337E+02	2.269E+02	1.291E+01	0.219
		633.10		5.744E+01	1.185E+02	2.016E+02	1.029E+01	0.285
W-188	+	63.58		1.978E+03	4.491E+03	5.386E+03	4.900E+02	0.367
		227.08		8.346E+01	6.522E+02	1.051E+03	6.200E+01	0.079
		290.67	*	2.297E+01	4.079E+02	5.999E+02	3.598E+01	0.038
IR-192	+	295.96		1.453E+01	8.328E+00	1.024E+01	6.233E-01	1.418
		308.46		-1.914E+00	4.454E+00	7.312E+00	4.426E-01	-0.262
		316.51	*	-4.874E-01	1.693E+00	2.800E+00	1.682E-01	-0.174
		468.07		1.096E+00	2.956E+00	5.013E+00	3.310E-01	0.219
		604.41		-2.865E+00	2.395E+01	3.360E+01	3.726E+00	-0.085
		612.46		6.530E+00	3.548E+01	5.130E+01	3.664E+00	0.127
TL-200		367.94	*	-2.160E-03	3.548E+01	Half-Life too short		
		579.30		-4.412E-02	3.548E+01	Half-Life too short		
		828.27		3.366E-02	3.548E+01	Half-Life too short		
		1205.75		-3.653E-03	3.548E+01	Half-Life too short		
TL-201		68.90		-1.059E+02	2.123E+02	2.985E+02	2.689E+01	-0.355
		70.82		-9.071E+01	1.211E+02	1.679E+02	1.514E+01	-0.540
		80.30		-4.965E+01	2.004E+02	2.845E+02	2.642E+01	-0.175
		135.34		-4.585E+02	1.132E+03	1.571E+03	9.577E+01	-0.292
		167.43	*	-1.434E+02	2.599E+02	4.097E+02	2.347E+01	-0.350
TL-202		68.90		-1.250E+01	2.505E+01	3.522E+01	3.172E+00	-0.355

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		70.82		-1.067E+01	1.425E+01	1.976E+01	1.781E+00	-0.540
		80.30		-5.844E+00	2.359E+01	3.349E+01	3.110E+00	-0.175
		439.56	*	2.621E+00	2.907E+00	5.088E+00	2.912E-01	0.515
HG-203		70.83		-7.645E+01	6.799E+01	9.152E+01	1.268E+01	-0.835
		72.87		3.235E+01	3.672E+01	5.482E+01	7.389E+00	0.590
		82.60		6.636E+00	6.030E+01	9.199E+01	1.311E+01	0.072
		279.20	*	-1.177E+00	1.805E+00	2.941E+00	1.865E-01	-0.400
BI-207		72.80		4.908E+00	1.117E+01	1.643E+01	1.484E+00	0.299
		74.97		3.025E+00	8.746E+00	9.896E+00	8.991E-01	0.306
		84.90		1.756E+00	1.157E+01	1.621E+01	1.547E+00	0.108
		569.67		-9.237E-01	1.513E+00	2.384E+00	1.294E-01	-0.388
		1063.62	*	-1.424E+00	1.969E+00	3.050E+00	1.909E-01	-0.467
		1770.23		-1.492E+01	2.878E+01	4.395E+01	2.564E+00	-0.340
TL-207		81.07		-6.325E+00	1.265E+01	1.770E+01	1.650E+00	-0.357
		83.78		-2.014E+00	7.798E+00	1.076E+01	1.020E+00	-0.187
		94.90		1.967E+01	1.431E+01	2.179E+01	1.892E+00	0.903
		122.32		1.910E+01	1.041E+02	1.706E+02	1.230E+01	0.112
		144.24		-4.138E+01	4.975E+01	5.906E+01	4.347E+00	-0.701
		154.21		8.995E+00	2.003E+01	3.304E+01	2.328E+00	0.272
		269.46		3.413E-02	8.829E+00	1.489E+01	9.291E-01	0.002
		323.87	*	1.505E+01	3.263E+01	5.576E+01	9.243E+00	0.270
		338.28		-1.285E+01	5.456E+01	7.598E+01	8.058E+00	-0.169
		445.03		-6.037E+01	1.043E+02	1.663E+02	1.700E+01	-0.363
TL-208		72.80		5.338E+01	1.214E+02	1.787E+02	1.615E+01	0.299
		74.97		3.286E+01	9.508E+01	1.075E+02	1.356E+01	0.306
		277.35		-9.686E+00	1.680E+01	2.744E+01	2.927E+00	-0.353
		510.84		-2.049E+01	1.459E+01	2.249E+01	2.262E+00	-0.911
		583.14	*	-1.629E+00	2.188E+00	2.777E+00	1.754E-01	-0.586
		763.13		-5.288E+01	9.663E+01	1.495E+02	1.852E+01	-0.354
		860.37		7.973E+00	1.200E+01	2.058E+01	1.522E+00	0.387
		1093.90		-8.498E+01	4.246E+02	6.956E+02	1.562E+02	-0.122
PO-209		260.50		-1.306E+02	5.082E+02	8.001E+02	4.780E+01	-0.163
		262.80		4.872E+02	1.413E+03	2.294E+03	1.371E+02	0.212
		896.60	*	6.545E+01	3.148E+02	5.181E+02	3.578E+01	0.126
BI-210		46.50	*	-2.183E+02	2.459E+02	3.376E+02	2.776E+01	-0.647
PB-210		46.50	*	-2.183E+02	2.459E+02	3.376E+02	2.776E+01	-0.647
PO-210		46.50	*	-2.183E+02	2.457E+02	3.376E+02	2.434E+01	-0.647
PB-211		404.84	*	2.847E+01	4.704E+01	7.521E+01	4.688E+01	0.379
		427.08		-1.064E+01	9.379E+01	1.544E+02	9.540E+01	-0.069
		831.96		-7.402E+00	5.366E+01	8.545E+01	5.332E+01	-0.087
BI-212		727.18	*	3.463E+00	1.258E+01	2.093E+01	1.560E+00	0.165
		785.46		4.705E+01	7.425E+01	1.271E+02	7.544E+00	0.370
		1620.62		5.562E+01	6.489E+01	1.170E+02	7.249E+00	0.475
PB-212		74.81		1.809E+01	3.025E+01	3.434E+01	4.475E+00	0.527
	+	77.11		1.780E+01	1.311E+01	1.875E+01	1.717E+00	0.949
		87.30		-3.180E+00	2.226E+01	3.172E+01	4.420E+00	-0.100
		115.19		-1.323E+02	2.029E+02	3.217E+02	2.190E+01	-0.411
	+	238.63	*	5.482E+00	5.731E+00	5.426E+00	4.033E-01	1.010
		300.09		1.977E+01	4.244E+01	6.399E+01	5.367E+00	0.309

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PO-212		74.81		1.809E+01	3.025E+01	3.434E+01	4.475E+00	0.527
	+	77.11		1.780E+01	1.311E+01	1.875E+01	1.717E+00	0.949
		87.30		-3.180E+00	2.226E+01	3.172E+01	4.420E+00	-0.100
		115.19		-1.323E+02	2.029E+02	3.217E+02	2.190E+01	-0.411
	+	238.63	*	5.482E+00	5.731E+00	5.426E+00	4.033E-01	1.010
		300.09		1.977E+01	4.244E+01	6.399E+01	5.367E+00	0.309
PO-215		81.07		-6.325E+00	1.265E+01	1.770E+01	1.650E+00	-0.357
		83.78		-2.014E+00	7.798E+00	1.076E+01	1.020E+00	-0.187
		94.90		1.967E+01	1.431E+01	2.179E+01	1.892E+00	0.903
		122.32		1.910E+01	1.041E+02	1.706E+02	1.230E+01	0.112
		144.24		-4.138E+01	4.975E+01	5.906E+01	4.347E+00	-0.701
		154.21		8.995E+00	2.003E+01	3.304E+01	2.328E+00	0.272
		269.46		3.413E-02	8.829E+00	1.489E+01	9.291E-01	0.002
		323.87	*	1.505E+01	3.263E+01	5.576E+01	9.243E+00	0.270
		338.28		-1.285E+01	5.456E+01	7.598E+01	8.058E+00	-0.169
		445.03		-6.037E+01	1.043E+02	1.663E+02	1.700E+01	-0.363
PO-216		74.81		1.809E+01	3.025E+01	3.434E+01	4.475E+00	0.527
	+	77.11		1.780E+01	1.311E+01	1.875E+01	1.717E+00	0.949
		87.30		-3.180E+00	2.226E+01	3.172E+01	4.420E+00	-0.100
		115.19		-1.323E+02	2.029E+02	3.217E+02	2.190E+01	-0.411
	+	238.63	*	5.482E+00	5.731E+00	5.426E+00	4.033E-01	1.010
		300.09		1.977E+01	4.244E+01	6.399E+01	5.367E+00	0.309
RN-219		271.23		3.817E+00	1.131E+01	1.934E+01	1.593E+00	0.197
		401.81	*	6.073E+00	1.980E+01	3.350E+01	4.546E+00	0.181
RN-220		549.76	*	7.853E+02	1.217E+03	2.093E+03	1.153E+02	0.375
RA-223		81.07		-6.325E+00	1.265E+01	1.770E+01	1.650E+00	-0.357
		83.78		-2.014E+00	7.798E+00	1.076E+01	1.020E+00	-0.187
		94.90		1.967E+01	1.431E+01	2.179E+01	1.892E+00	0.903
		122.32		1.910E+01	1.041E+02	1.706E+02	1.230E+01	0.112
		144.24		-4.138E+01	4.975E+01	5.906E+01	4.347E+00	-0.701
		154.21		8.995E+00	2.003E+01	3.304E+01	2.328E+00	0.272
		269.46		3.413E-02	8.829E+00	1.489E+01	9.291E-01	0.002
		323.87	*	1.505E+01	3.263E+01	5.576E+01	9.243E+00	0.270
		338.28		-1.285E+01	5.456E+01	7.598E+01	8.058E+00	-0.169
		445.03		-6.037E+01	1.043E+02	1.663E+02	1.700E+01	-0.363
RA-224		240.98	*	6.471E+01	3.821E+01	5.871E+01	3.484E+00	1.102
RA-226		186.21	*	-5.879E+01	6.733E+01	7.093E+01	5.206E+01	-0.829
AC-227		79.80		-4.584E+01	9.429E+01	1.313E+02	2.859E+01	-0.349
		236.00		4.073E+00	1.254E+01	1.787E+01	1.880E+00	0.228
		256.20	*	-1.085E+01	2.061E+01	3.194E+01	4.481E+00	-0.340
		286.10		-1.330E+01	7.338E+01	1.224E+02	1.427E+01	-0.109
		299.80		4.110E+01	7.799E+01	1.177E+02	1.925E+01	0.349
		304.40		-3.302E+01	8.892E+01	1.463E+02	2.541E+01	-0.226
		329.70		-7.861E+00	4.468E+01	7.423E+01	9.307E+00	-0.106
		334.20		-4.376E+01	1.069E+02	1.748E+02	3.213E+01	-0.250
PA-227	+	64.62	*	1.000E+35	1.069E+02	Half-Life too short		
		110.05		1.000E+35	1.069E+02	Half-Life too short		
TH-227		79.80		-4.584E+01	9.430E+01	1.313E+02	2.895E+01	-0.349
	+	94.00		1.012E+02	1.805E+02	2.061E+02	4.504E+01	0.491

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		236.00		4.073E+00	1.254E+01	1.787E+01	1.633E+00	0.228
		256.20	*	-1.085E+01	2.063E+01	3.194E+01	5.416E+00	-0.340
		286.10		-1.330E+01	7.457E+01	1.224E+02	1.226E+02	-0.109
		299.80		4.110E+01	7.799E+01	1.177E+02	1.925E+01	0.349
		304.40		-3.302E+01	8.892E+01	1.463E+02	2.541E+01	-0.226
		329.70		-7.861E+00	4.468E+01	7.423E+01	9.307E+00	-0.106
		334.20		-4.376E+01	1.069E+02	1.748E+02	3.213E+01	-0.250
AC-228		338.32		-3.019E+00	1.318E+01	1.829E+01	7.460E+00	-0.165
		911.07	*	-8.589E-01	7.523E+00	1.015E+01	1.012E+00	-0.085
		969.11		9.118E+00	9.839E+00	1.686E+01	3.826E+00	0.541
RA-228		338.32		-3.019E+00	1.318E+01	1.829E+01	7.460E+00	-0.165
		911.07	*	-8.589E-01	7.523E+00	1.015E+01	1.012E+00	-0.085
		969.11		9.118E+00	9.839E+00	1.686E+01	3.826E+00	0.541
TH-228		74.81		1.809E+01	3.021E+01	3.434E+01	3.142E+00	0.527
	+	77.11		1.780E+01	1.311E+01	1.875E+01	1.717E+00	0.949
		87.30		-3.180E+00	2.225E+01	3.172E+01	3.078E+00	-0.100
	+	238.63	*	5.482E+00	5.731E+00	5.426E+00	4.033E-01	1.010
		300.09		1.977E+01	4.398E+01	6.399E+01	3.772E+01	0.309
TH-229		85.43		3.024E+00	1.143E+01	1.614E+01	1.545E+00	0.187
		88.47		-8.291E-01	6.366E+00	9.078E+00	8.775E-01	-0.091
		100.00		2.814E+00	9.997E+00	1.652E+01	1.335E+00	0.170
		193.63	*	3.487E+00	3.189E+01	4.508E+01	2.611E+00	0.077
		210.97		-3.701E+01	3.868E+01	5.928E+01	3.467E+00	-0.624
PA-231		283.67	*	2.103E+01	7.148E+01	1.219E+02	1.690E+01	0.172
		301.29		8.466E+00	2.776E+01	4.613E+01	4.872E+00	0.184
		330.00		-1.256E+01	9.934E+01	1.653E+02	5.181E+01	-0.076
TH-231		84.21	*	-1.226E+01	3.006E+01	4.116E+01	7.527E+00	-0.298
U-231		84.21		-1.053E+02	2.576E+02	3.534E+02	3.357E+01	-0.298
	+	92.29		7.694E+01	1.363E+02	1.648E+02	1.491E+01	0.467
		95.87	*	1.154E+01	5.032E+01	7.300E+01	6.247E+00	0.158
		108.00		1.621E+01	9.186E+01	1.509E+02	1.107E+01	0.107
TH-232		59.00	*	6.669E+02	7.272E+03	2.799E+03	2.947E+04	0.238
PA-233		75.28		1.283E+02	2.549E+02	2.909E+02	4.543E+01	0.441
		86.59		2.034E+01	8.902E+01	1.361E+02	3.699E+01	0.149
		300.12		9.933E+00	2.165E+01	3.260E+01	4.408E+00	0.305
		311.98	*	7.140E-01	3.134E+00	5.319E+00	3.369E-01	0.134
		340.50		-7.914E+00	2.743E+01	4.513E+01	1.038E+01	-0.175
		398.62		-4.196E+01	1.034E+02	1.674E+02	4.325E+01	-0.251
		415.76		-6.837E+01	7.927E+01	1.229E+02	2.527E+01	-0.556
PA-234	+	63.00		5.829E+01	1.325E+02	1.588E+02	2.507E+01	0.367
		94.67		2.177E+01	1.072E+01	1.639E+01	2.044E+00	1.328
		98.44		1.689E+00	5.438E+00	8.227E+00	4.585E+00	0.205
		99.86		5.549E+00	2.538E+01	4.184E+01	3.386E+00	0.133
		111.00		7.639E+00	1.068E+01	1.783E+01	1.971E+00	0.428
		131.20		2.603E+00	5.838E+00	9.649E+00	5.956E-01	0.270
		152.70		-2.037E+00	1.687E+01	2.717E+01	4.301E+00	-0.075
		186.00		-9.146E+01	8.888E+01	1.159E+02	3.541E+01	-0.789
		226.40		7.428E+00	2.080E+01	3.386E+01	3.930E+00	0.219
		227.20		-9.886E-02	2.254E+01	3.610E+01	2.129E+00	-0.003

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		248.90		5.548E+00	4.456E+01	7.160E+01	1.542E+01	0.077
	+	293.70		9.281E+01	5.499E+01	6.705E+01	1.083E+01	1.384
		369.80		6.425E+00	4.080E+01	6.868E+01	1.430E+01	0.094
		568.70		7.856E+00	4.928E+01	8.189E+01	4.450E+00	0.096
		569.50		-5.561E+00	1.336E+01	2.135E+01	1.159E+00	-0.261
		574.00		9.303E+00	6.791E+01	1.127E+02	6.100E+00	0.083
		699.00		-3.726E+00	3.095E+01	4.997E+01	8.896E+00	-0.075
		706.10		4.493E+01	5.215E+01	8.406E+01	3.704E+01	0.534
		733.00		-4.675E-01	1.669E+01	2.709E+01	5.739E+00	-0.017
		742.81		-1.030E+01	6.033E+01	9.603E+01	6.424E+01	-0.107
		796.30		3.197E+00	3.776E+01	6.168E+01	1.625E+01	0.052
		805.60		1.212E-01	4.677E+01	7.583E+01	2.278E+01	0.002
		819.60		2.942E+01	5.651E+01	9.398E+01	3.530E+01	0.313
		826.30		-1.136E+01	3.740E+01	5.832E+01	2.587E+01	-0.195
		831.60		6.601E+00	2.734E+01	4.509E+01	1.320E+01	0.146
		876.40		-1.012E+01	3.942E+01	5.986E+01	6.145E+01	-0.169
		880.51		4.039E+00	1.259E+01	2.092E+01	1.414E+00	0.193
		883.24		-3.564E+00	1.382E+01	2.145E+01	1.437E+01	-0.166
		899.00		-3.627E+01	4.712E+01	5.164E+01	2.242E+01	-0.702
		925.00		-9.142E+00	6.529E+01	8.345E+01	5.708E+00	-0.110
		926.50		-8.916E+00	8.313E+00	1.148E+01	2.837E+00	-0.777
		946.00	*	-1.097E+01	1.219E+01	1.735E+01	3.121E+00	-0.632
		949.00		-9.611E-01	1.727E+01	2.761E+01	1.867E+00	-0.035
		980.50		-6.338E-01	3.358E+01	5.383E+01	3.576E+00	-0.012
		1394.10		-1.267E+00	5.189E+01	8.551E+01	5.544E+01	-0.015
PA-234M		766.42		-6.198E+01	4.810E+02	7.713E+02	3.882E+02	-0.080
		1001.03	*	-5.780E+01	1.861E+02	3.039E+02	2.506E+01	-0.190
U-234		53.20	*	1.034E+03	1.101E+04	6.294E+03	6.294E+04	0.164
U-235		89.95		-3.283E+01	6.551E+01	9.049E+01	2.813E+01	-0.363
	+	93.35		3.150E+01	5.642E+01	6.695E+01	1.882E+01	0.470
		105.00		1.444E+01	5.930E+01	9.750E+01	2.882E+01	0.148
		143.76	*	-1.440E+01	1.550E+01	1.810E+01	2.961E+00	-0.796
		163.35		3.310E+00	2.541E+01	4.129E+01	7.419E+00	0.080
		185.71		-3.547E+00	3.137E+00	4.294E+00	2.477E-01	-0.826
		205.31		2.183E+01	2.654E+01	4.373E+01	7.868E+00	0.499
NP-236		94.67		1.664E+01	8.006E+00	1.245E+01	1.085E+00	1.337
		98.44		1.276E+00	4.051E+00	6.220E+00	5.131E-01	0.205
		111.00		5.778E+00	8.062E+00	1.349E+01	9.578E-01	0.428
		160.31	*	4.204E+00	4.281E+00	7.191E+00	4.155E-01	0.585
NP-237		86.50	*	3.296E+00	1.337E+01	2.047E+01	4.664E+00	0.161
		95.87		1.324E+01	5.778E+01	8.371E+01	2.060E+01	0.158
PU-237		59.54	*	7.440E+01	1.310E+02	1.953E+02	1.812E+01	0.381
NP-239		99.55		6.003E-01	8.535E+00	1.399E+01	1.137E+00	0.043
		117.00	*	-1.783E+00	1.056E+01	1.709E+01	1.143E+00	-0.104
		209.75		-4.408E+01	3.917E+01	5.954E+01	3.479E+00	-0.740
		228.18		-3.141E+00	1.177E+01	1.862E+01	1.099E+00	-0.169
		277.60		-5.145E+00	7.962E+00	1.297E+01	7.775E-01	-0.397
		334.30		-2.646E+01	6.035E+01	9.876E+01	5.868E+00	-0.268
AM-241		59.54	*	5.521E+00	9.722E+00	1.449E+01	1.429E+00	0.381

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AM-243		74.67	*	2.562E+00	4.839E+00	5.476E+00	4.971E-01	0.468
		86.72		1.012E+02	4.986E+02	7.630E+02	7.372E+01	0.133
		117.66		-4.504E+01	2.134E+02	3.446E+02	2.292E+01	-0.131
		142.18		7.092E+02	1.093E+03	1.604E+03	9.602E+01	0.442
CM-243		99.55		6.176E-01	8.782E+00	1.439E+01	1.170E+00	0.043
		103.76	*	-1.693E+00	5.397E+00	8.702E+00	6.703E-01	-0.195
		117.00		-1.834E+00	1.086E+01	1.758E+01	1.176E+00	-0.104
		209.75		-4.345E+01	3.861E+01	5.868E+01	3.429E+00	-0.740
		228.18		-3.173E+00	1.190E+01	1.881E+01	1.110E+00	-0.169
		277.60		-5.186E+00	8.026E+00	1.308E+01	7.838E-01	-0.397
AM-246		798.80		-1.179E+01	6.510E+00	8.774E+00	5.308E-01	-1.344
		1036.00		-4.303E-01	1.222E+01	2.042E+01	1.306E+00	-0.021
		1062.04		-3.734E+00	8.691E+00	1.393E+01	8.726E-01	-0.268
		1078.86	*	-6.191E-01	5.652E+00	9.362E+00	5.781E-01	-0.066
CM-247		278.00		-3.030E+01	3.317E+01	5.325E+01	3.192E+00	-0.569
		287.40		-2.483E+01	6.222E+01	9.670E+01	5.800E+00	-0.257
		402.60	*	1.344E+00	1.794E+00	3.106E+00	1.774E-01	0.433
CF-249		252.85		2.036E+01	4.695E+01	7.655E+01	4.563E+00	0.266
		333.44		-4.825E+00	8.030E+00	1.303E+01	7.746E-01	-0.370
		387.95	*	9.008E-01	1.885E+00	3.225E+00	1.845E-01	0.279
CF-251		176.60	*	6.087E+00	8.189E+00	1.200E+01	6.896E-01	0.507
		227.00		2.684E+00	1.989E+01	3.207E+01	1.891E+00	0.084
		285.00		9.631E+00	8.193E+01	1.387E+02	8.317E+00	0.069
ANH-511		511.00	*	-4.497E+00	3.085E+00	4.781E+00	2.690E-01	-0.941

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001367    *
* Acquisition date : 30-DEC-2009 22:43:28 Detector SN#    :                *
* Detector ID        : GAM19                Sensitivity     : 5.000        *
* Geometry           : 2LMB                 Energy tolerance: 1.500        *
* Elapsed live time:    0 06:00:00.00       Abundance limit : 75.000       *
* Elapsed real time:    0 06:00:02.19       Half life ratio :  8.000       *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 17-DEC-2009 12:00:00 Nuclide Library : LIQUI        *
* Sample ID          : G1202001367          Analyst initials: KXG3          *
* Batch Number       : 935338               Sample Quantity : 2.0000E+00 LITER *
* Recovery           :    1.00000           Carrier Weight :    0.00000    *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 11-MAR-2009 08:32:49 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
K-40	1.135E+01	2.578E+01	2.268E+01	0.000E+00
AS-74	1.202E+01	4.976E+00	6.714E+00	0.000E+00
AU-195	7.076E+00	1.276E+01	2.021E+01	0.000E+00
BI-211	6.030E+01	1.610E+01	1.646E+01	0.000E+00
BI-214	1.881E+01	7.949E+00	5.061E+00	0.000E+00
PB-214	2.098E+01	5.704E+00	5.803E+00	0.000E+00
PO-214	2.098E+01	5.704E+00	5.803E+00	0.000E+00
PO-218	2.098E+01	5.704E+00	5.803E+00	0.000E+00
TH-230	1.279E+03	8.176E+03	1.033E+03	0.000E+00
TH-234	5.001E+01	1.115E+02	1.179E+02	0.000E+00
U-238	5.001E+01	1.115E+02	1.179E+02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	1.803E+00	1.383E+01	2.357E+01	0.000E+00	NOT IDENT.
NA-22	-1.089E-01	1.500E+00	2.520E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00	5.443E+06	0.000E+00	0.000E+00	SHORT HLIF
AL-26	6.127E-01	1.594E+00	2.793E+00	0.000E+00	NOT IDENT.
TI-44	0.000E+00	2.339E+00	3.119E+00	0.000E+00	FAIL ABUN
SC-46	-1.707E+00	2.139E+00	2.954E+00	0.000E+00	FAIL ABUN
V-48	1.091E+00	3.072E+00	5.192E+00	0.000E+00	NOT IDENT.
CR-51	5.467E+00	1.716E+01	2.982E+01	0.000E+00	NOT IDENT.
MN-52	-5.679E-02	8.215E+00	1.382E+01	0.000E+00	NOT IDENT.
MN-54	-1.789E+00	1.897E+00	2.473E+00	0.000E+00	NOT IDENT.
CO-56	-1.723E-01	1.746E+00	2.857E+00	0.000E+00	NOT IDENT.
CO-57	5.313E-01	1.456E+00	2.451E+00	0.000E+00	NOT IDENT.
CO-58	5.609E-02	1.637E+00	2.715E+00	0.000E+00	NOT IDENT.
FE-59	-9.995E-01	3.488E+00	5.795E+00	0.000E+00	NOT IDENT.
CO-60	-2.424E+00	2.085E+00	2.712E+00	0.000E+00	NOT IDENT.
ZN-65	1.588E+00	3.734E+00	5.799E+00	0.000E+00	NOT IDENT.

GE-68	1.099E+01	4.860E+01	8.469E+01	0.000E+00	NOT IDENT.
AS-73	6.446E+00	4.785E+01	8.110E+01	0.000E+00	NOT IDENT.
SE-75	1.219E+00	2.105E+00	3.711E+00	0.000E+00	FAIL ABUN
BR-77	-3.642E+02	3.046E+02	4.692E+02	0.000E+00	FAIL ABUN
SR-82	6.388E+00	1.518E+01	2.605E+01	0.000E+00	NOT IDENT.
RB-83	-3.544E+00	3.130E+00	4.842E+00	0.000E+00	NOT IDENT.
RB-84	-6.844E-01	3.006E+00	4.847E+00	0.000E+00	NOT IDENT.
KR-85	-2.321E+03	5.136E+02	6.645E+02	0.000E+00	NOT IDENT.
SR-85	-1.171E+01	2.590E+00	3.351E+00	0.000E+00	NOT IDENT.
RB-86	1.968E+01	2.967E+01	5.358E+01	0.000E+00	NOT IDENT.
Y-88	-2.233E-01	1.754E+00	2.860E+00	0.000E+00	NOT IDENT.
ZR-88	2.611E-02	1.404E+00	2.391E+00	0.000E+00	NOT IDENT.
Y-91	2.940E+01	6.959E+02	1.187E+03	0.000E+00	NOT IDENT.
NB-94	-2.859E-01	1.486E+00	2.436E+00	0.000E+00	NOT IDENT.
NB-95	-8.947E-02	1.931E+00	3.188E+00	0.000E+00	NOT IDENT.
NB-95M	1.162E-01	6.463E+00	9.213E+00	0.000E+00	NOT IDENT.
ZR-95	1.619E+00	3.001E+00	5.195E+00	0.000E+00	NOT IDENT.
NB-97	0.000E+00	8.992E+05	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	2.641E+07	0.000E+00	0.000E+00	SHORT HLIF
MO-99	6.805E+01	3.310E+02	5.589E+02	0.000E+00	FAIL ABUN
TC-99M	0.000E+00	3.967E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.006E+00	2.818E+00	3.059E+00	0.000E+00	FAIL ABUN
RH-102	-4.586E-01	1.272E+00	2.095E+00	0.000E+00	NOT IDENT.
RU-103	-2.412E+00	1.874E+00	2.847E+00	0.000E+00	FAIL ABUN
RH-106	-5.253E+00	1.373E+01	2.226E+01	0.000E+00	NOT IDENT.
RU-106	-5.253E+00	1.372E+01	2.226E+01	0.000E+00	NOT IDENT.
AG-108M	-8.696E-01	1.442E+00	2.347E+00	0.000E+00	NOT IDENT.
CD-109	-2.038E+00	4.694E+01	6.863E+01	0.000E+00	NOT IDENT.
AG-110M	-7.232E-01	1.530E+00	2.458E+00	0.000E+00	NOT IDENT.
IN-111	-2.225E+01	4.210E+01	5.765E+01	0.000E+00	NOT IDENT.
IN-113M	-8.191E-01	2.068E+00	3.439E+00	0.000E+00	NOT IDENT.
SN-113	-8.191E-01	2.068E+00	3.439E+00	0.000E+00	NOT IDENT.
IN-114M	1.083E+00	9.844E+00	1.568E+01	0.000E+00	NOT IDENT.
CD-115	3.018E+00	3.035E+02	5.110E+02	0.000E+00	NOT IDENT.
SN-117M	-8.130E-01	2.646E+00	4.312E+00	0.000E+00	NOT IDENT.
SB-122	4.338E+01	7.397E+01	1.134E+02	0.000E+00	NOT IDENT.
I-123	0.000E+00	3.997E+07	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-5.313E-02	1.466E+00	2.417E+00	0.000E+00	NOT IDENT.
I-124	-3.506E+00	2.740E+01	3.922E+01	0.000E+00	NOT IDENT.
SB-124	3.557E+00	4.430E+00	8.050E+00	0.000E+00	NOT IDENT.
SB-125	-1.415E+00	4.098E+00	6.798E+00	0.000E+00	NOT IDENT.
TE-125M	-4.978E+01	5.224E+02	8.666E+02	0.000E+00	NOT IDENT.
I-126	5.054E-01	6.965E+00	1.168E+01	0.000E+00	NOT IDENT.
SB-126	-1.057E+00	7.316E+00	9.559E+00	0.000E+00	NOT IDENT.
SN-126	-1.262E+00	4.688E+00	6.775E+00	0.000E+00	FAIL ABUN
SB-127	-1.439E+01	4.391E+01	7.113E+01	0.000E+00	NOT IDENT.
XE-127	-1.689E+00	2.740E+00	3.774E+00	0.000E+00	NOT IDENT.
I-131	1.048E+00	4.616E+00	7.967E+00	0.000E+00	NOT IDENT.
TE-132	-6.653E+00	2.519E+01	4.064E+01	0.000E+00	NOT IDENT.
BA-133	7.763E-01	2.299E+00	3.496E+00	0.000E+00	NOT IDENT.
I-133	0.000E+00	7.684E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	7.911E-01	1.938E+00	3.316E+00	0.000E+00	NOT IDENT.
CS-135	-2.047E+00	7.416E+00	1.260E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.697E+15	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-1.791E-01	4.044E+00	6.889E+00	0.000E+00	FAIL ABUN
BA-137M	-5.685E-01	1.944E+00	2.608E+00	0.000E+00	NOT IDENT.
CS-137	-6.010E-01	2.055E+00	2.757E+00	0.000E+00	NOT IDENT.
CE-139	-4.922E-01	1.523E+00	2.476E+00	0.000E+00	NOT IDENT.
BA-140	-1.755E+01	1.774E+01	1.697E+01	0.000E+00	NOT IDENT.
LA-140	-2.794E+00	5.006E+00	6.253E+00	0.000E+00	NOT IDENT.
CE-141	-6.938E-01	3.671E+00	5.252E+00	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.940E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	-4.901E+00	1.158E+01	1.816E+01	0.000E+00	NOT IDENT.
PM-144	3.542E-01	1.431E+00	2.429E+00	0.000E+00	NOT IDENT.
PR-144	2.398E+01	9.691E+01	1.645E+02	0.000E+00	NOT IDENT.
PM-146	3.448E-01	1.976E+00	3.380E+00	0.000E+00	NOT IDENT.
ND-147	6.372E-01	2.273E+01	3.831E+01	0.000E+00	NOT IDENT.
PM-149	-3.709E+02	2.615E+03	4.460E+03	0.000E+00	NOT IDENT.
EU-152	3.664E-02	4.853E+00	7.832E+00	0.000E+00	NOT IDENT.
GD-153	3.816E+00	4.650E+00	7.088E+00	0.000E+00	NOT IDENT.
EU-154	-1.230E+00	4.254E+00	6.970E+00	0.000E+00	NOT IDENT.
EU-155	2.006E+00	5.970E+00	1.007E+01	0.000E+00	NOT IDENT.
TB-160	-1.781E-01	6.148E+00	1.010E+01	0.000E+00	FAIL ABUN
HO-166M	-3.674E-01	2.586E+00	4.251E+00	0.000E+00	NOT IDENT.
TM-171	0.000E+00	2.088E+03	2.902E+03	0.000E+00	FAIL ABUN
HF-175	-2.823E-01	1.633E+00	2.764E+00	0.000E+00	NOT IDENT.
LU-176	-7.026E-01	1.138E+00	1.888E+00	0.000E+00	NOT IDENT.
LU-177	1.462E+01	4.479E+01	7.446E+01	0.000E+00	NOT IDENT.

LU-177M	-3.944E+00	7.946E+00	1.309E+01	0.000E+00	NOT IDENT.
HF-181	-7.950E-01	1.835E+00	3.006E+00	0.000E+00	FAIL ABUN
W-181	3.706E+01	2.549E+01	3.997E+01	0.000E+00	FAIL ABUN
TA-182	1.431E+00	5.703E+00	9.951E+00	0.000E+00	FAIL ABUN
RE-183	2.379E+00	5.704E+00	9.566E+00	0.000E+00	FAIL ABUN
RE-184	5.392E+00	1.218E+01	2.027E+01	0.000E+00	FAIL ABUN
OS-185	-1.157E+00	1.869E+00	2.967E+00	0.000E+00	NOT IDENT.
RE-188	3.683E+00	8.476E+00	1.425E+01	0.000E+00	NOT IDENT.
W-188	2.297E+01	3.997E+02	5.999E+02	0.000E+00	FAIL ABUN
IR-192	-4.874E-01	1.659E+00	2.800E+00	0.000E+00	FAIL ABUN
TL-200	0.000E+00	7.783E+03	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.434E+02	2.547E+02	4.097E+02	0.000E+00	NOT IDENT.
TL-202	2.621E+00	2.849E+00	5.088E+00	0.000E+00	NOT IDENT.
HG-203	-1.177E+00	1.769E+00	2.941E+00	0.000E+00	NOT IDENT.
BI-207	-1.424E+00	1.930E+00	3.050E+00	0.000E+00	NOT IDENT.
TL-207	1.505E+01	3.198E+01	5.576E+01	0.000E+00	NOT IDENT.
TL-208	-1.629E+00	2.144E+00	2.777E+00	0.000E+00	NOT IDENT.
PO-209	6.545E+01	3.085E+02	5.181E+02	0.000E+00	NOT IDENT.
BI-210	-2.183E+02	2.409E+02	3.376E+02	0.000E+00	NOT IDENT.
PB-210	-2.183E+02	2.409E+02	3.376E+02	0.000E+00	NOT IDENT.
PO-210	-2.183E+02	2.408E+02	3.376E+02	0.000E+00	NOT IDENT.
PB-211	2.847E+01	4.610E+01	7.521E+01	0.000E+00	NOT IDENT.
BI-212	3.463E+00	1.233E+01	2.093E+01	0.000E+00	NOT IDENT.
PB-212	0.000E+00	5.616E+00	5.426E+00	0.000E+00	FAIL ABUN
PO-212	0.000E+00	5.616E+00	5.426E+00	0.000E+00	FAIL ABUN
PO-215	1.505E+01	3.198E+01	5.576E+01	0.000E+00	NOT IDENT.
PO-216	0.000E+00	5.616E+00	5.426E+00	0.000E+00	FAIL ABUN
RN-219	6.073E+00	1.940E+01	3.350E+01	0.000E+00	NOT IDENT.
RN-220	7.853E+02	1.193E+03	2.093E+03	0.000E+00	NOT IDENT.
RA-223	1.505E+01	3.198E+01	5.576E+01	0.000E+00	NOT IDENT.
RA-224	0.000E+00	3.745E+01	5.871E+01	0.000E+00	NOT IDENT.
RA-226	-5.879E+01	6.598E+01	7.093E+01	0.000E+00	NOT IDENT.
AC-227	-1.085E+01	2.020E+01	3.194E+01	0.000E+00	NOT IDENT.
PA-227	0.000E+00	2.225E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-1.085E+01	2.022E+01	3.194E+01	0.000E+00	FAIL ABUN
AC-228	-8.589E-01	7.373E+00	1.015E+01	0.000E+00	NOT IDENT.
RA-228	-8.589E-01	7.373E+00	1.015E+01	0.000E+00	NOT IDENT.
TH-228	0.000E+00	5.616E+00	5.426E+00	0.000E+00	FAIL ABUN
TH-229	3.487E+00	3.125E+01	4.508E+01	0.000E+00	NOT IDENT.
PA-231	2.103E+01	7.005E+01	1.219E+02	0.000E+00	NOT IDENT.
TH-231	-1.226E+01	2.946E+01	4.116E+01	0.000E+00	NOT IDENT.
U-231	1.154E+01	4.931E+01	7.300E+01	0.000E+00	FAIL ABUN
TH-232	6.669E+02	7.127E+03	2.799E+03	0.000E+00	NOT IDENT.
PA-233	7.140E-01	3.072E+00	5.319E+00	0.000E+00	NOT IDENT.
PA-234	-1.097E+01	1.195E+01	1.735E+01	0.000E+00	FAIL ABUN
PA-234M	-5.780E+01	1.824E+02	3.039E+02	0.000E+00	NOT IDENT.
U-234	1.034E+03	1.079E+04	6.294E+03	0.000E+00	NOT IDENT.
U-235	-1.440E+01	1.519E+01	1.810E+01	0.000E+00	FAIL ABUN
NP-236	4.204E+00	4.196E+00	7.191E+00	0.000E+00	NOT IDENT.
NP-237	3.296E+00	1.310E+01	2.047E+01	0.000E+00	NOT IDENT.
PU-237	7.440E+01	1.284E+02	1.953E+02	0.000E+00	NOT IDENT.
NP-239	-1.783E+00	1.035E+01	1.709E+01	0.000E+00	NOT IDENT.
AM-241	5.521E+00	9.527E+00	1.449E+01	0.000E+00	NOT IDENT.
AM-243	2.562E+00	4.742E+00	5.476E+00	0.000E+00	NOT IDENT.
CM-243	-1.693E+00	5.289E+00	8.702E+00	0.000E+00	NOT IDENT.
AM-246	-6.191E-01	5.539E+00	9.362E+00	0.000E+00	NOT IDENT.
CM-247	1.344E+00	1.758E+00	3.106E+00	0.000E+00	NOT IDENT.
CF-249	9.008E-01	1.847E+00	3.225E+00	0.000E+00	NOT IDENT.
CF-251	6.087E+00	8.025E+00	1.200E+01	0.000E+00	NOT IDENT.
ANH-511	-4.497E+00	3.024E+00	4.781E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 04:45:17.81

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001367.CNF;1
Sample date       : 17-DEC-2009 12:00:00 Acquisition date : 30-DEC-2009 22:43:28
Sample ID         : G1202001367          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM19                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:02.19  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 935338                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	2	63.57	139	400	1.60	127.00	120	17	6.44E-03	28.7	1.46E+00
2	2	66.35	132	328	1.60	132.56	120	17	6.11E-03	25.5	
3	0	77.18	96	359	1.16	154.20	151	8	4.44E-03	36.5	
4	0	92.84	288	450	1.28	185.49	180	11	1.33E-02	15.5	
5	0	139.46	128	391	1.58	278.65	275	10	5.94E-03	30.2	
6	0	174.89	88	374	1.61	349.46	345	10	4.05E-03	42.7	
7	0	185.35	123	341	1.37	370.37	366	10	5.70E-03	29.5	
8	0	197.10	105	342	1.07	393.85	389	11	4.88E-03	35.3	
9	0	239.15	144	370	1.40	477.89	472	14	6.65E-03	29.6	
10	0	294.59	134	235	1.52	588.71	583	11	6.20E-03	23.8	
11	0	351.42	223	185	1.22	702.31	697	10	1.03E-02	13.2	
12	0	510.25	450	240	2.66	1019.81	1011	22	2.08E-02	9.9	
13	0	557.82	82	47	1.37	1114.90	1111	10	3.82E-03	18.8	
14	0	594.86	84	57	4.12	1188.96	1183	12	3.90E-03	20.9	
15	0	609.04	223	125	1.78	1217.32	1211	14	1.03E-02	12.7	
16	0	1120.46	38	47	0.99	2240.06	2233	11	1.77E-03	38.2	
17	0	1460.17	35	24	1.75	2919.70	2912	12	1.62E-03	32.8	

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 04:45:20.86

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*************************************************************************
*                          GEL Laboratories LLC                         *
*                            2040 Savage Road                           *
*                          Charleston, SC 29414                         *
*************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001367.CNF;1
Sample date       : 17-DEC-2009 12:00:00 Acquisition date : 30-DEC-2009 22:43:28
Sample ID         : G1202001367          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM19                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:02.19  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 935338               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
K-40	1460.81	12	10.67*	6.259E-01	1.135E+01	1.135E+01	231.79
AS-74	595.88	84	59.90*	1.244E+00	7.081E+00	1.202E+01	42.23
	634.78	------	15.40	1.186E+00	------	Line Not Found	------
AU-195	65.12	105	29.00	1.389E+00	1.631E+01	1.717E+01	70.20
	66.83	105	49.70	1.389E+00	9.519E+00	1.002E+01	70.20
	75.70	96	21.60	1.897E+00	1.463E+01	1.541E+01	73.67
	98.88	------	10.90*	2.530E+00	------	Line Not Found	------
	129.76	------	0.81	2.782E+00	------	Line Not Found	------
BI-211	72.87	------	1.27	1.709E+00	------	Line Not Found	------
	351.07	223	12.94*	1.788E+00	6.030E+01	6.030E+01	27.25
BI-214	609.31	170	46.30*	1.223E+00	1.881E+01	1.881E+01	43.11
	1120.29	32	15.10	7.664E-01	1.753E+01	1.753E+01	111.02
	1764.49	------	15.80	5.509E-01	------	Line Not Found	------
PB-214	74.81	------	6.21	1.796E+00	------	Line Not Found	------
	77.11	96	10.50	1.897E+00	3.010E+01	3.010E+01	74.06
	87.30	------	4.67	2.255E+00	------	Line Not Found	------
	241.98	------	7.49	2.253E+00	------	Line Not Found	------
	295.21	119	19.20	2.002E+00	1.934E+01	1.934E+01	57.66
	351.92	223	37.20*	1.788E+00	2.097E+01	2.098E+01	27.75
PO-214	74.81	------	6.21	1.796E+00	------	Line Not Found	------
	77.11	96	10.50	1.897E+00	3.010E+01	3.010E+01	74.06
	87.30	------	4.67	2.255E+00	------	Line Not Found	------
	241.98	------	7.49	2.253E+00	------	Line Not Found	------
	295.21	119	19.20	2.002E+00	1.934E+01	1.934E+01	57.66
	351.92	223	37.20*	1.788E+00	2.097E+01	2.098E+01	27.75
PO-218	74.81	------	6.21	1.796E+00	------	Line Not Found	------
	77.11	96	10.50	1.897E+00	3.010E+01	3.010E+01	74.06
	87.30	------	4.67	2.255E+00	------	Line Not Found	------
	241.98	------	7.49	2.253E+00	------	Line Not Found	------
	295.21	119	19.20	2.002E+00	1.934E+01	1.934E+01	57.66
	351.92	223	37.20*	1.788E+00	2.097E+01	2.098E+01	27.75
TH-230	67.67	105	0.37*	1.389E+00	1.279E+03	1.279E+03	652.44

Sample ID : G1202001367 Acquisition date : 30-DEC-2009 22:43:28

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
TH-234	63.29	38	3.80*	1.242E+00	5.001E+01	5.001E+01	227.56
	92.38	54	5.41	2.403E+00	2.620E+01	2.620E+01	177.84
U-238	63.29	38	3.80*	1.242E+00	5.001E+01	5.001E+01	227.56
	92.38	54	5.41	2.403E+00	2.620E+01	2.620E+01	177.13

Flag: "*" = Keyline

Sample ID : G1202001367 Acquisition date : 30-DEC-2009 22:43:28

Total number of lines in spectrum 15
Number of unidentified lines 2
Number of lines tentatively identified by NID 13 86.67%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	1.135E+01	1.135E+01	2.630E+01	231.79	
AS-74	17.77D	1.70	7.081E+00	1.202E+01	0.508E+01	42.23	
AU-195	183.00D	1.05	9.519E+00	1.002E+01	0.704E+01	70.20	K
BI-211	7.04E+08Y	1.00	6.030E+01	6.030E+01	1.643E+01	27.25	
BI-214	1600.00Y	1.00	1.881E+01	1.881E+01	0.811E+01	43.11	
PB-214	1600.00Y	1.00	2.097E+01	2.098E+01	0.582E+01	27.75	
PO-214	1600.00Y	1.00	2.097E+01	2.098E+01	0.582E+01	27.75	
PO-218	1600.00Y	1.00	2.097E+01	2.098E+01	0.582E+01	27.75	
TH-230	7.70E+04Y	1.00	1.279E+03	1.279E+03	8.342E+03	652.44	
TH-234	4.47E+09Y	1.00	5.001E+01	5.001E+01	11.38E+01	227.56	
U-238	4.47E+09Y	1.00	5.001E+01	5.001E+01	11.38E+01	227.56	
	Total Activity :		1.549E+03	1.554E+03			

Grand Total Activity : 1.549E+03 1.554E+03

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202001367 Acquisition date : 30-DEC-2009 22:43:28

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	139.46	128	391	1.58	278.65	275	10	5.94E-03	60.3	2.78E+00	T
0	174.89	88	374	1.61	349.46	345	10	4.05E-03	85.5	2.63E+00	
0	197.10	58	342	1.07	393.85	389	11	2.70E-03	****	2.51E+00	T
0	239.15	87	370	1.40	477.89	472	14	4.05E-03	****	2.27E+00	T
0	557.82	61	47	1.37	1114.90	1111	10	2.83E-03	59.6	1.30E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 31-DEC-2009 04:45:25.25

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*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
*                                                                             *
*                                 DETECTOR DATA                               *
*                                                                             *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001367.CNF;1  *
* Acquisition date  : 30-DEC-2009 22:43:28  Detector SN#     :                *
* Detector ID       : GAM19                 Sensitivity      : 5.00000        *
* Geometry          : 2LMB                  Energy tolerance: 1.50000         *
* Elapsed live time: 0 06:00:00.00          Abundance limit : 75.00000        *
* Elapsed real time: 0 06:00:02.19          Half life ratio : 8.00000         *
*******************************************************************************
*                                                                             *
*                                  SAMPLE DATA                                *
*                                                                             *
* Sample date       : 17-DEC-2009 12:00:00  Nuclide Library : LIQUID          *
* Sample ID         : G1202001367           Analyst initials: KXG3            *
* Batch Number      : 935338                Sample Quantity : 2.00000E+00 LITER *
*******************************************************************************
*                                                                             *
*                                    QC DATA                                  *
*                                                                             *
* CALIB. DATE/TIME : 11-MAR-2009 08:32:49.9MS Isotope      :                  *
* MSD ID           :                       MSD Isotope     :                  *
* LCS ID           : 1032-A                LCS Isotope     :                  *
*******************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
K-40	1.135E+01	2.630E+01	2.268E+01	1.534E+00	0.500
AS-74	1.202E+01	5.077E+00	6.714E+00	3.565E-01	1.791
AU-195	1.002E+01	7.035E+00	2.021E+01	1.657E+00	0.496
BI-211	6.030E+01	1.643E+01	1.646E+01	1.072E+00	3.664
BI-214	1.881E+01	8.112E+00	5.061E+00	3.731E-01	3.717
PB-214	2.098E+01	5.820E+00	5.803E+00	4.843E-01	3.615
PO-214	2.098E+01	5.820E+00	5.803E+00	4.843E-01	3.615
PO-218	2.098E+01	5.820E+00	5.803E+00	4.843E-01	3.615
TH-230	1.279E+03	8.342E+03	1.033E+03	6.698E+03	1.238
TH-234	5.001E+01	1.138E+02	1.179E+02	2.149E+01	0.424
U-238	5.001E+01	1.138E+02	1.179E+02	2.149E+01	0.424

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	1.803E+00		1.412E+01	2.357E+01	1.569E+00	0.076

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NA-22	-1.089E-01		1.530E+00	2.520E+00	1.560E-01	-0.043
NA-24	2.151E+00		2.777E+00	Half-Life too short		
AL-26	6.127E-01		1.626E+00	2.793E+00	1.598E-01	0.219
TI-44	3.240E+00	+	2.387E+00	3.119E+00	2.870E-01	1.039
SC-46	-1.707E+00		2.183E+00	2.954E+00	2.021E-01	-0.578
V-48	1.091E+00		3.134E+00	5.192E+00	3.443E-01	0.210
CR-51	5.467E+00		1.751E+01	2.982E+01	1.973E+00	0.183
MN-52	-5.679E-02		8.383E+00	1.382E+01	8.936E-01	-0.004
MN-54	-1.789E+00		1.936E+00	2.473E+00	1.573E-01	-0.723
CO-56	-1.723E-01		1.782E+00	2.857E+00	1.847E-01	-0.060
CO-57	5.313E-01		1.486E+00	2.451E+00	1.570E-01	0.217
CO-58	5.609E-02		1.671E+00	2.715E+00	1.679E-01	0.021
FE-59	-9.995E-01		3.560E+00	5.795E+00	4.067E-01	-0.172
CO-60	-2.424E+00		2.128E+00	2.712E+00	1.768E-01	-0.894
ZN-65	1.588E+00		3.810E+00	5.799E+00	3.465E-01	0.274
GE-68	1.099E+01		4.959E+01	8.469E+01	5.236E+00	0.130
AS-73	6.446E+00		4.883E+01	8.110E+01	7.338E+00	0.079
SE-75	1.219E+00		2.148E+00	3.711E+00	2.241E-01	0.329
BR-77	-3.642E+02		3.108E+02	4.692E+02	2.627E+01	-0.776
SR-82	6.388E+00		1.549E+01	2.605E+01	1.526E+00	0.245
RB-83	-3.544E+00		3.194E+00	4.842E+00	2.712E-01	-0.732
RB-84	-6.844E-01		3.068E+00	4.847E+00	3.282E-01	-0.141
KR-85	-2.321E+03		5.241E+02	6.645E+02	3.733E+01	-3.493
SR-85	-1.171E+01		2.643E+00	3.351E+00	1.882E-01	-3.493
RB-86	1.968E+01		3.028E+01	5.358E+01	3.315E+00	0.367
Y-88	-2.233E-01		1.790E+00	2.860E+00	1.616E-01	-0.078
ZR-88	2.611E-02		1.433E+00	2.391E+00	1.363E-01	0.011
Y-91	2.940E+01		7.101E+02	1.187E+03	6.844E+01	0.025
NB-94	-2.859E-01		1.516E+00	2.436E+00	1.279E-01	-0.117
NB-95	-8.947E-02		1.970E+00	3.188E+00	1.840E-01	-0.028
NB-95M	1.162E-01		6.595E+00	9.213E+00	7.023E-01	0.013
ZR-95	1.619E+00		3.062E+00	5.195E+00	3.606E-01	0.312
NB-97	-3.925E-01		4.588E-01	Half-Life too short		
ZR-97	-3.169E+01		1.348E+01	Half-Life too short		
MO-99	6.805E+01		3.378E+02	5.589E+02	7.644E+01	0.122
TC-99M	6.175E+10	+	2.024E+10	Half-Life too short		
RH-101	2.006E+00	+	2.876E+00	3.059E+00	1.776E-01	0.656
RH-102	-4.586E-01		1.298E+00	2.095E+00	1.193E-01	-0.219
RU-103	-2.412E+00		1.912E+00	2.847E+00	3.582E-01	-0.847
RH-106	-5.253E+00		1.401E+01	2.226E+01	2.546E+00	-0.236
RU-106	-5.253E+00		1.400E+01	2.226E+01	1.151E+00	-0.236
AG-108M	-8.696E-01		1.472E+00	2.347E+00	1.462E-01	-0.370
CD-109	-2.038E+00		4.790E+01	6.863E+01	6.689E+00	-0.030
AG-110M	-7.232E-01		1.562E+00	2.458E+00	1.324E-01	-0.294
IN-111	-2.225E+01		4.295E+01	5.765E+01	3.427E+00	-0.386
IN-113M	-8.191E-01		2.111E+00	3.439E+00	2.096E-01	-0.238
SN-113	-8.191E-01		2.111E+00	3.439E+00	2.096E-01	-0.238
IN-114M	1.083E+00		1.004E+01	1.568E+01	9.065E-01	0.069

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CD-115	3.018E+00		3.097E+02	5.110E+02	2.851E+01	0.006
SN-117M	-8.130E-01		2.700E+00	4.312E+00	2.499E-01	-0.189
SB-122	4.338E+01		7.548E+01	1.134E+02	6.185E+00	0.382
I-123	-1.448E+00		2.040E+01	Half-Life too short		
TE-123M	-5.313E-02		1.496E+00	2.417E+00	1.418E-01	-0.022
I-124	-3.506E+00		2.796E+01	3.922E+01	2.069E+00	-0.089
SB-124	3.557E+00		4.521E+00	8.050E+00	5.248E-01	0.442
SB-125	-1.415E+00		4.182E+00	6.798E+00	4.060E-01	-0.208
TE-125M	-4.978E+01		5.330E+02	8.666E+02	7.970E+01	-0.057
I-126	5.054E-01		7.107E+00	1.168E+01	5.795E-01	0.043
SB-126	-1.057E+00		7.465E+00	9.559E+00	5.158E-01	-0.111
SN-126	-1.262E+00		4.784E+00	6.775E+00	6.586E-01	-0.186
SB-127	-1.439E+01		4.480E+01	7.113E+01	6.011E+00	-0.202
XE-127	-1.689E+00		2.796E+00	3.774E+00	2.197E-01	-0.448
I-131	1.048E+00		4.711E+00	7.967E+00	5.175E-01	0.131
TE-132	-6.653E+00		2.570E+01	4.064E+01	5.731E+00	-0.164
BA-133	7.763E-01		2.346E+00	3.496E+00	4.055E-01	0.222
I-133	1.464E-02		3.920E-02	Half-Life too short		
CS-134	7.911E-01		1.977E+00	3.316E+00	2.027E-01	0.239
CS-135	-2.047E+00		7.567E+00	1.260E+01	9.828E-01	-0.162
I-135	7.588E+08		1.886E+09	Half-Life too short		
CS-136	-1.791E-01		4.127E+00	6.889E+00	4.702E-01	-0.026
BA-137M	-5.685E-01		1.984E+00	2.608E+00	1.284E-01	-0.218
CS-137	-6.010E-01		2.097E+00	2.757E+00	1.366E-01	-0.218
CE-139	-4.922E-01		1.554E+00	2.476E+00	1.419E-01	-0.199
BA-140	-1.755E+01		1.810E+01	1.697E+01	5.510E+00	-1.034
LA-140	-2.794E+00		5.109E+00	6.253E+00	3.904E-01	-0.447
CE-141	-6.938E-01		3.746E+00	5.252E+00	3.240E-01	-0.132
CE-143	8.269E-03	+	2.521E-03	Half-Life too short		
CE-144	-4.901E+00		1.182E+01	1.816E+01	2.604E+00	-0.270
PM-144	3.542E-01		1.460E+00	2.429E+00	1.264E-01	0.146
PR-144	2.398E+01		9.888E+01	1.645E+02	8.555E+00	0.146
PM-146	3.448E-01		2.017E+00	3.380E+00	2.896E-01	0.102
ND-147	6.372E-01		2.319E+01	3.831E+01	5.143E+00	0.017
PM-149	-3.709E+02		2.668E+03	4.460E+03	6.356E+02	-0.083
EU-152	3.664E-02		4.952E+00	7.832E+00	5.201E-01	0.005
GD-153	3.816E+00		4.745E+00	7.088E+00	5.931E-01	0.538
EU-154	-1.230E+00		4.341E+00	6.970E+00	6.677E-01	-0.177
EU-155	2.006E+00		6.092E+00	1.007E+01	7.736E-01	0.199
TB-160	-1.781E-01		6.274E+00	1.010E+01	6.820E-01	-0.018
HO-166M	-3.674E-01		2.639E+00	4.251E+00	2.263E-01	-0.086
TM-171	3.035E+03	+	2.130E+03	2.902E+03	2.619E+02	1.046
HF-175	-2.823E-01		1.666E+00	2.764E+00	1.635E-01	-0.102
LU-176	-7.026E-01		1.161E+00	1.888E+00	1.131E-01	-0.372
LU-177	1.462E+01		4.571E+01	7.446E+01	4.348E+00	0.196
LU-177M	-3.944E+00		8.108E+00	1.309E+01	7.487E-01	-0.301
HF-181	-7.950E-01		1.872E+00	3.006E+00	1.709E-01	-0.264
W-181	3.706E+01	+	2.601E+01	3.997E+01	3.618E+00	0.927

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TA-182	1.431E+00		5.820E+00	9.951E+00	5.835E-01	0.144
RE-183	2.379E+00		5.820E+00	9.566E+00	5.509E-01	0.249
RE-184	5.392E+00		1.243E+01	2.027E+01	1.208E+00	0.266
OS-185	-1.157E+00		1.907E+00	2.967E+00	1.491E-01	-0.390
RE-188	3.683E+00		8.649E+00	1.425E+01	8.309E-01	0.258
W-188	2.297E+01		4.079E+02	5.999E+02	3.598E+01	0.038
IR-192	-4.874E-01		1.693E+00	2.800E+00	1.682E-01	-0.174
TL-200	-2.160E-03		3.971E-03	Half-Life too short		
TL-201	-1.434E+02		2.599E+02	4.097E+02	2.347E+01	-0.350
TL-202	2.621E+00		2.907E+00	5.088E+00	2.912E-01	0.515
HG-203	-1.177E+00		1.805E+00	2.941E+00	1.865E-01	-0.400
BI-207	-1.424E+00		1.969E+00	3.050E+00	1.909E-01	-0.467
TL-207	1.505E+01		3.263E+01	5.576E+01	9.243E+00	0.270
TL-208	-1.629E+00		2.188E+00	2.777E+00	1.754E-01	-0.586
PO-209	6.545E+01		3.148E+02	5.181E+02	3.578E+01	0.126
BI-210	-2.183E+02		2.459E+02	3.376E+02	2.776E+01	-0.647
PB-210	-2.183E+02		2.459E+02	3.376E+02	2.776E+01	-0.647
PO-210	-2.183E+02		2.457E+02	3.376E+02	2.434E+01	-0.647
PB-211	2.847E+01		4.704E+01	7.521E+01	4.688E+01	0.379
BI-212	3.463E+00		1.258E+01	2.093E+01	1.560E+00	0.165
PB-212	5.482E+00	+	5.731E+00	5.426E+00	4.033E-01	1.010
PO-212	5.482E+00	+	5.731E+00	5.426E+00	4.033E-01	1.010
PO-215	1.505E+01		3.263E+01	5.576E+01	9.243E+00	0.270
PO-216	5.482E+00	+	5.731E+00	5.426E+00	4.033E-01	1.010
RN-219	6.073E+00		1.980E+01	3.350E+01	4.546E+00	0.181
RN-220	7.853E+02		1.217E+03	2.093E+03	1.153E+02	0.375
RA-223	1.505E+01		3.263E+01	5.576E+01	9.243E+00	0.270
RA-224	6.471E+01		3.821E+01	5.871E+01	3.484E+00	1.102
RA-226	-5.879E+01		6.733E+01	7.093E+01	5.206E+01	-0.829
AC-227	-1.085E+01		2.061E+01	3.194E+01	4.481E+00	-0.340
PA-227	1.000E+35	+	1.135E+35	Half-Life too short		
TH-227	-1.085E+01		2.063E+01	3.194E+01	5.416E+00	-0.340
AC-228	-8.589E-01		7.523E+00	1.015E+01	1.012E+00	-0.085
RA-228	-8.589E-01		7.523E+00	1.015E+01	1.012E+00	-0.085
TH-228	5.482E+00	+	5.731E+00	5.426E+00	4.033E-01	1.010
TH-229	3.487E+00		3.189E+01	4.508E+01	2.611E+00	0.077
PA-231	2.103E+01		7.148E+01	1.219E+02	1.690E+01	0.172
TH-231	-1.226E+01		3.006E+01	4.116E+01	7.527E+00	-0.298
U-231	1.154E+01		5.032E+01	7.300E+01	6.247E+00	0.158
TH-232	6.669E+02		7.272E+03	2.799E+03	2.947E+04	0.238
PA-233	7.140E-01		3.134E+00	5.319E+00	3.369E-01	0.134
PA-234	-1.097E+01		1.219E+01	1.735E+01	3.121E+00	-0.632
PA-234M	-5.780E+01		1.861E+02	3.039E+02	2.506E+01	-0.190
U-234	1.034E+03		1.101E+04	6.294E+03	6.294E+04	0.164
U-235	-1.440E+01		1.550E+01	1.810E+01	2.961E+00	-0.796
NP-236	4.204E+00		4.281E+00	7.191E+00	4.155E-01	0.585
NP-237	3.296E+00		1.337E+01	2.047E+01	4.664E+00	0.161
PU-237	7.440E+01		1.310E+02	1.953E+02	1.812E+01	0.381

Sample ID : G1202001367 Acquisition date : 30-DEC-2009 22:43:28

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NP-239	-1.783E+00		1.056E+01	1.709E+01	1.143E+00	-0.104
AM-241	5.521E+00		9.722E+00	1.449E+01	1.429E+00	0.381
AM-243	2.562E+00		4.839E+00	5.476E+00	4.971E-01	0.468
CM-243	-1.693E+00		5.397E+00	8.702E+00	6.703E-01	-0.195
AM-246	-6.191E-01		5.652E+00	9.362E+00	5.781E-01	-0.066
CM-247	1.344E+00		1.794E+00	3.106E+00	1.774E-01	0.433
CF-249	9.008E-01		1.885E+00	3.225E+00	1.845E-01	0.279
CF-251	6.087E+00		8.189E+00	1.200E+01	6.896E-01	0.507
ANH-511	-4.497E+00		3.085E+00	4.781E+00	2.690E-01	-0.941

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202001367           *
* Acquisition date : 30-DEC-2009 22:43:28 Detector SN#    :                 *
* Detector ID      : GAM19                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:02.19     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 17-DEC-2009 12:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G1202001367          Analyst initials: KXG3            *
* Batch Number     : 935338               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 11-MAR-2009 08:32:49 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
K-40	1.135E+01	2.578E+01	1.135E+01	1.315E+01
AS-74	1.202E+01	4.976E+00	3.359E+00	2.539E+00
AU-195	7.076E+00	1.276E+01	1.011E+01	6.513E+00
BI-211	6.030E+01	1.610E+01	8.235E+00	8.217E+00
BI-214	1.881E+01	7.949E+00	2.532E+00	4.056E+00
PB-214	2.098E+01	5.704E+00	2.903E+00	2.910E+00
PO-214	2.098E+01	5.704E+00	2.903E+00	2.910E+00
PO-218	2.098E+01	5.704E+00	2.903E+00	2.910E+00
TH-230	1.279E+03	8.176E+03	5.166E+02	4.171E+03
TH-234	5.001E+01	1.115E+02	5.899E+01	5.690E+01
U-238	5.001E+01	1.115E+02	5.899E+01	5.690E+01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU	
BE-7	1.803E+00	1.383E+01	1.179E+01	7.058E+00	NOT IDENT.
NA-22	-1.089E-01	1.500E+00	1.261E+00	7.652E-01	NOT IDENT.
NA-24	2.151E+06	5.443E+06	0.000E+00	2.777E+06	SHORT HLIF
AL-26	6.127E-01	1.594E+00	1.397E+00	8.132E-01	NOT IDENT.
TI-44	3.240E+00	2.339E+00	1.560E+00	1.194E+00	FAIL ABUN
SC-46	-1.707E+00	2.139E+00	1.478E+00	1.092E+00	FAIL ABUN
V-48	1.091E+00	3.072E+00	2.597E+00	1.567E+00	NOT IDENT.
CR-51	5.467E+00	1.716E+01	1.492E+01	8.756E+00	NOT IDENT.
MN-52	-5.679E-02	8.215E+00	6.916E+00	4.191E+00	NOT IDENT.
MN-54	-1.789E+00	1.897E+00	1.237E+00	9.678E-01	NOT IDENT.
CO-56	-1.723E-01	1.746E+00	1.429E+00	8.911E-01	NOT IDENT.
CO-57	5.313E-01	1.456E+00	1.226E+00	7.431E-01	NOT IDENT.
CO-58	5.609E-02	1.637E+00	1.359E+00	8.354E-01	NOT IDENT.
FE-59	-9.995E-01	3.488E+00	2.899E+00	1.780E+00	NOT IDENT.
CO-60	-2.424E+00	2.085E+00	1.357E+00	1.064E+00	NOT IDENT.
ZN-65	1.588E+00	3.734E+00	2.901E+00	1.905E+00	NOT IDENT.

GE-68	1.099E+01	4.860E+01	4.237E+01	2.479E+01	NOT IDENT.
AS-73	6.446E+00	4.785E+01	4.057E+01	2.441E+01	NOT IDENT.
SE-75	1.219E+00	2.105E+00	1.857E+00	1.074E+00	FAIL ABUN
BR-77	-3.642E+02	3.046E+02	2.347E+02	1.554E+02	FAIL ABUN
SR-82	6.388E+00	1.518E+01	1.303E+01	7.743E+00	NOT IDENT.
RB-83	-3.544E+00	3.130E+00	2.422E+00	1.597E+00	NOT IDENT.
RB-84	-6.844E-01	3.006E+00	2.425E+00	1.534E+00	NOT IDENT.
KR-85	-2.321E+03	5.136E+02	3.325E+02	2.620E+02	NOT IDENT.
SR-85	-1.171E+01	2.590E+00	1.676E+00	1.321E+00	NOT IDENT.
RB-86	1.968E+01	2.967E+01	2.680E+01	1.514E+01	NOT IDENT.
Y-88	-2.233E-01	1.754E+00	1.431E+00	8.948E-01	NOT IDENT.
ZR-88	2.611E-02	1.404E+00	1.196E+00	7.165E-01	NOT IDENT.
Y-91	2.940E+01	6.959E+02	5.937E+02	3.551E+02	NOT IDENT.
NB-94	-2.859E-01	1.486E+00	1.219E+00	7.582E-01	NOT IDENT.
NB-95	-8.947E-02	1.931E+00	1.595E+00	9.850E-01	NOT IDENT.
NB-95M	1.162E-01	6.463E+00	4.609E+00	3.298E+00	NOT IDENT.
ZR-95	1.619E+00	3.001E+00	2.599E+00	1.531E+00	NOT IDENT.
NB-97	-3.925E+05	8.992E+05	0.000E+00	4.588E+05	SHORT HLIF
ZR-97	-3.169E+07	2.641E+07	0.000E+00	1.348E+07	SHORT HLIF
MO-99	6.805E+01	3.310E+02	2.796E+02	1.689E+02	FAIL ABUN
TC-99M	6.175E+16	3.967E+16	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.006E+00	2.818E+00	1.530E+00	1.438E+00	FAIL ABUN
RH-102	-4.586E-01	1.272E+00	1.048E+00	6.488E-01	NOT IDENT.
RU-103	-2.412E+00	1.874E+00	1.424E+00	9.560E-01	FAIL ABUN
RH-106	-5.253E+00	1.373E+01	1.113E+01	7.007E+00	NOT IDENT.
RU-106	-5.253E+00	1.372E+01	1.113E+01	7.002E+00	NOT IDENT.
AG-108M	-8.696E-01	1.442E+00	1.174E+00	7.358E-01	NOT IDENT.
CD-109	-2.038E+00	4.694E+01	3.434E+01	2.395E+01	NOT IDENT.
AG-110M	-7.232E-01	1.530E+00	1.230E+00	7.808E-01	NOT IDENT.
IN-111	-2.225E+01	4.210E+01	2.884E+01	2.148E+01	NOT IDENT.
IN-113M	-8.191E-01	2.068E+00	1.720E+00	1.055E+00	NOT IDENT.
SN-113	-8.191E-01	2.068E+00	1.720E+00	1.055E+00	NOT IDENT.
IN-114M	1.083E+00	9.844E+00	7.845E+00	5.022E+00	NOT IDENT.
CD-115	3.018E+00	3.035E+02	2.557E+02	1.548E+02	NOT IDENT.
SN-117M	-8.130E-01	2.646E+00	2.157E+00	1.350E+00	NOT IDENT.
SB-122	4.338E+01	7.397E+01	5.674E+01	3.774E+01	NOT IDENT.
I-123	-1.448E+06	3.997E+07	0.000E+00	2.040E+07	SHORT HLIF
TE-123M	-5.313E-02	1.466E+00	1.209E+00	7.481E-01	NOT IDENT.
I-124	-3.506E+00	2.740E+01	1.962E+01	1.398E+01	NOT IDENT.
SB-124	3.557E+00	4.430E+00	4.027E+00	2.260E+00	NOT IDENT.
SB-125	-1.415E+00	4.098E+00	3.401E+00	2.091E+00	NOT IDENT.
TE-125M	-4.978E+01	5.224E+02	4.335E+02	2.665E+02	NOT IDENT.
I-126	5.054E-01	6.965E+00	5.843E+00	3.553E+00	NOT IDENT.
SB-126	-1.057E+00	7.316E+00	4.783E+00	3.733E+00	NOT IDENT.
SN-126	-1.262E+00	4.688E+00	3.390E+00	2.392E+00	FAIL ABUN
SB-127	-1.439E+01	4.391E+01	3.559E+01	2.240E+01	NOT IDENT.
XE-127	-1.689E+00	2.740E+00	1.888E+00	1.398E+00	NOT IDENT.
I-131	1.048E+00	4.616E+00	3.986E+00	2.355E+00	NOT IDENT.
TE-132	-6.653E+00	2.519E+01	2.033E+01	1.285E+01	NOT IDENT.
BA-133	7.763E-01	2.299E+00	1.749E+00	1.173E+00	NOT IDENT.
I-133	1.464E+04	7.684E+04	0.000E+00	3.920E+04	SHORT HLIF
CS-134	7.911E-01	1.938E+00	1.659E+00	9.886E-01	NOT IDENT.
CS-135	-2.047E+00	7.416E+00	6.305E+00	3.784E+00	NOT IDENT.
I-135	7.588E+14	3.697E+15	0.000E+00	1.886E+15	SHORT HLIF
CS-136	-1.791E-01	4.044E+00	3.447E+00	2.063E+00	FAIL ABUN
BA-137M	-5.685E-01	1.944E+00	1.305E+00	9.919E-01	NOT IDENT.
CS-137	-6.010E-01	2.055E+00	1.379E+00	1.049E+00	NOT IDENT.
CE-139	-4.922E-01	1.523E+00	1.239E+00	7.770E-01	NOT IDENT.
BA-140	-1.755E+01	1.774E+01	8.488E+00	9.052E+00	NOT IDENT.
LA-140	-2.794E+00	5.006E+00	3.128E+00	2.554E+00	NOT IDENT.
CE-141	-6.938E-01	3.671E+00	2.628E+00	1.873E+00	NOT IDENT.
CE-143	8.269E+03	4.940E+03	0.000E+00	2.521E+03	SHORT HLIF
CE-144	-4.901E+00	1.158E+01	9.087E+00	5.910E+00	NOT IDENT.
PM-144	3.542E-01	1.431E+00	1.215E+00	7.302E-01	NOT IDENT.
PR-144	2.398E+01	9.691E+01	8.228E+01	4.944E+01	NOT IDENT.
PM-146	3.448E-01	1.976E+00	1.691E+00	1.008E+00	NOT IDENT.
ND-147	6.372E-01	2.273E+01	1.917E+01	1.160E+01	NOT IDENT.
PM-149	-3.709E+02	2.615E+03	2.231E+03	1.334E+03	NOT IDENT.
EU-152	3.664E-02	4.853E+00	3.918E+00	2.476E+00	NOT IDENT.
GD-153	3.816E+00	4.650E+00	3.546E+00	2.372E+00	NOT IDENT.
EU-154	-1.230E+00	4.254E+00	3.487E+00	2.170E+00	NOT IDENT.
EU-155	2.006E+00	5.970E+00	5.038E+00	3.046E+00	NOT IDENT.
TB-160	-1.781E-01	6.148E+00	5.053E+00	3.137E+00	FAIL ABUN
HO-166M	-3.674E-01	2.586E+00	2.127E+00	1.320E+00	NOT IDENT.
TM-171	3.035E+03	2.088E+03	1.452E+03	1.065E+03	FAIL ABUN
HF-175	-2.823E-01	1.633E+00	1.383E+00	8.332E-01	NOT IDENT.
LU-176	-7.026E-01	1.138E+00	9.447E-01	5.806E-01	NOT IDENT.
LU-177	1.462E+01	4.479E+01	3.725E+01	2.285E+01	NOT IDENT.

LU-177M	-3.944E+00	7.946E+00	6.548E+00	4.054E+00	NOT IDENT.
HF-181	-7.950E-01	1.835E+00	1.504E+00	9.361E-01	FAIL ABUN
W-181	3.706E+01	2.549E+01	2.000E+01	1.301E+01	FAIL ABUN
TA-182	1.431E+00	5.703E+00	4.978E+00	2.910E+00	FAIL ABUN
RE-183	2.379E+00	5.704E+00	4.786E+00	2.910E+00	FAIL ABUN
RE-184	5.392E+00	1.218E+01	1.014E+01	6.215E+00	FAIL ABUN
OS-185	-1.157E+00	1.869E+00	1.484E+00	9.537E-01	NOT IDENT.
RE-188	3.683E+00	8.476E+00	7.129E+00	4.325E+00	NOT IDENT.
W-188	2.297E+01	3.997E+02	3.001E+02	2.039E+02	FAIL ABUN
IR-192	-4.874E-01	1.659E+00	1.401E+00	8.464E-01	FAIL ABUN
TL-200	-2.160E+03	7.783E+03	0.000E+00	3.971E+03	SHORT HLIF
TL-201	-1.434E+02	2.547E+02	2.050E+02	1.299E+02	NOT IDENT.
TL-202	2.621E+00	2.849E+00	2.546E+00	1.453E+00	NOT IDENT.
HG-203	-1.177E+00	1.769E+00	1.471E+00	9.026E-01	NOT IDENT.
BI-207	-1.424E+00	1.930E+00	1.526E+00	9.846E-01	NOT IDENT.
TL-207	1.505E+01	3.198E+01	2.790E+01	1.632E+01	NOT IDENT.
TL-208	-1.629E+00	2.144E+00	1.389E+00	1.094E+00	NOT IDENT.
PO-209	6.545E+01	3.085E+02	2.592E+02	1.574E+02	NOT IDENT.
BI-210	-2.183E+02	2.409E+02	1.689E+02	1.229E+02	NOT IDENT.
PB-210	-2.183E+02	2.409E+02	1.689E+02	1.229E+02	NOT IDENT.
PO-210	-2.183E+02	2.408E+02	1.689E+02	1.229E+02	NOT IDENT.
PB-211	2.847E+01	4.610E+01	3.763E+01	2.352E+01	NOT IDENT.
BI-212	3.463E+00	1.233E+01	1.047E+01	6.289E+00	NOT IDENT.
PB-212	5.482E+00	5.616E+00	2.714E+00	2.865E+00	FAIL ABUN
PO-212	5.482E+00	5.616E+00	2.714E+00	2.865E+00	FAIL ABUN
PO-215	1.505E+01	3.198E+01	2.790E+01	1.632E+01	NOT IDENT.
PO-216	5.482E+00	5.616E+00	2.714E+00	2.865E+00	FAIL ABUN
RN-219	6.073E+00	1.940E+01	1.676E+01	9.898E+00	NOT IDENT.
RN-220	7.853E+02	1.193E+03	1.047E+03	6.086E+02	NOT IDENT.
RA-223	1.505E+01	3.198E+01	2.790E+01	1.632E+01	NOT IDENT.
RA-224	6.471E+01	3.745E+01	2.937E+01	1.911E+01	NOT IDENT.
RA-226	-5.879E+01	6.598E+01	3.548E+01	3.366E+01	NOT IDENT.
AC-227	-1.085E+01	2.020E+01	1.598E+01	1.030E+01	NOT IDENT.
PA-227	1.000E+41	2.225E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-1.085E+01	2.022E+01	1.598E+01	1.032E+01	FAIL ABUN
AC-228	-8.589E-01	7.373E+00	5.077E+00	3.762E+00	NOT IDENT.
RA-228	-8.589E-01	7.373E+00	5.077E+00	3.762E+00	NOT IDENT.
TH-228	5.482E+00	5.616E+00	2.714E+00	2.865E+00	FAIL ABUN
TH-229	3.487E+00	3.125E+01	2.255E+01	1.594E+01	NOT IDENT.
PA-231	2.103E+01	7.005E+01	6.100E+01	3.574E+01	NOT IDENT.
TH-231	-1.226E+01	2.946E+01	2.059E+01	1.503E+01	NOT IDENT.
U-231	1.154E+01	4.931E+01	3.652E+01	2.516E+01	FAIL ABUN
TH-232	6.669E+02	7.127E+03	1.401E+03	3.636E+03	NOT IDENT.
PA-233	7.140E-01	3.072E+00	2.661E+00	1.567E+00	NOT IDENT.
PA-234	-1.097E+01	1.195E+01	8.680E+00	6.096E+00	FAIL ABUN
PA-234M	-5.780E+01	1.824E+02	1.520E+02	9.307E+01	NOT IDENT.
U-234	1.034E+03	1.079E+04	3.149E+03	5.505E+03	NOT IDENT.
U-235	-1.440E+01	1.519E+01	9.054E+00	7.751E+00	FAIL ABUN
NP-236	4.204E+00	4.196E+00	3.598E+00	2.141E+00	NOT IDENT.
NP-237	3.296E+00	1.310E+01	1.024E+01	6.686E+00	NOT IDENT.
PU-237	7.440E+01	1.284E+02	9.770E+01	6.550E+01	NOT IDENT.
NP-239	-1.783E+00	1.035E+01	8.548E+00	5.280E+00	NOT IDENT.
AM-241	5.521E+00	9.527E+00	7.249E+00	4.861E+00	NOT IDENT.
AM-243	2.562E+00	4.742E+00	2.740E+00	2.419E+00	NOT IDENT.
CM-243	-1.693E+00	5.289E+00	4.354E+00	2.699E+00	NOT IDENT.
AM-246	-6.191E-01	5.539E+00	4.684E+00	2.826E+00	NOT IDENT.
CM-247	1.344E+00	1.758E+00	1.554E+00	8.968E-01	NOT IDENT.
CF-249	9.008E-01	1.847E+00	1.614E+00	9.424E-01	NOT IDENT.
CF-251	6.087E+00	8.025E+00	6.005E+00	4.094E+00	NOT IDENT.
ANH-511	-4.497E+00	3.024E+00	2.392E+00	1.543E+00	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	307.0948
46.50	307.0948
46.50	307.0948
48.70	297.1948
49.72	332.6768
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53.15	302.6590
53.20	302.6761
53.44	310.5970
54.07	315.7208
56.28	334.7524
56.28	341.4937
57.37	0.0000
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57.53	302.3666
57.60	302.3889
57.98	316.6940
57.98	316.6940
59.00	310.7331
59.32	302.9502
59.32	302.9502
59.40	302.9760
59.54	303.0217
59.54	303.0217
59.72	303.0797
60.01	303.1735
61.10	322.4934
61.14	322.5065
61.30	332.0478
63.00	357.3868
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63.29	357.4939
63.58	357.6006
64.28	357.8575
64.62	0.0000
65.12	358.1635
65.20	358.1924
65.20	358.1924
66.05	358.5005
66.72	362.5178
66.83	362.5581
66.91	359.4068
67.20	359.5102
67.20	359.5102
67.67	366.0445
67.75	366.0726
67.85	369.2941
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68.90	409.5122
69.30	409.6738
69.67	403.4442
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70.82	437.4183
70.83	464.5627
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72.80	411.0604
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74.81	408.6381
74.81	408.6381
74.81	408.6381
74.81	408.6381
74.81	408.6381

74.81	408.6381
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74.97	439.1509
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79.62	355.7258
79.80	355.7838
79.80	355.7838
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80.18	354.2948
80.30	354.3337
80.30	354.3337
80.57	352.8087
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81.07	375.5305
81.07	375.5305
81.07	375.5305
82.60	365.8223
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83.78	372.5979
83.78	372.5979
83.78	372.5979
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84.21	380.8197
84.90	353.7598
85.43	358.9787
86.29	371.2458
86.50	376.5183
86.54	376.5311
86.59	376.5481
86.72	376.5907
86.79	376.6120
86.94	385.5719
87.30	385.6910
87.30	385.6910
87.30	385.6910
87.30	385.6910
87.30	385.6910
87.30	385.6910
87.30	385.6910
87.57	397.1276
87.88	385.8828
88.03	385.9322
88.36	386.0411
88.47	382.8331
89.36	399.3566
89.95	415.7984
91.11	382.0615
92.29	340.7366
92.38	340.7621
92.38	340.7621
93.35	317.6212
94.00	316.1617
94.67	334.2711
94.67	334.2724
94.90	335.9671
94.90	335.9671
94.90	335.9671
95.87	328.0714
95.87	328.0714
96.73	315.2341
97.43	290.8981
98.44	310.7609
98.44	310.7620
98.88	301.3267
99.55	319.2220
99.55	319.2220
99.86	311.1134
100.00	308.0777
100.10	308.1029

103.18	346.8141
103.76	337.7325
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105.31	334.0268
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109.28	373.1813
110.05	0.0000
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111.00	340.6323
111.76	332.5637
112.95	354.5653
115.19	355.1502
115.19	355.1502
115.19	355.1502
116.30	352.3280
117.00	327.6241
117.00	327.6241
117.66	335.0418
121.11	331.7116
121.62	351.5951
121.78	351.6351
122.06	350.6642
122.32	362.1765
122.32	362.1765
122.32	362.1765
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131.20	330.8993
133.02	362.7599
133.54	352.3986
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136.00	346.2520
136.25	346.3098
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144.24	336.2886
144.24	336.2886
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145.44	338.2373
147.16	330.1408
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154.21	278.4570
154.21	278.4570
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163.35	316.3383
163.89	330.3376
165.85	309.3137
167.43	321.3867
171.28	312.6592
171.86	305.8897
172.10	304.2123
176.55	322.2189
176.60	322.2280
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185.71	293.3483
186.00	289.0653
186.21	295.5945
190.27	319.9715
192.34	302.4503
193.63	316.5760

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198.01	298.1374
198.60	277.3028
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202.84	319.8725
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208.36	270.6104
208.81	273.9601
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209.75	315.7537
210.97	307.1750
215.65	270.5152
216.55	278.3382
218.09	264.2413
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226.40	249.8497
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227.08	256.5696
227.20	263.2196
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228.18	266.6644
228.18	266.6644
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236.00	243.4576
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238.63	232.4191
238.63	232.4191
238.63	232.4191
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241.98	233.4541
241.98	233.4541
241.98	233.4541
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247.94	226.7302
248.90	244.7092
249.79	239.2202
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256.20	251.1335
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269.46	216.5332
269.46	216.5332
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277.60	194.6653
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278.60	201.9957
279.20	199.3293
279.53	180.3280
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285.90	195.3555
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286.10	195.3739
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290.67	207.8887

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293.70	202.0733
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295.21	218.9238
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296.50	215.9988
297.23	203.8925
298.57	208.5716
299.80	193.4456
299.80	193.4456
300.09	193.4688
300.09	193.4688
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301.29	195.0885
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303.76	189.4864
303.91	189.4990
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304.40	191.3682
304.84	184.9908
306.84	182.3916
308.46	178.8420
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316.51	191.3818
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319.02	180.5200
319.41	182.3898
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323.87	179.0190
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329.70	196.9990
330.00	194.2449
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334.30	177.8906
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338.28	156.8201
338.28	156.8201
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338.32	156.8222
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351.92	175.6590
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367.43	147.2680
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391.69	151.3789
392.90	140.0833
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439.56	102.8686
439.89	100.9561
443.98	127.0838
444.90	119.4166
445.03	123.2734
445.03	123.2734
445.03	123.2734
453.90	113.9639
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477.96	95.3574
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510.53	0.0000
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511.00	133.6476
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511.85	165.1340
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513.99	408.1787
520.41	120.2188
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529.87	0.0000
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546.56	0.0000
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555.20	104.4899
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563.90	99.7534
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569.50	119.8887
569.67	123.8910
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574.00	94.0275
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578.91	111.1789
579.30	0.0000
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592.07	72.0358
593.00	65.3507
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600.56	102.4212

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602.71	110.8782
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610.33	92.5842
612.46	96.0020
614.37	84.2550
618.01	80.9609
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621.84	87.1191
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656.30	90.9469
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661.65	86.9756
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666.33	77.8555
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677.61	83.2069
685.20	80.2718
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696.49	74.2992
697.00	77.4042
697.49	74.3168
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699.00	82.6035
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722.78	79.9514
722.89	79.9533
722.95	79.9552
723.30	77.8839
724.18	74.7844
727.18	73.7977
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739.58	67.7549
742.81	74.0629
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747.13	71.0049
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752.31	77.3604
753.82	84.7079
755.35	69.0438
756.15	65.9177
756.87	65.9285
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766.42	79.7035
766.84	70.2715
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778.89	59.9446
783.80	67.3781
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792.07	74.8845
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796.30	66.5084
798.80	102.4562
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818.51	54.0991
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831.60	64.8870
831.96	71.2758
834.83	79.8340
836.80	0.0000
846.75	71.4983
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860.37	52.4381
867.32	50.3701
867.82	52.5183
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873.19	64.3799
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875.33	0.0000
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879.36	65.5348
880.27	60.1740
880.51	59.1035
881.50	66.6379
883.24	73.1133
884.67	69.9083
889.25	77.5090
896.60	53.9050
898.02	64.7051
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903.28	60.4557
911.07	64.8735
911.07	64.8735
919.63	64.9849
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925.24	55.2981
926.50	75.9182
935.52	71.7073
937.48	86.9512
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949.00	46.8412
962.29	50.2373
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966.15	62.2964
968.20	47.0145
969.11	47.0229
969.11	47.0229
977.42	62.4300
980.50	62.4676
983.50	62.5024
989.30	62.5706
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1001.68	65.1007
1004.76	43.1197
1021.30	0.0000
1024.50	0.0000
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1036.00	53.5183
1037.82	54.4602
1038.57	58.1602
1038.76	0.0000

1045.16	56.3808
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1050.47	55.5103
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1076.63	46.4742
1077.35	49.2691
1078.86	52.0739
1085.78	46.5515
1093.90	50.3459
1099.22	55.9937
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1112.84	60.3349
1115.52	46.5262
1120.29	46.5647
1120.51	44.9609
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1124.00	0.0000
1129.67	44.0931
1131.51	0.0000
1147.95	0.0000
1167.94	43.4357
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1175.09	46.3243
1177.93	47.2921
1189.05	47.3796
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1205.75	0.0000
1213.00	52.3234
1221.42	33.3423
1230.97	37.2115
1235.34	39.1465
1236.41	0.0000
1238.25	47.7620
1246.25	47.8251
1260.41	0.0000
1271.85	39.3768
1274.45	39.3918
1274.54	36.5110
1291.56	44.3154
1298.22	0.0000
1312.09	29.9606
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1325.50	35.8332
1332.49	43.6267
1333.61	34.9072
1360.21	41.8645
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1365.15	46.7676
1368.21	33.1423
1368.53	0.0000
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1384.27	34.1982
1394.10	35.2280
1395.20	32.2964
1407.95	28.4360
1434.06	31.4974
1436.60	31.5091
1457.56	0.0000
1460.81	27.1027
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1596.49	38.2629
1620.62	26.2645
1678.03	0.0000
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1691.02	29.5664
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1750.46	0.0000
1764.49	27.7866
1770.23	41.1947
1771.40	42.2295
1791.20	0.0000
1808.65	21.7306
1836.01	24.9180

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202001367

Total Uranium Activity	1.4210E+02	ug/g
Total Uranium Counting Unc.	3.3184E+02	ug/g
Total Uranium Tpu	1.6930E-04	ug/g
Total Uranium Mda	1.7556E+02	ug/g

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*                                                                             *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 935338                    SAMPLE ID  : G1202001367        *
*   ANALYST       : KXG3                      DETECTOR   : GAM19              *
*   SAMPLE DATE   : 17-DEC-2009 12:00:00.00   COUNT TIME :    0 06:00:00.00   *
*   ANALYSIS DATE: 30-DEC-2009 22:43:28.50    SAMPLE ALQT:    2.000 LITER     *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 5.130E+01
        GROSS GAMMA ERROR  (pCi/LITER )   : 2.222E+01
        GROSS GAMMA MDA    (pCi/LITER )   : 4.714E+01
        GROSS GAMMA DLC    (pCi/LITER )   : 2.270E+01
```

VAX/VMS Nuclide Identification Report Generated 30-DEC-2009 23:03:45.17

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001368.CNF;1
Sample date       : 23-DEC-2009 00:00:00 Acquisition date : 30-DEC-2009 22:03:13
Sample ID         : G1202001368          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM01                Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:00.67  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 935338               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.48	938	424	1.10	119.74	114	12	2.60E-01	5.5	
2	0	87.95	548	230	1.32	176.66	172	10	1.52E-01	6.7	
3	0	92.79*	14	205	1.56	186.35	182	10	3.97E-03	199.8	
4	0	122.13	137	202	0.91	245.01	239	11	3.81E-02	21.8	
5	0	186.06*	13	138	1.48	372.86	369	8	3.72E-03	163.9	
6	0	661.54	964	68	1.38	1323.62	1317	15	2.68E-01	3.7	
7	0	1172.83	783	17	1.85	2345.76	2339	14	2.17E-01	3.7	
8	0	1332.02	787	4	1.95	2663.96	2655	20	2.18E-01	3.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 30-DEC-2009 23:03:47

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001368.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 23-DEC-2009 00:00:00 Acquisition date : 30-DEC-2009 22:03:13
Sample ID : G1202001368 Sample quantity : 2.0000 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA1 Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:00.67 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-57	+	122.06	*	2.633E+01	1.164E+01	1.095E+01	7.541E-01	2.406
		136.48		3.608E+01	5.578E+01	9.719E+01	6.979E+00	0.371
CO-60	+	1173.22		5.052E+02	4.698E+01	1.576E+01	8.665E-01	32.052
	+	1332.49	*	5.630E+02	5.902E+01	7.957E+00	6.019E-01	70.754
CD-109	+	88.03	*	3.064E+03	4.867E+02	3.844E+02	3.270E+01	7.971
SN-126		64.28		5.891E+01	1.786E+02	2.728E+02	4.112E+01	0.216
	+	86.94		1.266E+03	5.500E+02	1.644E+02	6.795E+01	7.697
	+	87.57	*	3.044E+02	4.835E+01	3.845E+01	3.264E+00	7.916
BA-137M	+	661.65	*	4.323E+02	3.867E+01	1.467E+01	7.285E-01	29.467
CS-137	+	661.65	*	4.570E+02	4.095E+01	1.551E+01	7.745E-01	29.467
RA-226	+	186.21	*	6.996E+01	2.349E+02	2.818E+02	2.068E+02	0.248
TH-232	+	59.00	*	2.657E+05	2.797E+06	2.149E+04	2.262E+05	12.365
NP-237	+	86.50	*	8.939E+02	2.328E+02	1.058E+02	2.359E+01	8.447
		95.87		-2.335E+02	2.796E+02	3.595E+02	8.752E+01	-0.650
PU-237	+	59.54	*	1.738E+04	2.445E+03	1.358E+03	1.190E+02	12.798
AM-241	+	59.54	*	1.406E+03	2.033E+02	1.099E+02	1.031E+01	12.798

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	6.268E+00	8.531E+01	1.377E+02	9.398E+00	0.046
NA-22		1274.54	*	-5.470E+00	6.130E+00	8.036E+00	5.460E-01	-0.681
NA-24		1368.53	*	1.301E-02	6.130E+00	Half-Life too short		
AL-26		1129.67		1.024E+00	3.373E+02	5.427E+02	3.099E+01	0.002
		1808.65	*	-7.676E-01	4.921E+00	7.523E+00	4.403E-01	-0.102
K-40		1460.81	*	-3.495E+01	6.758E+01	1.144E+02	8.674E+00	-0.306
TI-44		67.85		-1.949E+00	1.416E+01	2.272E+01	1.877E+00	-0.086
		78.38	*	-9.023E-01	1.045E+01	1.674E+01	1.370E+00	-0.054
SC-46		889.25	*	8.083E+00	1.180E+01	2.048E+01	1.301E+00	0.395
		1120.51		3.357E+00	1.182E+01	1.968E+01	1.132E+00	0.171
V-48		944.10		-1.225E+02	2.037E+02	3.109E+02	1.967E+01	-0.394
		983.50	*	5.730E+00	1.447E+01	2.452E+01	1.529E+00	0.234
		1312.09		8.079E-01	8.055E+00	1.374E+01	1.001E+00	0.059

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CR-51		320.08	*	2.199E+01	7.916E+01	1.323E+02	8.849E+00	0.166
MN-52		744.21		-1.604E+01	2.662E+01	4.133E+01	2.259E+00	-0.388
		848.13		1.587E+02	7.332E+02	1.230E+03	7.504E+01	0.129
		935.52		-1.189E+01	3.194E+01	5.053E+01	3.206E+00	-0.235
		1246.25		-2.258E+02	4.342E+02	6.519E+02	4.181E+01	-0.346
		1333.61		2.717E+04	2.895E+03	4.725E+03	3.573E+02	5.749
		1434.06	*	-7.701E+00	1.256E+01	1.630E+01	1.201E+00	-0.472
MN-54		834.83	*	-2.929E-01	8.752E+00	1.431E+01	8.612E-01	-0.020
CO-56		846.75	*	1.799E+00	9.708E+00	1.624E+01	9.892E-01	0.111
		977.42		3.156E+02	8.449E+02	1.424E+03	8.903E+01	0.222
		1037.82		3.900E+00	8.283E+01	1.347E+02	9.040E+00	0.029
		1175.09		1.734E+04	1.784E+03	3.423E+03	1.889E+02	5.067
		1238.25		3.988E-01	9.680E+00	1.633E+01	1.085E+00	0.024
		1360.21		8.532E+01	1.363E+02	2.599E+02	1.954E+01	0.328
		1771.40		-3.305E+00	3.404E+01	5.345E+01	3.236E+00	-0.062
CO-58		810.76	*	7.503E+00	9.497E+00	1.689E+01	9.967E-01	0.444
FE-59		142.65		-1.632E+02	6.122E+02	1.022E+03	6.278E+01	-0.160
		192.34		-2.629E+01	1.990E+02	3.308E+02	3.883E+01	-0.079
		1099.22	*	-9.773E+00	2.363E+01	3.625E+01	2.477E+00	-0.270
		1291.56		-2.029E+00	1.514E+01	2.446E+01	2.055E+00	-0.083
ZN-65		1115.52	*	-1.670E+00	2.262E+01	3.609E+01	2.089E+00	-0.046
GE-68		1077.35	*	-2.337E+02	3.706E+02	5.553E+02	3.294E+01	-0.421
AS-73		53.44	*	3.820E+02	4.313E+02	6.966E+02	6.313E+01	0.548
AS-74		595.88	*	1.601E+00	1.711E+01	2.889E+01	1.568E+00	0.055
		634.78		-3.867E+01	6.867E+01	1.082E+02	5.598E+00	-0.357
SE-75		66.05		-1.542E+03	1.486E+03	2.248E+03	2.294E+02	-0.686
		96.73		-5.820E+01	2.062E+02	2.855E+02	3.729E+01	-0.204
	+	121.11		1.383E+02	6.195E+01	7.521E+01	7.485E+00	1.839
		136.00		-2.080E-01	1.026E+01	1.735E+01	1.114E+00	-0.012
		198.60		1.060E+02	4.155E+02	7.054E+02	4.955E+01	0.150
		264.65	*	-4.340E+00	1.136E+01	1.832E+01	1.102E+00	-0.237
		279.53		-2.321E+01	2.608E+01	4.024E+01	2.597E+00	-0.577
		303.91		7.271E+01	4.828E+02	8.019E+02	7.769E+01	0.091
		400.65		-1.777E+01	6.436E+01	1.017E+02	9.341E+00	-0.175
BR-77	+	87.88		8.150E+04	1.295E+04	1.814E+04	1.543E+03	4.493
		200.40		2.391E+03	4.851E+03	8.339E+03	4.740E+02	0.287
		239.00		1.317E+02	2.863E+02	4.935E+02	2.893E+01	0.267
		249.79		9.608E+02	2.206E+03	3.749E+03	2.214E+02	0.256
		281.68		-1.511E+03	2.591E+03	4.080E+03	2.449E+02	-0.370
		297.23		5.094E+02	1.565E+03	2.630E+03	1.586E+02	0.194
		303.76		-1.190E+03	5.370E+03	8.675E+03	5.239E+02	-0.137
		439.47		-2.016E+03	5.219E+03	8.143E+03	4.830E+02	-0.248
		484.57		-3.560E+03	7.261E+03	1.105E+04	6.493E+02	-0.322
		520.65	*	4.253E+01	3.393E+02	5.480E+02	3.165E+01	0.078
		574.64		-5.902E+03	6.146E+03	9.339E+03	5.179E+02	-0.632
		578.91		-1.204E+03	2.381E+03	3.793E+03	2.095E+02	-0.317
		585.48		-6.542E+02	4.305E+03	7.105E+03	3.898E+02	-0.092
		755.35		3.214E+03	5.318E+03	9.295E+03	5.144E+02	0.346
		817.79		-5.573E+02	4.262E+03	6.903E+03	4.083E+02	-0.081

---- Non-Identified Nuclides ----

Nuclide	Line Energy Ided (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
SR-82	698.33		1.068E+02	6.394E+03	1.063E+04	5.513E+02	0.010
	776.49	*	-2.033E+01	6.975E+01	1.109E+02	6.279E+00	-0.183
	1395.20		-1.112E+03	1.198E+03	1.339E+03	9.979E+01	-0.831
RB-83	520.41	*	2.927E+00	1.744E+01	2.829E+01	1.634E+00	0.103
	529.64		-1.895E+01	2.529E+01	3.976E+01	2.284E+00	-0.477
	552.65		3.200E+01	4.637E+01	8.262E+01	4.669E+00	0.387
RB-84	881.50	*	2.938E+00	1.813E+01	3.013E+01	1.900E+00	0.097
KR-85	513.99	*	-2.100E+03	2.047E+03	2.967E+03	1.720E+02	-0.708
SR-85	513.99	*	-9.982E+00	9.730E+00	1.410E+01	8.176E-01	-0.708
RB-86	1076.63	*	-5.569E+01	1.826E+02	2.846E+02	1.690E+01	-0.196
Y-88	898.02		8.675E+00	1.213E+01	2.114E+01	1.366E+00	0.410
	1836.01	*	2.673E+00	6.406E+00	1.168E+01	6.671E-01	0.229
ZR-88	392.90	*	-1.542E+00	7.286E+00	1.159E+01	6.852E-01	-0.133
Y-91	1204.90	*	1.328E+03	2.812E+03	5.051E+03	2.974E+02	0.263
NB-94	702.63	*	7.162E-01	7.540E+00	1.264E+01	6.587E-01	0.057
	871.10		1.465E+00	9.828E+00	1.633E+01	1.019E+00	0.090
NB-95	765.79	*	-6.854E+00	9.797E+00	1.490E+01	8.338E-01	-0.460
NB-95M	235.69	*	-1.977E+01	2.714E+01	4.301E+01	3.254E+00	-0.460
ZR-95	724.18		6.578E+00	2.034E+01	3.477E+01	2.253E+00	0.189
	756.15	*	1.749E+01	1.716E+01	3.106E+01	2.118E+00	0.563
NB-97	657.90	*	4.829E-02	1.716E+01	Half-Life too short		
	1024.50		-1.386E+00	1.716E+01	Half-Life too short		
ZR-97	254.15		-3.017E-01	1.716E+01	Half-Life too short		
	355.39		-6.276E-01	1.716E+01	Half-Life too short		
	507.63	*	-6.081E-01	1.716E+01	Half-Life too short		
	602.52		2.896E-01	1.716E+01	Half-Life too short		
	1021.30		5.706E-02	1.716E+01	Half-Life too short		
	1147.95		4.326E-01	1.716E+01	Half-Life too short		
	1362.66		-1.503E-01	1.716E+01	Half-Life too short		
	1750.46		-9.924E-03	1.716E+01	Half-Life too short		
MO-99	140.51		-8.183E+02	1.127E+03	1.805E+03	4.880E+02	-0.453
	181.06		-1.520E+02	7.329E+02	1.066E+03	1.821E+02	-0.143
	366.43		1.060E+03	3.792E+03	6.301E+03	3.777E+02	0.168
	739.58	*	2.408E+02	5.156E+02	8.886E+02	1.211E+02	0.271
	778.00		-5.842E+02	1.198E+03	1.851E+03	1.050E+02	-0.316
TC-99M	140.51	*	-1.594E+04	1.198E+03	Half-Life too short		
RH-101	127.23		-1.082E+00	8.645E+00	1.288E+01	8.576E-01	-0.084
	198.01	*	-2.618E+00	7.941E+00	1.304E+01	7.397E-01	-0.201
	325.23		3.387E+00	5.414E+01	8.904E+01	5.386E+00	0.038
RH-102	418.52		7.658E+00	7.959E+01	1.296E+02	7.689E+00	0.059
	475.06	*	2.113E-01	8.352E+00	1.343E+01	7.911E-01	0.016
	631.29		1.643E+01	1.322E+01	2.460E+01	1.278E+00	0.668
	697.49		-4.548E+00	1.763E+01	2.845E+01	1.474E+00	-0.160
	766.84		-1.224E+01	2.528E+01	3.953E+01	2.215E+00	-0.310
	1046.59		-7.236E+00	3.261E+01	5.137E+01	3.106E+00	-0.141
	1112.84		3.007E+01	5.649E+01	9.676E+01	5.599E+00	0.311
RU-103	497.08	*	-7.330E+00	9.011E+00	1.306E+01	1.654E+00	-0.561
	610.33		-5.523E+01	1.693E+02	2.802E+02	4.274E+01	-0.197
RH-106	511.85		-5.208E+01	4.598E+01	7.917E+01	4.595E+00	-0.658

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		621.84	*	-2.877E+00	7.086E+01	1.179E+02	1.353E+01	-0.024
		1050.47		-2.074E+02	6.180E+02	9.577E+02	5.777E+01	-0.217
RU-106		511.85		-5.208E+01	4.598E+01	7.917E+01	4.595E+00	-0.658
		621.84	*	-2.877E+00	7.086E+01	1.179E+02	6.203E+00	-0.024
		1050.47		-2.074E+02	6.180E+02	9.577E+02	5.777E+01	-0.217
AG-108M		433.93	*	-5.431E+00	1.025E+01	1.585E+01	1.018E+00	-0.343
		614.37		5.464E+00	9.724E+00	1.705E+01	9.963E-01	0.321
		722.95		-8.896E-01	1.002E+01	1.644E+01	9.644E-01	-0.054
AG-110M		657.75	*	1.459E+01	1.001E+01	1.711E+01	9.285E-01	0.853
		677.61		-5.276E+01	7.052E+01	1.074E+02	5.866E+00	-0.491
		706.67		2.034E+00	4.564E+01	7.605E+01	4.274E+00	0.027
		763.93		1.957E+01	3.709E+01	6.465E+01	3.850E+00	0.303
		884.67		-5.147E+00	1.510E+01	2.385E+01	1.597E+00	-0.216
		937.48		2.619E+01	3.283E+01	5.754E+01	3.888E+00	0.455
		1384.27		-2.069E+01	2.485E+01	3.183E+01	2.468E+00	-0.650
IN-111		171.28		3.063E+01	4.280E+01	7.475E+01	4.166E+00	0.410
		245.39	*	-1.717E+01	4.804E+01	7.787E+01	4.584E+00	-0.220
IN-113M		391.69	*	-1.151E+00	1.063E+01	1.707E+01	1.074E+00	-0.067
SN-113		391.69	*	-1.151E+00	1.063E+01	1.707E+01	1.074E+00	-0.067
IN-114M		190.27	*	-1.468E+01	4.386E+01	6.298E+01	3.552E+00	-0.233
CD-115		260.90		1.768E+03	3.549E+03	6.057E+03	3.600E+02	0.292
		492.35		-3.738E+01	9.379E+02	1.495E+03	8.756E+01	-0.025
		527.90	*	-1.926E+02	2.823E+02	4.461E+02	2.565E+01	-0.432
SN-117M		156.02		8.217E+01	3.633E+02	6.215E+02	3.600E+01	0.132
		158.56	*	-3.631E+00	8.961E+00	1.478E+01	8.470E-01	-0.246
SB-122		563.90	*	-4.472E+01	7.304E+01	1.151E+02	6.443E+00	-0.389
		692.80		2.620E+02	1.610E+03	2.718E+03	1.401E+02	0.096
I-123		159.00	*	-3.220E-03	1.610E+03	Half-Life too short		
		528.96		-8.791E+00	1.610E+03	Half-Life too short		
TE-123M		159.00	*	-1.430E-01	6.462E+00	1.089E+01	6.319E-01	-0.013
I-124		602.71	*	1.152E+01	4.530E+01	7.766E+01	4.183E+00	0.148
		722.78		8.734E+01	3.081E+02	5.251E+02	2.802E+01	0.166
		1325.50		-1.407E+02	1.723E+03	2.397E+03	1.790E+02	-0.059
		1376.25		7.943E+01	1.464E+03	2.480E+03	1.858E+02	0.032
		1509.49		-1.962E+02	4.896E+02	6.627E+02	4.743E+01	-0.296
		1691.02		-2.272E+02	2.477E+02	2.925E+02	1.887E+01	-0.777
SB-124		602.71		2.039E+00	8.020E+00	1.375E+01	7.409E-01	0.148
		645.85		4.478E+00	1.092E+02	1.829E+02	1.083E+01	0.024
		709.31		1.660E+01	5.685E+02	9.456E+02	4.968E+01	0.018
		713.82		1.180E+02	3.321E+02	5.721E+02	5.678E+01	0.206
		722.78		2.242E+01	7.908E+01	1.348E+02	7.590E+00	0.166
		968.20		-4.729E+02	6.931E+02	1.055E+03	6.618E+01	-0.448
		1045.16		1.112E+01	6.571E+02	1.064E+03	6.441E+01	0.010
		1325.50		-3.857E+01	4.724E+02	6.572E+02	4.908E+01	-0.059
		1368.21		8.509E+01	2.035E+02	3.776E+02	4.830E+01	0.225
		1436.60		-3.460E+02	5.156E+02	6.769E+02	4.982E+01	-0.511
		1691.02	*	-1.375E+01	1.500E+01	1.771E+01	1.222E+00	-0.777
SB-125		427.89	*	1.834E+01	2.537E+01	4.333E+01	2.675E+00	0.423
		463.38		2.513E+01	8.049E+01	1.325E+02	9.088E+00	0.190

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		600.56		-3.263E+00	4.167E+01	6.924E+01	4.407E+00	-0.047
		635.90		-2.780E+01	6.886E+01	1.104E+02	6.905E+00	-0.252
TE-125M		109.28	*	1.016E+02	2.333E+03	3.725E+03	3.382E+02	0.027
I-126		388.63		-2.101E+01	3.768E+01	5.828E+01	3.452E+00	-0.361
		666.33	*	-9.244E+00	3.346E+01	4.636E+01	2.315E+00	-0.199
		753.82		5.858E+01	2.655E+02	4.480E+02	2.475E+01	0.131
SB-126		223.80		-3.259E+02	7.310E+02	1.187E+03	6.876E+01	-0.275
		278.60		2.811E+02	3.974E+02	6.864E+02	4.115E+01	0.410
		296.50		1.424E+02	2.173E+02	3.734E+02	2.252E+01	0.381
		414.70		2.586E+00	1.435E+01	2.353E+01	1.396E+00	0.110
		415.30		-2.896E+02	1.218E+03	1.931E+03	1.146E+02	-0.150
		555.20		2.193E+02	6.594E+02	1.141E+03	6.436E+01	0.192
		573.80		-1.418E+02	1.725E+02	2.670E+02	1.482E+01	-0.531
		593.00		3.378E+01	1.533E+02	2.621E+02	1.427E+01	0.129
		656.30		-8.145E+01	6.453E+02	9.172E+02	4.593E+01	-0.089
		666.33		-3.799E+00	1.375E+01	1.906E+01	9.514E-01	-0.199
		675.00		-5.709E-01	3.059E+02	5.085E+02	2.565E+01	-0.001
		695.00		1.363E+00	1.184E+01	1.990E+01	1.028E+00	0.068
		697.00		1.371E+01	4.037E+01	6.940E+01	3.594E+00	0.198
		720.50	*	1.449E+01	2.349E+01	4.129E+01	2.197E+00	0.351
		856.80		3.809E+01	7.670E+01	1.327E+02	8.163E+00	0.287
		989.30		-2.112E+01	2.236E+02	3.586E+02	2.231E+01	-0.059
		1034.80		-2.678E+02	1.646E+03	2.612E+03	1.590E+02	-0.103
		1213.00		-7.364E+01	4.475E+02	7.271E+02	4.355E+01	-0.101
SB-127		61.10		6.678E+04	1.106E+04	1.734E+04	1.630E+03	3.852
		252.40		1.777E+02	3.299E+02	5.505E+02	2.264E+02	0.323
		290.80		4.944E+02	1.392E+03	2.349E+03	1.662E+02	0.210
		411.60		1.925E+02	9.131E+02	1.501E+03	1.966E+02	0.128
		444.90		-3.474E+02	7.735E+02	1.197E+03	1.080E+02	-0.290
		473.00		7.305E+01	1.294E+02	2.174E+02	2.057E+01	0.336
		543.00		4.930E+02	1.185E+03	2.061E+03	2.340E+02	0.239
		603.60		-2.214E+02	7.049E+02	1.142E+03	9.869E+01	-0.194
		685.20	*	-2.786E+01	8.195E+01	1.307E+02	8.760E+00	-0.213
		698.50		5.424E+01	9.418E+02	1.572E+03	2.028E+02	0.035
		722.20		5.072E+02	1.949E+03	3.312E+03	2.152E+02	0.153
		783.80		5.717E+00	2.156E+02	3.564E+02	3.106E+01	0.016
XE-127		57.60		1.150E+04	3.484E+03	5.619E+03	4.990E+02	2.046
		145.22		4.887E+01	1.520E+02	2.613E+02	1.586E+01	0.187
		172.10		3.236E+00	2.634E+01	4.462E+01	2.488E+00	0.073
		202.84	*	-5.825E+00	9.889E+00	1.596E+01	9.088E-01	-0.365
		374.96		4.039E+00	4.693E+01	7.678E+01	4.584E+00	0.053
I-131		80.18		-2.370E+02	7.243E+02	1.144E+03	9.424E+01	-0.207
		284.30		6.999E+01	1.942E+02	3.283E+02	2.162E+01	0.213
		364.48	*	-2.202E+00	1.666E+01	2.682E+01	1.771E+00	-0.082
		636.97		-1.968E+02	2.110E+02	3.185E+02	1.869E+01	-0.618
		722.89		2.083E+02	8.780E+02	1.490E+03	7.986E+01	0.140
TE-132		49.72		7.407E+02	2.255E+03	3.733E+03	3.544E+02	0.198
		111.76		1.389E+03	1.810E+03	3.006E+03	2.355E+02	0.462
		116.30		-1.150E+03	1.999E+03	2.689E+03	2.085E+02	-0.428

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		228.16	*	2.533E+01	3.806E+01	6.552E+01	8.664E+00	0.387
BA-133		53.15		8.422E+02	1.918E+03	3.182E+03	2.885E+02	0.265
		79.62		-1.395E+02	3.823E+02	6.022E+02	9.029E+01	-0.232
		81.00		1.632E+00	2.812E+01	4.537E+01	7.112E+00	0.036
		276.40		5.154E+00	9.548E+01	1.581E+02	2.063E+01	0.033
		302.84		-2.287E+00	3.531E+01	5.773E+01	6.800E+00	-0.040
		356.01	*	-4.199E+00	1.089E+01	1.716E+01	2.003E+00	-0.245
		383.85		5.846E+01	8.255E+01	1.409E+02	1.542E+01	0.415
I-133		510.53		-8.201E-02	8.255E+01	Half-Life too short		
		529.87	*	-2.275E-03	8.255E+01	Half-Life too short		
		706.58		2.157E-02	8.255E+01	Half-Life too short		
		856.28		7.932E-02	8.255E+01	Half-Life too short		
		875.33		-3.348E-02	8.255E+01	Half-Life too short		
		1236.41		-5.780E-02	8.255E+01	Half-Life too short		
		1298.22		5.668E-02	8.255E+01	Half-Life too short		
CS-134		475.35		-8.622E+01	5.568E+02	8.811E+02	5.191E+01	-0.098
		563.23		-1.652E+01	8.170E+01	1.346E+02	7.707E+00	-0.123
		569.32		3.374E+01	4.604E+01	8.243E+01	4.741E+00	0.409
		604.70		-4.338E+00	7.782E+00	1.232E+01	6.665E-01	-0.352
		795.84	*	4.861E+00	1.078E+01	1.863E+01	1.094E+00	0.261
		801.93		-7.937E+01	9.828E+01	1.473E+02	8.678E+00	-0.539
		1038.57		4.259E+02	1.091E+03	1.842E+03	1.119E+02	0.231
		1167.94		7.063E+02	5.765E+02	1.015E+03	5.608E+01	0.696
		1365.15		-1.368E+02	1.870E+02	2.475E+02	1.969E+01	-0.553
CS-135		268.24	*	2.864E+01	3.926E+01	6.780E+01	5.278E+00	0.422
I-135		288.45		2.920E+04	3.926E+01	Half-Life too short		
		417.63		4.310E+04	3.926E+01	Half-Life too short		
		546.56		3.806E+04	3.926E+01	Half-Life too short		
		836.80		2.703E+04	3.926E+01	Half-Life too short		
		1038.76		2.550E+04	3.926E+01	Half-Life too short		
		1124.00		4.343E+04	3.926E+01	Half-Life too short		
		1131.51		-1.853E+04	3.926E+01	Half-Life too short		
		1260.41	*	4.011E+03	3.926E+01	Half-Life too short		
		1457.56		3.958E+04	3.926E+01	Half-Life too short		
		1678.03		2.958E+04	3.926E+01	Half-Life too short		
		1706.46		-1.388E+03	3.926E+01	Half-Life too short		
		1791.20		-1.792E+03	3.926E+01	Half-Life too short		
CS-136		66.91		-2.912E+01	1.687E+02	2.703E+02	4.123E+01	-0.108
		86.29		1.178E+03	3.121E+02	4.834E+02	6.149E+01	2.437
		153.22		-4.490E+01	1.072E+02	1.770E+02	1.286E+01	-0.254
		163.89		1.216E+02	1.787E+02	3.120E+02	2.213E+01	0.390
		176.55		-1.489E+01	6.089E+01	1.010E+02	6.382E+00	-0.147
		273.65		-3.559E+01	7.869E+01	1.260E+02	8.528E+00	-0.282
		340.57		-5.576E+00	2.031E+01	3.245E+01	2.072E+00	-0.172
		818.51		-2.286E+00	1.407E+01	2.272E+01	1.346E+00	-0.101
		1048.07	*	-6.290E+00	2.010E+01	3.125E+01	2.046E+00	-0.201
		1235.34		-5.885E+00	4.255E+01	6.890E+01	7.072E+00	-0.085
CE-139		165.85	*	-5.854E+00	7.251E+00	1.167E+01	6.499E-01	-0.501
BA-140		162.64		4.719E+01	1.248E+02	2.147E+02	1.370E+01	0.220

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		304.84		1.213E+01	2.141E+02	3.530E+02	9.653E+01	0.034
		423.70		-1.506E+02	3.378E+02	5.178E+02	1.647E+02	-0.291
		537.32	*	-6.017E+00	4.601E+01	7.658E+01	2.489E+01	-0.079
LA-140		328.77		3.781E+01	4.629E+01	8.042E+01	5.404E+00	0.470
		432.53		-2.801E+02	4.334E+02	6.628E+02	4.327E+01	-0.423
		487.03		-3.567E+00	2.417E+01	3.814E+01	2.528E+00	-0.094
		751.79		-9.543E+01	3.041E+02	4.861E+02	3.337E+01	-0.196
		815.85		-6.447E+01	5.990E+01	8.636E+01	6.284E+00	-0.746
		867.82		1.387E+02	2.632E+02	4.541E+02	3.106E+01	0.305
		919.63		-1.701E+02	6.153E+02	9.766E+02	8.717E+01	-0.174
		925.24		-1.396E+02	2.474E+02	3.805E+02	2.694E+01	-0.367
		1596.49	*	-6.624E+00	8.776E+00	1.062E+01	7.279E-01	-0.624
CE-141		145.44	*	8.722E+00	1.346E+01	2.353E+01	1.479E+00	0.371
CE-143		57.37		2.630E+04	1.700E+04	2.633E+04	2.668E+03	0.999
		231.56		5.704E+03	1.672E+04	2.821E+04	8.730E+03	0.202
		293.26	*	-5.019E+02	8.127E+02	1.265E+03	2.601E+02	-0.397
		350.59		-7.006E+03	1.073E+04	1.621E+04	4.931E+03	-0.432
		490.36		6.293E+01	1.903E+04	3.048E+04	9.433E+03	0.002
		664.57		6.335E+04	2.419E+04	2.731E+04	8.616E+03	2.320
		721.93		1.726E+03	8.809E+03	1.486E+04	4.216E+03	0.116
CE-144		80.11		-1.892E+02	6.113E+02	9.668E+02	7.945E+01	-0.196
		133.54	*	-3.426E+01	5.611E+01	8.488E+01	1.228E+01	-0.404
PM-144		476.78		-8.620E+00	1.968E+01	3.035E+01	2.129E+00	-0.284
		618.01		1.254E+00	7.777E+00	1.319E+01	7.474E-01	0.095
		696.49	*	2.668E+00	7.846E+00	1.348E+01	6.978E-01	0.198
		778.57		-1.822E+02	4.903E+02	7.696E+02	4.369E+01	-0.237
PR-144		696.49	*	1.801E+02	5.297E+02	9.098E+02	4.709E+01	0.198
		1489.15		-8.426E+02	1.137E+03	1.062E+03	7.665E+01	-0.793
PM-146		453.90	*	1.772E+00	1.258E+01	2.047E+01	1.782E+00	0.087
		633.02		1.078E+02	3.562E+02	6.076E+02	2.232E+02	0.177
		735.90		-3.368E+00	3.607E+01	5.904E+01	1.642E+01	-0.057
		747.13		-1.277E+01	2.302E+01	3.566E+01	4.409E+00	-0.358
ND-147		91.11		3.319E+01	6.007E+01	7.175E+01	6.392E+00	0.463
		319.41		-2.789E+01	5.531E+02	9.028E+02	5.462E+01	-0.031
		439.89		-3.176E+02	1.101E+03	1.732E+03	1.027E+02	-0.183
		531.02	*	2.154E+01	8.944E+01	1.538E+02	2.075E+01	0.140
PM-149		285.90	*	-5.889E+02	2.382E+03	3.851E+03	5.485E+02	-0.153
EU-152	+	121.78		7.777E+01	3.459E+01	4.226E+01	3.576E+00	1.840
		244.69		-5.231E+01	8.549E+01	1.364E+02	8.027E+00	-0.383
		344.27	*	-2.276E+01	2.549E+01	3.859E+01	2.604E+00	-0.590
		443.98		-1.705E+02	2.829E+02	4.322E+02	2.562E+01	-0.395
		778.89		-1.899E+01	5.761E+01	9.098E+01	5.165E+00	-0.209
		867.32		8.071E+01	2.326E+02	3.943E+02	2.452E+01	0.205
		964.01		-1.027E+01	8.739E+01	1.405E+02	8.831E+00	-0.073
		1085.78		-3.588E+01	1.136E+02	1.764E+02	1.041E+01	-0.203
		1112.02		3.582E+01	7.826E+01	1.331E+02	7.709E+00	0.269
		1407.95		3.962E+00	1.882E+01	3.353E+01	2.490E+00	0.118
GD-153		69.67		2.484E+02	4.863E+02	8.078E+02	6.631E+01	0.307
		83.37		4.592E+03	4.620E+03	7.095E+03	5.898E+02	0.647

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		97.43	*	-6.608E+00	2.236E+01	3.095E+01	2.364E+00	-0.214
		103.18		-9.542E+00	2.890E+01	4.514E+01	3.305E+00	-0.211
EU-154	+	123.07		5.457E+01	2.446E+01	2.850E+01	2.872E+00	1.915
		247.94		3.772E+01	1.001E+02	1.694E+02	1.626E+01	0.223
		591.81		1.216E+01	1.477E+02	2.495E+02	2.388E+01	0.049
		723.30		5.647E+00	4.193E+01	7.037E+01	4.720E+00	0.080
		756.87		1.637E+02	2.038E+02	3.615E+02	3.613E+01	0.453
		873.19		-6.250E+01	8.668E+01	1.304E+02	1.397E+01	-0.479
		996.32		-3.639E+01	1.006E+02	1.560E+02	2.609E+01	-0.233
		1004.76		8.143E+00	6.350E+01	1.043E+02	1.040E+01	0.078
		1274.45	*	-1.569E+01	1.715E+01	2.220E+01	2.216E+00	-0.707
EU-155		48.70		8.538E+02	1.293E+03	2.173E+03	1.873E+02	0.393
	+	60.01		4.562E+04	6.416E+03	7.330E+03	6.395E+02	6.224
	+	86.54		3.656E+02	5.825E+01	7.123E+01	6.076E+00	5.133
		105.31	*	3.154E+01	2.838E+01	4.832E+01	3.555E+00	0.653
TB-160	+	86.79		9.138E+02	1.452E+02	1.918E+02	1.621E+01	4.765
		197.04		-2.880E+01	1.262E+02	2.085E+02	1.182E+01	-0.138
		215.65		-1.186E+02	1.816E+02	2.914E+02	1.677E+01	-0.407
		298.57		1.138E+01	2.539E+01	4.302E+01	2.596E+00	0.265
		879.36	*	2.529E+00	3.846E+01	6.332E+01	3.984E+00	0.040
		962.29		4.296E+01	1.484E+02	2.476E+02	1.557E+01	0.173
		966.15		3.077E+00	5.426E+01	8.866E+01	5.567E+00	0.035
		1177.93		-3.643E+01	7.078E+01	9.038E+01	5.021E+00	-0.403
		1271.85		-2.526E+01	9.789E+01	1.546E+02	1.043E+01	-0.163
HO-166M		80.57		-9.727E+00	7.806E+01	1.247E+02	1.026E+01	-0.078
		184.41		6.869E+00	9.220E+00	1.434E+01	8.054E-01	0.479
		280.46		-2.274E+01	2.079E+01	3.145E+01	1.887E+00	-0.723
		410.95		3.444E+01	6.502E+01	1.096E+02	6.499E+00	0.314
		711.68	*	-3.780E+00	1.388E+01	2.229E+01	1.175E+00	-0.170
		752.31		-2.016E+01	7.221E+01	1.159E+02	6.391E+00	-0.174
		810.29		8.336E+00	1.582E+01	2.740E+01	1.608E+00	0.304
TM-171		51.35		2.325E+03	1.636E+04	2.684E+04	2.422E+03	0.087
		52.39		-4.079E+02	8.638E+03	1.404E+04	1.273E+03	-0.029
	+	59.40		2.389E+05	3.360E+04	4.059E+04	3.561E+03	5.884
		66.72	*	-2.184E+03	8.892E+03	1.419E+04	1.178E+03	-0.154
HF-175	+	89.36		5.077E+03	8.064E+02	9.724E+02	8.118E+01	5.221
		343.40	*	-4.569E-01	8.243E+00	1.340E+01	8.088E-01	-0.034
		433.00		-6.627E+02	6.436E+02	9.533E+02	5.657E+01	-0.695
LU-176	+	88.36		7.220E+02	1.147E+02	1.587E+02	1.343E+01	4.550
		201.83		4.326E+00	6.900E+00	1.195E+01	6.798E-01	0.362
		306.84	*	1.270E+00	6.056E+00	1.010E+01	6.103E-01	0.126
		401.10		-9.125E+02	1.744E+03	2.695E+03	1.596E+02	-0.339
LU-177		112.95		6.013E+01	2.267E+02	3.647E+02	2.555E+01	0.165
		208.36	*	1.541E+00	1.185E+02	1.981E+02	1.133E+01	0.008
LU-177M		52.97		2.999E+02	8.421E+02	1.392E+03	1.262E+02	0.215
		54.07		1.177E+02	4.949E+02	7.289E+02	6.597E+01	0.161
		61.30		4.235E+03	8.377E+02	1.388E+03	1.197E+02	3.051
	+	121.62		3.870E+02	1.711E+02	2.109E+02	1.451E+01	1.835
		147.16		-1.027E+02	1.591E+02	2.602E+02	1.565E+01	-0.395

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		171.86		2.181E+01	1.185E+02	2.014E+02	1.123E+01	0.108
		218.09		-9.920E+01	2.229E+02	3.624E+02	2.090E+01	-0.274
		268.79		-9.688E+00	1.945E+02	3.203E+02	1.912E+01	-0.030
		319.02		1.058E+01	6.517E+01	1.080E+02	6.536E+00	0.098
		367.43		9.853E+01	2.425E+02	4.065E+02	2.436E+01	0.242
		413.65	*	1.658E+01	4.831E+01	8.018E+01	4.755E+00	0.207
HF-181		56.28		-4.982E+01	4.817E+02	6.948E+02	6.223E+01	-0.072
		57.53		8.381E+02	2.909E+02	4.668E+02	4.148E+01	1.795
		65.20		-7.408E+01	2.852E+02	4.324E+02	3.622E+01	-0.171
		133.02		-6.500E+00	1.635E+01	2.519E+01	1.623E+00	-0.258
		136.25		5.625E+01	1.098E+02	1.902E+02	1.205E+01	0.296
		345.85		4.524E+01	4.156E+01	7.349E+01	4.435E+00	0.616
		482.03	*	1.288E+00	1.016E+01	1.648E+01	9.688E-01	0.078
W-181		56.28		-2.108E+01	2.036E+02	2.936E+02	2.630E+01	-0.072
		57.53		3.526E+02	1.229E+02	1.973E+02	1.753E+01	1.788
		65.20	*	-3.108E+01	1.197E+02	1.814E+02	1.520E+01	-0.171
TA-182		67.75		-1.481E+01	3.289E+01	5.179E+01	4.281E+00	-0.286
		100.10		4.112E+01	4.525E+01	7.618E+01	5.695E+00	0.540
		152.43		-1.439E+01	7.701E+01	1.289E+02	7.578E+00	-0.112
		222.10		4.438E+01	9.160E+01	1.565E+02	9.053E+00	0.284
		1001.68		4.039E+01	5.854E+02	9.590E+02	5.933E+01	0.042
		1121.28		2.466E+01	3.256E+01	5.711E+01	3.283E+00	0.432
		1189.05		-2.491E+00	5.193E+01	8.646E+01	4.921E+00	-0.029
		1221.42	*	-1.881E+01	3.157E+01	4.780E+01	2.914E+00	-0.394
		1230.97		-6.532E+01	5.702E+01	6.998E+01	4.351E+00	-0.933
RE-183		57.98		9.083E+02	1.433E+02	2.368E+02	2.097E+01	3.836
	+	59.32		9.178E+02	1.291E+02	1.570E+02	1.378E+01	5.848
		67.20		1.739E+01	5.669E+01	9.329E+01	7.731E+00	0.186
		162.32	*	1.608E+01	2.514E+01	4.382E+01	2.473E+00	0.367
		208.81		-1.039E+02	2.148E+02	3.485E+02	1.994E+01	-0.298
		291.72		-1.057E+02	2.110E+02	3.344E+02	2.014E+01	-0.316
RE-184		57.98		3.490E+03	5.508E+02	9.098E+02	8.059E+01	3.836
	+	59.32		3.524E+03	4.956E+02	6.026E+02	5.290E+01	5.848
		67.20		6.680E+01	2.177E+02	3.584E+02	2.970E+01	0.186
		161.27		3.937E+01	8.318E+01	1.439E+02	8.158E+00	0.274
		216.55		-4.051E+01	6.757E+01	1.088E+02	6.267E+00	-0.372
		252.85	*	1.694E+01	6.120E+01	1.031E+02	6.096E+00	0.164
		318.01		2.326E+01	1.124E+02	1.870E+02	1.131E+01	0.124
		792.07		-2.358E+00	2.241E+02	3.685E+02	2.122E+01	-0.006
		903.28		-2.150E+02	2.912E+02	4.388E+02	2.807E+01	-0.490
		920.93		1.097E+02	1.372E+02	2.404E+02	1.531E+01	0.456
OS-185	+	59.72		2.550E+03	3.586E+02	4.217E+02	3.690E+01	6.045
		61.14		6.150E+02	1.033E+02	1.673E+02	1.445E+01	3.677
		69.30		6.167E+01	8.554E+01	1.435E+02	1.180E+01	0.430
		592.07		9.361E+01	5.774E+02	9.821E+02	5.352E+01	0.095
		646.12	*	-1.833E+00	9.855E+00	1.612E+01	8.199E-01	-0.114
		717.42		-8.236E+01	2.122E+02	3.373E+02	1.789E+01	-0.244
		874.81		-2.397E+01	1.586E+02	2.553E+02	1.599E+01	-0.094
		880.27		2.903E+00	2.212E+02	3.622E+02	2.281E+01	0.008

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RE-188		155.03	*	-1.746E+01	3.671E+01	6.030E+01	3.508E+00	-0.290
		477.96		7.210E+01	8.362E+02	1.351E+03	7.952E+01	0.053
		633.10		1.871E+02	6.658E+02	1.140E+03	5.910E+01	0.164
W-188		63.58		-1.247E+04	1.863E+04	2.641E+04	2.236E+03	-0.472
		227.08		-8.909E+02	3.132E+03	5.115E+03	2.971E+02	-0.174
		290.67	*	6.474E+02	1.650E+03	2.791E+03	1.681E+02	0.232
IR-192		295.96		1.656E+01	2.311E+01	3.988E+01	2.440E+00	0.415
		308.46		-3.238E+00	2.160E+01	3.503E+01	2.139E+00	-0.092
		316.51	*	-9.071E-02	8.316E+00	1.362E+01	8.276E-01	-0.007
		468.07		-4.547E+00	1.730E+01	2.712E+01	1.838E+00	-0.168
		604.41		-4.588E+01	9.735E+01	1.552E+02	1.729E+01	-0.296
		612.46		-4.161E+01	1.629E+02	2.669E+02	1.925E+01	-0.156
AU-195		65.12		-1.127E+01	5.645E+01	8.592E+01	7.201E+00	-0.131
		66.83		-5.588E+00	2.884E+01	4.616E+01	3.832E+00	-0.121
		75.70		4.192E+01	5.047E+01	8.478E+01	6.913E+00	0.494
		98.88	*	-5.137E+00	5.783E+01	9.168E+01	6.919E+00	-0.056
		129.76		5.209E+01	6.959E+02	1.107E+03	7.258E+01	0.047
TL-200		367.94	*	5.106E+02	1.270E+03	2.129E+03	1.276E+02	0.240
		579.30		-3.951E+03	8.044E+03	1.284E+04	7.088E+02	-0.308
		828.27		2.205E+03	1.210E+04	2.029E+04	1.213E+03	0.109
		1205.75		5.964E+02	3.925E+03	6.737E+03	3.974E+02	0.089
TL-201		68.90		4.266E+01	2.847E+02	4.642E+02	3.820E+01	0.092
		70.82		1.381E+01	1.574E+02	2.555E+02	2.091E+01	0.054
		80.30		-9.952E+01	2.836E+02	4.474E+02	3.679E+01	-0.222
		135.34		-3.880E+02	1.315E+03	2.200E+03	1.400E+02	-0.176
		167.43	*	-8.512E+01	3.385E+02	5.625E+02	3.130E+01	-0.151
TL-202		68.90		1.319E+01	8.801E+01	1.435E+02	1.181E+01	0.092
		70.82		4.257E+00	4.851E+01	7.875E+01	6.444E+00	0.054
		80.30		-3.069E+01	8.745E+01	1.380E+02	1.134E+01	-0.222
		439.56	*	-5.595E+00	1.376E+01	2.142E+01	1.271E+00	-0.261
HG-203		70.83		2.523E+01	2.843E+02	4.615E+02	6.153E+01	0.055
		72.87		-1.342E+02	1.619E+02	2.477E+02	3.197E+01	-0.542
		82.60		-1.160E+01	3.085E+02	4.709E+02	6.375E+01	-0.025
		279.20	*	-1.204E+00	8.909E+00	1.455E+01	9.231E-01	-0.083
BI-207		72.80		-4.537E+01	5.269E+01	8.073E+01	6.586E+00	-0.562
		74.97		-1.779E+00	2.921E+01	4.695E+01	3.827E+00	-0.038
		84.90		1.409E+01	6.248E+01	9.122E+01	7.636E+00	0.154
		569.67		5.979E+00	7.162E+00	1.294E+01	7.206E-01	0.462
		1063.62	*	1.246E+01	1.422E+01	2.523E+01	1.510E+00	0.494
		1770.23		-2.874E+01	9.065E+01	1.333E+02	8.080E+00	-0.216
TL-207		81.07		-7.878E+00	6.277E+01	1.003E+02	8.265E+00	-0.079
		83.78		1.770E+01	4.089E+01	6.060E+01	5.047E+00	0.292
		94.90		5.664E+01	6.231E+01	9.546E+01	7.468E+00	0.593
	+	122.32		1.854E+03	8.220E+02	9.912E+02	7.578E+01	1.870
		144.24		3.805E+01	1.716E+02	2.937E+02	2.194E+01	0.130
		154.21		-4.016E+01	9.242E+01	1.523E+02	1.073E+01	-0.264
		269.46		-5.491E+01	4.908E+01	7.501E+01	4.670E+00	-0.732
		323.87	*	2.864E+01	1.648E+02	2.732E+02	4.536E+01	0.105
		338.28		-1.816E+02	2.450E+02	3.759E+02	4.010E+01	-0.483

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		445.03		-2.902E+02	6.616E+02	1.024E+03	1.059E+02	-0.283
TL-208		72.80		-4.909E+02	5.700E+02	8.735E+02	7.125E+01	-0.562
		74.97		-1.922E+01	3.158E+02	5.075E+02	6.067E+01	-0.038
		277.35		1.016E+02	9.525E+01	1.669E+02	1.780E+01	0.609
		510.84		-2.028E+01	4.340E+01	7.815E+01	7.938E+00	-0.260
		583.14	*	4.543E+00	8.378E+00	1.478E+01	9.501E-01	0.307
		763.13		2.927E+02	4.948E+02	8.663E+02	1.067E+02	0.338
		860.37		-7.012E+00	7.392E+01	1.198E+02	8.428E+00	-0.059
		1093.90		5.716E+02	3.165E+03	5.199E+03	1.165E+03	0.110
PO-209		260.50		9.572E+02	2.483E+03	4.208E+03	2.501E+02	0.227
		262.80		-1.305E+03	7.149E+03	1.168E+04	6.952E+02	-0.112
		896.60	*	2.984E+02	2.393E+03	3.954E+03	2.530E+02	0.075
BI-210		46.50	*	-2.280E+02	1.815E+03	2.946E+03	2.531E+02	-0.077
PB-210		46.50	*	-2.280E+02	1.815E+03	2.946E+03	2.531E+02	-0.077
PO-210		46.50	*	-2.280E+02	1.815E+03	2.946E+03	2.248E+02	-0.077
BI-211		72.87		-7.513E+02	9.032E+02	1.387E+03	1.131E+02	-0.542
		351.07	*	-2.877E+01	5.156E+01	8.059E+01	5.349E+00	-0.357
PB-211		404.84	*	-6.658E+01	2.457E+02	3.827E+02	2.386E+02	-0.174
		427.08		-1.530E+02	5.821E+02	9.060E+02	5.601E+02	-0.169
		831.96		-1.729E+02	3.151E+02	4.526E+02	2.822E+02	-0.382
BI-212		727.18	*	3.771E+01	6.538E+01	1.148E+02	8.485E+00	0.328
		785.46		2.013E+02	3.954E+02	6.893E+02	3.941E+01	0.292
		1620.62		-3.863E+01	1.803E+02	2.735E+02	1.849E+01	-0.141
PB-212		74.81		-3.713E+00	1.018E+02	1.638E+02	2.032E+01	-0.023
		77.11		1.379E+01	5.809E+01	9.469E+01	7.732E+00	0.146
	+	87.30		1.419E+03	2.664E+02	3.195E+02	4.188E+01	4.442
		115.19		4.291E+01	1.044E+03	1.663E+03	1.158E+02	0.026
		238.63	*	1.014E+01	1.445E+01	2.524E+01	1.862E+00	0.402
		300.09		-3.368E+01	1.903E+02	3.088E+02	2.599E+01	-0.109
PO-212		74.81		-3.713E+00	1.018E+02	1.638E+02	2.032E+01	-0.023
		77.11		1.379E+01	5.809E+01	9.469E+01	7.732E+00	0.146
	+	87.30		1.419E+03	2.664E+02	3.195E+02	4.188E+01	4.442
		115.19		4.291E+01	1.044E+03	1.663E+03	1.158E+02	0.026
		238.63	*	1.014E+01	1.445E+01	2.524E+01	1.862E+00	0.402
		300.09		-3.368E+01	1.903E+02	3.088E+02	2.599E+01	-0.109
BI-214		609.31	*	-4.614E+00	1.732E+01	2.886E+01	2.149E+00	-0.160
		1120.29		1.842E+01	7.302E+01	1.212E+02	1.063E+01	0.152
		1764.49		-1.857E+01	4.784E+01	7.727E+01	4.706E+00	-0.240
PB-214		74.81		-6.347E+00	1.740E+02	2.801E+02	3.085E+01	-0.023
		77.11		2.345E+01	9.881E+01	1.610E+02	1.799E+01	0.146
	+	87.30		2.412E+03	4.258E+02	5.429E+02	6.221E+01	4.442
		241.98		-1.813E+01	8.519E+01	1.396E+02	1.133E+01	-0.130
		295.21		-1.704E+00	3.238E+01	5.305E+01	4.607E+00	-0.032
		351.92	*	3.032E+00	1.776E+01	2.945E+01	2.486E+00	0.103
PO-214		74.81		-6.347E+00	1.740E+02	2.801E+02	3.085E+01	-0.023
		77.11		2.345E+01	9.881E+01	1.610E+02	1.799E+01	0.146
	+	87.30		2.412E+03	4.258E+02	5.429E+02	6.221E+01	4.442
		241.98		-1.813E+01	8.519E+01	1.396E+02	1.133E+01	-0.130
		295.21		-1.704E+00	3.238E+01	5.305E+01	4.607E+00	-0.032

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		351.92	*	3.032E+00	1.776E+01	2.945E+01	2.486E+00	0.103
PO-215		81.07		-7.878E+00	6.277E+01	1.003E+02	8.265E+00	-0.079
		83.78		1.770E+01	4.089E+01	6.060E+01	5.047E+00	0.292
		94.90		5.664E+01	6.231E+01	9.546E+01	7.468E+00	0.593
	+	122.32		1.854E+03	8.220E+02	9.912E+02	7.578E+01	1.870
		144.24		3.805E+01	1.716E+02	2.937E+02	2.194E+01	0.130
		154.21		-4.016E+01	9.242E+01	1.523E+02	1.073E+01	-0.264
		269.46		-5.491E+01	4.908E+01	7.501E+01	4.670E+00	-0.732
		323.87	*	2.864E+01	1.648E+02	2.732E+02	4.536E+01	0.105
		338.28		-1.816E+02	2.450E+02	3.759E+02	4.010E+01	-0.483
		445.03		-2.902E+02	6.616E+02	1.024E+03	1.059E+02	-0.283
PO-216		74.81		-3.713E+00	1.018E+02	1.638E+02	2.032E+01	-0.023
		77.11		1.379E+01	5.809E+01	9.469E+01	7.732E+00	0.146
	+	87.30		1.419E+03	2.664E+02	3.195E+02	4.188E+01	4.442
		115.19		4.291E+01	1.044E+03	1.663E+03	1.158E+02	0.026
		238.63	*	1.014E+01	1.445E+01	2.524E+01	1.862E+00	0.402
		300.09		-3.368E+01	1.903E+02	3.088E+02	2.599E+01	-0.109
PO-218		74.81		-6.347E+00	1.740E+02	2.801E+02	3.085E+01	-0.023
		77.11		2.345E+01	9.881E+01	1.610E+02	1.799E+01	0.146
	+	87.30		2.412E+03	4.258E+02	5.429E+02	6.221E+01	4.442
		241.98		-1.813E+01	8.519E+01	1.396E+02	1.133E+01	-0.130
		295.21		-1.704E+00	3.238E+01	5.305E+01	4.607E+00	-0.032
		351.92	*	3.032E+00	1.776E+01	2.945E+01	2.486E+00	0.103
RN-219		271.23		1.205E+01	5.914E+01	9.895E+01	8.144E+00	0.122
		401.81	*	-1.119E+02	1.108E+02	1.619E+02	2.211E+01	-0.691
RN-220		549.76	*	-7.613E+03	6.761E+03	1.019E+04	5.770E+02	-0.747
RA-223		81.07		-7.878E+00	6.277E+01	1.003E+02	8.265E+00	-0.079
		83.78		1.770E+01	4.089E+01	6.060E+01	5.047E+00	0.292
		94.90		5.664E+01	6.231E+01	9.546E+01	7.468E+00	0.593
	+	122.32		1.854E+03	8.220E+02	9.912E+02	7.578E+01	1.870
		144.24		3.805E+01	1.716E+02	2.937E+02	2.194E+01	0.130
		154.21		-4.016E+01	9.242E+01	1.523E+02	1.073E+01	-0.264
		269.46		-5.491E+01	4.908E+01	7.501E+01	4.670E+00	-0.732
		323.87	*	2.864E+01	1.648E+02	2.732E+02	4.536E+01	0.105
		338.28		-1.816E+02	2.450E+02	3.759E+02	4.010E+01	-0.483
		445.03		-2.902E+02	6.616E+02	1.024E+03	1.059E+02	-0.283
RA-224		240.98	*	-5.905E+01	1.649E+02	2.679E+02	1.572E+01	-0.220
AC-227		79.80		-1.017E+02	4.815E+02	7.653E+02	1.633E+02	-0.133
		236.00		-4.151E+01	5.552E+01	8.783E+01	9.204E+00	-0.473
		256.20	*	-2.880E+01	9.705E+01	1.574E+02	2.206E+01	-0.183
		286.10		-7.867E+01	3.845E+02	6.238E+02	7.279E+01	-0.126
		299.80		3.332E+01	3.459E+02	5.723E+02	9.368E+01	0.058
		304.40		8.483E-01	4.566E+02	7.500E+02	1.304E+02	0.001
		329.70		-1.896E+01	2.167E+02	3.520E+02	4.429E+01	-0.054
		334.20		7.563E+01	5.656E+02	9.338E+02	1.719E+02	0.081
PA-227		64.62	*	-1.000E+35	5.656E+02	Half-Life too short		
		110.05		1.000E+35	5.656E+02	Half-Life too short		
TH-227		79.80		-1.017E+02	4.815E+02	7.653E+02	1.655E+02	-0.133
	+	94.00		1.961E+02	7.848E+02	8.576E+02	1.844E+02	0.229

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		236.00		-4.151E+01	5.548E+01	8.783E+01	7.982E+00	-0.473
		256.20	*	-2.880E+01	9.709E+01	1.574E+02	2.667E+01	-0.183
		286.10		-7.867E+01	3.923E+02	6.238E+02	6.249E+02	-0.126
		299.80		3.332E+01	3.459E+02	5.723E+02	9.368E+01	0.058
		304.40		8.483E-01	4.566E+02	7.500E+02	1.304E+02	0.001
		329.70		-1.896E+01	2.167E+02	3.520E+02	4.429E+01	-0.054
		334.20		7.563E+01	5.656E+02	9.338E+02	1.719E+02	0.081
AC-228		338.32		-4.326E+01	6.127E+01	9.035E+01	3.686E+01	-0.479
		911.07	*	-4.674E+01	3.935E+01	5.698E+01	5.492E+00	-0.820
		969.11		-2.652E+01	7.317E+01	1.148E+02	2.592E+01	-0.231
RA-228		338.32		-4.326E+01	6.127E+01	9.035E+01	3.686E+01	-0.479
		911.07	*	-4.674E+01	3.935E+01	5.698E+01	5.492E+00	-0.820
		969.11		-2.652E+01	7.317E+01	1.148E+02	2.592E+01	-0.231
TH-228		74.81		-3.713E+00	1.018E+02	1.638E+02	1.348E+01	-0.023
		77.11		1.379E+01	5.809E+01	9.469E+01	7.732E+00	0.146
	+	87.30		1.419E+03	2.254E+02	3.195E+02	2.708E+01	4.442
		238.63	*	1.014E+01	1.445E+01	2.524E+01	1.862E+00	0.402
		300.09		-3.368E+01	1.913E+02	3.088E+02	1.821E+02	-0.109
TH-229		85.43		3.946E+01	6.112E+01	9.159E+01	7.687E+00	0.431
	+	88.47		4.156E+02	6.602E+01	9.103E+01	7.694E+00	4.566
		100.00		5.239E+01	4.838E+01	8.228E+01	6.156E+00	0.637
		193.63	*	-1.170E+00	1.214E+02	2.033E+02	1.149E+01	-0.006
		210.97		5.816E+01	1.821E+02	3.095E+02	1.775E+01	0.188
TH-230		67.67	*	-1.589E+03	1.091E+04	5.668E+03	3.677E+04	-0.280
PA-231		283.67	*	-1.570E+00	3.657E+02	6.023E+02	8.354E+01	-0.003
		301.29		-5.996E+01	1.416E+02	2.254E+02	2.386E+01	-0.266
		330.00		-2.491E+02	5.004E+02	7.766E+02	2.435E+02	-0.321
TH-231		84.21	*	-1.091E+01	1.583E+02	2.266E+02	4.014E+01	-0.048
U-231		84.21		-3.697E+01	5.365E+02	7.681E+02	6.409E+01	-0.048
	+	92.29		5.883E+01	2.352E+02	2.787E+02	2.242E+01	0.211
		95.87	*	-8.039E+01	9.443E+01	1.238E+02	9.591E+00	-0.650
		108.00		-1.884E+02	1.758E+02	2.601E+02	1.856E+01	-0.725
PA-233		75.28		1.472E+02	8.412E+02	1.369E+03	2.066E+02	0.108
	+	86.59		5.959E+03	1.785E+03	1.182E+03	3.165E+02	5.040
		300.12		-1.726E+01	9.758E+01	1.583E+02	2.143E+01	-0.109
		311.98	*	-3.603E+00	1.575E+01	2.537E+01	1.622E+00	-0.142
		340.50		-3.494E+01	1.446E+02	2.313E+02	5.327E+01	-0.151
		398.62		4.271E+02	5.420E+02	9.176E+02	2.375E+02	0.465
		415.76		-1.328E+02	4.879E+02	7.705E+02	1.589E+02	-0.172
PA-234		63.00		-3.164E+02	5.929E+02	8.480E+02	1.309E+02	-0.373
		94.67		6.267E+01	4.454E+01	7.017E+01	8.333E+00	0.893
		98.44		-1.899E+01	2.807E+01	3.735E+01	2.078E+01	-0.508
		99.86		1.286E+02	1.223E+02	2.077E+02	1.555E+01	0.619
		111.00		2.424E+01	5.257E+01	8.587E+01	9.466E+00	0.282
		131.20		1.675E+01	2.758E+01	4.528E+01	2.946E+00	0.370
		152.70		-3.389E+01	7.765E+01	1.278E+02	2.024E+01	-0.265
	+	186.00		1.147E+02	3.776E+02	5.376E+02	1.641E+02	0.213
		226.40		-7.118E+00	1.062E+02	1.756E+02	2.031E+01	-0.041
		227.20		-3.475E+01	1.136E+02	1.852E+02	1.076E+01	-0.188

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		248.90		1.828E+02	2.293E+02	3.920E+02	8.435E+01	0.466
		293.70		-1.077E+02	1.558E+02	2.416E+02	3.906E+01	-0.446
		369.80		1.129E+02	2.379E+02	3.989E+02	8.328E+01	0.283
		568.70		1.160E+02	2.418E+02	4.235E+02	2.361E+01	0.274
		569.50		4.700E+01	6.412E+01	1.148E+02	6.397E+00	0.409
		574.00		-3.192E+02	3.695E+02	5.691E+02	3.157E+01	-0.561
		699.00		2.669E+01	1.610E+02	2.717E+02	4.835E+01	0.098
		706.10		6.943E+01	2.383E+02	4.043E+02	1.781E+02	0.172
		733.00		-9.368E+01	8.647E+01	1.201E+02	2.540E+01	-0.780
		742.81		2.660E+02	3.987E+02	6.327E+02	4.232E+02	0.420
		796.30		1.668E+02	2.156E+02	3.772E+02	9.914E+01	0.442
		805.60		-1.487E+02	2.508E+02	3.776E+02	1.132E+02	-0.394
		819.60		1.621E+02	3.371E+02	5.726E+02	2.148E+02	0.283
		826.30		-1.542E+02	2.204E+02	3.144E+02	1.393E+02	-0.490
		831.60		-1.020E+02	1.547E+02	2.292E+02	6.693E+01	-0.445
		876.40		1.674E+01	2.372E+02	3.899E+02	4.002E+02	0.043
		880.51		1.613E+01	8.245E+01	1.375E+02	8.662E+00	0.117
		883.24		-4.825E+01	9.483E+01	1.379E+02	9.235E+01	-0.350
		899.00		2.597E+02	2.820E+02	4.618E+02	2.001E+02	0.562
		925.00		-1.402E+02	3.765E+02	5.910E+02	3.761E+01	-0.237
		926.50		-3.276E+01	5.440E+01	8.214E+01	2.020E+01	-0.399
		946.00	*	4.506E+01	8.684E+01	1.485E+02	2.646E+01	0.304
		949.00		-1.109E+02	1.367E+02	2.032E+02	1.284E+01	-0.546
		980.50		-4.321E+01	2.189E+02	3.479E+02	2.172E+01	-0.124
		1394.10		-1.586E+02	1.965E+02	1.922E+02	1.248E+02	-0.825
PA-234M		766.42		-1.363E+03	2.662E+03	3.992E+03	2.008E+03	-0.342
		1001.03	*	-6.149E+02	1.432E+03	2.227E+03	1.772E+02	-0.276
TH-234		63.29	*	-3.456E+02	5.081E+02	7.156E+02	1.283E+02	-0.483
	+	92.38		5.074E+01	2.030E+02	2.395E+02	4.266E+01	0.212
U-234		53.20	*	1.573E+04	1.609E+05	5.652E+04	5.652E+05	0.278
U-235		89.95		1.219E+03	5.626E+02	6.084E+02	1.872E+02	2.003
	+	93.35		6.100E+01	2.444E+02	2.773E+02	7.717E+01	0.220
		105.00		2.255E+02	2.926E+02	4.770E+02	1.406E+02	0.473
		143.76	*	1.711E+01	5.301E+01	9.105E+01	1.495E+01	0.188
		163.35		2.010E+01	1.177E+02	2.002E+02	3.589E+01	0.100
	+	185.71		4.249E+00	1.393E+01	2.000E+01	1.124E+00	0.212
		205.31		-3.291E+01	1.216E+02	1.997E+02	3.584E+01	-0.165
NP-236		94.67		4.773E+01	3.353E+01	5.326E+01	4.177E+00	0.896
		98.44		-1.436E+01	1.969E+01	2.824E+01	2.139E+00	-0.509
		111.00		1.833E+01	3.973E+01	6.495E+01	4.579E+00	0.282
		160.31	*	-7.376E+00	1.937E+01	3.199E+01	1.820E+00	-0.231
U-238		63.29	*	-3.456E+02	5.081E+02	7.156E+02	1.283E+02	-0.483
	+	92.38		5.074E+01	2.028E+02	2.395E+02	1.925E+01	0.212
NP-239		99.55		3.519E+01	4.121E+01	6.921E+01	5.196E+00	0.508
		117.00	*	-3.656E+00	6.212E+01	8.725E+01	6.048E+00	-0.042
		209.75		-1.884E+01	1.817E+02	3.016E+02	1.728E+01	-0.062
		228.18		3.770E+01	5.758E+01	9.938E+01	5.777E+00	0.379
		277.60		5.992E+01	4.418E+01	7.910E+01	4.740E+00	0.757
		334.30		4.764E+01	3.208E+02	5.303E+02	3.206E+01	0.090

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AM-243		74.67	*	4.988E-01	1.635E+01	2.642E+01	2.153E+00	0.019
	+	86.72		3.352E+04	5.325E+03	6.951E+03	5.873E+02	4.822
		117.66		-6.208E+02	1.244E+03	1.681E+03	1.164E+02	-0.369
		142.18		-2.995E+03	4.397E+03	7.183E+03	4.421E+02	-0.417
CM-243		99.55		3.620E+01	4.239E+01	7.119E+01	5.344E+00	0.508
		103.76	*	-3.548E+00	2.698E+01	4.268E+01	3.114E+00	-0.083
		117.00		-3.760E+00	6.387E+01	8.972E+01	6.219E+00	-0.042
		209.75		-1.856E+01	1.791E+02	2.972E+02	1.702E+01	-0.062
		228.18		3.807E+01	5.816E+01	1.004E+02	5.835E+00	0.379
		277.60		6.038E+01	4.452E+01	7.971E+01	4.777E+00	0.757
AM-246		798.80		9.104E-01	3.382E+01	5.582E+01	3.237E+00	0.016
		1036.00		-4.804E+01	8.504E+01	1.283E+02	7.800E+00	-0.375
		1062.04		-3.580E+01	6.152E+01	9.203E+01	5.513E+00	-0.389
		1078.86	*	6.661E+00	3.953E+01	6.501E+01	3.853E+00	0.102
CM-247		278.00		2.641E+02	1.776E+02	3.211E+02	1.924E+01	0.822
		287.40		5.572E+01	3.093E+02	5.158E+02	3.102E+01	0.108
		402.60	*	-2.684E+00	9.421E+00	1.487E+01	8.807E-01	-0.181
CF-249		252.85		6.549E+01	2.365E+02	3.983E+02	2.356E+01	0.164
		333.44		-4.262E+00	4.211E+01	6.831E+01	4.130E+00	-0.062
		387.95	*	-1.824E+00	1.095E+01	1.752E+01	1.038E+00	-0.104
CF-251		176.60	*	-1.096E+01	3.091E+01	5.092E+01	2.845E+00	-0.215
		227.00		-2.725E+01	1.011E+02	1.653E+02	9.598E+00	-0.165
		285.00		1.743E+02	4.303E+02	7.291E+02	4.382E+01	0.239
ANH-511		511.00	*	-4.560E+00	9.281E+00	1.671E+01	9.701E-01	-0.273

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001368     *
* Acquisition date : 30-DEC-2009 22:03:13 Detector SN#    :                 *
* Detector ID        : GAM01               Sensitivity     : 5.000         *
* Geometry           : 2LMB                Energy tolerance: 1.500         *
* Elapsed live time:    0 01:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 01:00:00.67      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 23-DEC-2009 00:00:00 Nuclide Library : LIQUI         *
* Sample ID          : G1202001368          Analyst initials: KXG3          *
* Batch Number       : 935338               Sample Quantity : 2.0000E+00 LITER *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 29-JAN-2009 14:58:37 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
CO-57	2.633E+01	1.141E+01	1.095E+01	0.000E+00
CO-60	5.630E+02	5.783E+01	7.957E+00	0.000E+00
CD-109	3.064E+03	4.770E+02	3.844E+02	0.000E+00
SN-126	3.044E+02	4.739E+01	3.845E+01	0.000E+00
BA-137M	4.323E+02	3.790E+01	1.467E+01	0.000E+00
CS-137	4.570E+02	4.013E+01	1.551E+01	0.000E+00
RA-226	6.996E+01	2.302E+02	2.818E+02	0.000E+00
TH-232	2.657E+05	2.741E+06	2.149E+04	0.000E+00
NP-237	8.939E+02	2.281E+02	1.058E+02	0.000E+00
PU-237	1.738E+04	2.396E+03	1.358E+03	0.000E+00
AM-241	1.406E+03	1.992E+02	1.099E+02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)		
BE-7	6.268E+00		8.361E+01	1.377E+02	0.000E+00	NOT IDENT.
NA-22	-5.470E+00		6.007E+00	8.036E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00		3.045E+04	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-7.676E-01		4.823E+00	7.523E+00	0.000E+00	NOT IDENT.
K-40	-3.495E+01		6.623E+01	1.144E+02	0.000E+00	NOT IDENT.
TI-44	-9.023E-01		1.024E+01	1.674E+01	0.000E+00	NOT IDENT.
SC-46	8.083E+00		1.156E+01	2.048E+01	0.000E+00	NOT IDENT.
V-48	5.730E+00		1.418E+01	2.452E+01	0.000E+00	NOT IDENT.
CR-51	2.199E+01		7.757E+01	1.323E+02	0.000E+00	NOT IDENT.
MN-52	-7.701E+00		1.231E+01	1.630E+01	0.000E+00	NOT IDENT.
MN-54	-2.929E-01		8.577E+00	1.431E+01	0.000E+00	NOT IDENT.
CO-56	1.799E+00		9.514E+00	1.624E+01	0.000E+00	NOT IDENT.
CO-58	7.503E+00		9.307E+00	1.689E+01	0.000E+00	NOT IDENT.
FE-59	-9.773E+00		2.316E+01	3.625E+01	0.000E+00	NOT IDENT.
ZN-65	-1.670E+00		2.217E+01	3.609E+01	0.000E+00	NOT IDENT.
GE-68	-2.337E+02		3.632E+02	5.553E+02	0.000E+00	NOT IDENT.

AS-73	3.820E+02	4.227E+02	6.966E+02	0.000E+00	NOT IDENT.
AS-74	1.601E+00	1.676E+01	2.889E+01	0.000E+00	NOT IDENT.
SE-75	-4.340E+00	1.114E+01	1.832E+01	0.000E+00	FAIL ABUN
BR-77	4.253E+01	3.325E+02	5.480E+02	0.000E+00	FAIL ABUN
SR-82	-2.033E+01	6.836E+01	1.109E+02	0.000E+00	NOT IDENT.
RB-83	2.927E+00	1.709E+01	2.829E+01	0.000E+00	NOT IDENT.
RB-84	2.938E+00	1.777E+01	3.013E+01	0.000E+00	NOT IDENT.
KR-85	-2.100E+03	2.006E+03	2.967E+03	0.000E+00	NOT IDENT.
SR-85	-9.982E+00	9.536E+00	1.410E+01	0.000E+00	NOT IDENT.
RB-86	-5.569E+01	1.789E+02	2.846E+02	0.000E+00	NOT IDENT.
Y-88	2.673E+00	6.277E+00	1.168E+01	0.000E+00	NOT IDENT.
ZR-88	-1.542E+00	7.140E+00	1.159E+01	0.000E+00	NOT IDENT.
Y-91	1.328E+03	2.756E+03	5.051E+03	0.000E+00	NOT IDENT.
NB-94	7.162E-01	7.390E+00	1.264E+01	0.000E+00	NOT IDENT.
NB-95	-6.854E+00	9.601E+00	1.490E+01	0.000E+00	NOT IDENT.
NB-95M	-1.977E+01	2.659E+01	4.301E+01	0.000E+00	NOT IDENT.
ZR-95	1.749E+01	1.682E+01	3.106E+01	0.000E+00	NOT IDENT.
NB-97	0.000E+00	2.413E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	4.182E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	2.408E+02	5.053E+02	8.886E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.125E+10	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-2.618E+00	7.782E+00	1.304E+01	0.000E+00	NOT IDENT.
RH-102	2.113E-01	8.185E+00	1.343E+01	0.000E+00	NOT IDENT.
RU-103	-7.330E+00	8.831E+00	1.306E+01	0.000E+00	NOT IDENT.
RH-106	-2.877E+00	6.944E+01	1.179E+02	0.000E+00	NOT IDENT.
RU-106	-2.877E+00	6.944E+01	1.179E+02	0.000E+00	NOT IDENT.
AG-108M	-5.431E+00	1.005E+01	1.585E+01	0.000E+00	NOT IDENT.
AG-110M	1.459E+01	9.813E+00	1.711E+01	0.000E+00	NOT IDENT.
IN-111	-1.717E+01	4.708E+01	7.787E+01	0.000E+00	NOT IDENT.
IN-113M	-1.151E+00	1.042E+01	1.707E+01	0.000E+00	NOT IDENT.
SN-113	-1.151E+00	1.042E+01	1.707E+01	0.000E+00	NOT IDENT.
IN-114M	-1.468E+01	4.299E+01	6.298E+01	0.000E+00	NOT IDENT.
CD-115	-1.926E+02	2.767E+02	4.461E+02	0.000E+00	NOT IDENT.
SN-117M	-3.631E+00	8.782E+00	1.478E+01	0.000E+00	NOT IDENT.
SB-122	-4.472E+01	7.158E+01	1.151E+02	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.426E+05	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-1.430E-01	6.332E+00	1.089E+01	0.000E+00	NOT IDENT.
I-124	1.152E+01	4.439E+01	7.766E+01	0.000E+00	NOT IDENT.
SB-124	-1.375E+01	1.470E+01	1.771E+01	0.000E+00	NOT IDENT.
SB-125	1.834E+01	2.486E+01	4.333E+01	0.000E+00	NOT IDENT.
TE-125M	1.016E+02	2.286E+03	3.725E+03	0.000E+00	NOT IDENT.
I-126	-9.244E+00	3.279E+01	4.636E+01	0.000E+00	NOT IDENT.
SB-126	1.449E+01	2.302E+01	4.129E+01	0.000E+00	NOT IDENT.
SB-127	-2.786E+01	8.031E+01	1.307E+02	0.000E+00	NOT IDENT.
XE-127	-5.825E+00	9.691E+00	1.596E+01	0.000E+00	NOT IDENT.
I-131	-2.202E+00	1.632E+01	2.682E+01	0.000E+00	NOT IDENT.
TE-132	2.533E+01	3.730E+01	6.552E+01	0.000E+00	NOT IDENT.
BA-133	-4.199E+00	1.067E+01	1.716E+01	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.615E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	4.861E+00	1.057E+01	1.863E+01	0.000E+00	NOT IDENT.
CS-135	2.864E+01	3.848E+01	6.780E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.081E+10	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-6.290E+00	1.970E+01	3.125E+01	0.000E+00	NOT IDENT.
CE-139	-5.854E+00	7.106E+00	1.167E+01	0.000E+00	NOT IDENT.
BA-140	-6.017E+00	4.509E+01	7.658E+01	0.000E+00	NOT IDENT.
LA-140	-6.624E+00	8.600E+00	1.062E+01	0.000E+00	NOT IDENT.
CE-141	8.722E+00	1.320E+01	2.353E+01	0.000E+00	NOT IDENT.
CE-143	-5.019E+02	7.964E+02	1.265E+03	0.000E+00	NOT IDENT.
CE-144	-3.426E+01	5.499E+01	8.488E+01	0.000E+00	NOT IDENT.
PM-144	2.668E+00	7.689E+00	1.348E+01	0.000E+00	NOT IDENT.
PR-144	1.801E+02	5.191E+02	9.098E+02	0.000E+00	NOT IDENT.
PM-146	1.772E+00	1.233E+01	2.047E+01	0.000E+00	NOT IDENT.
ND-147	2.154E+01	8.765E+01	1.538E+02	0.000E+00	NOT IDENT.
PM-149	-5.889E+02	2.334E+03	3.851E+03	0.000E+00	NOT IDENT.
EU-152	-2.276E+01	2.498E+01	3.859E+01	0.000E+00	FAIL ABUN
GD-153	-6.608E+00	2.192E+01	3.095E+01	0.000E+00	NOT IDENT.
EU-154	-1.569E+01	1.680E+01	2.220E+01	0.000E+00	FAIL ABUN
EU-155	3.154E+01	2.782E+01	4.832E+01	0.000E+00	FAIL ABUN
TB-160	2.529E+00	3.769E+01	6.332E+01	0.000E+00	FAIL ABUN
HO-166M	-3.780E+00	1.360E+01	2.229E+01	0.000E+00	NOT IDENT.
TM-171	-2.184E+03	8.714E+03	1.419E+04	0.000E+00	FAIL ABUN
HF-175	-4.569E-01	8.078E+00	1.340E+01	0.000E+00	FAIL ABUN
LU-176	1.270E+00	5.935E+00	1.010E+01	0.000E+00	FAIL ABUN
LU-177	1.541E+00	1.161E+02	1.981E+02	0.000E+00	NOT IDENT.
LU-177M	1.658E+01	4.735E+01	8.018E+01	0.000E+00	FAIL ABUN
HF-181	1.288E+00	9.958E+00	1.648E+01	0.000E+00	NOT IDENT.
W-181	-3.108E+01	1.173E+02	1.814E+02	0.000E+00	NOT IDENT.
TA-182	-1.881E+01	3.094E+01	4.780E+01	0.000E+00	NOT IDENT.

RE-183	1.608E+01	2.464E+01	4.382E+01	0.000E+00	FAIL ABUN
RE-184	1.694E+01	5.997E+01	1.031E+02	0.000E+00	FAIL ABUN
OS-185	-1.833E+00	9.658E+00	1.612E+01	0.000E+00	FAIL ABUN
RE-188	-1.746E+01	3.597E+01	6.030E+01	0.000E+00	NOT IDENT.
W-188	6.474E+02	1.617E+03	2.791E+03	0.000E+00	NOT IDENT.
IR-192	-9.071E-02	8.150E+00	1.362E+01	0.000E+00	NOT IDENT.
AU-195	-5.137E+00	5.667E+01	9.168E+01	0.000E+00	NOT IDENT.
TL-200	5.106E+02	1.245E+03	2.129E+03	0.000E+00	NOT IDENT.
TL-201	-8.512E+01	3.317E+02	5.625E+02	0.000E+00	NOT IDENT.
TL-202	-5.595E+00	1.348E+01	2.142E+01	0.000E+00	NOT IDENT.
HG-203	-1.204E+00	8.731E+00	1.455E+01	0.000E+00	NOT IDENT.
BI-207	1.246E+01	1.394E+01	2.523E+01	0.000E+00	NOT IDENT.
TL-207	2.864E+01	1.615E+02	2.732E+02	0.000E+00	FAIL ABUN
TL-208	4.543E+00	8.211E+00	1.478E+01	0.000E+00	NOT IDENT.
PO-209	2.984E+02	2.345E+03	3.954E+03	0.000E+00	NOT IDENT.
BI-210	-2.280E+02	1.778E+03	2.946E+03	0.000E+00	NOT IDENT.
PB-210	-2.280E+02	1.778E+03	2.946E+03	0.000E+00	NOT IDENT.
PO-210	-2.280E+02	1.778E+03	2.946E+03	0.000E+00	NOT IDENT.
BI-211	-2.877E+01	5.053E+01	8.059E+01	0.000E+00	NOT IDENT.
PB-211	-6.658E+01	2.408E+02	3.827E+02	0.000E+00	NOT IDENT.
BI-212	3.771E+01	6.407E+01	1.148E+02	0.000E+00	NOT IDENT.
PB-212	1.014E+01	1.416E+01	2.524E+01	0.000E+00	FAIL ABUN
PO-212	1.014E+01	1.416E+01	2.524E+01	0.000E+00	FAIL ABUN
BI-214	-4.614E+00	1.697E+01	2.886E+01	0.000E+00	NOT IDENT.
PB-214	3.032E+00	1.740E+01	2.945E+01	0.000E+00	FAIL ABUN
PO-214	3.032E+00	1.740E+01	2.945E+01	0.000E+00	FAIL ABUN
PO-215	2.864E+01	1.615E+02	2.732E+02	0.000E+00	FAIL ABUN
PO-216	1.014E+01	1.416E+01	2.524E+01	0.000E+00	FAIL ABUN
PO-218	3.032E+00	1.740E+01	2.945E+01	0.000E+00	FAIL ABUN
RN-219	-1.119E+02	1.085E+02	1.619E+02	0.000E+00	NOT IDENT.
RN-220	-7.613E+03	6.626E+03	1.019E+04	0.000E+00	NOT IDENT.
RA-223	2.864E+01	1.615E+02	2.732E+02	0.000E+00	FAIL ABUN
RA-224	-5.905E+01	1.616E+02	2.679E+02	0.000E+00	NOT IDENT.
AC-227	-2.880E+01	9.511E+01	1.574E+02	0.000E+00	NOT IDENT.
PA-227	0.000E+00	4.244E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-2.880E+01	9.515E+01	1.574E+02	0.000E+00	FAIL ABUN
AC-228	-4.674E+01	3.856E+01	5.698E+01	0.000E+00	NOT IDENT.
RA-228	-4.674E+01	3.856E+01	5.698E+01	0.000E+00	NOT IDENT.
TH-228	1.014E+01	1.416E+01	2.524E+01	0.000E+00	FAIL ABUN
TH-229	-1.170E+00	1.190E+02	2.033E+02	0.000E+00	FAIL ABUN
TH-230	-1.589E+03	1.070E+04	5.668E+03	0.000E+00	NOT IDENT.
PA-231	-1.570E+00	3.584E+02	6.023E+02	0.000E+00	NOT IDENT.
TH-231	-1.091E+01	1.551E+02	2.266E+02	0.000E+00	NOT IDENT.
U-231	-8.039E+01	9.255E+01	1.238E+02	0.000E+00	FAIL ABUN
PA-233	-3.603E+00	1.544E+01	2.537E+01	0.000E+00	FAIL ABUN
PA-234	4.506E+01	8.511E+01	1.485E+02	0.000E+00	FAIL ABUN
PA-234M	-6.149E+02	1.403E+03	2.227E+03	0.000E+00	NOT IDENT.
TH-234	-3.456E+02	4.979E+02	7.156E+02	0.000E+00	FAIL ABUN
U-234	1.573E+04	1.577E+05	5.652E+04	0.000E+00	NOT IDENT.
U-235	1.711E+01	5.195E+01	9.105E+01	0.000E+00	FAIL ABUN
NP-236	-7.376E+00	1.898E+01	3.199E+01	0.000E+00	NOT IDENT.
U-238	-3.456E+02	4.979E+02	7.156E+02	0.000E+00	FAIL ABUN
NP-239	-3.656E+00	6.087E+01	8.725E+01	0.000E+00	NOT IDENT.
AM-243	4.988E-01	1.603E+01	2.642E+01	0.000E+00	FAIL ABUN
CM-243	-3.548E+00	2.644E+01	4.268E+01	0.000E+00	NOT IDENT.
AM-246	6.661E+00	3.873E+01	6.501E+01	0.000E+00	NOT IDENT.
CM-247	-2.684E+00	9.232E+00	1.487E+01	0.000E+00	NOT IDENT.
CF-249	-1.824E+00	1.073E+01	1.752E+01	0.000E+00	NOT IDENT.
CF-251	-1.096E+01	3.029E+01	5.092E+01	0.000E+00	NOT IDENT.
ANH-511	-4.560E+00	9.096E+00	1.671E+01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 30-DEC-2009 23:03:43.10

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001368.CNF;1
Sample date       : 23-DEC-2009 00:00:00 Acquisition date : 30-DEC-2009 22:03:13
Sample ID         : G1202001368          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM01                Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:00.67  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 935338               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.48	938	424	1.10	119.74	114	12	2.60E-01	5.5	
2	0	87.95	548	230	1.32	176.66	172	10	1.52E-01	6.7	
3	0	92.79	76	205	1.56	186.35	182	10	2.10E-02	37.3	
4	0	122.13	137	202	0.91	245.01	239	11	3.81E-02	21.8	
5	0	186.06	54	138	1.48	372.86	369	8	1.50E-02	40.2	
6	0	661.54	964	68	1.38	1323.62	1317	15	2.68E-01	3.7	
7	0	1172.83	783	17	1.85	2345.76	2339	14	2.17E-01	3.7	
8	0	1332.02	787	4	1.95	2663.96	2655	20	2.18E-01	3.6	

VAX/VMS Nuclide Identification Report Generated 30-DEC-2009 23:03:45.99

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001368.CNF;1
Sample date       : 23-DEC-2009 00:00:00 Acquisition date : 30-DEC-2009 22:03:13
Sample ID         : G1202001368          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM01                Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:00.67  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 935338               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
CO-57	122.06	137	85.51*	2.336E+00	2.580E+01	2.633E+01	44.21
	136.48	------	10.60	2.365E+00	------ Line Not Found		------
CO-60	1173.22	783	100.00	5.832E-01	5.038E+02	5.052E+02	9.30
	1332.49	787	100.00*	5.259E-01	5.614E+02	5.630E+02	10.48
CD-109	88.03	548	3.72*	1.828E+00	3.028E+03	3.064E+03	15.88
SN-126	64.28	------	9.60	9.142E-01	------ Line Not Found		------
	86.94	548	8.90	1.828E+00	1.266E+03	1.266E+03	43.46
	87.57	548	37.00*	1.828E+00	3.044E+02	3.044E+02	15.88
BA-137M	661.65	964	89.98*	9.302E-01	4.321E+02	4.323E+02	8.94
CS-137	661.65	964	85.12*	9.302E-01	4.568E+02	4.570E+02	8.96
RA-226	186.21	13	3.28*	2.189E+00	6.996E+01	6.996E+01	335.83
TH-232	59.00	938	0.19*	6.972E-01	2.657E+05	2.657E+05	1052.73
NP-237	86.50	548	12.60*	1.828E+00	8.939E+02	8.939E+02	26.04
	95.87	------	2.60	2.024E+00	------ Line Not Found		------
PU-237	59.54	938	3.28*	6.972E-01	1.539E+04	1.738E+04	14.06
AM-241	59.54	938	35.90*	6.972E-01	1.406E+03	1.406E+03	14.46

Flag: "*" = Keyline

Sample ID : G1202001368 Acquisition date : 30-DEC-2009 22:03:13

Total number of lines in spectrum	8	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	8	100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	270.90D	1.02	2.580E+01	2.633E+01	1.164E+01	44.21	
CO-60	5.27Y	1.00	5.614E+02	5.630E+02	0.590E+02	10.48	
CD-109	464.00D	1.01	3.028E+03	3.064E+03	0.487E+03	15.88	
SN-126	1.00E+05Y	1.00	3.044E+02	3.044E+02	0.484E+02	15.88	
BA-137M	30.17Y	1.00	4.321E+02	4.323E+02	0.387E+02	8.94	
CS-137	30.17Y	1.00	4.568E+02	4.570E+02	0.409E+02	8.96	
RA-226	1600.00Y	1.00	6.996E+01	6.996E+01	23.49E+01	335.83	
TH-232	1.41E+10Y	1.00	2.657E+05	2.657E+05	27.97E+05	1052.73	
NP-237	2.14E+06Y	1.00	8.939E+02	8.939E+02	2.328E+02	26.04	
PU-237	45.20D	1.13	1.539E+04	1.738E+04	0.244E+04	14.06	
AM-241	432.20Y	1.00	1.406E+03	1.406E+03	0.203E+03	14.46	
			---	---			
	Total Activity :		2.883E+05	2.903E+05			

Grand Total Activity : 2.883E+05 2.903E+05

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202001368 Acquisition date : 30-DEC-2009 22:03:13

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.79	14	205	1.56	186.35	182	10	3.97E-03	****	1.95E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 30-DEC-2009 23:03:50.48

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*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202001368.CNF;1 *
* Acquisition date : 30-DEC-2009 22:03:13  Detector SN#    :                *
* Detector ID      : GAM01                 Sensitivity     : 5.00000        *
* Geometry         : 2LMB                  Energy tolerance: 1.50000        *
* Elapsed live time: 0 01:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 01:00:00.67         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 23-DEC-2009 00:00:00  Nuclide Library : LIQUID         *
* Sample ID        : G1202001368           Analyst initials: KXG3           *
* Batch Number     : 935338                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 29-JAN-2009 14:58:37.9MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-57	2.633E+01	1.164E+01	1.095E+01	7.541E-01	2.406
CO-60	5.630E+02	5.902E+01	7.957E+00	6.019E-01	70.754
CD-109	3.064E+03	4.867E+02	3.844E+02	3.270E+01	7.971
SN-126	3.044E+02	4.835E+01	3.845E+01	3.264E+00	7.916
BA-137M	4.323E+02	3.867E+01	1.467E+01	7.285E-01	29.467
CS-137	4.570E+02	4.095E+01	1.551E+01	7.745E-01	29.467
RA-226	6.996E+01	2.349E+02	2.818E+02	2.068E+02	0.248
TH-232	2.657E+05	2.797E+06	2.149E+04	2.262E+05	12.365
NP-237	8.939E+02	2.328E+02	1.058E+02	2.359E+01	8.447
PU-237	1.738E+04	2.445E+03	1.358E+03	1.190E+02	12.798
AM-241	1.406E+03	2.033E+02	1.099E+02	1.031E+01	12.798

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	6.268E+00		8.531E+01	1.377E+02	9.398E+00	0.046

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NA-22	-5.470E+00		6.130E+00	8.036E+00	5.460E-01	-0.681
NA-24	1.301E-02		1.554E-02	Half-Life too short		
AL-26	-7.676E-01		4.921E+00	7.523E+00	4.403E-01	-0.102
K-40	-3.495E+01		6.758E+01	1.144E+02	8.674E+00	-0.306
TI-44	-9.023E-01		1.045E+01	1.674E+01	1.370E+00	-0.054
SC-46	8.083E+00		1.180E+01	2.048E+01	1.301E+00	0.395
V-48	5.730E+00		1.447E+01	2.452E+01	1.529E+00	0.234
CR-51	2.199E+01		7.916E+01	1.323E+02	8.849E+00	0.166
MN-52	-7.701E+00		1.256E+01	1.630E+01	1.201E+00	-0.472
MN-54	-2.929E-01		8.752E+00	1.431E+01	8.612E-01	-0.020
CO-56	1.799E+00		9.708E+00	1.624E+01	9.892E-01	0.111
CO-58	7.503E+00		9.497E+00	1.689E+01	9.967E-01	0.444
FE-59	-9.773E+00		2.363E+01	3.625E+01	2.477E+00	-0.270
ZN-65	-1.670E+00		2.262E+01	3.609E+01	2.089E+00	-0.046
GE-68	-2.337E+02		3.706E+02	5.553E+02	3.294E+01	-0.421
AS-73	3.820E+02		4.313E+02	6.966E+02	6.313E+01	0.548
AS-74	1.601E+00		1.711E+01	2.889E+01	1.568E+00	0.055
SE-75	-4.340E+00		1.136E+01	1.832E+01	1.102E+00	-0.237
BR-77	4.253E+01		3.393E+02	5.480E+02	3.165E+01	0.078
SR-82	-2.033E+01		6.975E+01	1.109E+02	6.279E+00	-0.183
RB-83	2.927E+00		1.744E+01	2.829E+01	1.634E+00	0.103
RB-84	2.938E+00		1.813E+01	3.013E+01	1.900E+00	0.097
KR-85	-2.100E+03		2.047E+03	2.967E+03	1.720E+02	-0.708
SR-85	-9.982E+00		9.730E+00	1.410E+01	8.176E-01	-0.708
RB-86	-5.569E+01		1.826E+02	2.846E+02	1.690E+01	-0.196
Y-88	2.673E+00		6.406E+00	1.168E+01	6.671E-01	0.229
ZR-88	-1.542E+00		7.286E+00	1.159E+01	6.852E-01	-0.133
Y-91	1.328E+03		2.812E+03	5.051E+03	2.974E+02	0.263
NB-94	7.162E-01		7.540E+00	1.264E+01	6.587E-01	0.057
NB-95	-6.854E+00		9.797E+00	1.490E+01	8.338E-01	-0.460
NB-95M	-1.977E+01		2.714E+01	4.301E+01	3.254E+00	-0.460
ZR-95	1.749E+01		1.716E+01	3.106E+01	2.118E+00	0.563
NB-97	4.829E-02		1.231E-02	Half-Life too short		
ZR-97	-6.081E-01		2.134E-01	Half-Life too short		
MO-99	2.408E+02		5.156E+02	8.886E+02	1.211E+02	0.271
TC-99M	-1.594E+04		1.084E+04	Half-Life too short		
RH-101	-2.618E+00		7.941E+00	1.304E+01	7.397E-01	-0.201
RH-102	2.113E-01		8.352E+00	1.343E+01	7.911E-01	0.016
RU-103	-7.330E+00		9.011E+00	1.306E+01	1.654E+00	-0.561
RH-106	-2.877E+00		7.086E+01	1.179E+02	1.353E+01	-0.024
RU-106	-2.877E+00		7.086E+01	1.179E+02	6.203E+00	-0.024
AG-108M	-5.431E+00		1.025E+01	1.585E+01	1.018E+00	-0.343
AG-110M	1.459E+01		1.001E+01	1.711E+01	9.285E-01	0.853
IN-111	-1.717E+01		4.804E+01	7.787E+01	4.584E+00	-0.220
IN-113M	-1.151E+00		1.063E+01	1.707E+01	1.074E+00	-0.067
SN-113	-1.151E+00		1.063E+01	1.707E+01	1.074E+00	-0.067
IN-114M	-1.468E+01		4.386E+01	6.298E+01	3.552E+00	-0.233
CD-115	-1.926E+02		2.823E+02	4.461E+02	2.565E+01	-0.432

Sample ID : G1202001368 Acquisition date : 30-DEC-2009 22:03:13

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
SN-117M	-3.631E+00		8.961E+00	1.478E+01	8.470E-01	-0.246
SB-122	-4.472E+01		7.304E+01	1.151E+02	6.443E+00	-0.389
I-123	-3.220E-03		7.273E-02	Half-Life too short		
TE-123M	-1.430E-01		6.462E+00	1.089E+01	6.319E-01	-0.013
I-124	1.152E+01		4.530E+01	7.766E+01	4.183E+00	0.148
SB-124	-1.375E+01		1.500E+01	1.771E+01	1.222E+00	-0.777
SB-125	1.834E+01		2.537E+01	4.333E+01	2.675E+00	0.423
TE-125M	1.016E+02		2.333E+03	3.725E+03	3.382E+02	0.027
I-126	-9.244E+00		3.346E+01	4.636E+01	2.315E+00	-0.199
SB-126	1.449E+01		2.349E+01	4.129E+01	2.197E+00	0.351
SB-127	-2.786E+01		8.195E+01	1.307E+02	8.760E+00	-0.213
XE-127	-5.825E+00		9.889E+00	1.596E+01	9.088E-01	-0.365
I-131	-2.202E+00		1.666E+01	2.682E+01	1.771E+00	-0.082
TE-132	2.533E+01		3.806E+01	6.552E+01	8.664E+00	0.387
BA-133	-4.199E+00		1.089E+01	1.716E+01	2.003E+00	-0.245
I-133	-2.275E-03		2.354E-03	Half-Life too short		
CS-134	4.861E+00		1.078E+01	1.863E+01	1.094E+00	0.261
CS-135	2.864E+01		3.926E+01	6.780E+01	5.278E+00	0.422
I-135	4.011E+03		5.515E+03	Half-Life too short		
CS-136	-6.290E+00		2.010E+01	3.125E+01	2.046E+00	-0.201
CE-139	-5.854E+00		7.251E+00	1.167E+01	6.499E-01	-0.501
BA-140	-6.017E+00		4.601E+01	7.658E+01	2.489E+01	-0.079
LA-140	-6.624E+00		8.776E+00	1.062E+01	7.279E-01	-0.624
CE-141	8.722E+00		1.346E+01	2.353E+01	1.479E+00	0.371
CE-143	-5.019E+02		8.127E+02	1.265E+03	2.601E+02	-0.397
CE-144	-3.426E+01		5.611E+01	8.488E+01	1.228E+01	-0.404
PM-144	2.668E+00		7.846E+00	1.348E+01	6.978E-01	0.198
PR-144	1.801E+02		5.297E+02	9.098E+02	4.709E+01	0.198
PM-146	1.772E+00		1.258E+01	2.047E+01	1.782E+00	0.087
ND-147	2.154E+01		8.944E+01	1.538E+02	2.075E+01	0.140
PM-149	-5.889E+02		2.382E+03	3.851E+03	5.485E+02	-0.153
EU-152	-2.276E+01		2.549E+01	3.859E+01	2.604E+00	-0.590
GD-153	-6.608E+00		2.236E+01	3.095E+01	2.364E+00	-0.214
EU-154	-1.569E+01		1.715E+01	2.220E+01	2.216E+00	-0.707
EU-155	3.154E+01		2.838E+01	4.832E+01	3.555E+00	0.653
TB-160	2.529E+00		3.846E+01	6.332E+01	3.984E+00	0.040
HO-166M	-3.780E+00		1.388E+01	2.229E+01	1.175E+00	-0.170
TM-171	-2.184E+03		8.892E+03	1.419E+04	1.178E+03	-0.154
HF-175	-4.569E-01		8.243E+00	1.340E+01	8.088E-01	-0.034
LU-176	1.270E+00		6.056E+00	1.010E+01	6.103E-01	0.126
LU-177	1.541E+00		1.185E+02	1.981E+02	1.133E+01	0.008
LU-177M	1.658E+01		4.831E+01	8.018E+01	4.755E+00	0.207
HF-181	1.288E+00		1.016E+01	1.648E+01	9.688E-01	0.078
W-181	-3.108E+01		1.197E+02	1.814E+02	1.520E+01	-0.171
TA-182	-1.881E+01		3.157E+01	4.780E+01	2.914E+00	-0.394
RE-183	1.608E+01		2.514E+01	4.382E+01	2.473E+00	0.367
RE-184	1.694E+01		6.120E+01	1.031E+02	6.096E+00	0.164
OS-185	-1.833E+00		9.855E+00	1.612E+01	8.199E-01	-0.114

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RE-188	-1.746E+01		3.671E+01	6.030E+01	3.508E+00	-0.290
W-188	6.474E+02		1.650E+03	2.791E+03	1.681E+02	0.232
IR-192	-9.071E-02		8.316E+00	1.362E+01	8.276E-01	-0.007
AU-195	-5.137E+00		5.783E+01	9.168E+01	6.919E+00	-0.056
TL-200	5.106E+02		1.270E+03	2.129E+03	1.276E+02	0.240
TL-201	-8.512E+01		3.385E+02	5.625E+02	3.130E+01	-0.151
TL-202	-5.595E+00		1.376E+01	2.142E+01	1.271E+00	-0.261
HG-203	-1.204E+00		8.909E+00	1.455E+01	9.231E-01	-0.083
BI-207	1.246E+01		1.422E+01	2.523E+01	1.510E+00	0.494
TL-207	2.864E+01		1.648E+02	2.732E+02	4.536E+01	0.105
TL-208	4.543E+00		8.378E+00	1.478E+01	9.501E-01	0.307
PO-209	2.984E+02		2.393E+03	3.954E+03	2.530E+02	0.075
BI-210	-2.280E+02		1.815E+03	2.946E+03	2.531E+02	-0.077
PB-210	-2.280E+02		1.815E+03	2.946E+03	2.531E+02	-0.077
PO-210	-2.280E+02		1.815E+03	2.946E+03	2.248E+02	-0.077
BI-211	-2.877E+01		5.156E+01	8.059E+01	5.349E+00	-0.357
PB-211	-6.658E+01		2.457E+02	3.827E+02	2.386E+02	-0.174
BI-212	3.771E+01		6.538E+01	1.148E+02	8.485E+00	0.328
PB-212	1.014E+01		1.445E+01	2.524E+01	1.862E+00	0.402
PO-212	1.014E+01		1.445E+01	2.524E+01	1.862E+00	0.402
BI-214	-4.614E+00		1.732E+01	2.886E+01	2.149E+00	-0.160
PB-214	3.032E+00		1.776E+01	2.945E+01	2.486E+00	0.103
PO-214	3.032E+00		1.776E+01	2.945E+01	2.486E+00	0.103
PO-215	2.864E+01		1.648E+02	2.732E+02	4.536E+01	0.105
PO-216	1.014E+01		1.445E+01	2.524E+01	1.862E+00	0.402
PO-218	3.032E+00		1.776E+01	2.945E+01	2.486E+00	0.103
RN-219	-1.119E+02		1.108E+02	1.619E+02	2.211E+01	-0.691
RN-220	-7.613E+03		6.761E+03	1.019E+04	5.770E+02	-0.747
RA-223	2.864E+01		1.648E+02	2.732E+02	4.536E+01	0.105
RA-224	-5.905E+01		1.649E+02	2.679E+02	1.572E+01	-0.220
AC-227	-2.880E+01		9.705E+01	1.574E+02	2.206E+01	-0.183
PA-227	-1.000E+35		2.165E+35	Half-Life too short		
TH-227	-2.880E+01		9.709E+01	1.574E+02	2.667E+01	-0.183
AC-228	-4.674E+01		3.935E+01	5.698E+01	5.492E+00	-0.820
RA-228	-4.674E+01		3.935E+01	5.698E+01	5.492E+00	-0.820
TH-228	1.014E+01		1.445E+01	2.524E+01	1.862E+00	0.402
TH-229	-1.170E+00		1.214E+02	2.033E+02	1.149E+01	-0.006
TH-230	-1.589E+03		1.091E+04	5.668E+03	3.677E+04	-0.280
PA-231	-1.570E+00		3.657E+02	6.023E+02	8.354E+01	-0.003
TH-231	-1.091E+01		1.583E+02	2.266E+02	4.014E+01	-0.048
U-231	-8.039E+01		9.443E+01	1.238E+02	9.591E+00	-0.650
PA-233	-3.603E+00		1.575E+01	2.537E+01	1.622E+00	-0.142
PA-234	4.506E+01		8.684E+01	1.485E+02	2.646E+01	0.304
PA-234M	-6.149E+02		1.432E+03	2.227E+03	1.772E+02	-0.276
TH-234	-3.456E+02		5.081E+02	7.156E+02	1.283E+02	-0.483
U-234	1.573E+04		1.609E+05	5.652E+04	5.652E+05	0.278
U-235	1.711E+01		5.301E+01	9.105E+01	1.495E+01	0.188
NP-236	-7.376E+00		1.937E+01	3.199E+01	1.820E+00	-0.231

Sample ID : G1202001368 Acquisition date : 30-DEC-2009 22:03:13

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
U-238	-3.456E+02		5.081E+02	7.156E+02	1.283E+02	-0.483
NP-239	-3.656E+00		6.212E+01	8.725E+01	6.048E+00	-0.042
AM-243	4.988E-01		1.635E+01	2.642E+01	2.153E+00	0.019
CM-243	-3.548E+00		2.698E+01	4.268E+01	3.114E+00	-0.083
AM-246	6.661E+00		3.953E+01	6.501E+01	3.853E+00	0.102
CM-247	-2.684E+00		9.421E+00	1.487E+01	8.807E-01	-0.181
CF-249	-1.824E+00		1.095E+01	1.752E+01	1.038E+00	-0.104
CF-251	-1.096E+01		3.091E+01	5.092E+01	2.845E+00	-0.215
ANH-511	-4.560E+00		9.281E+00	1.671E+01	9.701E-01	-0.273

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202001368          *
* Acquisition date  : 30-DEC-2009 22:03:13 Detector SN#     :               *
* Detector ID       : GAM01                Sensitivity      : 5.000         *
* Geometry          : 2LMB                 Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:00.67      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 23-DEC-2009 00:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G1202001368          Analyst initials: KXG3           *
* Batch Number      : 935338               Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 29-JAN-2009 14:58:37 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
CO-57	2.633E+01	1.141E+01	5.476E+00	5.820E+00
CO-60	5.630E+02	5.783E+01	3.981E+00	2.951E+01
CD-109	3.064E+03	4.770E+02	1.923E+02	2.433E+02
SN-126	3.044E+02	4.739E+01	1.924E+01	2.418E+01
BA-137M	4.323E+02	3.790E+01	7.341E+00	1.933E+01
CS-137	4.570E+02	4.013E+01	7.760E+00	2.047E+01
RA-226	6.996E+01	2.302E+02	1.410E+02	1.175E+02
TH-232	2.657E+05	2.741E+06	1.075E+04	1.399E+06
NP-237	8.939E+02	2.281E+02	5.295E+01	1.164E+02
PU-237	1.738E+04	2.396E+03	6.796E+02	1.222E+03
AM-241	1.406E+03	1.992E+02	5.497E+01	1.016E+02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU
BE-7	6.268E+00	8.361E+01	6.887E+01	4.266E+01 NOT IDENT.
NA-22	-5.470E+00	6.007E+00	4.020E+00	3.065E+00 NOT IDENT.
NA-24	1.301E+04	3.045E+04	0.000E+00	1.554E+04 SHORT HLIF
AL-26	-7.676E-01	4.823E+00	3.764E+00	2.461E+00 NOT IDENT.
K-40	-3.495E+01	6.623E+01	5.723E+01	3.379E+01 NOT IDENT.
TI-44	-9.023E-01	1.024E+01	8.376E+00	5.226E+00 NOT IDENT.
SC-46	8.083E+00	1.156E+01	1.025E+01	5.899E+00 NOT IDENT.
V-48	5.730E+00	1.418E+01	1.227E+01	7.235E+00 NOT IDENT.
CR-51	2.199E+01	7.757E+01	6.621E+01	3.958E+01 NOT IDENT.
MN-52	-7.701E+00	1.231E+01	8.154E+00	6.282E+00 NOT IDENT.
MN-54	-2.929E-01	8.577E+00	7.158E+00	4.376E+00 NOT IDENT.
CO-56	1.799E+00	9.514E+00	8.124E+00	4.854E+00 NOT IDENT.
CO-58	7.503E+00	9.307E+00	8.448E+00	4.748E+00 NOT IDENT.
FE-59	-9.773E+00	2.316E+01	1.813E+01	1.181E+01 NOT IDENT.
ZN-65	-1.670E+00	2.217E+01	1.805E+01	1.131E+01 NOT IDENT.
GE-68	-2.337E+02	3.632E+02	2.778E+02	1.853E+02 NOT IDENT.

AS-73	3.820E+02	4.227E+02	3.485E+02	2.156E+02	NOT IDENT.
AS-74	1.601E+00	1.676E+01	1.446E+01	8.553E+00	NOT IDENT.
SE-75	-4.340E+00	1.114E+01	9.167E+00	5.682E+00	FAIL ABUN
BR-77	4.253E+01	3.325E+02	2.742E+02	1.696E+02	FAIL ABUN
SR-82	-2.033E+01	6.836E+01	5.548E+01	3.488E+01	NOT IDENT.
RB-83	2.927E+00	1.709E+01	1.415E+01	8.721E+00	NOT IDENT.
RB-84	2.938E+00	1.777E+01	1.507E+01	9.067E+00	NOT IDENT.
KR-85	-2.100E+03	2.006E+03	1.485E+03	1.024E+03	NOT IDENT.
SR-85	-9.982E+00	9.536E+00	7.055E+00	4.865E+00	NOT IDENT.
RB-86	-5.569E+01	1.789E+02	1.424E+02	9.129E+01	NOT IDENT.
Y-88	2.673E+00	6.277E+00	5.843E+00	3.203E+00	NOT IDENT.
ZR-88	-1.542E+00	7.140E+00	5.798E+00	3.643E+00	NOT IDENT.
Y-91	1.328E+03	2.756E+03	2.527E+03	1.406E+03	NOT IDENT.
NB-94	7.162E-01	7.390E+00	6.321E+00	3.770E+00	NOT IDENT.
NB-95	-6.854E+00	9.601E+00	7.452E+00	4.899E+00	NOT IDENT.
NB-95M	-1.977E+01	2.659E+01	2.152E+01	1.357E+01	NOT IDENT.
ZR-95	1.749E+01	1.682E+01	1.554E+01	8.581E+00	NOT IDENT.
NB-97	4.829E+04	2.413E+04	0.000E+00	1.231E+04	SHORT HLIF
ZR-97	-6.081E+05	4.182E+05	0.000E+00	2.134E+05	SHORT HLIF
MO-99	2.408E+02	5.053E+02	4.445E+02	2.578E+02	NOT IDENT.
TC-99M	-1.594E+10	2.125E+10	0.000E+00	1.084E+10	SHORT HLIF
RH-101	-2.618E+00	7.782E+00	6.523E+00	3.970E+00	NOT IDENT.
RH-102	2.113E-01	8.185E+00	6.717E+00	4.176E+00	NOT IDENT.
RU-103	-7.330E+00	8.831E+00	6.535E+00	4.506E+00	NOT IDENT.
RH-106	-2.877E+00	6.944E+01	5.897E+01	3.543E+01	NOT IDENT.
RU-106	-2.877E+00	6.944E+01	5.897E+01	3.543E+01	NOT IDENT.
AG-108M	-5.431E+00	1.005E+01	7.931E+00	5.126E+00	NOT IDENT.
AG-110M	1.459E+01	9.813E+00	8.559E+00	5.007E+00	NOT IDENT.
IN-111	-1.717E+01	4.708E+01	3.896E+01	2.402E+01	NOT IDENT.
IN-113M	-1.151E+00	1.042E+01	8.542E+00	5.316E+00	NOT IDENT.
SN-113	-1.151E+00	1.042E+01	8.542E+00	5.316E+00	NOT IDENT.
IN-114M	-1.468E+01	4.299E+01	3.151E+01	2.193E+01	NOT IDENT.
CD-115	-1.926E+02	2.767E+02	2.232E+02	1.412E+02	NOT IDENT.
SN-117M	-3.631E+00	8.782E+00	7.392E+00	4.481E+00	NOT IDENT.
SB-122	-4.472E+01	7.158E+01	5.758E+01	3.652E+01	NOT IDENT.
I-123	-3.220E+03	1.426E+05	0.000E+00	7.273E+04	SHORT HLIF
TE-123M	-1.430E-01	6.332E+00	5.451E+00	3.231E+00	NOT IDENT.
I-124	1.152E+01	4.439E+01	3.885E+01	2.265E+01	NOT IDENT.
SB-124	-1.375E+01	1.470E+01	8.858E+00	7.499E+00	NOT IDENT.
SB-125	1.834E+01	2.486E+01	2.168E+01	1.268E+01	NOT IDENT.
TE-125M	1.016E+02	2.286E+03	1.863E+03	1.166E+03	NOT IDENT.
I-126	-9.244E+00	3.279E+01	2.319E+01	1.673E+01	NOT IDENT.
SB-126	1.449E+01	2.302E+01	2.065E+01	1.174E+01	NOT IDENT.
SB-127	-2.786E+01	8.031E+01	6.541E+01	4.097E+01	NOT IDENT.
XE-127	-5.825E+00	9.691E+00	7.983E+00	4.945E+00	NOT IDENT.
I-131	-2.202E+00	1.632E+01	1.342E+01	8.328E+00	NOT IDENT.
TE-132	2.533E+01	3.730E+01	3.278E+01	1.903E+01	NOT IDENT.
BA-133	-4.199E+00	1.067E+01	8.585E+00	5.444E+00	NOT IDENT.
I-133	-2.275E+03	4.615E+03	0.000E+00	2.354E+03	SHORT HLIF
CS-134	4.861E+00	1.057E+01	9.320E+00	5.392E+00	NOT IDENT.
CS-135	2.864E+01	3.848E+01	3.392E+01	1.963E+01	NOT IDENT.
I-135	4.011E+09	1.081E+10	0.000E+00	5.515E+09	SHORT HLIF
CS-136	-6.290E+00	1.970E+01	1.564E+01	1.005E+01	NOT IDENT.
CE-139	-5.854E+00	7.106E+00	5.841E+00	3.625E+00	NOT IDENT.
BA-140	-6.017E+00	4.509E+01	3.831E+01	2.301E+01	NOT IDENT.
LA-140	-6.624E+00	8.600E+00	5.312E+00	4.388E+00	NOT IDENT.
CE-141	8.722E+00	1.320E+01	1.177E+01	6.732E+00	NOT IDENT.
CE-143	-5.019E+02	7.964E+02	6.330E+02	4.063E+02	NOT IDENT.
CE-144	-3.426E+01	5.499E+01	4.246E+01	2.806E+01	NOT IDENT.
PM-144	2.668E+00	7.689E+00	6.743E+00	3.923E+00	NOT IDENT.
PR-144	1.801E+02	5.191E+02	4.552E+02	2.648E+02	NOT IDENT.
PM-146	1.772E+00	1.233E+01	1.024E+01	6.290E+00	NOT IDENT.
ND-147	2.154E+01	8.765E+01	7.693E+01	4.472E+01	NOT IDENT.
PM-149	-5.889E+02	2.334E+03	1.927E+03	1.191E+03	NOT IDENT.
EU-152	-2.276E+01	2.498E+01	1.931E+01	1.274E+01	FAIL ABUN
GD-153	-6.608E+00	2.192E+01	1.548E+01	1.118E+01	NOT IDENT.
EU-154	-1.569E+01	1.680E+01	1.111E+01	8.573E+00	FAIL ABUN
EU-155	3.154E+01	2.782E+01	2.417E+01	1.419E+01	FAIL ABUN
TB-160	2.529E+00	3.769E+01	3.168E+01	1.923E+01	FAIL ABUN
HO-166M	-3.780E+00	1.360E+01	1.115E+01	6.938E+00	NOT IDENT.
TM-171	-2.184E+03	8.714E+03	7.098E+03	4.446E+03	FAIL ABUN
HF-175	-4.569E-01	8.078E+00	6.702E+00	4.121E+00	FAIL ABUN
LU-176	1.270E+00	5.935E+00	5.053E+00	3.028E+00	FAIL ABUN
LU-177	1.541E+00	1.161E+02	9.911E+01	5.925E+01	NOT IDENT.
LU-177M	1.658E+01	4.735E+01	4.011E+01	2.416E+01	FAIL ABUN
HF-181	1.288E+00	9.958E+00	8.244E+00	5.080E+00	NOT IDENT.
W-181	-3.108E+01	1.173E+02	9.077E+01	5.984E+01	NOT IDENT.
TA-182	-1.881E+01	3.094E+01	2.392E+01	1.579E+01	NOT IDENT.

RE-183	1.608E+01	2.464E+01	2.192E+01	1.257E+01	FAIL ABUN
RE-184	1.694E+01	5.997E+01	5.156E+01	3.060E+01	FAIL ABUN
OS-185	-1.833E+00	9.658E+00	8.064E+00	4.928E+00	FAIL ABUN
RE-188	-1.746E+01	3.597E+01	3.017E+01	1.835E+01	NOT IDENT.
W-188	6.474E+02	1.617E+03	1.396E+03	8.250E+02	NOT IDENT.
IR-192	-9.071E-02	8.150E+00	6.814E+00	4.158E+00	NOT IDENT.
AU-195	-5.137E+00	5.667E+01	4.587E+01	2.891E+01	NOT IDENT.
TL-200	5.106E+02	1.245E+03	1.065E+03	6.352E+02	NOT IDENT.
TL-201	-8.512E+01	3.317E+02	2.814E+02	1.692E+02	NOT IDENT.
TL-202	-5.595E+00	1.348E+01	1.072E+01	6.879E+00	NOT IDENT.
HG-203	-1.204E+00	8.731E+00	7.280E+00	4.455E+00	NOT IDENT.
BI-207	1.246E+01	1.394E+01	1.262E+01	7.112E+00	NOT IDENT.
TL-207	2.864E+01	1.615E+02	1.367E+02	8.238E+01	FAIL ABUN
TL-208	4.543E+00	8.211E+00	7.396E+00	4.189E+00	NOT IDENT.
PO-209	2.984E+02	2.345E+03	1.978E+03	1.196E+03	NOT IDENT.
BI-210	-2.280E+02	1.778E+03	1.474E+03	9.073E+02	NOT IDENT.
PB-210	-2.280E+02	1.778E+03	1.474E+03	9.073E+02	NOT IDENT.
PO-210	-2.280E+02	1.778E+03	1.474E+03	9.073E+02	NOT IDENT.
BI-211	-2.877E+01	5.053E+01	4.032E+01	2.578E+01	NOT IDENT.
PB-211	-6.658E+01	2.408E+02	1.914E+02	1.228E+02	NOT IDENT.
BI-212	3.771E+01	6.407E+01	5.744E+01	3.269E+01	NOT IDENT.
PB-212	1.014E+01	1.416E+01	1.263E+01	7.224E+00	FAIL ABUN
PO-212	1.014E+01	1.416E+01	1.263E+01	7.224E+00	FAIL ABUN
BI-214	-4.614E+00	1.697E+01	1.444E+01	8.660E+00	NOT IDENT.
PB-214	3.032E+00	1.740E+01	1.473E+01	8.879E+00	FAIL ABUN
PO-214	3.032E+00	1.740E+01	1.473E+01	8.879E+00	FAIL ABUN
PO-215	2.864E+01	1.615E+02	1.367E+02	8.238E+01	FAIL ABUN
PO-216	1.014E+01	1.416E+01	1.263E+01	7.224E+00	FAIL ABUN
PO-218	3.032E+00	1.740E+01	1.473E+01	8.879E+00	FAIL ABUN
RN-219	-1.119E+02	1.085E+02	8.100E+01	5.538E+01	NOT IDENT.
RN-220	-7.613E+03	6.626E+03	5.097E+03	3.381E+03	NOT IDENT.
RA-223	2.864E+01	1.615E+02	1.367E+02	8.238E+01	FAIL ABUN
RA-224	-5.905E+01	1.616E+02	1.340E+02	8.244E+01	NOT IDENT.
AC-227	-2.880E+01	9.511E+01	7.874E+01	4.852E+01	NOT IDENT.
PA-227	-1.000E+41	4.244E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-2.880E+01	9.515E+01	7.874E+01	4.854E+01	FAIL ABUN
AC-228	-4.674E+01	3.856E+01	2.851E+01	1.968E+01	NOT IDENT.
RA-228	-4.674E+01	3.856E+01	2.851E+01	1.968E+01	NOT IDENT.
TH-228	1.014E+01	1.416E+01	1.263E+01	7.224E+00	FAIL ABUN
TH-229	-1.170E+00	1.190E+02	1.017E+02	6.070E+01	FAIL ABUN
TH-230	-1.589E+03	1.070E+04	2.836E+03	5.457E+03	NOT IDENT.
PA-231	-1.570E+00	3.584E+02	3.014E+02	1.828E+02	NOT IDENT.
TH-231	-1.091E+01	1.551E+02	1.134E+02	7.914E+01	NOT IDENT.
U-231	-8.039E+01	9.255E+01	6.192E+01	4.722E+01	FAIL ABUN
PA-233	-3.603E+00	1.544E+01	1.269E+01	7.875E+00	FAIL ABUN
PA-234	4.506E+01	8.511E+01	7.427E+01	4.342E+01	FAIL ABUN
PA-234M	-6.149E+02	1.403E+03	1.114E+03	7.158E+02	NOT IDENT.
TH-234	-3.456E+02	4.979E+02	3.580E+02	2.540E+02	FAIL ABUN
U-234	1.573E+04	1.577E+05	2.828E+04	8.045E+04	NOT IDENT.
U-235	1.711E+01	5.195E+01	4.555E+01	2.650E+01	FAIL ABUN
NP-236	-7.376E+00	1.898E+01	1.600E+01	9.683E+00	NOT IDENT.
U-238	-3.456E+02	4.979E+02	3.580E+02	2.540E+02	FAIL ABUN
NP-239	-3.656E+00	6.087E+01	4.365E+01	3.106E+01	NOT IDENT.
AM-243	4.988E-01	1.603E+01	1.322E+01	8.176E+00	FAIL ABUN
CM-243	-3.548E+00	2.644E+01	2.135E+01	1.349E+01	NOT IDENT.
AM-246	6.661E+00	3.873E+01	3.252E+01	1.976E+01	NOT IDENT.
CM-247	-2.684E+00	9.232E+00	7.439E+00	4.710E+00	NOT IDENT.
CF-249	-1.824E+00	1.073E+01	8.767E+00	5.474E+00	NOT IDENT.
CF-251	-1.096E+01	3.029E+01	2.547E+01	1.545E+01	NOT IDENT.
ANH-511	-4.560E+00	9.096E+00	8.359E+00	4.641E+00	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	205.8505
46.50	205.8505
46.50	205.8505
48.70	214.0022
49.72	236.1015
51.35	251.3613
52.39	279.8685
52.97	260.4715
53.15	260.5634
53.20	260.5889
53.44	244.2996
54.07	274.5502
56.28	286.6782
56.28	286.6803
57.37	295.1169
57.53	284.2134
57.53	284.2148
57.60	284.2507
57.98	249.3536
57.98	249.3536
59.00	249.8245
59.32	249.9709
59.32	249.9709
59.40	250.0079
59.54	250.0714
59.54	250.0714
59.72	250.1537
60.01	250.2863
61.10	210.2128
61.14	210.2280
61.30	194.4772
63.00	180.7936
63.29	187.2329
63.29	187.2329
63.58	187.3286
64.28	147.8214
64.62	0.0000
65.12	182.1016
65.20	182.1269
65.20	182.1269
66.05	195.5739
66.72	179.8358
66.83	179.8694
66.91	179.8943
67.20	159.7481
67.20	159.7481
67.67	181.1922
67.75	181.2164
67.85	170.5859
68.90	174.0912
68.90	174.0912
69.30	160.3134
69.67	161.4820
70.82	177.8602
70.82	177.8602
70.83	177.8627
72.80	203.1581
72.80	203.1581
72.87	203.1812
72.87	203.1812
74.67	185.4392
74.81	188.7155
74.81	188.7155
74.81	188.7155
74.81	188.7155
74.81	188.7155
74.81	188.7155

74.81	188.7155
74.97	188.7635
74.97	188.7635
75.28	182.3819
75.70	172.7832
77.11	185.0708
77.11	185.0708
77.11	185.0708
77.11	185.0708
77.11	185.0708
77.11	185.0708
77.11	185.0708
78.38	197.3648
79.62	202.0875
79.80	196.7084
79.80	196.7084
80.11	200.0633
80.18	200.0848
80.30	200.1213
80.30	200.1213
80.57	190.4111
81.00	187.2685
81.07	194.9109
81.07	194.9109
81.07	194.9109
82.60	201.6898
83.37	163.8962
83.78	183.6765
83.78	183.6765
83.78	183.6765
84.21	196.9208
84.21	196.9208
84.90	198.7640
85.43	190.6984
86.29	186.0002
86.50	186.0571
86.54	227.2327
86.59	227.2496
86.72	227.2922
86.79	227.3149
86.94	227.3643
87.30	219.2412
87.30	219.2412
87.30	219.2412
87.30	219.2412
87.30	219.2412
87.30	219.2412
87.30	219.2412
87.57	219.3264
87.88	219.4238
88.03	219.4715
88.36	219.5750
88.47	219.6095
89.36	148.7968
89.95	148.9217
91.11	149.1655
92.29	114.5492
92.38	114.5634
92.38	114.5634
93.35	114.7182
94.00	109.8286
94.67	106.5981
94.67	106.5986
94.90	116.6291
94.90	116.6291
94.90	116.6291
95.87	150.1508
95.87	150.1508
96.73	128.6128
97.43	135.4213
98.44	148.6630
98.44	148.6630
98.88	131.7759
99.55	115.1274
99.55	115.1274
99.86	109.5841
100.00	109.6045
100.10	116.3309

103.18	158.3553
103.76	152.8547
105.00	129.4592
105.31	118.2489
108.00	176.2863
109.28	149.4057
110.05	0.0000
111.00	154.2631
111.00	154.2631
111.76	148.7316
112.95	164.8677
115.19	168.7387
115.19	168.7387
115.19	168.7387
116.30	186.6610
117.00	166.2510
117.00	166.2510
117.66	173.2431
121.11	150.4140
121.62	150.5040
121.78	150.5319
122.06	150.5812
122.32	150.6266
122.32	150.6266
122.32	150.6266
123.07	151.9093
127.23	142.9235
129.76	135.6788
131.20	134.7363
133.02	171.0873
133.54	171.1860
135.34	178.5249
136.00	175.1511
136.25	161.1825
136.48	161.2232
140.51	176.0025
140.51	0.0000
142.18	171.0258
142.65	159.6441
143.76	147.4692
144.24	149.3101
144.24	149.3101
144.24	149.3101
145.22	145.9259
145.44	145.9586
147.16	171.0322
152.43	145.2278
152.70	149.7224
153.22	148.9102
154.21	142.8101
154.21	142.8101
154.21	142.8101
155.03	139.3541
156.02	128.7620
158.56	140.7397
159.00	0.0000
159.00	135.4198
160.31	149.0634
161.27	132.1253
162.32	134.9590
162.64	139.5014
163.35	147.7029
163.89	132.4606
165.85	167.0169
167.43	153.7058
171.28	132.4863
171.86	146.1777
172.10	146.2097
176.55	141.3415
176.60	144.9963
181.06	136.2464
184.41	135.1868
185.71	126.8839
186.00	134.2741
186.21	134.2986
190.27	135.8864
192.34	130.3975
193.63	132.3954

197.04	141.1397
198.01	144.0448
198.60	132.9584
200.40	129.4365
201.83	123.9985
202.84	145.5656
205.31	134.6451
208.36	129.3603
208.81	144.4114
209.75	137.0154
209.75	137.0154
210.97	131.5149
215.65	158.4164
216.55	158.5305
218.09	163.4493
222.10	151.6479
223.80	161.3412
226.40	140.7475
227.00	143.6673
227.08	143.6765
227.20	143.6892
228.16	122.8458
228.18	122.8478
228.18	122.8478
231.56	122.2119
235.69	142.7102
236.00	149.4492
236.00	149.4492
238.63	112.3092
238.63	112.3092
238.63	112.3092
238.63	112.3092
239.00	121.9422
240.98	143.2775
241.98	136.6481
241.98	136.6481
241.98	136.6481
244.69	141.7434
245.39	135.0632
247.94	126.6174
248.90	121.8693
249.79	124.8526
252.40	120.2399
252.85	124.1592
252.85	124.1592
254.15	0.0000
256.20	117.6513
256.20	117.6513
260.50	108.2579
260.90	105.3616
262.80	124.0641
264.65	128.1376
268.24	101.0009
268.79	116.7339
269.46	143.2866
269.46	143.2866
269.46	143.2866
271.23	107.1056
273.65	125.9824
276.40	117.3440
277.35	94.7256
277.60	84.8728
277.60	84.8728
278.00	76.9979
278.60	90.8545
279.20	102.7479
279.53	118.5809
280.46	114.6990
281.68	98.9594
283.67	90.1738
284.30	87.2373
285.00	89.2612
285.90	101.2234
286.10	101.2358
286.10	101.2358
287.40	96.3562
288.45	0.0000
290.67	88.5994

290.80	88.6075
291.72	103.6033
293.26	104.7052
293.70	105.7331
295.21	96.8505
295.21	96.8505
295.21	96.8505
295.96	85.9095
296.50	87.9369
297.23	96.9763
298.57	93.0582
299.80	97.1376
299.80	97.1376
300.09	103.1650
300.09	103.1650
300.09	103.1650
300.09	103.1650
300.12	103.1666
301.29	108.2554
302.84	95.3189
303.76	96.3794
303.91	86.3477
304.40	90.3914
304.40	90.3914
304.84	92.4268
306.84	83.4901
308.46	84.5819
311.98	87.7965
316.51	92.0914
318.01	89.1373
319.02	91.2209
319.41	96.3119
320.08	86.2088
323.87	86.4085
323.87	86.4085
323.87	86.4085
325.23	86.4799
328.77	70.3508
329.70	84.6730
329.70	84.6730
330.00	93.8713
333.44	89.9739
334.20	85.9226
334.20	85.9226
334.30	85.9277
338.28	100.4868
338.28	100.4868
338.28	100.4868
338.32	100.4883
338.32	100.4883
340.50	88.2964
340.57	88.3004
343.40	82.2766
344.27	101.8687
345.85	63.8552
350.59	90.8816
351.07	84.7076
351.92	73.3802
351.92	73.3802
351.92	73.3802
355.39	0.0000
356.01	84.9479
364.48	86.3954
366.43	85.4471
367.43	83.4094
367.94	83.4338
369.80	83.5193
374.96	84.8043
383.85	76.7984
387.95	88.5656
388.63	91.7631
391.69	71.8391
391.69	71.8391
392.90	74.0001
398.62	62.5597
400.65	80.6711
401.10	82.8143
401.81	92.4030

402.60	76.5033
404.84	79.7836
410.95	73.6336
411.60	82.1979
413.65	83.3535
414.70	85.5359
415.30	94.1190
415.76	96.2801
417.63	0.0000
418.52	80.3455
423.70	75.1857
427.08	82.8453
427.89	68.8857
432.53	104.6462
433.00	116.5413
433.93	101.4800
439.47	93.0967
439.56	93.1006
439.89	90.9509
443.98	92.2178
444.90	86.8311
445.03	86.8372
445.03	86.8372
445.03	86.8372
453.90	78.4885
463.38	82.1274
468.07	76.8210
473.00	65.9985
475.06	74.8699
475.35	80.3862
476.78	84.8462
477.59	76.0594
477.96	76.0731
482.03	62.9604
484.57	65.2452
487.03	60.8897
490.36	55.4382
492.35	52.1593
497.08	62.2788
507.63	0.0000
510.53	0.0000
510.84	55.9467
511.00	55.9513
511.85	64.9274
511.85	64.9274
513.99	96.3616
513.99	96.3616
520.41	57.3050
520.65	57.3112
527.90	62.2247
528.96	0.0000
529.64	66.7843
529.87	0.0000
531.02	54.1816
537.32	63.3811
543.00	56.2723
546.56	0.0000
549.76	70.9941
552.65	46.4752
555.20	50.1727
563.23	49.4240
563.90	52.1837
568.70	44.9482
569.32	39.4538
569.50	39.4569
569.67	37.6247
573.80	63.4258
574.00	63.4308
574.64	61.6070
578.91	52.5023
579.30	53.4319
583.14	36.9063
585.48	44.3285
591.81	47.2173
592.07	47.2223
593.00	49.0923
595.88	51.9299
600.56	51.0966

602.52	0.0000
602.71	44.6309
602.71	44.6309
603.60	50.2269
604.41	54.8948
604.70	57.6921
609.31	52.2020
610.33	55.9526
612.46	59.7328
614.37	50.4365
618.01	48.6357
621.84	41.2135
621.84	41.2135
631.29	33.8414
633.02	47.9731
633.10	47.9744
634.78	56.4756
635.90	54.6171
636.97	59.3486
645.85	42.5325
646.12	47.2632
656.30	50.6029
657.75	37.9717
657.90	0.0000
661.65	49.4343
661.65	49.4343
664.57	41.2386
666.33	47.6135
666.33	47.6135
675.00	40.1205
677.61	47.8064
685.20	39.3073
692.80	42.2974
695.00	40.4055
696.49	39.4645
696.49	39.4645
697.00	37.5461
697.49	45.2559
698.33	42.3790
698.50	41.4179
699.00	39.4985
702.63	39.5486
706.10	37.6651
706.58	0.0000
706.67	38.6387
709.31	37.7070
711.68	41.6080
713.82	32.9234
717.42	49.4461
720.50	38.8223
721.93	43.6970
722.20	42.7292
722.78	40.7952
722.78	40.7952
722.89	40.7972
722.95	46.6254
723.30	44.6883
724.18	41.7864
727.18	34.0472
733.00	45.8101
735.90	41.9523
739.58	46.8879
742.81	40.0941
744.21	57.7223
747.13	48.9648
751.79	51.0021
752.31	51.0110
753.82	47.1105
755.35	42.2252
756.15	37.3246
756.87	40.2813
763.13	34.4565
763.93	35.4507
765.79	49.2664
766.42	46.3207
766.84	49.2834
776.49	36.5845
778.00	35.6124

778.57	34.6300
778.89	34.6334
783.80	33.6970
785.46	30.7404
792.07	38.7543
795.84	34.8214
796.30	31.8414
798.80	39.8330
801.93	46.8508
805.60	44.9088
810.29	39.9775
810.76	34.9855
815.85	56.0656
817.79	43.0766
818.51	48.0961
819.60	39.0914
826.30	46.2033
828.27	35.1760
831.60	44.2664
831.96	44.2707
834.83	39.2742
836.80	0.0000
846.75	40.4277
848.13	40.4443
856.28	0.0000
856.80	33.4544
860.37	42.6234
867.32	42.7116
867.82	40.6836
871.10	45.8141
873.19	55.0112
874.81	47.9030
875.33	0.0000
876.40	44.8658
879.36	48.9879
880.27	51.0425
880.51	46.9625
881.50	50.0396
883.24	60.2820
884.67	58.2636
889.25	50.1532
896.60	57.4396
898.02	46.1755
899.00	44.1359
903.28	60.6334
911.07	60.7703
911.07	60.7703
919.63	61.9512
920.93	45.4470
925.00	59.9768
925.24	63.0835
926.50	57.9332
935.52	56.0065
937.48	43.5842
944.10	59.2600
946.00	40.5672
949.00	60.3817
962.29	59.5578
964.01	65.8578
966.15	59.6204
968.20	63.8400
969.11	59.6691
969.11	59.6691
977.42	46.1646
980.50	49.3534
983.50	37.8334
989.30	37.8923
996.32	44.2907
1001.03	57.0164
1001.68	48.5785
1004.76	47.5609
1021.30	0.0000
1024.50	0.0000
1034.80	41.5460
1036.00	46.8875
1037.82	41.5784
1038.57	38.3871
1038.76	0.0000

1045.16	43.7927
1046.59	44.8793
1048.07	41.6889
1050.47	41.7136
1050.47	41.7136
1062.04	42.9102
1063.62	31.1226
1076.63	50.6053
1077.35	53.8452
1078.86	38.7844
1085.78	45.3264
1093.90	42.1745
1099.22	48.7266
1112.02	30.4145
1112.84	31.5078
1115.52	40.2249
1120.29	33.7413
1120.51	33.7443
1121.28	28.3067
1124.00	0.0000
1129.67	21.8184
1131.51	0.0000
1147.95	0.0000
1167.94	17.3011
1173.22	27.5586
1175.09	17.3302
1177.93	23.6478
1189.05	20.2848
1204.90	14.8066
1205.75	15.7355
1213.00	14.8346
1221.42	23.2239
1230.97	16.7571
1235.34	9.3188
1236.41	0.0000
1238.25	10.2574
1246.25	15.8808
1260.41	0.0000
1271.85	12.2139
1274.45	14.1010
1274.54	14.1016
1291.56	9.4360
1298.22	0.0000
1312.09	7.5827
1325.50	8.1477
1325.50	8.1477
1332.49	5.7119
1333.61	5.7131
1360.21	4.7878
1362.66	0.0000
1365.15	10.5444
1368.21	3.8368
1368.53	0.0000
1376.25	8.6470
1384.27	11.5488
1394.10	9.6436
1395.20	8.6810
1407.95	2.9012
1434.06	6.8055
1436.60	8.7543
1457.56	0.0000
1460.81	8.7968
1489.15	3.9316
1509.49	3.9471
1596.49	8.0251
1620.62	5.0380
1678.03	0.0000
1691.02	11.2247
1691.02	11.2247
1706.46	0.0000
1750.46	0.0000
1764.49	8.2682
1770.23	7.2418
1771.40	4.1390
1791.20	0.0000
1808.65	4.1650
1836.01	4.1841

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202001368

Total Uranium Activity	-1.0203E+03	ug/g
Total Uranium Counting Unc.	1.4815E+03	ug/g
Total Uranium Tpu	7.5589E-04	ug/g
Total Uranium Mda	1.0653E+03	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 935338                    SAMPLE ID  : G1202001368      *
*   ANALYST       : KXG3                      DETECTOR   : GAM01            *
*   SAMPLE DATE   : 23-DEC-2009 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE: 30-DEC-2009 22:03:13.30    SAMPLE ALQT:    2.000 LITER   *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/LITER ) : 2.099E+03
         GROSS GAMMA ERROR   (pCi/LITER )  : 3.377E+02
         GROSS GAMMA MDA     (pCi/LITER )  : 2.272E+02
         GROSS GAMMA DLC     (pCi/LITER )  : 1.096E+02
```

Radiochemistry Batch Checklist, Rev 9

Batch# 935330 Product: GAB Date: 12/30/09

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.	✓		
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.			N/A
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: V. Culpepper 12/30/09

Secondary Review Performed By: [signature]

LANL
1/14

Blank Correction Report

Batch ID 935330

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202001336	DUP	ALPHA	0.150 L	0.268	0.599	2.52	-.05413333	pCi/L	NO
		BETA	0.150 L	3.57	1.09	2.92	.347333333	pCi/L	NO
1202001339	LCS	ALPHA	1.00 L	12.9	1.50	0.243	-.00812	pCi/L	NO
		BETA	1.00 L	38.1	3.26	0.561	.0521	pCi/L	NO
1202001335	MB	ALPHA	1.00 L	-0.00812	0.0663	0.316	-.00812	pCi/L	NO
		BETA	1.00 L	0.0521	0.0986	0.347	.0521	pCi/L	YES
1202001337	MS	ALPHA	0.050 L	241	28.4	7.04	-.1624	pCi/L	NO
		BETA	0.050 L	845	73.9	9.85	1.042	pCi/L	NO
1202001338	MSD	ALPHA	0.050 L	202	24.3	6.78	-.1624	pCi/L	NO
		BETA	0.050 L	856	73.1	10.8	1.042	pCi/L	NO
242934001	CAPA-10-6749	ALPHA	0.150 L	1.24	0.845	2.78	-.05413333	pCi/L	NO
		BETA	0.150 L	7.28	1.20	2.03	.347333333	pCi/L	NO
243014001	CAPA-10-6784	ALPHA	0.150 L	0.376	0.672	2.74	-.05413333	pCi/L	NO
		BETA	0.150 L	1.30	0.739	2.36	.347333333	pCi/L	YES
243104002	CAPA-10-6818	ALPHA	0.150 L	-0.124	0.587	2.70	-.05413333	pCi/L	NO
		BETA	0.150 L	0.438	0.660	2.37	.347333333	pCi/L	YES
243255001	CAPA-10-6093	ALPHA	0.150 L	0.103	0.667	2.85	-.05413333	pCi/L	NO
		BETA	0.150 L	4.74	1.31	3.62	.347333333	pCi/L	NO
243255004	CAPA-10-6753	ALPHA	0.150 L	0.581	0.795	2.90	-.05413333	pCi/L	NO
		BETA	0.150 L	3.88	1.01	2.55	.347333333	pCi/L	NO
243255006	CAPA-10-6767	ALPHA	0.150 L	0.613	0.734	2.71	-.05413333	pCi/L	NO
		BETA	0.150 L	2.28	0.959	2.92	.347333333	pCi/L	NO
243285001	CAPA-10-6793	ALPHA	0.150 L	-0.342	0.452	2.45	-.05413333	pCi/L	YES
		BETA	0.150 L	3.55	1.13	3.24	.347333333	pCi/L	NO
243286002	CAPA-10-6390	ALPHA	0.150 L	3.57	1.37	3.43	-.05413333	pCi/L	NO
		BETA	0.150 L	12.9	1.85	3.32	.347333333	pCi/L	NO
243286003	CAPA-10-6746	ALPHA	0.150 L	3.00	1.20	2.98	-.05413333	pCi/L	NO
		BETA	0.150 L	13.1	1.86	3.27	.347333333	pCi/L	NO

Gross Alpha Beta Que Sheet

12/21/2009 09:22:17

Batch #:935330 Analyst:DXB5 First Client DueDate 01/14/2010 Internal Due Date 01/03/2010

Alpha Spike Isotope: Th-230 Spike Code: 1242-B Vol: 0.1 Balance #: 51204863
Beta Spike Isotope: Sr-90 Spike Code: 1067-C Vol: 0.1 Pipette #: 4497063
Alpha LCS Isotope: Th-230 LCS Code: 1242-B Vol: 0.1 Prep Date: 12/24/09
Beta LCS Isotope: Sr-90 LCS Code: 1067-C Vol: 0.1 Initials: SRS

Analytical Scale # C31514
Witness: BW 12/24/09

10% HNO3: 1231701
Conc HNO3: 1215254.11
Conc HCl:
Conc HF:
Conc Boric:

Sample ID	Client Description	Type	Hazard Code	RDL Alpha/Beta	Client	Matrix	Bkr#	Wet/Dry Aliquot (mL or g)	Carrier or Det#	Initial Wt (g)	Final Wt (g)	Net Wt (mg)
242934001-1	CAPA-10-6749	SAMPLE		3 pCi/L	LANL010	GROUND WATER	1	150	~~*6B~~ 10C	7.5661	7.6148	48.7
243014001-1	CAPA-10-6784	SAMPLE		3 pCi/L	LANL010	GROUND WATER	2	150	*~~5C~~ 12C	7.5380	7.5538	15.8
243104002-1	CAPA-10-6818	SAMPLE		3 pCi/L	LANL010	GROUND WATER	3	150	*~~6A~~ 7A	7.5579	7.5752	17.3
243255001-1	CAPA-10-6093	SAMPLE		3 pCi/L	LANL010	GROUND WATER	4	150	*~~6B~~ 5B	7.5326	7.5545	21.9
243255004-1	CAPA-10-6753	SAMPLE		3 pCi/L	LANL010	GROUND WATER	5	150	6D	7.4934	7.5111	~~*17.1~~ 17.7
243255006-1	CAPA-10-6767	SAMPLE		3 pCi/L	LANL010	GROUND WATER	6	150	7A	7.5472	7.5652	18.0
243285001-1	CAPA-10-6793	SAMPLE		3 pCi/L	LANL010	GROUND WATER	7	150	7B	7.5325	7.5486	16.1
243286002-1	CAPA-10-6390	SAMPLE		3 pCi/L	LANL010	GROUND WATER	8	150	7D	7.5137	7.5575	43.8
243286003-1	CAPA-10-6746	SAMPLE		3 pCi/L	LANL010	GROUND WATER	9	150	*~~8A~~ 8C	7.5997	7.6452	45.5
1202001335-1	MB	MB		3 pCi/L	QC ACCOUNT	GROUND WATER	10	1000 ~~150~~*	8B	7.5551	7.5545	0.0
1202001336-1	DUP CAPA-10-6093(243255001)	DUP		3 pCi/L	QC ACCOUNT	GROUND WATER	11	150	8C	7.5753	7.5958	20.5
1202001337-1	MS CAPA-10-6093(243255001)	MS		3 pCi/L	QC ACCOUNT	GROUND WATER	12	50	9A	7.5732	7.5795	6.3
1202001338-1	MSD CAPA-10-6093(243255001)	MSD		3 pCi/L	QC ACCOUNT	GROUND WATER	13	50	9C	7.5747	7.5803	5.6
1202001339-1	LCS	LCS		3 pCi/L	QC ACCOUNT	GROUND WATER	14	1000 ~~150~~*	10A	7.5695	7.5694	0.0

Daily ✓ wtv ✓

* VC 12/30/09

Have the planchets been flamed? Yes No

Data Reviewed By: V. Culpepper 12/30/09

Gross Alpha Liquid

Filename : ALPHA.XLS
File type : Excel
Version # : 1.2.6

Batch : 935330
Analyst : DXB5
Prep Date : 12/24/2009

Method Uncertainty : 0.0829
Geometry: 2 inch Planchett

Spike S/N : 1242-B
Spike Exp Date : 12/2/2010
Spike Activity (dpm/ml): 279.79
Spike Volume Added: 0.10

LCS S/N : 1242-B
LCS Exp Date : 12/2/2010
LCS Activity (dpm/ml): 279.79
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Procedure Code : GFCGANBL
Parmname : Alpha
Required MDC : 3 pCi/L

Sample Characteristics						Count Raw Data				
Pos.	Sample ID	Sample Aliquot L	Sample Residue Wt. (mg)	Sample Aliquot StDev. L	Sample Date/Time	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Count Start Date/Time
1	242934001.2	0.1500	48.7	1.4035E-05	12/11/2009 12:00	10C	70	8	80	12/29/2009 16:14
2	243014001.2	0.1500	15.8	1.4035E-05	12/14/2009 12:00	12C	60	6	71	12/29/2009 16:15
3	243104002.2	0.1500	17.3	1.4035E-05	12/15/2009 12:00	7A	60	5	47	12/29/2009 16:15
4	243255001.2	0.1500	21.9	1.4035E-05	12/16/2009 12:00	5B	60	6	79	12/29/2009 16:16
5	243255004.2	0.1500	17.7	1.4035E-05	12/16/2009 12:00	6D	60	9	125	12/29/2009 12:24
6	243255006.2	0.1500	18.0	1.4035E-05	12/16/2009 12:00	7A	60	8	52	12/29/2009 12:24
7	243285001.2	0.1500	16.1	1.4035E-05	12/17/2009 12:00	7B	60	3	35	12/29/2009 12:24
8	243286002.2	0.1500	43.8	1.4035E-05	12/17/2009 12:00	7D	60	18	115	12/29/2009 12:24
9	243286003.2	0.1500	45.5	1.4035E-05	12/17/2009 12:00	8C	60	14	146	12/29/2009 16:16
10	1202001335.2	1.0000	0.0	2.0399E-05	12/24/2009 0:00	8B	60	4	75	12/29/2009 12:25
11	1202001336.2	0.1500	20.5	1.4035E-05	12/16/2009 12:00	8C	60	5	60	12/29/2009 12:25
12	1202001337.2	0.0500	6.3	7.8337E-06	12/16/2009 12:00	9A	60	359	2852	12/29/2009 12:25
13	1202001338.2	0.0500	5.6	7.8337E-06	12/16/2009 12:00	9C	60	294	2636	12/29/2009 12:25
14	1202001339.2	1.0000	0.0	2.0399E-05	12/24/2009 0:00	10A	60	409	2637	12/29/2009 12:25

Calibration Data

Pos.	Counted on	Calibration Date	Calibration Due Date	Calibration Source Used	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Beta X-Talk	Weekly Bkg CPM	Weekly Bkg Count Time (min.)
1	PIC	7/31/2009	7/31/2010	Th230	0.1500	0.06392	0.00038	0.052	500
2	PIC	7/31/2009	7/31/2010	Th230	0.1908	0.06392	0.00007	0.076	500
3	PIC	7/31/2009	7/31/2010	Th230	0.2025	0.06392	0.00725	0.086	500
4	PIC	7/31/2009	7/31/2010	Th230	0.1935	0.06392	0.00406	0.088	500
5	PIC	7/31/2009	7/31/2010	Th230	0.1973	0.06392	0.00663	0.098	500
6	PIC	7/31/2009	7/31/2010	Th230	0.2012	0.06392	0.00725	0.086	500
7	PIC	7/31/2009	7/31/2010	Th230	0.2074	0.06392	0.00616	0.070	500
8	PIC	7/31/2009	7/31/2010	Th230	0.1644	0.06392	0.00543	0.094	500
9	PIC	7/31/2009	7/31/2010	Th230	0.1649	0.06392	0.00187	0.064	500
10	PIC	7/31/2009	7/31/2010	Th230	0.2408	0.06392	0.00081	0.070	500
11	PIC	7/31/2009	7/31/2010	Th230	0.1954	0.06392	0.00187	0.064	500
12	PIC	7/31/2009	7/31/2010	Th230	0.2206	0.06392	0.00009	0.074	500
13	PIC	7/31/2009	7/31/2010	Th230	0.2152	0.06392	0.00012	0.062	500
14	PIC	7/31/2009	7/31/2010	Th230	0.2369	0.06392	0.00038	0.030	500

Notes:
* - Reference date for Spike Activity (dpm/ml) is the batch Prep Date

* - RPD changed to 0% due to activity below MDC for 1202001336.2

Alpha Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	1.3577	0.9586	3	2.7753	**1.2386**	0.6721	0.0623	0.0417	0.8345	0.8446		SAMPLE				
2	1.3811	0.9751	3	2.7370	**0.3765**	1.7781	0.0240	0.0426	0.6711	0.6723		SAMPLE				
3	1.3846	0.9776	3	2.6967	**-0.1238**	14.8157	-0.0027	0.0395	0.5860	0.5866		SAMPLE				
4	1.4658	1.0349	3	2.8459	**0.1032**	3.5778	0.0120	0.0429	0.6663	0.6669		SAMPLE				
5	1.5171	1.0711	3	2.9033	**0.5814**	1.0006	0.0520	0.0519	0.7904	0.7948		SAMPLE				
6	1.3935	0.9839	3	2.7141	**0.6128**	1.0357	0.0473	0.0489	0.7304	0.7341		SAMPLE				
7	1.2195	0.8610	3	2.4459	**-0.3416**	1.5612	-0.0200	0.0312	0.4517	0.4524		SAMPLE				
8	1.7828	1.2586	3	3.4306	**3.5726**	0.3554	0.2060	0.0720	1.3156	1.3733		SAMPLE				
9	1.4662	1.0351	3	2.9806	**3.0002**	0.3797	0.1693	0.0634	1.1539	1.1981		SAMPLE				
10	0.1576	0.1113	3	0.3161	**-8.123E-03**	10.6115	-0.0033	0.0354	0.0662	0.0663		MB				
11	1.2376	0.8738	3	2.5159	**0.2684**	2.0155	0.0193	0.0389	0.5985	0.5993	243255001.2	DUP	0.0%	0.0652		
12	3.5362	2.4966	3	7.0350	**241.1300**	0.0833	5.9093	0.3160	12.9049	28.3667	243255001.2	MS			252.0649	95.7%
13	3.3182	2.3427	3	6.7784	**202.3077**	0.0871	4.8380	0.2860	11.9721	24.3481	243255001.2	MSD	17.5%	0.3682	252.0649	80.3%
14	0.1049	0.0740	3	0.2431	**12.8749**	0.0810	6.7867	0.3372	0.6412	1.4955		LCS			12.6032	102.2%

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
242934001	10C	70	8	80	12/29/2009 16:14	12/29/2009 17:24	PIC
243014001	12C	60	6	71	12/29/2009 16:15	12/29/2009 17:15	PIC
243104002	7A	60	5	47	12/29/2009 16:15	12/29/2009 17:15	PIC
243255001	5B	60	6	79	12/29/2009 16:16	12/29/2009 17:16	PIC
243255004	6D	60	9	125	12/29/2009 12:24	12/29/2009 13:24	PIC
243255006	7A	60	8	52	12/29/2009 12:24	12/29/2009 13:24	PIC
243285001	7B	60	3	35	12/29/2009 12:24	12/29/2009 13:24	PIC
243286002	7D	60	18	115	12/29/2009 12:24	12/29/2009 13:24	PIC
243286003	8C	60	14	146	12/29/2009 16:16	12/29/2009 17:16	PIC
1202001335	8B	60	4	75	12/29/2009 12:25	12/29/2009 13:25	PIC
1202001336	8C	60	5	60	12/29/2009 12:25	12/29/2009 13:25	PIC
1202001337	9A	60	359	2852	12/29/2009 12:25	12/29/2009 13:25	PIC
1202001338	9C	60	294	2636	12/29/2009 12:25	12/29/2009 13:25	PIC
1202001339	10A	60	409	2637	12/29/2009 12:25	12/29/2009 13:25	PIC

Gross Alpha Beta Que Sheet

12/21/2009 09:22:17

Batch #:935330 Analyst:DXB5 First Client DueDate 01/14/2010 Internal Due Date 01/03/2010

Alpha Spike Isotope: Th-230 Spike Code: 1242-B Vol: 0.1 Balance #: 51204863
Beta Spike Isotope: Sr-90 Spike Code: 1067-C Vol: 0.1 Pipette #: 4497063 Analytical Scale #: C31514
Alpha LCS Isotope: Th-230 LCS Code: 1242-B Vol: 0.1 Prep Date: 12/24/09 Witness: AW 12/24/09
Beta LCS Isotope: Sr-90 LCS Code: 1067-C Vol: 0.1 Initials: JRS

10% HNO3: 123170
Conc HNO3: 1215254.1
Conc HCl:
Conc HF: NA
Conc Boric:

Sample ID	Client Description	Type	Hazard Code	RDL Alpha/Beta	Client	Matrix	Bkr#	Wet/Dry Aliquot (mL or g)	Carrier or Det#	Initial Wt (g)	Final Wt (g)	Net Wt (mg)
242934001-1	CAPA-10-6749	SAMPLE		3 pCi/L	LANL010	GROUND WATER	1	150	11C	7.5661	7.6516	85.5
243014001-1	CAPA-10-6784	SAMPLE		3 pCi/L	LANL010	GROUND WATER	2	150	11D	7.5380	7.5652	27.2
243104002-1	CAPA-10-6818	SAMPLE		3 pCi/L	LANL010	GROUND WATER	3	150 ~~*2B~~	11D	7.5579	7.5915	33.6
243255001-1	CAPA-10-6093	SAMPLE		3 pCi/L	LANL010	GROUND WATER	4	150	12C	7.5326	7.5711	38.5
243255004-1	CAPA-10-6753	SAMPLE		3 pCi/L	LANL010	GROUND WATER	5	150	12D	7.4934	7.5241	30.7
243255006-1	CAPA-10-6767	SAMPLE		3 pCi/L	LANL010	GROUND WATER	6	150	13A	7.5477	7.5769	29.2
243285001-1	CAPA-10-6793	SAMPLE		3 pCi/L	LANL010	GROUND WATER	7	150	13B	7.5325	7.5638	31.3
243286002-1	CAPA-10-6390	SAMPLE		3 pCi/L	LANL010	GROUND WATER	8	150	13C	7.5137	7.6010	87.3
243286003-1	CAPA-10-6746	SAMPLE		3 pCi/L	LANL010	GROUND WATER	9	150	13D	7.5997	7.6892	89.5
1202001335-1	MB	MB		3 pCi/L	QC ACCOUNT	GROUND WATER	10	1000 ~~150~~ *	14A	7.5551	7.5542	0.0
1202001336-1	DUP CAPA-10-6093(243255001)	DUP		3 pCi/L	QC ACCOUNT	GROUND WATER	11	150	14C	7.5753	7.6133	38.0
1202001337-1	MS CAPA-10-6093(243255001)	MS		3 pCi/L	QC ACCOUNT	GROUND WATER	12	50	14D	7.5732	7.5841	* ~~10.9~~ 10.9
1202001338-1	MSD CAPA-10-6093(243255001)	MSD		3 pCi/L	QC ACCOUNT	GROUND WATER	13	50	4A	7.5747	7.5858	11.1
1202001339-1	LCS	LCS		3 pCi/L	QC ACCOUNT	GROUND WATER	14	1000 ~~150~~ *	4D	7.5695	7.5691	0.0

Daily ✓

* VC 12/30/09

Weights ✓

Have the planchets been flamed? Yes / No

V. Cellegge 12/30/09

Data Reviewed By: Rhya Brantley

Gross Beta Liquid

Filename : BETA.XLS
File type : Excel
Version # : 1.2.6

Batch : 935330
Analyst : DXB5
Prep Date : 12/24/2009

Method Uncertainty : 0.0821
Geometry: 2 inch Planchett

Spike S/N : 1067-C
Spike Exp Date : 6/17/2010
Spike Activity (dpm/ml): 428.76
Spike Volume Added: 0.10

LCS S/N : 1067-C
LCS Exp Date : 6/17/2010
LCS Activity (dpm/ml): 428.76
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Procedure Code : GFCGANBL
Parmname : Beta
Required MDC : 3 pCi/L

Sample Characteristics						Count Raw Data				
Pos.	Sample ID	Sample Aliquot L	Sample Residue Wt. (mg)	Sample Aliquot StDev. L	Sample Date/Time	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Count Start Date/Time
1	242934001.1	0.1500	85.5	1.4035E-05	12/11/2009 12:00	11C	60	7	87	12/28/2009 10:23
2	243014001.1	0.1500	27.2	1.4035E-05	12/14/2009 12:00	11D	60	8	39	12/28/2009 10:23
3	243104002.1	0.1500	33.6	1.4035E-05	12/15/2009 12:00	11D	60	4	31	12/28/2009 15:55
4	243255001.1	0.1500	38.5	1.4035E-05	12/16/2009 12:00	12C	60	9	110	12/28/2009 10:23
5	243255004.1	0.1500	30.7	1.4035E-05	12/16/2009 12:00	12D	60	13	66	12/28/2009 10:23
6	243255006.1	0.1500	29.2	1.4035E-05	12/16/2009 12:00	13A	60	12	64	12/28/2009 10:25
7	243285001.1	0.1500	31.3	1.4035E-05	12/17/2009 12:00	13B	60	20	92	12/28/2009 10:24
8	243286002.1	0.1500	87.3	1.4035E-05	12/17/2009 12:00	13C	60	20	187	12/28/2009 10:25
9	243286003.1	0.1500	89.5	1.4035E-05	12/17/2009 12:00	13D	60	14	176	12/28/2009 10:25
10	1202001335.1	1.0000	0	2.0399E-05	12/24/2009 0:00	14A	60	14	37	12/28/2009 10:24
11	1202001336.1	0.1500	38	1.4035E-05	12/16/2009 12:00	14C	60	20	76	12/28/2009 10:24
12	1202001337.1	0.0500	10.9	7.8337E-06	12/16/2009 12:00	14D	60	268	2703	12/28/2009 10:24
13	1202001338.1	0.0500	11.1	7.8337E-06	12/16/2009 12:00	4A	60	326	2631	12/28/2009 12:00
14	1202001339.1	1.0000	0	2.0399E-05	12/24/2009 0:00	4D	60	451	2459	12/28/2009 12:00

Calibration Data

Pos.	Counted on	Calibration Date	Calibration Due Date	Calibration Source Used	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Alpha X-Talk	Weekly Bkg CPM	Weekly Bkg Count Time (min.)
1	PIC	7/31/2009	7/31/2010	Sr90	0.4561	0.00816	0.12371	0.330	500
2	PIC	7/31/2009	7/31/2010	Sr90	0.4453	0.00816	0.08662	0.446	500
3	PIC	7/31/2009	7/31/2010	Sr90	0.4446	0.00816	0.08831	0.446	500
4	PIC	7/31/2009	7/31/2010	Sr90	0.4373	0.00816	0.12416	1.124	500
5	PIC	7/31/2009	7/31/2010	Sr90	0.4368	0.00816	0.11820	0.510	500
6	PIC	7/31/2009	7/31/2010	Sr90	0.4433	0.00816	0.07316	0.716	500
7	PIC	7/31/2009	7/31/2010	Sr90	0.4562	0.00816	0.07308	0.970	500
8	PIC	7/31/2009	7/31/2010	Sr90	0.4670	0.00816	0.09888	1.074	500
9	PIC	7/31/2009	7/31/2010	Sr90	0.4499	0.00816	0.08035	0.958	500
10	PIC	7/31/2009	7/31/2010	Sr90	0.4872	0.00816	0.16430	0.522	500
11	PIC	7/31/2009	7/31/2010	Sr90	0.4413	0.00816	0.19161	0.712	500
12	PIC	7/31/2009	7/31/2010	Sr90	0.4553	0.00816	0.30536	0.992	500
13	PIC	7/31/2009	7/31/2010	Sr90	0.4462	0.00744	0.05407	1.154	500
14	PIC	7/31/2009	7/31/2010	Sr90	0.4656	0.00816	0.03459	1.392	500

Notes:
* - Reference date for Spike Activity (dpm/ml) is the batch Prep Date

Beta Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	1.2040	0.8501	3	2.0293	**7.2792**	0.1409	1.1200	0.1576	1.0374	1.2027		SAMPLE				
2	1.4339	1.0123	3	2.3619	**1.2980**	0.5309	0.2040	0.1083	0.7303	0.7391		SAMPLE				
3	1.4360	1.0138	3	2.3653	**0.4375**	1.3795	0.0707	0.0975	0.6584	0.6596		SAMPLE				
4	2.3175	1.6361	3	3.6156	**4.7428**	0.2555	0.7093	0.1811	1.2437	1.3070		SAMPLE				
5	1.5629	1.1034	3	2.5505	**3.8799**	0.2359	0.5900	0.1391	0.9564	1.0132		SAMPLE				
6	1.8247	1.2883	3	2.9152	**2.2763**	0.3953	0.3507	0.1386	0.9389	0.9591		SAMPLE				
7	2.0640	1.4572	3	3.2436	**3.5482**	0.2945	0.5633	0.1658	1.0916	1.1337		SAMPLE				
8	2.1215	1.4978	3	3.3171	**12.9236**	0.1142	2.0427	0.2326	1.4956	1.8470		SAMPLE				
9	2.0799	1.4684	3	3.2706	**13.0609**	0.1144	1.9753	0.2254	1.5046	1.8567		SAMPLE				
10	0.2127	0.1501	3	0.3465	**0.0521**	1.1240	0.0947	0.1064	0.0984	0.0986		MB				
11	1.8280	1.2906	3	2.9215	**3.5669**	0.2586	0.5880	0.1520	1.0341	1.0856	243255001.1	DUP	28.3%	0.2457		
12	6.2736	4.4292	3	9.8477	**844.7692**	0.0213	44.0580	0.8677	17.1678	73.9444	243255001.1	MS			772.5445	108.7%
13	6.9047	4.8748	3	10.7590	**856.1279**	0.0214	42.6960	0.8562	17.2880	73.1377	243255001.1	MSD	1.3%	0.0386	772.5445	110.2%
14	0.3634	0.2566	3	0.5615	**38.0548**	0.0225	39.5913	0.8282	0.8013	3.2604		LCS			38.6272	98.5%

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
242934001	11C	60	7	87	12/28/2009 10:23	12/28/2009 11:23	PIC
243014001	11D	60	8	39	12/28/2009 10:23	12/28/2009 11:23	PIC
243104002	11D	60	4	31	12/28/2009 15:55	12/28/2009 16:55	PIC
243255001	12C	60	9	110	12/28/2009 10:23	12/28/2009 11:23	PIC
243255004	12D	60	13	66	12/28/2009 10:23	12/28/2009 11:23	PIC
243255006	13A	60	12	64	12/28/2009 10:25	12/28/2009 11:25	PIC
243285001	13B	60	20	92	12/28/2009 10:24	12/28/2009 11:24	PIC
243286002	13C	60	20	187	12/28/2009 10:25	12/28/2009 11:25	PIC
243286003	13D	60	14	176	12/28/2009 10:25	12/28/2009 11:25	PIC
1202001335	14A	60	14	37	12/28/2009 10:24	12/28/2009 11:24	PIC
1202001336	14C	60	20	78	12/28/2009 10:24	12/28/2009 11:24	PIC
1202001337	14D	60	268	2703	12/28/2009 10:24	12/28/2009 11:24	PIC
1202001338	4A	60	326	2631	12/28/2009 12:00	12/28/2009 13:00	PIC
1202001339	4D	60	451	2459	12/28/2009 12:00	12/28/2009 13:00	PIC

Radiochemistry Batch Checklist, Rev 9

Batch# 937917 Product: SR Date: 1/8/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)	✓		
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			
Batch non-conformances second reviewed and disposition verified to be completed.			
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: 1/8/10

Secondary Review Performed By:

Blank Correction Report

Batch ID 937917

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202007052	DUP	Strontium-90	0.400 L	-0.129	0.131	0.464	.2085	pCi/L	YES
1202007054	LCS	Strontium-90	1.00 L	20.0	1.72	0.667	.0834	pCi/L	NO
1202007051	MB	Strontium-90	1.00 L	0.0834	0.0623	0.209	.0834	pCi/L	YES
1202007053	MS	Strontium-90	0.150 L	145	12.4	4.96	.556	pCi/L	NO
242934001	CAPA-10-6749	Strontium-90	0.500 L	-0.222	0.101	0.400	.1668	pCi/L	YES
243014001	CAPA-10-6784	Strontium-90	0.500 L	-0.318	0.107	0.431	.1668	pCi/L	YES
243104002	CAPA-10-6818	Strontium-90	0.500 L	-0.291	0.111	0.439	.1668	pCi/L	YES
243255001	CAPA-10-6093	Strontium-90	0.500 L	0.213	0.141	0.463	.1668	pCi/L	YES
243255004	CAPA-10-6753	Strontium-90	0.400 L	0.0817	0.123	0.417	.2085	pCi/L	YES
243255006	CAPA-10-6767	Strontium-90	0.500 L	0.0339	0.121	0.419	.1668	pCi/L	YES
243285001	CAPA-10-6793	Strontium-90	0.500 L	0.363	0.132	0.404	.1668	pCi/L	YES

Strontium 90 Que Sheet

12/31/09

Batch #: 937917 Analyst: MXB1 First Client Due Date: 01/14/2010 Internal Due Date: 01/08/2010 Comments

Sr-90 Spike Code: 1067-c Expiration Date: 6-17-10 Vol: 0.1 Sr Sep. Date/time: 1-7-10/0959

Sr-90 LCS Code: 1067-c Expiration Date: 6-17-10 Vol: 0.1

Sr Carrier Code: 1194596 Exp Date: 3-19-10 Vol: 0.5 Sdt Wt: 8.93

Prep Date: 1-6-10 Initials: MEB Pipet ID: 1795419 Balance #: 17955160 Analytical Scale #: 39110047 Witness: MS 1-6-10

Sample ID	Client Description	Type	RDL	Collection Date	Matrix	Client	Rad	Pos. #	Wet/Dry Aliquot (mL) or (g)	Det # 1 & 2	Initial Sr wt (g)	Final Sr wt (g)	Net Sr wt (mg)
242934001-2	CAPA-10-6749	SAMPLE	.5 pCi/L	DEC-11-09 12:00 PM	GROUND WATE	LANL010		1	500	7A	0.0251	0.0329	7.8
243014001-2	CAPA-10-6784	SAMPLE	.5 pCi/L	DEC-14-09 12:00 PM	GROUND WATE	LANL010		2	500	7B	0.0245	0.0319	7.4
243104002-2	CAPA-10-6818	SAMPLE	.5 pCi/L	DEC-15-09 12:00 PM	GROUND WATE	LANL010		3	500	7D	0.0252	0.0321	6.9
243255001-2	CAPA-10-6093	SAMPLE	.5 pCi/L	DEC-16-09 12:00 PM	GROUND WATE	LANL010		4	500	8B	0.0246	0.0317	7.1
243255004-2	CAPA-10-6753	SAMPLE	.5 pCi/L	DEC-16-09 12:00 PM	GROUND WATE	LANL010		5	400	5A	0.0242	0.0317	7.5
243255006-2	CAPA-10-6767	SAMPLE	.5 pCi/L	DEC-16-09 12:00 PM	GROUND WATE	LANL010		6	500	9A	0.0245	0.0321	7.6
243285001-2	CAPA-10-6793	SAMPLE	.5 pCi/L	DEC-17-09 12:00 PM	GROUND WATE	LANL010		7	500	9C	0.0244	0.0322	7.8
~~243286002-2~~	~~CAPA-10-6390~~	~~SAMPLE~~	~~.5 pCi/L~~	~~DEC-17-09 12:00 PM~~	~~GROUND WATE~~	~~LANL010~~		~~8~~	~~500~~	~~10B~~	~~0.0249~~	~~0.0325~~	~~7.6~~
~~243286003-2~~	~~CAPA-10-6746~~	~~SAMPLE~~	~~.5 pCi/L~~	~~DEC-17-09 12:00 PM~~	~~GROUND WATE~~	~~LANL010~~		~~9~~	~~500~~	~~10D~~	~~0.0250~~	~~0.0324~~	~~7.4~~
1202007051-1	MB for batch 937917	MB	UCF pCi/l		GROUND WATE	QC ACCOUNT		10	1000 ~~500~~*	10C	0.0242	0.0318	7.6
1202007052-2	CAPA-10-6753(243255004DUP)	DUP	.5 pCi/L	DEC-16-09 12:00 PM	GROUND WATE	QC ACCOUNT		11	400	8C	0.0246	0.0319	6.8
1202007053-2	CAPA-10-6753(243255004MS)	MS	.5 pCi/L	DEC-16-09 12:00 PM	GROUND WATE	QC ACCOUNT		12	150	5D	0.0250	0.0321	7.1
1202007054-1	LCS for batch 937917	LCS	UCF pCi/l		GROUND WATE	QC ACCOUNT		13	1000 ~~500~~*	6D	0.0244	0.0320	7.6

* 1/8/10 ✓ WFS.

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) Data Reviewed By: 1/8/10

Strontium-90 Liquid

Filename : SR90.XLS
File type : Excel
Version # : 1.2.9

Spike S/N : 1067-C
Spike Exp Date : 6/17/2010
Spike Activity (dpm/ml): 428.40
Spike Volume Added: 0.10

Batch : 937917
Analyst : MXB1
Prep Date : 1/6/2010

LCS S/N : 1067-C
LCS Exp Date : 6/17/2010
LCS Activity (dpm/ml): 428.40
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Sr-90 Abundance : 1
Method Uncertainty : 0.0784

Carrier S/N : 1194590
Carrier Exp Date : 3/19/2010
Carrier Volume Added: 0.50
Carrier Weight (mg/ml): 17.85
Carrier Weight StDev.: 0.06

Procedure Code : GFC90SRL
Parmname : Strontium-90
Required MDC : 0.5 pCi/L
Halflife of Sr-90 : 28.90 years
Halflife of Y-90 : 64.053 hours

Geometry: Tuffryn Filter

Sample Characteristics					Carrier Calculations				
Pos.	Sample ID	Sample Aliquot L	Sample Aliquot StDev. L	Sample Date/Time	Carrier Weight (mg) (Standard)	Net Weight (mg) (Sample)	Net Weight StDev. (mg)	Carrier Aliquot (mL)	Carrier Aliquot StDev. (mL)
1	242934001.2	0.5000	2.0256E-05	12/11/2009 12:00	17.85	7.80	0.040854	0.5	0.002564
2	243014001.2	0.5000	2.0256E-05	12/14/2009 12:00	17.85	7.40	0.039135	0.5	0.002564
3	243104002.2	0.5000	2.0256E-05	12/15/2009 12:00	17.85	6.90	0.036986	0.5	0.002564
4	243255001.2	0.5000	2.0256E-05	12/16/2009 12:00	17.85	7.10	0.037846	0.5	0.002564
5	243255004.2	0.4000	1.9669E-05	12/16/2009 12:00	17.85	7.50	0.039565	0.5	0.002564
6	243255006.2	0.5000	2.0256E-05	12/16/2009 12:00	17.85	7.60	0.039995	0.5	0.002564
7	243285001.2	0.5000	2.0256E-05	12/17/2009 12:00	17.85	7.80	0.040854	0.5	0.002564
8	~~243286002.2~~	~~0.5000~~	~~2.0256E-05~~	~~12/17/2009 12:00~~	~~17.85~~	~~7.60~~	~~0.039995~~	~~0.5~~	~~0.002564~~
9	~~243286003.2~~	~~0.5000~~	~~2.0256E-05~~	~~12/17/2009 12:00~~	~~17.85~~	~~7.40~~	~~0.039135~~	~~0.5~~	~~0.002564~~
10	1202007051.1	1.0000	2.0399E-05	1/6/2010 0:00	17.85	7.60	0.039995	0.5	0.002564
11	1202007052.2	0.4000	1.9669E-05	12/16/2009 12:00	17.85	6.80	0.036556	0.5	0.002564
12	1202007053.2	0.1500	1.4035E-05	12/16/2009 12:00	17.85	7.10	0.037846	0.5	0.002564
13	1202007054.1	1.0000	2.0399E-05	1/6/2010 0:00	17.85	7.60	0.039995	0.5	0.002564

Count Raw Data

Pos.	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Gross Beta CPM	Count Start Date/Time	Strontium Separation Date/Time	Yttrium Ingrowth	Sr-90 Decay	Calculated Sample Recovery %	Sample Recovery Error %
1	7A	210	14	77	0.363	1/7/2010 20:02	1/7/2010 9:59	0.120	0.998	87.39%	0.96%
2	7B	220	10	84	0.380	1/7/2010 20:02	1/7/2010 9:59	0.121	0.998	82.91%	0.97%
3	7D	230	18	86	0.370	1/7/2010 20:02	1/7/2010 9:59	0.122	0.998	77.31%	0.97%
4	8B	500	26	655	1.307	1/7/2010 20:03	1/7/2010 9:59	0.143	0.999	79.55%	0.97%
5	5A	420	30	261	0.618	1/7/2010 20:05	1/7/2010 9:59	0.137	0.999	84.03%	0.97%
6	9A	260	16	170	0.647	1/7/2010 20:03	1/7/2010 9:59	0.124	0.999	85.15%	0.96%
7	9C	210	5	136	0.645	1/7/2010 20:03	1/7/2010 9:59	0.120	0.999	87.39%	0.96%
~~8~~	~~10A~~	~~160~~	~~5~~	~~140~~	~~0.872~~	~~1/8/2010 9:35~~	~~1/7/2010 9:59~~	~~0.236~~	~~0.999~~	~~85.15%~~	~~0.96%~~
~~9~~	~~10C~~	~~160~~	~~14~~	~~110~~	~~0.679~~	~~1/8/2010 9:35~~	~~1/7/2010 9:59~~	~~0.237~~	~~0.999~~	~~82.91%~~	~~0.97%~~
10	10C	160	8	70	0.433	1/7/2010 20:01	1/7/2010 9:59	0.116	1.000	85.15%	0.96%
11	8C	420	30	235	0.554	1/7/2010 20:05	1/7/2010 9:59	0.137	0.999	76.19%	0.98%
12	5D	60	17	1203	20.038	1/7/2010 20:01	1/7/2010 9:59	0.108	0.999	79.55%	0.97%
13	6D	60	18	1172	19.521	1/7/2010 20:01	1/7/2010 9:59	0.108	1.000	85.15%	0.96%

Calibration Data

Pos.	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm) Sr-90	Detector Efficiency (cpm/dpm) Y-90	Detector Efficiency Error (cpm/dpm)	Alpha X-Talk	Weekly Bkg CPM	Weekly Bkg Count Time (min.)
1	PIC	1/1/2009	1/31/2010	0.4101	0.5546	0.00816	0.06147	0.465	1000
2	PIC	1/1/2009	1/31/2010	0.4129	0.5564	0.00816	0.04246	0.520	1000
3	PIC	1/1/2009	1/31/2010	0.4158	0.5551	0.00816	0.04617	0.491	1000
4	PIC	1/1/2009	1/31/2010	0.4214	0.5598	0.00816	0.05751	1.213	1000
5	PIC	1/1/2009	1/31/2010	0.4188	0.5575	0.00816	0.04605	0.588	1000
6	PIC	1/1/2009	1/31/2010	0.4212	0.5525	0.00816	0.11653	0.631	1000
7	PIC	1/1/2009	1/31/2010	0.4123	0.5437	0.00816	0.10863	0.477	1000
~~8~~	~~PIC~~	~~1/1/2009~~	~~1/31/2010~~	~~0.4167~~	~~0.5489~~	~~0.00816~~	~~0.09100~~	~~0.387~~	~~1000~~
~~9~~	~~PIC~~	~~1/1/2009~~	~~1/31/2010~~	~~0.4101~~	~~0.5468~~	~~0.00816~~	~~0.09921~~	~~0.358~~	~~1000~~
10	PIC	1/1/2009	1/31/2010	0.4095	0.5468	0.00816	0.09928	0.358	1000
11	PIC	1/1/2009	1/31/2010	0.4176	0.5610	0.00816	0.07732	0.597	1000
12	PIC	1/1/2009	1/31/2010	0.4168	0.5621	0.00816	0.04091	1.734	1000
13	PIC	1/1/2009	1/31/2010	0.4157	0.5526	0.00816	0.03996	1.575	1000

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

* - RPD changed to 0% due to activity below MDC for 1202007052.2

Results Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	0.2613	0.1845	0.5	0.3999	**-0.2219**	0.4572	-0.1024	0.0468	0.1014	0.1014		SAMPLE				
2	0.2837	0.2003	0.5	0.4314	**-0.3176**	0.3385	-0.1401	0.0474	0.1075	0.1075		SAMPLE				
3	0.2883	0.2035	0.5	0.4386	**-0.2915**	0.3800	-0.1207	0.0458	0.1107	0.1107		SAMPLE				
4	0.3180	0.2245	0.5	0.4826	**0.2127**	0.6582	0.0940	0.0619	0.1400	0.1410		SAMPLE				
5	0.2816	0.1988	0.5	0.4169	**0.0817**	1.5059	0.0301	0.0454	0.1230	0.1232		SAMPLE				
6	0.2787	0.1968	0.5	0.4185	**0.0339**	3.5625	0.0157	0.0558	0.1208	0.1208		SAMPLE				
7	0.2640	0.1864	0.5	0.4037	**0.3632**	0.3547	0.1680	0.0596	0.1288	0.1320		SAMPLE				
~~8~~	~~0.2392~~	~~0.1689~~	~~0.5~~	~~0.3742~~	~~**0.0406**~~	~~0.1580~~	~~0.4852~~	~~0.0764~~	~~0.1481~~	~~0.1661~~		~~SAMPLE~~				
~~9~~	~~0.2394~~	~~0.1690~~	~~0.5~~	~~0.3759~~	~~**0.6471**~~	~~0.2118~~	~~0.3208~~	~~0.0678~~	~~0.1368~~	~~0.1462~~		~~SAMPLE~~				
10	0.1328	0.0938	0.5	0.2085	**0.0834**	0.7424	0.0745	0.0553	0.0619	0.0623		MB				
11	0.3134	0.2213	0.5	0.4639	**-0.1287**	1.0181	-0.0430	0.0438	0.1310	0.1310	243255004.2	DUP	0.0%	0.4138		
12	3.2294	2.2800	0.5	4.9559	**144.9498**	0.0341	18.3044	0.5794	4.5882	12.4489	243255004.2	MS			128.8208	112.5%
13	0.4326	0.3054	0.5	0.6665	**19.9754**	0.0343	17.9463	0.5718	0.6364	1.7169		LCS			19.2971	103.5%

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
242934001	7A	210	14	77	1/7/2010 20:02	1/7/2010 23:32	PIC
243014001	7B	220	10	84	1/7/2010 20:02	1/7/2010 23:42	PIC
243014002	7D	230	18	86	1/7/2010 20:02	1/7/2010 23:52	PIC
243255001	8B	500	26	655	1/7/2010 20:03	1/8/2010 4:23	PIC
243255004	5A	420	30	261	1/7/2010 20:05	1/8/2010 3:05	PIC
243255006	9A	260	16	170	1/7/2010 20:03	1/8/2010 0:23	PIC
243285001	9C	210	5	136	1/7/2010 20:03	1/7/2010 23:33	PIC
~~243285002~~	~~10B~~	~~180~~	~~6~~	~~160~~	~~1/7/2010 20:04~~	~~1/7/2010 23:04~~	~~PIC~~
~~243285003~~	~~10D~~	~~330~~	~~94~~	~~463~~	~~1/7/2010 20:04~~	~~1/8/2010 1:34~~	~~PIC~~
1202007051	10C	160	8	70	1/7/2010 20:01	1/7/2010 22:41	PIC
1202007052	8C	420	30	235	1/7/2010 20:05	1/8/2010 3:05	PIC
1202007053	5D	60	17	1203	1/7/2010 20:01	1/7/2010 21:01	PIC
1202007054	6D	60	18	1172	1/7/2010 20:01	1/7/2010 21:01	PIC

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W169.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 22-JUN-2009 09:49:39 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 0.368144 through 0.388144

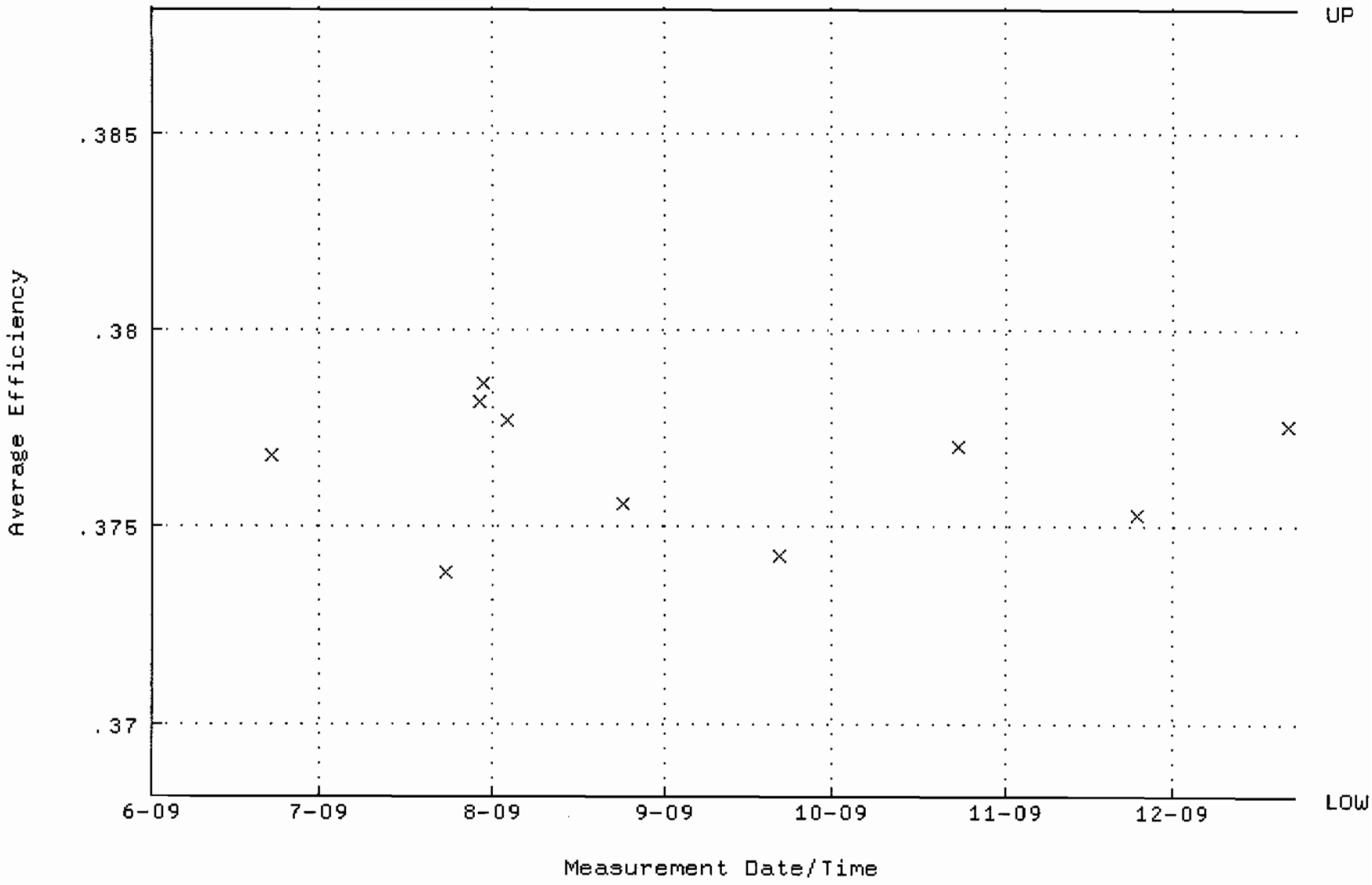

QA filename : DKA100:[ENV_ALPHA.QA.W]W169.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 22-JUN-2009 09:49:39 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 87.7141 through 96.9471

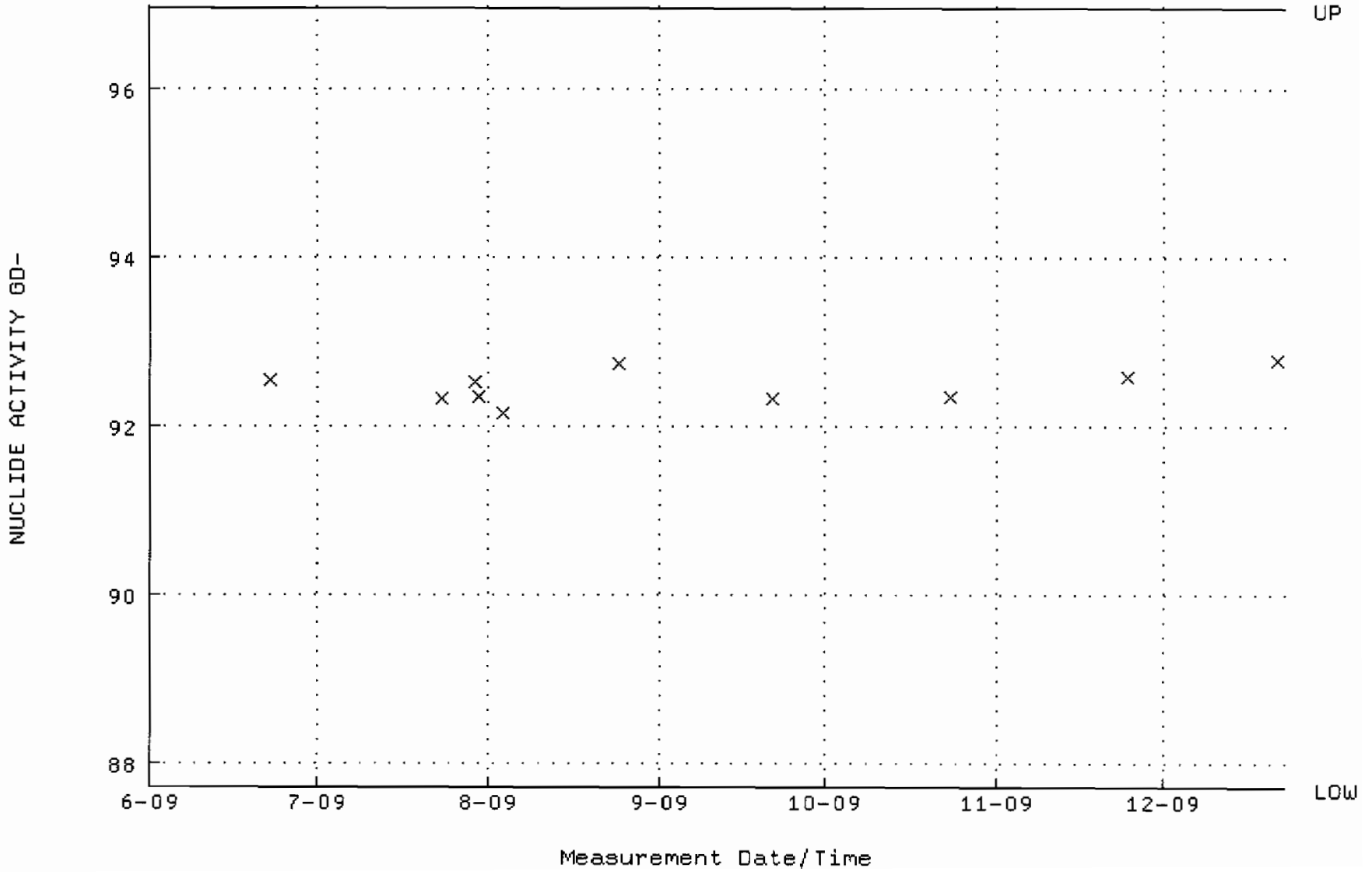

QA filename : DKA100:[ENV_ALPHA.QA.B]B169.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:12:32 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

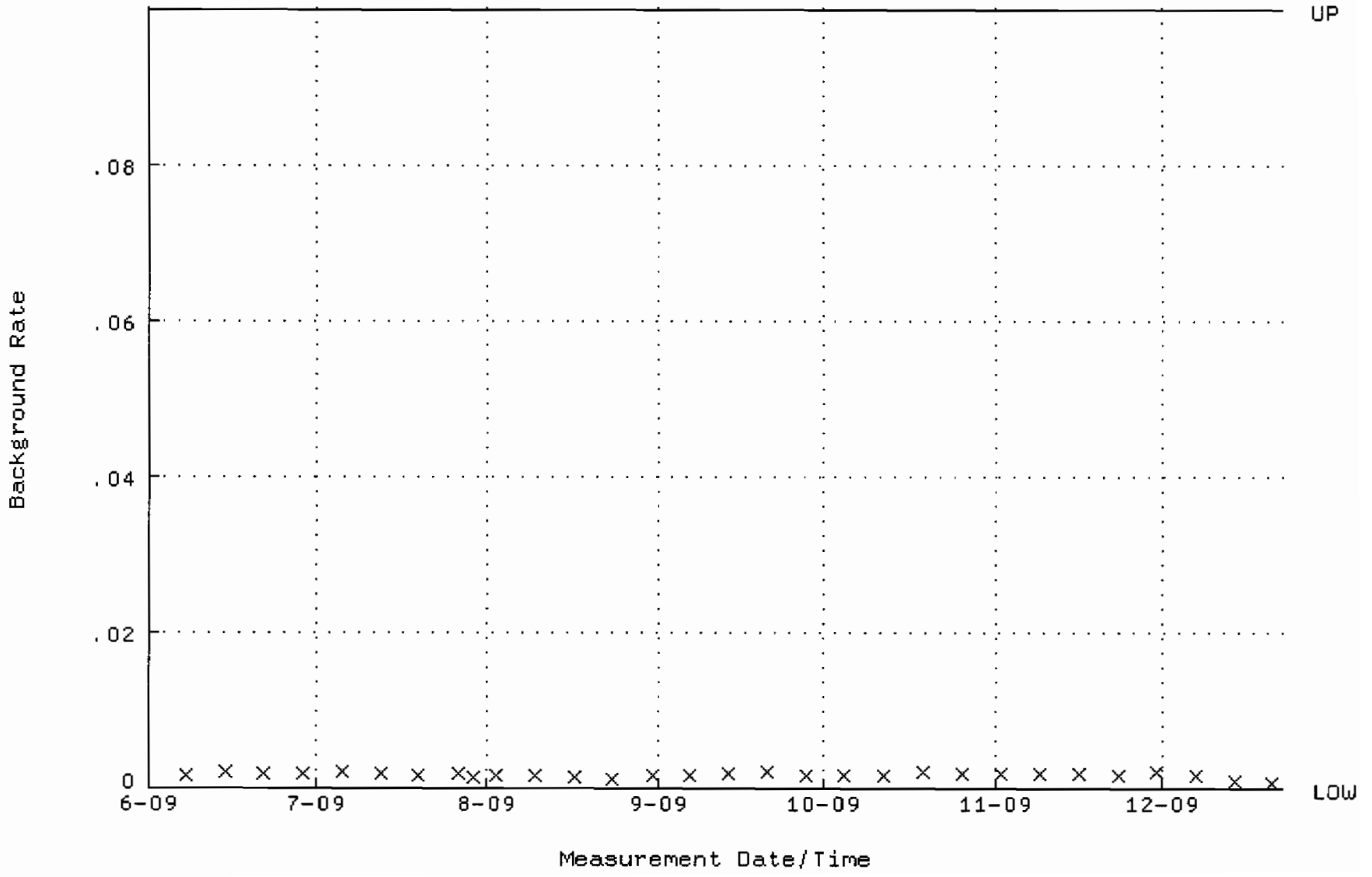

QA filename : DKA100:[ENV_ALPHA.QA.W]W170.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 22-JUN-2009 09:49:44 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 0.360563 through 0.380563

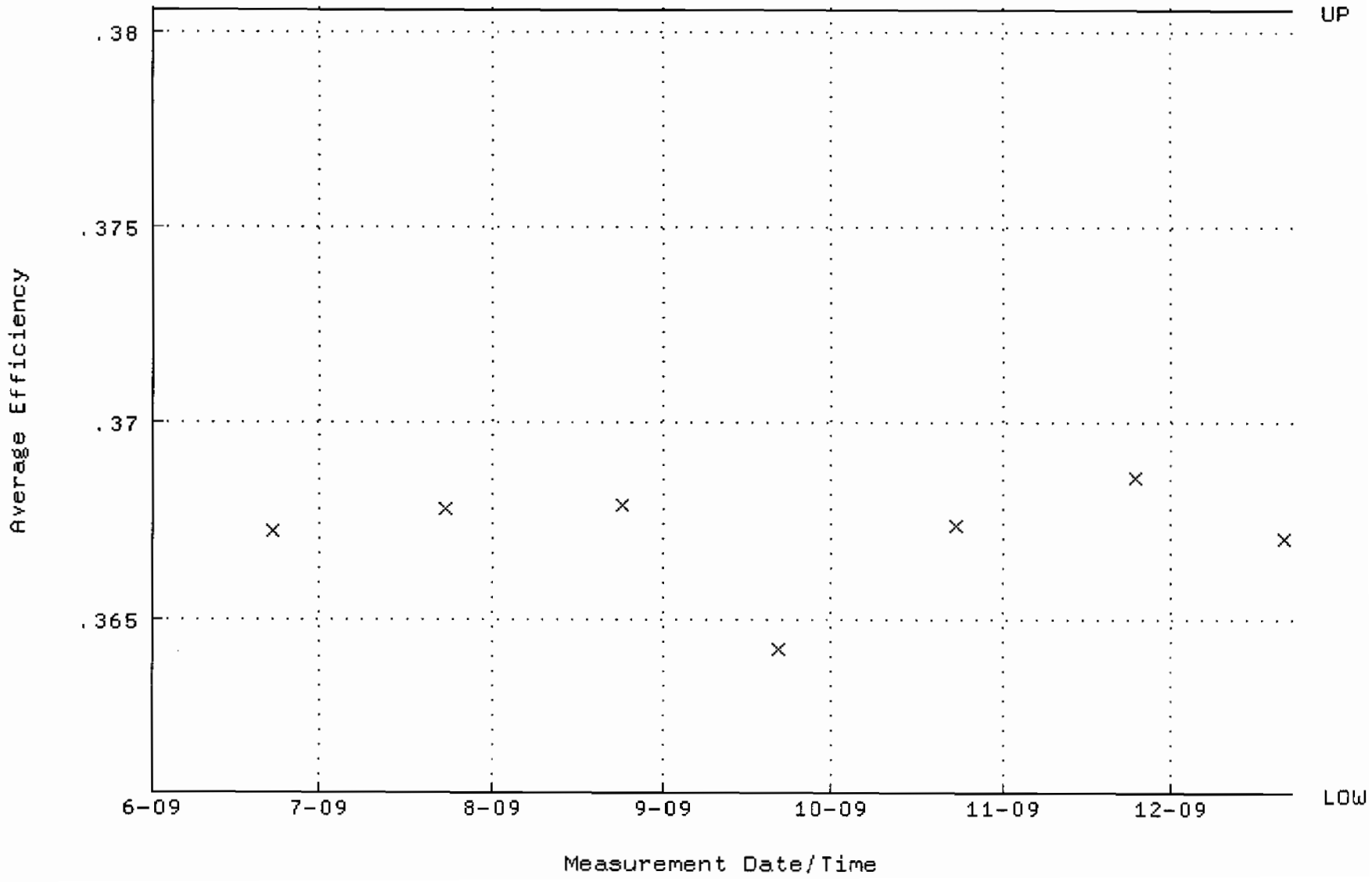

QA filename : DKA100:[ENV_ALPHA.QA.W]W170.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 22-JUN-2009 09:49:44 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 89.5841 through 99.0139

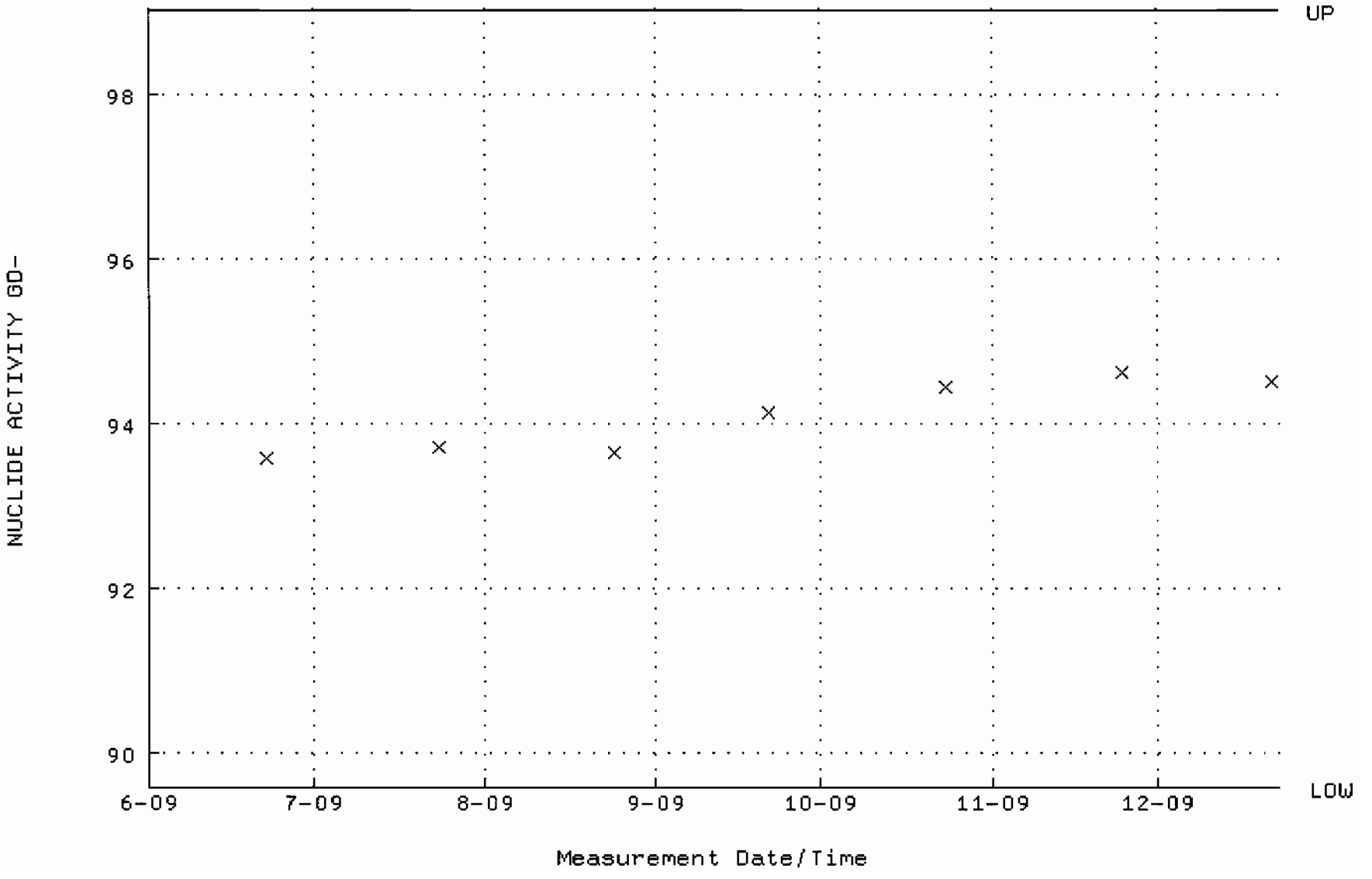

QA filename : DKA100:[ENV_ALPHA.QA.B]B170.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:12:36 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

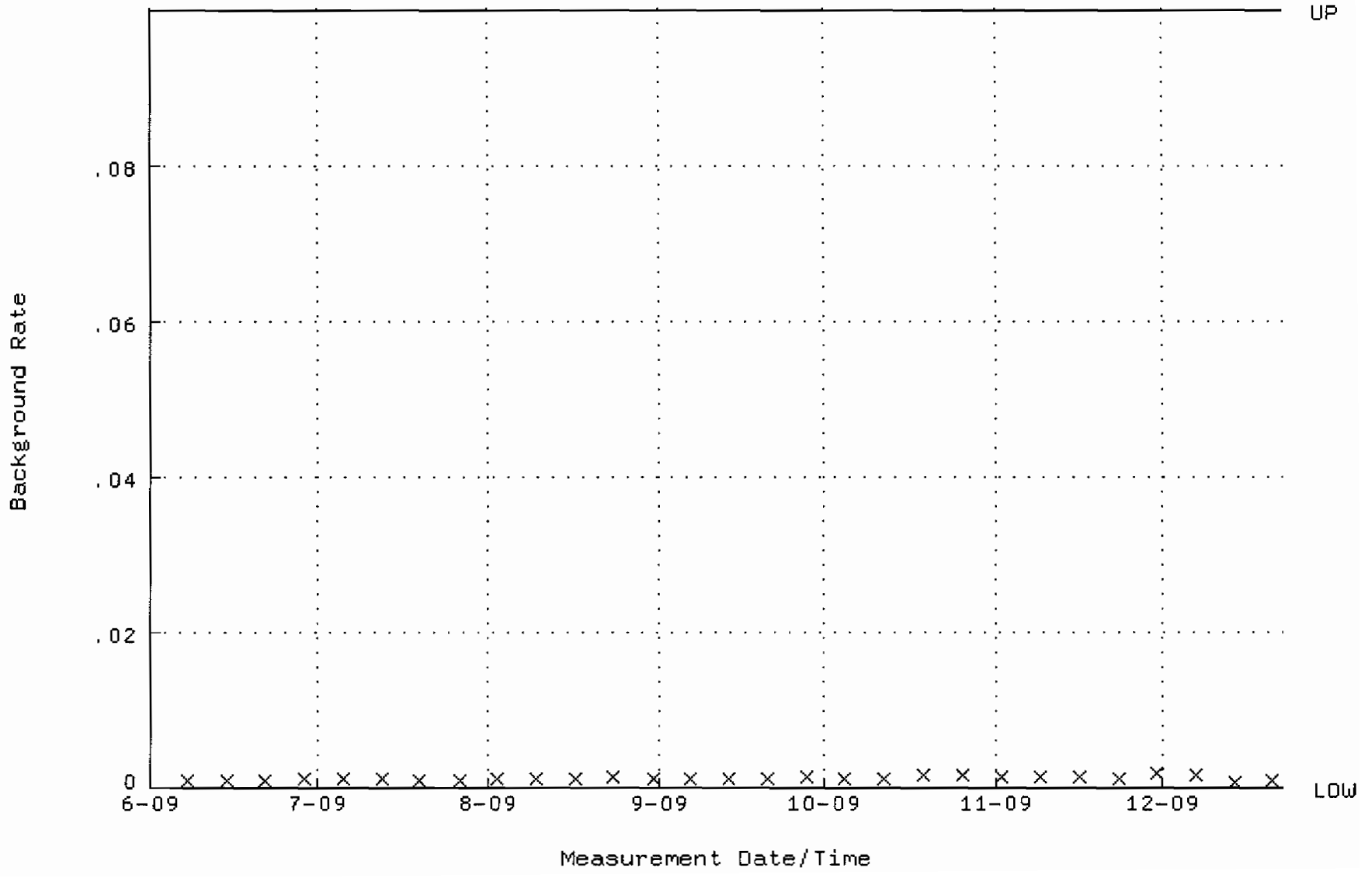

QA filename : DKA100:[ENV_ALPHA.QA.W]W171.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 22-JUN-2009 09:49:50 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 0.375364 through 0.395364

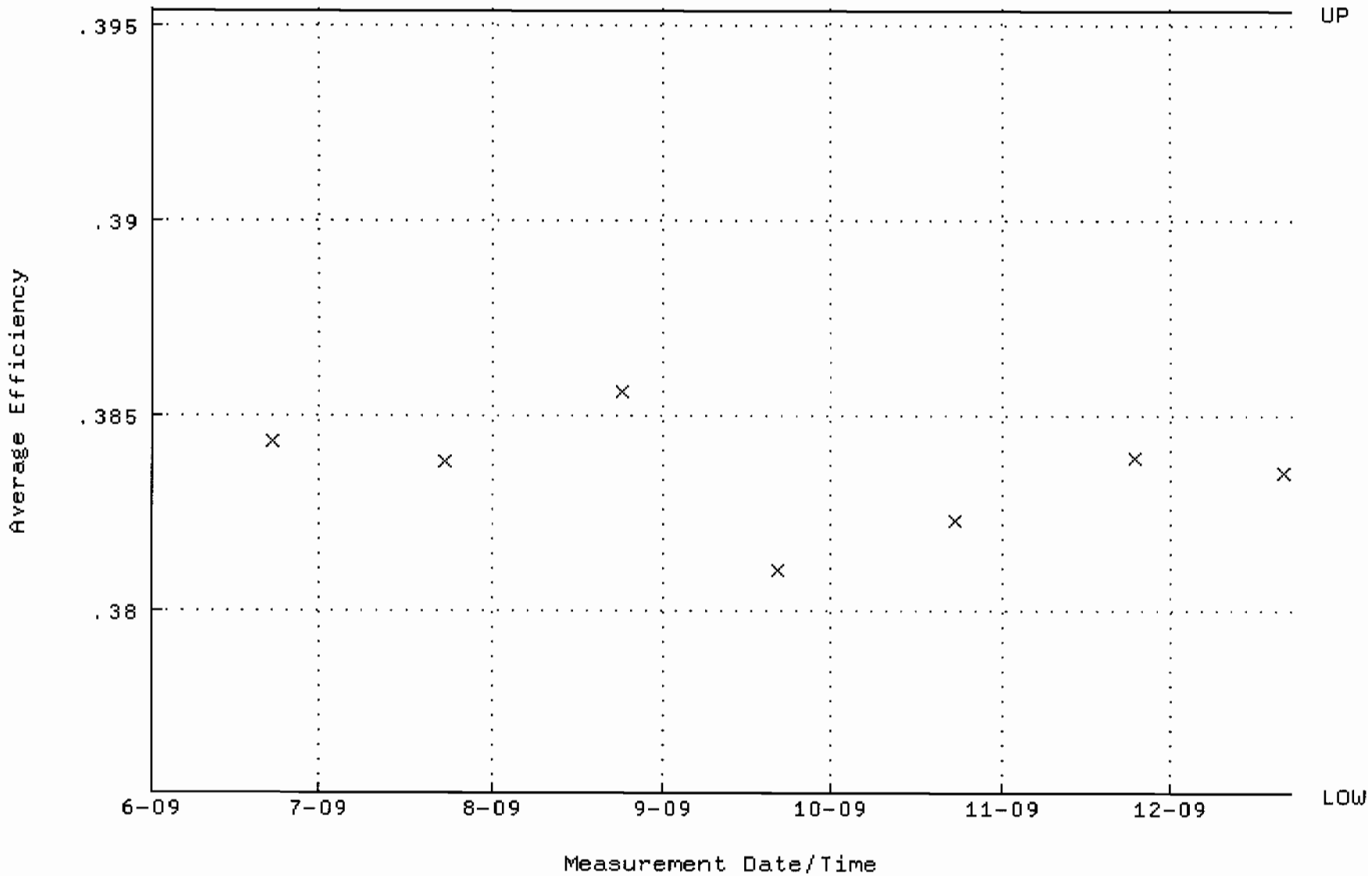

QA filename : DKA100:[ENV_ALPHA.QA.W]W171.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 22-JUN-2009 09:49:50 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 84.7539 through 93.6753

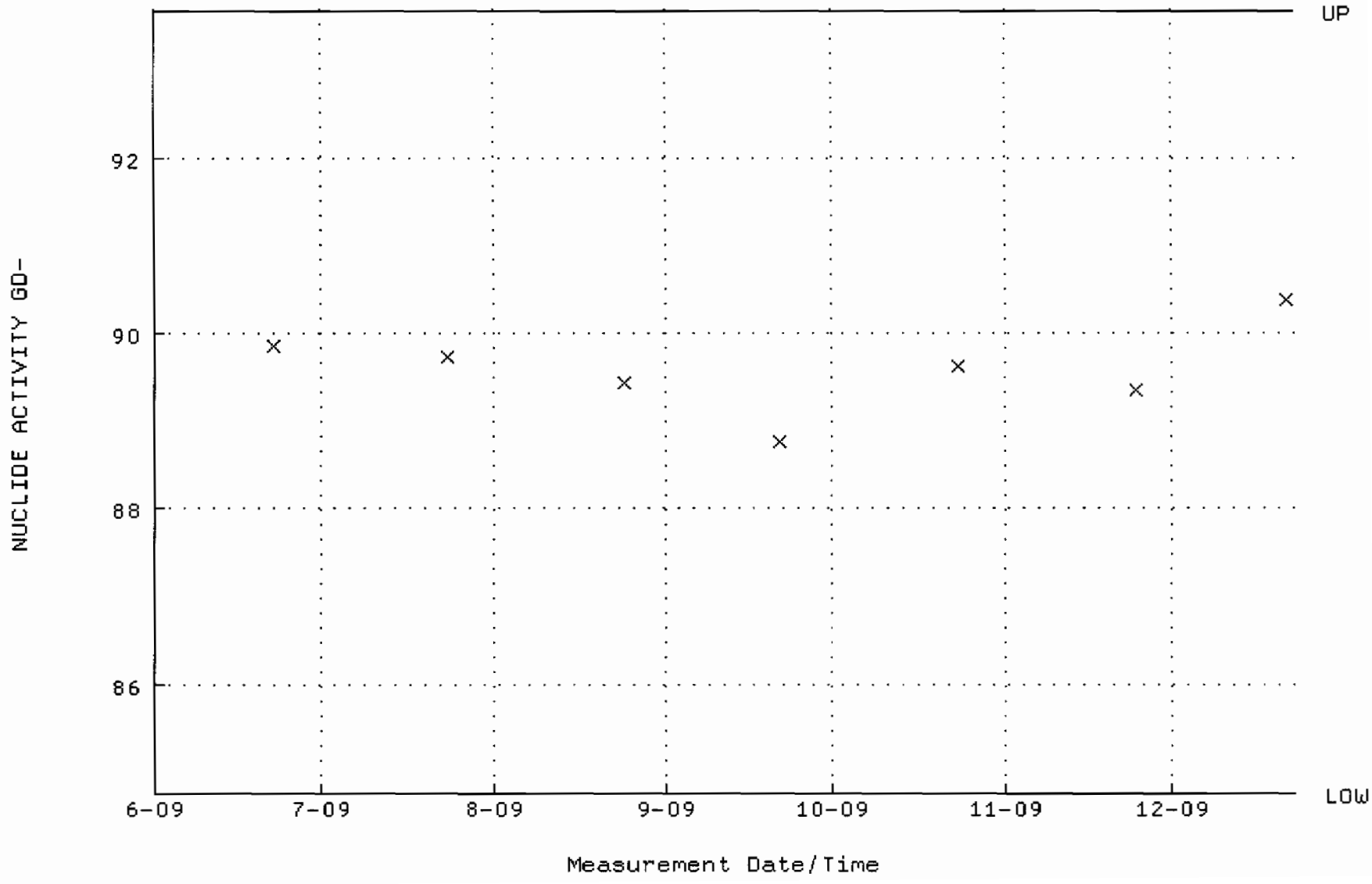

QA filename : DKA100:[ENV_ALPHA.QA.B]B171.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:12:40 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

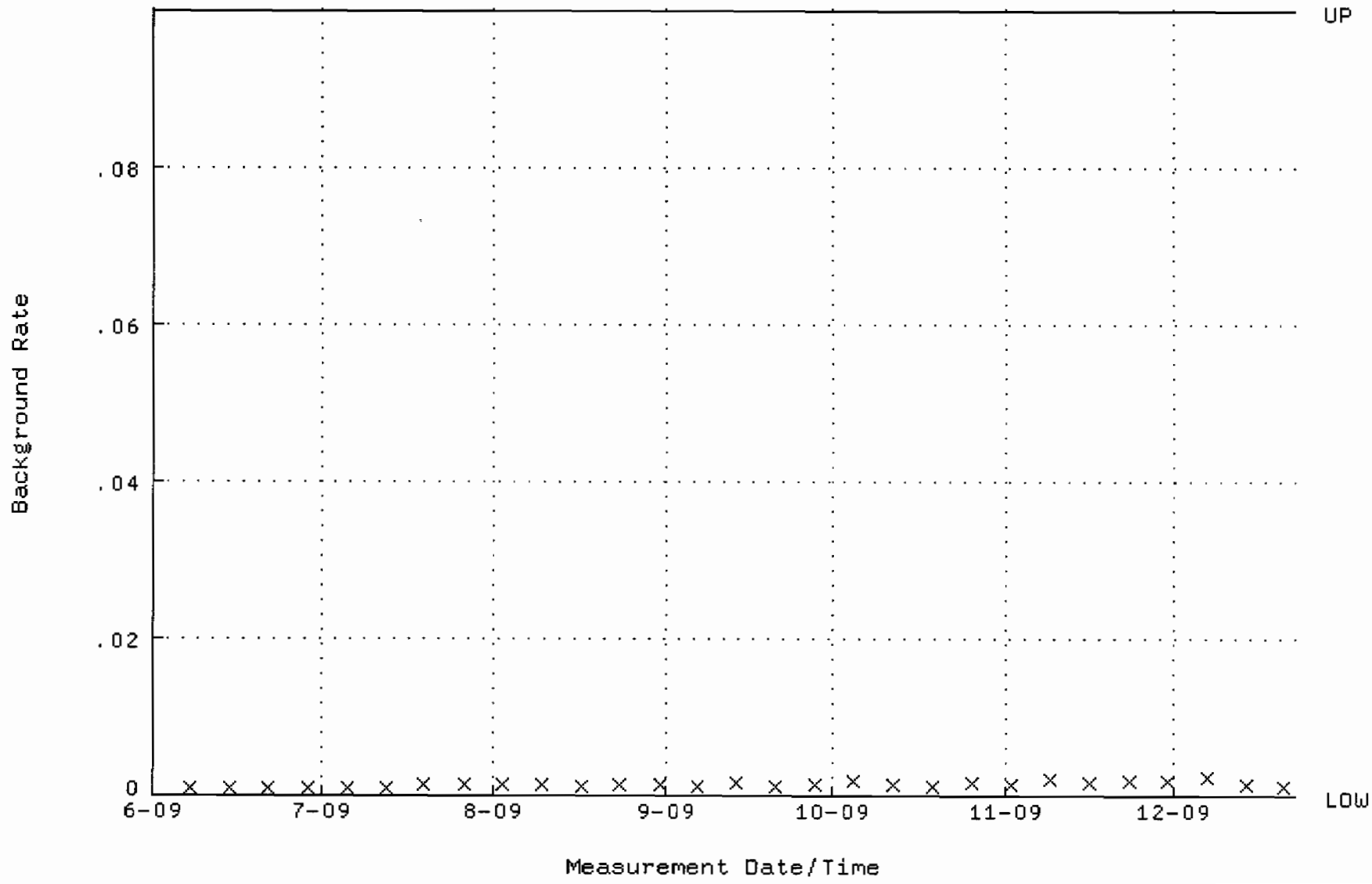

QA filename : DKA100:[ENV_ALPHA.QA.W]W172.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 22-JUN-2009 09:49:55 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 0.373575 through 0.393575

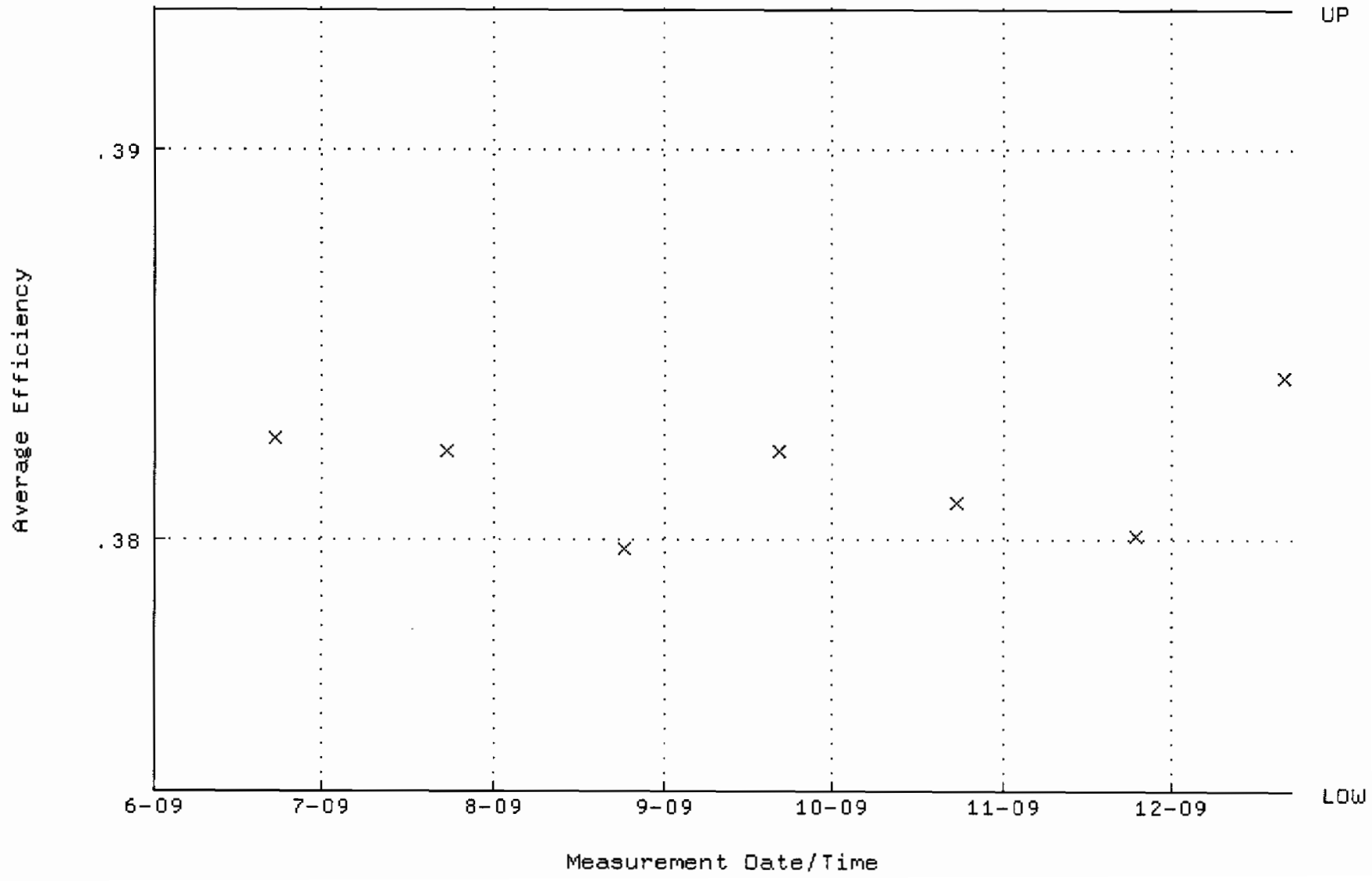

QA filename : DKA100:[ENV_ALPHA.QA.W]W172.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 22-JUN-2009 09:49:55 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 86.5089 through 95.6151

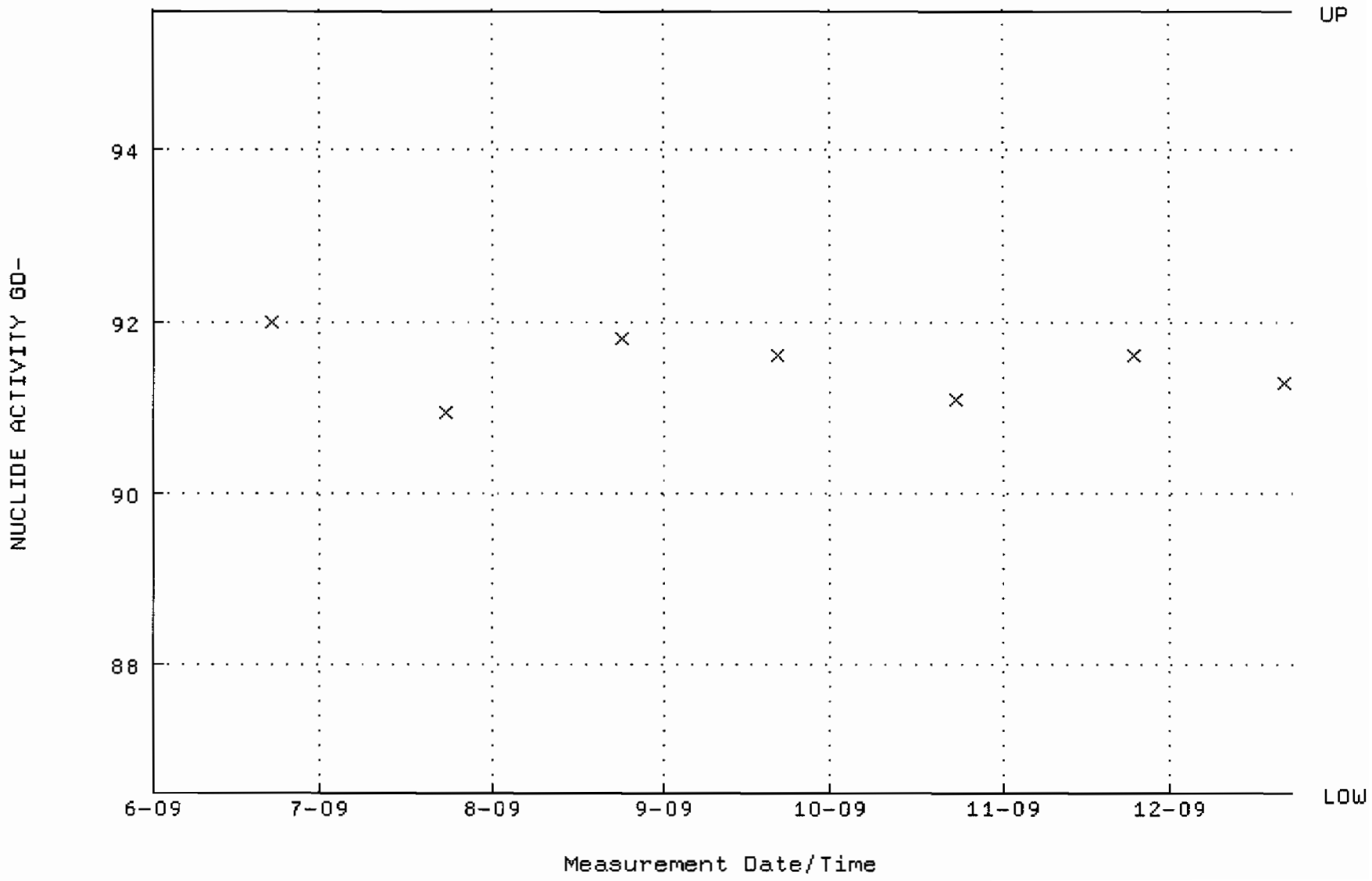

QA filename : DKA100:[ENV_ALPHA.QA.B]B172.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:12:44 through 22-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

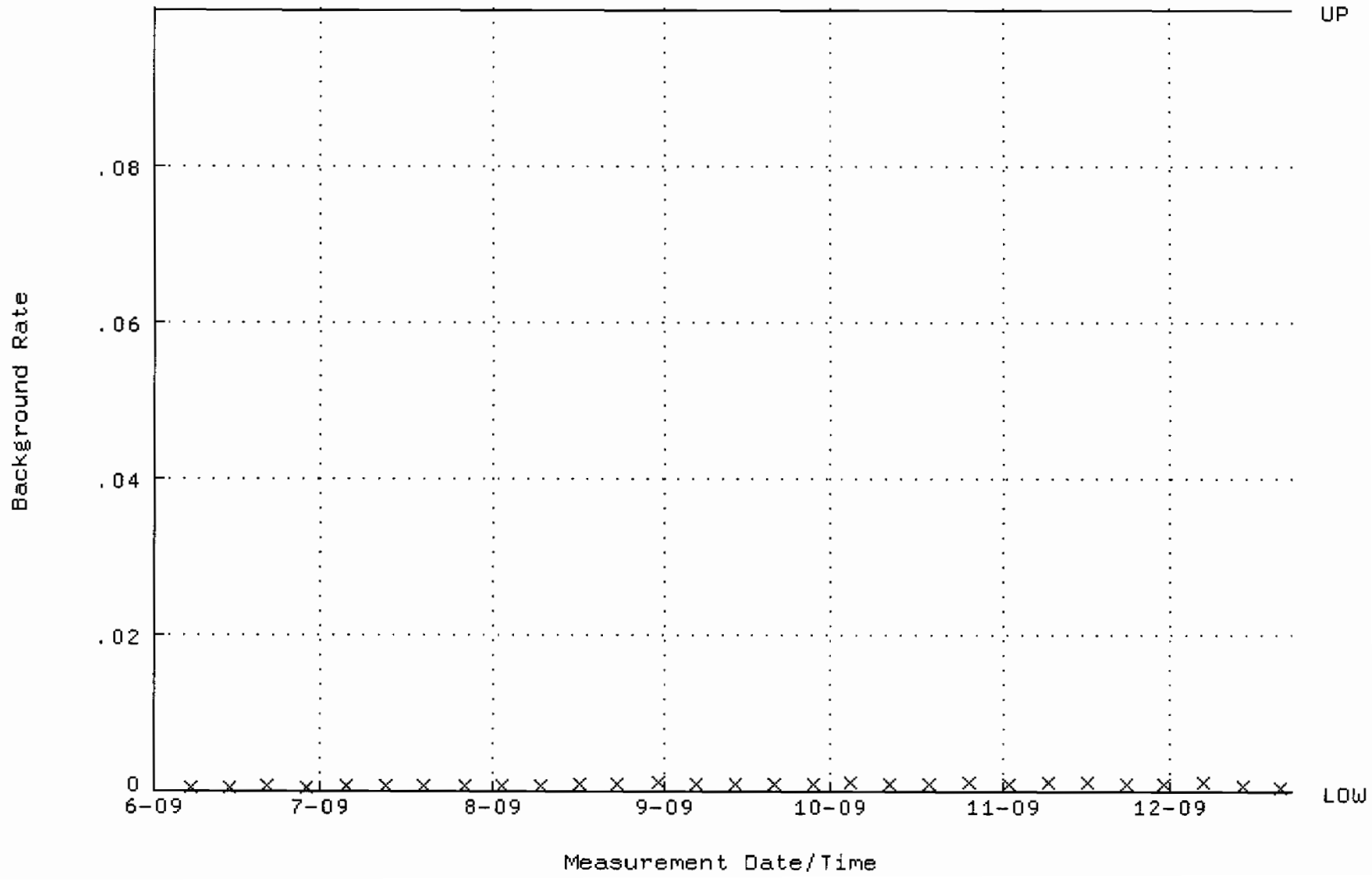

QA filename : DKA100:[ENV_ALPHA.QA.W]W228.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:18:47 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.362134 through 0.382134

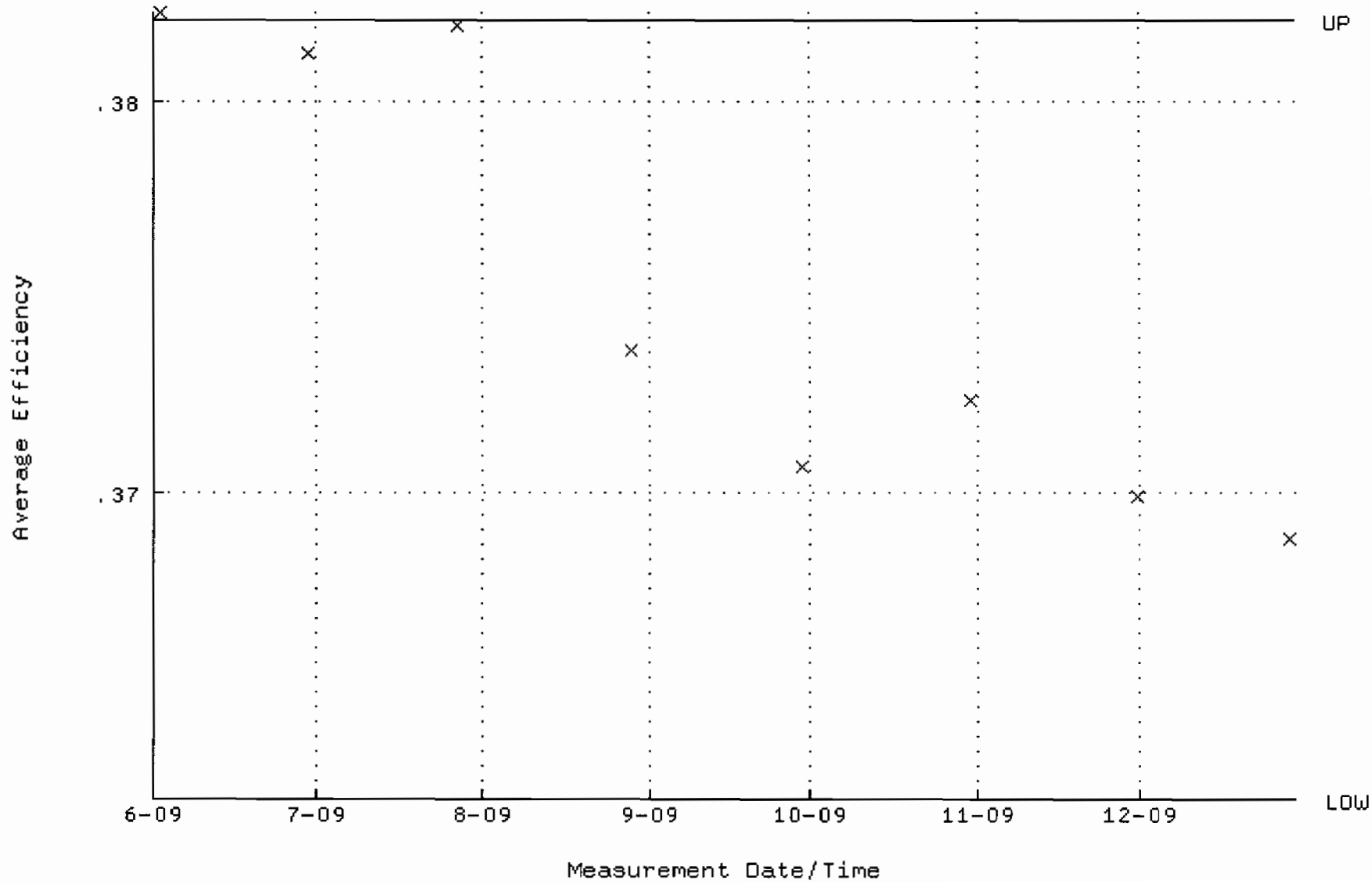

QA filename : DKA100:[ENV_ALPHA.QA.W]W228.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:18:47 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 87.0370 through 96.1988

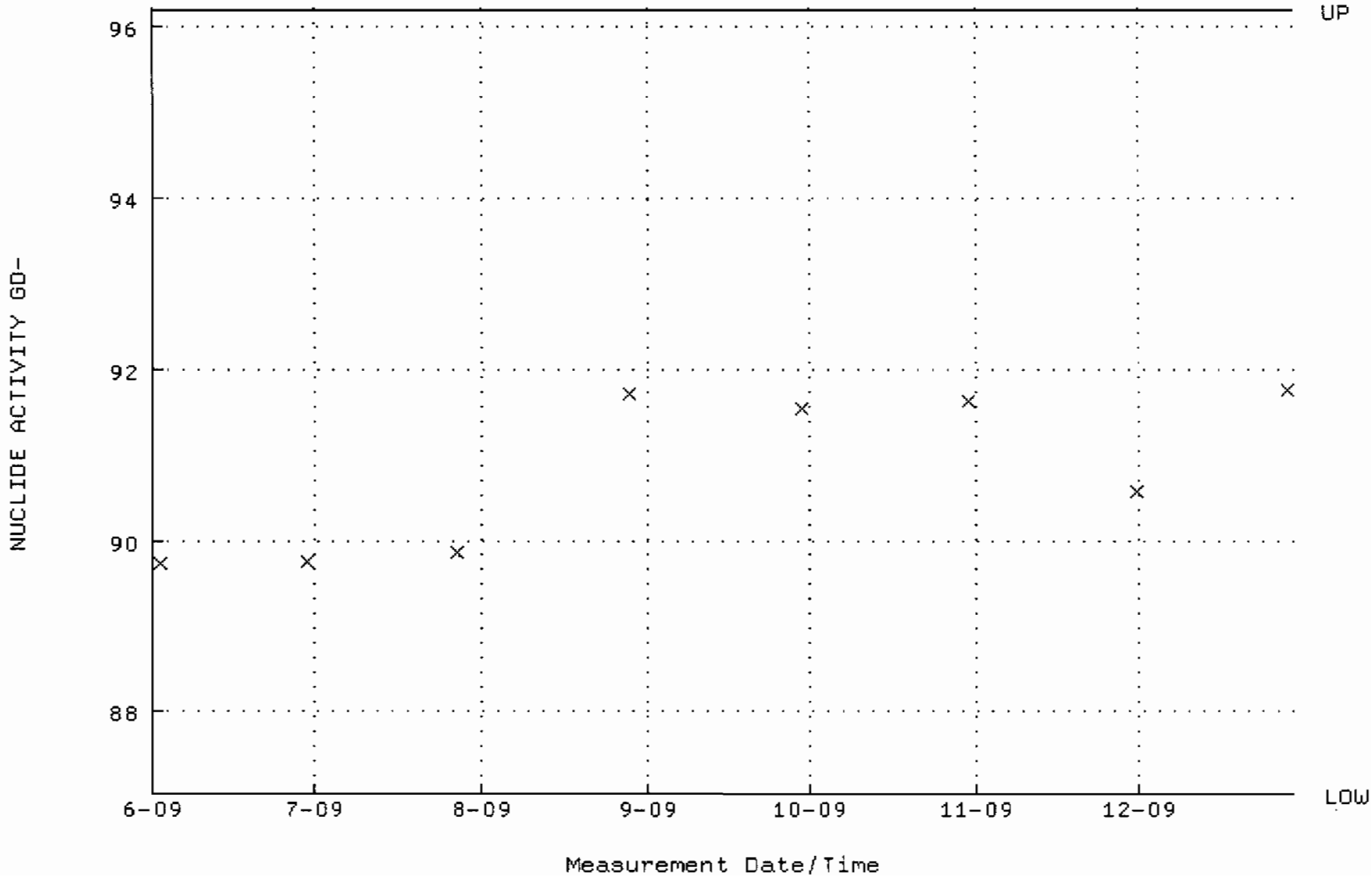

QA filename : DKA100:[ENV_ALPHA.QA.B]B228.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:44:57 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

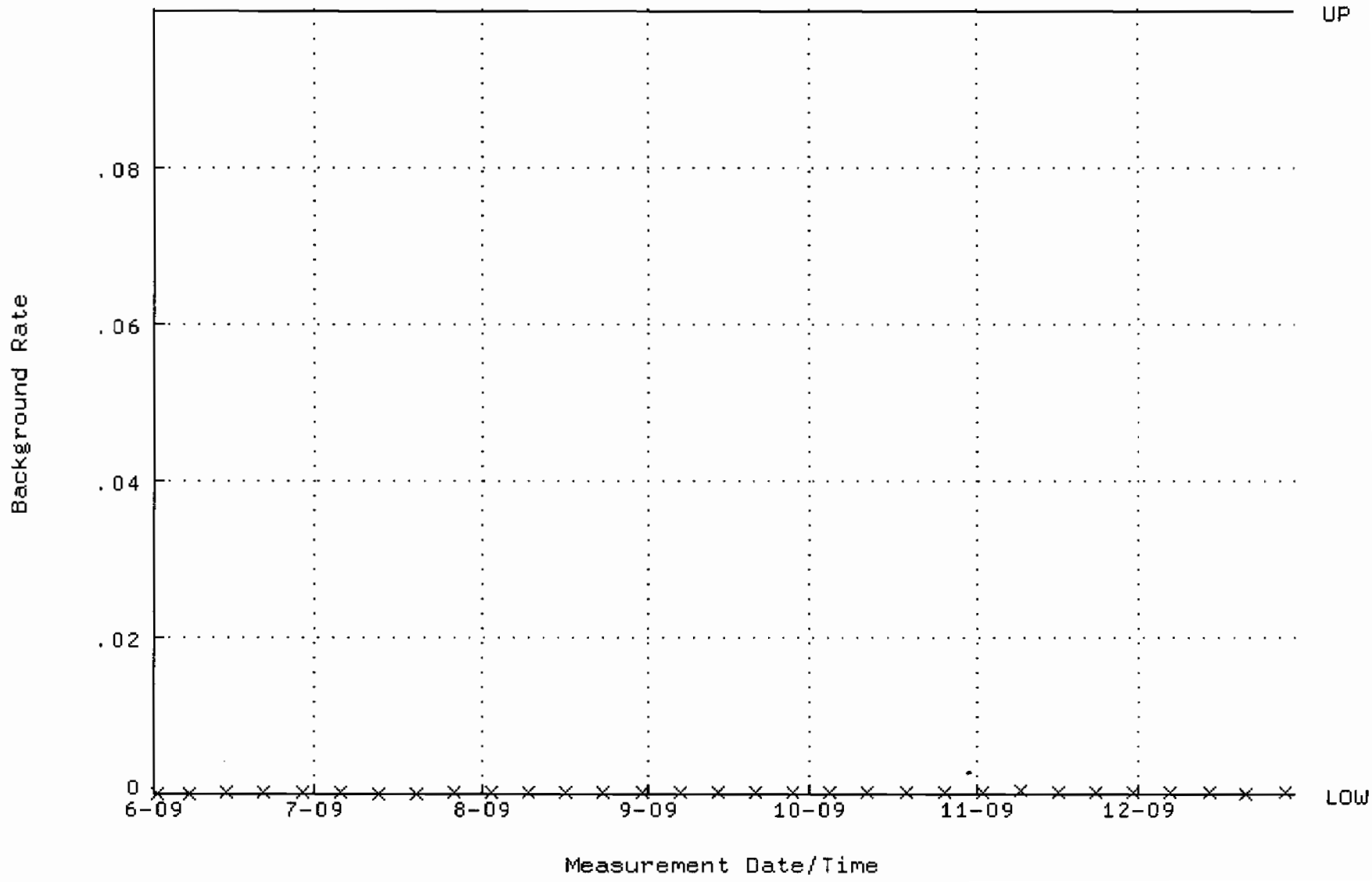

QA filename : DKA100:[ENV_ALPHA.QA.W]W229.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:18:53 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.364789 through 0.384789

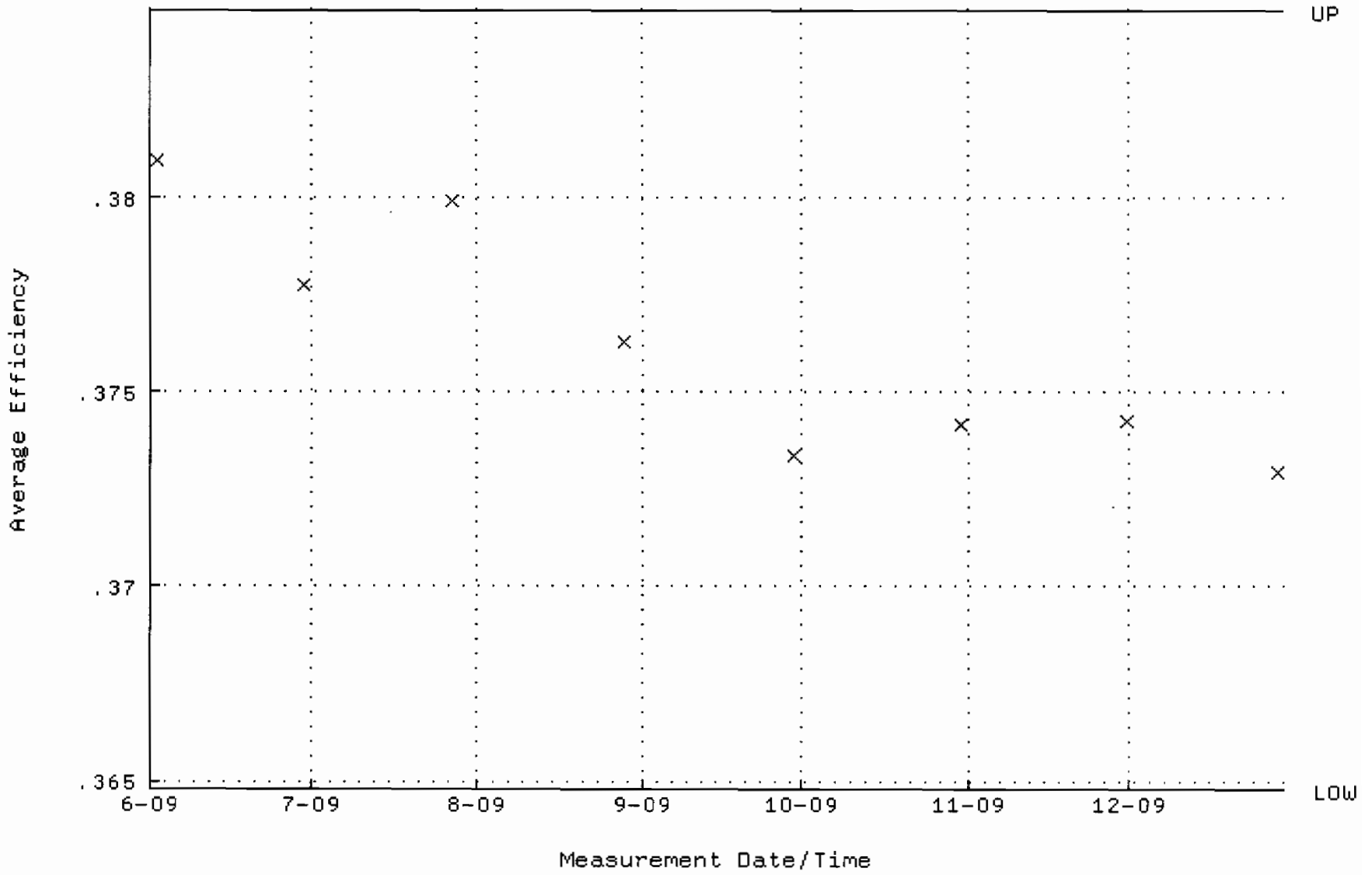

QA filename : DKA100:[ENV_ALPHA.QA.W]W229.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:18:53 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 88.2691 through 97.5605

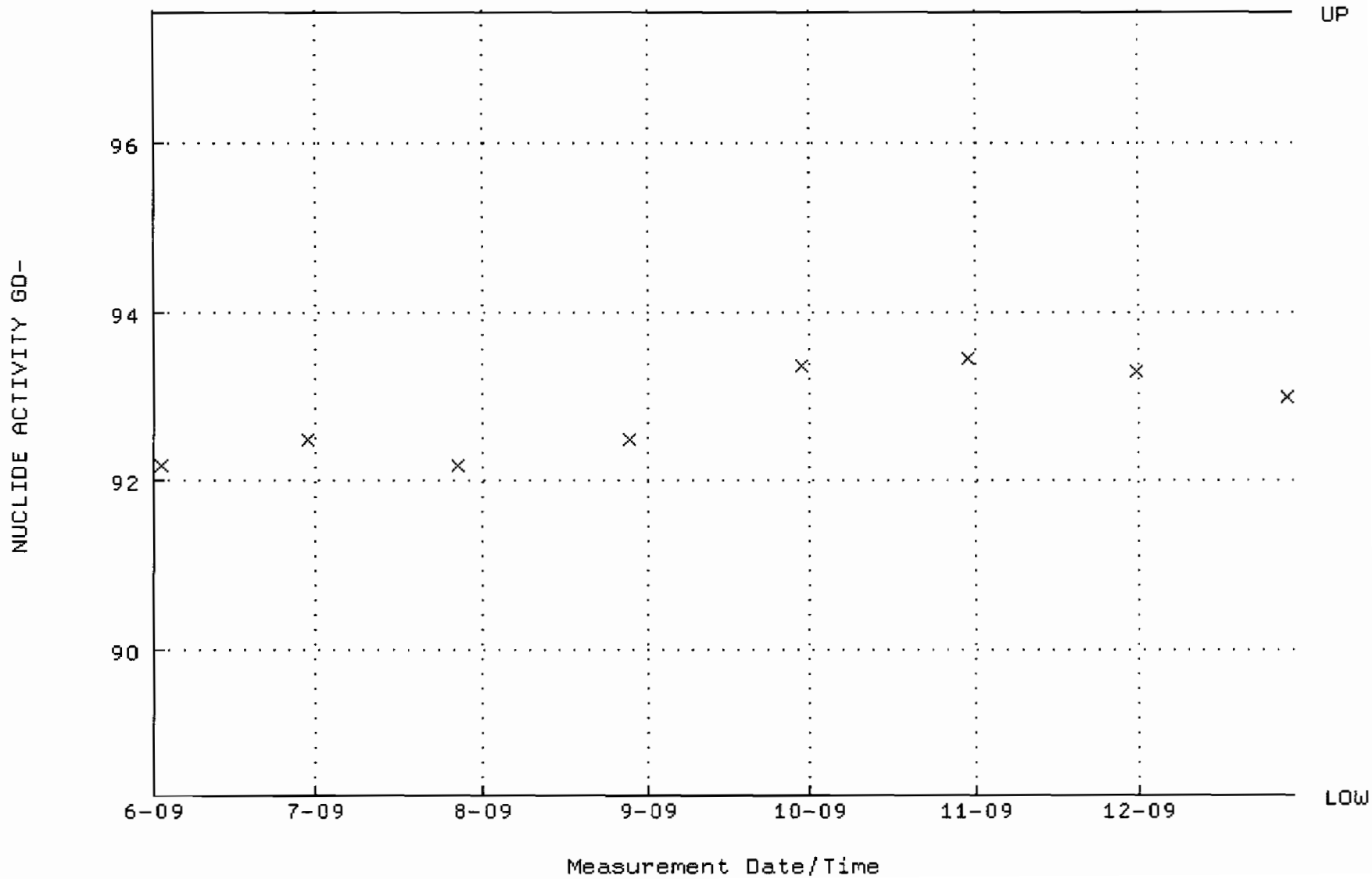

QA filename : DKA100:[ENV_ALPHA.QA.B]B229.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:45:01 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

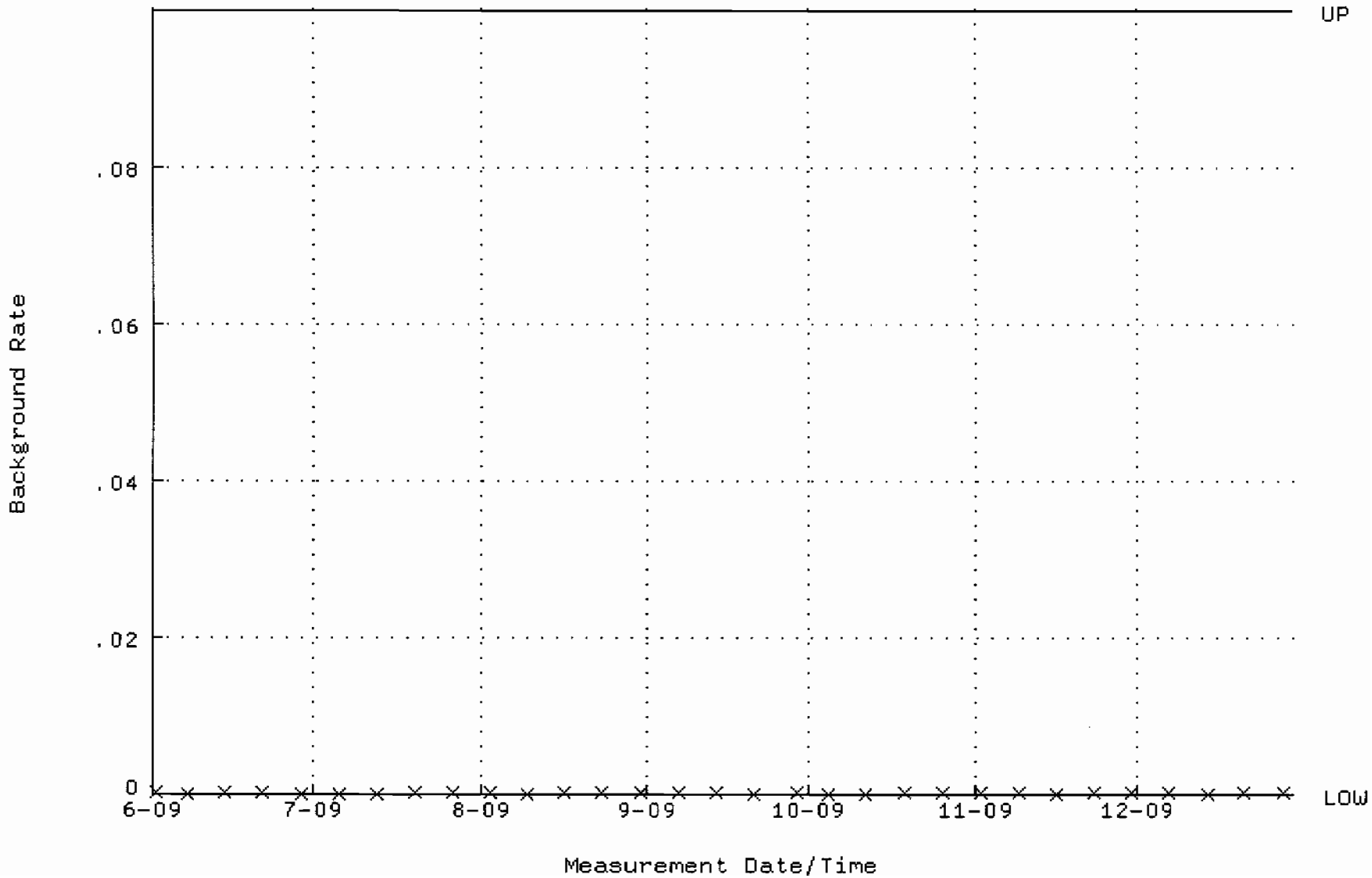

QA filename : DKA100:[ENV_ALPHA.QA.W]W231.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:19:04 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.378748 through 0.398748

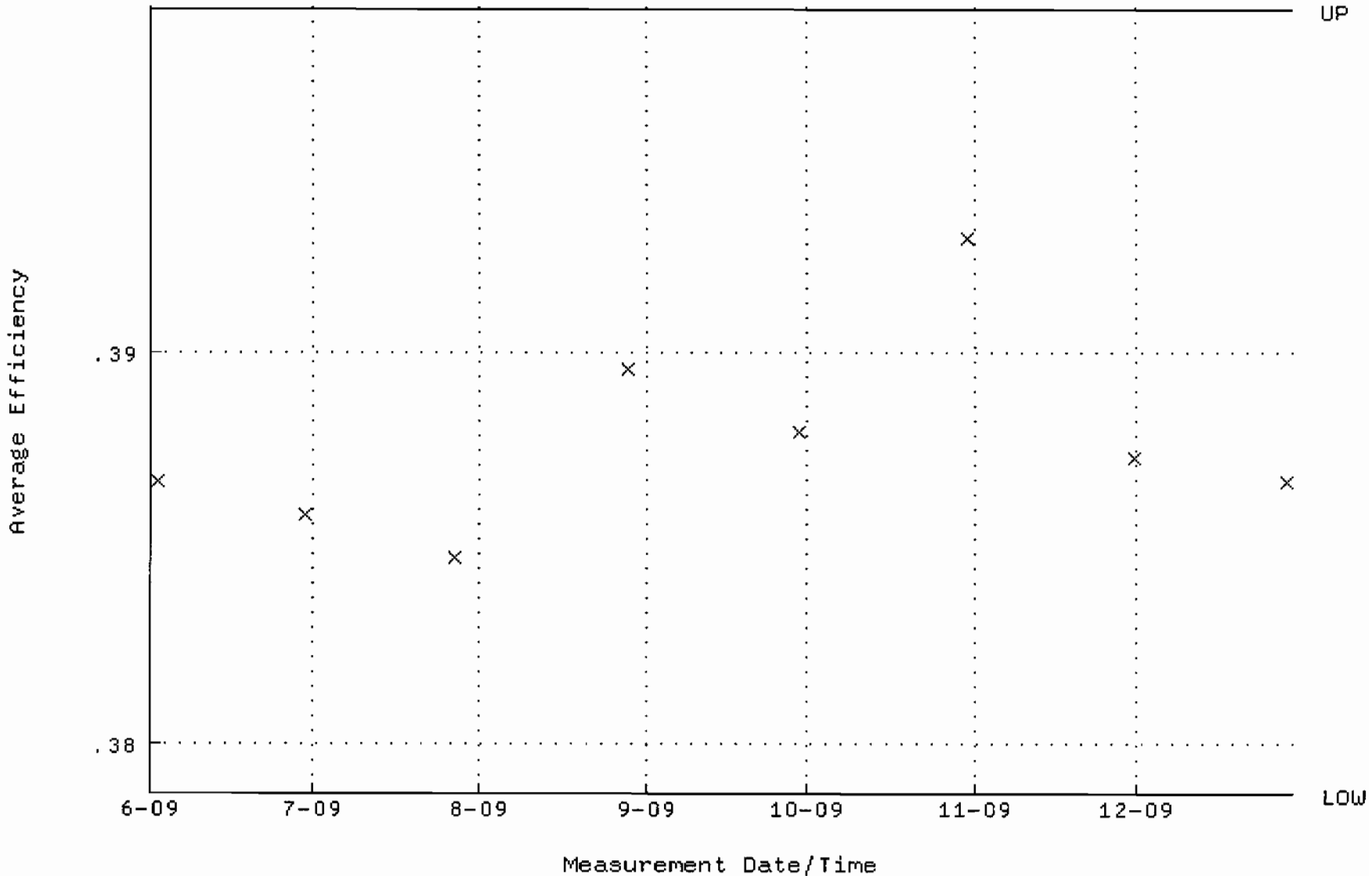

QA filename : DKA100:[ENV_ALPHA.QA.W]W231.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:19:04 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 85.6783 through 94.6971

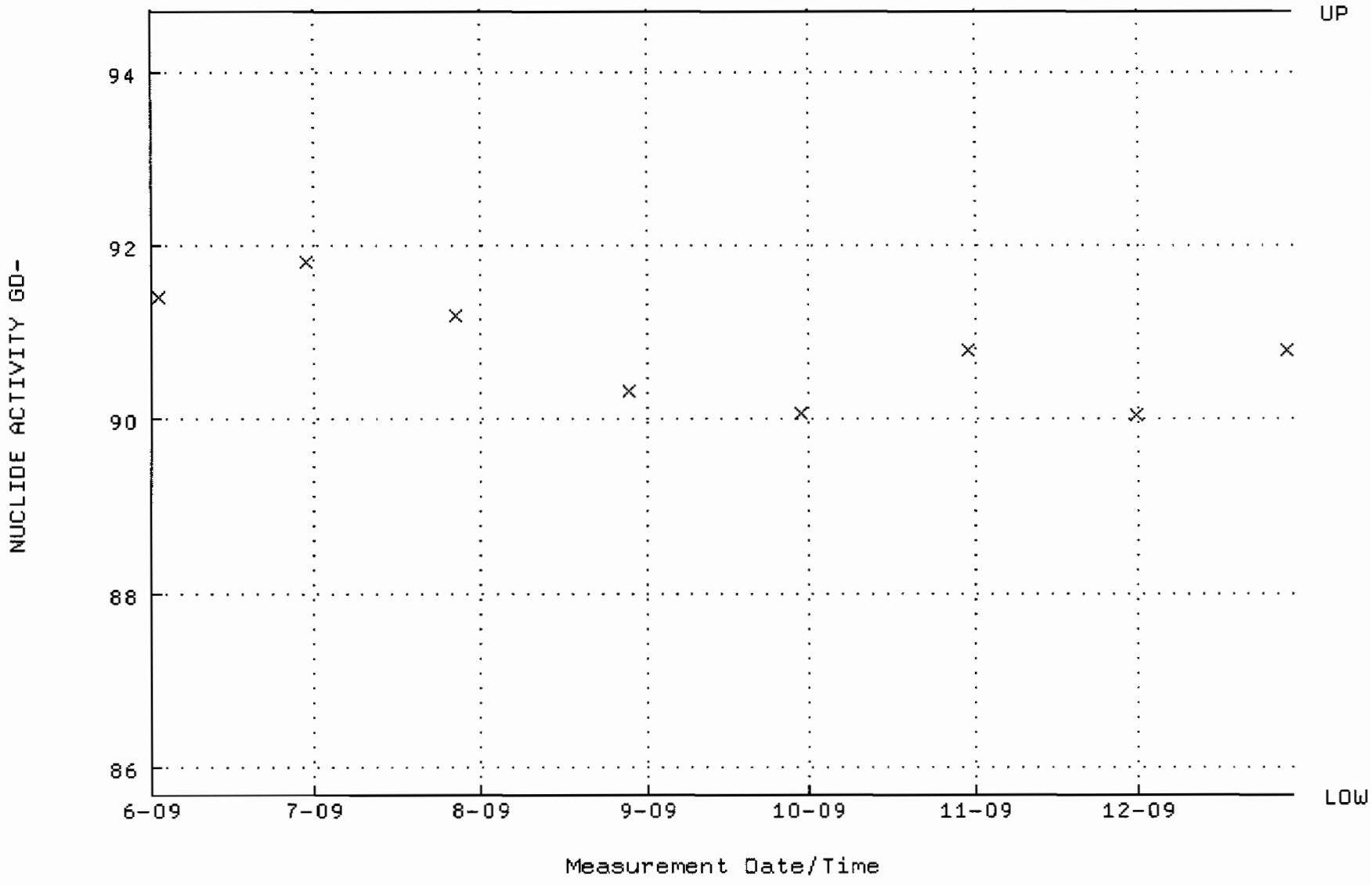

QA filename : DKA100:[ENV_ALPHA.QA.B]B231.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:45:10 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

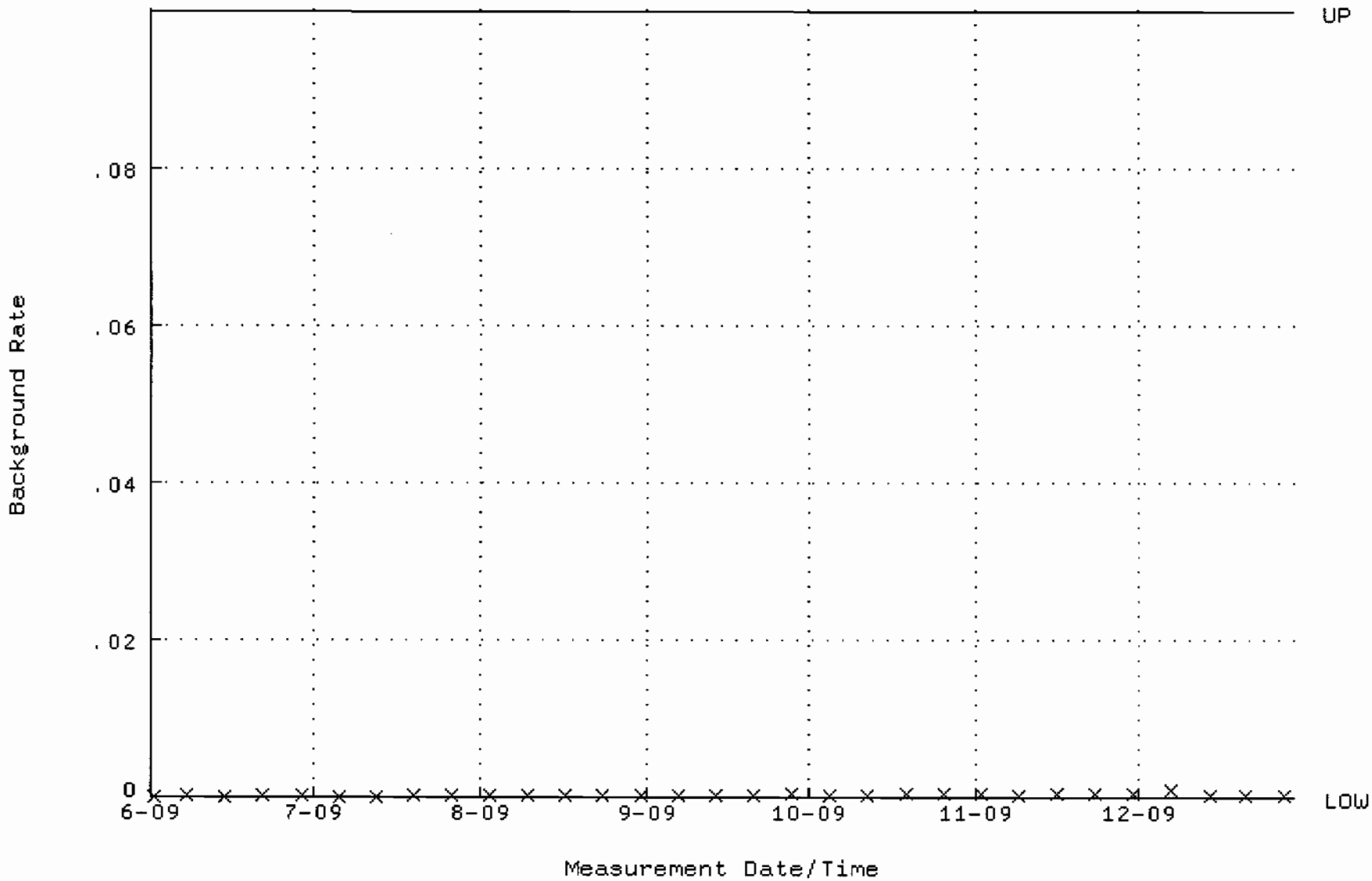

QA filename : DKA100:[ENV_ALPHA.QA.W]W232.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:19:09 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.364210 through 0.384210

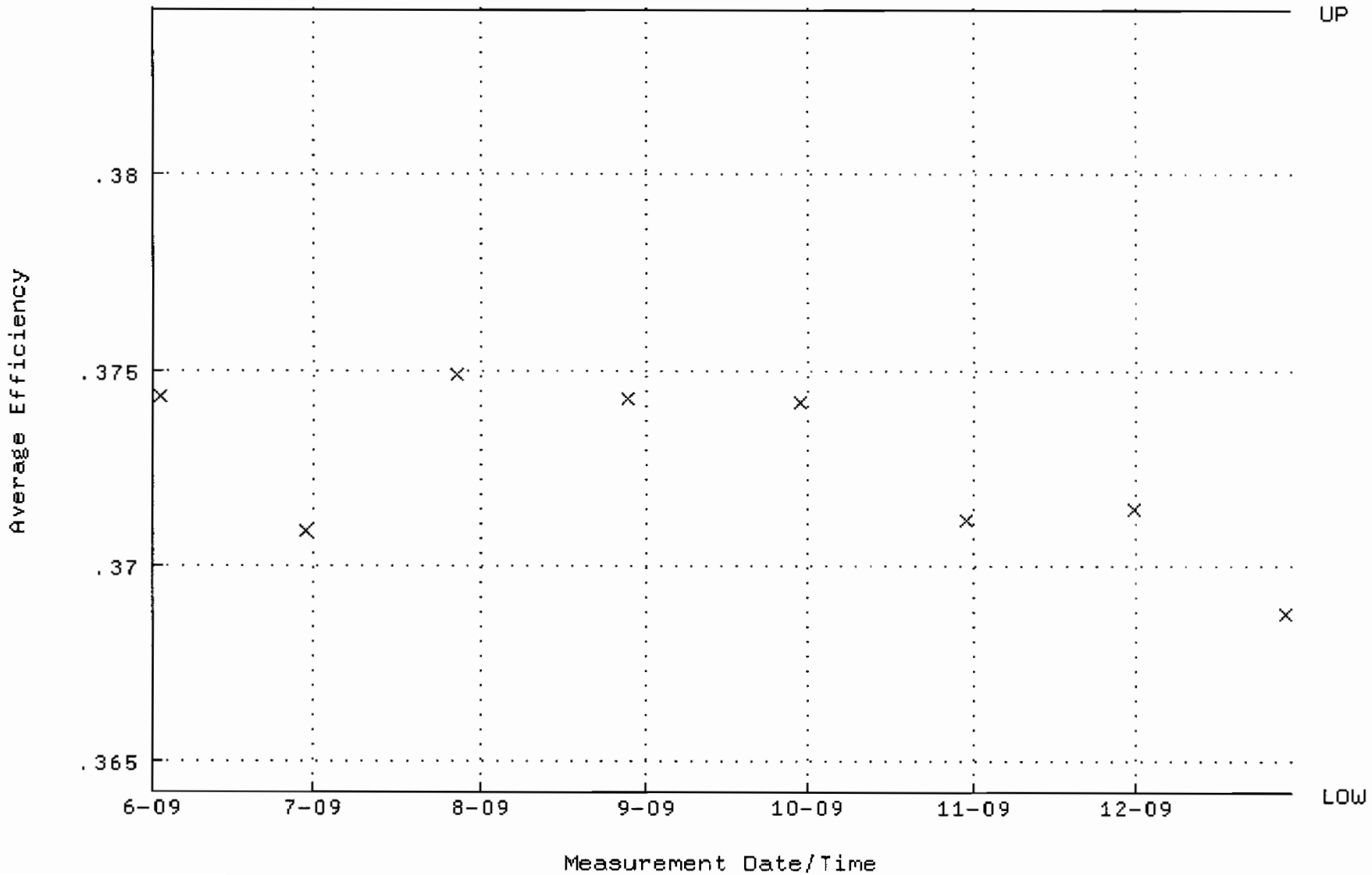

QA filename : DKA100:[ENV_ALPHA.QA.W]W232.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:19:09 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 84.1819 through 93.0431

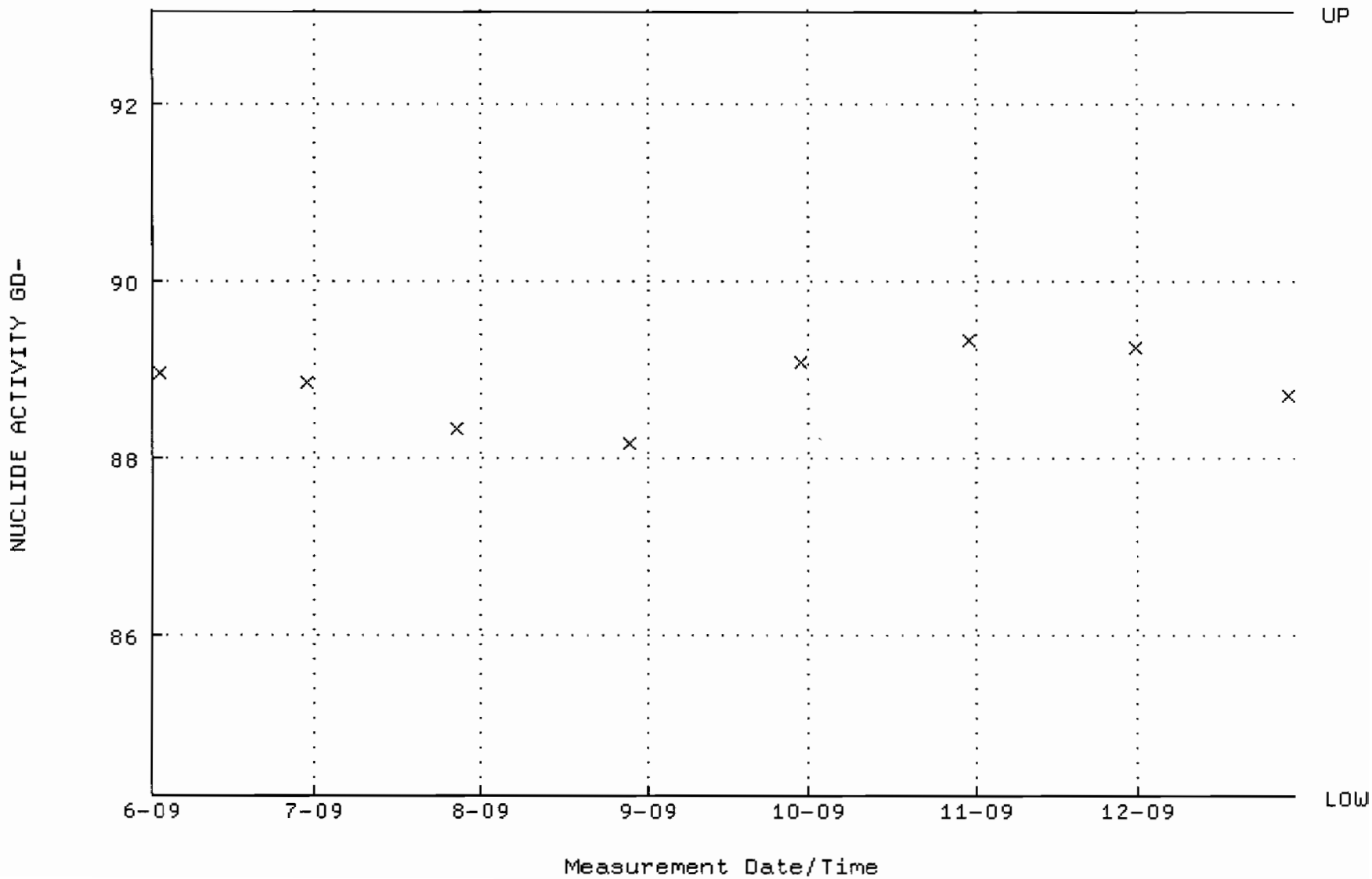

QA filename : DKA100:[ENV_ALPHA.QA.B]B232.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:45:14 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

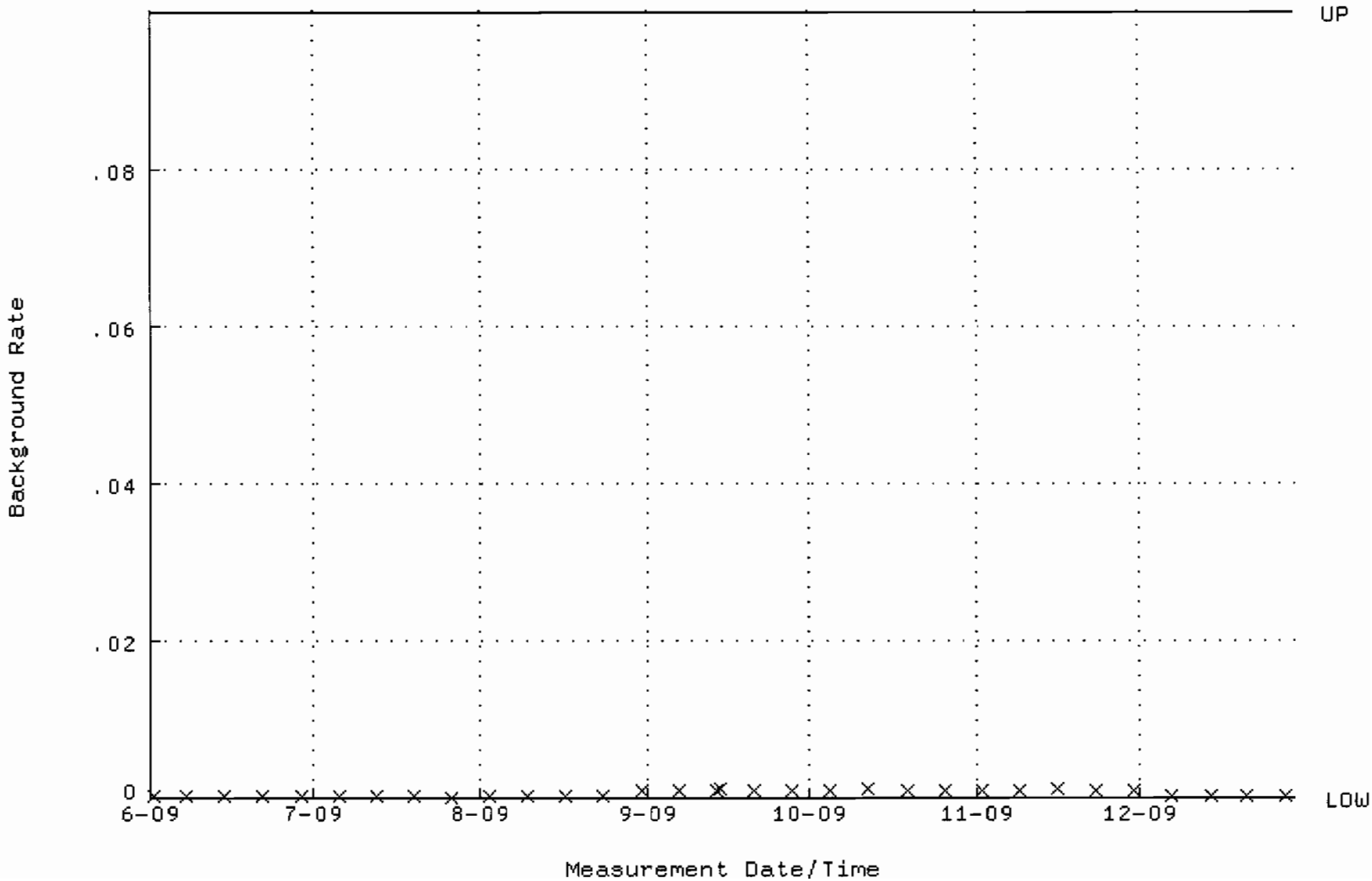

QA filename : DKA100:[ENV_ALPHA.QA.W]W243.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:20:01 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.362914 through 0.382914

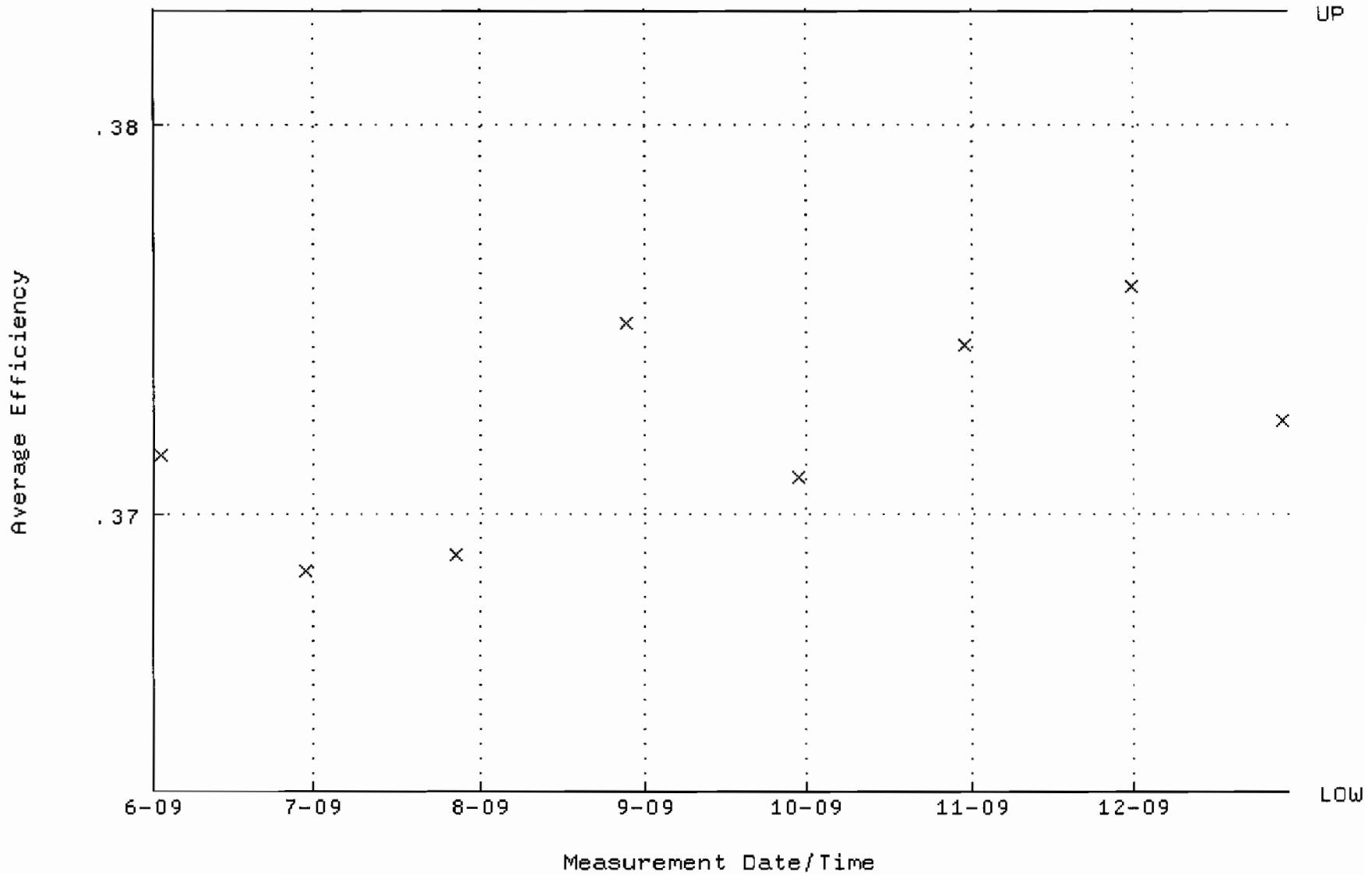

QA filename : DKA100:[ENV_ALPHA.QA.W]W243.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:20:01 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 82.6788 through 91.3818

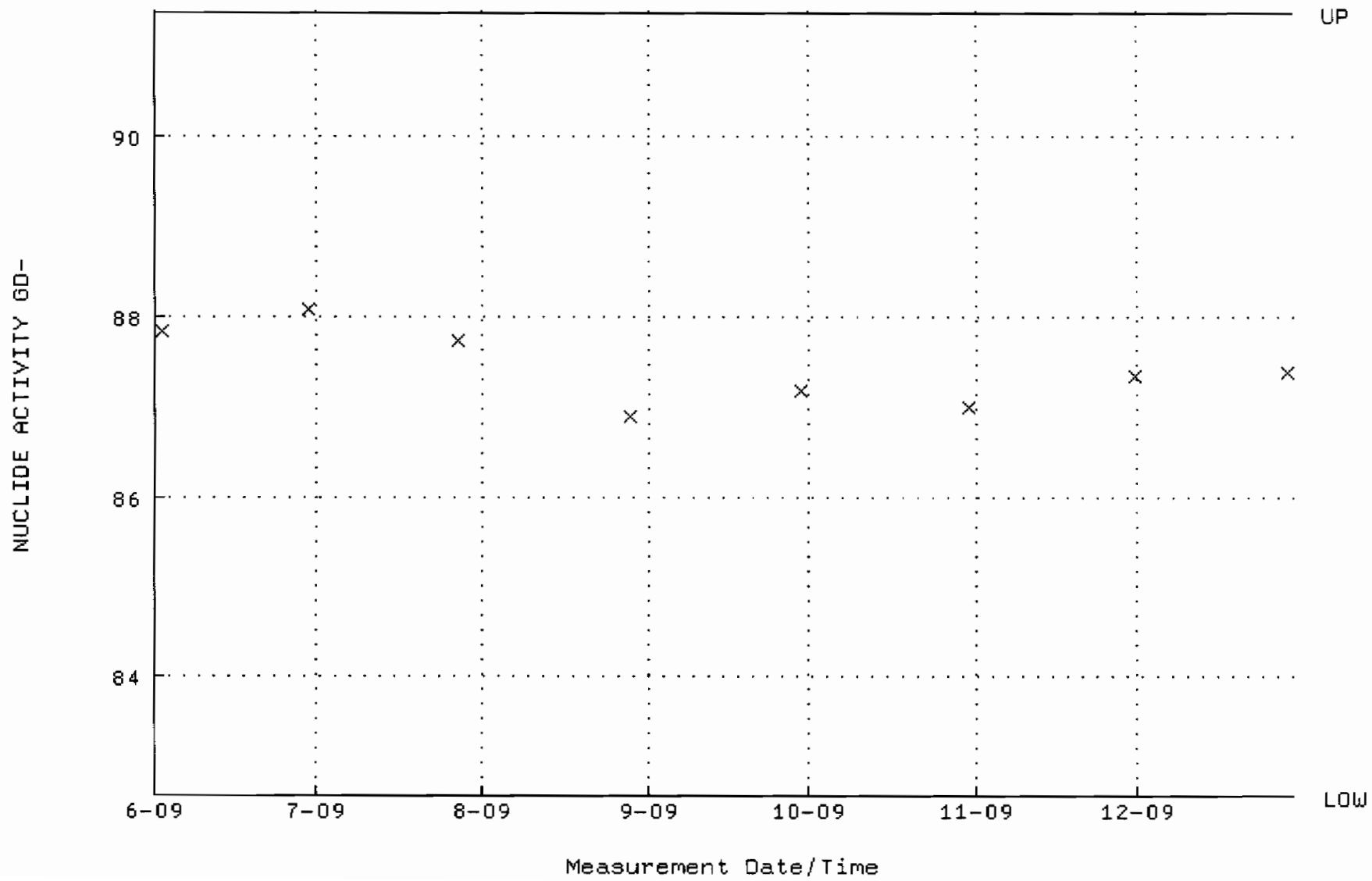

QA filename : DKA100:[ENV_ALPHA.QA.B]B243.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:46:38 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

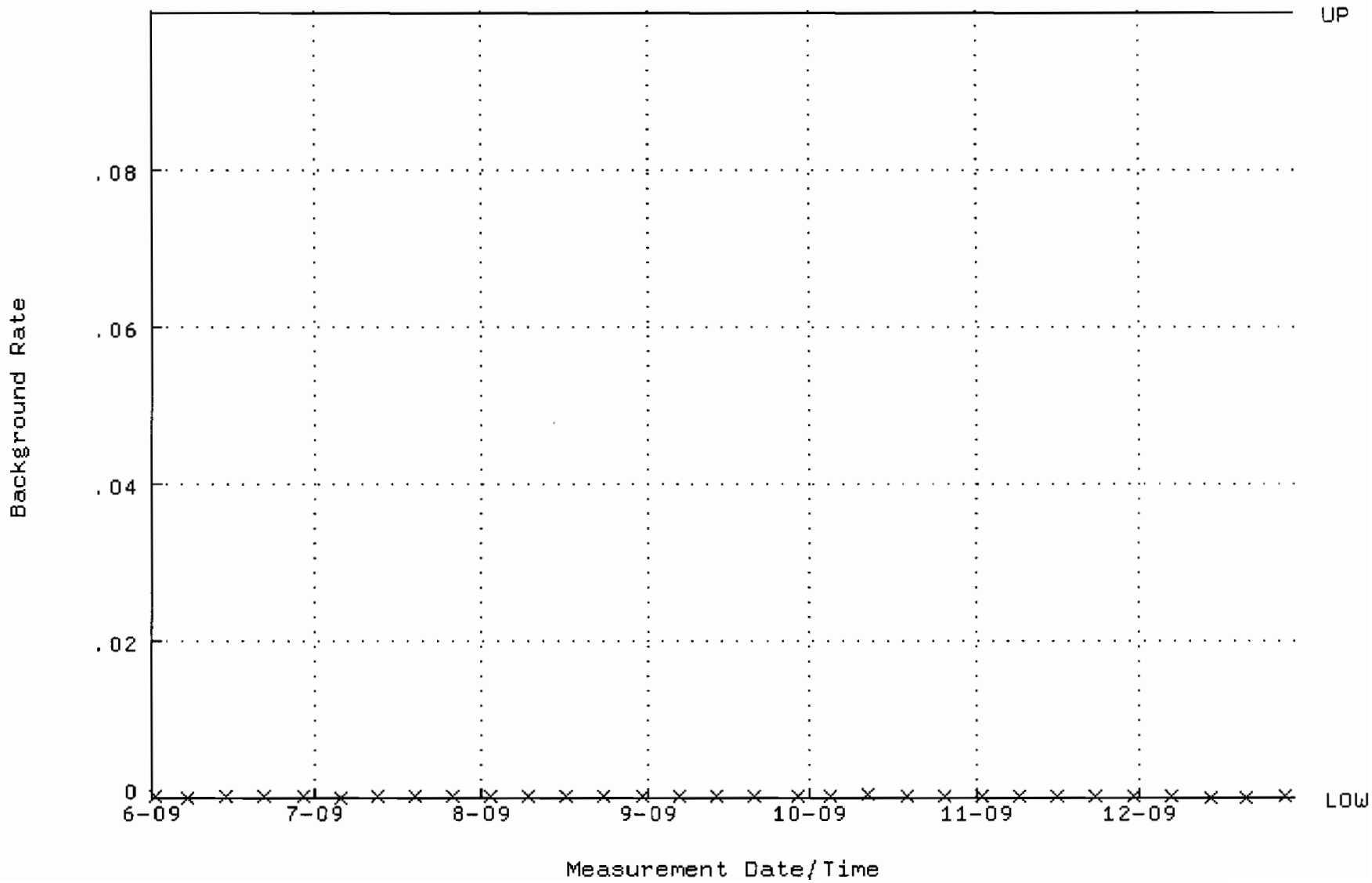

QA filename : DKA100:[ENV_ALPHA.QA.W]W244.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:20:06 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.361192 through 0.381192

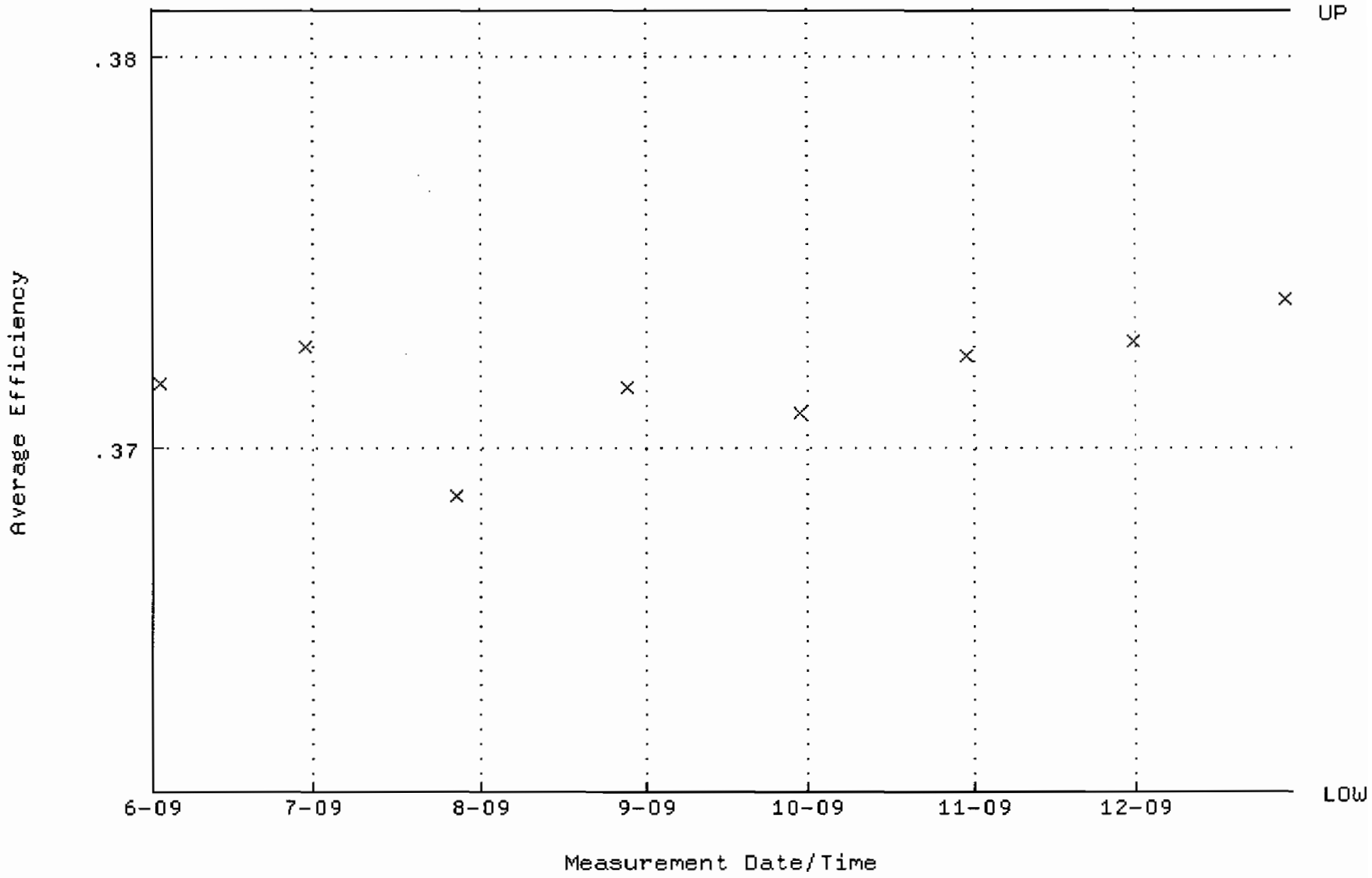

QA filename : DKA100:[ENV_ALPHA.QA.W]W244.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:20:06 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 83.7473 through 92.5629

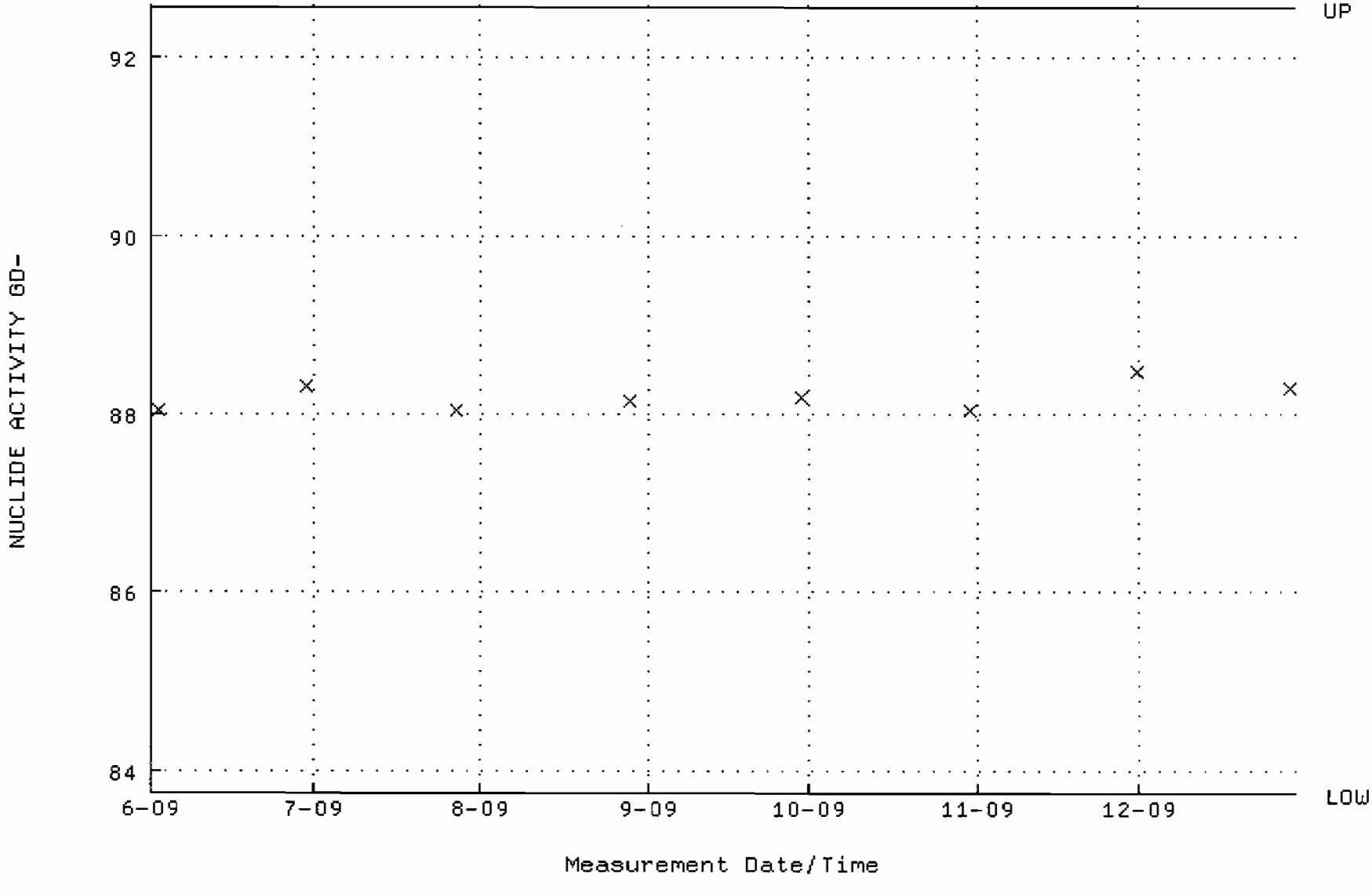

QA filename : DKA100:[ENV_ALPHA.QA.B]B244.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:46:44 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

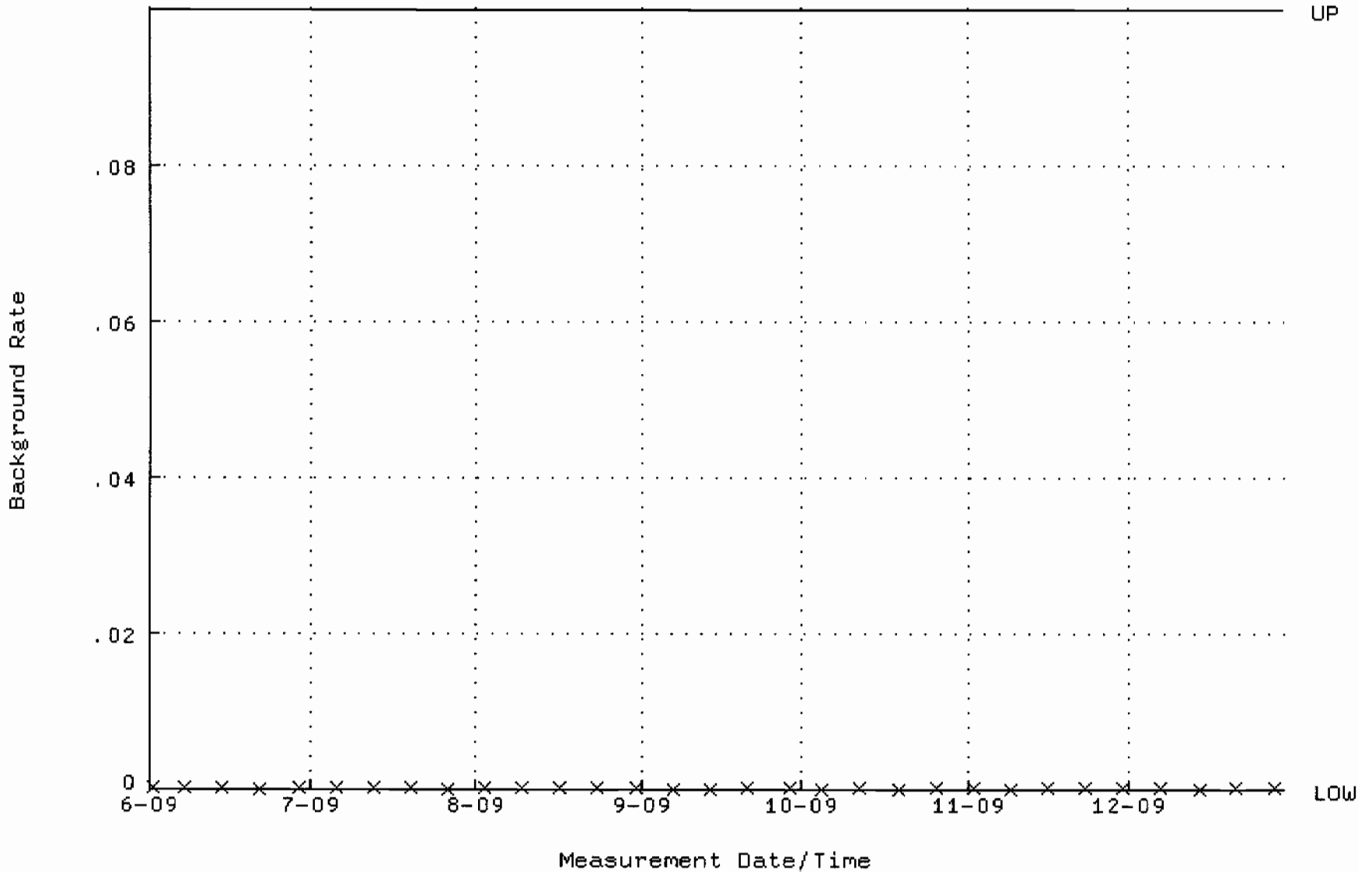

QA filename : DKA100:[ENV_ALPHA.QA.W]W245.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:20:11 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.374422 through 0.394422

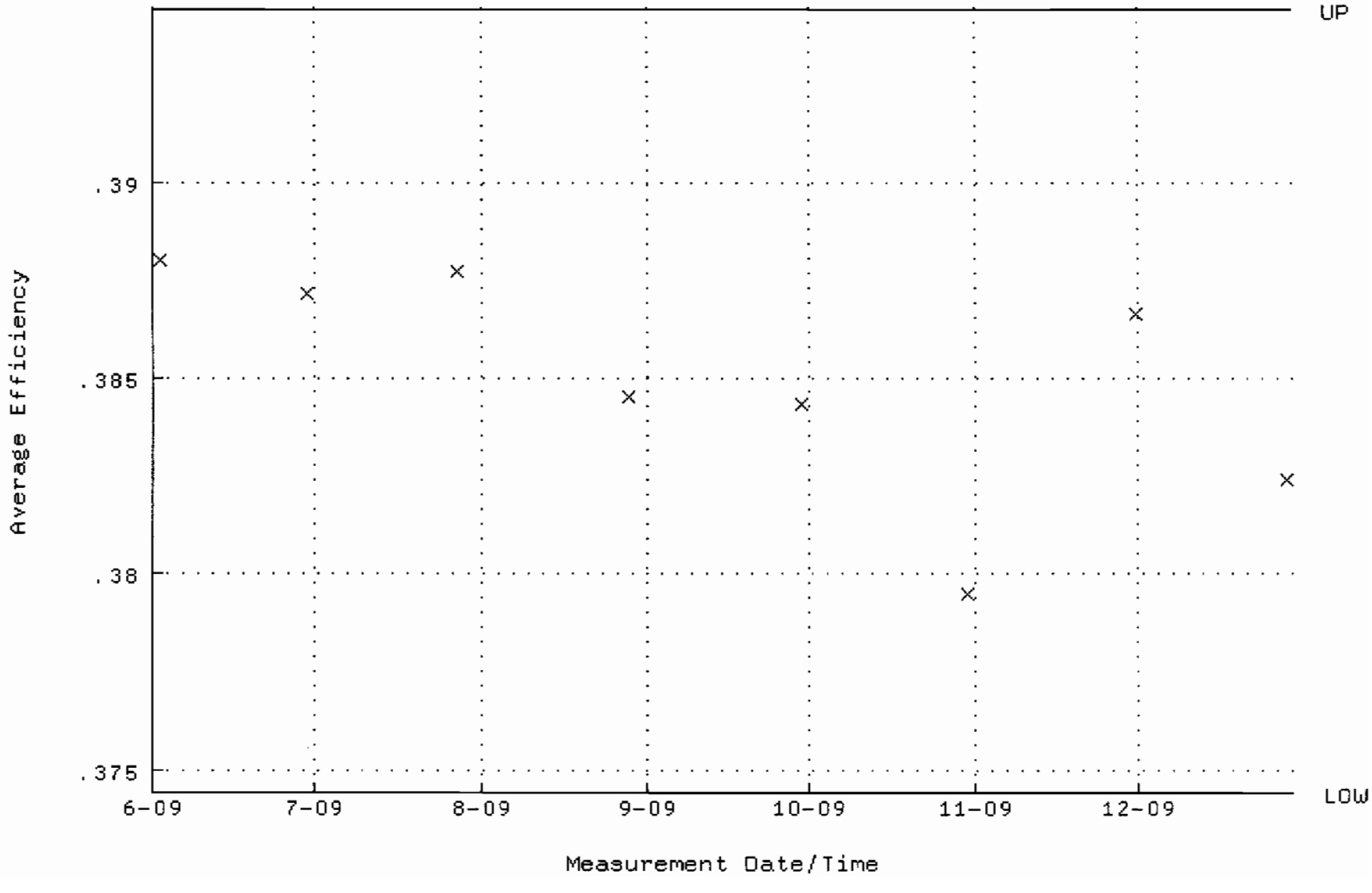

QA filename : DKA100:[ENV_ALPHA.QA.W]W245.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:20:11 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 82.9600 through 91.6926

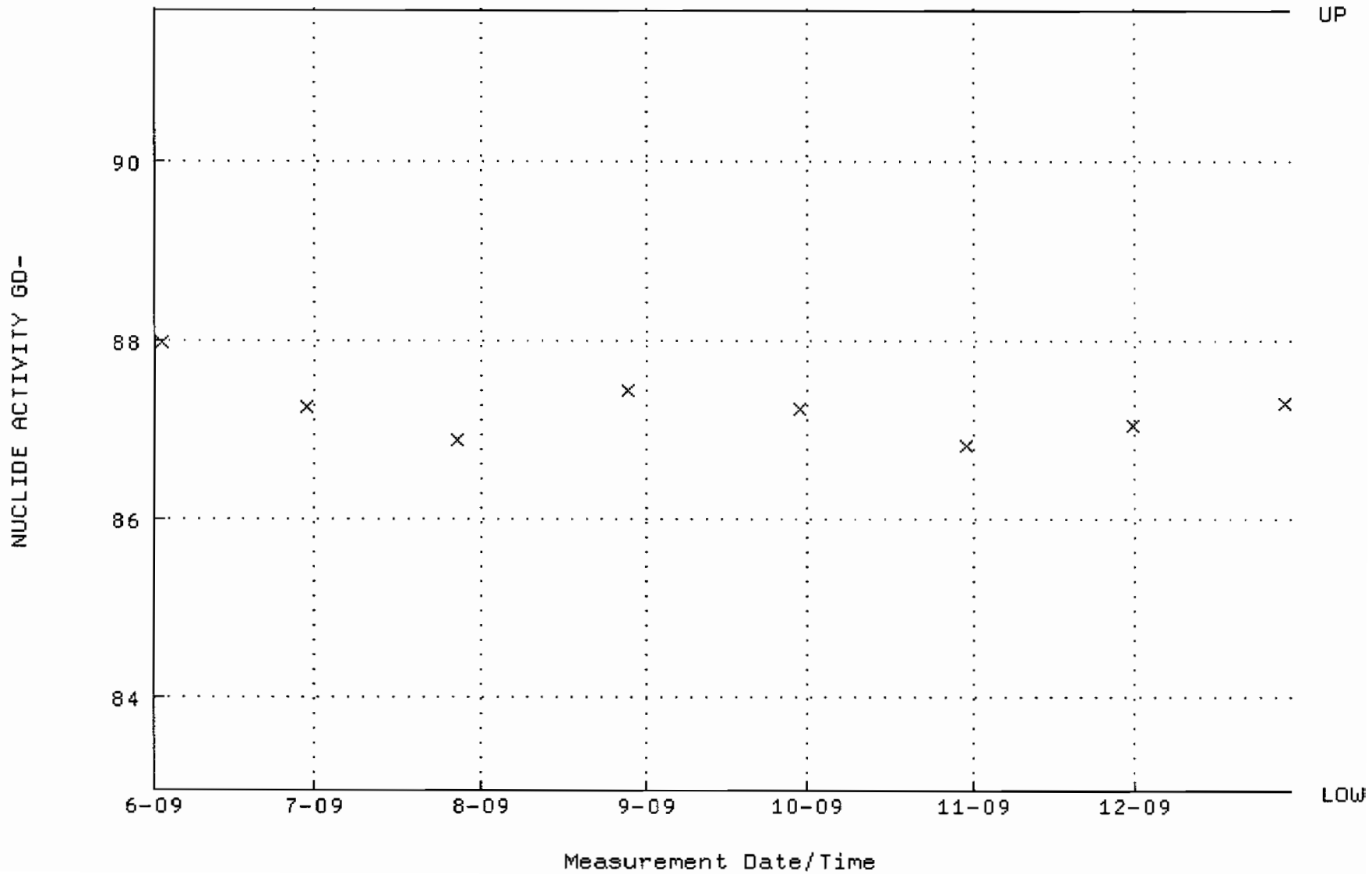

QA filename : DKA100:[ENV_ALPHA.QA.B]B245.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:46:50 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

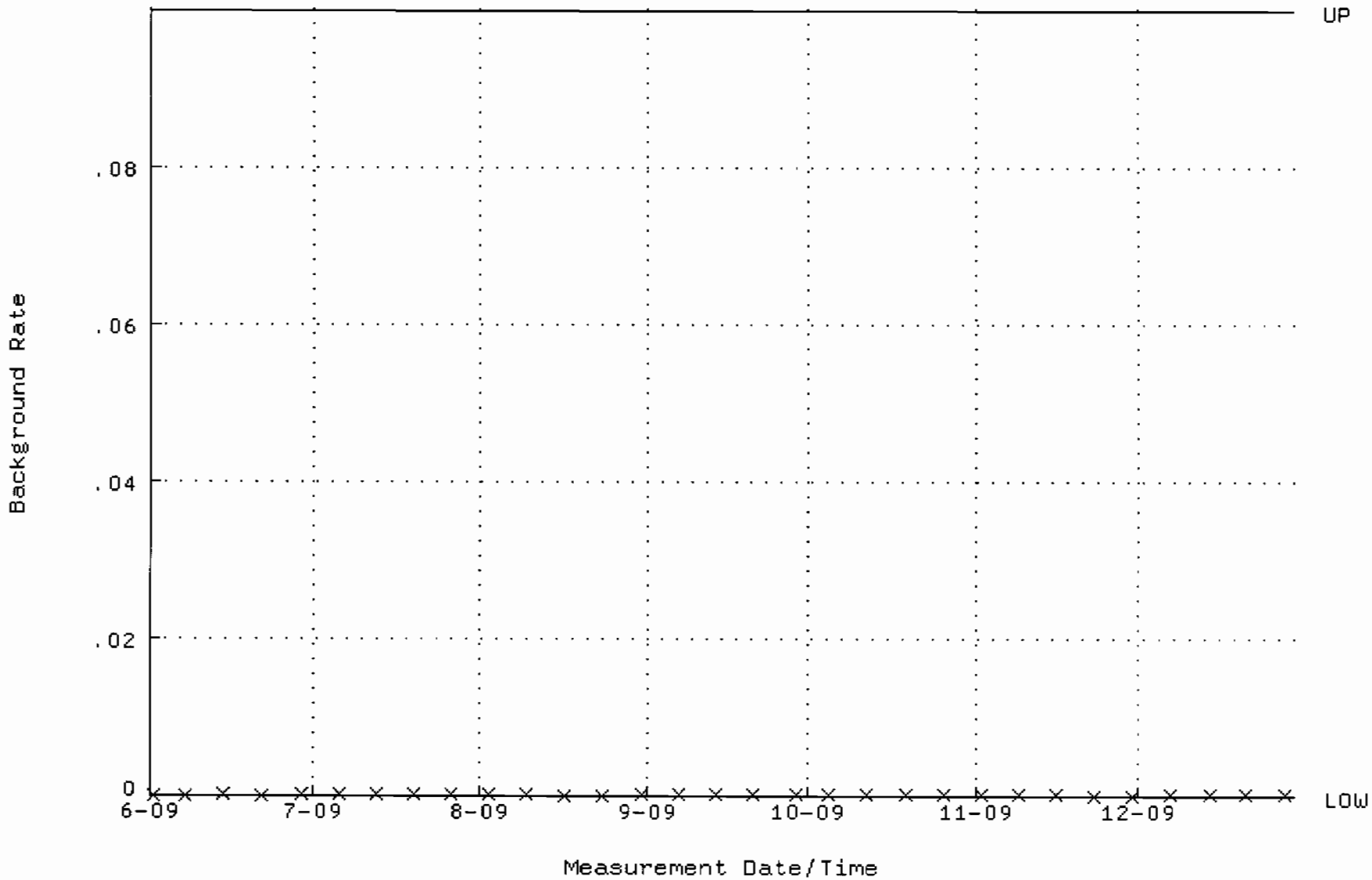

QA filename : DKA100:[ENV_ALPHA.QA.W]W246.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 2-JUN-2009 11:20:15 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.366080 through 0.386080

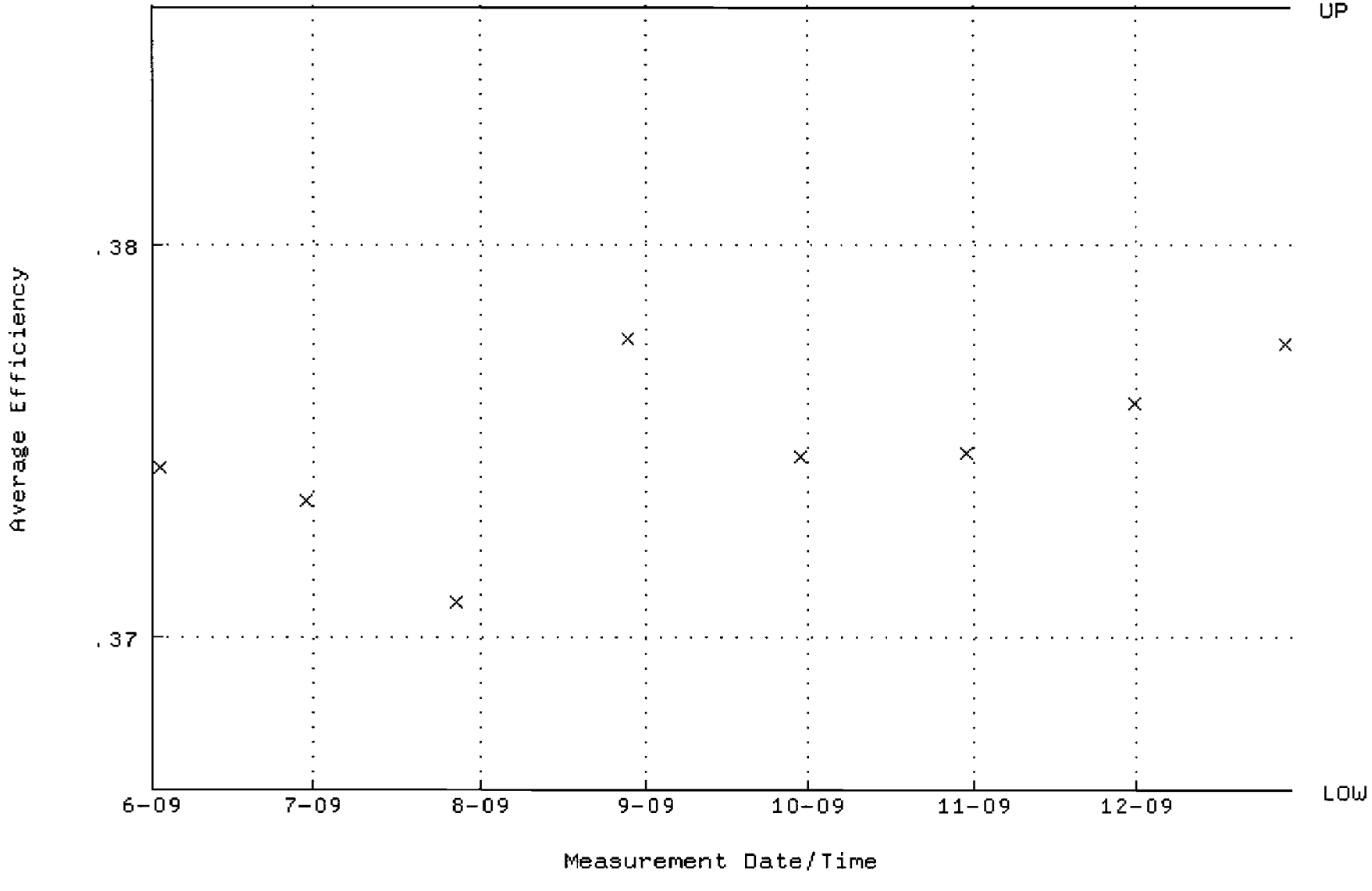

QA filename : DKA100:[ENV_ALPHA.QA.W]W246.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 2-JUN-2009 11:20:15 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 82.8267 through 91.5453

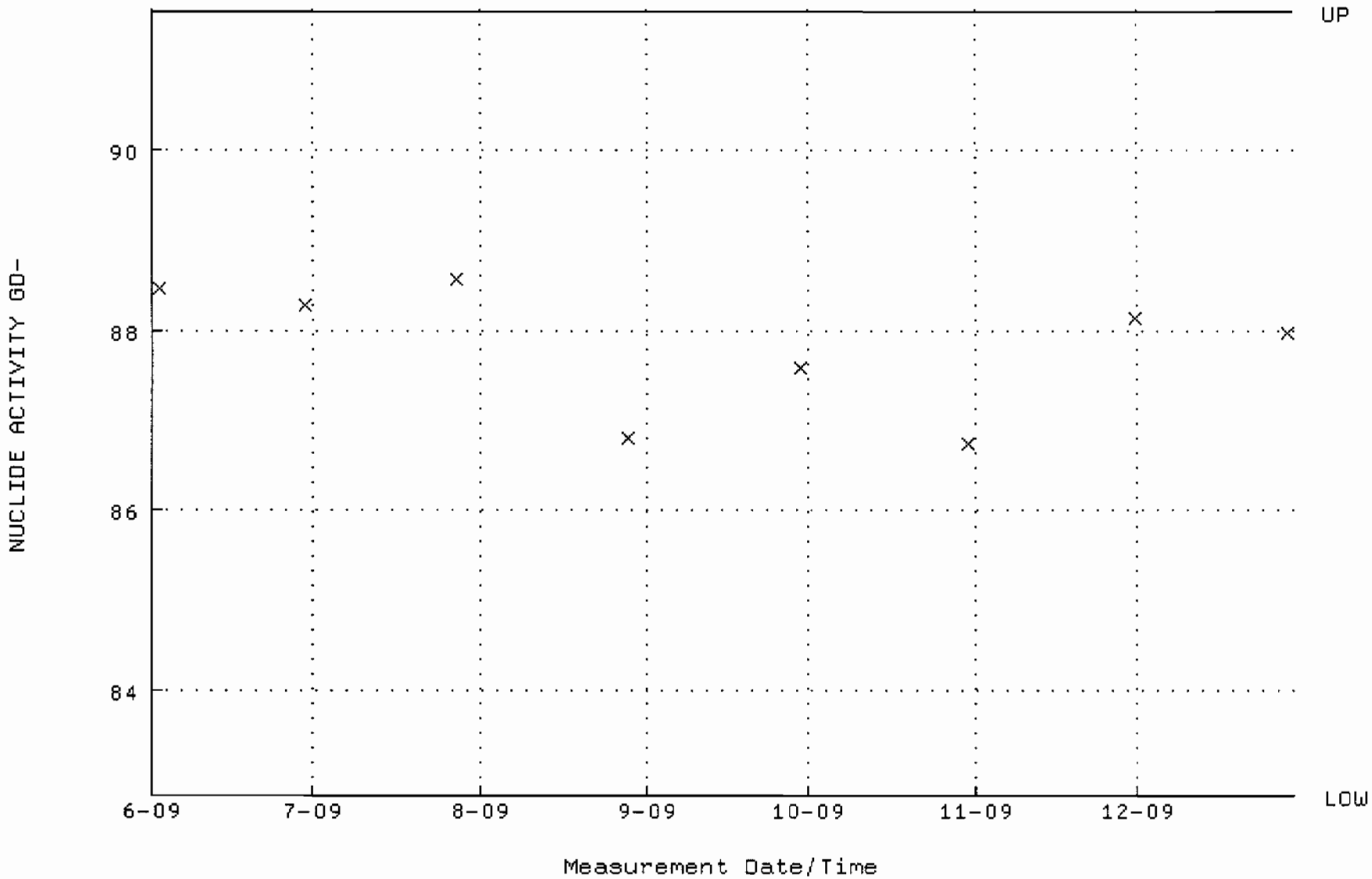

QA filename : DKA100:[ENV_ALPHA.QA.B]B246.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 1-JUN-2009 17:46:56 through 29-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

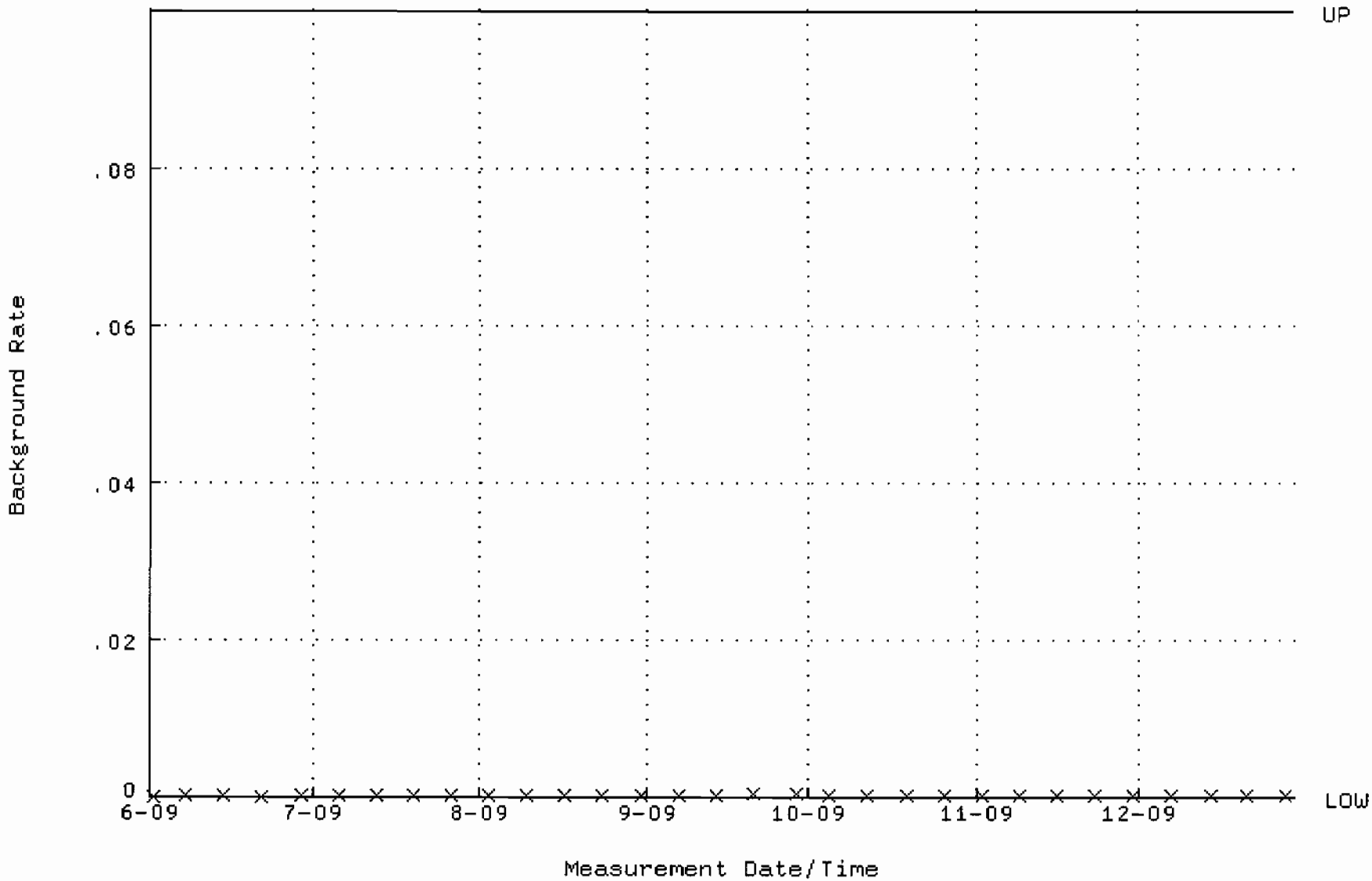

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM01_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-JUL-2009 04:58:53 through 1-JAN-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

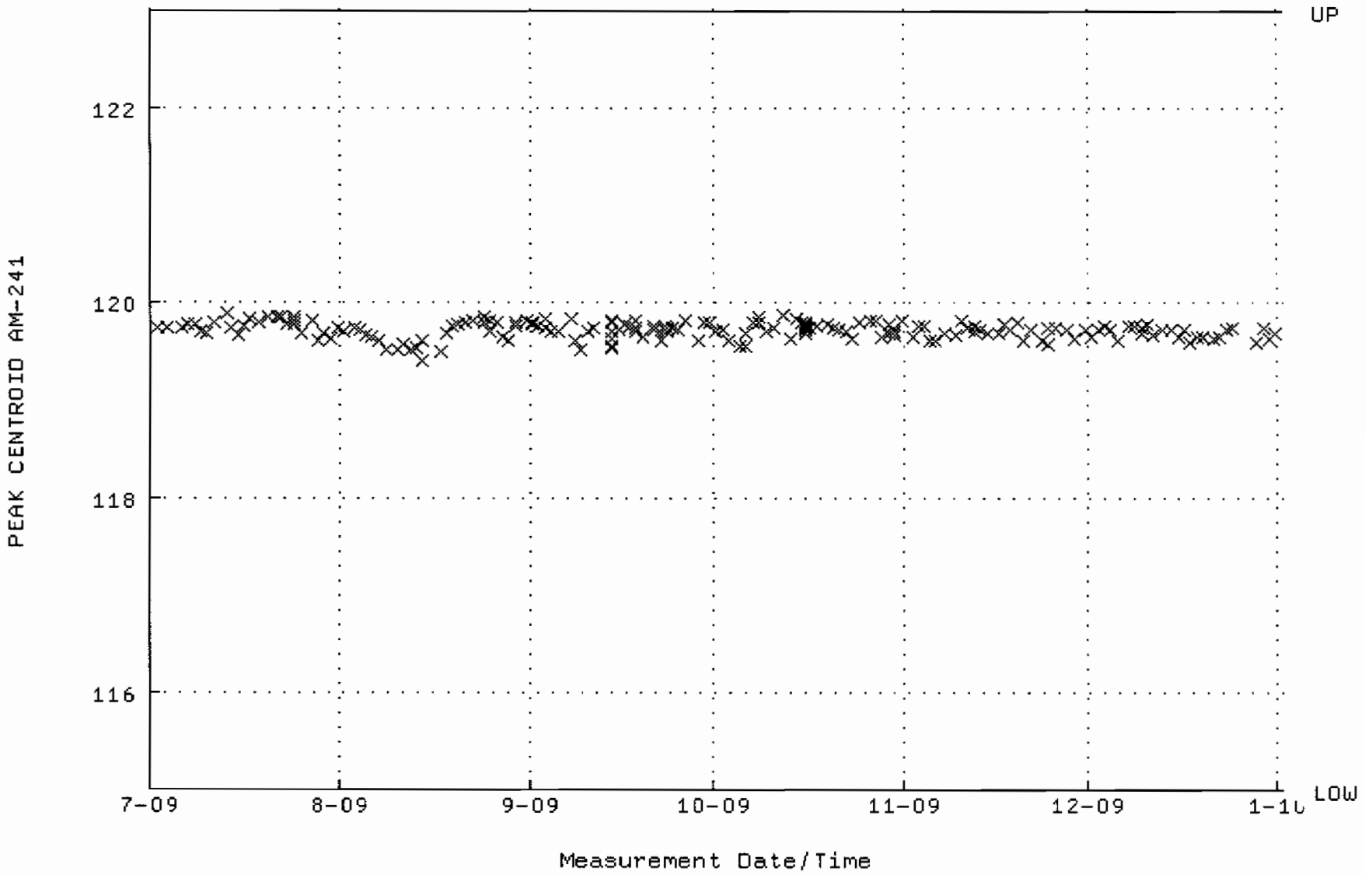

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM01.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-JUL-2009 13:49:24 through 1-JAN-2010 12:00:00
Mean +- Std Dev : 1.73723 +- 3.552524E-02 (2.04 %)

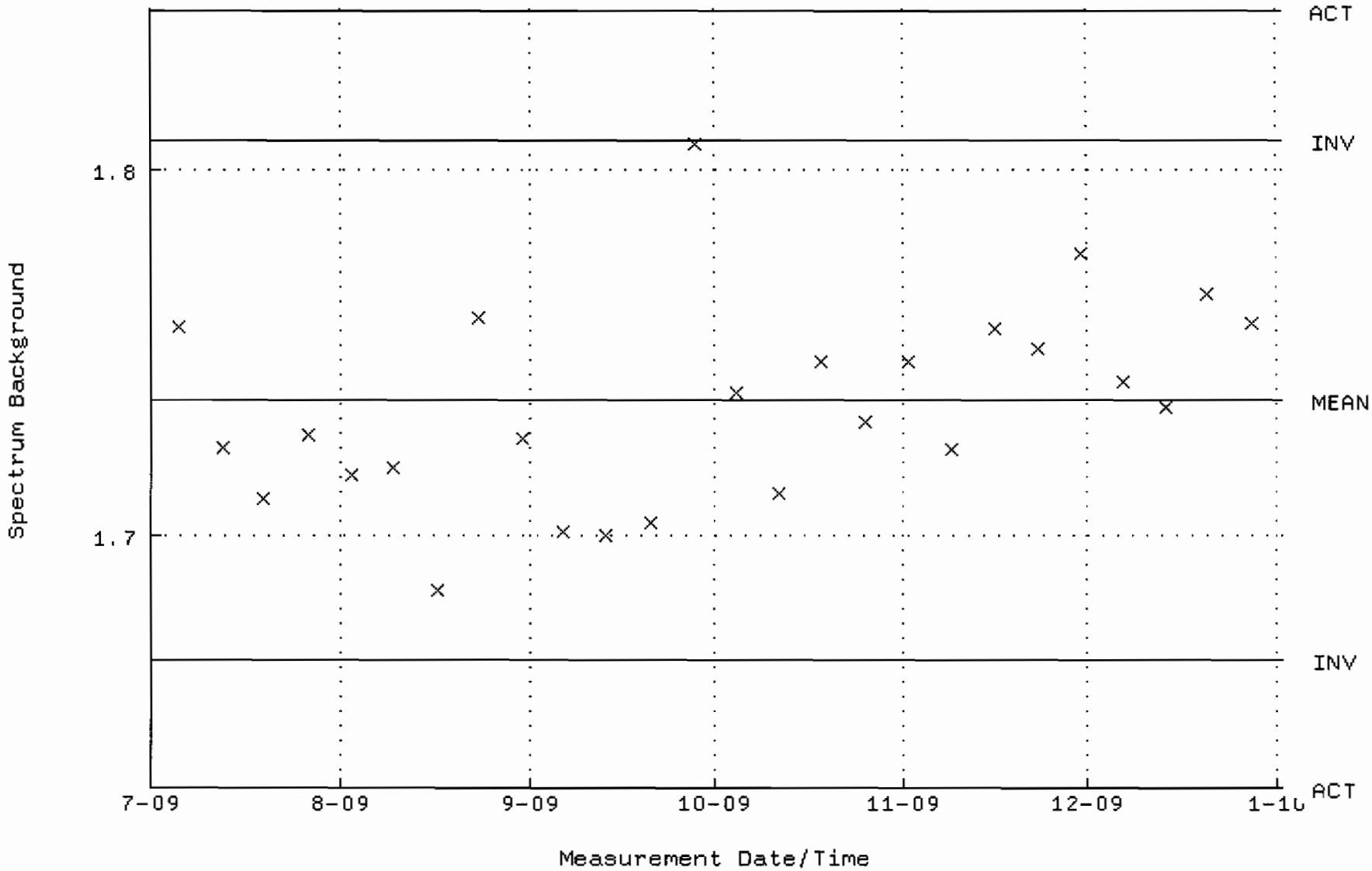

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM10_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-JUL-2009 10:47:17 through 1-JAN-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

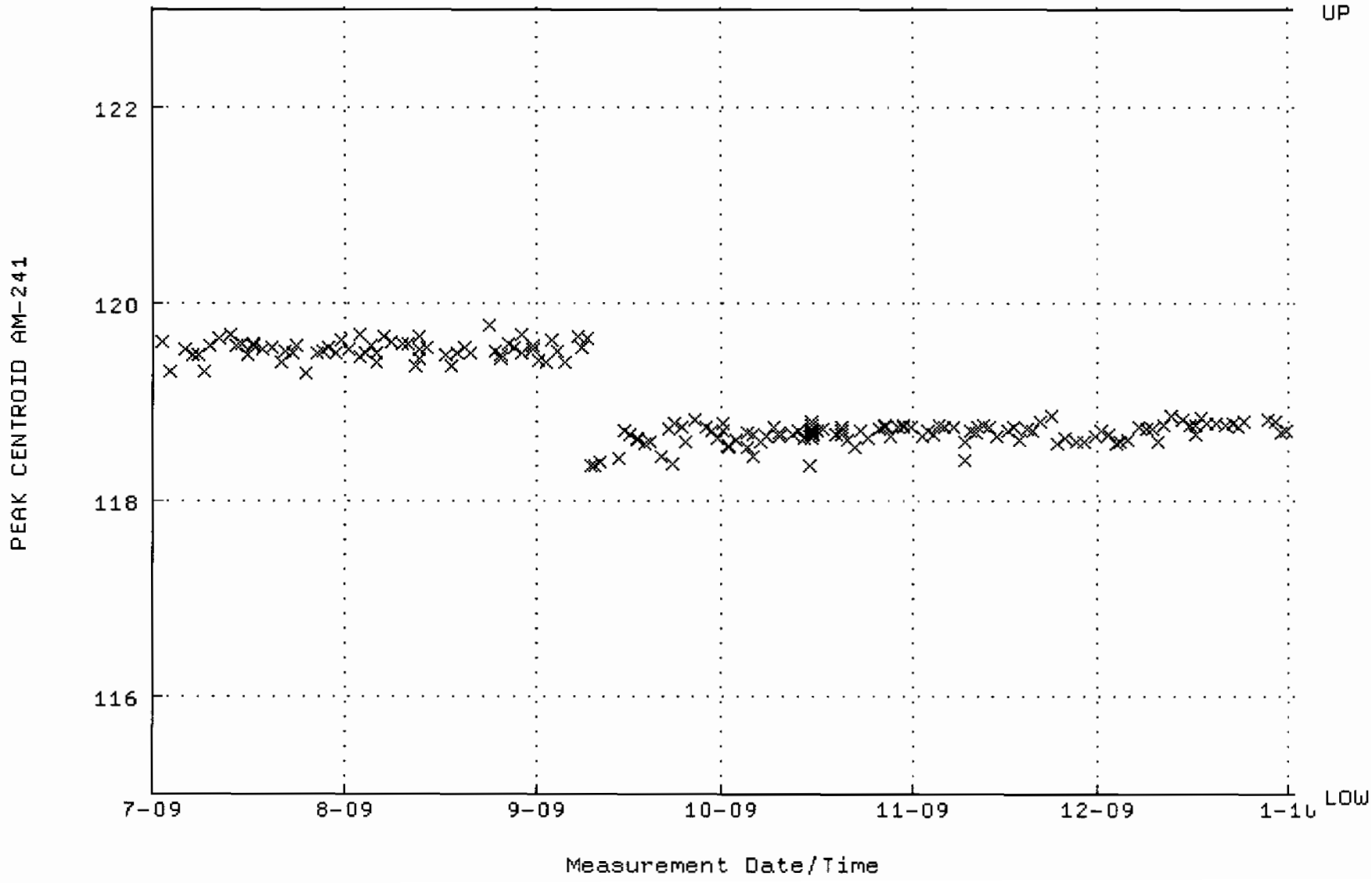

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM10.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-JUL-2009 13:51:14 through 1-JAN-2010 12:00:00
Mean +- Std Dev : 1.48000 +- 1.723892E-02 (1.16 %)

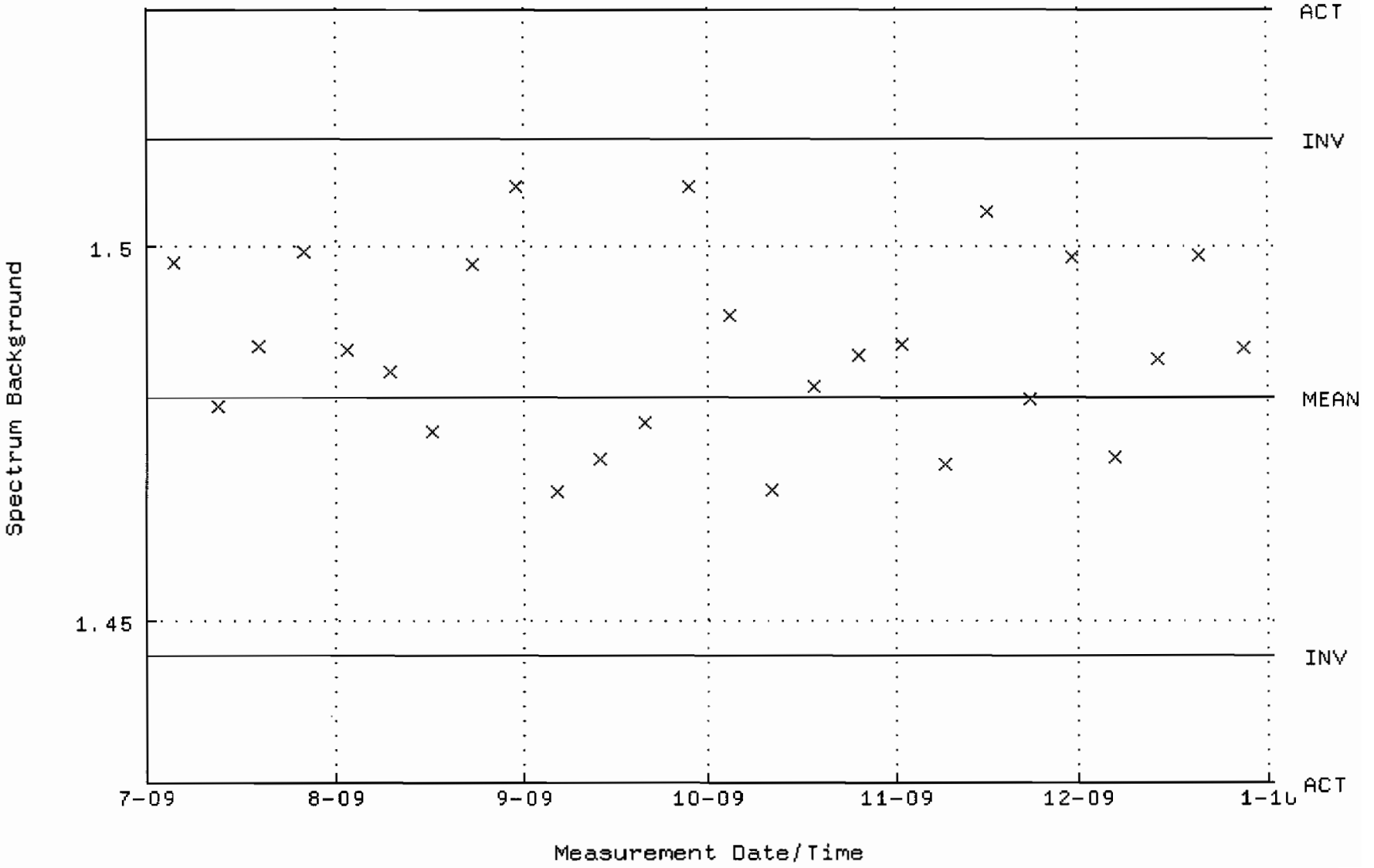

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM14_2LMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-JUL-2009 04:59:23 through 1-JAN-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

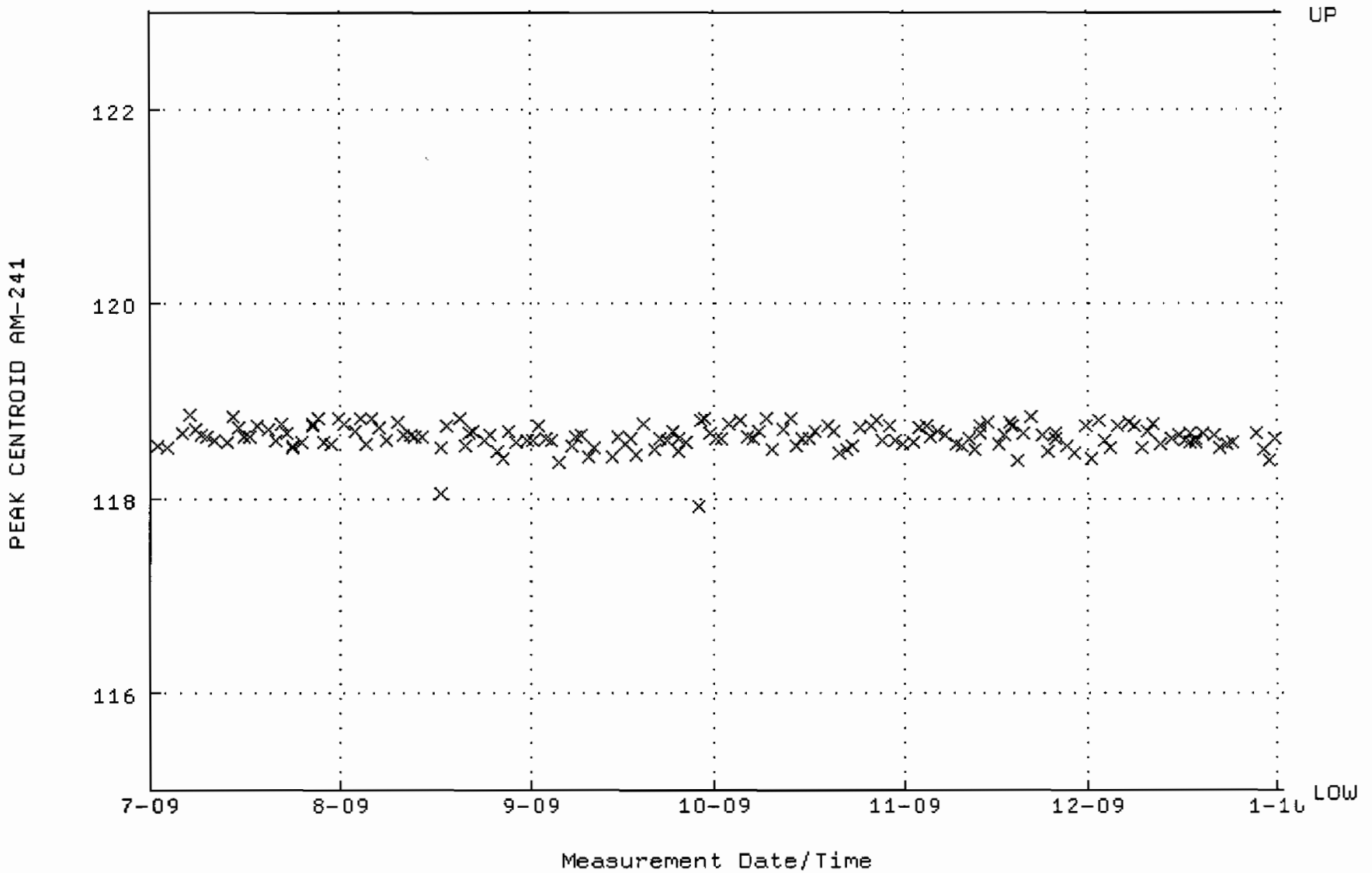

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM14.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-JUL-2009 13:52:31 through 1-JAN-2010 12:00:00
Mean +- Std Dev : 1.48240 +- 2.535500E-02 (1.71 %)

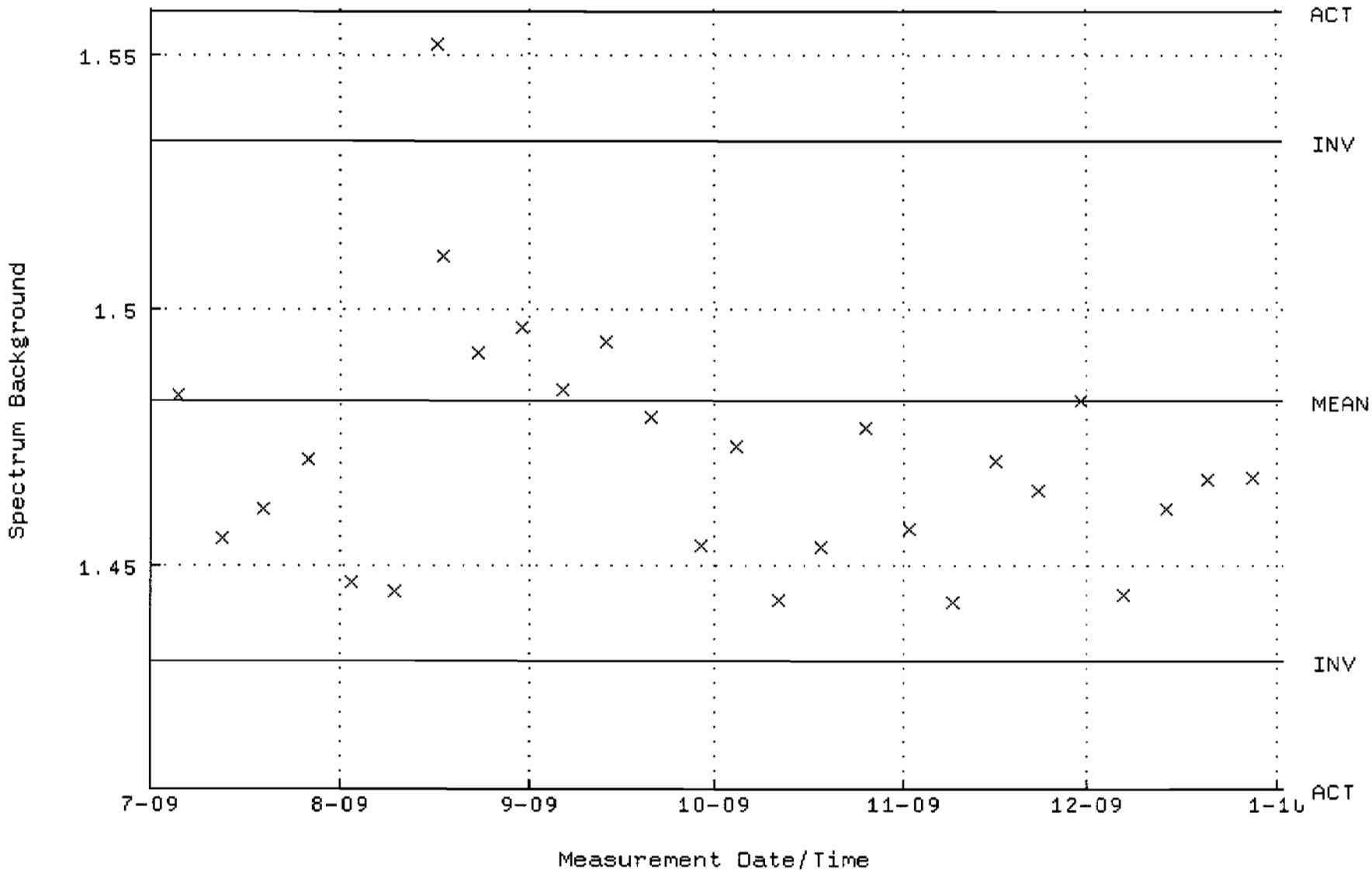

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM16_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-JUL-2009 05:29:19 through 1-JAN-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

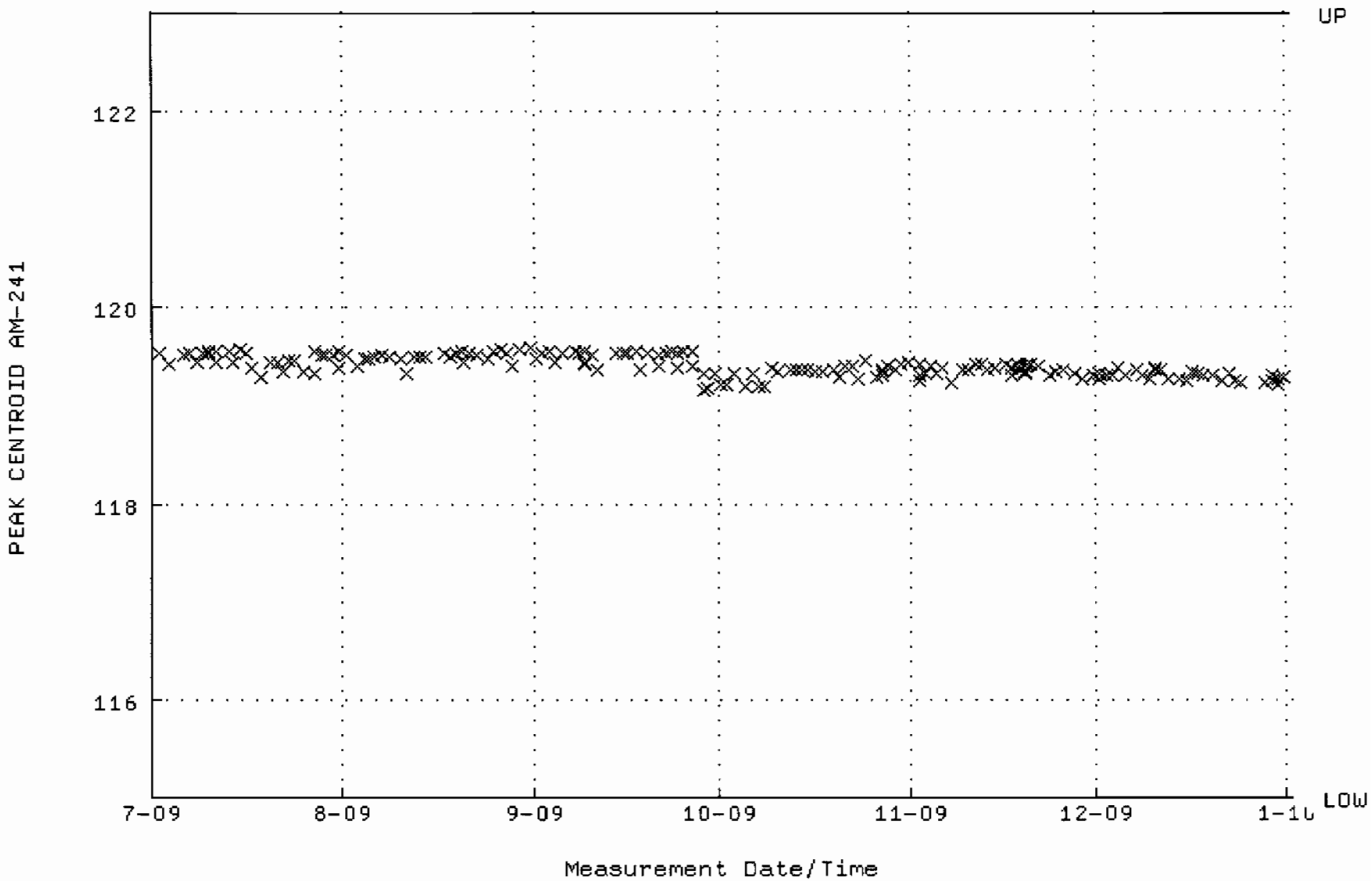

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM16.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-JUL-2009 13:52:58 through 1-JAN-2010 12:00:00
Mean +- Std Dev : 1.73980 +- 1.729897E-02 (0.99 %)

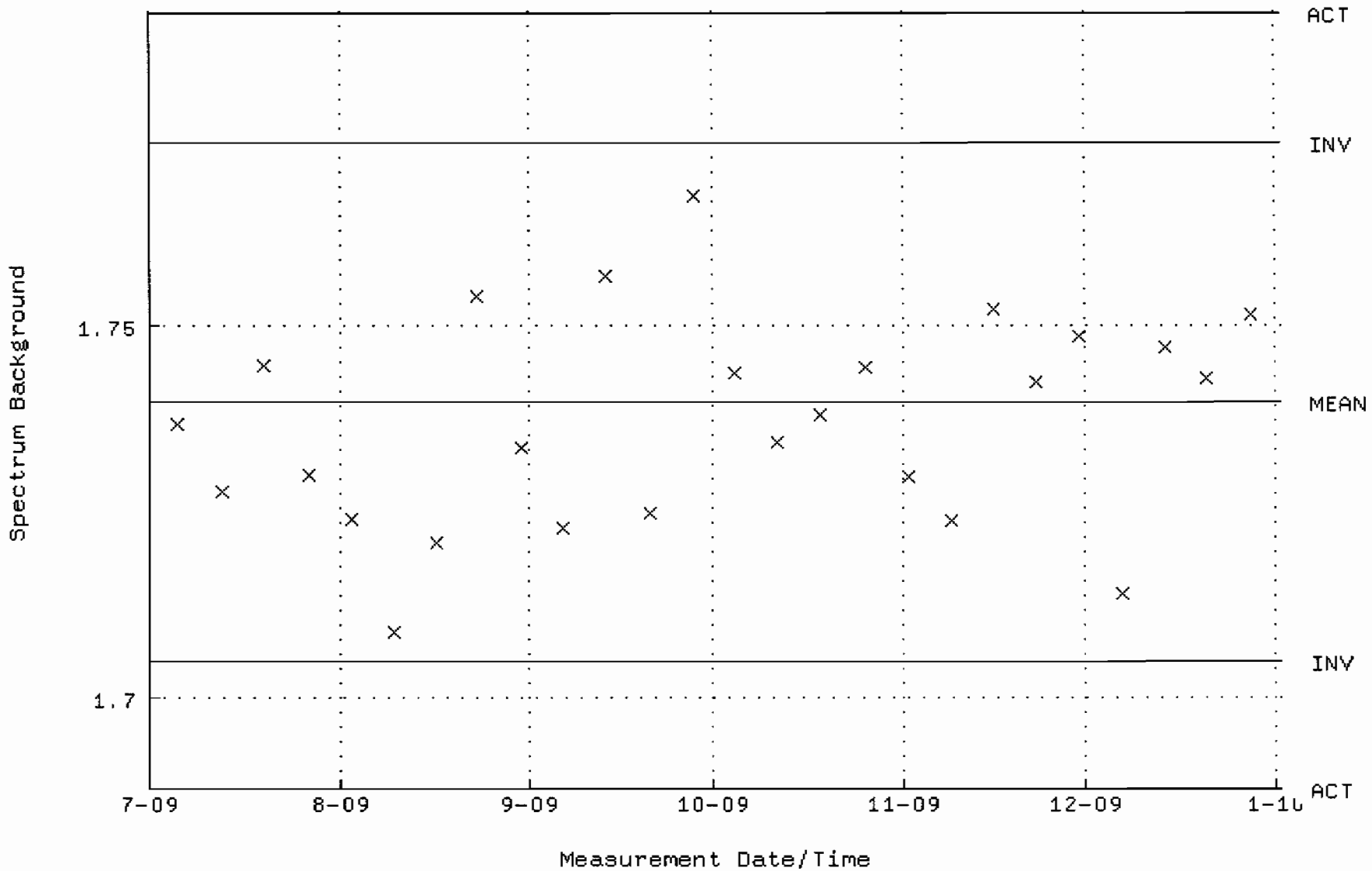

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM19_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-JUL-2009 05:41:19 through 1-JAN-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

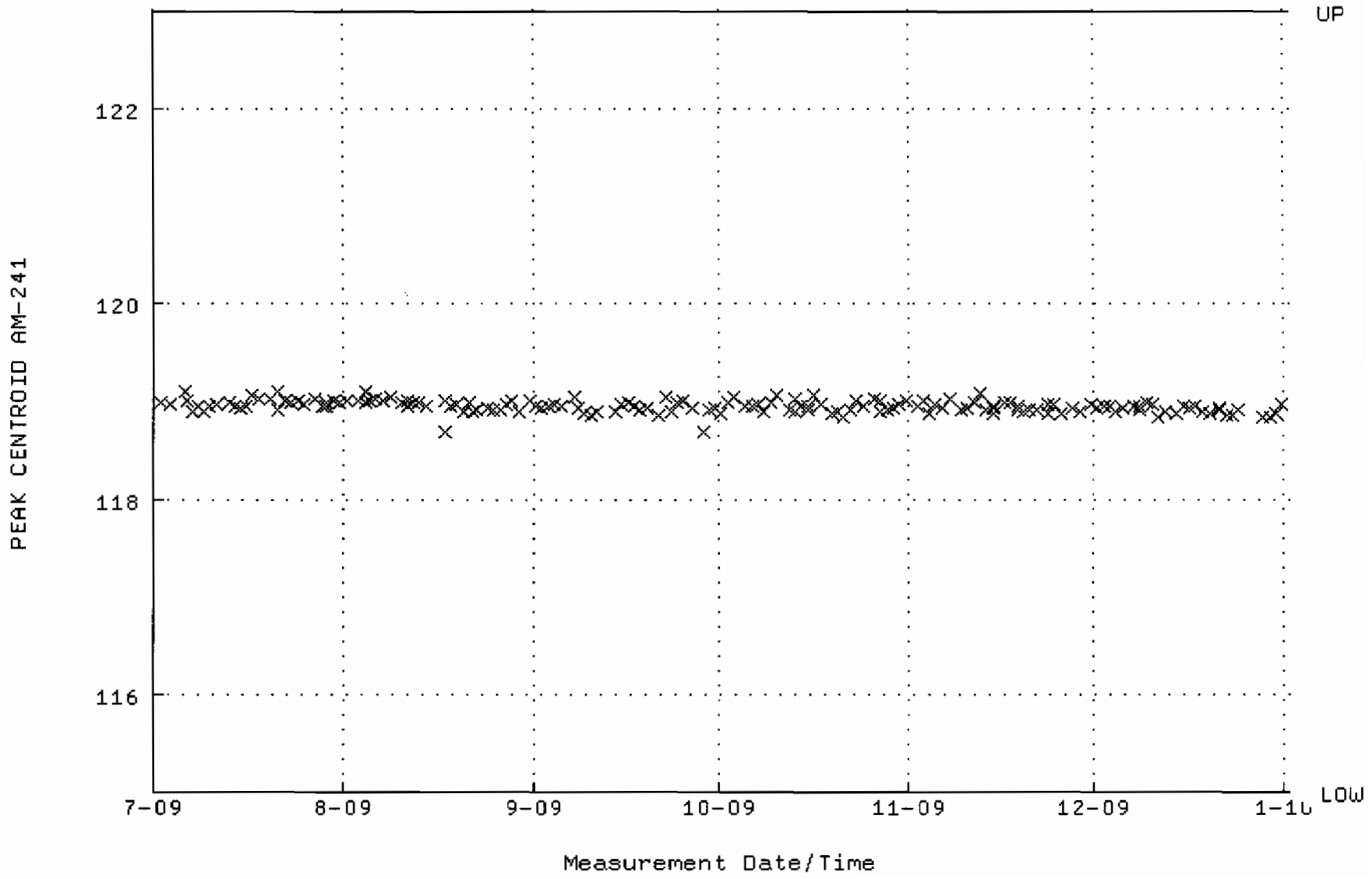

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM19.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 5-JUL-2009 13:53:35 through 1-JAN-2010 12:00:00
Mean +- Std Dev : 1.45067 +- 2.046038E-02 (1.41 %)

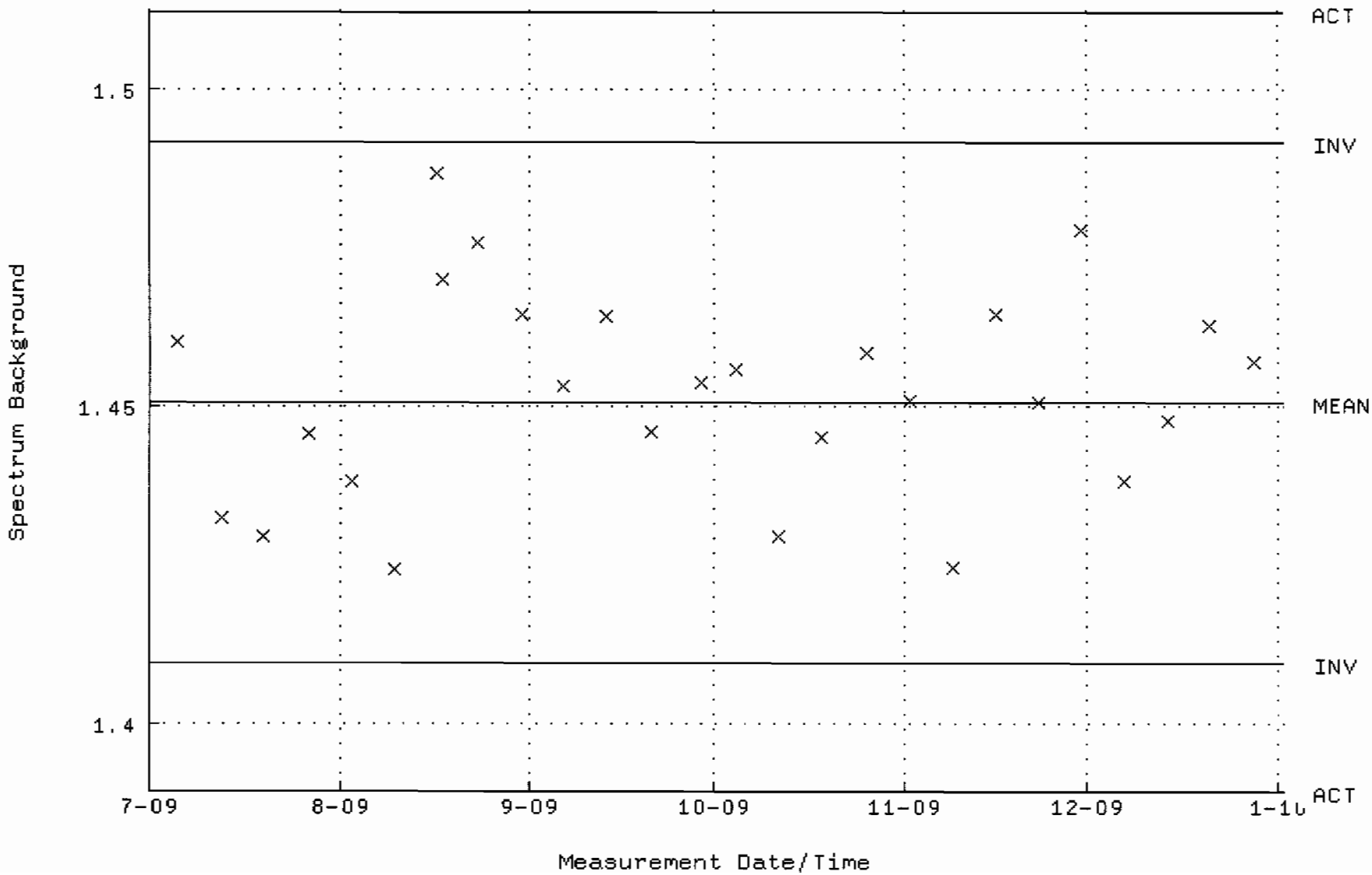

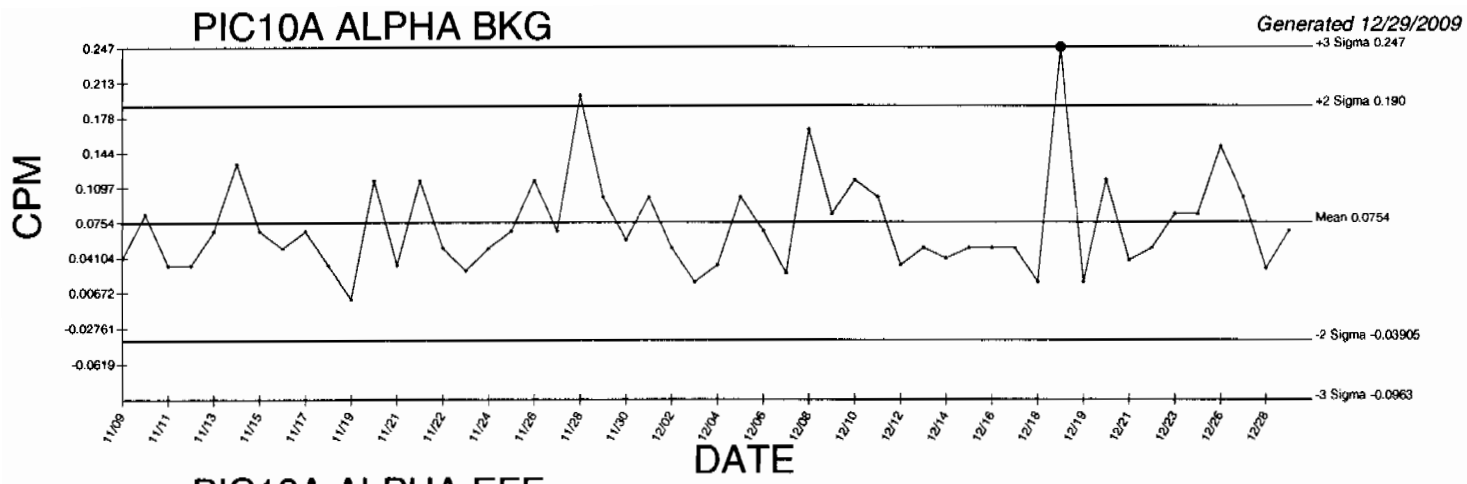

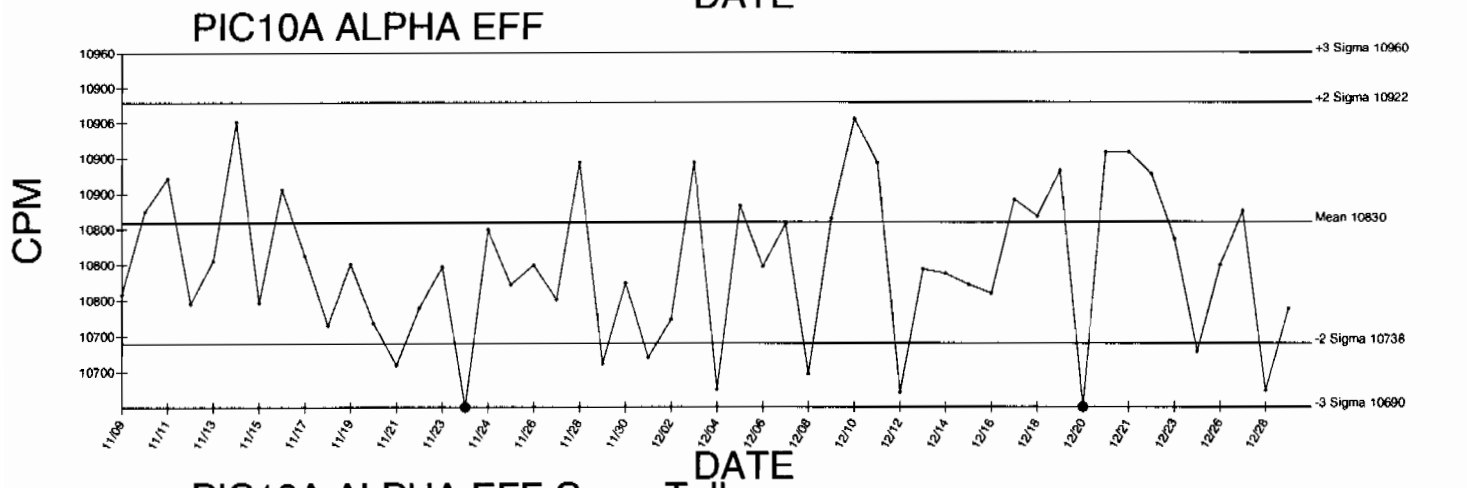

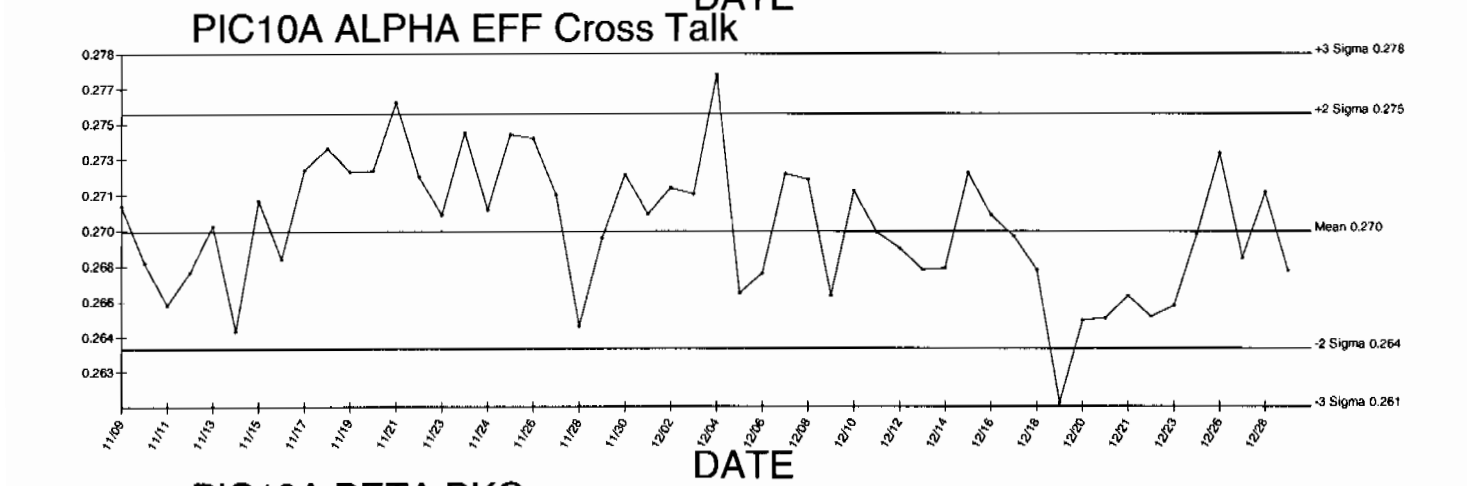

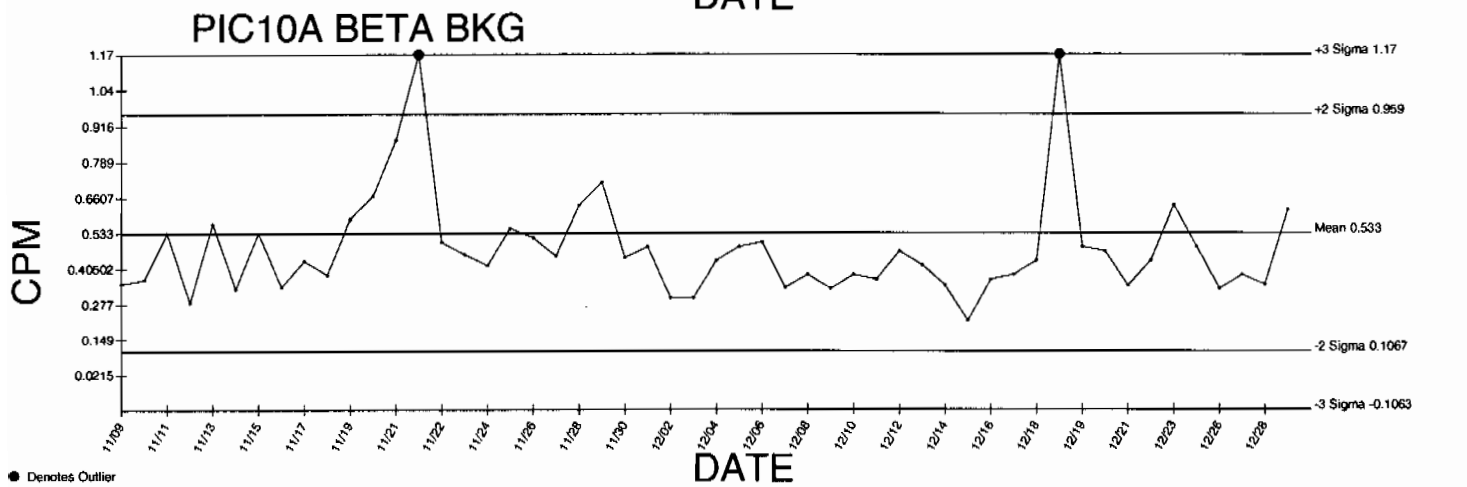

● Denotes Outlier

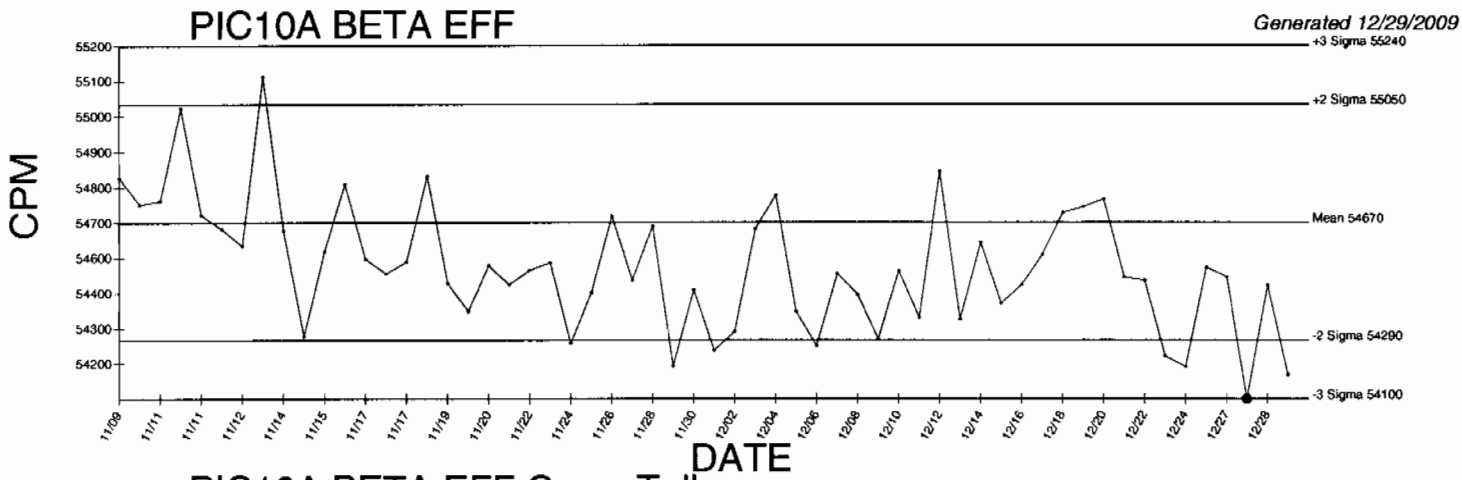

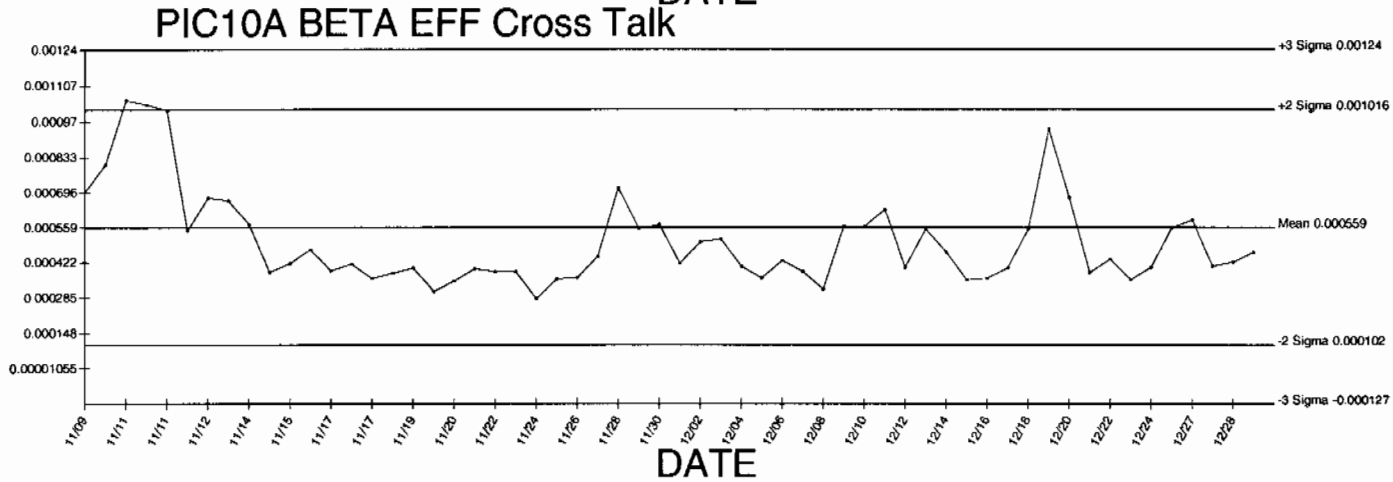

● Denotes Outlier

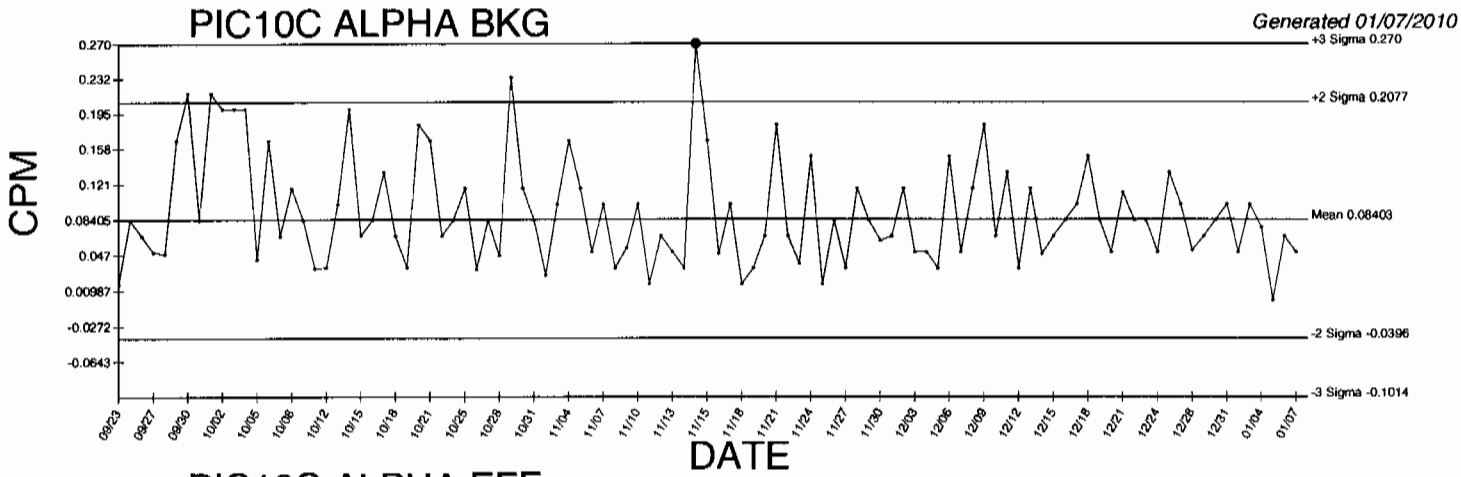
PIC10C ALPHA BKG
Generated 01/07/2010
CPM
DATE
+3 Sigma 0.270
+2 Sigma 0.2077
Mean 0.08403
-2 Sigma -0.0396
-3 Sigma -0.1014

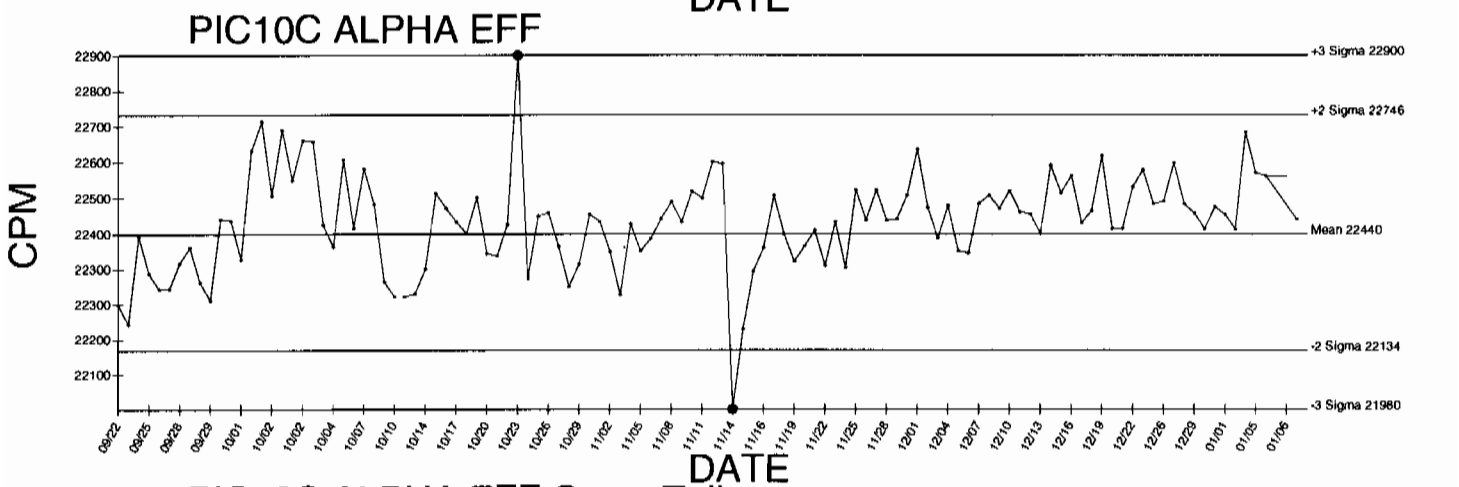
PIC10C ALPHA EFF
CPM
DATE
+3 Sigma 22900
+2 Sigma 22746
Mean 22440
-2 Sigma 22134
-3 Sigma 21980

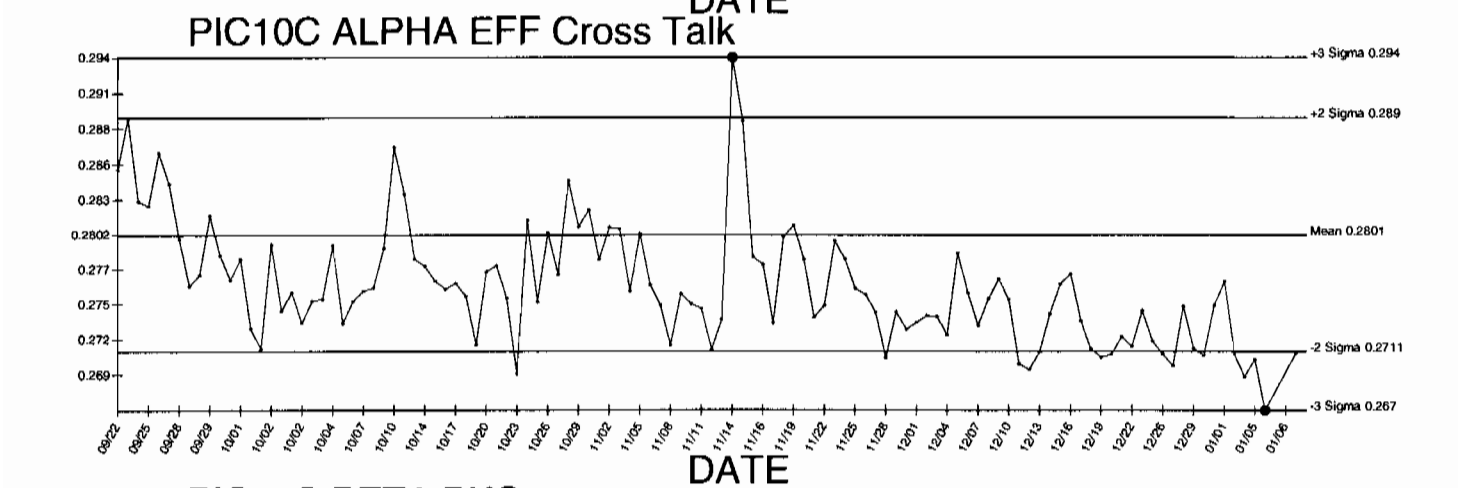
PIC10C ALPHA EFF Cross Talk
DATE
+3 Sigma 0.294
+2 Sigma 0.289
Mean 0.2801
-2 Sigma 0.2711
-3 Sigma 0.267

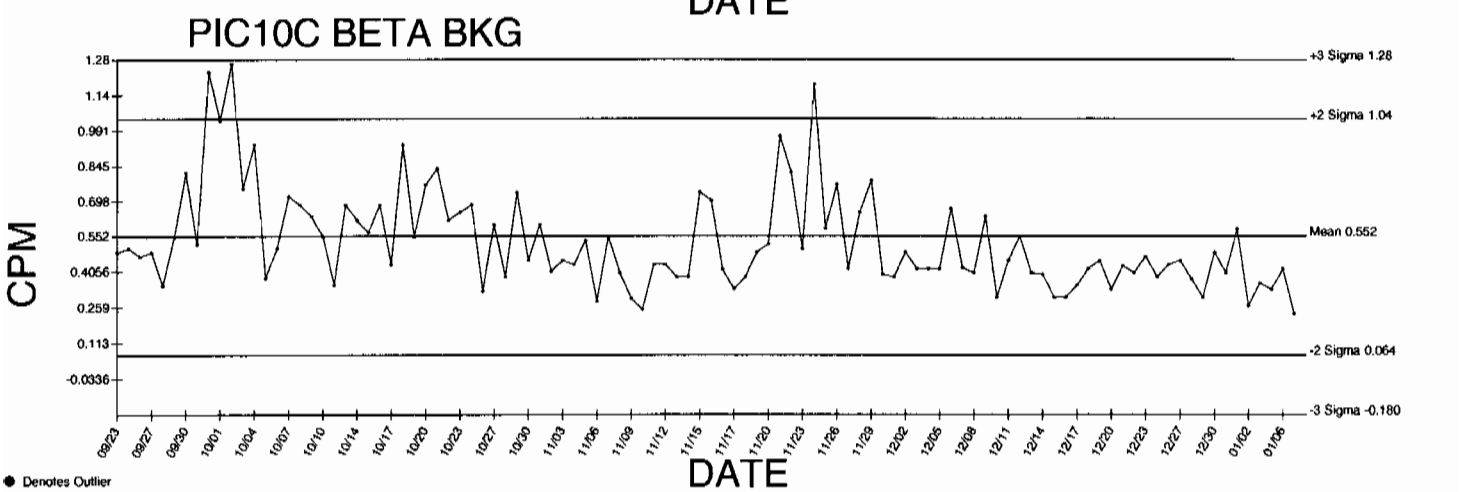
PIC10C BETA BKG
CPM
DATE
+3 Sigma 1.28
+2 Sigma 1.04
Mean 0.552
-2 Sigma 0.064
-3 Sigma -0.180
Denotes Outlier

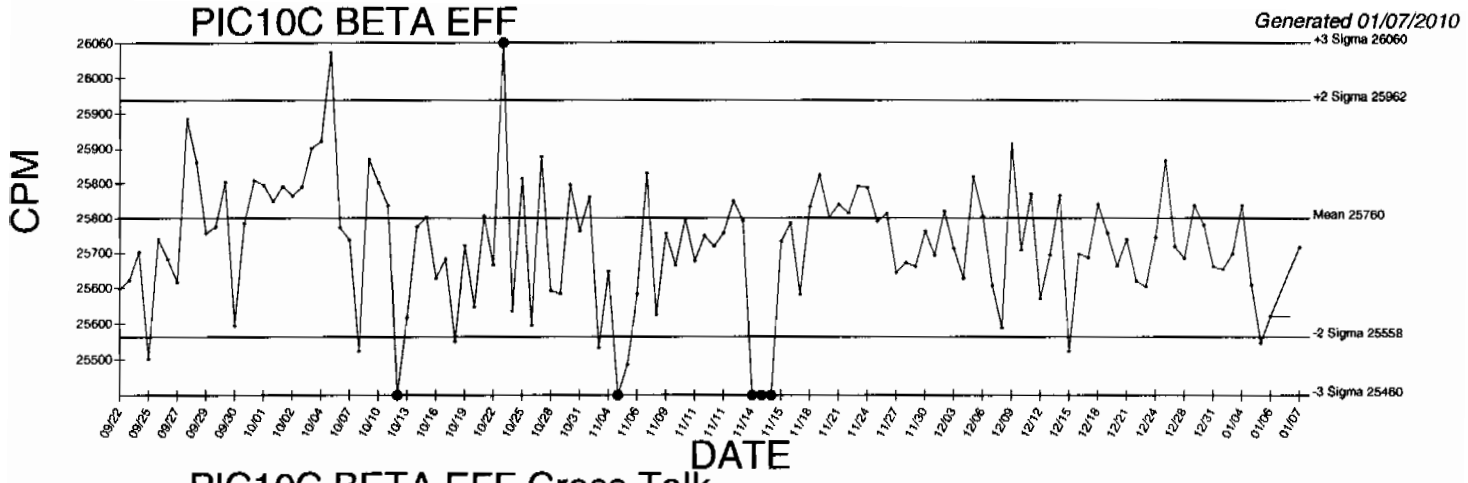

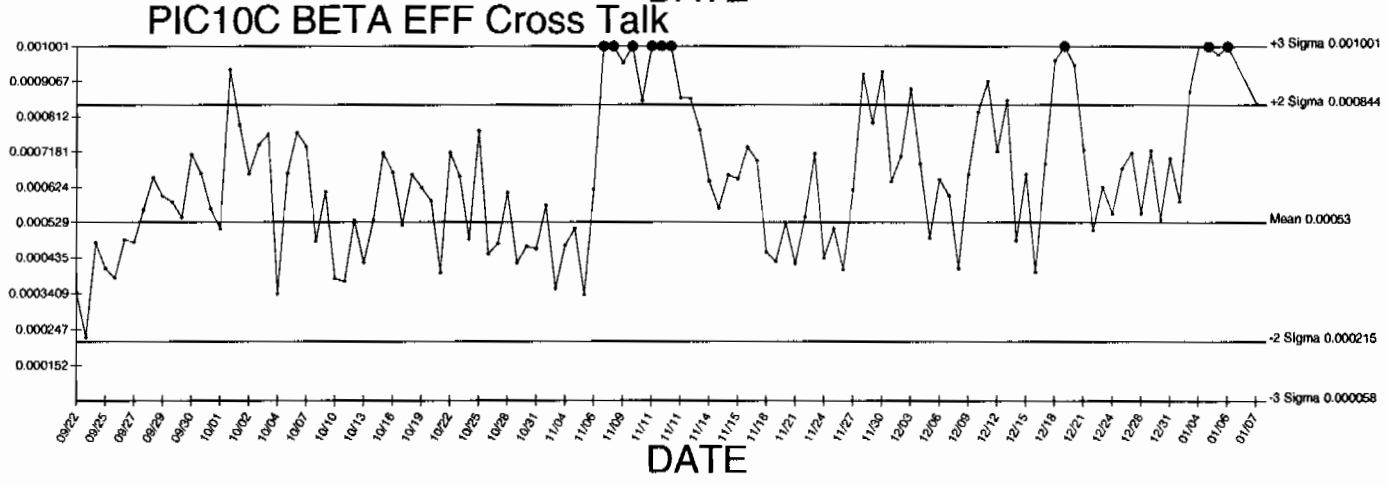

● Denotes Outlier

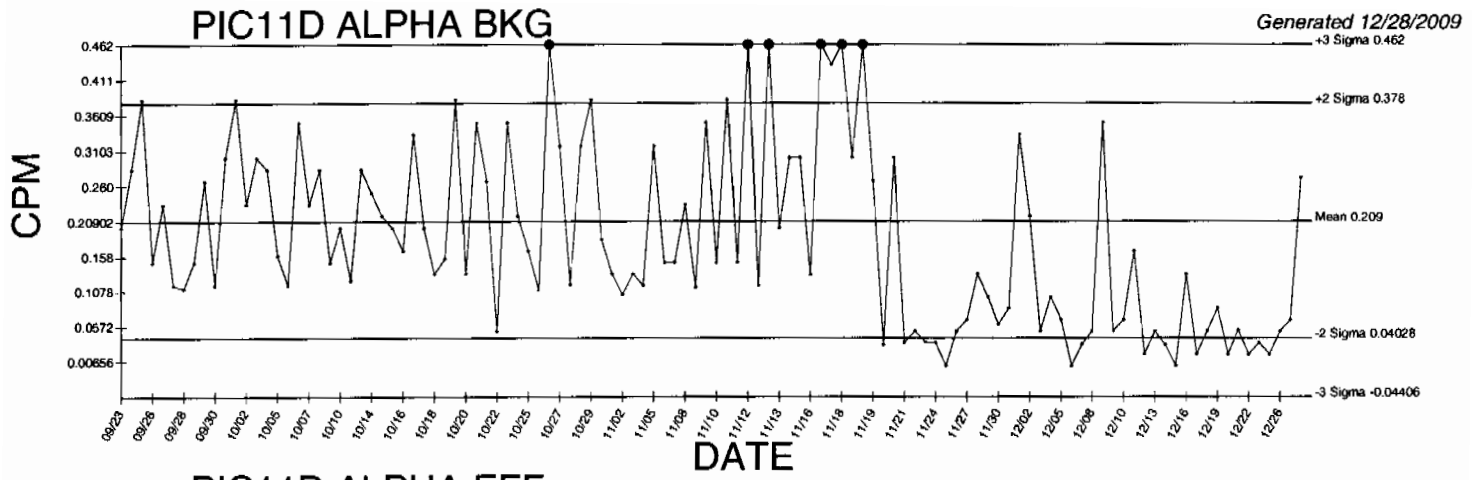
PIC11D ALPHA BKG
Generated 12/28/2009
CPM
DATE
+3 Sigma 0.462
+2 Sigma 0.378
Mean 0.209
-2 Sigma 0.04028
-3 Sigma -0.04406

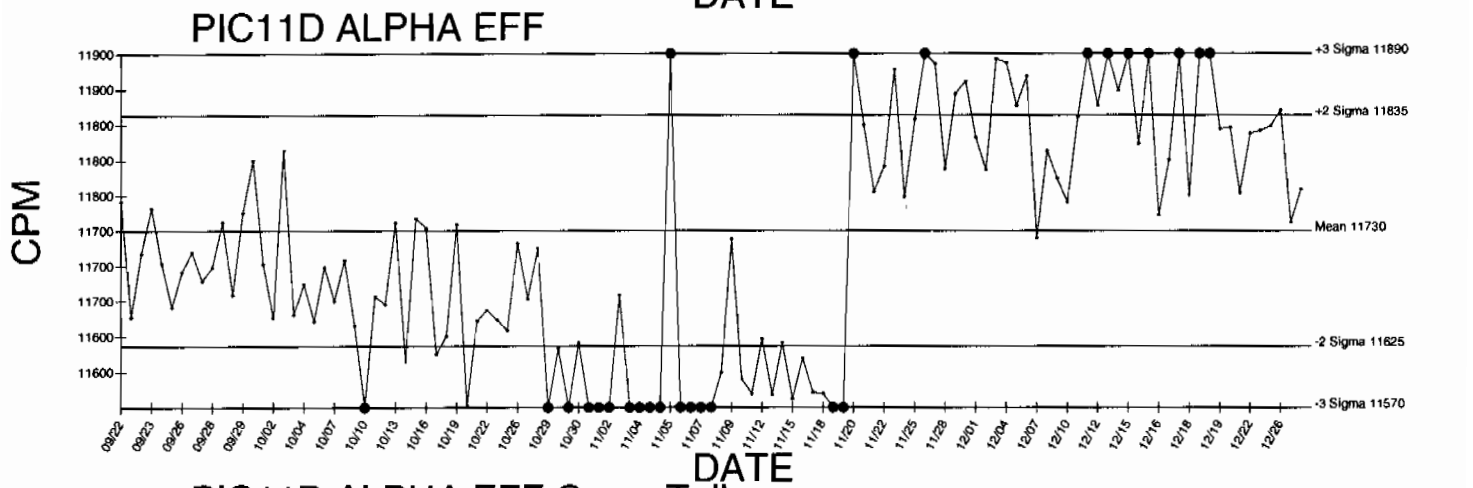
PIC11D ALPHA EFF
CPM
DATE
+3 Sigma 11890
+2 Sigma 11835
Mean 11730
-2 Sigma 11625
-3 Sigma 11570

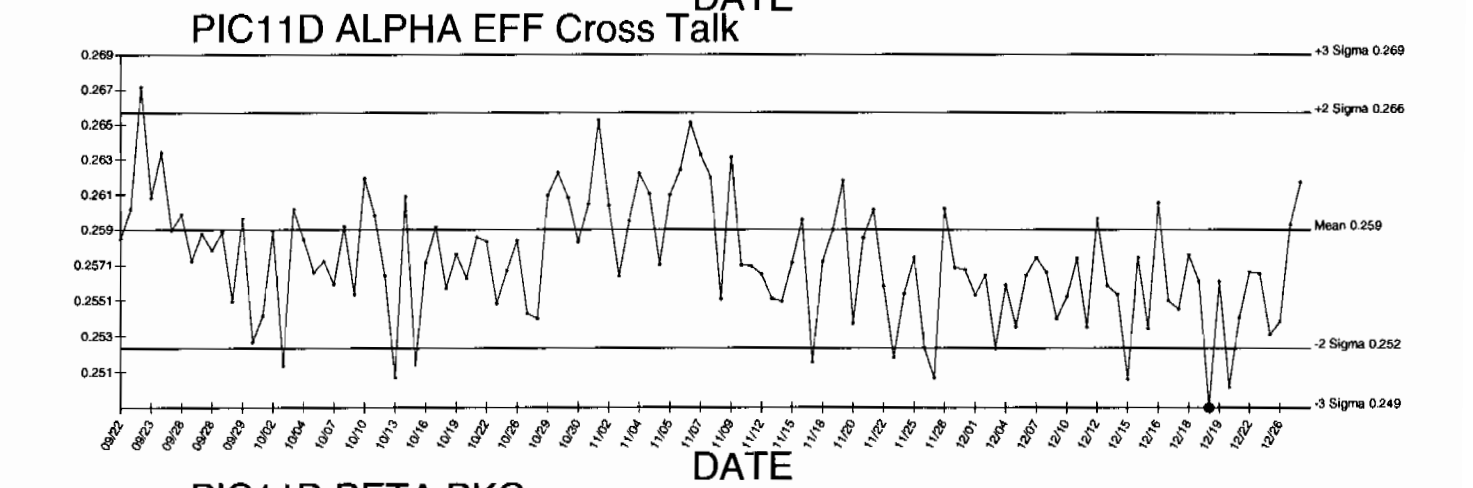
PIC11D ALPHA EFF Cross Talk
DATE
+3 Sigma 0.269
+2 Sigma 0.266
Mean 0.259
-2 Sigma 0.252
-3 Sigma 0.249

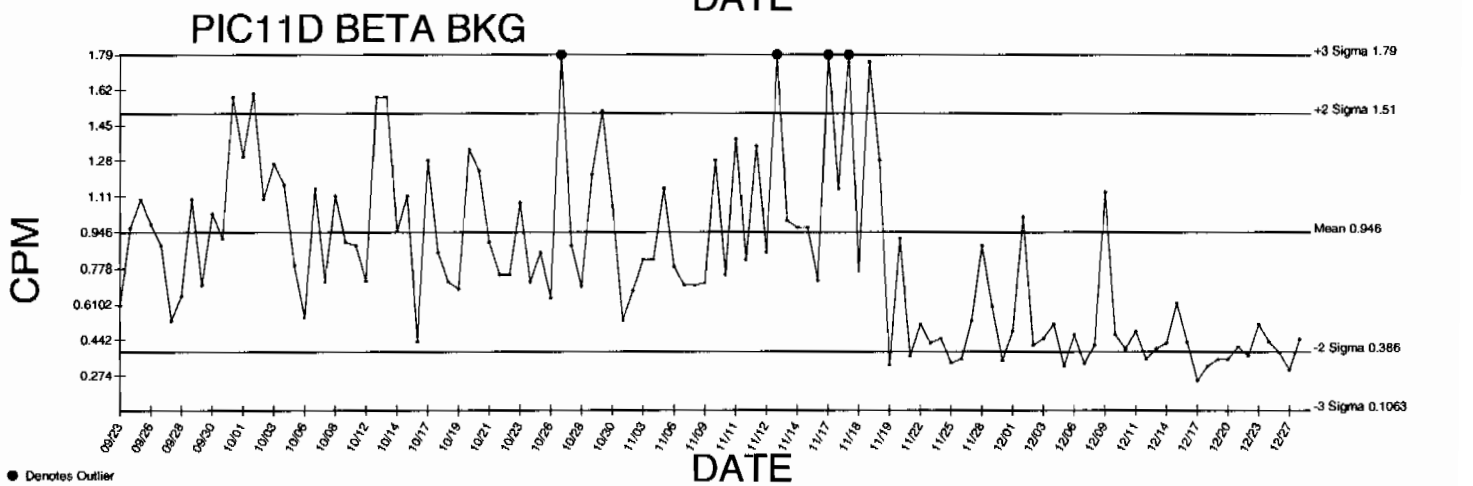
PIC11D BETA BKG
CPM
DATE
+3 Sigma 1.79
+2 Sigma 1.51
Mean 0.946
-2 Sigma 0.386
-3 Sigma 0.1063
● Denotes Outlier

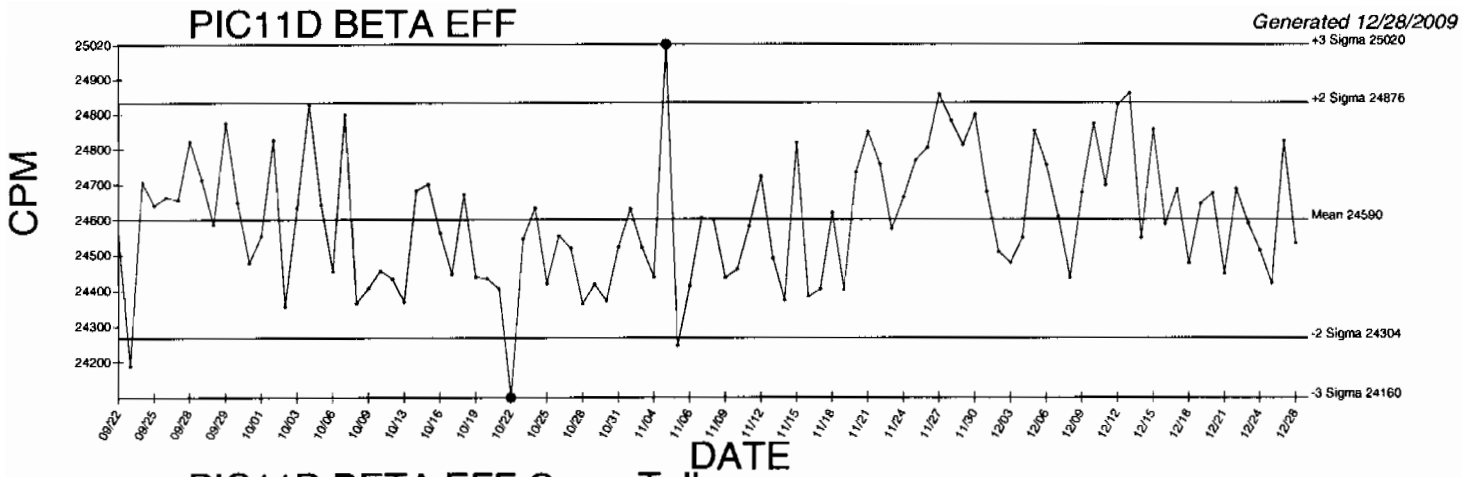

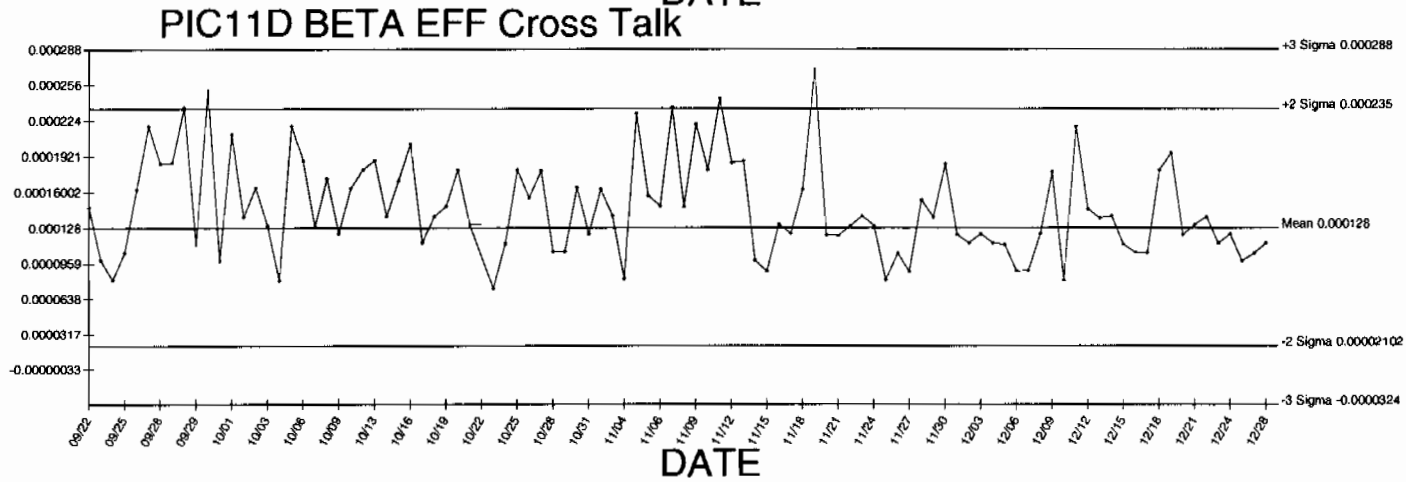

● Denotes Outlier

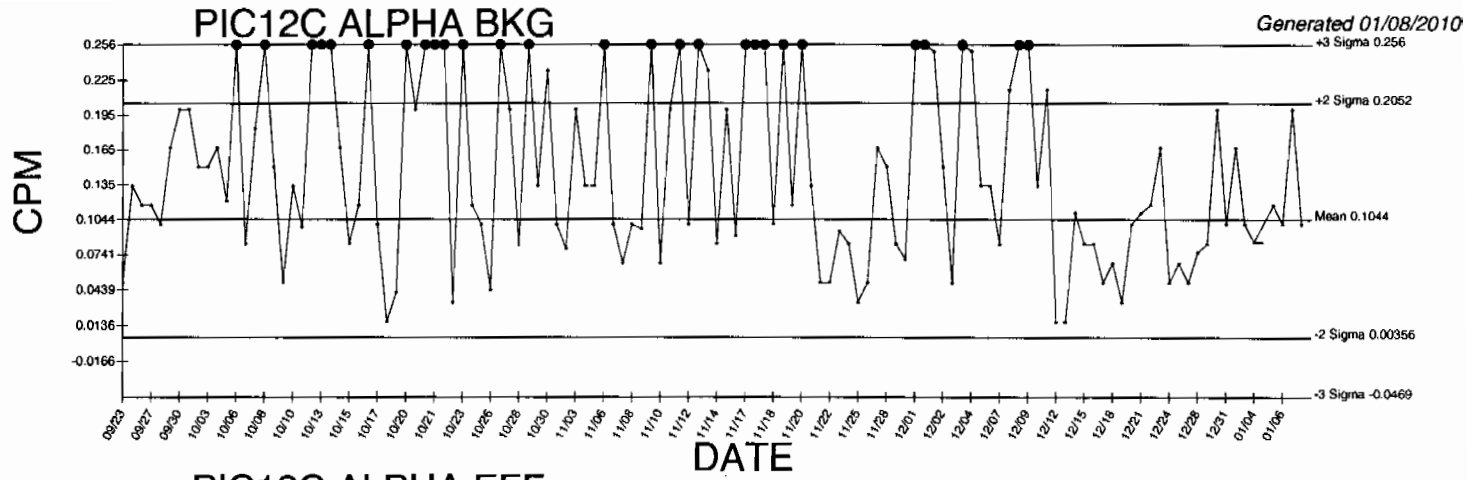
PIC12C ALPHA BKG
Generated 01/08/2010
CPM
DATE
+3 Sigma 0.256
+2 Sigma 0.2052
Mean 0.1044
-2 Sigma 0.00356
-3 Sigma -0.0469

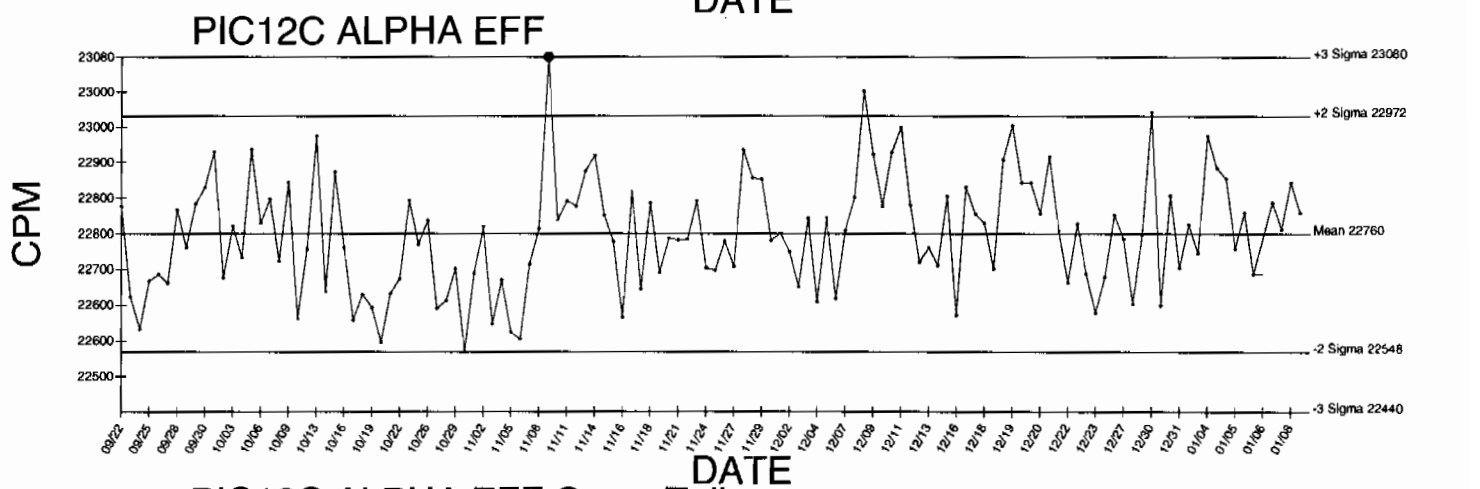
PIC12C ALPHA EFF
CPM
DATE
+3 Sigma 23080
+2 Sigma 22972
Mean 22760
-2 Sigma 22548
-3 Sigma 22440

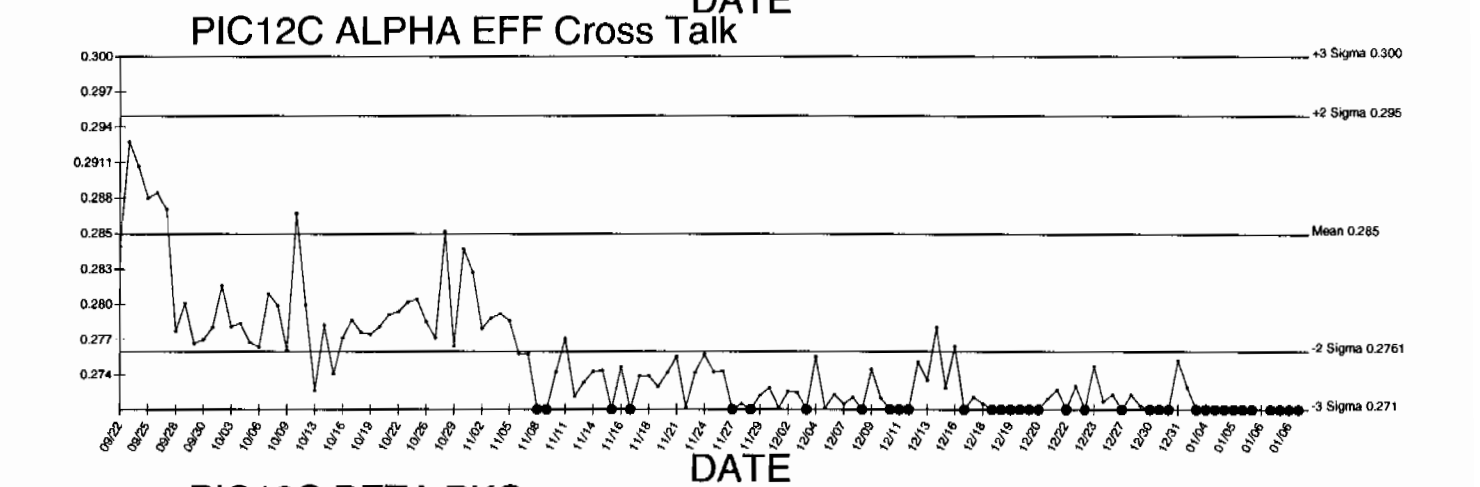
PIC12C ALPHA EFF Cross Talk
DATE
+3 Sigma 0.300
+2 Sigma 0.295
Mean 0.285
-2 Sigma 0.2761
-3 Sigma 0.271

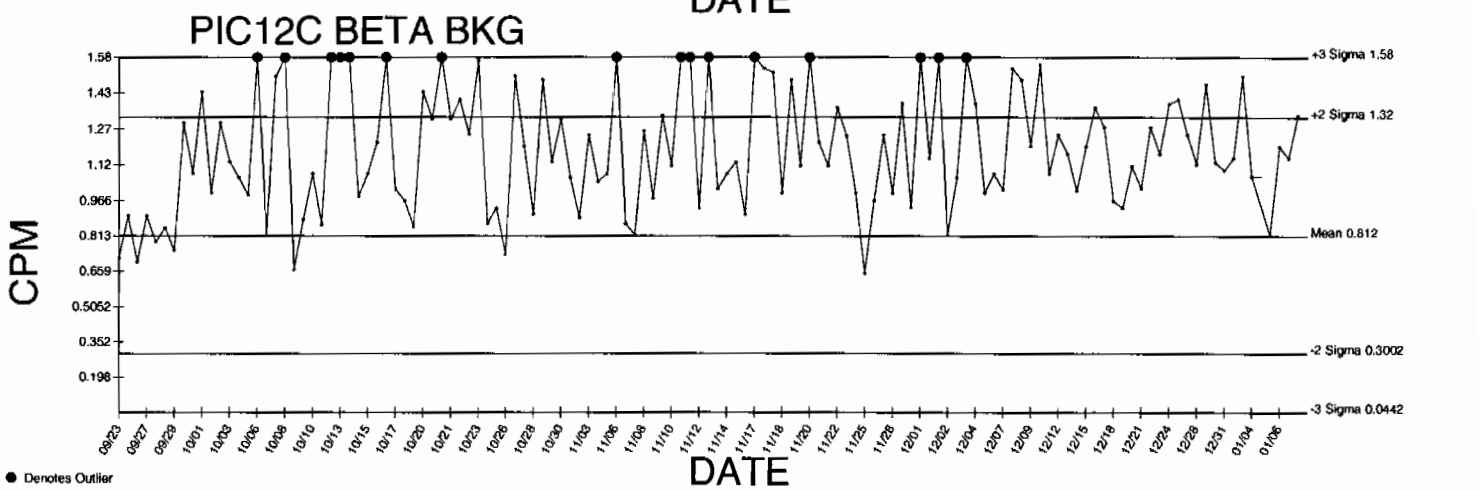
PIC12C BETA BKG
CPM
DATE
+3 Sigma 1.58
+2 Sigma 1.32
Mean 0.812
-2 Sigma 0.3002
-3 Sigma 0.0442
● Denotes Outlier

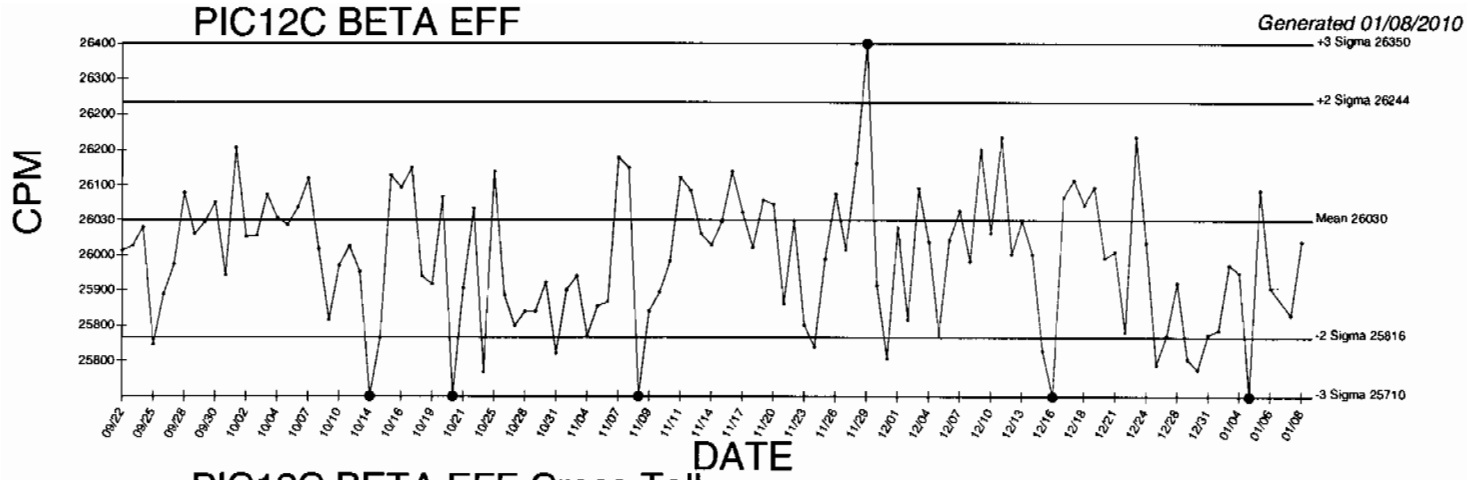

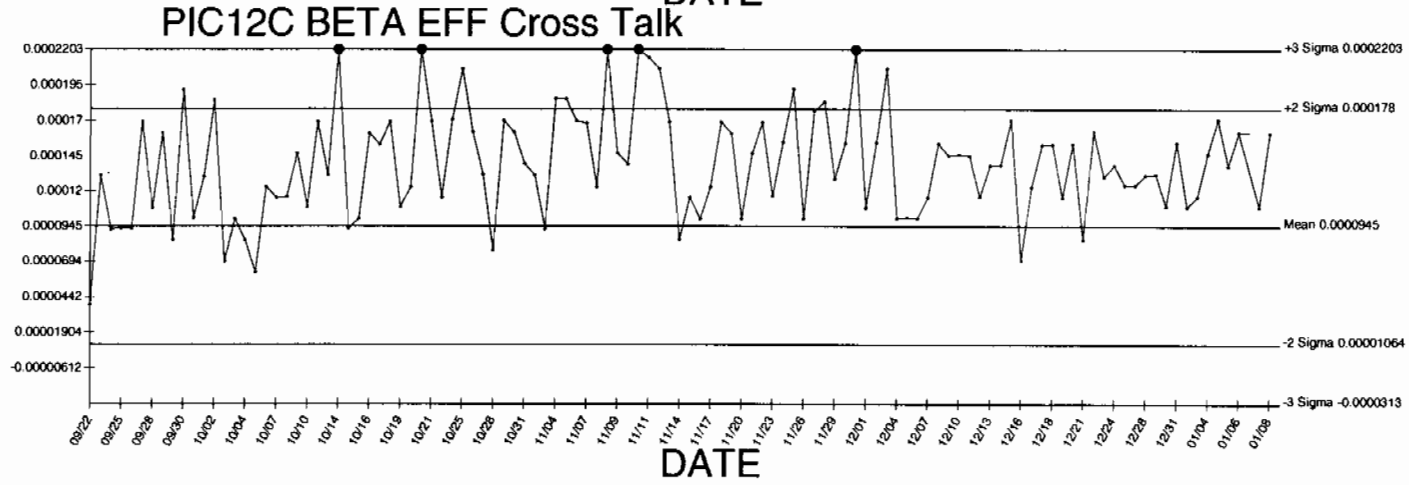

● Denotes Outlier

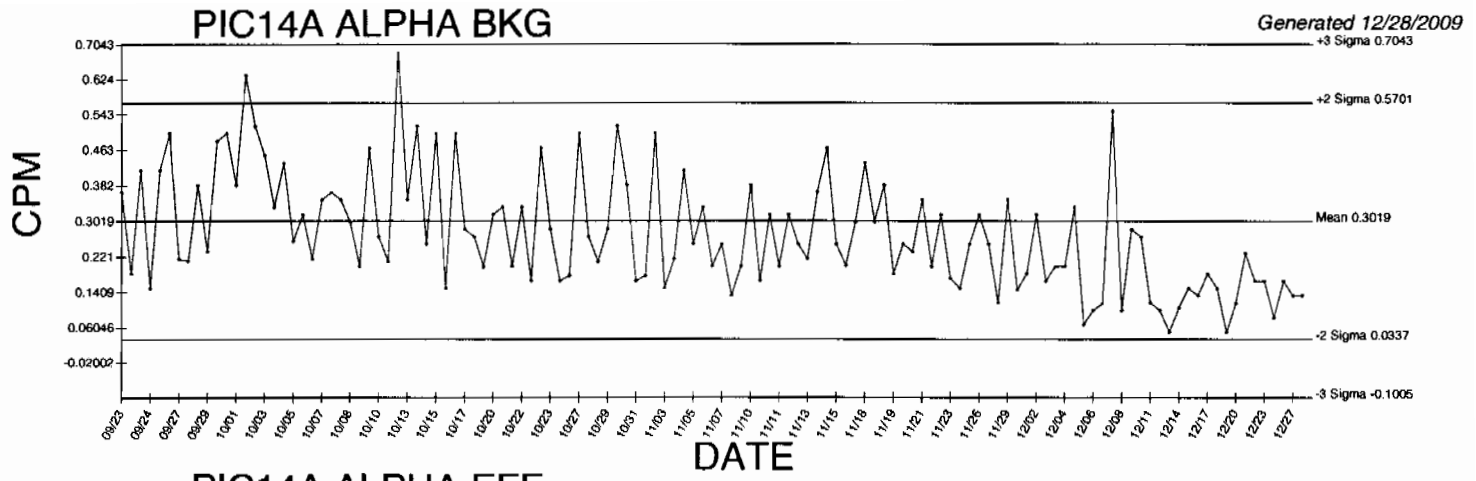
PIC14A ALPHA BKG
Generated 12/28/2009
CPM
DATE
+3 Sigma 0.7043
+2 Sigma 0.5701
Mean 0.3019
-2 Sigma 0.0337
-3 Sigma -0.1005

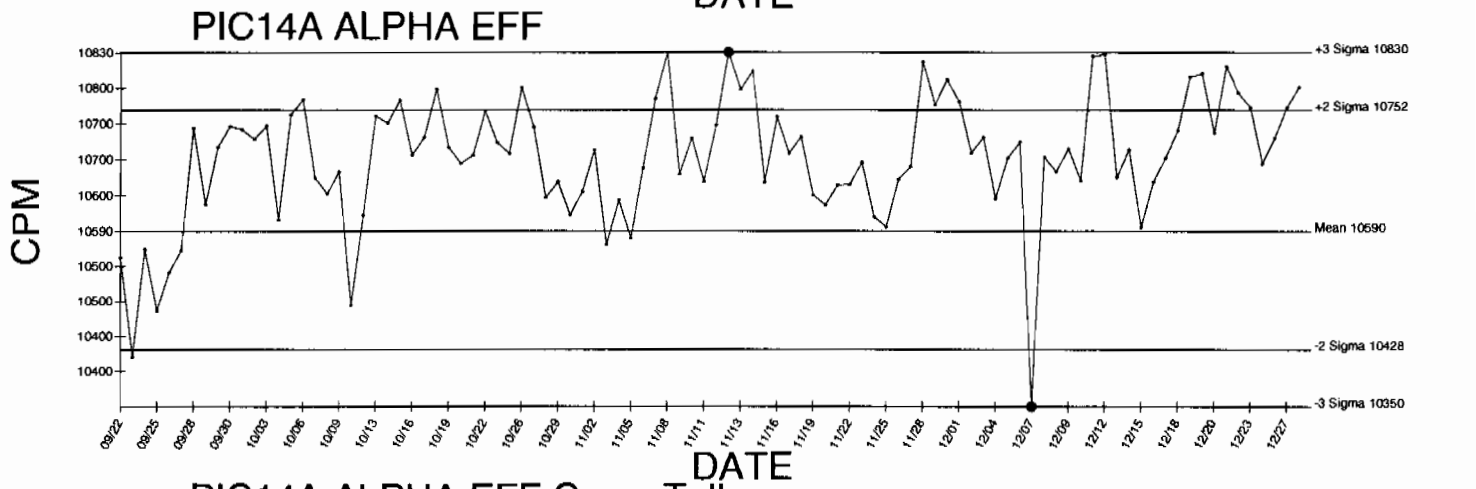
PIC14A ALPHA EFF
CPM
DATE
+3 Sigma 10830
+2 Sigma 10752
Mean 10590
-2 Sigma 10428
-3 Sigma 10350

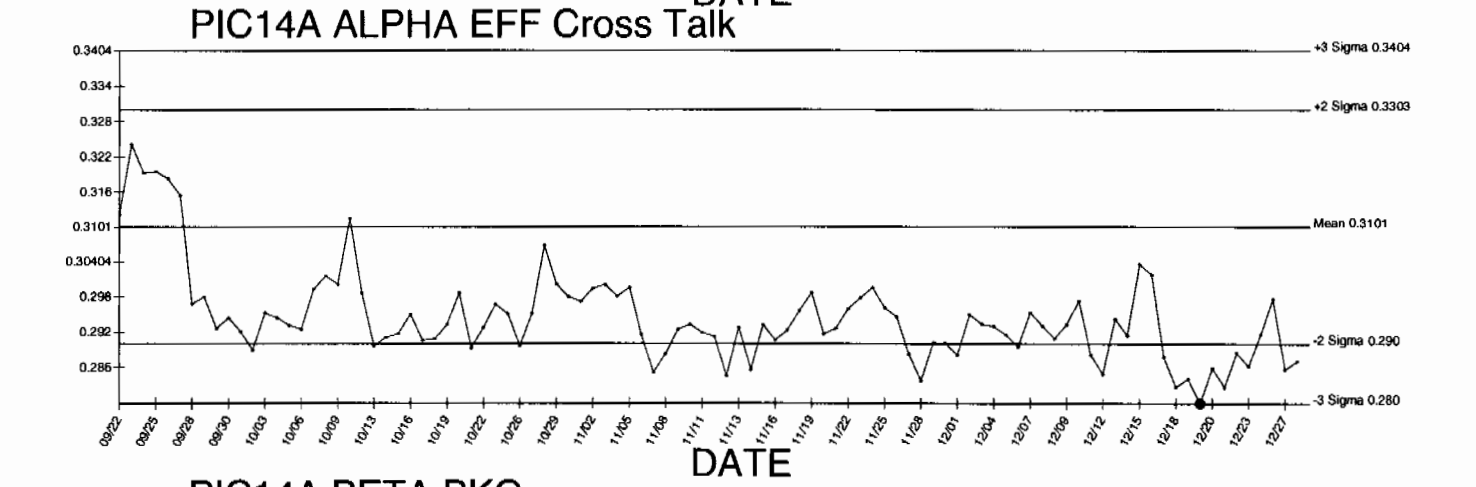
PIC14A ALPHA EFF Cross Talk
DATE
+3 Sigma 0.3404
+2 Sigma 0.3303
Mean 0.3101
-2 Sigma 0.290
-3 Sigma 0.280

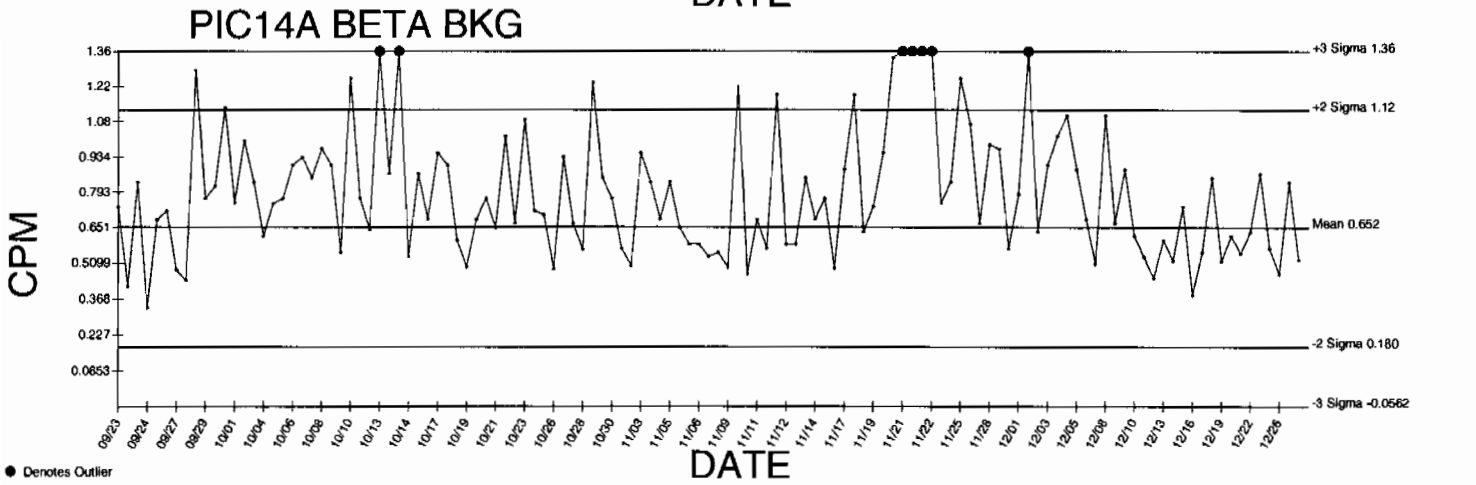
PIC14A BETA BKG
CPM
DATE
+3 Sigma 1.36
+2 Sigma 1.12
Mean 0.652
-2 Sigma 0.180
-3 Sigma -0.0562
● Denotes Outlier

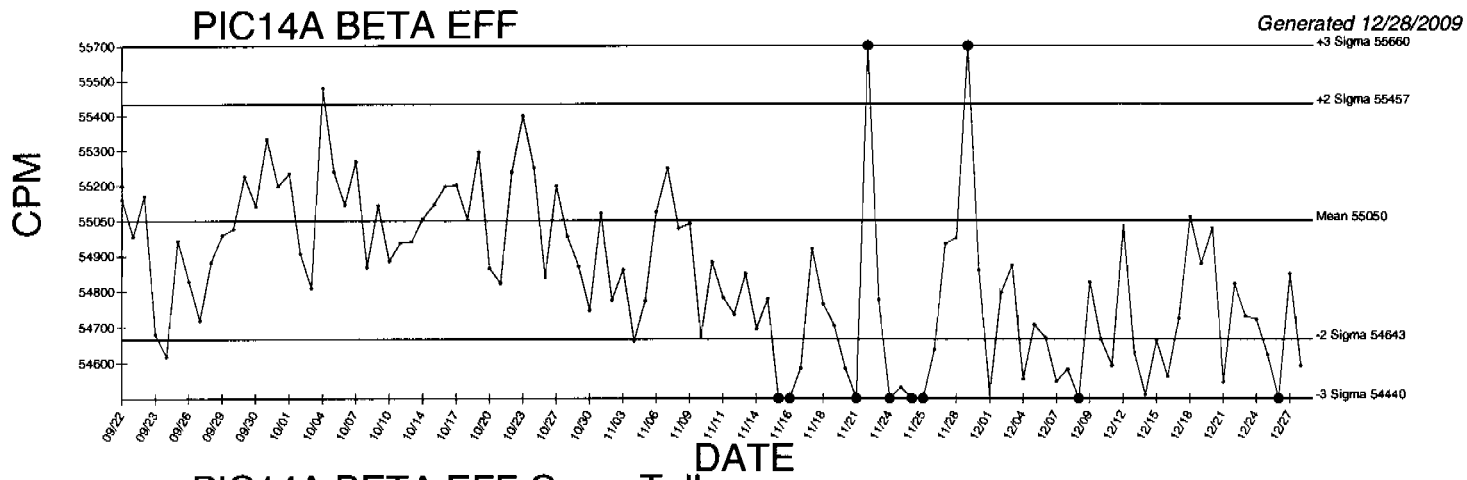

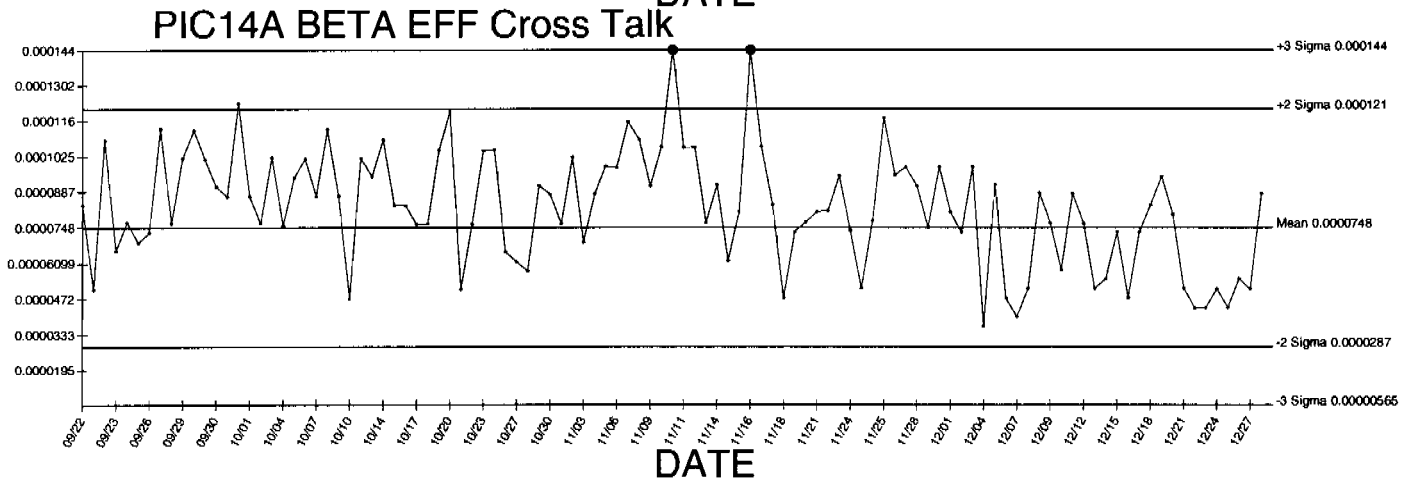

● Denotes Outlier

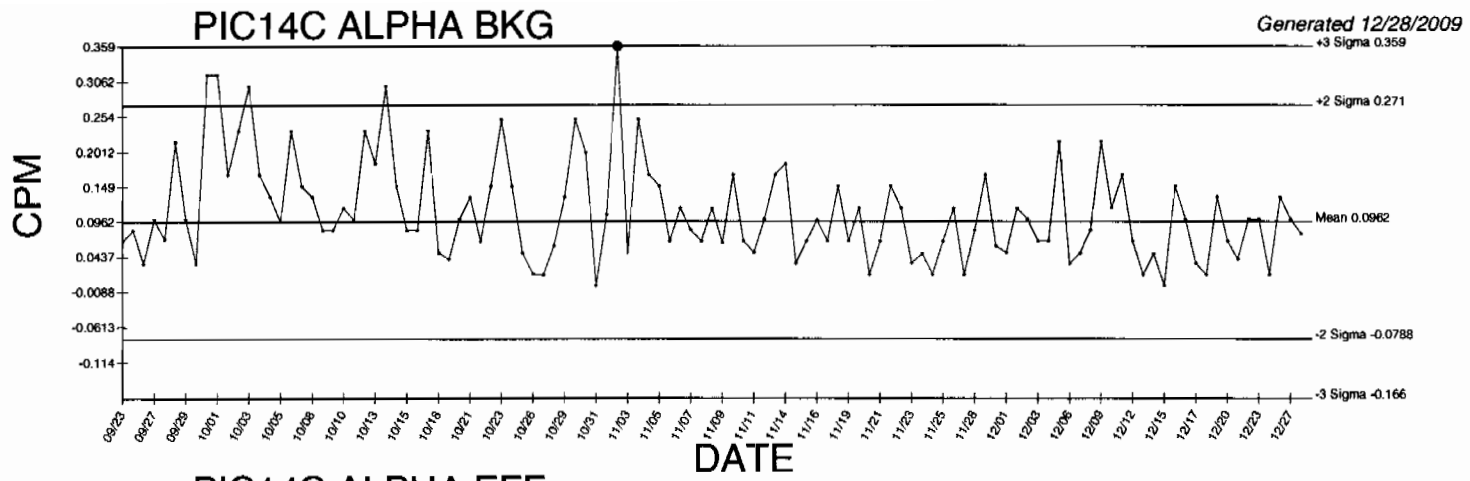
PIC14C ALPHA BKG
Generated 12/28/2009
CPM
DATE
+3 Sigma 0.359
+2 Sigma 0.271
Mean 0.0962
-2 Sigma -0.0788
-3 Sigma -0.166

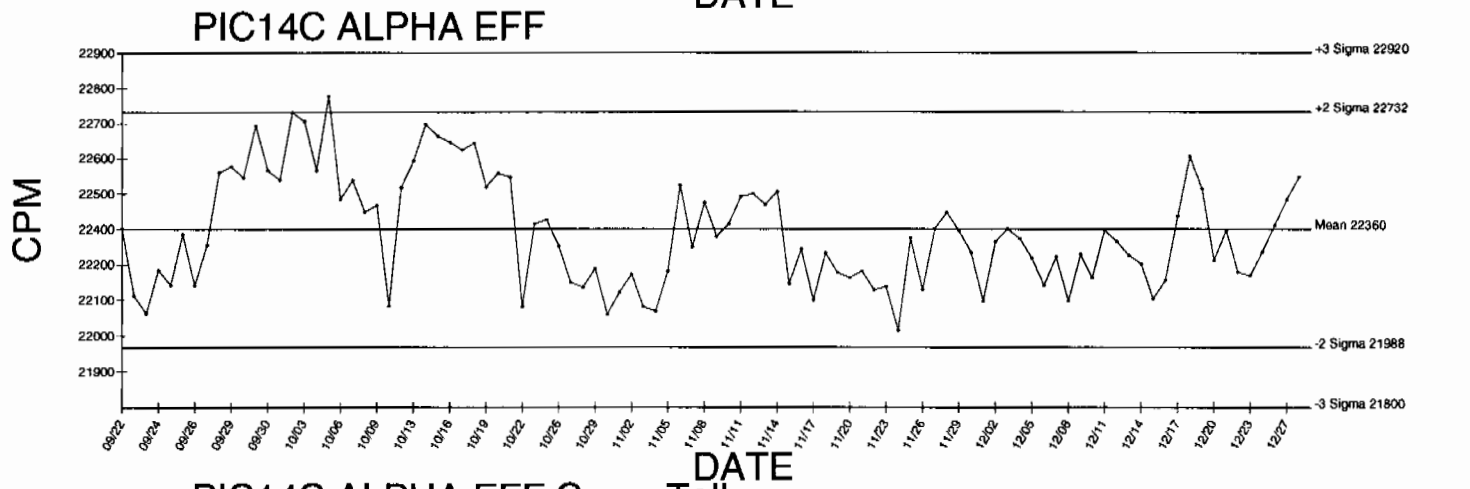
PIC14C ALPHA EFF
CPM
DATE
+3 Sigma 22920
+2 Sigma 22732
Mean 22360
-2 Sigma 21988
-3 Sigma 21800

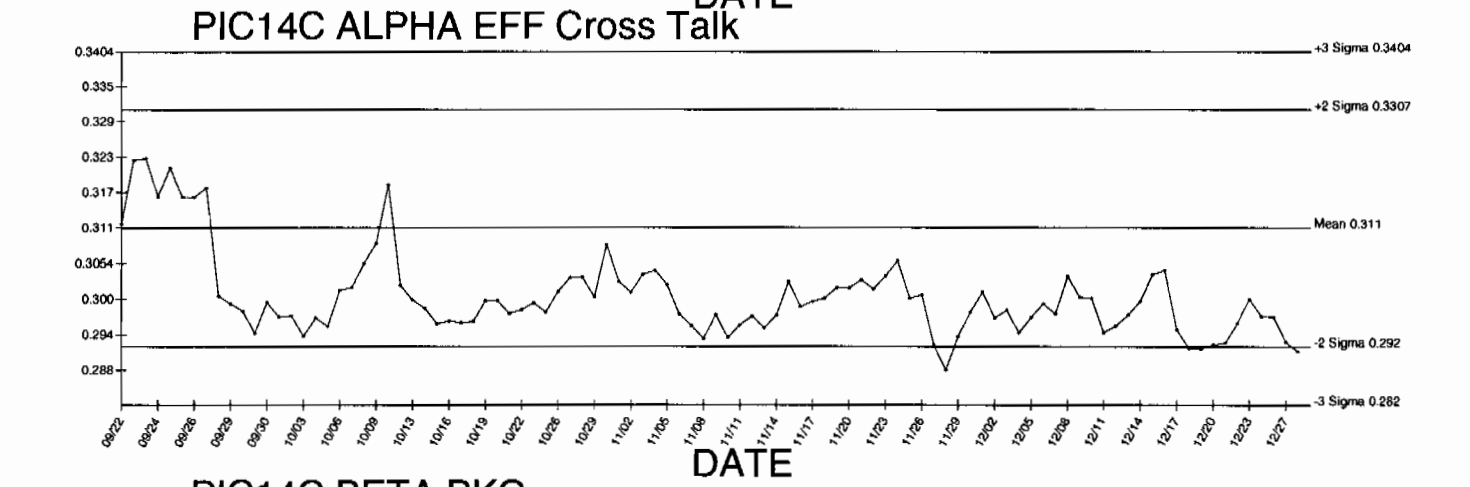
PIC14C ALPHA EFF Cross Talk
DATE
+3 Sigma 0.3404
+2 Sigma 0.3307
Mean 0.311
-2 Sigma 0.292
-3 Sigma 0.282

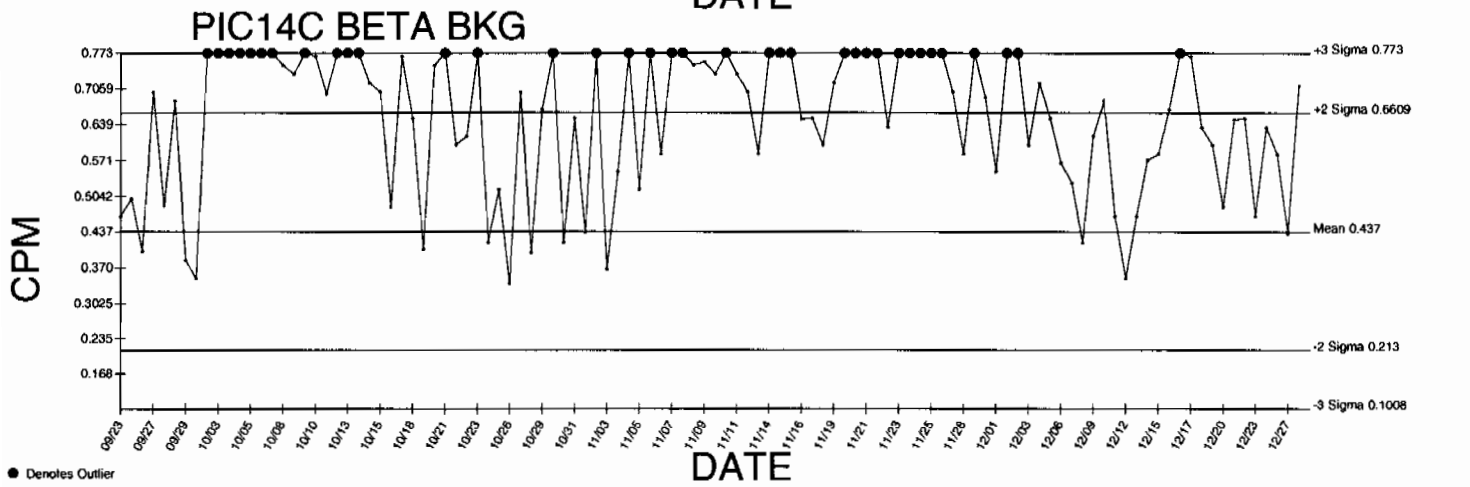
PIC14C BETA BKG
CPM
DATE
+3 Sigma 0.773
+2 Sigma 0.6609
Mean 0.437
-2 Sigma 0.213
-3 Sigma 0.1008
● Denotes Outlier

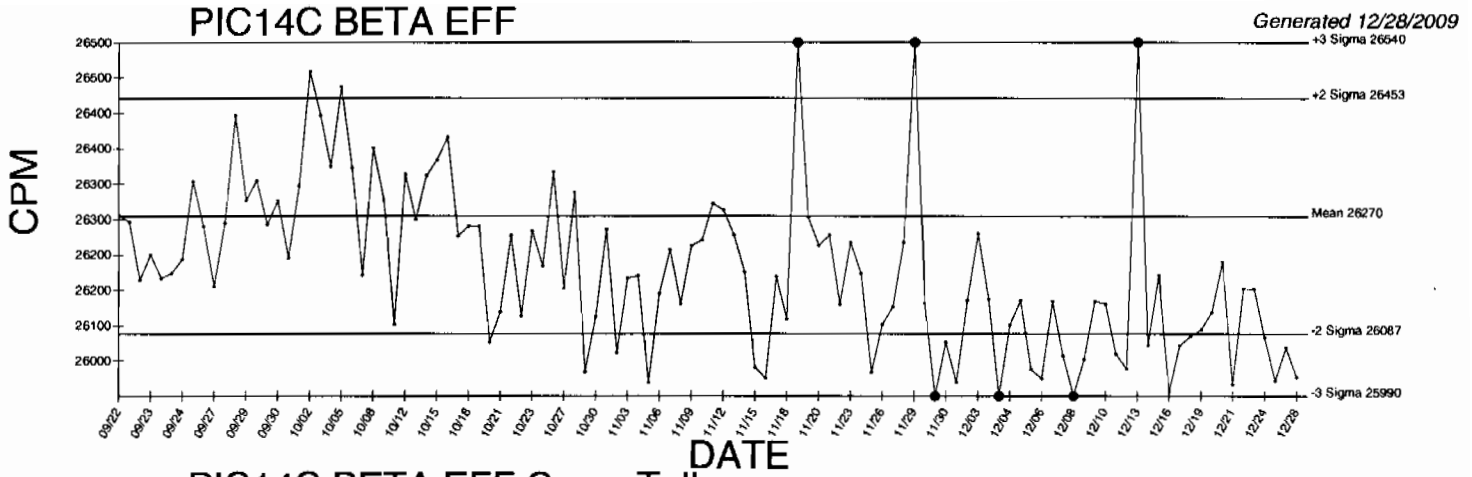

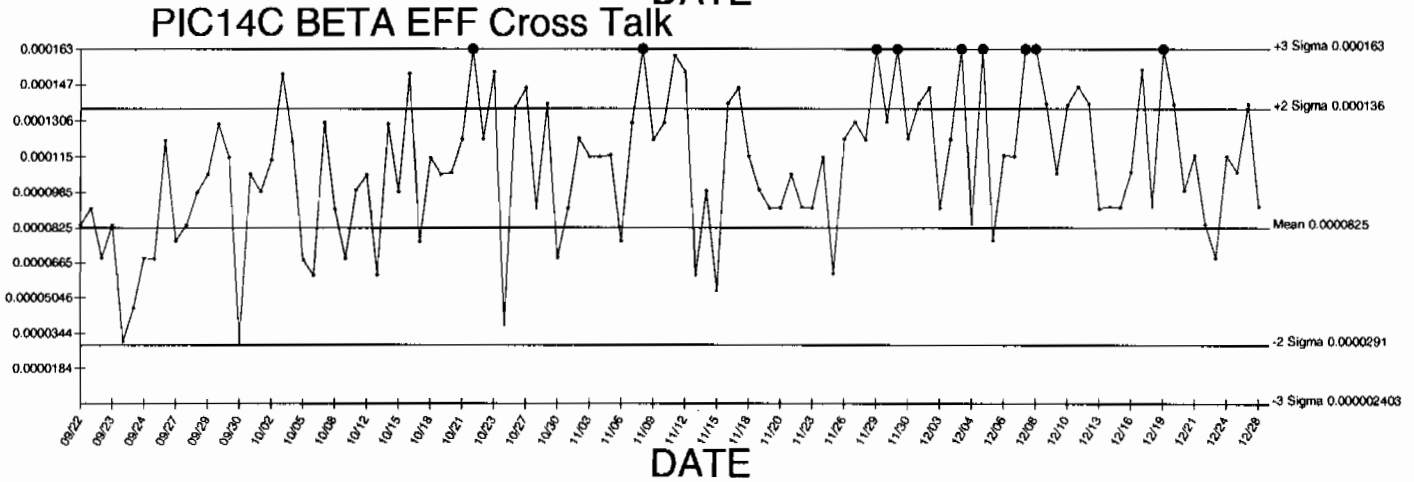

● Denotes Outlier

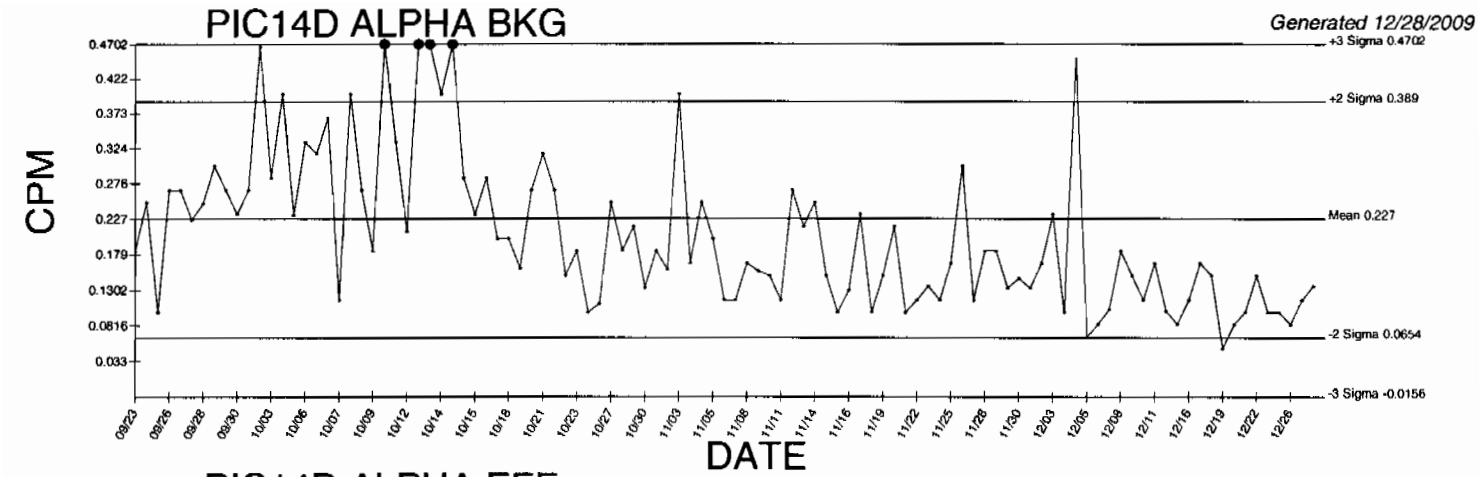
PIC14D ALPHA BKG
Generated 12/28/2009
CPM
DATE
+3 Sigma 0.4702
+2 Sigma 0.389
Mean 0.227
-2 Sigma 0.0654
-3 Sigma -0.0156

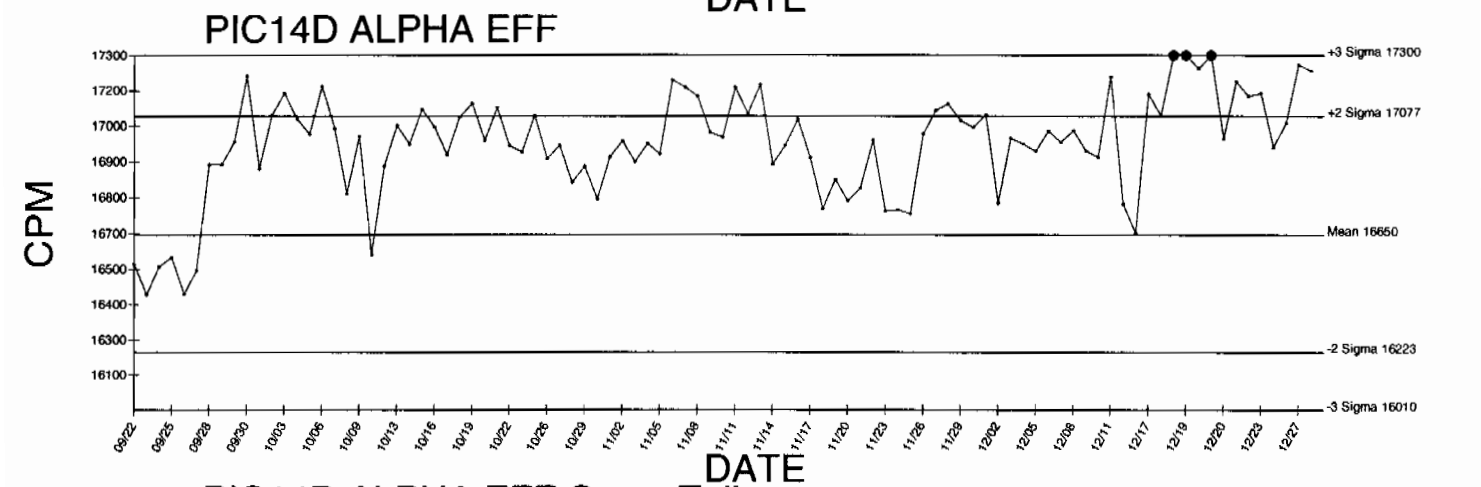
PIC14D ALPHA EFF
CPM
DATE
+3 Sigma 17300
+2 Sigma 17077
Mean 16650
-2 Sigma 16223
-3 Sigma 16010

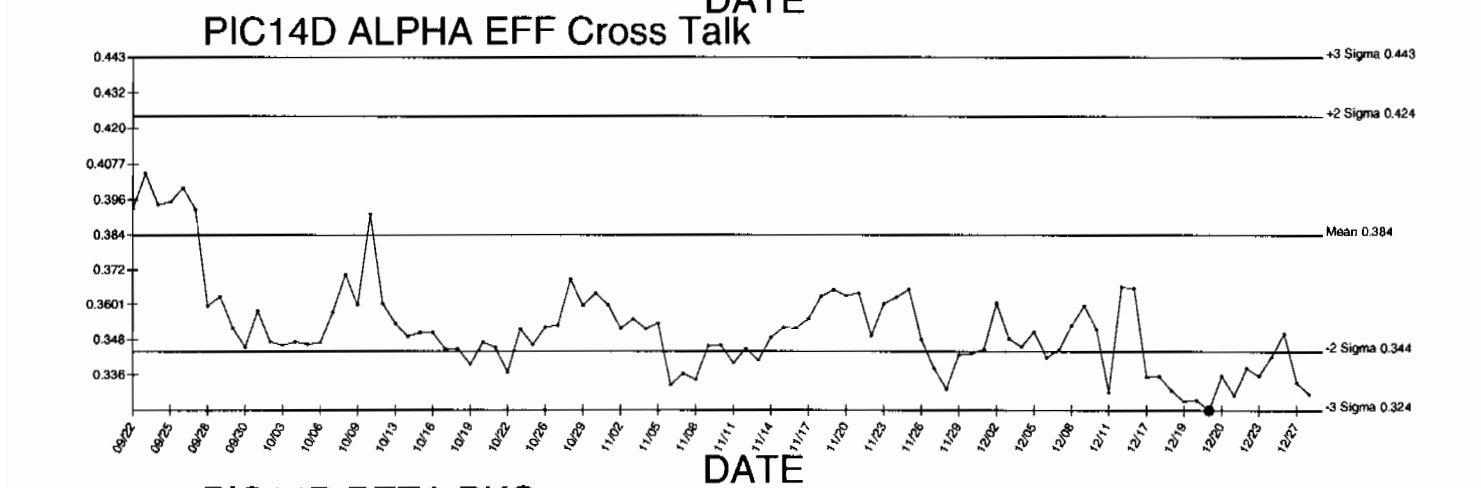
PIC14D ALPHA EFF Cross Talk
DATE
+3 Sigma 0.443
+2 Sigma 0.424
Mean 0.384
-2 Sigma 0.344
-3 Sigma 0.324

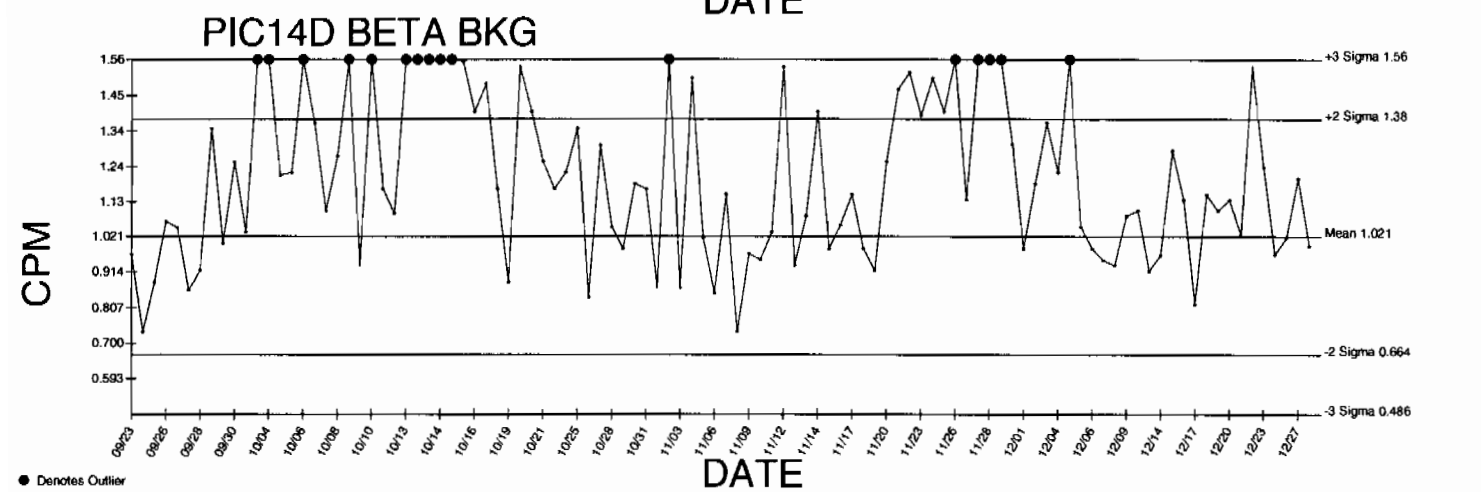
PIC14D BETA BKG
CPM
DATE
+3 Sigma 1.56
+2 Sigma 1.38
Mean 1.021
-2 Sigma 0.664
-3 Sigma 0.486
● Denotes Outlier

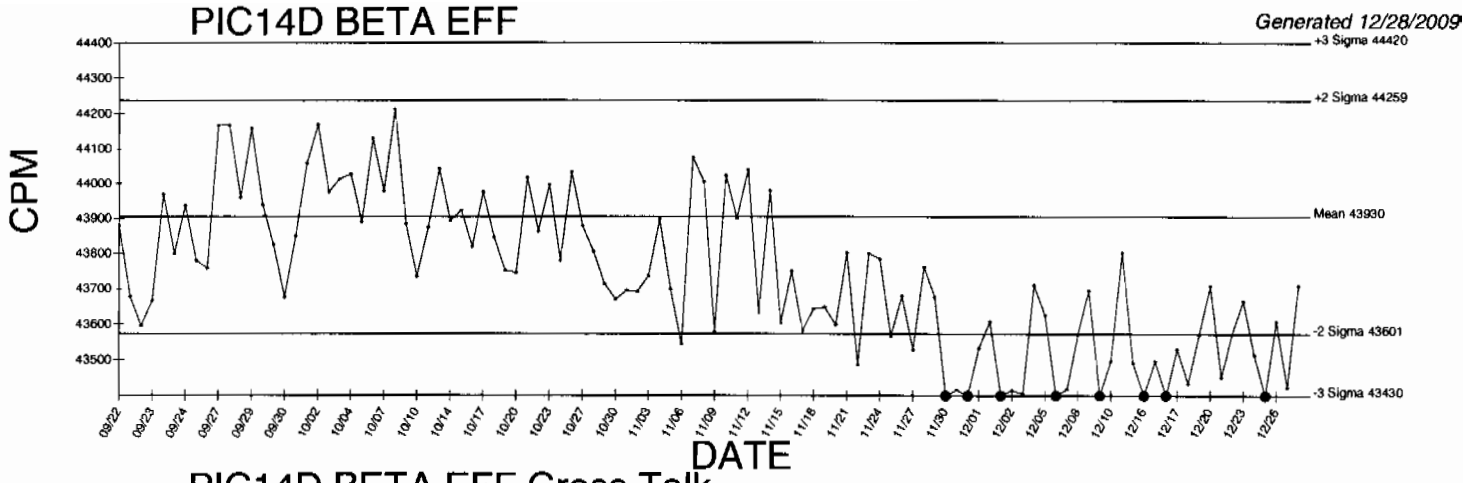

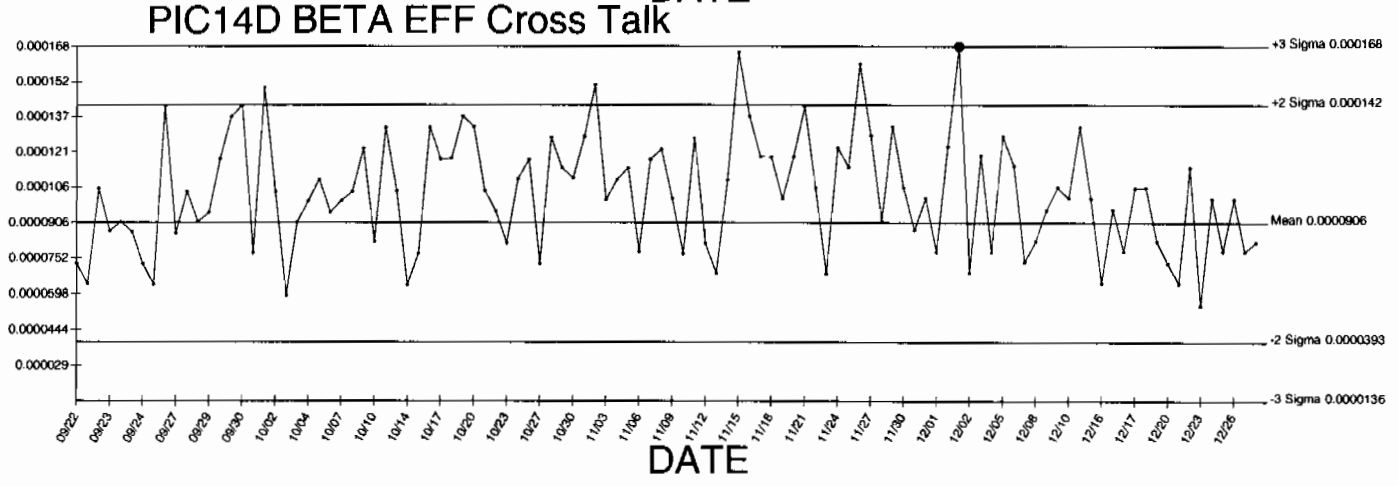

● Denotes Outlier

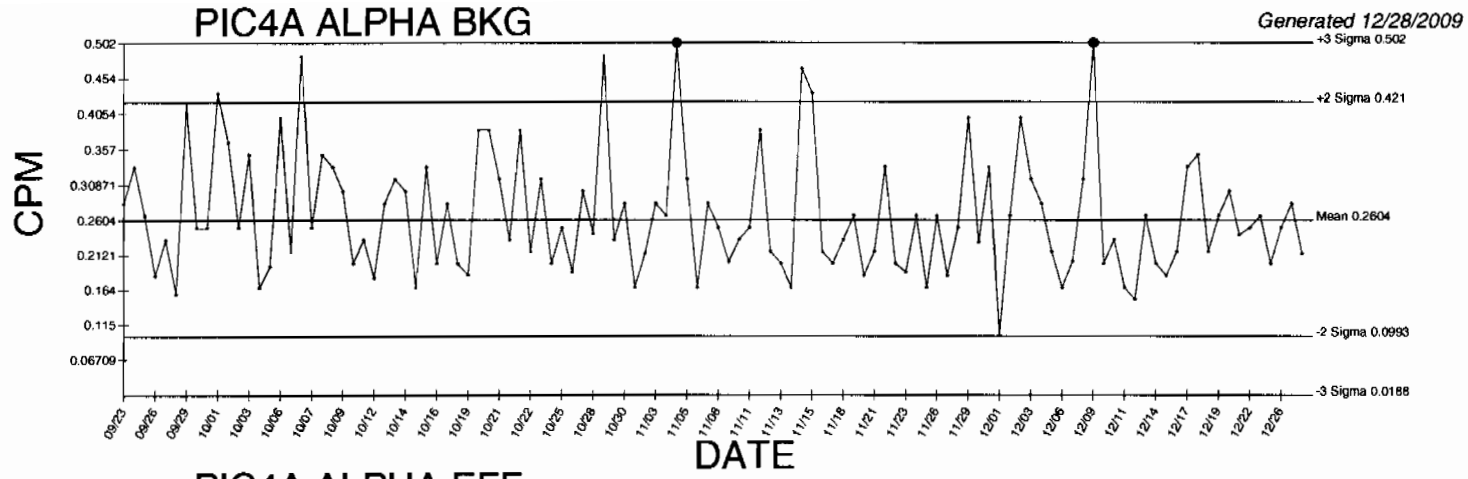

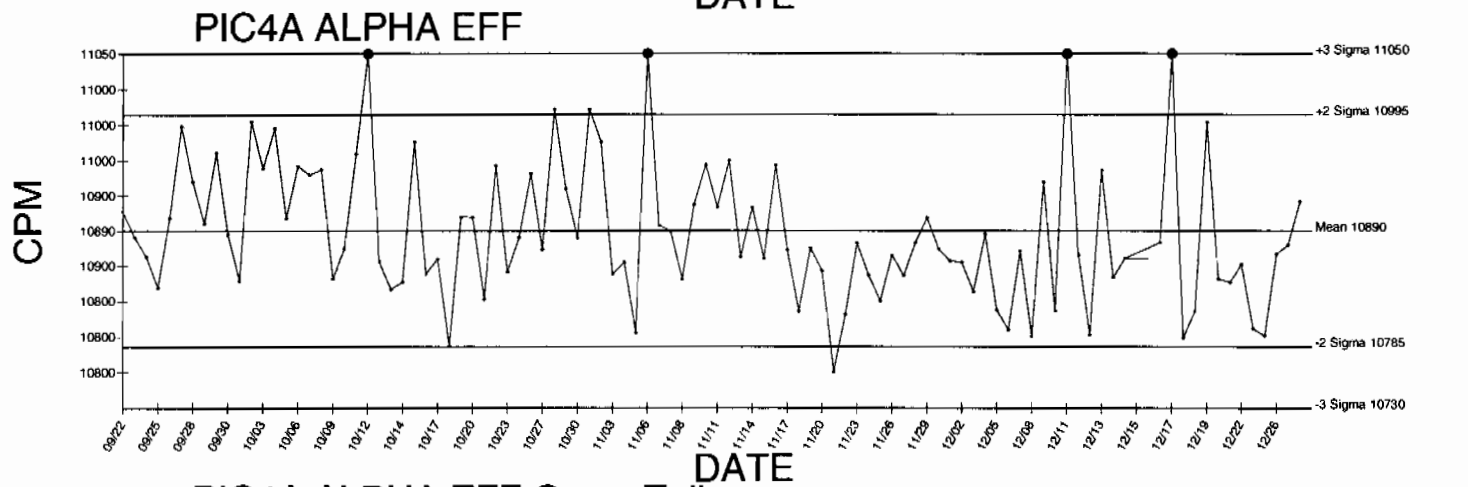

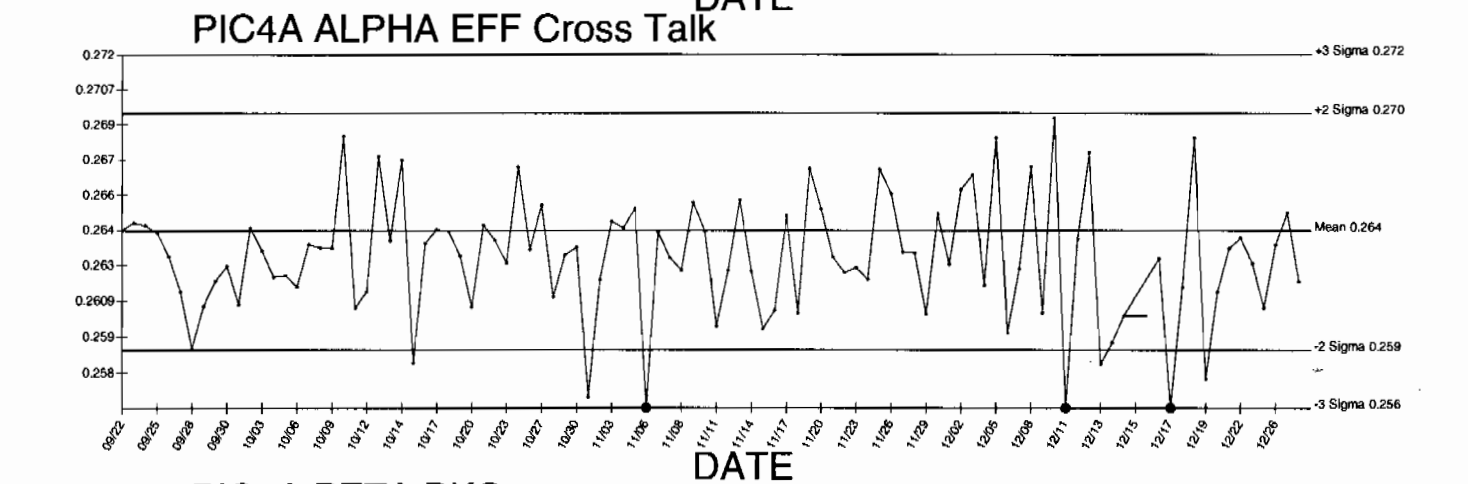

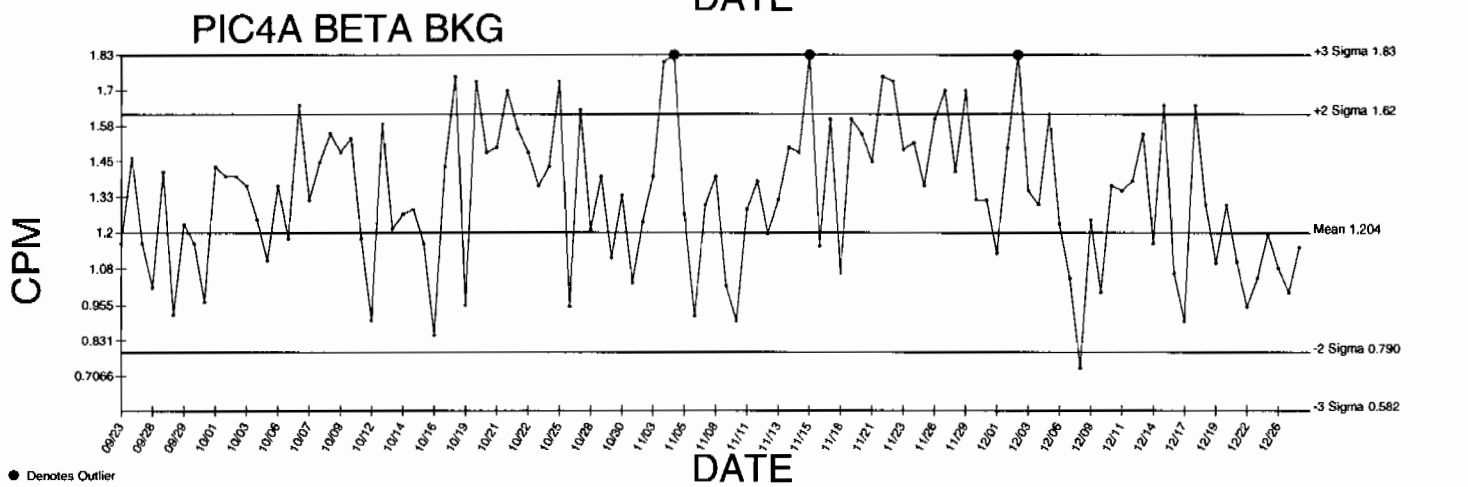

● Denotes Outlier

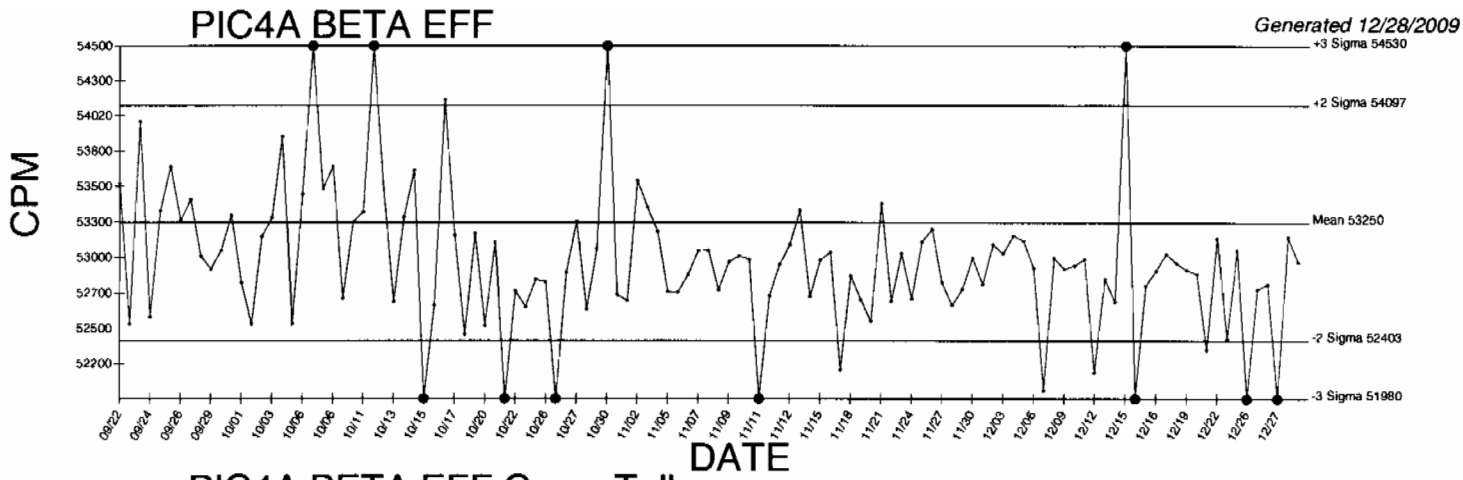

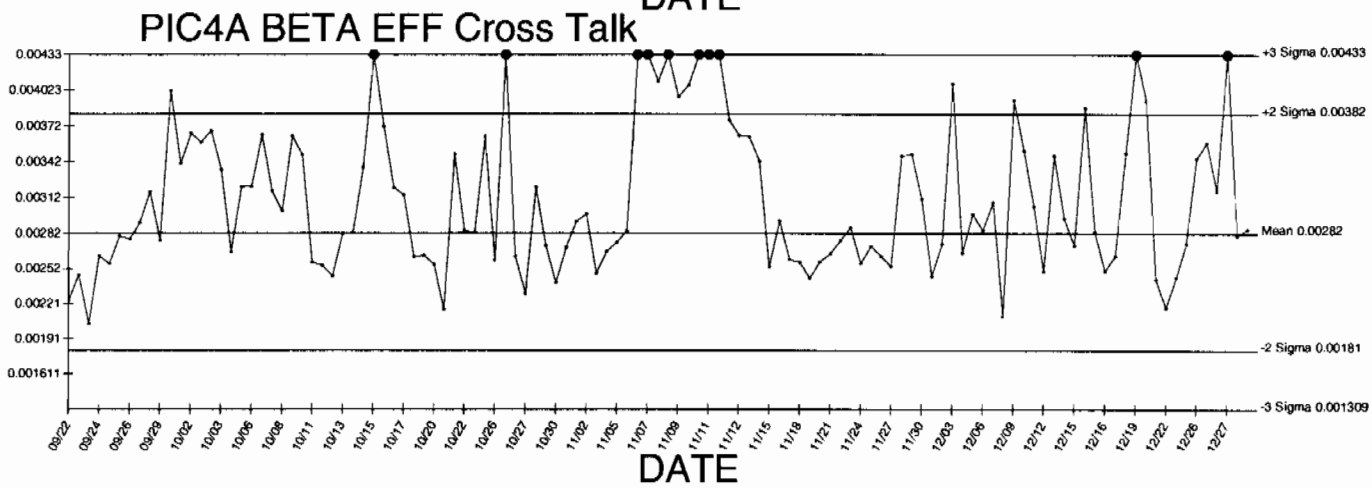

● Denotes Outlier

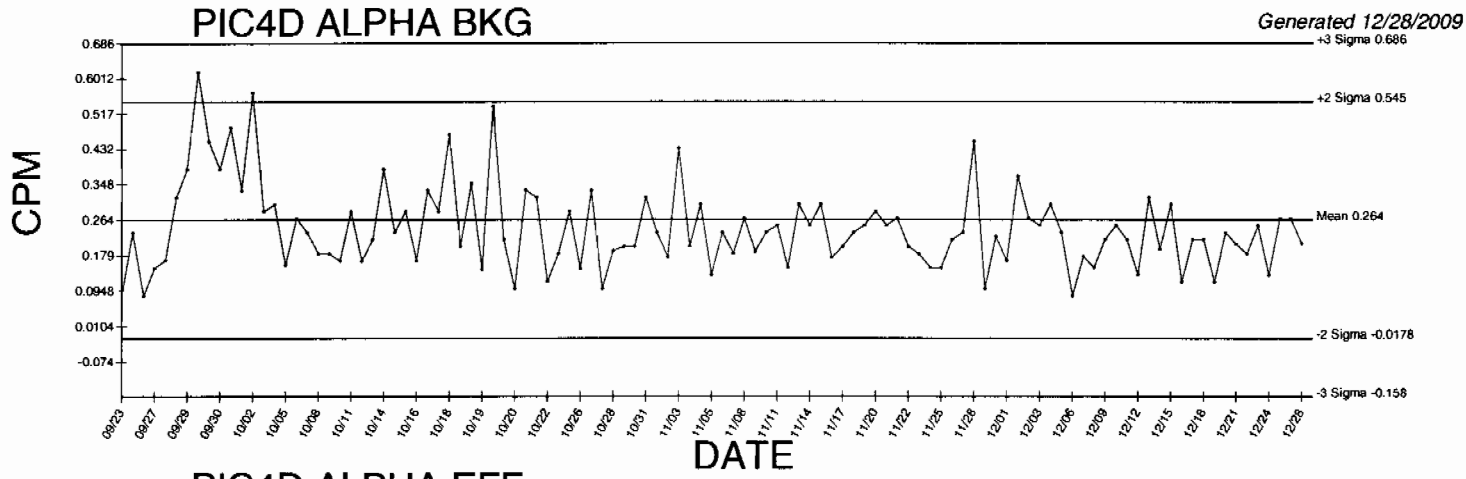
PIC4D ALPHA BKG
Generated 12/28/2009
CPM
DATE
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Mean 0.264
-2 Sigma -0.0178
-3 Sigma -0.158

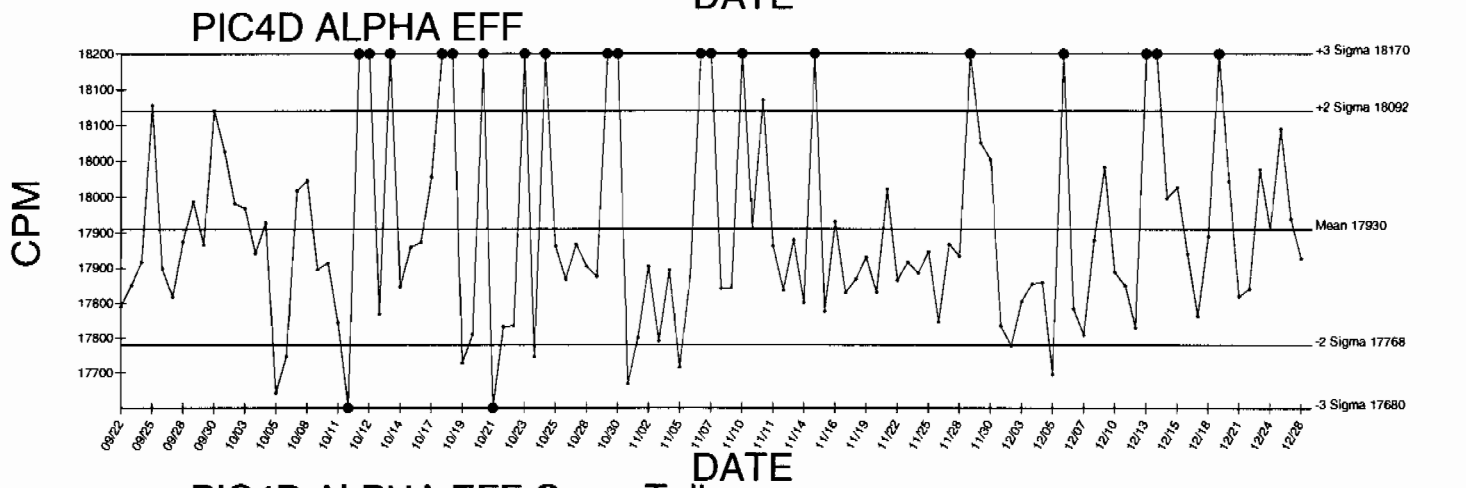
PIC4D ALPHA EFF
CPM
DATE
+3 Sigma 18170
+2 Sigma 18092
Mean 17930
-2 Sigma 17768
-3 Sigma 17680

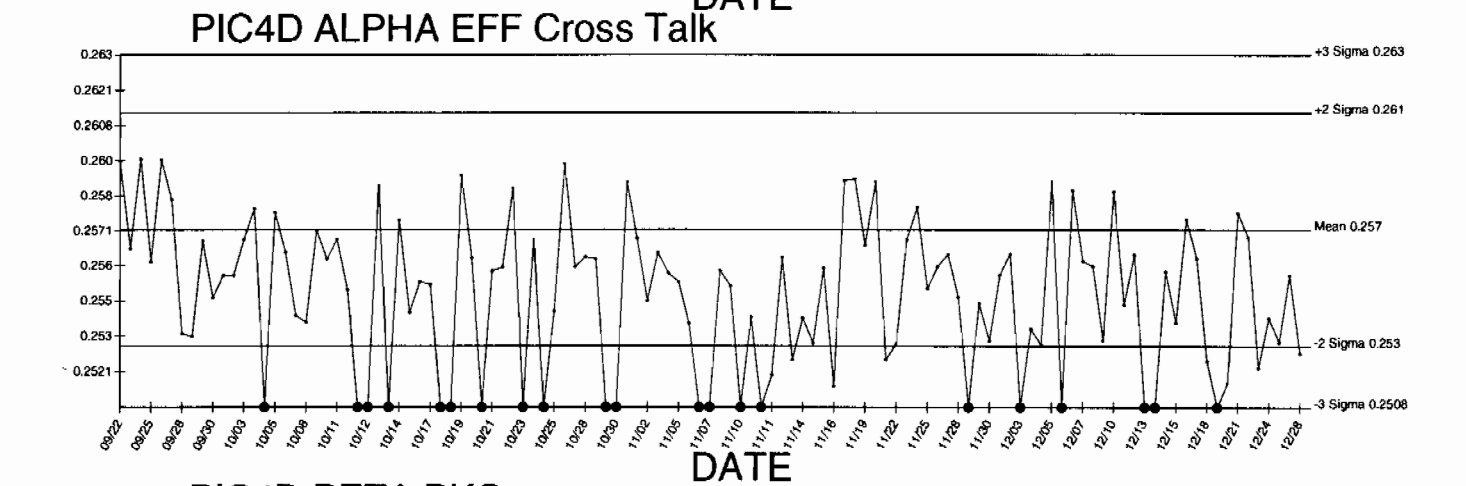
PIC4D ALPHA EFF Cross Talk
DATE
+3 Sigma 0.263
+2 Sigma 0.261
Mean 0.257
-2 Sigma 0.253
-3 Sigma 0.2508

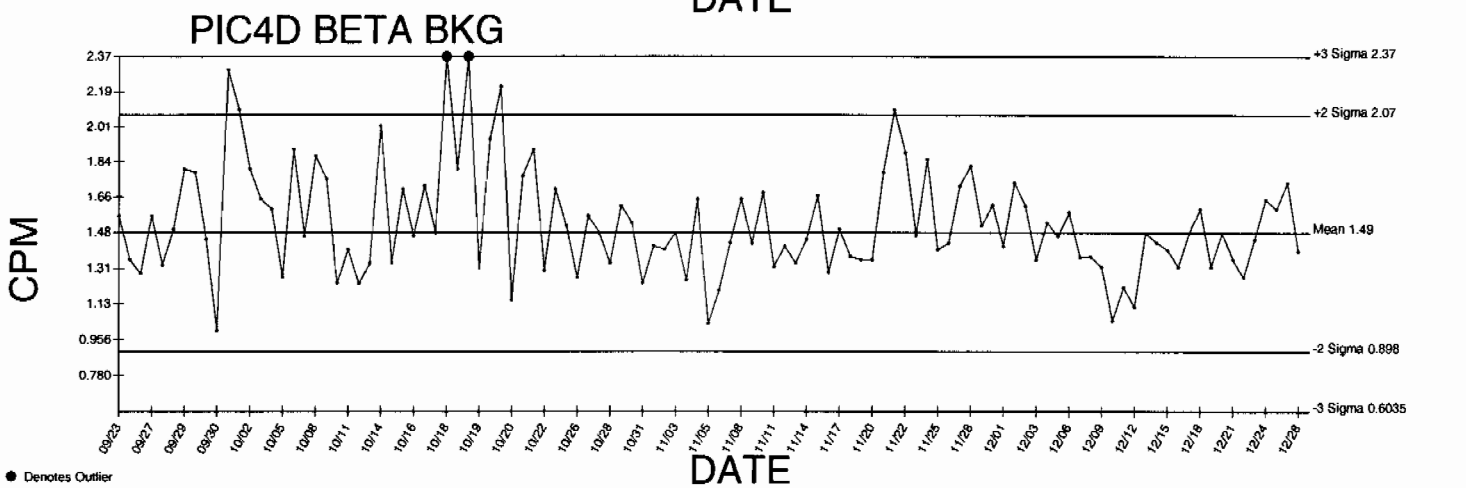
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CPM
DATE
+3 Sigma 2.37
+2 Sigma 2.07
Mean 1.49
-2 Sigma 0.898
-3 Sigma 0.6035
Denotes Outlier

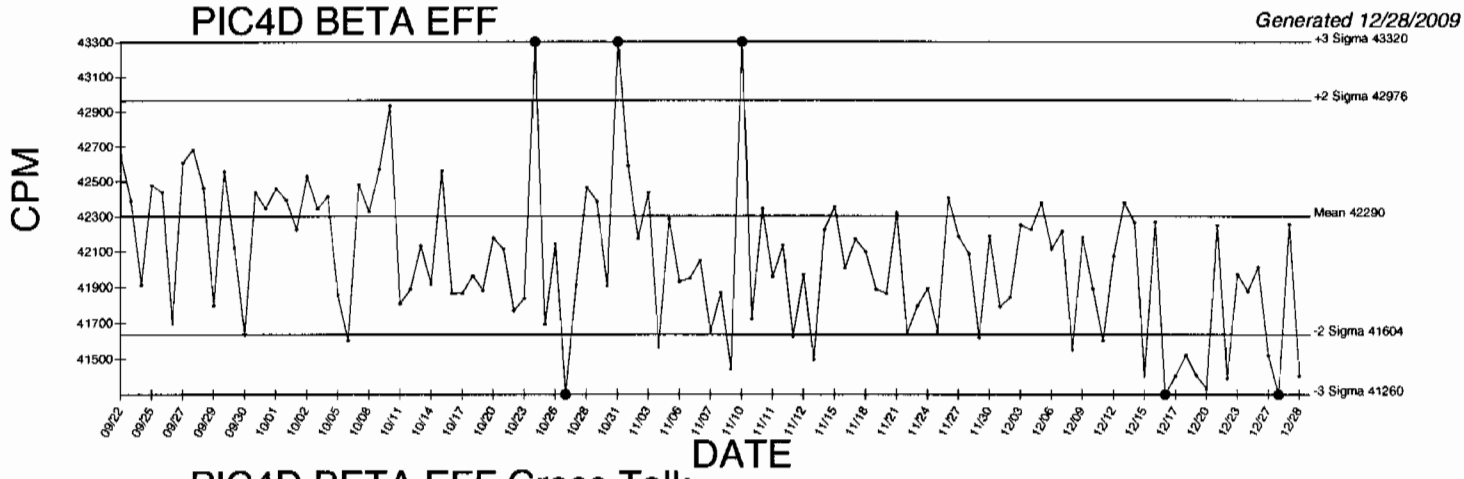

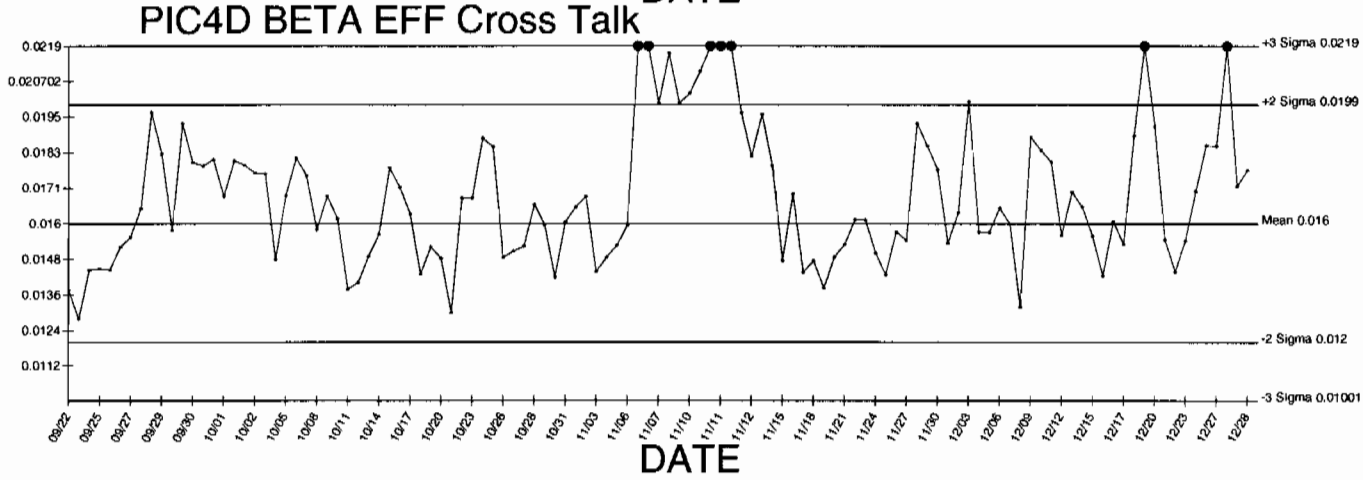

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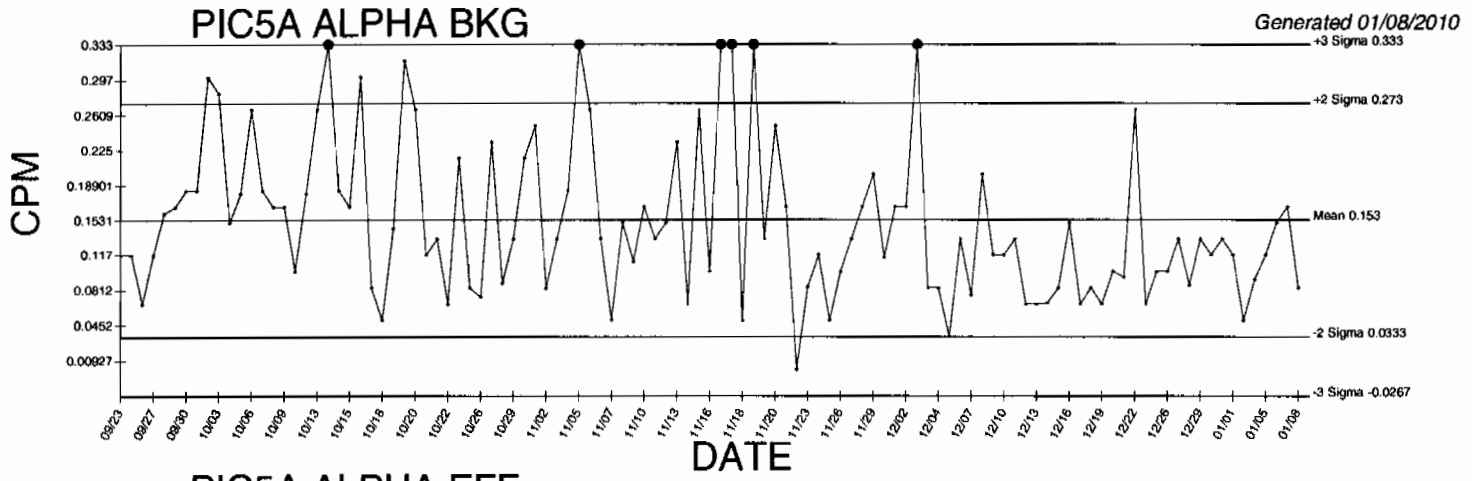
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Generated 01/08/2010
CPM
DATE
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Mean 0.153
-2 Sigma 0.0333
-3 Sigma -0.0267

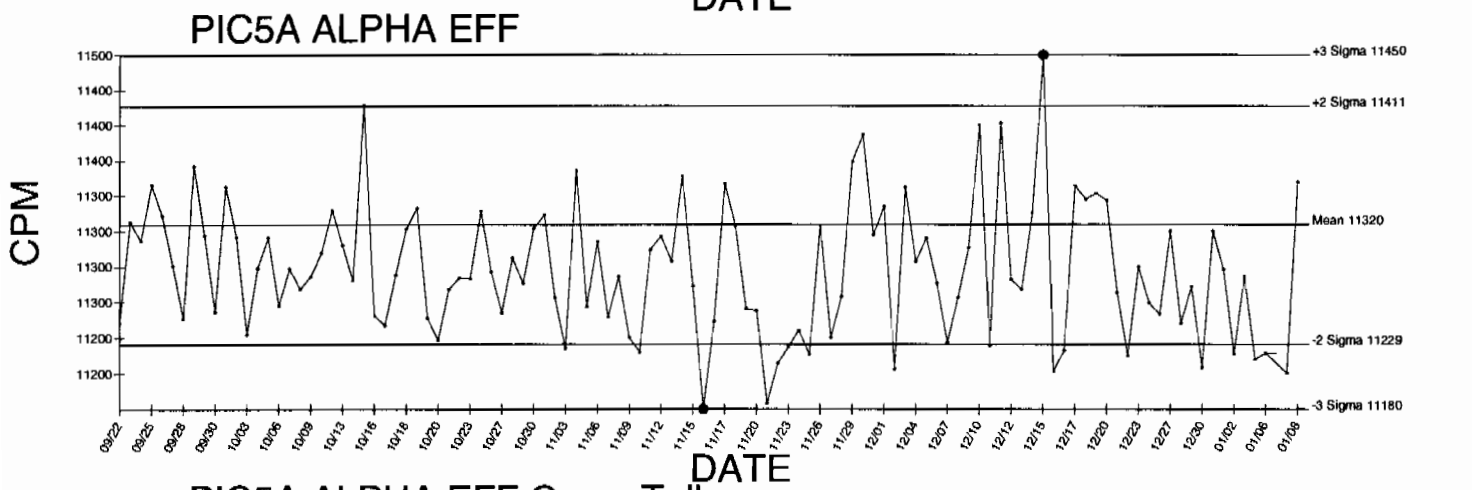
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CPM
DATE
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+2 Sigma 11411
Mean 11320
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-3 Sigma 11180

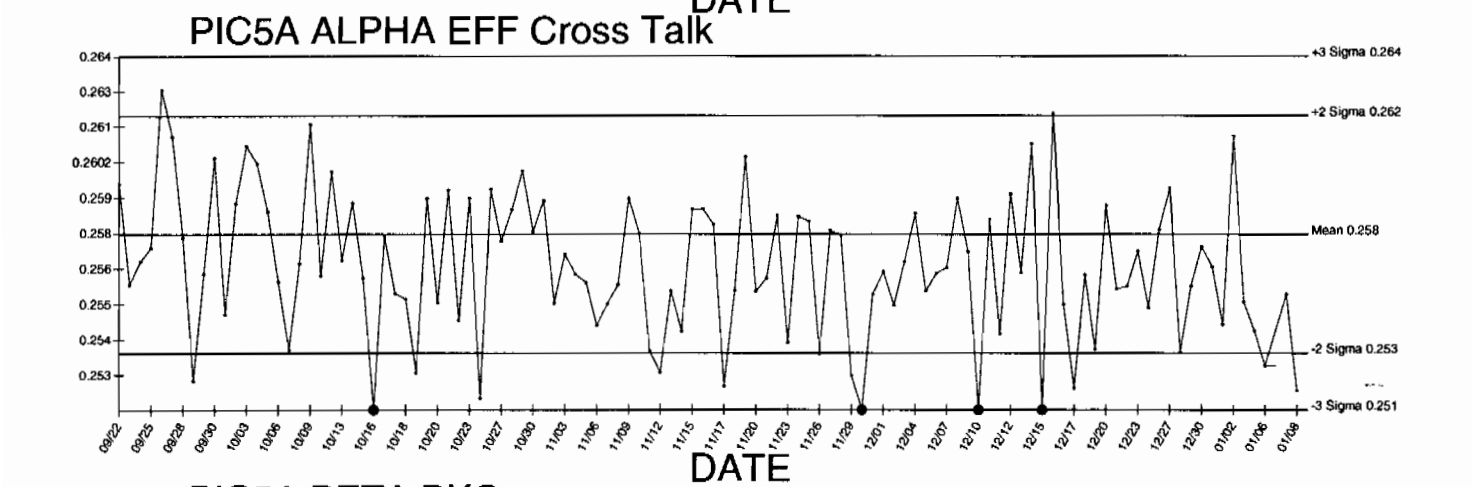
PIC5A ALPHA EFF Cross Talk
DATE
+3 Sigma 0.264
+2 Sigma 0.262
Mean 0.258
-2 Sigma 0.253
-3 Sigma 0.251

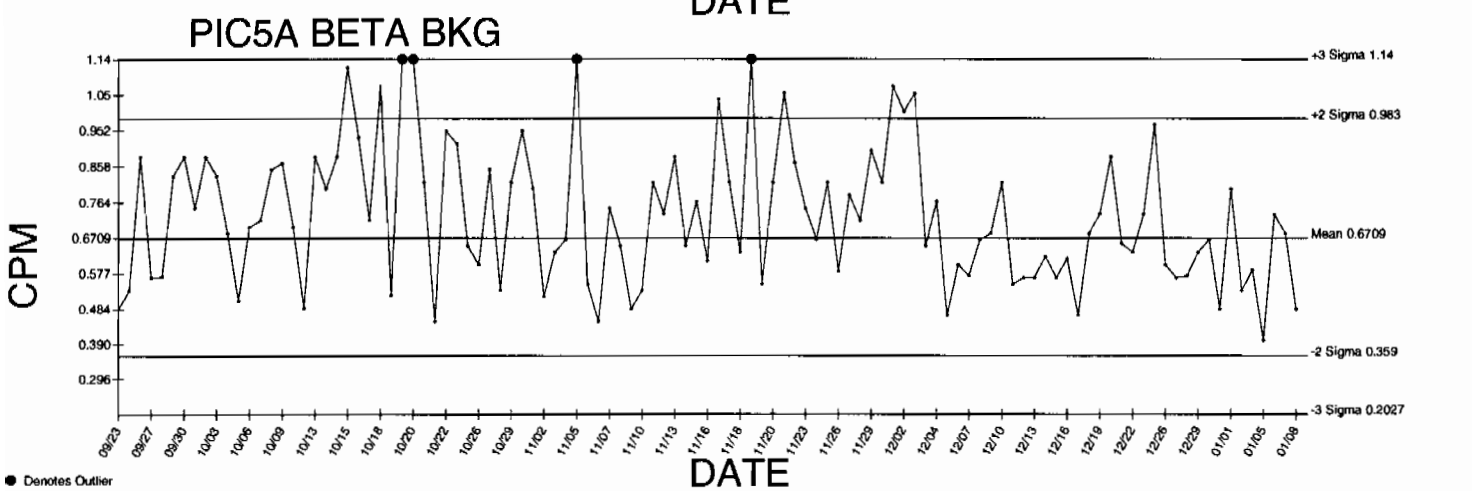
PIC5A BETA BKG
CPM
DATE
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Mean 0.6709
-2 Sigma 0.359
-3 Sigma 0.2027
● Denotes Outlier

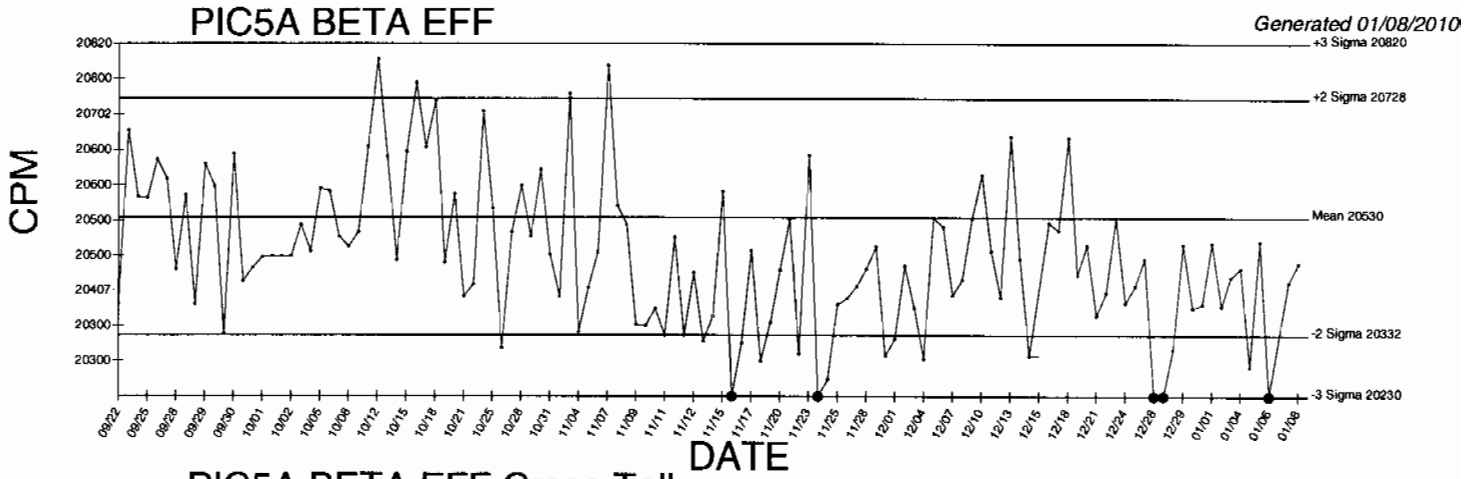

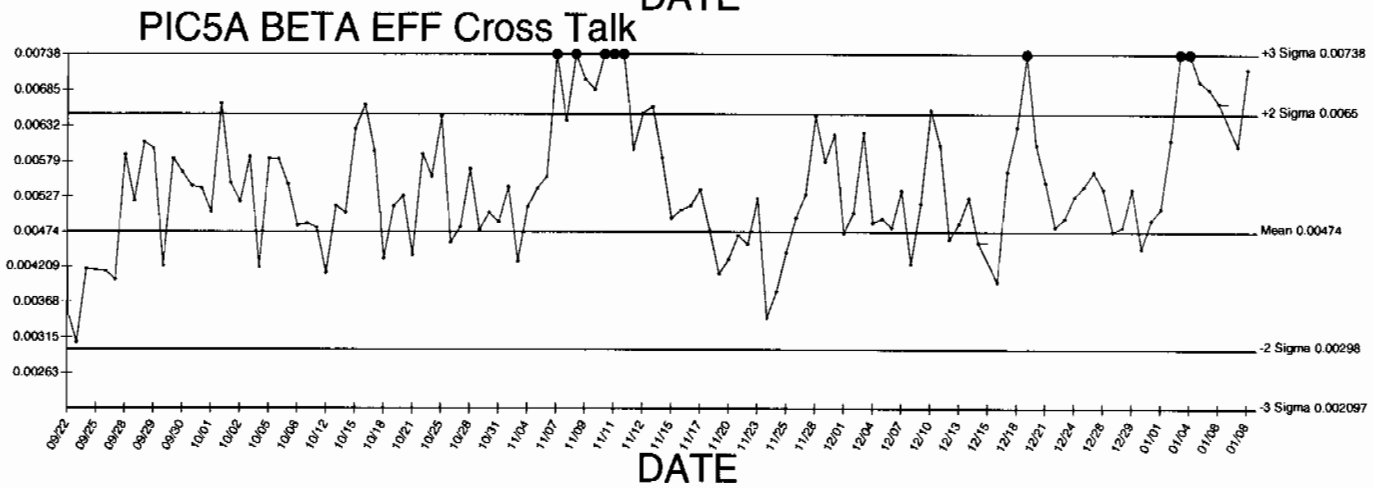

● Denotes Outlier

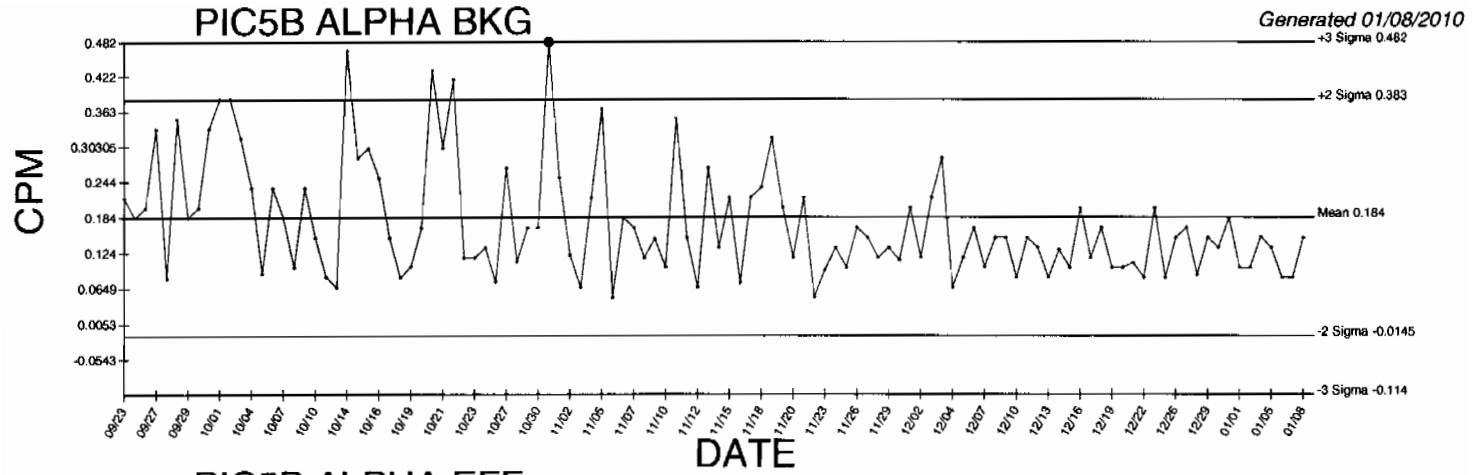

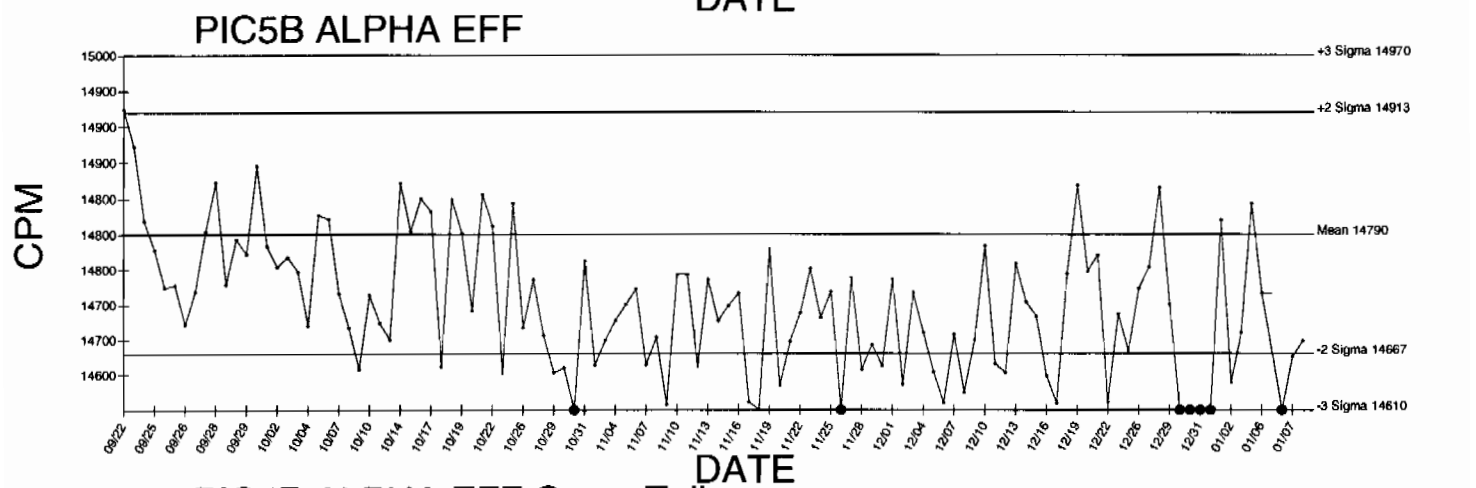

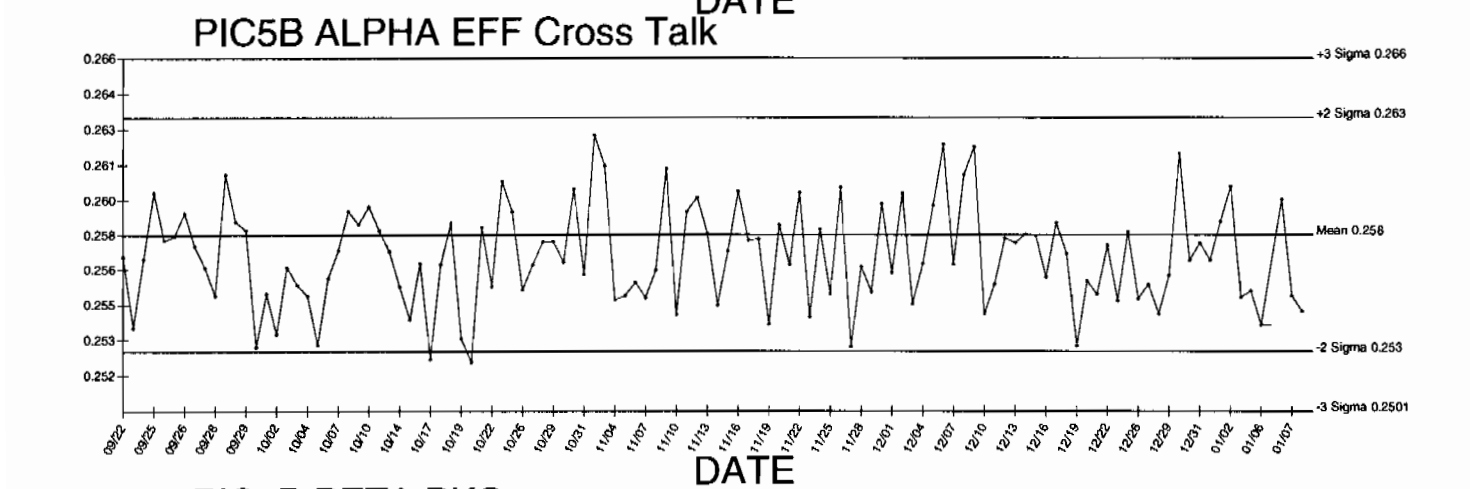

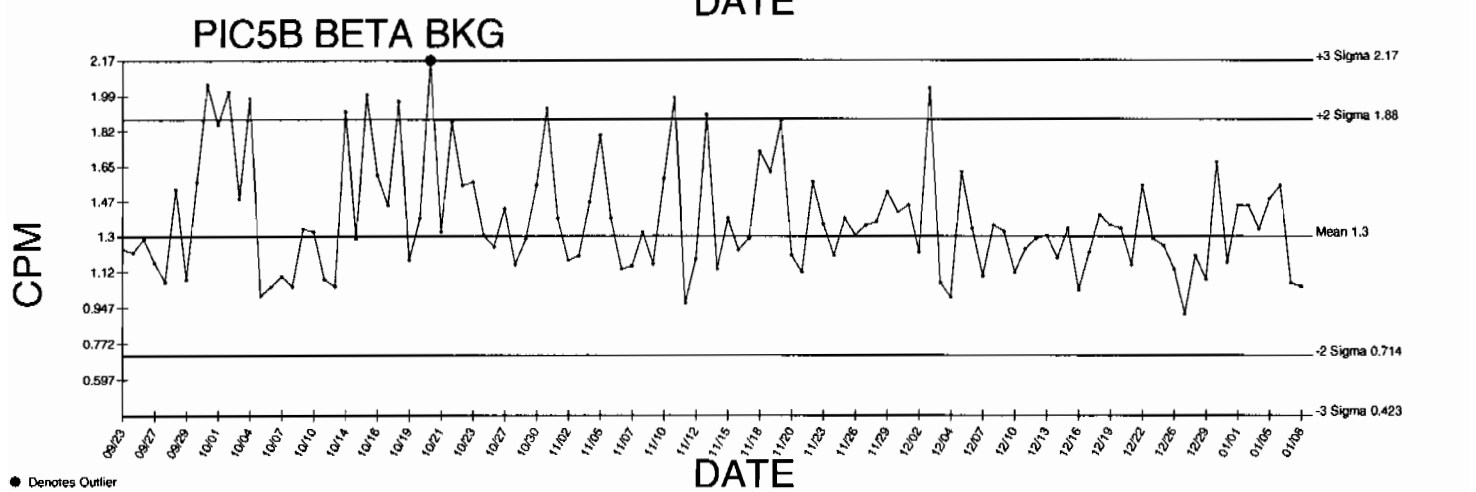

● Denotes Outlier

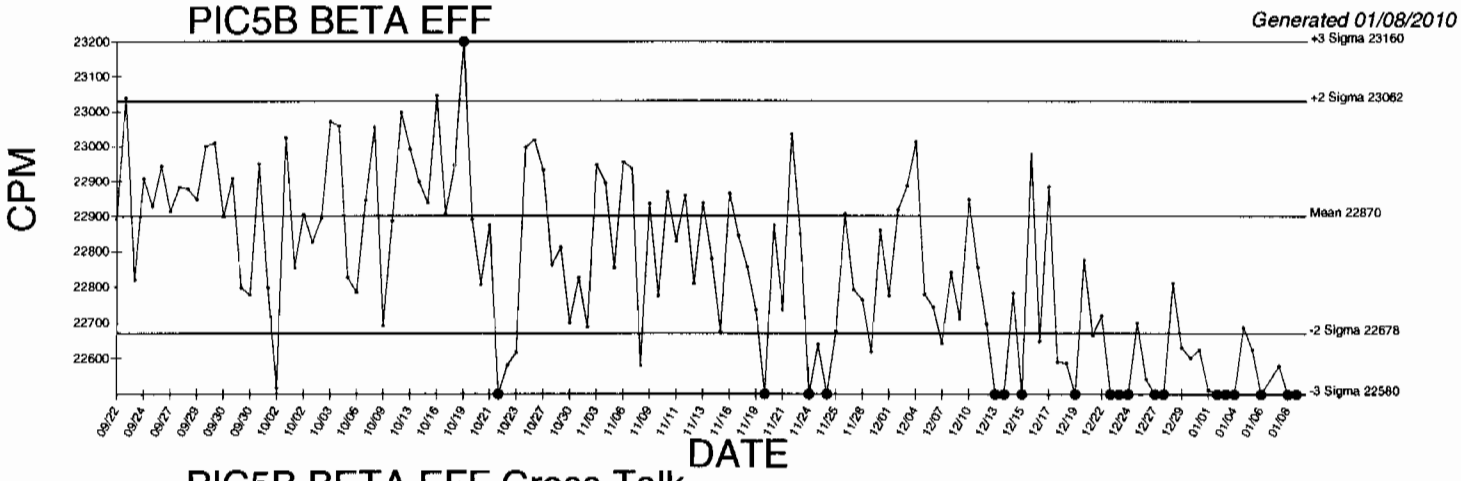

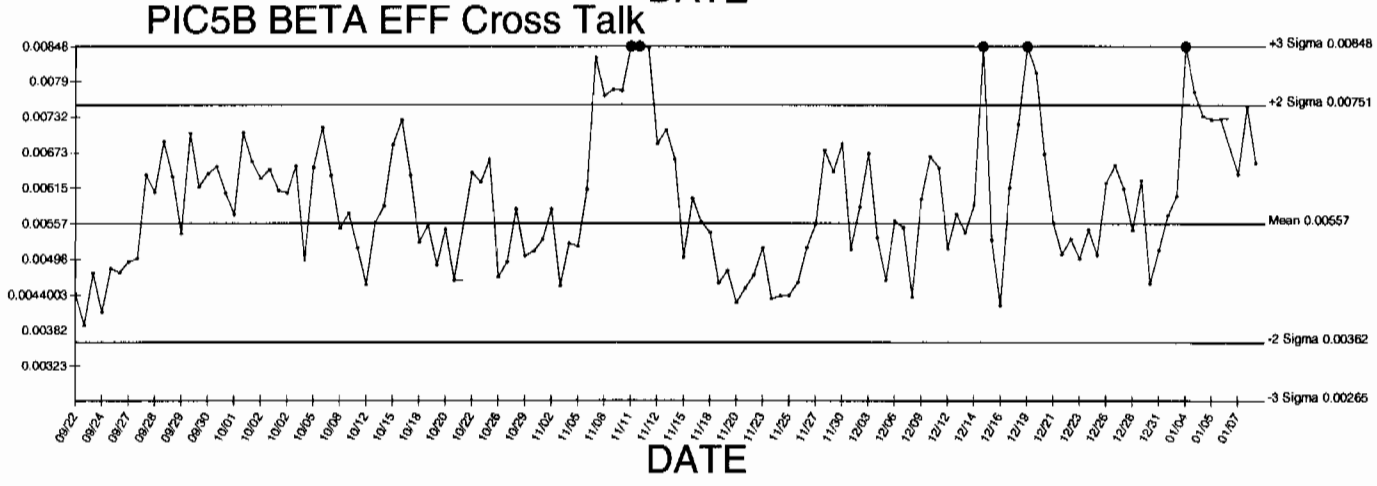

● Denotes Outlier

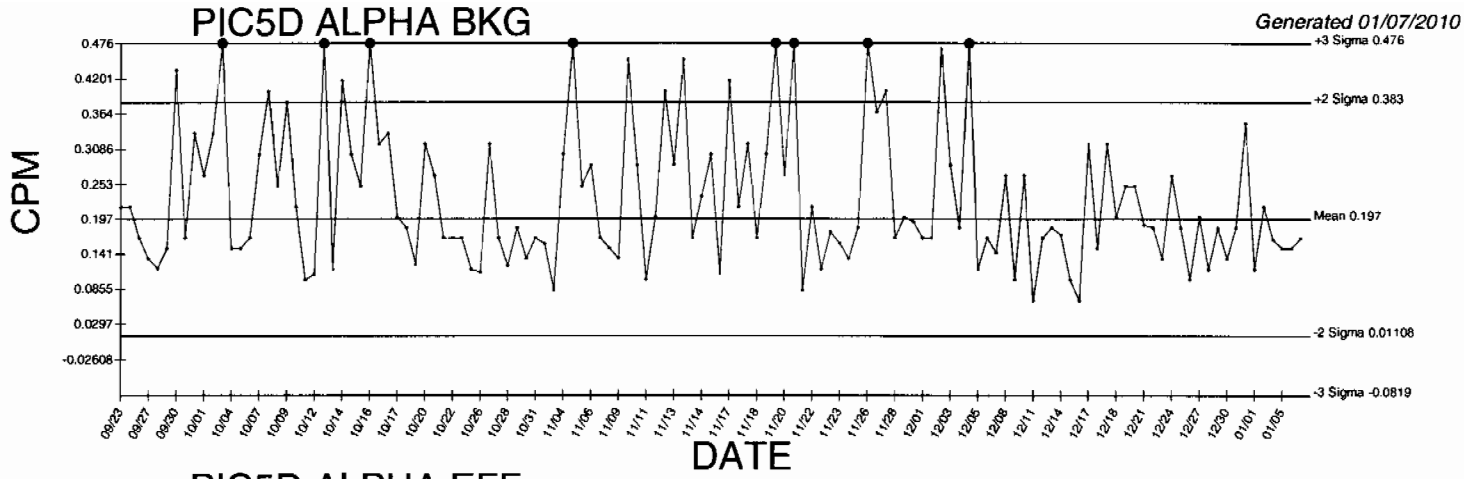
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Generated 01/07/2010
CPM
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Mean 0.197
-2 Sigma 0.01108
-3 Sigma -0.0819

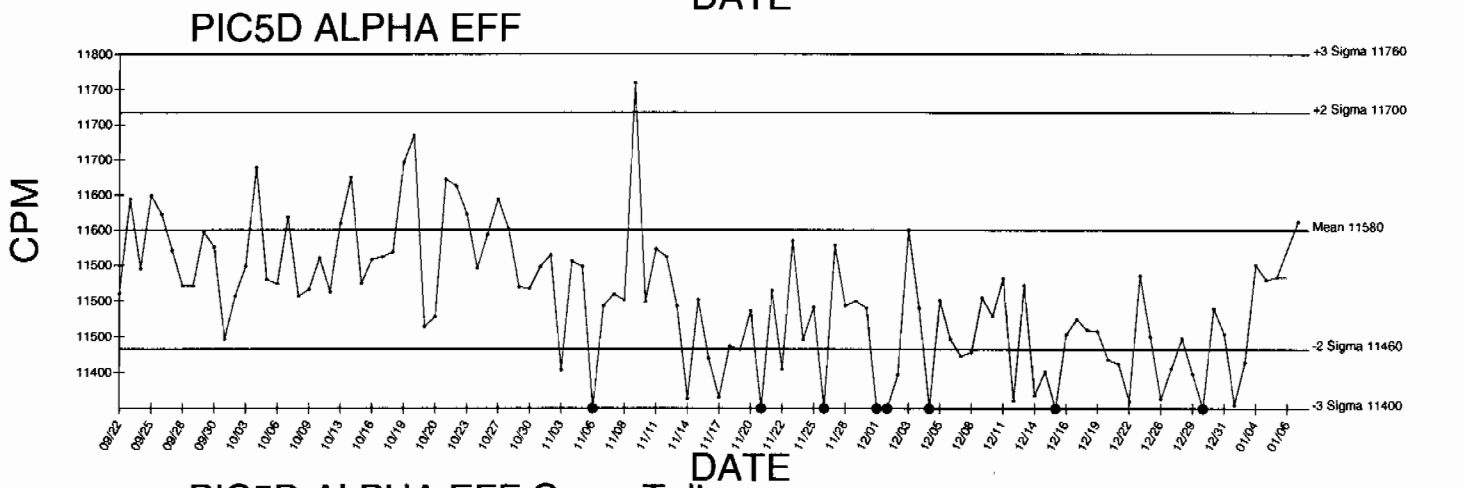
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DATE
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+2 Sigma 11700
Mean 11580
-2 Sigma 11460
-3 Sigma 11400

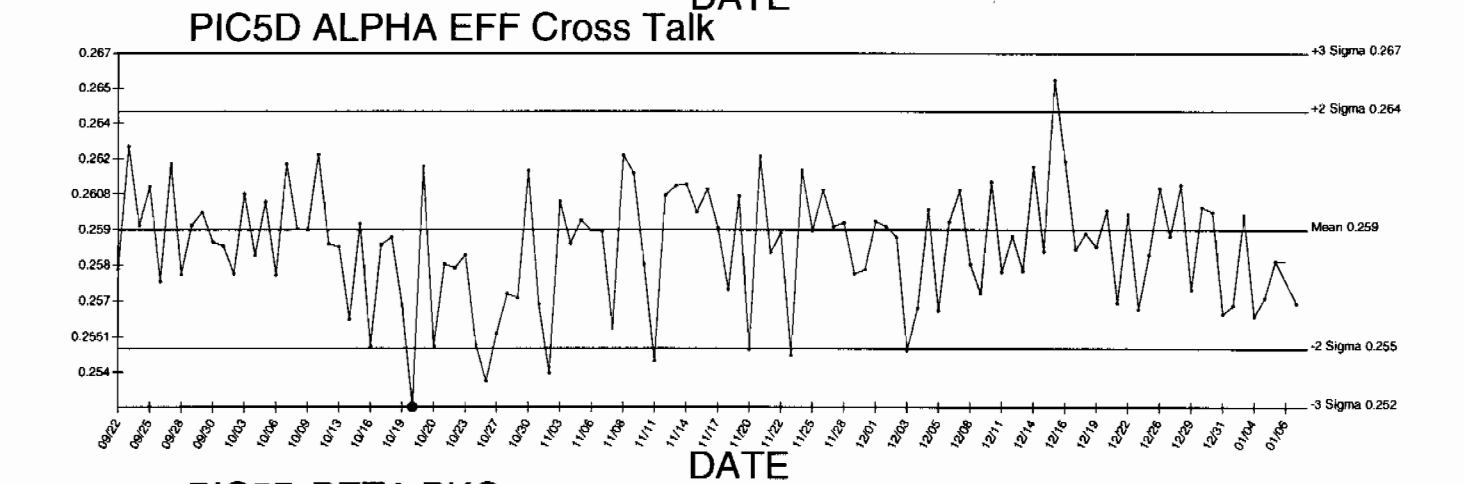
PIC5D ALPHA EFF Cross Talk
DATE
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+2 Sigma 0.264
Mean 0.259
-2 Sigma 0.255
-3 Sigma 0.252

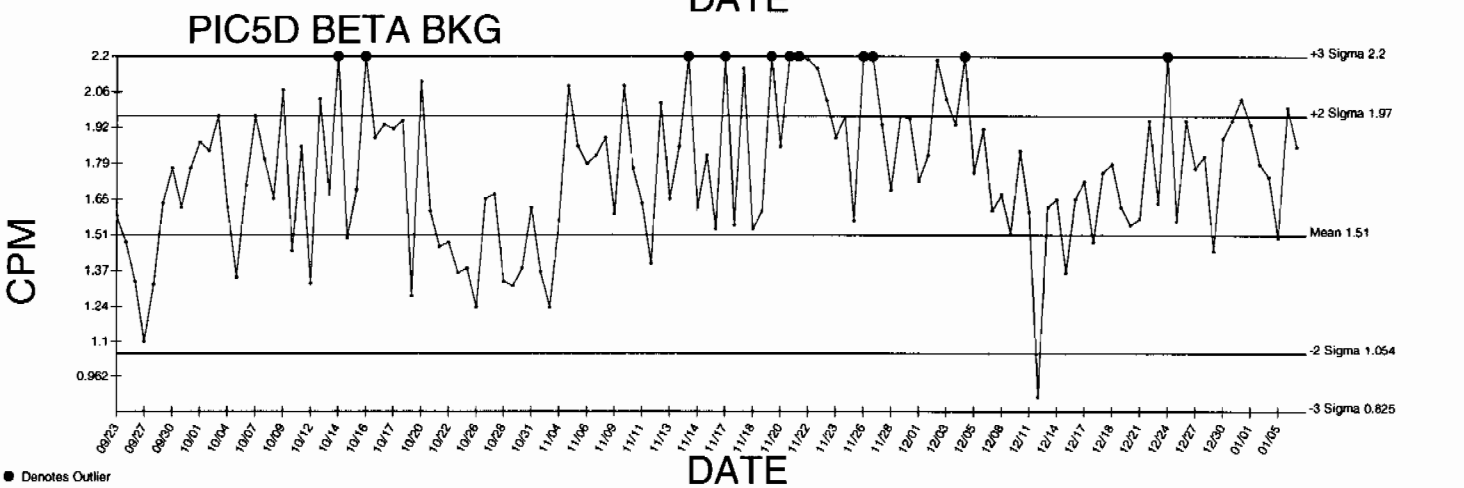
PIC5D BETA BKG
CPM
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+2 Sigma 1.97
Mean 1.51
-2 Sigma 1.054
-3 Sigma 0.825
Denotes Outlier

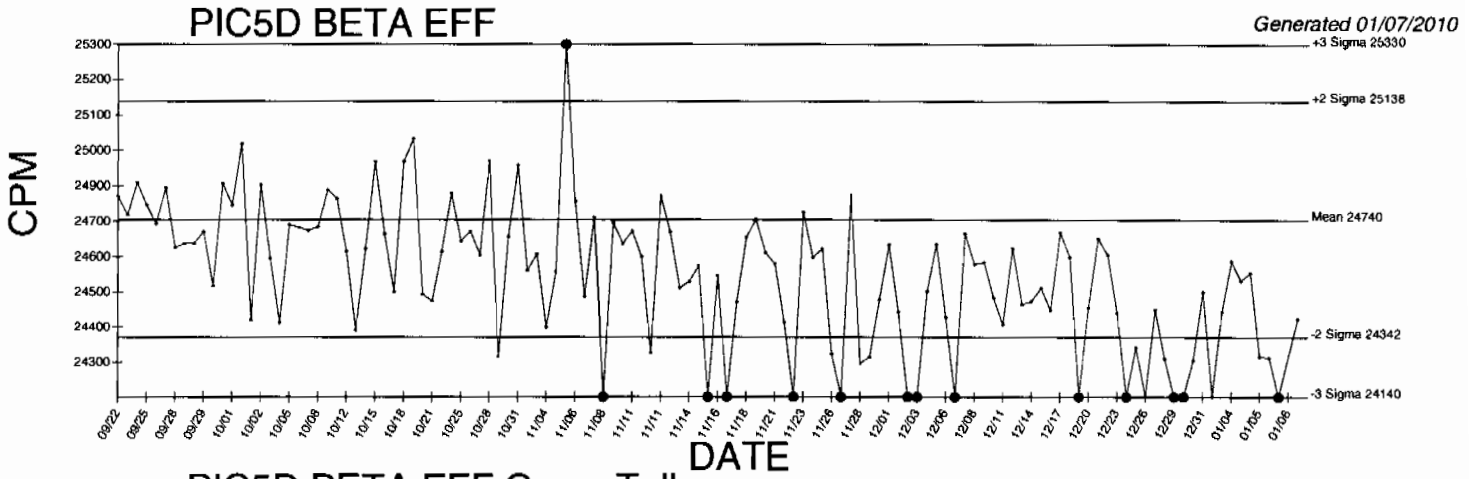

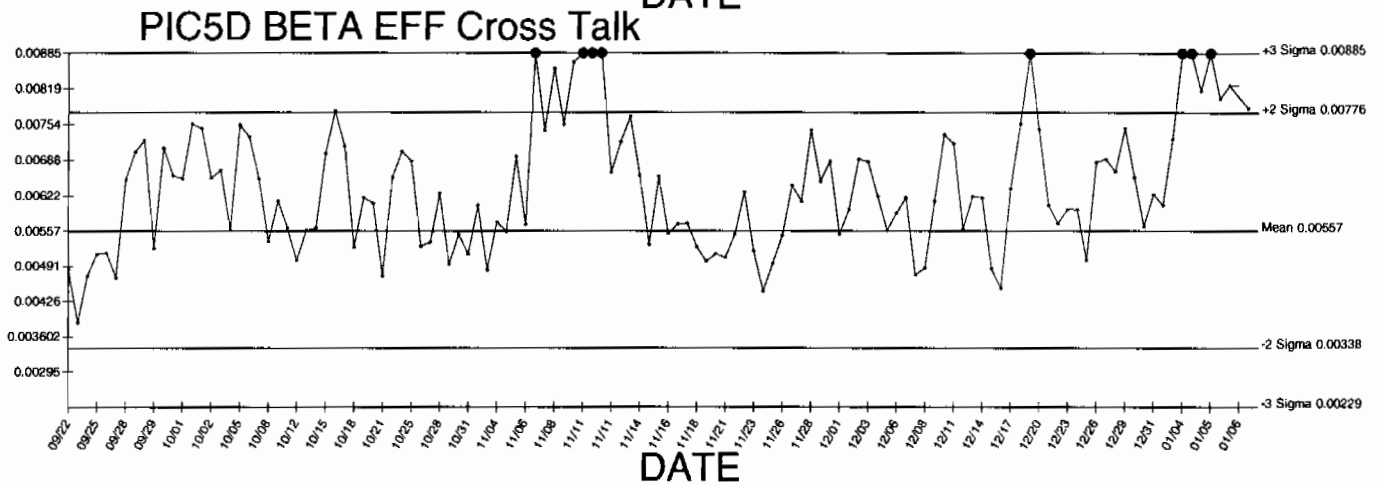

● Denotes Outlier

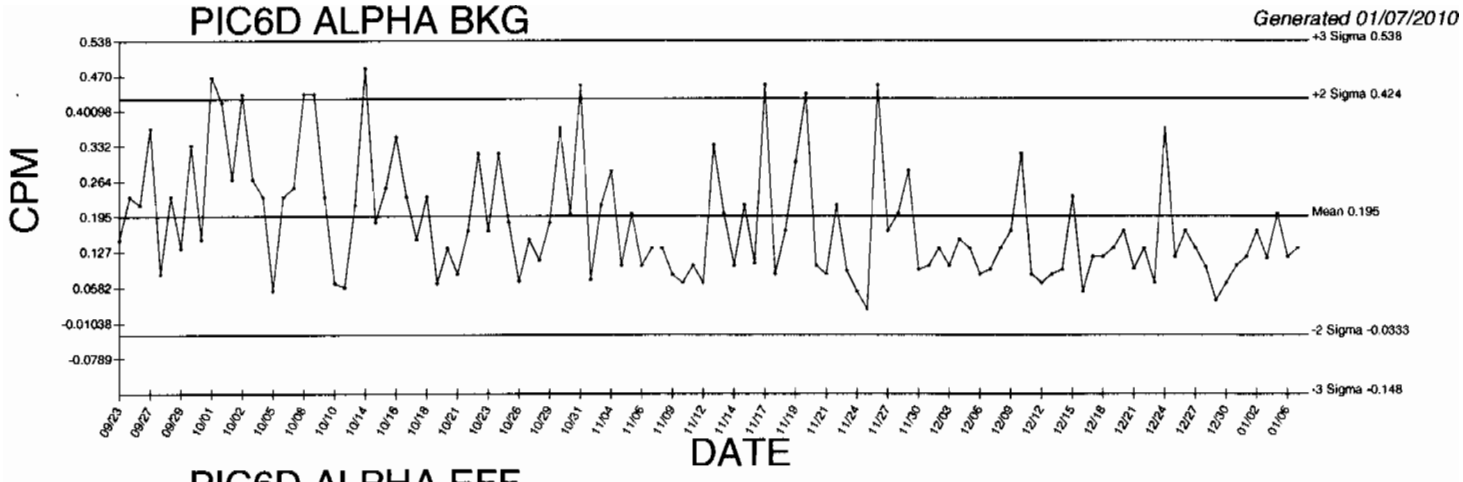

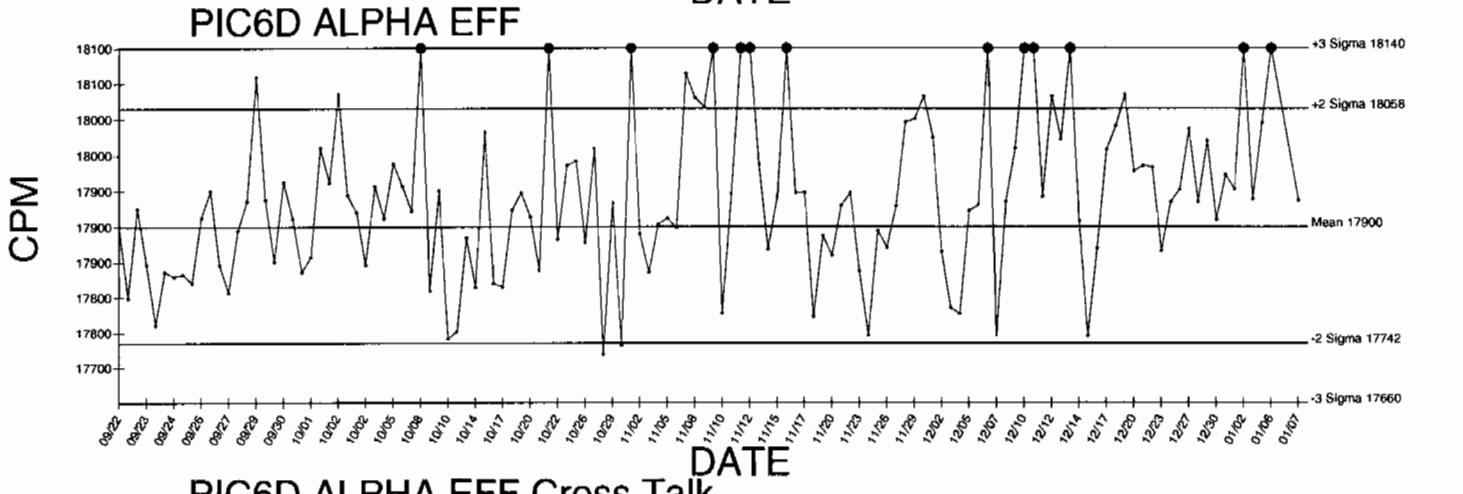

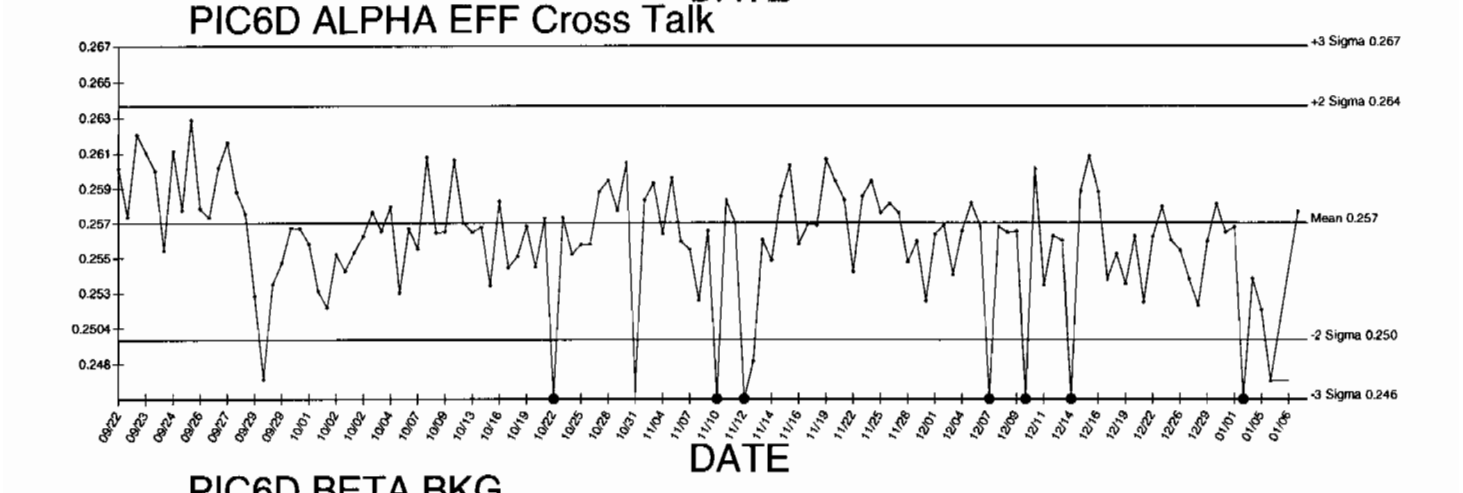

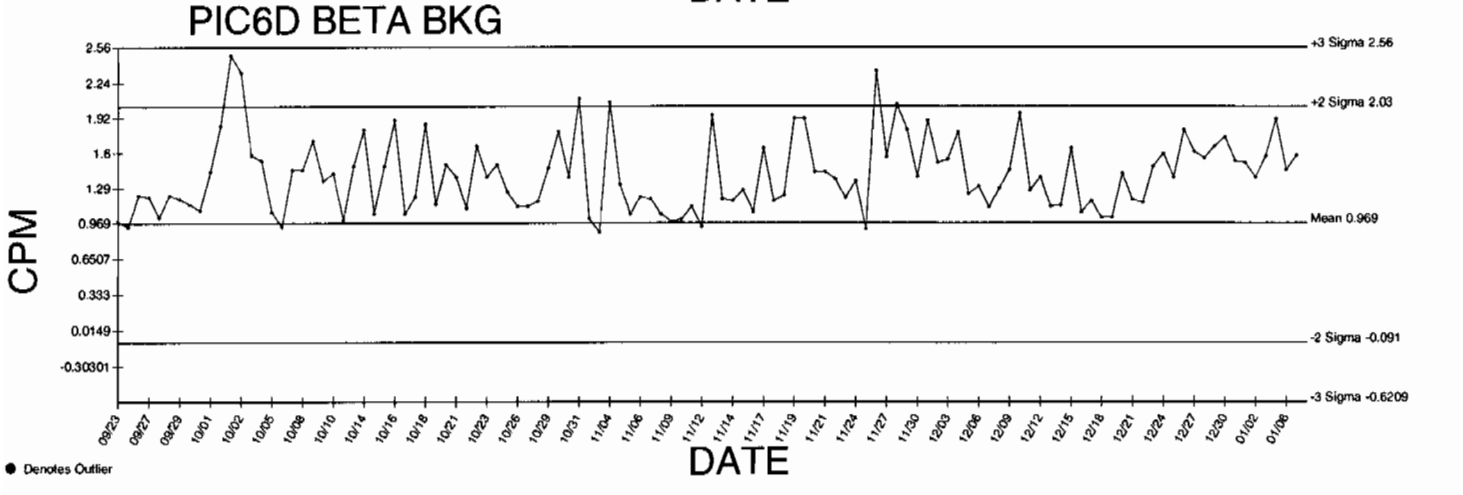

● Denotes Outlier

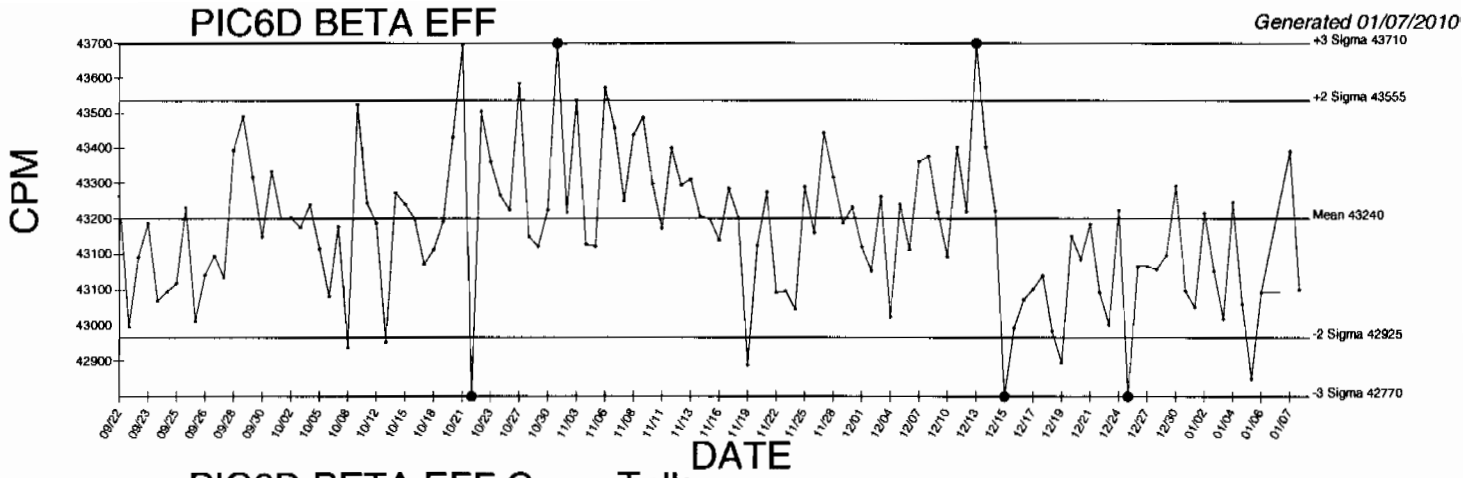

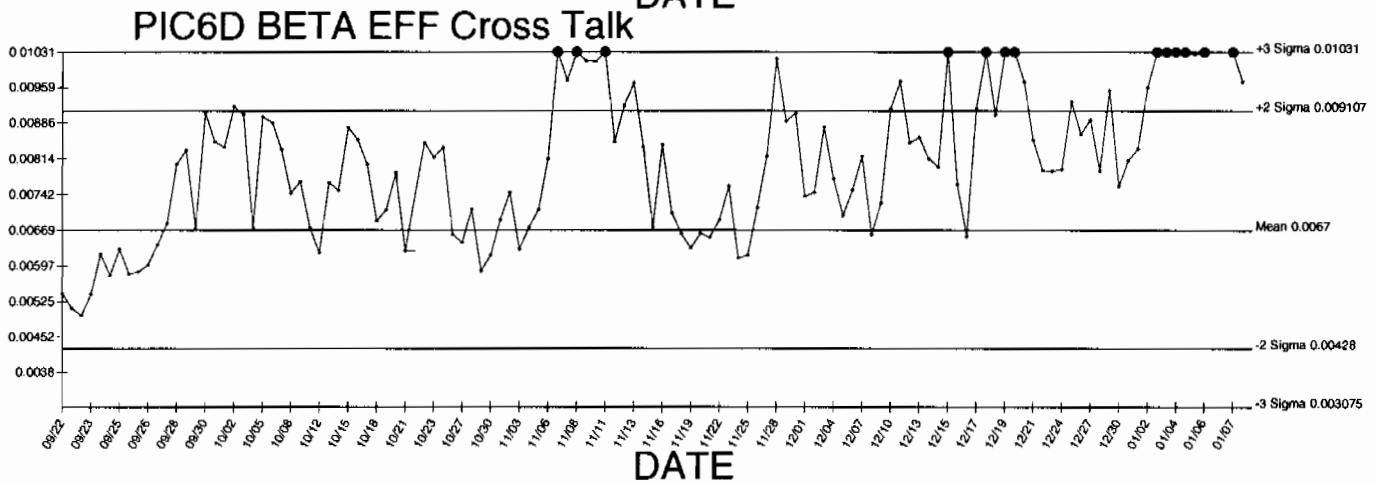

● Denotes Outlier

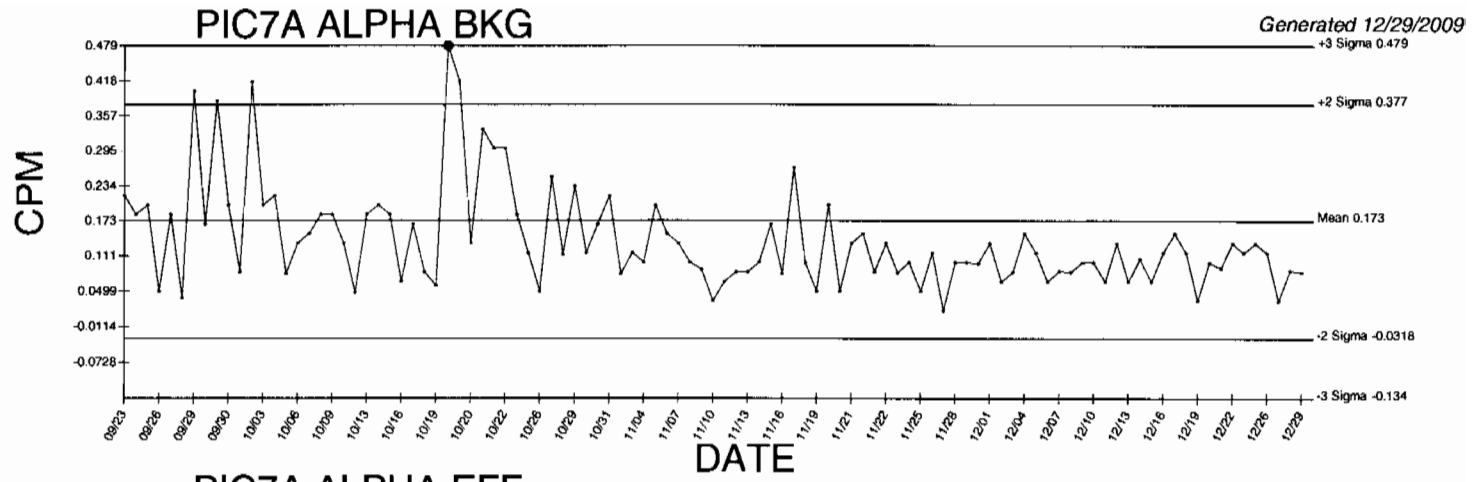
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CPM
DATE
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Mean 0.173
-2 Sigma -0.0318
-3 Sigma -0.134

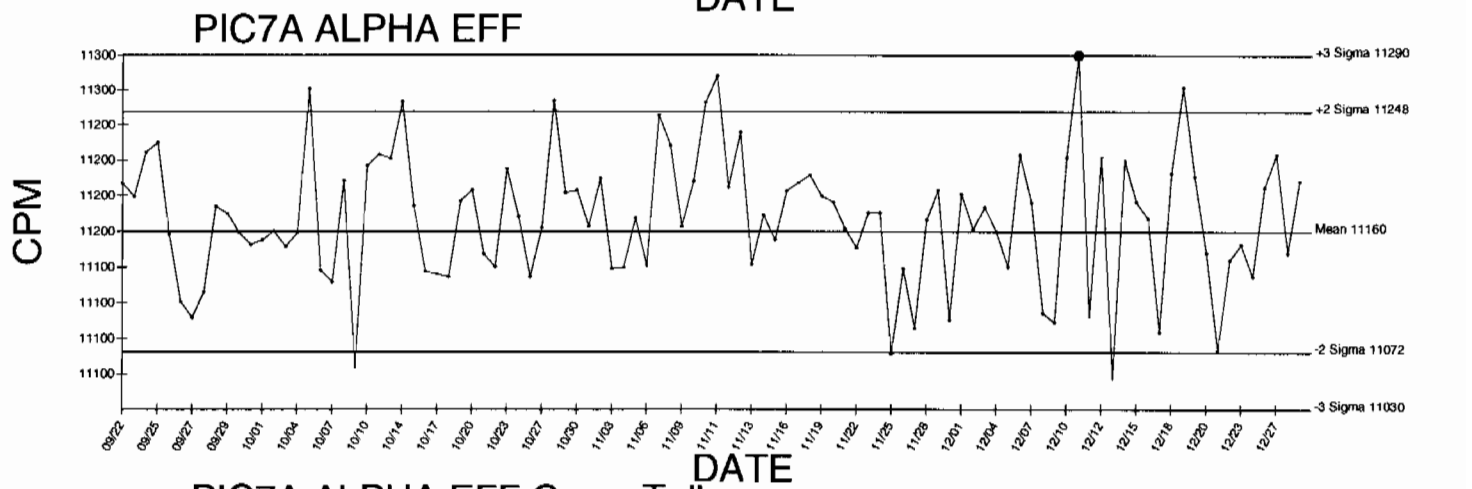
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CPM
DATE
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Mean 11160
-2 Sigma 11072
-3 Sigma 11030

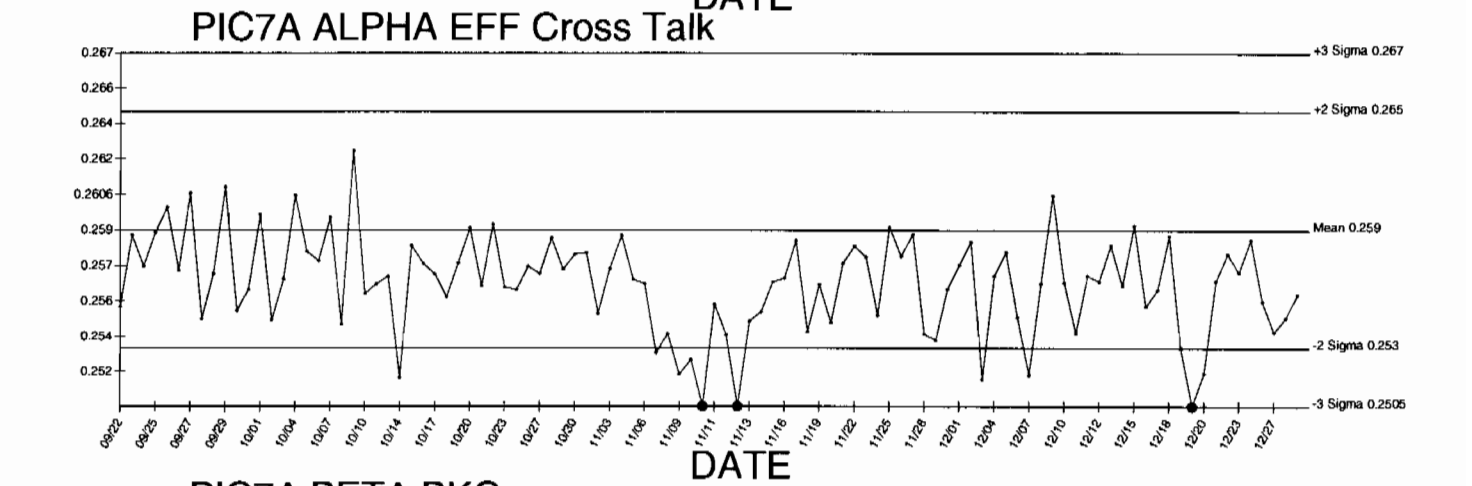
PIC7A ALPHA EFF Cross Talk
DATE
+3 Sigma 0.267
+2 Sigma 0.265
Mean 0.259
-2 Sigma 0.253
-3 Sigma 0.2505

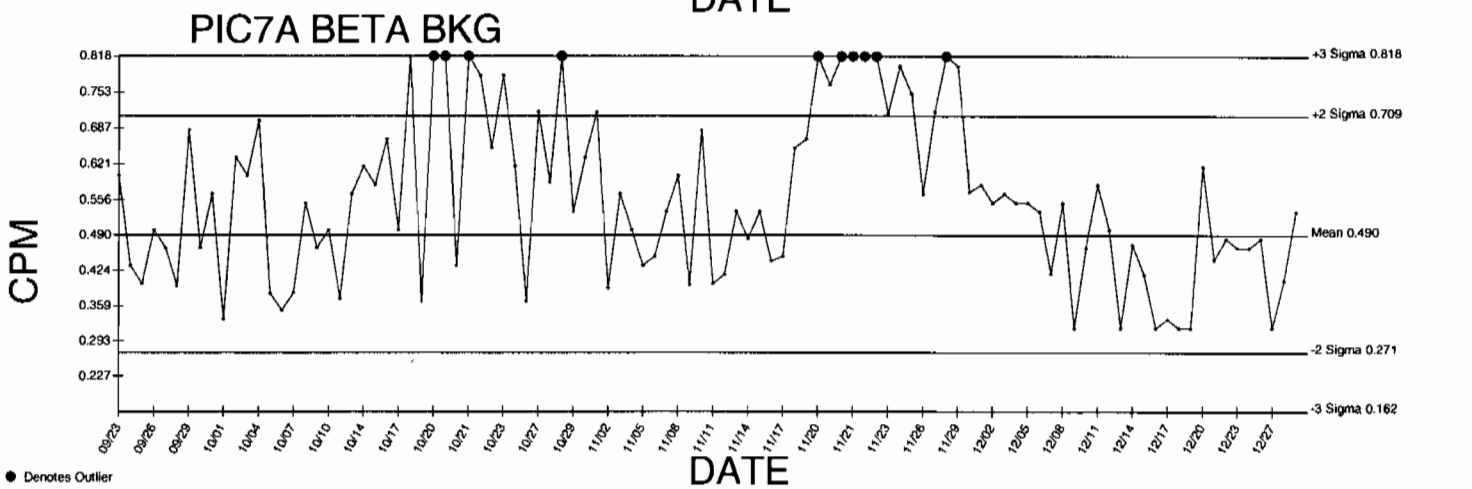
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CPM
DATE
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+2 Sigma 0.709
Mean 0.490
-2 Sigma 0.271
-3 Sigma 0.162
● Denotes Outlier

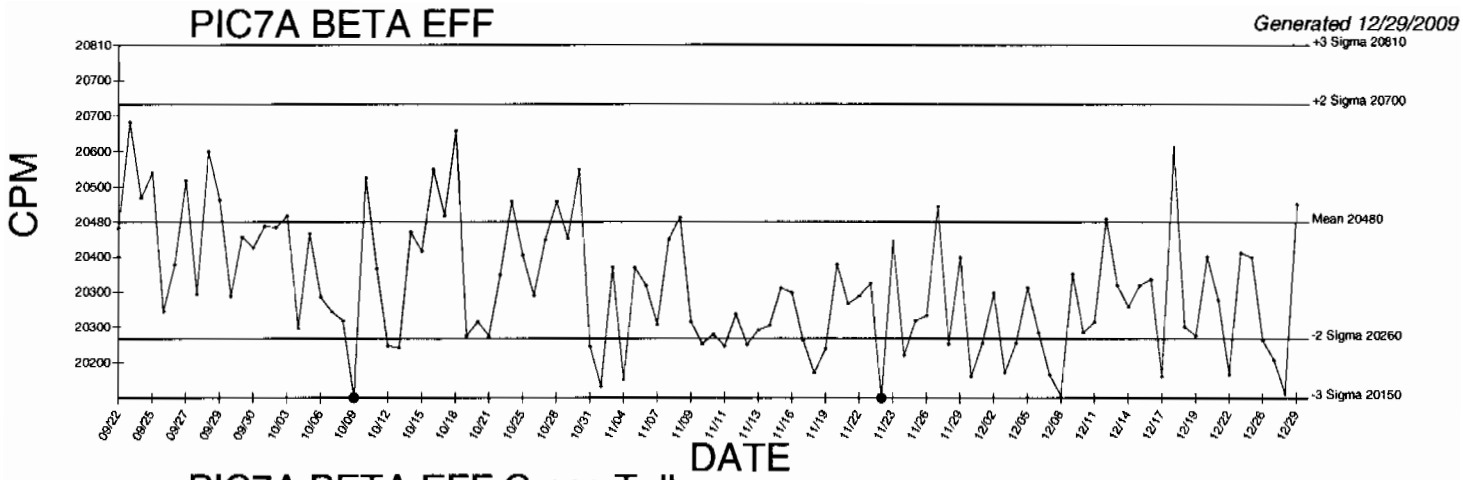

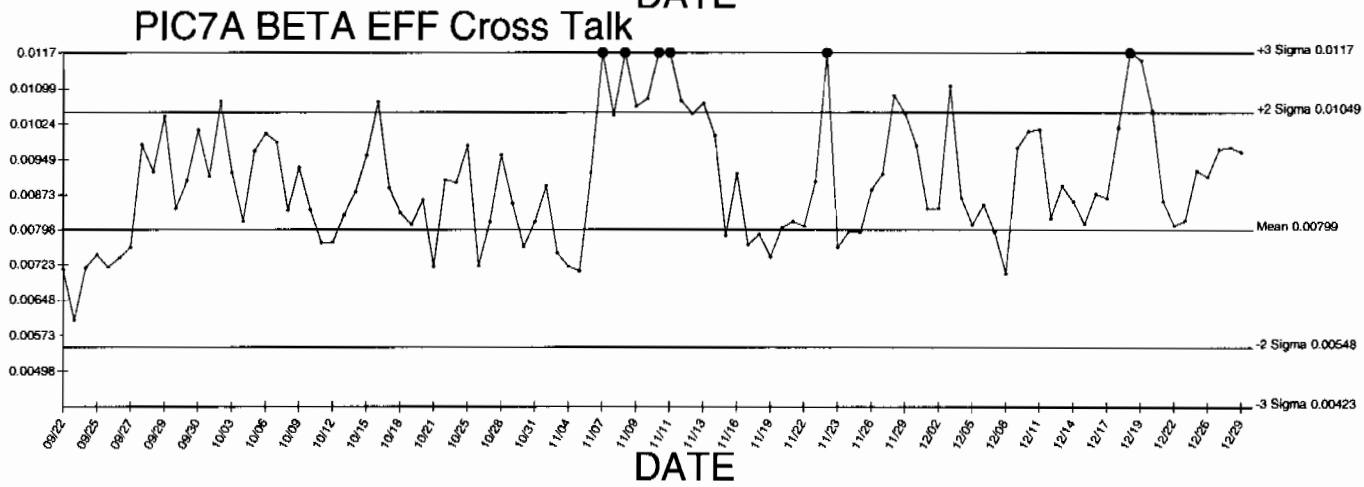

● Denotes Outlier

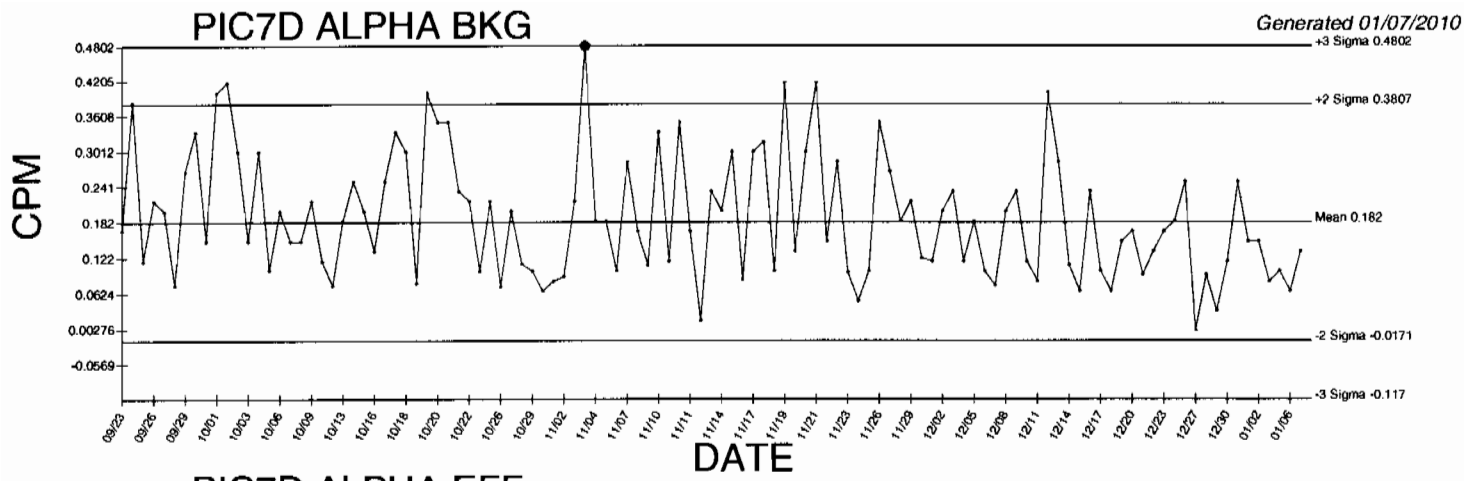
PIC7D ALPHA BKG
Generated 01/07/2010
CPM
DATE
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Mean 0.182
-2 Sigma -0.0171
-3 Sigma -0.117

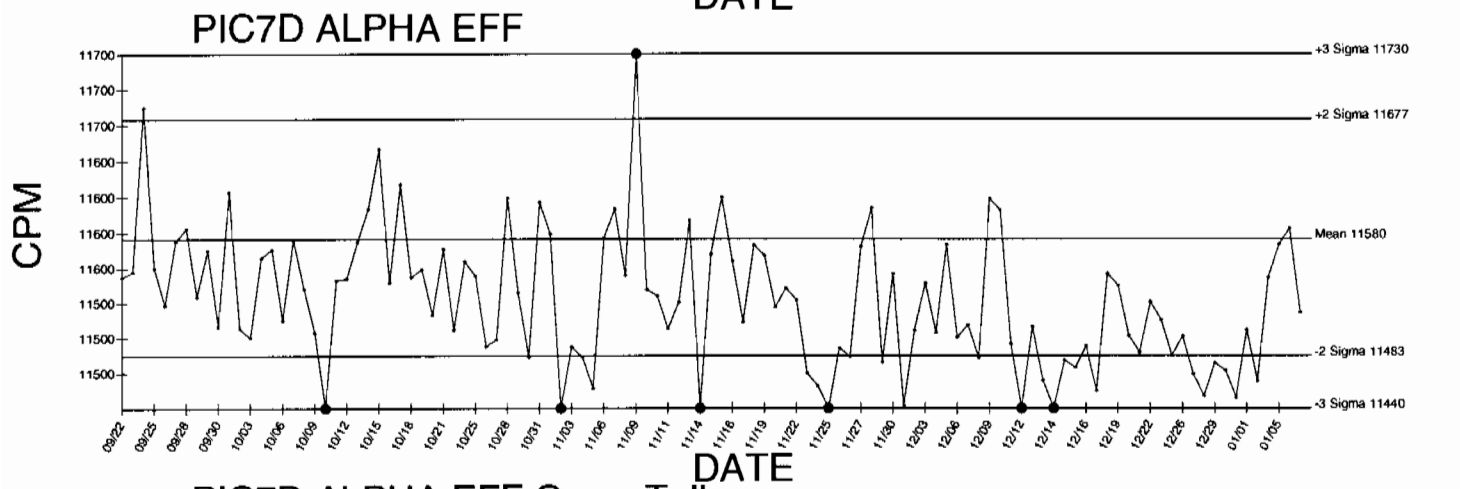
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CPM
DATE
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Mean 11580
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-3 Sigma 11440

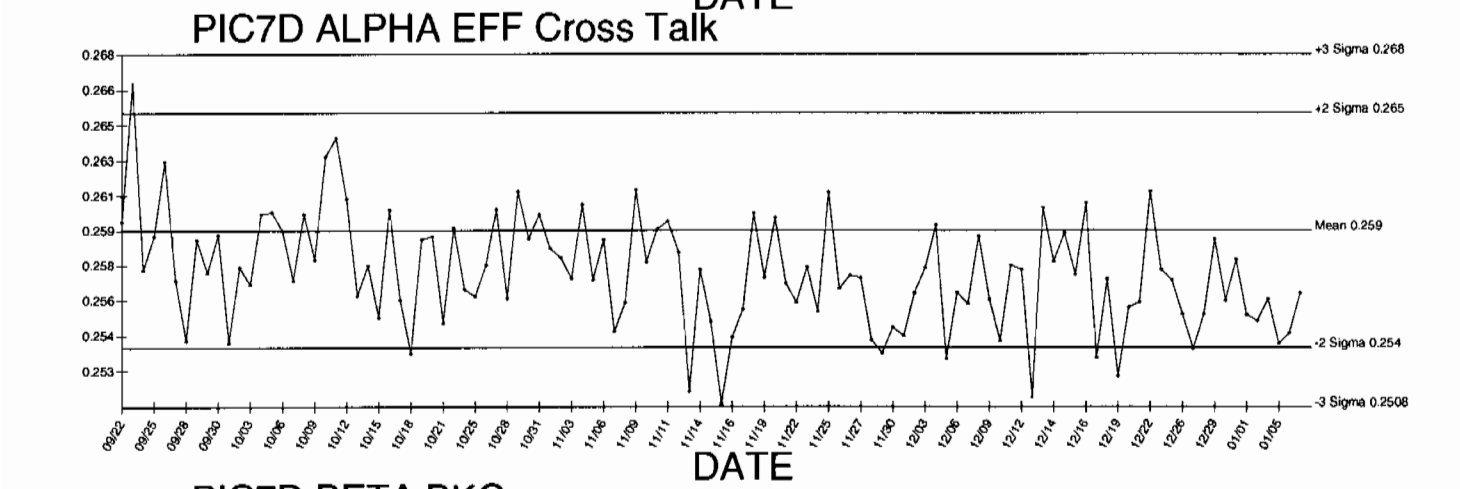
PIC7D ALPHA EFF Cross Talk
DATE
+3 Sigma 0.268
+2 Sigma 0.265
Mean 0.259
-2 Sigma 0.254
-3 Sigma 0.2508

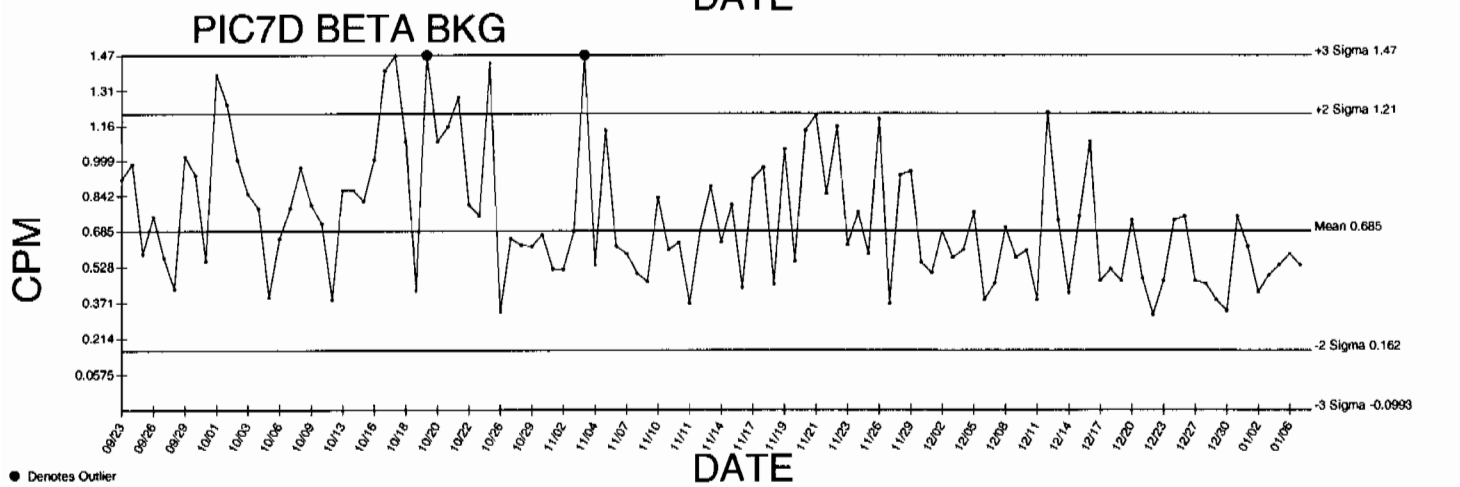
PIC7D BETA BKG
CPM
DATE
+3 Sigma 1.47
+2 Sigma 1.21
Mean 0.685
-2 Sigma 0.162
-3 Sigma -0.0993
● Denotes Outlier

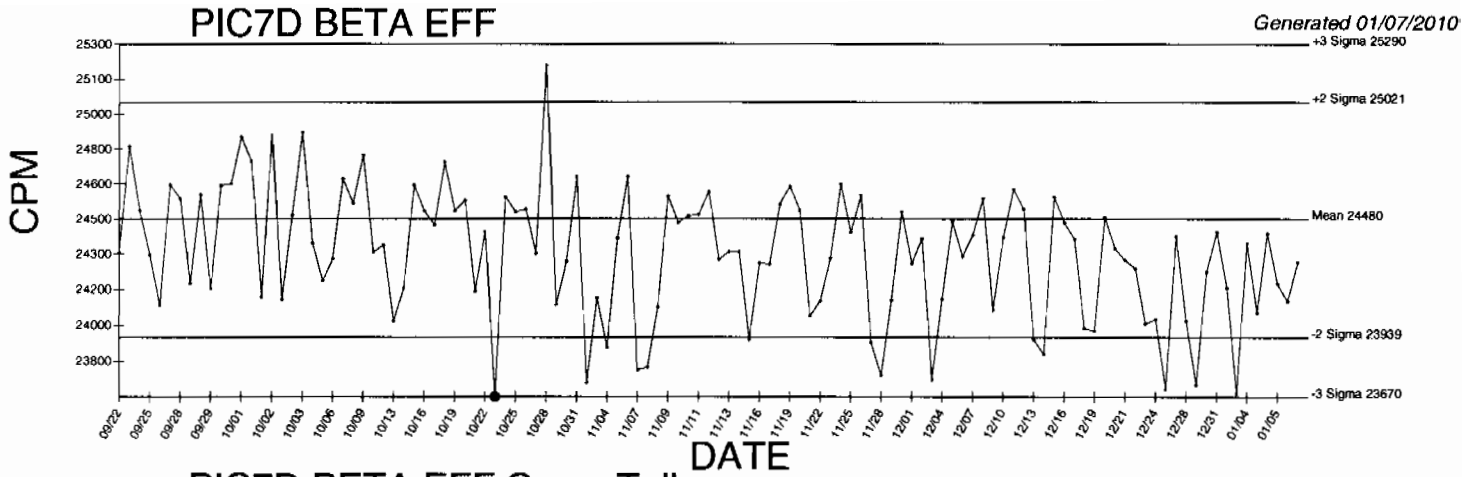

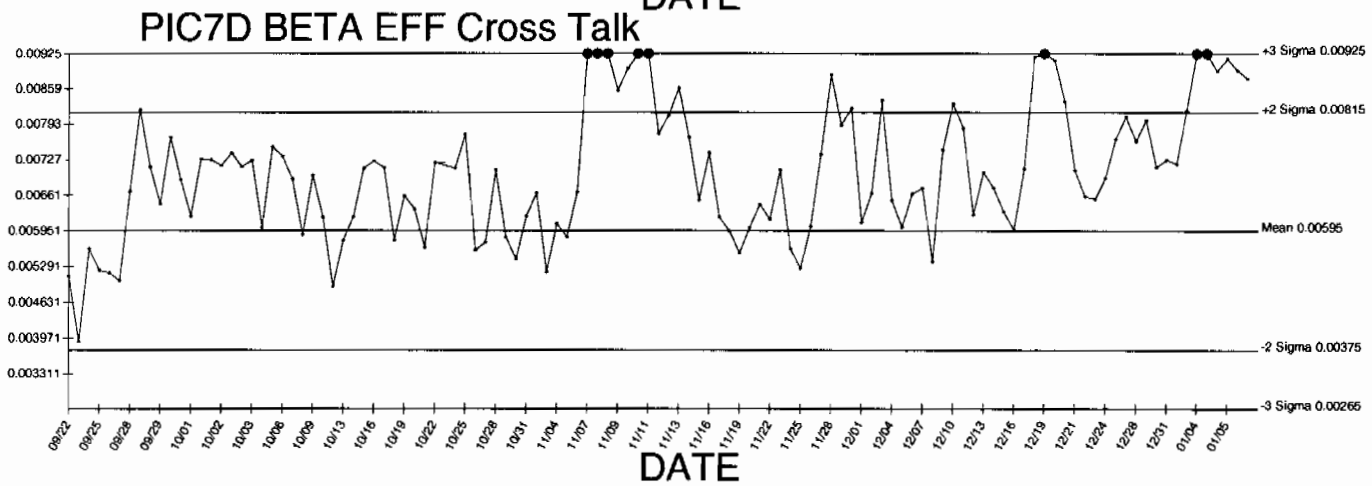

● Denotes Outlier

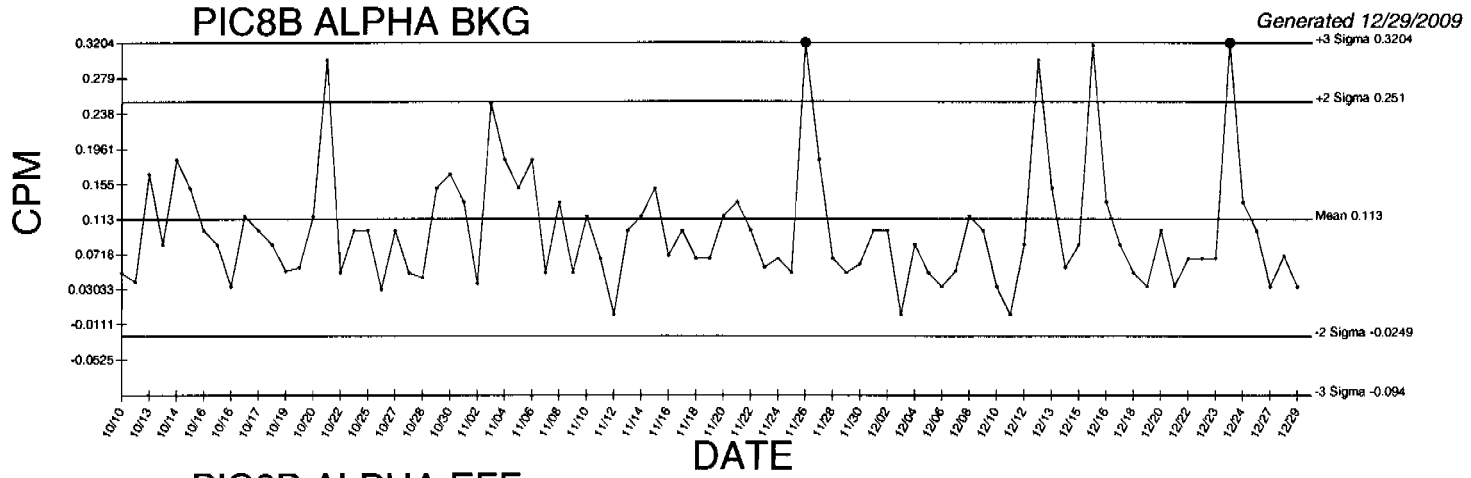

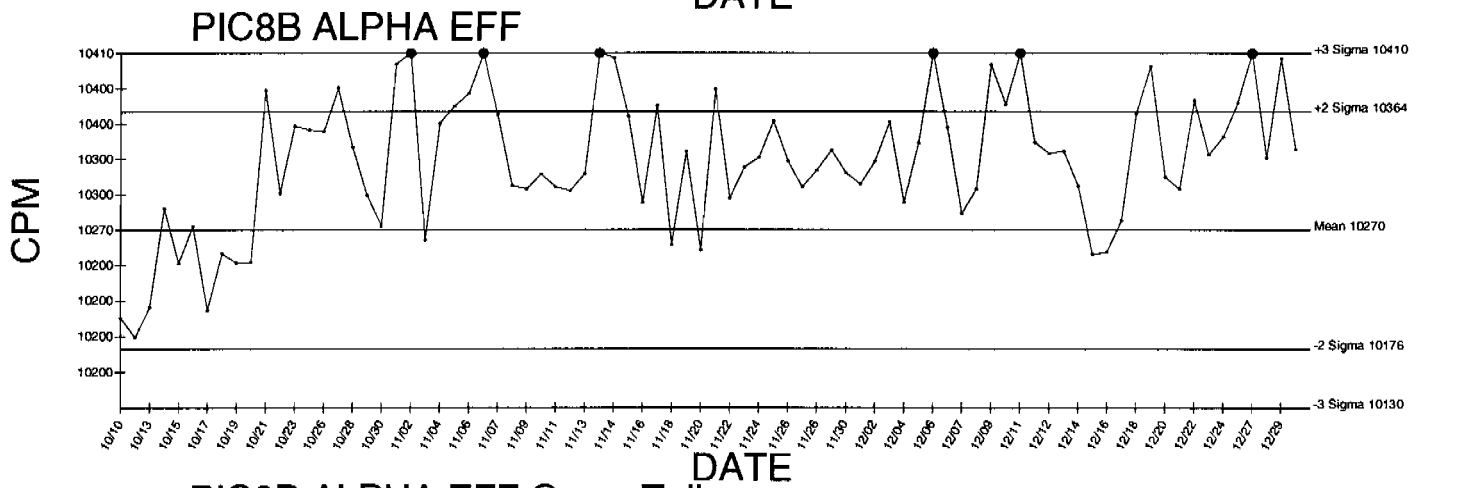

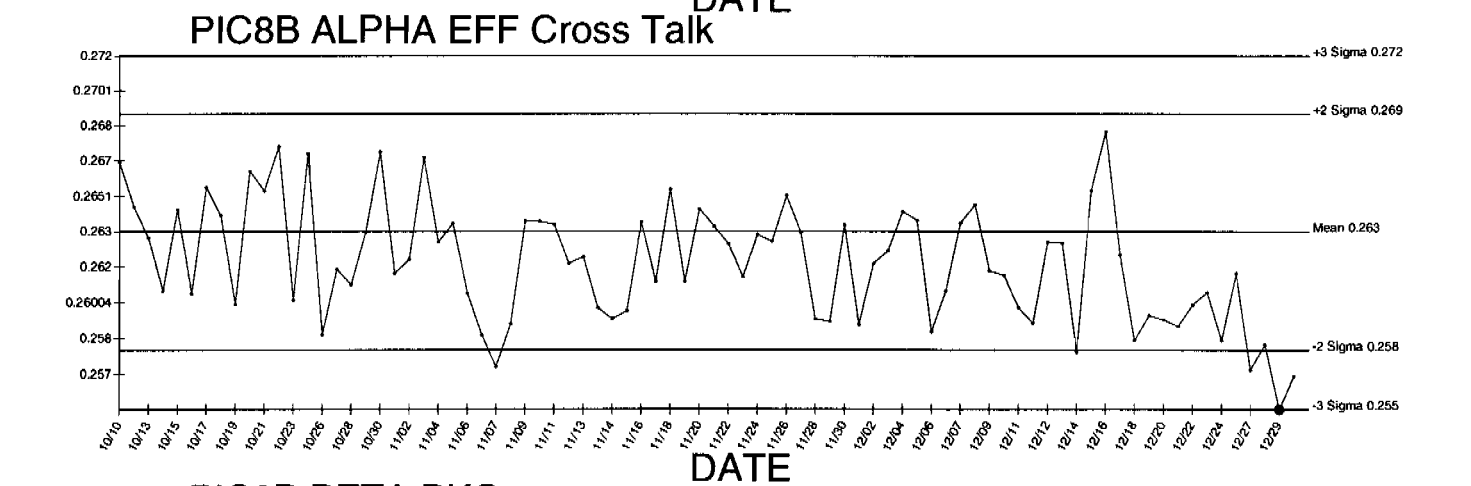

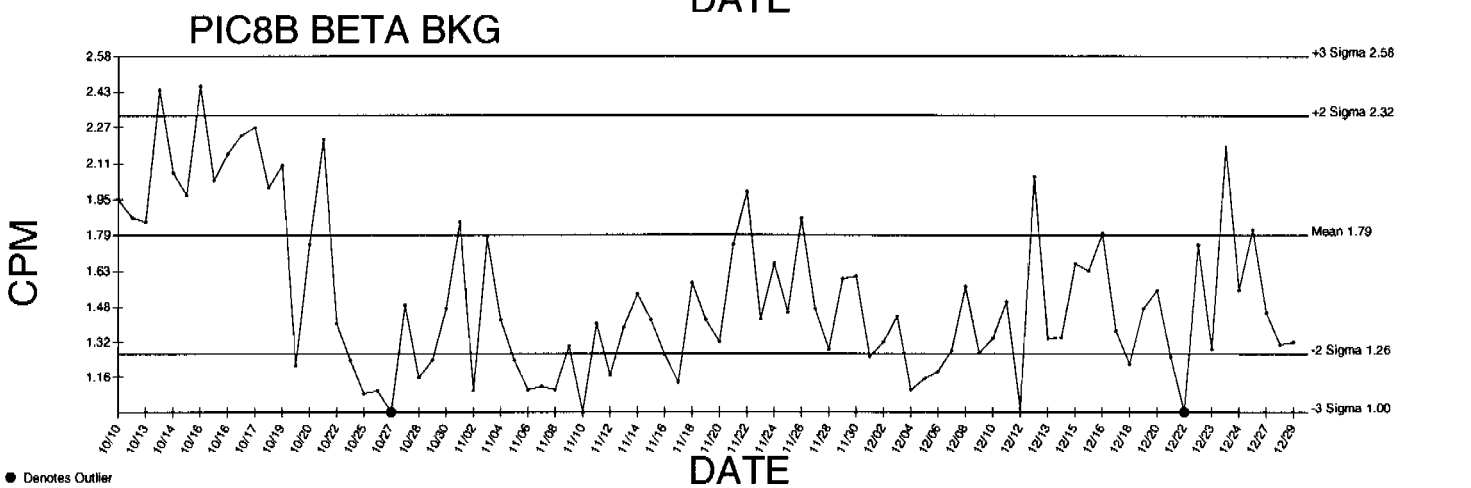

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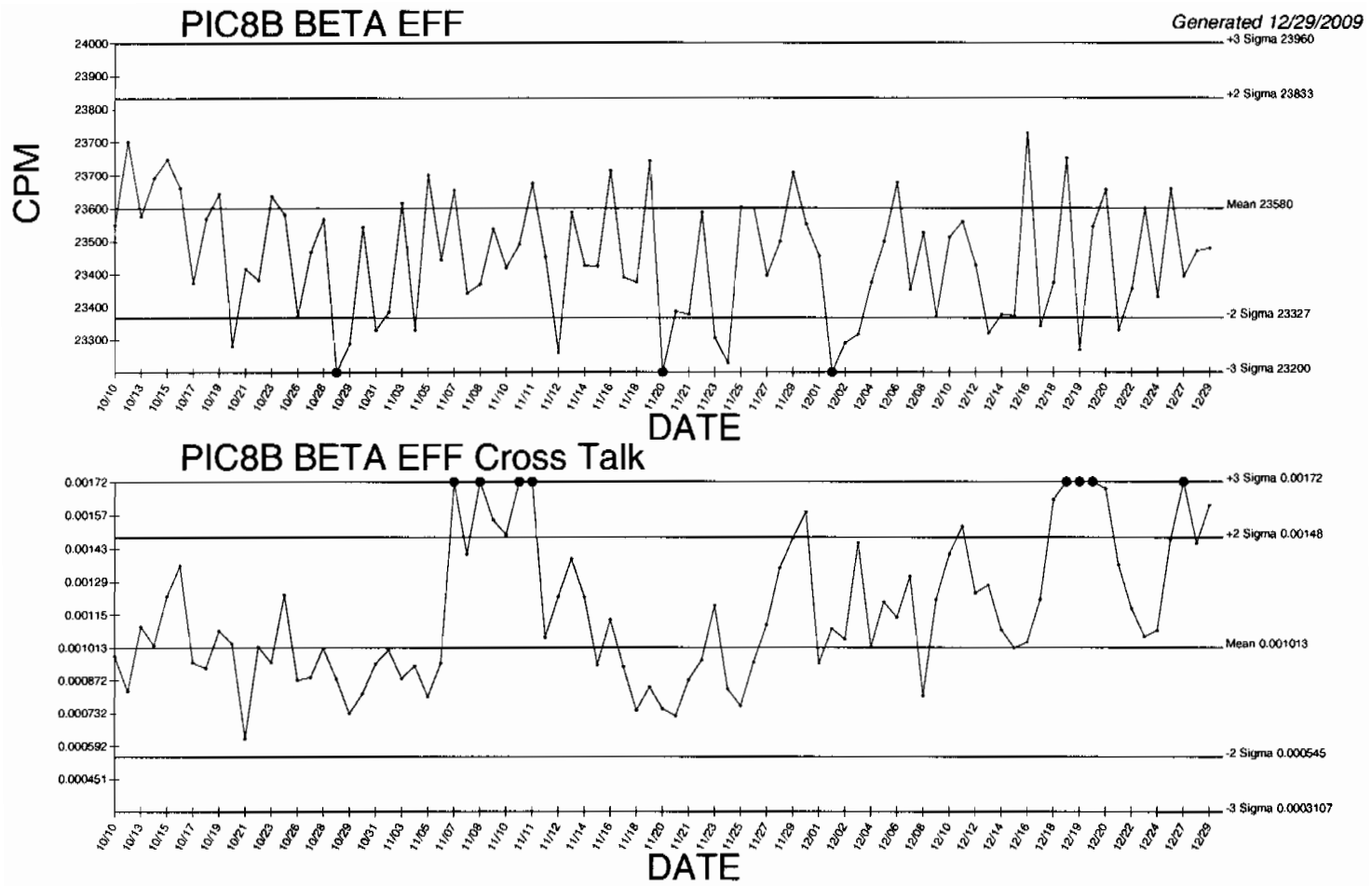

● Denotes Outlier

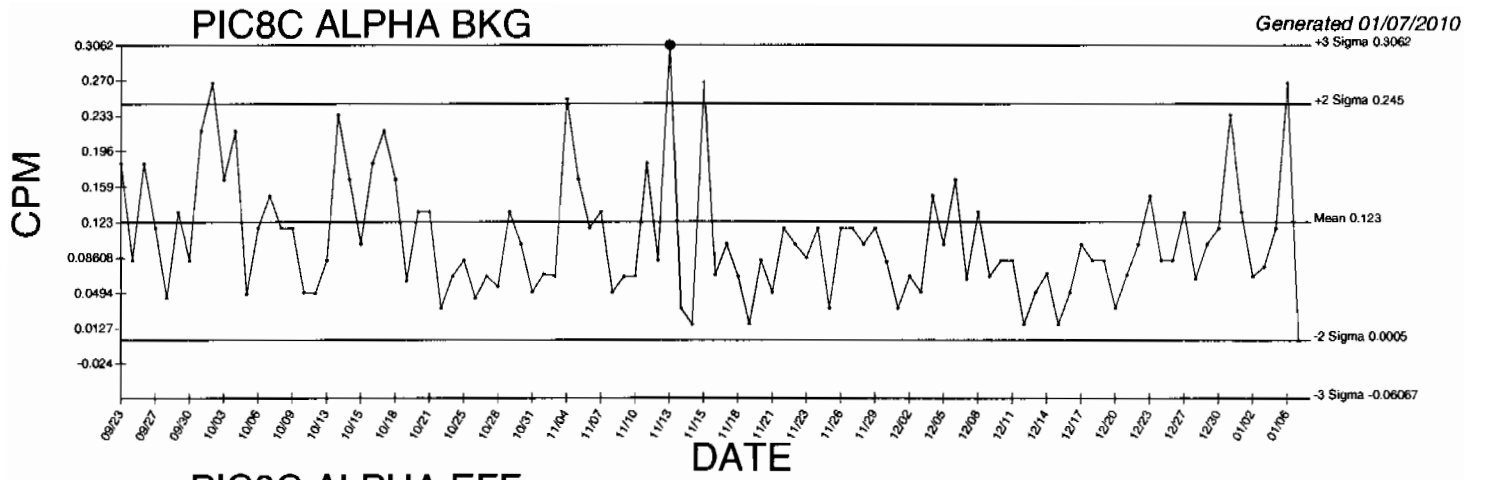
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Generated 01/07/2010
CPM
DATE
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Mean 0.123
-2 Sigma 0.0005
-3 Sigma -0.06067

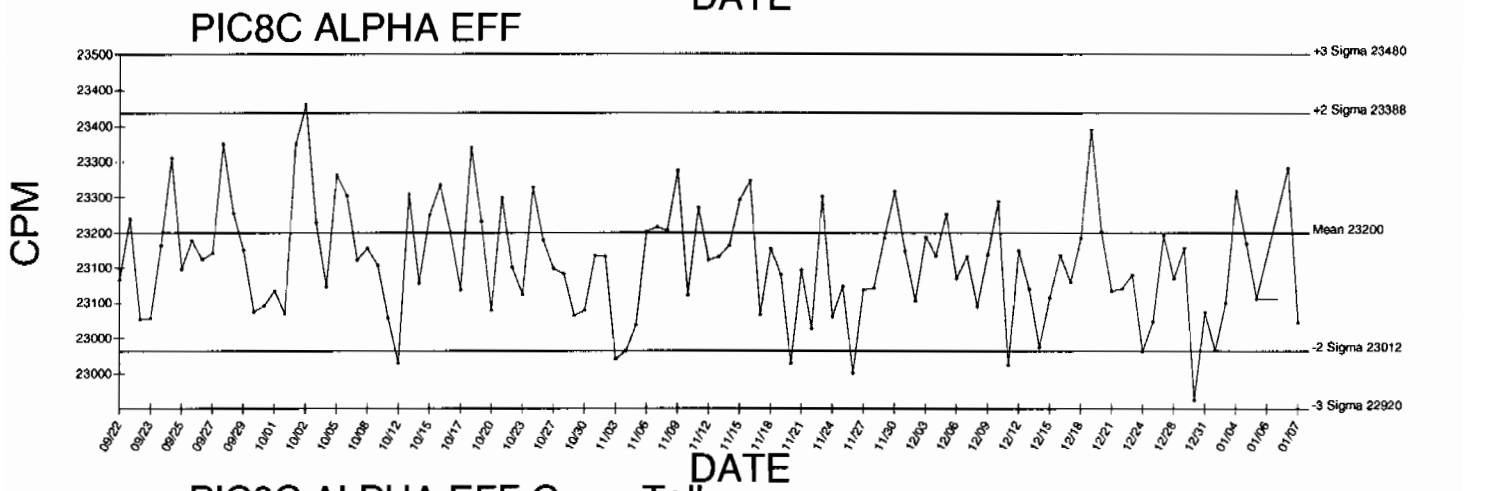
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CPM
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+2 Sigma 23388
Mean 23200
-2 Sigma 23012
-3 Sigma 22920

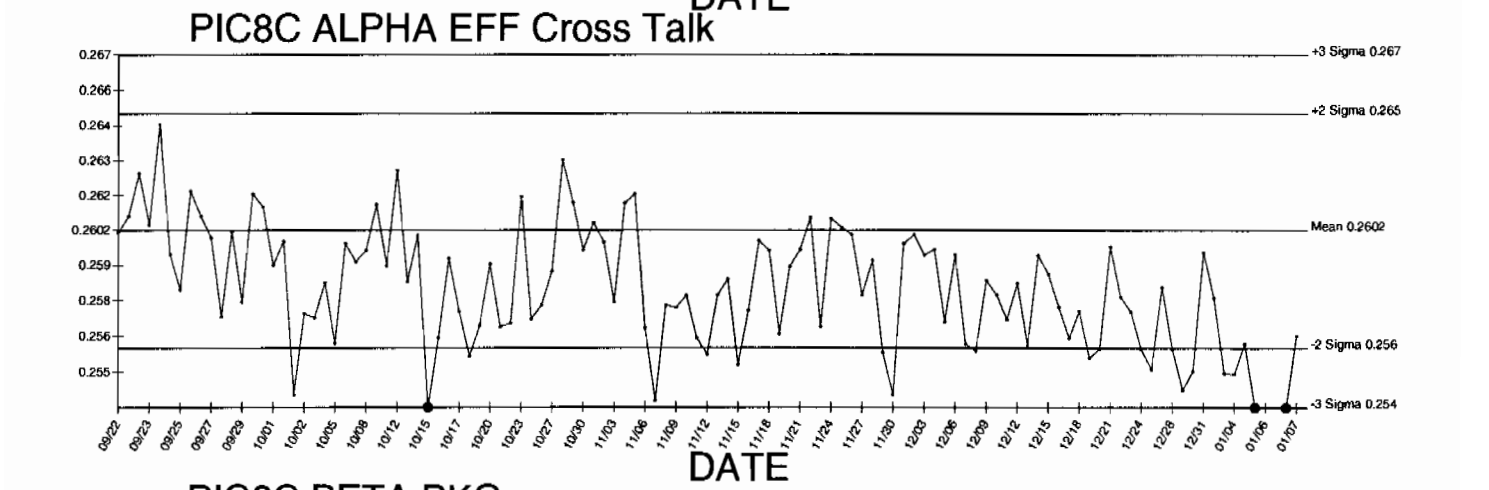
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DATE
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Mean 0.2602
-2 Sigma 0.256
-3 Sigma 0.254

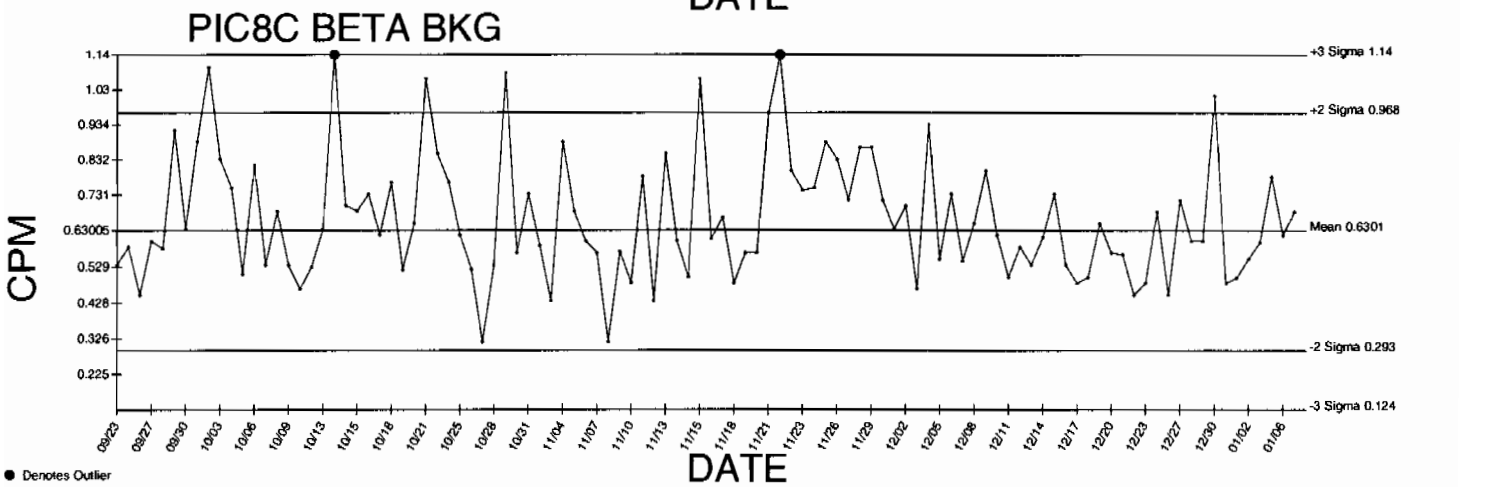
PIC8C BETA BKG
CPM
DATE
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Mean 0.6301
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● Denotes Outlier

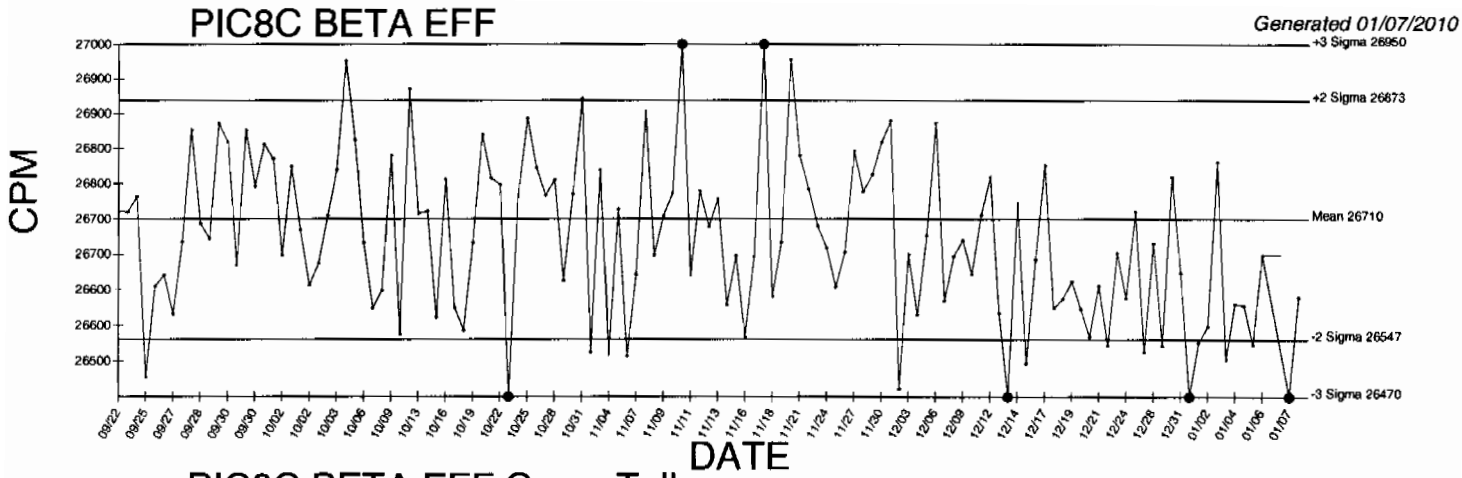

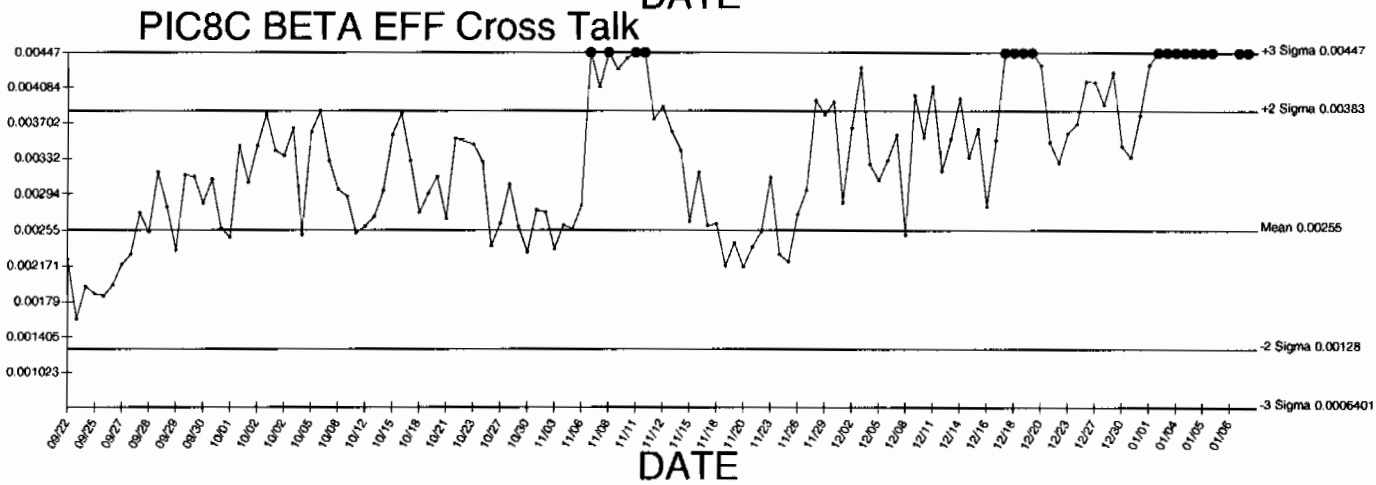

● Denotes Outlier

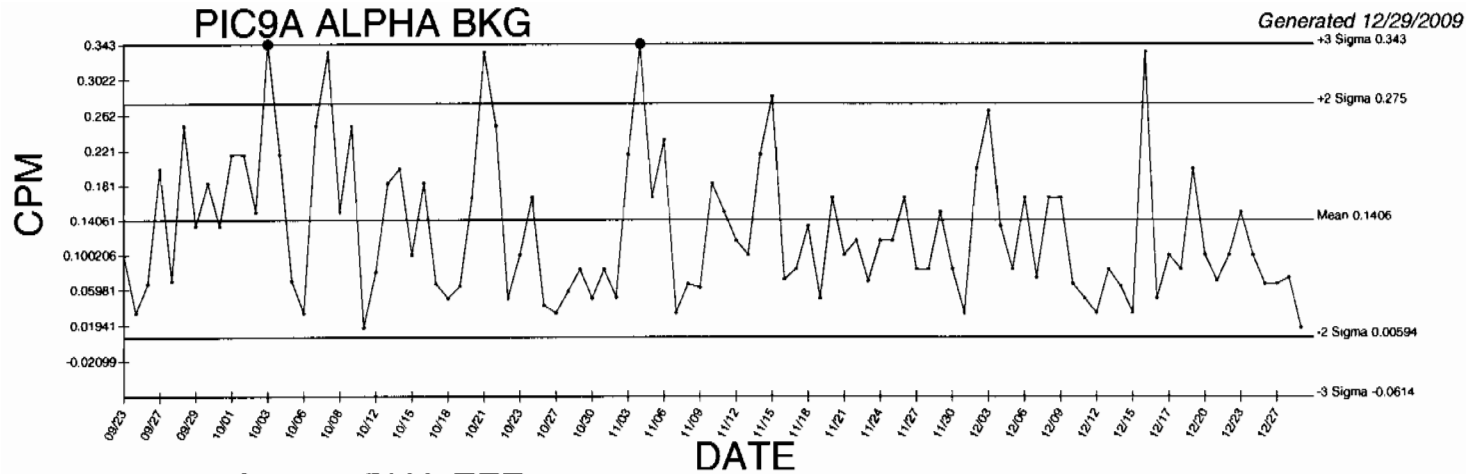
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Generated 12/29/2009
CPM
DATE
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Mean 0.1406
-2 Sigma 0.00594
-3 Sigma -0.0614

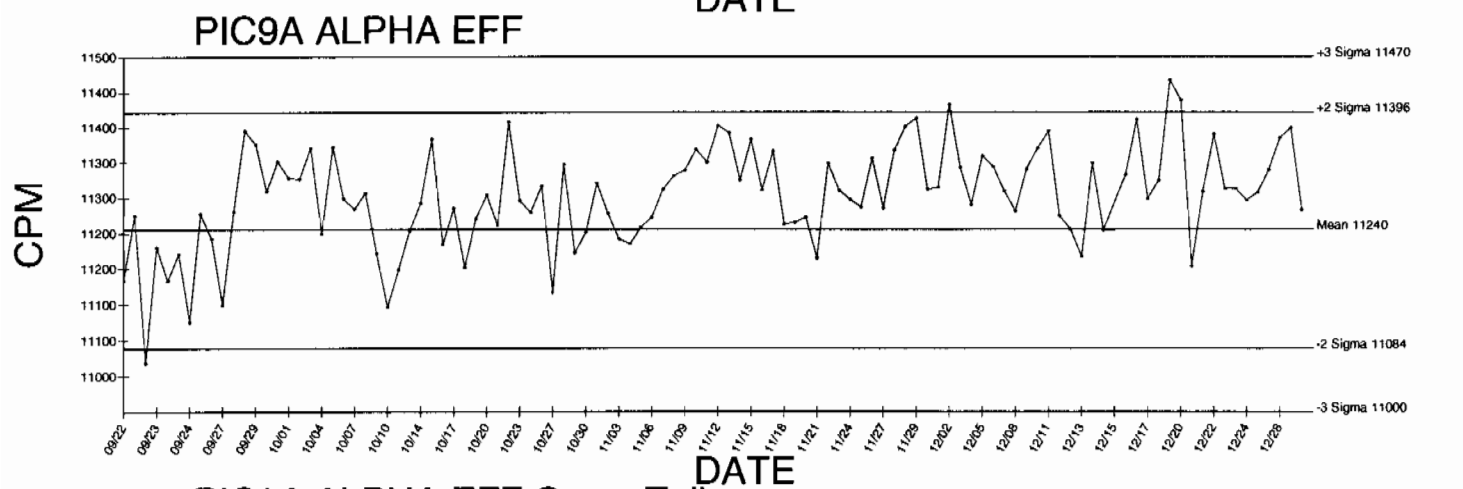
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CPM
DATE
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+2 Sigma 11396
Mean 11240
-2 Sigma 11084
-3 Sigma 11000

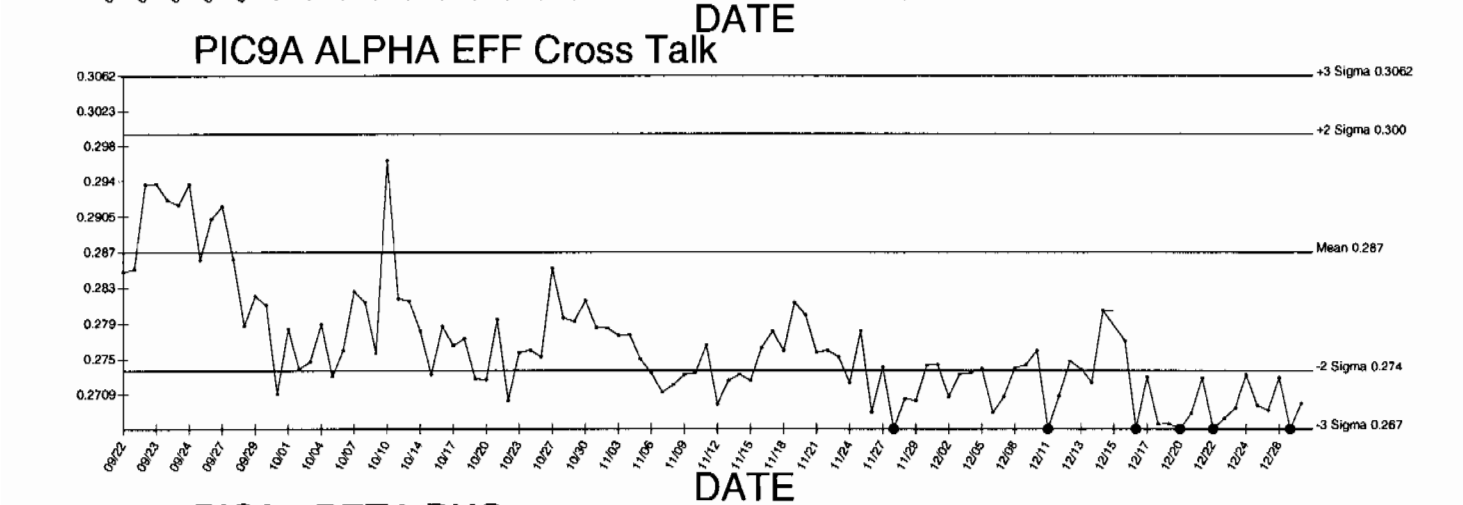
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DATE
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Mean 0.287
-2 Sigma 0.274
-3 Sigma 0.267

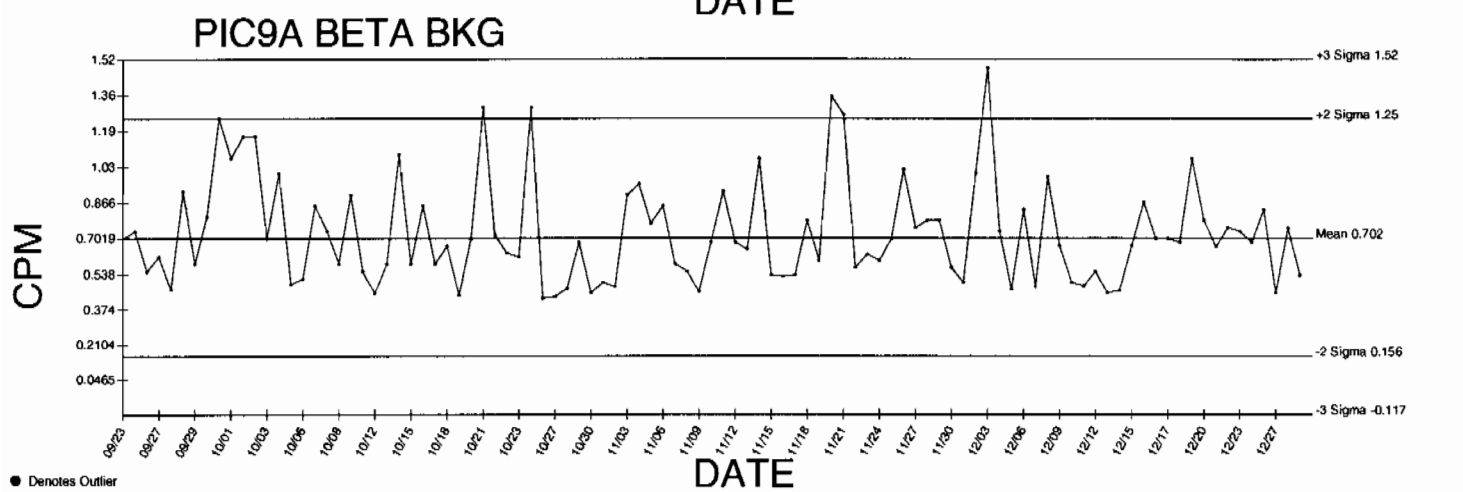
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CPM
DATE
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Mean 0.702
-2 Sigma 0.156
-3 Sigma -0.117
● Denotes Outlier

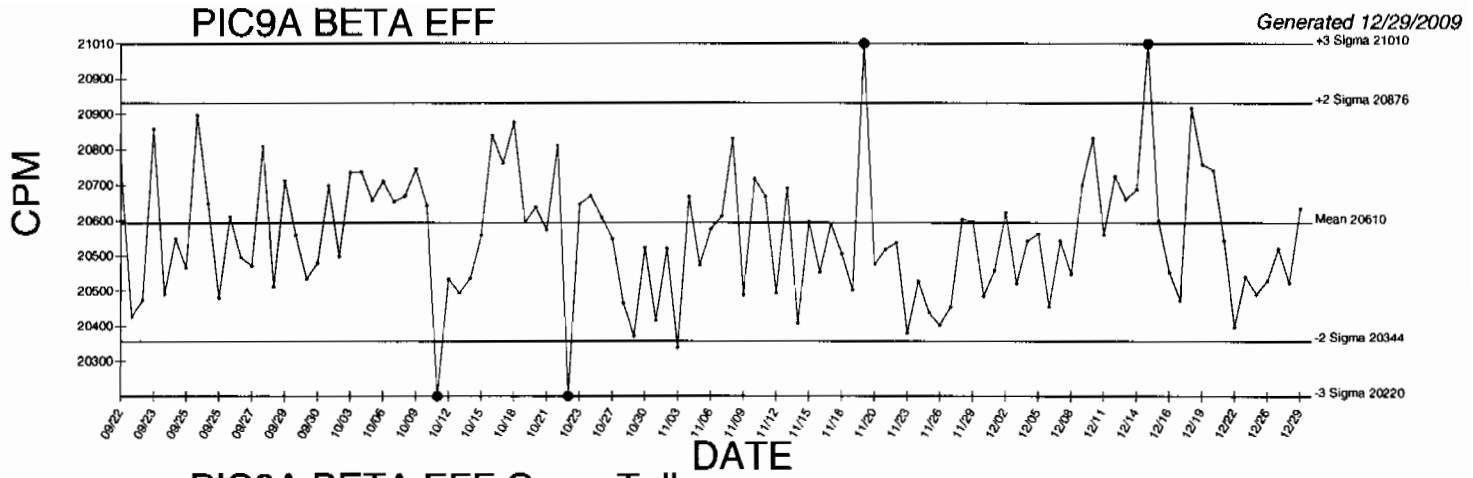

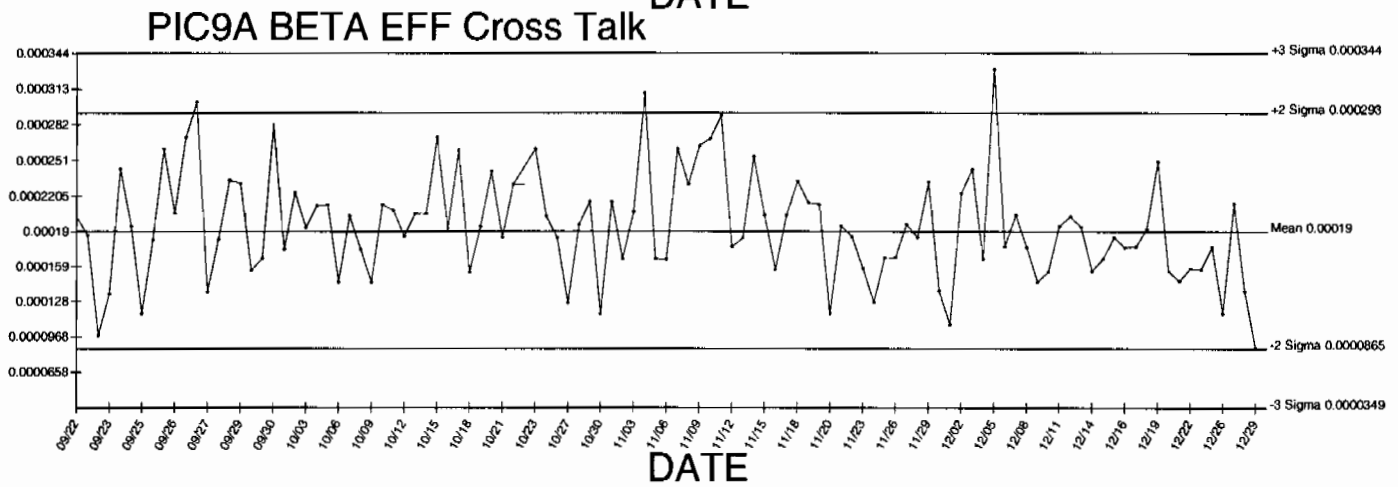

● Denotes Outlier

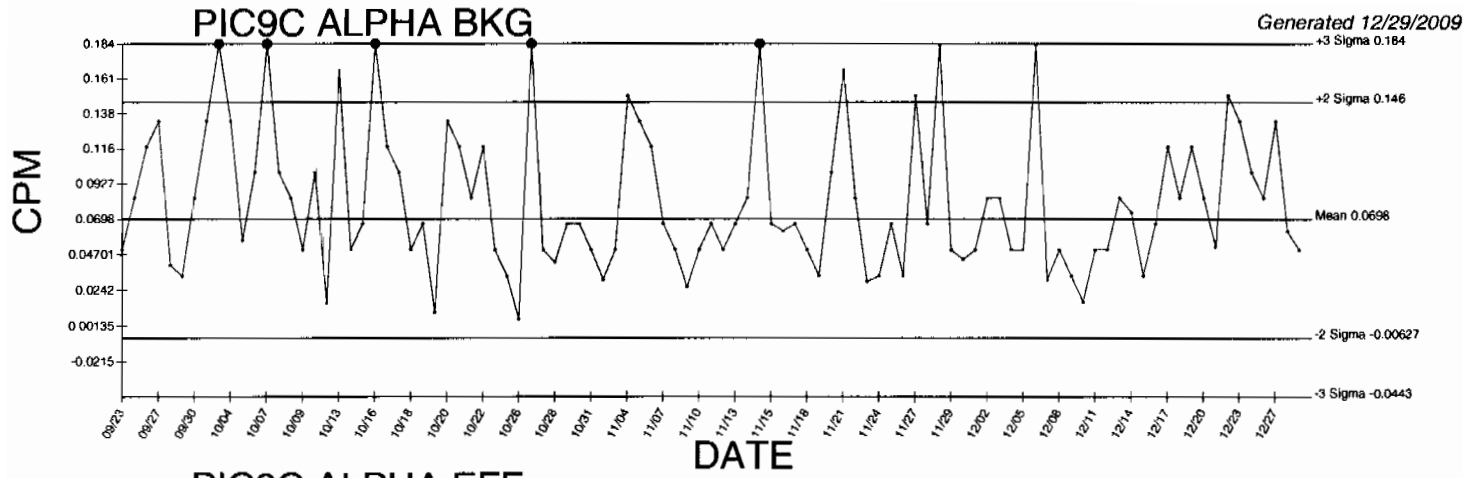
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Generated 12/29/2009
CPM
DATE
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Mean 0.0698
-2 Sigma -0.00627
-3 Sigma -0.0443

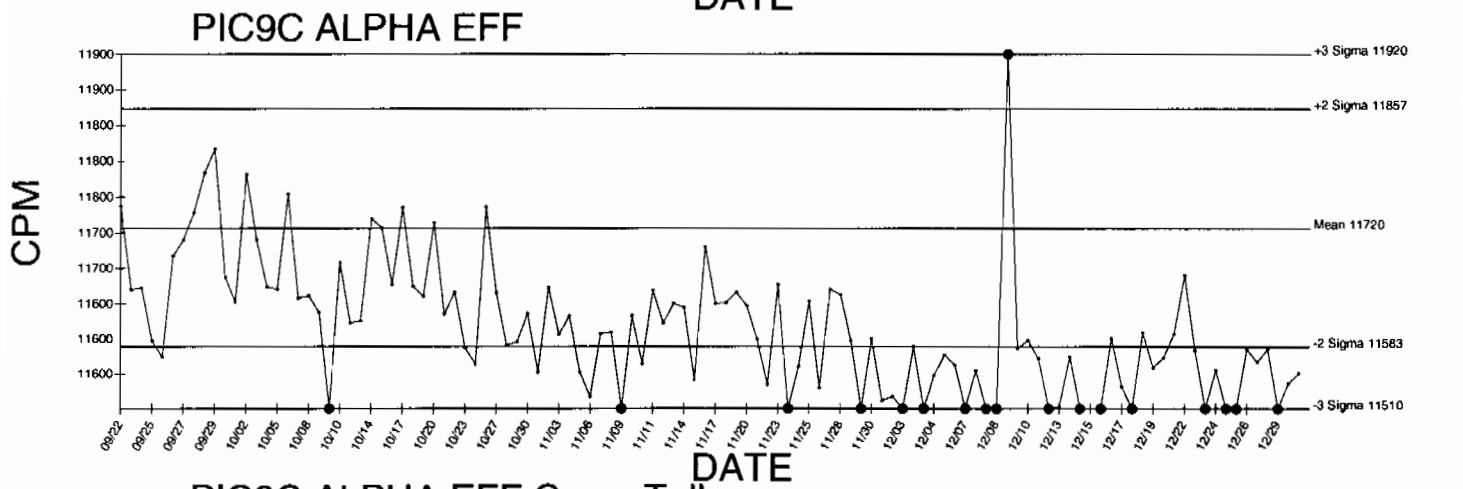
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CPM
DATE
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+2 Sigma 11857
Mean 11720
-2 Sigma 11583
-3 Sigma 11510

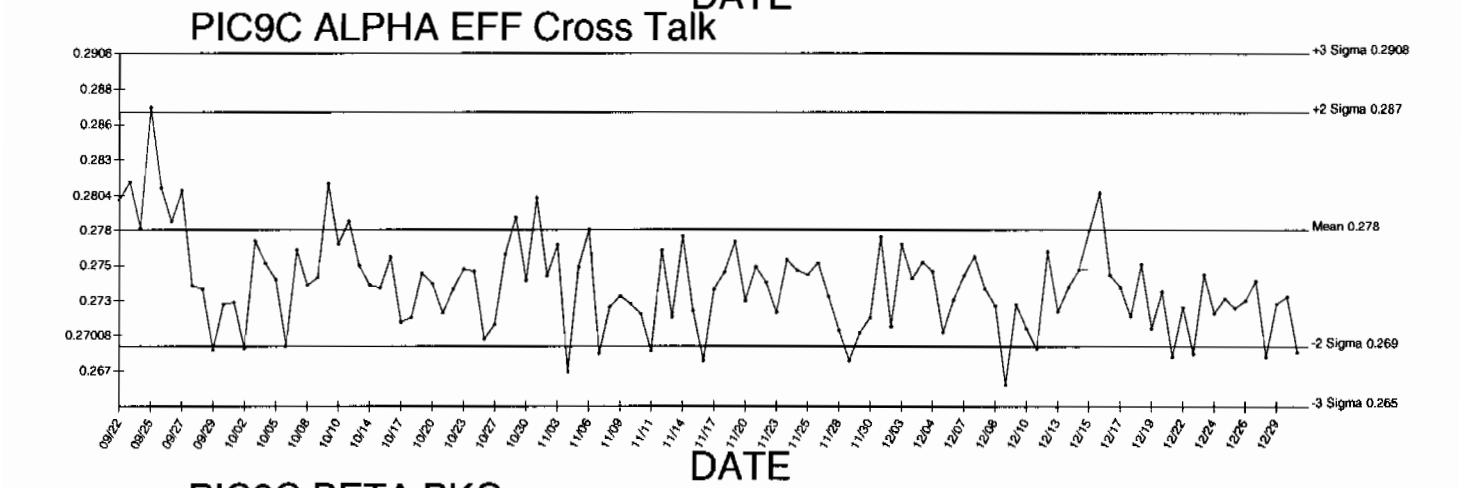
PIC9C ALPHA EFF Cross Talk
DATE
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+2 Sigma 0.287
Mean 0.278
-2 Sigma 0.269
-3 Sigma 0.265

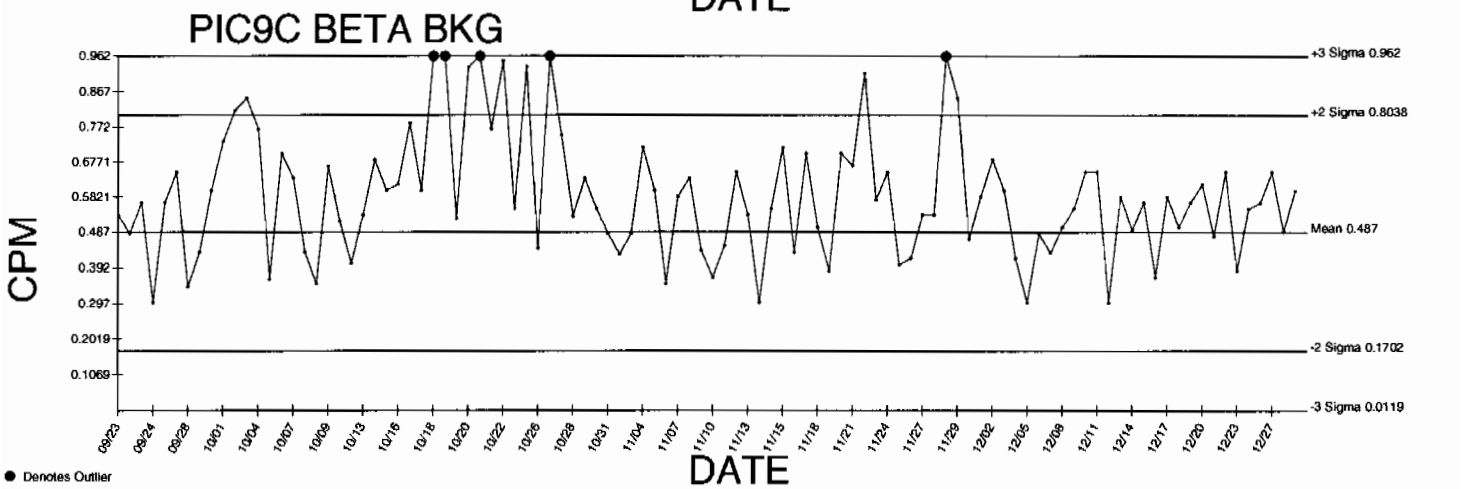
PIC9C BETA BKG
CPM
DATE
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Mean 0.487
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● Denotes Outlier

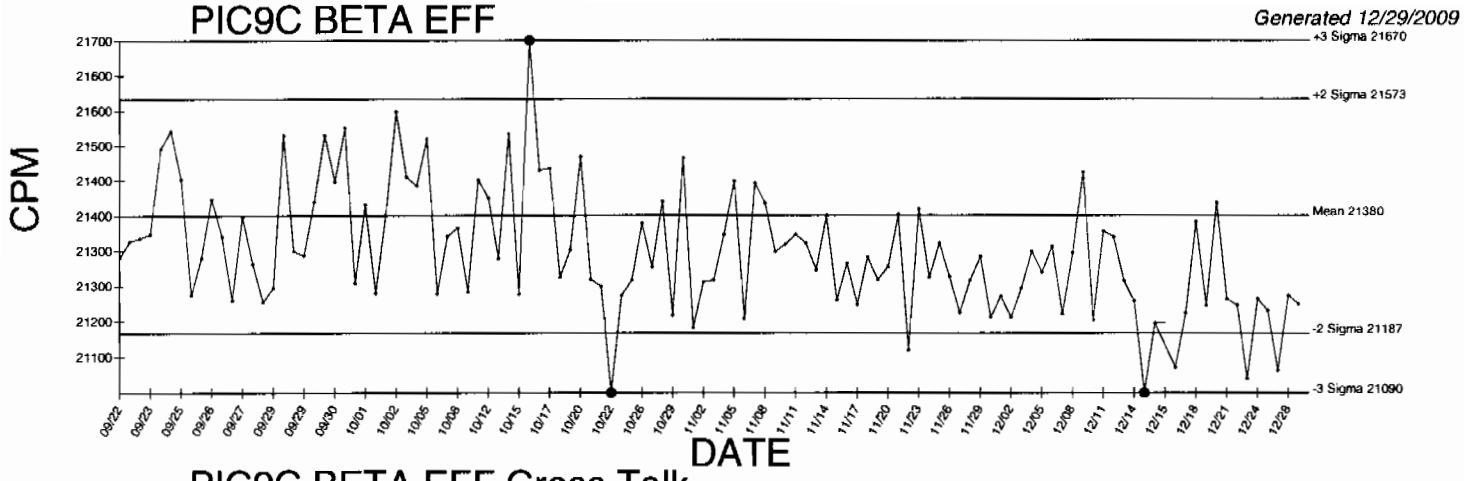

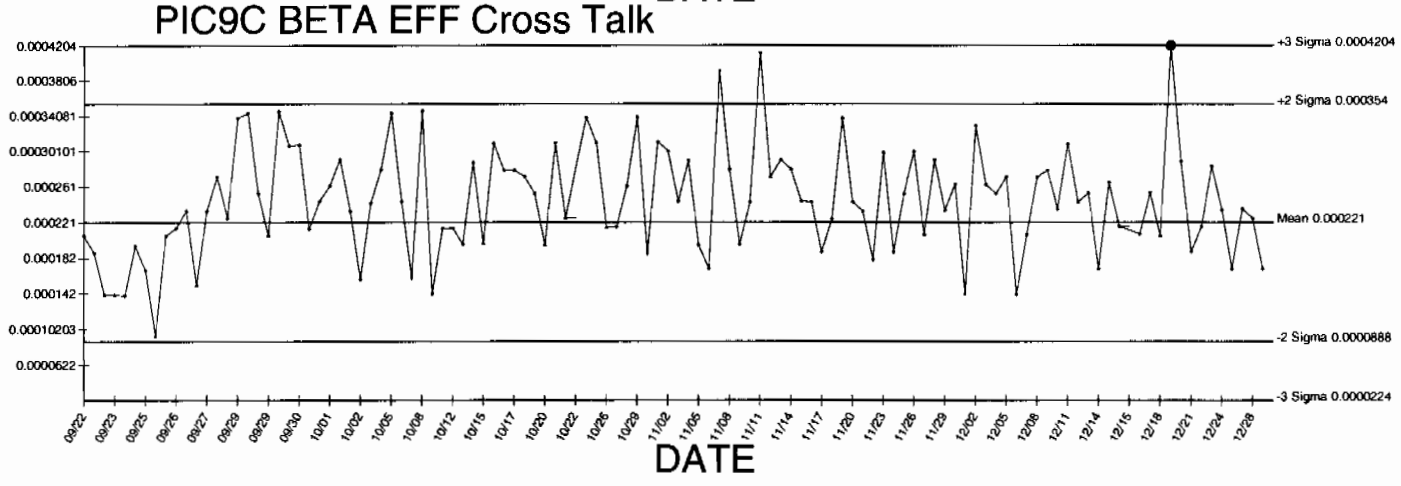

● Denotes Outlier

STANDARDS DATA

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
Fax 404-352-2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/30/06
RC-S-045-073-0

Laboratory

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318

Tel 404-352-8677
Fax 404-352-2837
www.analyticsinc.com

ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- Ver. JAR-1
	Mixed Gamma N2	2510	pCi/L	- Ver. JAR-3
	Mixed Gamma N3	2413	pCi/L	- Ver. JAR-5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**	
Stdev =	64.065		**Rule 3 (Pass/Fail)**	
Certificate Value =	2485.68018	pCi/L		
Lower Limit =	2357.536524	pCi/L		
Upper Limit =	2613.796809	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	128.1301422			
10 % of Mean =	248.56666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 verification 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2

Mean Value (Counting) =	886.90	**95.01**	**Pass**
Stdev =	28.651	**Rule 3 (Pass/Fail)**	

Certificate Value =	933.44144	pCi/L
Lower Limit =	829.597644	pCi/L
Upper Limit =	944.202356	pCi/L
Rule 1 (Pass/Fail)	**Pass**	
Two sigma =	57.30235597	
10 % of Mean =	88.69000000	
Rule 2 (Pass/Fail)	**Pass**	

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result		
	Mixed Gamma N1	1572	pCi/L	- VER-JAR-5
	Mixed Gamma N2	1495	pCi/L	- VER-JAR-2
	Mixed Gamma N3	1501	pCi/L	- VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**	
Stdev =	42.829	**Rule 3 (Pass/Fail)**		
Certificate Value =	1545.8378	pCi/L		
Lower Limit =	1437.008431	pCi/L		
Upper Limit =	1608.324902	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	85.65823564			
10 % of Mean =	152.26666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0533

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 · U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

65338-278

Am-241 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Am-241
ACTIVITY (dps):	3.920 E4
HALF-LIFE:	4.322 E2 years
CALIBRATION DATE:	January 15, 2003 12:00 EST
TOTAL UNCERTAINTY*:	3.2%
SYSTEMATIC:	2.2%
RANDOM:	1.0%

*99% confidence level.

5.10649 grams 1M HCl solution.

Impurities: γ-impurities <0.1%
α-impurities <0.1%

P O NUMBER 3213 RD, Item 1

SOURCE PREPARED BY: M Taskaeva
M. Taskaeva, Radiochemist

Q A APPROVED: UM Mt 1-16-03

RC-S-035-048a

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0533
Prepared By:	Angela Johnson
Carrier Conc:	1 M HCL
Reference Date:	01/15/2003
Ampoule Mass (g):	5.10649 g
Uncertainty:	+/- 3.2 %
LogBook No:	RC S 035 048

A Solution Material Info	
Isotope:	Americium-241
Prepared By:	Angela Johnson
Prep Date:	02/05/2003
Verification Date:	09/29/2008
Expiration Date:	09/29/2009
Primary Code:	0533-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8225 g
Density(g/mL):	1.0139
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8225 g) * (39200 dps) * (60 dpm/dps) / (5.10649 g * 100 mL) = 22211.9695 dpm/mL
(4.8225 g) * (39200 dps) * (60 dpm/dps) / (1.0139 g/mL)/ (5.10649 g * 100 mL) = 21907.2185 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
02/20/2003	Angela Johnson	1.0151	100	0533-B	222.38 dpm/mL	03/01/2006	03/01/2007
02/20/2003	Angela Johnson	.6819	250	0533-C	59.754 dpm/mL	02/20/2004	02/20/2005
05/07/2003	Tim Chandler	.1245	100	0533-D	27.2745 dpm/mL	05/03/2004	05/03/2005
09/10/2004	Amanda Fehr	.6933	250	0533-E	60.753 dpm/mL	09/10/2005	09/10/2006
12/17/2004	Brenda Burke	.0093	100	0533-F	2.0374 dpm/mL	12/20/2004	12/20/2005
12/21/2004	Brenda Burke	.009273	100	0533-G	2.0315 dpm/mL	12/07/2005	12/07/2006
04/28/2005	Brenda Burke	.1347	100	0533-H	29.4598 dpm/mL	04/27/2006	04/27/2007
10/19/2005	Mary Aders	.6948	250	0533-I	60.7831 dpm/mL	10/18/2006	10/18/2007

05/08/2006	Julie Strock	.0711	100	0533-J	15.576 dpm/mL	05/10/2008	05/10/2009
05/11/2006	Brenda Burke	.00092601	100	0533-K	.20286 dpm/mL	08/02/2007	07/28/2007
11/15/2006	Tina Schoneman	.132	1000	0533-L	2.88586 dpm/mL	10/30/2008	10/30/2009
06/12/2007	Julie Strock	.000979	100	0533-M	.21448 dpm/mL	05/20/2009	05/20/2010
08/03/2007	Daniel Roy	.7042	250	0533-N	61.7083 dpm/ml	08/02/2008	08/02/2009
09/25/2008	Daniel Roy	1.4561	500	0533-O	63.7982 dpm/ml	09/10/2009	09/10/2010
09/29/2008	Tara Sides	.1004	100	0533-P	21.9948 dpm/mL	09/09/2009	09/09/2010
06/03/2009	Julie Strock	.0009751	100	0533-Q	.2136 dpm/mL	06/05/2009	06/03/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-241 Standard *0533-O*

M. Aders			
9/10/2009	**Isotope**	**Value**	**Uncertainty**
	0533-O #1	2.880	0.3960
	0533-O #2	2.820	0.3910
	0533-O #3	2.790	0.3840
Mean Value (Counting) =	2.830	0.9953264	
Stdev =	0.045825757		
Target =	2.84		
Lower Limit =	2.738348486		
Upper Limit =	2.921651514		
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**
Two sigma =	0.091651514		
10 % of Mean =	0.283		
Rule 2 (Pass/Fail)	**Pass**		

Rule 1 = The target value must lie within the average counting value concentration plus or minus two times the standard deviation of the three counting sources.
Rule 2 =The calculated value of two times the standard deviation of the concentration of the three counted sources must be less than 10% of the average concentration value.
Rule 3 = The determined mean value must be +/- 5% of the of the certificate value or within the uncertainty of the standards being verified.

The analyst prepared three standard verification sources for standard ***0533-O*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Am_243*** standard ***445-96-2-SS*** in a disposable centrifuge tube. 4 mL of 2M HCL was added and was diluted with 6 mL of DI water. 25 micrograms of neodymium carrier and two mL of 49% HF was added to precipitate neodymium (and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-241 were calculated by comparison to Am-243 certified values.

9/22/09
9/25/09

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Khan
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ **1. STANDARD WIPE TEST**

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **2. SOAK TEST**

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **3. SOAK TEST -- BERYLLIUM WINDOW**

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **4. GAS SOURCE TEST (Radioactive Gas)**

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ **5. OTHER LEAK TEST**

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **6. LEAK TEST NOT APPLICABLE**

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	05/11/2009
Expiration Date:	05/11/2010
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Julie Strock	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/30/2008	09/29/2009
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-SS*

M. Aders	Isotope	Value	Uncertainty
5/15/2009	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590
Mean Value (Counting) =	1.340	101.99	**Pass**
Stdev =	0.043588989		**Rule 3 (Pass/Fail)**

Target =	1.314
Lower Limit =	1.252822021
Upper Limit =	1.427177979
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.087177979
10 % of Mean =	0.134
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-SS*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Mary Gridean 5/15/09
007509

0338

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 · U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

60513-278

Pu-239 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using an aliquot measured gravimetrically from a master radionuclide solution standard. The master radionuclide solution standard was calibrated by the Department Des Applications Et De La Metrologie Des Rayonnements Ionisants (DAMRI), Paris, France, as Number 24148.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Pu-239
ACTIVITY (dps):	3.674 E4
HALF-LIFE:	24131 years
CALIBRATION DATE:	October 30, 2000 12:00 EST
TOTAL UNCERTAINTY*:	5.0%

*99% confidence level.

5.45541 grams 3M HNO_3 solution.

Impurities detected (activity in dps/vial on Oct. 30, 2000):

Am-241 297.28
Pu-240 1208.8
Pu-241 2010.7
Pu-242 0.17

See reverse side for additional information.

P O NUMBER 2528RD, Item 1

PREPARED BY: M. Taskaeva
M. Taskaeva, Radiochemist

Q A APPROVED: RCW 11/13/00

RC-S-028-167

Standard Traceability Log Rad

Source Material Info

Parent Code:	0338
Prepared By:	Penet Melton
Carrier Conc:	3 M HNO3
Reference Date:	10/30/2000
Ampoule Mass (g):	5.45541 g
Uncertainty:	+/- 5 %
LogBook No:	RC S 027 167

A Solution Material Info

Isotope:	Plutonium-239
Prepared By:	Penet Melton
Prep Date:	12/01/2000
Verification Date:	09/29/2008
Expiration Date:	09/29/2009
Primary Code:	0338-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.1674 g
Density(g/mL):	1.0121
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL | dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)

(5.1674 g) * (36740 dps) * (60 dpm/dps) / (5.45541 g * 100 mL) = 20880.2208 dpm/mL

(5.1674 g) * (36740 dps) * (60 dpm/dps) / (1.0121 g/mL)/ (5.45541 g * 100 mL) = 20630.6111 dpm/g

(5.1674 g) * (37948.8 dps) * (60 dpm/dps) / (5.45541 g * 100 mL) = 21567.2108 dpm/mL

(5.1674 g) * (37948.8 dps) * (60 dpm/dps) / (1.0121 g/mL)/ (5.45541 g * 100 mL) = 21309.3885 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
06/23/2009	Mary Aders	.591	250	0338-BB	50.3753 dpm/mL	06/23/2009	06/23/2010
10/29/2001	Tim Chandler	.3032	250	0338-E		10/16/2003	10/16/2004
12/30/2002	Tim Chandler	10.0252	100	0338-I		10/24/2003	10/24/2004
08/12/2003	Amanda Fehr	.2282	100	0338-K		08/12/2003	08/12/2004
12/09/2003	Amanda Fehr	.2409	100	0338-L		12/09/2003	12/09/2004

03/18/2004	Tim Chandler	10.0192	500	0338-M		03/18/2004	03/18/2005
04/26/2004	Amanda Fehr	.643	250	0338-N		04/26/2005	04/26/2006
05/26/2004	Eric Williamson	.355	250	0338-O	30.2619 dpm/mL	05/17/2007	05/17/2008
12/20/2004	Brenda Burke	.01957	100	0338-P	4.16992 dpm/mL	12/19/2006	12/19/2007
03/16/2005	Julie Strock	10.0395	100	0338-Q	2139.558 dpm/mL	06/12/2008	06/12/2009
07/19/2005	Amanda Fehr	.677	250	0338-R		07/10/2006	07/10/2007
05/11/2006	Brenda Burke	.0009935	100	0338-S	.21172 dpm/mL	07/30/2007	07/28/2007
01/04/2007	Julie Strock	.050286	250	0338-T	4.2887 dpm/mL	12/31/2007	12/31/2008
01/05/2007	Daniel Roy	.7285	250	0338-U		01/05/2008	01/05/2009
03/16/2005	Julie Strock	.010175	1000	0338-V	.216847 dpm/mL	04/23/2009	04/23/2010
05/15/2007	Eric Williamson	.253	250	0338-W	21.567 dpm/mL	05/21/2009	05/21/2010
07/31/2007	Julie Strock	.0010045	100	0338-X	.21379 dpm/mL	12/31/2007	12/31/2008
12/10/2008	Daniel Roy	.7715	250	0338-Y		12/10/2008	12/10/2009
09/29/2008	Julie Strock	.0504	250	0338-Z	4.29599 dpm/mL	09/30/2008	09/29/2009

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Plutonium-239 Standard *0338-BB*

Analyst: M. Aders	**Serial #**	**Value**	**Uncertainty**
Date: 6/25/09	0338-BB #1	2.350	0.2960
	0338-BB #2	2.190	0.2210
	0338-BB #3	2.300	0.2920
Mean Value (Counting) =	2.280	103.80917	**Pass**
Stdev =	0.081853528		
Target =	2.196		
Lower Limit =	2.116292945		
Upper Limit =	2.443707055		
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**
Two sigma =	0.163707055		
10 % of Mean =	0.228		
Rule 2 (Pass/Fail)	**Pass**		

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements.
Rule 2 = The two sigma value used for the 95% cinfidence interval shall not exceed 10% of the mean value of the three measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three Pu-239 standard verification sources for standard ***0338-BB*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Pu-242*** standard ***1262-A*** and was diluted in a disposable centrifuge tube with 4 mL of 2 M HCl, and 6 mL of DI water, 50 micrograms of Nd carrier and 5 drops of hydrazine dihydrochloride were added to the centrifuge tube and swirled. After waiting ten minutes, two mL of 49% HF was added to precipitate Nd(and ***plutonium***) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for ***Pu-239*** were calculated by comparison to ***Pu-242*** certified values.

Mary L. Adams 06/26/09

Robert R 062609

1374

National Institute of Standards & Technology
Certificate

Standard Reference Material 4334H
Plutonium-242 Radioactivity Standard

This Standard Reference Material (SRM) consists of radioactive plutonium-242 nitrate and nitric acid dissolved in 5 mL of distilled water. The solution is contained in a flame-sealed NIST borosilicate-glass ampoule. The SRM is intended for the calibration of alpha-particle counting instruments and for the monitoring of radiochemical procedures.

Radiological Hazard: The SRM ampoule contains plutonium-242 with a total activity of approximately 150 Bq. Plutonium-242 decays by alpha-particle emission. None of the alpha particles escape from the SRM ampoule. During the decay process, X-rays and gamma rays with energies from 10 keV to 160 keV are also emitted. Most of these photons escape from the SRM ampoule but their intensities are so small that they do not represent a radiation hazard. Approximate unshielded dose rates at several distances (as of the reference time) are given in note [a]*. The SRM should be used only by persons qualified to handle radioactive material.

Chemical Hazard: The SRM ampoule contains nitric acid (HNO_3) with a concentration of 3 moles per liter of water. The solution is corrosive and represents a health hazard if it comes in contact with eyes or skin. If the ampoule is to be opened to transfer the solution, the recommended procedure is given on page 2. The ampoule should be opened only by persons qualified to handle both radioactive material and strong acid solution.

Storage and Handling: The SRM should be stored and used at a temperature between 5 °C and 65 °C. The solution in an unopened ampoule should remain stable and homogeneous until at least January 2015. The ampoule (or any subsequent container) should always be clearly marked as containing radioactive material. If the ampoule is transported it should be packed, marked, labeled, and shipped in accordance with the applicable national, international, and carrier regulations. The solution in the ampoule is a dangerous good (hazardous material) both because of the radioactivity and because of the strong acid.

Preparation: This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

RECEIVED 2/2/04

Lisa R. Karam, Acting Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
January 2005

Robert L. Watters, Jr., Chief
Measurement Services Division

*Notes and references are on pages 5 to 7.

DC-5-051-013

Recommended Procedure for Opening the SRM Ampoule

1) If the SRM solution is to be diluted, it is recommended that the diluting solution have a composition comparable to that of the SRM solution.

2) Wear eye protection, gloves, and protective clothing and work over a tray with absorbent paper in it. Work in a fume hood. In addition to the radioactive material, the solution contains strong acid and is corrosive.

3) Shake the ampoule to wet all of the inside surface of the ampoule. Return the ampoule to the upright position.

4) Check that all of the liquid has drained out of the neck of the ampoule. If necessary, gently tap the neck to speed the process.

5) Holding the ampoule upright, score the narrowest part of the neck with a scribe or diamond pencil.

6) Lightly wet the scored line. This reduces the crack propagation velocity and makes for a cleaner break.

7) Hold the ampoule upright with a paper towel, a wiper, or a support jig. Position the scored line away from you. Using a paper towel or wiper to avoid contamination, snap off the top of the ampoule by pressing the narrowest part of the neck away from you while pulling the tip of the ampoule towards you.

8) Transfer the solution from the ampoule using a pycnometer or a pipet with dispenser handle. NEVER PIPETTE BY MOUTH.

9) Seal any unused SRM solution in a flame-sealed glass ampoule, if possible, to minimize the evaporation loss.

See also reference [4]*.

*Notes and references are on pages 5 to 7.

PROPERTIES OF SRM 4334H

Certified values

Radionuclide	**Plutonium-242**
Reference time	**1200 EST, 07 June 1994 [b]***
Massic activity of the solution [c]	**26.31 $Bq \cdot g^{-1}$**
Relative expanded uncertainty (k=2)	**0.72% [d] [e]**
Solution density	**(1.105 ± 0.002) $g \cdot mL^{-1}$ at 20 °C [f]**

Uncertified values

Physical Properties:			
Source description	Liquid in flame-sealed NIST borosilicate-glass ampoule		
Ampoule specifications	Body outside diameter Wall thickness Barium content Lead-oxide content Other heavy elements	(16.5 ± 0.5) mm (0.60 ± 0.04) mm Less than 2.5% Less than 0.02% Trace quantities	
Solution mass	Approximately 5.5 g		
Chemical Properties:			
Solution composition	Chemical Formula	Concentration ($mol \cdot L^{-1}$)	Mass Fraction ($g \cdot g^{-1}$)
	H_2O HNO_3 $^{242}Pu^{+6}$	50 3.2 8×10^{-7}	0.81 0.19 2×10^{-7}
Radiological Properties:			
Alpha-particle-emitting impurities	None detected [g] [h]. See table on page 5.		
Beta-particle-emitting impurities	Plutonium-241: (0.092 ± 0.018) $Bq \cdot g^{-1}$ [f] [h]		
Photon-emitting impurities	None detected [i]		
Half lives used	Plutonium-242: (373 500 ± 1100) a [j] [5] Plutonium-241: (14.35 ± 0.10) a [j] [5] Americium-241: (432.2 ± 0.7) a [j] [5]		
Calibration method and measuring instrument(s)	Three $4\pi\alpha$ liquid-scintillation counters, a calibrated germanium detector system, and a silicon surface-barrier detector		

*Notes and references are on pages 5 to 7.

EVALUATION OF THE UNCERTAINTY OF THE MASSIC ACTIVITY [d] [e]*

Input Quantity x_i, the source of uncertainty (and individual uncertainty components where appropriate)	Method Used To Evaluate $u(x_i)$, the standard uncertainty of x_i (A) denotes evaluation by statistical methods (B) denotes evaluation by other methods	Relative Uncertainty Of Input Quantity, $u(x_i)/x_i$, (%) [k]	Relative Sensitivity Factor, $\lvert\partial y/\partial x_i\rvert \cdot (x_i/y)$ [m]	Relative Uncertainty Of Output Quantity, $u_i(y)/y$, (%) [n]
Massic alpha-particle emission rate, corrected for background and decay	Standard deviation of the mean for 80 sets of $4\pi\alpha$ liquid-scintillation measurements (A)	0.05	1.0	0.05
Half life of Pu-242	Standard uncertainty of the half life (A)	0.32 [p]	0.00001 [q]	0.000003
Decay-scheme data	Standard uncertainty of the probability of decay by alpha-particle emission (A)	0.001	1.0	0.001
Extrapolation of alpha-particle-count-rate-versus-energy to zero energy	Estimated (B)	0.25	1.0	0.25
Gravimetric measurements	Estimated (B)	0.10	1.0	0.10
Live time [r]	Estimated (B)	0.10	1.0	0.10
Alpha-particle detection efficiency of scintillators	Estimated (B)	0.15	1.0	0.15
Alpha-particle-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Photon-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Relative Combined Standard Uncertainty of the Output Quantity, $u_c(y)/y$, (%)				0.36
Coverage Factor, k				x 2
Relative Expanded Uncertainty of the Output Quantity, U/y, (%)				0.72

*Notes and references are on pages 5 to 7.

RELATIVE ACTIVITIES OF RADIONUCLIDIC IMPURITIES AT THE REFERENCE TIME [b]

Radionuclide	Half Life (years) [j] [5]	Relative Activity As Determined By	
		LLNL	NIST
Plutonium-242	373 500 ± 1100	1.000 000	1.000 000
Plutonium-241	14.35 ± 0.10	- -	0.0035 ± 0.0004 [t]
Plutonium-240	6 564 ± 11	^{239}Pu + ^{240}Pu <0.000 001 [u]	^{239}Pu + ^{240}Pu 0.000 020 ± 0.000 021 [v]
Plutonium-239	24 110 ± 30		
Plutonium-238	87.7 ± 0.1	^{238}Pu + ^{241}Am <0.000 016 [u]	0.000 009 ± 0.000 016 [v]
Americium-241	432.2 ± 0.7		0.000 000 assumed [t]

NOTES

[a] The Sievert is the SI unit for dose equivalent. See reference [1]. One μSv is equal to 0.1 mrem.

Distance from Ampoule (cm):	1	30	100
Approximate Dose Rate (μSv/h):	<0.1	-	-

[b] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994.

[c] **Massic activity** is the preferred name for the quantity activity divided by the total mass of the sample. See reference [1].

[d] The reported value, y, of massic activity (activity per unit mass) at the reference time was not measured directly but was derived from measurements and calculations of other quantities. This can be expressed as $y = f(x_1, x_2, x_3, \ldots x_n)$, where f is a mathematical function derived from the assumed model of the measurement process. The value, x_i, used for each input quantity i has a **standard uncertainty**, $u(x_i)$, that generates a corresponding uncertainty in y, $u_i(y) \equiv |\partial y/\partial x_i| \cdot u(x_i)$, called a **component of combined standard uncertainty** of y. The **combined standard uncertainty** of y, $u_c(y)$, is the positive square root of the sum of the squares of the components of combined standard uncertainty. The combined standard uncertainty is multiplied by a **coverage factor** of $k = 2$ to obtain U, the **expanded uncertainty** of y.

Since it can be assumed that the possible estimated values of the massic activity are approximately normally distributed with approximate standard deviation $u_c(y)$, the unknown value of the massic activity is believed to lie in the interval $y \pm U$ with a level of confidence of approximately 95 percent.

For further information on the expression of uncertainties, see references [2] and [3].

[e] The value of each component of combined standard uncertainty, and hence the value of the expanded uncertainty itself, is a best estimate based upon all available information, but is only approximately known. That is to say, the "uncertainty of the uncertainty" is large and not well known. This is true for uncertainties evaluated by statistical methods (e.g., the relative standard deviation of the standard deviation of the mean for the massic response is approximately 50%) and for uncertainties evaluated by other methods (which could easily be over estimated or under estimated by substantial amounts). The unknown value of the expanded uncertainty is believed to lie in the interval $U/2$ to $2U$ (i.e., within a factor of 2 of the estimated value).

[f] The stated uncertainty is two times the standard uncertainty.

[g] Estimated limits of detection for alpha-particle-emitting impurities, expressed as massic alpha-particle emission rates (numbers of alpha particles per second per gram), are:
0.003 $s^{-1} \cdot g^{-1}$ for energies less than 3.1 MeV,
0.03 $s^{-1} \cdot g^{-1}$ for energies between 3.1 and 4.4 MeV, and
0.003 $s^{-1} \cdot g^{-1}$ for energies greater than 5.0 MeV.

[h] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994. Americium-241, the daughter of plutonium-241, was removed but has been growing in since that time.

[i] Estimated limits of detection for photon-emitting impurities, expressed as massic photon emission rates (numbers of photons per second per gram), are:
5×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 19 and 39 keV,
7×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 49 and 92 keV,
2×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 106 and 507 keV,
1×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 515 and 1456 keV, and
5×10^{-6} $s^{-1} \cdot g^{-1}$ for energies between 1465 and 2750 keV,
provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of plutonium-242, plutonium-241, or americium-241.

[j] The stated uncertainty is the standard uncertainty.

[k] Relative standard uncertainty of the input quantity x_i.

[m] The relative change in the output quantity y divided by the relative change in the input quantity x_i. If $|\partial y/\partial x_i| \cdot (x_i/y) = 1.0$, then a 1% change in x_i results in a 1% change in y. If $|\partial y/\partial x_i| \cdot (x_i/y) = 0.05$, then a 1% change in x_i results in a 0.05% change in y.

[n] Relative component of combined standard uncertainty of output quantity y, rounded to two significant figures or less. The relative component of combined standard uncertainty of y is given by $u_i(y)/y \equiv |\partial y/\partial x_i| \cdot u(x_i)/y = |\partial y/\partial x_i| \cdot (x_i/y) \cdot u(x_i)/x_i$. The numerical values of $u(x_i)/x_i$, $|\partial y/\partial x_i| \cdot (x_i/y)$, and $u_i(y)/y$, all dimensionless quantities, are listed in columns 3, 4, and 5, respectively. Thus, the value in column 5 is equal to the value in column 4 multiplied by the value in column 3. The input quantities are independent, or very nearly so. Hence the covariances are zero or negligible.

[p] The relative standard uncertainty of $\lambda \cdot t$ is determined by the relative standard uncertainty of λ (i.e., of the half life). The relative standard uncertainty of t is negligible.

[q] $|\partial y/\partial x_i| \cdot (x_i/y) = |\lambda \cdot t|$

[r] The live time is determined by counting the pulses from a gated crystal-controlled oscillator.

[s] The standard uncertainty for each undetected impurity that might reasonably be expected to be present is estimated to be equal to the estimated limit of detection for that impurity, i.e. $u(x_i)/x_i$ = 100%. $|\partial y/\partial x_i| \cdot (x_i/y)$ = {(response per Bq of impurity)/(response per Bq of Pu-242)}•{(Bq of impurity)/(Bq of Pu-242)}. Thus $u_i(y)/y$ is the relative change in y if the impurity were present with a massic activity equal to the estimated limit of detection.

[t] The stated uncertainty is the standard uncertainty. The plutonium-241 activity was calculated from a gamma-ray measurement of the americium-241 ingrowth as of 25 November 1998, assuming that americium-241 was completely removed at the time of chemical purification.

[u] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The value shown is an estimated upper limit based upon background and counting statistics. Measurements were made at the Lawrence Livermore National Laboratory (LLNL) in July of 1994.

[v] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The stated uncertainty is the standard uncertainty. Measurements were made at the National Institute of Standards and Technology (NIST) in June and July of 1999.

REFERENCES

[1] International Organization for Standardization (ISO), *ISO Standards Handbook - Quantities and Units*, 1993. Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B.N. Taylor and C.E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

[4] National Council on Radiation Protection and Measurements Report No. 58, *A Handbook of Radioactivity Measurements Procedures*, Second Edition, 1985. Available from the National Council on Radiation Protection and Measurements, 7910 Woodmont Avenue, Bethesda, MD 20814 U.S.A.

[5] Evaluated Nuclear Structure Data File (ENSDF), January 2005.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1374
Prepared By:	Mary Aders
Carrier Conc:	0.5M HNO3
Reference Date:	06/07/1994
Ampoule Mass (g):	5.5 g
Uncertainty:	+/- .72 %
LogBook No:	RC-S-051-093

A Solution Material Info	
Isotope:	Plutonium-242
Prepared By:	Ashley Drochter
Prep Date:	12/02/2009
Verification Date:	12/08/2009
Expiration Date:	12/08/2010
Primary Code:	1374-A
Dilution(mL):	250 mL
Mass of Parent(g):	5.3616 g
Density(g/mL):	1.0136
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3616 g) * (26.31 Bq/g) * (60 dpm/Bq) / (250 mL) = 33.8553 dpm/mL
(5.3616 g) * (26.31 Bq/g) * (60 dpm/Bq) / (1.0136 g/mL) / (250 mL) = 33.4010 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Pu-242 Standard 1374-*A*

A.Drochter	Isotope	Value	Uncertainty
12/8/2009	1374-A	1.610	0.2480
	1374-A	1.580	0.2510
	1374-A	1.530	0.2440
Mean Value (Counting) =	1.573	103.17	**Pass**
Stdev =	0.040414519		**Rule 3 (Pass/Fail)**
Target =	1.52		
Lower Limit =	1.492504296		
Upper Limit =	1.654162371		
Rule 1 Pass/Fail	**Pass**		
Two sigma =	0.080829038		
10 % of Mean =	0.157333333		
Rule 2 (Pass/Fail)	**Pass**		

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for standard 1374-A using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. Two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-242 were calculated by comparison to Pu-239 certified values.

12/9/09 12/9/09

Eckert & Ziegler
Analytics

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Atlanta, Georgia 30318
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CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1067

74463-278

Sr-90 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Sr-90
ACTIVITY (Bq):	3.835 E4
HALF-LIFE:	28.79 years
CALIBRATION DATE:	February 7, 2007 12:00 EST
RELATIVE EXPANDED UNCERTAINTY (k=2):	1.7%

Impurities: γ-impurities <0.1%

5.01066 grams 0.1M HCl solution with 30 µg/g Sr carrier.

NOTE: This source also contains Y-90 in secular equilibrium with Sr-90. The Y-90 activity is equal to the Sr-90 activity. Since Sr-90 and Y-90 both decay 100% by beta emission, the total beta emission rate for the source is twice the certified Sr-90 activity. The half-life for Y-90 is 64.08 hours.

P O NUMBER 2739 RD, Item 1

RECEIVED 2/8/07

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: UM Mg 2-7-07

RC-S-045-108-A

Corporate Office
24937 Avenue Tibbitts Valencia, California 91355

Laboratory
1380 Seaboard Industrial Blvd. Atlanta, Georgia, 30318

Standard Traceability Log Rad

Source Material Info

Parent Code:	1067
Prepared By:	Daniel Roy
Carrier Conc:	0.1M HCl
Reference Date:	02/07/2007
Ampoule Mass (g):	5.01066 g
Uncertainty:	+/- 1.7 %
LogBook No:	RC-S-045-108

A Solution Material Info

Isotope:	Strontium-90
Prepared By:	Julie Strock
Prep Date:	10/12/2007
Verification Date:	06/17/2009
Expiration Date:	06/23/2010
Primary Code:	1067-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.9657 g
Density(g/mL):	0.9962
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (bq)) * (conversion dpm to bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)

(Mass of parent(g)) * (Parm Activity (bq)) * (conversion dpm to bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)

(4.9657 g) * (38350 bq) * (60 dpm/bq) / (5.01066 g * 100 mL) = 22803.5343 dpm/mL

(4.9657 g) * (38350 bq) * (60 dpm/bq) / (0.9962 g/mL)/ (5.01066 g * 100 mL) = 22889.8293 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/23/2008	Daniel Roy	20.0611	1000	1067-B	459.1952 dpm/ml	07/23/2008	07/23/2009
06/16/2009	Mary Aders	20.0693	1000	1067-C	459.3829 dpm/mL	06/17/2009	06/17/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Sr-90 Standard 1067-C

6/18/2009	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (mL)	Source DPM/mL
M. Aders	1067-C N1	922.6000	45.1300	877.4700	2.030242	1.0000	432.1997082
	1067-C N2	905.2700	45.1300	860.1400	2.030242	1.0000	423.66378
	1067-C N3	918.2700	45.1300	873.1400	2.030242	1.0000	430.0669575
						Average =	428.6434819
Mean Value (Counting) =	428.6434819		**98.7965109**	**% of known**	**Pass**		
Stdev =	4.442435123		0.01036394				
Certificate Value =	433.865	dpm/mL					
Lower Limit =	419.7586117	dpm/mL					
Upper Limit =	437.5283522	dpm/mL					
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**				
Two sigma =	8.884870247						
10 % of Mean =	42.86434819						
Rule 2 (Pass/Fail)	**Pass**						

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for Sr-90 source 1067-C by transferring 1 mL portions of the standard into glass liquid scintillation vials. Thirteen mL of Ecoscint Ultra liqiuid scintillation coctail was prepared in a similar fashion using 1 mL of DI water and 13 mL of Ecoscint Ultra liqiuid scintillation coctail. The standard verification vials and Background source were dark adapted for two hours and counted on LSC Green for Sr-90 source standard verification. The Sr-90 efficiency calibration which was used for verification calculations was performed on 6/17/09 using source 0133-A (Sr-90). Calibration data is recorded in this logbook under Sr-90 0133-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.
RAD SOP M-001

6/18/09
6/29/09

STANDARDIZATION OF STRONTIUM CARRIER

DATE: [redacted] EXP. DATE: [redacted]

LOT NUMBER [redacted]

STRONTIUM PRECIPITATES

	1	2	3	4
Weight of carrier added	[redacted]	[redacted]	[redacted]	[redacted]
Aliquot (5.00 mL)				
Crucible + ppt.	[redacted]	[redacted]	[redacted]	[redacted]
Crucible	[redacted]	[redacted]	[redacted]	[redacted]
Wt. of ppt., g	0.0178	0.0179	0.0179	0.0178
mg Sr/mL	17.80	17.90	17.90	17.80
mg Sr/g	17.28	17.72	17.55	17.28

Must weigh carrier added

Jennifer L. Robb
9-24-09

Average	Std. Dev.	
17.85	± 0.06	0.00323446
17.46	± 0.22	0.0124023
mg Sr/ 0.5 mL		**8.93**
mg Sr/g		17.46

0.5% of Mean Value = 0.08925 Pass

A satisfactory standardization is obtained when results give a standard deviation of less than 0.5% of the mean value.

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1242

78148-278

Th-230 5 mL Liquid in Flame Sealed Vial

Customer: General Engineerings Labs
P.O. No.: 7311RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	Th-230
Activity (Bq):	4.021 E4
Half-Life:	7.538 E4 years
Calibration Date:	August 25, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	2.0%

Comments:
Impurities: γ-impurities <0.1%, α-impurities <0.04%
5.07467 grams 0.5M HNO3 solution.

Source Prepared By: MITaskaeva
M. I. Taskaeva, Radiochemist

QA Approved: DM Montgomery
D. M. Montgomery, QA Manager

Date: 9-4-08

RECEIVED 9/11/08

RC-S-048-123

End of Certificate

Corporate Office

Laboratory

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1242
Prepared By:	Daniel Roy
Carrier Conc:	0.5M HNO3
Reference Date:	08/25/2008
Ampoule Mass (g):	5.07467 g
Uncertainty:	+/- 2 %
LogBook No:	RC-S-048-123

A Solution Material Info	
Isotope:	Thorium-230
Prepared By:	Ashley Drochter
Prep Date:	11/10/2009
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1242-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8836 g
Density(g/mL):	1.0597
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8836 g) * (40210 Bq) * (60 dpm/Bq) / (5.07467 g * 100 mL) = 23217.6149 dpm/mL
(4.8836 g) * (40210 Bq) * (60 dpm/Bq) / (1.0597 g/mL)/ (5.07467 g * 100 mL) = 21908.6601 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/01/2009	Bethany Fiem	6.3855	500	1242-B	279.79548 dpm/mL	12/02/2009	12/02/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Th-230 Standard 1242-B

Analyst: B. Fiem Date: 12/1/09	Source ID	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (ml)	Source DPM/ml
	1242-B #1	321.8000	39.8000	282.0000	1.069320	1.0000	263.719
	1242-B #2	325.2000	39.8000	285.4000	1.069320	1.0000	266.899
	1242-B #3	339.2000	39.8000	299.4000	1.069320	1.0000	279.991

Mean Value (Counting) =	270.2028704	96.5727649	**Pass**
Stdev =	8.62458049		**Rule 3 (Pass/Fail)**

Certificate Value =	279.792
Lower Limit =	252.9537094
Upper Limit =	287.4520313
Rule 1 Pass/Fail	**Pass**
Two sigma =	17.24916098
10 % of Mean =	27.02028704
Rule 2 (Pass/Fail)	**Pass**

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for **Th-230** source **1242-B** by transferring 1.0 mL portions of the standard to glass liquid scintillation vials. 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Background vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for one hour and counted on LSC Green for standard verification. The alpha efficiency calibration which was used for verification calculations was performed on 11/16/09 using NIST source 0905-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference: RAD SOP M - 001

12-10-09

12/2/09

National Institute of Standards & Technology

Certificate

1163

Standard Reference Material 4321C
Natural Uranium Radioactivity Standard

This Standard Reference Material (SRM) consists of a solution of a standardized and certified quantity of radioactive uranium-238, uranium-235, and uranium-234 in a suitably stable and homogeneous matrix. It is intended primarily for the calibration of instruments that are used to measure radioactivity and for the monitoring of radiochemical procedures. The solution, whose composition is specified in Table 1, is contained in a flame-sealed, 5 mL, NIST, borosilicate-glass ampoule (see Note 1)*.

The certified massic activities for the uranium isotopes at a **Reference Time of 1200 EST, 1 August 1997**, are:

Uranium-238: (242.0 ± 1.5) Bq·g^{-1}

Uranium-235: (11.14 ± 0.07) Bq·g^{-1}

Uranium-234: (233.1 ± 2.2) Bq·g^{-1}

Additional physical, chemical, and radiological properties for the SRM, as well as details on the standardization method, are given in Table 1. Uncertainty intervals for certified quantities are expanded ($k = 2$) uncertainties calculated according to the ISO and NIST Guidelines (see Note 2). Table 2 contains a specification of the components that comprise the uncertainty analyses.

The certification of this SRM, within the measurement uncertainties specified, is valid for at least five (5) years after receipt. The solution matrix, in an unopened ampoule, is believed to be indefinitely homogeneous and stable, within its half-life-dependent, useful lifetime. NIST will monitor this material and will report any substantive changes in certification to the purchaser. Should any of the certified values change, purchasers of this SRM will be notified of the change by NIST.

This SRM may represent a radiological hazard and a chemical hazard. Consult the Material Safety Data Sheet (MSDS), enclosed with the SRM shipment, for details (see Note 1).

This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, Dr. M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by Dr. L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

Lisa R. Karam, Deputy Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
November 1997
Text revised and expiration date extended February 2007

Robert L. Watters, Jr., Chief
Measurement Services Division

RECEIVED 11/5/08

*Notes and references are on page 4

RC-S-048-044

Table 1. Properties of SRM 4321C

Certified values

Radionuclides	**Natural Uranium (Mixture of ^{238}U, ^{235}U, and ^{234}U)**
Reference time	**1200 EST, 1 August 1997**
Massic activities of the solution	**^{238}U : 242.0 Bq•g^{-1}** **^{235}U : 11.14 Bq•g^{-1}** **^{234}U : 233.1 Bq•g^{-1}**
Relative expanded uncertainties ($k = 2$)	**^{238}U : 0.60%** (see Note 2)* **^{235}U : 0.60%** (see Note 2) **^{234}U : 0.96%** (see Note 2)

Uncertified information

Source description	Liquid in flame-sealed, 5 mL NIST borosilicate ampoule (see Note 1)
Solution composition	1.0 mol•L^{-1} HCl with 30 mg $UO_2(NO_3)_2$ per gram of solution
Solution density	(1.053 ± 0.001) g•mL^{-1} at 21.4 °C (see Note 3)
Solution mass	(5.258 ± 0.002) g (see Note 3)
Mass fraction of uranium	(0.01960 ± 0.00010) g•g^{-1} (see Note 3)
Photon-emitting impurities	None detected (see Note 4)
Half-lifes used [1]	^{238}U : (4.468 ± 0.003) x 10^9 a ‡ ^{235}U : (7.038 ± 0.005) x 10^8 a ‡ ^{234}U : (2.455 ± 0.006) x 10^5 a ‡
Calibration method (and instruments)	The certified massic activity for natural uranium was obtained by mass spectrometer, silicon surface-barrier detector, and $4\pi\alpha\beta$ liquid scintillation (LS) counting systems.

‡ See Note 5

*Notes and references are on page 4

Table 2. Uncertainty evaluation for the massic activity for SRM 4321C

	Uncertainty component	Assessment Type †	Relative standard uncertainty contribution on massic activity of Natural Uranium (%)
1	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{238}U	A	0.001
2	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{235}U	A	0.07
3	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{234}U	A	0.3
4	Half life of ^{238}U; standard uncertainty of the half-life	A	0.07
5	Half life of ^{235}U; standard uncertainty of the half-life	A	0.07
6	Half life of ^{234}U; standard uncertainty of the half-life	A	0.24
7	Uranium mass fraction in SRM 960; from SRM960 certificate	B	0.003
8	Quantitative dissolution	B	0.25
9	Gravimetric (mass) measurements	B	0.10
10	Limit for photon-emitting impurities	B	0.10
Relative combined standard uncertainty		^{238}U	**0.30**
		^{235}U	**0.30**
		^{234}U	**0.48**
Relative expanded uncertainty (k = 2)		^{238}U	**0.60**
		^{235}U	**0.60**
		^{234}U	**0.96**

† = (A) denotes evaluation by statistical methods; (B) denotes evaluation by other methods.

NOTES

Note 1. Refer to http://physics.nist.gov/Divisions/Div846/srm.html for the standardized ampoule dimensions and for assistance and instructions on how to properly open an ampoule. Information on additional storage and handling requirements is also included in the website.

Note 2. The uncertainties on certified values are expanded uncertainties, $U = ku_c$. The quantity u_c is the combined standard uncertainty calculated according to the ISO and NIST Guides (see references [2] and [3]). The combined standard uncertainty is multiplied by a coverage factor of $k = 2$ and was chosen to obtain an approximate 95 % level of confidence.

Note 3. The stated uncertainty is two times the standard uncertainty. See reference [3].

Note 4. The estimated lower limits of detection for photon-emitting impurities, expressed as massic photon emission rates are;

$1.4\ s^{-1} \cdot g^{-1}$ for 8 keV < E < 59 keV
$1.1\ s^{-1} \cdot g^{-1}$ for 67 keV < E < 88 keV
$0.5\ s^{-1} \cdot g^{-1}$ for 102 keV < E < 197 keV
$0.3\ s^{-1} \cdot g^{-1}$ for 205 keV < E < 762 keV
$0.2\ s^{-1} \cdot g^{-1}$ for 770 keV < E < 996 keV, and
$0.1\ s^{-1} \cdot g^{-1}$ for 1006 keV < E < 1900 keV

provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of ^{238}U, ^{235}U, ^{234}U, or their progeny

Note 5. The stated uncertainty is the standard uncertainty. See reference [3].

REFERENCES

[1] Evaluated Nuclear Structure Data File (ENSDF), online database, National Nuclear Data Center, Brookhaven Laboratory (Upton, NY), August 2007. Refer to http://www.nndc.bnl.gov/ensdf/

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B. N. Taylor and C. E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1163
Prepared By:	Daniel Roy
Carrier Conc:	1M HCL
Reference Date:	08/01/1997
Ampoule Mass (g):	5.258 g
Uncertainty:	+/- .6 %
LogBook No:	RC-S-048-044

A Solution Material Info	
Isotope:	Uranium-238
Prepared By:	Daniel Roy
Prep Date:	02/23/2008
Verification Date:	10/21/2009
Expiration Date:	10/21/2010
Primary Code:	1163-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.118 g
Density(g/mL):	1.0327
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.118 g) * (242 Bq/g) * (60 dpm/Bq) / (100 mL) = 743.1336 dpm/mL
(5.118 g) * (242 Bq/g) * (60 dpm/Bq) / (1.0327 g/mL) / (100 mL) = 719.5817 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/23/2009	Julie Strock	.1	100	1163-090723-1		07/30/2008	07/30/2009
07/23/2009	Julie Strock	1	100	1163-090723-2		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.25	50	1163-090723-3		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.02	20	1163-090723-4		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.2	20	1163-090723-5		07/30/2008	07/30/2009
07/23/2009	Julie Strock	2	20	1163-090723-6		07/30/2008	07/30/2009
07/31/2009	James Schoneman	.1	100	1163-090731-1		08/07/2008	08/07/2009
07/31/2009	James Schoneman	1	100	1163-090731-2		08/07/2008	08/07/2009
07/31/2009	James Schoneman	.02	20	1163-090731-3		08/07/2008	08/07/2009
07/31/2009	James Schoneman	.2	20	1163-090731-4		08/07/2008	08/07/2009
07/31/2009	James Schoneman	2	20	1163-090731-5		08/07/2008	08/07/2009

08/05/2009	James Schoneman	.1	20	1163-090805-1	08/07/2008	08/07/2009
08/06/2009	James Schoneman	.02	20	1163-090806-1	08/07/2008	08/07/2009
08/06/2009	James Schoneman	.2	20	1163-090806-2	08/07/2008	08/07/2009
08/06/2009	James Schoneman	2	20	1163-090806-3	08/07/2008	08/07/2009
08/14/2009	James Schoneman	.1	100	1163-090814-1	08/21/2008	08/21/2009
08/14/2009	James Schoneman	1	100	1163-090814-2	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.02	20	1163-090814-3	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.2	20	1163-090814-4	08/21/2008	08/21/2009
08/14/2009	James Schoneman	2	20	1163-090814-5	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.01	20	1163-090814-6	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.05	25	13451163-090814-1	08/21/2008	08/21/2009
08/18/2009	James Schoneman	.1	20	1163-090818-1	08/21/2008	08/21/2009
08/18/2009	James Schoneman	2.5	25	1163-090818-2	08/21/2008	08/21/2009
08/21/2009	James Schoneman	.1	100	1163-090821-1	08/28/2008	08/28/2009
08/21/2009	James Schoneman	1	100	1163-090821-2	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.02	20	1163-090821-3	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.2	20	1163-090821-4	08/28/2008	08/28/2009
08/21/2009	James Schoneman	2	20	1163-090821-5	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.01	20	1163-090821-6	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.05	25	13451163-090821-1	08/28/2008	08/28/2009
08/28/2009	James Schoneman	.1	100	1163-090828-1	09/04/2008	09/04/2009

08/28/2009	James Schoneman	1	100	1163-090828-2		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.02	20	1163-090828-3		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.2	20	1163-090828-4		09/04/2008	09/04/2009
08/28/2009	James Schoneman	2	20	1163-090828-5		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.01	20	1163-090828-6		09/04/2008	09/04/2009
09/01/2009	James Schoneman	.01	20	1163-090901-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.01	20	1163-090902-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.01	20	1163-090902-2		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.05	25	11631345-090828-1		09/04/2008	09/04/2009
09/01/2009	James Schoneman	.05	25	11631345-090901-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.05	25	11631345-090902		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.05	25	11631345-090902-1		09/04/2008	09/04/2009
09/11/2009	James Schoneman	.1	100	1163-090911-1	999645.956 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	1	100	1163-090911-2	999.646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.02	20	1163-090911-3	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.2	20	1163-090911-4	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	2	20	1163-090911-5	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.01	20	1163-090911-6	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.02	20	1163-090916-1	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.2	20	1163-090916-2	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	2	20	1163-090916-3	9.99646 ug/L	09/18/2008	09/18/2009

09/16/2009	James Schoneman	.01	20	1163-090916-4	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.05	25	11631332-090916-1	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.05	25	11631345-090911-1	9.99646 ug/L	09/18/2008	09/18/2009
09/18/2009	James Schoneman	.1	20	1163-090918-1	999.646 ug/L	09/18/2008	09/18/2009
09/19/2009	James Schoneman	.1	100	1163-090919-1		09/26/2008	09/26/2009
09/19/2009	James Schoneman	1	100	1163-090919-2		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.02	20	1163-090919-3		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.2	20	1163-090919-4		09/26/2008	09/26/2009
09/19/2009	James Schoneman	2	20	1163-090919-5		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.01	20	1163-090919-6		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.05	25	11631332-090919-1		09/26/2008	09/26/2009
09/28/2009	James Schoneman	.1	100	1163-090928-1		10/05/2008	10/05/2009
09/28/2009	James Schoneman	1	100	1163-090928-2		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.02	20	1163-090928-3		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.2	20	1163-090928-4		10/05/2008	10/05/2009
09/28/2009	James Schoneman	2	20	1163-090928-5		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.01	20	1163-090928-6		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.05	25	11631332-090928-1		10/05/2008	10/05/2009
10/05/2009	James Schoneman	.1	100	1163-091005-1		10/12/2008	10/12/2009
10/05/2009	James Schoneman	1	100	1163-091005-2		10/12/2008	10/12/2009
10/05/2009	James Schoneman	.02	20	1163-091005-3		10/12/2008	10/12/2009

10/05/2009	James Schoneman	.2	20	1163-091005-4	10/12/2008	10/12/2009
10/05/2009	James Schoneman	2	20	1163-091005-5	10/12/2008	10/12/2009
10/05/2009	James Schoneman	.01	20	1163-091005-6	10/12/2008	10/12/2009
10/05/2009	James Schoneman	.05	25	11631332-091005	10/12/2008	10/12/2009
10/08/2009	James Schoneman	.1	20	1163-091008-1	10/12/2008	10/12/2009
10/09/2009	James Schoneman	.1	100	1163-091009-1	10/16/2008	10/16/2009
10/09/2009	James Schoneman	1	100	1163-091009-2	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.02	20	1163-091009-3	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.2	20	1163-091009-4	10/16/2008	10/16/2009
10/09/2009	James Schoneman	2	20	1163-091009-5	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.01	20	1163-091009-6	10/16/2008	10/16/2009
10/12/2009	James Schoneman	.01	20	1163-091012-1	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.05	25	11631332-091009-1	10/16/2008	10/16/2009
10/15/2009	James Schoneman	.1	100	1163-091015-1	10/22/2008	10/22/2009
10/15/2009	James Schoneman	1	100	1163-091015-2	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.02	20	1163-091015-3	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.2	20	1163-091015-4	10/22/2008	10/22/2009
10/15/2009	James Schoneman	2	20	1163-091015-5	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.01	20	1163-091015-6	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.05	25	11631332-091015	10/22/2008	10/22/2009
10/22/2009	James Schoneman	.1	100	1163-091022-1	10/29/2008	10/29/2009

10/22/2009	James Schoneman	1	100	1163-091022-2	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.2	20	1163-091022-4	10/29/2008	10/29/2009
10/22/2009	James Schoneman	2	20	1163-091022-5	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.01	20	1163-091022-6	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.05	25	11631332-091022-1	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.02	20	1163-091022-3	10/29/2008	10/29/2009
10/29/2009	James Schoneman	.1	100	1163-091029-1	11/05/2008	11/05/2009
10/29/2009	James Schoneman	1	100	1163-091029-2	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.02	20	1163-091029-3	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.2	20	1163-091029-4	11/05/2008	11/05/2009
10/29/2009	James Schoneman	2	20	1163-091029-5	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.01	20	1163-091029-6	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.05	25	11631332-091029	11/05/2008	11/05/2009
11/05/2009	James Schoneman	.1	100	1163-091105-1	11/12/2008	11/12/2009
11/05/2009	James Schoneman	1	100	1163-091105-2	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.02	20	1163-091105-3	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.2	20	1163-091105-4	11/12/2008	11/12/2009
11/05/2009	James Schoneman	2	20	1163-091105-5	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.01	20	1163-091105-6	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.05	25	11631332-091105-1	11/12/2008	11/12/2009
11/10/2009	James Schoneman	.1	20	1163-091110-1	11/12/2008	11/12/2009

11/12/2009	James Schoneman	.1	100	1163-091112-1	11/19/2008	11/19/2009
11/12/2009	James Schoneman	1	100	1163-091112-2	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.02	20	1163-091112-3	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.2	20	1163-091112-4	11/19/2008	11/19/2009
11/12/2009	James Schoneman	2	20	1163-091112-5	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.01	20	1163-091112-6	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.05	25	11631332-091112-1	11/19/2008	11/19/2009
11/18/2009	James Schoneman	.1	100	1163-091118-1	11/25/2008	11/25/2009
11/18/2009	James Schoneman	1	100	1163-091118-2	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.02	20	1163-091118-3	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.2	20	1163-091118-4	11/25/2008	11/25/2009
11/18/2009	James Schoneman	2	20	1163-091118-5	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.01	20	1163-091118-6	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.05	25	11631332-091118-1	11/25/2008	11/25/2009
11/30/2009	James Schoneman	.1	100	1163-091130-1	12/06/2008	12/06/2009
11/30/2009	James Schoneman	1	100	1163-091130-2	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.02	20	1163-091130-3	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.2	20	1163-091130-4	12/06/2008	12/06/2009
11/30/2009	James Schoneman	2	20	1163-091130-5	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.01	20	1163-091130-6	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.05	25	11631332-091130-1	12/06/2008	12/06/2009

12/07/2009	James Schoneman	.1	100	1163-091207-1		12/14/2008	12/14/2009
12/07/2009	James Schoneman	1	100	1163-091207-2		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.02	20	1163-091207-3		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.2	20	1163-091207-4		12/14/2008	12/14/2009
12/07/2009	James Schoneman	2	20	1163-091207-5		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.01	20	1163-091207-6		12/14/2008	12/14/2009
12/09/2009	James Schoneman	.01	20	1163-091209-1		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.02	20	1163-091210-2		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.2	20	1163-091210-3		12/14/2008	12/14/2009
12/10/2009	James Schoneman	2	20	1163-091210-4		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.05	25	11631332-091207-1		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.1	20	1163-091210-1		12/14/2008	12/14/2009
12/11/2009	James Schoneman	.1	100	1163-091211-1		12/18/2008	12/18/2009
12/11/2009	James Schoneman	1	100	1163-091211-2		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.02	20	1163-091211-3		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.2	20	1163-091211-4		12/18/2008	12/18/2009
12/11/2009	James Schoneman	2	20	1163-091211-5		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.01	20	1163-091211-6		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.05	25	11631333-091211-1		12/18/2008	12/18/2009
02/27/2008	Daniel Roy	8.0851	100	1163-B	58.1789 dpm/ml	03/01/2008	03/01/2009
02/27/2008	Daniel Roy	8.1015	100	1163-C	58.2969 dpm/ml	03/01/2008	03/01/2009

04/16/2008	Julie Strock	.5619	100	1163-D	4.0433 dpm/mL	04/16/2008	04/16/2009
07/10/2008	Daniel Roy	20.0175	250	1163-E	57.6169 dpm/ml	07/13/2008	07/13/2009
01/05/2009	Tina Schoneman	.519	100	1163-F	3.7346 dpm/mL	01/05/2009	01/05/2010
04/16/2009	Mary Aders	19.4278	250	1163-G	55.9196 dpm/ml	04/16/2009	04/16/2010
10/21/2009	Mary Aders	20.008	250	1163-H	57.5896 dpm/mL	10/21/2009	10/21/2010
08/01/1997	Julie Strock	7.379	250	1163-I	21.2392 dpm/mL	12/07/2009	12/02/2010
08/01/1997	Julie Strock	.106	375	1163-J	.2034 dpm/mL	12/07/2009	12/02/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Uranium-238 Standard *1163-G*

Analyst: M. Aders	Serial #	Value	Uncertainty
Date: 4/16/09	1163-G N1	2.480	0.398
	1163-G N2	2.460	0.397
	1163-G N3	2.670	0.424

Mean Value (Counting) =	2.537	**100.7053**	**Pass**
Stdev =	0.115902258		**Rule 3 (Pass/Fail)**

Target =	2.519
Lower Limit =	2.304862151
Upper Limit =	2.768471182
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.231804515
10 % of Mean =	0.253666667
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1163-G** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-232** standard **1283-B** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 48% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

[illegible] 4/17/09
Amanda L. Fehn 4/17/09

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
Fax 404-352-2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

End of Certificate

RECEIVED 12/15/08
RC-5-08

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/30/2008	12/30/2009
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/09/2009	12/30/2009
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	**Serial #**	**Value**		**Uncertainty**	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Drochter AMS 12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 934662**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1201999711	DUP	JXD2	1228	22-DEC-09 08:13	DONE		
1201999712	LCS	JXD2	1229	22-DEC-09 08:13	DONE		
243014001	SAMPLE	JXD2	1230	22-DEC-09 08:13	DONE		
243104002	SAMPLE	JXD2	1231	22-DEC-09 08:13	DONE		
1201999710	MB	JXD2	1232	22-DEC-09 08:13	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 934664**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243014001	SAMPLE	JXD2	1242	21-DEC-09 17:13	DONE		
243104002	SAMPLE	JXD2	1243	21-DEC-09 17:13	DONE		
1201999713	MB	JXD2	1244	21-DEC-09 17:13	DONE		
1201999714	DUP	JXD2	1245	21-DEC-09 17:13	DONE		
1201999715	LCS	JXD2	1246	21-DEC-09 17:13	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 934665**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243014001	SAMPLE	JXD2	1168	22-DEC-09 09:32	DONE		
243104002	SAMPLE	JXD2	1169	22-DEC-09 09:32	DONE		
1201999718	LCS	JXD2	1170	22-DEC-09 09:32	DONE		
1201999716	MB	JXD2	1171	22-DEC-09 09:32	DONE		
1201999717	DUP	JXD2	1172	22-DEC-09 09:32	DONE		

Instrument Run Log

Instrument Type: GFPC **Batch ID: 935330**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
242934001	SAMPLE	DXB5	PIC11C	28-DEC-09 10:23	DONE	2 inch Planchett	31-JUL-09 00:00
243014001	SAMPLE	DXB5	PIC11D	28-DEC-09 10:23	DONE	2 inch Planchett	31-JUL-09 00:00
243255001	SAMPLE	DXB5	PIC12C	28-DEC-09 10:23	DONE	2 inch Planchett	31-JUL-09 00:00
243255004	SAMPLE	DXB5	PIC12D	28-DEC-09 10:23	DONE	2 inch Planchett	31-JUL-09 00:00
1202001335	MB	DXB5	PIC14A	28-DEC-09 10:24	DONE	2 inch Planchett	31-JUL-09 00:00
1202001336	DUP	DXB5	PIC14C	28-DEC-09 10:24	DONE	2 inch Planchett	31-JUL-09 00:00
1202001337	MS	DXB5	PIC14D	28-DEC-09 10:24	DONE	2 inch Planchett	31-JUL-09 00:00
243285001	SAMPLE	DXB5	PIC13B	28-DEC-09 10:24	DONE	2 inch Planchett	31-JUL-09 00:00
243286002	SAMPLE	DXB5	PIC13C	28-DEC-09 10:25	DONE	2 inch Planchett	31-JUL-09 00:00
243286003	SAMPLE	DXB5	PIC13D	28-DEC-09 10:25	DONE	2 inch Planchett	31-JUL-09 00:00
243255006	SAMPLE	DXB5	PIC13A	28-DEC-09 10:25	DONE	2 inch Planchett	31-JUL-09 00:00
1202001338	MSD	DXB5	PIC4A	28-DEC-09 12:00	DONE	2 inch Planchett	31-JUL-09 00:00
1202001339	LCS	DXB5	PIC4D	28-DEC-09 12:00	DONE	2 inch Planchett	31-JUL-09 00:00
243104002	SAMPLE	DXB5	PIC11D	28-DEC-09 15:55	DONE	2 inch Planchett	31-JUL-09 00:00
243255004	SAMPLE	DXB5	PIC6D	29-DEC-09 12:24	DONE	2 inch Planchett	31-JUL-09 00:00
243255006	SAMPLE	DXB5	PIC7A	29-DEC-09 12:24	DONE	2 inch Planchett	31-JUL-09 00:00
243285001	SAMPLE	DXB5	PIC7B	29-DEC-09 12:24	DONE	2 inch Planchett	31-JUL-09 00:00
243286002	SAMPLE	DXB5	PIC7D	29-DEC-09 12:24	DONE	2 inch Planchett	31-JUL-09 00:00
1202001335	MB	DXB5	PIC8B	29-DEC-09 12:25	DONE	2 inch Planchett	31-JUL-09 00:00
1202001336	DUP	DXB5	PIC8C	29-DEC-09 12:25	DONE	2 inch Planchett	31-JUL-09 00:00
1202001337	MS	DXB5	PIC9A	29-DEC-09 12:25	DONE	2 inch Planchett	31-JUL-09 00:00
1202001338	MSD	DXB5	PIC9C	29-DEC-09 12:25	DONE	2 inch Planchett	31-JUL-09 00:00
1202001339	LCS	DXB5	PIC10A	29-DEC-09 12:25	DONE	2 inch Planchett	31-JUL-09 00:00
242934001	SAMPLE	DXB5	PIC10C	29-DEC-09 16:14	DONE	2 inch Planchett	31-JUL-09 00:00
243104002	SAMPLE	DXB5	PIC7A	29-DEC-09 16:15	DONE	2 inch Planchett	31-JUL-09 00:00
243014001	SAMPLE	DXB5	PIC12C	29-DEC-09 16:15	DONE	2 inch Planchett	31-JUL-09 00:00
243255001	SAMPLE	DXB5	PIC5B	29-DEC-09 16:16	DONE	2 inch Planchett	31-JUL-09 00:00
243286003	SAMPLE	DXB5	PIC8C	29-DEC-09 16:16	DONE	2 inch Planchett	31-JUL-09 00:00

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 935338**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
243014001	SAMPLE	KXG3	GAM04	30-DEC-09 18:38	DONE	2LMB	26-MAY-09 00:00
243104002	SAMPLE	KXG3	GAM10	30-DEC-09 18:38	DONE	2LMB	25-FEB-09 00:00
243255001	SAMPLE	KXG3	GAM12	30-DEC-09 18:39	DONE	2LMB	09-FEB-09 00:00
243286002	SAMPLE	KXG3	GAM16	30-DEC-09 18:39	DONE	2LMB	16-NOV-09 00:00
1202001368	LCS	KXG3	GAM01	30-DEC-09 22:03	DONE	2LMB	30-JAN-09 00:00
243255004	SAMPLE	KXG3	GAM06	30-DEC-09 22:40	DONE	2LMB	04-FEB-09 00:00
243255006	SAMPLE	KXG3	GAM07	30-DEC-09 22:41	DONE	2LMB	20-JUL-09 00:00
243285001	SAMPLE	KXG3	GAM10	30-DEC-09 22:41	DONE	2LMB	25-FEB-09 00:00
243286003	SAMPLE	KXG3	GAM11	30-DEC-09 22:42	DONE	2LMB	18-NOV-09 00:00
1202001366	MB	KXG3	GAM14	30-DEC-09 22:43	DONE	2LMB	09-MAR-09 00:00
1202001367	DUP	KXG3	GAM19	30-DEC-09 22:43	DONE	2LMB	11-MAR-09 00:00

Instrument Run Log

Instrument Type: GFPC **Batch ID: 937917**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202007051	MB	MXB1	PIC10C	07-JAN-10 20:01	DONE	Tuffryn Filter	01-JAN-09 00:00
1202007053	MS	MXB1	PIC5D	07-JAN-10 20:01	DONE	Tuffryn Filter	01-JAN-09 00:00
1202007054	LCS	MXB1	PIC6D	07-JAN-10 20:01	DONE	Tuffryn Filter	01-JAN-09 00:00
242934001	SAMPLE	MXB1	PIC7A	07-JAN-10 20:02	DONE	Tuffryn Filter	01-JAN-09 00:00
243014001	SAMPLE	MXB1	PIC7B	07-JAN-10 20:02	DONE	Tuffryn Filter	01-JAN-09 00:00
243104002	SAMPLE	MXB1	PIC7D	07-JAN-10 20:02	DONE	Tuffryn Filter	01-JAN-09 00:00
243255001	SAMPLE	MXB1	PIC8B	07-JAN-10 20:03	DONE	Tuffryn Filter	01-JAN-09 00:00
243255006	SAMPLE	MXB1	PIC9A	07-JAN-10 20:03	DONE	Tuffryn Filter	01-JAN-09 00:00
243285001	SAMPLE	MXB1	PIC9C	07-JAN-10 20:03	DONE	Tuffryn Filter	01-JAN-09 00:00
1202007052	DUP	MXB1	PIC8C	07-JAN-10 20:05	DONE	Tuffryn Filter	01-JAN-09 00:00
243255004	SAMPLE	MXB1	PIC5A	07-JAN-10 20:05	DONE	Tuffryn Filter	01-JAN-09 00:00
243286002	SAMPLE	MXB1	PIC10A	08-JAN-10 09:35	DUSE	Tuffryn Filter	01-JAN-09 00:00
243286003	SAMPLE	MXB1	PIC10C	08-JAN-10 09:35	DUSE	Tuffryn Filter	01-JAN-09 00:00

Wednesday, December 16, 2009

REQUEST NUMBER: 10-952

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-952

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/16/2009

TURNAROUND/REPORT DUE: 1/15/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:351.2	1	CAPA-10-6818	WG	12/15/2009	
	SW-846:8081A	1	CAPA-10-6818	WG	12/15/2009	
		2	CAPA-10-6818	WG	12/15/2009	
	SW-846:8082	1	CAPA-10-6818	WG	12/15/2009	
		2	CAPA-10-6818	WG	12/15/2009	
	SW-846:8260B	1	CAPA-10-6818	WG	12/15/2009	
		2	CAPA-10-6818	WG	12/15/2009	
		1	CAPA-10-6819	WG	12/15/2009	
		2	CAPA-10-6819	WG	12/15/2009	

Wednesday, December 16, 2009

REQUEST NUMBER: 10-952

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	1	CAPA-10-6818	WG	12/15/2009	
		2	CAPA-10-6818	WG	12/15/2009	
	SW-846:8321A_MOD	1	CAPA-10-6818	WG	12/15/2009	
		2	CAPA-10-6818	WG	12/15/2009	
	SW-846:9060	1	CAPA-10-6818	WG	12/15/2009	

Final Page of REQUEST NUMBER 10-952

Wednesday, December 16, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-952

REQUEST NUMBER: 10-952

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/15/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6818	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6818	2	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6818	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6818	2	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6818	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6818	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6818	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6818	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6818	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6818	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6818	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6819	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6819	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG

Relinquished By:		**Date**	**Time**	**Received By:**		**Date**	**Time**
Jeffrey C		12/16/09	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		**Date**	**Time**	**Remarks:**
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6817 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/15/09	MEDIA:	WGR	GV
TIME COLLECTED (HH:MM)		1010	SUB-MEDIA:	UA	
PRS ID:	C-00-011	GV	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-41		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / (NA)		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / (NA)

BOREHOLE: YES / NO / (NA) BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

See CAPA-10-6816

COLLECTED BY (PRINT) J Berryhill, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/15/09	(Printed Name) [illegible]	12/15/09
(Signature) D. Woody	1245	(Signature) [illegible]	1245
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6818 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/15/09	MEDIA:	WGR	OV
TIME COLLECTED (HH:MM)		1010	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OV	SAMPLE TECH CODE:	GS1	
LOCATION ID:	R-41		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2 ~~3~~	DW 12/15/09	WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
2 ~~3~~	DW 12/15/09	WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH < 2
2 ~~3~~	DW 12/15/09	WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
2 ~~3~~	DW 12/15/09	WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH >12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH < 2
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	pH <2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH (STU)	Temp (°C)	SC (µS/cm)	DO (mg/L)	Turb (NTU)	ORP mV	Q (gpm)
7.84	21.99	176	4.18	0.66	57.3	2.8

COLLECTED BY (PRINT) J Berryhill, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/15/09	(Printed Name) Sherri Sherwood	12/15/09
(Signature) D. Woody	1245	(Signature) Sherri Sherwood	1245
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6819 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/15/09	MEDIA:	WGR	GK
TIME COLLECTED (HH:MM)		1010	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-41		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / (NA)		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / (NA)

BOREHOLE: YES / NO / (NA) BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH <2

SAMPLE DESC: QC Sample of CAPA-10-6818

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, D. Woody **REVIEWED BY (PRINT)** J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/15/09	(Printed Name) Sherri Sherwood	12/15/09
(Signature) D. Woody	1245	(Signature) Sherri Sherwood	1245
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-952 VALIDATION DATE: 2/12/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☐ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☒ OTHER (DESCRIBE): VOC

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICAL and/or ICV/CCV RRFs for propionitrile, isobutyl alcohol, and n-butyl alcohol were < 0.05. The associated sample results were ND and were qualified R,V7b.
2. In the FTB, chloromethane was detected. The associated sample result was ND and was not qualified.
3. The ICV and/or CCV the %Ds for acetone, 2-hexanone, and 2-butanone were >20%. The associated sample results were NDs and were qualified UJ,V7c.
4. It should be noted that the matrix spike solution did not include 10 target analytes. No sample data was qualified as a result.

Reviewed by: Allison Felix Level: 1 Date: 2/17/10

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

VALIDATOR'S SIGNATURE: _____ DATE: 2/12/10

Form 5114-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☒	☐	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☒	☐	☐	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☒	☐	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243099003**	**Date Received:**	**12/17/2009 09:20**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6818**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936682**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/24/2009 21:03**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/24/2009 21:03**				
Data File:	**4q418.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00	
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00	
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00	
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00	
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0	UJ,V7c
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0	
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00	
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0	
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00	
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00	
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0	R,V7b
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00	
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00	
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00	
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00	UJ,V7c

MLH
2/12/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243099003**	**Date Received:**	**12/17/2009 09:20**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6818**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936682**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/24/2009 21:03**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/24/2009 21:03**				
Data File:	**4q418.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00	
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00	
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00	
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00	
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00	
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00	
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00	
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00	
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00	
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00	
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00	
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00	
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00	R,V7b
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00	
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0	R,V7b
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00	

MLH
2/12/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243099003**	**Date Received:**	**12/17/2009 09:20**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6818**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936682**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/24/2009 21:03**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/24/2009 21:03**				
Data File:	**4q418.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	42.5	50.0	ug/L	84.9	(59%-130%)
Bromofluorobenzene	58.1	50.0	ug/L	116	(71%-126%)
Toluene-d8	46.9	50.0	ug/L	93.7	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	16.79	7.61	ug/L		J

MLH
2/12/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-952	**Date Collected:**	12/15/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	243099005	**Date Received:**	12/17/2009 09:20		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-6819	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	936682	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/24/2009 21:30	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/24/2009 21:30				
Data File:	4q419.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00	
74-87-3	Chloromethane	J	0.324	ug/L	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00	
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00	
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00	
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0	UJ,V7c
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0	
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00	
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0	
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00	
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00	UJ,V7c
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00	
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0	R,V7b
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00	
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00	
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00	
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00	UJ,V7c

MLH
2/12/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243099005**	**Date Received:**	**12/17/2009 09:20**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6819**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936682**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/24/2009 21:30**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/24/2009 21:30**				
Data File:	**4q419.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00	
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00	
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00	
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00	
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00	
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00	
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00	
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00	
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00	
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00	
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00	
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00	
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00	R,V7b
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00	
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0	R,V7b
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00	

MLH
2/12/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243099005**	**Date Received:**	**12/17/2009 09:20**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6819**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936682**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/24/2009 21:30**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/24/2009 21:30**				
Data File:	**4q419.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	41.1	50.0	ug/L	82.2	(59%-130%)
Bromofluorobenzene	57.0	50.0	ug/L	114	(71%-126%)
Toluene-d8	46.2	50.0	ug/L	92.5	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
556-67-2	Cyclotetrasiloxane, octamethyl-	14.83	8.49	ug/L	56	NJ
	Unknown Siloxane	16.79	6.7	ug/L		J

MLH
2/12/10

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-952 VALIDATION DATE: 02/16/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC.

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☐ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☒ OTHER (DESCRIBE): SVOC

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICAL RRF for atrazine was <0.05. The associated sample result was NDs and was qualified R,SV7b.
2. The ICV /CCV %Ds for benzidine; hexachlorocyclopentadiene; 1,4-dioxane; 3-nitroaniline; 4-nitroaniline; pyridine; and 4-nitrophenol were >20%. The associated sample results were ND and were qualified UJ,SV7c.
3. It should be noted that six target analytes were not spiked in the LCS or MS/MSD. No sample data were qualified as a result.
4. The MS/MSD %Rs for benzidine and 1,4-dioxane, and the MS/MSD RPD for benzidine were not within the laboratory's QC limits. However, MS/MSD analyses are not required for SVOCs and, thus, no sample data were qualified.

Reviewed by: Allison Felix Level: 1 Date: 2/17/10

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

VALIDATOR'S SIGNATURE: _____ DATE: 02/16/10

Form 5115-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☒	☐	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☐	☒	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☐	☒	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243099003**	**Date Received:**	**12/17/2009 09:20**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6818**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**935443**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**01/02/2010 21:03**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/22/2009 17:16**	**Aliquot:**	**870 mL**	**Final Volume:**	**1 mL**
Data File:	**s1a0213.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	11.5	ug/L	2.30	11.5	
108-95-2	Phenol	U	11.5	ug/L	1.15	11.5	
95-57-8	2-Chlorophenol	U	11.5	ug/L	2.30	11.5	
106-46-7	1,4-Dichlorobenzene	U	11.5	ug/L	2.30	11.5	
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	11.5	ug/L	2.30	11.5	
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	11.5	ug/L	2.30	11.5	
83-32-9	Acenaphthene	U	1.15	ug/L	0.356	1.15	
121-14-2	2,4-Dinitrotoluene	U	11.5	ug/L	2.30	11.5	
100-02-7	4-Nitrophenol	U	11.5	ug/L	2.30	11.5	UJ,SV7c
87-86-5	Pentachlorophenol	U	11.5	ug/L	2.30	11.5	
129-00-0	Pyrene	U	1.15	ug/L	0.345	1.15	
110-86-1	Pyridine	U	11.5	ug/L	3.45	11.5	UJ,SV7c
62-53-3	Aniline	U	11.5	ug/L	2.87	11.5	
111-44-4	bis(2-Chloroethyl) ether	U	11.5	ug/L	2.30	11.5	
541-73-1	1,3-Dichlorobenzene	U	11.5	ug/L	2.30	11.5	
100-51-6	Benzyl alcohol	U	11.5	ug/L	2.30	11.5	
95-50-1	1,2-Dichlorobenzene	U	11.5	ug/L	2.30	11.5	
108-60-1	bis(2-Chloroisopropyl)ether	U	11.5	ug/L	2.30	11.5	
95-48-7	o-Cresol	U	11.5	ug/L	2.30	11.5	
65794-96-9	m,p-Cresols	U	11.5	ug/L	3.45	11.5	
67-72-1	Hexachloroethane	U	11.5	ug/L	2.30	11.5	
98-95-3	Nitrobenzene	U	11.5	ug/L	3.45	11.5	
78-59-1	Isophorone	U	11.5	ug/L	3.45	11.5	
88-75-5	2-Nitrophenol	U	11.5	ug/L	2.30	11.5	
105-67-9	2,4-Dimethylphenol	U	11.5	ug/L	2.30	11.5	
111-91-1	bis(2-Chloroethoxy)methane	U	11.5	ug/L	3.45	11.5	
120-83-2	2,4-Dichlorophenol	U	11.5	ug/L	2.30	11.5	
65-85-0	Benzoic acid	U	23.0	ug/L	6.90	23.0	
91-20-3	Naphthalene	U	1.15	ug/L	0.345	1.15	
106-47-8	4-Chloroaniline	U	11.5	ug/L	2.30	11.5	
87-68-3	Hexachlorobutadiene	U	11.5	ug/L	2.30	11.5	
91-57-6	2-Methylnaphthalene	U	1.15	ug/L	0.345	1.15	
90-12-0	1-Methylnaphthalene	U	1.15	ug/L	0.345	1.15	
77-47-4	Hexachlorocyclopentadiene	U	11.5	ug/L	3.45	11.5	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	11.5	ug/L	2.30	11.5	
95-95-4	2,4,5-Trichlorophenol	U	11.5	ug/L	2.30	11.5	
91-58-7	2-Chloronaphthalene	U	1.15	ug/L	0.345	1.15	

MLH
2/16/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-952	Date Collected:	12/15/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243099003	Date Received:	12/17/2009 09:20		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6818	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	935443	Inst:	MSD1.I	Dilution:	1
Run Date:	01/02/2010 21:03	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	12/22/2009 17:16	Aliquot:	870 mL	Final Volume:	1 mL
Data File:	s1a0213.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
88-74-4	2-Nitroaniline	U	11.5	ug/L	2.30	11.5	
	o-Nitroaniline						
99-09-2	3-Nitroaniline	U	11.5	ug/L	2.30	11.5	UJ,SV7c
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	11.5	ug/L	2.30	11.5	
606-20-2	2,6-Dinitrotoluene	U	11.5	ug/L	2.30	11.5	
208-96-8	Acenaphthylene	U	1.15	ug/L	0.230	1.15	
51-28-5	2,4-Dinitrophenol	U	23.0	ug/L	5.75	23.0	
132-64-9	Dibenzofuran	U	11.5	ug/L	2.30	11.5	
84-66-2	Diethylphthalate	U	11.5	ug/L	2.30	11.5	
86-73-7	Fluorene	U	1.15	ug/L	0.230	1.15	
7005-72-3	4-Chlorophenylphenylether	U	11.5	ug/L	2.30	11.5	
534-52-1	2-Methyl-4,6-dinitrophenol	U	11.5	ug/L	3.45	11.5	
100-01-6	4-Nitroaniline	U	11.5	ug/L	3.45	11.5	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	11.5	ug/L	3.45	11.5	
122-66-7	Azobenzene	U	11.5	ug/L	2.30	11.5	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	11.5	ug/L	2.30	11.5	
118-74-1	Hexachlorobenzene	U	11.5	ug/L	2.30	11.5	
1912-24-9	Atrazine	U	11.5	ug/L	3.45	11.5	R,SV7b
85-01-8	Phenanthrene	U	1.15	ug/L	0.230	1.15	
120-12-7	Anthracene	U	1.15	ug/L	0.230	1.15	
84-74-2	Di-n-butylphthalate	U	11.5	ug/L	2.30	11.5	
206-44-0	Fluoranthene	U	1.15	ug/L	0.230	1.15	
92-87-5	Benzidine	U	11.5	ug/L	3.45	11.5	UJ,SV7c
85-68-7	Butylbenzylphthalate	U	11.5	ug/L	2.30	11.5	
56-55-3	Benzo(a)anthracene	U	1.15	ug/L	0.230	1.15	
91-94-1	3,3'-Dichlorobenzidine	U	11.5	ug/L	2.30	11.5	
218-01-9	Chrysene	U	1.15	ug/L	0.230	1.15	
117-81-7	bis(2-Ethylhexyl)phthalate	U	11.5	ug/L	2.30	11.5	
117-84-0	Di-n-octylphthalate	U	11.5	ug/L	3.45	11.5	
205-99-2	Benzo(b)fluoranthene	U	1.15	ug/L	0.230	1.15	
207-08-9	Benzo(k)fluoranthene	U	1.15	ug/L	0.230	1.15	
50-32-8	Benzo(a)pyrene	U	1.15	ug/L	0.230	1.15	
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.15	ug/L	0.230	1.15	
53-70-3	Dibenzo(a,h)anthracene	U	1.15	ug/L	0.230	1.15	
191-24-2	Benzo(ghi)perylene	U	1.15	ug/L	0.230	1.15	
123-91-1	1,4-Dioxane	U	11.5	ug/L	2.30	11.5	UJ,SV7c
55-18-5	N-Nitrosodiethylamine	U	11.5	ug/L	2.30	11.5	

MLH
2/16/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243099003**	**Date Received:**	**12/17/2009 09:20**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6818**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**935443**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**01/02/2010 21:03**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/22/2009 17:16**	**Aliquot:**	**870 mL**	**Final Volume:**	**1 mL**
Data File:	**s1a0213.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	11.5	ug/L	2.30	11.5
924-16-3	N-Nitrosodi-n-butylamine	U	11.5	ug/L	3.45	11.5
95-94-3	1,2,4,5-Tetrachlorobenzene	U	11.5	ug/L	3.45	11.5
608-93-5	Pentachlorobenzene	U	11.5	ug/L	3.45	11.5
58-90-2	2,3,4,6-Tetrachlorophenol	U	11.5	ug/L	2.30	11.5
88-85-7	Dinoseb	U	11.5	ug/L	2.30	11.5
120-82-1	1,2,4-Trichlorobenzene	U	11.5	ug/L	2.30	11.5

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	95.8	115	ug/L	83.3	(39%-115%)
2-Fluorobiphenyl	39.2	57.5	ug/L	68.2	(35%-100%)
2-Fluorophenol	45.7	115	ug/L	39.7	(25%-92%)
Nitrobenzene-d5	39.3	57.5	ug/L	68.4	(40%-112%)
Phenol-d5	26.9	115	ug/L	23.4	(15%-73%)
p-Terphenyl-d14	43.8	57.5	ug/L	76.3	(46%-130%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.66	6.64	ug/L		J
	Unknown	1.74	6.59	ug/L		J
	Unknown	1.88	24.2	ug/L		J

MLH
2/16/10

DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-952 VALIDATION DATE: 2/16/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC.

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ HIGH EXPLOSIVES
- ☐ DIOXIN FURANS
- ☐ LCMSMS PERCHLORATES
- ☐ TPH-DRO
- ☐ METALS
- ☐ PCB CONGENERS
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ GENERAL CHEMISTRY
- ☐ RADIOCHEMISTRY
- ☒ LCMSMS HIGH EXPLOSIVES
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV/CCV %Ds for 2,4-diamino-6-nitrotoluene and 2,6-diamino-4-nitrotoluene were > 20% with positive bias. The associated sample results were NDs and were not qualified.

   The ICV/CCV %Ds for tetryl; 3-nitrotoluene, and 4-nitrotoluene were > 20% but ≤40% with negative bias. The associated sample results were ND and were qualified UJ,HE7c.

2. The LCS %R for 2,6-diamino-4-nitrotoluene was > the laboratory UAL. The associated sample result was ND and was not qualified.

3. MS/MSD analyses were not performed. An LCSD was analyzed to provide precision data and met laboratory RPD acceptance limits with the following exception. LCS/LCSD RPD was > the laboratory acceptance limit for 2,4,6-trinitrotoluene. The associated sample result was ND and was qualified UJ,HE12g.

Reviewed by: Allison Felix Level: 1 Date: 2/17/10

DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

VALIDATOR'S SIGNATURE: _____ DATE: 2/16/10

Form 5122-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
☐	☐	☒	3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
☐	☐	☒	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
☐	☐	☒	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
☐	☒	☐	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
☐	☒	☐	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
☐	☒	☐	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
☐	☐	☒	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	11. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE3d	R, HE3d
☐	☒	☐	12. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, HE4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, HE4a
☐	☐	☒	14. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, HE4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE4e	R, HE4e
☐	☒	☐	16. The absence of sample carry-over must be determined and verified.	N/A	R, N, HE4f
☐	☒	☐	17. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, HE7	J, HE7
☐	☒	☐	18. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less < 0.99.	UJ, R, HE7a	J, HE7a
☐	☒	☐	19. The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV.	UJ, R, HE7b	J, HE7b
☒	☐	☐	20. The ICV and/or CCV were recovered outside the method limits.	UJ, R, HE7c	J, HE7c
☐	☒	☐	21. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, HE7d	J, HE7d
☐	☒	☐	22. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, HE7f	R, HE7f

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 LC/MS/MS High Explosive Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
☐	☒	☐	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
☐	☒	☐	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
☐	☒	☐	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
☐	☒	☐	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
☒	☐	☐	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
☐	☒	☐	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
☐	☐	☒	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
☐	☐	☒	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
☐	☐	☒	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
☒	☐	☐	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
☐	☐	☒	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, HE15	R, HE15
☐	☐	☒	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
☐	☐	☒	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6818

Lab Code: GEL

GEL Job No (SDG) 10-952

Matrix: GROUND WATER

GEL Sample ID: 243099004

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 17-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 934770

Concentrated Extract Volume (mL) 5

Date Extracted: 21-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0108156a

Date Analyzed: 11-JAN-10 21:29

Units: ug/L

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	UJ,HE12g	0.325	U
121-14-2	2,4-Dinitrotoluene		0.325	U
121-82-4	RDX		0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.325	U
2691-41-0	HMX		0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.325	U
479-45-8	Tetryl	UJ,HE7c	0.649	U
606-20-2	2,6-Dinitrotoluene		0.325	U
78-11-5	PETN		1.3	U
88-72-2	o-Nitrotoluene		0.325	U
98-95-3	Nitrobenzene		0.325	U
99-08-1	m-Nitrotoluene	UJ,HE7c	0.325	U
99-35-4	1,3,5-Trinitrobenzene		0.325	U
99-65-0	m-Dinitrobenzene		0.325	U
99-99-0	p-Nitrotoluene	UJ,HE7c	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MLH
2/16/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6818

Lab Code: GEL

GEL Job No (SDG) 10-952

Matrix: GROUND WATER

GEL Sample ID: 243099004

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 17-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 934770

Concentrated Extract Volume (mL) 5

Date Extracted: 21-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS12230027.wiff

Date Analyzed: 23-DEC-09 21:36

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MLH
2/16/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-952 VALIDATION DATE: 2/16/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC.

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☐ METALS	☐ PCB CONGENERS	☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☐ OTHER (DESCRIBE): pesticides

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV/CCV %Ds for gamma-chlordane were >15% on both columns. The associated sample result was ND and was qualified UJ,P7c.
2. The MS/MSD RPDs for 14 target analytes were outside the laboratory acceptance limits. Since MS/MSD analyses are not required for pesticides, no sample results were qualified.

   It should be noted that the matrix QC analyses were performed on a LANL samples from another RN and that the raw data for the parent sample was not included in the package. No sample results were qualified.

   Reviewed by: Allison Felix Level: 1 Date: 2/17/10

DATA VALIDATION COVER SHEET

5116-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

VALIDATOR'S SIGNATURE: _____ DATE: 02/16/10

Form 5116-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☒	☐	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☒	☐	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☒	☐	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-952	**Date Collected:**	12/15/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	243099001	**Date Received:**	12/17/2009 09:20		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-6818	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	935414	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	01/04/2010 16:38	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 19:38	**Aliquot:**	920 mL	**Final Volume:**	5 mL
Data File:	018f1801.d	**Column:**	1 CLP-1	**Level:**	LOW
	018b1801.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ		Column
319-84-6	alpha-BHC	U	0.0217	ug/L	0.00543	0.0217		1
58-89-9	gamma-BHC (Lindane)	U	0.0217	ug/L	0.00543	0.0217		1
319-85-7	beta-BHC	U	0.0217	ug/L	0.00652	0.0217		1
319-86-8	delta-BHC	U	0.0217	ug/L	0.00543	0.0217		1
76-44-8	Heptachlor	U	0.0217	ug/L	0.00543	0.0217		1
309-00-2	Aldrin	U	0.0217	ug/L	0.00543	0.0217		1
1024-57-3	Heptachlor epoxide	U	0.0217	ug/L	0.00543	0.0217		1
5103-74-2	gamma-Chlordane	U	0.0217	ug/L	0.00543	0.0217	UJ,P7c	1
5103-71-9	alpha-Chlordane	U	0.0217	ug/L	0.00543	0.0217		1
959-98-8	Endosulfan I	U	0.0217	ug/L	0.00543	0.0217		1
72-55-9	4,4'-DDE	U	0.0435	ug/L	0.00543	0.0435		1
60-57-1	Dieldrin	U	0.0435	ug/L	0.0109	0.0435		1
72-20-8	Endrin	U	0.0435	ug/L	0.0109	0.0435		1
72-54-8	4,4'-DDD	U	0.0435	ug/L	0.0109	0.0435		1
33213-65-9	Endosulfan II	U	0.0435	ug/L	0.0109	0.0435		1
7421-93-4	Endrin aldehyde	U	0.0435	ug/L	0.00543	0.0435		1
50-29-3	4,4'-DDT	U	0.0435	ug/L	0.0109	0.0435		1
1031-07-8	Endosulfan sulfate	U	0.0435	ug/L	0.0109	0.0435		1
72-43-5	Methoxychlor	U	0.217	ug/L	0.0543	0.217		1
53494-70-5	Endrin ketone	U	0.0435	ug/L	0.0109	0.0435		1
8001-35-2	Toxaphene	U	0.543	ug/L	0.163	0.543		1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.530	1.09	ug/L	48.7	(29%-103%)
Decachlorobiphenyl	0.703	1.09	ug/L	64.7	(34%-118%)

MLH
2/16/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-952 VALIDATION DATE: 02/17/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC.

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☐ METALS	☐ PCB CONGENERS	☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☐ OTHER (DESCRIBE): PCB

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the parent sample for the MS/MSD was a LANL sample from another RN and that the raw data for the parent sample was not included in the data package. No sample data were qualified as a result.

Reviewed by: Allison Felix Level: 1 Date: 2/17/10

VALIDATOR'S SIGNATURE:	DATE: 02/17/10
Form 5116-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST	
5116-2 **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-952	**Date Collected:**	12/15/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	243099002	**Date Received:**	12/17/2009 09:20		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-6818	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	935397	**Inst:**	ECD2A.I	**Dilution:**	1
Run Date:	12/23/2009 11:36	**Analyst:**	JAOC	**Inj. Vol:**	1 uL
Prep Date:	12/22/2009 17:32	**Aliquot:**	825 mL	**Final Volume:**	1 mL
Data File:	024f2401.d	**Column:**	1 CLP1	**Level:**	LOW
	024b2401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.121	ug/L	0.0404	0.121	1
11104-28-2	Aroclor-1221	U	0.121	ug/L	0.0404	0.121	1
11141-16-5	Aroclor-1232	U	0.121	ug/L	0.0404	0.121	1
53469-21-9	Aroclor-1242	U	0.121	ug/L	0.0404	0.121	1
12672-29-6	Aroclor-1248	U	0.121	ug/L	0.0404	0.121	1
11097-69-1	Aroclor-1254	U	0.121	ug/L	0.0404	0.121	1
11096-82-5	Aroclor-1260	U	0.121	ug/L	0.0404	0.121	1
37324-23-5	Aroclor-1262	U	0.121	ug/L	0.0404	0.121	1

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
4cmx	0.166	0.242	ug/L	68.5	(29%-103%)
Decachlorobiphenyl	0.182	0.242	ug/L	74.9	(34%-118%)

MLH
2/17/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-952 VALIDATION DATE: 02/17/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☐ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☒ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the matrix QC analysis for TOC was performed on a LANL sample from another RN. No sample results were qualified.

Reviewed by: Allison Felix Level: 1 Date: 2/17/10

DATA VALIDATION COVER SHEET

5120-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943
VALIDATOR'S SIGNATURE _____	DATE: 02/17/10
Form 5120-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: December 28, 2009

Client SDG: 10-952

Client Sample ID:	CAPA-10-6818	Project:	ESHL01000
Sample ID:	243099004	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	15-DEC-09 12:00		
Receive Date:	17-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Carbon Analysis										
SW 9060 Total Organic Carbon "As Received"										
Total Organic Carbon Average	U	ND	0.330	1.00	mg/L	1	TSM 12/21/09	1455	934459	1
Nutrient Analysis										
Nitrogen, Total Kjeldahl (TKN) "As Received"										
Nitrogen, Total Kjeldahl	U	ND	0.033	0.100	mg/L	1	AXH3 12/22/09	1340	934822	2

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9060	
2	EPA 351.2	

MLH
2/17/10

Wednesday, December 16, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-952

REQUEST NUMBER: 10-952

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/15/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 243099%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6818	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6818	2	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6818	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6818	2	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6818	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6818	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6818	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6818	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6818	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6818	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6818	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6819	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6819	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/16/09	1400	Greg Tyler	[illegible]	12-17-09	0920
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Wednesday, December 16, 2009

REQUEST NUMBER: 10-952

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-952

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/16/2009

TURNAROUND/REPORT DUE: 1/15/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:351.2	1	CAPA-10-6818	WG	12/15/2009	
	SW-846:8081A	1	CAPA-10-6818	WG	12/15/2009	
		2	CAPA-10-6818	WG	12/15/2009	
	SW-846:8082	1	CAPA-10-6818	WG	12/15/2009	
		2	CAPA-10-6818	WG	12/15/2009	
	SW-846:8260B	1	CAPA-10-6818	WG	12/15/2009	
		2	CAPA-10-6818	WG	12/15/2009	
		1	CAPA-10-6819	WG	12/15/2009	
		2	CAPA-10-6819	WG	12/15/2009	

Wednesday, December 16, 2009

REQUEST NUMBER: 10-952

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	1	CAPA-10-6818	WG	12/15/2009	
		2	CAPA-10-6818	WG	12/15/2009	
	SW-846:8321A_MOD	1	CAPA-10-6818	WG	12/15/2009	
		2	CAPA-10-6818	WG	12/15/2009	
	SW-846:9060	1	CAPA-10-6818	WG	12/15/2009	

Final Page of REQUEST NUMBER 10-952

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

January 04, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL-WQH Water Samples
Work Order: 243099
SDG: 10-952

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 17, 2009, and analyzed for Explosives by LCMSMS, GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile, GC/MS Volatile and General Chemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-952
Enclosures

problem solved

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 243099
SDG # : 10-952

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Miscellaneous Data.....1105

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 243099
SDG # : 10-952

January 04, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 17, 2009 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The lab received (1) 40ml vial 8260B container for sample CAPA-10-6819 instead of (2) as indicated on the COC. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
243099001	CAPA-10-6818
243099002	CAPA-10-6818
243099003	CAPA-10-6818
243099004	CAPA-10-6818
243099005	CAPA-10-6819

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Explosives by LCMSMS, GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile, GC/MS Volatile and General Chemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 04 January 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Wednesday, December 16, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-952

REQUEST NUMBER: 10-952

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/15/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 243099%

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6818	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6818	2	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-6818	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6818	2	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-6818	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6818	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6818	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6818	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-6818	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6818	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-6818	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-6819	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-6819	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/16/09	1400	Greg Tyler	[illegible]	12-17-09	0920
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Wednesday, December 16, 2009

REQUEST NUMBER: 10-952

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-952

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/16/2009

TURNAROUND/REPORT DUE: 1/15/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:351.2	1	CAPA-10-6818	WG	12/15/2009	
	SW-846:8081A	1	CAPA-10-6818	WG	12/15/2009	
		2	CAPA-10-6818	WG	12/15/2009	
	SW-846:8082	1	CAPA-10-6818	WG	12/15/2009	
		2	CAPA-10-6818	WG	12/15/2009	
	SW-846:8260B	1	CAPA-10-6818	WG	12/15/2009	
		2	CAPA-10-6818	WG	12/15/2009	
		1	CAPA-10-6819	WG	12/15/2009	
		2	CAPA-10-6819	WG	12/15/2009	

Wednesday, December 16, 2009

REQUEST NUMBER: 10-952

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	1	CAPA-10-6818	WG	12/15/2009	
		2	CAPA-10-6818	WG	12/15/2009	
	SW-846:8321A_MOD	1	CAPA-10-6818	WG	12/15/2009	
		2	CAPA-10-6818	WG	12/15/2009	
	SW-846:9060	1	CAPA-10-6818	WG	12/15/2009	

Final Page of REQUEST NUMBER 10-952

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-952**
Received By: Greg Tyler	**Date Received: 12/17/09**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **30cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **2-4C, 12,13C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?	X			Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?			X	Sample ID's affected: **CAPA-10-6819** **The lab rec'd (1) 40ML vial 8260B instead of (2) as indicated on COC.**
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers
7209 7849 2542 2C
7209 7849 2531 3C
7209 7849 2510 4C
7209 7849 2520 4C
7209 7849 2553 4C
7209 7849 2509 12C
7209 7849 2494 13C

PM (or PMA) review: Initials BF Date 12/18/09

Subject: Sample Receipt for 12/18/09
From: Dionne Francis <Dionne.Francis@gel.com>
Date: Fri, 18 Dec 2009 13:46:29 -0500
To: "Keith R. Greene" <kgreene@lanl.gov>, Joylene Valdez <joylenev@lanl.gov>, Valerie Davis <vsd@gel.com>

Keith,

RN 10-947: the lab did not receive any containers.

RN 10-957: the lab did not receive a container for sample RE16-10-202.

RN 10-953: the Gross A/B container was preserved prior to analysis.

RN 10-952: the lab rec'd (1) 40ml vial 8260B container for sample CAPA-10-6819 instead of (2) as indicated on the COC.

The following containers rec'd without a COC:
RE16-10-2877, 2879, 2881
125ml amber 8260B, 125ml poly Anions+ClO4+CN, 500ml amber 8270C+NMED Exp
1L poly AM241+ISOU+ISOPU+GS+MET

Thanks,
Dionne

--
Dionne Francis
Project Manager Assistant
GEL Laboratories, LLC
2040 Savage Road
Charleston, SC (USA) 29407
Direct: 843.769.7376 Ext. 4432
Main: 843.556.8171
Fax: 843.766.1178
E-mail: daf@gel.com
Web: www.gel.com

Let the Bible fill the memory, rule the heart, and guide the feet.

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 16DEC09
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWM0

2c

FedEx Express

1 of 2
TRK# 0201 7209 7849 2542
MASTER

THU - 17DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 16DEC09
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A0352VA00

3c

FedEx Express

TRK# 0201 7209 7849 2531

THU - 17DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 16DEC09
ACTWGT: 63.6 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A0352VA00

4c

FedEx Express

1 of 2
TRK# 0201 7209 7849 2510
MASTER

THU - 17DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 16DEC09
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A0352VA00

4c

FedEx Express

2 of 2
MPS# 0263 7209 7849 2520
Mstr# 7209 7849 2510 0201

THU - 17DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 16DEC09
ACTWGT: 37.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWMO

4c

FedEx Express

2 of 2
MPS# 0263 7209 7849 2553
Mstr# 7209 7849 2542 0201

THU - 17DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part# 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 16DEC09
ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AAREW01105800

12c

FedEx Express

3 of 3
MPS# 0263 7209 7849 2509
Mstr# 7209 7849 2483 0201

THU - 17DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part# 156148-434 NRIT V3 09-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 16DEC09
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AAREW01105800

13c

FedEx Express

2 of 3
MPS# 0263 7209 7849 2494
Mstr# 7209 7849 2483 0201

THU - 17DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

DATA REVIEW QUALIFIER FLAG DEFINITION SHEET

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

GC/MS Volatile Organics
Los Alamos National Laboratory (LANL)
SDG 10-952

Method/Analysis Information

Procedure: Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method: SW846 8260B DOE-AL
Prep Method: SW846 5030B
Analytical Batch Number: 936682

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
243099003	CAPA-10-6818
243099005	CAPA-10-6819
1202004162	Method Blank (MB)
1202004165	Laboratory Control Sample (LCS)
1202004166	Laboratory Control Sample (LCS)
1202004163	243099003(CAPA-10-6818) Post Spike (PS)
1202004164	243099003(CAPA-10-6818) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 13.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 19.1.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 243099003 (CAPA-10-6818) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-analyses were not required for samples in this SDG.

Miscellaneous Information

Electronic Package Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Nonconformance (NCR) Documentation
A nonconformance report was not required for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may have required manual integrations due to software limitations.

TIC Comment
Tentatively identified compounds (TIC) were required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA4.I	Gas Chromatograph/Mass Spectrometer	HP6890/HP5973	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-952 GEL Work Order: 243099

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Erin Haubert **Name: Erin Haubert**

Date: 12 JAN 2010 **Title: Data Validator**

Roadmap for LANL 10-952 VOA

This roadmap was analyzed by acj on 01-07-2010, 18:36.
This roadmap was reviewed by sar00518 on 01-09-2010, 10:38.

Sample

exclude	manual	datafile	smpid	clientid	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA4.i/122409v4/4q418.d	243099003	CAPA-10-6818	24-DEC-2009	21:03	10-952.sub	1	936682	
☐	N	/chem/VOA4.i/122409v4/4q419.d	243099005	CAPA-10-6819	24-DEC-2009	21:30	10-952.sub	1	936682	

QC Sample

exclude	manual	datafile	smpid	clientid	sampletype	injdate	injtime	sublist	dilution	batchid	comment
☐	N	/chem/VOA4.i/122409v4/4q402Ll.d	1202004165	LCS	lcs	24-DEC-2009	13:48	all.sub	1	936682	
☐	N	/chem/VOA4.i/122409v4/4q404Sl.d	1202004166	LCS	lcs	24-DEC-2009	14:42	all.sub	1	936682	
☐	N	/chem/VOA4.i/122409v4/4q407bl.d	1202004162	BLANK	mb	24-DEC-2009	16:03	all.sub	1	936682	
☐	N	/chem/VOA4.i/122409v4/4q424.d	1202004163	CAPA-10-6818MS	ms	24-DEC-2009	23:47	10-952.sub	1	936682	
☐	N	/chem/VOA4.i/122409v4/4q425.d	1202004164	CAPA-10-6818MSD	msd	25-DEC-2009	00:14	10-952.sub	1	936682	

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243099003**	**Date Received:**	**12/17/2009 09:20**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6818**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936682**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/24/2009 21:03**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/24/2009 21:03**				
Data File:	**4q418.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243099003**	**Date Received:**	**12/17/2009 09:20**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6818**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936682**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/24/2009 21:03**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/24/2009 21:03**				
Data File:	**4q418.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243099003**	**Date Received:**	**12/17/2009 09:20**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6818**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936682**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/24/2009 21:03**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/24/2009 21:03**				
Data File:	**4q418.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	42.5	50.0	ug/L	84.9	(59%-130%)
Bromofluorobenzene	58.1	50.0	ug/L	116	(71%-126%)
Toluene-d8	46.9	50.0	ug/L	93.7	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	16.79	7.61	ug/L		J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243099005**	**Date Received:**	**12/17/2009 09:20**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6819**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936682**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/24/2009 21:30**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/24/2009 21:30**				
Data File:	**4q419.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	J	0.324	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-952	Date Collected:	12/15/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243099005	Date Received:	12/17/2009 09:20		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6819	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	936682	Inst:	VOA4.I	Dilution:	1
Run Date:	12/24/2009 21:30	Analyst:	ACJ	Purge Vol:	5 mL
Prep Date:	12/24/2009 21:30				
Data File:	4q419.d	Column:	RTX-VOLATILES	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243099005**	**Date Received:**	**12/17/2009 09:20**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6819**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936682**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/24/2009 21:30**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/24/2009 21:30**				
Data File:	**4q419.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	41.1	50.0	ug/L	82.2	(59%-130%)
Bromofluorobenzene	57.0	50.0	ug/L	114	(71%-126%)
Toluene-d8	46.2	50.0	ug/L	92.5	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
556-67-2	Cyclotetrasiloxane, octamethyl-	14.83	8.49	ug/L	56	NJ
	Unknown Siloxane	16.79	6.7	ug/L		J

QC Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-952

Matrix Type: LIQUID

CAP Column (1) : RTX-VOLATILES

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202004165	LCS for batch 936682	86	92	106
1202004166	LCS for batch 936682	86	93	113
1202004162	MB for batch 936682	81	93	113
243099003	CAPA-10-6818	85	94	116
243099005	CAPA-10-6819	82	92	114
1202004163	CAPA-10-6818PS	87	89	105
1202004164	CAPA-10-6818PSD	86	89	105

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(59%-130%)
TOL	= Toluene-d8	(76%-129%)
BFB	= Bromofluorobenzene	(71%-126%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Client ID: CAPA-10-6818PS
Lab Sample ID: 1202004163
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: GROUND WATER
Analysis Date: 12/24/2009 23:47
Dilution: 1
Prep Batch ID: 936682
Batch ID: 936682

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	36.8	74	31-151
74-87-3	PS	Chloromethane	50.0	0.00	U	39.0	78	47-140
75-01-4	PS	Vinyl chloride	50.0	0.00	U	41.9	84	51-134
74-83-9	PS	Bromomethane	50.0	0.00	U	42.1	84	54-136
75-00-3	PS	Chloroethane	50.0	0.00	U	40.1	80	60-129
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	41.7	83	58-151
60-29-7	PS	Ethyl ether	50.0	0.00	U	41.1	82	63-125
67-64-1	PS	Acetone	250	0.00	U	79.8	32	14-150
75-05-8	PS	Acetonitrile	1250	0.00	U	1020	82	51-133
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	36.8	74	61-129
74-88-4	PS	Iodomethane	250	0.00	U	196	78	66-138
75-09-2	PS	Methylene chloride	50.0	0.00	U	41.4	83	68-134
75-15-0	PS	Carbon disulfide	250	0.00	U	199	80	57-129
1634-04-4	PS	tert-Butyl methyl ether	50.0	0.00	U	40.2	80	65-133
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	40.6	81	64-126
108-05-4	PS	Vinyl acetate	250	0.00	U	237	95	41-140
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	40.0	80	69-125
78-93-3	PS	2-Butanone	250	0.00	U	117	47	11-151
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	41.3	83	71-128
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	40.7	81	61-134
67-66-3	PS	Chloroform	50.0	0.00	U	41.8	84	70-126
74-97-5	PS	Bromochloromethane	50.0	0.00	U	41.6	83	71-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Client ID: CAPA-10-6818PS
Lab Sample ID: 1202004163
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: GROUND WATER
Analysis Date: 12/24/2009 23:47
Dilution: 1
Prep Batch ID: 936682
Batch ID: 936682

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	42.1	84	66-132
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	40.8	82	68-128
71-36-3	PS	n-Butyl alcohol	5000	0.00	U	4800	96	58-146
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	41.1	82	66-138
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	41.9	84	65-129
71-43-2	PS	Benzene	50.0	0.00	U	40.1	80	66-121
79-01-6	PS	Trichloroethylene	50.0	0.00	U	40.1	80	66-127
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	41.7	83	71-125
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	43.5	87	72-134
74-95-3	PS	Dibromomethane	50.0	0.00	U	42.6	85	71-130
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	198	79	64-133
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	42.4	85	71-129
108-88-3	PS	Toluene	50.0	0.00	U	39.8	80	65-124
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	43.2	86	73-130
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	40.9	82	71-125
591-78-6	PS	2-Hexanone	250	0.00	U	134	54	28-143
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	41.0	82	69-124
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	38.9	78	63-126
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	43.9	88	76-135
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	42.9	86	73-126
108-90-7	PS	Chlorobenzene	50.0	0.00	U	40.1	80	69-120
100-41-4	PS	Ethylbenzene	50.0	0.00	U	40.3	81	65-123

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Client ID: CAPA-10-6818PS
Lab Sample ID: 1202004163
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: GROUND WATER
Analysis Date: 12/24/2009 23:47
Dilution: 1
Prep Batch ID: 936682
Batch ID: 936682

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	PS	m,p-Xylenes	100	0.00	U	81.4	81	64-125
95-47-6	PS	o-Xylene	50.0	0.00	U	40.8	82	66-126
100-42-5	PS	Styrene	50.0	0.00	U	44.0	88	66-131
75-25-2	PS	Bromoform	50.0	0.00	U	44.8	90	72-143
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	42.2	84	66-128
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	40.3	81	67-141
108-86-1	PS	Bromobenzene	50.0	0.00	U	41.2	82	67-124
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	40.4	81	60-127
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	40.0	80	62-126
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	40.2	80	60-132
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	40.5	81	62-130
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	41.4	83	64-124
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	40.7	81	64-129
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	40.8	82	62-130
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	40.3	81	61-131
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	40.7	81	61-135
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	40.5	81	65-123
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	40.8	82	64-120
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	41.0	82	58-135
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	46.5	93	62-146
87-68-3	PS	Hexachlorobutadiene	50.0	0.00	U	41.7	83	53-132
91-20-3	PS	Naphthalene	50.0	0.00	U	47.7	95	54-144

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Sample Type: Post Spike
Client ID: CAPA-10-6818PS
Matrix: GROUND WATER
Lab Sample ID: 1202004163
Instrument: VOA4.I
Analysis Date: 12/24/2009 23:47
Dilution: 1
Analyst: ACJ
Prep Batch ID: 936682
Purge Vol: 5 mL
Batch ID: 936682

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
87-61-6	PS	1,2,3-Trichlorobenzene	50.0	0.00	U	46.3	93	59-136
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	42.8	86	73-127
120-82-1	PS	1,2,4-Trichlorobenzene	50.0	0.00	U	44.7	89	56-134
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	41.3	83	66-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Client ID: CAPA-10-6818PSD
Lab Sample ID: 1202004164
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 12/25/2009 00:14
Dilution: 1
Prep Batch ID: 936682
Batch ID: 936682

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	35.4	71	31-151	4	0-20
74-87-3	PSD	Chloromethane	50.0	0.00	U	37.0	74	47-140	5	0-20
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	39.6	79	51-134	6	0-20
74-83-9	PSD	Bromomethane	50.0	0.00	U	39.1	78	54-136	7	0-20
75-00-3	PSD	Chloroethane	50.0	0.00	U	38.7	77	60-129	4	0-20
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	41.5	83	58-151	1	0-20
60-29-7	PSD	Ethyl ether	50.0	0.00	U	39.4	79	63-125	4	0-20
67-64-1	PSD	Acetone	250	0.00	U	75.2	30	14-150	6	0-20
75-05-8	PSD	Acetonitrile	1250	0.00	U	947	76	51-133	8	0-20
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	35.3	71	61-129	4	0-20
74-88-4	PSD	Iodomethane	250	0.00	U	188	75	66-138	4	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	39.0	78	68-134	6	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	189	76	57-129	5	0-20
1634-04-4	PSD	tert-Butyl methyl ether	50.0	0.00	U	38.4	77	65-133	5	0-20
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	38.0	76	64-126	7	0-20
108-05-4	PSD	Vinyl acetate	250	0.00	U	223	89	41-140	6	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	37.7	75	69-125	6	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	110	44	11-151	6	0-20
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	38.4	77	71-128	7	0-20
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	37.2	74	61-134	9	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	38.8	78	70-126	7	0-20
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	38.8	78	71-129	7	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Client ID: CAPA-10-6818PSD
Lab Sample ID: 1202004164
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 12/25/2009 00:14
Dilution: 1
Prep Batch ID: 936682
Batch ID: 936682

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	40.3	81	66-132	4	0-20
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	38.8	78	68-128	5	0-20
71-36-3	PSD	n-Butyl alcohol	5000	0.00	U	4470	89	58-146	7	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	39.5	79	66-138	4	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	39.2	78	65-129	7	0-20
71-43-2	PSD	Benzene	50.0	0.00	U	37.6	75	66-121	7	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	37.8	76	66-127	6	0-20
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	38.2	76	71-125	9	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	40.5	81	72-134	7	0-20
74-95-3	PSD	Dibromomethane	50.0	0.00	U	38.8	78	71-130	9	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	189	75	64-133	5	0-20
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	39.7	79	71-129	7	0-20
108-88-3	PSD	Toluene	50.0	0.00	U	37.6	75	65-124	6	0-20
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	40.3	81	73-130	7	0-20
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	37.8	76	71-125	8	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	127	51	28-143	5	0-20
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	38.9	78	69-124	5	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	37.2	74	63-126	5	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	41.0	82	76-135	7	0-20
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	40.2	80	73-126	7	0-20
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	37.9	76	69-120	6	0-20
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	37.6	75	65-123	7	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Client ID: CAPA-10-6818PSD
Lab Sample ID: 1202004164
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 12/25/2009 00:14
Dilution: 1
Prep Batch ID: 936682
Batch ID: 936682

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	77.0	77	64-125	6	0-20
95-47-6	PSD	o-Xylene	50.0	0.00	U	38.3	77	66-126	6	0-20
100-42-5	PSD	Styrene	50.0	0.00	U	40.6	81	66-131	8	0-20
75-25-2	PSD	Bromoform	50.0	0.00	U	42.3	85	72-143	6	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	39.9	80	66-128	6	0-20
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	38.9	78	67-141	4	0-20
108-86-1	PSD	Bromobenzene	50.0	0.00	U	38.3	77	67-124	8	0-20
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	37.6	75	60-127	7	0-20
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	38.0	76	62-126	5	0-20
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	38.1	76	60-132	6	0-20
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	38.1	76	62-130	6	0-20
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	38.7	77	64-124	7	0-20
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	38.7	77	64-129	5	0-20
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	38.3	77	62-130	6	0-20
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	38.6	77	61-131	4	0-20
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	39.1	78	61-135	4	0-20
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	38.2	76	65-123	6	0-20
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	38.6	77	64-120	6	0-20
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	39.4	79	58-135	4	0-20
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	43.2	86	62-146	7	0-20
87-68-3	PSD	Hexachlorobutadiene	50.0	0.00	U	39.2	78	53-132	6	0-20
91-20-3	PSD	Naphthalene	50.0	0.00	U	44.4	89	54-144	7	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Sample Type: Post Spike Duplicate
Client ID: CAPA-10-6818PSD
Matrix: GROUND WATER
Lab Sample ID: 1202004164
Instrument: VOA4.I
Analysis Date: 12/25/2009 00:14
Dilution: 1
Analyst: ACJ
Prep Batch ID: 936682
Purge Vol: 5 mL
Batch ID: 936682

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
87-61-6	PSD	1,2,3-Trichlorobenzene	50.0	0.00	U	43.3	87	59-136	7	0-20
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	39.7	79	73-127	8	0-20
120-82-1	PSD	1,2,4-Trichlorobenzene	50.0	0.00	U	42.2	84	56-134	6	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	38.6	77	66-122	7	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Client ID: LCS for batch 936682
Lab Sample ID: 1202004165
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 12/24/2009 13:48
Dilution: 1
Prep Batch ID: 936682
Batch ID: 936682

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	41.2	82	35-156
74-87-3	LCS	Chloromethane	50.0	0.0	44.7	89	52-139
75-01-4	LCS	Vinyl chloride	50.0	0.0	48.5	97	61-131
74-83-9	LCS	Bromomethane	50.0	0.0	45.5	91	63-131
75-00-3	LCS	Chloroethane	50.0	0.0	45.8	92	67-126
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	47.5	95	66-153
60-29-7	LCS	Ethyl ether	50.0	0.0	40.8	82	68-120
67-64-1	LCS	Acetone	250	0.0	163	65	28-157
75-05-8	LCS	Acetonitrile	1250	0.0	1100	88	54-127
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	41.0	82	70-128
74-88-4	LCS	Iodomethane	250	0.0	208	83	63-141
75-09-2	LCS	Methylene chloride	50.0	0.0	44.2	88	72-131
75-15-0	LCS	Carbon disulfide	250	0.0	226	91	63-129
1634-04-4	LCS	tert-Butyl methyl ether	50.0	0.0	40.1	80	70-129
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	43.7	87	71-124
108-05-4	LCS	Vinyl acetate	250	0.0	243	97	61-134
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	43.2	86	75-121
78-93-3	LCS	2-Butanone	250	0.0	175	70	31-160
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	43.7	87	77-124
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	45.9	92	72-140
67-66-3	LCS	Chloroform	50.0	0.0	42.8	86	76-121
74-97-5	LCS	Bromochloromethane	50.0	0.0	41.9	84	76-123

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Client ID: LCS for batch 936682
Lab Sample ID: 1202004165
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 12/24/2009 13:48
Dilution: 1
Prep Batch ID: 936682
Batch ID: 936682

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	45.4	91	73-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	45.3	91	75-128
71-36-3	LCS	n-Butyl alcohol	5000	0.0	5120	102	61-143
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	45.2	90	75-139
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	41.1	82	70-123
71-43-2	LCS	Benzene	50.0	0.0	43.0	86	72-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	43.9	88	76-123
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	43.5	87	75-121
75-27-4	LCS	Bromodichloromethane	50.0	0.0	44.1	88	77-130
74-95-3	LCS	Dibromomethane	50.0	0.0	43.2	86	77-124
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	217	87	68-132
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	44.9	90	79-127
108-88-3	LCS	Toluene	50.0	0.0	43.0	86	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	45.3	91	81-127
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	42.1	84	76-120
591-78-6	LCS	2-Hexanone	250	0.0	188	75	34-162
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	42.6	85	73-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	43.4	87	72-126
124-48-1	LCS	Dibromochloromethane	50.0	0.0	45.0	90	82-131
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	43.9	88	66-132
108-90-7	LCS	Chlorobenzene	50.0	0.0	42.5	85	76-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	43.5	87	75-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Client ID: LCS for batch 936682
Lab Sample ID: 1202004165
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 12/24/2009 13:48
Dilution: 1
Prep Batch ID: 936682
Batch ID: 936682

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	LCS	m,p-Xylenes	100	0.0	88.6	89	64-130
95-47-6	LCS	o-Xylene	50.0	0.0	43.7	87	75-121
100-42-5	LCS	Styrene	50.0	0.0	46.6	93	76-126
75-25-2	LCS	Bromoform	50.0	0.0	45.6	91	77-139
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	43.1	86	71-121
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	41.4	83	72-134
108-86-1	LCS	Bromobenzene	50.0	0.0	42.2	84	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	44.9	90	70-124
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	43.0	86	71-121
98-82-8	LCS	Isopropylbenzene	50.0	0.0	43.8	88	58-138
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	43.8	88	73-124
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	43.8	88	74-120
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	44.0	88	73-125
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	44.2	88	74-123
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	44.8	90	72-126
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	45.6	91	74-131
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	42.6	85	74-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	43.7	87	74-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	46.9	94	74-130
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	46.9	94	67-141
87-68-3	LCS	Hexachlorobutadiene	50.0	0.0	44.3	89	68-129
91-20-3	LCS	Naphthalene	50.0	0.0	46.3	93	59-138

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Client ID: LCS for batch 936682
Lab Sample ID: 1202004165
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 12/24/2009 13:48
Dilution: 1
Prep Batch ID: 936682
Batch ID: 936682

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
87-61-6	LCS	1,2,3-Trichlorobenzene	50.0	0.0	46.2	92	67-133
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	43.9	88	79-124
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	46.6	93	66-135
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	42.7	85	76-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Client ID: LCS for batch 936682
Lab Sample ID: 1202004166
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 12/24/2009 14:42
Dilution: 1
Prep Batch ID: 936682
Batch ID: 936682

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
107-02-8	LCS	Acrolein	250	0.0	237	95	41-148
76-13-1	LCS	Trichlorotrifluoroethane	250	0.0	225	90	52-141
107-05-1	LCS	Allyl chloride	250	0.0	236	95	55-130
107-13-1	LCS	Acrylonitrile	250	0.0	223	89	58-131
126-99-8	LCS	2-Chloro-1,3-butadiene	50.0	0.0	49.6	99	42-150
107-12-0	LCS	Propionitrile	250	0.0	216	87	57-131
126-98-7	LCS	Methacrylonitrile	250	0.0	222	89	58-128
78-83-1	LCS	Isobutyl alcohol	2500	0.0	2070	83	53-142
80-62-6	LCS	Methyl methacrylate	250	0.0	230	92	63-133
97-63-2	LCS	Ethyl methacrylate	250	0.0	230	92	64-128

Method Blank Summary

SDG Number:	10-952	Client:	LANL010	Matrix:	GROUND WATER
Client ID:	MB for batch 936682	Instrument ID:	VOA4.I	Data File:	4q407bl.d
Lab Sample ID:	1202004162	Prep Date:	12/24/2009 16:03	Analyzed:	12/24/09 16:03
Column:	RTX-VOLATILES	Heated Purge:	Yes		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 936682	1202004165	4q402Ll.d	12/24/09	1348
02	LCS for batch 936682	1202004166	4q404Sl.d	12/24/09	1442
03	CAPA-10-6818	243099003	4q418.d	12/24/09	2103
04	CAPA-10-6819	243099005	4q419.d	12/24/09	2130
05	CAPA-10-6818PS	1202004163	4q424.d	12/24/09	2347
06	CAPA-10-6818PSD	1202004164	4q425.d	12/25/09	0014

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-952

Instrument ID: VOA4.I **Injection Date/Time:** 19-DEC-09 18:50

Column Description: DB-624 **Lab File ID** /121909v4/4p601.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	22.4
75	30.0 - 60.0% of mass 95	46.5
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	91.9
175	5.0 -9.0% of mass 174	7.8
176	95.0 - 101.0% of mass 174	100.7
177	5.0 - 9.0% of mass 176	6.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD0005	W4VM091219-01	/121909v4/4p603.d	19-DEC-09 19:44
VSTD001	W4VM091219-03	/121909v4/4p605.d	19-DEC-09 20:39
VSTD002	W4VM091219-04	/121909v4/4p606.d	19-DEC-09 21:07
VSTD005	W4VM091219-05	/121909v4/4p607.d	19-DEC-09 21:34
VSTD010	W4VM091219-06	/121909v4/4p608.d	19-DEC-09 22:01
VSTD020	W4VM091219-07	/121909v4/4p609.d	19-DEC-09 22:28
VSTD050	W4VM091219-08	/121909v4/4p610.d	19-DEC-09 22:55
VSTD100	W4VM091219-09	/121909v4/4p611.d	19-DEC-09 23:22
VSTD005S	W4VM091219-10	/121909v4/4p613.d	20-DEC-09 00:17
VSTD010S	W4VM091219-11	/121909v4/4p614.d	20-DEC-09 00:44
VSTD025S	W4VM091219-12	/121909v4/4p615.d	20-DEC-09 01:12
VSTD050S	W4VM091219-13	/121909v4/4p616.d	20-DEC-09 01:39
VSTD100S	W4VM091219-14	/121909v4/4p617.d	20-DEC-09 02:06
VSTD250S	W4VM091219-15	/121909v4/4p618.d	20-DEC-09 02:33
VSTD500S	W4VM091219-16	/121909v4/4p619.d	20-DEC-09 03:01
SECOND SOURCE	W4VM091219-17	/121909v4/4p621.d	20-DEC-09 03:55
SHORT SECOND SOURCE	W4VM091219-18	/121909v4/4p622.d	20-DEC-09 04:22

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-952

Instrument ID: VOA4.I **Injection Date/Time:** 24-DEC-09 13:20

Column Description: DB-624 **Lab File ID** /122409v4/4q401.d

m/e	Ion Abundance Criteria	% Relative Abundance
95	Base Peak, 100% Relative Abundance	100
50	15.0 - 40.0% of mass 95	24
75	30.0 - 60.0% of mass 95	48.7
96	5.0 - 9.0% of mass 95	7.5
173	Less than 2.0% of mass 174	0.4
174	50.0 - 100.0% of mass 95	88.5
175	5.0 -9.0% of mass 174	7.6
176	95.0 - 101.0% of mass 174	99.3
177	5.0 - 9.0% of mass 176	7.1

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
VSTD050	W4VM091224-01	/122409v4/4q402.d	24-DEC-09 13:48
LCS	1202004165	/122409v4/4q402Ll.d	24-DEC-09 13:48
VSTD250S	UVM091118-08C	/122409v4/4q404.d	24-DEC-09 14:42
LCS	1202004166	/122409v4/4q404Sl.d	24-DEC-09 14:42
BLANK	1202004162	/122409v4/4q407bl.d	24-DEC-09 16:03
CAPA-10-6818	243099003	/122409v4/4q418.d	24-DEC-09 21:03
CAPA-10-6819	243099005	/122409v4/4q419.d	24-DEC-09 21:30
CAPA-10-6818MS	1202004163	/122409v4/4q424.d	24-DEC-09 23:47
CAPA-10-6818MSD	1202004164	/122409v4/4q425.d	25-DEC-09 00:14

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA4.I

GC Column: RTX-VOLATILES

Client SDG: 10-952

STD Analysis Time: 24-DEC-09 13:48

Data File: 4q402.d

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1100102		10.6	827154		13.8	536828		16.2
Upper Limit	2200204		11.1	1654308		14.3	1073656		16.7
Lower Limit	550051		10.1	413577		13.3	268414		15.7
Sample ID									
BLK01LCS	1100102		10.6	827154		13.8	536828		16.2
BLK01SLCS	1149480		10.6	858940		13.8	535082		16.2
BLK01	1118363		10.6	801004		13.8	458025		16.2
CAPA-10-6818	1075316		10.6	777873		13.8	448544		16.2
CAPA-10-6819	1091321		10.6	782660		13.8	451883		16.2
CAPA-10-6818MS	1164775		10.6	870349		13.8	563546		16.2
CAPA-10-6818MSD	1179991		10.6	884110		13.8	574905		16.2

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-952	**Date Collected:**	12/15/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	243099003	**Date Received:**	12/17/2009 09:20		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-6818	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	936682	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/24/2009 21:03	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/24/2009 21:03				
Data File:	4q418.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243099003**	**Date Received:**	**12/17/2009 09:20**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6818**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936682**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/24/2009 21:03**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/24/2009 21:03**				
Data File:	**4q418.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243099003**	**Date Received:**	**12/17/2009 09:20**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6818**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936682**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/24/2009 21:03**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/24/2009 21:03**				
Data File:	**4q418.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	42.5	50.0	ug/L	84.9	(59%-130%)
Bromofluorobenzene	58.1	50.0	ug/L	116	(71%-126%)
Toluene-d8	46.9	50.0	ug/L	93.7	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown Siloxane	16.79	7.61	ug/L		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122409v4/4q418.d
Lab Smp Id: 243099003 Client Smp ID: CAPA-10-6818
Inj Date : 24-DEC-2009 21:03
Operator : ACJ Inst ID: VOA4.i
Smp Info : |243099003|936682|1|VOAF|1|
Misc Info : LANL 5ML PH2
Comment :
Method : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:28 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-952.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 40 Fluorobenzene	96	10.620	10.620	(1.000)	1075316	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	777873	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.180	16.180	(1.000)	448544	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.260	10.260	(0.966)	237881	42.4593	42.4
$ 47 Toluene-d8	98	12.253	12.253	(0.890)	863197	46.8563	46.8
$ 71 Bromofluorobenzene	95	14.954	14.954	(0.924)	423067	58.0859	58.1

ION RATIO REPORT

VOA REPORT

Data file: 4q418.d
Report Date: 12/28/2009 13:50
Lab. ID: 243099003 SampleType: SAMPLE
Injection Date: 24-DEC-2009 21:03
Operator: ACJ Instrument: VOA4.i
Sample Info: |243099003|936682|1|VOAF|1|
Miscellaneous Info: LANL 5ML PH2
Comment:
Method used: /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-952
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
37 1,2-Dichloroethane			CAS#: 107-06-2			
62	14925	10.62	10.35	80-120	100	(T)
64	2571	10.61	10.35	2- 62	17	(T)
49 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	7889	12.25	12.02	80-120	100	(T)
43	5104	12.25	12.02	258-318	65	(QT)
100	569271	12.25	12.02	0- 59	7216	(QT)
66 Bromoform			CAS#: 75-25-2			
173	1688	14.95	14.66	80-120	100	(T)
175	27570	14.95	14.66	19- 79	1633	(QT)
131 n-Butyl alcohol			CAS#: 71-36-3			
56	6725	10.61	10.69	80-120	100	(T)
41	245	10.69	10.69	52-112	4	(Q)
43	150	10.60	10.69	35- 95	2	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122409v4/4q418.d
Lab Smp Id: 243099003 Client Smp ID: CAPA-10-6818
Inj Date : 24-DEC-2009 21:03
Operator : ACJ Inst ID: VOA4.i
Smp Info : |243099003|936682|1|VOAF|1|
Misc Info : LANL 5ML PH2
Comment :
Method : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:28 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-952.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 86 1,4-Dichlorobenzene-d4	16.180	2687437	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/l)	FINAL(ug/l)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown Siloxane					CAS #:		
16.789	408855	7.60678395	7.6	0		0	86

Data File: /chem/VOA4.i/122409v4/4q418.d
Date : 24-DEC-2009 21:03
Client ID: CAPA-10-6818
Sample Info: |2430990031936682|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

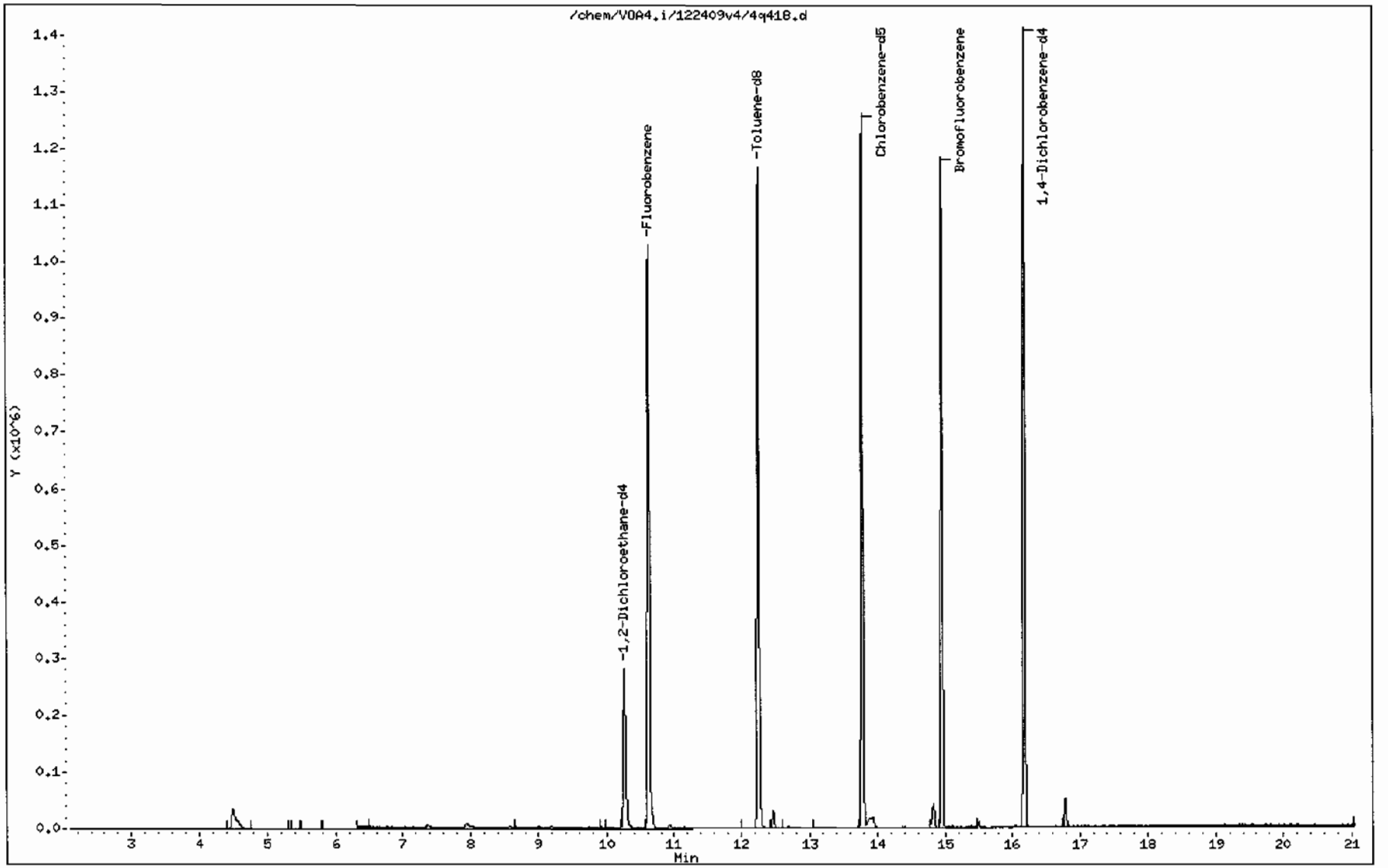

Data File: /chem/VOA4.i/122409v4/4q418.d

Date : 24-DEC-2009 21:03

Client ID: CAPA-10-6818

Instrument: VOA4.i

Sample Info: |2430990031936682|1|VOAF|1|

Purge Volume: 5.0

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Benzoic acid, 2-[(trimethylsilyl)oxy]-,	3789-85-3	NIST05.L	112909	45	C13H22O3Si2	282
11H-Dibenzo[b,e][1,4]diazepin-11-one, 5-	13450-73-2	NIST05.L	103364	43	C16H17N3O	267
Benzeneethanamine, N-[(pentafluorophenyl	56429-85-1	NIST05.L	182554	37	C21H26F5NO2Si2	475

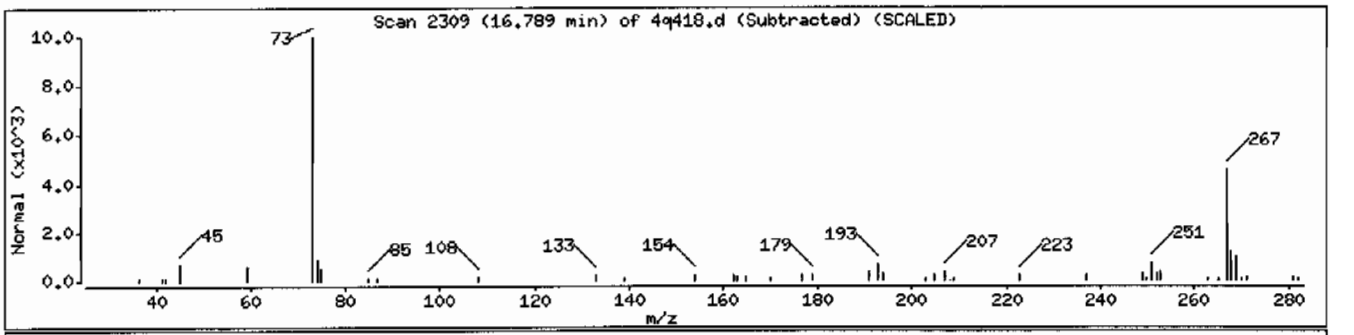

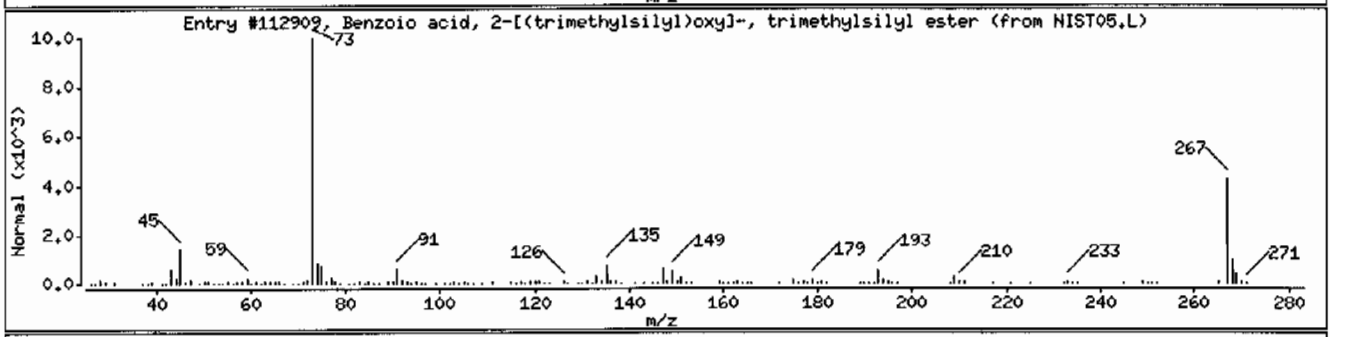

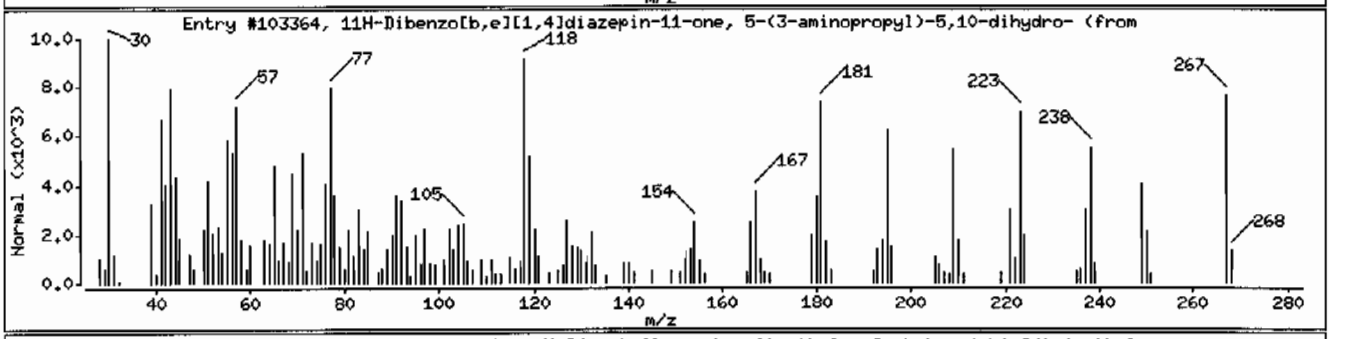

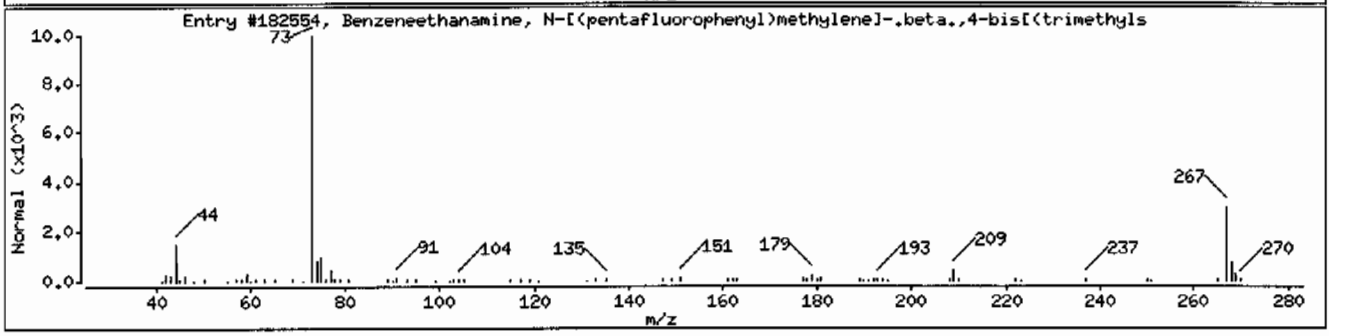

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243099005**	**Date Received:**	**12/17/2009 09:20**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6819**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936682**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/24/2009 21:30**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/24/2009 21:30**				
Data File:	**4q419.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	J	0.324	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243099005**	**Date Received:**	**12/17/2009 09:20**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6819**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936682**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/24/2009 21:30**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/24/2009 21:30**				
Data File:	**4q419.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243099005**	**Date Received:**	**12/17/2009 09:20**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6819**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936682**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/24/2009 21:30**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/24/2009 21:30**				
Data File:	**4q419.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	41.1	50.0	ug/L	82.2	(59%-130%)
Bromofluorobenzene	57.0	50.0	ug/L	114	(71%-126%)
Toluene-d8	46.2	50.0	ug/L	92.5	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
556-67-2	Cyclotetrasiloxane, octamethyl-	14.83	8.49	ug/L	56	NJ
	Unknown Siloxane	16.79	6.7	ug/L		J

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122409v4/4q419.d
Lab Smp Id: 243099005 Client Smp ID: CAPA-10-6819
Inj Date : 24-DEC-2009 21:30
Operator : ACJ Inst ID: VOA4.i
Smp Info : |243099005|936682|1|VOAF|1|
Misc Info : LANL 5ML PH2
Comment :
Method : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:28 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-952.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 40 Fluorobenzene	96	10.619	10.620	(1.000)	1091321	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	782660	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.180	(1.000)	451883	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.265	10.260	(0.967)	233719	41.1046	41.1
$ 47 Toluene-d8	98	12.253	12.253	(0.890)	856875	46.2286	46.2
$ 71 Bromofluorobenzene	95	14.953	14.954	(0.924)	418406	57.0215	57.0
4 Chloromethane	50	5.306	5.306	(0.500)	3338	0.32381	0.32(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

ION RATIO REPORT

VOA REPORT

Data file: 4q419.d
Report Date: 12/28/2009 13:50
Lab. ID: 243099005 SampleType: SAMPLE
Injection Date: 24-DEC-2009 21:30
Operator: ACJ Instrument: VOA4.i
Sample Info: |243099005|936682|1|VOAF|1|
Miscellaneous Info: LANL 5ML PH2
Comment:
Method used: /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-952
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Chloromethane			CAS#: 74-87-3			
50	3338	5.31	5.31	80-120	100	( )
52	348	5.32	5.31	1- 61	10	( )
37 1,2-Dichloroethane			CAS#: 107-06-2			
62	15663	10.61	10.35	80-120	100	(T)
64	2838	10.62	10.35	2- 62	18	(T)
49 4-Methyl-2-pentanone			CAS#: 108-10-1			
58	7867	12.25	12.02	80-120	100	(T)
43	5688	12.25	12.02	258-318	72	(QT)
100	561801	12.25	12.02	0- 59	7141	(QT)
66 Bromoform			CAS#: 75-25-2			
173	2039	14.96	14.66	80-120	100	(T)
175	27804	14.95	14.66	19- 79	1363	(QT)
131 n-Butyl alcohol			CAS#: 71-36-3			
56	7440	10.62	10.69	80-120	100	(T)
41	213	10.70	10.69	52-112	3	(Q)
43	321	10.62	10.69	35- 95	4	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122409v4/4q419.d
Lab Smp Id: 243099005 Client Smp ID: CAPA-10-6819
Inj Date : 24-DEC-2009 21:30
Operator : ACJ Inst ID: VOA4.i
Smp Info : |243099005|936682|1|VOAF|1|
Misc Info : LANL 5ML PH2
Comment :
Method : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:28 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-952.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 61 Chlorobenzene-d5	13.771	2501596	50.000
* 86 1,4-Dichlorobenzene-d4	16.179	2719029	50.000

	CONCENTRATIONS				QUANT			
	RT	AREA	ON-COL(ug/l)	FINAL(ug/l)	QUAL	LIBRARY	LIB ENTRY	CPND #
Cyclotetrasiloxane, octamethyl-					CAS #: 556-67-2			
	14.825	424746	8.48950528	8.5	56	NIST05.L	122479	61(L)
Unknown Siloxane					CAS #:			
	16.788	364370	6.70037492	6.7	0		0	86

QC Flag Legend

L - Operator selected an alternate library search match.

Data File: /chem/VOA4.i/122409v4/4q419.d
Date : 24-DEC-2009 21:30
Client ID: CAPA-10-6819
Sample Info: |2430990051936682|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i

Operator: ACJ
Column diameter: 0.25

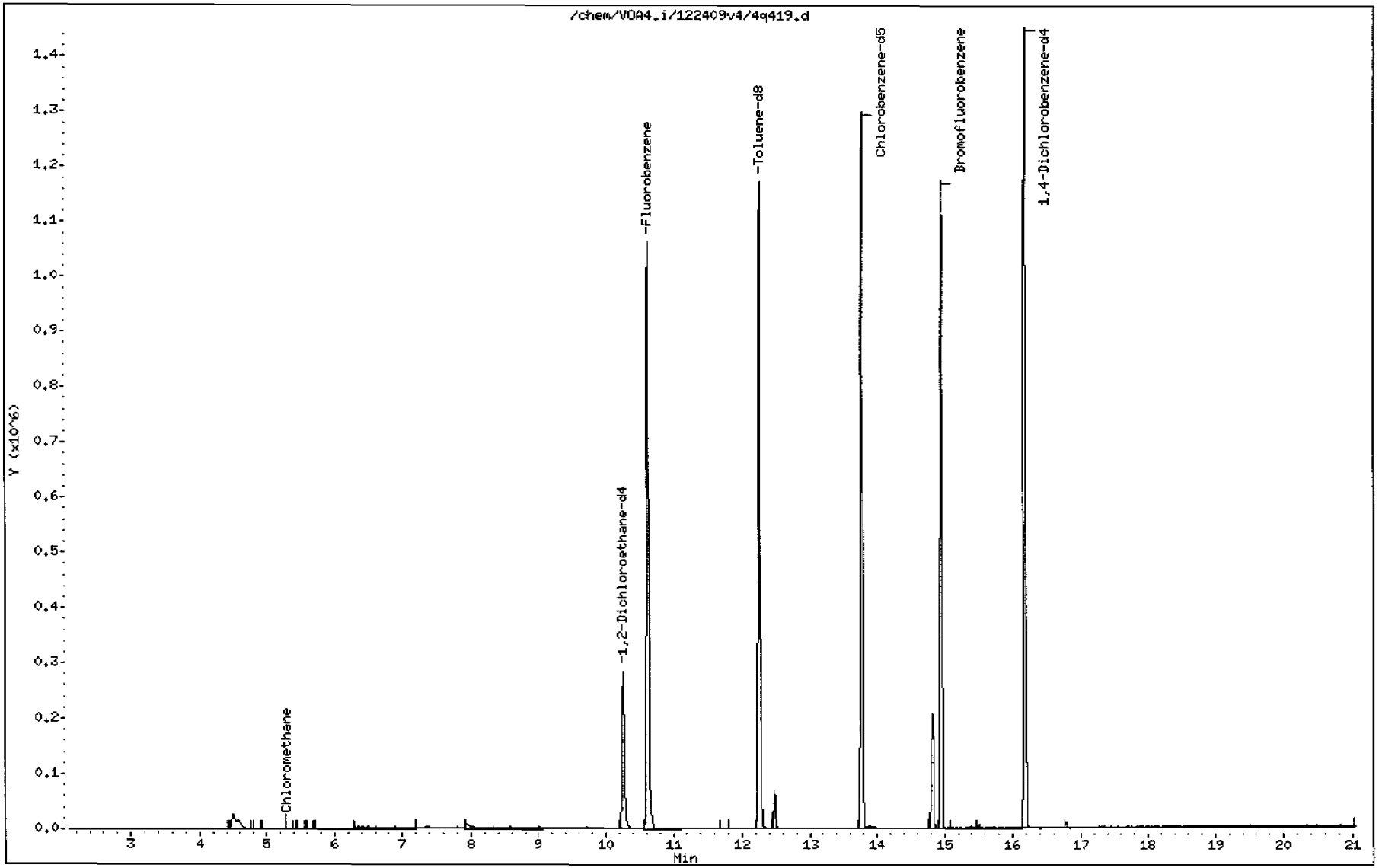

Data File: /chem/VOA4.i/122409v4/4q419.d

Date : 24-DEC-2009 21:30

Client ID: CAPA-10-6819

Instrument: VOA4.i

Sample Info: |2430990051936682|1|VOAF|1|

Purge Volume: 5.0

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

4 Chloromethane

Concentration: 0.32 ug/l

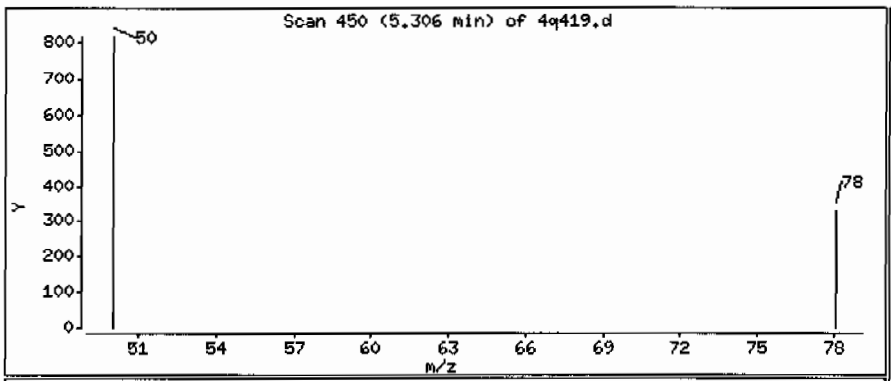

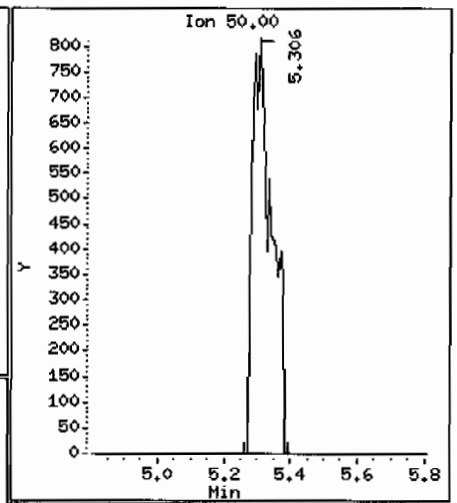

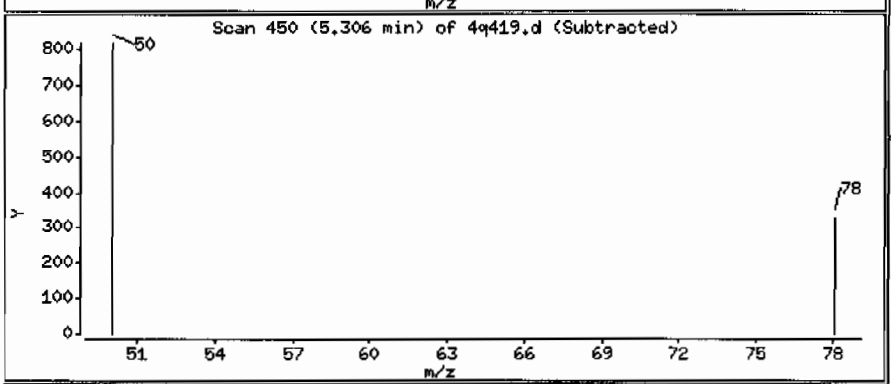

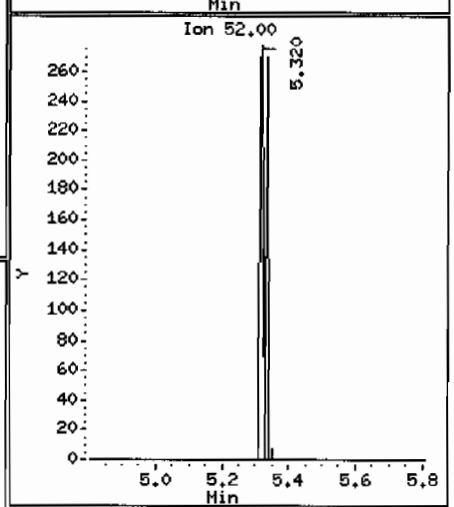

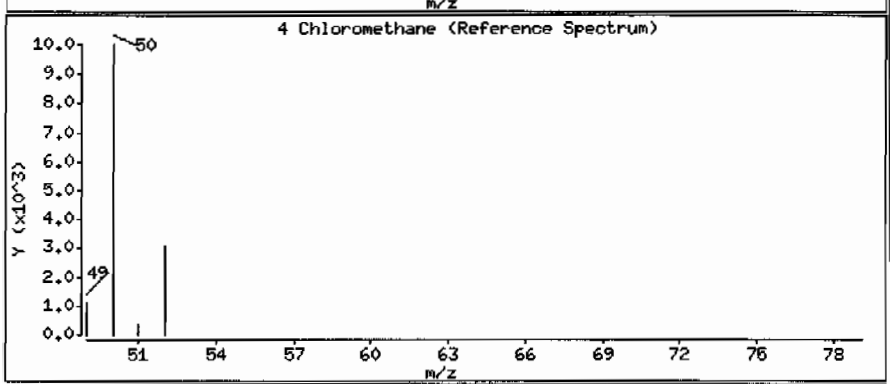

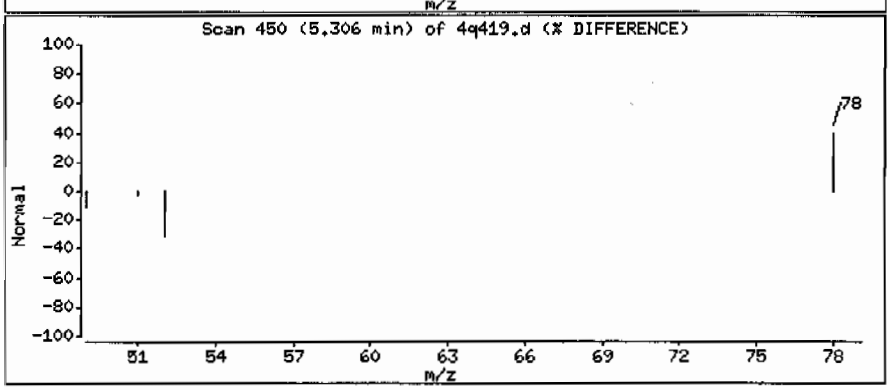

Data File: /chem/VOA4.i/122409v4/4q419.d

Date : 24-DEC-2009 21:30

Client ID: CAPA-10-6819

Instrument: VOA4.i

Sample Info: |2430990051936682|1|VOAF|1|

Purge Volume: 5.0

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclotetrasiloxane, octamethyl-	556-67-2	NIST05.L	122479	56	C8H24O4Si4	296
5-(p-Aminophenyl)-4-(O-tolyl)-2-thiazola	1000242-18-7	NIST05.L	112547	59	C16H15N3S	281
7H-Dibenzo[b,g]carbazole, 7-methyl-	3557-49-1	NIST05.L	112705	50	C21H15N	281

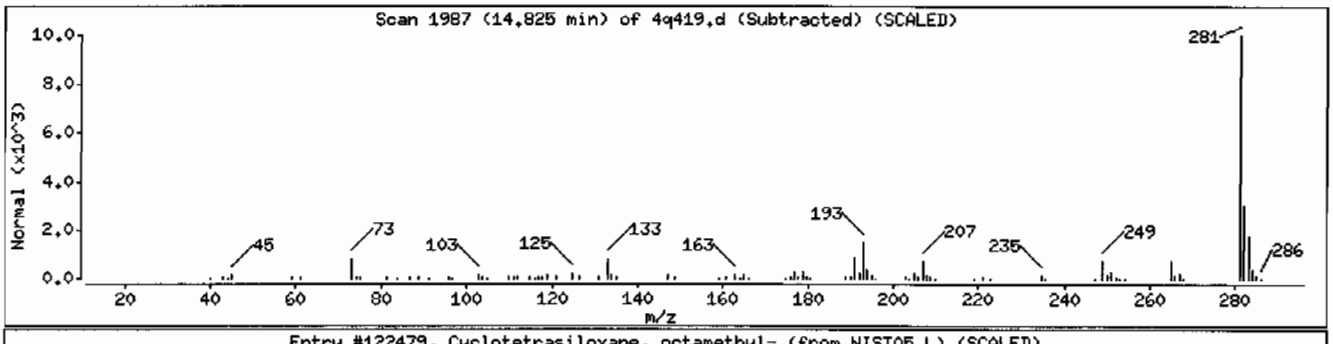

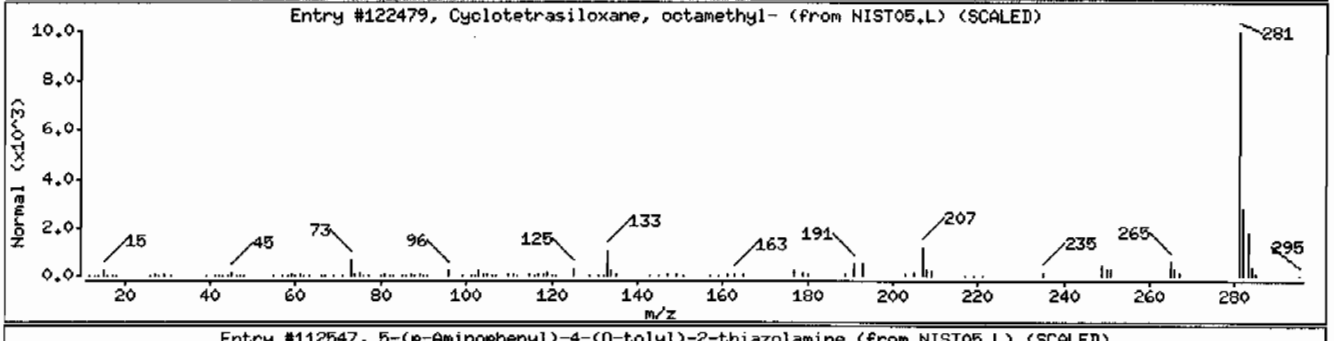

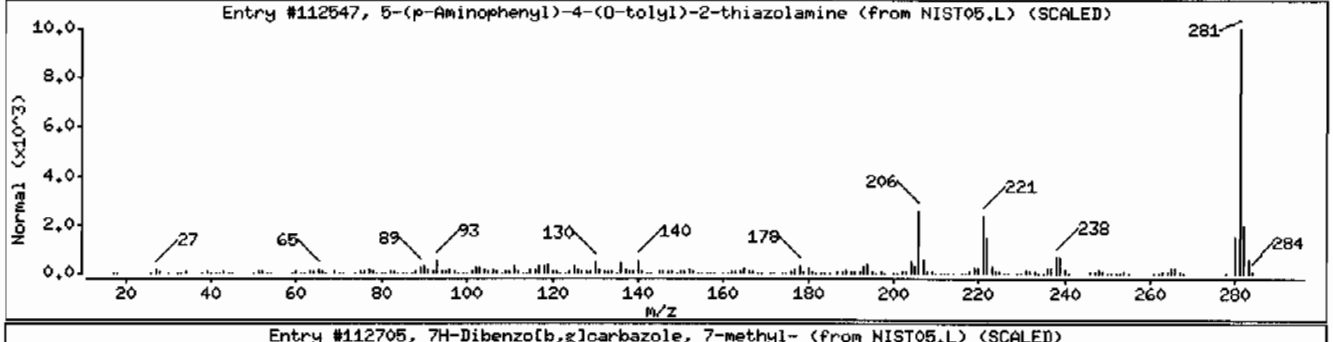

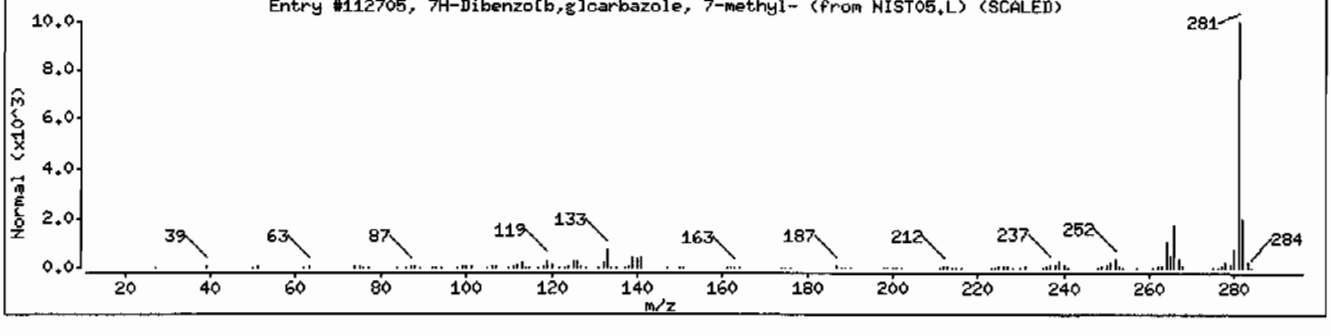

Data File: /chem/VOA4.i/122409v4/4q419.d

Date : 24-DEC-2009 21:30

Client ID: CAPA-10-6819

Instrument: VOA4.i

Sample Info: |2430990051936682|1|VOAF|1|

Purge Volume: 5.0

Operator: ACJ

Column phase: RTX-VOLATILES

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown Siloxane						
Benzoic acid, 4-[(trimethylsilyl)oxy]-,	2078-13-9	NIST05.L	112913	59	C13H22O3Si2	282
Benzoic acid, 4-[(trimethylsilyl)oxy]-,	2078-13-9	NIST05.L	112912	42	C13H22O3Si2	282
Benzonitrile, 2-(2-hydroxy-5-nitrobenzyl	303768-30-1	NIST05.L	103241	37	C14H9N3O3	267

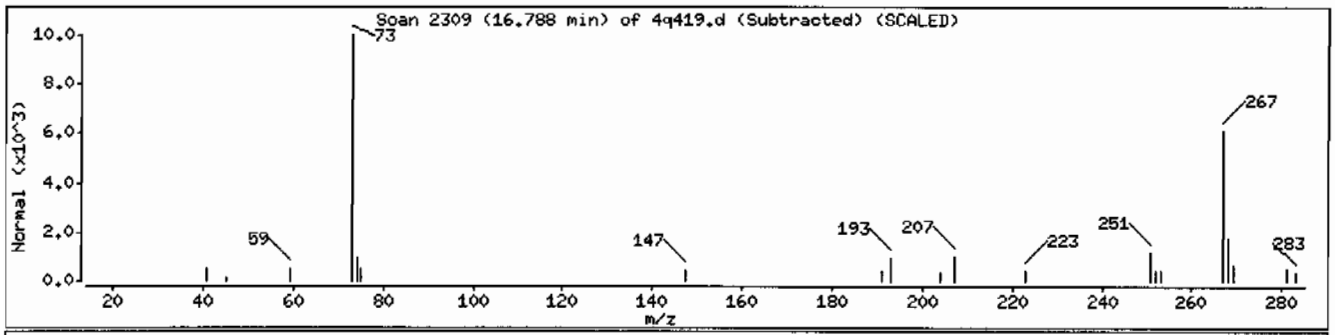

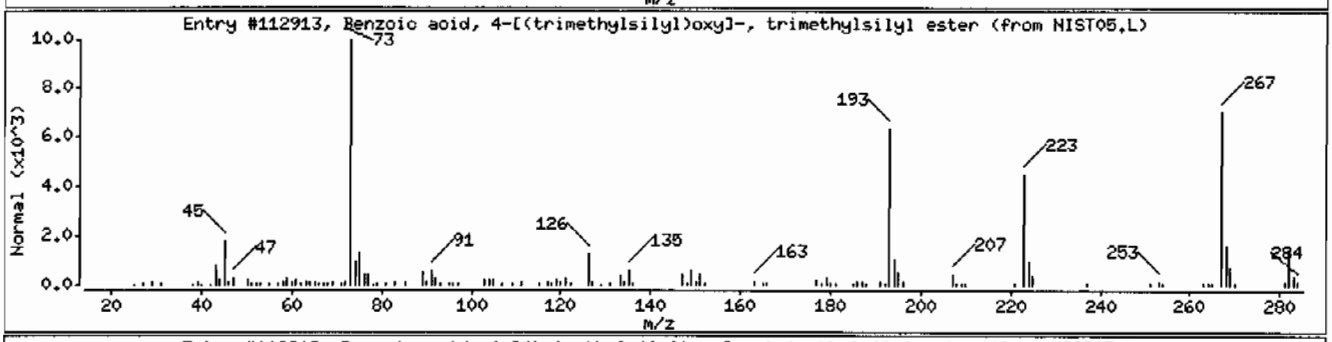

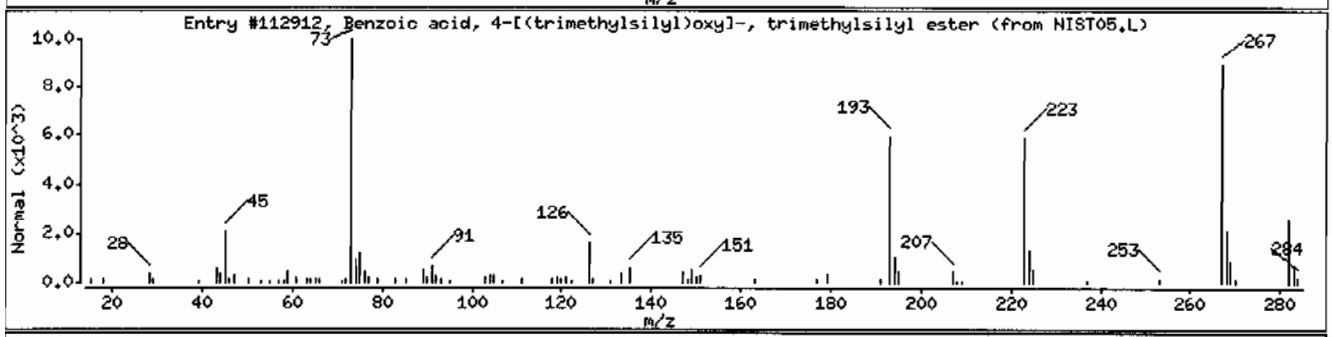

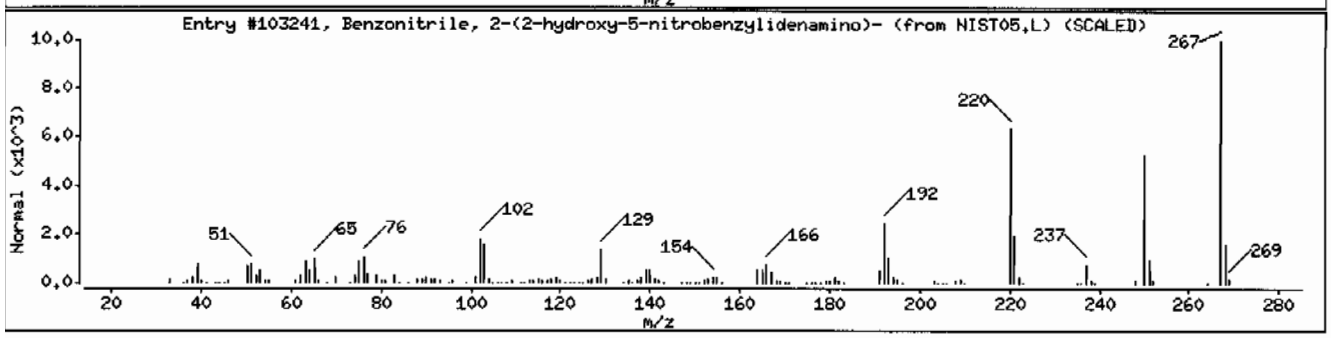

Standard Data

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624

Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Report Date: 24-Dec-2009 16:21

Calibration History

Method : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Start Cal Date: 19-DEC-2009 19:44
End Cal Date : 20-DEC-2009 03:01

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
20-DEC-2009 00:17	ICALsubS	/chem/VOA4.i/121909v4/4p613.d
19-DEC-2009 20:39	CALsubL+	/chem/VOA4.i/121909v4/4p605.d
Cal Level: 2 , Cal Amount: 2.00000		
20-DEC-2009 00:44	ICALsubS	/chem/VOA4.i/121909v4/4p614.d
19-DEC-2009 21:07	CALsubL+	/chem/VOA4.i/121909v4/4p606.d
Cal Level: 3 , Cal Amount: 5.00000		
20-DEC-2009 01:12	ICALsubS	/chem/VOA4.i/121909v4/4p615.d
19-DEC-2009 21:34	CALsubL+	/chem/VOA4.i/121909v4/4p607.d
Cal Level: 4 , Cal Amount: 10.00000		
20-DEC-2009 01:39	ICALsubS	/chem/VOA4.i/121909v4/4p616.d
19-DEC-2009 22:01	CALsubL+	/chem/VOA4.i/121909v4/4p608.d
Cal Level: 5 , Cal Amount: 20.00000		
20-DEC-2009 02:06	ICALsubS	/chem/VOA4.i/121909v4/4p617.d
19-DEC-2009 22:28	CALsubL+	/chem/VOA4.i/121909v4/4p609.d
Cal Level: 6 , Cal Amount: 50.00000		
20-DEC-2009 02:33	ICALsubS	/chem/VOA4.i/121909v4/4p618.d
19-DEC-2009 22:55	CALsubL+	/chem/VOA4.i/121909v4/4p610.d
Cal Level: 7 , Cal Amount: 100.00000		
20-DEC-2009 03:01	ICALsubS	/chem/VOA4.i/121909v4/4p619.d
19-DEC-2009 23:22	CALsubL+	/chem/VOA4.i/121909v4/4p611.d
Cal Level: 8 , Cal Amount: 200.00000		
19-DEC-2009 19:44	BENZENE+	/chem/VOA4.i/121909v4/4p603.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 6

| Ccal Level: 6 , Ccal Amount: 50.0 |

24-DEC-2009 13:48	CALsubL+	/chem/VOA4.i/122409v4/4q402.d
Ccal Level: 6 , Ccal Amount: 50.0		
24-DEC-2009 14:42	CALsubS+SS	/chem/VOA4.i/122409v4/4q404.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2009 19:44
End Cal Date : 20-DEC-2009 03:01
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Cal Date : 24-Dec-2009 15:22 amj

Calibration File Names:
Level 1: /chem/VOA4.i/121909v4/4p613.d
Level 2: /chem/VOA4.i/121909v4/4p614.d
Level 3: /chem/VOA4.i/121909v4/4p615.d
Level 4: /chem/VOA4.i/121909v4/4p616.d
Level 5: /chem/VOA4.i/121909v4/4p617.d
Level 6: /chem/VOA4.i/121909v4/4p618.d
Level 7: /chem/VOA4.i/121909v4/4p619.d
Level 8: /chem/VOA4.i/121909v4/4p603.d

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
M 1 Xylenes (total)	0.81265	0.76052	0.75475	0.81069	0.80456	0.73562					
	0.68132	+++++					AVRG		0.76573		6.28815
M 2 1,2-Dichloroethylene (total)	0.53928	0.49527	0.49546	0.53959	0.51860	0.48300					
	0.46174	+++++					AVRG		0.50471		5.77473
M 135 1,3-Dichloropropylene	0.46128	0.39697	0.41012	0.46856	0.47648	0.45675					
	0.44107	+++++					AVRG		0.44446		6.80371
153 Chlorotrifluoroethylene	0.18967	0.20469	0.17505	0.20787	0.20225	0.21225					
	0.17205	+++++					AVRG		0.19483		8.28265
154 2-Chloro-1,1,1-trifluoroethan	0.29705	0.28271	0.27958	0.28616	0.28338	0.30900					
	0.28029	+++++					AVRG		0.28831		3.76021

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2009 19:44
End Cal Date : 20-DEC-2009 03:01
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Cal Date : 24-Dec-2009 15:22 amj

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
3 Dichlorodifluoromethane	0.20022	0.24864	0.29673	0.23326	0.23185	0.22776					
	0.23348	++++					AVRG		0.23885		12.28991
4 Chloromethane	0.43086	0.49694	0.49936	0.48678	0.46938	0.45681					
	0.46588	++++					AVRG		0.47229		5.15523
5 Vinyl chloride	0.31504	0.37014	0.36700	0.36174	0.35296	0.34032					
	0.34418	+++++					AVRG		0.35020		5.45562
6 Bromomethane	0.27599	0.30046	0.28529	0.28438	0.27289	0.27180					
	0.27436	+++++					AVRG		0.28074		3.64314
7 Chloroethane	0.28640	0.29309	0.28798	0.29840	0.29164	0.28667					
	0.28706	+++++					AVRG		0.29018		1.53685
8 Trichlorofluoromethane	0.37009	0.43688	0.40536	0.39929	0.41782	0.40577					
	0.43053	+++++					AVRG		0.40939		5.41586
134 Ethyl Ether	0.28284	0.29163	0.27679	0.27112	0.28658	0.28382					
	0.28705	+++++					AVRG		0.28283		2.43119
9 Acrolein	0.06218	0.05508	0.06113	0.05911	0.05998	0.06073					
	0.05918	+++++					AVRG		0.05963		3.82891
12 Trichlorotrifluoroethane	0.11632	0.10087	0.10107	0.09368	0.09372	0.09050					
	0.08673	+++++					AVRG		0.09755		10.01105

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2009 19:44
End Cal Date : 20-DEC-2009 03:01
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Cal Date : 24-Dec-2009 15:22 amj

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
10 Acetone	0.38640	0.29421	0.30966	0.31991	0.32328	0.30512					
	0.26019	+++++					AVRG		0.31411		12.15646
11 1,1-Dichloroethylene	0.58004	0.57529	0.51562	0.55608	0.56496	0.52345					
	0.51009	+++++					AVRG		0.54650		5.38569
147 Isopropyl Alcohol	0.03224	0.02635	0.03159	0.03038	0.02970	0.03229					
	0.02992	+++++					AVRG		0.03035		6.79301
13 Iodomethane	0.55315	0.54711	0.53747	0.59050	0.58874	0.55481					
	0.53896	+++++					AVRG		0.55868		3.95828
15 Acetonitrile	0.06894	0.05763	0.05858	0.06419	0.06080	0.05460					
	0.04661	+++++					AVRG		0.05876		12.10208
128 Methyl acetate	0.33599	0.29032	0.28560	0.30925	0.29940	0.27583					
	0.23532	+++++					AVRG		0.29024		10.69740
14 Carbon disulfide	1.00626	1.07738	1.01276	1.09958	1.06356	0.94908					
	0.86347	+++++					AVRG		1.01030		8.14573
16 Allyl chloride	0.63863	0.58032	0.57638	0.57267	0.57845	0.54540					
	0.49341	+++++					AVRG		0.56932		7.65781
148 tert-Butyl Alcohol	0.04284	0.03790	0.04443	0.04221	0.04110	0.04394					
	0.04056	+++++					AVRG		0.04186		5.34493

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2009 19:44
End Cal Date : 20-DEC-2009 03:01
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Cal Date : 24-Dec-2009 15:22 amj

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
17 Methylene chloride	+++++	33556	62205	113655	217762	482921					
	964039	+++++					LINR	-0.05167	0.33737		0.99941
18 Acrylonitrile	0.14772	0.12206	0.13849	0.12844	0.12772	0.12951					
	0.12449	+++++					AVRG		0.13121		6.79602
20 tert-Butyl methyl ether	0.87766	0.86281	0.78394	0.87572	0.83092	0.78935					
	0.74945	+++++					AVRG		0.82427		6.16025
21 trans-1,2-Dichloroethylene	0.50602	0.47495	0.47543	0.51041	0.49777	0.46601					
	0.44626	+++++					AVRG		0.48241		4.83014
23 Vinyl acetate	0.74532	0.71527	0.75245	0.78195	0.76766	0.67564					
	0.61492	+++++					AVRG		0.72189		8.15825
149 Isopropyl ether	1.32814	1.24839	1.25311	1.30296	1.28917	1.33442					
	1.22662	+++++					AVRG		1.28326		3.24225
22 1,1-Dichloroethane	0.68601	0.63314	0.60461	0.63576	0.62873	0.57341					
	0.55089	+++++					AVRG		0.61608		7.23794
24 2-Chloro-1,3-butadiene	0.48162	0.44462	0.47696	0.45812	0.47769	0.47065					
	0.47061	+++++					AVRG		0.46861		2.77614
150 Ethyl tert-butyl ether	1.06568	0.99230	1.03725	1.06738	1.05694	1.09357					
	1.01587	+++++					AVRG		1.04700		3.28284

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2009 19:44
End Cal Date : 20-DEC-2009 03:01
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Cal Date : 24-Dec-2009 15:22 amj

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
30 2-Butanone	0.40347	0.31600	0.34281	0.36355	0.37846	0.37488					
	0.31192	+++++					AVRG		0.35587		9.52131
26 Ethyl acetate	0.48355	0.37255	0.40155	0.37758	0.36243	0.35318					
	0.32114	+++++					AVRG		0.38171		13.40984
31 cis-1,2-Dichloroethylene	0.57254	0.51556	0.51549	0.56877	0.53943	0.50000					
	0.47723	+++++					AVRG		0.52700		6.68317
25 2,2-Dichloropropane	0.30228	0.29068	0.28722	0.29769	0.29186	0.27444					
	0.26364	+++++					AVRG		0.28683		4.69488
28 Propionitrile	0.06081	0.05254	0.05395	0.05298	0.05102	0.05146					
	0.05081	+++++					AVRG		0.05337		6.50459
27 Methacrylonitrile	0.27359	0.21455	0.23787	0.22892	0.22451	0.21902					
	0.19895	+++++					AVRG		0.22820		10.26764
29 Bromochloromethane	0.17010	0.15729	0.15722	0.17212	0.17130	0.16049					
	0.15704	+++++					AVRG		0.16365		4.37461
32 Chloroform	0.57004	0.53031	0.51810	0.56467	0.55240	0.50997					
	0.48954	+++++					AVRG		0.53358		5.62086
72 Tetrahydrofuran	0.34036	0.26314	0.28402	0.26089	0.25362	0.24409					
	0.23071	+++++					AVRG		0.26812		13.39211

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2009 19:44
End Cal Date : 20-DEC-2009 03:01
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Cal Date : 24-Dec-2009 15:22 amj

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
36 1,1,1-Trichloroethane	0.43840	0.38202	0.40215	0.41069	0.42401	0.40471					
	0.39285	+++++					AVRG		0.40783		4.62741
19 Isobutyl alcohol	0.02008	0.01519	0.01747	0.01640	0.01622	0.01607					
	0.01482	+++++					AVRG		0.01661		10.55902
129 Cyclohexane	0.59857	0.56742	0.54266	0.56712	0.56519	0.52631					
	0.50124	+++++					AVRG		0.55264		5.78349
34 1,1-Dichloropropene	0.40638	0.38401	0.38305	0.41207	0.40861	0.37707					
	0.36138	+++++					AVRG		0.39037		4.87266
33 Carbon tetrachloride	0.40729	0.37302	0.37786	0.39826	0.39632	0.38152					
	0.37561	+++++					AVRG		0.38712		3.44042
37 1,2-Dichloroethane	0.45283	0.43086	0.42719	0.45922	0.44859	0.41905					
	0.40127	+++++					AVRG		0.43414		4.75246
38 Benzene	1.34087	1.27789	1.22229	1.28891	1.26243	1.16314					
	1.09141	1.27584					AVRG		1.24035		6.39855
151 Methyl tert-amyl ether	0.84985	0.77813	0.84429	0.85200	0.83272	0.87480					
	0.81348	+++++					AVRG		0.83504		3.74951
139 Cyclohexene	0.62066	0.60285	0.58314	0.61749	0.61525	0.57775					
	0.54806	+++++					AVRG		0.59503		4.48722

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2009 19:44
End Cal Date : 20-DEC-2009 03:01
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Cal Date : 24-Dec-2009 15:22 amj

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
131 n-Butyl alcohol	0.01241	0.01014	0.01086	0.01262	0.01008	0.01213					
	0.01057	0.01107					AVRG		0.01124		9.07688
39 Trichloroethylene	0.32936	0.30509	0.29943	0.31939	0.30825	0.29845					
	0.28531	+++++					AVRG		0.30647		4.72414
42 Methyl methacrylate	0.20611	0.17968	0.20203	0.19437	0.19683	0.19342					
	0.17092	+++++					AVRG		0.19191		6.47670
130 Methylcyclohexane	0.50950	0.46490	0.48075	0.50687	0.49723	0.46418					
	0.43959	+++++					AVRG		0.48043		5.37414
41 1,2-Dichloropropane	0.37983	0.34581	0.34869	0.38401	0.37072	0.34121					
	0.31310	+++++					AVRG		0.35477		7.06945
97 1,4-Dioxane	0.00425	0.00314	0.00338	0.00339	0.00321	0.00337					
	0.00325	+++++					AVRG		0.00343		10.92294
43 Dibromomethane	0.19150	0.17715	0.17960	0.19890	0.19065	0.18349					
	0.17626	+++++					AVRG		0.18537		4.59720
45 Bromodichloromethane	0.41449	0.36230	0.35661	0.40276	0.40242	0.39879					
	0.38461	+++++					AVRG		0.38885		5.64973
48 2-Nitropropane	0.10489	0.08130	0.09477	0.09750	0.09977	0.10490					
	0.10359	+++++					AVRG		0.09810		8.52029

GEL Laboratories LLC

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Start Cal Date : 19-DEC-2009 19:44
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Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Cal Date : 24-Dec-2009 15:22 amj

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
44 2-Chloroethylvinyl ether	0.15830	0.15243	0.16120	0.16830	0.17417	0.16931					
	0.15403	+++++					AVRG		0.16253		5.07872
46 cis-1,3-Dichloropropylene	0.48454	0.42681	0.43584	0.49215	0.49903	0.47608					
	0.45863	+++++					AVRG		0.46758		5.98701
49 4-Methyl-2-pentanone	0.21196	0.18428	0.18853	0.20882	0.21262	0.20864					
	0.16991	+++++					AVRG		0.19782		8.52290
50 Toluene	1.14606	0.99250	0.99332	1.02553	1.00872	0.92100					
	0.85394	+++++					AVRG		0.99158		9.13621
51 Ethyl methacrylate	0.52578	0.47433	0.53132	0.52233	0.50770	0.45962					
	0.39174	+++++					AVRG		0.48755		10.29859
53 trans-1,3-Dichloropropylene	0.60806	0.51429	0.53356	0.60161	0.61422	0.57102					
	0.54733	+++++					AVRG		0.57001		6.92506
54 1,1,2-Trichloroethane	0.36661	0.30877	0.29991	0.32506	0.32454	0.29272					
	0.27476	+++++					AVRG		0.31320		9.41364
55 2-Hexanone	0.66669	0.56305	0.58842	0.63454	0.66404	0.64005					
	0.50273	+++++					AVRG		0.60850		9.90607
52 1,3-Dichloropropane	0.73470	0.60962	0.63121	0.64923	0.64095	0.56042					
	0.49003	+++++					AVRG		0.61659		12.39429

GEL Laboratories LLC

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Method file : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Cal Date : 24-Dec-2009 15:22 amj

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
56 Tetrachloroethylene	0.40926	0.39742	0.36216	0.38829	0.37728	0.34872					
	0.34015	+++++					AVRG		0.37476		6.82738
57 Dibromochloromethane	0.39948	0.37877	0.39034	0.42156	0.44733	0.42361					
	0.42501	+++++					AVRG		0.41230		5.75126
59 1,2-Dibromoethane	0.38444	0.33398	0.36077	0.39025	0.39908	0.37539					
	0.36601	+++++					AVRG		0.37285		5.83018
152 1-Chlorohexane	0.30988	0.27910	0.30923	0.32183	0.32017	0.33216					
	0.31178	+++++					AVRG		0.31202		5.33777
62 Chlorobenzene	1.28974	1.17144	1.13488	1.17962	1.17805	1.07796					
	1.02830	+++++					AVRG		1.15143		7.25464
60 1,1,1,2-Tetrachloroethane	0.44150	0.40715	0.41093	0.44113	0.45626	0.42300					
	0.40958	+++++					AVRG		0.42708		4.52208
58 Ethylbenzene	2.17028	2.01581	1.95872	2.07832	2.02954	1.80660					
	1.62077	+++++					AVRG		1.95429		9.44788
63 m,p-Xylenes	0.79954	0.75917	0.74134	0.79920	0.78958	0.72261					
	0.67119	+++++					AVRG		0.75466		6.26443
64 o-Xylene	0.83888	0.76321	0.78156	0.83368	0.83452	0.76165					
	0.70158	+++++					AVRG		0.78787		6.48405

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2009 19:44
End Cal Date : 20-DEC-2009 03:01
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Integrator : HP RTE
Method file : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Cal Date : 24-Dec-2009 15:22 amj

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
65 Styrene	1.16063	1.08519	1.14154	1.27402	1.28147	1.21813					
	1.10780	+++++					AVRG		1.18125		6.61483
66 Bromoform	0.49552	0.43575	0.47336	0.53633	0.55668	0.56770					
	0.57305	+++++					AVRG		0.51977		10.11178
67 Isopropylbenzene	3.51495	3.38362	3.35463	3.45020	3.36294	3.05236					
	2.82692	+++++					AVRG		3.27794		7.51842
68 cis-1,4-Dichloro-2-butene	0.30887	0.25441	0.28794	0.28936	0.28031	0.28031					
	0.26406	+++++					AVRG		0.28075		6.32075
70 Cyclohexanone	0.04600	0.03466	0.04477	0.04588	0.04838	0.04998					
	+++++	+++++					AVRG		0.04494		11.98252
73 1,1,2,2-Tetrachloroethane	0.99266	0.89407	0.91571	0.95496	0.92349	0.83794					
	0.78165	+++++					AVRG		0.90007		7.89514
69 trans-1,4-Dichloro-2-butene	0.29258	0.24147	0.27255	0.27207	0.27075	0.26153					
	0.24777	+++++					AVRG		0.26553		6.45206
74 1,2,3-Trichloropropane	0.26522	0.23015	0.22433	0.23733	0.23343	0.21830					
	0.20778	+++++					AVRG		0.23093		7.83148
75 Bromobenzene	1.05770	1.00503	0.94543	1.02581	0.98121	0.92065					
	0.89518	+++++					AVRG		0.97586		5.99789

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2009 19:44
End Cal Date : 20-DEC-2009 03:01
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Cal Date : 24-Dec-2009 15:22 amj

Compound	1 Level 1 100 Level 7	2 Level 2 200 Level 8	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
76 n-Propylbenzene	4.35110	4.12289	4.06016	4.27328	4.06219	3.61246					
	3.21473	++++++					AVRG		3.95669		10.18420
78 1,3,5-Trimethylbenzene	3.13552	3.05519	3.02341	3.14462	2.96616	2.69990					
	2.43119	++++++					AVRG		2.92228		9.00348
77 2-Chlorotoluene	3.11733	2.96580	2.89258	3.00691	2.80894	2.48431					
	2.17073	++++++					AVRG		2.77809		12.04597
80 4-Chlorotoluene	2.93131	2.57999	2.54019	2.65417	2.58773	2.39848					
	2.21061	++++++					AVRG		2.55750		8.69082
81 tert-Butylbenzene	3.09476	2.87771	2.84763	3.03704	2.92107	2.71430					
	2.56320	++++++					AVRG		2.86510		6.36899
79 1,2,4-Trimethylbenzene	3.34291	3.08638	3.12390	3.27142	3.15763	2.88116					
	2.64073	++++++					AVRG		3.07202		7.81473
82 Pentachloroethane	0.42564	0.28316	0.39310	0.35972	0.35493	0.36348					
	0.32885	++++++					AVRG		0.35841		12.63224
83 sec-Butylbenzene	4.43184	4.15066	4.04671	4.22652	4.08737	3.70131					
	3.37028	++++++					AVRG		4.00210		8.86968
84 4-Isopropyltoluene	3.26672	3.12237	3.13891	3.35557	3.25046	2.98093					
	2.76172	++++++					AVRG		3.12524		6.42496

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 19-DEC-2009 19:44
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Method file : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Cal Date : 24-Dec-2009 15:22 amj

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
85 1,3-Dichlorobenzene	2.14603	1.97368	1.91523	1.96795	1.93959	1.81210					
	1.72778	+++++					AVRG		1.92605		6.86879
87 1,4-Dichlorobenzene	2.08855	1.93310	1.85380	1.96302	1.93996	1.80779					
	1.71123	+++++					AVRG		1.89963		6.39272
88 Benzyl chloride	1.31613	1.15327	1.33623	1.31144	1.30449	1.20691					
	1.03649	+++++					AVRG		1.23785		8.99101
89 n-Butylbenzene	3.17293	3.01362	3.09058	3.29169	3.12758	2.86431					
	2.54350	+++++					AVRG		3.01489		8.17986
90 1,2-Dichlorobenzene	2.00841	1.83634	1.80803	1.88655	1.85356	1.73582					
	1.62843	+++++					AVRG		1.82245		6.53889
91 bis(2-Chloroisopropyl)ether	0.51710	0.42660	0.48782	0.47472	0.47577	0.46739					
	0.42595	+++++					AVRG		0.46791		6.97559
92 1,2-Dibromo-3-chloropropane	0.12819	0.12707	0.14343	0.15859	0.16936	0.16562					
	0.16290	+++++					AVRG		0.15074		11.80344
93 1,2,4-Trichlorobenzene	0.98949	0.89168	0.94262	1.06001	1.06704	1.00943					
	0.96288	+++++					AVRG		0.98902		6.37522
94 Hexachlorobutadiene	0.84602	0.71792	0.72907	0.78136	0.75883	0.71017					
	0.69952	+++++					AVRG		0.74898		6.86788

GEL Laboratories LLC

INITIAL CALIBRATION DATA

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End Cal Date : 20-DEC-2009 03:01
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Integrator : HP RTE
Method file : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Cal Date : 24-Dec-2009 15:22 amj

Compound	1 Level 1	2 Level 2	5 Level 3	10 Level 4	20 Level 5	50 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	200 Level 8									
95 Naphthalene	1.56334	1.34017	1.51534	1.73644	1.83286	1.73715					
	1.62241	+++++					AVRG		1.62110		10.23140
96 1,2,3-Trichlorobenzene	0.78862	0.68210	0.75784	0.84790	0.87740	0.80969					
	0.76898	+++++					AVRG		0.79036		8.08469
$ 138 1,2-Dichloroethane-d4	0.25296	0.24705	0.25223	0.25949	0.25673	0.27306					
	0.28203	+++++					AVRG		0.26051		4.81054
$ 47 Toluene-d8	1.19321	1.21540	1.20097	1.18409	1.18246	1.16177					
	1.15107	+++++					AVRG		1.18414		1.86917
$ 71 Bromofluorobenzene	0.80893	0.82727	0.82209	0.80764	0.80231	0.81299					
	0.80209	+++++					AVRG		0.81190		1.18610

GEL Laboratories LLC

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End Cal Date : 20-DEC-2009 03:01
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Method file : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Cal Date : 24-Dec-2009 15:22 amj

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/121909v4/4p603.d
Lab Smp Id: W4VM091219-01 Client Smp ID: VSTD0005
Inj Date : 19-DEC-2009 19:44
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM091219-01|VSTD0005|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM090911-01D/UVM091130-01C
Comment :
Method : /chem/VOA4.i/121909v4/VOA4-8260-121909.m
Meth Date : 20-Dec-2009 11:14 amj Quant Type: ISTD
Cal Date : 19-DEC-2009 19:44 Cal File: 4p603.d
Als bottle: 3 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: BENZENE+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
38 Benzene	78	10.376	10.375	(0.977)	16576	0.50000	0.52(a)
131 n-Butyl alcohol	56	10.693	10.692	(1.007)	14387	50.0000	47.7(a)
* 40 Fluorobenzene	96	10.620	10.619	(1.000)	1299224	50.0000	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: /chem/VOA4.i/121909v4/4p603.d
Date : 19-DEC-2009 19:44
Client ID: VSTD0005
Sample Info: IW4VM091219-01|VSTD00051|VOAF11|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i

Operator: ACJ
Column diameter: 0.25

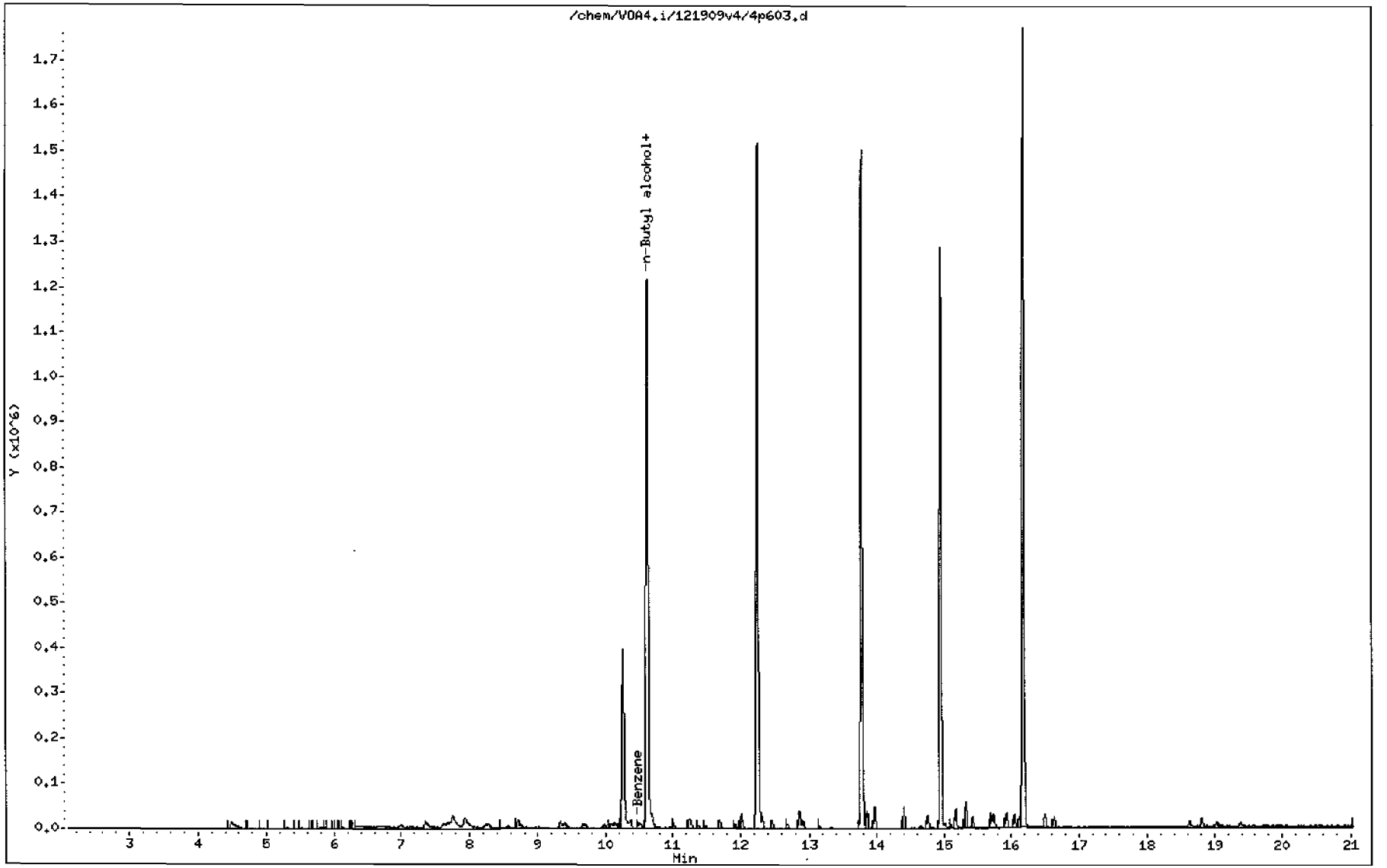

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/121909v4/4p605.d
Lab Smp Id: W4VM091219-03 Client Smp ID: VSTD001
Inj Date : 19-DEC-2009 20:39
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM091219-03|VSTD001|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM090911-02D/UVM091130-02C
Comment :
Method : /chem/VOA4.i/121909v4/VOA4-8260-121909.m
Meth Date : 20-Dec-2009 11:14 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 00:17 Cal File: 4p613.d
Als bottle: 5 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
M 1 Xylenes (total)	106				46357	3.00000	3.2
M 2 1,2-Dichloroethylene (total)	96				28470	2.00000	2.1
M 135 1,3-Dichloropropylene	75				24352	2.00000	2.1
3 Dichlorodifluoromethane	85	4.919	4.912	(0.463)	5285	1.00000	0.42(aM)
4 Chloromethane	50	5.306	5.299	(0.500)	11373	1.00000	0.91(a)
5 Vinyl chloride	62	5.521	5.528	(0.520)	8316	1.00000	0.90(a)
6 Bromomethane	94	6.130	6.138	(0.577)	7285	1.00000	0.98(a)
7 Chloroethane	64	6.321	6.295	(0.595)	7560	1.00000	0.99(a)
8 Trichlorofluoromethane	101	6.674	6.662	(0.629)	9769	1.00000	0.91(a)
134 Ethyl Ether	59	7.003	6.997	(0.660)	7466	1.00000	1.0
10 Acetone	43	7.363	7.357	(0.693)	50998	5.00000	6.2
15 Acetonitrile	41	7.711	7.705	(0.726)	45492	25.0000	29.3
11 1,1-Dichloroethylene	61	7.412	7.394	(0.698)	15311	1.00000	1.1
128 Methyl acetate	43	7.747	7.747	(0.730)	44344	5.00000	5.8
13 Iodomethane	142	7.631	7.631	(0.719)	73006	5.00000	5.0
17 Methylene chloride	84	7.942	7.942	(0.748)	24228	1.00000	0.13(a)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
14 Carbon disulfide	76	7.772	7.778	(0.732)	132808	5.00000	5.0
20 tert-Butyl methyl ether	73	8.241	8.241	(0.776)	23167	1.00000	1.1
21 trans-1,2-Dichloroethylene	61	8.284	8.284	(0.780)	13357	1.00000	1.0
23 Vinyl acetate	43	8.710	8.710	(0.820)	98368	5.00000	5.2
22 1,1-Dichloroethane	63	8.753	8.759	(0.824)	18108	1.00000	1.1
30 2-Butanone	43	9.332	9.326	(0.879)	53251	5.00000	5.7
31 cis-1,2-Dichloroethylene	61	9.387	9.387	(0.884)	15113	1.00000	1.1
25 2,2-Dichloropropane	77	9.424	9.424	(0.887)	7979	1.00000	1.0
32 Chloroform	83	9.692	9.692	(0.913)	15047	1.00000	1.1
29 Bromochloromethane	128	9.655	9.661	(0.909)	4490	1.00000	1.0
36 1,1,1-Trichloroethane	97	9.979	9.979	(0.940)	11572	1.00000	1.1
129 Cyclohexane	56	10.082	10.082	(0.949)	15800	1.00000	1.1
34 1,1-Dichloropropene	75	10.131	10.137	(0.954)	10727	1.00000	1.0
131 n-Butyl alcohol	56	10.698	10.692	(1.007)	32770	100.000	110
33 Carbon tetrachloride	117	10.180	10.174	(0.959)	10751	1.00000	1.0
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	333866	50.0000	48.6
37 1,2-Dichloroethane	62	10.344	10.338	(0.974)	11953	1.00000	1.0
38 Benzene	78	10.369	10.375	(0.976)	35394	1.00000	1.1
139 Cyclohexene	67	10.497	10.497	(0.989)	16383	1.00000	1.0
* 40 Fluorobenzene	96	10.619	10.619	(1.000)	1319814	50.0000	
39 Trichloroethylene	95	11.003	11.003	(1.036)	8694	1.00000	1.1
41 1,2-Dichloropropane	63	11.240	11.240	(1.059)	10026	1.00000	1.1
130 Methylcyclohexane	83	11.265	11.265	(1.061)	13449	1.00000	1.1
45 Bromodichloromethane	83	11.484	11.484	(1.082)	10941	1.00000	1.1
43 Dibromomethane	93	11.375	11.375	(1.071)	5055	1.00000	1.0
44 2-Chloroethylvinyl ether	63	11.698	11.698	(1.102)	20892	5.00000	4.9(a)
49 4-Methyl-2-pentanone	58	12.021	12.021	(0.873)	20152	5.00000	5.4
46 cis-1,3-Dichloropropylene	75	11.929	11.929	(1.123)	12790	1.00000	1.0
$ 47 Toluene-d8	98	12.252	12.252	(0.890)	1134426	50.0000	50.4
50 Toluene	92	12.326	12.326	(0.895)	21792	1.00000	1.2
53 trans-1,3-Dichloropropylene	75	12.460	12.466	(0.905)	11562	1.00000	1.1
54 1,1,2-Trichloroethane	83	12.679	12.685	(0.921)	6971	1.00000	1.2
55 2-Hexanone	43	12.856	12.856	(0.934)	63384	5.00000	5.5
52 1,3-Dichloropropane	76	12.874	12.880	(0.935)	13970	1.00000	1.2
56 Tetrachloroethylene	164	12.917	12.923	(0.938)	7782	1.00000	1.1
57 Dibromochloromethane	129	13.143	13.149	(0.954)	7596	1.00000	0.97(a)
59 1,2-Dibromoethane	107	13.319	13.319	(0.967)	7310	1.00000	1.0
* 61 Chlorobenzene-d5	117	13.770	13.770	(1.000)	950732	50.0000	
62 Chlorobenzene	112	13.801	13.801	(1.002)	24524	1.00000	1.1
60 1,1,1,2-Tetrachloroethane	131	13.850	13.850	(1.006)	8395	1.00000	1.0
58 Ethylbenzene	91	13.862	13.862	(1.007)	41267	1.00000	1.1
63 m,p-Xylenes	106	13.972	13.972	(1.015)	30406	2.00000	2.1
64 o-Xylene	106	14.404	14.404	(1.046)	15951	1.00000	1.1
65 Styrene	104	14.398	14.404	(1.046)	22069	1.00000	0.98(a)
66 Bromoform	173	14.654	14.661	(0.906)	5775	1.00000	0.95(a)
67 Isopropylbenzene	105	14.758	14.758	(0.912)	40965	1.00000	1.1
73 1,1,2,2-Tetrachloroethane	83	15.020	15.020	(0.928)	11569	1.00000	1.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
$ 71 Bromofluorobenzene	95	14.953	14.953	(0.924)	471386	50.0000	49.8
74 1,2,3-Trichloropropane	110	15.118	15.112	(0.934)	3091	1.00000	1.1
75 Bromobenzene	156	15.166	15.167	(0.937)	12327	1.00000	1.1
76 n-Propylbenzene	91	15.185	15.185	(0.939)	50710	1.00000	1.1
77 2-Chlorotoluene	91	15.331	15.331	(0.948)	36331	1.00000	1.1
78 1,3,5-Trimethylbenzene	105	15.331	15.331	(0.948)	36543	1.00000	1.1
80 4-Chlorotoluene	91	15.429	15.429	(0.954)	34163	1.00000	1.1
81 tert-Butylbenzene	119	15.703	15.703	(0.971)	36068	1.00000	1.1
79 1,2,4-Trimethylbenzene	105	15.740	15.746	(0.973)	38960	1.00000	1.1
83 sec-Butylbenzene	105	15.929	15.929	(0.985)	51651	1.00000	1.1
84 4-Isopropyltoluene	119	16.050	16.050	(0.992)	38072	1.00000	1.0
85 1,3-Dichlorobenzene	146	16.118	16.124	(0.996)	25011	1.00000	1.1
* 86 1,4-Dichlorobenzene-d4	152	16.178	16.178	(1.000)	582726	50.0000	
87 1,4-Dichlorobenzene	146	16.203	16.209	(1.002)	24341	1.00000	1.1
89 n-Butylbenzene	91	16.502	16.502	(1.020)	36979	1.00000	1.0
90 1,2-Dichlorobenzene	146	16.642	16.642	(1.029)	23407	1.00000	1.1
92 1,2-Dibromo-3-chloropropane	157	17.526	17.532	(1.083)	1494	1.00000	0.93(aQ)
93 1,2,4-Trichlorobenzene	180	18.635	18.629	(1.152)	11532	1.00000	1.0
94 Hexachlorobutadiene	225	18.824	18.818	(1.164)	9860	1.00000	1.1
95 Naphthalene	128	19.032	19.032	(1.176)	18220	1.00000	0.96(a)
96 1,2,3-Trichlorobenzene	180	19.385	19.391	(1.198)	9191	1.00000	1.00

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: /chem/VOA4.i/121909v4/4p605.d
Date : 19-DEC-2009 20:39
Client ID: VSTD001
Sample Info: |W4VH091219-03|VSTD001|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

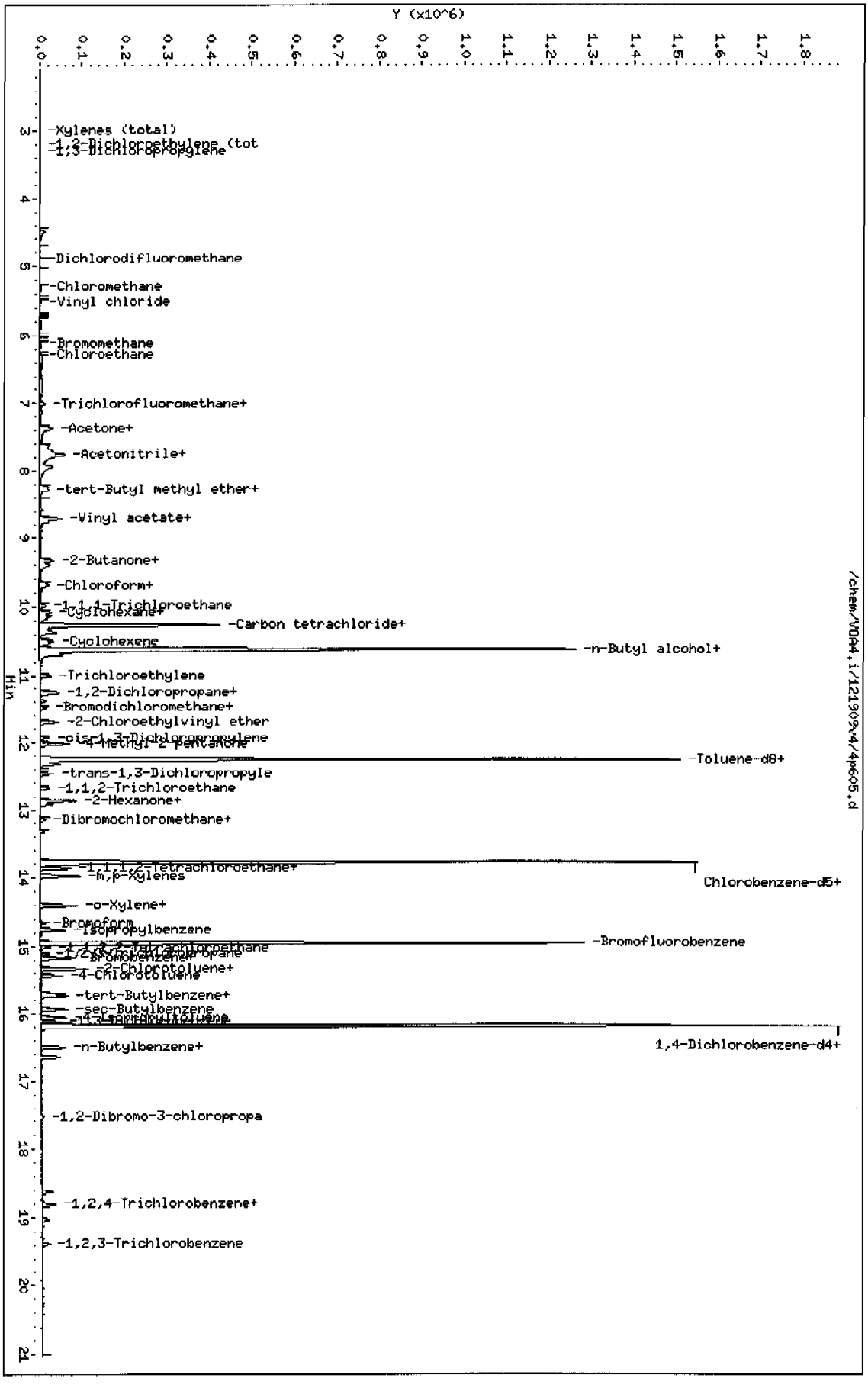

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GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/121909v4/4p606.d
Lab Smp Id: W4VM091219-04 Client Smp ID: VSTD002
Inj Date : 19-DEC-2009 21:07
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM091219-04|VSTD002|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM090911-03D/UVM091130-03C
Comment :
Method : /chem/VOA4.i/121909v4/VOA4-8260-121909.m
Meth Date : 20-Dec-2009 11:14 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 00:44 Cal File: 4p614.d
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				86499	6.00000	6.0
M 2 1,2-Dichloroethylene (total)	96				52610	4.00000	3.9
M 135 1,3-Dichloropropylene	75				42168	4.00000	3.6
3 Dichlorodifluoromethane	85	4.912	4.912	(0.463)	13206	2.00000	1.7
4 Chloromethane	50	5.292	5.299	(0.498)	26394	2.00000	2.1
5 Vinyl chloride	62	5.521	5.528	(0.520)	19659	2.00000	2.1
6 Bromomethane	94	6.138	6.138	(0.578)	15958	2.00000	2.1
7 Chloroethane	64	6.288	6.295	(0.592)	15567	2.00000	2.0
8 Trichlorofluoromethane	101	6.662	6.662	(0.627)	23204	2.00000	2.1
134 Ethyl Ether	59	7.004	6.997	(0.660)	15489	2.00000	2.1
10 Acetone	43	7.363	7.357	(0.693)	78132	10.0000	9.4
15 Acetonitrile	41	7.705	7.705	(0.726)	76521	50.0000	49.0
11 1,1-Dichloroethylene	61	7.394	7.394	(0.696)	30555	2.00000	2.1
128 Methyl acetate	43	7.760	7.747	(0.731)	77098	10.0000	10.0
13 Iodomethane	142	7.644	7.631	(0.720)	145292	10.0000	9.8
17 Methylene chloride	84	7.955	7.942	(0.749)	33556	2.00000	1.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
14 Carbon disulfide	76	7.778	7.778	(0.732)	286114	10.0000	10.7
20 tert-Butyl methyl ether	73	8.241	8.241	(0.776)	45826	2.00000	2.1
21 trans-1,2-Dichloroethylene	61	8.284	8.284	(0.780)	25226	2.00000	2.0
23 Vinyl acetate	43	8.711	8.710	(0.820)	189950	10.0000	9.9
22 1,1-Dichloroethane	63	8.759	8.759	(0.825)	33628	2.00000	2.0
30 2-Butanone	43	9.326	9.326	(0.878)	83918	10.0000	8.9
31 cis-1,2-Dichloroethylene	61	9.387	9.387	(0.884)	27383	2.00000	2.0
25 2,2-Dichloropropane	77	9.424	9.424	(0.887)	15439	2.00000	2.0
32 Chloroform	83	9.692	9.692	(0.913)	28166	2.00000	2.0
29 Bromochloromethane	128	9.668	9.661	(0.910)	8354	2.00000	1.9
36 1,1,1-Trichloroethane	97	9.979	9.979	(0.940)	20290	2.00000	1.9
129 Cyclohexane	56	10.082	10.082	(0.949)	30137	2.00000	2.0
34 1,1-Dichloropropene	75	10.137	10.137	(0.955)	20396	2.00000	2.0
131 n-Butyl alcohol	56	10.698	10.692	(1.007)	53855	200.000	180
33 Carbon tetrachloride	117	10.180	10.174	(0.959)	19812	2.00000	1.9
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	328037	50.0000	47.4
37 1,2-Dichloroethane	62	10.344	10.338	(0.974)	22884	2.00000	2.0
38 Benzene	78	10.375	10.375	(0.977)	67872	2.00000	2.1
139 Cyclohexene	67	10.491	10.497	(0.988)	32019	2.00000	2.0
* 40 Fluorobenzene	96	10.619	10.619	(1.000)	1327818	50.0000	
39 Trichloroethylene	95	11.003	11.003	(1.036)	16204	2.00000	2.0
41 1,2-Dichloropropane	63	11.247	11.240	(1.059)	18367	2.00000	1.9
130 Methylcyclohexane	83	11.259	11.265	(1.060)	24692	2.00000	1.9
45 Bromodichloromethane	83	11.484	11.484	(1.082)	19243	2.00000	1.9
43 Dibromomethane	93	11.375	11.375	(1.071)	9409	2.00000	1.9
44 2-Chloroethylvinyl ether	63	11.698	11.698	(1.102)	40479	10.0000	9.4
49 4-Methyl-2-pentanone	58	12.015	12.021	(0.872)	34933	10.0000	9.3
46 cis-1,3-Dichloropropylene	75	11.929	11.929	(1.123)	22669	2.00000	1.8
$ 47 Toluene-d8	98	12.253	12.252	(0.890)	1151967	50.0000	51.3
50 Toluene	92	12.326	12.326	(0.895)	37628	2.00000	2.0
53 trans-1,3-Dichloropropylene	75	12.460	12.466	(0.905)	19498	2.00000	1.8
54 1,1,2-Trichloroethane	83	12.685	12.685	(0.921)	11706	2.00000	2.0
55 2-Hexanone	43	12.856	12.856	(0.934)	106732	10.0000	9.2
52 1,3-Dichloropropane	76	12.874	12.880	(0.935)	23112	2.00000	2.0
56 Tetrachloroethylene	164	12.917	12.923	(0.938)	15067	2.00000	2.1
57 Dibromochloromethane	129	13.149	13.149	(0.955)	14360	2.00000	1.8
59 1,2-Dibromoethane	107	13.319	13.319	(0.967)	12662	2.00000	1.8
* 61 Chlorobenzene-d5	117	13.771	13.770	(1.000)	947806	50.0000	
62 Chlorobenzene	112	13.801	13.801	(1.002)	44412	2.00000	2.0
60 1,1,1,2-Tetrachloroethane	131	13.850	13.850	(1.006)	15436	2.00000	1.9
58 Ethylbenzene	91	13.862	13.862	(1.007)	76424	2.00000	2.1
63 m,p-Xylenes	106	13.972	13.972	(1.015)	57564	4.00000	4.0
64 o-Xylene	106	14.405	14.404	(1.046)	28935	2.00000	1.9
65 Styrene	104	14.405	14.404	(1.046)	41142	2.00000	1.8
66 Bromoform	173	14.655	14.661	(0.906)	10061	2.00000	1.7
67 Isopropylbenzene	105	14.758	14.758	(0.912)	78124	2.00000	2.1
73 1,1,2,2-Tetrachloroethane	83	15.020	15.020	(0.928)	20643	2.00000	2.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
$ 71 Bromofluorobenzene	95	14.953	14.953	(0.924)	477516	50.0000	50.9
74 1,2,3-Trichloropropane	110	15.112	15.112	(0.934)	5314	2.00000	2.0
75 Bromobenzene	156	15.167	15.167	(0.937)	23205	2.00000	2.0
76 n-Propylbenzene	91	15.185	15.185	(0.939)	95193	2.00000	2.1
77 2-Chlorotoluene	91	15.331	15.331	(0.948)	68477	2.00000	2.1
78 1,3,5-Trimethylbenzene	105	15.331	15.331	(0.948)	70541	2.00000	2.1
80 4-Chlorotoluene	91	15.429	15.429	(0.954)	59569	2.00000	2.0
81 tert-Butylbenzene	119	15.709	15.703	(0.971)	66443	2.00000	2.0
79 1,2,4-Trimethylbenzene	105	15.746	15.746	(0.973)	71261	2.00000	2.0
83 sec-Butylbenzene	105	15.929	15.929	(0.985)	95834	2.00000	2.1
84 4-Isopropyltoluene	119	16.051	16.050	(0.992)	72092	2.00000	2.0
85 1,3-Dichlorobenzene	146	16.118	16.124	(0.996)	45570	2.00000	2.0
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.178	(1.000)	577222	50.0000	
87 1,4-Dichlorobenzene	146	16.209	16.209	(1.002)	44633	2.00000	2.0
89 n-Butylbenzene	91	16.502	16.502	(1.020)	69581	2.00000	2.0
90 1,2-Dichlorobenzene	146	16.642	16.642	(1.029)	42399	2.00000	2.0
92 1,2-Dibromo-3-chloropropane	157	17.526	17.532	(1.083)	2934	2.00000	1.7
93 1,2,4-Trichlorobenzene	180	18.629	18.629	(1.151)	20588	2.00000	1.8
94 Hexachlorobutadiene	225	18.818	18.818	(1.163)	16576	2.00000	1.9
95 Naphthalene	128	19.026	19.032	(1.176)	30943	2.00000	1.6
96 1,2,3-Trichlorobenzene	180	19.385	19.391	(1.198)	15749	2.00000	1.7

Data File: /chem/VOA4.i/121909v4/4p606.d
Date : 19-DEC-2009 21:07
Client ID: VSTD002
Sample Info: IW4VH091219-04|VSTD002|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

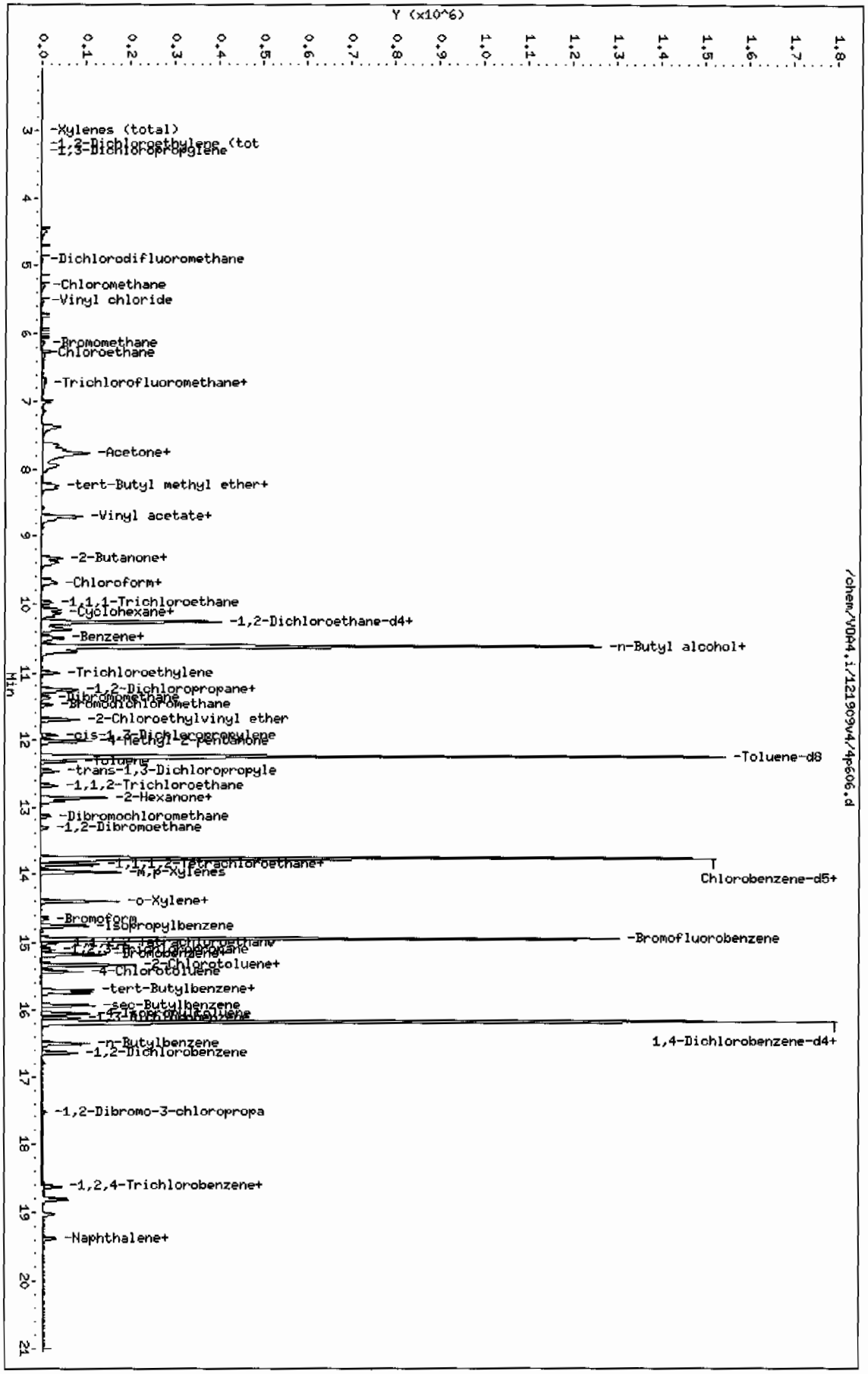

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GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/121909v4/4p607.d
Lab Smp Id: W4VM091219-05 Client Smp ID: VSTD005
Inj Date : 19-DEC-2009 21:34
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM091219-05|VSTD005|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM090911-04D/UVM091130-04C
Comment :
Method : /chem/VOA4.i/121909v4/VOA4-8260-121909.m
Meth Date : 20-Dec-2009 11:14 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 01:12 Cal File: 4p615.d
Als bottle: 7 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				222008	15.0000	14.8
M 2 1,2-Dichloroethylene (total)	96				134863	10.0000	9.8
M 135 1,3-Dichloropropylene	75				111634	10.0000	9.2
3 Dichlorodifluoromethane	85	4.919	4.912	(0.463)	40384	5.00000	6.1
4 Chloromethane	50	5.299	5.299	(0.499)	67963	5.00000	5.3
5 Vinyl chloride	62	5.528	5.528	(0.521)	49948	5.00000	5.2
6 Bromomethane	94	6.145	6.138	(0.579)	38828	5.00000	5.1
7 Chloroethane	64	6.288	6.295	(0.592)	39194	5.00000	5.0
8 Trichlorofluoromethane	101	6.668	6.662	(0.628)	55169	5.00000	5.0
134 Ethyl Ether	59	7.003	6.997	(0.660)	37671	5.00000	4.9
10 Acetone	43	7.363	7.357	(0.693)	210724	25.0000	24.6
15 Acetonitrile	41	7.711	7.705	(0.726)	199322	125.000	125
11 1,1-Dichloroethylene	61	7.394	7.394	(0.696)	70174	5.00000	4.7
128 Methyl acetate	43	7.753	7.747	(0.730)	194348	25.0000	24.6
13 Iodomethane	142	7.631	7.631	(0.719)	365746	25.0000	24.0
17 Methylene chloride	84	7.942	7.942	(0.748)	62205	5.00000	4.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
14 Carbon disulfide	76	7.772	7.778	(0.732)	689178	25.0000	25.1
20 tert-Butyl methyl ether	73	8.247	8.241	(0.777)	106694	5.00000	4.8
21 trans-1,2-Dichloroethylene	61	8.284	8.284	(0.780)	64705	5.00000	4.9
23 Vinyl acetate	43	8.710	8.710	(0.820)	512037	25.0000	26.0
22 1,1-Dichloroethane	63	8.765	8.759	(0.825)	82287	5.00000	4.9
30 2-Butanone	43	9.332	9.326	(0.879)	233280	25.0000	24.1
31 cis-1,2-Dichloroethylene	61	9.387	9.387	(0.884)	70157	5.00000	4.9
25 2,2-Dichloropropane	77	9.424	9.424	(0.887)	39091	5.00000	5.0
32 Chloroform	83	9.692	9.692	(0.913)	70513	5.00000	4.8
29 Bromochloromethane	128	9.661	9.661	(0.910)	21397	5.00000	4.8
36 1,1,1-Trichloroethane	97	9.979	9.979	(0.940)	54732	5.00000	4.9
129 Cyclohexane	56	10.082	10.082	(0.949)	73855	5.00000	4.9
34 1,1-Dichloropropene	75	10.131	10.137	(0.954)	52133	5.00000	4.9
131 n-Butyl alcohol	56	10.692	10.692	(1.007)	147754	500.000	483
33 Carbon tetrachloride	117	10.180	10.174	(0.959)	51426	5.00000	4.9
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	343289	50.0000	48.4
37 1,2-Dichloroethane	62	10.344	10.338	(0.974)	58140	5.00000	4.9
38 Benzene	78	10.375	10.375	(0.977)	166352	5.00000	4.9
139 Cyclohexene	67	10.491	10.497	(0.988)	79365	5.00000	4.9
* 40 Fluorobenzene	96	10.619	10.619	(1.000)	1360990	50.0000	
39 Trichloroethylene	95	11.009	11.003	(1.037)	40752	5.00000	4.9
41 1,2-Dichloropropane	63	11.247	11.240	(1.059)	47457	5.00000	4.9
130 Methylcyclohexane	83	11.265	11.265	(1.061)	65429	5.00000	5.0
45 Bromodichloromethane	83	11.484	11.484	(1.082)	48534	5.00000	4.6
43 Dibromomethane	93	11.381	11.375	(1.072)	24444	5.00000	4.8
44 2-Chloroethylvinyl ether	63	11.698	11.698	(1.102)	109693	25.0000	24.8
49 4-Methyl-2-pentanone	58	12.021	12.021	(0.873)	92426	25.0000	23.8
46 cis-1,3-Dichloropropylene	75	11.935	11.929	(1.124)	59318	5.00000	4.7
$ 47 Toluene-d8	98	12.252	12.252	(0.890)	1177537	50.0000	50.7
50 Toluene	92	12.326	12.326	(0.895)	97394	5.00000	5.0
53 trans-1,3-Dichloropropylene	75	12.466	12.466	(0.905)	52315	5.00000	4.7
54 1,1,2-Trichloroethane	83	12.685	12.685	(0.921)	29406	5.00000	4.8
55 2-Hexanone	43	12.862	12.856	(0.934)	288472	25.0000	24.2
52 1,3-Dichloropropane	76	12.874	12.880	(0.935)	61889	5.00000	5.1
56 Tetrachloroethylene	164	12.923	12.923	(0.938)	35509	5.00000	4.8
57 Dibromochloromethane	129	13.143	13.149	(0.954)	38272	5.00000	4.7
59 1,2-Dibromoethane	107	13.319	13.319	(0.967)	35373	5.00000	4.8
* 61 Chlorobenzene-d5	117	13.770	13.770	(1.000)	980489	50.0000	
62 Chlorobenzene	112	13.801	13.801	(1.002)	111274	5.00000	4.9
60 1,1,1,2-Tetrachloroethane	131	13.856	13.850	(1.006)	40291	5.00000	4.8
58 Ethylbenzene	91	13.862	13.862	(1.007)	192050	5.00000	5.0
63 m,p-Xylenes	106	13.972	13.972	(1.015)	145376	10.0000	9.8
64 o-Xylene	106	14.404	14.404	(1.046)	76631	5.00000	5.0
65 Styrene	104	14.404	14.404	(1.046)	111927	5.00000	4.8
66 Bromoform	173	14.661	14.661	(0.906)	28286	5.00000	4.6
67 Isopropylbenzene	105	14.758	14.758	(0.912)	200458	5.00000	5.1
73 1,1,2,2-Tetrachloroethane	83	15.020	15.020	(0.928)	54719	5.00000	5.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
$ 71 Bromofluorobenzene	95	14.953	14.953	(0.924)	491247	50.0000	50.6
74 1,2,3-Trichloropropane	110	15.112	15.112	(0.934)	13405	5.00000	4.8
75 Bromobenzene	156	15.167	15.167	(0.937)	56495	5.00000	4.8
76 n-Propylbenzene	91	15.185	15.185	(0.939)	242618	5.00000	5.1
77 2-Chlorotoluene	91	15.331	15.331	(0.948)	172848	5.00000	5.2
78 1,3,5-Trimethylbenzene	105	15.331	15.331	(0.948)	180666	5.00000	5.2
80 4-Chlorotoluene	91	15.429	15.429	(0.954)	151791	5.00000	5.0
81 tert-Butylbenzene	119	15.709	15.703	(0.971)	170162	5.00000	5.0
79 1,2,4-Trimethylbenzene	105	15.746	15.746	(0.973)	186671	5.00000	5.1
83 sec-Butylbenzene	105	15.929	15.929	(0.985)	241814	5.00000	5.0
84 4-Isopropyltoluene	119	16.050	16.050	(0.992)	187568	5.00000	5.0
85 1,3-Dichlorobenzene	146	16.124	16.124	(0.997)	114446	5.00000	5.0
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.178	(1.000)	597557	50.0000	
87 1,4-Dichlorobenzene	146	16.209	16.209	(1.002)	110775	5.00000	4.9
89 n-Butylbenzene	91	16.508	16.502	(1.020)	184680	5.00000	5.1
90 1,2-Dichlorobenzene	146	16.642	16.642	(1.029)	108040	5.00000	5.0
92 1,2-Dibromo-3-chloropropane	157	17.526	17.532	(1.083)	8571	5.00000	4.5
93 1,2,4-Trichlorobenzene	180	18.629	18.629	(1.151)	56327	5.00000	4.8
94 Hexachlorobutadiene	225	18.818	18.818	(1.163)	43566	5.00000	4.9
95 Naphthalene	128	19.032	19.032	(1.176)	90550	5.00000	4.7
96 1,2,3-Trichlorobenzene	180	19.385	19.391	(1.198)	45285	5.00000	4.8

Data File: /chem/VOA4.i/121909v4/4p607.d
Date : 19-DEC-2009 21:34
Client ID: VSTD005
Sample Info: IW4VH091219-05|VSTD005|1|VOAF1|1
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

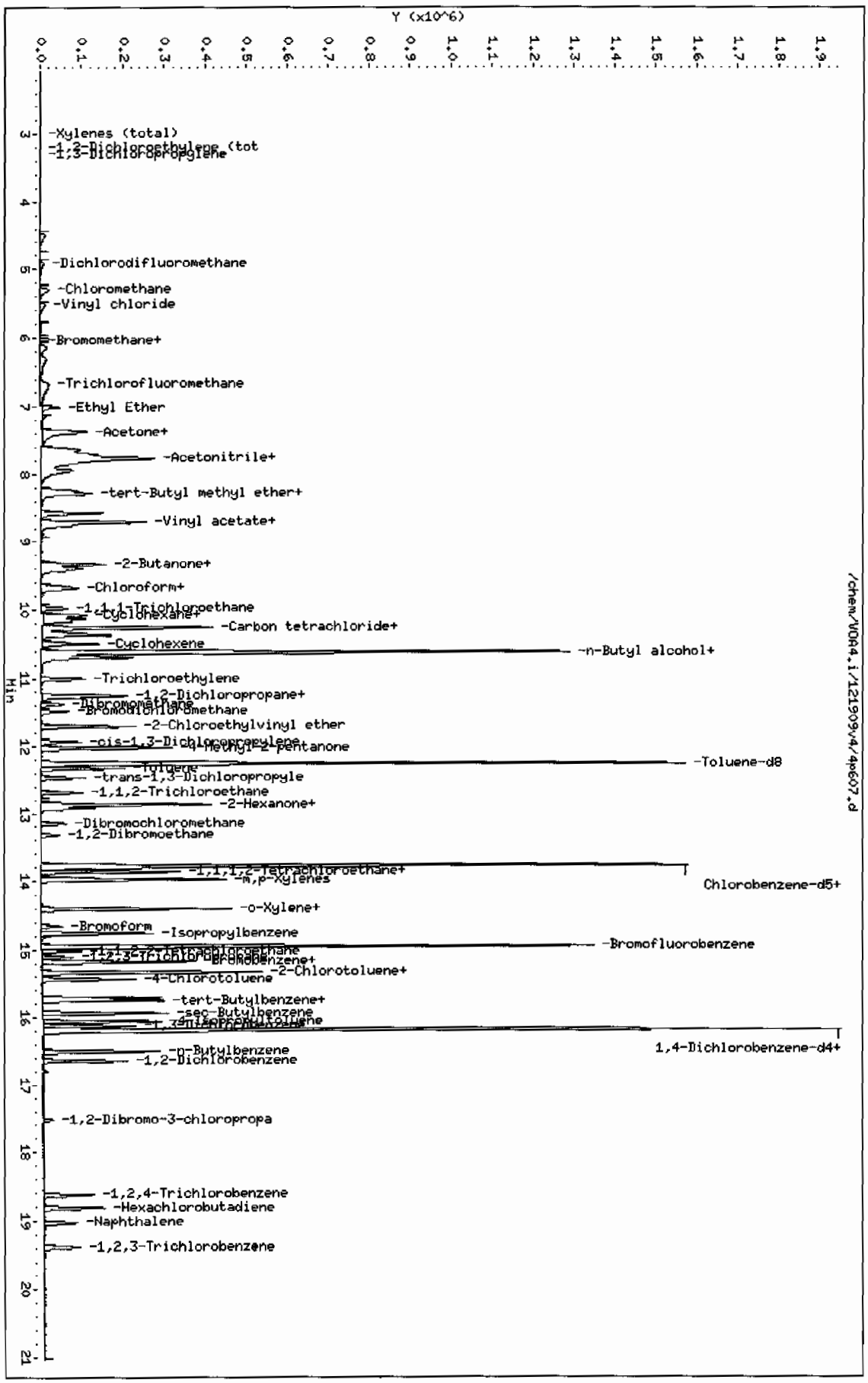

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GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/121909v4/4p608.d
Lab Smp Id: W4VM091219-06 Client Smp ID: VSTD010
Inj Date : 19-DEC-2009 22:01
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM091219-06|VSTD010|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM090911-05D/UVM091130-05C
Comment :
Method : /chem/VOA4.i/121909v4/VOA4-8260-121909.m
Meth Date : 20-Dec-2009 11:14 amj Quant Type: ISTD
Cal Date : 19-DEC-2009 22:01 Cal File: 4p608.d
Als bottle: 8 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				473470	30.0000	31.4
M 2 1,2-Dichloroethylene (total)	96				284049	20.0000	21.3
M 135 1,3-Dichloropropylene	75				246660	20.0000	21.8
3 Dichlorodifluoromethane	85	4.912	4.912	(0.463)	61396	10.0000	9.7
4 Chloromethane	50	5.306	5.299	(0.500)	128125	10.0000	10.3
5 Vinyl chloride	62	5.521	5.528	(0.520)	95212	10.0000	10.2
6 Bromomethane	94	6.138	6.138	(0.578)	74850	10.0000	9.9
7 Chloroethane	64	6.288	6.295	(0.592)	78541	10.0000	10.5
8 Trichlorofluoromethane	101	6.668	6.662	(0.628)	105096	10.0000	10.2
134 Ethyl Ether	59	7.004	6.997	(0.660)	71362	10.0000	9.7
10 Acetone	43	7.363	7.357	(0.693)	421014	50.0000	50.7
15 Acetonitrile	41	7.705	7.705	(0.726)	422401	250.000	269
11 1,1-Dichloroethylene	61	7.394	7.394	(0.696)	146364	10.0000	11.0
128 Methyl acetate	43	7.753	7.747	(0.730)	406992	50.0000	52.8
13 Iodomethane	142	7.632	7.631	(0.719)	777126	50.0000	53.9
17 Methylene chloride	84	7.936	7.942	(0.747)	113655	10.0000	10.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
14 Carbon disulfide	76	7.778	7.778	(0.732)	1447088	50.0000	53.6
20 tert-Butyl methyl ether	73	8.241	8.241	(0.776)	230496	10.0000	10.6
21 trans-1,2-Dichloroethylene	61	8.284	8.284	(0.780)	134344	10.0000	10.4
23 Vinyl acetate	43	8.711	8.710	(0.820)	1029082	50.0000	53.1
22 1,1-Dichloroethane	63	8.759	8.759	(0.825)	167338	10.0000	10.4
30 2-Butanone	43	9.326	9.326	(0.878)	478445	50.0000	52.1
31 cis-1,2-Dichloroethylene	61	9.387	9.387	(0.884)	149704	10.0000	10.9
25 2,2-Dichloropropane	77	9.424	9.424	(0.887)	78355	10.0000	10.3
32 Chloroform	83	9.692	9.692	(0.913)	148626	10.0000	10.6
29 Bromochloromethane	128	9.656	9.661	(0.909)	45304	10.0000	10.6
36 1,1,1-Trichloroethane	97	9.979	9.979	(0.940)	108096	10.0000	10.2
129 Cyclohexane	56	10.082	10.082	(0.949)	149270	10.0000	10.3
34 1,1-Dichloropropene	75	10.131	10.137	(0.954)	108461	10.0000	10.6
131 n-Butyl alcohol	56	10.692	10.692	(1.007)	332275	1000.00	1120
33 Carbon tetrachloride	117	10.174	10.174	(0.958)	104825	10.0000	10.3
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	341504	50.0000	50.4
37 1,2-Dichloroethane	62	10.338	10.338	(0.974)	120871	10.0000	10.6
38 Benzene	78	10.375	10.375	(0.977)	339252	10.0000	10.2
139 Cyclohexene	67	10.497	10.497	(0.989)	162528	10.0000	10.4
* 40 Fluorobenzene	96	10.619	10.619	(1.000)	1316042	50.0000	
39 Trichloroethylene	95	11.009	11.003	(1.037)	84065	10.0000	10.2
41 1,2-Dichloropropane	63	11.247	11.240	(1.059)	101074	10.0000	10.8
130 Methylcyclohexane	83	11.265	11.265	(1.061)	133412	10.0000	10.6
45 Bromodichloromethane	83	11.484	11.484	(1.082)	106009	10.0000	10.5
43 Dibromomethane	93	11.375	11.375	(1.071)	52351	10.0000	10.8
44 2-Chloroethylvinyl ether	63	11.698	11.698	(1.102)	221496	50.0000	51.8
49 4-Methyl-2-pentanone	58	12.015	12.021	(0.872)	203259	50.0000	53.2
46 cis-1,3-Dichloropropylene	75	11.929	11.929	(1.123)	129539	10.0000	10.9
$ 47 Toluene-d8	98	12.253	12.252	(0.890)	1152578	50.0000	49.5
50 Toluene	92	12.326	12.326	(0.895)	199648	10.0000	10.1
53 trans-1,3-Dichloropropylene	75	12.466	12.466	(0.905)	117120	10.0000	10.8
54 1,1,2-Trichloroethane	83	12.685	12.685	(0.921)	63282	10.0000	10.4
55 2-Hexanone	43	12.856	12.856	(0.934)	617655	50.0000	52.7
52 1,3-Dichloropropane	76	12.874	12.880	(0.935)	126391	10.0000	10.6
56 Tetrachloroethylene	164	12.917	12.923	(0.938)	75591	10.0000	10.1
57 Dibromochloromethane	129	13.143	13.149	(0.954)	82068	10.0000	10.6
59 1,2-Dibromoethane	107	13.319	13.319	(0.967)	75973	10.0000	10.6
* 61 Chlorobenzene-d5	117	13.771	13.770	(1.000)	973385	50.0000	
62 Chlorobenzene	112	13.801	13.801	(1.002)	229644	10.0000	10.3
60 1,1,1,2-Tetrachloroethane	131	13.856	13.850	(1.006)	85877	10.0000	10.5
58 Ethylbenzene	91	13.862	13.862	(1.007)	404602	10.0000	10.5
63 m,p-Xylenes	106	13.972	13.972	(1.015)	311171	20.0000	20.8
64 o-Xylene	106	14.405	14.404	(1.046)	162298	10.0000	10.6
65 Styrene	104	14.405	14.404	(1.046)	248022	10.0000	10.9
66 Bromoform	173	14.661	14.661	(0.906)	66131	10.0000	10.9
67 Isopropylbenzene	105	14.758	14.758	(0.912)	425422	10.0000	10.3
73 1,1,2,2-Tetrachloroethane	83	15.014	15.020	(0.928)	117750	10.0000	10.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
$ 71 Bromofluorobenzene	95	14.953	14.953	(0.924)	497925	50.0000	49.3
74 1,2,3-Trichloropropane	110	15.106	15.112	(0.934)	29264	10.0000	10.2
75 Bromobenzene	156	15.167	15.167	(0.937)	126486	10.0000	10.5
76 n-Propylbenzene	91	15.179	15.185	(0.938)	526911	10.0000	10.5
77 2-Chlorotoluene	91	15.331	15.331	(0.948)	370763	10.0000	10.4
78 1,3,5-Trimethylbenzene	105	15.331	15.331	(0.948)	387743	10.0000	10.5
80 4-Chlorotoluene	91	15.429	15.429	(0.954)	327269	10.0000	10.3
81 tert-Butylbenzene	119	15.703	15.703	(0.971)	374478	10.0000	10.5
79 1,2,4-Trimethylbenzene	105	15.740	15.746	(0.973)	403378	10.0000	10.6
83 sec-Butylbenzene	105	15.929	15.929	(0.985)	521144	10.0000	10.4
84 4-Isopropyltoluene	119	16.051	16.050	(0.992)	413754	10.0000	10.7
85 1,3-Dichlorobenzene	146	16.118	16.124	(0.996)	242655	10.0000	10.1
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.178	(1.000)	616518	50.0000	
87 1,4-Dichlorobenzene	146	16.203	16.209	(1.002)	242047	10.0000	10.2
89 n-Butylbenzene	91	16.502	16.502	(1.020)	405877	10.0000	10.7
90 1,2-Dichlorobenzene	146	16.642	16.642	(1.029)	232618	10.0000	10.3
92 1,2-Dibromo-3-chloropropane	157	17.526	17.532	(1.083)	19555	10.0000	10
93 1,2,4-Trichlorobenzene	180	18.629	18.629	(1.151)	130703	10.0000	11.0
94 Hexachlorobutadiene	225	18.818	18.818	(1.163)	96344	10.0000	10.5
95 Naphthalene	128	19.032	19.032	(1.176)	214109	10.0000	11.4
96 1,2,3-Trichlorobenzene	180	19.385	19.391	(1.198)	104549	10.0000	11.3

Data File: /chem/VOA4.i/121909v4/4p608.d
Date : 19-DEC-2009 22:01
Client ID: VSTD010
Sample Info: IW4WH091219-06|VSTD010|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

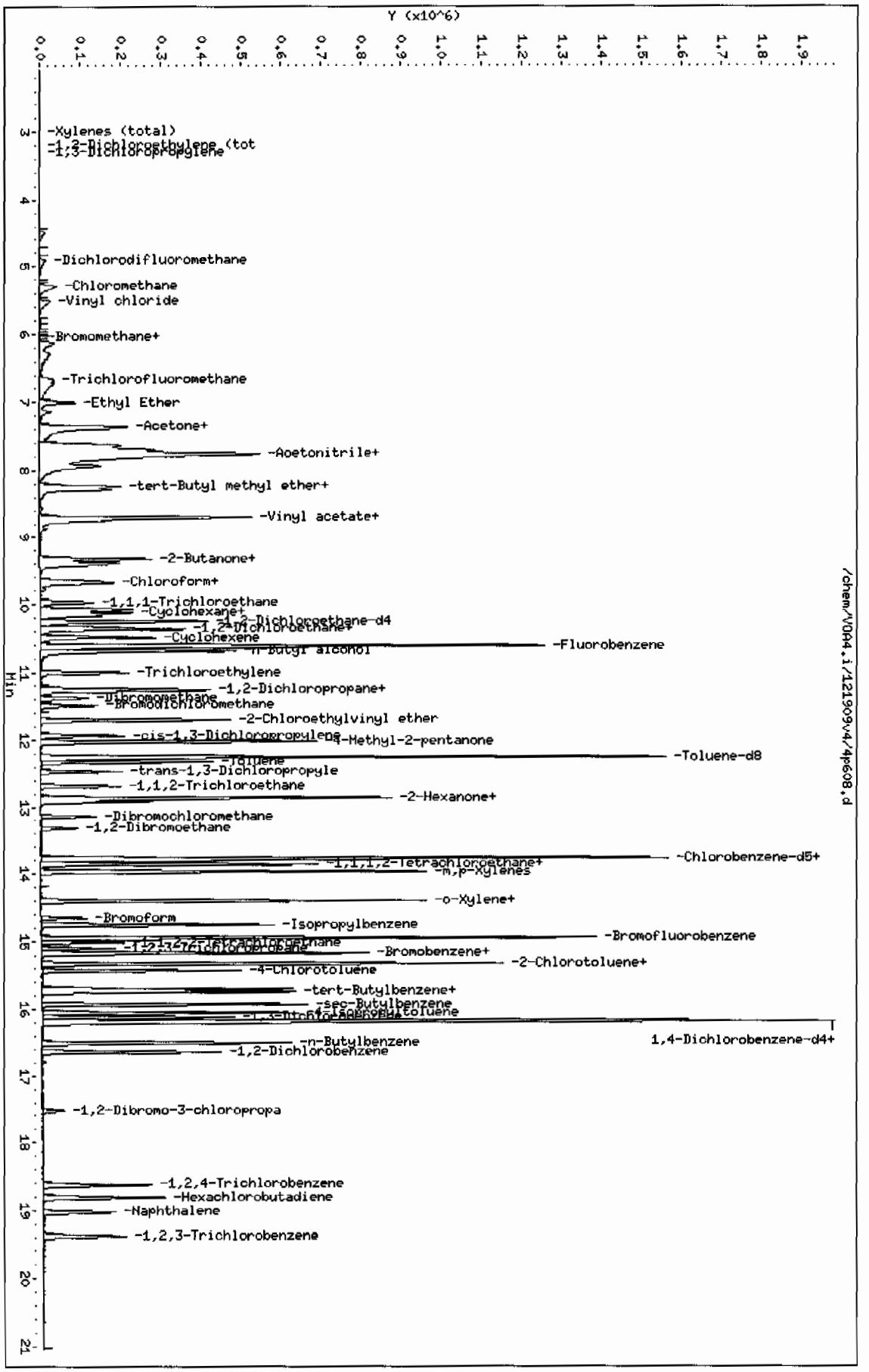

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GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/121909v4/4p609.d
Lab Smp Id: W4VM091219-07 Client Smp ID: VSTD020
Inj Date : 19-DEC-2009 22:28
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM091219-07|VSTD020|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM090911-06D/UVM091130-06C
Comment :
Method : /chem/VOA4.i/121909v4/VOA4-8260-121909.m
Meth Date : 20-Dec-2009 11:14 amj Quant Type: ISTD
Cal Date : 19-DEC-2009 22:28 Cal File: 4p609.d
Als bottle: 9 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				966794	60.0000	61.9
M 2 1,2-Dichloroethylene (total)	96				562141	40.0000	40.8
M 135 1,3-Dichloropropylene	75				516486	40.0000	43.6
3 Dichlorodifluoromethane	85	4.912	4.912	(0.463)	125657	20.0000	19.9
4 Chloromethane	50	5.299	5.299	(0.499)	254394	20.0000	19.9
5 Vinyl chloride	62	5.521	5.528	(0.520)	191296	20.0000	20.0
6 Bromomethane	94	6.130	6.138	(0.577)	147898	20.0000	19.2
7 Chloroethane	64	6.288	6.295	(0.592)	158064	20.0000	20.5
8 Trichlorofluoromethane	101	6.668	6.662	(0.628)	226450	20.0000	21.0
134 Ethyl Ether	59	7.004	6.997	(0.660)	155321	20.0000	20.4
10 Acetone	43	7.357	7.357	(0.693)	876053	100.000	102
15 Acetonitrile	41	7.699	7.705	(0.725)	823793	500.000	508
11 1,1-Dichloroethylene	61	7.388	7.394	(0.696)	306197	20.0000	22.0
128 Methyl acetate	43	7.753	7.747	(0.730)	811343	100.000	102
13 Iodomethane	142	7.631	7.631	(0.719)	1595406	100.000	106
17 Methylene chloride	84	7.942	7.942	(0.748)	217762	20.0000	21.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
14 Carbon disulfide	76	7.772	7.778	(0.732)	2882135	100.000	103
20 tert-Butyl methyl ether	73	8.241	8.241	(0.776)	450341	20.0000	20.2
21 trans-1,2-Dichloroethylene	61	8.284	8.284	(0.780)	269782	20.0000	20.3
23 Vinyl acetate	43	8.711	8.710	(0.820)	2080263	100.000	104
22 1,1-Dichloroethane	63	8.759	8.759	(0.825)	340755	20.0000	20.4
30 2-Butanone	43	9.326	9.326	(0.878)	1025574	100.000	107
31 cis-1,2-Dichloroethylene	61	9.387	9.387	(0.884)	292359	20.0000	20.5
25 2,2-Dichloropropane	77	9.418	9.424	(0.887)	158179	20.0000	20.1
32 Chloroform	83	9.692	9.692	(0.913)	299386	20.0000	20.6
29 Bromochloromethane	128	9.662	9.661	(0.910)	92842	20.0000	20.9
36 1,1,1-Trichloroethane	97	9.979	9.979	(0.940)	229806	20.0000	20.9
129 Cyclohexane	56	10.082	10.082	(0.949)	306320	20.0000	20.4
34 1,1-Dichloropropene	75	10.131	10.137	(0.954)	221455	20.0000	20.8
131 n-Butyl alcohol	56	10.692	10.692	(1.007)	682662	2500.00	2270
33 Carbon tetrachloride	117	10.174	10.174	(0.958)	214799	20.0000	20.5
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	347854	50.0000	49.9
37 1,2-Dichloroethane	62	10.344	10.338	(0.974)	243127	20.0000	20.5
38 Benzene	78	10.375	10.375	(0.977)	684210	20.0000	19.9
139 Cyclohexene	67	10.497	10.497	(0.989)	333451	20.0000	20.6
* 40 Fluorobenzene	96	10.619	10.619	(1.000)	1354943	50.0000	
39 Trichloroethylene	95	11.003	11.003	(1.036)	167065	20.0000	19.8
41 1,2-Dichloropropane	63	11.247	11.240	(1.059)	200920	20.0000	20.6
130 Methylcyclohexane	83	11.265	11.265	(1.061)	269486	20.0000	20.6
45 Bromodichloromethane	83	11.484	11.484	(1.082)	218100	20.0000	20.8
43 Dibromomethane	93	11.375	11.375	(1.071)	103329	20.0000	20.6
44 2-Chloroethylvinyl ether	63	11.698	11.698	(1.102)	471978	100.000	106
49 4-Methyl-2-pentanone	58	12.015	12.021	(0.872)	425826	100.000	107
46 cis-1,3-Dichloropropylene	75	11.929	11.929	(1.123)	270461	20.0000	21.7
$ 47 Toluene-d8	98	12.253	12.252	(0.890)	1184080	50.0000	49.5
50 Toluene	92	12.326	12.326	(0.895)	404039	20.0000	19.9
53 trans-1,3-Dichloropropylene	75	12.460	12.466	(0.905)	246024	20.0000	21.8
54 1,1,2-Trichloroethane	83	12.685	12.685	(0.921)	129993	20.0000	20.7
55 2-Hexanone	43	12.856	12.856	(0.934)	1329894	100.000	108
52 1,3-Dichloropropane	76	12.874	12.880	(0.935)	256731	20.0000	20.8
56 Tetrachloroethylene	164	12.923	12.923	(0.938)	151120	20.0000	19.7
57 Dibromochloromethane	129	13.149	13.149	(0.955)	179178	20.0000	22.0
59 1,2-Dibromoethane	107	13.319	13.319	(0.967)	159850	20.0000	21.4
* 61 Chlorobenzene-d5	117	13.771	13.770	(1.000)	1001367	50.0000	
62 Chlorobenzene	112	13.801	13.801	(1.002)	471865	20.0000	20.4
60 1,1,1,2-Tetrachloroethane	131	13.850	13.850	(1.006)	182754	20.0000	21.5
58 Ethylbenzene	91	13.862	13.862	(1.007)	812925	20.0000	20.4
63 m,p-Xylenes	106	13.972	13.972	(1.015)	632530	40.0000	40.9
64 o-Xylene	106	14.405	14.404	(1.046)	334264	20.0000	21.0
65 Styrene	104	14.405	14.404	(1.046)	513288	20.0000	21.6
66 Bromoform	173	14.661	14.661	(0.906)	144906	20.0000	22.2
67 Isopropylbenzene	105	14.758	14.758	(0.912)	875389	20.0000	20.0
73 1,1,2,2-Tetrachloroethane	83	15.020	15.020	(0.928)	240388	20.0000	20.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
$ 71 Bromofluorobenzene	95	14.953	14.953	(0.924)	522109	50.0000	49.1
74 1,2,3-Trichloropropane	110	15.106	15.112	(0.934)	60762	20.0000	20.1
75 Bromobenzene	156	15.167	15.167	(0.937)	255412	20.0000	20.0
76 n-Propylbenzene	91	15.185	15.185	(0.939)	1057406	20.0000	20.0
77 2-Chlorotoluene	91	15.331	15.331	(0.948)	731180	20.0000	19.5
78 1,3,5-Trimethylbenzene	105	15.331	15.331	(0.948)	772105	20.0000	19.8
80 4-Chlorotoluene	91	15.429	15.429	(0.954)	673598	20.0000	20.0
81 tert-Butylbenzene	119	15.703	15.703	(0.971)	760368	20.0000	20.2
79 1,2,4-Trimethylbenzene	105	15.740	15.746	(0.973)	821945	20.0000	20.4
83 sec-Butylbenzene	105	15.935	15.929	(0.985)	1063961	20.0000	20.1
84 4-Isopropyltoluene	119	16.051	16.050	(0.992)	846108	20.0000	20.6
85 1,3-Dichlorobenzene	146	16.124	16.124	(0.997)	504884	20.0000	20.0
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.178	(1.000)	650761	50.0000	
87 1,4-Dichlorobenzene	146	16.209	16.209	(1.002)	504980	20.0000	20.2
89 n-Butylbenzene	91	16.502	16.502	(1.020)	814122	20.0000	20.2
90 1,2-Dichlorobenzene	146	16.642	16.642	(1.029)	482490	20.0000	20.2
92 1,2-Dibromo-3-chloropropane	157	17.526	17.532	(1.083)	44084	20.0000	20.6
93 1,2,4-Trichlorobenzene	180	18.629	18.629	(1.151)	277755	20.0000	21.8
94 Hexachlorobutadiene	225	18.818	18.818	(1.163)	197527	20.0000	20.4
95 Naphthalene	128	19.032	19.032	(1.176)	477102	20.0000	23.3
96 1,2,3-Trichlorobenzene	180	19.385	19.391	(1.198)	228391	20.0000	22.8

Data File: /chem/VOA4.i/121909v4/4p609.d
Date : 19-DEC-2009 22:28
Client ID: VSTD020
Sample Info: IW4VM091219-07|VSTD020|1|VOAF11|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

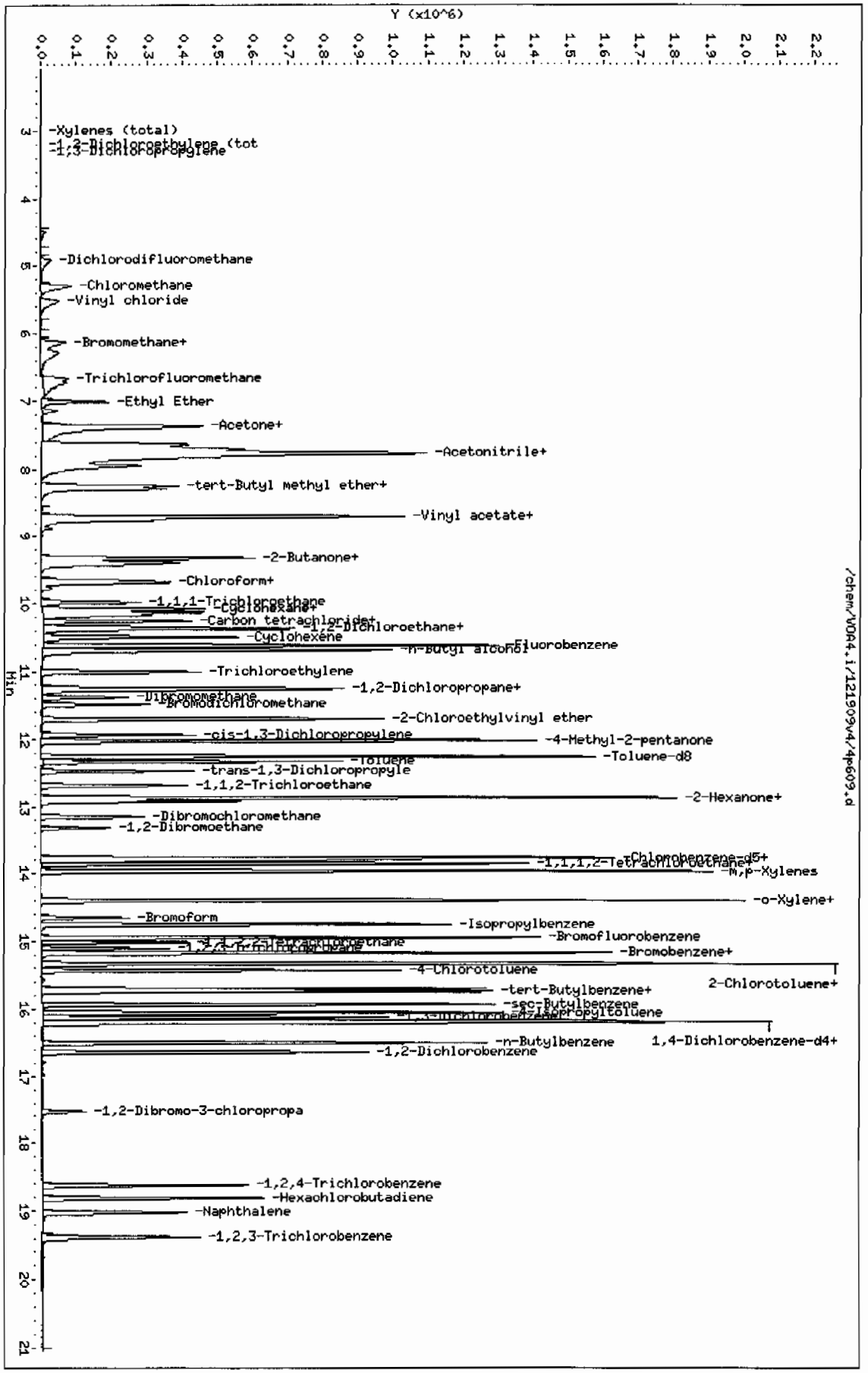

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GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/121909v4/4p610.d
Lab Smp Id: W4VM091219-08 Client Smp ID: VSTD050
Inj Date : 19-DEC-2009 22:55
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM091219-08|VSTD050|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM090911-07D/UVM091130-07C
Comment :
Method : /chem/VOA4.i/121909v4/VOA4-8260-121909.m
Meth Date : 21-Dec-2009 09:34 slg Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 10 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				2262327	150.000	144
M 2 1,2-Dichloroethylene (total)	96				1292716	100.000	95.7
M 135 1,3-Dichloropropylene	75				1222462	100.000	103
3 Dichlorodifluoromethane	85	4.912	4.912	(0.463)	304784	50.0000	47.7
4 Chloromethane	50	5.299	5.299	(0.499)	611301	50.0000	48.4
5 Vinyl chloride	62	5.521	5.521	(0.520)	455421	50.0000	48.6
6 Bromomethane	94	6.137	6.137	(0.578)	363721	50.0000	48.4
7 Chloroethane	64	6.288	6.288	(0.592)	383624	50.0000	49.4
8 Trichlorofluoromethane	101	6.674	6.674	(0.629)	543001	50.0000	49.6
134 Ethyl Ether	59	6.997	6.997	(0.659)	379810	50.0000	50.2
10 Acetone	43	7.357	7.357	(0.693)	2041538	250.000	243
15 Acetonitrile	41	7.698	7.698	(0.725)	1826541	1250.00	1160
11 1,1-Dichloroethylene	61	7.388	7.388	(0.696)	700485	50.0000	47.9
128 Methyl acetate	43	7.753	7.753	(0.730)	1845580	250.000	238
13 Iodomethane	142	7.631	7.631	(0.719)	3712223	250.000	248

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
17 Methylene chloride	84	7.936	7.936	(0.747)	482921	50.0000	50.9
14 Carbon disulfide	76	7.772	7.772	(0.732)	6350319	250.000	235
20 tert-Butyl methyl ether	73	8.241	8.241	(0.776)	1056314	50.0000	47.9
21 trans-1,2-Dichloroethylene	61	8.284	8.284	(0.780)	623614	50.0000	48.3
23 Vinyl acetate	43	8.710	8.710	(0.820)	4520715	250.000	234
22 1,1-Dichloroethane	63	8.759	8.759	(0.825)	767338	50.0000	46.5
30 2-Butanone	43	9.326	9.326	(0.878)	2508350	250.000	263
31 cis-1,2-Dichloroethylene	61	9.387	9.387	(0.884)	669102	50.0000	47.4
25 2,2-Dichloropropane	77	9.424	9.424	(0.887)	367261	50.0000	47.8
32 Chloroform	83	9.692	9.692	(0.913)	682449	50.0000	47.8
29 Bromochloromethane	128	9.661	9.661	(0.910)	214764	50.0000	49.0
36 1,1,1-Trichloroethane	97	9.978	9.978	(0.940)	541589	50.0000	49.6
129 Cyclohexane	56	10.082	10.082	(0.949)	704312	50.0000	47.6
34 1,1-Dichloropropene	75	10.137	10.137	(0.955)	504603	50.0000	48.3
131 n-Butyl alcohol	56	10.692	10.692	(1.007)	1623697	5000.00	5400
33 Carbon tetrachloride	117	10.174	10.174	(0.958)	510548	50.0000	49.3
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	365404	50.0000	52.4
37 1,2-Dichloroethane	62	10.344	10.344	(0.974)	560774	50.0000	48.3
38 Benzene	78	10.375	10.375	(0.977)	1556519	50.0000	46.9
139 Cyclohexene	67	10.497	10.497	(0.989)	773142	50.0000	48.5
* 40 Fluorobenzene	96	10.619	10.619	(1.000)	1338204	50.0000	
39 Trichloroethylene	95	11.003	11.003	(1.036)	399393	50.0000	48.7
41 1,2-Dichloropropane	63	11.240	11.240	(1.059)	456605	50.0000	48.1
130 Methylcyclohexane	83	11.265	11.265	(1.061)	621168	50.0000	48.3
45 Bromodichloromethane	83	11.484	11.484	(1.082)	533665	50.0000	51.3
43 Dibromomethane	93	11.375	11.375	(1.071)	245552	50.0000	49.5
44 2-Chloroethylvinyl ether	63	11.698	11.698	(1.102)	1132868	250.000	260
49 4-Methyl-2-pentanone	58	12.021	12.021	(0.873)	1069395	250.000	264
46 cis-1,3-Dichloropropylene	75	11.929	11.929	(1.123)	637091	50.0000	50.9
$ 47 Toluene-d8	98	12.252	12.252	(0.890)	1190968	50.0000	49.0
50 Toluene	92	12.326	12.326	(0.895)	944143	50.0000	46.4
53 trans-1,3-Dichloropropylene	75	12.460	12.460	(0.905)	585371	50.0000	50.1
54 1,1,2-Trichloroethane	83	12.685	12.685	(0.921)	300075	50.0000	46.7
55 2-Hexanone	43	12.856	12.856	(0.934)	3280680	250.000	263
52 1,3-Dichloropropane	76	12.874	12.874	(0.935)	574499	50.0000	45.4
56 Tetrachloroethylene	164	12.923	12.923	(0.938)	357487	50.0000	46.5
57 Dibromochloromethane	129	13.149	13.149	(0.955)	434257	50.0000	51.4
59 1,2-Dibromoethane	107	13.319	13.319	(0.967)	384822	50.0000	50.3
* 61 Chlorobenzene-d5	117	13.770	13.770	(1.000)	1025130	50.0000	
62 Chlorobenzene	112	13.801	13.801	(1.002)	1105051	50.0000	46.8
60 1,1,1,2-Tetrachloroethane	131	13.850	13.850	(1.006)	433630	50.0000	49.5
58 Ethylbenzene	91	13.862	13.862	(1.007)	1851996	50.0000	46.2
63 m,p-Xylenes	106	13.972	13.972	(1.015)	1481535	100.000	95.8
64 o-Xylene	106	14.404	14.404	(1.046)	780792	50.0000	48.3
65 Styrene	104	14.404	14.404	(1.046)	1248740	50.0000	51.6
66 Bromoform	173	14.661	14.661	(0.906)	384462	50.0000	54.6
67 Isopropylbenzene	105	14.758	14.758	(0.912)	2067128	50.0000	46.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
73 1,1,2,2-Tetrachloroethane	83	15.020	15.020	(0.928)	567469	50.0000	46.5
$ 71 Bromofluorobenzene	95	14.953	14.953	(0.924)	550573	50.0000	50.1
74 1,2,3-Trichloropropane	110	15.112	15.112	(0.934)	147839	50.0000	47.3
75 Bromobenzene	156	15.166	15.166	(0.937)	623485	50.0000	47.2
76 n-Propylbenzene	91	15.185	15.185	(0.939)	2446443	50.0000	45.6
77 2-Chlorotoluene	91	15.331	15.331	(0.948)	1682432	50.0000	44.7
78 1,3,5-Trimethylbenzene	105	15.331	15.331	(0.948)	1828432	50.0000	46.2
80 4-Chlorotoluene	91	15.435	15.435	(0.954)	1624304	50.0000	46.9
81 tert-Butylbenzene	119	15.703	15.703	(0.971)	1838188	50.0000	47.4
79 1,2,4-Trimethylbenzene	105	15.746	15.746	(0.973)	1951191	50.0000	46.9
83 sec-Butylbenzene	105	15.929	15.929	(0.985)	2506610	50.0000	46.2
84 4-Isopropyltoluene	119	16.050	16.050	(0.992)	2018754	50.0000	47.7
85 1,3-Dichlorobenzene	146	16.118	16.118	(0.996)	1227198	50.0000	47.0
* 86 1,4-Dichlorobenzene-d4	152	16.178	16.178	(1.000)	677223	50.0000	
87 1,4-Dichlorobenzene	146	16.209	16.209	(1.002)	1224278	50.0000	47.6
89 n-Butylbenzene	91	16.502	16.502	(1.020)	1939778	50.0000	47.5
90 1,2-Dichlorobenzene	146	16.642	16.642	(1.029)	1175535	50.0000	47.6
92 1,2-Dibromo-3-chloropropane	157	17.532	17.532	(1.084)	112163	50.0000	54.9
93 1,2,4-Trichlorobenzene	180	18.629	18.629	(1.151)	683611	50.0000	51.0
94 Hexachlorobutadiene	225	18.818	18.818	(1.163)	480945	50.0000	47.4
95 Naphthalene	128	19.032	19.032	(1.176)	1176440	50.0000	53.6
96 1,2,3-Trichlorobenzene	180	19.385	19.385	(1.198)	548343	50.0000	51.2

Data File: /chem/VOA4.i/121909v4/4p610.d
Date : 19-DEC-2009 22:55
Client ID: VSTD050
Sample Info: IW4VH091219-08|VSTD050|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

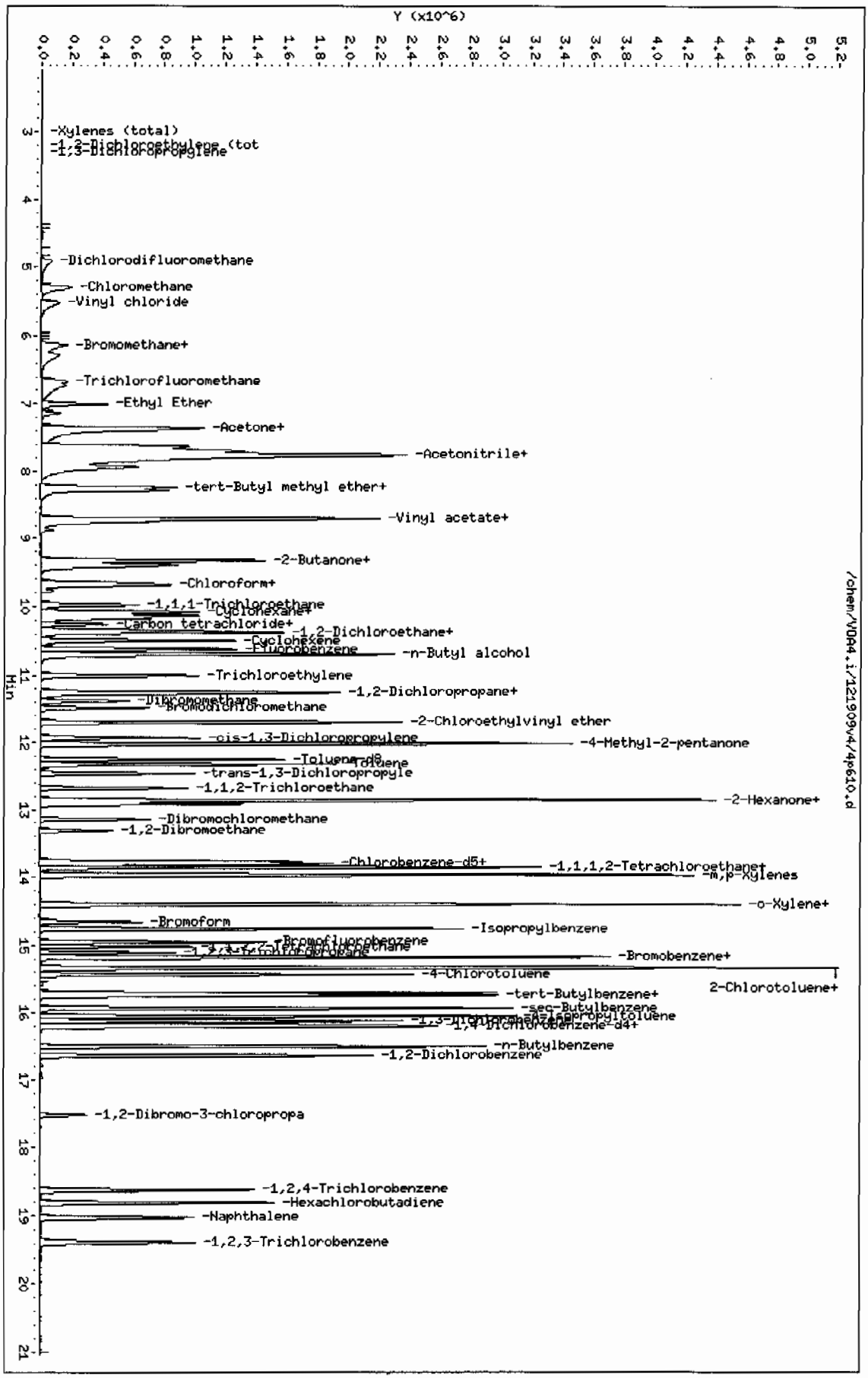

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/121909v4/4p611.d
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Inj Date : 19-DEC-2009 23:22
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM091219-09|VSTD100|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM090911-08D/UVM091130-08C
Comment :
Method : /chem/VOA4.i/121909v4/VOA4-8260-121909.m
Meth Date : 20-Dec-2009 11:14 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 03:01 Cal File: 4p619.d
Als bottle: 11 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				4435954	300.000	267
M 2 1,2-Dichloroethylene (total)	96				2590192	200.000	184
M 135 1,3-Dichloropropylene	75				2474228	200.000	201(A)
3 Dichlorodifluoromethane	85	4.911	4.912	(0.462)	654875	100.000	103(A)
4 Chloromethane	50	5.306	5.299	(0.500)	1306706	100.000	99.0
5 Vinyl chloride	62	5.521	5.528	(0.520)	965351	100.000	97.9
6 Bromomethane	94	6.137	6.138	(0.578)	769517	100.000	96.8
7 Chloroethane	64	6.288	6.295	(0.592)	805139	100.000	101(A)
8 Trichlorofluoromethane	101	6.669	6.662	(0.628)	1207542	100.000	107(A)
134 Ethyl Ether	59	6.998	6.997	(0.659)	805105	100.000	102(A)
10 Acetone	43	7.358	7.357	(0.693)	3648845	500.000	422
15 Acetonitrile	41	7.706	7.705	(0.726)	3268443	2500.00	2010
11 1,1-Dichloroethylene	61	7.389	7.394	(0.696)	1430689	100.000	99.3
128 Methyl acetate	43	7.748	7.747	(0.730)	3300075	500.000	412
13 Iodomethane	142	7.632	7.631	(0.719)	7558371	500.000	488
17 Methylene chloride	84	7.943	7.942	(0.748)	964039	100.000	99.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
14 Carbon disulfide	76	7.773	7.778	(0.732)	12109320	500.000	428
20 tert-Butyl methyl ether	73	8.242	8.241	(0.776)	2102066	100.000	92.2
21 trans-1,2-Dichloroethylene	61	8.285	8.284	(0.780)	1251669	100.000	92.3
23 Vinyl acetate	43	8.711	8.710	(0.820)	8623615	500.000	425
22 1,1-Dichloroethane	63	8.760	8.759	(0.825)	1545132	100.000	90.9
30 2-Butanone	43	9.327	9.326	(0.878)	4374361	500.000	449
31 cis-1,2-Dichloroethylene	61	9.388	9.387	(0.884)	1338523	100.000	92.0
25 2,2-Dichloropropane	77	9.419	9.424	(0.887)	739458	100.000	92.2
32 Chloroform	83	9.693	9.692	(0.913)	1373070	100.000	92.4
29 Bromochloromethane	128	9.656	9.661	(0.909)	440462	100.000	96.3
36 1,1,1-Trichloroethane	97	9.980	9.979	(0.940)	1101869	100.000	97.4
129 Cyclohexane	56	10.083	10.082	(0.949)	1405885	100.000	91.9
34 1,1-Dichloropropene	75	10.132	10.137	(0.954)	1013609	100.000	93.1
131 n-Butyl alcohol	56	10.693	10.692	(1.007)	2964673	10000.0	9580
33 Carbon tetrachloride	117	10.175	10.174	(0.958)	1053500	100.000	97.4
$ 138 1,2-Dichloroethane-d4	65	10.260	10.259	(0.966)	395514	50.0000	54.1
37 1,2-Dichloroethane	62	10.339	10.338	(0.974)	1125493	100.000	92.9
38 Benzene	78	10.376	10.375	(0.977)	3061171	100.000	87.7
139 Cyclohexene	67	10.498	10.497	(0.989)	1537193	100.000	92.7
* 40 Fluorobenzene	96	10.620	10.619	(1.000)	1402399	50.0000	
39 Trichloroethylene	95	11.004	11.003	(1.036)	800234	100.000	92.6
41 1,2-Dichloropropane	63	11.241	11.240	(1.059)	878195	100.000	88.8
130 Methylcyclohexane	83	11.266	11.265	(1.061)	1232961	100.000	92.3
45 Bromodichloromethane	83	11.485	11.484	(1.082)	1078747	100.000	99.7
43 Dibromomethane	93	11.376	11.375	(1.071)	494382	100.000	95.8
44 2-Chloroethylvinyl ether	63	11.699	11.698	(1.102)	2160124	500.000	472
49 4-Methyl-2-pentanone	58	12.022	12.021	(0.873)	1843746	500.000	436
46 cis-1,3-Dichloropropylene	75	11.930	11.929	(1.123)	1286364	100.000	99.6
$ 47 Toluene-d8	98	12.253	12.252	(0.890)	1249075	50.0000	48.4
50 Toluene	92	12.327	12.326	(0.895)	1853284	100.000	86.1
53 trans-1,3-Dichloropropylene	75	12.461	12.466	(0.905)	1187864	100.000	97.4
54 1,1,2-Trichloroethane	83	12.686	12.685	(0.921)	596304	100.000	89.1
55 2-Hexanone	43	12.857	12.856	(0.934)	5455269	500.000	421
52 1,3-Dichloropropane	76	12.881	12.880	(0.935)	1063511	100.000	81.8
56 Tetrachloroethylene	164	12.918	12.923	(0.938)	738221	100.000	90.1
57 Dibromochloromethane	129	13.150	13.149	(0.955)	922395	100.000	104(A)
59 1,2-Dibromoethane	107	13.320	13.319	(0.967)	794332	100.000	98.3
* 61 Chlorobenzene-d5	117	13.771	13.770	(1.000)	1085138	50.0000	
62 Chlorobenzene	112	13.802	13.801	(1.002)	2231703	100.000	90.5
60 1,1,1,2-Tetrachloroethane	131	13.851	13.850	(1.006)	888894	100.000	96.9
58 Ethylbenzene	91	13.863	13.862	(1.007)	3517521	100.000	83.6
63 m,p-Xylenes	106	13.973	13.972	(1.015)	2913339	200.000	177
64 o-Xylene	106	14.406	14.404	(1.046)	1522614	100.000	89.7
65 Styrene	104	14.406	14.404	(1.046)	2404238	100.000	94.4
66 Bromoform	173	14.655	14.661	(0.906)	817580	100.000	112(A)
67 Isopropylbenzene	105	14.759	14.758	(0.912)	4033218	100.000	86.2
73 1,1,2,2-Tetrachloroethane	83	15.015	15.020	(0.928)	1115199	100.000	86.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
$ 71 Bromofluorobenzene	95	14.954	14.953	(0.924)	572178	50.0000	49.2
74 1,2,3-Trichloropropane	110	15.107	15.112	(0.934)	296443	100.000	90.9
75 Bromobenzene	156	15.168	15.167	(0.937)	1277173	100.000	92.5
76 n-Propylbenzene	91	15.186	15.185	(0.939)	4586514	100.000	81.7
77 2-Chlorotoluene	91	15.332	15.331	(0.948)	3097017	100.000	78.2
78 1,3,5-Trimethylbenzene	105	15.332	15.331	(0.948)	3468619	100.000	83.5
80 4-Chlorotoluene	91	15.430	15.429	(0.954)	3153921	100.000	87.4
81 tert-Butylbenzene	119	15.704	15.703	(0.971)	3656965	100.000	90.1
79 1,2,4-Trimethylbenzene	105	15.741	15.746	(0.973)	3767583	100.000	87.1
83 sec-Butylbenzene	105	15.930	15.929	(0.985)	4808446	100.000	85.1
84 4-Isopropyltoluene	119	16.052	16.050	(0.992)	3940198	100.000	89.2
85 1,3-Dichlorobenzene	146	16.125	16.124	(0.997)	2465048	100.000	90.4
* 86 1,4-Dichlorobenzene-d4	152	16.180	16.178	(1.000)	713359	50.0000	
87 1,4-Dichlorobenzene	146	16.210	16.209	(1.002)	2441440	100.000	90.3
89 n-Butylbenzene	91	16.503	16.502	(1.020)	3628853	100.000	84.4
90 1,2-Dichlorobenzene	146	16.643	16.642	(1.029)	2323310	100.000	90.4
92 1,2-Dibromo-3-chloropropane	157	17.527	17.532	(1.083)	232408	100.000	99.5
93 1,2,4-Trichlorobenzene	180	18.630	18.629	(1.151)	1373761	100.000	98.8
94 Hexachlorobutadiene	225	18.819	18.818	(1.163)	998019	100.000	94.8
95 Naphthalene	128	19.033	19.032	(1.176)	2314718	100.000	103(A)
96 1,2,3-Trichlorobenzene	180	19.386	19.391	(1.198)	1097117	100.000	99.9

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA4.i/121909v4/4p611.d
Date : 19-DEC-2009 23:22
Client ID: VSTD100
Sample Info: IW4VH091219-09|VSTD100|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

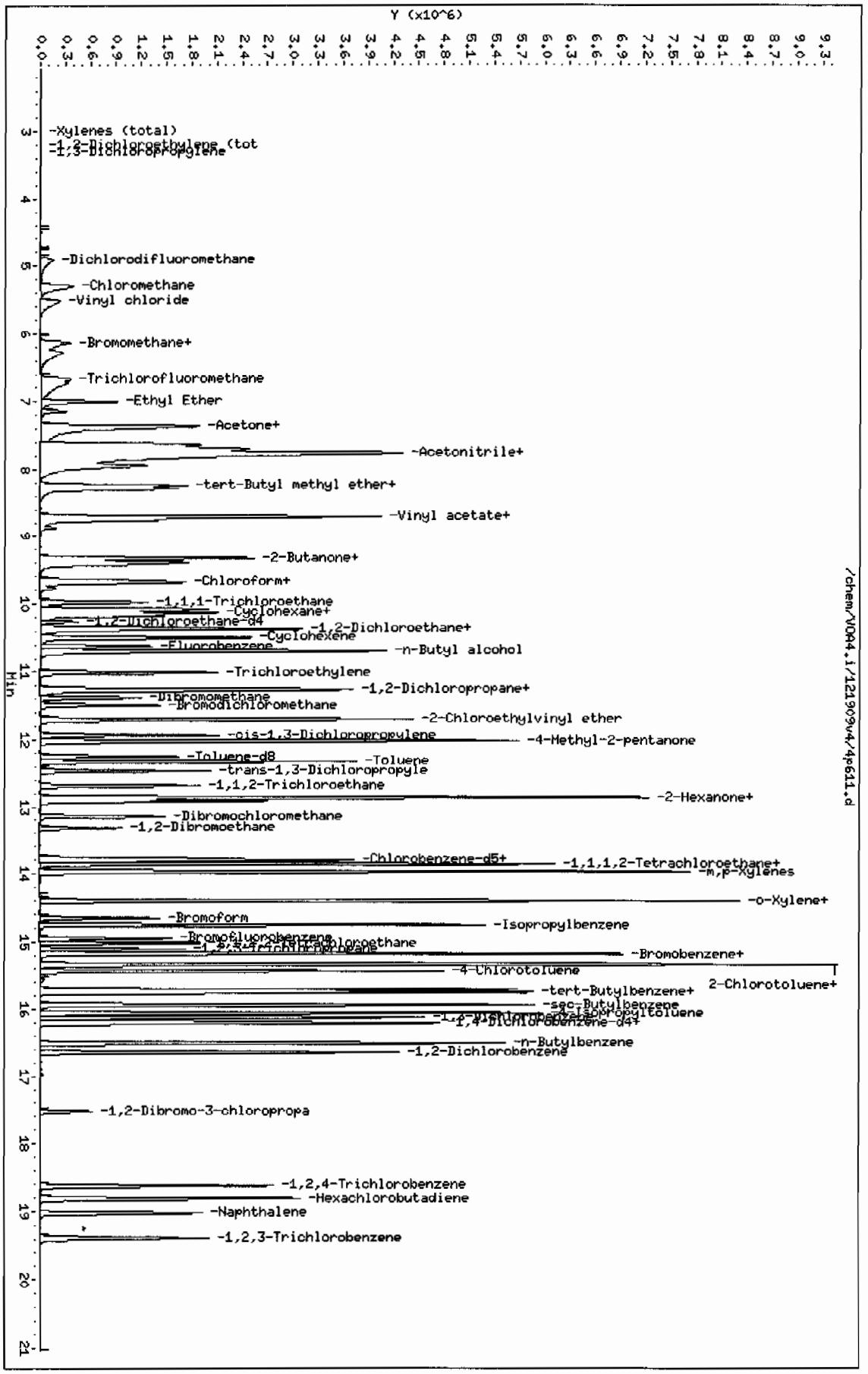

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/121909v4/4p613.d
Lab Smp Id: W4VM091219-10 Client Smp ID: VSTD005S
Inj Date : 20-DEC-2009 00:17
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM091219-10|VSTD005S|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091216-01/UVM091110-01D
Comment :
Method : /chem/VOA4.i/121909v4/VOA4-8260-121909.m
Meth Date : 20-Dec-2009 11:14 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 00:17 Cal File: 4p613.d
Als bottle: 13 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALsubS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
153 Chlorotrifluoroethylene	116	4.833	4.833	(0.455)	25257	5.00000	5.2(Q)
154 2-Chloro-1,1,1-trifluoroethane	118	5.664	5.657	(0.533)	39557	5.00000	5.1(Q)
9 Acrolein	56	7.186	7.180	(0.677)	8280	5.00000	5.1(Q)
12 Trichlorotrifluoroethane	85	7.345	7.363	(0.692)	15490	5.00000	5.7(Q)
147 Isopropyl Alcohol	45	7.449	7.436	(0.701)	42937	50.0000	51.9(Q)
16 Allyl chloride	41	7.802	7.802	(0.735)	85043	5.00000	5.6(Q)
148 tert-butyl alcohol	59	7.936	7.930	(0.747)	57051	50.0000	51.4(Q)
18 Acrylonitrile	53	8.180	8.174	(0.770)	19671	5.00000	5.4(aQ)
149 Isopropyl ether	45	8.747	8.741	(0.824)	35372	1.00000	1.0(Q)
24 2-Chloro-1,3-butadiene	53	8.875	8.869	(0.836)	12827	1.00000	1.0(Q)
150 Ethyl tert-butyl ether	59	9.149	9.143	(0.862)	28382	1.00000	1.0(Q)
28 Propionitrile	54	9.393	9.393	(0.885)	8098	5.00000	5.4
26 Ethyl acetate	43	9.345	9.338	(0.880)	64391	5.00000	6.0
27 Methacrylonitrile	41	9.576	9.576	(0.902)	36432	5.00000	5.8(Q)
72 Tetrahydrofuran	42	9.722	9.716	(0.601)	20322	5.00000	6.0(Q)
19 Isobutyl alcohol	41	10.009	10.009	(0.943)	26733	50.0000	57.5(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
151 Methyl tert-amyl ether	73	10.387	10.387	(0.978)	22634	1.00000	1.0(Q)
42 Methyl methacrylate	69	11.210	11.210	(1.056)	27447	5.00000	5.5(Q)
97 1,4-Dioxane	88	11.338	11.332	(1.068)	5657	50.0000	56.6(Q)
48 2-Nitropropane	43	11.679	11.673	(1.100)	13968	5.00000	5.0(Q)
51 Ethyl methacrylate	69	12.466	12.466	(0.905)	51631	5.00000	5.7(Q)
152 1-Chlorohexane	55	13.661	13.661	(1.286)	8253	1.00000	1.00(Q)
68 cis-1,4-Dichloro-2-butene	53	14.782	14.782	(0.914)	18442	5.00000	5.4(Q)
70 Cyclohexanone	42	14.904	14.904	(1.082)	22585	25.0000	25.0(Q)
69 trans-1,4-Dichloro-2-butene	53	15.063	15.063	(0.931)	17469	5.00000	5.4(Q)
82 Pentachloroethane	167	15.770	15.770	(0.975)	25414	5.00000	5.6(Q)
88 Benzyl chloride	91	16.319	16.319	(1.009)	78583	5.00000	5.6
91 bis(2-Chloroisopropyl)ether	45	16.715	16.721	(1.033)	30875	5.00000	5.5
* 40 Fluorobenzene	96	10.619	10.619	(1.000)	1331639	50.0000	
* 61 Chlorobenzene-d5	117	13.770	13.770	(1.000)	981993	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.178	(1.000)	597075	50.0000	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA4.i/121909v4/4p613.d
Date : 20-DEC-2009 00:17
Client ID: VSTD005S
Sample Info: W4VW091219-101VSTD005S11|VOAF11|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

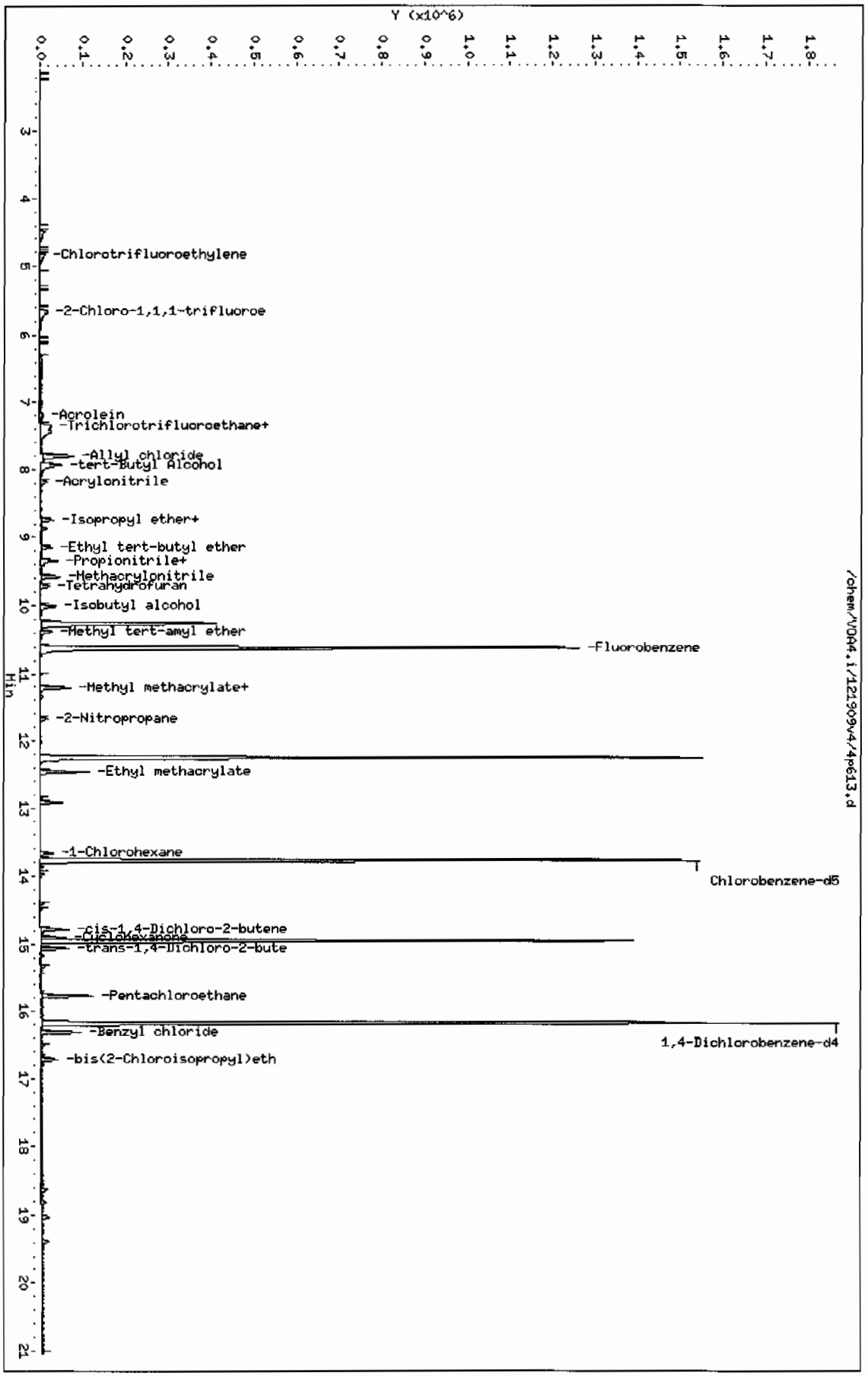

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GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/121909v4/4p614.d
Lab Smp Id: W4VM091219-11 Client Smp ID: VSTD010S
Inj Date : 20-DEC-2009 00:44
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM091219-11|VSTD010S|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091216-02/UVM091110-02D
Comment :
Method : /chem/VOA4.i/121909v4/VOA4-8260-121909.m
Meth Date : 20-Dec-2009 11:14 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 00:44 Cal File: 4p614.d
Als bottle: 14 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALsubS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
153 Chlorotrifluoroethylene	116	4.826	4.833	(0.454)	55601	10.0000	10.8(Q)
154 2-Chloro-1,1,1-trifluoroethane	118	5.657	5.657	(0.533)	76794	10.0000	9.9(Q)
9 Acrolein	56	7.186	7.180	(0.677)	14961	10.0000	9.4(Q)
12 Trichlorotrifluoroethane	85	7.351	7.363	(0.692)	27399	10.0000	10(Q)
147 Isopropyl Alcohol	45	7.443	7.436	(0.701)	71566	100.000	89.3
16 Allyl chloride	41	7.802	7.802	(0.735)	157635	10.0000	10.2(Q)
148 tert-butyl alcohol	59	7.930	7.930	(0.747)	102941	100.000	93.7(Q)
18 Acrylonitrile	53	8.180	8.174	(0.770)	33157	10.0000	9.3(aQ)
149 Isopropyl ether	45	8.741	8.741	(0.823)	67822	2.00000	2.0(Q)
24 2-Chloro-1,3-butadiene	53	8.875	8.869	(0.836)	24155	2.00000	1.9(Q)
150 Ethyl tert-butyl ether	59	9.143	9.143	(0.861)	53909	2.00000	1.9(Q)
28 Propionitrile	54	9.399	9.393	(0.885)	14272	10.0000	9.6
26 Ethyl acetate	43	9.339	9.338	(0.879)	101198	10.0000	9.5
27 Methacrylonitrile	41	9.576	9.576	(0.902)	58281	10.0000	9.4(Q)
72 Tetrahydrofuran	42	9.723	9.716	(0.601)	31630	10.0000	9.5
19 Isobutyl alcohol	41	10.009	10.009	(0.943)	41265	100.000	91.0(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
151 Methyl tert-amyl ether	73	10.387	10.387	(0.978)	42274	2.00000	1.9(Q)
42 Methyl methacrylate	69	11.210	11.210	(1.056)	48807	10.0000	9.7(Q)
97 1,4-Dioxane	88	11.338	11.332	(1.068)	8525	100.000	88.5(Q)
48 2-Nitropropane	43	11.673	11.673	(1.099)	22083	10.0000	8.4(Q)
51 Ethyl methacrylate	69	12.466	12.466	(0.905)	93763	10.0000	10.2(Q)
152 1-Chlorohexane	55	13.661	13.661	(1.286)	15163	2.00000	1.8(Q)
68 cis-1,4-Dichloro-2-butene	53	14.783	14.782	(0.914)	30580	10.0000	9.2(Q)
70 Cyclohexanone	42	14.905	14.904	(1.082)	34254	50.0000	50.0(Q)
69 trans-1,4-Dichloro-2-butene	53	15.063	15.063	(0.931)	29025	10.0000	9.3(Q)
82 Pentachloroethane	167	15.770	15.770	(0.975)	34036	10.0000	8.2(Q)
88 Benzyl chloride	91	16.319	16.319	(1.009)	138624	10.0000	9.9
91 bis(2-Chloroisopropyl)ether	45	16.721	16.721	(1.034)	51278	10.0000	9.3
* 40 Fluorobenzene	96	10.619	10.619	(1.000)	1358184	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.770	(1.000)	988371	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.178	(1.000)	601003	50.0000	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA4.i/121909v4/4p614.d
Date : 20-DEC-2009 00:44
Client ID: VSTD010S
Sample Info: IW4VH091219-11|VSTD010S||1|VOAF1||
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

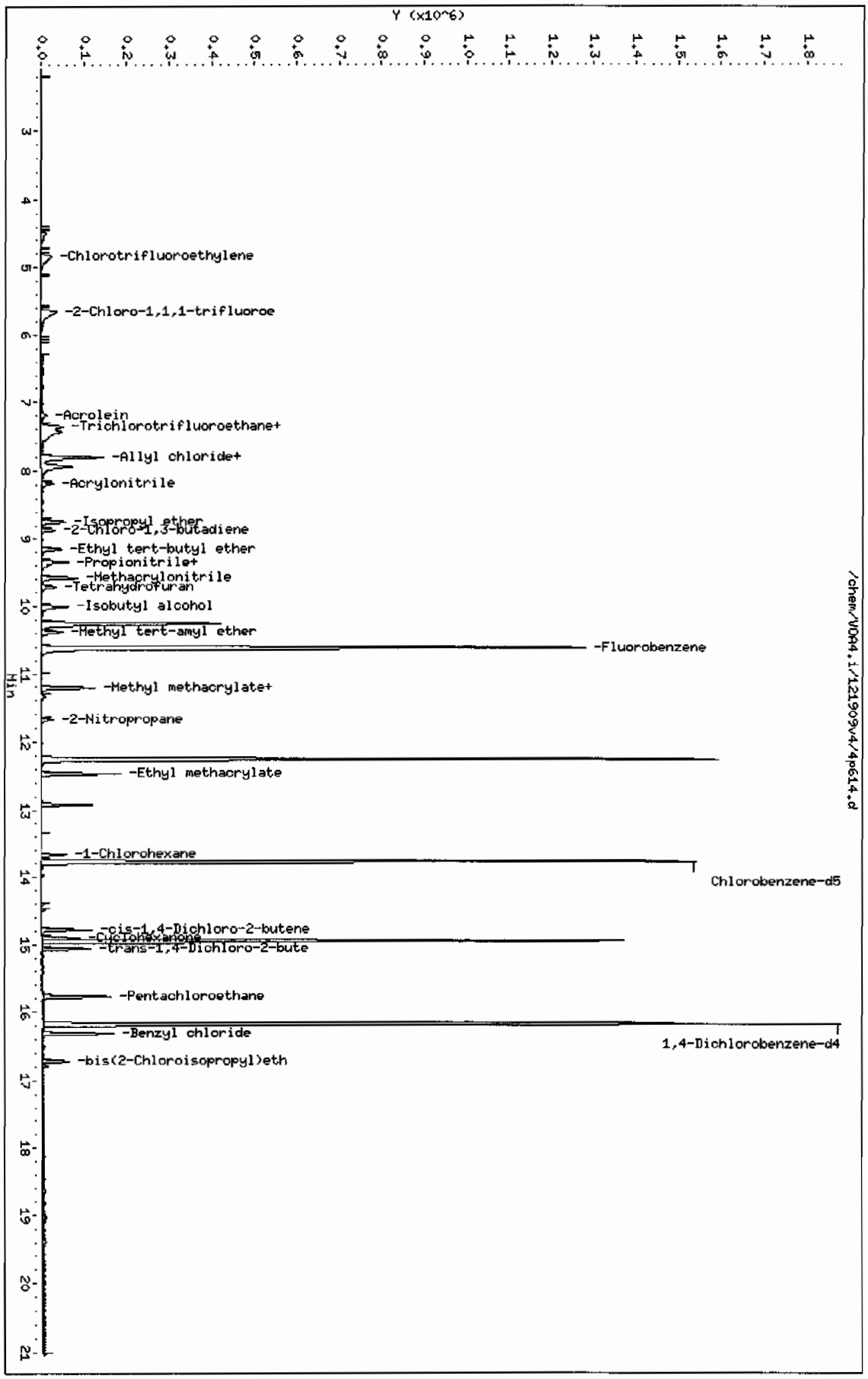

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GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/121909v4/4p615.d
Lab Smp Id: W4VM091219-12 Client Smp ID: VSTD025S
Inj Date : 20-DEC-2009 01:12
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM091219-12|VSTD025S|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091216-03/UVM091110-03D
Comment :
Method : /chem/VOA4.i/121909v4/VOA4-8260-121909.m
Meth Date : 20-Dec-2009 11:14 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 01:12 Cal File: 4p615.d
Als bottle: 15 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALsubS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
153 Chlorotrifluoroethylene	116	4.826	4.833	(0.454)	118668	25.0000	23.6(Q)
154 2-Chloro-1,1,1-trifluoroethane	118	5.657	5.657	(0.533)	189530	25.0000	24.5(Q)
9 Acrolein	56	7.186	7.180	(0.677)	41439	25.0000	25.7(Q)
12 Trichlorotrifluoroethane	85	7.363	7.363	(0.693)	68515	25.0000	25.0(Q)
147 Isopropyl Alcohol	45	7.436	7.436	(0.700)	214123	250.000	263
16 Allyl chloride	41	7.802	7.802	(0.735)	390736	25.0000	25.2(Q)
148 tert-butyl alcohol	59	7.930	7.930	(0.747)	301224	250.000	268(Q)
18 Acrylonitrile	53	8.180	8.174	(0.770)	93882	25.0000	26.0(Q)
149 Isopropyl ether	45	8.741	8.741	(0.823)	169899	5.00000	5.0(Q)
24 2-Chloro-1,3-butadiene	53	8.875	8.869	(0.836)	64667	5.00000	5.1(Q)
150 Ethyl tert-butyl ether	59	9.149	9.143	(0.862)	140632	5.00000	5.0(Q)
28 Propionitrile	54	9.393	9.393	(0.885)	36570	25.0000	24.7
26 Ethyl acetate	43	9.345	9.338	(0.880)	272216	25.0000	25.4
27 Methacrylonitrile	41	9.576	9.576	(0.902)	161254	25.0000	25.7(Q)
72 Tetrahydrofuran	42	9.716	9.716	(0.601)	87622	25.0000	25.4(Q)
19 Isobutyl alcohol	41	10.009	10.009	(0.943)	118411	250.000	258(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
151 Methyl tert-amyl ether	73	10.387	10.387	(0.978)	114471	5.00000	5.1(Q)
42 Methyl methacrylate	69	11.210	11.210	(1.056)	136959	25.0000	26.6(Q)
97 1,4-Dioxane	88	11.332	11.332	(1.067)	22914	250.000	241(Q)
48 2-Nitropropane	43	11.673	11.673	(1.099)	64243	25.0000	24.6(Q)
51 Ethyl methacrylate	69	12.466	12.466	(0.905)	264225	25.0000	27.6(Q)
152 1-Chlorohexane	55	13.667	13.661	(1.287)	41926	5.00000	5.1(Q)
68 cis-1,4-Dichloro-2-butene	53	14.782	14.782	(0.914)	88830	25.0000	25.8(Q)
70 Cyclohexanone	42	14.904	14.904	(1.082)	111308	125.000	126(Q)
69 trans-1,4-Dichloro-2-butene	53	15.069	15.063	(0.931)	84083	25.0000	25.8(Q)
82 Pentachloroethane	167	15.770	15.770	(0.975)	121271	25.0000	27.5(Q)
88 Benzyl chloride	91	16.319	16.319	(1.009)	412231	25.0000	27.6
91 bis(2-Chloroisopropyl)ether	45	16.721	16.721	(1.034)	150495	25.0000	26.3
* 40 Fluorobenzene	96	10.619	10.619	(1.000)	1355818	50.0000	
* 61 Chlorobenzene-d5	117	13.770	13.770	(1.000)	994596	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.178	(1.000)	617006	50.0000	

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA4.i/121909v4/4p615.d
Date : 20-DEC-2009 01:12
Client ID: VSTD025S
Sample Info: IW4VH091219-121VSTD025S|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

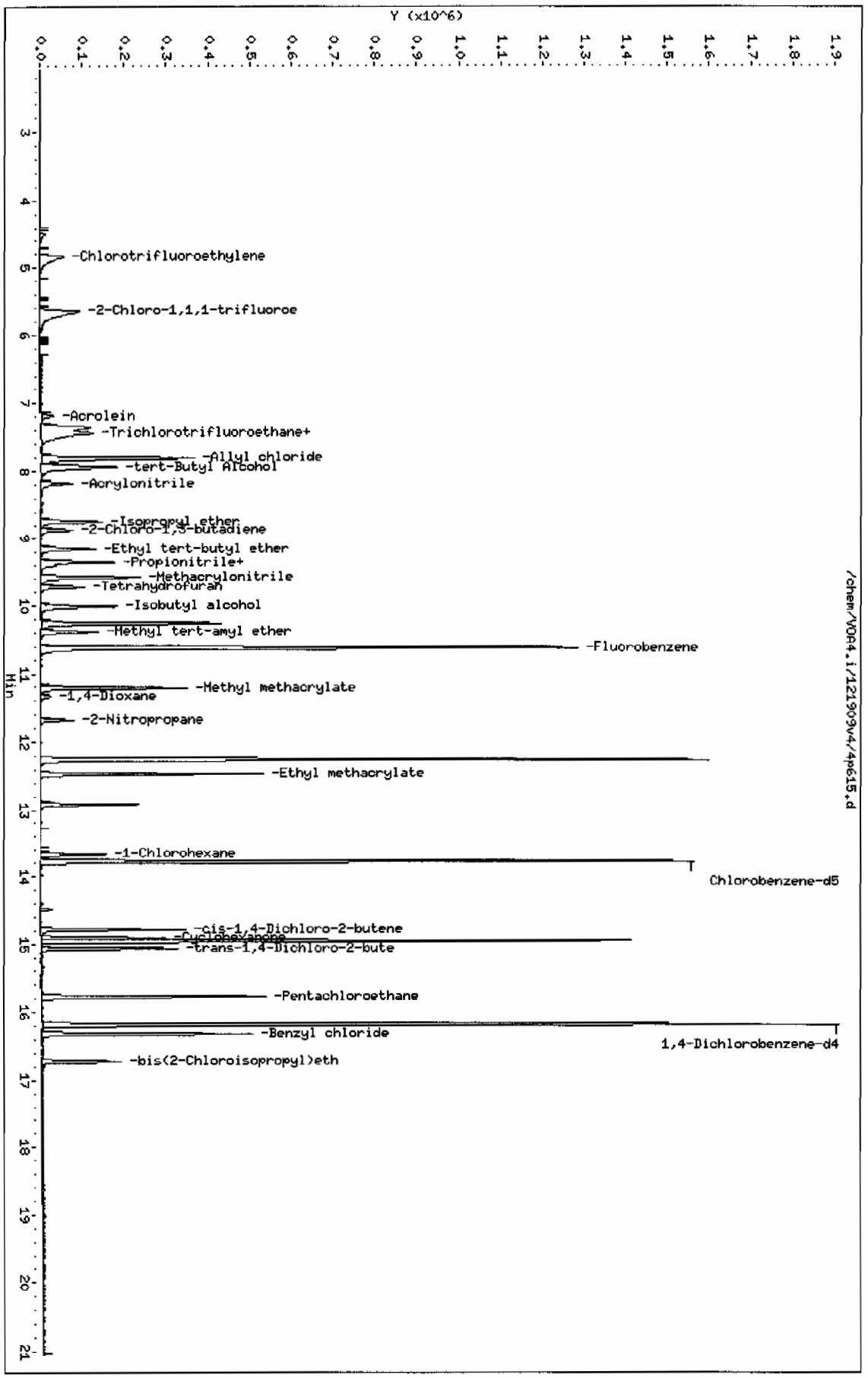

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/121909v4/4p616.d
Lab Smp Id: W4VM091219-13 Client Smp ID: VSTD050S
Inj Date : 20-DEC-2009 01:39
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM091219-13|VSTD050S|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091216-04/UVM091110-04D
Comment :
Method : /chem/VOA4.i/121909v4/VOA4-8260-121909.m
Meth Date : 20-Dec-2009 11:14 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 01:39 Cal File: 4p616.d
Als bottle: 16 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALsubS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
153 Chlorotrifluoroethylene	116	4.833	4.833	(0.455)	285268	50.0000	54.7(Q)
154 2-Chloro-1,1,1-trifluoroethane	118	5.657	5.657	(0.533)	392702	50.0000	50.2(Q)
9 Acrolein	56	7.180	7.180	(0.676)	81124	50.0000	49.8(Q)
12 Trichlorotrifluoroethane	85	7.357	7.363	(0.693)	128558	50.0000	47.0(Q)
147 Isopropyl Alcohol	45	7.436	7.436	(0.700)	416980	500.000	505
16 Allyl chloride	41	7.802	7.802	(0.735)	785892	50.0000	50.0(Q)
148 tert-butyl alcohol	59	7.930	7.930	(0.747)	579318	500.000	508(Q)
18 Acrylonitrile	53	8.180	8.174	(0.770)	176264	50.0000	48.6(Q)
149 Isopropyl ether	45	8.747	8.741	(0.824)	357619	10.0000	10.2(Q)
24 2-Chloro-1,3-butadiene	53	8.869	8.869	(0.835)	125738	10.0000	9.8(Q)
150 Ethyl tert-butyl ether	59	9.143	9.143	(0.861)	292961	10.0000	10.3(Q)
28 Propionitrile	54	9.393	9.393	(0.885)	72705	50.0000	48.8
26 Ethyl acetate	43	9.344	9.338	(0.880)	518168	50.0000	48.2
27 Methacrylonitrile	41	9.576	9.576	(0.902)	314159	50.0000	49.6(Q)
72 Tetrahydrofuran	42	9.716	9.716	(0.601)	161067	50.0000	47.3(Q)
19 Isobutyl alcohol	41	10.009	10.009	(0.943)	225109	500.000	488(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
151 Methyl tert-amyl ether	73	10.387	10.387	(0.978)	233847	10.0000	10.3(Q)
42 Methyl methacrylate	69	11.210	11.210	(1.056)	266745	50.0000	51.0(Q)
97 1,4-Dioxane	88	11.332	11.332	(1.067)	46478	500.000	486(Q)
48 2-Nitropropane	43	11.673	11.673	(1.099)	133802	50.0000	50.6(Q)
51 Ethyl methacrylate	69	12.466	12.466	(0.905)	525249	50.0000	53.4(Q)
152 1-Chlorohexane	55	13.667	13.661	(1.287)	88333	10.0000	10.5(Q)
68 cis-1,4-Dichloro-2-butene	53	14.782	14.782	(0.914)	178646	50.0000	51.5(Q)
70 Cyclohexanone	42	14.904	14.904	(1.082)	230705	250.000	250(Q)
69 trans-1,4-Dichloro-2-butene	53	15.063	15.063	(0.931)	167971	50.0000	51.3(Q)
82 Pentachloroethane	167	15.770	15.770	(0.975)	222084	50.0000	50.2(Q)
88 Benzyl chloride	91	16.319	16.319	(1.009)	809649	50.0000	53.3
91 bis(2-Chloroisopropyl)ether	45	16.721	16.721	(1.034)	293078	50.0000	50.9
* 40 Fluorobenzene	96	10.619	10.619	(1.000)	1372334	50.0000	
* 61 Chlorobenzene-d5	117	13.770	13.770	(1.000)	1005586	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.178	16.178	(1.000)	617376	50.0000	

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA4.i/121909v4/4p616.d
Date : 20-DEC-2009 01:39
Client ID: VSTD050S
Sample Info: IW4WW091219-13|VSTD050S|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

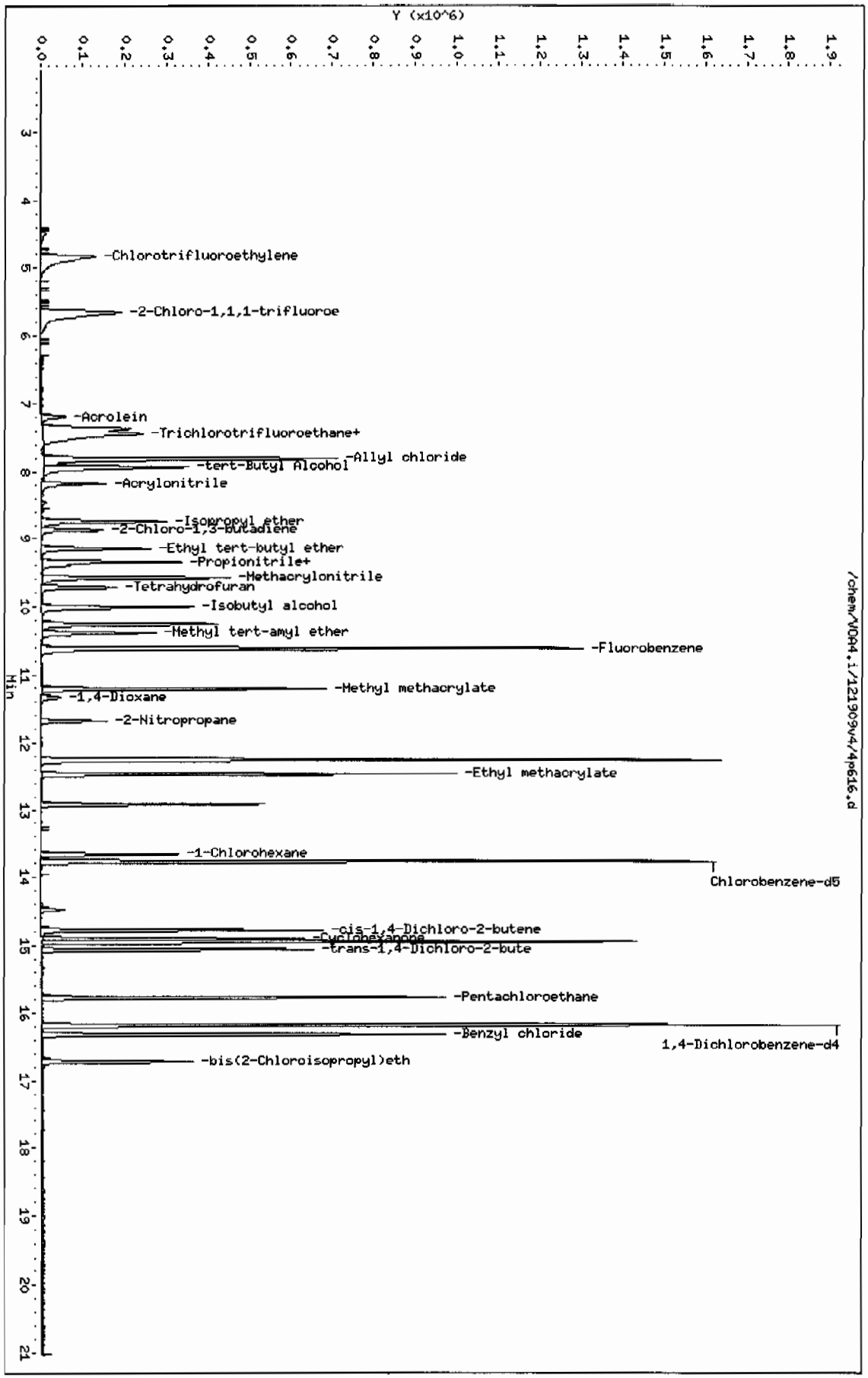

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/121909v4/4p617.d
Lab Smp Id: W4VM091219-14 Client Smp ID: VSTD100S
Inj Date : 20-DEC-2009 02:06
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM091219-14|VSTD100S|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091216-05/UVM091110-05D
Comment :
Method : /chem/VOA4.i/121909v4/VOA4-8260-121909.m
Meth Date : 20-Dec-2009 11:14 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:06 Cal File: 4p617.d
Als bottle: 17 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALsubS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
153 Chlorotrifluoroethylene	116	4.833	4.833	(0.455)	545163	100.000	105(Q)
154 2-Chloro-1,1,1-trifluoroethane	118	5.657	5.657	(0.533)	763859	100.000	99.5(Q)
9 Acrolein	56	7.187	7.180	(0.677)	161666	100.000	101(Q)
12 Trichlorotrifluoroethane	85	7.358	7.363	(0.693)	252634	100.000	94.9(Q)
147 Isopropyl Alcohol	45	7.437	7.436	(0.700)	800590	1000.00	989
16 Allyl chloride	41	7.803	7.802	(0.735)	1559213	100.000	101(Q)
148 tert-butyl alcohol	59	7.931	7.930	(0.747)	1107928	1000.00	990
18 Acrylonitrile	53	8.181	8.174	(0.770)	344280	100.000	97.1(Q)
149 Isopropyl ether	45	8.742	8.741	(0.823)	694997	20.0000	20.2(Q)
24 2-Chloro-1,3-butadiene	53	8.870	8.869	(0.835)	257527	20.0000	20.4(Q)
150 Ethyl tert-butyl ether	59	9.144	9.143	(0.861)	569799	20.0000	20.3(Q)
28 Propionitrile	54	9.394	9.393	(0.885)	137512	100.000	95.0
26 Ethyl acetate	43	9.339	9.338	(0.879)	976930	100.000	93.8
27 Methacrylonitrile	41	9.577	9.576	(0.902)	605169	100.000	97.7(Q)
72 Tetrahydrofuran	42	9.717	9.716	(0.601)	316819	100.000	93.2(Q)
19 Isobutyl alcohol	41	10.010	10.009	(0.943)	437346	1000.00	972(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
151 Methyl tert-amyl ether	73	10.388	10.387	(0.978)	448925	20.0000	20.1(Q)
42 Methyl methacrylate	69	11.205	11.210	(1.055)	530566	100.000	103(Q)
97 1,4-Dioxane	88	11.327	11.332	(1.067)	86589	1000.00	935(Q)
48 2-Nitropropane	43	11.674	11.673	(1.099)	268940	100.000	103(Q)
51 Ethyl methacrylate	69	12.461	12.466	(0.905)	1008339	100.000	103(Q)
152 1-Chlorohexane	55	13.662	13.661	(1.286)	172605	20.0000	20.7(Q)
68 cis-1,4-Dichloro-2-butene	53	14.783	14.782	(0.914)	350154	100.000	99.8(Q)
70 Cyclohexanone	42	14.905	14.904	(1.082)	480484	500.000	503(Q)
69 trans-1,4-Dichloro-2-butene	53	15.064	15.063	(0.931)	338214	100.000	102(Q)
82 Pentachloroethane	167	15.771	15.770	(0.975)	443372	100.000	99.3(Q)
88 Benzyl chloride	91	16.320	16.319	(1.009)	1629536	100.000	105
91 bis(2-Chloroisopropyl)ether	45	16.722	16.721	(1.034)	594324	100.000	102
* 40 Fluorobenzene	96	10.620	10.619	(1.000)	1347760	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.770	(1.000)	993054	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.178	(1.000)	624589	50.0000	

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA4.i/121909v4/4p617.d
Date : 20-DEC-2009 02:06
Client ID: VSTD100S
Sample Info: IW4VM091219-141VSTD100S1:1VOAF1:1
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

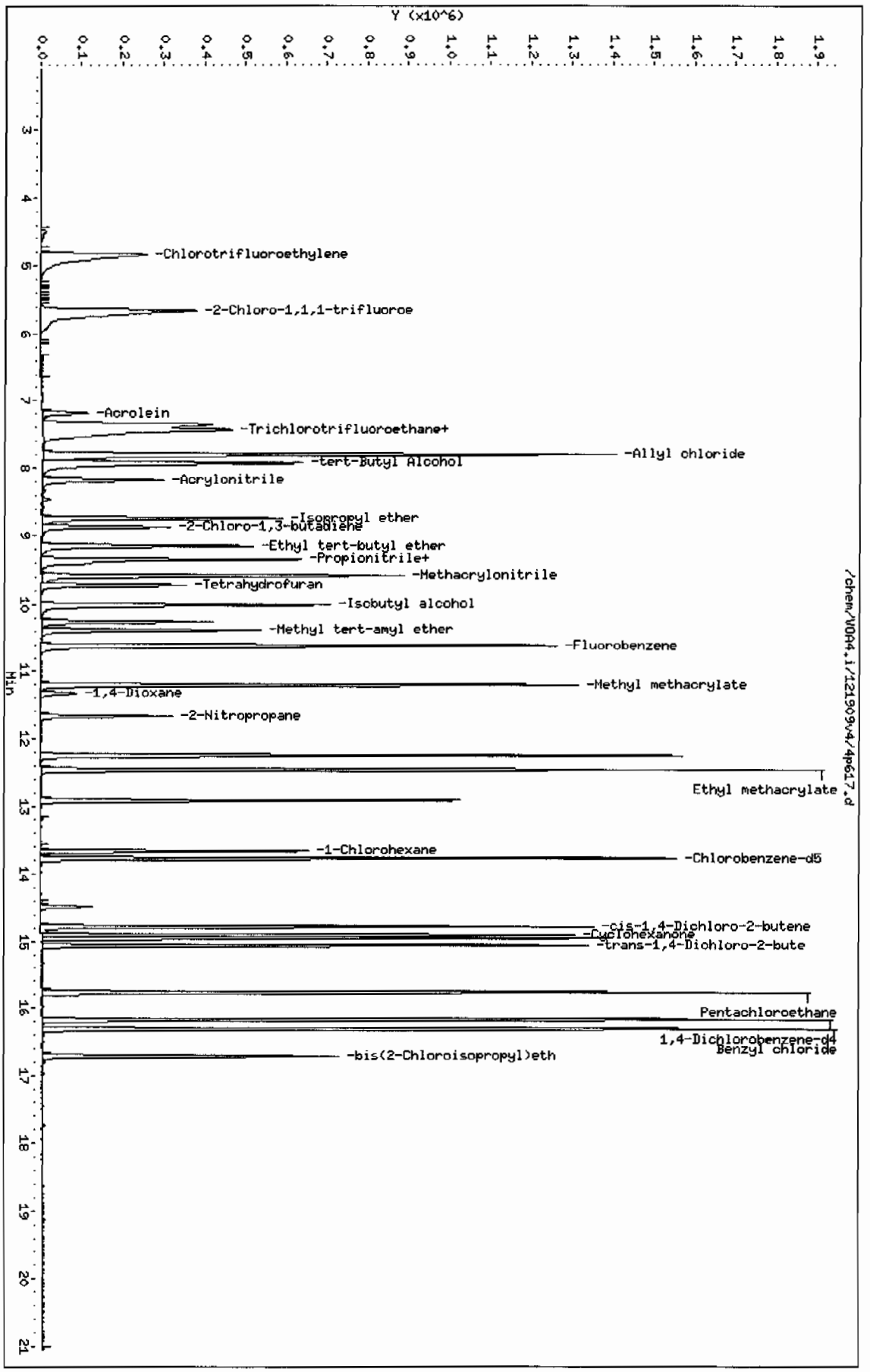

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/121909v4/4p618.d
Lab Smp Id: W4VM091219-15 Client Smp ID: VSTD250S
Inj Date : 20-DEC-2009 02:33
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM091219-15|VSTD250S|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091216-06/UVM091110-06D
Comment :
Method : /chem/VOA4.i/121909v4/VOA4-8260-121909.m
Meth Date : 20-Dec-2009 11:14 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 18 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALsubS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
153 Chlorotrifluoroethylene	116	4.833	4.833	(0.455)	875015	150.000	163
154 2-Chloro-1,1,1-trifluoroethane	118	5.657	5.657	(0.533)	1273881	150.000	161
9 Acrolein	56	7.187	7.180	(0.677)	417304	250.000	255
12 Trichlorotrifluoroethane	85	7.358	7.363	(0.693)	621815	250.000	232
147 Isopropyl Alcohol	45	7.437	7.436	(0.700)	2218457	2500.00	2660
16 Allyl chloride	41	7.803	7.802	(0.735)	3747494	250.000	239
148 tert-butyl alcohol	59	7.931	7.930	(0.747)	3019248	2500.00	2620
18 Acrylonitrile	53	8.181	8.174	(0.770)	889894	250.000	247
149 Isopropyl ether	45	8.742	8.741	(0.823)	1833772	50.0000	52.0
24 2-Chloro-1,3-butadiene	53	8.870	8.869	(0.835)	646780	50.0000	50.2
150 Ethyl tert-butyl ether	59	9.144	9.143	(0.861)	1502797	50.0000	52.2
28 Propionitrile	54	9.394	9.393	(0.885)	353596	250.000	241
26 Ethyl acetate	43	9.339	9.338	(0.879)	2426699	250.000	231
27 Methacrylonitrile	41	9.577	9.576	(0.902)	1504867	250.000	240
72 Tetrahydrofuran	42	9.717	9.716	(0.601)	799171	250.000	228
19 Isobutyl alcohol	41	10.010	10.009	(0.943)	1103978	2500.00	2420

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
151 Methyl tert-amyl ether	73	10.388	10.387	(0.978)	1202157	50.0000	52.4
42 Methyl methacrylate	69	11.205	11.210	(1.055)	1328992	250.000	252
97 1,4-Dioxane	88	11.327	11.332	(1.067)	231724	2500.00	2460
48 2-Nitropropane	43	11.674	11.673	(1.099)	720791	250.000	267
51 Ethyl methacrylate	69	12.467	12.466	(0.905)	2401328	250.000	236
152 1-Chlorohexane	55	13.662	13.661	(1.286)	456463	50.0000	53.2
68 cis-1,4-Dichloro-2-butene	53	14.783	14.782	(0.914)	917757	250.000	250
70 Cyclohexanone	42	14.905	14.904	(1.082)	1305541	1250.00	1250
69 trans-1,4-Dichloro-2-butene	53	15.064	15.063	(0.931)	856290	250.000	246
82 Pentachloroethane	167	15.771	15.770	(0.975)	1190082	250.000	254
88 Benzyl chloride	91	16.320	16.319	(1.009)	3951524	250.000	244
91 bis(2-Chloroisopropyl)ether	45	16.722	16.721	(1.034)	1530266	250.000	250
* 40 Fluorobenzene	96	10.620	10.619	(1.000)	1374213	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.770	(1.000)	1044917	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.178	(1.000)	654819	50.0000	

Data File: /chem/VOA4.i/121909v4/4p618.d
Date : 20-DEC-2009 02:33
Client ID: VSTD250S
Sample Info: IW4VH091219-15|VSTD250S|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

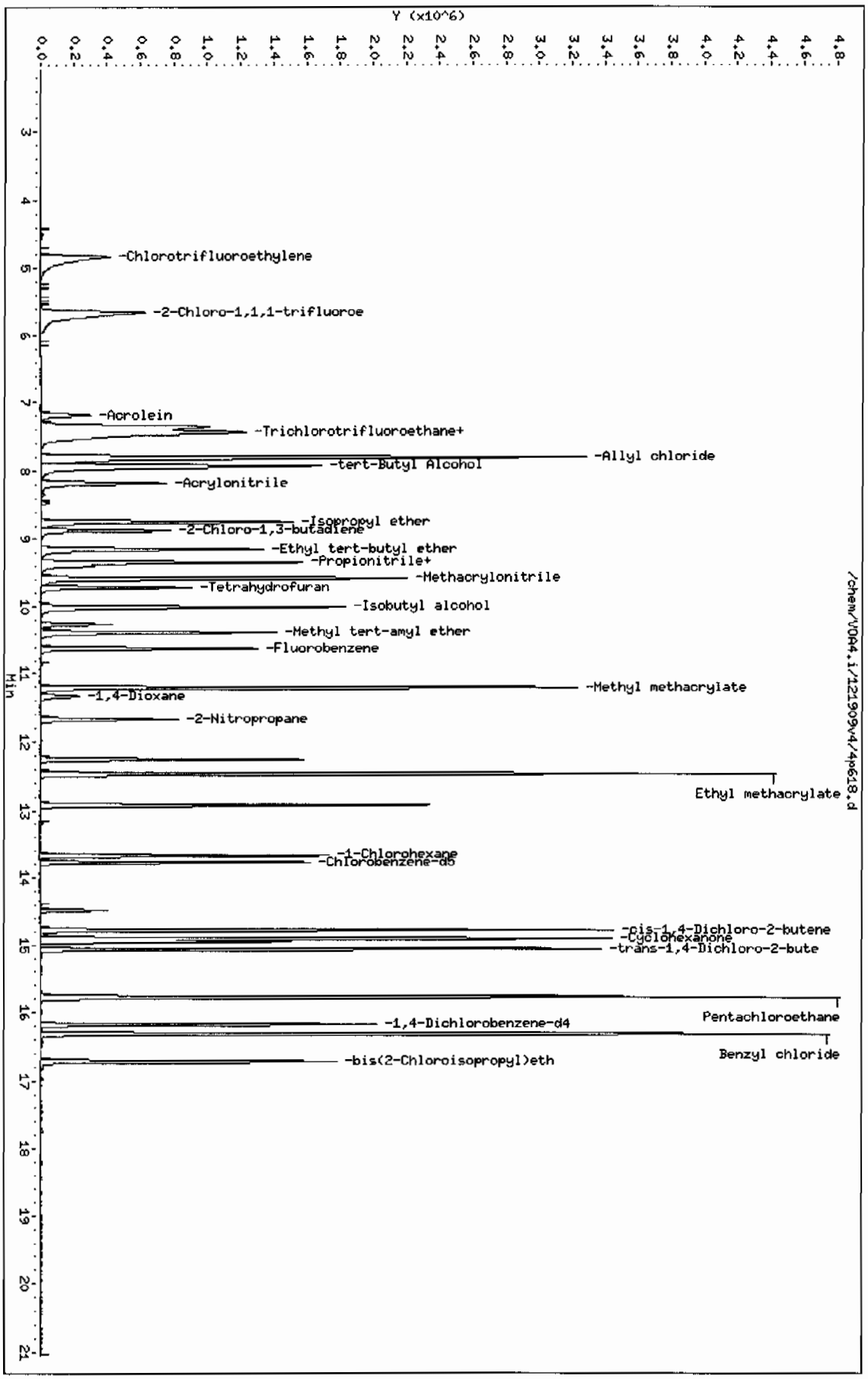

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VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/121909v4/4p619.d
Lab Smp Id: W4VM091219-16 Client Smp ID: VSTD500S
Inj Date : 20-DEC-2009 03:01
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM091219-16|VSTD500S|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091216-07/UVM091110-07D
Comment :
Method : /chem/VOA4.i/121909v4/VOA4-8260-121909.m
Meth Date : 20-Dec-2009 11:14 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 03:01 Cal File: 4p619.d
Als bottle: 19 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALsubS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
153 Chlorotrifluoroethylene	116	4.833	4.833	(0.455)	957683	200.000	177
154 2-Chloro-1,1,1-trifluoroethane	118	5.657	5.657	(0.533)	1560213	200.000	194
9 Acrolein	56	7.187	7.180	(0.677)	823544	500.000	496
12 Trichlorotrifluoroethane	85	7.364	7.363	(0.693)	1206889	500.000	444
147 Isopropyl Alcohol	45	7.437	7.436	(0.700)	4163058	5000.00	4930
16 Allyl chloride	41	7.803	7.802	(0.735)	6866172	500.000	433
148 tert-butyl alcohol	59	7.931	7.930	(0.747)	5643935	5000.00	4840(Q)
18 Acrylonitrile	53	8.175	8.174	(0.770)	1732398	500.000	474
149 Isopropyl ether	45	8.742	8.741	(0.823)	3413887	100.000	95.6
24 2-Chloro-1,3-butadiene	53	8.870	8.869	(0.835)	1309796	100.000	100(A)
150 Ethyl tert-butyl ether	59	9.144	9.143	(0.861)	2827328	100.000	97.0
28 Propionitrile	54	9.394	9.393	(0.885)	707070	500.000	476
26 Ethyl acetate	43	9.339	9.338	(0.879)	4468892	500.000	421
27 Methacrylonitrile	41	9.577	9.576	(0.902)	2768501	500.000	436
72 Tetrahydrofuran	42	9.717	9.716	(0.601)	1540107	500.000	430
19 Isobutyl alcohol	41	10.010	10.009	(0.943)	2062183	5000.00	4460

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
151 Methyl tert-amyl ether	73	10.388	10.387	(0.978)	2264053	100.000	97.4
42 Methyl methacrylate	69	11.205	11.210	(1.055)	2378513	500.000	445
97 1,4-Dioxane	88	11.327	11.332	(1.067)	452631	5000.00	4740
48 2-Nitropropane	43	11.674	11.673	(1.099)	1441536	500.000	528(A)
51 Ethyl methacrylate	69	12.461	12.466	(0.905)	4133551	500.000	402
152 1-Chlorohexane	55	13.662	13.661	(1.286)	867746	100.000	99.9
68 cis-1,4-Dichloro-2-butene	53	14.783	14.782	(0.914)	1762779	500.000	470
70 Cyclohexanone	42	14.905	14.904	(1.082)	3765257	2500.00	3550
69 trans-1,4-Dichloro-2-butene	53	15.064	15.063	(0.931)	1653998	500.000	466
82 Pentachloroethane	167	15.771	15.770	(0.975)	2195249	500.000	459
88 Benzyl chloride	91	16.320	16.319	(1.009)	6919148	500.000	419
91 bis(2-Chloroisopropyl)ether	45	16.722	16.721	(1.034)	2843454	500.000	455
* 40 Fluorobenzene	96	10.620	10.619	(1.000)	1391583	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.770	(1.000)	1055167	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.180	16.178	(1.000)	667557	50.0000	

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

Data File: /chem/VOA4.i/121909v4/4p619.d
Date : 20-DEC-2009 03:01
Client ID: VSTD500S
Sample Info: |W4VM091219-16|VSTD500S|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

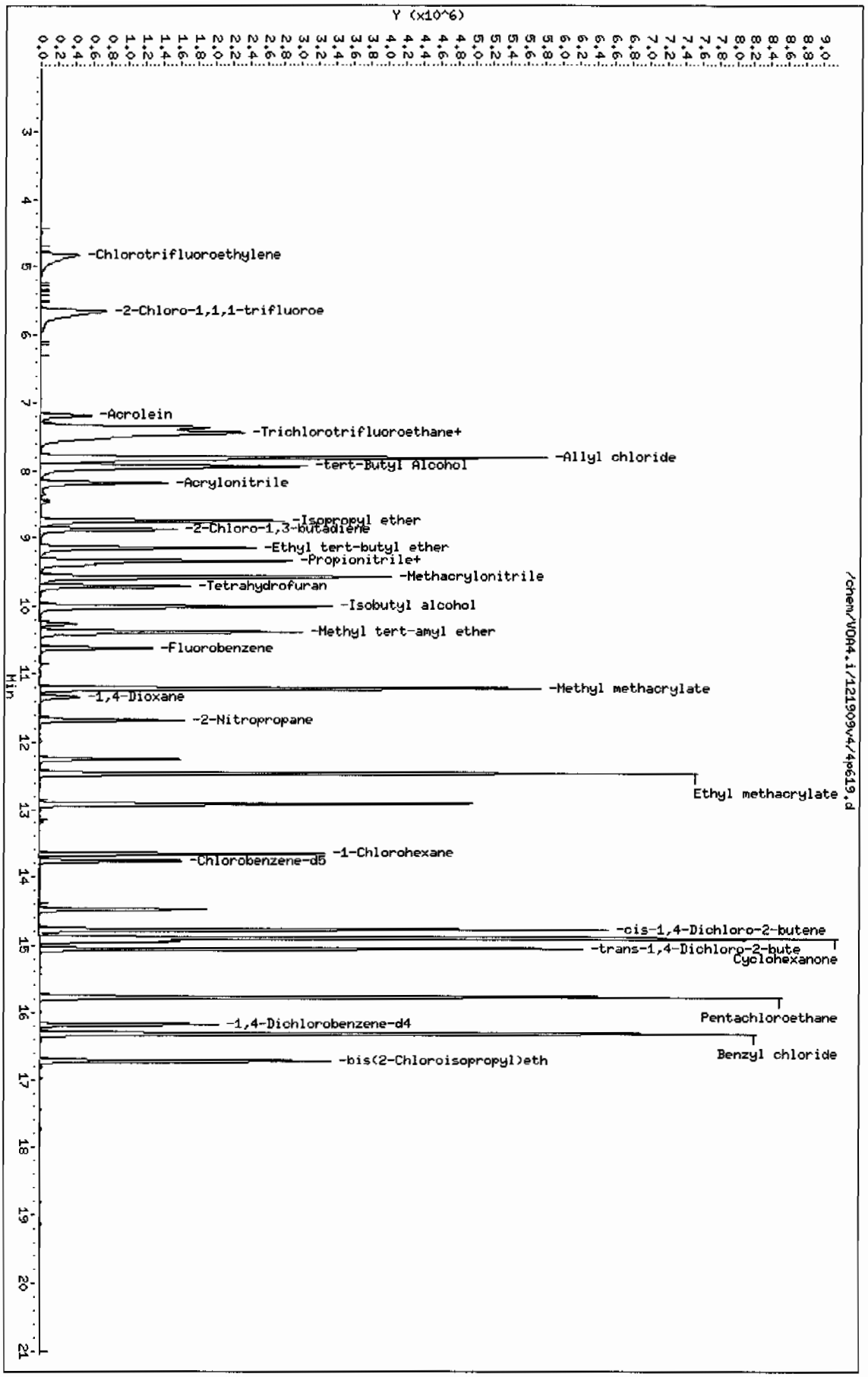

Page 1

Data File: /chem/VOA4.i/121909v4/4p621.d
Report Date: 21-Dec-2009 17:10

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 20-DEC-2009 03:55
Lab File ID: 4p621.d Init. Cal. Date(s): 19-DEC-2009 20-DEC-2009
Analysis Type: WATER Init. Cal. Times: 19:44 03:01
Lab Sample ID: W4VM091219-17 Quant Type: ISTD
Method: /chem/VOA4.i/121909v4/VOA4-8260-121909.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
M 1 Xylenes (total)	0.76573	0.68758	0.68758	0.050	-10.20563	30.00000	Averaged
M 2 1,2-Dichloroethylene (total	0.50471	0.45264	0.45264	0.050	-10.31622	30.00000	Averaged
M 135 1,3-Dichloropropylene	0.44446	0.43190	0.43190	0.050	-2.82734	30.00000	Averaged
3 Dichlorodifluoromethane	0.23885	0.20784	0.20784	0.050	-12.98240	30.00000	Averaged
4 Chloromethane	0.47229	0.41188	0.41188	0.100	-12.79055	30.00000	Averaged spcc
5 Vinyl chloride	0.35020	0.32641	0.32641	0.050	-6.79369	20.00000	Averaged ccc
6 Bromomethane	0.28074	0.25357	0.25357	0.050	-9.67634	30.00000	Averaged
7 Chloroethane	0.29018	0.26921	0.26921	0.050	-7.22655	30.00000	Averaged
8 Trichlorofluoromethane	0.40939	0.39162	0.39162	0.050	-4.34087	30.00000	Averaged
134 Ethyl Ether	0.28283	0.26280	0.26280	0.001	-7.08282	30.00000	Averaged
10 Acetone	0.31411	0.20629	0.20629	0.050	-34.32404	40.00000	Averaged
15 Acetonitrile	0.05876	0.05062	0.05062	0.010	-13.85146	30.00000	Averaged
11 1,1-Dichloroethylene	0.54650	0.46348	0.46348	0.050	-15.19163	20.00000	Averaged ccc
128 Methyl acetate	0.29024	0.25571	0.25571	0.010	-11.89842	40.00000	Averaged
13 Iodomethane	0.55868	0.51398	0.51398	0.050	-8.00095	30.00000	Averaged
17 Methylene chloride	47.66089	50.00000	0.33902	0.050	-4.67822	30.00000	Linear
14 Carbon disulfide	1.01030	0.89561	0.89561	0.050	-11.35179	30.00000	Averaged
20 tert-Butyl methyl ether	0.82427	0.75543	0.75543	0.050	-8.35123	30.00000	Averaged
21 trans-1,2-Dichloroethylene	0.48241	0.42742	0.42742	0.050	-11.39744	30.00000	Averaged
23 Vinyl acetate	0.72189	0.58860	0.58860	0.010	-18.46425	40.00000	Averaged
22 1,1-Dichloroethane	0.61608	0.53887	0.53887	0.100	-12.53213	30.00000	Averaged spcc
30 2-Butanone	0.35587	0.24574	0.24574	0.030	-30.94721	40.00000	Averaged
31 cis-1,2-Dichloroethylene	0.52700	0.47786	0.47786	0.050	-9.32576	30.00000	Averaged
25 2,2-Dichloropropane	0.28683	0.25760	0.25760	0.050	-10.19161	30.00000	Averaged
32 Chloroform	0.53358	0.48986	0.48986	0.010	-8.19333	20.00000	Averaged ccc
29 Bromochloromethane	0.16365	0.15405	0.15405	0.010	-5.86597	30.00000	Averaged
36 1,1,1-Trichloroethane	0.40783	0.38050	0.38050	0.010	-6.70119	30.00000	Averaged
129 Cyclohexane	0.55264	0.48600	0.48600	0.010	-12.05953	30.00000	Averaged
34 1,1-Dichloropropene	0.39037	0.35236	0.35236	0.010	-9.73796	30.00000	Averaged
131 n-Butyl alcohol	0.01124	0.01131	0.01131	0.001	0.61492	40.00000	Averaged
33 Carbon tetrachloride	0.38712	0.35709	0.35709	0.010	-7.75868	30.00000	Averaged
$ 138 1,2-Dichloroethane-d4	0.26051	0.26938	0.26938	0.001	3.40566	30.00000	Averaged
37 1,2-Dichloroethane	0.43414	0.39825	0.39825	0.010	-8.26694	30.00000	Averaged
38 Benzene	1.24035	1.09965	1.09965	0.010	-11.34293	30.00000	Averaged
139 Cyclohexene	0.59503	0.51686	0.51686	0.001	-13.13707	30.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i
Lab File ID: 4p621.d
Analysis Type: WATER
Lab Sample ID: W4VM091219-17
Method: /chem/VOA4.i/121909v4/VOA4-8260-121909.m

Injection Date: 20-DEC-2009 03:55
Init. Cal. Date(s): 19-DEC-2009 20-DEC-2009
Init. Cal. Times: 19:44 03:01
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	39 Trichloroethylene	0.30647	0.28336	0.28336	0.010	-7.53918	30.00000	Averaged	
	41 1,2-Dichloropropane	0.35477	0.31711	0.31711	0.010	-10.61528	20.00000	Averaged	ccc
	130 Methylcyclohexane	0.48043	0.43333	0.43333	0.010	-9.80389	30.00000	Averaged	
	45 Bromodichloromethane	0.38885	0.37390	0.37390	0.010	-3.84439	30.00000	Averaged	
	43 Dibromomethane	0.18537	0.17080	0.17080	0.010	-7.85991	30.00000	Averaged	
	44 2-Chloroethylvinyl ether	0.16253	0.15357	0.15357	0.005	-5.51265	30.00000	Averaged	
	49 4-Methyl-2-pentanone	0.19782	0.16772	0.16772	0.010	-15.21550	40.00000	Averaged	
	46 cis-1,3-Dichloropropylene	0.46758	0.45089	0.45089	0.010	-3.56995	30.00000	Averaged	
$	47 Toluene-d8	1.18414	1.14917	1.14917	0.010	-2.95342	30.00000	Averaged	
	50 Toluene	0.99158	0.85287	0.85287	0.010	-13.98874	20.00000	Averaged	ccc
	53 trans-1,3-Dichloropropylene	0.57001	0.53396	0.53396	0.010	-6.32479	30.00000	Averaged	
	54 1,1,2-Trichloroethane	0.31320	0.27416	0.27416	0.010	-12.46471	30.00000	Averaged	
	55 2-Hexanone	0.60850	0.41913	0.41913	0.010	-31.12078	40.00000	Averaged	
	52 1,3-Dichloropropane	0.61659	0.53490	0.53490	0.010	-13.24869	30.00000	Averaged	
	56 Tetrachloroethylene	0.37476	0.33007	0.33007	0.010	-11.92298	30.00000	Averaged	
	57 Dibromochloromethane	0.41230	0.40234	0.40234	0.010	-2.41536	30.00000	Averaged	
	59 1,2-Dibromoethane	0.37285	0.35467	0.35467	0.010	-4.87461	30.00000	Averaged	
	62 Chlorobenzene	1.15143	1.03259	1.03259	0.300	-10.32116	30.00000	Averaged	spcc
	60 1,1,1,2-Tetrachloroethane	0.42708	0.40885	0.40885	0.010	-4.26818	30.00000	Averaged	
	58 Ethylbenzene	1.95429	1.67701	1.67701	0.010	-14.18846	20.00000	Averaged	ccc
	63 m,p-Xylenes	0.75466	0.67392	0.67392	0.010	-10.69904	30.00000	Averaged	
	64 o-Xylene	0.78787	0.71491	0.71491	0.010	-9.26014	30.00000	Averaged	
	65 Styrene	1.18125	1.13110	1.13110	0.010	-4.24603	30.00000	Averaged	
	66 Bromoform	0.51977	0.54682	0.54682	0.100	5.20481	30.00000	Averaged	spcc
	67 Isopropylbenzene	3.27794	2.88972	2.88972	0.010	-11.84366	30.00000	Averaged	
	73 1,1,2,2-Tetrachloroethane	0.90007	0.79353	0.79353	0.300	-11.83713	30.00000	Averaged	spcc
$	71 Bromofluorobenzene	0.81190	0.82268	0.82268	0.010	1.32697	30.00000	Averaged	
	74 1,2,3-Trichloropropane	0.23093	0.21190	0.21190	0.010	-8.24181	30.00000	Averaged	
	75 Bromobenzene	0.97586	0.90705	0.90705	0.010	-7.05100	30.00000	Averaged	
	76 n-Propylbenzene	3.95669	3.37943	3.37943	0.010	-14.58946	30.00000	Averaged	
	77 2-Chlorotoluene	2.77809	2.39331	2.39331	0.010	-13.85038	30.00000	Averaged	
	78 1,3,5-Trimethylbenzene	2.92228	2.53397	2.53397	0.010	-13.28793	30.00000	Averaged	
	80 4-Chlorotoluene	2.55750	2.25535	2.25535	0.010	-11.81412	30.00000	Averaged	
	81 tert-Butylbenzene	2.86510	2.53962	2.53962	0.010	-11.36029	30.00000	Averaged	
	79 1,2,4-Trimethylbenzene	3.07202	2.68305	2.68305	0.010	-12.66176	30.00000	Averaged	
	83 sec-Butylbenzene	4.00210	3.42102	3.42102	0.010	-14.51925	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 20-DEC-2009 03:55
Lab File ID: 4p621.d Init. Cal. Date(s): 19-DEC-2009 20-DEC-2009
Analysis Type: WATER Init. Cal. Times: 19:44 03:01
Lab Sample ID: W4VM091219-17 Quant Type: ISTD
Method: /chem/VOA4.i/121909v4/VOA4-8260-121909.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
84 4-Isopropyltoluene	3.12524	2.70544	2.70544	0.010	-13.43270	30.00000	Averaged
85 1,3-Dichlorobenzene	1.92605	1.69424	1.69424	0.010	-12.03578	30.00000	Averaged
87 1,4-Dichlorobenzene	1.89963	1.69916	1.69916	0.010	-10.55333	30.00000	Averaged
89 n-Butylbenzene	3.01489	2.52049	2.52049	0.010	-16.39848	30.00000	Averaged
90 1,2-Dichlorobenzene	1.82245	1.63120	1.63120	0.010	-10.49383	30.00000	Averaged
92 1,2-Dibromo-3-chloropropane	0.15074	0.15187	0.15187	0.010	0.75081	30.00000	Averaged
93 1,2,4-Trichlorobenzene	0.98902	0.93471	0.93471	0.010	-5.49186	30.00000	Averaged
94 Hexachlorobutadiene	0.74898	0.64331	0.64331	0.010	-14.10922	30.00000	Averaged
95 Naphthalene	1.62110	1.58914	1.58914	0.010	-1.97170	30.00000	Averaged
96 1,2,3-Trichlorobenzene	0.79036	0.76577	0.76577	0.010	-3.11097	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 10.04973
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/121909v4/4p621.d
Lab Smp Id: W4VM091219-17 Client Smp ID: SECOND SOURCE
Inj Date : 20-DEC-2009 03:55
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM091219-17|CCV/LCS|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091214-01A/IVM091217-01
Comment :
Method : /chem/VOA4.i/121909v4/VOA4-8260-121909.m
Meth Date : 21-Dec-2009 17:10 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
M 1 Xylenes (total)	106				2199670	150.000	135
M 2 1,2-Dichloroethylene (total)	96				1248409	100.000	89.6
M 135 1,3-Dichloropropylene	75				1191196	100.000	97.2
3 Dichlorodifluoromethane	85	4.912	4.912	(0.463)	286617	50.0000	43.5
4 Chloromethane	50	5.299	5.299	(0.499)	567995	50.0000	43.6
5 Vinyl chloride	62	5.528	5.528	(0.521)	450123	50.0000	46.6
6 Bromomethane	94	6.138	6.138	(0.578)	349682	50.0000	45.2
7 Chloroethane	64	6.295	6.295	(0.593)	371247	50.0000	46.4
8 Trichlorofluoromethane	101	6.662	6.662	(0.627)	540056	50.0000	47.8
134 Ethyl Ether	59	6.997	6.997	(0.659)	362410	50.0000	46.4
10 Acetone	43	7.357	7.357	(0.693)	1422434	250.000	164
15 Acetonitrile	41	7.705	7.705	(0.726)	1745314	1250.00	1080
11 1,1-Dichloroethylene	61	7.394	7.394	(0.696)	639153	50.0000	42.4
128 Methyl acetate	43	7.747	7.747	(0.730)	1763154	250.000	220
13 Iodomethane	142	7.631	7.631	(0.719)	3543953	250.000	230

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
17 Methylene chloride	84	7.942	7.942	(0.748)	467516	50.0000	47.7
14 Carbon disulfide	76	7.778	7.778	(0.732)	6175388	250.000	222
20 tert-Butyl methyl ether	73	8.241	8.241	(0.776)	1041760	50.0000	45.8
21 trans-1,2-Dichloroethylene	61	8.284	8.284	(0.780)	589432	50.0000	44.3
23 Vinyl acetate	43	8.710	8.710	(0.820)	4058456	250.000	204
22 1,1-Dichloroethane	63	8.759	8.759	(0.825)	743119	50.0000	43.7
30 2-Butanone	43	9.326	9.326	(0.878)	1694403	250.000	173
31 cis-1,2-Dichloroethylene	61	9.387	9.387	(0.884)	658977	50.0000	45.3
25 2,2-Dichloropropane	77	9.424	9.424	(0.887)	355236	50.0000	44.9
32 Chloroform	83	9.692	9.692	(0.913)	675530	50.0000	45.9
29 Bromochloromethane	128	9.661	9.661	(0.910)	212441	50.0000	47.1
36 1,1,1-Trichloroethane	97	9.979	9.979	(0.940)	524725	50.0000	46.6
129 Cyclohexane	56	10.082	10.082	(0.949)	670205	50.0000	44.0
34 1,1-Dichloropropene	75	10.137	10.137	(0.955)	485909	50.0000	45.1
131 n-Butyl alcohol	56	10.692	10.692	(1.007)	1559013	5000.00	5030
33 Carbon tetrachloride	117	10.174	10.174	(0.958)	492437	50.0000	46.1
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	371483	50.0000	51.7
37 1,2-Dichloroethane	62	10.338	10.338	(0.974)	549205	50.0000	45.9
38 Benzene	78	10.375	10.375	(0.977)	1516458	50.0000	44.3
139 Cyclohexene	67	10.497	10.497	(0.989)	712763	50.0000	43.4
* 40 Fluorobenzene	96	10.619	10.619	(1.000)	1379031	50.0000	
39 Trichloroethylene	95	11.003	11.003	(1.036)	390767	50.0000	46.2
41 1,2-Dichloropropane	63	11.240	11.240	(1.059)	437301	50.0000	44.7
130 Methylcyclohexane	83	11.265	11.265	(1.061)	597575	50.0000	45.1
45 Bromodichloromethane	83	11.484	11.484	(1.082)	515626	50.0000	48.1
43 Dibromomethane	93	11.375	11.375	(1.071)	235534	50.0000	46.1
44 2-Chloroethylvinyl ether	63	11.698	11.698	(1.102)	1058913	250.000	236
49 4-Methyl-2-pentanone	58	12.021	12.021	(0.873)	894280	250.000	212
46 cis-1,3-Dichloropropylene	75	11.929	11.929	(1.123)	621792	50.0000	48.2
$ 47 Toluene-d8	98	12.252	12.252	(0.890)	1225446	50.0000	48.5
50 Toluene	92	12.326	12.326	(0.895)	909483	50.0000	43.0
53 trans-1,3-Dichloropropylene	75	12.466	12.466	(0.905)	569404	50.0000	46.8
54 1,1,2-Trichloroethane	83	12.685	12.685	(0.921)	292354	50.0000	43.8
55 2-Hexanone	43	12.856	12.856	(0.934)	2234761	250.000	172
52 1,3-Dichloropropane	76	12.880	12.880	(0.935)	570408	50.0000	43.4
56 Tetrachloroethylene	164	12.923	12.923	(0.938)	351982	50.0000	44.0
57 Dibromochloromethane	129	13.149	13.149	(0.955)	429048	50.0000	48.8
59 1,2-Dibromoethane	107	13.319	13.319	(0.967)	378212	50.0000	47.6
* 61 Chlorobenzene-d5	117	13.770	13.770	(1.000)	1066376	50.0000	
62 Chlorobenzene	112	13.801	13.801	(1.002)	1101127	50.0000	44.8
60 1,1,1,2-Tetrachloroethane	131	13.850	13.850	(1.006)	435987	50.0000	47.9
58 Ethylbenzene	91	13.862	13.862	(1.007)	1788320	50.0000	42.9
63 m,p-Xylenes	106	13.972	13.972	(1.015)	1437307	100.000	89.3
64 o-Xylene	106	14.404	14.404	(1.046)	762363	50.0000	45.4
65 Styrene	104	14.404	14.404	(1.046)	1206176	50.0000	47.9
66 Bromoform	173	14.661	14.661	(0.906)	374884	50.0000	52.6
67 Isopropylbenzene	105	14.758	14.758	(0.912)	1981097	50.0000	44.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
73 1,1,2,2-Tetrachloroethane	83	15.020	15.020	(0.928)	544016	50.0000	44.1
$ 71 Bromofluorobenzene	95	14.953	14.953	(0.924)	564000	50.0000	50.7
74 1,2,3-Trichloropropane	110	15.112	15.112	(0.934)	145273	50.0000	45.9
75 Bromobenzene	156	15.167	15.167	(0.937)	621845	50.0000	46.5
76 n-Propylbenzene	91	15.185	15.185	(0.939)	2316829	50.0000	42.7
77 2-Chlorotoluene	91	15.331	15.331	(0.948)	1640777	50.0000	43.1
78 1,3,5-Trimethylbenzene	105	15.331	15.331	(0.948)	1737211	50.0000	43.4
80 4-Chlorotoluene	91	15.429	15.429	(0.954)	1546197	50.0000	44.1
81 tert-Butylbenzene	119	15.703	15.703	(0.971)	1741081	50.0000	44.3
79 1,2,4-Trimethylbenzene	105	15.746	15.746	(0.973)	1839412	50.0000	43.7
83 sec-Butylbenzene	105	15.929	15.929	(0.985)	2345344	50.0000	42.7
84 4-Isopropyltoluene	119	16.050	16.050	(0.992)	1854760	50.0000	43.3
85 1,3-Dichlorobenzene	146	16.124	16.124	(0.997)	1161514	50.0000	44.0
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.179	(1.000)	685568	50.0000	
87 1,4-Dichlorobenzene	146	16.209	16.209	(1.002)	1164889	50.0000	44.7
89 n-Butylbenzene	91	16.502	16.502	(1.020)	1727968	50.0000	41.8
90 1,2-Dichlorobenzene	146	16.642	16.642	(1.029)	1118300	50.0000	44.8
92 1,2-Dibromo-3-chloropropane	157	17.532	17.532	(1.084)	104117	50.0000	50.4
93 1,2,4-Trichlorobenzene	180	18.629	18.629	(1.151)	640805	50.0000	47.2
94 Hexachlorobutadiene	225	18.818	18.818	(1.163)	441032	50.0000	42.9
95 Naphthalene	128	19.032	19.032	(1.176)	1089462	50.0000	49.0
96 1,2,3-Trichlorobenzene	180	19.391	19.391	(1.199)	524990	50.0000	48.4

Data File: /chem/VOA4.i/121909v4/4p621.d
Date : 20-DEC-2009 03:55
Client ID: SECOND SOURCE
Sample Info: IW4VH091219-17ICCV/LCS141VOAF141
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

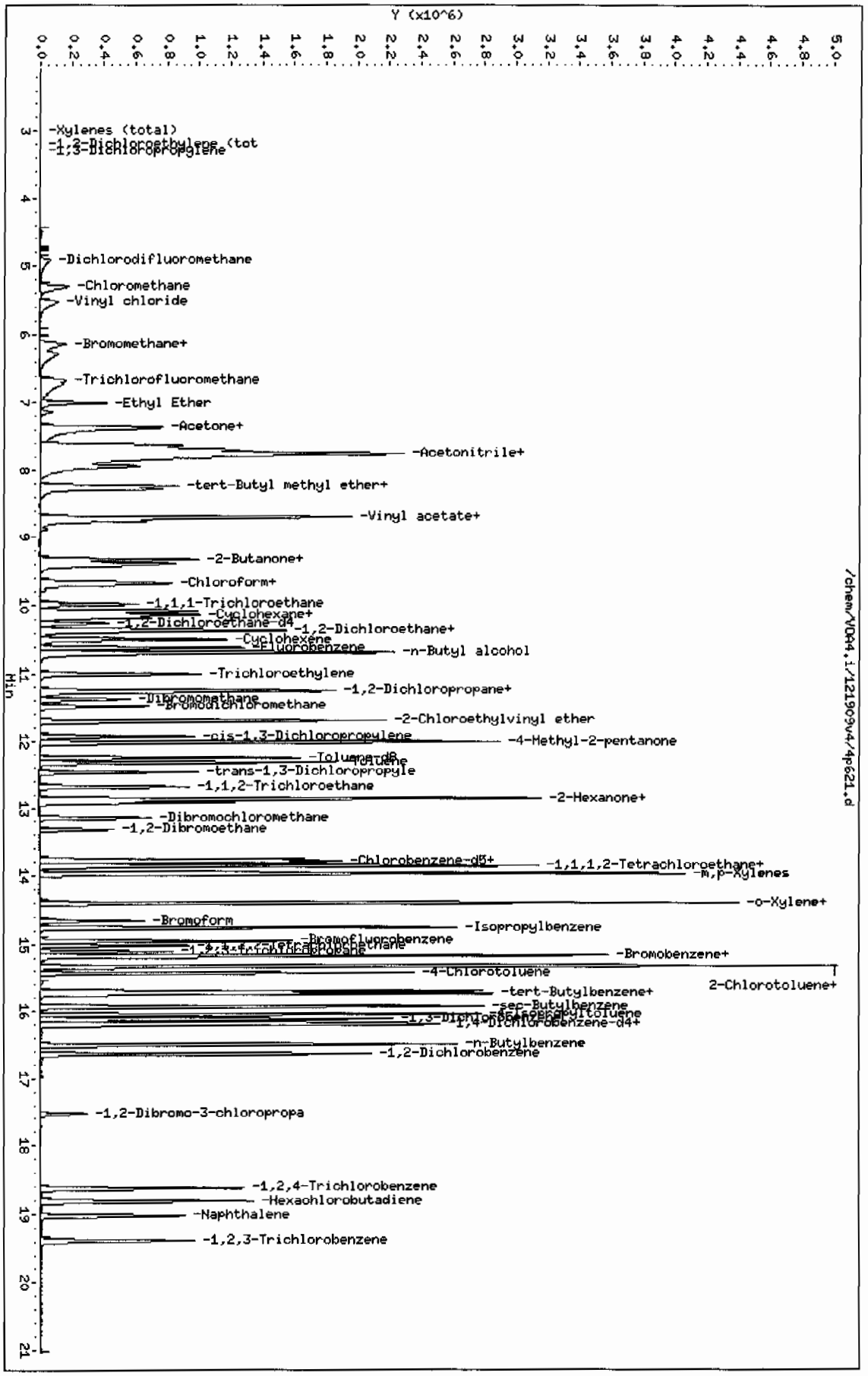

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 20-DEC-2009 04:22
Lab File ID: 4p622.d Init. Cal. Date(s): 19-DEC-2009 20-DEC-2009
Analysis Type: WATER Init. Cal. Times: 19:44 03:01
Lab Sample ID: W4VM091219-18 Quant Type: ISTD
Method: /chem/VOA4.i/121909v4/VOA4-8260-121909.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
153 Chlorotrifluoroethylene	0.19483	0.16841	0.16841	0.010	-13.56223	30.00000	Averaged
154 2-Chloro-1,1,1-trifluoroeth	0.28831	0.28177	0.28177	0.010	-2.26873	30.00000	Averaged
9 Acrolein	0.05963	0.06061	0.06061	0.001	1.64746	30.00000	Averaged
12 Trichlorotrifluoroethane	0.09755	0.10414	0.10414	0.050	6.75197	30.00000	Averaged
147 Isopropyl Alcohol	0.03035	0.02892	0.02892	0.010	-4.73081	40.00000	Averaged
16 Allyl chloride	0.56932	0.57211	0.57211	0.010	0.48999	30.00000	Averaged
148 tert-Butyl Alcohol	0.04186	0.03911	0.03911	0.010	-6.55569	40.00000	Averaged
18 Acrylonitrile	0.13121	0.13258	0.13258	0.010	1.04725	30.00000	Averaged
149 Isopropyl ether	1.28326	1.18626	1.18626	0.010	-7.55866	30.00000	Averaged
24 2-Chloro-1,3-butadiene	0.46861	0.52053	0.52053	0.010	11.07867	30.00000	Averaged
150 Ethyl tert-butyl ether	1.04700	0.97581	0.97581	0.010	-6.79953	30.00000	Averaged
28 Propionitrile	0.05337	0.05217	0.05217	0.010	-2.23649	30.00000	Averaged
26 Ethyl acetate	0.38171	0.34334	0.34334	0.010	-10.05319	40.00000	Averaged
27 Methacrylonitrile	0.22820	0.21903	0.21903	0.010	-4.01701	30.00000	Averaged
72 Tetrahydrofuran	0.26812	0.24794	0.24794	0.010	-7.52592	30.00000	Averaged
19 Isobutyl alcohol	0.01661	0.01527	0.01527	0.005	-8.03748	40.00000	Averaged
151 Methyl tert-amyl ether	0.83504	0.79501	0.79501	0.010	-4.79416	30.00000	Averaged
42 Methyl methacrylate	0.19191	0.19307	0.19307	0.010	0.60442	30.00000	Averaged
51 Ethyl methacrylate	0.48755	0.47045	0.47045	0.010	-3.50750	30.00000	Averaged
152 1-Chlorohexane	0.31202	0.30054	0.30054	0.010	-3.67915	30.00000	Averaged
97 1,4-Dioxane	0.00343	0.00346	0.00346	0.001	0.84849	40.00000	Averaged
48 2-Nitropropane	0.09810	0.10846	0.10846	0.010	10.55949	30.00000	Averaged
68 cis-1,4-Dichloro-2-butene	0.28075	0.29305	0.29305	0.010	4.37912	30.00000	Averaged
70 Cyclohexanone	0.04494	0.02722	0.02722	0.005	-39.43779	40.00000	Averaged
69 trans-1,4-Dichloro-2-butene	0.26553	0.27643	0.27643	0.010	4.10399	30.00000	Averaged
82 Pentachloroethane	0.35841	0.33208	0.33208	0.010	-7.34588	30.00000	Averaged
88 Benzyl chloride	1.23785	1.12721	1.12721	0.010	-8.93828	30.00000	Averaged
91 bis(2-Chloroisopropyl)ether	0.46791	0.46575	0.46575	0.010	-0.46112	30.00000	Averaged
$ 138 1,2-Dichloroethane-d4	0.26051	0.25071	0.25071	0.001	-3.76205	30.00000	Averaged
$ 47 Toluene-d8	1.18414	1.17160	1.17160	0.010	-1.05939	30.00000	Averaged
$ 71 Bromofluorobenzene	0.81190	0.82120	0.82120	0.010	1.14536	30.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 20-DEC-2009 04:22
Lab File ID: 4p622.d Init. Cal. Date(s): 19-DEC-2009 20-DEC-2009
Analysis Type: WATER Init. Cal. Times: 19:44 03:01
Lab Sample ID: W4VM091219-18 Quant Type: ISTD
Method: /chem/VOA4.i/121909v4/VOA4-8260-121909.m

Average %D / Drift Results.
Calculated Average %D/Drift = 6.09636
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/121909v4/4p622.d
Lab Smp Id: W4VM091219-18 Client Smp ID: SHORT SECOND SOURCE
Inj Date : 20-DEC-2009 04:22
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM091219-18|SHORT|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091118-08C/UVM091105-02E
Comment :
Method : /chem/VOA4.i/121909v4/VOA4-8260-121909.m
Meth Date : 20-Dec-2009 11:14 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
153 Chlorotrifluoroethylene	116	4.833	4.833	(0.455)	695531	150.000	130
154 2-Chloro-1,1,1-trifluoroethane	118	5.657	5.657	(0.533)	1163717	150.000	146
9 Acrolein	56	7.180	7.180	(0.676)	417196	250.000	254
12 Trichlorotrifluoroethane	85	7.363	7.363	(0.693)	716849	250.000	267
147 Isopropyl Alcohol	45	7.436	7.436	(0.700)	1990411	2500.00	2380
16 Allyl chloride	41	7.802	7.802	(0.735)	3938074	250.000	251
148 tert-Butyl Alcohol	59	7.930	7.930	(0.747)	2692212	2500.00	2340
18 Acrylonitrile	53	8.174	8.174	(0.770)	912599	250.000	253
149 Isopropyl ether	45	8.741	8.741	(0.823)	1633101	50.0000	46.2
24 2-Chloro-1,3-butadiene	53	8.869	8.869	(0.835)	716599	50.0000	55.5
150 Ethyl tert-butyl ether	59	9.143	9.143	(0.861)	1343372	50.0000	46.6
28 Propionitrile	54	9.393	9.393	(0.885)	359126	250.000	244
26 Ethyl acetate	43	9.338	9.338	(0.879)	2363318	250.000	225
27 Methacrylonitrile	41	9.576	9.576	(0.902)	1507697	250.000	240
72 Tetrahydrofuran	42	9.716	9.716	(0.601)	820538	250.000	231
19 Isobutyl alcohol	41	10.009	10.009	(0.943)	1051237	2500.00	2300

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
151 Methyl tert-amyl ether	73	10.387	10.387	(0.978)	1094471	50.0000	47.6
42 Methyl methacrylate	69	11.210	11.210	(1.056)	1328976	250.000	252
51 Ethyl methacrylate	69	12.466	12.466	(0.905)	2454780	250.000	241
152 1-Chlorohexane	55	13.661	13.661	(1.286)	413752	50.0000	48.2
97 1,4-Dioxane	88	11.332	11.332	(1.067)	237913	2500.00	2520
48 2-Nitropropane	43	11.673	11.673	(1.099)	746587	250.000	276
68 cis-1,4-Dichloro-2-butene	53	14.782	14.782	(0.914)	969811	250.000	261
70 Cyclohexanone	42	14.904	14.904	(1.082)	710151	1250.00	757
69 trans-1,4-Dichloro-2-butene	53	15.063	15.063	(0.931)	914819	250.000	260
82 Pentachloroethane	167	15.770	15.770	(0.975)	1099000	250.000	232
88 Benzyl chloride	91	16.319	16.319	(1.009)	3730395	250.000	228
91 bis(2-Chloroisopropyl)ether	45	16.721	16.721	(1.034)	1541359	250.000	249
* 40 Fluorobenzene	96	10.619	10.619	(1.000)	1376679	50.0000	
* 61 Chlorobenzene-d5	117	13.770	13.770	(1.000)	1043598	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.178	16.178	(1.000)	661882	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	345143	50.0000	48.1
$ 47 Toluene-d8	98	12.252	12.252	(0.890)	1222676	50.0000	49.5
$ 71 Bromofluorobenzene	95	14.953	14.953	(0.924)	543538	50.0000	50.6

Data File: /chem/VOA4.i/121909v4/4p622.d
Date : 20-DEC-2009 04:22
Client ID: SHORT SECOND SOURCE
Sample Info: |W4VK091219-18|SHORT|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

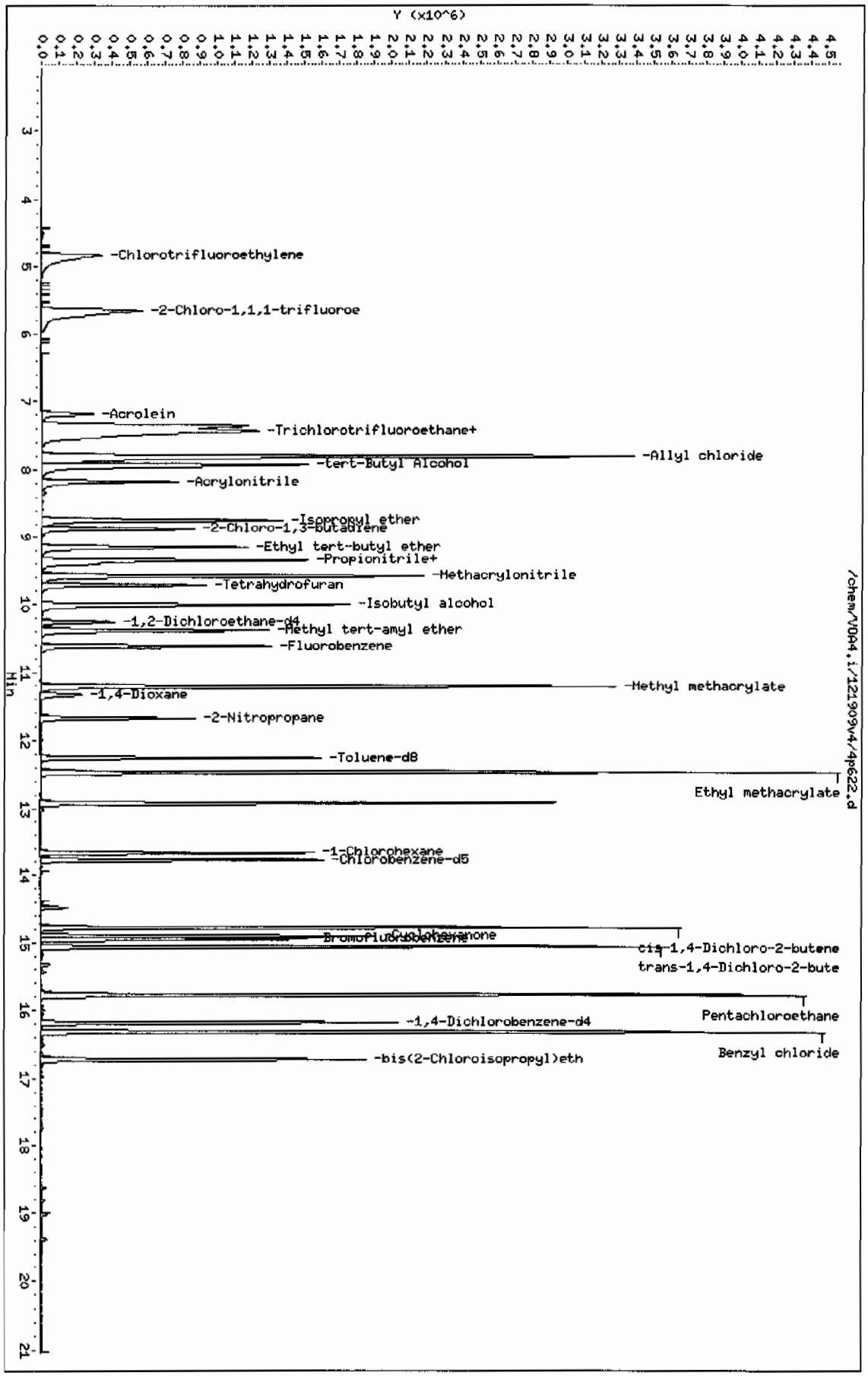

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 24-DEC-2009 13:48
Lab File ID: 4q402.d Init. Cal. Date(s): 19-DEC-2009 20-DEC-2009
Analysis Type: WATER Init. Cal. Times: 19:44 03:01
Lab Sample ID: W4VM091224-01 Quant Type: ISTD
Method: /chem/VOA4.i/122409v4/VOA4-8260-121909.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
M 1 Xylenes (total)	0.76573	0.67544	0.67544	0.050	-11.79100	30.00000	Averaged
M 2 1,2-Dichloroethylene (total	0.50471	0.44100	0.44100	0.050	-12.62186	30.00000	Averaged
M 135 1,3-Dichloropropylene	0.44446	0.40397	0.40397	0.050	-9.11119	30.00000	Averaged
3 Dichlorodifluoromethane	0.23885	0.19668	0.19668	0.050	-17.65499	30.00000	Averaged
4 Chloromethane	0.47229	0.42198	0.42198	0.100	-10.65141	30.00000	Averaged spcc
5 Vinyl chloride	0.35020	0.33987	0.33987	0.050	-2.94948	20.00000	Averaged ccc
6 Bromomethane	0.28074	0.25529	0.25529	0.050	-9.06428	30.00000	Averaged
7 Chloroethane	0.29018	0.26587	0.26587	0.050	-8.37806	30.00000	Averaged
8 Trichlorofluoromethane	0.40939	0.38905	0.38905	0.050	-4.96899	30.00000	Averaged
134 Ethyl Ether	0.28283	0.23074	0.23074	0.001	-18.41815	30.00000	Averaged
10 Acetone	0.31411	0.20532	0.20532	0.050	-34.63537	40.00000	Averaged
15 Acetonitrile	0.05876	0.05164	0.05164	0.010	-12.12175	30.00000	Averaged
11 1,1-Dichloroethylene	0.54650	0.44851	0.44851	0.050	-17.93029	20.00000	Averaged ccc
128 Methyl acetate	0.29024	0.25174	0.25174	0.010	-13.26584	40.00000	Averaged
13 Iodomethane	0.55868	0.46374	0.46374	0.050	-16.99306	30.00000	Averaged
17 Methylene chloride	44.20868	50.00000	0.31572	0.050	-11.58264	30.00000	Linear
14 Carbon disulfide	1.01030	0.91488	0.91488	0.050	-9.44495	30.00000	Averaged
20 tert-Butyl methyl ether	0.82427	0.66176	0.66176	0.050	-19.71500	30.00000	Averaged
21 trans-1,2-Dichloroethylene	0.48241	0.42146	0.42146	0.050	-12.63427	30.00000	Averaged
23 Vinyl acetate	0.72189	0.70231	0.70231	0.010	-2.71114	40.00000	Averaged
22 1,1-Dichloroethane	0.61608	0.53279	0.53279	0.100	-13.51943	30.00000	Averaged spcc
30 2-Butanone	0.35587	0.24874	0.24874	0.030	-30.10262	40.00000	Averaged
31 cis-1,2-Dichloroethylene	0.52700	0.46055	0.46055	0.050	-12.60979	30.00000	Averaged
25 2,2-Dichloropropane	0.28683	0.26326	0.26326	0.050	-8.21736	30.00000	Averaged
32 Chloroform	0.53358	0.45655	0.45655	0.010	-14.43660	20.00000	Averaged ccc
29 Bromochloromethane	0.16365	0.13701	0.13701	0.010	-16.27784	30.00000	Averaged
36 1,1,1-Trichloroethane	0.40783	0.37065	0.37065	0.010	-9.11746	30.00000	Averaged
129 Cyclohexane	0.55264	0.51409	0.51409	0.010	-6.97590	30.00000	Averaged
34 1,1-Dichloropropene	0.39037	0.35402	0.35402	0.010	-9.31040	30.00000	Averaged
131 n-Butyl alcohol	0.01124	0.01150	0.01150	0.001	2.38843	40.00000	Averaged
33 Carbon tetrachloride	0.38712	0.34979	0.34979	0.010	-9.64408	30.00000	Averaged
$ 138 1,2-Dichloroethane-d4	0.26051	0.22305	0.22305	0.001	-14.38004	30.00000	Averaged
37 1,2-Dichloroethane	0.43414	0.35700	0.35700	0.010	-17.76883	30.00000	Averaged
38 Benzene	1.24035	1.06667	1.06667	0.010	-14.00194	30.00000	Averaged
139 Cyclohexene	0.59503	0.53247	0.53247	0.001	-10.51380	30.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 24-DEC-2009 13:48
Lab File ID: 4q402.d Init. Cal. Date(s): 19-DEC-2009 20-DEC-2009
Analysis Type: WATER Init. Cal. Times: 19:44 03:01
Lab Sample ID: W4VM091224-01 Quant Type: ISTD
Method: /chem/VOA4.i/122409v4/VOA4-8260-121909.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	39 Trichloroethylene	0.30647	0.26908	0.26908	0.010	-12.20056	30.00000	Averaged	
	41 1,2-Dichloropropane	0.35477	0.30888	0.30888	0.010	-12.93401	20.00000	Averaged	ccc
	130 Methylcyclohexane	0.48043	0.45206	0.45206	0.010	-5.90581	30.00000	Averaged	
	45 Bromodichloromethane	0.38885	0.34330	0.34330	0.010	-11.71532	30.00000	Averaged	
	43 Dibromomethane	0.18537	0.16007	0.16007	0.010	-13.64685	30.00000	Averaged	
	44 2-Chloroethylvinyl ether	0.16253	0.16506	0.16506	0.005	1.55719	30.00000	Averaged	
	49 4-Methyl-2-pentanone	0.19782	0.17166	0.17166	0.010	-13.22511	40.00000	Averaged	
	46 cis-1,3-Dichloropropylene	0.46758	0.41967	0.41967	0.010	-10.24769	30.00000	Averaged	
$	47 Toluene-d8	1.18414	1.08660	1.08660	0.010	-8.23706	30.00000	Averaged	
	50 Toluene	0.99158	0.85331	0.85331	0.010	-13.94425	20.00000	Averaged	ccc
	53 trans-1,3-Dichloropropylene	0.57001	0.51639	0.51639	0.010	-9.40771	30.00000	Averaged	
	54 1,1,2-Trichloroethane	0.31320	0.26354	0.26354	0.010	-15.85376	30.00000	Averaged	
	55 2-Hexanone	0.60850	0.45879	0.45879	0.010	-24.60373	40.00000	Averaged	
	52 1,3-Dichloropropane	0.61659	0.52530	0.52530	0.010	-14.80577	30.00000	Averaged	
	56 Tetrachloroethylene	0.37476	0.32515	0.32515	0.010	-13.23638	30.00000	Averaged	
	57 Dibromochloromethane	0.41230	0.37097	0.37097	0.010	-10.02537	30.00000	Averaged	
	59 1,2-Dibromoethane	0.37285	0.32718	0.32718	0.010	-12.24718	30.00000	Averaged	
	62 Chlorobenzene	1.15143	0.97950	0.97950	0.300	-14.93181	30.00000	Averaged	spcc
	60 1,1,1,2-Tetrachloroethane	0.42708	0.37456	0.37456	0.010	-12.29608	30.00000	Averaged	
	58 Ethylbenzene	1.95429	1.69843	1.69843	0.010	-13.09233	20.00000	Averaged	ccc
	63 m,p-Xylenes	0.75466	0.66852	0.66852	0.010	-11.41428	30.00000	Averaged	
	64 o-Xylene	0.78787	0.68929	0.68929	0.010	-12.51243	30.00000	Averaged	
	65 Styrene	1.18125	1.10172	1.10172	0.010	-6.73277	30.00000	Averaged	
	66 Bromoform	0.51977	0.47436	0.47436	0.100	-8.73708	30.00000	Averaged	spcc
	67 Isopropylbenzene	3.27794	2.87024	2.87024	0.010	-12.43772	30.00000	Averaged	
	73 1,1,2,2-Tetrachloroethane	0.90007	0.77603	0.77603	0.300	-13.78111	30.00000	Averaged	spcc
$	71 Bromofluorobenzene	0.81190	0.85751	0.85751	0.010	5.61782	30.00000	Averaged	
	74 1,2,3-Trichloropropane	0.23093	0.19128	0.19128	0.010	-17.17102	30.00000	Averaged	
	75 Bromobenzene	0.97586	0.82341	0.82341	0.010	-15.62191	30.00000	Averaged	
	76 n-Propylbenzene	3.95669	3.55619	3.55619	0.010	-10.12219	30.00000	Averaged	
	77 2-Chlorotoluene	2.77809	2.38933	2.38933	0.010	-13.99361	30.00000	Averaged	
	78 1,3,5-Trimethylbenzene	2.92228	2.55917	2.55917	0.010	-12.42584	30.00000	Averaged	
	80 4-Chlorotoluene	2.55750	2.23927	2.23927	0.010	-12.44291	30.00000	Averaged	
	81 tert-Butylbenzene	2.86510	2.52311	2.52311	0.010	-11.93654	30.00000	Averaged	
	79 1,2,4-Trimethylbenzene	3.07202	2.71499	2.71499	0.010	-11.62197	30.00000	Averaged	
	83 sec-Butylbenzene	4.00210	3.58421	3.58421	0.010	-10.44168	30.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 24-DEC-2009 13:48
Lab File ID: 4q402.d Init. Cal. Date(s): 19-DEC-2009 20-DEC-2009
Analysis Type: WATER Init. Cal. Times: 19:44 03:01
Lab Sample ID: W4VM091224-01 Quant Type: ISTD
Method: /chem/VOA4.i/122409v4/VOA4-8260-121909.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
84 4-Isopropyltoluene	3.12524	2.84986	2.84986	0.010	-8.81157	30.00000	Averaged
85 1,3-Dichlorobenzene	1.92605	1.64153	1.64153	0.010	-14.77229	30.00000	Averaged
87 1,4-Dichlorobenzene	1.89963	1.66077	1.66077	0.010	-12.57427	30.00000	Averaged
89 n-Butylbenzene	3.01489	2.82897	2.82897	0.010	-6.16676	30.00000	Averaged
90 1,2-Dichlorobenzene	1.82245	1.55732	1.55732	0.010	-14.54804	30.00000	Averaged
92 1,2-Dibromo-3-chloropropane	0.15074	0.14126	0.14126	0.010	-6.29056	30.00000	Averaged
93 1,2,4-Trichlorobenzene	0.98902	0.92121	0.92121	0.010	-6.85694	30.00000	Averaged
94 Hexachlorobutadiene	0.74898	0.66323	0.66323	0.010	-11.45007	30.00000	Averaged
95 Naphthalene	1.62110	1.50116	1.50116	0.010	-7.39894	30.00000	Averaged
96 1,2,3-Trichlorobenzene	0.79036	0.73049	0.73049	0.010	-7.57487	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 12.01824
Maximun Average %D/Drift = 20.00000
* Passed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122409v4/4q402.d
Lab Smp Id: W4VM091224-01 Client Smp ID: VSTD050
Inj Date : 24-DEC-2009 13:48
Operator : ACJ Inst ID: VOA4.i
Smp Info : |W4VM091224-01|CCV/LCS|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091214-01A/IVM091222-01
Comment :
Method : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:28 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubL+.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
M 1 Xylenes (total)	106				1676090	150.000	132
M 2 1,2-Dichloroethylene (total)	96				970297	100.000	87.4
M 135 1,3-Dichloropropylene	75				888809	100.000	90.9
3 Dichlorodifluoromethane	85	4.911	4.911	(0.462)	216367	50.0000	41.2
4 Chloromethane	50	5.306	5.306	(0.500)	464224	50.0000	44.7
5 Vinyl chloride	62	5.535	5.535	(0.521)	373889	50.0000	48.5
6 Bromomethane	94	6.137	6.137	(0.578)	280844	50.0000	45.5
7 Chloroethane	64	6.288	6.288	(0.592)	292481	50.0000	45.8
8 Trichlorofluoromethane	101	6.669	6.669	(0.628)	427993	50.0000	47.5
134 Ethyl Ether	59	7.004	7.004	(0.660)	253838	50.0000	40.8
10 Acetone	43	7.364	7.364	(0.693)	1129347	250.000	163
15 Acetonitrile	41	7.699	7.699	(0.725)	1420254	1250.00	1100
11 1,1-Dichloroethylene	61	7.389	7.389	(0.696)	493410	50.0000	41.0
128 Methyl acetate	43	7.754	7.754	(0.730)	1384700	250.000	217
13 Iodomethane	142	7.632	7.632	(0.719)	2550809	250.000	208

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
17 Methylene chloride	84	7.943	7.943	(0.748)	347329	50.0000	44.2
14 Carbon disulfide	76	7.773	7.773	(0.732)	5032293	250.000	226
20 tert-Butyl methyl ether	73	8.242	8.242	(0.776)	728005	50.0000	40.1
21 trans-1,2-Dichloroethylene	61	8.285	8.285	(0.780)	463647	50.0000	43.7
23 Vinyl acetate	43	8.711	8.711	(0.820)	3863090	250.000	243
22 1,1-Dichloroethane	63	8.760	8.760	(0.825)	586121	50.0000	43.2
30 2-Butanone	43	9.327	9.327	(0.878)	1368218	250.000	175
31 cis-1,2-Dichloroethylene	61	9.388	9.388	(0.884)	506650	50.0000	43.7
25 2,2-Dichloropropane	77	9.425	9.425	(0.887)	289614	50.0000	45.9
32 Chloroform	83	9.693	9.693	(0.913)	502247	50.0000	42.8
29 Bromochloromethane	128	9.656	9.656	(0.909)	150727	50.0000	41.9
36 1,1,1-Trichloroethane	97	9.979	9.979	(0.940)	407751	50.0000	45.4
129 Cyclohexane	56	10.083	10.083	(0.949)	565553	50.0000	46.5
34 1,1-Dichloropropene	75	10.132	10.132	(0.954)	389463	50.0000	45.3
131 n-Butyl alcohol	56	10.687	10.687	(1.006)	1265602	5000.00	5120
33 Carbon tetrachloride	117	10.175	10.175	(0.958)	384805	50.0000	45.2
$ 138 1,2-Dichloroethane-d4	65	10.260	10.260	(0.966)	245374	50.0000	42.8
37 1,2-Dichloroethane	62	10.345	10.345	(0.974)	392739	50.0000	41.1
38 Benzene	78	10.370	10.370	(0.976)	1173450	50.0000	43.0
139 Cyclohexene	67	10.492	10.492	(0.988)	585768	50.0000	44.7
* 40 Fluorobenzene	96	10.620	10.620	(1.000)	1100102	50.0000	
39 Trichloroethylene	95	11.004	11.004	(1.036)	296013	50.0000	43.9
41 1,2-Dichloropropane	63	11.241	11.241	(1.059)	339801	50.0000	43.5
130 Methylcyclohexane	83	11.266	11.266	(1.061)	497309	50.0000	47.0
45 Bromodichloromethane	83	11.485	11.485	(1.082)	377663	50.0000	44.1
43 Dibromomethane	93	11.376	11.376	(1.071)	176093	50.0000	43.2
44 2-Chloroethylvinyl ether	63	11.699	11.699	(1.102)	907938	250.000	254
49 4-Methyl-2-pentanone	58	12.022	12.022	(0.873)	709949	250.000	217
46 cis-1,3-Dichloropropylene	75	11.930	11.930	(1.123)	461676	50.0000	44.9
$ 47 Toluene-d8	98	12.253	12.253	(0.890)	898788	50.0000	45.9
50 Toluene	92	12.327	12.327	(0.895)	705822	50.0000	43.0
53 trans-1,3-Dichloropropylene	75	12.461	12.461	(0.905)	427133	50.0000	45.3
54 1,1,2-Trichloroethane	83	12.686	12.686	(0.921)	217990	50.0000	42.1
55 2-Hexanone	43	12.857	12.857	(0.934)	1897443	250.000	188
52 1,3-Dichloropropane	76	12.875	12.875	(0.935)	434506	50.0000	42.6
56 Tetrachloroethylene	164	12.918	12.918	(0.938)	268950	50.0000	43.4
57 Dibromochloromethane	129	13.150	13.150	(0.955)	306846	50.0000	45.0
59 1,2-Dibromoethane	107	13.320	13.320	(0.967)	270630	50.0000	43.9
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	827154	50.0000	
62 Chlorobenzene	112	13.802	13.802	(1.002)	810197	50.0000	42.5
60 1,1,1,2-Tetrachloroethane	131	13.851	13.851	(1.006)	309822	50.0000	43.8
58 Ethylbenzene	91	13.863	13.863	(1.007)	1404862	50.0000	43.4
63 m,p-Xylenes	106	13.973	13.973	(1.015)	1105944	100.000	88.6
64 o-Xylene	106	14.405	14.405	(1.046)	570146	50.0000	43.7
65 Styrene	104	14.399	14.399	(1.046)	911295	50.0000	46.6
66 Bromoform	173	14.655	14.655	(0.906)	254648	50.0000	45.6
67 Isopropylbenzene	105	14.759	14.759	(0.912)	1540827	50.0000	43.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
73 1,1,2,2-Tetrachloroethane	83	15.015	15.015	(0.928)	416594	50.0000	43.1
$ 71 Bromofluorobenzene	95	14.954	14.954	(0.924)	460337	50.0000	52.8
74 1,2,3-Trichloropropane	110	15.107	15.107	(0.934)	102685	50.0000	41.4
75 Bromobenzene	156	15.168	15.168	(0.937)	442030	50.0000	42.2
76 n-Propylbenzene	91	15.180	15.180	(0.938)	1909060	50.0000	44.9
77 2-Chlorotoluene	91	15.332	15.332	(0.948)	1282660	50.0000	43.0
78 1,3,5-Trimethylbenzene	105	15.332	15.332	(0.948)	1373832	50.0000	43.8
80 4-Chlorotoluene	91	15.430	15.430	(0.954)	1202103	50.0000	43.8
81 tert-Butylbenzene	119	15.704	15.704	(0.971)	1354475	50.0000	44.0
79 1,2,4-Trimethylbenzene	105	15.741	15.741	(0.973)	1457483	50.0000	44.2
83 sec-Butylbenzene	105	15.930	15.930	(0.985)	1924105	50.0000	44.8
84 4-Isopropyltoluene	119	16.051	16.051	(0.992)	1529883	50.0000	45.6
85 1,3-Dichlorobenzene	146	16.119	16.119	(0.996)	881219	50.0000	42.6
* 86 1,4-Dichlorobenzene-d4	152	16.180	16.180	(1.000)	536828	50.0000	
87 1,4-Dichlorobenzene	146	16.204	16.204	(1.002)	891547	50.0000	43.7
89 n-Butylbenzene	91	16.503	16.503	(1.020)	1518668	50.0000	46.9
90 1,2-Dichlorobenzene	146	16.643	16.643	(1.029)	836011	50.0000	42.7
92 1,2-Dibromo-3-chloropropane	157	17.527	17.527	(1.083)	75830	50.0000	46.8
93 1,2,4-Trichlorobenzene	180	18.630	18.630	(1.151)	494529	50.0000	46.6
94 Hexachlorobutadiene	225	18.819	18.819	(1.163)	356038	50.0000	44.3
95 Naphthalene	128	19.033	19.033	(1.176)	805863	50.0000	46.3
96 1,2,3-Trichlorobenzene	180	19.386	19.386	(1.198)	392149	50.0000	46.2

Data File: /chem/VOA4.i/122409v4/4q402.d
Date : 24-DEC-2009 13:48
Client ID: VSTD050
Sample Info: IW4WK091224-01|CCV/LCS|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

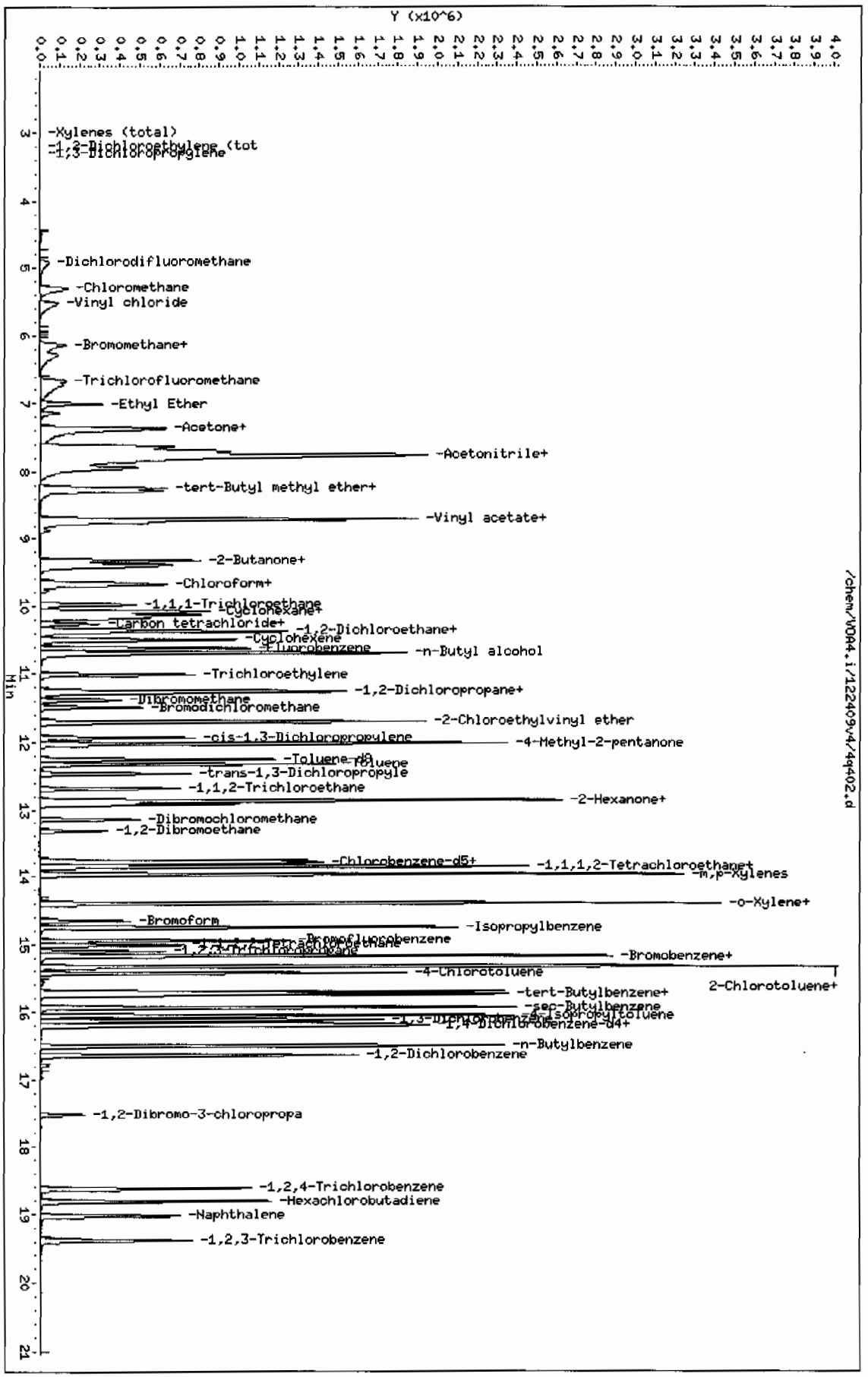

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: VOA4.i Injection Date: 24-DEC-2009 14:42
Lab File ID: 4q404.d Init. Cal. Date(s): 19-DEC-2009 20-DEC-2009
Analysis Type: WATER Init. Cal. Times: 19:44 03:01
Lab Sample ID: UVM091118-08C Quant Type: ISTD
Method: /chem/VOA4.i/122409v4/VOA4-8260-121909.m

COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
9 Acrolein	0.05963	0.05647	0.05647	0.001	-5.28977	30.00000	Averaged
12 Trichlorotrifluoroethane	0.09755	0.08769	0.08769	0.050	-10.11515	30.00000	Averaged
16 Allyl chloride	0.56932	0.53848	0.53848	0.010	-5.41779	30.00000	Averaged
18 Acrylonitrile	0.13121	0.11711	0.11711	0.010	-10.74349	30.00000	Averaged
24 2-Chloro-1,3-butadiene	0.46861	0.46530	0.46530	0.010	-0.70732	30.00000	Averaged
28 Propionitrile	0.05337	0.04617	0.04617	0.010	-13.49410	30.00000	Averaged
26 Ethyl acetate	0.38171	0.31573	0.31573	0.010	-17.28452	40.00000	Averaged
27 Methacrylonitrile	0.22820	0.20277	0.20277	0.010	-11.14522	30.00000	Averaged
72 Tetrahydrofuran	0.26812	0.23324	0.23324	0.010	-13.00712	30.00000	Averaged
19 Isobutyl alcohol	0.01661	0.01376	0.01376	0.005	-17.13917	40.00000	Averaged
42 Methyl methacrylate	0.19191	0.17667	0.17667	0.010	-7.94163	30.00000	Averaged
51 Ethyl methacrylate	0.48755	0.44896	0.44896	0.010	-7.91401	30.00000	Averaged
97 1,4-Dioxane	0.00343	0.00285	0.00285	0.001	-16.74269	40.00000	Averaged
48 2-Nitropropane	0.09810	0.09733	0.09733	0.010	-0.78669	30.00000	Averaged
68 cis-1,4-Dichloro-2-butene	0.28075	0.27951	0.27951	0.010	-0.44364	30.00000	Averaged
70 Cyclohexanone	0.04494	0.02433	0.02433	0.005	-45.85726	40.00000	Averaged <-
69 trans-1,4-Dichloro-2-butene	0.26553	0.26411	0.26411	0.010	-0.53494	30.00000	Averaged
82 Pentachloroethane	0.35841	0.44949	0.44949	0.010	25.41067	30.00000	Averaged
88 Benzyl chloride	1.23785	1.30807	1.30807	0.010	5.67250	30.00000	Averaged
91 bis(2-Chloroisopropyl)ether	0.46791	0.42904	0.42904	0.010	-8.30670	30.00000	Averaged
$ 138 1,2-Dichloroethane-d4	0.26051	0.22492	0.22492	0.001	-13.65958	30.00000	Averaged
$ 47 Toluene-d8	1.18414	1.10225	1.10225	0.010	-6.91564	30.00000	Averaged
$ 71 Bromofluorobenzene	0.81190	0.91764	0.91764	0.010	13.02314	30.00000	Averaged

Average %D / Drift Results.

Calculated Average %D/Drift = 26.89928
Maximun Average %D/Drift = 20.00000
* Failed Average %D/Drift Test.

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122409v4/4q404.d
Lab Smp Id: UVM091118-08C Client Smp ID: VSTD250S
Inj Date : 24-DEC-2009 14:42
Operator : ACJ Inst ID: VOA4.i
Smp Info : |UVM091118-08C|SHORT|1|VOAF|1|
Misc Info : GEL 5ML N/A
Comment :
Method : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:28 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: CALsubS+SS.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	ON-COL (ug/l)
9 Acrolein	56	7.186	7.186	(0.677)	324571	250.000	237
12 Trichlorotrifluoroethane	85	7.363	7.363	(0.693)	503973	250.000	225
16 Allyl chloride	41	7.802	7.802	(0.735)	3094847	250.000	236
18 Acrylonitrile	53	8.174	8.174	(0.770)	673076	250.000	223
24 2-Chloro-1,3-butadiene	53	8.869	8.869	(0.835)	534850	50.0000	49.6
28 Propionitrile	54	9.393	9.393	(0.885)	265329	250.000	216
26 Ethyl acetate	43	9.338	9.338	(0.879)	1814646	250.000	207
27 Methacrylonitrile	41	9.576	9.576	(0.902)	1165385	250.000	222
72 Tetrahydrofuran	42	9.716	9.716	(0.601)	624025	250.000	217
19 Isobutyl alcohol	41	10.009	10.009	(0.943)	790875	2500.00	2070
42 Methyl methacrylate	69	11.210	11.210	(1.056)	1015388	250.000	230
51 Ethyl methacrylate	69	12.466	12.466	(0.905)	1928155	250.000	230
97 1,4-Dioxane	88	11.326	11.326	(1.067)	163999	2500.00	2080
48 2-Nitropropane	43	11.673	11.673	(1.099)	559401	250.000	248
68 cis-1,4-Dichloro-2-butene	53	14.783	14.783	(0.914)	747794	250.000	249

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/l)	AMOUNTS ON-COL (ug/l)
70 Cyclohexanone	42	14.904	14.904	(1.082)	522539	1250.00	677
69 trans-1,4-Dichloro-2-butene	53	15.063	15.063	(0.931)	706607	250.000	249
82 Pentachloroethane	167	15.776	15.776	(0.975)	1202561	250.000	314(A)
88 Benzyl chloride	91	16.319	16.319	(1.009)	3499616	250.000	264
91 bis(2-Chloroisopropyl)ether	45	16.721	16.721	(1.034)	1147858	250.000	229
* 40 Fluorobenzene	96	10.619	10.619	(1.000)	1149480	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	858940	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.179	(1.000)	535082	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.259	10.259	(0.966)	258545	50.0000	43.2
$ 47 Toluene-d8	98	12.253	12.253	(0.890)	946767	50.0000	46.5
$ 71 Bromofluorobenzene	95	14.953	14.953	(0.924)	491011	50.0000	56.5

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/VOA4.i/122409v4/4q404.d
Date : 24-DEC-2009 14:42
Client ID: VSTD250S
Sample Info: IUVM091118-08C|SHORT|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

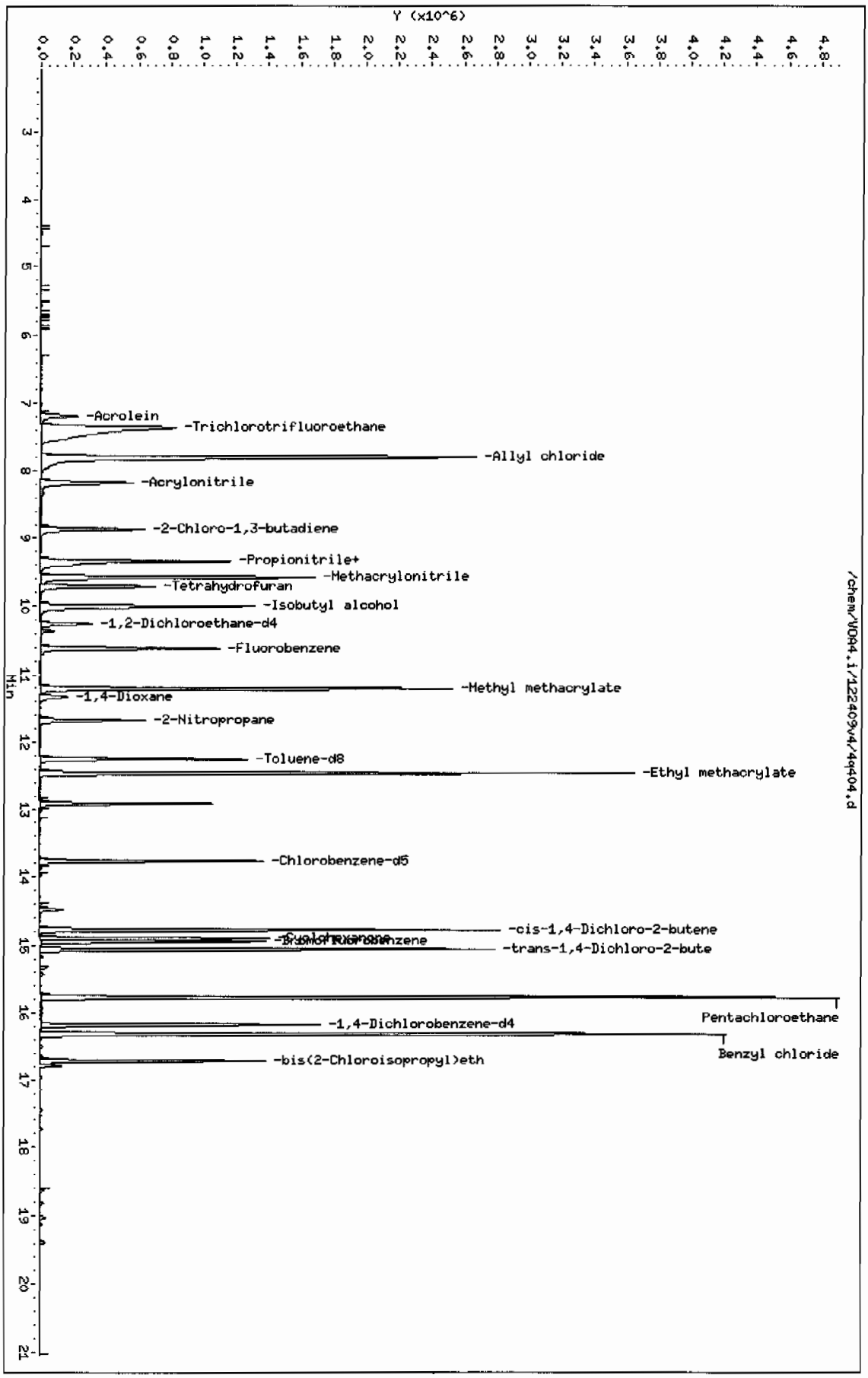

Page 1

QC Data

Data File: /chem/VOA4.i/121909v4/4p601.d

Date : 19-DEC-2009 18:50

Client ID: BFB01

Instrument: VOA4.i

Sample Info: |UVM090910-02|BFB|1|VOAF|1|

Operator: ACJ

Column phase: DB-624

Column diameter: 0.25

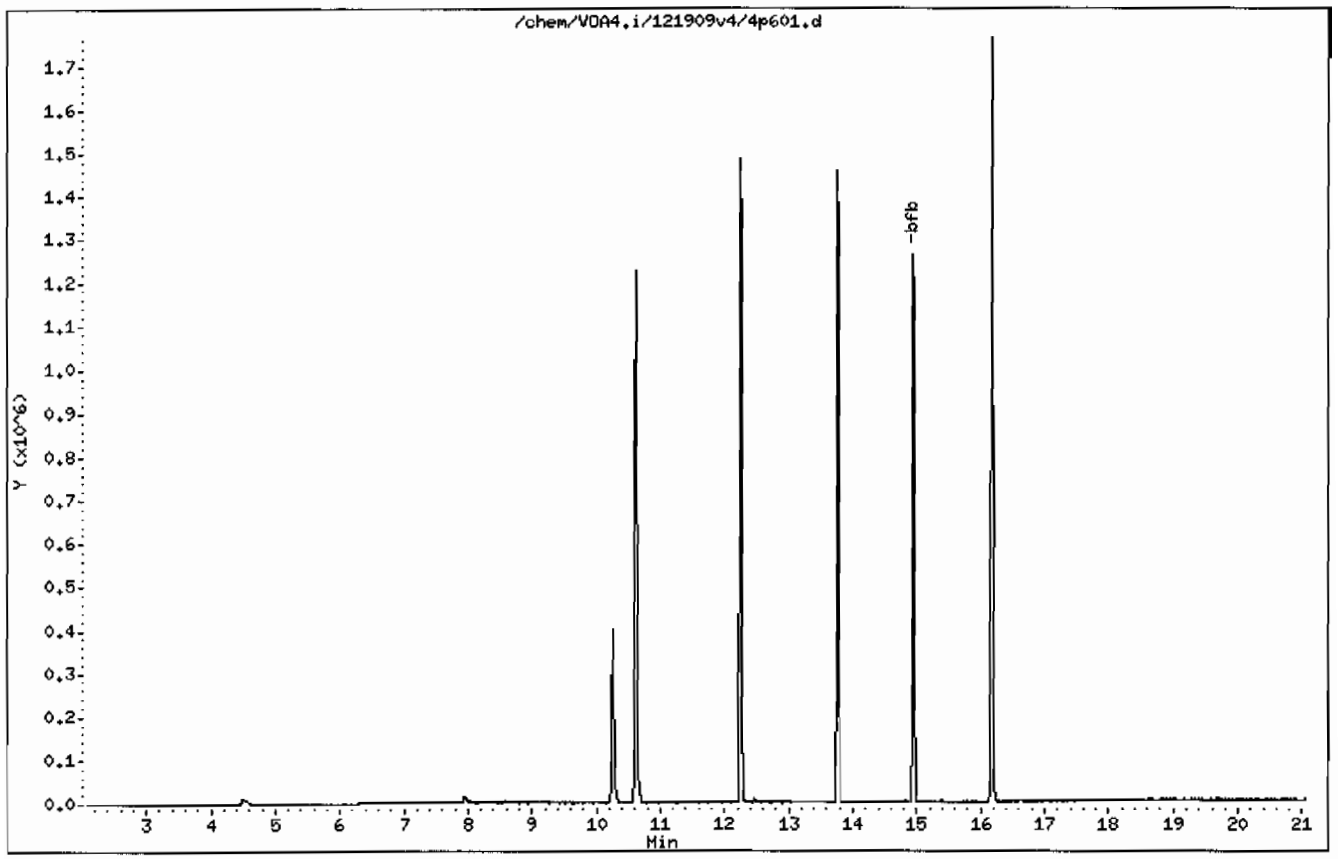

Data File: /chem/VOA4.i/121909v4/4p601.d

Date : 19-DEC-2009 18:50

Client ID: BFB01

Instrument: VOA4.i

Sample Info: |UVH090910-02|BFB|1|VOAF|1|

Operator: ACJ

Column phase: DB-624

Column diameter: 0.25

1 bfb

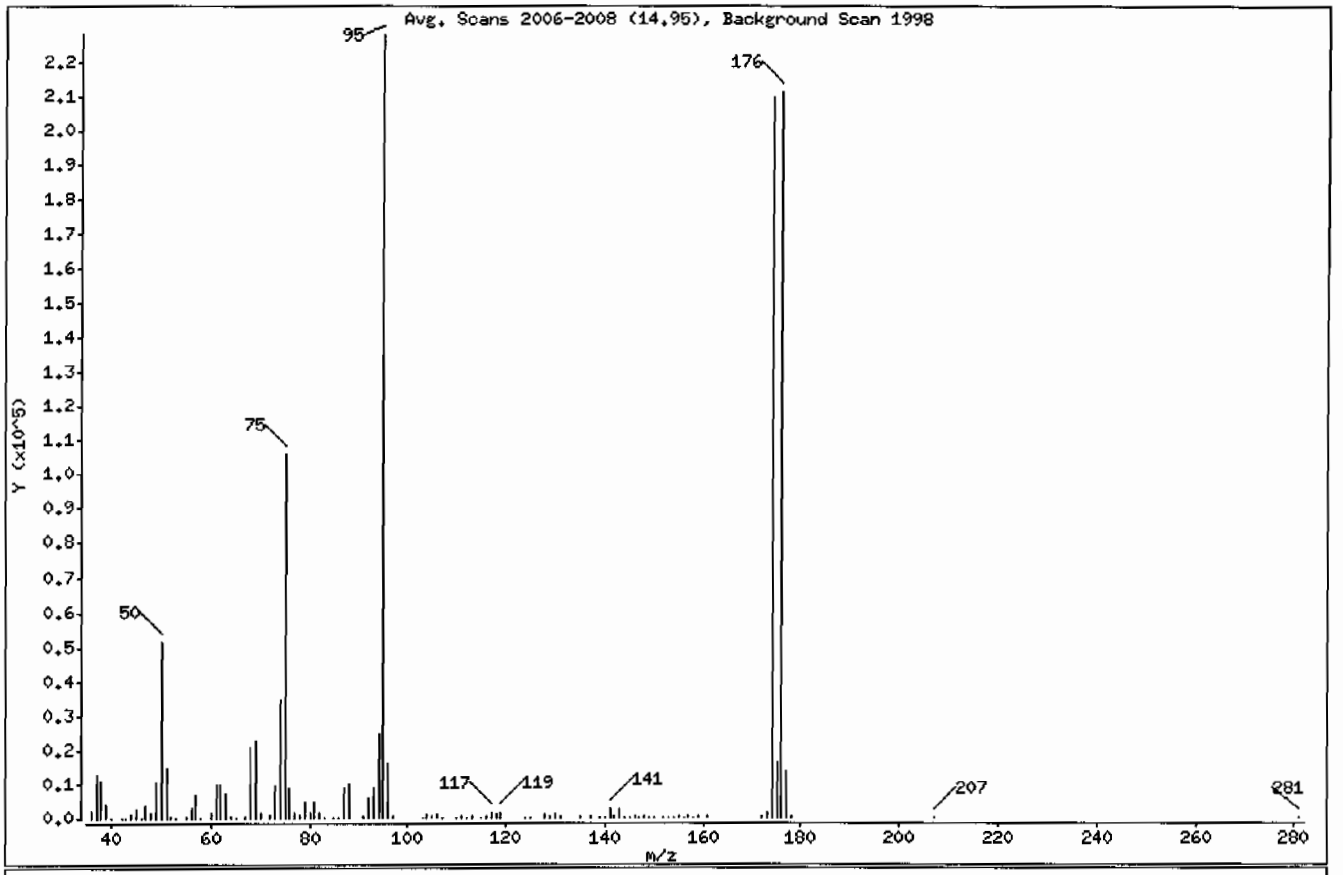

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	22.45
75	30.00 - 60.00% of mass 95	46.50
96	5.00 - 9.00% of mass 95	7.03
173	Less than 2.00% of mass 174	0.58 (0.63)
174	50.00 - 100.00% of mass 95	91.87
175	5.00 - 9.00% of mass 174	7.13 (7.76)
176	95.00 - 101.00% of mass 174	92.54 (100.73)
177	5.00 - 9.00% of mass 176	5.96 (6.45)

Data File: /chem/VOA4.i/121909v4/4p601.d

Date : 19-DEC-2009 18:50

Client ID: BFB01 Instrument: VOA4.i

Sample Info: |UWM090910-02|BFB|1|VOAF|1|

Operator: ACJ

Column phase: DB-624 Column diameter: 0.25

Data File: 4p601.d
Spectrum: Avg. Scans 2006-2008 (14.95), Background Scan 1998
Location of Maximum: 95.00
Number of points: 106

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2242	67.00	435	103.00	57	144.00	133
37.00	12564	68.00	20800	104.00	883	145.00	215
38.00	10797	69.00	22696	105.00	293	146.00	382
39.00	4231	70.00	1542	106.00	900	147.00	202
40.00	70	72.00	1072	107.00	228	148.00	663
42.00	60	73.00	9341	110.00	69	149.00	202
43.00	139	74.00	34408	111.00	273	150.00	245
44.00	1103	75.00	106096	112.00	51	152.00	70
45.00	2370	76.00	8670	113.00	263	153.00	178
46.00	231	77.00	1566	115.00	148	154.00	82
47.00	3852	78.00	928	116.00	679	155.00	456
48.00	1328	79.00	4928	117.00	1443	156.00	211
49.00	10482	80.00	1511	118.00	1031	157.00	442
50.00	51216	81.00	4981	119.00	1358	158.00	66
51.00	14626	82.00	1330	124.00	75	159.00	342
52.00	684	83.00	217	125.00	126	161.00	316
53.00	59	85.00	88	128.00	894	172.00	362
55.00	458	86.00	72	129.00	312	173.00	1324
56.00	3260	87.00	9157	130.00	879	174.00	209600
57.00	6611	88.00	10177	131.00	348	175.00	16265
58.00	168	91.00	728	135.00	490	176.00	211136
60.00	1706	92.00	5937	137.00	447	177.00	13608
61.00	10079	93.00	8667	139.00	69	178.00	396
62.00	10138	94.00	24488	140.00	254	207.00	67
63.00	7367	95.00	228160	141.00	2855	281.00	20
64.00	632	96.00	16036	142.00	311		
65.00	182	97.00	575	143.00	2742		

Data File: /chem/VOA4.i/122409v4/4q401.d

Page 1

Date : 24-DEC-2009 13:20

Client ID: BFB01

Instrument: VOA4.i

Sample Info: |UVM090910-02|BFB|1|VOAF|1|

Operator: ACJ

Column phase: DB-624

Column diameter: 0.25

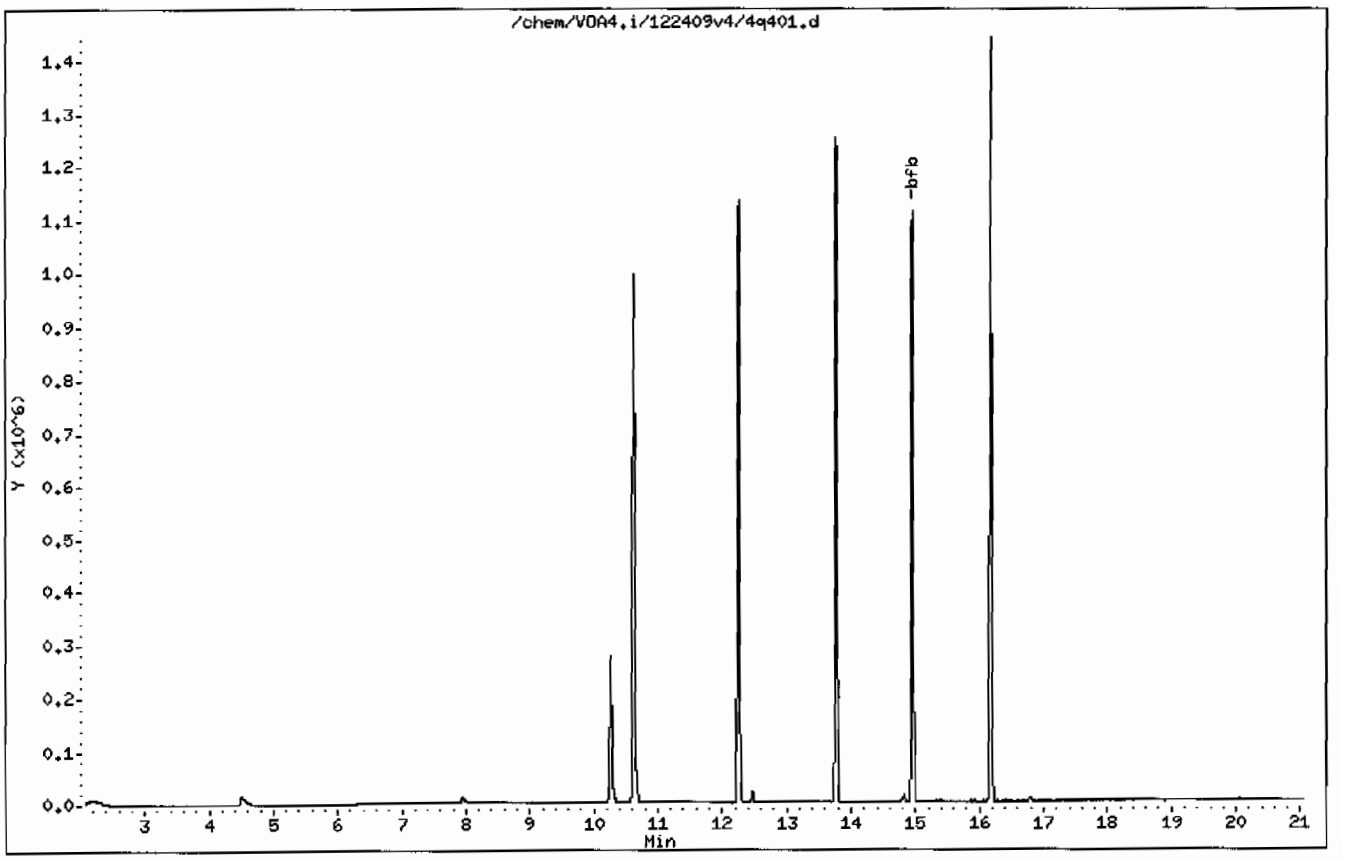

Data File: /chem/VOA4.i/122409v4/4q401.d

Date : 24-DEC-2009 13:20

Client ID: BFB01

Instrument: VOA4.i

Sample Info: |UVM090910-02|BFB|1|VOAF|1|

Operator: ACJ

Column phase: DB-624

Column diameter: 0.25

1 bfb

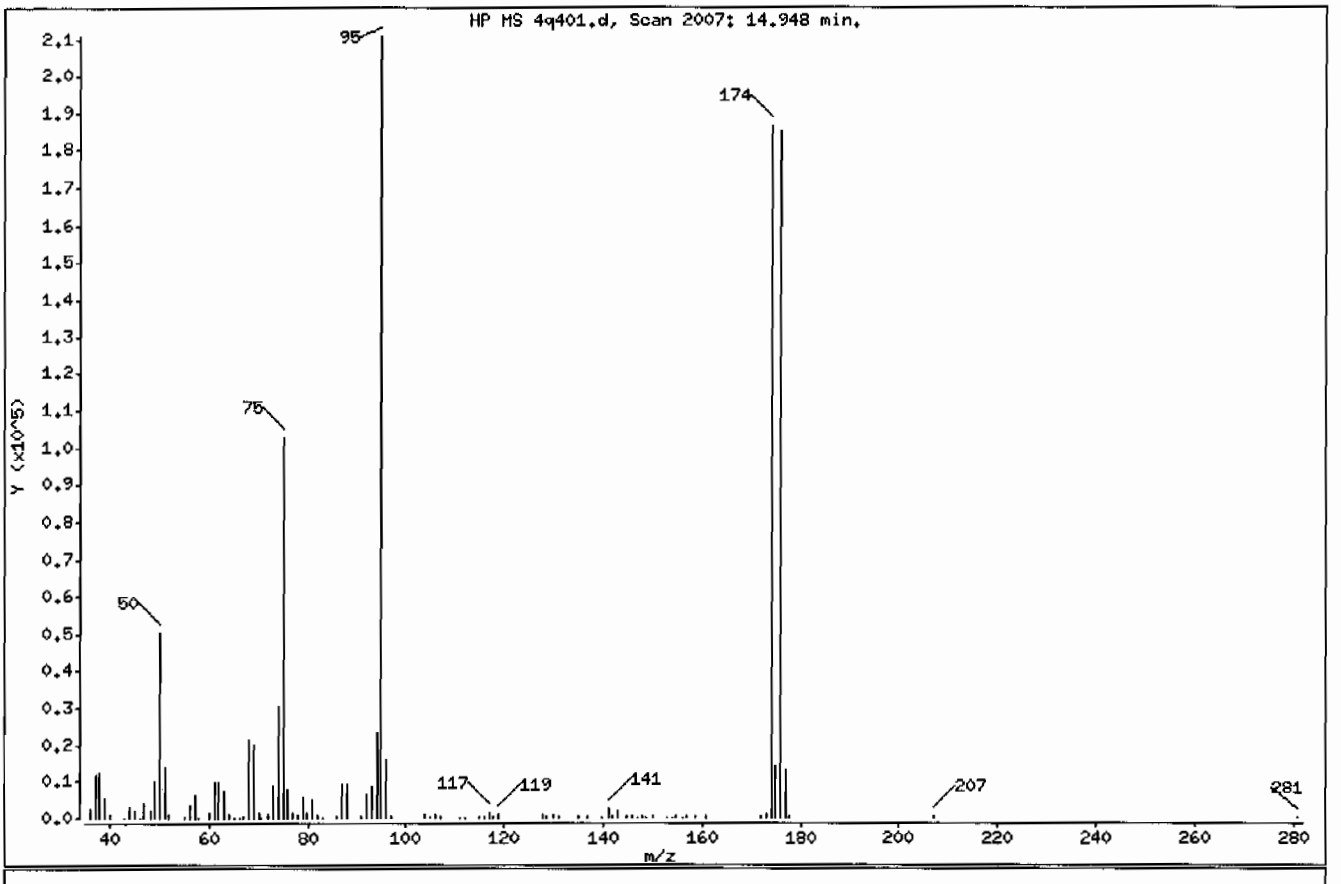

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	24.02
75	30.00 - 60.00% of mass 95	48.70
96	5.00 - 9.00% of mass 95	7.50
173	Less than 2.00% of mass 174	0.38 (0.43)
174	50.00 - 100.00% of mass 95	88.46
175	5.00 - 9.00% of mass 174	6.68 (7.56)
176	95.00 - 101.00% of mass 174	87.82 (99.28)
177	5.00 - 9.00% of mass 176	6.26 (7.13)

Data File: /chem/VOA4.i/122409v4/4q401.d

Date : 24-DEC-2009 13:20

Client ID: BFB01

Instrument: VOA4.i

Sample Info: |UVM090910-02|BFB|1|VOAF|1|

Operator: ACJ

Column phase: DB-624

Column diameter: 0.25

Data File: 4q401.d
Spectrum: HP MS 4q401.d, Scan 2007: 14.948 min.
Location of Maximum: 95.00
Number of points: 96

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2244	66.20	167	95.00	210752	145.80	369
37.00	11817	67.00	550	96.00	15804	146.80	220
38.00	12816	68.00	21216	97.00	461	147.80	389
39.00	5211	69.00	19792	103.90	1132	148.70	159
40.00	871	70.00	1545	104.90	252	150.00	385
42.90	206	70.60	241	106.00	744	152.90	160
44.00	2959	71.90	1012	107.00	287	153.90	214
45.00	1834	73.00	8780	110.90	227	154.80	328
46.00	171	74.00	30728	112.00	182	156.00	165
47.00	3877	75.00	102640	114.90	334	156.80	402
48.10	1735	76.00	7814	115.90	544	158.80	311
49.00	10179	76.90	1305	116.90	1578	160.90	334
50.00	50616	78.00	748	117.80	661	171.90	351
51.00	14259	78.90	5603	118.90	1188	172.90	810
52.00	779	79.90	1632	127.80	755	173.90	186432
55.00	624	80.90	4607	128.70	326	174.90	14087
56.00	3626	81.90	1161	129.90	791	175.90	185088
57.10	6160	83.10	159	130.90	388	176.90	13191
57.90	164	86.00	258	134.90	437	177.80	298
60.00	1613	86.90	9231	136.80	595	206.90	358
61.00	9876	87.90	9051	139.80	165	280.90	191
62.00	9574	90.90	721	140.90	2292		
63.00	7215	92.00	6454	141.90	324		
63.90	802	93.00	8915	142.90	2022		
65.10	236	94.00	23432	144.80	322		

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-952			**Matrix:**	GROUND WATER
Lab Sample ID:	1202004162				
Client Sample:	QC for batch 936682	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 936682	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	936682	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/24/2009 16:03	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/24/2009 16:03				
Data File:	4q407bl.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-952			Matrix:	GROUND WATER
Lab Sample ID:	1202004162				
Client Sample:	QC for batch 936682	Client:	LANL010	Project:	QC
Client ID:	MB for batch 936682	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	936682	Inst:	VOA4.I	Dilution:	1
Run Date:	12/24/2009 16:03	Analyst:	ACJ	Purge Vol:	5 mL
Prep Date:	12/24/2009 16:03				
Data File:	4q407bl.d	Column:	RTX-VOLATILES	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachlorocthane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202004162**				
Client Sample:	**QC for batch 936682**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 936682**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936682**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/24/2009 16:03**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/24/2009 16:03**				
Data File:	**4q407bl.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	40.7	50.0	ug/L	81.4	(59%-130%)
Bromofluorobenzene	56.4	50.0	ug/L	113	(71%-126%)
Toluene-d8	46.6	50.0	ug/L	93.3	(76%-129%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122409v4/4q407bl.d
Lab Smp Id: 1202004162 Client Smp ID: BLANK
Inj Date : 24-DEC-2009 16:03
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202004162|936682|1|VOAF|1|
Misc Info : GEL 5ML N/A
Comment :
Method : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:28 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
$ 138 1,2-Dichloroethane-d4	65	10.265	10.260	(0.967)	237187	40.7059	40.7
* 40 Fluorobenzene	96	10.619	10.620	(1.000)	1118363	50.0000	
$ 47 Toluene-d8	98	12.252	12.253	(0.890)	884484	46.6253	46.6
* 61 Chlorobenzene-d5	117	13.770	13.771	(1.000)	801004	50.0000	
$ 71 Bromofluorobenzene	95	14.953	14.954	(0.924)	419483	56.4016	56.4
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.180	(1.000)	458025	50.0000	

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122409v4/4q407bl.d
Lab Smp Id: 1202004162 Client Smp ID: BLANK
Inj Date : 24-DEC-2009 16:03
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202004162|936682|1|VOAF|1|
Misc Info : GEL 5ML N/A
Comment :
Method : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:28 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 7 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/VOA4.i/122409v4/4q407bl.d
Date : 24-DEC-2009 16:03
Client ID: BLANK
Sample Info: |1202004162|936682|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Page 1

Instrument: VOA4.i

Operator: ACJ
Column diameter: 0.25

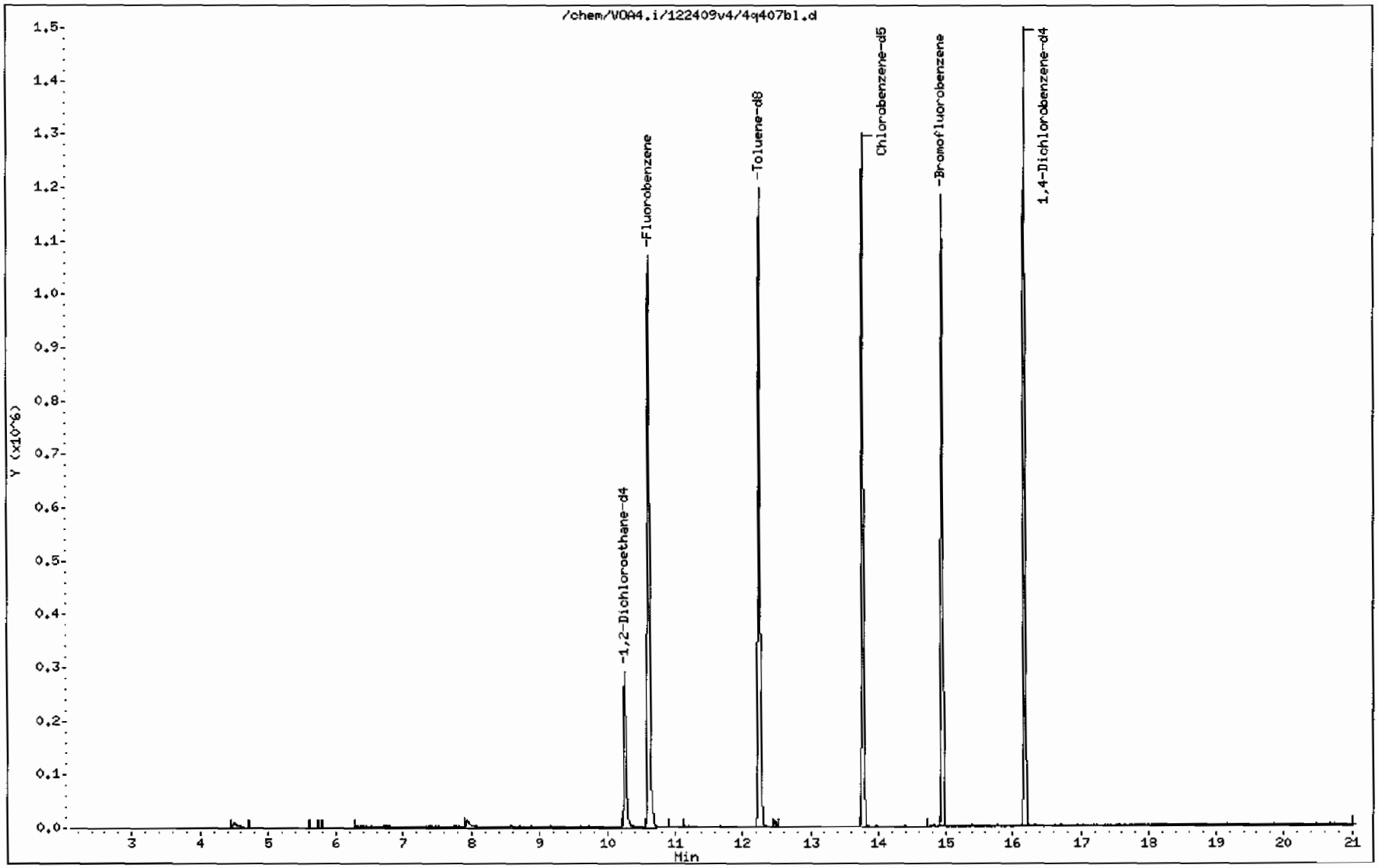

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-952			**Matrix:**	GROUND WATER
Lab Sample ID:	1202004165				
Client Sample:	QC for batch 936682	**Client:**	LANL010	**Project:**	QC
Client ID:	LCS for batch 936682	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	936682	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/24/2009 13:48	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/24/2009 13:48				
Data File:	4q402Ll.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		41.2	ug/L	0.300	1.00
74-87-3	Chloromethane		44.7	ug/L	0.300	1.00
75-01-4	Vinyl chloride		48.5	ug/L	0.500	1.00
74-83-9	Bromomethane		45.5	ug/L	0.300	1.00
75-00-3	Chloroethane		45.8	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		47.5	ug/L	0.300	1.00
60-29-7	Ethyl ether		40.8	ug/L	0.300	1.00
67-64-1	Acetone		163	ug/L	3.50	10.0
75-05-8	Acetonitrile		1100	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		41.0	ug/L	0.300	1.00
74-88-4	Iodomethane		208	ug/L	1.25	5.00
75-09-2	Methylene chloride		44.2	ug/L	3.00	10.0
75-15-0	Carbon disulfide		226	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		40.1	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		43.7	ug/L	0.300	1.00
108-05-4	Vinyl acetate		243	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		43.2	ug/L	0.300	1.00
78-93-3	2-Butanone		175	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		43.7	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		45.9	ug/L	0.300	1.00
67-66-3	Chloroform		42.8	ug/L	0.250	1.00
74-97-5	Bromochloromethane		41.9	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		45.4	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		45.3	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		5120	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		45.2	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		41.1	ug/L	0.250	1.00
71-43-2	Benzene		43.0	ug/L	0.300	1.00
79-01-6	Trichloroethylene		43.9	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		43.5	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		44.1	ug/L	0.250	1.00
74-95-3	Dibromomethane		43.2	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		217	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		44.9	ug/L	0.250	1.00
108-88-3	Toluene		43.0	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		45.3	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		42.1	ug/L	0.250	1.00
591-78-6	2-Hexanone		188	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202004165**				
Client Sample:	**QC for batch 936682**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 936682**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936682**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/24/2009 13:48**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/24/2009 13:48**				
Data File:	**4q402Ll.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		42.6	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		43.4	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		45.0	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		43.9	ug/L	0.250	1.00
108-90-7	Chlorobenzene		42.5	ug/L	0.250	1.00
100-41-4	Ethylbenzene		43.5	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		88.6	ug/L	0.500	2.00
95-47-6	o-Xylene		43.7	ug/L	0.300	1.00
100-42-5	Styrene		46.6	ug/L	0.250	1.00
75-25-2	Bromoform		45.6	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		43.1	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		41.4	ug/L	0.300	1.00
108-86-1	Bromobenzene		42.2	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		44.9	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		43.0	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		43.8	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		43.8	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		43.8	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		44.0	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		44.2	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		44.8	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		45.6	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		42.6	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		43.7	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		46.9	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		46.9	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		44.3	ug/L	0.300	1.00
91-20-3	Naphthalene		46.3	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		46.2	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202004165**				
Client Sample:	**QC for batch 936682**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 936682**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936682**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/24/2009 13:48**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/24/2009 13:48**				
Data File:	**4q402LI.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		43.9	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		46.6	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		42.7	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	42.8	50.0	ug/L	85.6	(59%-130%)
Bromofluorobenzene	52.8	50.0	ug/L	106	(71%-126%)
Toluene-d8	45.9	50.0	ug/L	91.8	(76%-129%)

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122409v4/4q402L1.d
Lab Smp Id: 1202004165 Client Smp ID: LCS
Inj Date : 24-DEC-2009 13:48
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202004165|936682|1|VOAF|1|
Misc Info : GEL 5ML N/A UVM091214-01A/IVM091222-01
Comment :
Method : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:28 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 2 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
M 1 Xylenes (total)	106				1676090	132.330	132
M 2 1,2-Dichloroethylene (total)	96				970297	87.3780	87.4
M 135 1,3-Dichloropropylene	75				888809	90.8888	90.9
3 Dichlorodifluoromethane	85	4.911	4.911	(0.462)	216367	41.1725	41.2
4 Chloromethane	50	5.306	5.306	(0.500)	464224	44.6743	44.7
5 Vinyl chloride	62	5.535	5.535	(0.521)	373889	48.5253	48.5
6 Bromomethane	94	6.137	6.137	(0.578)	280844	45.4679	45.5
7 Chloroethane	64	6.288	6.288	(0.592)	292481	45.8110	45.8
8 Trichlorofluoromethane	101	6.669	6.669	(0.628)	427993	47.5155	47.5
134 Ethyl Ether	59	7.004	7.004	(0.660)	253838	40.7909	40.8
10 Acetone	43	7.364	7.364	(0.693)	1129347	163.412	163
11 1,1-Dichloroethylene	61	7.389	7.389	(0.696)	493410	41.0349	41.0
13 Iodomethane	142	7.632	7.632	(0.719)	2550809	207.517	208
15 Acetonitrile	41	7.699	7.699	(0.725)	1420254	1098.48	1100
128 Methyl acetate	43	7.754	7.754	(0.730)	1384700	216.835	217

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
14 Carbon disulfide	76	7.773	7.773	(0.732)	5032293	226.388	226
17 Methylene chloride	84	7.943	7.943	(0.748)	347329	44.2087	44.2
20 tert-Butyl methyl ether	73	8.242	8.242	(0.776)	728005	40.1425	40.1
21 trans-1,2-Dichloroethylene	61	8.285	8.285	(0.780)	463647	43.6829	43.7
23 Vinyl acetate	43	8.711	8.711	(0.820)	3863090	243.222	243
22 1,1-Dichloroethane	63	8.760	8.760	(0.825)	586121	43.2403	43.2
30 2-Butanone	43	9.327	9.327	(0.878)	1368218	174.743	175
31 cis-1,2-Dichloroethylene	61	9.388	9.388	(0.884)	506650	43.6951	43.7
25 2,2-Dichloropropane	77	9.425	9.425	(0.887)	289614	45.8913	45.9
29 Bromochloromethane	128	9.656	9.656	(0.909)	150727	41.8611	41.9
32 Chloroform	83	9.693	9.693	(0.913)	502247	42.7817	42.8
36 1,1,1-Trichloroethane	97	9.979	9.979	(0.940)	407751	45.4413	45.4
129 Cyclohexane	56	10.083	10.083	(0.949)	565553	46.5121	46.5
34 1,1-Dichloropropene	75	10.132	10.132	(0.954)	389463	45.3448	45.3
33 Carbon tetrachloride	117	10.175	10.175	(0.958)	384805	45.1780	45.2
$ 138 1,2-Dichloroethane-d4	65	10.260	10.260	(0.966)	245374	42.8100	42.8
37 1,2-Dichloroethane	62	10.345	10.345	(0.974)	392739	41.1156	41.1
38 Benzene	78	10.370	10.370	(0.976)	1173450	42.9990	43.0
139 Cyclohexene	67	10.492	10.492	(0.988)	585768	44.7431	44.7
* 40 Fluorobenzene	96	10.620	10.620	(1.000)	1100102	50.0000	
131 n-Butyl alcohol	56	10.687	10.687	(1.006)	1265602	5119.42	5120
39 Trichloroethylene	95	11.004	11.004	(1.036)	296013	43.8997	43.9
130 Methylcyclohexane	83	11.266	11.266	(1.061)	497309	47.0471	47.0
41 1,2-Dichloropropane	63	11.241	11.241	(1.059)	339801	43.5330	43.5
43 Dibromomethane	93	11.376	11.376	(1.071)	176093	43.1766	43.2
45 Bromodichloromethane	83	11.485	11.485	(1.082)	377663	44.1423	44.1
44 2-Chloroethylvinyl ether	63	11.699	11.699	(1.102)	907938	253.893	254
46 cis-1,3-Dichloropropylene	75	11.930	11.930	(1.123)	461676	44.8762	44.9
49 4-Methyl-2-pentanone	58	12.022	12.022	(0.873)	709949	216.937	217
$ 47 Toluene-d8	98	12.253	12.253	(0.890)	898788	45.8815	45.9
50 Toluene	92	12.327	12.327	(0.895)	705822	43.0279	43.0
53 trans-1,3-Dichloropropylene	75	12.461	12.461	(0.905)	427133	45.2961	45.3
54 1,1,2-Trichloroethane	83	12.686	12.686	(0.921)	217990	42.0731	42.1
55 2-Hexanone	43	12.857	12.857	(0.934)	1897443	188.491	188
52 1,3-Dichloropropane	76	12.875	12.875	(0.935)	434506	42.5971	42.6
56 Tetrachloroethylene	164	12.918	12.918	(0.938)	268950	43.3818	43.4
57 Dibromochloromethane	129	13.150	13.150	(0.955)	306846	44.9873	45.0
59 1,2-Dibromoethane	107	13.320	13.320	(0.967)	270630	43.8764	43.9
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	827154	50.0000	
62 Chlorobenzene	112	13.802	13.802	(1.002)	810197	42.5341	42.5
60 1,1,1,2-Tetrachloroethane	131	13.851	13.851	(1.006)	309822	43.8520	43.8
58 Ethylbenzene	91	13.863	13.863	(1.007)	1404862	43.4538	43.4
63 m,p-Xylenes	106	13.973	13.973	(1.015)	1105944	88.5857	88.6
64 o-Xylene	106	14.405	14.405	(1.046)	570146	43.7438	43.7
65 Styrene	104	14.399	14.399	(1.046)	911295	46.6336	46.6
66 Bromoform	173	14.655	14.655	(0.906)	254648	45.6315	45.6
67 Isopropylbenzene	105	14.759	14.759	(0.912)	1540827	43.7811	43.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
$ 71 Bromofluorobenzene	95	14.954	14.954	(0.924)	460337	52.8089	52.8
73 1,1,2,2-Tetrachloroethane	83	15.015	15.015	(0.928)	416594	43.1094	43.1
74 1,2,3-Trichloropropane	110	15.107	15.107	(0.934)	102685	41.4145	41.4
75 Bromobenzene	156	15.168	15.168	(0.937)	442030	42.1890	42.2
76 n-Propylbenzene	91	15.180	15.180	(0.938)	1909060	44.9389	44.9
78 1,3,5-Trimethylbenzene	105	15.332	15.332	(0.948)	1373832	43.7871	43.8
77 2-Chlorotoluene	91	15.332	15.332	(0.948)	1282660	43.0032	43.0
80 4-Chlorotoluene	91	15.430	15.430	(0.954)	1202103	43.7785	43.8
81 tert-Butylbenzene	119	15.704	15.704	(0.971)	1354475	44.0317	44.0
79 1,2,4-Trimethylbenzene	105	15.741	15.741	(0.973)	1457483	44.1890	44.2
83 sec-Butylbenzene	105	15.930	15.930	(0.985)	1924105	44.7792	44.8
84 4-Isopropyltoluene	119	16.051	16.051	(0.992)	1529883	45.5942	45.6
85 1,3-Dichlorobenzene	146	16.119	16.119	(0.996)	881219	42.6139	42.6
* 86 1,4-Dichlorobenzene-d4	152	16.180	16.180	(1.000)	536828	50.0000	
87 1,4-Dichlorobenzene	146	16.204	16.204	(1.002)	891547	43.7129	43.7
89 n-Butylbenzene	91	16.503	16.503	(1.020)	1518668	46.9166	46.9
90 1,2-Dichlorobenzene	146	16.643	16.643	(1.029)	836011	42.7260	42.7
92 1,2-Dibromo-3-chloropropane	157	17.527	17.527	(1.083)	75830	46.8547	46.8
93 1,2,4-Trichlorobenzene	180	18.630	18.630	(1.151)	494529	46.5715	46.6
94 Hexachlorobutadiene	225	18.819	18.819	(1.163)	356038	44.2750	44.3
95 Naphthalene	128	19.033	19.033	(1.176)	805863	46.3005	46.3
96 1,2,3-Trichlorobenzene	180	19.386	19.386	(1.198)	392149	46.2126	46.2

Data File: /chem/VOA4.i/122409v4/4q402L1.d
Date : 24-DEC-2009 13:48
Client ID: LCS
Sample Info: 1120200416519366821 1|VOAF1 1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

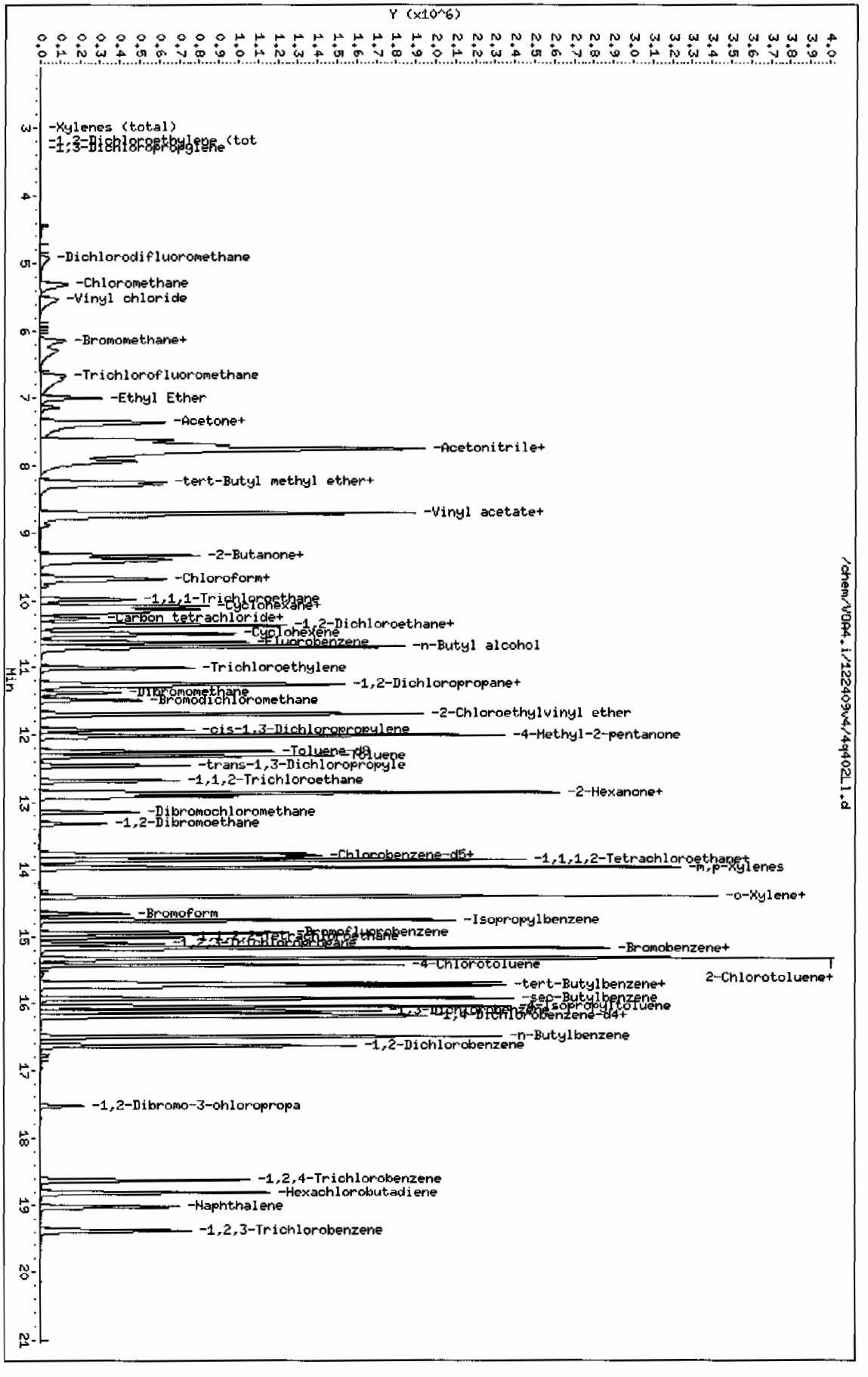

Page 1

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202004166**				
Client Sample:	**QC for batch 936682**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 936682**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936682**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/24/2009 14:42**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/24/2009 14:42**				
Data File:	**4q404Sl.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202004166**				
Client Sample:	**QC for batch 936682**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 936682**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936682**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/24/2009 14:42**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/24/2009 14:42**				
Data File:	**4q404Sl.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein		237	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane		225	ug/L	1.00	5.00
107-05-1	Allyl chloride		236	ug/L	1.50	5.00
107-13-1	Acrylonitrile		223	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene		49.6	ug/L	0.300	1.00
107-12-0	Propionitrile		216	ug/L	1.50	5.00
126-98-7	Methacrylonitrile		222	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol		2070	ug/L	12.5	50.0
80-62-6	Methyl methacrylate		230	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202004166**				
Client Sample:	**QC for batch 936682**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 936682**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936682**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/24/2009 14:42**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/24/2009 14:42**				
Data File:	**4q404Sl.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate		230	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	43.2	50.0	ug/L	86.3	(59%-130%)
Bromofluorobenzene	56.5	50.0	ug/L	113	(71%-126%)
Toluene-d8	46.5	50.0	ug/L	93.1	(76%-129%)

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122409v4/4q404Sl.d
Lab Smp Id: 1202004166 Client Smp ID: LCS
Inj Date : 24-DEC-2009 14:42
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202004166|936682|1|VOAF|1|
Misc Info : GEL 5ML N/A
Comment :
Method : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:28 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 4 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
9 Acrolein	56	7.186	7.186	(0.677)	324571	236.776	237
12 Trichlorotrifluoroethane	85	7.363	7.363	(0.693)	503973	224.712	225
16 Allyl chloride	41	7.802	7.802	(0.735)	3094847	236.456	236
18 Acrylonitrile	53	8.174	8.174	(0.770)	673076	223.141	223
24 2-Chloro-1,3-butadiene	53	8.869	8.869	(0.835)	534850	49.6463	49.6
26 Ethyl acetate	43	9.338	9.338	(0.879)	1814646	206.789	207
28 Propionitrile	54	9.393	9.393	(0.885)	265329	216.265	216
27 Methacrylonitrile	41	9.576	9.576	(0.902)	1165385	222.137	222
72 Tetrahydrofuran	42	9.716	9.716	(0.601)	624025	217.482	217
19 Isobutyl alcohol	41	10.009	10.009	(0.943)	790875	2071.52	2070
$ 138 1,2-Dichloroethane-d4	65	10.259	10.260	(0.966)	258545	43.1702	43.2
* 40 Fluorobenzene	96	10.619	10.620	(1.000)	1149480	50.0000	
42 Methyl methacrylate	69	11.210	11.210	(1.056)	1015388	230.146	230
97 1,4-Dioxane	88	11.326	11.326	(1.067)	163999	2081.43	2080
48 2-Nitropropane	43	11.673	11.673	(1.099)	559401	248.033	248

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
$ 47 Toluene-d8	98	12.253	12.253	(0.890)	946767	46.5422	46.5
51 Ethyl methacrylate	69	12.466	12.466	(0.905)	1928155	230.215	230
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	858940	50.0000	
68 cis-1,4-Dichloro-2-butene	53	14.783	14.783	(0.914)	747794	248.891	249
70 Cyclohexanone	42	14.904	14.904	(1.082)	522539	676.784	677
$ 71 Bromofluorobenzene	95	14.953	14.954	(0.924)	491011	56.5116	56.5
69 trans-1,4-Dichloro-2-butene	53	15.063	15.063	(0.931)	706607	248.663	249
82 Pentachloroethane	167	15.776	15.776	(0.975)	1202561	313.527	314
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.180	(1.000)	535082	50.0000	
88 Benzyl chloride	91	16.319	16.319	(1.009)	3499616	264.181	264
91 bis(2-Chloroisopropyl)ether	45	16.721	16.721	(1.034)	1147858	229.233	229

Data File: /chem/VOA4.i/122409v4/4q4045l.d
Date : 24-DEC-2009 14:42
Client ID: LCS
Sample Info: I120200416619366821I1VOAF11I
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

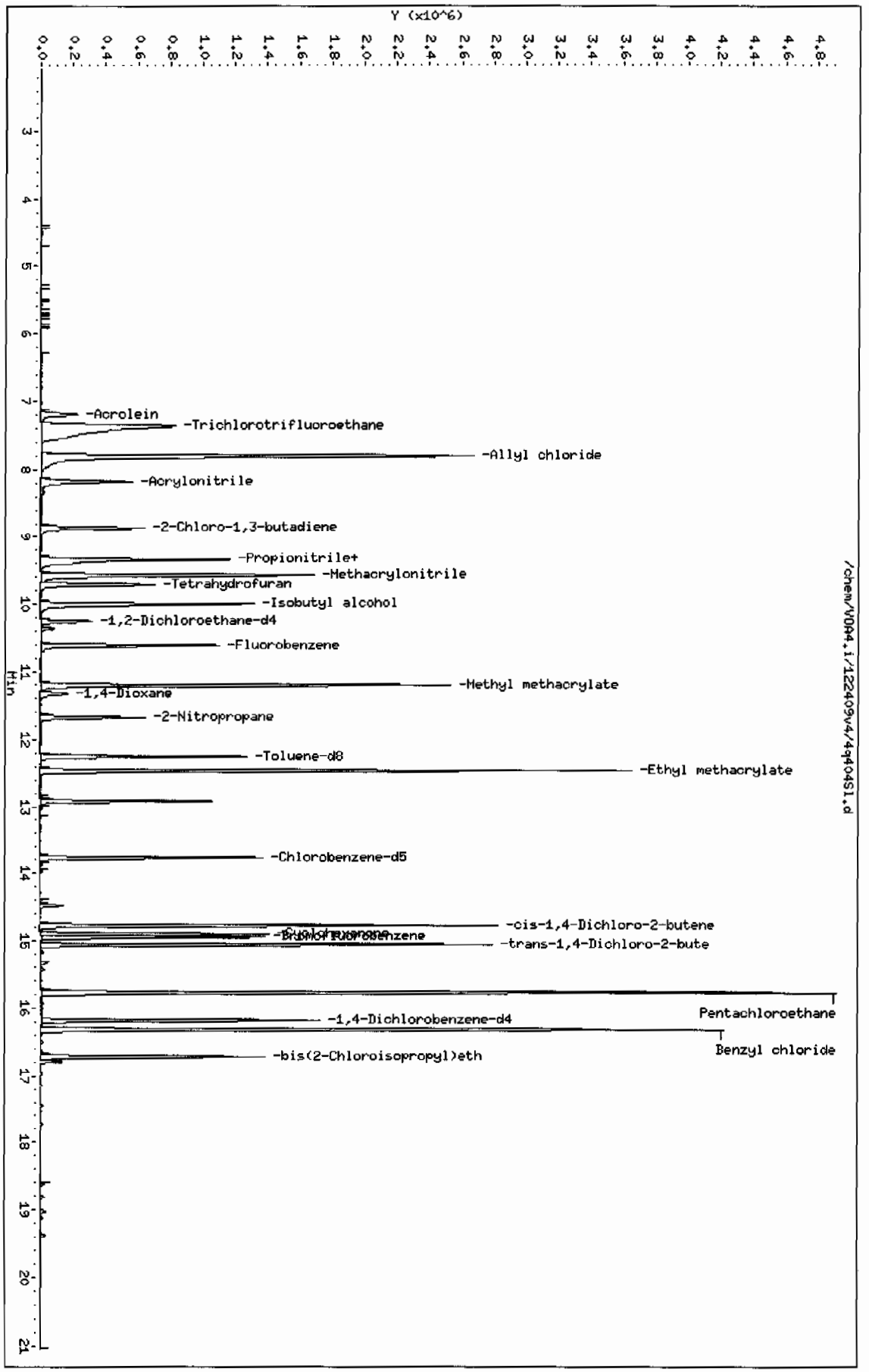

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-952	**Date Collected:**	12/15/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	1202004163	**Date Received:**	12/17/2009 09:20		
Client Sample:	QC for batch 936682	**Client:**	LANL010	**Project:**	QC
Client ID:	CAPA-10-6818PS	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	936682	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/24/2009 23:47	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/24/2009 23:47				
Data File:	4q424.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		36.8	ug/L	0.300	1.00
74-87-3	Chloromethane		39.0	ug/L	0.300	1.00
75-01-4	Vinyl chloride		41.9	ug/L	0.500	1.00
74-83-9	Bromomethane		42.1	ug/L	0.300	1.00
75-00-3	Chloroethane		40.1	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		41.7	ug/L	0.300	1.00
60-29-7	Ethyl ether		41.1	ug/L	0.300	1.00
67-64-1	Acetone		79.8	ug/L	3.50	10.0
75-05-8	Acetonitrile		1020	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		36.8	ug/L	0.300	1.00
74-88-4	Iodomethane		196	ug/L	1.25	5.00
75-09-2	Methylene chloride		41.4	ug/L	3.00	10.0
75-15-0	Carbon disulfide		199	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		40.2	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		40.6	ug/L	0.300	1.00
108-05-4	Vinyl acetate		237	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		40.0	ug/L	0.300	1.00
78-93-3	2-Butanone		117	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		41.3	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		40.7	ug/L	0.300	1.00
67-66-3	Chloroform		41.8	ug/L	0.250	1.00
74-97-5	Bromochloromethane		41.6	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		42.1	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		40.8	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		4800	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		41.1	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		41.9	ug/L	0.250	1.00
71-43-2	Benzene		40.1	ug/L	0.300	1.00
79-01-6	Trichloroethylene		40.1	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		41.7	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		43.5	ug/L	0.250	1.00
74-95-3	Dibromomethane		42.6	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		198	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		42.4	ug/L	0.250	1.00
108-88-3	Toluene		39.8	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		43.2	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		40.9	ug/L	0.250	1.00
591-78-6	2-Hexanone		134	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-952	Date Collected:	12/15/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	1202004163	Date Received:	12/17/2009 09:20		
Client Sample:	QC for batch 936682	Client:	LANL010	Project:	QC
Client ID:	CAPA-10-6818PS	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	936682	Inst:	VOA4.I	Dilution:	1
Run Date:	12/24/2009 23:47	Analyst:	ACJ	Purge Vol:	5 mL
Prep Date:	12/24/2009 23:47				
Data File:	4q424.d	Column:	RTX-VOLATILES	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		41.0	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		38.9	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		43.9	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		42.9	ug/L	0.250	1.00
108-90-7	Chlorobenzene		40.1	ug/L	0.250	1.00
100-41-4	Ethylbenzene		40.3	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		81.4	ug/L	0.500	2.00
95-47-6	o-Xylene		40.8	ug/L	0.300	1.00
100-42-5	Styrene		44.0	ug/L	0.250	1.00
75-25-2	Bromoform		44.8	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		42.2	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		40.3	ug/L	0.300	1.00
108-86-1	Bromobenzene		41.2	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		40.4	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		40.0	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		40.2	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		40.5	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		41.4	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		40.7	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		40.8	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		40.3	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		40.7	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		40.5	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		40.8	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		41.0	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		46.5	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		41.7	ug/L	0.300	1.00
91-20-3	Naphthalene		47.7	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		46.3	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202004163**	**Date Received:**	**12/17/2009 09:20**		
Client Sample:	**QC for batch 936682**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-6818PS**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936682**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/24/2009 23:47**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/24/2009 23:47**				
Data File:	**4q424.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		42.8	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		44.7	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		41.3	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	43.3	50.0	ug/L	86.6	(59%-130%)
Bromofluorobenzene	52.7	50.0	ug/L	105	(71%-126%)
Toluene-d8	44.7	50.0	ug/L	89.5	(76%-129%)

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122409v4/4q424.d
Lab Smp Id: 1202004163 Client Smp ID: CAPA-10-6818MS
Inj Date : 24-DEC-2009 23:47
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202004163|936682|1|VOAF|1|
Misc Info : LANL 5ML PH2 MS 243099003
Comment :
Method : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:28 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 24 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-952.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 40 Fluorobenzene	96	10.620	10.620	(1.000)	1164775	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	870349	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.180	16.180	(1.000)	563546	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.260	10.260	(0.966)	262750	43.2962	43.3
$ 47 Toluene-d8	98	12.253	12.253	(0.890)	922180	44.7393	44.7
$ 71 Bromofluorobenzene	95	14.954	14.954	(0.924)	482139	52.6877	52.7
3 Dichlorodifluoromethane	85	4.911	4.911	(0.462)	204864	36.8191	36.8
4 Chloromethane	50	5.306	5.306	(0.500)	428748	38.9693	39.0
5 Vinyl chloride	62	5.528	5.535	(0.521)	342048	41.9279	41.9
6 Bromomethane	94	6.137	6.137	(0.578)	275085	42.0627	42.1
7 Chloroethane	64	6.295	6.288	(0.593)	270777	40.0566	40.0
8 Trichlorofluoromethane	101	6.663	6.669	(0.627)	397731	41.7041	41.7
134 Ethyl ether	59	7.004	7.004	(0.660)	271057	41.1394	41.1
10 Acetone	43	7.358	7.364	(0.693)	584087	79.8222	79.8
15 Acetonitrile	41	7.706	7.699	(0.726)	1403091	1024.95	1020

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
11 1,1-Dichloroethylene	61	7.395	7.389	(0.696)	468058	36.7651	36.8
87 1,4-Dichlorobenzene	146	16.204	16.204	(1.002)	873970	40.8195	40.8
93 1,2,4-Trichlorobenzene	180	18.630	18.630	(1.151)	498583	44.7272	44.7
13 Iodomethane	142	7.626	7.632	(0.718)	2552149	196.098	196
17 Methylene chloride	84	7.943	7.943	(0.748)	345380	41.3626	41.4
14 Carbon disulfide	76	7.773	7.773	(0.732)	4685720	199.092	199
20 tert-Butyl methyl ether	73	8.242	8.242	(0.776)	771935	40.2014	40.2
21 trans-1,2-Dichloroethylene	61	8.285	8.285	(0.780)	455839	40.5626	40.6
23 Vinyl acetate	43	8.711	8.711	(0.820)	3977621	236.528	236
22 1,1-Dichloroethane	63	8.760	8.760	(0.825)	574692	40.0431	40.0
30 2-Butanone	43	9.327	9.327	(0.878)	966783	116.618	117
31 cis-1,2-Dichloroethylene	61	9.388	9.388	(0.884)	506504	41.2571	41.2
85 1,3-Dichlorobenzene	146	16.119	16.119	(0.996)	878122	40.4508	40.4
25 2,2-Dichloropropane	77	9.425	9.425	(0.887)	272039	40.7130	40.7
32 Chloroform	83	9.693	9.693	(0.913)	519297	41.7780	41.8
90 1,2-Dichlorobenzene	146	16.643	16.643	(1.029)	848340	41.3005	41.3
29 Bromochloromethane	128	9.662	9.656	(0.910)	158608	41.6040	41.6
36 1,1,1-Trichloroethane	97	9.979	9.979	(0.940)	400041	42.1067	42.1
34 1,1-Dichloropropene	75	10.138	10.132	(0.955)	370801	40.7749	40.8
131 n-Butyl alcohol	56	10.693	10.687	(1.007)	1255936	4798.24	4800
33 Carbon tetrachloride	117	10.175	10.175	(0.958)	370506	41.0839	41.1
37 1,2-Dichloroethane	62	10.339	10.345	(0.974)	423942	41.9179	41.9
38 Benzene	78	10.376	10.370	(0.977)	1159464	40.1275	40.1
39 Trichloroethylene	95	11.010	11.004	(1.037)	286344	40.1079	40.1
41 1,2-Dichloropropane	63	11.248	11.241	(1.059)	344681	41.7063	41.7
45 Bromodichloromethane	83	11.485	11.485	(1.082)	393988	43.4935	43.5
43 Dibromomethane	93	11.376	11.376	(1.071)	183810	42.5663	42.6
95 Naphthalene	128	19.033	19.033	(1.176)	871680	47.7076	47.7
49 4-Methyl-2-pentanone	58	12.016	12.022	(0.872)	681523	197.916	198
94 Hexachlorobutadiene	225	18.819	18.819	(1.163)	351756	41.6686	41.7
46 cis-1,3-Dichloropropylene	75	11.930	11.930	(1.123)	461777	42.3937	42.4
50 Toluene	92	12.327	12.327	(0.895)	686227	39.7572	39.8
53 trans-1,3-Dichloropropylene	75	12.467	12.461	(0.905)	428439	43.1797	43.2
54 1,1,2-Trichloroethane	83	12.686	12.686	(0.921)	222982	40.9007	40.9
55 2-Hexanone	43	12.857	12.857	(0.934)	1420503	134.108	134
52 1,3-Dichloropropane	76	12.875	12.875	(0.935)	439612	40.9588	41.0
56 Tetrachloroethylene	164	12.918	12.918	(0.938)	253726	38.8950	38.9
57 Dibromochloromethane	129	13.150	13.150	(0.955)	314906	43.8777	43.9
59 1,2-Dibromoethane	107	13.320	13.320	(0.967)	278497	42.9110	42.9
62 Chlorobenzene	112	13.802	13.802	(1.002)	803293	40.0787	40.1
60 1,1,1,2-Tetrachloroethane	131	13.851	13.851	(1.006)	318100	42.7891	42.8
58 Ethylbenzene	91	13.863	13.863	(1.007)	1371055	40.3035	40.3
63 m,p-Xylenes	106	13.973	13.973	(1.015)	1069629	81.4248	81.4
64 o-Xylene	106	14.399	14.405	(1.046)	559148	40.7709	40.8
65 Styrene	104	14.399	14.399	(1.046)	904394	43.9836	44.0
66 Bromoform	173	14.662	14.655	(0.906)	262584	44.8227	44.8
73 1,1,2,2-Tetrachloroethane	83	15.015	15.015	(0.928)	427909	42.1810	42.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
74 1,2,3-Trichloropropane	110	15.107	15.107	(0.934)	105008	40.3435	40.3
75 Bromobenzene	156	15.168	15.168	(0.937)	453566	41.2377	41.2
76 n-Propylbenzene	91	15.180	15.180	(0.938)	1800282	40.3691	40.4
77 2-Chlorotoluene	91	15.332	15.332	(0.948)	1253537	40.0343	40.0
67 Isopropylbenzene	105	14.759	14.759	(0.912)	1486184	40.2264	40.2
78 1,3,5-Trimethylbenzene	105	15.332	15.332	(0.948)	1332635	40.4603	40.5
80 4-Chlorotoluene	91	15.430	15.430	(0.954)	1192858	41.3823	41.4
81 tert-Butylbenzene	119	15.704	15.704	(0.971)	1313749	40.6830	40.7
79 1,2,4-Trimethylbenzene	105	15.741	15.741	(0.973)	1412088	40.7829	40.8
83 sec-Butylbenzene	105	15.930	15.930	(0.985)	1818696	40.3193	40.3
84 4-Isopropyltoluene	119	16.051	16.051	(0.992)	1434532	40.7256	40.7
89 n-Butylbenzene	91	16.503	16.503	(1.020)	1394126	41.0272	41.0
92 1,2-Dibromo-3-chloropropane	157	17.527	17.527	(1.083)	78923	46.4538	46.4
96 1,2,3-Trichlorobenzene	180	19.386	19.386	(1.198)	412455	46.3011	46.3

Data File: /chem/VOA4.i/122409v4/4q424.d
Date : 24-DEC-2009 23:47
Client ID: CAPA-10-6818MS
Sample Info: 1120200416319366821|1|VOAF|1|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

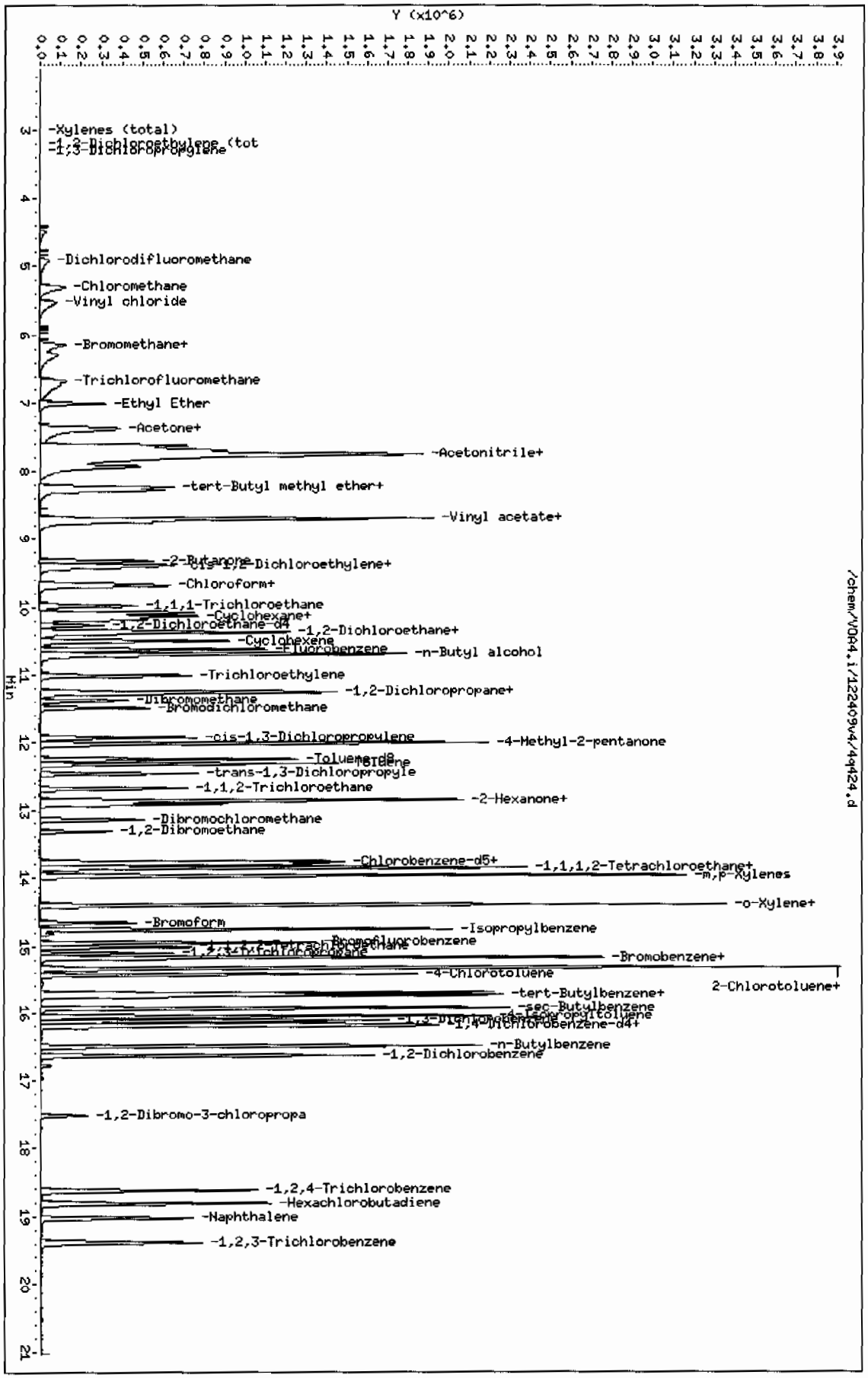

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202004164**	**Date Received:**	**12/17/2009 09:20**		
Client Sample:	**QC for batch 936682**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-6818PSD**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936682**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/25/2009 00:14**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/25/2009 00:14**				
Data File:	**4q425.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		35.4	ug/L	0.300	1.00
74-87-3	Chloromethane		37.0	ug/L	0.300	1.00
75-01-4	Vinyl chloride		39.6	ug/L	0.500	1.00
74-83-9	Bromomethane		39.1	ug/L	0.300	1.00
75-00-3	Chloroethane		38.7	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		41.5	ug/L	0.300	1.00
60-29-7	Ethyl ether		39.4	ug/L	0.300	1.00
67-64-1	Acetone		75.2	ug/L	3.50	10.0
75-05-8	Acetonitrile		947	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		35.3	ug/L	0.300	1.00
74-88-4	Iodomethane		188	ug/L	1.25	5.00
75-09-2	Methylene chloride		39.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide		189	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		38.4	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		38.0	ug/L	0.300	1.00
108-05-4	Vinyl acetate		223	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		37.7	ug/L	0.300	1.00
78-93-3	2-Butanone		110	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		38.4	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		37.2	ug/L	0.300	1.00
67-66-3	Chloroform		38.8	ug/L	0.250	1.00
74-97-5	Bromochloromethane		38.8	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		40.3	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		38.8	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		4470	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		39.5	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		39.2	ug/L	0.250	1.00
71-43-2	Benzene		37.6	ug/L	0.300	1.00
79-01-6	Trichloroethylene		37.8	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		38.2	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		40.5	ug/L	0.250	1.00
74-95-3	Dibromomethane		38.8	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		189	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		39.7	ug/L	0.250	1.00
108-88-3	Toluene		37.6	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		40.3	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		37.8	ug/L	0.250	1.00
591-78-6	2-Hexanone		127	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202004164**	**Date Received:**	**12/17/2009 09:20**		
Client Sample:	**QC for batch 936682**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-6818PSD**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**936682**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**12/25/2009 00:14**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**12/25/2009 00:14**				
Data File:	**4q425.d**	**Column:**	**RTX-VOLATILES**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		38.9	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		37.2	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		41.0	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		40.2	ug/L	0.250	1.00
108-90-7	Chlorobenzene		37.9	ug/L	0.250	1.00
100-41-4	Ethylbenzene		37.6	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		77.0	ug/L	0.500	2.00
95-47-6	o-Xylene		38.3	ug/L	0.300	1.00
100-42-5	Styrene		40.6	ug/L	0.250	1.00
75-25-2	Bromoform		42.3	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		39.9	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		38.9	ug/L	0.300	1.00
108-86-1	Bromobenzene		38.3	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		37.6	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		38.0	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		38.1	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		38.1	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		38.7	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		38.7	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		38.3	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		38.6	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		39.1	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		38.2	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		38.6	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		39.4	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		43.2	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		39.2	ug/L	0.300	1.00
91-20-3	Naphthalene		44.4	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		43.3	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-952	**Date Collected:**	12/15/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	1202004164	**Date Received:**	12/17/2009 09:20		
Client Sample:	QC for batch 936682	**Client:**	LANL010	**Project:**	QC
Client ID:	CAPA-10-6818PSD	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	936682	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	12/25/2009 00:14	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	12/25/2009 00:14				
Data File:	4q425.d	**Column:**	RTX-VOLATILES	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		39.7	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		42.2	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		38.6	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	43.1	50.0	ug/L	86.2	(59%-130%)
Bromofluorobenzene	52.4	50.0	ug/L	105	(71%-126%)
Toluene-d8	44.5	50.0	ug/L	89.0	(76%-129%)

GEL Laboratories LLC

VOLATILE GC/MS : SOP# GL-OA-E-038,-039,-026

Data file : /chem/VOA4.i/122409v4/4q425.d
Lab Smp Id: 1202004164 Client Smp ID: CAPA-10-6818MSD
Inj Date : 25-DEC-2009 00:14
Operator : ACJ Inst ID: VOA4.i
Smp Info : |1202004164|936682|1|VOAF|1|
Misc Info : LANL 5ML PH2 MSD 243099003
Comment :
Method : /chem/VOA4.i/122409v4/VOA4-8260-121909.m
Meth Date : 24-Dec-2009 16:28 amj Quant Type: ISTD
Cal Date : 20-DEC-2009 02:33 Cal File: 4p618.d
Als bottle: 25 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-952.sub
Target Version: 3.50
Processing Host: prdsvr07

Concentration Formula: Amt * DF * (Uf/Vo) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	5.00000	ng unit correction factor
Vo	5.00000	sample purged

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
* 40 Fluorobenzene	96	10.619	10.620	(1.000)	1179991	50.0000	
* 61 Chlorobenzene-d5	117	13.771	13.771	(1.000)	884110	50.0000	
* 86 1,4-Dichlorobenzene-d4	152	16.179	16.180	(1.000)	574905	50.0000	
$ 138 1,2-Dichloroethane-d4	65	10.265	10.260	(0.967)	264927	43.0920	43.1
$ 47 Toluene-d8	98	12.253	12.253	(0.890)	932152	44.5192	44.5
$ 71 Bromofluorobenzene	95	14.953	14.954	(0.924)	489331	52.4171	52.4
3 Dichlorodifluoromethane	85	4.912	4.911	(0.463)	199716	35.4310	35.4
4 Chloromethane	50	5.306	5.306	(0.500)	411905	36.9557	37.0
5 Vinyl chloride	62	5.521	5.535	(0.520)	327341	39.6077	39.6
6 Bromomethane	94	6.138	6.137	(0.578)	259149	39.1150	39.1
7 Chloroethane	64	6.295	6.288	(0.593)	264806	38.6682	38.7
8 Trichlorofluoromethane	101	6.668	6.669	(0.628)	400593	41.4626	41.5
134 Ethyl ether	59	7.004	7.004	(0.660)	262781	39.3691	39.4
10 Acetone	43	7.357	7.364	(0.693)	557381	75.1903	75.2
15 Acetonitrile	41	7.699	7.699	(0.725)	1313938	947.446	947

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
11 1,1-Dichloroethylene	61	7.388	7.389	(0.696)	455314	35.3029	35.3
87 1,4-Dichlorobenzene	146	16.209	16.204	(1.002)	842095	38.5536	38.6
93 1,2,4-Trichlorobenzene	180	18.629	18.630	(1.151)	479355	42.1527	42.2
13 Iodomethane	142	7.631	7.632	(0.719)	2476155	187.806	188
17 Methylene chloride	84	7.942	7.943	(0.748)	331179	39.0123	39.0
14 Carbon disulfide	76	7.772	7.773	(0.732)	4503757	188.893	189
20 tert-Butyl methyl ether	73	8.241	8.242	(0.776)	746714	38.3865	38.4
21 trans-1,2-Dichloroethylene	61	8.284	8.285	(0.780)	432421	37.9826	38.0
23 Vinyl acetate	43	8.711	8.711	(0.820)	3802836	223.218	223
22 1,1-Dichloroethane	63	8.759	8.760	(0.825)	548697	37.7388	37.7
30 2-Butanone	43	9.326	9.327	(0.878)	923243	109.930	110
31 cis-1,2-Dichloroethylene	61	9.387	9.388	(0.884)	477142	38.3642	38.4
85 1,3-Dichlorobenzene	146	16.124	16.119	(0.997)	846410	38.2197	38.2
25 2,2-Dichloropropane	77	9.424	9.425	(0.887)	251902	37.2132	37.2
32 Chloroform	83	9.692	9.693	(0.913)	488783	38.8160	38.8
90 1,2-Dichlorobenzene	146	16.642	16.643	(1.029)	807920	38.5556	38.6
29 Bromochloromethane	128	9.655	9.656	(0.909)	149717	38.7654	38.8
36 1,1,1-Trichloroethane	97	9.979	9.979	(0.940)	387792	40.2910	40.3
34 1,1-Dichloropropene	75	10.137	10.132	(0.955)	357254	38.7786	38.8
131 n-Butyl alcohol	56	10.692	10.687	(1.007)	1184253	4466.04	4470
33 Carbon tetrachloride	117	10.174	10.175	(0.958)	361099	39.5245	39.5
37 1,2-Dichloroethane	62	10.344	10.345	(0.974)	401287	39.1662	39.2
38 Benzene	78	10.375	10.370	(0.977)	1100415	37.5928	37.6
39 Trichloroethylene	95	11.003	11.004	(1.036)	273708	37.8436	37.8
41 1,2-Dichloropropane	63	11.247	11.241	(1.059)	319772	38.1934	38.2
45 Bromodichloromethane	83	11.484	11.485	(1.082)	371390	40.4702	40.5
43 Dibromomethane	93	11.375	11.376	(1.071)	169759	38.8055	38.8
95 Naphthalene	128	19.032	19.033	(1.176)	827060	44.3712	44.4
49 4-Methyl-2-pentanone	58	12.015	12.022	(0.872)	659902	188.654	189
94 Hexachlorobutadiene	225	18.818	18.819	(1.163)	337802	39.2250	39.2
46 cis-1,3-Dichloropropylene	75	11.929	11.930	(1.123)	438271	39.7169	39.7
50 Toluene	92	12.326	12.327	(0.895)	658655	37.5658	37.6
53 trans-1,3-Dichloropropylene	75	12.466	12.461	(0.905)	405827	40.2642	40.3
54 1,1,2-Trichloroethane	83	12.685	12.686	(0.921)	209378	37.8076	37.8
55 2-Hexanone	43	12.856	12.857	(0.934)	1368143	127.155	127
52 1,3-Dichloropropane	76	12.880	12.875	(0.935)	423743	38.8657	38.9
56 Tetrachloroethylene	164	12.923	12.918	(0.938)	246298	37.1687	37.2
57 Dibromochloromethane	129	13.149	13.150	(0.955)	298814	40.9874	41.0
59 1,2-Dibromoethane	107	13.319	13.320	(0.967)	264775	40.1617	40.2
62 Chlorobenzene	112	13.801	13.802	(1.002)	771261	37.8816	37.9
60 1,1,1,2-Tetrachloroethane	131	13.850	13.851	(1.006)	299461	39.6549	39.6
58 Ethylbenzene	91	13.862	13.863	(1.007)	1298650	37.5809	37.6
63 m,p-Xylenes	106	13.972	13.973	(1.015)	1027812	77.0237	77.0
64 o-Xylene	106	14.405	14.405	(1.046)	533039	38.2621	38.3
65 Styrene	104	14.405	14.399	(1.046)	847238	40.5626	40.6
66 Bromoform	173	14.661	14.655	(0.906)	252543	42.2570	42.2
73 1,1,2,2-Tetrachloroethane	83	15.014	15.015	(0.928)	412678	39.8758	39.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
74 1,2,3-Trichloropropane	110	15.106	15.107	(0.934)	103336	38.9167	38.9
75 Bromobenzene	156	15.167	15.168	(0.937)	429252	38.2560	38.2
76 n-Propylbenzene	91	15.179	15.180	(0.938)	1711287	37.6153	37.6
77 2-Chlorotoluene	91	15.331	15.332	(0.948)	1212943	37.9725	38.0
67 Isopropylbenzene	105	14.758	14.759	(0.912)	1435029	38.0744	38.1
78 1,3,5-Trimethylbenzene	105	15.331	15.332	(0.948)	1280910	38.1215	38.1
80 4-Chlorotoluene	91	15.435	15.430	(0.954)	1138191	38.7056	38.7
81 tert-Butylbenzene	119	15.703	15.704	(0.971)	1276546	38.7499	38.7
79 1,2,4-Trimethylbenzene	105	15.740	15.741	(0.973)	1353220	38.3105	38.3
83 sec-Butylbenzene	105	15.929	15.930	(0.985)	1776531	38.6064	38.6
84 4-Isopropyltoluene	119	16.051	16.051	(0.992)	1406697	39.1463	39.1
89 n-Butylbenzene	91	16.502	16.503	(1.020)	1366411	39.4171	39.4
92 1,2-Dibromo-3-chloropropane	157	17.532	17.527	(1.084)	74807	43.1612	43.2
96 1,2,3-Trichlorobenzene	180	19.385	19.386	(1.198)	393453	43.2953	43.3

Data File: /chem/VOA4.i/122409v4/4q425.d
Date : 25-DEC-2009 00:14
Client ID: CAPA-10-6818HSD
Sample Info: 1120200416419366821 1|VOAF11|
Purge Volume: 5.0
Column phase: RTX-VOLATILES

Instrument: VOA4.i
Operator: ACJ
Column diameter: 0.25

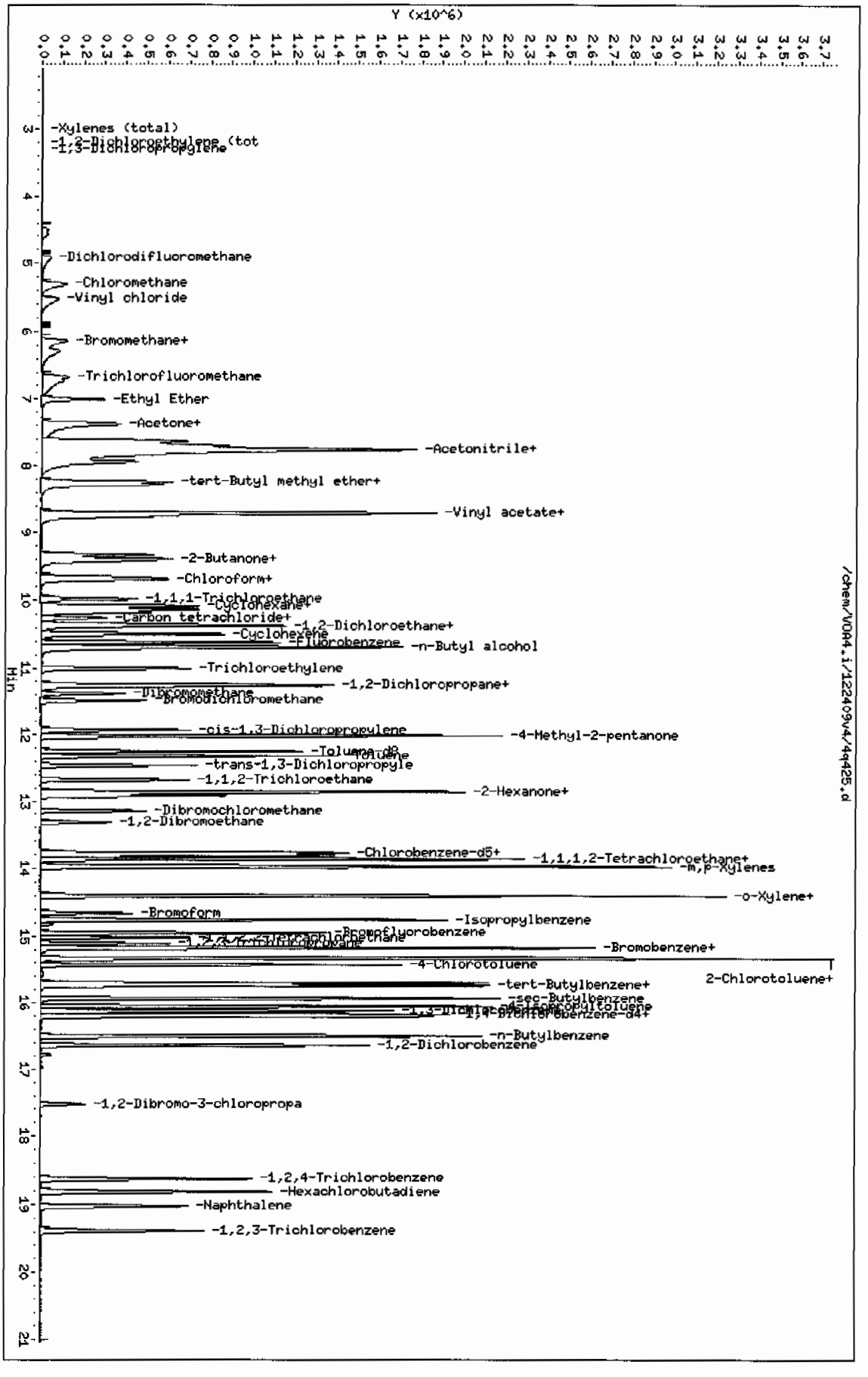

Page 1

Miscellaneous Data

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA4

Date: 12/19/2009 Method 8260B/624 Operator: ACJ

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1624

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/19/2009

(See pg. 197 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

CI test lot # 81710

Sequence Number: 121908V4

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV					
IS	UVM091203-01	1	1	1	
SS	UVM090910-02	1	1	1	
LCS/MS					
BFB	UVM090910-02				1
SHORT					
DHEC					

Purge Amount	
5	Water Purge Vol:
	Soil Purge Wt.
	Mid level ext. MeOH Vol:
	ul
	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	CI test (Y/N)	Acceptable (O/X)	Comments
12/19/2009 18:50	4P601.D	UVM090910-02	GEL	BFB	5ML	1	N/A	1	W	ACJ	N/A	O	
12/19/2009 19:17	4P602.D	12019----	GEL	BLANK	5ML	1	N/A	2	w	ACJ	N/A	X	
12/19/2009 19:44	4P603.D	W4VM091219-01	GEL	VSTD0005	5ML	1	N/A	3	w	ACJ	N/A	X	UVM090911-01D/UVM091130-01C; DICHLORODIFLUOROMETHANE
12/19/2009 20:12	4P604.D	W4VM091219-02	GEL	VSTD001	5ML	1	N/A	4	w	ACJ	N/A	O	UVM090911-02D/UVM091130-02C
12/19/2009 20:39	4P605.D	W4VM091219-03	GEL	VSTD001	5ML	1	N/A	5	w	ACJ	N/A	O	UVM090911-02D/UVM091130-02C
12/19/2009 21:07	4P606.D	W4VM091219-04	GEL	VSTD002	5ML	1	N/A	6	w	ACJ	N/A	O	UVM090911-03D/UVM091130-03C
12/19/2009 21:34	4P607.D	W4VM091219-05	GEL	VSTD005	5ML	1	N/A	7	w	ACJ	N/A	O	UVM090911-04D/UVM091130-04C
12/19/2009 22:01	4P608.D	W4VM091219-06	GEL	VSTD010	5ML	1	N/A	8	w	ACJ	N/A	O	UVM090911-05D/UVM091130-05C
12/19/2009 22:28	4P609.D	W4VM091219-07	GEL	VSTD020	5ML	1	N/A	9	w	ACJ	N/A	O	UVM090911-06D/UVM091130-06C
12/19/2009 22:55	4P610.D	W4VM091219-08	GEL	VSTD050	5ML	1	N/A	10	w	ACJ	N/A	O	UVM090911-07D/UVM091130-07C
12/19/2009 23:22	4P611.D	W4VM091219-09	GEL	VSTD100	5ML	1	N/A	11	w	ACJ	N/A	O	UVM090911-08D/UVM091130-08C
12/19/2009 23:50	4P612.D	12019----	GEL	BLANK	5ML	1	N/A	12	w	ACJ	N/A	X	
12/20/2009 0:17	4P613.D	W4VM091219-10	GEL	VSTD005S	5ML	1	N/A	13	w	ACJ	N/A	O	UVM091216-01/UVM091110-01D
12/20/2009 0:44	4P614.D	W4VM091219-11	GEL	VSTD010S	5ML	1	N/A	14	w	ACJ	N/A	O	UVM091216-02/UVM091110-02D
12/20/2009 1:12	4P615.D	W4VM091219-12	GEL	VSTD025S	5ML	1	N/A	15	w	ACJ	N/A	O	UVM091216-03/UVM091110-03D
12/20/2009 1:39	4P616.D	W4VM091219-13	GEL	VSTD050S	5ML	1	N/A	16	w	ACJ	N/A	O	UVM091216-04/UVM091110-04D
12/20/2009 2:06	4P617.D	W4VM091219-14	GEL	VSTD100S	5ML	1	N/A	17	w	ACJ	N/A	O	UVM091216-05/UVM091110-05D
12/20/2009 2:33	4P618.D	W4VM091219-15	GEL	VSTD250S	5ML	1	N/A	18	w	ACJ	N/A	O	UVM091216-06/UVM091110-06D
12/20/2009 3:01	4P619.D	W4VM091219-16	GEL	VSTD500S	5ML	1	N/A	19	w	ACJ	N/A	O	UVM091216-07/UVM091110-07D
12/20/2009 3:28	4P620.D	12019----	GEL	BLANK	5ML	1	N/A	20	w	ACJ	N/A	X	
12/20/2009 3:55	4P621.D	W4VM091219-17	GEL	ICV	5ML	1	N/A	21	w	ACJ	N/A	O	UVM091214-01A/IVM091217-01
12/20/2009 4:22	4P622.D	W4VM091219-18	GEL	SHORTICV	5ML	1	N/A	22	w	ACJ	N/A	O	UVM091118-08C/UVM091105-02E

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA4

Date: 12/24/2009 Method 8260B/624 Operator: ACJ

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1624

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 12/19/2009

(See pg. 197 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

CI test lot # 81710

Sequence Number: 122409V4

Daily Standard — Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W4VM091224-01		5+5		
IS	UVM091203-01	1	1	1	
SS	UVM090910-02	1	1	1	
LCS/MS	W4VM091224-02			5+5	
BFB	UVM090910-02				1
SHORT	UVM091118-08C		5	5	
DHEC	N/A			5	

Purge Amount

5	Water Purge Vol:
5G	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	CI test (Y/N)	Acceptable (O/X)	Comments
12/24/2009 13:20	4Q401.D	UVM090910-02	GEL	BFB	5ML	1	N/A	1	W	ACJ	N/A	O	
12/24/2009 13:48	4Q402.D	W4VM091224-01	GEL	CCV/LCS	5ML	1	N/A	2	W	ACJ	N/A	O	UVM091214-01A/IVM091222-01
12/24/2009 14:15	4Q403.D	W4VM091224-02	GEL	LCS	5G	1	N/A	3	S	ACJ	N/A	O	UVM091214-01A/IVM091222-01
12/24/2009 14:42	4Q404.D	UVM091118-08C	GEL	SHORT	5ML	1	N/A	4	W	ACJ	N/A	O	
12/24/2009 15:09	4Q405.D	UVM091118-08C	GEL	SHORT	5G	1	N/A	5	S	ACJ	N/A	O	
12/24/2009 15:36	4Q406.D	12020----	GEL	BLANK	5G	1	N/A	6	S	ACJ	N/A	O	
12/24/2009 16:03	4Q407.D	12020----	GEL	BLANK	5ML	1	N/A	7	W	ACJ	N/A	O	
12/24/2009 16:31	4Q408.D	243269002	LANL	936466	5G	1	N/A	8	S	ACJ	N/A	X	CONFIRMS 4Q315
12/24/2009 16:57	4Q409.D	243269003	LANL	936466	5G	1	N/A	9	S	ACJ	N/A	O	
12/24/2009 17:25	4Q410.D	243269004	LANL	936466	5G	1	N/A	10	S	ACJ	N/A	X	CONFIRMS 4Q317
12/24/2009 17:52	4Q411.D	243269007	LANL	936466	5G	1	N/A	11	S	ACJ	N/A	X	CONFIRMS 4Q320
12/24/2009 18:20	4Q412.D	243269008	LANL	936466	5G	1	N/A	12	S	ACJ	N/A	X	CONFIRMS 4Q321
12/24/2009 18:47	4Q413.D	243269009	LANL	936466	5G	1	N/A	13	S	ACJ	N/A	X	CONFIRMS 4Q322
12/24/2009 19:14	4Q414.D	243269012	LANL	936466	5G	1	N/A	14	S	ACJ	N/A	X	CONFIRMS 4Q323
12/24/2009 19:42	4Q415.D	243269013	LANL	936466	5G	1	N/A	15	S	ACJ	N/A	X	CONFIRMS 4Q324
12/24/2009 20:09	4Q416.D	243269014	LANL	936466	5G	1	N/A	16	S	ACJ	N/A	O	
12/24/2009 20:36	4Q417.D	12020----	GEL	BLANK	5ML	1	N/A	17	W	ACJ	N/A	X	
12/24/2009 21:03	4Q418.D	243099003	LANL	936682	5ML	1	PH2	18	W	ACJ	N	O	
12/24/2009 21:30	4Q419.D	243099005	LANL	936682	5ML	1	PH2	19	W	ACJ	N	O	
12/24/2009 21:57	4Q420.D	243142002	PNTX	936683	5ML	1	PH2	20	W	ACJ	N	O	
12/24/2009 22:25	4Q421.D	243142003	PNTX	936683	5ML	1	PH2	21	W	ACJ	N	O	
12/24/2009 22:52	4Q422.D	1202004168	PNTX	936683	5ML	1	PH2	22	W	ACJ	N	O	MS 243142002
12/24/2009 23:20	4Q423.D	1202004169	PNTX	936683	5ML	1	PH2	23	W	ACJ	N	O	MSD 243142002
12/24/2009 23:47	4Q424.D	1202004163	LANL	936682	5ML	1	PH2	24	W	ACJ	N	O	MS 243099003
12/25/2009 0:14	4Q425.D	1202004164	LANL	936682	5ML	1	PH2	25	W	ACJ	N	O	MSD 243099003
12/25/2009 0:42	4Q426.D	1202003735	LANL	936466	5G	1	PH2	26	S	ACJ	N/A	O	MS 243269001
12/25/2009 1:09	4Q427.D	1202003736	LANL	936466	5G	1	PH2	27	S	ACJ	N/A	O	MSD 243269001

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-952

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3510C
Analytical Batch Number:	935443
Prep Batch Number:	935442

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
243099003	CAPA-10-6818
1202001613	Method Blank (MB)
1202001614	Laboratory Control Sample (LCS)
1202002348	243099003(CAPA-10-6818) Matrix Spike (MS)
1202002349	243099003(CAPA-10-6818) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS (1202001614) recoveries were within the acceptance limits.

QC Sample Designation
Sample 243099003 (CAPA-10-6818) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
The MS recoveries were not within the acceptance limits. The failures confirmed in the MSD and were attributed to matrix interference. Please see the spike recovery report for the specific failures.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were not within the acceptance limits. The failures confirmed in the MS and were attributed to matrix interference. Please see the spike recovery report for the specific failures.

MS/MSD Relative Percent Difference (RPD) Statement
The MS/MSD RPD value for Benzidine was 42% (limit: 25%). The failure was attributed to matrix interference and the data were reported.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information

Data Exception Report (DER) Documentation
The following DER was generated for this SDG: 777181. It is located in the Miscellaneous Section of the data report.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD1.I	HP 5973 Mass Spectrometer	HP6890/HP5973	ZB-5ms	25m x 0.2mm, 0.33um (5% Polysilarylene-95% Polydimethylsiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: [illegible] **Date:** 1-14-10

Roadmap for LANL 10-952 SVOA

This roadmap was analyzed by amy01291 on 01-05-2010, 15:54.
This roadmap was reviewed by bar00895 on 01-08-2010, 09:11.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD1.i/s010210.b/s1a0213.d	243099003	02-JAN-2010	21:03	10-952.sub	CAPA-10-6818	1	935443	REPORT

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD1.i/s010210.b/s1a0210.d	1202001613	mb	02-JAN-2010	19:53	10-952.sub	SBLK01	1	935443	REPORT
☐	N	/chem/MSD1.i/s010210.b/s1s0211.d	1202001614	lcs	02-JAN-2010	20:17	10-952.sub	SBLK01LCS	1	935443	REPORT-c.52 low, <5% failure
☐	N	/chem/MSD1.i/s010210.b/s1a0214.d	1202002348	ms	02-JAN-2010	21:27	10-952.sub	CAPA-10-6818MS	1	935443	REPORT-c77 low, c102 high. MSD confirms.
☐	N	/chem/MSD1.i/s010210.b/s1a0215.d	1202002349	msd	02-JAN-2010	21:51	10-952.sub	CAPA-10-6818MSD	1	935443	REPORT-c77 low, c102 high. MS confirms.

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-952	**Date Collected:**	12/15/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	243099003	**Date Received:**	12/17/2009 09:20		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-6818	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	935443	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	01/02/2010 21:03	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	12/22/2009 17:16	**Aliquot:**	870 mL	**Final Volume:**	1 mL
Data File:	s1a0213.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	11.5	ug/L	2.30	11.5
108-95-2	Phenol	U	11.5	ug/L	1.15	11.5
95-57-8	2-Chlorophenol	U	11.5	ug/L	2.30	11.5
106-46-7	1,4-Dichlorobenzene	U	11.5	ug/L	2.30	11.5
621-64-7	N-Nitrosodi--n-propylamine	U	11.5	ug/L	2.30	11.5
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol	U	11.5	ug/L	2.30	11.5
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene	U	1.15	ug/L	0.356	1.15
121-14-2	2,4-Dinitrotoluene	U	11.5	ug/L	2.30	11.5
100-02-7	4-Nitrophenol	U	11.5	ug/L	2.30	11.5
87-86-5	Pentachlorophenol	U	11.5	ug/L	2.30	11.5
129-00-0	Pyrene	U	1.15	ug/L	0.345	1.15
110-86-1	Pyridine	U	11.5	ug/L	3.45	11.5
62-53-3	Aniline	U	11.5	ug/L	2.87	11.5
111-44-4	bis(2-Chloroethyl) ether	U	11.5	ug/L	2.30	11.5
541-73-1	1,3-Dichlorobenzene	U	11.5	ug/L	2.30	11.5
100-51-6	Benzyl alcohol	U	11.5	ug/L	2.30	11.5
95-50-1	1,2-Dichlorobenzene	U	11.5	ug/L	2.30	11.5
108-60-1	bis(2-Chloroisopropyl)ether	U	11.5	ug/L	2.30	11.5
95-48-7	o-Cresol	U	11.5	ug/L	2.30	11.5
65794-96-9	m,p-Cresols	U	11.5	ug/L	3.45	11.5
67-72-1	Hexachloroethane	U	11.5	ug/L	2.30	11.5
98-95-3	Nitrobenzene	U	11.5	ug/L	3.45	11.5
78-59-1	Isophorone	U	11.5	ug/L	3.45	11.5
88-75-5	2-Nitrophenol	U	11.5	ug/L	2.30	11.5
105-67-9	2,4-Dimethylphenol	U	11.5	ug/L	2.30	11.5
111-91-1	bis(2-Chloroethoxy)methane	U	11.5	ug/L	3.45	11.5
120-83-2	2,4-Dichlorophenol	U	11.5	ug/L	2.30	11.5
65-85-0	Benzoic acid	U	23.0	ug/L	6.90	23.0
91-20-3	Naphthalene	U	1.15	ug/L	0.345	1.15
106-47-8	4-Chloroaniline	U	11.5	ug/L	2.30	11.5
87-68-3	Hexachlorobutadiene	U	11.5	ug/L	2.30	11.5
91-57-6	2-Methylnaphthalene	U	1.15	ug/L	0.345	1.15
90-12-0	1-Methylnaphthalene	U	1.15	ug/L	0.345	1.15
77-47-4	Hexachlorocyclopentadiene	U	11.5	ug/L	3.45	11.5
88-06-2	2,4,6-Trichlorophenol	U	11.5	ug/L	2.30	11.5
95-95-4	2,4,5-Trichlorophenol	U	11.5	ug/L	2.30	11.5
91-58-7	2-Chloronaphthalene	U	1.15	ug/L	0.345	1.15

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-952	Date Collected:	12/15/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243099003	Date Received:	12/17/2009 09:20		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6818	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	935443	Inst:	MSD1.I	Dilution:	1
Run Date:	01/02/2010 21:03	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	12/22/2009 17:16	Aliquot:	870 mL	Final Volume:	1 mL
Data File:	s1a0213.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	11.5	ug/L	2.30	11.5
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	11.5	ug/L	2.30	11.5
131-11-3	Dimethylphthalate	U	11.5	ug/L	2.30	11.5
606-20-2	2,6-Dinitrotoluene	U	11.5	ug/L	2.30	11.5
208-96-8	Acenaphthylene	U	1.15	ug/L	0.230	1.15
51-28-5	2,4-Dinitrophenol	U	23.0	ug/L	5.75	23.0
132-64-9	Dibenzofuran	U	11.5	ug/L	2.30	11.5
84-66-2	Diethylphthalate	U	11.5	ug/L	2.30	11.5
86-73-7	Fluorene	U	1.15	ug/L	0.230	1.15
7005-72-3	4-Chlorophenylphenylether	U	11.5	ug/L	2.30	11.5
534-52-1	2-Methyl-4,6-dinitrophenol	U	11.5	ug/L	3.45	11.5
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	11.5	ug/L	3.45	11.5
122-39-4	Diphenylamine	U	11.5	ug/L	3.45	11.5
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	11.5	ug/L	2.30	11.5
101-55-3	4-Bromophenylphenylether	U	11.5	ug/L	2.30	11.5
118-74-1	Hexachlorobenzene	U	11.5	ug/L	2.30	11.5
1912-24-9	Atrazine	U	11.5	ug/L	3.45	11.5
85-01-8	Phenanthrene	U	1.15	ug/L	0.230	1.15
120-12-7	Anthracene	U	1.15	ug/L	0.230	1.15
84-74-2	Di-n-butylphthalate	U	11.5	ug/L	2.30	11.5
206-44-0	Fluoranthene	U	1.15	ug/L	0.230	1.15
92-87-5	Benzidine	U	11.5	ug/L	3.45	11.5
85-68-7	Butylbenzylphthalate	U	11.5	ug/L	2.30	11.5
56-55-3	Benzo(a)anthracene	U	1.15	ug/L	0.230	1.15
91-94-1	3,3'-Dichlorobenzidine	U	11.5	ug/L	2.30	11.5
218-01-9	Chrysene	U	1.15	ug/L	0.230	1.15
117-81-7	bis(2-Ethylhexyl)phthalate	U	11.5	ug/L	2.30	11.5
117-84-0	Di-n-octylphthalate	U	11.5	ug/L	3.45	11.5
205-99-2	Benzo(b)fluoranthene	U	1.15	ug/L	0.230	1.15
207-08-9	Benzo(k)fluoranthene	U	1.15	ug/L	0.230	1.15
50-32-8	Benzo(a)pyrene	U	1.15	ug/L	0.230	1.15
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.15	ug/L	0.230	1.15
53-70-3	Dibenzo(a,h)anthracene	U	1.15	ug/L	0.230	1.15
191-24-2	Benzo(ghi)perylene	U	1.15	ug/L	0.230	1.15
123-91-1	1,4-Dioxane	U	11.5	ug/L	2.30	11.5
55-18-5	N-Nitrosodiethylamine	U	11.5	ug/L	2.30	11.5

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243099003**	**Date Received:**	**12/17/2009 09:20**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6818**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**935443**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**01/02/2010 21:03**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/22/2009 17:16**	**Aliquot:**	**870 mL**	**Final Volume:**	**1 mL**
Data File:	**s1a0213.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	11.5	ug/L	2.30	11.5
924-16-3	N-Nitrosodi-n-butylamine	U	11.5	ug/L	3.45	11.5
95-94-3	1,2,4,5-Tetrachlorobenzene	U	11.5	ug/L	3.45	11.5
608-93-5	Pentachlorobenzene	U	11.5	ug/L	3.45	11.5
58-90-2	2,3,4,6-Tetrachlorophenol	U	11.5	ug/L	2.30	11.5
88-85-7	Dinoseb	U	11.5	ug/L	2.30	11.5
120-82-1	1,2,4-Trichlorobenzene	U	11.5	ug/L	2.30	11.5

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	95.8	115	ug/L	83.3	(39%-115%)
2-Fluorobiphenyl	39.2	57.5	ug/L	68.2	(35%-100%)
2-Fluorophenol	45.7	115	ug/L	39.7	(25%-92%)
Nitrobenzene-d5	39.3	57.5	ug/L	68.4	(40%-112%)
Phenol-d5	26.9	115	ug/L	23.4	(15%-73%)
p-Terphenyl-d14	43.8	57.5	ug/L	76.3	(46%-130%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.66	6.64	ug/L		J
	Unknown	1.74	6.59	ug/L		J
	Unknown	1.88	24.2	ug/L		J

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-952

Matrix Type: LIQUID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202001613	MB for batch 935442	40	24	73	74	91	80
1202001614	LCS for batch 935442	46	28	81	84	91	89
243099003	CAPA-10-6818	40	23	68	68	83	76
1202002348	CAPA-10-6818MS	59	43	78	83	92	86
1202002349	CAPA-10-6818MSD	58	41	78	83	92	85

Surrogate			Acceptance Limits
2FP	=	2-Fluorophenol	(25%-92%)
PHL	=	Phenol-d5	(15%-73%)
NBZ	=	Nitrobenzene-d5	(40%-112%)
FBP	=	2-Fluorobiphenyl	(35%-100%)
TBP	=	2,4,6-Tribromophenol	(39%-115%)
TPH	=	p-Terphenyl-d14	(46%-130%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Client ID: LCS for batch 935442
Lab Sample ID: 1202001614
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 01/02/2010 20:17
Prep Batch ID: 935442
Batch ID: 935443
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	50.0	0.0	27.9	56	43-68
108-95-2	LCS	Phenol	50.0	0.0	14.9	30	21-45
95-57-8	LCS	2-Chlorophenol	50.0	0.0	34.3	69	49-96
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	29.9	60	38-88
621-64-7	LCS	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	50.0	0.0	33.5	67	44-118
59-50-7	LCS	Parachlorometa cresol *4-Chloro-3-methylphenol*	50.0	0.0	38.9	78	55-109
83-32-9	LCS	Acenaphthene	50.0	0.0	35.3	71	47-101
121-14-2	LCS	2,4-Dinitrotoluene	50.0	0.0	32.4	65	55-108
100-02-7	LCS	4-Nitrophenol	50.0	0.0	9.31	19	19-56
87-86-5	LCS	Pentachlorophenol	50.0	0.0	39.9	80	44-121
129-00-0	LCS	Pyrene	50.0	0.0	40.0	80	49-115
110-86-1	LCS	Pyridine	50.0	0.0	25.8	52	26-103
62-53-3	LCS	Aniline	50.0	0.0	36.0	72	49-124
111-44-4	LCS	bis(2-Chloroethyl) ether	50.0	0.0	36.0	72	46-106
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	29.6	59	38-88
100-51-6	LCS	Benzyl alcohol	50.0	0.0	37.9	76	41-88
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	31.4	63	39-91
108-60-1	LCS	bis(2-Chloroisopropyl)ether	50.0	0.0	34.5	69	44-115
95-48-7	LCS	o-Cresol	50.0	0.0	31.2	62	41-94
65794-96-9	LCS	m,p-Cresols	50.0	0.0	29.3	59	38-96
67-72-1	LCS	Hexachloroethane	50.0	0.0	28.7	57	35-92
98-95-3	LCS	Nitrobenzene	50.0	0.0	38.7	77	48-112

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Client ID: LCS for batch 935442
Lab Sample ID: 1202001614
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 01/02/2010 20:17
Prep Batch ID: 935442
Batch ID: 935443
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	50.0	0.0	44.0	88	52-113
88-75-5	LCS	2-Nitrophenol	50.0	0.0	34.6	69	52-104
105-67-9	LCS	2,4-Dimethylphenol	50.0	0.0	35.8	72	44-100
111-91-1	LCS	bis(2-Chloroethoxy)methane	50.0	0.0	37.4	75	54-107
120-83-2	LCS	2,4-Dichlorophenol	50.0	0.0	35.9	72	52-105
65-85-0	LCS	Benzoic acid	100	0.0	23.6	24	10-77
91-20-3	LCS	Naphthalene	50.0	0.0	32.7	65	40-93
106-47-8	LCS	4-Chloroaniline	50.0	0.0	39.4	79	57-145
87-68-3	LCS	Hexachlorobutadiene	50.0	0.0	33.1	66	33-98
91-57-6	LCS	2-Methylnaphthalene	50.0	0.0	33.8	68	42-97
90-12-0	LCS	1-Methylnaphthalene	50.0	0.0	36.5	73	40-95
77-47-4	LCS	Hexachlorocyclopentadiene	50.0	0.0	30.8	62	10-128
88-06-2	LCS	2,4,6-Trichlorophenol	50.0	0.0	40.3	81	54-111
95-95-4	LCS	2,4,5-Trichlorophenol	50.0	0.0	42.7	85	50-111
91-58-7	LCS	2-Chloronaphthalene	50.0	0.0	32.5	65	46-100
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	50.0	0.0	34.9	70	50-120
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	50.0	0.0	32.5	65	58-125
131-11-3	LCS	Dimethylphthalate	50.0	0.0	38.8	78	59-107
606-20-2	LCS	2,6-Dinitrotoluene	50.0	0.0	34.2	68	58-104
208-96-8	LCS	Acenaphthylene	50.0	0.0	35.8	72	58-99
51-28-5	LCS	2,4-Dinitrophenol	50.0	0.0	31.9	64	33-118
132-64-9	LCS	Dibenzofuran	50.0	0.0	41.3	83	54-108

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Client ID: LCS for batch 935442
Lab Sample ID: 1202001614
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 01/02/2010 20:17
Dilution: 1
Prep Batch ID: 935442
Batch ID: 935443

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
84-66-2	LCS	Diethylphthalate	50.0	0.0	41.7	83	60-112
86-73-7	LCS	Fluorene	50.0	0.0	34.8	70	52-106
7005-72-3	LCS	4-Chlorophenylphenylether	50.0	0.0	38.5	77	57-106
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	50.0	0.0	34.0	68	39-124
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	50.0	0.0	27.8	56	48-135
122-39-4	LCS	Diphenylamine	50.0	0.0	36.8	74	55-113
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	50.0	0.0	36.7	73	48-120
101-55-3	LCS	4-Bromophenylphenylether	50.0	0.0	44.5	89	56-108
118-74-1	LCS	Hexachlorobenzene	50.0	0.0	43.8	88	53-115
1912-24-9	LCS	Atrazine	50.0	0.0	42.8	86	49-118
85-01-8	LCS	Phenanthrene	50.0	0.0	36.5	73	54-105
120-12-7	LCS	Anthracene	50.0	0.0	35.5	71	55-106
84-74-2	LCS	Di-n-butylphthalate	50.0	0.0	44.1	88	58-119
206-44-0	LCS	Fluoranthene	50.0	0.0	40.6	81	57-114
92-87-5	LCS	Benzidine	100	0.0	25.3	25	17-138
85-68-7	LCS	Butylbenzylphthalate	50.0	0.0	43.3	87	55-122
56-55-3	LCS	Benzo(a)anthracene	50.0	0.0	36.5	73	56-105
91-94-1	LCS	3,3'-Dichlorobenzidine	50.0	0.0	40.0	80	41-107
218-01-9	LCS	Chrysene	50.0	0.0	39.8	80	56-105
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	50.0	0.0	42.0	84	55-124
117-84-0	LCS	Di-n-octylphthalate	50.0	0.0	39.3	79	41-136
205-99-2	LCS	Benzo(b)fluoranthene	50.0	0.0	33.9	68	53-114

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Client ID: LCS for batch 935442
Lab Sample ID: 1202001614
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 01/02/2010 20:17
Dilution: 1
Prep Batch ID: 935442
Batch ID: 935443

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
207-08-9	LCS	Benzo(k)fluoranthene	50.0	0.0	43.9	88	55-116
50-32-8	LCS	Benzo(a)pyrene	50.0	0.0	39.3	79	58-111
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	50.0	0.0	37.6	75	45-124
53-70-3	LCS	Dibenzo(a,h)anthracene	50.0	0.0	36.3	73	44-126
191-24-2	LCS	Benzo(ghi)perylene	50.0	0.0	38.6	77	41-125
123-91-1	LCS	1,4-Dioxane	50.0	0.0	35.4	71	30-80
930-55-2	LCS	N-Nitrosopyrrolidine	50.0	0.0	30.6	61	10-150
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	33.2	66	40-91

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Client ID: CAPA-10-6818MS
Lab Sample ID: 1202002348
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 01/02/2010 21:27
Dilution: 1
Prep Batch ID: 935442
Batch ID: 935443

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	100	0.00	U	73.9	74	42-89
108-95-2	MS	Phenol	100	0.00	U	47.5	48	27-88
95-57-8	MS	2-Chlorophenol	100	0.00	U	72.0	72	45-101
106-46-7	MS	1,4-Dichlorobenzene	100	0.00	U	63.2	63	37-91
621-64-7	MS	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	100	0.00	U	68.4	68	42-116
59-50-7	MS	Parachlorometa cresol *4-Chloro-3-methylphenol*	100	0.00	U	81.6	82	48-117
83-32-9	MS	Acenaphthene	100	0.00	U	74.7	75	46-104
121-14-2	MS	2,4-Dinitrotoluene	100	0.00	U	67.5	68	50-109
100-02-7	MS	4-Nitrophenol	100	0.00	U	35.4	35	28-96
87-86-5	MS	Pentachlorophenol	100	0.00	U	83.7	84	38-131
129-00-0	MS	Pyrene	100	0.00	U	80.8	81	42-122
110-86-1	MS	Pyridine	100	0.00	U	55.7	56	28-110
62-53-3	MS	Aniline	100	0.00	U	77.4	77	38-129
111-44-4	MS	bis(2-Chloroethyl) ether	100	0.00	U	75.3	75	41-107
541-73-1	MS	1,3-Dichlorobenzene	100	0.00	U	62.8	63	36-94
100-51-6	MS	Benzyl alcohol	100	0.00	U	89.8	90	34-104
95-50-1	MS	1,2-Dichlorobenzene	100	0.00	U	66.4	66	36-97
108-60-1	MS	bis(2-Chloroisopropyl)ether	100	0.00	U	72.3	72	38-118
95-48-7	MS	o-Cresol	100	0.00	U	70.6	71	37-105
65794-96-9	MS	m,p-Cresols	100	0.00	U	71.4	71	33-110
67-72-1	MS	Hexachloroethane	100	0.00	U	62.7	63	34-95
98-95-3	MS	Nitrobenzene	100	0.00	U	80.0	80	43-118

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952 **Sample Type:** Matrix Spike

Client ID: CAPA-10-6818MS **Matrix:** GROUND WATER

Lab Sample ID: 1202002348

Instrument: MSD1.I **Analysis Date:** 01/02/2010 21:27 **Dilution:** 1

Analyst: AMY **Prep Batch ID:** 935442

Inj. Vol: .5 uL **Batch ID:** 935443

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	100	0.00	U	90.5	91	46-115
88-75-5	MS	2-Nitrophenol	100	0.00	U	71.1	71	42-114
105-67-9	MS	2,4-Dimethylphenol	100	0.00	U	74.6	75	38-107
111-91-1	MS	bis(2-Chloroethoxy)methane	100	0.00	U	77.4	77	47-111
120-83-2	MS	2,4-Dichlorophenol	100	0.00	U	72.7	73	45-112
65-85-0	MS	Benzoic acid	200	0.00	U	83.2	42	27-106
91-20-3	MS	Naphthalene	100	0.00	U	69.2	69	41-96
106-47-8	MS	4-Chloroaniline	100	0.00	U	80.1	80	50-140
87-68-3	MS	Hexachlorobutadiene	100	0.00	U	71.7	72	31-106
91-57-6	MS	2-Methylnaphthalene	100	0.00	U	73.4	73	44-98
90-12-0	MS	1-Methylnaphthalene	100	0.00	U	77.4	77	45-94
77-47-4	MS	Hexachlorocyclopentadiene	100	0.00	U	64.4	64	15-139
88-06-2	MS	2,4,6-Trichlorophenol	100	0.00	U	83.2	83	46-114
95-95-4	MS	2,4,5-Trichlorophenol	100	0.00	U	89.6	90	46-117
91-58-7	MS	2-Chloronaphthalene	100	0.00	U	69.3	69	41-108
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	100	0.00	U	72.9	73	43-120
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	100	0.00	U	64.2	64	47-130
131-11-3	MS	Dimethylphthalate	100	0.00	U	78.4	78	50-114
606-20-2	MS	2,6-Dinitrotoluene	100	0.00	U	69.4	69	47-111
208-96-8	MS	Acenaphthylene	100	0.00	U	75.1	75	51-102
51-28-5	MS	2,4-Dinitrophenol	100	0.00	U	70.7	71	27-128
132-64-9	MS	Dibenzofuran	100	0.00	U	87.5	87	49-109

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Client ID: CAPA-10-6818MS
Lab Sample ID: 1202002348
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 01/02/2010 21:27
Prep Batch ID: 935442
Batch ID: 935443
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
84-66-2	MS	Diethylphthalate	100	0.00	U	85.2	85	52-115
86-73-7	MS	Fluorene	100	0.00	U	74.1	74	49-110
7005-72-3	MS	4-Chlorophenylphenylether	100	0.00	U	83.3	83	48-115
534-52-1	MS	2-Methyl-4,6-dinitrophenol	100	0.00	U	72.2	72	33-128
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	100	0.00	U	53.3	53	37-138
122-39-4	MS	Diphenylamine	100	0.00	U	76.2	76	44-117
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	100	0.00	U	76.8	77	43-119
101-55-3	MS	4-Bromophenylphenylether	100	0.00	U	93.8	94	44-118
118-74-1	MS	Hexachlorobenzene	100	0.00	U	91.0	91	47-120
1912-24-9	MS	Atrazine	100	0.00	U	88.4	88	43-118
85-01-8	MS	Phenanthrene	100	0.00	U	75.6	76	46-112
120-12-7	MS	Anthracene	100	0.00	U	73.1	73	47-112
84-74-2	MS	Di-n-butylphthalate	100	0.00	U	90.7	91	49-120
206-44-0	MS	Fluoranthene	100	0.00	U	83.2	83	46-122
92-87-5	MS	Benzidine	200	0.00	U	10.5	5 *	20-126
85-68-7	MS	Butylbenzylphthalate	100	0.00	U	88.7	89	47-127
56-55-3	MS	Benzo(a)anthracene	100	0.00	U	74.2	74	47-111
91-94-1	MS	3,3'-Dichlorobenzidine	100	0.00	U	72.1	72	39-102
218-01-9	MS	Chrysene	100	0.00	U	83.5	84	48-112
117-81-7	MS	bis(2-Ethylhexyl)phthalate	100	0.00	U	86.8	87	43-130
117-84-0	MS	Di-n-octylphthalate	100	0.00	U	82.9	83	39-141
205-99-2	MS	Benzo(b)fluoranthene	100	0.00	U	76.3	76	43-125

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Client ID: CAPA-10-6818MS
Lab Sample ID: 1202002348
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 01/02/2010 21:27
Dilution: 1
Prep Batch ID: 935442
Batch ID: 935443

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
207-08-9	MS	Benzo(k)fluoranthene	100	0.00	U	82.5	83	50-120
50-32-8	MS	Benzo(a)pyrene	100	0.00	U	80.1	80	49-118
193-39-5	MS	Indeno(1,2,3-cd)pyrene	100	0.00	U	74.9	75	40-124
53-70-3	MS	Dibenzo(a,h)anthracene	100	0.00	U	73.5	73	41-125
191-24-2	MS	Benzo(ghi)perylene	100	0.00	U	76.4	76	36-124
123-91-1	MS	1,4-Dioxane	100	0.00	U	92.8	93 *	37-86
930-55-2	MS	N-Nitrosopyrrolidine	100	0.00	U	64.8	65	10-150
120-82-1	MS	1,2,4-Trichlorobenzene	100	0.00	U	71.5	71	34-100

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Client ID: CAPA-10-6818MSD
Lab Sample ID: 1202002349
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 01/02/2010 21:51
Dilution: 1
Prep Batch ID: 935442
Batch ID: 935443

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD	N-Methyl-N-nitrosomethylam	100	0.00	U	69.4	69	42-89	6	0-25
108-95-2	MSD	Phenol	100	0.00	U	44.0	44	27-88	8	0-25
95-57-8	MSD	2-Chlorophenol	100	0.00	U	70.7	71	45-101	2	0-25
106-46-7	MSD	1,4-Dichlorobenzene	100	0.00	U	61.8	62	37-91	2	0-25
621-64-7	MSD	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	100	0.00	U	66.9	67	42-116	2	0-25
59-50-7	MSD	Parachlorometa cresol *4-Chloro-3-methylphenol*	100	0.00	U	78.3	78	48-117	4	0-25
83-32-9	MSD	Acenaphthene	100	0.00	U	75.2	75	46-104	1	0-25
121-14-2	MSD	2,4-Dinitrotoluene	100	0.00	U	66.8	67	50-109	1	0-25
100-02-7	MSD	4-Nitrophenol	100	0.00	U	34.9	35	28-96	1	0-25
87-86-5	MSD	Pentachlorophenol	100	0.00	U	81.7	82	38-131	2	0-25
129-00-0	MSD	Pyrene	100	0.00	U	75.3	75	42-122	7	0-25
110-86-1	MSD	Pyridine	100	0.00	U	46.0	46	28-110	19	0-25
62-53-3	MSD	Aniline	100	0.00	U	75.5	75	38-129	3	0-25
111-44-4	MSD	bis(2-Chloroethyl) ether	100	0.00	U	73.3	73	41-107	3	0-25
541-73-1	MSD	1,3-Dichlorobenzene	100	0.00	U	61.3	61	36-94	2	0-25
100-51-6	MSD	Benzyl alcohol	100	0.00	U	85.4	85	34-104	5	0-25
95-50-1	MSD	1,2-Dichlorobenzene	100	0.00	U	64.7	65	36-97	3	0-25
108-60-1	MSD	bis(2-Chloroisopropyl)ether	100	0.00	U	70.2	70	38-118	3	0-25
95-48-7	MSD	o-Cresol	100	0.00	U	68.0	68	37-105	4	0-25
65794-96-9	MSD	m,p-Cresols	100	0.00	U	67.8	68	33-110	5	0-25
67-72-1	MSD	Hexachloroethane	100	0.00	U	60.1	60	34-95	4	0-25
98-95-3	MSD	Nitrobenzene	100	0.00	U	76.8	77	43-118	4	0-25

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Client ID: CAPA-10-6818MSD
Lab Sample ID: 1202002349
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 01/02/2010 21:51
Dilution: 1
Prep Batch ID 935442
Batch ID: 935443

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD	Isophorone	100	0.00	U	86.5	86	46-115	5	0-25
88-75-5	MSD	2-Nitrophenol	100	0.00	U	69.2	69	42-114	3	0-25
105-67-9	MSD	2,4-Dimethylphenol	100	0.00	U	72.2	72	38-107	3	0-25
111-91-1	MSD	bis(2-Chloroethoxy)methane	100	0.00	U	73.8	74	47-111	5	0-25
120-83-2	MSD	2,4-Dichlorophenol	100	0.00	U	71.8	72	45-112	1	0-25
65-85-0	MSD	Benzoic acid	200	0.00	U	75.9	38	27-106	9	0-25
91-20-3	MSD	Naphthalene	100	0.00	U	66.3	66	41-96	4	0-25
106-47-8	MSD	4-Chloroaniline	100	0.00	U	78.7	79	50-140	2	0-25
87-68-3	MSD	Hexachlorobutadiene	100	0.00	U	68.5	69	31-106	5	0-25
91-57-6	MSD	2-Methylnaphthalene	100	0.00	U	69.6	70	44-98	5	0-25
90-12-0	MSD	1-Methylnaphthalene	100	0.00	U	74.1	74	45-94	4	0-25
77-47-4	MSD	Hexachlorocyclopentadiene	100	0.00	U	66.4	66	15-139	3	0-25
88-06-2	MSD	2,4,6-Trichlorophenol	100	0.00	U	81.0	81	46-114	3	0-25
95-95-4	MSD	2,4,5-Trichlorophenol	100	0.00	U	87.5	87	46-117	2	0-25
91-58-7	MSD	2-Chloronaphthalene	100	0.00	U	68.0	68	41-108	2	0-25
88-74-4	MSD	2-Nitroaniline *o-Nitroaniline*	100	0.00	U	73.0	73	43-120	0	0-25
99-09-2	MSD	3-Nitroaniline *m-Nitroaniline*	100	0.00	U	68.7	69	47-130	7	0-25
131-11-3	MSD	Dimethylphthalate	100	0.00	U	77.7	78	50-114	1	0-25
606-20-2	MSD	2,6-Dinitrotoluene	100	0.00	U	69.7	70	47-111	0	0-25
208-96-8	MSD	Acenaphthylene	100	0.00	U	73.7	74	51-102	2	0-25
51-28-5	MSD	2,4-Dinitrophenol	100	0.00	U	73.7	74	27-128	4	0-25
132-64-9	MSD	Dibenzofuran	100	0.00	U	86.4	86	49-109	1	0-25

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Client ID: CAPA-10-6818MSD
Lab Sample ID: 1202002349
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 01/02/2010 21:51
Dilution: 1
Prep Batch ID: 935442
Batch ID: 935443

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
84-66-2	MSD	Diethylphthalate	100	0.00	U	83.7	84	52-115	2	0-25
86-73-7	MSD	Fluorene	100	0.00	U	73.4	73	49-110	1	0-25
7005-72-3	MSD	4-Chlorophenylphenylether	100	0.00	U	83.4	83	48-115	0	0-25
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	100	0.00	U	70.4	70	33-128	2	0-25
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	100	0.00	U	59.3	59	37-138	11	0-25
122-39-4	MSD	Diphenylamine	100	0.00	U	74.2	74	44-117	3	0-25
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	100	0.00	U	74.4	74	43-119	3	0-25
101-55-3	MSD	4-Bromophenylphenylether	100	0.00	U	89.9	90	44-118	4	0-25
118-74-1	MSD	Hexachlorobenzene	100	0.00	U	86.9	87	47-120	5	0-25
1912-24-9	MSD	Atrazine	100	0.00	U	86.1	86	43-118	3	0-25
85-01-8	MSD	Phenanthrene	100	0.00	U	74.6	75	46-112	1	0-25
120-12-7	MSD	Anthracene	100	0.00	U	72.8	73	47-112	1	0-25
84-74-2	MSD	Di-n-butylphthalate	100	0.00	U	86.8	87	49-120	4	0-25
206-44-0	MSD	Fluoranthene	100	0.00	U	81.5	81	46-122	2	0-25
92-87-5	MSD	Benzidine	200	0.00	U	16.2	8 *	20-126	42 *	0-25
85-68-7	MSD	Butylbenzylphthalate	100	0.00	U	80.7	81	47-127	9	0-25
56-55-3	MSD	Benzo(a)anthracene	100	0.00	U	73.8	74	47-111	1	0-25
91-94-1	MSD	3,3'-Dichlorobenzidine	100	0.00	U	76.4	76	39-102	6	0-25
218-01-9	MSD	Chrysene	100	0.00	U	80.5	81	48-112	4	0-25
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	100	0.00	U	78.2	78	43-130	11	0-25
117-84-0	MSD	Di-n-octylphthalate	100	0.00	U	73.8	74	39-141	12	0-25
205-99-2	MSD	Benzo(b)fluoranthene	100	0.00	U	68.5	68	43-125	11	0-25

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Client ID: CAPA-10-6818MSD
Lab Sample ID: 1202002349
Instrument: MSD1.I
Analyst: AMY
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 01/02/2010 21:51
Dilution: 1
Prep Batch ID: 935442
Batch ID: 935443

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
207-08-9	MSD	Benzo(k)fluoranthene	100	0.00	U	88.2	88	50-120	7	0-25
50-32-8	MSD	Benzo(a)pyrene	100	0.00	U	79.7	80	49-118	0	0-25
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	100	0.00	U	77.2	77	40-124	3	0-25
53-70-3	MSD	Dibenzo(a,h)anthracene	100	0.00	U	76.4	76	41-125	4	0-25
191-24-2	MSD	Benzo(ghi)perylene	100	0.00	U	80.1	80	36-124	5	0-25
123-91-1	MSD	1,4-Dioxane	100	0.00	U	88.0	88 *	37-86	5	0-25
930-55-2	MSD	N-Nitrosopyrrolidine	100	0.00	U	64.2	64	10-150	1	0-25
120-82-1	MSD	1,2,4-Trichlorobenzene	100	0.00	U	67.6	68	34-100	6	0-25

Method Blank Summary

SDG Number:	10-952	Client:	LANL010	Matrix:	GROUND WATER
Client ID:	MB for batch 935442	Instrument ID:	MSD1.I	Data File:	s1a0210-1.d
Lab Sample ID:	1202001613	Prep Date:	12/22/2009 17:16	Analyzed:	01/02/10 19:53
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 935442	1202001614	s1a0211.d	01/02/10	2017
02 CAPA-10-6818	243099003	s1a0213.d	01/02/10	2103
03 CAPA-10-6818MS	1202002348	s1a0214.d	01/02/10	2127
04 CAPA-10-6818MSD	1202002349	s1a0215.d	01/02/10	2151

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-952

Instrument ID: MSD1.I **Injection Date/Time:** 02-JAN-10 16:22

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s010210.b/s1a0201.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	46.4
68	Less than 2% of mass 69	1.5
69	Mass 69 Relative Abundance	40.4
70	Less than 2% of mass 69	0.4
127	40 - 60% of mass 198	48.9
197	0 - 1% of mass 198	0.8
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	23.3
365	Greater than 1% of mass 198	2.3
441	Present, but less than mass 443	73.1
442	Greater than 40% of mass 198	61
443	17 - 23% of mass 442	19.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN091111-17.2	/chem/MSD1.i/s010210.b/s1a020	02-JAN-10 16:38
APCVS	WBN091201-03.5	/chem/MSD1.i/s010210.b/s1a020	02-JAN-10 17:07
SBLK01	1202001613	/chem/MSD1.i/s010210.b/s1a021	02-JAN-10 19:53
SBLK01LCS	1202001614	/chem/MSD1.i/s010210.b/s1a021	02-JAN-10 20:17
CAPA-10-6818	243099003	/chem/MSD1.i/s010210.b/s1a021	02-JAN-10 21:03
CAPA-10-6818MS	1202002348	/chem/MSD1.i/s010210.b/s1a021	02-JAN-10 21:27
CAPA-10-6818MSD	1202002349	/chem/MSD1.i/s010210.b/s1a021	02-JAN-10 21:51

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-952

Instrument ID: MSD1.I **Injection Date/Time:** 14-NOV-09 17:38

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s111409.b/s1k1201.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	41.3
68	Less than 2% of mass 69	1.8
69	Mass 69 Relative Abundance	36.7
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	48.3
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	23.3
365	Greater than 1% of mass 198	2.2
441	Present, but less than mass 443	74.2
442	Greater than 40% of mass 198	77.4
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN091111-16	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 18:22
MEGA010	WBN091111-15	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 18:51
MEGA020	WBN091111-14	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 19:21
MEGA040	WBN091111-13.1	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 19:50
MEGA050	WBN091111-12	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 20:19
MEGA080	WBN091111-11	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 20:47
MEGA100	WBN091111-10	/chem/MSD1.i/s111409.b/s1k120	14-NOV-09 21:16
MEGA120	WBN091111-09	/chem/MSD1.i/s111409.b/s1k121	14-NOV-09 21:45

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-952

Instrument ID: MSD1.I **Injection Date/Time:** 15-NOV-09 14:50

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s111409.b/s1k1213.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	45.1
68	Less than 2% of mass 69	1.8
69	Mass 69 Relative Abundance	39.1
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	50.2
197	0 - 1% of mass 198	0.9
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	22.4
365	Greater than 1% of mass 198	2.3
441	Present, but less than mass 443	72.7
442	Greater than 40% of mass 198	70.7
443	17 - 23% of mass 442	19.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP010	WBN091111-01	/chem/MSD1.i/s111409.b/s1k121	15-NOV-09 15:28
AP020	WBN091111-02	/chem/MSD1.i/s111409.b/s1k121	15-NOV-09 15:51
AP040	WBN091111-03.1	/chem/MSD1.i/s111409.b/s1k121	15-NOV-09 16:14
AP050	WBN091111-04	/chem/MSD1.i/s111409.b/s1k121	15-NOV-09 16:38
AP080	WBN091111-05	/chem/MSD1.i/s111409.b/s1k121	15-NOV-09 17:01
AP100	WBN091111-06	/chem/MSD1.i/s111409.b/s1k122	15-NOV-09 17:24
AP120	WBN091111-07	/chem/MSD1.i/s111409.b/s1k122	15-NOV-09 17:47
APICV	WBN091111-08.1	/chem/MSD1.i/s111409.b/s1k123	15-NOV-09 23:17

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-952

Instrument ID: MSD1.I **Injection Date/Time:** 17-NOV-09 15:48

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD1.i/s111409.b/s1k1259.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	44.2
68	Less than 2% of mass 69	1.8
69	Mass 69 Relative Abundance	38.5
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	49.6
197	0 - 1% of mass 198	0.7
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	23.8
365	Greater than 1% of mass 198	2.4
441	Present, but less than mass 443	72.4
442	Greater than 40% of mass 198	78.9
443	17 - 23% of mass 442	19.2

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGAICV	WBN091027-09.3	/chem/MSD1.i/s111409.b/s1k126	17-NOV-09 16:27

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-952

Instrument: MSD1.I

STD Analysis Time: 02-JAN-10 16:38

GC Column: J&W DB-5MS

Data File: s1a0202.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	736744		3.74	2868553		4.6	1527193		5.85	2557681		6.84	2257410		8.45	2064223		9.78
Upper Limit	1473488		4.24	5737106		5.1	3054386		6.35	5115362		7.34	4514820		8.95	4128446		10.3
Lower Limit	368372		3.24	1434277		4.1	763597		5.35	1278841		6.34	1128705		7.95	1032112		9.28
Sample ID																		
BLK01	881901		3.74	3353085		4.6	1846073		5.85	3277750		6.84	3185792		8.45	2822954		9.78
BLK01LCS	762721		3.74	3023765		4.6	1648802		5.85	2760210		6.84	2417638		8.45	2205561		9.78
CAPA-10-6818	863509		3.74	3252840		4.6	1762748		5.84	3141371		6.84	2855189		8.45	2508688		9.78
CAPA-10-6818MS	703451		3.74	2819951		4.6	1548533		5.85	2599907		6.84	2288981		8.45	2055706		9.79
CAPA-10-6818MSD	647581		3.74	2621257		4.6	1412820		5.85	2439673		6.84	2274246		8.45	2092321		9.78

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243099003**	**Date Received:**	**12/17/2009 09:20**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6818**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**935443**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**01/02/2010 21:03**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/22/2009 17:16**	**Aliquot:**	**870 mL**	**Final Volume:**	**1 mL**
Data File:	**s1a0213.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	11.5	ug/L	2.30	11.5
108-95-2	Phenol	U	11.5	ug/L	1.15	11.5
95-57-8	2-Chlorophenol	U	11.5	ug/L	2.30	11.5
106-46-7	1,4-Dichlorobenzene	U	11.5	ug/L	2.30	11.5
621-64-7	N-Nitrosodi--n-propylamine	U	11.5	ug/L	2.30	11.5
59-50-7	*N-Nitrosodipropylamine* Parachlorometa cresol	U	11.5	ug/L	2.30	11.5
83-32-9	*4-Chloro-3-methylphenol* Acenaphthene	U	1.15	ug/L	0.356	1.15
121-14-2	2,4-Dinitrotoluene	U	11.5	ug/L	2.30	11.5
100-02-7	4-Nitrophenol	U	11.5	ug/L	2.30	11.5
87-86-5	Pentachlorophenol	U	11.5	ug/L	2.30	11.5
129-00-0	Pyrene	U	1.15	ug/L	0.345	1.15
110-86-1	Pyridine	U	11.5	ug/L	3.45	11.5
62-53-3	Aniline	U	11.5	ug/L	2.87	11.5
111-44-4	bis(2-Chloroethyl) ether	U	11.5	ug/L	2.30	11.5
541-73-1	1,3-Dichlorobenzene	U	11.5	ug/L	2.30	11.5
100-51-6	Benzyl alcohol	U	11.5	ug/L	2.30	11.5
95-50-1	1,2-Dichlorobenzene	U	11.5	ug/L	2.30	11.5
108-60-1	bis(2-Chloroisopropyl)ether	U	11.5	ug/L	2.30	11.5
95-48-7	o-Cresol	U	11.5	ug/L	2.30	11.5
65794-96-9	m,p-Cresols	U	11.5	ug/L	3.45	11.5
67-72-1	Hexachloroethane	U	11.5	ug/L	2.30	11.5
98-95-3	Nitrobenzene	U	11.5	ug/L	3.45	11.5
78-59-1	Isophorone	U	11.5	ug/L	3.45	11.5
88-75-5	2-Nitrophenol	U	11.5	ug/L	2.30	11.5
105-67-9	2,4-Dimethylphenol	U	11.5	ug/L	2.30	11.5
111-91-1	bis(2-Chloroethoxy)methane	U	11.5	ug/L	3.45	11.5
120-83-2	2,4-Dichlorophenol	U	11.5	ug/L	2.30	11.5
65-85-0	Benzoic acid	U	23.0	ug/L	6.90	23.0
91-20-3	Naphthalene	U	1.15	ug/L	0.345	1.15
106-47-8	4-Chloroaniline	U	11.5	ug/L	2.30	11.5
87-68-3	Hexachlorobutadiene	U	11.5	ug/L	2.30	11.5
91-57-6	2-Methylnaphthalene	U	1.15	ug/L	0.345	1.15
90-12-0	1-Methylnaphthalene	U	1.15	ug/L	0.345	1.15
77-47-4	Hexachlorocyclopentadiene	U	11.5	ug/L	3.45	11.5
88-06-2	2,4,6-Trichlorophenol	U	11.5	ug/L	2.30	11.5
95-95-4	2,4,5-Trichlorophenol	U	11.5	ug/L	2.30	11.5
91-58-7	2-Chloronaphthalene	U	1.15	ug/L	0.345	1.15

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-952	Date Collected:	12/15/2009 12:00	Matrix:	GROUND WATER
Lab Sample ID:	243099003	Date Received:	12/17/2009 09:20		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-6818	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	935443	Inst:	MSD1.I	Dilution:	1
Run Date:	01/02/2010 21:03	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	12/22/2009 17:16	Aliquot:	870 mL	Final Volume:	1 mL
Data File:	s1a0213.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	11.5	ug/L	2.30	11.5
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	11.5	ug/L	2.30	11.5
131-11-3	Dimethylphthalate	U	11.5	ug/L	2.30	11.5
606-20-2	2,6-Dinitrotoluene	U	11.5	ug/L	2.30	11.5
208-96-8	Acenaphthylene	U	1.15	ug/L	0.230	1.15
51-28-5	2,4-Dinitrophenol	U	23.0	ug/L	5.75	23.0
132-64-9	Dibenzofuran	U	11.5	ug/L	2.30	11.5
84-66-2	Diethylphthalate	U	11.5	ug/L	2.30	11.5
86-73-7	Fluorene	U	1.15	ug/L	0.230	1.15
7005-72-3	4-Chlorophenylphenylether	U	11.5	ug/L	2.30	11.5
534-52-1	2-Methyl-4,6-dinitrophenol	U	11.5	ug/L	3.45	11.5
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	11.5	ug/L	3.45	11.5
122-39-4	Diphenylamine	U	11.5	ug/L	3.45	11.5
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	11.5	ug/L	2.30	11.5
101-55-3	4-Bromophenylphenylether	U	11.5	ug/L	2.30	11.5
118-74-1	Hexachlorobenzene	U	11.5	ug/L	2.30	11.5
1912-24-9	Atrazine	U	11.5	ug/L	3.45	11.5
85-01-8	Phenanthrene	U	1.15	ug/L	0.230	1.15
120-12-7	Anthracene	U	1.15	ug/L	0.230	1.15
84-74-2	Di-n-butylphthalate	U	11.5	ug/L	2.30	11.5
206-44-0	Fluoranthene	U	1.15	ug/L	0.230	1.15
92-87-5	Benzidine	U	11.5	ug/L	3.45	11.5
85-68-7	Butylbenzylphthalate	U	11.5	ug/L	2.30	11.5
56-55-3	Benzo(a)anthracene	U	1.15	ug/L	0.230	1.15
91-94-1	3,3'-Dichlorobenzidine	U	11.5	ug/L	2.30	11.5
218-01-9	Chrysene	U	1.15	ug/L	0.230	1.15
117-81-7	bis(2-Ethylhexyl)phthalate	U	11.5	ug/L	2.30	11.5
117-84-0	Di-n-octylphthalate	U	11.5	ug/L	3.45	11.5
205-99-2	Benzo(b)fluoranthene	U	1.15	ug/L	0.230	1.15
207-08-9	Benzo(k)fluoranthene	U	1.15	ug/L	0.230	1.15
50-32-8	Benzo(a)pyrene	U	1.15	ug/L	0.230	1.15
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.15	ug/L	0.230	1.15
53-70-3	Dibenzo(a,h)anthracene	U	1.15	ug/L	0.230	1.15
191-24-2	Benzo(ghi)perylene	U	1.15	ug/L	0.230	1.15
123-91-1	1,4-Dioxane	U	11.5	ug/L	2.30	11.5
55-18-5	N-Nitrosodiethylamine	U	11.5	ug/L	2.30	11.5

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243099003**	**Date Received:**	**12/17/2009 09:20**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6818**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**935443**	**Inst:**	**MSD1.1**	**Dilution:**	**1**
Run Date:	**01/02/2010 21:03**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/22/2009 17:16**	**Aliquot:**	**870 mL**	**Final Volume:**	**1 mL**
Data File:	**s1a0213.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	11.5	ug/L	2.30	11.5
924-16-3	N-Nitrosodi-n-butylamine	U	11.5	ug/L	3.45	11.5
95-94-3	1,2,4,5-Tetrachlorobenzene	U	11.5	ug/L	3.45	11.5
608-93-5	Pentachlorobenzene	U	11.5	ug/L	3.45	11.5
58-90-2	2,3,4,6-Tetrachlorophenol	U	11.5	ug/L	2.30	11.5
88-85-7	Dinoseb	U	11.5	ug/L	2.30	11.5
120-82-1	1,2,4-Trichlorobenzene	U	11.5	ug/L	2.30	11.5

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	95.8	115	ug/L	83.3	(39%-115%)
2-Fluorobiphenyl	39.2	57.5	ug/L	68.2	(35%-100%)
2-Fluorophenol	45.7	115	ug/L	39.7	(25%-92%)
Nitrobenzene-d5	39.3	57.5	ug/L	68.4	(40%-112%)
Phenol-d5	26.9	115	ug/L	23.4	(15%-73%)
p-Terphenyl-d14	43.8	57.5	ug/L	76.3	(46%-130%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.66	6.64	ug/L		J
	Unknown	1.74	6.59	ug/L		J
	Unknown	1.88	24.2	ug/L		J

GEL Laboratories LLC

Data file : /chem/MSD1.i/s010210.b/s1a0213.d
Lab Smp Id: 243099003 Client Smp ID: CAPA-10-6818
Inj Date : 02-JAN-2010 21:03
Operator : AMY Inst ID: MSD1.i
Smp Info : |243099003|935443|1|SVM|1|LANL
Misc Info : |MSD82709L|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s010210.b/MSD1-M8270AQA-111409.m
Meth Date : 04-Jan-2010 08:35 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-952.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	870.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	3.740	3.740	(1.000)	863509	40.0000	
* 29 Naphthalene-d8	136	4.599	4.598	(1.000)	3252840	40.0000	
* 46 Acenaphthene-d10	164	5.840	5.845	(1.000)	1762748	40.0000	
* 67 Phenanthrene-d10	188	6.840	6.839	(1.000)	3141371	40.0000	
* 91 Chrysene-d12	240	8.445	8.451	(1.000)	2855189	40.0000	
* 98 Perylene-d12	264	9.781	9.780	(1.000)	2508688	40.0000	
$ 3 2-Fluorophenol	112	2.946	2.946	(0.788)	896472	39.7469	45.7
$ 5 Phenol-d5	99	3.475	3.475	(0.929)	642212	23.4274	26.9
$ 20 Nitrobenzene-d5	82	4.104	4.104	(0.893)	732842	34.1866	39.3
$ 39 2-Fluorobiphenyl	172	5.340	5.340	(0.914)	1438912	34.0831	39.2
$ 60 2,4,6-Tribromophenol	329	6.387	6.386	(1.094)	410159	83.3280	95.8
$ 81 p-Terphenyl-d14	244	7.751	7.751	(0.918)	1708835	38.1288	43.8

ION RATIO REPORT

SV REPORT

Data file: s1a0213.d
Report Date: 01/04/2010 09:29
Lab. ID: 243099003 SampleType: SAMPLE
Injection Date: 02-JAN-2010 21:03
Operator: AMY Instrument: MSD1.i
Sample Info: |243099003|935443|1|SVM|1|LANL
Miscellaneous Info: |MSD82709L|WBN091223-01|
Comment:
Method used: /chem/MSD1.i/s010210.b/MSD1-M8270AQA-111409.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-952
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
4 Aniline		CAS#: 62-53-3				
66	31608	3.48	3.53	80-120	100	( )
93	282	3.56	3.53	213-273	1	(Q)
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	95362	4.10	3.98	80-120	100	(T)
42	58656	4.10	3.98	44-104	62	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	310108	5.85	5.62	80-120	100	(T)
164	1762748	5.84	5.62	0- 40	568	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	226287	5.84	5.67	80-120	100	(T)
63	2811	5.84	5.67	51-111	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	226287	5.84	5.96	80-120	100	(T)
89	2364	5.84	5.96	41-101	1	(QT)
63	2811	5.84	5.96	21- 81	1	(QT)
53 Fluorene			CAS#: 86-73-7			
166	25066	6.38	6.22	80-120	100	(T)
165	25004	6.38	6.22	61-121	100	(T)
167	8111	6.38	6.22	0- 43	32	(T)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	25685	6.39	6.53	80-120	100	(T)
141	166191	6.38	6.53	43-103	647	(QT)
250	51302	6.39	6.53	67-127	200	(QT)
95 Benzo(b)fluoranthene				CAS#: 205-99-2		
252	309	9.35	9.36	80-120	100	( )
253	103	9.47	9.36	0- 51	34	(T)
125	152	9.26	9.36	0- 44	49	(QT)
121 N-Nitrosodi-n-butylamine				CAS#: 924-16-3		
84	73439	4.60	4.85	80-120	100	(T)
57	2442	4.60	4.85	58-118	3	(QT)
41	3066	4.60	4.85	0- 30	4	(T)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD1.i/s010210.b/s1a0213.d
Lab Smp Id: 243099003 Client Smp ID: CAPA-10-6818
Inj Date : 02-JAN-2010 21:03
Operator : AMY Inst ID: MSD1.i
Smp Info : |243099003|935443|1|SVM|1|LANL
Misc Info : |MSD82709L|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s010210.b/MSD1-M8270AQA-111409.m
Meth Date : 04-Jan-2010 08:35 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-952.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	870.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.740	5116923	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/L)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
1.663	738743	5.77490117	6.6	0		0	10
Unknown				CAS #:			
1.740	733649	5.73507677	6.6	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/L)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	=========	======
Unknown				CAS #:			
1.881	2696550	21.0794635	24.2	0		0	10

Data File: /chem/MSD1.i/s010210.b/s1a0213.d
Date : 02-JAN-2010 21:03
Client ID: CAPA-10-6818
Sample Info: |2430990031935443|1|SVM|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Page 1

Instrument: MSD1.i

Operator: AMY
Column diameter: 0.20

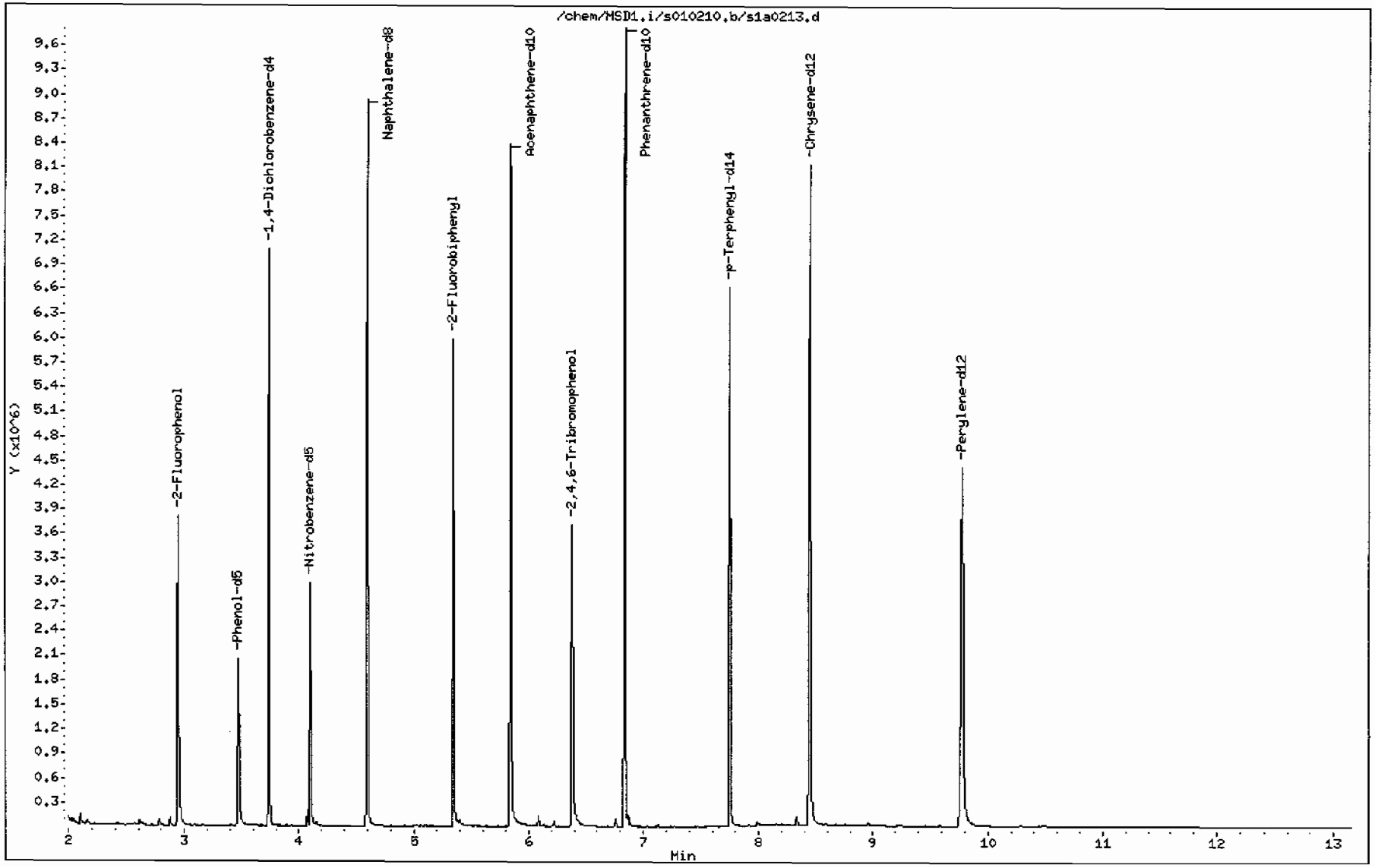

Data File: /chem/MSD1.i/s010210.b/s1a0213.d

Date : 02-JAN-2010 21:03

Client ID: CAPA-10-6818

Instrument: MSD1.i

Sample Info: |2430990031935443|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Searoh Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Butanone	78-93-3	NIST05.L	637	10	C4H8O	72
2-Butanone	78-93-3	NIST05.L	636	10	C4H8O	72
2-Butanone	78-93-3	NIST05.L	634	9	C4H8O	72

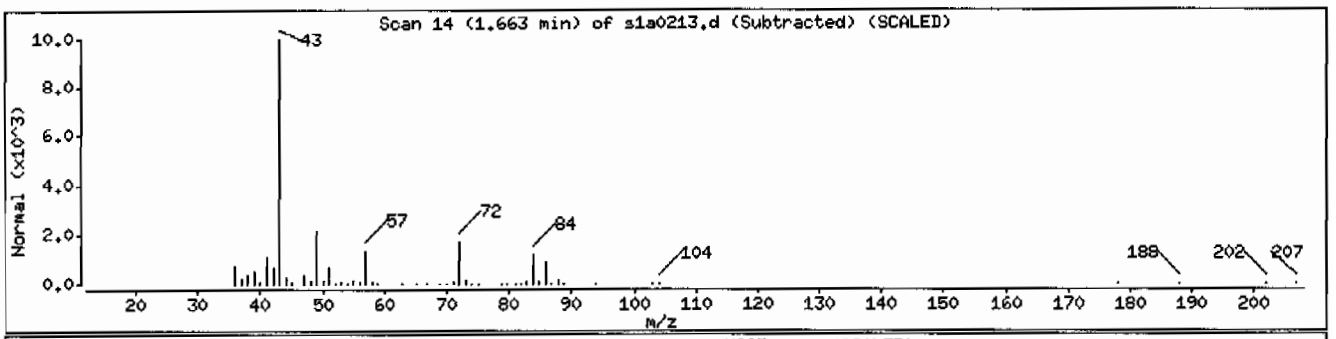

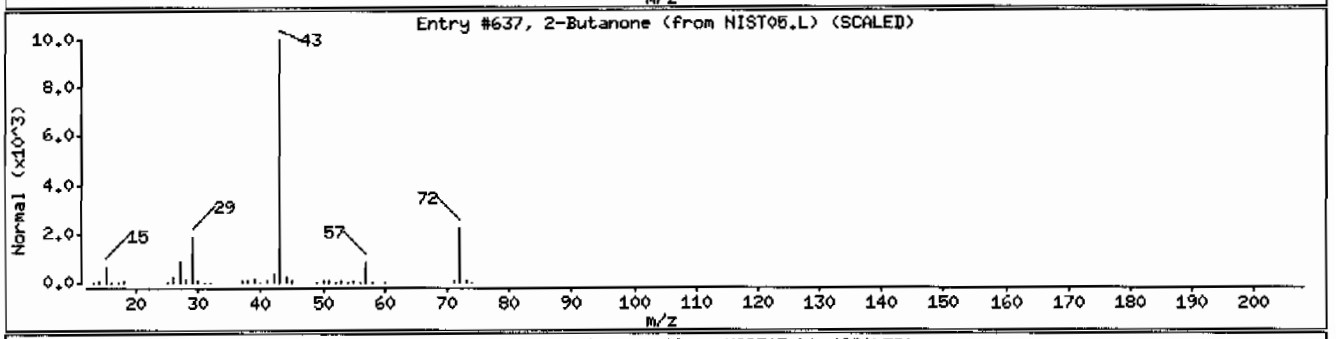

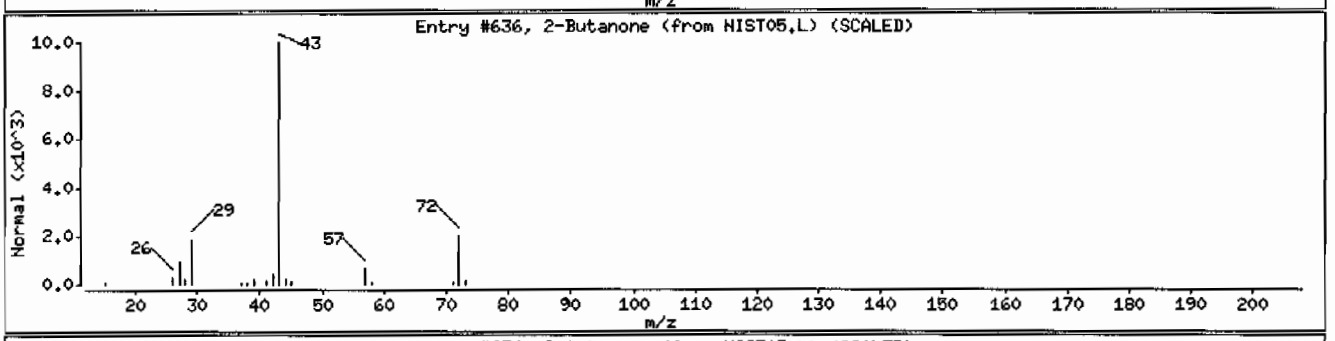

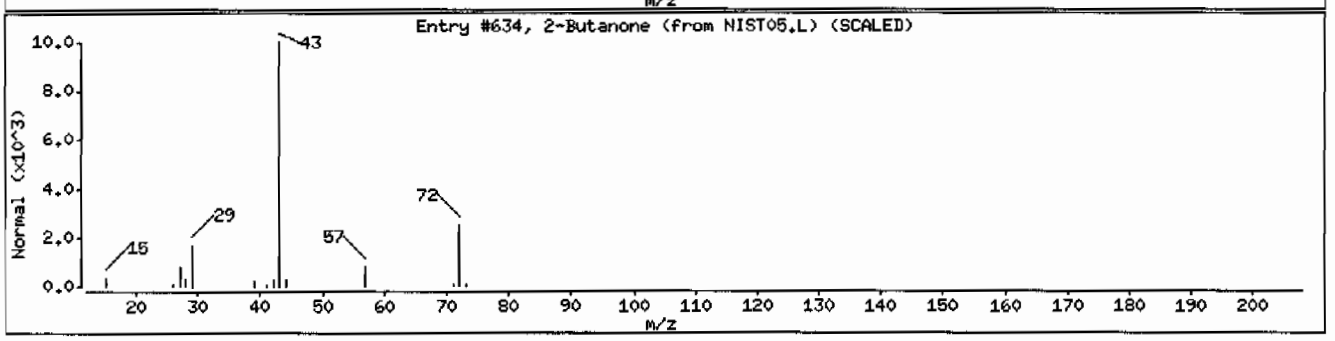

Data File: /chem/MSD1.i/s010210.b/s1a0213.d

Date : 02-JAN-2010 21:03

Client ID: CAPA-10-6818

Instrument: MSD1.i

Sample Info: 1243099003193544311ISVMI1ILANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Trichloromethane	67-66-3	NIST05.L	8713	55	CHCl3	118
Methane, oxybis[dichloro-	20524-86-1	NIST05.L	44703	47	C2H2Cl4O	182
Pyrrolidine, 1-[8-(3-octyloxiranyl)-1-ox	56630-37-6	NIST05.L	153162	38	C22H41NO2	351

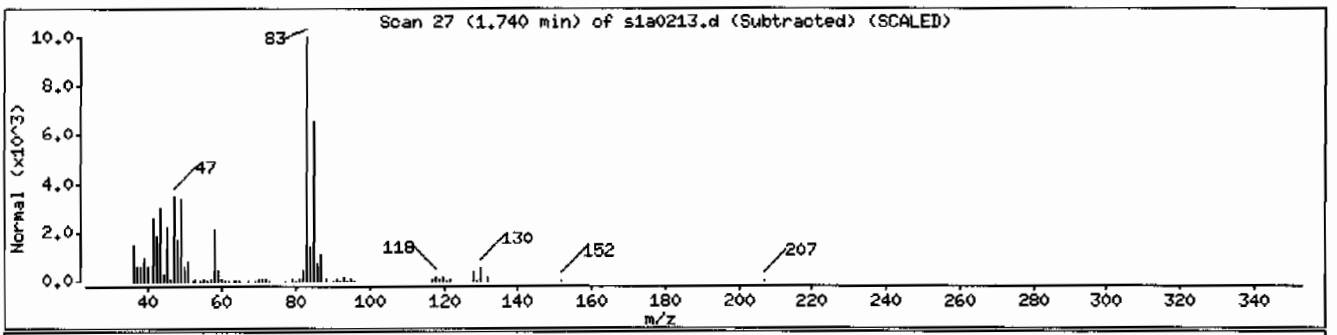

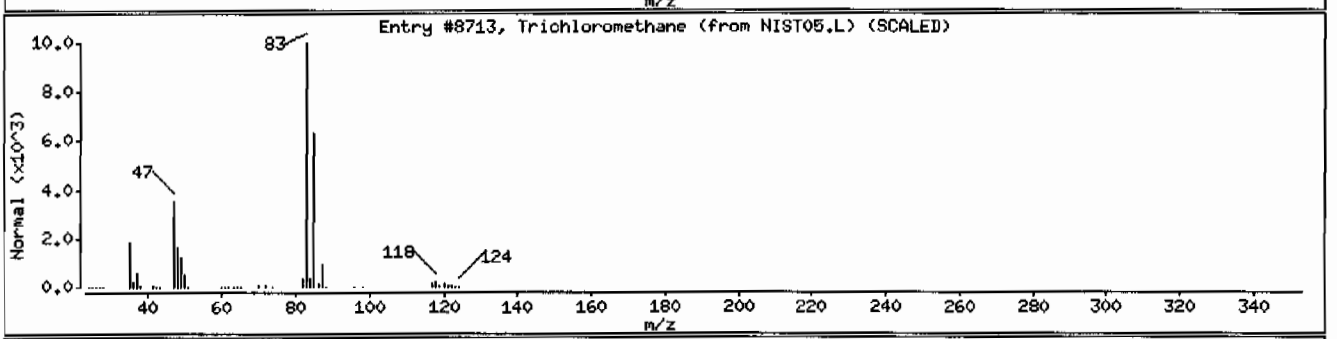

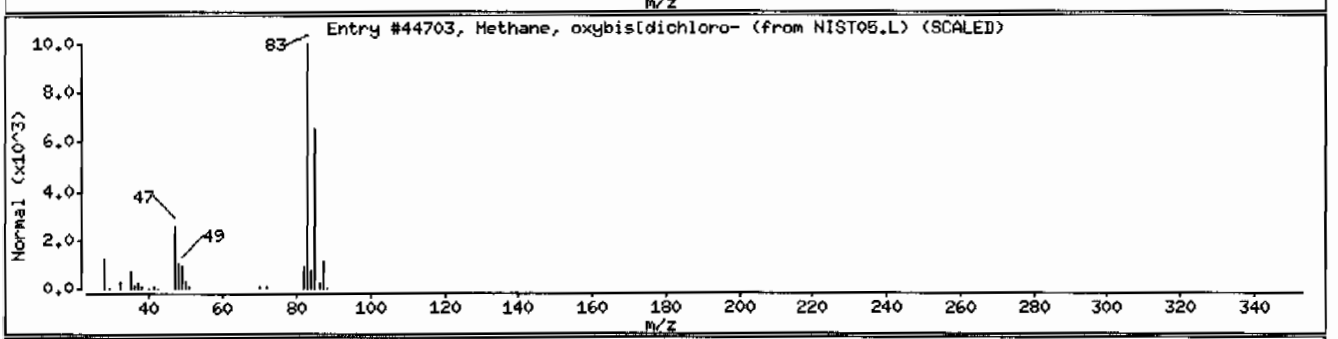

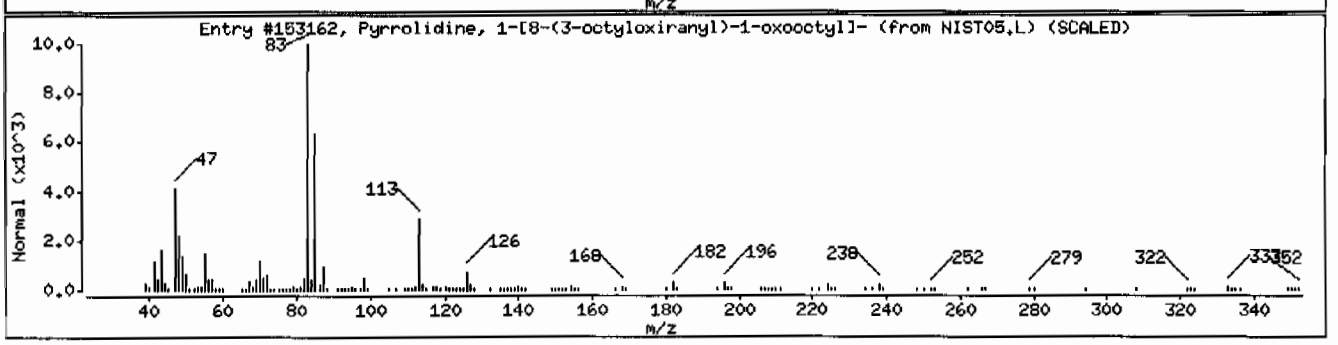

Data File: /chem/MSD1.i/s010210.b/s1a0213.d

Date : 02-JAN-2010 21:03

Client ID: CAPA-10-6818

Instrument: MSD1.i

Sample Info: 1243099003|935443|1|SVM|1|LANL

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Butanone, 3-methyl-	563-80-4	NIST05.L	1740	53	C5H10O	86
2-Pentanone	107-87-9	NIST05.L	1684	53	C5H10O	86
2-Pentanone	107-87-9	NIST05.L	1682	50	C5H10O	86

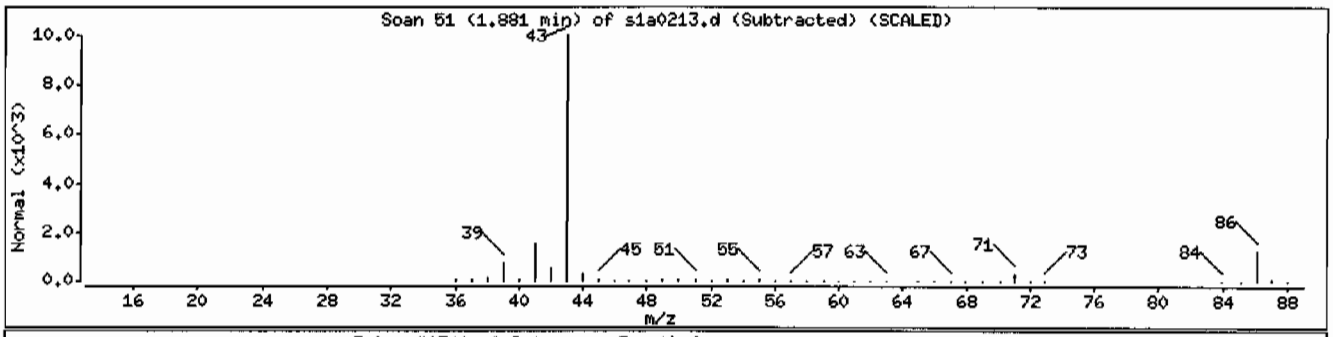

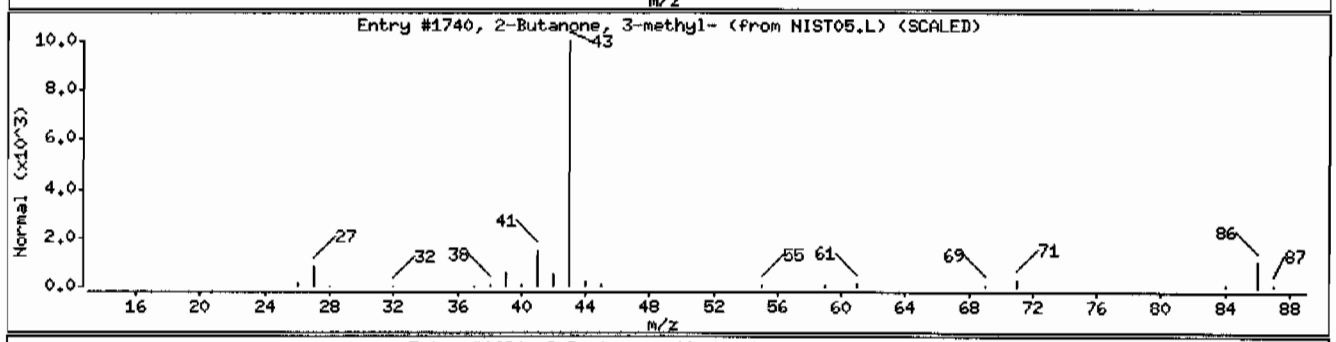

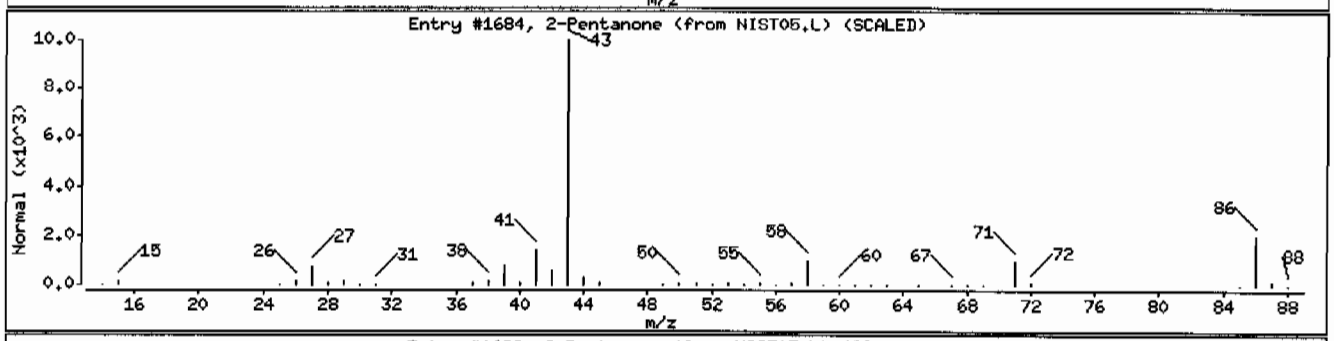

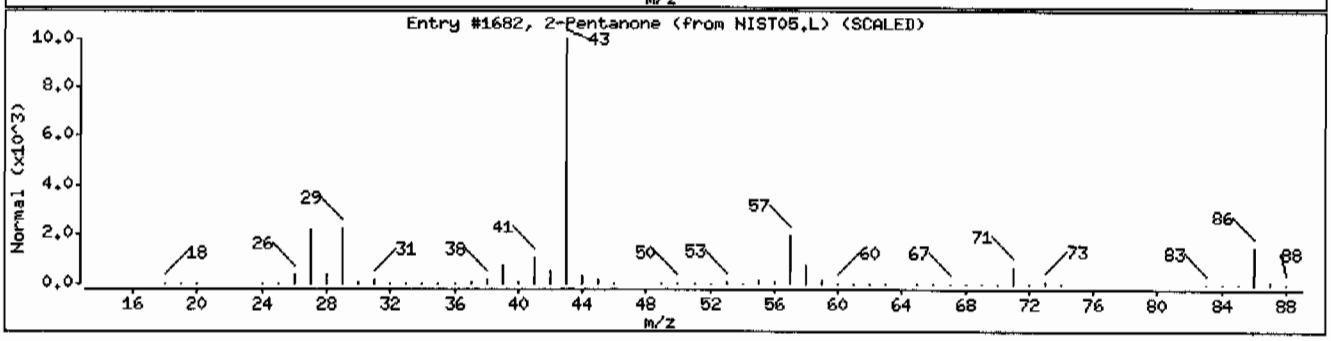

Standard Data

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine		10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Benzaldehyde		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether	1	10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120

2-Methylnaphthalene	1	10	20	40	50	80	100	120
1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
Tributylphosphate		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1	10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

APPENDIX IX

1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate (cis and trans)		10	20	40	50	80	100	120

SW846 8270C//8270D/EPA 625

Calibration Standard Concentration Levels*

	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Dimethoate		10	20	40	50	80	100	120
4-Aminobiphenyl		10	20	40	50	80	100	120
Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene		10	20	40	50	80	100	120
Isodrin		10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone		10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120

Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120
Hexachlorophene		500	1000	1250	1500	1750	2000	
p-Benzoquinone		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120
Methoxychlor		10	20	40	50	80	100	120
2-Ethoxyethanol		50	75	100	125	150	200	250
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
Dibenzo(a,e)pyrene		50	75	100	125	150	200	250
Phthalic anhydride		50	75	100	125	150	200	250
1,4-Dinitrobenzene		50	75	100	125	150	200	250
(2,3-Dibromopropyl)phosphate		50	75	100	125	150	200	250
Methylenebis(2-chloroaniline)		50	75	100	125	150	200	250
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120

SW846 8270C//8270D/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothio anisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalamide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120
bis(p-Chlorophenyl)sulfone		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
Level 1 may be included at request of client
(06/08)

Report Date: 02-Jan-2010 17:20

Calibration History

Method : /chem/MSD1.i/s010210.b/MSD1-M8270AQA-111409.m
Start Cal Date: 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
14-NOV-2009 18:22	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1203.d
Cal Level: 2 , Cal Amount: 10.00000		
17-NOV-2009 16:56	nev	/chem/MSD1.i/s111409.b/s1k1262.d
15-NOV-2009 20:55	hex	/chem/MSD1.i/s111409.b/s1k1229.d
15-NOV-2009 18:11	pest	/chem/MSD1.i/s111409.b/s1k1222.d
15-NOV-2009 15:28	ap12	/chem/MSD1.i/s111409.b/s1k1215.d
14-NOV-2009 18:51	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1204.d
Cal Level: 3 , Cal Amount: 20.00000		
17-NOV-2009 17:19	nev	/chem/MSD1.i/s111409.b/s1k1263.d
15-NOV-2009 21:18	hex	/chem/MSD1.i/s111409.b/s1k1230.d
15-NOV-2009 18:35	pest	/chem/MSD1.i/s111409.b/s1k1223.d
15-NOV-2009 15:51	ap12	/chem/MSD1.i/s111409.b/s1k1216.d
14-NOV-2009 19:21	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1205.d
Cal Level: 4 , Cal Amount: 40.00000		
17-NOV-2009 17:42	nev	/chem/MSD1.i/s111409.b/s1k1264.d
15-NOV-2009 21:42	hex	/chem/MSD1.i/s111409.b/s1k1231.d
15-NOV-2009 18:58	pest	/chem/MSD1.i/s111409.b/s1k1224.d
15-NOV-2009 16:14	ap12	/chem/MSD1.i/s111409.b/s1k1217.d
14-NOV-2009 19:50	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1206.d
Cal Level: 5 , Cal Amount: 50.00000		
17-NOV-2009 18:05	nev	/chem/MSD1.i/s111409.b/s1k1265.d
15-NOV-2009 22:06	hex	/chem/MSD1.i/s111409.b/s1k1232.d
15-NOV-2009 19:21	pest	/chem/MSD1.i/s111409.b/s1k1225.d
15-NOV-2009 16:38	ap12	/chem/MSD1.i/s111409.b/s1k1218.d
14-NOV-2009 20:19	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1207.d
Cal Level: 6 , Cal Amount: 80.00000		
17-NOV-2009 18:28	nev	/chem/MSD1.i/s111409.b/s1k1266.d
15-NOV-2009 22:30	hex	/chem/MSD1.i/s111409.b/s1k1233.d
15-NOV-2009 19:45	pest	/chem/MSD1.i/s111409.b/s1k1226.d
15-NOV-2009 17:01	ap12	/chem/MSD1.i/s111409.b/s1k1219.d
14-NOV-2009 20:47	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1208.d
Cal Level: 7 , Cal Amount: 100.00000		

17-NOV-2009 18:52	nev	/chem/MSD1.i/s111409.b/s1k1267.d
15-NOV-2009 22:53	hex	/chem/MSD1.i/s111409.b/s1k1234.d
15-NOV-2009 20:09	pest	/chem/MSD1.i/s111409.b/s1k1227.d
15-NOV-2009 17:24	ap12	/chem/MSD1.i/s111409.b/s1k1220.d
14-NOV-2009 21:16	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1209.d

Cal Level: 8 , Cal Amount: 120.00000		
17-NOV-2009 19:15	nev	/chem/MSD1.i/s111409.b/s1k1268.d
15-NOV-2009 20:31	pest	/chem/MSD1.i/s111409.b/s1k1228.d
15-NOV-2009 17:47	ap12	/chem/MSD1.i/s111409.b/s1k1221.d
14-NOV-2009 21:45	MEGAIICARE	/chem/MSD1.i/s111409.b/s1k1210.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0		
02-JAN-2010 17:07	ap12	/chem/MSD1.i/s010210.b/s1a0203.d
Ccal Level: 4 , Ccal Amount: 40.0		
02-JAN-2010 16:38	MEGAIICARE	/chem/MSD1.i/s010210.b/s1a0202.d

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Integrator : HP RTE
Method file : /chem/MSD1.i/s010210.b/MSD1-M8270AQA-111409.m
Cal Date : 02-Jan-2010 17:19 llo00884

Calibration File Names:
Level 1: /chem/MSD1.i/s111409.b/s1k1203.d
Level 2: /chem/MSD1.i/s111409.b/s1k1262.d
Level 3: /chem/MSD1.i/s111409.b/s1k1263.d
Level 4: /chem/MSD1.i/s111409.b/s1k1264.d
Level 5: /chem/MSD1.i/s111409.b/s1k1265.d
Level 6: /chem/MSD1.i/s111409.b/s1k1266.d
Level 7: /chem/MSD1.i/s111409.b/s1k1267.d
Level 8: /chem/MSD1.i/s111409.b/s1k1268.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.54039	0.59425	0.56483	0.56773	0.57115					
	0.58358	0.54985					AVRG		0.56740		3.25055
2 Pyridine	+++++	0.93895	1.06231	1.03607	0.88870	0.86312					
	1.01434	0.86615					AVRG		0.95281		8.83991
4 Aniline	+++++	0.52437	0.56877	0.55954	0.56752	0.56439					
	0.57920	0.54312					AVRG		0.55813		3.31324
209 Benzaldehyde	+++++	0.85863	0.89515	0.82459	0.84178	+++++					
	0.78498	0.73887					AVRG		0.82400		6.72378
6 Phenol	+++++	1.30044	1.37922	1.37450	1.34330	1.33206					
	1.36293	1.27353					AVRG		1.33800		2.93989

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	0.97066	0.92013	0.97374	0.95071	0.94120	0.92474					
	0.92138	0.84393					AVRG		0.93081		4.39644
8 2-Chlorophenol	+++++	1.10018	1.18374	1.15316	1.14675	1.13425					
	1.15576	1.08633					AVRG		1.13717		2.96542
203 n-Decane	+++++	1.60577	1.68138	1.52755	1.45137	1.35767					
	1.27260	1.12485					AVRG		1.43160		13.59167
9 1,3-Dichlorobenzene	+++++	1.34153	1.44138	1.36782	1.35778	1.32788					
	1.29449	1.20929					AVRG		1.33431		5.33878
11 1,4-Dichlorobenzene	+++++	1.33212	1.41388	1.35420	1.32607	1.29299					
	1.26993	1.16675					AVRG		1.30799		5.91221
12 Benzyl alcohol	+++++	0.65002	0.69243	0.70051	0.67929	0.68651					
	0.73179	0.69932					AVRG		0.69141		3.57264
13 1,2-Dichlorobenzene	+++++	1.29605	1.34639	1.26381	1.21944	1.15866					
	1.13607	1.03545					AVRG		1.20798		8.78247
14 bis(2-Chloroisopropyl)ether	+++++	2.32509	2.42028	2.31148	2.26329	2.15456					
	2.11135	1.93355					AVRG		2.21709		7.35350
15 o-Cresol	+++++	0.90774	0.91911	0.87727	0.85502	0.81471					
	0.80779	0.74384					AVRG		0.84650		7.32849

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.16435	1.20208	1.12556	1.15316	+++++					
	1.08411	1.04352					AVRG		1.12880		5.09017
17 N-Nitrosodipropylamine	0.81293	0.75653	0.80116	0.77693	0.78822	0.71050					
	0.77452	0.67823					AVRG		0.76238		6.05014
18 m,p-Cresols	+++++	1.13181	1.16963	1.17353	1.13669	1.14618					
	1.18516	1.11948					AVRG		1.15179		2.12873
19 Hexachloroethane	+++++	0.47556	0.50281	0.48245	0.48088	0.46955					
	0.46206	0.42193					AVRG		0.47075		5.31168
21 Nitrobenzene	+++++	0.28437	0.30442	0.28298	0.28351	0.27052					
	0.25822	0.23858					AVRG		0.27466		7.74785
22 Isophorone	+++++	0.49709	0.51707	0.49540	0.49196	0.47802					
	0.46730	0.41658					AVRG		0.48049		6.70733
23 2-Nitrophenol	+++++	0.14839	0.15989	0.15609	0.15578	0.14421					
	0.13558	0.12065					AVRG		0.14580		9.49803
24 2,4-Dimethylphenol	+++++	0.25377	0.24260	0.23030	0.24361	0.23323					
	0.21824	0.21248					AVRG		0.23346		6.25831
25 bis(2-Chloroethoxy)methane	+++++	0.32659	0.33857	0.32017	0.31630	0.30271					
	0.29085	0.27012					AVRG		0.30933		7.51487

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	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.21991	0.23451	0.22671	0.22578	0.22138					
	0.21025	0.19507					AVRG		0.21909		5.89795
27 Benzoic acid	+++++	+++++	0.12652	0.15647	0.17043	0.17939					
	0.17420	0.15820					AVRG		0.16087		11.85426
28 1,2,4-Trichlorobenzene	+++++	0.25324	0.26639	0.25283	0.25336	0.23817					
	0.22476	0.20597					AVRG		0.24210		8.56147
30 Naphthalene	1.00192	0.89427	0.93446	0.86563	0.83102	0.76369					
	0.73215	0.65539					AVRG		0.83482		13.59329
204 alpha-Terpineol	+++++	0.21791	0.22387	0.20802	0.18690	0.18694					
	0.18377	0.16707					AVRG		0.19635		10.50339
31 4-Chloroaniline	+++++	0.39677	0.40757	0.39487	0.39324	0.37614					
	0.36195	0.33806					AVRG		0.38123		6.35973
189 Caprolactam	+++++	0.06846	0.07656	0.07363	0.07653	+++++					
	0.06782	0.06711					AVRG		0.07169		6.15581
32 Hexachlorobutadiene	+++++	0.13511	0.14100	0.13045	0.12864	0.12021					
	0.11205	0.10277					AVRG		0.12432		10.80535
33 4-Chloro-3-methylphenol	+++++	0.21530	0.22699	0.22627	0.22610	0.21202					
	0.21204	0.17967					AVRG		0.21406		7.75567

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	0.63189	0.59091	0.61031	0.56805	0.55492	0.51261					
	0.47801	0.44368					AVRG		0.54880		11.97650
35 1-Methylnaphthalene	0.57039	0.52594	0.54774	0.50754	0.49716	0.46294					
	0.43668	0.39804					AVRG		0.49330		11.71827
36 Hexachlorocyclopentadiene	+++++	0.10604	0.13033	0.13014	0.13942	0.12687					
	0.11688	0.10523					AVRG		0.12213		10.70285
208 1,1'-Biphenyl	+++++	1.17951	1.24377	1.14549	1.13585	+++++					
	1.04839	0.97002					AVRG		1.12050		8.68804
205 2,3-Dichloroaniline	+++++	0.46645	0.48933	0.47427	0.46997	0.44649					
	0.43405	0.39749					AVRG		0.45401		6.79831
37 2,4,6-Trichlorophenol	+++++	0.26977	0.29094	0.27785	0.27904	0.25743					
	0.25024	0.23713					AVRG		0.26606		7.03474
38 2,4,5-Trichlorophenol	+++++	0.26905	0.31036	0.32159	0.23043	0.31171					
	0.26900	0.26816					AVRG		0.28290		11.57703
40 2-Chloronaphthalene	1.06866	1.01017	1.06218	1.02382	1.00740	0.95458					
	0.92971	0.84336					AVRG		0.98748		7.61587
42 o-Nitroaniline	+++++	0.29397	0.31274	0.31408	0.31185	0.30784					
	0.31350	0.28932					AVRG		0.30619		3.33957

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.27156	0.28234	0.28082	0.27143	0.25979					
	0.28219	0.24573					AVRG		0.27055		5.03620
43 Dimethylphthalate	+++++	1.09522	1.14427	1.12702	1.11254	1.08188					
	1.07235	0.99634					AVRG		1.08995		4.43176
44 2,6-Dinitrotoluene	+++++	0.26660	0.28518	0.28098	0.27933	0.27123					
	0.26992	0.24768					AVRG		0.27156		4.59036
45 Acenaphthylene	1.62784	1.60004	1.67564	1.59865	1.57380	1.47905					
	1.44269	1.32968					AVRG		1.54092		7.42836
47 Acenaphthene	1.00456	0.99034	1.02942	0.97302	0.94853	0.86787					
	0.82882	0.73816					AVRG		0.92259		10.97291
48 2,4-Dinitrophenol	+++++	+++++	0.08843	0.11349	0.11534	0.11082					
	0.11305	0.10198					AVRG		0.10718		9.63049
49 Dibenzofuran	+++++	1.40383	1.45777	1.40759	1.36431	1.30285					
	1.24923	1.15395					AVRG		1.33422		7.92638
50 2,4-Dinitrotoluene	+++++	0.34056	0.36497	0.37079	0.37131	0.36633					
	0.36565	0.33990					AVRG		0.35993		3.80091
51 Diethylphthalate	+++++	1.04278	1.09197	1.06193	1.04018	0.99480					
	0.99307	0.88837					AVRG		1.01616		6.53371

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	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	0.13809	0.17287	0.18777	0.19477	0.20369					
	0.21665	0.20716					AVRG		0.18871		14.01343
53 Fluorene	1.22796	1.15355	1.19493	1.10753	1.06188	0.99894					
	0.97721	0.88428					AVRG		1.07578		10.93658
54 4-Chlorophenylphenylether	+++++	0.47537	0.49720	0.47503	0.46785	0.44264					
	0.43218	0.38915					AVRG		0.45420		7.92169
55 2-Methyl-4,6-dinitrophenol	+++++	0.08375	0.09608	0.10582	0.10320	0.10771					
	0.10908	0.10272					AVRG		0.10120		8.67983
56 p-Nitroaniline	+++++	0.24392	0.26348	0.26430	0.28144	0.26774					
	0.27465	0.25651					AVRG		0.26458		4.60021
133 Diphenylamine	+++++	0.55588	0.57977	0.55886	0.54789	0.52659					
	0.50269	0.46310					AVRG		0.53354		7.43632
58 1,2-Diphenylhydrazine	+++++	0.69850	0.71486	0.68099	0.66427	0.63670					
	0.61324	0.54832					AVRG		0.65098		8.77582
59 Tributylphosphate	+++++	1.22698	1.16066	1.10479	1.12684	1.06119					
	1.01440	0.96114					AVRG		1.09371		8.21068
61 4-Bromophenylphenylether	+++++	0.13960	0.14381	0.14105	0.13893	0.13903					
	0.13474	0.12486					AVRG		0.13743		4.49074

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	100 Level 7	120 Level 8									
63 Hexachlorobenzene	+++++	0.18056	0.18610	0.17775	0.16888	0.16686					
	0.15868	0.14199					AVRG		0.16869		8.86819
207 Atrazine	+++++	0.04275	0.04402	0.04191	0.04036	+++++					
	0.03698	0.03447					AVRG		0.04008		9.14364
65 Pentachlorophenol	+++++	0.08713	0.10123	0.10564	0.10198	0.10716					
	0.10688	0.09814					AVRG		0.10117		6.93558
206 n-Octadecane	+++++	0.49445	0.50531	0.45683	0.42873	0.36788					
	0.34975	+++++					AVRG		0.43383		14.85243
68 Phenanthrene	1.08140	0.97577	0.96718	0.91676	0.90684	0.85016					
	0.82329	0.75087					AVRG		0.90903		11.26824
69 Anthracene	1.05572	0.98071	1.00934	0.97561	0.92329	0.88140					
	0.83261	0.73707					AVRG		0.92447		11.24280
72 Di-n-butylphthalate	+++++	1.06714	1.12314	1.06117	1.02135	0.94081					
	0.88726	0.80148					AVRG		0.98605		11.57265
76 Fluoranthene	0.94603	0.94387	0.96313	0.92832	0.88364	0.83514					
	0.79976	0.71979					AVRG		0.87746		9.80038
77 Benzidine	+++++	0.28582	0.36970	0.35152	0.36897	+++++					
	0.43187	0.36504					AVRG		0.36215		12.90005

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	100 Level 7	120 Level 8									
79 Pyrene	1.12921	1.08043	1.13184	1.09423	1.03887	1.05677					
	1.02924	0.94284					AVRG		1.06293		5.79953
85 Butylbenzylphthalate	+++++	0.53253	0.56219	0.50335	0.46569	0.43331					
	0.40529	+++++					AVRG		0.48372		12.38419
89 Benzo(a)anthracene	1.00602	0.91134	0.98073	0.96992	0.98002	0.96903					
	0.95763	0.89850					AVRG		0.95915		3.79585
90 3,3'-Dichlorobenzidine	++++++	0.24634	0.28908	0.28847	0.28710	+++++					
	0.28231	0.25909					AVRG		0.27540		6.60230
92 Chrysene	0.98731	0.93210	0.94599	0.88032	0.86729	0.85456					
	0.87955	0.82465					AVRG		0.89647		6.00506
93 bis(2-Ethylhexyl)phthalate	0.57061	0.72394	0.78180	0.75934	0.74451	0.72196					
	0.68855	0.63132					AVRG		0.70275		10.02985
94 Di-n-octylphthalate	+++++	1.17035	1.39716	1.40560	1.36840	1.34274					
	1.30766	1.16752					AVRG		1.30849		7.70640
95 Benzo(b)fluoranthene	21625	340509	730849	1739197	2305837	3304287					
	3978698	5127789					LINR	0.06661	1.08695		0.99870
96 Benzo(k)fluoranthene	1.03711	1.06722	1.12263	1.01575	1.02623	1.00211					
	0.97020	0.78256					AVRG		1.00298		9.96839

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	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	20918	319721	688146	1504125	2094282	2912657					
	3398226	3934490					LINR	-0.00385	0.87033		0.99612
99 Indeno(1,2,3-cd)pyrene	21578	336515	700258	1580353	2201480	3025334					
	3523403	4020592					LINR	-0.01092	0.89653		0.99431
100 Dibenzo(a,h)anthracene	16162	268427	581631	1325626	1846286	2532762					
	2946699	3397425					LINR	-0.00445	0.75511		0.99519
101 Benzo(ghi)perylene	0.56462	0.70452	0.77602	0.81299	0.83023	0.80394					
	0.79303	0.72783					AVRG		0.75165		11.54879
102 1,4-Dioxane	+++++	0.32550	0.33716	0.30934	0.31455	+++++					
	0.30805	0.28861					AVRG		0.31387		5.27573
103 Methyl methacrylate	+++++	0.17774	0.19107	0.17805	0.17495	+++++					
	0.17326	0.16336					AVRG		0.17640		5.08144
104 Ethyl methacrylate	+++++	0.73346	0.76622	0.70794	0.70643	+++++					
	0.69714	0.66675					AVRG		0.71299		4.73943
105 2-Picoline	+++++	1.18802	1.23130	1.15065	1.15312	+++++					
	1.12223	1.07774					AVRG		1.15384		4.58113
106 N-Nitrosomethylethylamine	+++++	0.42951	0.48460	0.44623	0.45222	+++++					
	0.46395	0.44906					AVRG		0.45426		4.08577

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INITIAL CALIBRATION DATA

Start Cal Date : 14-NOV-2009 18:22
End Cal Date : 17-NOV-2009 19:15
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD1.i/s010210.b/MSD1-M8270AQA-111409.m
Cal Date : 02-Jan-2010 17:19 11o00884

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.43204	0.45674	0.42468	0.43227	+++++					
	0.41648	0.39202					AVRG		0.42570		5.00242
108 N-Nitrosodiethylamine	+++++	0.47915	0.50719	0.47065	0.48068	+++++					
	0.47830	0.46128					AVRG		0.47954		3.20356
109 Ethyl Methanesulfonate	+++++	0.59343	0.63202	0.58286	0.59990	+++++					
	0.59568	0.57362					AVRG		0.59625		3.34808
110 Pentachloroethane	+++++	0.30094	0.30775	0.28811	0.28717	+++++					
	0.28774	0.27522					AVRG		0.29115		3.95122
111 N-Nitrosopyrrolidine	+++++	0.47773	0.52978	0.49561	0.51566	+++++					
	0.41369	0.41806					AVRG		0.47509		10.34926
113 N-Nitrosomorpholine	+++++	0.63587	0.69755	0.63481	0.65791	+++++					
	0.54487	0.53392					AVRG		0.61749		10.47980
114 o-Toluidine	+++++	1.64551	1.76888	1.61850	1.65178	+++++					
	1.65679	1.57817					AVRG		1.65327		3.85302
115 N-Nitrosopiperidine	+++++	0.12931	0.13922	0.12850	0.13280	+++++					
	0.13244	0.12709					AVRG		0.13156		3.32124
116 a,a-Dimethylphenethylamine	+++++	0.70597	0.78545	0.76293	0.79408	+++++					
	0.79335	0.76628					AVRG		0.76801		4.32000

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
117 Triethylphosphorothioate	+++++	0.12812	0.12428	0.12751	0.12901	0.12488						
	0.12021	0.11633					AVRG		0.12433		3.70966	
118 2,6-Dichlorophenol	+++++	0.18796	0.20530	0.19528	0.20193	+++++						
	0.20014	0.19147					AVRG		0.19701		3.35416	
119 Hexachloropropene	+++++	0.07891	0.09539	0.09133	0.09091	+++++						
	0.09225	0.08492					AVRG		0.08895		6.72708	
120 p-Phenylenediamine	+++++	0.17417	0.23091	0.21919	0.22009	+++++						
	0.19257	0.17231					AVRG		0.20154		12.55674	
121 N-Nitrosodi-n-butylamine	+++++	0.16926	0.19309	0.16843	0.17454	+++++						
	0.16640	0.15862					AVRG		0.17172		6.79719	
122 Safrole	+++++	0.18021	0.18852	0.17847	0.18253	+++++						
	0.17443	0.16766					AVRG		0.17864		3.98501	
123 1,2,4,5-Tetrachlorobenzene	+++++	0.38048	0.40351	0.37295	0.37017	+++++						
	0.35065	0.32500					AVRG		0.36713		7.29953	
124 Isosafrole	+++++	0.32136	0.34935	0.32718	0.32927	+++++						
	0.32898	0.30952					AVRG		0.32761		3.96520	
125 1,4-Naphthoquinone	+++++	0.37346	0.38046	0.31457	0.30180	+++++						
	0.18844	0.22186					AVRG		0.29676		26.34996	<-

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
126 m-Dinitrobenzene	+++++	0.17349	0.18721	0.19120	0.19440	0.19057					
	0.19238	0.17644					AVRG		0.18653		4.41251
127 Pentachlorobenzene	+++++	0.32992	0.34557	0.31675	0.31835	+++++					
	0.29677	0.27972					AVRG		0.31451		7.45207
128 1-Naphthylamine	+++++	0.82636	0.98891	0.93384	0.93443	+++++					
	0.87178	0.80990					AVRG		0.89420		7.80762
129 2-Naphthylamine	+++++	0.96588	1.05556	1.00159	1.00599	+++++					
	0.94403	0.87535					AVRG		0.97473		6.34557
130 2,3,4,6-Tetrachlorophenol	+++++	0.20567	0.22518	0.22987	0.20102	0.22712					
	0.21818	0.20523					AVRG		0.21604		5.51582
131 5-Nitro-o-toluidine	+++++	0.25535	0.29363	0.28574	0.29496	+++++					
	0.29982	0.28219					AVRG		0.28528		5.60973
132 Thionazin	+++++	0.16358	0.16364	0.16630	0.16880	0.16339					
	0.15554	0.14821					AVRG		0.16135		4.38820
134 Sulfotepp	+++++	0.08562	0.08304	0.08303	0.08467	0.07953					
	0.07427	0.07214					AVRG		0.08033		6.54838
135 Phorate	+++++	0.36567	0.35586	0.35721	0.36683	0.34385					
	0.32742	0.31541					AVRG		0.34747		5.65187

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	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	0.10196	0.12348	0.12395	0.12006	+++++					
	0.11894	0.10898					AVRG		0.11623		7.60291
137 Phenacetin	+++++	0.22684	0.26317	0.26291	0.26441	+++++					
	0.26599	0.25918					AVRG		0.25708		5.83046
138 Diallate	+++++	0.24760	0.24927	0.23322	0.23010	+++++					
	0.21802	0.20853					AVRG		0.23112		6.94549
139 Dimethoate	+++++	0.21461	0.21994	0.23007	0.23724	0.23858					
	0.23513	0.22967					AVRG		0.22932		3.92960
140 4-Aminobiphenyl	+++++	0.53696	0.55369	0.57677	0.59426	+++++					
	0.49840	0.45674					AVRG		0.53614		9.53476
141 Pentachloronitrobenzene	+++++	0.05720	0.06067	0.05490	0.05533	+++++					
	0.04673	0.04463					AVRG		0.05324		11.71339
142 Pronamide	+++++	0.24822	0.26125	0.24154	0.23765	+++++					
	0.17973	+++++					AVRG		0.23368		13.46482
143 Dinoseb	+++++	0.10297	0.12216	0.13126	0.12950	0.13024					
	0.13017	0.12500					AVRG		0.12447		8.06727
144 Disulfoton	+++++	0.32280	0.31415	0.31231	0.32231	0.30214					
	0.27306	0.26345					AVRG		0.30146		7.92046

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	100 Level 7	120 Level 8									
145 Methyl parathion	+++++	0.18413	0.18908	0.19611	0.20206	0.20472					
	0.19613	0.19053					AVRG		0.19468		3.74715
146 4-Nitroquinoline-1-oxide	+++++	0.00831	0.00998	0.00800	0.01074	+++++					
	0.01133	0.01046					AVRG		0.00980		13.77700
147 Methapyrilene	+++++	0.36466	0.38869	0.39386	0.38311	+++++					
	0.36077	0.31821					AVRG		0.36822		7.55340
148 Isodrin	+++++	0.09085	0.09372	0.08925	0.08743	+++++					
	0.07960	0.07570					AVRG		0.08609		8.09255
149 Aramite	+++++	0.04141	0.04570	0.04371	0.04272	+++++					
	0.04204	0.03972					AVRG		0.04255		4.79399
150 Kepone	+++++	0.06055	0.06732	0.06349	0.06380	+++++					
	0.06458	0.05876					AVRG		0.06308		4.80408
151 p-(Dimethylamino)azobenzene	+++++	0.28782	0.31583	0.29702	0.29097	+++++					
	0.26535	0.24656					AVRG		0.28392		8.62091
152 Chlorobenzilate	+++++	0.21991	0.23787	0.22800	0.23044	+++++					
	0.20814	0.19524					AVRG		0.21994		7.17760
153 3,3'-Dimethylbenzidine	+++++	0.45675	0.51768	0.48413	0.48879	+++++					
	0.49372	0.43564					AVRG		0.47945		6.05117

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	100 Level 7	120 Level 8									
154 Famphur	+++++	0.29819	0.30032	0.31780	0.33430	0.32440					
	0.30595	0.30061					AVRG		0.31165		4.49495
155 2-Acetylaminofluorene	+++++	0.23107	0.30345	0.31881	0.32045	+++++					
	0.34822	0.32608					AVRG		0.30801		13.11206
157 7,12Dimethylbenz(a)anthracene	+++++	0.41118	0.44192	0.42666	0.43253	+++++					
	0.40970	0.40537					AVRG		0.42123		3.47443
158 3-Methylcholanthrene	+++++	0.29680	0.36865	0.37932	0.38459	+++++					
	0.39125	0.38204					AVRG		0.36711		9.59696
26 Phthalic anhydride	+++++	30283	90214	245905	320454	497228					
	555160	687649					LINR	0.08413	0.10332		0.99692
173 Carbazole	0.90246	0.82255	0.80875	0.81414	0.83946	0.78812					
	0.78058	0.70109					AVRG		0.80714		7.06036
174 Hexachlorophene	+++++	0.03640	0.04820	0.05180	0.05353	0.05136					
	0.04905	+++++					AVRG		0.04839		12.77621
179 Dibenzo(a,e)pyrene	+++++	117900	312429	817402	1225621	1557621					
	1812574	+++++					LINR	0.07449	0.50549		0.99368
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	2462	14132	46568	48315	83536					
	96111	113764					LINR	0.17192	0.08067		0.99223
191 Parathion	+++++	0.06169	0.06089	0.06449	0.06621	0.06308					
	0.06173	0.06112					AVRG		0.06274		3.14637
192 Methoxychlor	+++++	0.32535	0.36631	0.33959	0.33867	0.27894					
	0.25594	++++-					AVRG		0.31747		13.10686
210 m-Toluidine	+++++	0.77272	0.88703	0.90355	0.94226	1.01524					
	0.94351	+++++					AVRG		0.91072		8.87324
211 p-Toluidine	+++++	0.69169	0.70617	0.72166	0.71562	0.68688					
	+++++	+++++					AVRG		0.70440		2.12367
212 Cis Diallate	+++++	0.23437	0.24880	0.23465	0.23944	+++++					
	0.24434	0.23833					AVRG		0.23999		2.35508
213 Trans Diallate	+++++	0.29129	0.29326	0.27438	0.27070	+++++					
	0.25649	0.24533					AVRG		0.27191		6.94549
214 1,4-Dinitrobenzene	+++++	0.16000	0.17119	0.17754	0.17866	0.17639					
	0.17966	0.16860					AVRG		0.17315		4.08379
215 2-Ethoxyethanol	+++++	0.57555	0.62918	0.65385	0.56961	0.58718					
	0.62071	0.58595					AVRG		0.60315		5.24047

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
216 Methylenebis(2-chloroaniline)	+++++	0.11447	0.12909	0.13171	0.13536	0.13420					
	0.13376	0.12587					AVRG		0.12921		5.63660
229 2,2'-Dichlorobenzil	+++++	0.67948	0.77608	0.71487	+++++	0.73565					
	+++++	0.63422					AVRG		0.70806		7.63914
230 4-Chlorothioanisole	+++++	0.23155	0.23520	0.23685	+++++	0.23140					
	+++++	0.22159					AVRG		0.23132		2.56050
231 4-Chlorothiophenol	+++++	0.15409	0.17482	0.19368	+++++	0.19893					
	+++++	0.19703					AVRG		0.18371		10.41669
232 bis(p-Chlorophenyl)sulfone	+++++	0.39430	0.43698	0.38579	+++++	0.39600					
	+++++	0.34721					AVRG		0.39206		8.15529
233 bis(p-Chlorophenyl)disulfide	+++++	0.10045	0.11150	0.11707	+++++	0.12020					
	+++++	0.10635					AVRG		0.11111		7.18003
234 Diphenyl disulfide	+++++	0.17804	0.18209	0.18631	+++++	0.17491					
	+++++	0.16341					AVRG		0.17695		4.91531
235 Diphenyl sulfide	+++++	0.71955	0.73103	0.70874	+++++	0.65333					
	+++++	0.61709					AVRG		0.68595		7.09988
236 Phenyl sulfone	+++++	0.43275	0.44078	0.42799	+++++	0.41905					
	+++++	0.39177					AVRG		0.42247		4.46830

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	100 Level 7	120 Level 8									
237 Hydroxymethyl phthalimide	+++++	0.12384	0.15720	0.10384	+++++	0.13032					
	+++++	0.12669					AVRG		0.12838		14.88299
238 Phthalic acid	+++++	24604	70600	163991	+++++	411903					
	+++++	634014					LINR	0.25540	0.11087		0.99102
239 Thiophenol	+++++	0.94048	1.03561	1.08365	+++++	1.12900					
	+++++	1.09332					AVRG		1.05641		6.89893
240 bis(Chloromethyl)ether	+++++	0.78790	0.79417	0.76917	+++++	0.75455					
	+++++	0.73576					AVRG		0.76831		3.12263
241 Octachlorostyrene	+++++	0.06103	0.06315	0.05827	+++++	0.05420					
	+++++	0.04861					AVRG		0.05705		10.14342
M 225 Trichlorophenols	+++++	0.26941	0.30065	0.29972	0.25473	0.28457					
	0.25962	0.25265					AVRG		0.27448		7.49129
M 226 Tetrachlorophenols	+++++	0.20567	0.22518	0.22987	0.20102	0.22712					
	0.21818	0.20523					AVRG		0.21604		5.51582
M 227 Benzo(b,k)fluoranthene	0.78278	0.93887	1.02131	1.01324	1.00976	1.01479					
	1.00963	0.93381					AVRG		0.96552		8.47131
M 228 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++	+++++					AVRG		0.000e+00		0.000e+00 <-

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	100 Level 7	120 Level 8										
$ 3 2-Fluorophenol	+++++	0.97776	1.06271	1.06423	1.06306	1.07281						
	1.07136	1.00157					AVRG		1.04478		3.68308	
$ 5 Phenol-d5	+++++	1.21974	1.33050	1.28249	1.27680	1.26954						
	1.29216	1.21764					AVRG		1.26984		3.15351	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.27426	0.28571	0.27066	0.27231	0.25884						
	0.24945	0.23400					AVRG		0.26360		6.62019	
$ 39 2-Fluorobiphenyl	+++++	0.99823	1.04801	1.00239	0.98618	0.93991						
	0.91199	0.81928					AVRG		0.95800		7.87748	
$ 60 2,4,6-Tribromophenol	+++++	0.10924	0.11530	0.11503	0.10898	0.11186						
	0.11271	0.10874					AVRG		0.11169		2.51418	
$ 81 p-Terphenyl-d14	+++++	0.64452	0.67675	0.65301	0.63863	0.61256						
	0.60853	0.56112					AVRG		0.62787		5.98666	

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Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

Data file : /chem/MSD1.i/s111409.b/s1k1203.d
Lab Smp Id: WBN091111-16 Client Smp ID: MEGA001
Inj Date : 14-NOV-2009 18:22
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-16|1 PPM|1|SVMF|1|MEGA001
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 16-Nov-2009 13:48 nat00999 Quant Type: ISTD
Cal Date : 14-NOV-2009 18:22 Cal File: s1k1203.d
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.951	3.951	(1.000)	611912	40.0000	(Q)
* 29 Naphthalene-d8	136	4.822	4.822	(1.000)	2450249	40.0000	
* 46 Acenaphthene-d10	164	6.069	6.069	(1.000)	1310986	40.0000	(Q)
* 67 Phenanthrene-d10	188	7.051	7.051	(1.000)	2065210	40.0000	
* 91 Chrysene-d12	240	8.733	8.733	(1.000)	1844410	40.0000	
* 98 Perylene-d12	264	10.245	10.245	(1.000)	1636855	40.0000	
1 N-Methyl-N-nitrosomethylamine	74	2.469	2.469	(0.625)	8070	1.00000	(Q)
7 bis(2-Chloroethyl) ether	63	3.746	3.746	(0.948)	14849	1.00000	1.0(Q)
17 N-Nitrosodipropylamine	70	4.181	4.181	(1.058)	12436	1.00000	1.0(Q)
30 Naphthalene	128	4.840	4.840	(1.004)	61374	1.00000	1.0(Q)
34 2-Methylnaphthalene	142	5.316	5.316	(1.102)	38707	1.00000	1.0(Q)
35 1-Methylnaphthalene	142	5.392	5.392	(1.118)	34940	1.00000	1.0(Q)
40 2-Chloronaphthalene	162	5.669	5.669	(0.934)	35025	1.00000	1.0(Q)
43 Dimethylphthalate	163	5.828	5.828	(0.960)	37880	1.00000	
45 Acenaphthylene	152	5.975	5.975	(0.984)	53352	1.00000	1.0
47 Acenaphthene	154	6.092	6.092	(1.004)	32924	1.00000	1.0(Q)
51 Diethylphthalate	149	6.310	6.310	(1.040)	35927	1.00000	
53 Fluorene	166	6.439	6.439	(1.061)	40246	1.00000	1.0(Q)
68 Phenanthrene	178	7.063	7.063	(1.002)	55833	1.00000	1.0
69 Anthracene	178	7.092	7.092	(1.006)	54507	1.00000	1.0
72 Di-n-butylphthalate	149	7.334	7.334	(1.040)	54685	1.00000	
76 Fluoranthene	202	7.775	7.775	(1.103)	48844	1.00000	1.0
79 Pyrene	202	7.916	7.916	(0.906)	52068	1.00000	1.0
85 Butylbenzylphthalate	149	8.228	8.228	(0.942)	23602	1.00000	(Q)
89 Benzo(a)anthracene	228	8.722	8.722	(0.999)	46388	1.00000	1.0
92 Chrysene	228	8.751	8.751	(1.002)	45525	1.00000	1.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
93 bis(2-Ethylhexyl)phthalate	149	8.598	8.598	(0.984)	26311	1.00000	1.0
94 Di-n-octylphthalate	149	9.139	9.139	(0.892)	30684	1.00000	
95 Benzo(b)fluoranthene	252	9.751	9.751	(0.952)	21625	1.00000	1.0
96 Benzo(k)fluoranthene	252	9.780	9.780	(0.955)	42440	1.00000	1.0
97 Benzo(a)pyrene	252	10.163	10.163	(0.992)	20918	1.00000	1.0
99 Indeno(1,2,3-cd)pyrene	276	11.910	11.910	(1.162)	21578	1.00000	1.0(Q)
100 Dibenzo(a,h)anthracene	278	11.916	11.916	(1.163)	16162	1.00000	1.0
101 Benzo(ghi)perylene	276	12.445	12.445	(1.215)	23105	1.00000	1.0(Q)
173 Carbazole	167	7.181	7.181	(1.018)	46594	1.00000	1.0
M 227 Benzo(b,k)fluoranthene	252				64065	2.00000	2.0

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s111409.b/s1k1203.d
Date : 14-NOV-2009 18:22
Client ID: MEGA001
Sample Info: WBN091111-16|1 PPM|1|SVMF|1|MEGA001
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: amy
Column diameter: 0.20

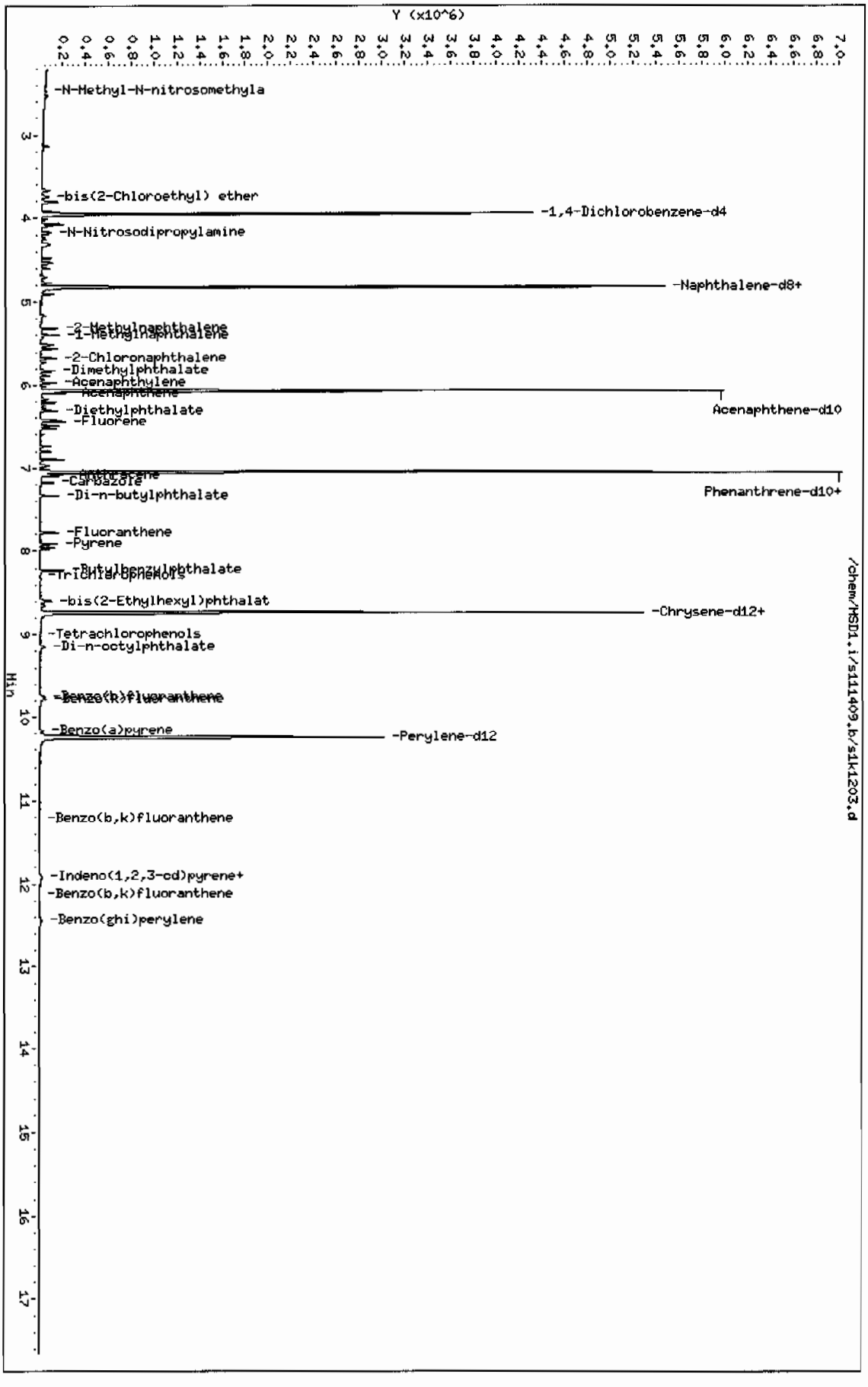

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Data file : /chem/MSD1.i/s111409.b/s1k1204.d
Lab Smp Id: WBN091111-15 Client Smp ID: MEGA010
Inj Date : 14-NOV-2009 18:51
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-15|10 PPM|1|SVMF|1|MEGA010
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 16-Nov-2009 13:48 nat00999 Quant Type: ISTD
Cal Date : 14-NOV-2009 18:51 Cal File: s1k1204.d
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.957	3.957	(1.000)	571924	40.0000	(Q)
* 29 Naphthalene-d8	136	4.822	4.822	(1.000)	2314043	40.0000	
* 46 Acenaphthene-d10	164	6.075	6.075	(1.000)	1219358	40.0000	(Q)
* 67 Phenanthrene-d10	188	7.051	7.051	(1.000)	1990277	40.0000	
* 91 Chrysene-d12	240	8.734	8.734	(1.000)	1813541	40.0000	
* 98 Perylene-d12	264	10.251	10.251	(1.000)	1680464	40.0000	
$ 3 2-Fluorophenol	112	3.134	3.134	(0.792)	139801	10.0000	10.0(Q)
$ 5 Phenol-d5	99	3.663	3.663	(0.926)	174399	10.0000	10.0
$ 20 Nitrobenzene-d5	82	4.316	4.316	(0.895)	158664	10.0000	10.0(Q)
$ 39 2-Fluorobiphenyl	172	5.563	5.563	(0.916)	304301	10.0000	10.0(Q)
$ 60 2,4,6-Tribromophenol	329	6.598	6.598	(1.086)	33301	10.0000	10.0(Q)
$ 81 p-Terphenyl-d14	244	7.963	7.963	(0.912)	292216	10.0000	10.0
1 N-Methyl-N-nitrosomethylamine	74	2.440	2.440	(0.617)	77266	10.0000	10.0(Q)
2 Pyridine	79	2.481	2.481	(0.627)	134252	10.0000	10.0(Q)
4 Aniline	66	3.734	3.734	(0.944)	74975	10.0000	10.0(Q)
6 Phenol	94	3.669	3.669	(0.927)	185938	10.0000	10.0(Q)
7 bis(2-Chloroethyl) ether	63	3.752	3.752	(0.948)	131561	10.0000	9.7(Q)
8 2-Chlorophenol	128	3.816	3.816	(0.964)	157305	10.0000	10.0(Q)
203 n-Decane	43	3.804	3.804	(0.961)	229594	10.0000	10.0(QH)
9 1,3-Dichlorobenzene	146	3.922	3.922	(0.991)	191814	10.0000	10.0(Q)
11 1,4-Dichlorobenzene	146	3.963	3.963	(1.001)	190468	10.0000	10.0(Q)
13 1,2-Dichlorobenzene	146	4.069	4.069	(1.028)	185311	10.0000	10.0(Q)
14 bis(2-Chloroisopropyl)ether	45	4.099	4.099	(1.036)	332444	10.0000	10
12 Benzyl alcohol	108	4.016	4.016	(1.015)	92941	10.0000	10.0(QH)
15 o-Cresol	107	4.069	4.069	(1.028)	129789	10.0000	10.0(QH)
18 m,p-Cresols	107	4.163	4.163	(1.052)	161828	10.0000	10(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.187	4.187	(1.058)	108169	10.0000	9.6(Q)
19 Hexachloroethane	117	4.304	4.304	(1.088)	67996	10.0000	10.0(Q)
21 Nitrobenzene	77	4.328	4.328	(0.898)	164510	10.0000	10.0(Q)
22 Isophorone	82	4.481	4.481	(0.929)	287570	10.0000	10.0
23 2-Nitrophenol	139	4.546	4.546	(0.943)	85846	10.0000	10.0(Q)
24 2,4-Dimethylphenol	122	4.534	4.534	(0.940)	146806	10.0000	10.0(Q)
25 bis(2-Chloroethoxy)methane	93	4.604	4.604	(0.955)	188937	10.0000	10.0(Q)
26 2,4-Dichlorophenol	162	4.704	4.704	(0.976)	127223	10.0000	10.0(Q)
27 Benzoic acid	105	4.569	4.569	(0.948)	62998	10.0000	(Q)
28 1,2,4-Trichlorobenzene	180	4.775	4.775	(0.990)	146502	10.0000	10.0(Q)
30 Naphthalene	128	4.840	4.840	(1.004)	517342	10.0000	9.4(Q)
204 alpha-Terpineol	59	4.810	4.810	(0.998)	126062	10.0000	10.0(Q)
31 4-Chloroaniline	127	4.851	4.851	(1.006)	229536	10.0000	10.0
32 Hexachlorobutadiene	225	4.904	4.904	(1.017)	78163	10.0000	10.0(Q)
33 4-Chloro-3-methylphenol	107	5.163	5.163	(1.071)	124556	10.0000	10.0(Q)
34 2-Methylnaphthalene	142	5.322	5.322	(1.104)	341845	10.0000	9.7(Q)
35 1-Methylnaphthalene	142	5.393	5.393	(1.118)	304261	10.0000	9.6(Q)
36 Hexachlorocyclopentadiene	237	5.428	5.428	(0.893)	32324	10.0000	10.0(Q)
205 2,3-Dichloroaniline	161	5.516	5.516	(0.908)	142192	10.0000	10.0(Q)
37 2,4,6-Trichlorophenol	196	5.504	5.504	(0.906)	82237	10.0000	10.0(Q)
38 2,4,5-Trichlorophenol	196	5.534	5.534	(0.911)	82016	10.0000	10.0(Q)
40 2-Chloronaphthalene	162	5.675	5.675	(0.934)	307939	10.0000	9.7(Q)
42 o-Nitroaniline	65	5.728	5.728	(0.943)	89613	10.0000	10.0(Q)
41 m-Nitroaniline	138	6.016	6.016	(0.990)	82781	10.0000	10.0(QH)
43 Dimethylphthalate	163	5.834	5.834	(0.960)	333867	10.0000	10.0
44 2,6-Dinitrotoluene	165	5.887	5.887	(0.969)	81271	10.0000	10.0(Q)
50 2,4-Dinitrotoluene	165	6.169	6.169	(1.015)	103817	10.0000	10.0(Q)
45 Acenaphthylene	152	5.975	5.975	(0.984)	487755	10.0000	9.9
47 Acenaphthene	154	6.093	6.093	(1.003)	301894	10.0000	9.9(Q)
48 2,4-Dinitrophenol	184	6.087	6.087	(1.002)	18735	10.0000	(Q)
49 Dibenzofuran	168	6.210	6.210	(1.022)	427942	10.0000	10.0(Q)
51 Diethylphthalate	149	6.310	6.310	(1.039)	317882	10.0000	10.0
52 4-Nitrophenol	139	6.098	6.098	(1.004)	42096	10.0000	10.0(QH)
53 Fluorene	166	6.440	6.440	(1.060)	351648	10.0000	9.7(Q)
54 4-Chlorophenylphenylether	204	6.416	6.416	(1.056)	144913	10.0000	10.0(Q)
55 2-Methyl-4,6-dinitrophenol	198	6.451	6.451	(0.915)	41672	10.0000	10.0(Q)
56 p-Nitroaniline	138	6.434	6.434	(1.059)	74357	10.0000	10.0(Q)
133 Diphenylamine	169	6.493	6.493	(0.921)	276589	10.0000	10.0(Q)
58 1,2-Diphenylhydrazine	77	6.528	6.528	(0.926)	347552	10.0000	10.0
61 4-Bromophenylphenylether	248	6.745	6.745	(0.957)	69460	10.0000	10.0(Q)
63 Hexachlorobenzene	284	6.804	6.804	(0.965)	89841	10.0000	10.0(Q)
65 Pentachlorophenol	266	6.922	6.922	(0.982)	43355	10.0000	10.0(Q)
206 n-Octadecane	57	6.898	6.898	(0.978)	246024	10.0000	10.0(Q)
68 Phenanthrene	178	7.063	7.063	(1.002)	485515	10.0000	9.5
69 Anthracene	178	7.098	7.098	(1.007)	487970	10.0000	9.6
72 Di-n-butylphthalate	149	7.334	7.334	(1.040)	530976	10.0000	10.0
76 Fluoranthene	202	7.775	7.775	(1.103)	469643	10.0000	10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.916	7.916	(0.906)	489852	10.0000	9.8
85 Butylbenzylphthalate	149	8.228	8.228	(0.942)	241441	10.0000	10.0(Q)
89 Benzo(a)anthracene	228	8.722	8.722	(0.999)	413190	10.0000	9.5
92 Chrysene	228	8.757	8.757	(1.003)	422601	10.0000	9.7
93 bis(2-Ethylhexyl)phthalate	149	8.598	8.598	(0.984)	328225	10.0000	11.2
94 Di-n-octylphthalate	149	9.145	9.145	(0.892)	491683	10.0000	10.0
95 Benzo(b)fluoranthene	252	9.757	9.757	(0.952)	340509	10.0000	12.1
96 Benzo(k)fluoranthene	252	9.786	9.786	(0.955)	448357	10.0000	10.1
97 Benzo(a)pyrene	252	10.169	10.169	(0.992)	319721	10.0000	12.0
99 Indeno(1,2,3-cd)pyrene	276	11.922	11.922	(1.163)	336515	10.0000	12.1(Q)
100 Dibenzo(a,h)anthracene	278	11.928	11.928	(1.164)	268427	10.0000	12.4
101 Benzo(ghi)perylene	276	12.451	12.451	(1.215)	295980	10.0000	11.1(Q)
126 m-Dinitrobenzene	168	5.869	5.869	(0.966)	52887	10.0000	10.0(Q)
130 2,3,4,6-Tetrachlorophenol	232	6.281	6.281	(1.034)	62695	10.0000	10.0(Q)
143 Dinoseb	211	7.004	7.004	(0.993)	51236	10.0000	10.0(Q)
173 Carbazole	167	7.181	7.181	(1.018)	409275	10.0000	9.5
184 p-Benzoquinone	54	3.440	3.440	(0.869)	2462	10.0000	10(Q)
192 Methoxychlor	227	8.587	8.587	(0.983)	147508	10.0000	10.0
211 p-Toluidine	106	4.228	4.228	(1.068)	98899	10.0000	10.0(Q)
210 m-Toluidine	106	4.252	4.252	(1.074)	110484	10.0000	10.0(Q)
26 Phthalic anhydride	104	5.346	5.346	(1.109)	30283	10.0000	10.0(Q)
179 Dibenzo(a,e)pyrene	302	16.474	16.474	(1.607)	117900	10.0000	10.0
214 1,4-Dinitrobenzene	168	5.816	5.816	(0.957)	48775	10.0000	10.0(QH)
215 2-Ethoxyethanol	59	2.287	2.287	(0.578)	82292	10.0000	10.0(Q)
216 Methylenebis(2-chloroaniline)	231	8.651	8.651	(0.991)	51897	10.0000	10.0(Q)
M 225 Trichlorophenols	196				164253	20.0000	20.0
M 226 Tetrachlorophenols	232				62695	10.0000	10.0
M 227 Benzo(b,k)fluoranthene	252				788866	20.0000	21.8

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s111409.b/s1k1204.d
Date : 14-NOV-2009 18:51
Client ID: MEGA010
Sample Info: IWBN091111-15110 PPM11SVMF11MEGA010
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: amy
Column diameter: 0.20

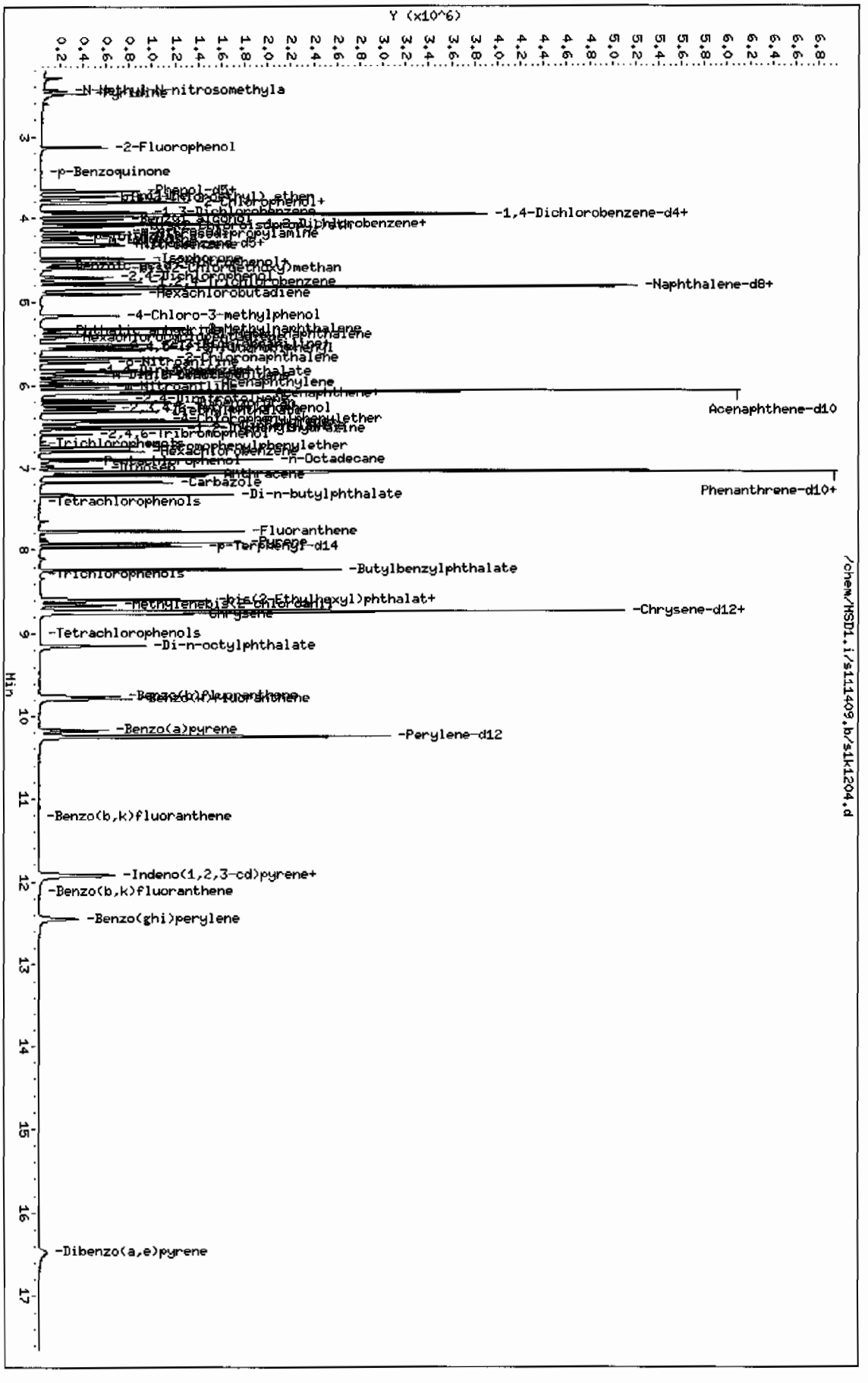

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Data file : /chem/MSD1.i/s111409.b/s1k1205.d
Lab Smp Id: WBN091111-14 Client Smp ID: MEGA020
Inj Date : 14-NOV-2009 19:21
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-14|20 PPM|1|SVMF|1|MEGA020
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 16-Nov-2009 13:48 nat00999 Quant Type: ISTD
Cal Date : 14-NOV-2009 19:21 Cal File: s1k1205.d
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.957	3.957	(1.000)	556973	40.0000	(Q)
* 29 Naphthalene-d8	136	4.828	4.828	(1.000)	2267474	40.0000	
* 46 Acenaphthene-d10	164	6.075	6.075	(1.000)	1191688	40.0000	(Q)
* 67 Phenanthrene-d10	188	7.051	7.051	(1.000)	1965431	40.0000	
* 91 Chrysene-d12	240	8.739	8.739	(1.000)	1745104	40.0000	
* 98 Perylene-d12	264	10.251	10.251	(1.000)	1588805	40.0000	
$ 3 2-Fluorophenol	112	3.134	3.134	(0.792)	295950	20.0000	20.8(Q)
$ 5 Phenol-d5	99	3.663	3.663	(0.926)	370525	20.0000	20.9
$ 20 Nitrobenzene-d5	82	4.316	4.316	(0.894)	323918	20.0000	20.4(Q)
$ 39 2-Fluorobiphenyl	172	5.563	5.563	(0.916)	624449	20.0000	20.5(Q)
$ 60 2,4,6-Tribromophenol	329	6.604	6.604	(1.087)	68701	20.0000	20.5(Q)
$ 81 p-Terphenyl-d14	244	7.963	7.963	(0.911)	590496	20.0000	20.5
1 N-Methyl-N-nitrosomethylamine	74	2.440	2.440	(0.616)	165491	20.0000	20.9(Q)
2 Pyridine	79	2.475	2.475	(0.625)	295840	20.0000	21.2(Q)
4 Aniline	66	3.734	3.734	(0.944)	158396	20.0000	20.8(Q)
6 Phenol	94	3.675	3.675	(0.929)	384095	20.0000	20.6(Q)
7 bis(2-Chloroethyl) ether	63	3.751	3.751	(0.948)	271174	20.0000	20.4(Q)
8 2-Chlorophenol	128	3.816	3.816	(0.964)	329656	20.0000	20.7(Q)
203 n-Decane	43	3.804	3.804	(0.961)	468242	20.0000	20.5(Q)
9 1,3-Dichlorobenzene	146	3.922	3.922	(0.991)	401405	20.0000	20.7(Q)
11 1,4-Dichlorobenzene	146	3.969	3.969	(1.003)	393746	20.0000	20.6(Q)
13 1,2-Dichlorobenzene	146	4.069	4.069	(1.028)	374951	20.0000	20.4(Q)
14 bis(2-Chloroisopropyl)ether	45	4.098	4.098	(1.036)	674015	20.0000	20.4
12 Benzyl alcohol	108	4.022	4.022	(1.016)	192833	20.0000	20.6(Q)
15 o-Cresol	107	4.069	4.069	(1.028)	255960	20.0000	20.1(Q)
18 m,p-Cresols	107	4.169	4.169	(1.054)	325727	20.0000	20.3(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.192	4.192	(1.059)	223111	20.0000	20.3(Q)
19 Hexachloroethane	117	4.304	4.304	(1.088)	140026	20.0000	20.6(Q)
21 Nitrobenzene	77	4.334	4.334	(0.898)	345136	20.0000	20.7(Q)
22 Isophorone	82	4.487	4.487	(0.929)	586219	20.0000	20.4
23 2-Nitrophenol	139	4.545	4.545	(0.942)	181276	20.0000	20.7(Q)
24 2,4-Dimethylphenol	122	4.539	4.539	(0.940)	275050	20.0000	19.6(Q)
25 bis(2-Chloroethoxy)methane	93	4.604	4.604	(0.954)	383850	20.0000	20.4(Q)
26 2,4-Dichlorophenol	162	4.710	4.710	(0.976)	265877	20.0000	20.6(Q)
27 Benzoic acid	105	4.587	4.587	(0.950)	143445	20.0000	20.0(Q)
28 1,2,4-Trichlorobenzene	180	4.775	4.775	(0.989)	302021	20.0000	20.5(Q)
30 Naphthalene	128	4.839	4.839	(1.002)	1059427	20.0000	19.8(Q)
204 alpha-Terpineol	59	4.816	4.816	(0.998)	253812	20.0000	20.3(Q)
31 4-Chloroaniline	127	4.851	4.851	(1.005)	462080	20.0000	20.3
32 Hexachlorobutadiene	225	4.904	4.904	(1.016)	159861	20.0000	20.4(Q)
33 4-Chloro-3-methylphenol	107	5.163	5.163	(1.069)	257352	20.0000	20.5(Q)
34 2-Methylnaphthalene	142	5.322	5.322	(1.102)	691936	20.0000	20.0(Q)
35 1-Methylnaphthalene	142	5.392	5.392	(1.117)	620991	20.0000	20.0(Q)
36 Hexachlorocyclopentadiene	237	5.428	5.428	(0.893)	77659	20.0000	22.0(Q)
205 2,3-Dichloroaniline	161	5.516	5.516	(0.908)	291562	20.0000	20.5(Q)
37 2,4,6-Trichlorophenol	196	5.510	5.510	(0.907)	173353	20.0000	20.8(Q)
38 2,4,5-Trichlorophenol	196	5.534	5.534	(0.911)	184924	20.0000	21.4(Q)
40 2-Chloronaphthalene	162	5.675	5.675	(0.934)	632892	20.0000	20.3(Q)
42 o-Nitroaniline	65	5.728	5.728	(0.943)	186342	20.0000	20.6(Q)
41 m-Nitroaniline	138	6.022	6.022	(0.991)	168233	20.0000	20.4(Q)
43 Dimethylphthalate	163	5.834	5.834	(0.960)	681804	20.0000	20.4
44 2,6-Dinitrotoluene	165	5.892	5.892	(0.970)	169923	20.0000	20.7(Q)
50 2,4-Dinitrotoluene	165	6.175	6.175	(1.016)	217463	20.0000	20.7(Q)
45 Acenaphthylene	152	5.975	5.975	(0.984)	998423	20.0000	20.5
47 Acenaphthene	154	6.098	6.098	(1.004)	613375	20.0000	20.4(Q)
48 2,4-Dinitrophenol	184	6.086	6.086	(1.002)	52689	20.0000	20.0(Q)
49 Dibenzofuran	168	6.210	6.210	(1.022)	868604	20.0000	20.4(Q)
51 Diethylphthalate	149	6.316	6.316	(1.040)	650642	20.0000	20.5
52 4-Nitrophenol	139	6.098	6.098	(1.004)	103003	20.0000	22.2(Q)
53 Fluorene	166	6.445	6.445	(1.061)	711989	20.0000	20.0(Q)
54 4-Chlorophenylphenylether	204	6.422	6.422	(1.057)	296255	20.0000	20.4(Q)
55 2-Methyl-4,6-dinitrophenol	198	6.451	6.451	(0.915)	94421	20.0000	21.4(Q)
56 p-Nitroaniline	138	6.439	6.439	(1.060)	156993	20.0000	20.8(Q)
133 Diphenylamine	169	6.498	6.498	(0.922)	569748	20.0000	20.4(Q)
58 1,2-Diphenylhydrazine	77	6.528	6.528	(0.926)	702504	20.0000	20.2
61 4-Bromophenylphenylether	248	6.745	6.745	(0.957)	141320	20.0000	20.3(Q)
63 Hexachlorobenzene	284	6.804	6.804	(0.965)	182888	20.0000	20.3(Q)
65 Pentachlorophenol	266	6.922	6.922	(0.982)	99478	20.0000	21.5(Q)
206 n-Octadecane	57	6.898	6.898	(0.978)	496580	20.0000	20.2(Q)
68 Phenanthrene	178	7.069	7.069	(1.002)	950464	20.0000	19.2
69 Anthracene	178	7.098	7.098	(1.007)	991893	20.0000	19.9
72 Di-n-butylphthalate	149	7.333	7.333	(1.040)	1103723	20.0000	20.5
76 Fluoranthene	202	7.775	7.775	(1.103)	946480	20.0000	20.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.916	7.916	(0.906)	987588	20.0000	20.3
85 Butylbenzylphthalate	149	8.233	8.233	(0.942)	490538	20.0000	20.5(Q)
89 Benzo(a)anthracene	228	8.722	8.722	(0.998)	855736	20.0000	20.3
92 Chrysene	228	8.757	8.757	(1.002)	825422	20.0000	19.8
93 bis(2-Ethylhexyl)phthalate	149	8.598	8.598	(0.984)	682157	20.0000	22.6(Q)
94 Di-n-octylphthalate	149	9.145	9.145	(0.892)	1109905	20.0000	21.8
95 Benzo(b)fluoranthene	252	9.763	9.763	(0.952)	730849	20.0000	24.4
96 Benzo(k)fluoranthene	252	9.792	9.792	(0.955)	891817	20.0000	20.9
97 Benzo(a)pyrene	252	10.174	10.174	(0.993)	688146	20.0000	24.3
99 Indeno(1,2,3-cd)pyrene	276	11.939	11.939	(1.165)	700258	20.0000	23.9(Q)
100 Dibenzo(a,h)anthracene	278	11.939	11.939	(1.165)	581631	20.0000	24.9
101 Benzo(ghi)perylene	276	12.463	12.463	(1.216)	616475	20.0000	22.8(Q)
126 m-Dinitrobenzene	168	5.875	5.875	(0.967)	111546	20.0000	20.8(Q)
130 2,3,4,6-Tetrachlorophenol	232	6.281	6.281	(1.034)	134175	20.0000	20.9(Q)
143 Dinoseb	211	7.004	7.004	(0.993)	120047	20.0000	21.7(Q)
173 Carbazole	167	7.180	7.180	(1.018)	794771	20.0000	19.2
184 p-Benzoquinone	54	3.440	3.440	(0.869)	14132	20.0000	29.9(Q)
192 Methoxychlor	227	8.586	8.586	(0.982)	319622	20.0000	21.2
211 p-Toluidine	106	4.234	4.234	(1.070)	196660	20.0000	20.2(Q)
210 m-Toluidine	106	4.251	4.251	(1.074)	247025	20.0000	21.4(Q)
26 Phthalic anhydride	104	5.345	5.345	(1.107)	90214	20.0000	24.1(Q)
179 Dibenzo(a,e)pyrene	302	16.486	16.486	(1.608)	312429	20.0000	23.3
214 1,4-Dinitrobenzene	168	5.816	5.816	(0.957)	102005	20.0000	20.7(QH)
215 2-Ethoxyethanol	59	2.287	2.287	(0.578)	175217	20.0000	20.9(Q)
216 Methylenebis(2-chloroaniline)	231	8.651	8.651	(0.990)	112634	20.0000	21.2(Q)
M 225 Trichlorophenols	196				358277	40.0000	42.2
M 226 Tetrachlorophenols	232				134175	20.0000	20.9
M 227 Benzo(b,k)fluoranthene	252				1622666	40.0000	44.7

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s111409.b/s1k1205.d
Date : 14-NOV-2009 19:21
Client ID: MEGA020
Sample Info: WBN091111-14|20 PPM|1|SVHF11|MEGA020

Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: amy
Column diameter: 0.20

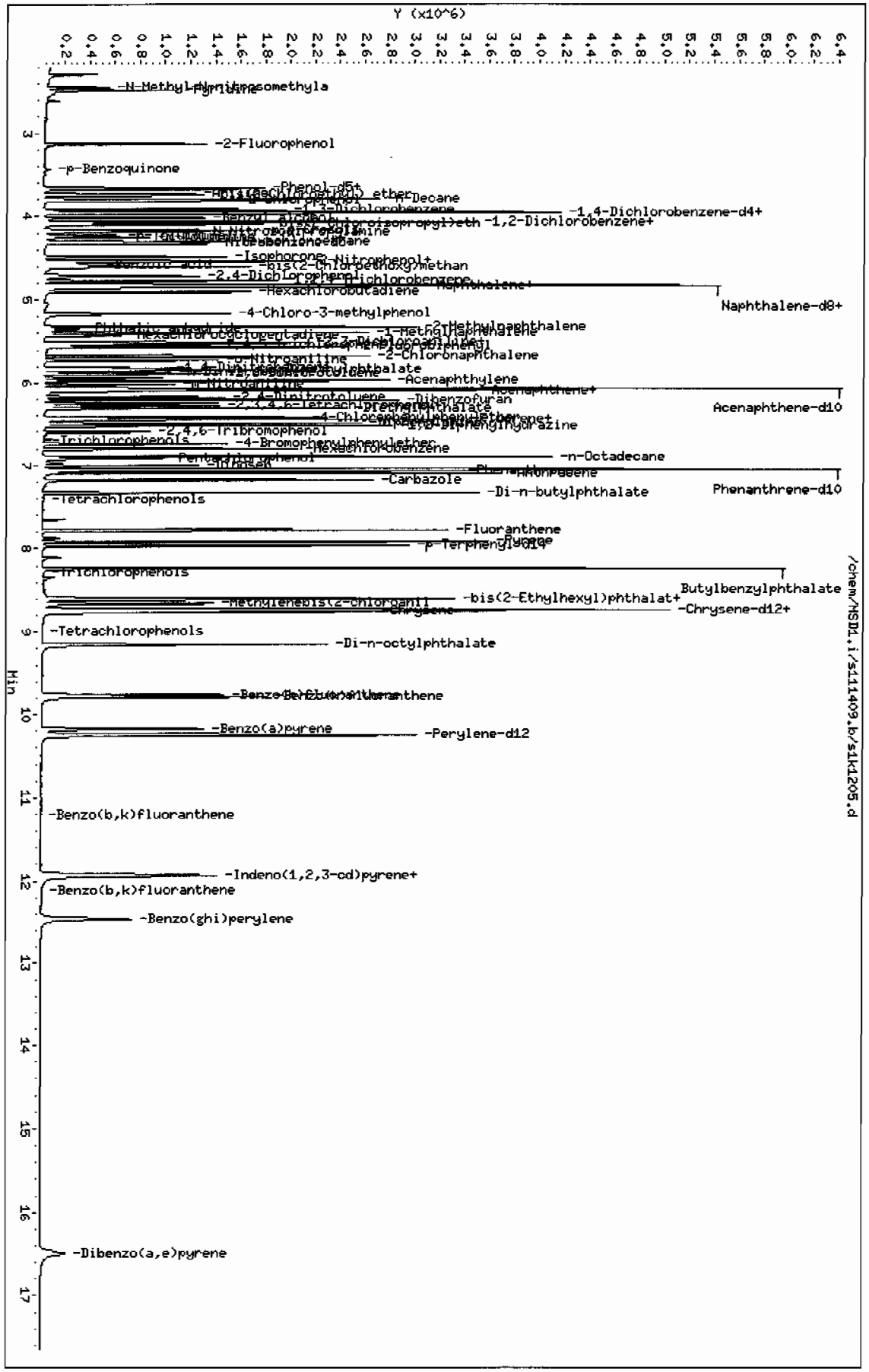

GEL Laboratories LLC

Data file : /chem/MSD1.i/s111409.b/s1k1206.d
Lab Smp Id: WBN091111-13.1 Client Smp ID: MEGA040
Inj Date : 14-NOV-2009 19:50
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-13.1|40 PPM|1|SVMF|1|MEGA040
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 17-Nov-2009 14:00 jos00786 Quant Type: ISTD
Cal Date : 17-NOV-2009 11:04 Cal File: s1k1252.d
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.957	3.957	(1.000)	590054	40.0000	
* 29 Naphthalene-d8	136	4.828	4.828	(1.000)	2479398	40.0000	
* 46 Acenaphthene-d10	164	6.075	6.075	(1.000)	1267371	40.0000	
* 67 Phenanthrene-d10	188	7.051	7.051	(1.000)	2101947	40.0000	
* 91 Chrysene-d12	240	8.739	8.739	(1.000)	1849609	40.0000	
* 98 Perylene-d12	264	10.251	10.251	(1.000)	1720712	40.0000	
$ 3 2-Fluorophenol	112	3.134	3.134	(0.792)	627953	40.0000	40.7
$ 5 Phenol-d5	99	3.669	3.669	(0.927)	756736	40.0000	40.4
$ 20 Nitrobenzene-d5	82	4.322	4.322	(0.895)	671069	40.0000	41.1
$ 39 2-Fluorobiphenyl	172	5.569	5.569	(0.917)	1270397	40.0000	41.8
$ 60 2,4,6-Tribromophenol	329	6.604	6.604	(1.087)	145789	40.0000	41.2
$ 81 p-Terphenyl-d14	244	7.963	7.963	(0.911)	1207810	40.0000	41.6
1 N-Methyl-N-nitrosomethylamine	74	2.440	2.440	(0.617)	333278	40.0000	39.8
2 Pyridine	79	2.475	2.475	(0.625)	611340	40.0000	43.5
4 Aniline	66	3.740	3.740	(0.945)	330159	40.0000	40.1
6 Phenol	94	3.681	3.681	(0.930)	811032	40.0000	41.1
7 bis(2-Chloroethyl) ether	63	3.752	3.752	(0.948)	560970	40.0000	40.8
8 2-Chlorophenol	128	3.822	3.822	(0.966)	680427	40.0000	40.6
203 n-Decane	43	3.804	3.804	(0.961)	901337	40.0000	42.7
9 1,3-Dichlorobenzene	146	3.922	3.922	(0.991)	807086	40.0000	41.0
11 1,4-Dichlorobenzene	146	3.969	3.969	(1.003)	799050	40.0000	41.4
13 1,2-Dichlorobenzene	146	4.069	4.069	(1.028)	745718	40.0000	41.8
14 bis(2-Chloroisopropyl)ether	45	4.099	4.099	(1.036)	1363899	40.0000	41.7
12 Benzyl alcohol	108	4.022	4.022	(1.016)	413340	40.0000	40.5
15 o-Cresol	107	4.075	4.075	(1.030)	517636	40.0000	41.4
18 m,p-Cresols	107	4.175	4.175	(1.055)	692446	40.0000	40.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.199	4.199	(1.061)	458428	40.0000	40.8
19 Hexachloroethane	117	4.304	4.304	(1.088)	284671	40.0000	41.0
21 Nitrobenzene	77	4.334	4.334	(0.898)	701609	40.0000	41.2
22 Isophorone	82	4.493	4.493	(0.931)	1228299	40.0000	41.2
23 2-Nitrophenol	139	4.546	4.546	(0.942)	387021	40.0000	42.8
24 2,4-Dimethylphenol	122	4.540	4.540	(0.940)	571005	40.0000	39.4
25 bis(2-Chloroethoxy)methane	93	4.604	4.604	(0.954)	793818	40.0000	41.4
26 2,4-Dichlorophenol	162	4.710	4.710	(0.976)	562114	40.0000	41.4
27 Benzoic acid	105	4.610	4.610	(0.955)	387952	40.0000	38.9
28 1,2,4-Trichlorobenzene	180	4.775	4.775	(0.989)	626871	40.0000	41.8
30 Naphthalene	128	4.846	4.846	(1.004)	2146240	40.0000	41.5
204 alpha-Terpineol	59	4.816	4.816	(0.998)	515772	40.0000	42.4
31 4-Chloroaniline	127	4.857	4.857	(1.006)	979040	40.0000	41.4
32 Hexachlorobutadiene	225	4.910	4.910	(1.017)	323427	40.0000	42.0
33 4-Chloro-3-methylphenol	107	5.163	5.163	(1.069)	561003	40.0000	42.3
34 2-Methylnaphthalene	142	5.322	5.322	(1.102)	1408431	40.0000	41.4
35 1-Methylnaphthalene	142	5.398	5.398	(1.118)	1258406	40.0000	41.2
36 Hexachlorocyclopentadiene	237	5.428	5.428	(0.893)	164940	40.0000	42.6
205 2,3-Dichloroaniline	161	5.516	5.516	(0.908)	601071	40.0000	41.8
37 2,4,6-Trichlorophenol	196	5.510	5.510	(0.907)	352143	40.0000	41.8
38 2,4,5-Trichlorophenol	196	5.540	5.540	(0.912)	407577	40.0000	45.5
40 2-Chloronaphthalene	162	5.675	5.675	(0.934)	1297555	40.0000	41.5
42 o-Nitroaniline	65	5.734	5.734	(0.944)	398060	40.0000	41.0
41 m-Nitroaniline	138	6.022	6.022	(0.991)	355905	40.0000	41.5
43 Dimethylphthalate	163	5.846	5.846	(0.962)	1428356	40.0000	41.4
44 2,6-Dinitrotoluene	165	5.898	5.898	(0.971)	356104	40.0000	41.4
50 2,4-Dinitrotoluene	165	6.181	6.181	(1.017)	469929	40.0000	41.2
45 Acenaphthylene	152	5.981	5.981	(0.984)	2026083	40.0000	41.5
47 Acenaphthene	154	6.098	6.098	(1.004)	1233173	40.0000	42.2
48 2,4-Dinitrophenol	184	6.093	6.093	(1.003)	143829	40.0000	42.4
49 Dibenzofuran	168	6.216	6.216	(1.023)	1783945	40.0000	42.2
51 Diethylphthalate	149	6.322	6.322	(1.041)	1345857	40.0000	41.8
52 4-Nitrophenol	139	6.104	6.104	(1.005)	237979	40.0000	39.8
53 Fluorene	166	6.445	6.445	(1.061)	1403646	40.0000	41.2
54 4-Chlorophenylphenylether	204	6.422	6.422	(1.057)	602040	40.0000	41.8
55 2-Methyl-4,6-dinitrophenol	198	6.457	6.457	(0.916)	222430	40.0000	41.8
56 p-Nitroaniline	138	6.445	6.445	(1.061)	334967	40.0000	40.0
133 Diphenylamine	169	6.498	6.498	(0.922)	1174689	40.0000	41.9
58 1,2-Diphenylhydrazine	77	6.528	6.528	(0.926)	1431409	40.0000	41.8
61 4-Bromophenylphenylether	248	6.745	6.745	(0.957)	296490	40.0000	41.0
63 Hexachlorobenzene	284	6.810	6.810	(0.966)	373630	40.0000	42.1
65 Pentachlorophenol	266	6.922	6.922	(0.982)	222040	40.0000	41.8
206 n-Octadecane	57	6.898	6.898	(0.978)	960229	40.0000	42.1
68 Phenanthrene	178	7.069	7.069	(1.002)	1926983	40.0000	40.3
69 Anthracene	178	7.098	7.098	(1.007)	2050681	40.0000	42.2
72 Di-n-butylphthalate	149	7.334	7.334	(1.040)	2230521	40.0000	43.0
76 Fluoranthene	202	7.775	7.775	(1.103)	1951281	40.0000	42.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.916	7.916	(0.906)	2023906	40.0000	41.2
85 Butylbenzylphthalate	149	8.228	8.228	(0.941)	930992	40.0000	41.6
89 Benzo(a)anthracene	228	8.722	8.722	(0.998)	1793971	40.0000	40.4
92 Chrysene	228	8.763	8.763	(1.003)	1628246	40.0000	39.3
93 bis(2-Ethylhexyl)phthalate	149	8.598	8.598	(0.984)	1404488	40.0000	43.2
94 Di-n-octylphthalate	149	9.145	9.145	(0.892)	2418641	40.0000	43.0
95 Benzo(b)fluoranthene	252	9.763	9.763	(0.952)	1739197	40.0000	39.8
96 Benzo(k)fluoranthene	252	9.798	9.798	(0.956)	1747806	40.0000	40.5
97 Benzo(a)pyrene	252	10.175	10.175	(0.993)	1504125	40.0000	40.0
99 Indeno(1,2,3-cd)pyrene	276	11.957	11.957	(1.166)	1580353	40.0000	40.5
100 Dibenzo(a,h)anthracene	278	11.957	11.957	(1.166)	1325626	40.0000	40.6
101 Benzo(ghi)perylene	276	12.480	12.480	(1.217)	1398914	40.0000	43.3
126 m-Dinitrobenzene	168	5.881	5.881	(0.968)	242319	40.0000	41.0
130 2,3,4,6-Tetrachlorophenol	232	6.287	6.287	(1.035)	291330	40.0000	42.6
143 Dinoseb	211	7.010	7.010	(0.994)	275899	40.0000	42.2
173 Carbazole	167	7.181	7.181	(1.018)	1711280	40.0000	40.3
184 p-Benzoquinone	54	3.434	3.434	(0.868)	46568	40.0000	46.0
192 Methoxychlor	227	8.587	8.587	(0.982)	628111	40.0000	42.8
211 p-Toluidine	106	4.234	4.234	(1.070)	425817	40.0000	41.0
210 m-Toluidine	106	4.257	4.257	(1.076)	533145	40.0000	39.7
26 Phthalic anhydride	104	5.351	5.351	(1.108)	245905	40.0000	41.8
179 Dibenzo(a,e)pyrene	302	16.527	16.527	(1.612)	817402	40.0000	40.6
214 1,4-Dinitrobenzene	168	5.822	5.822	(0.958)	225013	40.0000	41.0(H)
215 2-Ethoxyethanol	59	2.287	2.287	(0.578)	385809	40.0000	43.4
216 Methylenebis(2-chloroaniline)	231	8.651	8.651	(0.990)	243607	40.0000	40.8
M 225 Trichlorophenols	196				759720	80.0000	87.4
M 226 Tetrachlorophenols	232				291330	40.0000	42.6
M 227 Benzo(b,k)fluoranthene	252				3487003	80.0000	84.0

QC Flag Legend

H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s111409.b/s1k1206.d

Date : 14-NOV-2009 19:50

Client ID: MEGA040

Sample Info: |WBN091111-13,1|40 PPM|1|SVMF|1|MEGA040

Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: amy

Column diameter: 0.20

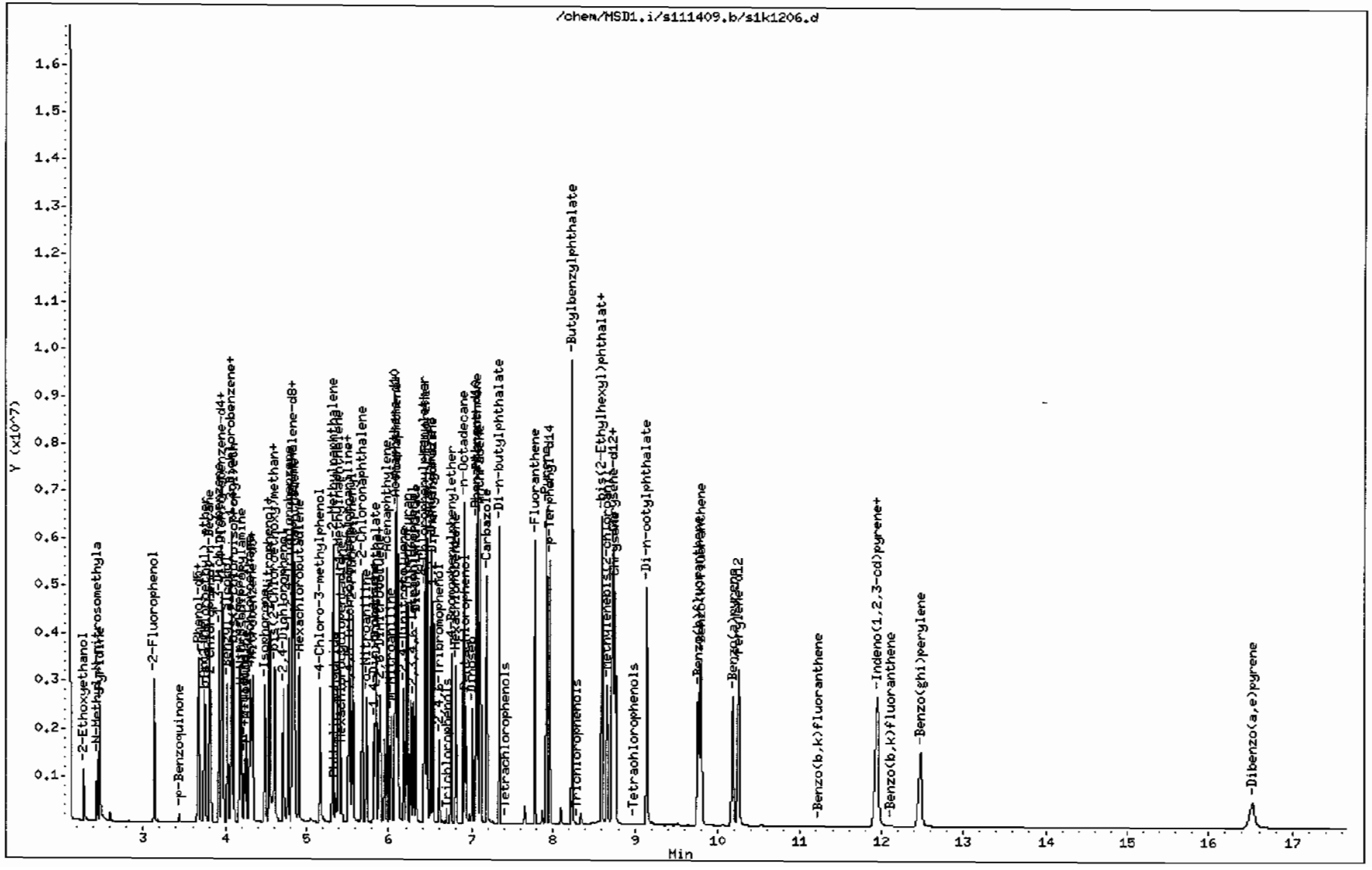

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Data file : /chem/MSD1.i/s111409.b/s1k1207.d
Lab Smp Id: WBN091111-12 Client Smp ID: MEGA050
Inj Date : 14-NOV-2009 20:19
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-12|50 PPM|1|SVMF|1|MEGA050
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 16-Nov-2009 13:49 nat00999 Quant Type: ISTD
Cal Date : 14-NOV-2009 20:19 Cal File: s1k1207.d
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.957	3.957	(1.000)	627288	40.0000	
* 29 Naphthalene-d8	136	4.828	4.828	(1.000)	2613858	40.0000	
* 46 Acenaphthene-d10	164	6.075	6.075	(1.000)	1347245	40.0000	
* 67 Phenanthrene-d10	188	7.057	7.057	(1.000)	2245160	40.0000	
* 91 Chrysene-d12	240	8.745	8.745	(1.000)	1946626	40.0000	
* 98 Perylene-d12	264	10.257	10.257	(1.000)	1857135	40.0000	
$ 3 2-Fluorophenol	112	3.134	3.134	(0.792)	833557	50.0000	51.0
$ 5 Phenol-d5	99	3.669	3.669	(0.927)	1001151	50.0000	50.0
$ 20 Nitrobenzene-d5	82	4.322	4.322	(0.895)	889724	50.0000	49.4
$ 39 2-Fluorobiphenyl	172	5.569	5.569	(0.917)	1660778	50.0000	48.9
$ 60 2,4,6-Tribromophenol	329	6.604	6.604	(1.087)	183524	50.0000	48.6
$ 81 p-Terphenyl-d14	244	7.969	7.969	(0.911)	1553975	50.0000	48.9
1 N-Methyl-N-nitrosomethylamine	74	2.440	2.440	(0.617)	445160	50.0000	50.1
2 Pyridine	79	2.475	2.475	(0.625)	696837	50.0000	45.3
4 Aniline	66	3.740	3.740	(0.945)	444998	50.0000	51.1(Q)
6 Phenol	94	3.681	3.681	(0.930)	1053298	50.0000	49.8
7 bis(2-Chloroethyl) ether	63	3.757	3.757	(0.949)	738007	50.0000	49.5(Q)
8 2-Chlorophenol	128	3.822	3.822	(0.966)	899175	50.0000	50.0
203 n-Decane	43	3.804	3.804	(0.961)	1138031	50.0000	46.3
9 1,3-Dichlorobenzene	146	3.922	3.922	(0.991)	1064651	50.0000	49.3
11 1,4-Dichlorobenzene	146	3.969	3.969	(1.003)	1039783	50.0000	48.9
13 1,2-Dichlorobenzene	146	4.075	4.075	(1.030)	956174	50.0000	47.6
14 bis(2-Chloroisopropyl)ether	45	4.099	4.099	(1.036)	1774665	50.0000	48.6
12 Benzyl alcohol	108	4.028	4.028	(1.018)	532635	50.0000	49.9
15 o-Cresol	107	4.075	4.075	(1.030)	670429	50.0000	48.0
18 m,p-Cresols	107	4.181	4.181	(1.056)	891292	50.0000	49.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.204	4.204	(1.062)	618055	50.0000	50.1
19 Hexachloroethane	117	4.304	4.304	(1.088)	377064	50.0000	49.5
21 Nitrobenzene	77	4.340	4.340	(0.899)	926306	50.0000	49.1
22 Isophorone	82	4.499	4.499	(0.932)	1607398	50.0000	49.2
23 2-Nitrophenol	139	4.551	4.551	(0.943)	508975	50.0000	50.2
24 2,4-Dimethylphenol	122	4.546	4.546	(0.942)	795961	50.0000	50.2
25 bis(2-Chloroethoxy)methane	93	4.610	4.610	(0.955)	1033460	50.0000	48.6
26 2,4-Dichlorophenol	162	4.716	4.716	(0.977)	737712	50.0000	49.8
27 Benzoic acid	105	4.622	4.622	(0.957)	556849	50.0000	56.4
28 1,2,4-Trichlorobenzene	180	4.775	4.775	(0.989)	827822	50.0000	49.4
30 Naphthalene	128	4.846	4.846	(1.004)	2715219	50.0000	45.9(Q)
204 alpha-Terpineol	59	4.822	4.822	(0.999)	610648	50.0000	44.7
31 4-Chloroaniline	127	4.857	4.857	(1.006)	1284835	50.0000	49.4
32 Hexachlorobutadiene	225	4.910	4.910	(1.017)	420296	50.0000	48.1
33 4-Chloro-3-methylphenol	107	5.169	5.169	(1.071)	738736	50.0000	50.5
34 2-Methylnaphthalene	142	5.322	5.322	(1.102)	1813114	50.0000	46.9
35 1-Methylnaphthalene	142	5.398	5.398	(1.118)	1624391	50.0000	46.9
36 Hexachlorocyclopentadiene	237	5.428	5.428	(0.893)	234784	50.0000	55.1
205 2,3-Dichloroaniline	161	5.522	5.522	(0.909)	791456	50.0000	49.5
37 2,4,6-Trichlorophenol	196	5.510	5.510	(0.907)	469912	50.0000	49.9
38 2,4,5-Trichlorophenol	196	5.540	5.540	(0.912)	388061	50.0000	40.7
40 2-Chloronaphthalene	162	5.675	5.675	(0.934)	1696510	50.0000	48.7
42 o-Nitroaniline	65	5.734	5.734	(0.944)	525179	50.0000	50.6
41 m-Nitroaniline	138	6.028	6.028	(0.992)	457103	50.0000	49.1
43 Dimethylphthalate	163	5.846	5.846	(0.962)	1873578	50.0000	49.7
44 2,6-Dinitrotoluene	165	5.898	5.898	(0.971)	470405	50.0000	50.2
50 2,4-Dinitrotoluene	165	6.187	6.187	(1.018)	625311	50.0000	51.3
45 Acenaphthylene	152	5.981	5.981	(0.984)	2650362	50.0000	48.7
47 Acenaphthene	154	6.104	6.104	(1.005)	1597376	50.0000	47.9
48 2,4-Dinitrophenol	184	6.093	6.093	(1.003)	194238	50.0000	54.5(Q)
49 Dibenzofuran	168	6.216	6.216	(1.023)	2297571	50.0000	48.4
51 Diethylphthalate	149	6.322	6.322	(1.041)	1751726	50.0000	49.1
52 4-Nitrophenol	139	6.110	6.110	(1.006)	328003	50.0000	56.2
53 Fluorene	166	6.451	6.451	(1.062)	1788273	50.0000	46.2
54 4-Chlorophenylphenylether	204	6.422	6.422	(1.057)	787890	50.0000	48.8
55 2-Methyl-4,6-dinitrophenol	198	6.463	6.463	(0.916)	289635	50.0000	53.1
56 p-Nitroaniline	138	6.451	6.451	(1.062)	473955	50.0000	53.4
133 Diphenylamine	169	6.504	6.504	(0.922)	1537626	50.0000	48.9
58 1,2-Diphenylhydrazine	77	6.534	6.534	(0.926)	1864231	50.0000	48.2
61 4-Bromophenylphenylether	248	6.745	6.745	(0.956)	389889	50.0000	49.3
63 Hexachlorobenzene	284	6.810	6.810	(0.965)	473942	50.0000	47.4
65 Pentachlorophenol	266	6.922	6.922	(0.981)	286215	50.0000	51.5
206 n-Octadecane	57	6.904	6.904	(0.978)	1203196	50.0000	45.5
68 Phenanthrene	178	7.069	7.069	(1.002)	2545012	50.0000	46.8
69 Anthracene	178	7.104	7.104	(1.007)	2591155	50.0000	46.7
72 Di-n-butylphthalate	149	7.334	7.334	(1.039)	2866374	50.0000	47.8
76 Fluoranthene	202	7.781	7.781	(1.103)	2479899	50.0000	47.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.922	7.922	(0.906)	2527858	50.0000	47.4
85 Butylbenzylphthalate	149	8.234	8.234	(0.941)	1133150	50.0000	45.1
89 Benzo(a)anthracene	228	8.728	8.728	(0.998)	2384672	50.0000	50.5
92 Chrysene	228	8.769	8.769	(1.003)	2110365	50.0000	47.0
93 bis(2-Ethylhexyl)phthalate	149	8.604	8.604	(0.984)	1811611	50.0000	52.0
94 Di-n-octylphthalate	149	9.151	9.151	(0.892)	3176622	50.0000	51.2
95 Benzo(b)fluoranthene	252	9.775	9.775	(0.953)	2305837	50.0000	58.2
96 Benzo(k)fluoranthene	252	9.804	9.804	(0.956)	2382314	50.0000	48.7
97 Benzo(a)pyrene	252	10.186	10.186	(0.993)	2094282	50.0000	57.6
99 Indeno(1,2,3-cd)pyrene	276	11.975	11.975	(1.167)	2201480	50.0000	58.2
100 Dibenzo(a,h)anthracene	278	11.975	11.975	(1.167)	1846286	50.0000	59.7
101 Benzo(ghi)perylene	276	12.498	12.498	(1.218)	1927320	50.0000	56.3(Q)
126 m-Dinitrobenzene	168	5.887	5.887	(0.969)	327377	50.0000	52.1
130 2,3,4,6-Tetrachlorophenol	232	6.287	6.287	(1.035)	338536	50.0000	46.6
143 Dinoseb	211	7.010	7.010	(0.993)	363433	50.0000	53.3
173 Carbazole	167	7.187	7.187	(1.018)	2355895	50.0000	50.1
184 p-Benzoquinone	54	3.440	3.440	(0.869)	48315	50.0000	59.1
192 Methoxychlor	227	8.592	8.592	(0.982)	824086	50.0000	49.4
211 p-Toluidine	106	4.234	4.234	(1.070)	561122	50.0000	50.5
210 m-Toluidine	106	4.257	4.257	(1.076)	738833	50.0000	53.8
26 Phthalic anhydride	104	5.357	5.357	(1.110)	320454	50.0000	59.6(Q)
179 Dibenzo(a,e)pyrene	302	16.551	16.551	(1.614)	1225621	50.0000	63.0
214 1,4-Dinitrobenzene	168	5.828	5.828	(0.959)	300874	50.0000	52.0(H)
215 2-Ethoxyethanol	59	2.287	2.287	(0.578)	446635	50.0000	46.9
216 Methylenebis(2-chloroaniline)	231	8.657	8.657	(0.990)	329376	50.0000	53.0(Q)
M 225 Trichlorophenols	196				857973	100.000	90.6
M 226 Tetrachlorophenols	232				338536	50.0000	46.6
M 227 Benzo(b,k)fluoranthene	252				4688151	100.000	106

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

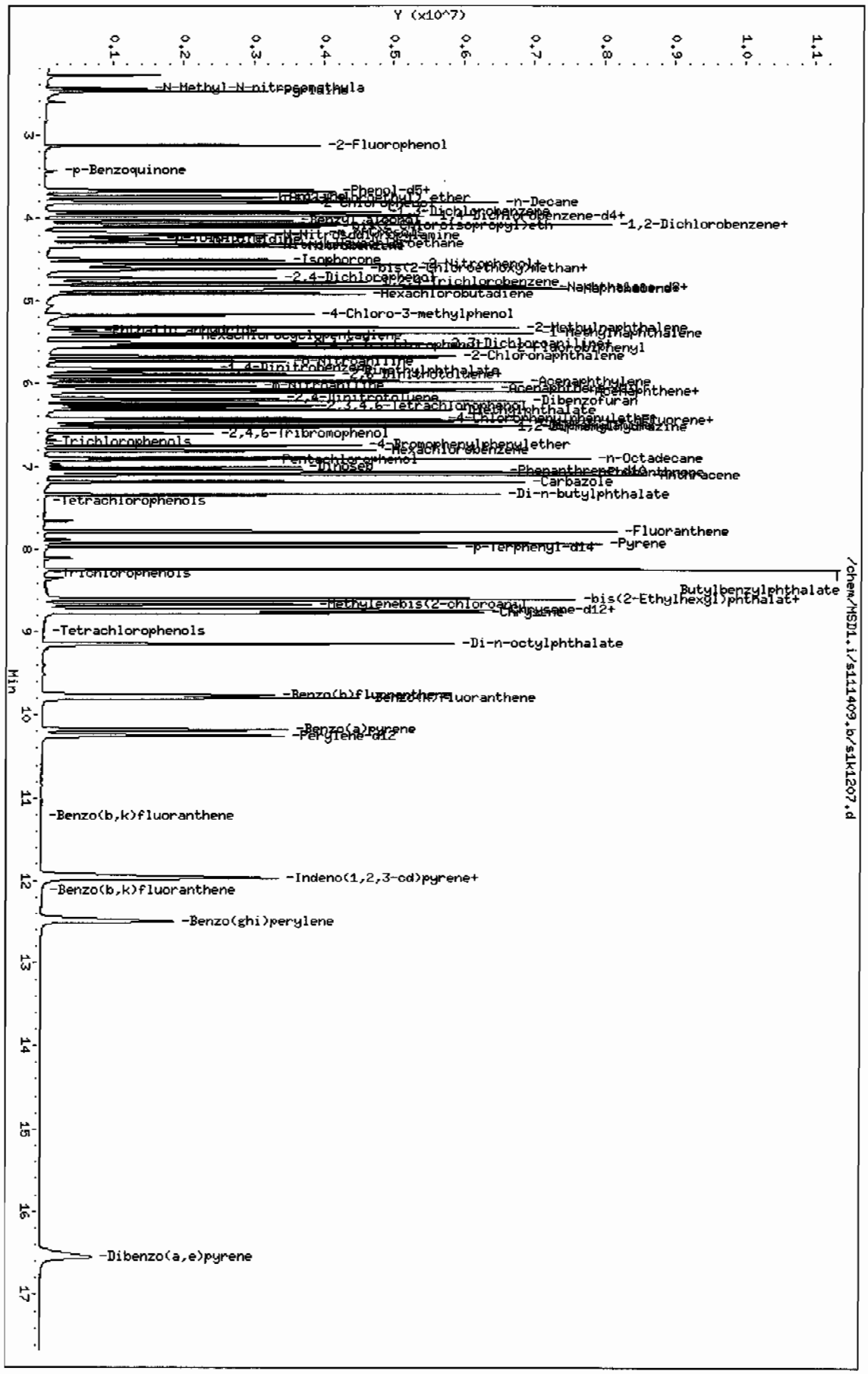
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Instrument: MSD1.i
Operator: amy
Column diameter: 0.20
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Y (x10^7)
Min
-N-Methyl-N-nitrosomethylamine
-2-Fluorophenol
-p-Benzoquinone
-Phenol-d5+
-n-Decane
-1,2-Dichlorobenzene+
-Isophorone
-2,4-Dichlorophenol
-Hexachlorobutadiene
-4-Chloro-3-methylphenol
-2-Methylnaphthalene
-2-Chloronaphthalene
-Acenaphthylene
-Dibenzofuran
-2,6-Tribromophenol
-Trichlorophenols
-4-Bromophenylphenylether
-n-Octadecane
-Carbazole
-Di-n-butylphthalate
-Tetrachlorophenols
-Fluoranthene
-Pyrene
-Trichlorophenols
Butylbenzylphthalate
-bis(2-Ethylhexyl)phthalat+
-Tetrachlorophenols
-Di-n-octylphthalate
-Benzo(b)fluoranthene
-Benzo(a)pyrene
-Perylene-d12
-Benzo(b,k)fluoranthene
-Indeno(1,2,3-cd)pyrene+
-Benzo(b,k)fluoranthene
-Benzo(ghi)perylene
-Dibenzo(a,e)pyrene
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GEL Laboratories LLC

Data file : /chem/MSD1.i/s111409.b/s1k1208.d
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Inj Date : 14-NOV-2009 20:47
Operator : amy Inst ID: MSD1.i
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Als bottle: 8 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.957	3.957	(1.000)	554068	40.0000	
* 29 Naphthalene-d8	136	4.828	4.828	(1.000)	2386450	40.0000	
* 46 Acenaphthene-d10	164	6.081	6.081	(1.000)	1203183	40.0000	
* 67 Phenanthrene-d10	188	7.057	7.057	(1.000)	1980272	40.0000	
* 91 Chrysene-d12	240	8.745	8.745	(1.000)	1630786	40.0000	
* 98 Perylene-d12	264	10.257	10.257	(1.000)	1607979	40.0000	
$ 3 2-Fluorophenol	112	3.134	3.134	(0.792)	1188814	80.0000	81.9
$ 5 Phenol-d5	99	3.675	3.675	(0.929)	1406824	80.0000	79.6
$ 20 Nitrobenzene-d5	82	4.328	4.328	(0.896)	1235394	80.0000	76.0
$ 39 2-Fluorobiphenyl	172	5.569	5.569	(0.916)	2261767	80.0000	75.6
$ 60 2,4,6-Tribromophenol	329	6.610	6.610	(1.087)	269166	80.0000	79.8
$ 81 p-Terphenyl-d14	244	7.969	7.969	(0.911)	1997898	80.0000	76.0
1 N-Methyl-N-nitrosomethylamine	74	2.446	2.446	(0.618)	632917	80.0000	80.5
2 Pyridine	79	2.475	2.475	(0.625)	956454	80.0000	72.1
4 Aniline	66	3.746	3.746	(0.946)	625426	80.0000	81.1
6 Phenol	94	3.687	3.687	(0.932)	1476109	80.0000	79.2
7 bis(2-Chloroethyl) ether	63	3.757	3.757	(0.949)	1024737	80.0000	78.1
8 2-Chlorophenol	128	3.822	3.822	(0.966)	1256898	80.0000	79.3
203 n-Decane	43	3.804	3.804	(0.961)	1504488	80.0000	71.2
9 1,3-Dichlorobenzene	146	3.928	3.928	(0.993)	1471475	80.0000	77.7
11 1,4-Dichlorobenzene	146	3.969	3.969	(1.003)	1432804	80.0000	77.0
13 1,2-Dichlorobenzene	146	4.075	4.075	(1.030)	1283958	80.0000	73.7
14 bis(2-Chloroisopropyl)ether	45	4.104	4.104	(1.037)	2387545	80.0000	75.1
12 Benzyl alcohol	108	4.034	4.034	(1.019)	760746	80.0000	80.6
15 o-Cresol	107	4.081	4.081	(1.031)	902811	80.0000	74.5
18 m,p-Cresols	107	4.187	4.187	(1.058)	1270123	80.0000	79.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.210	4.210	(1.064)	787329	80.0000	73.4
19 Hexachloroethane	117	4.304	4.304	(1.088)	520322	80.0000	77.9
21 Nitrobenzene	77	4.340	4.340	(0.899)	1291157	80.0000	75.9
22 Isophorone	82	4.504	4.504	(0.933)	2281521	80.0000	77.1
23 2-Nitrophenol	139	4.551	4.551	(0.943)	688280	80.0000	75.5
24 2,4-Dimethylphenol	122	4.546	4.546	(0.942)	1113182	80.0000	77.5
25 bis(2-Chloroethoxy)methane	93	4.616	4.616	(0.956)	1444791	80.0000	75.5
26 2,4-Dichlorophenol	162	4.716	4.716	(0.977)	1056602	80.0000	78.5
27 Benzoic acid	105	4.646	4.646	(0.962)	856215	80.0000	90.7
28 1,2,4-Trichlorobenzene	180	4.781	4.781	(0.990)	1136773	80.0000	75.4
30 Naphthalene	128	4.846	4.846	(1.004)	3644998	80.0000	69.3(Q)
204 alpha-Terpineol	59	4.822	4.822	(0.999)	892247	80.0000	73.0
31 4-Chloroaniline	127	4.863	4.863	(1.007)	1795302	80.0000	76.4
32 Hexachlorobutadiene	225	4.910	4.910	(1.017)	573751	80.0000	73.4
33 4-Chloro-3-methylphenol	107	5.169	5.169	(1.071)	1011928	80.0000	76.6
34 2-Methylnaphthalene	142	5.328	5.328	(1.104)	2446659	80.0000	70.9
35 1-Methylnaphthalene	142	5.398	5.398	(1.118)	2209570	80.0000	71.4
36 Hexachlorocyclopentadiene	237	5.428	5.428	(0.893)	305299	80.0000	80.2
205 2,3-Dichloroaniline	161	5.522	5.522	(0.908)	1074423	80.0000	76.1
37 2,4,6-Trichlorophenol	196	5.516	5.516	(0.907)	619462	80.0000	74.9
38 2,4,5-Trichlorophenol	196	5.545	5.545	(0.912)	750081	80.0000	86.4
40 2-Chloronaphthalene	162	5.681	5.681	(0.934)	2297065	80.0000	74.8
42 o-Nitroaniline	65	5.740	5.740	(0.944)	740769	80.0000	79.9
41 m-Nitroaniline	138	6.034	6.034	(0.992)	625151	80.0000	76.1
43 Dimethylphthalate	163	5.851	5.851	(0.962)	2603411	80.0000	77.8
44 2,6-Dinitrotoluene	165	5.904	5.904	(0.971)	652687	80.0000	78.4
50 2,4-Dinitrotoluene	165	6.192	6.192	(1.018)	881523	80.0000	80.8
45 Acenaphthylene	152	5.987	5.987	(0.985)	3559128	80.0000	74.3
47 Acenaphthene	154	6.104	6.104	(1.004)	2088409	80.0000	71.6
48 2,4-Dinitrophenol	184	6.098	6.098	(1.003)	266678	80.0000	82.8(Q)
49 Dibenzofuran	168	6.216	6.216	(1.022)	3135122	80.0000	75.1
51 Diethylphthalate	149	6.328	6.328	(1.041)	2393842	80.0000	76.0
52 4-Nitrophenol	139	6.116	6.116	(1.006)	490150	80.0000	90.8
53 Fluorene	166	6.451	6.451	(1.061)	2403811	80.0000	71.1
54 4-Chlorophenylphenylether	204	6.428	6.428	(1.057)	1065151	80.0000	75.1
55 2-Methyl-4,6-dinitrophenol	198	6.469	6.469	(0.917)	426602	80.0000	86.8
56 p-Nitroaniline	138	6.463	6.463	(1.063)	644277	80.0000	81.1
133 Diphenylamine	169	6.504	6.504	(0.922)	2085589	80.0000	76.1
58 1,2-Diphenylhydrazine	77	6.534	6.534	(0.926)	2521674	80.0000	75.0
61 4-Bromophenylphenylether	248	6.751	6.751	(0.957)	550623	80.0000	79.2
63 Hexachlorobenzene	284	6.810	6.810	(0.965)	660840	80.0000	75.8
65 Pentachlorophenol	266	6.928	6.928	(0.982)	424424	80.0000	85.2
206 n-Octadecane	57	6.904	6.904	(0.978)	1456999	80.0000	65.3
68 Phenanthrene	178	7.075	7.075	(1.002)	3367098	80.0000	71.6
69 Anthracene	178	7.104	7.104	(1.007)	3490841	80.0000	72.6
72 Di-n-butylphthalate	149	7.339	7.339	(1.040)	3726128	80.0000	72.2
76 Fluoranthene	202	7.781	7.781	(1.103)	3307628	80.0000	72.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.922	7.922	(0.906)	3446747	80.0000	77.7
85 Butylbenzylphthalate	149	8.234	8.234	(0.941)	1413260	80.0000	69.4
89 Benzo(a)anthracene	228	8.733	8.733	(0.999)	3160572	80.0000	80.0
92 Chrysene	228	8.769	8.769	(1.003)	2787216	80.0000	75.0
93 bis(2-Ethylhexyl)phthalate	149	8.604	8.604	(0.984)	2354717	80.0000	80.6
94 Di-n-octylphthalate	149	9.151	9.151	(0.892)	4318185	80.0000	80.4
95 Benzo(b)fluoranthene	252	9.780	9.780	(0.954)	3304287	80.0000	93.2
96 Benzo(k)fluoranthene	252	9.810	9.810	(0.956)	3222758	80.0000	76.7
97 Benzo(a)pyrene	252	10.192	10.192	(0.994)	2912657	80.0000	90.2
99 Indeno(1,2,3-cd)pyrene	276	11.992	11.992	(1.169)	3025334	80.0000	90.0
100 Dibenzo(a,h)anthracene	278	11.986	11.986	(1.169)	2532762	80.0000	91.8
101 Benzo(ghi)perylene	276	12.510	12.510	(1.220)	2585433	80.0000	85.9(Q)
126 m-Dinitrobenzene	168	5.893	5.893	(0.969)	458582	80.0000	81.4
130 2,3,4,6-Tetrachlorophenol	232	6.292	6.292	(1.035)	546523	80.0000	83.4
143 Dinoseb	211	7.016	7.016	(0.994)	515831	80.0000	84.6
173 Carbazole	167	7.187	7.187	(1.018)	3121391	80.0000	76.0
184 p-Benzoquinone	54	3.440	3.440	(0.869)	83536	80.0000	106
192 Methoxychlor	227	8.592	8.592	(0.982)	909774	80.0000	67.7
211 p-Toluidine	106	4.240	4.240	(1.071)	761159	80.0000	78.0
210 m-Toluidine	106	4.269	4.269	(1.079)	1125023	80.0000	89.8
26 Phthalic anhydride	104	5.363	5.363	(1.111)	497228	80.0000	96.2
179 Dibenzo(a,e)pyrene	302	16.568	16.568	(1.615)	1557621	80.0000	89.6
214 1,4-Dinitrobenzene	168	5.828	5.828	(0.958)	424465	80.0000	81.7(H)
215 2-Ethoxyethanol	59	2.287	2.287	(0.578)	650677	80.0000	77.9
216 Methylenebis(2-chloroaniline)	231	8.663	8.663	(0.991)	437691	80.0000	83.2(Q)
M 225 Trichlorophenols	196				1369543	160.000	162
M 226 Tetrachlorophenols	232				546523	80.0000	83.4
M 227 Benzo(b,k)fluoranthene	252				6527045	160.000	168

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s111409.b/s1k1208.d
Date : 14-NOV-2009 20:47
Client ID: MEGA080
Sample Info: IWBN091111-11180 PPM11ISWHF11MEGA080
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: any
Column diameter: 0.20

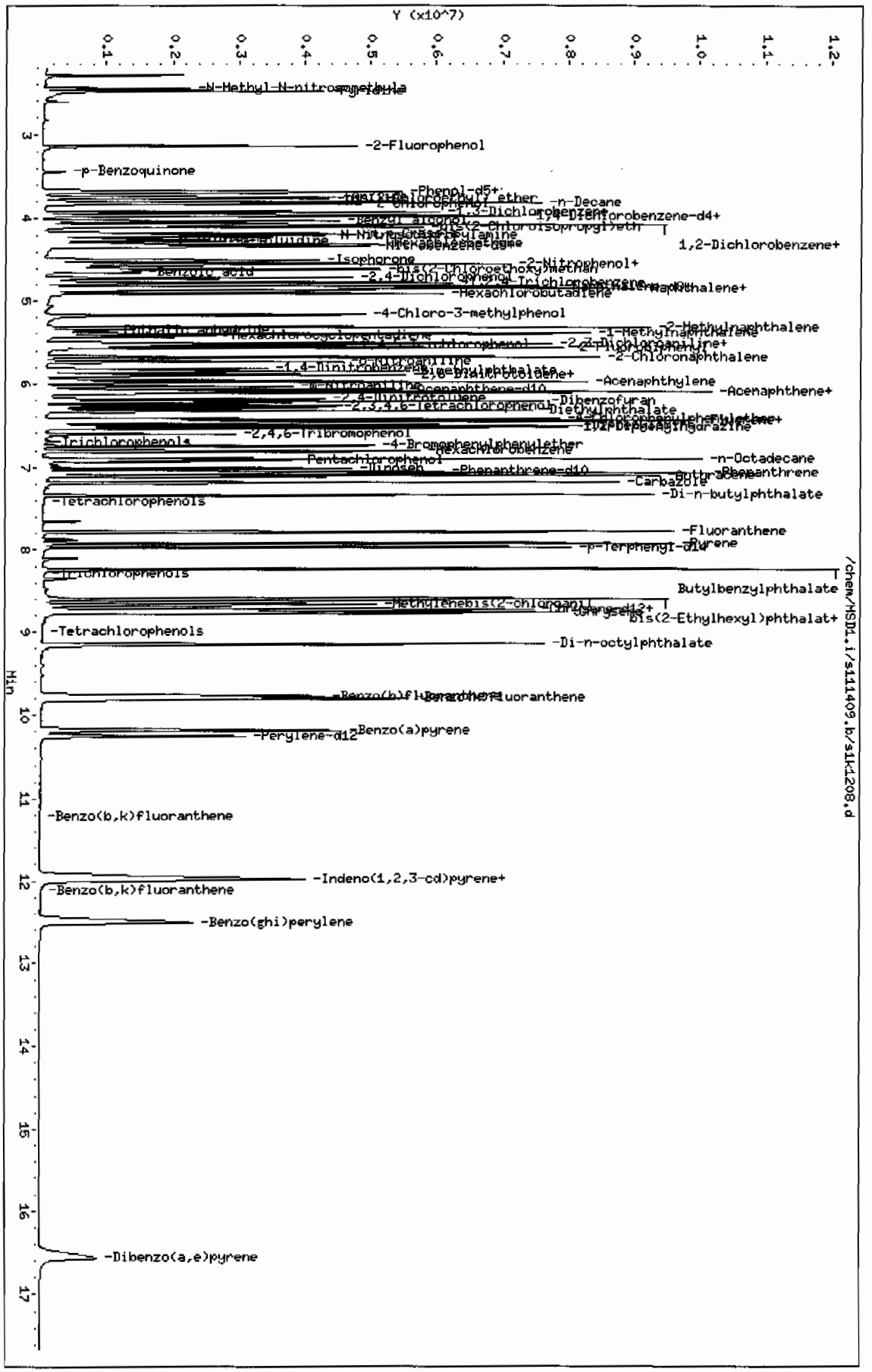

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Data file : /chem/MSD1.i/s111409.b/s1k1209.d
Lab Smp Id: WBN091111-10 Client Smp ID: MEGA100
Inj Date : 14-NOV-2009 21:16
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-10|100 PPM|1|SVMF|1|MEGA100
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 16-Nov-2009 13:49 nat00999 Quant Type: ISTD
Cal Date : 14-NOV-2009 21:16 Cal File: s1k1209.d
Als bottle: 9 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.957	3.957	(1.000)	500597	40.0000	
* 29 Naphthalene-d8	136	4.828	4.828	(1.000)	2263280	40.0000	
* 46 Acenaphthene-d10	164	6.081	6.081	(1.000)	1115800	40.0000	
* 67 Phenanthrene-d10	188	7.057	7.057	(1.000)	1876064	40.0000	
* 91 Chrysene-d12	240	8.751	8.751	(1.000)	1509514	40.0000	
* 98 Perylene-d12	264	10.257	10.257	(1.000)	1517058	40.0000	
$ 3 2-Fluorophenol	112	3.140	3.140	(0.793)	1340793	100.000	102
$ 5 Phenol-d5	99	3.681	3.681	(0.930)	1617125	100.000	101
$ 20 Nitrobenzene-d5	82	4.328	4.328	(0.896)	1411460	100.000	92.9
$ 39 2-Fluorobiphenyl	172	5.569	5.569	(0.916)	2543998	100.000	93.0
$ 60 2,4,6-Tribromophenol	329	6.610	6.610	(1.087)	314404	100.000	100
$ 81 p-Terphenyl-d14	244	7.969	7.969	(0.911)	2296455	100.000	95.2
1 N-Methyl-N-nitrosomethylamine	74	2.446	2.446	(0.618)	730346	100.000	102
2 Pyridine	79	2.475	2.475	(0.625)	1269433	100.000	105
4 Aniline	66	3.746	3.746	(0.946)	724869	100.000	103(Q)
6 Phenol	94	3.687	3.687	(0.932)	1705697	100.000	101
7 bis(2-Chloroethyl) ether	63	3.763	3.763	(0.951)	1153099	100.000	97.7(Q)
8 2-Chlorophenol	128	3.828	3.828	(0.967)	1446429	100.000	101
203 n-Decane	43	3.804	3.804	(0.961)	1592653	100.000	85.8
9 1,3-Dichlorobenzene	146	3.928	3.928	(0.993)	1620045	100.000	95.5
11 1,4-Dichlorobenzene	146	3.969	3.969	(1.003)	1589303	100.000	95.4
13 1,2-Dichlorobenzene	146	4.075	4.075	(1.030)	1421780	100.000	91.9
14 bis(2-Chloroisopropyl)ether	45	4.104	4.104	(1.037)	2642341	100.000	93.2
12 Benzyl alcohol	108	4.034	4.034	(1.019)	915833	100.000	106
15 o-Cresol	107	4.081	4.081	(1.031)	1010944	100.000	93.5
18 m,p-Cresols	107	4.187	4.187	(1.058)	1483224	100.000	102

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.216	4.216	(1.065)	969302	100.000	100
19 Hexachloroethane	117	4.304	4.304	(1.088)	578260	100.000	96.5
21 Nitrobenzene	77	4.346	4.346	(0.900)	1461050	100.000	92.0
22 Isophorone	82	4.510	4.510	(0.934)	2644074	100.000	95.1
23 2-Nitrophenol	139	4.557	4.557	(0.944)	767127	100.000	90.4
24 2,4-Dimethylphenol	122	4.551	4.551	(0.943)	1234848	100.000	92.1
25 bis(2-Chloroethoxy)methane	93	4.616	4.616	(0.956)	1645676	100.000	92.1
26 2,4-Dichlorophenol	162	4.722	4.722	(0.978)	1189660	100.000	94.2
27 Benzoic acid	105	4.651	4.651	(0.963)	985669	100.000	108
28 1,2,4-Trichlorobenzene	180	4.781	4.781	(0.990)	1271739	100.000	90.6
30 Naphthalene	128	4.846	4.846	(1.004)	4142673	100.000	85.1(Q)
204 alpha-Terpineol	59	4.822	4.822	(0.999)	1039797	100.000	91.3
31 4-Chloroaniline	127	4.863	4.863	(1.007)	2048013	100.000	93.2
32 Hexachlorobutadiene	225	4.910	4.910	(1.017)	633978	100.000	87.6
33 4-Chloro-3-methylphenol	107	5.175	5.175	(1.072)	1199793	100.000	96.5
34 2-Methylnaphthalene	142	5.328	5.328	(1.104)	2704659	100.000	84.8
35 1-Methylnaphthalene	142	5.404	5.404	(1.119)	2470836	100.000	86.1
36 Hexachlorocyclopentadiene	237	5.428	5.428	(0.893)	326027	100.000	93.5
205 2,3-Dichloroaniline	161	5.522	5.522	(0.908)	1210794	100.000	93.7
37 2,4,6-Trichlorophenol	196	5.516	5.516	(0.907)	698032	100.000	92.4
38 2,4,5-Trichlorophenol	196	5.545	5.545	(0.912)	750383	100.000	94.3
40 2-Chloronaphthalene	162	5.681	5.681	(0.934)	2593432	100.000	92.2
42 o-Nitroaniline	65	5.740	5.740	(0.944)	874515	100.000	101
41 m-Nitroaniline	138	6.040	6.040	(0.993)	787172	100.000	103
43 Dimethylphthalate	163	5.857	5.857	(0.963)	2991309	100.000	97.0
44 2,6-Dinitrotoluene	165	5.910	5.910	(0.972)	752941	100.000	98.0
50 2,4-Dinitrotoluene	165	6.193	6.193	(1.018)	1019991	100.000	101
45 Acenaphthylene	152	5.987	5.987	(0.985)	4024393	100.000	91.8
47 Acenaphthene	154	6.104	6.104	(1.004)	2311996	100.000	87.3
48 2,4-Dinitrophenol	184	6.104	6.104	(1.004)	315357	100.000	104(Q)
49 Dibenzofuran	168	6.222	6.222	(1.023)	3484723	100.000	91.6
51 Diethylphthalate	149	6.328	6.328	(1.041)	2770170	100.000	95.7
52 4-Nitrophenol	139	6.122	6.122	(1.007)	604351	100.000	117
53 Fluorene	166	6.451	6.451	(1.061)	2725921	100.000	88.6
54 4-Chlorophenylphenylether	204	6.428	6.428	(1.057)	1205569	100.000	92.9
55 2-Methyl-4,6-dinitrophenol	198	6.475	6.475	(0.917)	511622	100.000	108
56 p-Nitroaniline	138	6.469	6.469	(1.064)	766144	100.000	103
133 Diphenylamine	169	6.510	6.510	(0.922)	2357682	100.000	92.2
58 1,2-Diphenylhydrazine	77	6.534	6.534	(0.926)	2876207	100.000	91.8
61 4-Bromophenylphenylether	248	6.751	6.751	(0.957)	631932	100.000	96.6
63 Hexachlorobenzene	284	6.816	6.816	(0.966)	744229	100.000	91.6
65 Pentachlorophenol	266	6.928	6.928	(0.982)	501299	100.000	105
206 n-Octadecane	57	6.904	6.904	(0.978)	1640399	100.000	80.6
68 Phenanthrene	178	7.075	7.075	(1.002)	3861342	100.000	88.4
69 Anthracene	178	7.110	7.110	(1.008)	3905091	100.000	87.5
72 Di-n-butylphthalate	149	7.340	7.340	(1.040)	4161387	100.000	87.2
76 Fluoranthene	202	7.787	7.787	(1.103)	3751010	100.000	88.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.928	7.928	(0.906)	3884116	100.000	95.3
85 Butylbenzylphthalate	149	8.234	8.234	(0.941)	1529464	100.000	83.8
89 Benzo(a)anthracene	228	8.734	8.734	(0.998)	3613873	100.000	98.9
92 Chrysene	228	8.775	8.775	(1.003)	3319233	100.000	97.0
93 bis(2-Ethylhexyl)phthalate	149	8.604	8.604	(0.983)	2598449	100.000	96.6
94 Di-n-octylphthalate	149	9.151	9.151	(0.892)	4959479	100.000	98.2
95 Benzo(b)fluoranthene	252	9.786	9.786	(0.954)	3978698	100.000	116
96 Benzo(k)fluoranthene	252	9.816	9.816	(0.957)	3679629	100.000	93.8
97 Benzo(a)pyrene	252	10.198	10.198	(0.994)	3398226	100.000	110
99 Indeno(1,2,3-cd)pyrene	276	12.004	12.004	(1.170)	3523403	100.000	109
100 Dibenzo(a,h)anthracene	278	11.992	11.992	(1.169)	2946699	100.000	111
101 Benzo(ghi)perylene	276	12.522	12.522	(1.221)	3007695	100.000	105(Q)
126 m-Dinitrobenzene	168	5.898	5.898	(0.970)	536646	100.000	102
130 2,3,4,6-Tetrachlorophenol	232	6.293	6.293	(1.035)	608604	100.000	100
143 Dinoseb	211	7.016	7.016	(0.994)	610533	100.000	105
173 Carbazole	167	7.192	7.192	(1.019)	3661050	100.000	94.9
184 p-Benzoquinone	54	3.440	3.440	(0.869)	96111	100.000	128(A)
192 Methoxychlor	227	8.598	8.598	(0.983)	965858	100.000	80.6
211 p-Toluidine	106	4.240	4.240	(1.071)	556833	100.000	67.3(H)
210 m-Toluidine	106	4.269	4.269	(1.079)	1180798	100.000	104(H)
26 Phthalic anhydride	104	5.363	5.363	(1.111)	555160	100.000	111
179 Dibenzo(a,e)pyrene	302	16.580	16.580	(1.616)	1812574	100.000	109
214 1,4-Dinitrobenzene	168	5.834	5.834	(0.959)	501175	100.000	103(H)
215 2-Ethoxyethanol	59	2.287	2.287	(0.578)	776809	100.000	102
216 Methylenebis(2-chloroaniline)	231	8.669	8.669	(0.991)	504773	100.000	103(Q)
M 225 Trichlorophenols	196				1448415	200.000	187
M 226 Tetrachlorophenols	232				608604	100.000	100
M 227 Benzo(b,k)fluoranthene	252				7658327	200.000	208

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s111409.b/s1k1209.d
Date : 14-NOV-2009 21:16
Client ID: MEGA100
Sample Info: IWBN091111-101100 PPM11|SVHF11|MEGA100
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: amy
Column diameter: 0.20

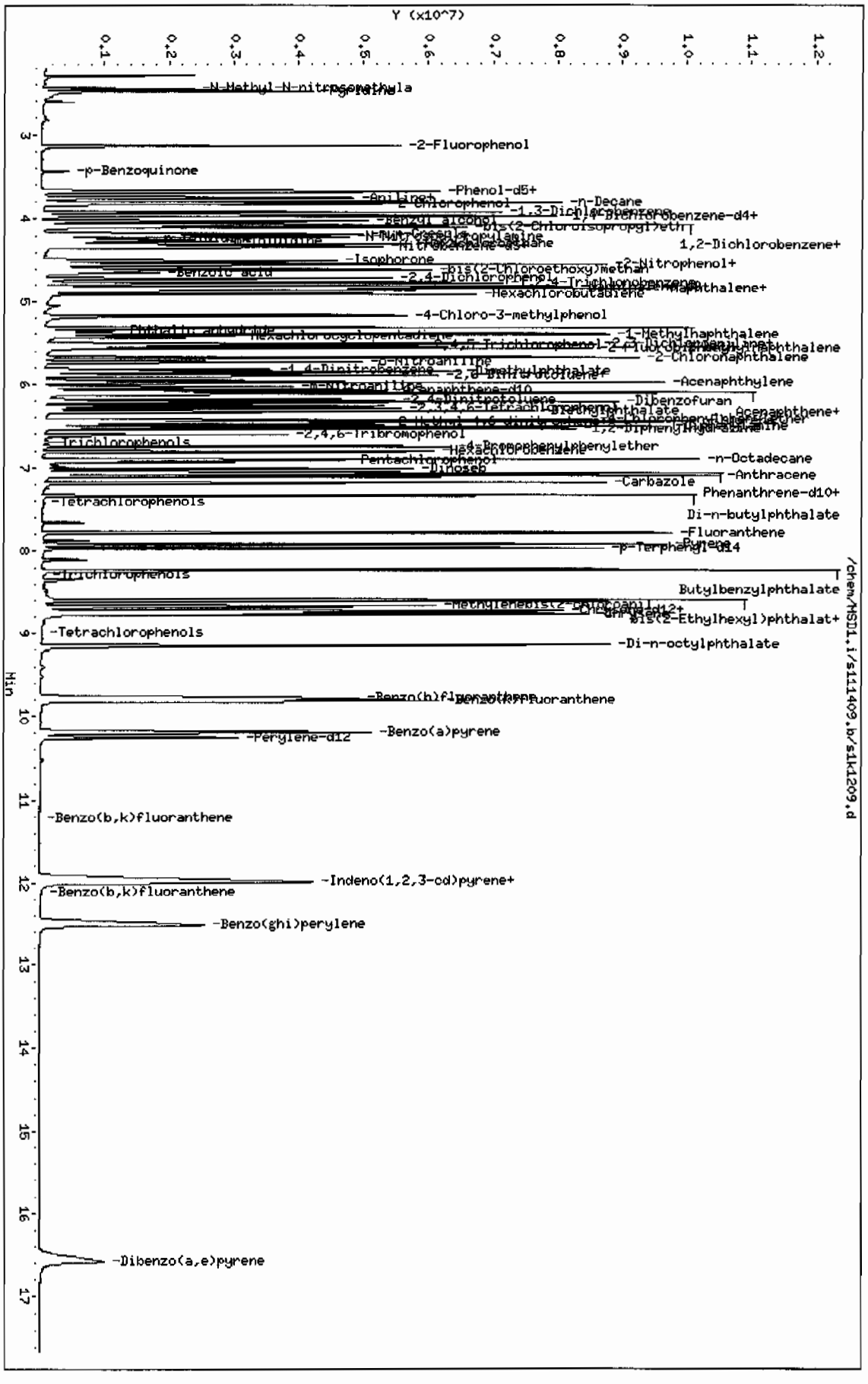

GEL Laboratories LLC

Data file : /chem/MSD1.i/s111409.b/s1k1210.d
Lab Smp Id: WBN091111-09 Client Smp ID: MEGA120
Inj Date : 14-NOV-2009 21:45
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-09|120 PPM|1|SVMF|1|MEGA120
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 16-Nov-2009 13:50 nat00999 Quant Type: ISTD
Cal Date : 14-NOV-2009 21:45 Cal File: s1k1210.d
Als bottle: 10 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.957	3.957	(1.000)	513404	40.0000	
* 29 Naphthalene-d8	136	4.834	4.834	(1.000)	2325592	40.0000	
* 46 Acenaphthene-d10	164	6.081	6.081	(1.000)	1143250	40.0000	
* 67 Phenanthrene-d10	188	7.057	7.057	(1.000)	1922992	40.0000	
* 91 Chrysene-d12	240	8.751	8.751	(1.000)	1510326	40.0000	
* 98 Perylene-d12	264	10.263	10.263	(1.000)	1575272	40.0000	
$ 3 2-Fluorophenol	112	3.140	3.140	(0.793)	1542632	120.000	115
$ 5 Phenol-d5	99	3.681	3.681	(0.930)	1875417	120.000	115
$ 20 Nitrobenzene-d5	82	4.334	4.334	(0.897)	1632552	120.000	106
$ 39 2-Fluorobiphenyl	172	5.575	5.575	(0.917)	2809936	120.000	103
$ 60 2,4,6-Tribromophenol	329	6.616	6.616	(1.088)	372961	120.000	117
$ 81 p-Terphenyl-d14	244	7.969	7.969	(0.911)	2542442	120.000	107
1 N-Methyl-N-nitrosomethylamine	74	2.446	2.446	(0.618)	846885	120.000	116
2 Pyridine	79	2.475	2.475	(0.625)	1334062	120.000	109
4 Aniline	66	3.751	3.751	(0.948)	836522	120.000	117(Q)
6 Phenol	94	3.693	3.693	(0.933)	1961509	120.000	114
7 bis(2-Chloroethyl) ether	63	3.763	3.763	(0.951)	1299838	120.000	109(Q)
8 2-Chlorophenol	128	3.828	3.828	(0.967)	1673186	120.000	115
203 n-Decane	43	3.810	3.810	(0.963)	1732503	120.000	94.3
9 1,3-Dichlorobenzene	146	3.928	3.928	(0.993)	1862560	120.000	109
11 1,4-Dichlorobenzene	146	3.975	3.975	(1.004)	1797036	120.000	107
13 1,2-Dichlorobenzene	146	4.075	4.075	(1.030)	1594817	120.000	103
14 bis(2-Chloroisopropyl)ether	45	4.104	4.104	(1.037)	2978078	120.000	105
12 Benzyl alcohol	108	4.040	4.040	(1.021)	1077095	120.000	121(A)
15 o-Cresol	107	4.087	4.087	(1.033)	1145665	120.000	105
18 m,p-Cresols	107	4.193	4.193	(1.059)	1724243	120.000	117

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.216	4.216	(1.065)	1044619	120.000	107
19 Hexachloroethane	117	4.304	4.304	(1.088)	649855	120.000	108
21 Nitrobenzene	77	4.345	4.345	(0.899)	1664496	120.000	104
22 Isophorone	82	4.516	4.516	(0.934)	2906393	120.000	104
23 2-Nitrophenol	139	4.557	4.557	(0.943)	841721	120.000	99.3
24 2,4-Dimethylphenol	122	4.551	4.551	(0.942)	1482425	120.000	109
25 bis(2-Chloroethoxy)methane	93	4.616	4.616	(0.955)	1884541	120.000	105
26 2,4-Dichlorophenol	162	4.722	4.722	(0.977)	1360951	120.000	107
27 Benzoic acid	105	4.663	4.663	(0.965)	1103712	120.000	118
28 1,2,4-Trichlorobenzene	180	4.781	4.781	(0.989)	1437006	120.000	102
30 Naphthalene	128	4.851	4.851	(1.004)	4572530	120.000	94.2(Q)
204 alpha-Terpineol	59	4.822	4.822	(0.998)	1165606	120.000	102
31 4-Chloroaniline	127	4.863	4.863	(1.006)	2358548	120.000	106
32 Hexachlorobutadiene	225	4.910	4.910	(1.016)	717037	120.000	99.2
33 4-Chloro-3-methylphenol	107	5.175	5.175	(1.071)	1253518	120.000	101
34 2-Methylnaphthalene	142	5.328	5.328	(1.102)	3095445	120.000	97.0
35 1-Methylnaphthalene	142	5.404	5.404	(1.118)	2777035	120.000	96.8
36 Hexachlorocyclopentadiene	237	5.428	5.428	(0.893)	360900	120.000	103
205 2,3-Dichloroaniline	161	5.528	5.528	(0.909)	1363304	120.000	105
37 2,4,6-Trichlorophenol	196	5.516	5.516	(0.907)	813307	120.000	107
38 2,4,5-Trichlorophenol	196	5.545	5.545	(0.912)	919728	120.000	114
40 2-Chloronaphthalene	162	5.681	5.681	(0.934)	2892525	120.000	102
42 o-Nitroaniline	65	5.745	5.745	(0.945)	992301	120.000	113
41 m-Nitroaniline	138	6.039	6.039	(0.993)	842777	120.000	109
43 Dimethylphthalate	163	5.863	5.863	(0.964)	3417214	120.000	110
44 2,6-Dinitrotoluene	165	5.910	5.910	(0.972)	849470	120.000	109
50 2,4-Dinitrotoluene	165	6.198	6.198	(1.019)	1165765	120.000	113
45 Acenaphthylene	152	5.987	5.987	(0.985)	4560455	120.000	104
47 Acenaphthene	154	6.110	6.110	(1.005)	2531697	120.000	96.0
48 2,4-Dinitrophenol	184	6.104	6.104	(1.004)	349771	120.000	114(Q)
49 Dibenzofuran	168	6.222	6.222	(1.023)	3957754	120.000	104
51 Diethylphthalate	149	6.334	6.334	(1.042)	3046878	120.000	105
52 4-Nitrophenol	139	6.128	6.128	(1.008)	710503	120.000	132(A)
53 Fluorene	166	6.457	6.457	(1.062)	3032860	120.000	98.6
54 4-Chlorophenylphenylether	204	6.434	6.434	(1.058)	1334693	120.000	103
55 2-Methyl-4,6-dinitrophenol	198	6.481	6.481	(0.918)	592599	120.000	122(A)
56 p-Nitroaniline	138	6.475	6.475	(1.065)	879753	120.000	116
133 Diphenylamine	169	6.510	6.510	(0.922)	2671618	120.000	104
58 1,2-Diphenylhydrazine	77	6.539	6.539	(0.927)	3163265	120.000	101
61 4-Bromophenylphenylether	248	6.751	6.751	(0.957)	720317	120.000	109
63 Hexachlorobenzene	284	6.816	6.816	(0.966)	819147	120.000	101
65 Pentachlorophenol	266	6.928	6.928	(0.982)	566148	120.000	116
206 n-Octadecane	57	6.904	6.904	(0.978)	1784006	120.000	89.2
68 Phenanthrene	178	7.081	7.081	(1.003)	4331723	120.000	99.1
69 Anthracene	178	7.110	7.110	(1.008)	4252141	120.000	95.7
72 Di-n-butylphthalate	149	7.339	7.339	(1.040)	4623719	120.000	97.5
76 Fluoranthene	202	7.786	7.786	(1.103)	4152438	120.000	98.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.928	7.928	(0.906)	4271995	120.000	106
85 Butylbenzylphthalate	149	8.233	8.233	(0.941)	1633817	120.000	92.8
89 Benzo(a)anthracene	228	8.733	8.733	(0.998)	4071065	120.000	112
92 Chrysene	228	8.775	8.775	(1.003)	3736452	120.000	110
93 bis(2-Ethylhexyl)phthalate	149	8.604	8.604	(0.983)	2860516	120.000	108
94 Di-n-octylphthalate	149	9.151	9.151	(0.892)	5517508	120.000	107
95 Benzo(b)fluoranthene	252	9.792	9.792	(0.954)	5127789	120.000	140(A)
96 Benzo(k)fluoranthene	252	9.822	9.822	(0.957)	3698214	120.000	93.6
97 Benzo(a)pyrene	252	10.204	10.204	(0.994)	3934490	120.000	122(A)
99 Indeno(1,2,3-cd)pyrene	276	12.010	12.010	(1.170)	4020592	120.000	120(A)
100 Dibenzo(a,h)anthracene	278	11.998	11.998	(1.169)	3397425	120.000	123(A)
101 Benzo(ghi)perylene	276	12.527	12.527	(1.221)	3439598	120.000	116(Q)
126 m-Dinitrobenzene	168	5.904	5.904	(0.971)	605158	120.000	114
130 2,3,4,6-Tetrachlorophenol	232	6.292	6.292	(1.035)	703901	120.000	114
143 Dinoseb	211	7.022	7.022	(0.995)	721108	120.000	120(A)
173 Carbazole	167	7.192	7.192	(1.019)	4044554	120.000	104
184 p-Benzoquinone	54	3.440	3.440	(0.869)	113764	120.000	143(A)
192 Methoxychlor	227	8.598	8.598	(0.983)	973799	120.000	85.2
211 p-Toluidine	106	4.240	4.240	(1.071)	617495	120.000	77.1
210 m-Toluidine	106	4.275	4.275	(1.080)	852922	120.000	77.3
26 Phthalic anhydride	104	5.369	5.369	(1.111)	687649	120.000	131(A)
179 Dibenzo(a,e)pyrene	302	16.592	16.592	(1.617)	2111582	120.000	122(A)
214 1,4-Dinitrobenzene	168	5.834	5.834	(0.959)	578258	120.000	117(H)
215 2-Ethoxyethanol	59	2.287	2.287	(0.578)	902492	120.000	116
216 Methylenebis(2-chloroaniline)	231	8.669	8.669	(0.991)	570295	120.000	117(Q)
M 225 Trichlorophenols	196				1733035	240.000	221
M 226 Tetrachlorophenols	232				703901	120.000	114
M 227 Benzo(b,k)fluoranthene	252				8826003	240.000	232

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s111409.b/s1k1210.d
Date : 14-NOV-2009 21:45
Client ID: MEGA120
Sample Info: IWBN091111-091120 PPM11ISWMF11IMEGA120
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: amy
Column diameter: 0.20

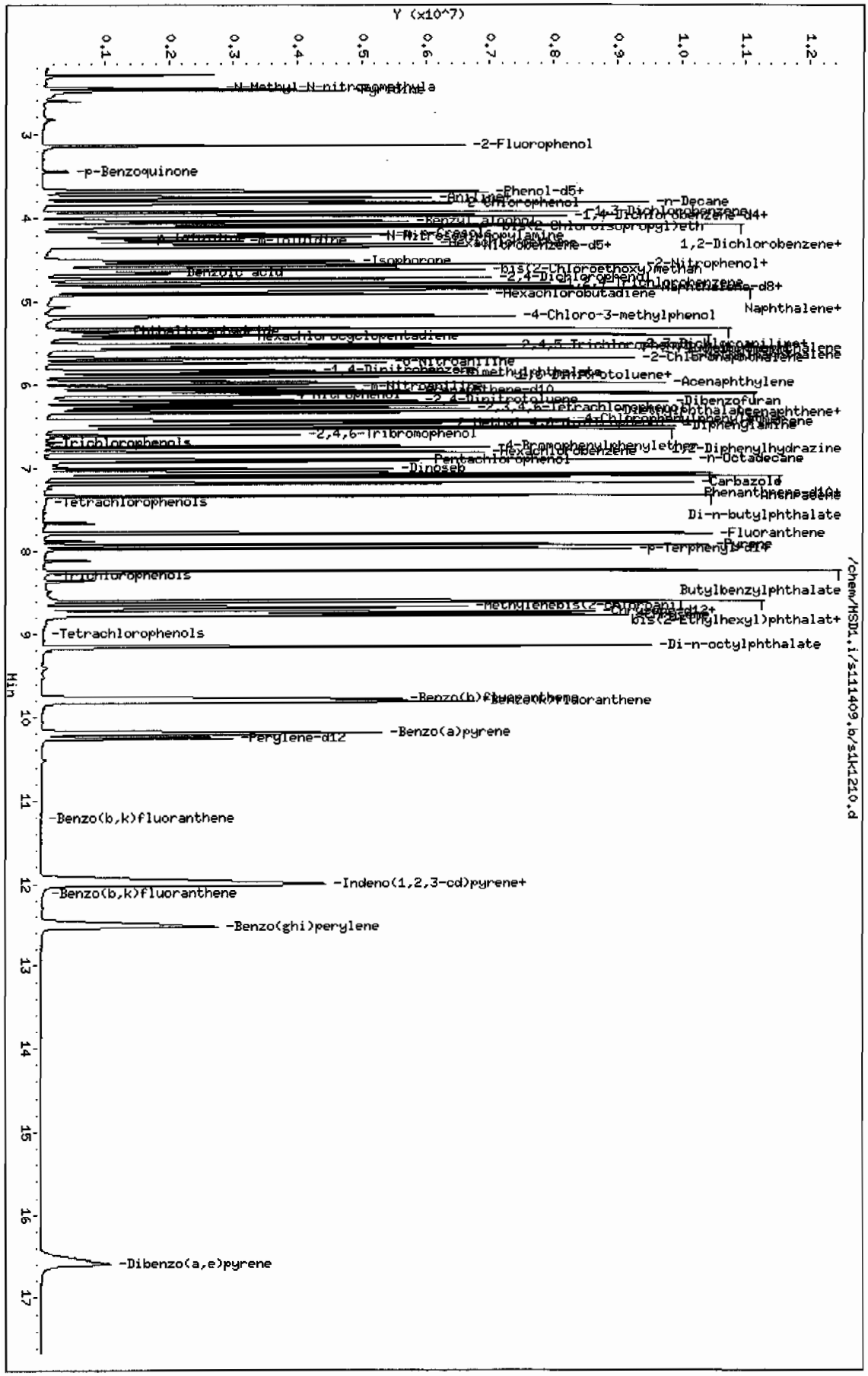

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Data file : /chem/MSD1.i/s111409.b/s1k1215.d
Lab Smp Id: WBN091111-01 Client Smp ID: AP010
Inj Date : 15-NOV-2009 15:28
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-01|10 PPM|1|SVMF|1|AP010
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 16-Nov-2009 15:18 nat00999 Quant Type: ISTD
Cal Date : 15-NOV-2009 20:55 Cal File: s1k1229.d
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.957	3.957	(1.000)	563049	40.0000	
* 29 Naphthalene-d8	136	4.822	4.822	(1.000)	2253006	40.0000	
* 46 Acenaphthene-d10	164	6.069	6.069	(1.000)	1215814	40.0000	
* 67 Phenanthrene-d10	188	7.051	7.051	(1.000)	1990385	40.0000	
* 91 Chrysene-d12	240	8.733	8.733	(1.000)	1749665	40.0000	
* 98 Perylene-d12	264	10.245	10.245	(1.000)	1523926	40.0000	
209 Benzaldehyde	77	3.675	3.675	(0.929)	120862	10.0000	10.4
16 Acetophenone	105	4.204	4.204	(1.062)	163897	10.0000	10.3
189 Caprolactam	113	5.081	5.081	(1.054)	38560	10.0000	9.5
208 1,1'-Biphenyl	154	5.639	5.639	(0.929)	358517	10.0000	10.5
207 Atrazine	173	6.810	6.810	(0.966)	21270	10.0000	10.7
77 Benzidine	184	7.822	7.822	(0.896)	125022	10.0000	7.9
90 3,3'-Dichlorobenzidine	252	8.657	8.657	(0.991)	107755	10.0000	8.9
102 1,4-Dioxane	88	2.287	2.287	(0.578)	45818	10.0000	10.4
103 Methyl methacrylate	100	2.275	2.275	(0.575)	25019	10.0000	10.1
104 Ethyl methacrylate	69	2.651	2.651	(0.670)	103243	10.0000	10.3
105 2-Picoline	93	2.851	2.851	(0.721)	167229	10.0000	10.3
106 N-Nitrosomethylethylamine	88	2.887	2.887	(0.729)	60459	10.0000	9.4
107 Methyl methanesulfonate	80	3.040	3.040	(0.768)	60815	10.0000	10.1
108 N-Nitrosodiethylamine	102	3.275	3.275	(0.828)	67446	10.0000	10
109 Ethyl Methanesulfonate	79	3.434	3.434	(0.868)	83533	10.0000	10
110 Pentachloroethane	167	3.781	3.781	(0.955)	42361	10.0000	10.3
111 N-Nitrosopyrrolidine	100	4.187	4.187	(1.058)	67247	10.0000	10.0(Q)
113 N-Nitrosomorpholine	56	4.210	4.210	(1.064)	89506	10.0000	10.3
114 o-Toluidine	106	4.228	4.228	(1.068)	231626	10.0000	10
115 N-Nitrosopiperidine	114	4.428	4.428	(0.918)	72835	10.0000	9.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.681	4.681	(0.971)	397639	10.0000	9.2
118 2,6-Dichlorophenol	162	4.863	4.863	(1.009)	105866	10.0000	9.5
119 Hexachloropropene	213	4.892	4.892	(1.015)	44445	10.0000	8.9
120 p-Phenylenediamine	108	5.098	5.098	(1.057)	98099	10.0000	8.6
121 N-Nitrosodi-n-butylamine	84	5.063	5.063	(1.050)	95338	10.0000	9.8(T)
122 Safrole	162	5.234	5.234	(1.085)	101504	10.0000	10.1
123 1,2,4,5-Tetrachlorobenzene	216	5.439	5.439	(0.896)	115647	10.0000	10.4
124 Isosafrole	162	5.598	5.598	(0.922)	97678	10.0000	9.8
125 1,4-Naphthoquinone	158	5.786	5.786	(0.953)	113514	10.0000	12.6
127 Pentachlorobenzene	250	6.181	6.181	(1.018)	100281	10.0000	10.5
128 1-Naphthylamine	143	6.257	6.257	(1.031)	251175	10.0000	9.2
129 2-Naphthylamine	143	6.310	6.310	(1.040)	293583	10.0000	9.9
131 5-Nitro-o-toluidine	152	6.428	6.428	(1.059)	77614	10.0000	9.0
136 1,3,5-Trinitrobenzene	75	6.639	6.639	(0.942)	50733	10.0000	8.8
137 Phenacetin	108	6.669	6.669	(0.946)	112873	10.0000	8.8(Q)
138 Diallate	86	6.669	6.669	(0.946)	123205	10.0000	10.7
212 Cis Diallate	86	6.728	6.728	(0.954)	17493	1.50000	1.5
213 Trans Diallate	86	6.669	6.669	(0.946)	123205	8.50000	9.1
140 4-Aminobiphenyl	169	6.910	6.910	(0.980)	267191	10.0000	10.0
141 Pentachloronitrobenzene	237	6.928	6.928	(0.982)	28461	10.0000	10.7(Q)
142 Pronamide	173	6.916	6.916	(0.981)	123515	10.0000	10.6
146 4-Nitroquinoline-1-oxide	101	7.516	7.516	(1.066)	4137	10.0000	8.5
147 Methapyrilene	58	7.528	7.528	(1.068)	181455	10.0000	9.9
148 Isodrin	193	7.692	7.692	(1.091)	45209	10.0000	10.6
149 Aramite	185	7.910	7.910	(1.122)	20607	10.0000	9.7
150 Kepone	272	8.351	8.351	(1.184)	30130	10.0000	9.6
151 p-(Dimethylamino)azobenzene	120	8.039	8.039	(0.921)	125899	10.0000	10.1
152 Chlorobenzilate	251	8.057	8.057	(0.923)	96194	10.0000	10
153 3,3'-Dimethylbenzidine	212	8.257	8.257	(0.945)	199792	10.0000	9.5
155 2-Acetylaminofluorene	181	8.433	8.433	(0.966)	101073	10.0000	7.5
157 7,12Dimethylbenz(a)anthracene	256	9.722	9.722	(0.949)	156651	10.0000	9.8
158 3-Methylcholanthrene	268	10.604	10.604	(1.035)	113076	10.0000	8.1(Q)

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s111409.b/s1k1215.d
Date : 15-NOV-2009 15:28
Client ID: AP010
Sample Info: IWBN091111-01110 PPH|1|SV|MF|1|AP010

Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: amy
Column diameter: 0.20

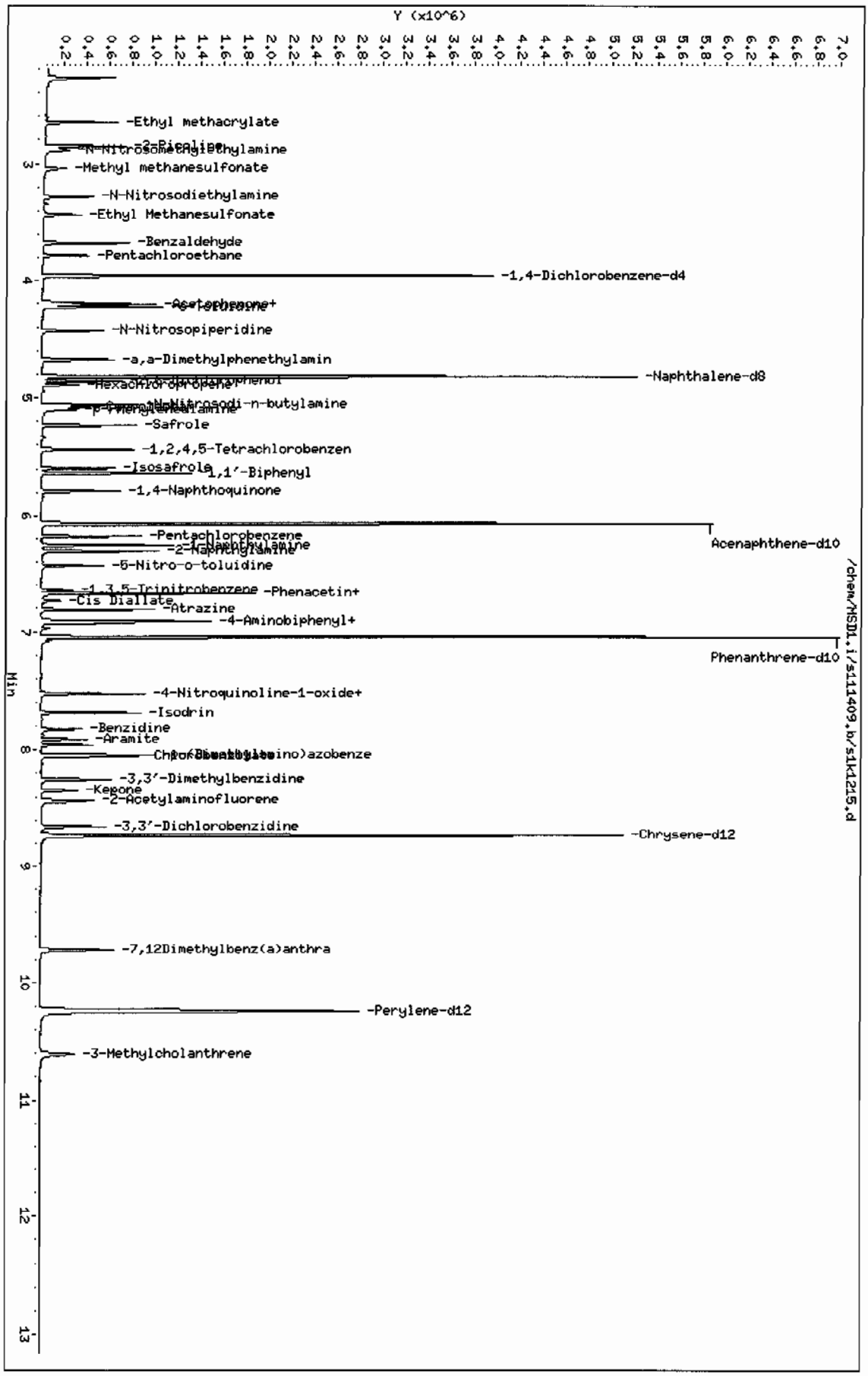

/chem/MSD1.i/s111409.b/s1k1215.d

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Data file : /chem/MSD1.i/s111409.b/s1k1216.d
Lab Smp Id: WBN091111-02 Client Smp ID: AP020
Inj Date : 15-NOV-2009 15:51
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-02|20 PPM|1|SVMF|1|AP020
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 16-Nov-2009 15:19 nat00999 Quant Type: ISTD
Cal Date : 15-NOV-2009 21:18 Cal File: s1k1230.d
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.952	3.952	(1.000)	668910	40.0000	
* 29 Naphthalene-d8	136	4.822	4.822	(1.000)	2641370	40.0000	
* 46 Acenaphthene-d10	164	6.075	6.075	(1.000)	1410563	40.0000	
* 67 Phenanthrene-d10	188	7.051	7.051	(1.000)	2345681	40.0000	
* 91 Chrysene-d12	240	8.734	8.734	(1.000)	2105353	40.0000	
* 98 Perylene-d12	264	10.251	10.251	(1.000)	1862364	40.0000	
209 Benzaldehyde	77	3.675	3.675	(0.930)	299388	20.0000	21.7
16 Acetophenone	105	4.204	4.204	(1.064)	402040	20.0000	21.3
189 Caprolactam	113	5.093	5.093	(1.056)	101118	20.0000	21.4
208 1,1'-Biphenyl	154	5.646	5.646	(0.929)	877211	20.0000	22.2
207 Atrazine	173	6.816	6.816	(0.967)	51630	20.0000	22.0
77 Benzidine	184	7.822	7.822	(0.896)	389172	20.0000	20.4
90 3,3'-Dichlorobenzidine	252	8.657	8.657	(0.991)	304312	20.0000	21.0
102 1,4-Dioxane	88	2.293	2.293	(0.580)	112766	20.0000	21.5
103 Methyl methacrylate	100	2.287	2.287	(0.579)	63905	20.0000	21.7
104 Ethyl methacrylate	69	2.652	2.652	(0.671)	256265	20.0000	21.5
105 2-Picoline	93	2.852	2.852	(0.722)	411816	20.0000	21.3
106 N-Nitrosomethylethylamine	88	2.887	2.887	(0.731)	162076	20.0000	21.3
107 Methyl methanesulfonate	80	3.040	3.040	(0.769)	152759	20.0000	21.4
108 N-Nitrosodiethylamine	102	3.275	3.275	(0.829)	169632	20.0000	21.2
109 Ethyl Methanesulfonate	79	3.434	3.434	(0.869)	211382	20.0000	21.2
110 Pentachloroethane	167	3.775	3.775	(0.955)	102928	20.0000	21.1
111 N-Nitrosopyrrolidine	100	4.193	4.193	(1.061)	177188	20.0000	22.3(Q)
113 N-Nitrosomorpholine	56	4.210	4.210	(1.065)	233298	20.0000	22.6
114 o-Toluidine	106	4.228	4.228	(1.070)	591610	20.0000	21.4
115 N-Nitrosopiperidine	114	4.434	4.434	(0.919)	183872	20.0000	21.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.675	4.675	(0.970)	1037335	20.0000	20.4
118 2,6-Dichlorophenol	162	4.863	4.863	(1.009)	271132	20.0000	20.8
119 Hexachloropropene	213	4.899	4.899	(1.016)	125984	20.0000	21.4
120 p-Phenylenediamine	108	5.099	5.099	(1.057)	304953	20.0000	22.9
121 N-Nitrosodi-n-butylamine	84	5.063	5.063	(1.050)	255009	20.0000	22.5(T)
122 Safrole	162	5.234	5.234	(1.085)	248975	20.0000	21.1
123 1,2,4,5-Tetrachlorobenzene	216	5.440	5.440	(0.895)	284586	20.0000	22.0
124 Isosafrole	162	5.604	5.604	(0.923)	246391	20.0000	21.3
125 1,4-Naphthoquinone	158	5.787	5.787	(0.953)	268328	20.0000	25.6
127 Pentachlorobenzene	250	6.181	6.181	(1.017)	243724	20.0000	22.0
128 1-Naphthylamine	143	6.257	6.257	(1.030)	697460	20.0000	22.1
129 2-Naphthylamine	143	6.310	6.310	(1.039)	744467	20.0000	21.6
131 5-Nitro-o-toluidine	152	6.434	6.434	(1.059)	207090	20.0000	20.6
136 1,3,5-Trinitrobenzene	75	6.640	6.640	(0.942)	144820	20.0000	21.2
137 Phenacetin	108	6.675	6.675	(0.947)	308661	20.0000	20.5(Q)
138 Diallate	86	6.669	6.669	(0.946)	292353	20.0000	21.6
212 Cis Diallate	86	6.728	6.728	(0.954)	43770	3.00000	3.1
213 Trans Diallate	86	6.669	6.669	(0.946)	292353	17.0000	18.3
140 4-Aminobiphenyl	169	6.910	6.910	(0.980)	649395	20.0000	20.6
141 Pentachloronitrobenzene	237	6.928	6.928	(0.982)	71152	20.0000	22.8(Q)
142 Pronamide	173	6.916	6.916	(0.981)	306402	20.0000	22.4
146 4-Nitroquinoline-1-oxide	101	7.516	7.516	(1.066)	11709	20.0000	20.4
147 Methapyrilene	58	7.528	7.528	(1.068)	455874	20.0000	21.1
148 Isodrin	193	7.692	7.692	(1.091)	109914	20.0000	21.8
149 Aramite	185	7.910	7.910	(1.122)	53593	20.0000	21.5
150 Kepone	272	8.351	8.351	(1.184)	78952	20.0000	21.3
151 p-(Dimethylamino)azobenzene	120	8.040	8.040	(0.921)	332465	20.0000	22.2
152 Chlorobenzilate	251	8.057	8.057	(0.923)	250404	20.0000	21.6
153 3,3'-Dimethylbenzidine	212	8.257	8.257	(0.945)	544951	20.0000	21.6
155 2-Acetylaminofluorene	181	8.439	8.439	(0.966)	319430	20.0000	19.7
157 7,12Dimethylbenz(a)anthracene	256	9.728	9.728	(0.949)	411511	20.0000	21.0
158 3-Methylcholanthrene	268	10.610	10.610	(1.035)	343281	20.0000	20.1(Q)

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s111409.b/s1k1216.d
Date : 15-NOV-2009 15:51
Client ID: AP020
Sample Info: IWBN091111-02120 PPM11SVMF11AP020
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: amy
Column diameter: 0.20

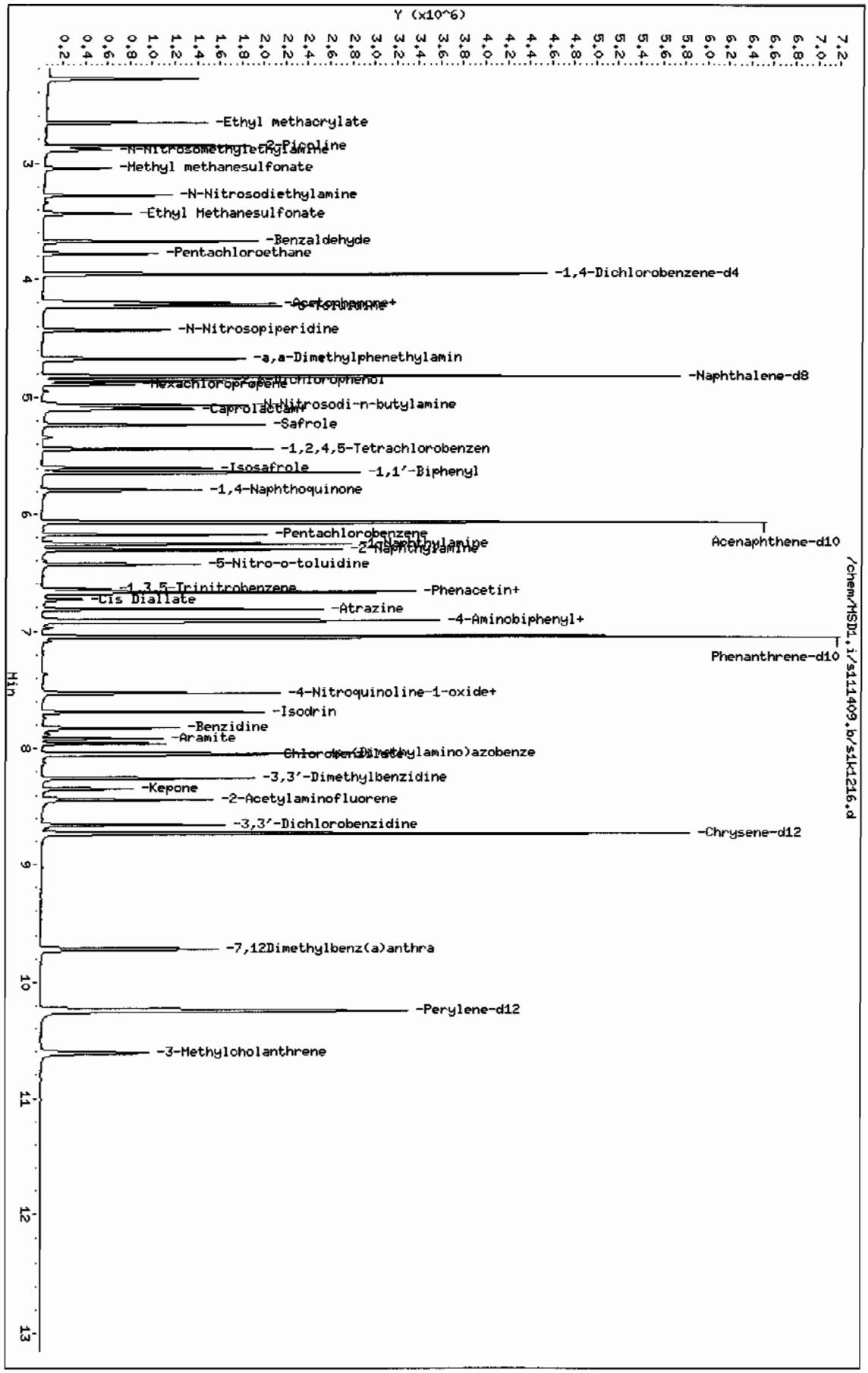

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Data file : /chem/MSD1.i/s111409.b/s1k1217.d
Lab Smp Id: WBN091111-03.1 Client Smp ID: AP040
Inj Date : 15-NOV-2009 16:14
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-03.1|40 PPM|1|SVMF|1|AP040
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 17-Nov-2009 19:56 llo00884 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap12.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.957	3.957	(1.000)	580724	40.0000	
* 29 Naphthalene-d8	136	4.828	4.828	(1.000)	2297483	40.0000	
* 46 Acenaphthene-d10	164	6.075	6.075	(1.000)	1233020	40.0000	
* 67 Phenanthrene-d10	188	7.051	7.051	(1.000)	2034938	40.0000	
* 91 Chrysene-d12	240	8.733	8.733	(1.000)	1860963	40.0000	
* 98 Perylene-d12	264	10.245	10.245	(1.000)	1644804	40.0000	
209 Benzaldehyde	77	3.675	3.675	(0.929)	478857	40.0000	40.0
16 Acetophenone	105	4.210	4.210	(1.064)	653640	40.0000	39.9
189 Caprolactam	113	5.098	5.098	(1.056)	169175	40.0000	41.1
208 1,1'-Biphenyl	154	5.645	5.645	(0.929)	1412411	40.0000	40.9
207 Atrazine	173	6.822	6.822	(0.967)	85292	40.0000	41.8
77 Benzidine	184	7.828	7.828	(0.896)	654158	40.0000	38.8
90 3,3'-Dichlorobenzidine	252	8.657	8.657	(0.991)	536841	40.0000	41.9
102 1,4-Dioxane	88	2.287	2.287	(0.578)	179640	40.0000	39.4
103 Methyl methacrylate	100	2.281	2.281	(0.576)	103397	40.0000	40.4
104 Ethyl methacrylate	69	2.652	2.652	(0.670)	411116	40.0000	39.7
105 2-Picoline	93	2.846	2.846	(0.719)	668209	40.0000	39.9
106 N-Nitrosomethylethylamine	88	2.887	2.887	(0.729)	259137	40.0000	39.3
107 Methyl methanesulfonate	80	3.046	3.046	(0.770)	246621	40.0000	39.9
108 N-Nitrosodiethylamine	102	3.281	3.281	(0.829)	273319	40.0000	39.2
109 Ethyl Methanesulfonate	79	3.434	3.434	(0.868)	338482	40.0000	39.1
110 Pentachloroethane	167	3.781	3.781	(0.955)	167311	40.0000	39.6
111 N-Nitrosopyrrolidine	100	4.199	4.199	(1.061)	287810	40.0000	41.7
113 N-Nitrosomorpholine	56	4.216	4.216	(1.065)	368647	40.0000	41.1
114 o-Toluidine	106	4.234	4.234	(1.070)	939901	40.0000	39.2
115 N-Nitrosopiperidine	114	4.434	4.434	(0.918)	295231	40.0000	39.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.681	4.681	(0.970)	1752819	40.0000	39.7
118 2,6-Dichlorophenol	162	4.869	4.869	(1.009)	448647	40.0000	39.6
119 Hexachloropropene	213	4.898	4.898	(1.015)	209839	40.0000	41.1
120 p-Phenylenediamine	108	5.104	5.104	(1.057)	503575	40.0000	43.5
121 N-Nitrosodi-n-butylamine	84	5.069	5.069	(1.050)	386962	40.0000	39.2(T)
122 Safrole	162	5.234	5.234	(1.084)	410032	40.0000	40.0
123 1,2,4,5-Tetrachlorobenzene	216	5.440	5.440	(0.895)	459858	40.0000	40.6
124 Isosafrole	162	5.604	5.604	(0.923)	403422	40.0000	39.9
125 1,4-Naphthoquinone	158	5.793	5.793	(0.954)	387873	40.0000	42.4
127 Pentachlorobenzene	250	6.181	6.181	(1.017)	390553	40.0000	40.3
128 1-Naphthylamine	143	6.263	6.263	(1.031)	1151439	40.0000	41.8
129 2-Naphthylamine	143	6.316	6.316	(1.040)	1234986	40.0000	41.1
131 5-Nitro-o-toluidine	152	6.434	6.434	(1.059)	352321	40.0000	40.1
136 1,3,5-Trinitrobenzene	75	6.645	6.645	(0.942)	252227	40.0000	42.6
137 Phenacetin	108	6.681	6.681	(0.947)	535015	40.0000	40.9
138 Diallate	86	6.669	6.669	(0.946)	474588	40.0000	40.4
212 Cis Diallate	86	6.734	6.734	(0.955)	71625	6.00000	5.9
213 Trans Diallate	86	6.669	6.669	(0.946)	474588	34.0000	34.3
140 4-Aminobiphenyl	169	6.910	6.910	(0.980)	1173693	40.0000	43.0
141 Pentachloronitrobenzene	237	6.928	6.928	(0.982)	111716	40.0000	41.2
142 Pronamide	173	6.916	6.916	(0.981)	491528	40.0000	41.3
146 4-Nitroquinoline-1-oxide	101	7.516	7.516	(1.066)	16283	40.0000	32.6
147 Methapyrilene	58	7.528	7.528	(1.068)	801489	40.0000	42.8
148 Isodrin	193	7.692	7.692	(1.091)	181614	40.0000	41.5
149 Aramite	185	7.916	7.916	(1.123)	88952	40.0000	41.1
150 Kepone	272	8.351	8.351	(1.184)	129203	40.0000	40.2
151 p-(Dimethylamino)azobenzene	120	8.045	8.045	(0.921)	552734	40.0000	41.8
152 Chlorobenzilate	251	8.057	8.057	(0.923)	424300	40.0000	41.5
153 3,3'-Dimethylbenzidine	212	8.257	8.257	(0.945)	900944	40.0000	40.4
155 2-Acetylaminofluorene	181	8.445	8.445	(0.967)	593294	40.0000	41.4
157 7,12Dimethylbenz(a)anthracene	256	9.728	9.728	(0.949)	701764	40.0000	40.5
158 3-Methylcholanthrene	268	10.616	10.616	(1.036)	623912	40.0000	41.3

QC Flag Legend

T - Target compound detected outside RT window.

Data File: /chem/MSD1.i/s111409.b/s1k1217.d
Date : 15-NOV-2009 16:14
Client ID: AP040
Sample Info: IWBN091111-03,1|40 PPM||1|SVMF|1|AP040

Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: amy
Column diameter: 0.20

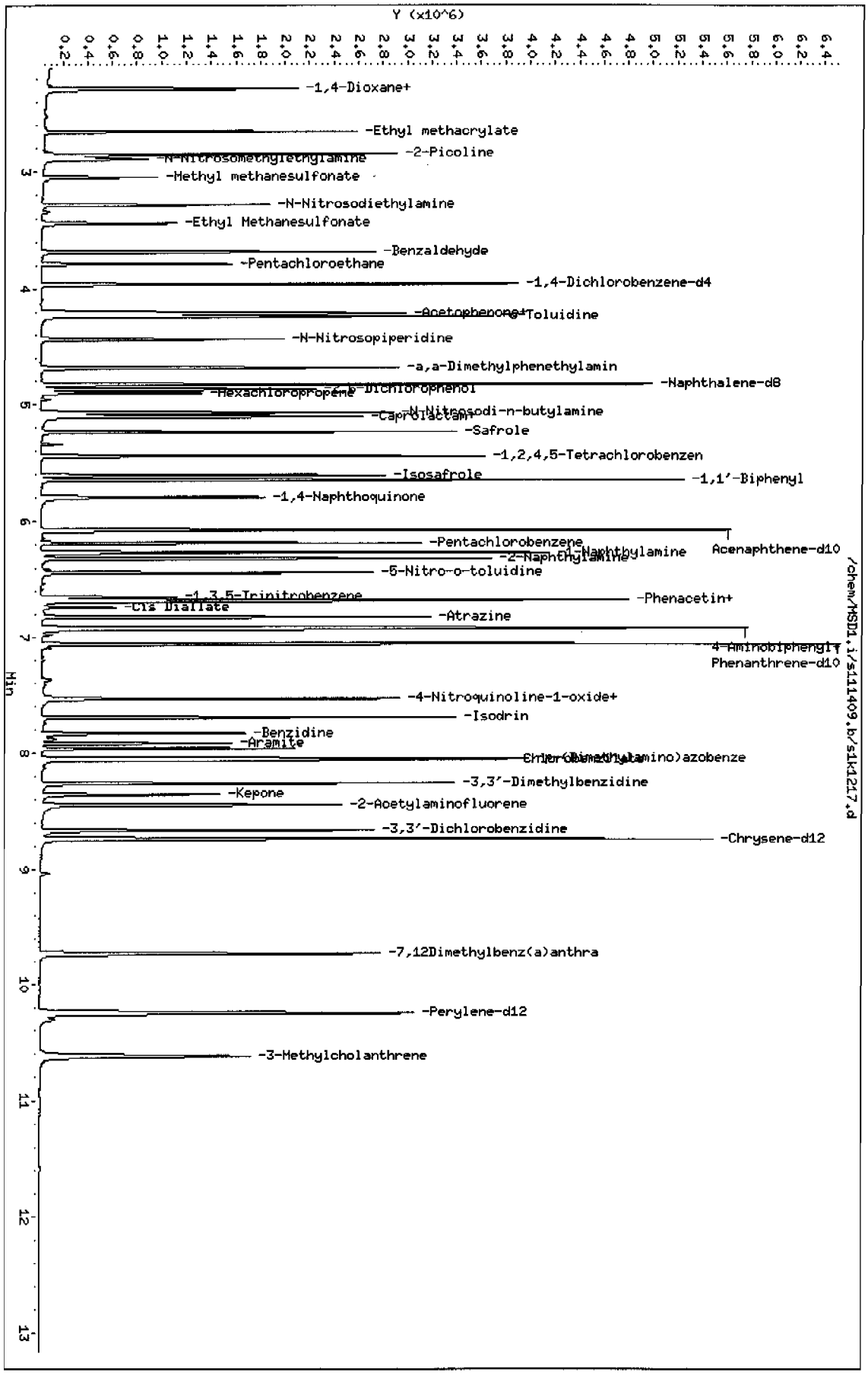

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GEL Laboratories LLC

Data file : /chem/MSD1.i/s111409.b/s1k1218.d
Lab Smp Id: WBN091111-04 Client Smp ID: AP050
Inj Date : 15-NOV-2009 16:38
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-04|50 PPM|1|SVMF|1|AP050
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 16-Nov-2009 15:19 nat00999 Quant Type: ISTD
Cal Date : 15-NOV-2009 22:06 Cal File: s1k1232.d
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.957	3.957	(1.000)	561196	40.0000	
* 29 Naphthalene-d8	136	4.828	4.828	(1.000)	2234762	40.0000	
* 46 Acenaphthene-d10	164	6.075	6.075	(1.000)	1217179	40.0000	
* 67 Phenanthrene-d10	188	7.051	7.051	(1.000)	2034904	40.0000	
* 91 Chrysene-d12	240	8.734	8.734	(1.000)	1822654	40.0000	
* 98 Perylene-d12	264	10.251	10.251	(1.000)	1588492	40.0000	
209 Benzaldehyde	77	3.681	3.681	(0.930)	590506	50.0000	51.1
16 Acetophenone	105	4.210	4.210	(1.064)	808938	50.0000	51.1
189 Caprolactam	113	5.104	5.104	(1.057)	213789	50.0000	53.4
208 1,1'-Biphenyl	154	5.646	5.646	(0.929)	1728166	50.0000	50.7
207 Atrazine	173	6.822	6.822	(0.967)	102653	50.0000	50.3
77 Benzidine	184	7.828	7.828	(0.896)	840642	50.0000	50.9
90 3,3'-Dichlorobenzidine	252	8.663	8.663	(0.992)	654113	50.0000	52.1
102 1,4-Dioxane	88	2.287	2.287	(0.578)	220655	50.0000	50.1
103 Methyl methacrylate	100	2.275	2.275	(0.575)	122726	50.0000	49.6
104 Ethyl methacrylate	69	2.652	2.652	(0.670)	495559	50.0000	49.5
105 2-Picoline	93	2.846	2.846	(0.719)	808905	50.0000	50.0
106 N-Nitrosomethylethylamine	88	2.893	2.893	(0.731)	317231	50.0000	49.8
107 Methyl methanesulfonate	80	3.046	3.046	(0.770)	303234	50.0000	50.8
108 N-Nitrosodiethylamine	102	3.281	3.281	(0.829)	337193	50.0000	50.1
109 Ethyl Methanesulfonate	79	3.440	3.440	(0.869)	420827	50.0000	50.3
110 Pentachloroethane	167	3.781	3.781	(0.955)	201449	50.0000	49.3
111 N-Nitrosopyrrolidine	100	4.199	4.199	(1.061)	361736	50.0000	54.3(Q)
113 N-Nitrosomorpholine	56	4.216	4.216	(1.065)	461522	50.0000	53.3
114 o-Toluidine	106	4.234	4.234	(1.070)	1158712	50.0000	50.0
115 N-Nitrosopiperidine	114	4.434	4.434	(0.918)	370976	50.0000	50.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.681	4.681	(0.970)	2218238	50.0000	51.7
118 2,6-Dichlorophenol	162	4.869	4.869	(1.009)	564069	50.0000	51.2
119 Hexachloropropene	213	4.899	4.899	(1.015)	253965	50.0000	51.1
120 p-Phenylenediamine	108	5.104	5.104	(1.057)	614811	50.0000	54.6
121 N-Nitrosodi-n-butylamine	84	5.069	5.069	(1.050)	487577	50.0000	50.8(T)
122 Safrole	162	5.234	5.234	(1.084)	509881	50.0000	51.1
123 1,2,4,5-Tetrachlorobenzene	216	5.440	5.440	(0.895)	563211	50.0000	50.4
124 Isosafrole	162	5.604	5.604	(0.923)	500970	50.0000	50.2
125 1,4-Naphthoquinone	158	5.793	5.793	(0.954)	459178	50.0000	50.8
127 Pentachlorobenzene	250	6.187	6.187	(1.018)	484364	50.0000	50.6
128 1-Naphthylamine	143	6.263	6.263	(1.031)	1421714	50.0000	52.2
129 2-Naphthylamine	143	6.316	6.316	(1.040)	1530582	50.0000	51.6
131 5-Nitro-o-toluidine	152	6.434	6.434	(1.059)	448773	50.0000	51.7
136 1,3,5-Trinitrobenzene	75	6.646	6.646	(0.942)	305397	50.0000	51.6
137 Phenacetin	108	6.687	6.687	(0.948)	672555	50.0000	51.4(Q)
138 Diallate	86	6.669	6.669	(0.946)	585277	50.0000	49.8
212 Cis Diallate	86	6.734	6.734	(0.955)	91358	7.50000	7.5
213 Trans Diallate	86	6.669	6.669	(0.946)	585277	42.5000	42.3
140 4-Aminobiphenyl	169	6.910	6.910	(0.980)	1511572	50.0000	55.4
141 Pentachloronitrobenzene	237	6.934	6.934	(0.983)	140749	50.0000	52.0(Q)
142 Pronamide	173	6.922	6.922	(0.982)	604483	50.0000	50.8
146 4-Nitroquinoline-1-oxide	101	7.516	7.516	(1.066)	27319	50.0000	54.8(Q)
147 Methapyrilene	58	7.534	7.534	(1.068)	974496	50.0000	52.0
148 Isodrin	193	7.692	7.692	(1.091)	222392	50.0000	50.8
149 Aramite	185	7.916	7.916	(1.123)	108676	50.0000	50.2
150 Kepone	272	8.357	8.357	(1.185)	162290	50.0000	50.6
151 p-(Dimethylamino)azobenzene	120	8.045	8.045	(0.921)	662920	50.0000	51.2
152 Chlorobenzilate	251	8.057	8.057	(0.923)	525026	50.0000	52.4
153 3,3'-Dimethylbenzidine	212	8.257	8.257	(0.945)	1113624	50.0000	51.0
155 2-Acetylaminofluorene	181	8.445	8.445	(0.967)	730093	50.0000	52.0
157 7,12Dimethylbenz(a)anthracene	256	9.734	9.734	(0.950)	858839	50.0000	51.3
158 3-Methylcholanthrene	268	10.622	10.622	(1.036)	763648	50.0000	52.4(Q)

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s111409.b/s1k1218.d
Date : 15-NOV-2009 16:38
Client ID: AP050
Sample Info: |WBN091111-04|50 PPM|1|SVMF|1|AP050

Column phase: J&W DB-5MS

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Instrument: MSD1.i

Operator: amy
Column diameter: 0.20

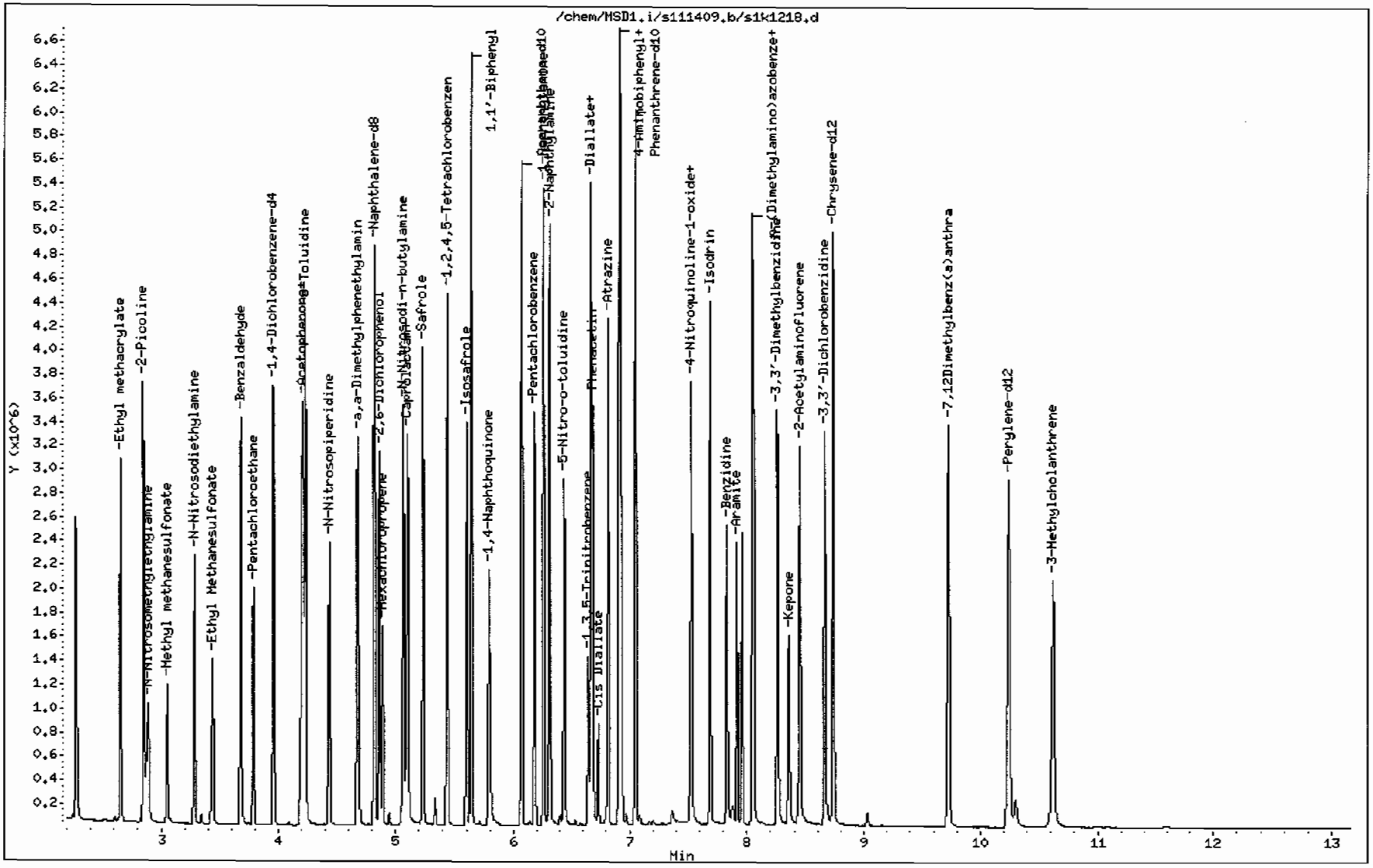

GEL Laboratories LLC

Data file : /chem/MSD1.i/s111409.b/s1k1219.d
Lab Smp Id: WBN091111-05 Client Smp ID: AP080
Inj Date : 15-NOV-2009 17:01
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-05|80 PPM|1|SVMF|1|AP080
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 16-Nov-2009 15:19 nat00999 Quant Type: ISTD
Cal Date : 15-NOV-2009 22:30 Cal File: s1k1233.d
Als bottle: 7 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.957	3.957	(1.000)	618727	40.0000	
* 29 Naphthalene-d8	136	4.828	4.828	(1.000)	2429831	40.0000	
* 46 Acenaphthene-d10	164	6.075	6.075	(1.000)	1306357	40.0000	
* 67 Phenanthrene-d10	188	7.057	7.057	(1.000)	2158269	40.0000	
* 91 Chrysene-d12	240	8.739	8.739	(1.000)	2001467	40.0000	
* 98 Perylene-d12	264	10.251	10.251	(1.000)	1817197	40.0000	
209 Benzaldehyde	77	3.681	3.681	(0.930)	1003557	80.0000	78.7
16 Acetophenone	105	4.210	4.210	(1.064)	1370918	80.0000	78.5
189 Caprolactam	113	5.116	5.116	(1.060)	329643	80.0000	75.7
208 1,1'-Biphenyl	154	5.646	5.646	(0.929)	2844772	80.0000	77.7
207 Atrazine	173	6.828	6.828	(0.967)	163132	80.0000	75.4
77 Benzidine	184	7.834	7.834	(0.896)	1686036	80.0000	93.0
90 3,3'-Dichlorobenzidine	252	8.669	8.669	(0.992)	1194743	80.0000	86.7
102 1,4-Dioxane	88	2.293	2.293	(0.579)	388101	80.0000	79.9
103 Methyl methacrylate	100	2.287	2.287	(0.578)	221943	80.0000	81.3
104 Ethyl methacrylate	69	2.658	2.658	(0.672)	867896	80.0000	78.7
105 2-Picoline	93	2.852	2.852	(0.721)	1415875	80.0000	79.3
106 N-Nitrosomethylethylamine	88	2.893	2.893	(0.731)	579635	80.0000	82.5
107 Methyl methanesulfonate	80	3.052	3.052	(0.771)	531616	80.0000	80.7
108 N-Nitrosodiethylamine	102	3.281	3.281	(0.829)	595104	80.0000	80.2
109 Ethyl Methanesulfonate	79	3.440	3.440	(0.869)	734511	80.0000	79.6
110 Pentachloroethane	167	3.781	3.781	(0.955)	358127	80.0000	79.5
111 N-Nitrosopyrrolidine	100	4.204	4.204	(1.062)	556154	80.0000	75.7(Q)
113 N-Nitrosomorpholine	56	4.222	4.222	(1.067)	718443	80.0000	75.2
114 o-Toluidine	106	4.240	4.240	(1.071)	2081258	80.0000	81.4
115 N-Nitrosopiperidine	114	4.440	4.440	(0.920)	637376	80.0000	79.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.681	4.681	(0.970)	3851937	80.0000	82.6
118 2,6-Dichlorophenol	162	4.875	4.875	(1.010)	975756	80.0000	81.5
119 Hexachloropropene	213	4.899	4.899	(1.015)	451409	80.0000	83.5
120 p-Phenylenediamine	108	5.110	5.110	(1.058)	966779	80.0000	79.0
121 N-Nitrosodi-n-butylamine	84	5.069	5.069	(1.050)	814299	80.0000	78.1(T)
122 Safrole	162	5.240	5.240	(1.085)	857479	80.0000	79.0
123 1,2,4,5-Tetrachlorobenzene	216	5.440	5.440	(0.895)	948192	80.0000	79.1
124 Isosafrole	162	5.610	5.610	(0.924)	866419	80.0000	81.0
125 1,4-Naphthoquinone	158	5.793	5.793	(0.954)	569056	80.0000	58.7
127 Pentachlorobenzene	250	6.187	6.187	(1.018)	788833	80.0000	76.8
128 1-Naphthylamine	143	6.269	6.269	(1.032)	2367663	80.0000	81.1
129 2-Naphthylamine	143	6.316	6.316	(1.040)	2575005	80.0000	80.9
131 5-Nitro-o-toluidine	152	6.440	6.440	(1.060)	789591	80.0000	84.7
136 1,3,5-Trinitrobenzene	75	6.651	6.651	(0.942)	535722	80.0000	85.4
137 Phenacetin	108	6.693	6.693	(0.948)	1185416	80.0000	85.4(Q)
138 Diallate	86	6.669	6.669	(0.945)	977388	80.0000	78.4
212 Cis Diallate	86	6.734	6.734	(0.954)	158649	12.0000	12.2
213 Trans Diallate	86	6.669	6.669	(0.945)	977388	68.0000	66.6
140 4-Aminobiphenyl	169	6.916	6.916	(0.980)	2310296	80.0000	79.9
141 Pentachloronitrobenzene	237	6.934	6.934	(0.982)	219959	80.0000	76.6(Q)
142 Pronamide	173	6.928	6.928	(0.982)	870519	80.0000	69.0
146 4-Nitroquinoline-1-oxide	101	7.522	7.522	(1.066)	52540	80.0000	99.3(Q)
147 Methapyrilene	58	7.534	7.534	(1.067)	1590487	80.0000	80.0
148 Isodrin	193	7.692	7.692	(1.090)	357776	80.0000	77.0
149 Aramite	185	7.916	7.916	(1.122)	187680	80.0000	81.7
150 Kepone	272	8.363	8.363	(1.185)	287231	80.0000	84.4
151 p-(Dimethylamino)azobenzene	120	8.045	8.045	(0.921)	1114955	80.0000	78.5
152 Chlorobenzilate	251	8.063	8.063	(0.923)	878812	80.0000	79.8
153 3,3'-Dimethylbenzidine	212	8.263	8.263	(0.945)	2050113	80.0000	85.4
155 2-Acetylaminofluorene	181	8.457	8.457	(0.968)	1398315	80.0000	90.7
157 7,12Dimethylbenz(a)anthracene	256	9.739	9.739	(0.950)	1507380	80.0000	78.8
158 3-Methylcholanthrene	268	10.633	10.633	(1.037)	1445965	80.0000	86.7(Q)

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s111409.b/s1k1219.d
Date : 15-NOV-2009 17:01
Client ID: AP080
Sample Info: IWBN091111-05180 PPMI1ISVMFI1IAP080

Column phase: J&W DB-5MS

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Instrument: MSD1.i

Operator: amy
Column diameter: 0.20

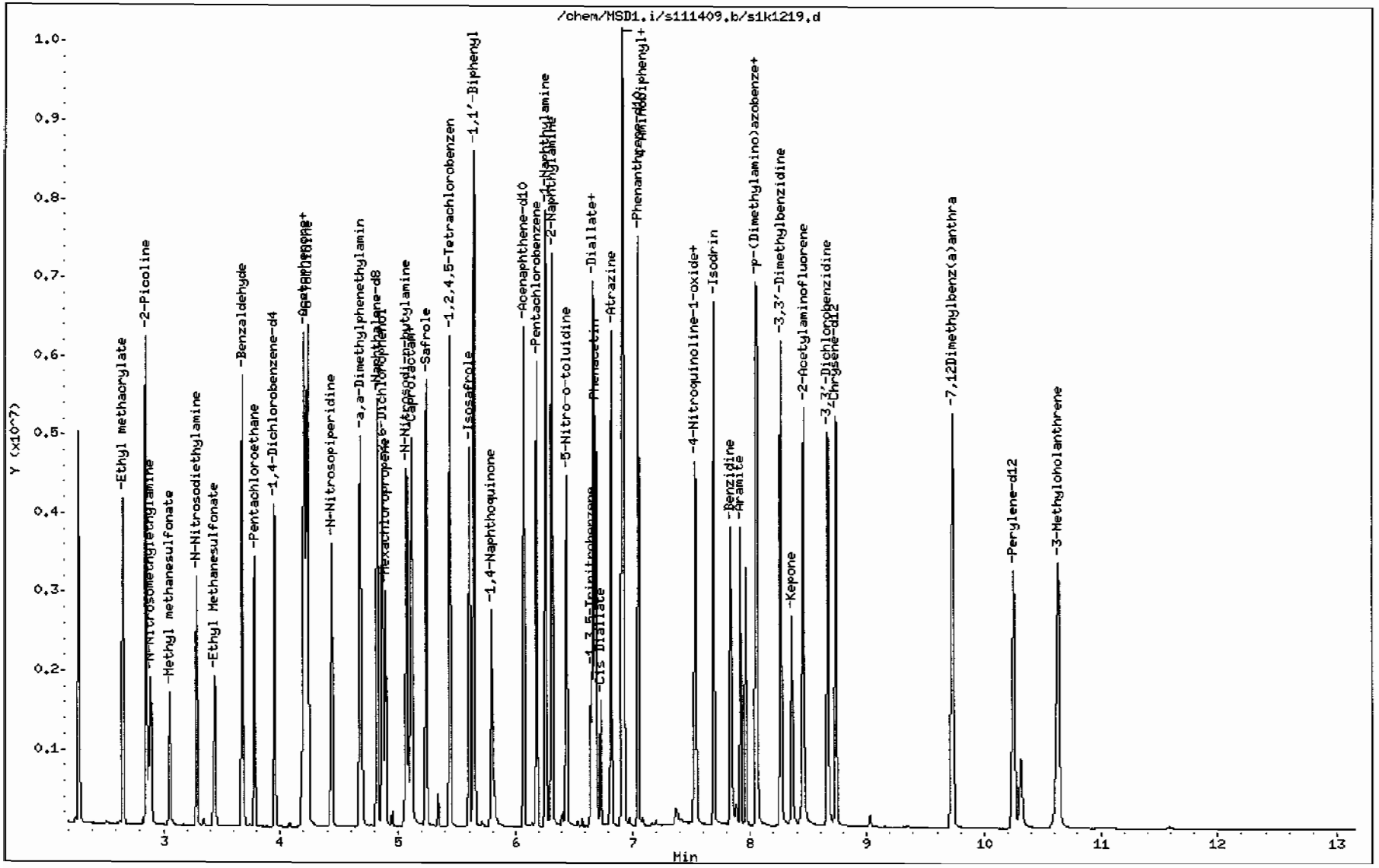

GEL Laboratories LLC

Data file : /chem/MSD1.i/s111409.b/s1k1220.d
Lab Smp Id: WBN091111-06 Client Smp ID: AP100
Inj Date : 15-NOV-2009 17:24
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-06|100 PPM|1|SVMF|1|AP100
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 16-Nov-2009 15:20 nat00999 Quant Type: ISTD
Cal Date : 15-NOV-2009 22:53 Cal File: s1k1234.d
Als bottle: 8 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.957	3.957	(1.000)	585081	40.0000	
* 29 Naphthalene-d8	136	4.828	4.828	(1.000)	2303056	40.0000	
* 46 Acenaphthene-d10	164	6.075	6.075	(1.000)	1244739	40.0000	
* 67 Phenanthrene-d10	188	7.057	7.057	(1.000)	2088277	40.0000	
* 91 Chrysene-d12	240	8.739	8.739	(1.000)	1911631	40.0000	
* 98 Perylene-d12	264	10.251	10.251	(1.000)	1725447	40.0000	
209 Benzaldehyde	77	3.681	3.681	(0.930)	1148196	100.000	95.3
16 Acetophenone	105	4.216	4.216	(1.065)	1585735	100.000	96.0
189 Caprolactam	113	5.122	5.122	(1.061)	390473	100.000	94.6
208 1,1'-Biphenyl	154	5.651	5.651	(0.930)	3262421	100.000	93.6
207 Atrazine	173	6.828	6.828	(0.967)	193086	100.000	92.3
77 Benzidine	184	7.834	7.834	(0.896)	2063962	100.000	119
90 3,3'-Dichlorobenzidine	252	8.669	8.669	(0.992)	1349200	100.000	102
102 1,4-Dioxane	88	2.293	2.293	(0.579)	450589	100.000	98.1
103 Methyl methacrylate	100	2.287	2.287	(0.578)	253423	100.000	98.2
104 Ethyl methacrylate	69	2.657	2.657	(0.672)	1019709	100.000	97.8
105 2-Picoline	93	2.852	2.852	(0.721)	1641484	100.000	97.2
106 N-Nitrosomethylethylamine	88	2.893	2.893	(0.731)	678622	100.000	102
107 Methyl methanesulfonate	80	3.052	3.052	(0.771)	609184	100.000	97.8
108 N-Nitrosodiethylamine	102	3.287	3.287	(0.831)	699608	100.000	99.7
109 Ethyl Methanesulfonate	79	3.446	3.446	(0.871)	871301	100.000	99.9
110 Pentachloroethane	167	3.781	3.781	(0.955)	420874	100.000	98.8
111 N-Nitrosopyrrolidine	100	4.210	4.210	(1.064)	605107	100.000	87.1(Q)
113 N-Nitrosomorpholine	56	4.228	4.228	(1.068)	796984	100.000	88.2
114 o-Toluidine	106	4.240	4.240	(1.071)	2423398	100.000	100
115 N-Nitrosopiperidine	114	4.440	4.440	(0.920)	762521	100.000	101

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.681	4.681	(0.970)	4567824	100.000	103
I18 2,6-Dichlorophenol	162	4.875	4.875	(1.010)	1152325	100.000	102
119 Hexachloropropene	213	4.898	4.898	(1.015)	531159	100.000	104
120 p-Phenylenediamine	108	5.116	5.116	(1.060)	1108731	100.000	95.5
121 N-Nitrosodi-n-butylamine	84	5.075	5.075	(1.051)	958085	100.000	96.9(T)
122 Safrole	162	5.240	5.240	(1.085)	1004316	100.000	97.6
123 1,2,4,5-Tetrachlorobenzene	216	5.446	5.446	(0.896)	1091173	100.000	95.5
124 Isosafrole	162	5.610	5.610	(0.924)	1023750	100.000	100
125 1,4-Naphthoquinone	158	5.793	5.793	(0.954)	586400	100.000	63.5
127 Pentachlorobenzene	250	6.187	6.187	(1.018)	923508	100.000	94.4
128 1-Naphthylamine	143	6.269	6.269	(1.032)	2712837	100.000	97.5
129 2-Naphthylamine	143	6.322	6.322	(1.041)	2937670	100.000	96.8
131 5-Nitro-o-toluidine	152	6.445	6.445	(1.061)	933008	100.000	105
136 1,3,5-Trinitrobenzene	75	6.651	6.651	(0.942)	620949	100.000	102
137 Phenacetin	108	6.698	6.698	(0.949)	1388664	100.000	103(Q)
138 Diallate	86	6.675	6.675	(0.946)	1138196	100.000	94.3
212 Cis Diallate	86	6.734	6.734	(0.954)	191347	15.0000	15.3
213 Trans Diallate	86	6.675	6.675	(0.946)	1138196	85.0000	80.2
140 4-Aminobiphenyl	169	6.916	6.916	(0.980)	2601985	100.000	93.0
141 Pentachloronitrobenzene	237	6.934	6.934	(0.982)	243975	100.000	87.8(Q)
142 Pronamide	173	6.928	6.928	(0.982)	938299	100.000	76.9
146 4-Nitroquinoline-1-oxide	101	7.522	7.522	(1.066)	59125	100.000	116(Q)
147 Methapyrilene	58	7.539	7.539	(1.068)	1883476	100.000	98.0
148 Isodrin	193	7.692	7.692	(1.090)	415554	100.000	92.4
149 Aramite	185	7.916	7.916	(1.122)	219501	100.000	98.8
150 Kepone	272	8.363	8.363	(1.185)	337153	100.000	102
151 p-(Dimethylamino)azobenzene	120	8.051	8.051	(0.921)	1268114	100.000	93.4
152 Chlorobenzilate	251	8.063	8.063	(0.923)	994725	100.000	94.6
153 3,3'-Dimethylbenzidine	212	8.263	8.263	(0.945)	2359550	100.000	103
155 2-Acetylaminofluorene	181	8.457	8.457	(0.968)	1664151	100.000	113
157 7,12Dimethylbenz(a)anthracene	256	9.745	9.745	(0.951)	1767299	100.000	97.3
158 3-Methylcholanthrene	268	10.639	10.639	(1.038)	1687722	100.000	106(Q)

QC Flag Legend

T - Target compound detected outside RT window.
Q - Qualifier signal failed the ratio test.

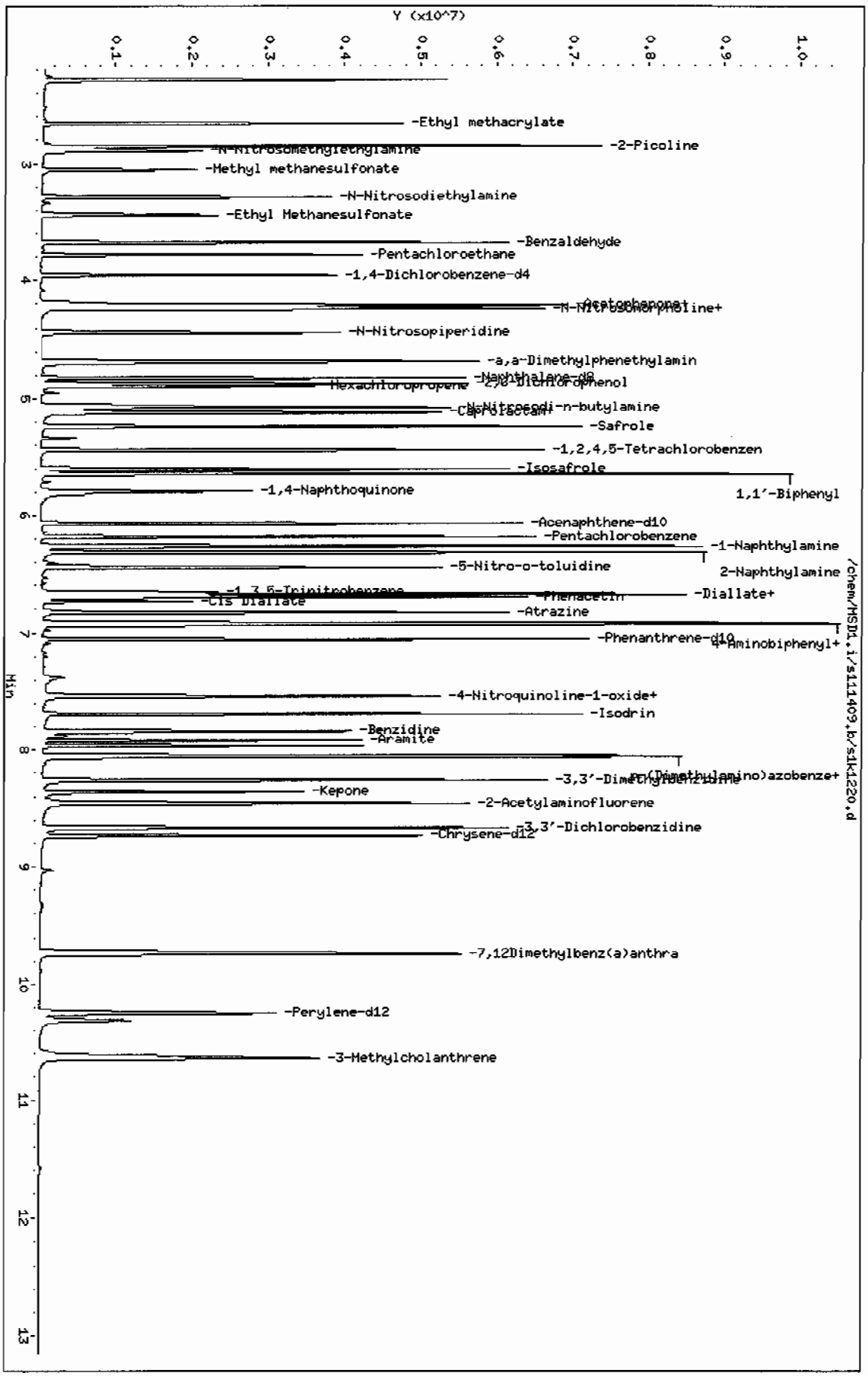
Data File: /chem/MSD1.i/s111409.b/s1k1220.d
Date : 15-NOV-2009 17:24
Client ID: AP100
Sample Info: IWBN091111-06|100 PPM|1|SVMF|1|AP100
Column phase: J&W DB-5MS
Instrument: MSD1.i
Operator: amy
Column diameter: 0.20
Page 1
Y (x10^7)
0.1
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0.8
0.9
1.0
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-Ethyl methacrylate
-2-Picoline
-N-Nitrosomethylethylamine
-Methyl methanesulfonate
-N-Nitrosodiethylamine
-Ethyl Methanesulfonate
-Benzaldehyde
-Pentachloroethane
-1,4-Dichlorobenzene-d4
-N-Nitrosomorpholine+
Acetophenone+
-N-Nitrosopiperidine
-a,a-Dimethylphenethylamin
-Naphthalene-d8
Hexachloropropene
2,6-Dichlorophenol
-N-Nitrosodi-n-butylamine
Caprolactam+
-Safrole
-1,2,4,5-Tetrachlorobenzen
-Isosafrole
1,1'-Biphenyl
-1,4-Naphthoquinone
-Acenaphthene-d10
-Pentachlorobenzene
-1-Naphthylamine
-5-Nitro-o-toluidine
2-Naphthylamine
-1,3,5-Trinitrobenzene
Phenacetin
-Diallate+
-Cis Diallate
-Atrazine
-Phenanthrene-d10
4-Aminobiphenyl+
-4-Nitroquinoline-1-oxide+
-Isodrin
-Benzidine
-Aramite
-3,3'-Dimethylbenzidine
p-(Dimethylamino)azobenze+
-Kepone
-2-Acetylaminofluorene
-3,3'-Dichlorobenzidine
-Chrysene-d12
-7,12Dimethylbenz(a)anthra
-Perylene-d12
-3-Methylcholanthrene
/chem/MSD1.i/s111409.b/s1k1220.d

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Data file : /chem/MSD1.i/s111409.b/s1k1221.d
Lab Smp Id: WBN091111-07 Client Smp ID: AP120
Inj Date : 15-NOV-2009 17:47
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-07|120 PPM|1|SVMF|1|AP120
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 16-Nov-2009 15:20 nat00999 Quant Type: ISTD
Cal Date : 15-NOV-2009 20:31 Cal File: s1k1228.d
Als bottle: 9 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.957	3.957	(1.000)	543813	40.0000	
* 29 Naphthalene-d8	136	4.828	4.828	(1.000)	2148953	40.0000	
* 46 Acenaphthene-d10	164	6.075	6.075	(1.000)	1179093	40.0000	
* 67 Phenanthrene-d10	188	7.057	7.057	(1.000)	1944900	40.0000	
* 91 Chrysene-d12	240	8.734	8.734	(1.000)	1791708	40.0000	
* 98 Perylene-d12	264	10.251	10.251	(1.000)	1524601	40.0000	
209 Benzaldehyde	77	3.681	3.681	(0.930)	1205417	120.000	108
16 Acetophenone	105	4.210	4.210	(1.064)	1702439	120.000	111
189 Caprolactam	113	5.122	5.122	(1.061)	432667	120.000	112
208 1,1'-Biphenyl	154	5.651	5.651	(0.930)	3431215	120.000	104
207 Atrazine	173	6.834	6.834	(0.968)	201108	120.000	103
77 Benzidine	184	7.834	7.834	(0.897)	1962147	120.000	121(A)
90 3,3'-Dichlorobenzidine	252	8.669	8.669	(0.993)	1392664	120.000	113
102 1,4-Dioxane	88	2.287	2.287	(0.578)	470842	120.000	110
103 Methyl methacrylate	100	2.275	2.275	(0.575)	266515	120.000	111
104 Ethyl methacrylate	69	2.652	2.652	(0.670)	1087770	120.000	112
105 2-Picoline	93	2.846	2.846	(0.719)	1758270	120.000	112
106 N-Nitrosomethylethylamine	88	2.893	2.893	(0.731)	732618	120.000	119
107 Methyl methanesulfonate	80	3.052	3.052	(0.771)	639551	120.000	110
108 N-Nitrosodiethylamine	102	3.287	3.287	(0.831)	752545	120.000	115
109 Ethyl Methanesulfonate	79	3.446	3.446	(0.871)	935818	120.000	115
110 Pentachloroethane	167	3.781	3.781	(0.955)	449011	120.000	113
111 N-Nitrosopyrrolidine	100	4.216	4.216	(1.065)	682039	120.000	106(Q)
113 N-Nitrosomorpholine	56	4.228	4.228	(1.068)	871060	120.000	104
114 o-Toluidine	106	4.246	4.246	(1.073)	2574689	120.000	114
115 N-Nitrosopiperidine	114	4.446	4.446	(0.921)	819321	120.000	116

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.681	4.681	(0.970)	4940098	120.000	120
118 2,6-Dichlorophenol	162	4.875	4.875	(1.010)	1234361	120.000	117
119 Hexachloropropene	213	4.898	4.898	(1.015)	547473	120.000	114
120 p-Phenylenediamine	108	5.116	5.116	(1.060)	1110854	120.000	102
121 N-Nitrosodi-n-butylamine	84	5.075	5.075	(1.051)	1022625	120.000	111(T)
122 Safrole	162	5.240	5.240	(1.085)	1080910	120.000	113
123 1,2,4,5-Tetrachlorobenzene	216	5.446	5.446	(0.896)	1149626	120.000	106
124 Isosafrole	162	5.610	5.610	(0.924)	1094866	120.000	113
125 1,4-Naphthoquinone	158	5.793	5.793	(0.954)	784764	120.000	89.7
127 Pentachlorobenzene	250	6.187	6.187	(1.018)	989465	120.000	107
128 1-Naphthylamine	143	6.269	6.269	(1.032)	2864840	120.000	109
129 2-Naphthylamine	143	6.322	6.322	(1.041)	3096373	120.000	108
131 5-Nitro-o-toluidine	152	6.445	6.445	(1.061)	998192	120.000	119
136 1,3,5-Trinitrobenzene	75	6.651	6.651	(0.942)	635871	120.000	112
137 Phenacetin	108	6.698	6.698	(0.949)	1512239	120.000	121(AQ)
138 Diallate	86	6.675	6.675	(0.946)	1216716	120.000	108
212 Cis Diallate	86	6.734	6.734	(0.954)	208587	18.0000	17.9
213 Trans Diallate	86	6.675	6.675	(0.946)	1216716	102.000	92.0
140 4-Aminobiphenyl	169	6.916	6.916	(0.980)	2664947	120.000	102
141 Pentachloronitrobenzene	237	6.940	6.940	(0.983)	260388	120.000	100(Q)
142 Pronamide	173	6.928	6.928	(0.982)	955575	120.000	84.1
146 4-Nitroquinoline-1-oxide	101	7.522	7.522	(1.066)	61036	120.000	128(AQ)
147 Methapyrilene	58	7.539	7.539	(1.068)	1856650	120.000	104
148 Isodrin	193	7.692	7.692	(1.090)	441698	120.000	106
149 Aramite	185	7.916	7.916	(1.122)	231778	120.000	112
150 Kepone	272	8.363	8.363	(1.185)	342866	120.000	112
151 p-(Dimethylamino)azobenzene	120	8.051	8.051	(0.922)	1325270	120.000	104
152 Chlorobenzilate	251	8.063	8.063	(0.923)	1049462	120.000	106
153 3,3'-Dimethylbenzidine	212	8.263	8.263	(0.946)	2341638	120.000	109
155 2-Acetylaminofluorene	181	8.457	8.457	(0.968)	1752733	120.000	127(A)
157 7,12Dimethylbenz(a)anthracene	256	9.745	9.745	(0.951)	1854065	120.000	115
158 3-Methylcholanthrene	268	10.639	10.639	(1.038)	1747390	120.000	125(AQ)

QC Flag Legend

T - Target compound detected outside RT window.
A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s111409.b/s1k1221.d
Date : 15-NOV-2009 17:47
Client ID: AP120
Sample Info: IWBN091111-071120 PPM|1|SVMF|1|AP120
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: amy
Column diameter: 0.20

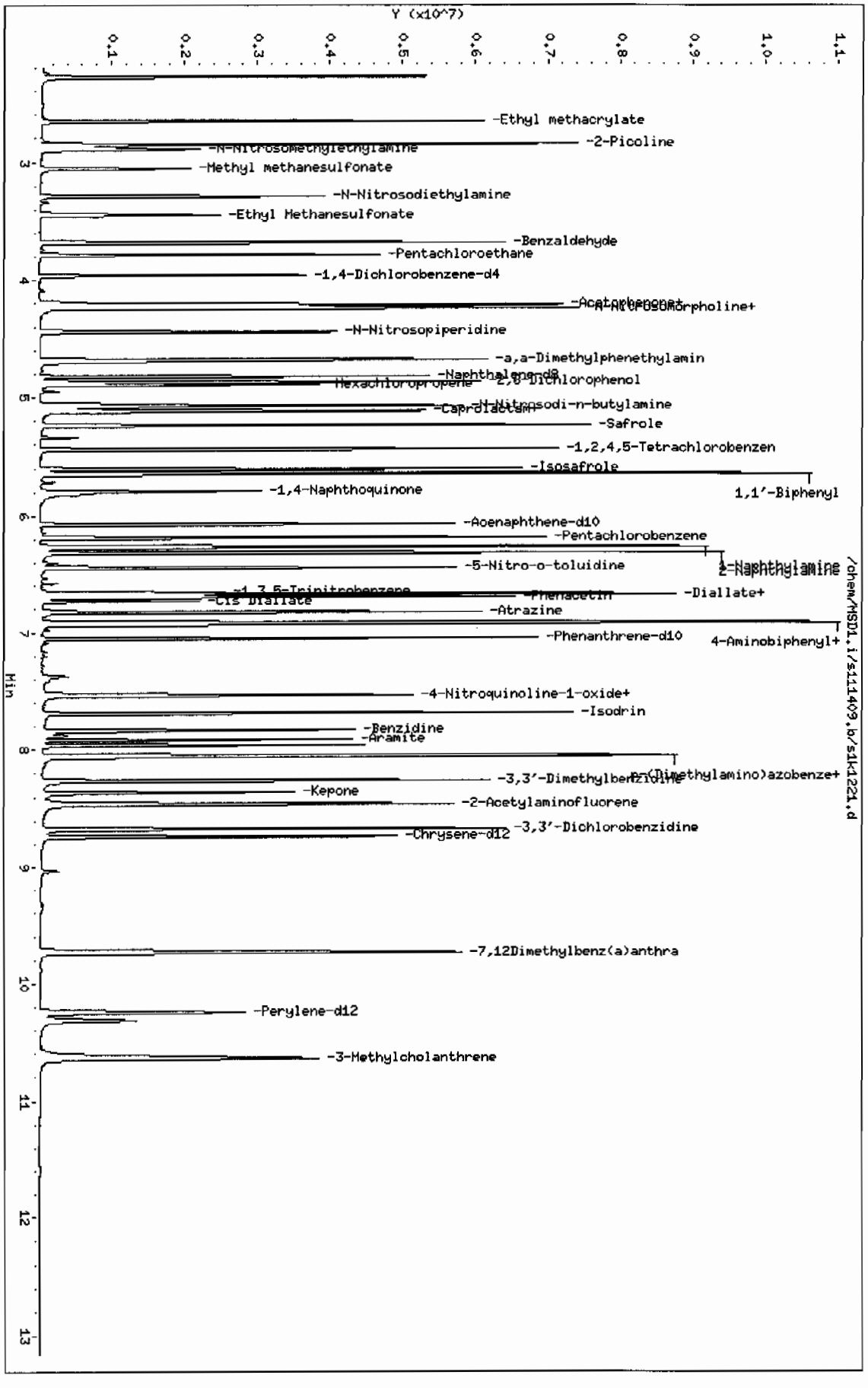

Page 1

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 15-NOV-2009 23:17
Lab File ID: s1k1235.d Init. Cal. Date(s): 14-NOV-2009 15-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 22:53
Lab Sample ID: WBN091111-08.1 Quant Type: ISTD
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.82400	0.71239	0.71239	0.000	-13.54468	60.00000	Averaged
16 Acetophenone	1.12880	1.15012	1.15012	0.000	1.88924	60.00000	Averaged
189 Caprolactam	0.07169	0.08295	0.08295	0.000	15.71078	60.00000	Averaged
208 1,1'-Biphenyl	1.12050	1.24126	1.24126	0.000	10.77724	60.00000	Averaged
207 Atrazine	0.04008	0.04737	0.04737	0.000	18.18184	60.00000	Averaged
77 Benzidine	0.36215	0.33951	0.33951	0.000	-6.25196	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.27540	0.29917	0.29917	0.000	8.63115	60.00000	Averaged
102 1,4-Dioxane	0.31387	0.37981	0.37981	0.000	21.00923	60.00000	Averaged
103 Methyl methacrylate	0.17640	0.20821	0.20821	0.000	18.03005	60.00000	Averaged
104 Ethyl methacrylate	0.71299	0.86659	0.86659	0.000	21.54329	60.00000	Averaged
105 2-Picoline	1.15384	1.13306	1.13306	0.000	-1.80140	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.45426	0.46463	0.46463	0.000	2.28123	60.00000	Averaged
107 Methyl methanesulfonate	0.42570	0.48978	0.48978	0.000	15.05276	60.00000	Averaged
108 N-Nitrosodiethylamine	0.47954	0.49102	0.49102	0.000	2.39384	60.00000	Averaged
109 Ethyl Methanesulfonate	0.59625	0.74183	0.74183	0.000	24.41607	60.00000	Averaged
110 Pentachloroethane	0.29115	0.40985	0.40985	0.000	40.76840	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47509	0.50932	0.50932	0.000	7.20593	60.00000	Averaged
113 N-Nitrosomorpholine	0.61749	0.67896	0.67896	0.000	9.95518	60.00000	Averaged
114 o-Toluidine	1.65327	1.64031	1.64031	0.000	-0.78415	60.00000	Averaged
115 N-Nitrosopiperidine	0.13156	0.13273	0.13273	0.000	0.88789	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.76801	0.79273	0.79273	0.000	3.21891	60.00000	Averaged
118 2,6-Dichlorophenol	0.19701	0.21797	0.21797	0.000	10.63653	60.00000	Averaged
119 Hexachloropropene	0.08895	0.13367	0.13367	0.000	50.27176	60.00000	Averaged
120 p-Phenylenediamine	0.20154	0.18980	0.18980	0.000	-5.82557	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.17172	0.17829	0.17829	0.000	3.82057	60.00000	Averaged
122 Safrole	0.17864	0.21665	0.21665	0.000	21.27785	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.36713	0.42376	0.42376	0.000	15.42574	60.00000	Averaged
124 Isosafrole	0.32761	0.46202	0.46202	0.000	41.02664	60.00000	Averaged
125 1,4-Naphthoquinone	0.29676	0.32067	0.32067	0.000	8.05637	60.00000	Averaged
127 Pentachlorobenzene	0.31451	0.35074	0.35074	0.000	11.51805	60.00000	Averaged
128 1-Naphthylamine	0.89420	0.98926	0.98926	0.000	10.62991	60.00000	Averaged
129 2-Naphthylamine	0.97473	1.09077	1.09077	0.000	11.90459	60.00000	Averaged
131 5-Nitro-o-toluidine	0.28528	0.30775	0.30775	0.000	7.87638	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.11623	0.15168	0.15168	0.000	30.50015	60.00000	Averaged
137 Phenacetin	0.25708	0.29576	0.29576	0.000	15.04579	60.00000	Averaged
138 Diallate	0.23112	0.23284	0.23284	0.000	0.74457	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i
Lab File ID: s1k1235.d
Analysis Type:
Lab Sample ID: WBN091111-08.1
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

Injection Date: 15-NOV-2009 23:17
Init. Cal. Date(s): 14-NOV-2009 15-NOV-2009
Init. Cal. Times: 18:22 22:53
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.23999	0.31739	0.31739	0.000	32.25095	60.00000	Averaged
213 Trans Diallate	0.27191	0.27393	0.27393	0.000	0.74457	60.00000	Averaged
140 4-Aminobiphenyl	0.53614	0.62569	0.62569	0.000	16.70322	60.00000	Averaged
141 Pentachloronitrobenzene	0.05324	0.06215	0.06215	0.000	16.73283	60.00000	Averaged
142 Pronamide	0.23368	0.26726	0.26726	0.000	14.37225	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.00980	0.00923	0.00923	0.000	-5.86960	60.00000	Averaged
147 Methapyrilene	0.36822	0.29090	0.29090	0.000	-20.99905	60.00000	Averaged
148 Isodrin	0.08609	0.08812	0.08812	0.000	2.35297	60.00000	Averaged
149 Aramite	0.04255	0.04327	0.04327	0.000	1.67534	60.00000	Averaged
150 Kepone	0.06308	0.07178	0.07178	0.000	13.77677	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.28392	0.29411	0.29411	0.000	3.58893	60.00000	Averaged
152 Chlorobenzilate	0.21994	0.24578	0.24578	0.000	11.75217	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.47945	0.47257	0.47257	0.000	-1.43591	60.00000	Averaged
155 2-Acetylaminofluorene	0.30801	0.33042	0.33042	0.000	7.27461	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.42123	0.42978	0.42978	0.000	2.03140	60.00000	Averaged
158 3-Methylcholanthrene	0.36711	0.40048	0.40048	0.000	9.08958	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD1.i/s111409.b/s1k1235.d
Lab Smp Id: WBN091111-08.1 Client Smp ID: APICV
Inj Date : 15-NOV-2009 23:17
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091111-08.1|40 PPM|1|SVMF|1|APICV
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 17-Nov-2009 10:44 nat00999 Quant Type: ISTD
Cal Date : 15-NOV-2009 21:42 Cal File: s1k1231.d
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap12.sub
Target Version: 3.50

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.957	3.940	(1.000)	601939	40.0000	
* 29 Naphthalene-d8	136	4.828	4.810	(1.000)	2374945	40.0000	
* 46 Acenaphthene-d10	164	6.075	6.057	(1.000)	1270499	40.0000	
* 67 Phenanthrene-d10	188	7.057	7.040	(1.000)	2114263	40.0000	
* 91 Chrysene-d12	240	8.739	8.722	(1.000)	1927170	40.0000	
* 98 Perylene-d12	264	10.251	10.222	(1.000)	1696025	40.0000	(H)
209 Benzaldehyde	77	3.681	3.681	(0.930)	428816	40.0000	34.6
16 Acetophenone	105	4.210	4.210	(1.064)	692304	40.0000	40.8
189 Caprolactam	113	5.104	5.122	(1.057)	197001	40.0000	46.3
208 1,1'-Biphenyl	154	5.646	5.651	(0.929)	1577025	40.0000	44.3
207 Atrazine	173	6.822	6.834	(0.967)	100151	40.0000	47.3
77 Benzidine	184	7.828	7.834	(0.896)	654298	40.0000	37.5
90 3,3'-Dichlorobenzidine	252	8.663	8.669	(0.991)	576557	40.0000	43.4
102 1,4-Dioxane	88	2.281	2.287	(0.576)	228622	40.0000	48.4
103 Methyl methacrylate	100	2.275	2.275	(0.575)	125330	40.0000	47.2
104 Ethyl methacrylate	69	2.652	2.652	(0.670)	521635	40.0000	48.6
105 2-Picoline	93	2.846	2.846	(0.719)	682032	40.0000	39.3
106 N-Nitrosomethylethylamine	88	2.887	2.893	(0.729)	279676	40.0000	40.9
107 Methyl methanesulfonate	80	3.046	3.052	(0.770)	294820	40.0000	46.0
108 N-Nitrosodiethylamine	102	3.281	3.287	(0.829)	295564	40.0000	41.0
109 Ethyl Methanesulfonate	79	3.440	3.446	(0.869)	446538	40.0000	49.8
110 Pentachloroethane	167	3.781	3.781	(0.955)	246707	40.0000	56.3
111 N-Nitrosopyrrolidine	100	4.199	4.216	(1.061)	306582	40.0000	42.9
113 N-Nitrosomorpholine	56	4.216	4.228	(1.065)	408692	40.0000	44.0
114 o-Toluidine	106	4.234	4.246	(1.070)	987365	40.0000	39.7
115 N-Nitrosopiperidine	114	4.434	4.446	(0.918)	315224	40.0000	40.4
116 a,a-Dimethylphenethylamine	58	4.681	4.681	(0.970)	1882697	40.0000	41.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
118 2,6-Dichlorophenol	162	4.869	4.875	(1.009)	517655	40.0000	44.2
119 Hexachloropropene	213	4.899	4.898	(1.015)	317465	40.0000	60.1
120 p-Phenylenediamine	108	5.104	5.116	(1.057)	450756	40.0000	37.7
121 N-Nitrosodi-n-butylamine	84	5.069	5.075	(1.050)	423419	40.0000	41.5(T)
122 Safrole	162	5.234	5.240	(1.084)	514526	40.0000	48.5
123 1,2,4,5-Tetrachlorobenzene	216	5.440	5.446	(0.895)	538386	40.0000	46.2
124 Isosafrole	162	5.604	5.610	(0.923)	586994	40.0000	56.4
125 1,4-Naphthoquinone	158	5.793	5.793	(0.954)	407413	40.0000	43.2
127 Pentachlorobenzene	250	6.181	6.187	(1.017)	445615	40.0000	44.6
128 1-Naphthylamine	143	6.263	6.269	(1.031)	1256848	40.0000	44.2
129 2-Naphthylamine	143	6.316	6.322	(1.040)	1385825	40.0000	44.8
131 5-Nitro-o-toluidine	152	6.434	6.445	(1.059)	390998	40.0000	43.2
136 1,3,5-Trinitrobenzene	75	6.645	6.651	(0.942)	320686	40.0000	52.2
137 Phenacetin	108	6.687	6.698	(0.947)	625324	40.0000	46.0
138 Diallate	86	6.669	6.675	(0.945)	492291	40.0000	40.3
212 Cis Diallate	86	6.734	6.734	(0.954)	100656	6.00000	7.9
213 Trans Diallate	86	6.669	6.675	(0.945)	492291	34.0000	34.2
140 4-Aminobiphenyl	169	6.910	6.916	(0.979)	1322873	40.0000	46.7
141 Pentachloronitrobenzene	237	6.934	6.940	(0.982)	131405	40.0000	46.7
142 Pronamide	173	6.922	6.928	(0.981)	565063	40.0000	45.7
146 4-Nitroquinoline-1-oxide	101	7.516	7.522	(1.065)	19512	40.0000	37.6
147 Methapyrilene	58	7.534	7.539	(1.067)	615031	40.0000	31.6
148 Isodrin	193	7.692	7.692	(1.090)	186303	40.0000	40.9
149 Aramite	185	7.916	7.916	(1.122)	91474	40.0000	40.7
150 Kepone	272	8.351	8.363	(1.183)	151752	40.0000	45.5
151 p-(Dimethylamino)azobenzene	120	8.045	8.051	(0.921)	566806	40.0000	41.4
152 Chlorobenzilate	251	8.057	8.063	(0.922)	473667	40.0000	44.7
153 3,3'-Dimethylbenzidine	212	8.257	8.263	(0.945)	910722	40.0000	39.4
155 2-Acetylaminofluorene	181	8.445	8.457	(0.966)	636774	40.0000	42.9
157 7,12Dimethylbenz(a)anthracene	256	9.733	9.745	(0.945)	728922	40.0000	40.8
158 3-Methylcholanthrene	268	10.622	10.639	(1.031)	679223	40.0000	43.6

QC Flag Legend

T - Target compound detected outside RT window.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s111409.b/s1k1235.d
Date : 15-NOV-2009 23:17
Client ID: APICV
Sample Info: |WBN091111-08.1|40 PPM|1|SVMF|1|APICV

Column phase: J&W DB-5MS

Page 1

Instrument: MSD1.i

Operator: amy
Column diameter: 0.20

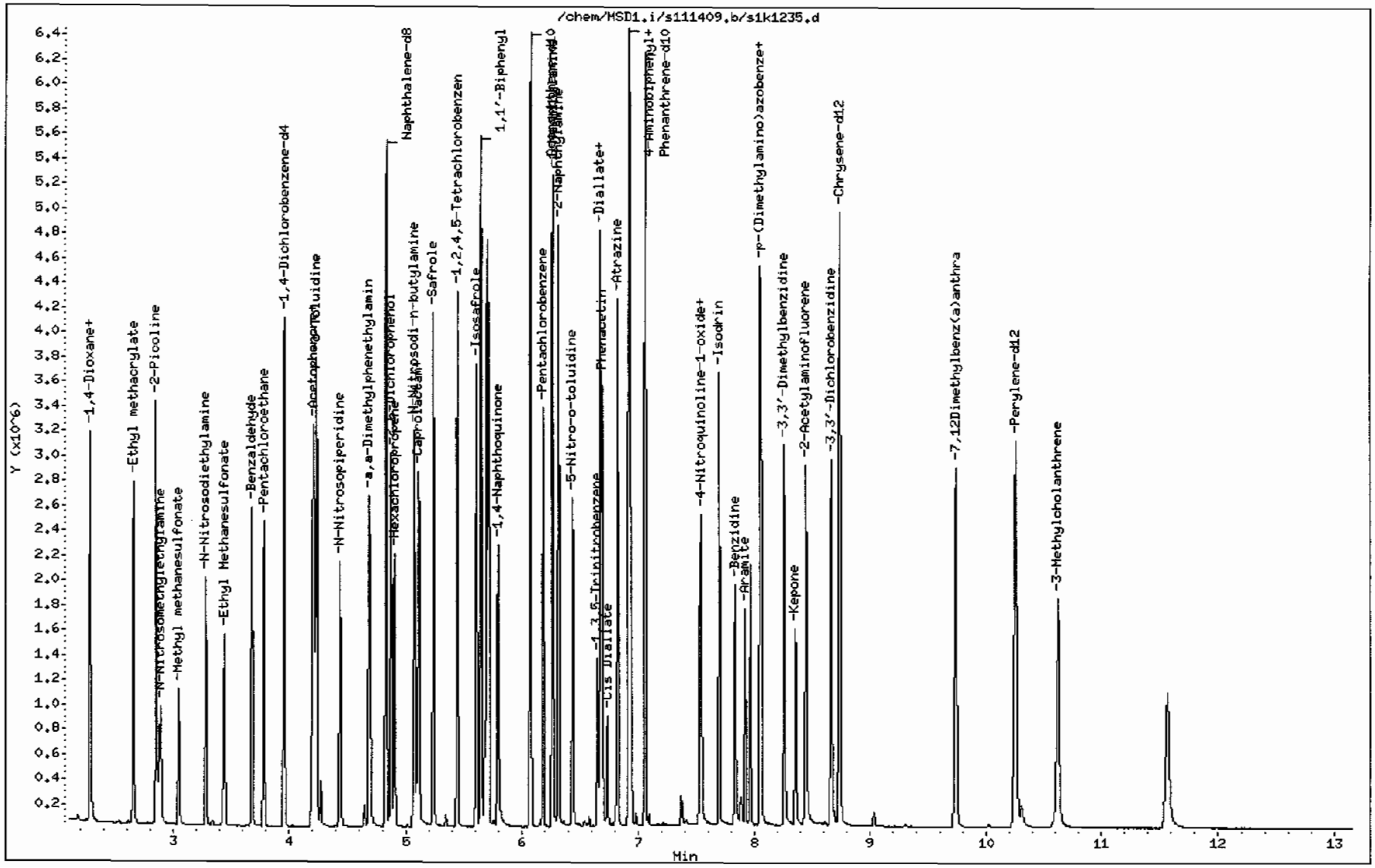

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 17-NOV-2009 16:27
Lab File ID: s1k1261.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 12:38
Lab Sample ID: WBN091027-09.3 Quant Type: ISTD
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.04478	0.92701	0.92701	0.000	-11.27306	60.00000	Averaged
$ 5 Phenol-d5	1.26984	1.11829	1.11829	0.000	-11.93416	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.26360	0.25882	0.25882	0.000	-1.81289	60.00000	Averaged
$ 39 2-Fluorobiphenyl	0.95800	0.95545	0.95545	0.000	-0.26619	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.11169	0.11397	0.11397	0.000	2.04032	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.62787	0.61091	0.61091	0.000	-2.70233	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.56740	0.52259	0.52259	0.000	-7.89719	60.00000	Averaged
2 Pyridine	0.95281	0.72054	0.72054	0.000	-24.37721	60.00000	Averaged
4 Aniline	0.55813	0.46069	0.46069	0.000	-17.45935	60.00000	Averaged
6 Phenol	1.33800	1.13102	1.13102	0.001	-15.46941	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.93081	0.78725	0.78725	0.000	-15.42323	60.00000	Averaged
8 2-Chlorophenol	1.13717	0.96631	0.96631	0.000	-15.02517	60.00000	Averaged
203 n-Decane	1.43160	1.33489	1.33489	0.000	-6.75532	60.00000	Averaged
9 1,3-Dichlorobenzene	1.33431	1.14485	1.14485	0.000	-14.19930	60.00000	Averaged
11 1,4-Dichlorobenzene	1.30799	1.12905	1.12905	0.001	-13.68038	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.20798	1.02631	1.02631	0.000	-15.03923	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.21709	1.93928	1.93928	0.000	-12.53006	60.00000	Averaged
12 Benzyl alcohol	0.69141	0.59629	0.59629	0.000	-13.75808	60.00000	Averaged
15 o-Cresol	0.84650	0.72216	0.72216	0.000	-14.68816	60.00000	Averaged
18 m,p-Cresols	1.15179	1.00178	1.00178	0.000	-13.02332	60.00000	Averaged
17 N-Nitrosodipropylamine	0.76238	0.61385	0.61385	0.050	-19.48192	60.00000	Averaged spcc
19 Hexachloroethane	0.47075	0.38923	0.38923	0.000	-17.31682	60.00000	Averaged
21 Nitrobenzene	0.27466	0.23975	0.23975	0.000	-12.70858	60.00000	Averaged
22 Isophorone	0.48049	0.42824	0.42824	0.000	-10.87384	60.00000	Averaged
23 2-Nitrophenol	0.14580	0.12443	0.12443	0.001	-14.65471	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.23346	0.23407	0.23407	0.000	0.25935	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.30933	0.25445	0.25445	0.000	-17.74126	60.00000	Averaged
26 2,4-Dichlorophenol	0.21909	0.18847	0.18847	0.001	-13.97781	20.00000	Averaged ccc
27 Benzoic acid	0.16087	0.16553	0.16553	0.000	2.89975	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.24210	0.21218	0.21218	0.000	-12.36169	60.00000	Averaged
30 Naphthalene	0.83482	0.76679	0.76679	0.000	-8.14910	60.00000	Averaged
204 alpha-Terpineol	0.19635	0.19249	0.19249	0.000	-1.96852	60.00000	Averaged
31 4-Chloroaniline	0.38123	0.34324	0.34324	0.000	-9.96471	60.00000	Averaged
32 Hexachlorobutadiene	0.12432	0.10582	0.10582	0.001	-14.87841	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.21406	0.17276	0.17276	0.001	-19.29025	20.00000	Averaged ccc
34 2-Methylnaphthalene	0.54880	0.51972	0.51972	0.000	-5.29812	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 17-NOV-2009 16:27
Lab File ID: s1k1261.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 12:38
Lab Sample ID: WBN091027-09.3 Quant Type: ISTD
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	0.49330	0.47920	0.47920	0.000	-2.85884	60.00000	Averaged	
36 Hexachlorocyclopentadiene	0.12213	0.12462	0.12462	0.050	2.03810	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.45401	0.44519	0.44519	0.000	-1.94238	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.26606	0.24935	0.24935	0.001	-6.28041	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.28290	0.25595	0.25595	0.000	-9.52679	60.00000	Averaged	
40 2-Chloronaphthalene	0.98748	0.82050	0.82050	0.000	-16.91018	60.00000	Averaged	
42 o-Nitroaniline	0.30619	0.24946	0.24946	0.000	-18.52571	60.00000	Averaged	
41 m-Nitroaniline	0.27055	0.22438	0.22438	0.000	-17.06469	60.00000	Averaged	
43 Dimethylphthalate	1.08995	0.95932	0.95932	0.000	-11.98438	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.27156	0.22271	0.22271	0.000	-17.99006	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.35993	0.29440	0.29440	0.000	-18.20706	60.00000	Averaged	
45 Acenaphthylene	1.54092	1.46812	1.46812	0.000	-4.72441	60.00000	Averaged	
47 Acenaphthene	0.92259	0.85781	0.85781	0.001	-7.02192	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	0.10718	0.09229	0.09229	0.050	-13.89853	60.00000	Averaged	spcc
49 Dibenzofuran	1.33422	1.12564	1.12564	0.000	-15.63294	60.00000	Averaged	
51 Diethylphthalate	1.01616	0.93320	0.93320	0.000	-8.16403	60.00000	Averaged	
52 4-Nitrophenol	0.18871	0.18660	0.18660	0.050	-1.12202	60.00000	Averaged	spcc
53 Fluorene	1.07578	0.99783	0.99783	0.000	-7.24582	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.45420	0.42578	0.42578	0.000	-6.25867	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	0.10120	0.09844	0.09844	0.000	-2.71965	60.00000	Averaged	
56 p-Nitroaniline	0.26458	0.21819	0.21819	0.000	-17.53206	60.00000	Averaged	
133 Diphenylamine	0.53354	0.46493	0.46493	0.001	-12.85961	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.65098	0.55777	0.55777	0.000	-14.31896	60.00000	Averaged	
61 4-Bromophenylphenylether	0.13743	0.14126	0.14126	0.000	2.79050	60.00000	Averaged	
63 Hexachlorobenzene	0.16869	0.14433	0.14433	0.000	-14.43782	60.00000	Averaged	
65 Pentachlorophenol	0.10117	0.09042	0.09042	0.001	-10.61921	20.00000	Averaged	ccc
206 n-Octadecane	0.43383	0.42570	0.42570	0.000	-1.87309	60.00000	Averaged	
68 Phenanthrene	0.90903	0.83581	0.83581	0.000	-8.05558	60.00000	Averaged	
69 Anthracene	0.92447	0.85110	0.85110	0.000	-7.93592	60.00000	Averaged	
72 Di-n-butylphthalate	0.98605	0.95396	0.95396	0.000	-3.25457	60.00000	Averaged	
76 Fluoranthene	0.87746	0.81704	0.81704	0.001	-6.88555	20.00000	Averaged	ccc
79 Pyrene	1.06293	0.98267	0.98267	0.000	-7.55079	60.00000	Averaged	
85 Butylbenzylphthalate	0.48372	0.46739	0.46739	0.000	-3.37649	60.00000	Averaged	
89 Benzo(a)anthracene	0.95915	0.87571	0.87571	0.000	-8.69930	60.00000	Averaged	
92 Chrysene	0.89647	0.82199	0.82199	0.000	-8.30767	60.00000	Averaged	
93 bis(2-Ethylhexyl)phthalate	0.70275	0.65271	0.65271	0.000	-7.12169	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 17-NOV-2009 16:27
Lab File ID: s1k1261.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 12:38
Lab Sample ID: WBN091027-09.3 Quant Type: ISTD
Method: /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.30849	1.19375	1.19375	0.001	-8.76858	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	34.69168	40.00000	0.87030	0.000	-13.27080	60.00000	Linear	
	96 Benzo(k)fluoranthene	1.00298	0.95633	0.95633	0.000	-4.65112	60.00000	Averaged	
	97 Benzo(a)pyrene	37.92700	40.00000	0.82858	0.001	-5.18249	20.00000	Linear	ccc
	99 Indeno(1,2,3-cd)pyrene	35.83759	40.00000	0.81303	0.000	-10.40601	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	35.09981	40.00000	0.66597	0.000	-12.25048	60.00000	Linear	
	101 Benzo(ghi)perylene	0.75165	0.69836	0.69836	0.000	-7.08991	60.00000	Averaged	
	126 m-Dinitrobenzene	0.18653	0.15696	0.15696	0.000	-15.84920	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21604	0.19708	0.19708	0.000	-8.77777	60.00000	Averaged	
	143 Dinoseb	0.12447	0.10965	0.10965	0.000	-11.90708	60.00000	Averaged	
	173 Carbazole	0.80714	0.69773	0.69773	0.000	-13.55506	60.00000	Averaged	
	184 p-Benzoquinone	40.49777	40.00000	0.06781	0.000	1.24442	60.00000	Linear	
	192 Methoxychlor	0.31747	0.36177	0.36177	0.000	13.95477	60.00000	Averaged	
	211 p-Toluidine	0.70440	0.95402	0.95402	0.000	35.43664	60.00000	Averaged	
	210 m-Toluidine	0.91072	0.95200	0.95200	0.000	4.53333	60.00000	Averaged	
	26 Phthalic anhydride	42.71723	40.00000	0.10164	0.000	6.79306	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	24.88814	40.00000	0.27687	0.000	-37.77964	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.17315	0.14504	0.14504	0.000	-16.23762	60.00000	Averaged	
	215 2-Ethoxyethanol	0.60315	0.59707	0.59707	0.000	-1.00765	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.12921	0.12373	0.12373	0.000	-4.23543	60.00000	Averaged	
M	225 Trichlorophenols	0.27448	0.25265	0.25265	0.000	-7.95340	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21604	0.19708	0.19708	0.000	-8.77777	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.96552	0.91331	0.91331	0.000	-5.40733	60.00000	Averaged	

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Data file : /chem/MSD1.i/s111409.b/s1k1261.d
Lab Smp Id: WBN091027-09.3 Client Smp ID: MEGAICV
Inj Date : 17-NOV-2009 16:27
Operator : amy Inst ID: MSD1.i
Smp Info : |WBN091027-09.3|40 PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN091106-10|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s111409.b/MSD1-M8270AQA-111409.m
Meth Date : 17-Nov-2009 16:47 llo00884 Quant Type: ISTD
Cal Date : 17-NOV-2009 12:38 Cal File: s1k1256.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: kilroy

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)	
* 10 1,4-Dichlorobenzene-d4	152	3.928	3.928	(1.000)	530038	40.0000		
* 29 Naphthalene-d8	136	4.793	4.793	(1.000)	2205306	40.0000		
* 46 Acenaphthene-d10	164	6.040	6.040	(1.000)	1135267	40.0000		
* 67 Phenanthrene-d10	188	7.022	7.022	(1.000)	1874551	40.0000		(H)
* 91 Chrysene-d12	240	8.704	8.704	(1.000)	1621760	40.0000		
* 98 Perylene-d12	264	10.198	10.198	(1.000)	1481649	40.0000		
$ 3 2-Fluorophenol	112	3.104	3.104	(0.790)	491348	40.0000	35.5	
$ 5 Phenol-d5	99	3.640	3.640	(0.927)	592737	40.0000	35.2	
$ 20 Nitrobenzene-d5	82	4.287	4.287	(0.894)	570788	40.0000	39.3	
$ 39 2-Fluorobiphenyl	172	5.534	5.534	(0.916)	1084689	40.0000	39.9	
$ 60 2,4,6-Tribromophenol	329	6.575	6.575	(1.089)	129390	40.0000	40.8	
$ 81 p-Terphenyl-d14	244	7.939	7.939	(0.912)	990744	40.0000	38.9	
1 N-Methyl-N-nitrosomethylamine	74	2.410	2.410	(0.614)	276992	40.0000	36.8	
2 Pyridine	79	2.446	2.446	(0.623)	381913	40.0000	30.2	
4 Aniline	66	3.710	3.710	(0.945)	244181	40.0000	33.0	
6 Phenol	94	3.646	3.646	(0.928)	599483	40.0000	33.8	
7 bis(2-Chloroethyl) ether	63	3.722	3.722	(0.948)	417273	40.0000	33.8	
8 2-Chlorophenol	128	3.787	3.787	(0.964)	512179	40.0000	34.0	
203 n-Decane	43	3.775	3.775	(0.961)	707542	40.0000	37.3	
9 1,3-Dichlorobenzene	146	3.893	3.893	(0.991)	606813	40.0000	34.3	
11 1,4-Dichlorobenzene	146	3.934	3.934	(1.001)	598440	40.0000	34.5	
13 1,2-Dichlorobenzene	146	4.040	4.040	(1.028)	543984	40.0000	34.0	
14 bis(2-Chloroisopropyl)ether	45	4.069	4.069	(1.036)	1027894	40.0000	35.0	
12 Benzyl alcohol	108	3.993	3.993	(1.016)	316054	40.0000	34.5	
15 o-Cresol	107	4.040	4.040	(1.028)	382773	40.0000	34.1	
18 m,p-Cresols	107	4.146	4.146	(1.055)	530984	40.0000	34.8	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.163	4.163	(1.060)	325364	40.0000	32.2
19 Hexachloroethane	117	4.269	4.269	(1.087)	206306	40.0000	33.1
21 Nitrobenzene	77	4.304	4.304	(0.898)	528723	40.0000	34.9
22 Isophorone	82	4.457	4.457	(0.930)	944401	40.0000	35.6
23 2-Nitrophenol	139	4.516	4.516	(0.942)	274410	40.0000	34.1
24 2,4-Dimethylphenol	122	4.504	4.504	(0.940)	516190	40.0000	40.1
25 bis(2-Chloroethoxy)methane	93	4.575	4.575	(0.955)	561140	40.0000	32.9
26 2,4-Dichlorophenol	162	4.681	4.681	(0.977)	415624	40.0000	34.4
27 Benzoic acid	105	4.575	4.575	(0.955)	365053	40.0000	41.2
28 1,2,4-Trichlorobenzene	180	4.745	4.745	(0.990)	467914	40.0000	35.0
30 Naphthalene	128	4.810	4.810	(1.004)	1690998	40.0000	36.7
204 alpha-Terpineol	59	4.787	4.787	(0.999)	424496	40.0000	39.2
31 4-Chloroaniline	127	4.822	4.822	(1.006)	756952	40.0000	36.0
32 Hexachlorobutadiene	225	4.875	4.875	(1.017)	233369	40.0000	34.0
33 4-Chloro-3-methylphenol	107	5.134	5.134	(1.071)	380998	40.0000	32.3
34 2-Methylnaphthalene	142	5.293	5.293	(1.104)	1146146	40.0000	37.9
35 1-Methylnaphthalene	142	5.363	5.363	(1.119)	1056787	40.0000	38.8
36 Hexachlorocyclopentadiene	237	5.393	5.393	(0.893)	141475	40.0000	40.8
205 2,3-Dichloroaniline	161	5.487	5.487	(0.908)	505408	40.0000	39.2
37 2,4,6-Trichlorophenol	196	5.475	5.475	(0.906)	283075	40.0000	37.5(H)
38 2,4,5-Trichlorophenol	196	5.504	5.504	(0.911)	290570	40.0000	36.2
40 2-Chloronaphthalene	162	5.645	5.645	(0.935)	931485	40.0000	33.2
42 o-Nitroaniline	65	5.698	5.698	(0.944)	283207	40.0000	32.6
41 m-Nitroaniline	138	5.992	5.992	(0.992)	254734	40.0000	33.2
43 Dimethylphthalate	163	5.810	5.810	(0.962)	1089088	40.0000	35.2
44 2,6-Dinitrotoluene	165	5.863	5.863	(0.971)	252831	40.0000	32.8
50 2,4-Dinitrotoluene	165	6.145	6.145	(1.018)	334220	40.0000	32.7
45 Acenaphthylene	152	5.945	5.945	(0.984)	1666713	40.0000	38.1
47 Acenaphthene	154	6.063	6.063	(1.004)	973838	40.0000	37.2
48 2,4-Dinitrophenol	184	6.057	6.057	(1.003)	104771	40.0000	34.4(Q)
49 Dibenzofuran	168	6.181	6.181	(1.023)	1277902	40.0000	33.7
51 Diethylphthalate	149	6.287	6.287	(1.041)	1059428	40.0000	36.7
52 4-Nitrophenol	139	6.075	6.075	(1.006)	211838	40.0000	39.6
53 Fluorene	166	6.416	6.416	(1.062)	1132809	40.0000	37.1
54 4-Chlorophenylphenylether	204	6.392	6.392	(1.058)	483371	40.0000	37.5
55 2-Methyl-4,6-dinitrophenol	198	6.428	6.428	(0.911)	184539	40.0000	38.9
56 p-Nitroaniline	138	6.410	6.410	(1.061)	247705	40.0000	33.0
133 Diphenylamine	169	6.469	6.469	(0.917)	871532	40.0000	34.8
58 1,2-Diphenylhydrazine	77	6.498	6.498	(0.921)	1045567	40.0000	34.3
61 4-Bromophenylphenylether	248	6.716	6.716	(0.952)	264808	40.0000	41.1(H)
63 Hexachlorobenzene	284	6.775	6.775	(0.960)	270561	40.0000	34.2
65 Pentachlorophenol	266	6.892	6.892	(0.977)	169503	40.0000	35.8
206 n-Octadecane	57	6.869	6.869	(0.973)	797995	40.0000	39.2
68 Phenanthrene	178	7.039	7.039	(0.997)	1566761	40.0000	36.8
69 Anthracene	178	7.069	7.069	(1.002)	1595437	40.0000	36.8
72 Di-n-butylphthalate	149	7.310	7.310	(1.036)	1788243	40.0000	38.7
76 Fluoranthene	202	7.751	7.751	(1.098)	1531590	40.0000	37.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.892	7.892	(0.907)	1593654	40.0000	37.0
85 Butylbenzylphthalate	149	8.204	8.204	(0.943)	757996	40.0000	38.6
89 Benzo(a)anthracene	228	8.692	8.692	(0.999)	1420191	40.0000	36.5(H)
92 Chrysene	228	8.728	8.728	(1.003)	1333078	40.0000	36.7
93 bis(2-Ethylhexyl)phthalate	149	8.569	8.569	(0.984)	1058534	40.0000	37.2(H)
94 Di-n-octylphthalate	149	9.110	9.110	(0.893)	1768724	40.0000	36.5
95 Benzo(b)fluoranthene	252	9.716	9.716	(0.953)	1289484	40.0000	34.7(H)
96 Benzo(k)fluoranthene	252	9.745	9.745	(0.956)	1416940	40.0000	38.1
97 Benzo(a)pyrene	252	10.122	10.122	(0.992)	1227658	40.0000	37.9
99 Indeno(1,2,3-cd)pyrene	276	11.863	11.863	(1.163)	1204623	40.0000	35.8(H)
100 Dibenzo(a,h)anthracene	278	11.863	11.863	(1.163)	986733	40.0000	35.1
101 Benzo(ghi)perylene	276	12.380	12.380	(1.214)	1034720	40.0000	37.2
126 m-Dinitrobenzene	168	5.845	5.845	(0.968)	178196	40.0000	33.7
130 2,3,4,6-Tetrachlorophenol	232	6.251	6.251	(1.035)	223733	40.0000	36.5
143 Dinoseb	211	6.981	6.981	(0.989)	205546	40.0000	35.2
173 Carbazole	167	7.151	7.151	(1.013)	1307938	40.0000	34.6
184 p-Benzoquinone	54	3.404	3.404	(0.867)	35940	40.0000	40.5
192 Methoxychlor	227	8.557	8.557	(0.983)	586700	40.0000	45.6
211 p-Toluidine	106	4.204	4.204	(1.070)	505668	40.0000	54.2(H)
210 m-Toluidine	106	4.228	4.228	(1.076)	504598	40.0000	41.8
26 Phthalic anhydride	104	5.322	5.322	(1.110)	224154	40.0000	42.7
179 Dibenzo(a,e)pyrene	302	16.327	16.327	(1.601)	410219	40.0000	24.9(H)
214 1,4-Dinitrobenzene	168	5.787	5.787	(0.958)	164654	40.0000	33.5
215 2-Ethoxyethanol	59	2.257	2.257	(0.575)	316469	40.0000	39.6
216 Methylenebis(2-chloroaniline)	231	8.622	8.622	(0.991)	200666	40.0000	38.3
M 225 Trichlorophenols	196				573645	80.0000	73.6
M 226 Tetrachlorophenols	232				223733	40.0000	36.5
M 227 Benzo(b,k)fluoranthene	252				2706424	80.0000	75.7

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD1.i/s111409.b/s1k1261.d
Date : 17-NOV-2009 16:27
Client ID: MEGAICV
Sample Info: IWBN091027-09,3:40 PPM1:1:SWHF:1:MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: amy
Column diameter: 0.20

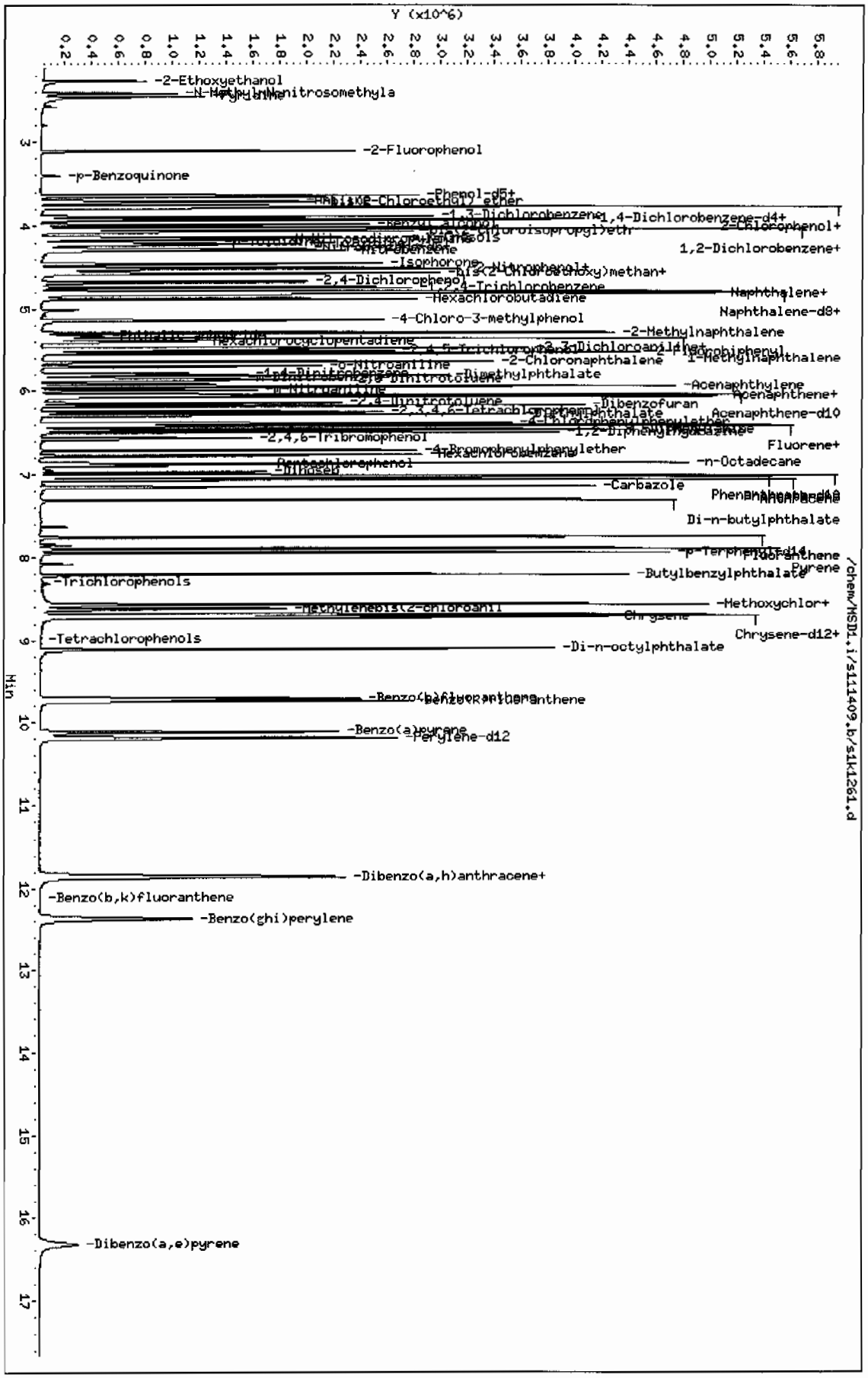

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i Injection Date: 02-JAN-2010 16:38
Lab File ID: s1a0202.d Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Analysis Type: Init. Cal. Times: 18:22 19:15
Lab Sample ID: WBN091111-17.2 Quant Type: ISTD
Method: /chem/MSD1.i/s010210.b/MSD1-M8270AQA-111409.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 3 2-Fluorophenol	1.04478	0.94676	0.94676	0.000	-9.38209	60.00000	Averaged	
$ 5 Phenol-d5	1.26984	1.19400	1.19400	0.000	-5.97212	60.00000	Averaged	
$ 20 Nitrobenzene-d5	0.26360	0.27486	0.27486	0.000	4.27023	60.00000	Averaged	
$ 39 2-Fluorobiphenyl	0.95800	1.01848	1.01848	0.000	6.31342	60.00000	Averaged	
$ 60 2,4,6-Tribromophenol	0.11169	0.12771	0.12771	0.000	14.34252	60.00000	Averaged	
$ 81 p-Terphenyl-d14	0.62787	0.60602	0.60602	0.000	-3.48108	60.00000	Averaged	
1 N-Methyl-N-nitrosomethylami	0.56740	0.64422	0.64422	0.000	13.54013	60.00000	Averaged	
2 Pyridine	0.95281	0.85837	0.85837	0.000	-9.91126	60.00000	Averaged	
4 Aniline	0.55813	0.48894	0.48894	0.000	-12.39674	60.00000	Averaged	
6 Phenol	1.33800	1.23298	1.23298	0.001	-7.84886	20.00000	Averaged	ccc
7 bis(2-Chloroethyl) ether	0.93081	0.91708	0.91708	0.000	-1.47535	60.00000	Averaged	
8 2-Chlorophenol	1.13717	1.03000	1.03000	0.000	-9.42411	60.00000	Averaged	
203 n-Decane	1.43160	1.49629	1.49629	0.000	4.51906	60.00000	Averaged	
9 1,3-Dichlorobenzene	1.33431	1.19619	1.19619	0.000	-10.35156	60.00000	Averaged	
11 1,4-Dichlorobenzene	1.30799	1.20189	1.20189	0.001	-8.11143	20.00000	Averaged	ccc
13 1,2-Dichlorobenzene	1.20798	1.14653	1.14653	0.000	-5.08689	60.00000	Averaged	
14 bis(2-Chloroisopropyl)ether	2.21709	2.03418	2.03418	0.000	-8.24989	60.00000	Averaged	
12 Benzyl alcohol	0.69141	0.62782	0.62782	0.000	-9.19711	60.00000	Averaged	
15 o-Cresol	0.84650	0.82981	0.82981	0.000	-1.97145	60.00000	Averaged	
18 m,p-Cresols	1.15179	0.94974	0.94974	0.000	-17.54196	60.00000	Averaged	
17 N-Nitrosodipropylamine	0.76238	0.65752	0.65752	0.050	-13.75345	60.00000	Averaged	spcc
19 Hexachloroethane	0.47075	0.44852	0.44852	0.000	-4.72151	60.00000	Averaged	
21 Nitrobenzene	0.27466	0.28089	0.28089	0.000	2.27007	60.00000	Averaged	
22 Isophorone	0.48049	0.52963	0.52963	0.000	10.22700	60.00000	Averaged	
23 2-Nitrophenol	0.14580	0.12537	0.12537	0.001	-14.00912	20.00000	Averaged	ccc
24 2,4-Dimethylphenol	0.23346	0.21786	0.21786	0.000	-6.68266	60.00000	Averaged	
25 bis(2-Chloroethoxy)methane	0.30933	0.30326	0.30326	0.000	-1.96174	60.00000	Averaged	
26 2,4-Dichlorophenol	0.21909	0.20434	0.20434	0.001	-6.73007	20.00000	Averaged	ccc
27 Benzoic acid	0.16087	0.13998	0.13998	0.000	-12.98345	60.00000	Averaged	
28 1,2,4-Trichlorobenzene	0.24210	0.24972	0.24972	0.000	3.14675	60.00000	Averaged	
30 Naphthalene	0.83482	0.76293	0.76293	0.000	-8.61043	60.00000	Averaged	
204 alpha-Terpineol	0.19635	0.23076	0.23076	0.000	17.52253	60.00000	Averaged	
31 4-Chloroaniline	0.38123	0.32632	0.32632	0.000	-14.40460	60.00000	Averaged	
32 Hexachlorobutadiene	0.12432	0.13553	0.13553	0.001	9.01502	20.00000	Averaged	ccc
33 4-Chloro-3-methylphenol	0.21406	0.20764	0.20764	0.001	-2.99555	20.00000	Averaged	ccc
34 2-Methylnaphthalene	0.54880	0.50228	0.50228	0.000	-8.47588	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i
Lab File ID: s1a0202.d
Analysis Type:
Lab Sample ID: WBN091111-17.2
Method: /chem/MSD1.i/s010210.b/MSD1-M8270AQA-111409.m

Injection Date: 02-JAN-2010 16:38
Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Init. Cal. Times: 18:22 19:15
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	0.49330	0.49695	0.49695	0.000	0.73877	60.00000	Averaged	
36	Hexachlorocyclopentadiene	0.12213	0.16160	0.16160	0.050	32.32142	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.45401	0.47389	0.47389	0.000	4.37990	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.26606	0.26932	0.26932	0.001	1.22640	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.28290	0.28615	0.28615	0.000	1.15041	60.00000	Averaged	
40	2-Chloronaphthalene	0.98748	0.87439	0.87439	0.000	-11.45242	60.00000	Averaged	
42	o-Nitroaniline	0.30619	0.27250	0.27250	0.000	-11.00333	60.00000	Averaged	
41	m-Nitroaniline	0.27055	0.14333	0.14333	0.000	-47.02407	60.00000	Averaged	
43	Dimethylphthalate	1.08995	1.01841	1.01841	0.000	-6.56358	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.27156	0.23027	0.23027	0.000	-15.20541	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.35993	0.28926	0.28926	0.000	-19.63317	60.00000	Averaged	
45	Acenaphthylene	1.54092	1.41890	1.41890	0.000	-7.91866	60.00000	Averaged	
47	Acenaphthene	0.92259	0.90331	0.90331	0.001	-2.08932	20.00000	Averaged	ccc
48	2,4-Dinitrophenol	0.10718	0.10417	0.10417	0.050	-2.81543	60.00000	Averaged	spcc
49	Dibenzofuran	1.33422	1.18185	1.18185	0.000	-11.41970	60.00000	Averaged	
51	Diethylphthalate	1.01616	1.01496	1.01496	0.000	-0.11729	60.00000	Averaged	
52	4-Nitrophenol	0.18871	0.13847	0.13847	0.050	-26.62493	60.00000	Averaged	spcc
53	Fluorene	1.07578	1.00527	1.00527	0.000	-6.55488	60.00000	Averaged	
54	4-Chlorophenylphenylether	0.45420	0.46604	0.46604	0.000	2.60647	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	0.10120	0.09201	0.09201	0.000	-9.07301	60.00000	Averaged	
56	p-Nitroaniline	0.26458	0.13780	0.13780	0.000	-47.91784	60.00000	Averaged	
133	Diphenylamine	0.53354	0.45895	0.45895	0.001	-13.97922	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.65098	0.59244	0.59244	0.000	-8.99340	60.00000	Averaged	
61	4-Bromophenylphenylether	0.13743	0.16132	0.16132	0.000	17.38156	60.00000	Averaged	
63	Hexachlorobenzene	0.16869	0.18245	0.18245	0.000	8.15989	60.00000	Averaged	
65	Pentachlorophenol	0.10117	0.10052	0.10052	0.001	-0.63581	20.00000	Averaged	ccc
206	n-Octadecane	0.43383	0.46708	0.46708	0.000	7.66524	60.00000	Averaged	
68	Phenanthrene	0.90903	0.82255	0.82255	0.000	-9.51403	60.00000	Averaged	
69	Anthracene	0.92447	0.80692	0.80692	0.000	-12.71501	60.00000	Averaged	
72	Di-n-butylphthalate	0.98605	1.05168	1.05168	0.000	6.65588	60.00000	Averaged	
76	Fluoranthene	0.87746	0.84449	0.84449	0.001	-3.75750	20.00000	Averaged	ccc
79	Pyrene	1.06293	1.02448	1.02448	0.000	-3.61766	60.00000	Averaged	
85	Butylbenzylphthalate	0.48372	0.45204	0.45204	0.000	-6.55023	60.00000	Averaged	
89	Benzo(a)anthracene	0.95915	0.85030	0.85030	0.000	-11.34895	60.00000	Averaged	
92	Chrysene	0.89647	0.86574	0.86574	0.000	-3.42799	60.00000	Averaged	
93	bis(2-Ethylhexyl)phthalate	0.70275	0.69279	0.69279	0.000	-1.41811	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i
Lab File ID: s1a0202.d
Analysis Type:
Lab Sample ID: WBN091111-17.2 Quant Type: ISTD
Method: /chem/MSD1.i/s010210.b/MSD1-M8270AQA-111409.m

Injection Date: 02-JAN-2010 16:38
Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Init. Cal. Times: 18:22 19:15

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.30849	1.25111	1.25111	0.001	-4.38515	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	33.16652	40.00000	0.82886	0.000	-17.08370	60.00000	Linear	
	96 Benzo(k)fluoranthene	1.00298	1.05951	1.05951	0.000	5.63678	60.00000	Averaged	
	97 Benzo(a)pyrene	38.13000	40.00000	0.83299	0.001	-4.67499	20.00000	Linear	ccc
	99 Indeno(1,2,3-cd)pyrene	36.37941	40.00000	0.82517	0.000	-9.05147	60.00000	Linear	
	100 Dibenzo(a,h)anthracene	35.43923	40.00000	0.67238	0.000	-11.40193	60.00000	Linear	
	101 Benzo(ghi)perylene	0.75165	0.69973	0.69973	0.000	-6.90704	60.00000	Averaged	
	126 m-Dinitrobenzene	0.18653	0.16118	0.16118	0.000	-13.58925	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.21604	0.25020	0.25020	0.000	15.81091	60.00000	Averaged	
	143 Dinoseb	0.12447	0.13158	0.13158	0.000	5.71241	60.00000	Averaged	
	173 Carbazole	0.80714	0.60435	0.60435	0.000	-25.12455	60.00000	Averaged	
	184 p-Benzoquinone	35.63327	40.00000	0.05800	0.000	-10.91683	60.00000	Linear	
	192 Methoxychlor	0.31747	0.53855	0.53855	0.000	69.63902	60.00000	Averaged	<-
	211 p-Toluidine	0.70440	0.81286	0.81286	0.000	15.39735	60.00000	Averaged	
	210 m-Toluidine	0.91072	1.06210	1.06210	0.000	16.62265	60.00000	Averaged	
	26 Phthalic anhydride	30.62313	40.00000	0.07040	0.000	-23.44218	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	33.46560	40.00000	0.38526	0.000	-16.33600	60.00000	Linear	
	214 1,4-Dinitrobenzene	0.17315	0.14243	0.14243	0.000	-17.74505	60.00000	Averaged	
	215 2-Ethoxyethanol	0.60315	0.64768	0.64768	0.000	7.38442	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	0.12921	0.06216	0.06216	0.000	-51.89335	60.00000	Averaged	
M	225 Trichlorophenols	0.27448	0.27774	0.27774	0.000	1.18724	60.00000	Averaged	
M	226 Tetrachlorophenols	0.21604	0.25020	0.25020	0.000	15.81091	60.00000	Averaged	
M	227 Benzo(b,k)fluoranthene	0.96552	0.94419	0.94419	0.000	-2.21005	60.00000	Averaged	

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Data file : /chem/MSD1.i/s010210.b/s1a0202.d
Lab Smp Id: WBN091111-17.2 Client Smp ID: MEGACVS
Inj Date : 02-JAN-2010 16:38
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN091111-17.2|40 PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN091208-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s010210.b/MSD1-M8270AQA-111409.m
Meth Date : 07-Jan-2010 14:40 jen00986 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.740	3.740	(1.000)	736744	40.0000	
* 29 Naphthalene-d8	136	4.598	4.598	(1.000)	2868553	40.0000	
* 46 Acenaphthene-d10	164	5.845	5.845	(1.000)	1527193	40.0000	
* 67 Phenanthrene-d10	188	6.839	6.839	(1.000)	2557681	40.0000	
* 91 Chrysene-d12	240	8.451	8.451	(1.000)	2257410	40.0000	
* 98 Perylene-d12	264	9.780	9.780	(1.000)	2064223	40.0000	
$ 3 2-Fluorophenol	112	2.946	2.946	(0.788)	697521	40.0000	36.2
$ 5 Phenol-d5	99	3.475	3.475	(0.929)	879672	40.0000	37.6
$ 20 Nitrobenzene-d5	82	4.104	4.104	(0.893)	788451	40.0000	41.7
$ 39 2-Fluorobiphenyl	172	5.340	5.340	(0.913)	1555417	40.0000	42.5
$ 60 2,4,6-Tribromophenol	329	6.386	6.386	(1.093)	195044	40.0000	45.7
$ 81 p-Terphenyl-d14	244	7.751	7.751	(0.917)	1368029	40.0000	38.6
1 N-Methyl-N-nitrosomethylamine	74	2.257	2.257	(0.604)	474628	40.0000	45.4
2 Pyridine	79	2.287	2.287	(0.611)	632400	40.0000	36.0
4 Aniline	66	3.534	3.534	(0.945)	360225	40.0000	35.0
6 Phenol	94	3.487	3.487	(0.932)	908392	40.0000	36.9
7 bis(2-Chloroethyl) ether	63	3.546	3.546	(0.948)	675653	40.0000	39.4
8 2-Chlorophenol	128	3.610	3.610	(0.965)	758846	40.0000	36.2
203 n-Decane	43	3.587	3.587	(0.959)	1102385	40.0000	41.8
9 1,3-Dichlorobenzene	146	3.704	3.704	(0.991)	881285	40.0000	35.8
11 1,4-Dichlorobenzene	146	3.751	3.751	(1.003)	885487	40.0000	36.8
13 1,2-Dichlorobenzene	146	3.857	3.857	(1.031)	844702	40.0000	38.0
14 bis(2-Chloroisopropyl)ether	45	3.887	3.887	(1.039)	1498669	40.0000	36.7
12 Benzyl alcohol	108	3.816	3.816	(1.020)	462543	40.0000	36.3
15 o-Cresol	107	3.869	3.869	(1.035)	611356	40.0000	39.2
18 m,p-Cresols	107	3.975	3.975	(1.063)	699715	40.0000	33.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	3.981	3.981	(1.064)	484426	40.0000	34.5
19 Hexachloroethane	117	4.081	4.081	(1.091)	330445	40.0000	38.1
21 Nitrobenzene	77	4.122	4.122	(0.896)	805748	40.0000	40.9
22 Isophorone	82	4.269	4.269	(0.928)	1519264	40.0000	44.1
23 2-Nitrophenol	139	4.328	4.328	(0.941)	359639	40.0000	34.4
24 2,4-Dimethylphenol	122	4.328	4.328	(0.941)	624944	40.0000	37.3
25 bis(2-Chloroethoxy)methane	93	4.393	4.393	(0.955)	869919	40.0000	39.2
26 2,4-Dichlorophenol	162	4.492	4.492	(0.977)	586173	40.0000	37.3
27 Benzoic acid	105	4.398	4.398	(0.956)	401548	40.0000	34.8
28 1,2,4-Trichlorobenzene	180	4.551	4.551	(0.990)	716344	40.0000	41.2
30 Naphthalene	128	4.616	4.616	(1.004)	2188519	40.0000	36.6(Q)
204 alpha-Terpineol	59	4.592	4.592	(0.999)	661947	40.0000	47.0
31 4-Chloroaniline	127	4.640	4.640	(1.009)	936052	40.0000	34.2
32 Hexachlorobutadiene	225	4.681	4.681	(1.018)	388762	40.0000	43.6
33 4-Chloro-3-methylphenol	107	4.957	4.957	(1.078)	595638	40.0000	38.8
34 2-Methylnaphthalene	142	5.092	5.092	(1.107)	1440824	40.0000	36.6
35 1-Methylnaphthalene	142	5.169	5.169	(1.124)	1425525	40.0000	40.3
36 Hexachlorocyclopentadiene	237	5.198	5.198	(0.889)	246799	40.0000	52.9
205 2,3-Dichloroaniline	161	5.298	5.298	(0.906)	723725	40.0000	41.8
37 2,4,6-Trichlorophenol	196	5.287	5.287	(0.904)	411302	40.0000	40.5
38 2,4,5-Trichlorophenol	196	5.316	5.316	(0.909)	437013	40.0000	40.5
40 2-Chloronaphthalene	162	5.445	5.445	(0.932)	1335367	40.0000	35.4
42 o-Nitroaniline	65	5.510	5.510	(0.943)	416153	40.0000	35.6
41 m-Nitroaniline	138	5.810	5.810	(0.994)	218888	40.0000	21.2
43 Dimethylphthalate	163	5.622	5.622	(0.962)	1555304	40.0000	37.4
44 2,6-Dinitrotoluene	165	5.675	5.675	(0.971)	351664	40.0000	33.9
50 2,4-Dinitrotoluene	165	5.963	5.963	(1.020)	441763	40.0000	32.1
45 Acenaphthylene	152	5.745	5.745	(0.983)	2166939	40.0000	36.8
47 Acenaphthene	154	5.869	5.869	(1.004)	1379533	40.0000	39.2
48 2,4-Dinitrophenol	184	5.875	5.875	(1.005)	159083	40.0000	38.9
49 Dibenzofuran	168	5.987	5.987	(1.024)	1804919	40.0000	35.4
51 Diethylphthalate	149	6.104	6.104	(1.044)	1550047	40.0000	40.0
52 4-Nitrophenol	139	5.916	5.916	(1.012)	211470	40.0000	29.4
53 Fluorene	166	6.222	6.222	(1.064)	1535238	40.0000	37.4
54 4-Chlorophenylphenylether	204	6.204	6.204	(1.061)	711738	40.0000	41.0
55 2-Methyl-4,6-dinitrophenol	198	6.245	6.245	(0.913)	235345	40.0000	36.4
56 p-Nitroaniline	138	6.234	6.234	(1.066)	210443	40.0000	20.8
133 Diphenylamine	169	6.287	6.287	(0.919)	1173860	40.0000	34.4
58 1,2-Diphenylhydrazine	77	6.310	6.310	(0.923)	1515267	40.0000	36.4
61 4-Bromophenylphenylether	248	6.528	6.528	(0.954)	412598	40.0000	47.0
63 Hexachlorobenzene	284	6.586	6.586	(0.963)	466658	40.0000	43.3
65 Pentachlorophenol	266	6.710	6.710	(0.981)	257106	40.0000	39.7
206 n-Octadecane	57	6.692	6.692	(0.978)	1194639	40.0000	43.1
68 Phenanthrene	178	6.851	6.851	(1.002)	2103816	40.0000	36.2
69 Anthracene	178	6.886	6.886	(1.007)	2063850	40.0000	34.9
72 Di-n-butylphthalate	149	7.133	7.133	(1.043)	2689862	40.0000	42.7
76 Fluoranthene	202	7.563	7.563	(1.106)	2159939	40.0000	38.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.698	7.698	(0.911)	2312662	40.0000	38.6
85 Butylbenzylphthalate	149	8.004	8.004	(0.947)	1020437	40.0000	37.4
89 Benzo(a)anthracene	228	8.439	8.439	(0.999)	1919466	40.0000	35.5
92 Chrysene	228	8.469	8.469	(1.002)	1954329	40.0000	38.6
93 bis(2-Ethylhexyl)phthalate	149	8.333	8.333	(0.986)	1563909	40.0000	39.4
94 Di-n-octylphthalate	149	8.816	8.816	(0.901)	2582571	40.0000	38.2
95 Benzo(b)fluoranthene	252	9.357	9.357	(0.957)	1710950	40.0000	33.2
96 Benzo(k)fluoranthene	252	9.386	9.386	(0.960)	2187068	40.0000	42.2
97 Benzo(a)pyrene	252	9.722	9.722	(0.994)	1719482	40.0000	38.1
99 Indeno(1,2,3-cd)pyrene	276	11.251	11.251	(1.150)	1703340	40.0000	36.4
100 Dibenzo(a,h)anthracene	278	11.251	11.251	(1.150)	1387936	40.0000	35.4
101 Benzo(ghi)perylene	276	11.704	11.704	(1.197)	1444402	40.0000	37.2
126 m-Dinitrobenzene	168	5.663	5.663	(0.969)	246152	40.0000	34.6
130 2,3,4,6-Tetrachlorophenol	232	6.069	6.069	(1.038)	382098	40.0000	46.3
143 Dinoseb	211	6.798	6.798	(0.994)	336545	40.0000	42.3
173 Carbazole	167	6.981	6.981	(1.021)	1545739	40.0000	30.0
184 p-Benzoquinone	54	3.246	3.246	(0.868)	42728	40.0000	35.6
192 Methoxychlor	227	8.322	8.322	(0.985)	1215719	40.0000	67.8
211 p-Toluidine	106	4.022	4.022	(1.075)	598873	40.0000	46.2
210 m-Toluidine	106	4.045	4.045	(1.082)	782498	40.0000	46.6
26 Phthalic anhydride	104	5.140	5.140	(1.118)	201960	40.0000	30.6
179 Dibenzo(a,e)pyrene	302	15.192	15.192	(1.553)	795267	40.0000	33.5
214 1,4-Dinitrobenzene	168	5.604	5.604	(0.959)	217511	40.0000	32.9
215 2-Ethoxyethanol	59	2.099	2.099	(0.561)	477178	40.0000	43.0
216 Methylenebis(2-chloroaniline)	231	8.386	8.386	(0.992)	140313	40.0000	19.2
M 225 Trichlorophenols	196				848315	80.0000	80.9
M 226 Tetrachlorophenols	232				382098	40.0000	46.3
M 227 Benzo(b,k)fluoranthene	252				3898018	80.0000	78.2

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s010210.b/s1a0202.d
Date : 02-JAN-2010 16:38
Client ID: MEGACVS
Sample Info: IWBN091111-17.2140 PPMI1ISVMFI1IMEGACVS

Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: AMY
Column diameter: 0.20

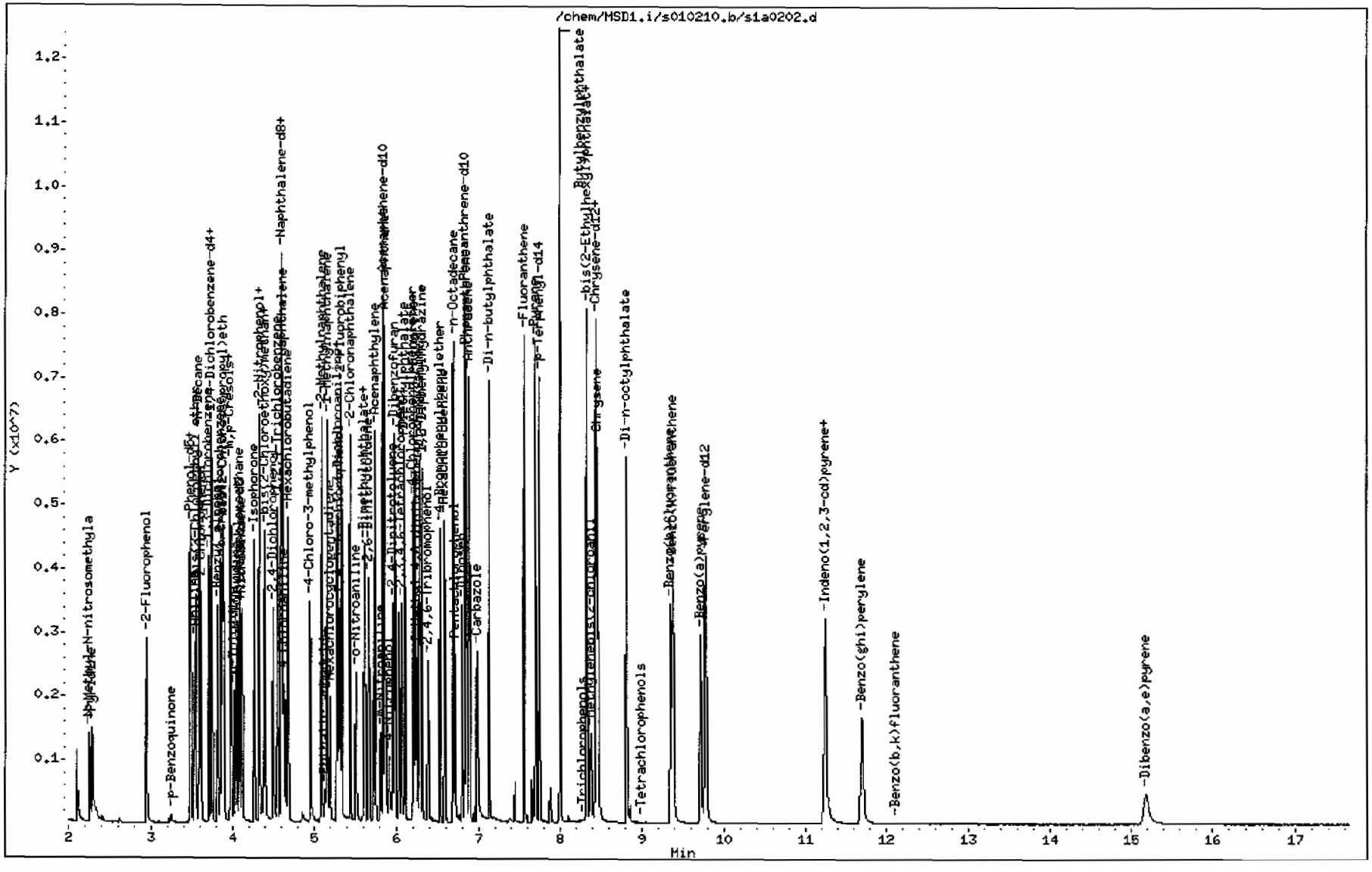

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i
Lab File ID: s1a0203.d
Analysis Type:
Lab Sample ID: WBN091201-03.5
Method: /chem/MSD1.i/s010210.b/MSD1-M8270AQA-111409.m

Injection Date: 02-JAN-2010 17:07
Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Init. Cal. Times: 18:22 19:15
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.82400	0.76554	0.76554	0.000	-7.09415	60.00000	Averaged
16 Acetophenone	1.12880	1.18897	1.18897	0.000	5.33103	60.00000	Averaged
189 Caprolactam	0.07169	0.08379	0.08379	0.000	16.88111	60.00000	Averaged
208 1,1'-Biphenyl	1.12050	1.25795	1.25795	0.000	12.26658	60.00000	Averaged
207 Atrazine	0.04008	0.03858	0.03858	0.000	-3.75563	60.00000	Averaged
77 Benzidine	0.36215	0.23121	0.23121	0.000	-36.15808	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.27540	0.31164	0.31164	0.000	13.15881	60.00000	Averaged
102 1,4-Dioxane	0.31387	0.44594	0.44594	0.000	42.07927	60.00000	Averaged
103 Methyl methacrylate	0.17640	0.23607	0.23607	0.000	33.82191	60.00000	Averaged
104 Ethyl methacrylate	0.71299	1.00076	1.00076	0.000	40.36042	60.00000	Averaged
105 2-Picoline	1.15384	1.22025	1.22025	0.000	5.75527	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.45426	0.48158	0.48158	0.000	6.01371	60.00000	Averaged
107 Methyl methanesulfonate	0.42570	0.48303	0.48303	0.000	13.46638	60.00000	Averaged
108 N-Nitrosodiethylamine	0.47954	0.47465	0.47465	0.000	-1.02051	60.00000	Averaged
109 Ethyl Methanesulfonate	0.59625	0.75407	0.75407	0.000	26.46839	60.00000	Averaged
110 Pentachloroethane	0.29115	0.43929	0.43929	0.000	50.87943	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.47509	0.44641	0.44641	0.000	-6.03768	60.00000	Averaged
113 N-Nitrosomorpholine	0.61749	0.57235	0.57235	0.000	-7.30908	60.00000	Averaged
114 o-Toluidine	1.65327	1.55341	1.55341	0.000	-6.04011	60.00000	Averaged
115 N-Nitrosopiperidine	0.13156	0.12951	0.12951	0.000	-1.56077	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.76801	0.61497	0.61497	0.000	-19.92724	60.00000	Averaged
118 2,6-Dichlorophenol	0.19701	0.20542	0.20542	0.000	4.26667	60.00000	Averaged
119 Hexachloropropene	0.08895	0.14820	0.14820	0.000	66.60584	60.00000	Averaged <-
120 p-Phenylenediamine	0.20154	0.08904	0.08904	0.000	-55.81830	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.17172	0.16512	0.16512	0.000	-3.84595	60.00000	Averaged
122 Safrole	0.17864	0.21557	0.21557	0.000	20.67574	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.36713	0.48068	0.48068	0.000	30.92902	60.00000	Averaged
124 Isosafrole	0.32761	0.44267	0.44267	0.000	35.12067	60.00000	Averaged
125 1,4-Naphthoquinone	0.29676	0.34155	0.34155	0.000	15.09199	60.00000	Averaged
127 Pentachlorobenzene	0.31451	0.41805	0.41805	0.000	32.92071	60.00000	Averaged
128 1-Naphthylamine	0.89420	0.80050	0.80050	0.000	-10.47851	60.00000	Averaged
129 2-Naphthylamine	0.97473	0.67840	0.67840	0.000	-30.40116	60.00000	Averaged
131 5-Nitro-o-toluidine	0.28528	0.26475	0.26475	0.000	-7.19737	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.11623	0.15117	0.15117	0.000	30.06163	60.00000	Averaged
137 Phenacetin	0.25708	0.26211	0.26211	0.000	1.95635	60.00000	Averaged
138 Diallate	0.23112	0.25091	0.25091	0.000	8.56279	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD1.i
Lab File ID: s1a0203.d
Analysis Type:
Lab Sample ID: WBN091201-03.5 Quant Type: ISTD
Method: /chem/MSD1.i/s010210.b/MSD1-M8270AQA-111409.m

Injection Date: 02-JAN-2010 17:07
Init. Cal. Date(s): 14-NOV-2009 17-NOV-2009
Init. Cal. Times: 18:22 19:15

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
212 Cis Diallate	0.23999	0.35625	0.35625	0.000	48.44554	60.00000	Averaged	
213 Trans Diallate	0.27191	0.29519	0.29519	0.000	8.56279	60.00000	Averaged	
140 4-Aminobiphenyl	0.53614	0.47578	0.47578	0.000	-11.25818	60.00000	Averaged	
141 Pentachloronitrobenzene	0.05324	0.07199	0.07199	0.000	35.21081	60.00000	Averaged	
142 Pronamide	0.23368	0.28667	0.28667	0.000	22.67664	60.00000	Averaged	
146 4-Nitroquinoline-1-oxide	0.00980	0.01831	0.01831	0.000	86.74094	60.00000	Averaged	<-
147 Methapyrilene	0.36822	0.48287	0.48287	0.000	31.13567	60.00000	Averaged	
148 Isodrin	0.08609	0.10585	0.10585	0.000	22.94614	60.00000	Averaged	
149 Aramite	0.04255	0.04623	0.04623	0.000	8.63926	60.00000	Averaged	
150 Kepone	0.06308	0.08815	0.08815	0.000	39.73431	60.00000	Averaged	
151 p-(Dimethylamino)azobenzene	0.28392	0.26552	0.26552	0.000	-6.48213	60.00000	Averaged	
152 Chlorobenzilate	0.21994	0.31324	0.31324	0.000	42.42359	60.00000	Averaged	
153 3,3'-Dimethylbenzidine	0.47945	0.46112	0.46112	0.000	-3.82490	60.00000	Averaged	
155 2-Acetylaminofluorene	0.30801	0.33054	0.33054	0.000	7.31253	60.00000	Averaged	
157 7,12Dimethylbenz(a)anthrace	0.42123	0.45835	0.45835	0.000	8.81401	60.00000	Averaged	
158 3-Methylcholanthrene	0.36711	0.42004	0.42004	0.000	14.41660	60.00000	Averaged	

GEL Laboratories LLC

Data file : /chem/MSD1.i/s010210.b/s1a0203.d
Lab Smp Id: WBN091201-03.5 Client Smp ID: APCVS
Inj Date : 02-JAN-2010 17:07
Operator : AMY Inst ID: MSD1.i
Smp Info : |WBN091201-03.5|40 PPM|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s010210.b/MSD1-M8270AQA-111409.m
Meth Date : 02-Jan-2010 17:22 llo00884 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ap12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	3.740	3.740	(1.000)	744044	40.0000	
* 29 Naphthalene-d8	136	4.598	4.598	(1.000)	2799483	40.0000	
* 46 Acenaphthene-d10	164	5.845	5.845	(1.000)	1539610	40.0000	
* 67 Phenanthrene-d10	188	6.839	6.839	(1.000)	2488573	40.0000	
* 91 Chrysene-d12	240	8.445	8.445	(1.000)	2228665	40.0000	
* 98 Perylene-d12	264	9.774	9.774	(1.000)	1978926	40.0000	
209 Benzaldehyde	77	3.469	3.469	(0.928)	569598	40.0000	37.2
16 Acetophenone	105	3.992	3.992	(1.068)	884649	40.0000	42.1
189 Caprolactam	113	4.881	4.881	(1.061)	234565	40.0000	46.8
208 1,1'-Biphenyl	154	5.422	5.422	(0.928)	1936756	40.0000	44.9
207 Atrazine	173	6.616	6.616	(0.967)	96000	40.0000	38.5
77 Benzidine	184	7.622	7.622	(0.902)	515281	40.0000	25.5
90 3,3'-Dichlorobenzidine	252	8.392	8.392	(0.994)	694546	40.0000	45.3
102 1,4-Dioxane	88	2.098	2.098	(0.561)	331800	40.0000	56.8
103 Methyl methacrylate	100	2.093	2.093	(0.560)	175645	40.0000	53.5
104 Ethyl methacrylate	69	2.457	2.457	(0.657)	744606	40.0000	56.1
105 2-Picoline	93	2.651	2.651	(0.709)	907920	40.0000	42.3
106 N-Nitrosomethylethylamine	88	2.698	2.698	(0.722)	358317	40.0000	42.4
107 Methyl methanesulfonate	80	2.857	2.857	(0.764)	359396	40.0000	45.4
108 N-Nitrosodiethylamine	102	3.081	3.081	(0.824)	353158	40.0000	39.6
109 Ethyl Methanesulfonate	79	3.245	3.245	(0.868)	561061	40.0000	50.6
110 Pentachloroethane	167	3.569	3.569	(0.954)	326853	40.0000	60.4
111 N-Nitrosopyrrolidine	100	3.987	3.987	(1.066)	332145	40.0000	37.6
113 N-Nitrosomorpholine	56	4.004	4.004	(1.071)	425857	40.0000	37.1
114 o-Toluidine	106	4.022	4.022	(1.075)	1155807	40.0000	37.6
115 N-Nitrosopiperidine	114	4.216	4.216	(0.917)	362554	40.0000	39.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.457	4.457	(0.969)	1721592	40.0000	32.0
118 2,6-Dichlorophenol	162	4.651	4.651	(1.012)	575058	40.0000	41.7
119 Hexachloropropene	213	4.669	4.669	(1.015)	414890	40.0000	66.6
120 p-Phenylenediamine	108	4.598	4.598	(1.000)	249273	40.0000	17.7
121 N-Nitrosodi-n-butylamine	84	4.845	4.845	(1.054)	462252	40.0000	38.5(Q)
122 Safrole	162	5.010	5.010	(1.090)	603490	40.0000	48.3
123 1,2,4,5-Tetrachlorobenzene	216	5.210	5.210	(0.891)	740054	40.0000	52.4
124 Isosafrole	162	5.381	5.381	(0.920)	681539	40.0000	54.0
125 1,4-Naphthoquinone	158	5.569	5.569	(0.953)	525855	40.0000	46.0
127 Pentachlorobenzene	250	5.957	5.957	(1.019)	643641	40.0000	53.2
128 1-Naphthylamine	143	6.039	6.039	(1.033)	1232463	40.0000	35.8
129 2-Naphthylamine	143	6.092	6.092	(1.042)	1044477	40.0000	27.8
131 5-Nitro-o-toluidine	152	6.222	6.222	(1.064)	407610	40.0000	37.1
136 1,3,5-Trinitrobenzene	75	6.457	6.457	(0.944)	376192	40.0000	52.0
137 Phenacetin	108	6.475	6.475	(0.947)	652289	40.0000	40.8
138 Diallate	86	6.457	6.457	(0.944)	624414	40.0000	43.4
212 Cis Diallate	86	6.516	6.516	(0.953)	132984	6.00000	8.9
213 Trans Diallate	86	6.457	6.457	(0.944)	624414	34.0000	36.9
140 4-Aminobiphenyl	169	6.704	6.704	(0.980)	1184009	40.0000	35.5
141 Pentachloronitrobenzene	237	6.716	6.716	(0.982)	179152	40.0000	54.1
142 Pronamide	173	6.710	6.710	(0.981)	713394	40.0000	49.1
146 4-Nitroquinoline-1-oxide	101	7.316	7.316	(1.070)	45562	40.0000	74.7
147 Methapyrilene	58	7.322	7.322	(1.071)	1201647	40.0000	52.4
148 Isodrin	193	7.475	7.475	(1.093)	263406	40.0000	49.2
149 Aramite	185	7.704	7.704	(1.126)	115043	40.0000	43.4
150 Kepone	272	8.092	8.092	(1.183)	219369	40.0000	55.9
151 p-(Dimethylamino)azobenzene	120	7.828	7.828	(0.927)	591753	40.0000	37.4
152 Chlorobenzilate	251	7.839	7.839	(0.928)	698110	40.0000	57.0
153 3,3'-Dimethylbenzidine	212	8.027	8.027	(0.951)	1027672	40.0000	38.5
155 2-Acetylaminofluorene	181	8.192	8.192	(0.970)	736654	40.0000	42.9
157 7,12Dimethylbenz(a)anthracene	256	9.327	9.327	(0.954)	907046	40.0000	43.5
158 3-Methylcholanthrene	268	10.098	10.098	(1.033)	831219	40.0000	45.8

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD1.i/s010210.b/s1a0203.d
Date : 02-JAN-2010 17:07
Client ID: APCVS
Sample Info: IWBK091201-03.5|40 PPM|1|SVHF|1|APCVS
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

Page 1

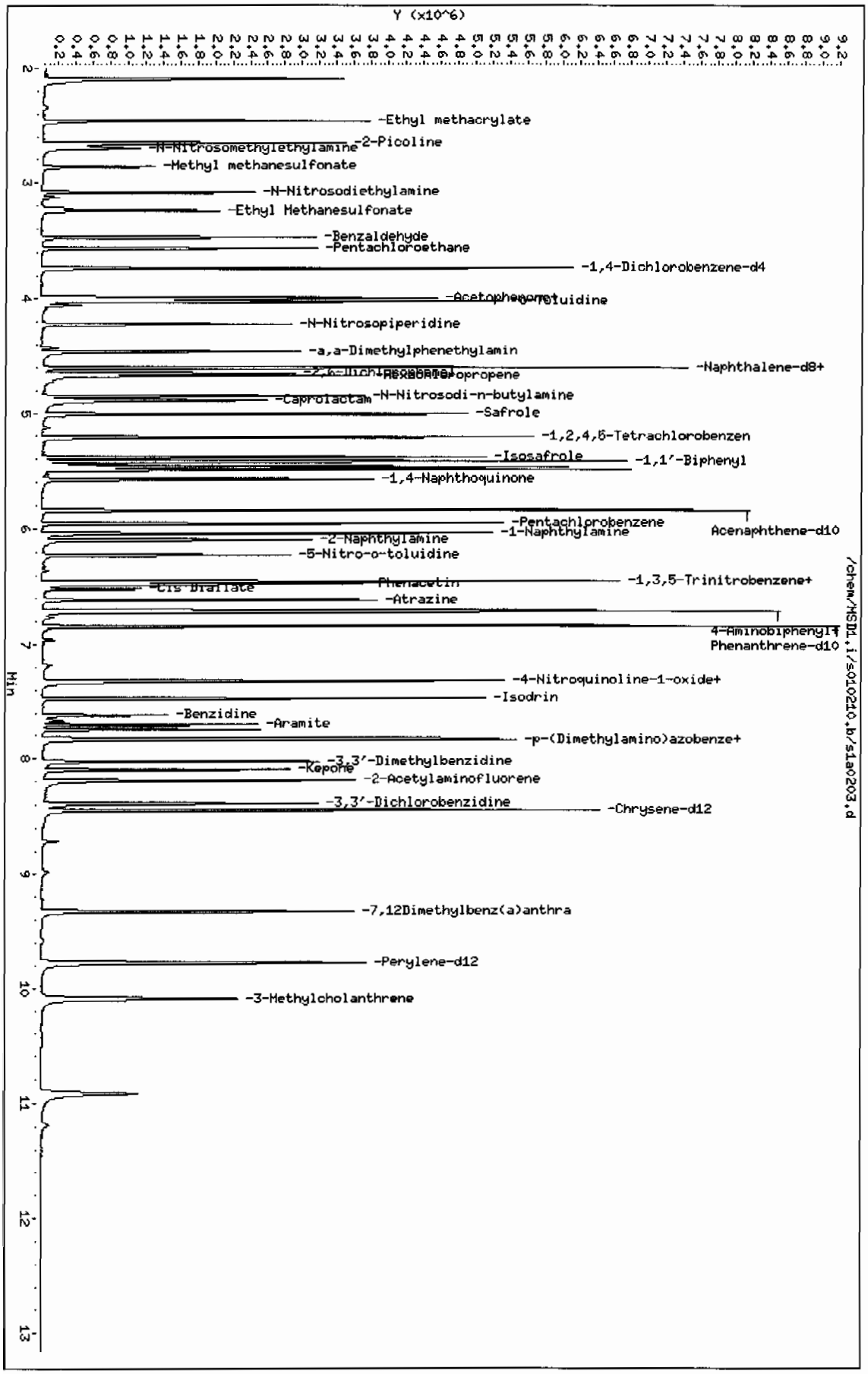

QC Data

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Page 1

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

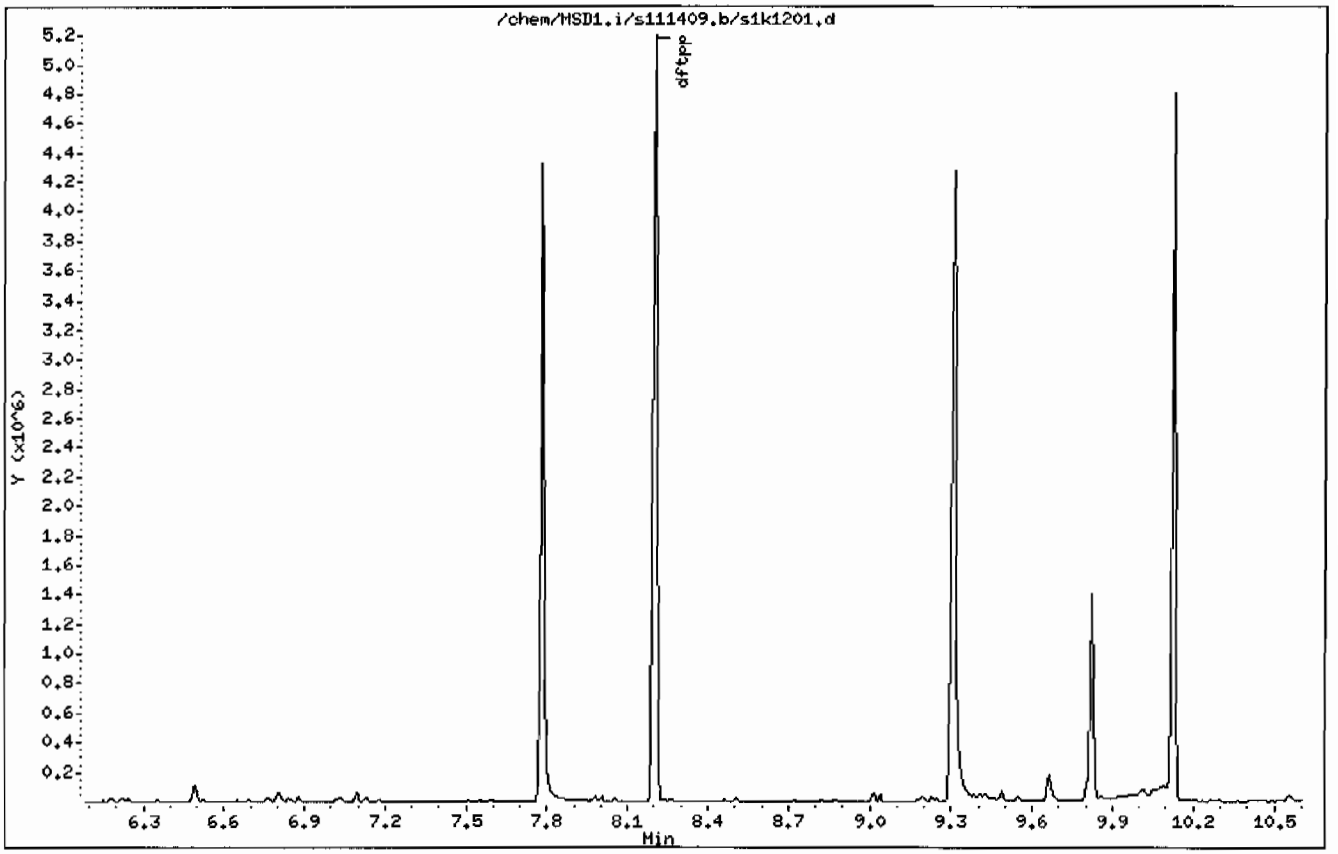

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

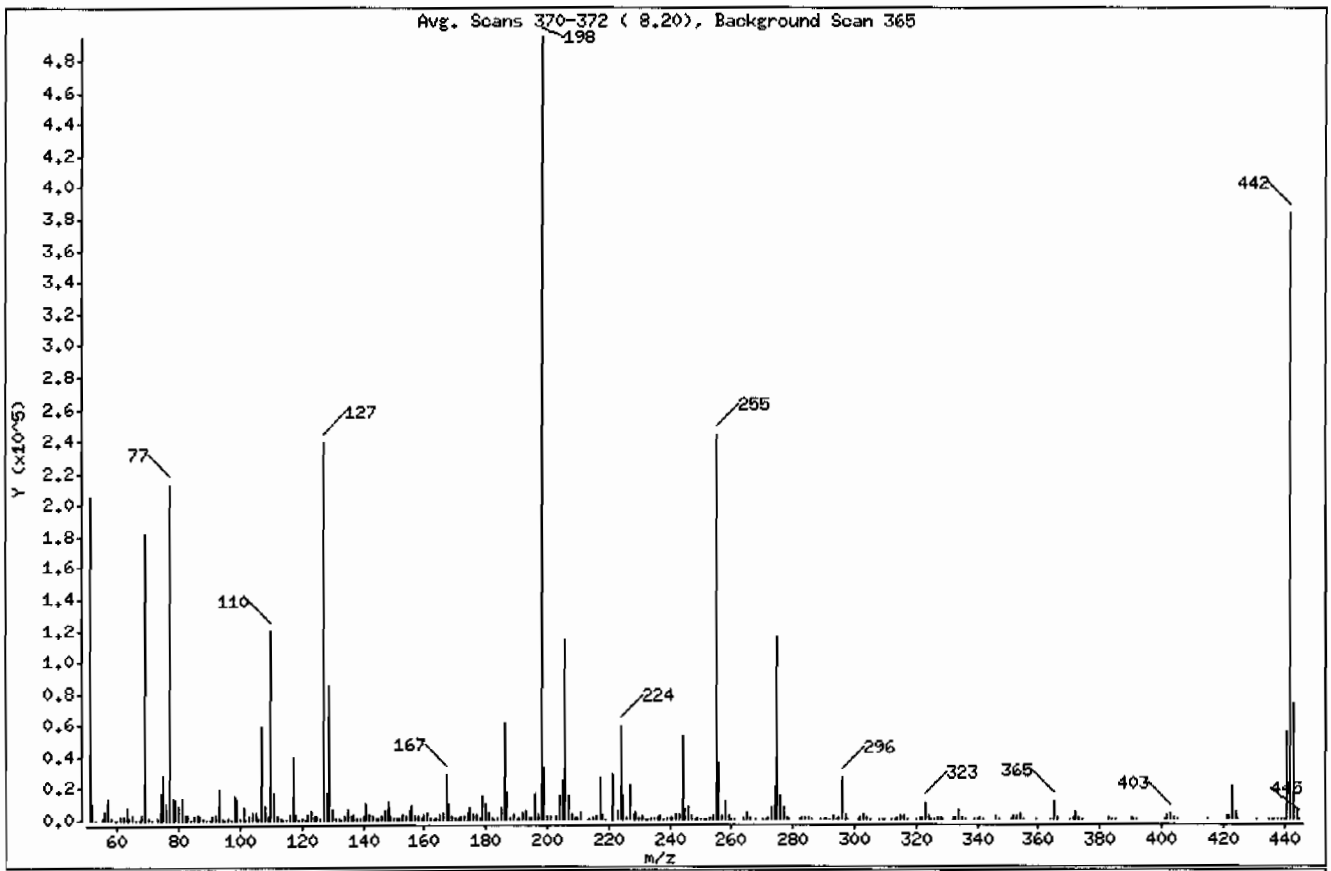

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	41.33
68	Less than 2.00% of mass 69	0.66 (1.81)
69	Mass 69 relative abundance	36.68
70	Less than 2.00% of mass 69	0.20 (0.55)
127	40.00 - 60.00% of mass 198	48.32
197	Less than 1.00% of mass 198	0.69
199	5.00 - 9.00% of mass 198	6.57
275	10.00 - 30.00% of mass 198	23.31
365	Greater than 1.00% of mass 198	2.23
441	Present, but less than mass 443	11.00
442	Greater than 40.00% of mass 198	77.37
443	17.00 - 23.00% of mass 442	14.83 (19.16)

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1201.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 365
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	204544	132.00	849	213.00	322	304.00	857
52.00	10058	133.00	398	214.00	81	305.00	126
53.00	476	134.00	2213	215.00	1065	308.00	339
55.00	808	135.00	6445	216.00	2209	309.00	249
56.00	5675	136.00	2682	217.00	25976	310.00	361
57.00	13163	137.00	3409	218.00	3600	312.00	52
58.00	676	138.00	864	219.00	390	313.00	288
59.00	142	139.00	1285	221.00	28416	314.00	1372
60.00	58	140.00	1711	223.00	5970	315.00	2833
61.00	2414	141.00	10495	224.00	59288	316.00	1731
62.00	2627	142.00	3783	225.00	15318	317.00	279
63.00	7561	143.00	2378	226.00	1533	320.00	54
64.00	1048	144.00	706	227.00	21184	321.00	903
65.00	3902	145.00	666	228.00	3165	322.00	596
66.00	253	146.00	1908	229.00	4804	323.00	9908
67.00	264	147.00	5356	230.00	759	324.00	1942
68.00	3280	148.00	10849	231.00	2133	325.00	119
69.00	181568	149.00	2326	232.00	408	326.00	93
70.00	999	150.00	640	233.00	450	327.00	1701
71.00	119	151.00	1554	234.00	1483	328.00	891
73.00	1219	152.00	808	235.00	1658	329.00	88
74.00	17536	153.00	3187	236.00	1183	332.00	578
75.00	28056	154.00	2701	237.00	1728	333.00	855
76.00	9746	155.00	5991	238.00	324	334.00	5817
77.00	212736	156.00	9066	239.00	813	335.00	1475
78.00	13840	157.00	1942	240.00	775	336.00	75
79.00	12099	158.00	1971	241.00	1214	339.00	62
80.00	9416	159.00	1574	242.00	3186	340.00	77
81.00	13432	160.00	3233	243.00	3508	341.00	1027
82.00	3448	161.00	4832	244.00	51832	342.00	243
83.00	3440	162.00	1519	245.00	6691	346.00	2015
84.00	276	163.00	414	246.00	8221	347.00	283
85.00	2469	164.00	763	247.00	1725	351.00	182
86.00	3499	165.00	3823	248.00	403	352.00	2745
87.00	1914	166.00	4542	249.00	1698	353.00	2043

Data File: /chem/MSD1.i/s111409.b/s1k1201.d

Date : 14-NOV-2009 17:38

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1201.d
Spectrum: Avg. Scans 370-372 (8,20), Background Scan 365
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	945	167.00	28056	250.00	338	354.00	3347
89.00	408	168.00	9882	251.00	378	355.00	568
90.00	81	169.00	1949	252.00	461	359.00	68
91.00	2811	170.00	666	253.00	965	364.00	82
92.00	3305	171.00	868	254.00	2194	365.00	11049
93.00	19392	172.00	1736	255.00	243712	366.00	1525
94.00	1530	173.00	2151	256.00	34792	370.00	312
95.00	401	174.00	4365	257.00	2654	371.00	749
96.00	1021	175.00	8331	258.00	11699	372.00	5103
97.00	481	176.00	2950	259.00	1976	373.00	1317
98.00	14829	177.00	3734	260.00	354	374.00	211
99.00	12143	178.00	1429	261.00	488	383.00	1475
100.00	1081	179.00	14903	264.00	588	384.00	413
101.00	7582	180.00	10676	265.00	4651	385.00	112
102.00	501	181.00	5074	266.00	630	390.00	664
103.00	2806	182.00	848	268.00	97	391.00	481
104.00	4764	183.00	484	270.00	316	392.00	349
105.00	4470	184.00	1118	271.00	565	401.00	323
106.00	1531	185.00	7578	272.00	574	402.00	2059
107.00	58720	186.00	61632	273.00	7763	403.00	3027
108.00	9198	187.00	16824	274.00	20360	404.00	981
109.00	1983	188.00	1678	275.00	115400	405.00	157
110.00	119360	189.00	3368	276.00	14998	415.00	61
111.00	17336	190.00	542	277.00	8371	421.00	2728
112.00	2224	191.00	1652	278.00	1328	422.00	2498
113.00	793	192.00	4637	279.00	337	423.00	19928
114.00	277	193.00	5425	282.00	172	424.00	3991
115.00	405	194.00	1196	283.00	908	425.00	403
116.00	3276	195.00	960	284.00	671	431.00	50
117.00	39312	196.00	15938	285.00	1513	435.00	182
118.00	2868	197.00	3428	286.00	245	436.00	64
119.00	376	198.00	494976	289.00	275	437.00	123
120.00	724	199.00	32528	290.00	365	438.00	300
121.00	279	200.00	2387	291.00	237	439.00	370
122.00	3763	201.00	2747	292.00	481	440.00	354

Date : 14-NOV-2009 17:38

Client ID: DFTPP Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s1k1201.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 365
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	6008	203.00	2693	293.00	2054	441.00	54440
124.00	2602	204.00	14604	294.00	532	442.00	382976
125.00	2647	205.00	25208	295.00	657	443.00	73384
126.00	904	206.00	113680	296.00	26240	444.00	6543
127.00	239168	207.00	14454	297.00	3789	445.00	363
128.00	17576	208.00	3160	298.00	253		
129.00	85072	209.00	1021	301.00	417		
130.00	7156	210.00	801	302.00	580		
131.00	1445	211.00	4362	303.00	3041		

Data File: /chem/MSD1.i/s111409.b/s1k1213.d

Page 1

Date : 15-NOV-2009 14:50

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

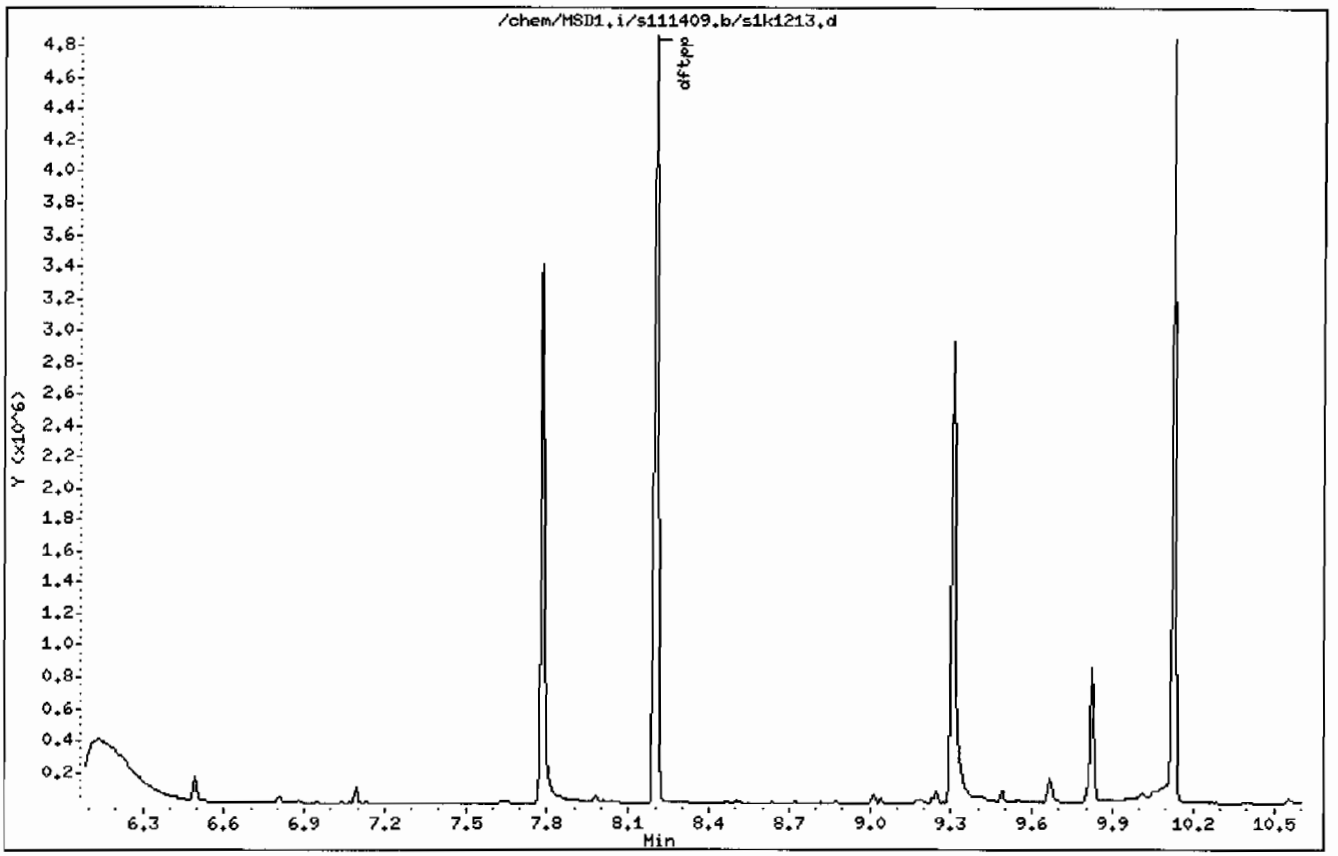

Data File: /chem/MSD1.i/s111409.b/s1k1213.d

Date : 15-NOV-2009 14:50

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

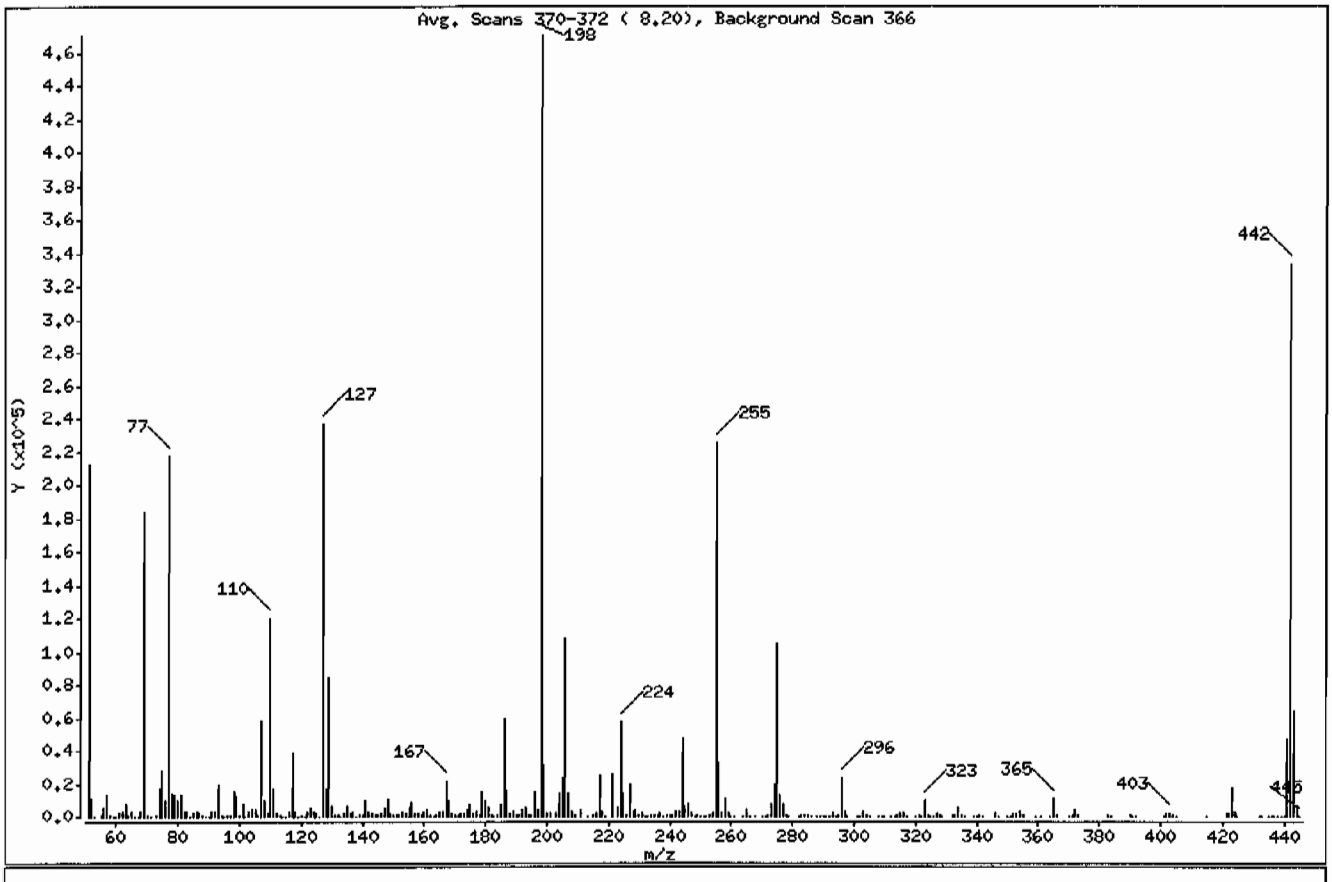

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	45.07
68	Less than 2.00% of mass 69	0.69 (1.77)
69	Mass 69 relative abundance	39.06
70	Less than 2.00% of mass 69	0.20 (0.51)
127	40.00 - 60.00% of mass 198	50.24
197	Less than 1.00% of mass 198	0.94
199	5.00 - 9.00% of mass 198	6.64
275	10.00 - 30.00% of mass 198	22.36
365	Greater than 1.00% of mass 198	2.27
441	Present, but less than mass 443	9.91
442	Greater than 40.00% of mass 198	70.70
443	17.00 - 23.00% of mass 442	13.63 (19.28)

Date : 15-NOV-2009 14:50

Client ID: DFTPP Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVHF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s1k1213.d
Spectrum: Avg. Scans 370-372 (8.20), Background Scan 366
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	212096	132.00	898	215.00	1069	305.00	54
52.00	10563	133.00	158	216.00	2175	308.00	369
53.00	539	134.00	2246	217.00	25096	309.00	234
55.00	827	135.00	6673	218.00	3427	310.00	330
56.00	5710	136.00	2589	219.00	310	312.00	53
57.00	13040	137.00	3388	221.00	26264	313.00	225
58.00	622	138.00	481	223.00	5732	314.00	1148
59.00	197	139.00	738	224.00	57128	315.00	2673
60.00	264	140.00	1183	225.00	14268	316.00	1636
61.00	2458	141.00	10022	226.00	1583	317.00	257
62.00	2719	142.00	3500	227.00	19912	320.00	120
63.00	7568	143.00	2527	228.00	3016	321.00	868
64.00	1100	144.00	604	229.00	4436	322.00	443
65.00	3684	145.00	642	230.00	645	323.00	9345
66.00	306	146.00	1966	231.00	2162	324.00	1574
67.00	172	147.00	5499	232.00	373	325.00	117
68.00	3245	148.00	10590	233.00	410	326.00	63
69.00	183808	149.00	2267	234.00	1277	327.00	1667
70.00	937	150.00	711	235.00	1617	328.00	859
71.00	201	151.00	1389	236.00	1067	329.00	66
73.00	1312	152.00	1009	237.00	1713	332.00	666
74.00	16976	153.00	3123	238.00	252	333.00	761
75.00	27896	154.00	2582	239.00	815	334.00	5270
76.00	9904	155.00	5732	240.00	635	335.00	1342
77.00	217344	156.00	8806	241.00	1337	336.00	127
78.00	14484	157.00	1860	242.00	2922	339.00	65
79.00	12543	158.00	1872	243.00	3255	340.00	61
80.00	9582	159.00	1459	244.00	47840	341.00	1023
81.00	13483	160.00	3146	245.00	6361	342.00	289
82.00	3494	161.00	4861	246.00	7662	346.00	1844
83.00	3404	162.00	1440	247.00	1632	347.00	399
84.00	268	163.00	441	248.00	425	350.00	54
85.00	2429	164.00	756	249.00	1557	351.00	146
86.00	3717	165.00	3644	250.00	323	352.00	2683
87.00	1777	166.00	3330	251.00	376	353.00	1903

Data File: /chem/MSD1.i/s111409.b/s1k1213.d

Date : 15-NOV-2009 14:50

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1213.d
Spectrum: Avg. Scans 370-372 (8,20), Background Scan 366
Location of Maximum: 198.00
Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	858	167.00	21384	252.00	497	354.00	2848
89.00	353	168.00	9329	253.00	1026	355.00	645
90.00	52	169.00	1925	254.00	2307	359.00	128
91.00	2960	170.00	698	255.00	224896	361.00	54
92.00	3280	171.00	771	256.00	32856	364.00	139
93.00	19472	172.00	1741	257.00	2457	365.00	10703
94.00	1413	173.00	2444	258.00	11321	366.00	1552
95.00	284	174.00	4219	259.00	1877	370.00	274
96.00	1152	175.00	8099	260.00	305	371.00	720
97.00	591	176.00	2630	261.00	356	372.00	4645
98.00	14679	177.00	3711	264.00	230	373.00	1151
99.00	12313	178.00	1199	265.00	4470	383.00	1268
100.00	1108	179.00	14622	266.00	429	384.00	380
101.00	7679	180.00	10168	268.00	129	390.00	651
102.00	505	181.00	5015	270.00	325	391.00	487
103.00	2879	182.00	784	271.00	443	392.00	279
104.00	4625	183.00	540	272.00	688	401.00	276
105.00	4311	184.00	1176	273.00	7045	402.00	1862
106.00	1512	185.00	7084	274.00	19240	403.00	2656
107.00	58544	186.00	59904	275.00	105256	404.00	848
108.00	9265	187.00	16158	276.00	13094	405.00	140
109.00	1897	188.00	1716	277.00	7627	415.00	133
110.00	119952	189.00	3108	278.00	1312	421.00	2323
111.00	16904	190.00	572	279.00	308	422.00	2190
112.00	2240	191.00	1592	282.00	136	423.00	16944
113.00	758	192.00	4599	283.00	867	424.00	3191
114.00	126	193.00	5084	284.00	734	425.00	414
115.00	267	194.00	1198	285.00	1299	432.00	51
116.00	3229	195.00	880	286.00	172	433.00	63
117.00	38800	196.00	15085	288.00	53	435.00	138
118.00	2837	197.00	4415	289.00	263	436.00	193
119.00	448	198.00	470656	290.00	271	437.00	144
120.00	769	199.00	31248	291.00	161	438.00	208
121.00	319	200.00	2323	292.00	403	439.00	422
122.00	3761	201.00	2603	293.00	1958	440.00	420

Data File: /chem/MSD1.i/s111409.b/s1k1213.d

Date : 15-NOV-2009 14:50

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1213.d

Spectrum: Avg. Scans 370-372 (8.20), Background Scan 366

Location of Maximum: 198.00

Number of points: 312

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	5880	203.00	2606	294.00	491	441.00	46632
124.00	2783	204.00	13871	295.00	593	442.00	332736
125.00	2563	205.00	24136	296.00	24248	443.00	64136
126.00	365	206.00	107936	297.00	3568	444.00	5493
127.00	236480	207.00	13718	298.00	201	445.00	305
128.00	17448	208.00	3264	301.00	372		
129.00	84656	209.00	932	302.00	462		
130.00	6942	211.00	4014	303.00	2821		
131.00	1354	213.00	308	304.00	785		

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Page 1

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

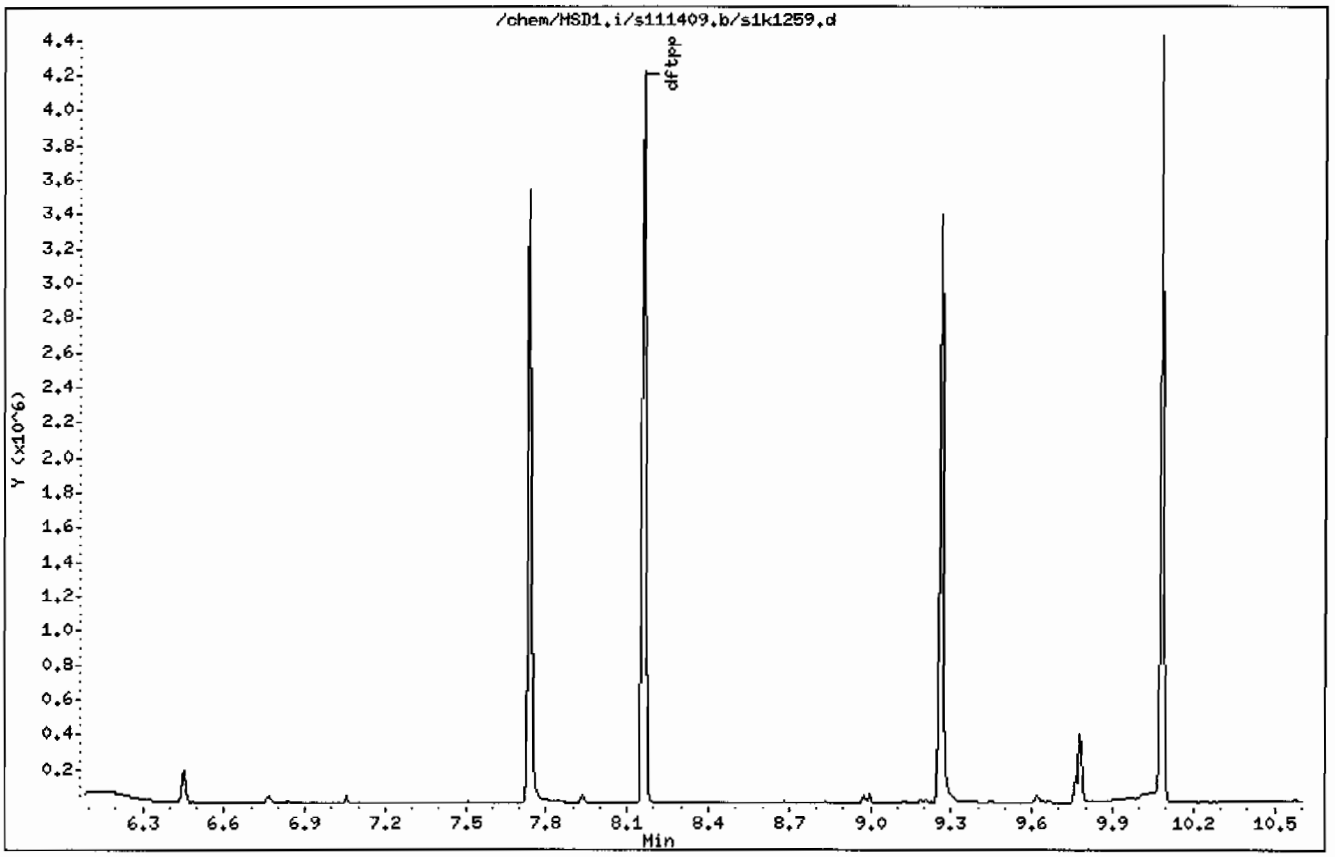

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

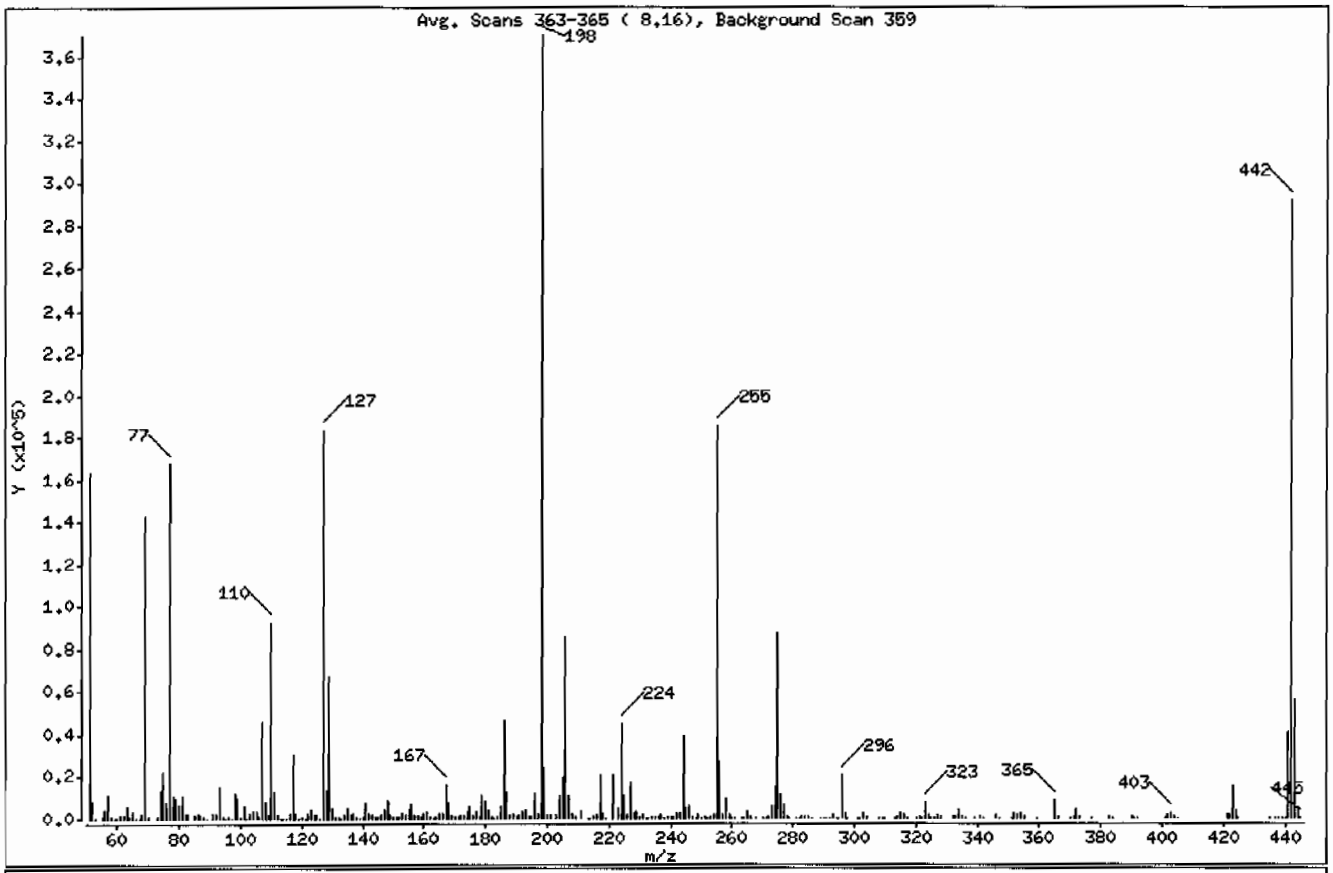

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	44.19
68	Less than 2.00% of mass 69	0.70 (1.82)
69	Mass 69 relative abundance	38.52
70	Less than 2.00% of mass 69	0.22 (0.58)
127	40.00 - 60.00% of mass 198	49.61
197	Less than 1.00% of mass 198	0.73
199	5.00 - 9.00% of mass 198	6.68
275	10.00 - 30.00% of mass 198	23.76
365	Greater than 1.00% of mass 198	2.39
441	Present, but less than mass 443	10.94
442	Greater than 40.00% of mass 198	78.91
443	17.00 - 23.00% of mass 442	15.11 (19.15)

Date : 17-NOV-2009 15:48

Client ID: DFTPP Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s1k1259.d
Spectrum: Avg. Scans 363-365 (8.16), Background Scan 359
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	163520	132.00	696	209.00	894	295.00	409
52.00	8218	133.00	165	211.00	3176	296.00	20504
53.00	278	134.00	1736	213.00	157	297.00	2961
55.00	768	135.00	5284	214.00	60	298.00	242
56.00	4517	136.00	1990	215.00	896	301.00	228
57.00	10646	137.00	2882	216.00	1633	302.00	377
58.00	485	138.00	608	217.00	20280	303.00	2440
59.00	173	139.00	322	218.00	2791	304.00	779
60.00	130	140.00	728	219.00	287	308.00	333
61.00	1880	141.00	8017	221.00	20640	309.00	180
62.00	1926	142.00	2864	223.00	4752	310.00	288
63.00	5930	143.00	1765	224.00	45496	313.00	172
64.00	771	144.00	446	225.00	11459	314.00	1000
65.00	3009	145.00	462	226.00	1320	315.00	2189
66.00	190	146.00	1638	227.00	16640	316.00	1304
67.00	147	147.00	4131	228.00	2433	317.00	255
68.00	2590	148.00	8419	229.00	3596	320.00	58
69.00	142592	149.00	1752	230.00	541	321.00	701
70.00	823	150.00	512	231.00	1631	322.00	395
73.00	1236	151.00	1272	232.00	323	323.00	7827
74.00	13875	152.00	886	233.00	236	324.00	1465
75.00	21824	153.00	2474	234.00	1059	325.00	55
76.00	7905	154.00	2034	235.00	1215	326.00	117
77.00	167296	155.00	4599	236.00	846	327.00	1319
78.00	11034	156.00	6876	237.00	1279	328.00	683
79.00	9492	157.00	1450	238.00	168	332.00	545
80.00	7131	158.00	1509	239.00	670	333.00	652
81.00	10804	159.00	1113	240.00	518	334.00	4627
82.00	2610	160.00	2655	241.00	1019	335.00	1148
83.00	2719	161.00	3658	242.00	2369	336.00	50
85.00	1896	162.00	1109	243.00	2744	339.00	57
86.00	2616	163.00	339	244.00	39256	341.00	855
87.00	1519	164.00	493	245.00	4982	342.00	192
88.00	684	165.00	2904	246.00	6349	346.00	1554
89.00	219	166.00	2427	247.00	1255	347.00	356

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1259.d
Spectrum: Avg. Scans 363-365 (8.16), Background Scan 359
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
91.00	2379	167.00	16175	248.00	341	351.00	56
92.00	2447	168.00	7387	249.00	1305	352.00	2339
93.00	14969	169.00	1311	250.00	210	353.00	1624
94.00	1153	170.00	539	251.00	450	354.00	2500
95.00	287	171.00	706	252.00	278	355.00	434
96.00	810	172.00	1473	253.00	769	359.00	83
97.00	388	173.00	1748	254.00	1972	365.00	8863
98.00	11810	174.00	3414	255.00	185216	366.00	1195
99.00	9686	175.00	6350	256.00	27176	370.00	215
100.00	914	176.00	2063	257.00	2039	371.00	581
101.00	5933	177.00	3047	258.00	9022	372.00	4002
102.00	375	178.00	995	259.00	1444	373.00	996
103.00	2163	179.00	11274	260.00	214	377.00	51
104.00	3736	180.00	8159	261.00	279	383.00	974
105.00	3394	181.00	4009	263.00	55	384.00	323
106.00	1190	182.00	670	264.00	157	390.00	592
107.00	46232	183.00	413	265.00	3712	391.00	375
108.00	7538	184.00	909	266.00	481	392.00	323
109.00	1503	185.00	5852	268.00	53	401.00	231
110.00	92872	186.00	47008	270.00	282	402.00	1478
111.00	12963	187.00	12615	271.00	380	403.00	2390
112.00	1503	188.00	1316	272.00	540	404.00	821
113.00	406	189.00	2602	273.00	5676	405.00	134
114.00	121	190.00	427	274.00	15599	421.00	2054
115.00	133	191.00	1281	275.00	87936	422.00	1867
116.00	2637	192.00	3712	276.00	11240	423.00	15373
117.00	30336	193.00	4225	277.00	6439	424.00	3047
118.00	2397	194.00	901	278.00	950	425.00	291
119.00	332	195.00	603	279.00	182	435.00	71
120.00	620	196.00	12028	281.00	60	437.00	71
121.00	175	197.00	2717	282.00	68	438.00	134
122.00	2801	198.00	370176	283.00	713	439.00	238
123.00	4622	199.00	24728	284.00	493	440.00	191
124.00	2083	200.00	1826	285.00	1250	441.00	40480
125.00	1949	201.00	2072	286.00	254	442.00	292096

Data File: /chem/MSD1.i/s111409.b/s1k1259.d

Date : 17-NOV-2009 15:48

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091101-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1k1259.d
Spectrum: Avg. Scans 363-365 (8.16), Background Scan 359
Location of Maximum: 198.00
Number of points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
126.00	135	203.00	2082	289.00	243	443.00	55944
127.00	183616	204.00	10956	290.00	235	444.00	5034
128.00	13544	205.00	19552	291.00	131	445.00	311
129.00	66872	206.00	85904	292.00	339		
130.00	5516	207.00	10725	293.00	1482		
131.00	1048	208.00	2576	294.00	389		

Data File: /chem/MSD1.i/s010210.b/s1a0201.d

Page 1

Date : 02-JAN-2010 16:22

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

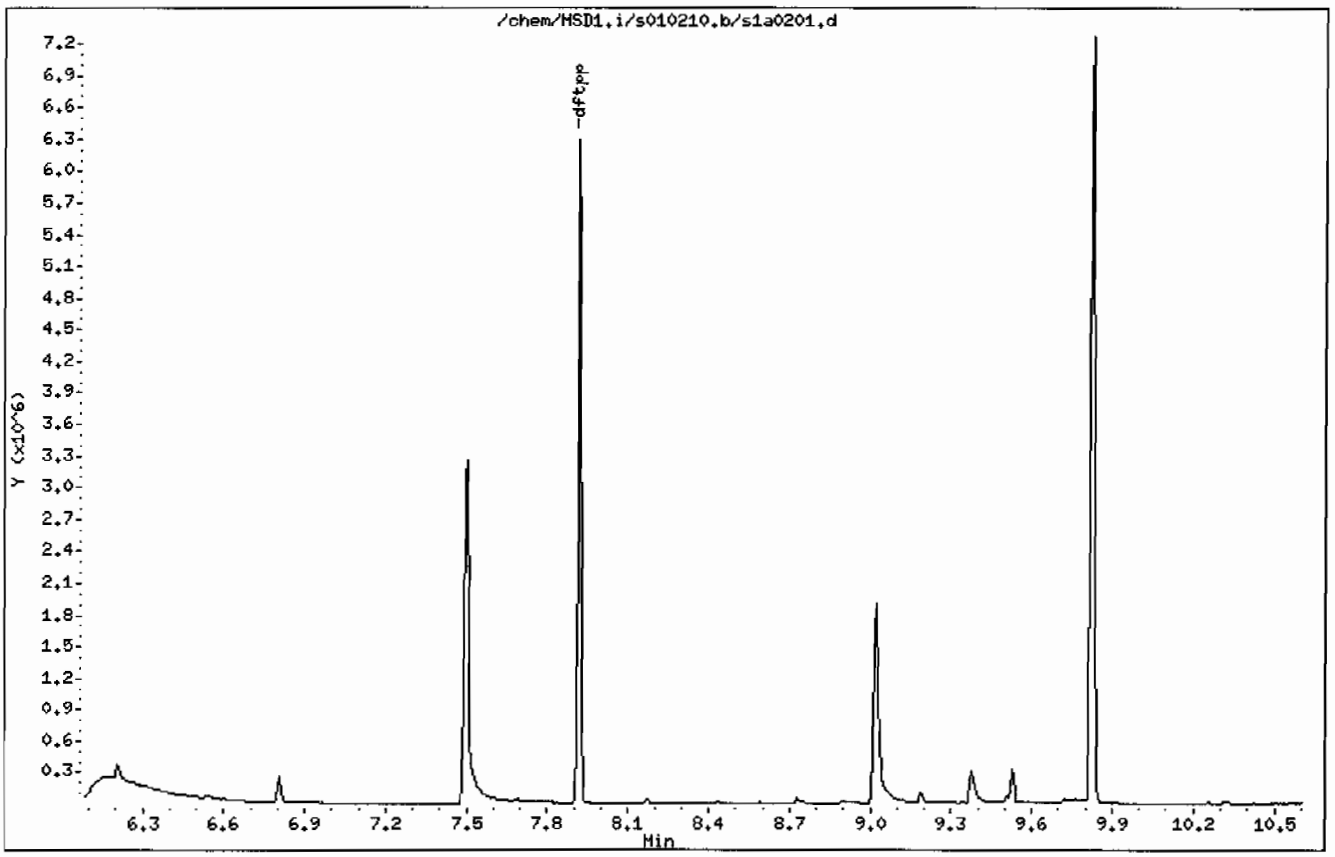

Data File: /chem/MSD1.i/s010210.b/s1a0201.d

Date : 02-JAN-2010 16:22

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: IWBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

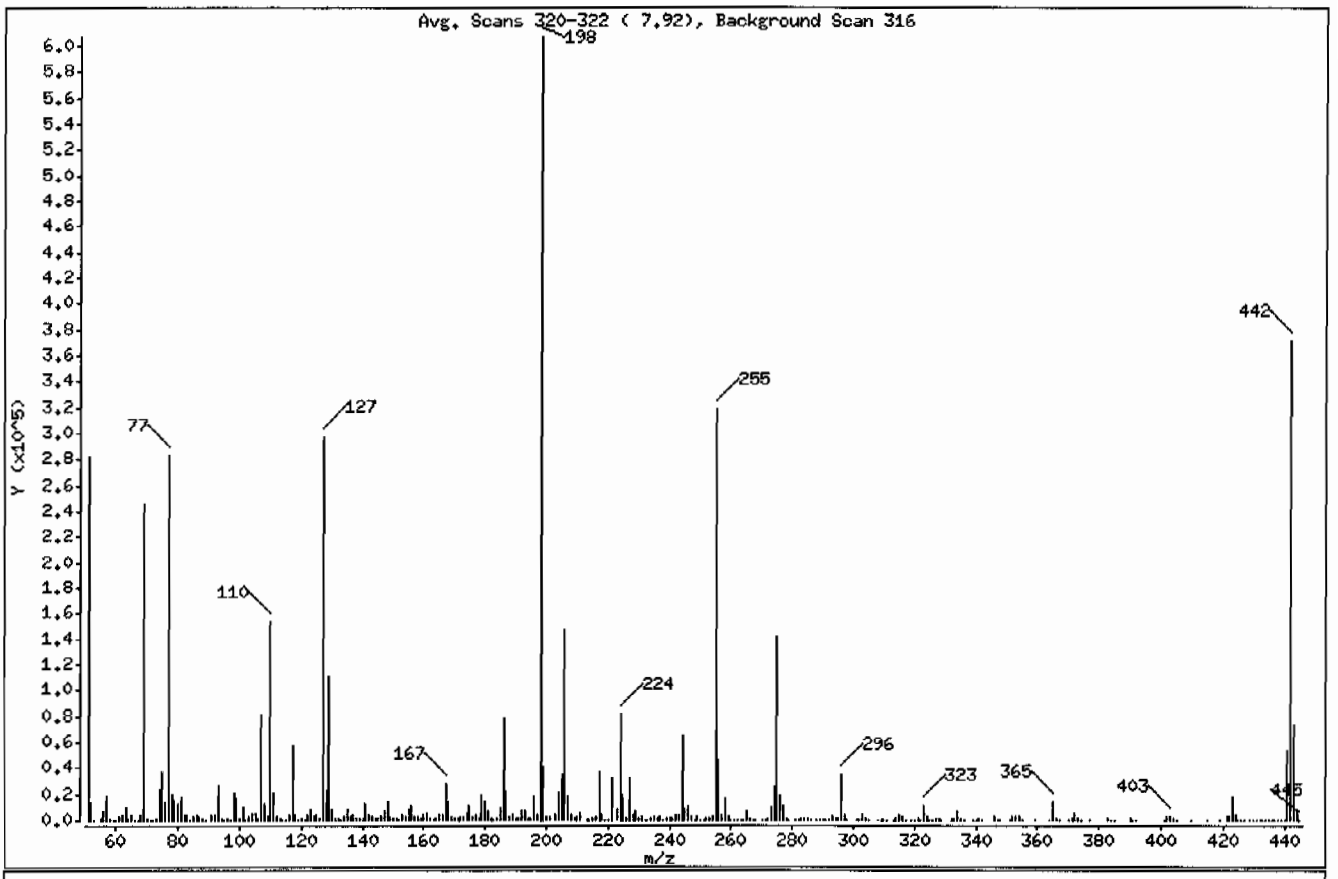

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	46.42
68	Less than 2.00% of mass 69	0.59 (1.47)
69	Mass 69 relative abundance	40.37
70	Less than 2.00% of mass 69	0.18 (0.45)
127	40.00 - 60.00% of mass 198	48.88
197	Less than 1.00% of mass 198	0.77
199	5.00 - 9.00% of mass 198	6.72
275	10.00 - 30.00% of mass 198	23.30
365	Greater than 1.00% of mass 198	2.28
441	Present, but less than mass 443	8.71
442	Greater than 40.00% of mass 198	61.05
443	17.00 - 23.00% of mass 442	11.92 (19.52)

Data File: /chem/MSD1.i/s010210.b/s1a0201.d

Date : 02-JAN-2010 16:22

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1a0201.d
Spectrum: Avg. Scans 320-322 (7.92), Background Scan 316
Location of Maximum: 198.00
Number of points: 331

m/z	Y	m/z	Y	m/z	Y	m/z	Y
51.00	281728	136.00	3280	221.00	32208	313.00	408
52.00	14224	137.00	4855	223.00	8481	314.00	1729
53.00	578	138.00	954	224.00	80368	315.00	3802
55.00	1115	139.00	709	225.00	19848	316.00	2286
56.00	7667	140.00	1290	226.00	2076	317.00	404
57.00	17872	141.00	12715	227.00	31672	319.00	59
58.00	780	142.00	4622	228.00	4680	320.00	137
59.00	192	143.00	2943	229.00	6703	321.00	1100
60.00	322	144.00	871	230.00	933	322.00	531
61.00	3361	145.00	759	231.00	3037	323.00	11571
62.00	3580	146.00	2467	232.00	525	324.00	2139
63.00	9999	147.00	6710	233.00	639	325.00	174
64.00	1528	148.00	14460	234.00	1950	326.00	275
65.00	4692	149.00	3063	235.00	2426	327.00	1987
66.00	429	150.00	936	236.00	1328	328.00	1095
67.00	439	151.00	1534	237.00	2744	329.00	177
68.00	3605	152.00	397	238.00	311	332.00	869
69.00	245056	153.00	4118	239.00	1248	333.00	942
70.00	1098	154.00	3173	240.00	1001	334.00	7122
71.00	202	155.00	7807	241.00	1803	335.00	1898
72.00	65	156.00	11298	242.00	4355	336.00	280
73.00	1624	157.00	2351	243.00	4582	339.00	122
74.00	23472	158.00	2318	244.00	63640	340.00	130
75.00	38032	159.00	2002	245.00	8270	341.00	1227
76.00	13263	160.00	4138	246.00	10951	342.00	412
77.00	282624	161.00	6279	247.00	2410	346.00	2553
78.00	19000	162.00	1932	248.00	526	347.00	530
79.00	15968	163.00	544	249.00	2225	348.00	52
80.00	13023	164.00	792	250.00	468	351.00	188
81.00	18240	165.00	4601	251.00	438	352.00	3059
82.00	4711	166.00	3841	252.00	706	353.00	2324
83.00	4528	167.00	27280	253.00	1416	354.00	3159
84.00	403	168.00	14006	254.00	2310	355.00	688
85.00	2919	169.00	2319	255.00	318464	359.00	266
86.00	4843	170.00	930	256.00	46112	364.00	122

Data File: /chem/MSD1.i/s010210.b/s1a0201.d

Date : 02-JAN-2010 16:22

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1a0201.d
Spectrum: Avg. Scans 320-322 (7.92), Background Scan 316
Location of Maximum: 198.00
Number of points: 331

m/z	Y	m/z	Y	m/z	Y	m/z	Y
87.00	2383	171.00	1117	257.00	3673	365.00	13867
88.00	1029	172.00	2290	258.00	16331	366.00	2030
89.00	447	173.00	3164	259.00	2822	367.00	87
91.00	3765	174.00	5617	260.00	681	370.00	292
92.00	3988	175.00	10574	261.00	564	371.00	829
93.00	26640	176.00	3267	262.00	65	372.00	5330
94.00	1727	177.00	4789	263.00	145	373.00	1574
95.00	335	178.00	1548	264.00	348	374.00	50
96.00	1393	179.00	19672	265.00	6749	377.00	127
97.00	386	180.00	13719	266.00	909	383.00	1546
98.00	20776	181.00	6582	267.00	72	384.00	309
99.00	17424	182.00	1211	268.00	112	385.00	111
100.00	1642	183.00	662	270.00	538	390.00	709
101.00	9823	184.00	1612	271.00	614	391.00	470
102.00	620	185.00	9939	272.00	931	392.00	396
103.00	3343	186.00	78608	273.00	9158	401.00	314
104.00	6210	187.00	22456	274.00	24576	402.00	2359
105.00	5719	188.00	2215	275.00	141440	403.00	2994
106.00	2027	189.00	4610	276.00	18488	404.00	1139
107.00	80512	190.00	754	277.00	11019	405.00	141
108.00	12533	191.00	2028	278.00	1776	410.00	62
109.00	2365	192.00	6487	279.00	551	415.00	153
110.00	153408	193.00	7250	281.00	58	419.00	61
111.00	21616	194.00	1697	282.00	326	421.00	2635
112.00	2796	195.00	1044	283.00	1019	422.00	2571
113.00	967	196.00	18712	284.00	806	423.00	18704
114.00	231	197.00	4674	285.00	1795	424.00	3766
115.00	183	198.00	607040	286.00	306	425.00	452
116.00	4106	199.00	40792	288.00	50	426.00	107
117.00	57744	200.00	2986	289.00	539	427.00	52
118.00	4147	201.00	2658	290.00	526	429.00	75
119.00	594	203.00	4109	291.00	207	430.00	59
120.00	1097	204.00	20376	292.00	547	431.00	125
121.00	275	205.00	34640	293.00	2351	432.00	141
122.00	4718	206.00	146624	294.00	815	433.00	126

Data File: /chem/MSD1.i/s010210.b/s1a0201.d

Date : 02-JAN-2010 16:22

Client ID: DFTPP

Instrument: MSD1.i

Sample Info: |WBN091213-01|50 PPM|1|SVMF|1|DFTPP

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s1a0201.d
Spectrum: Avg. Scans 320-322 (7.92), Background Scan 316
Location of Maximum: 198.00
Number of points: 331

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	7890	207.00	18248	295.00	745	434.00	82
124.00	3473	208.00	4549	296.00	34288	435.00	56
125.00	3546	209.00	1447	297.00	4880	436.00	82
126.00	1494	210.00	2395	298.00	392	437.00	64
127.00	296704	211.00	5619	301.00	469	438.00	201
128.00	21792	213.00	413	302.00	550	439.00	215
129.00	109872	214.00	129	303.00	4183	440.00	273
130.00	8650	215.00	1615	304.00	1095	441.00	52864
131.00	1802	216.00	3054	305.00	124	442.00	370560
132.00	784	217.00	35992	308.00	401	443.00	72344
133.00	489	218.00	4588	309.00	342	444.00	6287
134.00	2922	219.00	427	310.00	516	445.00	333
135.00	8510	220.00	674	311.00	113		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-952			**Matrix:**	GROUND WATER
Lab Sample ID:	1202001613				
Client Sample:	QC for batch 935442	**Client:**	LANL010	**Project:**	QC
Client ID:	MB for batch 935442	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	935443	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	01/02/2010 19:53	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	12/22/2009 17:16	**Aliquot:**	1000 mL	**Final Volume:**	1 mL
Data File:	s1a0210-1.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.0	ug/L	2.00	10.0
108-95-2	Phenol	U	10.0	ug/L	1.00	10.0
95-57-8	2-Chlorophenol	U	10.0	ug/L	2.00	10.0
106-46-7	1,4-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
621-64-7	N-Nitrosodi--n-propylamine	U	10.0	ug/L	2.00	10.0
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol	U	10.0	ug/L	2.00	10.0
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene	U	1.00	ug/L	0.310	1.00
121-14-2	2,4-Dinitrotoluene	U	10.0	ug/L	2.00	10.0
100-02-7	4-Nitrophenol	U	10.0	ug/L	2.00	10.0
87-86-5	Pentachlorophenol	U	10.0	ug/L	2.00	10.0
129-00-0	Pyrene	U	1.00	ug/L	0.300	1.00
110-86-1	Pyridine	U	10.0	ug/L	3.00	10.0
62-53-3	Aniline	U	10.0	ug/L	2.50	10.0
111-44-4	bis(2-Chloroethyl) ether	U	10.0	ug/L	2.00	10.0
541-73-1	1,3-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
100-51-6	Benzyl alcohol	U	10.0	ug/L	2.00	10.0
95-50-1	1,2-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
108-60-1	bis(2-Chloroisopropyl)ether	U	10.0	ug/L	2.00	10.0
95-48-7	o-Cresol	U	10.0	ug/L	2.00	10.0
65794-96-9	m,p-Cresols	U	10.0	ug/L	3.00	10.0
67-72-1	Hexachloroethane	U	10.0	ug/L	2.00	10.0
98-95-3	Nitrobenzene	U	10.0	ug/L	3.00	10.0
78-59-1	Isophorone	U	10.0	ug/L	3.00	10.0
88-75-5	2-Nitrophenol	U	10.0	ug/L	2.00	10.0
105-67-9	2,4-Dimethylphenol	U	10.0	ug/L	2.00	10.0
111-91-1	bis(2-Chloroethoxy)methane	U	10.0	ug/L	3.00	10.0
120-83-2	2,4-Dichlorophenol	U	10.0	ug/L	2.00	10.0
65-85-0	Benzoic acid	U	20.0	ug/L	6.00	20.0
91-20-3	Naphthalene	U	1.00	ug/L	0.300	1.00
106-47-8	4-Chloroaniline	U	10.0	ug/L	2.00	10.0
87-68-3	Hexachlorobutadiene	U	10.0	ug/L	2.00	10.0
91-57-6	2-Methylnaphthalene	U	1.00	ug/L	0.300	1.00
90-12-0	1-Methylnaphthalene	U	1.00	ug/L	0.300	1.00
77-47-4	Hexachlorocyclopentadiene	U	10.0	ug/L	3.00	10.0
88-06-2	2,4,6-Trichlorophenol	U	10.0	ug/L	2.00	10.0
95-95-4	2,4,5-Trichlorophenol	U	10.0	ug/L	2.00	10.0
91-58-7	2-Chloronaphthalene	U	1.00	ug/L	0.300	1.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-952			Matrix:	GROUND WATER
Lab Sample ID:	1202001613				
Client Sample:	QC for batch 935442	Client:	LANL010	Project:	QC
Client ID:	MB for batch 935442	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	935443	Inst:	MSD1.I	Dilution:	1
Run Date:	01/02/2010 19:53	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	12/22/2009 17:16	Aliquot:	1000 mL	Final Volume:	1 mL
Data File:	s1a0210-1.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.0	ug/L	2.00	10.0
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.0	ug/L	2.00	10.0
131-11-3	Dimethylphthalate	U	10.0	ug/L	2.00	10.0
606-20-2	2,6-Dinitrotoluene	U	10.0	ug/L	2.00	10.0
208-96-8	Acenaphthylene	U	1.00	ug/L	0.200	1.00
51-28-5	2,4-Dinitrophenol	U	20.0	ug/L	5.00	20.0
132-64-9	Dibenzofuran	U	10.0	ug/L	2.00	10.0
84-66-2	Diethylphthalate	U	10.0	ug/L	2.00	10.0
86-73-7	Fluorene	U	1.00	ug/L	0.200	1.00
7005-72-3	4-Chlorophenylphenylether	U	10.0	ug/L	2.00	10.0
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.0	ug/L	3.00	10.0
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.0	ug/L	3.00	10.0
122-39-4	Diphenylamine *1,2-Diphenylhydrazine*	U	10.0	ug/L	3.00	10.0
122-66-7	Azobenzene	U	10.0	ug/L	2.00	10.0
101-55-3	4-Bromophenylphenylether	U	10.0	ug/L	2.00	10.0
118-74-1	Hexachlorobenzene	U	10.0	ug/L	2.00	10.0
1912-24-9	Atrazine	U	10.0	ug/L	3.00	10.0
85-01-8	Phenanthrene	U	1.00	ug/L	0.200	1.00
120-12-7	Anthracene	U	1.00	ug/L	0.200	1.00
84-74-2	Di-n-butylphthalate	U	10.0	ug/L	2.00	10.0
206-44-0	Fluoranthene	U	1.00	ug/L	0.200	1.00
92-87-5	Benzidine	U	10.0	ug/L	3.00	10.0
85-68-7	Butylbenzylphthalate	U	10.0	ug/L	2.00	10.0
56-55-3	Benzo(a)anthracene	U	1.00	ug/L	0.200	1.00
91-94-1	3,3'-Dichlorobenzidine	U	10.0	ug/L	2.00	10.0
218-01-9	Chrysene	U	1.00	ug/L	0.200	1.00
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.0	ug/L	2.00	10.0
117-84-0	Di-n-octylphthalate	U	10.0	ug/L	3.00	10.0
205-99-2	Benzo(b)fluoranthene	U	1.00	ug/L	0.200	1.00
207-08-9	Benzo(k)fluoranthene	U	1.00	ug/L	0.200	1.00
50-32-8	Benzo(a)pyrene	U	1.00	ug/L	0.200	1.00
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.00	ug/L	0.200	1.00
53-70-3	Dibenzo(a,h)anthracene	U	1.00	ug/L	0.200	1.00
191-24-2	Benzo(ghi)perylene	U	1.00	ug/L	0.200	1.00
123-91-1	1,4-Dioxane	U	10.0	ug/L	2.00	10.0
55-18-5	N-Nitrosodiethylamine	U	10.0	ug/L	2.00	10.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202001613**				
Client Sample:	**QC for batch 935442**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 935442**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**935443**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**01/02/2010 19:53**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/22/2009 17:16**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s1a0210-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.0	ug/L	2.00	10.0
924-16-3	N-Nitrosodi-n-butylamine	U	10.0	ug/L	3.00	10.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.0	ug/L	3.00	10.0
608-93-5	Pentachlorobenzene	U	10.0	ug/L	3.00	10.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.0	ug/L	2.00	10.0
88-85-7	Dinoseb	U	10.0	ug/L	2.00	10.0
120-82-1	1,2,4-Trichlorobenzene	U	10.0	ug/L	2.00	10.0

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	91.0	100	ug/L	91.0	(39%-115%)
2-Fluorobiphenyl	37.2	50.0	ug/L	74.5	(35%-100%)
2-Fluorophenol	40.1	100	ug/L	40.1	(25%-92%)
Nitrobenzene-d5	36.7	50.0	ug/L	73.5	(40%-112%)
Phenol-d5	23.6	100	ug/L	23.6	(15%-73%)
p-Terphenyl-d14	40.1	50.0	ug/L	80.1	(46%-130%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	Unknown	1.66	5.85	ug/L		J
	Unknown	1.75	7.15	ug/L		J
	Unknown	1.88	16.1	ug/L		J

GEL Laboratories LLC

Data file : /chem/MSD1.i/s010210.b/s1a0210.d
Lab Smp Id: 1202001613 Client Smp ID: SBLK01
Inj Date : 02-JAN-2010 19:53
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202001613|935443|1|SVM|1|SBLK01
Misc Info : |MSD82709L|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s010210.b/MSD1-M8270AQA-111409.m
Meth Date : 04-Jan-2010 08:35 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 10 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-952.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	3.740	3.740	(1.000)	881901	40.0000	
* 29 Naphthalene-d8	136	4.598	4.598	(1.000)	3353085	40.0000	
* 46 Acenaphthene-d10	164	5.845	5.845	(1.000)	1846073	40.0000	
* 67 Phenanthrene-d10	188	6.840	6.839	(1.000)	3277750	40.0000	
* 91 Chrysene-d12	240	8.451	8.451	(1.000)	3185792	40.0000	
* 98 Perylene-d12	264	9.781	9.780	(1.000)	2822954	40.0000	
$ 3 2-Fluorophenol	112	2.946	2.946	(0.788)	923019	40.0704	40.1
$ 5 Phenol-d5	99	3.475	3.475	(0.929)	660037	23.5755	23.6
$ 20 Nitrobenzene-d5	82	4.104	4.104	(0.893)	811558	36.7268	36.7
$ 39 2-Fluorobiphenyl	172	5.340	5.340	(0.913)	1646447	37.2387	37.2
$ 60 2,4,6-Tribromophenol	329	6.387	6.386	(1.093)	469264	91.0327	91.0
$ 81 p-Terphenyl-d14	244	7.751	7.751	(0.917)	2003751	40.0695	40.1

GEL Laboratories LLC

Data file : /chem/MSD1.i/s010210.b/s1a0210.d
Lab Smp Id: 1202001613 Client Smp ID: SBLK01
Inj Date : 02-JAN-2010 19:53
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202001613|935443|1|SVM|1|SBLK01
Misc Info : |MSD82709L|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s010210.b/MSD1-M8270AQA-111409.m
Meth Date : 04-Jan-2010 08:35 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 10 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-952.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	3.740	5261743	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/L)	QUAL	LIBRARY	LIB ENTRY	CPND #
Unknown				CAS #:			
1.663	769083	5.84660598	5.8	0		0	10
Unknown				CAS #:			
1.746	940571	7.15026393	7.2	0		0	10

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng/ul)	FINAL(ug/L)	QUAL	LIBRARY	LIB ENTRY	CPND #
====	====	==========	==========	====	=======	========	======
Unknown				CAS #:			
1.881	2114436	16.0740349	16.1	0		0	10

Data File: /chem/MSD1.i/s010210.b/s1a0210.d
Date : 02-JAN-2010 19:53
Client ID: SBLK01
Sample Info: !120200161319354431|1|SVM|1|SBLK01
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i

Operator: AMY
Column diameter: 0.20

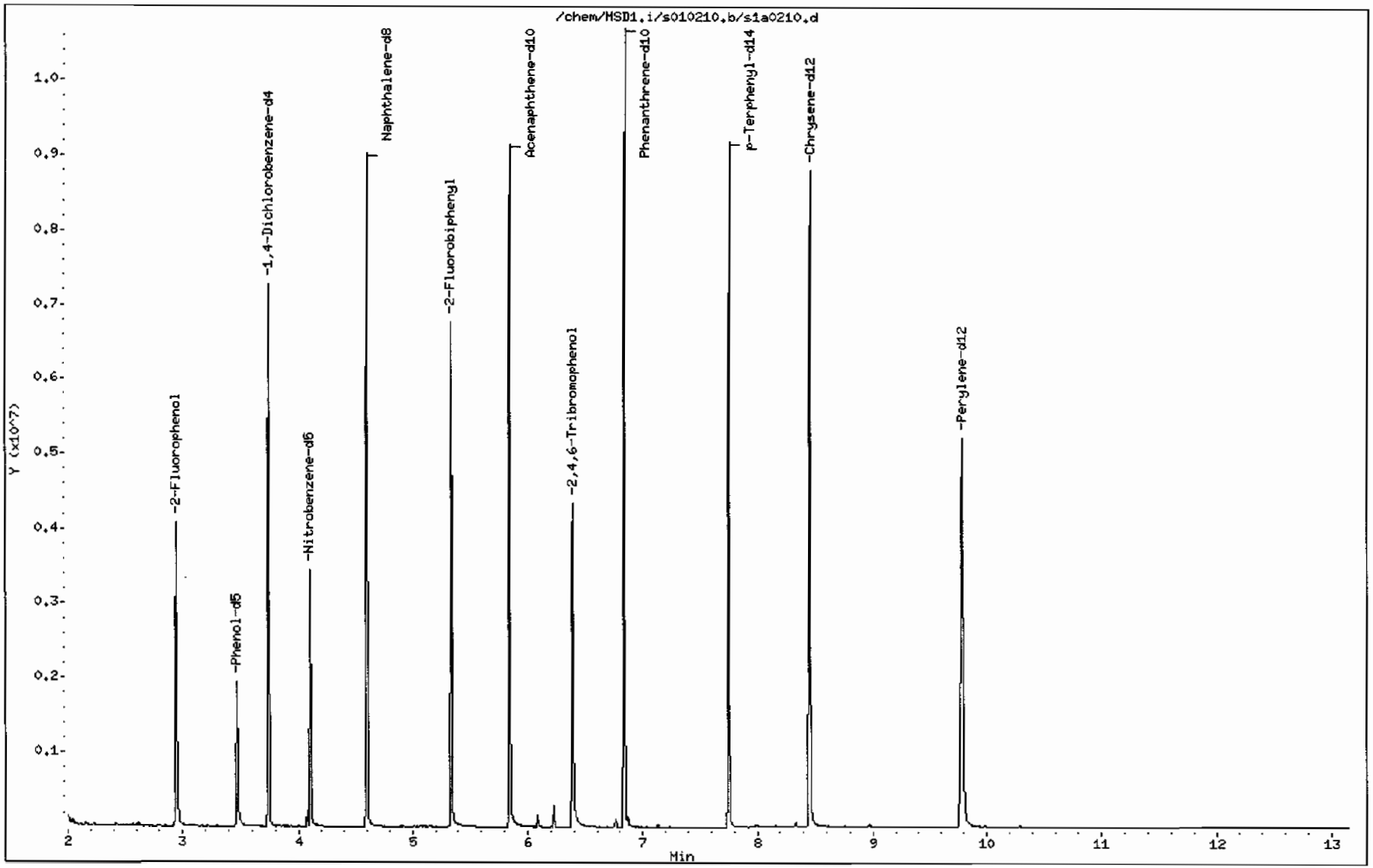

Data File: /chem/MSD1.i/s010210.b/s1a0210.d

Date : 02-JAN-2010 19:53

Client ID: SBLK01

Instrument: MSD1.i

Sample Info: |1202001613|935443|1|SVMI1|SBLK01

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2-Butanone	78-93-3	NIST05.L	635	10	C4H8O	72
2-Butanone	78-93-3	NIST05.L	636	10	C4H8O	72
4-Penten-2-one	13891-87-7	NIST05.L	1372	9	C5H8O	84

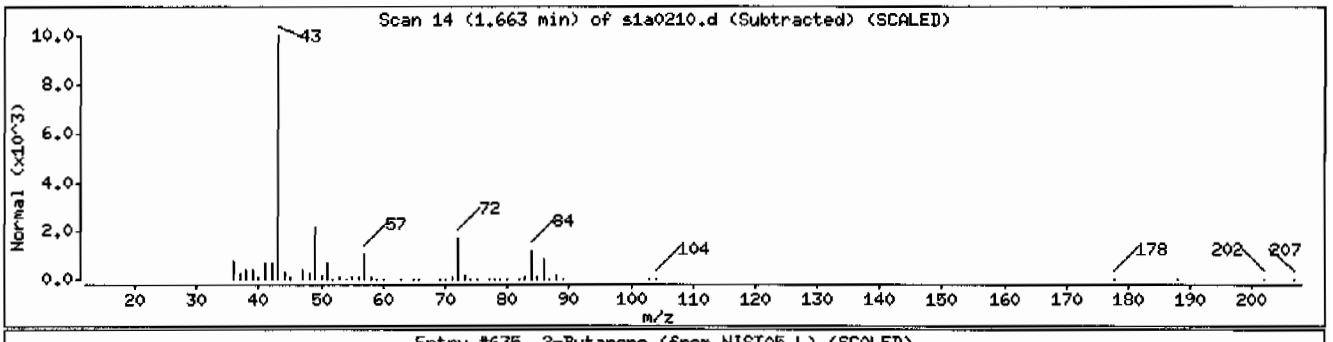

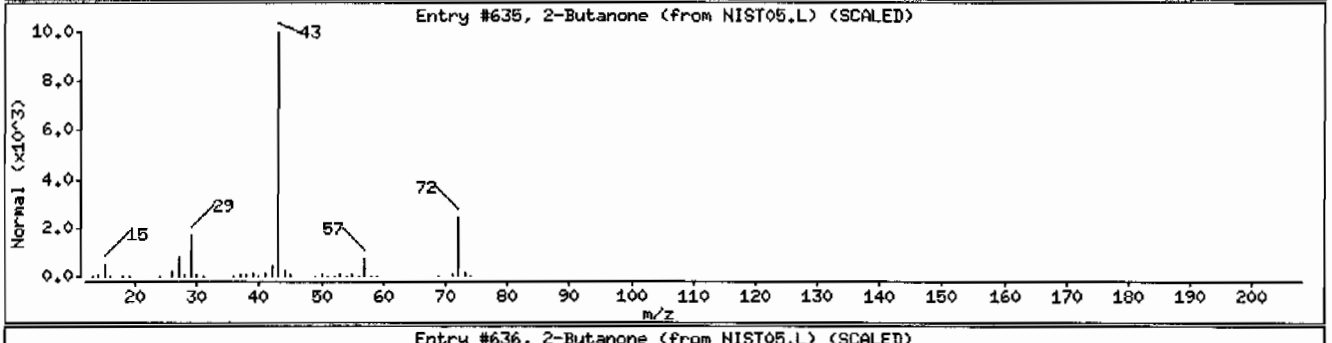

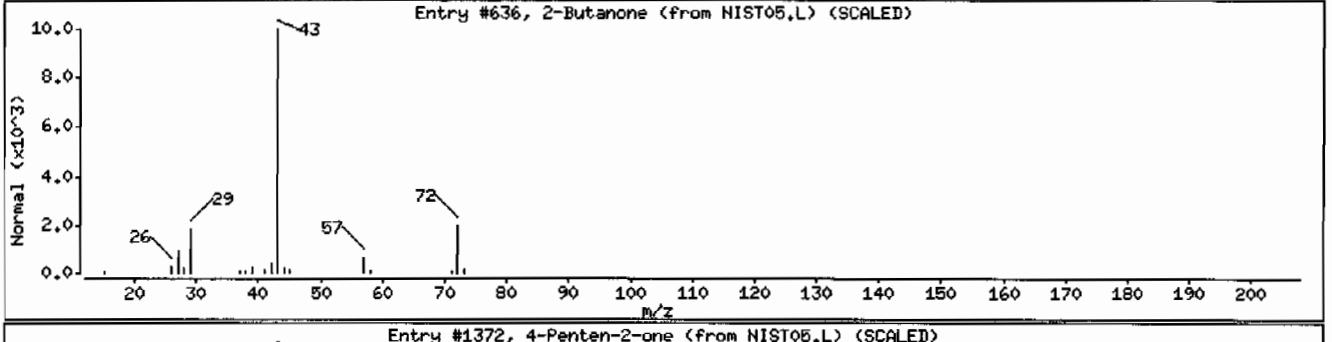

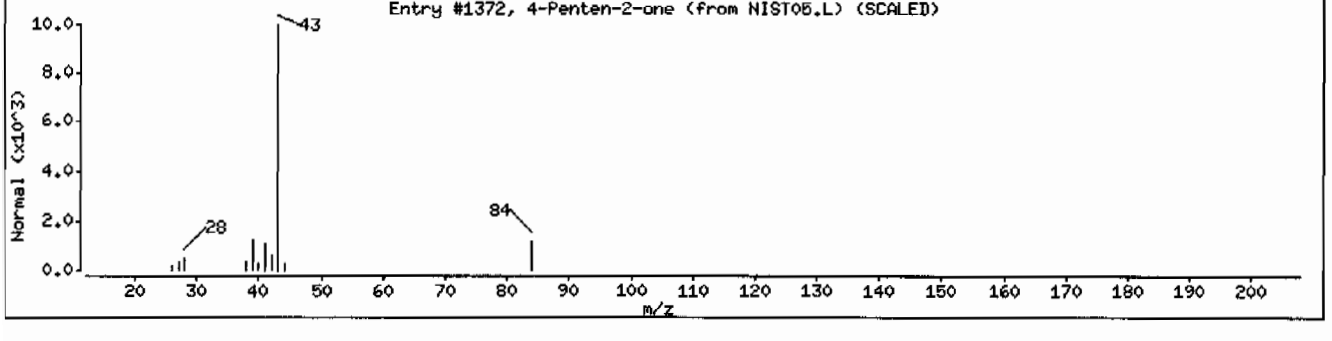

Data File: /chem/MSD1.i/s010210.b/s1a0210.d

Date : 02-JAN-2010 19:53

Client ID: SBLK01

Instrument: MSD1.i

Sample Info: 1120200161319354431 1 1SVMI1 1SBLK01

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
Oxirane, trimethyl-	5076-19-7	NIST05.L	1731	50	C5H10O	86
Oxirane, trimethyl-	5076-19-7	NIST05.L	1718	50	C5H10O	86
Oxirane, trimethyl-	5076-19-7	NIST05.L	1726	40	C5H10O	86

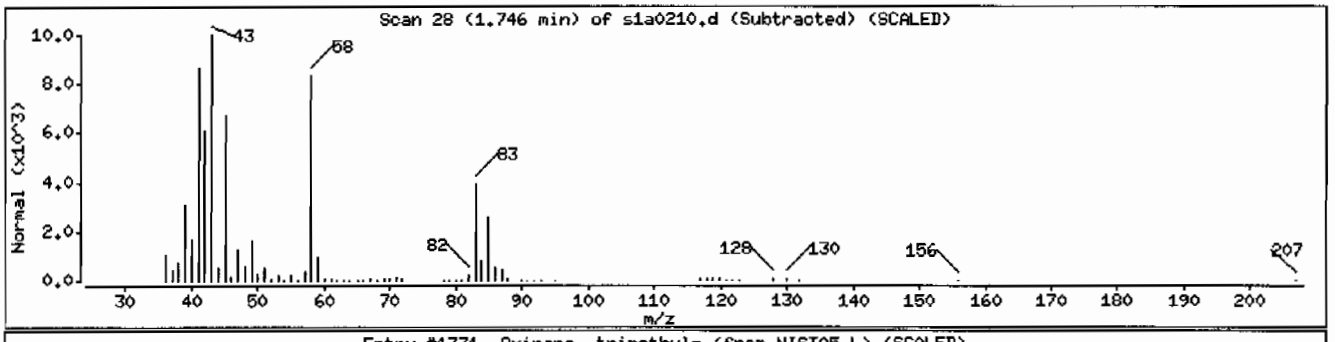

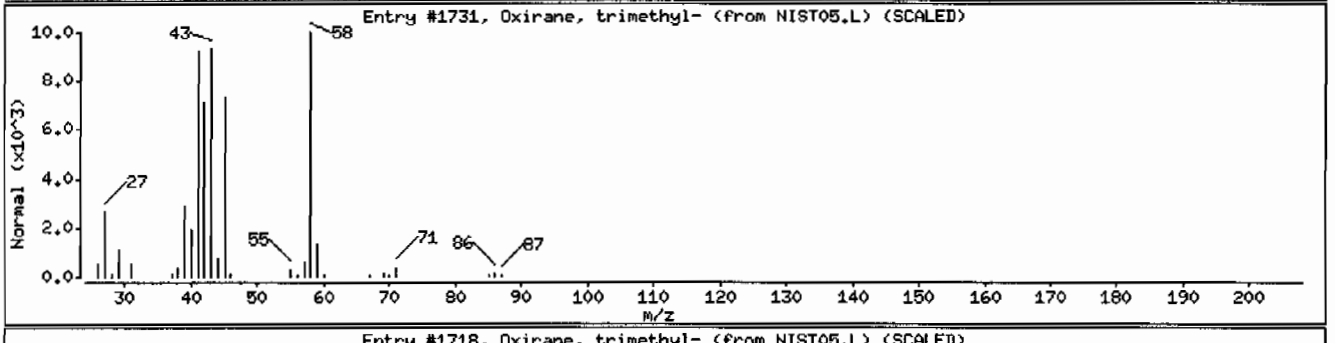

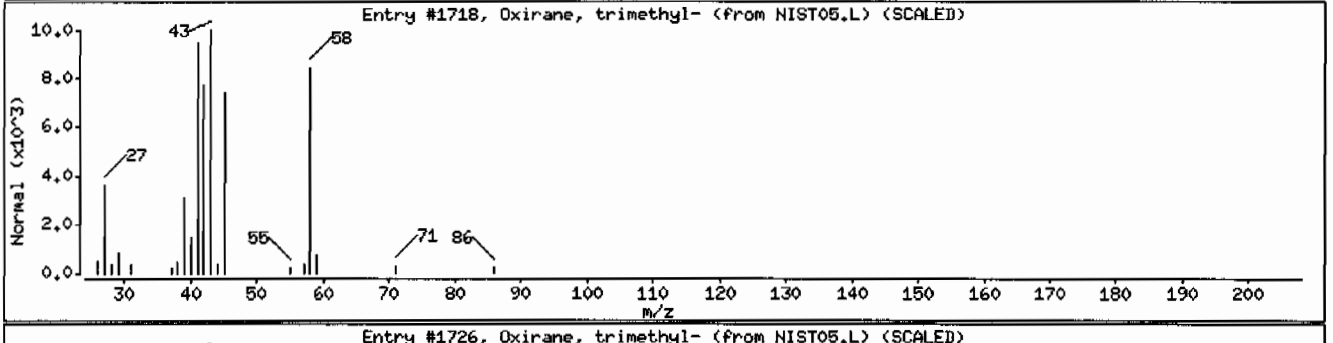

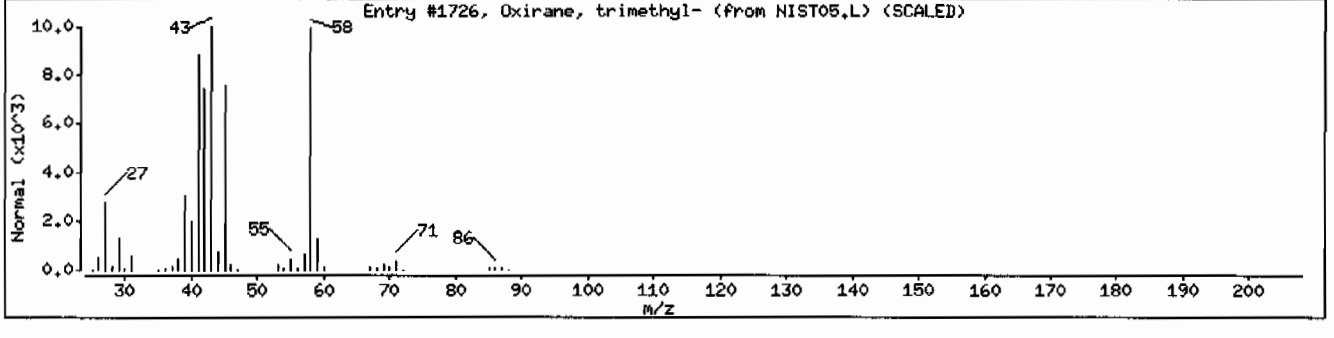

Data File: /chem/MSD1.i/s010210.b/s1a0210.d

Date : 02-JAN-2010 19:53

Client ID: SBLK01

Instrument: MSD1.i

Sample Info: |1202001613|935443|1|SVM|1|SBLK01

Volume Injected (uL): 0.5

Operator: AMY

Column phase: J&W DB-5MS

Column diameter: 0.20

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown						
2,3-Butanedione	431-03-8	NIST05.L	1636	59	C4H6O2	86
2-Pentanone	107-87-9	NIST05.L	1684	53	C5H10O	86
2-Pentanone	107-87-9	NIST05.L	1682	50	C5H10O	86

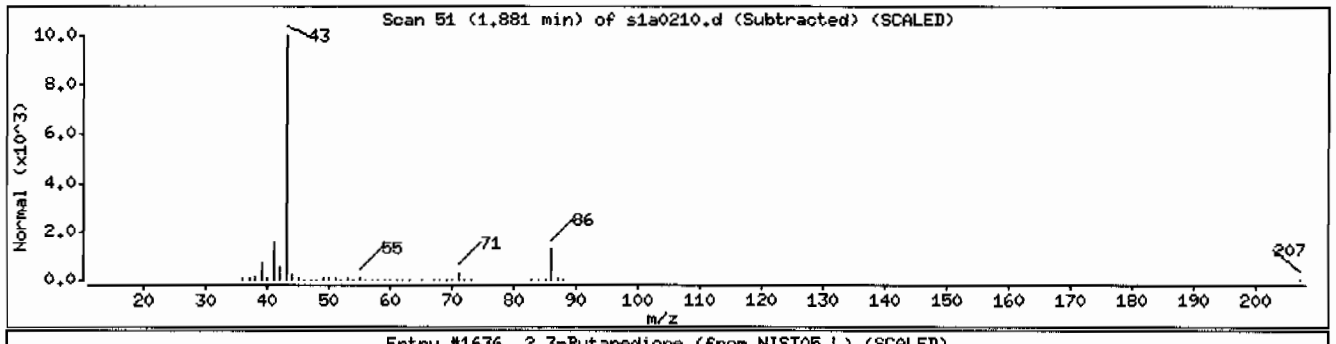

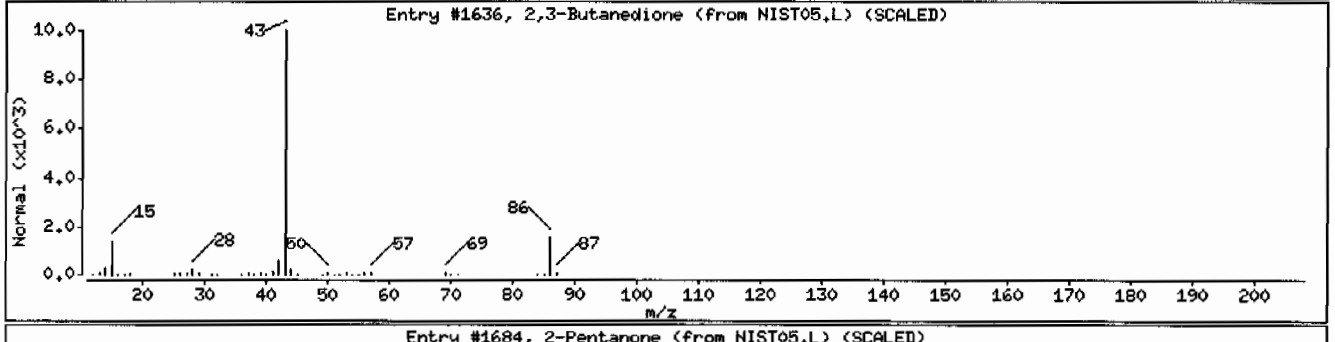

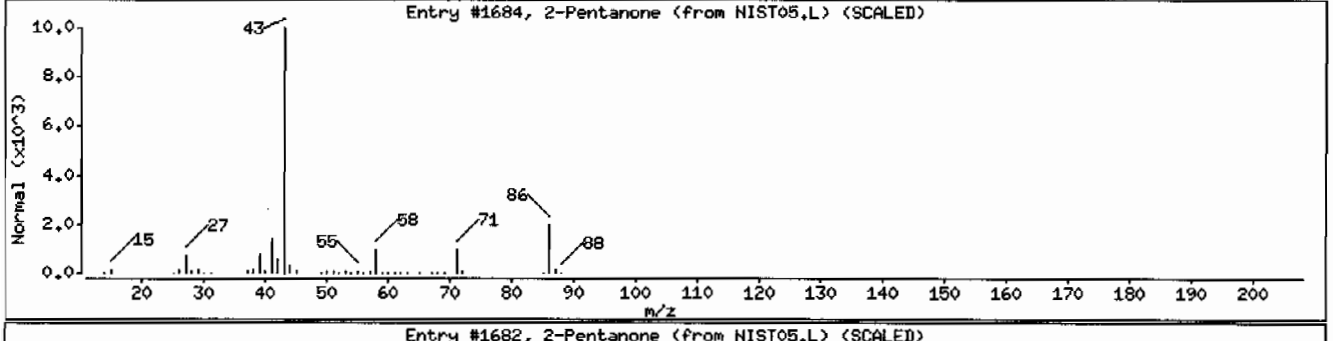

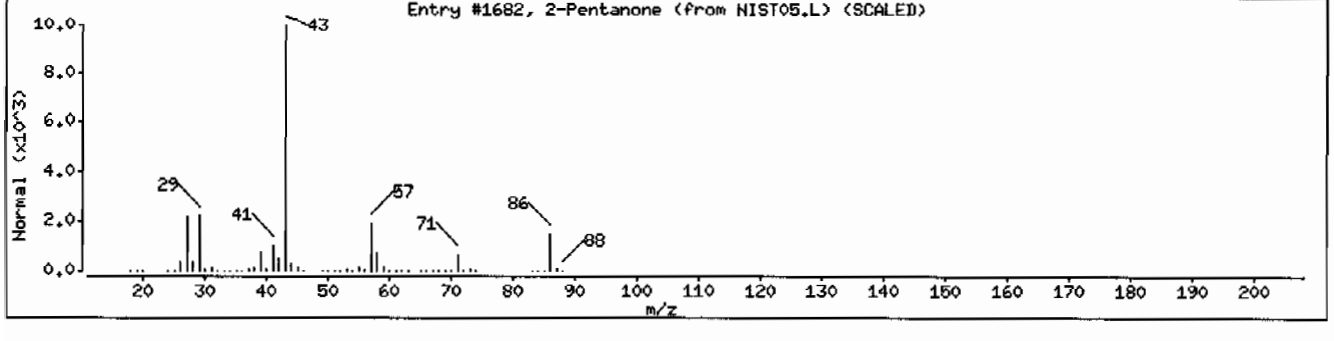

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-952			Matrix:	GROUND WATER
Lab Sample ID:	1202001614				
Client Sample:	QC for batch 935442	Client:	LANL010	Project:	QC
Client ID:	LCS for batch 935442	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	935443	Inst:	MSD1.I	Dilution:	1
Run Date:	01/02/2010 20:17	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	12/22/2009 17:16	Aliquot:	1000 mL	Final Volume:	1 mL
Data File:	s1a0211.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		27.9	ug/L	2.00	10.0
108-95-2	Phenol		14.9	ug/L	1.00	10.0
95-57-8	2-Chlorophenol		34.3	ug/L	2.00	10.0
106-46-7	1,4-Dichlorobenzene		29.9	ug/L	2.00	10.0
621-64-7	N-Nitrosodi--n-propylamine		33.5	ug/L	2.00	10.0
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol		38.9	ug/L	2.00	10.0
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene		35.3	ug/L	0.310	1.00
121-14-2	2,4-Dinitrotoluene		32.4	ug/L	2.00	10.0
100-02-7	4-Nitrophenol	J	9.31	ug/L	2.00	10.0
87-86-5	Pentachlorophenol		39.9	ug/L	2.00	10.0
129-00-0	Pyrene		40.0	ug/L	0.300	1.00
110-86-1	Pyridine		25.8	ug/L	3.00	10.0
62-53-3	Aniline		36.0	ug/L	2.50	10.0
111-44-4	bis(2-Chloroethyl) ether		36.0	ug/L	2.00	10.0
541-73-1	1,3-Dichlorobenzene		29.6	ug/L	2.00	10.0
100-51-6	Benzyl alcohol		37.9	ug/L	2.00	10.0
95-50-1	1,2-Dichlorobenzene		31.4	ug/L	2.00	10.0
108-60-1	bis(2-Chloroisopropyl)ether		34.5	ug/L	2.00	10.0
95-48-7	o-Cresol		31.2	ug/L	2.00	10.0
65794-96-9	m,p-Cresols		29.3	ug/L	3.00	10.0
67-72-1	Hexachloroethane		28.7	ug/L	2.00	10.0
98-95-3	Nitrobenzene		38.7	ug/L	3.00	10.0
78-59-1	Isophorone		44.0	ug/L	3.00	10.0
88-75-5	2-Nitrophenol		34.6	ug/L	2.00	10.0
105-67-9	2,4-Dimethylphenol		35.8	ug/L	2.00	10.0
111-91-1	bis(2-Chloroethoxy)methane		37.4	ug/L	3.00	10.0
120-83-2	2,4-Dichlorophenol		35.9	ug/L	2.00	10.0
65-85-0	Benzoic acid		23.6	ug/L	6.00	20.0
91-20-3	Naphthalene		32.7	ug/L	0.300	1.00
106-47-8	4-Chloroaniline		39.4	ug/L	2.00	10.0
87-68-3	Hexachlorobutadiene		33.1	ug/L	2.00	10.0
91-57-6	2-Methylnaphthalene		33.8	ug/L	0.300	1.00
90-12-0	1-Methylnaphthalene		36.5	ug/L	0.300	1.00
77-47-4	Hexachlorocyclopentadiene		30.8	ug/L	3.00	10.0
88-06-2	2,4,6-Trichlorophenol		40.3	ug/L	2.00	10.0
95-95-4	2,4,5-Trichlorophenol		42.7	ug/L	2.00	10.0
91-58-7	2-Chloronaphthalene		32.5	ug/L	0.300	1.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-952			Matrix:	GROUND WATER
Lab Sample ID:	1202001614				
Client Sample:	QC for batch 935442	Client:	LANL010	Project:	QC
Client ID:	LCS for batch 935442	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	935443	Inst:	MSD1.I	Dilution:	1
Run Date:	01/02/2010 20:17	Analyst:	AMY	Inj. Vol:	.5 uL
Prep Date:	12/22/2009 17:16	Aliquot:	1000 mL	Final Volume:	1 mL
Data File:	s1a0211.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline		34.9	ug/L	2.00	10.0
	o-Nitroaniline					
99-09-2	3-Nitroaniline		32.5	ug/L	2.00	10.0
	m-Nitroaniline					
131-11-3	Dimethylphthalate		38.8	ug/L	2.00	10.0
606-20-2	2,6-Dinitrotoluene		34.2	ug/L	2.00	10.0
208-96-8	Acenaphthylene		35.8	ug/L	0.200	1.00
51-28-5	2,4-Dinitrophenol		31.9	ug/L	5.00	20.0
132-64-9	Dibenzofuran		41.3	ug/L	2.00	10.0
84-66-2	Diethylphthalate		41.7	ug/L	2.00	10.0
86-73-7	Fluorene		34.8	ug/L	0.200	1.00
7005-72-3	4-Chlorophenylphenylether		38.5	ug/L	2.00	10.0
534-52-1	2-Methyl-4,6-dinitrophenol		34.0	ug/L	3.00	10.0
100-01-6	4-Nitroaniline		27.8	ug/L	3.00	10.0
	p-Nitroaniline					
122-39-4	Diphenylamine		36.8	ug/L	3.00	10.0
122-66-7	Azobenzene		36.7	ug/L	2.00	10.0
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		44.5	ug/L	2.00	10.0
118-74-1	Hexachlorobenzene		43.8	ug/L	2.00	10.0
1912-24-9	Atrazine		42.8	ug/L	3.00	10.0
85-01-8	Phenanthrene		36.5	ug/L	0.200	1.00
120-12-7	Anthracene		35.5	ug/L	0.200	1.00
84-74-2	Di-n-butylphthalate		44.1	ug/L	2.00	10.0
206-44-0	Fluoranthene		40.6	ug/L	0.200	1.00
92-87-5	Benzidine		25.3	ug/L	3.00	10.0
85-68-7	Butylbenzylphthalate		43.3	ug/L	2.00	10.0
56-55-3	Benzo(a)anthracene		36.5	ug/L	0.200	1.00
91-94-1	3,3'-Dichlorobenzidine		40.0	ug/L	2.00	10.0
218-01-9	Chrysene		39.8	ug/L	0.200	1.00
117-81-7	bis(2-Ethylhexyl)phthalate		42.0	ug/L	2.00	10.0
117-84-0	Di-n-octylphthalate		39.3	ug/L	3.00	10.0
205-99-2	Benzo(b)fluoranthene		33.9	ug/L	0.200	1.00
207-08-9	Benzo(k)fluoranthene		43.9	ug/L	0.200	1.00
50-32-8	Benzo(a)pyrene		39.3	ug/L	0.200	1.00
193-39-5	Indeno(1,2,3-cd)pyrene		37.6	ug/L	0.200	1.00
53-70-3	Dibenzo(a,h)anthracene		36.3	ug/L	0.200	1.00
191-24-2	Benzo(ghi)perylene		38.6	ug/L	0.200	1.00
123-91-1	1,4-Dioxane		35.4	ug/L	2.00	10.0
55-18-5	N-Nitrosodiethylamine	U	10.0	ug/L	2.00	10.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202001614**				
Client Sample:	**QC for batch 935442**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 935442**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**935443**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**01/02/2010 20:17**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/22/2009 17:16**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s1a0211.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine		30.6	ug/L	2.00	10.0
924-16-3	N-Nitrosodi-n-butylamine	U	10.0	ug/L	3.00	10.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.0	ug/L	3.00	10.0
608-93-5	Pentachlorobenzene	U	10.0	ug/L	3.00	10.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.0	ug/L	2.00	10.0
88-85-7	Dinoseb	U	10.0	ug/L	2.00	10.0
120-82-1	1,2,4-Trichlorobenzene		33.2	ug/L	2.00	10.0

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	90.9	100	ug/L	90.9	(39%-115%)
2-Fluorobiphenyl	42.2	50.0	ug/L	84.4	(35%-100%)
2-Fluorophenol	45.9	100	ug/L	45.9	(25%-92%)
Nitrobenzene-d5	40.3	50.0	ug/L	80.6	(40%-112%)
Phenol-d5	27.8	100	ug/L	27.8	(15%-73%)
p-Terphenyl-d14	44.6	50.0	ug/L	89.2	(46%-130%)

GEL Laboratories LLC

Data file : /chem/MSD1.i/s010210.b/s1a0211.d
Lab Smp Id: 1202001614 Client Smp ID: SBLK01LCS
Inj Date : 02-JAN-2010 20:17
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202001614|935443|1|SVM|1|SBLK01LCS
Misc Info : |MSD82709L|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s010210.b/MSD1-M8270AQA-111409.m
Meth Date : 04-Jan-2010 08:35 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 11 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-952.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	3.740	3.740	(1.000)	762721	40.0000	
* 29 Naphthalene-d8	136	4.604	4.598	(1.000)	3023765	40.0000	
* 46 Acenaphthene-d10	164	5.845	5.845	(1.000)	1648802	40.0000	
* 67 Phenanthrene-d10	188	6.840	6.839	(1.000)	2760210	40.0000	
* 91 Chrysene-d12	240	8.451	8.451	(1.000)	2417638	40.0000	
* 98 Perylene-d12	264	9.781	9.780	(1.000)	2205561	40.0000	
$ 3 2-Fluorophenol	112	2.946	2.946	(0.788)	914861	45.9222	45.9
$ 5 Phenol-d5	99	3.475	3.475	(0.929)	673023	27.7956	27.8
$ 20 Nitrobenzene-d5	82	4.104	4.104	(0.891)	803007	40.2977	40.3
$ 39 2-Fluorobiphenyl	172	5.340	5.340	(0.913)	1666564	42.2035	42.2
$ 60 2,4,6-Tribromophenol	329	6.387	6.386	(1.093)	418719	90.9459	90.9
$ 81 p-Terphenyl-d14	244	7.751	7.751	(0.917)	1691728	44.5786	44.6
6 Phenol	94	3.487	3.487	(0.932)	380441	14.9116	14.9
8 2-Chlorophenol	128	3.610	3.610	(0.965)	743652	34.2957	34.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
11 1,4-Dichlorobenzene	146	3.752	3.751	(1.003)	745205	29.8790	29.9
17 N-Nitrosodipropylamine	70	3.981	3.981	(1.064)	487294	33.5209	33.5(Q)
28 1,2,4-Trichlorobenzene	180	4.551	4.551	(0.988)	606857	33.1585	33.2
33 4-Chloro-3-methylphenol	107	4.963	4.957	(1.078)	628759	38.8569	38.8
47 Acenaphthene	154	5.869	5.869	(1.004)	1342098	35.2913	35.3
50 2,4-Dinitrotoluene	165	5.963	5.963	(1.020)	480996	32.4201	32.4
52 4-Nitrophenol	139	5.934	5.916	(1.015)	72412	9.30884	9.3(aR)
65 Pentachlorophenol	266	6.716	6.710	(0.982)	278734	39.9275	39.9
79 Pyrene	202	7.698	7.698	(0.911)	2571381	40.0250	40.0
2 Pyridine	79	2.293	2.287	(0.613)	468275	25.7745	25.8
4 Aniline	66	3.534	3.534	(0.945)	383386	36.0241	36.0
7 bis(2-Chloroethyl) ether	63	3.546	3.546	(0.948)	638861	35.9947	36.0
9 1,3-Dichlorobenzene	146	3.710	3.704	(0.992)	752567	29.5789	29.6
12 Benzyl alcohol	108	3.816	3.816	(1.020)	500163	37.9376	37.9
13 1,2-Dichlorobenzene	146	3.857	3.857	(1.031)	723432	31.4074	31.4
14 bis(2-Chloroisopropyl)ether	45	3.887	3.887	(1.039)	1456433	34.4510	34.4
15 o-Cresol	107	3.875	3.869	(1.036)	503951	31.2218	31.2
18 m,p-Cresols	107	3.975	3.975	(1.063)	644177	29.3311	29.3
19 Hexachloroethane	117	4.081	4.081	(1.091)	257665	28.7053	28.7
21 Nitrobenzene	77	4.122	4.122	(0.895)	804314	38.7391	38.7
22 Isophorone	82	4.269	4.269	(0.927)	1596605	43.9569	44.0
23 2-Nitrophenol	139	4.334	4.328	(0.941)	380840	34.5544	34.6
24 2,4-Dimethylphenol	122	4.334	4.328	(0.941)	631026	35.7555	35.8
25 bis(2-Chloroethoxy)methane	93	4.393	4.393	(0.954)	874349	37.3918	37.4
26 2,4-Dichlorophenol	162	4.498	4.492	(0.977)	595238	35.9403	35.9
27 Benzoic acid	105	4.399	4.398	(0.955)	286492	23.5587	23.6
30 Naphthalene	128	4.616	4.616	(1.003)	2065175	32.7249	32.7(Q)
31 4-Chloroaniline	127	4.646	4.640	(1.009)	1135485	39.4009	39.4
32 Hexachlorobutadiene	225	4.681	4.681	(1.017)	310852	33.0774	33.1
34 2-Methylnaphthalene	142	5.093	5.092	(1.106)	1400245	33.7523	33.8
35 1-Methylnaphthalene	142	5.169	5.169	(1.123)	1360909	36.4944	36.5
36 Hexachlorocyclopentadiene	237	5.198	5.198	(0.889)	155130	30.8154	30.8
37 2,4,6-Trichlorophenol	196	5.287	5.287	(0.904)	441672	40.2734	40.3
38 2,4,5-Trichlorophenol	196	5.322	5.316	(0.910)	497958	42.7023	42.7
40 2-Chloronaphthalene	162	5.446	5.445	(0.932)	1324196	32.5322	32.5
42 o-Nitroaniline	65	5.510	5.510	(0.943)	440861	34.9307	34.9
41 m-Nitroaniline	138	5.810	5.810	(0.994)	362222	32.4801	32.5
43 Dimethylphthalate	163	5.616	5.622	(0.961)	1744379	38.8264	38.8
44 2,6-Dinitrotoluene	165	5.675	5.675	(0.971)	382407	34.1626	34.2
45 Acenaphthylene	152	5.745	5.745	(0.983)	2275863	35.8308	35.8
48 2,4-Dinitrophenol	184	5.881	5.875	(1.006)	141070	31.9296	31.9(Q)
49 Dibenzofuran	168	5.987	5.987	(1.024)	2273077	41.3313	41.3
51 Diethylphthalate	149	6.104	6.104	(1.044)	1744674	41.6529	41.6
53 Fluorene	166	6.222	6.222	(1.064)	1544946	34.8401	34.8
54 4-Chlorophenylphenylether	204	6.204	6.204	(1.061)	721060	38.5134	38.5
55 2-Methyl-4,6-dinitrophenol	198	6.245	6.245	(0.913)	237528	34.0147	34.0
56 p-Nitroaniline	138	6.240	6.234	(1.067)	303256	27.8067	27.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
133 Diphenylamine	169	6.287	6.287	(0.919)	1355275	36.8111	36.8
58 1,2-Diphenylhydrazine	77	6.310	6.310	(0.923)	1648494	36.6974	36.7
61 4-Bromophenylphenylether	248	6.534	6.528	(0.955)	422087	44.5081	44.5
63 Hexachlorobenzene	284	6.587	6.586	(0.963)	510317	43.8401	43.8
207 Atrazine	173	6.616	6.616	(0.967)	118454	42.8274	42.8
68 Phenanthrene	178	6.857	6.851	(1.003)	2290288	36.5113	36.5
69 Anthracene	178	6.887	6.886	(1.007)	2263019	35.4743	35.5
72 Di-n-butylphthalate	149	7.134	7.133	(1.043)	3003112	44.1358	44.1
76 Fluoranthene	202	7.563	7.563	(1.106)	2460493	40.6361	40.6
77 Benzidine	184	7.622	7.622	(0.902)	553868	25.3036	25.3
85 Butylbenzylphthalate	149	8.004	8.004	(0.947)	1266275	43.3111	43.3
89 Benzo(a)anthracene	228	8.439	8.439	(0.999)	2115587	36.4933	36.5
90 3,3'-Dichlorobenzidine	252	8.392	8.392	(0.993)	666487	40.0399	40.0
92 Chrysene	228	8.469	8.469	(1.002)	2158692	39.8404	39.8
93 bis(2-Ethylhexyl)phthalate	149	8.334	8.333	(0.986)	1785585	42.0383	42.0
94 Di-n-octylphthalate	149	8.816	8.816	(0.901)	2837418	39.3273	39.3
95 Benzo(b)fluoranthene	252	9.357	9.357	(0.957)	1871135	33.8846	33.9
96 Benzo(k)fluoranthene	252	9.386	9.386	(0.960)	2426853	43.8828	43.9
97 Benzo(a)pyrene	252	9.722	9.722	(0.994)	1891529	39.2618	39.3
99 Indeno(1,2,3-cd)pyrene	276	11.257	11.251	(1.151)	1878915	37.5718	37.6
100 Dibenzo(a,h)anthracene	278	11.251	11.251	(1.150)	1519582	36.3186	36.3
101 Benzo(ghi)perylene	276	11.710	11.704	(1.197)	1601170	38.6335	38.6
102 1,4-Dioxane	88	2.099	2.098	(0.561)	211636	35.3620	35.4
111 N-Nitrosopyrrolidine	100	3.993	3.987	(1.068)	277003	30.5776	30.6(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.257	2.257	(0.604)	302372	27.9479	27.9

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD1.i/s010210.b/s1a0211.d
Date : 02-JAN-2010 20:17
Client ID: SBLK01LCS
Sample Info: 1120200161419354431|1|SVM11|SBLK01LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

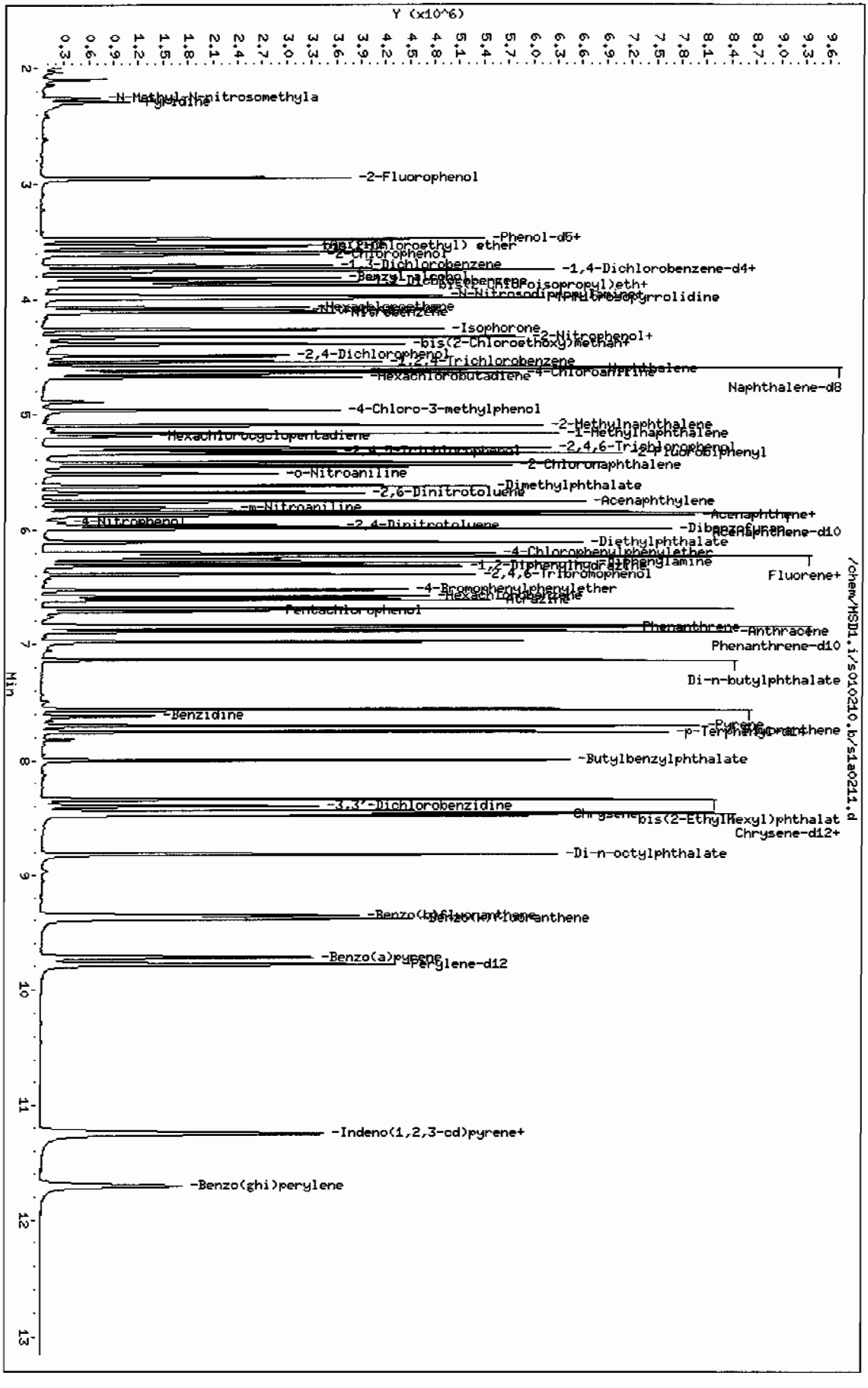

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-952	**Date Collected:**	12/15/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	1202002348	**Date Received:**	12/17/2009 09:20		
Client Sample:	QC for batch 935442	**Client:**	LANL010	**Project:**	QC
Client ID:	CAPA-10-6818MS	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	935443	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	01/02/2010 21:27	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	12/22/2009 17:16	**Aliquot:**	500 mL	**Final Volume:**	1 mL
Data File:	s1a0214.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		73.9	ug/L	4.00	20.0
108-95-2	Phenol		47.5	ug/L	2.00	20.0
95-57-8	2-Chlorophenol		72.0	ug/L	4.00	20.0
106-46-7	1,4-Dichlorobenzene		63.2	ug/L	4.00	20.0
621-64-7	N-Nitrosodi--n-propylamine		68.4	ug/L	4.00	20.0
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol		81.6	ug/L	4.00	20.0
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene		74.7	ug/L	0.620	2.00
121-14-2	2,4-Dinitrotoluene		67.5	ug/L	4.00	20.0
100-02-7	4-Nitrophenol		35.4	ug/L	4.00	20.0
87-86-5	Pentachlorophenol		83.7	ug/L	4.00	20.0
129-00-0	Pyrene		80.8	ug/L	0.600	2.00
110-86-1	Pyridine		55.7	ug/L	6.00	20.0
62-53-3	Aniline		77.4	ug/L	5.00	20.0
111-44-4	bis(2-Chloroethyl) ether		75.3	ug/L	4.00	20.0
541-73-1	1,3-Dichlorobenzene		62.8	ug/L	4.00	20.0
100-51-6	Benzyl alcohol		89.8	ug/L	4.00	20.0
95-50-1	1,2-Dichlorobenzene		66.4	ug/L	4.00	20.0
108-60-1	bis(2-Chloroisopropyl)ether		72.3	ug/L	4.00	20.0
95-48-7	o-Cresol		70.6	ug/L	4.00	20.0
65794-96-9	m,p-Cresols		71.4	ug/L	6.00	20.0
67-72-1	Hexachloroethane		62.7	ug/L	4.00	20.0
98-95-3	Nitrobenzene		80.0	ug/L	6.00	20.0
78-59-1	Isophorone		90.5	ug/L	6.00	20.0
88-75-5	2-Nitrophenol		71.1	ug/L	4.00	20.0
105-67-9	2,4-Dimethylphenol		74.6	ug/L	4.00	20.0
111-91-1	bis(2-Chloroethoxy)methane		77.4	ug/L	6.00	20.0
120-83-2	2,4-Dichlorophenol		72.7	ug/L	4.00	20.0
65-85-0	Benzoic acid		83.2	ug/L	12.0	40.0
91-20-3	Naphthalene		69.2	ug/L	0.600	2.00
106-47-8	4-Chloroaniline		80.1	ug/L	4.00	20.0
87-68-3	Hexachlorobutadiene		71.7	ug/L	4.00	20.0
91-57-6	2-Methylnaphthalene		73.4	ug/L	0.600	2.00
90-12-0	1-Methylnaphthalene		77.4	ug/L	0.600	2.00
77-47-4	Hexachlorocyclopentadiene		64.4	ug/L	6.00	20.0
88-06-2	2,4,6-Trichlorophenol		83.2	ug/L	4.00	20.0
95-95-4	2,4,5-Trichlorophenol		89.6	ug/L	4.00	20.0
91-58-7	2-Chloronaphthalene		69.3	ug/L	0.600	2.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202002348**	**Date Received:**	**12/17/2009 09:20**		
Client Sample:	**QC for batch 935442**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-6818MS**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**935443**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**01/02/2010 21:27**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/22/2009 17:16**	**Aliquot:**	**500 mL**	**Final Volume:**	**1 mL**
Data File:	**s1a0214.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*		72.9	ug/L	4.00	20.0
99-09-2	3-Nitroaniline *m-Nitroaniline*		64.2	ug/L	4.00	20.0
131-11-3	Dimethylphthalate		78.4	ug/L	4.00	20.0
606-20-2	2,6-Dinitrotoluene		69.4	ug/L	4.00	20.0
208-96-8	Acenaphthylene		75.1	ug/L	0.400	2.00
51-28-5	2,4-Dinitrophenol		70.7	ug/L	10.0	40.0
132-64-9	Dibenzofuran		87.5	ug/L	4.00	20.0
84-66-2	Diethylphthalate		85.2	ug/L	4.00	20.0
86-73-7	Fluorene		74.1	ug/L	0.400	2.00
7005-72-3	4-Chlorophenylphenylether		83.3	ug/L	4.00	20.0
534-52-1	2-Methyl-4,6-dinitrophenol		72.2	ug/L	6.00	20.0
100-01-6	4-Nitroaniline *p-Nitroaniline*		53.3	ug/L	6.00	20.0
122-39-4	Diphenylamine *1,2-Diphenylhydrazine*		76.2	ug/L	6.00	20.0
122-66-7	Azobenzene		76.8	ug/L	4.00	20.0
101-55-3	4-Bromophenylphenylether		93.8	ug/L	4.00	20.0
118-74-1	Hexachlorobenzene		91.0	ug/L	4.00	20.0
1912-24-9	Atrazine		88.4	ug/L	6.00	20.0
85-01-8	Phenanthrene		75.6	ug/L	0.400	2.00
120-12-7	Anthracene		73.1	ug/L	0.400	2.00
84-74-2	Di-n-butylphthalate		90.7	ug/L	4.00	20.0
206-44-0	Fluoranthene		83.2	ug/L	0.400	2.00
92-87-5	Benzidine	J	10.5	ug/L	6.00	20.0
85-68-7	Butylbenzylphthalate		88.7	ug/L	4.00	20.0
56-55-3	Benzo(a)anthracene		74.2	ug/L	0.400	2.00
91-94-1	3,3'-Dichlorobenzidine		72.1	ug/L	4.00	20.0
218-01-9	Chrysene		83.5	ug/L	0.400	2.00
117-81-7	bis(2-Ethylhexyl)phthalate		86.8	ug/L	4.00	20.0
117-84-0	Di-n-octylphthalate		82.9	ug/L	6.00	20.0
205-99-2	Benzo(b)fluoranthene		76.3	ug/L	0.400	2.00
207-08-9	Benzo(k)fluoranthene		82.5	ug/L	0.400	2.00
50-32-8	Benzo(a)pyrene		80.1	ug/L	0.400	2.00
193-39-5	Indeno(1,2,3-cd)pyrene		74.9	ug/L	0.400	2.00
53-70-3	Dibenzo(a,h)anthracene		73.5	ug/L	0.400	2.00
191-24-2	Benzo(ghi)perylene		76.4	ug/L	0.400	2.00
123-91-1	1,4-Dioxane		92.8	ug/L	4.00	20.0
55-18-5	N-Nitrosodiethylamine	U	20.0	ug/L	4.00	20.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202002348**	**Date Received:**	**12/17/2009 09:20**		
Client Sample:	**QC for batch 935442**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-6818MS**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**935443**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**01/02/2010 21:27**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/22/2009 17:16**	**Aliquot:**	**500 mL**	**Final Volume:**	**1 mL**
Data File:	**s1a0214.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine		64.8	ug/L	4.00	20.0
924-16-3	N-Nitrosodi-n-butylamine	U	20.0	ug/L	6.00	20.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	20.0	ug/L	6.00	20.0
608-93-5	Pentachlorobenzene	U	20.0	ug/L	6.00	20.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	20.0	ug/L	4.00	20.0
88-85-7	Dinoseb	U	20.0	ug/L	4.00	20.0
120-82-1	1,2,4-Trichlorobenzene		71.5	ug/L	4.00	20.0

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	183	200	ug/L	91.7	(39%-115%)
2-Fluorobiphenyl	82.9	100	ug/L	82.9	(35%-100%)
2-Fluorophenol	118	200	ug/L	59.1	(25%-92%)
Nitrobenzene-d5	78.4	100	ug/L	78.4	(40%-112%)
Phenol-d5	85.7	200	ug/L	42.9	(15%-73%)
p-Terphenyl-d14	85.9	100	ug/L	85.9	(46%-130%)

GEL Laboratories LLC

Data file : /chem/MSD1.i/s010210.b/s1a0214.d
Lab Smp Id: 1202002348 Client Smp ID: CAPA-10-6818MS
Inj Date : 02-JAN-2010 21:27
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202002348|935443|1|SVM|1|MS
Misc Info : |MSD82709L|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s010210.b/MSD1-M8270AQA-111409.m
Meth Date : 04-Jan-2010 08:35 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: slk1264.d
Als bottle: 14 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-952.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	500.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	3.740	3.740	(1.000)	703451	40.0000	
* 29 Naphthalene-d8	136	4.604	4.598	(1.000)	2819951	40.0000	
* 46 Acenaphthene-d10	164	5.845	5.845	(1.000)	1548533	40.0000	
* 67 Phenanthrene-d10	188	6.839	6.839	(1.000)	2599907	40.0000	
* 91 Chrysene-d12	240	8.451	8.451	(1.000)	2288981	40.0000	
* 98 Perylene-d12	264	9.786	9.780	(1.000)	2055706	40.0000	
$ 3 2-Fluorophenol	112	2.946	2.946	(0.788)	1085950	59.1030	118
$ 5 Phenol-d5	99	3.475	3.475	(0.929)	957380	42.8709	85.7
$ 20 Nitrobenzene-d5	82	4.104	4.104	(0.891)	728608	39.2068	78.4
$ 39 2-Fluorobiphenyl	172	5.340	5.340	(0.913)	1538063	41.4714	82.9
$ 60 2,4,6-Tribromophenol	329	6.387	6.386	(1.093)	396635	91.7275	183
$ 81 p-Terphenyl-d14	244	7.751	7.751	(0.917)	1542876	42.9414	85.9
6 Phenol	94	3.487	3.487	(0.932)	558913	23.7528	47.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	3.610	3.610	(0.965)	720271	36.0162	72.0
11 1,4-Dichlorobenzene	146	3.751	3.751	(1.003)	727355	31.6205	63.2
17 N-Nitrosodipropylamine	70	3.981	3.981	(1.064)	458262	34.1799	68.4(Q)
28 1,2,4-Trichlorobenzene	180	4.551	4.551	(0.988)	609777	35.7262	71.4
33 4-Chloro-3-methylphenol	107	4.963	4.957	(1.078)	616016	40.8209	81.6
47 Acenaphthene	154	5.869	5.869	(1.004)	1334062	37.3514	74.7
50 2,4-Dinitrotoluene	165	5.963	5.963	(1.020)	470355	33.7557	67.5
52 4-Nitrophenol	139	5.928	5.916	(1.014)	129383	17.7097	35.4
65 Pentachlorophenol	266	6.716	6.710	(0.982)	275161	41.8459	83.7
79 Pyrene	202	7.704	7.698	(0.912)	2456988	40.3940	80.8
2 Pyridine	79	2.293	2.287	(0.613)	466990	27.8695	55.7
4 Aniline	66	3.534	3.534	(0.945)	379982	38.7126	77.4
7 bis(2-Chloroethyl) ether	63	3.546	3.546	(0.948)	616626	37.6691	75.3
9 1,3-Dichlorobenzene	146	3.710	3.704	(0.992)	736806	31.3995	62.8
12 Benzyl alcohol	108	3.816	3.816	(1.020)	545838	44.8905	89.8
13 1,2-Dichlorobenzene	146	3.857	3.857	(1.031)	705239	33.1972	66.4
14 bis(2-Chloroisopropyl)ether	45	3.887	3.887	(1.039)	1408878	36.1341	72.3
15 o-Cresol	107	3.875	3.869	(1.036)	525801	35.3202	70.6
18 m,p-Cresols	107	3.975	3.975	(1.063)	722771	35.6825	71.4
19 Hexachloroethane	117	4.081	4.081	(1.091)	259584	31.3557	62.7
21 Nitrobenzene	77	4.122	4.122	(0.895)	774654	40.0072	80.0
22 Isophorone	82	4.269	4.269	(0.927)	1533571	45.2731	90.5
23 2-Nitrophenol	139	4.334	4.328	(0.941)	365448	35.5543	71.1
24 2,4-Dimethylphenol	122	4.334	4.328	(0.941)	613580	37.2798	74.6
25 bis(2-Chloroethoxy)methane	93	4.393	4.393	(0.954)	843459	38.6778	77.4
26 2,4-Dichlorophenol	162	4.493	4.492	(0.976)	561393	36.3466	72.7
27 Benzoic acid	105	4.410	4.398	(0.958)	471638	41.5867	83.2
30 Naphthalene	128	4.616	4.616	(1.003)	2037069	34.6125	69.2(Q)
31 4-Chloroaniline	127	4.645	4.640	(1.009)	1076444	40.0519	80.1
32 Hexachlorobutadiene	225	4.681	4.681	(1.017)	314163	35.8458	71.7
34 2-Methylnaphthalene	142	5.092	5.092	(1.106)	1420171	36.7068	73.4
35 1-Methylnaphthalene	142	5.169	5.169	(1.123)	1346013	38.7037	77.4
36 Hexachlorocyclopentadiene	237	5.198	5.198	(0.889)	152283	32.2086	64.4
37 2,4,6-Trichlorophenol	196	5.287	5.287	(0.904)	428693	41.6210	83.2
38 2,4,5-Trichlorophenol	196	5.322	5.316	(0.910)	490769	44.8109	89.6
40 2-Chloronaphthalene	162	5.445	5.445	(0.932)	1325301	34.6676	69.3
42 o-Nitroaniline	65	5.510	5.510	(0.943)	432236	36.4649	72.9
41 m-Nitroaniline	138	5.810	5.810	(0.994)	336469	32.1244	64.2
43 Dimethylphthalate	163	5.616	5.622	(0.961)	1654250	39.2045	78.4
44 2,6-Dinitrotoluene	165	5.675	5.675	(0.971)	364868	34.7064	69.4
45 Acenaphthylene	152	5.745	5.745	(0.983)	2240219	37.5534	75.1
48 2,4-Dinitrophenol	184	5.881	5.875	(1.006)	146730	35.3611	70.7(Q)
49 Dibenzofuran	168	5.987	5.987	(1.024)	2259164	43.7382	87.5
51 Diethylphthalate	149	6.104	6.104	(1.044)	1676279	42.6113	85.2
53 Fluorene	166	6.222	6.222	(1.064)	1543604	37.0638	74.1
54 4-Chlorophenylphenylether	204	6.204	6.204	(1.061)	732064	41.6329	83.3
55 2-Methyl-4,6-dinitrophenol	198	6.245	6.245	(0.913)	237324	36.0810	72.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
56 p-Nitroaniline	138	6.239	6.234	(1.067)	273043	26.6575	53.3
133 Diphenylamine	169	6.287	6.287	(0.919)	1321743	38.1138	76.2
58 1,2-Diphenylhydrazine	77	6.310	6.310	(0.923)	1624687	38.3974	76.8
61 4-Bromophenylphenylether	248	6.534	6.528	(0.955)	419047	46.9120	93.8
63 Hexachlorobenzene	284	6.592	6.586	(0.964)	498899	45.5018	91.0
207 Atrazine	173	6.616	6.616	(0.967)	115116	44.1868	88.4
68 Phenanthrene	178	6.857	6.851	(1.003)	2232939	37.7919	75.6
69 Anthracene	178	6.886	6.886	(1.007)	2197048	36.5636	73.1
72 Di-n-butylphthalate	149	7.134	7.133	(1.043)	2907434	45.3642	90.7
76 Fluoranthene	202	7.563	7.563	(1.106)	2373475	41.6158	83.2
77 Benzidine	184	7.622	7.622	(0.902)	108989	5.25905	10.5(aR)
85 Butylbenzylphthalate	149	8.004	8.004	(0.947)	1227382	44.3404	88.7
89 Benzo(a)anthracene	228	8.445	8.439	(0.999)	2037063	37.1139	74.2
90 3,3'-Dichlorobenzidine	252	8.392	8.392	(0.993)	568025	36.0427	72.1
92 Chrysene	228	8.475	8.469	(1.003)	2141824	41.7509	83.5
93 bis(2-Ethylhexyl)phthalate	149	8.333	8.333	(0.986)	1746306	43.4244	86.8
94 Di-n-octylphthalate	149	8.816	8.816	(0.901)	2788570	41.4677	82.9
95 Benzo(b)fluoranthene	252	9.363	9.357	(0.957)	1981330	38.1331	76.3
96 Benzo(k)fluoranthene	252	9.386	9.386	(0.959)	2126868	41.2619	82.5
97 Benzo(a)pyrene	252	9.722	9.722	(0.993)	1798362	40.0521	80.1
99 Indeno(1,2,3-cd)pyrene	276	11.257	11.251	(1.150)	1744985	37.4358	74.9
100 Dibenzo(a,h)anthracene	278	11.251	11.251	(1.150)	1432487	36.7348	73.5
101 Benzo(ghi)perylene	276	11.710	11.704	(1.197)	1475386	38.1935	76.4
102 1,4-Dioxane	88	2.099	2.098	(0.561)	256015	46.3815	92.8(R)
111 N-Nitrosopyrrolidine	100	3.993	3.987	(1.068)	270814	32.4132	64.8(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.257	2.257	(0.604)	368753	36.9551	73.9

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

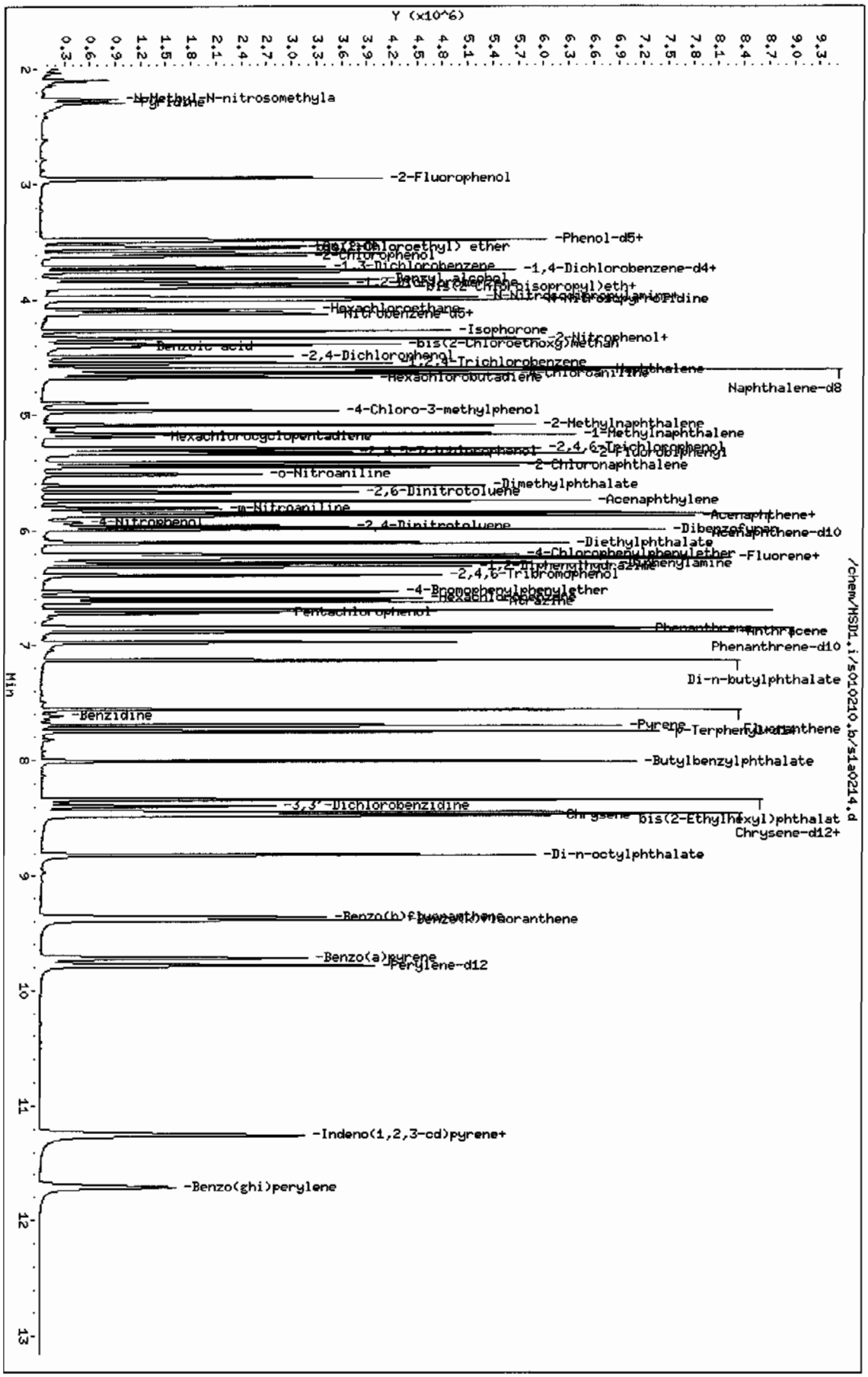
Data File: /chem/MSD1.i/s010210.b/s1a0214.d
Date : 02-JAN-2010 21:27
Client ID: CAPA-10-6818MS
Sample Info: 1120200234819354431ISVM11MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS
Instrument: MSD1.i
Operator: AHY
Column diameter: 0.20
Page 1
Y (x10^6)
Min
/chem/MSD1.i/s010210.b/s1a0214.d
-2-Fluorophenol
-Phenol-d5+
-1,4-Dichlorobenzene-d4+
-Isophorone
-2-Nitrophenol+
-Benzoic acid
-2,4-Dichlorophenol
-Naphthalene-d8
-4-Chloro-3-methylphenol
-2-Methylnaphthalene
-1-Methylnaphthalene
-2,4,6-Trichlorophenol
-2-Chloronaphthalene
-o-Nitroaniline
-Dimethylphthalate
-2,6-Dinitrotoluene
-Acenaphthylene
-m-Nitroaniline
-Acenaphthene+
-4-Nitrophenol
-2,4-Dinitrotoluene
-Dibenzofuran
-Diethylphthalate
-Fluorene+
-2,4,6-Tribromophenol
-4-Bromophenylphenylether
-Pentachlorophenol
-Phenanthrene-d10
-Di-n-butylphthalate
-Benzidine
-Pyrene
-Butylbenzylphthalate
-3,3'-Dichlorobenzidine
-Chrysene
-bis(2-Ethylhexyl)phthalat
-Chrysene-d12+
-Di-n-octylphthalate
-Benzo(a)pyrene
-Perylene-d12
-Indeno(1,2,3-cd)pyrene+
-Benzo(ghi)perylene

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202002349**	**Date Received:**	**12/17/2009 09:20**		
Client Sample:	**QC for batch 935442**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-6818MSD**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**935443**	**Inst:**	**MSD1.I**	**Dilution:**	**1**
Run Date:	**01/02/2010 21:51**	**Analyst:**	**AMY**	**Inj. Vol:**	**.5 uL**
Prep Date:	**12/22/2009 17:16**	**Aliquot:**	**500 mL**	**Final Volume:**	**1 mL**
Data File:	**s1a0215.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		69.4	ug/L	4.00	20.0
108-95-2	Phenol		44.0	ug/L	2.00	20.0
95-57-8	2-Chlorophenol		70.7	ug/L	4.00	20.0
106-46-7	1,4-Dichlorobenzene		61.8	ug/L	4.00	20.0
621-64-7	N-Nitrosodi--n-propylamine		66.9	ug/L	4.00	20.0
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol		78.3	ug/L	4.00	20.0
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene		75.2	ug/L	0.620	2.00
121-14-2	2,4-Dinitrotoluene		66.8	ug/L	4.00	20.0
100-02-7	4-Nitrophenol		34.9	ug/L	4.00	20.0
87-86-5	Pentachlorophenol		81.7	ug/L	4.00	20.0
129-00-0	Pyrene		75.3	ug/L	0.600	2.00
110-86-1	Pyridine		46.0	ug/L	6.00	20.0
62-53-3	Aniline		75.5	ug/L	5.00	20.0
111-44-4	bis(2-Chloroethyl) ether		73.3	ug/L	4.00	20.0
541-73-1	1,3-Dichlorobenzene		61.3	ug/L	4.00	20.0
100-51-6	Benzyl alcohol		85.4	ug/L	4.00	20.0
95-50-1	1,2-Dichlorobenzene		64.7	ug/L	4.00	20.0
108-60-1	bis(2-Chloroisopropyl)ether		70.2	ug/L	4.00	20.0
95-48-7	o-Cresol		68.0	ug/L	4.00	20.0
65794-96-9	m,p-Cresols		67.8	ug/L	6.00	20.0
67-72-1	Hexachloroethane		60.1	ug/L	4.00	20.0
98-95-3	Nitrobenzene		76.8	ug/L	6.00	20.0
78-59-1	Isophorone		86.5	ug/L	6.00	20.0
88-75-5	2-Nitrophenol		69.2	ug/L	4.00	20.0
105-67-9	2,4-Dimethylphenol		72.2	ug/L	4.00	20.0
111-91-1	bis(2-Chloroethoxy)methane		73.8	ug/L	6.00	20.0
120-83-2	2,4-Dichlorophenol		71.8	ug/L	4.00	20.0
65-85-0	Benzoic acid		75.9	ug/L	12.0	40.0
91-20-3	Naphthalene		66.3	ug/L	0.600	2.00
106-47-8	4-Chloroaniline		78.7	ug/L	4.00	20.0
87-68-3	Hexachlorobutadiene		68.5	ug/L	4.00	20.0
91-57-6	2-Methylnaphthalene		69.6	ug/L	0.600	2.00
90-12-0	1-Methylnaphthalene		74.1	ug/L	0.600	2.00
77-47-4	Hexachlorocyclopentadiene		66.4	ug/L	6.00	20.0
88-06-2	2,4,6-Trichlorophenol		81.0	ug/L	4.00	20.0
95-95-4	2,4,5-Trichlorophenol		87.5	ug/L	4.00	20.0
91-58-7	2-Chloronaphthalene		68.0	ug/L	0.600	2.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-952	**Date Collected:**	12/15/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	1202002349	**Date Received:**	12/17/2009 09:20		
Client Sample:	QC for batch 935442	**Client:**	LANL010	**Project:**	QC
Client ID:	CAPA-10-6818MSD	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	935443	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	01/02/2010 21:51	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	12/22/2009 17:16	**Aliquot:**	500 mL	**Final Volume:**	1 mL
Data File:	s1a0215.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*		73.0	ug/L	4.00	20.0
99-09-2	3-Nitroaniline *m-Nitroaniline*		68.7	ug/L	4.00	20.0
131-11-3	Dimethylphthalate		77.7	ug/L	4.00	20.0
606-20-2	2,6-Dinitrotoluene		69.7	ug/L	4.00	20.0
208-96-8	Acenaphthylene		73.7	ug/L	0.400	2.00
51-28-5	2,4-Dinitrophenol		73.7	ug/L	10.0	40.0
132-64-9	Dibenzofuran		86.4	ug/L	4.00	20.0
84-66-2	Diethylphthalate		83.7	ug/L	4.00	20.0
86-73-7	Fluorene		73.4	ug/L	0.400	2.00
7005-72-3	4-Chlorophenylphenylether		83.4	ug/L	4.00	20.0
534-52-1	2-Methyl-4,6-dinitrophenol		70.4	ug/L	6.00	20.0
100-01-6	4-Nitroaniline *p-Nitroaniline*		59.3	ug/L	6.00	20.0
122-39-4	Diphenylamine *1,2-Diphenylhydrazine*		74.2	ug/L	6.00	20.0
122-66-7	Azobenzene		74.4	ug/L	4.00	20.0
101-55-3	4-Bromophenylphenylether		89.9	ug/L	4.00	20.0
118-74-1	Hexachlorobenzene		86.9	ug/L	4.00	20.0
1912-24-9	Atrazine		86.1	ug/L	6.00	20.0
85-01-8	Phenanthrene		74.6	ug/L	0.400	2.00
120-12-7	Anthracene		72.8	ug/L	0.400	2.00
84-74-2	Di-n-butylphthalate		86.8	ug/L	4.00	20.0
206-44-0	Fluoranthene		81.5	ug/L	0.400	2.00
92-87-5	Benzidine	J	16.2	ug/L	6.00	20.0
85-68-7	Butylbenzylphthalate		80.7	ug/L	4.00	20.0
56-55-3	Benzo(a)anthracene		73.8	ug/L	0.400	2.00
91-94-1	3,3'-Dichlorobenzidine		76.4	ug/L	4.00	20.0
218-01-9	Chrysene		80.5	ug/L	0.400	2.00
117-81-7	bis(2-Ethylhexyl)phthalate		78.2	ug/L	4.00	20.0
117-84-0	Di-n-octylphthalate		73.8	ug/L	6.00	20.0
205-99-2	Benzo(b)fluoranthene		68.5	ug/L	0.400	2.00
207-08-9	Benzo(k)fluoranthene		88.2	ug/L	0.400	2.00
50-32-8	Benzo(a)pyrene		79.7	ug/L	0.400	2.00
193-39-5	Indeno(1,2,3-cd)pyrene		77.2	ug/L	0.400	2.00
53-70-3	Dibenzo(a,h)anthracene		76.4	ug/L	0.400	2.00
191-24-2	Benzo(ghi)perylene		80.1	ug/L	0.400	2.00
123-91-1	1,4-Dioxane		88.0	ug/L	4.00	20.0
55-18-5	N-Nitrosodiethylamine	U	20.0	ug/L	4.00	20.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-952	**Date Collected:**	12/15/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	1202002349	**Date Received:**	12/17/2009 09:20		
Client Sample:	QC for batch 935442	**Client:**	LANL010	**Project:**	QC
Client ID:	CAPA-10-6818MSD	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	935443	**Inst:**	MSD1.I	**Dilution:**	1
Run Date:	01/02/2010 21:51	**Analyst:**	AMY	**Inj. Vol:**	.5 uL
Prep Date:	12/22/2009 17:16	**Aliquot:**	500 mL	**Final Volume:**	1 mL
Data File:	s1a0215.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine		64.2	ug/L	4.00	20.0
924-16-3	N-Nitrosodi-n-butylamine	U	20.0	ug/L	6.00	20.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	20.0	ug/L	6.00	20.0
608-93-5	Pentachlorobenzene	U	20.0	ug/L	6.00	20.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	20.0	ug/L	4.00	20.0
88-85-7	Dinoseb	U	20.0	ug/L	4.00	20.0
120-82-1	1,2,4-Trichlorobenzene		67.6	ug/L	4.00	20.0

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	184	200	ug/L	92.0	(39%-115%)
2-Fluorobiphenyl	82.7	100	ug/L	82.7	(35%-100%)
2-Fluorophenol	115	200	ug/L	57.6	(25%-92%)
Nitrobenzene-d5	77.7	100	ug/L	77.7	(40%-112%)
Phenol-d5	81.6	200	ug/L	40.8	(15%-73%)
p-Terphenyl-d14	84.5	100	ug/L	84.5	(46%-130%)

GEL Laboratories LLC

Data file : /chem/MSD1.i/s010210.b/s1a0215.d
Lab Smp Id: 1202002349 Client Smp ID: CAPA-10-6818MSD
Inj Date : 02-JAN-2010 21:51
Operator : AMY Inst ID: MSD1.i
Smp Info : |1202002349|935443|1|SVM|1|MSD
Misc Info : |MSD82709L|WBN091223-01|
Comment : Column: J&W DB-5MS, 25 m x 0.20 mm x 0.33 micron film
Method : /chem/MSD1.i/s010210.b/MSD1-M8270AQA-111409.m
Meth Date : 04-Jan-2010 08:35 amy01291 Quant Type: ISTD
Cal Date : 17-NOV-2009 17:42 Cal File: s1k1264.d
Als bottle: 15 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-952.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	500.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	3.740	3.740	(1.000)	647581	40.0000	
* 29 Naphthalene-d8	136	4.604	4.598	(1.000)	2621257	40.0000	
* 46 Acenaphthene-d10	164	5.845	5.845	(1.000)	1412820	40.0000	
* 67 Phenanthrene-d10	188	6.839	6.839	(1.000)	2439673	40.0000	
* 91 Chrysene-d12	240	8.451	8.451	(1.000)	2274246	40.0000	
* 98 Perylene-d12	264	9.780	9.780	(1.000)	2092321	40.0000	
$ 3 2-Fluorophenol	112	2.945	2.946	(0.788)	974595	57.6187	115
$ 5 Phenol-d5	99	3.475	3.475	(0.929)	838568	40.7903	81.6
$ 20 Nitrobenzene-d5	82	4.104	4.104	(0.891)	671055	38.8470	77.7
$ 39 2-Fluorobiphenyl	172	5.339	5.340	(0.913)	1399381	41.3566	82.7
$ 60 2,4,6-Tribromophenol	329	6.386	6.386	(1.093)	363090	92.0357	184
$ 81 p-Terphenyl-d14	244	7.751	7.751	(0.917)	1509005	42.2708	84.5
6 Phenol	94	3.487	3.487	(0.932)	476337	21.9899	44.0

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	3.610	3.610	(0.965)	650492	35.3332	70.7
11 1,4-Dichlorobenzene	146	3.751	3.751	(1.003)	654087	30.8885	61.8
17 N-Nitrosodipropylamine	70	3.981	3.981	(1.064)	412878	33.4517	66.9(Q)
28 1,2,4-Trichlorobenzene	180	4.551	4.551	(0.988)	536069	33.7884	67.6
33 4-Chloro-3-methylphenol	107	4.963	4.957	(1.078)	549519	39.1747	78.3
47 Acenaphthene	154	5.869	5.869	(1.004)	1225165	37.5976	75.2
50 2,4-Dinitrotoluene	165	5.963	5.963	(1.020)	424319	33.3770	66.8
52 4-Nitrophenol	139	5.928	5.916	(1.014)	116309	17.4494	34.9
65 Pentachlorophenol	266	6.716	6.710	(0.982)	251990	40.8391	81.7
79 Pyrene	202	7.698	7.698	(0.911)	2276715	37.6727	75.3
2 Pyridine	79	2.293	2.287	(0.613)	355107	23.0208	46.0
4 Aniline	66	3.534	3.534	(0.945)	340927	37.7303	75.5
7 bis(2-Chloroethyl) ether	63	3.545	3.546	(0.948)	552621	36.6717	73.3
9 1,3-Dichlorobenzene	146	3.710	3.704	(0.992)	662606	30.6736	61.3
12 Benzyl alcohol	108	3.816	3.816	(1.020)	478208	42.7215	85.4
13 1,2-Dichlorobenzene	146	3.857	3.857	(1.031)	632281	32.3307	64.7
14 bis(2-Chloroisopropyl)ether	45	3.887	3.887	(1.039)	1259999	35.1038	70.2
15 o-Cresol	107	3.875	3.869	(1.036)	465978	34.0021	68.0
18 m,p-Cresols	107	3.975	3.975	(1.063)	632125	33.8998	67.8
19 Hexachloroethane	117	4.081	4.081	(1.091)	228887	30.0330	60.1
21 Nitrobenzene	77	4.122	4.122	(0.895)	691286	38.4079	76.8
22 Isophorone	82	4.269	4.269	(0.927)	1361101	43.2273	86.4
23 2-Nitrophenol	139	4.334	4.328	(0.941)	330433	34.5846	69.2
24 2,4-Dimethylphenol	122	4.334	4.328	(0.941)	551958	36.0778	72.2
25 bis(2-Chloroethoxy)methane	93	4.392	4.393	(0.954)	748205	36.9106	73.8
26 2,4-Dichlorophenol	162	4.492	4.492	(0.976)	515194	35.8839	71.8
27 Benzoic acid	105	4.404	4.398	(0.957)	400270	37.9691	75.9
30 Naphthalene	128	4.616	4.616	(1.003)	1813165	33.1434	66.3(Q)
31 4-Chloroaniline	127	4.645	4.640	(1.009)	982868	39.3422	78.7
32 Hexachlorobutadiene	225	4.681	4.681	(1.017)	279059	34.2540	68.5
34 2-Methylnaphthalene	142	5.092	5.092	(1.106)	1250962	34.7842	69.6
35 1-Methylnaphthalene	142	5.169	5.169	(1.123)	1197081	37.0304	74.1
36 Hexachlorocyclopentadiene	237	5.198	5.198	(0.889)	143198	33.1964	66.4
37 2,4,6-Trichlorophenol	196	5.286	5.287	(0.904)	380748	40.5170	81.0
38 2,4,5-Trichlorophenol	196	5.322	5.316	(0.910)	437004	43.7347	87.5
40 2-Chloronaphthalene	162	5.445	5.445	(0.932)	1186333	34.0134	68.0
42 o-Nitroaniline	65	5.510	5.510	(0.943)	394646	36.4918	73.0
41 m-Nitroaniline	138	5.810	5.810	(0.994)	328020	34.3261	68.6
43 Dimethylphthalate	163	5.616	5.622	(0.961)	1495226	38.8396	77.7
44 2,6-Dinitrotoluene	165	5.675	5.675	(0.971)	334323	34.8557	69.7
45 Acenaphthylene	152	5.745	5.745	(0.983)	2004257	36.8252	73.6
48 2,4-Dinitrophenol	184	5.881	5.875	(1.006)	139444	36.8333	73.7
49 Dibenzofuran	168	5.986	5.987	(1.024)	2036937	43.2239	86.4
51 Diethylphthalate	149	6.104	6.104	(1.044)	1502933	41.8747	83.7
53 Fluorene	166	6.222	6.222	(1.064)	1393566	36.6755	73.4
54 4-Chlorophenylphenylether	204	6.204	6.204	(1.061)	669243	41.7163	83.4
55 2-Methyl-4,6-dinitrophenol	198	6.245	6.245	(0.913)	217355	35.2154	70.4

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
56	p-Nitroaniline	138	6.239	6.234	(1.067)	276909	29.6318	59.3
133	Diphenylamine	169	6.286	6.287	(0.919)	1207611	37.1098	74.2
58	1,2-Diphenylhydrazine	77	6.310	6.310	(0.923)	1476809	37.1949	74.4
61	4-Bromophenylphenylether	248	6.533	6.528	(0.955)	376797	44.9526	89.9
63	Hexachlorobenzene	284	6.586	6.586	(0.963)	446968	43.4429	86.9
207	Atrazine	173	6.616	6.616	(0.967)	105248	43.0523	86.1
68	Phenanthrene	178	6.851	6.851	(1.002)	2069262	37.3219	74.6
69	Anthracene	178	6.886	6.886	(1.007)	2051311	36.3804	72.8
72	Di-n-butylphthalate	149	7.133	7.133	(1.043)	2611274	43.4192	86.8
76	Fluoranthene	202	7.563	7.563	(1.106)	2180775	40.7484	81.5
77	Benzidine	184	7.622	7.622	(0.902)	166454	8.08395	16.2(aR)
85	Butylbenzylphthalate	149	7.998	8.004	(0.946)	1109832	40.3536	80.7
89	Benzo(a)anthracene	228	8.439	8.439	(0.999)	2012013	36.8950	73.8
90	3,3'-Dichlorobenzidine	252	8.392	8.392	(0.993)	598417	38.2172	76.4
92	Chrysene	228	8.469	8.469	(1.002)	2051638	40.2520	80.5
93	bis(2-Ethylhexyl)phthalate	149	8.333	8.333	(0.986)	1562057	39.0945	78.2
94	Di-n-octylphthalate	149	8.816	8.816	(0.901)	2523902	36.8752	73.8
95	Benzo(b)fluoranthene	252	9.357	9.357	(0.957)	1794598	34.2281	68.4
96	Benzo(k)fluoranthene	252	9.386	9.386	(0.960)	2313361	44.0945	88.2
97	Benzo(a)pyrene	252	9.722	9.722	(0.994)	1822307	39.8745	79.7
99	Indeno(1,2,3-cd)pyrene	276	11.251	11.251	(1.150)	1830874	38.6045	77.2
100	Dibenzo(a,h)anthracene	278	11.251	11.251	(1.150)	1516155	38.2071	76.4
101	Benzo(ghi)perylene	276	11.710	11.704	(1.197)	1573969	40.0325	80.1
102	1,4-Dioxane	88	2.098	2.098	(0.561)	223563	43.9966	88.0(R)
111	N-Nitrosopyrrolidine	100	3.992	3.987	(1.068)	246998	32.1132	64.2(Q)
1	N-Methyl-N-nitrosomethylamine	74	2.257	2.257	(0.604)	318847	34.7105	69.4

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD1.i/s010210.b/s1a0215.d
Date : 02-JAN-2010 21:51
Client ID: CAPA-10-6318MSD
Sample Info: 1120200234919354431|SVM11|MSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD1.i
Operator: AMY
Column diameter: 0.20

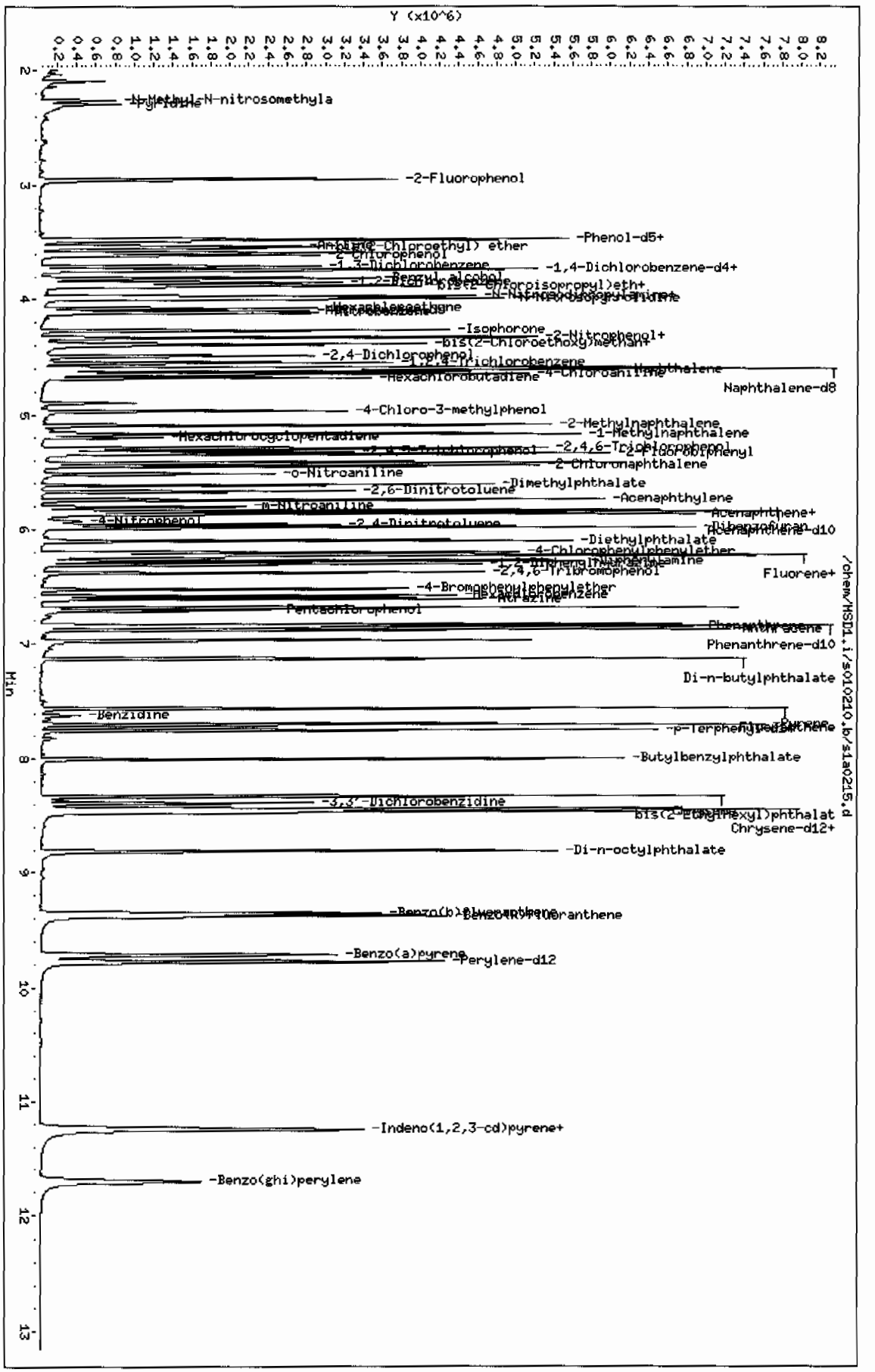

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 935442 **Verified by:** _____

Analyst: Sophia Cox

Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Sec Ext pH	Final Volume (mL)	Prepped Factor (mL/mL)
1202001613 MB	22-DEC-2009 17:16:33	1000	5	1	13	1	0.001
1202001614 LCS	22-DEC-2009 17:16:33	1000	5	1	13	1	0.001
243099003	22-DEC-2009 17:16:33	870	5	1	13	1	0.00115
1202002348 MS (243099003)	22-DEC-2009 17:16:33	500	5	1	13	1	0.002
1202002349 MSD (243099003)	22-DEC-2009 17:16:33	500	5	1	13	1	0.002
243254005	22-DEC-2009 17:16:33	950	5	1	13	1	0.00105
243254010	22-DEC-2009 17:16:33	850	5	1	13	1	0.00118

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202001614	BNA LCS w/o Benzidine 50ppm	UE091217-12	1	mL
LCS	1202001614	BENZIDINE LCS	UE091217-21	1	mL
MS	1202002348	BNA LCS w/o Benzidine 50ppm	UE091217-12	1	mL
MS	1202002348	BENZIDINE LCS	UE091217-21	1	mL
MSD	1202002349	BNA LCS w/o Benzidine 50ppm	UE091217-12	1	mL
MSD	1202002349	BENZIDINE LCS	UE091217-21	1	mL
SURR	All	BNA for all Surrogate	UE091215-10	1	mL
REGNT	All	10 N Sodium Hydroxide Solution	1244973	10	mL
REGNT	All	Methylene Chloride	1245410-D	360	mL
REGNT	All	Sulfuric Acid Sol., 1:1	1245641	2	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Verified By: TA

Final Solvent: CH2CCL2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD1

DATE: 11/14/2009 METHOD: See raw data OPERATOR: AMY REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:116462-D
Multiplier Voltage: 1400 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091101-01 Internal Std ID: WBN091024-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 22 Sequence Number: /chem/MSD1.i/s111409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s1k1201-D.d	WBN091101-01	AMY	14-NOV-2009 17:38	50 PPM	s111409	1.0	DFTPP	TUNE-MEGA ICAL
s1k1201.d	WBN091101-01	AMY	14-NOV-2009 17:38	50 PPM	s111409	1.0	DFTPP	TUNE-MEGA ICAL
s1k1202.d	INST BLK	amy	14-NOV-2009 17:53	-----	s111409	1.0	INST BLK	
s1k1203.d	WBN091111-16	amy	14-NOV-2009 18:22	1 PPM	s111409	1.0	MEGA001	
s1k1204.d	WBN091111-15	amy	14-NOV-2009 18:51	10 PPM	s111409	1.0	MEGA010	
s1k1204MRQ.d	WBN091111-15	amy	14-NOV-2009 18:51	10 PPM	s111409	1.0	MEGA010	pass linearity for c26 and c184
s1k1205.d	WBN091111-14	amy	14-NOV-2009 19:21	20 PPM	s111409	1.0	MEGA020	
s1k1206.d	WBN091111-13.1	amy	14-NOV-2009 19:50	40 PPM	s111409	1.0	MEGA040	
s1k1207.d	WBN091111-12	amy	14-NOV-2009 20:19	50 PPM	s111409	1.0	MEGA050	
s1k1208.d	WBN091111-11	amy	14-NOV-2009 20:47	80 PPM	s111409	1.0	MEGA080	
s1k1209.d	WBN091111-10	amy	14-NOV-2009 21:16	100 PPM	s111409	1.0	MEGA100	
s1k1210.d	WBN091111-09	amy	14-NOV-2009 21:45	120 PPM	s111409	1.0	MEGA120	
s1k1211.d	INST BLK	amy	14-NOV-2009 22:14	-----	s111409	1.0	INST BLK	
s1k1212-BOE.d	WBN091111-17.1	amy	14-NOV-2009 22:43	40 PPM	s111409	1.0	MEGAICV	DUSE-fail c65
s1k1212-D.d	WBN091111-17.1	amy	14-NOV-2009 22:43	40 PPM	s111409	1.0	MEGAICV	DUSE-fail c65
s1k1212.d	WBN091111-17.1	amy	14-NOV-2009 22:43	40 PPM	s111409	1.0	MEGAICV	DUSE: fails c65
s1k1213-D.d	WBN091101-01	AMY	15-NOV-2009 14:50	50 PPM	s111409	1.0	DFTPP	TUNE-AP/PEST/HEX ICALS
s1k1213.d	WBN091101-01	AMY	15-NOV-2009 14:50	50 PPM	s111409	1.0	DFTPP	TUNE-AP/PEST/HEX ICALS
s1k1214.d	INST BLK	amy	15-NOV-2009 15:05	-----	s111409	1.0	INST BLK	

s1k1215.d	WBN091111-01	amy	15-NOV-2009 15:28	10 PPM	s111409	1.0	AP010	
s1k1216.d	WBN091111-02	amy	15-NOV-2009 15:51	20 PPM	s111409	1.0	AP020	
s1k1217.d	WBN091111-03.1	amy	15-NOV-2009 16:14	40 PPM	s111409	1.0	AP040	
s1k1218.d	WBN091111-04	amy	15-NOV-2009 16:38	50 PPM	s111409	1.0	AP050	
s1k1219.d	WBN091111-05	amy	15-NOV-2009 17:01	80 PPM	s111409	1.0	AP080	
s1k1220.d	WBN091111-06	amy	15-NOV-2009 17:24	100 PPM	s111409	1.0	AP100	
s1k1221.d	WBN091111-07	amy	15-NOV-2009 17:47	120 PPM	s111409	1.0	AP120	
s1k1222.d	WBN091029-25	amy	15-NOV-2009 18:11	10 PPM	s111409	1.0	PEST010	
s1k1223.d	WBN091029-24	amy	15-NOV-2009 18:35	20 PPM	s111409	1.0	PEST020	
s1k1224.d	WBN091029-23.1	amy	15-NOV-2009 18:58	40 PPM	s111409	1.0	PEST040	
s1k1225.d	WBN091029-22	amy	15-NOV-2009 19:21	50 PPM	s111409	1.0	PEST050	
s1k1226.d	WBN091029-21	amy	15-NOV-2009 19:45	80 PPM	s111409	1.0	PEST080	
s1k1227.d	WBN091029-20	amy	15-NOV-2009 20:09	100 PPM	s111409	1.0	PEST100	
s1k1228.d	WBN091029-19	amy	15-NOV-2009 20:31	120 PPM	s111409	1.0	PEST120	
s1k1229.d	WBN091016-16	amy	15-NOV-2009 20:55	500 PPM	s111409	1.0	HEX500	
s1k1230.d	WBN091016-15	amy	15-NOV-2009 21:18	1000 PPM	s111409	1.0	HEX1000	
s1k1231.d	WBN091016-14	amy	15-NOV-2009 21:42	1250 PPM	s111409	1.0	HEX1250	
s1k1232.d	WBN091016-13	amy	15-NOV-2009 22:06	1500 PPM	s111409	1.0	HEX503	
s1k1233.d	WBN091016-12	amy	15-NOV-2009 22:30	1750 PPM	s111409	1.0	HEX504	
s1k1234.d	UBN090825-02.4	amy	15-NOV-2009 22:53	2000 PPM	s111409	1.0	HEX2000	
s1k1235-D.d	WBN091111-08.1	amy	15-NOV-2009 23:17	40 PPM	s111409	1.0	APICV	
s1k1235.d	WBN091111-08.1	amy	15-NOV-2009 23:17	40 PPM	s111409	1.0	APICV	
s1k1236-D.d	WBN091029-26.1	amy	15-NOV-2009 23:40	40 PPM	s111409	1.0	PESTICV	
s1k1236.d	WBN091029-26.1	amy	15-NOV-2009 23:40	40 PPM	s111409	1.0	PESTICV	
s1k1237-D.d	WBN091016-10.2	amy	16-NOV-2009 00:03	1250 PPM	s111409	1.0	HEXICV	
s1k1237.d	WBN091016-10.2	amy	16-NOV-2009 00:03	1250 PPM	s111409	1.0	HEXICV	
s1k1238-D.d	WBN091101-01	AMY	16-NOV-2009 00:27	50 PPM	s111409	1.0	DFTPP	DUSE: fails breakdown

s1k1238.d	WBN091101-01	AMY	16-NOV-2009 00:27	50 PPM	s111409	1.0	DFTPP	DUSE: fails breakdown
s1k1239.d	INST BLK	amy	16-NOV-2009 00:43	-----	s111409	1.0	INST BLK	
s1k1240.d	UBN090924-01	amy	16-NOV-2009 01:05	10 PPM	s111409	1.0	NEV010	DUSE
s1k1241.d	UBN090924-02	amy	16-NOV-2009 01:28	20 PPM	s111409	1.0	NEV020	DUSE
s1k1242.d	UBN090924-03	amy	16-NOV-2009 01:51	40 PPM	s111409	1.0	NEV040	DUSE
s1k1243.d	UBN090924-04	amy	16-NOV-2009 02:14	50 PPM	s111409	1.0	NEV050	DUSE
s1k1244.d	UBN090924-05	amy	16-NOV-2009 02:38	80 PPM	s111409	1.0	NEV080	DUSE
s1k1245.d	UBN090924-06	amy	16-NOV-2009 03:01	100 PPM	s111409	1.0	NEV100	DUSE
s1k1246.d	UBN090924-07	amy	16-NOV-2009 03:23	120 PPM	s111409	1.0	NEV120	DUSE
s1k1247-D.d	WBN091101-01	AMY	17-NOV-2009 09:05	50 PPM	s111409	1.0	DFTPP	DUSE
s1k1247.d	WBN091101-01	AMY	17-NOV-2009 09:05	50 PPM	s111409	1.0	DFTPP	DUSE
s1k1248.d	INST BLK	amy	17-NOV-2009 09:20	-----	s111409	1.0	INST BLK	
s1k1249.d	WBN091027-09.2	amy	17-NOV-2009 09:48	40 PPM	s111409	1.0	MEGAICV	DUSE: c65 fails
s1k1250.d	UBN090924-01	amy	17-NOV-2009 10:17	10 PPM	s111409	1.0	NEV010	DUSE
s1k1251.d	UBN090924-02	amy	17-NOV-2009 10:41	20 PPM	s111409	1.0	NEV020	DUSE
s1k1252.d	UBN090924-03	amy	17-NOV-2009 11:04	40 PPM	s111409	1.0	NEV040	DUSE
s1k1253.d	UBN090924-04	amy	17-NOV-2009 11:27	50 PPM	s111409	1.0	NEV050	DUSE
s1k1254.d	UBN090924-05	amy	17-NOV-2009 11:50	80 PPM	s111409	1.0	NEV080	DUSE
s1k1255.d	UBN090924-06	amy	17-NOV-2009 12:14	100 PPM	s111409	1.0	NEV100	DUSE
s1k1256.d	UBN090924-07	amy	17-NOV-2009 12:38	120 PPM	s111409	1.0	NEV120	DUSE
s1k1257.d	WBN091027-09.1	amy	17-NOV-2009 13:02	40 PPM	s111409	1.0	MEGAICV	DUSE: c65 fails /clean inj port
s1k1259-D.d	WBN091101-01	AMY	17-NOV-2009 15:48	50 PPM	s111409	1.0	DFTPP	TUNE-MEGAICV/NEV ICAL
s1k1259.d	WBN091101-01	AMY	17-NOV-2009 15:48	50 PPM	s111409	1.0	DFTPP	TUNE-MEGAICV/NEV ICAL
s1k1260.d	INST BLK	amy	17-NOV-2009 16:04	-----	s111409	1.0	INST BLK	
s1k1261-BOE.d	WBN091027-09.3	amy	17-NOV-2009 16:27	40 PPM	s111409	1.0	MEGAICV	
s1k1261-D.d	WBN091027-09.3	amy	17-NOV-2009 16:27	40 PPM	s111409	1.0	MEGAICV	
s1k1261.d	WBN091027-09.3	amy	17-NOV-2009 16:27	40 PPM	s111409	1.0	MEGAICV	pass 530038

s1k1262.d	UBN091117-01	amy	17-NOV-2009 16:56	10 PPM	s111409	1.0	NEV010	
s1k1263.d	UBN091117-02	amy	17-NOV-2009 17:19	20 PPM	s111409	1.0	NEV020	
s1k1264.d	UBN091117-03	amy	17-NOV-2009 17:42	40 PPM	s111409	1.0	NEV040	
s1k1265.d	UBN091117-04	amy	17-NOV-2009 18:05	50 PPM	s111409	1.0	NEV050	DUSE
s1k1266.d	UBN091117-05	amy	17-NOV-2009 18:28	80 PPM	s111409	1.0	NEV080	
s1k1267.d	UBN091117-06	amy	17-NOV-2009 18:52	100 PPM	s111409	1.0	NEV100	DUSE
s1k1268.d	UBN091117-07	amy	17-NOV-2009 19:15	120 PPM	s111409	1.0	NEV120	

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD1

DATE: 01/02/2010 METHOD: See raw data OPERATOR: AMY REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1202440-D
Multiplier Voltage: 1318 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN091101-01 Internal Std ID: WBN091106-10
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

SOP: GL-OA-E-009 Rev. 23 Sequence Number: /chem/MSD1.i/s010210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s1a0201.d	WBN091213-01	AMY	02-JAN-2010 16:22	50 PPM	s010210	1.0	DFTPP	PASSING
s1a0202.d	WBN091111-17.2	AMY	02-JAN-2010 16:38	40 PPM	MEGAIICARE	1.0	MEGACVS	PASSING
s1a0203.d	WBN091201-03.5	AMY	02-JAN-2010 17:07	40 PPM	s010210	1.0	APCVS	PASSING
s1a0204.d	WBN091202-26.1	AMY	02-JAN-2010 17:32	40 PPM	pest	1.0	PESTCVS	several compounds biased high
s1a0205.d	1202002434	AMY	02-JAN-2010 17:56	935846	243282	1.0	SBLK01	REPORT
s1a0206.d	1202002435	AMY	02-JAN-2010 18:19	935846	243282	1.0	SBLK01LCS	REPORT-c.77 low, only require short list
s1a0207.d	1202006716	AMY	02-JAN-2010 18:44	937748	10-1044	1.0	SBLK01	REPORT
s1a0208.d	1202006717	AMY	02-JAN-2010 19:07	937748	10-1044	1.0	SBLK01LCS	REPORT-c.52 low, passes in LCSD & <5% failure
s1a0209.d	1202006720	AMY	02-JAN-2010 19:30	937748	10-1044	1.0	SBLK01LCSD	REPORT
s1a0210-1.d	1202001613	AMY	02-JAN-2010 19:53	935443	10-972	1.0	SBLK01	REPORT
s1a0210.d	1202001613	AMY	02-JAN-2010 19:53	935443	10-952	1.0	SBLK01	REPORT
s1a0211-1.d	1202001614	AMY	02-JAN-2010 20:17	935443	10-972	1.0	SBLK01LCS	REPORT-c.52 low, <5% failure
s1a0211.d	1202001614	AMY	02-JAN-2010 20:17	935443	10-952	1.0	SBLK01LCS	REPORT-c.52 low, <5% failure
s1a0212.d	243458006	AMY	02-JAN-2010 20:40	937748	10-1044	1.0	LANL	REPORT-RE of s3L2923. Passes. RE OH. Reporting both data sets.
s1a0213.d	243099003	AMY	02-JAN-2010 21:03	935443	10-952	1.0	LANL	REPORT
s1a0214.d	1202002348	AMY	02-JAN-2010 21:27	935443	10-952	1.0	MS	REPORT-c77 low, c102 high. MSD confirms.
s1a0215.d	1202002349	AMY	02-JAN-2010 21:51	935443	10-952	1.0	MSD	REPORT-c77 low, c102 high. MS confirms.
s1a0216.d	243254005	AMY	02-JAN-2010 22:15	935443	10-972	1.0	LANL	REPORT
s1a0217.d	243254010	AMY	02-JAN-2010 22:38	935443	10-972	1.0	LANL	REPORT

s1a0218.d	243282002	AMY	02-JAN-2010 23:01	935846	243282		10.0	PCGE	REPORT
s1a0219.d	1202002436	AMY	02-JAN-2010 23:24	935846	243282		10.0	MS	REPORT-c52/16 high. c27/77 non-detect. only look for short list
s1a0220.d	1202002437	AMY	02-JAN-2010 23:48	935846	243282		10.0	MSD	REPORT-c52. c27/77 non-detect. only look for short list
s1a0221.d	243282008	AMY	03-JAN-2010 00:12	935846	243282		10.0	PCGE	REPORT-detection of c59, but below RL
s1a0222.d	243282014	AMY	03-JAN-2010 00:36	935846	243282		10.0	PCGE	REPORT
s1a0223.d	243282020	AMY	03-JAN-2010 01:01	935846	243282		10.0	PCGE	REPORT-detection of c59, but below RL

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
05-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
935443	See Below		

Potentially affected work order(s)(SDG): 243099(10-952),243254(10-972)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The MS(1202002348) and MSD(1202002348) recovered Benzidine at 5% and 8%, respectively (limits are 20%-126%) and 1,4-Dioxane at 93% and 88%, respectively (limits are 37%-86%). 2. The MS(1202002348)/MSD(1202002348) RPD value for Benzidine was 42%. The limit is 25%.	1. Since the MS recoveries were confirmed by the MSD, the failures were attributed to matrix interference and the data results have been reported. 2. The RPD failure was attributed to matrix interference and the data results have been reported.

Originator's Name:

Amy Carroll 05-JAN-10

Data Validator/Group Leader:

Barbara Bailey 06-JAN-10

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LC/MS/MS EXPLOSIVES ANALYSIS

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LC/MS/MS Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-952

Method/Analysis Information

Procedure:	**Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)**
Analytical Method:	SW846 3535/8321A Modified
Prep Method:	SW846 Method 3535
Analytical Batch Number:	934771
Prep Batch Number:	934770

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 3535/8321A Modified :

Sample ID	Client ID
243099004	CAPA-10-6818
1201999937	Method Blank (MB)
1201999938	Laboratory Control Sample (LCS)
1201999941	Laboratory Control Sample Duplicate (LCSD)

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

Primary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

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Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery
The LCSD spike recoveries were within the established acceptance limits.

LCS/LCSD Relative Percent Difference (RPD) Statement
The LCS/LCSD RPD for 2,4,6-Trinitrotoluene was 29.2%. The acceptance limits are 0-25%. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the analytical process. The data are reported. Please see data exception report 779676.

QC Sample Designation
A matrix spike was not performed with this batch.

Internal Standard (ISTD) Acceptance
Samples 1201999938 (LCS), 1201999941 (LCSD) and 243099004 (CAPA-10-6818)failed ISTD acceptance criteria. They were re-analyzed and confirmed the failures. The initial analysis data are reported. The confirmation raw data are in the Miscellaneous Section of the data package. Please see data exception report 779676.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

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Sample Re-extraction/Re-analysis
Samples 1201999938 (LCS), 1201999941 (LCSD) and 243099004 (CAPA-10-6818)failed ISTD acceptance criteria. They were re-analyzed and confirmed the failures. The initial analysis data are reported. The confirmation raw data are in the Miscellaneous Section of the data package. Please see data exception report 779676.

Secondary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

Laboratory Control Sample Duplicate (LCSD) Recovery
The LCSD recovered 2,6-Diamino-4-nitrotoluene at 133%. The recovery limits are 59-123%. Since 2,6-Diamino-4-nitrotoluene was not detected in the associated sample and exhibited a high bias, the data are reported. Please see data exception report 779676.

LCS/LCSD Relative Percent Difference (RPD) Statement
The RPD(s) between the LCS and LCSD met the acceptance limits.

QC Sample Designation
A matrix spike was not performed with this batch.

Internal Standard (ISTD) Acceptance
The internal standards were not added to the secondary analyte extracts.

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Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report 779676 was generated for this SDG.

The LCSD recovered 2,6-Diamino-4-nitrotoluene at 133%. The recovery limits are 59-123%. Since 2,6-Diamino-4-nitrotoluene was not detected in the associated sample and exhibited a high bias, the data are reported.

The LCS/LCSD RPD for 2,4,6-Trinitrotoluene was 29.2%. The acceptance limits are 0-25%. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the analytical process. The data are reported

Samples 1201999938 (LCS), 1201999941 (LCSD) and 243099004 (CAPA-10-6818)failed ISTD acceptance criteria. They were re-analyzed and confirmed the failures. The initial analysis data are reported. The confirmation raw data are in the Miscellaneous Section of the data package.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

Flagging Convention
The sample was not originally analyzed using SW-846 Method 8330.

Additional Comments
Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

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System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert M Marc **Date:** 01/13/10

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SAMPLE DATA SUMMARY

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6818

Lab Code: GEL

GEL Job No (SDG) 10-952

Matrix: GROUND WATER

GEL Sample ID: 243099004

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 17-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 934770

Concentrated Extract Volume (mL) 5

Date Extracted: 21-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0108156a

Date Analyzed: 11-JAN-10 21:29

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	U
121-14-2	2,4-Dinitrotoluene	0.325	U
121-82-4	RDX	0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	U
2691-41-0	HMX	0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	U
479-45-8	Tetryl	0.649	U
606-20-2	2,6-Dinitrotoluene	0.325	U
78-11-5	PETN	1.3	U
88-72-2	o-Nitrotoluene	0.325	U
98-95-3	Nitrobenzene	0.325	U
99-08-1	m-Nitrotoluene	0.325	U
99-35-4	1,3,5-Trinitrobenzene	0.325	U
99-65-0	m-Dinitrobenzene	0.325	U
99-99-0	p-Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6818

Lab Code: GEL

GEL Job No (SDG) 10-952

Matrix: GROUND WATER

GEL Sample ID: 243099004

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 17-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 934770

Concentrated Extract Volume (mL) 5

Date Extracted: 21-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS12230027.wiff

Date Analyzed: 23-DEC-09 21:36

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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QUALITY CONTROL SUMMARY

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2

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–952

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
243099004	CAPA–10–6818	103	66.8 – 128.8	
243099004	CAPA–10–6818	100	66.8 – 128.8	
1201999937	MB for batch 934770	104	66.8 – 128.8	
1201999937	MB for batch 934770	98.8	66.8 – 128.8	
1201999938	LCS for batch 934770	106	66.8 – 128.8	
1201999938	LCS for batch 934770	99.2	66.8 – 128.8	
1201999941	LCSD for batch 934770	110	66.8 – 128.8	
1201999941	LCSD for batch 934770	98.8	66.8 – 128.8	

DNT = 3,4–Dinitrotoluene

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-952

Extract Batch Code: 934770

Date Extracted: 21-DEC-09

GEL LCS ID: 1201999938

GEL LCSDUP ID: 1201999941

Analysis Date/Time: 11-JAN-10 20:30

DUP Analysis Date/Time:

Reporting Units: ug/L

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
p-Nitrotoluene	6.49351	4.87	75	4.96	76.4	1.83	25	64 – 117
1,3,5-Trinitrobenzene	6.49351	6.16	94.9	6.62	102	7.11	25	64.7 – 122
2,4,6-Trinitrotoluene	6.49351	6.22	95.9	8.35	129	29.2 *	25	76 – 132
2,4-Dinitrotoluene	6.49351	5.88	90.6	6.64	102	12.1	25	76.9 – 126
2,6-Dinitrotoluene	6.49351	5.69	87.6	6.32	97.3	10.4	25	78.8 – 117
2-Amino-4,6-dinitrotoluene	6.49351	6.87	106	7.91	122	14.1	25	72.9 – 142
4-Amino-2,6-dinitrotoluene	6.49351	5.85	90.1	7.01	108	18.1	25	75.7 – 130
HMX	6.49351	5.32	81.9	6.83	105	24.9	25	59.6 – 135
Nitrobenzene	6.49351	4.56	70.2	5.11	78.7	11.4	25	65 – 116
PETN	6.49351	6.65	102	6.3	97	5.44	25	58.8 – 135
RDX	6.49351	6.69	103	7.19	111	7.15	25	68.3 – 140
Tetryl	6.49351	4.96	76.4	5.63	86.7	12.7	25	56.9 – 126
m-Dinitrobenzene	6.49351	5.73	88.3	6.21	95.7	8.05	25	75.7 – 119
m-Nitrotoluene	6.49351	5.12	78.9	4.61	71	10.6	25	62 – 120
o-Nitrotoluene	6.49351	4.82	74.2	4.84	74.6	.51	25	63.3 – 114

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10–952

Extract Batch Code: 934770

Date Extracted: 21–DEC–09

GEL LCS ID: 1201999938

GEL LCSDUP ID: 1201999941

Analysis Date/Time: 23–DEC–09 21:05

DUP Analysis Date/Time:

Reporting Units: ug/L

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec	#	LCSD Conc	LCSD Rec	#	RPD	#	RPD	Recovery Limits
2,4–Diamino–6–nitrotoluene	6.49351	5.87	90.4		6.94	107		16.6		25	52.3 – 113
2,6–Diamino–4–nitrotoluene	6.49351	6.9	106		8.62	133	*	22.3		25	59.1 – 123
3,5–Dinitroaniline	6.49351	5.7	87.8		6.08	93.6		6.4		25	68.2 – 116
tris(o–cresyl) phosphate	6.49351	2.19	33.8		2.65	40.8		18.8		25	26.1 – 68.5
TATB	6.49351	5.43	83.6		5.62	86.6		3.53		25	32.7 – 150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–952

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 08–JAN–10 17:15

GEL Data File: EXP0108001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	483.878
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	501.47
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\010810expa.mdb, Time: Sat Jan 09 11:44:31 2010
Calibration: Untitled, Time: Sat Jan 09 12:01:37 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108001a
Date: 08-Jan-2010
Time: 17:15:04
ID: XIBLK01
Vial: 1:1,A

MAP 1/9/10

HMX

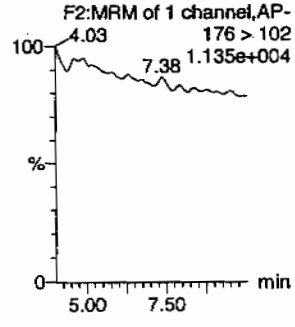

RDX

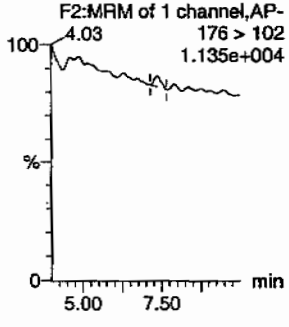

135-Trinitrobenzene

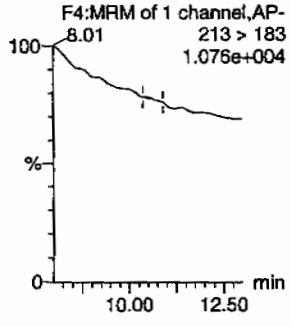

13-Dinitrobenzene-d4

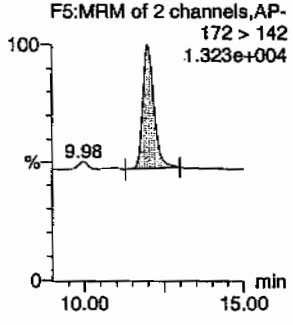

13-Dinitrobenzene

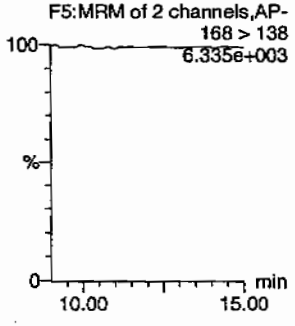

Tetryl

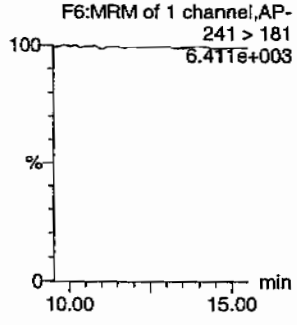

Nitrobenzene

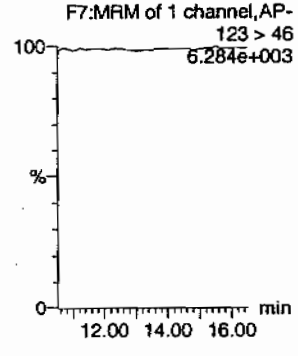

4-Amino-26-dinitrotoluene

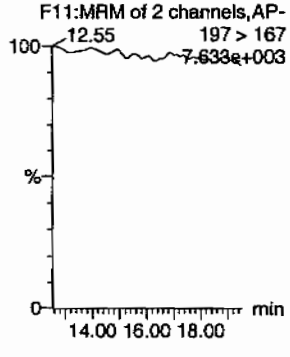

2-Amino-46-dinitrotoluene

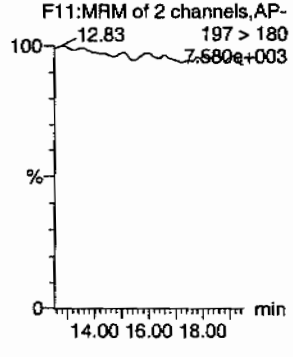

246-Trinitrotoluene

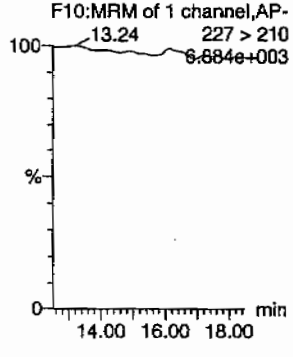

34-dinitrotoluene

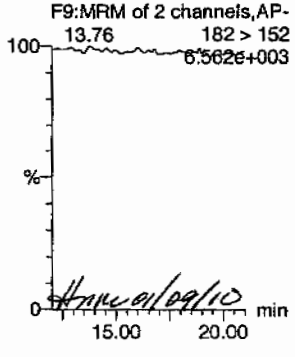

HMW 01/09/10

26-dinitrotoluene

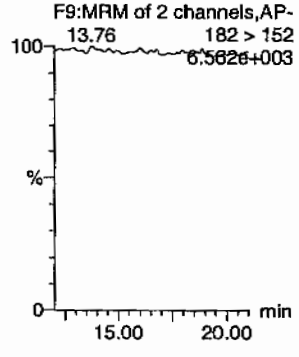

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

24-dinitrotoluene

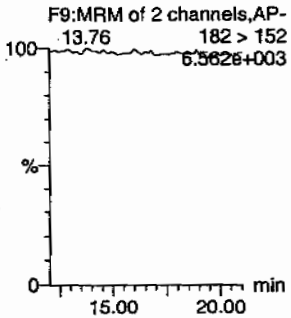

26-dinitrotoluene-d3

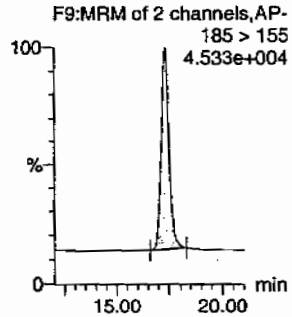

2-Nitrotoluene

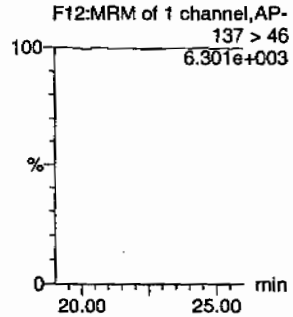

4-Nitrotoluene

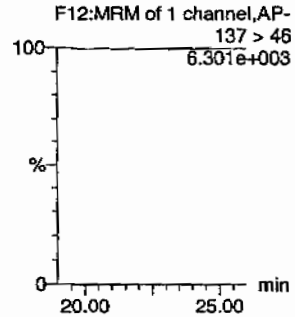

3-Nitrotoluene

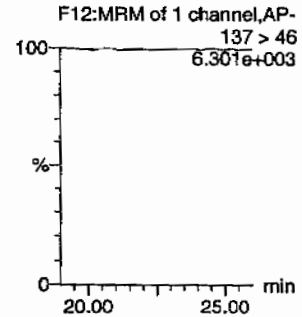

PETN

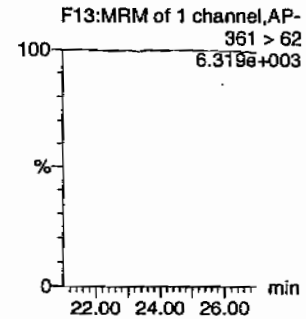

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			2835.068									
XIBLK01	RDX	176 > 102			2835.068			MM-	09-Jan-10	11:47:13				
XIBLK01	135-Trinitrobenzene	213 > 183			2835.068			MM-	09-Jan-10	11:47:16				
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.00	2835.068		2835.068	2835.068	bb			483.8777	96.8	-3.2	210.8
XIBLK01	13-Dinitrobenzene	168 > 138			2835.068									
XIBLK01	Tetryl	241 > 181			2835.068									
XIBLK01	Nitrobenzene	123 > 46			2835.068									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			16935.943									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			16935.943									
XIBLK01	246-Trinitrotoluene	227 > 210			16935.943									
XIBLK01	34-dinitrotoluene	182 > 152			16935.943									
XIBLK01	26-dinitrotoluene	182 > 152			16935.943									
XIBLK01	24-dinitrotoluene	182 > 152			16935.943									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.30	16935.943		16935.943	16935.943	bb			501.4696	100.3	0.3	1514.5
XIBLK01	2-Nitrotoluene	137 > 46			16935.943									
XIBLK01	4-Nitrotoluene	137 > 46			16935.943									
XIBLK01	3-Nitrotoluene	137 > 46			16935.943									
XIBLK01	PETN	361 > 62			16935.943									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-952

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 08-JAN-10 17:44

GEL Data File: EXP0108002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	481.722
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	602.181
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108002a
Date: 08-Jan-2010
Time: 17:44:36
ID: XIBLK01
Vial: 1:1,A

MATT 1/9/10

HMX

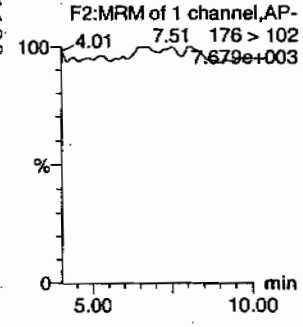

RDX

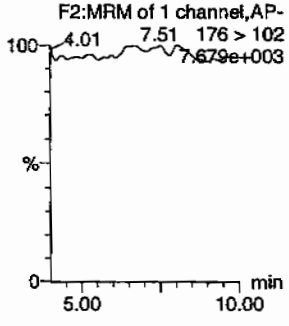

135-Trinitrobenzene

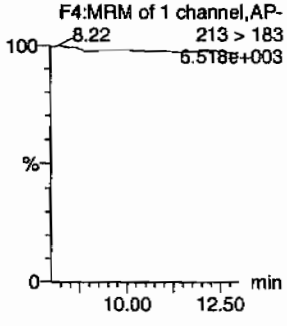

13-Dinitrobenzene-d4

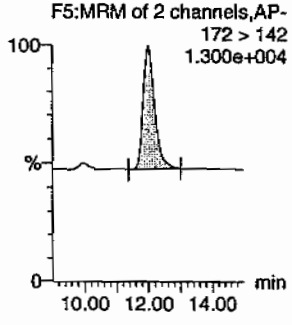

13-Dinitrobenzene

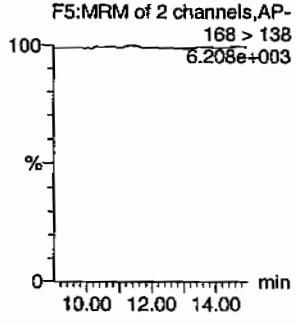

Tetryl

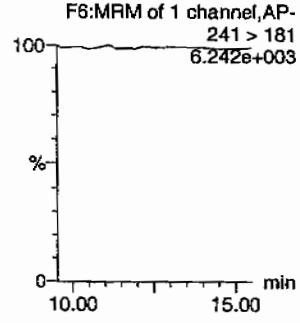

Nitrobenzene

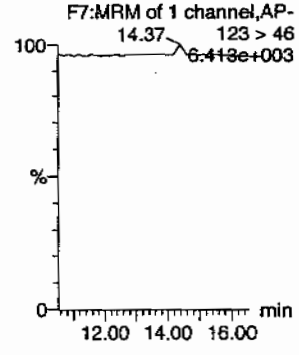

4-Amino-26-dinitrotoluene

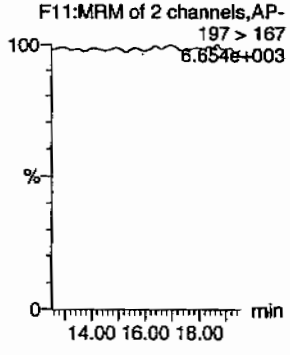

2-Amino-46-dinitrotoluene

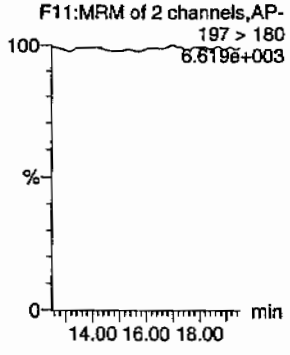

246-Trinitrotoluene

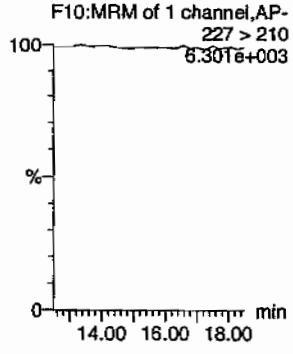

34-dinitrotoluene

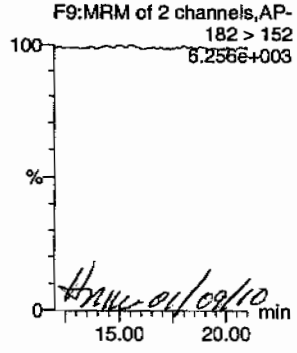

HMW 01/08/10

26-dinitrotoluene

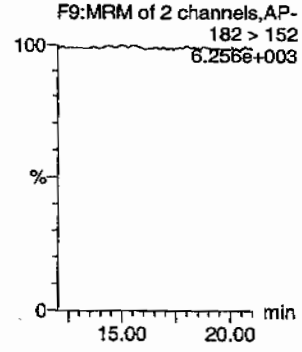

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Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

24-dinitrotoluene

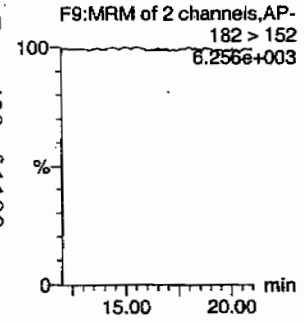

26-dinitrotoluene-d3

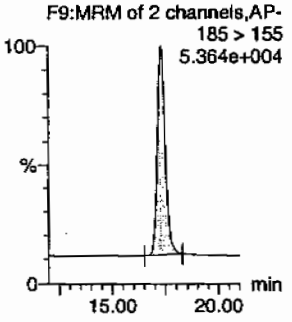

2-Nitrotoluene

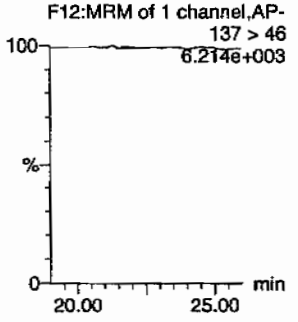

4-Nitrotoluene

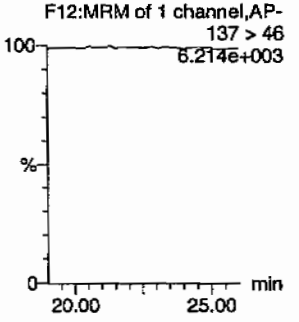

3-Nitrotoluene

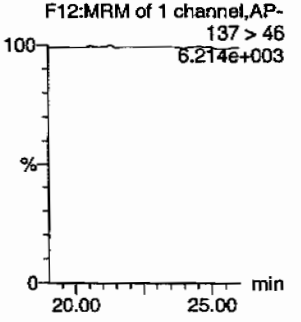

PETN

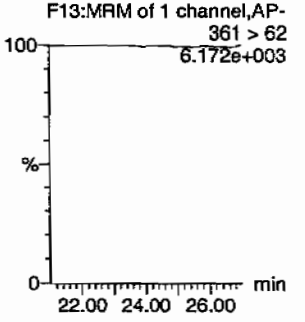

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			2822.435									
XIBLK01	RDX	176 > 102			2822.435									
XIBLK01	135-Trinitrobenzene	213 > 183			2822.435									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.00	2822.435		2822.435	2822.435	bb			481.7216	96.3	-3.7	205.1
XIBLK01	13-Dinitrobenzene	168 > 138			2822.435									
XIBLK01	Tetryl	241 > 181			2822.435									
XIBLK01	Nitrobenzene	123 > 46			2822.435									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			20337.240									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			20337.240									
XIBLK01	246-Trinitrotoluene	227 > 210			20337.240									
XIBLK01	34-dinitrotoluene	182 > 152			20337.240									
XIBLK01	26-dinitrotoluene	182 > 152			20337.240									
XIBLK01	24-dinitrotoluene	182 > 152			20337.240									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.31	20337.240		20337.240	20337.240	bb			602.1813	120.4	20.4	2319.5
XIBLK01	2-Nitrotoluene	137 > 46			20337.240									
XIBLK01	4-Nitrotoluene	137 > 46			20337.240									
XIBLK01	3-Nitrotoluene	137 > 46			20337.240									
XIBLK01	PETN	361 > 62			20337.240									

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–952

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 23–DEC–09 14:48

GEL Data File: EXS12230001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	10.1
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS12230001.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 2:48:25 PM

Modified: No

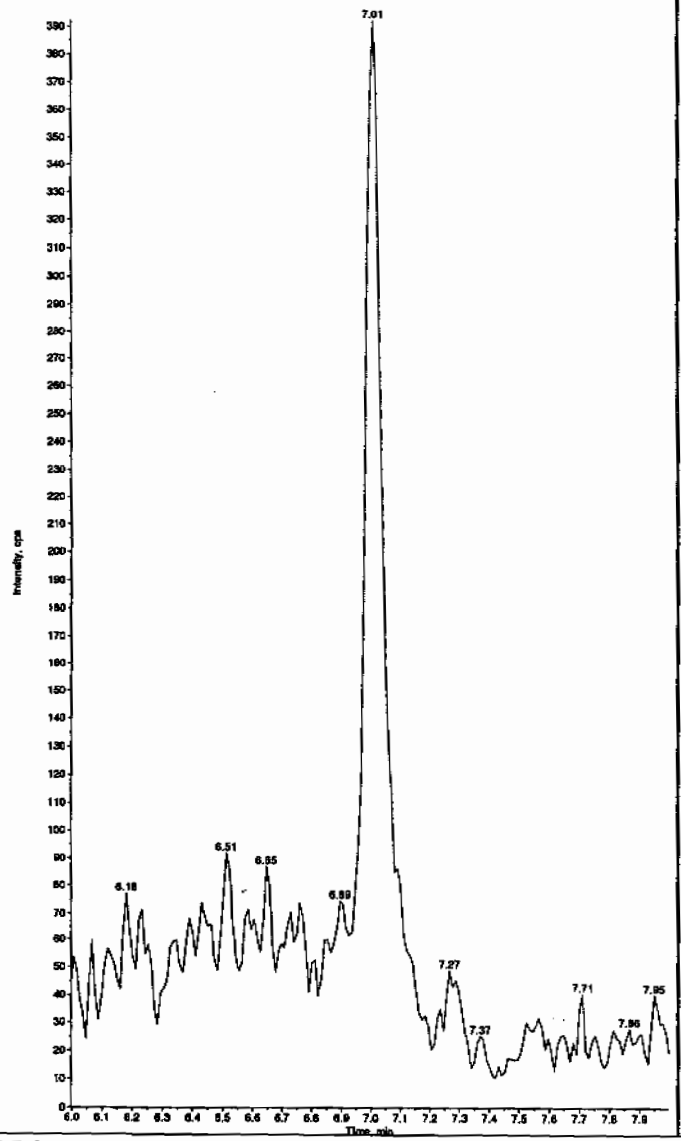

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS12230001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 2:48:25 PM

Modified: No

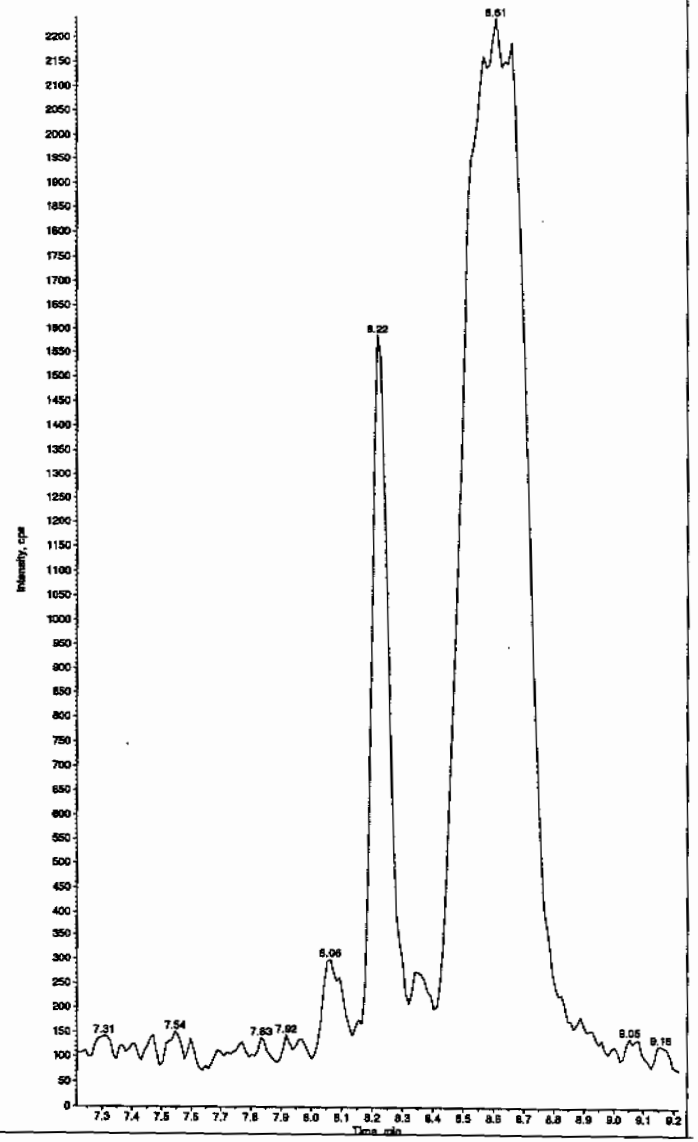

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS12230001.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 2:48:25 PM

Modified: No

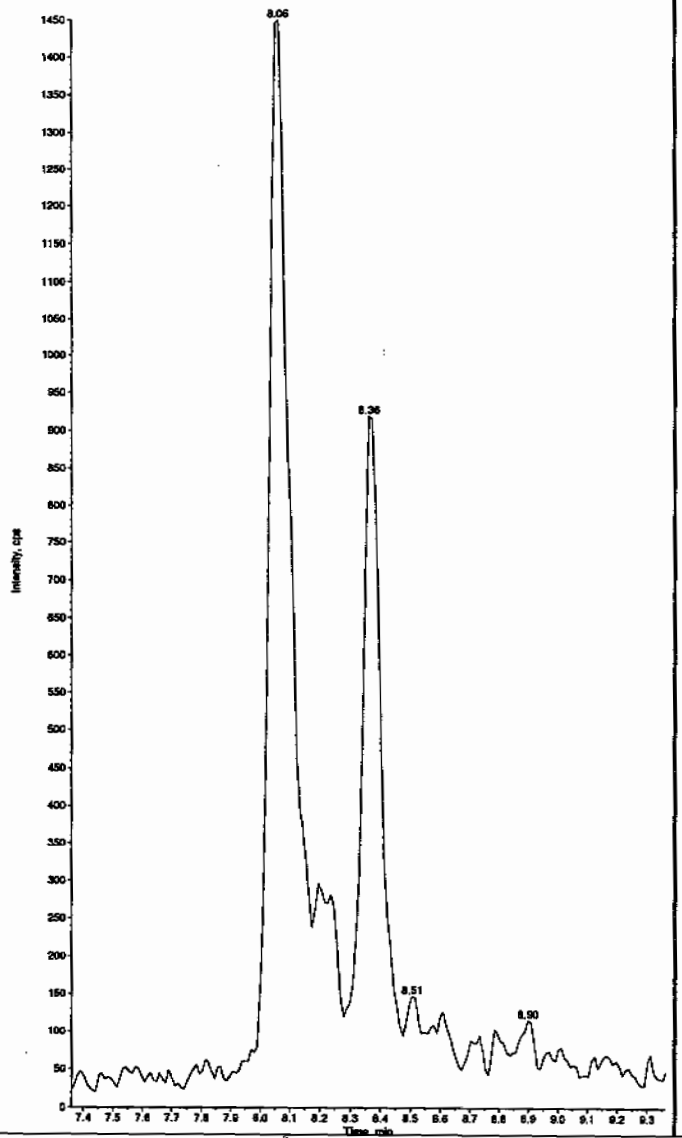

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS12230001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 2:48:25 PM

Modified: No

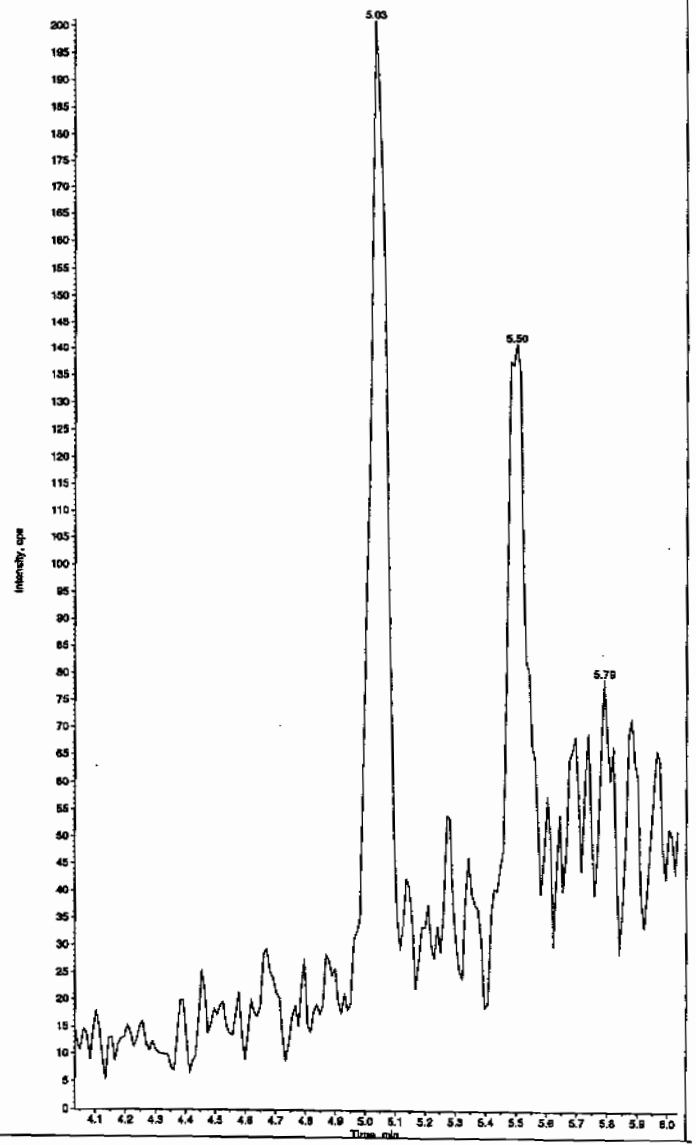

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS12230001.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 2:48:25 PM

Modified: No

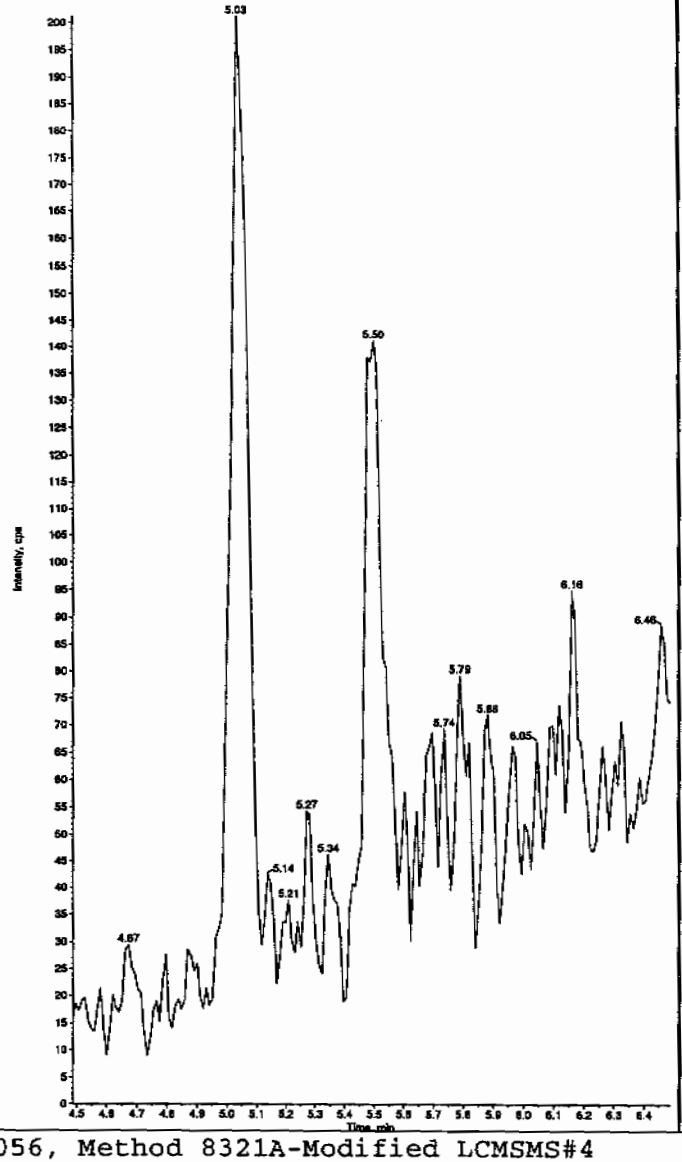

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS12230001.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 10.1 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 2:48:25 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 4.26e+005 counts
Height: 109172.623 cps
Start Time: 10.8 min
End Time: 11.1 min

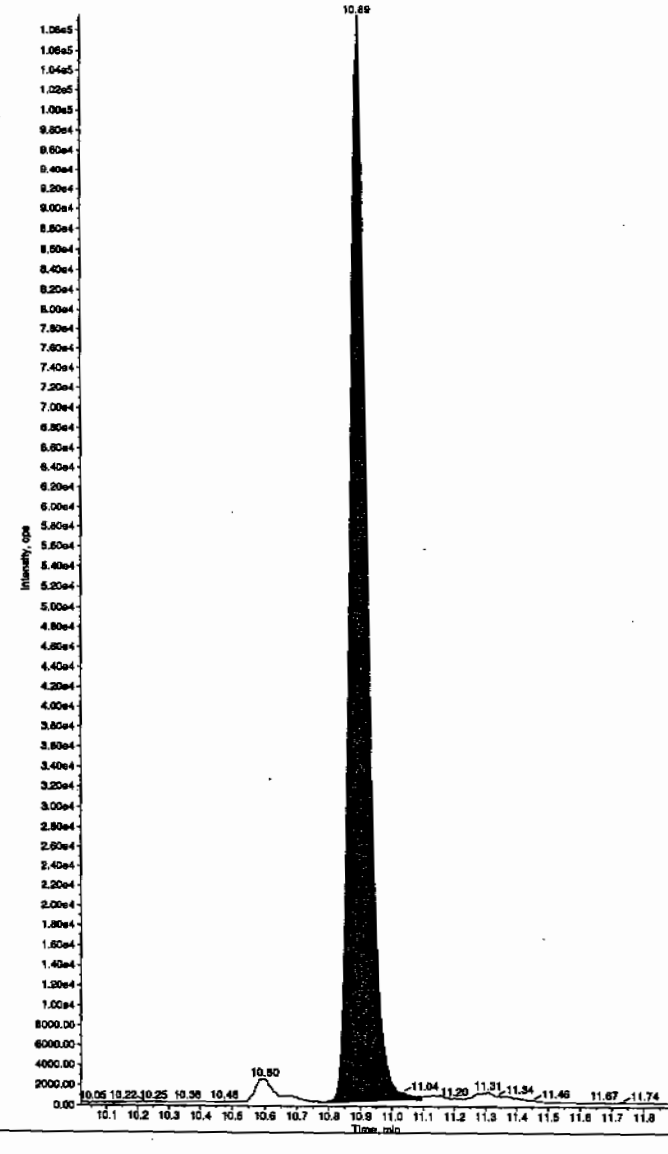

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–952

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 23–DEC–09 15:04

GEL Data File: EXS12230002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0
3,4–Dinitrotoluene	0	0

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS12230002.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 3:04:12 PM

Modified: No

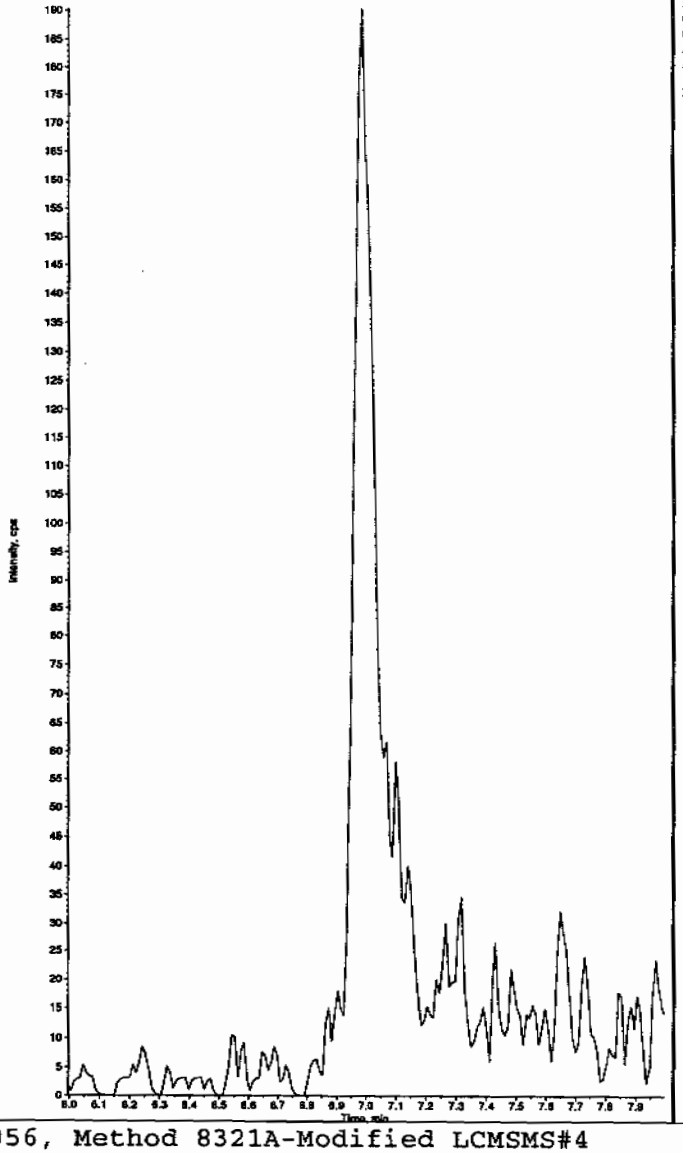

Sample Name: "X8LK01" Sample ID: "[1]LER" File: "EXS12230002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 3:04:12 PM

Modified: No

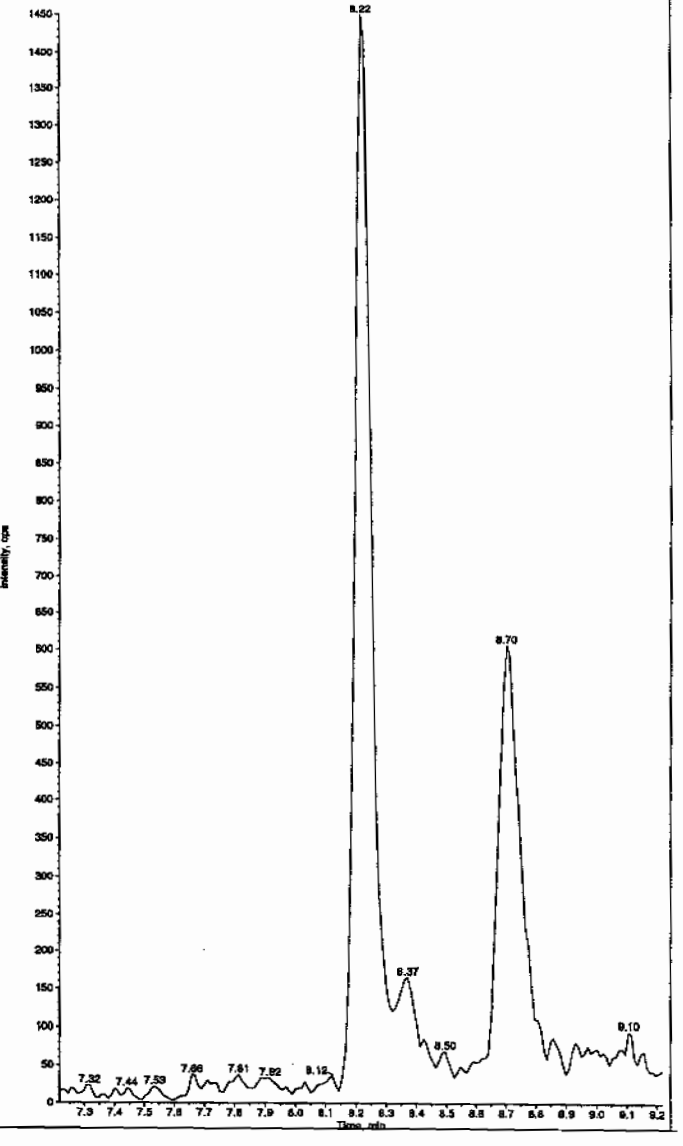

Han 12/29/09

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS12230002.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 3:04:12 PM

Modified: No

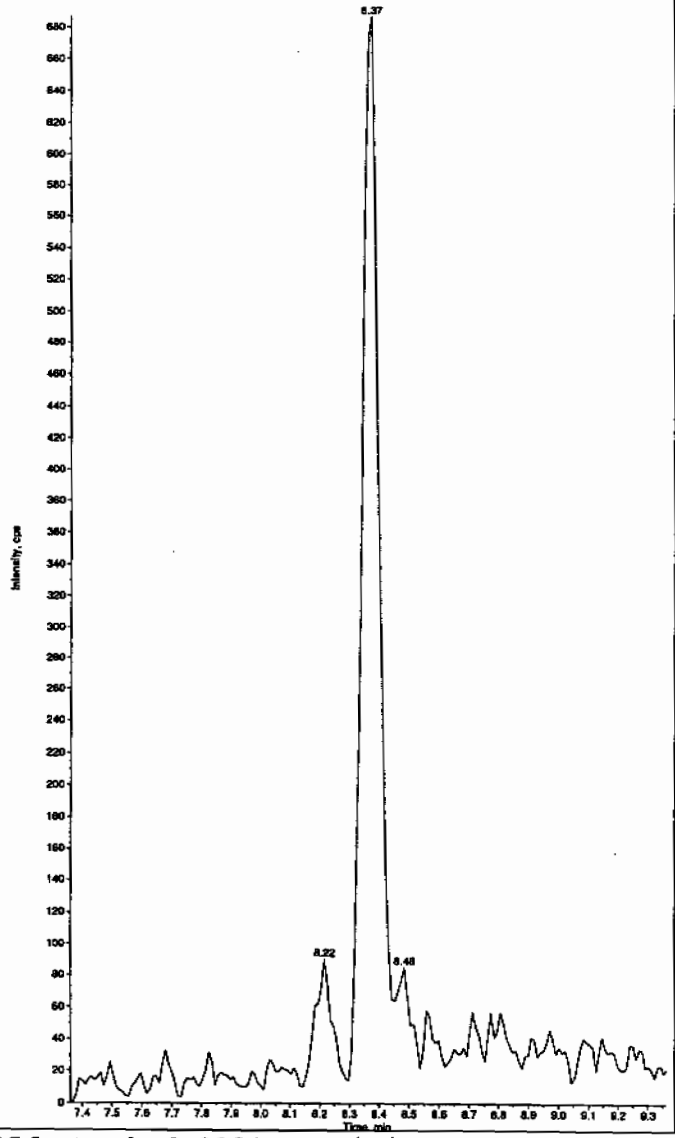

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS12230002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 3:04:12 PM

Modified: No

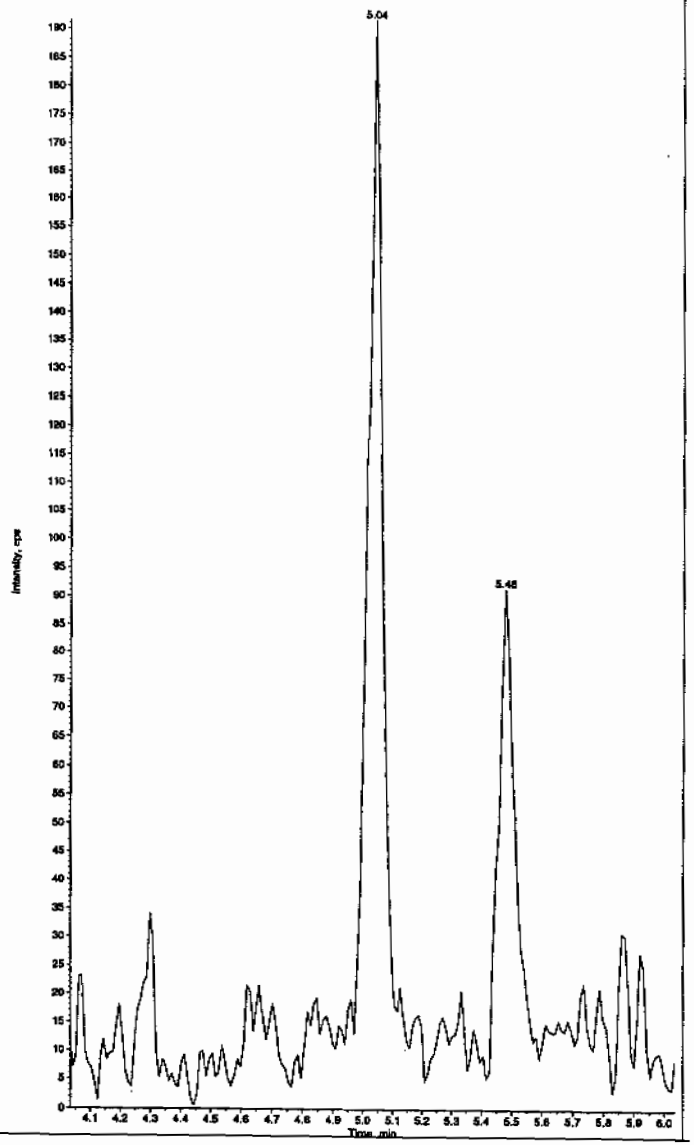

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS12230002.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 3:04:12 PM

Modified: No

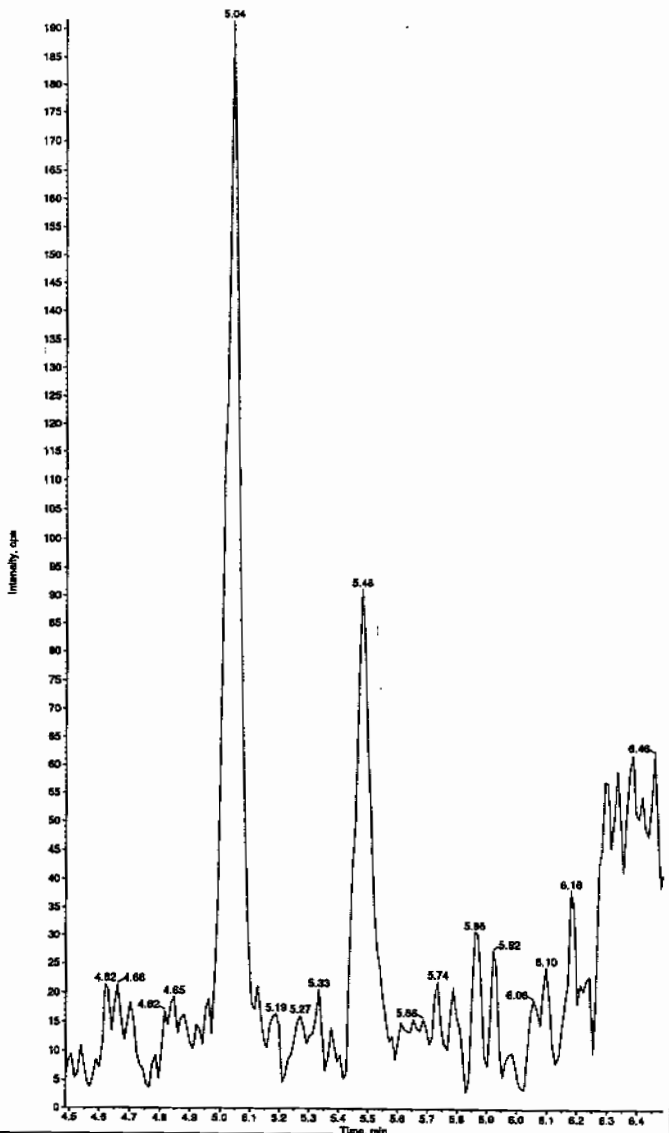

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS12230002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: < 0
Acq. Date: 12/23/2009
Acq. Time: 3:04:12 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.19e+005 counts
Height: 29435.400 cps
Start Time: 10.8 min
End Time: 11.2 min

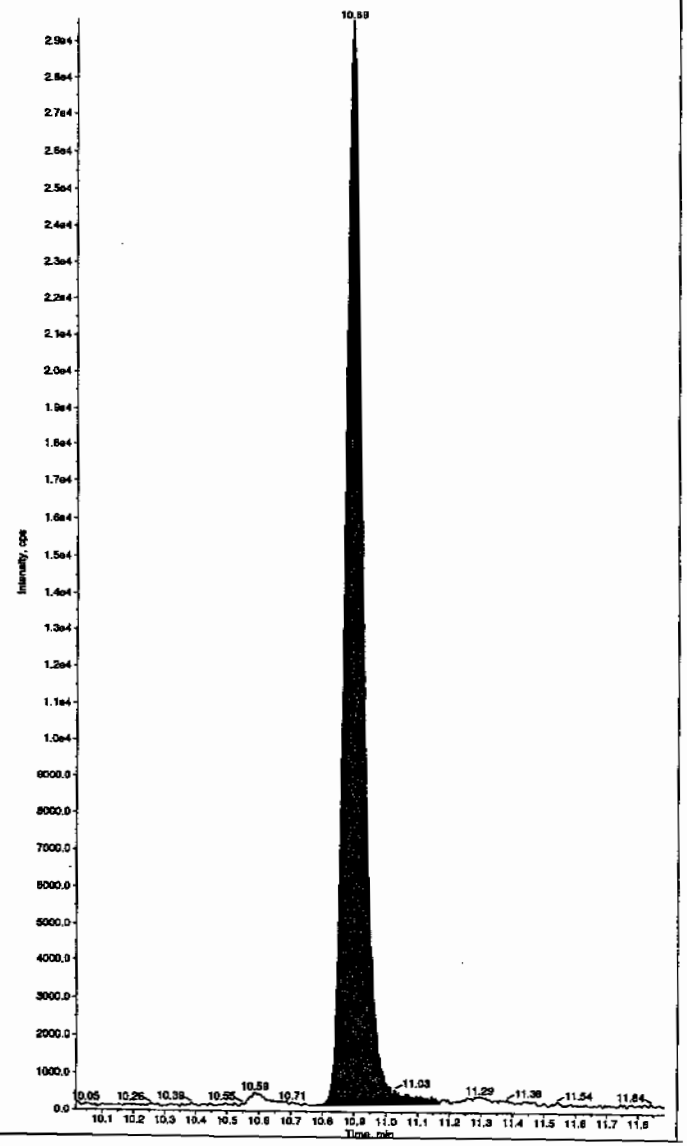

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-952
Lab Code: GEL
Lab Sample ID: XIBLK02
Analysis Date: 08-JAN-10 21:11
GEL Data File: EXP0108009a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
1,3-Dinitrobenzene-d4	500	521.887
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	494.811
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
3,4-Dinitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108009a
Date: 08-Jan-2010
Time: 21:11:10
ID: XIBLK02
Vial: 1:1,A

HMX 1/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.185e+003

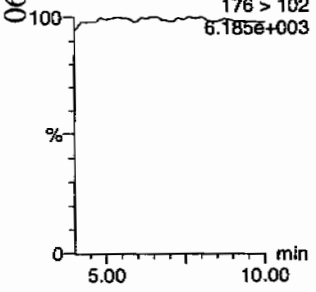

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.185e+003

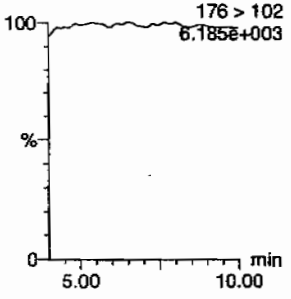

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.819e+003

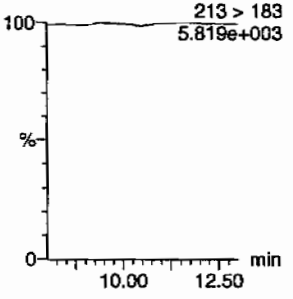

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.334e+004

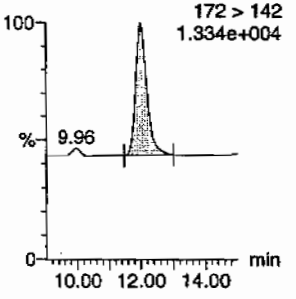

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.816e+003

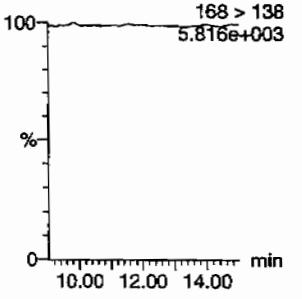

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.805e+003

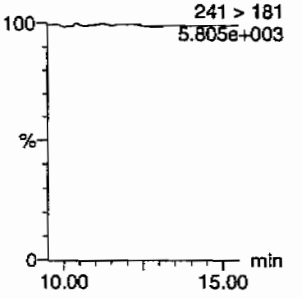

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.779e+003

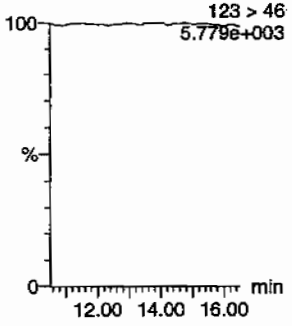

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
12.52
197 > 167
5.995e+003

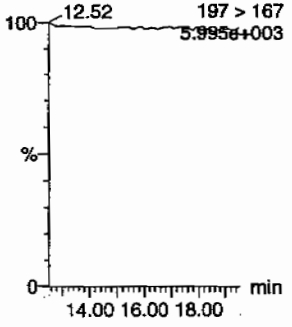

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.905e+003

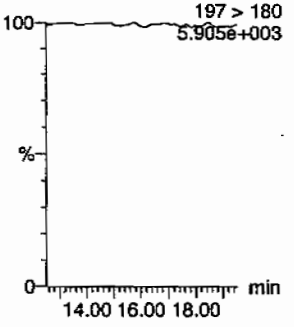

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.805e+003

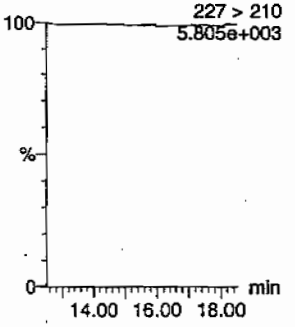

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.814e+003

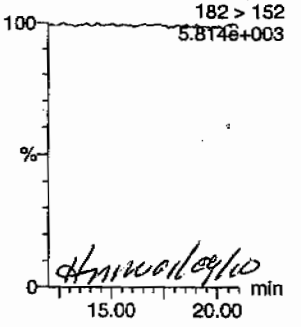

HMW 1/9/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.814e+003

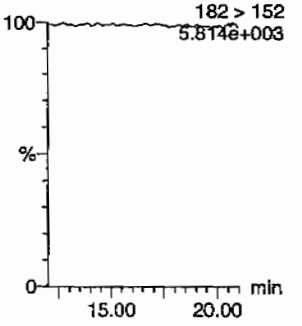

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

24-dinitrotoluene

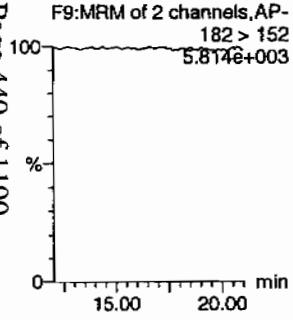

26-dinitrotoluene-d3

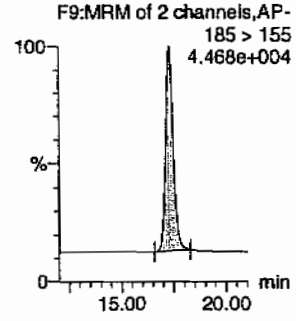

2-Nitrotoluene

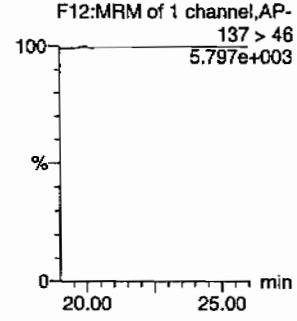

4-Nitrotoluene

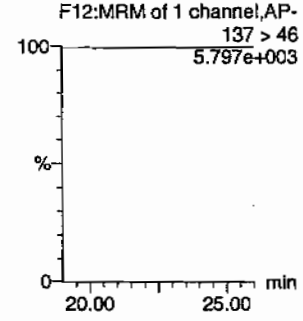

3-Nitrotoluene

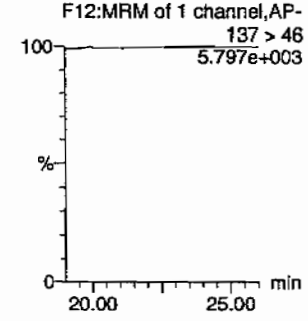

PETN

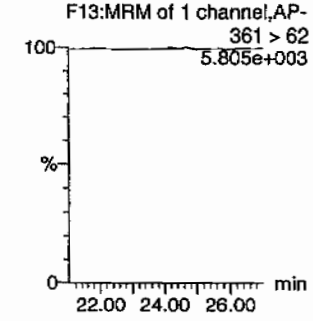

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK02	HMX	176 > 102			3057.764									
XIBLK02	RDX	176 > 102			3057.764									
XIBLK02	135-Trinitrobenzene	213 > 183			3057.764									
XIBLK02	13-Dinitrobenzene-d4	172 > 142	11.97	3057.764		3057.764	3057.764	bb			521.8866	104.4	4.4	383.4
XIBLK02	13-Dinitrobenzene	168 > 138			3057.764									
XIBLK02	Tetryl	241 > 181			3057.764									
XIBLK02	Nitrobenzene	123 > 46			3057.764									
XIBLK02	4-Amino-26-dinitrotoluene	197 > 167			16711.070									
XIBLK02	2-Amino-46-dinitrotoluene	197 > 180			16711.070									
XIBLK02	246-Trinitrotoluene	227 > 210			16711.070									
XIBLK02	34-dinitrotoluene	182 > 152			16711.070									
XIBLK02	26-dinitrotoluene	182 > 152			16711.070									
XIBLK02	24-dinitrotoluene	182 > 152			16711.070									
XIBLK02	26-dinitrotoluene-d3	185 > 155	17.29	16711.070		16711.070	16711.070	bb			494.8112	99.0	-1.0	1255.0
XIBLK02	2-Nitrotoluene	137 > 46			16711.070									
XIBLK02	4-Nitrotoluene	137 > 46			16711.070									
XIBLK02	3-Nitrotoluene	137 > 46			16711.070									
XIBLK02	PETN	361 > 62			16711.070									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–952

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 08–JAN–10 22:10

GEL Data File: EXP0108011a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	480.456
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	502.281
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108011a
Date: 08-Jan-2010
Time: 22:10:07
ID: XIBLK03
Vial: 1:1,A

MM 1/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.188e+003

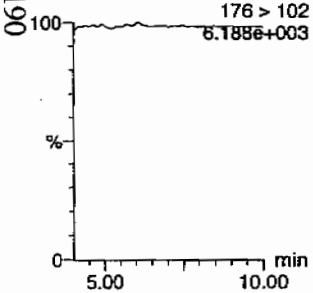

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.188e+003

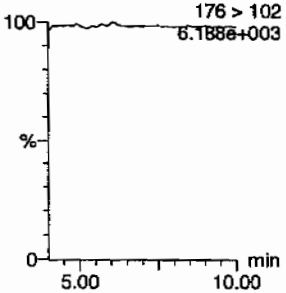

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.893e+003

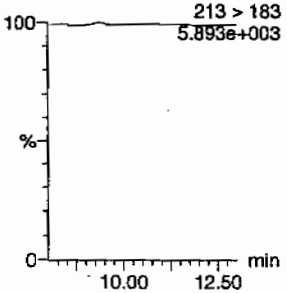

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.285e+004

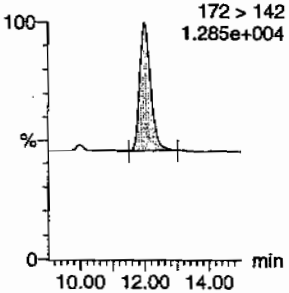

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.853e+003

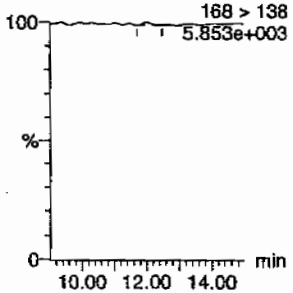

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.869e+003

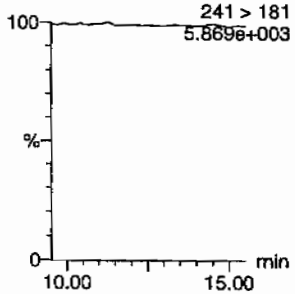

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.885e+003

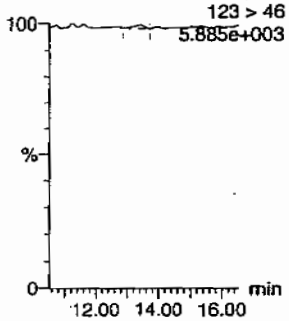

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.936e+003

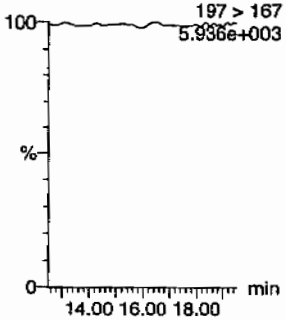

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.943e+003

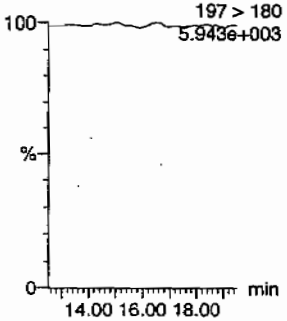

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.837e+003

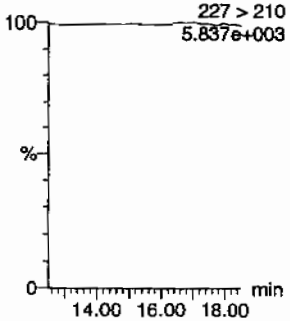

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.893e+003

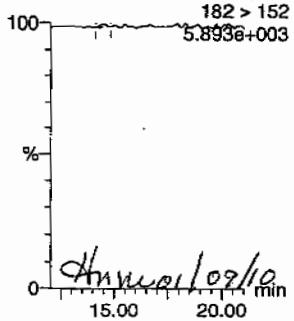

Hmwai 1/09/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.893e+003

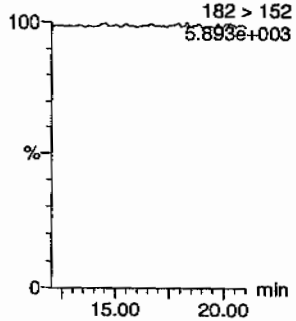

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Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

24-dinitrotoluene

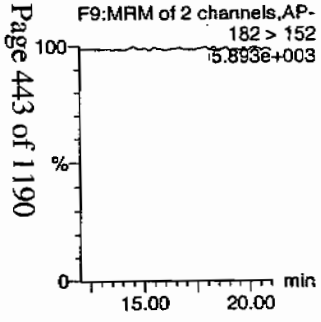

26-dinitrotoluene-d3

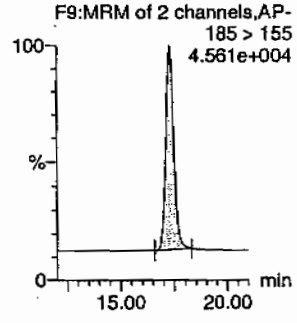

2-Nitrotoluene

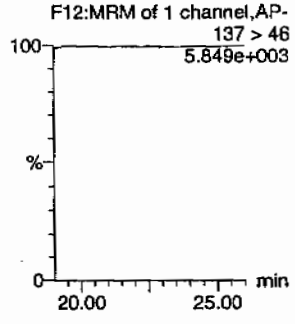

4-Nitrotoluene

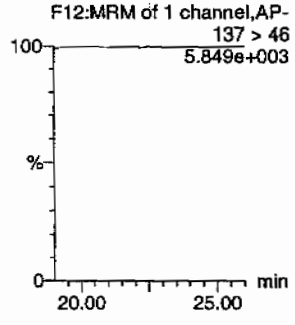

3-Nitrotoluene

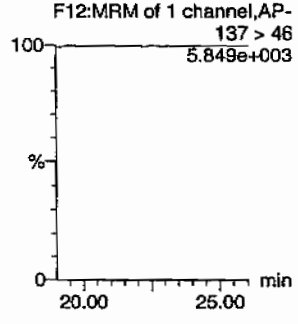

PETN

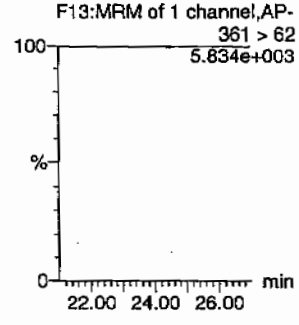

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK03	HMX	176 > 102			2815.021									
XIBLK03	RDX	176 > 102			2815.021									
XIBLK03	135-Trinitrobenzene	213 > 183			2815.021									
XIBLK03	13-Dinitrobenzene-d4	172 > 142	11.97	2815.021		2815.021	2815.021	bb			480.4562	96.1	-3.9	408.0
XIBLK03	13-Dinitrobenzene	168 > 138			2815.021			MM-	09-Jan-10	11:49:50				
XIBLK03	Tetryl	241 > 181			2815.021									
XIBLK03	Nitrobenzene	123 > 46			2815.021			MM-	09-Jan-10	11:50:13				
XIBLK03	4-Amino-26-dinitrotoluene	197 > 167			16963.336									
XIBLK03	2-Amino-46-dinitrotoluene	197 > 180			16963.336									
XIBLK03	246-Trinitrotoluene	227 > 210			16963.336									
XIBLK03	34-dinitrotoluene	182 > 152			16963.336			MM-	09-Jan-10	11:53:50				
XIBLK03	26-dinitrotoluene	182 > 152			16963.336									
XIBLK03	24-dinitrotoluene	182 > 152			16963.336			MM-	09-Jan-10	11:57:50				
XIBLK03	26-dinitrotoluene-d3	185 > 155	17.29	16963.336		16963.336	16963.336	bb			502.2807	100.5	0.5	2277.2
XIBLK03	2-Nitrotoluene	137 > 46			16963.336									
XIBLK03	4-Nitrotoluene	137 > 46			16963.336									
XIBLK03	3-Nitrotoluene	137 > 46			16963.336									
XIBLK03	PETN	361 > 62			16963.336									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–952

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 09–JAN–10 02:05

GEL Data File: EXP0108019a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	564.671
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	483.622
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108019a
Date: 09-Jan-2010
Time: 02:05:56
ID: XIBLK04
Vial: 1:1,A

MMT 1/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.782e+003

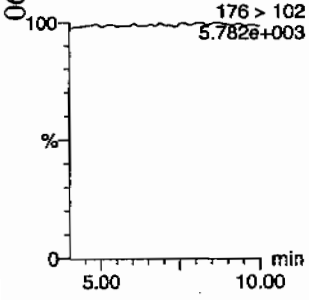

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.782e+003

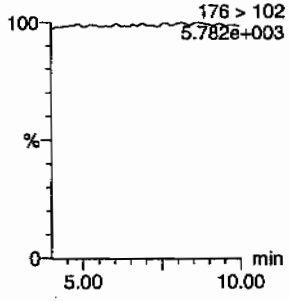

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.619e+003

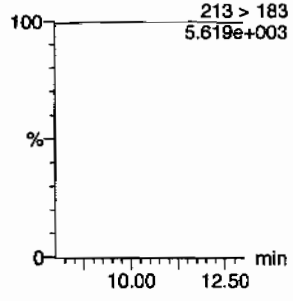

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.391e+004

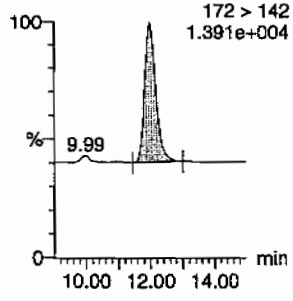

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.616e+003

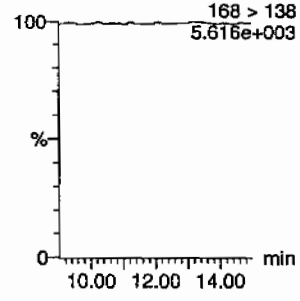

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.620e+003

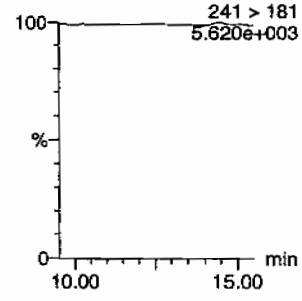

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.630e+003

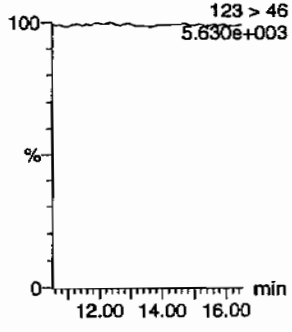

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.667e+003

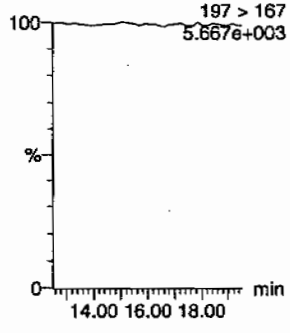

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.673e+003

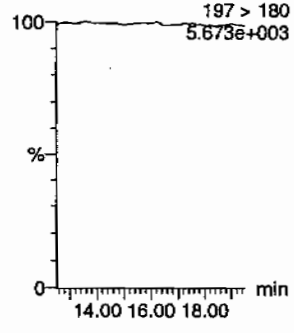

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.632e+003

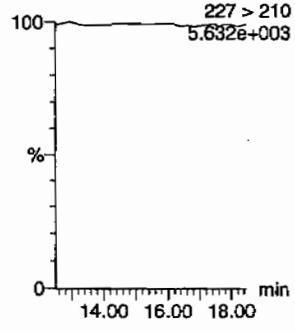

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.644e+003

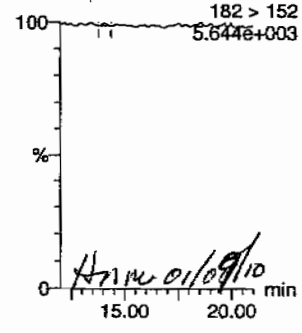

HMW 01/09/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.644e+003

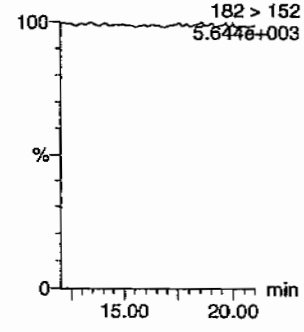

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

24-dinitrotoluene

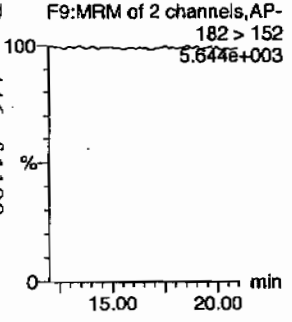

26-dinitrotoluene-d3

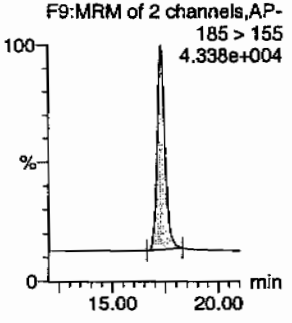

2-Nitrotoluene

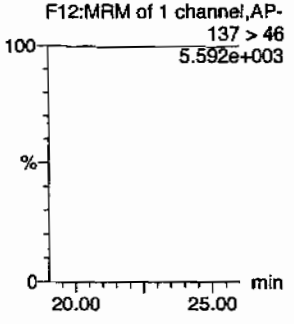

4-Nitrotoluene

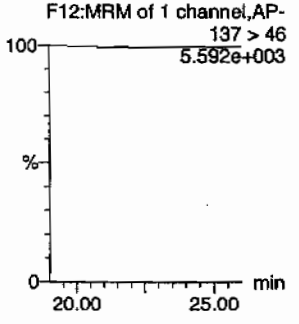

3-Nitrotoluene

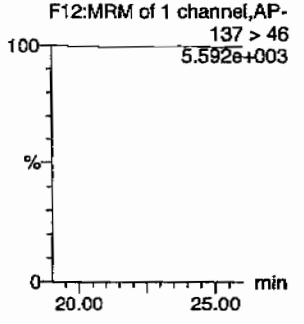

PETN

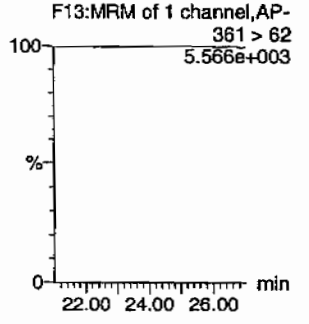

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK04	HMX	176 > 102			3308.440									
XIBLK04	RDX	176 > 102			3308.440									
XIBLK04	135-Trinitrobenzene	213 > 183			3308.440									
XIBLK04	13-Dinitrobenzene-d4	172 > 142	11.97	3308.440		3308.440	3308.440	bb			564.6709	112.9	12.9	301.2
XIBLK04	13-Dinitrobenzene	168 > 138			3308.440									
XIBLK04	Tetryl	241 > 181			3308.440									
XIBLK04	Nitrobenzene	123 > 46			3308.440									
XIBLK04	4-Amino-26-dinitrotoluene	197 > 167			16333.198									
XIBLK04	2-Amino-46-dinitrotoluene	197 > 180			16333.198									
XIBLK04	246-Trinitrotoluene	227 > 210			16333.198									
XIBLK04	34-dinitrotoluene	182 > 152			16333.198			MM-	09-Jan-10	11:53:43				
XIBLK04	26-dinitrotoluene	182 > 152			16333.198									
XIBLK04	24-dinitrotoluene	182 > 152			16333.198									
XIBLK04	26-dinitrotoluene-d3	185 > 155	17.29	16333.198		16333.198	16333.198	bb			483.6225	96.7	-3.3	1495.0
XIBLK04	2-Nitrotoluene	137 > 46			16333.198									
XIBLK04	4-Nitrotoluene	137 > 46			16333.198									
XIBLK04	3-Nitrotoluene	137 > 46			16333.198									
XIBLK04	PETN	361 > 62			16333.198									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-952
Lab Code: GEL
Lab Sample ID: XIBLK05
Analysis Date: 09-JAN-10 07:00
GEL Data File: EXP0108029a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	508.018
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	560.152
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108029a
Date: 09-Jan-2010
Time: 07:00:47
ID: XIBLK05
Vial: 1:1,A

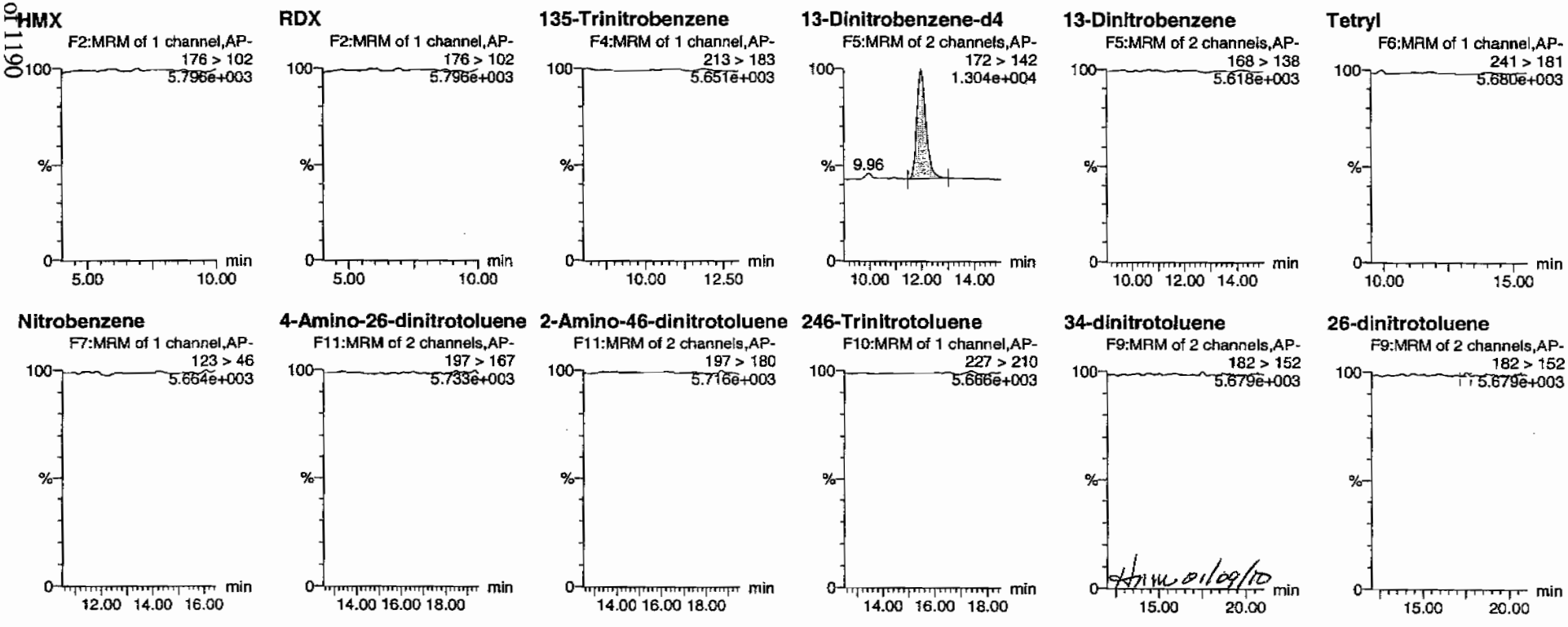

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Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

24-dinitrotoluene

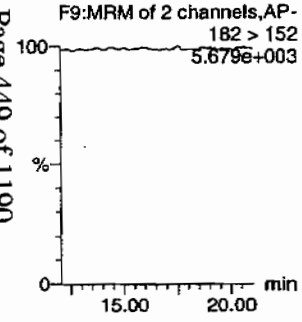

26-dinitrotoluene-d3

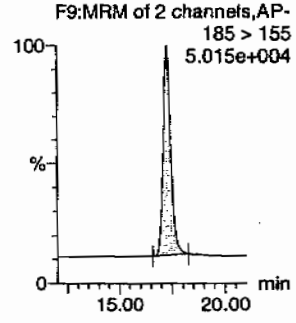

2-Nitrotoluene

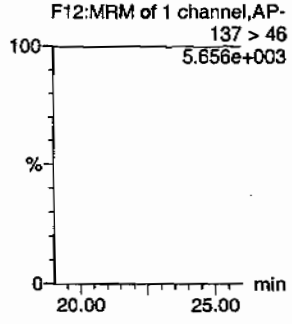

4-Nitrotoluene

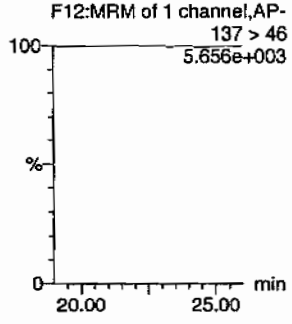

3-Nitrotoluene

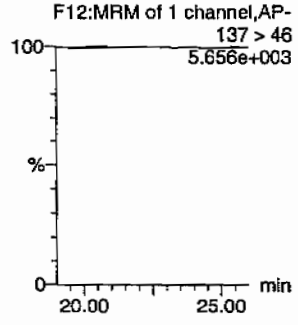

PETN

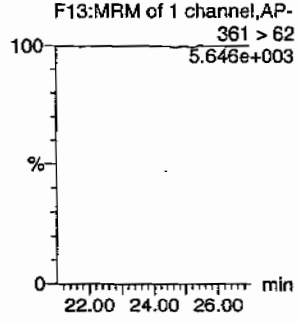

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK05	HMX	176 > 102			2976.505									
XIBLK05	RDX	176 > 102			2976.505									
XIBLK05	135-Trinitrobenzene	213 > 183			2976.505									
XIBLK05	13-Dinitrobenzene-d4	172 > 142	11.97	2976.505		2976.505	2976.505	bb			508.0176	101.6	1.6	261.7
XIBLK05	13-Dinitrobenzene	168 > 138			2976.505									
XIBLK05	Tetryl	241 > 181			2976.505									
XIBLK05	Nitrobenzene	123 > 46			2976.505									
XIBLK05	4-Amino-26-dinitrotoluene	197 > 167			18917.799									
XIBLK05	2-Amino-46-dinitrotoluene	197 > 180			18917.799									
XIBLK05	246-Trinitrotoluene	227 > 210			18917.799									
XIBLK05	34-dinitrotoluene	182 > 152			18917.799									
XIBLK05	26-dinitrotoluene	182 > 152			18917.799			MM-	09-Jan-10	11:56:26				
XIBLK05	24-dinitrotoluene	182 > 152			18917.799									
XIBLK05	26-dinitrotoluene-d3	185 > 155	17.29	18917.799		18917.799	18917.799	bb			560.1520	112.0	12.0	1894.4
XIBLK05	2-Nitrotoluene	137 > 46			18917.799									
XIBLK05	4-Nitrotoluene	137 > 46			18917.799									
XIBLK05	3-Nitrotoluene	137 > 46			18917.799									
XIBLK05	PETN	361 > 62			18917.799									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-952

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 09-JAN-10 13:24

GEL Data File: EXP0108042a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	515.137
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	427.876

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108042a
Date: 09-Jan-2010
Time: 13:24:19
ID: XIBLK06
Vial: 1:1,A

HMX

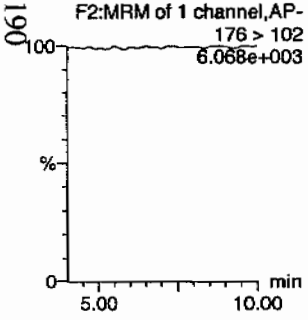

RDX

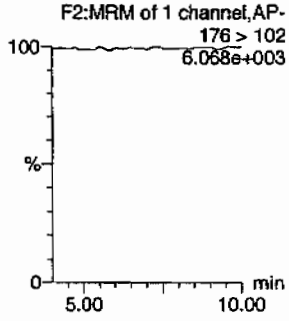

135-Trinitrobenzene

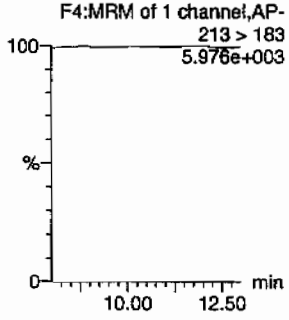

13-Dinitrobenzene-d4

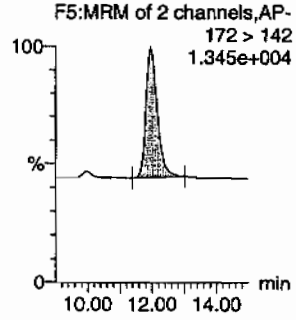

13-Dinitrobenzene

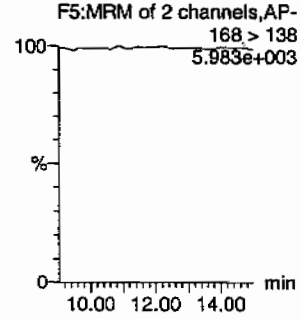

Tetryl

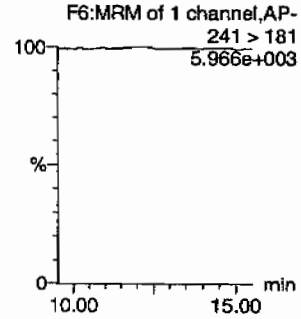

Nitrobenzene

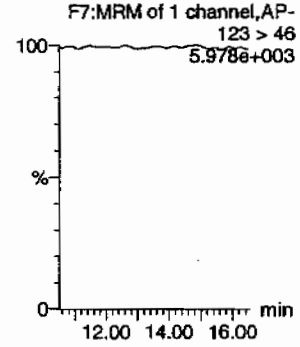

4-Amino-26-dinitrotoluene

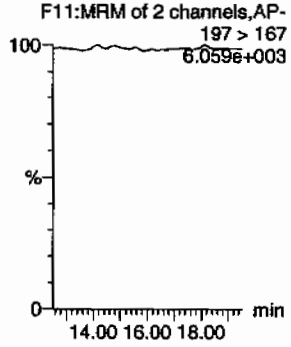

2-Amino-46-dinitrotoluene

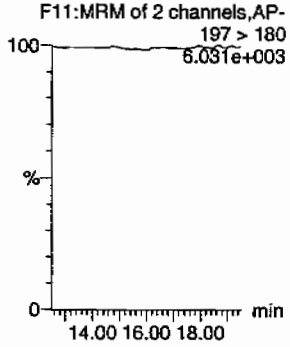

246-Trinitrotoluene

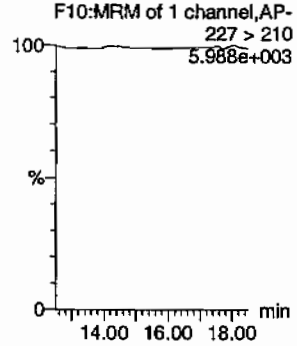

34-dinitrotoluene

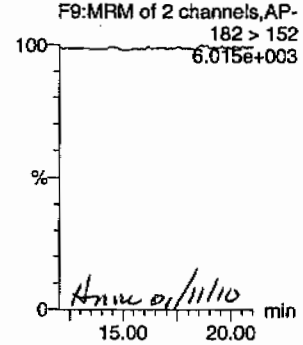

26-dinitrotoluene

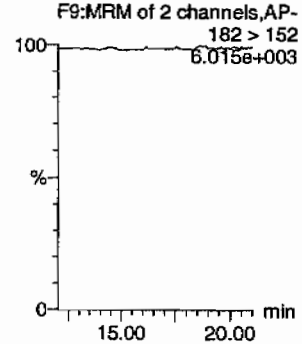

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

24-dinitrotoluene

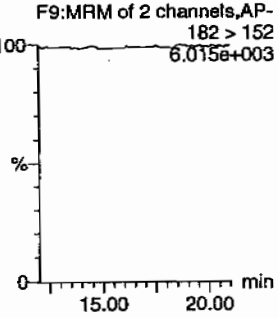

26-dinitrotoluene-d3

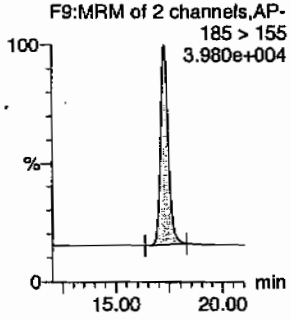

2-Nitrotoluene

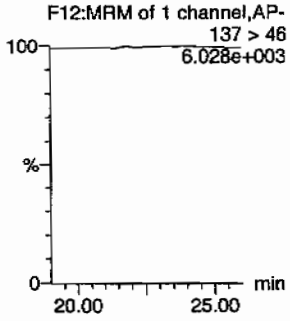

4-Nitrotoluene

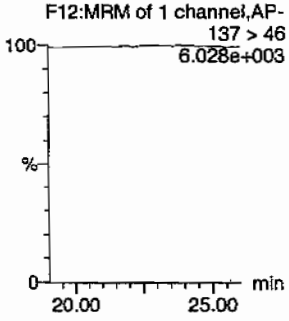

3-Nitrotoluene

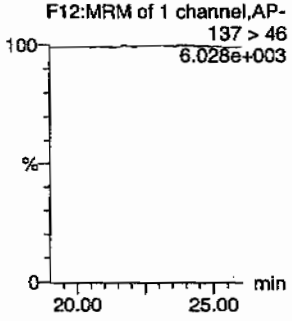

PETN

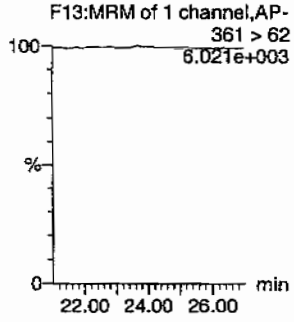

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK06	HMX	176 > 102			3018.220									
XIBLK06	RDX	176 > 102			3018.220									
XIBLK06	135-Trinitrobenzene	213 > 183			3018.220									
XIBLK06	13-Dinitrobenzene-d4	172 > 142	11.97	3018.220		3018.220	3018.220	bb			515.1374	103.0	3.0	334.7
XIBLK06	13-Dinitrobenzene	168 > 138			3018.220									
XIBLK06	Tetryl	241 > 181			3018.220									
XIBLK06	Nitrobenzene	123 > 46			3018.220									
XIBLK06	4-Amino-26-dinitrotoluene	197 > 167			14450.484									
XIBLK06	2-Amino-46-dinitrotoluene	197 > 180			14450.484									
XIBLK06	246-Trinitrotoluene	227 > 210			14450.484									
XIBLK06	34-dinitrotoluene	182 > 152			14450.484									
XIBLK06	26-dinitrotoluene	182 > 152			14450.484									
XIBLK06	24-dinitrotoluene	182 > 152			14450.484									
XIBLK06	26-dinitrotoluene-d3	185 > 155	17.27	14450.484		14450.484	14450.484	bb			427.8757	85.6	-14.4	1394.9
XIBLK06	2-Nitrotoluene	137 > 46			14450.484									
XIBLK06	4-Nitrotoluene	137 > 46			14450.484									
XIBLK06	3-Nitrotoluene	137 > 46			14450.484									
XIBLK06	PETN	361 > 62			14450.484									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–952

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 09–JAN–10 19:47

GEL Data File: EXP0108055a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	364.583
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	439.777
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108055a
Date: 09-Jan-2010
Time: 19:47:54
ID: XIBLK07
Vial: 1:1,A

MAP 1/11/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.649e+003

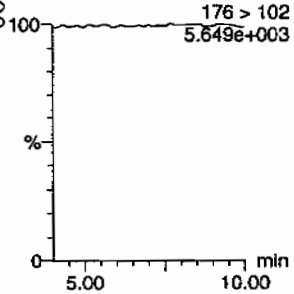

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.649e+003

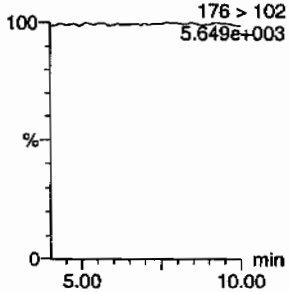

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.553e+003

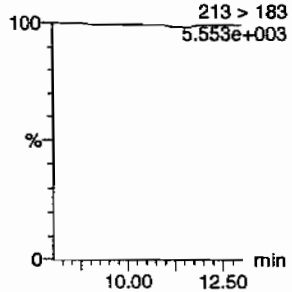

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.075e+004

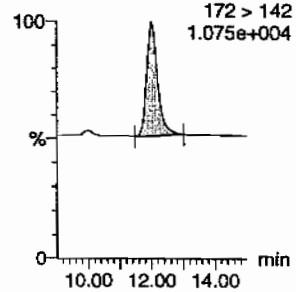

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.551e+003

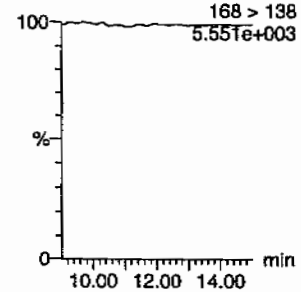

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.556e+003

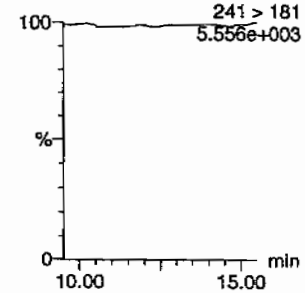

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.569e+003

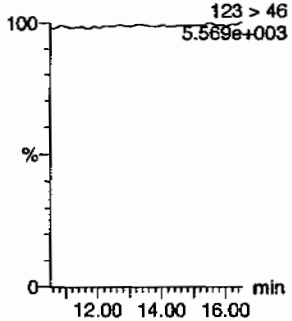

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.676e+003

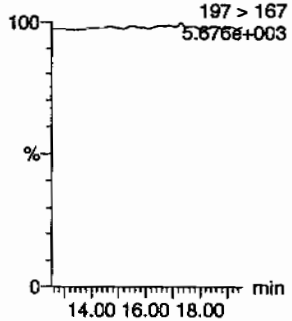

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.615e+003

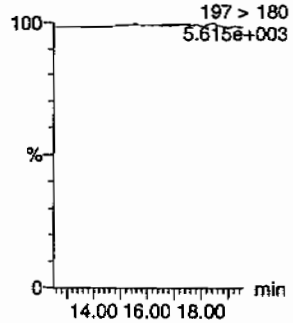

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.584e+003

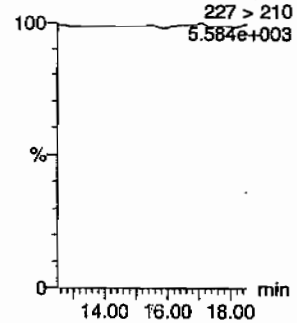

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.613e+003

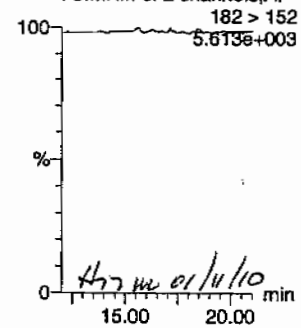

HJ MM 01/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.613e+003

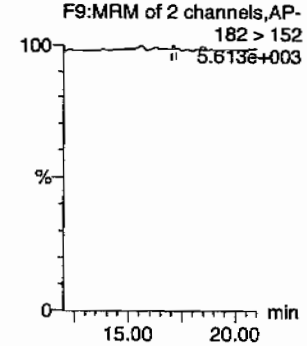

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

24-dinitrotoluene

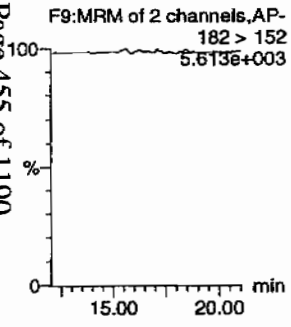

26-dinitrotoluene-d3

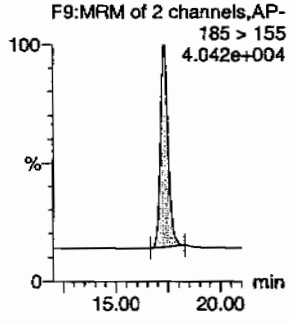

2-Nitrotoluene

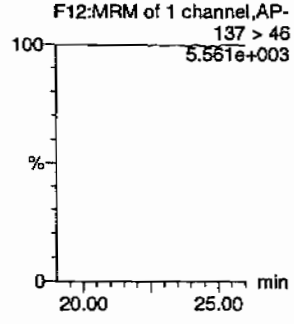

4-Nitrotoluene

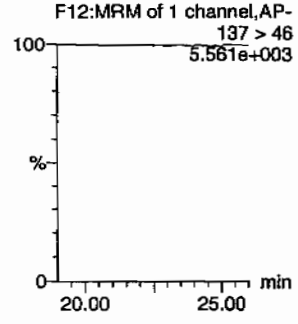

3-Nitrotoluene

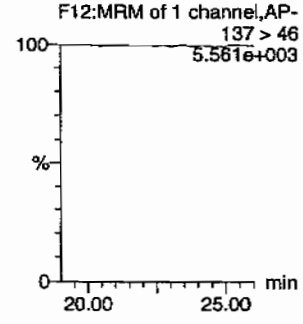

PETN

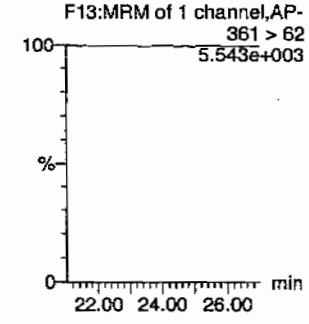

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK07	HMX	176 > 102			2136.116									
XIBLK07	RDX	176 > 102			2136.116									
XIBLK07	135-Trinitrobenzene	213 > 183			2136.116									
XIBLK07	13-Dinitrobenzene-d4	172 > 142	12.00	2136.116		2136.116	2136.116	bb			364.5835	72.9	-27.1	167.5
XIBLK07	13-Dinitrobenzene	168 > 138			2136.116									
XIBLK07	Tetryl	241 > 181			2136.116									
XIBLK07	Nitrobenzene	123 > 46			2136.116									
XIBLK07	4-Amino-26-dinitrotoluene	197 > 167			14852.436									
XIBLK07	2-Amino-46-dinitrotoluene	197 > 180			14852.436									
XIBLK07	246-Trinitrotoluene	227 > 210			14852.436									
XIBLK07	34-dinitrotoluene	182 > 152			14852.436									
XIBLK07	26-dinitrotoluene	182 > 152			14852.436			MM-	11-Jan-10	09:14:51				
XIBLK07	24-dinitrotoluene	182 > 152			14852.436									
XIBLK07	26-dinitrotoluene-d3	185 > 155	17.33	14852.436		14852.436	14852.436	bb			439.7774	88.0	-12.0	1181.1
XIBLK07	2-Nitrotoluene	137 > 46			14852.436									
XIBLK07	4-Nitrotoluene	137 > 46			14852.436									
XIBLK07	3-Nitrotoluene	137 > 46			14852.436									
XIBLK07	PETN	361 > 62			14852.436									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–952

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 09–JAN–10 21:16

GEL Data File: EXP0108058a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	392.477
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	402.473
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108058a
Date: 09-Jan-2010
Time: 21:16:54
ID: XIBLK08
Vial: 1:1,A

Page 57 of 190

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.774e+003

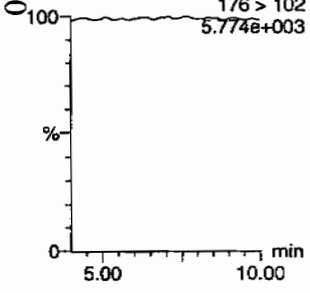

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.774e+003

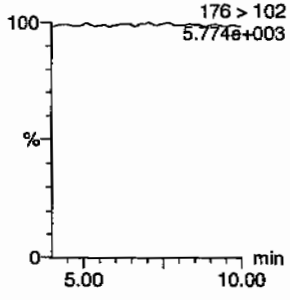

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.723e+003

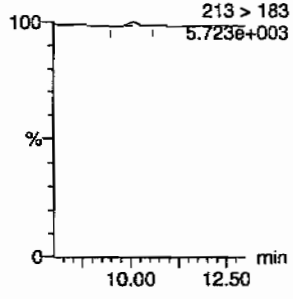

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.125e+004

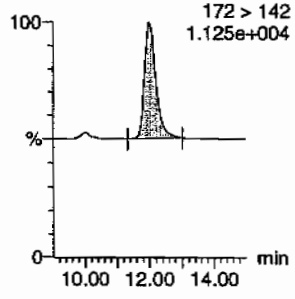

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.653e+003

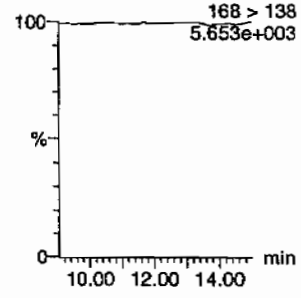

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.657e+003

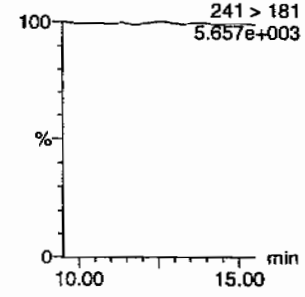

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.682e+003

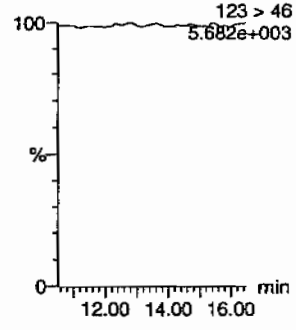

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.668e+003

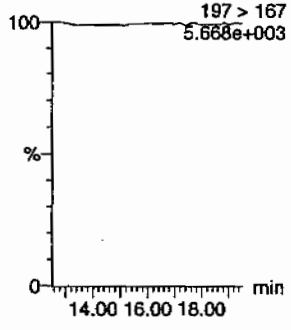

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.683e+003

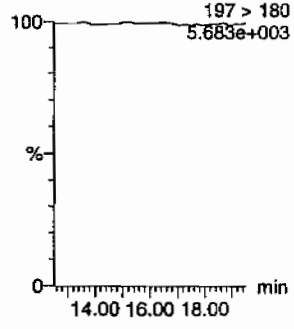

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.661e+003

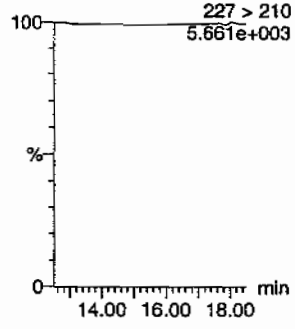

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.738e+003

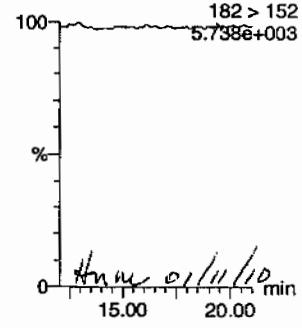

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.738e+003

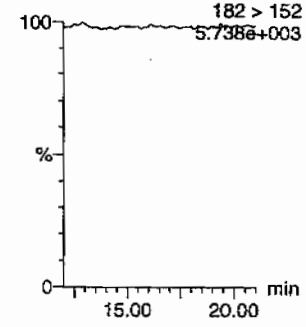

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

24-dinitrotoluene

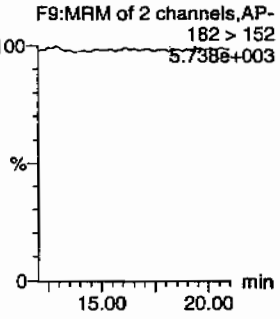

26-dinitrotoluene-d3

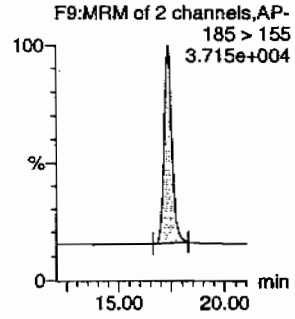

2-Nitrotoluene

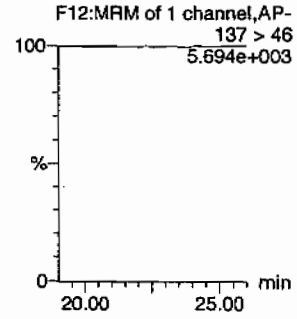

4-Nitrotoluene

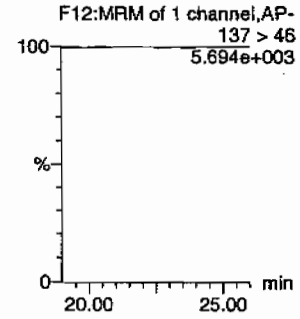

3-Nitrotoluene

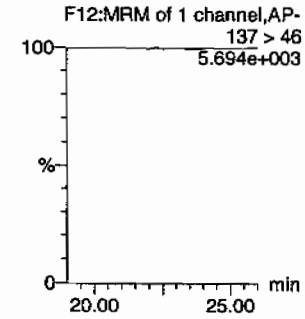

PETN

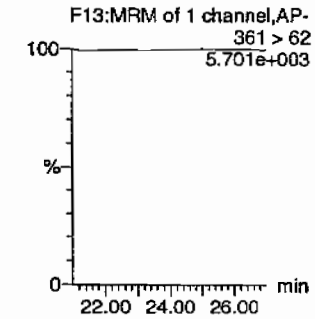

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK08	HMX	176 > 102			2299.545									
XIBLK08	RDX	176 > 102			2299.545									
XIBLK08	135-Trinitrobenzene	213 > 183			2299.545			MM-	11-Jan-10	08:55:42				
XIBLK08	13-Dinitrobenzene-d4	172 > 142	12.00	2299.545		2299.545	2299.545	bb			392.4769	78.5	-21.5	504.9
XIBLK08	13-Dinitrobenzene	168 > 138			2299.545									
XIBLK08	Tetryl	241 > 181			2299.545									
XIBLK08	Nitrobenzene	123 > 46			2299.545									
XIBLK08	4-Amino-26-dinitrotoluene	197 > 167			13592.562									
XIBLK08	2-Amino-46-dinitrotoluene	197 > 180			13592.562									
XIBLK08	246-Trinitrotoluene	227 > 210			13592.562									
XIBLK08	34-dinitrotoluene	182 > 152			13592.562									
XIBLK08	26-dinitrotoluene	182 > 152			13592.562									
XIBLK08	24-dinitrotoluene	182 > 152			13592.562			MM-	11-Jan-10	09:23:15				
XIBLK08	26-dinitrotoluene-d3	185 > 155	17.33	13592.562		13592.562	13592.562	bb			402.4728	80.5	-19.5	1560.6
XIBLK08	2-Nitrotoluene	137 > 46			13592.562									
XIBLK08	4-Nitrotoluene	137 > 46			13592.562									
XIBLK08	3-Nitrotoluene	137 > 46			13592.562									
XIBLK08	PETN	361 > 62			13592.562									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–952

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 10–JAN–10 01:43

GEL Data File: EXP0108067a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	480.722
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	442.74

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108067a
Date: 10-Jan-2010
Time: 01:43:07
ID: XIBLK09
Vial: 1:1,A

MAP 1/11/10

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HMX

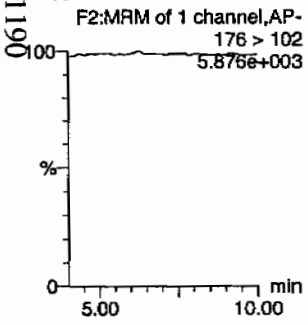

RDX

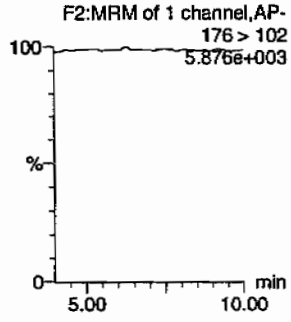

135-Trinitrobenzene

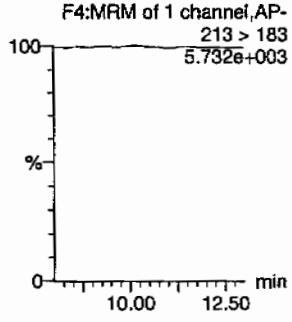

13-Dinitrobenzene-d4

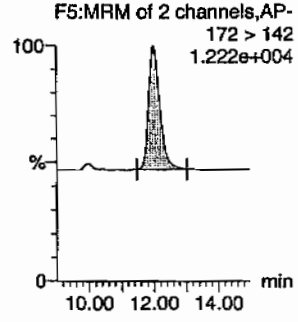

13-Dinitrobenzene

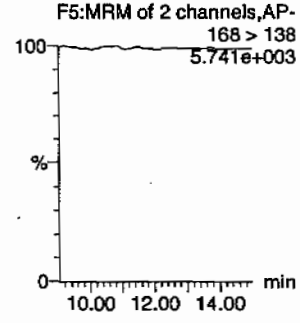

Tetryl

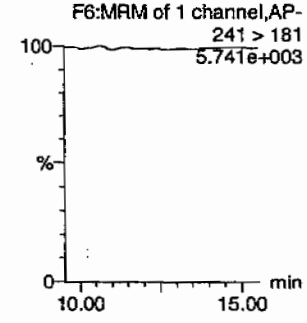

Nitrobenzene

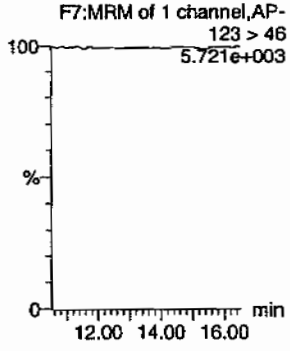

4-Amino-26-dinitrotoluene

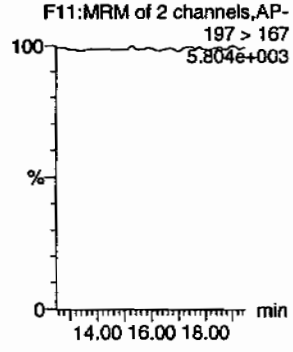

2-Amino-46-dinitrotoluene

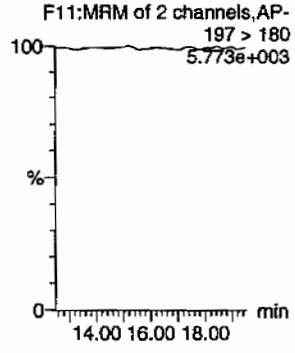

246-Trinitrotoluene

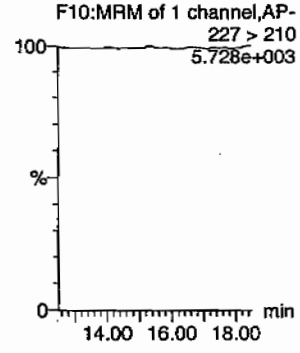

34-dinitrotoluene

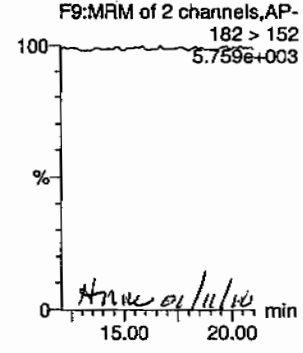

Anne 01/11/10

26-dinitrotoluene

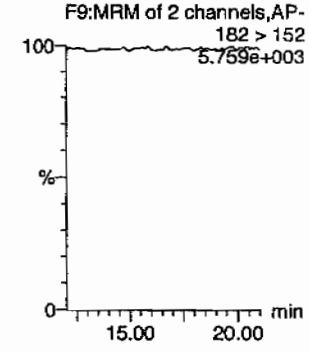

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

24-dinitrotoluene

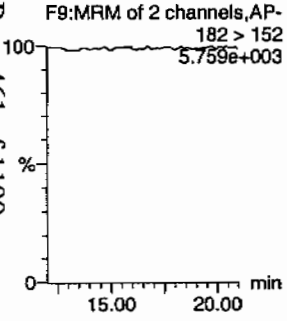

26-dinitrotoluene-d3

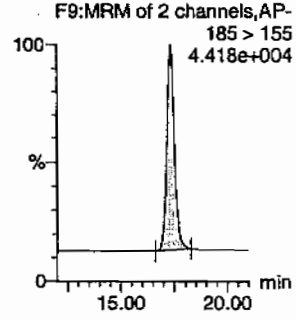

2-Nitrotoluene

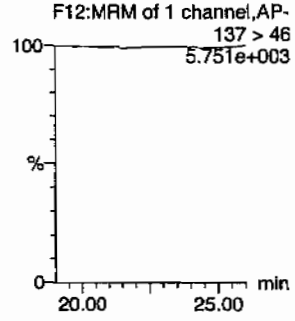

4-Nitrotoluene

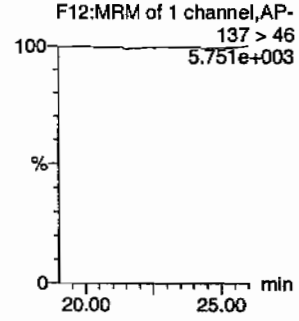

3-Nitrotoluene

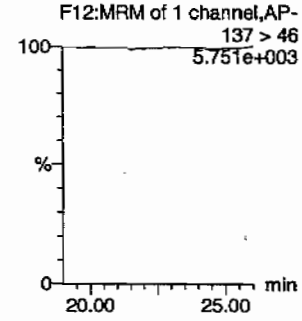

PETN

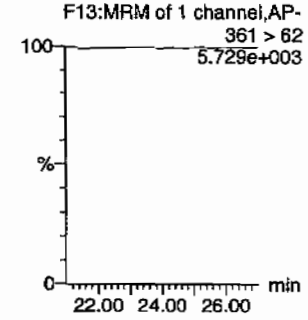

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK09	HMX	176 > 102			2594.039									
XIBLK09	RDX	176 > 102			2594.039									
XIBLK09	135-Trinitrobenzene	213 > 183			2594.039									
XIBLK09	13-Dinitrobenzene-d4	172 > 142	12.00	2594.039		2594.039	2594.039	bb			442.7399	88.5	-11.5	407.7
XIBLK09	13-Dinitrobenzene	168 > 138			2594.039									
XIBLK09	Tetryl	241 > 181			2594.039									
XIBLK09	Nitrobenzene	123 > 46			2594.039									
XIBLK09	4-Amino-26-dinitrotoluene	197 > 167			16235.240									
XIBLK09	2-Amino-46-dinitrotoluene	197 > 180			16235.240									
XIBLK09	246-Trinitrotoluene	227 > 210			16235.240									
XIBLK09	34-dinitrotoluene	182 > 152			16235.240									
XIBLK09	26-dinitrotoluene	182 > 152			16235.240									
XIBLK09	24-dinitrotoluene	182 > 152			16235.240									
XIBLK09	26-dinitrotoluene-d3	185 > 155	17.31	16235.240		16235.240	16235.240	bb			480.7220	96.1	-3.9	1256.5
XIBLK09	2-Nitrotoluene	137 > 46			16235.240									
XIBLK09	4-Nitrotoluene	137 > 46			16235.240									
XIBLK09	3-Nitrotoluene	137 > 46			16235.240									
XIBLK09	PETN	361 > 62			16235.240									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-952

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 10-JAN-10 07:37

GEL Data File: EXP0108079a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	477.367
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	488.988
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108079a
Date: 10-Jan-2010
Time: 07:37:25
ID: XIBLK10
Vial: 1:1,A

MAT 1/11/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.790e+003

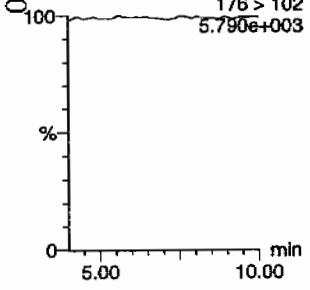

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.790e+003

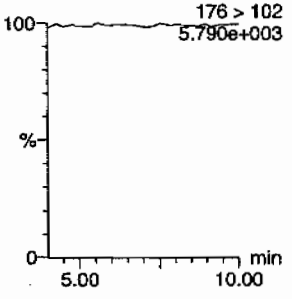

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.686e+003

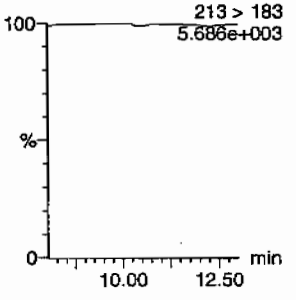

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.238e+004

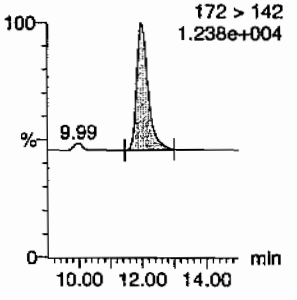

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.687e+003

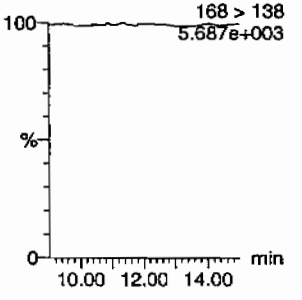

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.667e+003

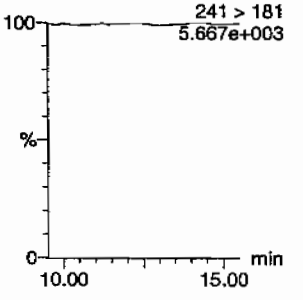

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.726e+003

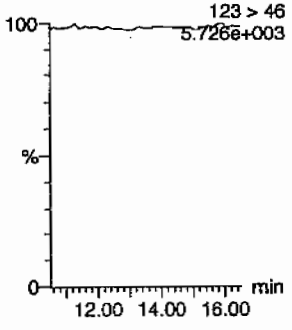

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.717e+003

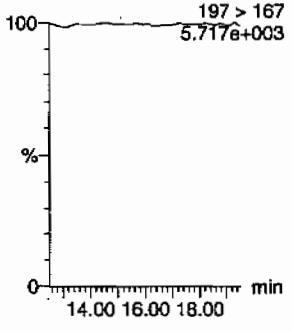

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.735e+003

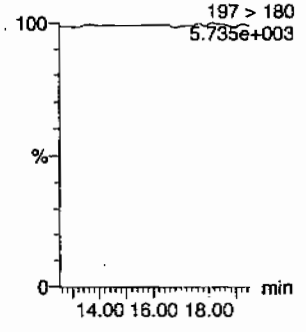

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.672e+003

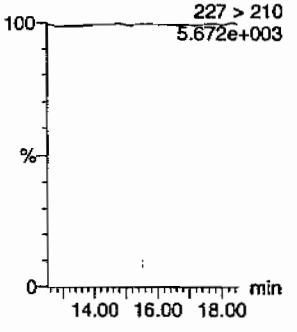

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.749e+003

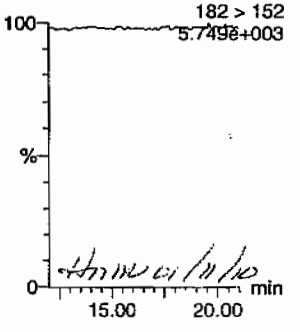

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.749e+003

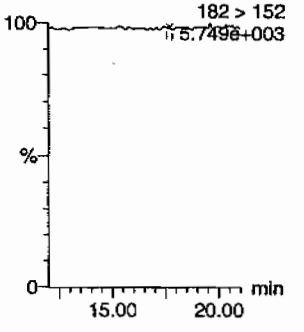

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

24-dinitrotoluene

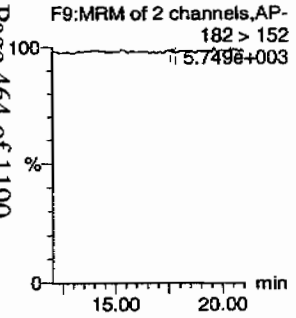

26-dinitrotoluene-d3

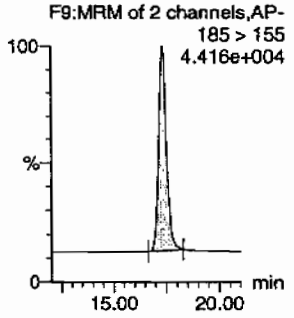

2-Nitrotoluene

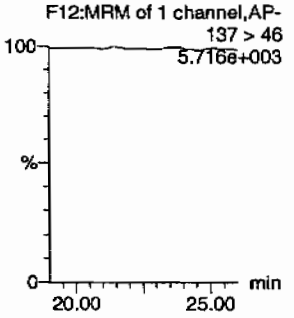

4-Nitrotoluene

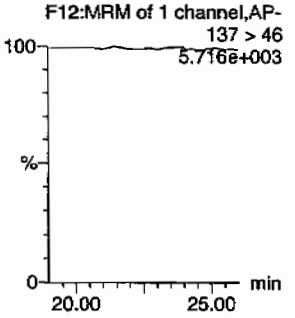

3-Nitrotoluene

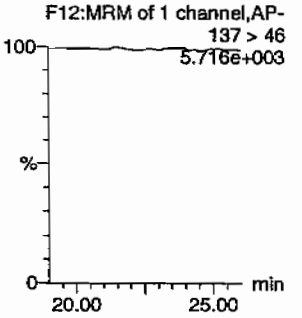

PETN

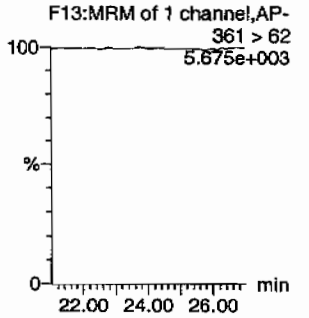

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
XIBLK10	HMX	176 > 102			2796.922									
XIBLK10	RDX	176 > 102			2796.922									
XIBLK10	135-Trinitrobenzene	213 > 183			2796.922									
XIBLK10	13-Dinitrobenzene-d4	172 > 142	12.00	2796.922		2796.922	2796.922	bb			477.3671	95.5	-4.5	134.0
XIBLK10	13-Dinitrobenzene	168 > 138			2796.922									
XIBLK10	Tetryl	241 > 181			2796.922									
XIBLK10	Nitrobenzene	123 > 46			2796.922			MM-	11-Jan-10	09:02:07				
XIBLK10	4-Amino-26-dinitrotoluene	197 > 167			16514.414									
XIBLK10	2-Amino-46-dinitrotoluene	197 > 180			16514.414									
XIBLK10	246-Trinitrotoluene	227 > 210			16514.414									
XIBLK10	34-dinitrotoluene	182 > 152			16514.414									
XIBLK10	26-dinitrotoluene	182 > 152			16514.414			MM-	11-Jan-10	09:16:33				
XIBLK10	24-dinitrotoluene	182 > 152			16514.414			MM-	11-Jan-10	09:21:52				
XIBLK10	26-dinitrotoluene-d3	185 > 155	17.33	16514.414		16514.414	16514.414	bb			488.9882	97.8	-2.2	1406.9
XIBLK10	2-Nitrotoluene	137 > 46			16514.414									
XIBLK10	4-Nitrotoluene	137 > 46			16514.414									
XIBLK10	3-Nitrotoluene	137 > 46			16514.414									
XIBLK10	PETN	361 > 62			16514.414									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-952

Lab Code: GEL

Lab Sample ID: XIBLK11

Analysis Date: 10-JAN-10 14:00

GEL Data File: EXP0108092a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	495.181
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	480.925
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108092a
Date: 10-Jan-2010
Time: 14:00:53
ID: XIBLK11
Vial: 1:1,A

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.435e+003

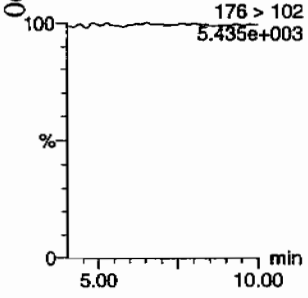

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.435e+003

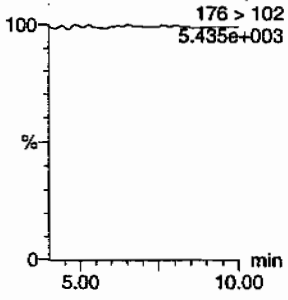

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.356e+003

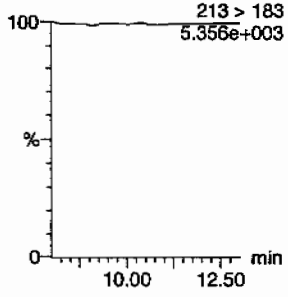

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.228e+004

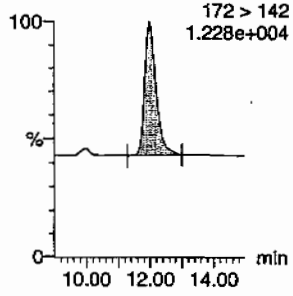

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.354e+003

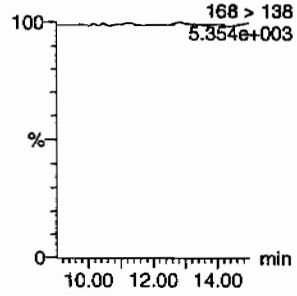

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.367e+003

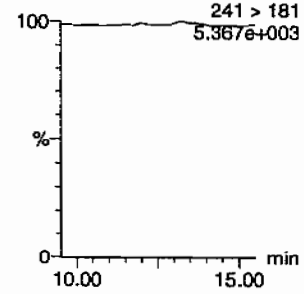

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.358e+003

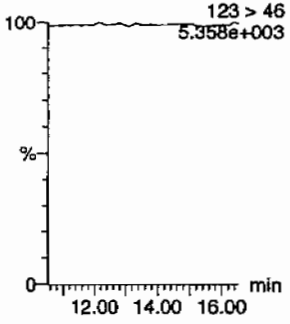

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.393e+003

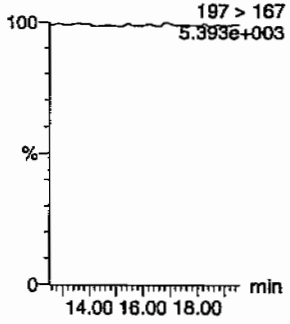

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.392e+003

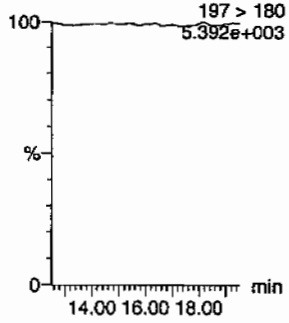

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.356e+003

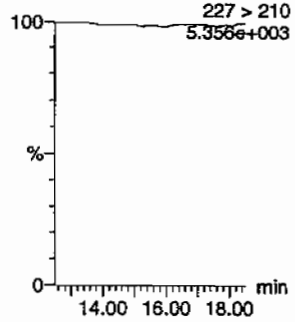

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.388e+003

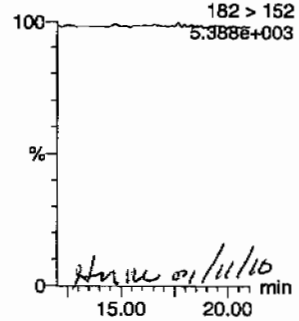

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.388e+003

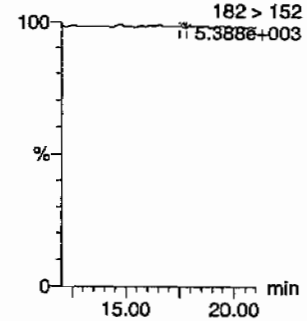

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

24-dinitrotoluene

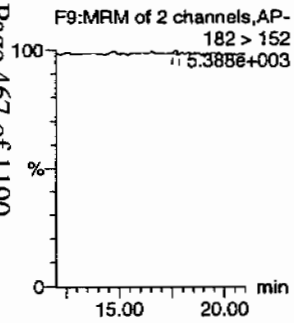

26-dinitrotoluene-d3

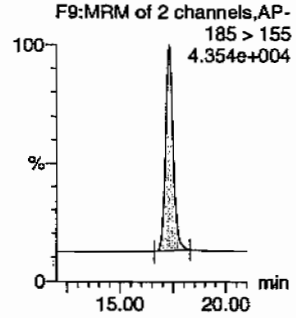

2-Nitrotoluene

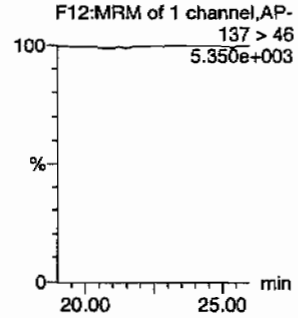

4-Nitrotoluene

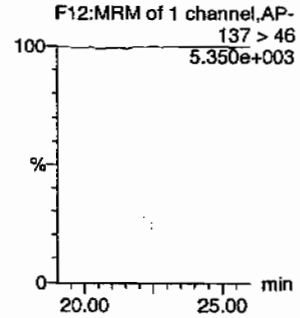

3-Nitrotoluene

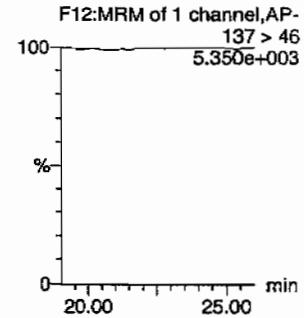

PETN

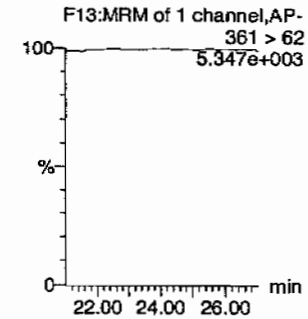

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK11	HMX	176 > 102			2901.297									
XIBLK11	RDX	176 > 102			2901.297									
XIBLK11	135-Trinitrobenzene	213 > 183			2901.297									
XIBLK11	13-Dinitrobenzene-d4	172 > 142	11.97	2901.297		2901.297	2901.297	bb			495.1814	99.0	-1.0	162.2
XIBLK11	13-Dinitrobenzene	168 > 138			2901.297									
XIBLK11	Tetryl	241 > 181			2901.297									
XIBLK11	Nitrobenzene	123 > 46			2901.297									
XIBLK11	4-Amino-26-dinitrotoluene	197 > 167			16242.088									
XIBLK11	2-Amino-46-dinitrotoluene	197 > 180			16242.088									
XIBLK11	246-Trinitrotoluene	227 > 210			16242.088									
XIBLK11	34-dinitrotoluene	182 > 152			16242.088									
XIBLK11	26-dinitrotoluene	182 > 152			16242.088			MM-	11-Jan-10	09:17:29				
XIBLK11	24-dinitrotoluene	182 > 152			16242.088			MM-	11-Jan-10	09:21:02				
XIBLK11	26-dinitrotoluene-d3	185 > 155	17.31	16242.088		16242.088	16242.088	bb			480.9247	96.2	-3.8	1572.6
XIBLK11	2-Nitrotoluene	137 > 46			16242.088									
XIBLK11	4-Nitrotoluene	137 > 46			16242.088									
XIBLK11	3-Nitrotoluene	137 > 46			16242.088									
XIBLK11	PETN	361 > 62			16242.088									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-952
Lab Code: GEL
Lab Sample ID: XIBLK11
Analysis Date: 10-JAN-10 15:58
GEL Data File: EXP0108096a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	506.439
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	508.733
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qid, Time: Mon Jan 11 09:26:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108096a
Date: 10-Jan-2010
Time: 15:58:48
ID: XIBLK11
Vial: 1:1,A

Page 109 of 1190

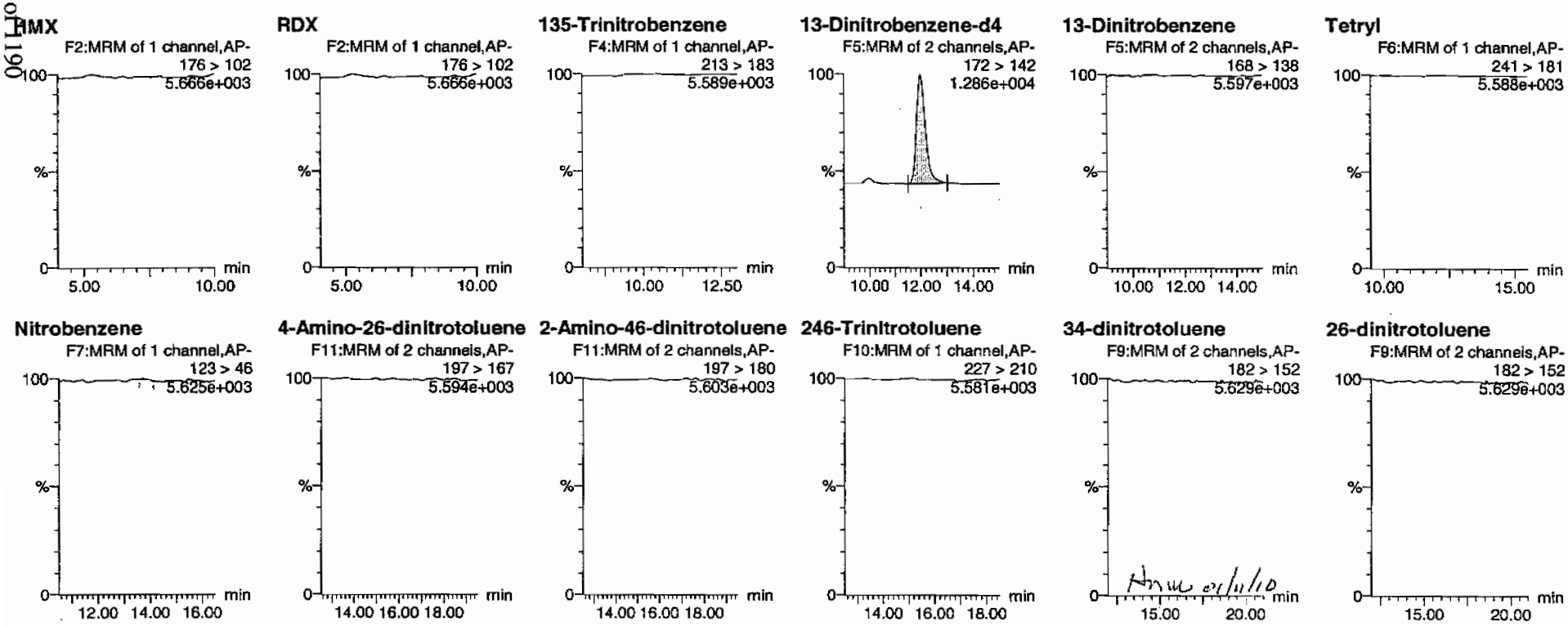

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

24-dinitrotoluene

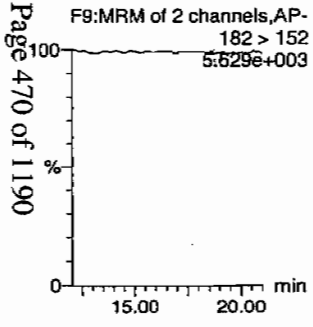

26-dinitrotoluene-d3

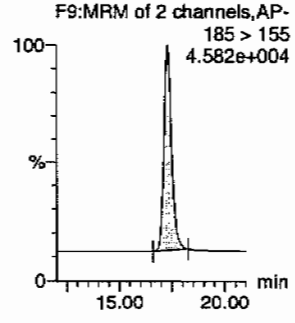

2-Nitrotoluene

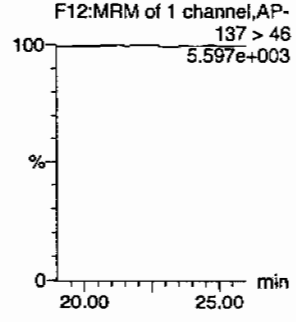

4-Nitrotoluene

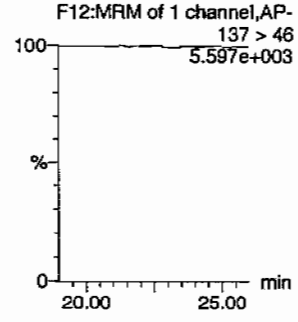

3-Nitrotoluene

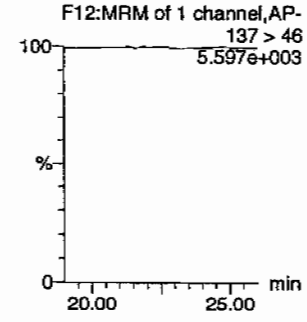

PETN

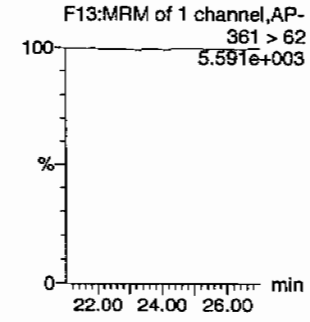

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ug/mL	%Rec	%Dev	S/N
XIBLK11	HMX	176 > 102			2967.257									
XIBLK11	RDX	176 > 102			2967.257									
XIBLK11	135-Trinitrobenzene	213 > 183			2967.257									
XIBLK11	13-Dinitrobenzene-d4	172 > 142	11.97	2967.257		2967.257	2967.257	bb			506.4392	101.3	1.3	197.4
XIBLK11	13-Dinitrobenzene	168 > 138			2967.257									
XIBLK11	Tetryl	241 > 181			2967.257									
XIBLK11	Nitrobenzene	123 > 46			2967.257			MM-	11-Jan-10	09:02:14				
XIBLK11	4-Amino-26-dinitrotoluene	197 > 167			17181.254									
XIBLK11	2-Amino-46-dinitrotoluene	197 > 180			17181.254									
XIBLK11	246-Trinitrotoluene	227 > 210			17181.254									
XIBLK11	34-dinitrotoluene	182 > 152			17181.254									
XIBLK11	26-dinitrotoluene	182 > 152			17181.254									
XIBLK11	24-dinitrotoluene	182 > 152			17181.254			MM-	11-Jan-10	09:20:48				
XIBLK11	26-dinitrotoluene-d3	185 > 155	17.31	17181.254		17181.254	17181.254	bb			508.7332	101.7	1.7	2586.6
XIBLK11	2-Nitrotoluene	137 > 46			17181.254									
XIBLK11	4-Nitrotoluene	137 > 46			17181.254									
XIBLK11	3-Nitrotoluene	137 > 46			17181.254									
XIBLK11	PETN	361 > 62			17181.254									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–952

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 10–JAN–10 20:24

GEL Data File: EXP0108105a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	491.015
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	500.079
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108105a
Date: 10-Jan-2010
Time: 20:24:23
ID: XiBLK12
Vial: 1:1,A

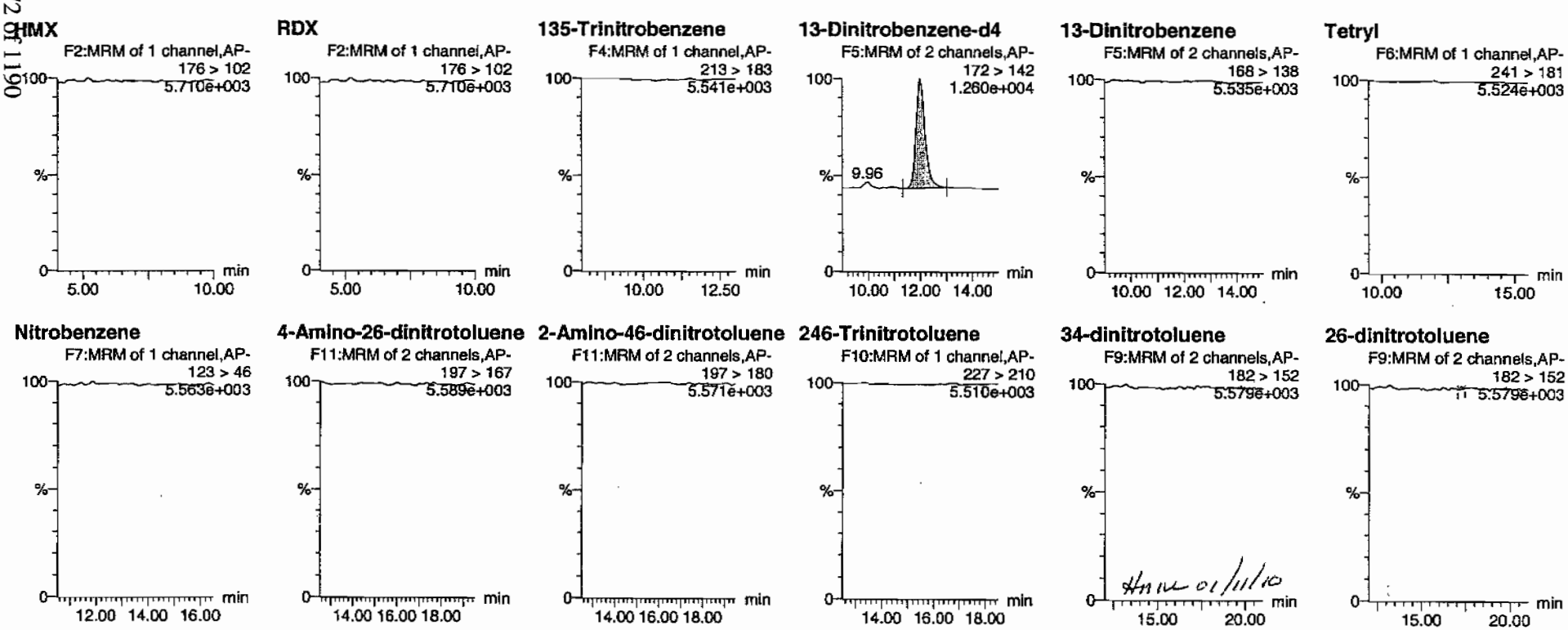

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

24-dinitrotoluene

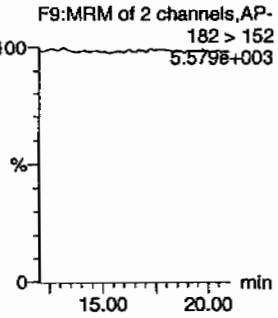

26-dinitrotoluene-d3

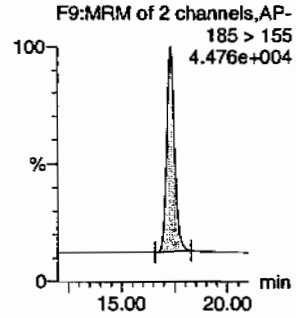

2-Nitrotoluene

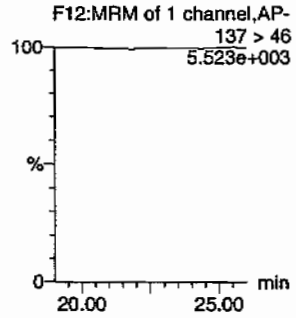

4-Nitrotoluene

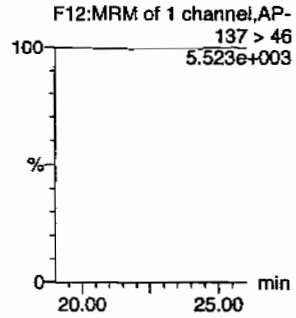

3-Nitrotoluene

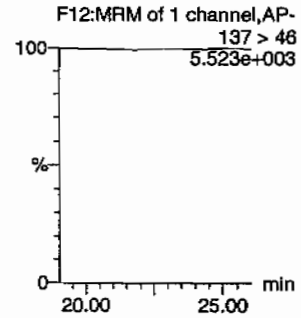

PETN

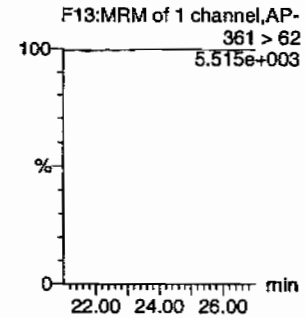

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK12	HMX	176 > 102			2876.883									
XIBLK12	RDX	176 > 102			2876.883									
XIBLK12	135-Trinitrobenzene	213 > 183			2876.883									
XIBLK12	13-Dinitrobenzene-d4	172 > 142	11.97	2876.883		2876.883	2876.883	bb			491.0145	98.2	-1.8	222.2
XIBLK12	13-Dinitrobenzene	168 > 138			2876.883									
XIBLK12	Tetryl	241 > 181			2876.883									
XIBLK12	Nitrobenzene	123 > 46			2876.883									
XIBLK12	4-Amino-26-dinitrotoluene	197 > 167			16888.990									
XIBLK12	2-Amino-46-dinitrotoluene	197 > 180			16888.990									
XIBLK12	246-Trinitrotoluene	227 > 210			16888.990									
XIBLK12	34-dinitrotoluene	182 > 152			16888.990									
XIBLK12	26-dinitrotoluene	182 > 152			16888.990			MM-	11-Jan-10	09:18:19				
XIBLK12	24-dinitrotoluene	182 > 152			16888.990									
XIBLK12	26-dinitrotoluene-d3	185 > 155	17.31	16888.990		16888.990	16888.990	bb			500.0794	100.0	0.0	929.3
XIBLK12	2-Nitrotoluene	137 > 46			16888.990									
XIBLK12	4-Nitrotoluene	137 > 46			16888.990									
XIBLK12	3-Nitrotoluene	137 > 46			16888.990									
XIBLK12	PETN	361 > 62			16888.990									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-952

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 11-JAN-10 02:18

GEL Data File: EXP0108117a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
RDX	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	514.672
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	519.983
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108117a
Date: 11-Jan-2010
Time: 02:18:22
ID: XIBLK13
Vial: 1:1,A

MMT 1/11/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.896e+003

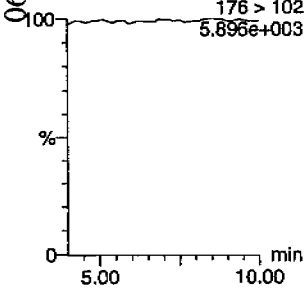

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.896e+003

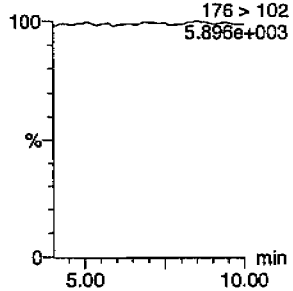

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.814e+003

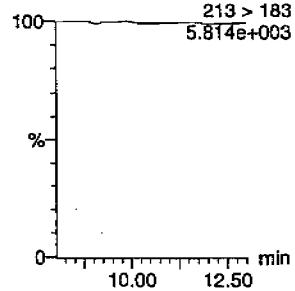

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.337e+004

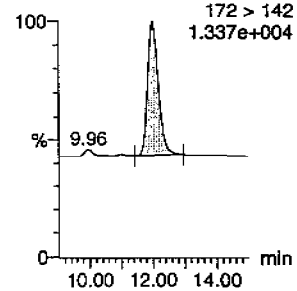

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.818e+003

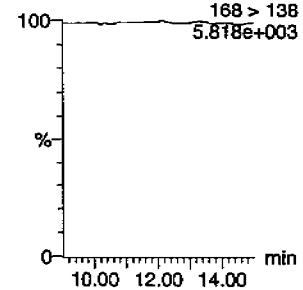

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.789e+003

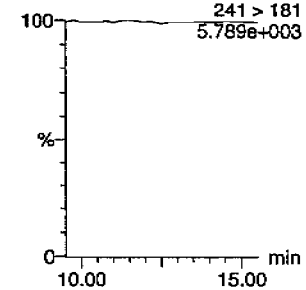

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.884e+003

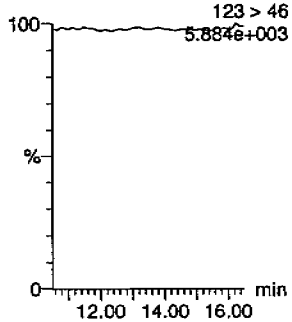

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.839e+003

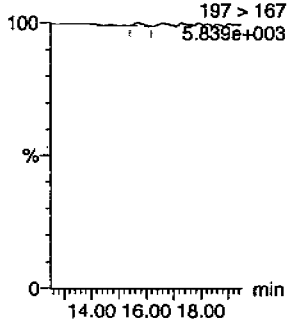

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.841e+003

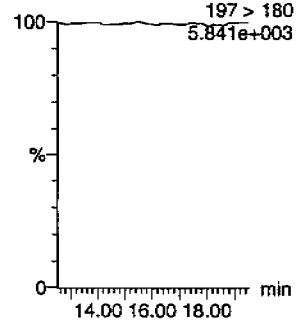

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.792e+003

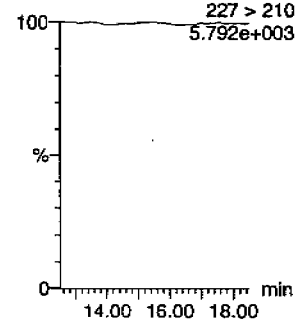

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.814e+003

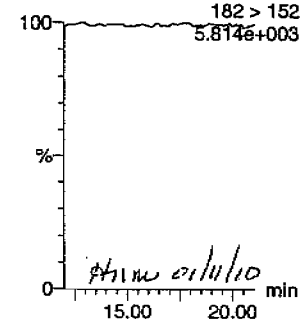

AHM 01/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.814e+003

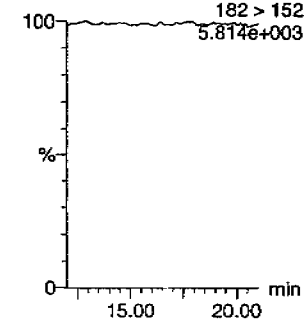

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

24-dinitrotoluene

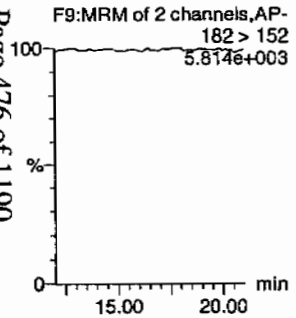

26-dinitrotoluene-d3

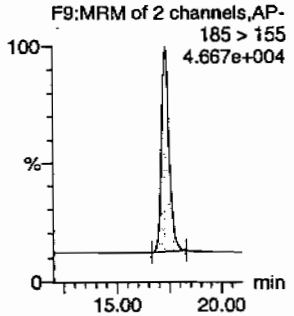

2-Nitrotoluene

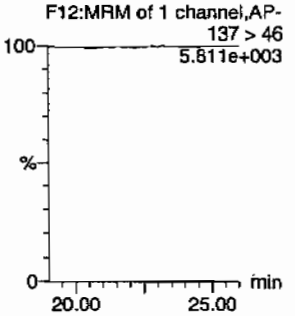

4-Nitrotoluene

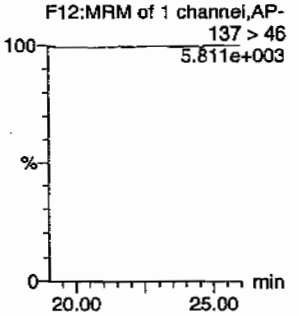

3-Nitrotoluene

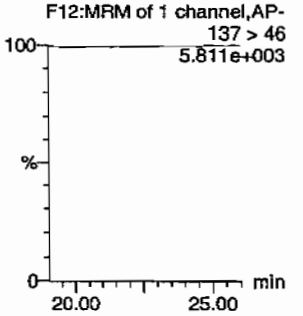

PETN

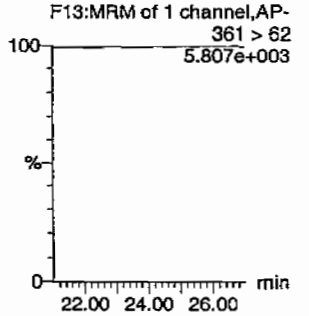

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK13	HMX	176 > 102			3015.496									
XIBLK13	RDX	176 > 102			3015.496									
XIBLK13	135-Trinitrobenzene	213 > 183			3015.496									
XIBLK13	13-Dinitrobenzene-d4	172 > 142	11.97	3015.496		3015.496	3015.496	bb			514.6724	102.9	2.9	372.7
XIBLK13	13-Dinitrobenzene	168 > 138			3015.496									
XIBLK13	Tetryl	241 > 181			3015.496									
XIBLK13	Nitrobenzene	123 > 46			3015.496									
XIBLK13	4-Amino-26-dinitrotoluene	197 > 167			17561.178			MM-	11-Jan-10	09:09:56				
XIBLK13	2-Amino-46-dinitrotoluene	197 > 180			17561.178									
XIBLK13	246-Trinitrotoluene	227 > 210			17561.178									
XIBLK13	34-dinitrotoluene	182 > 152			17561.178									
XIBLK13	26-dinitrotoluene	182 > 152			17561.178									
XIBLK13	24-dinitrotoluene	182 > 152			17561.178									
XIBLK13	26-dinitrotoluene-d3	185 > 155	17.31	17561.178		17561.178	17561.178	bb			519.9827	104.0	4.0	1572.0
XIBLK13	2-Nitrotoluene	137 > 46			17561.178									
XIBLK13	4-Nitrotoluene	137 > 46			17561.178									
XIBLK13	3-Nitrotoluene	137 > 46			17561.178									
XIBLK13	PETN	361 > 62			17561.178									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–952

Lab Code: GEL

Lab Sample ID: XIBLK14

Analysis Date: 11–JAN–10 05:15

GEL Data File: EXP0108123a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	603.359
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	513.701
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108123a
Date: 11-Jan-2010
Time: 05:15:40
ID: X!BLK14
Vial: 1:1,A

MMT 1/11/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.913e+003

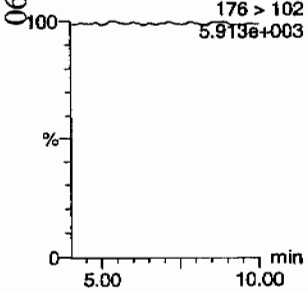

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.913e+003

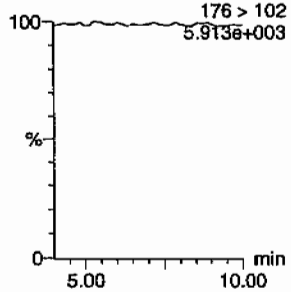

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.780e+003

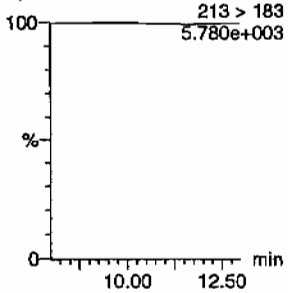

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.460e+004

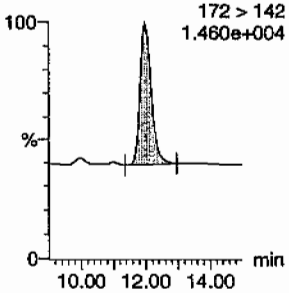

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.779e+003

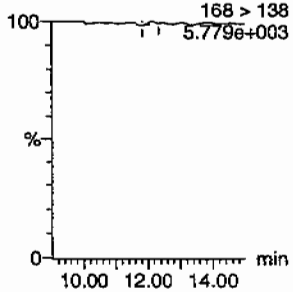

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.761e+003

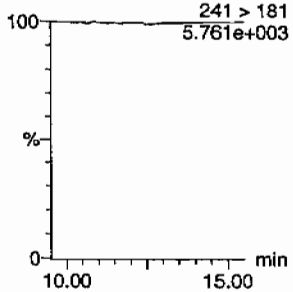

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.788e+003

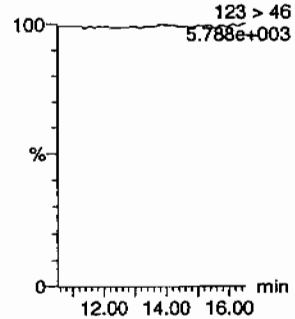

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.854e+003

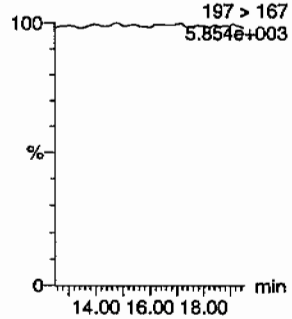

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.838e+003

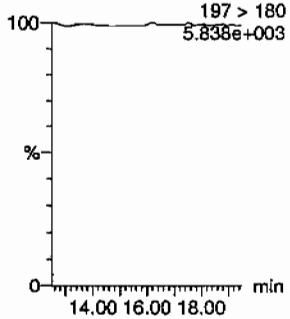

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.780e+003

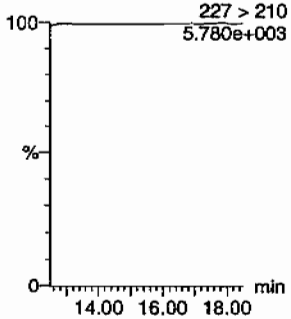

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.852e+003

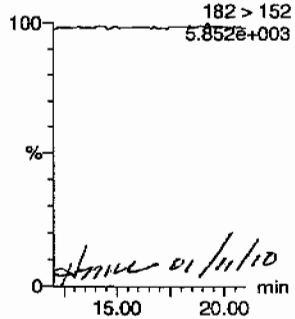

HMM 01/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.852e+003

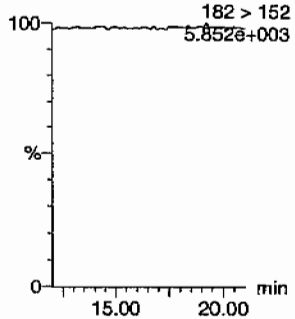

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

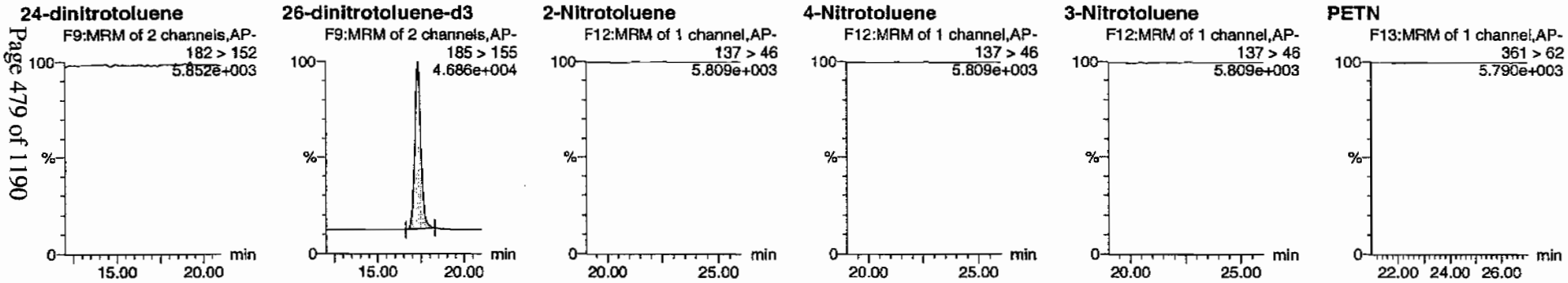

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK14	HMX	176 > 102			3535.113									
XIBLK14	RDX	176 > 102			3535.113									
XIBLK14	135-Trinitrobenzene	213 > 183			3535.113									
XIBLK14	13-Dinitrobenzene-d4	172 > 142	11.97	3535.113		3535.113	3535.113	bb			603.3585	120.7	20.7	424.0
XIBLK14	13-Dinitrobenzene	168 > 138			3535.113			MM-	11-Jan-10	09:00:53				
XIBLK14	Tetryl	241 > 181			3535.113									
XIBLK14	Nitrobenzene	123 > 46			3535.113									
XIBLK14	4-Amino-26-dinitrotoluene	197 > 167			17349.035									
XIBLK14	2-Amino-46-dinitrotoluene	197 > 180			17349.035									
XIBLK14	246-Trinitrotoluene	227 > 210			17349.035									
XIBLK14	34-dinitrotoluene	182 > 152			17349.035									
XIBLK14	26-dinitrotoluene	182 > 152			17349.035									
XIBLK14	24-dinitrotoluene	182 > 152			17349.035									
XIBLK14	26-dinitrotoluene-d3	185 > 155	17.31	17349.035		17349.035	17349.035	bb			513.7012	102.7	2.7	1248.2
XIBLK14	2-Nitrotoluene	137 > 46			17349.035									
XIBLK14	4-Nitrotoluene	137 > 46			17349.035									
XIBLK14	3-Nitrotoluene	137 > 46			17349.035									
XIBLK14	PETN	361 > 62			17349.035									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–952

Lab Code: GEL

Lab Sample ID: XIBLK15

Analysis Date: 11–JAN–10 11:09

GEL Data File: EXP0108135a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	509.717
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	481.725
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108135a
Date: 11-Jan-2010
Time: 11:09:55
ID: XIBLK15
Vial: 1:1,A

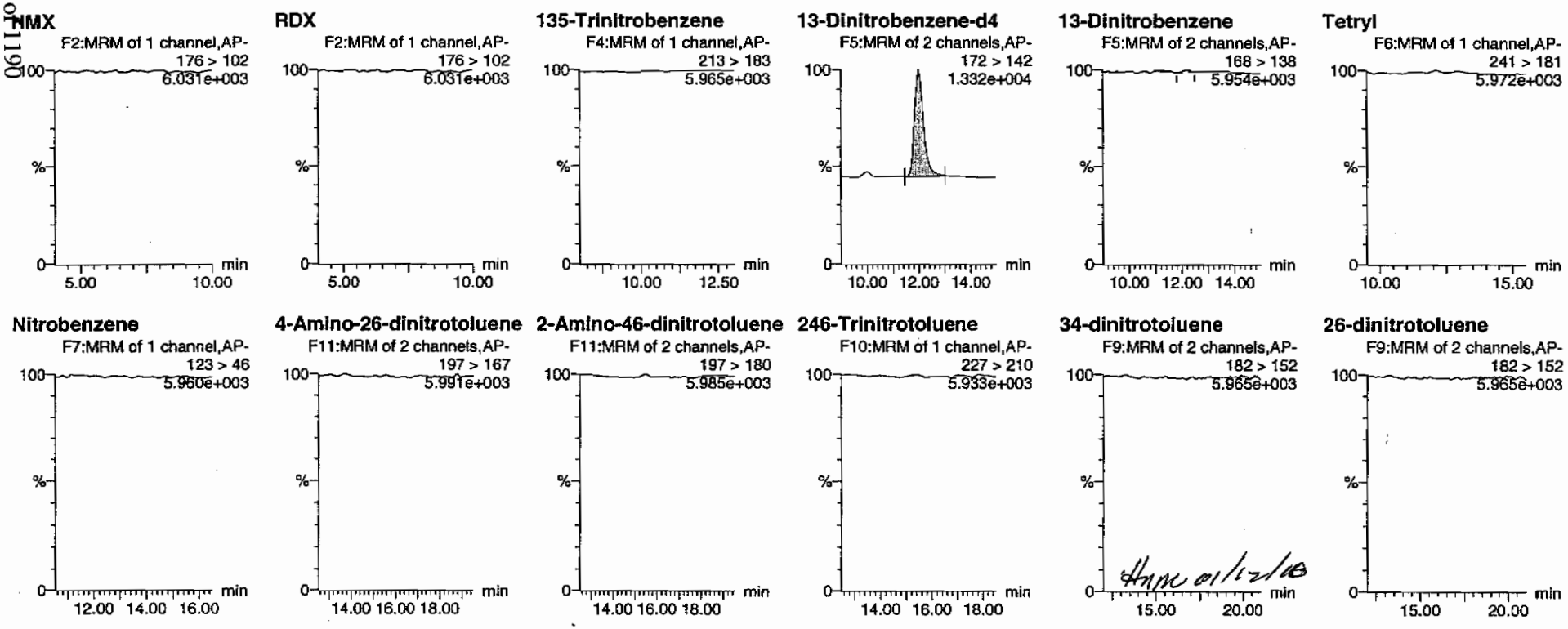

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

24-dinitrotoluene

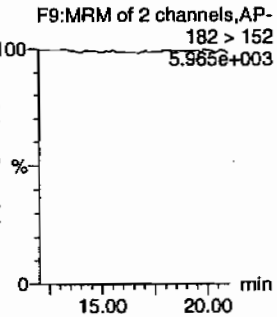

26-dinitrotoluene-d3

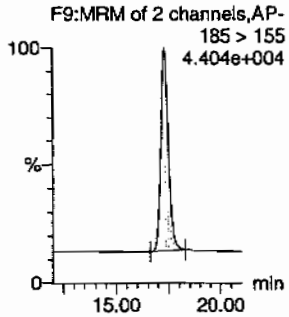

2-Nitrotoluene

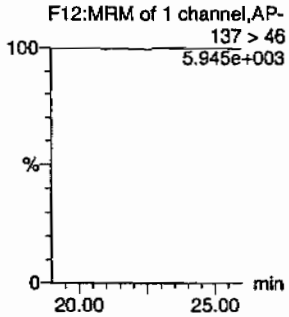

4-Nitrotoluene

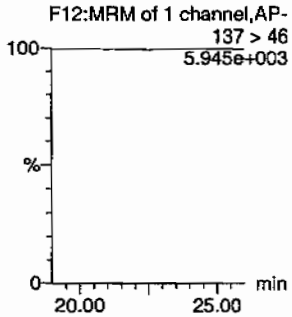

3-Nitrotoluene

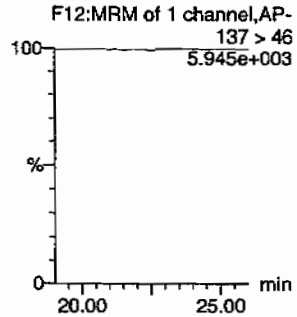

PETN

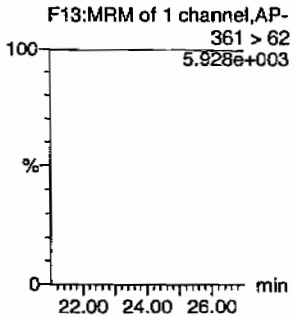

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK15	HMX	176 > 102			2986.460									
XIBLK15	RDX	176 > 102			2986.460									
XIBLK15	135-Trinitrobenzene	213 > 183			2986.460									
XIBLK15	13-Dinitrobenzene-d4	172 > 142	11.97	2986.460		2986.460	2986.460	bb			509.7167	101.9	1.9	302.4
XIBLK15	13-Dinitrobenzene	168 > 138			2986.460			MM-	12-Jan-10	10:02:53				
XIBLK15	Tetryl	241 > 181			2986.460									
XIBLK15	Nitrobenzene	123 > 46			2986.460									
XIBLK15	4-Amino-26-dinitrotoluene	197 > 167			16269.122									
XIBLK15	2-Amino-46-dinitrotoluene	197 > 180			16269.122									
XIBLK15	246-Trinitrotoluene	227 > 210			16269.122									
XIBLK15	34-dinitrotoluene	182 > 152			16269.122									
XIBLK15	26-dinitrotoluene	182 > 152			16269.122									
XIBLK15	24-dinitrotoluene	182 > 152			16269.122									
XIBLK15	26-dinitrotoluene-d3	185 > 155	17.31	16269.122		16269.122	16269.122	bb			481.7252	96.3	-3.7	1301.1
XIBLK15	2-Nitrotoluene	137 > 46			16269.122									
XIBLK15	4-Nitrotoluene	137 > 46			16269.122									
XIBLK15	3-Nitrotoluene	137 > 46			16269.122									
XIBLK15	PETN	361 > 62			16269.122									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–952

Lab Code: GEL

Lab Sample ID: XIBLK16

Analysis Date: 11–JAN–10 17:33

GEL Data File: EXP0108148a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	534.634
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	520.835

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108148a
Date: 11-Jan-2010
Time: 17:33:12
ID: XIBLK1~~1~~ 16
Vial: 1:1,A

MM 1/12/10

MM 1/12/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.677e+003

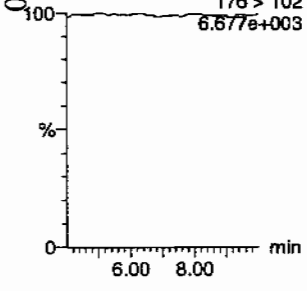

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.677e+003

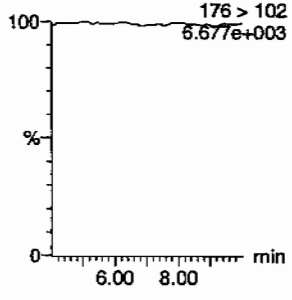

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.545e+003

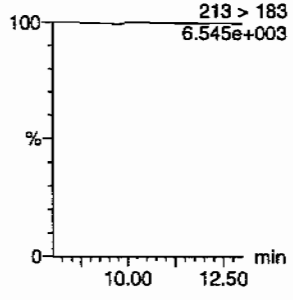

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.421e+004

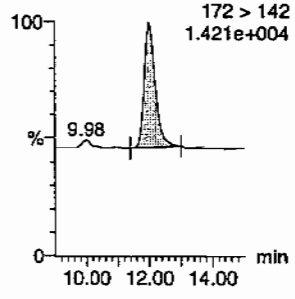

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.569e+003

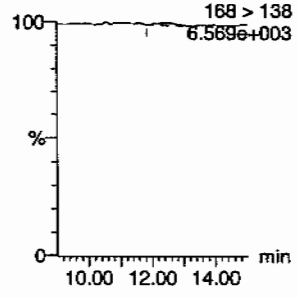

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.548e+003

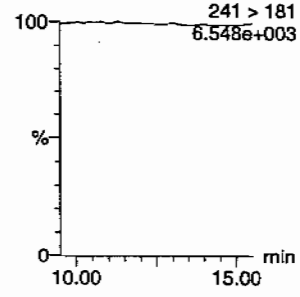

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.561e+003

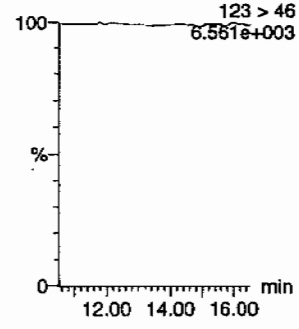

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.584e+003

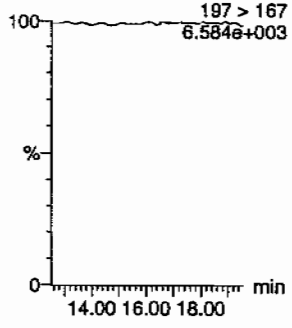

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.623e+003

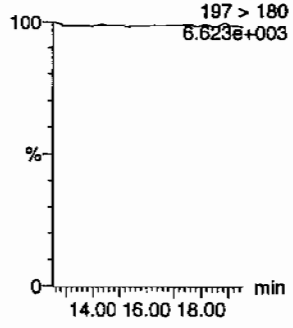

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.573e+003

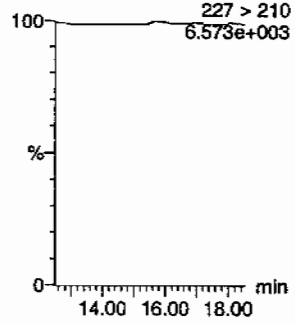

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.576e+003

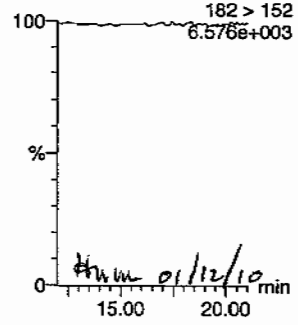

MM 01/12/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.576e+003

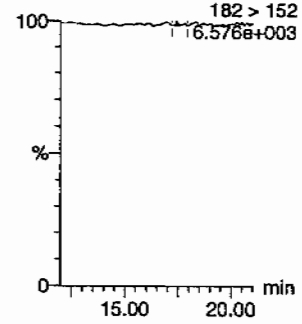

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

24-dinitrotoluene

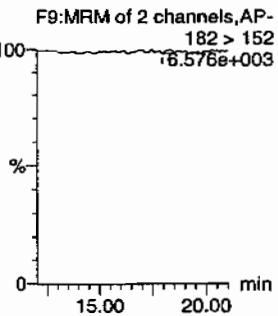

26-dinitrotoluene-d3

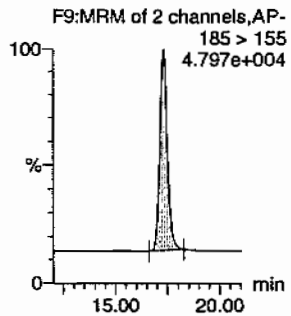

2-Nitrotoluene

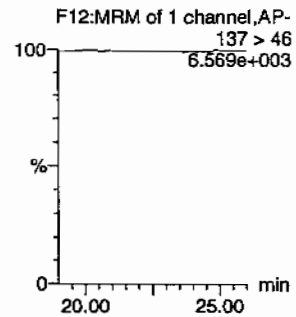

4-Nitrotoluene

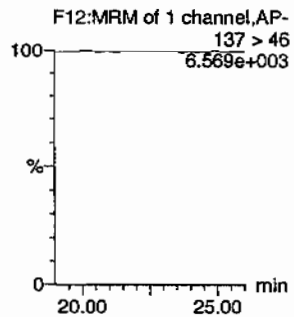

3-Nitrotoluene

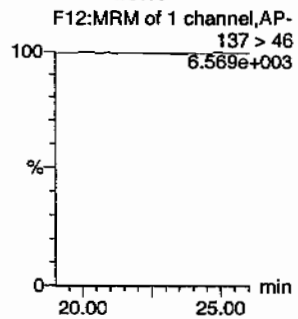

PETN

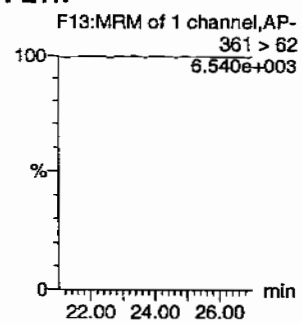

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK11	HMX	176 > 102			3132.454									
XIBLK11	RDX	176 > 102			3132.454									
XIBLK11	135-Trinitrobenzene	213 > 183			3132.454									
XIBLK11	13-Dinitrobenzene-d4	172 > 142	11.97	3132.454		3132.454	3132.454	bb			534.6343	106.9	6.9	94.0
XIBLK11	13-Dinitrobenzene	168 > 138			3132.454			MM-	12-Jan-10	10:03:00				
XIBLK11	Tetryl	241 > 181			3132.454									
XIBLK11	Nitrobenzene	123 > 46			3132.454									
XIBLK11	4-Amino-26-dinitrotoluene	197 > 167			17589.971									
XIBLK11	2-Amino-46-dinitrotoluene	197 > 180			17589.971									
XIBLK11	246-Trinitrotoluene	227 > 210			17589.971									
XIBLK11	34-dinitrotoluene	182 > 152			17589.971									
XIBLK11	26-dinitrotoluene	182 > 152			17589.971			MM-	12-Jan-10	10:16:41				
XIBLK11	24-dinitrotoluene	182 > 152			17589.971			MM-	12-Jan-10	10:21:59				
XIBLK11	26-dinitrotoluene-d3	185 > 155	17.31	17589.971		17589.971	17589.971	bb			520.8353	104.2	4.2	1076.1
XIBLK11	2-Nitrotoluene	137 > 46			17589.971									
XIBLK11	4-Nitrotoluene	137 > 46			17589.971									
XIBLK11	3-Nitrotoluene	137 > 46			17589.971									
XIBLK11	PETN	361 > 62			17589.971									

XIBLK16

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–952

Lab Code: GEL

Lab Sample ID: XIBLK17

Analysis Date: 11–JAN–10 19:31

GEL Data File: EXP0108152a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	654.276
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	530.908
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108152a
Date: 11-Jan-2010
Time: 19:31:22
ID: XIBLK17
Vial: 1:1,A

MMT 1/12/10

HMX

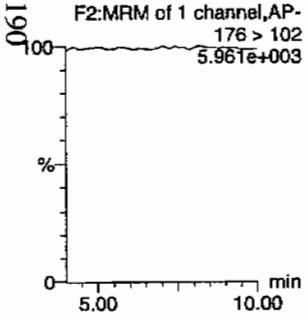

RDX

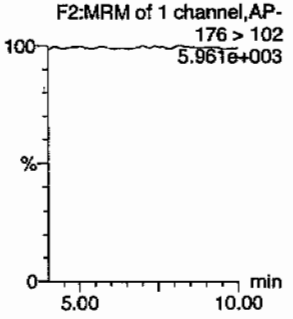

135-Trinitrobenzene

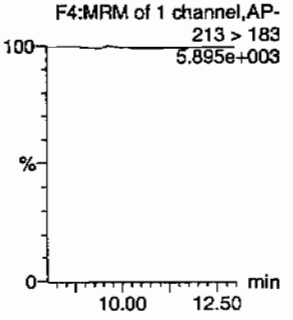

13-Dinitrobenzene-d4

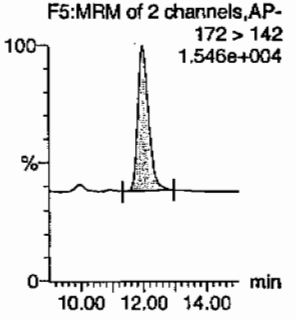

13-Dinitrobenzene

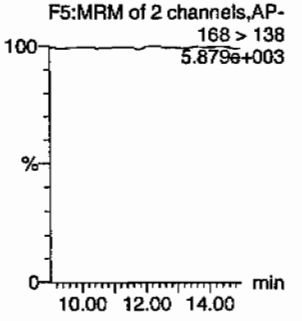

Tetryl

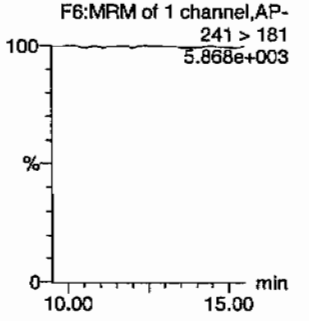

Nitrobenzene

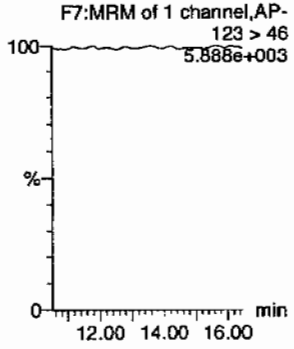

4-Amino-26-dinitrotoluene

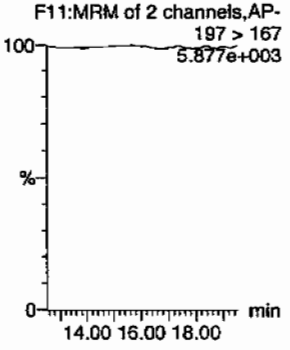

2-Amino-46-dinitrotoluene

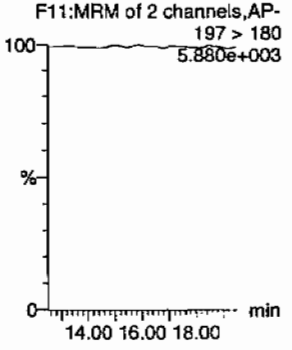

246-Trinitrotoluene

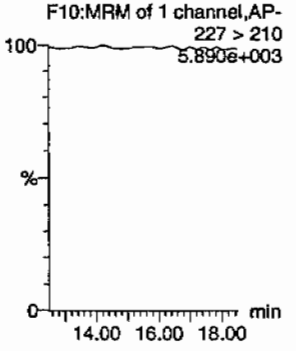

34-dinitrotoluene

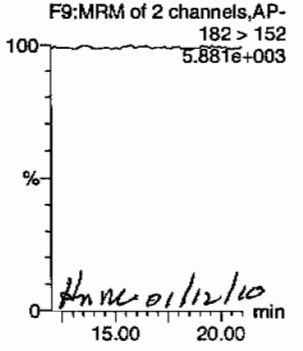

HMM 01/12/10

26-dinitrotoluene

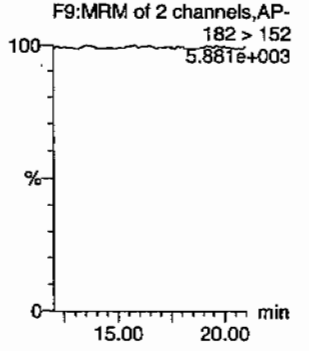

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

24-dinitrotoluene

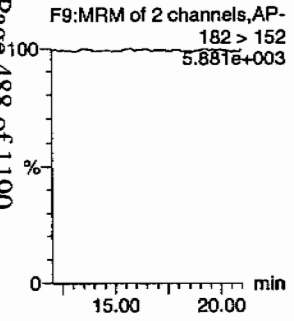

26-dinitrotoluene-d3

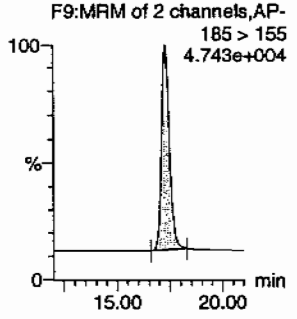

2-Nitrotoluene

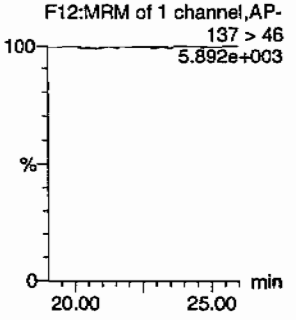

4-Nitrotoluene

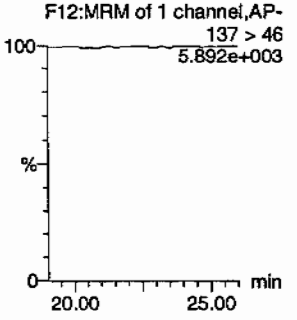

3-Nitrotoluene

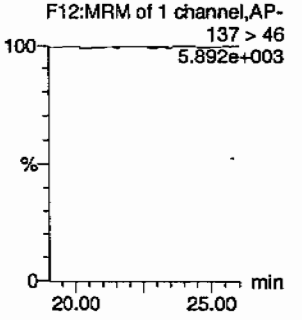

PETN

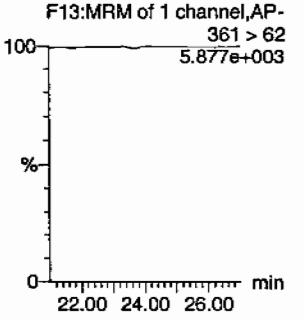

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK17	HMX	176 > 102			3833.439									
XIBLK17	RDX	176 > 102			3833.439									
XIBLK17	135-Trinitrobenzene	213 > 183			3833.439									
XIBLK17	13-Dinitrobenzene-d4	172 > 142	11.98	3833.439		3833.439	3833.439	bb			654.2756	130.9	30.9	331.8
XIBLK17	13-Dinitrobenzene	168 > 138			3833.439									
XIBLK17	Tetryl	241 > 181			3833.439									
XIBLK17	Nitrobenzene	123 > 46			3833.439									
XIBLK17	4-Amino-26-dinitrotoluene	197 > 167			17930.146									
XIBLK17	2-Amino-46-dinitrotoluene	197 > 180			17930.146									
XIBLK17	246-Trinitrotoluene	227 > 210			17930.146									
XIBLK17	34-dinitrotoluene	182 > 152			17930.146									
XIBLK17	26-dinitrotoluene	182 > 152			17930.146									
XIBLK17	24-dinitrotoluene	182 > 152			17930.146									
XIBLK17	26-dinitrotoluene-d3	185 > 155	17.29	17930.146		17930.146	17930.146	bb			530.9078	106.2	6.2	1626.4
XIBLK17	2-Nitrotoluene	137 > 46			17930.146									
XIBLK17	4-Nitrotoluene	137 > 46			17930.146									
XIBLK17	3-Nitrotoluene	137 > 46			17930.146									
XIBLK17	PETN	361 > 62			17930.146									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–952

Lab Code: GEL

Lab Sample ID: XIBLK18

Analysis Date: 11–JAN–10 22:28

GEL Data File: EXP0108158a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	607.476
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	534.52
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108158a
Date: 11-Jan-2010
Time: 22:28:16
ID: XIBLK18
Vial: 1:1,A

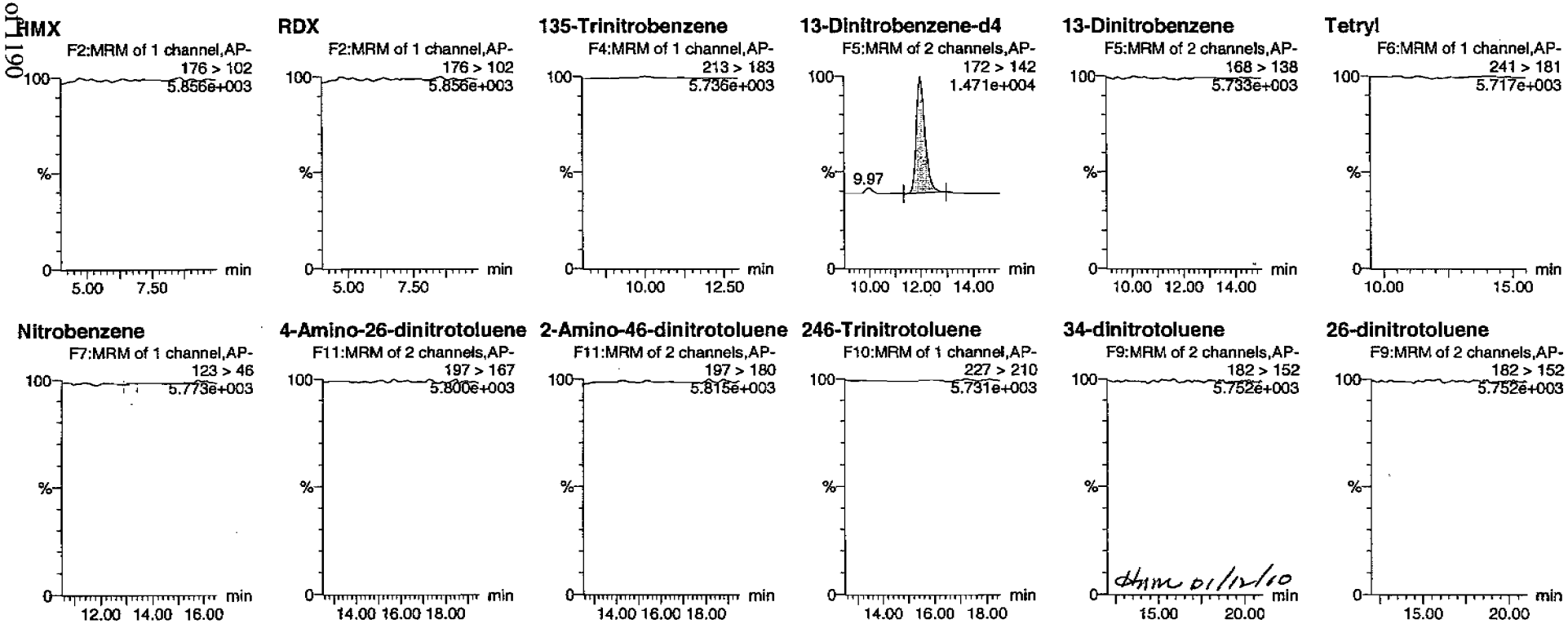

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

24-dinitrotoluene

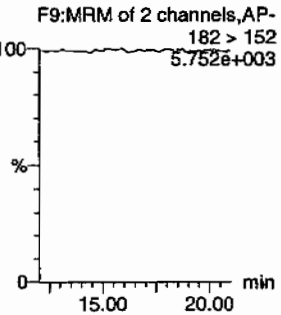

26-dinitrotoluene-d3

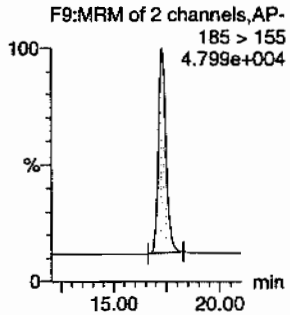

2-Nitrotoluene

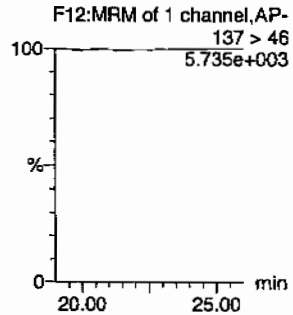

4-Nitrotoluene

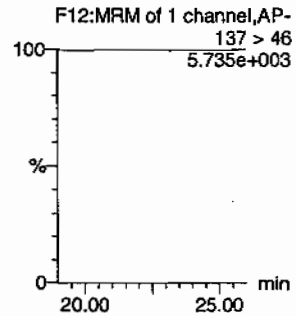

3-Nitrotoluene

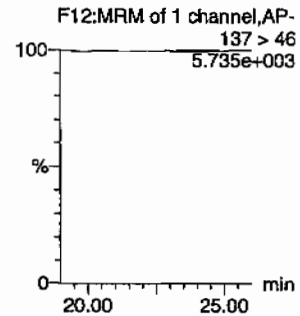

PETN

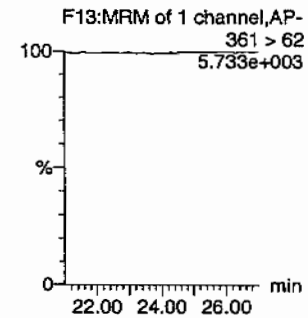

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK18	HMX	176 > 102			3559.235									
XIBLK18	RDX	176 > 102			3559.235									
XIBLK18	135-Trinitrobenzene	213 > 183			3559.235									
XIBLK18	13-Dinitrobenzene-d4	172 > 142	11.98	3559.235		3559.235	3559.235	bb			607.4756	121.5	21.5	191.9
XIBLK18	13-Dinitrobenzene	168 > 138			3559.235									
XIBLK18	Tetryl	241 > 181			3559.235									
XIBLK18	Nitrobenzene	123 > 46			3559.235			MM-	12-Jan-10	10:04:57				
XIBLK18	4-Amino-26-dinitrotoluene	197 > 167			18052.146									
XIBLK18	2-Amino-46-dinitrotoluene	197 > 180			18052.146									
XIBLK18	246-Trinitrotoluene	227 > 210			18052.146									
XIBLK18	34-dinitrotoluene	182 > 152			18052.146									
XIBLK18	26-dinitrotoluene	182 > 152			18052.146									
XIBLK18	24-dinitrotoluene	182 > 152			18052.146									
XIBLK18	26-dinitrotoluene-d3	185 > 155	17.29	18052.146		18052.146	18052.146	bb			534.5202	106.9	6.9	2230.0
XIBLK18	2-Nitrotoluene	137 > 46			18052.146									
XIBLK18	4-Nitrotoluene	137 > 46			18052.146									
XIBLK18	3-Nitrotoluene	137 > 46			18052.146									
XIBLK18	PETN	361 > 62			18052.146									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–952

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 23–DEC–09 17:09

GEL Data File: EXS12230010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	.587
tris(o–cresyl) phosphate	0	5.86
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	1.01
2,6–Diamino–4–nitrotoluene	0	0

Dan 12/29/09

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS12230010.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 5:09:48 PM

Modified: No

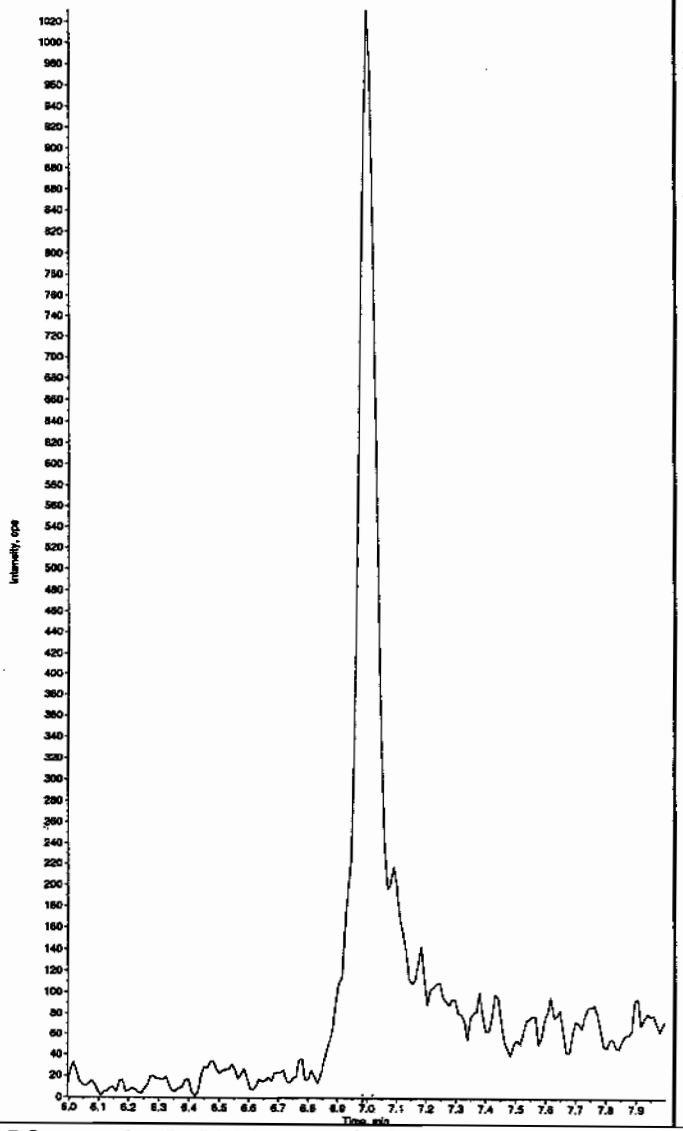

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS12230010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 12/23/2009
Acq. Time: 5:09:48 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 2.13e+004 counts
Height: 5644.037 cps
Start Time: 8.13 min
End Time: 8.33 min

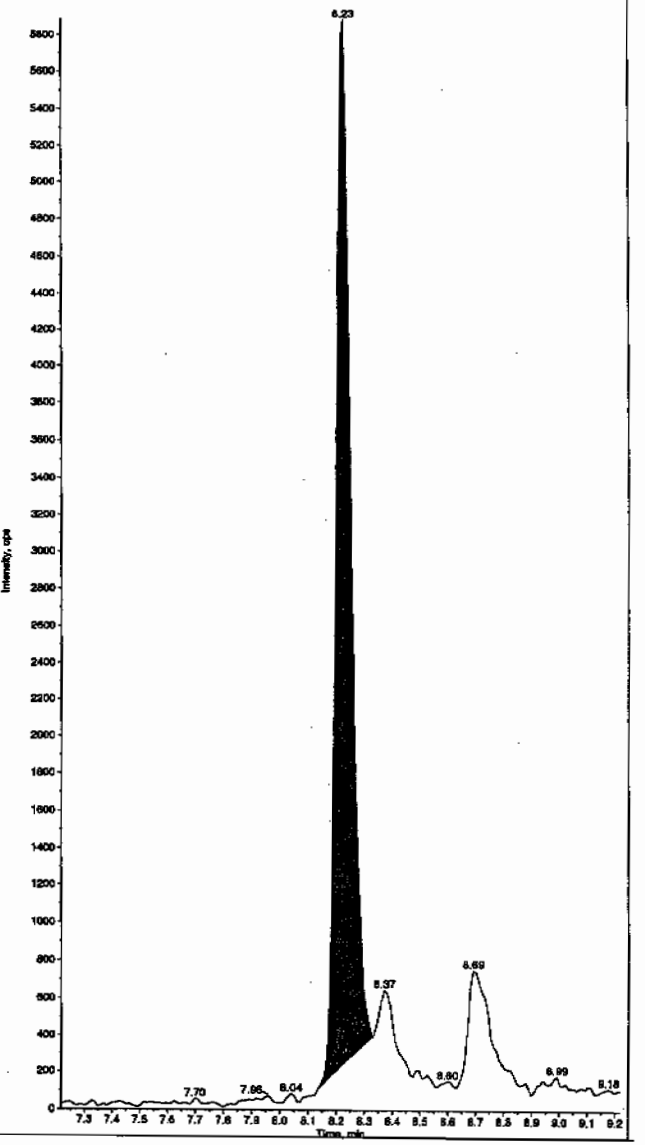

Hum 12/29/09

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS12230010.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.587 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 5:09:48 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 1.21e+004 counts
Height: 3065.500 cps
Start Time: 8.29 min
End Time: 8.62 min

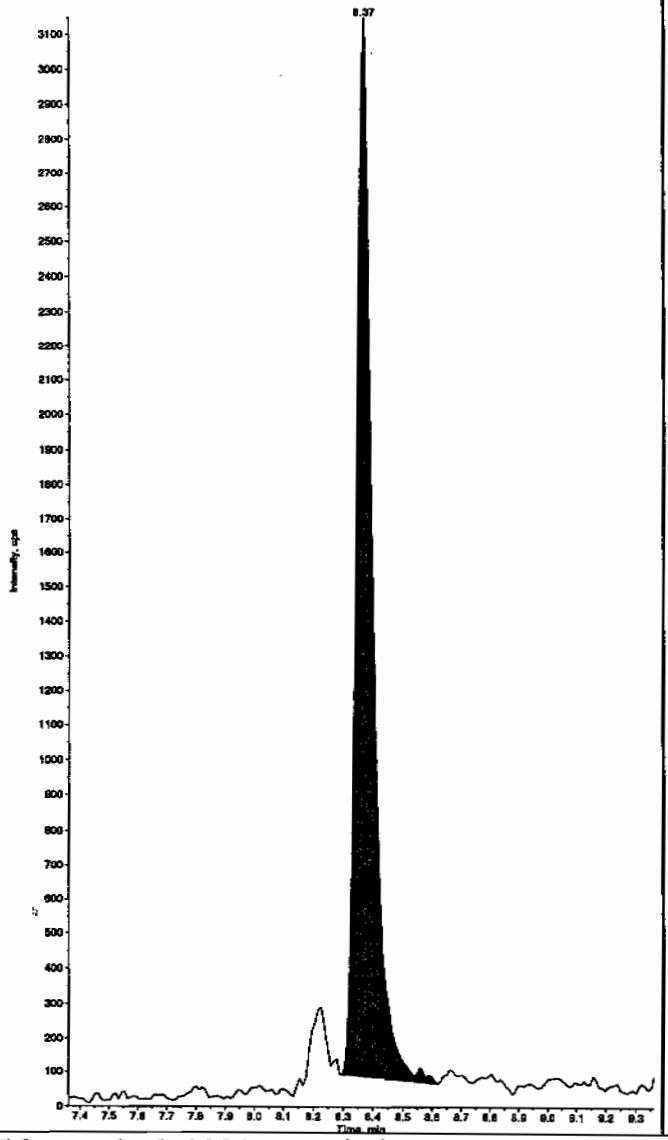

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS12230010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 12/23/2009
Acq. Time: 5:09:48 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 4.02e+003 counts
Height: 1038.667 cps
Start Time: 4.93 min
End Time: 5.21 min

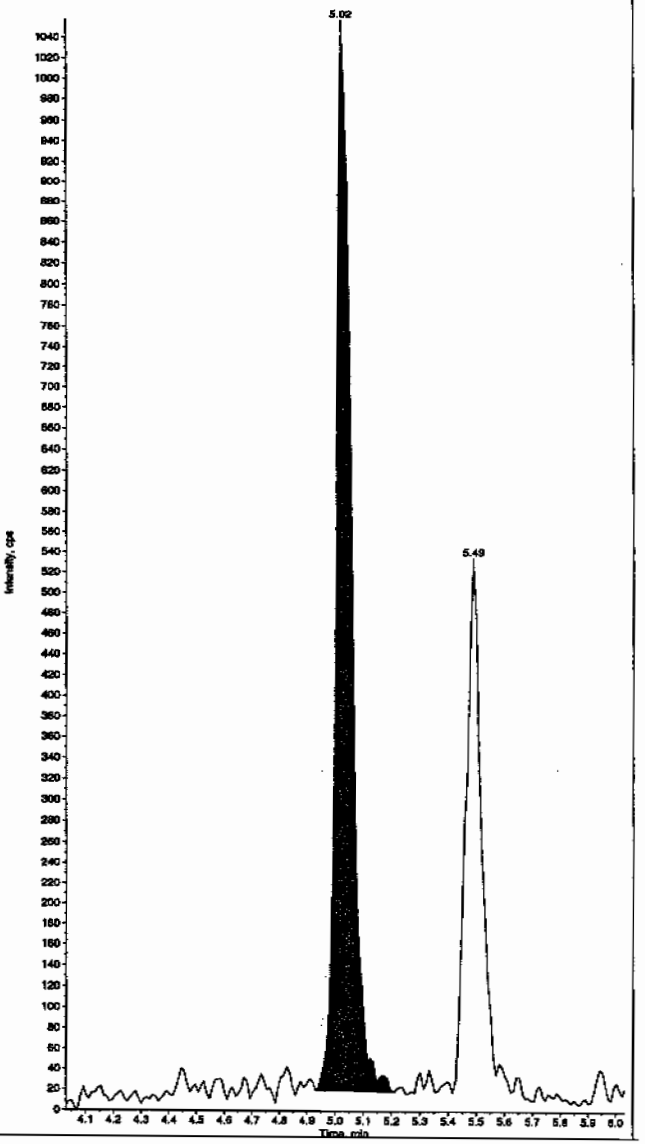

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Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS12230010.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.01 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 5:09:48 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.49 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.49 min
Area: 2.03e+003 counts
Height: 517.650 cps
Start Time: 5.42 min
End Time: 5.62 min

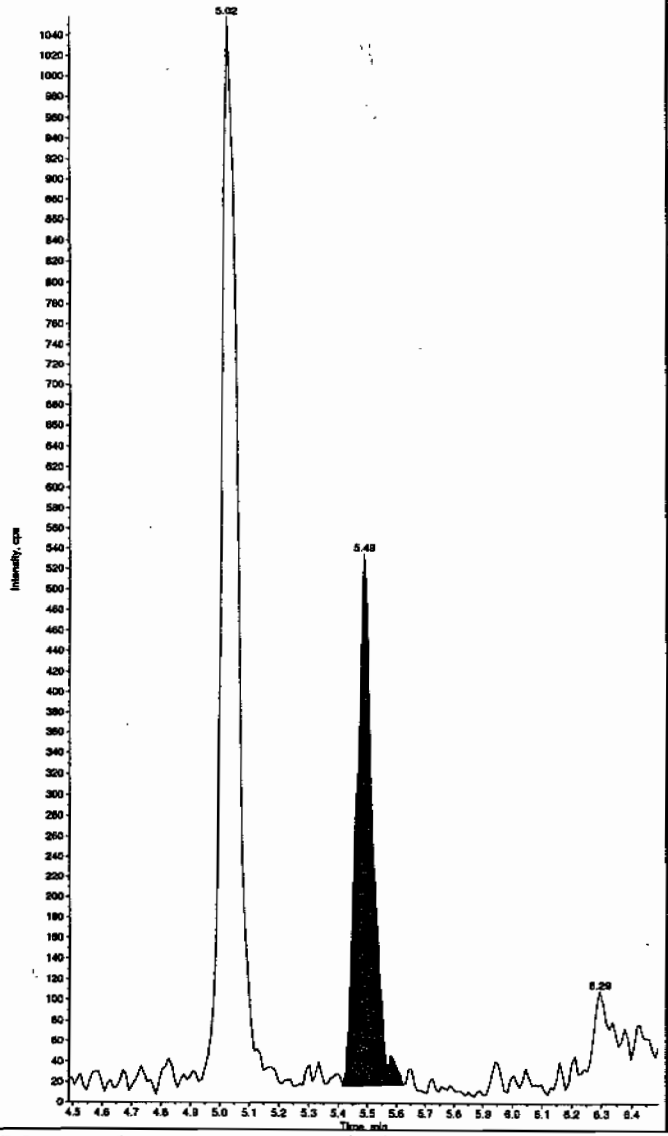

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS12230010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "368.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 5.86 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 5:09:48 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.99e+005 counts
Height: 74889.420 cps
Start Time: 10.8 min
End Time: 11.2 min

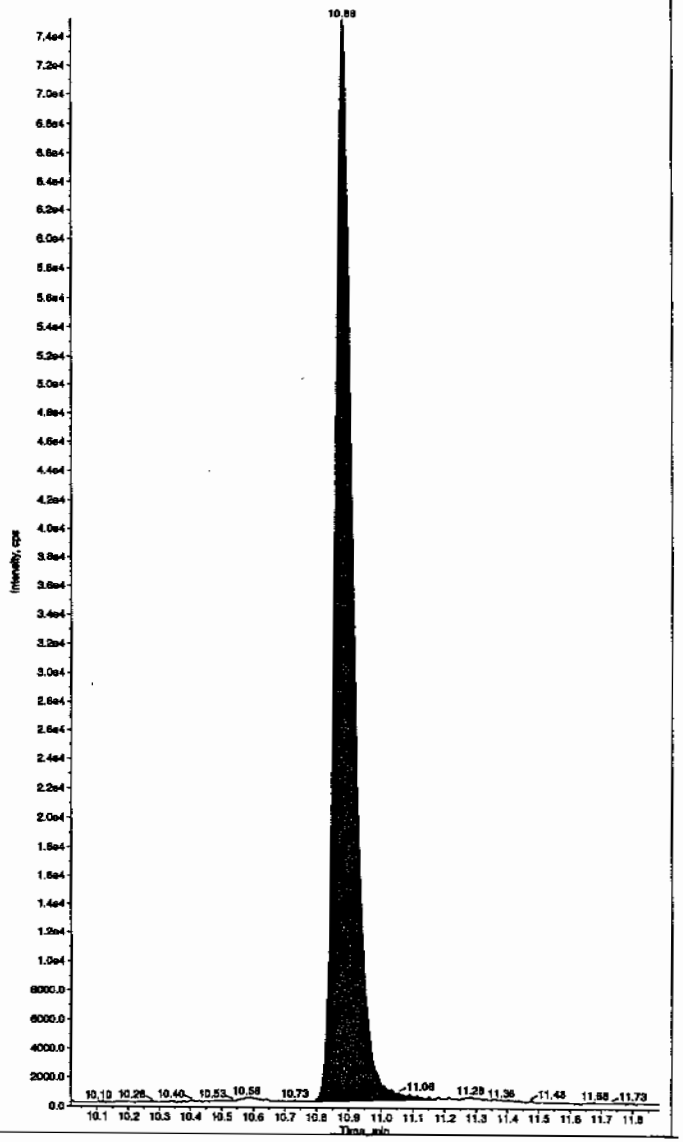

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–952

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 23–DEC–09 17:41

GEL Data File: EXS12230012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	2.03
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Ken 12/29/09

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS12230012.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 5:41:12 PM

Modified: No

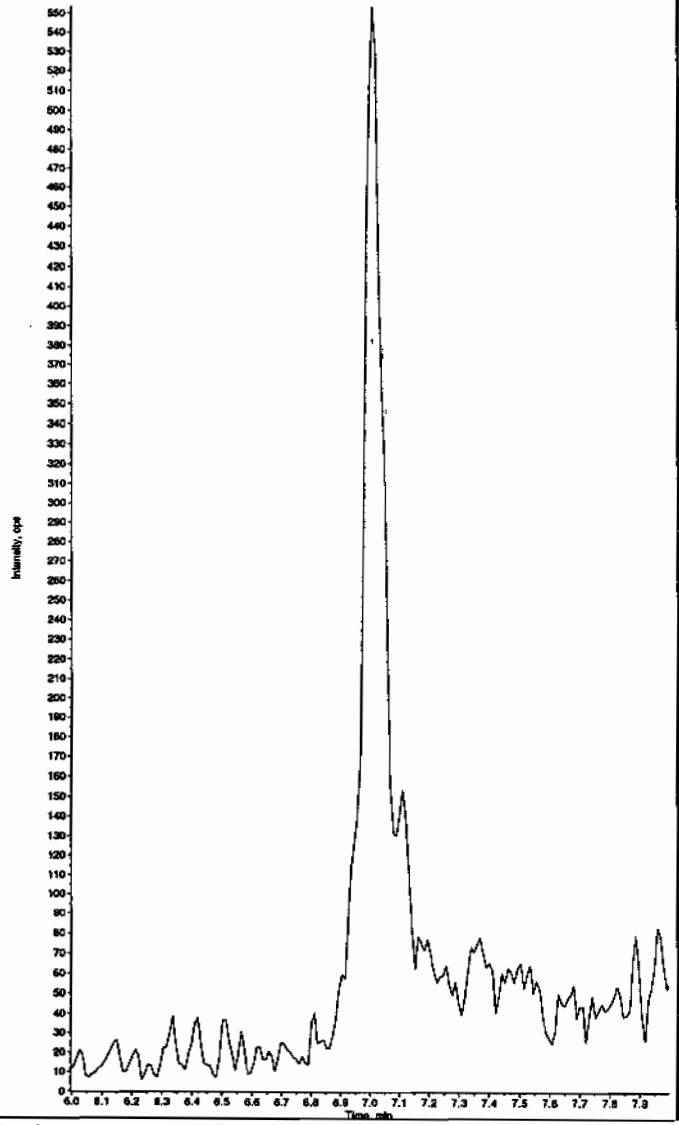

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS12230012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 5:41:12 PM

Modified: No

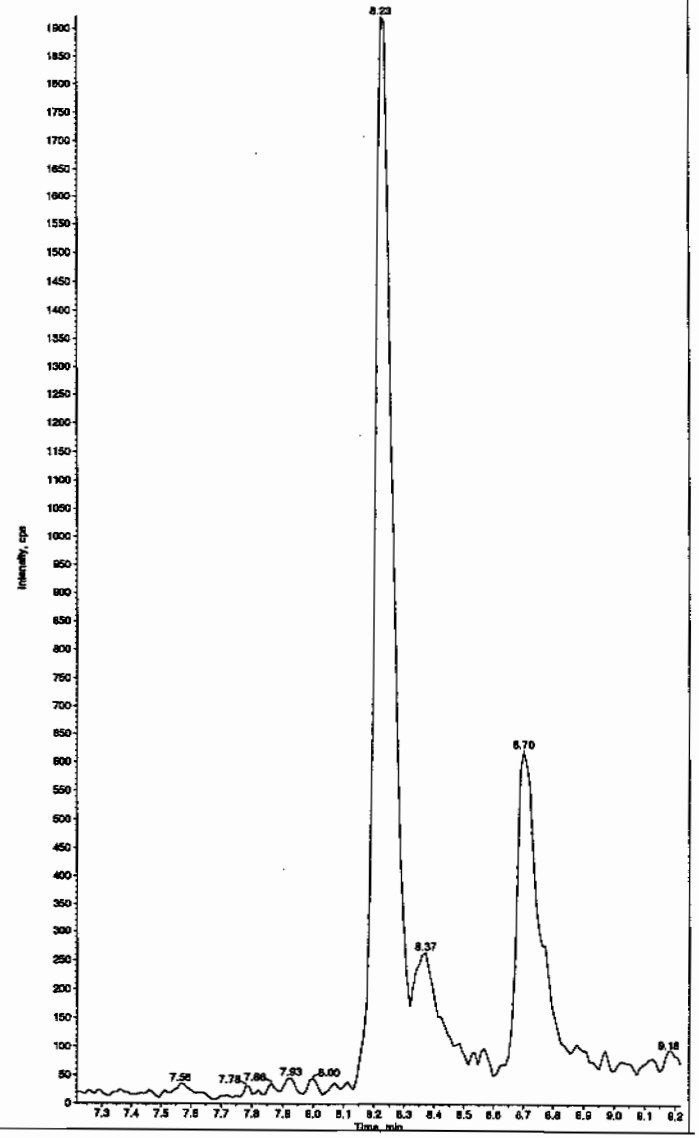

Hnm 12/29/09

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS12230012.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 5:41:12 PM

Modified: No

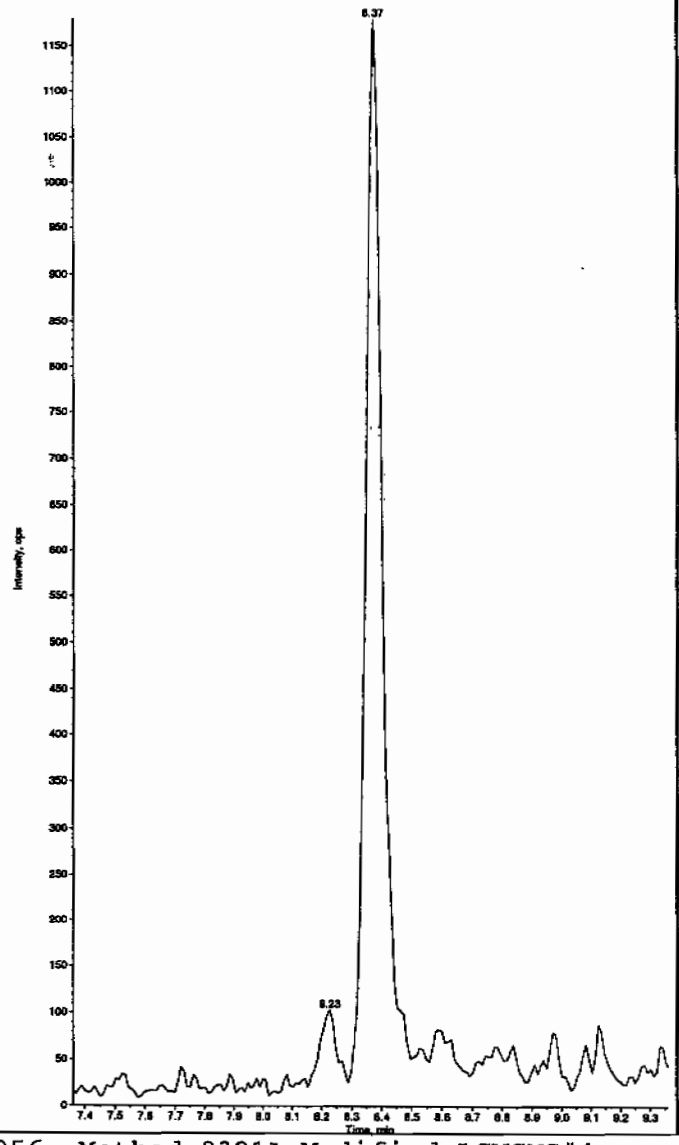

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS12230012.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 5:41:12 PM

Modified: No

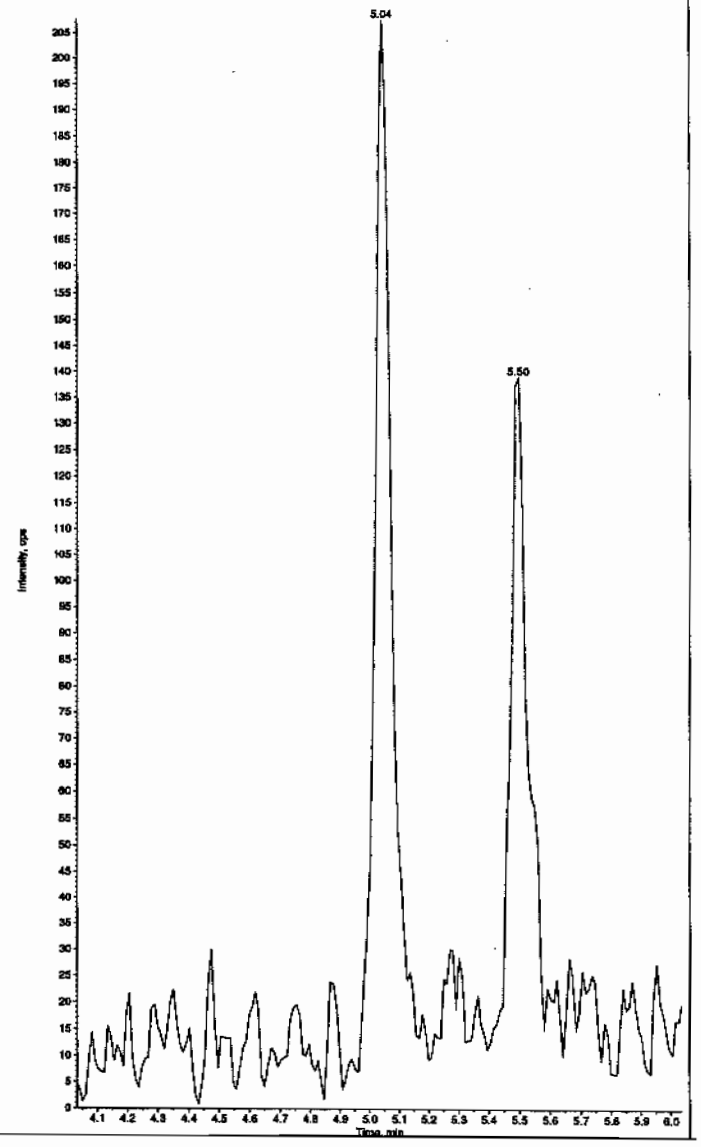

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Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS12230012.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 5:41:12 PM

Modified: No

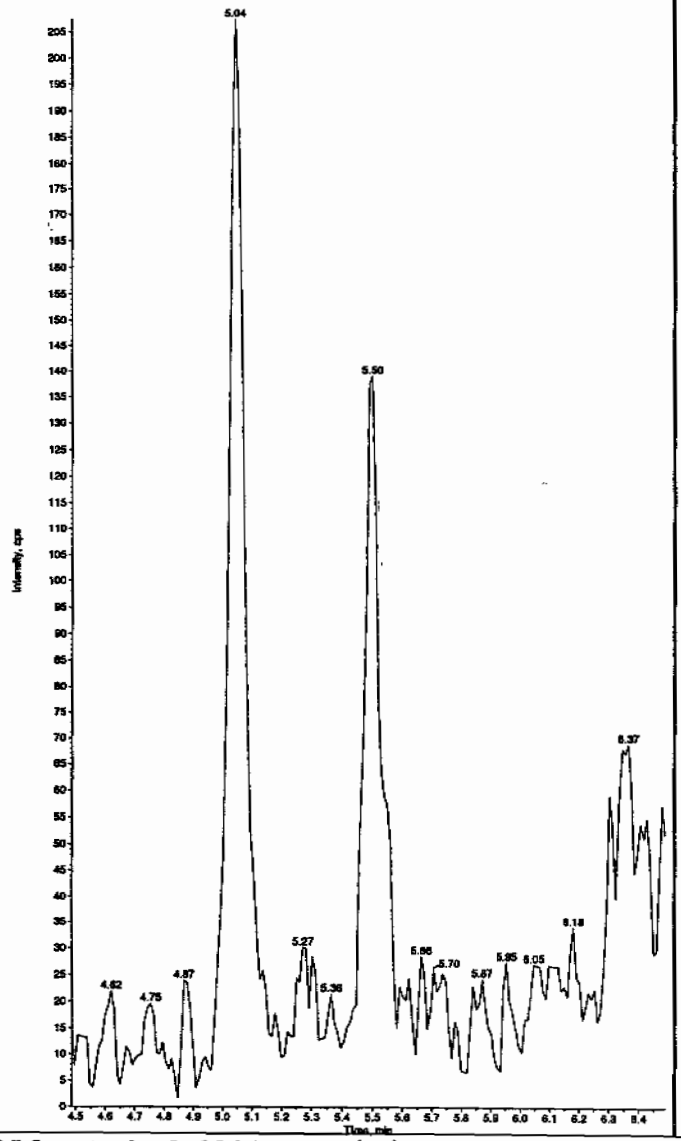

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS12230012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 2.03 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 5:41:12 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.85e+005 counts
Height: 46356.525 cps
Start Time: 10.8 min
End Time: 11.1 min

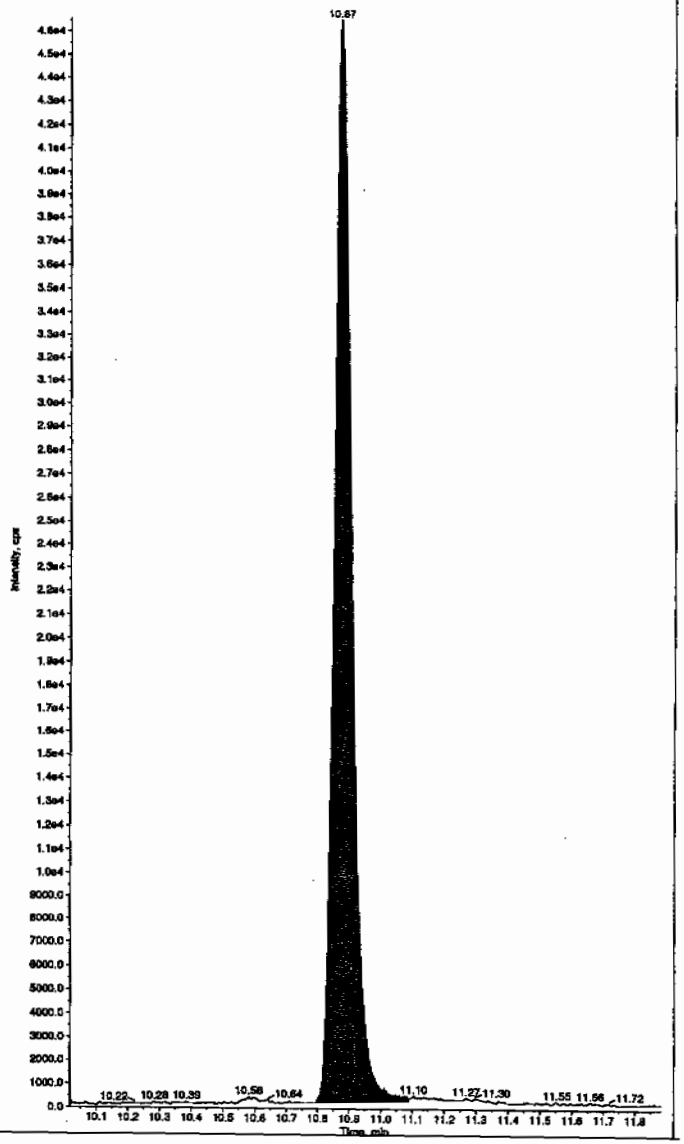

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–952

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 23–DEC–09 20:18

GEL Data File: EXS12230022.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	1.17
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS12230022.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 8:18:12 PM

Modified: No

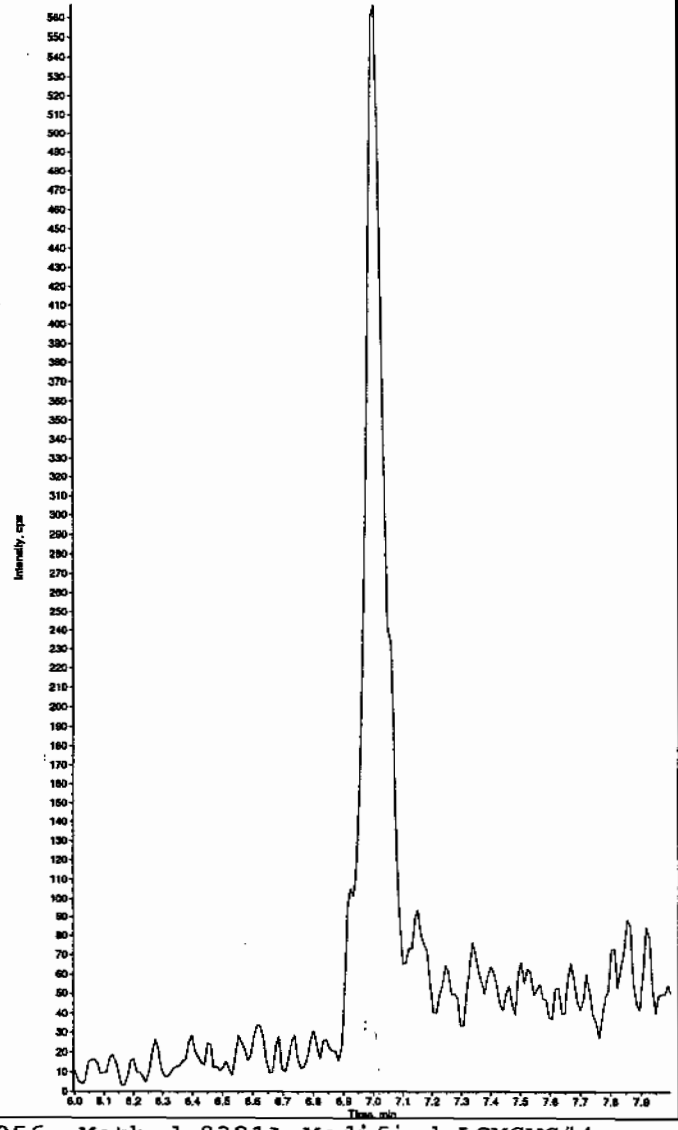

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS12230022.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 8:18:12 PM

Modified: No

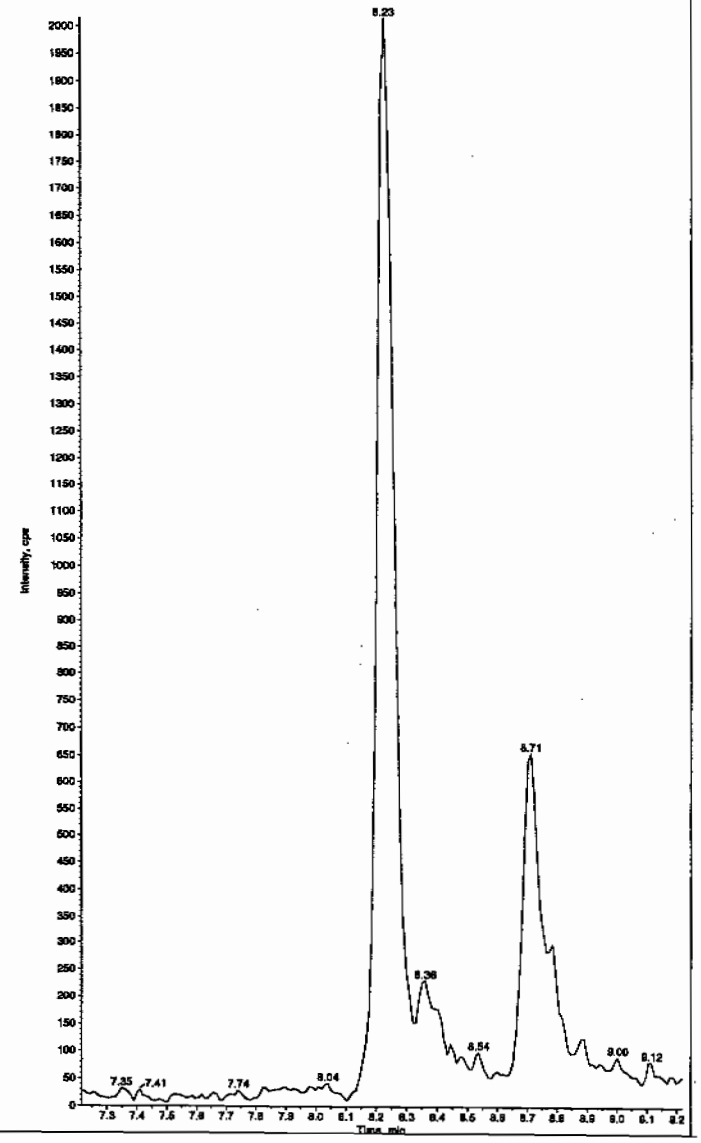

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS12230022.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 8:18:12 PM

Modified: No

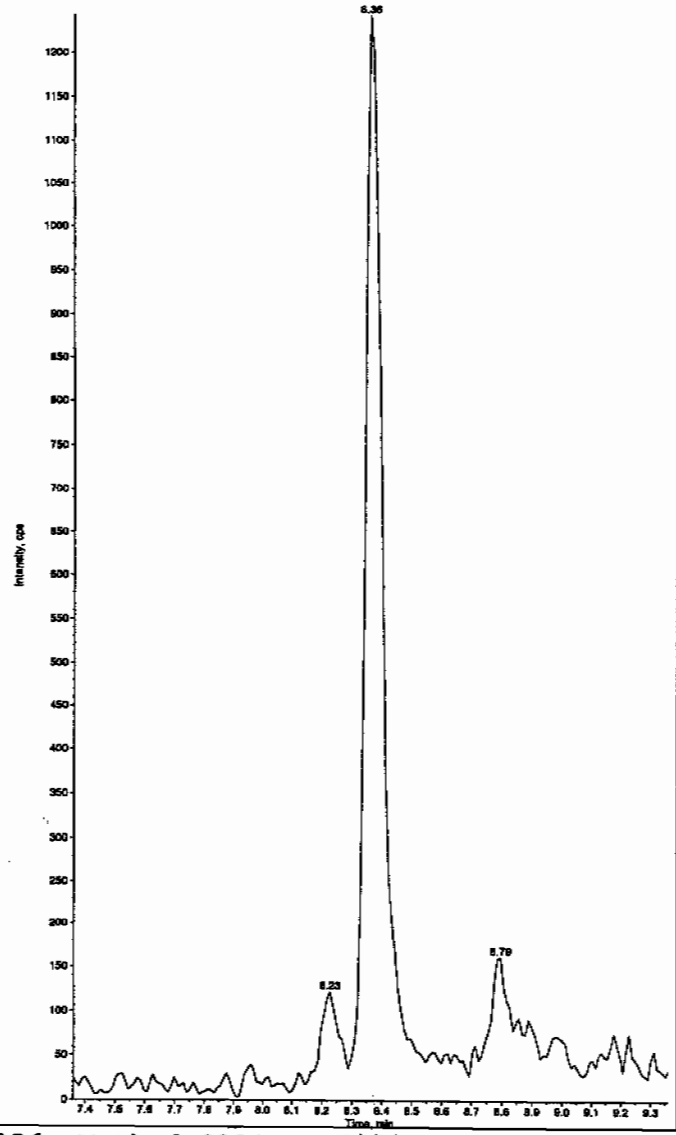

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS12230022.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 8:18:12 PM

Modified: No

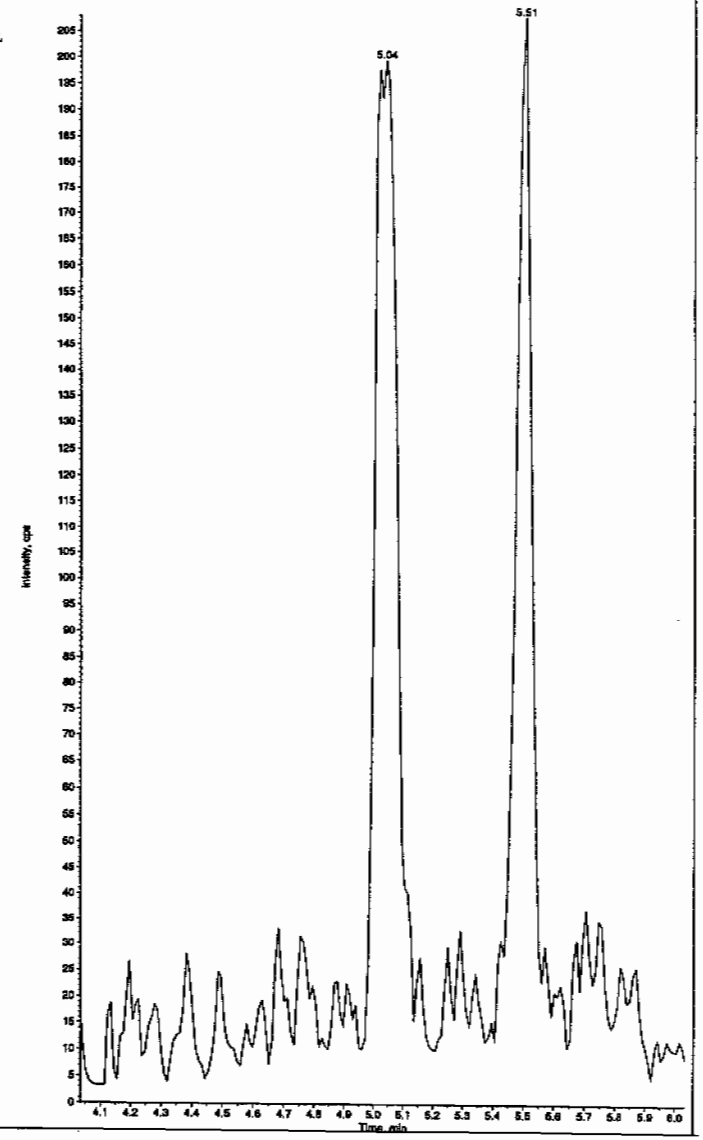

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS12230022.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 8:18:12 PM

Modified: No

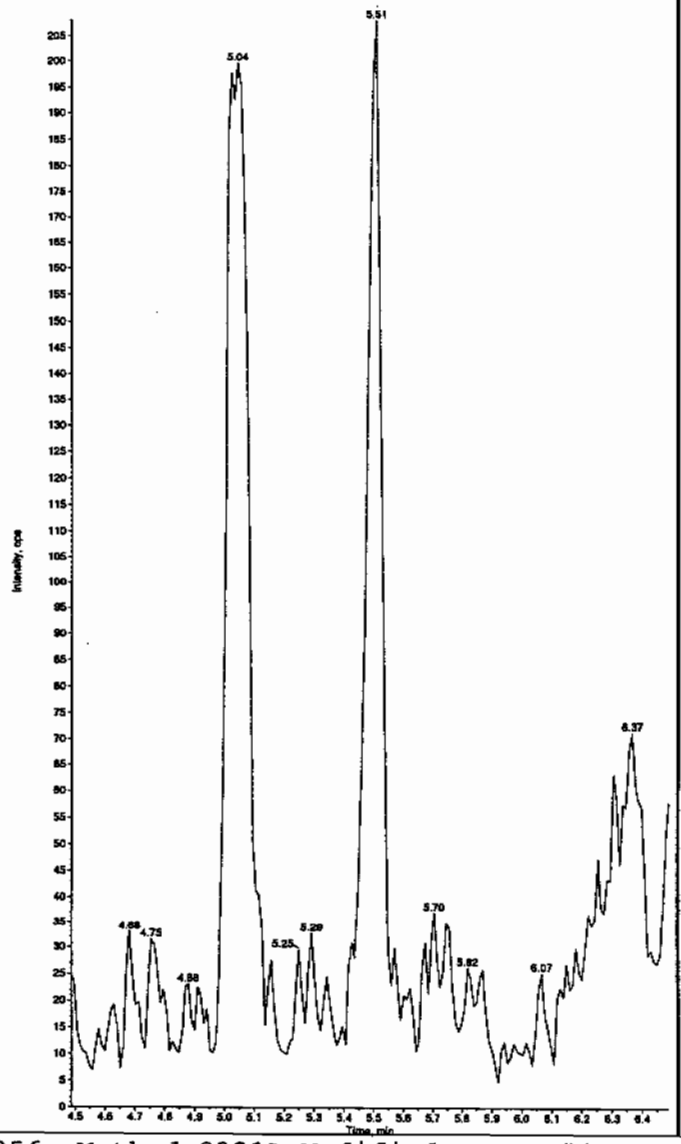

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS12230022.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.17 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 8:18:12 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.59e+005 counts
Height: 39951.992 cps
Start Time: 10.8 min
End Time: 11.1 min

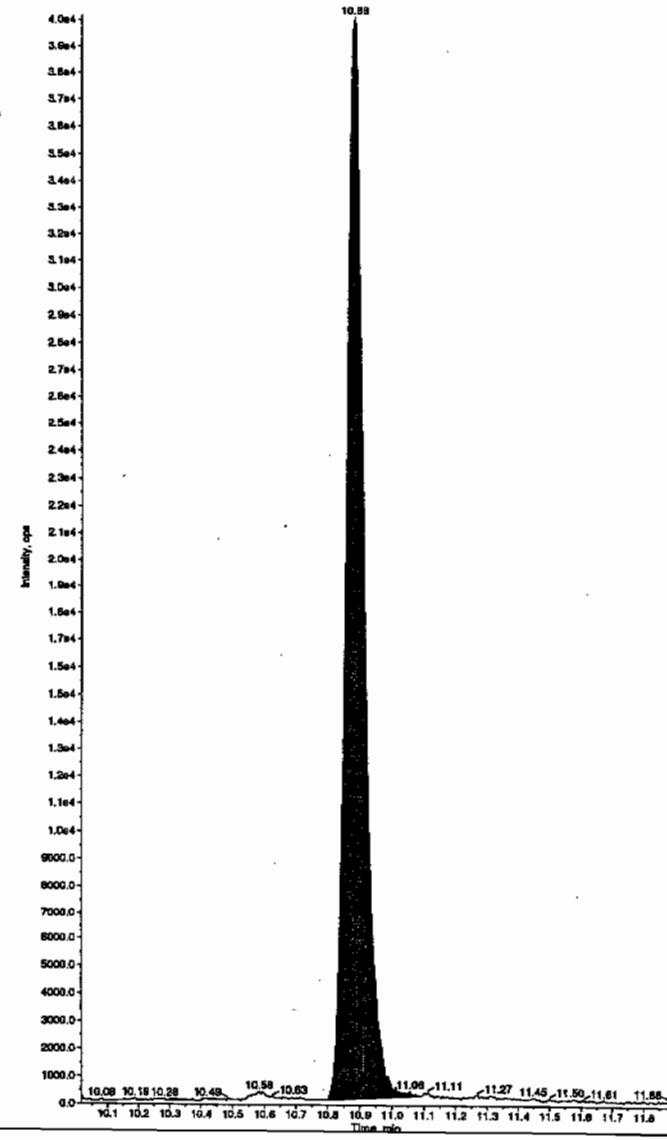

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*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–952

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 23–DEC–09 22:08

GEL Data File: EXS12230029.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	1.17
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Sar 12/29/09

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS12230029.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 10:08:03 PM

Modified: No

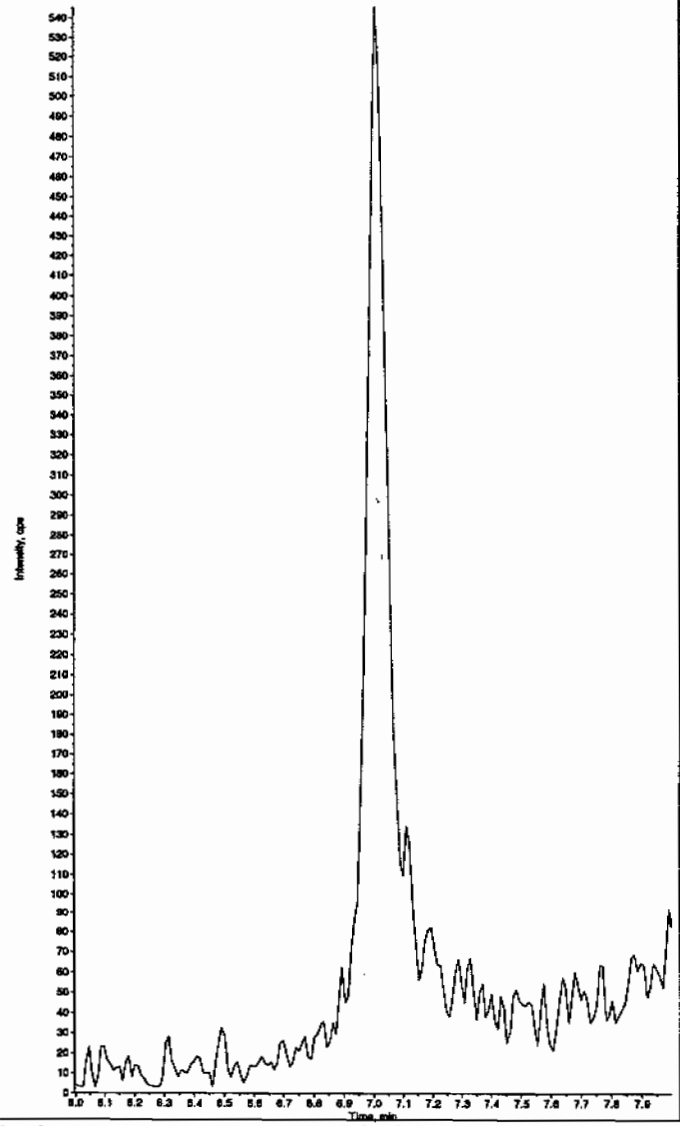

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS12230029.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 10:08:03 PM

Modified: No

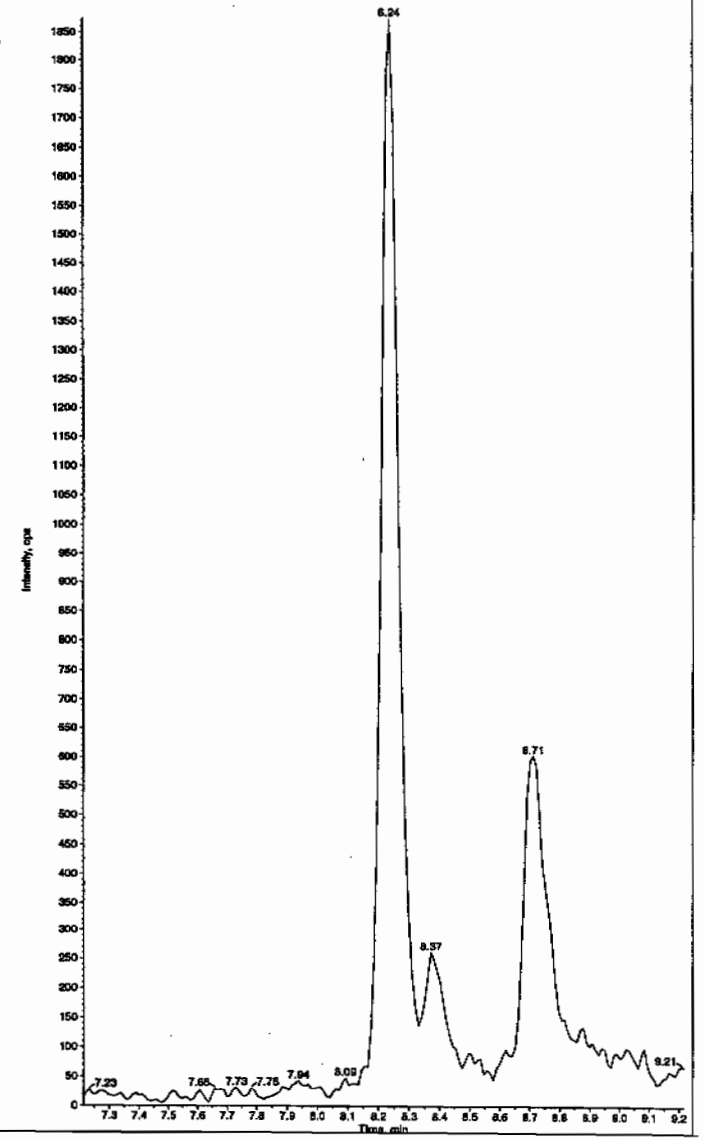

Hmm 12/29/09

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS12230029.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 10:08:03 PM
Modified: No

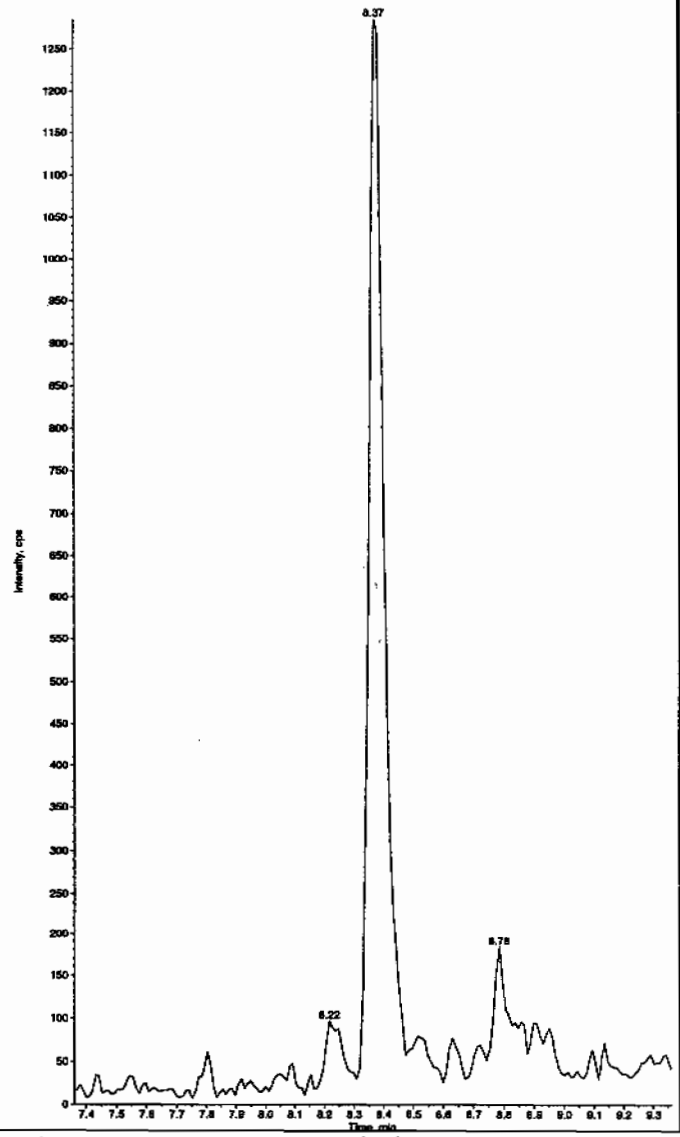

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS12230029.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 10:08:03 PM
Modified: No

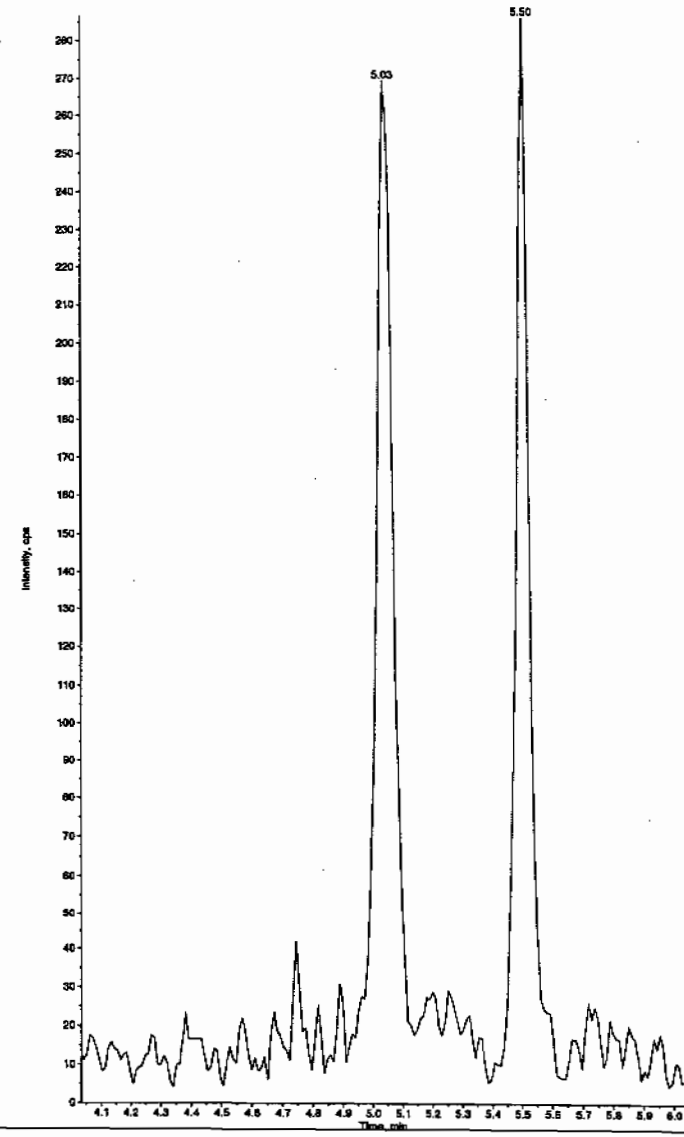

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS12230029.wiff"
Peak Name: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 10:08:03 PM

Modified: No

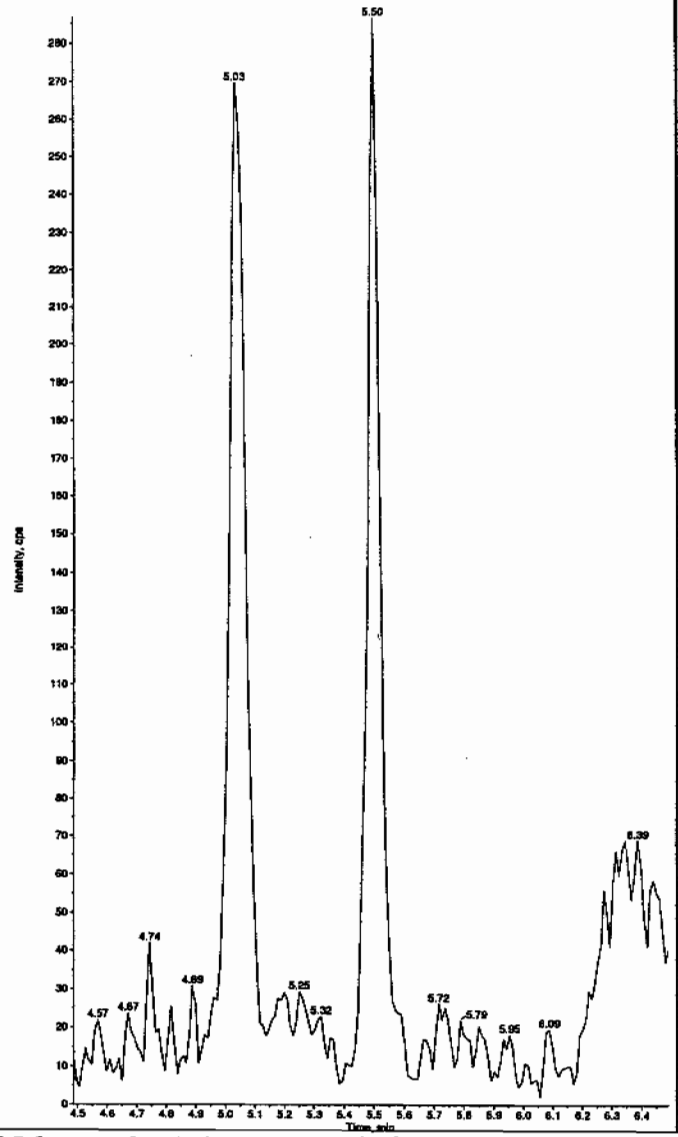

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS12230029.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 1.17 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 10:08:03 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.59e+005 counts
Height: 41198.940 cps
Start Time: 10.8 min
End Time: 11.1 min

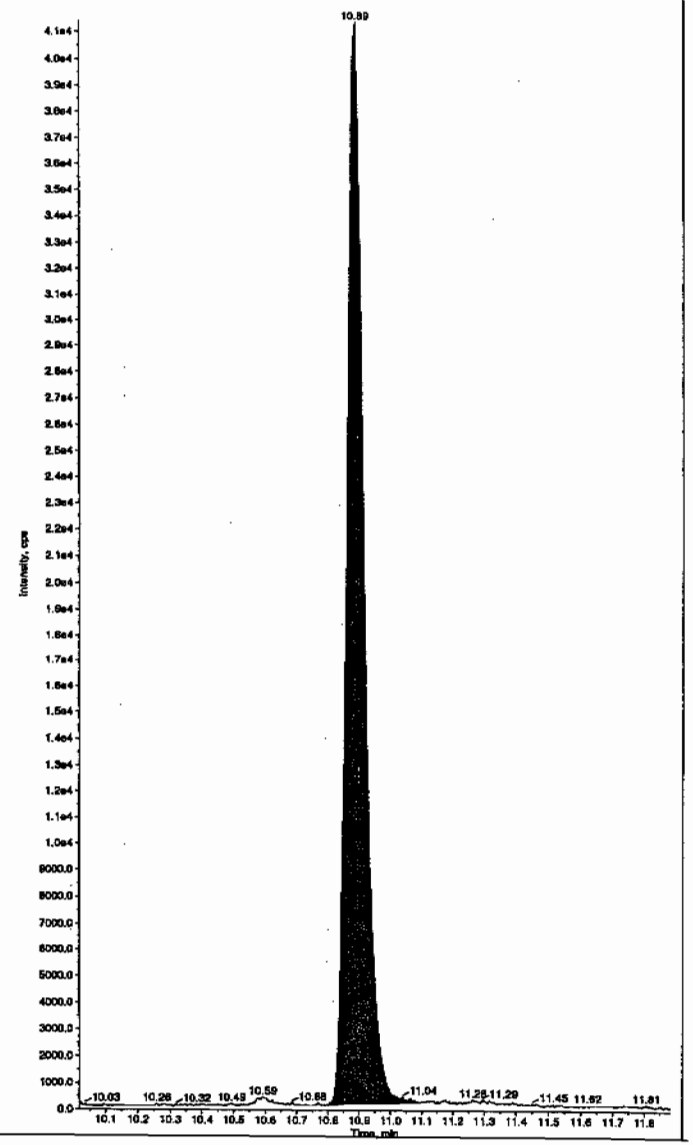

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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Calibration Report - MS1 Static

Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

15 matches of 15 tested references

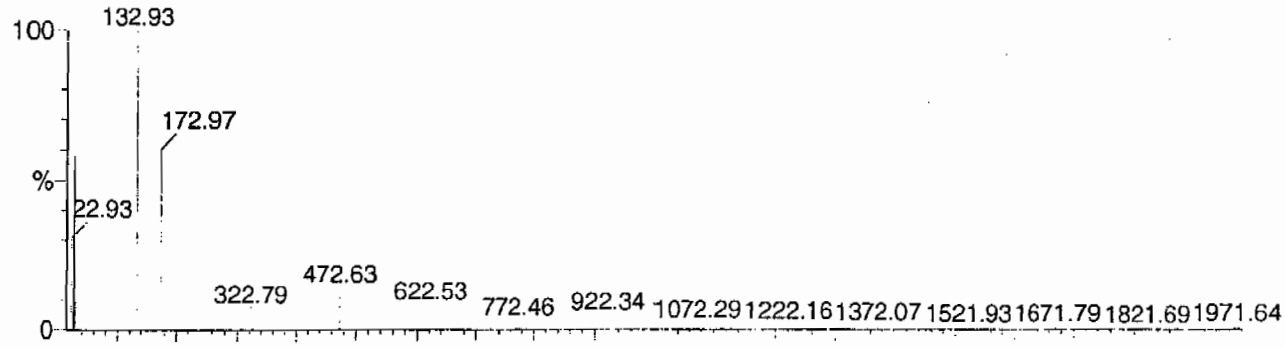

Reference file: Naics2

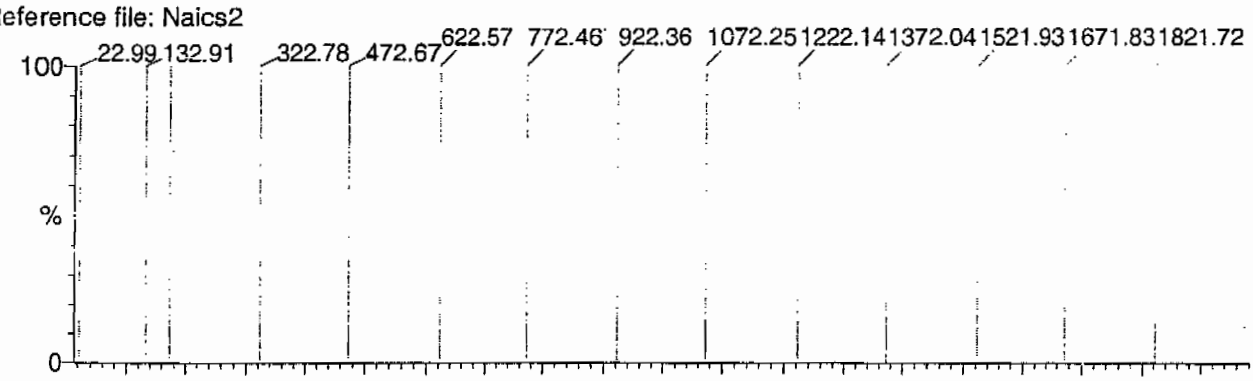

Mass difference (Raw - Ref mass)

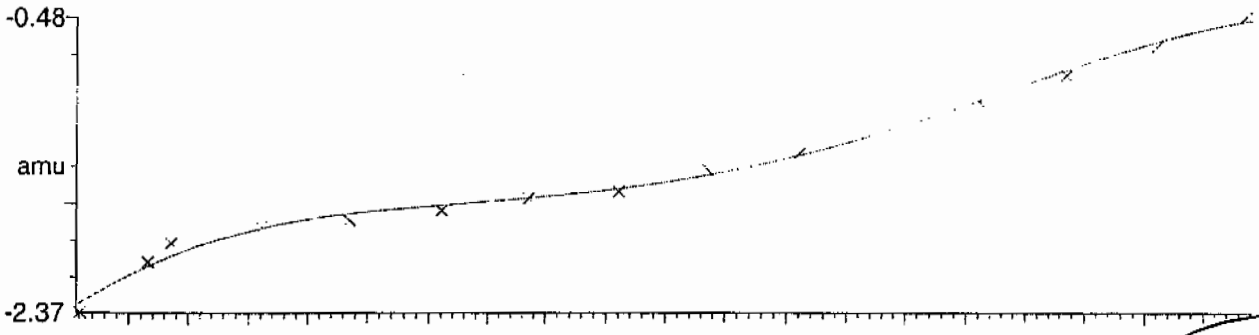

Residuals

Mean residual = -1.673470e-9 ± 0.036953

ok
m

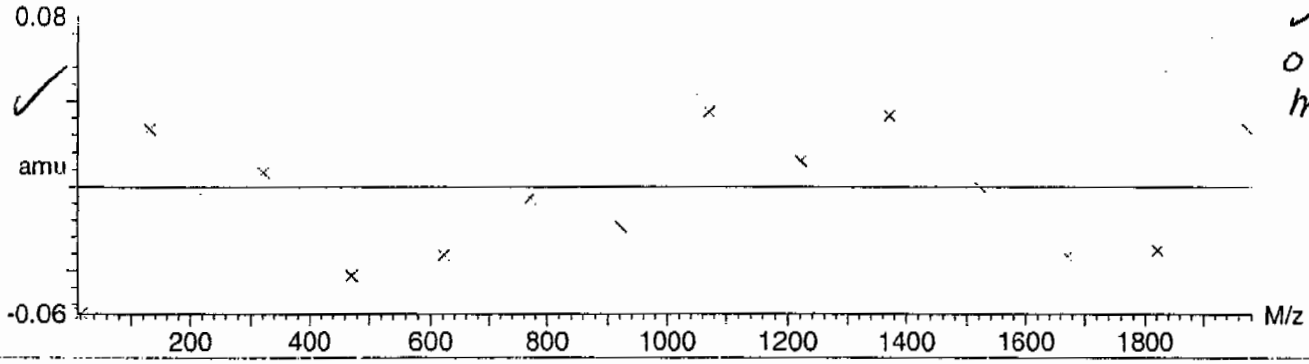

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Calibration Report - MS1 Scanning

Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

15 matches of 15 tested references

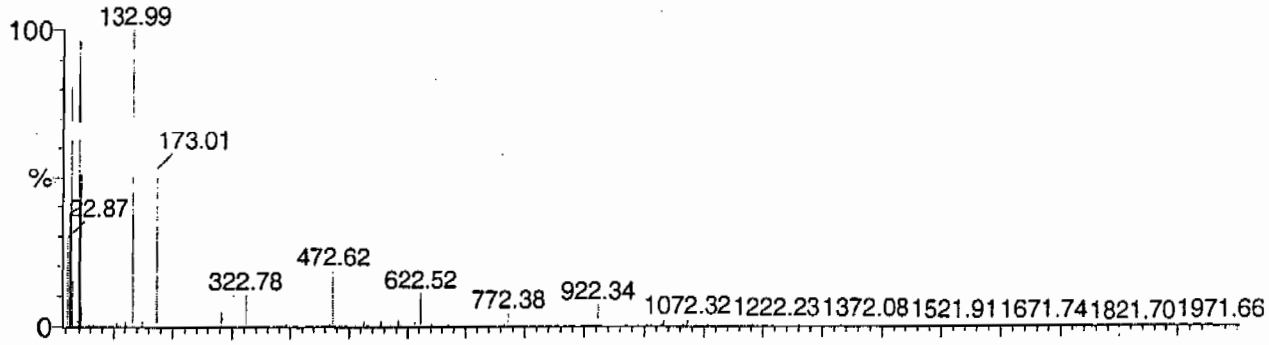

Reference file: Naics2

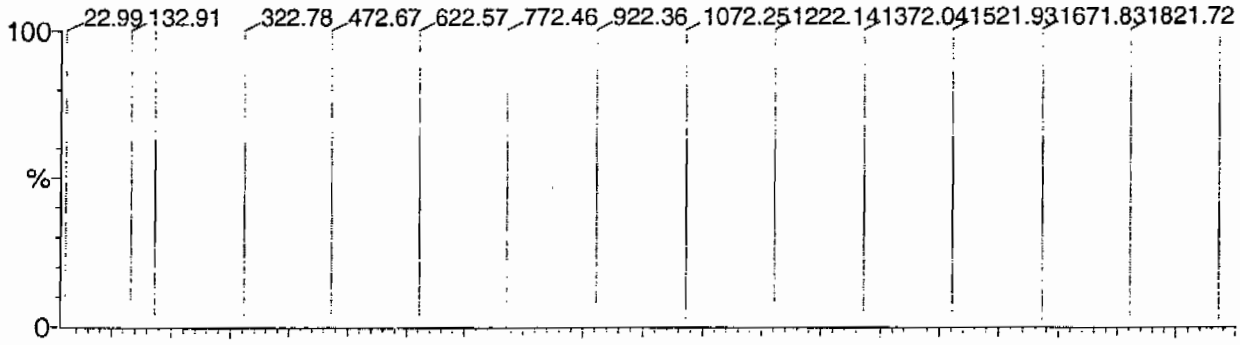

Mass difference (Raw - Ref mass)

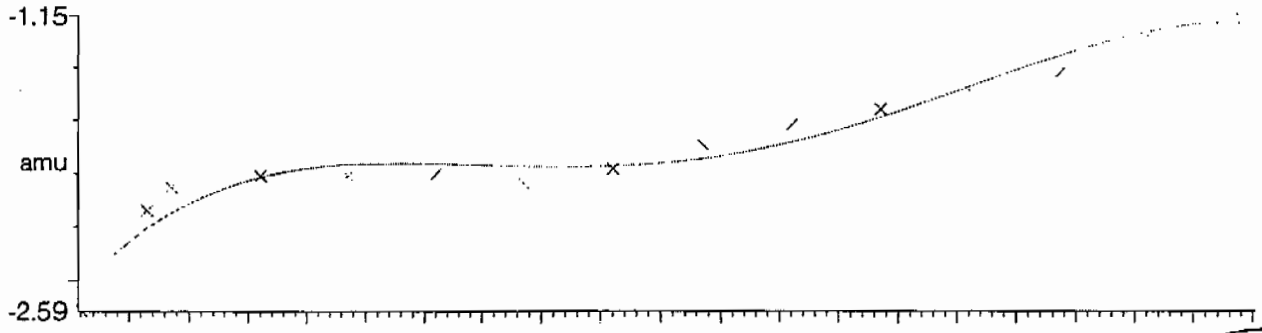

Residuals

Mean residual = -5.432715e-9 ± 0.069858

ok
m

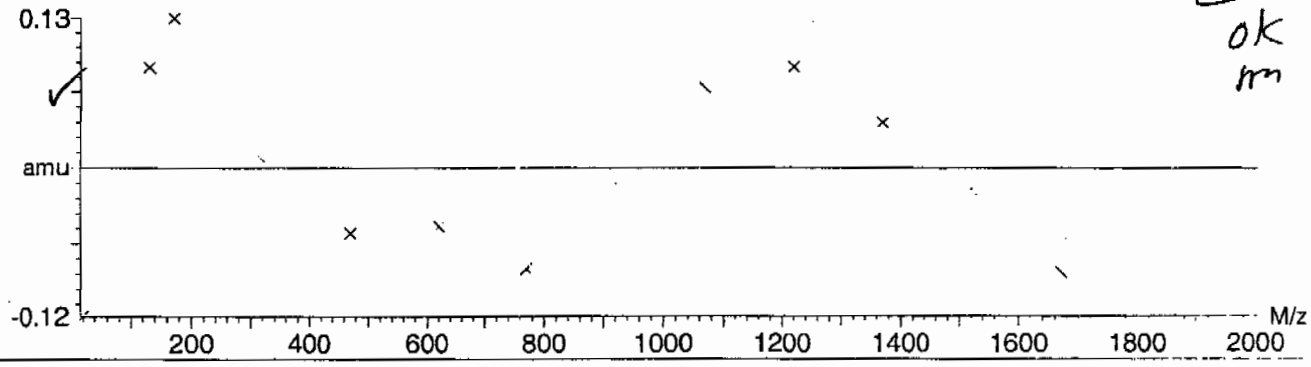

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Calibration Report - MS1 Scan Speed Compensation

Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

15 matches of 15 tested references

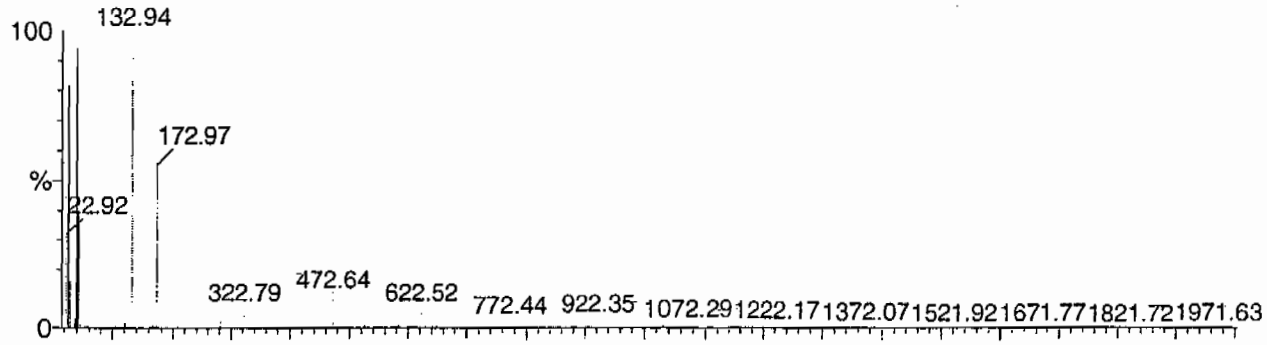

Reference file: Naics2

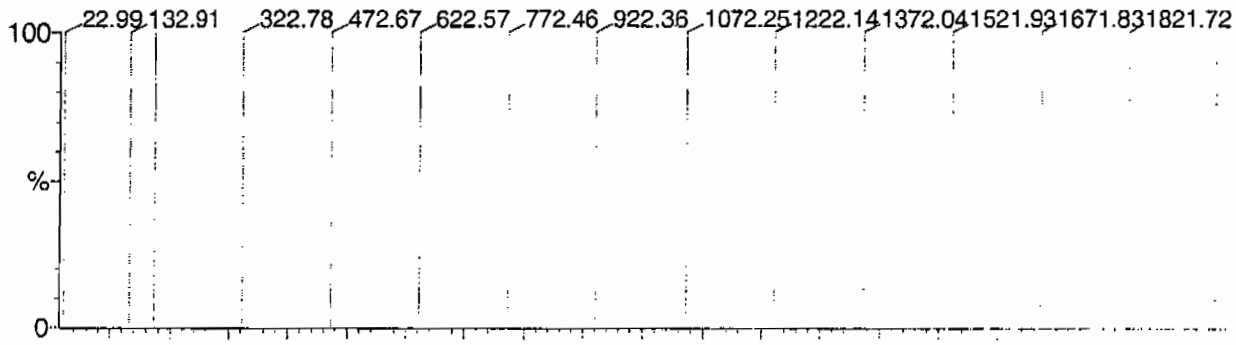

Mass difference (Raw - Ref mass)

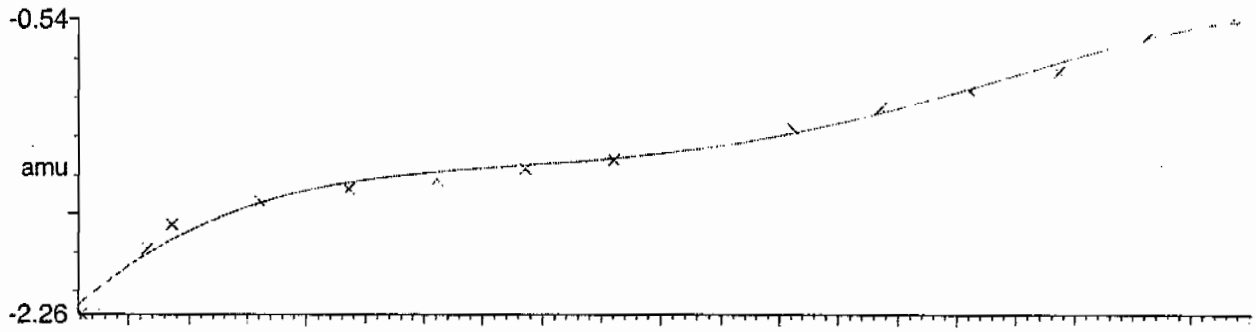

Residuals

Mean residual = 3.486639e-9 ± 0.040487

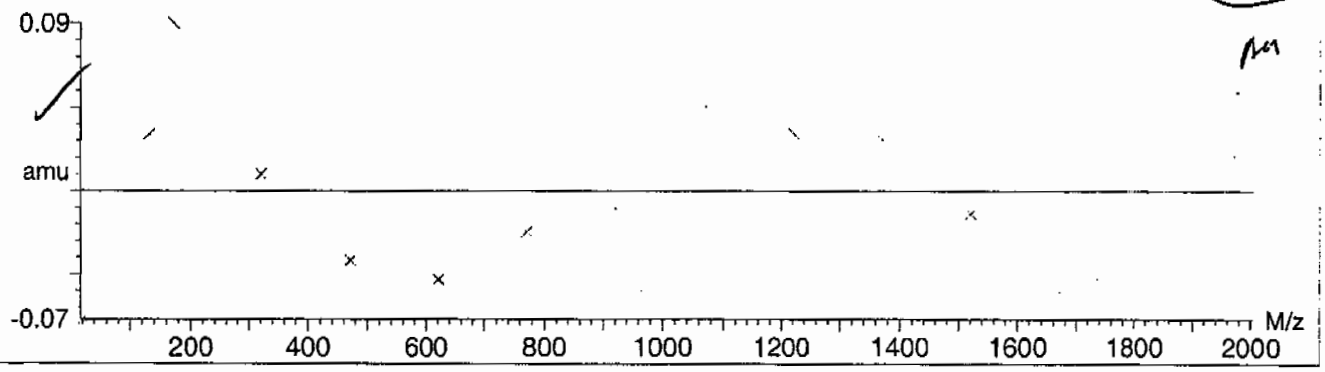

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Calibration Report - MS2 Static

Printed: Fri Aug 25 10:52:54 2006

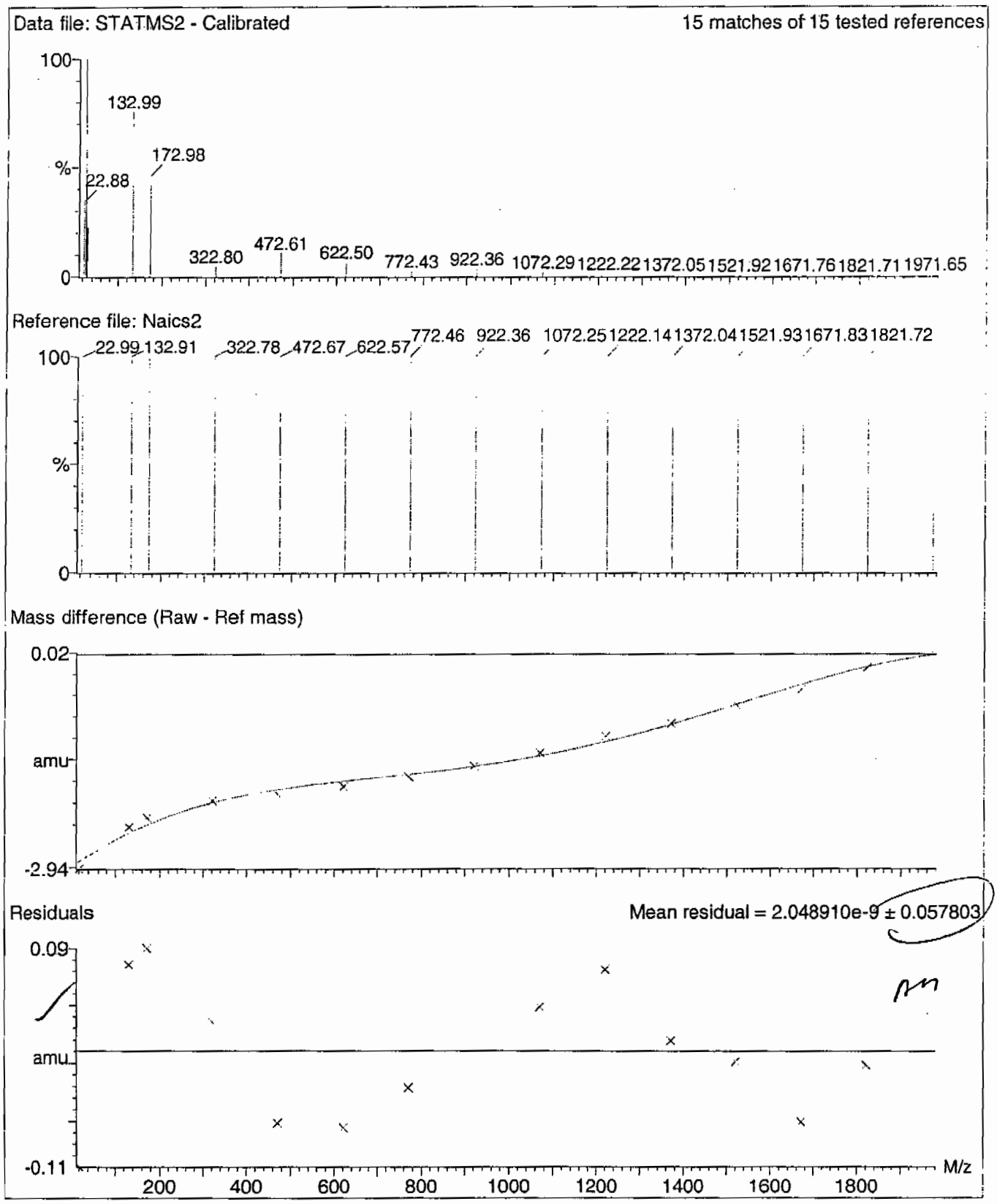

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Calibration Report - MS2 Scanning

Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

14 matches of 15 tested references

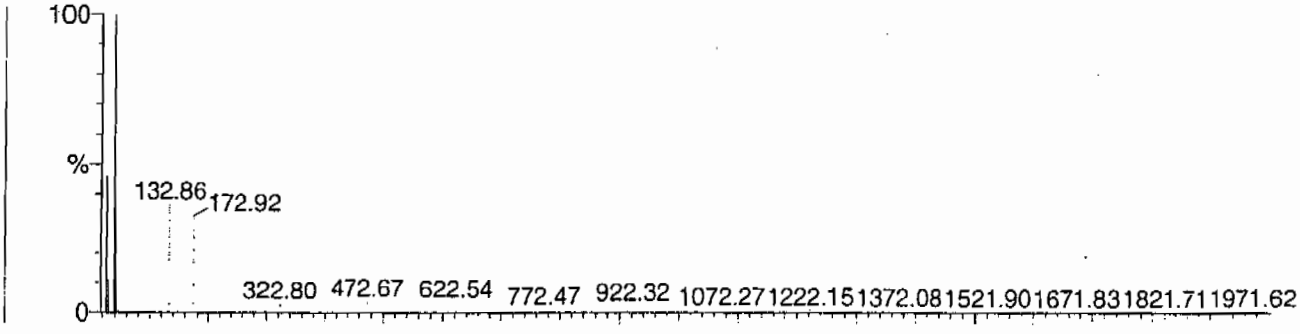

Reference file: Naics2

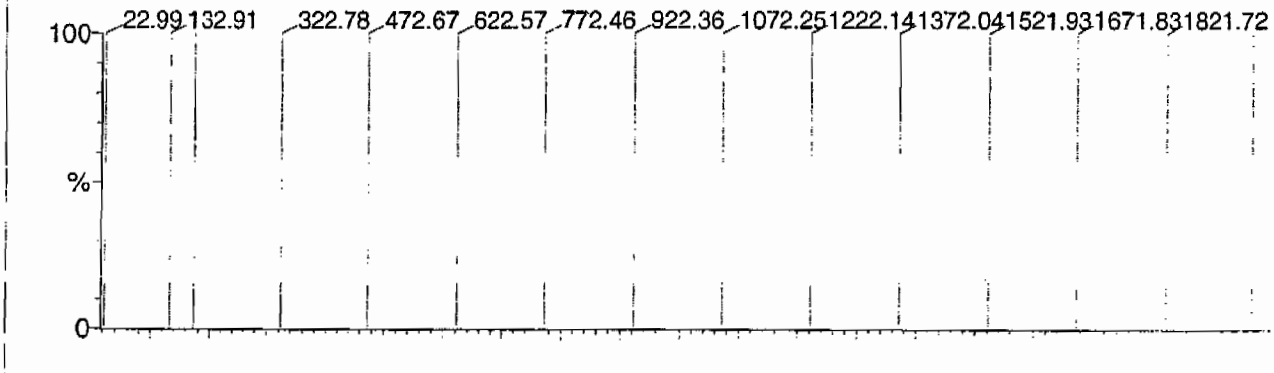

Mass difference (Raw - Ref mass)

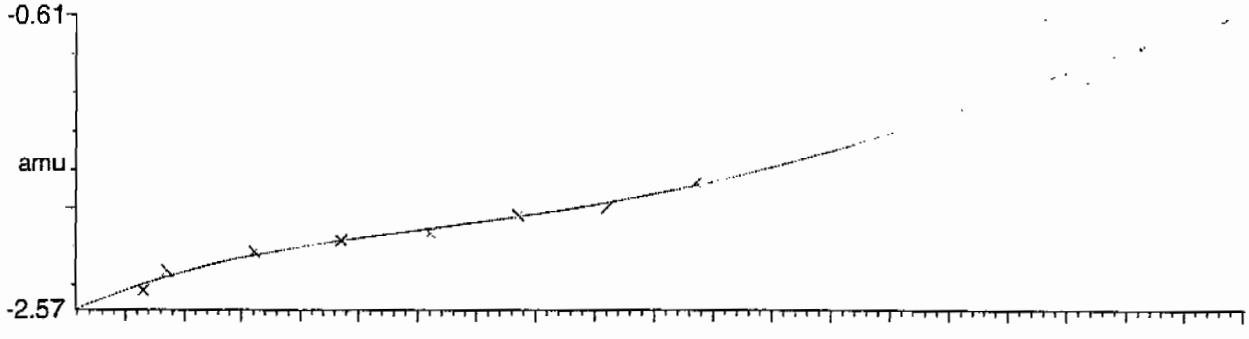

Residuals

Mean residual = -2.623502e-9 ± 0.025622

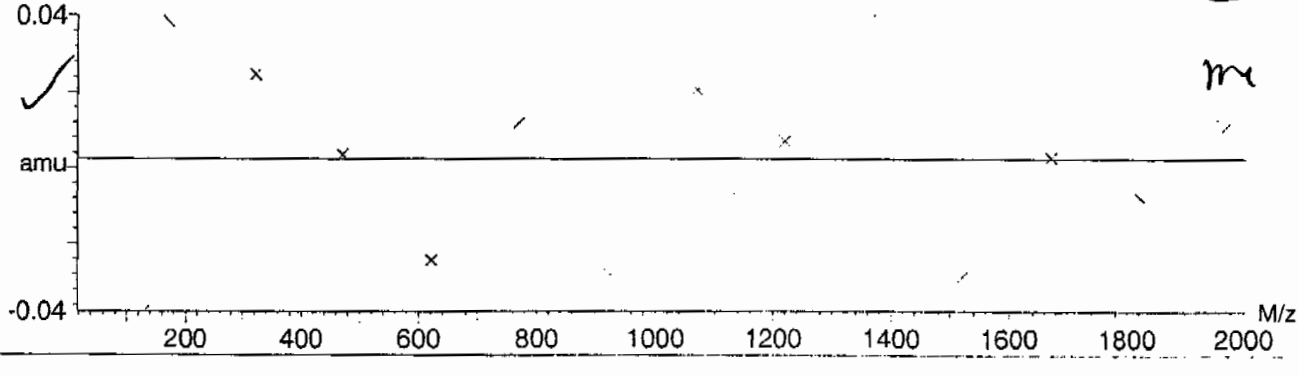

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Calibration Report - MS2 Scan Speed Compensation

Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

14 matches of 15 tested references

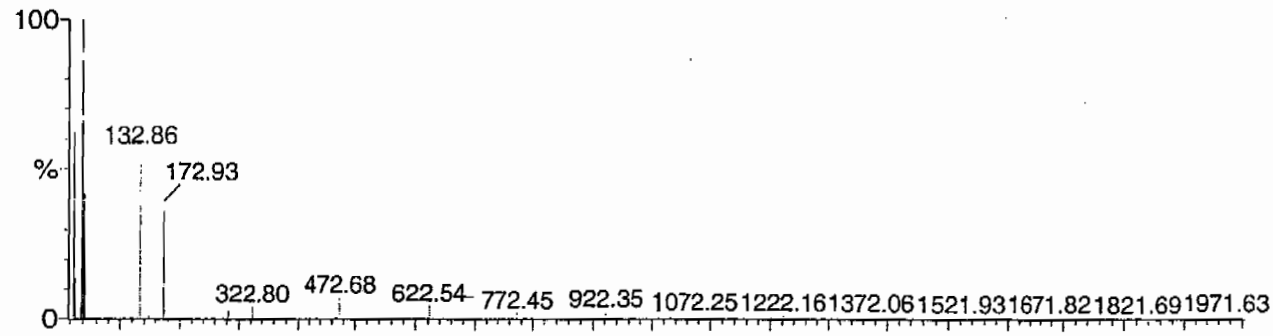

Reference file: Naics2

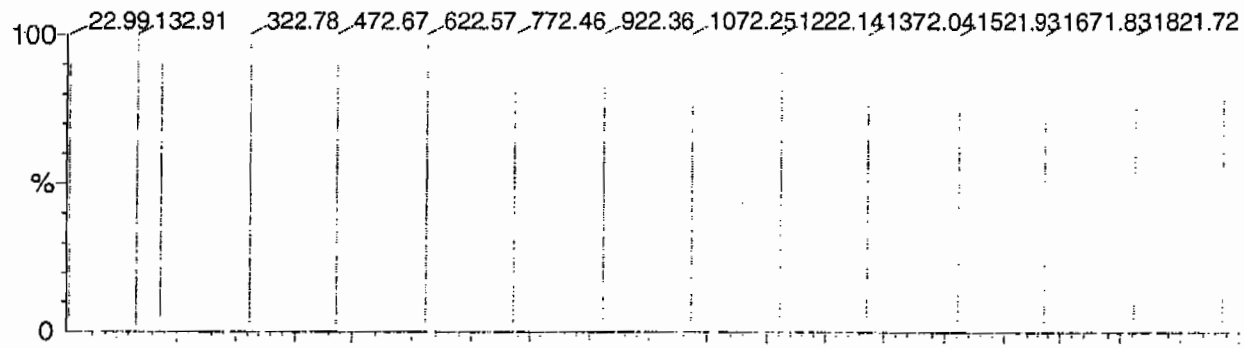

Mass difference (Raw - Ref mass)

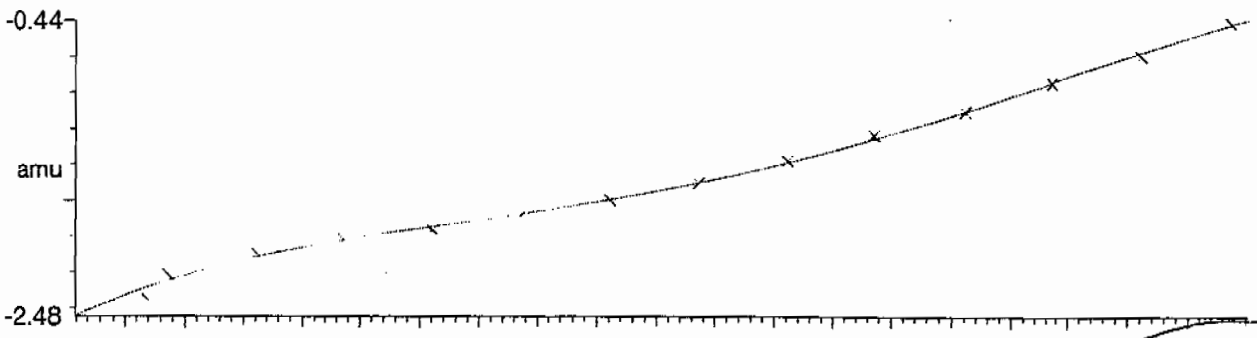

Residuals

Mean residual = -6.785350e-9 ± 0.023134

m

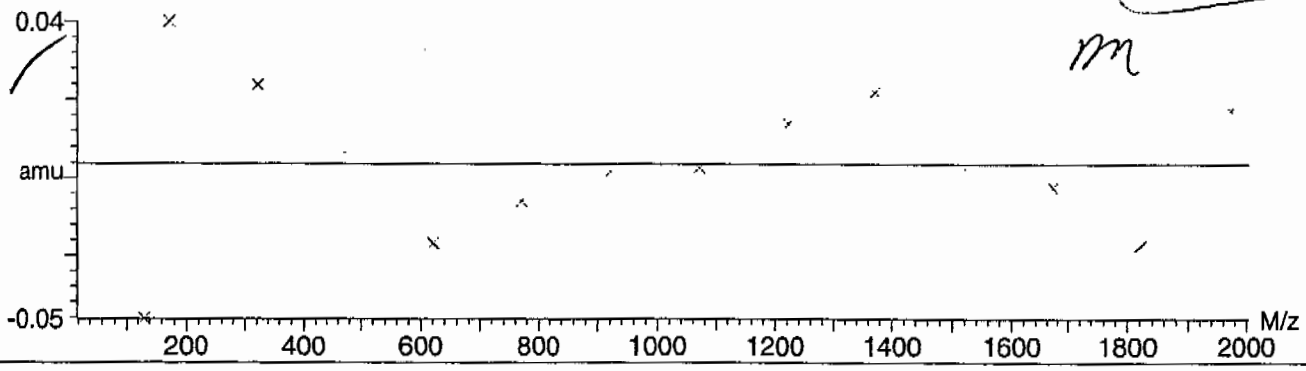

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Quattro Micro Tune Parameters

Parameter File: C:\MASSLYNX\NEW_EXP.PRO\ACQUDB\explosives04.ipr

Printed : Fri Jan 08 17:13:08 2010

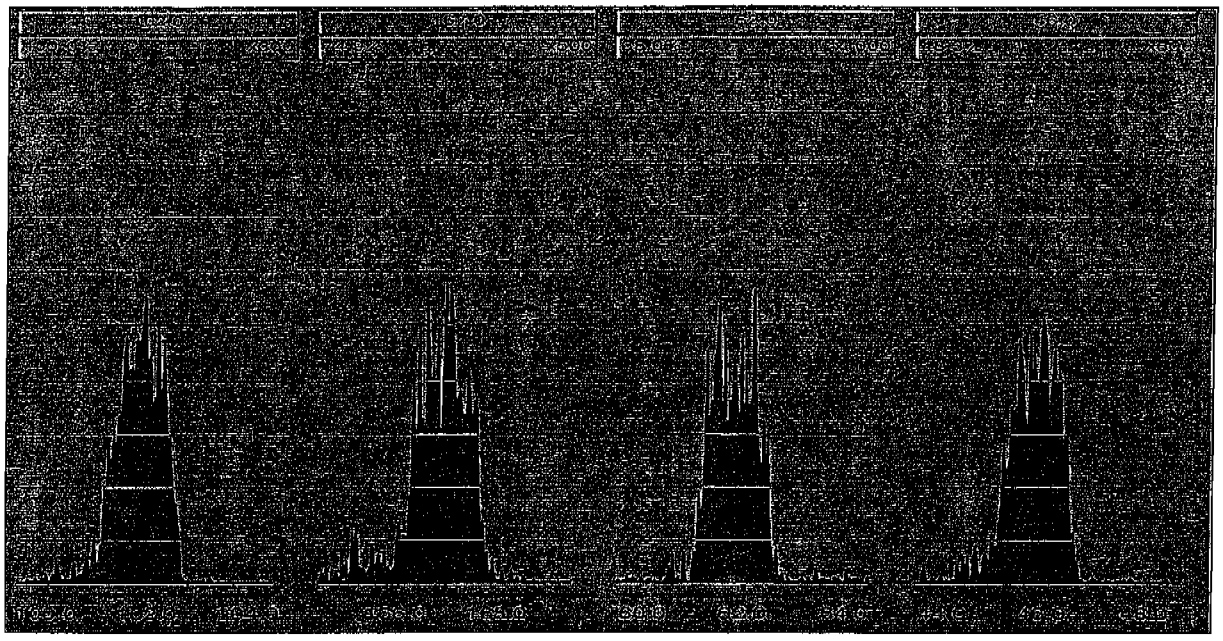

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–952

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			2929.528	11.985	16886.317	17.3
Upper Limit			3808.3864	12.485	21952.2121	17.8
Lower Limit			2050.6696	11.485	11820.4219	16.8
MB for batch 934770	11–jan–10 20:00	EXP0108153a	2913.35	11.973	18069.3	17.311
LCS for batch 934770	11–jan–10 20:30	EXP0108154a	3966.05 *	11.973	21774.1	17.312
LCSD for batch 934770	11–jan–10 20:59	EXP0108155a	3953.39 *	11.973	23211.9 *	17.313
CAPA–10–6818	11–jan–10 21:29	EXP0108156a	3934.92 *	11.973	22593.7 *	17.312

IS1 (DNB) = 1,3–Dinitrobenzene–d4
IS2 (DNT) = 2,6–Dinitrotoluene–d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = – 30% of average IS area from multipoint calibratio

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = –0.5 of average multipoint RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits

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SAMPLE
DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6818

Lab Code: GEL

GEL Job No (SDG) 10-952

Matrix: GROUND WATER

GEL Sample ID: 243099004

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 17-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 934770

Concentrated Extract Volume (mL) 5

Date Extracted: 21-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0108156a

Date Analyzed: 11-JAN-10 21:29

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	U
121-14-2	2,4-Dinitrotoluene	0.325	U
121-82-4	RDX	0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	U
2691-41-0	HMX	0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	U
479-45-8	Tetryl	0.649	U
606-20-2	2,6-Dinitrotoluene	0.325	U
78-11-5	PETN	1.3	U
88-72-2	o-Nitrotoluene	0.325	U
98-95-3	Nitrobenzene	0.325	U
99-08-1	m-Nitrotoluene	0.325	U
99-35-4	1,3,5-Trinitrobenzene	0.325	U
99-65-0	m-Dinitrobenzene	0.325	U
99-99-0	p-Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108156a
Date: 11-Jan-2010
Time: 21:29:19
ID: 243099004
Vial: 1:4,D

LANC | 934771 | Lab | 21

MMP 1/13/10

P28

Confirmed By EXP0112016a

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.930e+003

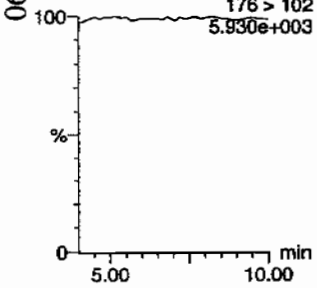

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.930e+003

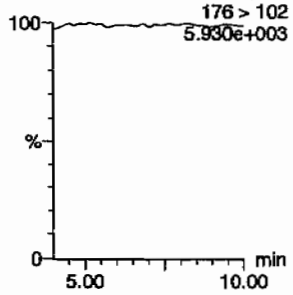

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.797e+003

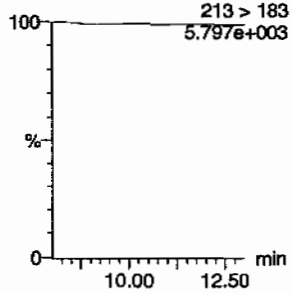

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.542e+004

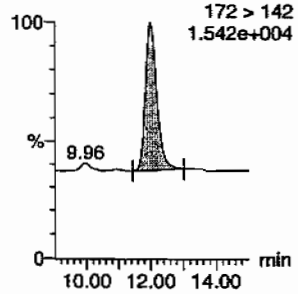

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.749e+003

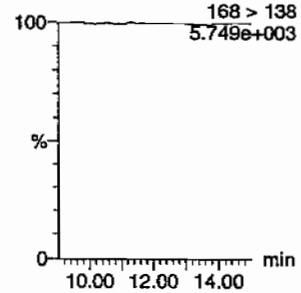

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.765e+003

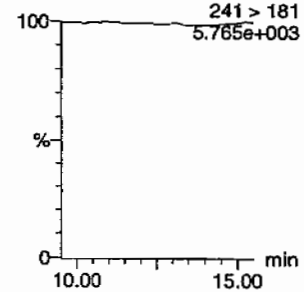

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.786e+003

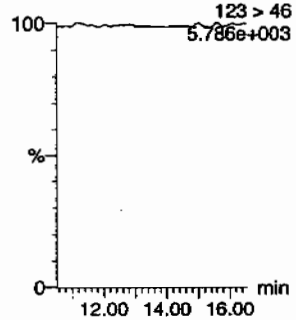

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.855e+003

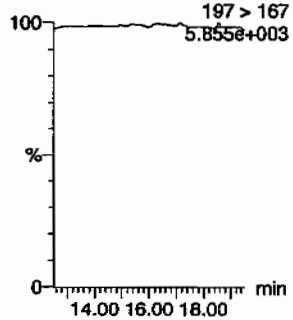

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.874e+003

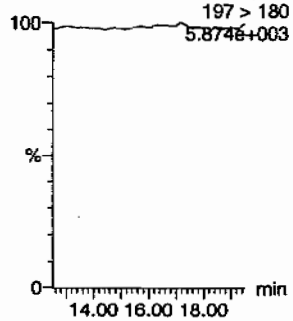

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.775e+003

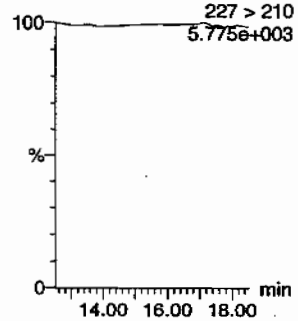

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
3.069e+004

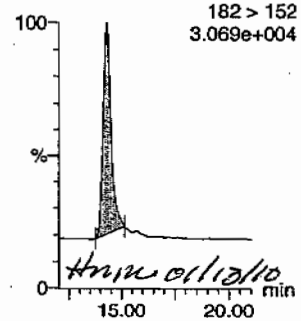

HMM 01/13/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.30
182 > 152
3.069e+004

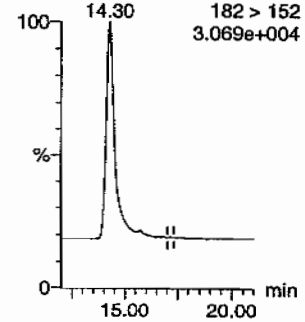

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

24-dinitrotoluene

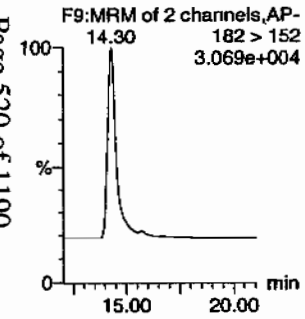

26-dinitrotoluene-d3

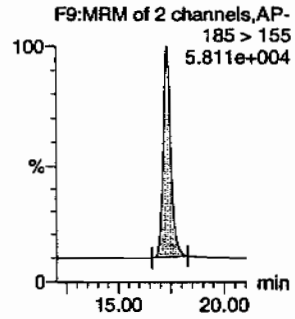

2-Nitrotoluene

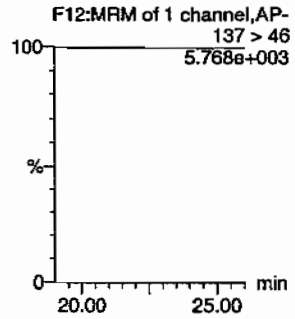

4-Nitrotoluene

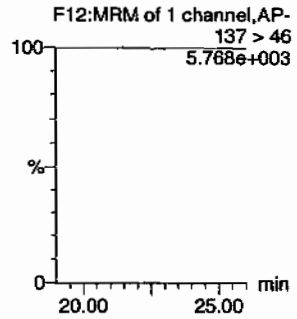

3-Nitrotoluene

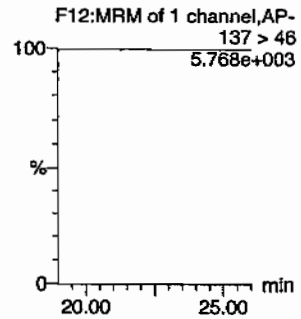

PETN

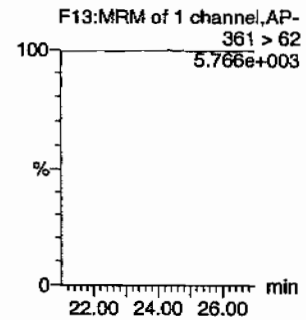

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
243099004	HMX	176 > 102			3934.915									
243099004	RDX	176 > 102			3934.915									
243099004	135-Trinitrobenzene	213 > 183			3934.915									
243099004	13-Dinitrobenzene-d4	172 > 142	11.97	3934.915		3934.915	3934.915	bb			671.5951	134.3	34.3	623.7
243099004	13-Dinitrobenzene	168 > 138			3934.915									
243099004	Tetryl	241 > 181			3934.915									
243099004	Nitrobenzene	123 > 46			3934.915									
243099004	4-Amino-26-dinitrotoluene	197 > 167			22593.652									
243099004	2-Amino-46-dinitrotoluene	197 > 180			22593.652									
243099004	246-Trinitrotoluene	227 > 210			22593.652									
243099004	34-dinitrotoluene	182 > 152	14.30	10433.513	22593.652	10433.513	230.895	bb		3.34	257.3595	102.9	2.9	563.0
243099004	26-dinitrotoluene	182 > 152			22593.652			MM-	12-Jan-10	10:17:06				
243099004	24-dinitrotoluene	182 > 152			22593.652									
243099004	26-dinitrotoluene-d3	185 > 155	17.31	22593.652		22593.652	22593.652	bb			668.9932	133.8	33.8	1451.3
243099004	2-Nitrotoluene	137 > 46			22593.652									
243099004	4-Nitrotoluene	137 > 46			22593.652									
243099004	3-Nitrotoluene	137 > 46			22593.652									
243099004	PETN	361 > 62			22593.652									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-6818

Lab Code: GEL

GEL Job No (SDG) 10-952

Matrix: GROUND WATER

GEL Sample ID: 243099004

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 17-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 934770

Concentrated Extract Volume (mL) 5

Date Extracted: 21-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS12230027.wiff

Date Analyzed: 23-DEC-09 21:36

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sample Name: "243099004" Sample ID: "934771|2|LER" File: "EXS12230027.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 9:36:39 PM

Modified: No

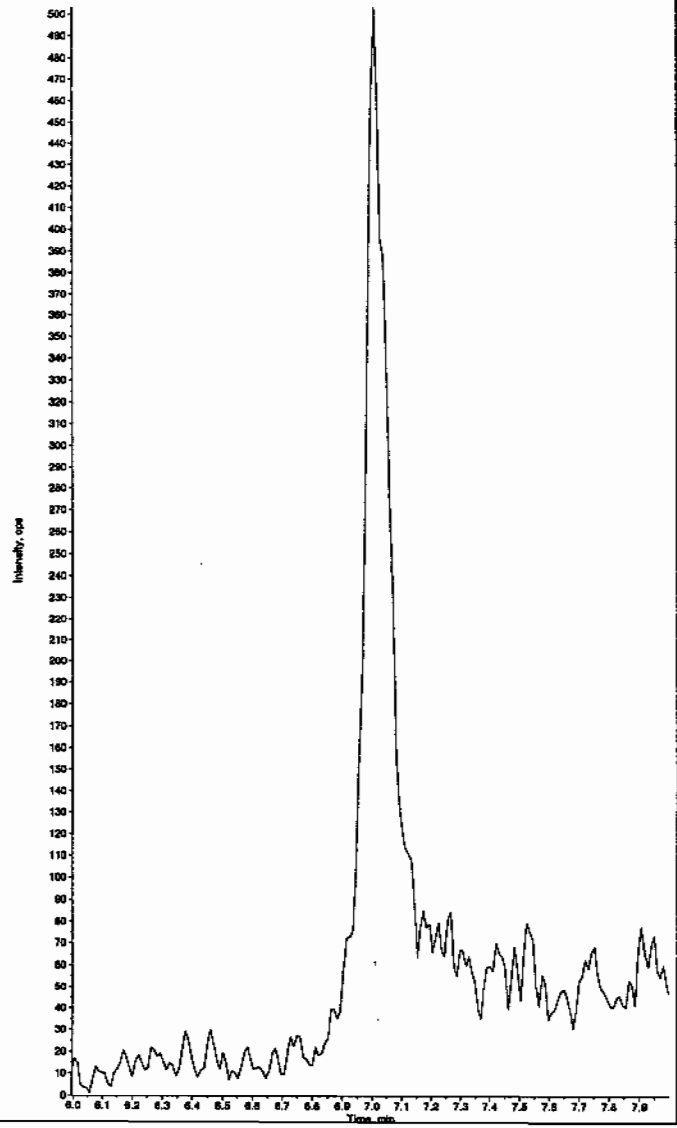

Sample Name: "243099004" Sample ID: "934771|2|LER" File: "EXS12230027.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 9:36:39 PM

Modified: No

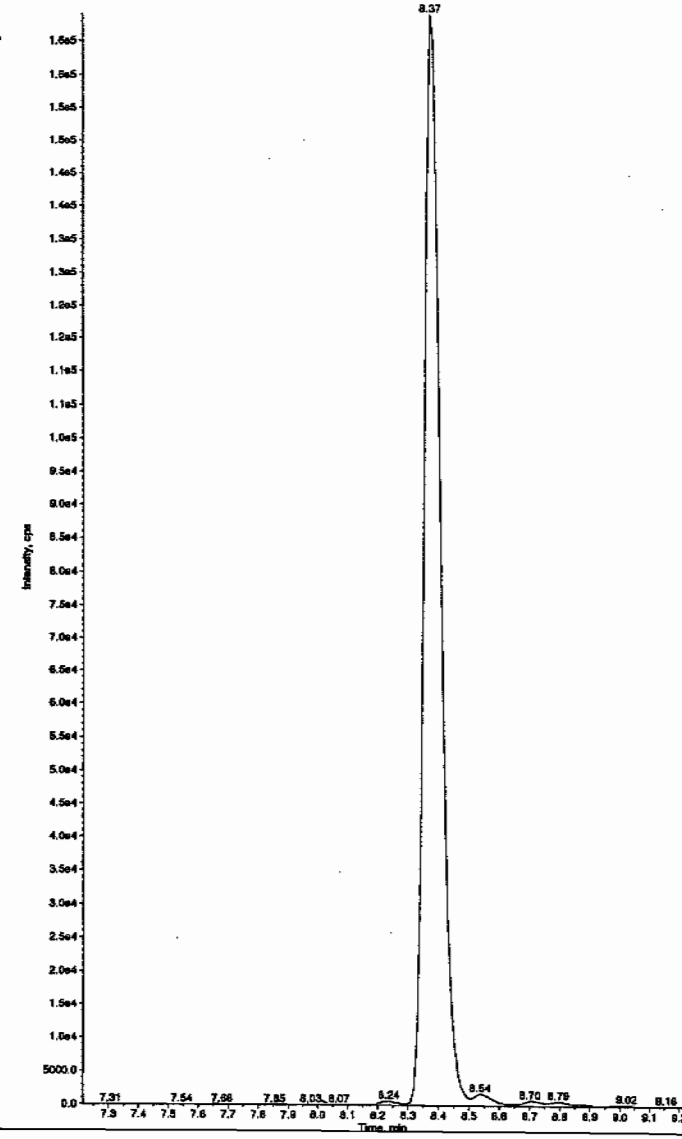

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "243099004" Sample ID: "934771|2|LER" File: "EXS12230027.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 250. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 9:36:39 PM

Modified: No
Integ. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 5.22e+006 counts
Height: 1403611.938 cps
Start Time: 8.28 min
End Time: 8.71 min

3.24

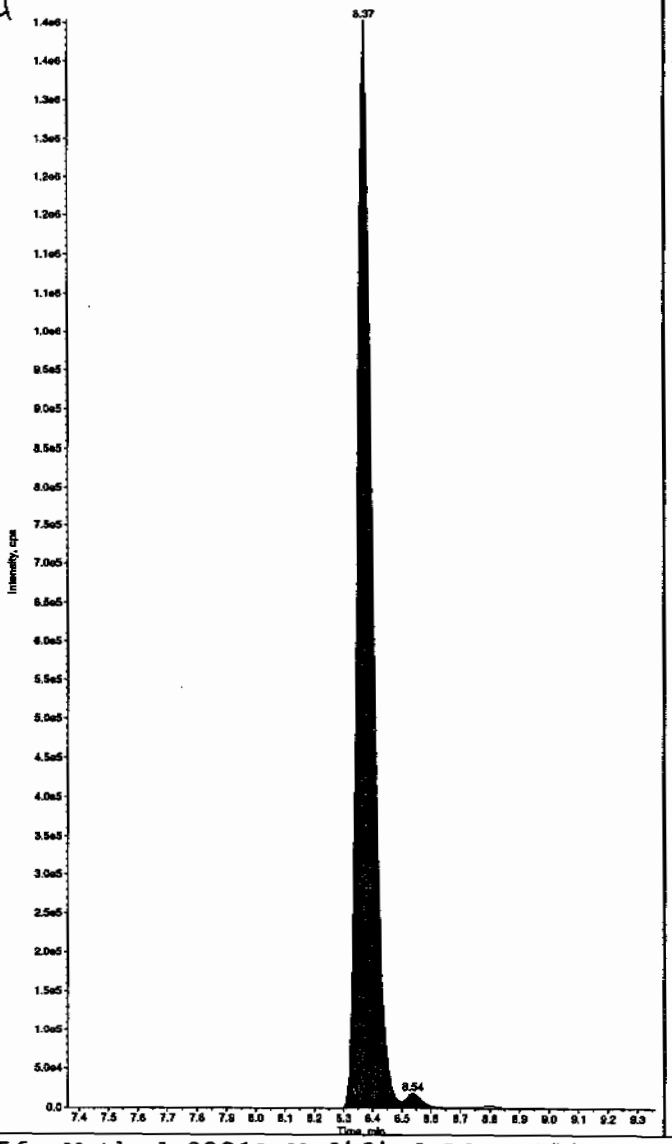

Sample Name: "243099004" Sample ID: "934771|2|LER" File: "EXS12230027.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 9:36:39 PM

Modified: No

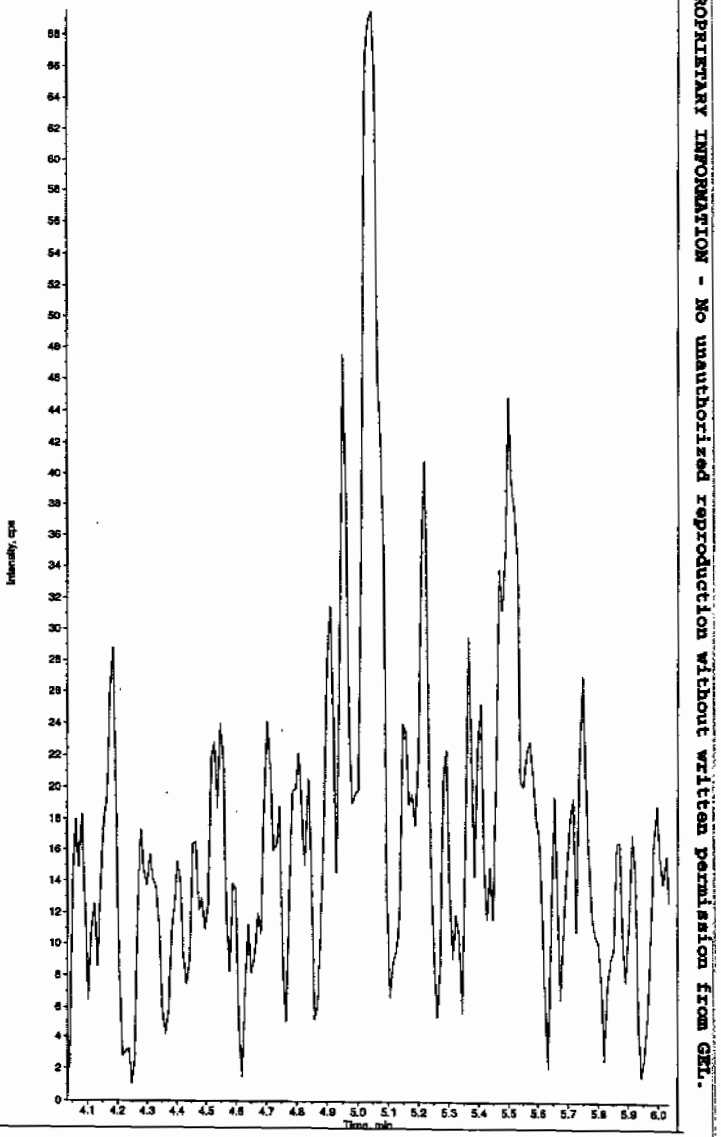

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "243099004" Sample ID: "934771|2|LER" File: "EXS12230027.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 9:36:39 PM

Modified: No

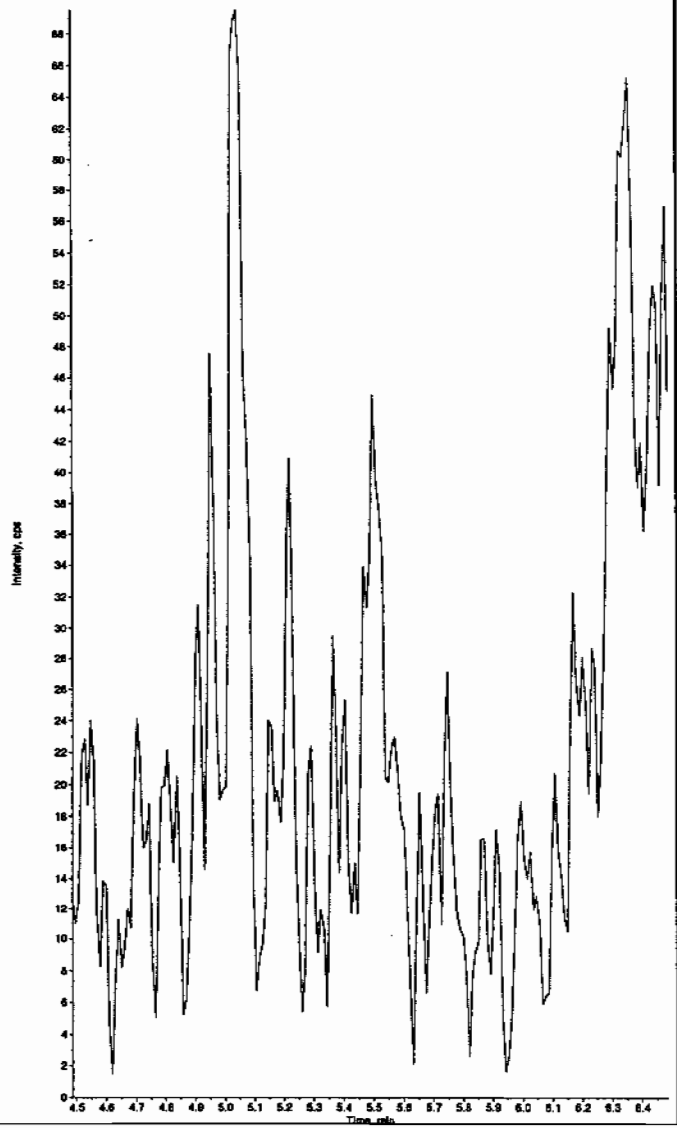

Sample Name: "243099004" Sample ID: "934771|2|LER" File: "EXS12230027.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 12/23/2009
Acq. Time: 9:36:39 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 5.06e+004 counts
Height: 12857.963 cps
Start Time: 10.8 min
End Time: 11.1 min

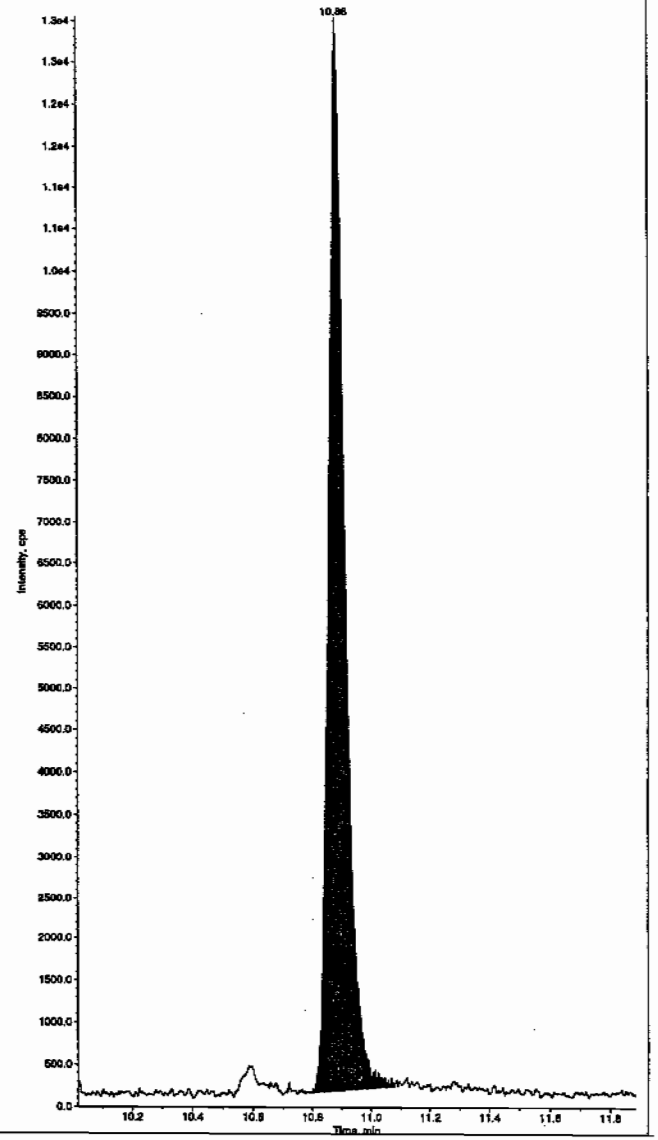

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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STANDARDS DATA

SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MNX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-952

Lab Code: GEL

Run Date: 08-JAN-10,23-DEC-09

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	1	2	3	4	5	6	Ave RF	RSD	Q
Data File:	EXP0108003a	EXP0108004a	EXP0108005a	EXP0108006a	EXP0108007a	EXP0108008a			
Parmname									
1,3-Dinitrobenzene-d4	5.252	5.624	5.891	6.445	6.107	5.835	5.859	6.957	
2,4,6-Trinitrotoluene	.306	.336	.314	.327	.314	.346	0.324	4.735	
2,4-Dinitrotoluene	.243	.248	.217	.259	.232	.264	0.244	7.094	
2,6-Dinitrotoluene	1.169	1.205	1.09	1.09	1.129	1.108	1.132	4.098	
2,6-Dinitrotoluene-d3	33.895	34.7	35.72	36.984	28.747	32.59	33.773	8.544	
2-Amino-4,6-dinitrotoluene	.336	.305	.353	.41	.383	.422	0.368	12.165	
3,4-Dinitrotoluene	.929	.814	.846	.967	.885	.941	0.897	6.587	
4-Amino-2,6-dinitrotoluene	.311	.255	.243	.286	.285	.313	0.282	10.113	
HMX	2.997	3.192	3.42	3.446	3.375	3.383	3.302	5.279	
Nitrobenzene	1.095	1.158	.964	.965	.784	.952	0.986	13.189	
RDX	2.497	2.664	2.216	2.444	2.402	2.465	2.448	5.935	
Tetryl	1.384	1.231	1.057	1.039	.881	.916	1.085	17.673	
m-Dinitrobenzene	1.194	1.443	1.14	1.219	1.21	1.157	1.227	8.957	
m-Nitrotoluene	.118	.092	.104	.098	.091	.098	0.100	10.044	
o-Nitrotoluene	.163	.159	.148	.167	.155	.134	0.154	7.843	
p-Nitrotoluene	.088	.105	.072	.08	.08	.083	0.085	13.229	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-952

Lab Code: GEL

Run Date: 08-JAN-10,23-DEC-09

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Linear

Calibration Level:	1	2	3	4	5	6	Slope	Intercept	COD	Q
Data File:	EXP0108003a	EXP0108004a	EXP0108005a	EXP0108006a	EXP0108007a	EXP0108008a				
Parmname										
1,3,5-Trinitrobenzene	679.468	1322.77	4392.01	8767.35	17070.5	19999.8	3.457	0	.9988	
PETN	1824.72	3612.81	12304.1	21610.4	36335.8	39498.4	1.536	16.875	.9968	

Linear fit : Y=mx +b
where b is Intercept and m is slope

COD is Coefficient of Determination

Q column used to flag COD values outside of Limit (<0.990)
* Values outside of QC Limit

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Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\010810expa.mdb, Time: Sat Jan 09 11:44:31 2010
Calibration: Untitled, Time: Sat Jan 09 12:01:37 2010

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Compound name: HMX
Response Factor: 3.30223
RRF SD: 0.174327, % Relative SD: 5.27907
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

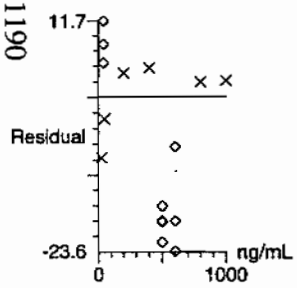

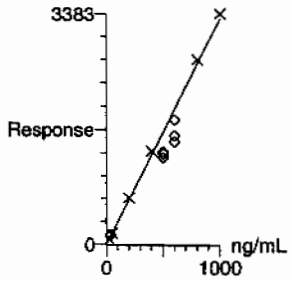

MMP
1/9/10

Compound name: RDX
Response Factor: 2.44794
RRF SD: 0.145292, % Relative SD: 5.93528
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

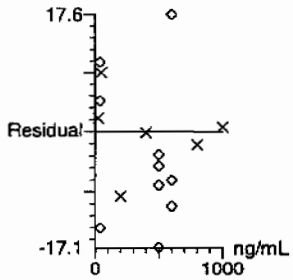

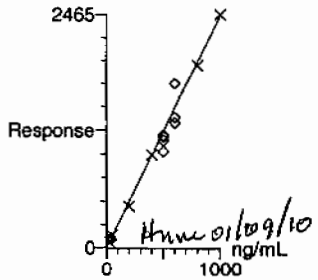

Hmc 01/09/10

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Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Compound name: 135-Trinitrobenzene
Coefficient of Determination: 0.998845
Calibration curve: 3.45704 * x
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: Null, Axis trans: None

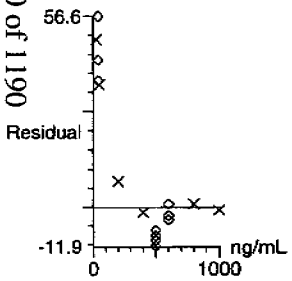

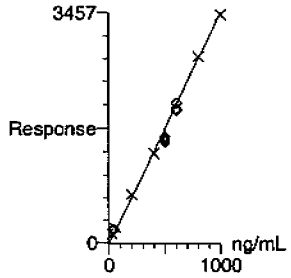

Compound name: 13-Dinitrobenzene-d4
Response Factor: 5.85906
RRF SD: 0.407601, % Relative SD: 6.95677
Response type: External Std, Area
Curve type: RF

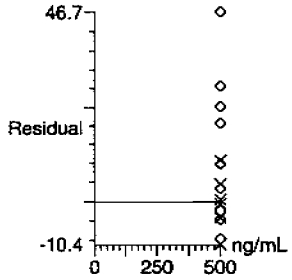

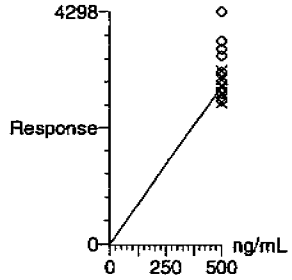

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Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Compound name: 13-Dinitrobenzene
Response Factor: 1.22703
RRF SD: 0.109909, % Relative SD: 8.95735
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

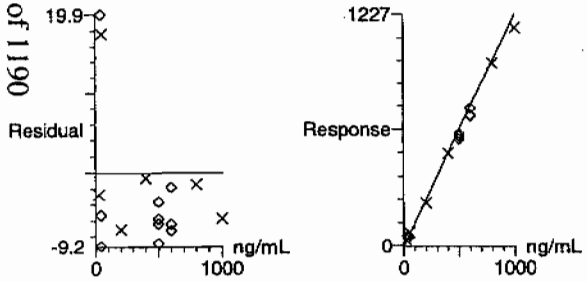

Compound name: Tetryl
Response Factor: 1.08466
RRF SD: 0.191688, % Relative SD: 17.6727
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

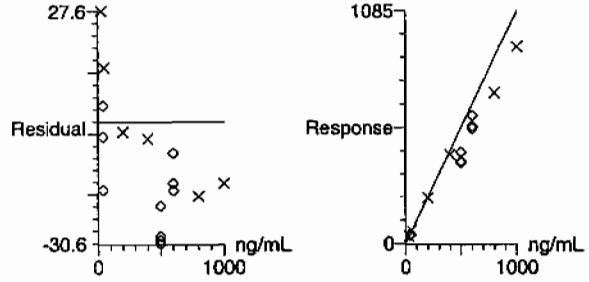

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Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Compound name: Nitrobenzene
Response Factor: 0.986407
RRF SD: 0.1301, % Relative SD: 13.1892
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

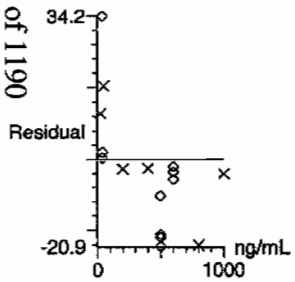

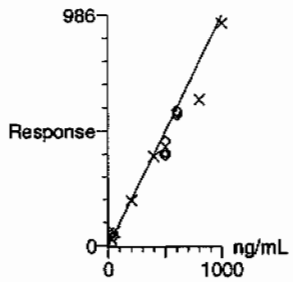

Compound name: 4-Amino-26-dinitrotoluene
Response Factor: 0.28197
RRF SD: 0.0285154, % Relative SD: 10.1129
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

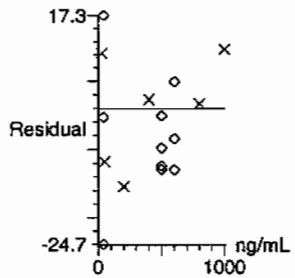

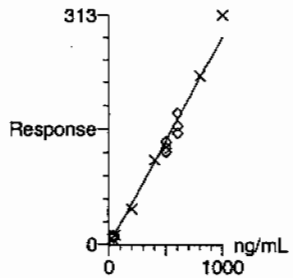

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Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Compound name: 2-Amino-46-dinitrotoluene
Response Factor: 0.368254
RRF SD: 0.0447967, % Relative SD: 12.1646
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

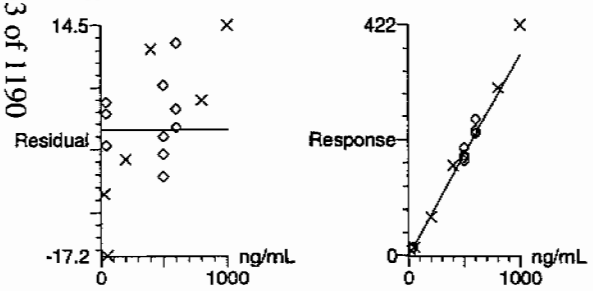

Compound name: 246-Trinitrotoluene
Response Factor: 0.323689
RRF SD: 0.0153263, % Relative SD: 4.73488
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

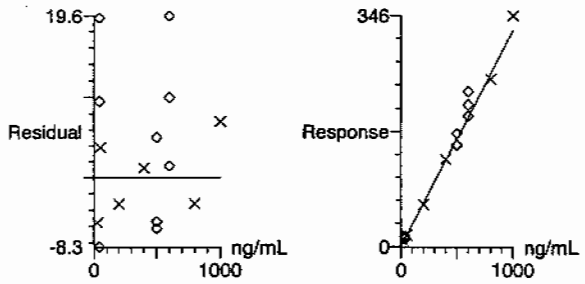

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Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Compound name: 34-dinitrotoluene
Response Factor: 0.897168
RRF SD: 0.0590949, % Relative SD: 6.58682
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

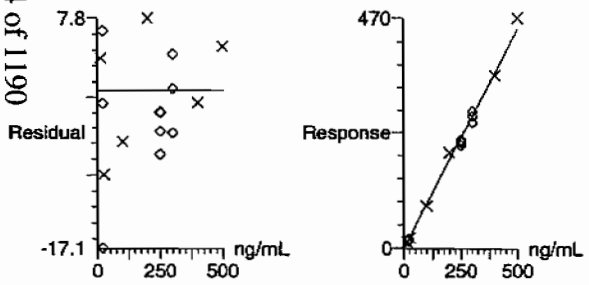

Compound name: 26-dinitrotoluene
Response Factor: 1.13194
RRF SD: 0.0463851, % Relative SD: 4.09785
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

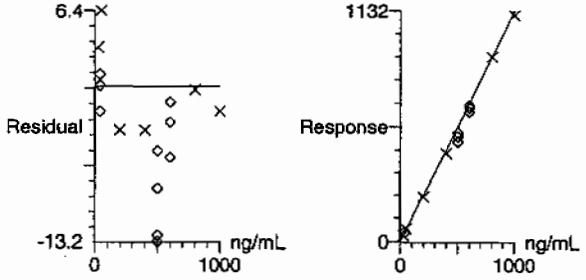

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Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Compound name: 24-dinitrotoluene
Response Factor: 0.243856
RRF SD: 0.0172996, % Relative SD: 7.09421
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

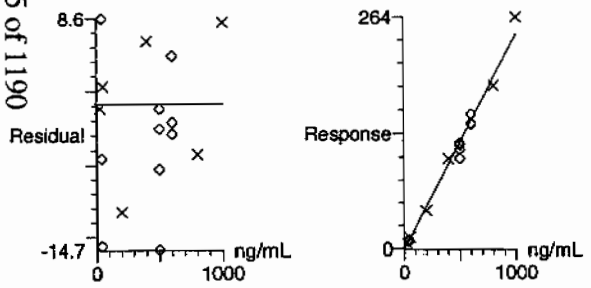

Compound name: 26-dinitrotoluene-d3
Response Factor: 33.7726
RRF SD: 2.88541, % Relative SD: 8.54363
Response type: External Std, Area
Curve type: RF

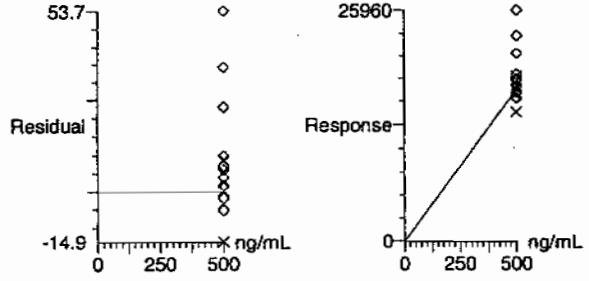

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Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qid, Time: Sat Jan 09 12:01:37 2010

Compound name: 2-Nitrotoluene
Response Factor: 0.154586
RRF SD: 0.0121245, % Relative SD: 7.84323
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

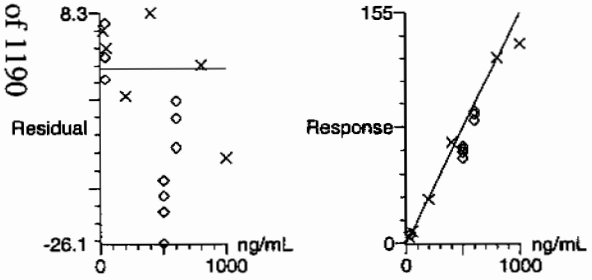

Compound name: 4-Nitrotoluene
Response Factor: 0.0844098
RRF SD: 0.0111663, % Relative SD: 13.2286
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

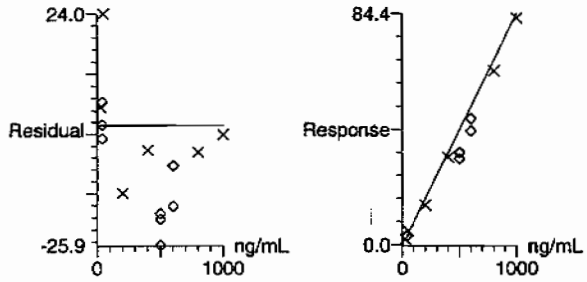

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Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Compound name: 3-Nitrotoluene
Response Factor: 0.100163
RRF SD: 0.01006, % Relative SD: 10.0436
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

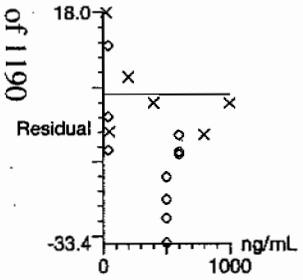

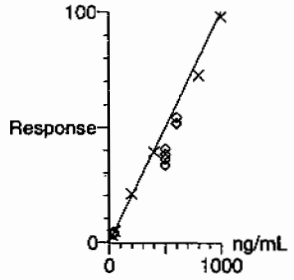

Compound name: PETN
Correlation coefficient: r = 0.998412, r^2 = 0.996827
Calibration curve: 1.53649 * x + 16.8747
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: Null, Axis trans: None

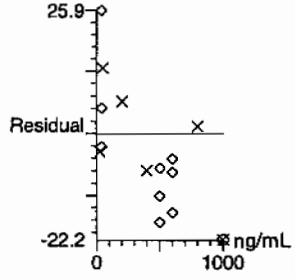

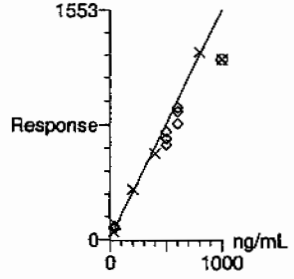

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Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108003a
Date: 08-Jan-2010
Time: 18:14:05
ID: WXX100108-01
Dal: 1:2,A

MAP 1/9/10

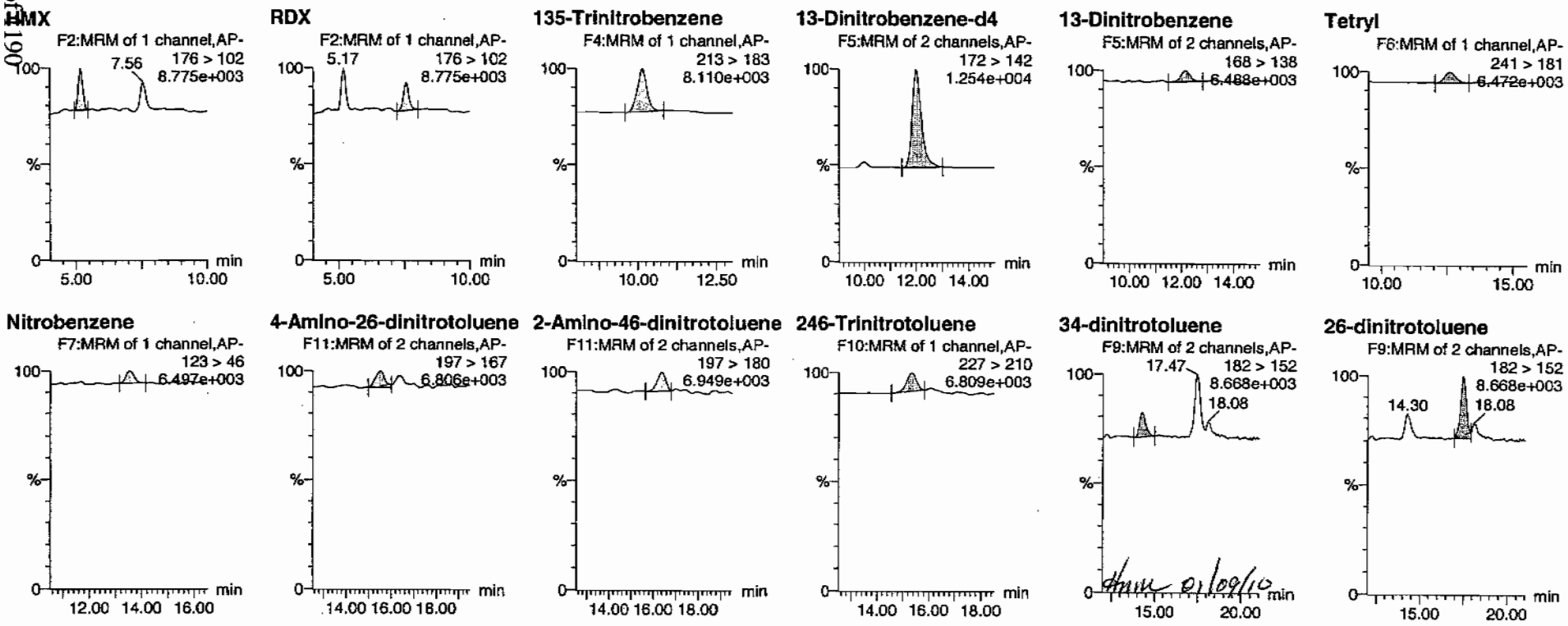

HMM 01/09/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

24-dinitrotoluene

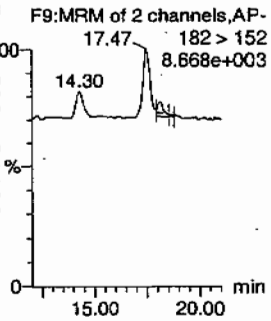

26-dinitrotoluene-d3

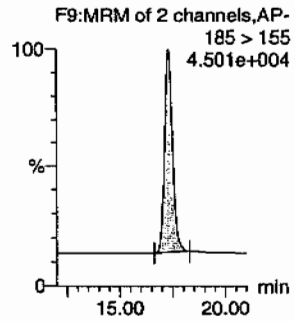

2-Nitrotoluene

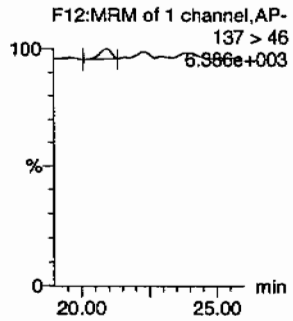

4-Nitrotoluene

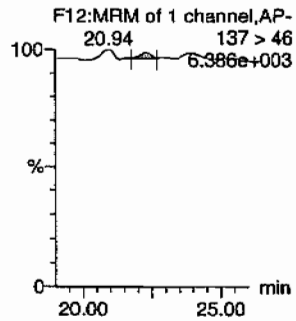

3-Nitrotoluene

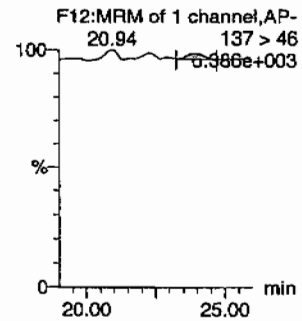

PETN

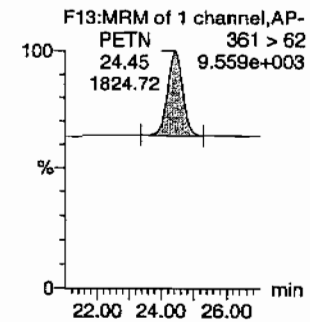

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100108-01	HMX	176 > 102	5.17	393.479	2626.041	393.479	74.919	bb			22.6873	90.7	-9.3	32.8
WXX100108-01	RDX	176 > 102	7.56	327.807	2626.041	327.807	62.415	bb			25.4969	102.0	2.0	21.8
WXX100108-01	135-Trinitrobenzene	213 > 183	10.14	679.468	2626.041	679.468	129.371	bb			37.4225	149.7	49.7	118.7
WXX100108-01	13-Dinitrobenzene-d4	172 > 142	12.00	2626.041		2626.041	2626.041	bb			448.2019	89.6	-10.4	345.5
WXX100108-01	13-Dinitrobenzene	168 > 138	12.14	156.726	2626.041	156.726	29.841	bb			24.3196	97.3	-2.7	13.9
WXX100108-01	Tetryl	241 > 181	12.58	181.699	2626.041	181.699	34.596	bb			31.8955	127.6	27.6	13.5
WXX100108-01	Nitrobenzene	123 > 46	13.54	143.797	2626.041	143.797	27.379	bb			27.7563	111.0	11.0	8.8
WXX100108-01	4-Amino-26-dinitrotoluene	197 > 167	15.53	263.230	16947.477	263.230	7.766	MM	09-Jan-10	11:50:49	27.5421	110.2	10.2	9.2
WXX100108-01	2-Amino-46-dinitrotoluene	197 > 180	16.40	284.917	16947.477	284.917	8.406	bb			22.8263	91.3	-8.7	18.9
WXX100108-01	246-Trinitrotoluene	227 > 210	15.35	259.283	16947.477	259.283	7.650	bb			23.6326	94.5	-5.5	16.8
WXX100108-01	34-dinitrotoluene	182 > 152	14.30	393.740	16947.477	393.740	11.616	bb			12.9479	103.6	3.6	16.5
WXX100108-01	26-dinitrotoluene	182 > 152	17.47	990.859	16947.477	990.859	29.233	MM	09-Jan-10	11:54:00	25.8258	103.3	3.3	43.1
WXX100108-01	24-dinitrotoluene	182 > 152	18.08	205.728	16947.477	205.728	6.070	MM	09-Jan-10	11:56:45	24.8900	99.6	-0.4	9.4
WXX100108-01	26-dinitrotoluene-d3	185 > 155	17.31	16947.477		16947.477	16947.477	bb			501.8111	100.4	0.4	1389.4
WXX100108-01	2-Nitrotoluene	137 > 46	20.94	138.459	16947.477	138.459	4.085	bb			26.4251	105.7	5.7	34.0
WXX100108-01	4-Nitrotoluene	137 > 46	22.28	74.351	16947.477	74.351	2.194	bb			25.9872	103.9	3.9	19.7
WXX100108-01	3-Nitrotoluene	137 > 46	23.85	100.189	16947.477	100.189	2.956	bb			29.5105	118.0	18.0	17.8
WXX100108-01	PETN	361 > 62	24.45	1824.721	16947.477	1824.721	53.835	bb			24.0547	96.2	-3.8	143.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108004a
Date: 08-Jan-2010
Time: 18:43:34
ID: WXX100108-02
Vial: 1:2,B

MAP 1/9/10

HMX

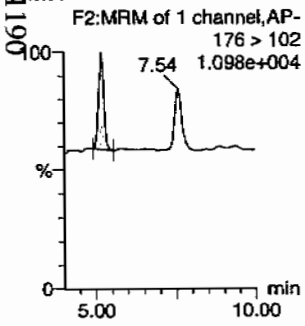

RDX

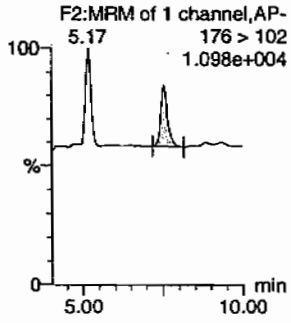

135-Trinitrobenzene

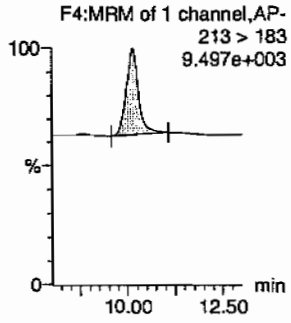

13-Dinitrobenzene-d4

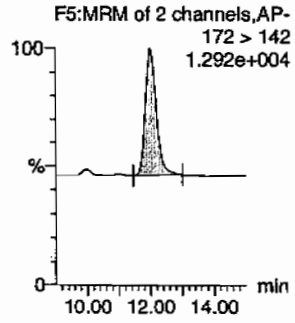

13-Dinitrobenzene

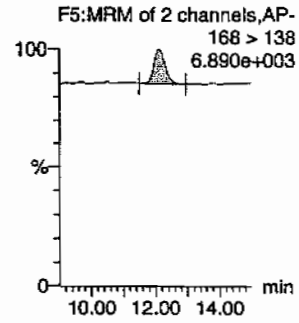

Tetryl

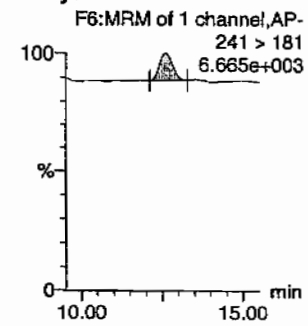

Nitrobenzene

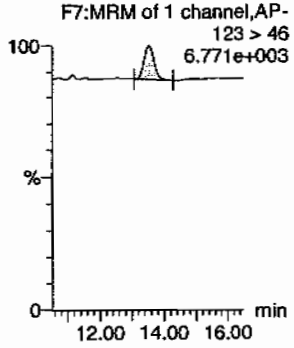

4-Amino-26-dinitrotoluene

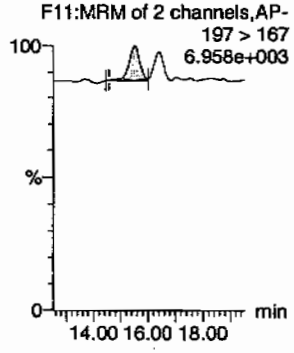

2-Amino-46-dinitrotoluene

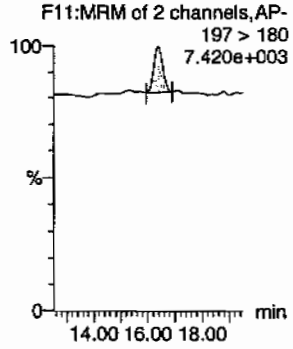

246-Trinitrotoluene

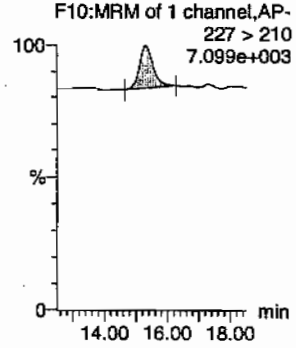

34-dinitrotoluene

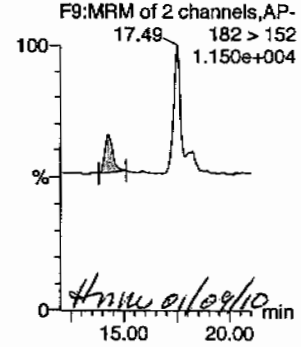

HMW 01/09/10

26-dinitrotoluene

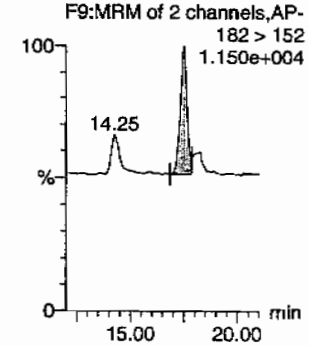

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

24-dinitrotoluene

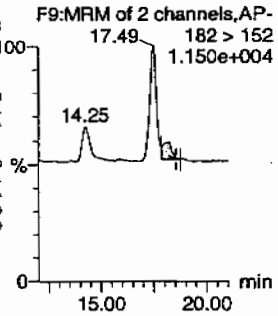

26-dinitrotoluene-d3

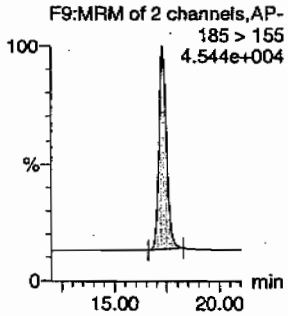

2-Nitrotoluene

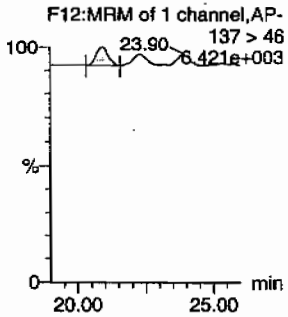

4-Nitrotoluene

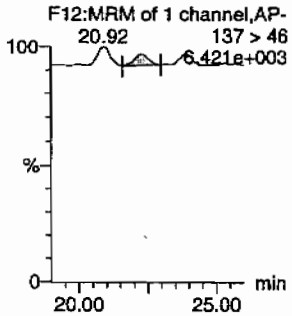

3-Nitrotoluene

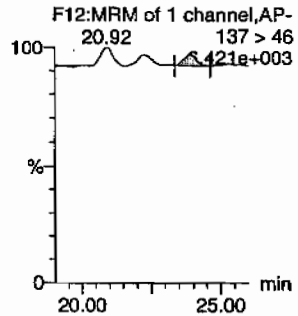

PETN

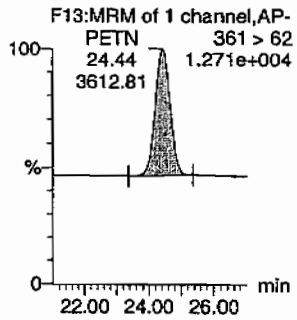

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100108-02	HMX	176 > 102	5.17	897.499	2811.813	897.499	159.594	bb			48.3293	96.7	-3.3	79.1
WXX100108-02	RDX	176 > 102	7.54	749.124	2811.813	749.124	133.210	bb			54.4173	108.8	8.8	50.1
WXX100108-02	135-Trinitrobenzene	213 > 183	10.14	1322.767	2811.813	1322.767	235.216	bb			68.0397	136.1	36.1	226.5
WXX100108-02	13-Dinitrobenzene-d4	172 > 142	11.97	2811.813		2811.813	2811.813	bb			479.9087	96.0	-4.0	245.7
WXX100108-02	13-Dinitrobenzene	168 > 138	12.10	405.623	2811.813	405.623	72.128	bb			58.7831	117.6	17.6	31.7
WXX100108-02	Tetryl	241 > 181	12.58	346.145	2811.813	346.145	61.552	bb			56.7479	113.5	13.5	38.2
WXX100108-02	Nitrobenzene	123 > 46	13.54	325.730	2811.813	325.730	57.922	bb			58.7199	117.4	17.4	19.0
WXX100108-02	4-Amino-26-dinitrotoluene	197 > 167	15.53	442.569	17349.787	442.569	12.754	MM	09-Jan-10	11:51:42	45.2329	90.5	-9.5	21.6
WXX100108-02	2-Amino-46-dinitrotoluene	197 > 180	16.37	529.272	17349.787	529.272	15.253	bb			41.4198	82.8	-17.2	68.8
WXX100108-02	246-Trinitrotoluene	227 > 210	15.31	582.377	17349.787	582.377	16.783	bb			51.8504	103.7	3.7	71.8
WXX100108-02	34-dinitrotoluene	182 > 152	14.25	706.286	17349.787	706.286	20.354	bb			22.6873	90.7	-9.3	38.6
WXX100108-02	26-dinitrotoluene	182 > 152	17.49	2090.354	17349.787	2090.354	60.241	MM	09-Jan-10	11:54:09	53.2198	106.4	6.4	131.0
WXX100108-02	24-dinitrotoluene	182 > 152	18.23	430.483	17349.787	430.483	12.406	MM	09-Jan-10	11:56:53	50.8743	101.7	1.7	20.2
WXX100108-02	26-dinitrotoluene-d3	185 > 155	17.29	17349.787		17349.787	17349.787	bb			513.7235	102.7	2.7	475.4
WXX100108-02	2-Nitrotoluene	137 > 46	20.92	276.511	17349.787	276.511	7.969	bb			51.5488	103.1	3.1	79.2
WXX100108-02	4-Nitrotoluene	137 > 46	22.26	181.568	17349.787	181.568	5.233	bb			61.9901	124.0	24.0	46.6
WXX100108-02	3-Nitrotoluene	137 > 46	23.90	159.002	17349.787	159.002	4.582	bb			45.7478	91.5	-8.5	46.7
WXX100108-02	PETN	361 > 62	24.44	3612.808	17349.787	3612.808	104.117	bb			56.7800	113.6	13.6	766.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108005a
Date: 08-Jan-2010
Time: 19:13:03
ID: WXX100108-03
Cal: 1:2,C

MMT 1/9/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.18 2.631e+004
4029.43
7.55

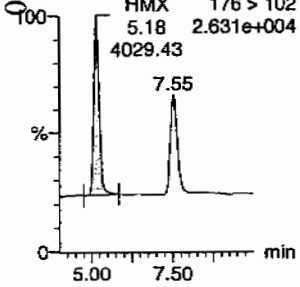

RDX
F2:MRM of 1 channel,AP-
5.18 176 > 102
2.631e+004
RDX
7.55
2610.29

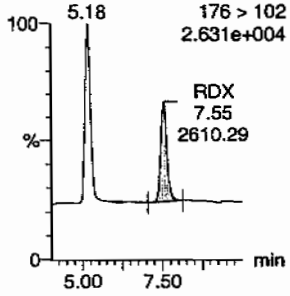

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.762e+004

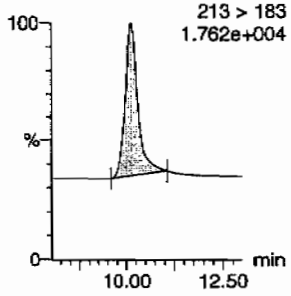

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.332e+004
9.98

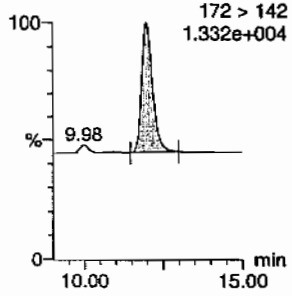

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
9.328e+003

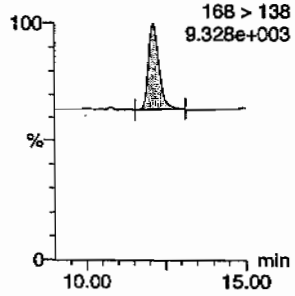

Tetryl
F6:MRM of 1 channel,AP-
Tetryl 241 > 181
12.61 8.502e+003
1245.58

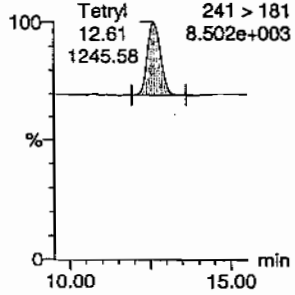

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
8.815e+003

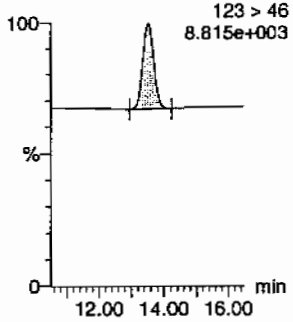

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
1.017e+004

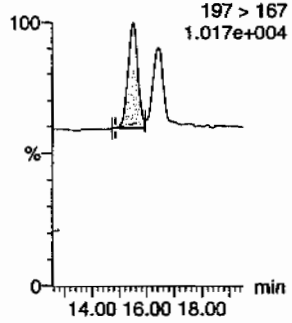

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
1.184e+004
15.34

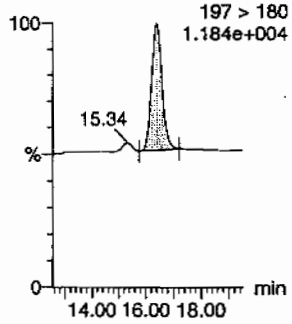

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
1.077e+004

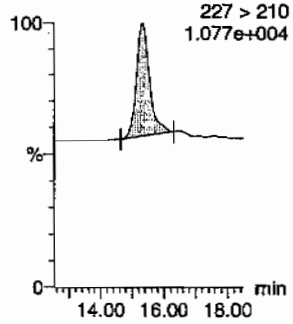

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.46 182 > 152
2.558e+004
18.15

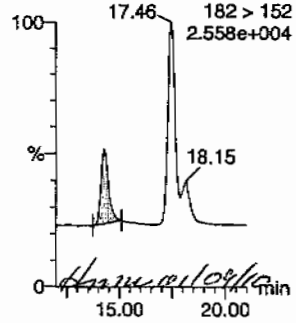

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.558e+004
14.28
18.15

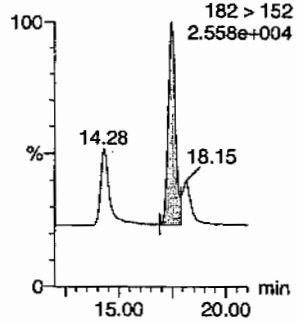

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

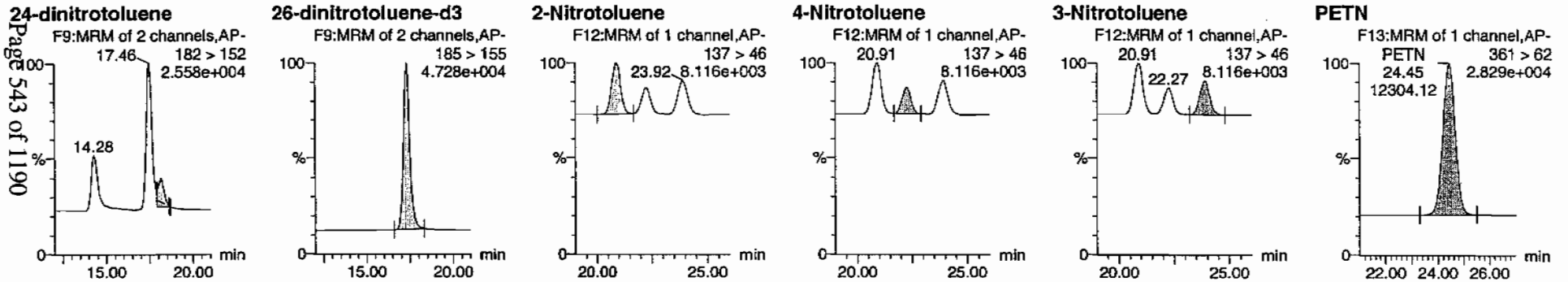

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100108-03	HMX	176 > 102	5.18	4029.431	2945.456	4029.431	684.008	bb			207.1354	103.6	3.6	362.1
WXX100108-03	RDX	176 > 102	7.55	2610.287	2945.456	2610.287	443.104	bb			181.0113	90.5	-9.5	201.4
WXX100108-03	135-Trinitrobenzene	213 > 183	10.14	4392.006	2945.456	4392.006	745.556	bb			215.6630	107.8	7.8	535.3
WXX100108-03	13-Dinitrobenzene-d4	172 > 142	12.00	2945.456		2945.456	2945.456	bb			502.7183	100.5	0.5	349.5
WXX100108-03	13-Dinitrobenzene	168 > 138	12.13	1343.218	2945.456	1343.218	228.015	bb			185.8275	92.9	-7.1	69.7
WXX100108-03	Tetryl	241 > 181	12.61	1245.576	2945.456	1245.576	211.440	bb			194.9376	97.5	-2.5	213.7
WXX100108-03	Nitrobenzene	123 > 46	13.52	1135.703	2945.456	1135.703	192.789	bb			195.4456	97.7	-2.3	96.5
WXX100108-03	4-Amino-26-dinitrotoluene	197 > 167	15.52	1732.552	17859.896	1732.552	48.504	MM	09-Jan-10	11:51:05	172.0183	86.0	-14.0	77.4
WXX100108-03	2-Amino-46-dinitrotoluene	197 > 180	16.39	2525.032	17859.896	2525.032	70.690	bb			191.9601	96.0	-4.0	138.0
WXX100108-03	246-Trinitrotoluene	227 > 210	15.33	2239.860	17859.896	2239.860	62.706	bb			193.7241	96.9	-3.1	170.9
WXX100108-03	34-dinitrotoluene	182 > 152	14.28	3022.951	17859.896	3022.951	84.630	bb			94.3297	94.3	-5.7	178.3
WXX100108-03	26-dinitrotoluene	182 > 152	17.46	7789.419	17859.896	7789.419	218.070	MM	09-Jan-10	11:54:18	192.6519	96.3	-3.7	490.0
WXX100108-03	24-dinitrotoluene	182 > 152	18.15	1553.766	17859.896	1553.766	43.499	MM	09-Jan-10	11:57:01	178.3789	89.2	-10.8	94.1
WXX100108-03	26-dinitrotoluene-d3	185 > 155	17.30	17859.896		17859.896	17859.896	bb			528.8277	105.8	5.8	2017.9
WXX100108-03	2-Nitrotoluene	137 > 46	20.91	1057.135	17859.896	1057.135	29.595	bb			191.4486	95.7	-4.3	148.3
WXX100108-03	4-Nitrotoluene	137 > 46	22.27	514.005	17859.896	514.005	14.390	bb			170.4770	85.2	-14.8	75.2
WXX100108-03	3-Nitrotoluene	137 > 46	23.92	742.243	17859.896	742.243	20.780	bb			207.4573	103.7	3.7	98.7
WXX100108-03	PETN	361 > 62	24.45	12304.120	17859.896	12304.120	344.462	bb			213.2046	106.6	6.6	4377.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Time: 19:42:31
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Vial: 1:2,D

HMTP 9/11/10

HMX

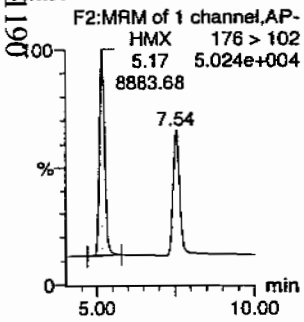

RDX

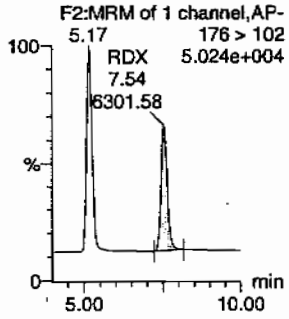

135-Trinitrobenzene

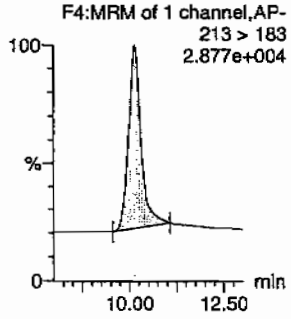

13-Dinitrobenzene-d4

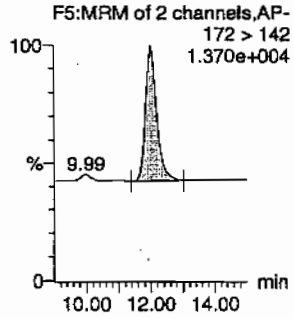

13-Dinitrobenzene

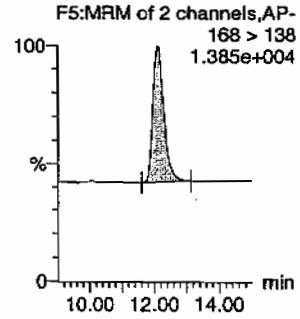

Tetryl

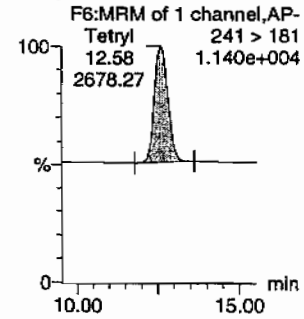

Nitrobenzene

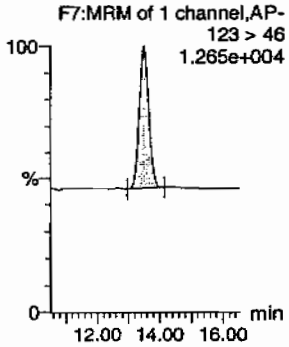

4-Amino-26-dinitrotoluene

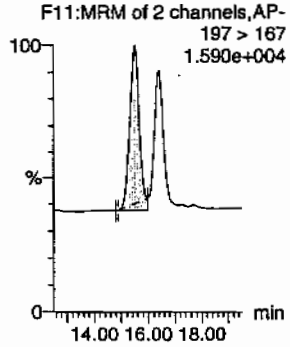

2-Amino-46-dinitrotoluene

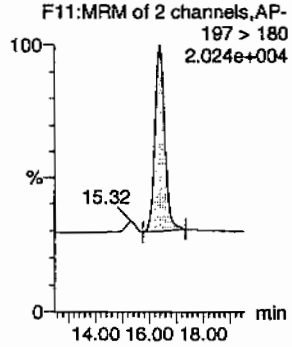

246-Trinitrotoluene

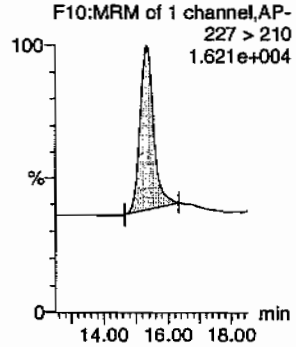

34-dinitrotoluene

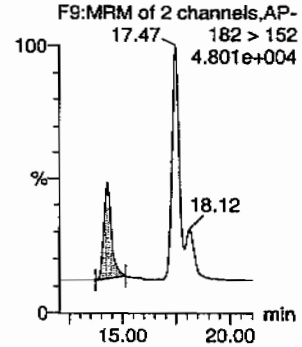

26-dinitrotoluene

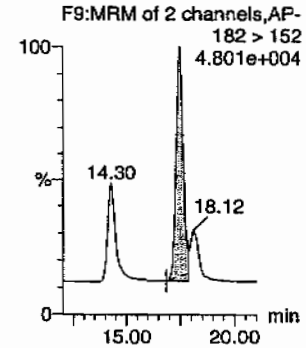

Hmw 01/09/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

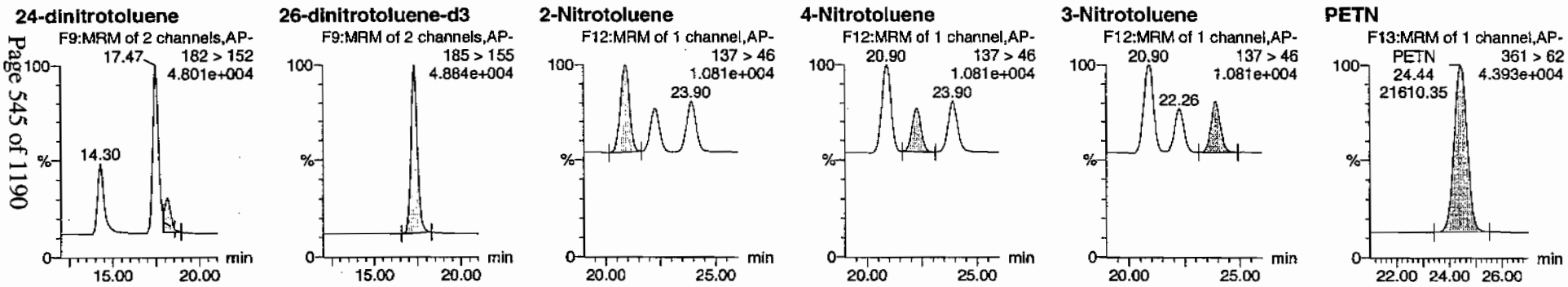

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100108-04	HMX	176 > 102	5.17	8883.679	3222.598	8883.679	1378.341	bb			417.3976	104.3	4.3	747.4
WXX100108-04	RDX	176 > 102	7.54	6301.579	3222.598	6301.579	977.717	bb			399.4047	99.9	-0.1	456.9
WXX100108-04	135-Trinitrobenzene	213 > 183	10.14	8767.354	3222.598	8767.354	1360.293	bb			393.4845	98.4	-1.6	806.9
WXX100108-04	13-Dinitrobenzene-d4	172 > 142	11.97	3222.598		3222.598	3222.598	bb			550.0198	110.0	10.0	542.7
WXX100108-04	13-Dinitrobenzene	168 > 138	12.10	3143.233	3222.598	3143.233	487.686	bb			397.4536	99.4	-0.6	258.8
WXX100108-04	Tetryl	241 > 181	12.58	2678.272	3222.598	2678.272	415.545	bb			383.1126	95.8	-4.2	358.4
WXX100108-04	Nitrobenzene	123 > 46	13.54	2487.850	3222.598	2487.850	386.001	bb			391.3198	97.8	-2.2	267.1
WXX100108-04	4-Amino-26-dinitrotoluene	197 > 167	15.49	4237.882	18491.875	4237.882	114.588	MM	09-Jan-10	11:51:12	406.3827	101.6	1.6	303.9
WXX100108-04	2-Amino-46-dinitrotoluene	197 > 180	16.40	6060.090	18491.875	6060.090	163.858	bb			444.9602	111.2	11.2	479.4
WXX100108-04	246-Trinitrotoluene	227 > 210	15.34	4844.621	18491.875	4844.621	130.993	bb			404.6882	101.2	1.2	653.8
WXX100108-04	34-dinitrotoluene	182 > 152	14.30	7155.332	18491.875	7155.332	193.472	bb			215.6477	107.8	7.8	264.5
WXX100108-04	26-dinitrotoluene	182 > 152	17.47	16126.096	18491.875	16126.096	436.032	MM	09-Jan-10	11:54:31	385.2082	96.3	-3.7	648.6
WXX100108-04	24-dinitrotoluene	182 > 152	18.12	3834.292	18491.875	3834.292	103.675	MM	09-Jan-10	11:57:10	425.1488	106.3	6.3	132.7
WXX100108-04	26-dinitrotoluene-d3	185 > 155	17.29	18491.875		18491.875	18491.875	bb			547.5404	109.5	9.5	2120.9
WXX100108-04	2-Nitrotoluene	137 > 46	20.90	2476.448	18491.875	2476.448	66.960	bb			433.1605	108.3	8.3	423.2
WXX100108-04	4-Nitrotoluene	137 > 46	22.26	1181.912	18491.875	1181.912	31.958	bb			378.6007	94.7	-5.3	211.4
WXX100108-04	3-Nitrotoluene	137 > 46	23.90	1452.031	18491.875	1452.031	39.261	bb			391.9732	98.0	-2.0	248.0
WXX100108-04	PETN	361 > 62	24.44	21610.352	18491.875	21610.352	584.320	bb			369.3120	92.3	-7.7	4393.5

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MTP 1/9/10

Page 46 of 1190

HMX

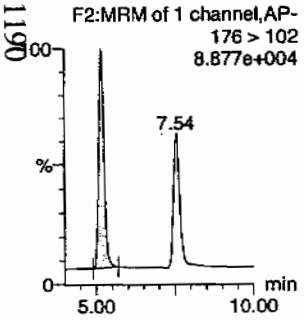

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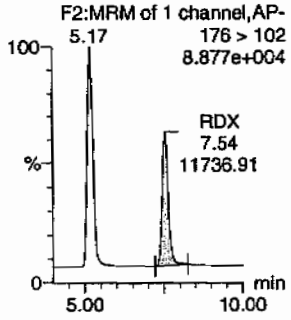

135-Trinitrobenzene

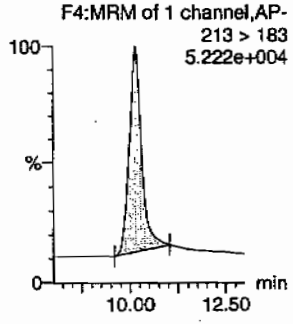

13-Dinitrobenzene-d4

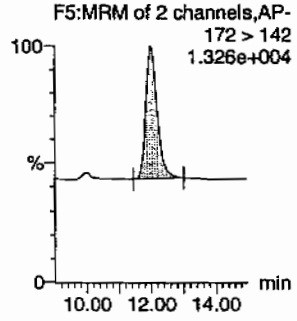

13-Dinitrobenzene

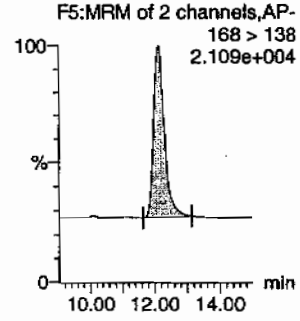

Tetryl

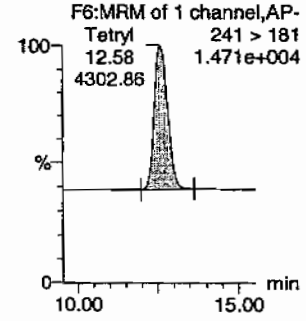

Nitrobenzene

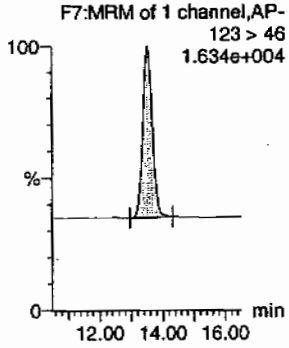

4-Amino-26-dinitrotoluene

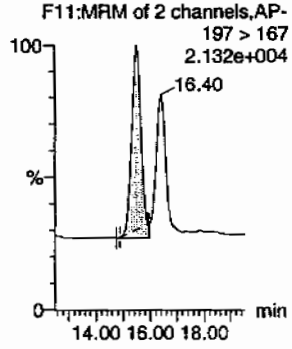

2-Amino-46-dinitrotoluene

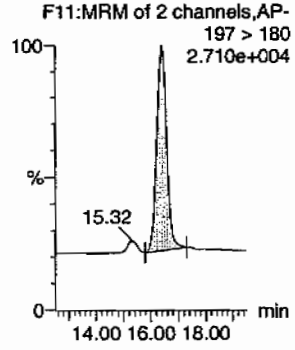

246-Trinitrotoluene

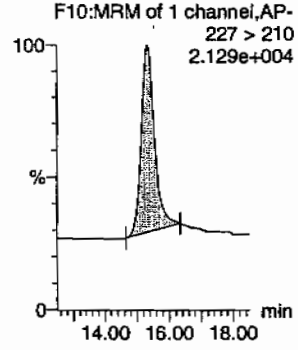

34-dinitrotoluene

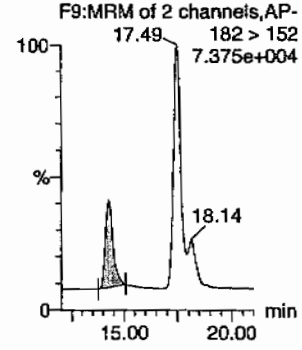

26-dinitrotoluene

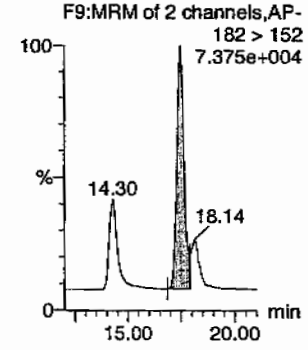

Hmm 01/09/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

24-dinitrotoluene

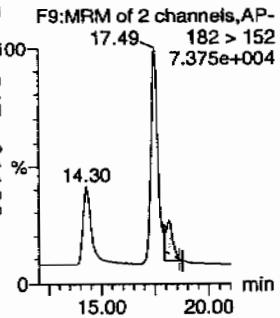

26-dinitrotoluene-d3

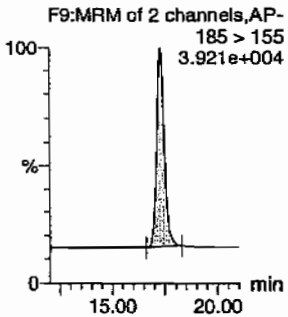

2-Nitrotoluene

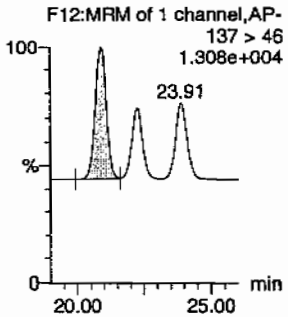

4-Nitrotoluene

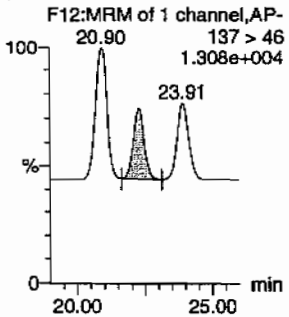

3-Nitrotoluene

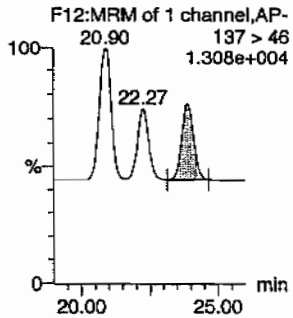

PETN

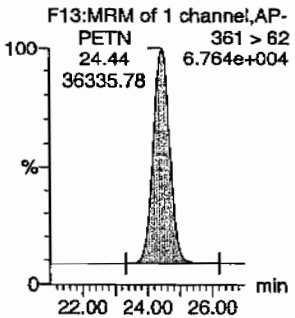

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100108-05	HMX	176 > 102	5.17	16492.215	3053.724	16492.215	2700.345	bb			817.7346	102.2	2.2	1412.3
WXX100108-05	RDX	176 > 102	7.54	11736.911	3053.724	11736.911	1921.737	bb			785.0439	98.1	-1.9	849.9
WXX100108-05	135-Trinitrobenzene	213 > 183	10.14	17070.531	3053.724	17070.531	2795.035	bb			808.5045	101.1	1.1	784.7
WXX100108-05	13-Dinitrobenzene-d4	172 > 142	12.00	3053.724		3053.724	3053.724	bb			521.1970	104.2	4.2	247.7
WXX100108-05	13-Dinitrobenzene	168 > 138	12.14	5910.426	3053.724	5910.426	967.741	bb			788.6876	98.6	-1.4	196.3
WXX100108-05	Tetryl	241 > 181	12.58	4302.861	3053.724	4302.861	704.527	bb			649.5392	81.2	-18.8	327.2
WXX100108-05	Nitrobenzene	123 > 46	13.54	3829.334	3053.724	3829.334	626.994	bb			635.6341	79.5	-20.5	375.5
WXX100108-05	4-Amino-26-dinitrotoluene	197 > 167	15.53	6543.097	14373.697	6543.097	227.607	MM	09-Jan-10	11:51:20	807.2019	100.9	0.9	258.0
WXX100108-05	2-Amino-46-dinitrotoluene	197 > 180	16.40	8819.398	14373.697	8819.398	306.789	bb			833.0929	104.1	4.1	364.2
WXX100108-05	246-Trinitrotoluene	227 > 210	15.34	7209.927	14373.697	7209.927	250.803	bb			774.8257	96.9	-3.1	392.3
WXX100108-05	34-dinitrotoluene	182 > 152	14.30	10180.012	14373.697	10180.012	354.119	bb			394.7079	98.7	-1.3	291.7
WXX100108-05	26-dinitrotoluene	182 > 152	17.49	25956.408	14373.697	25956.408	902.913	MM	09-Jan-10	11:54:42	797.6702	99.7	-0.3	807.5
WXX100108-05	24-dinitrotoluene	182 > 152	18.14	5328.813	14373.697	5328.813	185.367	MM	09-Jan-10	11:57:18	760.1489	95.0	-5.0	151.5
WXX100108-05	26-dinitrotoluene-d3	185 > 155	17.31	14373.697		14373.697	14373.697	bb			425.6021	85.1	-14.9	1510.2
WXX100108-05	2-Nitrotoluene	137 > 46	20.90	3574.221	14373.697	3574.221	124.332	bb			804.2916	100.5	0.5	357.1
WXX100108-05	4-Nitrotoluene	137 > 46	22.27	1828.384	14373.697	1828.384	63.602	bb			753.4877	94.2	-5.8	190.5
WXX100108-05	3-Nitrotoluene	137 > 46	23.91	2092.067	14373.697	2092.067	72.774	bb			726.5551	90.8	-9.2	204.6
WXX100108-05	PETN	361 > 62	24.44	36335.777	14373.697	36335.777	1263.968	bb			811.6486	101.5	1.5	8469.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

DETN < 70% Recovery (Average)

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108008a
Date: 08-Jan-2010
Time: 20:41:43
ID: WXX100108-06
Vial: 1:2,F

MMT 1/9/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.048e+005

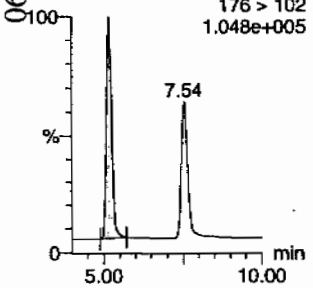

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.048e+005

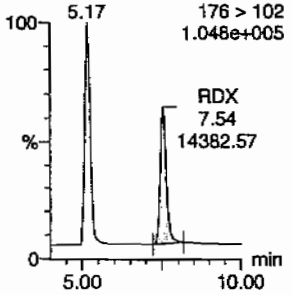

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.009e+004

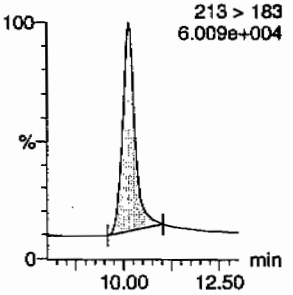

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.278e+004

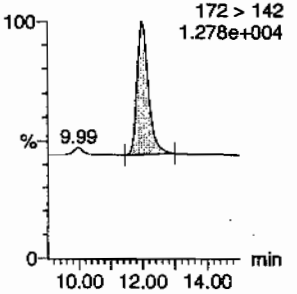

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
2.292e+004

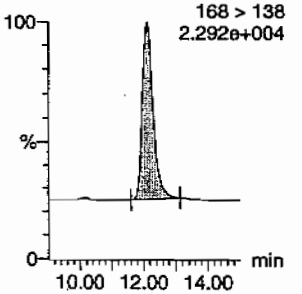

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.678e+004

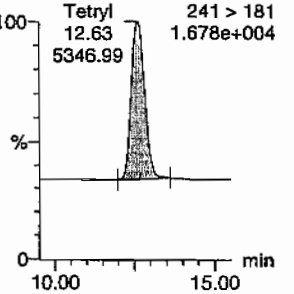

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
2.112e+004

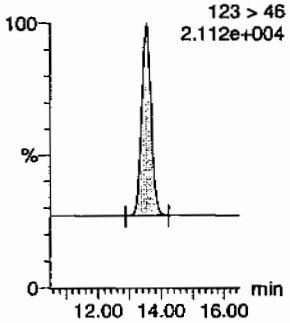

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
3.013e+004

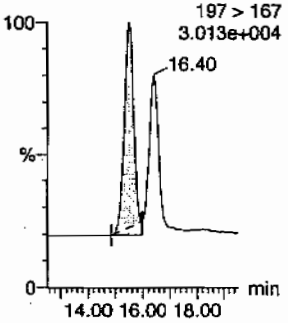

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.844e+004

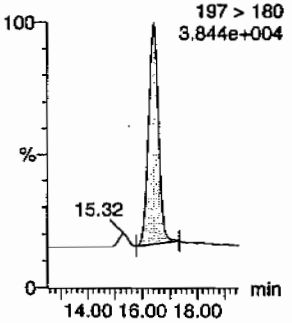

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
3.043e+004

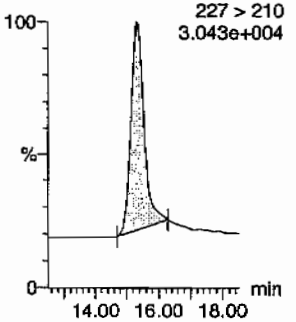

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
9.783e+004

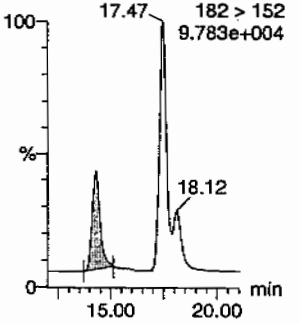

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
9.783e+004

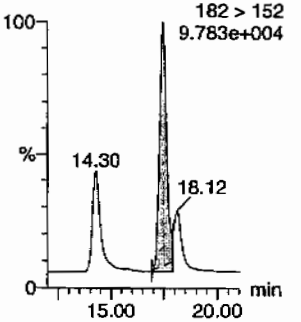

dmm 01/09/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

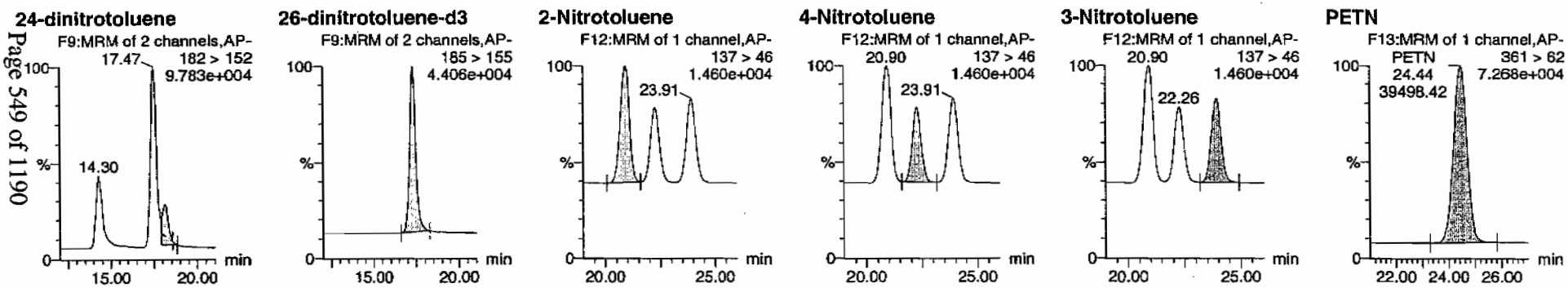

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100108-06	HMX	176 > 102	5.17	19742.436	2917.544	19742.436	3383.400	bb			1024.5...	102.5	2.5	1685.4
WXX100108-06	RDX	176 > 102	7.54	14382.573	2917.544	14382.573	2464.843	bb			1006.9...	100.7	0.7	1042.7
WXX100108-06	135-Trinitrobenzene	213 > 183	10.14	19999.830	2917.544	19999.830	3427.511	bb			991.4575	99.1	-0.9	5209.2
WXX100108-06	13-Dinitrobenzene-d4	172 > 142	11.97	2917.544		2917.544	2917.544	bb			497.9544	99.6	-0.4	238.9
WXX100108-06	13-Dinitrobenzene	168 > 138	12.14	6751.170	2917.544	6751.170	1156.995	bb			942.9260	94.3	-5.7	568.4
WXX100108-06	Tetryl	241 > 181	12.63	5346.991	2917.544	5346.991	916.351	bb			844.8311	84.5	-15.5	426.3
WXX100108-06	Nitrobenzene	123 > 46	13.54	5555.927	2917.544	5555.927	952.158	bb			965.2790	96.5	-3.5	542.4
WXX100108-06	4-Amino-26-dinitrotoluene	197 > 167	15.49	10187.506	16295.127	10187.506	312.594	MM	09-Jan-10	11:51:27	1108.6...	110.9	10.9	716.9
WXX100108-06	2-Amino-46-dinitrotoluene	197 > 180	16.40	13741.497	16295.127	13741.497	421.644	bb			1144.9...	114.5	14.5	615.5
WXX100108-06	246-Trinitrotoluene	227 > 210	15.31	11275.085	16295.127	11275.085	345.965	bb			1068.8...	106.9	6.9	72.6
WXX100108-06	34-dinitrotoluene	182 > 152	14.30	15326.598	16295.127	15326.598	470.282	bb			524.1844	104.8	4.8	611.2
WXX100108-06	26-dinitrotoluene	182 > 152	17.47	36122.988	16295.127	36122.988	1108.398	MM	09-Jan-10	11:54:52	979.2040	97.9	-2.1	1550.6
WXX100108-06	24-dinitrotoluene	182 > 152	18.12	8598.698	16295.127	8598.698	263.843	MM	09-Jan-10	11:57:37	1081.9...	108.2	8.2	348.5
WXX100108-06	26-dinitrotoluene-d3	185 > 155	17.29	16295.127		16295.127	16295.127	bb			482.4952	96.5	-3.5	1124.4
WXX100108-06	2-Nitrotoluene	137 > 46	20.90	4365.468	16295.127	4365.468	133.950	bb			866.5102	86.7	-13.3	941.1
WXX100108-06	4-Nitrotoluene	137 > 46	22.26	2695.820	16295.127	2695.820	82.719	bb			979.9646	98.0	-2.0	598.0
WXX100108-06	3-Nitrotoluene	137 > 46	23.91	3196.486	16295.127	3196.486	98.081	bb			979.2116	97.9	-2.1	670.7
WXX100108-06	PETN	361 > 62	24.44	39498.418	16295.127	39498.418	1211.970	bbX			777.8070	77.8	-22.2	8826.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–952

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0108010a

Analysis Date: 08–JAN–10 21:40

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	584.535	97	
1,3–Dinitrobenzene–d4	500	488.896	98	
2,4,6–Trinitrotoluene	600	658.712	110	
2,4–Dinitrotoluene	600	582.225	97	
2,6–Dinitrotoluene	600	581.833	97	
2,6–Dinitrotoluene–d3	500	490.316	98	
2–Amino–4,6–dinitrotoluene	600	617.209	103	
3,4–Dinitrotoluene	300	311.903	104	
4–Amino–2,6–dinitrotoluene	600	567.423	95	
HMX	600	485.93	81	
Nitrobenzene	600	589.772	98	
PETN	600	568.486	95	
RDX	600	557.415	93	
Tetryl	600	496.018	83	
m–Dinitrobenzene	600	561.696	94	
m–Nitrotoluene	600	518.123	86	
o–Nitrotoluene	600	554.614	92	
p–Nitrotoluene	600	547.059	91	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108010a
Date: 08-Jan-2010
Time: 21:40:39
ID: WXX100108-07ICV
Vial: 1:1,B

MMT 1/9/10

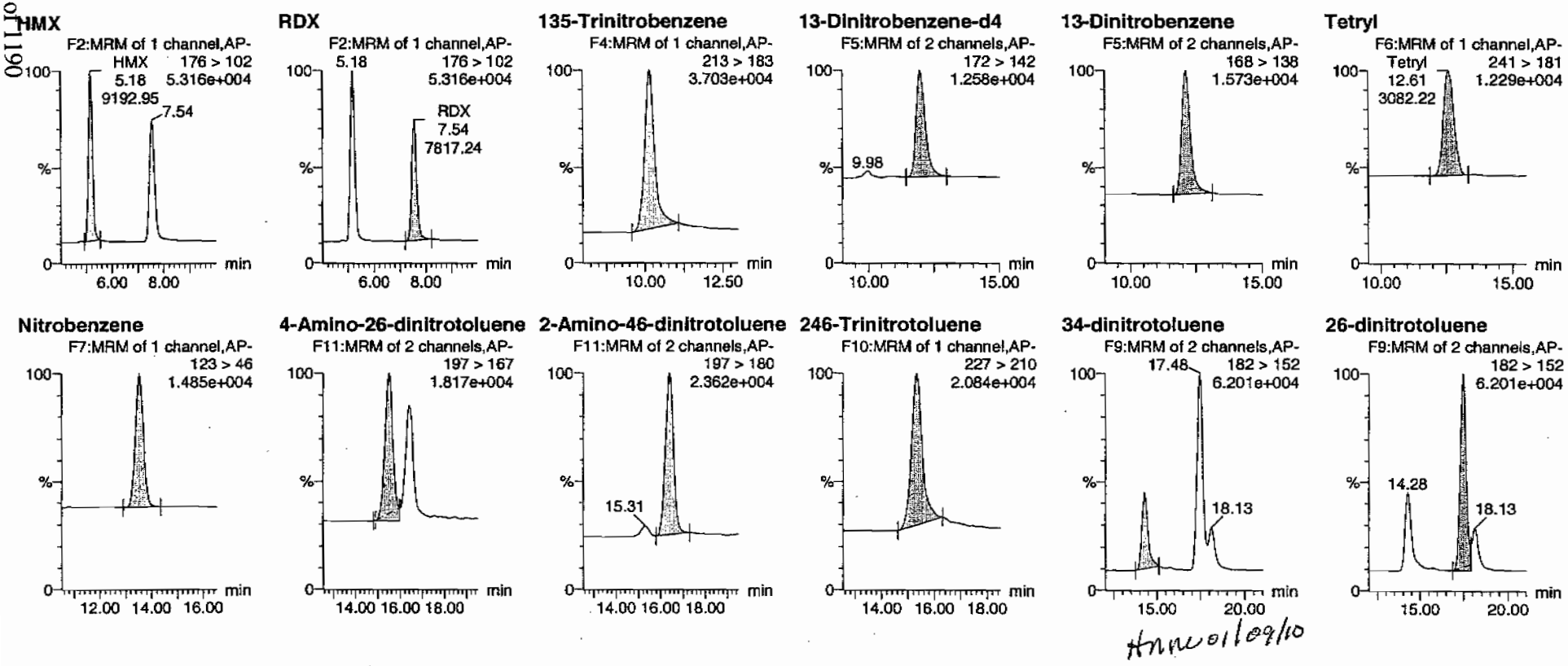

Hnw 01/09/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

24-dinitrotoluene

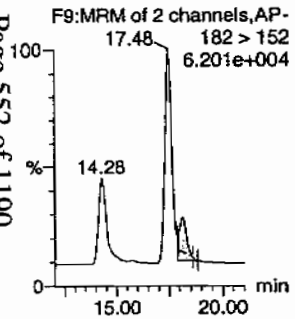

26-dinitrotoluene-d3

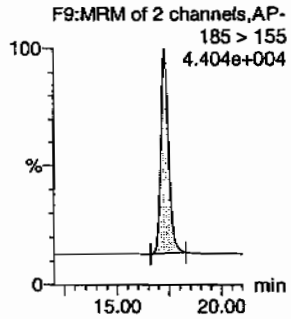

2-Nitrotoluene

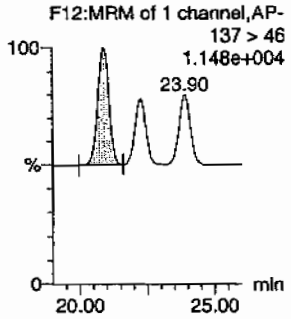

4-Nitrotoluene

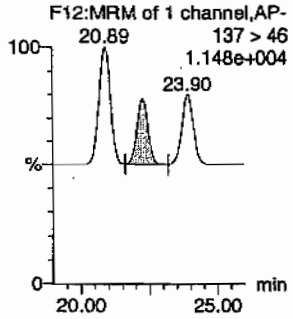

3-Nitrotoluene

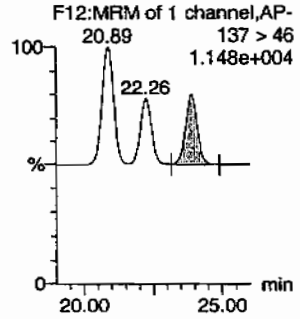

PETN

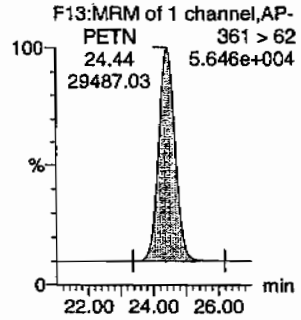

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100108-07ICV	HMX	176 > 102	5.18	9192.949	2864.473	9192.949	1604.649	bb			485.9295	81.0	-19.0	678.1
WXX100108-07ICV	RDX	176 > 102	7.54	7817.238	2864.473	7817.238	1364.516	bb			557.4148	92.9	-7.1	483.5
WXX100108-07ICV	135-Trinitrobenzene	213 > 183	10.14	11576.834	2864.473	11576.834	2020.762	bb			584.5347	97.4	-2.6	2166.6
WXX100108-07ICV	13-Dinitrobenzene-d4	172 > 142	12.00	2864.473		2864.473	2864.473	bb			488.8965	97.8	-2.2	330.6
WXX100108-07ICV	13-Dinitrobenzene	168 > 138	12.13	3948.479	2864.473	3948.479	689.216	bb			561.6957	93.6	-6.4	340.9
WXX100108-07ICV	Tetryl	241 > 181	12.61	3082.225	2864.473	3082.225	538.009	bb			496.0180	82.7	-17.3	472.4
WXX100108-07ICV	Nitrobenzene	123 > 46	13.53	3332.844	2864.473	3332.844	581.755	bb			589.7718	98.3	-1.7	346.2
WXX100108-07ICV	4-Amino-26-dinitrotoluene	197 > 167	15.52	5298.829	16559.242	5298.829	159.996	MM	09-Jan-10	11:51:53	567.4228	94.6	-5.4	141.0
WXX100108-07ICV	2-Amino-46-dinitrotoluene	197 > 180	16.39	7527.482	16559.242	7527.482	227.289	bb			617.2090	102.9	2.9	433.4
WXX100108-07ICV	246-Trinitrotoluene	227 > 210	15.33	7061.455	16559.242	7061.455	213.218	bb			658.7117	109.8	9.8	310.2
WXX100108-07ICV	34-dinitrotoluene	182 > 152	14.28	9267.540	16559.242	9267.540	279.830	bb			311.9034	104.0	4.0	380.2
WXX100108-07ICV	26-dinitrotoluene	182 > 152	17.48	21811.785	16559.242	21811.785	658.599	MM	09-Jan-10	11:55:01	581.8326	97.0	-3.0	977.5
WXX100108-07ICV	24-dinitrotoluene	182 > 152	18.13	4702.128	16559.242	4702.128	141.979	MM	09-Jan-10	11:57:47	582.2248	97.0	-3.0	196.0
WXX100108-07ICV	26-dinitrotoluene-d3	185 > 155	17.30	16559.242		16559.242	16559.242	bb			490.3156	98.1	-1.9	1245.2
WXX100108-07ICV	2-Nitrotoluene	137 > 46	20.89	2839.428	16559.242	2839.428	85.735	bb			554.6143	92.4	-7.6	175.0
WXX100108-07ICV	4-Nitrotoluene	137 > 46	22.26	1529.316	16559.242	1529.316	46.177	bb			547.0588	91.2	-8.8	98.9
WXX100108-07ICV	3-Nitrotoluene	137 > 46	23.90	1718.746	16559.242	1718.746	51.897	bb			518.1228	86.4	-13.6	105.2
WXX100108-07ICV	PETN	361 > 62	24.44	29487.029	16559.242	29487.029	890.350	bb			568.4859	94.7	-5.3	6819.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 01/08/10
Time of Injection: 2140
Standard Number: WXX100108-07ICV
Data File: EXP0108010a

HMX	81.0
RDX	92.9
135-TNB	97.4
13-DNB	93.6
Tetryl	82.7
Nitrobenzene	98.3
4A-26-DNT	94.6
2A-46-DNT	102.9
246-TNT	109.8
34-DNT(surr)	104.0
26-DNT	97.0
24-DNT	97.0
2-NT	92.4
4-NT	91.2
3-NT	86.4
PETN	94.7
Total	1515.9
Average	94.7

MT 1/9/10

Hmw 01/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-952

Lab Code: GEL

Run Date: 08-JAN-10,23-DEC-09

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H80

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS12230003.wifl	EXS12230004.wifl	EXS12230005.wifl	EXS12230006.wifl	EXS12230007.wifl	EXS12230008.wifl	EXS12230009.wifl					
Parmname:												
2,4-Diamino-6-nitrotoluene	111000	220000	576000	1080000	1770000	2060000	4010000	-299	2310	-.153	.9989	
2,6-Diamino-4-nitrotoluene	206000	374000	1050000	1800000	2820000	3460000	6380000	28700	3840	-.332	.9995	
3,4-Dinitrotoluene	521000	1080000	2510000	5120000	7500000	9090000	16500000	-999	22300	-5.85	.9969	
3,5-Dinitroaniline	722000	1470000	3420000	6600000	9380000	11400000	18200000	101000	14000	-2.47	.9997	
TATB	107000	219000	526000	1050000	1580000	1980000	3980000	16200	2050	-.037	.9997	
tris(o-cresyl) phosphate	1580000	3130000	7090000	13600000	19400000	23400000	34300000	124000	30100	-6.5	.9999	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	1.62e+004			
a1	2.05e+003			
a2	-0.0371			

Correlation coefficient 0.9997
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	1.01e+005			
a1	1.4e+004			
a2	-2.47			

Correlation coefficient 0.9997
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-999			
a1	2.23e+004			
a2	-5.85			

Correlation coefficient 0.9969
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	2.87e+004			
a1	3.84e+003			
a2	-0.332			

Correlation coefficient 0.9995
Use Area

Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Lan 12/29/09

HMM 12/28/09

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Fit	Quadratic	Weighting	None	Iterate No
a0	-299			
a1	2.31e+003			
a2	-0.153			

Correlation coefficient 0.9989
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	1.24e+005			
a1	3.01e+004			
a2	-6.5			

Correlation coefficient 0.9999
Use Area

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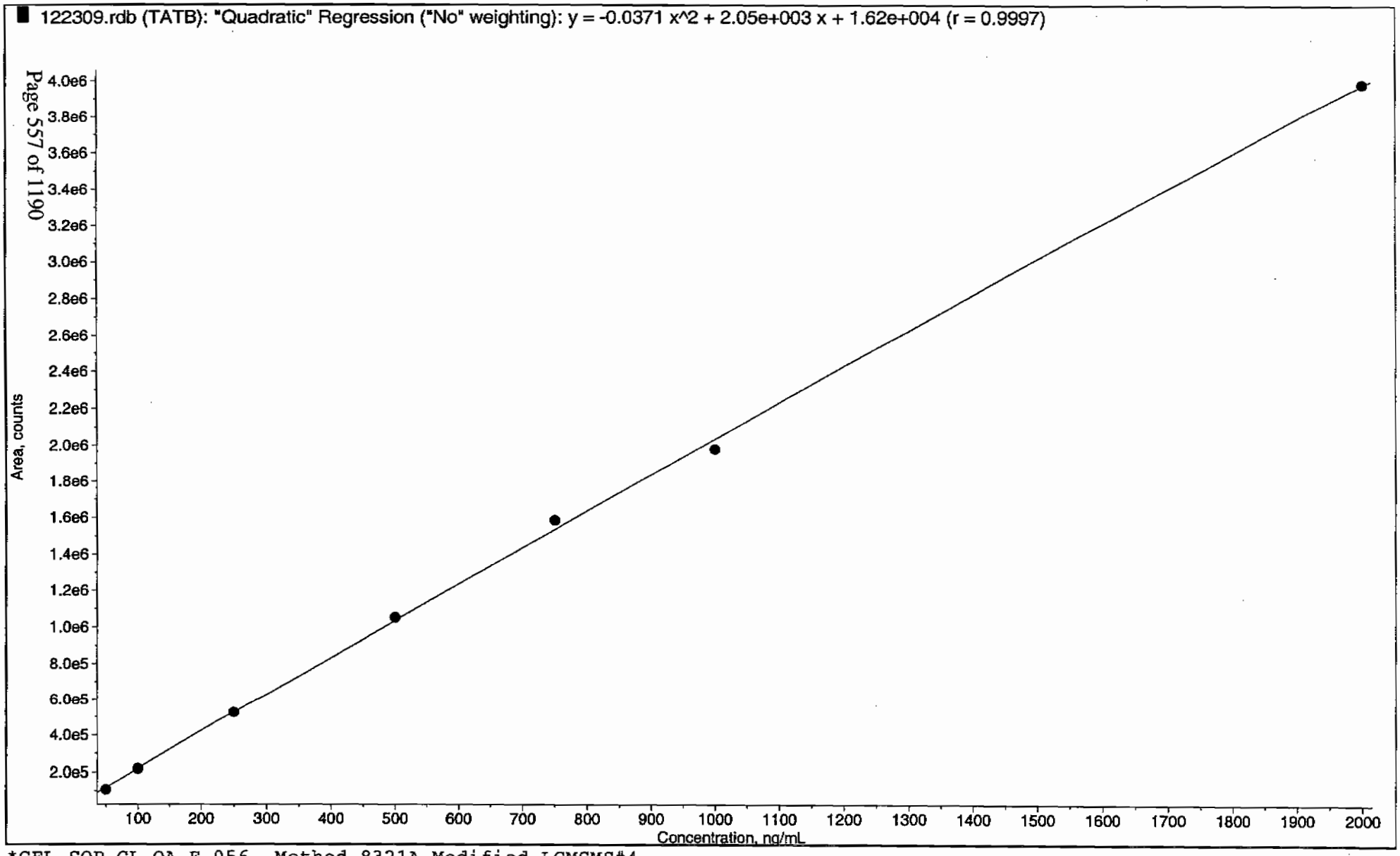

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

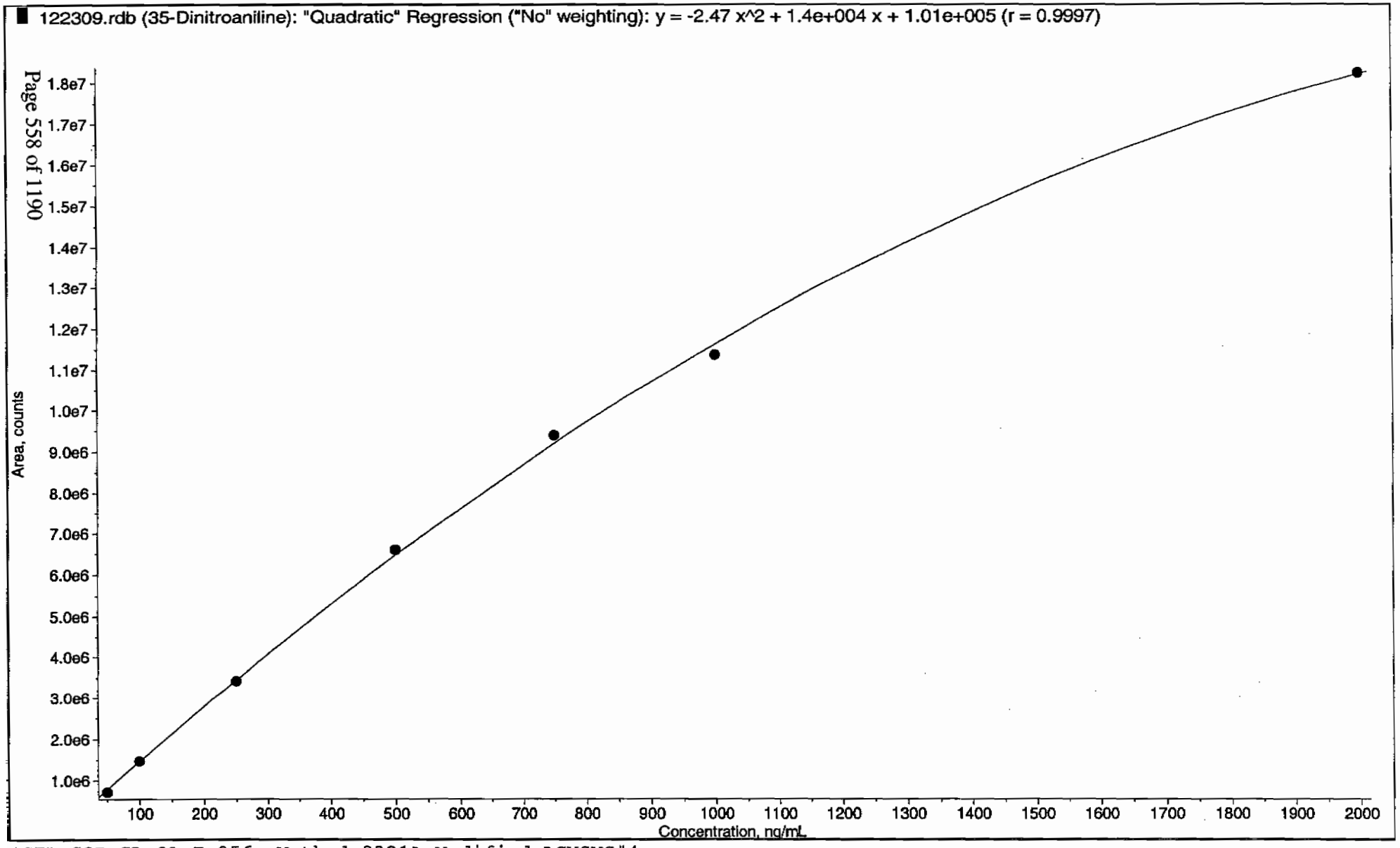

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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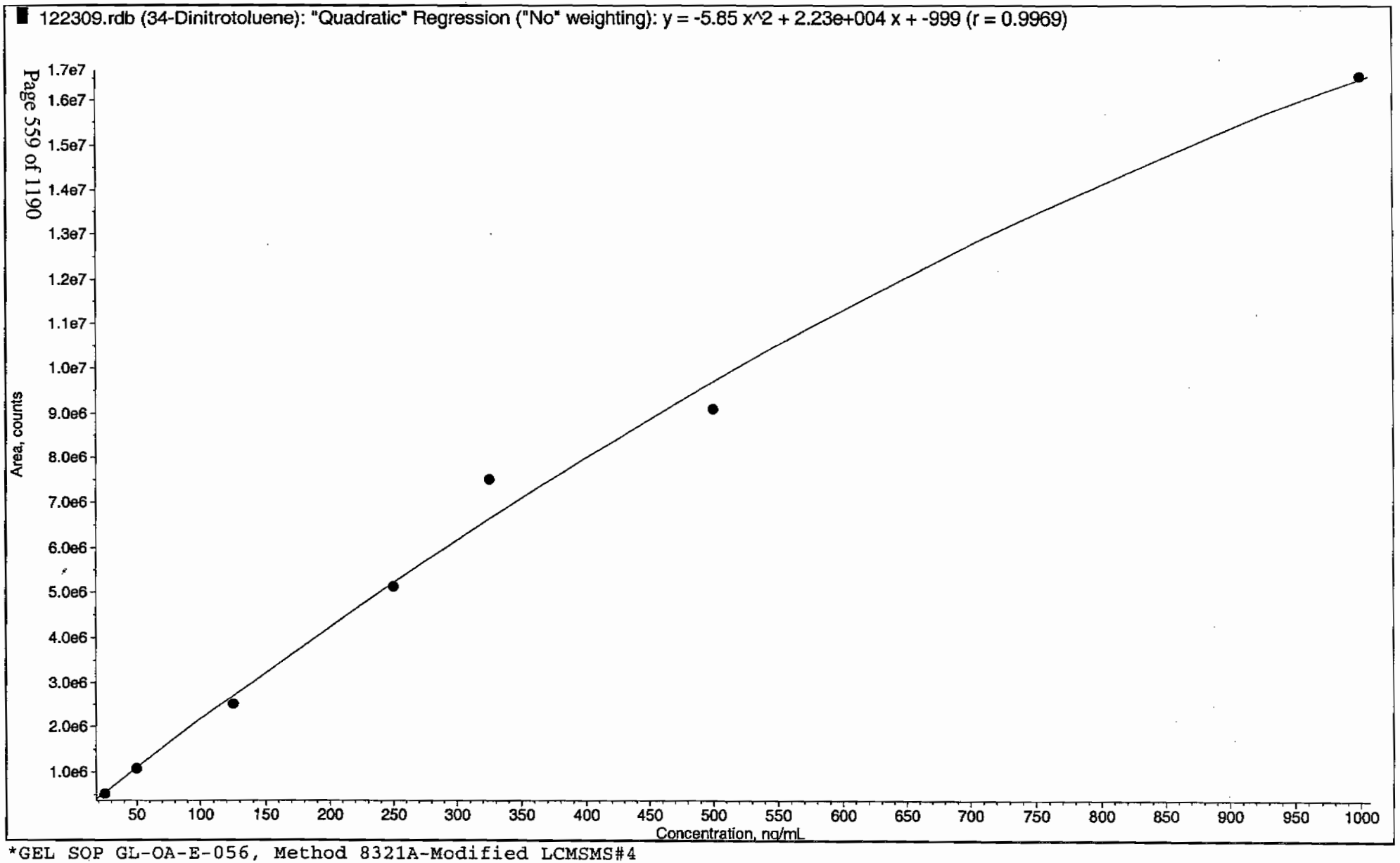

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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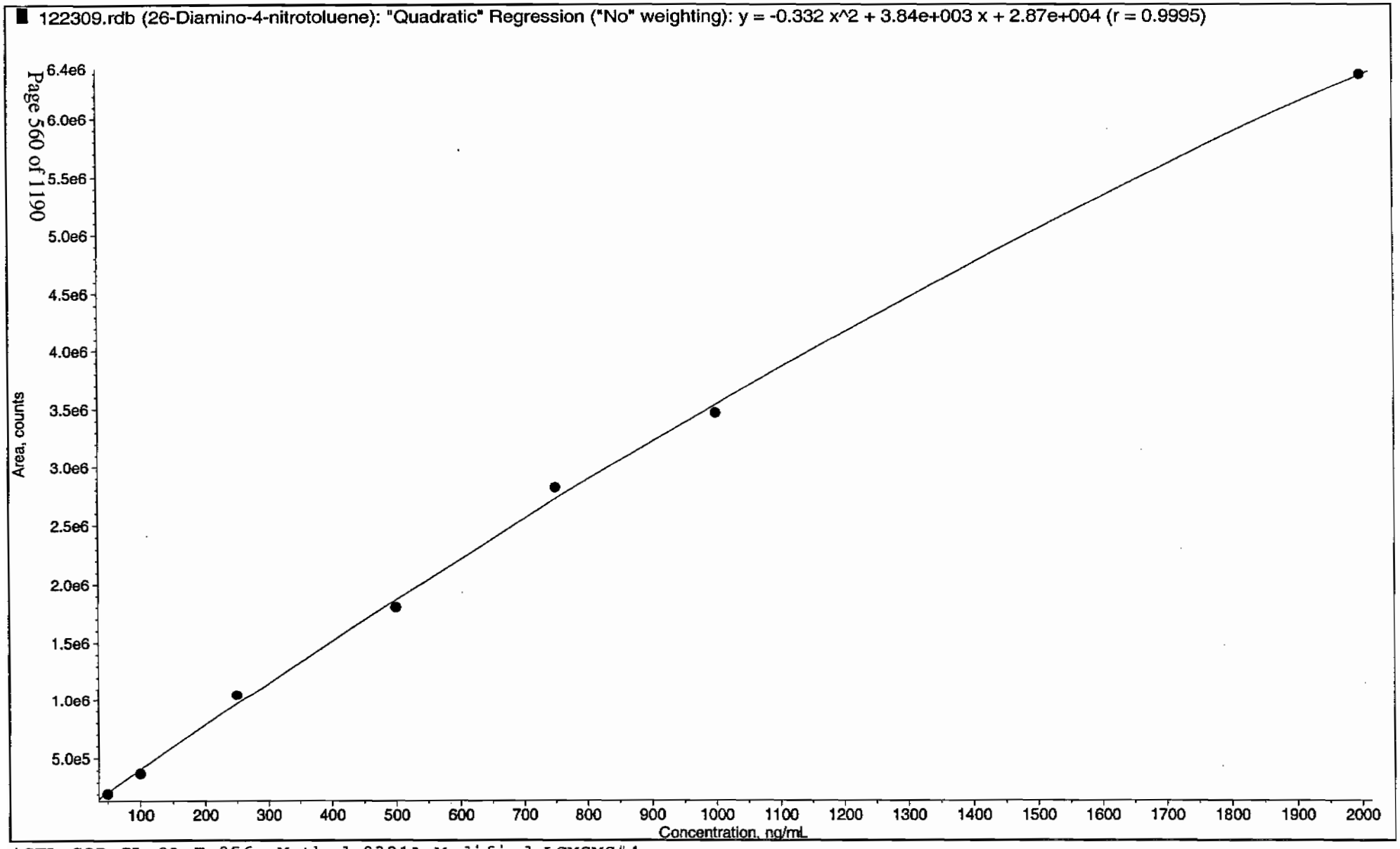

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

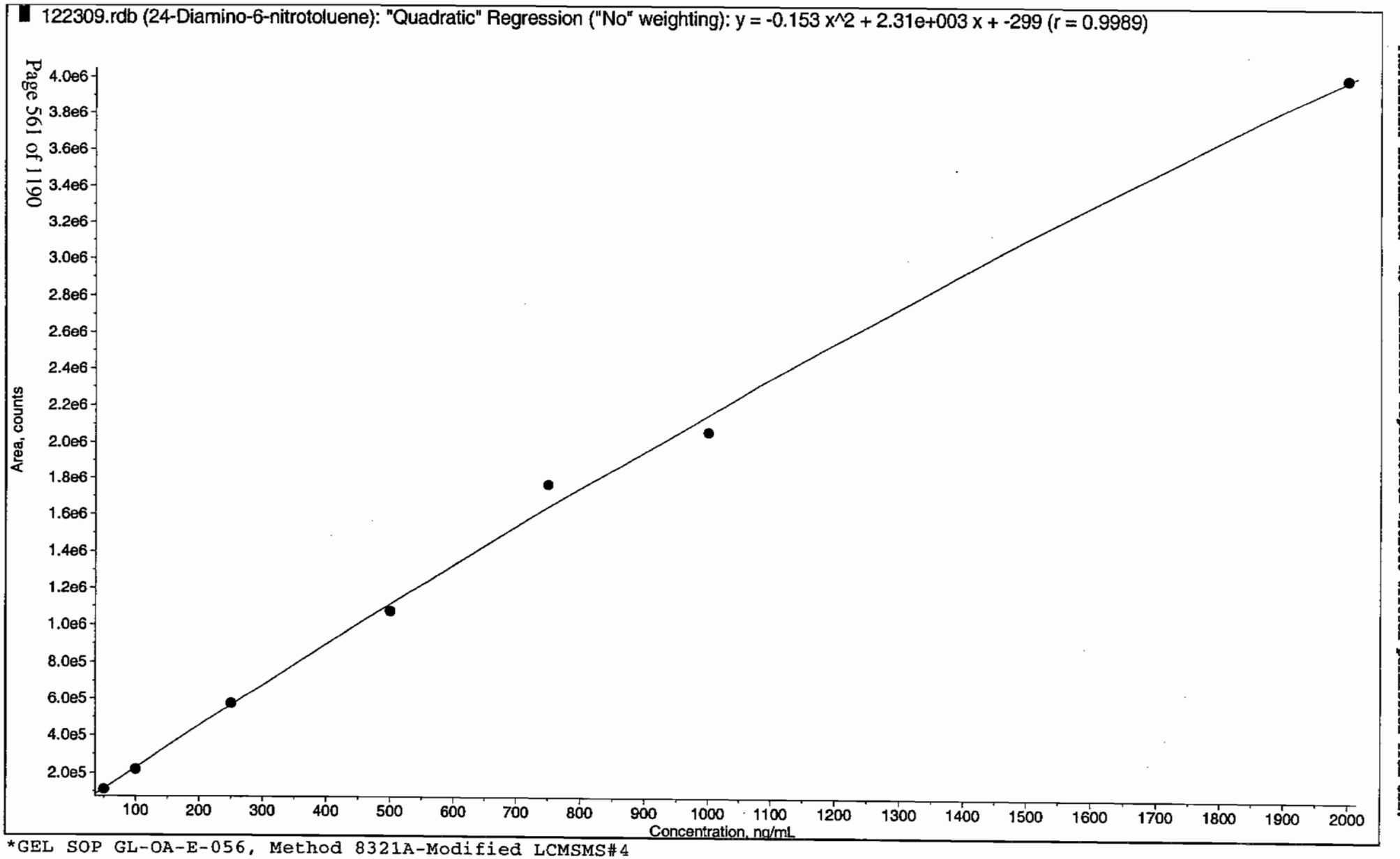

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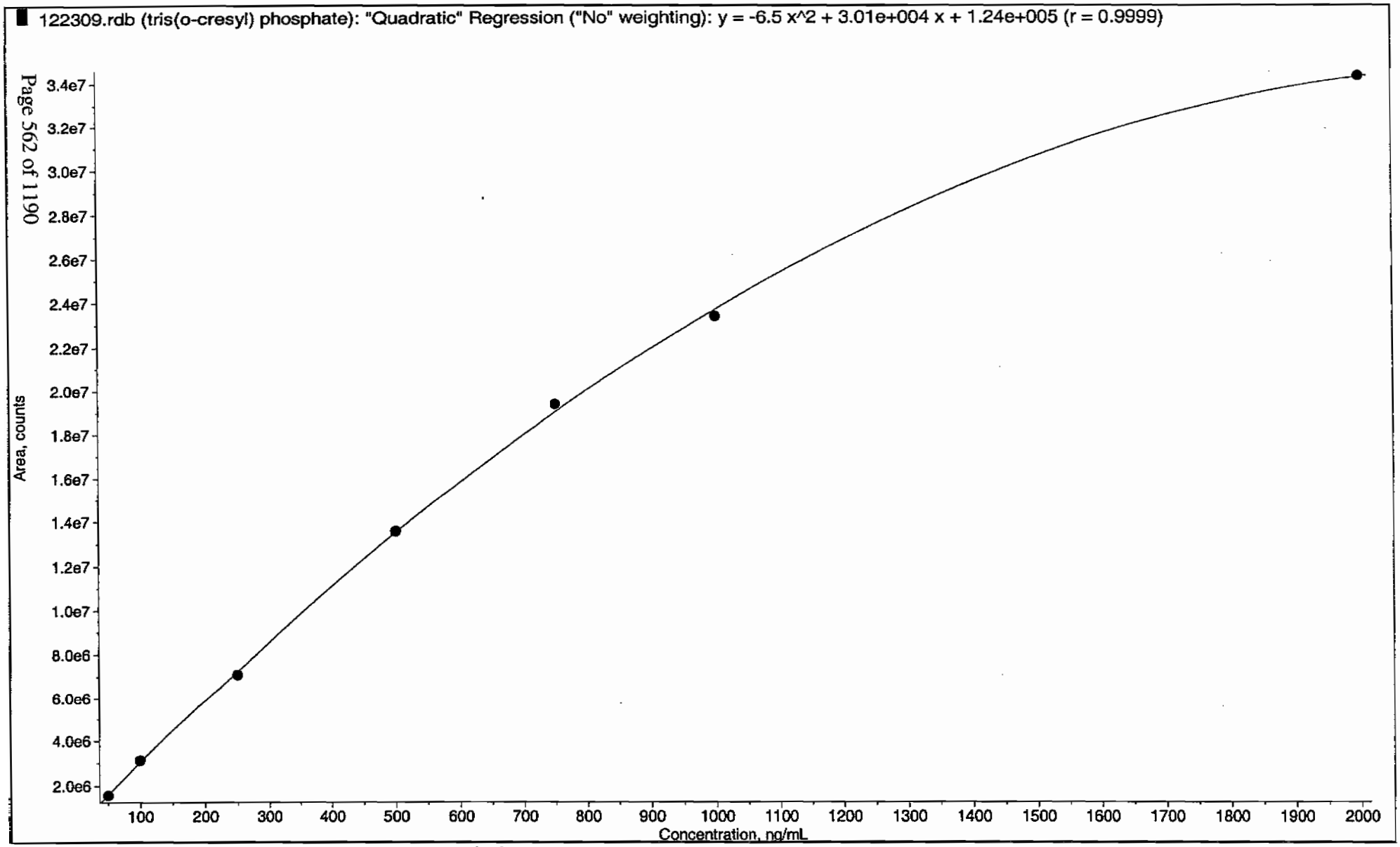

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Dan 12/29/09

Sample Name: "WXX091223-19" Sample ID: "[1]LER" File: "EXS12230003.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 50.0 ng/mL
Calculated Conc: 44.3 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 3:19:56 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.99 min
Area: 1.07e+005 counts
Height: 25303.358 cps
Start Time: 6.89 min
End Time: 7.56 min

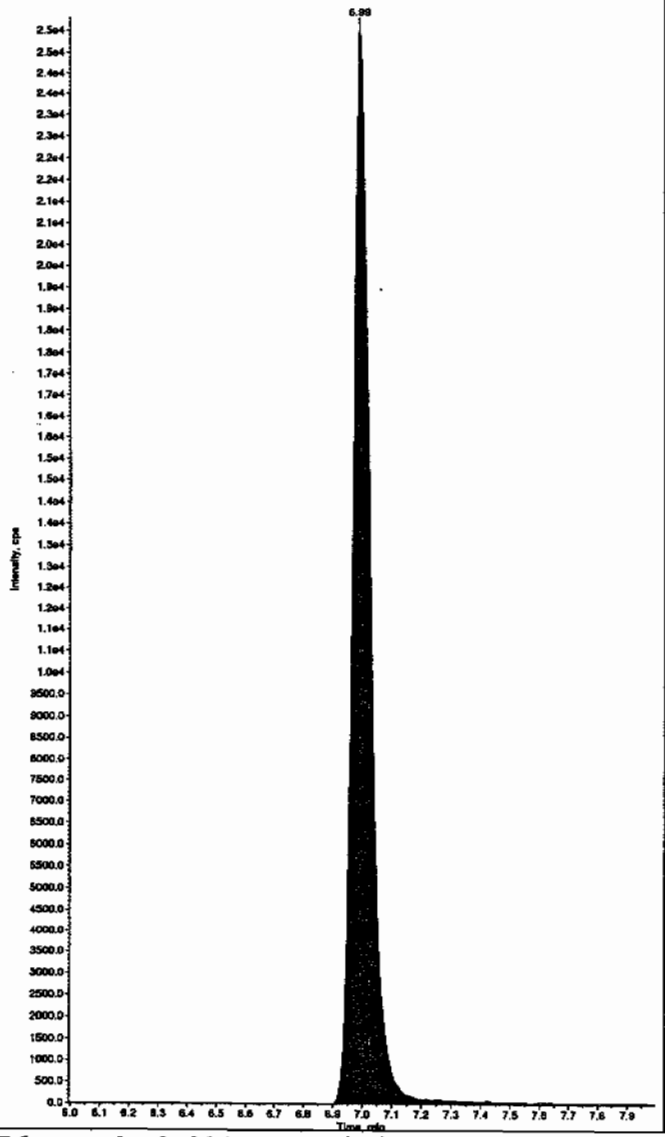

Sample Name: "WXX091223-19" Sample ID: "[1]LER" File: "EXS12230003.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 50.0 ng/mL
Calculated Conc: 44.9 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 3:19:56 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.17 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.22 min
Area: 7.22e+005 counts
Height: 190155.441 cps
Start Time: 8.10 min
End Time: 8.32 min

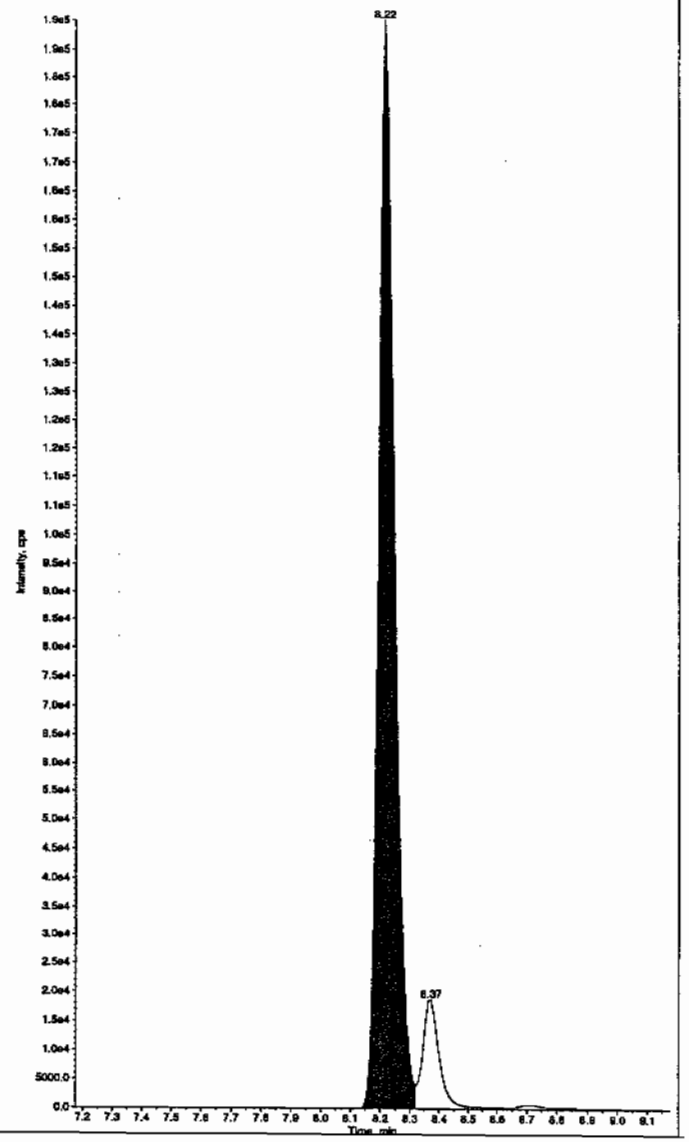

Hmc 12/29/09

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX091223-19" Sample ID: "[1]LER" File: "EXS12230003.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 25.0 ng/mL
Calculated Conc: 23.5 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 3:19:56 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 5.21e+005 counts
Height: 147369.965 cps
Start Time: 8.29 min
End Time: 8.57 min

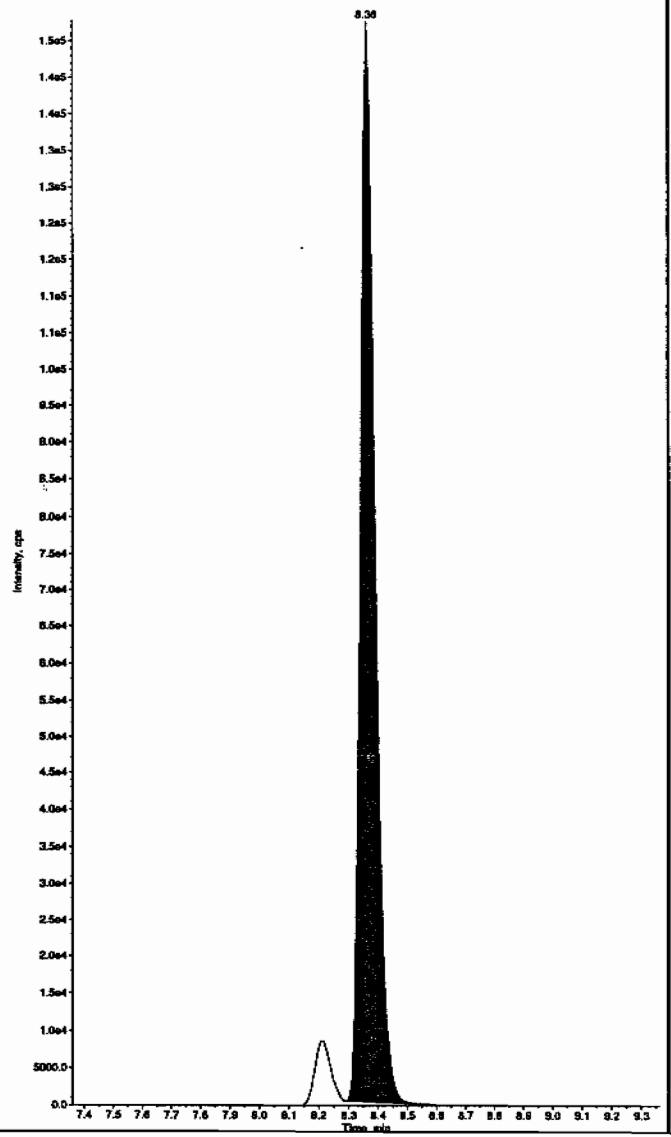

Sample Name: "WXX091223-19" Sample ID: "[1]LER" File: "EXS12230003.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 50.0 ng/mL
Calculated Conc: 46.3 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 3:19:56 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 2.06e+005 counts
Height: 51709.236 cps
Start Time: 4.88 min
End Time: 5.32 min

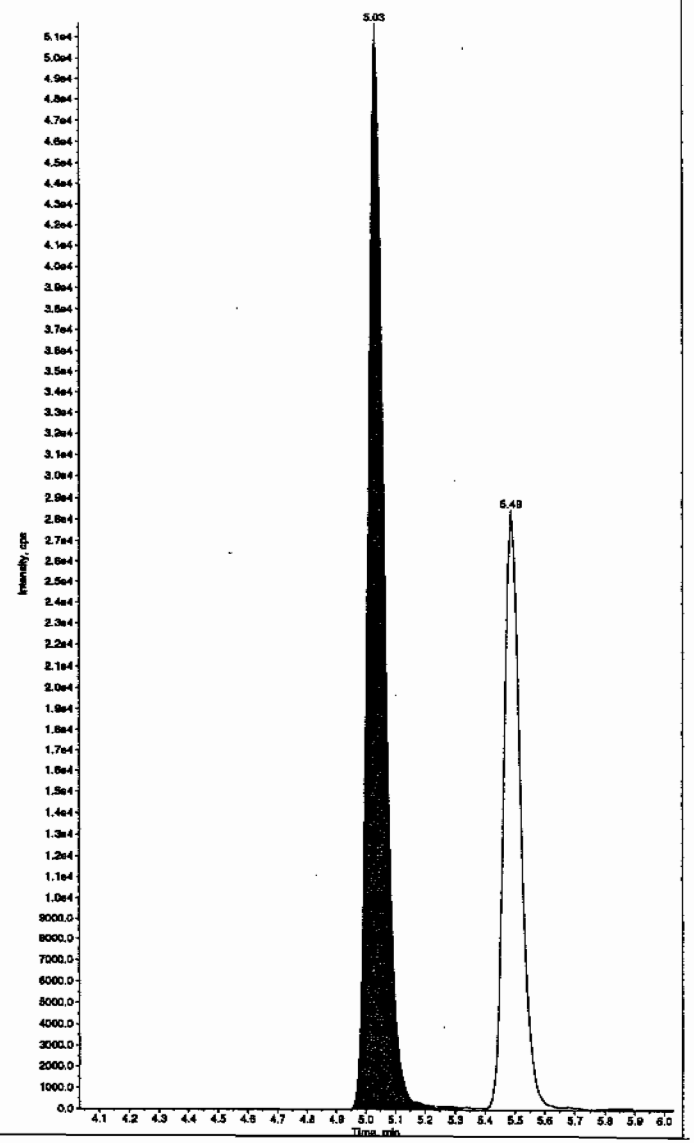

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX091223-19" Sample ID: "[1]LER" File: "EXS12230003.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 50.0 ng/mL
Calculated Conc: 48.5 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 3:19:56 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.49 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.49 min
Area: 1.11e+005 counts
Height: 28466.272 cps
Start Time: 5.41 min
End Time: 5.76 min

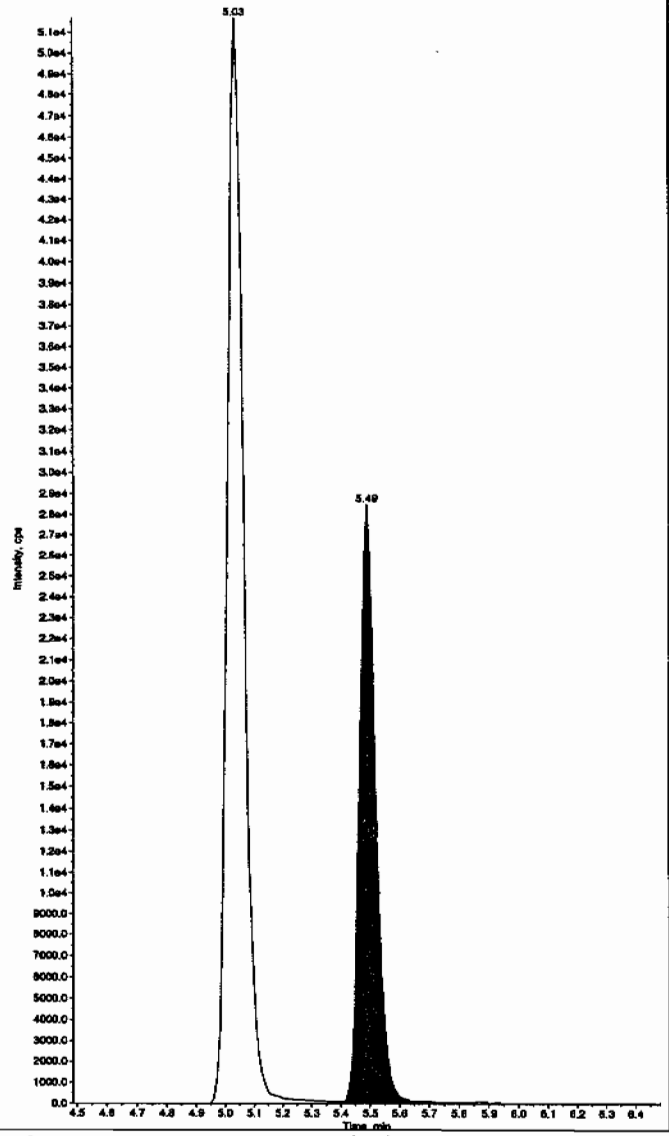

Sample Name: "WXX091223-19" Sample ID: "[1]LER" File: "EXS12230003.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 50.0 ng/mL
Calculated Conc: 48.9 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 3:19:56 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.58e+006 counts
Height: 395583.191 cps
Start Time: 10.8 min
End Time: 11.2 min

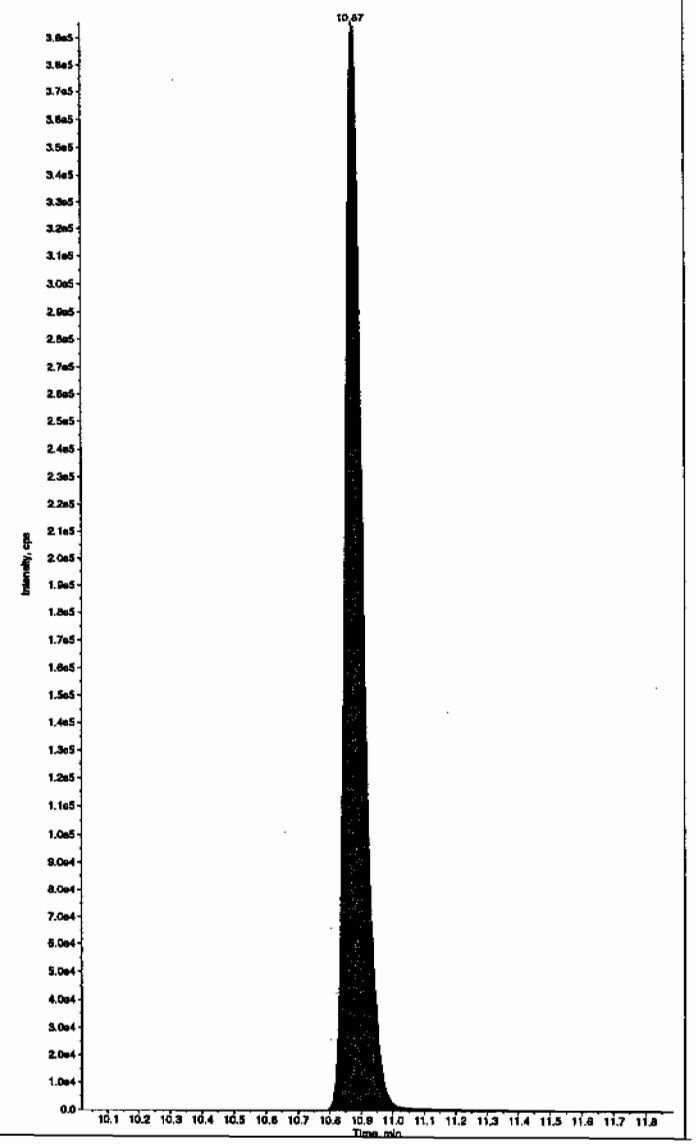

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Dan 12/29/09

Sample Name: "WXX091223-20" Sample ID: "[1]LER" File: "EXS12230004.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 100. ng/mL
Calculated Conc: 98.8 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 3:35:39 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 2.19e+005 counts
Height: 53197.197 cps
Start Time: 6.82 min
End Time: 7.46 min

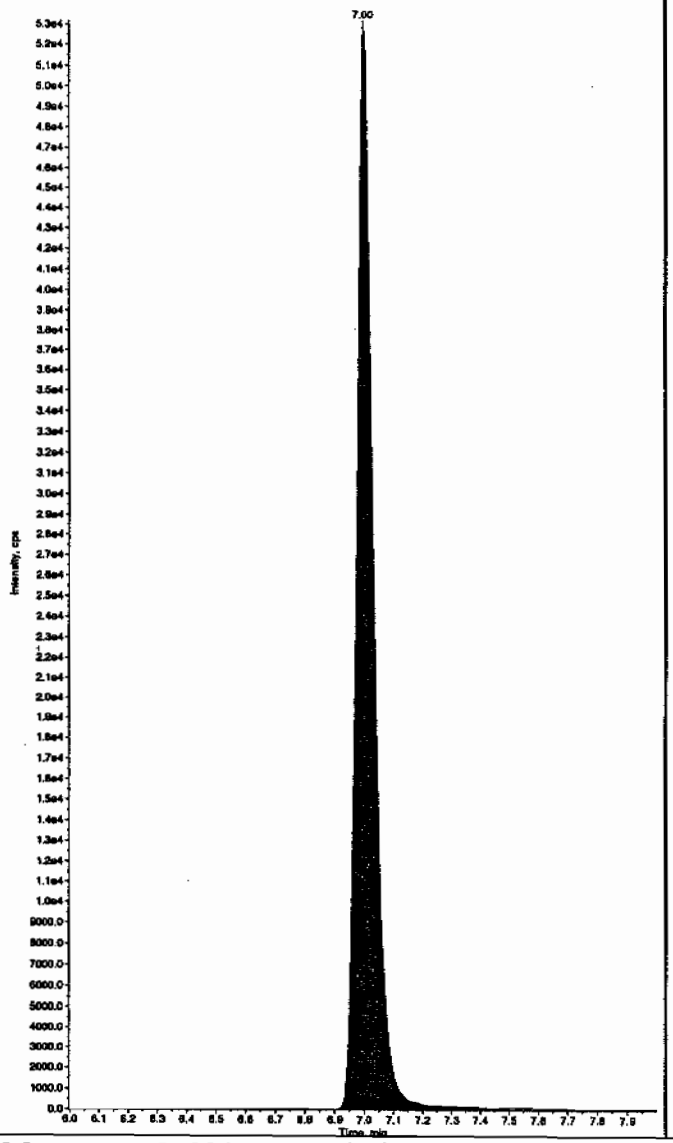

Sample Name: "WXX091223-20" Sample ID: "[1]LER" File: "EXS12230004.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 100. ng/mL
Calculated Conc: 100. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 3:35:39 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 1.47e+006 counts
Height: 392417.053 cps
Start Time: 8.12 min
End Time: 8.33 min

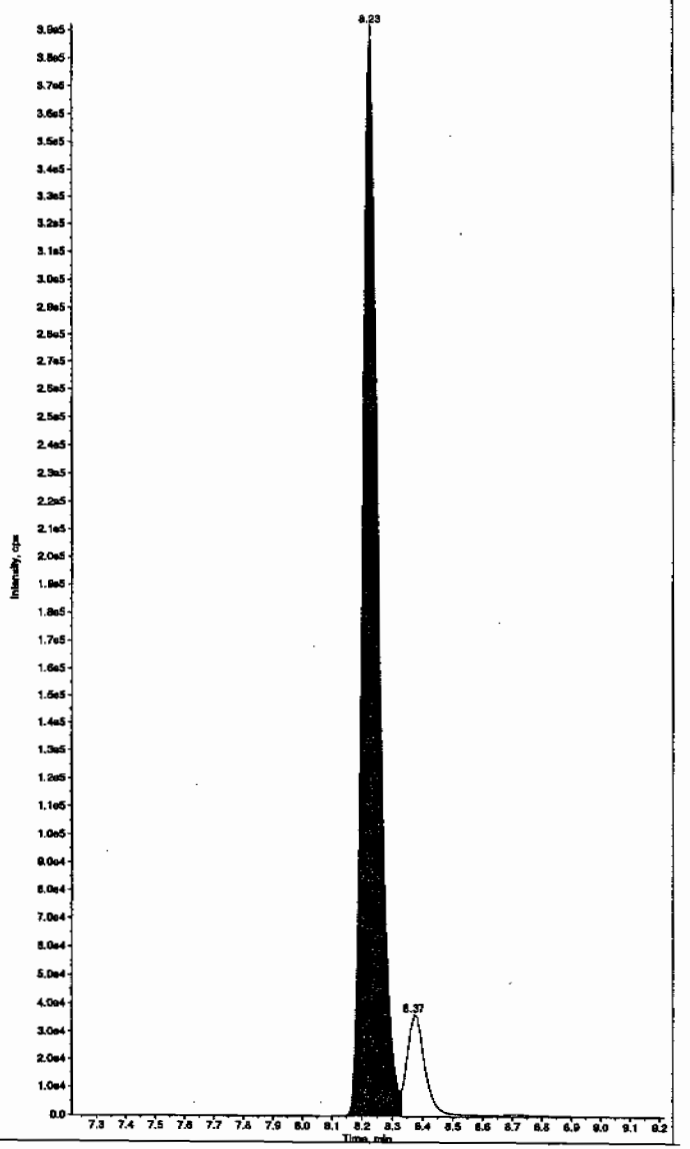

Hum 12/29/09

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX091223-20" Sample ID: "[1]LER" File: "EXS12230004.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 50.0 ng/mL
Calculated Conc: 48.9 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 3:35:39 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 1.08e+006 counts
Height: 298050.232 cps
Start Time: 8.30 min
End Time: 8.69 min

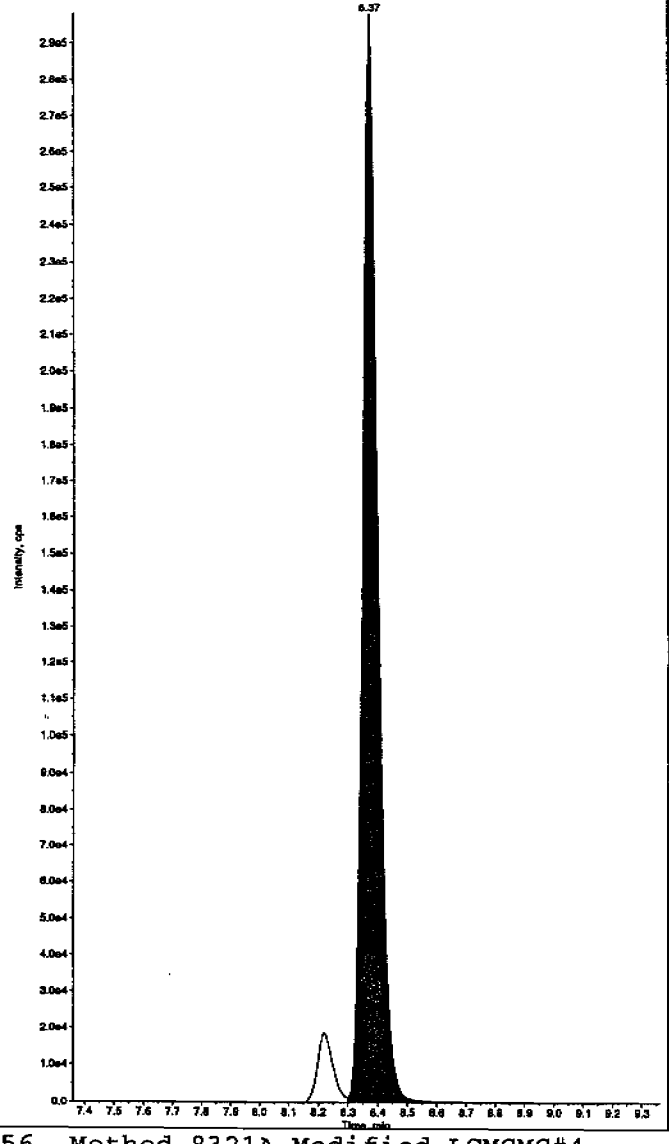

Sample Name: "WXX091223-20" Sample ID: "[1]LER" File: "EXS12230004.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 100. ng/mL
Calculated Conc: 90.7 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 3:35:39 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 3.74e+005 counts
Height: 90828.224 cps
Start Time: 4.93 min
End Time: 5.31 min

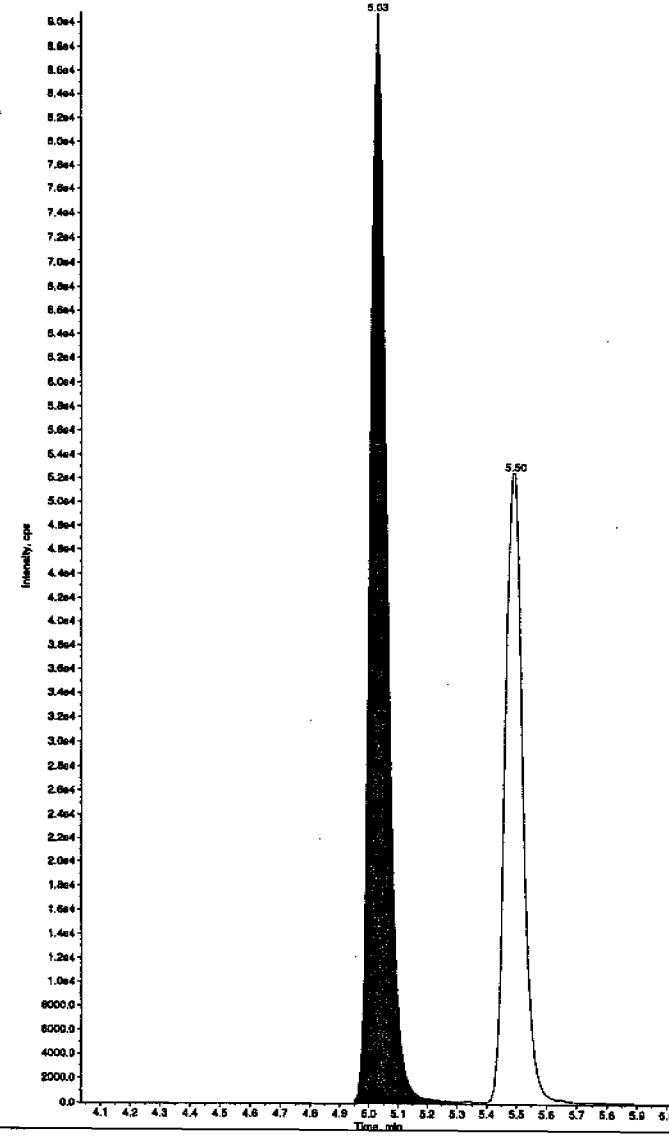

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX091223-20" Sample ID: "[1]LER" File: "EXS12230004.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: **

Sample Index: 1
Sample Type: Standard
Concentration: 100. ng/mL
Calculated Conc: 96.0 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 3:35:39 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.49 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.50 min
Area: 2.20e+005 counts
Height: 52509.449 cps
Start Time: 5.39 min
End Time: 6.05 min

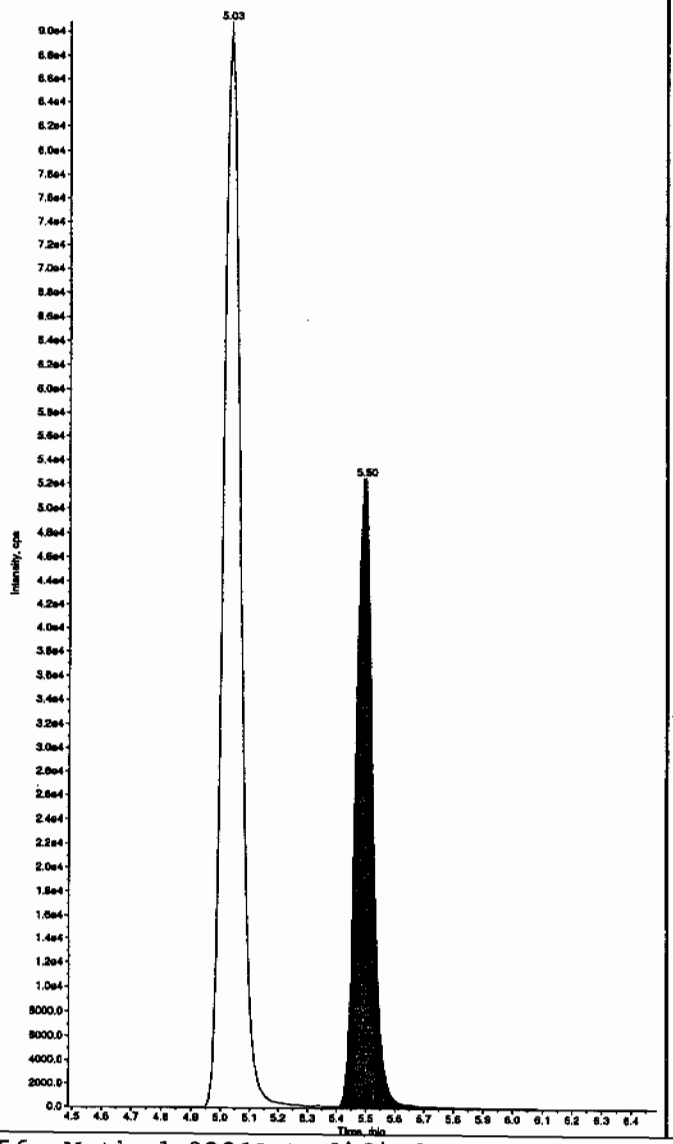

Sample Name: "WXX091223-20" Sample ID: "[1]LER" File: "EXS12230004.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: **

Sample Index: 1
Sample Type: Standard
Concentration: 100. ng/mL
Calculated Conc: 102. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 3:35:39 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 3.13e+006 counts
Height: 805432.007 cps
Start Time: 10.8 min
End Time: 11.2 min

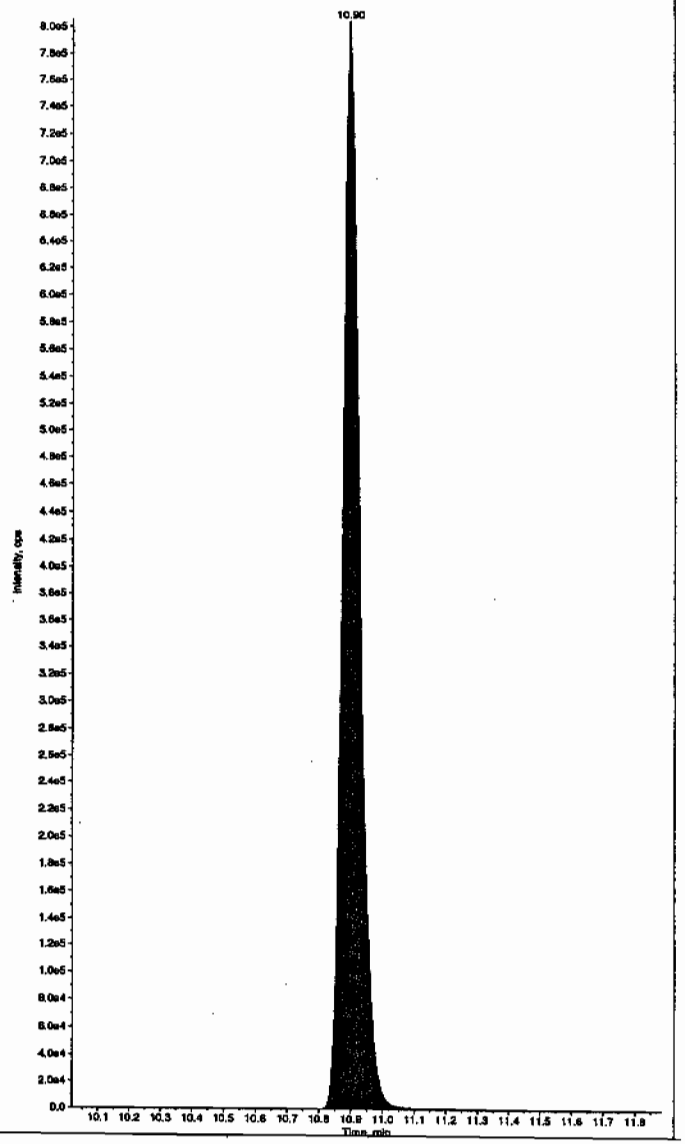

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Lar 12/29/09

Sample Name: "WXX091223-21" Sample ID: "1|LER" File: "EXS12230005.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 250. ng/mL
Calculated Conc: 249. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 3:51:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 5.26e+005 counts
Height: 124636.223 cps
Start Time: 6.85 min
End Time: 7.55 min

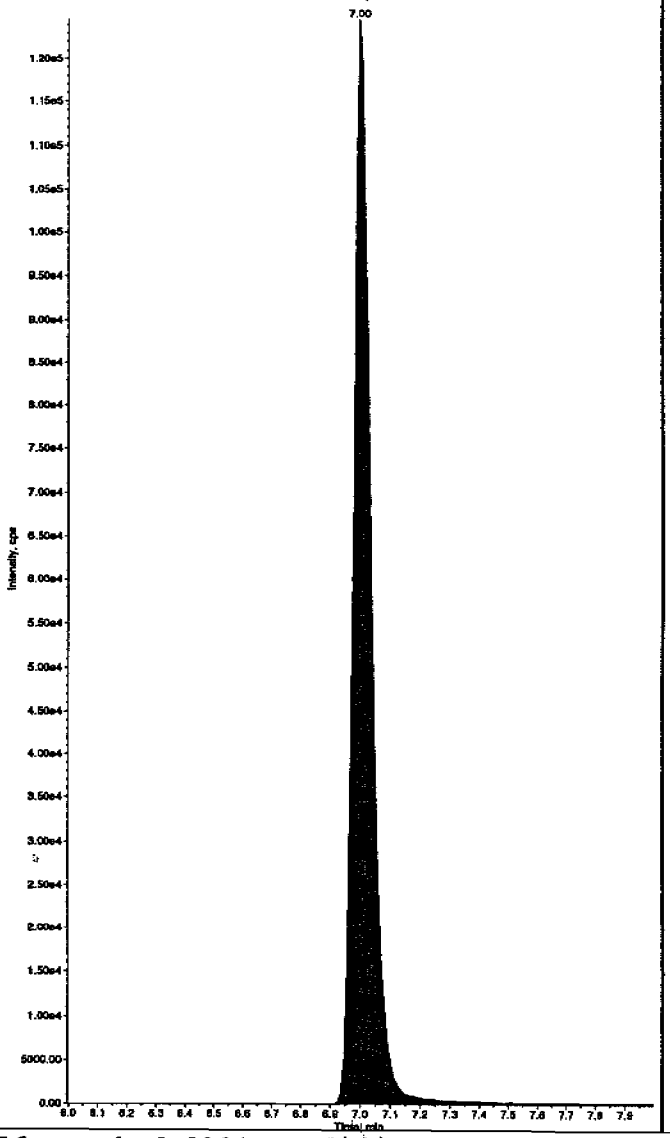

Sample Name: "WXX091223-21" Sample ID: "1|LER" File: "EXS12230005.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 250. ng/mL
Calculated Conc: 249. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 3:51:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 3.42e+006 counts
Height: 887501.465 cps
Start Time: 8.12 min
End Time: 8.33 min

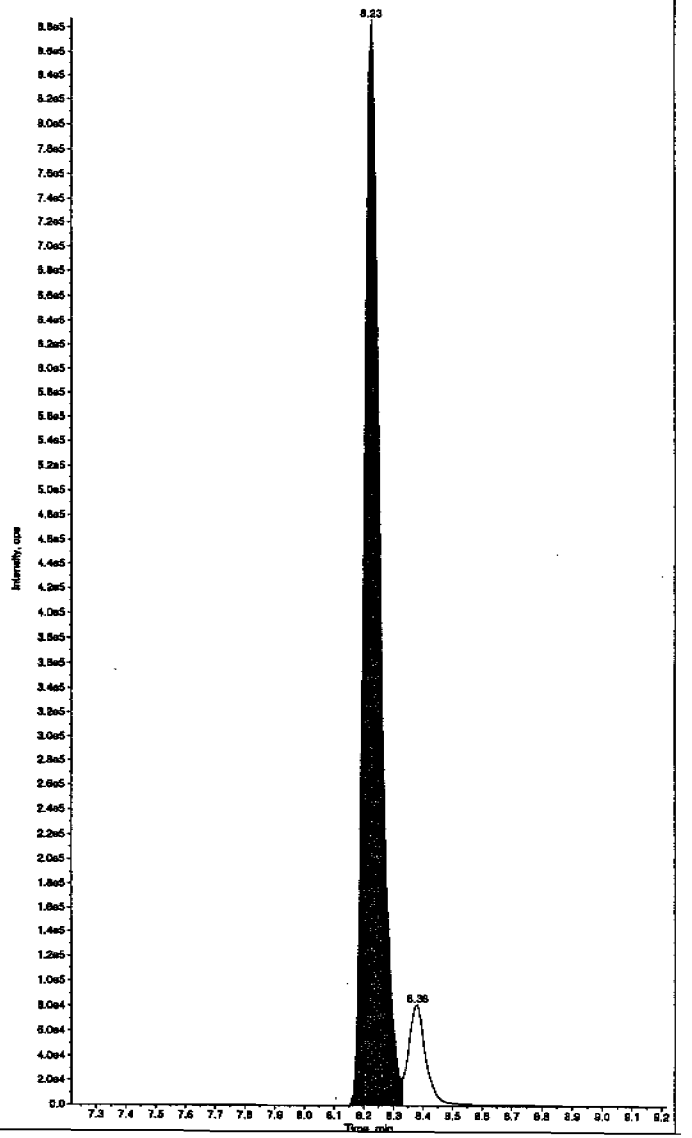

Hmm 12/29/09

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX091223-21" Sample ID: "[1]LER" File: "EXS12230005.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_j" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 125. ng/mL
Calculated Conc: 116. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 3:51:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 2.51e+006 counts
Height: 684062.622 cps
Start Time: 8.30 min
End Time: 8.68 min

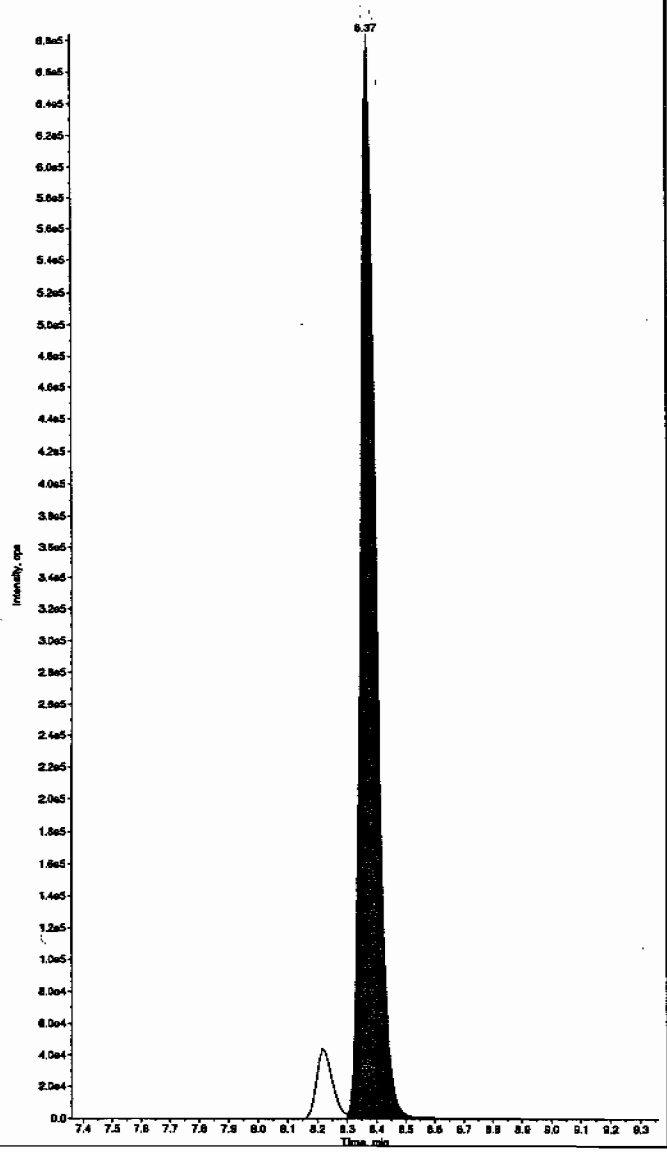

Sample Name: "WXX091223-21" Sample ID: "[1]LER" File: "EXS12230005.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_j" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 250. ng/mL
Calculated Conc: 272. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 3:51:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 1.05e+006 counts
Height: 259303.131 cps
Start Time: 4.93 min
End Time: 5.32 min

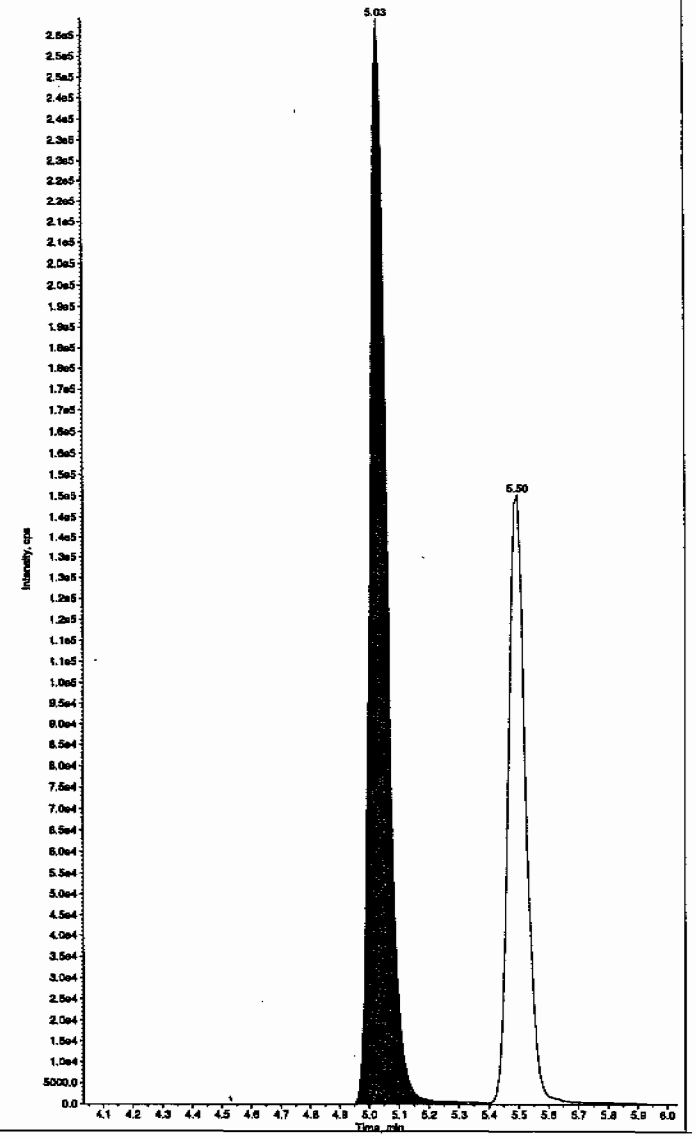

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - NO unauthorized reproduction without written permission from GEL.

Sample Name: "WXX091223-21" Sample ID: "[1]LER" File: "EXS12230005.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 250. ng/mL
Calculated Conc: 254. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 3:51:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.49 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.50 min
Area: 5.76e+005 counts
Height: 144582.993 cps
Start Time: 5.42 min
End Time: 5.64 min

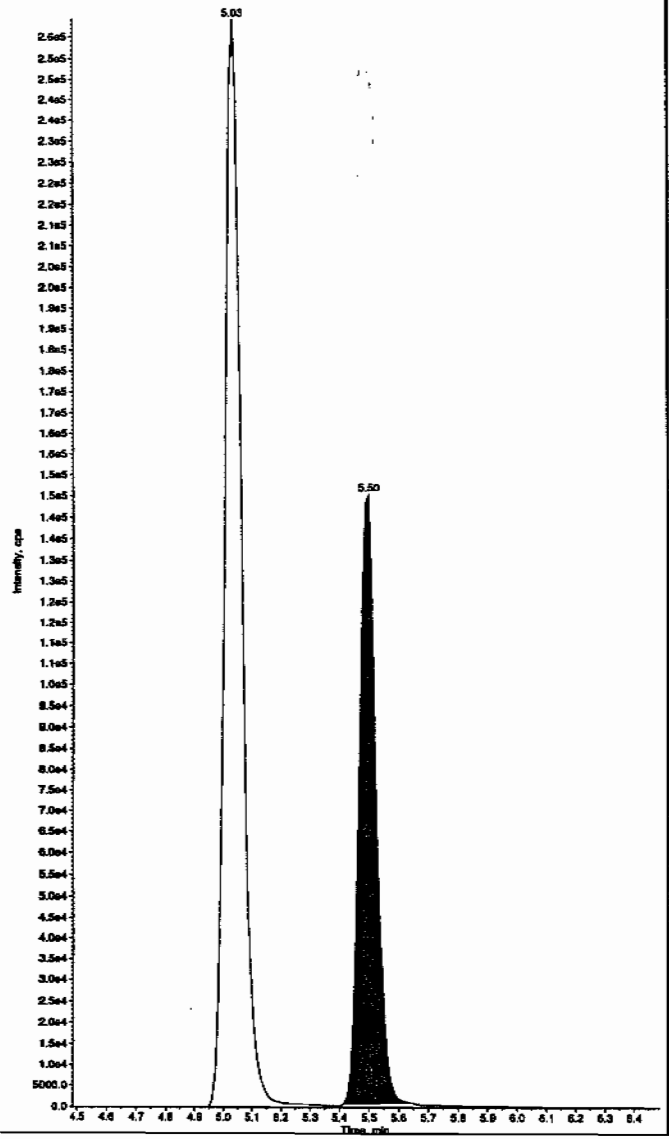

Sample Name: "WXX091223-21" Sample ID: "[1]LER" File: "EXS12230005.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 250. ng/mL
Calculated Conc: 245. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 3:51:20 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 7.09e+006 counts
Height: 1784641.357 cps
Start Time: 10.8 min
End Time: 11.2 min

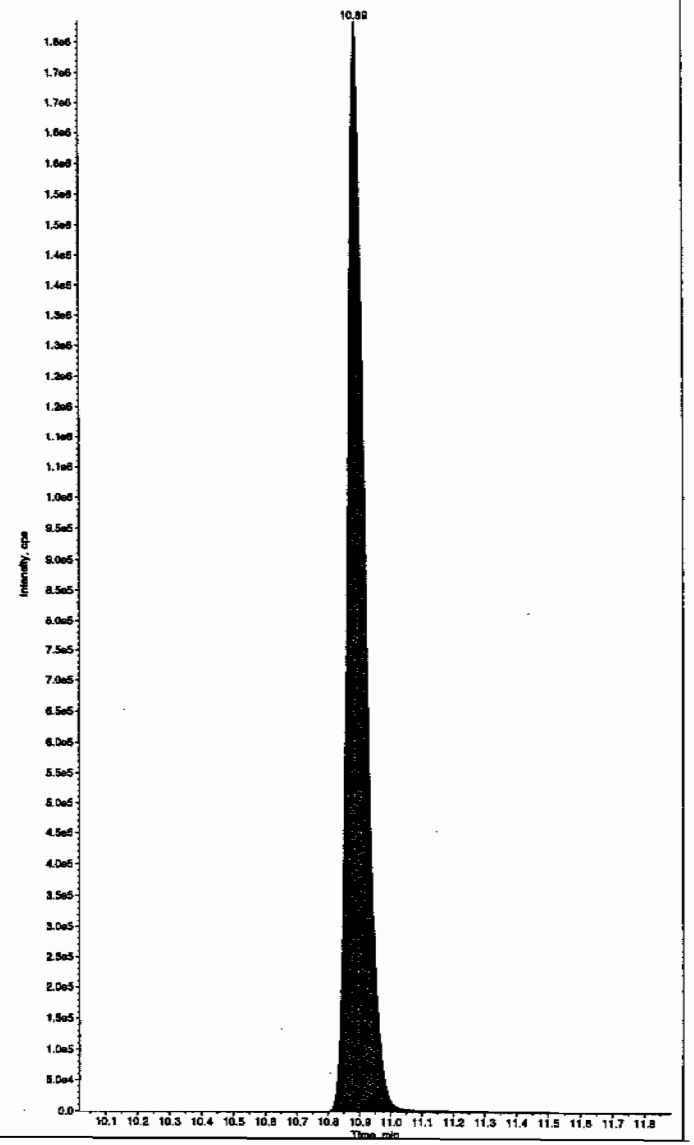

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - NO unauthorized reproduction without written permission from GEL.

LCM 12/29/09

Sample Name: "WXX091223-22" Sample ID: "[1]LER" File: "EXS12230006.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 500. ng/mL
Calculated Conc: 508. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:07:02 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.05e+006 counts
Height: 248076.431 cps
Start Time: 6.87 min
End Time: 7.53 min

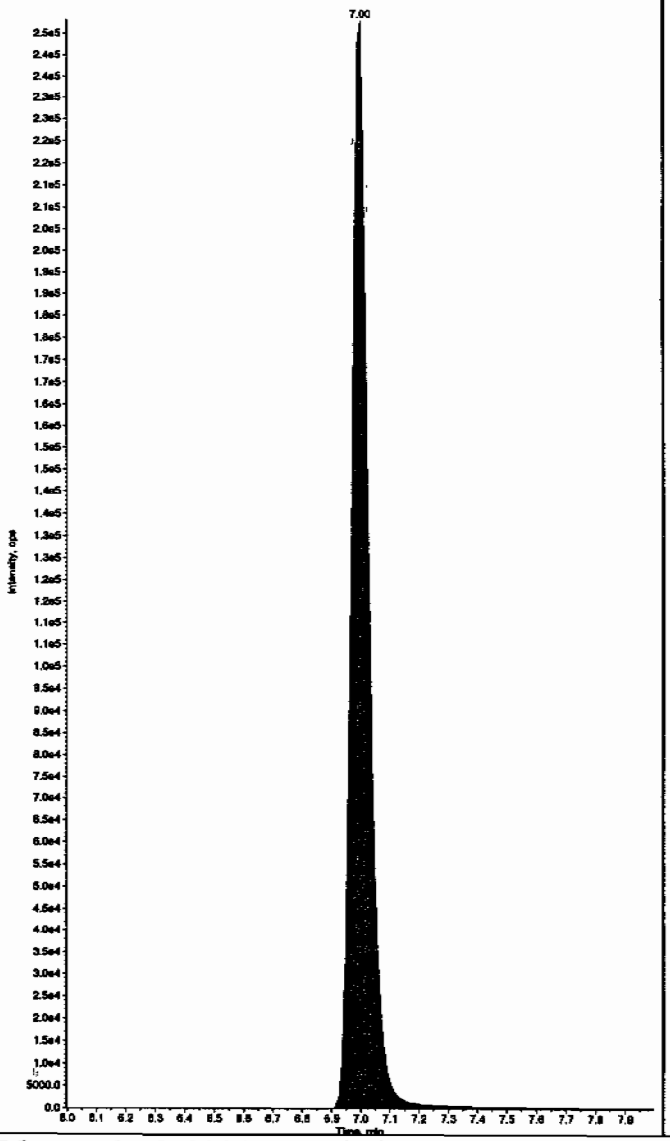

Sample Name: "WXX091223-22" Sample ID: "[1]LER" File: "EXS12230006.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 500. ng/mL
Calculated Conc: 511. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:07:02 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.22 min
Area: 6.60e+006 counts
Height: 1664104.858 cps
Start Time: 8.12 min
End Time: 8.33 min

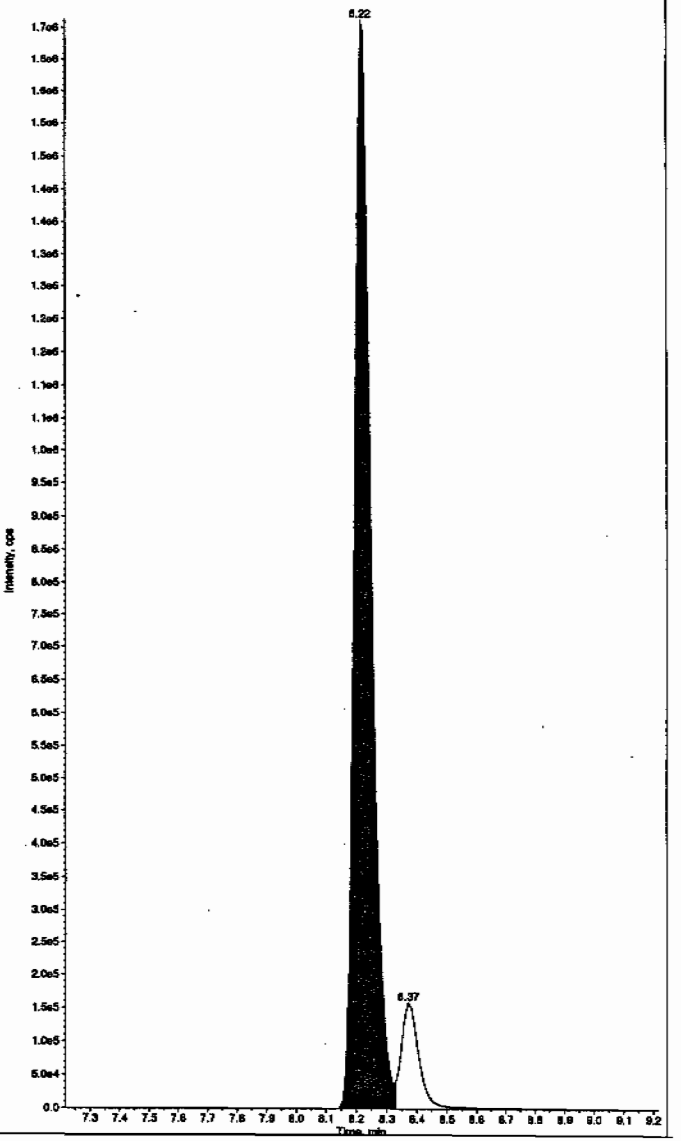

Hmm 12/29/09

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX091223-22" Sample ID: "|1|LER" File: "EXS12230006.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 250. ng/mL
Calculated Conc: 246. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:07:02 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 5.12e+006 counts
Height: 1382779.907 cps
Start Time: 8.30 min
End Time: 8.71 min

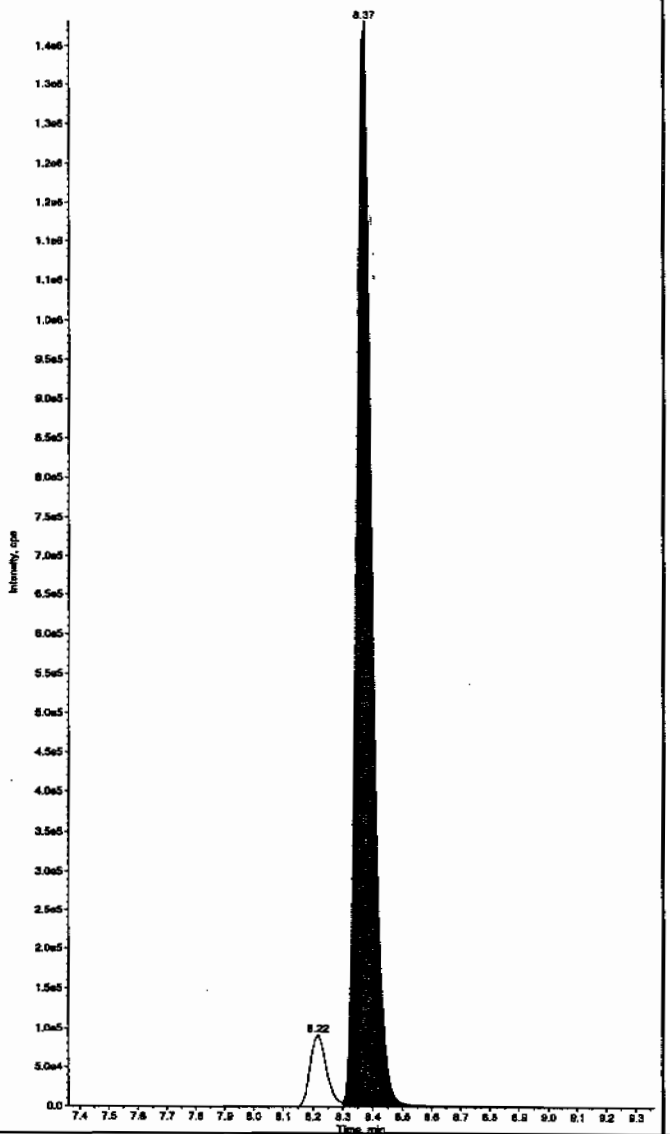

Sample Name: "WXX091223-22" Sample ID: "|1|LER" File: "EXS12230006.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 500. ng/mL
Calculated Conc: 482. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:07:02 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 1.80e+006 counts
Height: 414209.351 cps
Start Time: 4.92 min
End Time: 5.31 min

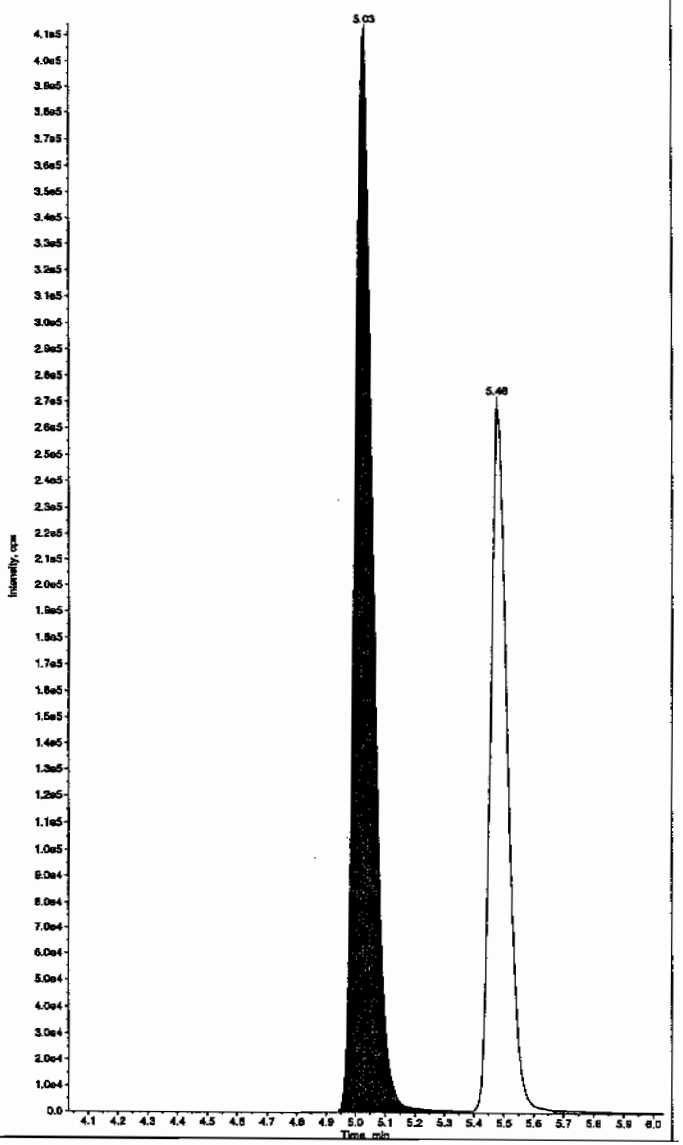

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX091223-22" Sample ID: "[1]LER" File: "EXS12230006.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 500. ng/mL
Calculated Conc: 482. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:07:02 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.49 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 1.08e+006 counts
Height: 272488.007 cps
Start Time: 5.37 min
End Time: 5.97 min

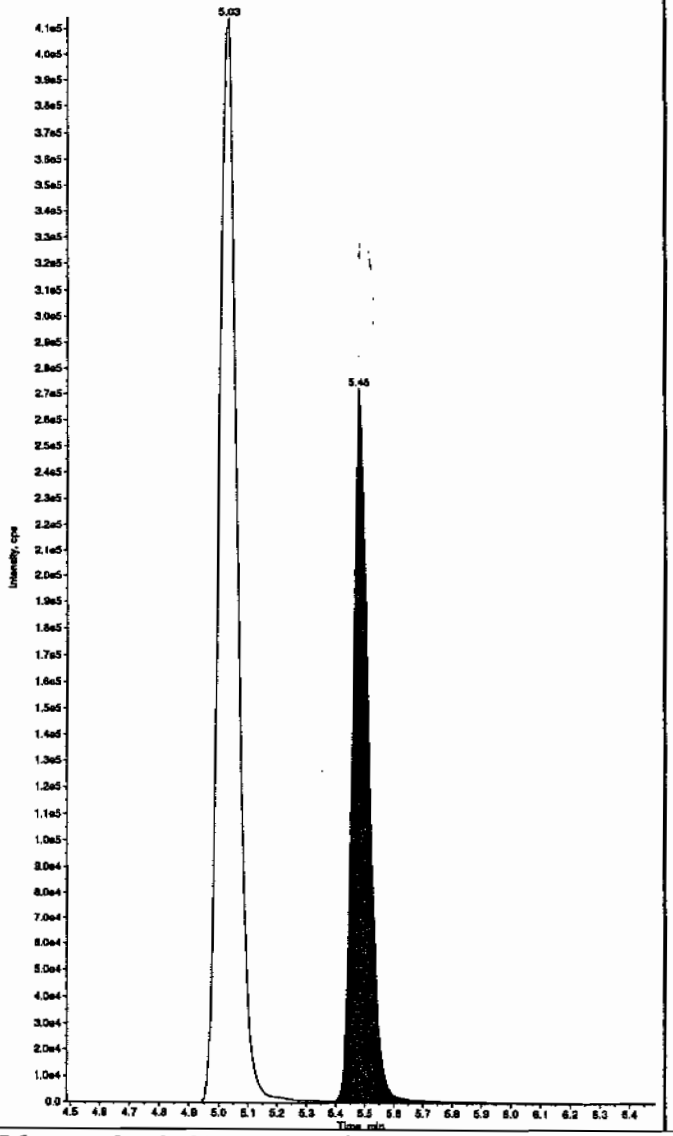

Sample Name: "WXX091223-22" Sample ID: "[1]LER" File: "EXS12230006.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 500. ng/mL
Calculated Conc: 502. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:07:02 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.36e+007 counts
Height: 3311008.057 cps
Start Time: 10.8 min
End Time: 11.2 min

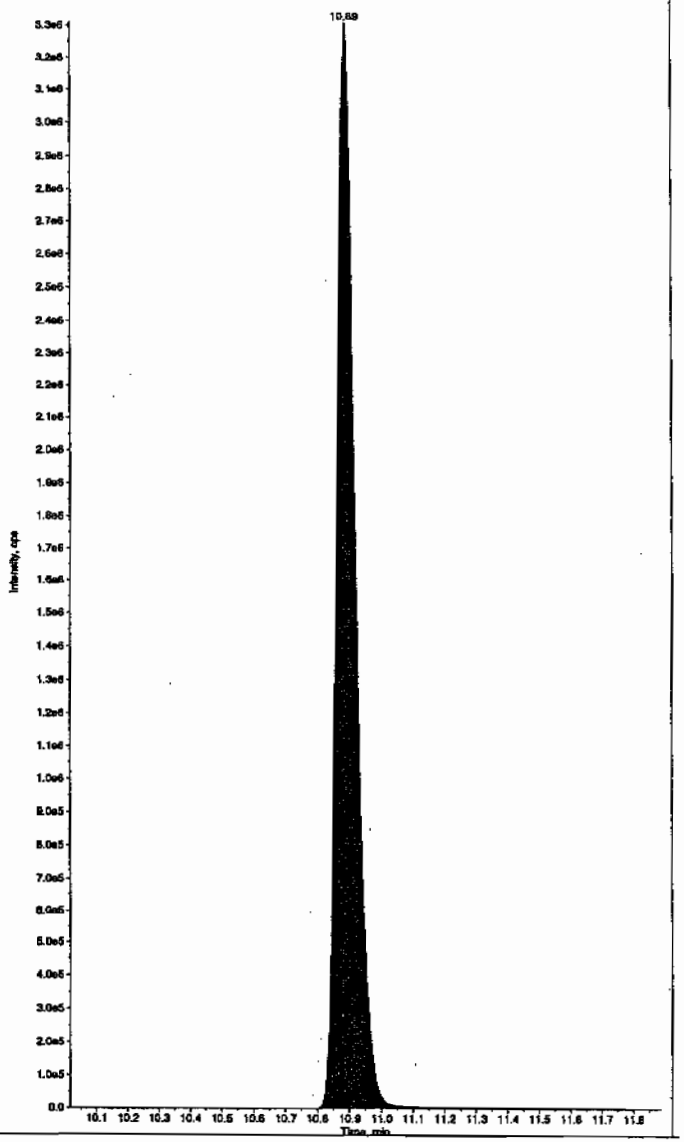

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sam 12/29/09

Sample Name: "WXX091223-23" Sample ID: "[1]LER" File: "EXS12230007.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 750. ng/mL
Calculated Conc: 774. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:22:44 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.01 min
Area: 1.58e+006 counts
Height: 370837.708 cps
Start Time: 6.89 min
End Time: 7.54 min

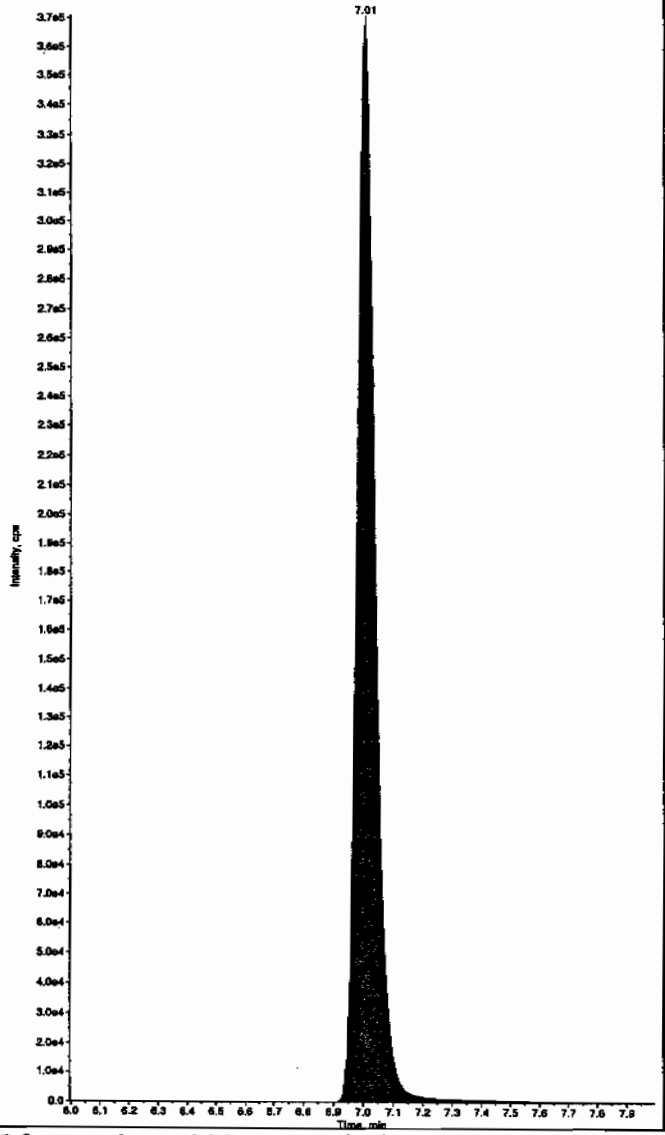

Sample Name: "WXX091223-23" Sample ID: "[1]LER" File: "EXS12230007.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 750. ng/mL
Calculated Conc: 768. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:22:44 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 9.38e+006 counts
Height: 2291657.715 cps
Start Time: 8.13 min
End Time: 8.33 min

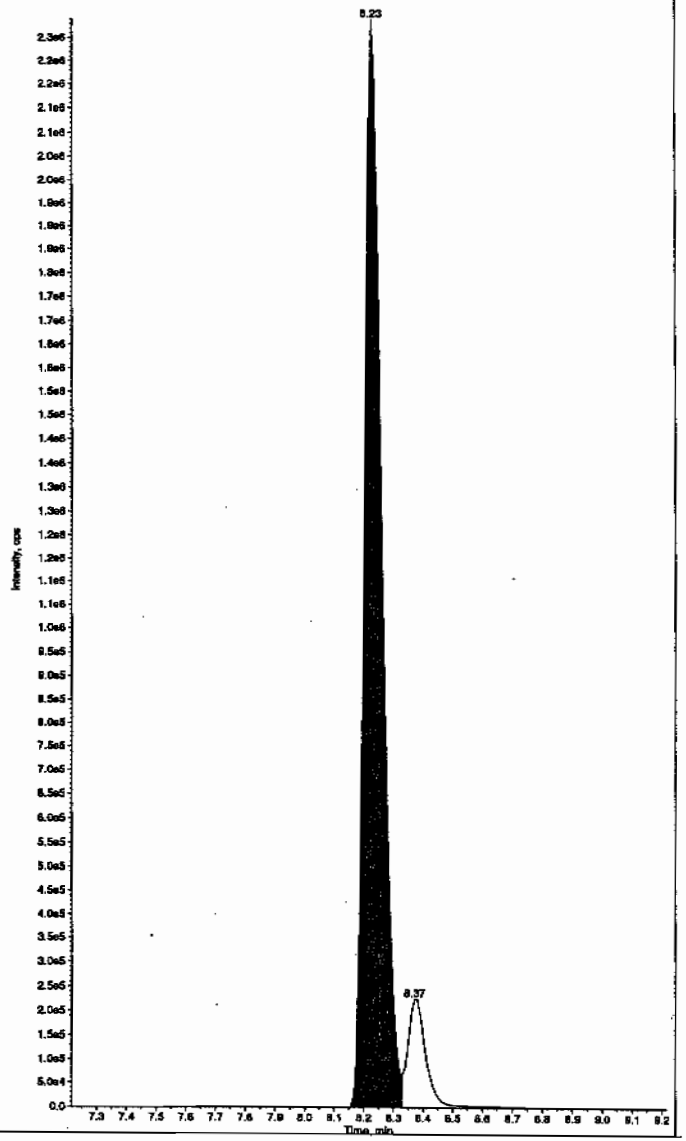

HNM 12/29/09

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX091223-23" Sample ID: "[1]LER" File: "EXS12230007.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 325. ng/mL
Calculated Conc: 372. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:22:44 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 7.50e+006 counts
Height: 1987671.753 cps
Start Time: 8.30 min
End Time: 8.70 min

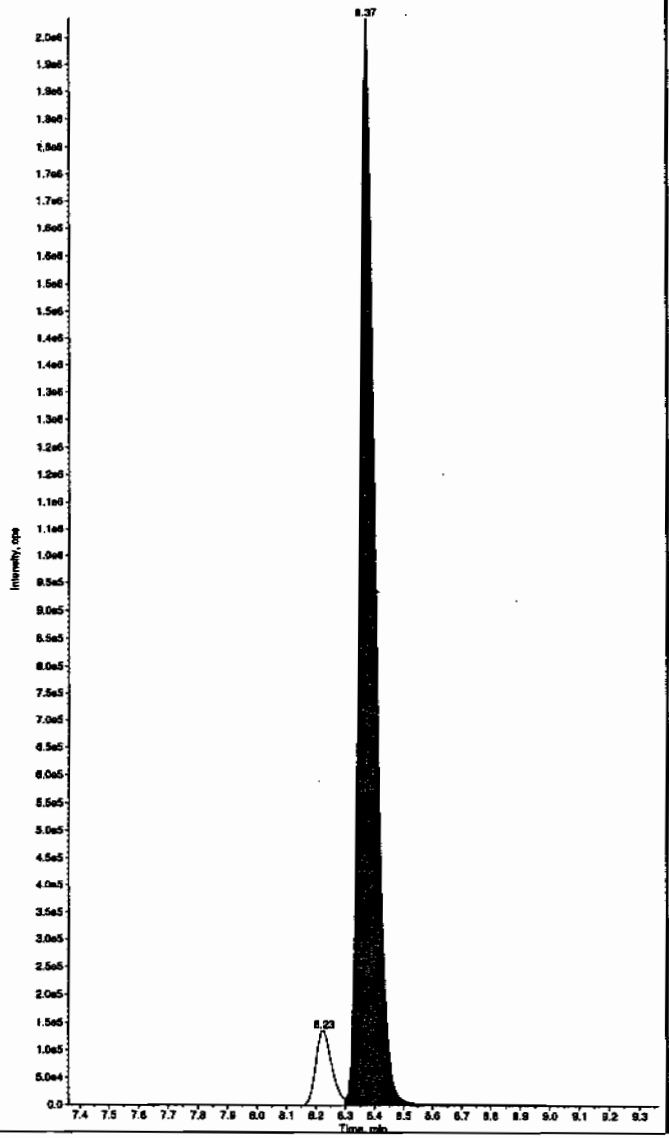

Sample Name: "WXX091223-23" Sample ID: "[1]LER" File: "EXS12230007.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 750. ng/mL
Calculated Conc: 779. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:22:44 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 2.82e+006 counts
Height: 665802.246 cps
Start Time: 4.93 min
End Time: 5.32 min

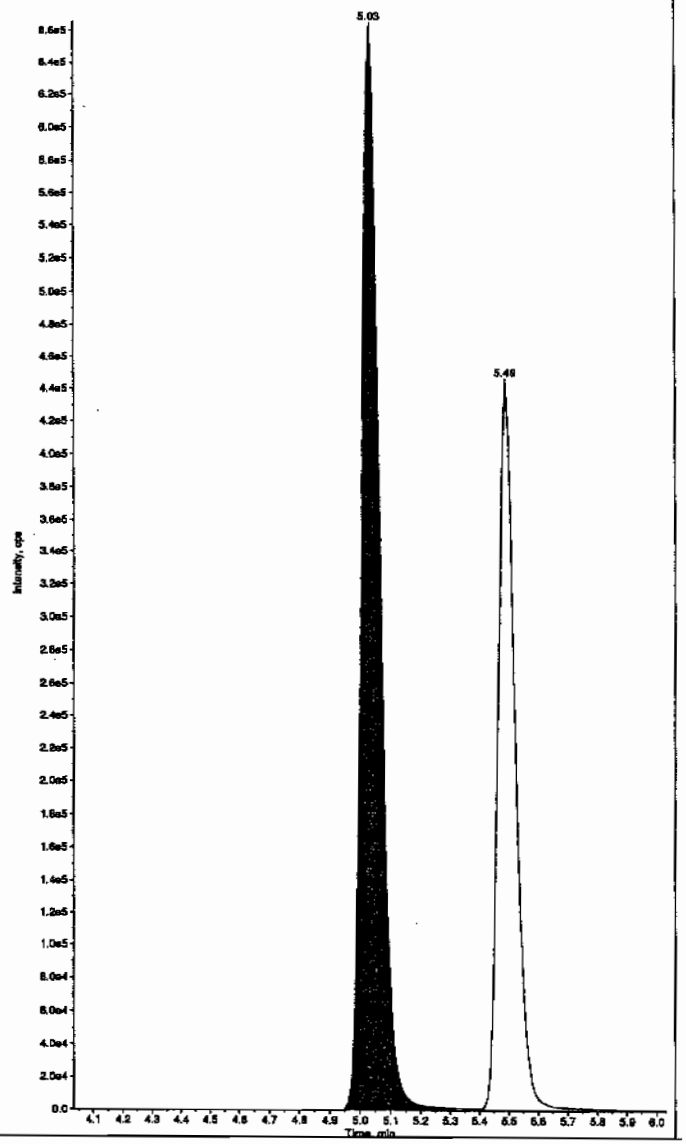

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX091223-23" Sample ID: "[1]LER" File: "EXS12230007.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 750. ng/mL
Calculated Conc: 810. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:22:44 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.49 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.49 min
Area: 1.77e+006 counts
Height: 446520.782 cps
Start Time: 5.39 min
End Time: 5.85 min

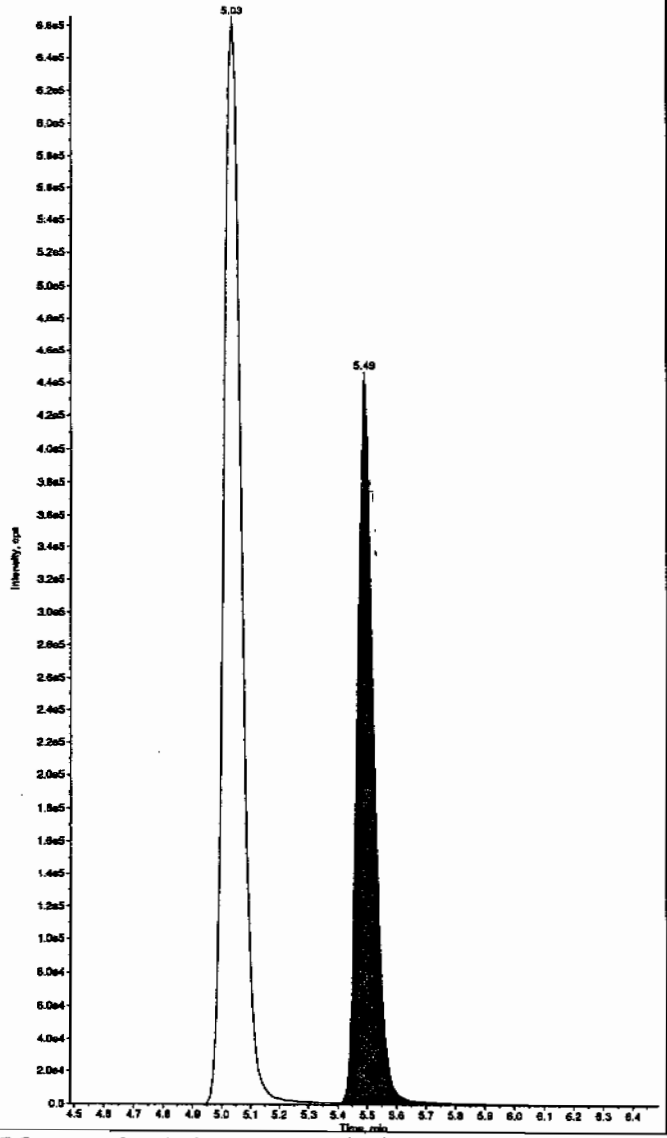

Sample Name: "WXX091223-23" Sample ID: "[1]LER" File: "EXS12230007.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 750. ng/mL
Calculated Conc: 767. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:22:44 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.94e+007 counts
Height: 4433900.879 cps
Start Time: 10.8 min
End Time: 11.2 min

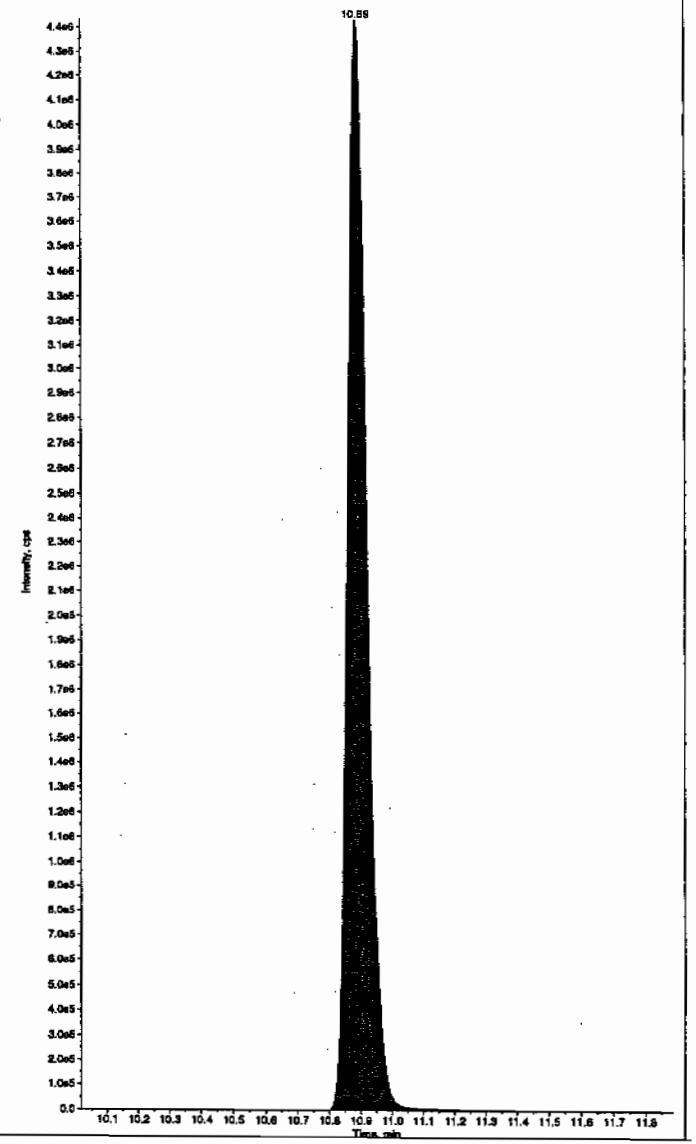

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Before Lab 12/29/09

Sample Name: "WXX091223-24" Sample ID: "[1]LER" File: "EXS12230008.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_|" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 1000. ng/mL
Calculated Conc: 972. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:38:25 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.98e+006 counts
Height: 468045.013 cps
Start Time: 6.87 min
End Time: 7.40 min

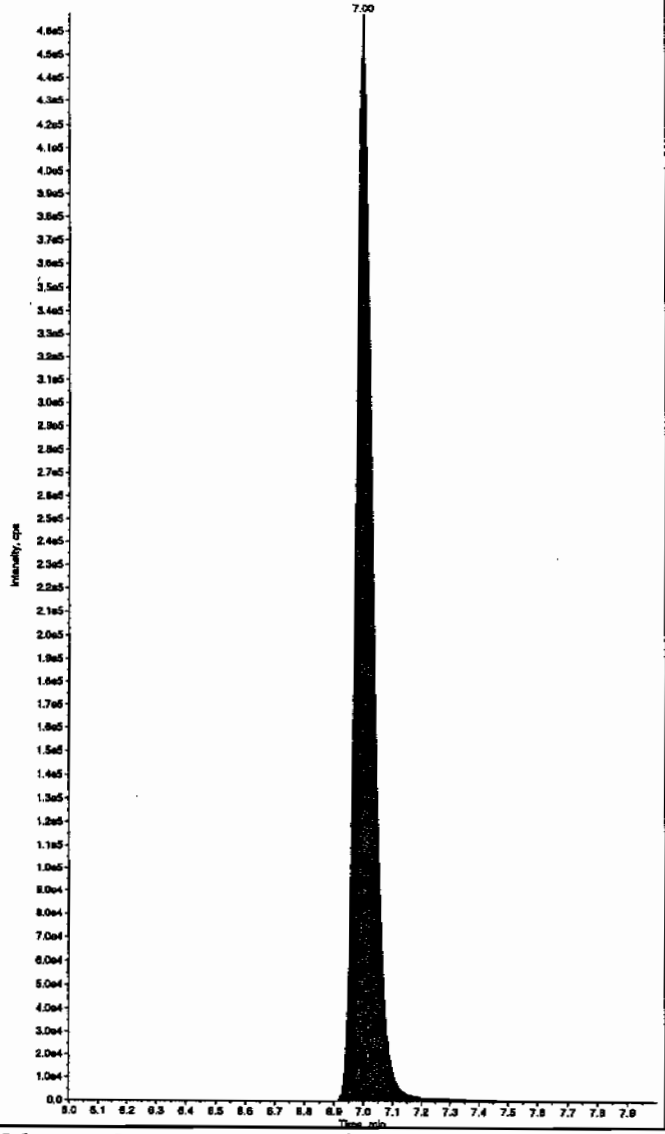

Sample Name: "WXX091223-24" Sample ID: "[1]LER" File: "EXS12230008.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_|" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 1000. ng/mL
Calculated Conc: 955. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:38:25 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 1.10e+007 counts
Height: 2702817.627 cps
Start Time: 8.14 min
End Time: 8.33 min

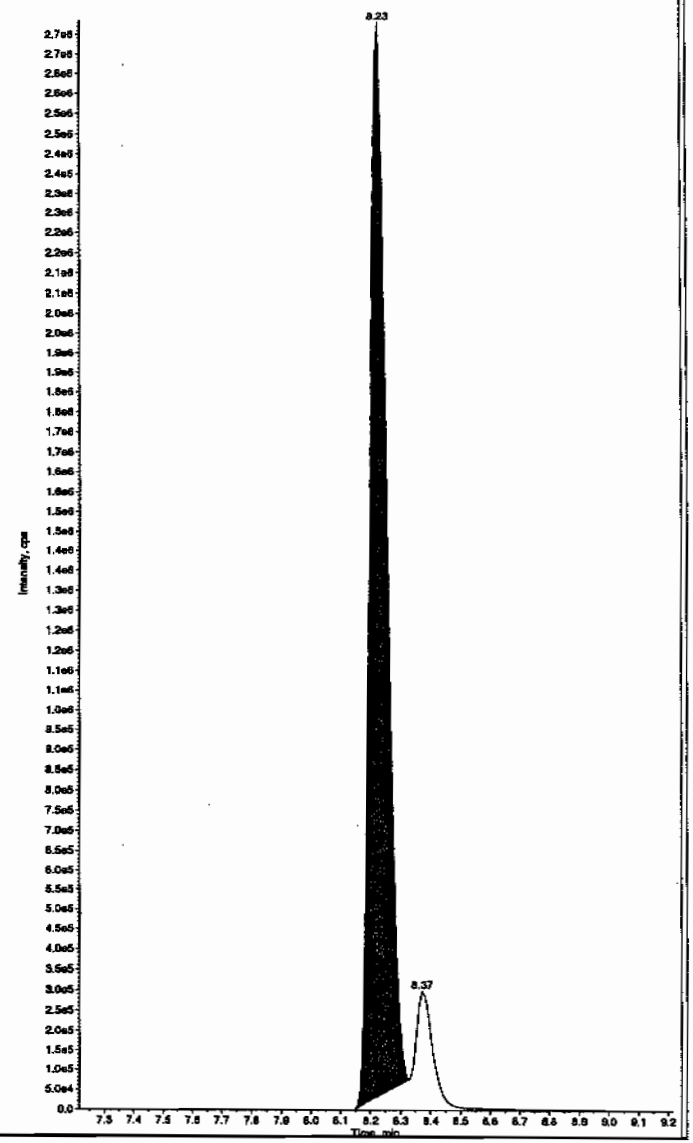

Hmm 12/29/09

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

after Lar 12/29/09

Sample Name: "WXX091223-24" Sample ID: "[1]LER" File: "EXS12230008.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 1000. ng/mL
Calculated Conc: 972. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:38:25 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.98e+006 counts
Height: 468045.013 cps
Start Time: 6.87 min
End Time: 7.40 min

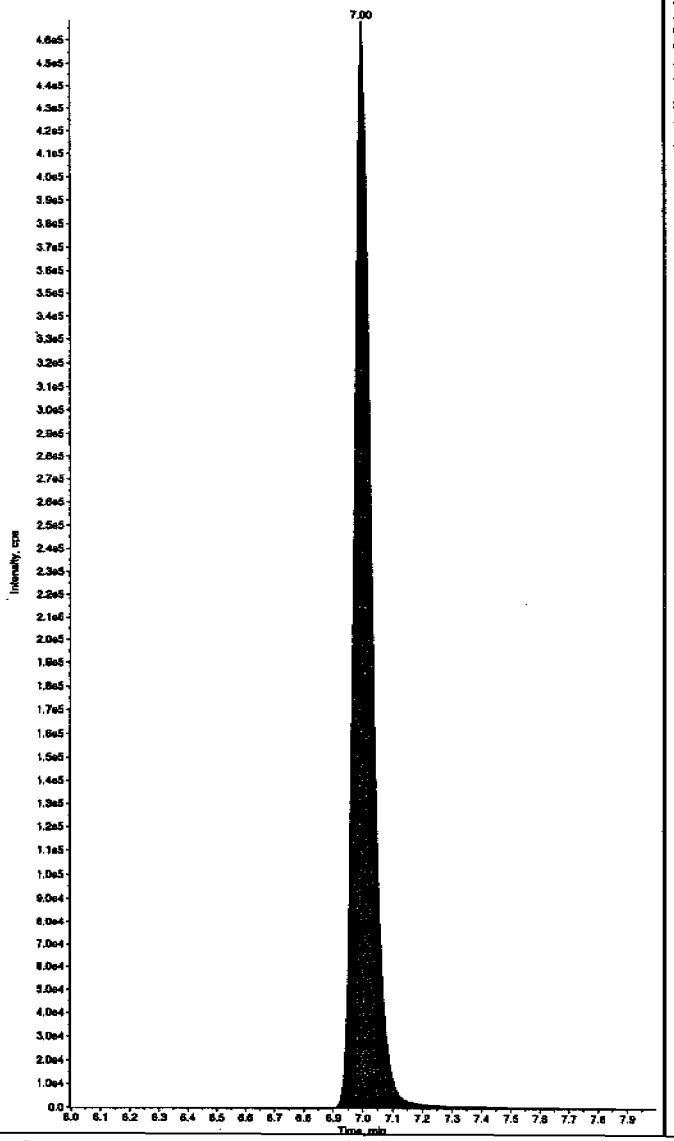

Sample Name: "WXX091223-24" Sample ID: "[1]LER" File: "EXS12230008.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 1000. ng/mL
Calculated Conc: 972. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:38:25 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.22 min
Area: 1.14e+007 counts
Height: 2741161.275 cps
Start Time: 8.15 min
End Time: 8.33 min

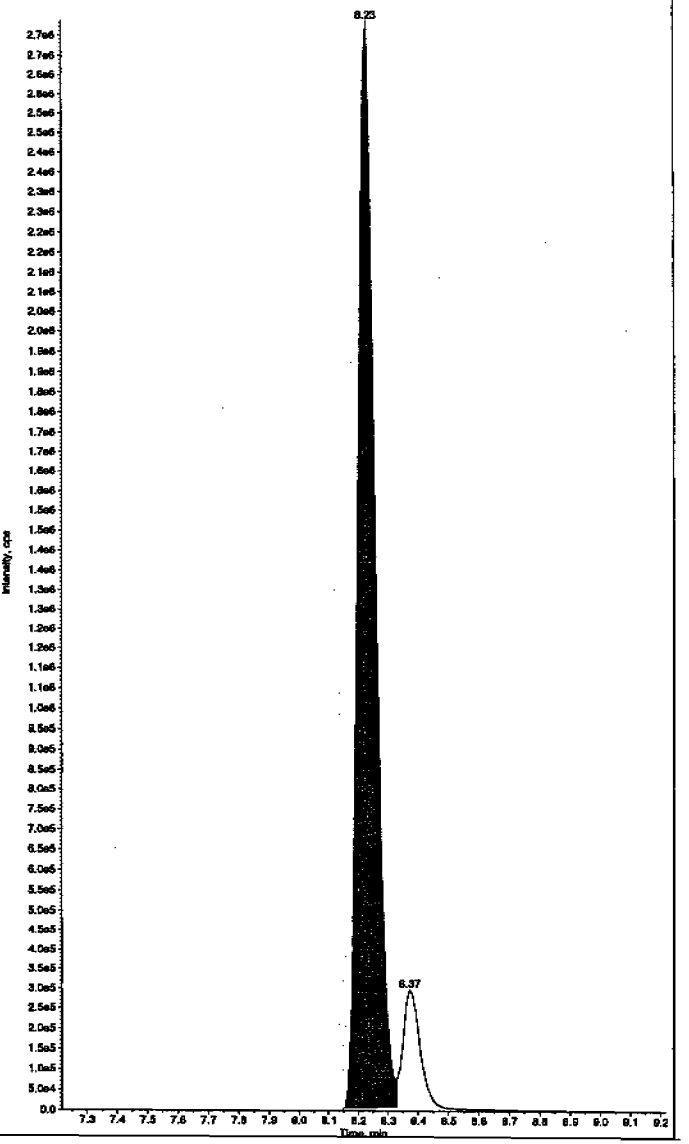

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX091223-24" Sample ID: "|1|LER" File: "EXS12230008.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 500. ng/mL
Calculated Conc: 464. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:38:25 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 9.09e+006 counts
Height: 2354496.826 cps
Start Time: 8.30 min
End Time: 8.71 min

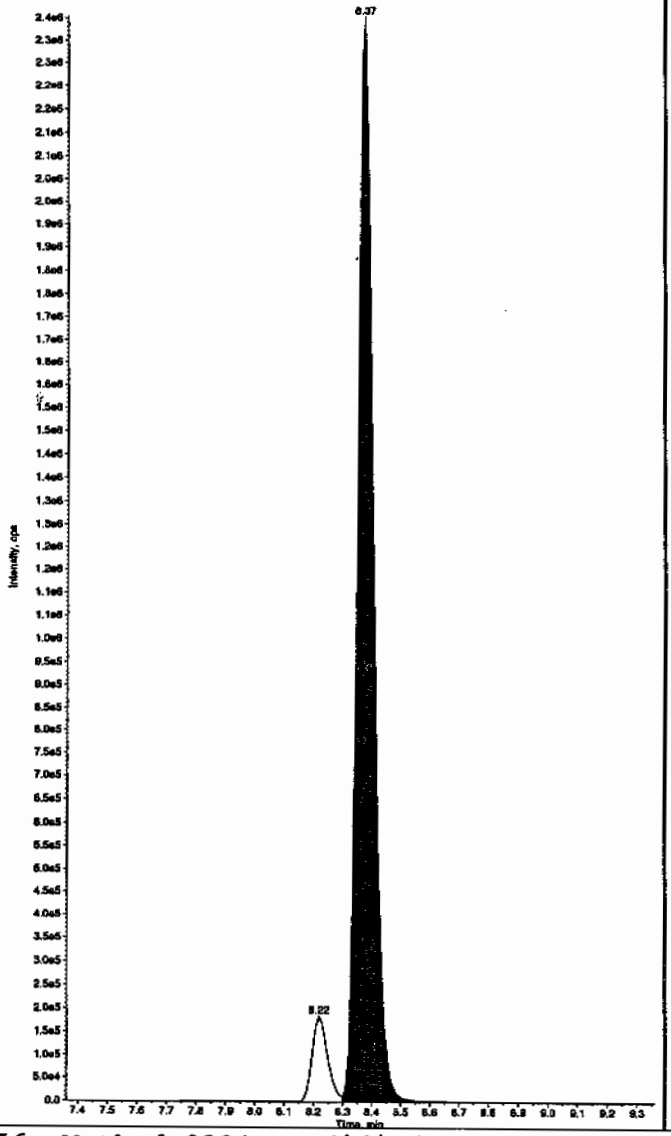

Sample Name: "WXX091223-24" Sample ID: "|1|LER" File: "EXS12230008.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 1000. ng/mL
Calculated Conc: 978. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:38:25 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 3.46e+006 counts
Height: 848623.047 cps
Start Time: 4.93 min
End Time: 5.32 min

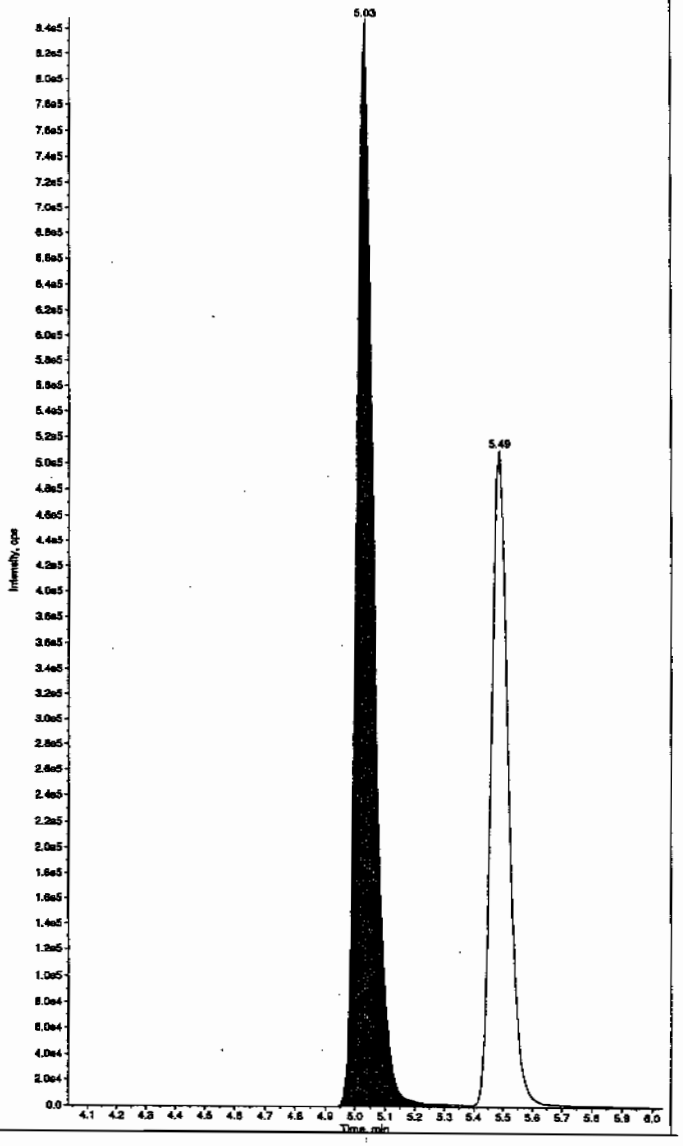

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX091223-24" Sample ID: "[1]LER" File: "EXS12230006.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 1000. ng/mL
Calculated Conc: 955. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:38:25 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.49 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.49 min
Area: 2.06e+006 counts
Height: 509691.589 cps
Start Time: 5.41 min
End Time: 5.80 min

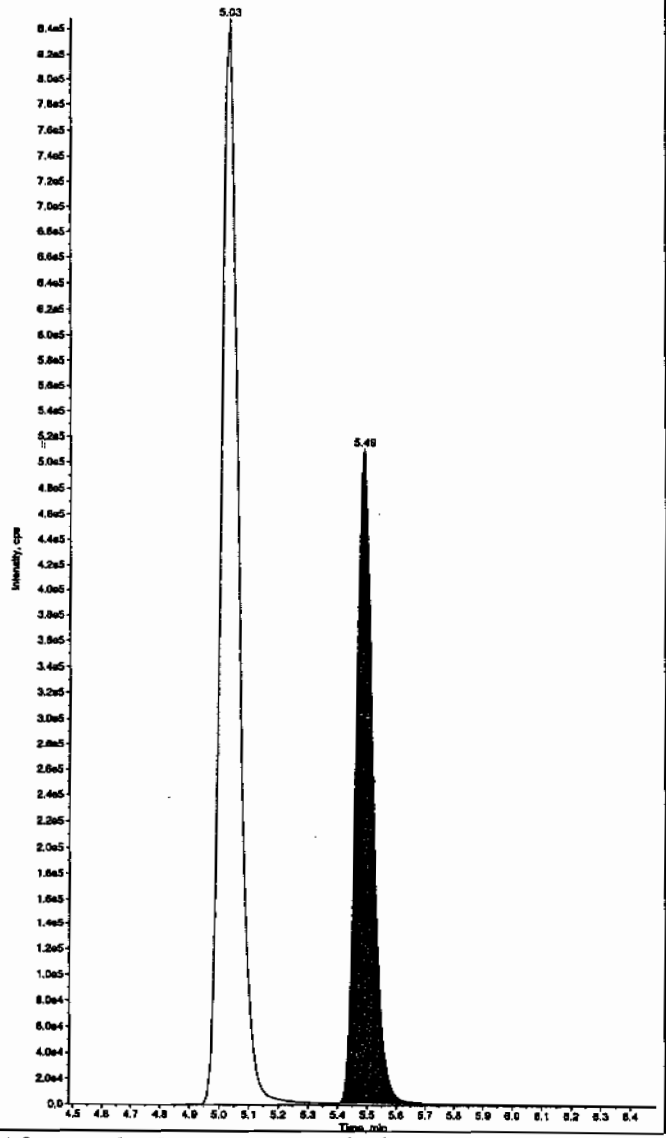

Sample Name: "WXX091223-24" Sample ID: "[1]LER" File: "EXS12230006.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 1000. ng/mL
Calculated Conc: 982. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:38:25 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 2.34e+007 counts
Height: 5225891.113 cps
Start Time: 10.8 min
End Time: 11.2 min

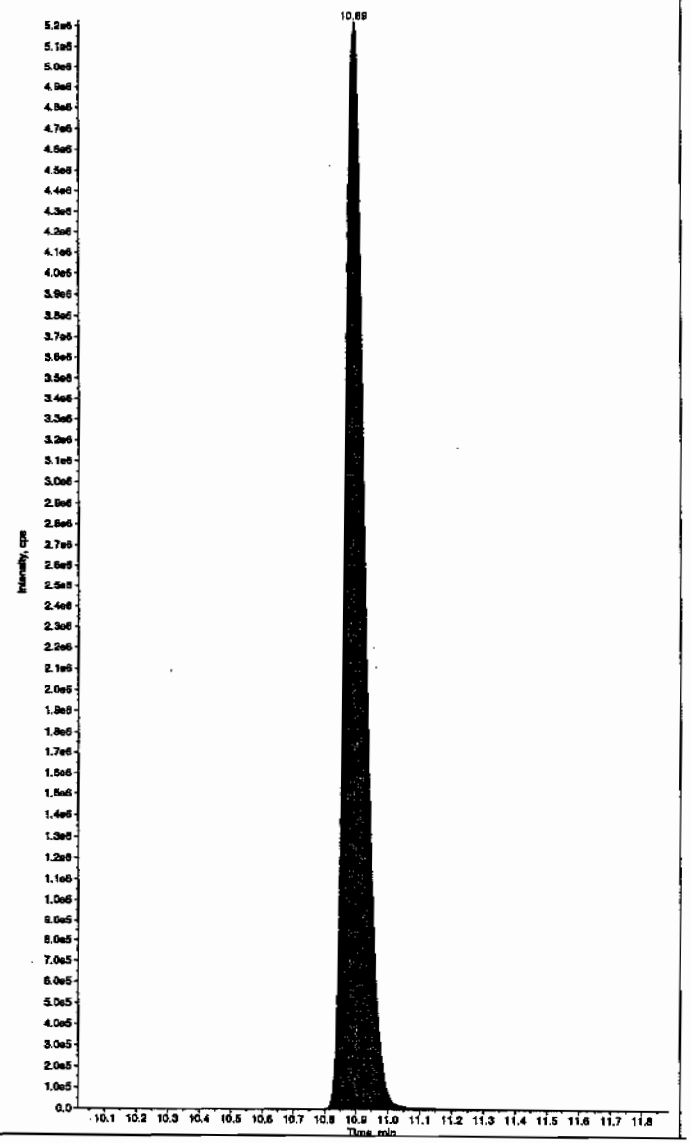

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Byone Lan 12/29/09

Sample Name: "WXX091223-25" Sample ID: "[1]LER" File: "EXS12230009.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 2000. ng/mL
Calculated Conc: 2000. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:54:07 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.99 min
Area: 3.98e+006 counts
Height: 926191.284 cps
Start Time: 6.87 min
End Time: 7.46 min

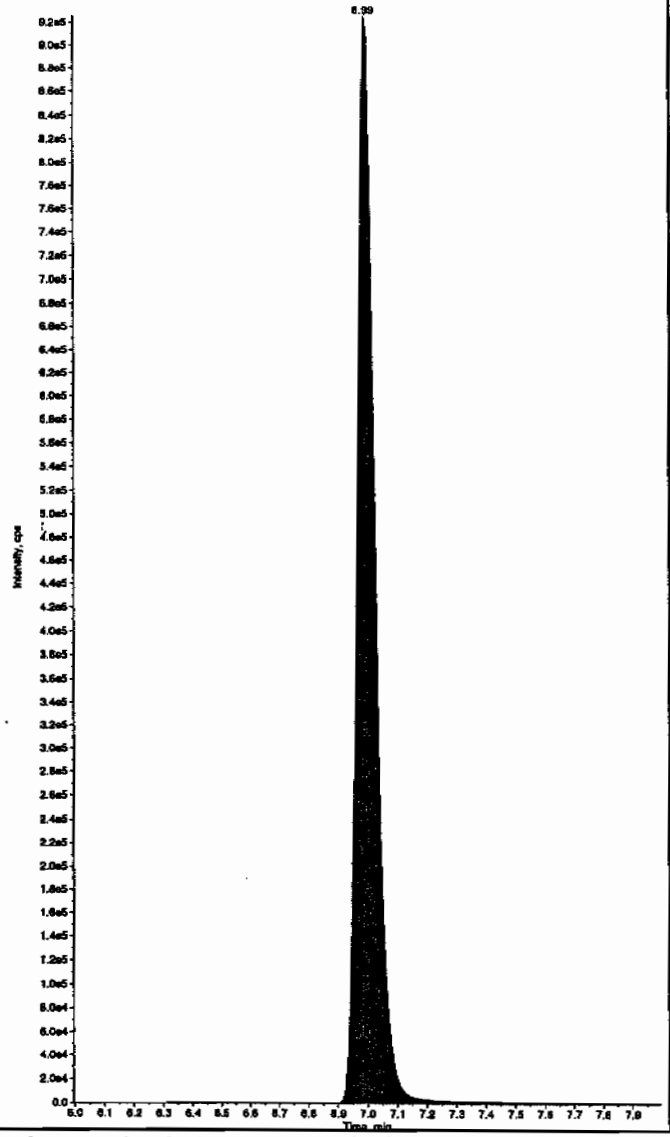

Sample Name: "WXX091223-25" Sample ID: "[1]LER" File: "EXS12230009.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 2000. ng/mL
Calculated Conc: 2010. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:54:07 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.20 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.22 min
Area: 1.75e+007 counts
Height: 4128188.477 cps
Start Time: 8.14 min
End Time: 8.32 min

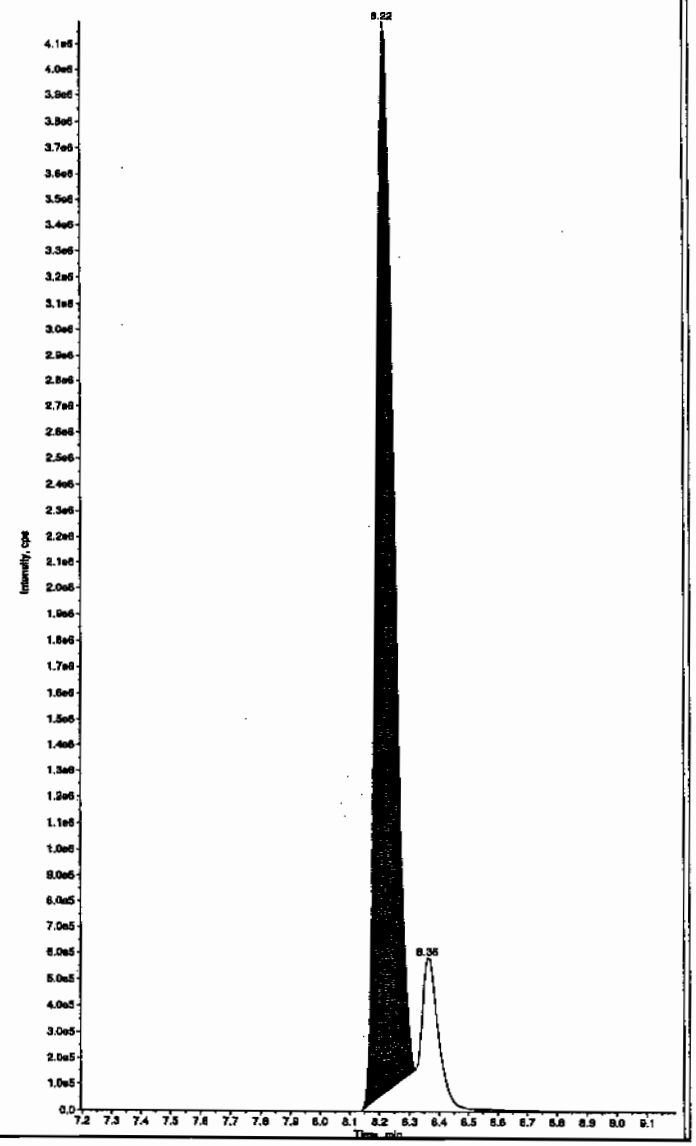

Hmm 12/29/09

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

after Dan 12/29/09

Sample Name: "WXX091223-25" Sample ID: "|1|LER" File: "EXS12230009.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 2000. ng/mL
Calculated Conc: 2000. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:54:07 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.99 min
Area: 3.98e+006 counts
Height: 926191.284 cps
Start Time: 6.87 min
End Time: 7.46 min

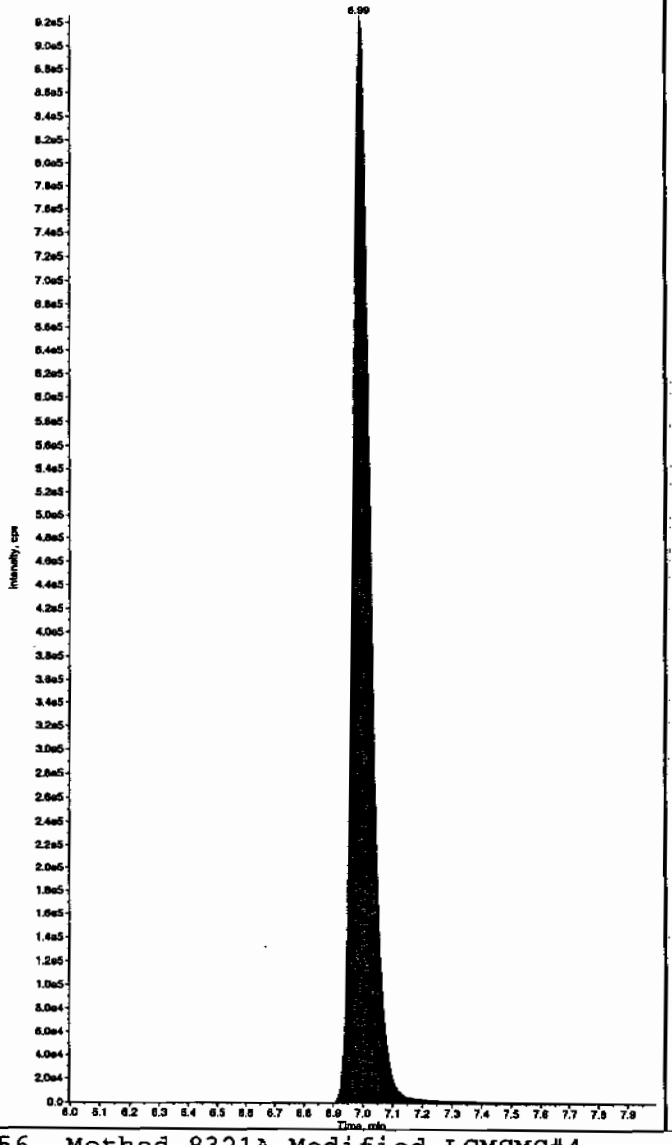

Sample Name: "WXX091223-25" Sample ID: "|1|LER" File: "EXS12230009.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 2000. ng/mL
Calculated Conc: 2010. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:54:07 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.20 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.22 min
Area: 1.82e+007 counts
Height: 4216762.557 cps
Start Time: 8.14 min
End Time: 8.32 min

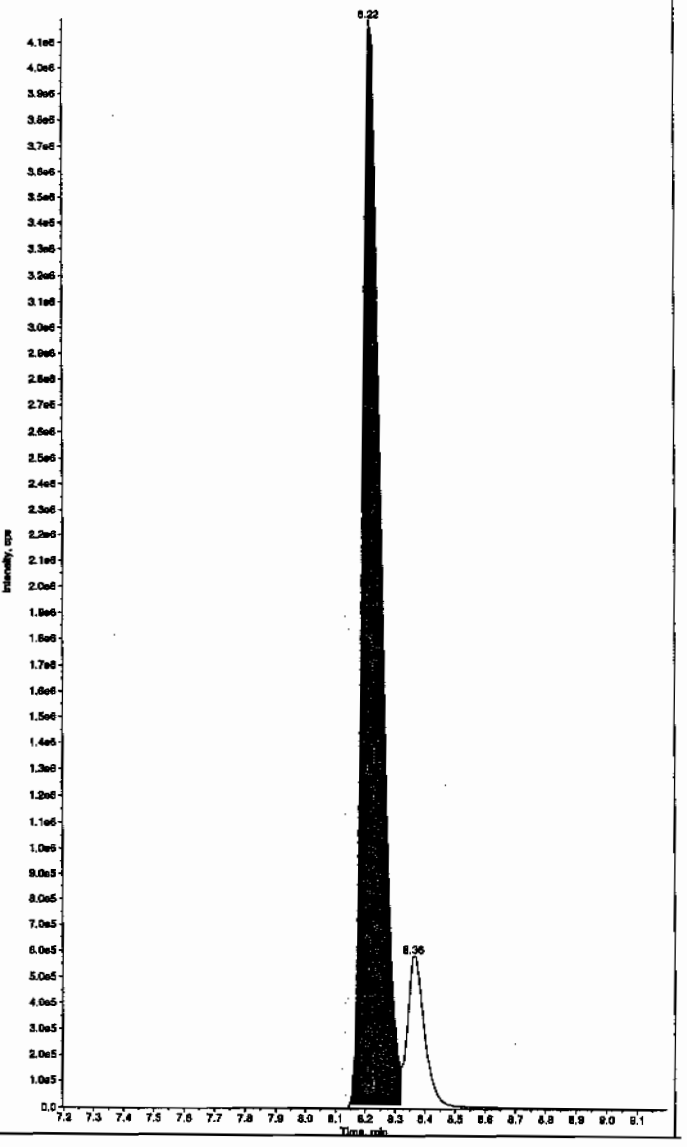

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX091223-25" Sample ID: "[1]LER" File: "EXS12230009.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 1000. ng/mL
Calculated Conc: 1010. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:54:07 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 1.65e+007 counts
Height: 4190895.020 cps
Start Time: 8.29 min
End Time: 8.70 min

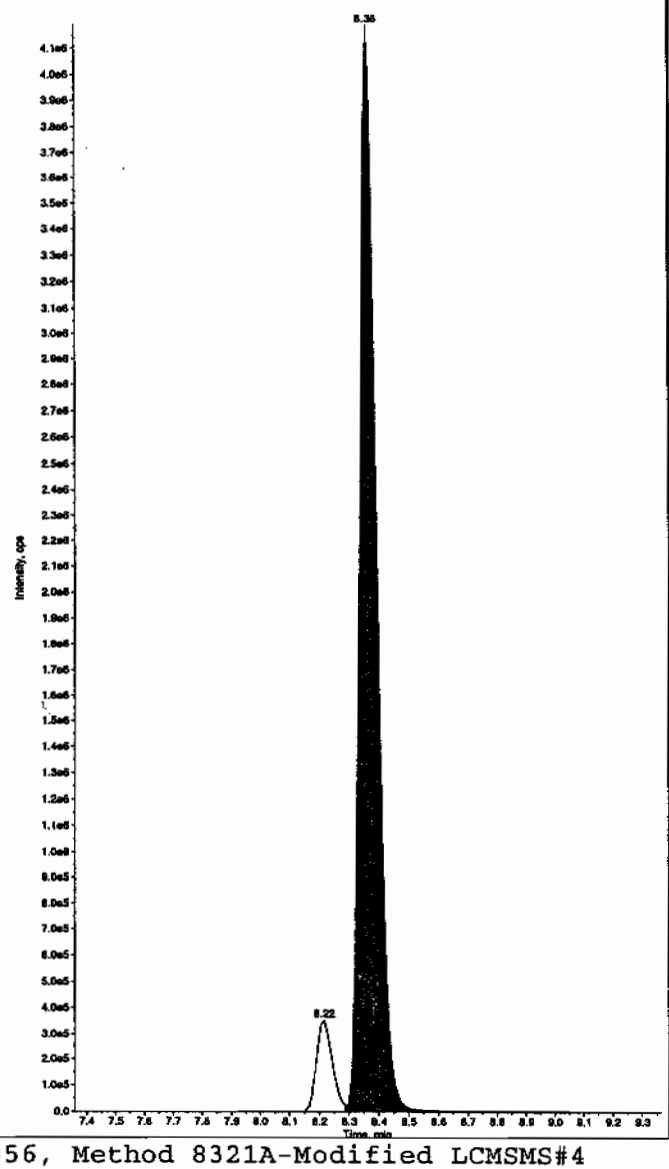

Sample Name: "WXX091223-25" Sample ID: "[1]LER" File: "EXS12230009.wiff"
Peak Name: "2,6-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 2000. ng/mL
Calculated Conc: 2000. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:54:07 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.02 min
Area: 6.38e+006 counts
Height: 1583635.986 cps
Start Time: 4.91 min
End Time: 5.32 min

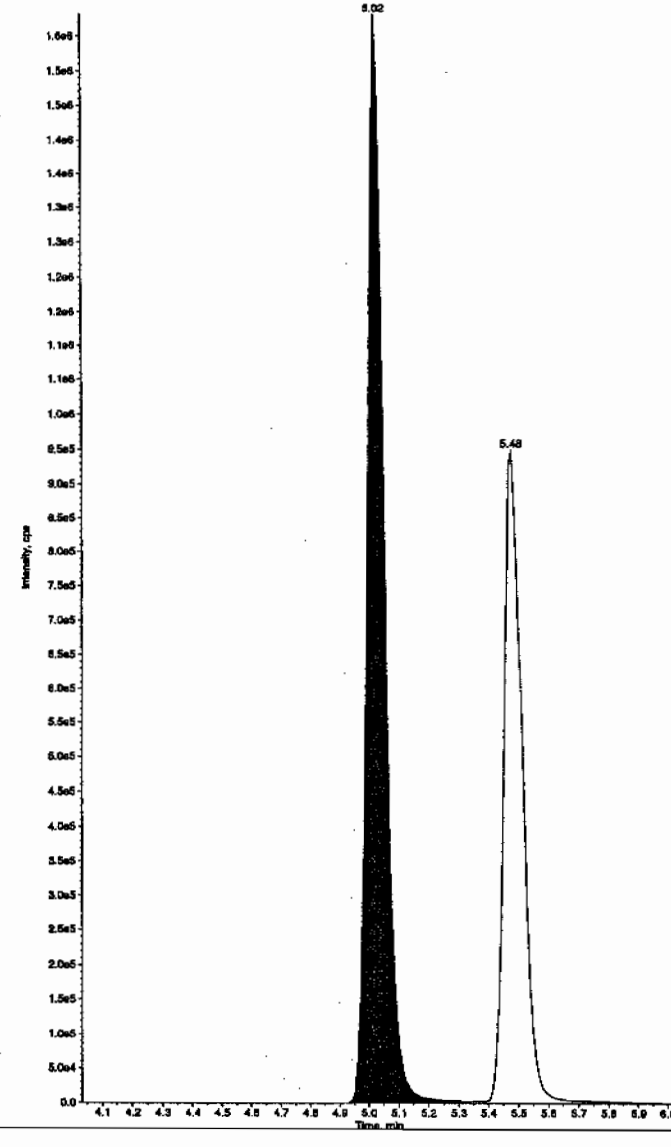

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX091223-25" Sample ID: "j1|LER" File: "EXS12230009.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 2000. ng/mL
Calculated Conc: 2000. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:54:07 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.49 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.48 min
Area: 4.01e+006 counts
Height: 949859.253 cps
Start Time: 5.37 min
End Time: 6.06 min

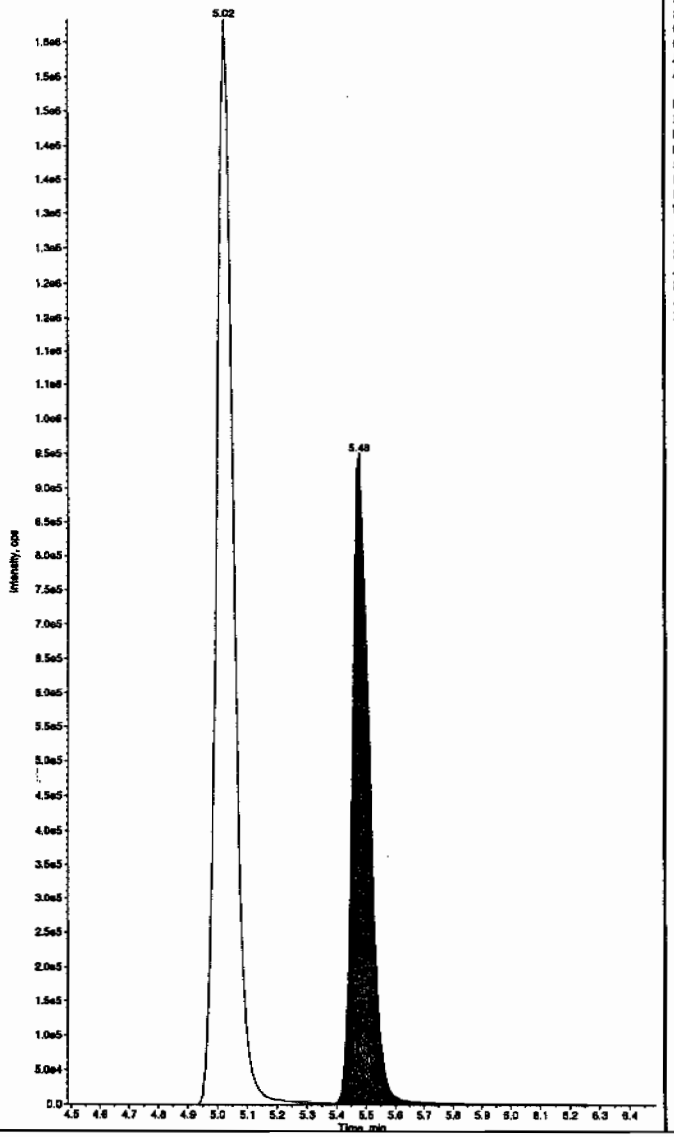

Sample Name: "WXX091223-25" Sample ID: "j1|LER" File: "EXS12230009.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 2000. ng/mL
Calculated Conc: 2010. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 4:54:07 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 3.43e+007 counts
Height: 5919031.250 cps
Start Time: 10.8 min
End Time: 11.2 min

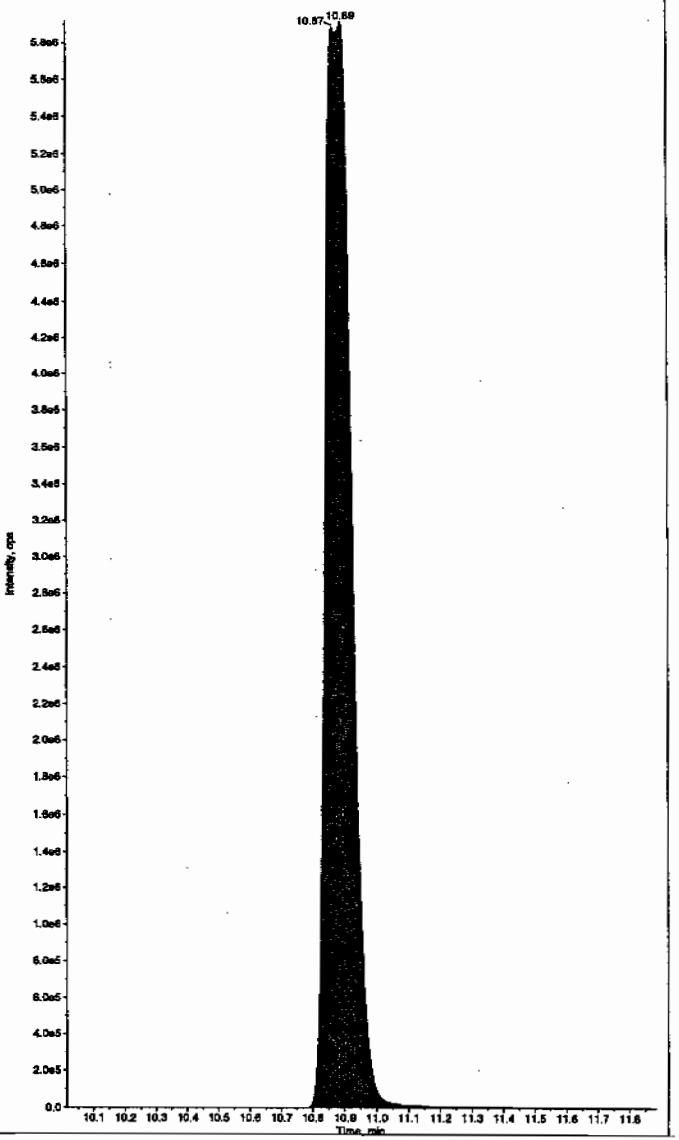

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-952

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS12230011.wiff

Analysis Date: 23-DEC-09 17:25

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	500	515	103	
2,6-Diamino-4-nitrotoluene	500	444	89	
3,4-Dinitrotoluene	250	245	98	
3,5-Dinitroaniline	500	502	100	
TATB	500	514	103	
tris(o-cresyl) phosphate	500	500	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Sample Name: "WXX091223-26ICV" Sample ID: "[1]LER" File: "EXS12230011.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 514. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 5:25:30 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.00 min
Area: 1.06e+006 counts
Height: 253044.510 cps
Start Time: 6.84 min
End Time: 7.41 min

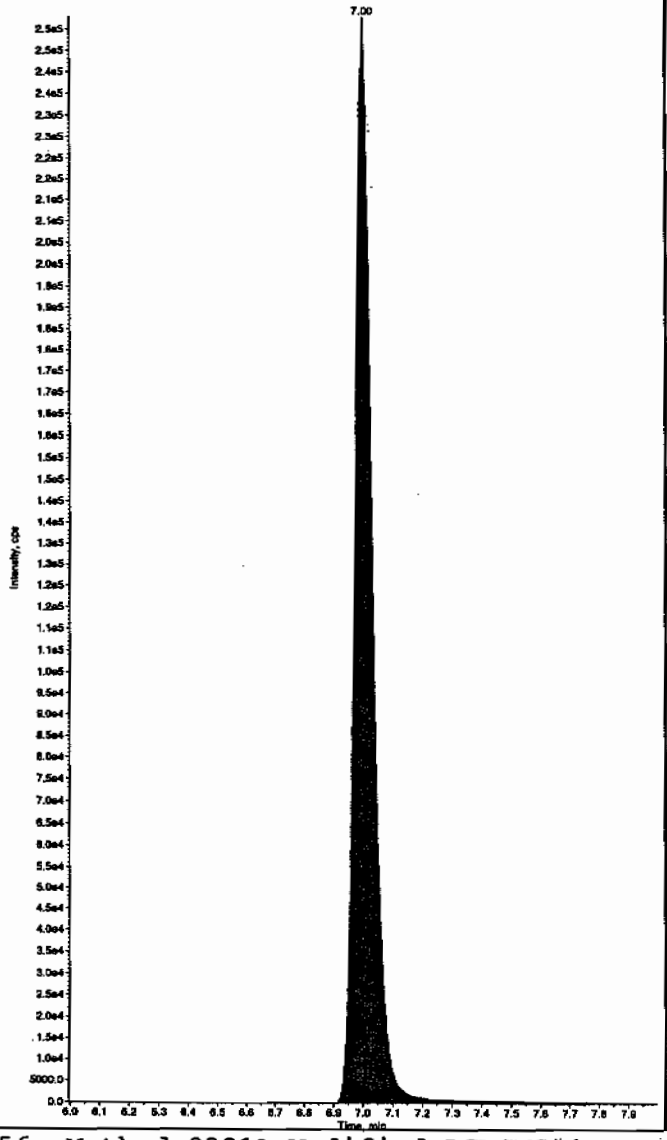

Sample Name: "WXX091223-26ICV" Sample ID: "[1]LER" File: "EXS12230011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 502. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 5:25:30 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.22 min
Area: 6.49e+006 counts
Height: 1668556.396 cps
Start Time: 8.12 min
End Time: 8.32 min

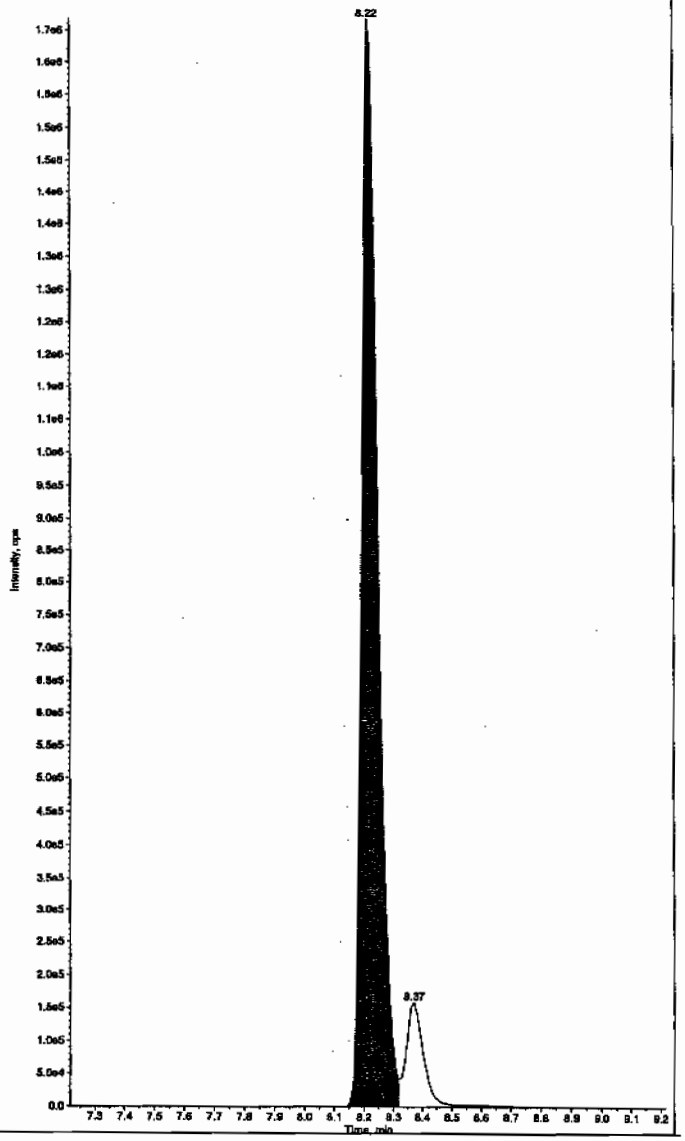

Han 12/29/09

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX091223-26ICV" Sample ID: "[1]LER" File: "EXS12230011.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 245. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 5:25:30 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.36 min
Area: 5.11e+006 counts
Height: 1351237.061 cps
Start Time: 8.29 min
End Time: 8.67 min

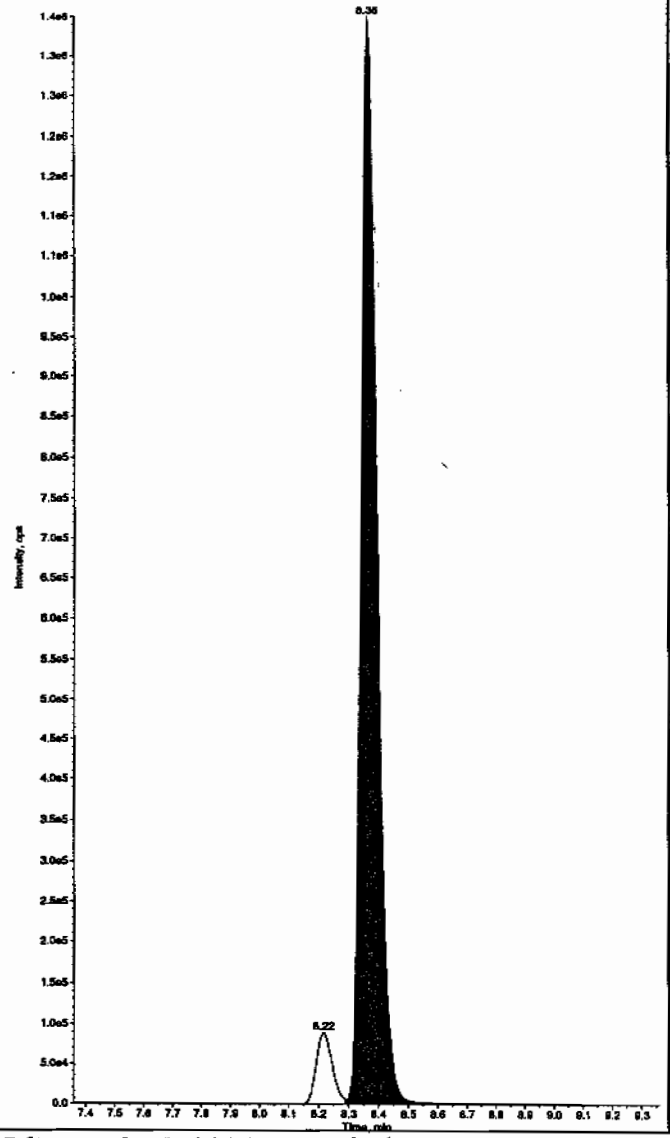

Sample Name: "WXX091223-26ICV" Sample ID: "[1]LER" File: "EXS12230011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 444. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 5:25:30 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 1.67e+006 counts
Height: 425343.842 cps
Start Time: 4.93 min
End Time: 5.32 min

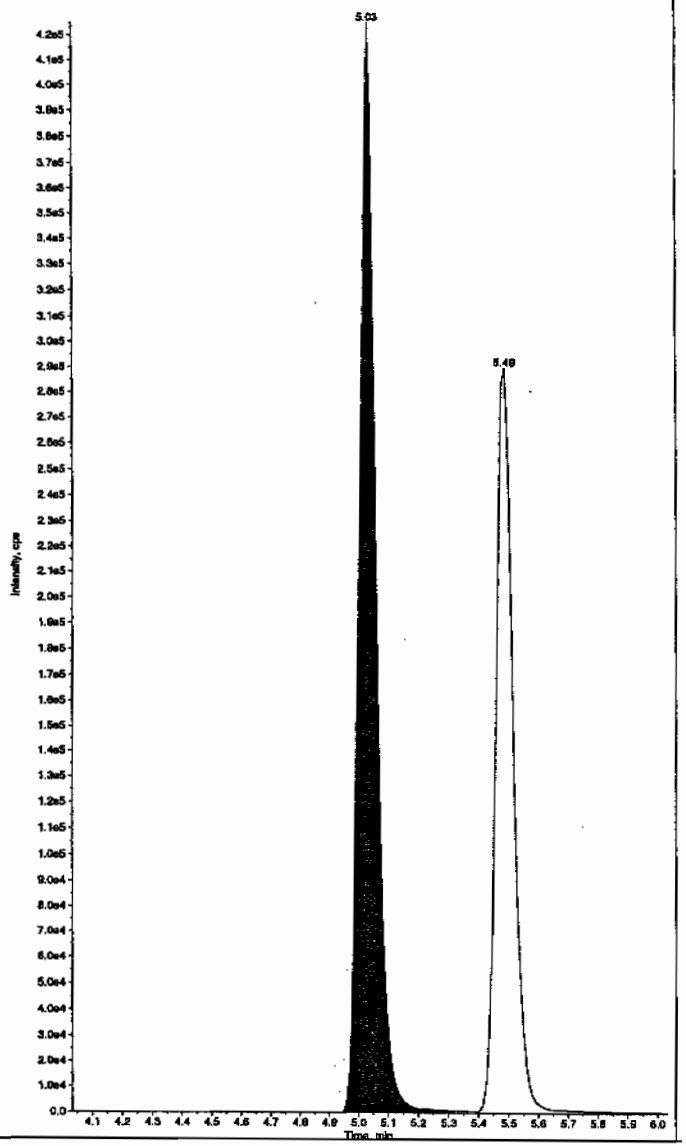

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX091223-26ICV" Sample ID: "[1]LER" File: "EXS12230011.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 515. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 5:25:30 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.49 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.49 min
Area: 1.15e+006 counts
Height: 288963.318 cps
Start Time: 5.41 min
End Time: 5.79 min

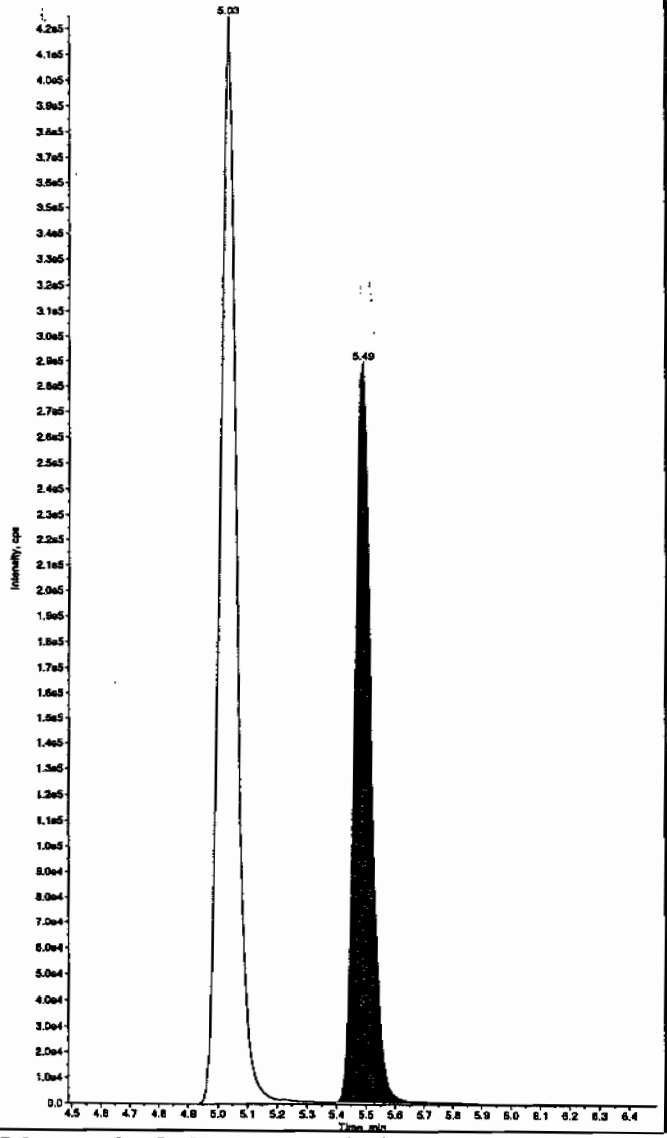

Sample Name: "WXX091223-26ICV" Sample ID: "[1]LER" File: "EXS12230011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 500. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 5:25:30 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.35e+007 counts
Height: 3305282.227 cps
Start Time: 10.8 min
End Time: 11.2 min

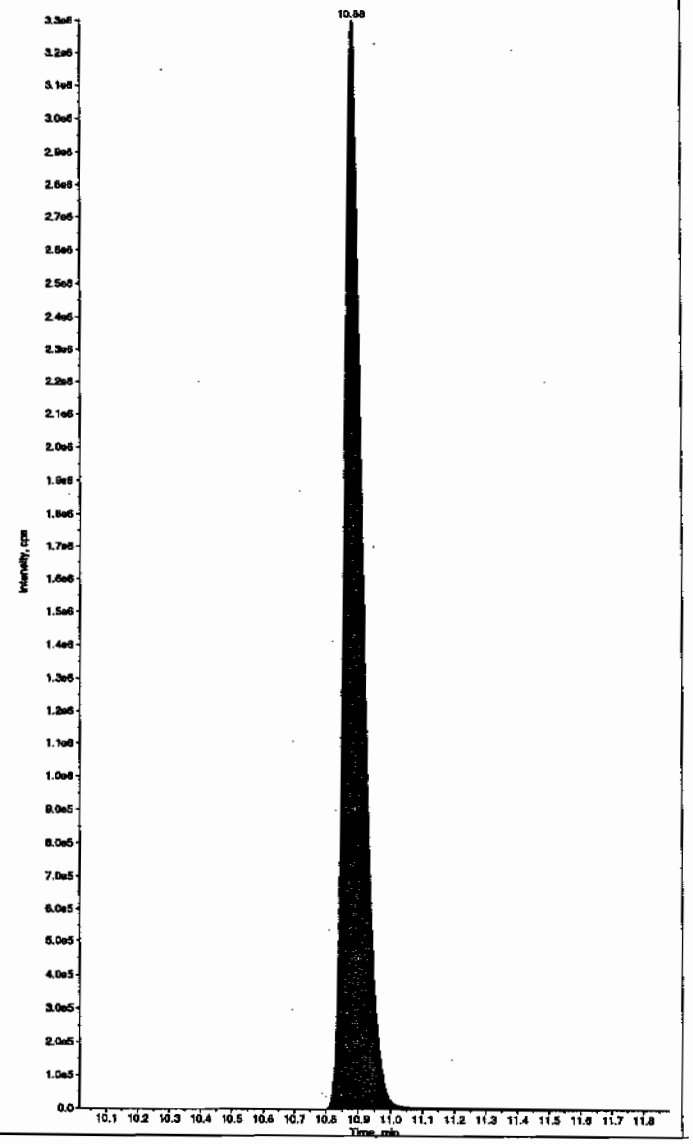

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–952

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0108012a

Analysis Date: 08–JAN–10 22:39

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	62.632	157	*
1,3–Dinitrobenzene–d4	500	454.977	91	
2,4,6–Trinitrotoluene	40	36.667	92	
2,4–Dinitrotoluene	40	34.288	86	
2,6–Dinitrotoluene	40	40.401	101	
2,6–Dinitrotoluene–d3	500	509.639	102	
2–Amino–4,6–dinitrotoluene	40	40.883	102	
3,4–Dinitrotoluene	20	16.575	83	
4–Amino–2,6–dinitrotoluene	40	30.131	75	
HMX	40	42.046	105	
Nitrobenzene	40	53.695	134	*
PETN	40	42.102	105	
RDX	40	34.339	86	
Tetryl	40	33.119	83	
m–Dinitrobenzene	40	47.97	120	
m–Nitrotoluene	40	44.301	111	
o–Nitrotoluene	40	42.717	107	
p–Nitrotoluene	40	40.049	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108012a
Date: 08-Jan-2010
Time: 22:39:36
ID: WXX100108-08CRI
Vial: 1:1,C

MM 1/9/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.17 9.754e+003
740.26

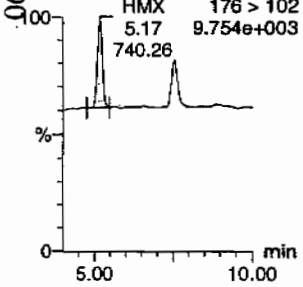

RDX
F2:MRM of 1 channel,AP-
5.17 176 > 102
9.754e+003

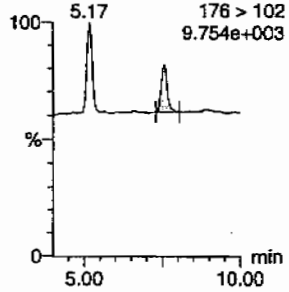

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
8.916e+003

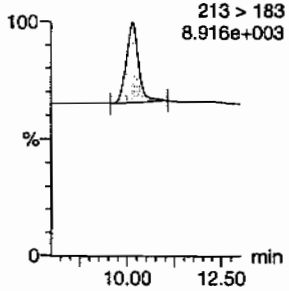

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.236e+004

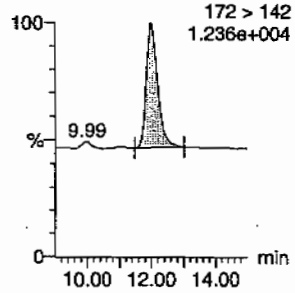

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.571e+003

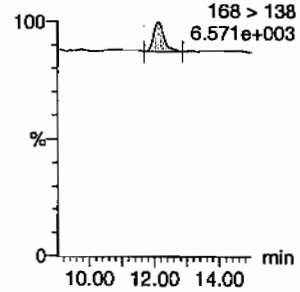

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.178e+003

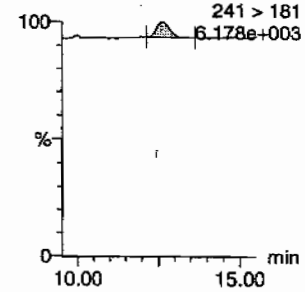

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.430e+003

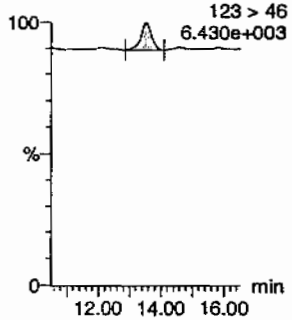

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.489e+003

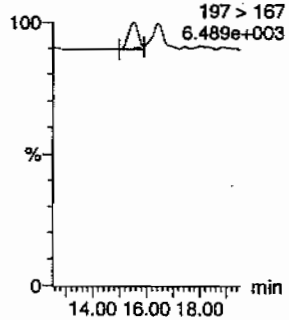

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.923e+003

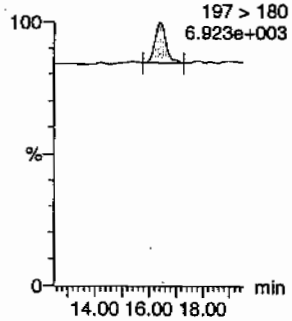

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.663e+003

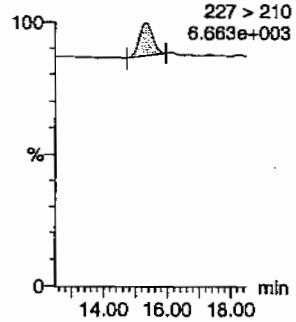

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.44 182 > 152
1.000e+004
18.12

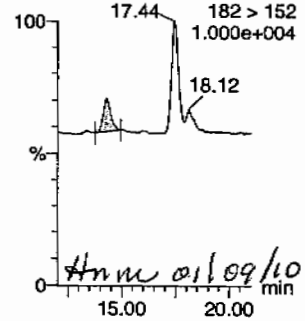

Hnm 01/09/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.000e+004
14.30 18.12

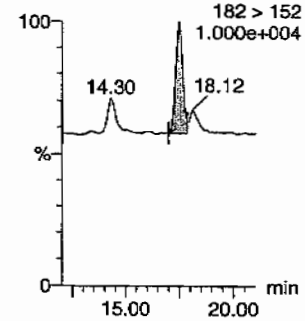

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

24-dinitrotoluene

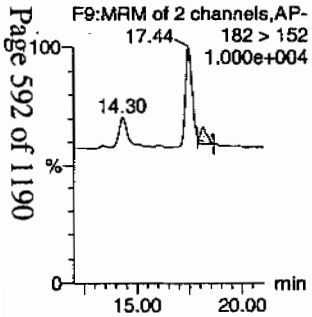

26-dinitrotoluene-d3

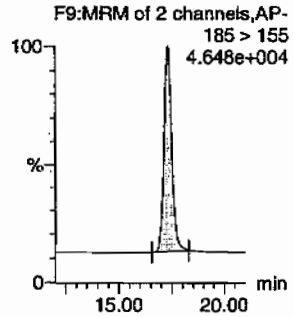

2-Nitrotoluene

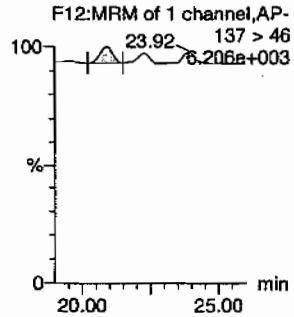

4-Nitrotoluene

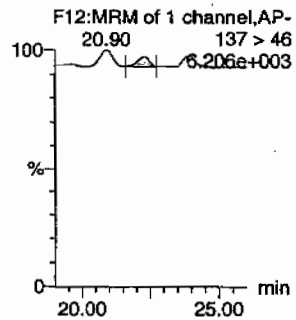

3-Nitrotoluene

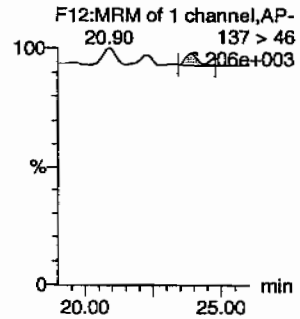

PETN

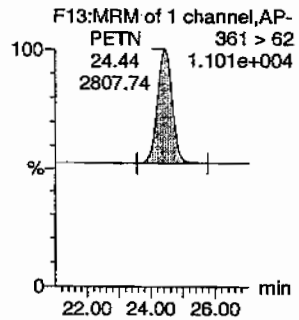

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100108-08CRI	HMX	176 > 102	5.17	740.255	2665.739	740.255	138.846	bb			42.0462	105.1	5.1	132.3
WXX100108-08CRI	RDX	176 > 102	7.56	448.163	2665.739	448.163	84.060	bb			34.3391	85.8	-14.2	69.1
WXX100108-08CRI	135-Trinitrobenzene	213 > 183	10.14	1154.387	2665.739	1154.387	216.523	bb			62.6324	156.6	56.6	190.7
WXX100108-08CRI	13-Dinitrobenzene-d4	172 > 142	11.97	2665.739		2665.739	2665.739	bb			454.9774	91.0	-9.0	576.5
WXX100108-08CRI	13-Dinitrobenzene	168 > 138	12.10	313.812	2665.739	313.812	58.860	bb			47.9698	119.9	19.9	34.5
WXX100108-08CRI	Tetryl	241 > 181	12.63	191.522	2665.739	191.522	35.923	bb			33.1191	82.8	-17.2	28.0
WXX100108-08CRI	Nitrobenzene	123 > 46	13.54	282.384	2665.739	282.384	52.965	bb			53.6953	134.2	34.2	14.1
WXX100108-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.49	292.467	17211.854	292.467	8.496	MM	09-Jan-10	11:52:00	30.1312	75.3	-24.7	14.3
WXX100108-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.40	518.263	17211.854	518.263	15.055	bb			40.8833	102.2	2.2	44.4
WXX100108-08CRI	246-Trinitrotoluene	227 > 210	15.31	408.566	17211.854	408.566	11.869	bb			36.6671	91.7	-8.3	29.7
WXX100108-08CRI	34-dinitrotoluene	182 > 152	14.30	511.903	17211.854	511.903	14.871	bb			16.5751	82.9	-17.1	33.0
WXX100108-08CRI	26-dinitrotoluene	182 > 152	17.44	1574.255	17211.854	1574.255	45.732	MM	09-Jan-10	11:55:08	40.4012	101.0	1.0	110.8
WXX100108-08CRI	24-dinitrotoluene	182 > 152	18.12	287.829	17211.854	287.829	8.361	MM	09-Jan-10	11:58:02	34.2881	85.7	-14.3	19.9
WXX100108-08CRI	26-dinitrotoluene-d3	185 > 155	17.29	17211.854		17211.854	17211.854	bb			509.6393	101.9	1.9	1903.6
WXX100108-08CRI	2-Nitrotoluene	137 > 46	20.90	227.317	17211.854	227.317	6.604	bb			42.7174	106.8	6.8	79.4
WXX100108-08CRI	4-Nitrotoluene	137 > 46	22.28	116.371	17211.854	116.371	3.381	bb			40.0492	100.1	0.1	45.3
WXX100108-08CRI	3-Nitrotoluene	137 > 46	23.92	152.750	17211.854	152.750	4.437	bb			44.3012	110.8	10.8	55.7
WXX100108-08CRI	PETN	361 > 62	24.44	2807.735	17211.854	2807.735	81.564	bb			42.1019	105.3	5.3	1168.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	01/08/10
Time of Injection	2239
Standard Number	WXX100108-08CRI
Data File	EXP0108012a

HMX	105.1
RDX	85.8
135-TNB	156.6
13-DNB	119.9
Tetryl	82.8
Nitrobenzene	134.2
4A-26-DNT	75.3
2A-46-DNT	102.2
246-TNT	91.7
34-DNT(surr)	82.9
26-DNT	101.0
24-DNT	85.7
2-NT	106.8
4-NT	100.1
3-NT	110.8
PETN	105.3
Total	1646.2
Average	102.9

MTT 1/9/10

Hmw 01/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-952

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0108018a

Analysis Date: 09-JAN-10 01:36

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	606.021	101	
1,3-Dinitrobenzene-d4	500	516.054	103	
2,4,6-Trinitrotoluene	600	608.705	101	
2,4-Dinitrotoluene	600	628.741	105	
2,6-Dinitrotoluene	600	563.684	94	
2,6-Dinitrotoluene-d3	500	538.099	108	
2-Amino-4,6-dinitrotoluene	600	601.969	100	
3,4-Dinitrotoluene	300	285.84	95	
4-Amino-2,6-dinitrotoluene	600	533.955	89	
HMX	600	554.517	92	
Nitrobenzene	600	581.678	97	
PETN	600	551.216	92	
RDX	600	705.816	118	
Tetryl	600	552.916	92	
m-Dinitrobenzene	600	589.319	98	
m-Nitrotoluene	600	544.817	91	
o-Nitrotoluene	600	528.699	88	
p-Nitrotoluene	600	494.24	82	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108018a
Date: 09-Jan-2010
Time: 01:36:28
ID: WXX100108-07CCV
Vial: 1:1,B

MT 1/9/10

HMX

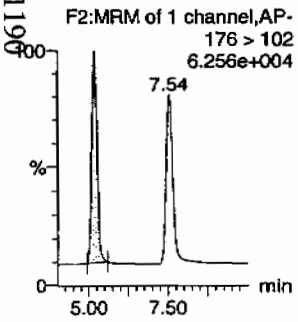

RDX

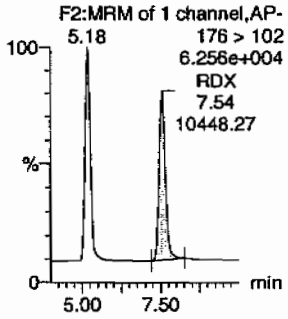

135-Trinitrobenzene

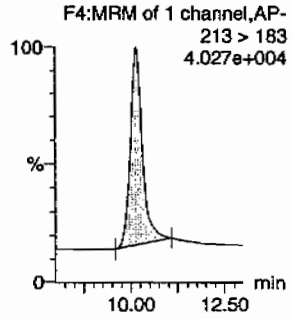

13-Dinitrobenzene-d4

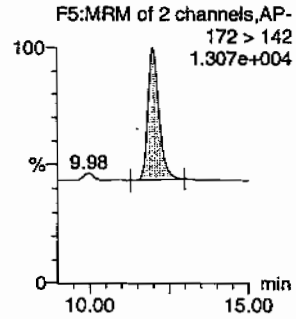

13-Dinitrobenzene

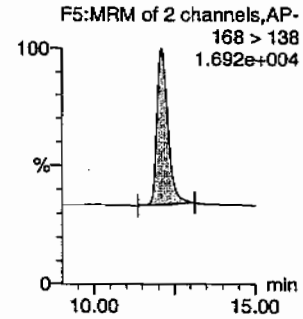

Tetryl

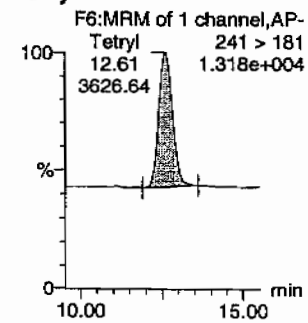

Nitrobenzene

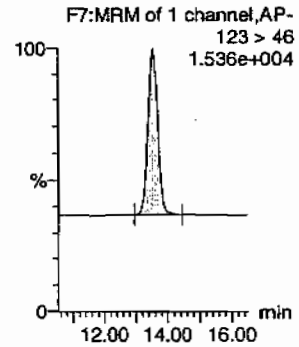

4-Amino-26-dinitrotoluene

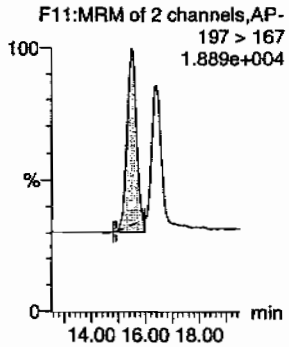

2-Amino-46-dinitrotoluene

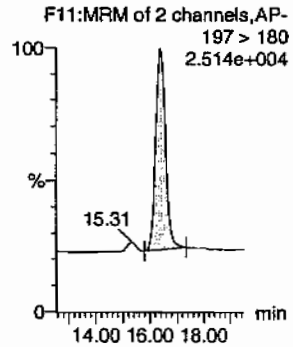

246-Trinitrotoluene

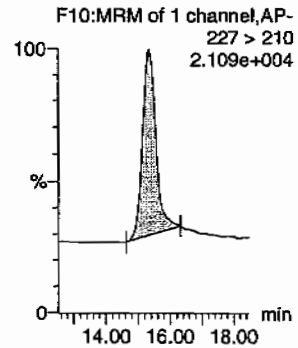

34-dinitrotoluene

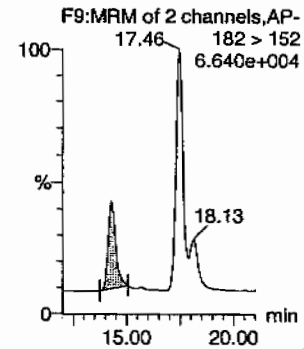

26-dinitrotoluene

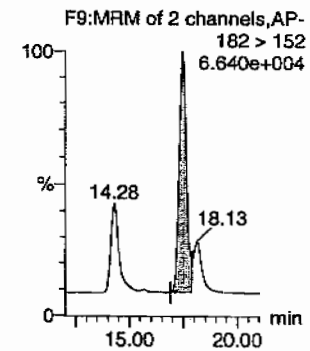

HMM 01/09/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

24-dinitrotoluene

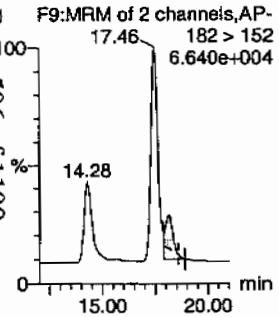

26-dinitrotoluene-d3

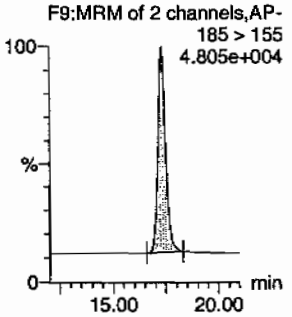

2-Nitrotoluene

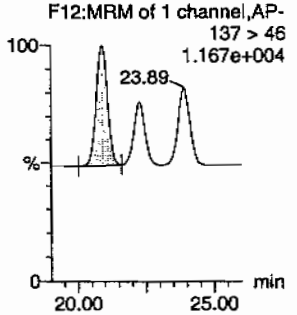

4-Nitrotoluene

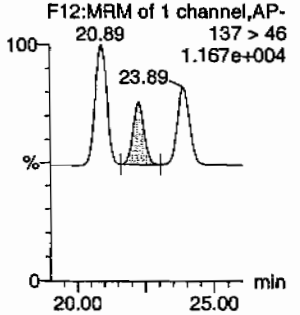

3-Nitrotoluene

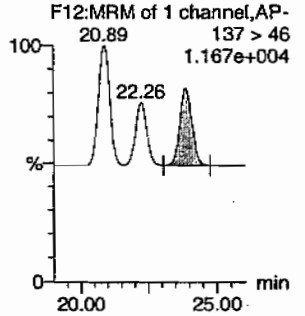

PETN

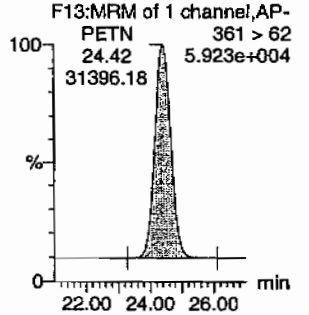

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100108-07CCV	HMX	176 > 102	5.18	11073.245	3023.591	11073.245	1831.141	bb			554.5172	92.4	-7.6	1676.1
WXX100108-07CCV	RDX	176 > 102	7.54	10448.271	3023.591	10448.271	1727.792	bb			705.8157	117.6	17.6	1325.5
WXX100108-07CCV	135-Trinitrobenzene	213 > 183	10.14	12669.103	3023.591	12669.103	2095.042	bb			606.0215	101.0	1.0	1439.2
WXX100108-07CCV	13-Dinitrobenzene-d4	172 > 142	11.97	3023.591		3023.591	3023.591	bb			516.0541	103.2	3.2	166.8
WXX100108-07CCV	13-Dinitrobenzene	168 > 138	12.10	4372.778	3023.591	4372.778	723.110	bb			589.3189	98.2	-1.8	711.6
WXX100108-07CCV	Tetryl	241 > 181	12.61	3626.639	3023.591	3626.639	599.724	bb			552.9160	92.2	-7.8	565.9
WXX100108-07CCV	Nitrobenzene	123 > 46	13.53	3469.703	3023.591	3469.703	573.772	bb			581.6785	96.9	-3.1	273.3
WXX100108-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.52	5472.227	18172.998	5472.227	150.559	MM	09-Jan-10	11:52:27	533.9552	89.0	-11.0	472.4
WXX100108-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.39	8057.079	18172.998	8057.079	221.677	bb			601.9689	100.3	0.3	352.2
WXX100108-07CCV	246-Trinitrotoluene	227 > 210	15.33	7161.302	18172.998	7161.302	197.031	bb			608.7053	101.5	1.5	360.5
WXX100108-07CCV	34-dinitrotoluene	182 > 152	14.28	9320.819	18172.998	9320.819	256.447	bb			285.8404	95.3	-4.7	411.0
WXX100108-07CCV	26-dinitrotoluene	182 > 152	17.46	23190.764	18172.998	23190.764	638.056	MM	09-Jan-10	11:55:35	563.6840	93.9	-6.1	1111.5
WXX100108-07CCV	24-dinitrotoluene	182 > 152	18.13	5572.645	18172.998	5572.645	153.322	MM	09-Jan-10	11:58:24	628.7406	104.8	4.8	229.7
WXX100108-07CCV	26-dinitrotoluene-d3	185 > 155	17.30	18172.998		18172.998	18172.998	bb			538.0986	107.6	7.6	1261.8
WXX100108-07CCV	2-Nitrotoluene	137 > 46	20.89	2970.536	18172.998	2970.536	81.729	bb			528.6995	88.1	-11.9	169.2
WXX100108-07CCV	4-Nitrotoluene	137 > 46	22.26	1516.307	18172.998	1516.307	41.719	bb			494.2399	82.4	-17.6	89.1
WXX100108-07CCV	3-Nitrotoluene	137 > 46	23.89	1983.425	18172.998	1983.425	54.571	bb			544.8170	90.8	-9.2	109.1
WXX100108-07CCV	PETN	361 > 62	24.42	31396.178	18172.998	31396.178	863.814	bb			551.2156	91.9	-8.1	5840.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 01/09/10
Time of Injection: 0136
Standard Number: WXX100108-07CCV
Data File: EXP0108018a

HMX	92.4
RDX	117.6
135-TNB	101.0
13-DNB	98.2
Tetryl	92.2
Nitrobenzene	96.9
4A-26-DNT	89.0
2A-46-DNT	100.3
246-TNT	101.5
34-DNT(surr)	95.3
26-DNT	93.9
24-DNT	104.8
2-NT	88.1
4-NT	82.4
3-NT	90.8
PETN	91.9
Total	1536.3
Average	96.0

MATT 1/9/10

HMW 01/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-952

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0108020a

Analysis Date: 09-JAN-10 02:35

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4-Dinitrotoluene	40	43.444	109	
2,6-Dinitrotoluene	40	39.173	98	
2,6-Dinitrotoluene-d3	500	472.045	94	
2-Amino-4,6-dinitrotoluene	40	41.528	104	
3,4-Dinitrotoluene	20	19.72	99	
4-Amino-2,6-dinitrotoluene	40	39.363	98	
HMX	40	44.675	112	
Nitrobenzene	40	40.724	102	
PETN	40	50.356	126	
RDX	40	41.821	105	
Tetryl	40	41.61	104	
m-Dinitrobenzene	40	36.303	91	
m-Nitrotoluene	40	34.916	87	
o-Nitrotoluene	40	40.683	102	
p-Nitrotoluene	40	38.865	97	
1,3,5-Trinitrobenzene	40	57.42	144	*
1,3-Dinitrobenzene-d4	500	478.135	96	
2,4,6-Trinitrotoluene	40	47.739	119	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108020a
Date: 09-Jan-2010
Time: 02:35:25
ID: WXX100108-08CRI
Vial: 1:1,C

MMT 1/9/10

HMX

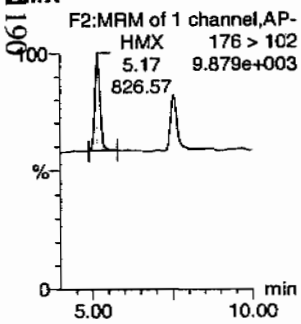

RDX

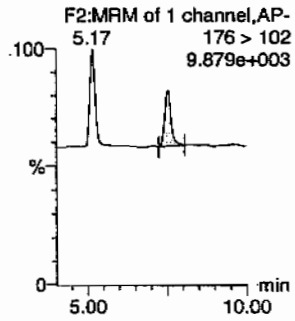

135-Trinitrobenzene

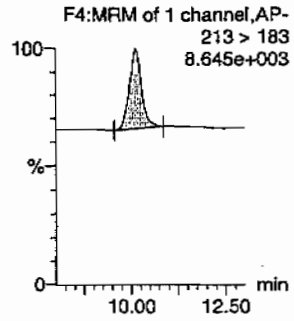

13-Dinitrobenzene-d4

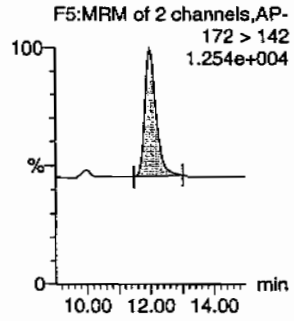

13-Dinitrobenzene

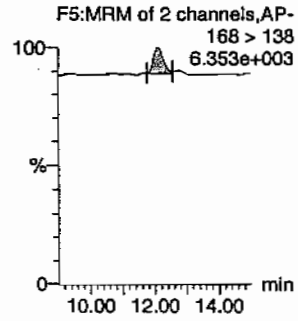

Tetryl

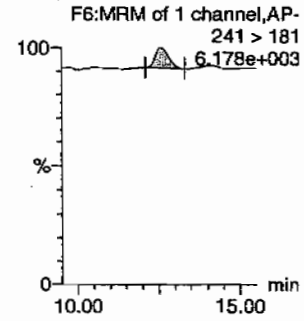

Nitrobenzene

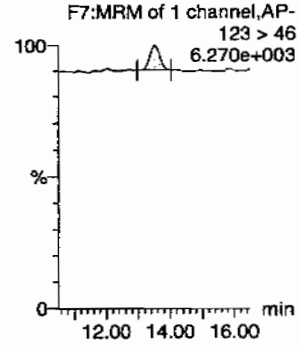

4-Amino-26-dinitrotoluene

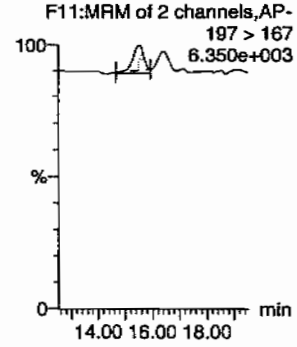

2-Amino-46-dinitrotoluene

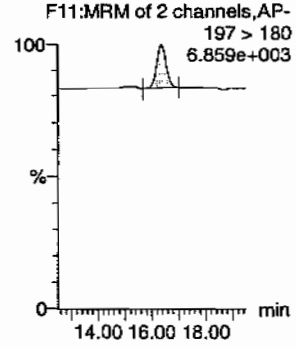

246-Trinitrotoluene

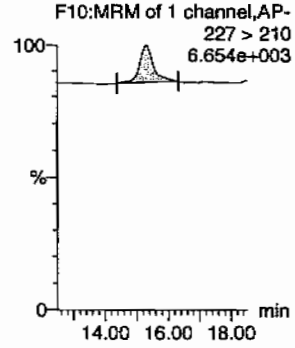

34-dinitrotoluene

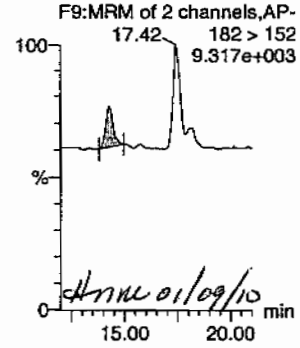

Anne 01/09/10

26-dinitrotoluene

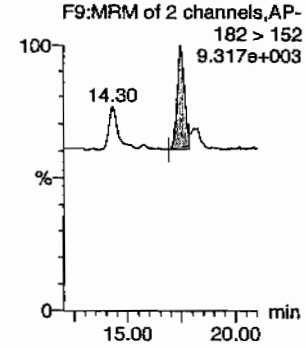

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qid, Time: Sat Jan 09 12:01:37 2010

24-dinitrotoluene

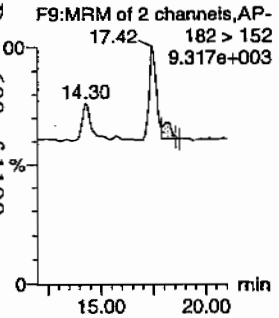

26-dinitrotoluene-d3

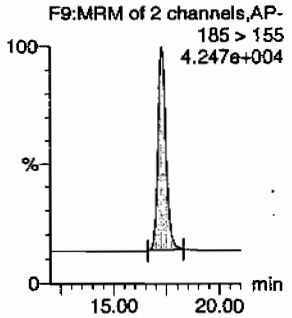

2-Nitrotoluene

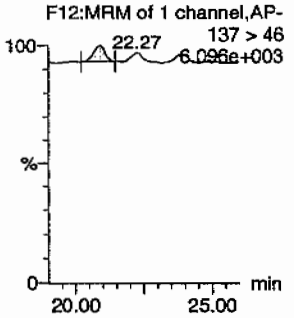

4-Nitrotoluene

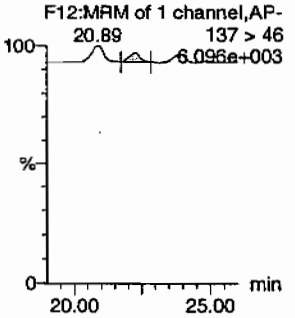

3-Nitrotoluene

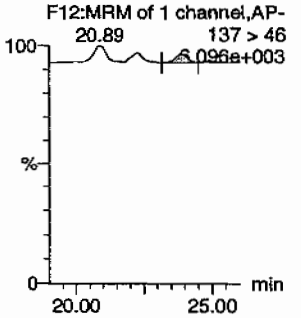

PETN

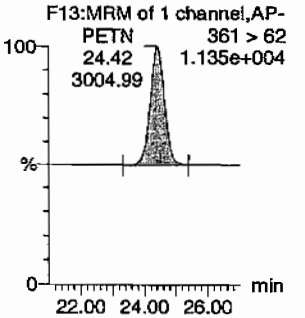

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100108-08CRI	HMX	176 > 102	5.17	826.568	2801.420	826.568	147.527	bb			44.6749	111.7	11.7	80.2
WXX100108-08CRI	RDX	176 > 102	7.54	573.584	2801.420	573.584	102.374	bb			41.8205	104.6	4.6	46.2
WXX100108-08CRI	135-Trinitrobenzene	213 > 183	10.14	1112.191	2801.420	1112.191	198.505	bb			57.4204	143.6	43.6	235.0
WXX100108-08CRI	13-Dinitrobenzene-d4	172 > 142	11.97	2801.420		2801.420	2801.420	bb			478.1348	95.6	-4.4	324.8
WXX100108-08CRI	13-Dinitrobenzene	168 > 138	12.10	249.579	2801.420	249.579	44.545	bd			36.3033	90.8	-9.2	41.9
WXX100108-08CRI	Tetryl	241 > 181	12.58	252.871	2801.420	252.871	45.133	bb			41.6101	104.0	4.0	19.5
WXX100108-08CRI	Nitrobenzene	123 > 46	13.54	225.069	2801.420	225.069	40.171	bb			40.7241	101.8	1.8	22.1
WXX100108-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.53	353.887	15942.212	353.887	11.099	MM	09-Jan-10	11:52:33	39.3626	98.4	-1.6	32.1
WXX100108-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.37	487.608	15942.212	487.608	15.293	bb			41.5284	103.8	3.8	66.3
WXX100108-08CRI	246-Trinitrotoluene	227 > 210	15.31	492.693	15942.212	492.693	15.452	bb			47.7386	119.3	19.3	32.8
WXX100108-08CRI	34-dinitrotoluene	182 > 152	14.30	564.100	15942.212	564.100	17.692	bb			19.7198	98.6	-1.4	30.3
WXX100108-08CRI	26-dinitrotoluene	182 > 152	17.42	1413.790	15942.212	1413.790	44.341	MM	09-Jan-10	11:55:43	39.1727	97.9	-2.1	78.5
WXX100108-08CRI	24-dinitrotoluene	182 > 152	18.08	337.788	15942.212	337.788	10.594	MM	09-Jan-10	11:58:34	43.4443	108.6	8.6	14.6
WXX100108-08CRI	26-dinitrotoluene-d3	185 > 155	17.29	15942.212		15942.212	15942.212	bb			472.0455	94.4	-5.6	1404.2
WXX100108-08CRI	2-Nitrotoluene	137 > 46	20.89	200.523	15942.212	200.523	6.289	bb			40.6833	101.7	1.7	78.8
WXX100108-08CRI	4-Nitrotoluene	137 > 46	22.27	104.600	15942.212	104.600	3.281	bb			38.8652	97.2	-2.8	44.5
WXX100108-08CRI	3-Nitrotoluene	137 > 46	23.89	111.509	15942.212	111.509	3.497	bb			34.9159	87.3	-12.7	40.3
WXX100108-08CRI	PETN	361 > 62	24.42	3004.994	15942.212	3004.994	94.246	bb			50.3561	125.9	25.9	500.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	01/09/10
Time of Injection	0235
Standard Number	WXX100108-08CRI
Data File	EXP0108020a

HMX	111.7
RDX	104.6
135-TNB	143.6
13-DNB	90.8
Tetryl	104.0
Nitrobenzene	101.8
4A-26-DNT	98.4
2A-46-DNT	103.8
246-TNT	119.3
34-DNT(surr)	98.6
26-DNT	97.9
24-DNT	108.6
2-NT	101.7
4-NT	97.2
3-NT	87.3
PETN	125.9
Total	1695.2
Average	106.0

MAT 1/9/10

Hmm 01/08/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-952

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0108028a

Analysis Date: 09-JAN-10 06:31

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2-Amino-4,6-dinitrotoluene	600	672.488	112	
3,4-Dinitrotoluene	300	300.567	100	
4-Amino-2,6-dinitrotoluene	600	628.87	105	
HMX	600	458.234	76	*
Nitrobenzene	600	570.673	95	
PETN	600	499.896	83	
RDX	600	534.399	89	
Tetryl	600	506.836	84	
m-Dinitrobenzene	600	556.783	93	
m-Nitrotoluene	600	521.919	87	
o-Nitrotoluene	600	569.819	95	
p-Nitrotoluene	600	546.099	91	
1,3,5-Trinitrobenzene	600	576.974	96	
1,3-Dinitrobenzene-d4	500	545.758	109	
2,4,6-Trinitrotoluene	600	717.642	120	
2,4-Dinitrotoluene	600	588.932	98	
2,6-Dinitrotoluene	600	592.045	99	
2,6-Dinitrotoluene-d3	500	532.538	107	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108028a
Date: 09-Jan-2010
Time: 06:31:18
ID: WXX100108-07CCV
Vial: 1:1,B

MMT 1/9/10

HMX

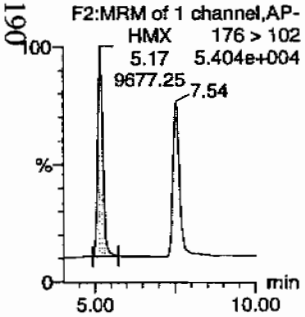

RDX

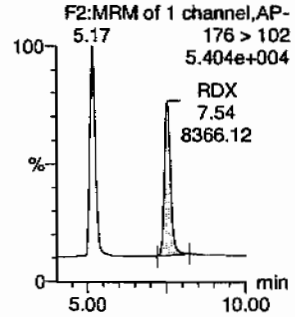

135-Trinitrobenzene

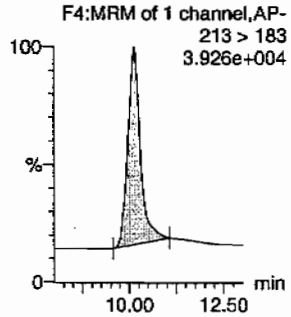

13-Dinitrobenzene-d4

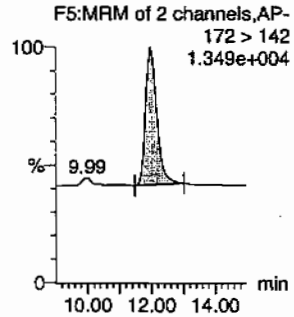

13-Dinitrobenzene

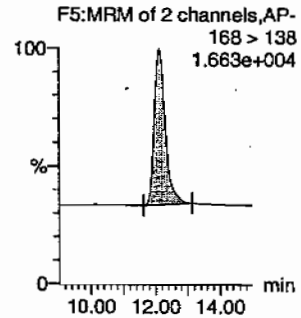

Tetryl

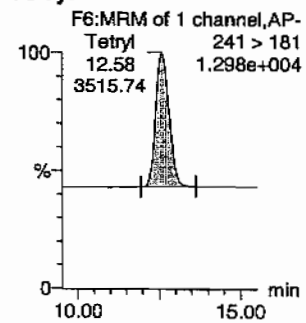

Nitrobenzene

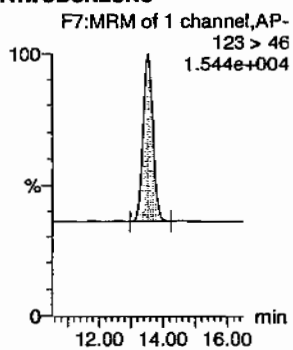

4-Amino-26-dinitrotoluene

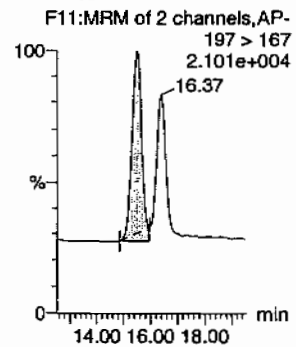

2-Amino-46-dinitrotoluene

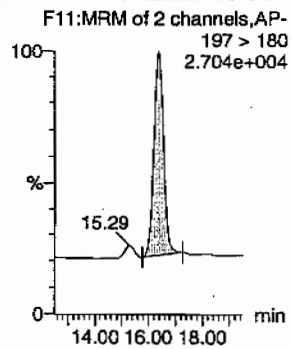

246-Trinitrotoluene

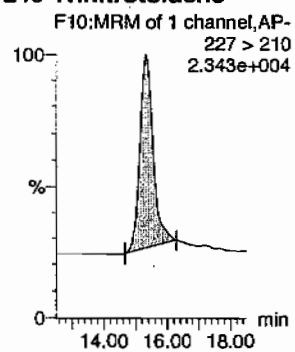

34-dinitrotoluene

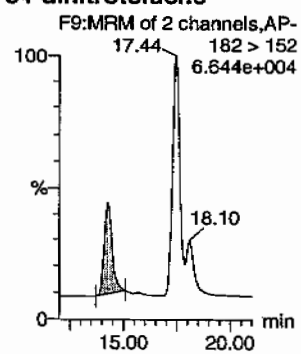

26-dinitrotoluene

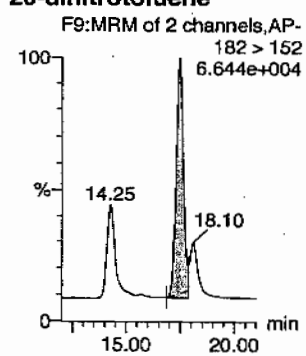

Hmm 01/09/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

24-dinitrotoluene

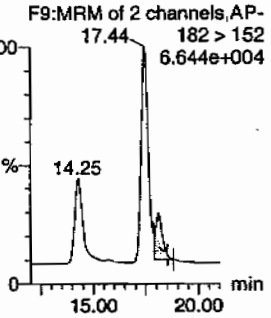

26-dinitrotoluene-d3

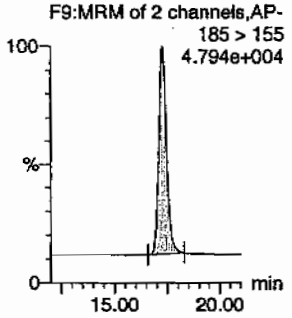

2-Nitrotoluene

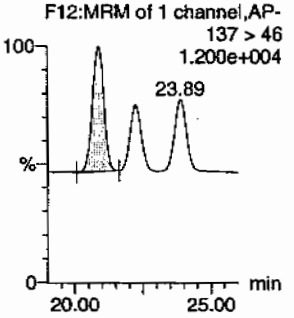

4-Nitrotoluene

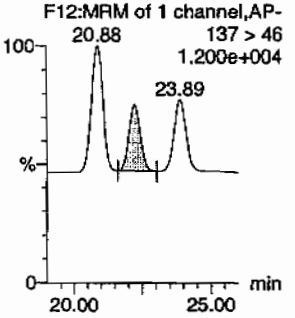

3-Nitrotoluene

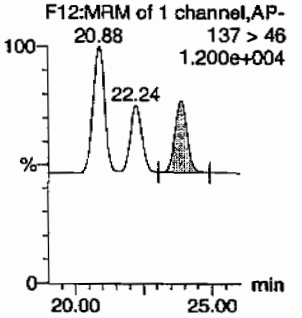

PETN

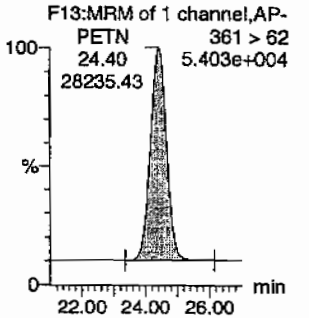

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100108-07CCV	HMX	176 > 102	5.17	9677.248	3197.627	9677.248	1513.192	db			458.2339	76.4	-23.6	1302.2
WXX100108-07CCV	RDX	176 > 102	7.54	8366.117	3197.627	8366.117	1308.176	bb			534.3995	89.1	-10.9	958.9
WXX100108-07CCV	135-Trinitrobenzene	213 > 183	10.14	12756.131	3197.627	12756.131	1994.625	bb			576.9742	96.2	-3.8	1775.0
WXX100108-07CCV	13-Dinitrobenzene-d4	172 > 142	11.97	3197.627		3197.627	3197.627	bb			545.7578	109.2	9.2	366.9
WXX100108-07CCV	13-Dinitrobenzene	168 > 138	12.10	4369.159	3197.627	4369.159	683.188	bb			556.7831	92.8	-7.2	476.5
WXX100108-07CCV	Tetryl	241 > 181	12.58	3515.744	3197.627	3515.744	549.743	bb			506.8358	84.5	-15.5	212.3
WXX100108-07CCV	Nitrobenzene	123 > 46	13.50	3599.990	3197.627	3599.990	562.916	bb			570.6729	95.1	-4.9	348.4
WXX100108-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.49	6378.363	17985.215	6378.363	177.322	MM	09-Jan-10	11:53:12	628.8700	104.8	4.8	295.3
WXX100108-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.37	8907.944	17985.215	8907.944	247.646	bb			672.4885	112.1	12.1	287.3
WXX100108-07CCV	246-Trinitrotoluene	227 > 210	15.31	8355.686	17985.215	8355.686	232.293	bb			717.6425	119.6	19.6	206.5
WXX100108-07CCV	34-dinitrotoluene	182 > 152	14.25	9699.747	17985.215	9699.747	269.659	bb			300.5667	100.2	0.2	301.1
WXX100108-07CCV	26-dinitrotoluene	182 > 152	17.44	24105.902	17985.215	24105.902	670.159	MM	09-Jan-10	11:56:23	592.0454	98.7	-1.3	785.9
WXX100108-07CCV	24-dinitrotoluene	182 > 152	18.10	5165.875	17985.215	5165.875	143.614	MM	09-Jan-10	11:59:16	588.9317	98.2	-1.8	168.9
WXX100108-07CCV	26-dinitrotoluene-d3	185 > 155	17.29	17985.215		17985.215	17985.215	bb			532.5383	106.5	6.5	1402.7
WXX100108-07CCV	2-Nitrotoluene	137 > 46	20.88	3168.489	17985.215	3168.489	88.086	bb			569.8193	95.0	-5.0	519.0
WXX100108-07CCV	4-Nitrotoluene	137 > 46	22.24	1658.095	17985.215	1658.095	46.096	bb			546.0986	91.0	-9.0	277.7
WXX100108-07CCV	3-Nitrotoluene	137 > 46	23.89	1880.430	17985.215	1880.430	52.277	bb			521.9189	87.0	-13.0	299.0
WXX100108-07CCV	PETN	361 > 62	24.40	28235.434	17985.215	28235.434	784.962	bb			499.8964	83.3	-16.7	7767.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 01/09/10
Time of Injection: 0631
Standard Number: WXX100108-07CCV
Data File: EXP0108028a

HMX		76.4
RDX		89.1
135-TNB		96.2
13-DNB		92.8
Tetryl		84.5
Nitrobenzene		95.1
4A-26-DNT		104.8
2A-46-DNT		112.1
246-TNT		119.6
34-DNT(surr)		100.2
26-DNT		98.7
24-DNT		98.2
2-NT		95.0
4-NT		91.0
3-NT		97.0
PETN		83.3
Total		1534.0
Average		95.9

MAT 1/9/10

Hmm 01/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-952

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0108030a

Analysis Date: 09-JAN-10 07:30

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Dinitrobenzene	40	37.875	95	
m-Nitrotoluene	40	37.972	95	
o-Nitrotoluene	40	39.332	98	
p-Nitrotoluene	40	42.004	105	
1,3,5-Trinitrobenzene	40	54.913	137	*
1,3-Dinitrobenzene-d4	500	516.042	103	
2,4,6-Trinitrotoluene	40	43.734	109	
2,4-Dinitrotoluene	40	37.846	95	
2,6-Dinitrotoluene	40	40.027	100	
2,6-Dinitrotoluene-d3	500	552.633	111	
2-Amino-4,6-dinitrotoluene	40	39.157	98	
3,4-Dinitrotoluene	20	21.298	106	
4-Amino-2,6-dinitrotoluene	40	46.914	117	
HMX	40	43.202	108	
Nitrobenzene	40	40.174	100	
PETN	40	38.928	97	
RDX	40	44.19	110	
Tetryl	40	38.528	96	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108030a
Date: 09-Jan-2010
Time: 07:30:16
ID: WXX100108-08CRI
Vial: 1:1,C

HMX 1/9/10

Page 57 of 190

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.000e+004
7.54

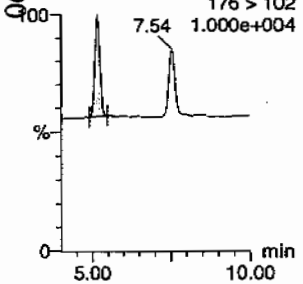

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.000e+004
5.17

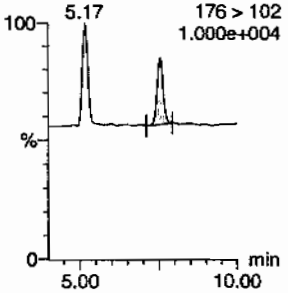

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
8.789e+003

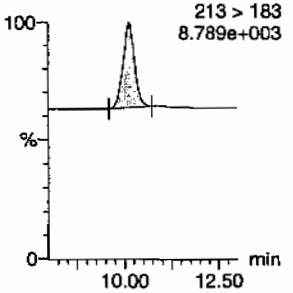

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.295e+004
9.99

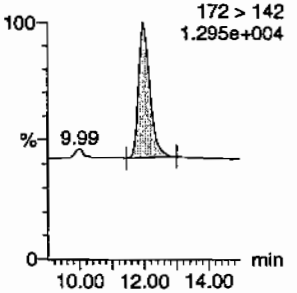

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.170e+003

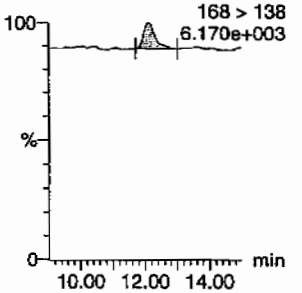

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.005e+003

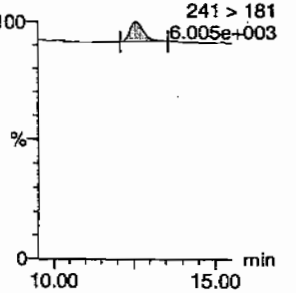

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.129e+003

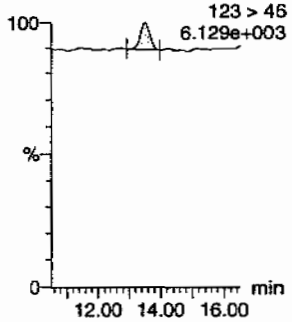

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.595e+003

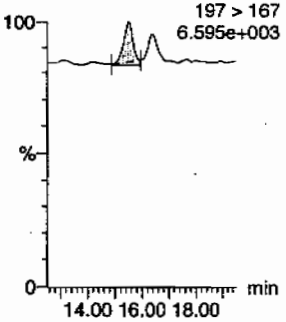

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.791e+003

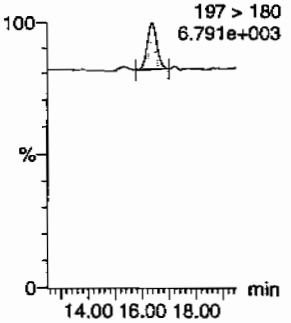

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.527e+003

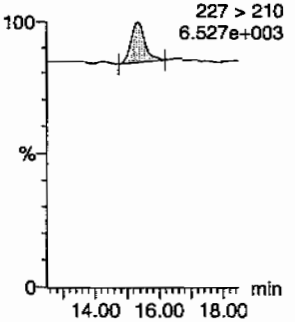

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
9.689e+003
17.44

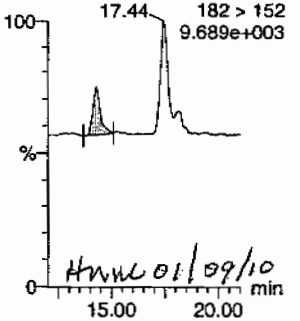

HMW 01/09/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
9.689e+003
14.30

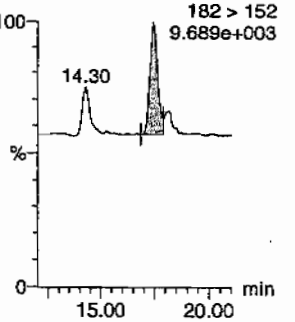

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA.qld, Time: Sat Jan 09 12:01:37 2010

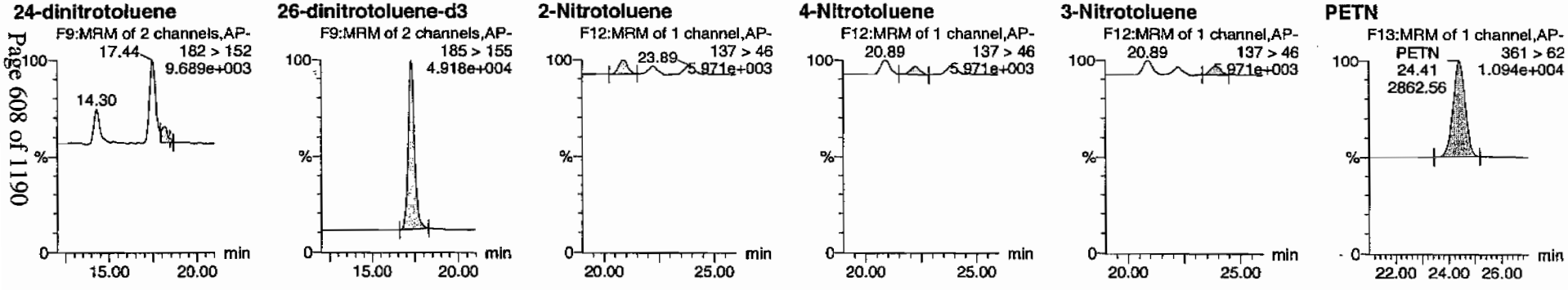

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100108-08CRI	HMX	176 > 102	5.17	862.685	3023.521	862.685	142.662	bb			43.2019	108.0	8.0	131.8
WXX100108-08CRI	RDX	176 > 102	7.54	654.134	3023.521	654.134	108.174	bb			44.1900	110.5	10.5	85.9
WXX100108-08CRI	135-Trinitrobenzene	213 > 183	10.14	1147.943	3023.521	1147.943	189.835	bb			54.9127	137.3	37.3	247.0
WXX100108-08CRI	13-Dinitrobenzene-d4	172 > 142	11.97	3023.521		3023.521	3023.521	bb			516.0421	103.2	3.2	510.1
WXX100108-08CRI	13-Dinitrobenzene	168 > 138	12.14	281.031	3023.521	281.031	46.474	bb			37.8754	94.7	-5.3	32.0
WXX100108-08CRI	Tetryl	241 > 181	12.58	252.702	3023.521	252.702	41.789	bb			38.5277	96.3	-3.7	29.3
WXX100108-08CRI	Nitrobenzene	123 > 46	13.50	239.634	3023.521	239.634	39.628	bb			40.1744	100.4	0.4	23.5
WXX100108-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.53	493.779	18663.875	493.779	13.228	MM	09-Jan-10	11:53:24	46.9135	117.3	17.3	15.6
WXX100108-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.37	538.248	18663.875	538.248	14.420	bb			39.1565	97.9	-2.1	42.8
WXX100108-08CRI	246-Trinitrotoluene	227 > 210	15.35	528.417	18663.875	528.417	14.156	bb			43.7337	109.3	9.3	30.4
WXX100108-08CRI	34-dinitrotoluene	182 > 152	14.30	713.265	18663.875	713.265	19.108	bb			21.2983	106.5	6.5	42.4
WXX100108-08CRI	26-dinitrotoluene	182 > 152	17.44	1691.243	18663.875	1691.243	45.308	MM	09-Jan-10	11:56:32	40.0269	100.1	0.1	102.8
WXX100108-08CRI	24-dinitrotoluene	182 > 152	18.19	344.499	18663.875	344.499	9.229	MM	09-Jan-10	11:59:28	37.8462	94.6	-5.4	19.7
WXX100108-08CRI	26-dinitrotoluene-d3	185 > 155	17.29	18663.875		18663.875	18663.875	bb			552.6333	110.5	10.5	1528.4
WXX100108-08CRI	2-Nitrotoluene	137 > 46	20.89	226.961	18663.875	226.961	6.080	bb			39.3324	98.3	-1.7	64.6
WXX100108-08CRI	4-Nitrotoluene	137 > 46	22.25	132.348	18663.875	132.348	3.546	bb			42.0042	105.0	5.0	37.3
WXX100108-08CRI	3-Nitrotoluene	137 > 46	23.89	141.974	18663.875	141.974	3.803	bb			37.9724	94.9	-5.1	37.0
WXX100108-08CRI	PETN	361 > 62	24.41	2862.562	18663.875	2862.562	76.687	bb			38.9280	97.3	-2.7	897.1

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	01/09/10
Time of Injection	0730
Standard Number	WXX100108-08CRI
Data File	EXP0108030a

HMX	108.0
RDX	110.5
135-TNB	137.3
13-DNB	94.7
Tetryl	96.3
Nitrobenzene	100.4
4A-26-DNT	117.3
2A-46-DNT	97.9
246-TNT	109.3
34-DNT(surr)	106.5
26-DNT	100.1
24-DNT	94.6
2-NT	98.3
4-NT	105.0
3-NT	94.9
PETN	97.3
Total	1668.4
Average	104.3

MAT 1/9/10

Wmm 01/09/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–952

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0108041a

Analysis Date: 09–JAN–10 12:54

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	642.502	107	
1,3–Dinitrobenzene–d4	500	410.851	82	
2,4,6–Trinitrotoluene	600	726.215	121	*
2,4–Dinitrotoluene	600	603.311	101	
2,6–Dinitrotoluene	600	568.233	95	
2,6–Dinitrotoluene–d3	500	432.514	87	
2–Amino–4,6–dinitrotoluene	600	684.018	114	
3,4–Dinitrotoluene	300	377.773	126	*
4–Amino–2,6–dinitrotoluene	600	605.8	101	
HMX	600	620.528	103	
Nitrobenzene	600	719.579	120	
PETN	600	657.72	110	
RDX	600	709.927	118	
Tetryl	600	543.428	91	
m–Dinitrobenzene	600	585.785	98	
m–Nitrotoluene	600	636.48	106	
o–Nitrotoluene	600	717.89	120	
p–Nitrotoluene	600	645.985	108	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108041a
Date: 09-Jan-2010
Time: 12:54:44
ID: WXX100108-07CCV
Vial: 1:1,B

MMP 1/11/10

HMX

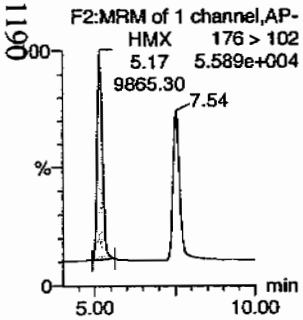

RDX

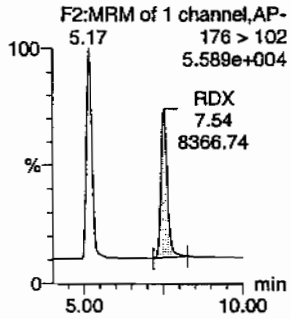

135-Trinitrobenzene

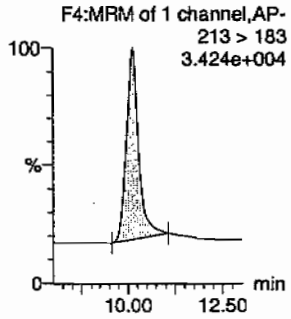

13-Dinitrobenzene-d4

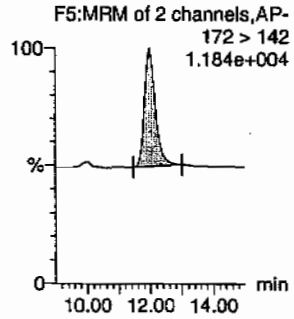

13-Dinitrobenzene

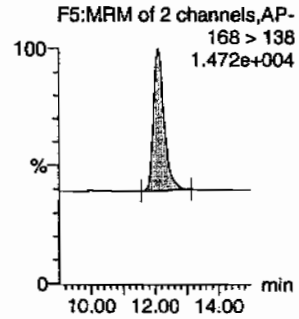

Tetryl

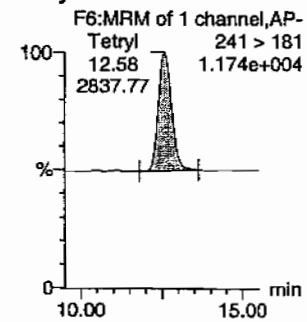

Nitrobenzene

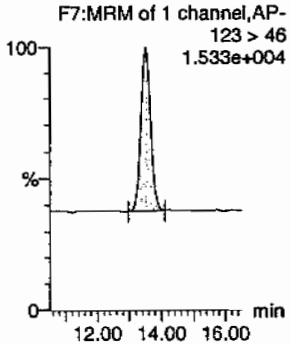

4-Amino-26-dinitrotoluene

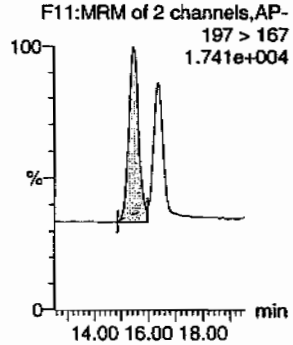

2-Amino-46-dinitrotoluene

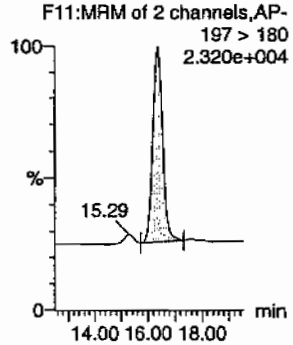

246-Trinitrotoluene

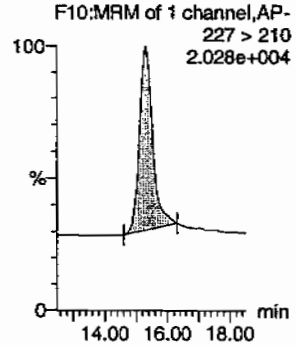

34-dinitrotoluene

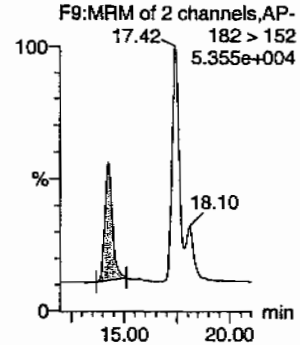

HMW 01/11/10

26-dinitrotoluene

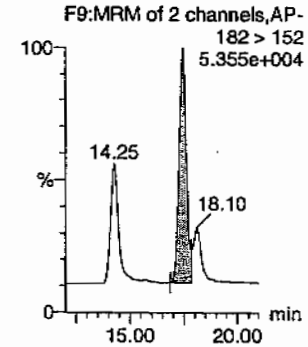

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

24-dinitrotoluene

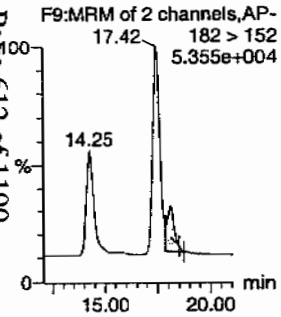

26-dinitrotoluene-d3

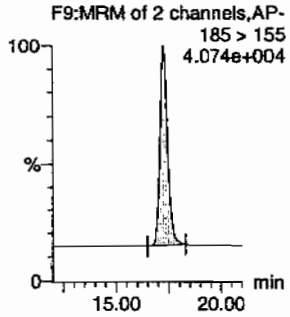

2-Nitrotoluene

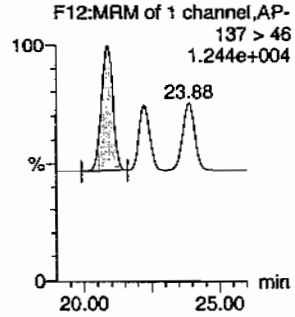

4-Nitrotoluene

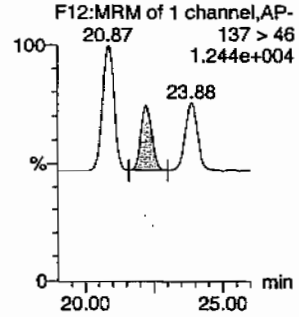

3-Nitrotoluene

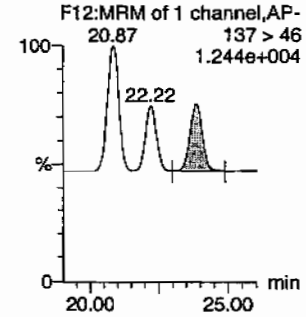

PETN

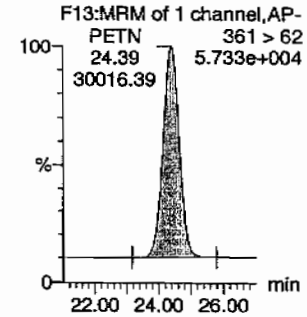

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100108-07CCV	HMX	176 > 102	5.17	9865.303	2407.200	9865.303	2049.124	bb			620.5281	103.4	3.4	1575.3
WXX100108-07CCV	RDX	176 > 102	7.54	8366.739	2407.200	8366.739	1737.857	bb			709.9274	118.3	18.3	1118.7
WXX100108-07CCV	135-Trinitrobenzene	213 > 183	10.14	10693.540	2407.200	10693.540	2221.157	bb			642.5021	107.1	7.1	992.0
WXX100108-07CCV	13-Dinitrobenzene-d4	172 > 142	11.97	2407.200		2407.200	2407.200	bb			410.8510	82.2	-17.8	95.7
WXX100108-07CCV	13-Dinitrobenzene	168 > 138	12.10	3460.467	2407.200	3460.467	718.774	bb			585.7854	97.6	-2.4	254.8
WXX100108-07CCV	Tetryl	241 > 181	12.58	2837.766	2407.200	2837.766	589.433	bb			543.4283	90.6	-9.4	206.7
WXX100108-07CCV	Nitrobenzene	123 > 46	13.50	3417.250	2407.200	3417.250	709.798	bb			719.5787	119.9	19.9	485.4
WXX100108-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.49	4990.300	14607.119	4990.300	170.817	MM	11-Jan-10	09:05:40	605.8002	101.0	1.0	251.8
WXX100108-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.37	7358.833	14607.119	7358.833	251.892	bb			684.0178	114.0	14.0	209.6
WXX100108-07CCV	246-Trinitrotoluene	227 > 210	15.31	6867.335	14607.119	6867.335	235.068	bb			726.2152	121.0	21.0	383.0
WXX100108-07CCV	34-dinitrotoluene	182 > 152	14.25	9901.460	14607.119	9901.460	338.926	bb			377.7728	125.9	25.9	210.7
WXX100108-07CCV	26-dinitrotoluene	182 > 152	17.42	18790.738	14607.119	18790.738	643.205	MM	11-Jan-10	09:14:29	568.2331	94.7	-5.3	417.6
WXX100108-07CCV	24-dinitrotoluene	182 > 152	18.10	4298.026	14607.119	4298.026	147.121	MM	11-Jan-10	09:24:05	603.3109	100.6	0.6	93.0
WXX100108-07CCV	26-dinitrotoluene-d3	185 > 155	17.27	14607.119		14607.119	14607.119	bb			432.5136	86.5	-13.5	1040.5
WXX100108-07CCV	2-Nitrotoluene	137 > 46	20.87	3242.066	14607.119	3242.066	110.976	bb			717.8900	119.6	19.6	520.9
WXX100108-07CCV	4-Nitrotoluene	137 > 46	22.22	1592.977	14607.119	1592.977	54.527	bb			645.9846	107.7	7.7	268.9
WXX100108-07CCV	3-Nitrotoluene	137 > 46	23.88	1862.463	14607.119	1862.463	63.752	bb			636.4797	106.1	6.1	279.2
WXX100108-07CCV	PETN	361 > 62	24.39	30016.387	14607.119	30016.387	1027.457	bb			657.7201	109.6	9.6	4741.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 01/09/10
Time of Injection: 1254
Standard Number: WXX100108-07CCV
Data File: EXP0108041a

HMX		103.4
RDX		118.3
135-TNB		107.1
13-DNB		97.6
Tetryl		90.6
Nitrobenzene		119.9
4A-26-DNT		101.0
2A-46-DNT		114.0
246-TNT		121.0
34-DNT(surr)		125.9
26-DNT		94.7
24-DNT		100.6
2-NT		119.6
4-NT		107.7
3-NT		106.1
PETN		109.6
Total		1737.1
Average		108.6

MMT 1/11/10

Hilke 01/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-952

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0108043a

Analysis Date: 09-JAN-10 13:53

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	51.073	128	
1,3-Dinitrobenzene-d4	500	556.076	111	
2,4,6-Trinitrotoluene	40	41.823	105	
2,4-Dinitrotoluene	40	37.307	93	
2,6-Dinitrotoluene	40	38.365	96	
2,6-Dinitrotoluene-d3	500	533.163	107	
2-Amino-4,6-dinitrotoluene	40	47.565	119	
3,4-Dinitrotoluene	20	17.147	86	
4-Amino-2,6-dinitrotoluene	40	39.341	98	
HMX	40	45.002	113	
Nitrobenzene	40	36.425	91	
PETN	40	42.713	107	
RDX	40	40.233	101	
Tetryl	40	41.019	103	
m-Dinitrobenzene	40	45.897	115	
m-Nitrotoluene	40	36.845	92	
o-Nitrotoluene	40	34.24	86	
p-Nitrotoluene	40	43.58	109	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108043a
Date: 09-Jan-2010
Time: 13:53:47
ID: WXX100108-08CRI
Vial: 1:1,C

MMT 1/11/10

HMX

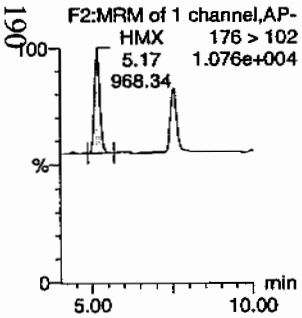

RDX

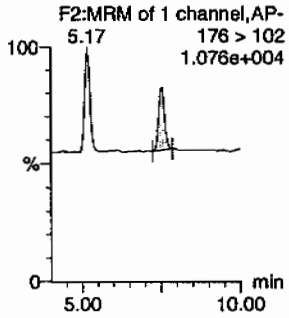

135-Trinitrobenzene

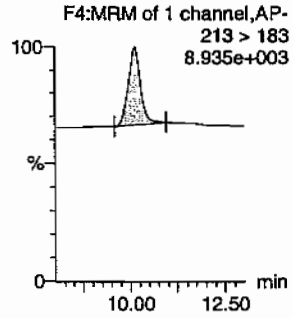

13-Dinitrobenzene-d4

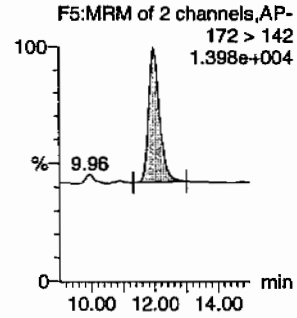

13-Dinitrobenzene

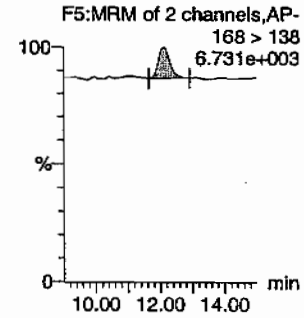

Tetryl

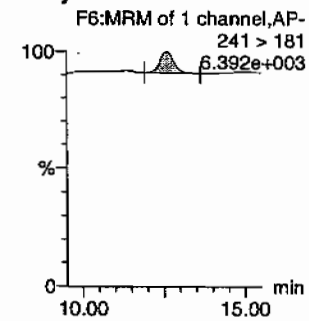

Nitrobenzene

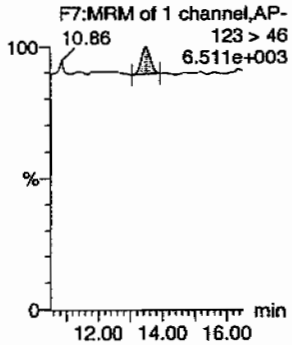

4-Amino-26-dinitrotoluene

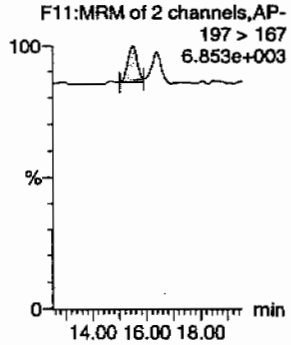

2-Amino-46-dinitrotoluene

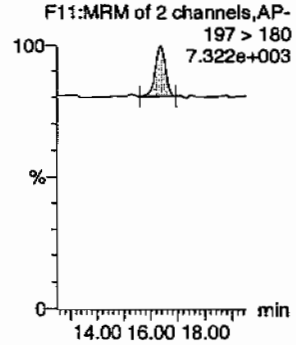

246-Trinitrotoluene

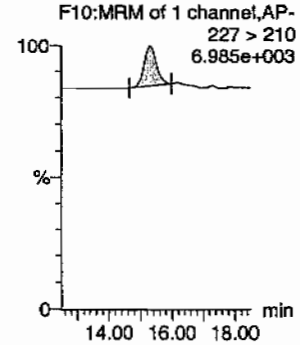

34-dinitrotoluene

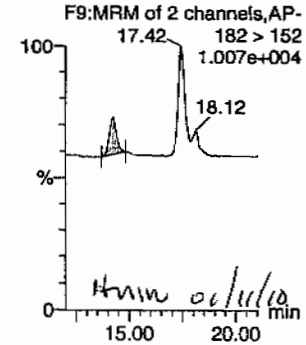

26-dinitrotoluene

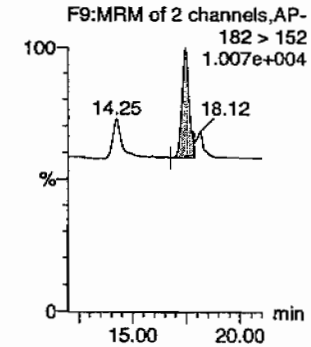

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

24-dinitrotoluene

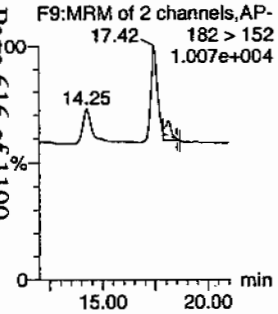

26-dinitrotoluene-d3

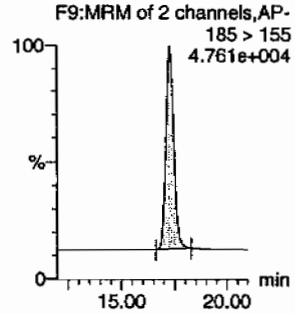

2-Nitrotoluene

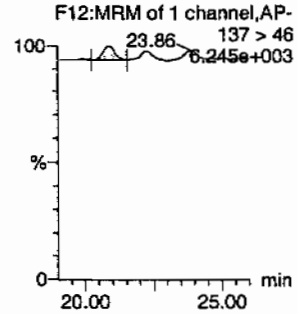

4-Nitrotoluene

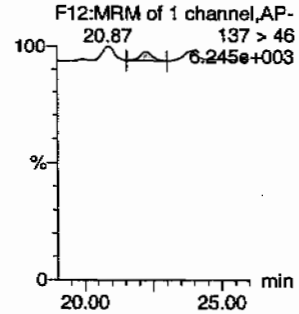

3-Nitrotoluene

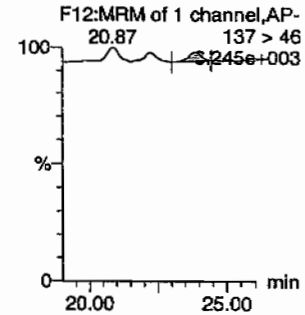

PETN

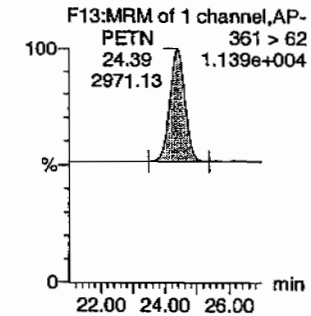

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100108-08CRI	HMX	176 > 102	5.17	968.336	3258.082	968.336	148.605	bb			45.0015	112.5	12.5	152.7
WXX100108-08CRI	RDX	176 > 102	7.54	641.765	3258.082	641.765	98.488	bb			40.2331	100.6	0.6	91.5
WXX100108-08CRI	135-Trinitrobenzene	213 > 183	10.12	1150.506	3258.082	1150.506	176.562	bb			51.0731	127.7	27.7	224.7
WXX100108-08CRI	13-Dinitrobenzene-d4	172 > 142	11.97	3258.082		3258.082	3258.082	bb			556.0760	111.2	11.2	142.1
WXX100108-08CRI	13-Dinitrobenzene	168 > 138	12.14	366.971	3258.082	366.971	56.317	bb			45.8972	114.7	14.7	33.2
WXX100108-08CRI	Tetryl	241 > 181	12.58	289.912	3258.082	289.912	44.491	bb			41.0187	102.5	2.5	30.4
WXX100108-08CRI	Nitrobenzene	123 > 46	13.50	234.126	3258.082	234.126	35.930	bb			36.4252	91.1	-8.9	16.6
WXX100108-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.49	399.489	18006.328	399.489	11.093	MM	11-Jan-10	09:05:46	39.3411	98.4	-1.6	27.0
WXX100108-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.37	630.800	18006.328	630.800	17.516	bb			47.5652	118.9	18.9	48.7
WXX100108-08CRI	246-Trinitrotoluene	227 > 210	15.31	487.525	18006.328	487.525	13.538	bb			41.8228	104.6	4.6	69.3
WXX100108-08CRI	34-dinitrotoluene	182 > 152	14.25	554.005	18006.328	554.005	15.384	bb			17.1469	85.7	-14.3	30.8
WXX100108-08CRI	26-dinitrotoluene	182 > 152	17.42	1563.905	18006.328	1563.905	43.427	MM	11-Jan-10	09:14:35	38.3648	95.9	-4.1	92.8
WXX100108-08CRI	24-dinitrotoluene	182 > 152	18.12	327.628	18006.328	327.628	9.098	MM	11-Jan-10	09:23:56	37.3072	93.3	-6.7	19.1
WXX100108-08CRI	26-dinitrotoluene-d3	185 > 155	17.27	18006.328		18006.328	18006.328	bb			533.1635	106.6	6.6	1646.2
WXX100108-08CRI	2-Nitrotoluene	137 > 46	20.87	190.615	18006.328	190.615	5.293	bb			34.2399	85.6	-14.4	43.9
WXX100108-08CRI	4-Nitrotoluene	137 > 46	22.24	132.476	18006.328	132.476	3.679	bb			43.5802	109.0	9.0	28.6
WXX100108-08CRI	3-Nitrotoluene	137 > 46	23.86	132.906	18006.328	132.906	3.691	bb			36.8452	92.1	-7.9	27.2
WXX100108-08CRI	PETN	361 > 62	24.39	2971.125	18006.328	2971.125	82.502	bb			42.7126	106.8	6.8	660.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	01/09/10
Time of Injection	1353
Standard Number	WXX100108-08CRI
Data File	EXP0108043a

HMX	112.5
RDX	100.6
135-TNB	127.7
13-DNB	114.7
Tetryl	102.5
Nitrobenzene	91.1
4A-26-DNT	98.4
2A-46-DNT	118.9
246-TNT	104.6
34-DNT(surr)	85.7
26-DNT	95.9
24-DNT	93.3
2-NT	85.6
4-NT	109.0
3-NT	92.1
PETN	106.8
Total	1639.4
Average	102.5

MJT 1/11/10

HMW 01/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–952

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0108054a

Analysis Date: 09–JAN–10 19:18

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
HMX	600	474.068	79	*
Nitrobenzene	600	548.71	91	
PETN	600	562.416	94	
RDX	600	560.942	93	
Tetryl	600	481.886	80	
m–Dinitrobenzene	600	590.009	98	
m–Nitrotoluene	600	497.526	83	
o–Nitrotoluene	600	568.858	95	
p–Nitrotoluene	600	550.462	92	
1,3,5–Trinitrobenzene	600	546.192	91	
1,3–Dinitrobenzene–d4	500	515.635	103	
2,4,6–Trinitrotoluene	600	625.678	104	
2,4–Dinitrotoluene	600	582.101	97	
2,6–Dinitrotoluene	600	568.59	95	
2,6–Dinitrotoluene–d3	500	549.388	110	
2–Amino–4,6–dinitrotoluene	600	621.715	104	
3,4–Dinitrotoluene	300	288.143	96	
4–Amino–2,6–dinitrotoluene	600	555.588	93	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108054a
Date: 09-Jan-2010
Time: 19:18:19
ID: WXX100108-07CCV
Vial: 1:1,B

MM 1/11/10

HMX

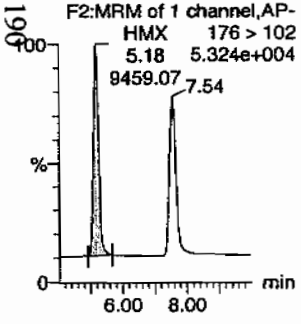

RDX

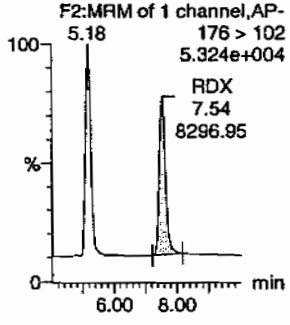

135-Trinitrobenzene

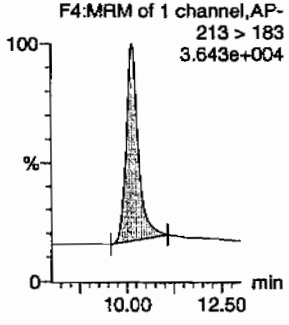

13-Dinitrobenzene-d4

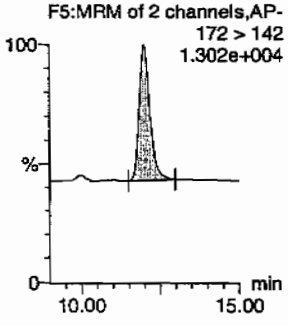

13-Dinitrobenzene

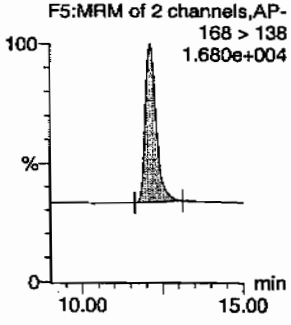

Tetryl

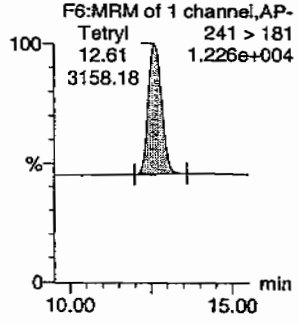

Nitrobenzene

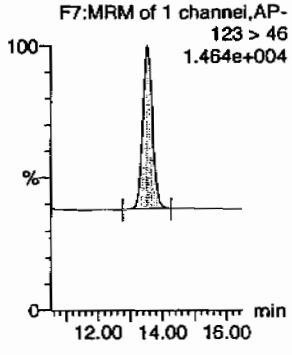

4-Amino-26-dinitrotoluene

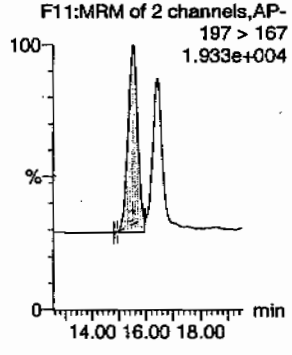

2-Amino-46-dinitrotoluene

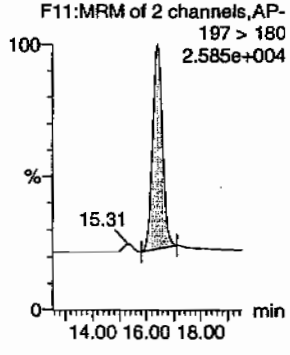

246-Trinitrotoluene

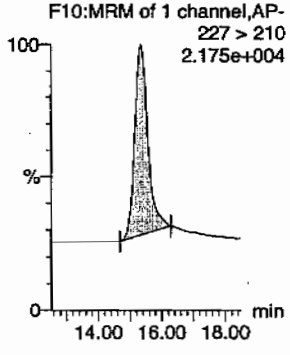

34-dinitrotoluene

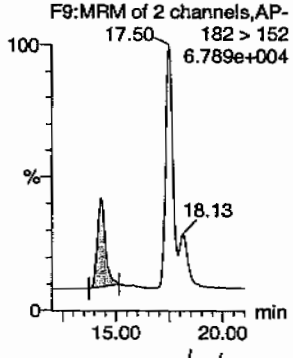

Hmw 01/11/10

26-dinitrotoluene

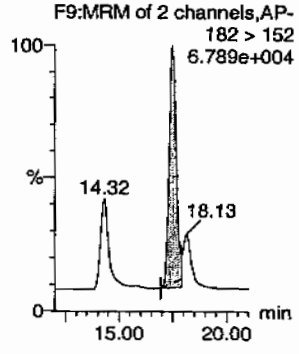

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

24-dinitrotoluene

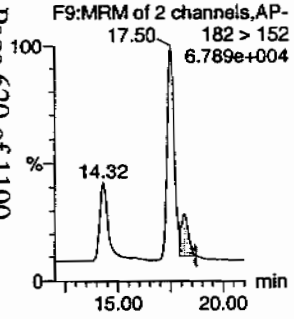

26-dinitrotoluene-d3

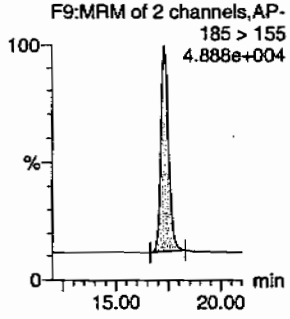

2-Nitrotoluene

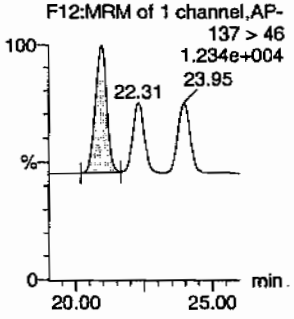

4-Nitrotoluene

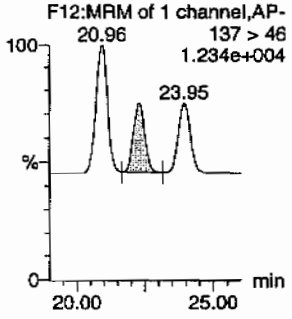

3-Nitrotoluene

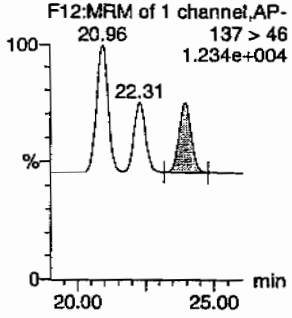

PETN

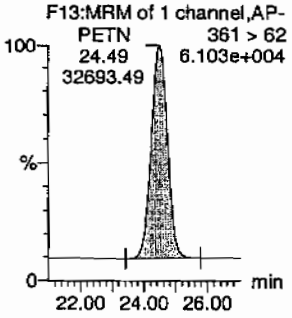

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100108-07CCV	HMX	176 > 102	5.18	9459.069	3021.138	9459.069	1565.481	bb			474.0684	79.0	-21.0	1228.8
WXX100108-07CCV	RDX	176 > 102	7.54	8296.951	3021.138	8296.951	1373.150	bb			560.9419	93.5	-6.5	919.4
WXX100108-07CCV	135-Trinitrobenzene	213 > 183	10.14	11409.079	3021.138	11409.079	1888.209	bb			546.1919	91.0	-9.0	1312.9
WXX100108-07CCV	13-Dinitrobenzene-d4	172 > 142	12.00	3021.138		3021.138	3021.138	bb			515.6354	103.1	3.1	134.5
WXX100108-07CCV	13-Dinitrobenzene	168 > 138	12.13	4374.350	3021.138	4374.350	723.957	bb			590.0094	98.3	-1.7	436.8
WXX100108-07CCV	Tetryl	241 > 181	12.61	3158.181	3021.138	3158.181	522.681	bb			481.8860	80.3	-19.7	408.0
WXX100108-07CCV	Nitrobenzene	123 > 46	13.53	3270.393	3021.138	3270.393	541.252	bb			548.7103	91.5	-8.5	224.6
WXX100108-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.55	5813.388	18554.258	5813.388	156.659	MM	11-Jan-10	09:06:02	555.5882	92.6	-7.4	164.1
WXX100108-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.42	8495.949	18554.258	8495.949	228.949	bb			621.7149	103.6	3.6	235.6
WXX100108-07CCV	246-Trinitrotoluene	227 > 210	15.33	7515.410	18554.258	7515.410	202.525	bb			625.6778	104.3	4.3	435.6
WXX100108-07CCV	34-dinitrotoluene	182 > 152	14.32	9593.035	18554.258	9593.035	258.513	bb			288.1433	96.0	-4.0	307.7
WXX100108-07CCV	26-dinitrotoluene	182 > 152	17.50	23883.365	18554.258	23883.365	643.609	MM	11-Jan-10	09:14:47	568.5900	94.8	-5.2	844.5
WXX100108-07CCV	24-dinitrotoluene	182 > 152	18.13	5267.504	18554.258	5267.504	141.949	MM	11-Jan-10	09:23:30	582.1005	97.0	-3.0	170.3
WXX100108-07CCV	26-dinitrotoluene-d3	185 > 155	17.32	18554.258		18554.258	18554.258	bb			549.3876	109.9	9.9	1202.2
WXX100108-07CCV	2-Nitrotoluene	137 > 46	20.96	3263.225	18554.258	3263.225	87.937	bb			568.8582	94.8	-5.2	533.6
WXX100108-07CCV	4-Nitrotoluene	137 > 46	22.31	1724.223	18554.258	1724.223	46.464	bb			550.4617	91.7	-8.3	286.9
WXX100108-07CCV	3-Nitrotoluene	137 > 46	23.95	1849.261	18554.258	1849.261	49.834	bb			497.5264	82.9	-17.1	286.3
WXX100108-07CCV	PETN	361 > 62	24.49	32693.492	18554.258	32693.492	881.024	bb			562.4164	93.7	-6.3	3672.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 01/09/10
Time of Injection: 1918
Standard Number: WXX100108-07CCV
Data File: EXP0108054a

HMX		79.0
RDX		93.5
135-TNB		91.0
13-DNB		98.3
Tetryl		80.3
Nitrobenzene		91.5
4A-26-DNT		92.6
2A-46-DNT		103.6
246-TNT		104.3
34-DNT(surr)		96.0
26-DNT		94.8
24-DNT		97.0
2-NT		94.8
4-NT		91.7
3-NT		82.9
PETN		93.7
Total		1485.0
Average		92.8

MAT 1/11/10

Hmc 01/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-952

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0108056a

Analysis Date: 09-JAN-10 20:17

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2-Amino-4,6-dinitrotoluene	40	44.757	112	
3,4-Dinitrotoluene	20	21.59	108	
4-Amino-2,6-dinitrotoluene	40	36.912	92	
HMX	40	43.588	109	
Nitrobenzene	40	46.771	117	
PETN	40	57.163	143	*
RDX	40	43.887	110	
Tetryl	40	33.653	84	
m-Dinitrobenzene	40	43.08	108	
m-Nitrotoluene	40	44.272	111	
o-Nitrotoluene	40	43.778	109	
p-Nitrotoluene	40	35.576	89	
1,3,5-Trinitrobenzene	40	59.27	148	*
1,3-Dinitrobenzene-d4	500	464.374	93	
2,4,6-Trinitrotoluene	40	38.265	96	
2,4-Dinitrotoluene	40	43.974	110	
2,6-Dinitrotoluene	40	38.05	95	
2,6-Dinitrotoluene-d3	500	479.013	96	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108056a
Date: 09-Jan-2010
Time: 20:17:22
ID: WXX100108-08CRI
Vial: 1:1,C

MAP 1/11/10

Page 50 of 190

HMX

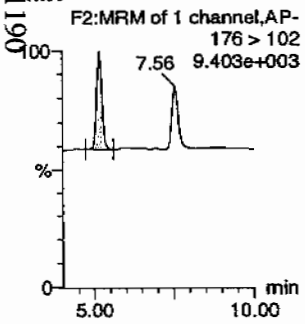

RDX

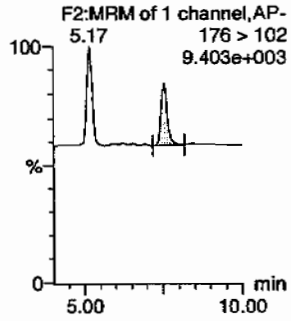

135-Trinitrobenzene

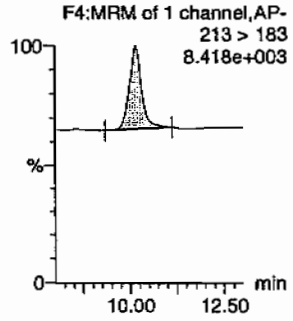

13-Dinitrobenzene-d4

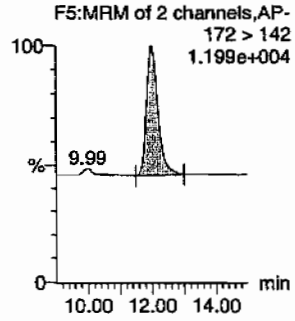

13-Dinitrobenzene

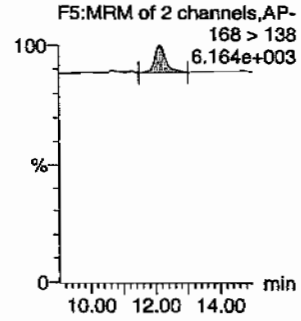

Tetryl

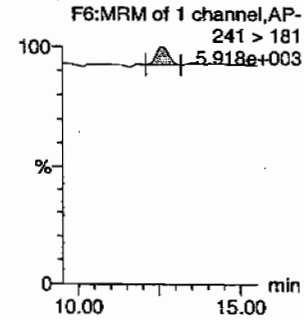

Nitrobenzene

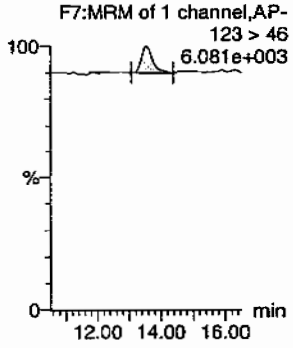

4-Amino-26-dinitrotoluene

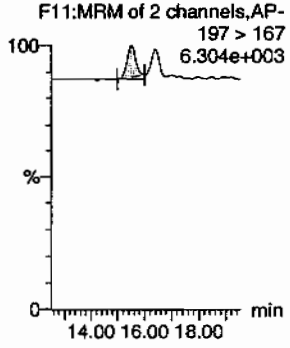

2-Amino-46-dinitrotoluene

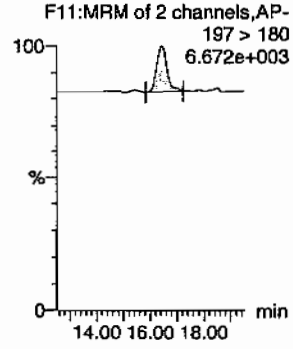

246-Trinitrotoluene

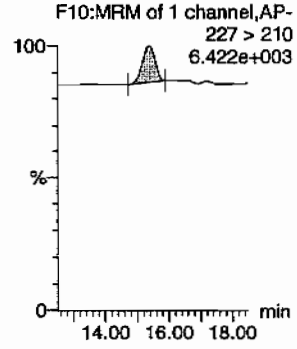

34-dinitrotoluene

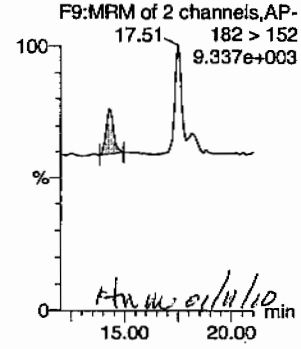

HMW 01/11/10

26-dinitrotoluene

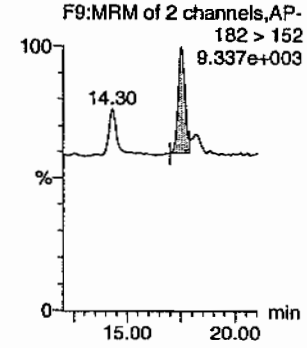

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

24-dinitrotoluene

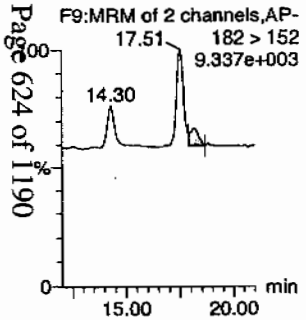

26-dinitrotoluene-d3

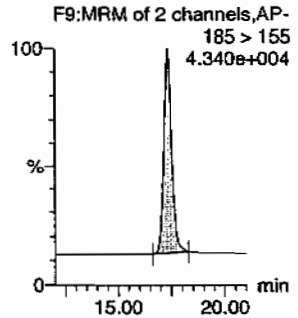

2-Nitrotoluene

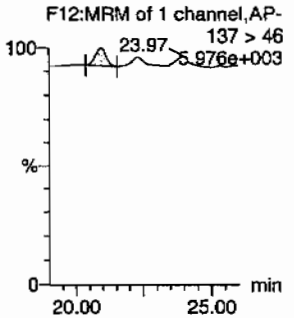

4-Nitrotoluene

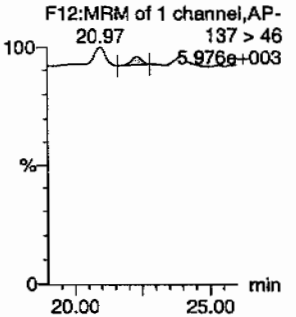

3-Nitrotoluene

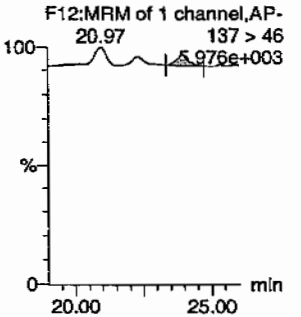

PETN

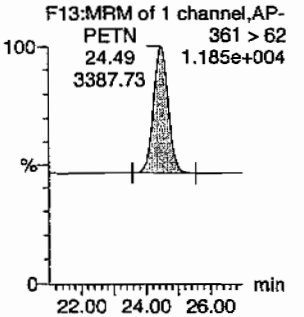

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100108-08CRI	HMX	176 > 102	5.17	783.247	2720.792	783.247	143.937	bb			43.5880	109.0	9.0	87.1
WXX100108-08CRI	RDX	176 > 102	7.56	584.604	2720.792	584.604	107.433	bb			43.8870	109.7	9.7	54.2
WXX100108-08CRI	135-Trinitrobenzene	213 > 183	10.16	1114.972	2720.792	1114.972	204.898	bb			59.2698	148.2	48.2	39.1
WXX100108-08CRI	13-Dinitrobenzene-d4	172 > 142	12.00	2720.792		2720.792	2720.792	bb			464.3736	92.9	-7.1	295.8
WXX100108-08CRI	13-Dinitrobenzene	168 > 138	12.14	287.645	2720.792	287.645	52.861	bb			43.0802	107.7	7.7	36.7
WXX100108-08CRI	Tetryl	241 > 181	12.63	198.626	2720.792	198.626	36.502	bb			33.6526	84.1	-15.9	28.5
WXX100108-08CRI	Nitrobenzene	123 > 46	13.54	251.050	2720.792	251.050	46.135	bb			46.7712	116.9	16.9	30.5
WXX100108-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.53	336.755	16177.508	336.755	10.408	MM	11-Jan-10	09:06:10	36.9122	92.3	-7.7	31.9
WXX100108-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.44	533.268	16177.508	533.268	16.482	bb			44.7566	111.9	11.9	34.3
WXX100108-08CRI	246-Trinitrotoluene	227 > 210	15.38	400.744	16177.508	400.744	12.386	bb			38.2646	95.7	-4.3	31.7
WXX100108-08CRI	34-dinitrotoluene	182 > 152	14.30	626.704	16177.508	626.704	19.370	bb			21.5897	107.9	7.9	28.9
WXX100108-08CRI	26-dinitrotoluene	182 > 152	17.51	1393.554	16177.508	1393.554	43.071	MM	11-Jan-10	09:14:56	38.0504	95.1	-4.9	67.5
WXX100108-08CRI	24-dinitrotoluene	182 > 152	18.17	346.954	16177.508	346.954	10.723	MM	11-Jan-10	09:23:22	43.9741	109.9	9.9	12.9
WXX100108-08CRI	26-dinitrotoluene-d3	185 > 155	17.34	16177.508		16177.508	16177.508	bb			479.0125	95.8	-4.2	801.7
WXX100108-08CRI	2-Nitrotoluene	137 > 46	20.97	218.959	16177.508	218.959	6.767	bb			43.7776	109.4	9.4	47.3
WXX100108-08CRI	4-Nitrotoluene	137 > 46	22.32	97.162	16177.508	97.162	3.003	bb			35.5764	88.9	-11.1	21.4
WXX100108-08CRI	3-Nitrotoluene	137 > 46	23.97	143.475	16177.508	143.475	4.434	bb			44.2717	110.7	10.7	28.3
WXX100108-08CRI	PETN	361 > 62	24.49	3387.729	16177.508	3387.729	104.705	bb			57.1628	142.9	42.9	920.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	01/09/10
Time of Injection	2017
Standard Number	WXX100108-08CRI
Data File	EXP0108056a

HMX	109.0
RDX	109.7
135-TNB	148.2
13-DNB	107.7
Tetryl	84.1
Nitrobenzene	116.9
4A-26-DNT	92.3
2A-46-DNT	111.9
246-TNT	95.7
34-DNT(surr)	107.9
26-DNT	95.1
24-DNT	109.9
2-NT	109.4
4-NT	88.9
3-NT	110.7
PETN	142.9
Total	1740.3
Average	108.8

MTT 1/11/10

thme 01/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-952

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0108066a

Analysis Date: 10-JAN-10 01:13

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	637.826	106	
1,3-Dinitrobenzene-d4	500	554.289	111	
2,4,6-Trinitrotoluene	600	790.151	132	*
2,4-Dinitrotoluene	600	601.975	100	
2,6-Dinitrotoluene	600	582.905	97	
2,6-Dinitrotoluene-d3	500	575.13	115	
2-Amino-4,6-dinitrotoluene	600	641.928	107	
3,4-Dinitrotoluene	300	305.145	102	
4-Amino-2,6-dinitrotoluene	600	585.652	98	
HMX	600	500.389	83	
Nitrobenzene	600	569.202	95	
PETN	600	542.393	90	
RDX	600	593.14	99	
Tetryl	600	538.678	90	
m-Dinitrobenzene	600	571.489	95	
m-Nitrotoluene	600	407.7	68	*
o-Nitrotoluene	600	451.552	75	*
p-Nitrotoluene	600	433.745	72	*

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108066a
Date: 10-Jan-2010
Time: 01:13:31
ID: WXX100108-07CCV
Vial: 1:1,B

MMT 1/11/10

HMX

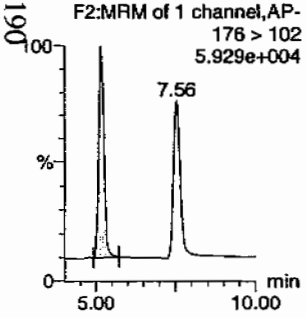

RDX

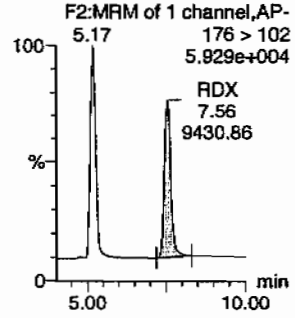

135-Trinitrobenzene

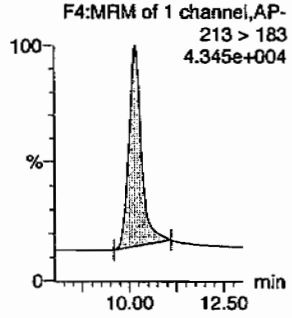

13-Dinitrobenzene-d4

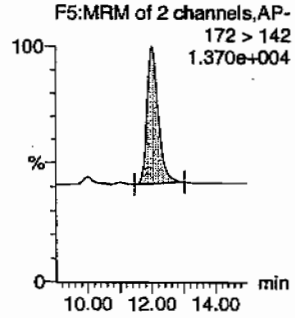

13-Dinitrobenzene

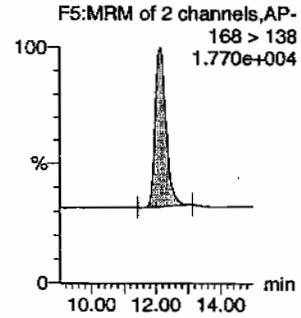

Tetryl

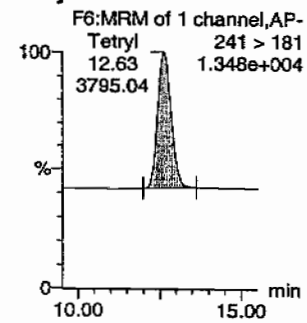

Nitrobenzene

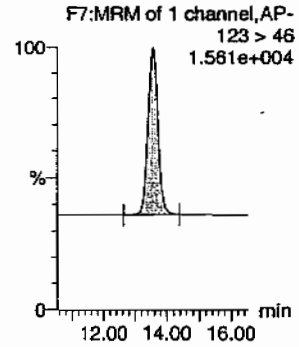

4-Amino-26-dinitrotoluene

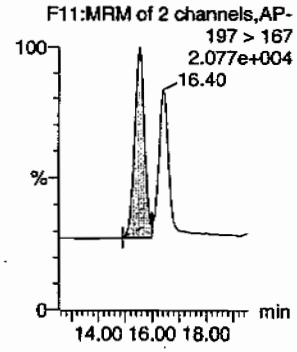

2-Amino-46-dinitrotoluene

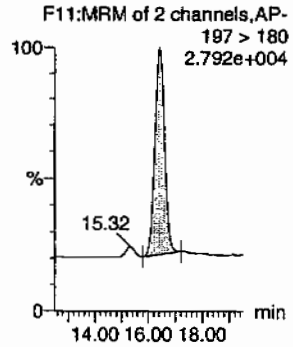

246-Trinitrotoluene

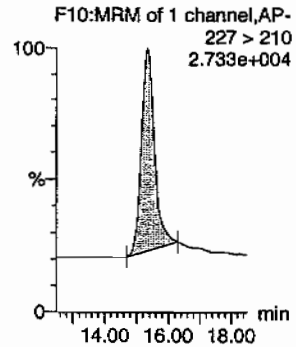

34-dinitrotoluene

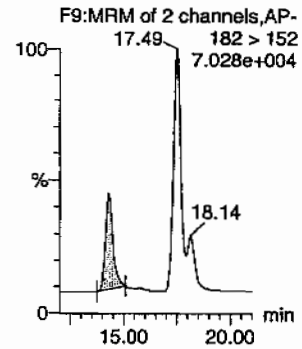

HMW 01/11/10

26-dinitrotoluene

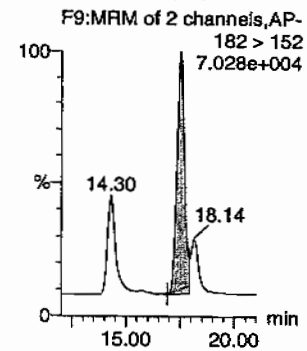

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

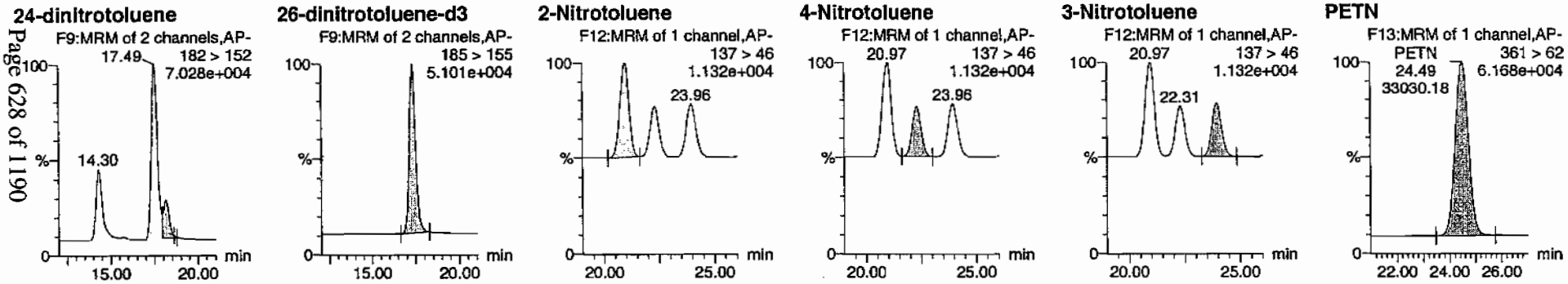

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100108-07CCV	HMX	176 > 102	5.17	10732.693	3247.612	10732.693	1652.398	db			500.3890	83.4	-16.6	804.1
WXX100108-07CCV	RDX	176 > 102	7.56	9430.865	3247.612	9430.865	1451.969	bb			593.1401	98.9	-1.1	595.0
WXX100108-07CCV	135-Trinitrobenzene	213 > 183	10.16	14321.917	3247.612	14321.917	2204.992	bb			637.8260	106.3	6.3	6066.5
WXX100108-07CCV	13-Dinitrobenzene-d4	172 > 142	12.00	3247.612		3247.612	3247.612	bb			554.2890	110.9	10.9	263.0
WXX100108-07CCV	13-Dinitrobenzene	168 > 138	12.14	4554.662	3247.612	4554.662	701.232	bb			571.4892	95.2	-4.8	475.3
WXX100108-07CCV	Tetryl	241 > 181	12.63	3795.036	3247.612	3795.036	584.281	bb			538.6785	89.8	-10.2	340.6
WXX100108-07CCV	Nitrobenzene	123 > 46	13.54	3646.844	3247.612	3646.844	561.465	bb			569.2025	94.9	-5.1	295.4
WXX100108-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.53	6415.093	19423.633	6415.093	165.136	MM	11-Jan-10	09:06:45	585.6522	97.6	-2.4	328.3
WXX100108-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.43	9183.197	19423.633	9183.197	236.392	bb			641.9282	107.0	7.0	471.0
WXX100108-07CCV	246-Trinitrotoluene	227 > 210	15.34	9935.715	19423.633	9935.715	255.764	bb			790.1514	131.7	31.7	515.5
WXX100108-07CCV	34-dinitrotoluene	182 > 152	14.30	10635.084	19423.633	10635.084	273.767	bb			305.1452	101.7	1.7	232.5
WXX100108-07CCV	26-dinitrotoluene	182 > 152	17.49	25631.902	19423.633	25631.902	659.812	MM	11-Jan-10	09:16:07	582.9048	97.2	-2.8	583.9
WXX100108-07CCV	24-dinitrotoluene	182 > 152	18.14	5702.588	19423.633	5702.588	146.795	MM	11-Jan-10	09:22:39	601.9747	100.3	0.3	127.3
WXX100108-07CCV	26-dinitrotoluene-d3	185 > 155	17.33	19423.633		19423.633	19423.633	bb			575.1296	115.0	15.0	2673.4
WXX100108-07CCV	2-Nitrotoluene	137 > 46	20.97	2711.674	19423.633	2711.674	69.803	bb			451.5519	75.3	-24.7	549.0
WXX100108-07CCV	4-Nitrotoluene	137 > 46	22.31	1422.287	19423.633	1422.287	36.612	bb			433.7446	72.3	-27.7	288.5
WXX100108-07CCV	3-Nitrotoluene	137 > 46	23.96	1586.388	19423.633	1586.388	40.837	bb			407.6997	67.9	-32.1	306.5
WXX100108-07CCV	PETN	361 > 62	24.49	33030.180	19423.633	33030.180	850.258	bb			542.3926	90.4	-9.6	5856.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 01/10/10
Time of Injection: 0113
Standard Number: WXX100108-07CCV
Data File: EXP0108066a

HMX		83.4
RDX		98.9
135-TNB		106.3
13-DNB		95.2
Tetryl		89.8
Nitrobenzene		94.9
4A-26-DNT		97.6
2A-46-DNT		107.0
246-TNT		131.7
34-DNT(surr)		101.7
26-DNT		97.2
24-DNT		100.3
2-NT		75.3
4-NT		72.3
3-NT		67.9
PETN		90.4
Total		1509.9
Average		94.4

MMP 1/11/10

HMM 01/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–952

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0108068a

Analysis Date: 10–JAN–10 02:12

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p–Nitrotoluene	40	41.342	103	
1,3,5–Trinitrobenzene	40	52.772	132	*
1,3–Dinitrobenzene–d4	500	489.728	98	
2,4,6–Trinitrotoluene	40	47.037	118	
2,4–Dinitrotoluene	40	38.543	96	
2,6–Dinitrotoluene	40	42.215	106	
2,6–Dinitrotoluene–d3	500	499.867	100	
2–Amino–4,6–dinitrotoluene	40	39.507	99	
3,4–Dinitrotoluene	20	17.76	89	
4–Amino–2,6–dinitrotoluene	40	38.627	97	
HMX	40	52.773	132	*
Nitrobenzene	40	36.499	91	
PETN	40	53.186	133	*
RDX	40	42.566	106	
Tetryl	40	39.965	100	
m–Dinitrobenzene	40	42.808	107	
m–Nitrotoluene	40	47.09	118	
o–Nitrotoluene	40	38.112	95	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108068a
Date: 10-Jan-2010
Time: 02:12:36
ID: WXX100108-08CRI
Vial: 1:1,C

MMT 1/11/10

HMX

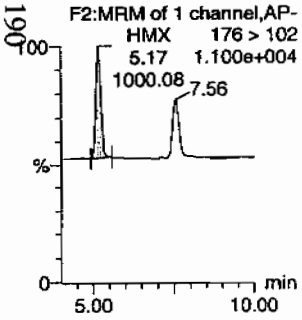

RDX

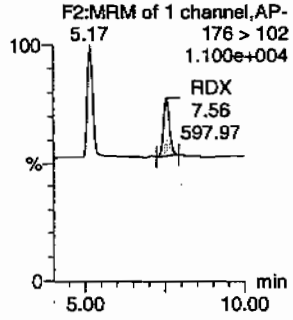

135-Trinitrobenzene

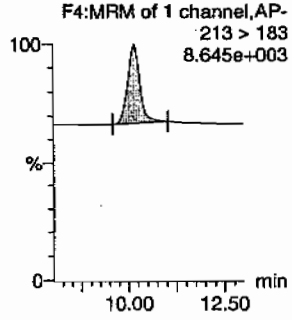

13-Dinitrobenzene-d4

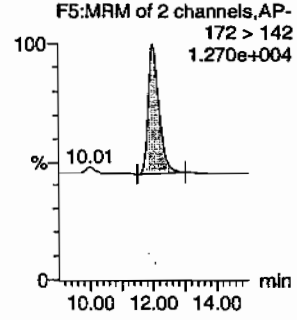

13-Dinitrobenzene

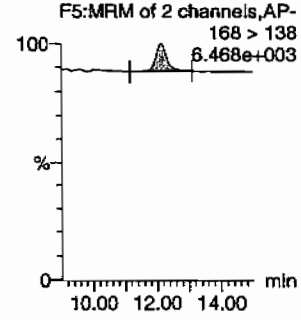

Tetryl

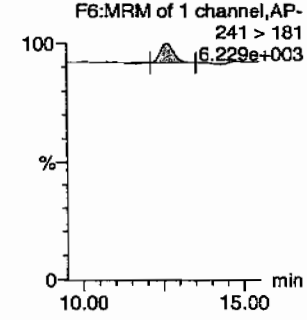

Nitrobenzene

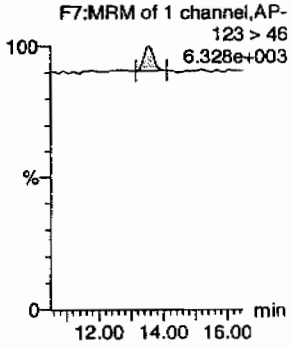

4-Amino-26-dinitrotoluene

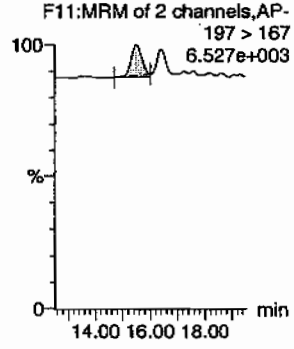

2-Amino-46-dinitrotoluene

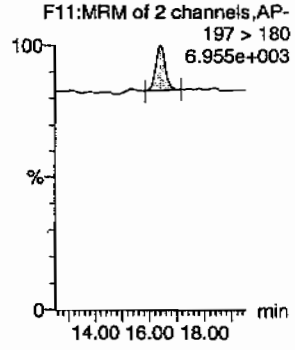

246-Trinitrotoluene

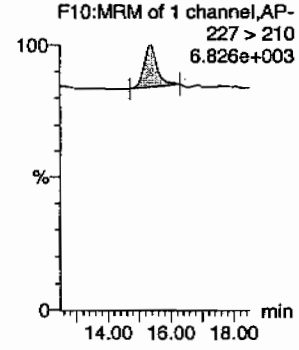

34-dinitrotoluene

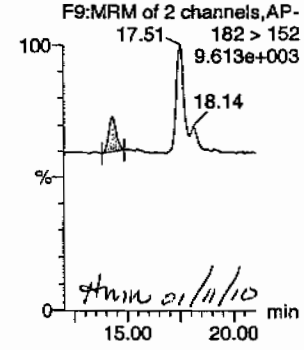

Hmm 01/11/10

26-dinitrotoluene

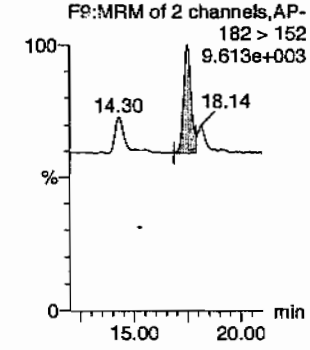

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

24-dinitrotoluene

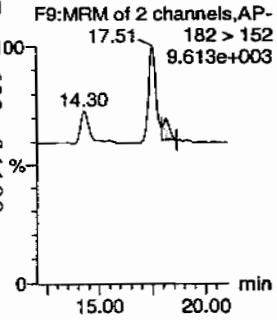

26-dinitrotoluene-d3

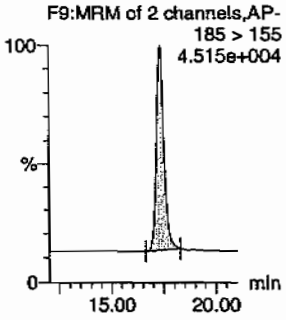

2-Nitrotoluene

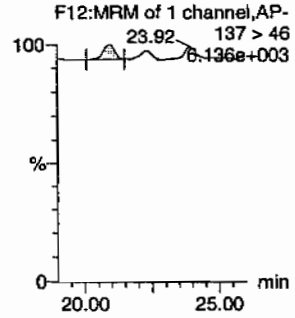

4-Nitrotoluene

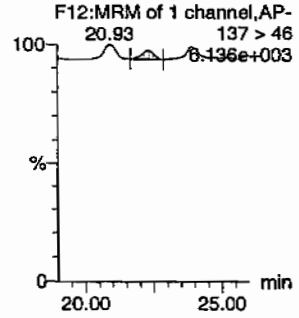

3-Nitrotoluene

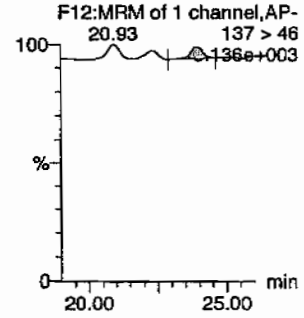

PETN

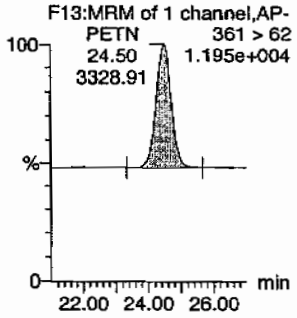

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	mg/mL	%Rec	%Dev	S/N
WXX100108-08CRI	HMX	176 > 102	5.17	1000.080	2869.344	1000.080	174.270	bb			52.7734	131.9	31.9	216.7
WXX100108-08CRI	RDX	176 > 102	7.56	597.971	2869.344	597.971	104.200	bb			42.5664	106.4	6.4	111.6
WXX100108-08CRI	135-Trinitrobenzene	213 > 183	10.14	1046.944	2869.344	1046.944	182.436	bb			52.7723	131.9	31.9	277.3
WXX100108-08CRI	13-Dinitrobenzene-d4	172 > 142	12.00	2869.344		2869.344	2869.344	bb			489.7278	97.9	-2.1	169.3
WXX100108-08CRI	13-Dinitrobenzene	168 > 138	12.17	301.431	2869.344	301.431	52.526	bb			42.8076	107.0	7.0	47.6
WXX100108-08CRI	Tetryl	241 > 181	12.63	248.762	2869.344	248.762	43.348	bb			39.9649	99.9	-0.1	17.0
WXX100108-08CRI	Nitrobenzene	123 > 46	13.54	206.607	2869.344	206.607	36.002	bb			36.4986	91.2	-8.8	22.2
WXX100108-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.49	367.739	16881.805	367.739	10.892	MM	11-Jan-10	09:06:52	38.6267	96.6	-3.4	19.0
WXX100108-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.40	491.218	16881.805	491.218	14.549	bb			39.5074	98.8	-1.2	40.8
WXX100108-08CRI	246-Trinitrotoluene	227 > 210	15.34	514.065	16881.805	514.065	15.225	bb			47.0371	117.6	17.6	82.4
WXX100108-08CRI	34-dinitrotoluene	182 > 152	14.30	537.975	16881.805	537.975	15.934	bb			17.7598	88.8	-11.2	26.1
WXX100108-08CRI	26-dinitrotoluene	182 > 152	17.51	1613.374	16881.805	1613.374	47.784	MM	11-Jan-10	09:16:15	42.2147	105.5	5.5	79.8
WXX100108-08CRI	24-dinitrotoluene	182 > 152	18.14	317.340	16881.805	317.340	9.399	MM	11-Jan-10	09:22:29	38.5427	96.4	-3.6	17.7
WXX100108-08CRI	26-dinitrotoluene-d3	185 > 155	17.33	16881.805		16881.805	16881.805	bb			499.8666	100.0	-0.0	2371.4
WXX100108-08CRI	2-Nitrotoluene	137 > 46	20.93	198.923	16881.805	198.923	5.892	bb			38.1124	95.3	-4.7	45.2
WXX100108-08CRI	4-Nitrotoluene	137 > 46	22.33	117.823	16881.805	117.823	3.490	bb			41.3417	103.4	3.4	26.7
WXX100108-08CRI	3-Nitrotoluene	137 > 46	23.92	159.253	16881.805	159.253	4.717	bb			47.0902	117.7	17.7	36.6
WXX100108-08CRI	PETN	361 > 62	24.50	3328.914	16881.805	3328.914	98.595	bb			53.1861	133.0	33.0	1467.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	01/10/10
Time of Injection	0212
Standard Number	WXX100108-08CRI
Data File	EXP0108068a

HMX	131.9
RDX	106.4
135-TNB	131.9
13-DNB	107.0
Tetryl	99.9
Nitrobenzene	91.2
4A-26-DNT	96.6
2A-46-DNT	98.8
246-TNT	117.6
34-DNT(surr)	88.8
26-DNT	105.5
24-DNT	96.4
2-NT	95.3
4-NT	103.4
3-NT	117.7
PETN	133.0
Total	1721.4
Average	107.6

MT 1/11/10

Hmw 01/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–952

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0108091a

Analysis Date: 10–JAN–10 13:31

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
RDX	600	698.264	116	
Tetryl	600	543.131	91	
m–Dinitrobenzene	600	619.419	103	
m–Nitrotoluene	600	512.942	85	
o–Nitrotoluene	600	583.602	97	
p–Nitrotoluene	600	560.912	93	
1,3,5–Trinitrobenzene	600	650.958	108	
1,3–Dinitrobenzene–d4	500	458.91	92	
2,4,6–Trinitrotoluene	600	699.324	117	
2,4–Dinitrotoluene	600	592.866	99	
2,6–Dinitrotoluene	600	564.473	94	
2,6–Dinitrotoluene–d3	500	474.354	95	
2–Amino–4,6–dinitrotoluene	600	667.151	111	
3,4–Dinitrotoluene	300	291.884	97	
4–Amino–2,6–dinitrotoluene	600	599.072	100	
HMX	600	647.797	108	
Nitrobenzene	600	571.253	95	
PETN	600	710.624	118	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108091a
Date: 10-Jan-2010
Time: 13:31:19
ID: WXX100108-07CCV
Vial: 1:1,B

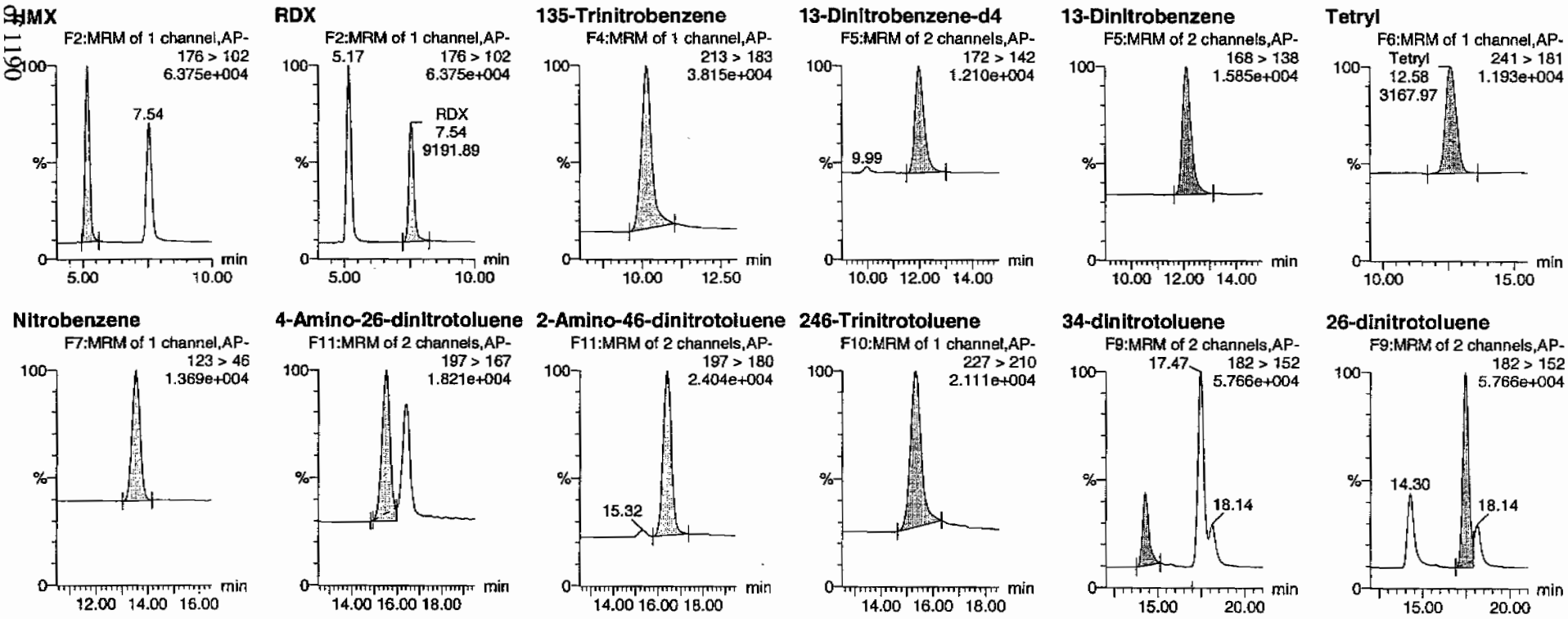

HM 01/11/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

24-dinitrotoluene

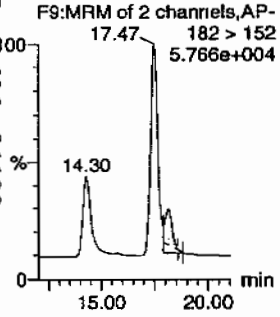

26-dinitrotoluene-d3

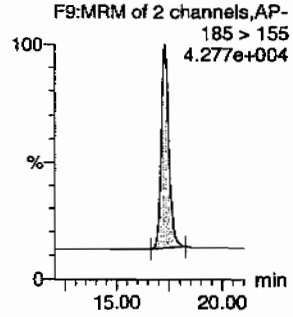

2-Nitrotoluene

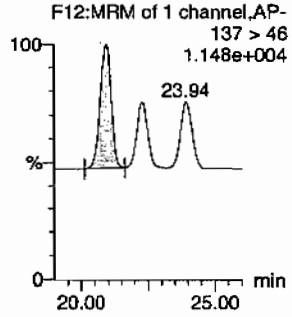

4-Nitrotoluene

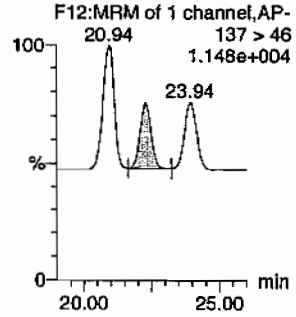

3-Nitrotoluene

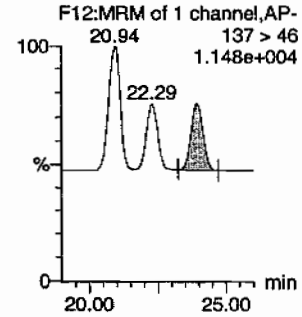

PETN

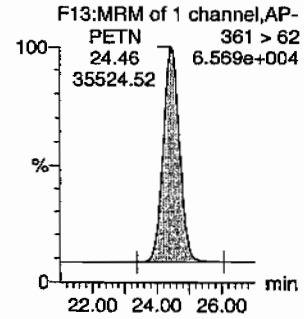

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100108-07CCV	HMX	176 > 102	5.17	11503.515	2688.778	11503.515	2139.172	bb			647.7968	108.0	8.0	1281.5
WXX100108-07CCV	RDX	176 > 102	7.54	9191.890	2688.778	9191.890	1709.306	bb			698.2642	116.4	16.4	864.1
WXX100108-07CCV	135-Trinitrobenzene	213 > 183	10.14	12101.591	2688.778	12101.591	2250.389	bb			650.9576	108.5	8.5	1043.6
WXX100108-07CCV	13-Dinitrobenzene-d4	172 > 142	11.97	2688.778		2688.778	2688.778	bb			458.9096	91.8	-8.2	101.2
WXX100108-07CCV	13-Dinitrobenzene	168 > 138	12.10	4087.176	2688.778	4087.176	760.043	bb			619.4188	103.2	3.2	428.2
WXX100108-07CCV	Tetryl	241 > 181	12.58	3167.974	2688.778	3167.974	589.110	bb			543.1309	90.5	-9.5	206.3
WXX100108-07CCV	Nitrobenzene	123 > 46	13.54	3030.191	2688.778	3030.191	563.489	bb			571.2534	95.2	-4.8	227.8
WXX100108-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.53	5412.261	16020.170	5412.261	168.920	MM	11-Jan-10	09:08:09	599.0718	99.8	-0.2	112.2
WXX100108-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.40	7871.692	16020.170	7871.692	245.681	bb			667.1507	111.2	11.2	718.2
WXX100108-07CCV	246-Trinitrotoluene	227 > 210	15.34	7252.766	16020.170	7252.766	226.364	bb			699.3236	116.6	16.6	548.9
WXX100108-07CCV	34-dinitrotoluene	182 > 152	14.30	8390.373	16020.170	8390.373	261.869	bb			291.8839	97.3	-2.7	271.7
WXX100108-07CCV	26-dinitrotoluene	182 > 152	17.47	20472.125	16020.170	20472.125	638.948	MM	11-Jan-10	09:17:26	564.4729	94.1	-5.9	719.2
WXX100108-07CCV	24-dinitrotoluene	182 > 152	18.14	4632.196	16020.170	4632.196	144.574	MM	11-Jan-10	09:21:10	592.8659	98.8	-1.2	150.3
WXX100108-07CCV	26-dinitrotoluene-d3	185 > 155	17.31	16020.170		16020.170	16020.170	bb			474.3538	94.9	-5.1	1314.4
WXX100108-07CCV	2-Nitrotoluene	137 > 46	20.94	2890.570	16020.170	2890.570	90.217	bb			583.6023	97.3	-2.7	223.5
WXX100108-07CCV	4-Nitrotoluene	137 > 46	22.29	1516.997	16020.170	1516.997	47.346	bb			560.9122	93.5	-6.5	118.9
WXX100108-07CCV	3-Nitrotoluene	137 > 46	23.94	1646.168	16020.170	1646.168	51.378	bb			512.9423	85.5	-14.5	119.9
WXX100108-07CCV	PETN	361 > 62	24.46	35524.516	16020.170	35524.516	1108.743	bb			710.6236	118.4	18.4	1262.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 01/10/10
Time of Injection: 1331
Standard Number: WXX100108-07CCV
Data File: EXP0108091a

HMX		108.0
RDX		116.4
135-TNB		108.5
13-DNB		103.2
Tetryl		90.5
Nitrobenzene		95.2
4A-26-DNT		99.8
2A-46-DNT		111.2
246-TNT		116.6
34-DNT(surr)		97.3
26-DNT		94.1
24-DNT		98.8
2-NT		97.3
4-NT		93.5
3-NT		85.5
PETN		118.4
Total		1634.3
Average		102.1

MAT 1/11/10

Hmc 01/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-952

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0108093a

Analysis Date: 10-JAN-10 14:30

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
HMX	40	47.029	118	
Nitrobenzene	40	39.943	100	
PETN	40	62.987	157	*
RDX	40	41.581	104	
Tetryl	40	41.48	104	
m-Dinitrobenzene	40	34.915	87	
m-Nitrotoluene	40	46.334	116	
o-Nitrotoluene	40	48.232	121	
p-Nitrotoluene	40	37.864	95	
1,3,5-Trinitrobenzene	40	55.778	139	*
1,3-Dinitrobenzene-d4	500	485.529	97	
2,4,6-Trinitrotoluene	40	42.864	107	
2,4-Dinitrotoluene	40	40.064	100	
2,6-Dinitrotoluene	40	37.592	94	
2,6-Dinitrotoluene-d3	500	487.002	97	
2-Amino-4,6-dinitrotoluene	40	40.747	102	
3,4-Dinitrotoluene	20	23.656	118	
4-Amino-2,6-dinitrotoluene	40	41.941	105	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108093a
Date: 10-Jan-2010
Time: 14:30:21
ID: WXX100108-08CRI
Vial: 1:1,C

MMT 1/11/10

HMX

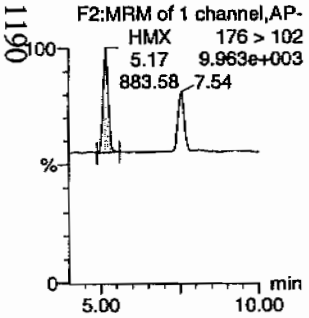

RDX

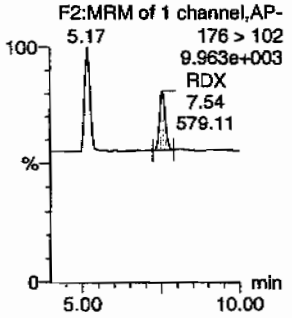

135-Trinitrobenzene

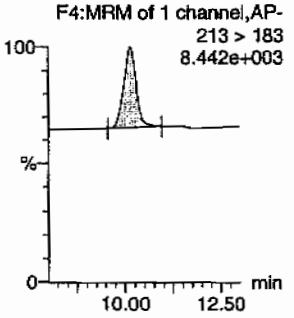

13-Dinitrobenzene-d4

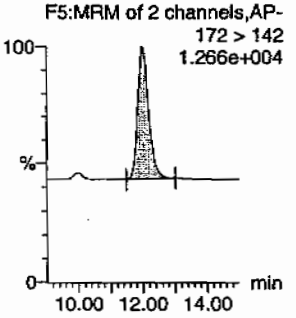

13-Dinitrobenzene

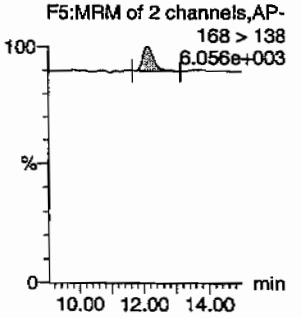

Tetryl

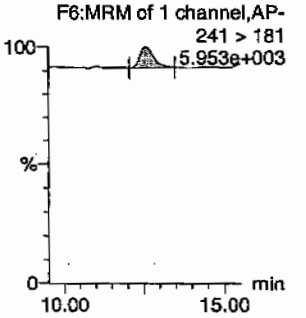

Nitrobenzene

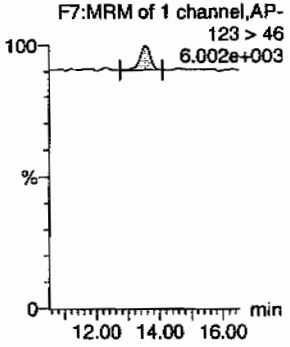

4-Amino-26-dinitrotoluene

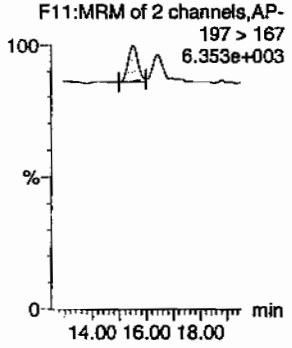

2-Amino-46-dinitrotoluene

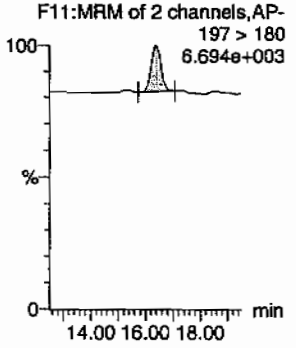

246-Trinitrotoluene

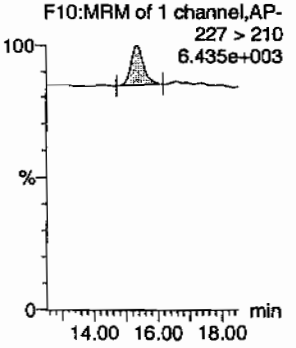

34-dinitrotoluene

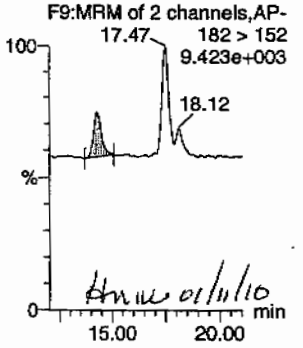

HMW 01/11/10

26-dinitrotoluene

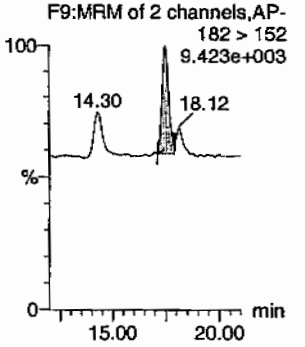

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

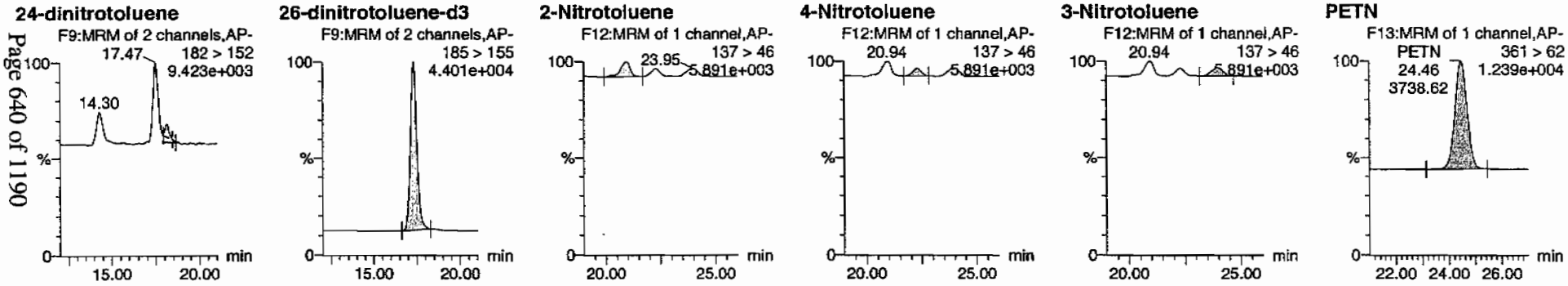

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100108-08CRI	HMX	176 > 102	5.17	883.582	2844.743	883.582	155.301	bb			47.0291	117.6	17.6	133.9
WXX100108-08CRI	RDX	176 > 102	7.54	579.112	2844.743	579.112	101.786	bb			41.5805	104.0	4.0	76.4
WXX100108-08CRI	135-Trinitrobenzene	213 > 183	10.14	1097.085	2844.743	1097.085	192.827	bb			55.7779	139.4	39.4	431.0
WXX100108-08CRI	13-Dinitrobenzene-d4	172 > 142	11.97	2844.743		2844.743	2844.743	bb			485.5290	97.1	-2.9	171.1
WXX100108-08CRI	13-Dinitrobenzene	168 > 138	12.14	243.746	2844.743	243.746	42.841	bb			34.9149	87.3	-12.7	24.1
WXX100108-08CRI	Tetryl	241 > 181	12.58	255.979	2844.743	255.979	44.992	bb			41.4800	103.7	3.7	15.2
WXX100108-08CRI	Nitrobenzene	123 > 46	13.54	224.168	2844.743	224.168	39.400	bb			39.9433	99.9	-0.1	15.7
WXX100108-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.53	389.018	16447.328	389.018	11.826	MM	11-Jan-10	09:08:17	41.9413	104.9	4.9	26.6
WXX100108-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.40	493.594	16447.328	493.594	15.005	bb			40.7472	101.9	1.9	51.5
WXX100108-08CRI	246-Trinitrotoluene	227 > 210	15.35	456.402	16447.328	456.402	13.875	bb			42.8641	107.2	7.2	34.8
WXX100108-08CRI	34-dinitrotoluene	182 > 152	14.30	698.146	16447.328	698.146	21.224	bb			23.6563	118.3	18.3	37.6
WXX100108-08CRI	26-dinitrotoluene	182 > 152	17.47	1399.709	16447.328	1399.709	42.551	MM	11-Jan-10	09:17:38	37.5915	94.0	-6.0	92.0
WXX100108-08CRI	24-dinitrotoluene	182 > 152	18.12	321.378	16447.328	321.378	9.770	MM	11-Jan-10	09:20:56	40.0643	100.2	0.2	22.0
WXX100108-08CRI	26-dinitrotoluene-d3	185 > 155	17.31	16447.328		16447.328	16447.328	bb			487.0018	97.4	-2.6	1287.0
WXX100108-08CRI	2-Nitrotoluene	137 > 46	20.94	245.262	16447.328	245.262	7.456	bb			48.2320	120.6	20.6	26.0
WXX100108-08CRI	4-Nitrotoluene	137 > 46	22.29	105.133	16447.328	105.133	3.196	bb			37.8635	94.7	-5.3	12.8
WXX100108-08CRI	3-Nitrotoluene	137 > 46	23.95	152.662	16447.328	152.662	4.641	bb			46.3337	115.8	15.8	13.7
WXX100108-08CRI	PETN	361 > 62	24.46	3738.617	16447.328	3738.617	113.654	bb			62.9873	157.5	57.5	915.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	01/10/10
Time of Injection	1430
Standard Number	WXX100108-08CRI
Data File	EXP0108093a

HMX	117.6
RDX	104.0
135-TNB	139.4
13-DNB	87.3
Tetryl	103.7
Nitrobenzene	99.9
4A-26-DNT	104.9
2A-46-DNT	101.9
246-TNT	107.2
34-DNT(surr)	118.3
26-DNT	94.0
24-DNT	100.2
2-NT	120.6
4-NT	94.7
3-NT	115.8
PETN	157.5
Total	1767.0
Average	110.4

MMT 1/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–952

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0108104a

Analysis Date: 10–JAN–10 19:54

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	622.64	104	
1,3–Dinitrobenzene–d4	500	480.709	96	
2,4,6–Trinitrotoluene	600	691.061	115	
2,4–Dinitrotoluene	600	600.835	100	
2,6–Dinitrotoluene	600	573.631	96	
2,6–Dinitrotoluene–d3	500	446.002	89	
2–Amino–4,6–dinitrotoluene	600	688.053	115	
3,4–Dinitrotoluene	300	307.229	102	
4–Amino–2,6–dinitrotoluene	600	597.117	100	
HMX	600	590.294	98	
Nitrobenzene	600	546.9	91	
PETN	600	753.361	126	*
RDX	600	638.442	106	
Tetryl	600	483.476	81	
m–Dinitrobenzene	600	565.448	94	
m–Nitrotoluene	600	524.965	87	
o–Nitrotoluene	600	615.288	103	
p–Nitrotoluene	600	559.742	93	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108104a
Date: 10-Jan-2010
Time: 19:54:49
ID: WXX100108-07CCV
Vial: 1:1,B

Page 143 of 1190

MAP 1/11/10

HMX

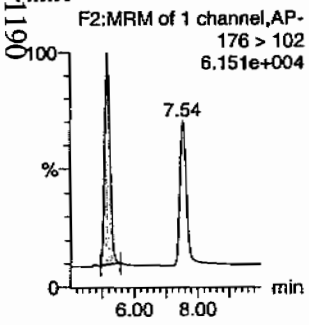

RDX

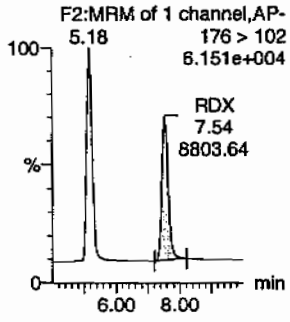

135-Trinitrobenzene

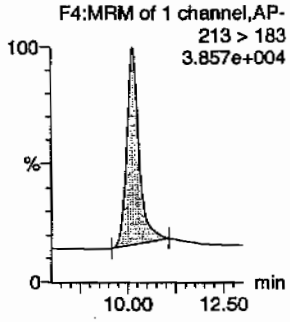

13-Dinitrobenzene-d4

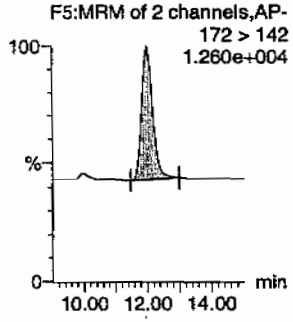

13-Dinitrobenzene

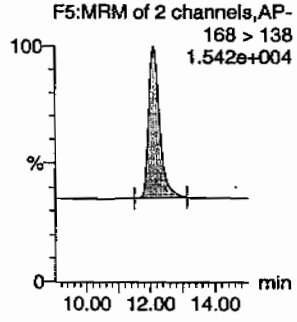

Tetryl

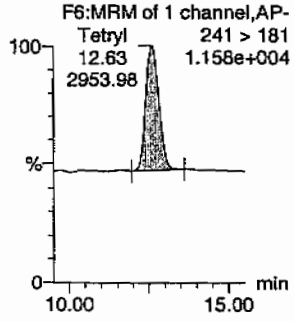

Nitrobenzene

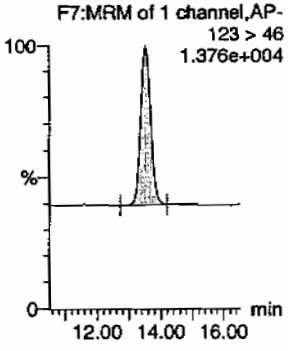

4-Amino-26-dinitrotoluene

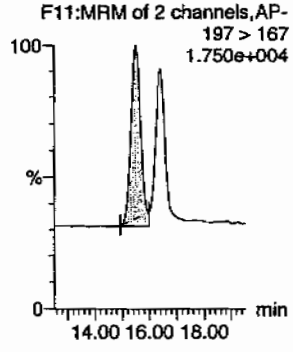

2-Amino-46-dinitrotoluene

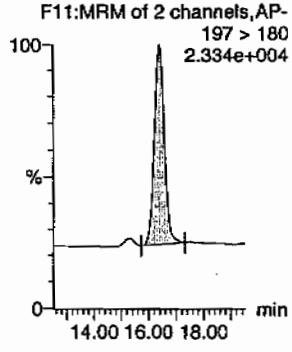

246-Trinitrotoluene

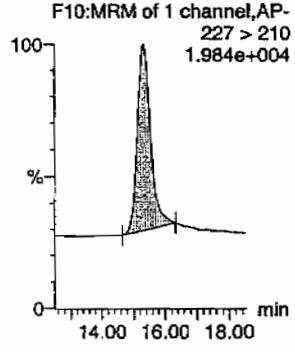

34-dinitrotoluene

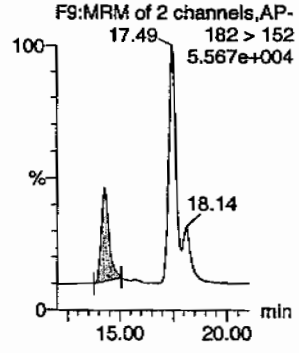

26-dinitrotoluene

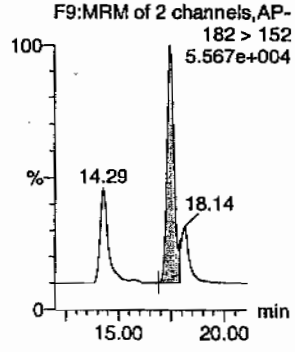

Anne 01 1/11/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

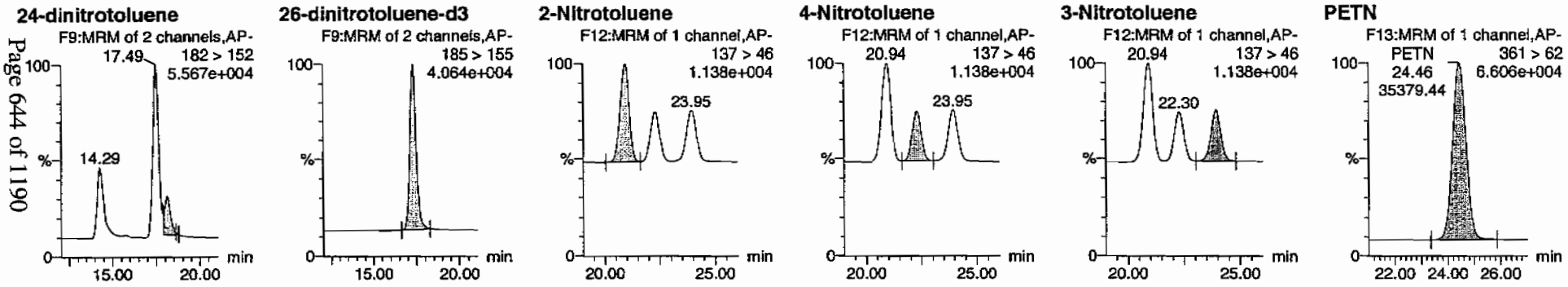

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100108-07CCV	HMX	176 > 102	5.18	10980.336	2816.504	10980.336	1949.285	bb			590.2941	98.4	-1.6	2044.7
WXX100108-07CCV	RDX	176 > 102	7.54	8803.635	2816.504	8803.635	1562.866	bb			638.4422	106.4	6.4	1378.9
WXX100108-07CCV	135-Trinitrobenzene	213 > 183	10.14	12125.007	2816.504	12125.007	2152.492	bb			622.6397	103.8	3.8	2409.8
WXX100108-07CCV	13-Dinitrobenzene-d4	172 > 142	11.97	2816.504		2816.504	2816.504	bb			480.7093	96.1	-3.9	320.0
WXX100108-07CCV	13-Dinitrobenzene	168 > 138	12.10	3908.290	2816.504	3908.290	693.819	bb			565.4477	94.2	-5.8	411.0
WXX100108-07CCV	Tetryl	241 > 181	12.63	2953.978	2816.504	2953.978	524.405	bb			483.4758	80.6	-19.4	251.9
WXX100108-07CCV	Nitrobenzene	123 > 46	13.54	3038.816	2816.504	3038.816	539.466	bb			546.8998	91.1	-8.9	434.2
WXX100108-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.52	5072.169	15062.650	5072.169	168.369	MM	11-Jan-10	09:09:02	597.1173	99.5	-0.5	120.5
WXX100108-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.40	7633.091	15062.650	7633.091	253.378	bb			688.0533	114.7	14.7	309.2
WXX100108-07CCV	246-Trinitrotoluene	227 > 210	15.34	6738.703	15062.650	6738.703	223.689	bb			691.0613	115.2	15.2	441.1
WXX100108-07CCV	34-dinitrotoluene	182 > 152	14.29	8303.619	15062.650	8303.619	275.636	bb			307.2289	102.4	2.4	324.8
WXX100108-07CCV	26-dinitrotoluene	182 > 152	17.49	19560.799	15062.650	19560.799	649.315	MM	11-Jan-10	09:18:15	573.6308	95.6	-4.4	819.2
WXX100108-07CCV	24-dinitrotoluene	182 > 152	18.14	4413.875	15062.650	4413.875	146.517	MM	11-Jan-10	09:20:02	600.8352	100.1	0.1	180.3
WXX100108-07CCV	26-dinitrotoluene-d3	185 > 155	17.31	15062.650		15062.650	15062.650	bb			446.0018	89.2	-10.8	895.2
WXX100108-07CCV	2-Nitrotoluene	137 > 46	20.94	2865.362	15062.650	2865.362	95.115	bb			615.2884	102.5	2.5	278.3
WXX100108-07CCV	4-Nitrotoluene	137 > 46	22.30	1423.350	15062.650	1423.350	47.248	bb			559.7416	93.3	-6.7	141.1
WXX100108-07CCV	3-Nitrotoluene	137 > 46	23.95	1584.054	15062.650	1584.054	52.582	bb			524.9647	87.5	-12.5	146.3
WXX100108-07CCV	PETN	361 > 62	24.46	35379.441	15062.650	35379.441	1174.410	bb			753.3613	125.6	25.6	5571.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 01/10/10
Time of Injection: 1954
Standard Number: WXX100108-07CCV
Data File: EXP0108104a

HMX		98.4
RDX		106.4
135-TNB		103.8
13-DNB		94.2
Tetryl		80.6
Nitrobenzene		91.1
4A-26-DNT		99.5
2A-46-DNT		114.7
246-TNT		115.2
34-DNT(surr)		102.4
26-DNT		95.6
24-DNT		100.1
2-NT		102.5
4-NT		93.3
3-NT		87.5
PETN		125.6
Total		1610.9
Average		100.7

MJT 1/11/10

HMK 01/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–952

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0108106a

Analysis Date: 10–JAN–10 20:53

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	59.238	148	*
1,3–Dinitrobenzene–d4	500	493.386	99	
2,4,6–Trinitrotoluene	40	37.6	94	
2,4–Dinitrotoluene	40	38.936	97	
2,6–Dinitrotoluene	40	43.405	109	
2,6–Dinitrotoluene–d3	500	521.469	104	
2–Amino–4,6–dinitrotoluene	40	43.784	109	
3,4–Dinitrotoluene	20	18.648	93	
4–Amino–2,6–dinitrotoluene	40	43.699	109	
HMX	40	48.31	121	
Nitrobenzene	40	39.9	100	
PETN	40	57.568	144	*
RDX	40	45.132	113	
Tetryl	40	46.537	116	
m–Dinitrobenzene	40	40.055	100	
m–Nitrotoluene	40	36.54	91	
o–Nitrotoluene	40	44.173	110	
p–Nitrotoluene	40	42.407	106	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108106a
Date: 10-Jan-2010
Time: 20:53:52
ID: WXX100108-08CRI
Vial: 1:1,C

MAP 1/11/10

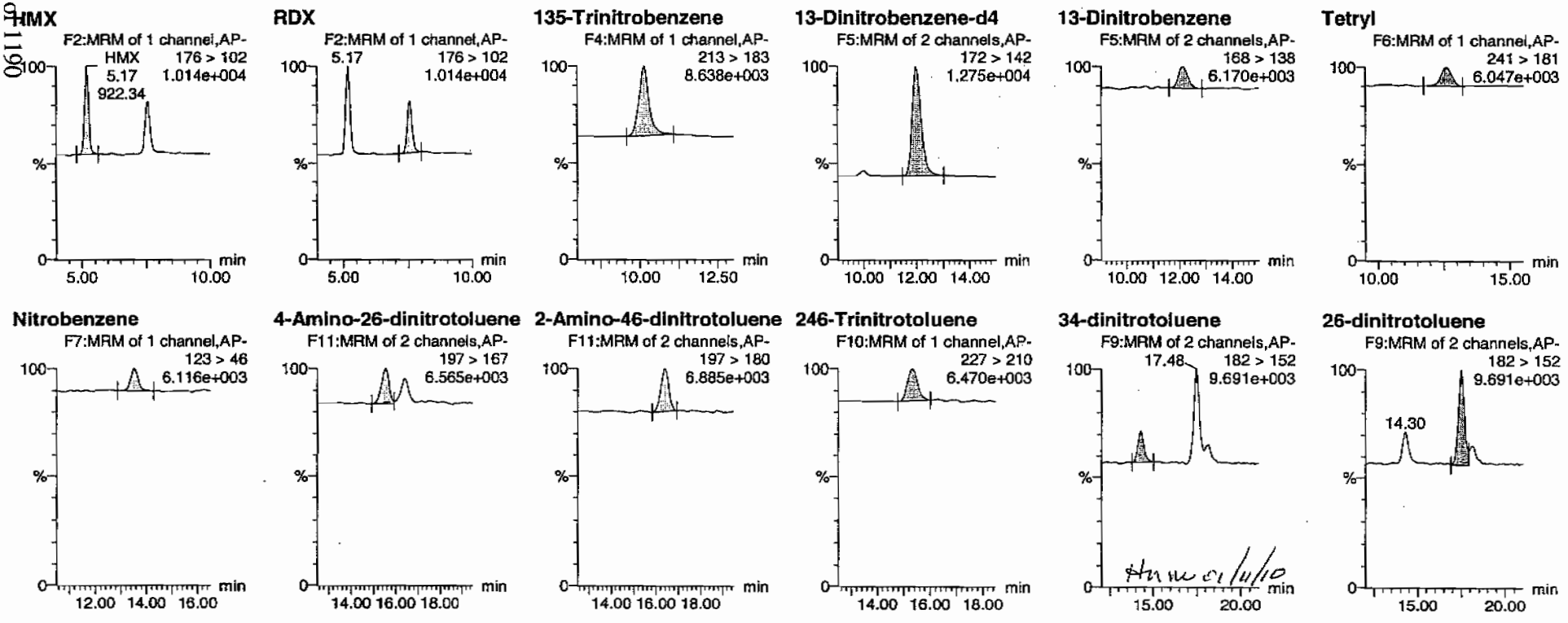

Hmw 01/11/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

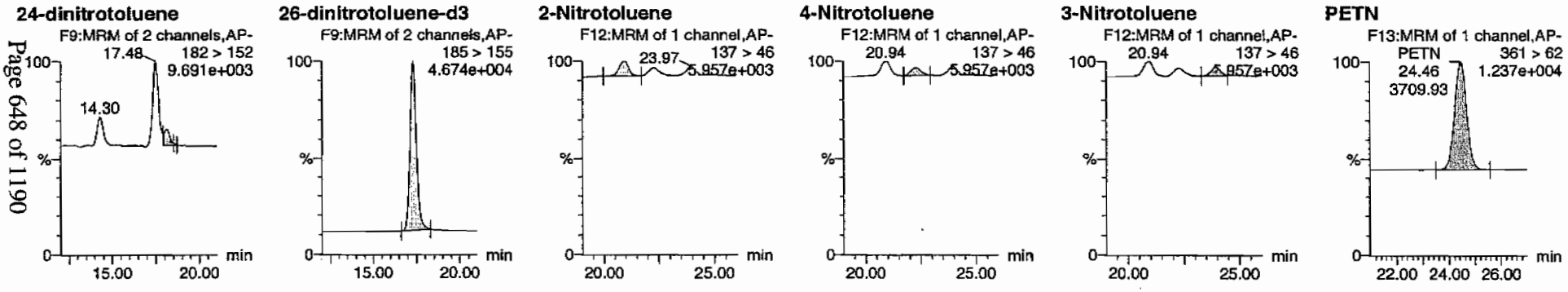

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100108-08CRI	HMX	176 > 102	5.17	922.336	2890.776	922.336	159.531	bb			48.3101	120.8	20.8	146.3
WXX100108-08CRI	RDX	176 > 102	7.54	638.743	2890.776	638.743	110.480	bb			45.1317	112.8	12.8	86.7
WXX100108-08CRI	135-Trinitrobenzene	213 > 183	10.14	1183.993	2890.776	1183.993	204.788	bb			59.2379	148.1	48.1	349.9
WXX100108-08CRI	13-Dinitrobenzene-d4	172 > 142	11.97	2890.776		2890.776	2890.776	bb			493.3857	98.7	-1.3	499.6
WXX100108-08CRI	13-Dinitrobenzene	168 > 138	12.14	284.154	2890.776	284.154	49.148	bb			40.0549	100.1	0.1	13.6
WXX100108-08CRI	Tetryl	241 > 181	12.63	291.835	2890.776	291.835	50.477	bb			46.5373	116.3	16.3	60.1
WXX100108-08CRI	Nitrobenzene	123 > 46	13.50	227.546	2890.776	227.546	39.357	bb			39.8996	99.7	-0.3	19.7
WXX100108-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.53	434.011	17611.391	434.011	12.322	MM	11-Jan-10	09:09:14	43.6993	109.2	9.2	36.8
WXX100108-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.41	567.918	17611.391	567.918	16.124	bb			43.7840	109.5	9.5	48.4
WXX100108-08CRI	246-Trinitrotoluene	227 > 210	15.31	428.684	17611.391	428.684	12.171	bb			37.5998	94.0	-6.0	56.2
WXX100108-08CRI	34-dinitrotoluene	182 > 152	14.30	589.281	17611.391	589.281	16.730	bb			18.6477	93.2	-6.8	20.7
WXX100108-08CRI	26-dinitrotoluene	182 > 152	17.48	1730.544	17611.391	1730.544	49.131	MM	11-Jan-10	09:18:25	43.4046	108.5	8.5	62.1
WXX100108-08CRI	24-dinitrotoluene	182 > 152	18.16	334.430	17611.391	334.430	9.495	MM	11-Jan-10	09:19:53	38.9357	97.3	-2.7	11.9
WXX100108-08CRI	26-dinitrotoluene-d3	185 > 155	17.31	17611.391		17611.391	17611.391	bb			521.4695	104.3	4.3	1061.1
WXX100108-08CRI	2-Nitrotoluene	137 > 46	20.94	240.521	17611.391	240.521	6.829	bb			44.1733	110.4	10.4	94.4
WXX100108-08CRI	4-Nitrotoluene	137 > 46	22.29	126.081	17611.391	126.081	3.580	bb			42.4066	106.0	6.0	48.2
WXX100108-08CRI	3-Nitrotoluene	137 > 46	23.97	128.914	17611.391	128.914	3.660	bb			36.5399	91.3	-8.7	55.5
WXX100108-08CRI	PETN	361 > 62	24.46	3709.930	17611.391	3709.930	105.328	bb			57.5680	143.9	43.9	1249.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	01/10/10
Time of Injection	2053
Standard Number	WXX100108-08CRI
Data File	EXP0108106a

HMX	120.8
RDX	112.8
135-TNB	148.1
13-DNB	100.1
Tetryl	116.3
Nitrobenzene	99.7
4A-26-DNT	109.2
2A-46-DNT	109.5
246-TNT	94.0
34-DNT(surr)	93.2
26-DNT	108.5
24-DNT	97.3
2-NT	110.4
4-NT	106.0
3-NT	91.3
PETN	143.9
Total	1761.1
Average	110.1

MAT 1/11/10

Shine 01/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-952

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0108116a

Analysis Date: 11-JAN-10 01:48

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6-Dinitrotoluene	600	572.44	95	
2,6-Dinitrotoluene-d3	500	479.71	96	
2-Amino-4,6-dinitrotoluene	600	667.775	111	
3,4-Dinitrotoluene	300	298.847	100	
4-Amino-2,6-dinitrotoluene	600	578.115	96	
HMX	600	634.379	106	
Nitrobenzene	600	534.73	89	
PETN	600	720.985	120	*
RDX	600	674.407	112	
Tetryl	600	509.619	85	
m-Dinitrobenzene	600	589.886	98	
m-Nitrotoluene	600	519.041	87	
o-Nitrotoluene	600	562.643	94	
p-Nitrotoluene	600	543.71	91	
1,3,5-Trinitrobenzene	600	622.514	104	
1,3-Dinitrobenzene-d4	500	463.132	93	
2,4,6-Trinitrotoluene	600	688.281	115	
2,4-Dinitrotoluene	600	578.024	96	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108116a
Date: 11-Jan-2010
Time: 01:48:48
ID: WXX100108-07CCV
Vial: 1:1,B

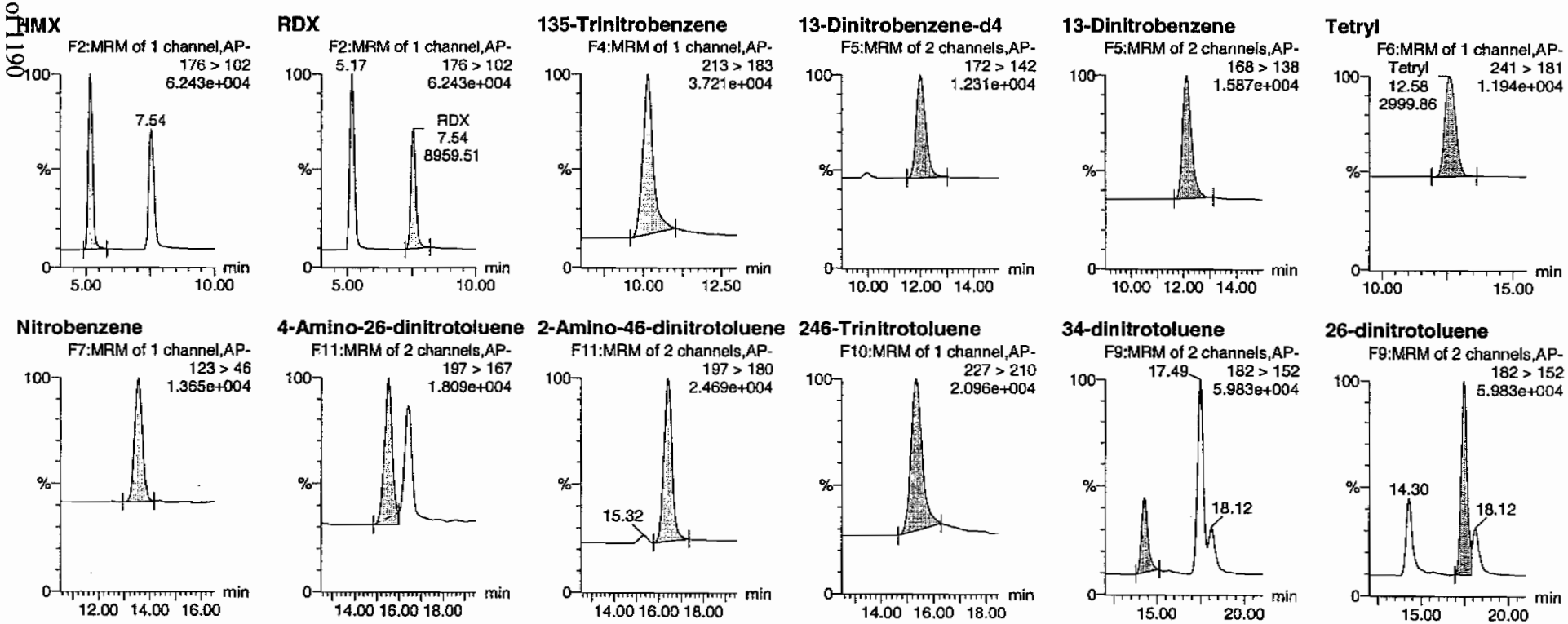

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

24-dinitrotoluene

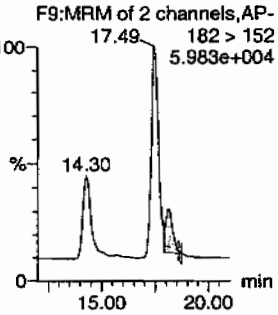

26-dinitrotoluene-d3

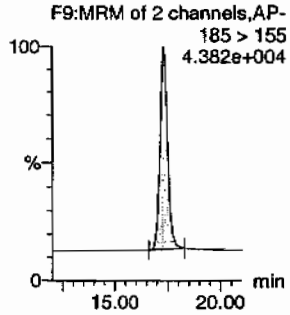

2-Nitrotoluene

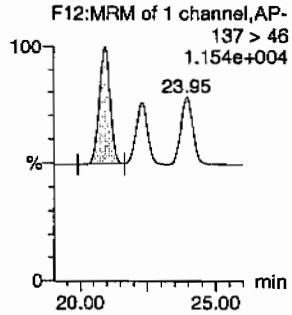

4-Nitrotoluene

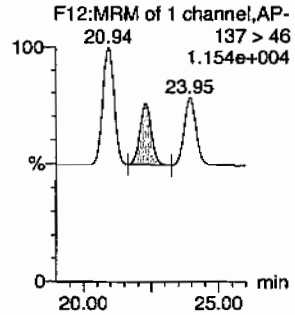

3-Nitrotoluene

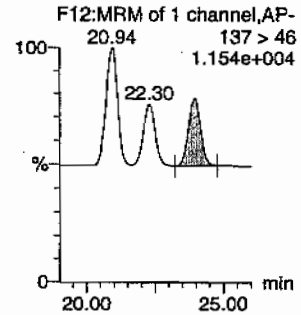

PETN

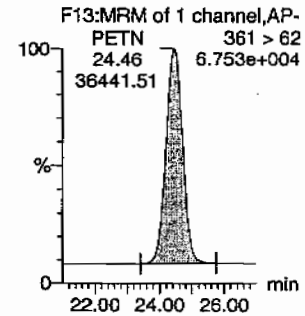

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100108-07CCV	HMX	176 > 102	5.17	11368.897	2713.517	11368.897	2094.864	db			634.3792	105.7	5.7	1824.3
WXX100108-07CCV	RDX	176 > 102	7.54	8959.514	2713.517	8959.514	1650.904	bb			674.4066	112.4	12.4	1236.4
WXX100108-07CCV	135-Trinitrobenzene	213 > 183	10.14	11679.300	2713.517	11679.300	2152.059	bb			622.5145	103.8	3.8	950.3
WXX100108-07CCV	13-Dinitrobenzene-d4	172 > 142	11.97	2713.517		2713.517	2713.517	bb			463.1319	92.6	-7.4	187.9
WXX100108-07CCV	13-Dinitrobenzene	168 > 138	12.10	3928.121	2713.517	3928.121	723.806	bb			589.8863	98.3	-1.7	621.6
WXX100108-07CCV	Tetryl	241 > 181	12.58	2999.855	2713.517	2999.855	552.761	bb			509.6189	84.9	-15.1	337.6
WXX100108-07CCV	Nitrobenzene	123 > 46	13.54	2862.554	2713.517	2862.554	527.462	bd			534.7304	89.1	-10.9	258.9
WXX100108-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.53	5281.910	16201.079	5281.910	163.011	MM	11-Jan-10	09:09:52	578.1152	96.4	-3.6	206.4
WXX100108-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.41	7968.033	16201.079	7968.033	245.911	bb			667.7750	111.3	11.3	403.9
WXX100108-07CCV	246-Trinitrotoluene	227 > 210	15.31	7218.848	16201.079	7218.848	222.789	bb			688.2807	114.7	14.7	497.6
WXX100108-07CCV	34-dinitrotoluene	182 > 152	14.30	8687.551	16201.079	8687.551	268.116	bb			298.8474	99.6	-0.4	192.7
WXX100108-07CCV	26-dinitrotoluene	182 > 152	17.49	20995.535	16201.079	20995.535	647.967	MM	11-Jan-10	09:18:34	572.4404	95.4	-4.6	500.6
WXX100108-07CCV	24-dinitrotoluene	182 > 152	18.12	4567.231	16201.079	4567.231	140.955	MM	11-Jan-10	09:19:43	578.0238	96.3	-3.7	106.5
WXX100108-07CCV	26-dinitrotoluene-d3	185 > 155	17.31	16201.079		16201.079	16201.079	bb			479.7105	95.9	-4.1	696.1
WXX100108-07CCV	2-Nitrotoluene	137 > 46	20.94	2818.231	16201.079	2818.231	86.977	bb			562.6435	93.8	-6.2	241.0
WXX100108-07CCV	4-Nitrotoluene	137 > 46	22.30	1487.079	16201.079	1487.079	45.894	bb			543.7100	90.6	-9.4	124.7
WXX100108-07CCV	3-Nitrotoluene	137 > 46	23.95	1684.551	16201.079	1684.551	51.989	bb			519.0410	86.5	-13.5	136.7
WXX100108-07CCV	PETN	361 > 62	24.46	36441.512	16201.079	36441.512	1124.663	bb			720.9847	120.2	20.2	6429.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 01/11/10
Time of Injection: 0148
Standard Number: WXX100108-07CCV
Data File: EXP0108116a

HMX		105.7
RDX		112.4
135-TNB		103.8
13-DNB		98.3
Tetryl		84.9
Nitrobenzene		89.1
4A-26-DNT		96.4
2A-46-DNT		111.3
246-TNT		114.7
34-DNT(surr)		99.6
26-DNT		95.4
24-DNT		96.3
2-NT		93.8
4-NT		90.6
3-NT		86.5
PETN		120.2
Total		1599.0
Average		99.9

MT 1/11/10

Hrm 01/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–952

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0108118a

Analysis Date: 11–JAN–10 02:48

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4,6–Trinitrotoluene	40	43.487	109	
2,4–Dinitrotoluene	40	44.401	111	
2,6–Dinitrotoluene	40	40.281	101	
2,6–Dinitrotoluene–d3	500	500.252	100	
2–Amino–4,6–dinitrotoluene	40	44.722	112	
3,4–Dinitrotoluene	20	24.485	122	
4–Amino–2,6–dinitrotoluene	40	36.486	91	
HMX	40	49.203	123	
Nitrobenzene	40	34.055	85	
PETN	40	61.76	154	*
RDX	40	42.499	106	
Tetryl	40	38.427	96	
m–Dinitrobenzene	40	42.478	106	
m–Nitrotoluene	40	35.501	89	
o–Nitrotoluene	40	41.799	104	
p–Nitrotoluene	40	35.275	88	
1,3,5–Trinitrobenzene	40	60.079	150	*
1,3–Dinitrobenzene–d4	500	485.965	97	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108118a
Date: 11-Jan-2010
Time: 02:48:06
ID: WXX100108-08CRI
Vial: 1:1,C

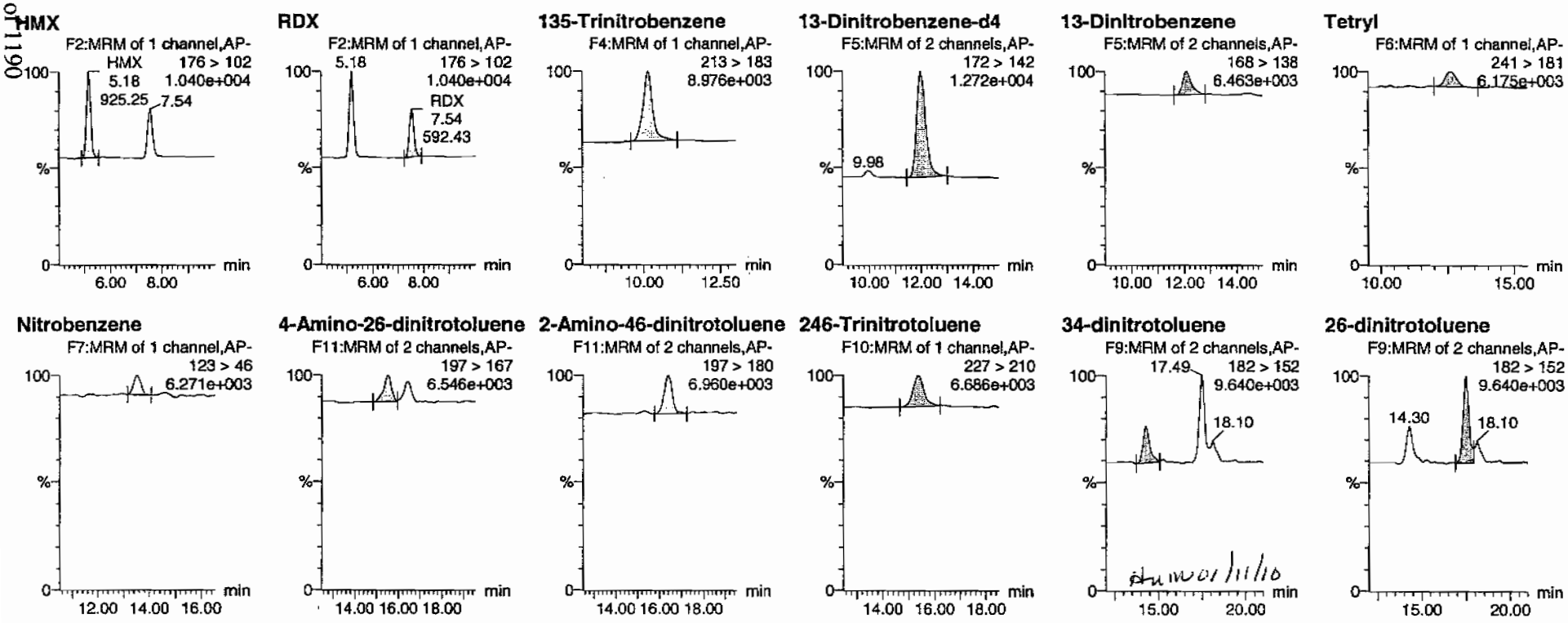

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

24-dinitrotoluene

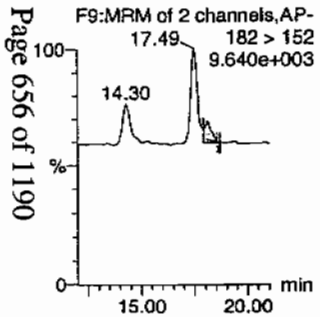

26-dinitrotoluene-d3

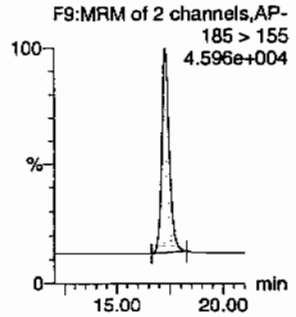

2-Nitrotoluene

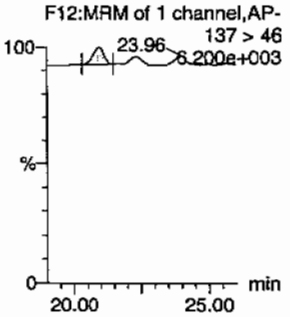

4-Nitrotoluene

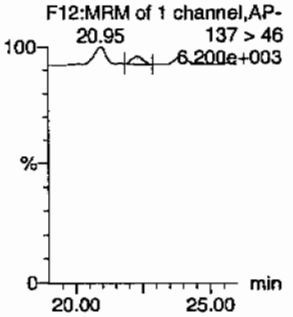

3-Nitrotoluene

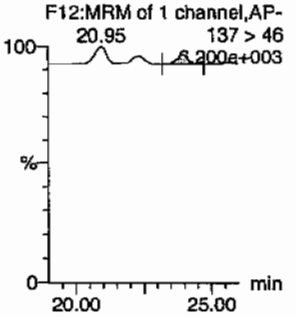

PETN

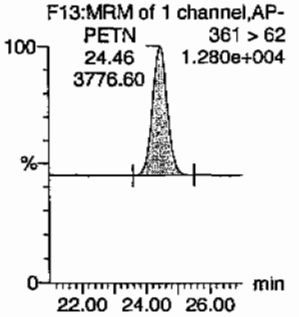

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100108-08CRI	HMX	176 > 102	5.18	925.249	2847.300	925.249	162.478	bb			49.2027	123.0	23.0	191.6
WXX100108-08CRI	RDX	176 > 102	7.54	592.432	2847.300	592.432	104.034	bb			42.4987	106.2	6.2	107.4
WXX100108-08CRI	135-Trinitrobenzene	213 > 183	10.14	1182.750	2847.300	1182.750	207.697	bb			60.0793	150.2	50.2	215.8
WXX100108-08CRI	13-Dinitrobenzene-d4	172 > 142	11.97	2847.300		2847.300	2847.300	bb			485.9654	97.2	-2.8	559.7
WXX100108-08CRI	13-Dinitrobenzene	168 > 138	12.10	296.815	2847.300	296.815	52.122	bb			42.4784	106.2	6.2	29.8
WXX100108-08CRI	Tetryl	241 > 181	12.63	237.352	2847.300	237.352	41.680	bb			38.4271	96.1	-3.9	29.0
WXX100108-08CRI	Nitrobenzene	123 > 46	13.54	191.293	2847.300	191.293	33.592	bb			34.0549	85.1	-14.9	11.0
WXX100108-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.53	347.630	16894.816	347.630	10.288	MM	11-Jan-10	09:10:11	36.4864	91.2	-8.8	19.2
WXX100108-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.40	556.487	16894.816	556.487	16.469	bb			44.7223	111.8	11.8	66.2
WXX100108-08CRI	246-Trinitrotoluene	227 > 210	15.38	475.629	16894.816	475.629	14.076	bb			43.4867	108.7	8.7	33.8
WXX100108-08CRI	34-dinitrotoluene	182 > 152	14.30	742.264	16894.816	742.264	21.967	bb			24.4850	122.4	22.4	42.5
WXX100108-08CRI	26-dinitrotoluene	182 > 152	17.49	1540.664	16894.816	1540.664	45.596	MM	11-Jan-10	09:18:40	40.2811	100.7	0.7	99.2
WXX100108-08CRI	24-dinitrotoluene	182 > 152	18.10	365.859	16894.816	365.859	10.828	MM	11-Jan-10	09:19:35	44.4014	111.0	11.0	23.3
WXX100108-08CRI	26-dinitrotoluene-d3	185 > 155	17.31	16894.816		16894.816	16894.816	bb			500.2519	100.1	0.1	1927.5
WXX100108-08CRI	2-Nitrotoluene	137 > 46	20.95	218.331	16894.816	218.331	6.461	bb			41.7987	104.5	4.5	107.1
WXX100108-08CRI	4-Nitrotoluene	137 > 46	22.33	100.610	16894.816	100.610	2.978	bb			35.2748	88.2	-11.8	48.5
WXX100108-08CRI	3-Nitrotoluene	137 > 46	23.96	120.152	16894.816	120.152	3.556	bb			35.5009	88.8	-11.2	58.2
WXX100108-08CRI	PETN	361 > 62	24.46	3776.600	16894.816	3776.600	111.768	bb			61.7597	154.4	54.4	569.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	01/11/10
Time of Injection	0248
Standard Number	WXX100108-08CRI
Data File	EXP0108118a

HMX	123.0
RDX	106.2
135-TNB	150.2
13-DNB	106.2
Tetryl	96.1
Nitrobenzene	85.1
4A-26-DNT	91.2
2A-46-DNT	111.8
246-TNT	108.7
34-DNT(surr)	122.4
26-DNT	100.7
24-DNT	111.0
2-NT	104.5
4-NT	88.2
3-NT	88.8
PETN	154.4
Total	1748.5
Average	109.3

MAP 1/11/10

01/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–952

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0108122a

Analysis Date: 11–JAN–10 04:46

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m–Dinitrobenzene	600	588.365	98	
m–Nitrotoluene	600	469.976	78	*
o–Nitrotoluene	600	505.642	84	
p–Nitrotoluene	600	496.791	83	
1,3,5–Trinitrobenzene	600	640.957	107	
1,3–Dinitrobenzene–d4	500	551.056	110	
2,4,6–Trinitrotoluene	600	840.403	140	*
2,4–Dinitrotoluene	600	611.215	102	
2,6–Dinitrotoluene	600	576.458	96	
2,6–Dinitrotoluene–d3	500	556.695	111	
2–Amino–4,6–dinitrotoluene	600	679.039	113	
3,4–Dinitrotoluene	300	319.225	106	
4–Amino–2,6–dinitrotoluene	600	696.065	116	
HMX	600	564.574	94	
Nitrobenzene	600	544.062	91	
PETN	600	601.832	100	
RDX	600	647.427	108	
Tetryl	600	518.308	86	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108122a
Date: 11-Jan-2010
Time: 04:46:07
ID: WXX100108-07CCV
Vial: 1:1,B

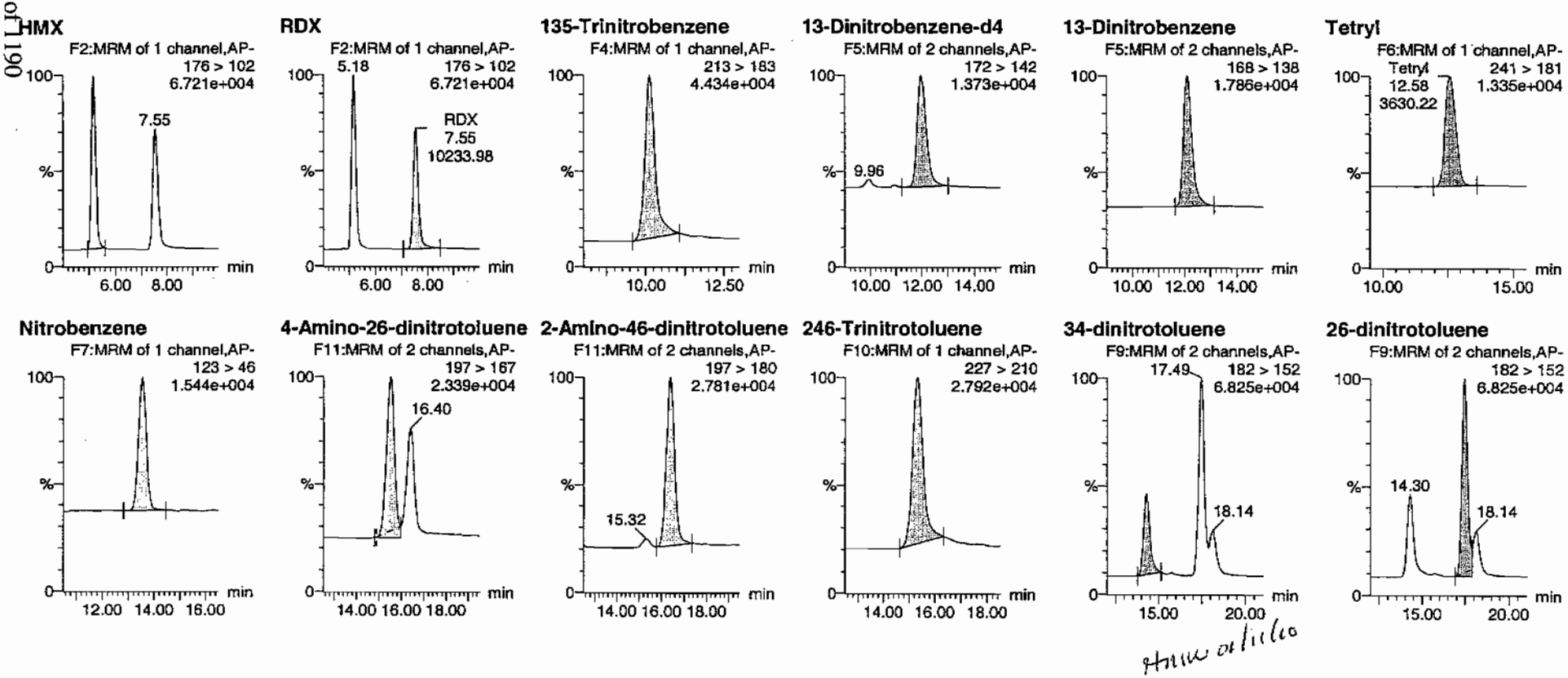

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

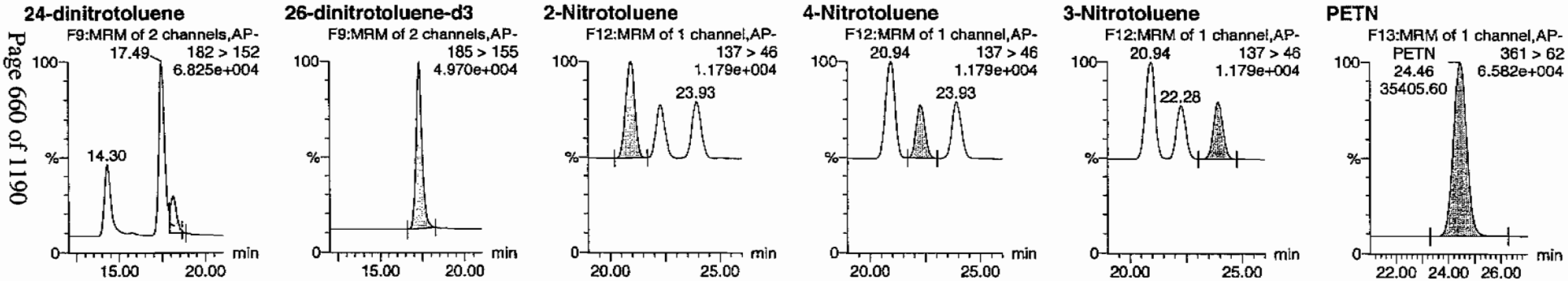

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100108-07CCV	HMX	176 > 102	5.18	12038.732	3228.668	12038.732	1864.350	bb			564.5736	94.1	-5.9	1352.9
WXX100108-07CCV	RDX	176 > 102	7.55	10233.975	3228.668	10233.975	1584.860	bb			647.4271	107.9	7.9	936.6
WXX100108-07CCV	135-Trinitrobenzene	213 > 183	10.14	14308.263	3228.668	14308.263	2215.815	bb			640.9567	106.8	6.8	2210.4
WXX100108-07CCV	13-Dinitrobenzene-d4	172 > 142	11.97	3228.668		3228.668	3228.668	bb			551.0558	110.2	10.2	413.8
WXX100108-07CCV	13-Dinitrobenzene	168 > 138	12.14	4661.808	3228.668	4661.808	721.940	bb			588.3652	98.1	-1.9	225.7
WXX100108-07CCV	Tetryl	241 > 181	12.58	3630.224	3228.668	3630.224	562.186	bb			518.3080	86.4	-13.6	300.4
WXX100108-07CCV	Nitrobenzene	123 > 46	13.54	3465.437	3228.668	3465.437	536.667	bb			544.0620	90.7	-9.3	379.1
WXX100108-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.53	7380.139	18801.045	7380.139	196.269	MM	11-Jan-10	09:10:41	696.0651	116.0	16.0	694.6
WXX100108-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.40	9402.721	18801.045	9402.721	250.058	bb			679.0388	113.2	13.2	424.1
WXX100108-07CCV	246-Trinitrotoluene	227 > 210	15.35	10228.874	18801.045	10228.874	272.029	bb			840.4028	140.1	40.1	531.5
WXX100108-07CCV	34-dinitrotoluene	182 > 152	14.30	10769.188	18801.045	10769.188	286.399	bb			319.2251	106.4	6.4	203.1
WXX100108-07CCV	26-dinitrotoluene	182 > 152	17.49	24535.926	18801.045	24535.926	652.515	MM	11-Jan-10	09:18:52	576.4581	96.1	-3.9	498.1
WXX100108-07CCV	24-dinitrotoluene	182 > 152	18.14	5604.534	18801.045	5604.534	149.048	MM	11-Jan-10	09:19:22	611.2153	101.9	1.9	106.0
WXX100108-07CCV	26-dinitrotoluene-d3	185 > 155	17.31	18801.045		18801.045	18801.045	bb			556.6949	111.3	11.3	1311.2
WXX100108-07CCV	2-Nitrotoluene	137 > 46	20.94	2939.167	18801.045	2939.167	78.165	bb			505.6417	84.3	-15.7	77.4
WXX100108-07CCV	4-Nitrotoluene	137 > 46	22.28	1576.807	18801.045	1576.807	41.934	bb			496.7911	82.8	-17.2	42.4
WXX100108-07CCV	3-Nitrotoluene	137 > 46	23.93	1770.094	18801.045	1770.094	47.074	bb			469.9761	78.3	-21.7	45.3
WXX100108-07CCV	PETN	361 > 62	24.46	35405.598	18801.045	35405.598	941.586	bb			601.8321	100.3	0.3	6926.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 01/11/10
Time of Injection: 0446
Standard Number: WXX100108-07CCV
Data File: EXP0108122a

HMX		94.1
RDX		107.9
135-TNB		106.8
13-DNB		98.1
Tetryl		86.4
Nitrobenzene		90.7
4A-26-DNT		116.0
2A-46-DNT		113.2
246-TNT		140.1
34-DNT(surr)		106.4
26-DNT		96.1
24-DNT		101.9
2-NT		84.3
4-NT		82.8
3-NT		78.3
PETN		100.3
Total		1603.4
Average		100.2

MAT 1/11/10

ctmm 01/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-952

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0108124a

Analysis Date: 11-JAN-10 05:45

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Tetryl	40	38.1	95	
m-Dinitrobenzene	40	31.722	79	
m-Nitrotoluene	40	39.673	99	
o-Nitrotoluene	40	36.801	92	
p-Nitrotoluene	40	41.648	104	
1,3,5-Trinitrobenzene	40	63.528	159	*
1,3-Dinitrobenzene-d4	500	482.42	96	
2,4,6-Trinitrotoluene	40	39.914	100	
2,4-Dinitrotoluene	40	39.568	99	
2,6-Dinitrotoluene	40	40.288	101	
2,6-Dinitrotoluene-d3	500	520.38	104	
2-Amino-4,6-dinitrotoluene	40	45.283	113	
3,4-Dinitrotoluene	20	22.502	113	
4-Amino-2,6-dinitrotoluene	40	37.754	94	
HMX	40	52.787	132	*
Nitrobenzene	40	41.315	103	
PETN	40	61.83	155	*
RDX	40	47.471	119	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108124a
Date: 11-Jan-2010
Time: 05:45:09
ID: WXX100108-08CRI
Vial: 1:1,C

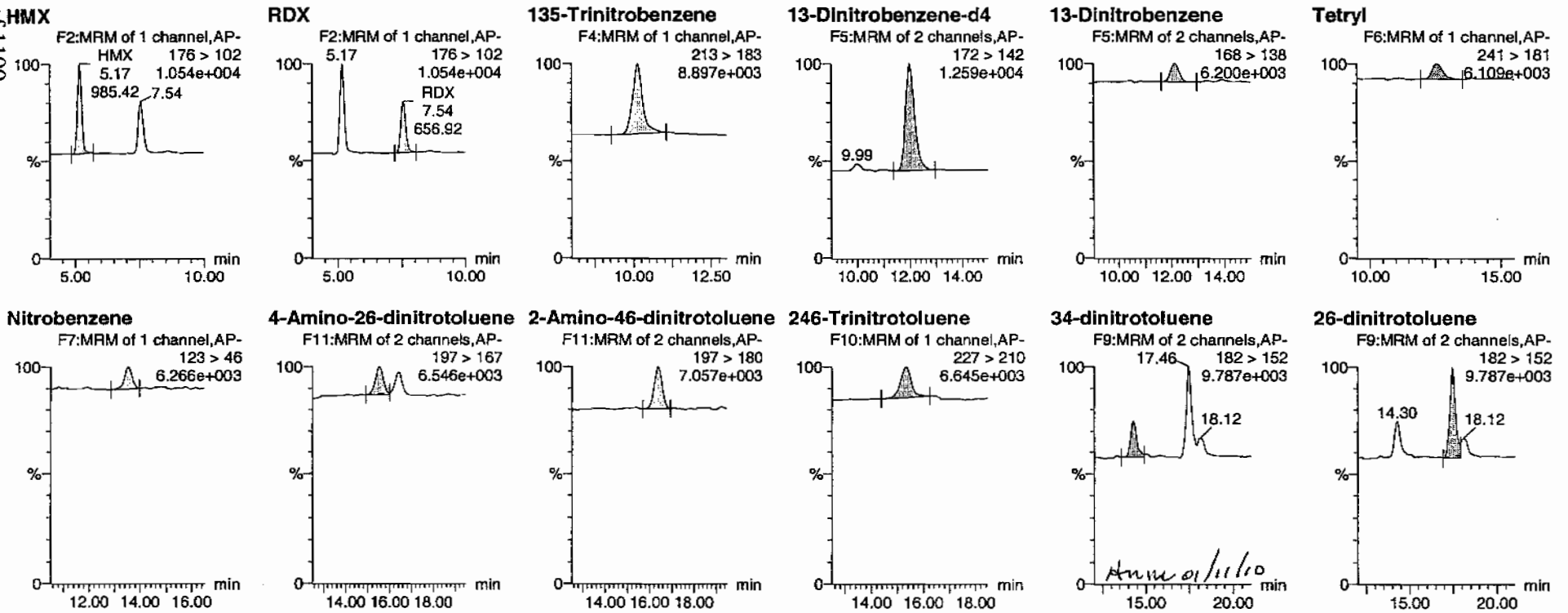

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA1.qld, Time: Mon Jan 11 09:26:07 2010

24-dinitrotoluene

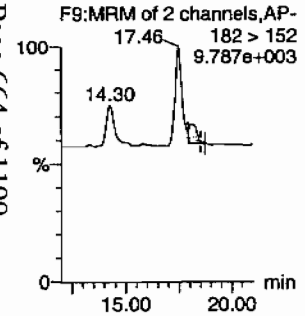

26-dinitrotoluene-d3

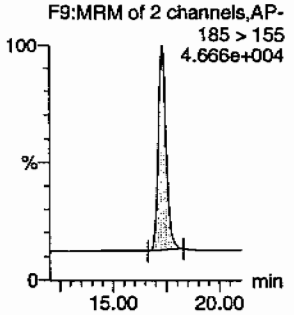

2-Nitrotoluene

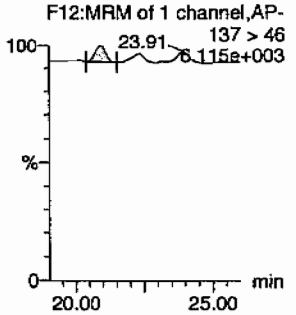

4-Nitrotoluene

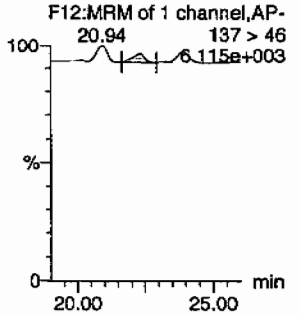

3-Nitrotoluene

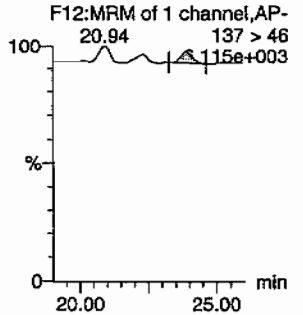

PETN

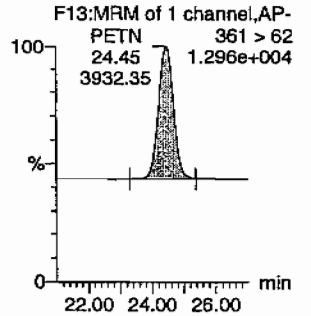

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100108-08CRI	HMX	176 > 102	5.17	985.418	2826.528	985.418	174.316	bb			52.7874	132.0	32.0	107.5
WXX100108-08CRI	RDX	176 > 102	7.54	656.917	2826.528	656.917	116.206	bb			47.4709	118.7	18.7	61.6
WXX100108-08CRI	135-Trinitrobenzene	213 > 183	10.14	1241.516	2826.528	1241.516	219.619	bb			63.5279	158.8	58.8	304.2
WXX100108-08CRI	13-Dinitrobenzene-d4	172 > 142	11.97	2826.528		2826.528	2826.528	bb			482.4202	96.5	-3.5	134.5
WXX100108-08CRI	13-Dinitrobenzene	168 > 138	12.14	220.038	2826.528	220.038	38.924	bb			31.7220	79.3	-20.7	31.6
WXX100108-08CRI	Tetryl	241 > 181	12.58	233.616	2826.528	233.616	41.326	bb			38.1002	95.3	-4.7	17.4
WXX100108-08CRI	Nitrobenzene	123 > 46	13.54	230.383	2826.528	230.383	40.754	bb			41.3153	103.3	3.3	29.1
WXX100108-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.53	374.182	17574.586	374.182	10.646	MM	11-Jan-10	09:10:50	37.7542	94.4	-5.6	19.9
WXX100108-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.41	586.131	17574.586	586.131	16.676	bb			45.2827	113.2	13.2	72.8
WXX100108-08CRI	246-Trinitrotoluene	227 > 210	15.35	454.120	17574.586	454.120	12.920	bb			39.9142	99.8	-0.2	18.0
WXX100108-08CRI	34-dinitrotoluene	182 > 152	14.30	709.580	17574.586	709.580	20.188	bd			22.5015	112.5	12.5	39.9
WXX100108-08CRI	26-dinitrotoluene	182 > 152	17.46	1602.929	17574.586	1602.929	45.604	MM	11-Jan-10	09:19:02	40.2881	100.7	0.7	99.9
WXX100108-08CRI	24-dinitrotoluene	182 > 152	18.12	339.150	17574.586	339.150	9.649	MM	11-Jan-10	09:19:15	39.5679	98.9	-1.1	18.8
WXX100108-08CRI	26-dinitrotoluene-d3	185 > 155	17.31	17574.586		17574.586	17574.586	bb			520.3797	104.1	4.1	1721.9
WXX100108-08CRI	2-Nitrotoluene	137 > 46	20.94	199.962	17574.586	199.962	5.689	bb			36.8013	92.0	-8.0	44.5
WXX100108-08CRI	4-Nitrotoluene	137 > 46	22.34	123.566	17574.586	123.566	3.515	bb			41.6477	104.1	4.1	23.3
WXX100108-08CRI	3-Nitrotoluene	137 > 46	23.91	139.676	17574.586	139.676	3.974	bb			39.6733	99.2	-0.8	28.8
WXX100108-08CRI	PETN	361 > 62	24.45	3932.349	17574.586	3932.349	111.876	bb			61.8300	154.6	54.6	1694.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	01/11/10
Time of Injection	0545
Standard Number	WXX100108-08CRI
Data File	EXP0108124a

HMX	132.0
RDX	118.7
135-TNB	158.8
13-DNB	79.3
Tetryl	95.3
Nitrobenzene	103.3
4A-26-DNT	94.4
2A-46-DNT	113.2
246-TNT	99.8
34-DNT(surr)	112.5
26-DNT	100.7
24-DNT	98.9
2-NT	92.0
4-NT	104.1
3-NT	99.2
PETN	154.6
Total	1756.8
Average	109.8

MPT 1/11/10

Atm 01/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–952

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXP0108134a

Analysis Date: 11–JAN–10 10:40

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
HMX	600	662.534	110	
Nitrobenzene	600	525.078	88	
PETN	600	731.238	122	*
RDX	600	696.763	116	
Tetryl	600	504.878	84	
m–Dinitrobenzene	600	564.453	94	
m–Nitrotoluene	600	508.522	85	
o–Nitrotoluene	600	571.474	95	
p–Nitrotoluene	600	522.502	87	
1,3,5–Trinitrobenzene	600	702.277	117	
1,3–Dinitrobenzene–d4	500	480.128	96	
2,4,6–Trinitrotoluene	600	674.894	112	
2,4–Dinitrotoluene	600	668.24	111	
2,6–Dinitrotoluene	600	575.058	96	
2,6–Dinitrotoluene–d3	500	460.405	92	
2–Amino–4,6–dinitrotoluene	600	688.362	115	
3,4–Dinitrotoluene	300	313.487	104	
4–Amino–2,6–dinitrotoluene	600	630.196	105	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108134a
Date: 11-Jan-2010
Time: 10:40:20
ID: WXX100108-07CCV
Vial: 1:1,B

HMT 1/12/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.829e+004

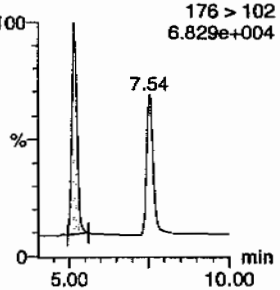

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.829e+004

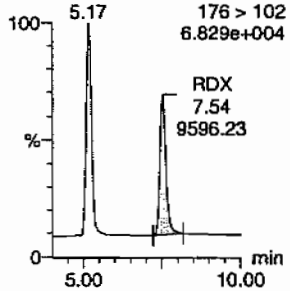

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
4.228e+004

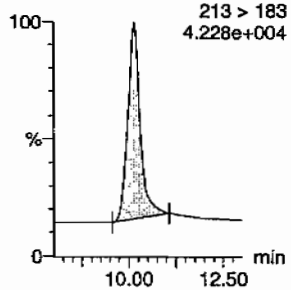

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.307e+004

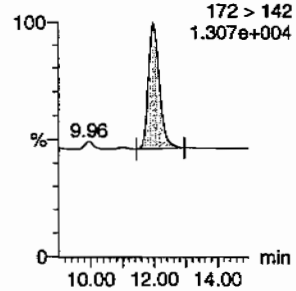

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.583e+004

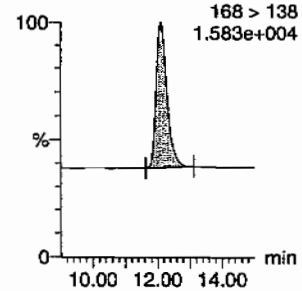

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.241e+004

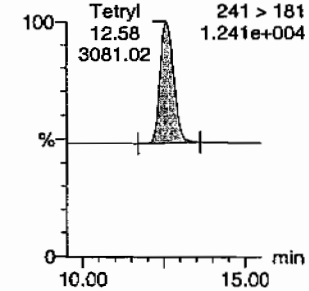

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.403e+004

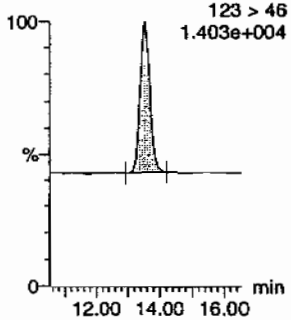

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
1.919e+004

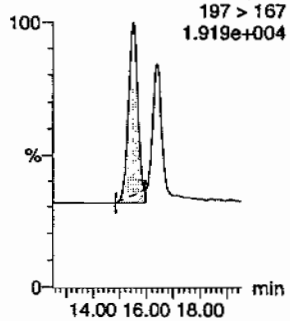

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
2.501e+004

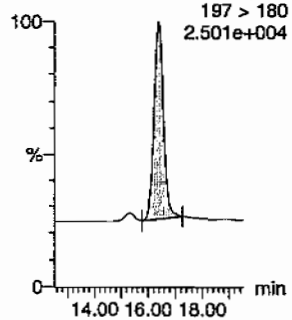

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.049e+004

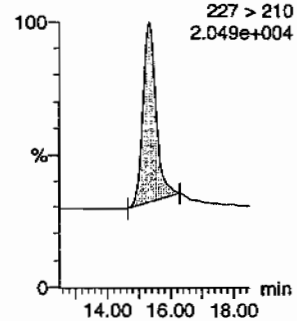

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.916e+004

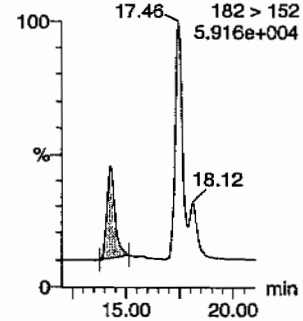

Hmm 01/12/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.916e+004

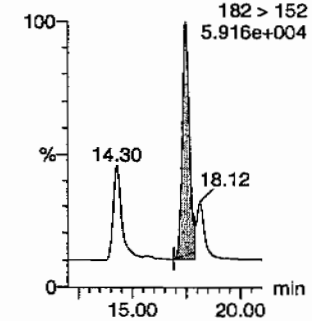

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

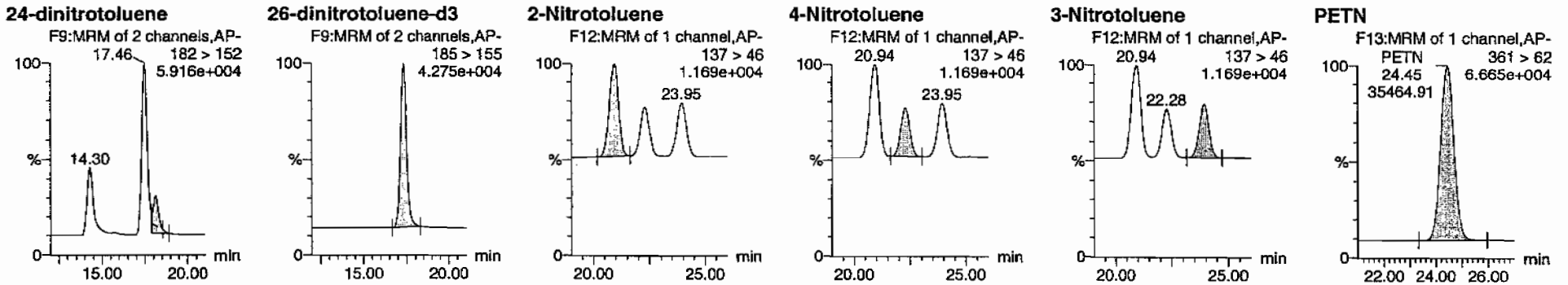

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100108-07CCV	HMX	176 > 102	5.17	12309.217	2813.100	12309.217	2187.839	bb			662.5344	110.4	10.4	772.4
WXX100108-07CCV	RDX	176 > 102	7.54	9596.228	2813.100	9596.228	1705.632	bb			696.7633	116.1	16.1	507.2
WXX100108-07CCV	135-Trinitrobenzene	213 > 183	10.14	13659.292	2813.100	13659.292	2427.801	bb			702.2766	117.0	17.0	663.7
WXX100108-07CCV	13-Dinitrobenzene-d4	172 > 142	11.97	2813.100		2813.100	2813.100	bb			480.1283	96.0	-4.0	325.4
WXX100108-07CCV	13-Dinitrobenzene	168 > 138	12.10	3896.700	2813.100	3896.700	692.599	bb			564.4530	94.1	-5.9	357.1
WXX100108-07CCV	Tetryl	241 > 181	12.58	3081.016	2813.100	3081.016	547.619	bb			504.8782	84.1	-15.9	392.0
WXX100108-07CCV	Nitrobenzene	123 > 46	13.54	2914.040	2813.100	2914.040	517.941	bb			525.0783	87.5	-12.5	219.8
WXX100108-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.53	5526.025	15549.083	5526.025	177.696	MM	12-Jan-10	10:05:33	630.1956	105.0	5.0	272.4
WXX100108-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.37	7883.125	15549.083	7883.125	253.492	bb			688.3616	114.7	14.7	321.5
WXX100108-07CCV	246-Trinitrotoluene	227 > 210	15.31	6793.580	15549.083	6793.580	218.456	bb			674.8940	112.5	12.5	299.9
WXX100108-07CCV	34-dinitrotoluene	182 > 152	14.30	8746.366	15549.083	8746.366	281.250	bb			313.4866	104.5	4.5	393.6
WXX100108-07CCV	26-dinitrotoluene	182 > 152	17.46	20242.746	15549.083	20242.746	650.931	MM	12-Jan-10	10:15:58	575.0583	95.8	-4.2	1010.0
WXX100108-07CCV	24-dinitrotoluene	182 > 152	18.12	5067.582	15549.083	5067.582	162.954	MM	12-Jan-10	10:22:57	668.2403	111.4	11.4	228.9
WXX100108-07CCV	26-dinitrotoluene-d3	185 > 155	17.31	15549.083		15549.083	15549.083	bb			460.4050	92.1	-7.9	990.9
WXX100108-07CCV	2-Nitrotoluene	137 > 46	20.94	2747.264	15549.083	2747.264	88.342	bb			571.4737	95.2	-4.8	491.0
WXX100108-07CCV	4-Nitrotoluene	137 > 46	22.28	1371.563	15549.083	1371.563	44.104	bb			522.5023	87.1	-12.9	252.0
WXX100108-07CCV	3-Nitrotoluene	137 > 46	23.95	1583.992	15549.083	1583.992	50.935	bb			508.5219	84.8	-15.2	278.4
WXX100108-07CCV	PETN	361 > 62	24.45	35464.906	15549.083	35464.906	1140.418	bb			731.2384	121.9	21.9	3122.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 01/11/10
Time of Injection: 1040
Standard Number: WXX100108-07CCV
Data File: EXP0108134a

HMX		110.4
RDX		116.1
135-TNB		117.0
13-DNB		94.1
Tetryl		84.1
Nitrobenzene		87.5
4A-26-DNT		105.0
2A-46-DNT		114.7
246-TNT		112.5
34-DNT(surr)		104.5
26-DNT		95.8
24-DNT		111.4
2-NT		95.2
4-NT		87.1
3-NT		84.8
PETN		121.9
Total		1642.1
Average		102.6

MAT 1/12/10

HMM 01/12/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–952

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0108136a

Analysis Date: 11–JAN–10 11:39

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	55.683	139	*
1,3–Dinitrobenzene–d4	500	563.233	113	
2,4,6–Trinitrotoluene	40	48.337	121	
2,4–Dinitrotoluene	40	37.608	94	
2,6–Dinitrotoluene	40	39.058	98	
2,6–Dinitrotoluene–d3	500	512.465	102	
2–Amino–4,6–dinitrotoluene	40	48.511	121	
3,4–Dinitrotoluene	20	25.288	126	
4–Amino–2,6–dinitrotoluene	40	38.833	97	
HMX	40	43.801	110	
Nitrobenzene	40	37.778	94	
PETN	40	60.398	151	*
RDX	40	42.399	106	
Tetryl	40	40.964	102	
m–Dinitrobenzene	40	46.42	116	
m–Nitrotoluene	40	39.132	98	
o–Nitrotoluene	40	37.97	95	
p–Nitrotoluene	40	40.132	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108136a
Date: 11-Jan-2010
Time: 11:39:23
ID: WXX100108-08CRI
Vial: 1:1,C

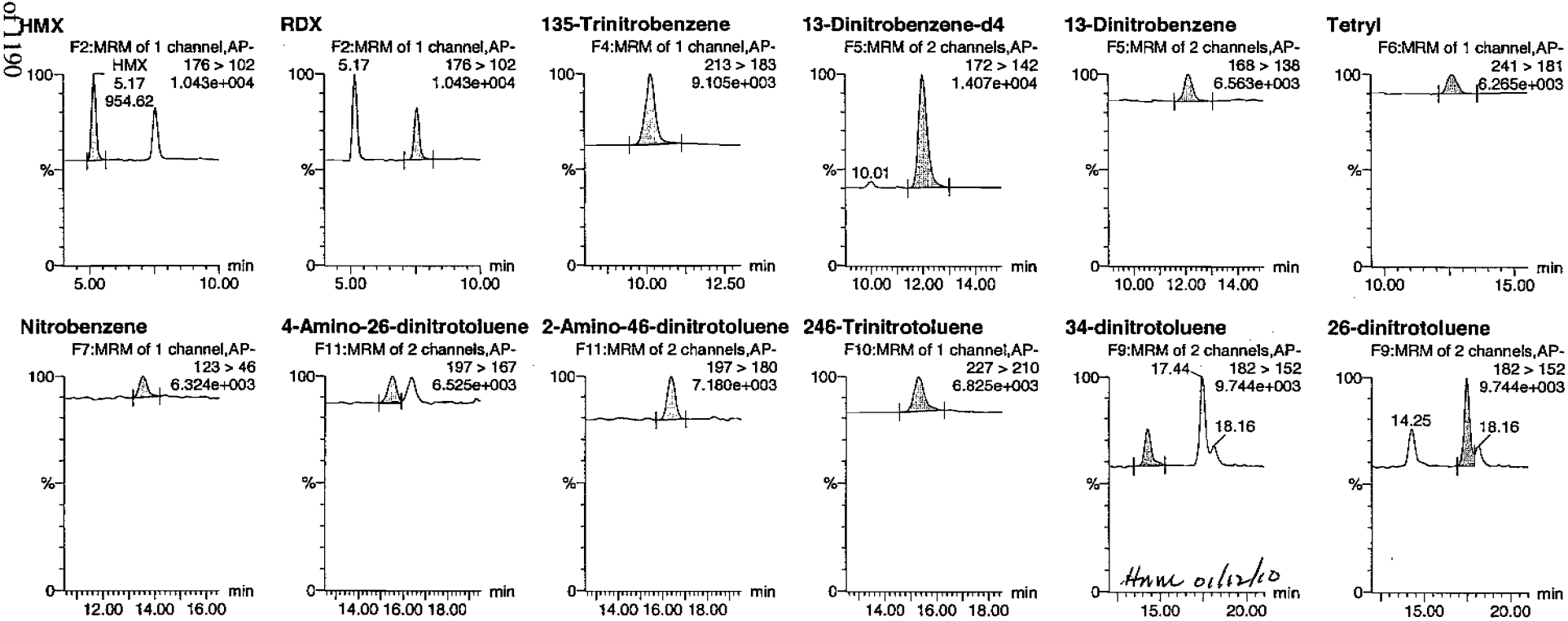

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

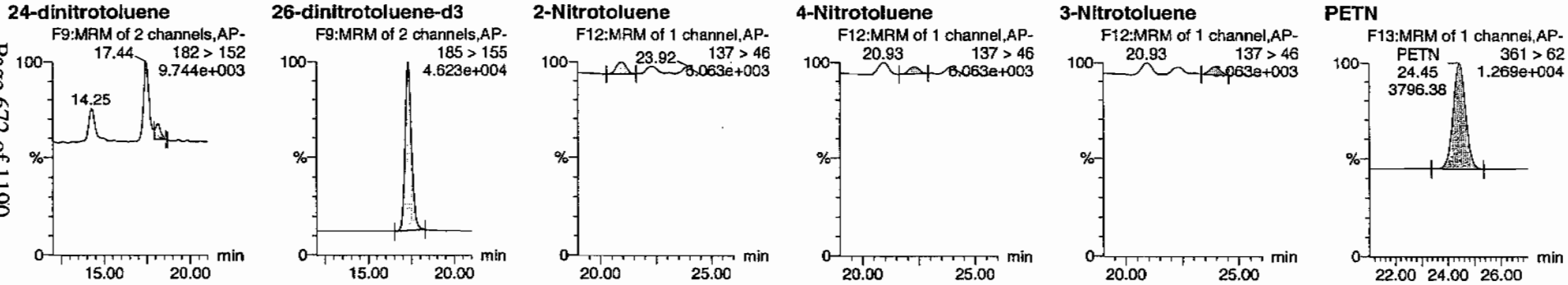

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100108-08CRI	HMX	176 > 102	5.17	954.623	3300.018	954.623	144.639	bb			43.8005	109.5	9.5	190.8
WXX100108-08CRI	RDX	176 > 102	7.54	685.010	3300.018	685.010	103.789	bb			42.3985	106.0	6.0	115.2
WXX100108-08CRI	135-Trinitrobenzene	213 > 183	10.14	1270.499	3300.018	1270.499	192.499	bb			55.6831	139.2	39.2	338.7
WXX100108-08CRI	13-Dinitrobenzene-d4	172 > 142	11.97	3300.018		3300.018	3300.018	bb			563.2335	112.6	12.6	725.6
WXX100108-08CRI	13-Dinitrobenzene	168 > 138	12.10	375.928	3300.018	375.928	56.958	bb			46.4199	116.0	16.0	28.5
WXX100108-08CRI	Tetryl	241 > 181	12.63	293.249	3300.018	293.249	44.431	bb			40.9636	102.4	2.4	47.4
WXX100108-08CRI	Nitrobenzene	123 > 46	13.54	245.947	3300.018	245.947	37.264	bb			37.7780	94.4	-5.6	18.2
WXX100108-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.53	379.016	17307.279	379.016	10.950	MM	12-Jan-10	10:05:41	38.8326	97.1	-2.9	9.6
WXX100108-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.38	618.370	17307.279	618.370	17.864	bb			48.5113	121.3	21.3	49.6
WXX100108-08CRI	246-Trinitrotoluene	227 > 210	15.31	541.587	17307.279	541.587	15.646	bb			48.3372	120.8	20.8	147.5
WXX100108-08CRI	34-dinitrotoluene	182 > 152	14.25	785.318	17307.279	785.318	22.688	bb			25.2879	126.4	26.4	51.8
WXX100108-08CRI	26-dinitrotoluene	182 > 152	17.44	1530.335	17307.279	1530.335	44.211	MM	12-Jan-10	10:16:04	39.0575	97.6	-2.4	124.7
WXX100108-08CRI	24-dinitrotoluene	182 > 152	18.16	317.444	17307.279	317.444	9.171	MM	12-Jan-10	10:22:48	37.6075	94.0	-6.0	25.7
WXX100108-08CRI	26-dinitrotoluene-d3	185 > 155	17.29	17307.279		17307.279	17307.279	bb			512.4648	102.5	2.5	888.1
WXX100108-08CRI	2-Nitrotoluene	137 > 46	20.93	203.173	17307.279	203.173	5.870	bb			37.9698	94.9	-5.1	56.8
WXX100108-08CRI	4-Nitrotoluene	137 > 46	22.31	117.257	17307.279	117.257	3.388	bb			40.1317	100.3	0.3	33.0
WXX100108-08CRI	3-Nitrotoluene	137 > 46	23.92	135.675	17307.279	135.675	3.920	bb			39.1320	97.8	-2.2	36.8
WXX100108-08CRI	PETN	361 > 62	24.45	3796.380	17307.279	3796.380	109.676	bb			60.3980	151.0	51.0	937.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	01/11/10
Time of Injection	1139
Standard Number	WXX100108-08CRI
Data File	EXP0108136a

HMX	109.5
RDX	106.0
135-TNB	139.2
13-DNB	116.0
Tetryl	102.4
Nitrobenzene	94.4
4A-26-DNT	97.1
2A-46-DNT	121.3
246-TNT	120.8
34-DNT(surr)	126.4
26-DNT	97.6
24-DNT	94.0
2-NT	94.9
4-NT	100.3
3-NT	97.8
PETN	151.0
Total	1768.7
Average	110.5

MMT 1/12/10

Hnm 01/12/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-952

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXP0108147a

Analysis Date: 11-JAN-10 17:03

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p-Nitrotoluene	600	531.397	89	
1,3,5-Trinitrobenzene	600	582.645	97	
1,3-Dinitrobenzene-d4	500	489.407	98	
2,4,6-Trinitrotoluene	600	680.006	113	
2,4-Dinitrotoluene	600	635.862	106	
2,6-Dinitrotoluene	600	579.22	97	
2,6-Dinitrotoluene-d3	500	464.545	93	
2-Amino-4,6-dinitrotoluene	600	655.339	109	
3,4-Dinitrotoluene	300	303.195	101	
4-Amino-2,6-dinitrotoluene	600	591.055	99	
HMX	600	654.872	109	
Nitrobenzene	600	509.174	85	
PETN	600	703.97	117	
RDX	600	645.852	108	
Tetryl	600	461.006	77	*
m-Dinitrobenzene	600	560.46	93	
m-Nitrotoluene	600	507.354	85	
o-Nitrotoluene	600	602.373	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108147a
Date: 11-Jan-2010
Time: 17:03:38
ID: WXX100108-07CCV
Vial: 1:1,B

MMP 1/12/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.920e+004

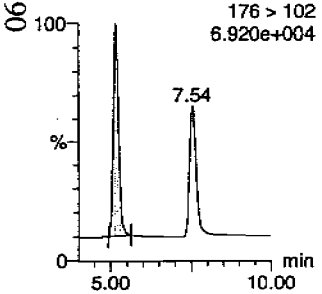

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.920e+004

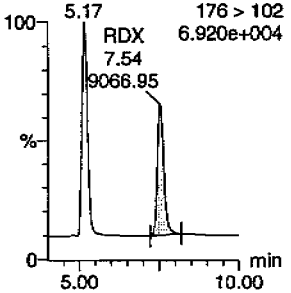

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
3.792e+004

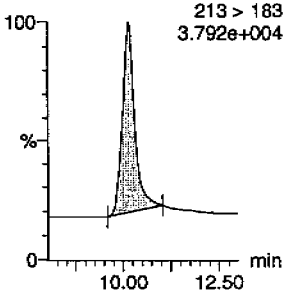

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.381e+004

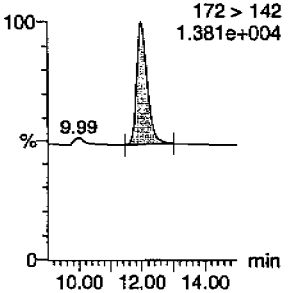

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.685e+004

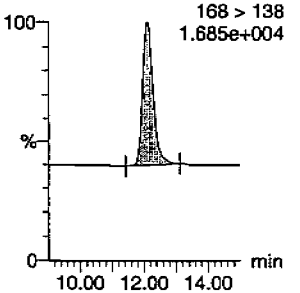

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.249e+004

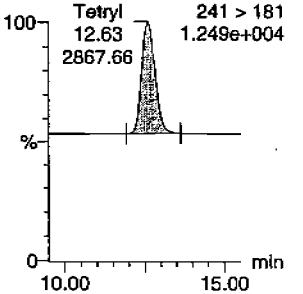

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.434e+004

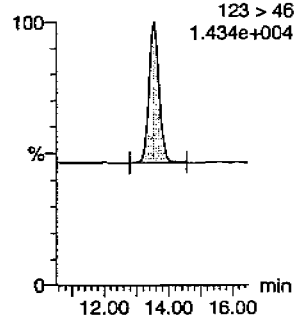

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
1.879e+004

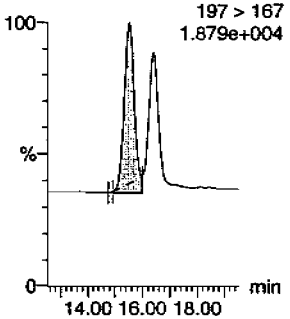

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
2.483e+004

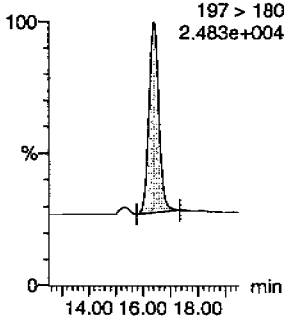

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.141e+004

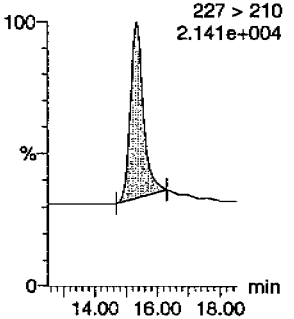

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.952e+004

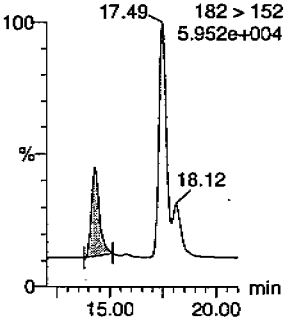

Hmm 01/12/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.952e+004

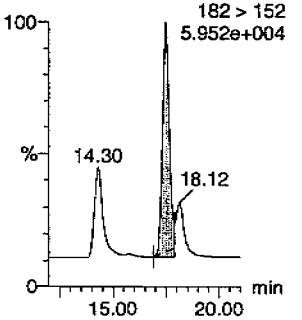

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

24-dinitrotoluene

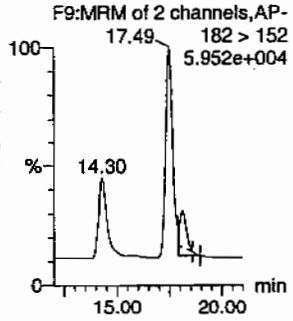

26-dinitrotoluene-d3

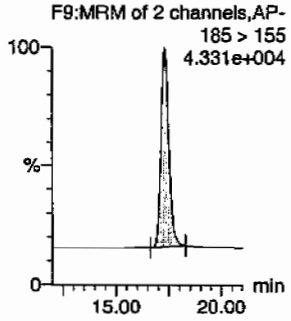

2-Nitrotoluene

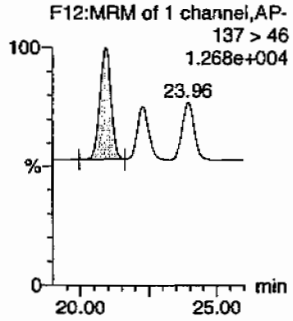

4-Nitrotoluene

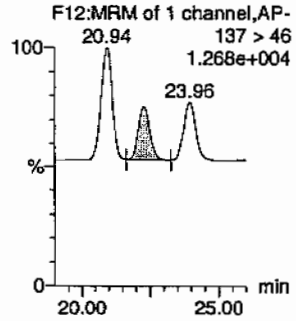

3-Nitrotoluene

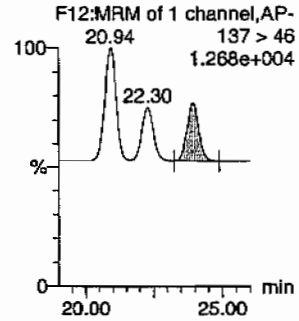

PETN

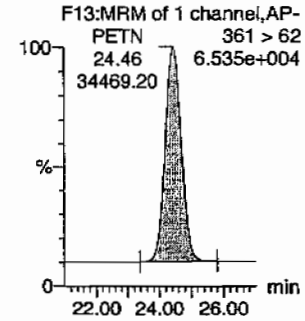

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100108-07CCV	HMX	176 > 102	5.17	12401.988	2867.466	12401.988	2162.534	bb			654.8717	109.1	9.1	776.7
WXX100108-07CCV	RDX	176 > 102	7.54	9066.950	2867.466	9066.950	1581.004	bb			645.8518	107.6	7.6	479.0
WXX100108-07CCV	135-Trinitrobenzene	213 > 183	10.14	11551.466	2867.466	11551.466	2014.229	bb			582.6450	97.1	-2.9	1203.0
WXX100108-07CCV	13-Dinitrobenzene-d4	172 > 142	12.00	2867.466		2867.466	2867.466	bb			489.4073	97.9	-2.1	626.3
WXX100108-07CCV	13-Dinitrobenzene	168 > 138	12.14	3943.911	2867.466	3943.911	687.700	bb			560.4603	93.4	-6.6	440.6
WXX100108-07CCV	Tetryl	241 > 181	12.63	2867.656	2867.466	2867.656	500.033	bb			461.0061	76.8	-23.2	452.2
WXX100108-07CCV	Nitrobenzene	123 > 46	13.54	2880.389	2867.466	2880.389	502.253	bb			509.1745	84.9	-15.1	283.5
WXX100108-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.53	5229.422	15688.916	5229.422	166.660	MM	12-Jan-10	10:06:22	591.0552	98.5	-1.5	337.0
WXX100108-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.41	7572.437	15688.916	7572.437	241.331	bb			655.3386	109.2	9.2	293.5
WXX100108-07CCV	246-Trinitrotoluene	227 > 210	15.35	6906.592	15688.916	6906.592	220.111	bb			680.0056	113.3	13.3	441.6
WXX100108-07CCV	34-dinitrotoluene	182 > 152	14.30	8535.311	15688.916	8535.311	272.017	bb			303.1953	101.1	1.1	131.6
WXX100108-07CCV	26-dinitrotoluene	182 > 152	17.49	20572.611	15688.916	20572.611	655.642	MM	12-Jan-10	10:16:37	579.2202	96.5	-3.5	350.5
WXX100108-07CCV	24-dinitrotoluene	182 > 152	18.12	4865.410	15688.916	4865.410	155.059	MM	12-Jan-10	10:22:08	635.8625	106.0	6.0	74.9
WXX100108-07CCV	26-dinitrotoluene-d3	185 > 155	17.31	15688.916		15688.916	15688.916	bb			464.5454	92.9	-7.1	1335.8
WXX100108-07CCV	2-Nitrotoluene	137 > 46	20.94	2921.851	15688.916	2921.851	93.118	bb			602.3733	100.4	0.4	154.5
WXX100108-07CCV	4-Nitrotoluene	137 > 46	22.30	1407.455	15688.916	1407.455	44.855	bb			531.3967	88.6	-11.4	74.3
WXX100108-07CCV	3-Nitrotoluene	137 > 46	23.96	1594.565	15688.916	1594.565	50.818	bb			507.3536	84.6	-15.4	81.0
WXX100108-07CCV	PETN	361 > 62	24.46	34469.195	15688.916	34469.195	1098.521	bb			703.9703	117.3	17.3	1761.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 01/11/10
Time of Injection: 1703
Standard Number: WXX100108-07CCV
Data File: EXP0108147a

HMX		109.1
RDX		107.6
135-TNB		97.1
13-DNB		93.4
Tetryl		76.8
Nitrobenzene		84.9
4A-26-DNT		98.5
2A-46-DNT		109.2
246-TNT		113.3
34-DNT(surr)		101.1
26-DNT		96.5
24-DNT		106.0
2-NT		100.4
4-NT		88.6
3-NT		84.6
PETN		117.3
Total		1584.4
Average		99.0

MJT 1/12/10

HMM 01/12/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-952

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0108149a

Analysis Date: 11-JAN-10 18:02

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u.ODS(20)

Compound	True	Found	Recovery	Q
2-Amino-4,6-dinitrotoluene	40	45.388	113	
3,4-Dinitrotoluene	20	21.403	107	
4-Amino-2,6-dinitrotoluene	40	43.413	109	
HMX	40	43.96	110	
Nitrobenzene	40	33.509	84	
PETN	40	57.839	145	*
RDX	40	39.072	98	
Tetryl	40	41.947	105	
m-Dinitrobenzene	40	38.922	97	
m-Nitrotoluene	40	33.267	83	
o-Nitrotoluene	40	40.703	102	
p-Nitrotoluene	40	39.764	99	
1,3,5-Trinitrobenzene	40	52.927	132	*
1,3-Dinitrobenzene-d4	500	519.414	104	
2,4,6-Trinitrotoluene	40	42.082	105	
2,4-Dinitrotoluene	40	41.302	103	
2,6-Dinitrotoluene	40	38.166	95	
2,6-Dinitrotoluene-d3	500	516.869	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene ,
2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108149a
Date: 11-Jan-2010
Time: 18:02:40
ID: WXX100108-08CRI
Vial: 1:1,C

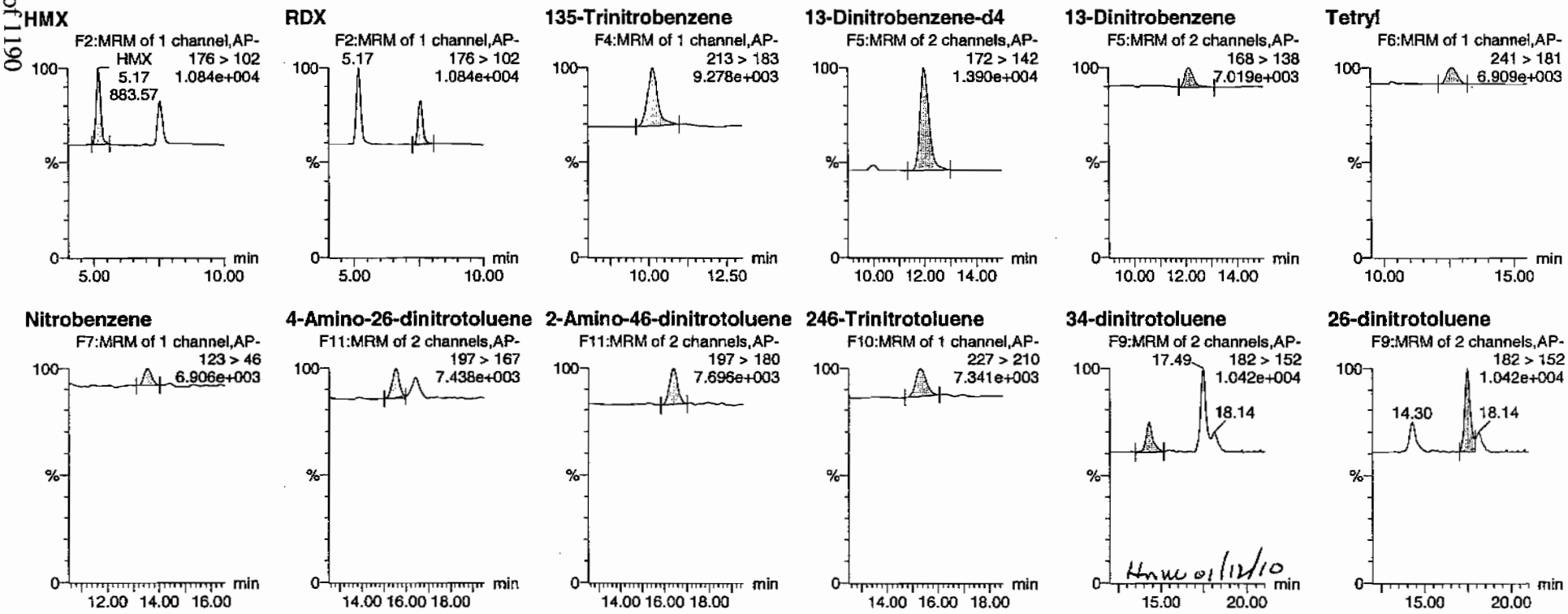

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

24-dinitrotoluene

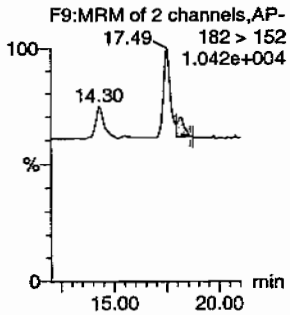

26-dinitrotoluene-d3

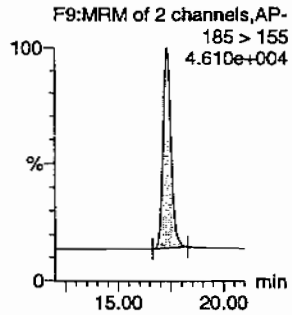

2-Nitrotoluene

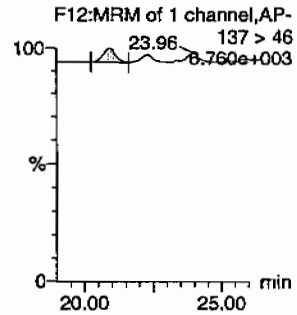

4-Nitrotoluene

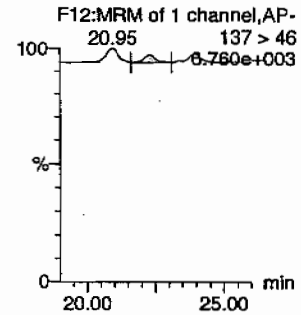

3-Nitrotoluene

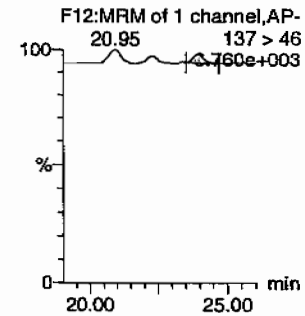

PETN

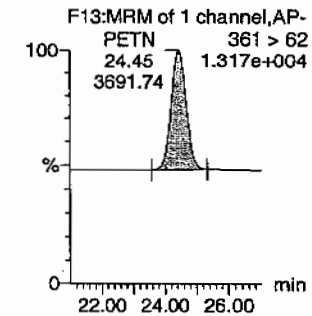

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	IS/N
WXX100108-08CRI	HMX	176 > 102	5.17	883.569	3043.280	883.569	145.167	bb			43.9604	109.9	9.9	151.3
WXX100108-08CRI	RDX	176 > 102	7.56	582.160	3043.280	582.160	95.647	bb			39.0724	97.7	-2.3	86.8
WXX100108-08CRI	135-Trinitrobenzene	213 > 183	10.14	1113.652	3043.280	1113.652	182.969	bb			52.9265	132.3	32.3	200.4
WXX100108-08CRI	13-Dinitrobenzene-d4	172 > 142	11.97	3043.280		3043.280	3043.280	bb			519.4145	103.9	3.9	251.9
WXX100108-08CRI	13-Dinitrobenzene	168 > 138	12.14	290.683	3043.280	290.683	47.758	bb			38.9219	97.3	-2.7	33.0
WXX100108-08CRI	Tetryl	241 > 181	12.63	276.929	3043.280	276.929	45.498	bb			41.9473	104.9	4.9	19.7
WXX100108-08CRI	Nitrobenzene	123 > 46	13.54	201.180	3043.280	201.180	33.053	bb			33.5086	83.8	-16.2	8.7
WXX100108-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.53	427.364	17456.029	427.364	12.241	MM	12-Jan-10	10:06:28	43.4130	108.5	8.5	53.7
WXX100108-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.41	583.526	17456.029	583.526	16.714	bb			45.3877	113.5	13.5	59.3
WXX100108-08CRI	246-Trinitrotoluene	227 > 210	15.31	475.552	17456.029	475.552	13.621	bb			42.0818	105.2	5.2	19.5
WXX100108-08CRI	34-dinitrotoluene	182 > 152	14.30	670.384	17456.029	670.384	19.202	bb			21.4030	107.0	7.0	31.7
WXX100108-08CRI	26-dinitrotoluene	182 > 152	17.49	1508.242	17456.029	1508.242	43.201	MM	12-Jan-10	10:16:46	38.1657	95.4	-4.6	88.3
WXX100108-08CRI	24-dinitrotoluene	182 > 152	18.14	351.621	17456.029	351.621	10.072	MM	12-Jan-10	10:21:54	41.3015	103.3	3.3	19.6
WXX100108-08CRI	26-dinitrotoluene-d3	185 > 155	17.31	17456.029		17456.029	17456.029	bb			516.8693	103.4	3.4	1316.3
WXX100108-08CRI	2-Nitrotoluene	137 > 46	20.95	219.669	17456.029	219.669	6.292	bb			40.7028	101.8	1.8	24.9
WXX100108-08CRI	4-Nitrotoluene	137 > 46	22.31	117.180	17456.029	117.180	3.356	bb			39.7636	99.4	-0.6	13.5
WXX100108-08CRI	3-Nitrotoluene	137 > 46	23.96	116.333	17456.029	116.333	3.332	bb			33.2674	83.2	-16.8	14.8
WXX100108-08CRI	PETN	361 > 62	24.45	3691.738	17456.029	3691.738	105.744	bb			57.8390	144.6	44.6	167.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	01/11/10
Time of Injection	1802
Standard Number	WXX100108-08CRI
Data File	EXP0108149a

HMX	100.9
RDX	97.7
135-TNB	132.3
13-DNB	97.3
Tetryl	104.9
Nitrobenzene	83.8
4A-26-DNT	108.5
2A-46-DNT	113.5
246-TNT	105.2
34-DNT(surr)	107.0
26-DNT	95.4
24-DNT	103.3
2-NT	101.8
4-NT	99.4
3-NT	83.2
PETN	144.6
Total	1678.8
Average	104.9

MP 1/12/10

tmm 01/12/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-952

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0108157a

Analysis Date: 11-JAN-10 21:58

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	602.324	100	
1,3-Dinitrobenzene-d4	500	533.767	107	
2,4,6-Trinitrotoluene	600	661.662	110	
2,4-Dinitrotoluene	600	569.222	95	
2,6-Dinitrotoluene	600	552.912	92	
2,6-Dinitrotoluene-d3	500	575.816	115	
2-Amino-4,6-dinitrotoluene	600	612.599	102	
3,4-Dinitrotoluene	300	287.516	96	
4-Amino-2,6-dinitrotoluene	600	545.124	91	
HMX	600	620.264	103	
Nitrobenzene	600	523.916	87	
PETN	600	591.389	99	
RDX	600	643.71	107	
Tetryl	600	511.791	85	
m-Dinitrobenzene	600	578.301	96	
m-Nitrotoluene	600	449.59	75	*
o-Nitrotoluene	600	489.577	82	
p-Nitrotoluene	600	465.46	78	*

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108157a
Date: 11-Jan-2010
Time: 21:58:48
ID: WXX100111-07CCV
Vial: 1:1,B

MMT 1/12/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.017e+004

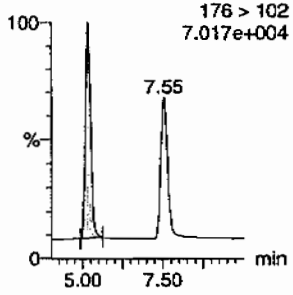

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.017e+004

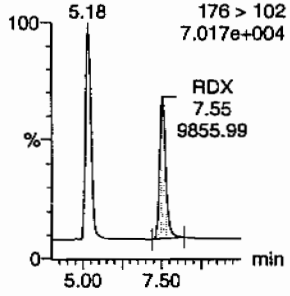

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
4.088e+004

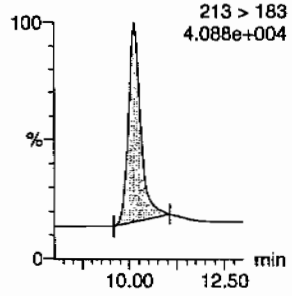

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.335e+004

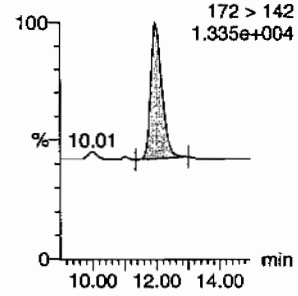

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.704e+004

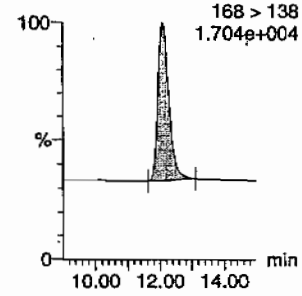

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.279e+004

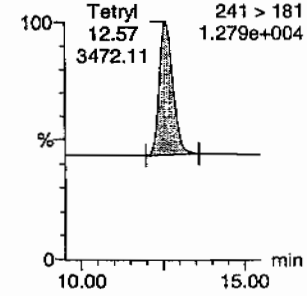

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.453e+004

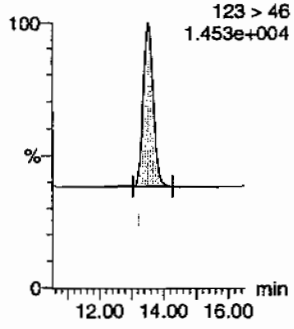

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.011e+004

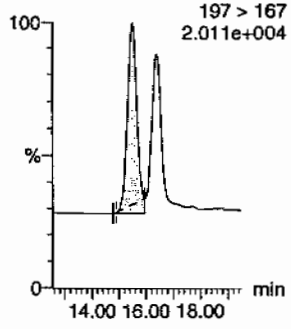

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
2.656e+004

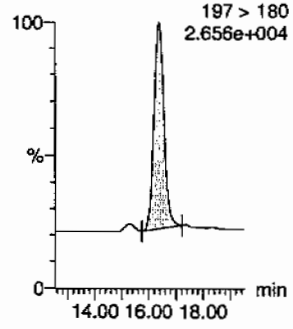

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.369e+004

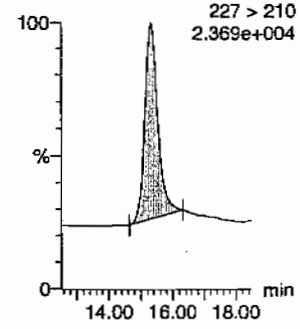

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.953e+004

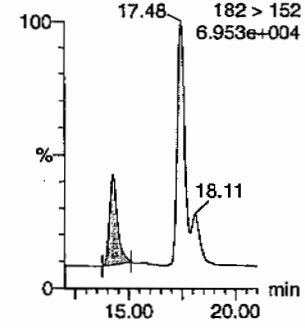

HMM 01/12/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.953e+004

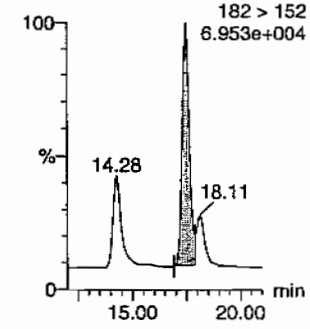

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

24-dinitrotoluene

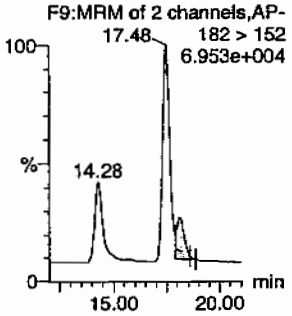

26-dinitrotoluene-d3

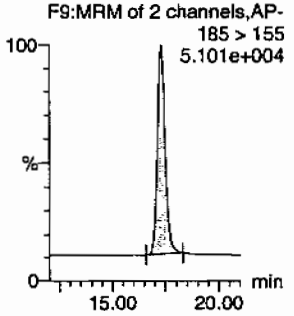

2-Nitrotoluene

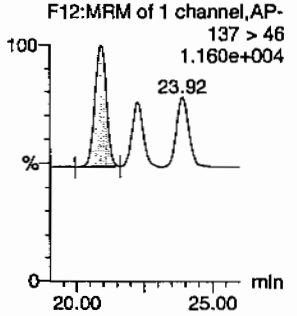

4-Nitrotoluene

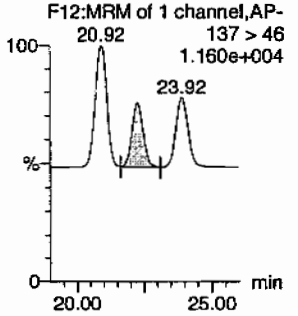

3-Nitrotoluene

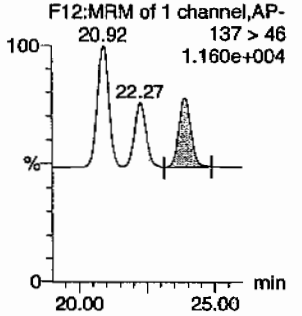

PETN

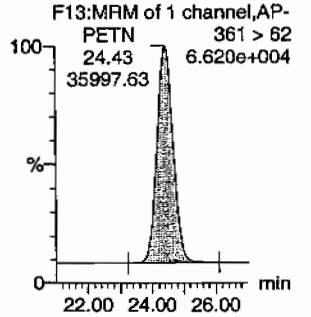

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100111-07CCV	HMX	176 > 102	5.18	12811.297	3127.371	12811.297	2048.253	bb			620.2644	103.4	3.4	2527.5
WXX100111-07CCV	RDX	176 > 102	7.55	9855.986	3127.371	9855.986	1575.762	bb			643.7105	107.3	7.3	1639.1
WXX100111-07CCV	135-Trinitrobenzene	213 > 183	10.14	13024.008	3127.371	13024.008	2082.261	bb			602.3244	100.4	0.4	572.9
WXX100111-07CCV	13-Dinitrobenzene-d4	172 > 142	11.97	3127.371		3127.371	3127.371	bb			533.7668	106.8	6.8	416.5
WXX100111-07CCV	13-Dinitrobenzene	168 > 138	12.10	4438.310	3127.371	4438.310	709.591	bb			578.3014	96.4	-3.6	319.3
WXX100111-07CCV	Tetryl	241 > 181	12.57	3472.115	3127.371	3472.115	555.117	bb			511.7909	85.3	-14.7	490.3
WXX100111-07CCV	Nitrobenzene	123 > 46	13.53	3232.415	3127.371	3232.415	516.794	bb			523.9158	87.3	-12.7	595.8
WXX100111-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.51	5978.288	19446.813	5978.288	153.709	MM	12-Jan-10	10:06:58	545.1245	90.9	-9.1	126.4
WXX100111-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.39	8774.088	19446.813	8774.088	225.592	bb			612.5994	102.1	2.1	297.6
WXX100111-07CCV	246-Trinitrotoluene	227 > 210	15.33	8329.958	19446.813	8329.958	214.173	bb			661.6617	110.3	10.3	283.3
WXX100111-07CCV	34-dinitrotoluene	182 > 152	14.28	10032.608	19446.813	10032.608	257.950	bb			287.5156	95.8	-4.2	277.0
WXX100111-07CCV	26-dinitrotoluene	182 > 152	17.48	24342.045	19446.813	24342.045	625.862	MM	12-Jan-10	10:17:14	552.9118	92.2	-7.8	743.8
WXX100111-07CCV	24-dinitrotoluene	182 > 152	18.11	5398.754	19446.813	5398.754	138.808	MM	12-Jan-10	10:21:18	569.2221	94.9	-5.1	149.4
WXX100111-07CCV	26-dinitrotoluene-d3	185 > 155	17.30	19446.813		19446.813	19446.813	bb			575.8159	115.2	15.2	846.9
WXX100111-07CCV	2-Nitrotoluene	137 > 46	20.92	2943.531	19446.813	2943.531	75.682	bb			489.5768	81.6	-18.4	774.1
WXX100111-07CCV	4-Nitrotoluene	137 > 46	22.27	1528.105	19446.813	1528.105	39.289	bb			465.4596	77.6	-22.4	408.3
WXX100111-07CCV	3-Nitrotoluene	137 > 46	23.92	1751.474	19446.813	1751.474	45.032	bb			449.5901	74.9	-25.1	439.0
WXX100111-07CCV	PETN	361 > 62	24.43	35997.625	19446.813	35997.625	925.540	bb			591.3892	98.6	-1.4	9720.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 01/11/10
Time of Injection: 2158
Standard Number: WXX100111-07CCV
Data File: EXP0108157a

HMX	103.4
RDX	107.3
135-TNB	100.4
13-DNB	96.4
Tetryl	85.3
Nitrobenzene	87.3
4A-26-DNT	90.9
2A-46-DNT	102.1
246-TNT	110.3
34-DNT(surr)	95.8
26-DNT	92.2
24-DNT	94.9
2-NT	81.6
4-NT	77.6
3-NT	74.9
PETN	98.6
Total	1499.0
Average	93.7

MAT 1/12/10

HMM 01/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–952

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0108159a

Analysis Date: 11–JAN–10 22:57

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p–Nitrotoluene	40	47.939	120	
1,3,5–Trinitrobenzene	40	60.625	152	*
1,3–Dinitrobenzene–d4	500	523.021	105	
2,4,6–Trinitrotoluene	40	36.984	92	
2,4–Dinitrotoluene	40	40.241	101	
2,6–Dinitrotoluene	40	37.711	94	
2,6–Dinitrotoluene–d3	500	521.052	104	
2–Amino–4,6–dinitrotoluene	40	42.271	106	
3,4–Dinitrotoluene	20	25.336	127	
4–Amino–2,6–dinitrotoluene	40	38.694	97	
HMX	40	47.68	119	
Nitrobenzene	40	37.78	94	
PETN	40	59.319	148	*
RDX	40	44.386	111	
Tetryl	40	39.969	100	
m–Dinitrobenzene	40	35.09	88	
m–Nitrotoluene	40	41.175	103	
o–Nitrotoluene	40	37.914	95	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108159a
Date: 11-Jan-2010
Time: 22:57:45
ID: WXX100111-08CRI
Vial: 1:1,C

HMM 1/12/10

HMX

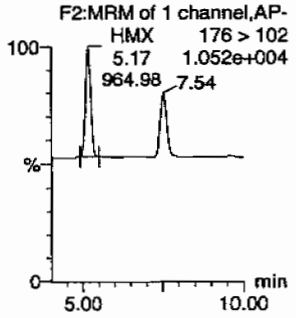

RDX

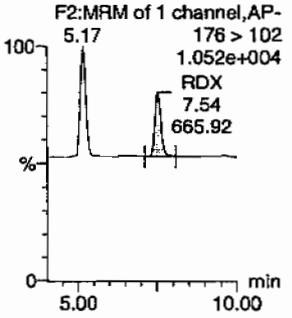

135-Trinitrobenzene

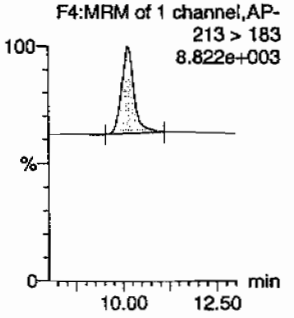

13-Dinitrobenzene-d4

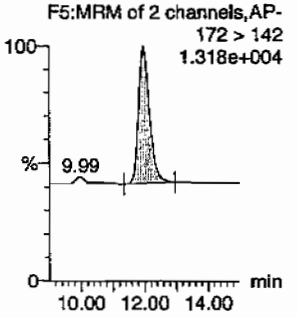

13-Dinitrobenzene

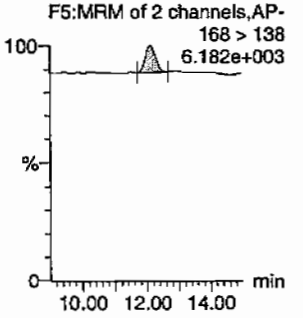

Tetryl

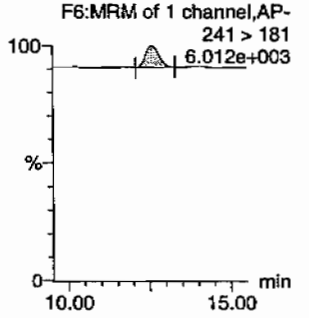

Nitrobenzene

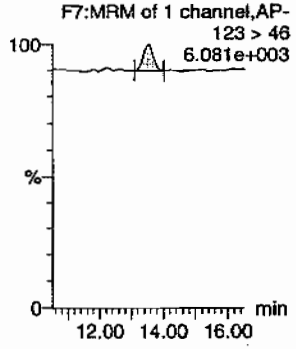

4-Amino-26-dinitrotoluene

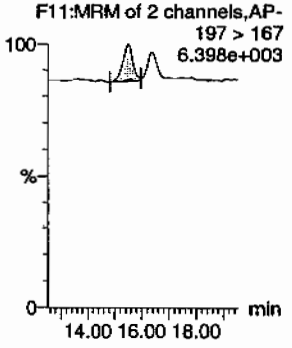

2-Amino-46-dinitrotoluene

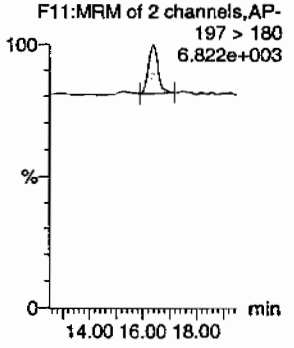

246-Trinitrotoluene

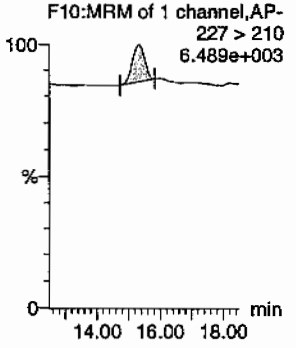

34-dinitrotoluene

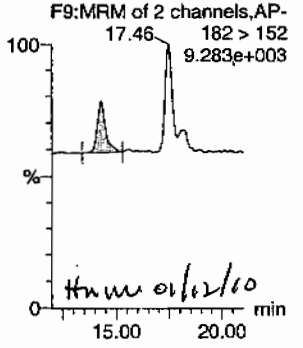

26-dinitrotoluene

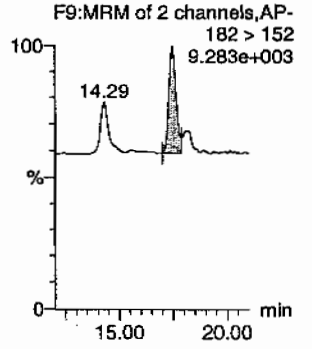

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

24-dinitrotoluene

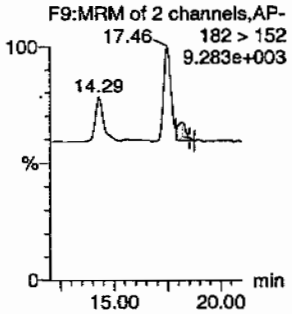

26-dinitrotoluene-d3

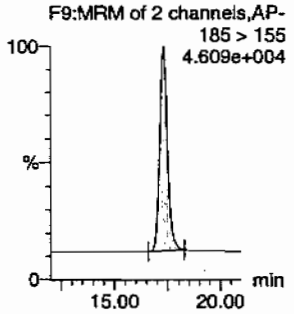

2-Nitrotoluene

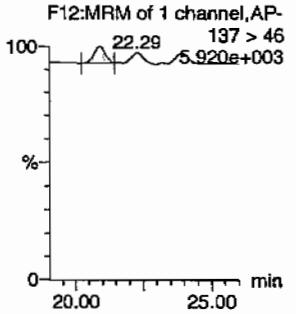

4-Nitrotoluene

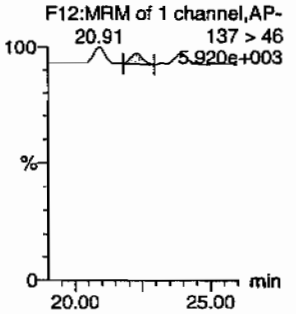

3-Nitrotoluene

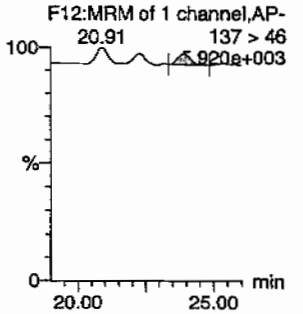

PETN

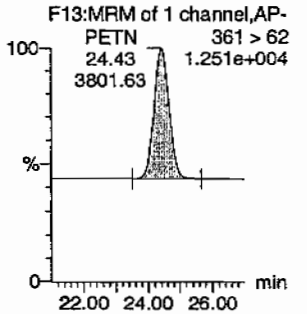

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100111-08CRI	HMX	176 > 102	5.17	964.978	3064.410	964.978	157.449	bb			47.6797	119.2	19.2	243.5
WXX100111-08CRI	RDX	176 > 102	7.54	665.916	3064.410	665.916	108.653	bb			44.3856	111.0	11.0	140.0
WXX100111-08CRI	135-Trinitrobenzene	213 > 183	10.14	1284.496	3064.410	1284.496	209.583	bb			60.6249	151.6	51.6	774.3
WXX100111-08CRI	13-Dinitrobenzene-d4	172 > 142	11.97	3064.410		3064.410	3064.410	bb			523.0209	104.6	4.6	252.2
WXX100111-08CRI	13-Dinitrobenzene	168 > 138	12.10	263.883	3064.410	263.883	43.056	bb			35.0898	87.7	-12.3	29.0
WXX100111-08CRI	Tetryl	241 > 181	12.58	265.701	3064.410	265.701	43.353	bb			39.9691	99.9	-0.1	27.9
WXX100111-08CRI	Nitrobenzene	123 > 46	13.53	228.398	3064.410	228.398	37.266	bb			37.7798	94.4	-5.6	15.5
WXX100111-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.49	383.991	17597.291	383.991	10.911	MM	12-Jan-10	10:07:06	38.6939	96.7	-3.3	23.4
WXX100111-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.40	547.857	17597.291	547.857	15.567	bb			42.2712	105.7	5.7	66.4
WXX100111-08CRI	246-Trinitrotoluene	227 > 210	15.34	421.322	17597.291	421.322	11.971	bb			36.9837	92.5	-7.5	17.3
WXX100111-08CRI	34-dinitrotoluene	182 > 152	14.29	799.984	17597.291	799.984	22.730	bb			25.3356	126.7	26.7	29.4
WXX100111-08CRI	26-dinitrotoluene	182 > 152	17.46	1502.328	17597.291	1502.328	42.686	MM	12-Jan-10	10:17:24	37.7108	94.3	-5.7	62.4
WXX100111-08CRI	24-dinitrotoluene	182 > 152	18.14	345.360	17597.291	345.360	9.813	MM	12-Jan-10	10:21:10	40.2405	100.6	0.6	12.0
WXX100111-08CRI	26-dinitrotoluene-d3	185 > 155	17.31	17597.291		17597.291	17597.291	bb			521.0520	104.2	4.2	1369.1
WXX100111-08CRI	2-Nitrotoluene	137 > 46	20.91	206.274	17597.291	206.274	5.861	bb			37.9140	94.8	-5.2	79.2
WXX100111-08CRI	4-Nitrotoluene	137 > 46	22.29	142.414	17597.291	142.414	4.046	bb			47.9385	119.8	19.8	51.8
WXX100111-08CRI	3-Nitrotoluene	137 > 46	23.92	145.149	17597.291	145.149	4.124	bb			41.1746	102.9	2.9	50.7
WXX100111-08CRI	PETN	361 > 62	24.43	3801.633	17597.291	3801.633	108.018	bb			59.3188	148.3	48.3	947.0

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	01/11/10
Time of Injection	2257
Standard Number	WXX100111-08CRI
Data File	EXP0108159a

HMX	119.2
RDX	111.0
135-TNB	151.6
13-DNB	87.7
Tetryl	99.9
Nitrobenzene	94.4
4A-26-DNT	96.7
2A-46-DNT	105.7
246-TNT	92.5
34-DNT(surr)	126.7
26-DNT	94.3
24-DNT	100.6
2-NT	94.8
4-NT	119.8
3-NT	102.9
PETN	148.3
Total	1746.1
Average	109.1

MMT 1/12/10

HMC 01/12/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-952

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS12230013.wiff

Analysis Date: 23-DEC-09 17:56

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	95.1	95	
2,6-Diamino-4-nitrotoluene	100	81.1	81	
3,4-Dinitrotoluene	50	51.5	103	
3,5-Dinitroaniline	100	102	102	
TATB	100	103	103	
tris(o-cresyl) phosphate	100	103	103	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Sample Name: "WXX091223-27CRI" Sample ID: "[1]LER" File: "EXS12230013.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 5:56:55 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.01 min
Area: 2.27e+005 counts
Height: 54784.237 cps
Start Time: 6.90 min
End Time: 7.38 min

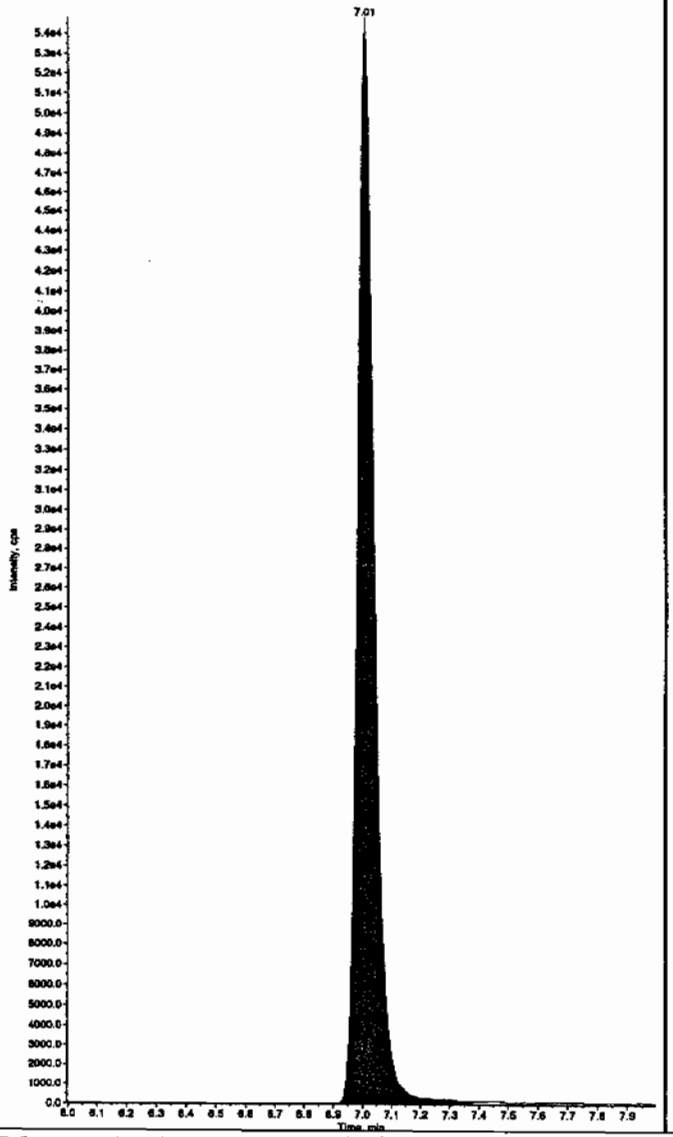

Sample Name: "WXX091223-27CRI" Sample ID: "[1]LER" File: "EXS12230013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 102. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 5:56:55 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 1.50e+006 counts
Height: 403325.470 cps
Start Time: 8.13 min
End Time: 8.33 min

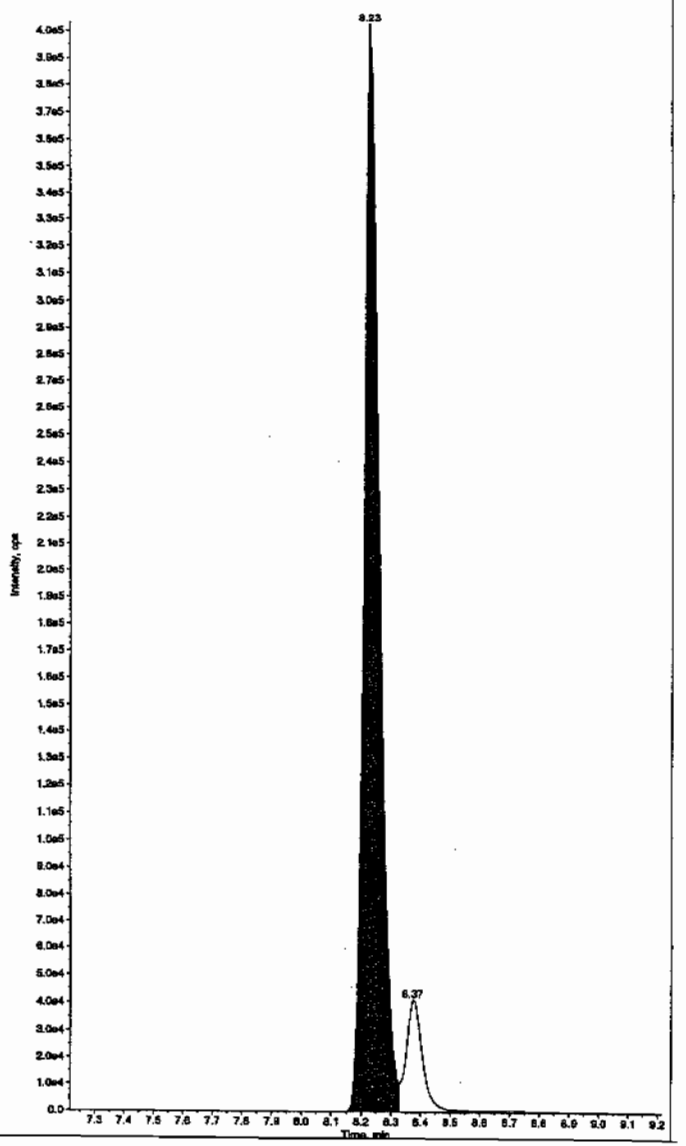

Han 12/24/09

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX091223-27CRI" Sample ID: "[1]LER" File: "EXS12230013.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 51.5 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 5:56:55 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 1.13e+006 counts
Height: 320985.901 cps
Start Time: 8.30 min
End Time: 8.71 min

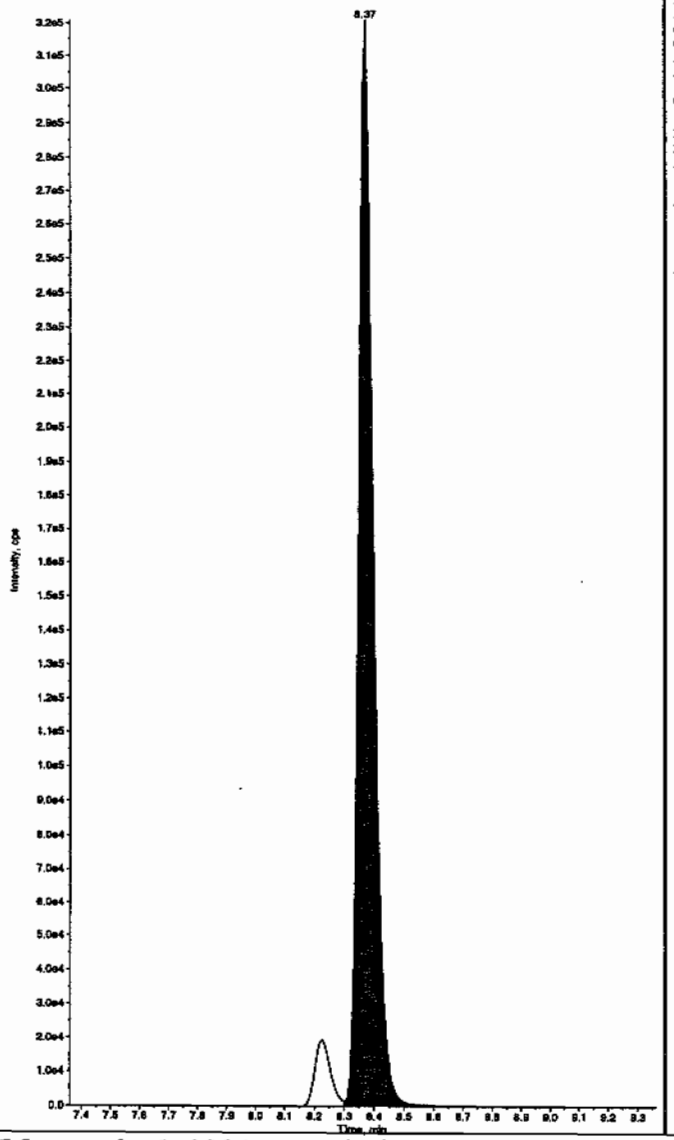

Sample Name: "WXX091223-27CRI" Sample ID: "[1]LER" File: "EXS12230013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 81.1 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 5:56:55 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.04 min
Area: 3.38e+005 counts
Height: 83113.716 cps
Start Time: 4.91 min
End Time: 5.32 min

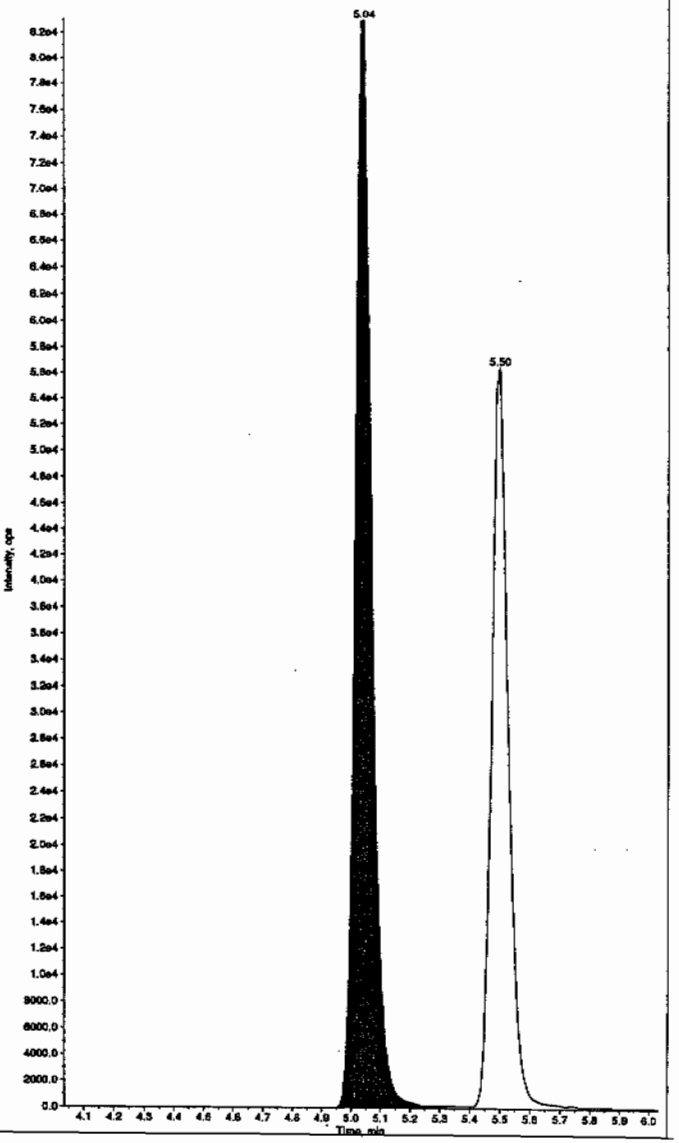

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX091223-27CRI" Sample ID: "[1]LER" File: "EXS12230013.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 95.1 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 5:56:55 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.49 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.50 min
Area: 2.18e+005 counts
Height: 56524.242 cps
Start Time: 5.41 min
End Time: 5.79 min

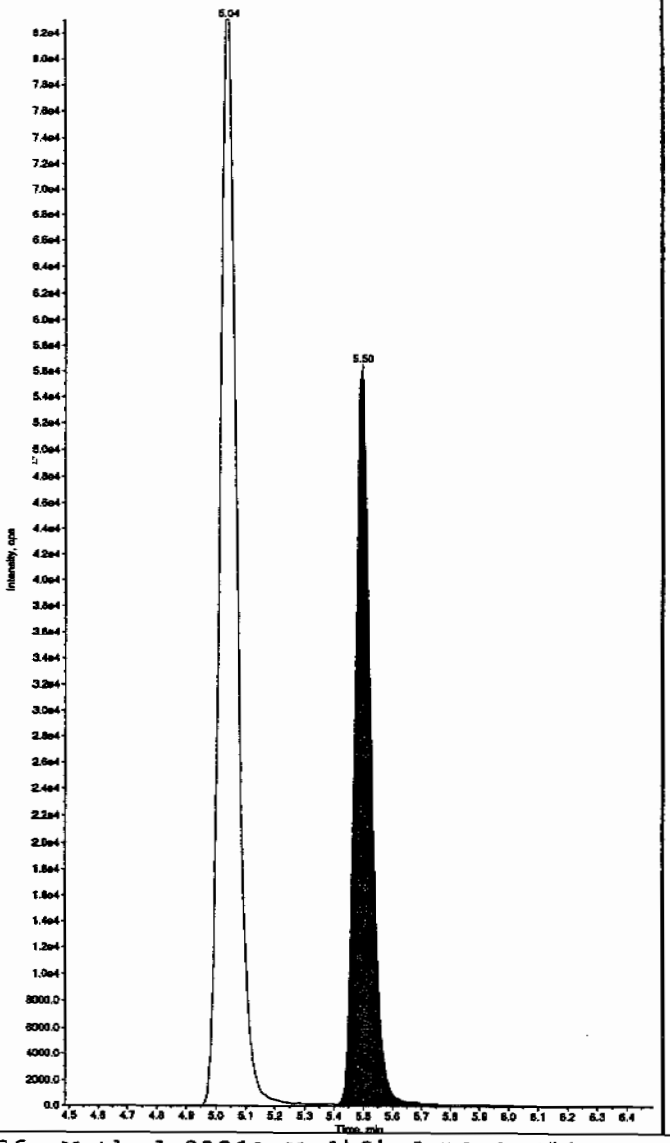

Sample Name: "WXX091223-27CRI" Sample ID: "[1]LER" File: "EXS12230013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 5:56:55 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 3.14e+006 counts
Height: 791630.432 cps
Start Time: 10.8 min
End Time: 11.2 min

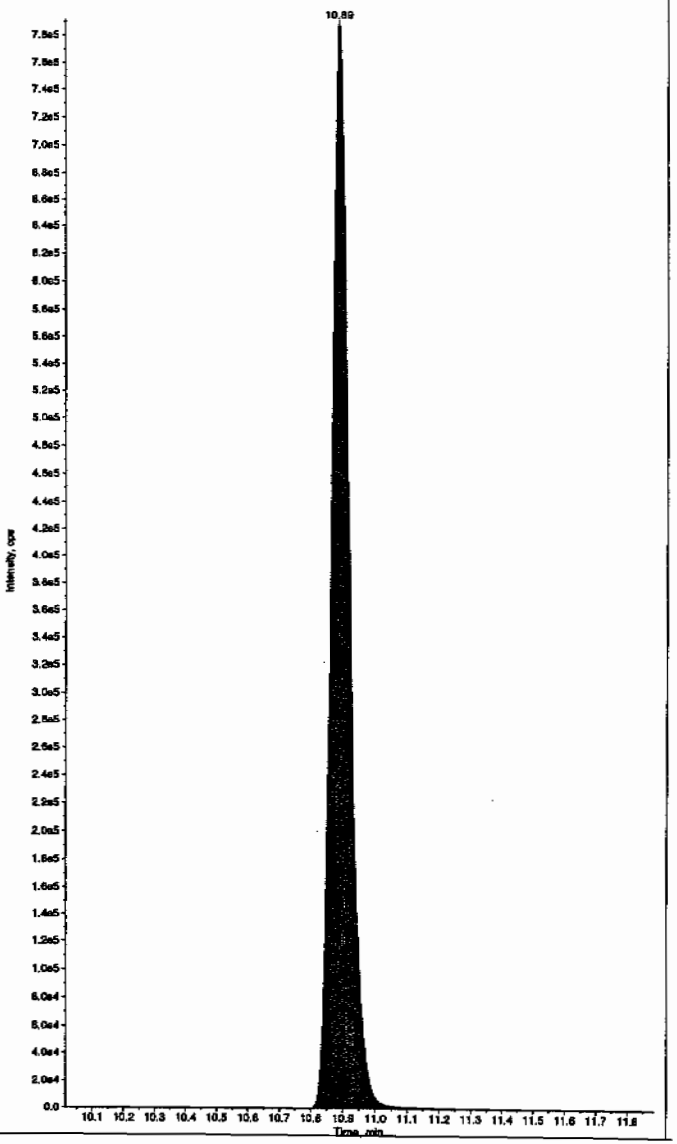

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–952

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS12230021.wiff

Analysis Date: 23–DEC–09 20:02

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	553	111	
2,6–Diamino–4–nitrotoluene	500	490	98	
3,4–Dinitrotoluene	250	232	93	
3,5–Dinitroaniline	500	501	100	
TATB	500	485	97	
tris(o–cresyl) phosphate	500	479	96	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Sample Name: "WXX091223-26CCV" Sample ID: "[1]LER" File: "EXS12230021.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 485. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 8:02:30 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.01 min
Area: 1.00e+006 counts
Height: 238588.745 cps
Start Time: 6.86 min
End Time: 7.50 min

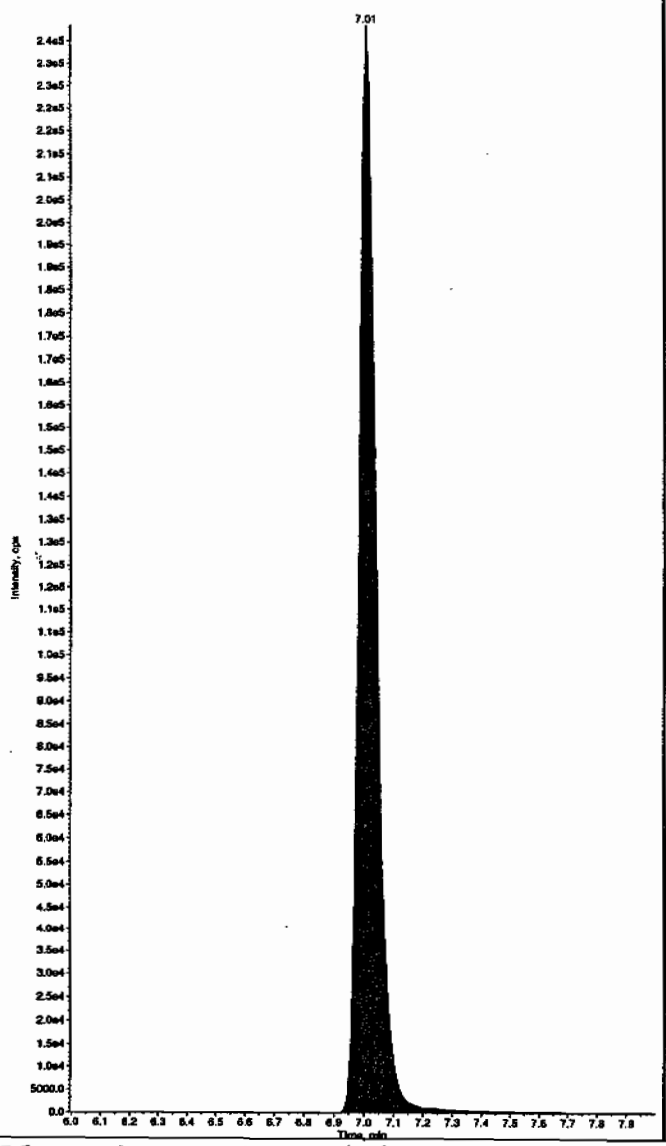

Sample Name: "WXX091223-26CCV" Sample ID: "[1]LER" File: "EXS12230021.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 501. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 8:02:30 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 6.48e+006 counts
Height: 1663699.097 cps
Start Time: 8.13 min
End Time: 8.33 min

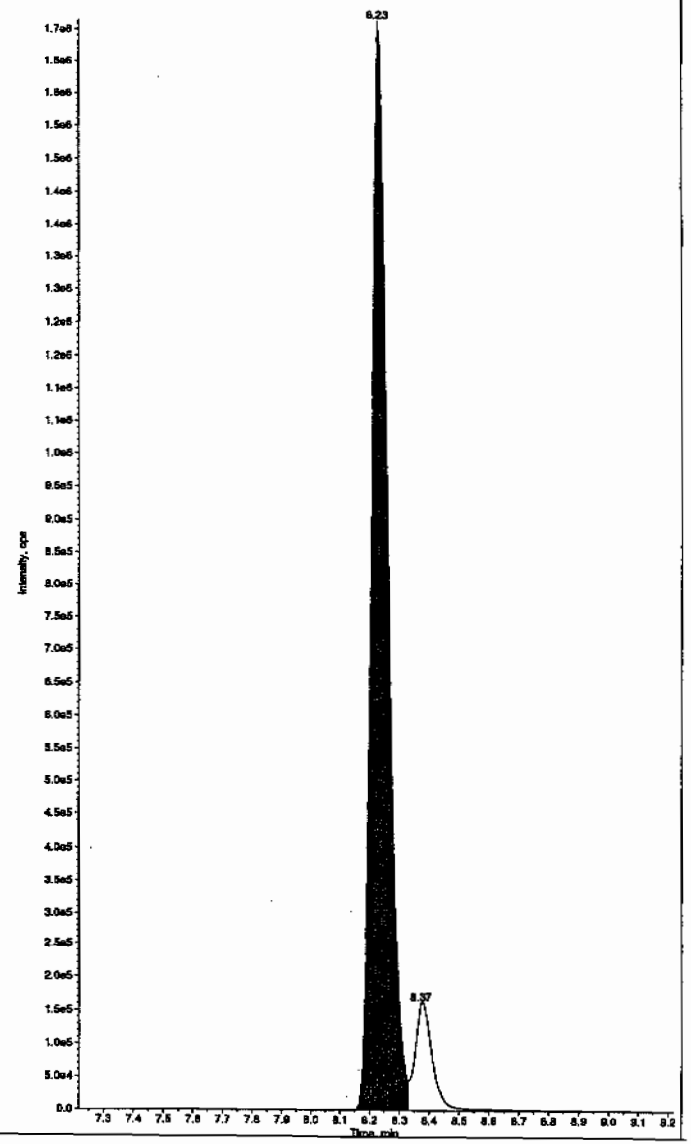

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX091223-26CCV" Sample ID: "[1]LER" File: "EXS12230021.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 232. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 8:02:30 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 4.86e+006 counts
Height: 1324731.567 cps
Start Time: 8.30 min
End Time: 8.69 min

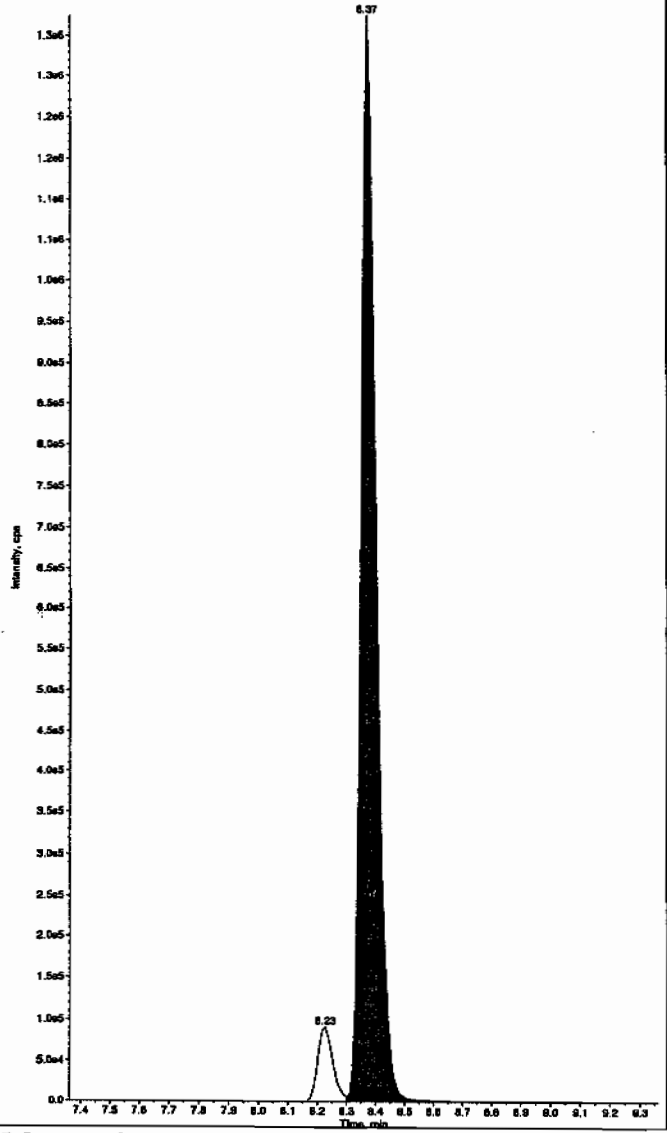

Sample Name: "WXX091223-26CCV" Sample ID: "[1]LER" File: "EXS12230021.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 490. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 8:02:30 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.04 min
Area: 1.83e+006 counts
Height: 429301.666 cps
Start Time: 4.94 min
End Time: 5.34 min

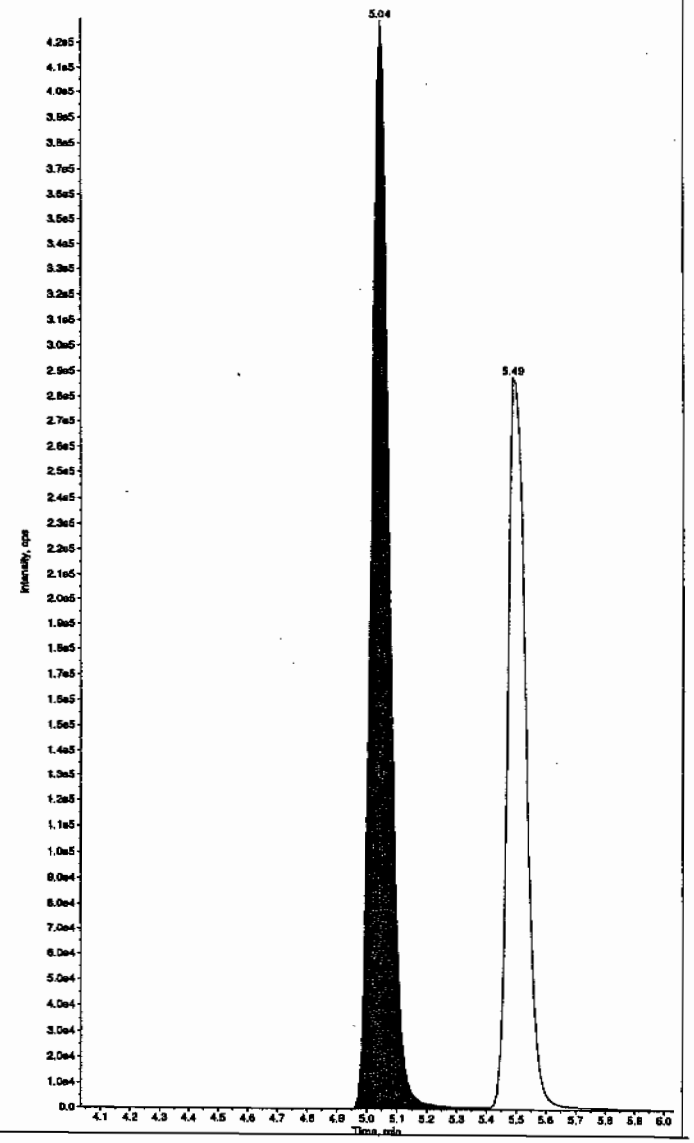

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX091223-26CCV" Sample ID: "[1]LER" File: "EXS12230021.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 553. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 8:02:30 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.49 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.49 min
Area: 1.23e+006 counts
Height: 288205.292 cps
Start Time: 5.40 min
End Time: 5.95 min

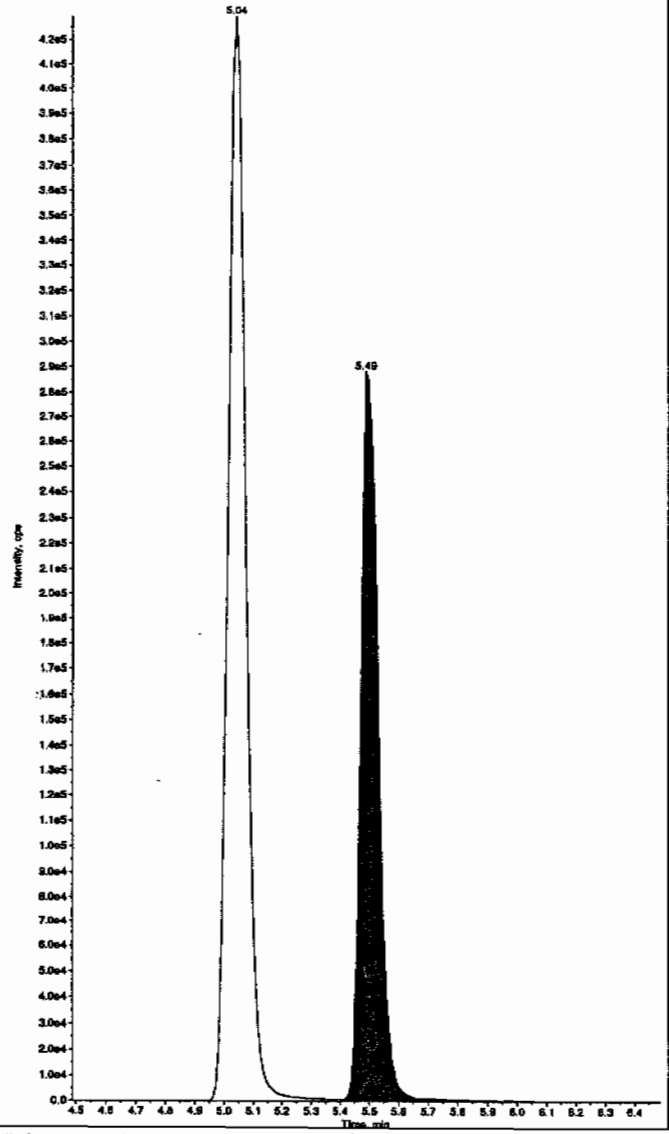

Sample Name: "WXX091223-26CCV" Sample ID: "[1]LER" File: "EXS12230021.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 479. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 8:02:30 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.30e+007 counts
Height: 3157280.518 cps
Start Time: 10.8 min
End Time: 11.2 min

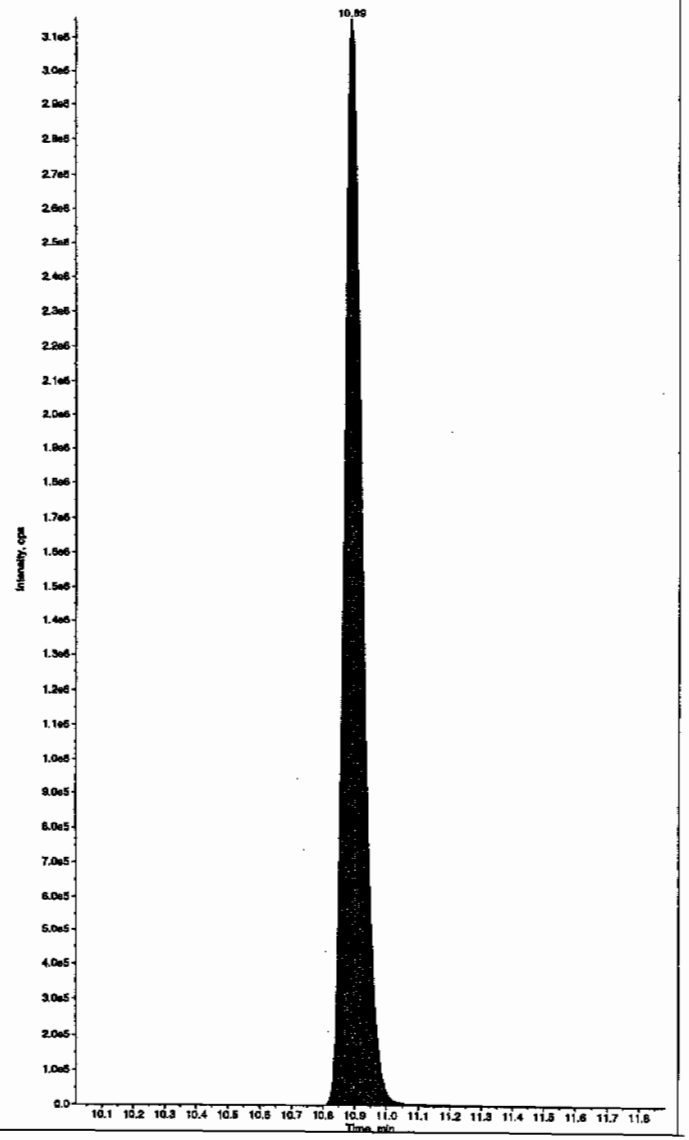

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–952

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS12230023.wiff

Analysis Date: 23–DEC–09 20:33

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
TATB	100	96.2	96	
tris(o–cresyl) phosphate	100	100	100	
2,4–Diamino–6–nitrotoluene	100	115	115	
2,6–Diamino–4–nitrotoluene	100	108	108	
3,4–Dinitrotoluene	50	49.5	99	
3,5–Dinitroaniline	100	96.9	97	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Sample Name: "WXX091223-27CRI" Sample ID: "|1|LER" File: "EXS12230023.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 96.2 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 8:33:53 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.01 min
Area: 2.13e+005 counts
Height: 51315.178 cps
Start Time: 6.86 min
End Time: 7.45 min

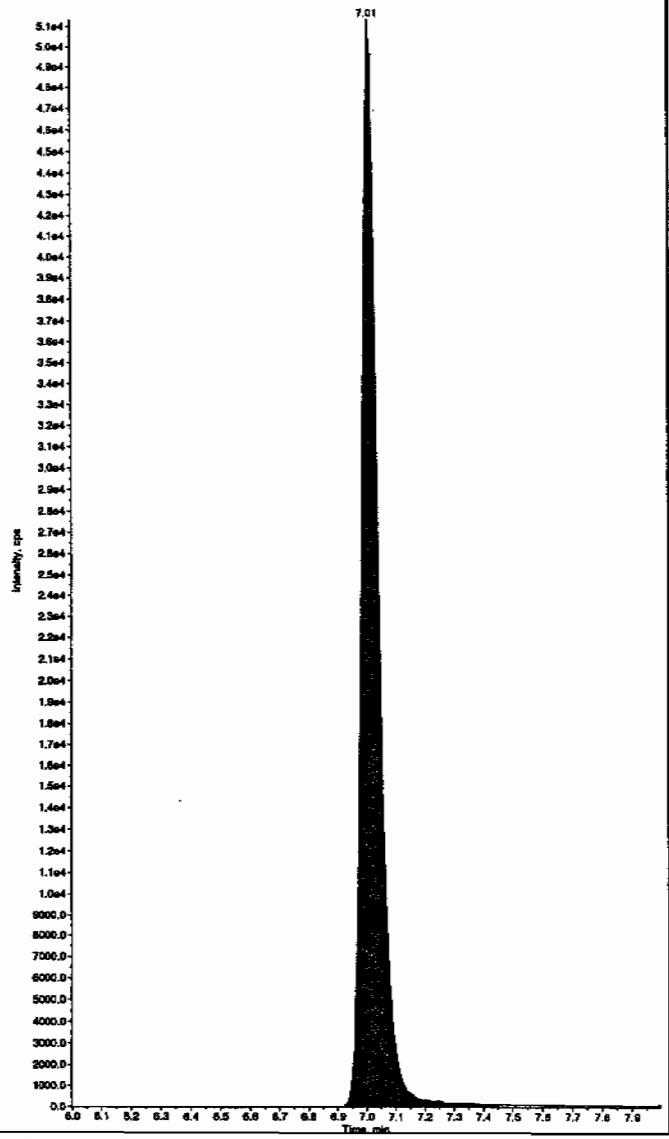

Sample Name: "WXX091223-27CRI" Sample ID: "|1|LER" File: "EXS12230023.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 96.9 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 8:33:53 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 1.43e+006 counts
Height: 373343.201 cps
Start Time: 8.13 min
End Time: 8.33 min

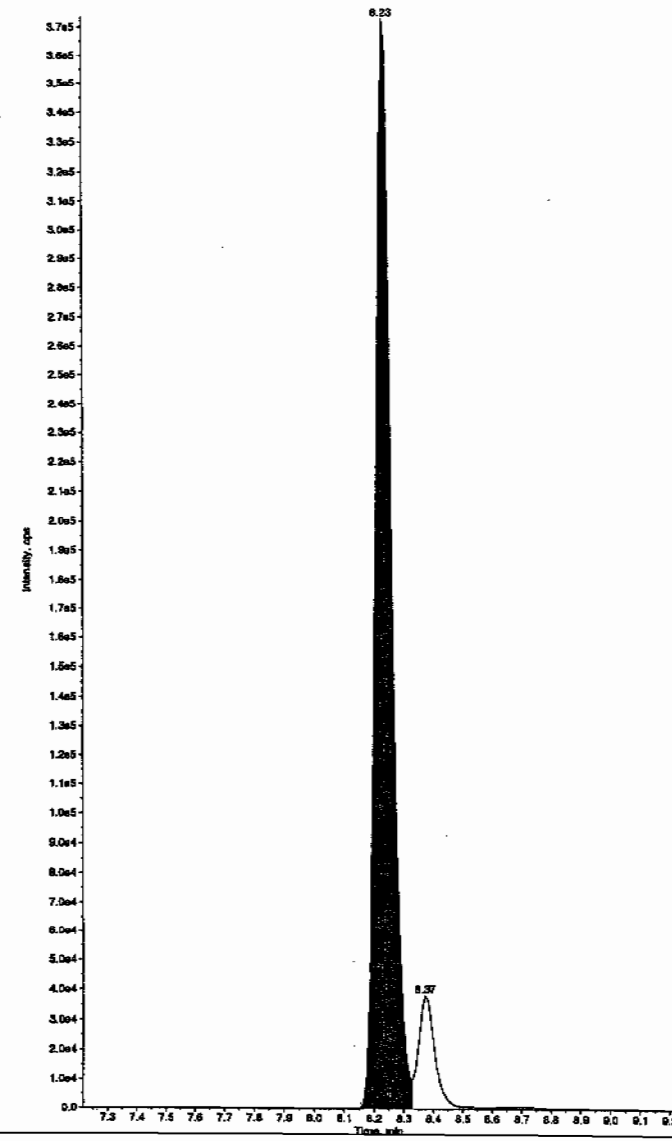

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX091223-27CRI" Sample ID: "[1]LER" File: "EXS12230023.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 49.5 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 8:33:53 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 1.09e+006 counts
Height: 300550.385 cps
Start Time: 8.30 min
End Time: 8.67 min

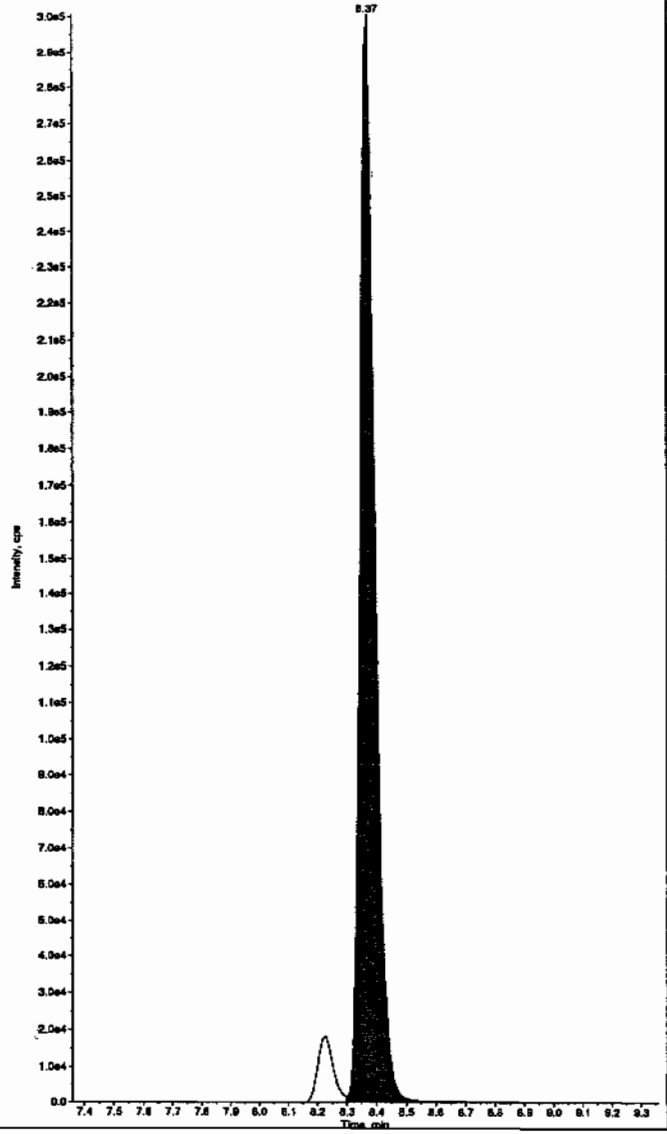

Sample Name: "WXX091223-27CRI" Sample ID: "[1]LER" File: "EXS12230023.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 108. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 8:33:53 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.04 min
Area: 4.40e+005 counts
Height: 110093.071 cps
Start Time: 4.95 min
End Time: 5.30 min

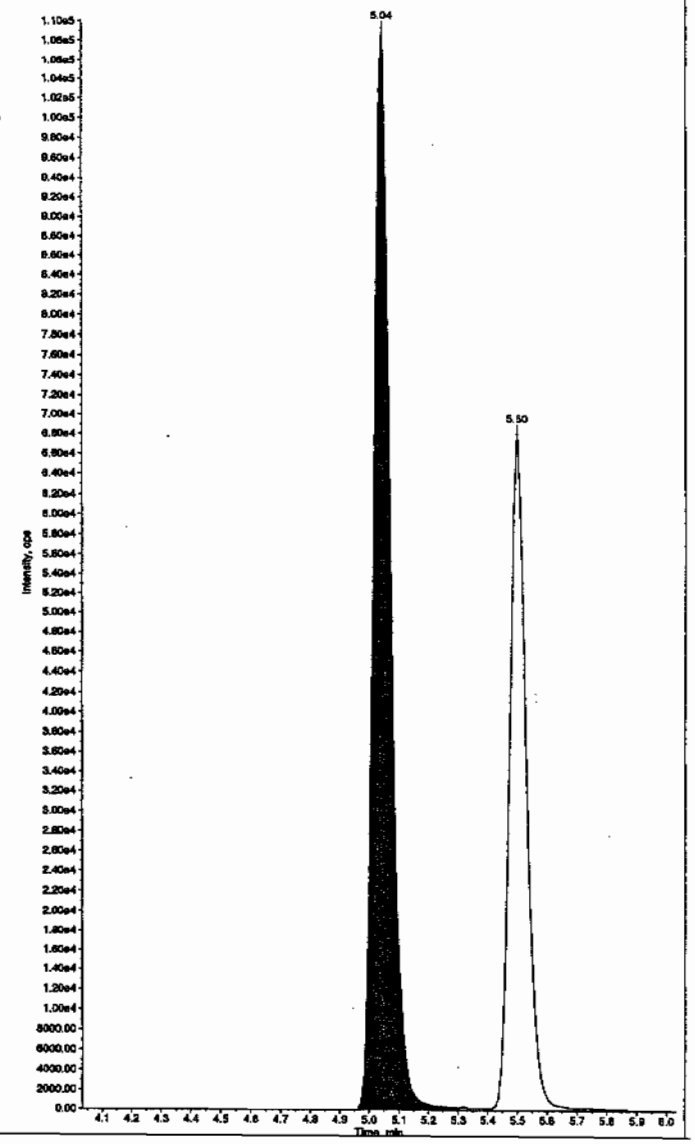

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX091223-27CRI" Sample ID: "[1]LER" File: "EXS12230023.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 115. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 8:33:53 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.49 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.50 min
Area: 2.63e+005 counts
Height: 68931.999 cps
Start Time: 5.39 min
End Time: 5.77 min

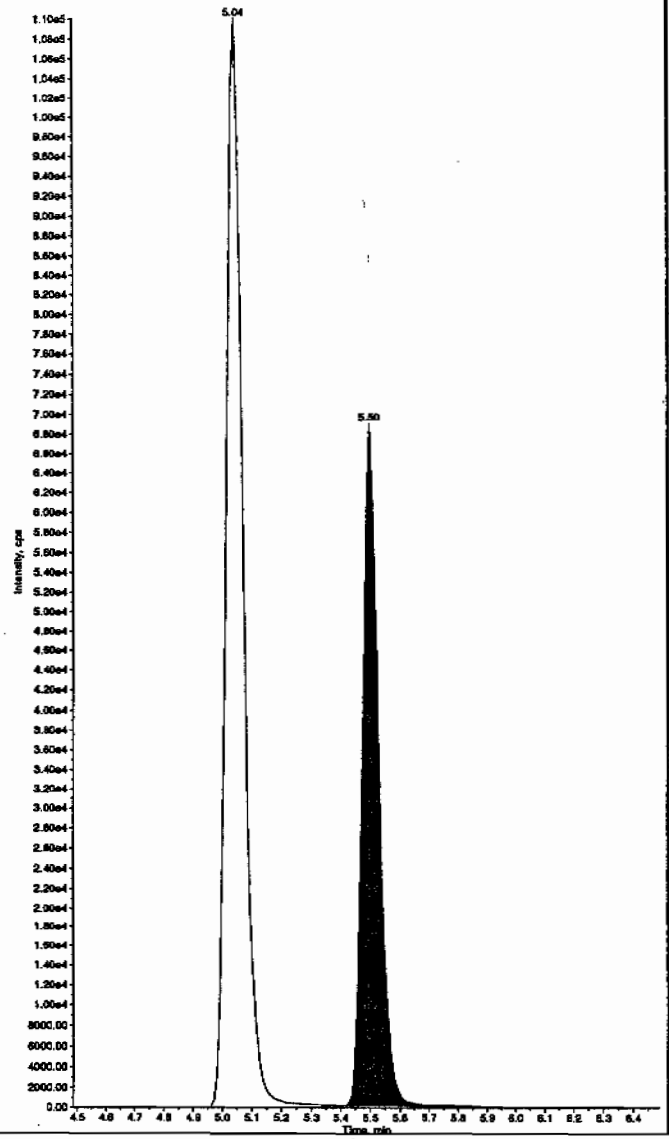

Sample Name: "WXX091223-27CRI" Sample ID: "[1]LER" File: "EXS12230023.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 100. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 8:33:53 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 3.07e+006 counts
Height: 795680.481 cps
Start Time: 10.8 min
End Time: 11.2 min

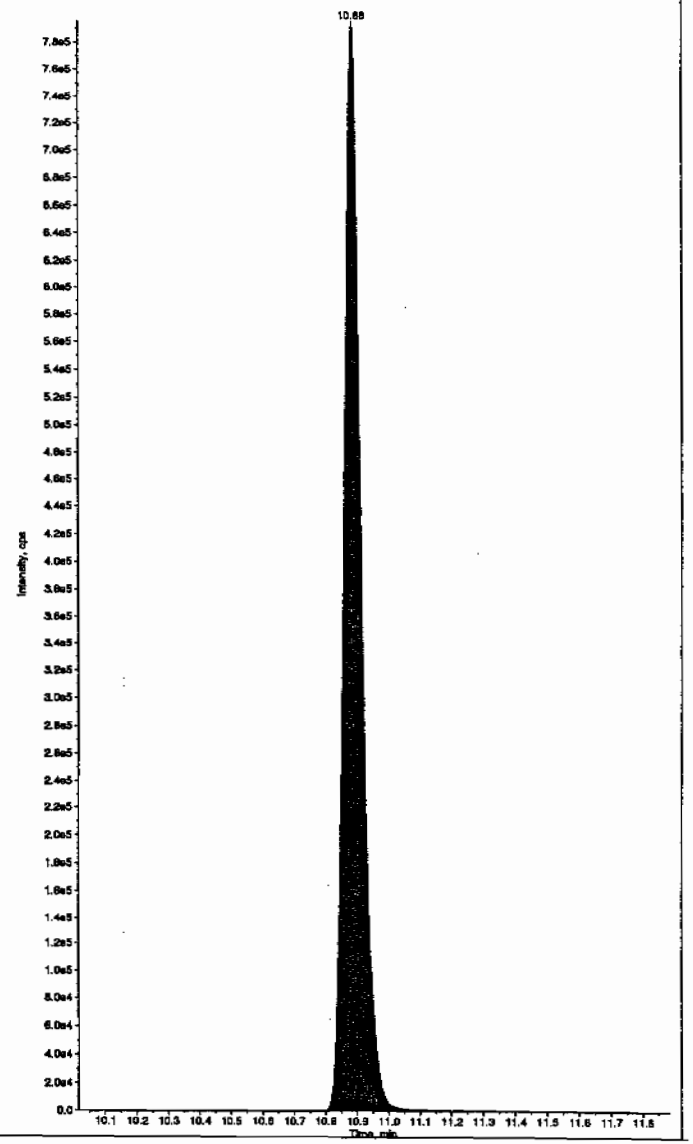

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–952

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS12230028.wiff

Analysis Date: 23–DEC–09 21:52

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	638	128	
2,6–Diamino–4–nitrotoluene	500	645	129	
3,4–Dinitrotoluene	250	242	97	
3,5–Dinitroaniline	500	504	101	
TATB	500	482	96	
tris(o–cresyl) phosphate	500	491	98	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 12/29/09

Sample Name: "WXX091223-26CCV" Sample ID: "[1]LER" File: "EXS12230028.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 482. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 9:52:22 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.02 min
Area: 9.97e+005 counts
Height: 235114.853 cps
Start Time: 6.89 min
End Time: 7.56 min

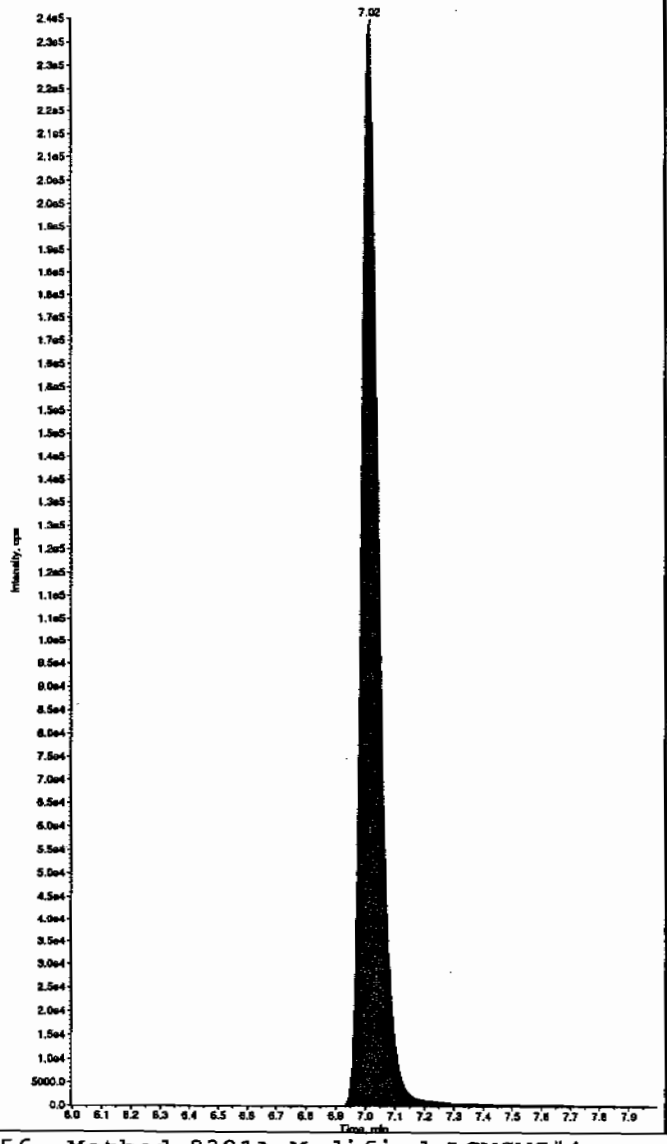

Sample Name: "WXX091223-26CCV" Sample ID: "[1]LER" File: "EXS12230028.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 504. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 9:52:22 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.24 min
Area: 6.52e+006 counts
Height: 1629240.723 cps
Start Time: 8.13 min
End Time: 8.33 min

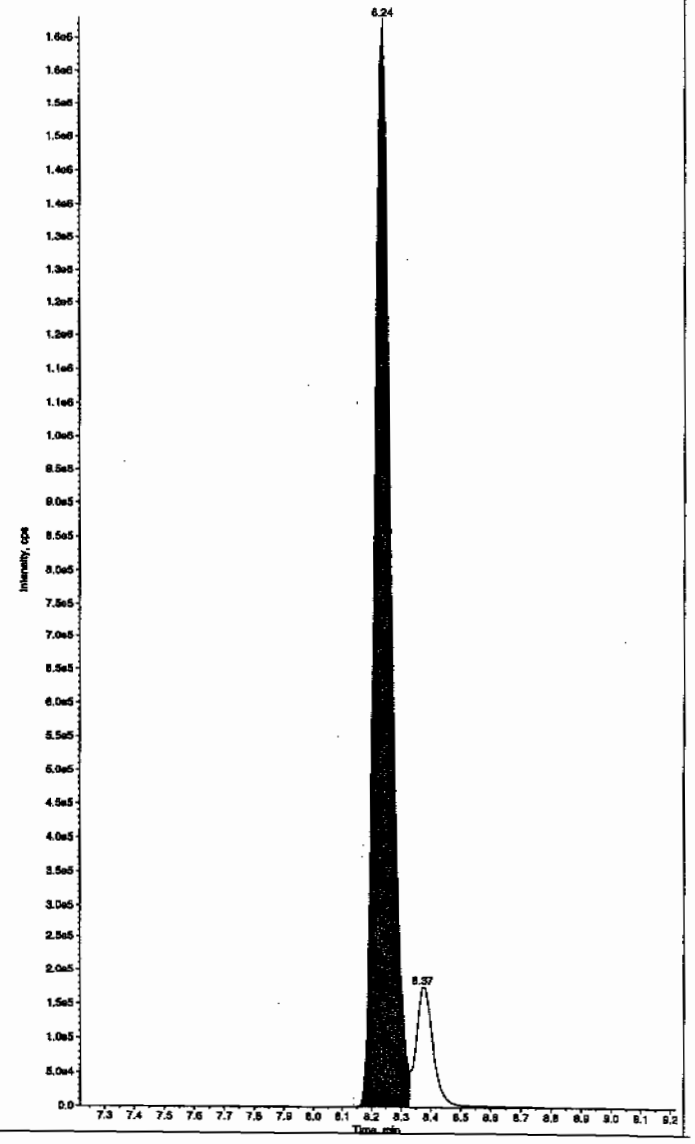

Hme 12/29/09

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX091223-26CCV" Sample ID: "[1]LER" File: "EXS12230028.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 242. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 9:52:22 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 5.05e+006 counts
Height: 1409579.468 cps
Start Time: 8.30 min
End Time: 8.70 min

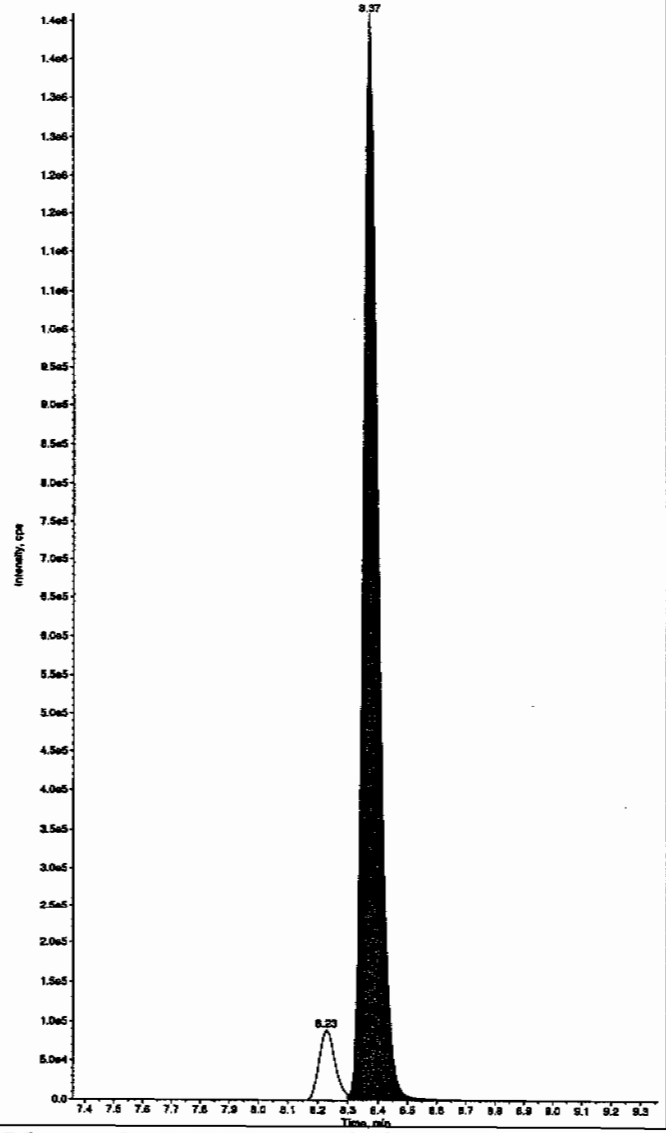

Sample Name: "WXX091223-26CCV" Sample ID: "[1]LER" File: "EXS12230028.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 645. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 9:52:22 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.04 min
Area: 2.37e+006 counts
Height: 605890.669 cps
Start Time: 4.94 min
End Time: 5.33 min

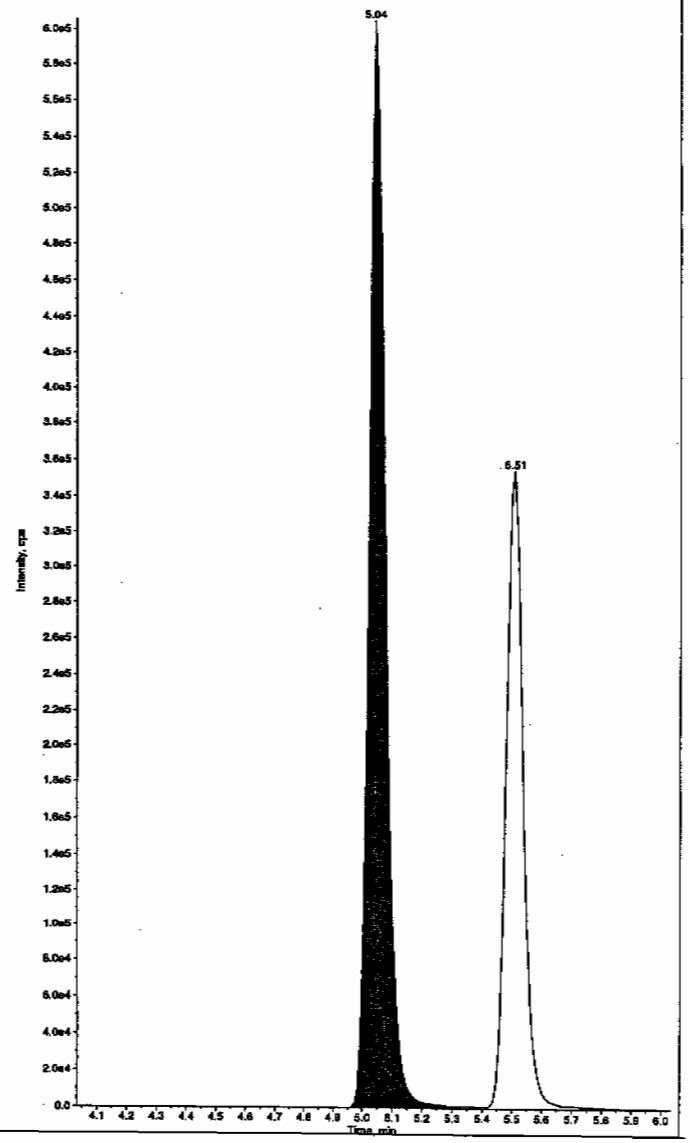

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX091223-26CCV" Sample ID: "[1]LER" File: "EXS12230028.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 638. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 9:52:22 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.49 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.51 min
Area: 1.41e+006 counts
Height: 354934.021 cps
Start Time: 5.39 min
End Time: 5.92 min

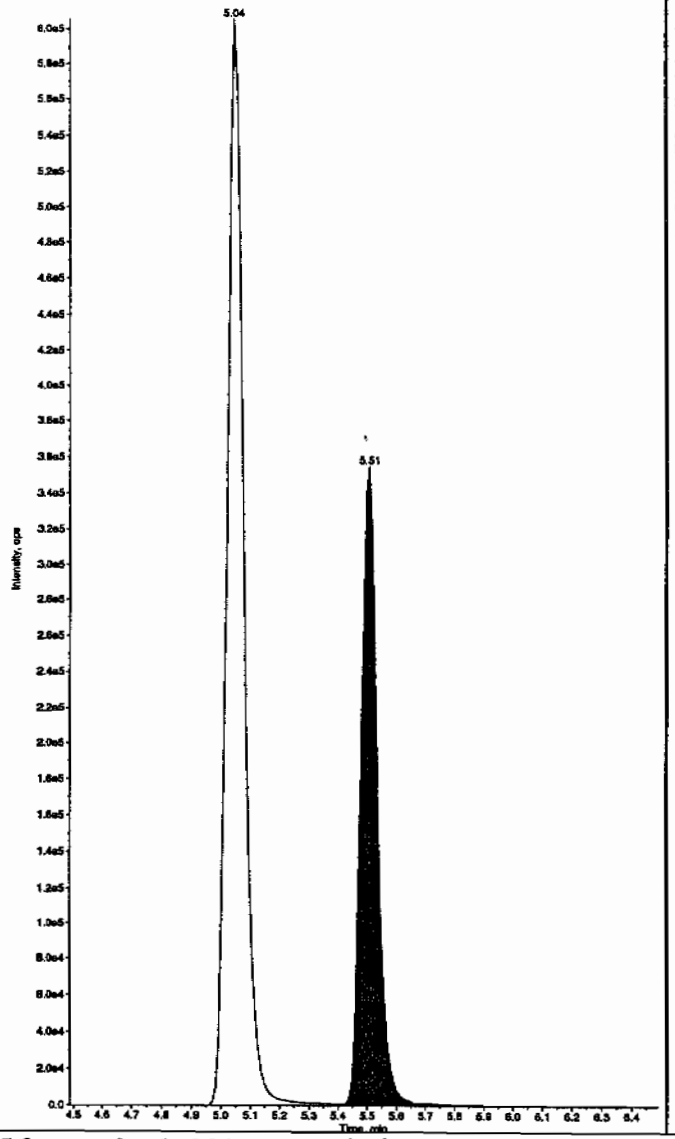

Sample Name: "WXX091223-26CCV" Sample ID: "[1]LER" File: "EXS12230028.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 491. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 9:52:22 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 1.33e+007 counts
Height: 3164986.572 cps
Start Time: 10.8 min
End Time: 11.2 min

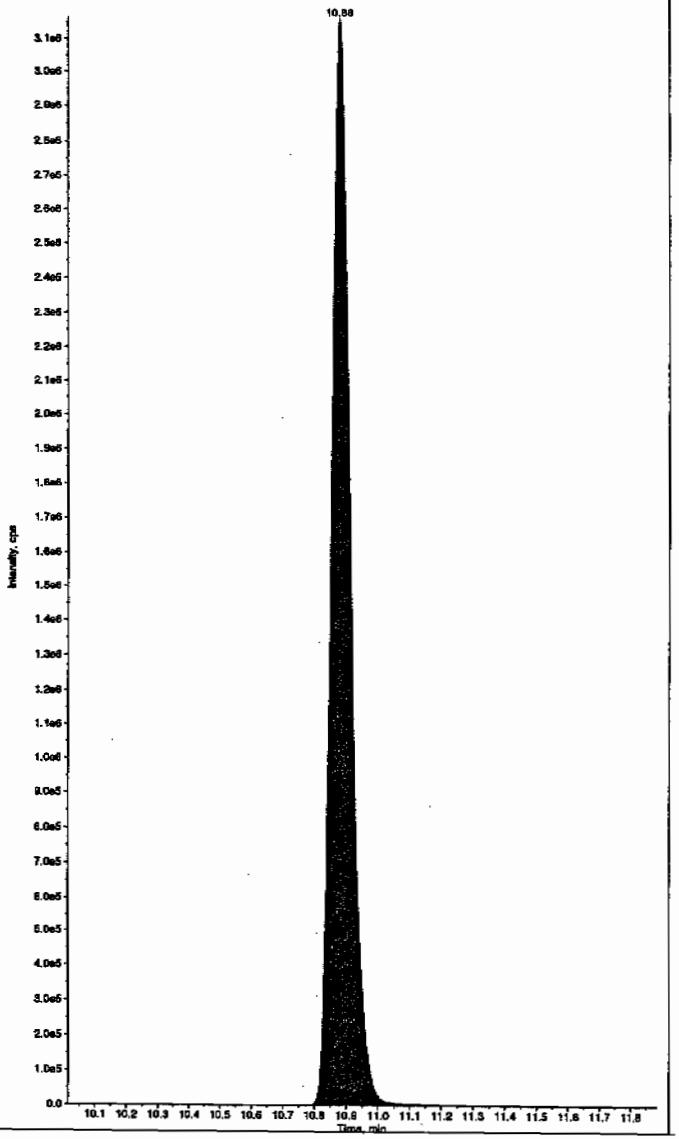

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–952

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS12230030.wiff

Analysis Date: 23–DEC–09 22:23

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	141	141	
2,6–Diamino–4–nitrotoluene	100	127	127	
3,4–Dinitrotoluene	50	47	94	
3,5–Dinitroaniline	100	96.3	96	
TATB	100	94.9	95	
tris(o–cresyl) phosphate	100	98.2	98	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Sample Name: "WXX091223-27CRI" Sample ID: "[1]LER" File: "EXS12230030.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 94.9 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 10:23:46 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.01 min
Area: 2.11e+005 counts
Height: 49978.760 cps
Start Time: 6.88 min
End Time: 7.41 min

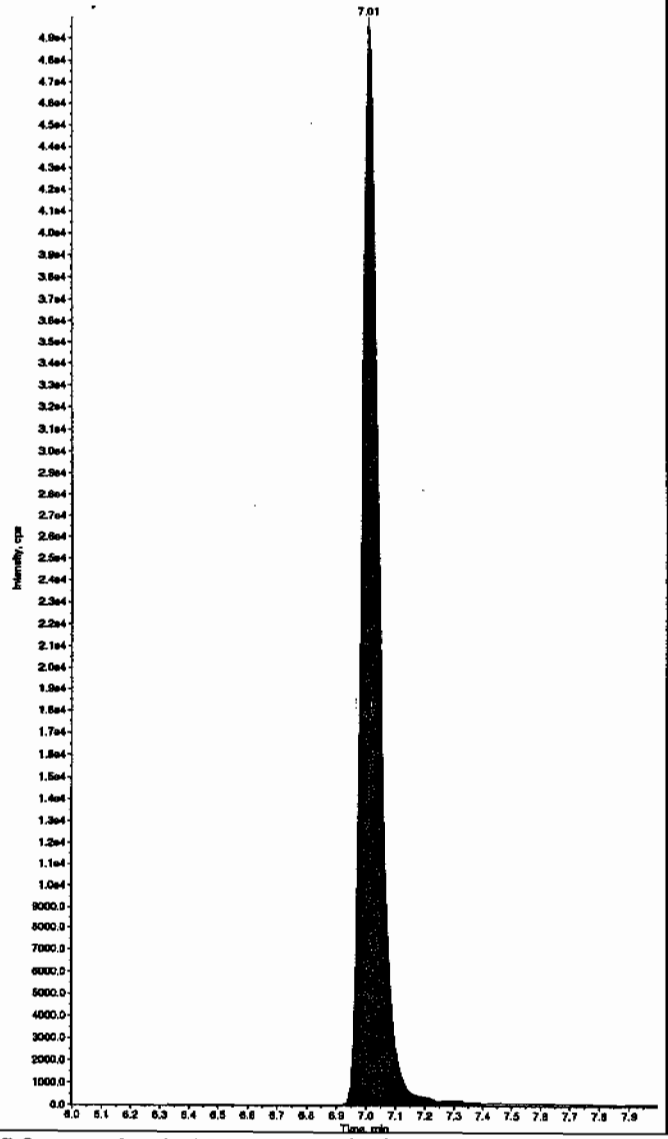

Sample Name: "WXX091223-27CRI" Sample ID: "[1]LER" File: "EXS12230030.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 96.3 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 10:23:46 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.24 min
Area: 1.42e+006 counts
Height: 376681.702 cps
Start Time: 8.13 min
End Time: 8.33 min

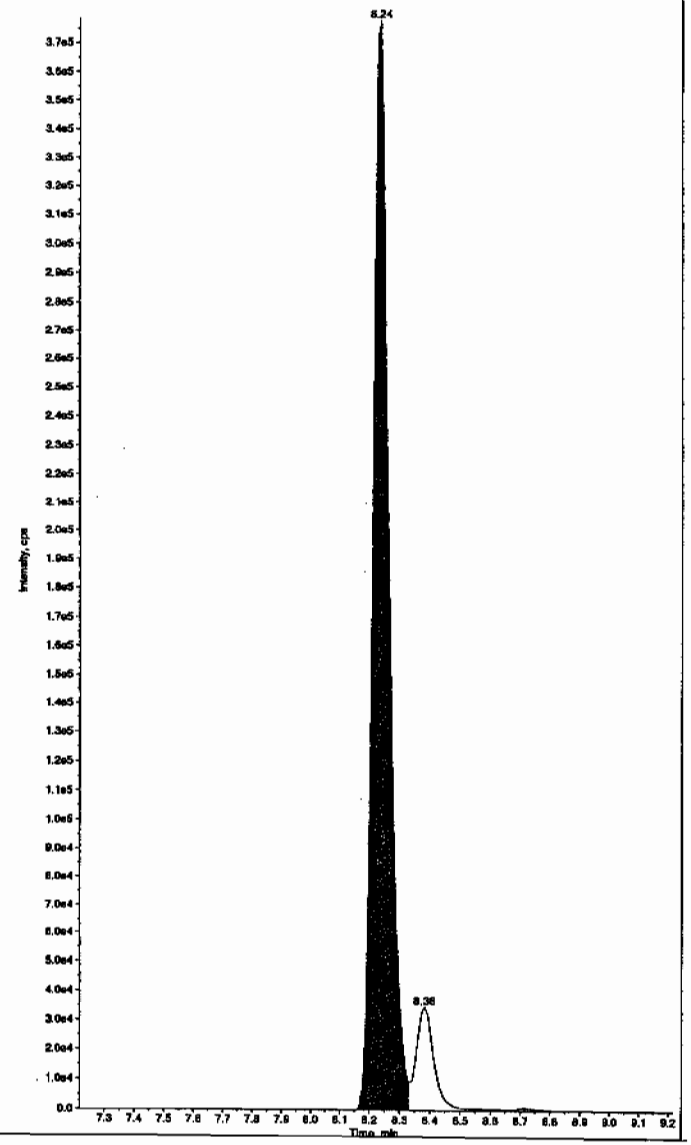

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX091223-27CRI" Sample ID: "|1|LER" File: "EXS12230030.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 47.0 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 10:23:46 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 1.03e+006 counts
Height: 285810.516 cps
Start Time: 8.31 min
End Time: 8.68 min

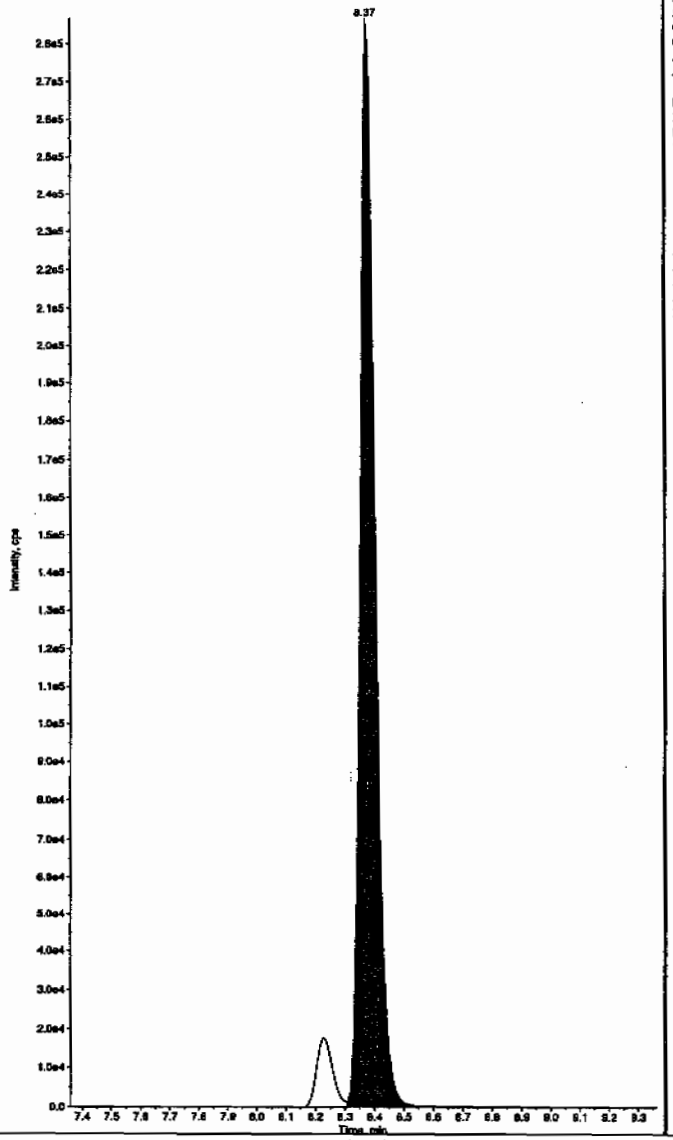

Sample Name: "WXX091223-27CRI" Sample ID: "|1|LER" File: "EXS12230030.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 127. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 10:23:46 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.03 min
Area: 5.11e+005 counts
Height: 129806.900 cps
Start Time: 4.93 min
End Time: 5.26 min

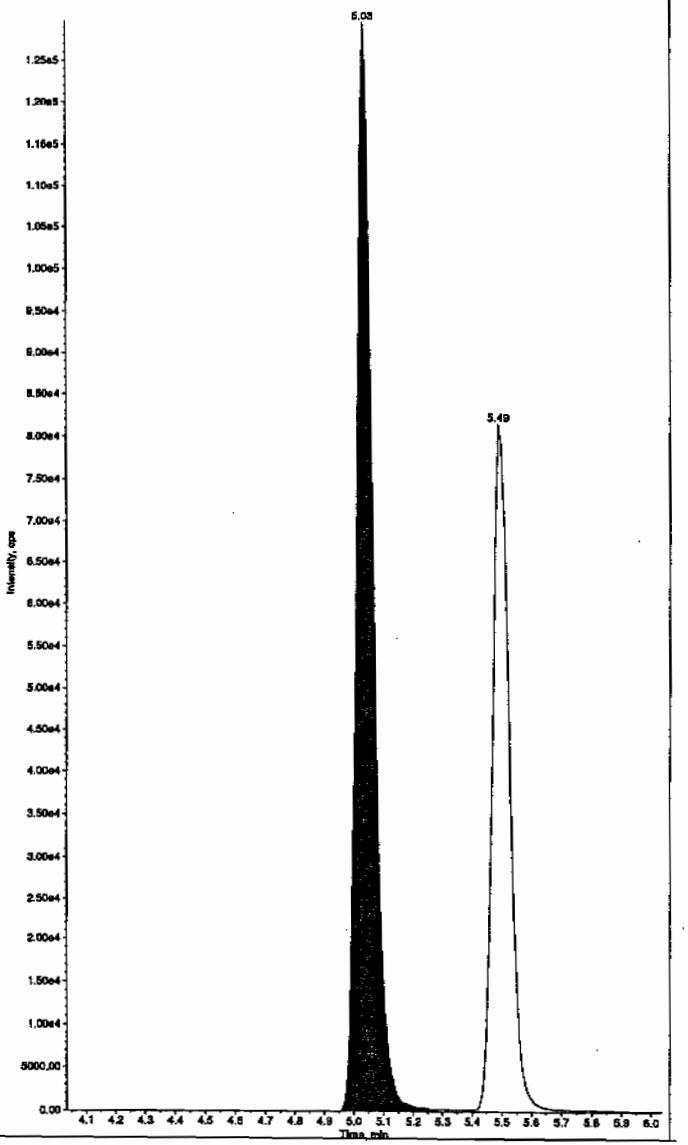

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX091223-27CRI" Sample ID: "[1]LER" File: "EXS12230030.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/48.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 141. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 10:23:46 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.49 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.49 min
Area: 3.23e+005 counts
Height: 81557.106 cps
Start Time: 5.37 min
End Time: 5.88 min

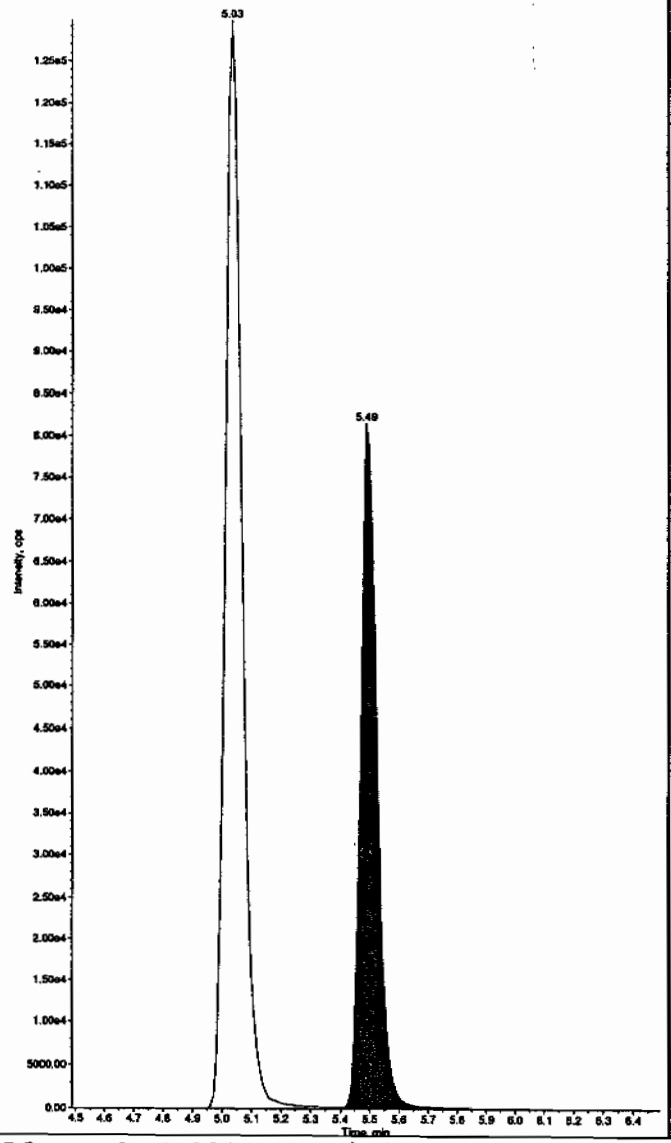

Sample Name: "WXX091223-27CRI" Sample ID: "[1]LER" File: "EXS12230030.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 98.2 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 10:23:46 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 3.01e+006 counts
Height: 783485.779 cps
Start Time: 10.8 min
End Time: 11.2 min

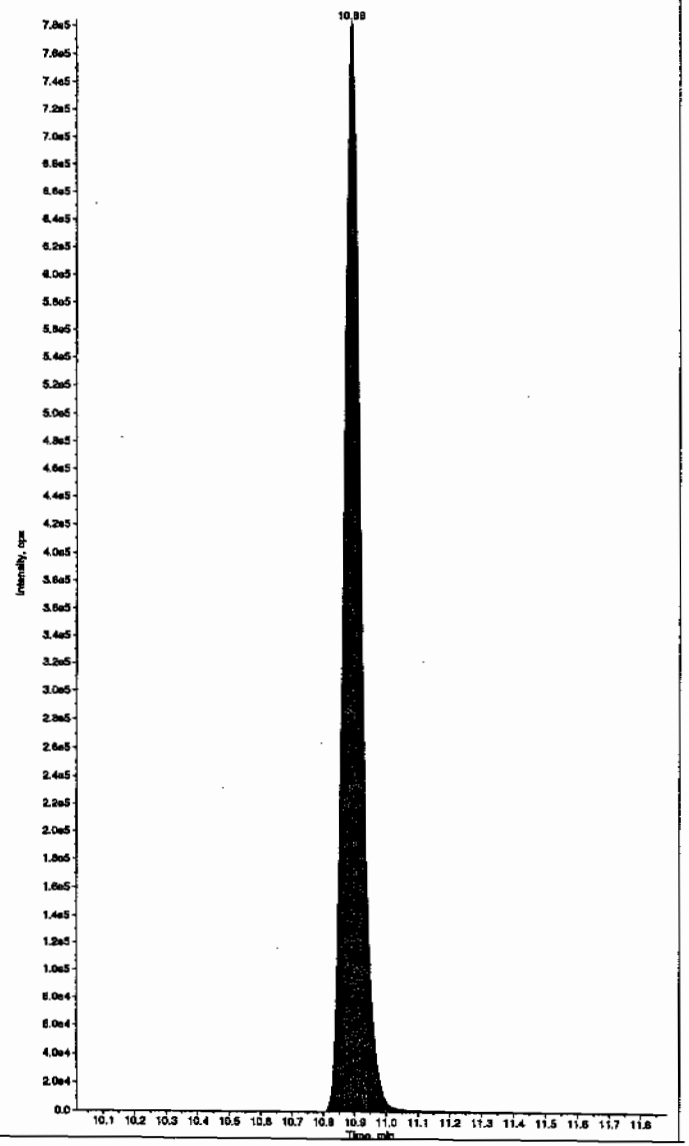

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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QUALITY CONTROL DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 934770

Lab Code: GEL

GEL Job No (SDG) 10-952

Matrix: GROUND WATER

GEL Sample ID: 1201999937

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 18-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 934770

Concentrated Extract Volume (mL) 5

Date Extracted: 21-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0108153a

Date Analyzed: 11-JAN-10 20:00

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	U
121-14-2	2,4-Dinitrotoluene	0.325	U
121-82-4	RDX	0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	U
2691-41-0	HMX	0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	U
479-45-8	Tetryl	0.649	U
606-20-2	2,6-Dinitrotoluene	0.325	U
78-11-5	PETN	1.3	U
88-72-2	o-Nitrotoluene	0.325	U
98-95-3	Nitrobenzene	0.325	U
99-08-1	m-Nitrotoluene	0.325	U
99-35-4	1,3,5-Trinitrobenzene	0.325	U
99-65-0	m-Dinitrobenzene	0.325	U
99-99-0	p-Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108153a
Date: 11-Jan-2010
Time: 20:00:50
ID: 1201999937 | LANC | 934771 | LSD | MB | 2 |
Vial: 1:4,A

MAP 1/13/10

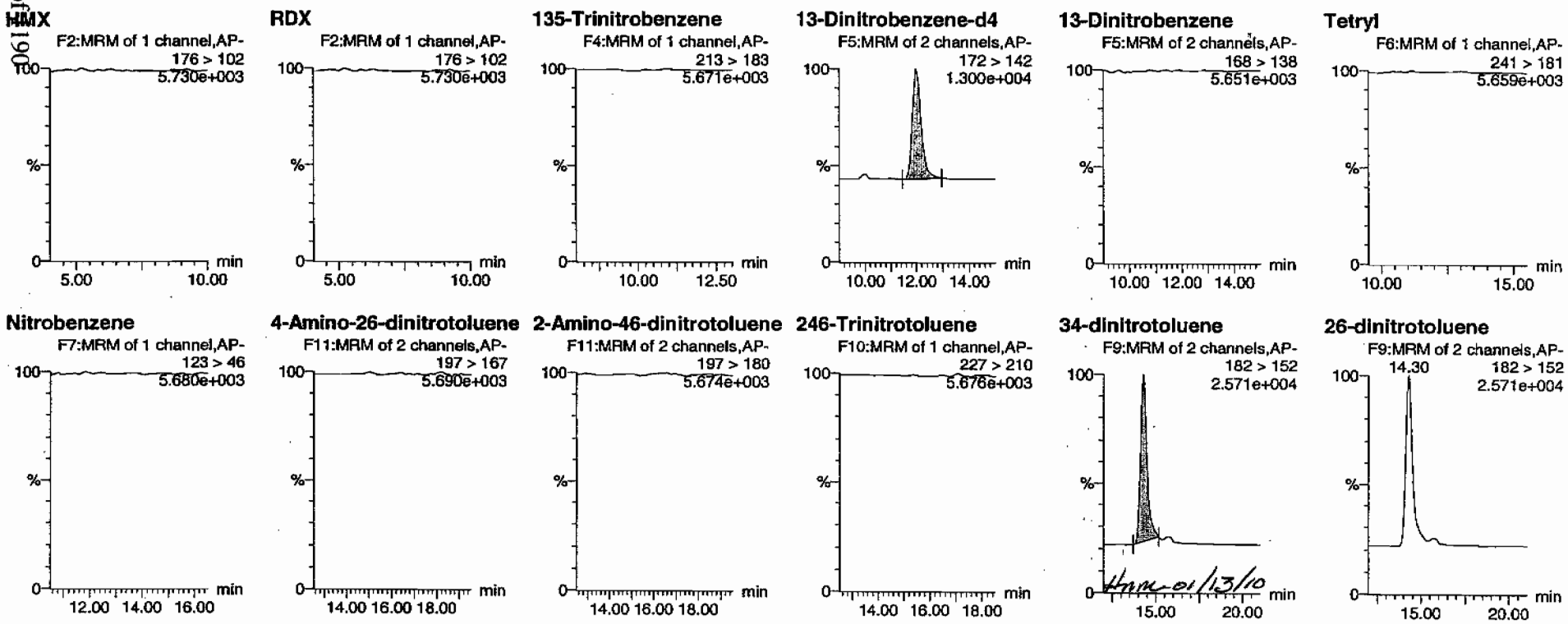

Hmm 01/13/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

24-dinitrotoluene

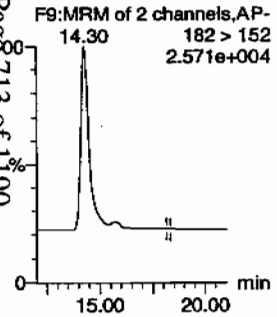

26-dinitrotoluene-d3

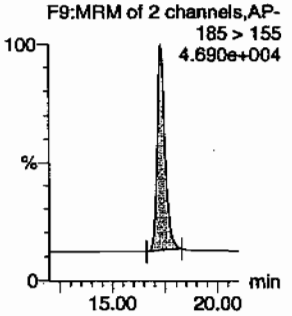

2-Nitrotoluene

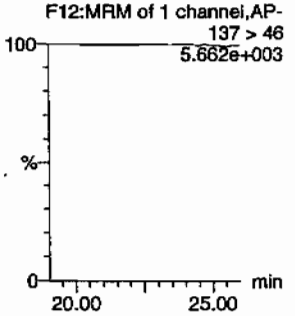

4-Nitrotoluene

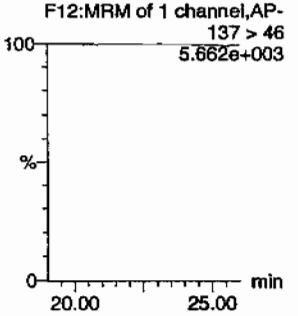

3-Nitrotoluene

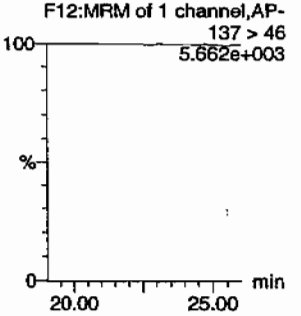

PETN

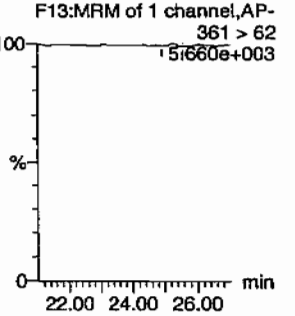

ID	Name	Trace	RT	Area	S/Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
1201999937	HMX	176 > 102			2913.352									
1201999937	RDX	176 > 102			2913.352									
1201999937	135-Trinitrobenzene	213 > 183			2913.352									
1201999937	13-Dinitrobenzene-d4	172 > 142	11.97	2913.352		2913.352	2913.352	bb			497.2389	99.4	-0.6	206.2
1201999937	13-Dinitrobenzene	168 > 138			2913.352									
1201999937	Tetryl	241 > 181			2913.352									
1201999937	Nitrobenzene	123 > 46			2913.352									
1201999937	4-Amino-26-dinitrotoluene	197 > 167			18069.307									
1201999937	2-Amino-46-dinitrotoluene	197 > 180			18069.307									
1201999937	246-Trinitrotoluene	227 > 210			18069.307									
1201999937	34-dinitrotoluene	182 > 152	14.30	8403.230	18069.307	8403.230	232.528	bb		3.016	259.1796	103.7	3.7	412.9
1201999937	26-dinitrotoluene	182 > 152			18069.307									
1201999937	24-dinitrotoluene	182 > 152			18069.307			MM-	12-Jan-10	10:21:43				
1201999937	26-dinitrotoluene-d3	185 > 155	17.31	18069.307		18069.307	18069.307	bb			535.0283	107.0	7.0	1282.4
1201999937	2-Nitrotoluene	137 > 46			18069.307									
1201999937	4-Nitrotoluene	137 > 46			18069.307									
1201999937	3-Nitrotoluene	137 > 46			18069.307									
1201999937	PETN	361 > 62			18069.307			MM-	12-Jan-10	10:10:27				

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 934770

Lab Code: GEL

GEL Job No (SDG) 10-952

Matrix: GROUND WATER

GEL Sample ID: 1201999937

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 18-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 934770

Concentrated Extract Volume (mL) 5

Date Extracted: 21-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS12230024.wiff

Date Analyzed: 23-DEC-09 20:49

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sample Name: "1201999937" Sample ID: "934771|2|LER" File: "EXS12230024.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 12/23/2009
Acq. Time: 8:49:35 PM

Modified: No
Prog. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.01 min
Area: 1.22e+004 counts
Height: 2865.621 cps
Start Time: 6.89 min
End Time: 7.19 min

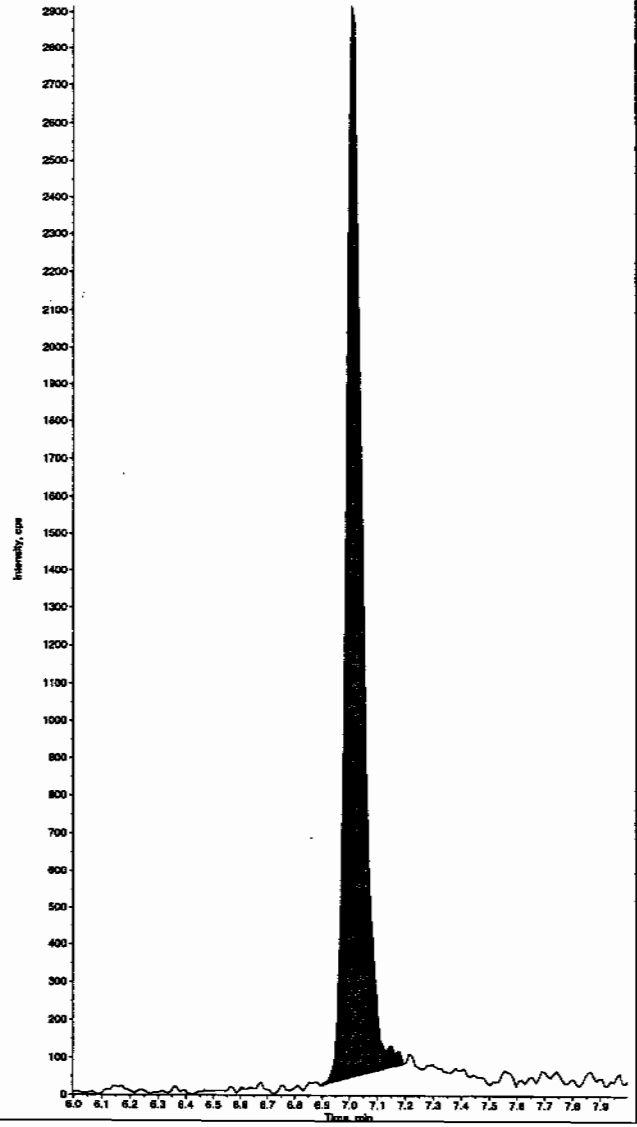

Sample Name: "1201999937" Sample ID: "934771|2|LER" File: "EXS12230024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 8:49:35 PM

Modified: No

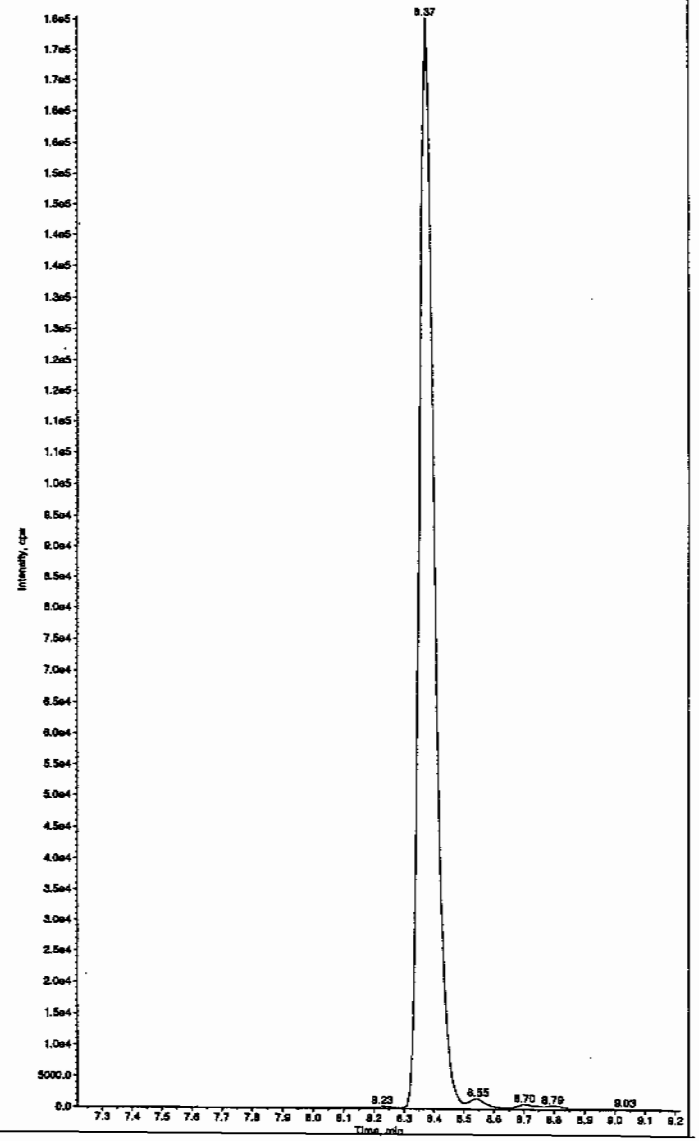

Hume 12/29/09

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1201999937" Sample ID: "934771|2|LER" File: "EXS12230024.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX63212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 247. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 8:49:35 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 5.16e+006 counts
Height: 1424264.526 cps
Start Time: 8.24 min
End Time: 8.71 min

3,2L

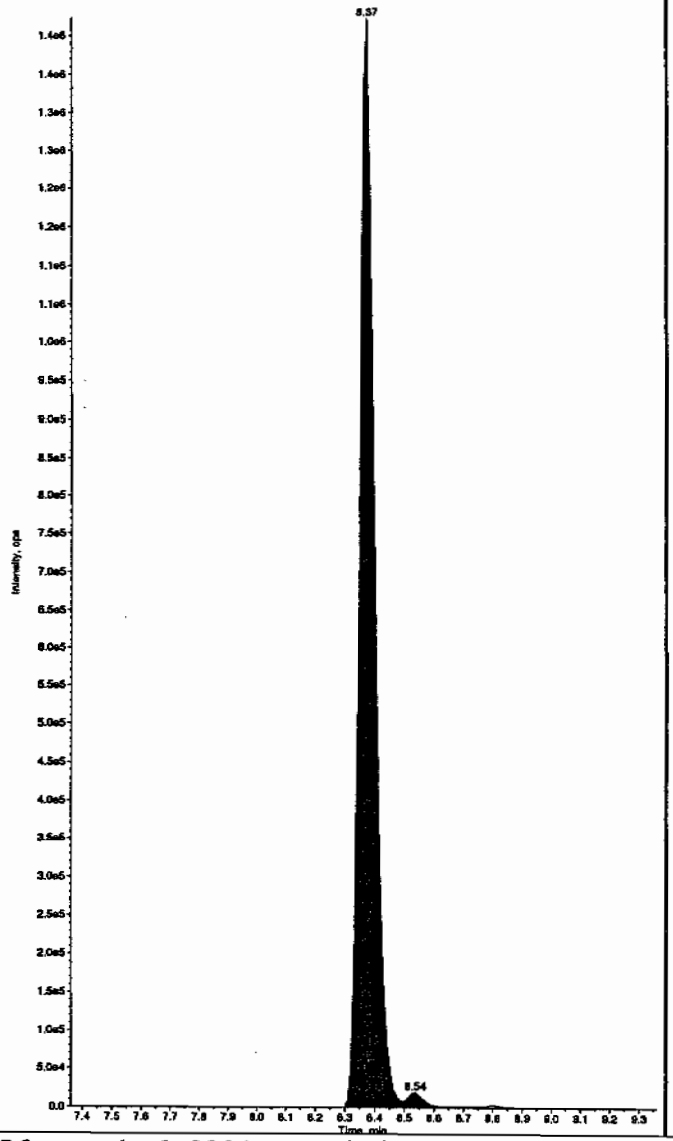

Sample Name: "1201999937" Sample ID: "934771|2|LER" File: "EXS12230024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX63212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 8:49:35 PM

Modified: No

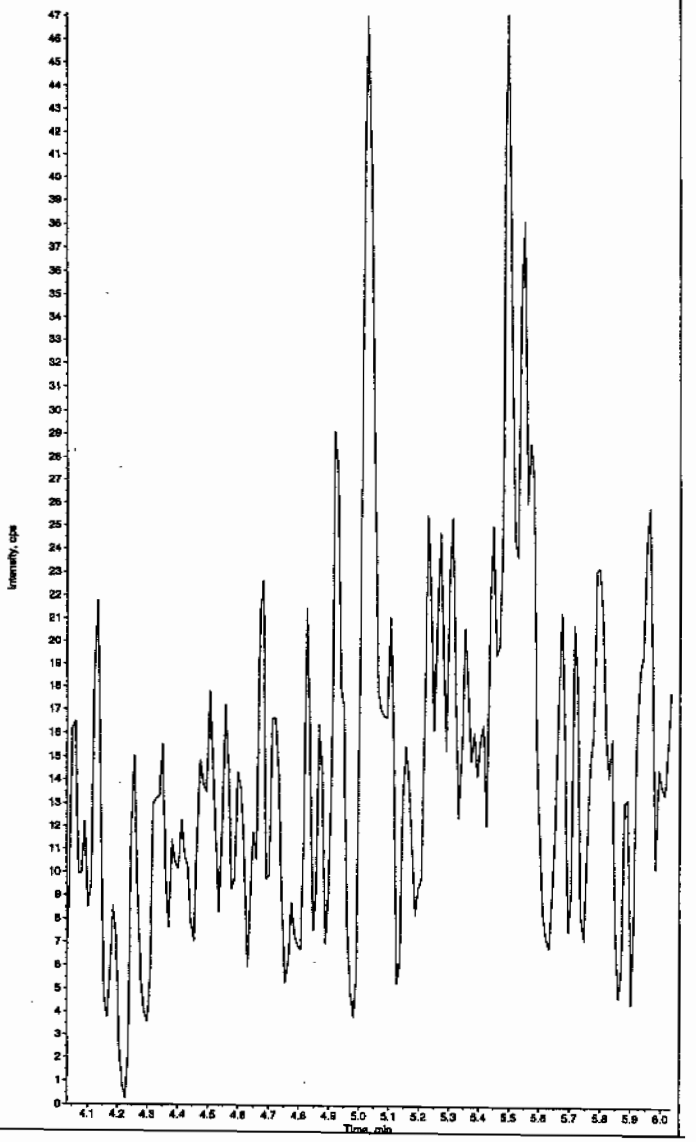

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1201999937" Sample ID: "934771|2|LER" File: "EXS12230024.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 8:49:35 PM

Modified: No

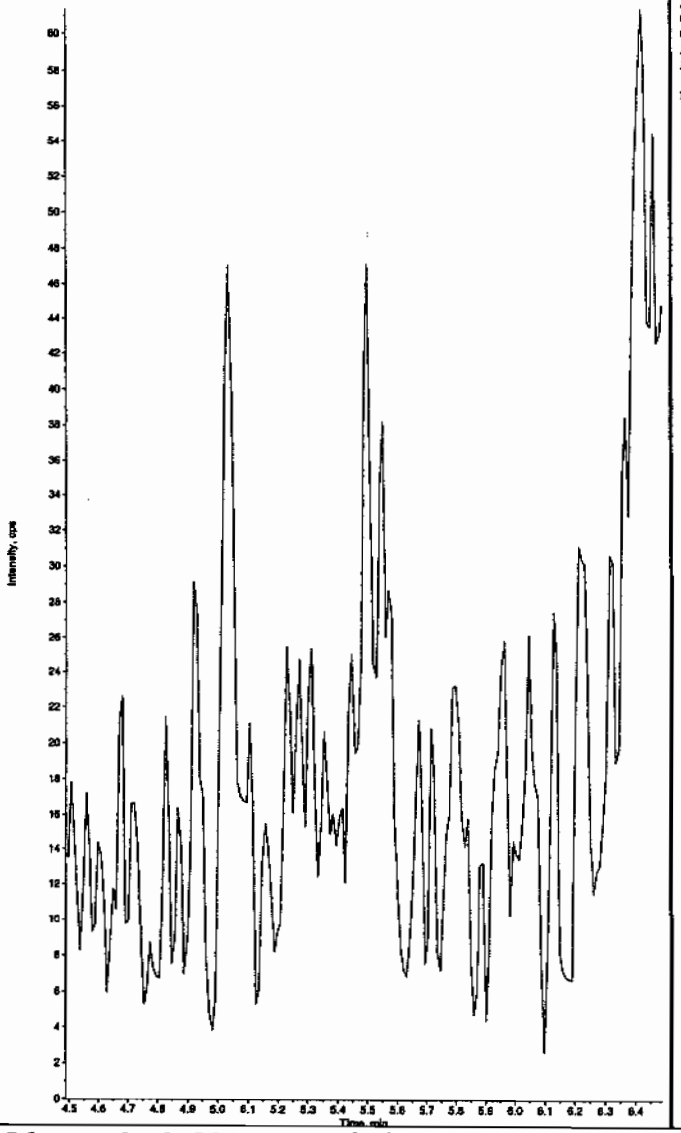

Sample Name: "1201999937" Sample ID: "934771|2|LER" File: "EXS12230024.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 12/23/2009
Acq. Time: 8:49:35 PM

Modified: No

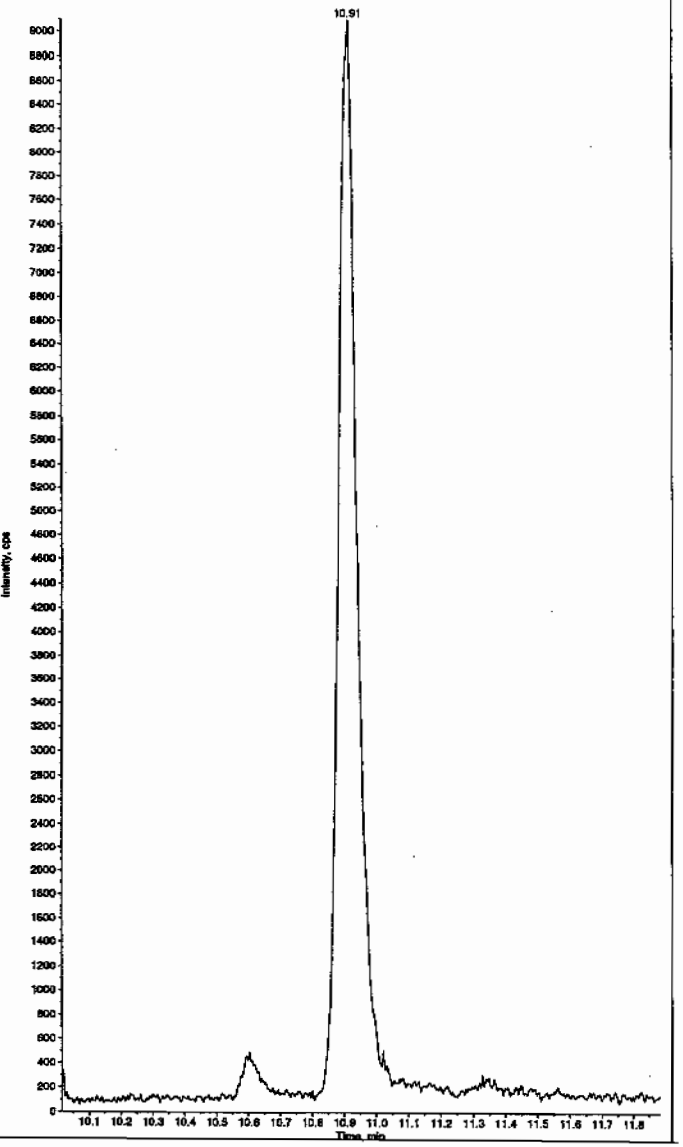

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 934770

Lab Code: GEL

GEL Job No (SDG) 10-952

Matrix: GROUND WATER

GEL Sample ID: 1201999938

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 18-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 934770

Concentrated Extract Volume (mL) 5

Date Extracted: 21-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0108154a

Date Analyzed: 11-JAN-10 20:30

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	6.22	
121-14-2	2,4-Dinitrotoluene	5.88	
121-82-4	RDX	6.69	
19406-51-0	4-Amino-2,6-dinitrotoluene	5.85	
2691-41-0	HMX	5.32	
35572-78-2	2-Amino-4,6-dinitrotoluene	6.87	
479-45-8	Tetryl	4.96	
606-20-2	2,6-Dinitrotoluene	5.69	
78-11-5	PETN	6.65	
88-72-2	o-Nitrotoluene	4.82	
98-95-3	Nitrobenzene	4.56	
99-08-1	m-Nitrotoluene	5.12	
99-35-4	1,3,5-Trinitrobenzene	6.16	
99-65-0	m-Dinitrobenzene	5.73	
99-99-0	p-Nitrotoluene	4.87	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

A 28 #1

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108154a
Date: 11-Jan-2010
Time: 20:30:20
ID: 1201999938
Vial: 1:4,B

LANC | 934771 | LCS | LCS | 21

MM 1/13/10

Confirmed By EXP0112014a

HMX

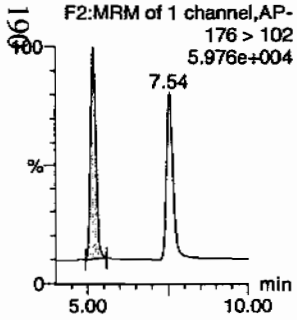

RDX

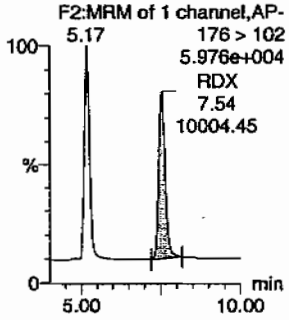

135-Trinitrobenzene

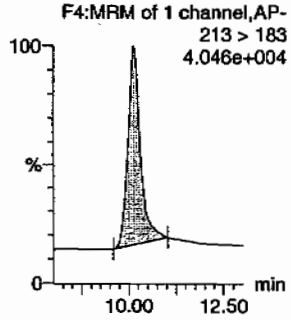

13-Dinitrobenzene-d4

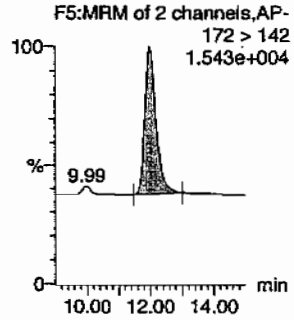

13-Dinitrobenzene

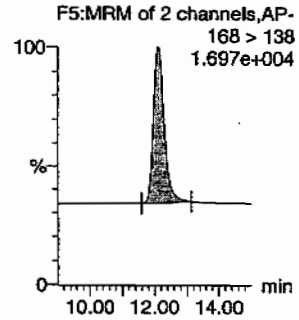

Tetryl

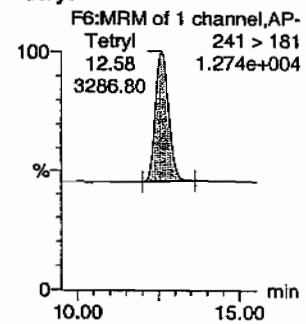

Nitrobenzene

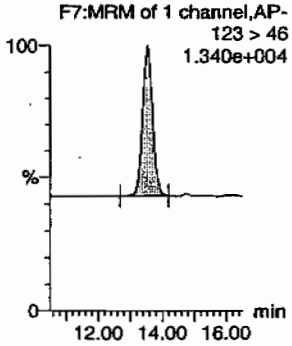

4-Amino-26-dinitrotoluene

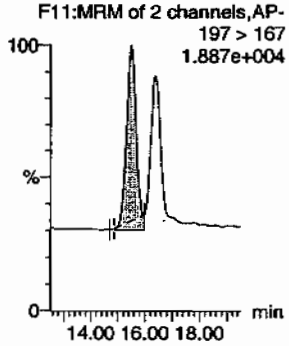

2-Amino-46-dinitrotoluene

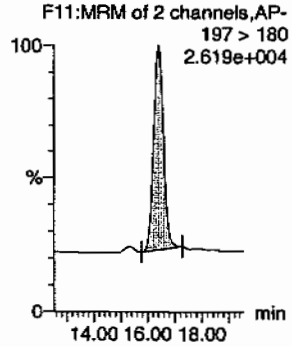

246-Trinitrotoluene

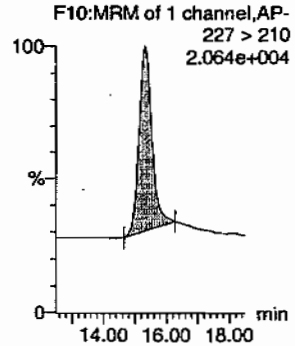

34-dinitrotoluene

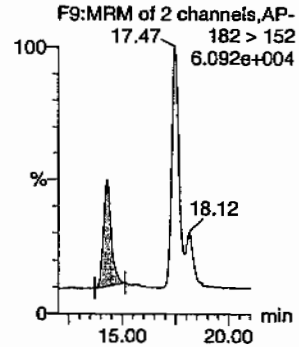

HMM 01/13/10

26-dinitrotoluene

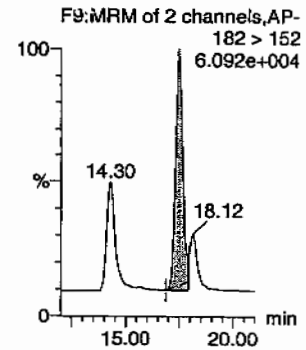

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

24-dinitrotoluene

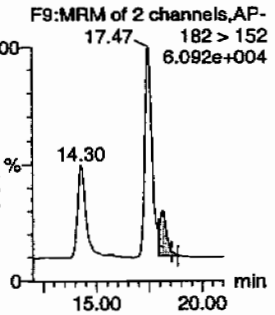

26-dinitrotoluene-d3

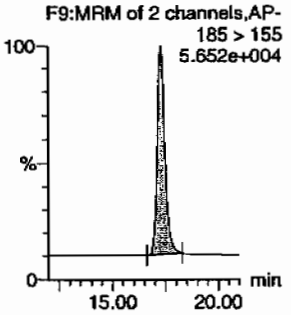

2-Nitrotoluene

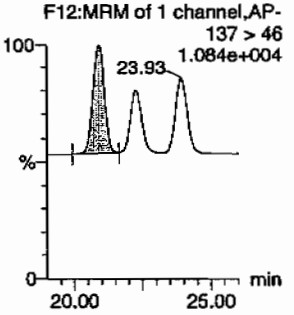

4-Nitrotoluene

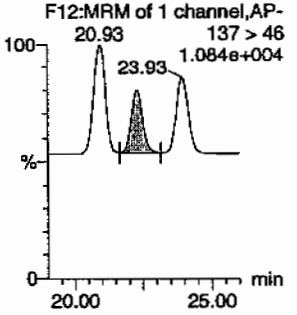

3-Nitrotoluene

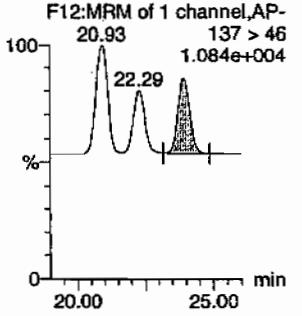

PETN

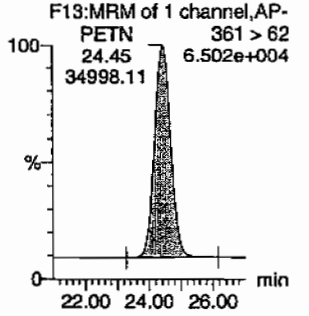

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
1201999938	HMX	176 > 102	5.17	10728.660	3966.053	10728.660	1352.561	bb			409.5908	81.9	-18.1	1585.4
1201999938	RDX	176 > 102	7.54	10004.451	3966.053	10004.451	1261.260	bb			515.2342	103.0	3.0	1247.4
1201999938	135-Trinitrobenzene	213 > 183	10.14	13013.636	3966.053	13013.636	1640.628	bb			474.5755	94.9	-5.1	1252.2
1201999938	13-Dinitrobenzene-d4	172 > 142	11.97	3966.053		3966.053	3966.053	bb			676.9096	135.4	35.4	216.6
1201999938	13-Dinitrobenzene	168 > 138	12.10	4296.483	3966.053	4296.483	541.657	bb			441.4389	88.3	-11.7	629.3
1201999938	Tetryl	241 > 181	12.58	3286.797	3966.053	3286.797	414.366	bb			382.0254	76.4	-23.6	162.7
1201999938	Nitrobenzene	123 > 46	13.54	2747.300	3966.053	2747.300	346.352	bb			351.1247	70.2	-29.8	300.4
1201999938	4-Amino-26-dinitrotoluene	197 > 167	15.53	5528.780	21774.109	5528.780	126.958	MM	12-Jan-10	10:06:39	450.2526	90.1	-9.9	223.9
1201999938	2-Amino-46-dinitrotoluene	197 > 180	16.38	8488.579	21774.109	8488.579	194.924	bb			529.3191	105.9	5.9	493.1
1201999938	246-Trinitrotoluene	227 > 210	15.31	6756.064	21774.109	6756.064	155.140	bb			479.2863	95.9	-4.1	228.7
1201999938	34-dinitrotoluene	182 > 152	14.30	10349.272	21774.109	10349.272	237.651	bb		3.43	264.8899	106.0	6.0	291.8
1201999938	26-dinitrotoluene	182 > 152	17.47	21601.783	21774.109	21601.783	496.043	MM	12-Jan-10	10:16:55	438.2243	87.6	-12.4	668.0
1201999938	24-dinitrotoluene	182 > 152	18.12	4809.456	21774.109	4809.456	110.440	MM	12-Jan-10	10:21:37	452.8895	90.6	-9.4	146.2
1201999938	26-dinitrotoluene-d3	185 > 155	17.31	21774.109		21774.109	21774.109	bb			644.7267	128.9	28.9	1810.7
1201999938	2-Nitrotoluene	137 > 46	20.93	2496.847	21774.109	2496.847	57.335	bb			370.8960	74.2	-25.8	100.2
1201999938	4-Nitrotoluene	137 > 46	22.29	1377.981	21774.109	1377.981	31.643	bb			374.8695	75.0	-25.0	57.0
1201999938	3-Nitrotoluene	137 > 46	23.93	1721.055	21774.109	1721.055	39.521	bb			394.5625	78.9	-21.1	68.2
1201999938	PETN	361 > 62	24.45	34998.113	21774.109	34998.113	803.663	bb			512.0677	102.4	2.4	4831.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 934770

Lab Code: GEL

GEL Job No (SDG) 10–952

Matrix: GROUND WATER

GEL Sample ID: 1201999938

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 18–DEC–09

Extraction Type Sol Exchange

Extraction Batch ID: 934770

Concentrated Extract Volume (mL) 5

Date Extracted: 21–DEC–09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS12230025.wiff

Date Analyzed: 23–DEC–09 21:05

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058–38–6	TATB	5.43	
59229–75–3	2,6–Diamino–4–nitrotoluene	6.9	
618–87–1	3,5–Dinitroaniline	5.7	
6629–29–4	2,4–Diamino–6–nitrotoluene	5.87	
78–30–8	tris(o–cresyl) phosphate	2.19	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Sample Name: "1201999938" Sample ID: "934771|2|LER" File: "EXS12230025.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 418. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 9:05:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.01 min
Area: 8.67e+005 counts
Height: 205226.166 cps
Start Time: 6.89 min
End Time: 7.43 min

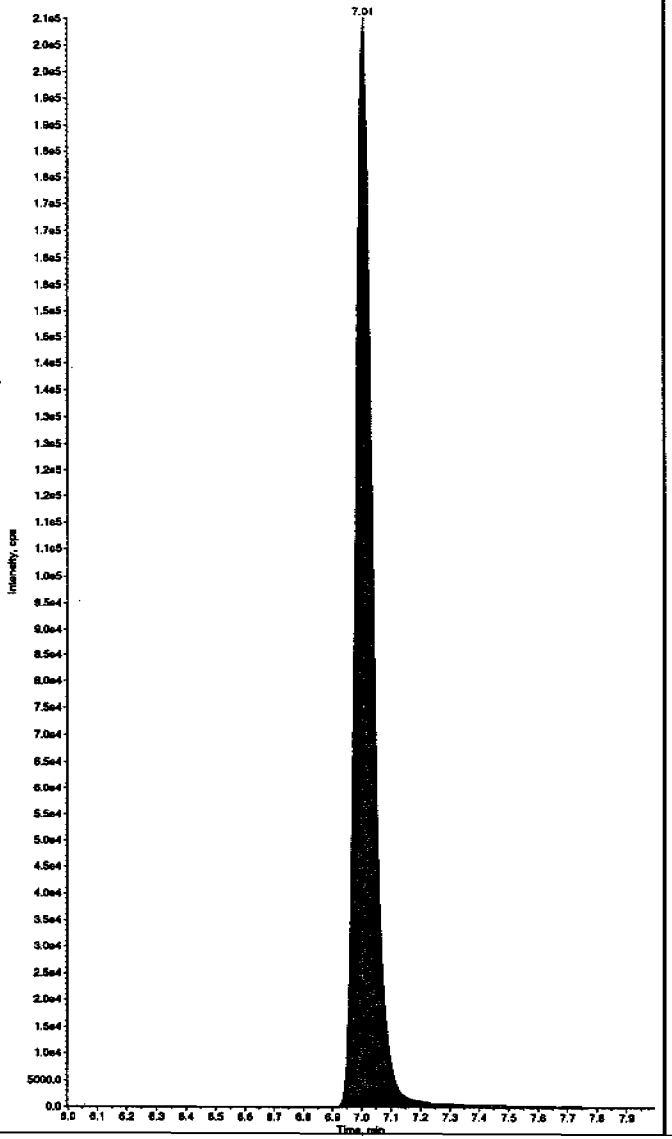

Sample Name: "1201999938" Sample ID: "934771|2|LER" File: "EXS12230025.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 439. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 9:05:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 5.76e+006 counts
Height: 1495207.520 cps
Start Time: 8.15 min
End Time: 8.33 min

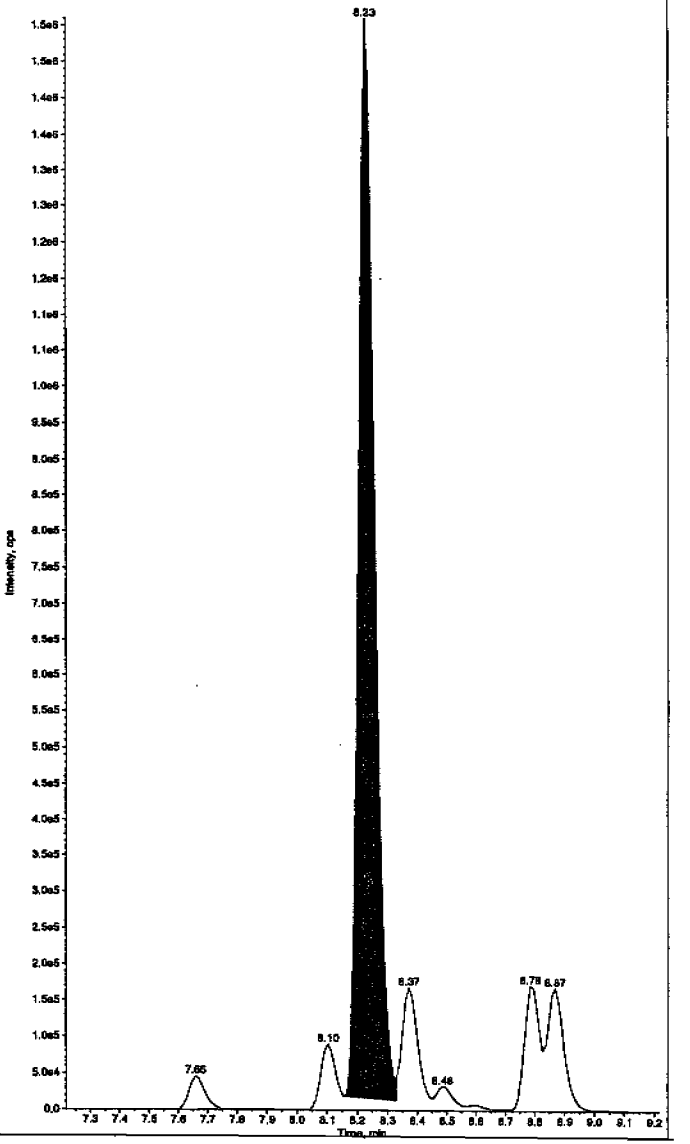

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1201999936" Sample ID: "934771|2|LER" File: "EXS12230025.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 248. ng/mL 3.22
Acq. Date: 12/23/2009
Acq. Time: 9:05:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 5.17e+006 counts
Height: 1379576.538 cps
Start Time: 8.30 min
End Time: 8.61 min

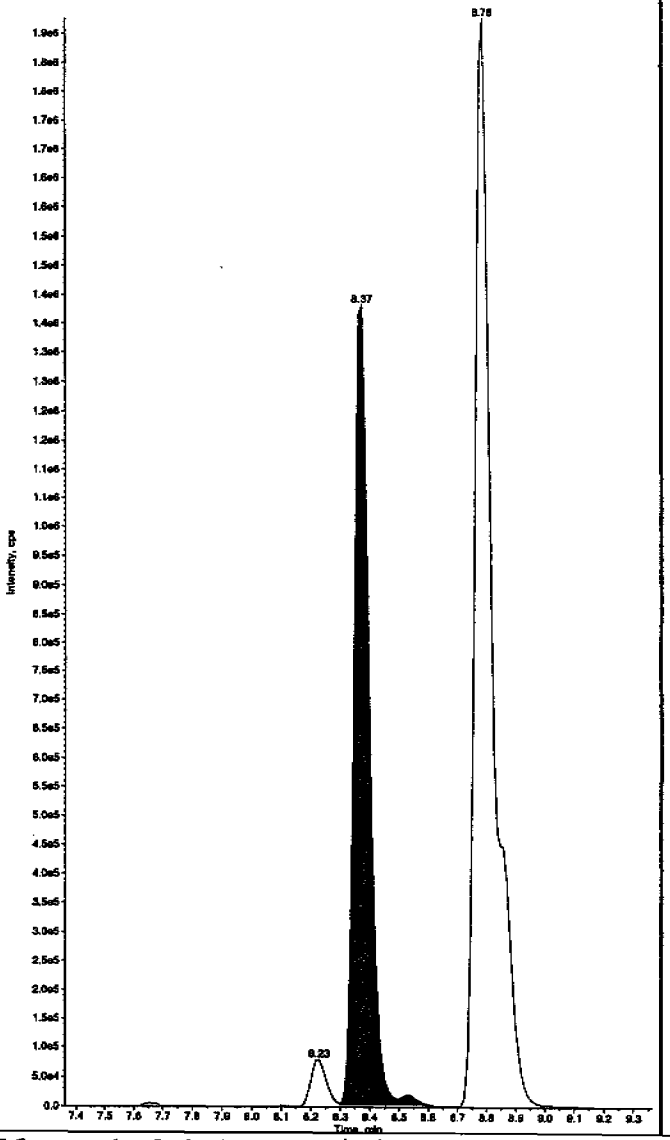

Sample Name: "1201999938" Sample ID: "934771|2|LER" File: "EXS12230025.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 531. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 9:05:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.04 min
Area: 1.97e+006 counts
Height: 490543.457 cps
Start Time: 4.94 min
End Time: 5.33 min

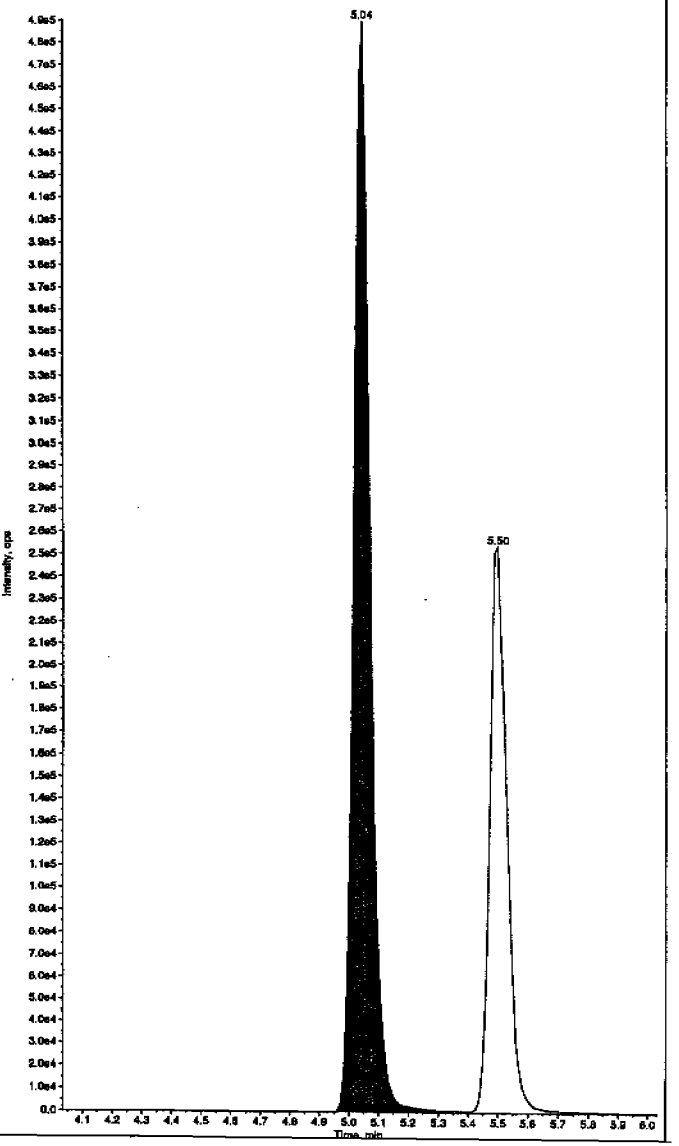

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1201999938" Sample ID: "934771|2|LER" File: "EXS12230025.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 452. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 9:05:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.49 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.50 min
Area: 1.01e+006 counts
Height: 253824.844 cps
Start Time: 5.41 min
End Time: 5.91 min

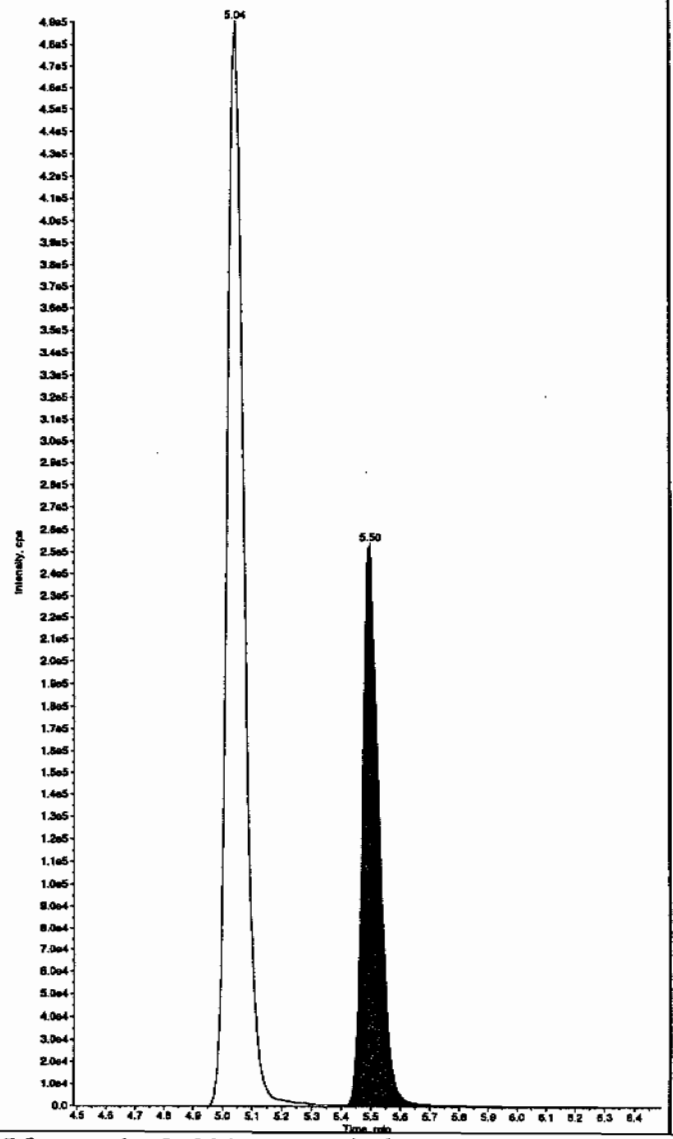

Sample Name: "1201999938" Sample ID: "934771|2|LER" File: "EXS12230025.wiff"
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 169. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 9:05:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 5.02e+006 counts
Height: 1210957.642 cps
Start Time: 10.8 min
End Time: 11.2 min

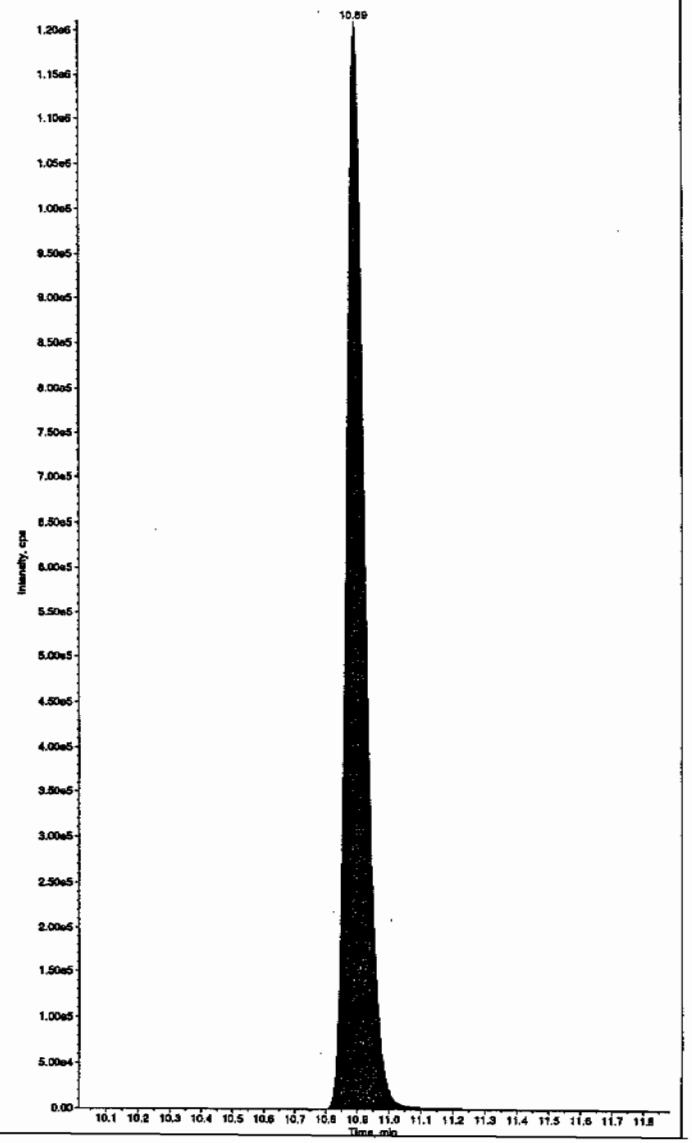

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCSD for batch 934770

Lab Code: GEL

GEL Job No (SDG) 10-952

Matrix: GROUND WATER

GEL Sample ID: 1201999941

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 17-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 934770

Concentrated Extract Volume (mL) 5

Date Extracted: 21-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0108155a

Date Analyzed: 11-JAN-10 20:59

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	8.35	
121-14-2	2,4-Dinitrotoluene	6.64	
121-82-4	RDX	7.19	
19406-51-0	4-Amino-2,6-dinitrotoluene	7.01	
2691-41-0	HMX	6.83	
35572-78-2	2-Amino-4,6-dinitrotoluene	7.91	
479-45-8	Tetryl	5.63	
606-20-2	2,6-Dinitrotoluene	6.32	
78-11-5	PETN	6.3	
88-72-2	o-Nitrotoluene	4.84	
98-95-3	Nitrobenzene	5.11	
99-08-1	m-Nitrotoluene	4.61	
99-35-4	1,3,5-Trinitrobenzene	6.62	
99-65-0	m-Dinitrobenzene	6.21	
99-99-0	p-Nitrotoluene	4.96	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0108155a
Date: 11-Jan-2010
Time: 20:59:49
ID: 1201999941 | LANU | 939771 | LCSD | LCSD | 21
Vial: 1:4,C

MAT 1/13/10

PBS

CONFIRMED BY EXP0112015a

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.417e+004

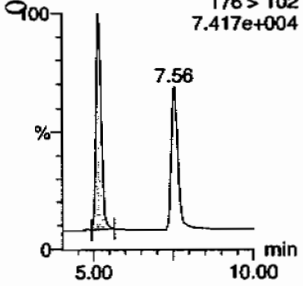

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.417e+004

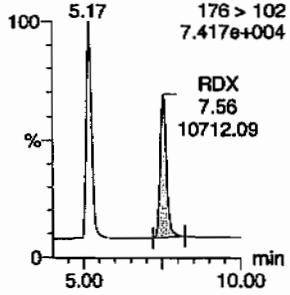

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
4.265e+004

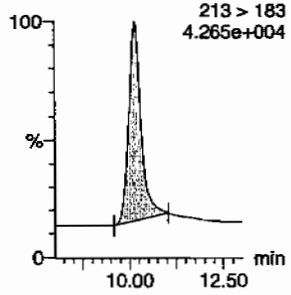

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
1.528e+004

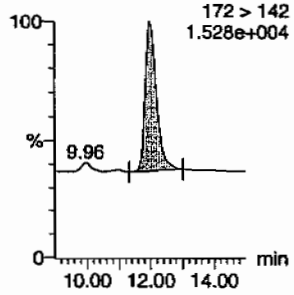

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.752e+004

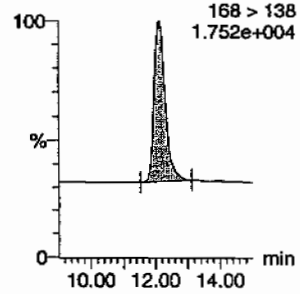

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.341e+004

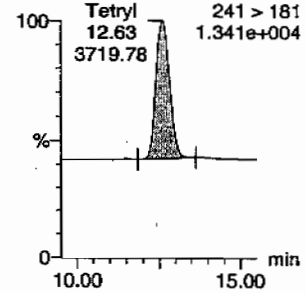

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.405e+004

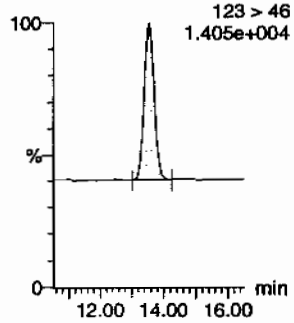

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
2.245e+004

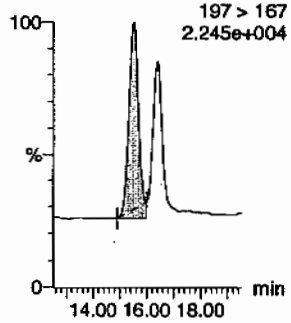

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
3.056e+004

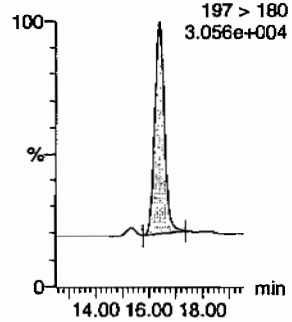

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
2.613e+004

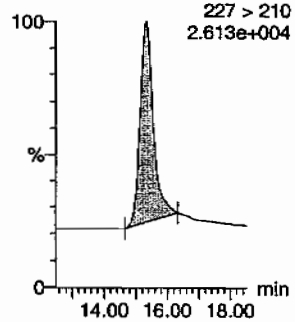

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.065e+004

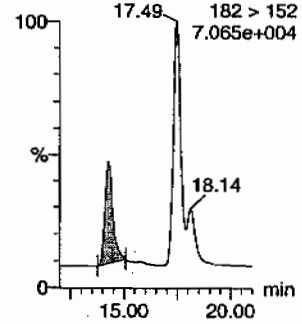

HMW 01/18/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.065e+004

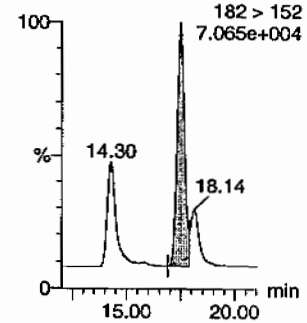

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\010810expA2.qld, Time: Tue Jan 12 10:23:04 2010

24-dinitrotoluene

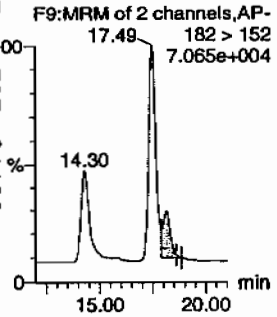

26-dinitrotoluene-d3

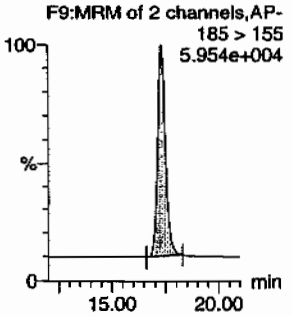

2-Nitrotoluene

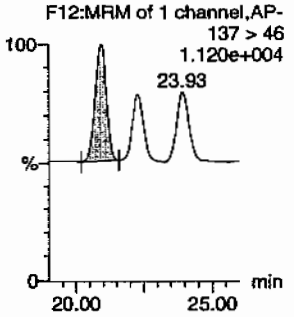

4-Nitrotoluene

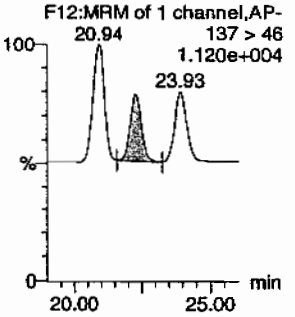

3-Nitrotoluene

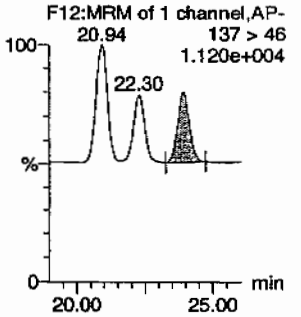

PETN

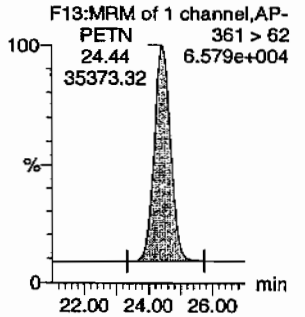

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
1201999941	HMX	176 > 102	5.17	13735.052	3953.386	13735.052	1737.125	bb			526.0467	105.2	5.2	751.5
1201999941	RDX	176 > 102	7.56	10712.087	3953.386	10712.087	1354.799	bb			553.4454	110.7	10.7	496.7
1201999941	135-Trinitrobenzene	213 > 183	10.14	13928.021	3953.386	13928.021	1761.531	bb			509.5483	101.9	1.9	186.3
1201999941	13-Dinitrobenzene-d4	172 > 142	11.97	3953.386		3953.386	3953.386	bb			674.7476	134.9	34.9	547.0
1201999941	13-Dinitrobenzene	168 > 138	12.14	4641.782	3953.386	4641.782	587.064	bb			478.4444	95.7	-4.3	773.0
1201999941	Tetryl	241 > 181	12.63	3719.783	3953.386	3719.783	470.455	bb			433.7368	86.7	-13.3	222.2
1201999941	Nitrobenzene	123 > 46	13.54	3068.664	3953.386	3068.664	388.106	bb			393.4539	78.7	-21.3	297.1
1201999941	4-Amino-26-dinitrotoluene	197 > 167	15.53	7063.260	23211.861	7063.260	152.148	MM	12-Jan-10	10:06:49	539.5883	107.9	7.9	258.5
1201999941	2-Amino-46-dinitrotoluene	197 > 180	16.41	10418.397	23211.861	10418.397	224.420	bb			609.4161	121.9	21.9	462.2
1201999941	246-Trinitrotoluene	227 > 210	15.35	9665.265	23211.861	9665.265	208.197	bb			643.1991	128.6	28.6	394.7
1201999941	34-dinitrotoluene	182 > 152	14.30	11461.439	23211.861	11461.439	246.888	bb		3,57	275.1853	110.1	10.1	271.3
1201999941	26-dinitrotoluene	182 > 152	17.49	25558.426	23211.861	25558.426	550.547	MM	12-Jan-10	10:17:02	486.3752	97.3	-2.7	647.2
1201999941	24-dinitrotoluene	182 > 152	18.14	5786.642	23211.861	5786.642	124.648	MM	12-Jan-10	10:21:28	511.1559	102.2	2.2	139.6
1201999941	26-dinitrotoluene-d3	185 > 155	17.31	23211.861		23211.861	23211.861	bb			687.2982	137.5	37.5	1730.8
1201999941	2-Nitrotoluene	137 > 46	20.94	2675.312	23211.861	2675.312	57.628	bb			372.7907	74.6	-25.4	534.1
1201999941	4-Nitrotoluene	137 > 46	22.30	1496.079	23211.861	1496.079	32.227	bb			381.7876	76.4	-23.6	303.1
1201999941	3-Nitrotoluene	137 > 46	23.93	1649.985	23211.861	1649.985	35.542	bb			354.8391	71.0	-29.0	316.2
1201999941	PETN	361 > 62	24.44	35373.316	23211.861	35373.316	761.966	bb			484.9299	97.0	-3.0	5982.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCSD for batch 934770

Lab Code: GEL

GEL Job No (SDG) 10-952

Matrix: GROUND WATER

GEL Sample ID: 1201999941

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 17-DEC-09

Extraction Type Sol Exchange

Extraction Batch ID: 934770

Concentrated Extract Volume (mL) 5

Date Extracted: 21-DEC-09

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS12230026.wiff

Date Analyzed: 23-DEC-09 21:20

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5.62	
59229-75-3	2,6-Diamino-4-nitrotoluene	8.62	
618-87-1	3,5-Dinitroaniline	6.08	
6629-29-4	2,4-Diamino-6-nitrotoluene	6.94	
78-30-8	tris(o-cresyl) phosphate	2.65	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

LCR 12/29/09

Sample Name: "1201999941" Sample ID: "934771|2|LER" File: "EXS12230026.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 431. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 9:20:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 7.00 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 7.01 min
Area: 8.98e+005 counts
Height: 209923.355 cps
Start Time: 6.86 min
End Time: 7.59 min

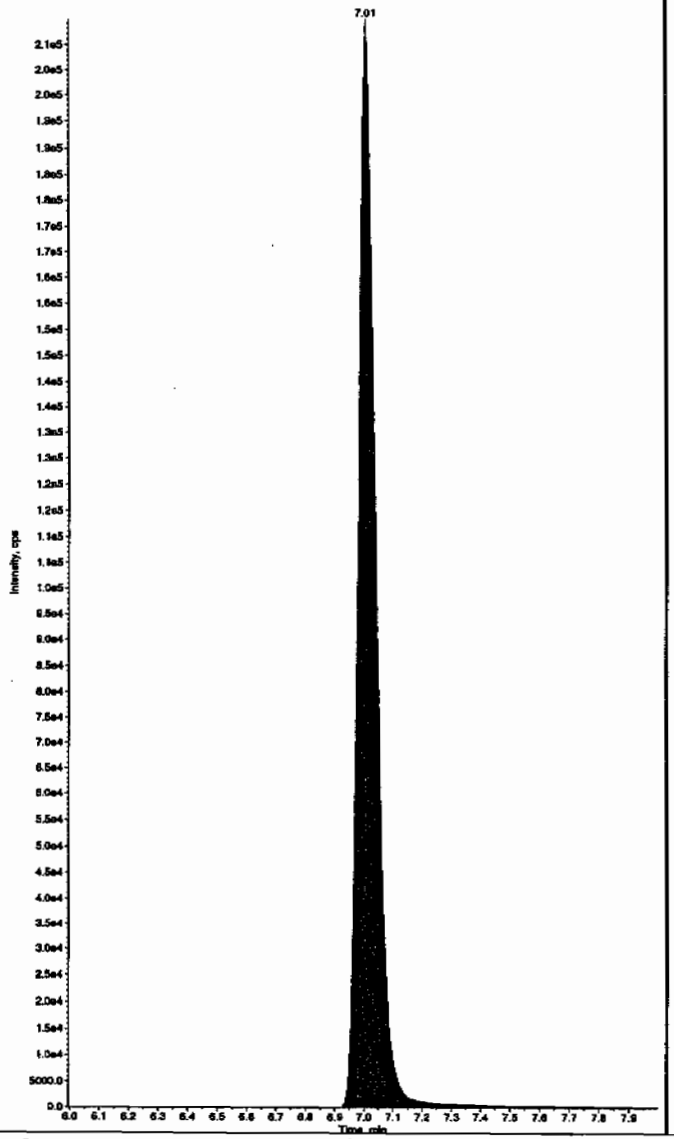

Sample Name: "1201999941" Sample ID: "934771|2|LER" File: "EXS12230026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 468. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 9:20:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.22 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.23 min
Area: 6.10e+006 counts
Height: 1536399.658 cps
Start Time: 8.15 min
End Time: 8.33 min

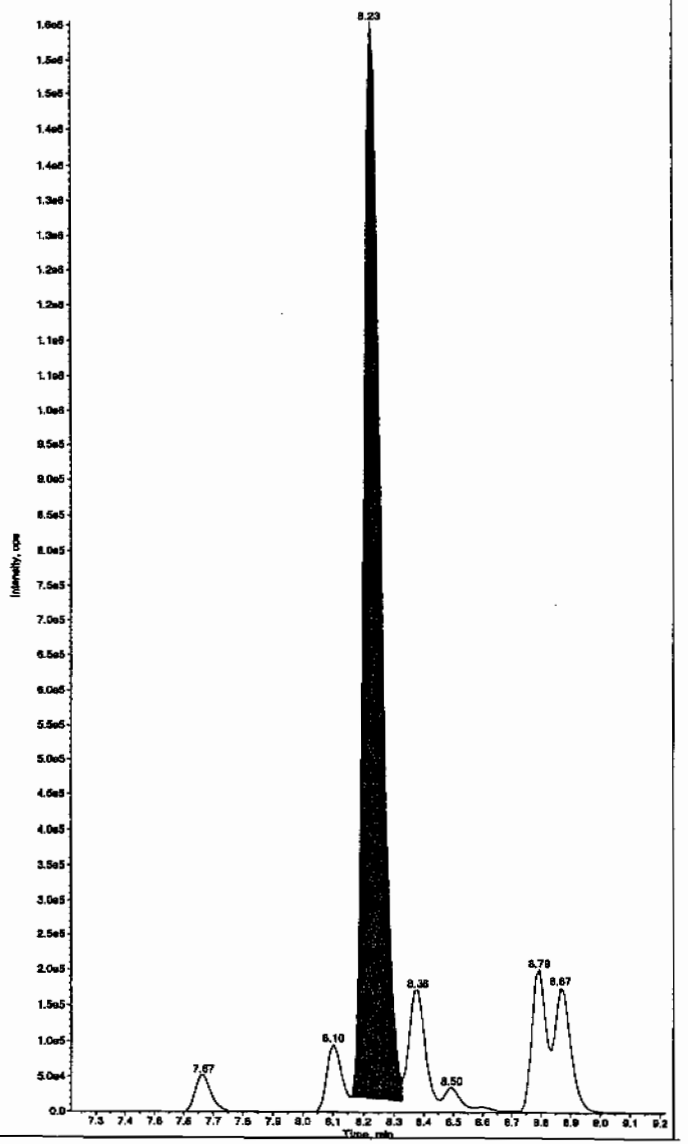

Hmm 12/29/09

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1201999941" Sample ID: "934771|2|LER" File: "EXS12230026.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 247. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 9:20:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 8.36 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.37 min
Area: 5.15e+006 counts
Height: 1437016.479 cps
Start Time: 8.30 min
End Time: 8.48 min

3.21

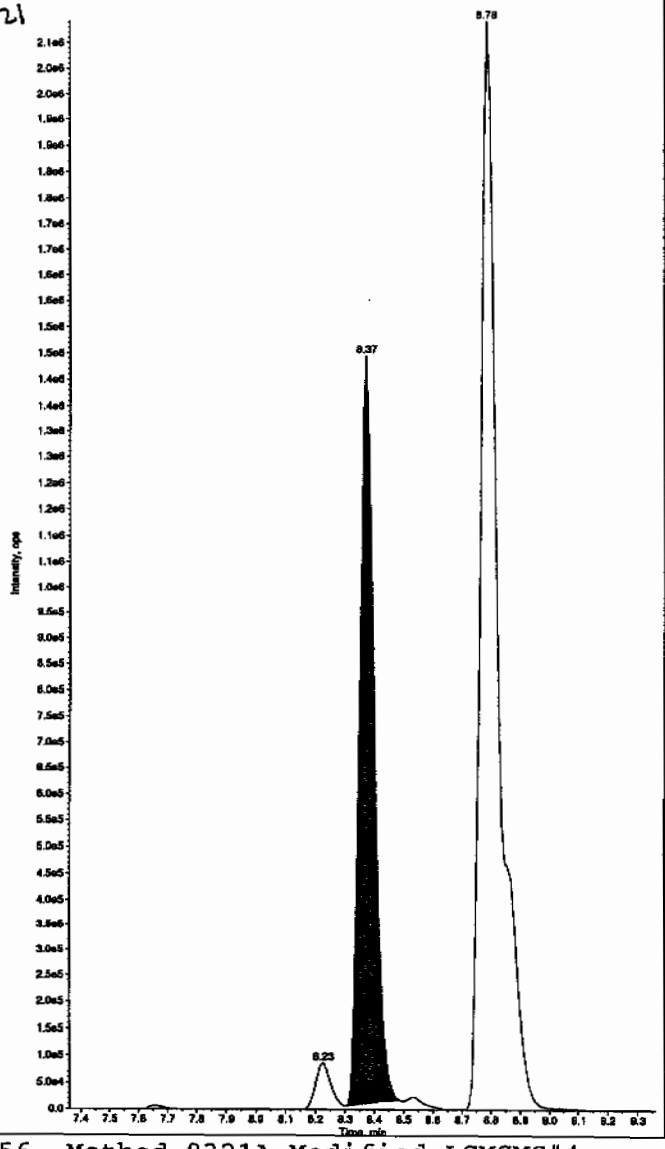

Sample Name: "1201999941" Sample ID: "934771|2|LER" File: "EXS12230026.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 664. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 9:20:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.03 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.04 min
Area: 2.43e+006 counts
Height: 592852.539 cps
Start Time: 4.93 min
End Time: 5.32 min

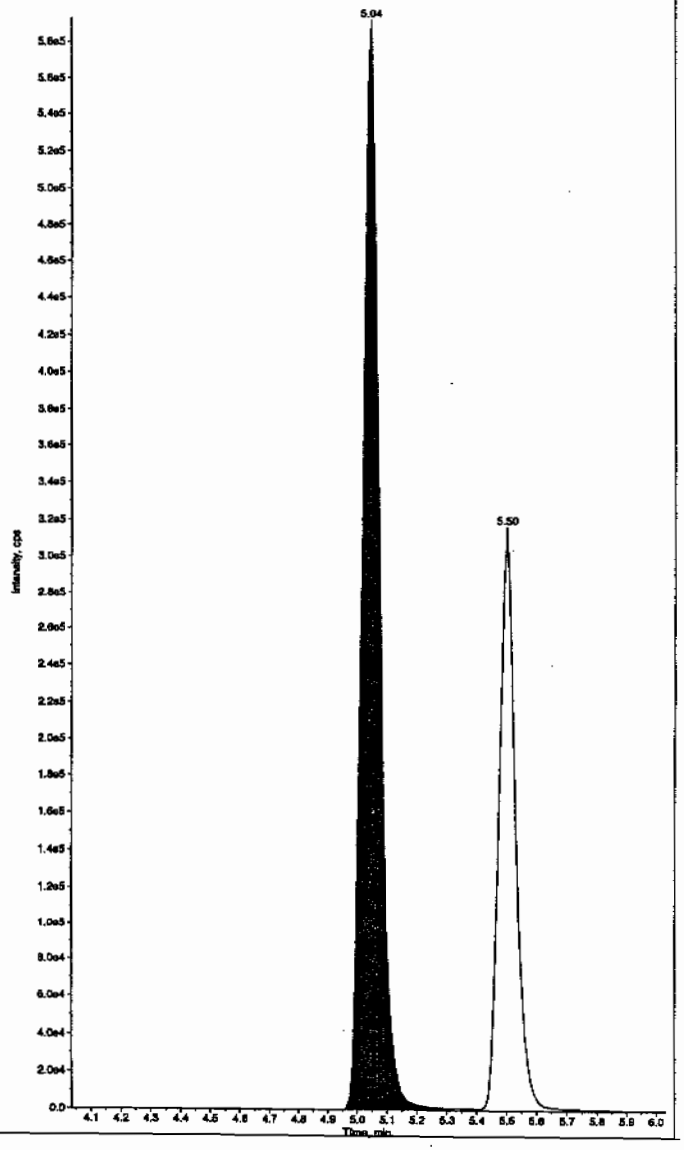

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1201999941" Sample ID: "934771|2|LER" File: "EXS12230026.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 534. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 9:20:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 5.49 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 5.50 min
Area: 1.19e+006 counts
Height: 316566.010 cps
Start Time: 5.42 min
End Time: 5.76 min

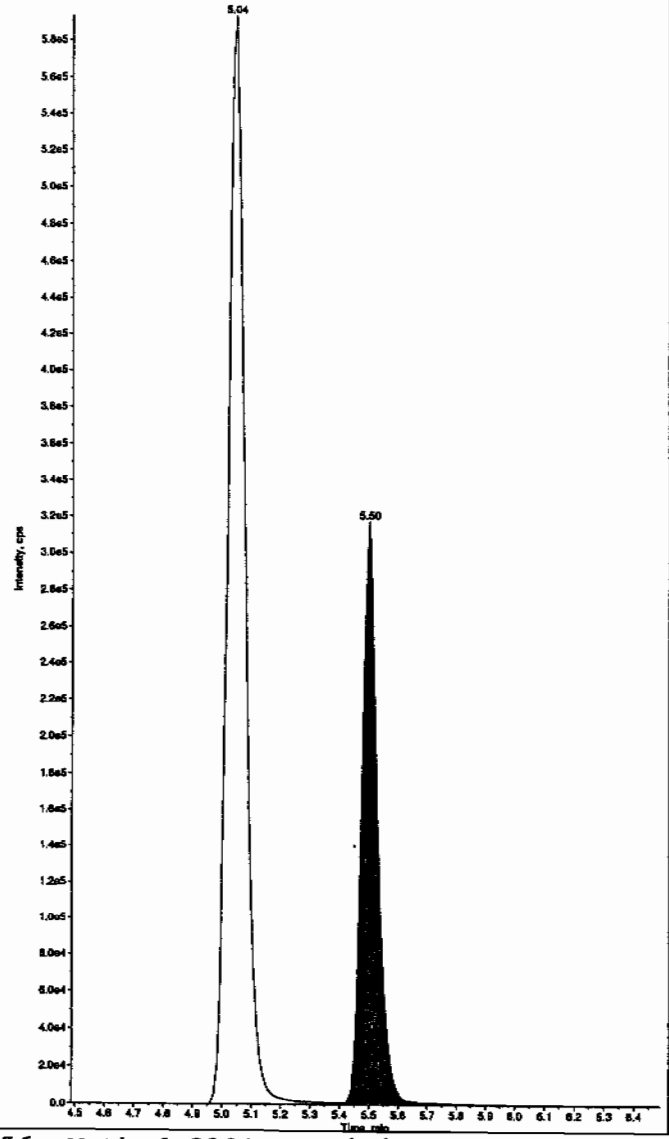

Sample Name: "1201999941" Sample ID: "934771|2|LER" File: "EXS12230026.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 204. ng/mL
Acq. Date: 12/23/2009
Acq. Time: 9:20:57 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.9 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.9 min
Area: 5.99e+006 counts
Height: 1481422.241 cps
Start Time: 10.8 min
End Time: 11.2 min

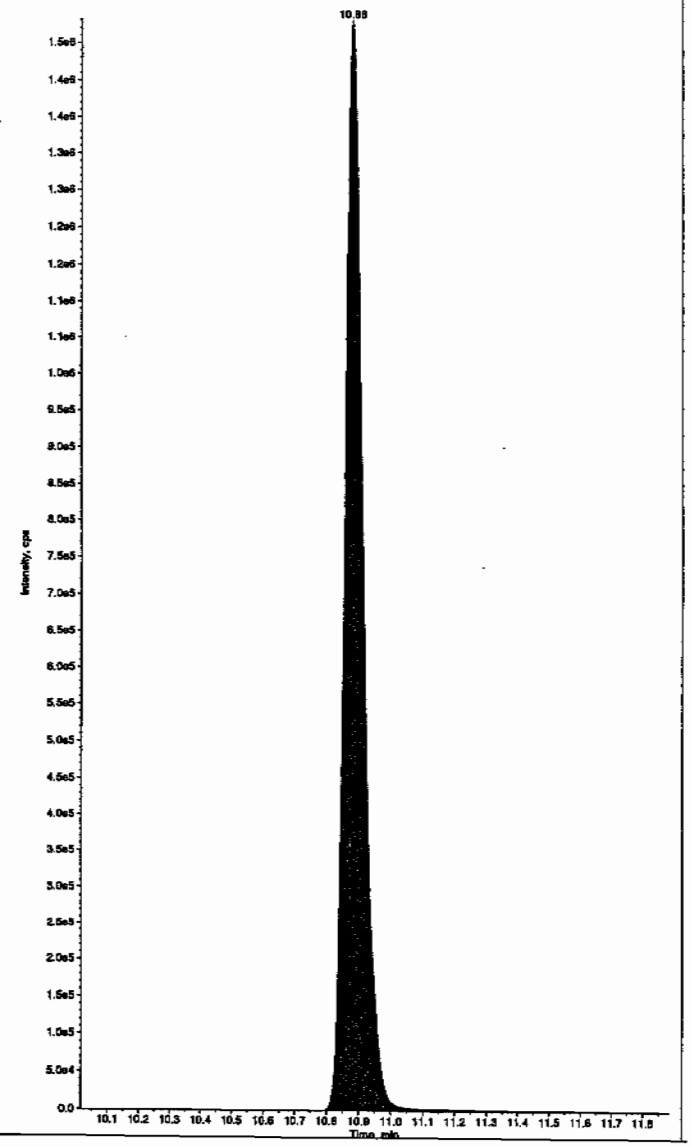

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MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 934770 **Verified by:** _____

Analyst: Sirena White

Method: SW846 Method 3535

Lab SOP: GL-OA-E-033 REV# 17

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Ph 1	Final Volume (mL)	Prepped Factor (mL/mL)
1201999937 MB	21-DEC-2009 09:43:27	770	5	5	0.00649
1201999938 LCS	21-DEC-2009 09:43:27	770	5	5	0.00649
1201999941 LCSD	21-DEC-2009 09:43:27	770	5	5	0.00649
243099004	21-DEC-2009 09:43:27	770	6	5	0.00649

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1201999938	8321 Explosives LCS	IXX091127-03	.05	mL
LCS	1201999938	8321 LANL Explosives Mix 10mg/L	UXX091007-02.3	.5	mL
LCSD	1201999941	8321 Explosives LCS	IXX091127-03	.05	mL
LCSD	1201999941	8321 LANL Explosives Mix 10mg/L	UXX091007-02.3	.5	mL
SURR	All	3,4-Dinitrotoluene (8330 Surr.) 100ppm	IXP091204-02	.025	mL

Comments:

SPE Cartridge: 003339260A

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 01/08/10
Extr. Injection Volume: 50uL
Sequence Number: 010810expA
Initial Calibration Date: 01/08/10

Method: SW846 8321A-Modified
Int. Std.: UXX091201-01.4
Mobile Phase Lot#: 1250684, 1236350
Standard-Samp Reagent Lot#: 1246693, 1246195

Reviewed BY: Hmc
Date: 01/13/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100108-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0108001a	XIBLK01	MAP	1/8/10 17:15			1		USE	B
EXP0108002a	XIBLK01	MAP	1/8/10 17:44			1		USE	B
EXP0108003a	WXXICAL-01	MAP	1/8/10 18:14			1		USE	I
EXP0108004a	WXXICAL-02	MAP	1/8/10 18:43			1		USE	I
EXP0108005a	WXXICAL-03	MAP	1/8/10 19:13			1		USE	I
EXP0108006a	WXXICAL-04	MAP	1/8/10 19:42			1		USE	I
EXP0108007a	WXXICAL-05	MAP	1/8/10 20:12			1		USE	I
EXP0108008a	WXXICAL-06	MAP	1/8/10 20:41			1		USE	I
EXP0108009a	XIBLK02	MAP	1/8/10 21:11			1		USE	B
EXP0108010a	WXXICV	MAP	1/8/10 21:40			1		USE	C
EXP0108011a	XIBLK03	MAP	1/8/10 22:10			1		USE	B
EXP0108012a	WXXCRI	MAP	1/8/10 22:39			1		USE	C
EXP0108013a	1202005625	MAP	1/8/10 23:09	937041	10-1073	2	LANL	USE	S
EXP0108014a	243519005	MAP	1/8/10 23:38	937041	10-1074	2	LANL	USE	S
EXP0108015a	243519007	MAP	1/9/10 0:08	937041	10-1074	2	LANL	USE	S
EXP0108016a	243519010	MAP	1/9/10 0:37	937041	10-1074	2	LANL	USE	S
EXP0108017a	243519011	MAP	1/9/10 1:07	937041	10-1074	2	LANL	USE	S
EXP0108018a	WXXCCV	MAP	1/9/10 1:36			1		USE	C
EXP0108019a	XIBLK04	MAP	1/9/10 2:05			1		USE	B
EXP0108020a	WXXCRI	MAP	1/9/10 2:35			1		USE	C
EXP0108021a	1201998993	MAP	1/9/10 3:04	934323	Various	2	LANL	USE	S
EXP0108022a	1201998994	MAP	1/9/10 3:34	934323	Various	2	LANL	USE	S
EXP0108023a	243012005	MAP	1/9/10 4:03	934323	10-937	2	LANL	USE	S
EXP0108024a	243016003	MAP	1/9/10 4:33	934323	10-932	2	LANL	USE	S
EXP0108025a	1201998995	MAP	1/9/10 5:02	934323	10-932	2	LANL	USE	S
EXP0108026a	1201998996	MAP	1/9/10 5:32	934323	10-932	2	LANL	USE	S
EXP0108027a	243016007	MAP	1/9/10 6:01	934323	10-932	2	LANL	USE	S
EXP0108028a	WXXCCV	MAP	1/9/10 6:31			1		USE	C
EXP0108029a	XIBLK05	MAP	1/9/10 7:00			1		USE	B
EXP0108030a	WXXCRI	MAP	1/9/10 7:30			1		USE	C
EXP0108031a	1202005117	MAP	1/9/10 7:59	937035	10-1070	2	LANL	USE	S

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EXP0108032a	1202005118	MAP	1/9/10 8:29	937035	10-1070	2	LANL	USE	S
EXP0108033a	243510002	MAP	1/9/10 8:58	937035	10-1070	2	LANL	USE	S
EXP0108034a	1202005119	MAP	1/9/10 9:28	937035	10-1070	2	LANL	USE	S
EXP0108035a	1202005120	MAP	1/9/10 9:57	937035	10-1070	2	LANL	USE	S
EXP0108036a	243510003	MAP	1/9/10 10:27	937035	10-1070	2	LANL	USE	S
EXP0108037a	243510004	MAP	1/9/10 10:56	937035	10-1070	2	LANL	USE	S
EXP0108038a	243510005	MAP	1/9/10 11:26	937035	10-1070	2	LANL	USE	S
EXP0108039a	243510006	MAP	1/9/10 11:55	937035	10-1070	2	LANL	USE	S
EXP0108040a	243510007	MAP	1/9/10 12:25	937035	10-1070	2	LANL	USE	S
EXP0108041a	WXXCCV	MAP	1/9/10 12:54			1		USE	C
EXP0108042a	XIBLK06	MAP	1/9/10 13:24			1		USE	B
EXP0108043a	WXXCRI	MAP	1/9/10 13:53			1		USE	C
EXP0108044a	243510008	MAP	1/9/10 14:23	937035	10-1070	2	LANL	USE	S
EXP0108045a	243510009	MAP	1/9/10 14:53	937035	10-1070	2	LANL	USE	S
EXP0108046a	243510010	MAP	1/9/10 15:22	937035	10-1070	2	LANL	USE	S
EXP0108047a	243510011	MAP	1/9/10 15:51	937035	10-1070	2	LANL	USE	S
EXP0108048a	243510012	MAP	1/9/10 16:21	937035	10-1070	2	LANL	USE	S
EXP0108049a	243510013	MAP	1/9/10 16:50	937035	10-1070	2	LANL	USE	S
EXP0108050a	243510014	MAP	1/9/10 17:20	937035	10-1070	2	LANL	USE	S
EXP0108051a	243510015	MAP	1/9/10 17:49	937035	10-1070	2	LANL	USE	S
EXP0108052a	243510016	MAP	1/9/10 18:19	937035	10-1070	2	LANL	USE	S
EXP0108053a	243510017	MAP	1/9/10 18:48	937035	10-1070	2	LANL	USE	S
EXP0108054a	WXXCCV	MAP	1/9/10 19:18			1		USE	C
EXP0108055a	XIBLK07	MAP	1/9/10 19:47			1		USE	B
EXP0108056a	WXXCRI	MAP	1/9/10 20:17			1		USE	C
EXP0108057a	243510018	MAP	1/9/10 20:47	937035	10-1070	2	LANL	USE	S
EXP0108058a	XIBLK08	MAP	1/9/10 21:16			1		USE	B
EXP0108059a	1202006213	MAP	1/9/10 21:46	937556	Various	2	LANL	USE	S
EXP0108060a	1202006214	MAP	1/9/10 22:16	937556	Various	2	LANL	USE	S
EXP0108061a	243611001	MAP	1/9/10 22:45	937556	10-1096	2	LANL	USE	S
EXP0108062a	1202006215	MAP	1/9/10 23:15	937556	10-1096	2	LANL	USE	S
EXP0108063a	1202006216	MAP	1/9/10 23:44	937556	10-1096	2	LANL	USE	S
EXP0108064a	243611002	MAP	1/10/10 0:14	937556	10-1096	2	LANL	USE	S
EXP0108065a	243611003	MAP	1/10/10 0:44	937556	10-1096	2	LANL	USE	S
EXP0108066a	WXXCCV	MAP	1/10/10 1:13			1		USE	C
EXP0108067a	XIBLK09	MAP	1/10/10 1:43			1		USE	B
EXP0108068a	WXXCRI	MAP	1/10/10 2:12			1		USE	C
EXP0108069a	243615001	MAP	1/10/10 2:42	937556	10-1098-1	2	LANL	DUSE-RA	S
EXP0108070a	243615002	MAP	1/10/10 3:11	937556	10-1098-1	2	LANL	DUSE-RA	S

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EXP0108071a	243615003	MAP	1/10/10 3:41	937556	10-1098-1	2	LANL	DUSE-RA	S
EXP0108072a	243615004	MAP	1/10/10 4:10	937556	10-1098-1	2	LANL	DUSE-RA	S
EXP0108073a	243615005	MAP	1/10/10 4:40	937556	10-1098-1	2	LANL	DUSE-RA	S
EXP0108074a	243615006	MAP	1/10/10 5:09	937556	10-1098-1	2	LANL	DUSE-RA	S
EXP0108075a	243615007	MAP	1/10/10 5:39	937556	10-1098-1	2	LANL	DUSE-RA	S
EXP0108076a	243615008	MAP	1/10/10 6:08	937556	10-1098-1	2	LANL	DUSE-RA	S
EXP0108077a	243615009	MAP	1/10/10 6:38	937556	10-1098-1	2	LANL	DUSE-RA	S
EXP0108078a	WXXCCV	MAP	1/10/10 7:07			1		DUSE	C
EXP0108079a	XIBLK10	MAP	1/10/10 7:37			1		USE	B
EXP0108080a	WXXCRI	MAP	1/10/10 8:06			1		DUSE	C
EXP0108081a	1202004626	MAP	1/10/10 8:36	936890	Various	2	LANL	DUSE-RA	S
EXP0108082a	1202004627	MAP	1/10/10 9:05	936890	Various	2	LANL	DUSE-RA	S
EXP0108083a	243490001	MAP	1/10/10 9:35	936890	10-1036	2	LANL	DUSE-RA	S
EXP0108084a	1202004628	MAP	1/10/10 10:04	936890	10-1036	2	LANL	DUSE-RA	S
EXP0108085a	1202004629	MAP	1/10/10 10:34	936890	10-1036	2	LANL	DUSE-RA	S
EXP0108086a	243490002	MAP	1/10/10 11:03	936890	10-1036	2	LANL	DUSE-RA	S
EXP0108087a	243490003	MAP	1/10/10 11:33	936890	10-1036	2	LANL	DUSE-RA	S
EXP0108088a	243490004	MAP	1/10/10 12:02	936890	10-1036	2	LANL	DUSE-RA	S
EXP0108089a	243490005	MAP	1/10/10 12:32	936890	10-1036	2	LANL	DUSE-RA	S
EXP0108090a	243490006	MAP	1/10/10 13:01	936890	10-1036	2	LANL	DUSE-RA	S
EXP0108091a	WXXCCV	MAP	1/10/10 13:31			1		USE	C
EXP0108092a	XIBLK11	MAP	1/10/10 14:00			1		USE	B
EXP0108093a	WXXCRI	MAP	1/10/10 14:30			1		USE	C
EXP0108094a	243490007	MAP	1/10/10 14:59	936890	10-1036	2	LANL	USE	S
EXP0108095a	243543001	MAP	1/10/10 15:29	936890	10-1081	2	LANL	USE	S
EXP0108096a	XIBLK11	MAP	1/10/10 15:58			1		USE	B
EXP0108097a	1202005106	MAP	1/10/10 16:28	937031	Various	2	LANL	USE	S
EXP0108098a	1202005107	MAP	1/10/10 16:57	937031	Various	2	LANL	USE	S
EXP0108099a	243457001	MAP	1/10/10 17:27	937031	10-1038	2	LANL	USE	S
EXP0108100a	1202005108	MAP	1/10/10 17:56	937031	10-1038	2	LANL	USE	S
EXP0108101a	1202005109	MAP	1/10/10 18:26	937031	10-1038	2	LANL	USE	S
EXP0108102a	243457002	MAP	1/10/10 18:55	937031	10-1038	2	LANL	USE	S
EXP0108103a	243457003	MAP	1/10/10 19:25	937031	10-1038	2	LANL	USE	S
EXP0108104a	WXXCCV	MAP	1/10/10 19:54			1		USE	C
EXP0108105a	XIBLK12	MAP	1/10/10 20:24			1		USE	B
EXP0108106a	WXXCRI	MAP	1/10/10 20:53			1		USE	C
EXP0108107a	243457004	MAP	1/10/10 21:23	937031	10-1038	2	LANL	USE	S
EXP0108108a	243502001	MAP	1/10/10 21:52	937031	10-1065	2	LANL	USE	S
EXP0108109a	243502002	MAP	1/10/10 22:22	937031	10-1065	2	LANL	USE	S

EXP0108110a	243502003	MAP	1/10/10 22:51	937031	10-1065	2	LANL	USE	S
EXP0108111a	243502004	MAP	1/10/10 23:21	937031	10-1065	2	LANL	USE	S
EXP0108112a	243502005	MAP	1/10/10 23:50	937031	10-1065	2	LANL	USE	S
EXP0108113a	243502006	MAP	1/11/10 0:20	937031	10-1065	2	LANL	USE	S
EXP0108114a	243502007	MAP	1/11/10 0:49	937031	10-1065	2	LANL	USE	S
EXP0108115a	243502008	MAP	1/11/10 1:19	937031	10-1065	2	LANL	USE	S
EXP0108116a	WXXCCV	MAP	1/11/10 1:48			1		USE	C
EXP0108117a	XIBLK13	MAP	1/11/10 2:18			1		USE	B
EXP0108118a	WXXCRI	MAP	1/11/10 2:48			1		USE	C
EXP0108119a	243509001	MAP	1/11/10 3:17	937031	10-1069	2	LANL	USE	S
EXP0108120a	243509002	MAP	1/11/10 3:47	937031	10-1069	2	LANL	USE	S
EXP0108121a	243509003	MAP	1/11/10 4:16	937031	10-1069	2	LANL	USE	S
EXP0108122a	WXXCCV	MAP	1/11/10 4:46			1		USE	C
EXP0108123a	XIBLK14	MAP	1/11/10 5:15			1		USE	B
EXP0108124a	WXXCRI	MAP	1/11/10 5:45			1		USE	C
EXP0108125a	243615001	MAP	1/11/10 6:14	937556	10-1098-1	2	LANL	USE	S
EXP0108126a	243615002	MAP	1/11/10 6:44	937556	10-1098-1	2	LANL	USE	S
EXP0108127a	243615003	MAP	1/11/10 7:13	937556	10-1098-1	2	LANL	USE	S
EXP0108128a	243615004	MAP	1/11/10 7:43	937556	10-1098-1	2	LANL	USE	S
EXP0108129a	243615005	MAP	1/11/10 8:12	937556	10-1098-1	2	LANL	USE	S
EXP0108130a	243615006	MAP	1/11/10 8:42	937556	10-1098-1	2	LANL	USE	S
EXP0108131a	243615007	MAP	1/11/10 9:11	937556	10-1098-1	2	LANL	USE	S
EXP0108132a	243615008	MAP	1/11/10 9:41	937556	10-1098-1	2	LANL	USE	S
EXP0108133a	243615009	MAP	1/11/10 10:10	937556	10-1098-1	2	LANL	USE	S
EXP0108134a	WXXCCV	MAP	1/11/10 10:40			1		USE	C
EXP0108135a	XIBLK15	MAP	1/11/10 11:09			1		USE	B
EXP0108136a	WXXCRI	MAP	1/11/10 11:39			1		USE	C
EXP0108137a	1202004626	MAP	1/11/10 12:08	936890	Various	2	LANL	USE	S
EXP0108138a	1202004627	MAP	1/11/10 12:38	936890	Various	2	LANL	USE	S
EXP0108139a	243490001	MAP	1/11/10 13:07	936890	10-1036	2	LANL	USE	S
EXP0108140a	1202004628	MAP	1/11/10 13:37	936890	10-1036	2	LANL	USE	S
EXP0108141a	1202004629	MAP	1/11/10 14:06	936890	10-1036	2	LANL	USE	S
EXP0108142a	243490002	MAP	1/11/10 14:36	936890	10-1036	2	LANL	USE	S
EXP0108143a	243490003	MAP	1/11/10 15:05	936890	10-1036	2	LANL	USE	S
EXP0108144a	243490004	MAP	1/11/10 15:35	936890	10-1036	2	LANL	USE	S
EXP0108145a	243490005	MAP	1/11/10 16:04	936890	10-1036	2	LANL	USE	S
EXP0108146a	243490006	MAP	1/11/10 16:34	936890	10-1036	2	LANL	USE	S
EXP0108147a	WXXCCV	MAP	1/11/10 17:03			1		USE	C
EXP0108148a	XIBLK16	MAP	1/11/10 17:33			1		USE	B

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EXP0108149a	WXXCRI	MAP	1/11/10 18:02			1		USE	C
EXP0108150a	243502006	MAP	1/11/10 18:32	937031	10-1065	10	LANL	USE	S
EXP0108151a	243509002	MAP	1/11/10 19:01	937031	10-1069	10	LANL	USE	S
EXP0108152a	XIBLK17	MAP	1/11/10 19:31			1		USE	B
EXP0108153a	1201999937	MAP	1/11/10 20:00	934771	10-952	2	LANL	USE	S
EXP0108154a	1201999938	MAP	1/11/10 20:30	934771	10-952	2	LANL	USE	S
EXP0108155a	1201999941	MAP	1/11/10 20:59	934771	10-952	2	LANL	USE	S
EXP0108156a	243099004	MAP	1/11/10 21:29	934771	10-952	2	LANL	USE	S
EXP0108157a	WXXCCV	MAP	1/11/10 21:58			1		USE	C
EXP0108158a	XIBLK18	MAP	1/11/10 22:28			1		USE	B
EXP0108159a	WXXCRI	MAP	1/11/10 22:57			1		USE	C
EXP0108160a	1202000961	MAP	1/11/10 23:27	935214	Various	2	LANL	DUSE-RA	S
EXP0108161a	1202000964	MAP	1/11/10 23:56	935214	Various	2	LANL	DUSE-RA	S
EXP0108162a	243254006	MAP	1/12/10 0:26	935214	10-972	2	LANL	DUSE-RA	S
EXP0108163a	243254011	MAP	1/12/10 0:55	935214	10-972	2	LANL	DUSE-RA	S
EXP0108164a	243257003	MAP	1/12/10 1:25	935214	10-976	2	LANL	DUSE-RA	S
EXP0108165a	1202000962	MAP	1/12/10 1:54	935214	10-976	2	LANL	DUSE-RA	S
EXP0108166a	1202000963	MAP	1/12/10 2:24	935214	10-976	2	LANL	DUSE-RA	S
EXP0108167a	243257005	MAP	1/12/10 2:53	935214	10-976	2	LANL	DUSE-RA	S
EXP0108168a	WXXCCV	MAP	1/12/10 3:23			1		USE	C
EXP0108169a	XIBLK19	MAP	1/12/10 3:52			1		USE	B
EXP0108170a	WXXCRI	MAP	1/12/10 4:22			1		USE	C
EXP0108171a	1202000990	MAP	1/12/10 4:51	935230	Various	2	LANL	DUSE-RA	S
EXP0108172a	1202000991	MAP	1/12/10 5:21	935230	Various	2	LANL	DUSE-RA	S
EXP0108173a	1202000994	MAP	1/12/10 5:50	935230	Various	2	LANL	DUSE-RA	S
EXP0108174a	243283004	MAP	1/12/10 6:20	935230	10-994	2	LANL	DUSE-RA	S
EXP0108175a	243284005	MAP	1/12/10 6:49	935230	10-997	2	LANL	DUSE-RA	S
EXP0108176a	243284012	MAP	1/12/10 7:19	935230	10-997	2	LANL	DUSE-RA	S
EXP0108177a	WXXCCV	MAP	1/12/10 7:48			1		USE	C
EXP0108178a	XIBLK20	MAP	1/12/10 8:18			1		USE	B
EXP0108179a	WXXCRI	MAP	1/12/10 8:47			1		USE	C

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS4

Date: 12/23/09 Method: 8321A-Modified Reviewed By: Hnm
Extr. Injection Volume: 10uL Int. Std.: N/A Date: 12/29/09
Sequence Number: 122309exs Mobile Phase Lot#:1212793, 1215023 SOP: GL-OA-E-056 Rev.12
Initial Calibration Date: 122309 Standard-Samp Reagent Lot# :1215733, 1197509 Alt Check Std. ID: WXX091223-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS12230001.wiff	XIBLK01	LER	12/23/2009 14:48			1		USE	B
EXS12230002.wiff	XIBLK01	LER	12/23/2009 15:04			1		USE	B
EXS12230003.wiff	WXXICAL-19	LER	12/23/2009 15:19			1		USE	I
EXS12230004.wiff	WXXICAL-20	LER	12/23/2009 15:35			1		USE	I
EXS12230005.wiff	WXXICAL-21	LER	12/23/2009 15:51			1		USE	I
EXS12230006.wiff	WXXICAL-22	LER	12/23/2009 16:07			1		USE	I
EXS12230007.wiff	WXXICAL-23	LER	12/23/2009 16:22			1		USE	I
EXS12230008.wiff	WXXICAL-24	LER	12/23/2009 16:38			1		USE	I
EXS12230009.wiff	WXXICAL-25	LER	12/23/2009 16:54			1		USE	I
EXS12230010.wiff	XIBLK02	LER	12/23/2009 17:09			1		USE	B
EXS12230011.wiff	WXXICV	LER	12/23/2009 17:25			1		USE	C
EXS12230012.wiff	XIBLK03	LER	12/23/2009 17:41			1		USE	B
EXS12230013.wiff	WXXCRI	LER	12/23/2009 17:56			1		USE	C
EXS12230014.wiff	1201998993	LER	12/23/2009 18:12	934323	VARIOUS	2	LANL	USE	S
EXS12230015.wiff	1201998994	LER	12/23/2009 18:28	934323	VARIOUS	2	LANL	USE	S
EXS12230016.wiff	243012005	LER	12/23/2009 18:44	934323	10-937	2	LANL	USE	S
EXS12230017.wiff	243016003	LER	12/23/2009 18:59	934323	10-932	2	LANL	USE	S
EXS12230018.wiff	1201998995	LER	12/23/2009 19:15	934323	10-932	2	LANL	USE	S
EXS12230019.wiff	1201998996	LER	12/23/2009 19:31	934323	10-932	2	LANL	USE	S
EXS12230020.wiff	243016007	LER	12/23/2009 19:46	934323	10-932	2	LANL	USE	S
EXS12230021.wiff	WXXCCV	LER	12/23/2009 20:02			1		USE	C
EXS12230022.wiff	XIBLK04	LER	12/23/2009 20:18			1		USE	B
EXS12230023.wiff	WXXCRI	LER	12/23/2009 20:33			1		USE	C
EXS12230024.wiff	1201999937	LER	12/23/2009 20:49	934771	10-952	2	LANL	USE	S
EXS12230025.wiff	1201999938	LER	12/23/2009 21:05	934771	10-952	2	LANL	USE	S
EXS12230026.wiff	1201999941	LER	12/23/2009 21:20	934771	10-952	2	LANL	USE	S
EXS12230027.wiff	243099004	LER	12/23/2009 21:36	934771	10-952	2	LANL	USE	S
EXS12230028.wiff	WXXCCV	LER	12/23/2009 21:52			1		USE	C
EXS12230029.wiff	XIBLK05	LER	12/23/2009 22:08			1		USE	B

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EXS12230030.wiff	WXXCRI	LER	12/23/2009 22:23			1		USE	C
EXS12230031.wiff	1202000961	LER	12/23/2009 22:39	935214	VARIOUS	2	LANL	DUSE-RA	S
EXS12230032.wiff	1202000964	LER	12/23/2009 22:55	935214	VARIOUS	2	LANL	DUSE-RA	S
EXS12230033.wiff	243254006	LER	12/23/2009 23:10	935214	10-972	2	LANL	DUSE-RA	S
EXS12230034.wiff	243254011	LER	12/23/2009 23:26	935214	10-972	2	LANL	DUSE-RA	S
EXS12230035.wiff	243257003	LER	12/23/2009 23:42	935214	10-976	2	LANL	DUSE-RA	S
EXS12230036.wiff	1202000962	LER	12/23/2009 23:58	935214	10-976	2	LANL	DUSE-RA	S
EXS12230037.wiff	1202000963	LER	12/24/2009 0:13	935214	10-976	2	LANL	DUSE-RA	S
EXS12230038.wiff	243257005	LER	12/24/2009 0:29	935214	10-976	2	LANL	DUSE-RA	S
EXS12230039.wiff	WXXCCV	LER	12/24/2009 0:45			1		DUSE	C
EXS12230040.wiff	XIBLK06	LER	12/24/2009 1:00			1		DUSE	B
EXS12230041.wiff	WXXCRI	LER	12/24/2009 1:16			1		DUSE	C

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112014a
Date: 12-Jan-2010
Time: 22:18:54
ID: 1201999938
Vial: 1:4,B

| LANC | 93477 | 120 | 128 | 21

MATT 1/13/10

Blank - 128

Continue EXP0108154a

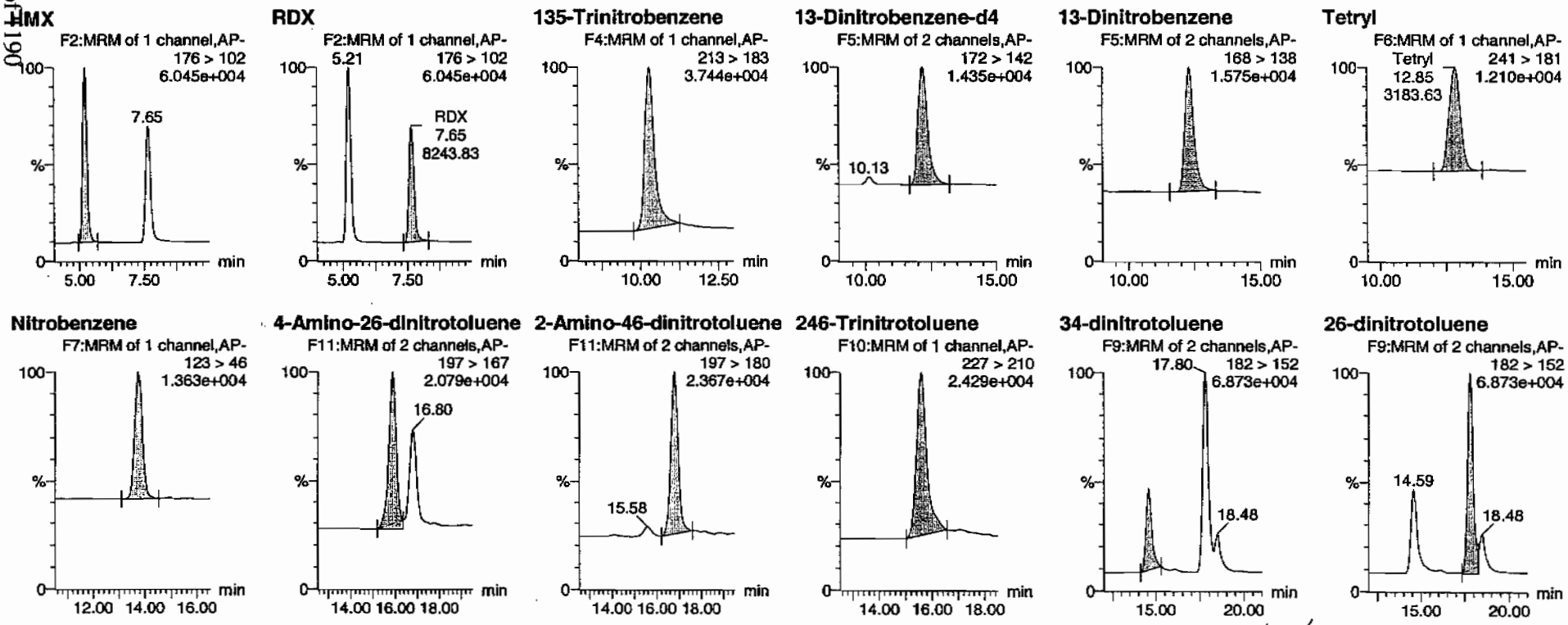

Amm 01/10/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

24-dinitrotoluene

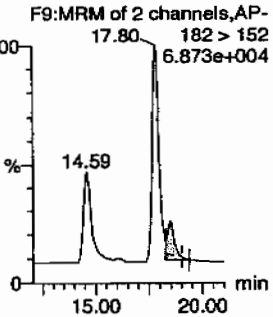

26-dinitrotoluene-d3

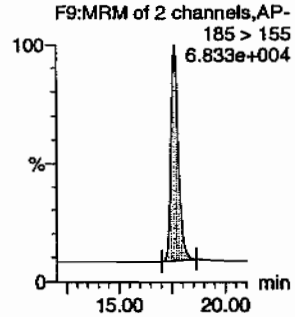

2-Nitrotoluene

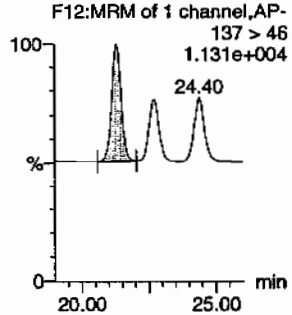

4-Nitrotoluene

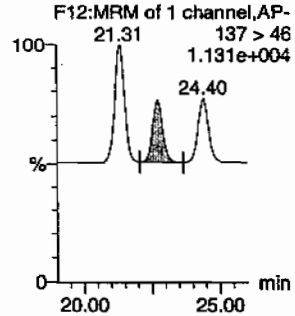

3-Nitrotoluene

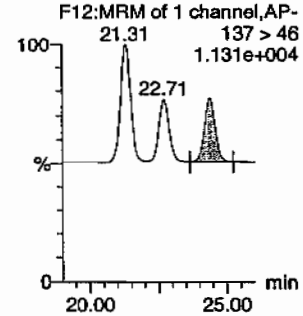

PETN

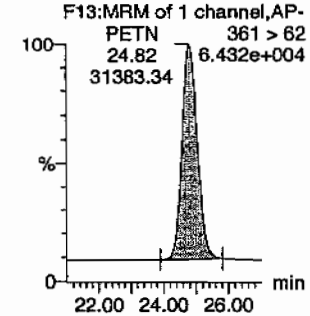

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
1201999938	HMX	176 > 102	5.21	10850.405	3711.515	10850.405	1461.722	bb			383.4441	76.7	-23.3	875.6
1201999938	RDX	176 > 102	7.65	8243.826	3711.515	8243.826	1110.574	bb			426.6267	85.3	-14.7	581.1
1201999938	135-Trinitrobenzene	213 > 183	10.28	11231.857	3711.515	11231.857	1513.109	bb			436.9593	87.4	-12.6	1972.1
1201999938	13-Dinitrobenzene-d4	172 > 142	12.20	3711.515		3711.515	3711.515	bb			737.2733	147.5	47.5	387.4
1201999938	13-Dinitrobenzene	168 > 138	12.31	3910.131	3711.515	3910.131	526.757	bb			420.3861	84.1	-15.9	605.4
1201999938	Tetryl	241 > 181	12.85	3183.634	3711.515	3183.634	428.886	bb			381.1615	76.2	-23.8	316.6
1201999938	Nitrobenzene	123 > 46	13.74	2756.638	3711.515	2756.638	371.363	bb			405.5765	81.1	-18.9	291.1
1201999938	4-Amino-26-dinitrotoluene	197 > 167	15.88	6127.649	25205.914	6127.649	121.552	MM	13-Jan-10	08:51:10	451.7118	90.3	-9.7	291.8
1201999938	2-Amino-46-dinitrotoluene	197 > 180	16.77	6906.983	25205.914	6906.983	137.011	bb			351.5528	70.3	-29.7	239.6
1201999938	246-Trinitrotoluene	227 > 210	15.60	8312.645	25205.914	8312.645	164.895	bb			473.5293	94.7	-5.3	700.6
1201999938	34-dinitrotoluene	182 > 152	14.59	10150.764	25205.914	10150.764	201.357	bb		3.05	235.4189	94.2	-5.8	296.9
1201999938	26-dinitrotoluene	182 > 152	17.80	23404.703	25205.914	23404.703	464.270	MM	13-Jan-10	08:53:06	426.0962	85.2	-14.8	727.0
1201999938	24-dinitrotoluene	182 > 152	18.48	4649.536	25205.914	4649.536	92.231	MM	13-Jan-10	08:55:51	379.6502	75.9	-24.1	131.2
1201999938	26-dinitrotoluene-d3	185 > 155	17.63	25205.914		25205.914	25205.914	bb			867.3295	173.5	73.5	2848.3
1201999938	2-Nitrotoluene	137 > 46	21.31	2326.693	25205.914	2326.693	46.154	bb			286.3117	57.3	-42.7	169.1
1201999938	4-Nitrotoluene	137 > 46	22.71	1274.999	25205.914	1274.999	25.292	bb			313.6898	62.7	-37.3	88.0
1201999938	3-Nitrotoluene	137 > 46	24.40	1362.963	25205.914	1362.963	27.037	bb			289.8253	58.0	-42.0	90.7
1201999938	PETN	361 > 62	24.82	31383.342	25205.914	31383.342	622.539	bb			339.5504	67.9	-32.1	7262.3

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112015a
Date: 12-Jan-2010
Time: 22:48:23
ID: 1201999941
Vial: 1:4,C

| LANE | 934771 | LCS | LCSD | 2 |

MAP 1/13/10

Dilute - P28

Confirms Exp 01081558

HMX

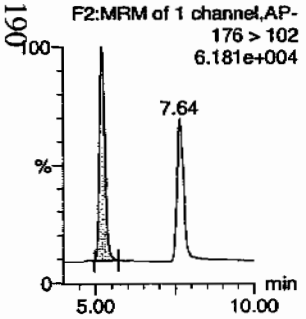

RDX

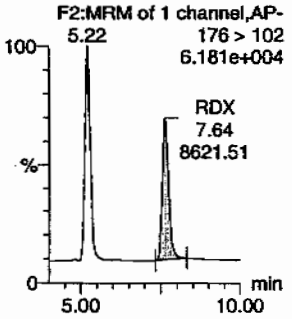

135-Trinitrobenzene

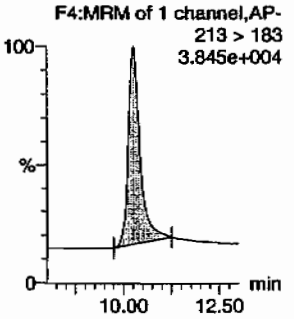

13-Dinitrobenzene-d4

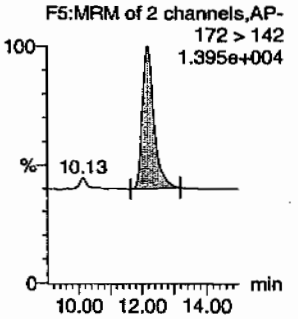

13-Dinitrobenzene

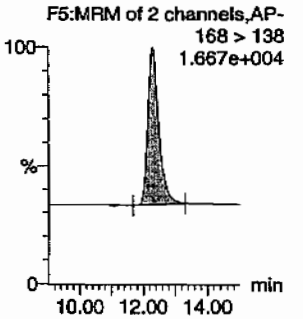

Tetryl

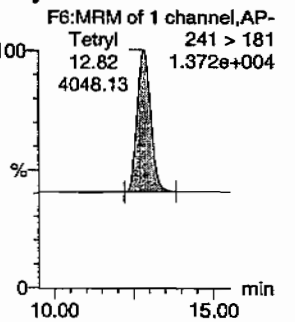

Nitrobenzene

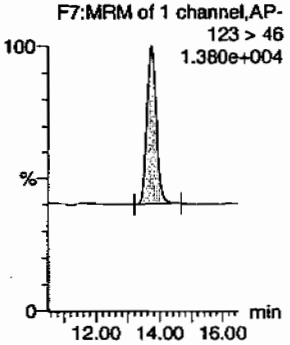

4-Amino-26-dinitrotoluene

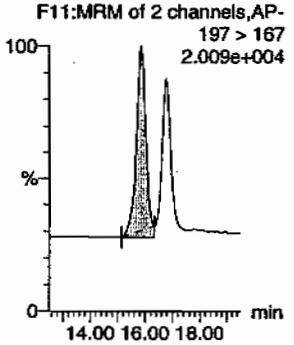

2-Amino-46-dinitrotoluene

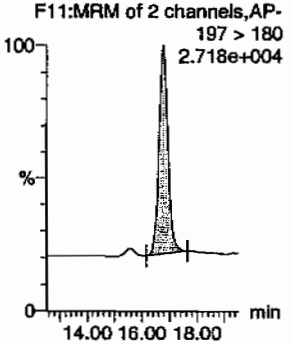

246-Trinitrotoluene

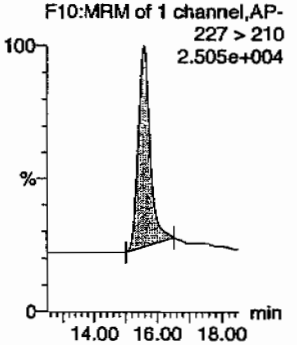

34-dinitrotoluene

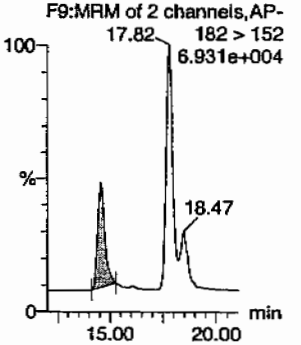

HMM 01/13/10

26-dinitrotoluene

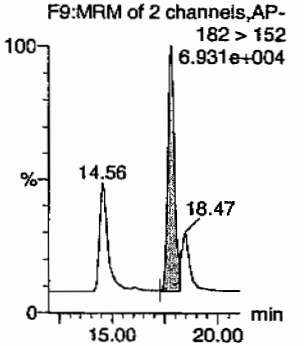

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

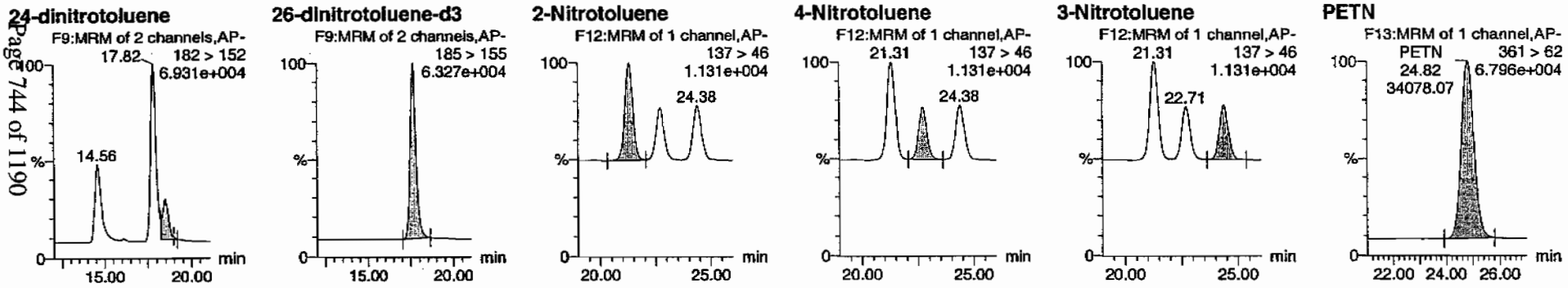

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	mg/mL	%Rec	%Dev	S/N
1201999941	HMX	176 > 102	5.22	11282.670	3636.087	11282.670	1551.485	bb			406.9911	81.4	-18.6	1437.7
1201999941	RDX	176 > 102	7.64	8621.512	3636.087	8621.512	1185.548	bb			455.4278	91.1	-8.9	954.9
1201999941	135-Trinitrobenzene	213 > 183	10.27	11747.361	3636.087	11747.361	1615.385	bb			465.0650	93.0	-7.0	560.0
1201999941	13-Dinitrobenzene-d4	172 > 142	12.17	3636.087		3636.087	3636.087	bb			722.2899	144.5	44.5	336.2
1201999941	13-Dinitrobenzene	168 > 138	12.31	4404.804	3636.087	4404.804	605.707	bb			483.3932	96.7	-3.3	814.8
1201999941	Tetryl	241 > 181	12.82	4048.126	3636.087	4048.126	556.660	bb			494.7171	98.9	-1.1	370.3
1201999941	Nitrobenzene	123 > 46	13.72	2893.743	3636.087	2893.743	397.920	bb			434.5802	86.9	-13.1	333.0
1201999941	4-Amino-26-dinitrotoluene	197 > 167	15.86	5929.441	22988.840	5929.441	128.963	MM	13-Jan-10	08:51:17	479.2550	95.9	-4.1	207.1
1201999941	2-Amino-46-dinitrotoluene	197 > 180	16.79	8141.537	22988.840	8141.537	177.076	bb			454.3536	90.9	-9.1	734.7
1201999941	246-Trinitrotoluene	227 > 210	15.58	8301.189	22988.840	8301.189	180.548	bb			518.4816	103.7	3.7	250.9
1201999941	34-dinitrotoluene	182 > 152	14.56	10856.070	22988.840	10856.070	236.116	bb		3.58	276.0582	110.4	10.4	149.6
1201999941	26-dinitrotoluene	182 > 152	17.82	23209.625	22988.840	23209.625	504.802	MM	13-Jan-10	08:53:11	463.2955	92.7	-7.3	349.7
1201999941	24-dinitrotoluene	182 > 152	18.47	5691.138	22988.840	5691.138	123.780	MM	13-Jan-10	08:56:02	509.5168	101.9	1.9	78.6
1201999941	26-dinitrotoluene-d3	185 > 155	17.64	22988.840		22988.840	22988.840	bb			791.0405	158.2	58.2	1596.1
1201999941	2-Nitrotoluene	137 > 46	21.31	2449.777	22988.840	2449.777	53.282	bb			330.5309	66.1	-33.9	492.0
1201999941	4-Nitrotoluene	137 > 46	22.71	1337.839	22988.840	1337.839	29.098	bb			360.8942	72.2	-27.8	261.2
1201999941	3-Nitrotoluene	137 > 46	24.38	1490.458	22988.840	1490.458	32.417	bb			347.5021	69.5	-30.5	272.6
1201999941	PETN	361 > 62	24.82	34078.066	22988.840	34078.066	741.187	bb			415.7769	83.2	-16.8	4163.3

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0112016a
Date: 12-Jan-2010
Time: 23:17:52
ID: 243099004
Vial: 1:4,D

| LANL | 934771 | LED | 2 |

MAP 1/13/10

Dude - 4 ppb

Confirms EP 01081569

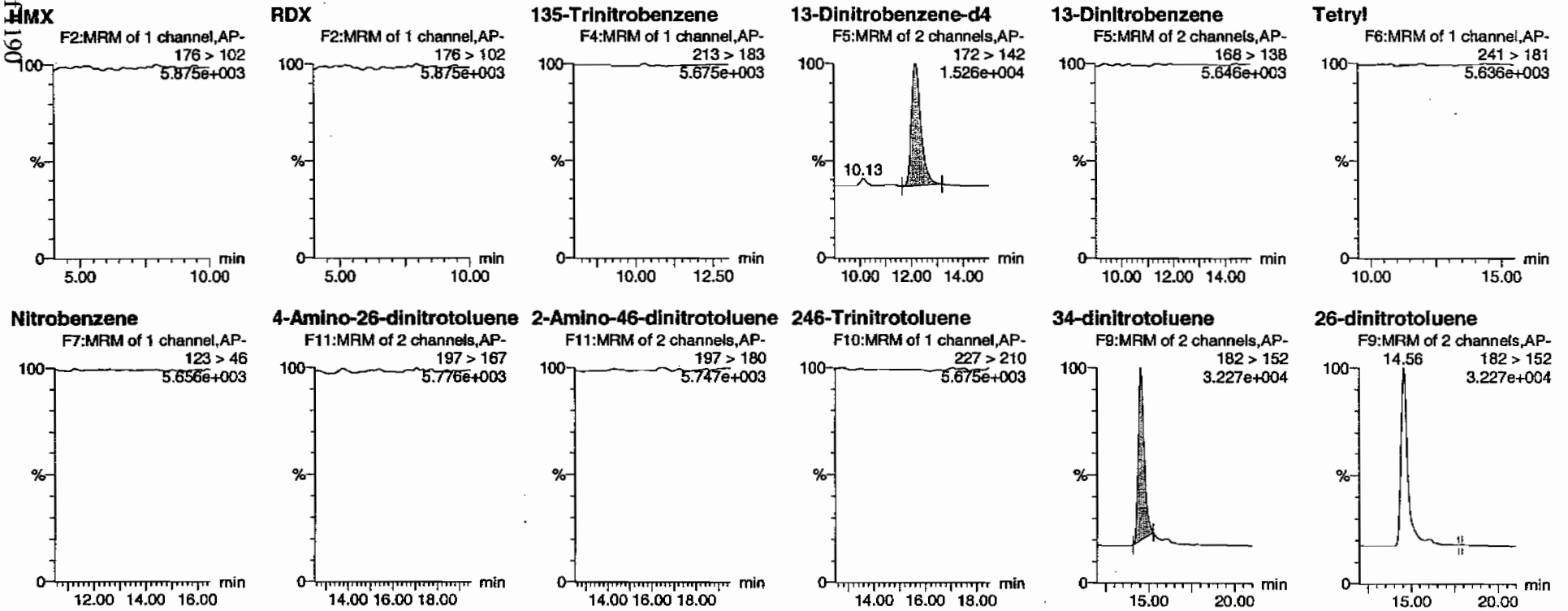

Amm 01/13/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\011210expA.qld, Time: Wed Jan 13 08:59:40 2010

24-dinitrotoluene

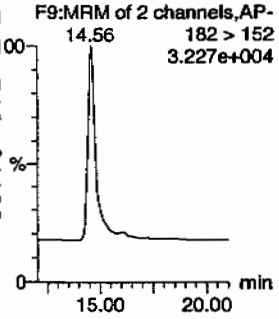

26-dinitrotoluene-d3

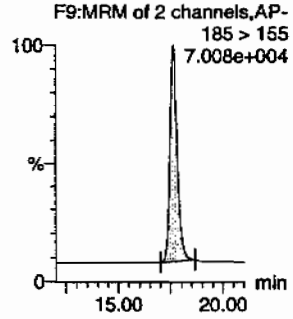

2-Nitrotoluene

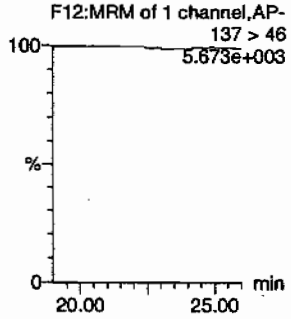

4-Nitrotoluene

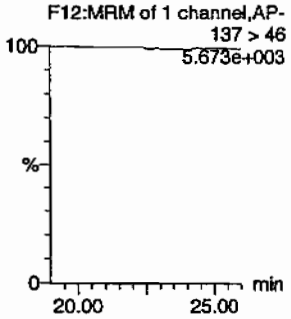

3-Nitrotoluene

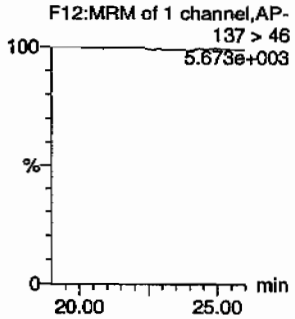

PETN

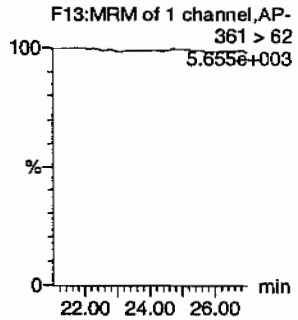

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
243099004	HMX	176 > 102			4104.202									
243099004	RDX	176 > 102			4104.202									
243099004	135-Trinitrobenzene	213 > 183			4104.202									
243099004	13-Dinitrobenzene-d4	172 > 142	12.17	4104.202		4104.202	4104.202	bb			815.2786	163.1	63.1	432.7
243099004	13-Dinitrobenzene	168 > 138			4104.202									
243099004	Tetryl	241 > 181			4104.202									
243099004	Nitrobenzene	123 > 46			4104.202									
243099004	4-Amino-26-dinitrotoluene	197 > 167			25759.625									
243099004	2-Amino-46-dinitrotoluene	197 > 180			25759.625									
243099004	246-Trinitrotoluene	227 > 210			25759.625									
243099004	34-dinitrotoluene	182 > 152	14.56	10032.964	25759.625	10032.964	194.742	bb		2.95	227.6852	91.1	-8.9	566.9
243099004	26-dinitrotoluene	182 > 152			25759.625			MM-	13-Jan-10	08:53:17				
243099004	24-dinitrotoluene	182 > 152			25759.625									
243099004	26-dinitrotoluene-d3	185 > 155	17.64	25759.625		25759.625	25759.625	bb			886.3826	177.3	77.3	1541.2
243099004	2-Nitrotoluene	137 > 46			25759.625									
243099004	4-Nitrotoluene	137 > 46			25759.625									
243099004	3-Nitrotoluene	137 > 46			25759.625									
243099004	PETN	361 > 62			25759.625									

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DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
13-JAN-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LC-MS/MS	SW846 3535/8321A Modified	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
934771	See Below		

Potentially affected work order(s)(SDG): 243099(10-952)

Application Issues:

Other

Failed Recovery for MSD/PSD

Failed RPD for LCS/LCSD

Specification and Requirements Exception Description:	DER Disposition:
1. The Laboratory Control Sample Duplicate (1201999941) did not meet spike recovery for 2,6-Diamino-4-nitrotoluene at 133%. The recovery limits are 59-123%.	1. Since 2,6-Diamino-4-nitrotoluene was not detected in the associated sample and exhibited a high bias, the data are reported with the appropriate DER. The discrepancy is noted in the case narrative.
2. The LCS/LCSD pair (1201999938/941) did not meet RPD acceptance limits for 2,4,6-Trinitrotoluene at 29.2%. The acceptance limits are 0-25%.	2. Since all other RPD recoveries met acceptance criteria, the noted exception is attributed to vagaries in the analytical process. The data are reported with the appropriate DER. The discrepancy is noted in the case narrative.
3. The internal standard responses were outside of the acceptance criteria in the following samples: 243099004, 1201999938(LCS) and 1201999941(LCSD). Please see the Form 8 in the data package for the exact recoveries.	3. The samples were re-analyzed and similar recoveries were observed. The initial analysis data are reported with the appropriate DER. The discrepancies are noted in the case narrative. The confirmation raw data are located in the Miscellaneous Section of the data package.

Originator's Name:

Michael Penny 13-JAN-10

Data Validator/Group Leader:

Herbert Maier 13-JAN-10

GC SEMIVOLATILE PESTICIDE ANALYSIS

Pesticide Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-952

Method/Analysis Information

Procedure:	**Analysis of Organochlorine Pesticides and Chlorinated Hydrocarbons by ECD**
Analytical Method:	SW846 8081A
Prep Method:	SW846 3510C
Analytical Batch Number:	935414
Prep Batch Number:	935412

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8081A:

Sample ID	Client ID
243099001	CAPA-10-6818
1202001567	Method Blank (MB)
1202001568	Laboratory Control Sample (LCS)
1202001571	Laboratory Control Sample (LCS)-Toxaphene LCS Only
1202001569	243284002(CAPA-10-6390) Matrix Spike (MS)
1202001570	243284002(CAPA-10-6390) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-041 REV# 10.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
The calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

Two of five peaks failed with a positive bias in the Toxaphene standard bracketing the samples in this SDG; however, the average amount of the five peaks met the acceptance criteria.

Gamma Chlordane and Endosulfan I failed with a positive bias in the standards bracketing the samples in this SDG. The positive bias for the analytical data is a result of instrument response increasing after the initial calibration. These target analytes were not detected above the PQL in the samples; therefore, the non-compliance has no adverse effects on the data.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-997) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD were not within the required acceptance limits for several spiking target analytes due to high spike recovery in the MSD.

Technical Information:

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. Sample extracts were cleaned with Florisil prior to analysis.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Samples were re-analyzed with a passing initial bracketing standard.

Miscellaneous Information:

Electronic Package Comment

This package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative.

Data Exception (DER) Documentation

Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integrations

Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this pesticide fraction.

Additional Comments

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The front column results has been chosen and reported in the data package for the client samples, MB and LCS per the PM and Quality dept. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-Pesticide analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD3A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD3A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Andy Whittock Date: 1-14-2010

Roadmap for LANL 10-952 PEST

This roadmap was analyzed by cla01575 on 01-12-2010, 09:12.
This roadmap was reviewed by jcb on 01-12-2010, 13:27.
This roadmap was validated by yml on 01-14-2010, 11:08.
This roadmap was validated by rob01090 on 01-14-2010, 19:51.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/010410p.b/018f1801.d	243099001	sample	04-JAN-2010	16:38	10-952.sub	CAPA-10-6818	1.00000	935414	USE - uploaded both columns, reporting Front result per Quality

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/010410p.b/018b1801.d	243099001	sample	04-JAN-2010	16:38	10-952.sub	CAPA-10-6818	1.00000	935414	USE - uploaded both columns, reporting Front result per Quality

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/010410p.b/014f1401-52.d	1202001567	mb	04-JAN-2010	15:43	10-952.sub	PBLK01	1.00000	935414	
☐	N	/chem/ecd3a.i/010410p.b/015f1501-52.d	1202001568	lcs	04-JAN-2010	15:57	10-952.sub	PBLK01LCS	1.00000	935414	
☐	N	/chem/ecd3a.i/010410p.b/016f1601-52.d	1202001571	lcs	04-JAN-2010	16:11	10-952.sub	PBLK01TLCS	1.00000	935414	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd3a.i/010410p.b/014b1401-52.d	1202001567	mb	04-JAN-2010	15:43	10-952.sub	PBLK01	1.00000	935414	
☐	N	/chem/ecd3a.i/010410p.b/015b1501-52.d	1202001568	lcs	04-JAN-2010	15:57	10-952.sub	PBLK01LCS	1.00000	935414	
☐	N	/chem/ecd3a.i/010410p.b/016b1601-52.d	1202001571	lcs	04-JAN-2010	16:11	10-952.sub	PBLK01TLCS	1.00000	935414	

SAMPLE DATA SUMMARY

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–952	**Date Collected:**	12/15/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	243099001	**Date Received:**	12/17/2009 09:20		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA–10–6818	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	935414	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	01/04/2010 16:38	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 19:38	**Aliquot:**	920 mL	**Final Volume:**	5 mL
Data File:	018f1801.d	**Column:**	1 CLP–1	**Level:**	LOW
	018b1801.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.0217	ug/L	0.00543	0.0217	1
58–89–9	gamma–BHC (Lindane)	U	0.0217	ug/L	0.00543	0.0217	1
319–85–7	beta–BHC	U	0.0217	ug/L	0.00652	0.0217	1
319–86–8	delta–BHC	U	0.0217	ug/L	0.00543	0.0217	1
76–44–8	Heptachlor	U	0.0217	ug/L	0.00543	0.0217	1
309–00–2	Aldrin	U	0.0217	ug/L	0.00543	0.0217	1
1024–57–3	Heptachlor epoxide	U	0.0217	ug/L	0.00543	0.0217	1
5103–74–2	gamma–Chlordane	U	0.0217	ug/L	0.00543	0.0217	1
5103–71–9	alpha–Chlordane	U	0.0217	ug/L	0.00543	0.0217	1
959–98–8	Endosulfan I	U	0.0217	ug/L	0.00543	0.0217	1
72–55–9	4,4'–DDE	U	0.0435	ug/L	0.00543	0.0435	1
60–57–1	Dieldrin	U	0.0435	ug/L	0.0109	0.0435	1
72–20–8	Endrin	U	0.0435	ug/L	0.0109	0.0435	1
72–54–8	4,4'–DDD	U	0.0435	ug/L	0.0109	0.0435	1
33213–65–9	Endosulfan II	U	0.0435	ug/L	0.0109	0.0435	1
7421–93–4	Endrin aldehyde	U	0.0435	ug/L	0.00543	0.0435	1
50–29–3	4,4'–DDT	U	0.0435	ug/L	0.0109	0.0435	1
1031–07–8	Endosulfan sulfate	U	0.0435	ug/L	0.0109	0.0435	1
72–43–5	Methoxychlor	U	0.217	ug/L	0.0543	0.217	1
53494–70–5	Endrin ketone	U	0.0435	ug/L	0.0109	0.0435	1
8001–35–2	Toxaphene	U	0.543	ug/L	0.163	0.543	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.530	1.09	ug/L	48.7	(29%–103%)
Decachlorobiphenyl	0.703	1.09	ug/L	64.7	(34%–118%)

QUALITY CONTROL SUMMARY

Pesticide

Surrogate Recovery Report

SDG Number: 10–952

Matrix Type: LIQUID

CAP Column (1) : CLP–1 **CAP Column (2) : CLP–2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202001567	MB for batch 935412	48	48	62	63
1202001568	LCS for batch 935412	41	42	59	60
1202001571	LCS for batch 935412	49	47	71	72
243099001	CAPA–10–6818	49	51	65	67

Surrogate	Acceptance Limits
4CMX = 4cmx	(29%–103%)
DCB = Decachlorobiphenyl	(34%–118%)

* Recovery outside Acceptance Limits
# Column to be used to flag recovery values
D Sample Diluted

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Client ID: LCS for batch 935412
Lab Sample ID: 1202001568
Instrument: ECD3A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 01/04/2010 15:57
Dilution: 1
Prep Batch ID: 935412
Batch ID: 935414

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
319-84-6	LCS	alpha-BHC	0.500	0.0	0.283	57	52-146
58-89-9	LCS	gamma-BHC (Lindane)	0.500	0.0	0.313	63	49-138
319-85-7	LCS	beta-BHC	0.500	0.0	0.309	62	49-138
319-86-8	LCS	delta-BHC	0.500	0.0	0.294	59	54-148
76-44-8	LCS	Heptachlor	0.500	0.0	0.262	52	38-132
309-00-2	LCS	Aldrin	0.500	0.0	0.244	49	37-137
1024-57-3	LCS	Heptachlor epoxide	0.500	0.0	0.305	61	49-134
5103-74-2	LCS	gamma-Chlordane	0.500	0.0	0.280	56	50-147
5103-71-9	LCS	alpha-Chlordane	0.500	0.0	0.297	59	50-144
959-98-8	LCS	Endosulfan I	0.500	0.0	0.323	65	41-137
72-55-9	LCS	4,4'-DDE	1.25	0.0	0.746	60	52-148
60-57-1	LCS	Dieldrin	1.25	0.0	0.788	63	51-141
72-20-8	LCS	Endrin	1.25	0.0	0.877	70	56-145
72-54-8	LCS	4,4'-DDD	1.25	0.0	0.839	67	55-151
33213-65-9	LCS	Endosulfan II	1.25	0.0	0.864	69	43-142
7421-93-4	LCS	Endrin aldehyde	1.25	0.0	0.742	59	51-145
50-29-3	LCS	4,4'-DDT	1.25	0.0	0.827	66	55-156
1031-07-8	LCS	Endosulfan sulfate	1.25	0.0	0.860	69	52-145
72-43-5	LCS	Methoxychlor	5.00	0.0	3.06	61	53-151
53494-70-5	LCS	Endrin ketone	1.25	0.0	0.799	64	50-151

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-952
Client ID: LCS for batch 935412
Lab Sample ID: 1202001571
Instrument: ECD3A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 01/04/2010 16:11
Dilution: 1
Prep Batch ID: 935412
Batch ID: 935414

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
8001-35-2	LCS Toxaphene	4.00	0.0	2.98	75	41-143

Quality Control Summary
Spike Recovery Report

SDG Number: 10-997 **Sample Type:** Matrix Spike
Client ID: CAPA-10-6390MS **Matrix:** GROUND WATER
Lab Sample ID: 1202001569
Instrument: ECD3A.I **Analysis Date:** 01/04/2010 18:17 **Dilution:** 1
Analyst: HXJ1 **Prep Batch ID** 935412
Inj. Vol: 1 uL **Batch ID:** 935414

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
319-84-6	MS	alpha-BHC	0.500	0.00	U	0.308	62	40-143
58-89-9	MS	gamma-BHC (Lindane)	0.500	0.00	U	0.342	68	46-132
319-85-7	MS	beta-BHC	0.500	0.00	U	0.378	76	38-140
319-86-8	MS	delta-BHC	0.500	0.00	U	0.325	65	39-148
76-44-8	MS	Heptachlor	0.500	0.00	U	0.308	62	37-127
309-00-2	MS	Aldrin	0.500	0.00	U	0.289	58	37-130
1024-57-3	MS	Heptachlor epoxide	0.500	0.00	U	0.337	67	44-129
5103-74-2	MS	gamma-Chlordane	0.500	0.00	U	0.319	64	39-146
5103-71-9	MS	alpha-Chlordane	0.500	0.00	U	0.332	66	40-140
959-98-8	MS	Endosulfan I	0.500	0.00	U	0.354	71	36-133
72-55-9	MS	4,4'-DDE	1.25	0.00	U	0.838	67	40-148
60-57-1	MS	Dieldrin	1.25	0.00	U	0.867	69	41-140
72-20-8	MS	Endrin	1.25	0.00	U	0.984	79	48-145
72-54-8	MS	4,4'-DDD	1.25	0.00	U	0.933	75	38-155
33213-65-9	MS	Endosulfan II	1.25	0.00	U	0.959	77	38-141
7421-93-4	MS	Endrin aldehyde	1.25	0.00	U	0.813	65	34-143
50-29-3	MS	4,4'-DDT	1.25	0.00	U	0.937	75	42-159
1031-07-8	MS	Endosulfan sulfate	1.25	0.00	U	0.974	78	39-143
72-43-5	MS	Methoxychlor	5.00	0.00	U	3.50	70	47-156
53494-70-5	MS	Endrin ketone	1.25	0.00	U	0.900	72	41-150

Quality Control Summary
Spike Recovery Report

SDG Number: 10-997 **Sample Type:** Matrix Spike Duplicate
Client ID: CAPA-10-6390MSD **Matrix:** GROUND WATER
Lab Sample ID: 1202001570
Instrument: ECD3A.I **Analysis Date:** 01/04/2010 18:31 **Dilution:** 1
Analyst: HXJ1 **Prep Batch ID:** 935412
Inj. Vol: 1 uL **Batch ID:** 935414

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
319-84-6	MSD alpha-BHC	0.500	0.00	U	0.419	84	40-143	30	0-30
58-89-9	MSD gamma-BHC (Lindane)	0.500	0.00	U	0.476	95	46-132	33 *	0-30
319-85-7	MSD beta-BHC	0.500	0.00	U	0.503	101	38-140	28	0-30
319-86-8	MSD delta-BHC	0.500	0.00	U	0.455	91	39-148	33 *	0-30
76-44-8	MSD Heptachlor	0.500	0.00	U	0.428	86	37-127	33 *	0-30
309-00-2	MSD Aldrin	0.500	0.00	U	0.409	82	37-130	35 *	0-30
1024-57-3	MSD Heptachlor epoxide	0.500	0.00	U	0.467	93	44-129	32 *	0-30
5103-74-2	MSD gamma-Chlordane	0.500	0.00	U	0.443	89	39-146	33 *	0-30
5103-71-9	MSD alpha-Chlordane	0.500	0.00	U	0.458	92	40-140	32 *	0-30
959-98-8	MSD Endosulfan I	0.500	0.00	U	0.490	98	36-133	32 *	0-30
72-55-9	MSD 4,4'-DDE	1.25	0.00	U	1.14	91	40-148	31 *	0-30
60-57-1	MSD Dieldrin	1.25	0.00	U	1.18	94	41-140	31 *	0-30
72-20-8	MSD Endrin	1.25	0.00	U	1.34	108	48-145	31 *	0-30
72-54-8	MSD 4,4'-DDD	1.25	0.00	U	1.26	101	38-155	30	0-30
33213-65-9	MSD Endosulfan II	1.25	0.00	U	1.30	104	38-141	31 *	0-30
7421-93-4	MSD Endrin aldehyde	1.25	0.00	U	1.16	93	34-143	35 *	0-30
50-29-3	MSD 4,4'-DDT	1.25	0.00	U	1.27	102	42-159	30	0-30
1031-07-8	MSD Endosulfan sulfate	1.25	0.00	U	1.35	108	39-143	32 *	0-30
72-43-5	MSD Methoxychlor	5.00	0.00	U	4.69	94	47-156	29	0-30
53494-70-5	MSD Endrin ketone	1.25	0.00	U	1.22	97	41-150	30	0-30

Method Blank Summary

SDG Number:	10–952	Client:	LANL010	Matrix:	GROUND WATER
Client ID:	MB for batch 935412	Instrument ID:	ECD3A.I_2 ECD3A.I_1	Data File:	014b1401–52.d 014f1401–52.d
Lab Sample ID:	1202001567				
Column:	CLP–2 CLP–1	Prep Date:	12/21/2009 19:38	Analyzed:	01/04/10 15:43
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 935412	1202001568	015f1501–52.d 015b1501–52.d	01/04/10	1557
02 LCS for batch 935412	1202001571	016f1601–52.d 016b1601–52.d	01/04/10	1611
03 CAPA–10–6818	243099001	018f1801.d 018b1801.d	01/04/10	1638

SAMPLE DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–952	**Date Collected:**	12/15/2009 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	243099001	**Date Received:**	12/17/2009 09:20		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA–10–6818	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	935414	**Inst:**	ECD3A.I	**Dilution:**	1
Run Date:	01/04/2010 16:38	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	12/21/2009 19:38	**Aliquot:**	920 mL	**Final Volume:**	5 mL
Data File:	018f1801.d	**Column:**	1 CLP–1	**Level:**	LOW
	018b1801.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.0217	ug/L	0.00543	0.0217	1
58–89–9	gamma–BHC (Lindane)	U	0.0217	ug/L	0.00543	0.0217	1
319–85–7	beta–BHC	U	0.0217	ug/L	0.00652	0.0217	1
319–86–8	delta–BHC	U	0.0217	ug/L	0.00543	0.0217	1
76–44–8	Heptachlor	U	0.0217	ug/L	0.00543	0.0217	1
309–00–2	Aldrin	U	0.0217	ug/L	0.00543	0.0217	1
1024–57–3	Heptachlor epoxide	U	0.0217	ug/L	0.00543	0.0217	1
5103–74–2	gamma–Chlordane	U	0.0217	ug/L	0.00543	0.0217	1
5103–71–9	alpha–Chlordane	U	0.0217	ug/L	0.00543	0.0217	1
959–98–8	Endosulfan I	U	0.0217	ug/L	0.00543	0.0217	1
72–55–9	4,4'–DDE	U	0.0435	ug/L	0.00543	0.0435	1
60–57–1	Dieldrin	U	0.0435	ug/L	0.0109	0.0435	1
72–20–8	Endrin	U	0.0435	ug/L	0.0109	0.0435	1
72–54–8	4,4'–DDD	U	0.0435	ug/L	0.0109	0.0435	1
33213–65–9	Endosulfan II	U	0.0435	ug/L	0.0109	0.0435	1
7421–93–4	Endrin aldehyde	U	0.0435	ug/L	0.00543	0.0435	1
50–29–3	4,4'–DDT	U	0.0435	ug/L	0.0109	0.0435	1
1031–07–8	Endosulfan sulfate	U	0.0435	ug/L	0.0109	0.0435	1
72–43–5	Methoxychlor	U	0.217	ug/L	0.0543	0.217	1
53494–70–5	Endrin ketone	U	0.0435	ug/L	0.0109	0.0435	1
8001–35–2	Toxaphene	U	0.543	ug/L	0.163	0.543	1

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
4cmx	0.530	1.09	ug/L	48.7	(29%–103%)
Decachlorobiphenyl	0.703	1.09	ug/L	64.7	(34%–118%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010410p.b/018f1801.d
Lab Smp Id: 243099001 Client Smp ID: CAPA-10-6818
Inj Date : 04-JAN-2010 16:38
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |243099001|1|
Misc Info : |ECD81A_1L|935414|SVP|LANL|GROUND WATER|CAPA-10-6818|||
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-952.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	920.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.676	2.676	0.000	6603892	97.4480	0.530	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.823	7.823	0.000	6707307	129.340	0.703	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/018f1801.d

Page 1

Date : 04-JAN-2010 16:38

Client ID: CAPA-10-6818

Instrument: ecd3a.i

Sample Info: |243099001|1|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

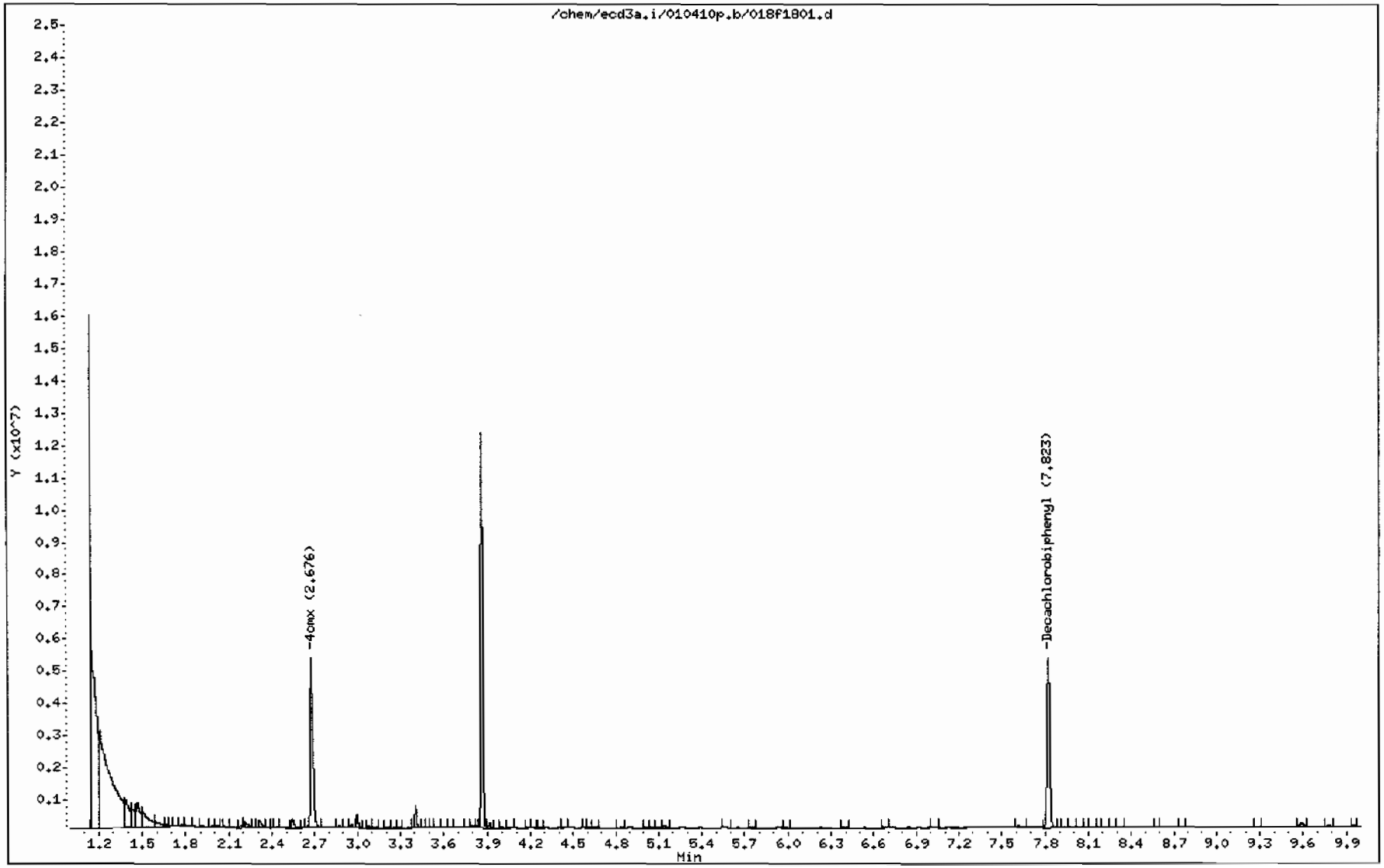

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010410p.b/018b1801.d
Lab Smp Id: 243099001 Client Smp ID: CAPA-10-6818
Inj Date : 04-JAN-2010 16:38
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |243099001|1|
Misc Info : |ECD81A_1L|935414|SVP|LANL|GROUND WATER|CAPA-10-6818|||
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 07-Jan-2010 11:48 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-952.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	920.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	51434056	102.862	0.559	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.859	8.859	0.000	53007904	134.478	0.731	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/018b1801.d
Date : 04-JAN-2010 16:38
Client ID: CAPA-10-6818
Sample Info: |243099001|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

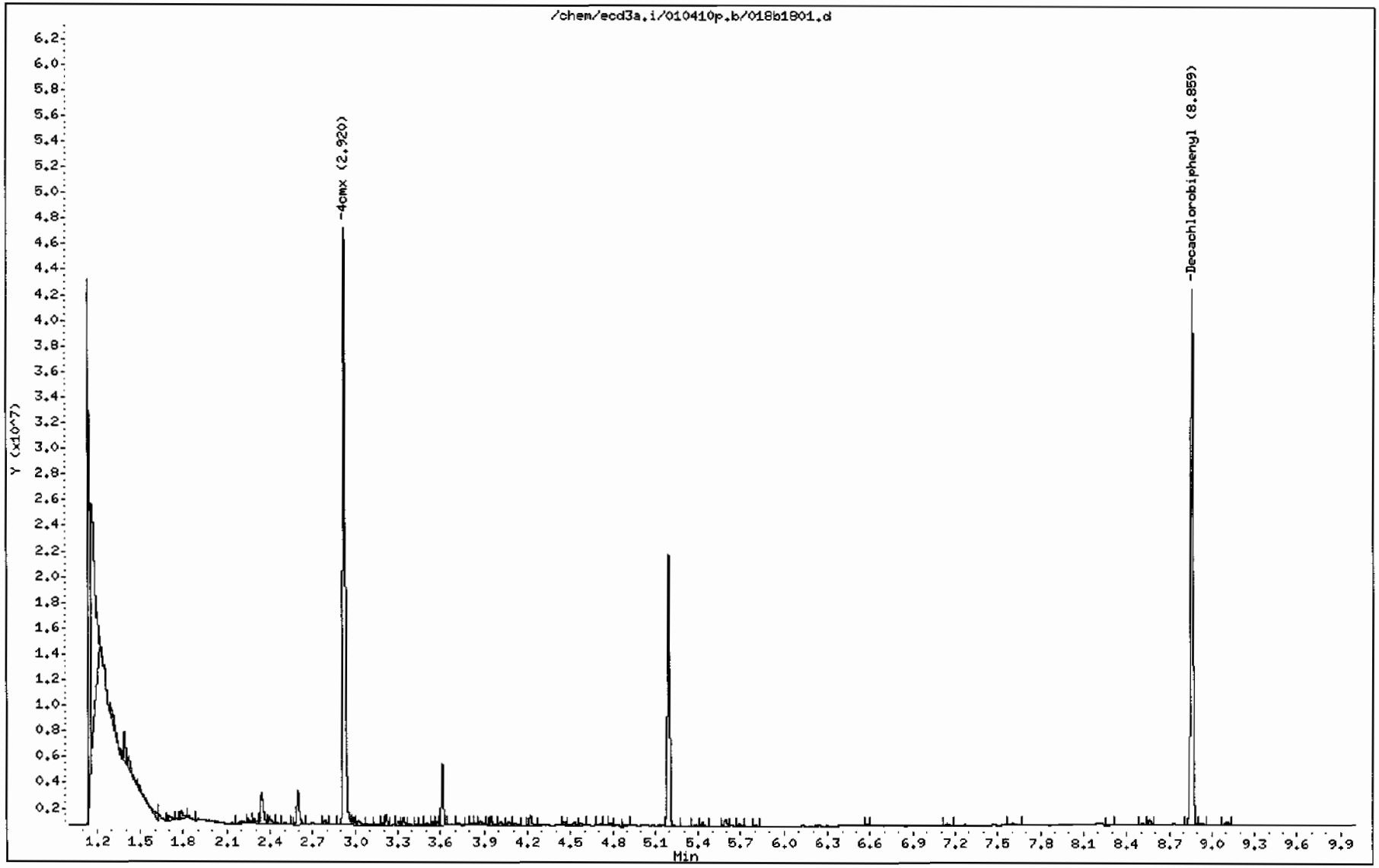

STANDARDS DATA

Report Date: 06-Jan-2010 14:37

Calibration History

Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Start Cal Date: 29-DEC-2009 17:34
End Cal Date : 04-JAN-2010 14:34

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
29-DEC-2009 20:42	chlor	/chem/ecd3a.i/122909p.b/016f1601.d
29-DEC-2009 18:56	tox	/chem/ecd3a.i/122909p.b/009f0901.d
04-JAN-2010 13:40	indab	/chem/ecd3a.i/010410p.b/006f0601.d
Cal Level: 2 , Cal Amount: 10.00000		
29-DEC-2009 21:14	chlor	/chem/ecd3a.i/122909p.b/017f1701.d
29-DEC-2009 19:10	tox	/chem/ecd3a.i/122909p.b/010f1001.d
04-JAN-2010 13:53	indab	/chem/ecd3a.i/010410p.b/007f0701.d
Cal Level: 3 , Cal Amount: 50.00000		
29-DEC-2009 21:28	chlor	/chem/ecd3a.i/122909p.b/018f1801.d
29-DEC-2009 19:24	tox	/chem/ecd3a.i/122909p.b/011f1101.d
04-JAN-2010 14:07	indab	/chem/ecd3a.i/010410p.b/008f0801.d
Cal Level: 4 , Cal Amount: 100.00000		
29-DEC-2009 21:41	chlor	/chem/ecd3a.i/122909p.b/019f1901.d
29-DEC-2009 20:01	tox	/chem/ecd3a.i/122909p.b/013f1301.d
04-JAN-2010 14:21	indab	/chem/ecd3a.i/010410p.b/009f0901.d
Cal Level: 5 , Cal Amount: 200.00000		
29-DEC-2009 21:55	chlor	/chem/ecd3a.i/122909p.b/020f2001.d
29-DEC-2009 20:14	tox	/chem/ecd3a.i/122909p.b/014f1401.d
04-JAN-2010 14:34	indab	/chem/ecd3a.i/010410p.b/010f1001.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
05-JAN-2010 03:37	indab	/chem/ecd3a.i/010410p.b/066f6601.d
Ccal Level: 4 , Ccal Amount: 100		
05-JAN-2010 00:40	indab	/chem/ecd3a.i/010410p.b/053f5301.d
Ccal Level: 4 , Ccal Amount: 100		

04-JAN-2010 22:23	indab	/chem/ecd3a.i/010410p.b/043f4301.d
Ccal Level: 4 , Ccal Amount: 100		
04-JAN-2010 19:26	indab	/chem/ecd3a.i/010410p.b/030f3001.d
Ccal Level: 4 , Ccal Amount: 100		
04-JAN-2010 17:23	indab	/chem/ecd3a.i/010410p.b/021f2101.d
Ccal Level: 4 , Ccal Amount: 100		
04-JAN-2010 13:24	chlor	/chem/ecd3a.i/010410p.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 100		
04-JAN-2010 13:10	tox	/chem/ecd3a.i/010410p.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 100		
04-JAN-2010 15:02	indab	/chem/ecd3a.i/010410p.b/012f1201.d
Ccal Level: 4 , Ccal Amount: 100		
04-JAN-2010 14:21	indab	/chem/ecd3a.i/010410p.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 100		
31-DEC-2009 17:13	all	/chem/ecd6a.i/123109.b/011f1101.d
Ccal Level: 4 , Ccal Amount: 100		
04-JAN-2010 12:38	indab	/chem/ecd3a.i/010410p.b/003f0301.d

Report Date: 14-Jan-2010 14:06

Calibration History

Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Start Cal Date: 29-DEC-2009 17:34
End Cal Date : 04-JAN-2010 14:34

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
29-DEC-2009 20:42	chlor	/chem/ecd3a.i/122909p.b/016b1601.d
29-DEC-2009 18:56	tox	/chem/ecd3a.i/122909p.b/009b0901.d
04-JAN-2010 13:40	indab	/chem/ecd3a.i/010410p.b/006b0601.d
Cal Level: 2 , Cal Amount: 10.00000		
29-DEC-2009 21:14	chlor	/chem/ecd3a.i/122909p.b/017b1701.d
29-DEC-2009 19:10	tox	/chem/ecd3a.i/122909p.b/010b1001.d
04-JAN-2010 13:53	indab	/chem/ecd3a.i/010410p.b/007b0701.d
Cal Level: 3 , Cal Amount: 50.00000		
29-DEC-2009 21:28	chlor	/chem/ecd3a.i/122909p.b/018b1801.d
29-DEC-2009 19:24	tox	/chem/ecd3a.i/122909p.b/011b1101.d
04-JAN-2010 14:07	indab	/chem/ecd3a.i/010410p.b/008b0801.d
Cal Level: 4 , Cal Amount: 100.00000		
29-DEC-2009 21:41	chlor	/chem/ecd3a.i/122909p.b/019b1901.d
29-DEC-2009 20:01	tox	/chem/ecd3a.i/122909p.b/013b1301.d
04-JAN-2010 14:21	indab	/chem/ecd3a.i/010410p.b/009b0901.d
Cal Level: 5 , Cal Amount: 200.00000		
29-DEC-2009 21:55	chlor	/chem/ecd3a.i/122909p.b/020b2001.d
29-DEC-2009 20:14	tox	/chem/ecd3a.i/122909p.b/014b1401.d
04-JAN-2010 14:34	indab	/chem/ecd3a.i/010410p.b/010b1001.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
05-JAN-2010 03:37	indab	/chem/ecd3a.i/010410p.b/066b6601.d
Ccal Level: 4 , Ccal Amount: 100		
05-JAN-2010 00:40	indab	/chem/ecd3a.i/010410p.b/053b5301.d
Ccal Level: 4 , Ccal Amount: 100		
04-JAN-2010 22:23	indab	/chem/ecd3a.i/010410p.b/043b4301.d
Ccal Level: 4 , Ccal Amount: 100		

```
|04-JAN-2010 19:26 |indab            |/chem/ecd3a.i/010410p.b/030b3001.d      |
+------------------+-----------------+---------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                            |
+=============================================================================+
|04-JAN-2010 17:23 |indab            |/chem/ecd3a.i/010410p.b/021b2101.d      |
+------------------+-----------------+---------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                            |
+=============================================================================+
|04-JAN-2010 15:02 |indab            |/chem/ecd3a.i/010410p.b/012b1201.d      |
+------------------+-----------------+---------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                            |
+=============================================================================+
|04-JAN-2010 13:24 |chlor            |/chem/ecd3a.i/010410p.b/005b0501.d      |
+------------------+-----------------+---------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                            |
+=============================================================================+
|04-JAN-2010 13:10 |tox              |/chem/ecd3a.i/010410p.b/004b0401.d      |
+------------------+-----------------+---------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                            |
+=============================================================================+
|04-JAN-2010 14:21 |indab            |/chem/ecd3a.i/010410p.b/009b0901.d      |
+------------------+-----------------+---------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                            |
+=============================================================================+
|04-JAN-2010 12:38 |indab            |/chem/ecd3a.i/010410p.b/003b0301.d      |
+------------------+-----------------+---------------------------------------+
```

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Quant Method : ESTD Target Version : 3.50
Last Update : 06-Jan-2010 14:27 Number of Cpnds : 44
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1005.000000
Initial:End Threshold	502.500000
Initial:Area Threshold	10005.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	5.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.676	2.646-2.706	6.777e+04
63 2,4,5-Trichlorophenol	1.334	1.234-1.434	
59 Hexachlorobenzene	3.098	2.998-3.198	
2 Aroclor-1221	2.920	2.890-2.950	
	3.052	3.022-3.082	
	3.087	3.057-3.117	
3 Aroclor-1016	3.727	3.697-3.757	
	3.822	3.792-3.852	
	3.866	3.836-3.896	
	3.950	3.920-3.980	
	4.102	4.072-4.132	
4 Aroclor-1232	3.377	3.347-3.407	
	3.536	3.506-3.566	
	3.727	3.697-3.757	
	3.822	3.792-3.852	
	4.379	4.349-4.409	
5 alpha-BHC	3.082	3.052-3.112	1.064e+05
6 Aroclor-1242	3.377	3.277-3.477	
	3.728	3.628-3.828	
	3.866	3.766-3.966	
	4.379	4.279-4.479	
	4.398	4.298-4.498	
7 gamma-BHC (Lindane)	3.328	3.298-3.358	8.306e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.646	3.546-3.746	2.510e+03
	4.083	3.983-4.183	2.557e+03
	4.447	4.347-4.547	1.407e+03
	4.621	4.521-4.721	8.435e+03
	5.488	5.388-5.588	1.813e+03
9 Aroclor-1248	3.949	3.849-4.049	
	4.103	4.003-4.203	
	4.159	4.059-4.259	
	4.378	4.278-4.478	
	4.768	4.668-4.868	
10 Heptachlor	3.711	3.681-3.741	6.505e+04
11 Aldrin	3.969	3.939-3.999	7.973e+04
12 beta-BHC	3.392	3.362-3.422	3.582e+04
13 delta-BHC	3.539	3.509-3.569	8.551e+04
14 Heptachlor epoxide	4.504	4.474-4.534	7.123e+04
15 Aroclor-1254	4.352	4.322-4.382	
	4.516	4.486-4.546	
	4.769	4.739-4.799	
	4.937	4.907-4.967	
	5.219	5.189-5.249	
16 Endosulfan I	4.874	4.844-4.904	6.168e+04
17 gamma-Chlordane	4.619	4.589-4.649	6.842e+04
18 alpha-Chlordane	4.743	4.713-4.773	6.955e+04
19 4,4'-DDE	4.810	4.780-4.840	6.853e+04
20 Dieldrin	5.103	5.073-5.133	7.124e+04
21 Aroclor-1260	4.881	4.781-4.981	
	5.046	4.946-5.146	
	5.125	5.025-5.225	
	5.219	5.119-5.319	
	5.436	5.336-5.536	
22 Endrin	5.331	5.301-5.361	5.696e+04
23 Toxaphene	5.014	4.984-5.044	4.853e+02
	5.119	5.089-5.149	7.541e+02
	5.204	5.174-5.234	8.704e+02
	5.364	5.333-5.394	1.137e+03
	5.554	5.524-5.584	2.022e+03
24 Endosulfan II	5.555	5.525-5.585	5.849e+04
25 4,4'-DDD	5.393	5.363-5.423	5.508e+04
26 4,4'-DDT	5.672	5.642-5.702	4.500e+04
27 Endrin aldehyde	5.980	5.950-6.010	4.929e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m

	Compound	RT	RT Window	RF
	28 Methoxychlor	6.176	6.146-6.206	2.218e+04
	29 Endosulfan sulfate	6.433	6.403-6.463	4.776e+04
	30 Aroclor-1268	5.050	4.950-5.150	
		5.067	4.967-5.167	
		5.185	5.085-5.285	
		5.378	5.278-5.478	
		5.531	5.431-5.631	
	61 Aroclor-1262	4.121	4.021-4.221	
		4.289	4.189-4.389	
		4.525	4.425-4.625	
		4.671	4.571-4.771	
		4.854	4.754-4.954	
	31 Endrin ketone	6.730	6.700-6.760	6.439e+04
	51 Mirex	5.620	5.590-5.650	
	52 C-Nonachlor	5.043	5.013-5.073	
	53 O-Chlordane	4.411	4.381-4.441	
	54 T-Nonachlor	4.632	4.602-4.662	
	55 1,2-Dichlorobenzene	6.525	6.495-6.555	
	56 2,4-DDE	4.471	4.441-4.501	
	58 2,4-DDD	4.798	4.768-4.828	
	57 2,4-DDT	4.955	4.925-4.985	
$	32 Decachlorobiphenyl	7.823	7.793-7.853	5.186e+04
M	62 TTO Sum Pesticides	1.000	0.980-1.020	

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COMPOUND LISTING

Method file : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Quant Method : ESTD Target Version : 3.50
Last Update : 06-Jan-2010 14:27 Number of Cpnds : 43
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	9270.000000
Initial:End Threshold	4635.000000
Initial:Area Threshold	92700.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	10.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.920	2.890-2.950	5.000e+05
61 2,4,5-Trichlorophenol	1.631	1.531-1.731	
59 Hexachlorobenzene	3.571	3.541-3.601	
2 Aroclor-1221	3.414	3.384-3.444	
	3.531	3.501-3.561	
	3.579	3.549-3.609	
3 Aroclor-1016	4.216	4.186-4.246	
	4.378	4.348-4.408	
	4.466	4.436-4.496	
	4.617	4.587-4.647	
	4.999	4.969-5.029	
4 Aroclor-1232	3.579	3.549-3.609	
	4.216	4.186-4.246	
	4.307	4.277-4.337	
	4.617	4.587-4.647	
	4.887	4.857-4.917	
5 alpha-BHC	3.413	3.383-3.443	6.855e+05
6 Aroclor-1242	3.888	3.858-3.918	
	4.308	4.278-4.338	
	4.378	4.348-4.408	
	4.617	4.587-4.647	
	4.698	4.668-4.728	
7 gamma-BHC (Lindane)	3.722	3.692-3.752	5.812e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.999	3.969-4.029	1.597e+04
	4.577	4.547-4.607	1.176e+04
	4.957	4.927-4.987	6.808e+03
	5.335	5.305-5.365	2.675e+04
	6.275	6.245-6.305	1.236e+04
9 Aroclor-1248	4.436	4.406-4.466	
	4.617	4.587-4.647	
	4.697	4.667-4.727	
	4.856	4.826-4.886	
	5.034	5.004-5.064	
10 Heptachlor	4.135	4.105-4.165	4.236e+05
11 Aldrin	4.447	4.417-4.477	3.799e+05
12 beta-BHC	3.784	3.754-3.814	2.536e+05
13 delta-BHC	4.056	4.026-4.086	5.265e+05
14 Heptachlor epoxide	4.998	4.968-5.028	3.061e+05
15 Aroclor-1254	4.885	4.855-4.915	
	4.999	4.969-5.029	
	5.290	5.260-5.320	
	5.423	5.393-5.453	
	5.749	5.719-5.779	
16 Endosulfan I	5.399	5.369-5.429	2.828e+05
17 gamma-Chlordane	5.188	5.158-5.218	2.896e+05
18 alpha-Chlordane	5.336	5.306-5.366	2.986e+05
19 4,4'-DDE	5.493	5.463-5.523	2.959e+05
20 Dieldrin	5.679	5.649-5.709	3.456e+05
21 Aroclor-1260	5.310	5.280-5.340	
	5.406	5.376-5.436	
	5.526	5.496-5.556	
	5.628	5.598-5.658	
	5.749	5.719-5.779	
22 Endrin	5.999	5.969-6.029	3.364e+05
23 Toxaphene	5.662	5.632-5.691	5.066e+03
	5.783	5.753-5.813	2.991e+03
	6.173	6.144-6.204	6.013e+03
	6.216	6.186-6.246	1.060e+04
	6.319	6.289-6.349	1.915e+04
24 Endosulfan II	6.220	6.190-6.250	3.949e+05
25 4,4'-DDD	6.099	6.069-6.129	3.419e+05
26 4,4'-DDT	6.438	6.408-6.468	3.589e+05
27 Endrin aldehyde	6.576	6.546-6.606	3.833e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m

Compound	RT	RT Window	RF
28 Methoxychlor	7.180	7.150-7.210	1.980e+05
29 Endosulfan sulfate	6.879	6.849-6.909	4.704e+05
30 Aroclor-1268	5.217	5.187-5.247	
	5.596	5.566-5.626	
	5.628	5.598-5.658	
	5.769	5.739-5.799	
	6.149	6.119-6.179	
60 Aroclor-1262	4.689	4.589-4.789	
	4.779	4.679-4.879	
	5.074	4.974-5.174	
	5.224	5.124-5.324	
	5.396	5.296-5.496	
31 Endrin ketone	7.471	7.441-7.501	5.799e+05
51 Mirex	6.337	6.307-6.367	
52 C-Nonachlor	5.549	5.519-5.579	
53 O-Chlordane	4.834	4.804-4.864	
54 T-Nonachlor	5.070	5.040-5.100	
55 1,2-Dichlorobenzene	6.619	6.589-6.649	
56 2,4-DDE	5.000	4.970-5.030	
58 2,4-DDD	5.319	5.289-5.349	
57 2,4-DDT	5.509	5.479-5.539	
$ 32 Decachlorobiphenyl	8.859	8.829-8.889	3.942e+05

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INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 04-JAN-2010 14:34
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Cal Date : 06-Jan-2010 14:27 cla01575

Calibration File Names:
Level 1: /chem/ecd3a.i/122909p.b/016f1601.d
Level 2: /chem/ecd3a.i/122909p.b/017f1701.d
Level 3: /chem/ecd3a.i/122909p.b/018f1801.d
Level 4: /chem/ecd3a.i/122909p.b/019f1901.d
Level 5: /chem/ecd3a.i/122909p.b/020f2001.d

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
63 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
59 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
2 Aroclor-1221 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
3 Aroclor-1016 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
4 Aroclor-1232 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
5 alpha-BHC	276561	784147	4754635	10200718	21049732	LINR	3.14094	106421		0.99962
6 Aroclor-1242 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 04-JAN-2010 14:34
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Cal Date : 06-Jan-2010 14:27 cla01575

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
7 gamma-BHC (Lindane)	72701	74595	85079	90182	92753	AVRG		83062		10.89732
8 Chlordane (tech.) (1)	2125	2195	2493	2718	3020	AVRG		2510		14.79274
(2)	2434	2422	2516	2647	2767	AVRG		2557		5.76710
(3)	1197	1289	1370	1508	1672	AVRG		1407		13.25852
(4)	6942	7337	8576	9356	9966	AVRG		8435		15.27981
(5)	1589	1611	1721	1967	2176	AVRG		1813		13.93886
9 Aroclor-1248 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
10 Heptachlor	58234	59729	65888	69450	71957	AVRG		65052		9.17645
11 Aldrin	71701	73132	81746	85512	86578	AVRG		79734		8.69756
12 beta-BHC	33697	34158	35794	37327	38138	AVRG		35823		5.39040
13 delta-BHC	85433	78554	83551	88366	91648	AVRG		85510		5.79014
14 Heptachlor epoxide	64116	66201	73058	75678	77108	AVRG		71232		8.11258
15 Aroclor-1254 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
16 Endosulfan I	49870	58038	63917	67614	68951	AVRG		61678		12.71010
17 gamma-Chlordane	55961	60766	71694	76412	77254	AVRG		68417		13.98957
18 alpha-Chlordane	60988	64350	70992	75249	76181	AVRG		69552		9.61462

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 04-JAN-2010 14:34
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Cal Date : 06-Jan-2010 14:27 cla01575

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
19 4,4'-DDE	57534	65123	71858	73880	74252	AVRG		68529		10.44578
20 Dieldrin	59790	66080	74832	77282	78213	AVRG		71240		11.22467
21 Aroclor-1260 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
22 Endrin	47486	54280	59834	60860	62358	AVRG		56963		10.73404
23 Toxaphene (1)	444	472	490	512	508	AVRG		485		5.76611
(2)	743	763	748	749	767	AVRG		754		1.36434
(3)	740	862	877	929	944	AVRG		870		9.23030
(4)	990	1124	1153	1182	1234	AVRG		1137		8.06830
(5)	1875	1952	1948	2080	2252	AVRG		2022		7.34628
24 Endosulfan II	49326	55378	60871	63009	63876	AVRG		58492		10.42582
25 4,4'-DDD	47927	51737	57470	58511	59767	AVRG		55082		9.15834
26 4,4'-DDT	39019	42785	46192	47764	49225	AVRG		44997		9.13539
27 Endrin aldehyde	45065	47028	50106	51950	52303	AVRG		49291		6.39883
28 Methoxychlor	21372	22510	21814	22169	23055	AVRG		22184		2.90476
29 Endosulfan sulfate	41427	44286	48362	51359	53380	AVRG		47762		10.31419
30 Aroclor-1268 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 04-JAN-2010 14:34
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Cal Date : 06-Jan-2010 14:27 cla01575

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
61 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
31 Endrin ketone	58928	62526	65482	67000	68029	AVRG		64393		5.73505
51 Mirex	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
52 C-Nonachlor	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
53 O-Chlordane	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
54 T-Nonachlor	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
56 2,4-DDE	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
58 2,4-DDD	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
57 2,4-DDT	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
M 62 TTO Sum Pesticides	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
$ 1 4cmx	62184	64689	69269	71498	71201	AVRG		67768		6.11161
$ 32 Decachlorobiphenyl	52742	51351	50693	51959	52544	AVRG		51858		1.63528

GEL Laboratories LLC

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Method file : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Cal Date : 06-Jan-2010 14:27 cla01575

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 04-JAN-2010 14:34
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Cal Date : 06-Jan-2010 14:27 cla01575

Calibration File Names:
Level 1: /chem/ecd3a.i/122909p.b/016b1601.d
Level 2: /chem/ecd3a.i/122909p.b/017b1701.d
Level 3: /chem/ecd3a.i/122909p.b/018b1801.d
Level 4: /chem/ecd3a.i/122909p.b/019b1901.d
Level 5: /chem/ecd3a.i/122909p.b/020b2001.d

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
61 2,4,5-Trichlorophenol	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
59 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
3 Aroclor-1016(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
5 alpha-BHC	592486	645490	712650	734819	742303	AVRG		685550		9.41061
6 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 04-JAN-2010 14:34
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Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Cal Date : 06-Jan-2010 14:27 cla01575

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
7 gamma-BHC (Lindane)	534132	559284	592473	609051	611123	AVRG		581213		5.76691
8 Chlordane (tech.) (1)	15279	15419	15641	16410	17082	AVRG		15966		4.76841
(2)	12806	12324	11225	11210	11245	AVRG		11762		6.39789
(3)	7744	6628	6215	6326	7129	AVRG		6808		9.27475
(4)	25690	25900	26043	27518	28578	AVRG		26746		4.68382
(5)	10143	11069	11884	13584	15097	AVRG		12355		16.08411
9 Aroclor-1248 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
10 Heptachlor	470866	424431	411092	409991	401505	AVRG		423577		6.53470
11 Aldrin	376610	380399	382870	385640	374198	AVRG		379943		1.21574
12 beta-BHC	278511	259929	242492	246141	240809	AVRG		253576		6.24553
13 delta-BHC	482552	499526	537510	557981	554700	AVRG		526454		6.41798
14 Heptachlor epoxide	354412	313119	291395	292880	278725	AVRG		306106		9.69608
15 Aroclor-1254 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
16 Endosulfan I	281079	280240	283479	288733	280254	AVRG		282757		1.27081
17 gamma-Chlordane	4850292	3916812	17026465	30525511	60419381	LINR	-7.83263	289556		0.99808
18 alpha-Chlordane	291234	291087	297108	308602	305127	AVRG		298631		2.67655

GEL Laboratories LLC

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Integrator : Falcon
Method file : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Cal Date : 06-Jan-2010 14:27 cla01575

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
19 4,4'-DDE	278756	304027	307644	301488	287373	AVRG		295858		4.14595
20 Dieldrin	326000	343567	358421	356474	343517	AVRG		345596		3.75944
21 Aroclor-1260(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
22 Endrin	316067	337890	351053	344276	332891	AVRG		336435		3.94526
23 Toxaphene(1)	4702	4871	4804	5615	5337	AVRG		5066		7.73537
(2)	2723	2764	2831	3440	3194	AVRG		2991		10.45886
(3)	5066	5867	5840	6796	6496	AVRG		6013		11.13937
(4)	9489	10306	10382	11696	11124	AVRG		10599		7.95706
(5)	17216	18854	18845	20949	19876	AVRG		19148		7.23958
24 Endosulfan II	395303	398504	402416	396779	381309	AVRG		394862		2.03351
25 4,4'-DDD	312158	339873	357461	355029	344733	AVRG		341851		5.29621
26 4,4'-DDT	342502	356330	366055	366434	363334	AVRG		358931		2.79688
27 Endrin aldehyde	373105	384294	394907	389729	374311	AVRG		383269		2.48136
28 Methoxychlor	197394	206017	192312	191121	203032	AVRG		197975		3.28939
29 Endosulfan sulfate	410698	449073	490706	503932	497818	AVRG		470446		8.44100
30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 29-DEC-2009 17:34
End Cal Date : 04-JAN-2010 14:34
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Cal Date : 06-Jan-2010 14:27 cla01575

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
60 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
31 Endrin ketone	541199	572073	595633	596245	594217	AVRG		579873		4.11607
51 Mirex	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
52 C-Nonachlor	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
53 O-Chlordane	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
54 T-Nonachlor	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
56 2,4-DDE	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
58 2,4-DDD	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
57 2,4-DDT	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
$ 1 4cmx	518207	520695	506775	489669	464811	AVRG		500031		4.63725
$ 32 Decachlorobiphenyl	409909	395716	383952	390399	390899	AVRG		394175		2.47088

GEL Laboratories LLC

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Integrator : Falcon
Method file : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Cal Date : 06-Jan-2010 14:27 cla01575

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010410p.b/006f0601.d
Lab Smp Id: WPE100104-01AB Client Smp ID: INDAB01
Inj Date : 04-JAN-2010 13:40
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100104-01AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 20:42 Cal File: 016f1601.d
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.085	3.082	0.003	276561	4.00000	5.74	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.330	3.328	0.002	290803	4.00000	3.50	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.395	3.392	0.003	134787	4.00000	3.76	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.714	3.711	0.003	232938	4.00000	3.58	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.543	3.539	0.004	341731	4.00000	4.00	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.972	3.969	0.003	286805	4.00000	3.60	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.509	4.504	0.005	256463	4.00000	3.60	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.623	4.619	0.004	223845	4.00000	3.27	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.747	4.743	0.004	243951	4.00000	3.51	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.879	4.874	0.005	199480	4.00000	3.23	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.814	4.810	0.004	460269	8.00000	6.72	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.106	5.103	0.003	478321	8.00000	6.71	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.335	5.331	0.004	379886	8.00000	6.67	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.398	5.393	0.005	383417	8.00000	6.96	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.560	5.555	0.005	394609	8.00000	6.75	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.985	5.980	0.005	360517	8.00000	7.31	80.00- 120.00	100.00(M)
26 4,4'-DDT					CAS #: 50-29-3		
5.677	5.672	0.005	312153	8.00000	6.94	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.438	6.433	0.005	331414	8.00000	6.94	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.18I	6.176	0.005	854896	40.0000	38.5	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.736	6.730	0.006	471425	8.00000	7.32	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.677	2.676	0.001	497472	8.00000	7.34	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.828	7.823	0.005	421935	8.00000	8.14	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010410p.b/006f0601.d
Date : 04-JAN-2010 13:40
Client ID: INDQB01
Sample Info: IWPE100104-01AB
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

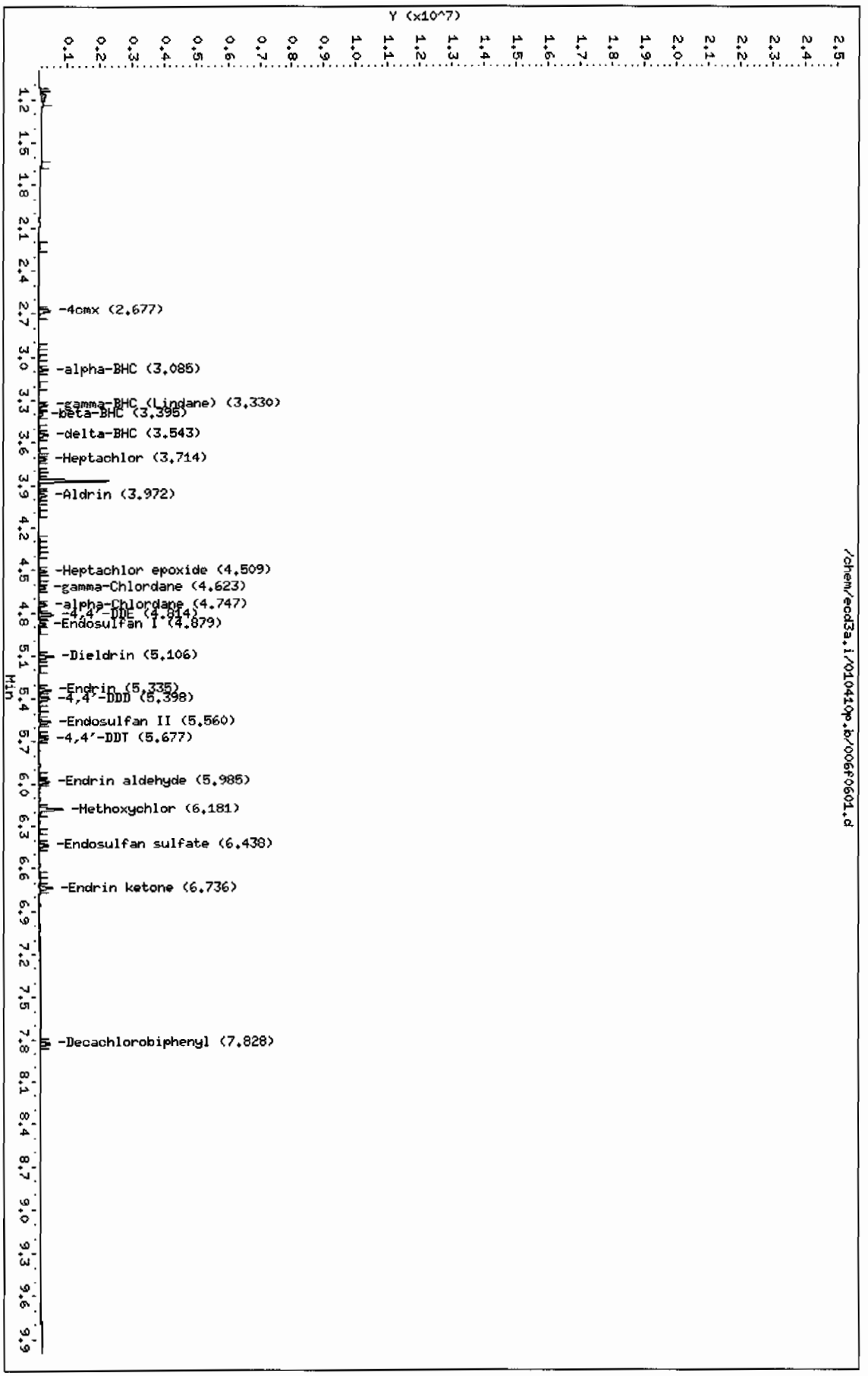

Page 1

Comment: Manually Integrated
Data File: /chem/ecd3a.i/010410p.b/006f0601.d
Operator: HXJ1
Injection Date: 04-JAN-2010 13:40
Instrument: ecd3a.i
Client Sample ID: INDAB01

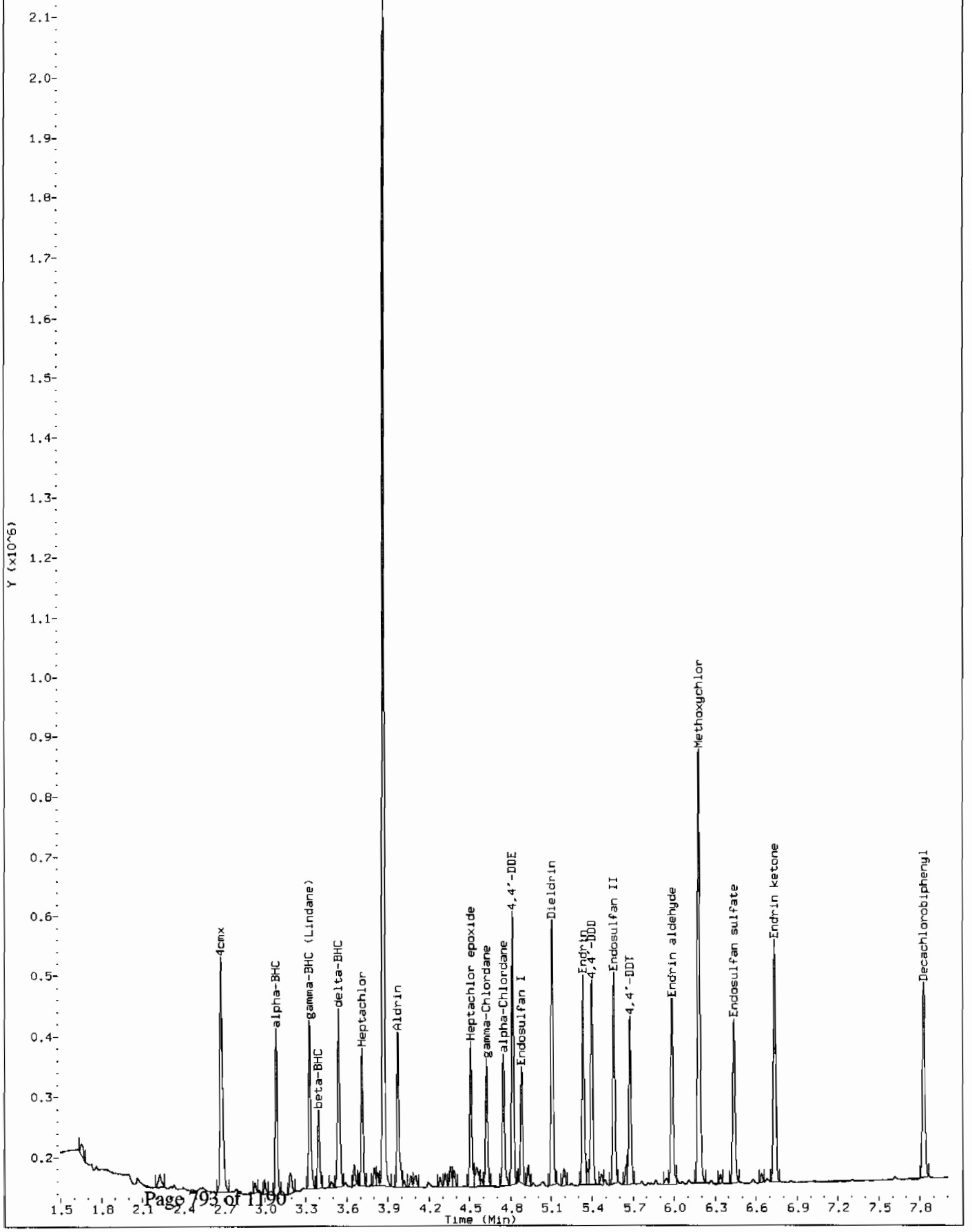

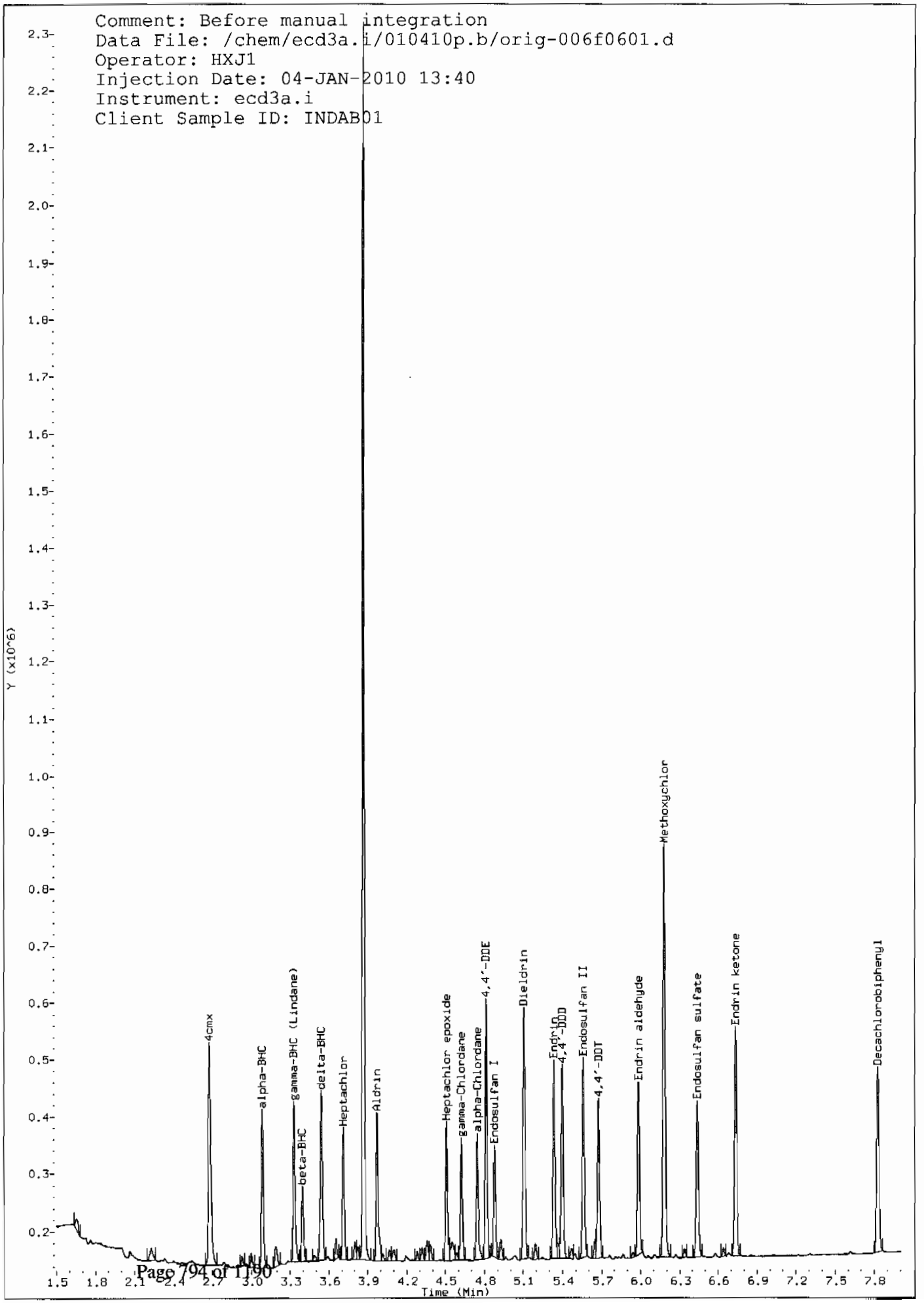
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Operator: HXJ1
Injection Date: 04-JAN-2010 13:40
Instrument: ecd3a.i
Client Sample ID: INDAB01
Y (x10^6)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010410p.b/006b0601.d
Lab Smp Id: WPE100104-01AB Client Smp ID: INDAB01
Inj Date : 04-JAN-2010 13:40
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100104-01AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 20:42 Cal File: 016b1601.d
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.414	3.413	0.001	2369946	4.00000	3.46	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.723	3.722	0.001	2136529	4.00000	3.68	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.786	3.784	0.002	1114045	4.00000	4.39	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.138	4.135	0.003	1883465	4.00000	4.45	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.057	4.056	0.001	1930210	4.00000	3.67	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.449	4.447	0.002	1506440	4.00000	3.96	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.999	4.998	0.001	1417648	4.00000	4.63	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.193	5.188	0.005	4850292	4.00000	8.92	80.00- 120.00	100.00(M)
18 alpha-Chlordane					CAS #: 5103-71-9		
5.338	5.336	0.002	1164936	4.00000	3.90	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.401	5.399	0.002	1124316	4.00000	3.98	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.495	5.493	0.002	2230046	8.00000	7.54	80.00- 120.00	100.00(M)
20 Dieldrin					CAS #: 60-57-1		
5.682	5.679	0.003	2608004	8.00000	7.55	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.002	5.999	0.003	2528533	8.00000	7.52	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.102	6.099	0.003	2497267	8.00000	7.30	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.223	6.220	0.003	3162424	8.00000	8.01	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.580	6.576	0.004	2984842	8.00000	7.79	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.442	6.438	0.004	2740015	8.00000	7.63	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.882	6.879	0.003	3285584	8.00000	6.98	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.183	7.180	0.003	7895744	40.0000	39.9	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.474	7.471	0.003	4329589	8.00000	7.47	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.921	2.920	0.001	4145656	8.00000	8.29	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.862	8.859	0.003	3279274	8.00000	8.32	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010410p.b/006b0601.d
Date : 04-JAN-2010 13:40
Client ID: INDAB01
Sample Info: IWPE100104-01AB
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

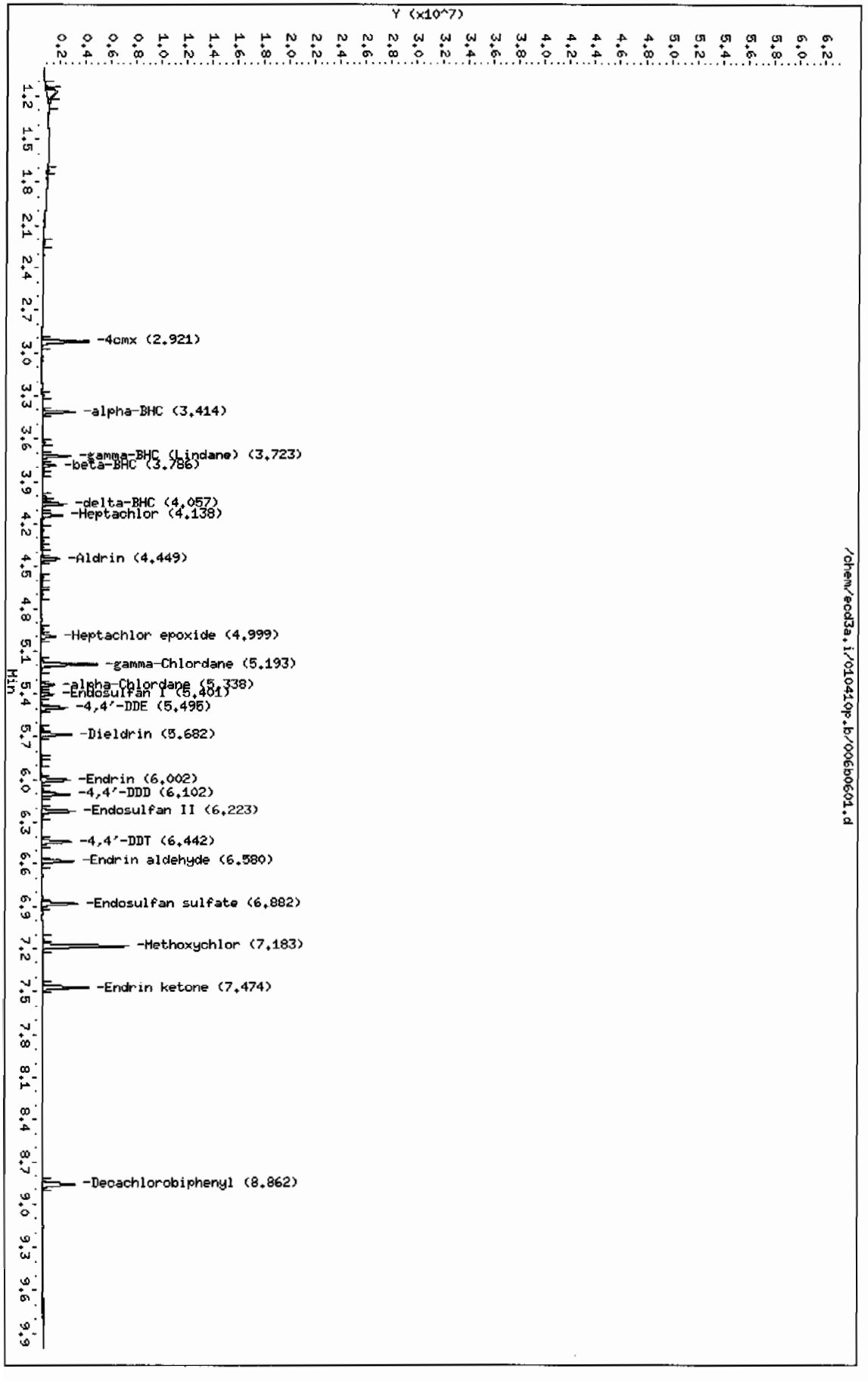

/chem/ecd3a.i/010410p.b/006b0601.d

Page 1

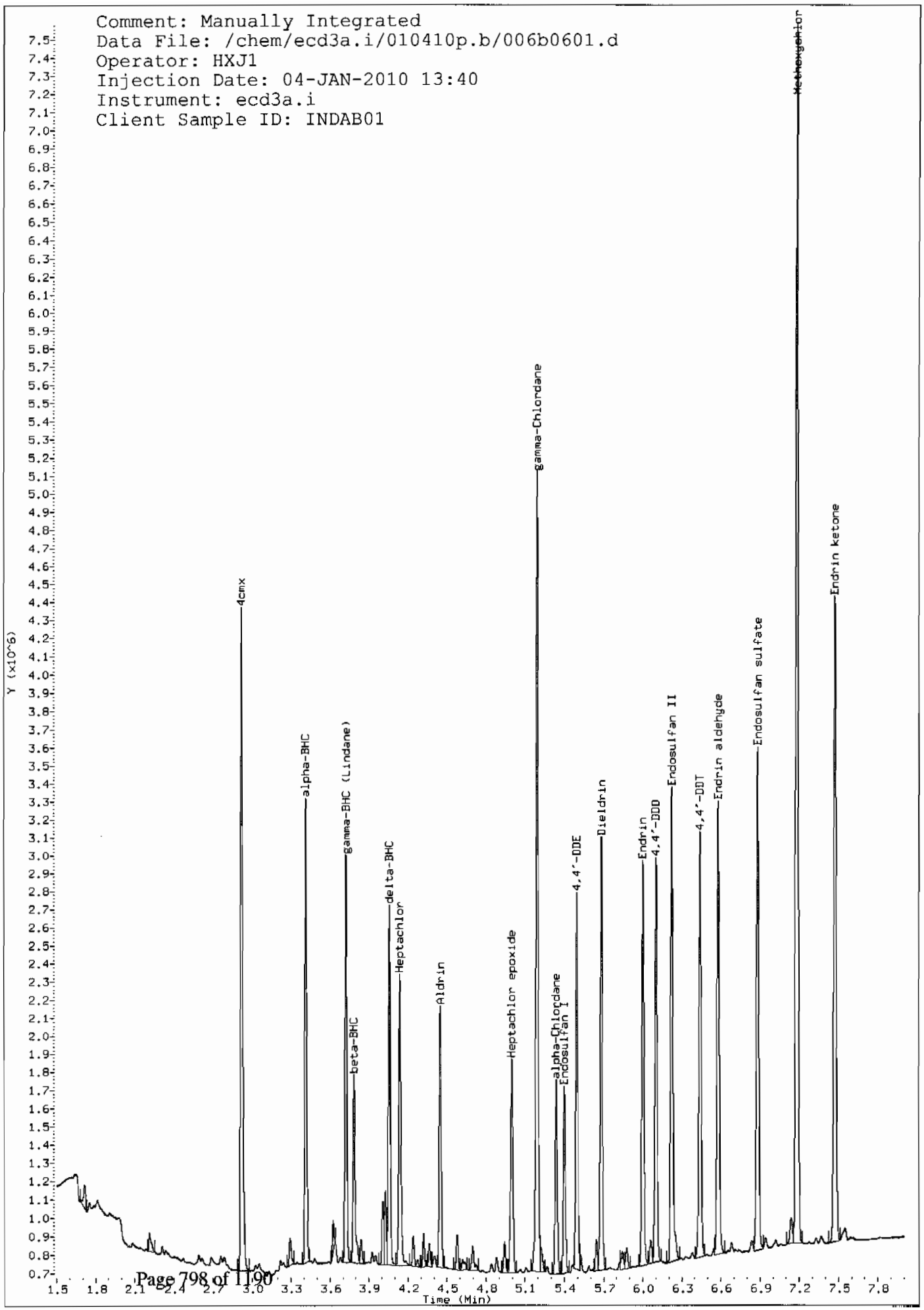
Comment: Manually Integrated
Data File: /chem/ecd3a.i/010410p.b/006b0601.d
Operator: HXJ1
Injection Date: 04-JAN-2010 13:40
Instrument: ecd3a.i
Client Sample ID: INDAB01
Y (x10^6)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone

Comment: Before manual integration
Data File: /chem/ecd3a.i/010410p.b/orig-006b0601.d
Operator: HXJ1
Injection Date: 04-JAN-2010 13:40
Instrument: ecd3a.i
Client Sample ID: INDAB01

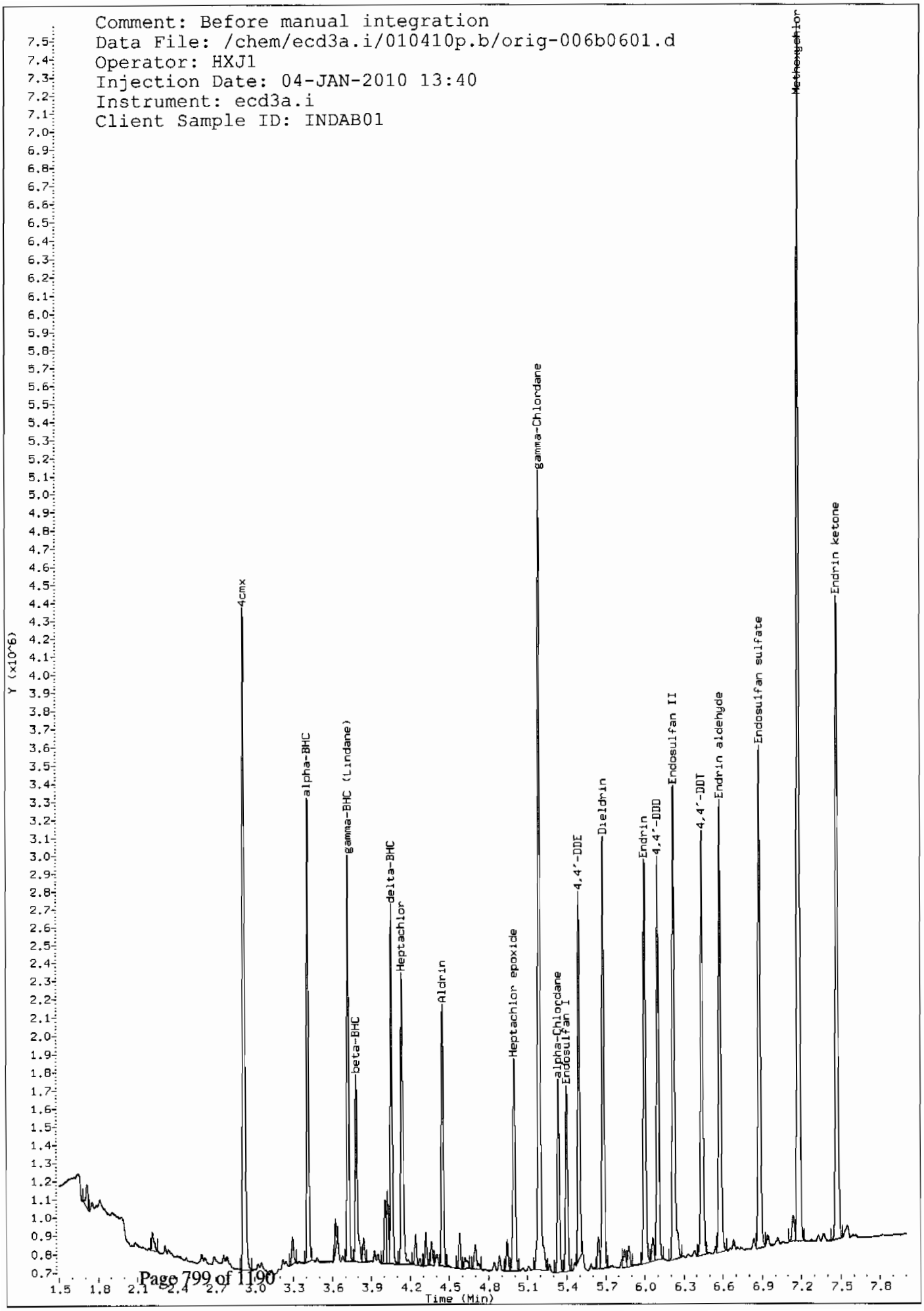

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CLP-1

Data file : /chem/ecd3a.i/010410p.b/007f0701.d
Lab Smp Id: WPE100104-02AB Client Smp ID: INDAB02
Inj Date : 04-JAN-2010 13:53
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100104-02AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:14 Cal File: 017f1701.d
Als bottle: 7 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.083	3.082	0.001	784147	10.0000	10.5	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.327	3.328	-0.001	745949	10.0000	8.98	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.392	3.392	0.000	341584	10.0000	9.54	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.711	3.711	0.000	597293	10.0000	9.18	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.541	3.539	0.002	785543	10.0000	9.19	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.968	3.969	-0.001	731325	10.0000	9.17	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.505	4.504	0.001	662014	10.0000	9.29	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.620	4.619	0.001	607655	10.0000	8.88	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.743	4.743	0.000	643502	10.0000	9.25	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.875	4.874	0.001	580379	10.0000	9.41	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.811	4.810	0.001	1302458	20.0000	19.0	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.103	5.103	0.000	1321599	20.0000	18.6	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.332	5.331	0.001	1085600	20.0000	19.0	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.395	5.393	0.002	1034733	20.0000	18.8	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.556	5.555	0.001	1107556	20.0000	18.9	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.982	5.980	0.002	940568	20.0000	19.1	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.674	5.672	0.002	855706	20.0000	19.0	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.434	6.433	0.001	885711	20.0000	18.5	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.177	6.176	0.001	2251041	100.000	101	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.733	6.730	0.003	1250522	20.0000	19.4	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.676	2.676	0.000	1293783	20.0000	19.1	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.824	7.823	0.001	1027028	20.0000	19.8	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/007f0701.d
Date : 04-JAN-2010 13:53
Client ID: INDAB02
Sample Info: IWPE100104-02AB

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

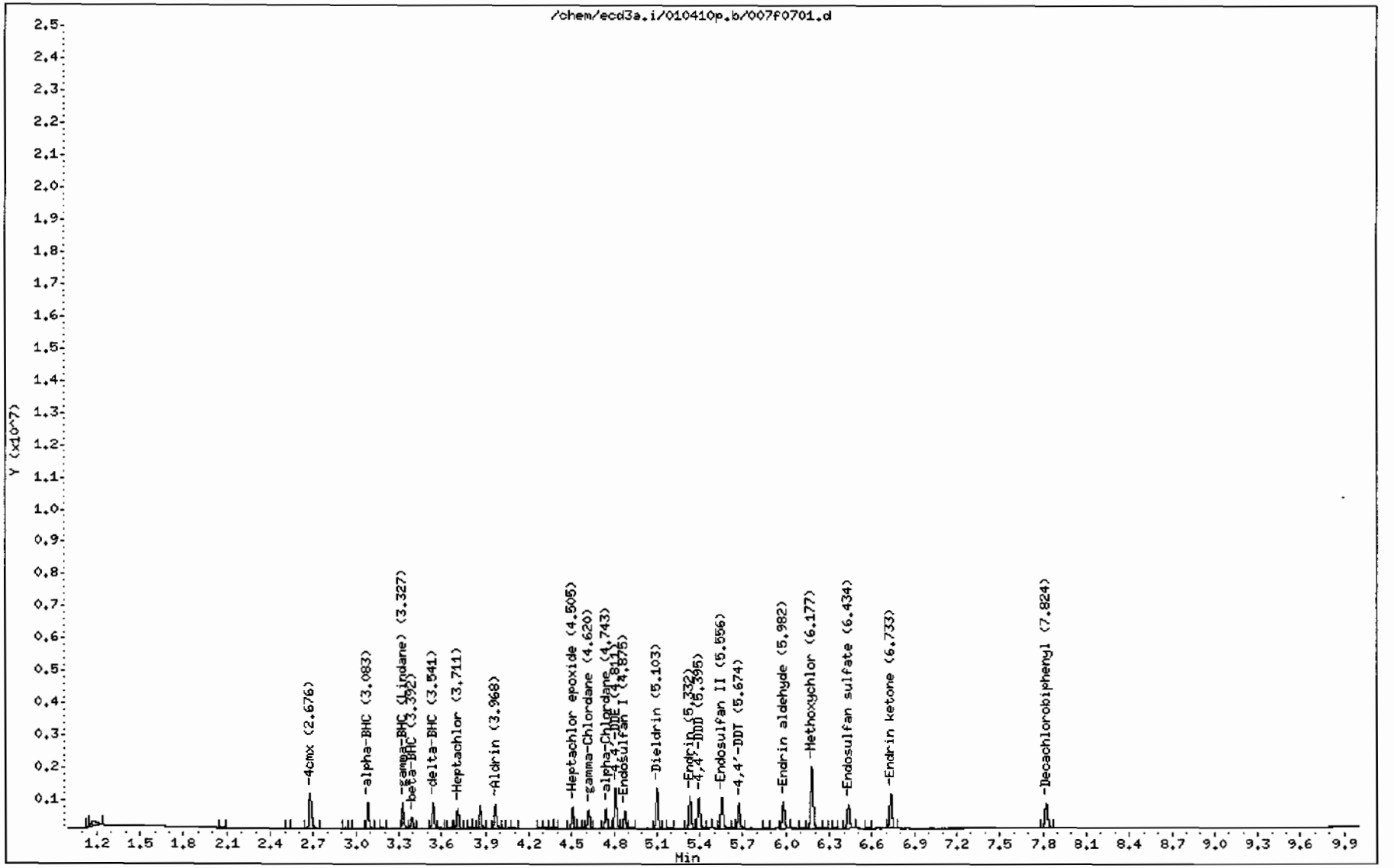

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010410p.b/007b0701.d
Lab Smp Id: WPE100104-02AB Client Smp ID: INDAB02
Inj Date : 04-JAN-2010 13:53
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100104-02AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:14 Cal File: 017b1701.d
Als bottle: 7 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.412	3.413	-0.001	6454898	10.0000	9.42	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.721	3.722	-0.001	5592839	10.0000	9.62	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.783	3.784	-0.001	2599287	10.0000	10.2	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.135	4.135	0.000	4244312	10.0000	10.0	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.056	4.056	0.000	4995261	10.0000	9.49	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.447	4.447	0.000	3803994	10.0000	10.0	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.997	4.998	-0.001	3131193	10.0000	10.2	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.190	5.188	0.002	3916812	10.0000	5.69	80.00- 120.00	100.00(M)
18 alpha-Chlordane					CAS #: 5103-71-9		
5.336	5.336	0.000	2910870	10.0000	9.75	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.399	5.399	0.000	2802399	10.0000	9.91	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.493	5.493	0.000	6080542	20.0000	20.6	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.680	5.679	0.001	6871344	20.0000	19.9	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.999	5.999	0.000	6757804	20.0000	20.1	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.100	6.099	0.001	6797459	20.0000	19.9	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.221	6.220	0.001	7970072	20.0000	20.2	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.577	6.576	0.001	7685885	20.0000	20.0	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.439	6.438	0.001	7126600	20.0000	19.8	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.880	6.879	0.001	8981469	20.0000	19.1	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.181	7.180	0.001	20601702	100.000	104	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.472	7.471	0.001	11441463	20.0000	19.7	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	10413895	20.0000	20.8	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.860	8.859	0.001	7914314	20.0000	20.1	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010410p.b/007b0701.d
Date : 04-JAN-2010 13:53
Client ID: INDAB02
Sample Info: INPE100104-02AB

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

Column phase: CLP-2

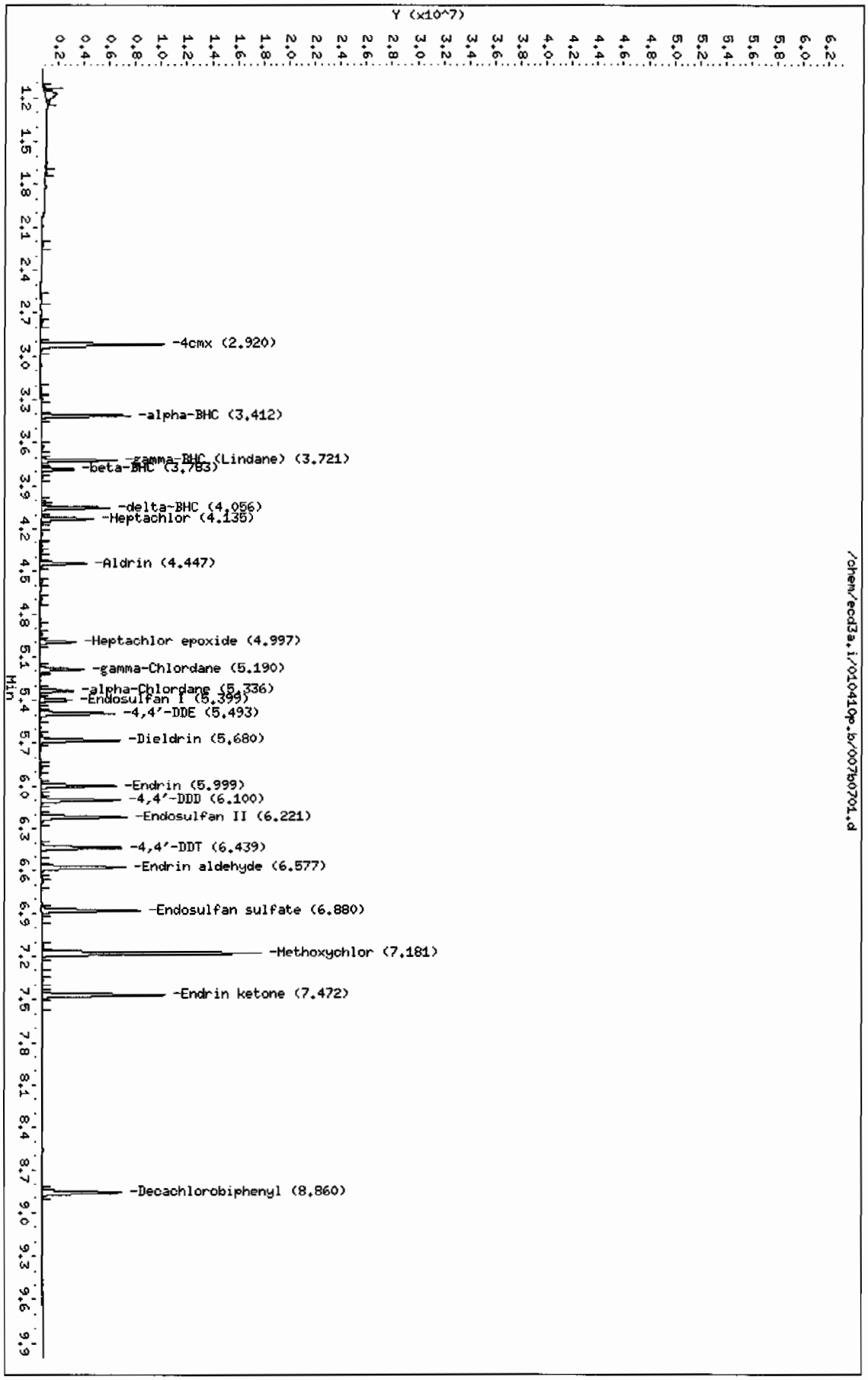

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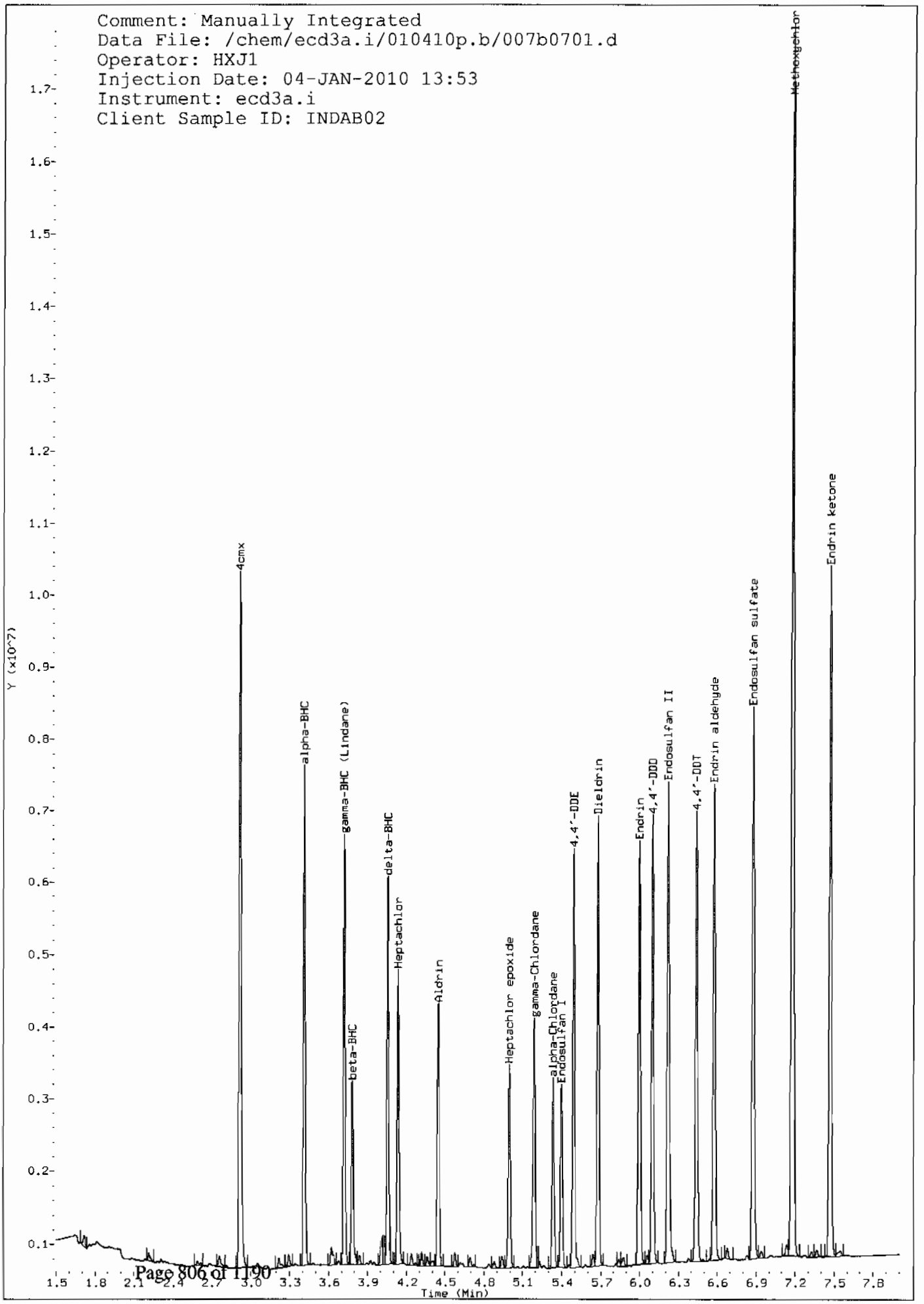
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Data File: /chem/ecd3a.i/010410p.b/007b0701.d
Operator: HXJ1
Injection Date: 04-JAN-2010 13:53
Instrument: ecd3a.i
Client Sample ID: INDAB02
Y (x10^7)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone

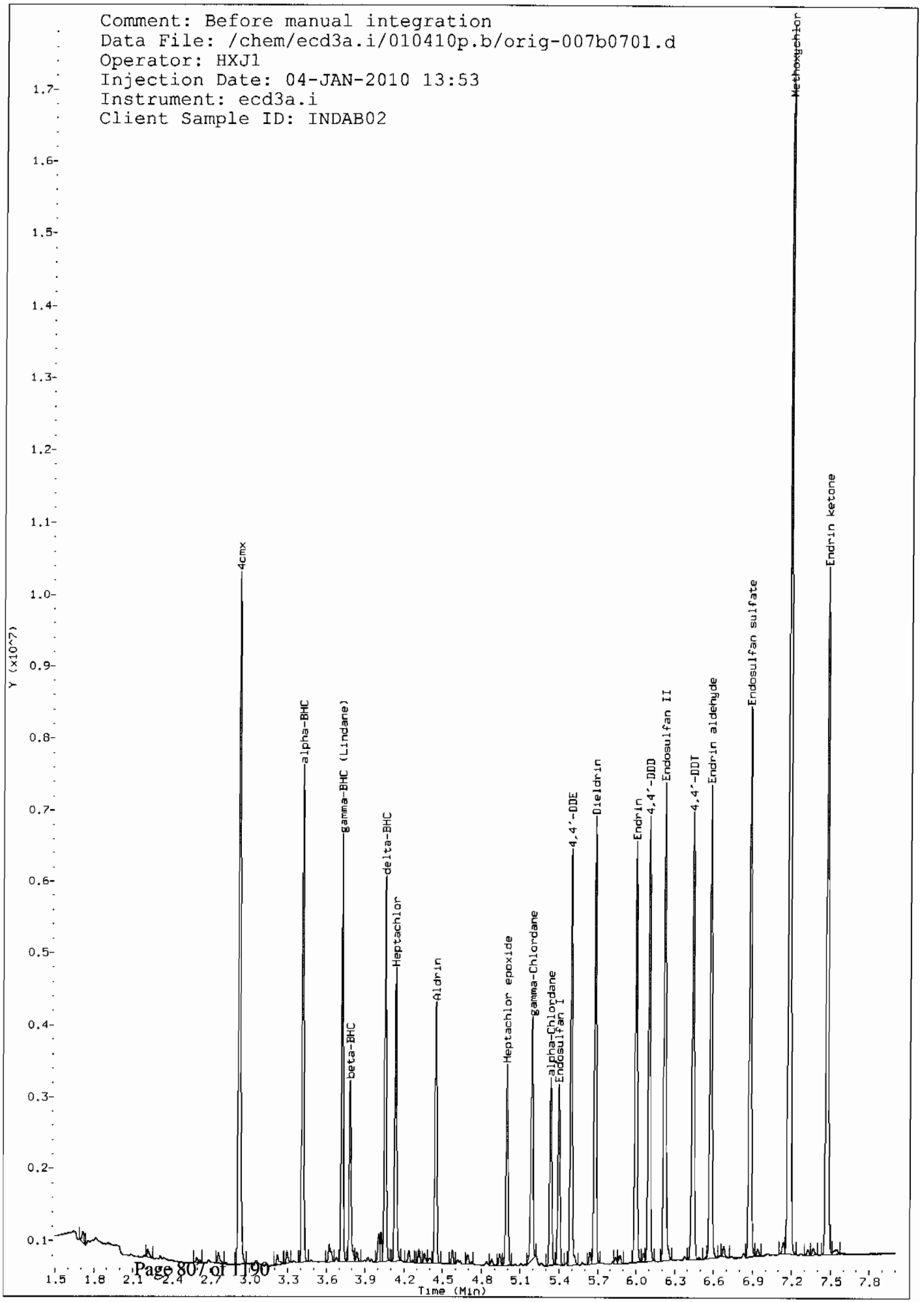
Comment: Before manual integration
Data File: /chem/ecd3a.i/010410p.b/orig-007b0701.d
Operator: HXJ1
Injection Date: 04-JAN-2010 13:53
Instrument: ecd3a.i
Client Sample ID: INDAB02
Y (x10^7)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010410p.b/008f0801.d
Lab Smp Id: WPE100104-03AB Client Smp ID: INDAB03
Inj Date : 04-JAN-2010 14:07
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100104-03AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:28 Cal File: 018f1801.d
Als bottle: 8 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.083	3.082	0.001	4754635	50.0000	47.8	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.327	3.328	-0.001	4253959	50.0000	51.2	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.392	3.392	0.000	1789693	50.0000	50.0	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.711	3.711	0.000	3294394	50.0000	50.6	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.540	3.539	0.001	4177542	50.0000	48.8	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.968	3.969	-0.001	4087294	50.0000	51.3	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.504	4.504	0.000	3652911	50.0000	51.3	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.620	4.619	0.001	3584688	50.0000	52.4	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.743	4.743	0.000	3549577	50.0000	51.0	80.00- 120.00	100.00

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.875	4.874	0.001	3195859	50.0000	51.8	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.810	4.810	0.000	7185756	100.000	105	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.103	5.103	0.000	7483234	100.000	105	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.332	5.331	0.001	5983426	100.000	105	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.393	5.393	0.000	5747042	100.000	104	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.556	5.555	0.001	6087145	100.000	104	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.980	5.980	0.000	5010612	100.000	102	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.672	5.672	0.000	4619246	100.000	103	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.432	6.433	-0.001	4836166	100.000	101	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.176	6.176	0.000	10907214	500.000	492	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.732	6.730	0.002	6548224	100.000	102	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.676	2.676	0.000	6926948	100.000	102	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.823	7.823	0.000	5069274	100.000	97.8	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/008f0801.d
Date : 04-JAN-2010 14:07
Client ID: INDAB03
Sample Info: IWPE100104-038B

Column phase: CLP-1

Instrument: ecd3a.i
Operator: HX-1
Column diameter: 0.25

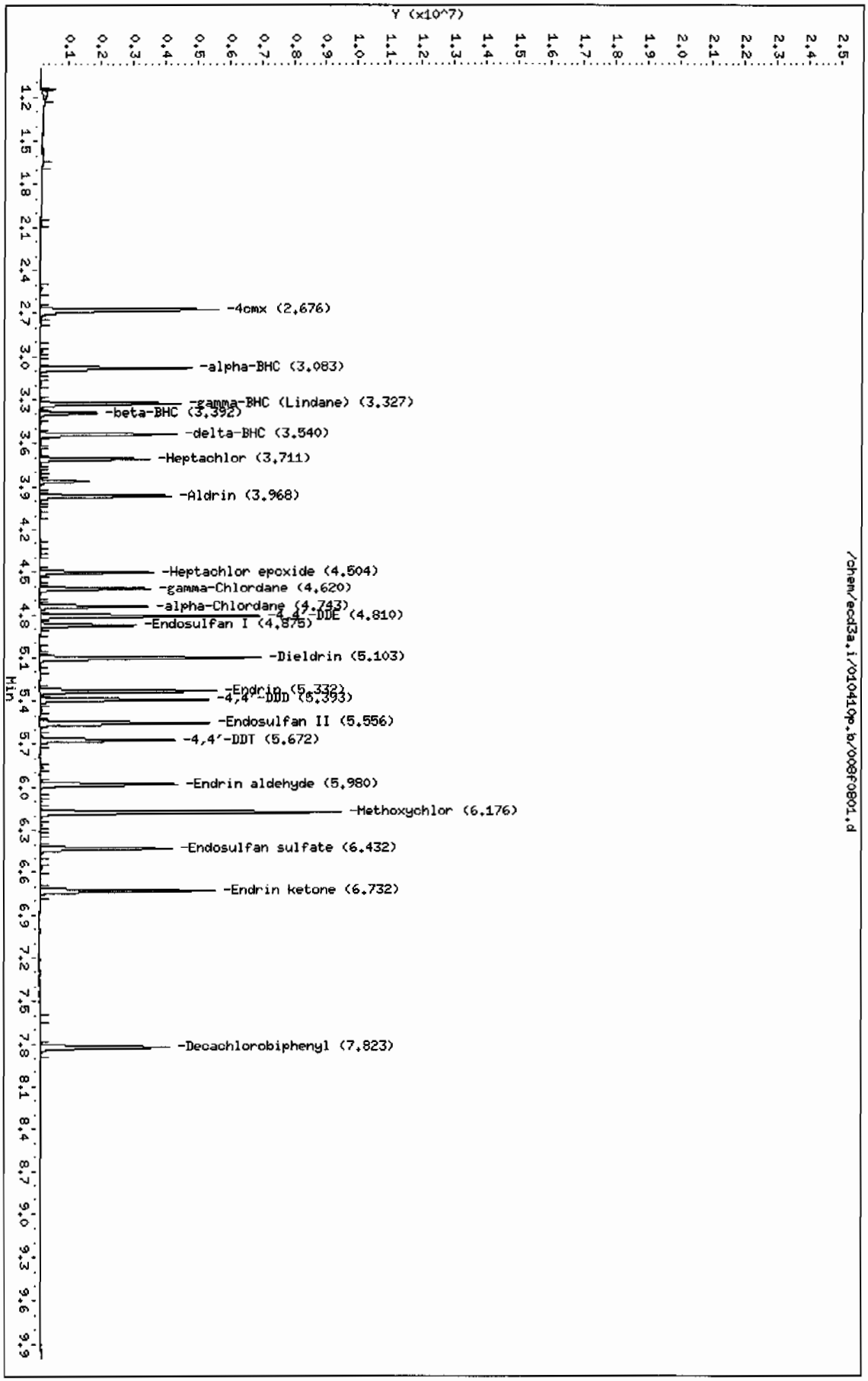

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010410p.b/008b0801.d
Lab Smp Id: WPE100104-03AB Client Smp ID: INDAB03
Inj Date : 04-JAN-2010 14:07
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100104-03AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:28 Cal File: 018b1801.d
Als bottle: 8 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.413	3.413	0.000	35632520	50.0000	52.0	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.722	3.722	0.000	29623669	50.0000	51.0	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.783	3.784	-0.001	12124568	50.0000	47.8	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.135	4.135	0.000	20554587	50.0000	48.5	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.056	4.056	0.000	26875475	50.0000	51.0	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.447	4.447	0.000	19143494	50.0000	50.4	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.998	4.998	0.000	14569757	50.0000	47.6	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.189	5.188	0.001	17026465	50.0000	51.0	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.335	5.336	-0.001	14855391	50.0000	49.7	80.00- 120.00	100.00

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.399	5.399	0.000	14173960	50.0000	50.1	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.493	5.493	0.000	30764424	100.000	104	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.679	5.679	0.000	35842067	100.000	104	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.999	5.999	0.000	35105313	100.000	104	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.099	6.099	0.000	35746077	100.000	104	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.220	6.220	0.000	40241642	100.000	102	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.577	6.576	0.001	39490739	100.000	103	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.438	6.438	0.000	36605539	100.000	102	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.880	6.879	0.001	49070628	100.000	104	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.180	7.180	0.000	96155750	500.000	486	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.472	7.471	0.001	59563271	100.000	103	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	50677542	100.000	101	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.859	8.859	0.000	38395215	100.000	97.4	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/008b0801.d
Date : 04-JAN-2010 14:07
Client ID: INDCB03
Sample Info: IWFE100104-036B
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

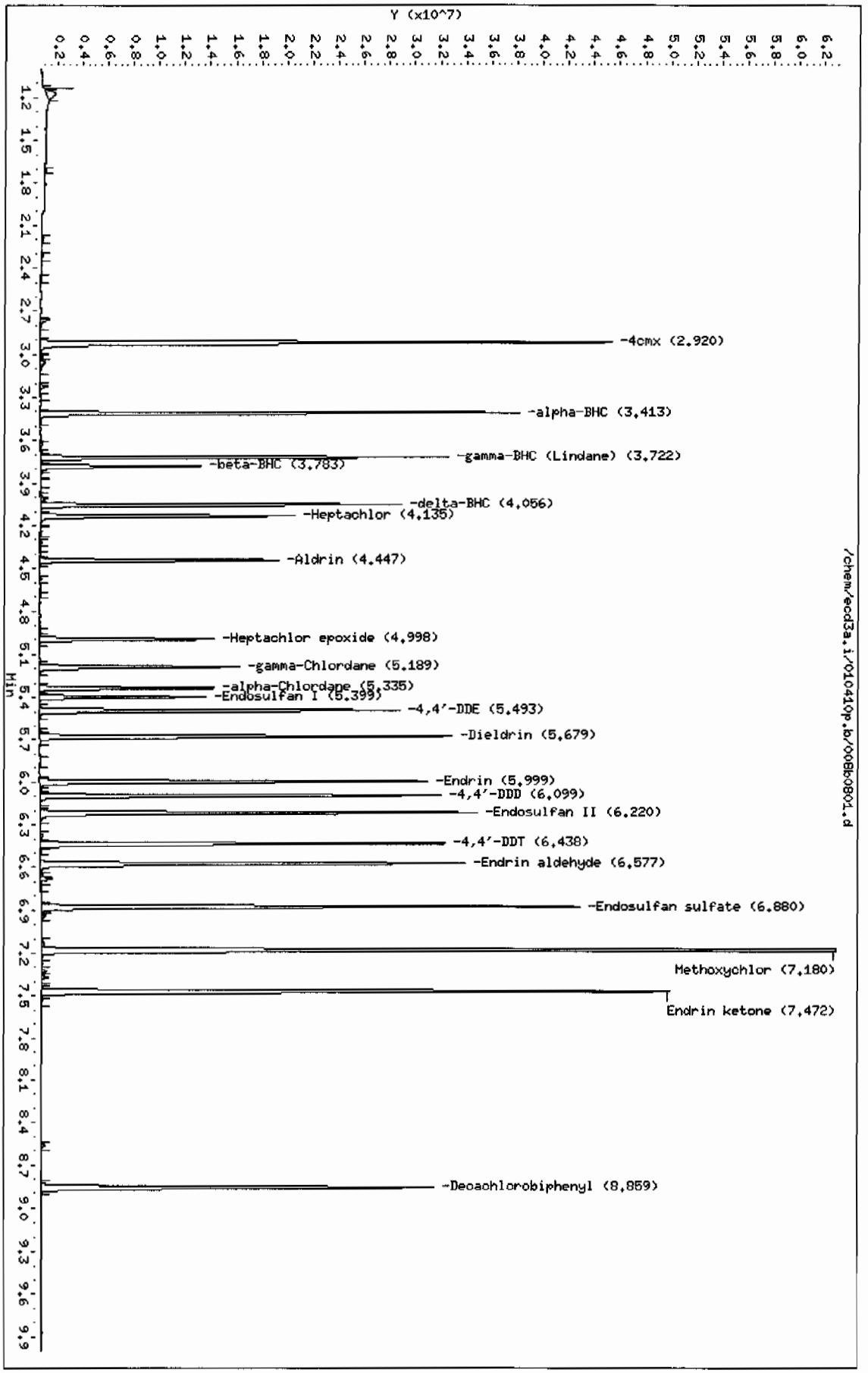

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CLP-1

Data file : /chem/ecd3a.i/010410p.b/009f0901.d
Lab Smp Id: WPE100104-04AB Client Smp ID: INDAB04
Inj Date : 04-JAN-2010 14:21
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100104-04AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:41 Cal File: 019f1901.d
Als bottle: 9 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.083	3.082	0.001	10200718	100.000	99.0	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.327	3.328	-0.001	9018214	100.000	108	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.392	3.392	0.000	3732698	100.000	104	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.711	3.711	0.000	6945040	100.000	107	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.540	3.539	0.001	8836628	100.000	103	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.968	3.969	-0.001	8551164	100.000	107	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.504	4.504	0.000	7567762	100.000	106	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.619	4.619	0.000	7641165	100.000	112	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.743	4.743	0.000	7524853	100.000	108	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.875	4.874	0.001	6761399	100.000	110	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.810	4.810	0.000	14776064	200.000	216	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.103	5.103	0.000	15456486	200.000	217	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.331	5.331	0.000	12171942	200.000	214	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.392	5.393	-0.001	11702222	200.000	212	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.555	5.555	0.000	12601710	200.000	215	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.980	5.980	0.000	10390053	200.000	211	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.671	5.672	-0.001	9552875	200.000	212	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.432	6.433	-0.001	10271704	200.000	215	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.175	6.176	-0.001	22168766	1000.00	999	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.730	6.730	0.000	13399918	200.000	208	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.676	2.676	0.000	14299693	200.000	211	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.823	7.823	0.000	10391820	200.000	200	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410m.b/009f0901.d
Date : 04-JAN-2010 14:21
Client ID: INDAB04
Sample Info: IWPE100104-04AB

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

Column phase: CLP-1

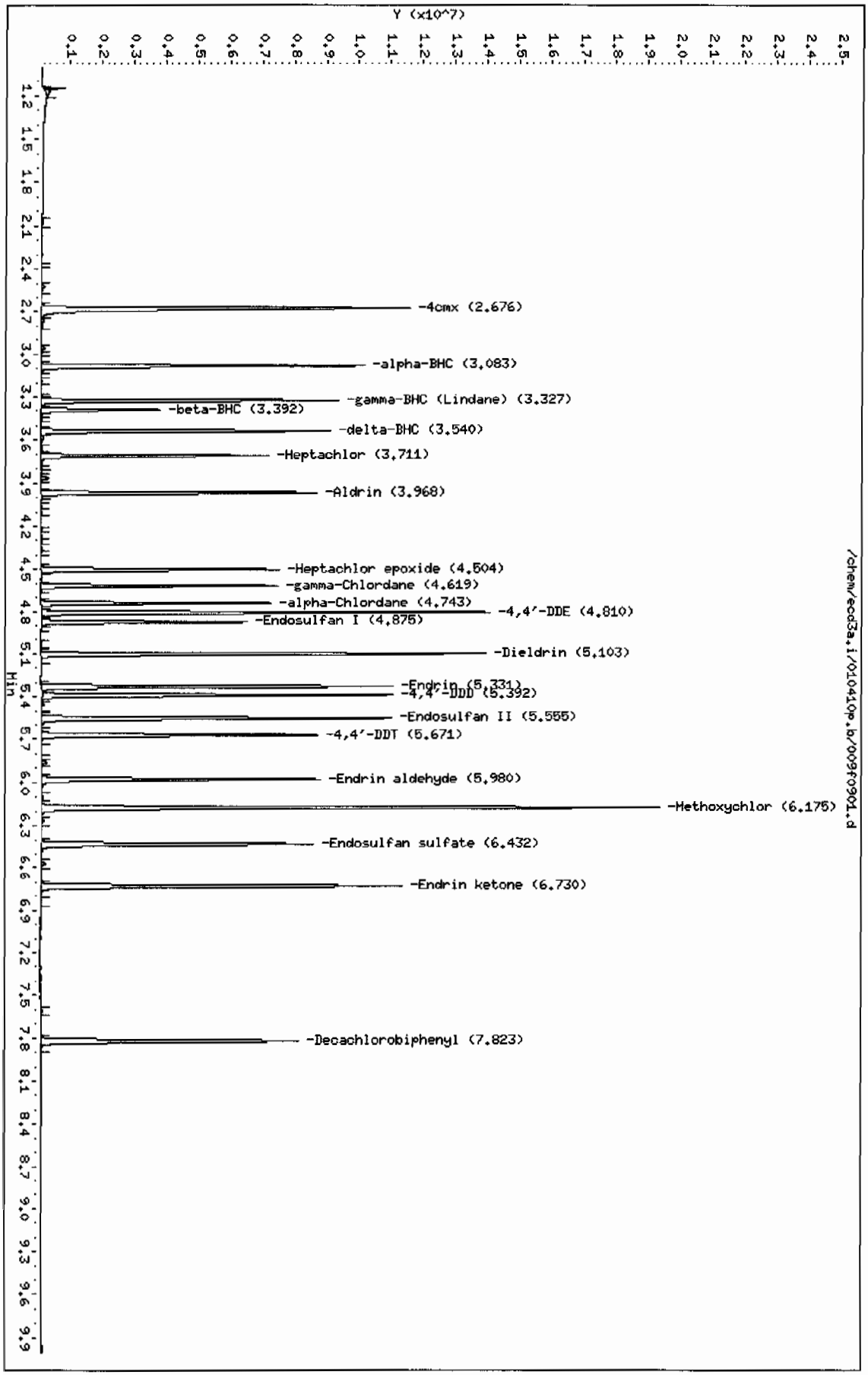

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CLP-2

Data file : /chem/ecd3a.i/010410p.b/009b0901.d
Lab Smp Id: WPE100104-04AB Client Smp ID: INDAB04
Inj Date : 04-JAN-2010 14:21
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE100104-04AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:41 Cal File: 019b1901.d
Als bottle: 9 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.413	3.413	0.000	73481904	100.000	107	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.722	3.722	0.000	60905089	100.000	105	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.784	3.784	0.000	24614136	100.000	97.1	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.135	4.135	0.000	40999120	100.000	96.8	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.056	4.056	0.000	55798057	100.000	106	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.447	4.447	0.000	38563960	100.000	101	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.998	4.998	0.000	29288009	100.000	95.7	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.188	5.188	0.000	30525511	100.000	97.6	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.336	5.336	0.000	30860152	100.000	103	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.399	5.399	0.000	28873269	100.000	102	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.493	5.493	0.000	60297555	200.000	204	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.679	5.679	0.000	71294724	200.000	206	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.999	5.999	0.000	68855183	200.000	205	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.099	6.099	0.000	71005713	200.000	208	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.220	6.220	0.000	79355830	200.000	201	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.576	6.576	0.000	77945823	200.000	203	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.438	6.438	0.000	73286744	200.000	204	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.879	6.879	0.000	100786451	200.000	214	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.180	7.180	0.000	191121221	1000.00	965	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.471	7.471	0.000	119249051	200.000	206	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	97933889	200.000	196	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.859	8.859	0.000	78079767	200.000	198	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/009b0901.d
Date : 04-JAN-2010 14:21
Client ID: INDAB04
Sample Info: IWPE100104-04AB

Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

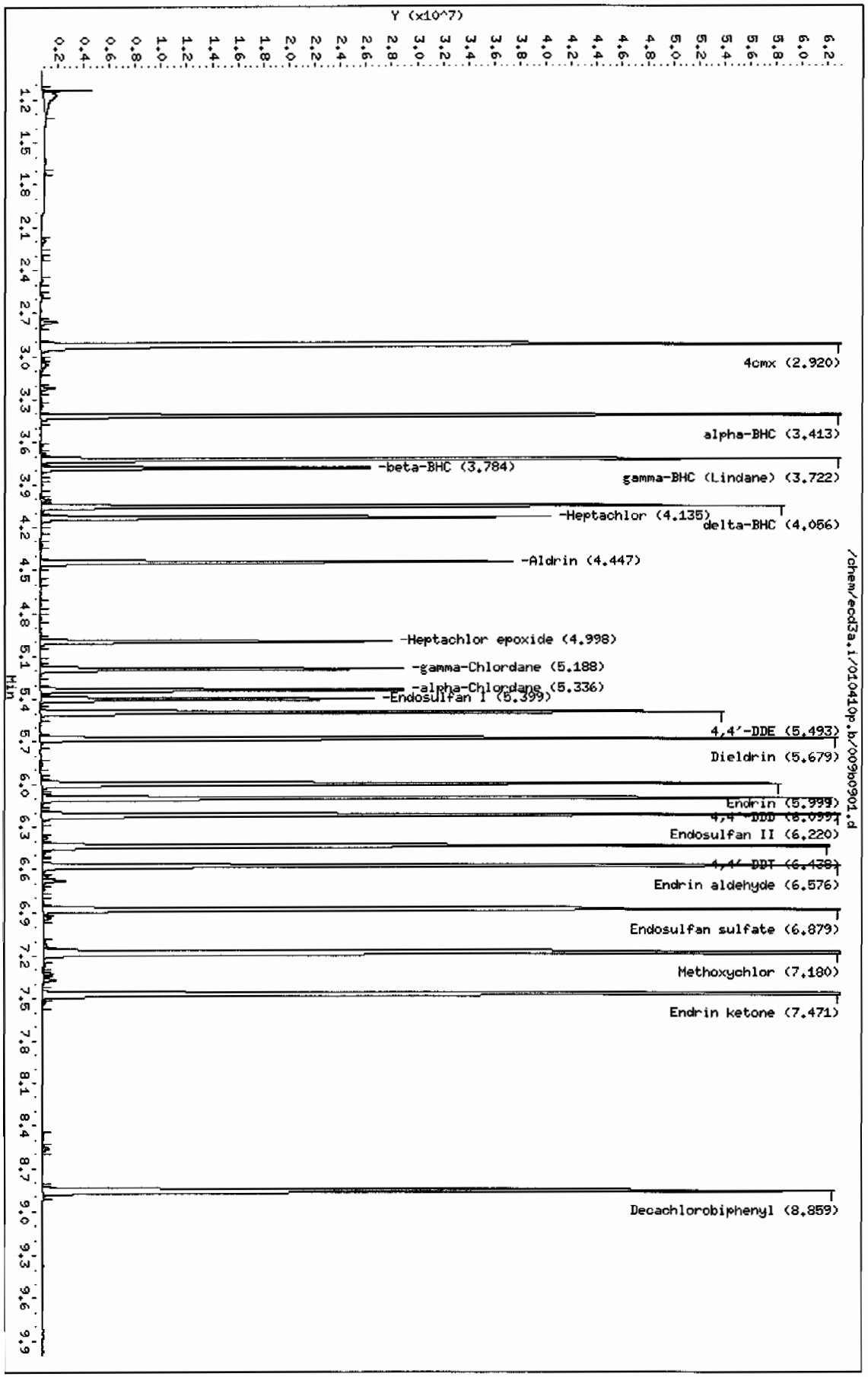

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CLP-1

Data file : /chem/ecd3a.i/010410p.b/010f1001.d
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Inj Date : 04-JAN-2010 14:34
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |IPE091219-02AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 10 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.083	3.082	0.001	21049732	200.000	201	80.00- 120.00	100.00(A)
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.328	3.328	0.000	18550520	200.000	223	80.00- 120.00	100.00(A)
12 beta-BHC					CAS #: 319-85-7		
3.392	3.392	0.000	7627648	200.000	213	80.00- 120.00	100.00(A)
10 Heptachlor					CAS #: 76-44-8		
3.711	3.711	0.000	14391463	200.000	221	80.00- 120.00	100.00(A)
13 delta-BHC					CAS #: 319-86-8		
3.540	3.539	0.001	18329550	200.000	214	80.00- 120.00	100.00(A)
11 Aldrin					CAS #: 309-00-2		
3.968	3.969	-0.001	17315561	200.000	217	80.00- 120.00	100.00(A)
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.505	4.504	0.001	15421649	200.000	216	80.00- 120.00	100.00(A)
17 gamma-Chlordane					CAS #: 5103-74-2		
4.619	4.619	0.000	15450827	200.000	226	80.00- 120.00	100.00(A)
18 alpha-Chlordane					CAS #: 5103-71-9		
4.743	4.743	0.000	15236202	200.000	219	80.00- 120.00	100.00(A)

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.874	4.874	0.000	13790125	200.000	224	80.00- 120.00	100.00(A)
19 4,4'-DDE					CAS #: 72-55-9		
4.809	4.810	-0.001	29700930	400.000	433	80.00- 120.00	100.00(A)
20 Dieldrin					CAS #: 60-57-1		
5.103	5.103	0.000	31285384	400.000	439	80.00- 120.00	100.00(A)
22 Endrin					CAS #: 72-20-8		
5.331	5.331	0.000	24943058	400.000	438	80.00- 120.00	100.00(A)
25 4,4'-DDD					CAS #: 72-54-8		
5.392	5.393	-0.001	23906678	400.000	434	80.00- 120.00	100.00(A)
24 Endosulfan II					CAS #: 33213-65-9		
5.554	5.555	-0.001	25550217	400.000	437	80.00- 120.00	100.00(A)
27 Endrin aldehyde					CAS #: 7421-93-4		
5.979	5.980	-0.001	20921293	400.000	424	80.00- 120.00	100.00(A)
26 4,4'-DDT					CAS #: 50-29-3		
5.671	5.672	-0.001	19690028	400.000	438	80.00- 120.00	100.00(A)
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.432	6.433	-0.001	21351875	400.000	447	80.00- 120.00	100.00(A)
28 Methoxychlor					CAS #: 72-43-5		
6.174	6.176	-0.002	46110350	2000.00	2080	80.00- 120.00	100.00(A)
31 Endrin ketone					CAS #: 53494-70-5		
6.729	6.730	-0.001	27211647	400.000	422	80.00- 120.00	100.00(A)
$ 1 4cmx					CAS #: 877-09-8		
2.677	2.676	0.001	28480358	400.000	420	80.00- 120.00	100.00(A)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.821	7.823	-0.002	21017609	400.000	405	80.00- 120.00	100.00(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem/ecd3a.i/010410p.b/010f1001.d
Date : 04-JAN-2010 14:34
Client ID: INDAB05
Sample Info: IIPE091219-02AB
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

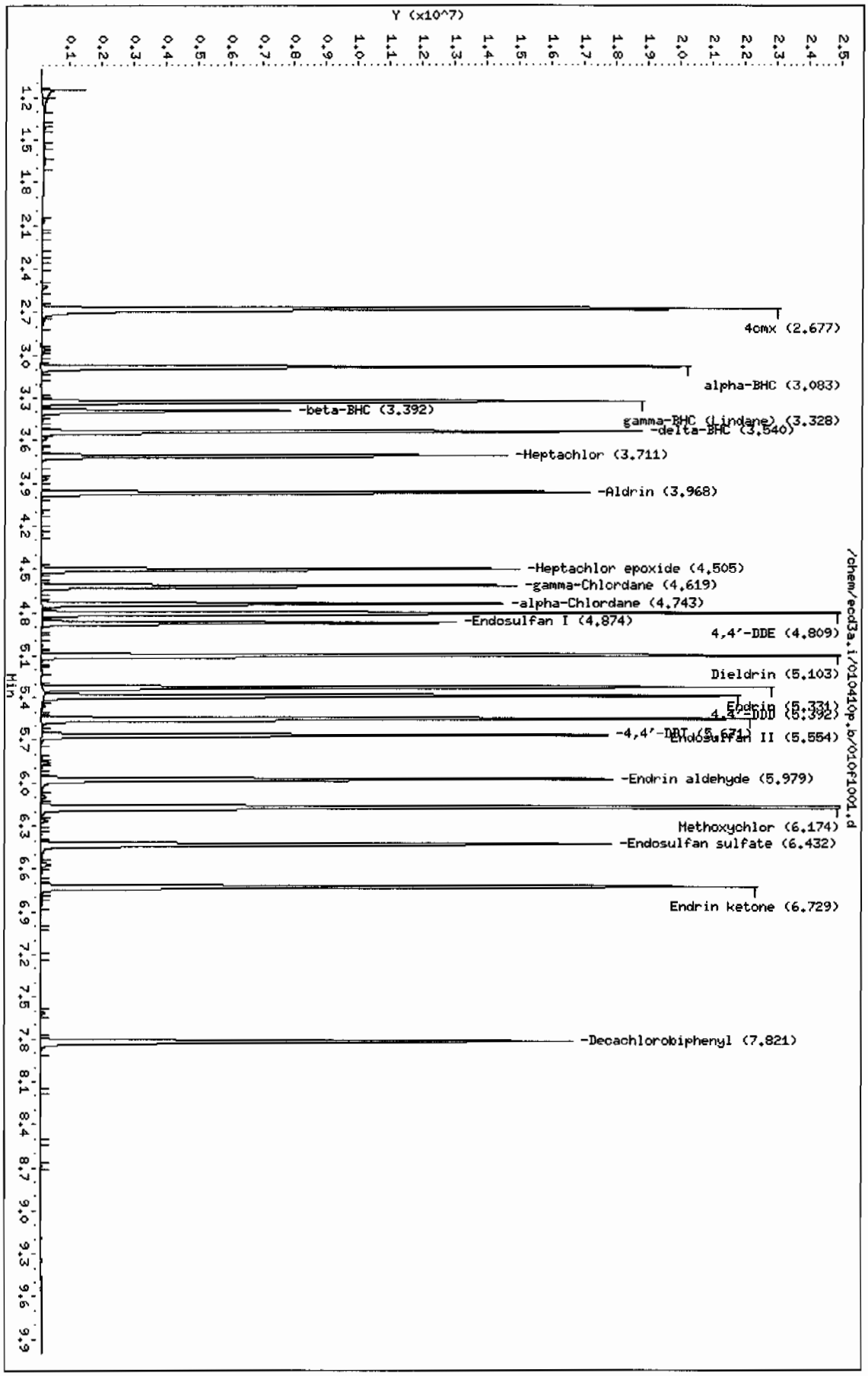

Page 1

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010410p.b/010b1001.d
Lab Smp Id: IPE091219-02AB Client Smp ID: INDAB05
Inj Date : 04-JAN-2010 14:34
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |IPE091219-02AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 10 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.414	3.413	0.001	148460638	200.000	216	80.00- 120.00	100.00(A)
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.722	3.722	0.000	122224552	200.000	210	80.00- 120.00	100.00(A)
12 beta-BHC					CAS #: 319-85-7		
3.784	3.784	0.000	48161771	200.000	190	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.136	4.135	0.001	80301082	200.000	190	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.057	4.056	0.001	110939969	200.000	211	80.00- 120.00	100.00(A)
11 Aldrin					CAS #: 309-00-2		
4.447	4.447	0.000	74839519	200.000	197	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.998	4.998	0.000	55745083	200.000	182	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.188	5.188	0.000	60419381	200.000	201	80.00- 120.00	100.00(A)
18 alpha-Chlordane					CAS #: 5103-71-9		
5.336	5.336	0.000	61025360	200.000	204	80.00- 120.00	100.00(A)

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.399	5.399	0.000	56050790	200.000	198	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.493	5.493	0.000	114949143	400.000	388	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.680	5.679	0.001	137406882	400.000	398	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.999	5.999	0.000	133156450	400.000	396	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.098	6.099	-0.001	137893223	400.000	403	80.00- 120.00	100.00(A)
24 Endosulfan II					CAS #: 33213-65-9		
6.219	6.220	-0.001	152523435	400.000	386	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.576	6.576	0.000	149724453	400.000	391	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.437	6.438	-0.001	145333568	400.000	405	80.00- 120.00	100.00(A)
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.878	6.879	-0.001	199127142	400.000	423	80.00- 120.00	100.00(A)
28 Methoxychlor					CAS #: 72-43-5		
7.180	7.180	0.000	406063693	2000.00	2050	80.00- 120.00	100.00(AM)
31 Endrin ketone					CAS #: 53494-70-5		
7.470	7.471	-0.001	237686977	400.000	410	80.00- 120.00	100.00(A)
$ 1 4cmx					CAS #: 877-09-8		
2.921	2.920	0.001	185924287	400.000	372	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.858	8.859	-0.001	156359622	400.000	397	80.00- 120.00	100.00

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010410p.b/010b1001.d
Date : 04-JAN-2010 14:34
Client ID: INDAB05
Sample Info: |IPE091219-02AB

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

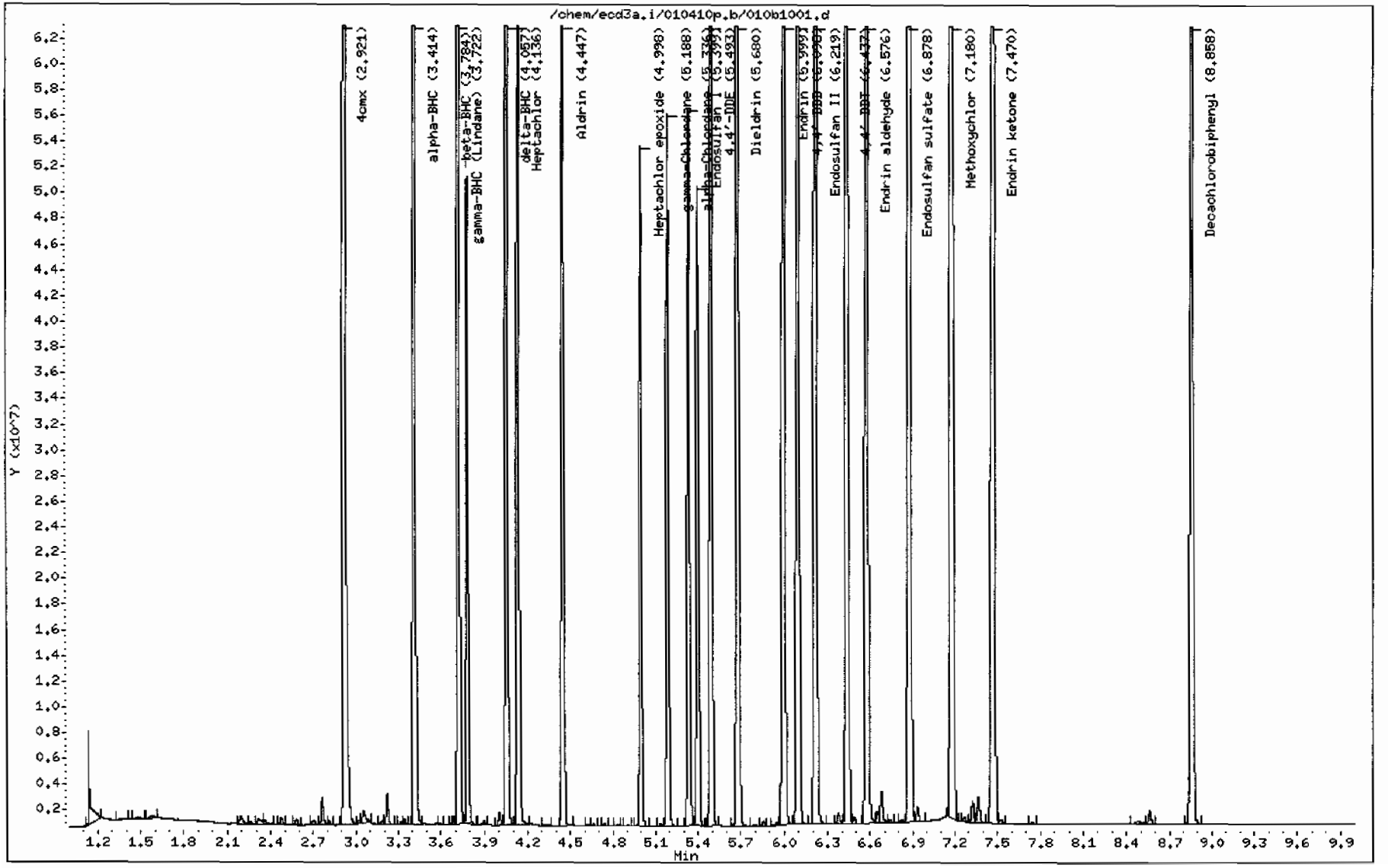

Comment: Manually Integrated
Data File: /chem/ecd3a.i/010410p.b/010b1001.d
Operator: HXJ1
Injection Date: 04-JAN-2010 14:34
Instrument: ecd3a.i
Client Sample ID: INDAB05

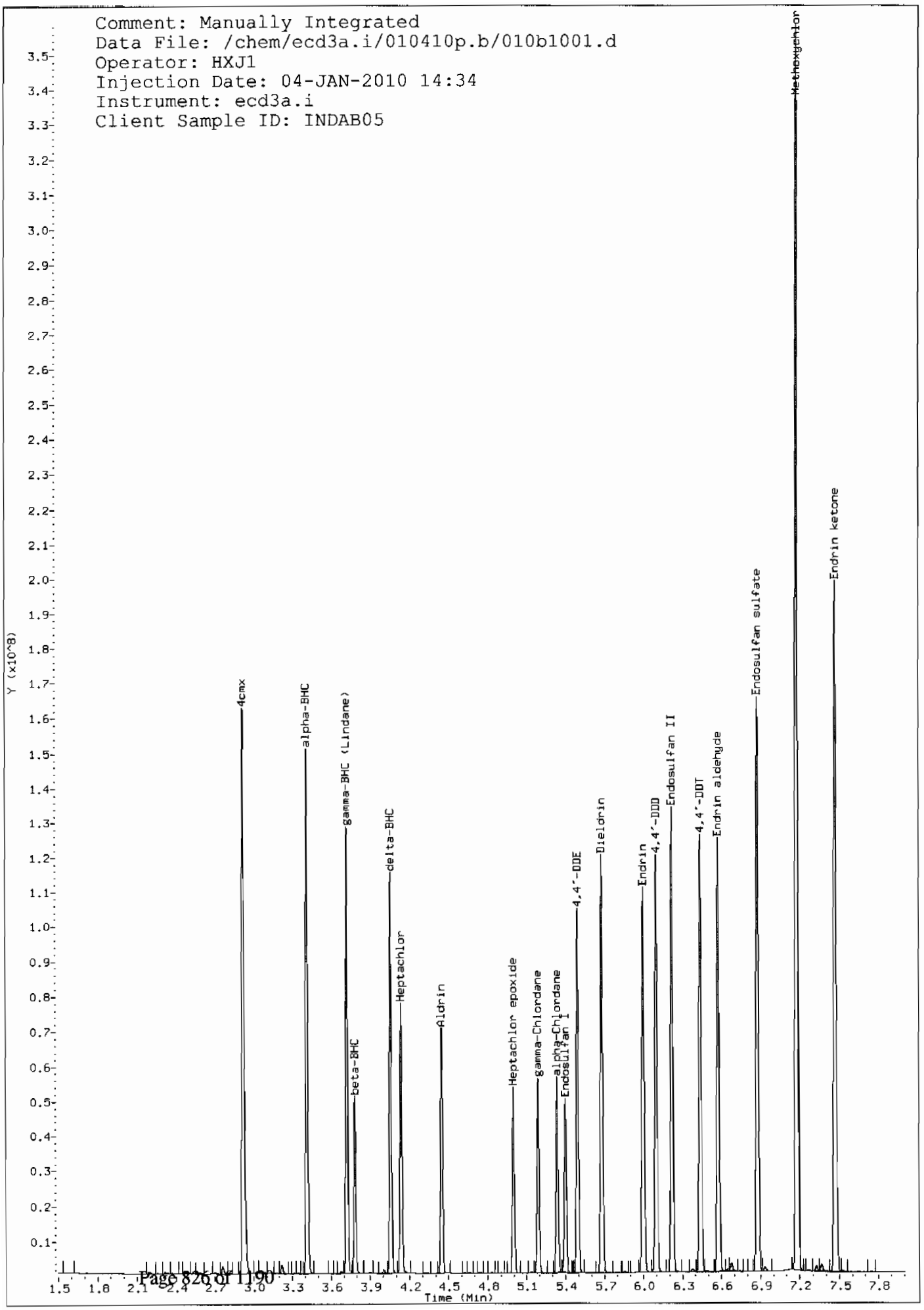

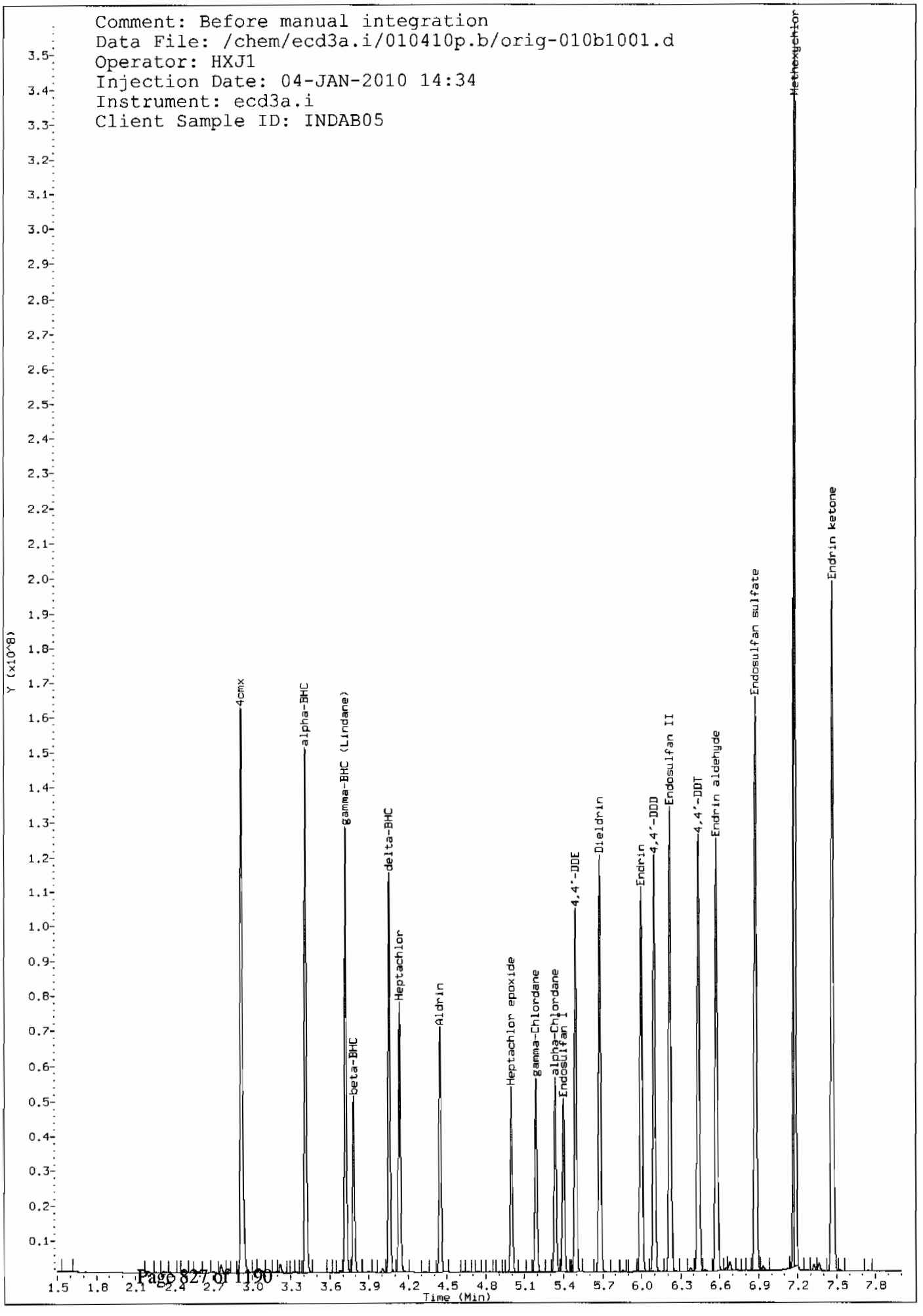
Comment: Before manual integration
Data File: /chem/ecd3a.i/010410p.b/orig-010b1001.d
Operator: HXJ1
Injection Date: 04-JAN-2010 14:34
Instrument: ecd3a.i
Client Sample ID: INDAB05
Y (x10^8)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Endrin ketone

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CLP-1

Data file : /chem/ecd3a.i/122909p.b/009f0901.d
Lab Smp Id: WPE091228-11TX Client Smp ID: TOXAPH01
Inj Date : 29-DEC-2009 18:56
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-11TX
Misc Info : |TOXLEVEL1
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 20:42 Cal File: 016f1601.d
Als bottle: 9 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.004	5.005	-0.001	44436	100.000	91.6	80.00- 120.00	100.00(M)
5.111	5.109	0.002	74342	100.000	98.6	136.78- 176.78	167.30
5.196	5.194	0.002	74020	100.000	85.0	169.96- 209.96	166.58
5.355	5.353	0.002	98971	100.000	87.1	213.58- 253.58	222.73
5.548	5.544	0.004	187549	100.000	92.8	347.48- 387.48	422.07
Average of Peak Amounts =					91		
$ 1 4cmx					CAS #: 877-09-8		
2.678	2.679	-0.001	848503	8.00000	12.9	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.824	7.824	0.000	654866	8.00000	13.6	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/009f0901.d
Date : 29-DEC-2009 18:56
Client ID: TOXAPH01
Sample Info: IWPE091228-11TX

Column phase: CLP-1

Instrument: ecd3a.i

Operator: CXC2
Column diameter: 0.25

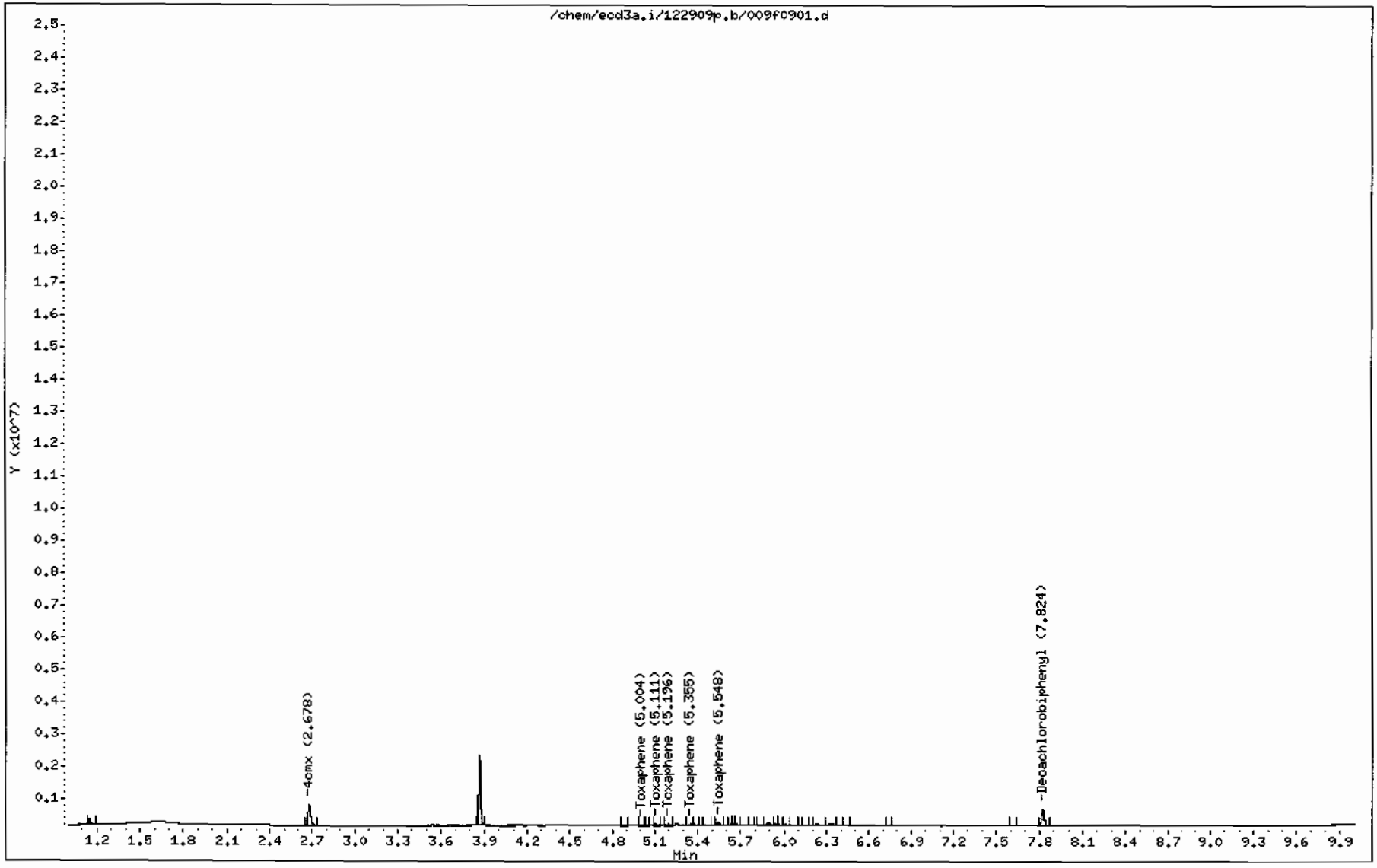

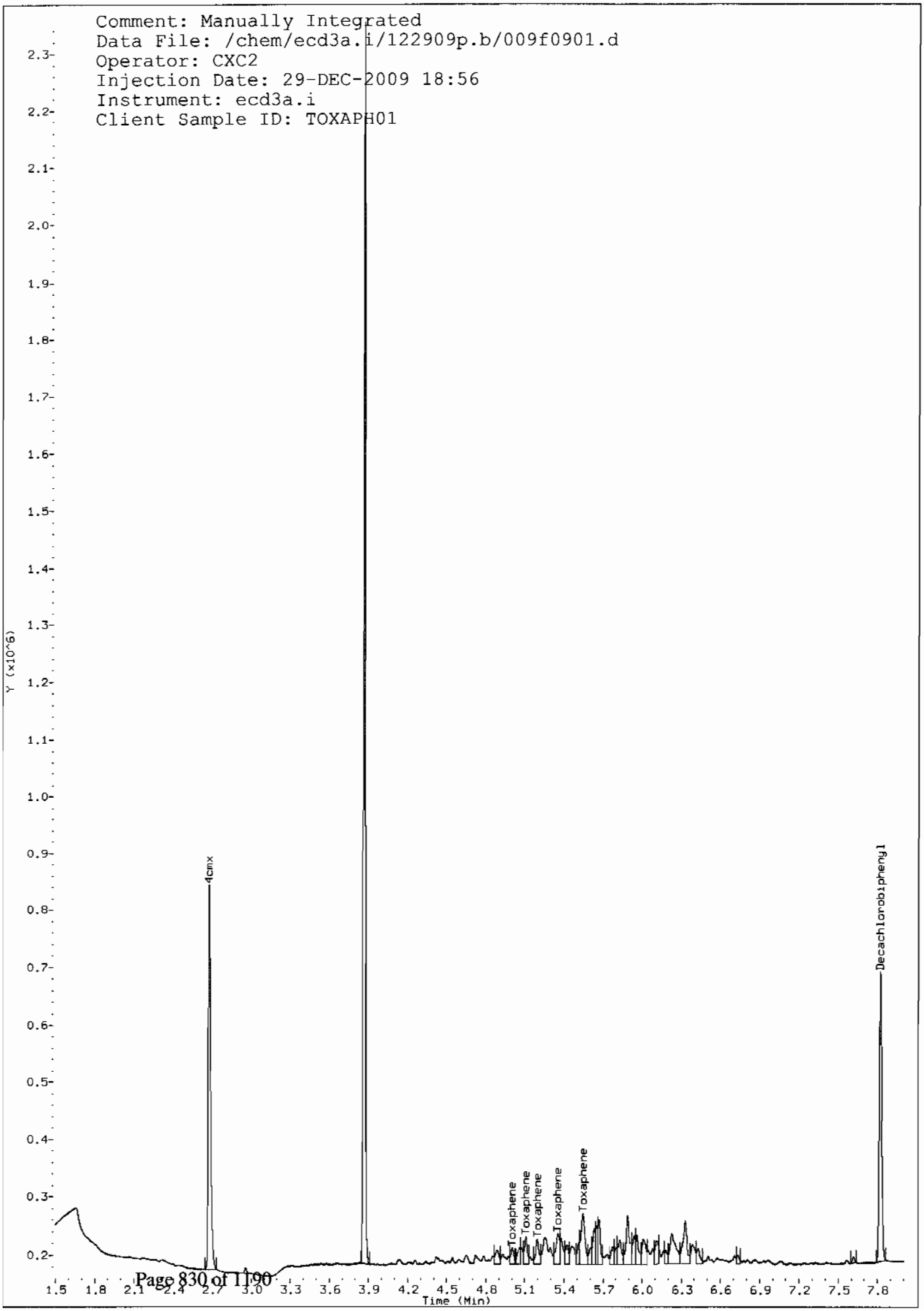
Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/009f0901.d
Operator: CXC2
Injection Date: 29-DEC-2009 18:56
Instrument: ecd3a.i
Client Sample ID: TOXAPH01
Y (x10^6)
Time (Min)
4cmx
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Decachlorobiphenyl

Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-009f0901.d
Operator: CXC2
Injection Date: 29-DEC-2009 18:56
Instrument: ecd3a.i
Client Sample ID: TOXAPH01

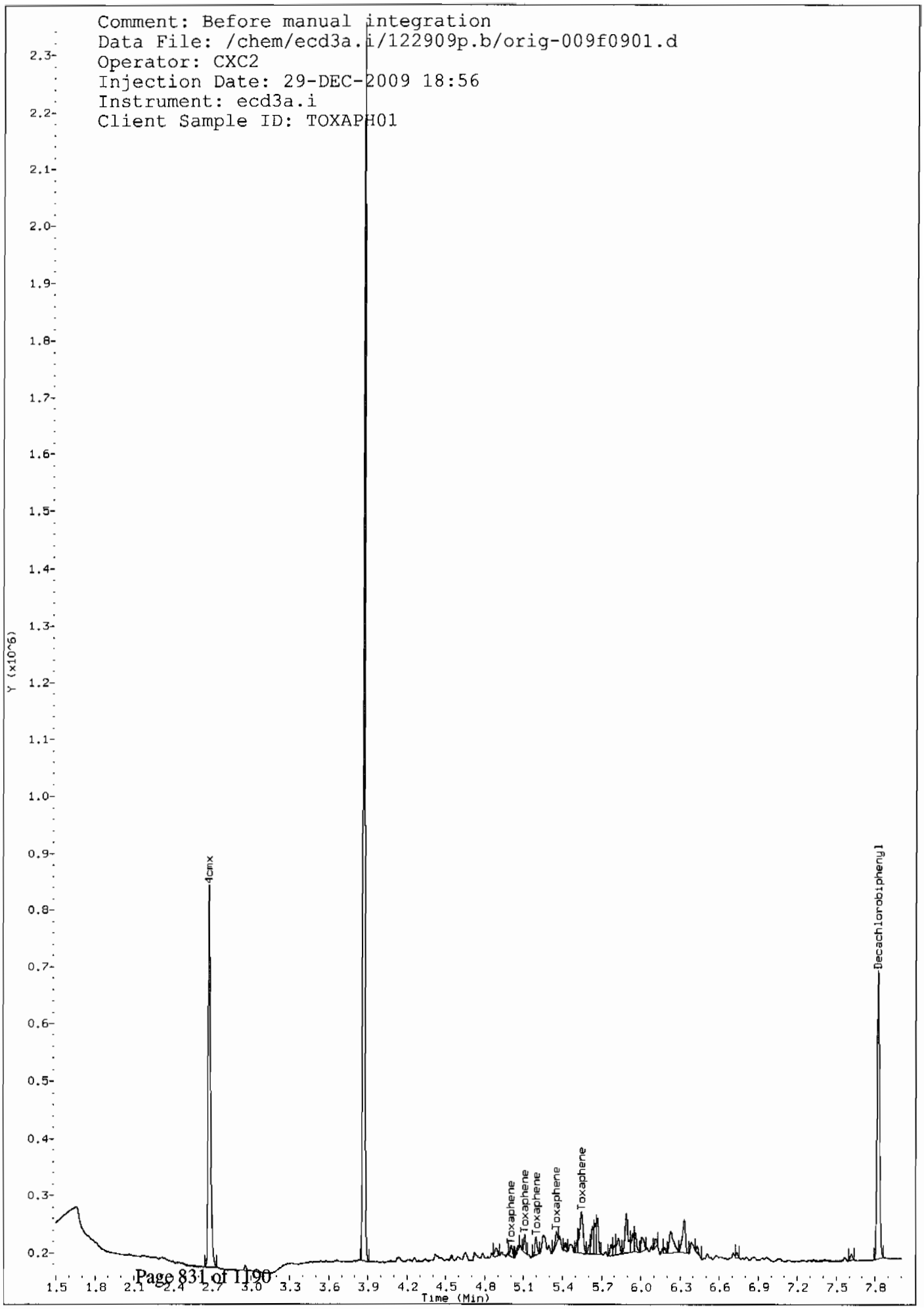

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CLP-2

Data file : /chem/ecd3a.i/122909p.b/009b0901.d
Lab Smp Id: WPE091228-11TX Client Smp ID: TOXAPH01
Inj Date : 29-DEC-2009 18:56
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-11TX
Misc Info : |TOXLEVEL1
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 20:42 Cal File: 016b1601.d
Als bottle: 9 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.658	5.653	0.005	470223	100.000	92.8	80.00- 120.00	100.00(M)
5.779	5.778	0.001	272329	100.000	91.1	37.72- 77.72	57.91
6.170	6.168	0.002	506614	100.000	84.2	78.89- 118.89	107.74
6.212	6.210	0.002	948873	100.000	89.5	158.10- 198.10	201.79
6.314	6.313	0.001	1721564	100.000	89.9	271.11- 311.11	366.12
Average of Peak Amounts =					89.5		
$ 1 4cmx					CAS #: 877-09-8		
2.921	2.922	-0.001	6780433	8.00000	14.4	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.860	8.860	0.000	4611378	8.00000	14.0	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/009b0901.d
Date : 29-DEC-2009 18:56
Client ID: TOXAPH01
Sample Info: IWPE091228-11TX

Column phase: CLP-2

Instrument: ecd3a.i

Operator: CXC2
Column diameter: 0.25

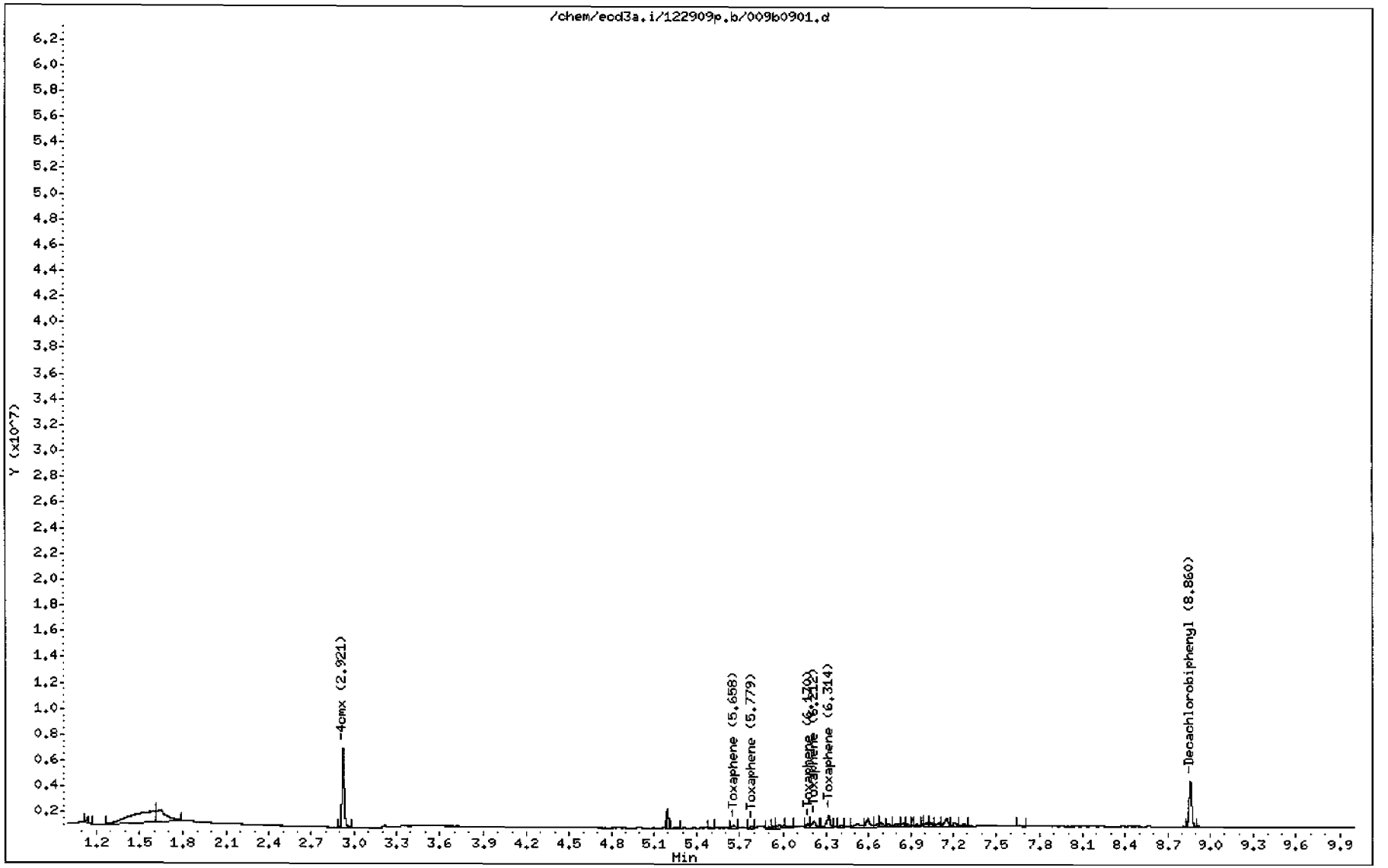

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/009b0901.d
Operator: CXC2
Injection Date: 29-DEC-2009 18:56
Instrument: ecd3a.i
Client Sample ID: TOXAPH01

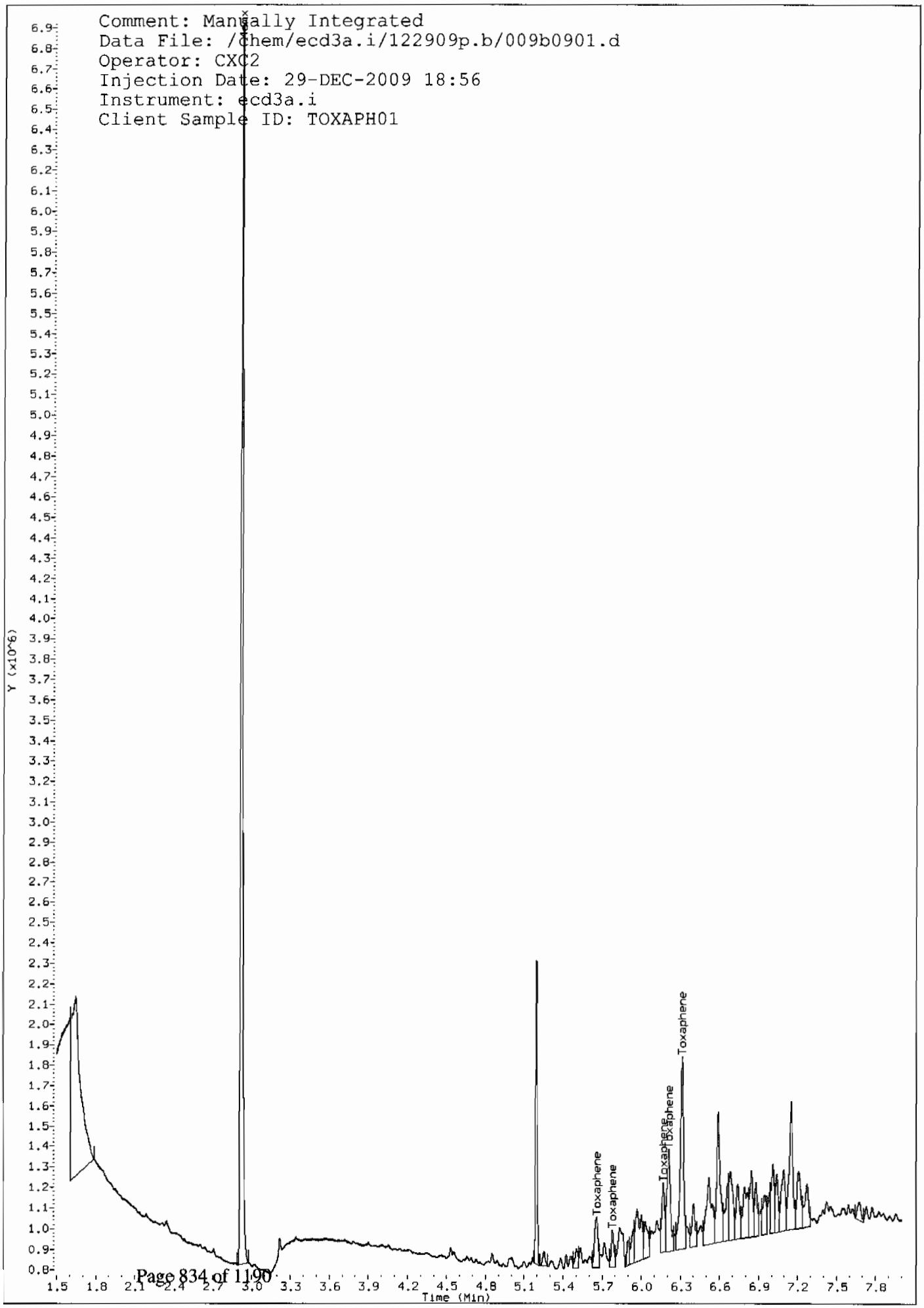

Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-009b0901.d
Operator: CXC2
Injection Date: 29-DEC-2009 18:56
Instrument: ecd3a.i
Client Sample ID: TOXAPH01

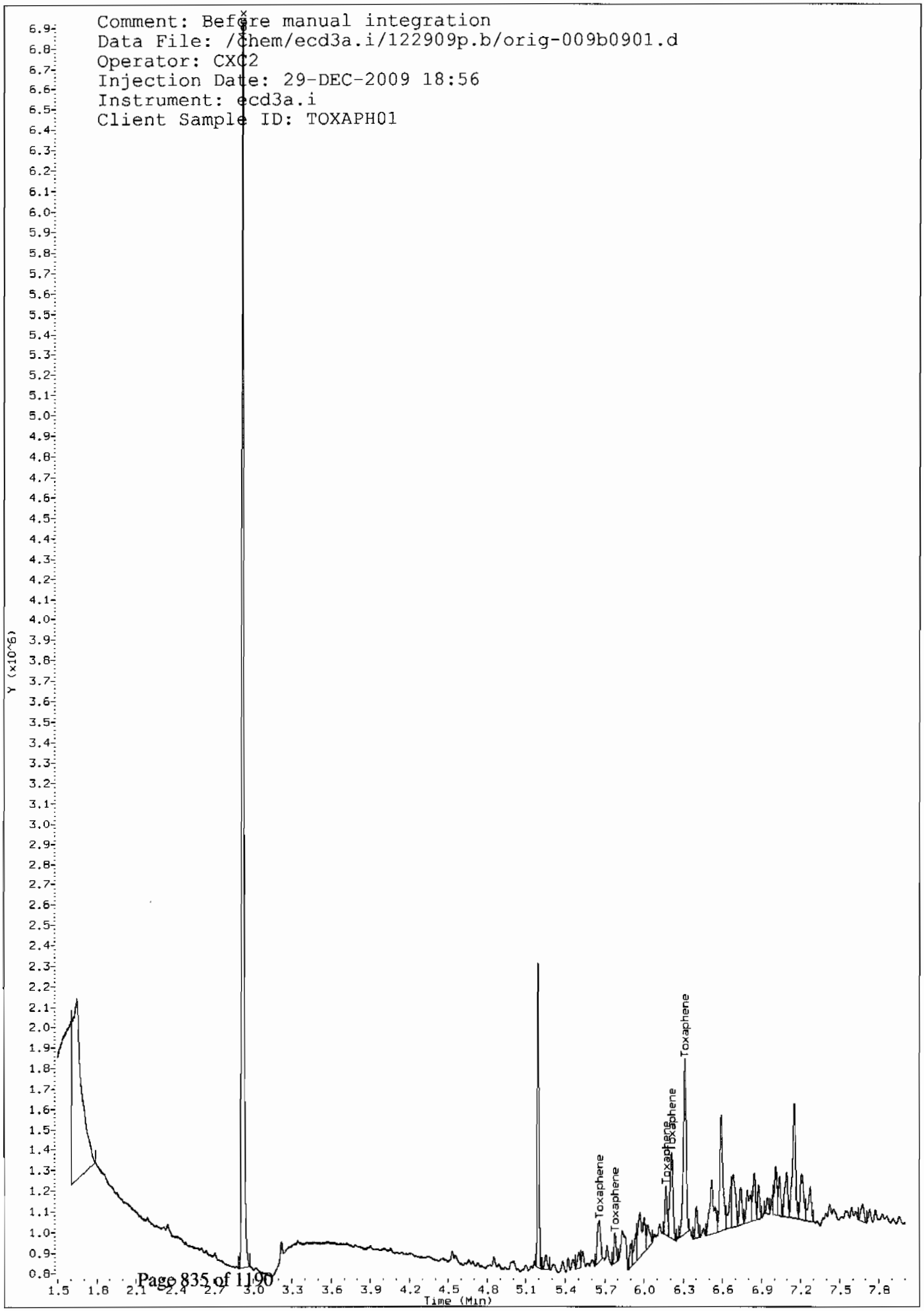

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/122909p.b/010f1001.d
Lab Smp Id: WPE091228-12TX Client Smp ID: TOXAPH02
Inj Date : 29-DEC-2009 19:10
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-12TX
Misc Info : |TOXLEVEL2
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:14 Cal File: 017f1701.d
Als bottle: 10 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.004	5.005	-0.001	235894	500.000	486	80.00- 120.00	100.00(M)
5.110	5.109	0.001	381338	500.000	506	136.78- 176.78	161.66
5.195	5.194	0.001	431043	500.000	495	169.96- 209.96	182.73
5.355	5.353	0.002	562023	500.000	494	213.58- 253.58	238.25
5.546	5.544	0.002	975994	500.000	483	347.48- 387.48	413.74
Average of Peak Amounts =					493		
$ 1 4cmx					CAS #: 877-09-8		
2.679	2.679	0.000	4443569	20.0000	67.4	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.824	7.824	0.000	3132352	20.0000	65.0	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/010f1001.d
Date : 29-DEC-2009 19:10
Client ID: TOXAPH02
Sample Info: IWPE091228-12TX

Column phase: CLP-1

Instrument: ecd3a.i

Operator: CXC2
Column diameter: 0.25

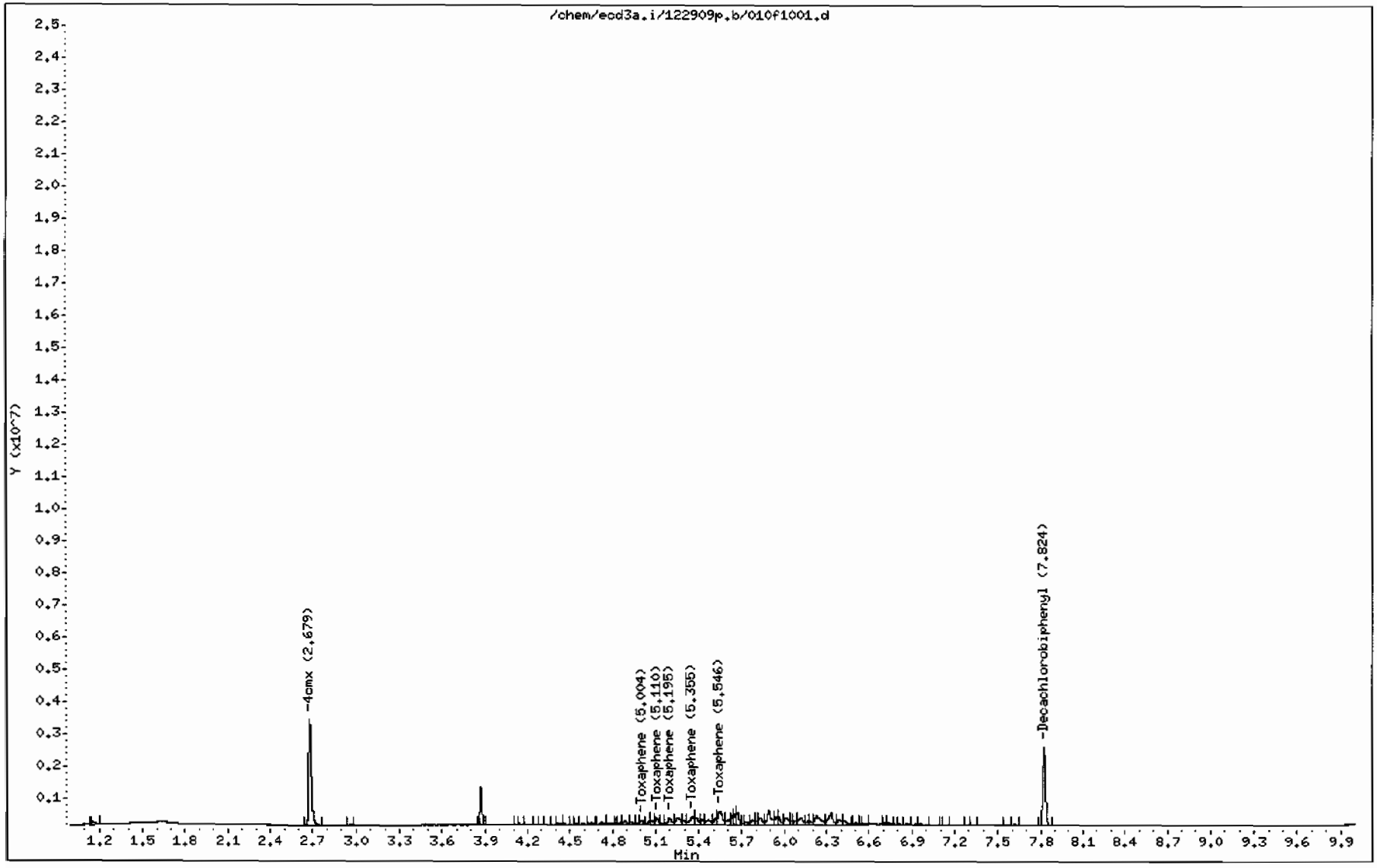

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/010f1001.d
Operator: CXC2
Injection Date: 29-DEC-2009 19:10
Instrument: ecd3a.i
Client Sample ID: TOXAPH02

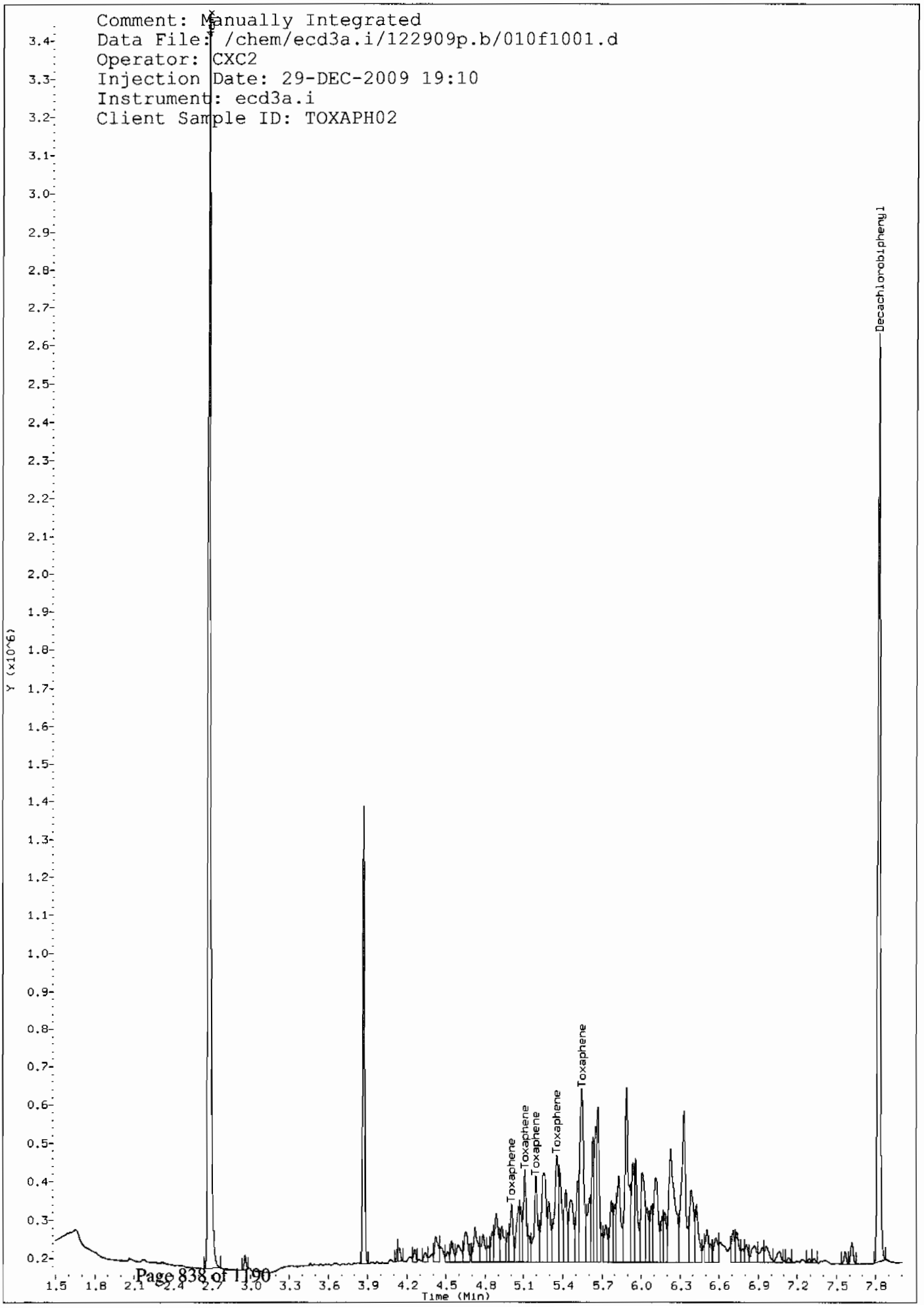

Comment: Before manual integration
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Operator: CXC2
Injection Date: 29-DEC-2009 19:10
Instrument: ecd3a.i
Client Sample ID: TOXAPH02

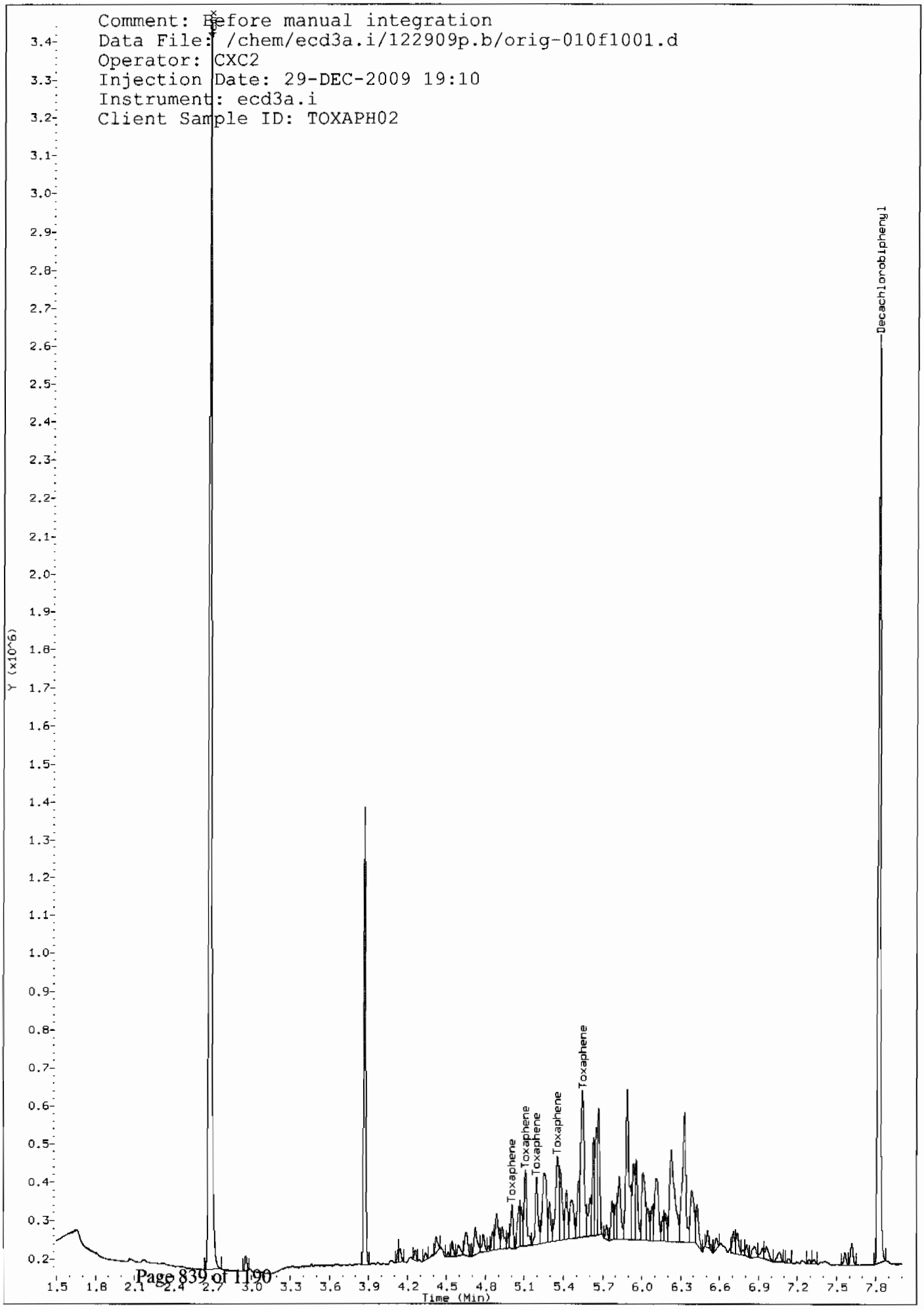

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/010b1001.d
Lab Smp Id: WPE091228-12TX Client Smp ID: TOXAPH02
Inj Date : 29-DEC-2009 19:10
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-12TX
Misc Info : |TOXLEVEL2
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:14 Cal File: 017b1701.d
Als bottle: 10 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.659	5.653	0.006	2435357	500.000	481	80.00- 120.00	100.00(M)
5.778	5.778	0.000	1382120	500.000	462	37.72- 77.72	56.75
6.168	6.168	0.000	2933662	500.000	488	78.89- 118.89	120.46
6.212	6.210	0.002	5153228	500.000	486	158.10- 198.10	211.60
6.313	6.313	0.000	9426983	500.000	492	271.11- 311.11	387.09
Average of Peak Amounts =					482		
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.922	0.000	32492133	20.0000	69.3	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.860	8.860	0.000	21452607	20.0000	65.4	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/010b1001.d

Date : 29-DEC-2009 19:10

Client ID: TOXAPH02

Sample Info: !WPE091228-12TX

Column phase: CLP-2

Instrument: ecd3a.i

Operator: CXC2

Column diameter: 0.25

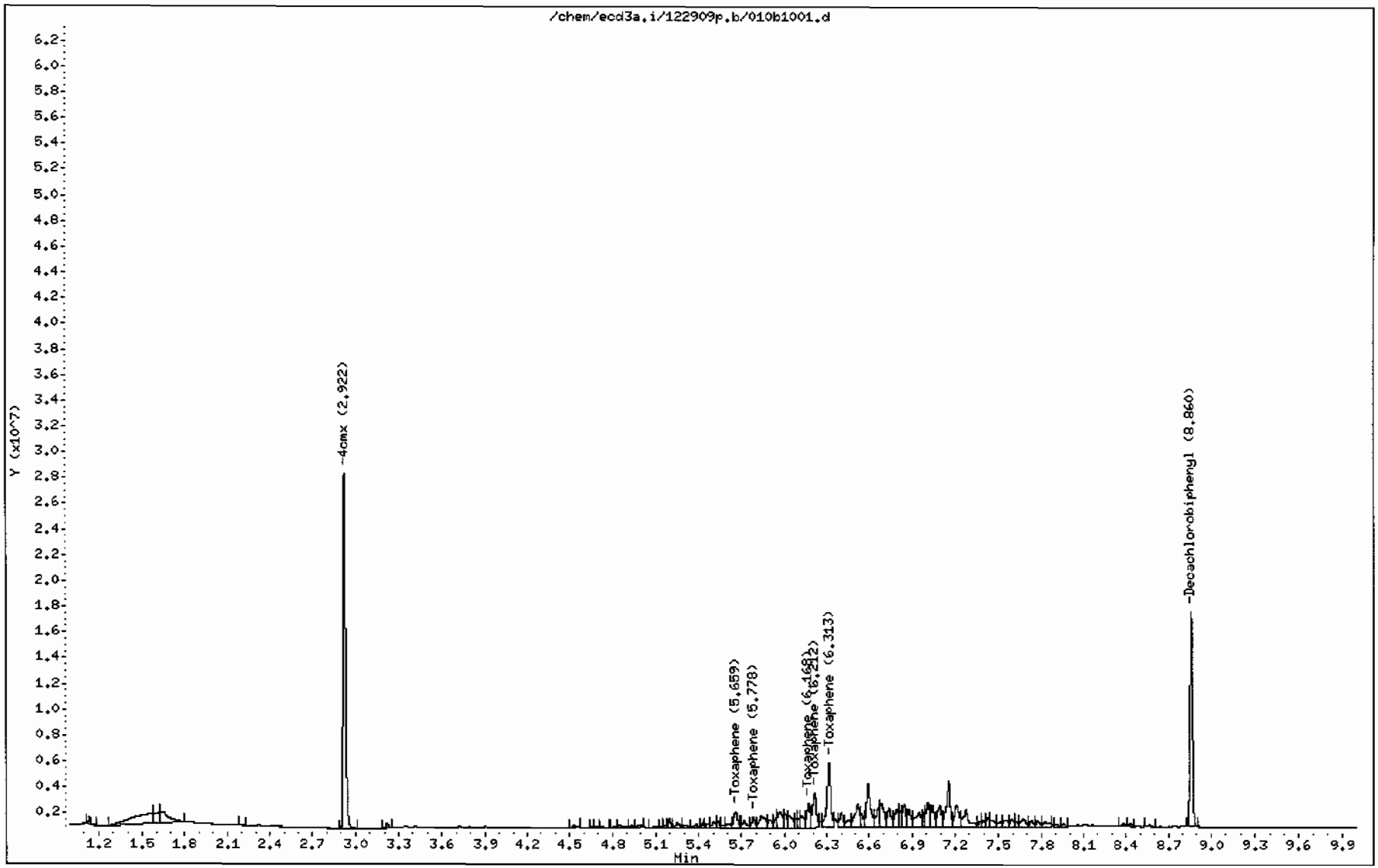

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/010b1001.d
Operator: CXC2
Injection Date: 29-DEC-2009 19:10
Instrument: ecd3a.i
Client Sample ID: TOXAPH02

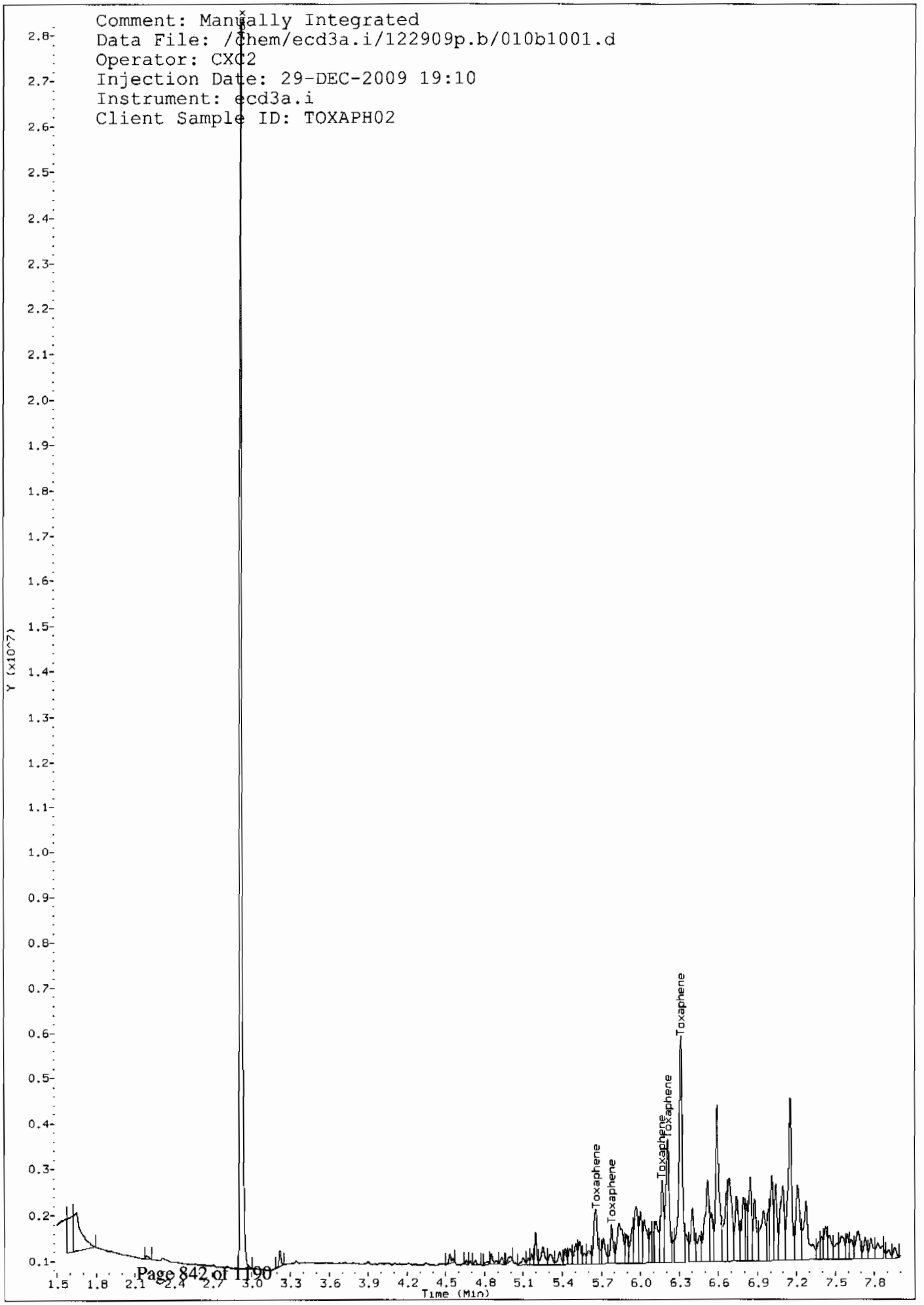

Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-010b1001.d
Operator: CXC2
Injection Date: 29-DEC-2009 19:10
Instrument: ecd3a.i
Client Sample ID: TOXAPH02

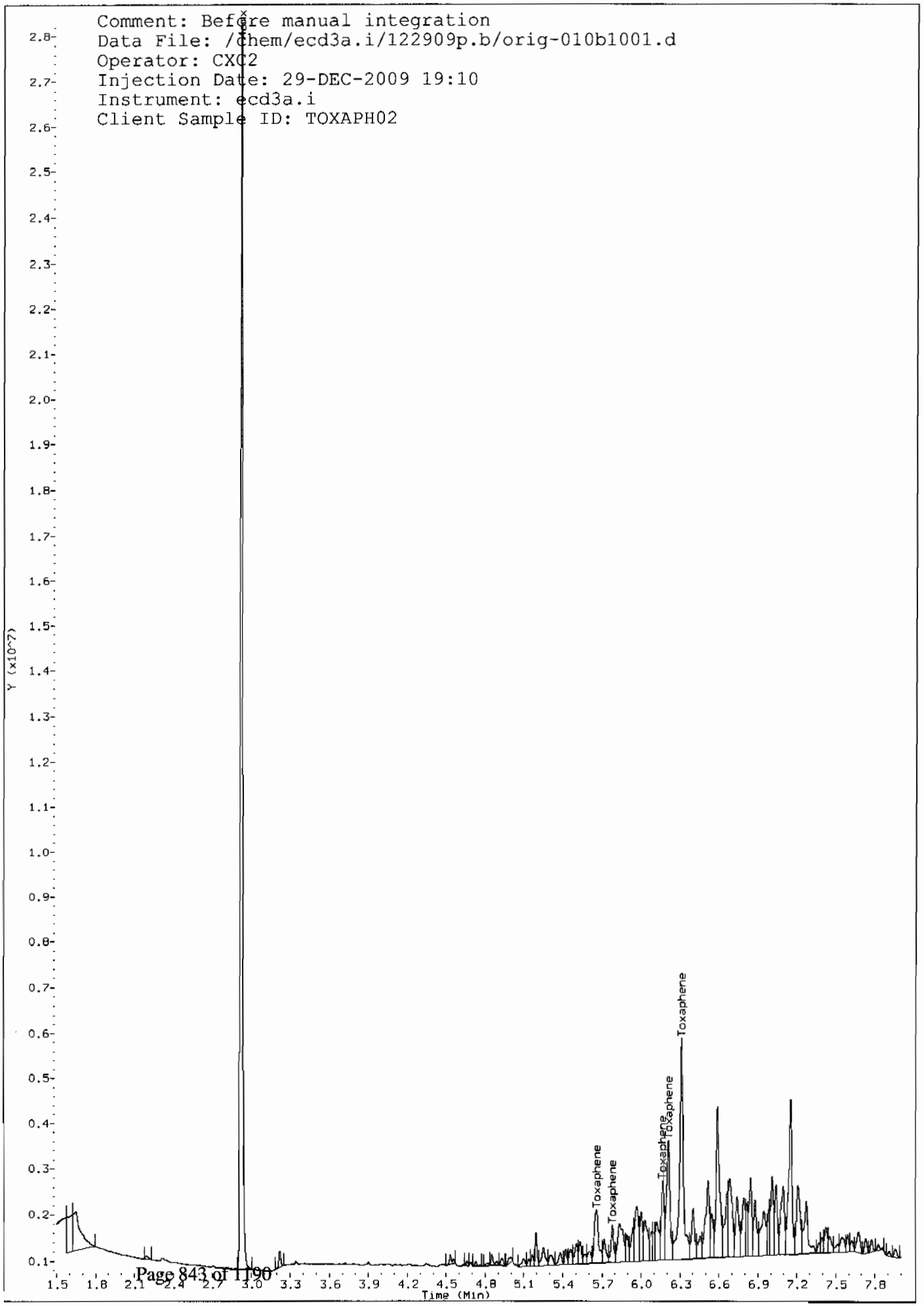

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/122909p.b/011f1101.d
Lab Smp Id: WPE091228-13TX Client Smp ID: TOXAPH03
Inj Date : 29-DEC-2009 19:24
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-13TX
Misc Info : |TOXLEVLE3
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:28 Cal File: 018f1801.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.004	5.005	-0.001	489599	1000.00	1010	80.00- 120.00	100.00(M)
5.110	5.109	0.001	748346	1000.00	992	136.78- 176.78	152.85
5.197	5.194	0.003	877437	1000.00	1010	169.96- 209.96	179.22
5.354	5.353	0.001	1152768	1000.00	1010	213.58- 253.58	235.45
5.546	5.544	0.002	1948280	1000.00	964	347.48- 387.48	397.93
Average of Peak Amounts					997		
$ 1 4cmx					CAS #: 877-09-8		
2.680	2.679	0.001	8941431	100.000	136	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.824	7.824	0.000	6137933	100.000	127	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/011f1101.d
Date : 29-DEC-2009 19:24
Client ID: TOXAPH03
Sample Info: IWPE091228-13TX

Column phase: CLP-1

Instrument: ecd3a.i

Operator: CXC2
Column diameter: 0.25

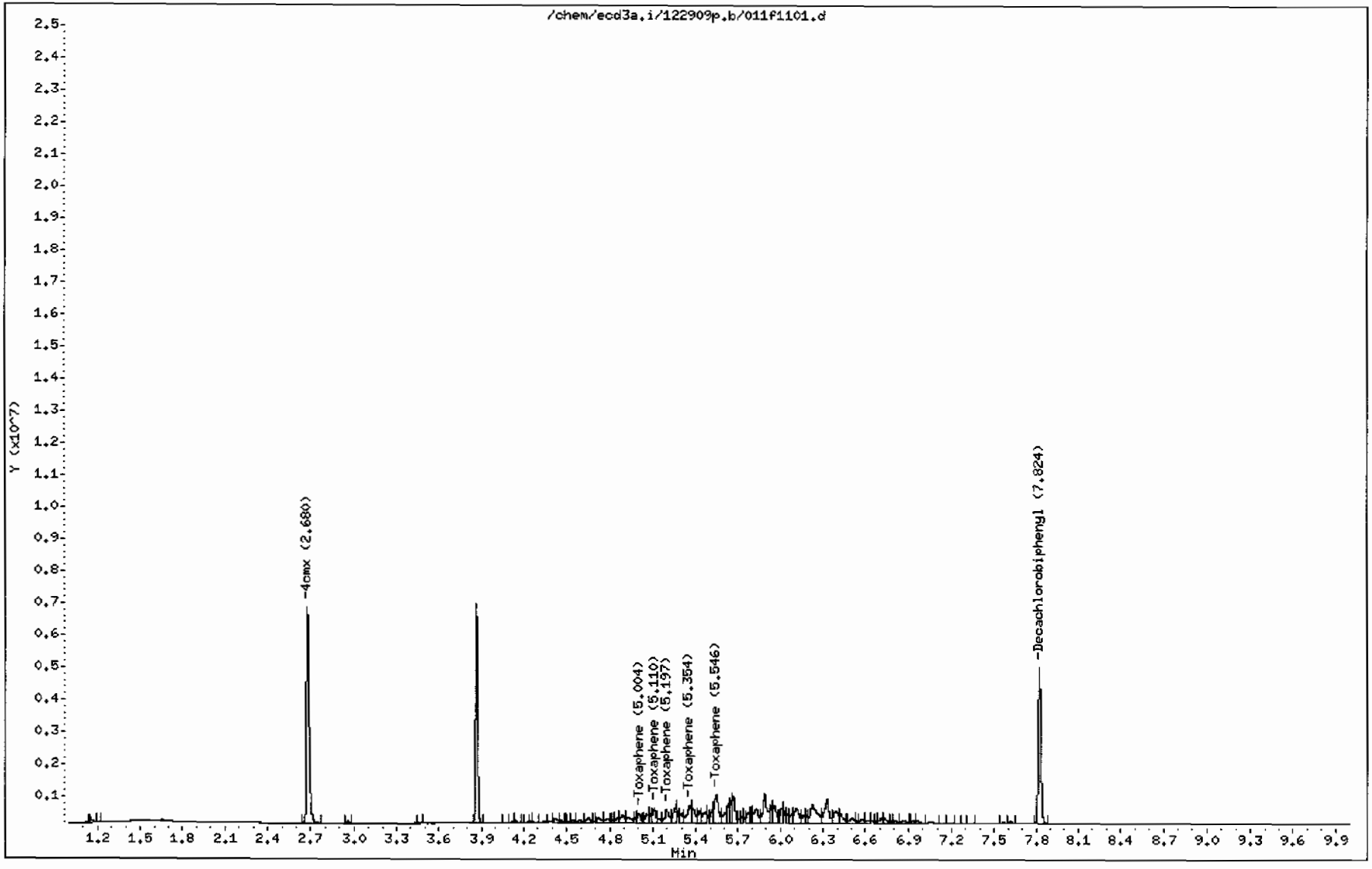

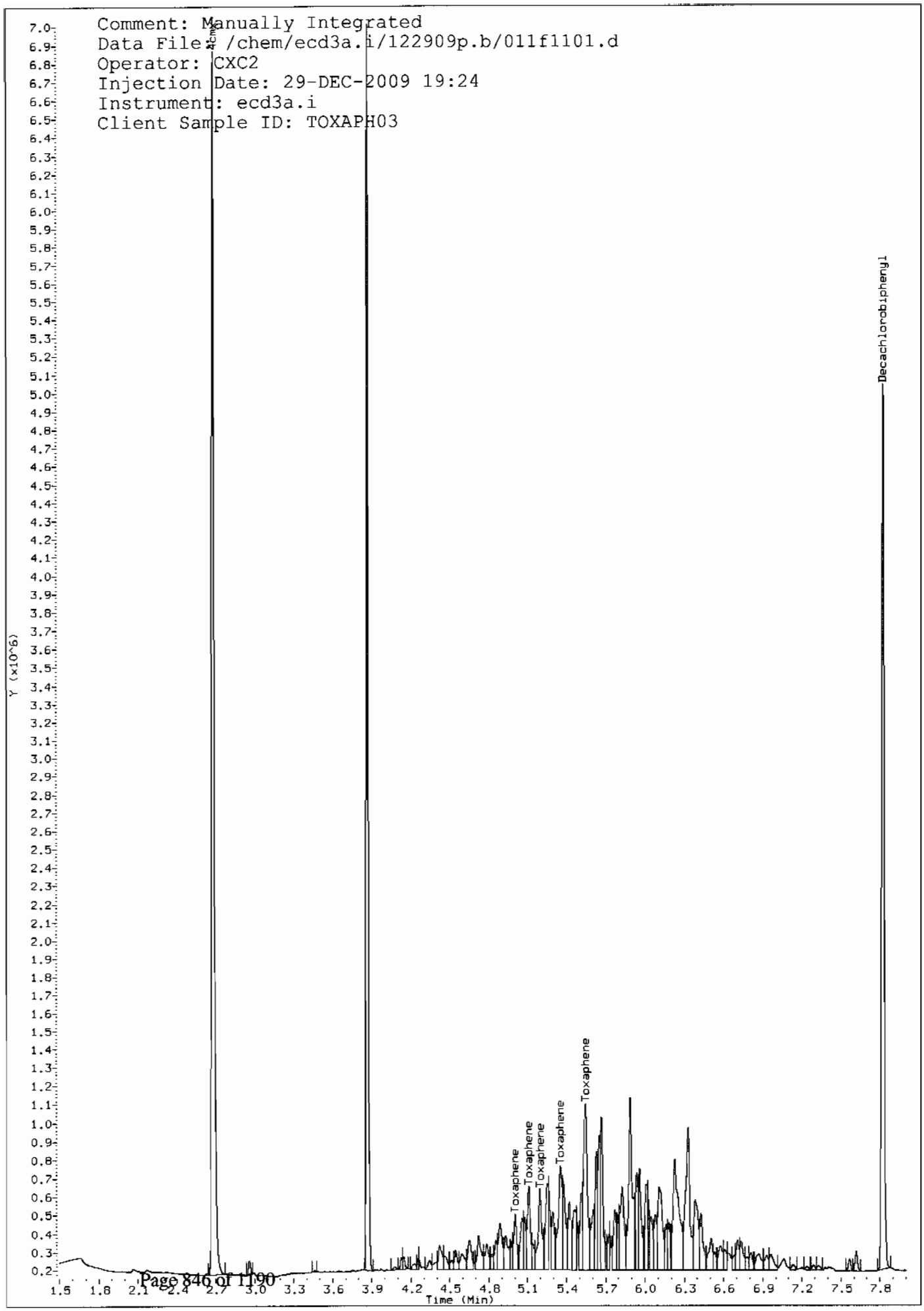
Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/011f1101.d
Operator: CXC2
Injection Date: 29-DEC-2009 19:24
Instrument: ecd3a.i
Client Sample ID: TOXAPH03
4cmx
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^6)
Time (Min)

Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-011f1101.d
Operator: CXC2
Injection Date: 29-DEC-2009 19:24
Instrument: ecd3a.i
Client Sample ID: TOXAPH03

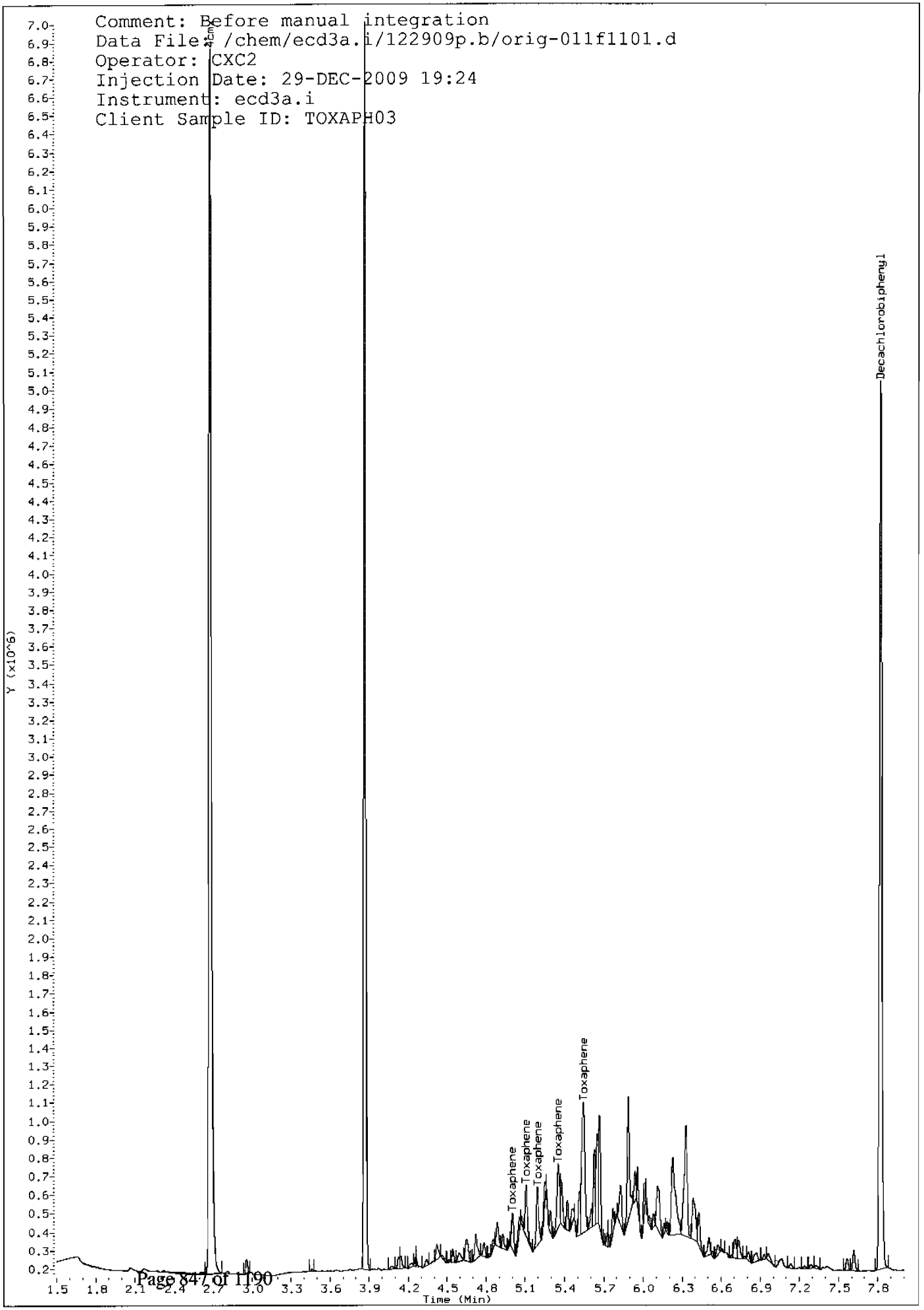

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/011b1101.d
Lab Smp Id: WPE091228-13TX Client Smp ID: TOXAPH03
Inj Date : 29-DEC-2009 19:24
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-13TX
Misc Info : |TOXLEVLE3
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:28 Cal File: 018b1801.d
Als bottle: 11 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.658	5.653	0.005	4804106	1000.00	948	80.00- 120.00	100.00(M)
5.779	5.778	0.001	2831403	1000.00	947	37.72- 77.72	58.94
6.168	6.168	0.000	5839763	1000.00	971	78.89- 118.89	121.56
6.211	6.210	0.001	10381890	1000.00	979	158.10- 198.10	216.10
6.314	6.313	0.001	18844510	1000.00	984	271.11- 311.11	392.26
Average of Peak Amounts =					966		
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.922	0.000	61503498	100.000	131	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.860	8.860	0.000	42312451	100.000	129	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/011b1101.d

Date : 29-DEC-2009 19:24

Client ID: TOXAPH03

Sample Info: IWPE091228-13TX

Column phase: CLP-2

Instrument: ecd3a.i

Operator: CXC2

Column diameter: 0.25

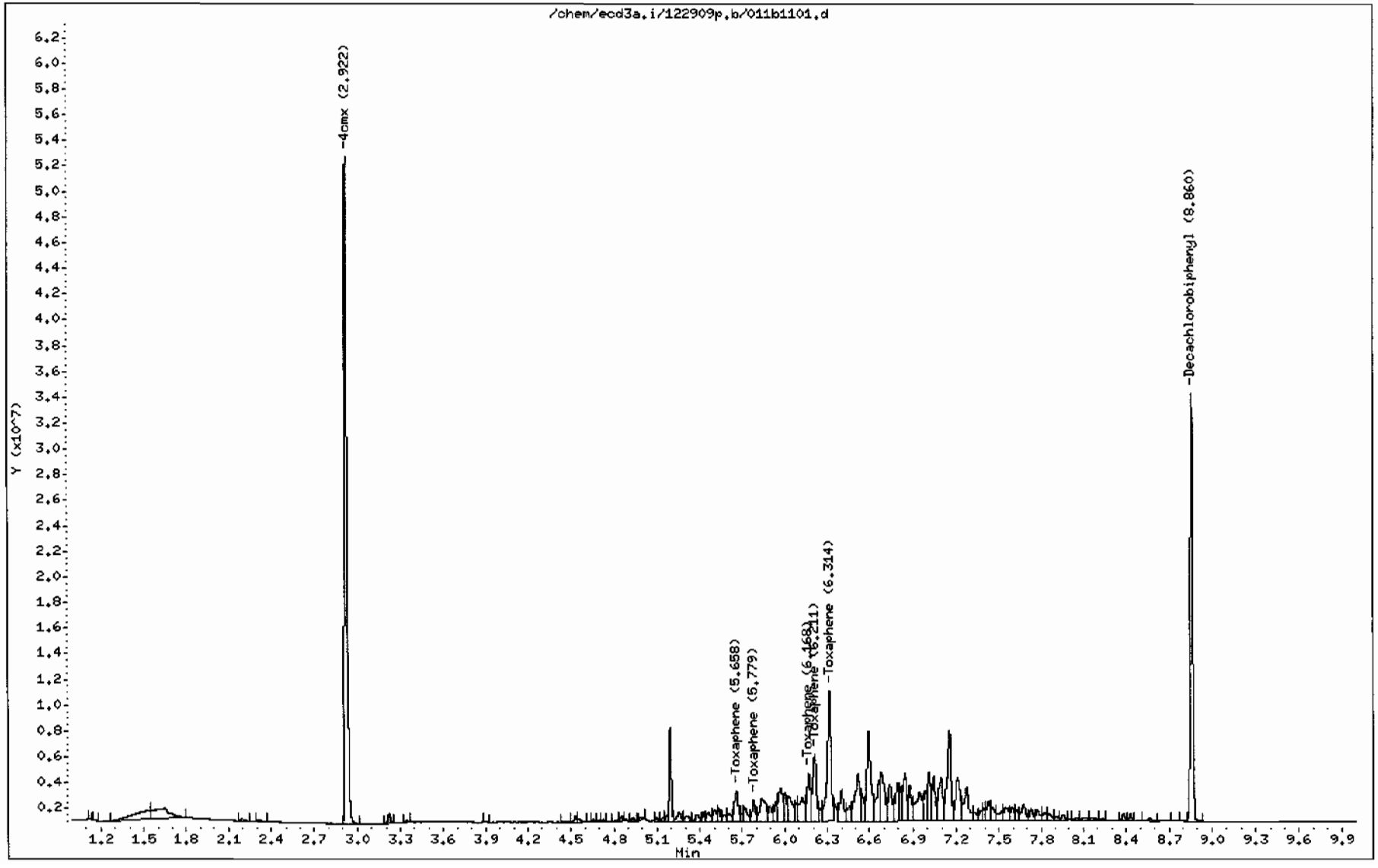

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/011b1101.d
Operator: CXC2
Injection Date: 29-DEC-2009 19:24
Instrument: ecd3a.i
Client Sample ID: TOXAPH03

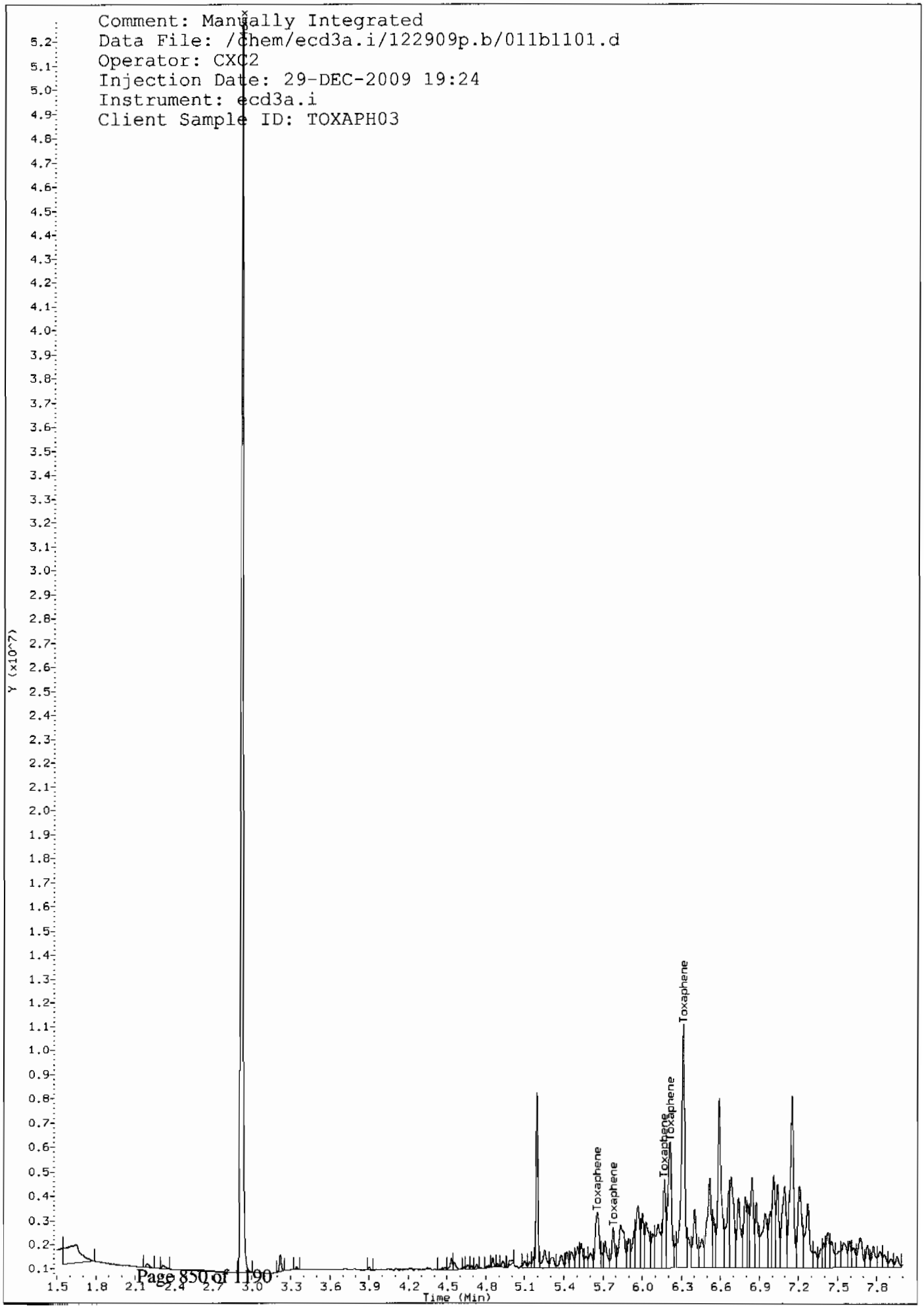

Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-011b1101.d
Operator: CXC2
Injection Date: 29-DEC-2009 19:24
Instrument: ecd3a.i
Client Sample ID: TOXAPH03

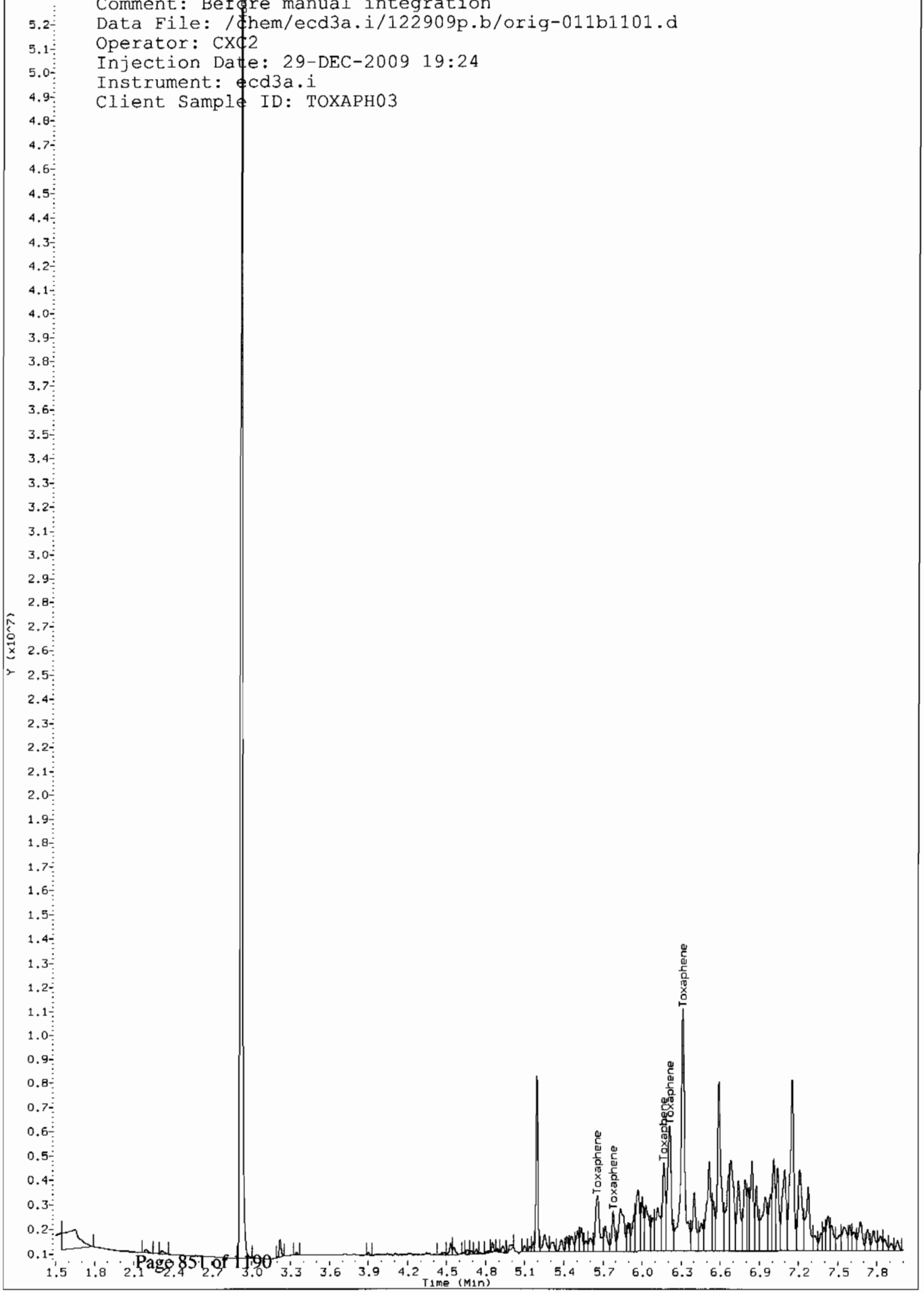

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/122909p.b/013f1301.d
Lab Smp Id: WPE091228-14TX Client Smp ID: TOXAPH04
Inj Date : 29-DEC-2009 20:01
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-14TX
Misc Info : |TOXLEVEL4
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:41 Cal File: 019f1901.d
Als bottle: 13 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.006	5.005	0.001	1024335	2000.00	2110	80.00- 120.00	100.00(M)
5.113	5.109	0.004	1497662	2000.00	1980	136.78- 176.78	146.21
5.198	5.194	0.004	1857452	2000.00	2130	169.96- 209.96	181.33
5.358	5.353	0.005	2364061	2000.00	2080	213.58- 253.58	230.79
5.549	5.544	0.005	4159333	2000.00	2060	347.48- 387.48	406.05
Average of Peak Amounts =					2.07e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.680	2.679	0.001	18258279	200.000	277	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.826	7.824	0.002	12666652	200.000	263	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/013f1301.d
Date : 29-DEC-2009 20:01
Client ID: TOXAPH04
Sample Info: IWPE091228-14TX

Column phase: CLP-1

Instrument: ecd3a.i

Operator: CXC2
Column diameter: 0.25

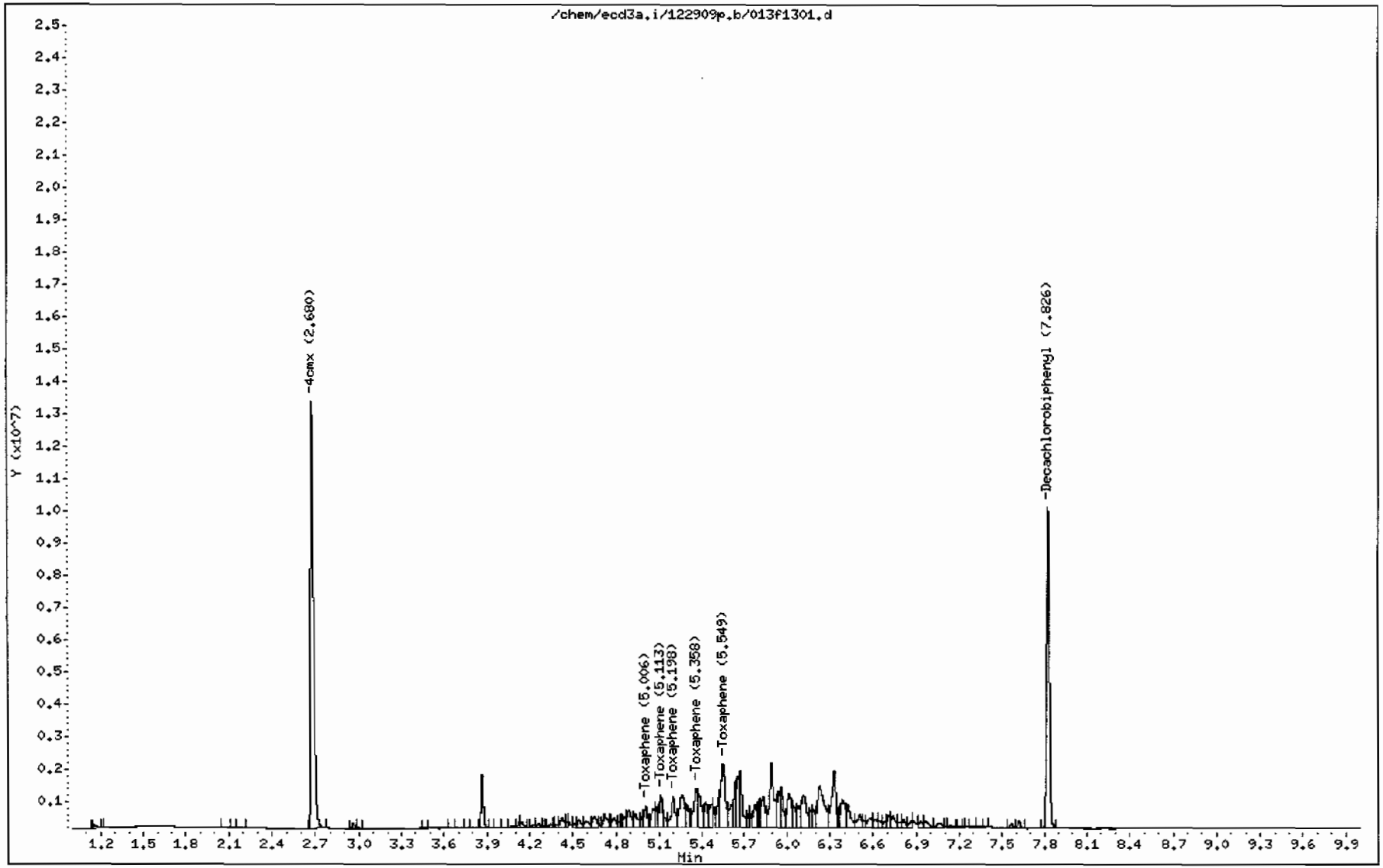

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/013f1301.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:01
Instrument: ecd3a.i
Client Sample ID: TOXAPH04

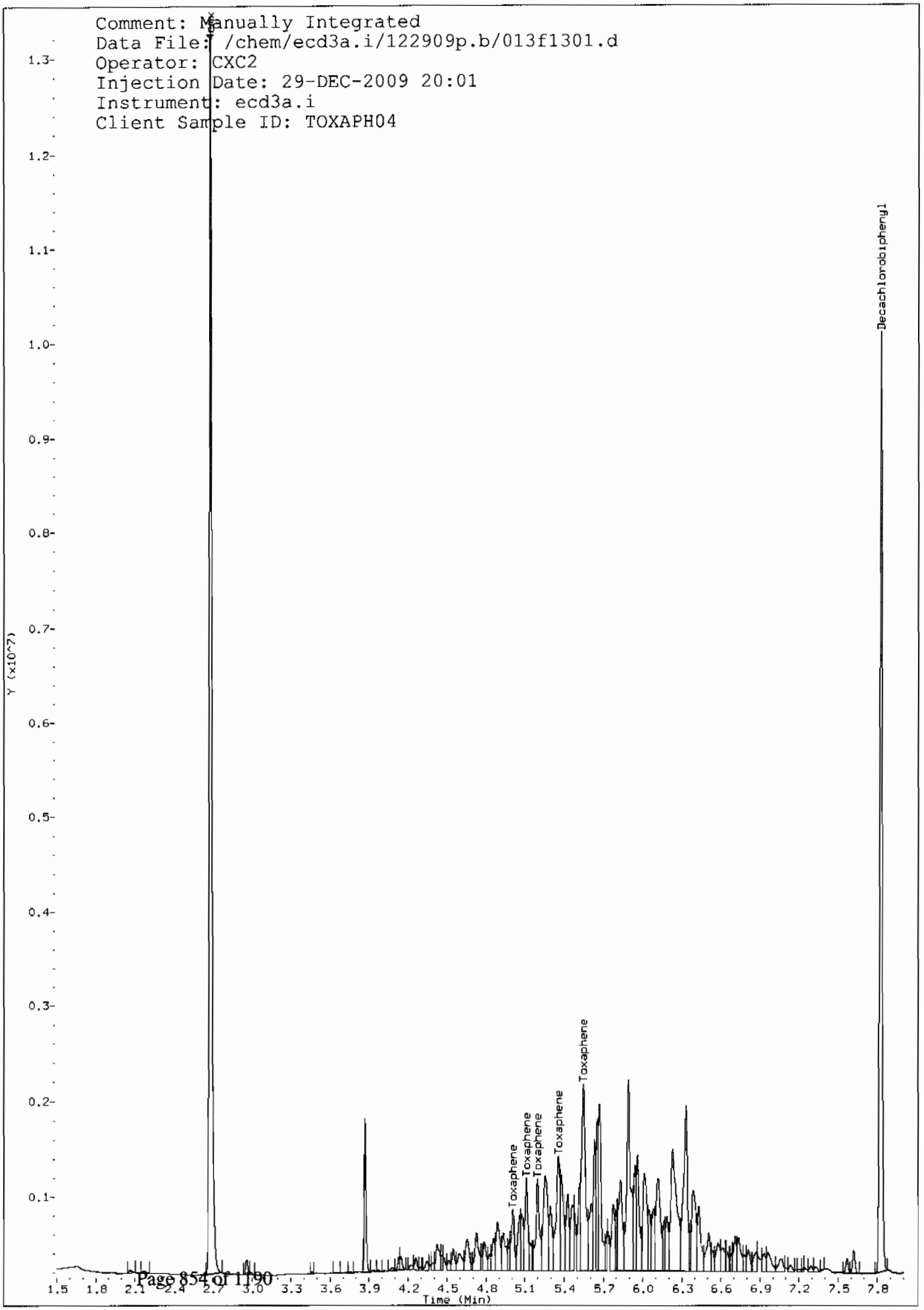

Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-013f1301.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:01
Instrument: ecd3a.i
Client Sample ID: TOXAPH04

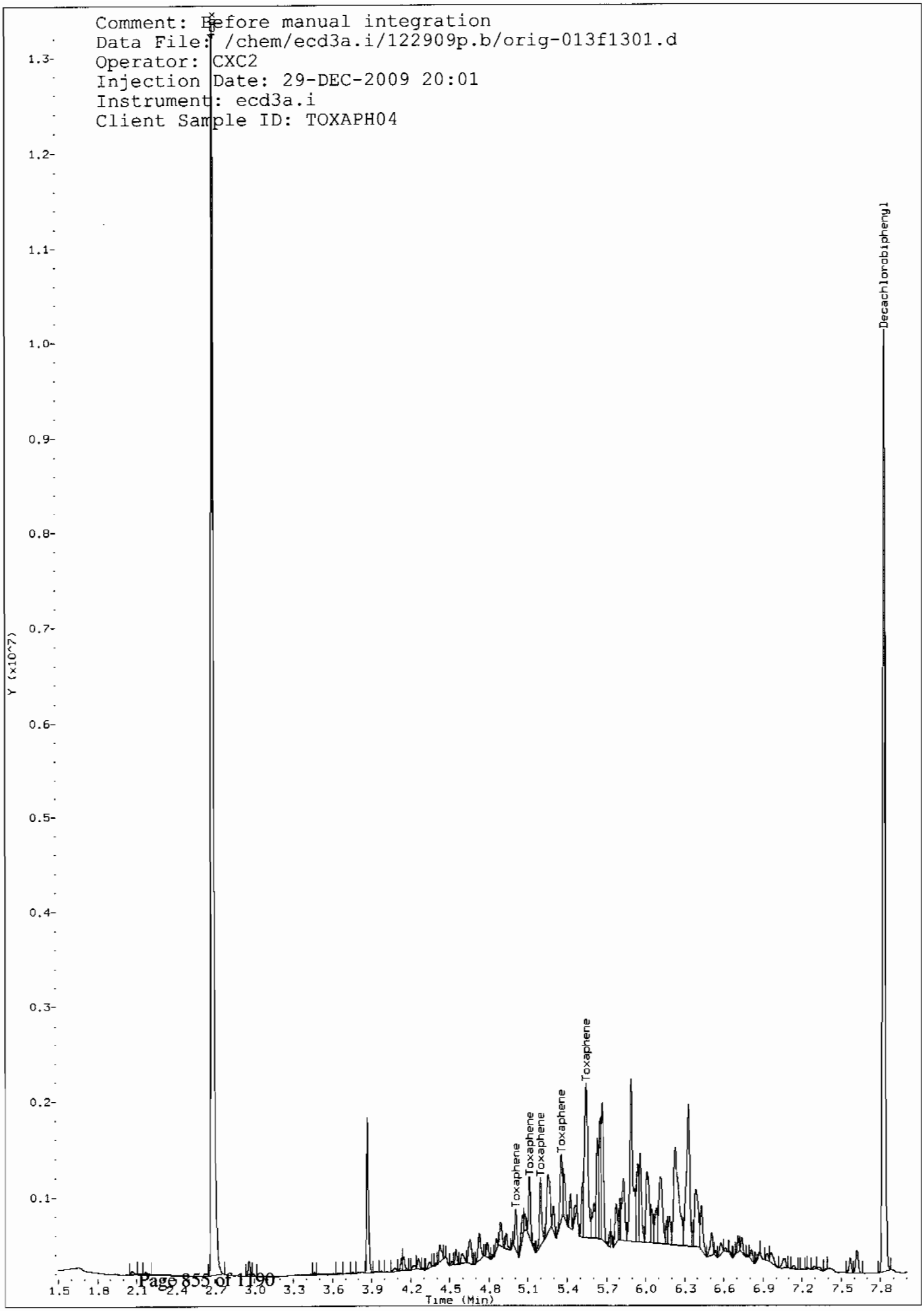

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/013b1301.d
Lab Smp Id: WPE091228-14TX Client Smp ID: TOXAPH04
Inj Date : 29-DEC-2009 20:01
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |WPE091228-14TX
Misc Info : |TOXLEVEL4
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:41 Cal File: 019b1901.d
Als bottle: 13 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.662	5.653	0.009	11230770	2000.00	2220	80.00- 120.00	100.00(M)
5.780	5.778	0.002	6880158	2000.00	2300	37.72- 77.72	61.26
6.170	6.168	0.002	13592060	2000.00	2260	78.89- 118.89	121.03
6.214	6.210	0.004	23392956	2000.00	2210	158.10- 198.10	208.29
6.315	6.313	0.002	41898337	2000.00	2190	271.11- 311.11	373.07
Average of Peak Amounts =					2.23e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.923	2.922	0.001	122860141	200.000	262	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.862	8.860	0.002	86472326	200.000	263	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/013b1301.d
Date : 29-DEC-2009 20:01
Client ID: TOXAPH04
Sample Info: IWPE091228-14TX

Column phase: CLP-2

Instrument: ecd3a.i

Operator: CXC2
Column diameter: 0.25

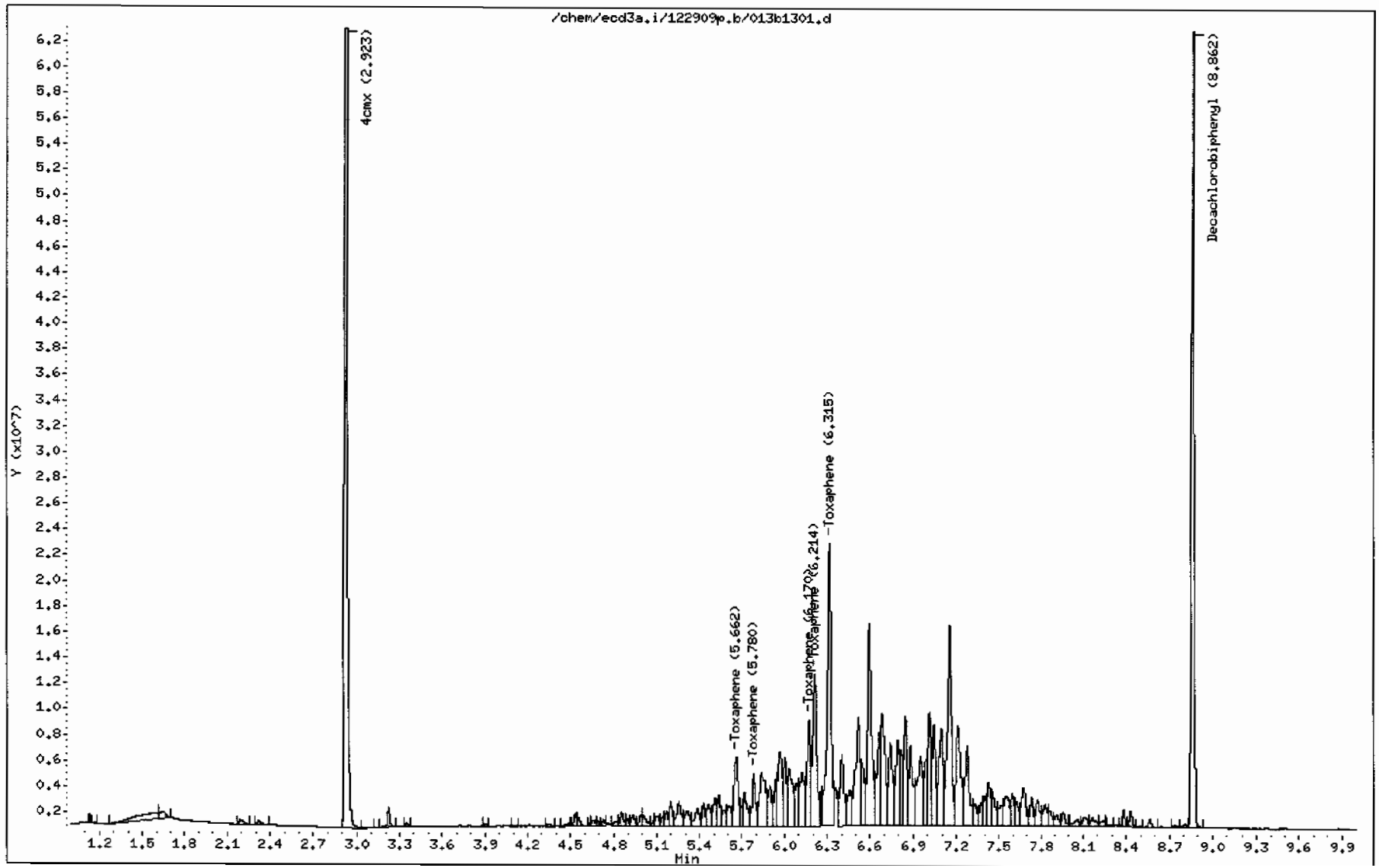

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/013b1301.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:01
Instrument: ecd3a.i
Client Sample ID: TOXAPH04

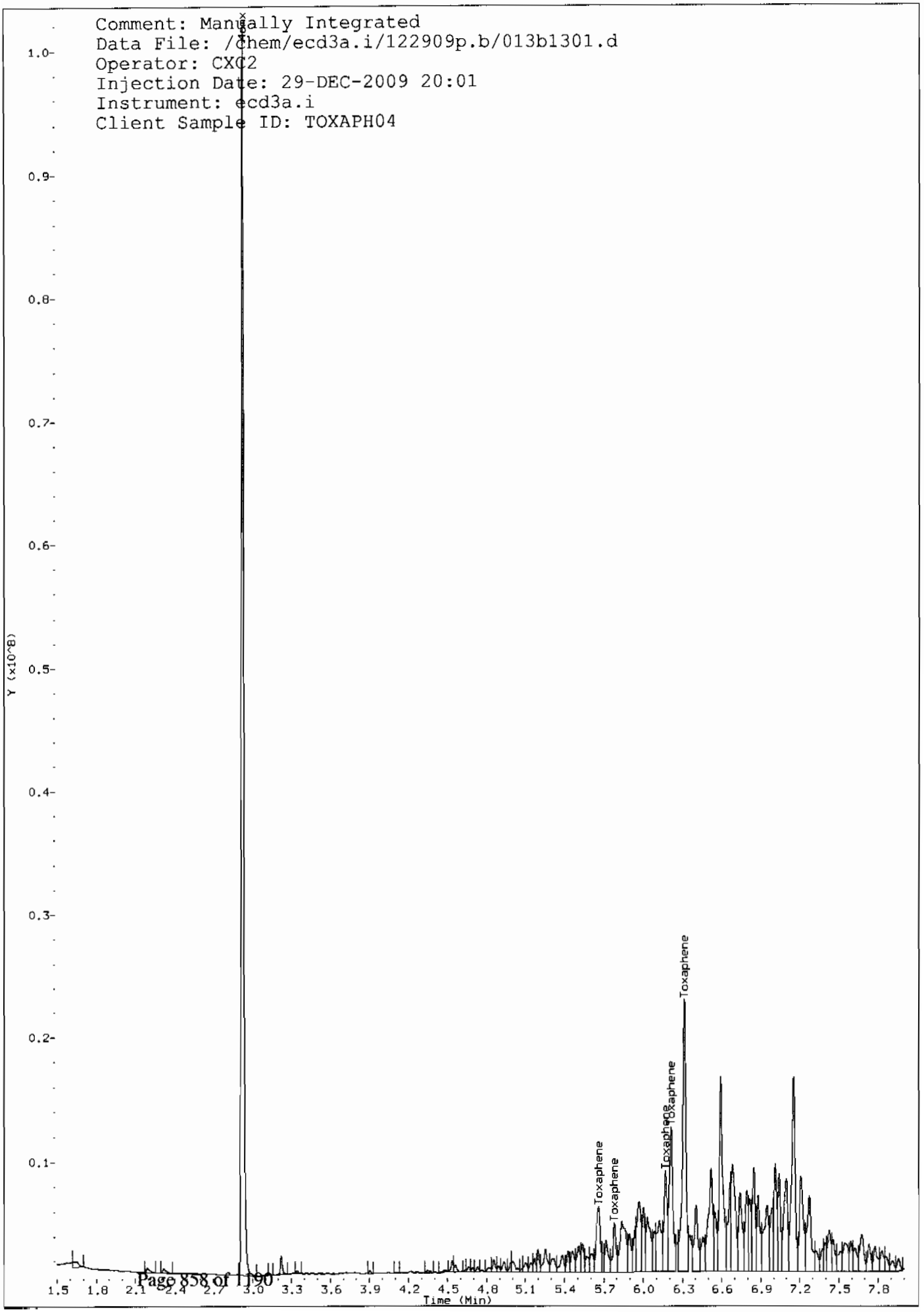

Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-013b1301.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:01
Instrument: ecd3a.i
Client Sample ID: TOXAPH04

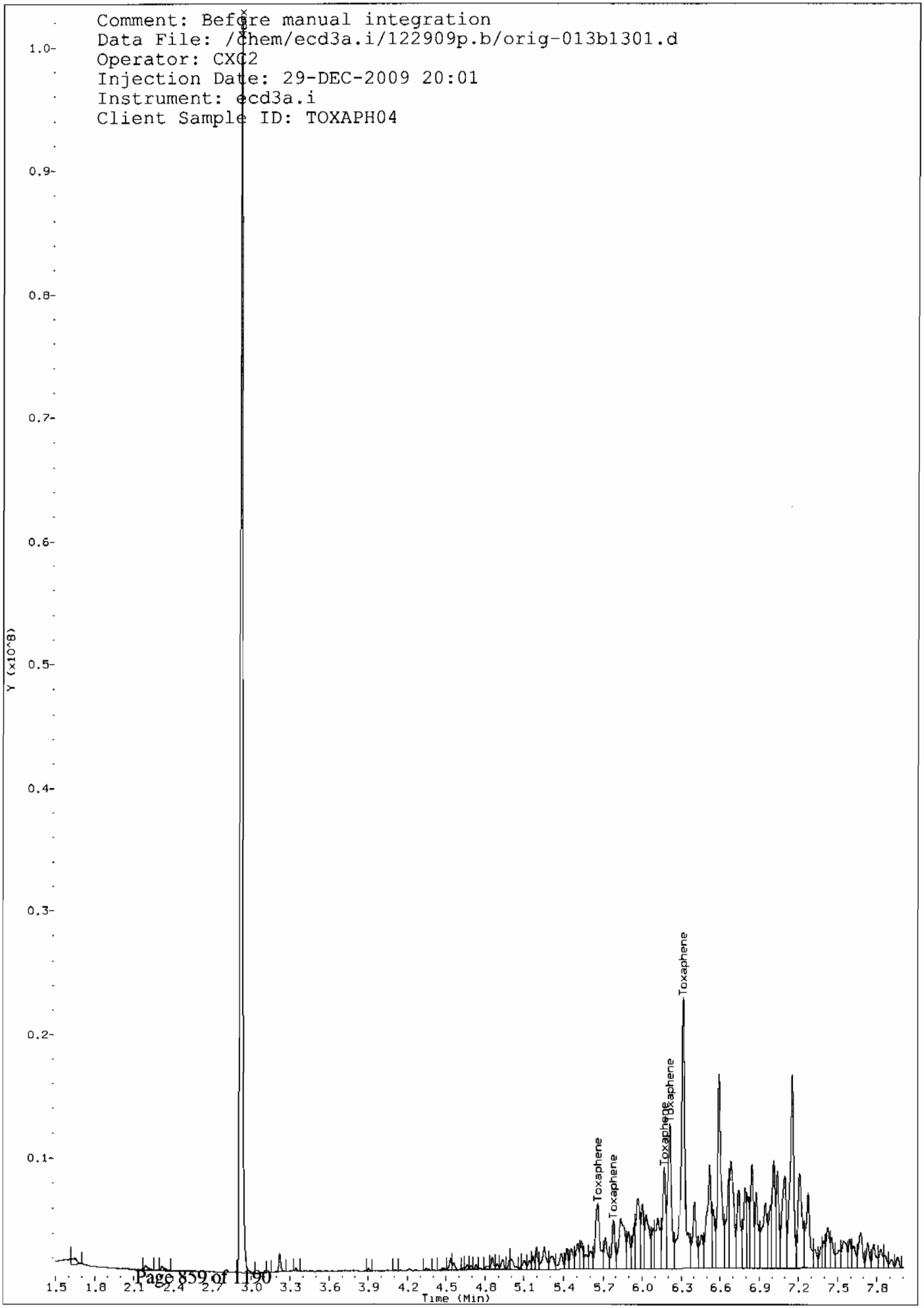

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CLP-1

Data file : /chem/ecd3a.i/122909p.b/014f1401.d
Lab Smp Id: IPE091121-40TX Client Smp ID: TOXAPH05
Inj Date : 29-DEC-2009 20:14
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |IPE091121-40TX
Misc Info : |TOXLEVEL5
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-F-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 14 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.003	5.005	-0.002	1525138	3000.00	3140	80.00- 120.00	100.00(AM)
5.110	5.109	0.001	2301981	3000.00	3050	136.78- 176.78	150.94
5.195	5.194	0.001	2830535	3000.00	3250	169.96- 209.96	185.59
5.356	5.353	0.003	3703424	3000.00	3260	213.58- 253.58	242.83
5.546	5.544	0.002	6757271	3000.00	3340	347.48- 387.48	443.06
Average of Peak Amounts =					3.21e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.679	2.679	0.000	27303201	400.000	414	80.00- 120.00	100.00(A)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.823	7.824	-0.001	19107307	400.000	396	80.00- 120.00	100.00

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/014f1401.d

Date : 29-DEC-2009 20:14

Client ID: TOXAPH05

Sample Info: !IPE091121-40TX

Column phase: CLP-1

Instrument: ecd3a.i

Operator: CXC2

Column diameter: 0.25

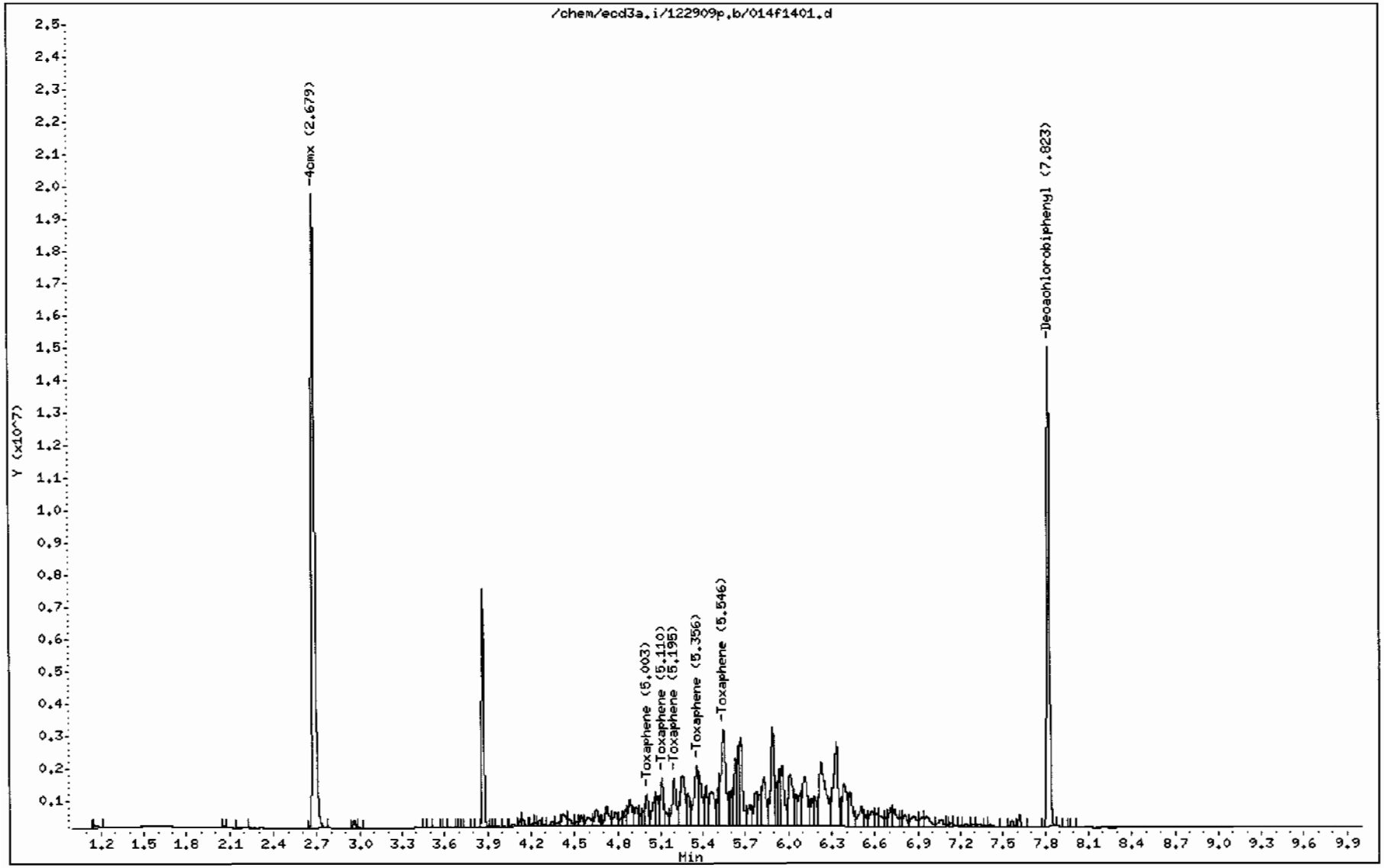

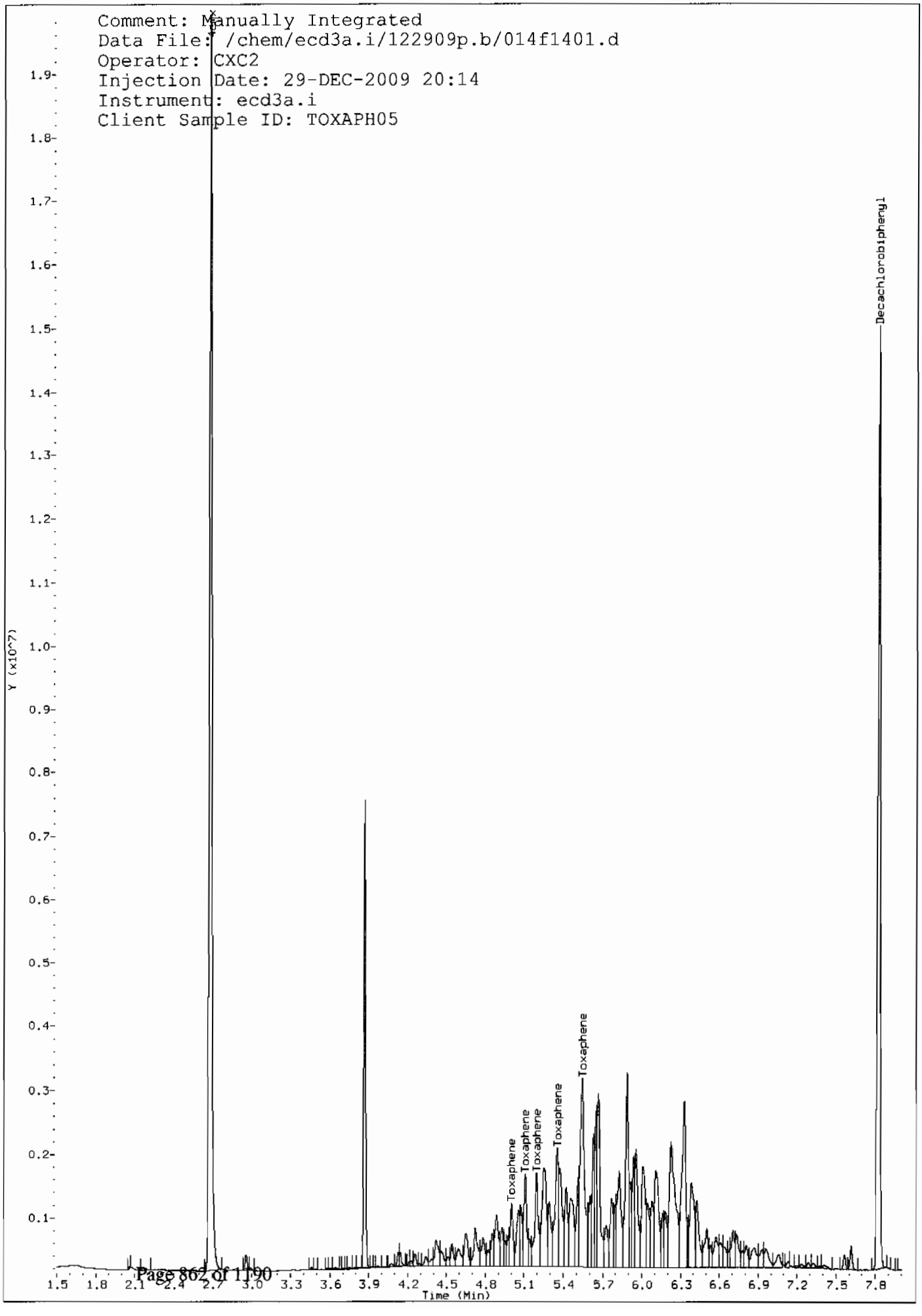
Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/014f1401.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:14
Instrument: ecd3a.i
Client Sample ID: TOXAPH05
Y (x10^7)
Time (Min)
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Decachlorobiphenyl

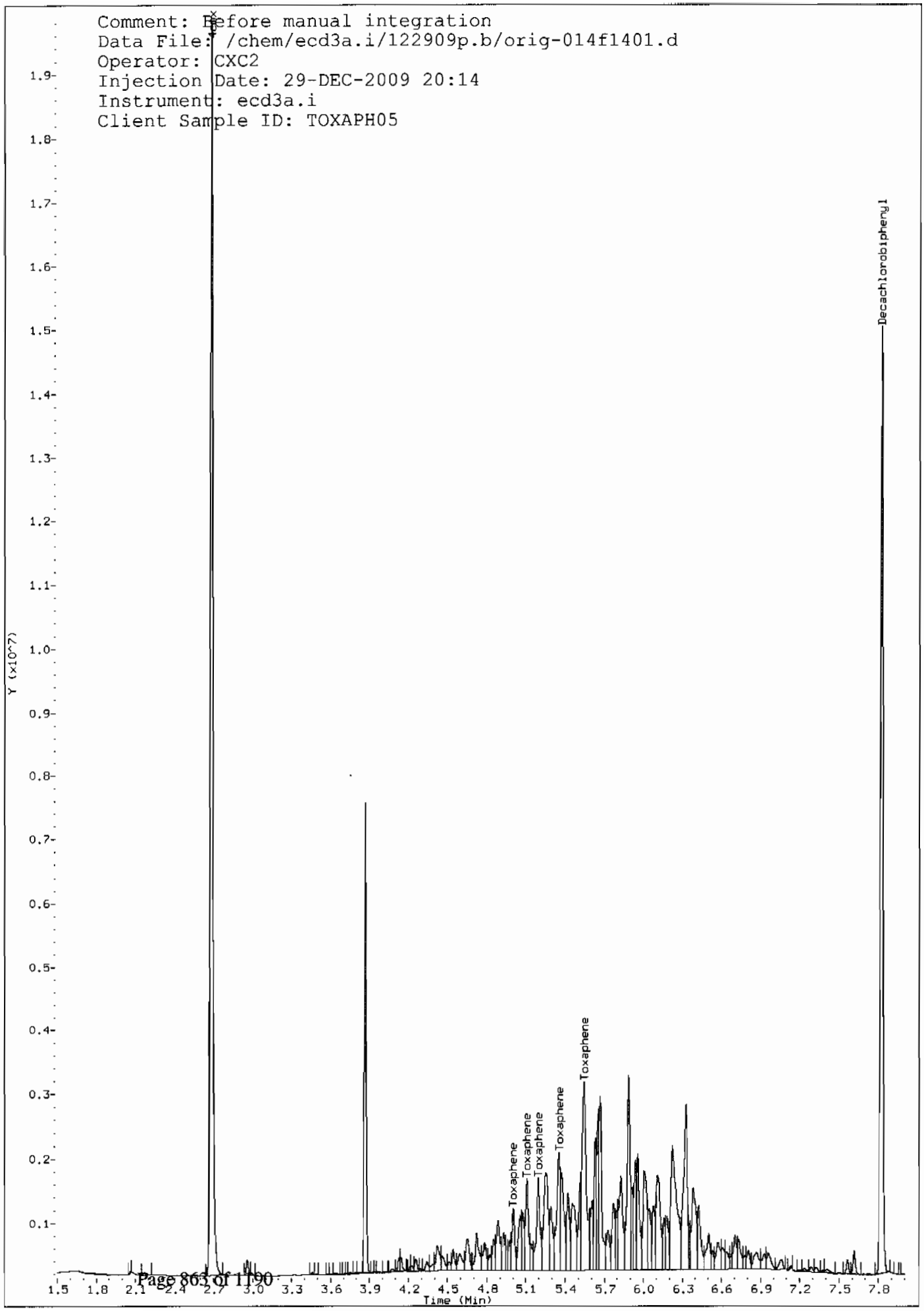
Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-014f1401.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:14
Instrument: ecd3a.i
Client Sample ID: TOXAPH05
Y (x10^7)
Time (Min)
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Decachlorobiphenyl

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/122909p.b/014b1401.d
Lab Smp Id: IPE091121-40TX Client Smp ID: TOXAPH05
Inj Date : 29-DEC-2009 20:14
Operator : CXC2 Inst ID: ecd3a.i
Smp Info : |IPE091121-40TX
Misc Info : |TOXLEVEL5
Comment :
Method : /chem/ecd3a.i/122909p.b/ECD3-B-8081-122909.m
Meth Date : 31-Dec-2009 09:07 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 14 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.660	5.653	0.007	16010477	3000.00	3160	80.00- 120.00	100.00(AM)
5.779	5.778	0.001	9581089	3000.00	3200	37.72- 77.72	59.84
6.168	6.168	0.000	19489464	3000.00	3240	78.89- 118.89	121.73
6.212	6.210	0.002	33371554	3000.00	3150	158.10- 198.10	208.44
6.314	6.313	0.001	59627301	3000.00	3110	271.11- 311.11	372.43
Average of Peak Amounts =					3.17e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.923	2.922	0.001	171009753	400.000	365	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.860	8.860	0.000	132316885	400.000	403	80.00- 120.00	100.00

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/122909p.b/014b1401.d
Date : 29-DEC-2009 20:14
Client ID: TOXAPH05
Sample Info: IIPE091121-40TX

Column phase: CLP-2

Instrument: ecd3a.i

Operator: CXC2
Column diameter: 0.25

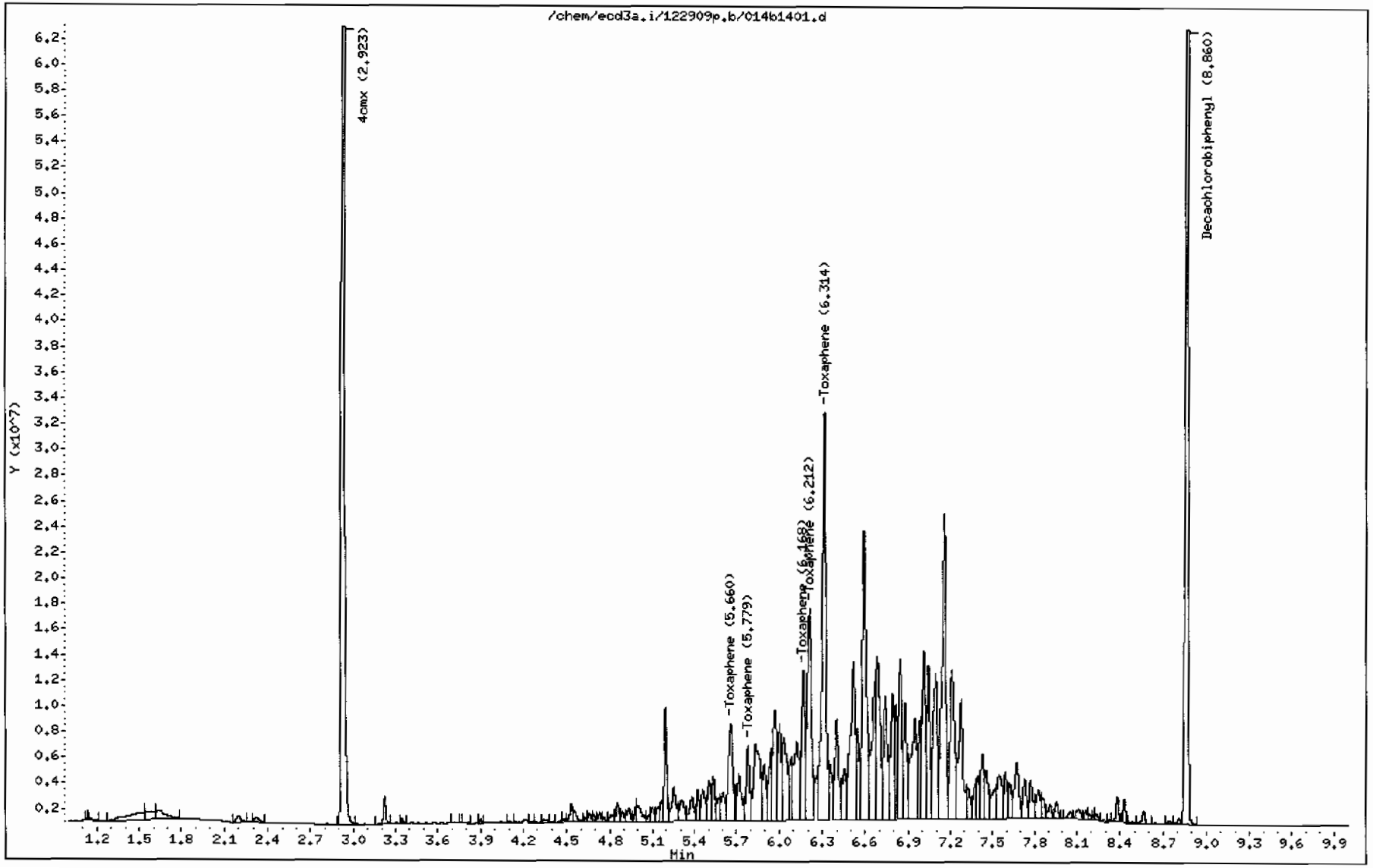

Comment: Manually Integrated
Data File: /chem/ecd3a.i/122909p.b/014b1401.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:14
Instrument: ecd3a.i
Client Sample ID: TOXAPH05

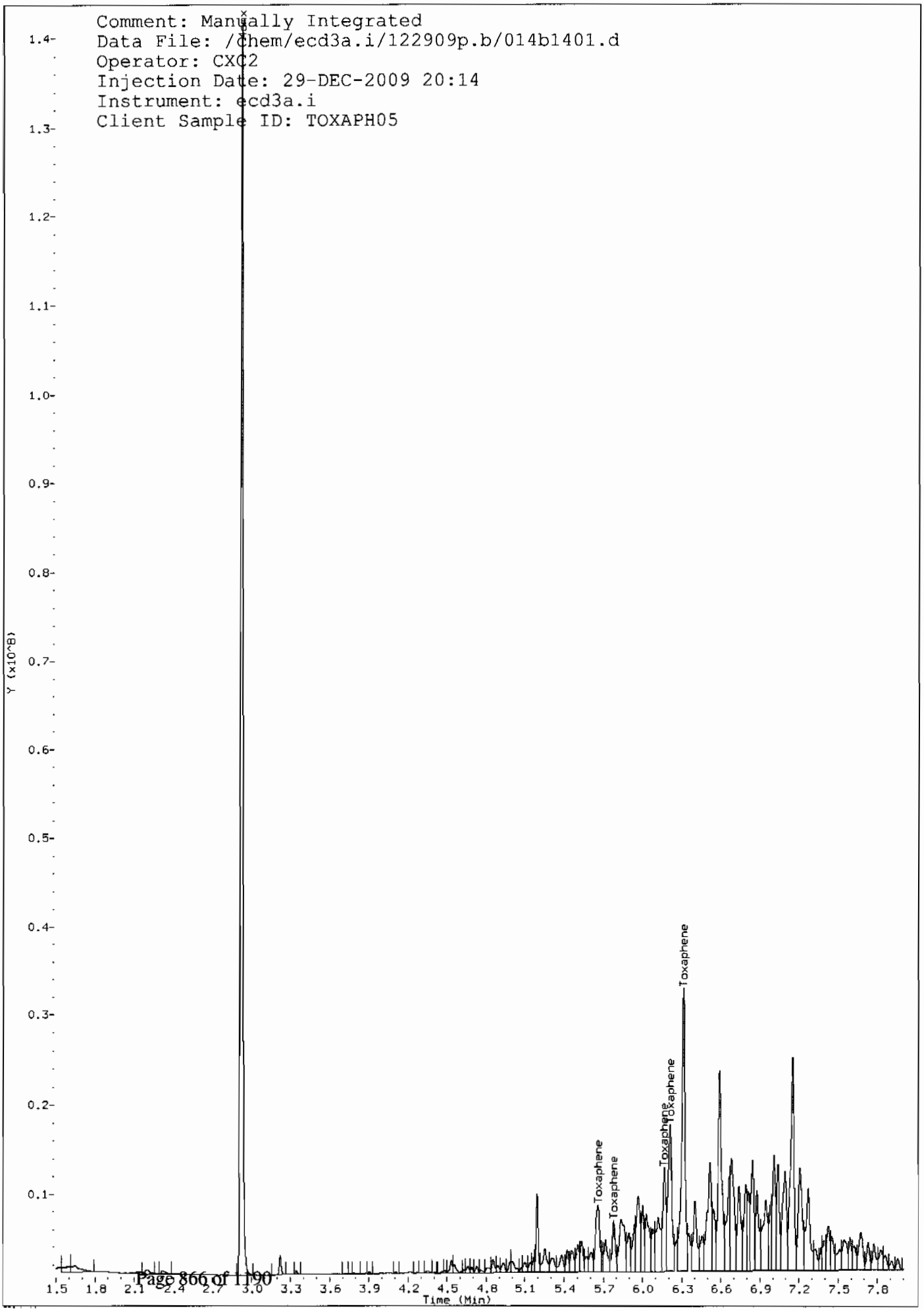

Comment: Before manual integration
Data File: /chem/ecd3a.i/122909p.b/orig-014b1401.d
Operator: CXC2
Injection Date: 29-DEC-2009 20:14
Instrument: ecd3a.i
Client Sample ID: TOXAPH05

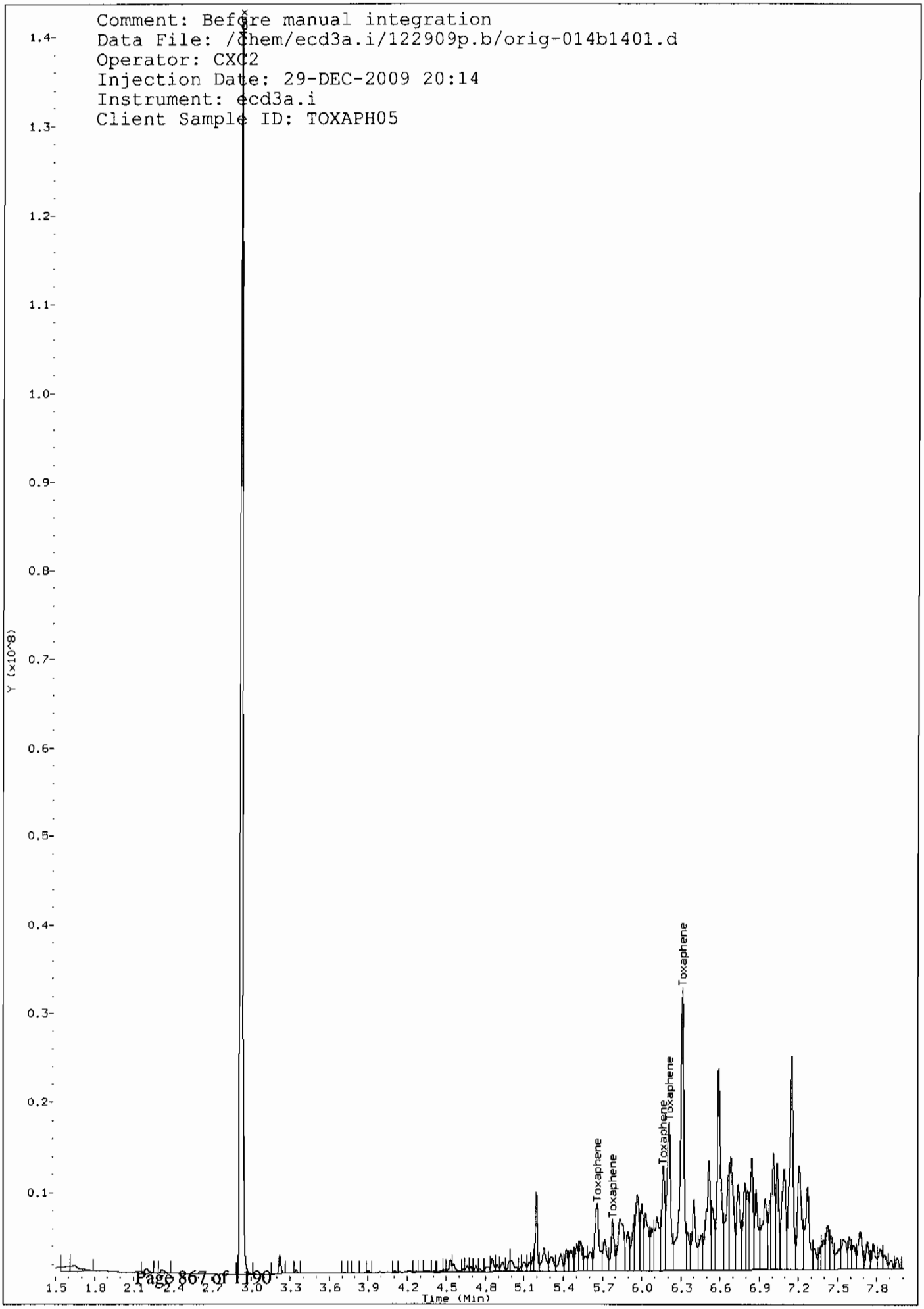

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-952

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 01/04/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM Date Analyzed :01/04/10

Lab Sample ID (PEM): WPE091219-99 Time Analyzed :1224

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	3.97	3.94	4.00	137	100	37.0
4,4'-DDE						
Endrin	5.33	5.30	5.36	133	100	33.0
4,4'-DDD						
4,4'-DDT	5.67	5.64	5.70	108	100	8.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 2.50 Endrin % breakdown (1): 3.80

Combined % breakdown (1): 6.30

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-952

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 01/04/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM Date Analyzed :01/04/10

Lab Sample ID (PEM): WPE091219-99 Time Analyzed :1224

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.45	4.42	4.48	129	100	29.0
4,4'-DDE						
Endrin	6.00	5.97	6.03	147	100	47.0
4,4'-DDD						
4,4'-DDT	6.44	6.41	6.47	117	100	17.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 2.20 Endrin % breakdown (1): 6.10

Combined % breakdown (1): 8.30

FORM VII PEST-1 OLM03.0

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-952

Instrument ID: ECD3A Calibration Date: 01/04/10 Time: 1310

Lab File ID: 004F0401 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1856 2014

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D
Toxaphene	485.259	531.969	0.01	9.6	15.0
(2)	754.120	820.276	0.01	8.8	15.0
(3)	870.392	872.824	0.01	0.3	15.0
(4)	1136.606	1200.168	0.01	5.6	15.0
(5)	2021.570	1878.968	0.01	-7.0	15.0
4cmx	67768.398	70835.735	0.01	4.5	15.0
Decachlorobiphenyl	51857.827	51564.460	0.01	-0.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-952

Instrument ID: ECD3A Calibration Date: 01/04/10 Time: 1310

Lab File ID: 004B0401 Init. Calib. Date(s): 12/29/09 12/29/09

Heated Purge: (Y/N) N Init. Calib. Times: 1856 2014

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
Toxaphene	5065.852	6299.646	0.01	24.4	15.0	<-
(2)	2990.542	3562.876	0.01	19.1	15.0	<-
(3)	6013.149	6061.205	0.01	0.8	15.0	
(4)	10599.481	11118.276	0.01	4.9	15.0	
(5)	19147.810	17687.441	0.01	-7.6	15.0	
4cmx	500031.47	504025.92	0.01	0.8	15.0	
Decachlorobiphenyl	394175.00	393366.89	0.01	-0.2	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-952

Instrument ID: ECD3A Calibration Date: 01/04/10 Time: 1502

Lab File ID: 012F1201 Init. Calib. Date(s): 01/04/10 01/04/10

Heated Purge: (Y/N) N Init. Calib. Times: 1340 1434

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d
alpha-BHC	97.7	100	LINR	-2.3	15.0
beta-BHC	102	100	AVRG	2.0	15.0
delta-BHC	100	100	AVRG	0.0	15.0
gamma-BHC (Lindane)	110	100	AVRG	10.0	15.0
Heptachlor	98.3	100	AVRG	-1.7	15.0
Aldrin	101	100	AVRG	1.0	15.0
Heptachlor epoxide	104	100	AVRG	4.0	15.0
Endosulfan I	112	100	AVRG	12.0	15.0
Dieldrin	212	200	AVRG	6.0	15.0
4,4'-DDE	213	200	AVRG	6.5	15.0
Endrin	215	200	AVRG	7.5	15.0
Endosulfan II	215	200	AVRG	7.5	15.0
4,4'-DDD	211	200	AVRG	5.5	15.0
Endosulfan sulfate	206	200	AVRG	3.0	15.0
4,4'-DDT	211	200	AVRG	5.5	15.0
Methoxychlor	950	1000	AVRG	-5.0	15.0
Endrin ketone	201	200	AVRG	0.5	15.0
Endrin aldehyde	204	200	AVRG	2.0	15.0
gamma-Chlordane	115	100	AVRG	15.0	15.0
alpha-Chlordane	98.8	100	AVRG	-1.2	15.0
4cmx	199	200	AVRG	-0.5	15.0
Decachlorobiphenyl	190	200	AVRG	-5.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-952

Instrument ID: ECD3A Calibration Date: 01/04/10 Time: 1502

Lab File ID: 012B1201 Init. Calib. Date(s): 01/04/10 01/04/10

Heated Purge: (Y/N) N Init. Calib. Times: 1340 1434

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d
alpha-BHC	106	100	AVRG	6.0	15.0
beta-BHC	95.0	100	AVRG	-5.0	15.0
delta-BHC	102	100	AVRG	2.0	15.0
gamma-BHC (Lindane)	106	100	AVRG	6.0	15.0
Heptachlor	90.1	100	AVRG	-9.9	15.0
Aldrin	96.3	100	AVRG	-3.7	15.0
Heptachlor epoxide	94.2	100	AVRG	-5.8	15.0
Endosulfan I	104	100	AVRG	4.0	15.0
Dieldrin	201	200	AVRG	0.5	15.0
4,4'-DDE	202	200	AVRG	1.0	15.0
Endrin	210	200	AVRG	5.0	15.0
Endosulfan II	200	200	AVRG	0.0	15.0
4,4'-DDD	206	200	AVRG	3.0	15.0
Endosulfan sulfate	209	200	AVRG	4.5	15.0
4,4'-DDT	205	200	AVRG	2.5	15.0
Methoxychlor	922	1000	AVRG	-7.8	15.0
Endrin ketone	199	200	AVRG	-0.5	15.0
Endrin aldehyde	198	200	AVRG	-1.0	15.0
gamma-Chlordane	111	100	LINR	11.0	15.0
alpha-Chlordane	94.4	100	AVRG	-5.6	15.0
4cmx	185	200	AVRG	-7.5	15.0
Decachlorobiphenyl	190	200	AVRG	-5.0	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-952

Instrument ID: ECD3A Calibration Date: 01/04/10 Time: 1723

Lab File ID: 021F2101 Init. Calib. Date(s): 01/04/10 01/04/10

Heated Purge: (Y/N) N Init. Calib. Times: 1340 1434

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d	
alpha-BHC	100	100	LINR	0.0	15.0	
beta-BHC	105	100	AVRG	5.0	15.0	
delta-BHC	104	100	AVRG	4.0	15.0	
gamma-BHC (Lindane)	113	100	AVRG	13.0	15.0	
Heptachlor	104	100	AVRG	4.0	15.0	
Aldrin	104	100	AVRG	4.0	15.0	
Heptachlor epoxide	107	100	AVRG	7.0	15.0	
Endosulfan I	115	100	AVRG	15.0	15.0	
Dieldrin	217	200	AVRG	8.5	15.0	
4,4'-DDE	219	200	AVRG	9.5	15.0	
Endrin	223	200	AVRG	11.5	15.0	
Endosulfan II	221	200	AVRG	10.5	15.0	
4,4'-DDD	218	200	AVRG	9.0	15.0	
Endosulfan sulfate	215	200	AVRG	7.5	15.0	
4,4'-DDT	221	200	AVRG	10.5	15.0	
Methoxychlor	988	1000	AVRG	-1.2	15.0	
Endrin ketone	207	200	AVRG	3.5	15.0	
Endrin aldehyde	210	200	AVRG	5.0	15.0	
gamma-Chlordane	117	100	AVRG	17.0	15.0	<-
alpha-Chlordane	101	100	AVRG	1.0	15.0	
4cmx	202	200	AVRG	1.0	15.0	
Decachlorobiphenyl	192	200	AVRG	-4.0	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-952

Instrument ID: ECD3A Calibration Date: 01/04/10 Time: 1723

Lab File ID: 021B2101 Init. Calib. Date(s): 01/04/10 01/04/10

Heated Purge: (Y/N) N Init. Calib. Times: 1340 1434

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	SAMPLE AMOUNT	CAL100 AMOUNT	CURVE	%D	MAX %d	
alpha-BHC	99.7	100	AVRG	-0.3	15.0	
beta-BHC	91.1	100	AVRG	-8.9	15.0	
delta-BHC	100	100	AVRG	0.0	15.0	
gamma-BHC (Lindane)	100	100	AVRG	0.0	15.0	
Heptachlor	91.0	100	AVRG	-9.0	15.0	
Aldrin	95.6	100	AVRG	-4.4	15.0	
Heptachlor epoxide	96.7	100	AVRG	-3.3	15.0	
Endosulfan I	110	100	AVRG	10.0	15.0	
Dieldrin	213	200	AVRG	6.5	15.0	
4,4'-DDE	214	200	AVRG	7.0	15.0	
Endrin	225	200	AVRG	12.5	15.0	
Endosulfan II	213	200	AVRG	6.5	15.0	
4,4'-DDD	220	200	AVRG	10.0	15.0	
Endosulfan sulfate	223	200	AVRG	11.5	15.0	
4,4'-DDT	221	200	AVRG	10.5	15.0	
Methoxychlor	966	1000	AVRG	-3.4	15.0	
Endrin ketone	208	200	AVRG	4.0	15.0	
Endrin aldehyde	210	200	AVRG	5.0	15.0	
gamma-Chlordane	132	100	LINR	32.0	15.0	<-
alpha-Chlordane	98.2	100	AVRG	-1.8	15.0	
4cmx	178	200	AVRG	-11.0	15.0	
Decachlorobiphenyl	192	200	AVRG	-4.0	15.0	

FORM VII PEST

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010410p.b/002f0201.d
Lab Smp Id: WPE091219-99DG Client Smp ID: PEM01
Inj Date : 04-JAN-2010 12:24
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091219-99DG
Misc Info : |PEM|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 c1a01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
3.967	3.969	-0.002	10435153	130.875	131	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.329	5.331	-0.002	7012651	123.108	123	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.978	5.980	-0.002	76242	1.54679	1.55	80.00- 120.00	100.00(M)
26 4,4'-DDT					CAS #: 50-29-3		
5.671	5.672	-0.001	4769283	105.991	106	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.729	6.730	-0.001	208105	3.23179	3.23	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.675	2.676	-0.001	14257875	210.391	210	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.821	7.823	-0.002	10321423	199.033	199	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010410p.b/002f0201.d
Date : 04-JAN-2010 12:24
Client ID: PEM01
Sample Info: IWPE091219-99DG

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

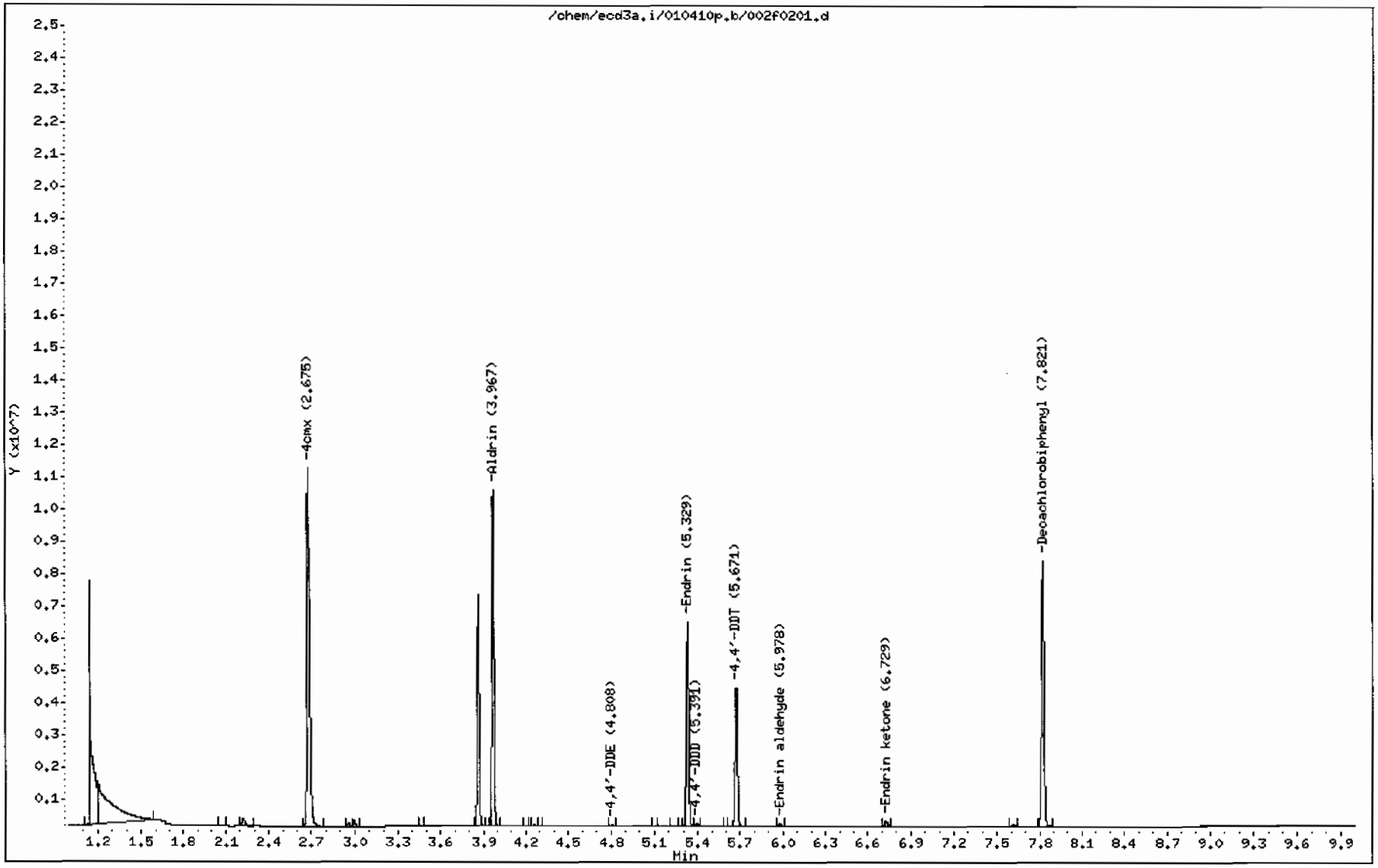

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010410p.b/002b0201.d
Lab Smp Id: WPE091219-99DG Client Smp ID: PEM01
Inj Date : 04-JAN-2010 12:24
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091219-99DG
Misc Info : |PEM|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 07-Jan-2010 11:48 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.446	4.447	-0.001	47856838	125.958	126	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.998	5.999	-0.001	40566841	120.578	120	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.577	6.577	0.000	621902	1.62262	1.62	80.00- 120.00	100.00(M)
26 4,4'-DDT					CAS #: 50-29-3		
6.437	6.438	-0.001	37228972	103.722	104	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.470	7.471	-0.001	2051445	3.53775	3.54	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	102195244	204.378	204	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.858	8.859	-0.001	76478340	194.021	194	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010410p.b/002b0201.d
Date : 04-JAN-2010 12:24
Client ID: PEM01
Sample Info: IWPE091219-99DG

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

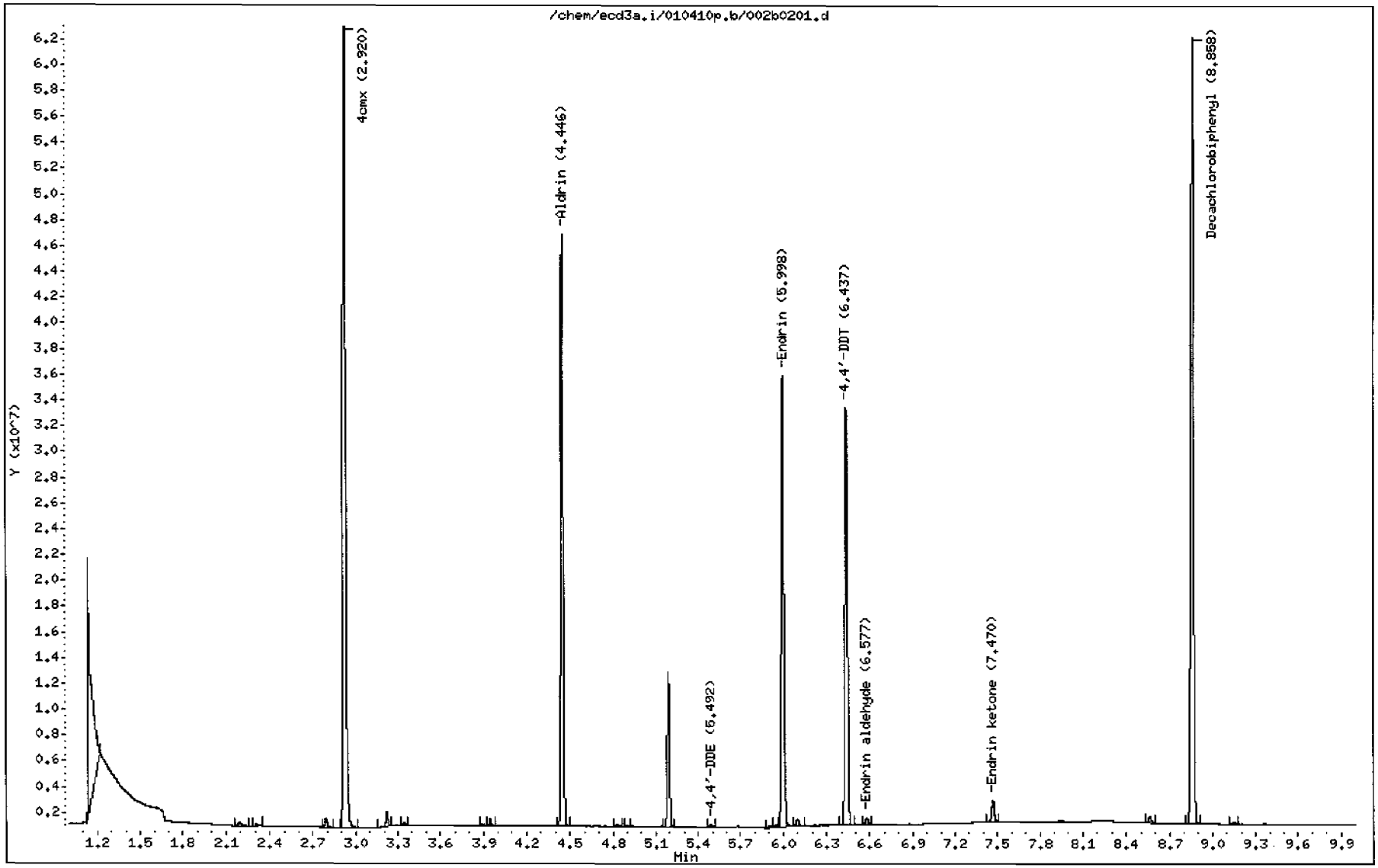

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010410p.b/004f0401.d
Lab Smp Id: WPE091219-52TX Client Smp ID: TOXAPH01
Inj Date : 04-JAN-2010 13:10
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091219-52TX
Misc Info : |TOXICV
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.014	5.014	0.000	1063938	2000.00	2190	80.00- 120.00	100.00(M)
5.119	5.119	0.000	1640551	2000.00	2180	134.20- 174.20	154.20
5.204	5.204	0.000	1745649	2000.00	2000	144.07- 184.07	164.07
5.364	5.364	0.000	2400336	2000.00	2110	205.61- 245.61	225.61
5.554	5.554	0.000	3757936	2000.00	1860	333.21- 373.21	353.21
Average of Peak Amounts =					2.07e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.681	2.676	0.005	14167147	200.000	209	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.835	7.823	0.012	10312892	200.000	199	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010410p.b/004F0401.d

Page 1

Date : 04-JAN-2010 13:10

Client ID: TOXAPH01

Instrument: ecd3a.i

Sample Info: IWPE091219-52TX

Operator: HXJ1

Column phase: CLP-1

Column diameter: 0.25

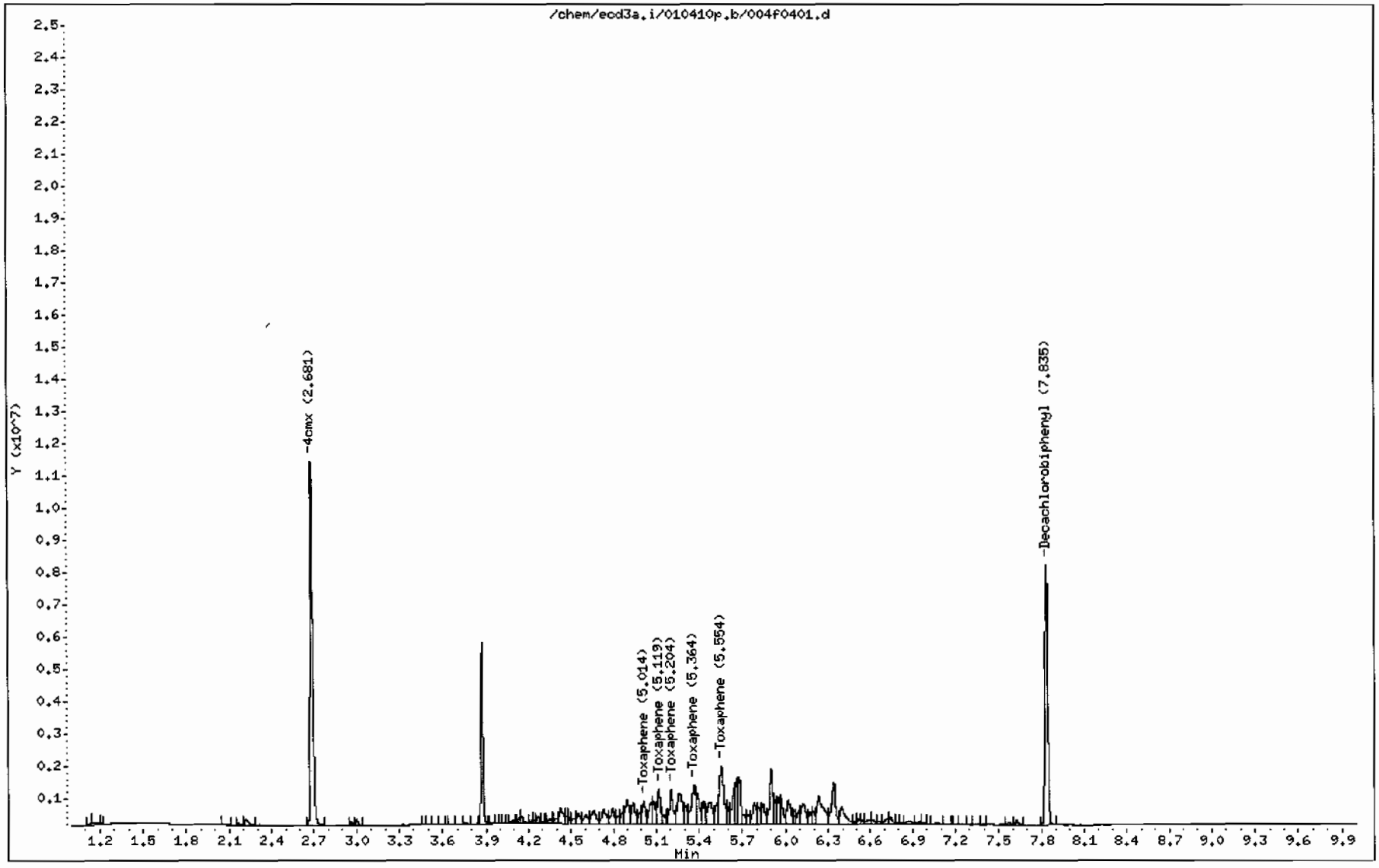

Comment: Manually Integrated
Data File: /chem/ecd3a.i/010410p.b/004f0401.d
Operator: HXJ1
Injection Date: 04-JAN-2010 13:10
Instrument: ecd3a.i
Client Sample ID: TOXAPH01

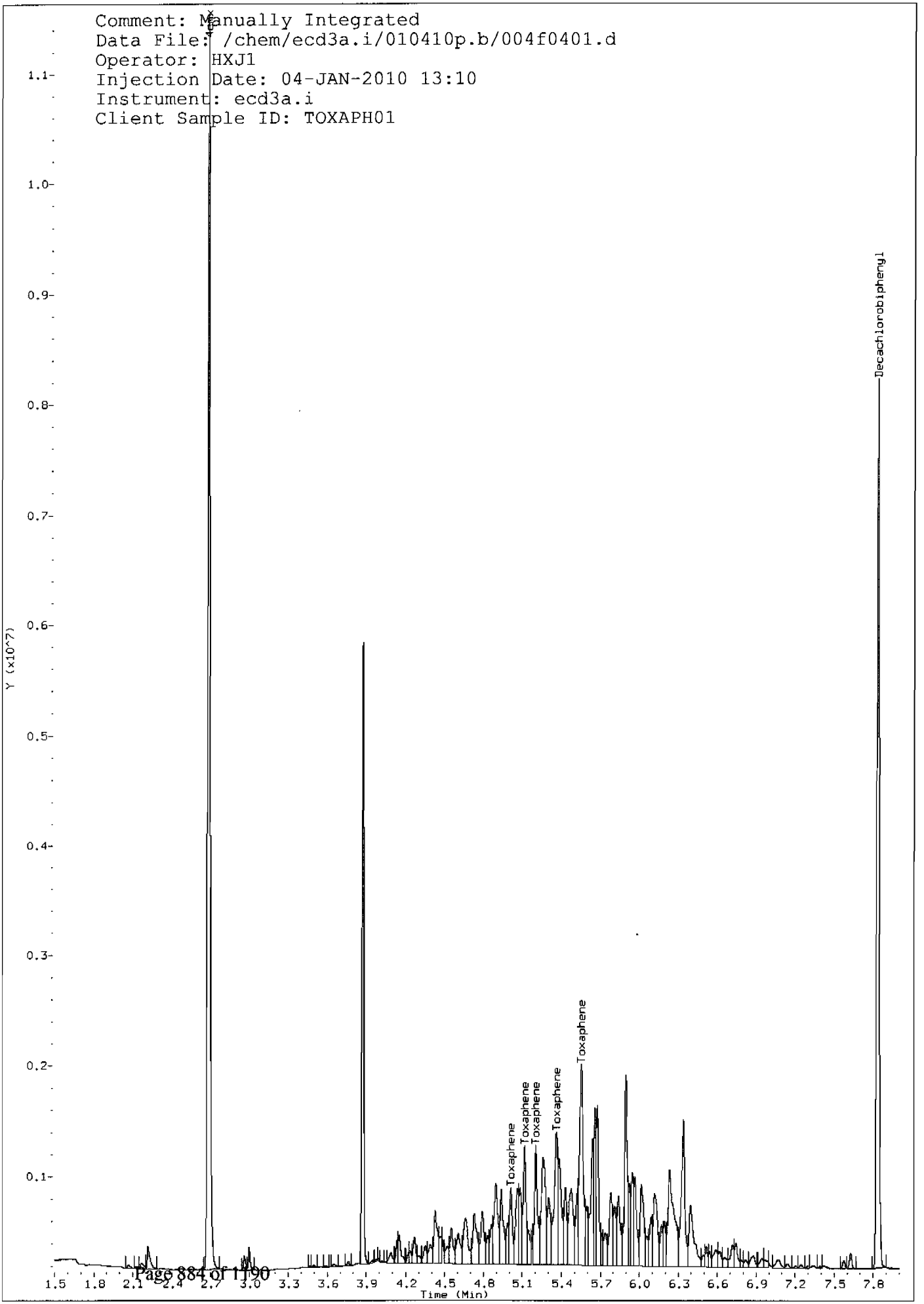

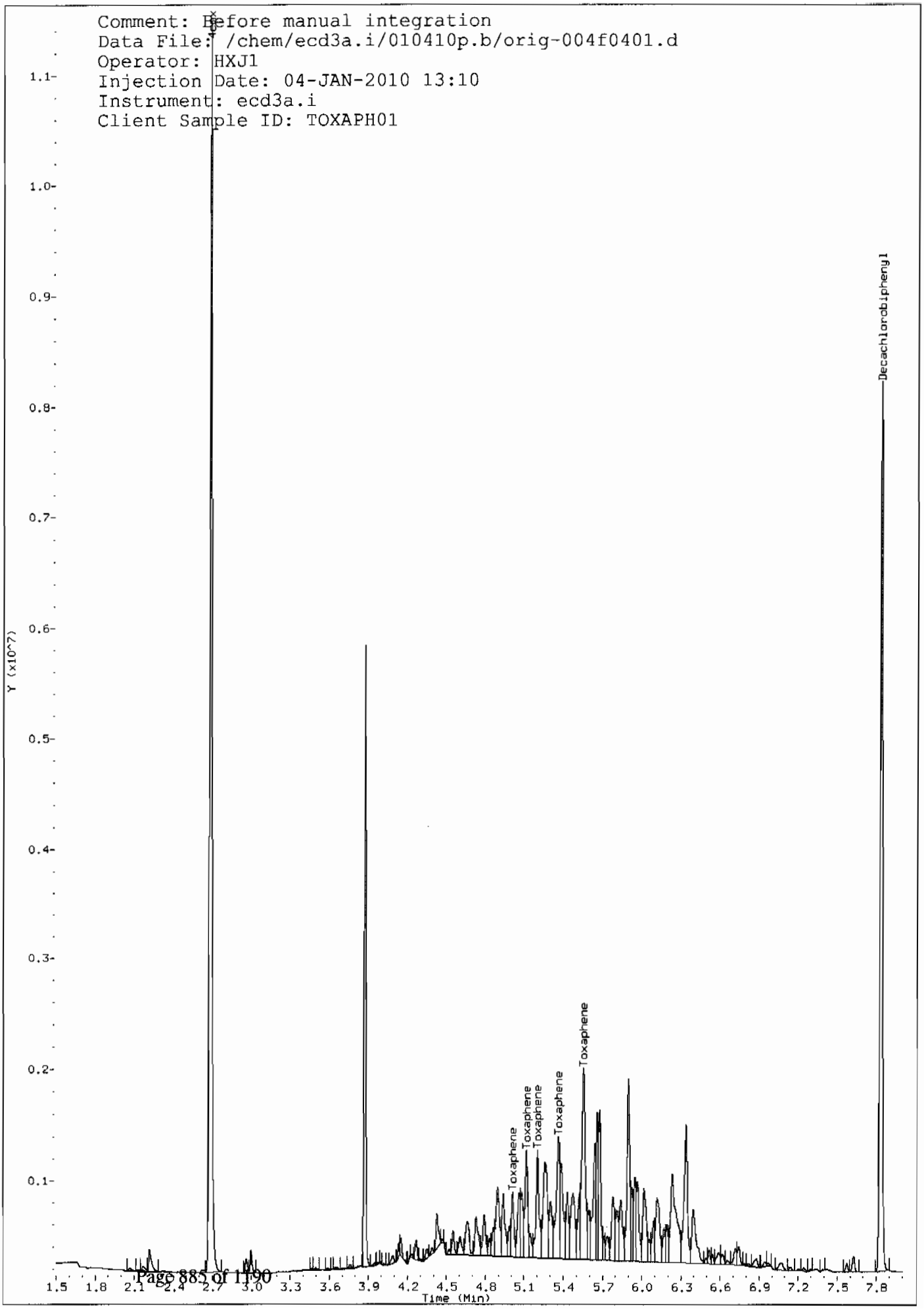
Comment: Before manual integration
Data File: /chem/ecd3a.i/010410p.b/orig-004f0401.d
Operator: HXJ1
Injection Date: 04-JAN-2010 13:10
Instrument: ecd3a.i
Client Sample ID: TOXAPH01
Y (x10^7)
Time (Min)
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Decachlorobiphenyl

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010410p.b/004b0401.d
Lab Smp Id: WPE091219-52TX Client Smp ID: TOXAPH01
Inj Date : 04-JAN-2010 13:10
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091219-52TX
Misc Info : |TOXICV
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.662	5.662	0.000	12599291	2000.00	2490	80.00- 120.00	100.00(M)
5.783	5.783	0.000	7125752	2000.00	2380	36.56- 76.56	56.56
6.173	6.173	0.000	12122410	2000.00	2020	76.22- 116.22	96.22
6.216	6.216	0.000	22236553	2000.00	2100	156.49- 196.49	176.49
6.319	6.319	0.000	35374882	2000.00	1850	260.77- 300.77	280.77
Average of Peak Amounts =					2.17e+03		
$ 1 4cmx					CAS #: 877-09-8		
2.924	2.920	0.004	100805185	200.000	202	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.866	8.859	0.007	78673377	200.000	200	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010410p.b/004b0401.d
Date : 04-JAN-2010 13:10
Client ID: TOXAPH01
Sample Info: IWPE091219-52TX

Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

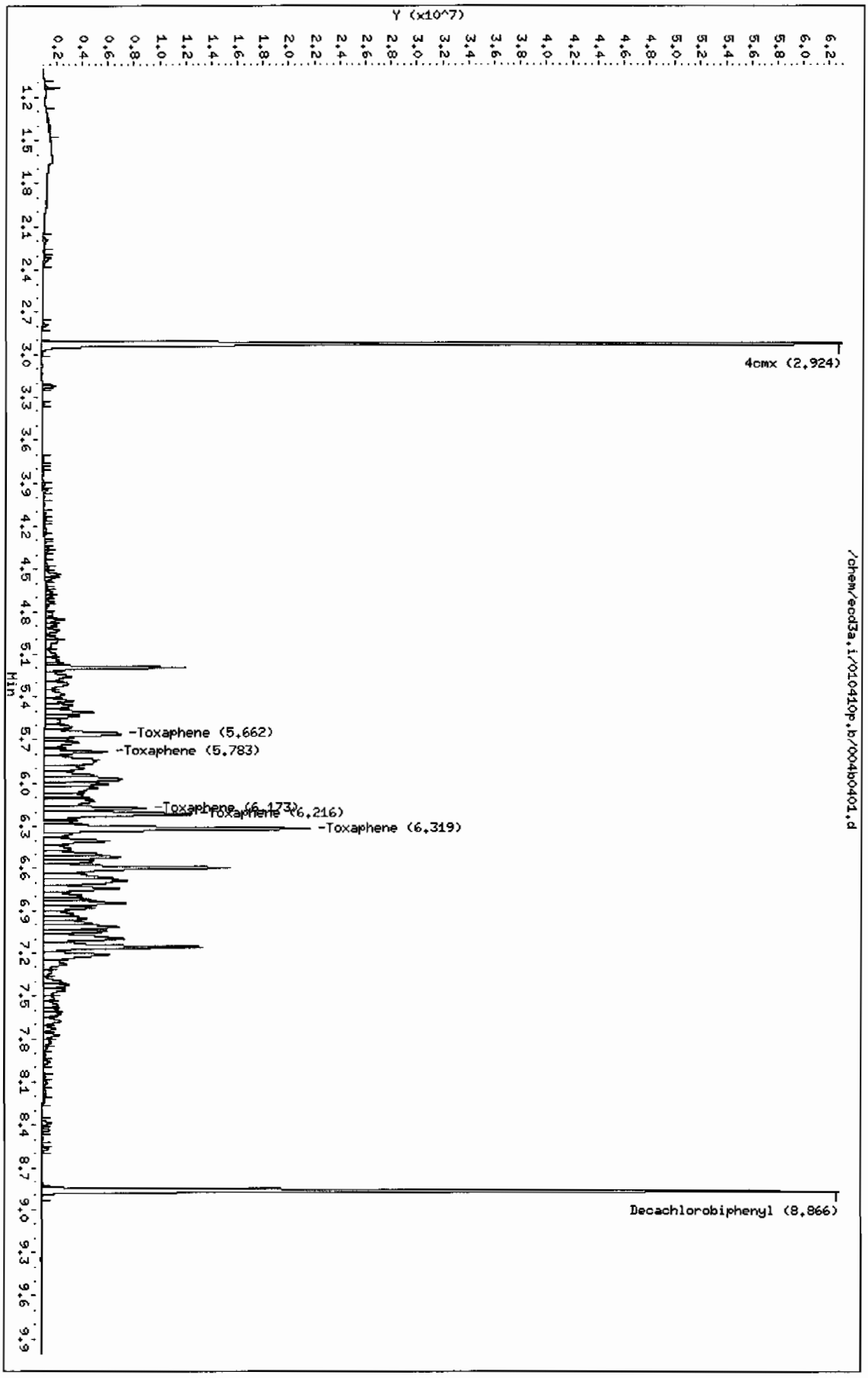

Page 1

Comment: Manually Integrated
Data File: /chem/ecd3a.i/010410p.b/004b0401.d
Operator: HXJ1
Injection Date: 04-JAN-2010 13:10
Instrument: ecd3a.i
Client Sample ID: TOXAPH01

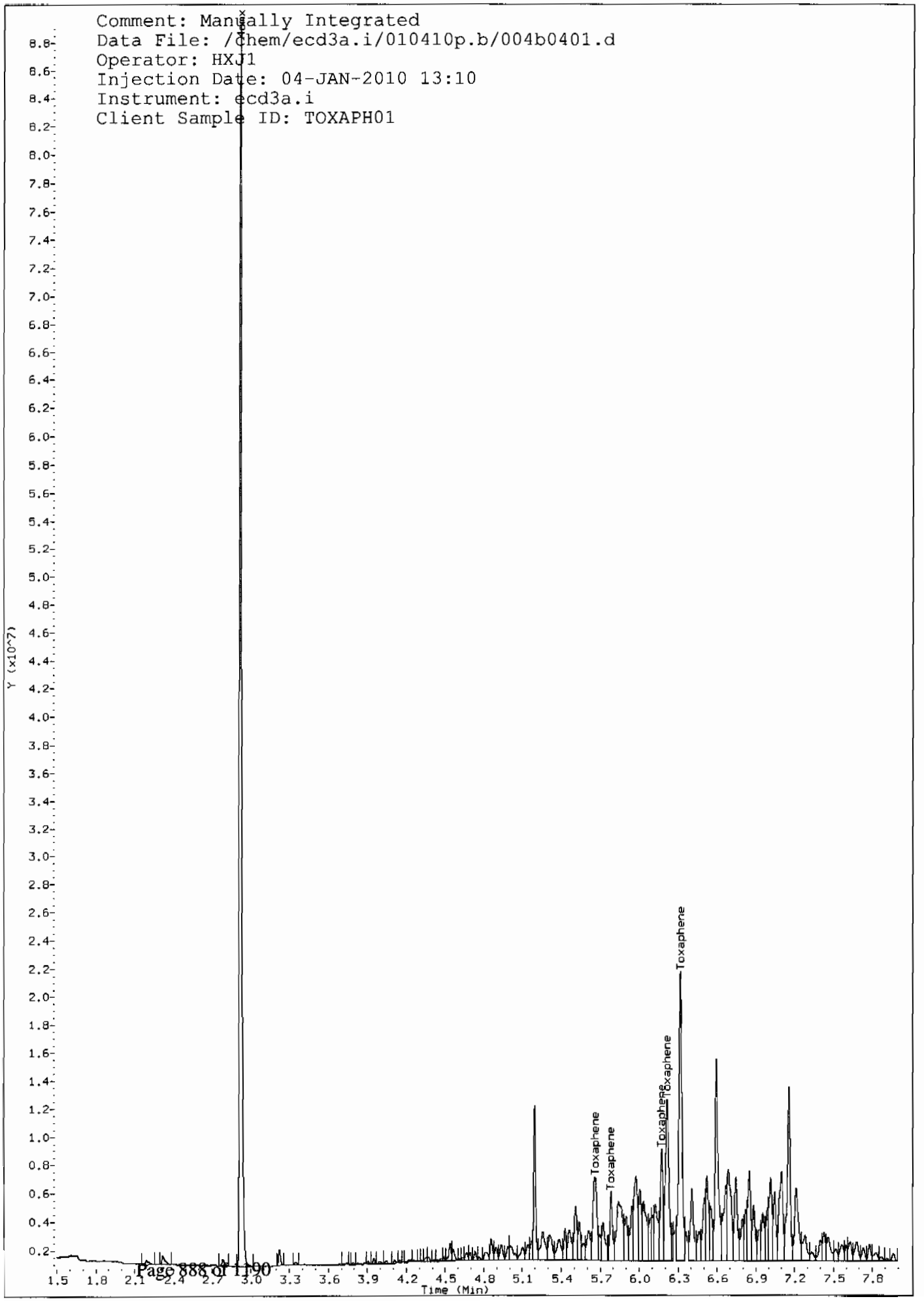

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Operator: HXJ1
Injection Date: 04-JAN-2010 13:10
Instrument: ecd3a.i
Client Sample ID: TOXAPH01

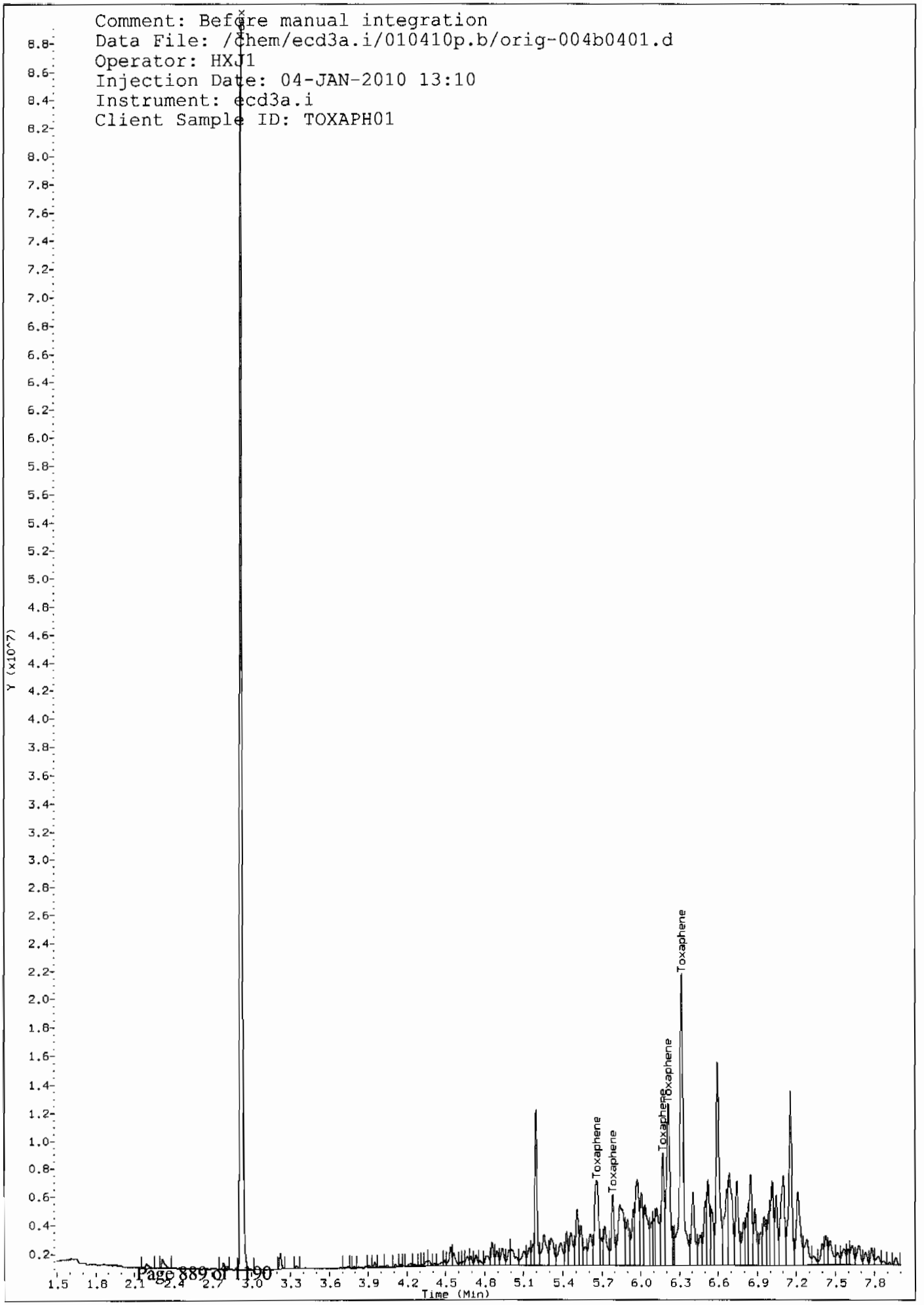

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CLP-1

Data file : /chem/ecd3a.i/010410p.b/012f1201.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB01
Inj Date : 04-JAN-2010 15:02
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.082	3.082	0.000	10064811	100.000	97.7	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.328	3.328	0.000	9098926	100.000	110	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.392	3.392	0.000	3670420	100.000	102	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.711	3.711	0.000	6394499	100.000	98.3	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.539	3.539	0.000	8562901	100.000	100	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.969	3.969	0.000	8072754	100.000	101	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.504	4.504	0.000	7438812	100.000	104	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.619	4.619	0.000	7863853	100.000	115	80.00- 120.00	100.00(M)
18 alpha-Chlordane					CAS #: 5103-71-9		
4.743	4.743	0.000	6870546	100.000	98.8	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.874	4.874	0.000	6941532	100.000	112	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.810	4.810	0.000	14596017	200.000	213	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.103	5.103	0.000	15073446	200.000	212	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.331	5.331	0.000	12239163	200.000	215	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.393	5.393	0.000	11622052	200.000	211	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.555	5.555	0.000	12581703	200.000	215	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.980	5.980	0.000	10083327	200.000	204	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.672	5.672	0.000	9485310	200.000	211	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.433	6.433	0.000	9854535	200.000	206	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.176	6.176	0.000	21076536	1000.00	950	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.730	6.730	0.000	12918854	200.000	201	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.676	2.676	0.000	13486430	200.000	199	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.823	7.823	0.000	9830224	200.000	190	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010410p.b/012F1201.d
Date : 04-JAN-2010 15:02
Client ID: INDAB01
Sample Info: IWPE091218-10AB

Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

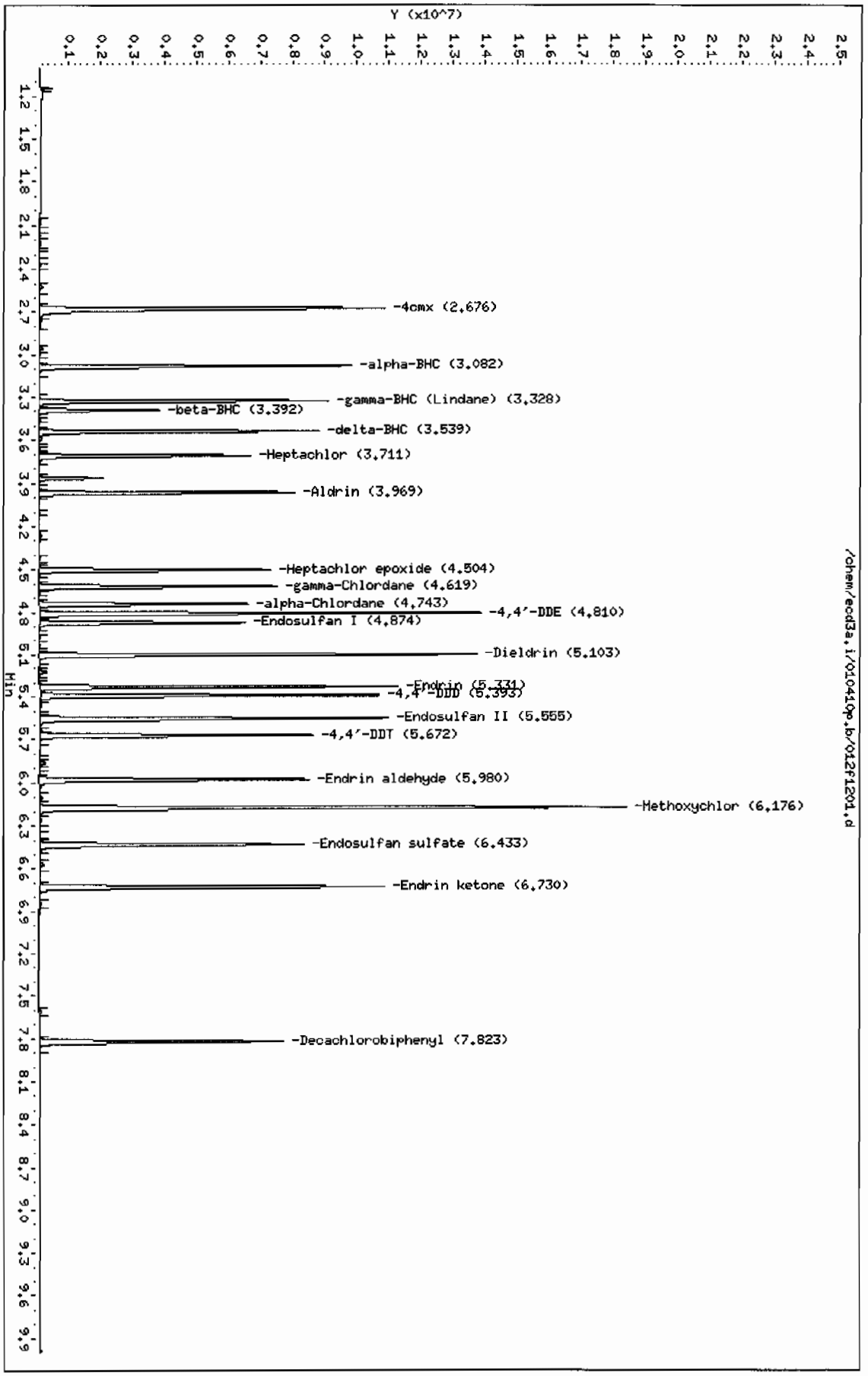

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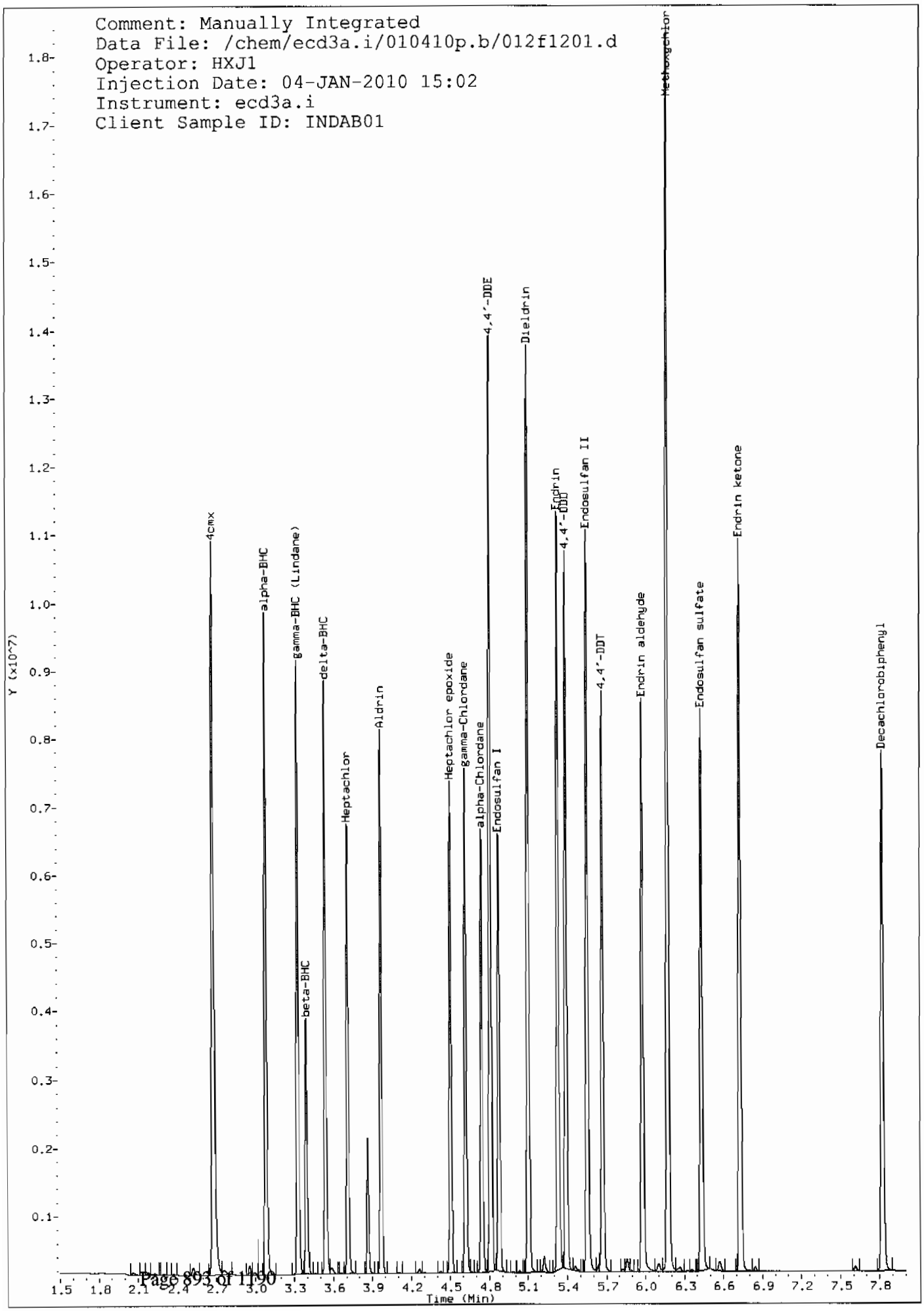
Comment: Manually Integrated
Data File: /chem/ecd3a.i/010410p.b/012f1201.d
Operator: HXJ1
Injection Date: 04-JAN-2010 15:02
Instrument: ecd3a.i
Client Sample ID: INDAB01
Y (x10^7)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Methoxychlor
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

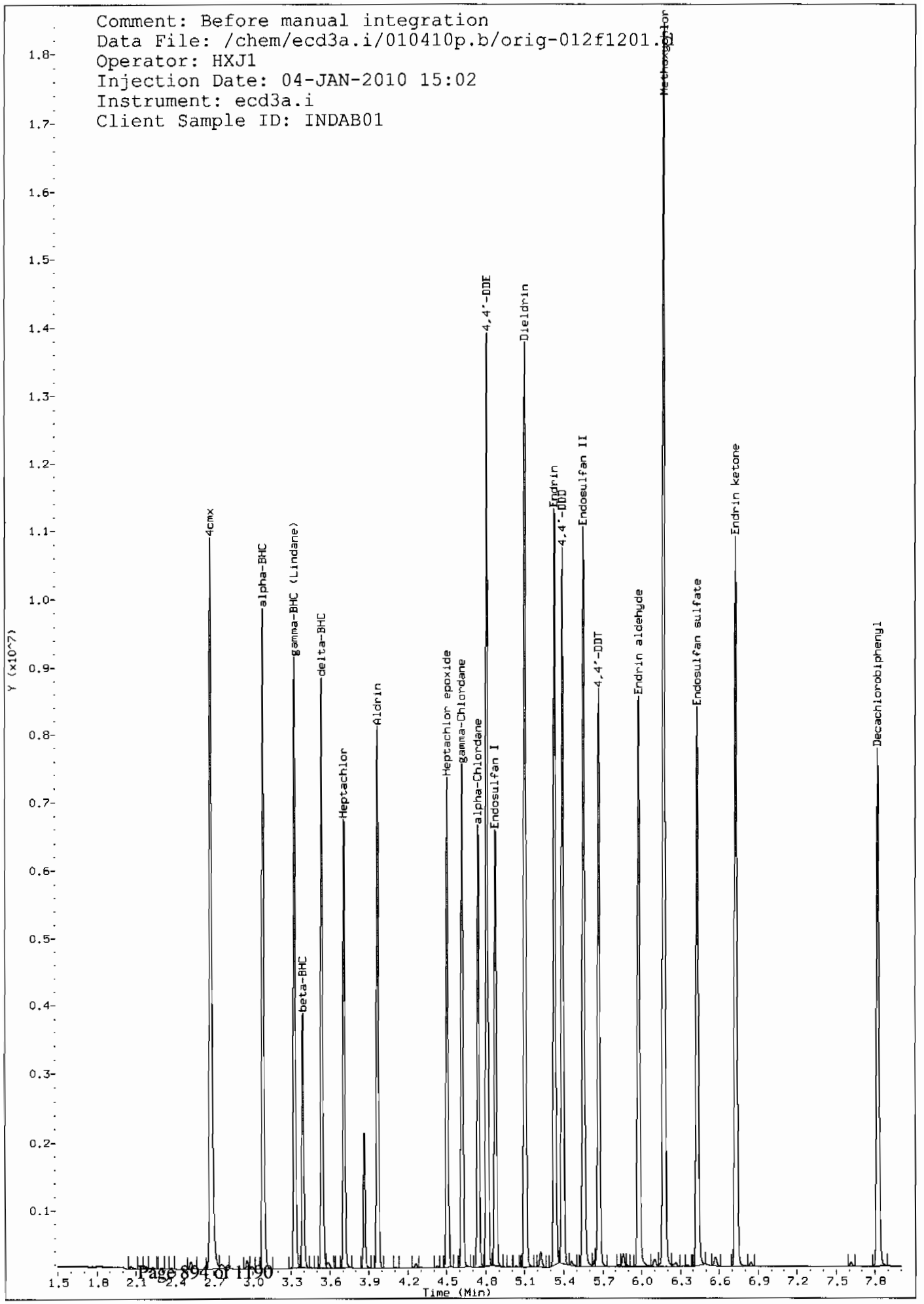
Comment: Before manual integration
Data File: /chem/ecd3a.i/010410p.b/orig-012f1201.d
Operator: HXJ1
Injection Date: 04-JAN-2010 15:02
Instrument: ecd3a.i
Client Sample ID: INDAB01
Y (x10^7)
Time (Min)
4cmx
alpha-BHC
gamma-BHC (Lindane)
beta-BHC
delta-BHC
Heptachlor
Aldrin
Heptachlor epoxide
gamma-Chlordane
alpha-Chlordane
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Endrin ketone
Decachlorobiphenyl

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Data file : /chem/ecd3a.i/010410p.b/012b1201.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB01
Inj Date : 04-JAN-2010 15:02
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 07-Jan-2010 11:42 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.413	3.413	0.000	72673730	100.000	106	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.721	3.721	0.000	61380643	100.000	106	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.783	3.783	0.000	24099905	100.000	95.0	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.135	4.135	0.000	38169331	100.000	90.1	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.056	4.056	0.000	53965935	100.000	102	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.447	4.447	0.000	36587912	100.000	96.3	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.997	4.997	0.000	28838830	100.000	94.2	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.189	5.189	0.000	34355577	100.000	111	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.335	5.335	0.000	28175940	100.000	94.4	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.399	5.399	0.000	29475001	100.000	104	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.493	5.493	0.000	59643756	200.000	202	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.680	5.680	0.000	69509501	200.000	201	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.999	5.999	0.000	70754972	200.000	210	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.098	6.098	0.000	70379624	200.000	206	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.220	6.220	0.000	78912141	200.000	200	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.577	6.577	0.000	75855861	200.000	198	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.438	6.438	0.000	73507381	200.000	205	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.880	6.880	0.000	98176706	200.000	209	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.181	7.181	0.000	182454113	1000.00	922	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.471	7.471	0.000	115549874	200.000	199	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	92583067	200.000	185	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.859	8.859	0.000	74929998	200.000	190	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/012b1201.d
Date : 04-JAN-2010 15:02
Client ID: INDAB01
Sample Info: IWPE091218-10AB

Column phase: CLP-2

Instrument: ecd3a.i
Operator: HKJ1
Column diameter: 0.25

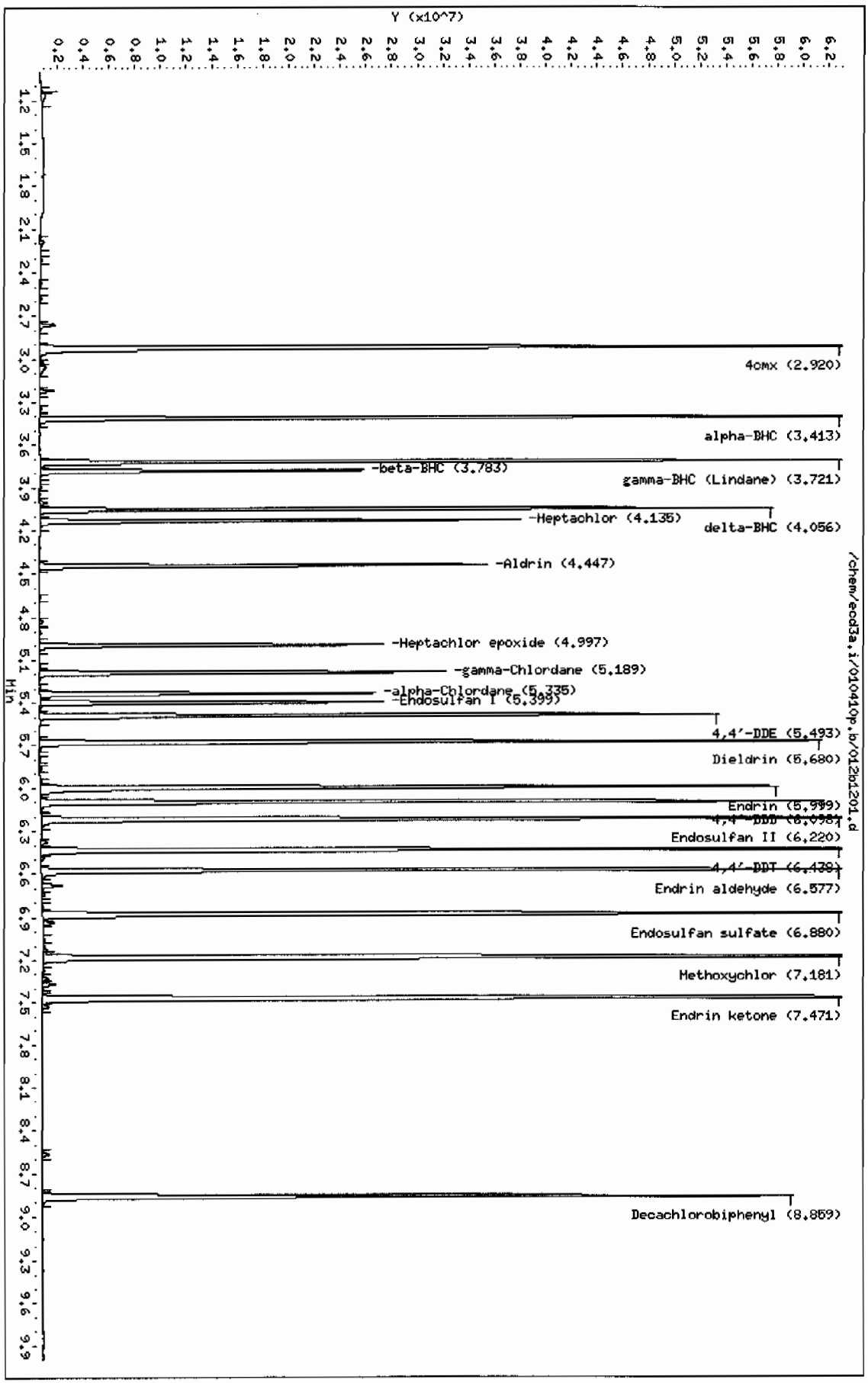

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CLP-1

Data file : /chem/ecd3a.i/010410p.b/021f2101.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB02
Inj Date : 04-JAN-2010 17:23
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.086	3.082	0.004	10342575	100.000	100	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.332	3.328	0.004	9365787	100.000	113	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.396	3.392	0.004	3770521	100.000	105	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.716	3.711	0.005	6785170	100.000	104	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.545	3.539	0.006	8890312	100.000	104	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.974	3.969	0.005	8292210	100.000	104	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.510	4.504	0.006	7622812	100.000	107	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.626	4.619	0.007	8032866	100.000	117	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.749	4.743	0.006	6999616	100.000	101	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
4.880	4.874	0.006	7120250	100.000	115	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.816	4.810	0.006	15023084	200.000	219	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.109	5.103	0.006	15460447	200.000	217	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.338	5.331	0.007	12685811	200.000	223	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.399	5.393	0.006	12013575	200.000	218	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.561	5.555	0.006	12922057	200.000	221	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.986	5.980	0.006	10358837	200.000	210	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.679	5.672	0.007	9935101	200.000	221	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.439	6.433	0.006	10271407	200.000	215	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.182	6.176	0.006	21909708	1000.00	988	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.737	6.730	0.007	13355424	200.000	207	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.679	2.676	0.003	13726949	200.000	202	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.830	7.823	0.007	9942134	200.000	192	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/021f2101.d
Date : 04-JAN-2010 17:23
Client ID: INDAB02
Sample Info: IWFE091218-10AB
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

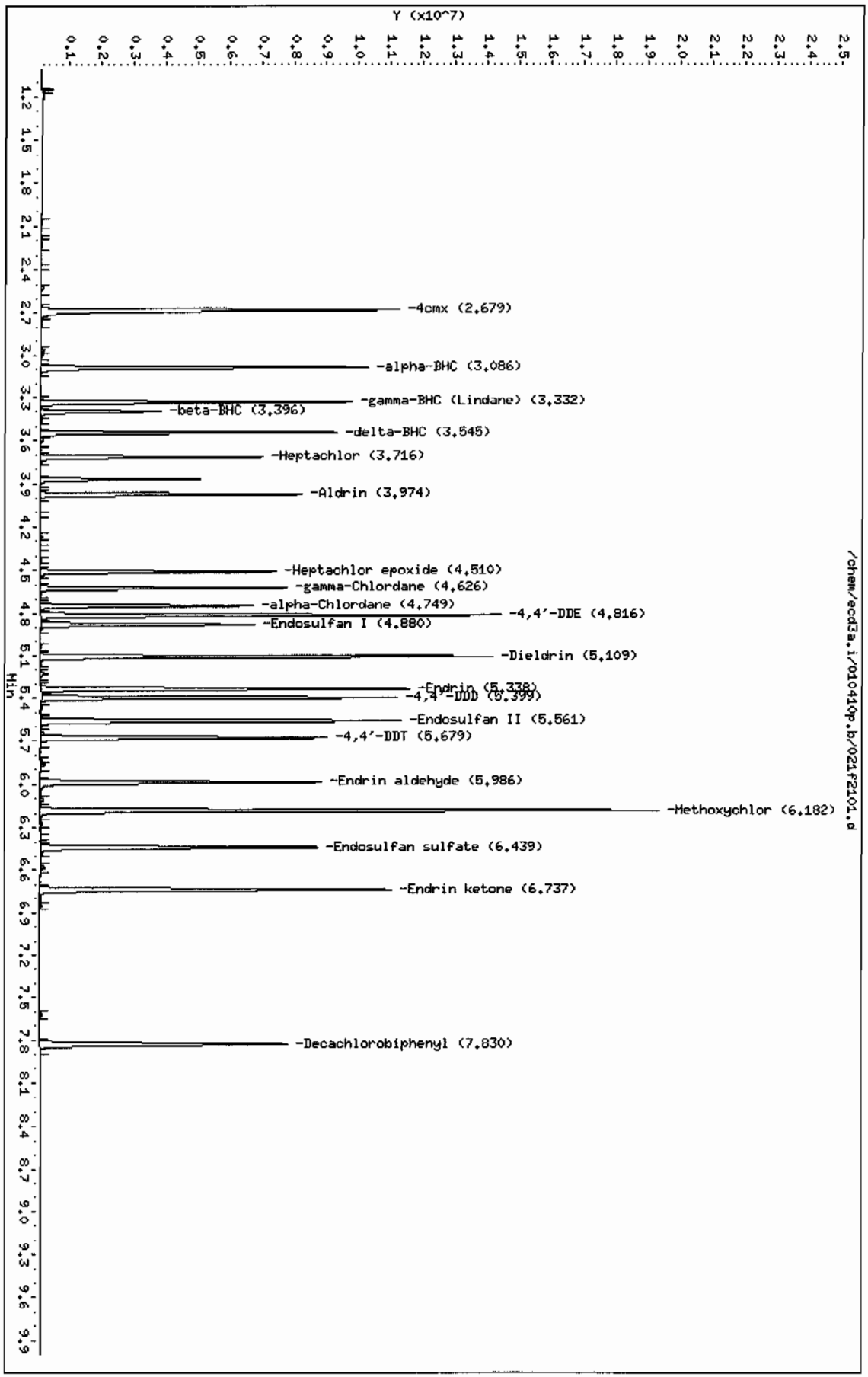

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010410p.b/021b2101.d
Lab Smp Id: WPE091218-10AB Client Smp ID: INDAB02
Inj Date : 04-JAN-2010 17:23
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WPE091218-10AB
Misc Info : |ABICV|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 07-Jan-2010 11:44 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.416	3.413	0.003	68378183	100.000	99.7	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.725	3.721	0.004	58220979	100.000	100	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.787	3.783	0.004	23103201	100.000	91.1	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.139	4.135	0.004	38542995	100.000	91.0	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.060	4.056	0.004	52897847	100.000	100	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.451	4.447	0.004	36318845	100.000	95.6	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.001	4.997	0.004	29593706	100.000	96.7	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.193	5.189	0.004	40374354	100.000	132	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.340	5.335	0.005	29316457	100.000	98.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.403	5.399	0.004	31074975	100.000	110	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.497	5.493	0.004	63222032	200.000	214	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.684	5.680	0.004	73723399	200.000	213	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.003	5.999	0.004	75789349	200.000	225	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.103	6.098	0.005	75400453	200.000	220	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.224	6.220	0.004	84275268	200.000	213	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.581	6.577	0.004	80615088	200.000	210	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.442	6.438	0.004	79228062	200.000	221	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.883	6.880	0.003	105022299	200.000	223	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.185	7.181	0.004	191237359	1000.00	966	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.474	7.471	0.003	120416975	200.000	208	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.922	2.920	0.002	89263479	200.000	178	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.863	8.859	0.004	75759874	200.000	192	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/021b2101.d
Date : 04-JAN-2010 17:23
Client ID: INDAB02
Sample Info: IWPE091218-10AB

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

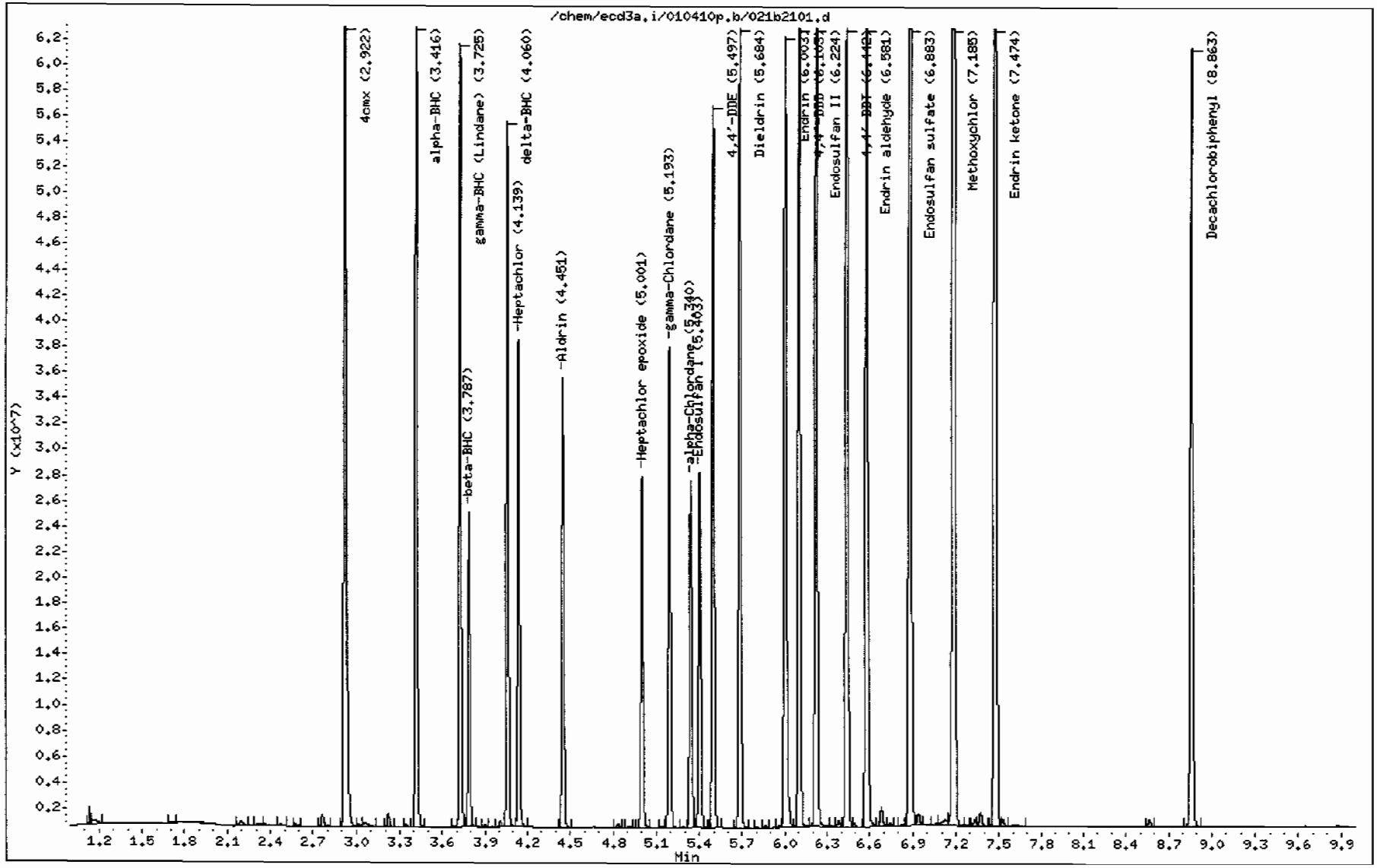

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-952

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.68 DCB: 7.82

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/29/09	1657	2.68	7.82
02	PEM01	WPE091219-99	12/29/09	1710	2.68	7.82
03	INDAB01	WPE091228-01	12/29/09	1734	2.68	7.83
04	INDAB02	WPE091228-02	12/29/09	1747	2.68	7.83
05	INDAB03	WPE091228-03	12/29/09	1801	2.68	7.82
06	INDAB04	WPE091228-04	12/29/09	1815	2.68	7.82
07	INDAB05	IPE091219-02	12/29/09	1829	2.68	7.82
08	INDAB01	WPE091218-10	12/29/09	1843	2.68	7.82
09	TOXAPH01	WPE091228-11	12/29/09	1856	2.68	7.82
10	TOXAPH02	WPE091228-12	12/29/09	1910	2.68	7.82
11	TOXAPH03	WPE091228-13	12/29/09	1924	2.68	7.82
12	ZZZZZ	ZZZZZ	12/29/09	1937		
13	TOXAPH04	WPE091228-14	12/29/09	2001	2.68	7.83
14	TOXAPH05	IPE091121-40	12/29/09	2014	2.68	7.82
15	TOXAPH01	WPE091219-52	12/29/09	2028	2.68	7.82
16	CHLOR01	WPE091228-21	12/29/09	2042	2.68	7.82
17	CHLOR02	WPE091228-22	12/29/09	2114	2.68	7.83
18	CHLOR03	WPE091228-23	12/29/09	2128	2.68	7.82
19	CHLOR04	WPE091228-24	12/29/09	2141	2.68	7.82
20	CHLOR05	IPE091029-06	12/29/09	2155	2.68	7.82
21	CHLOR01	WPE091206-60	12/29/09	2209	2.68	7.82
22	PEM02	WPE091219-99	12/29/09	2222	2.68	7.82
23	PIBLK02	WAR091130-99	12/29/09	2236	2.68	7.82
24	ZZZZZ	ZZZZZ	12/29/09	2249	2.68	7.82
25	ZZZZZ	ZZZZZ	12/29/09	2303	2.68	7.82
26	ZZZZZ	ZZZZZ	12/29/09	2317	2.68	7.82
27	ZZZZZ	ZZZZZ	12/29/09	2330	2.68	7.82
28	PIBLK03	WAR091130-99	12/29/09	2344	2.68	7.82
29	INDAB02	WPE091218-10	12/29/09	2358	2.68	7.82
30	PIBLK04	WAR091130-99	12/30/09	0011	2.68	7.82
31	ZZZZZ	ZZZZZ	12/30/09	0025	2.68	7.82
32	ZZZZZ	ZZZZZ	12/30/09	0039	2.68	7.82

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-952

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 12/29/09

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.92 DCB: 8.86

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/29/09	1657	2.92	8.86
02	PEM01	WPE091219-99	12/29/09	1710	2.92	8.86
03	INDAB01	WPE091228-01	12/29/09	1734	2.92	8.87
04	INDAB02	WPE091228-02	12/29/09	1747	2.92	8.86
05	INDAB03	WPE091228-03	12/29/09	1801	2.92	8.86
06	INDAB04	WPE091228-04	12/29/09	1815	2.92	8.86
07	INDAB05	IPE091219-02	12/29/09	1829	2.92	8.86
08	INDAB01	WPE091218-10	12/29/09	1843	2.92	8.86
09	TOXAPH01	WPE091228-11	12/29/09	1856	2.92	8.86
10	TOXAPH02	WPE091228-12	12/29/09	1910	2.92	8.86
11	TOXAPH03	WPE091228-13	12/29/09	1924	2.92	8.86
12	ZZZZZ	ZZZZZ	12/29/09	1937		
13	TOXAPH04	WPE091228-14	12/29/09	2001	2.92	8.86
14	TOXAPH05	IPE091121-40	12/29/09	2014	2.92	8.86
15	TOXAPH01	WPE091219-52	12/29/09	2028	2.92	8.86
16	CHLOR01	WPE091228-21	12/29/09	2042	2.92	8.86
17	CHLOR02	WPE091228-22	12/29/09	2114	2.92	8.86
18	CHLOR03	WPE091228-23	12/29/09	2128	2.92	8.86
19	CHLOR04	WPE091228-24	12/29/09	2141	2.92	8.86
20	CHLOR05	IPE091029-06	12/29/09	2155	2.92	8.86
21	CHLOR01	WPE091206-60	12/29/09	2209	2.92	8.86
22	PEM02	WPE091219-99	12/29/09	2222	2.92	8.86
23	PIBLK02	WAR091130-99	12/29/09	2236	2.92	8.86
24	ZZZZZ	ZZZZZ	12/29/09	2249	2.92	8.86
25	ZZZZZ	ZZZZZ	12/29/09	2303	2.92	8.86
26	ZZZZZ	ZZZZZ	12/29/09	2317	2.92	8.86
27	ZZZZZ	ZZZZZ	12/29/09	2330	2.92	8.86
28	PIBLK03	WAR091130-99	12/29/09	2344	2.92	8.86
29	INDAB02	WPE091218-10	12/29/09	2358	2.92	8.86
30	PIBLK04	WAR091130-99	12/30/09	0011	2.92	8.86
31	ZZZZZ	ZZZZZ	12/30/09	0025	2.92	8.86
32	ZZZZZ	ZZZZZ	12/30/09	0039	2.92	8.86

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-952

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 01/04/10

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.68 DCB: 7.82

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	01/04/10	1210	2.67	7.82
02	PEM01	WPE091219-99	01/04/10	1224	2.67	7.82
03	ZZZZZ	ZZZZZ	01/04/10	1238	2.68	7.82
04	TOXAPH01	WPE091219-52	01/04/10	1310	2.68	7.83
05	CHLOR01	WPE091021-00	01/04/10	1324	2.68	7.82
06	INDAB01	WPE100104-01	01/04/10	1340	2.68	7.83
07	INDAB02	WPE100104-02	01/04/10	1353	2.68	7.82
08	INDAB03	WPE100104-03	01/04/10	1407	2.68	7.82
09	INDAB04	WPE100104-04	01/04/10	1421	2.68	7.82
10	INDAB05	IPE091219-02	01/04/10	1434	2.68	7.82
11	ZZZZZ	ZZZZZ	01/04/10	1448	2.68	7.82
12	INDAB01	WPE091218-10	01/04/10	1502	2.68	7.82
13	PIBLK02	WAR091130-99	01/04/10	1530	2.68	7.83
14	PBLK01	1202001567	01/04/10	1543	2.68	7.82
15	PBLK01LCS	1202001568	01/04/10	1557	2.68	7.82
16	PBLK01TLCS	1202001571	01/04/10	1611	2.68	7.82
17	ZZZZZ	ZZZZZ	01/04/10	1624	2.68	7.82
18	CAPA-10-6818	243099001	01/04/10	1638	2.68	7.82
19	ZZZZZ	ZZZZZ	01/04/10	1652	2.68	7.82
20	ZZZZZ	ZZZZZ	01/04/10	1705	2.68	7.82
21	INDAB02	WPE091218-10	01/04/10	1723	2.68	7.83
22	PIBLK03	WAR091130-99	01/04/10	1737	2.68	7.82
23	ZZZZZ	ZZZZZ	01/04/10	1750	2.68	7.82
24	ZZZZZ	ZZZZZ	01/04/10	1804	2.68	7.82
25	ZZZZZ	ZZZZZ	01/04/10	1817	2.68	7.82
26	ZZZZZ	ZZZZZ	01/04/10	1831	2.68	7.82
27	ZZZZZ	ZZZZZ	01/04/10	1845	2.68	7.82
28	ZZZZZ	ZZZZZ	01/04/10	1858	2.68	7.82
29	PIBLK04	WAR091130-99	01/04/10	1912	2.68	7.82
30	INDAB03	WPE091218-10	01/04/10	1926	2.68	7.82
31	PIBLK05	WAR091130-99	01/04/10	1939	2.68	7.82
32	ZZZZZ	ZZZZZ	01/04/10	1953	2.68	7.82

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-952

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 12/29/09 01/04/10

Instrument ID: ECD3A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.92 DCB: 8.86

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	01/04/10	1210	2.92	8.86
02	PEM01	WPE091219-99	01/04/10	1224	2.92	8.86
03	ZZZZZ	ZZZZZ	01/04/10	1238	2.92	8.86
04	TOXAPH01	WPE091219-52	01/04/10	1310	2.92	8.87
05	CHLOR01	WPE091021-00	01/04/10	1324	2.92	8.86
06	INDAB01	WPE100104-01	01/04/10	1340	2.92	8.86
07	INDAB02	WPE100104-02	01/04/10	1353	2.92	8.86
08	INDAB03	WPE100104-03	01/04/10	1407	2.92	8.86
09	INDAB04	WPE100104-04	01/04/10	1421	2.92	8.86
10	INDAB05	IPE091219-02	01/04/10	1434	2.92	8.86
11	ZZZZZ	ZZZZZ	01/04/10	1448	2.92	8.86
12	INDAB01	WPE091218-10	01/04/10	1502	2.92	8.86
13	PIBLK02	WAR091130-99	01/04/10	1530	2.92	8.87
14	PBLK01	1202001567	01/04/10	1543	2.92	8.86
15	PBLK01LCS	1202001568	01/04/10	1557	2.92	8.86
16	PBLK01TLCS	1202001571	01/04/10	1611	2.92	8.86
17	ZZZZZ	ZZZZZ	01/04/10	1624	2.92	8.86
18	CAPA-10-6818	243099001	01/04/10	1638	2.92	8.86
19	ZZZZZ	ZZZZZ	01/04/10	1652	2.92	8.86
20	ZZZZZ	ZZZZZ	01/04/10	1705	2.92	8.86
21	INDAB02	WPE091218-10	01/04/10	1723	2.92	8.86
22	PIBLK03	WAR091130-99	01/04/10	1736	2.92	8.86
23	ZZZZZ	ZZZZZ	01/04/10	1750	2.92	8.86
24	ZZZZZ	ZZZZZ	01/04/10	1804	2.92	8.86
25	ZZZZZ	ZZZZZ	01/04/10	1817	2.92	8.86
26	ZZZZZ	ZZZZZ	01/04/10	1831	2.92	8.86
27	ZZZZZ	ZZZZZ	01/04/10	1845	2.92	8.86
28	ZZZZZ	ZZZZZ	01/04/10	1858	2.92	8.86
29	PIBLK04	WAR091130-99	01/04/10	1912	2.92	8.86
30	INDAB03	WPE091218-10	01/04/10	1926	2.92	8.86
31	PIBLK05	WAR091130-99	01/04/10	1939	2.92	8.86
32	ZZZZZ	ZZZZZ	01/04/10	1953	2.92	8.86

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

Identification Summary

SDG Number: 10–952 **Client ID:** LCS for batch 935412

Lab Sample ID: 1202001568

Data File:	015f1501.d	**Data File:**	015b1501.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	04–JAN–10 15:57	**Analyzed:**	04–JAN–10 15:57

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							1.77
Column 1	1	3.08	3.05 – 3.11	.283		ug/L	
Column 2	1	3.41	3.38 – 3.44	.278		ug/L	
gamma–BHC (Lindane)							3.04
Column 1	1	3.33	3.3 – 3.36	.313		ug/L	
Column 2	1	3.72	3.69 – 3.75	.303		ug/L	
beta–BHC							8.98
Column 1	1	3.39	3.36 – 3.42	.309		ug/L	
Column 2	1	3.78	3.75 – 3.81	.282		ug/L	
delta–BHC							17.1
Column 1	1	3.54	3.51 – 3.57	.294		ug/L	
Column 2	1	4.06	4.03 – 4.09	.247		ug/L	
Heptachlor							11.2
Column 1	1	3.71	3.68 – 3.74	.262		ug/L	
Column 2	1	4.14	4.1 – 4.16	.234		ug/L	

Identification Summary

SDG Number: 10–952 **Client ID:** LCS for batch 935412

Lab Sample ID: 1202001568

Data File:	015f1501.d	**Data File:**	015b1501.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	04–JAN–10 15:57	**Analyzed:**	04–JAN–10 15:57

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							4.54
Column 1	1	3.97	3.94 – 4	.244		ug/L	
Column 2	1	4.45	4.42 – 4.48	.233		ug/L	
Heptachlor epoxide							16.6
Column 1	1	4.5	4.47 – 4.53	.305		ug/L	
Column 2	1	5	4.97 – 5.03	.259		ug/L	
gamma–Chlordane							11.5
Column 1	1	4.62	4.59 – 4.65	.28		ug/L	
Column 2	1	5.19	5.16 – 5.22	.249		ug/L	
alpha–Chlordane							.00823
Column 1	1	4.74	4.71 – 4.77	.297		ug/L	
Column 2	1	5.34	5.31 – 5.37	.297		ug/L	
Endosulfan I							4.06
Column 1	1	4.87	4.84 – 4.9	.323		ug/L	
Column 2	1	5.4	5.37 – 5.43	.31		ug/L	

Identification Summary

SDG Number: 10–952 **Client ID:** LCS for batch 935412

Lab Sample ID: 1202001568

Data File:	015f1501.d	**Data File:**	015b1501.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	04–JAN–10 15:57	**Analyzed:**	04–JAN–10 15:57

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE								3.33
	Column 1	1	4.81	4.78 – 4.84	.746		ug/L	
	Column 2	1	5.49	5.46 – 5.52	.772		ug/L	
Dieldrin								1.82
	Column 1	1	5.1	5.07 – 5.13	.788		ug/L	
	Column 2	1	5.68	5.65 – 5.71	.774		ug/L	
Endrin								2.85
	Column 1	1	5.33	5.3 – 5.36	.877		ug/L	
	Column 2	1	6	5.97 – 6.03	.852		ug/L	
4,4'–DDD								2.2
	Column 1	1	5.39	5.36 – 5.42	.839		ug/L	
	Column 2	1	6.1	6.07 – 6.13	.821		ug/L	
Endosulfan II								4.9
	Column 1	1	5.55	5.52 – 5.58	.864		ug/L	
	Column 2	1	6.22	6.19 – 6.25	.822		ug/L	

Identification Summary

SDG Number: 10–952 **Client ID:** LCS for batch 935412

Lab Sample ID: 1202001568

Data File:	015f1501.d	**Data File:**	015b1501.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	04–JAN–10 15:57	**Analyzed:**	04–JAN–10 15:57

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							2.11
Column 1	1	5.98	5.95 – 6.01	.742		ug/L	
Column 2	1	6.58	6.55 – 6.61	.758		ug/L	
4,4'–DDT							3.24
Column 1	1	5.67	5.64 – 5.7	.827		ug/L	
Column 2	1	6.44	6.41 – 6.47	.801		ug/L	
Endosulfan sulfate							.751
Column 1	1	6.43	6.4 – 6.46	.86		ug/L	
Column 2	1	6.88	6.85 – 6.91	.867		ug/L	
Methoxychlor							.000551
Column 1	1	6.17	6.15 – 6.21	3.06		ug/L	
Column 2	1	7.18	7.15 – 7.21	3.06		ug/L	
Endrin ketone							1.94
Column 1	1	6.73	6.7 – 6.76	.799		ug/L	
Column 2	1	7.47	7.44 – 7.5	.815		ug/L	

Identification Summary

SDG Number: 10-952 **Client ID:** LCS for batch 935412

Lab Sample ID: 1202001571

Data File:	016f1601.d	**Data File:**	016b1601.d
Inst:	ECD3A.I_1	**Inst:**	ECD3A.I_2
Column:	CLP-1	**Column:**	CLP-2
Analyzed:	04-JAN-10 16:11	**Analyzed:**	04-JAN-10 16:11

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Toxaphene							12.2
Column 1	1	5	4.98 – 5.04	3.32		ug/L	
	2	5.11	5.09 – 5.15	3.14		ug/L	
	3	5.19	5.17 – 5.23	2.72		ug/L	
	4	5.37	5.33 – 5.39	2.31		ug/L	
	5	5.55	5.52 – 5.58	3.39		ug/L	
					2.97		
Column 2	1	5.66	5.63 – 5.69	3.48		ug/L	
	2	5.78	5.75 – 5.81	3.45		ug/L	
	3	6.17	6.14 – 6.2	3.22		ug/L	
	4	6.21	6.19 – 6.25	3.32		ug/L	
	5	6.31	6.29 – 6.35	3.34		ug/L	
					3.36		

QUALITY CONTROL DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202001567**				
Client Sample:	**QC for batch 935412**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 935412**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**935414**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 15:43**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/21/2009 19:38**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**014f1401-52.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	014b1401-52.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.020	ug/L	0.005	0.020	1
58-89-9	gamma-BHC (Lindane)	U	0.020	ug/L	0.005	0.020	1
319-85-7	beta-BHC	U	0.020	ug/L	0.006	0.020	1
319-86-8	delta-BHC	U	0.020	ug/L	0.005	0.020	1
76-44-8	Heptachlor	U	0.020	ug/L	0.005	0.020	1
309-00-2	Aldrin	U	0.020	ug/L	0.005	0.020	1
1024-57-3	Heptachlor epoxide	U	0.020	ug/L	0.005	0.020	1
5103-74-2	gamma-Chlordane	U	0.020	ug/L	0.005	0.020	1
5103-71-9	alpha-Chlordane	U	0.020	ug/L	0.005	0.020	1
959-98-8	Endosulfan I	U	0.020	ug/L	0.005	0.020	1
72-55-9	4,4'-DDE	U	0.040	ug/L	0.005	0.040	1
60-57-1	Dieldrin	U	0.040	ug/L	0.010	0.040	1
72-20-8	Endrin	U	0.040	ug/L	0.010	0.040	1
72-54-8	4,4'-DDD	U	0.040	ug/L	0.010	0.040	1
33213-65-9	Endosulfan II	U	0.040	ug/L	0.010	0.040	1
7421-93-4	Endrin aldehyde	U	0.040	ug/L	0.005	0.040	1
50-29-3	4,4'-DDT	U	0.040	ug/L	0.010	0.040	1
1031-07-8	Endosulfan sulfate	U	0.040	ug/L	0.010	0.040	1
72-43-5	Methoxychlor	U	0.200	ug/L	0.050	0.200	1
53494-70-5	Endrin ketone	U	0.040	ug/L	0.010	0.040	1
8001-35-2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.477	1.00	ug/L	47.7	(29%-103%)
Decachlorobiphenyl	0.618	1.00	ug/L	61.8	(34%-118%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010410p.b/014f1401-52.d
Lab Smp Id: 1202001567 Client Smp ID: PBLK01
Inj Date : 04-JAN-2010 15:43
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001567|1|
Misc Info : |ECD81A_1L|935414|SVP|MB|GROUND WATER|MB|||
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 14 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-952.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.676	2.676	0.000	6463782	95.3805	0.477	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.824	7.823	0.001	6407160	123.552	0.618	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/014f1401-52.d
Date : 04-JAN-2010 15:43
Client ID: PBLK01
Sample Info: |1202001567|1|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

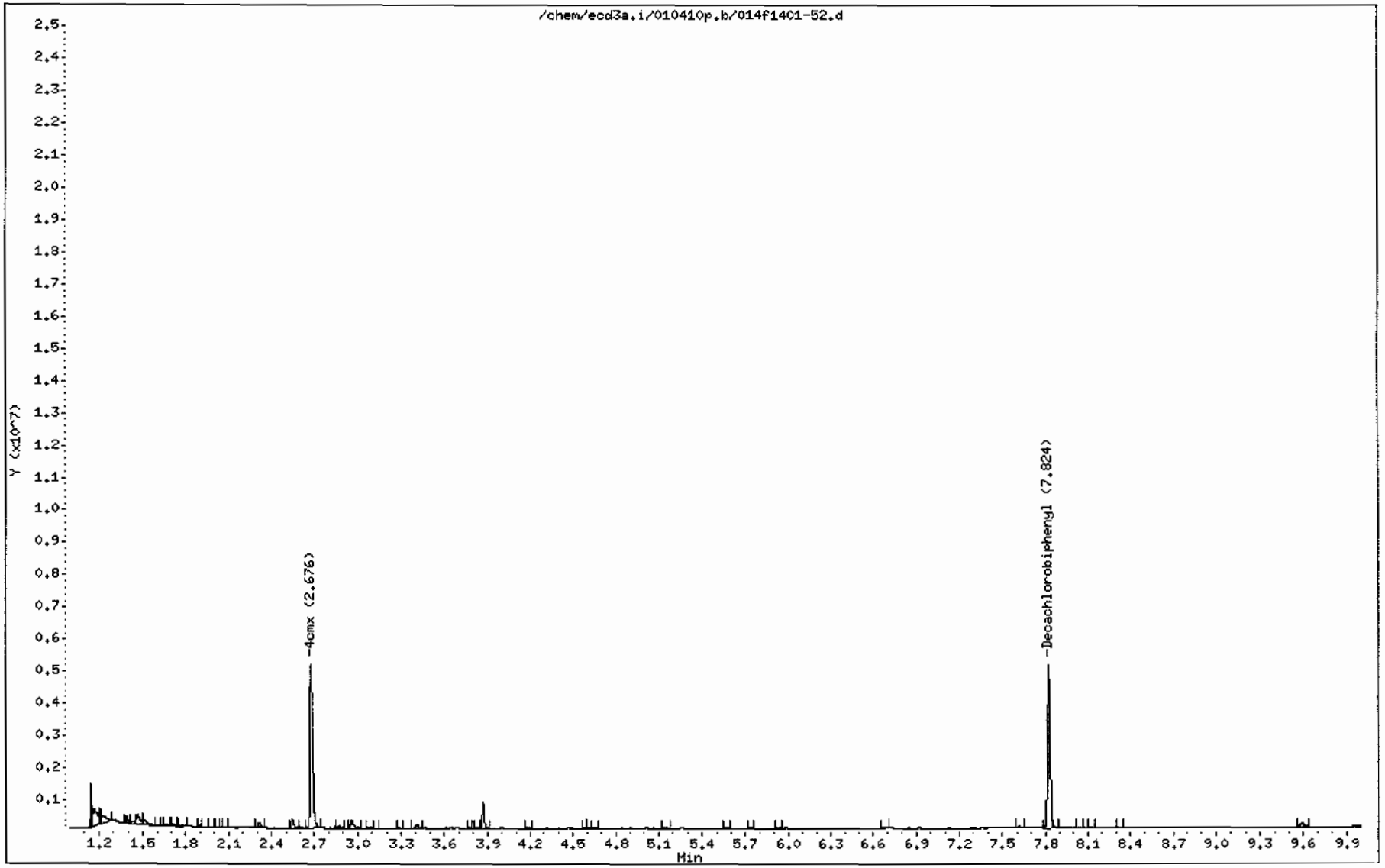

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010410p.b/014b1401-52.d
Lab Smp Id: 1202001567 Client Smp ID: PBLK01
Inj Date : 04-JAN-2010 15:43
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001567|1|
Misc Info : |ECD81A_1L|935414|SVP|MB|GROUND WATER|MB|||
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 07-Jan-2010 11:48 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 14 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-952.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	48235785	96.4655	0.482	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.860	8.859	0.001	49823478	126.399	0.632	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/014b1401-52.d

Page 1

Date : 04-JAN-2010 15:43

Client ID: PBLK01

Instrument: ecd3a.i

Sample Info: |120200156711|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

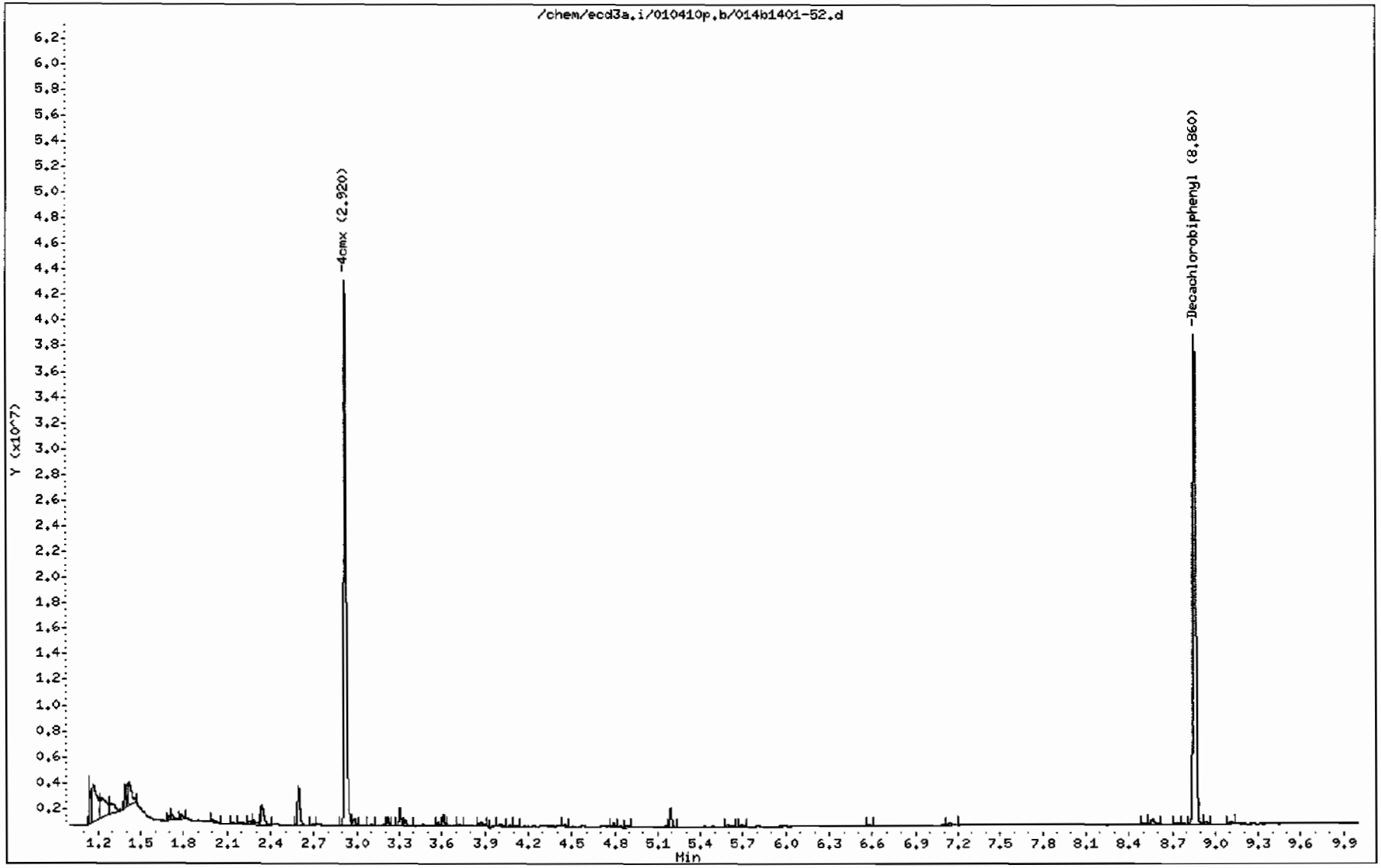

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–952**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202001568**				
Client Sample:	**QC for batch 935412**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 935412**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**935414**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 15:57**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/21/2009 19:38**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**015f1501–52.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	015b1501–52.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC		0.283	ug/L	0.005	0.020	1
58–89–9	gamma–BHC (Lindane)		0.313	ug/L	0.005	0.020	1
319–85–7	beta–BHC		0.309	ug/L	0.006	0.020	1
319–86–8	delta–BHC		0.294	ug/L	0.005	0.020	1
76–44–8	Heptachlor		0.262	ug/L	0.005	0.020	1
309–00–2	Aldrin		0.244	ug/L	0.005	0.020	1
1024–57–3	Heptachlor epoxide		0.305	ug/L	0.005	0.020	1
5103–74–2	gamma–Chlordane		0.280	ug/L	0.005	0.020	1
5103–71–9	alpha–Chlordane		0.297	ug/L	0.005	0.020	1
959–98–8	Endosulfan I		0.323	ug/L	0.005	0.020	1
72–55–9	4,4'–DDE		0.746	ug/L	0.005	0.040	1
60–57–1	Dieldrin		0.788	ug/L	0.010	0.040	1
72–20–8	Endrin		0.877	ug/L	0.010	0.040	1
72–54–8	4,4'–DDD		0.839	ug/L	0.010	0.040	1
33213–65–9	Endosulfan II		0.864	ug/L	0.010	0.040	1
7421–93–4	Endrin aldehyde		0.742	ug/L	0.005	0.040	1
50–29–3	4,4'–DDT		0.827	ug/L	0.010	0.040	1
1031–07–8	Endosulfan sulfate		0.860	ug/L	0.010	0.040	1
72–43–5	Methoxychlor		3.06	ug/L	0.050	0.200	1
53494–70–5	Endrin ketone		0.799	ug/L	0.010	0.040	1
8001–35–2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.409	1.00	ug/L	40.9	(29%–103%)
Decachlorobiphenyl	0.590	1.00	ug/L	59.0	(34%–118%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010410p.b/015f1501-52.d
Lab Smp Id: 1202001568 Client Smp ID: PBLK01LCS
Inj Date : 04-JAN-2010 15:57
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001568|1|
Misc Info : |ECD81A_1L|935414|SVP|LCSGROUND WATER|LCS|||
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 15 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-952.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.676	2.676	0.000	5542264	81.7824	0.409	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.823	7.823	0.000	6121292	118.040	0.590	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.083	3.082	0.001	5681342	56.5267	0.283	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.327	3.328	-0.001	5193775	62.5290	0.313	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.392	3.392	0.000	2211701	61.7400	0.309	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.540	3.539	0.001	5019778	58.7037	0.294	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.711	3.711	0.000	3413411	52.4721	0.262	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.968	3.969	-0.001	3891469	48.8058	0.244	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.504	4.504	0.000	4348457	61.0462	0.305	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.620	4.619	0.001	3827403	55.9421	0.280	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.743	4.743	0.000	4131904	59.4076	0.297	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.875	4.874	0.001	3985923	64.6248	0.323	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.810	4.810	0.000	10228740	149.261	0.746	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.104	5.103	0.001	11230543	157.645	0.788	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.331	5.331	0.000	9991378	175.400	0.877	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.392	5.393	-0.001	9245707	167.852	0.839	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.555	5.555	0.000	10101882	172.706	0.864	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.979	5.980	-0.001	7313038	148.366	0.742	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.671	5.672	-0.001	7445304	165.461	0.827	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.432	6.433	-0.001	8215603	172.010	0.860	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.175	6.176	-0.001	13593537	612.757	3.06	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.731	6.730	0.001	10294069	159.863	0.799	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/015f1501-52.d
Date : 04-JAN-2010 15:57
Client ID: PBLK01LCS
Sample Info: |1202001568|1|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

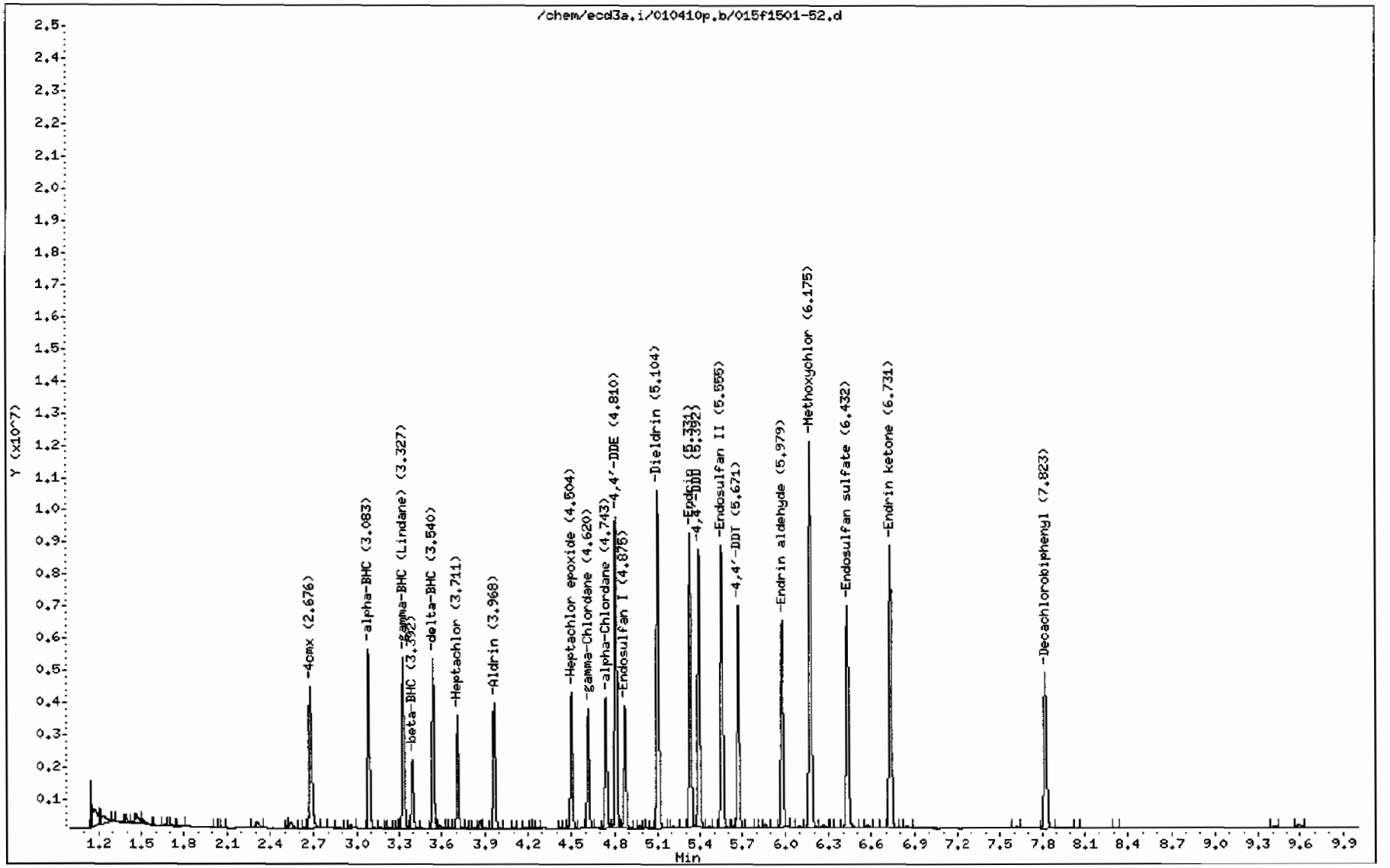

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010410p.b/015b1501-52.d
Lab Smp Id: 1202001568 Client Smp ID: PBLK01LCS
Inj Date : 04-JAN-2010 15:57
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001568|1|
Misc Info : |ECD81A_1L|935414|SVP|LCSGROUND WATER|LCS|||
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 07-Jan-2010 11:48 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 15 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-952.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	41951835	83.8984	0.419	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.860	8.859	0.001	47223170	119.803	0.599	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.412	3.413	-0.001	38072039	55.5350	0.278	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.722	3.721	0.001	35255544	60.6586	0.303	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.784	3.783	0.001	14310843	56.4360	0.282	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.056	4.056	0.000	26043854	49.4704	0.247	80.00- 120.00	100.00(R)
10 Heptachlor					CAS #: 76-44-8		
4.135	4.135	0.000	19865266	46.8988	0.234	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.447	4.447	0.000	17719595	46.6375	0.233	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.998	4.997	0.001	15829563	51.7126	0.258	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.188	5.189	-0.001	16705328	49.8602	0.249	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.335	5.335	0.000	17739508	59.4027	0.297	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.399	5.399	0.000	17545194	62.0504	0.310	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.493	5.493	0.000	45654496	154.312	0.772	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.679	5.680	-0.001	53499576	154.804	0.774	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.999	5.999	0.000	57350309	170.465	0.852	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.098	6.098	0.000	56129288	164.192	0.821	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.220	6.220	0.000	64936182	164.453	0.822	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.577	6.577	0.000	58078985	151.536	0.758	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.438	6.438	0.000	57496150	160.187	0.801	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.879	6.880	-0.001	81531622	173.307	0.866	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.180	7.181	-0.001	121309843	612.753	3.06	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.471	7.471	0.000	94511798	162.987	0.815	80.00- 120.00	100.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/010410p.b/015b1501-52.d
Date : 04-JAN-2010 15:57
Client ID: PBLK01LCS
Sample Info: |1202001568|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

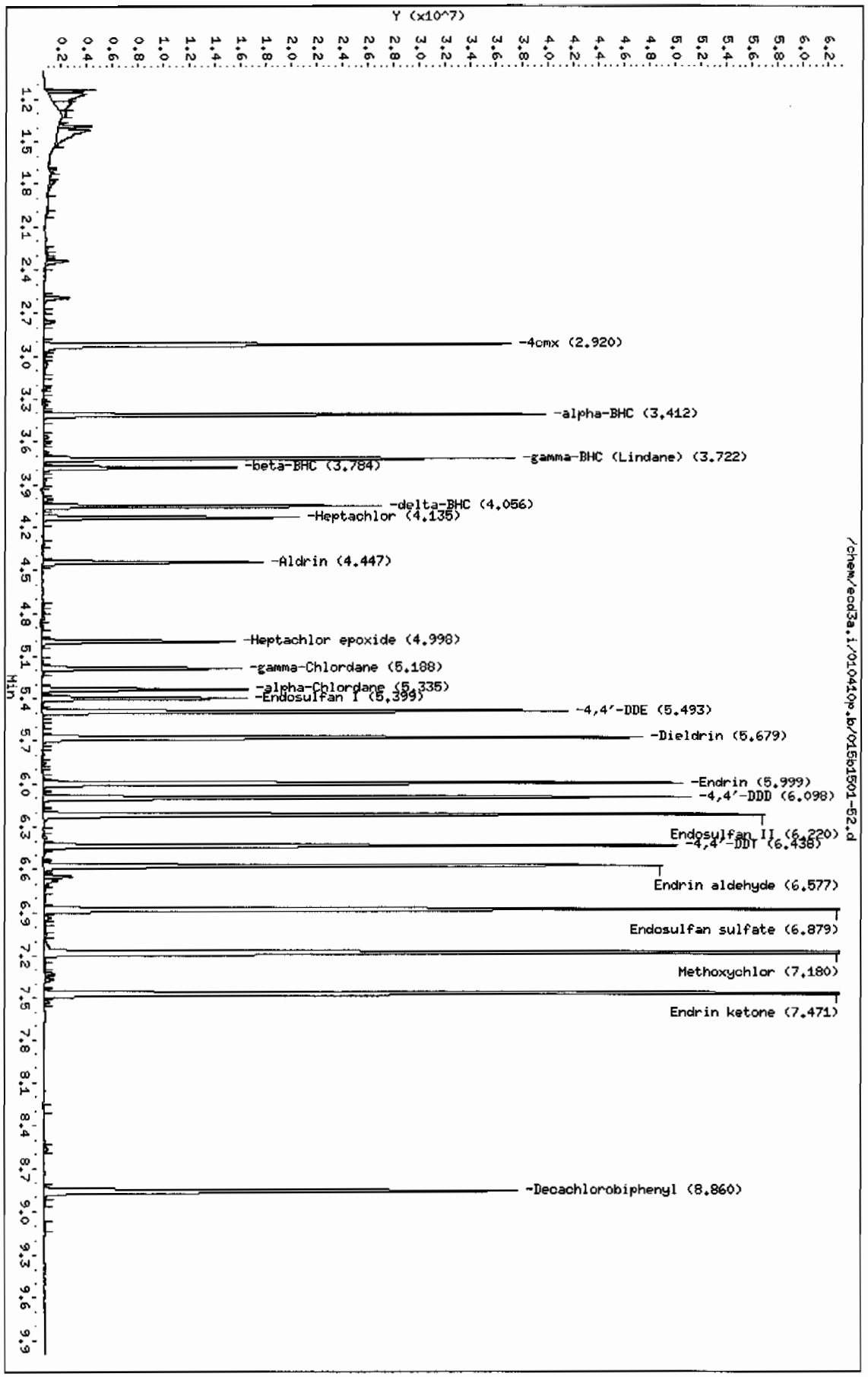

Page 1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202001571**				
Client Sample:	**QC for batch 935412**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 935412**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**935414**	**Inst:**	**ECD3A.I**	**Dilution:**	**1**
Run Date:	**01/04/2010 16:11**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/21/2009 19:38**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**016f1601-52.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	016b1601-52.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.020	ug/L	0.005	0.020	1
58-89-9	gamma-BHC (Lindane)	U	0.020	ug/L	0.005	0.020	1
319-85-7	beta-BHC	U	0.020	ug/L	0.006	0.020	1
319-86-8	delta-BHC	U	0.020	ug/L	0.005	0.020	1
76-44-8	Heptachlor	U	0.020	ug/L	0.005	0.020	1
309-00-2	Aldrin	U	0.020	ug/L	0.005	0.020	1
1024-57-3	Heptachlor epoxide	U	0.020	ug/L	0.005	0.020	1
5103-74-2	gamma-Chlordane	U	0.020	ug/L	0.005	0.020	1
5103-71-9	alpha-Chlordane	U	0.020	ug/L	0.005	0.020	1
959-98-8	Endosulfan I	U	0.020	ug/L	0.005	0.020	1
72-55-9	4,4'-DDE	U	0.040	ug/L	0.005	0.040	1
60-57-1	Dieldrin	U	0.040	ug/L	0.010	0.040	1
72-20-8	Endrin	U	0.040	ug/L	0.010	0.040	1
72-54-8	4,4'-DDD	U	0.040	ug/L	0.010	0.040	1
33213-65-9	Endosulfan II	U	0.040	ug/L	0.010	0.040	1
7421-93-4	Endrin aldehyde	U	0.040	ug/L	0.005	0.040	1
50-29-3	4,4'-DDT	U	0.040	ug/L	0.010	0.040	1
1031-07-8	Endosulfan sulfate	U	0.040	ug/L	0.010	0.040	1
72-43-5	Methoxychlor	U	0.200	ug/L	0.050	0.200	1
53494-70-5	Endrin ketone	U	0.040	ug/L	0.010	0.040	1
8001-35-2	Toxaphene		2.98	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.493	1.00	ug/L	49.3	(29%-103%)
Decachlorobiphenyl	0.710	1.00	ug/L	71.0	(34%-118%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010410p.b/016f1601-52.d
Lab Smp Id: 1202001571 Client Smp ID: PBLK01TLCS
Inj Date : 04-JAN-2010 16:11
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001571|1|
Misc Info : |ECD81A_1L|935414|SVP|TLCS|GROUND WATER|TLCS|||
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 16 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-952.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.676	2.676	0.000	6681608	98.5947	0.493	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.822	7.823	-0.001	7360939	141.945	0.710	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.003	5.014	-0.011	322043	663.652	3.32	80.00- 120.00	100.00(M)
5.107	5.119	-0.012	473789	628.267	3.14	134.20- 174.20	147.12
5.194	5.204	-0.010	472949	543.375	2.72	144.07- 184.07	146.86
5.374	5.364	0.010	524654	461.597	2.31	205.61- 245.61	162.91
5.545	5.554	-0.009	1370130	677.756	3.39	333.21- 373.21	425.45

Average of Peak Concentrations = 2.98

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010410p.b/016f1601-52.d
Date : 04-JAN-2010 16:11
Client ID: PBLK01TLCS
Sample Info: |1202001571|1|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

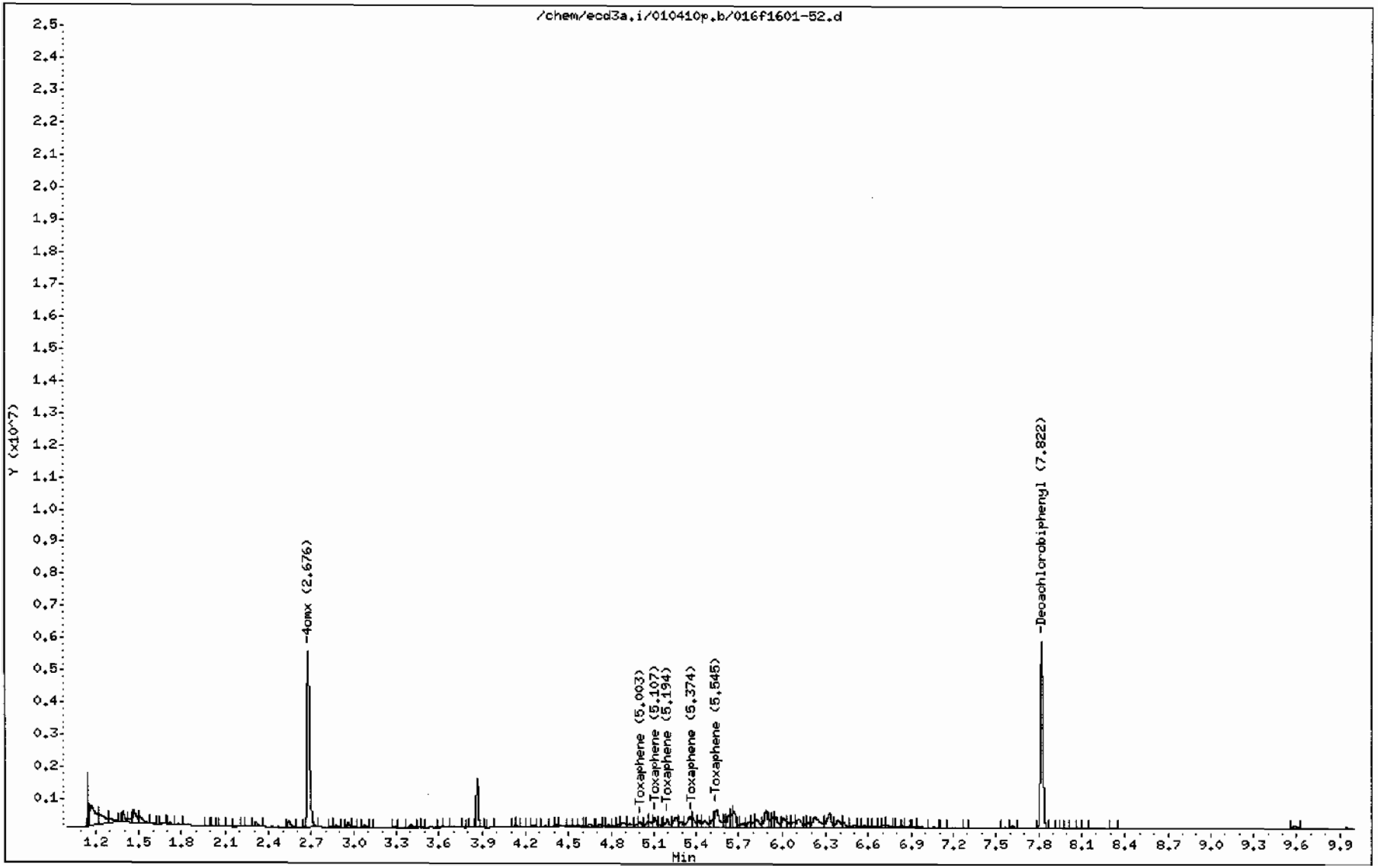

Comment: Manually Integrated
Data File: /chem/ecd3a.i/010410p.b/016f1601-52.d
Operator: HXJ1
Injection Date: 04-JAN-2010 16:11
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS

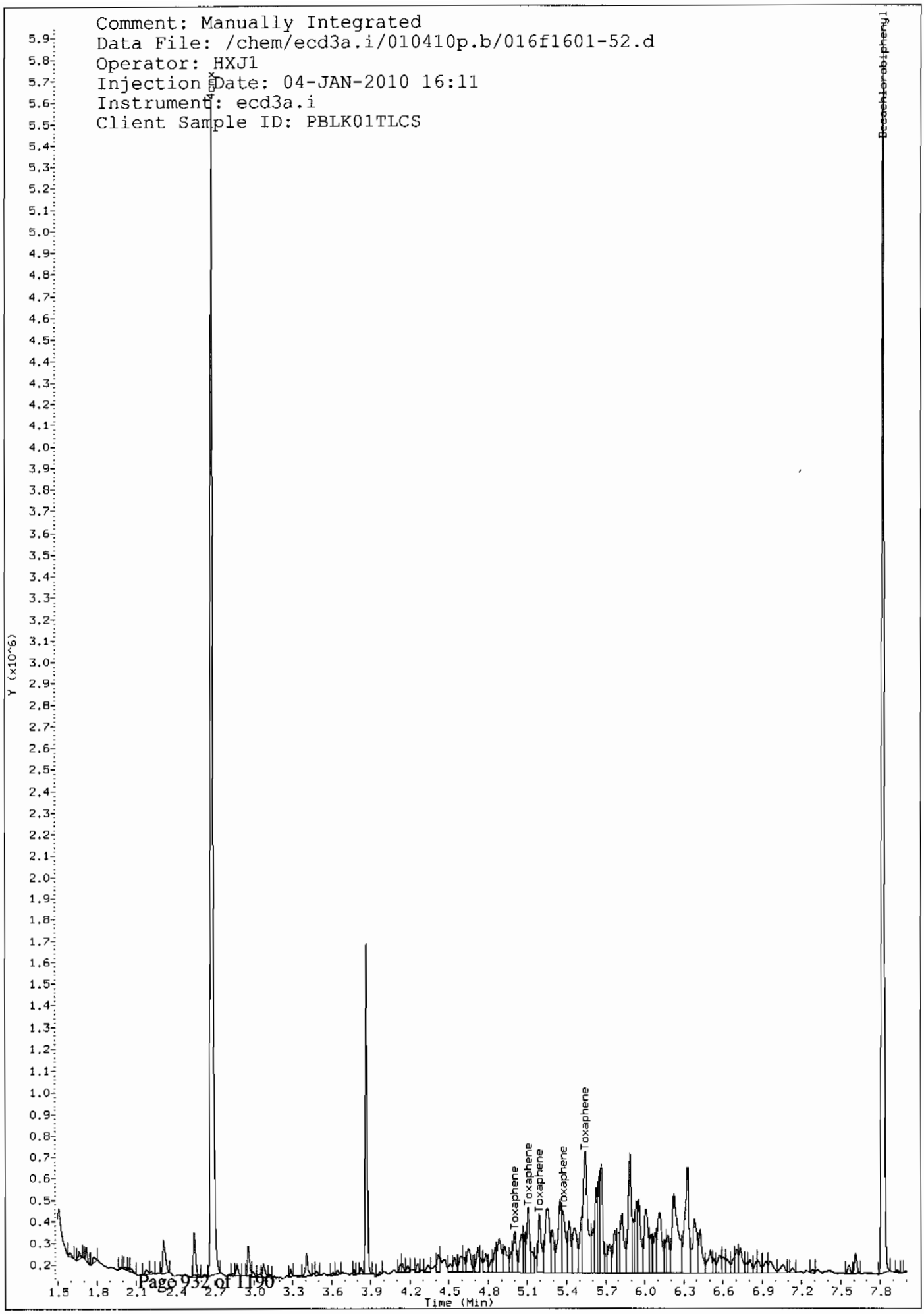

Comment: Before manual integration
Data File: /chem/ecd3a.i/010410p.b/orig-016f1601-52.d
Operator: HXJ1
Injection Date: 04-JAN-2010 16:11
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS

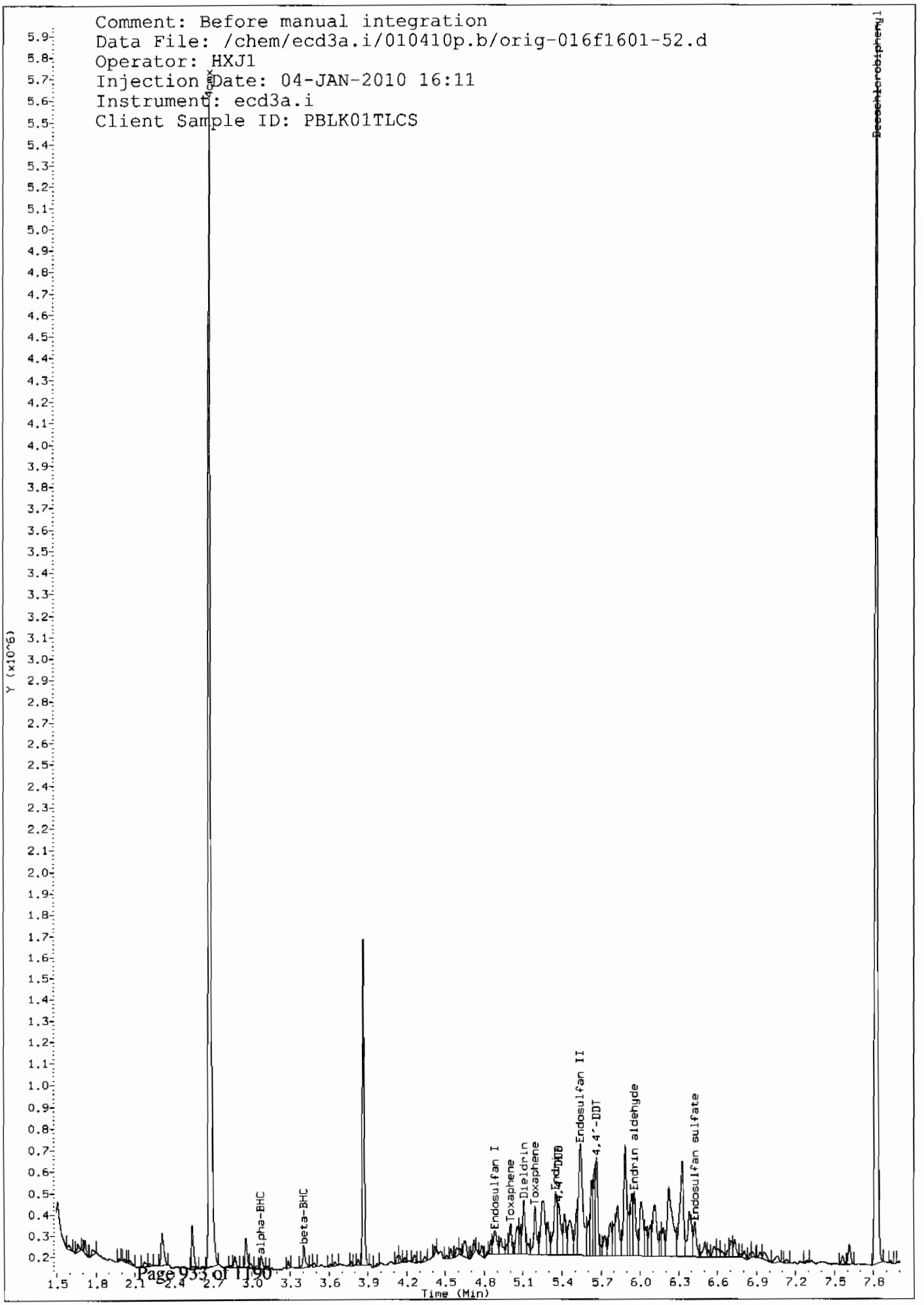

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010410p.b/016b1601-52.d
Lab Smp Id: 1202001571 Client Smp ID: PBLK01TLCS
Inj Date : 04-JAN-2010 16:11
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001571|1|
Misc Info : |ECD81A_1L|935414|SVP|TLCS|GROUND WATER|TLCS|||
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 07-Jan-2010 11:48 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 16 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-952.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	46634596	93.2633	0.466	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.859	8.859	0.000	56936555	144.445	0.722	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.656	5.662	-0.006	3524554	695.748	3.48	80.00- 120.00	100.00(M)
5.776	5.783	-0.007	2062600	689.708	3.45	36.56- 76.56	58.52
6.166	6.173	-0.007	3873270	644.133	3.22	76.22- 116.22	109.89
6.209	6.216	-0.007	7048481	664.984	3.32	156.49- 196.49	199.98
6.312	6.319	-0.007	12785669	667.735	3.34	260.77- 300.77	362.76

Average of Peak Concentrations = 3.36

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd3a.i/010410p.b/016b1601-52.d
Date : 04-JAN-2010 16:11
Client ID: PBLK01TLCS
Sample Info: |1202001571|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

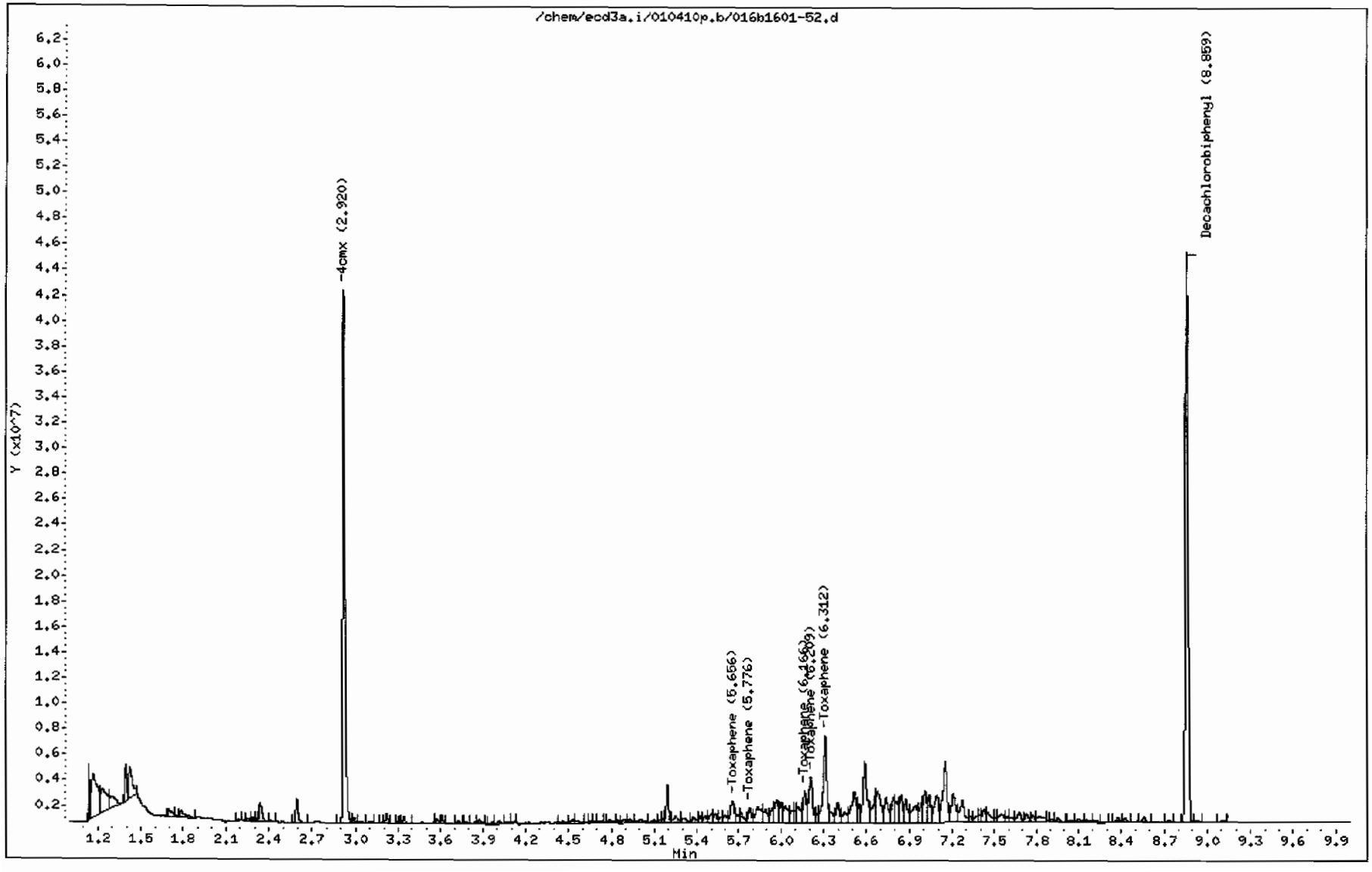

Comment: Manually Integrated
Data File: /Chem/ecd3a.i/010410p.b/016b1601-52.d
Operator: HXJ1
Injection Date: 04-JAN-2010 16:11
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS

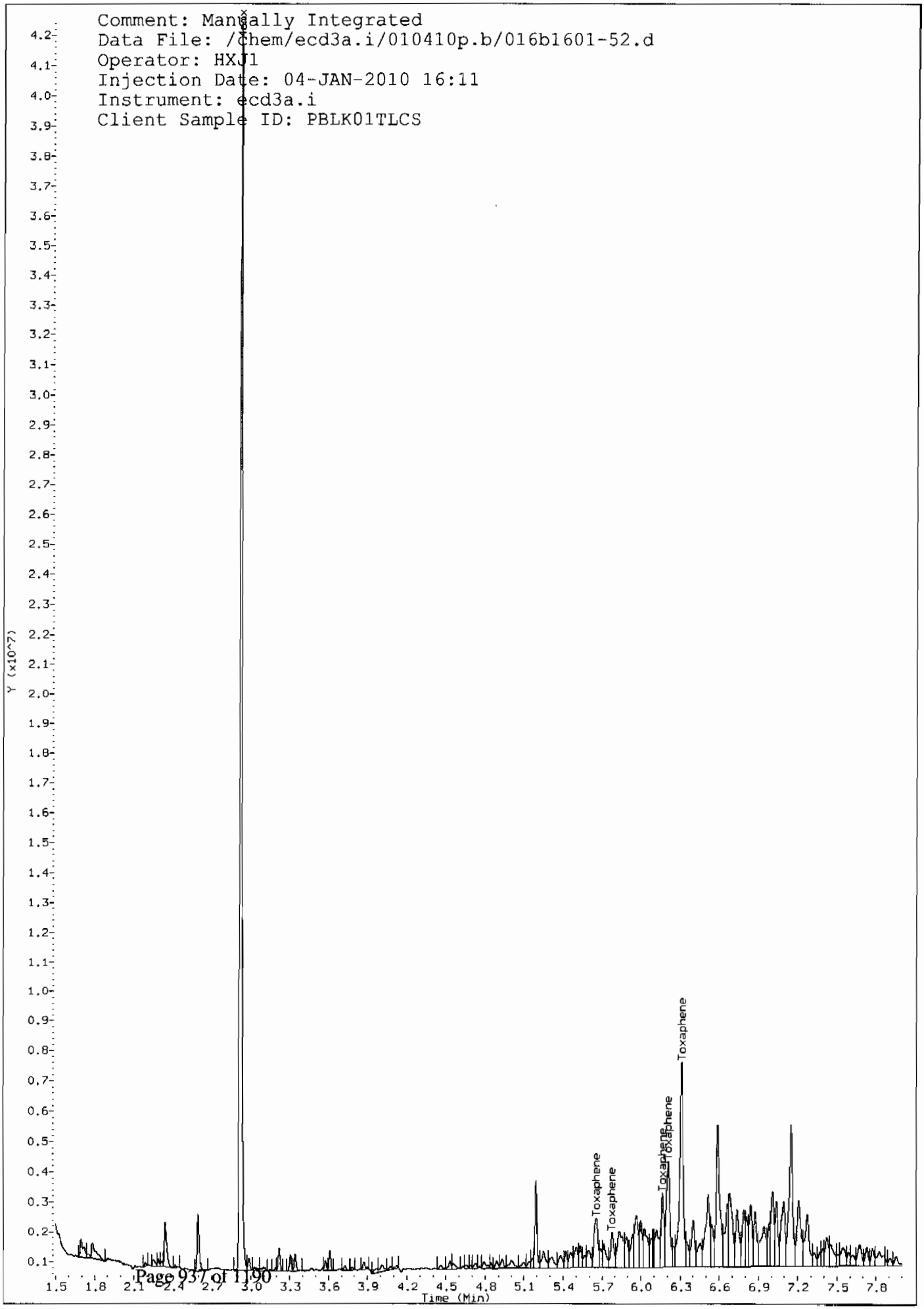

Comment: Before manual integration
Data File: /Chem/ecd3a.i/010410p.b/orig-016b1601-52.d
Operator: HXJ1
Injection Date: 04-JAN-2010 16:11
Instrument: ecd3a.i
Client Sample ID: PBLK01TLCS

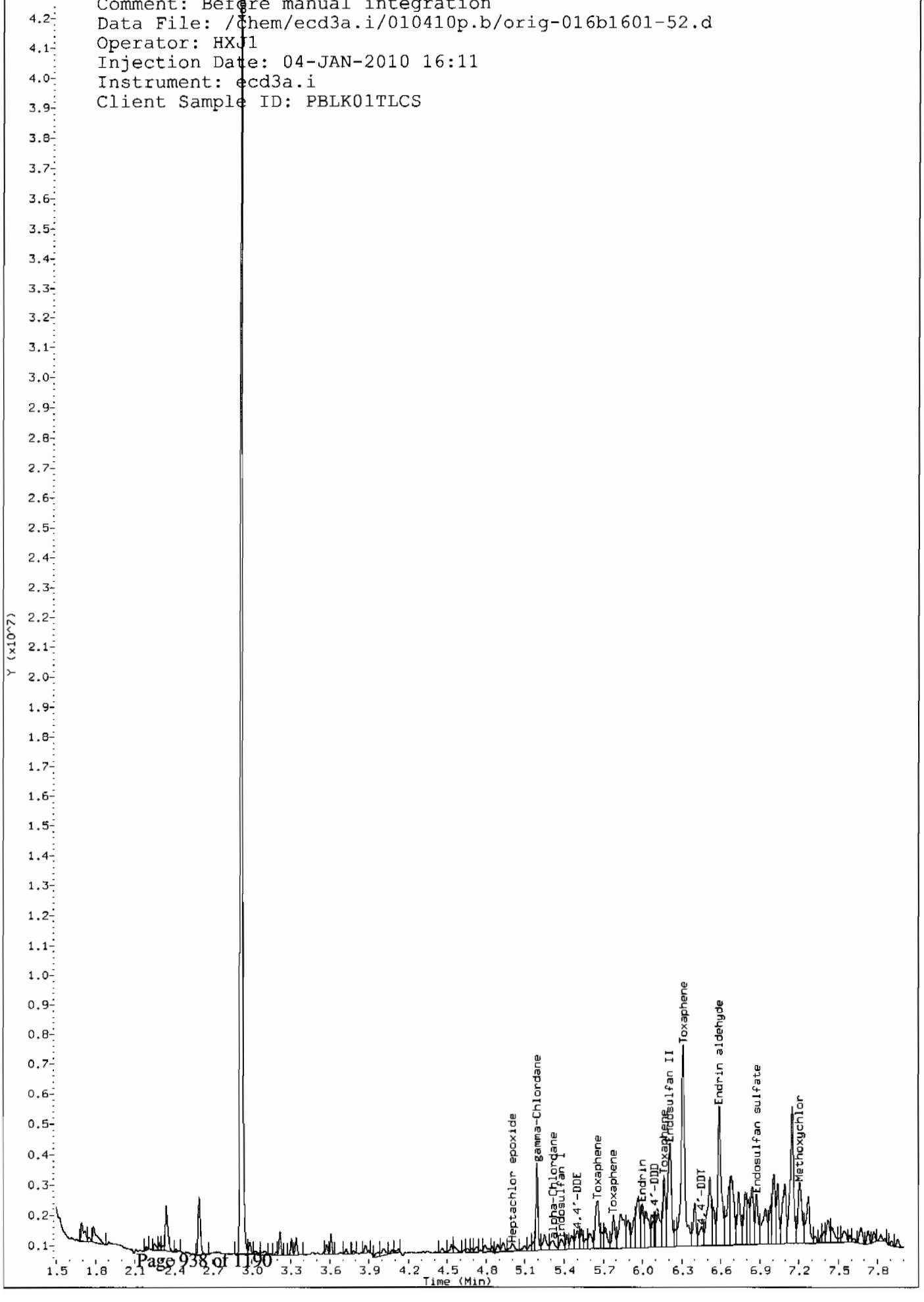

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD3

DATE: 12/31/2009 METHOD: ECD3-B-8081-122909.m OPERATOR:CXC2 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA385

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-041
EPA Method: 8081
8081A
Sequence Number:122909p.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR091130-99IB	CXC2	29-DEC-2009 16:57		122909p	1.0		Clean
002b0201.d	WPE091219-99DG	CXC2	29-DEC-2009 17:10		122909p	1.0		(b) DDT 1.0%, Endrin 5.4%; (f) DDT 1.3%, Endrin 3.3%
003b0301.d	WPE091228-01AB	CXC2	29-DEC-2009 17:34		122909p	1.0		INDAB ICAL level 1
004b0401.d	WPE091228-02AB	CXC2	29-DEC-2009 17:47		122909p	1.0		INDAB ICAL level 2
005b0501.d	WPE091228-03AB	CXC2	29-DEC-2009 18:01		122909p	1.0		INDAB ICAL level 3
006b0601.d	WPE091228-04AB	CXC2	29-DEC-2009 18:15		122909p	1.0		INDAB ICAL level 4
007b0701.d	IPE091219-02AB	CXC2	29-DEC-2009 18:29		122909p	1.0		INDAB ICAL level 5
008b0801.d	WPE091218-10AB	CXC2	29-DEC-2009 18:43		122909p	1.0		(b) gamma-Chlordane elevated - NCR LANL batches; (f) All okay
009b0901.d	WPE091228-11TX	CXC2	29-DEC-2009 18:56		122909p	1.0		TOXAPH ICAL level 1
010b1001.d	WPE091228-12TX	CXC2	29-DEC-2009 19:10		122909p	1.0		TOXAPH ICAL level 2
011b1101.d	WPE091228-13TX	CXC2	29-DEC-2009 19:24		122909p	1.0		TOXAPH ICAL level 3
012b1201.d	WPE091228-14TX	CXC2	29-DEC-2009 19:37		122909p	1.0		DUSE - misinjection - see vial 13
013b1301.d	WPE091228-14TX	CXC2	29-DEC-2009 20:01		122909p	1.0		TOXAPH ICAL level 4
014b1401.d	IPE091121-40TX	CXC2	29-DEC-2009 20:14		122909p	1.0		TOXAPH ICAL level 5
015b1501.d	WPE091219-52TX	CXC2	29-DEC-2009 20:28		122909p	1.0		All okay

Instrument Batch: /chem/ecd3a.i/122909p.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016b1601.d	WPE091228-21CL	CXC2	29-DEC-2009 20:42		122909p	1.0		CHLOR ICAL level 1

017b1701.d	WPE091228-22CL	CXC2	29-DEC-2009 21:14		122909p		1.0		CHLOR ICAL level 2
018b1801.d	WPE091228-23CL	CXC2	29-DEC-2009 21:28		122909p		1.0		CHLOR ICAL level 3
019b1901.d	WPE091228-24CL	CXC2	29-DEC-2009 21:41		122909p		1.0		CHLOR ICAL level 4
020b2001.d	IPE091029-06CL	CXC2	29-DEC-2009 21:55		122909p		1.0		CHLOR ICAL level 5
021b2101.d	WPE091206-60CL	CXC2	29-DEC-2009 22:09		122909p		1.0		All okay
022b2201.d	WPE091219-99DG	CXC2	29-DEC-2009 22:22		122909p		1.0		(b) DDT 2.9%, Endrin 8.6%; (f) DDT 3.3%, Endrin 5.7%
023b2301.d	WAR091130-99IB	CXC2	29-DEC-2009 22:36		122909p		1.0		Clean
024b2401.d	243434001	CXC2	29-DEC-2009 22:49	937138	243434		1.0	ENRG	USE, uploaded both columns, reporting higher result
025b2501.d	1202005324	CXC2	29-DEC-2009 23:03	937138	243434		1.0	MS	USE, uploaded both columns, reporting higher result
026b2601.d	1202005325	CXC2	29-DEC-2009 23:17	937138	243434		1.0	TMS	USE, uploaded both columns, reporting higher result
027b2701.d	1202005326	CXC2	29-DEC-2009 23:30	937138	243434		1.0	CMS	USE, uploaded both columns, reporting higher result
028b2801.d	WAR091130-99IB	CXC2	29-DEC-2009 23:44		122909p		1.0		Clean
029b2901.d	WPE091218-10AB	CXC2	29-DEC-2009 23:58		122909p		1.0		All okay
030b3001.d	WAR091130-99IB	CXC2	30-DEC-2009 00:11		122909p		1.0		Clean
031b3101.d	1202001156	CXC2	30-DEC-2009 00:25	937138	243434		1.0	TB	USE, uploaded both columns, reporting higher result
032b3201.d	1202003586	CXC2	30-DEC-2009 00:39	937138	243278		1.0	TB	USE, uploaded both columns, reporting higher result
033b3301.d	1202005320	CXC2	30-DEC-2009 00:52	937138	243434		1.0	MB	USE, uploaded both columns, reporting higher result
034b3401.d	1202005330	CXC2	30-DEC-2009 01:06	937138	243434		1.0	LCS	USE, uploaded both columns, reporting higher result
035b3501.d	1202005331	CXC2	30-DEC-2009 01:19	937138	243434		1.0	TLCS	USE, uploaded both columns, reporting higher result

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	1202005332	CXC2	30-DEC-2009 01:33	937138	243434		1.0	CLCS	USE, uploaded both columns, reporting higher result
037b3701.d	WAR091130-99IB	CXC2	30-DEC-2009 01:47		122909p		1.0		Clean
038b3801.d	WPE091218-10AB	CXC2	30-DEC-2009 02:01		122909p		1.0		All okay
039b3901.d	WAR091130-99IB	CXC2	30-DEC-2009 02:14		122909p		1.0		Clean
040b4001.d	243278003	CXC2	30-DEC-2009 02:28	937138	243278		1.0	ECWS	USE, uploaded both columns, reporting higher result
041b4101.d	1202005321	CXC2	30-DEC-2009 02:42	937138	243278		1.0	MS	USE, uploaded both columns, reporting higher result

042b4201.d	1202005327	CXC2	30-DEC-2009 02:55	937138	243278		1.0	MSD	USE, uploaded both columns, reporting higher result
043b4301.d	1202005322	CXC2	30-DEC-2009 03:09	937138	243278		1.0	TMS	USE, uploaded both columns, reporting higher result
044b4401.d	1202005328	CXC2	30-DEC-2009 03:22	937138	243278		1.0	TMSD	USE, uploaded both columns, reporting higher result
045b4501.d	1202005323	CXC2	30-DEC-2009 03:36	937138	243278		1.0	CMS	USE, uploaded both columns, reporting higher result
046b4601.d	1202005329	CXC2	30-DEC-2009 03:50	937138	243278		1.0	CMSD	USE, uploaded both columns, reporting higher result
047b4701.d	WAR091130-99IB	CXC2	30-DEC-2009 04:03		122909p		1.0		Clean
048b4801.d	WPE091218-10AB	CXC2	30-DEC-2009 04:17		122909p		1.0		(b) Endrin elevated; (f) gamma-BHC, Endrin elevated
049b4901.d	WAR091130-99IB	CXC2	30-DEC-2009 04:31		122909p		1.0		Clean
050b5001.d	1202004566	CXC2	30-DEC-2009 04:44	936866	10-1044		1.0	MB	USE, uploaded both columns, reporting lower result
051b5101.d	1202004567	CXC2	30-DEC-2009 04:58	936866	10-1044		1.0	LCS	USE, uploaded both columns, reporting lower result
052b5201.d	1202004570	CXC2	30-DEC-2009 05:12	936866	10-1044		1.0	TLCS	USE, uploaded both columns, reporting lower result
053b5301.d	243458003	CXC2	30-DEC-2009 05:25	936866	10-1044		1.0	LANL	USE, uploaded both columns, reporting lower result
054b5401.d	243460001	CXC2	30-DEC-2009 05:39	936866	10-1049		1.0	LANL	USE, uploaded both columns, reporting lower result
055b5501.d	243467003	CXC2	30-DEC-2009 05:52	936866	10-1055		5.0	LANL	USE, uploaded both columns, reporting lower result NCR - DCB low - confirmed in MS/MSD - matrix and dilution

Instrument Batch: /chem/ecd3a.i/122909p.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056b5601.d	1202004568	CXC2	30-DEC-2009 06:06	936866	10-1055	5.0	MS	USE, uploaded both columns, reporting lower result NCR - DCB low - confirmed in sample/MSD - matrix and dilution
057b5701.d	1202004569	CXC2	30-DEC-2009 06:20	936866	10-1055	5.0	MSD	USE, uploaded both columns, reporting lower result NCR - DCB low - confirmed in sample/MS - matrix and dilution
058b5801.d	243469002	CXC2	30-DEC-2009 06:33	936866	10-1052	1.0	LANL	USE, uploaded both columns, reporting lower result
059b5901.d	WPE091218-10AB	CXC2	30-DEC-2009 06:47		122909p	1.0		(b) Endrin elevated; (f) gamma-BHC, Endrin elevated
060b6001.d	WAR091130-99IB	CXC2	30-DEC-2009 07:01		122909p	1.0		Clean
061b6101.d	1202003313	CXC2	30-DEC-2009 07:14	936267	10-1020	1.0	MB	USE, uploaded both columns, reporting lower result
062b6201.d	1202003314	CXC2	30-DEC-2009 07:28	936267	10-1020	1.0	LCS	USE, uploaded both columns, reporting lower result
063b6301.d	1202003318	CXC2	30-DEC-2009 07:42	936267	10-1020	1.0	TLCS	USE, uploaded both columns, reporting lower result
064b6401.d	243401003	CXC2	30-DEC-2009 07:55	936267	10-1020	1.0	LANL	USE, uploaded both columns, reporting lower result

065b6501.d	1202003315	CXC2	30-DEC-2009 08:09	936267	10-1020	1.0	MS	USE, uploaded both columns, reporting lower result NCR - spikes and surrogates elevated - RPD fails? - no hits
066b6601.d	1202003316	CXC2	30-DEC-2009 08:23	936267	10-1020	1.0	MSD	USE, uploaded both columns, reporting lower result
067b6701.d	243401007	CXC2	30-DEC-2009 08:36	936267	10-1020	1.0	LANL	USE, uploaded both columns, reporting lower result
068b6801.d	WPE091218-10AB	CXC2	30-DEC-2009 08:50		122909p	1.0		(b) All okay; (f) gamma-BHC elevated
069b6901.d	WAR091130-99IB	CXC2	30-DEC-2009 09:04		122909p	1.0		Clean

Instrument Batch: /chem/ecd3a.i/122909p.b

GEL ORGANIC RUN LOG INSTRUMENT ID __ECD3__

DATE: 01/08/2010 METHOD: ECD3-F-8081-122909.m OPERATOR:HXJ1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No.__1__ on pg.__1__ SOLVENT LOT DA699

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.

Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, BD-Percent Endrin and 4,4'-DDT Breakdown, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd3a.i/010410p.b Injection Volume:__0.5__ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99IB	HXJ1	04-JAN-2010 12:10		010410p	1.0		Clean
002f0201.d	WPE091219-99DG	HXJ1	04-JAN-2010 12:24		010410p	1.0		(B) DDT 2.2% Endrin 6.1% (F) DDT 2.5% Endrin 3.8%
003f0301.d	WPE091218-10AB	HXJ1	04-JAN-2010 12:38		010410p	1.0		DUSE - several elevated on Back
004f0401.d	WPE091219-52TX	HXJ1	04-JAN-2010 13:10		010410p	1.0		(B) Passes on average (F) All OK
005f0501.d	WPE091021-00CL	HXJ1	04-JAN-2010 13:24		010410p	1.0		(B) Passes on average (F) All OK
006f0601.d	WPE100104-01AB	HXJ1	04-JAN-2010 13:40		010410p	1.0		INDAB ICAL level 1
007f0701.d	WPE100104-02AB	HXJ1	04-JAN-2010 13:53		010410p	1.0		INDAB ICAL level 2
008f0801.d	WPE100104-03AB	HXJ1	04-JAN-2010 14:07		010410p	1.0		INDAB ICAL level 3
009f0901.d	WPE100104-04AB	HXJ1	04-JAN-2010 14:21		010410p	1.0		INDAB ICAL level 4
010f1001.d	IPE091219-02AB	HXJ1	04-JAN-2010 14:34		010410p	1.0		INDAB ICAL level 5
011f1101.d	WPE100104-01AB	HXJ1	04-JAN-2010 14:48		010410p	1.0		DUSE
012f1201.d	WPE091218-10AB	HXJ1	04-JAN-2010 15:02		010410p	1.0		All OK
013f1301.d	WAR091130-99IB	HXJ1	04-JAN-2010 15:30		010410p	1.0		Clean
014f1401.d	1202001567	HXJ1	04-JAN-2010 15:43	935414	10-937	1.0	MB	USE - uploaded both columns, reporting Front result per Quality
015f1501.d	1202001568	HXJ1	04-JAN-2010 15:57	935414	10-937	1.0	LCS	USE - uploaded both columns, reporting Front result per Quality ** delta-BHC low on Back

Instrument Batch: /chem/ecd3a.i/010410p.b Page: 1

| Data File | GEL Lab Sample ID | Analyst | Injection Date/Time | Batch | SDG | Dilution | Client | Comments |

016f1601.d	1202001571	HXJ1	04-JAN-2010 16:11	935414	10-937	1.0	TLCS	USE - uploaded both columns, reporting Front result per Quality
017f1701.d	243012002	HXJ1	04-JAN-2010 16:24	935414	10-937	1.0	LANL	USE - uploaded both columns, reporting Front result per Quality
018f1801.d	243099001	HXJ1	04-JAN-2010 16:38	935414	10-952	1.0	LANL	USE - uploaded both columns, reporting Front result per Quality
019f1901.d	243254003	HXJ1	04-JAN-2010 16:52	935414	10-972	1.0	LANL	USE - uploaded both columns, reporting Front result per Quality
020f2001.d	243254008	HXJ1	04-JAN-2010 17:05	935414	10-972	1.0	LANL	USE - uploaded both columns, reporting Front result per Quality
021f2101.d	WPE091218-10AB	HXJ1	04-JAN-2010 17:23		010410p	1.0		(B) gamma-Chlordane elevated (F) gamma-Chlordane & EndoI high
022f2201.d	WAR091130-99IB	HXJ1	04-JAN-2010 17:37		010410p	1.0		Clean
023f2301.d	243283001	HXJ1	04-JAN-2010 17:50	935414	10-994	1.0	LANL	USE - uploaded both columns, reporting Front result per Quality
024f2401.d	243284002	HXJ1	04-JAN-2010 18:04	935414	10-997	1.0	LANL	USE - uploaded both columns, reporting Front result per Quality
025f2501.d	1202001569	HXJ1	04-JAN-2010 18:17	935414	10-997	1.0	MS	USE - uploaded both columns, reporting Front result per Quality
026f2601.d	1202001570	HXJ1	04-JAN-2010 18:31	935414	10-997	1.0	MSD	USE - uploaded both columns, reporting Front result per Quality
027f2701.d	243284006	HXJ1	04-JAN-2010 18:45	935414	10-997	1.0	LANL	USE - uploaded both columns, reporting Front result per Quality
028f2801.d	243284009	HXJ1	04-JAN-2010 18:58	935414	10-997	1.0	LANL	USE - uploaded both columns, reporting Front result per Quality
029f2901.d	WAR091130-99IB	HXJ1	04-JAN-2010 19:12		010410p	1.0		Clean
030f3001.d	WPE091218-10AB	HXJ1	04-JAN-2010 19:26		010410p	1.0		(B) All OK (F) gamma-Chlordane & Endosulfan I elevated
031f3101.d	WAR091130-99IB	HXJ1	04-JAN-2010 19:39		010410p	1.0		Clean
032f3201.d	1202006586	HXJ1	04-JAN-2010 19:53	937693	10-1090-1	1.0	MB	USE - uploaded both columns, reporting lower result
033f3301.d	1202006587	HXJ1	04-JAN-2010 20:07	937693	10-1090-1	1.0	LCS	USE - uploaded both columns, reporting lower result
034f3401.d	1202006721	HXJ1	04-JAN-2010 20:20	937693	10-1090-1	1.0	TLCS	USE - uploaded both columns, reporting lower result
035f3501.d	243596002	HXJ1	04-JAN-2010 20:34	937693	10-1090-1	1.0	LANL	USE - uploaded both columns, reporting lower result

Instrument Batch: /chem/ecd3a.i/010410p.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	1202006588	HXJ1	04-JAN-2010 20:48	937693	10-1090-1	1.0	MS	USE - uploaded both columns, reporting lower result
037f3701.d	1202006589	HXJ1	04-JAN-2010 21:01	937693	10-1090-1	1.0	MSD	USE - uploaded both columns, reporting lower result
038f3801.d	243596003	HXJ1	04-JAN-2010 21:15	937693	10-1090-1	1.0	LANL	USE - uploaded both columns, reporting lower result
039f3901.d	243596004	HXJ1	04-JAN-2010 21:29	937693	10-1090-1	1.0	LANL	USE - uploaded both columns, reporting lower result

040f4001.d	243596005	HXJ1	04-JAN-2010 21:42	937693	10-1090-1	1.0	LANL	USE - uploaded both columns, reporting lower result
041f4101.d	243596006	HXJ1	04-JAN-2010 21:56	937693	10-1090-1	1.0	LANL	USE - uploaded both columns, reporting lower result
042f4201.d	WAR091130-99IB	HXJ1	04-JAN-2010 22:10		010410p	1.0		Clean
043f4301.d	WPE091218-10AB	HXJ1	04-JAN-2010 22:23		010410p	1.0		(B) DDD elevated (F) gamma-CHL, EndoI, Endrin, DDD elevated
044f4401.d	WPE091219-99DG	HXJ1	04-JAN-2010 22:37		010410p	1.0		(B) DDT 15.9% Endrin 9.1% (F) DDT 18.9% Endrin 6.3%
045f4501.d	WAR091130-99IB	HXJ1	04-JAN-2010 22:50		010410p	1.0		Clean
046f4601.d	1202006550	HXJ1	04-JAN-2010 23:04	938038	10-1090	1.0	TB	USE - uploaded both columns, reporting lower result
047f4701.d	1202007250	HXJ1	04-JAN-2010 23:18	938038	10-1090	1.0	MB	USE - uploaded both columns, reporting lower result
048f4801.d	1202007257	HXJ1	04-JAN-2010 23:31	938038	10-1090	1.0	LCS	USE - uploaded both columns, reporting lower result
049f4901.d	1202007258	HXJ1	04-JAN-2010 23:45	938038	10-1090	1.0	TLCS	USE - uploaded both columns, reporting lower result
050f5001.d	1202007259	HXJ1	04-JAN-2010 23:59	938038	10-1090	1.0	CLCS	USE - uploaded both columns, reporting lower result
051f5101.d	243593001	HXJ1	05-JAN-2010 00:12	938038	10-1090	1.0	LANL	USE - uploaded both columns, reporting lower result
052f5201.d	WAR091130-99IB	HXJ1	05-JAN-2010 00:26		010410p	1.0		Clean
053f5301.d	WPE091218-10AB	HXJ1	05-JAN-2010 00:40		010410p	1.0		(B) DDD elevated (F) gamma-BHC, gamma-CHL, EndoI, DDD elevated
054f5401.d	WAR091130-99IB	HXJ1	05-JAN-2010 00:53		010410p	1.0		Clean
055f5501.d	243593002	HXJ1	05-JAN-2010 01:07	938038	10-1090	1.0	LANL	USE - uploaded both columns, reporting lower result

Instrument Batch: /chem/ecd3a.i/010410p.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	243593003	HXJ1	05-JAN-2010 01:21	938038	10-1090	1.0	LANL	USE - uploaded both columns, reporting lower result
057f5701.d	243593004	HXJ1	05-JAN-2010 01:34	938038	10-1090	1.0	LANL	USE - uploaded both columns, reporting lower result
058f5801.d	243593005	HXJ1	05-JAN-2010 01:48	938038	10-1090	1.0	LANL	USE - uploaded both columns, reporting lower result
059f5901.d	1202007251	HXJ1	05-JAN-2010 02:02	938038	10-1090	1.0	MS	USE - uploaded both columns, reporting lower result
060f6001.d	1202007254	HXJ1	05-JAN-2010 02:15	938038	10-1090	1.0	MSD	USE - uploaded both columns, reporting lower result
061f6101.d	1202007252	HXJ1	05-JAN-2010 02:29	938038	10-1090	1.0	TMS	USE - uploaded both columns, reporting lower result
062f6201.d	1202007255	HXJ1	05-JAN-2010 02:43	938038	10-1090	1.0	TMSD	USE - uploaded both columns, reporting lower result
063f6301.d	1202007253	HXJ1	05-JAN-2010 02:56	938038	10-1090	1.0	CMS	USE - uploaded both columns, reporting lower result
064f6401.d	1202007256	HXJ1	05-JAN-2010 03:10	938038	10-1090	1.0	CMSD	USE - uploaded both columns, reporting lower result

065f6501.d	WAR091130-99IB	HXJ1	05-JAN-2010 03:24	010410p	1.0	Clean
066f6601.d	WPE091218-10AB	HXJ1	05-JAN-2010 03:37	010410p	1.0	(B) DDD elevated, Methoxychlor low (F) gamma-BHC, gamma-CHL, Endosulfan I, Endrin, DDD, Endosulfan sulfate elevated
067f6701.d	WAR091130-99IB	HXJ1	05-JAN-2010 03:51	010410p	1.0	Clean

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010410p.b/001b0101.d
Lab Smp Id: WAR091130-99IB Client Smp ID: PIBLK01
Inj Date : 04-JAN-2010 12:10
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WAR091130-99IB
Misc Info : |IBLK|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 07-Jan-2010 11:48 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 1 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.918	2.920	-0.002	102705296	205.398	205	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.855	8.859	-0.004	76564719	194.240	194	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/010410p.b/001b0101.d
Date : 04-JAN-2010 12:10
Client ID: PIBLK01
Sample Info: IWAR091130-99IB

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

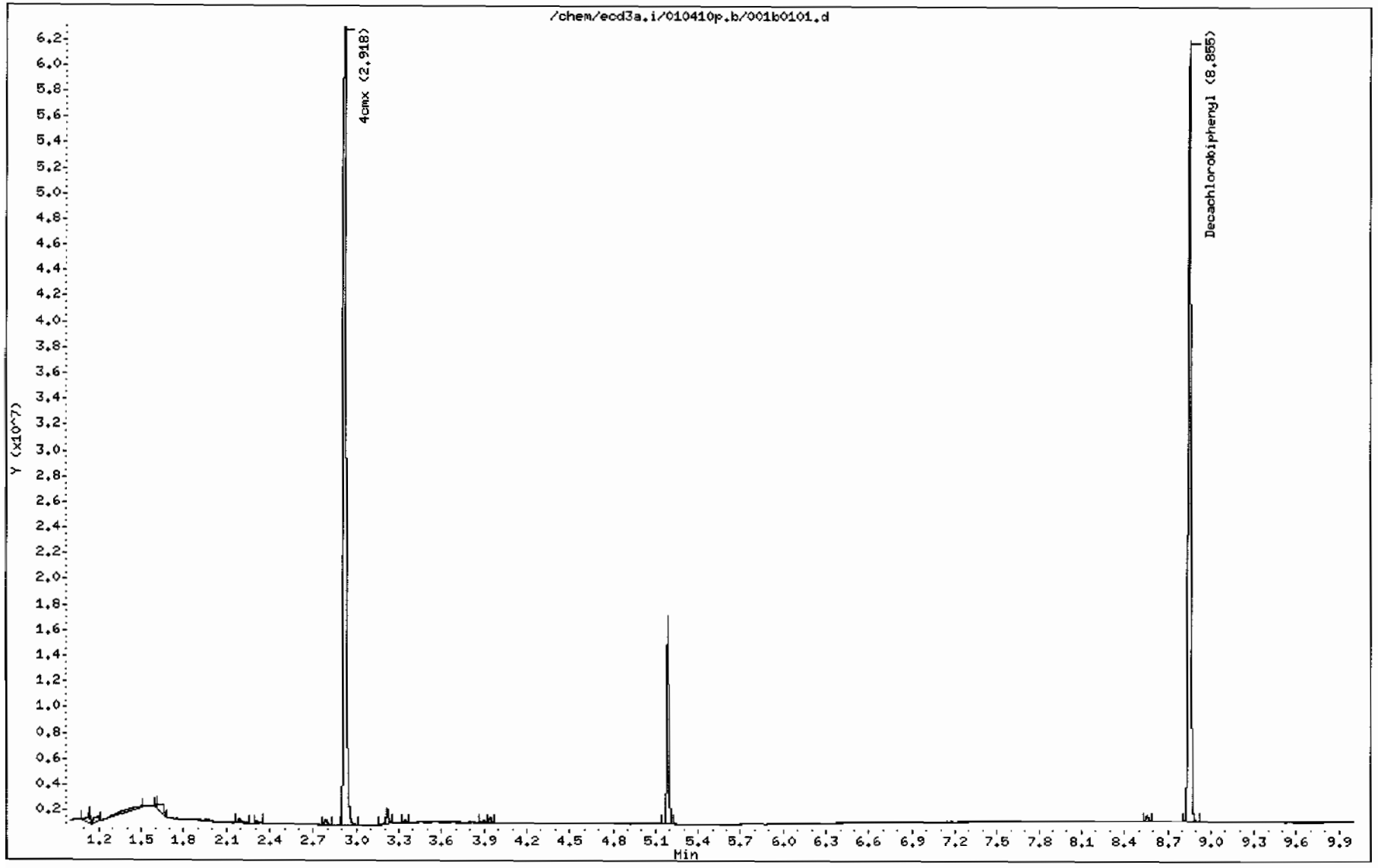

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CLP-1

Data file : /chem/ecd3a.i/010410p.b/001f0101.d
Lab Smp Id: WAR091130-99IB Client Smp ID: PIBLK01
Inj Date : 04-JAN-2010 12:10
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WAR091130-99IB
Misc Info : |IBLK|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 1 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.672	2.676	-0.004	14587532	221.139	221	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.816	7.823	-0.007	10544873	218.795	219	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/010410p.b/001f0101.d
Date : 04-JAN-2010 12:10
Client ID: PIBLK01
Sample Info: IWAR091130-99IB

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

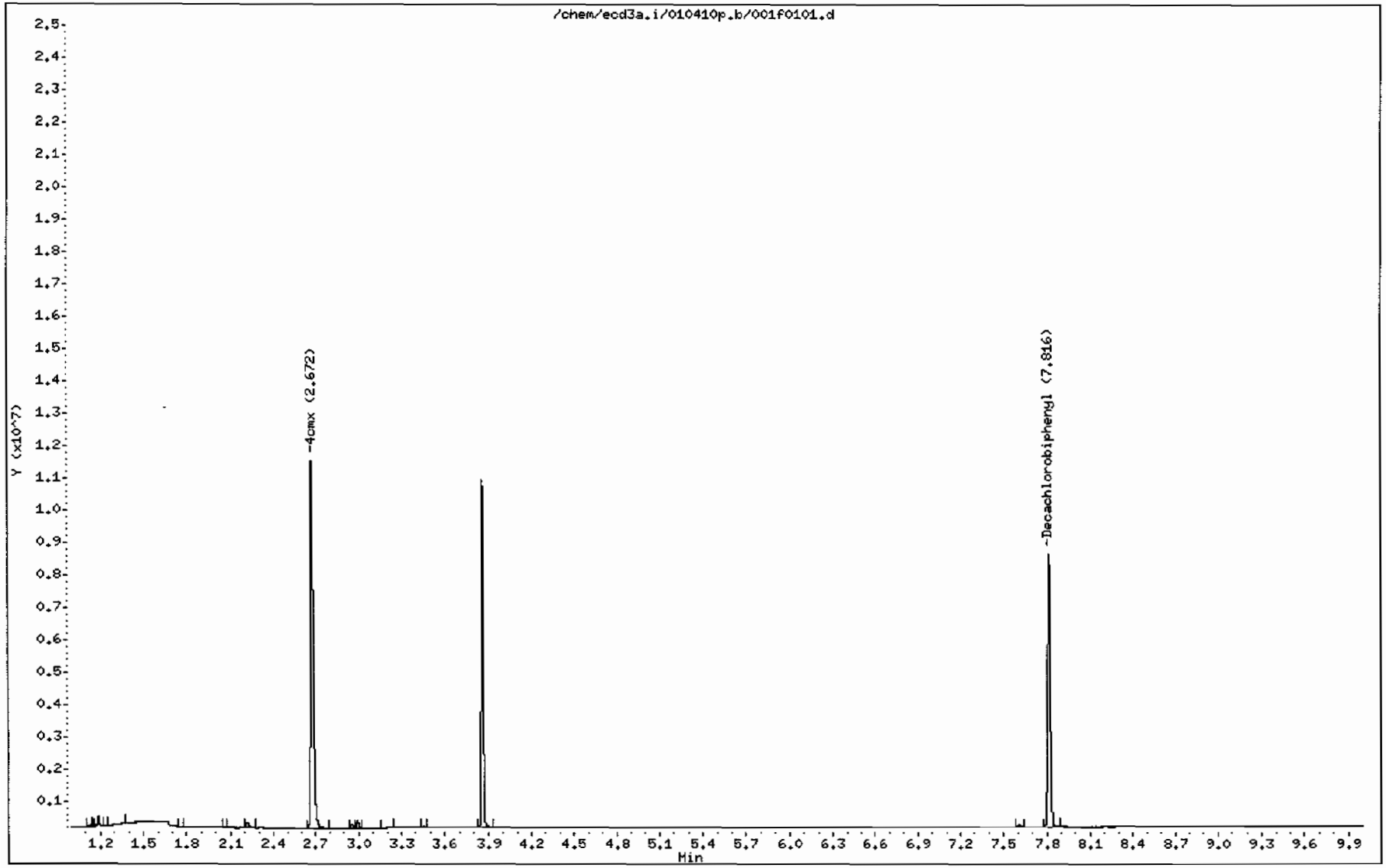

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010410p.b/013b1301.d
Lab Smp Id: WAR091130-99IB Client Smp ID: PIBLK02
Inj Date : 04-JAN-2010 15:30
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WAR091130-99IB
Misc Info : |IBLK|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 07-Jan-2010 11:43 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 13 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.923	2.920	0.003	101520559	203.028	203	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.865	8.859	0.006	83140467	210.923	211	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/010410p.b/013b1301.d

Date : 04-JAN-2010 15:30

Client ID: PIBLK02

Sample Info: |WAR091130-99IB

Column phase: CLP-2

Instrument: ecd3a.i

Operator: HXJ1

Column diameter: 0.25

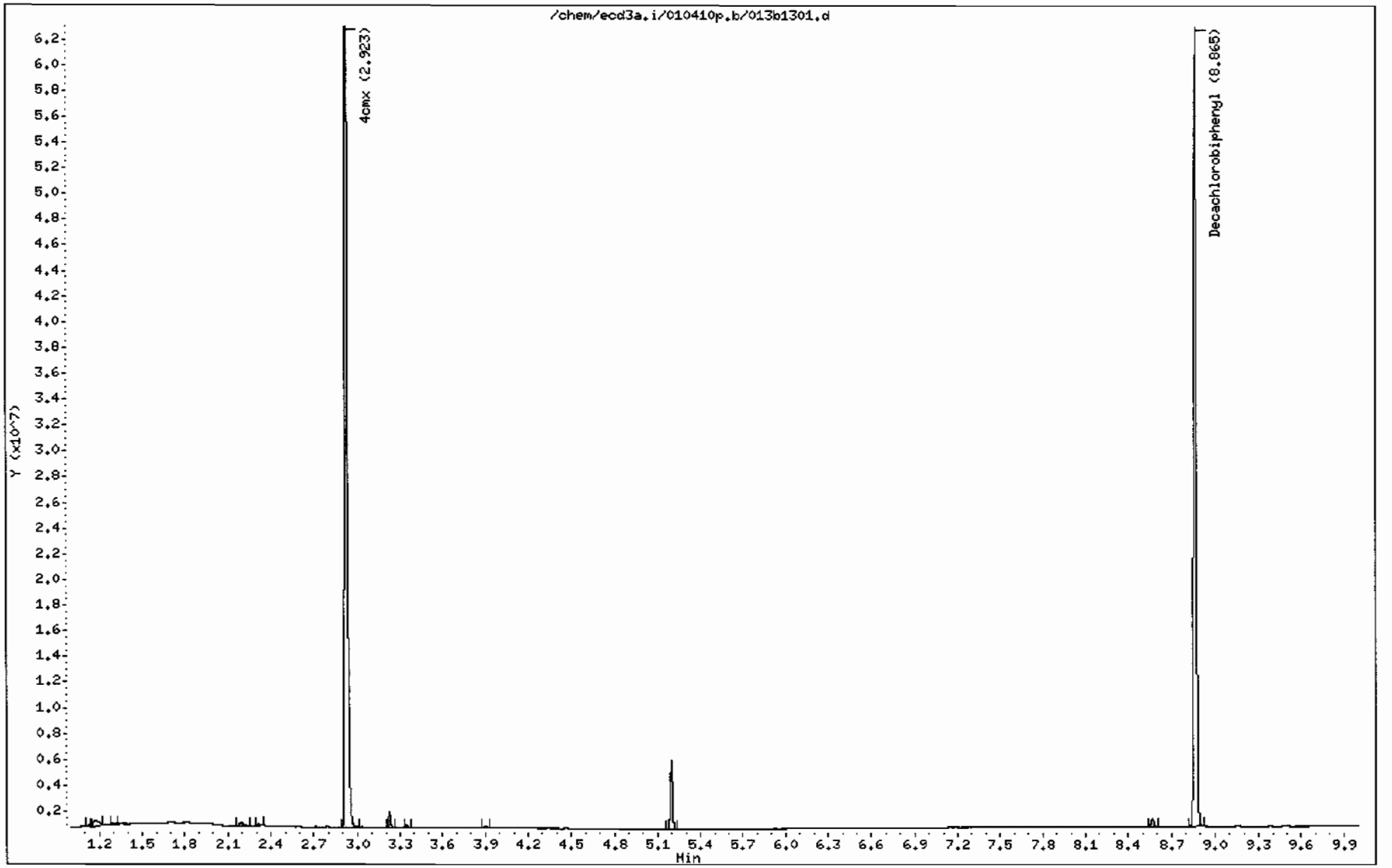

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010410p.b/013f1301.d
Lab Smp Id: WAR091130-99IB Client Smp ID: PIBLK02
Inj Date : 04-JAN-2010 15:30
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |WAR091130-99IB
Misc Info : |IBLK|
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 13 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: kilroy

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.680	2.676	0.004	14731954	217.387	217	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.833	7.823	0.010	10843500	209.101	209	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/010410p.b/013f1301.d
Date : 04-JAN-2010 15:30
Client ID: PIBLK02
Sample Info: IWAR091130-99IB

Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

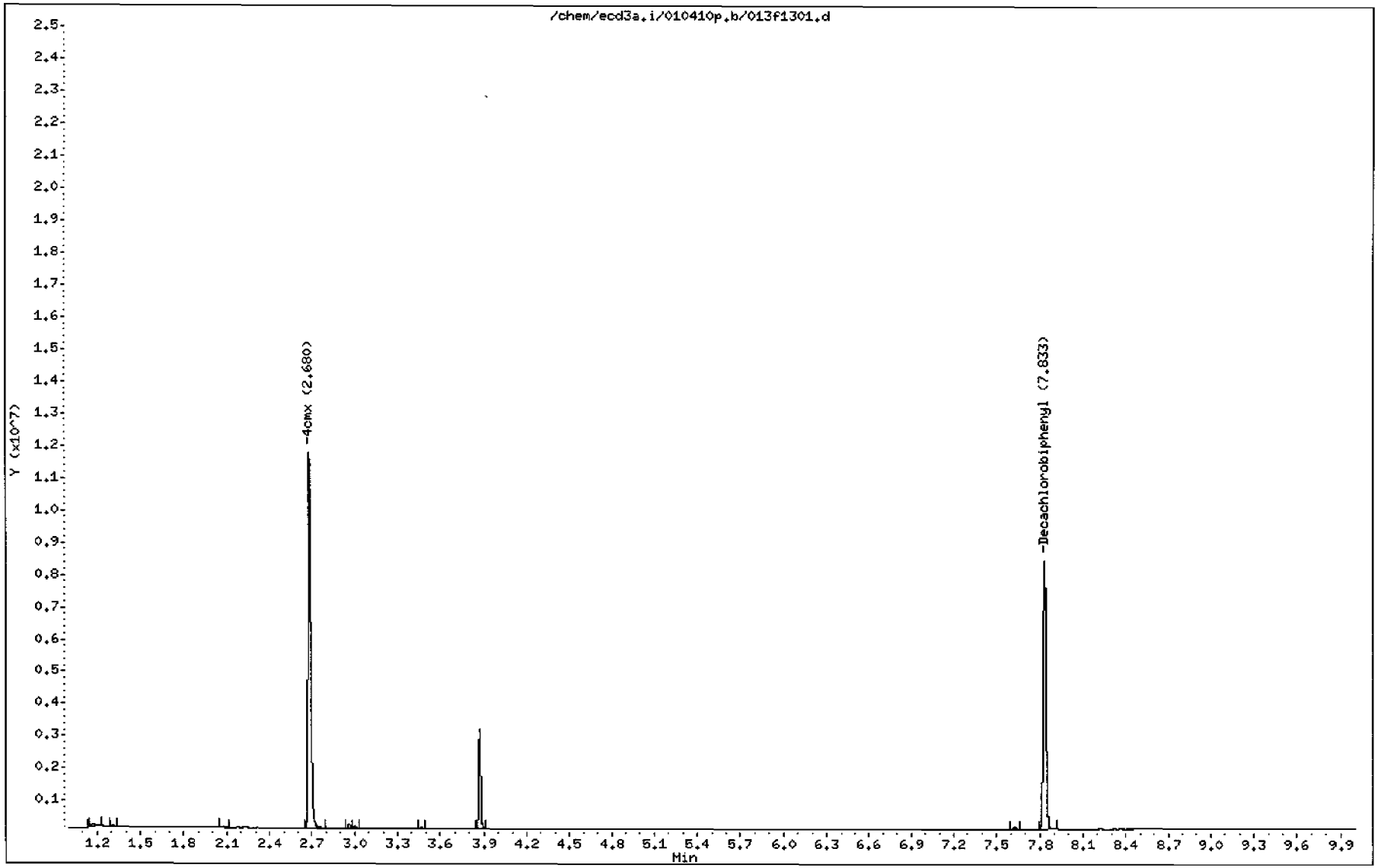

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd3a.i/010410p.b/025b2501.d
Lab Smp Id: 1202001569 Client Smp ID: CAPA-10-6390MS
Inj Date : 04-JAN-2010 18:17
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001569|1|
Misc Info : |ECD81A_1L|935414|SVP|MS|GROUND WATER|MS|||
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 07-Jan-2010 11:48 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 25 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-997.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.921	2.920	0.001	49148857	98.2915	0.491	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.859	8.859	0.000	43343332	109.960	0.550	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.413	3.413	0.000	38409272	56.0270	0.280	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.723	3.721	0.002	35538351	61.1452	0.306	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.785	3.783	0.002	14689027	57.9274	0.290	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.057	4.056	0.001	27958450	53.1071	0.266	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.135	4.135	0.000	22091721	52.1551	0.261	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.447	4.447	0.000	20297821	53.4233	0.267	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.997	4.997	0.000	17269971	56.4182	0.282	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.190	5.189	0.001	39014457	126.906	0.634	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.335	5.335	0.000	19900108	66.6377	0.333	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.399	5.399	0.000	19295584	68.2409	0.341	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.493	5.493	0.000	51135300	172.838	0.864	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.680	5.680	0.000	59243942	171.426	0.857	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.999	5.999	0.000	64238882	190.940	0.955	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.098	6.098	0.000	62229292	182.036	0.910	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.220	6.220	0.000	71702339	181.588	0.908	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.576	6.577	-0.001	63885639	166.686	0.833	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.437	6.438	-0.001	65658737	182.929	0.915	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.879	6.880	-0.001	91484849	194.464	0.972	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.180	7.181	-0.001	139175661	702.996	3.51	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.471	7.471	0.000	107128026	184.744	0.924	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/025b2501.d
Date : 04-JAN-2010 18:17
Client ID: CAPA-10-6390HS
Sample Info: 1120200156911
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

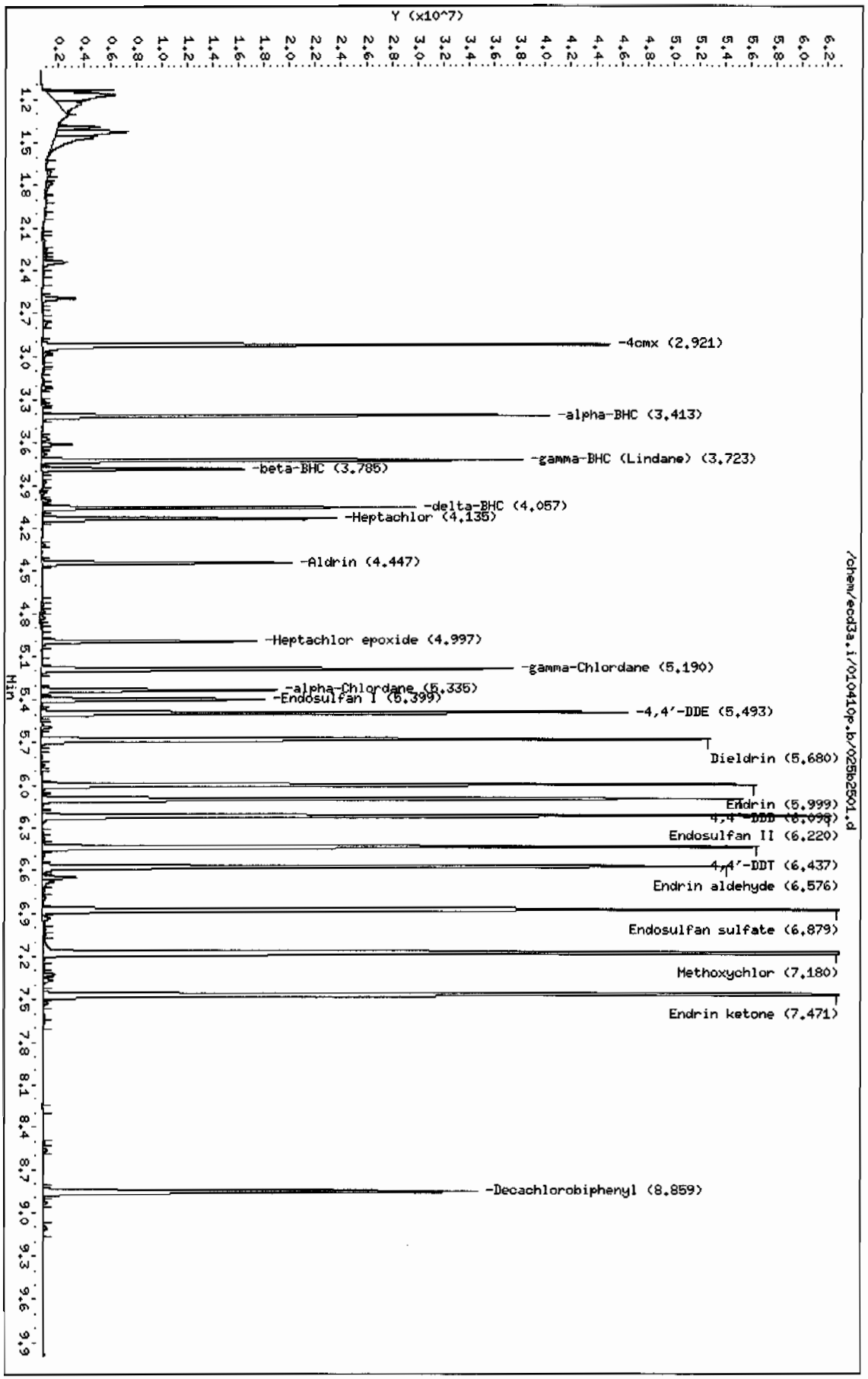

Page 1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd3a.i/010410p.b/025f2501.d
Lab Smp Id: 1202001569 Client Smp ID: CAPA-10-6390MS
Inj Date : 04-JAN-2010 18:17
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001569|1|
Misc Info : |ECD81A_1L|935414|SVP|MS|GROUND WATER|MS|||
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 25 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-997.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.677	2.676	0.001	7099264	104.758	0.524	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.822	7.823	-0.001	5428916	104.688	0.523	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.083	3.082	0.001	6224995	61.6352	0.308	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.328	3.328	0.000	5675936	68.3338	0.342	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.393	3.392	0.001	2711171	75.6827	0.378	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.540	3.539	0.001	5564258	65.0711	0.325	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.711	3.711	0.000	4006853	61.5947	0.308	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.968	3.969	-0.001	4608075	57.7932	0.289	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.504	4.504	0.000	4807447	67.4898	0.337	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.619	4.619	0.000	4369302	63.8626	0.319	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.742	4.743	-0.001	4615788	66.3647	0.332	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.874	4.874	0.000	4367532	70.8119	0.354	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.810	4.810	0.000	11481355	167.539	0.838	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.103	5.103	0.000	12351623	173.381	0.867	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.331	5.331	0.000	11205874	196.720	0.984	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.391	5.393	-0.002	10279003	186.611	0.933	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.554	5.555	-0.001	11222281	191.860	0.959	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.979	5.980	-0.001	8014552	162.598	0.813	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.671	5.672	-0.001	8434491	187.445	0.937	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.432	6.433	-0.001	9306580	194.851	0.974	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.175	6.176	-0.001	15549731	700.936	3.50	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.730	6.730	0.000	11593352	180.040	0.900	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/025f2501.d
Date : 04-JAN-2010 18:17
Client ID: CAPA-10-6390MS
Sample Info: |1202001569|1|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i

Operator: HXJ1
Column diameter: 0.25

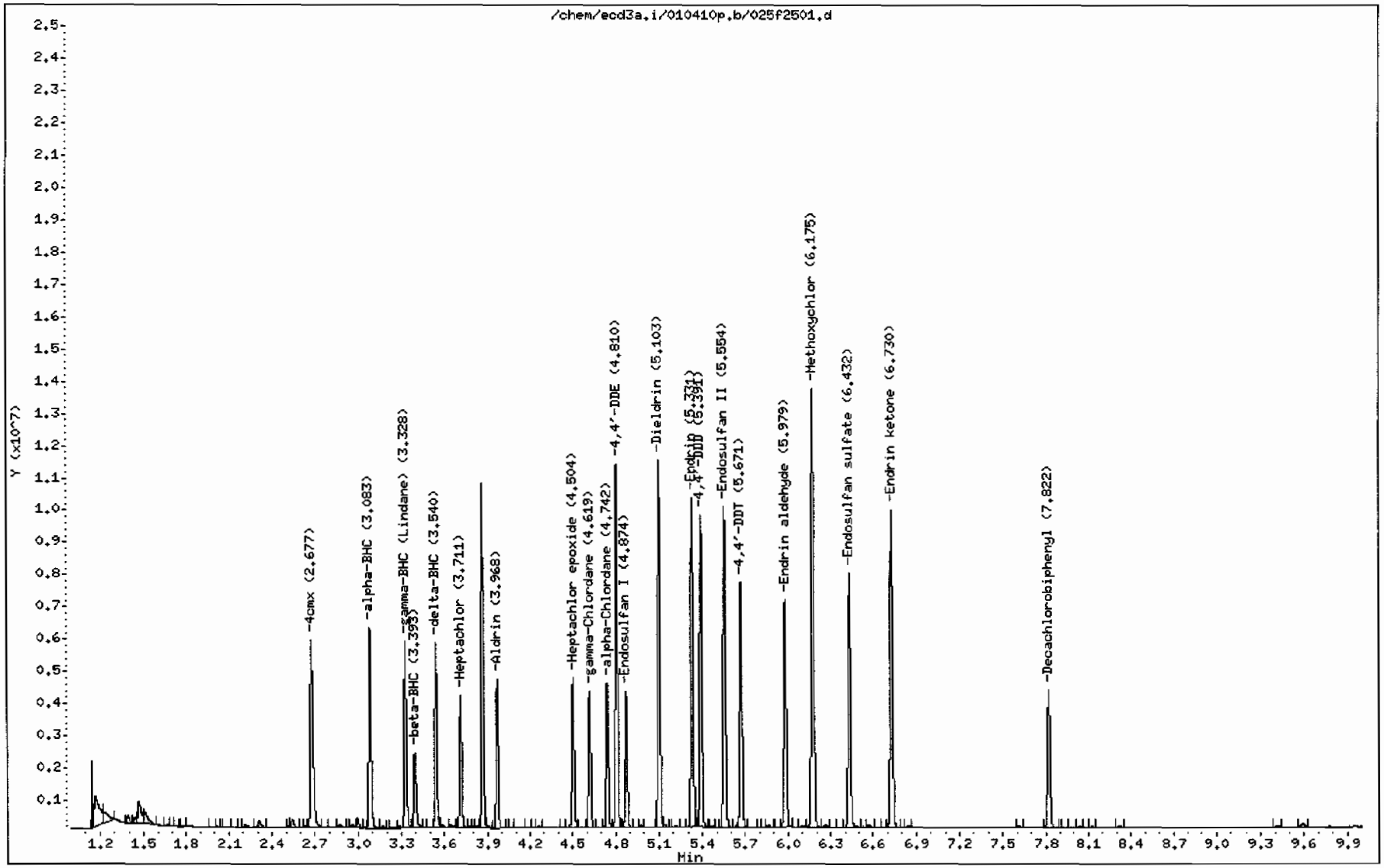

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CLP-2

Data file : /chem/ecd3a.i/010410p.b/026b2601.d
Lab Smp Id: 1202001570 Client Smp ID: CAPA-10-6390MSD
Inj Date : 04-JAN-2010 18:31
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001570|1|
Misc Info : |ECD81A_1L|935414|SVP|MSD|GROUND WATER|MSD|||
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-B-8081-122909.m
Meth Date : 07-Jan-2010 11:48 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020b2001.d
Als bottle: 26 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-997.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.920	2.920	0.000	67285643	134.563	0.673	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.859	8.859	0.000	55951835	141.947	0.710	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.413	3.413	0.000	53114401	77.4771	0.387	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.722	3.721	0.001	49228708	84.7000	0.423	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.784	3.783	0.001	20540746	81.0042	0.405	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.057	4.056	0.001	39366777	74.7773	0.374	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.135	4.135	0.000	31456223	74.2633	0.371	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.448	4.447	0.001	28092800	73.9395	0.370	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.998	4.997	0.001	24143502	78.8729	0.394	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.190	5.189	0.001	52858876	174.719	0.874	80.00- 120.00	100.00(R)
18 alpha-Chlordane					CAS #: 5103-71-9		
5.335	5.335	0.000	27293784	91.3962	0.457	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.399	5.399	0.000	26692870	94.4022	0.472	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.494	5.493	0.001	68264459	230.734	1.15	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.681	5.680	0.001	80066575	231.677	1.16	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.999	5.999	0.000	86304945	256.528	1.28	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.098	6.098	0.000	82968899	242.705	1.21	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.220	6.220	0.000	96438660	244.234	1.22	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.577	6.577	0.000	89374476	233.190	1.16	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.438	6.438	0.000	88875964	247.613	1.24	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.879	6.880	-0.001	125932100	267.687	1.34	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.180	7.181	-0.001	185441626	936.692	4.68	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.471	7.471	0.000	144380372	248.986	1.24	80.00- 120.00	100.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd3a.i/010410p.b/026b2601.d
Date : 04-JAN-2010 18:31
Client ID: CAPA-10-6390MSD
Sample Info: 1120200157011
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

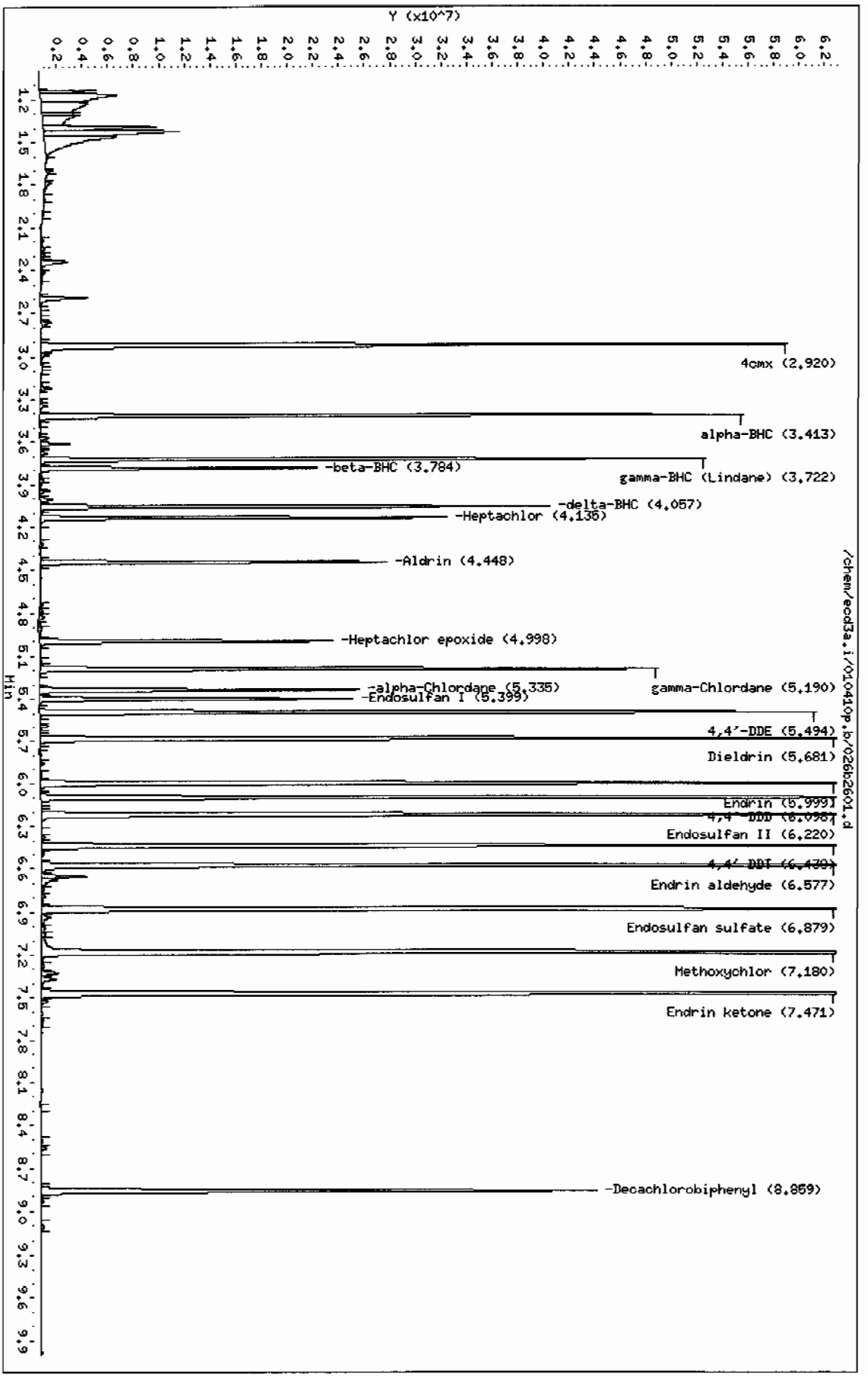

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CLP-1

Data file : /chem/ecd3a.i/010410p.b/026f2601.d
Lab Smp Id: 1202001570 Client Smp ID: CAPA-10-6390MSD
Inj Date : 04-JAN-2010 18:31
Operator : HXJ1 Inst ID: ecd3a.i
Smp Info : |1202001570|1|
Misc Info : |ECD81A_1L|935414|SVP|MSD|GROUND WATER|MSD|||
Comment :
Method : /chem/ecd3a.i/010410p.b/ECD3-F-8081-122909.m
Meth Date : 06-Jan-2010 14:27 cla01575 Quant Type: ESTD
Cal Date : 29-DEC-2009 21:55 Cal File: 020f2001.d
Als bottle: 26 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-997.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: kilroy

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.676	2.676	0.000	9812416	144.793	0.724	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
7.822	7.823	-0.001	6967161	134.351	0.672	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.083	3.082	0.001	8576559	83.7321	0.419	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.328	3.328	0.000	7902370	95.1383	0.476	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.393	3.392	0.001	3605172	100.639	0.503	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.540	3.539	0.001	7789291	91.0918	0.455	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.711	3.711	0.000	5572258	85.6587	0.428	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
3.968	3.969	-0.001	6529517	81.8914	0.409	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.505	4.504	0.001	6653493	93.4056	0.467	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.620	4.619	0.001	6066381	88.6674	0.443	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.743	4.743	0.000	6377088	91.6883	0.458	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
4.874	4.874	0.000	6046080	98.0266	0.490	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
4.810	4.810	0.000	15665903	228.601	1.14	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.103	5.103	0.000	16823269	236.150	1.18	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.332	5.331	0.001	15320579	268.954	1.34	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.392	5.393	-0.001	13876825	251.928	1.26	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.554	5.555	-0.001	15257837	260.854	1.30	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
5.980	5.980	0.000	11438644	232.066	1.16	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.671	5.672	-0.001	11451417	254.491	1.27	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.431	6.433	-0.002	12856856	269.183	1.34	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.175	6.176	-0.001	20824059	938.687	4.69	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
6.729	6.730	-0.001	15695120	243.739	1.22	80.00- 120.00	100.00

Data File: /chem/ecd3a.i/010410p.b/026f2601.d
Date : 04-JAN-2010 18:31
Client ID: CAPA-10-6390MSD
Sample Info: 1120200157014
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd3a.i
Operator: HXJ1
Column diameter: 0.25

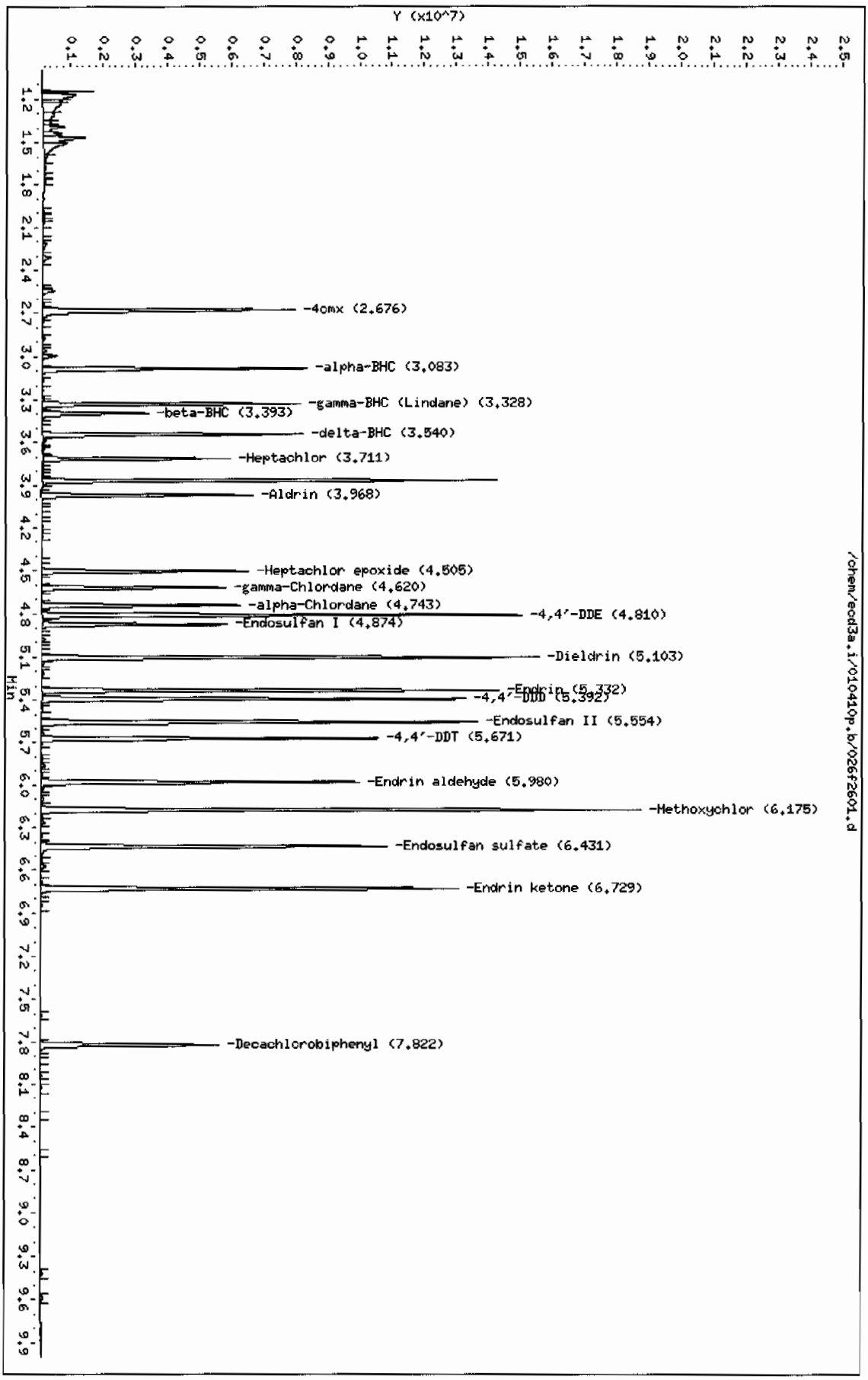

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 935412 **Verified by:** _____

Analyst: Tiffany Adams

Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202001567 MB	21-DEC-2009 19:38:25	1000	5	Florisil	5	1	10	5	0.005
1202001568 LCS	21-DEC-2009 19:38:25	1000	5	Florisil	5	1	10	5	0.005
1202001571 LCS	21-DEC-2009 19:38:25	1000	5	Florisil	5	1	10	5	0.005
243012002	21-DEC-2009 19:38:25	950	5	Florisil	5	1	10	5	0.00526
243099001	21-DEC-2009 19:38:25	920	5	Florisil	5	1	10	5	0.00543
243254003	21-DEC-2009 19:38:25	850	5	Florisil	5	1	10	5	0.00588
243254008	21-DEC-2009 19:38:25	920	5	Florisil	5	1	10	5	0.00543
243283001	21-DEC-2009 19:38:25	980	5	Florisil	5	1	10	5	0.0051
243284002	21-DEC-2009 19:38:25	910	6	Florisil	5	1	10	5	0.00549
1202001569 MS (243284002)	21-DEC-2009 19:38:25	500	6	Florisil	2.5	1	10	2.5	0.005
1202001570 MSD (243284002)	21-DEC-2009 19:38:25	500	6	Florisil	2.5	1	10	2.5	0.005
243284006	21-DEC-2009 19:38:25	900	5	Florisil	5	1	10	5	0.00556
243284009	21-DEC-2009 19:38:25	930	5	Florisil	5	1	10	5	0.00538

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202001568	PESTSPIKE	UE091204-04	1	mL
LCS	1202001571	Toxaphene TCLP LCS	WE091204-11	2	mL
MS	1202001569	PESTSPIKE	UE091204-04	.5	mL
MSD	1202001570	PESTSPIKE	UE091204-04	.5	mL
SURR	All	PEST SURROGATE 1000 UG/L	UE091130-07	.5	mL
SURR	All	PEST SURROGATE 1000 UG/L	UE091130-07	1	mL
REGNT	All	Hexane	1201017-B2	5	mL
REGNT	All	Methylene Chloride	1242565-D	180	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Clean up Date: 12/21/09

Clean up Initials: TRA

Verified By: MJS

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-036

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-952

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3510C
Analytical Batch Number:	935397
Prep Batch Number:	935395

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
243099002	CAPA-10-6818
1202001521	Method Blank (MB)
1202001522	Laboratory Control Sample (LCS)
1202001523	242935002(CAWA-10-5479) Matrix Spike (MS)
1202001524	242935002(CAWA-10-5479) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear

equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-915) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data exception report (NCR) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD2A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD2A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimi Cao Date: 1/13/10

Roadmap for LANL 10-952 PCB

This roadmap was analyzed by jen01212 on 12-24-2009, 09:08.
This roadmap was reviewed by jcb on 12-28-2009, 14:13.
This roadmap was packaged by yml on 01-13-2010, 09:23.
This roadmap was validated by jim01140 on 01-13-2010, 14:40.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/122309.b/024f2401.d	243099002	sample	23-DEC-2009	11:36	10-952.sub	CAPA-10-6818	1.00000	935397	UPLOAD BOTH, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/122309.b/024b2401.d	243099002	sample	23-DEC-2009	11:36	10-952.sub	CAPA-10-6818	1.00000	935397	UPLOAD BOTH, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/122309.b/014f1401-2.d	1202001521	mb	23-DEC-2009	09:45	10-952.sub	PBLK01	1.00000	935397	
☐	N	/chem/ecd2a.i/122309.b/015f1501-2.d	1202001522	lcs	23-DEC-2009	09:56	10-952.sub	PBLK01LCS	1.00000	935397	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd2a.i/122309.b/014b1401-2.d	1202001521	mb	23-DEC-2009	09:45	10-952.sub	PBLK01	1.00000	935397	
☐	N	/chem/ecd2a.i/122309.b/015b1501-2.d	1202001522	lcs	23-DEC-2009	09:56	10-952.sub	PBLK01LCS	1.00000	935397	

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243099002**	**Date Received:**	**12/17/2009 09:20**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-6818**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**935397**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 11:36**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/22/2009 17:32**	**Aliquot:**	**825 mL**	**Final Volume:**	**1 mL**
Data File:	**024f2401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	024b2401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.121	ug/L	0.0404	0.121	1
11104-28-2	Aroclor-1221	U	0.121	ug/L	0.0404	0.121	1
11141-16-5	Aroclor-1232	U	0.121	ug/L	0.0404	0.121	1
53469-21-9	Aroclor-1242	U	0.121	ug/L	0.0404	0.121	1
12672-29-6	Aroclor-1248	U	0.121	ug/L	0.0404	0.121	1
11097-69-1	Aroclor-1254	U	0.121	ug/L	0.0404	0.121	1
11096-82-5	Aroclor-1260	U	0.121	ug/L	0.0404	0.121	1
37324-23-5	Aroclor-1262	U	0.121	ug/L	0.0404	0.121	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.166	0.242	ug/L	68.5	(29%-103%)
Decachlorobiphenyl	0.182	0.242	ug/L	74.9	(34%-118%)

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10–952

Matrix Type: LIQUID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202001521	MB for batch 935395	64	66	84	86
1202001522	LCS for batch 935395	60	63	85	89
243099002	CAPA–10–6818	66	69	73	75

Surrogate	Acceptance Limits
4CMX = 4cmx	(29%–103%)
DCB = Decachlorobiphenyl	(34%–118%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–952
Client ID: LCS for batch 935395
Lab Sample ID: 1202001522
Instrument: ECD2A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 12/23/2009 09:56
Dilution: 1
Prep Batch ID: 935395
Batch ID: 935397

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
12674–11–2	LCS	Aroclor–1016	1.00	0.0	0.680	68	42–110
11096–82–5	LCS	Aroclor–1260	1.00	0.0	0.830	83	50–110

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–915
Client ID: CAWA–10–5479MS
Lab Sample ID: 1202001523
Instrument: ECD2A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 12/23/2009 10:29
Dilution: 1
Prep Batch ID: 935395
Batch ID: 935397

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
12674–11–2	MS	Aroclor–1016	1.00	0.00	U	0.530	53	22–114
11096–82–5	MS	Aroclor–1260	1.00	0.00	U	0.740	74	32–112

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10-915
Client ID: CAWA-10-5479MSD
Lab Sample ID: 1202001524
Instrument: ECD2A.I
Analyst: JAOC
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 12/23/2009 10:40
Dilution: 1
Prep Batch ID: 935395
Batch ID: 935397

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674-11-2	MSD Aroclor-1016	1.00	0.00	U	0.660	66	22-114	22	0-30
11096-82-5	MSD Aroclor-1260	1.00	0.00	U	0.830	83	32-112	12	0-30

Method Blank Summary

SDG Number:	10-952	Client:	LANL010	Matrix:	GROUND WATER
Client ID:	MB for batch 935395	Instrument ID:	ECD2A.I_2 ECD2A.I_1	Data File:	014b1401-1.d 014f1401-1.d
Lab Sample ID:	1202001521				
Column:	CLP2 CLP1	Prep Date:	12/22/2009 17:32	Analyzed:	12/23/09 09:45
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 935395	1202001522	015f1501-1.d 015b1501-1.d	12/23/09	0956
04 CAPA-10-6818	243099002	024f2401.d 024h2401.d	12/23/09	1136

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–952**	**Date Collected:**	**12/15/2009 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**243099002**	**Date Received:**	**12/17/2009 09:20**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA–10–6818**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**935397**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 11:36**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/22/2009 17:32**	**Aliquot:**	**825 mL**	**Final Volume:**	**1 mL**
Data File:	**024f2401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	024b2401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	0.121	ug/L	0.0404	0.121	1
11104–28–2	Aroclor–1221	U	0.121	ug/L	0.0404	0.121	1
11141–16–5	Aroclor–1232	U	0.121	ug/L	0.0404	0.121	1
53469–21–9	Aroclor–1242	U	0.121	ug/L	0.0404	0.121	1
12672–29–6	Aroclor–1248	U	0.121	ug/L	0.0404	0.121	1
11097–69–1	Aroclor–1254	U	0.121	ug/L	0.0404	0.121	1
11096–82–5	Aroclor–1260	U	0.121	ug/L	0.0404	0.121	1
37324–23–5	Aroclor–1262	U	0.121	ug/L	0.0404	0.121	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.166	0.242	ug/L	68.5	(29%–103%)
Decachlorobiphenyl	0.182	0.242	ug/L	74.9	(34%–118%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/024f2401.d
Lab Smp Id: 243099002 Client Smp ID: CAPA-10-6818
Inj Date : 23-DEC-2009 11:36
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |243099002|1|
Misc Info : |ECD82P_1L|935397|SVA|LANL|GROUND WATER|CAPA-10-6818|||
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-952.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)
Vo	825.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.775	1.770	0.005	8250939	132.457	0.16	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.609	5.613	-0.004	7853044	145.127	0.18	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/122309.b/024f2401.d
Date : 23-DEC-2009 11:36
Client ID: CAPA-10-6818
Sample Info: |243099002|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

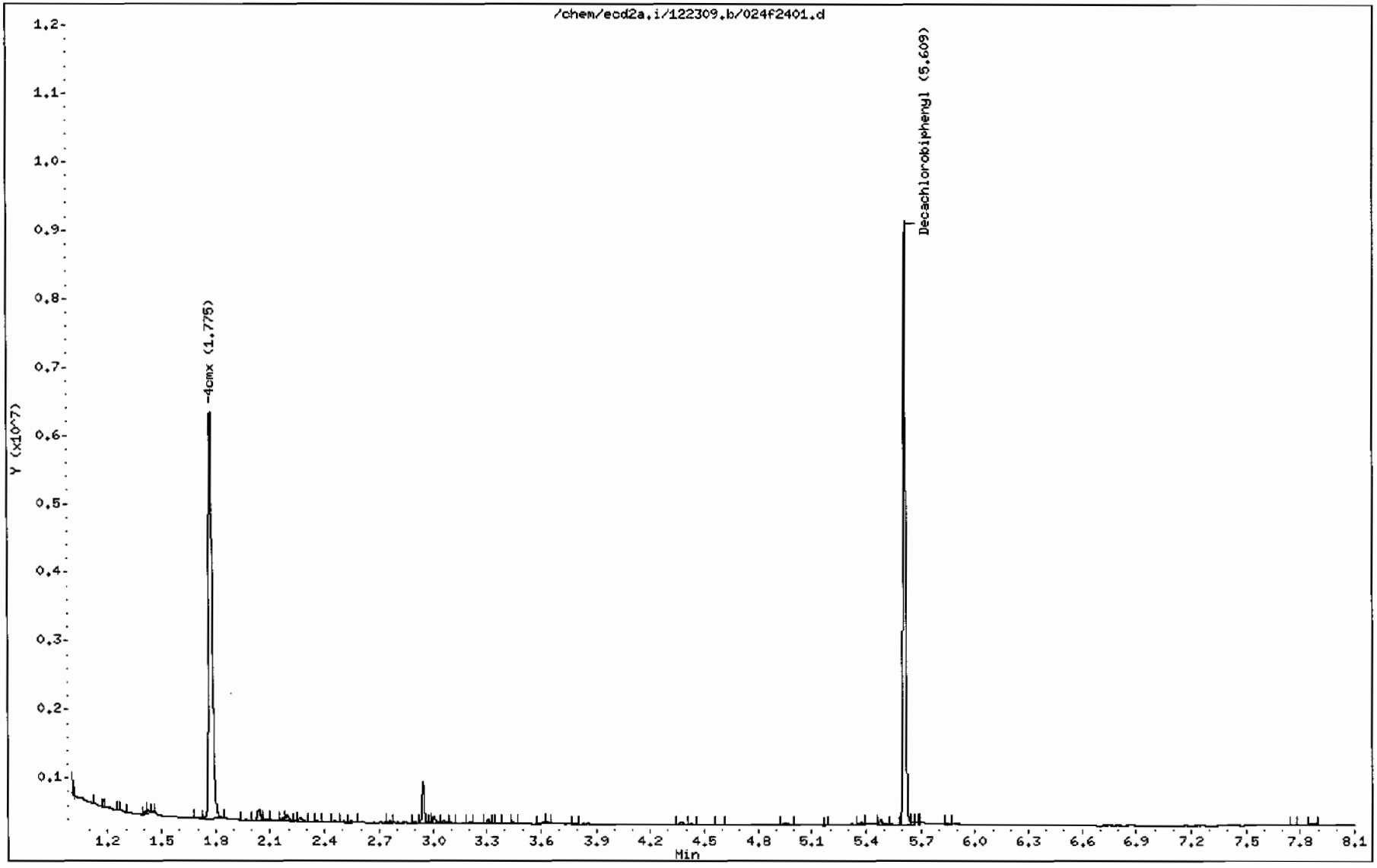

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/024b2401.d
Lab Smp Id: 243099002 Client Smp ID: CAPA-10-6818
Inj Date : 23-DEC-2009 11:36
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |243099002|1|
Misc Info : |ECD82P_1L|935397|SVA|LANL|GROUND WATER|CAPA-10-6818|||
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-952.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	825.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.067	0.005	17719911	137.026	0.17	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.301	6.304	-0.003	16895750	149.808	0.18	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/122309.b/024b2401.d

Date : 23-DEC-2009 11:36

Client ID: CAPA-10-6818

Sample Info: |243099002|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

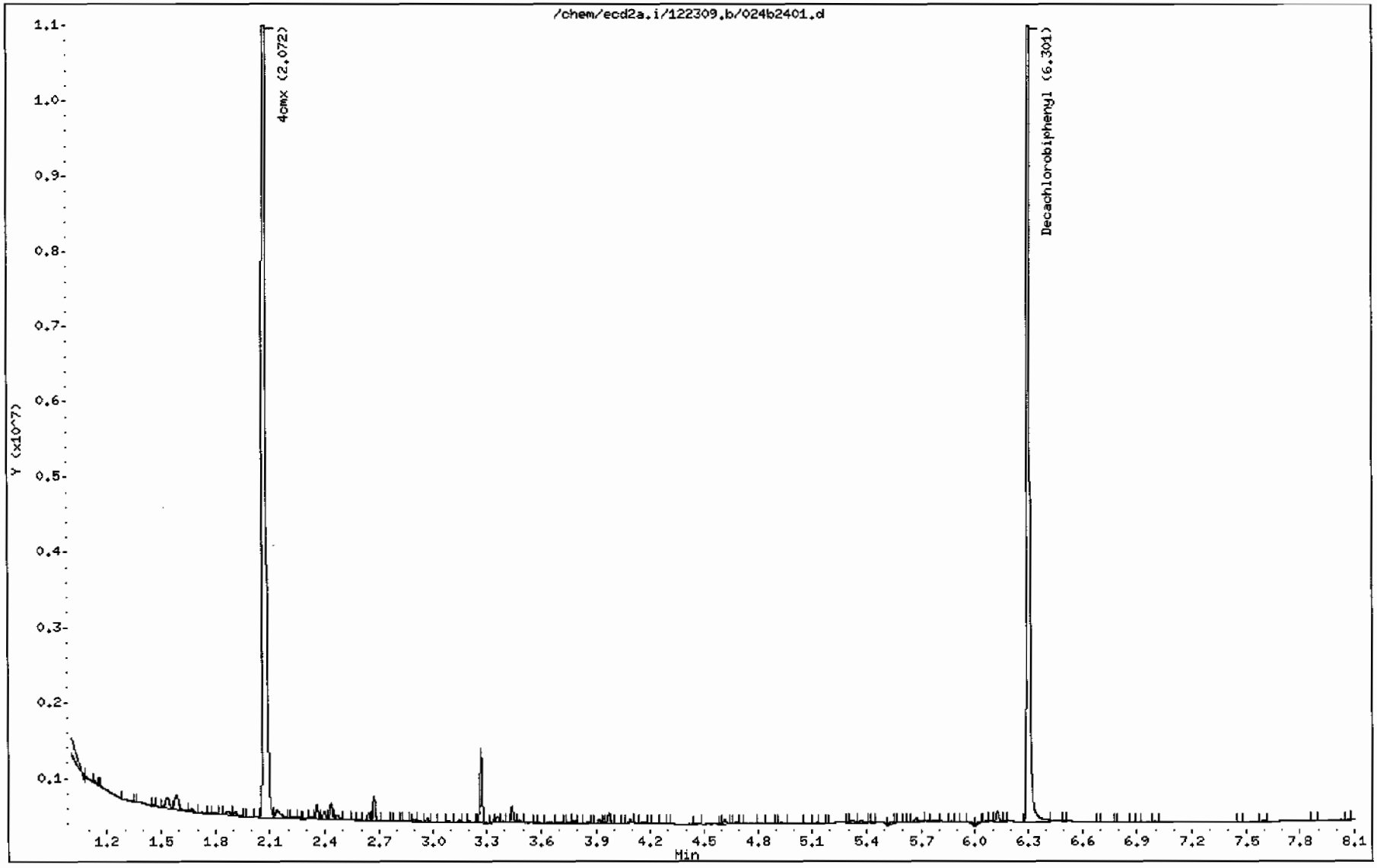

STANDARDS DATA

Report Date: 24-Dec-2009 08:39

Calibration History

Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Start Cal Date: 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
02-DEC-2009 07:05	AR1262	/chem/ecd2a.i/120209.b/008f0801.d
12-NOV-2009 16:22	AR1268	/chem/ecd2a.i/111209a.b/035f3501.d
30-NOV-2009 10:12	AR1248	/chem/ecd2a.i/113009a.b/011f1101.d
12-NOV-2009 14:09	AR1242	/chem/ecd2a.i/111209a.b/023f2301.d
30-NOV-2009 08:43	AR1254	/chem/ecd2a.i/113009a.b/003f0301.d
14-DEC-2009 08:51	AR1660	/chem/ecd2a.i/121409.b/011f1101.d
Cal Level: 2 , Cal Amount: 250.00000		
02-DEC-2009 07:16	AR1262	/chem/ecd2a.i/120209.b/009f0901.d
12-NOV-2009 16:33	AR1268	/chem/ecd2a.i/111209a.b/036f3601.d
30-NOV-2009 10:23	AR1248	/chem/ecd2a.i/113009a.b/012f1201.d
12-NOV-2009 14:20	AR1242	/chem/ecd2a.i/111209a.b/024f2401.d
30-NOV-2009 08:54	AR1254	/chem/ecd2a.i/113009a.b/004f0401.d
14-DEC-2009 09:02	AR1660	/chem/ecd2a.i/121409.b/012f1201.d
Cal Level: 3 , Cal Amount: 500.00000		
02-DEC-2009 07:27	AR1262	/chem/ecd2a.i/120209.b/010f1001.d
12-NOV-2009 16:44	AR1268	/chem/ecd2a.i/111209a.b/037f3701.d
30-NOV-2009 10:34	AR1248	/chem/ecd2a.i/113009a.b/013f1301.d
12-NOV-2009 14:31	AR1242	/chem/ecd2a.i/111209a.b/025f2501.d
30-NOV-2009 09:05	AR1254	/chem/ecd2a.i/113009a.b/005f0501.d
14-DEC-2009 09:13	AR1660	/chem/ecd2a.i/121409.b/013f1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
30-NOV-2009 10:45	AR1248	/chem/ecd2a.i/113009a.b/014f1401.d
12-NOV-2009 14:42	AR1242	/chem/ecd2a.i/111209a.b/026f2601.d
30-NOV-2009 09:16	AR1254	/chem/ecd2a.i/113009a.b/006f0601.d
14-DEC-2009 09:24	AR1660	/chem/ecd2a.i/121409.b/014f1401.d
12-NOV-2009 11:45	DDTANALOGSTD	/chem/ecd2a.i/111209a.b/010f1001.d
12-NOV-2009 16:55	AR1268	/chem/ecd2a.i/111209a.b/038f3801.d
02-DEC-2009 07:38	AR1262	/chem/ecd2a.i/120209.b/011f1101.d
12-NOV-2009 11:11	AR1221	/chem/ecd2a.i/111209a.b/007f0701.d
12-NOV-2009 11:00	AR1232	/chem/ecd2a.i/111209a.b/006f0601.d
Cal Level: 5 , Cal Amount: 4000.00000		
02-DEC-2009 07:50	AR1262	/chem/ecd2a.i/120209.b/012f1201.d
12-NOV-2009 17:07	AR1268	/chem/ecd2a.i/111209a.b/039f3901.d
30-NOV-2009 10:56	AR1248	/chem/ecd2a.i/113009a.b/015f1501.d

12-NOV-2009 14:53	AR1242	/chem/ecd2a.i/111209a.b/027f2701.d
30-NOV-2009 09:27	AR1254	/chem/ecd2a.i/113009a.b/007f0701.d
14-DEC-2009 09:35	AR1660	/chem/ecd2a.i/121409.b/015f1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 18:41	AR1660	/chem/ecd2a.i/122309.b/060f6001.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 17:19	AR1660	/chem/ecd2a.i/122309.b/053f5301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 15:24	AR1660	/chem/ecd2a.i/122309.b/043f4301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 12:57	AR1660	/chem/ecd2a.i/122309.b/031f3101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 11:13	AR1660	/chem/ecd2a.i/122309.b/022f2201.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 08:35	AR1268	/chem/ecd2a.i/122309.b/010f1001.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 08:13	AR1262	/chem/ecd2a.i/122309.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 08:02	AR1221	/chem/ecd2a.i/122309.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 08:58	AR1660	/chem/ecd2a.i/122309.b/012f1201.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 08:24	AR1660	/chem/ecd2a.i/122309.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 07:51	AR1232	/chem/ecd2a.i/122309.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 07:40	AR1248	/chem/ecd2a.i/122309.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 07:29	AR1242	/chem/ecd2a.i/122309.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 07:18	AR1254	/chem/ecd2a.i/122309.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 07:07	AR1660	/chem/ecd2a.i/122309.b/002f0201.d

Report Date: 24-Dec-2009 08:38

Calibration History

Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Start Cal Date: 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
02-DEC-2009 07:05	AR1262	/chem/ecd2a.i/120209.b/008b0801.d
12-NOV-2009 16:22	AR1268	/chem/ecd2a.i/111209a.b/035b3501.d
30-NOV-2009 10:12	AR1248	/chem/ecd2a.i/113009a.b/011b1101.d
12-NOV-2009 14:09	AR1242	/chem/ecd2a.i/111209a.b/023b2301.d
30-NOV-2009 08:43	AR1254	/chem/ecd2a.i/113009a.b/003b0301.d
14-DEC-2009 08:51	AR1660	/chem/ecd2a.i/121409.b/011b1101.d
Cal Level: 2 , Cal Amount: 250.00000		
02-DEC-2009 07:16	AR1262	/chem/ecd2a.i/120209.b/009b0901.d
12-NOV-2009 16:33	AR1268	/chem/ecd2a.i/111209a.b/036b3601.d
30-NOV-2009 10:23	AR1248	/chem/ecd2a.i/113009a.b/012b1201.d
12-NOV-2009 14:20	AR1242	/chem/ecd2a.i/111209a.b/024b2401.d
30-NOV-2009 08:54	AR1254	/chem/ecd2a.i/113009a.b/004b0401.d
14-DEC-2009 09:02	AR1660	/chem/ecd2a.i/121409.b/012b1201.d
Cal Level: 3 , Cal Amount: 500.00000		
02-DEC-2009 07:27	AR1262	/chem/ecd2a.i/120209.b/010b1001.d
12-NOV-2009 16:44	AR1268	/chem/ecd2a.i/111209a.b/037b3701.d
30-NOV-2009 10:34	AR1248	/chem/ecd2a.i/113009a.b/013b1301.d
12-NOV-2009 14:31	AR1242	/chem/ecd2a.i/111209a.b/025b2501.d
30-NOV-2009 09:05	AR1254	/chem/ecd2a.i/113009a.b/005b0501.d
14-DEC-2009 09:13	AR1660	/chem/ecd2a.i/121409.b/013b1301.d
Cal Level: 4 , Cal Amount: 1000.00000		
30-NOV-2009 10:45	AR1248	/chem/ecd2a.i/113009a.b/014b1401.d
12-NOV-2009 14:42	AR1242	/chem/ecd2a.i/111209a.b/026b2601.d
30-NOV-2009 09:16	AR1254	/chem/ecd2a.i/113009a.b/006b0601.d
14-DEC-2009 09:24	AR1660	/chem/ecd2a.i/121409.b/014b1401.d
12-NOV-2009 11:45	DDTANALOGSTD	/chem/ecd2a.i/111209a.b/010b1001.d
12-NOV-2009 16:55	AR1268	/chem/ecd2a.i/111209a.b/038b3801.d
02-DEC-2009 07:38	AR1262	/chem/ecd2a.i/120209.b/011b1101.d
12-NOV-2009 11:11	AR1221	/chem/ecd2a.i/111209a.b/007b0701.d
12-NOV-2009 11:00	AR1232	/chem/ecd2a.i/111209a.b/006b0601.d
Cal Level: 5 , Cal Amount: 4000.00000		
02-DEC-2009 07:50	AR1262	/chem/ecd2a.i/120209.b/012b1201.d
12-NOV-2009 17:07	AR1268	/chem/ecd2a.i/111209a.b/039b3901.d
30-NOV-2009 10:56	AR1248	/chem/ecd2a.i/113009a.b/015b1501.d
12-NOV-2009 14:53	AR1242	/chem/ecd2a.i/111209a.b/027b2701.d
30-NOV-2009 09:27	AR1254	/chem/ecd2a.i/113009a.b/007b0701.d
14-DEC-2009 09:35	AR1660	/chem/ecd2a.i/121409.b/015b1501.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 18:41	AR1660	/chem/ecd2a.i/122309.b/060b6001.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 17:19	AR1660	/chem/ecd2a.i/122309.b/053b5301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 15:24	AR1660	/chem/ecd2a.i/122309.b/043b4301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 12:57	AR1660	/chem/ecd2a.i/122309.b/031b3101.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 11:13	AR1660	/chem/ecd2a.i/122309.b/022b2201.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 08:35	AR1268	/chem/ecd2a.i/122309.b/010b1001.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 08:13	AR1262	/chem/ecd2a.i/122309.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 08:02	AR1221	/chem/ecd2a.i/122309.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 08:58	AR1660	/chem/ecd2a.i/122309.b/012b1201.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 08:24	AR1660	/chem/ecd2a.i/122309.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 07:51	AR1232	/chem/ecd2a.i/122309.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 07:40	AR1248	/chem/ecd2a.i/122309.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 07:29	AR1242	/chem/ecd2a.i/122309.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 07:18	AR1254	/chem/ecd2a.i/122309.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
23-DEC-2009 07:07	AR1660	/chem/ecd2a.i/122309.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Quant Method : ESTD Target Version : 3.50
Last Update : 24-Dec-2009 06:31 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	500.000000
Initial:End Threshold	250.000000
Initial:Area Threshold	10000.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	1.100000
8.500:Bunch Factor	2.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.274	2.244-2.304	2.238e+03
	2.598	2.568-2.628	4.685e+03
	2.689	2.659-2.719	1.901e+03
	2.825	2.795-2.855	9.760e+02
	2.976	2.946-3.006	1.458e+03
2 Aroclor-1221	1.439	1.409-1.469	4.641e+02
	1.900	1.870-1.930	6.570e+02
	2.000	1.970-2.030	3.467e+02
3 Aroclor-1232	2.028	1.998-2.058	1.165e+03
	2.276	2.246-2.306	9.314e+02
	2.690	2.660-2.720	8.004e+02
	2.733	2.703-2.763	5.102e+02
	2.977	2.947-3.007	5.840e+02
4 Aroclor-1242	2.276	2.246-2.306	1.733e+03
	2.690	2.660-2.720	1.484e+03
	2.733	2.703-2.763	9.058e+02
	2.825	2.795-2.855	7.269e+02
	2.977	2.947-3.007	1.120e+03
5 Aroclor-1248	2.825	2.795-2.855	1.527e+03
	2.976	2.946-3.006	2.027e+03
	3.036	3.006-3.066	1.571e+03
	3.272	3.242-3.302	2.218e+03
	3.424	3.394-3.454	1.913e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	3.242	3.212-3.272	2.080e+03
		3.426	3.396-3.456	2.772e+03
		3.696	3.666-3.726	3.742e+03
		3.887	3.857-3.917	2.783e+03
		4.017	3.987-4.047	2.760e+03
	7 Aroclor-1260	4.018	3.988-4.048	4.165e+03
		4.290	4.260-4.320	2.591e+03
		4.456	4.426-4.486	2.631e+03
		4.669	4.639-4.699	6.088e+03
		4.859	4.829-4.889	2.942e+03
	8 Aroclor-1262	3.825	3.795-3.855	2.273e+03
		4.017	3.987-4.047	3.072e+03
		4.289	4.259-4.319	4.004e+03
		4.455	4.425-4.485	3.573e+03
		4.855	4.825-4.885	2.501e+03
	9 Aroclor-1268	4.885	4.855-4.915	9.392e+03
		4.912	4.882-4.942	9.361e+03
		5.045	5.015-5.075	7.073e+03
		5.283	5.253-5.313	3.056e+03
		5.479	5.449-5.509	2.201e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	1.770	1.740-1.800	6.229e+04
$	12 Decachlorobiphenyl	5.613	5.583-5.643	5.411e+04
	13 4,4'-DDT	4.229	4.209-4.249	5.006e+04
	14 4,4'-DDD	4.036	4.016-4.056	7.298e+04
	15 4,4'-DDE	3.632	3.612-3.652	7.426e+04

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Quant Method : ESTD Target Version : 3.50
Last Update : 24-Dec-2009 06:29 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1000.000000
Initial:End Threshold	500.000000
Initial:Area Threshold	500.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	3.000000
Initial:Negative Peaks	OFF
Initial:Tension	4.000000
4.200:Tension	1.000000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.746	2.716-2.776	4.538e+03
	3.181	3.151-3.211	3.602e+03
	3.332	3.302-3.362	2.053e+03
	3.362	3.332-3.392	2.137e+03
	3.520	3.490-3.550	2.871e+03
2 Aroclor-1221	2.294	2.264-2.324	1.263e+03
	2.400	2.370-2.430	7.739e+02
	2.444	2.414-2.474	3.051e+03
3 Aroclor-1232	2.444	2.414-2.474	2.061e+03
	2.747	2.717-2.777	1.960e+03
	3.182	3.152-3.212	1.498e+03
	3.254	3.224-3.284	9.309e+02
	3.520	3.490-3.550	1.107e+03
4 Aroclor-1242	2.747	2.717-2.777	3.445e+03
	3.182	3.152-3.212	2.681e+03
	3.254	3.224-3.284	1.637e+03
	3.333	3.303-3.363	1.508e+03
	3.519	3.489-3.549	2.145e+03
5 Aroclor-1248	3.333	3.303-3.363	3.282e+03
	3.520	3.490-3.550	4.187e+03
	3.606	3.576-3.636	4.451e+03
	3.795	3.765-3.825	4.697e+03
	3.825	3.795-3.855	5.389e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m

	Compound	RT	RT Window	RF
	6 Aroclor-1254	3.819	3.789-3.849	4.985e+03
		3.961	3.931-3.991	5.799e+03
		4.197	4.167-4.227	4.023e+03
		4.278	4.248-4.308	7.731e+03
		4.442	4.412-4.472	5.608e+03
	7 Aroclor-1260	4.417	4.387-4.447	5.767e+03
		4.569	4.539-4.599	7.124e+03
		4.681	4.651-4.711	4.819e+03
		4.878	4.848-4.908	5.632e+03
		5.504	5.474-5.534	9.038e+03
	8 Aroclor-1262	4.417	4.387-4.447	4.703e+03
		4.567	4.537-4.597	5.853e+03
		4.877	4.847-4.907	8.946e+03
		5.077	5.047-5.107	7.772e+03
		5.255	5.225-5.285	1.672e+04
	9 Aroclor-1268	5.500	5.470-5.530	2.032e+04
		5.532	5.502-5.562	2.018e+04
		5.704	5.674-5.734	1.496e+04
		5.905	5.875-5.935	6.438e+03
		6.128	6.098-6.158	4.409e+04
M	10 Aroclor-Total	1.000	0.980-1.020	
$	11 4cmx	2.067	2.037-2.097	1.293e+05
$	12 Decachlorobiphenyl	6.304	6.274-6.334	1.128e+05
	13 4,4'-DDT	4.814	4.794-4.834	8.705e+04
	14 4,4'-DDD	4.600	4.580-4.620	1.499e+05
	15 4,4'-DDE	4.195	4.175-4.215	1.504e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Cal Date : 24-Dec-2009 06:31 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd2a.i/120209.b/008f0801.d
Level 2: /chem/ecd2a.i/120209.b/009f0901.d
Level 3: /chem/ecd2a.i/120209.b/010f1001.d
Level 4: /chem/ecd2a.i/113009a.b/014f1401.d
Level 5: /chem/ecd2a.i/120209.b/012f1201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	2466	2335	2250	2152	1986	2238	8.133
(2)	4869	4683	4664	4616	4594	4685	2.323
(3)	2072	1962	1892	1818	1764	1901	6.365
(4)	1061	990	984	930	915	976	5.885
(5)	1595	1490	1441	1389	1375	1458	6.121
2 Aroclor-1221(1)	+++++	+++++	+++++	464	+++++	464	0.000
(2)	+++++	+++++	+++++	657	+++++	657	0.000
(3)	+++++	+++++	+++++	347	+++++	347	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	1165	+++++	1165	0.000
(2)	+++++	+++++	+++++	931	+++++	931	0.000
(3)	+++++	+++++	+++++	800	+++++	800	0.000
(4)	+++++	+++++	+++++	510	+++++	510	0.000
(5)	+++++	+++++	+++++	584	+++++	584	0.000
4 Aroclor-1242(1)	1990	1799	1692	1619	1566	1733	9.686
(2)	1678	1536	1439	1387	1381	1484	8.410
(3)	1015	931	874	843	866	906	7.639
(4)	817	761	714	669	673	727	8.615
(5)	1272	1143	1059	1036	1087	1120	8.434
5 Aroclor-1248(1)	1738	1529	1527	1515	1325	1527	9.560
(2)	2238	2070	1990	2006	1832	2027	7.247
(3)	1706	1611	1571	1551	1415	1571	6.718
(4)	2322	2198	2161	2230	2178	2218	2.874
(5)	2083	1922	1902	1885	1770	1913	5.861
6 Aroclor-1254(1)	2304	2118	2048	2007	1924	2080	6.888
(2)	2981	2797	2739	2702	2642	2772	4.677
(3)	3870	3712	3711	3744	3675	3742	2.011
(4)	2886	2776	2725	2760	2767	2783	2.186
(5)	2994	2820	2741	2711	2533	2760	6.080

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Cal Date : 24-Dec-2009 06:31 jen01212
Curve Type : Average

	Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
	7 Aroclor-1260(1)	4187	4145	4185	4134	4175	4165	0.584
	(2)	2696	2603	2589	2529	2536	2591	2.593
	(3)	2699	2626	2625	2591	2614	2631	1.539
	(4)	5867	6003	6142	6129	6296	6088	2.650
	(5)	2925	2904	2929	2920	3034	2942	1.769
	8 Aroclor-1262(1)	2530	2266	2239	2239	2092	2273	6.993
	(2)	3295	3066	3031	3051	2917	3072	4.482
	(3)	4237	3997	3977	3997	3815	4004	3.763
	(4)	3754	3532	3556	3594	3430	3573	3.295
	(5)	2578	2453	2481	2538	2454	2501	2.217
	9 Aroclor-1268(1)	9077	9136	9272	9373	10103	9392	4.409
	(2)	9332	9272	9238	9197	9765	9361	2.470
	(3)	6985	6923	6953	6984	7523	7073	3.568
	(4)	3112	3015	2984	2964	3207	3056	3.331
	(5)	21397	21592	21760	21851	23464	22013	3.767
M	10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
	13 4,4'-DDT	+++++	+++++	+++++	50063	+++++	50063	0.000
	14 4,4'-DDD	+++++	+++++	+++++	72978	+++++	72978	0.000
	15 4,4'-DDE	+++++	+++++	+++++	74262	+++++	74262	0.000
$	11 4cmx	61300	61246	62868	63075	62969	62292	1.498
$	12 Decachlorobiphenyl	55102	53352	54400	53360	54345	54112	1.389

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Cal Date : 24-Dec-2009 06:29 jen01212
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd2a.i/120209.b/008b0801.d
Level 2: /chem/ecd2a.i/120209.b/009b0901.d
Level 3: /chem/ecd2a.i/120209.b/010b1001.d
Level 4: /chem/ecd2a.i/113009a.b/014b1401.d
Level 5: /chem/ecd2a.i/120209.b/012b1201.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	4662	4582	4609	4551	4285	4538	3.244
(2)	3647	3696	3564	3575	3528	3602	1.886
(3)	2078	2044	2044	2059	2041	2053	0.760
(4)	2149	2125	2133	2140	2138	2137	0.428
(5)	2852	2832	2882	2908	2879	2871	1.025
2 Aroclor-1221(1)	+++++	+++++	+++++	1263	+++++	1263	0.000
(2)	+++++	+++++	+++++	774	+++++	774	0.000
(3)	+++++	+++++	+++++	3051	+++++	3051	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	2061	+++++	2061	0.000
(2)	+++++	+++++	+++++	1960	+++++	1960	0.000
(3)	+++++	+++++	+++++	1498	+++++	1498	0.000
(4)	+++++	+++++	+++++	931	+++++	931	0.000
(5)	+++++	+++++	+++++	1107	+++++	1107	0.000
4 Aroclor-1242(1)	3674	3489	3409	3384	3271	3445	4.346
(2)	2815	2677	2634	2637	2644	2681	2.863
(3)	1696	1624	1594	1606	1663	1637	2.599
(4)	1601	1513	1471	1467	1487	1508	3.655
(5)	2235	2100	2068	2141	2180	2145	3.068
5 Aroclor-1248(1)	3439	3315	3263	3296	3099	3282	3.723
(2)	4291	4205	4192	4250	3996	4187	2.717
(3)	4601	4495	4377	4484	4299	4451	2.609
(4)	4665	4612	4696	4831	4682	4697	1.733
(5)	5471	5399	5390	5477	5208	5389	2.022
6 Aroclor-1254(1)	5121	4955	4998	5025	4828	4985	2.145
(2)	5885	5693	5812	5852	5753	5799	1.330
(3)	4010	3906	3992	4126	4082	4023	2.109
(4)	7559	7611	7766	7925	7797	7731	1.909
(5)	5659	5569	5439	5821	5553	5608	2.538

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 12-NOV-2009 11:00
End Cal Date : 14-DEC-2009 09:35
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Cal Date : 24-Dec-2009 06:29 jen01212
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
7 Aroclor-1260(1)	5735	5627	5779	5816	5877	5767	1.626
(2)	6687	7031	7243	7286	7372	7124	3.855
(3)	4572	4701	4890	4942	4988	4819	3.647
(4)	5377	5518	5714	5746	5803	5632	3.163
(5)	8369	8607	9231	9252	9728	9038	6.039
8 Aroclor-1262(1)	4855	4536	4634	4812	4677	4703	2.776
(2)	5760	5648	5834	6083	5942	5853	2.859
(3)	8687	8674	9001	9349	9021	8946	3.121
(4)	7559	7507	7790	8124	7880	7772	3.221
(5)	15890	16154	16824	17584	17141	16719	4.167
9 Aroclor-1268(1)	18829	19584	20101	20533	22559	20321	6.904
(2)	18822	19343	20333	20389	22025	20182	6.077
(3)	13874	14365	14864	15141	16565	14962	6.808
(4)	5734	6115	6404	6840	7097	6438	8.497
(5)	40707	42777	43856	44408	48724	44094	6.689
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
13 4,4'-DDT	+++++	+++++	+++++	87046	+++++	87046	0.000
14 4,4'-DDD	+++++	+++++	+++++	149858	+++++	149858	0.000
15 4,4'-DDE	+++++	+++++	+++++	150414	+++++	150414	0.000
$ 11 4cmx	118604	126358	131414	133891	136323	129318	5.440
$ 12 Decachlorobiphenyl	109662	108705	113295	113170	119083	112783	3.614

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121409.b/011f1101.d
Lab Smp Id: WAR091214-01 60 Client Smp ID: AR166001
Inj Date : 14-DEC-2009 08:51
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |WAR091214-01 60
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121409.b/ECD2-F-8082-111209A.m
Meth Date : 14-Dec-2009 10:15 yip00818 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:05 Cal File: 008f0801.d
Als bottle: 11 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

				AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.770	1.771	-0.001	612997	10.0000	9.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.612	0.000	551015	10.0000	10.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.277	2.277	0.000	246602	100.000	110	80.00- 120.00	100.00(M)
2.600	2.600	0.000	486912	100.000	104	177.45- 217.45	197.45
2.692	2.692	0.000	207199	100.000	109	64.02- 104.02	84.02
2.827	2.827	0.000	106052	100.000	109	23.01- 63.01	43.01
2.978	2.978	0.000	159517	100.000	109	44.69- 84.69	64.69
Average of Peak Amounts =					108		
7 Aroclor-1260					CAS #: 11096-82-5		
4.018	4.018	0.000	418744	100.000	100	80.00- 120.00	100.00
4.290	4.290	0.000	269612	100.000	104	44.39- 84.39	64.39
4.456	4.456	0.000	269917	100.000	102	44.46- 84.46	64.46
4.668	4.668	0.000	586713	100.000	96.4	120.11- 160.11	140.11
4.858	4.858	0.000	292508	100.000	99.4	49.85- 89.85	69.85
Average of Peak Amounts =					101		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/121409.b/011f1101.d
Date : 14-DEC-2009 08:51
Client ID: AR166001
Sample Info: IWAR091214-01 60

Column phase: CLP1

Instrument: ecd2a.i

Operator: YS1
Column diameter: 0.25

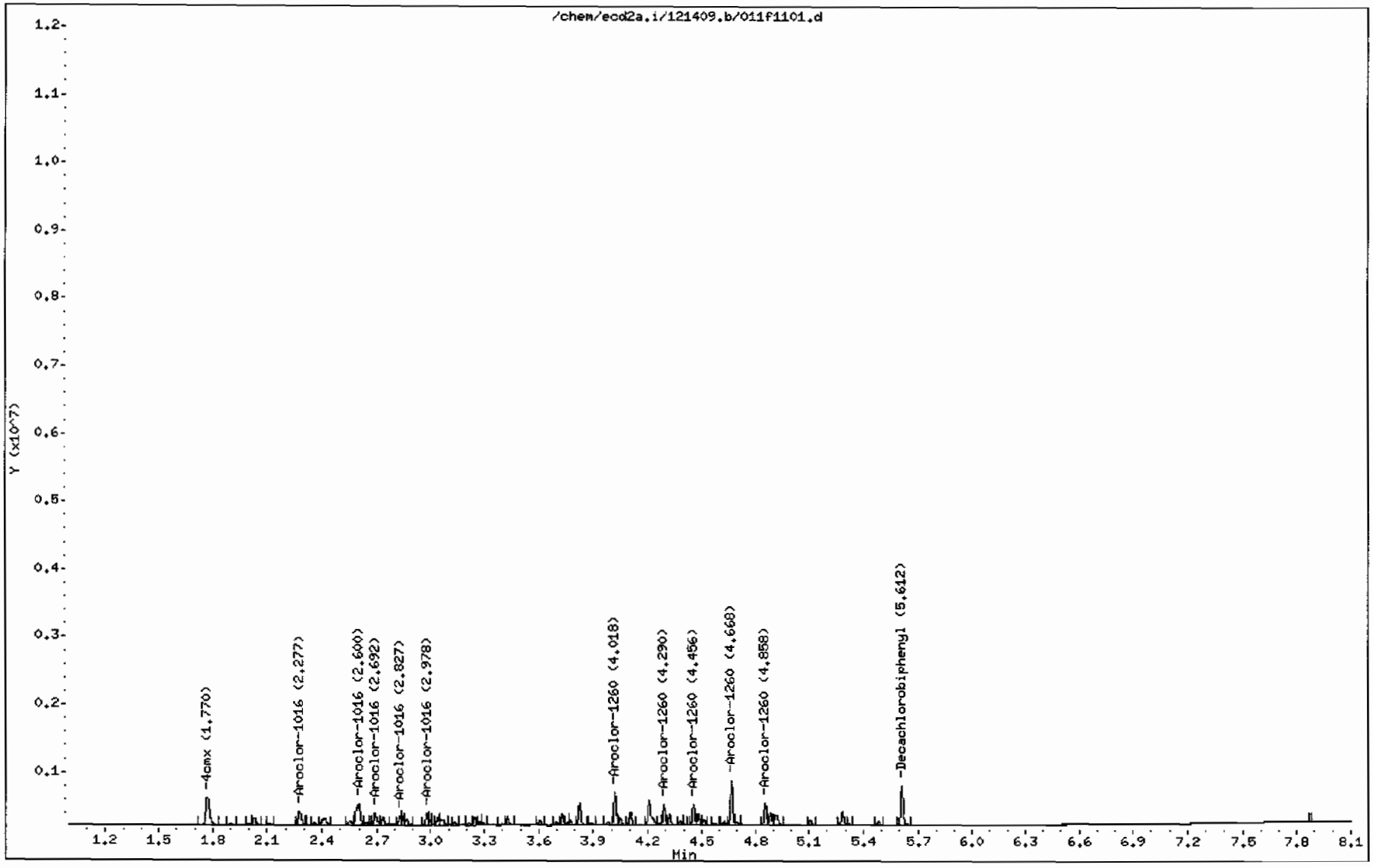

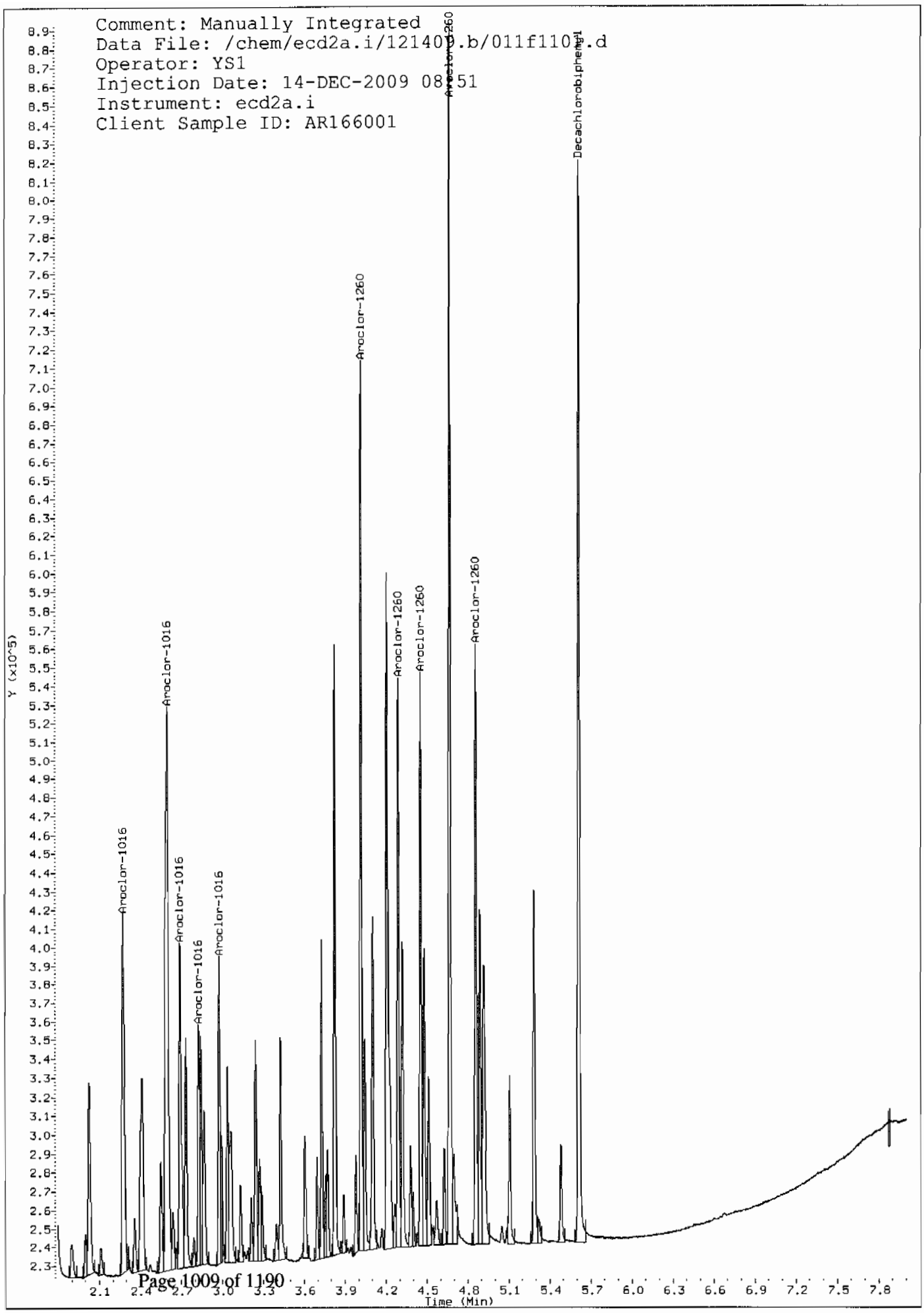
Comment: Manually Integrated
Data File: /chem/ecd2a.i/121409.b/011f1101.d
Operator: YS1
Injection Date: 14-DEC-2009 08:51
Instrument: ecd2a.i
Client Sample ID: AR166001
Aroclor-1016
Aroclor-1016
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Aroclor-1260
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Decachlorobiphenyl
Y (x10^5)
Time (Min)

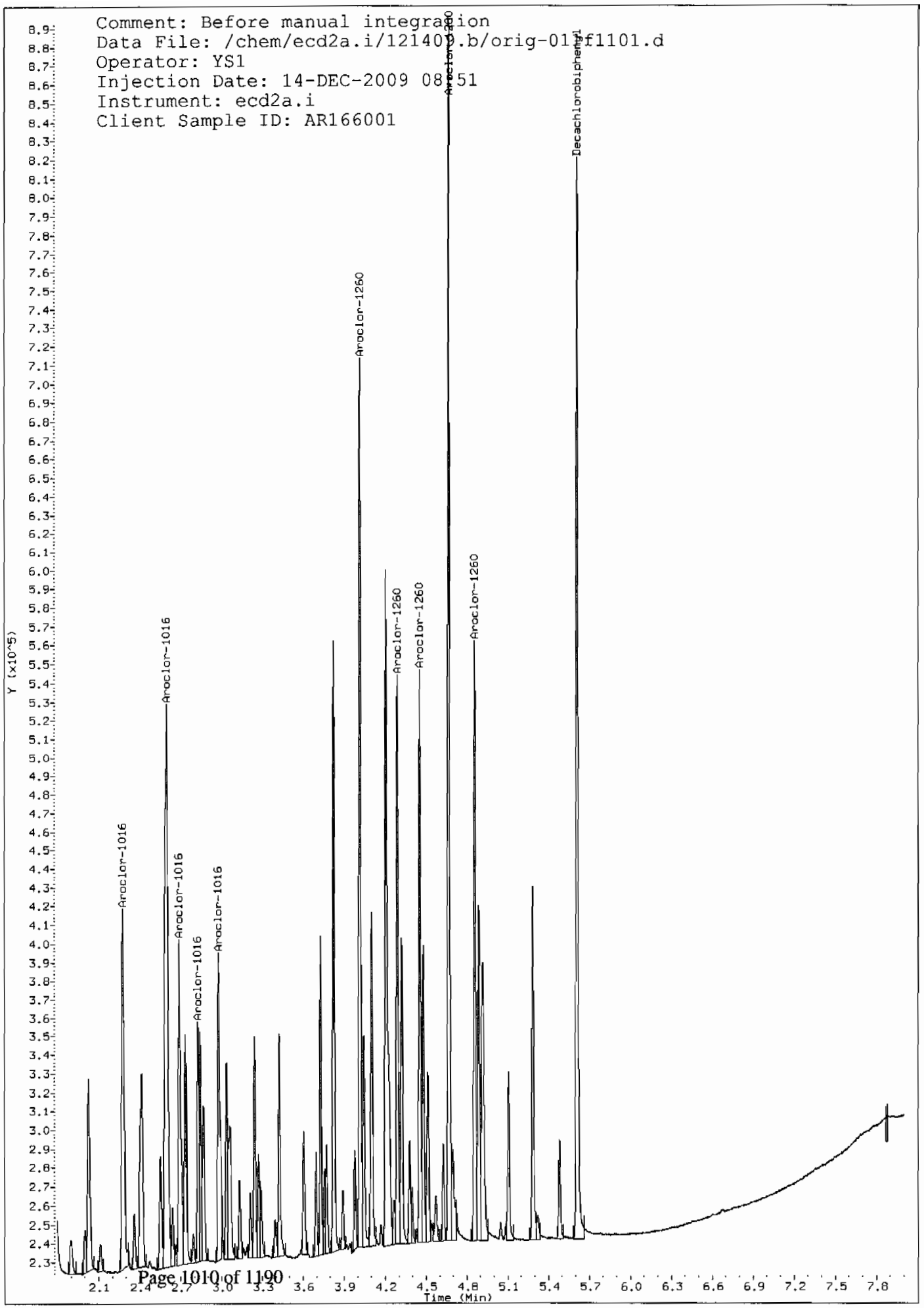
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Operator: YS1
Injection Date: 14-DEC-2009 08:51
Instrument: ecd2a.i
Client Sample ID: AR166001
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^5)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121409.b/011b1101.d
Lab Smp Id: WAR091214-01 60 Client Smp ID: AR166001
Inj Date : 14-DEC-2009 08:51
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |WAR091214-01 60
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121409.b/ECD2-B-8082-111209A.m
Meth Date : 14-Dec-2009 10:15 yip00818 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:05 Cal File: 008b0801.d
Als bottle: 11 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.070	0.000	1186043	10.0000	9.2	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.304	0.000	1096620	10.0000	9.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.749	2.749	0.000	466172	100.000	103	80.00- 120.00	100.00
3.184	3.184	0.000	364735	100.000	102	58.24- 98.24	78.24
3.334	3.334	0.000	207827	100.000	103	24.58- 64.58	44.58
3.363	3.363	0.000	214942	100.000	103	26.11- 66.11	46.11
3.521	3.521	0.000	285184	100.000	101	41.18- 81.18	61.18
Average of Peak Amounts =					102		
7 Aroclor-1260					CAS #: 11096-82-5		
4.418	4.418	0.000	573509	100.000	100	80.00- 120.00	100.00
4.569	4.569	0.000	668687	100.000	94.2	96.60- 136.60	116.60
4.681	4.681	0.000	457212	100.000	97.1	59.72- 99.72	79.72
4.879	4.879	0.000	537720	100.000	96.8	73.76- 113.76	93.76
5.504	5.504	0.000	836947	100.000	92.9	125.93- 165.93	145.93
Average of Peak Amounts =					96.3		

Data File: /chem/ecd2a.i/121409.b/011b1101.d

Date : 14-DEC-2009 08:51

Client ID: AR166001

Sample Info: IWAR091214-01 60

Column phase: CLP2

Instrument: ecd2a.i

Operator: YS1

Column diameter: 0.25

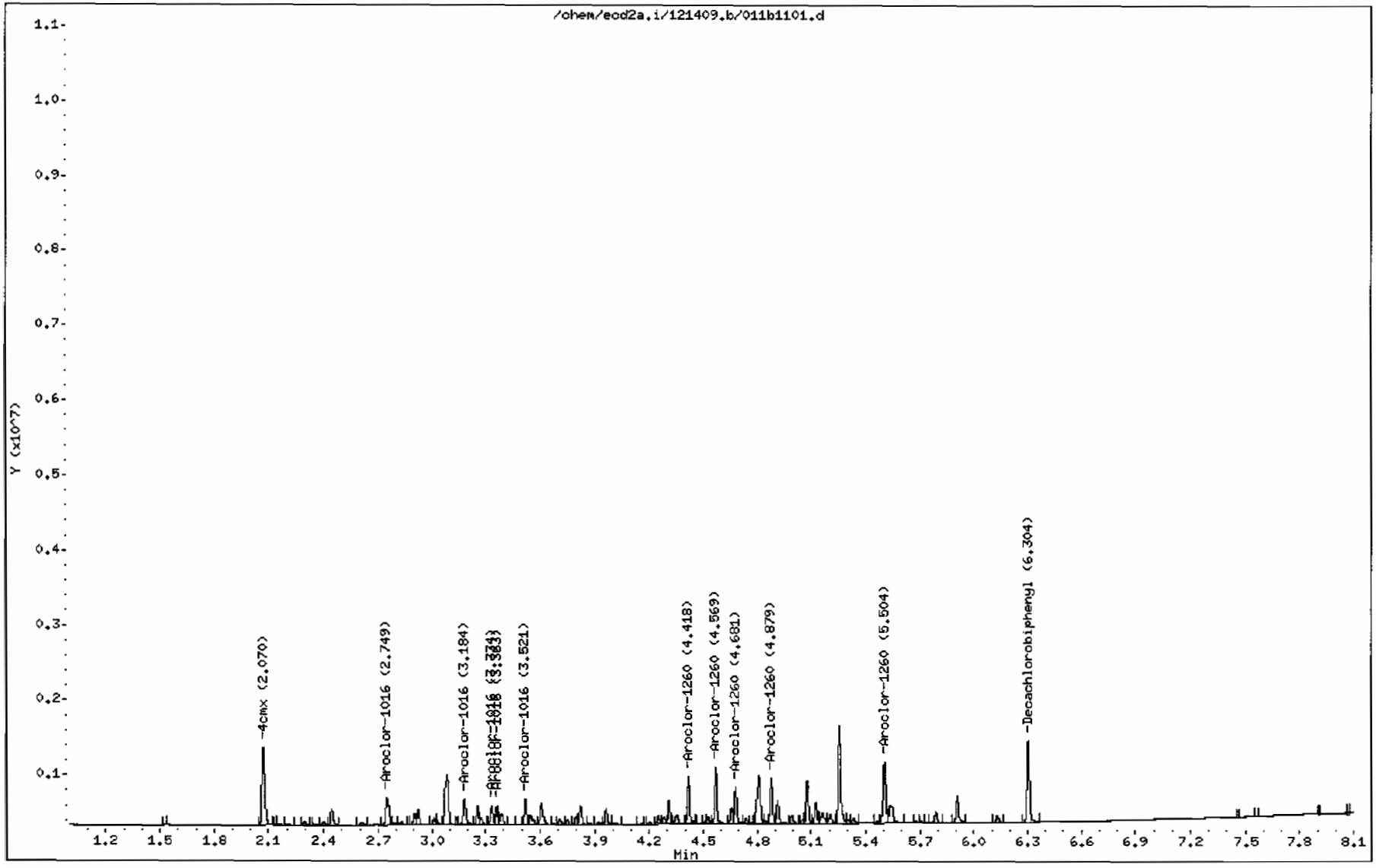

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121409.b/012f1201.d
Lab Smp Id: WAR091214-02 60 Client Smp ID: AR166002
Inj Date : 14-DEC-2009 09:02
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |WAR091214-02 60
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121409.b/ECD2-F-8082-111209A.m
Meth Date : 14-Dec-2009 10:15 yip00818 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:16 Cal File: 009f0901.d
Als bottle: 12 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.770	1.771	-0.001	1531148	25.0000	24.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.612	0.000	1333799	25.0000	24.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.275	2.275	0.000	583627	250.000	261	80.00- 120.00	100.00(M)
2.599	2.599	0.000	1170749	250.000	250	180.60- 220.60	200.60
2.690	2.690	0.000	490405	250.000	258	64.03- 104.03	84.03
2.825	2.825	0.000	247460	250.000	254	22.40- 62.40	42.40
2.977	2.977	0.000	372469	250.000	255	43.82- 83.82	63.82
Average of Peak Amounts =					256		
7 Aroclor-1260					CAS #: 11096-82-5		
4.018	4.018	0.000	1036148	250.000	249	80.00- 120.00	100.00
4.289	4.289	0.000	650668	250.000	251	42.80- 82.80	62.80
4.455	4.455	0.000	656624	250.000	250	43.37- 83.37	63.37
4.668	4.668	0.000	1500731	250.000	246	124.84- 164.84	144.84
4.857	4.857	0.000	725880	250.000	247	50.06- 90.06	70.06
Average of Peak Amounts =					249		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/121409.b/012f1201.d
Date : 14-DEC-2009 09:02
Client ID: AR166002
Sample Info: IWAR091214-02 60

Column phase: CLP1

Instrument: ecd2a.i

Operator: YS1
Column diameter: 0.25

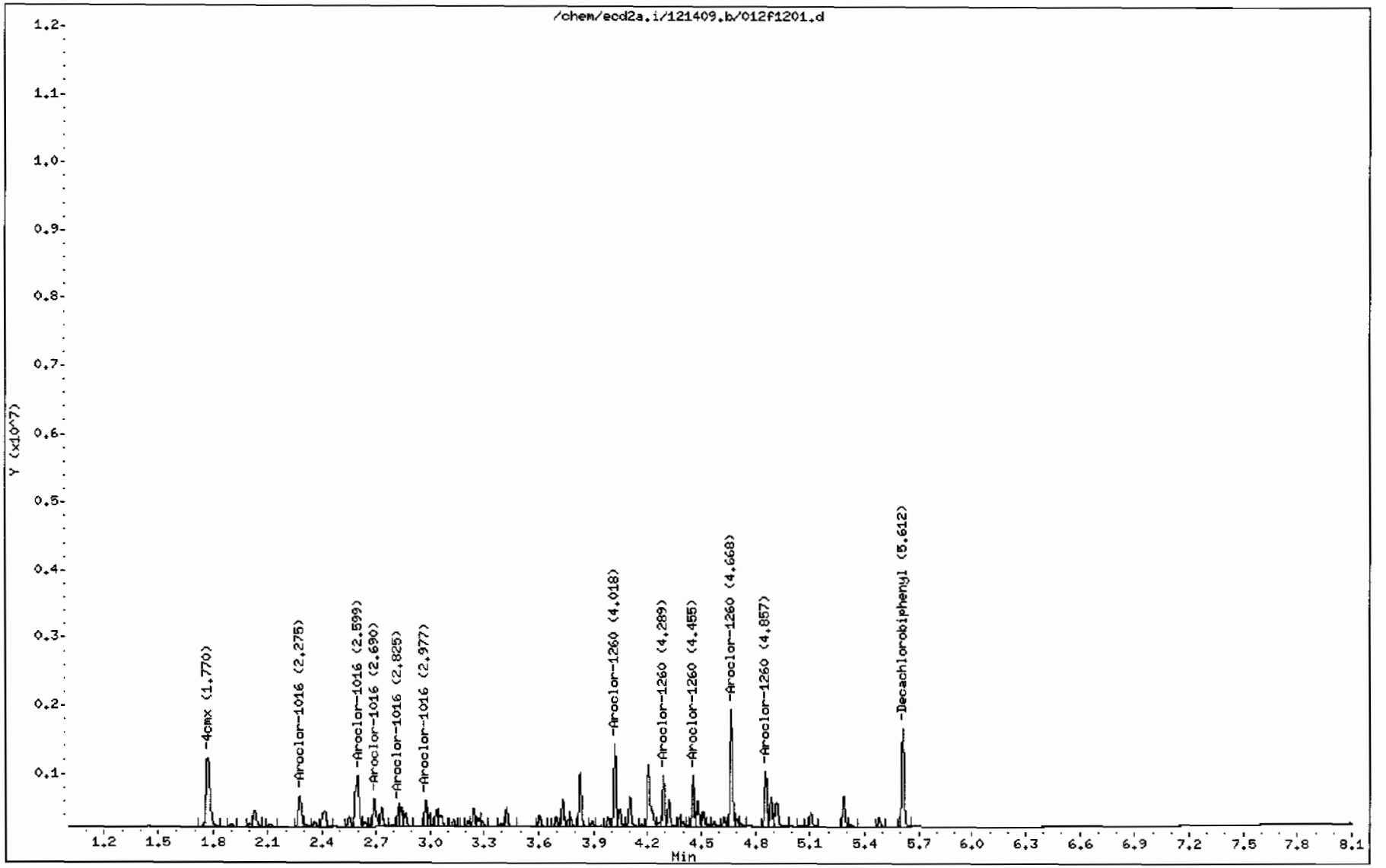

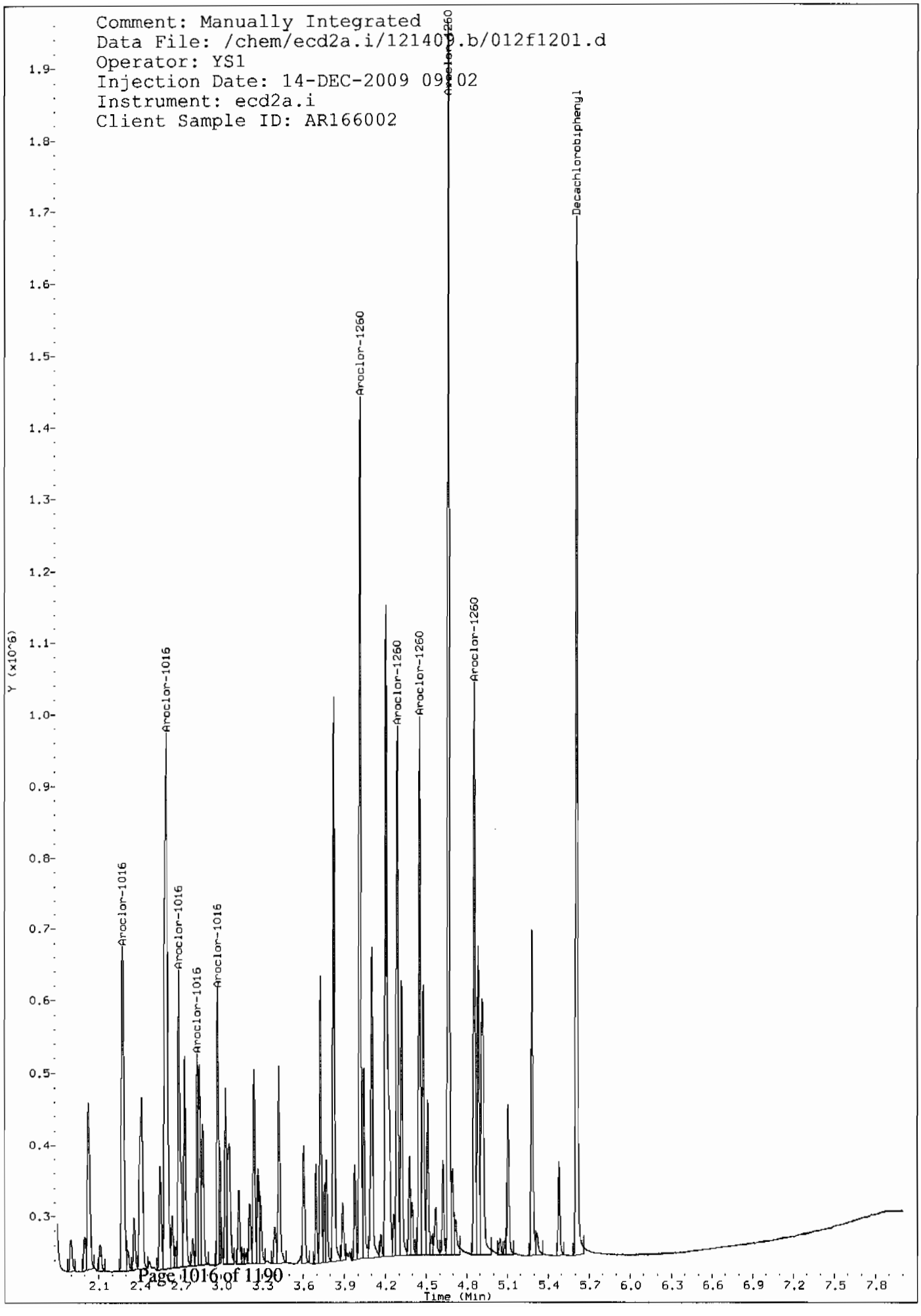
Comment: Manually Integrated
Data File: /chem/ecd2a.i/121409.b/012f1201.d
Operator: YS1
Injection Date: 14-DEC-2009 09:02
Instrument: ecd2a.i
Client Sample ID: AR166002
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
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Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^6)
Time (Min)

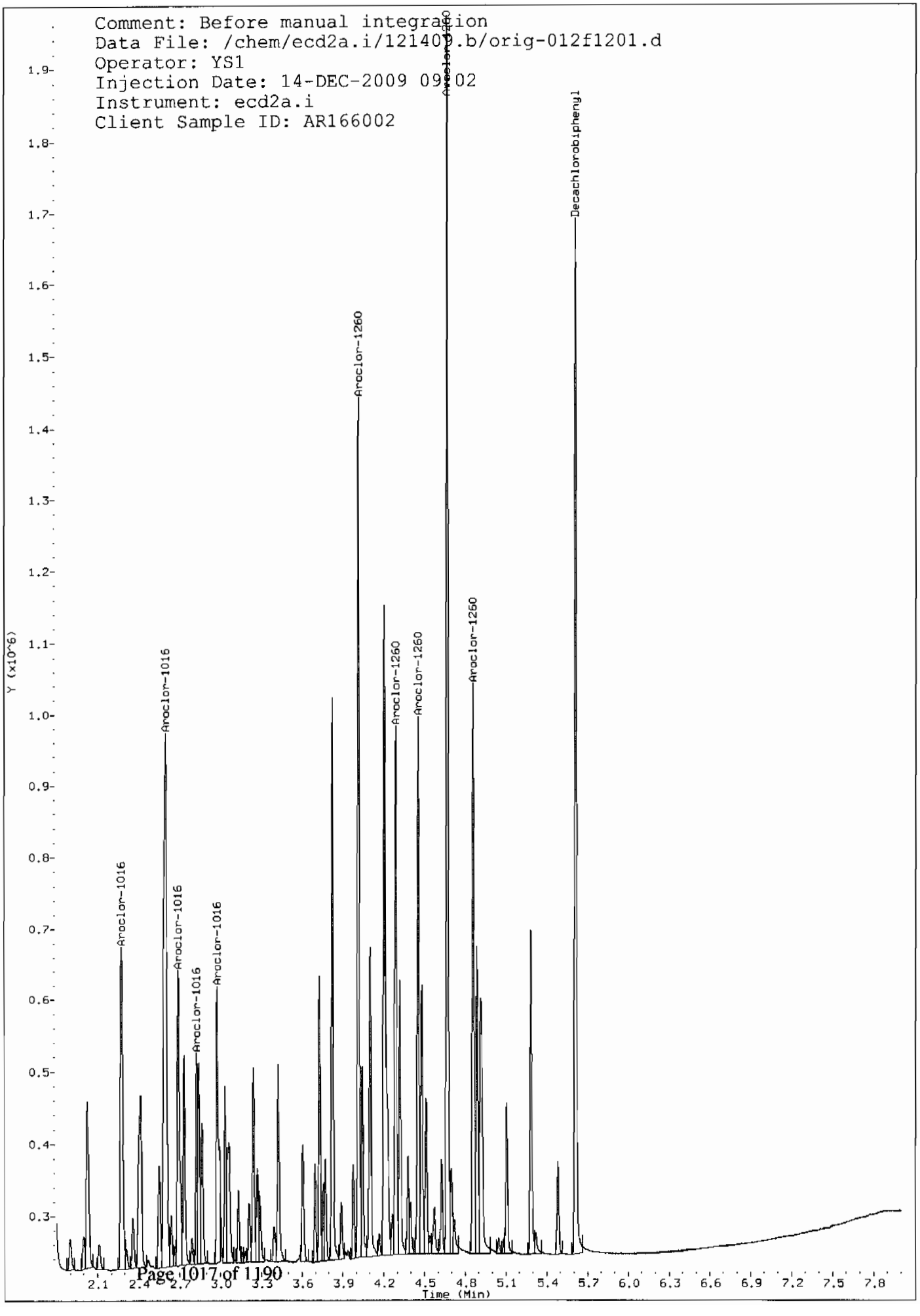
Comment: Before manual integration
Data File: /chem/ecd2a.i/121409.b/orig-012f1201.d
Operator: YS1
Injection Date: 14-DEC-2009 09:02
Instrument: ecd2a.i
Client Sample ID: AR166002
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Y (x10^6)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121409.b/012b1201.d
Lab Smp Id: WAR091214-02 60 Client Smp ID: AR166002
Inj Date : 14-DEC-2009 09:02
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |WAR091214-02 60
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121409.b/ECD2-B-8082-111209A.m
Meth Date : 14-Dec-2009 10:15 yip00818 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:16 Cal File: 009b0901.d
Als bottle: 12 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.070	0.000	3158941	25.0000	24.4	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.304	-0.001	2717632	25.0000	24.1	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.748	2.748	0.000	1145554	250.000	253	80.00- 120.00	100.00
3.182	3.182	0.000	923988	250.000	260	60.66- 100.66	80.66
3.333	3.333	0.000	510949	250.000	253	24.60- 64.60	44.60
3.362	3.362	0.000	531145	250.000	255	26.37- 66.37	46.37
3.521	3.521	0.000	707989	250.000	250	41.80- 81.80	61.80
Average of Peak Amounts =					254		
7 Aroclor-1260					CAS #: 11096-82-5		
4.417	4.417	0.000	1406835	250.000	247	80.00- 120.00	100.00
4.569	4.569	0.000	1757765	250.000	248	104.94- 144.94	124.94
4.681	4.681	0.000	1175348	250.000	250	63.55- 103.55	83.55
4.877	4.877	0.000	1379556	250.000	248	78.06- 118.06	98.06
5.503	5.503	0.000	2151857	250.000	239	132.96- 172.96	152.96
Average of Peak Amounts =					246		

Data File: /chem/ecd2a.i/121409.b/012b1201.d
Date : 14-DEC-2009 09:02
Client ID: AR166002
Sample Info: IWAR091214-02 60

Column phase: CLP2

Instrument: ecd2a.i

Operator: YS1
Column diameter: 0.25

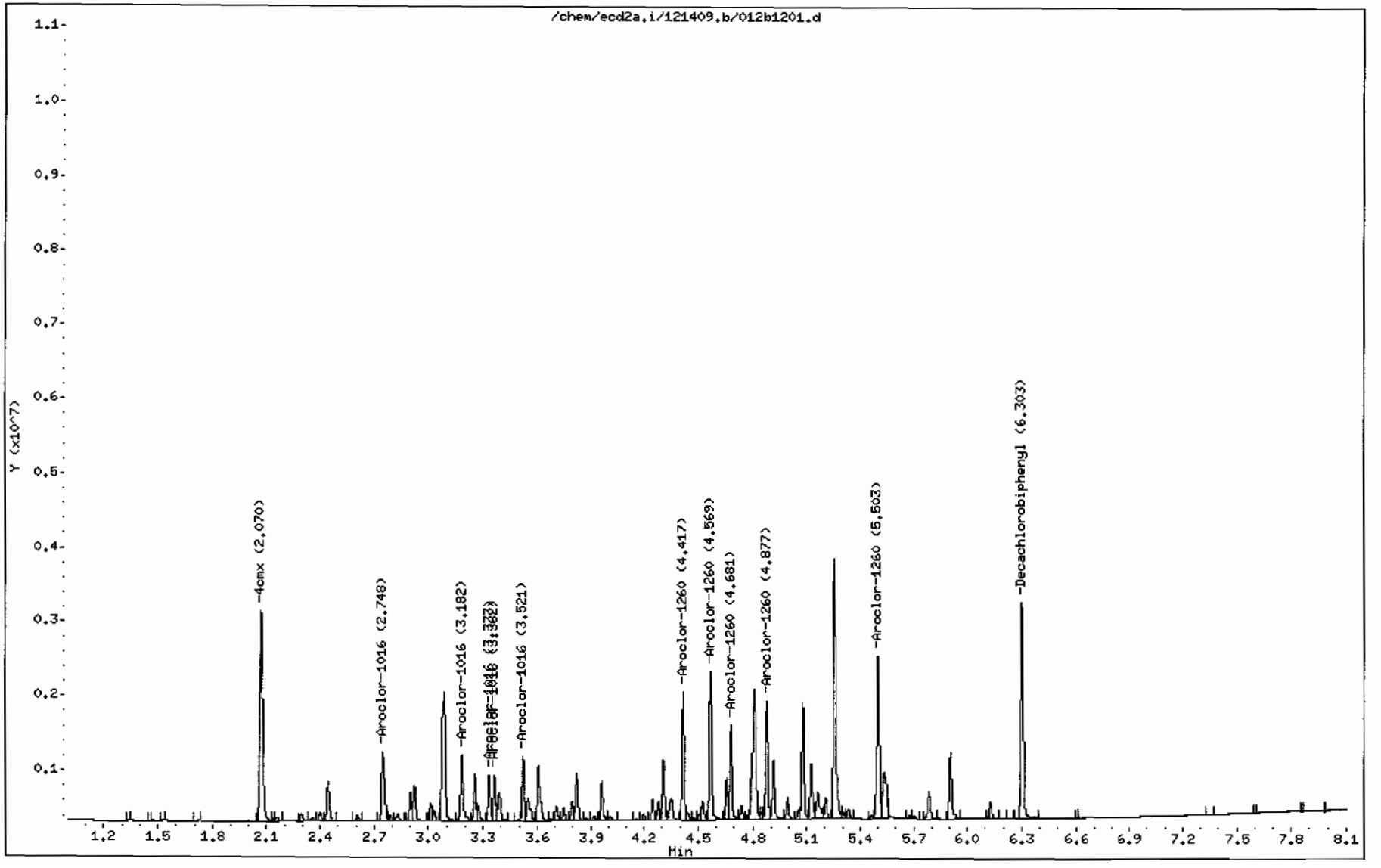

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121409.b/013f1301.d
Lab Smp Id: WAR091214-03 60 Client Smp ID: AR166003
Inj Date : 14-DEC-2009 09:13
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |WAR091214-03 60
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121409.b/ECD2-F-8082-111209A.m
Meth Date : 14-Dec-2009 10:15 yip00818 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:27 Cal File: 010f1001.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.770	1.771	-0.001	3143412	50.0000	50.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.612	-0.001	2719976	50.0000	50.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.275	2.275	0.000	1125062	500.000	503	80.00- 120.00	100.00
2.598	2.598	0.000	2332057	500.000	498	187.28- 227.28	207.28
2.690	2.690	0.000	945890	500.000	497	64.07- 104.07	84.07
2.825	2.825	0.000	492097	500.000	504	23.74- 63.74	43.74
2.977	2.977	0.000	720397	500.000	494	44.03- 84.03	64.03
Average of Peak Amounts =					499		
7 Aroclor-1260					CAS #: 11096-82-5		
4.017	4.017	0.000	2092333	500.000	502	80.00- 120.00	100.00
4.289	4.289	0.000	1294498	500.000	500	41.87- 81.87	61.87
4.455	4.455	0.000	1312518	500.000	499	42.73- 82.73	62.73
4.667	4.667	0.000	3071078	500.000	504	126.78- 166.78	146.78
4.857	4.857	0.000	1464303	500.000	498	49.98- 89.98	69.98
Average of Peak Amounts =					501		

Data File: /chem/ecd2a.i/121409.b/013f1301.d

Date : 14-DEC-2009 09:13

Client ID: AR166003

Sample Info: IWAR091214-03 60

Column phase: CLP1

Instrument: ecd2a.i

Operator: YS1

Column diameter: 0.25

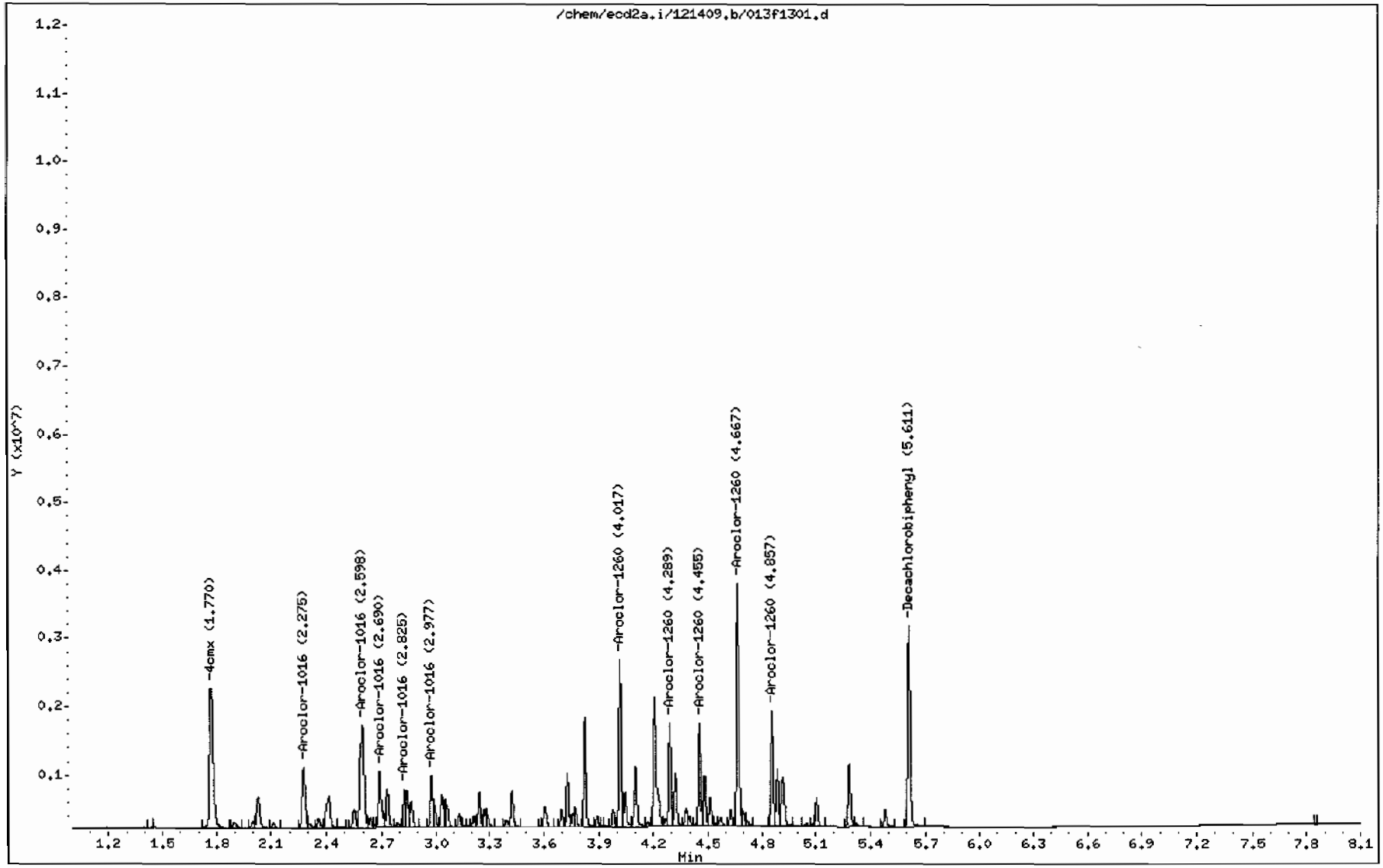

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121409.b/013b1301.d
Lab Smp Id: WAR091214-03 60 Client Smp ID: AR166003
Inj Date : 14-DEC-2009 09:13
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |WAR091214-03 60
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121409.b/ECD2-B-8082-111209A.m
Meth Date : 14-Dec-2009 10:15 yip00818 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:27 Cal File: 010b1001.d
Als bottle: 13 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.069	2.070	-0.001	6570684	50.0000	50.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.304	0.000	5664734	50.0000	50.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.748	2.748	0.000	2304524	500.000	509	80.00- 120.00	100.00
3.183	3.183	0.000	1781818	500.000	501	57.32- 97.32	77.32
3.334	3.334	0.000	1021963	500.000	506	24.35- 64.35	44.35
3.362	3.362	0.000	1066562	500.000	512	26.28- 66.28	46.28
3.520	3.520	0.000	1440767	500.000	509	42.52- 82.52	62.52
Average of Peak Amounts =					507		
7 Aroclor-1260					CAS #: 11096-82-5		
4.417	4.417	0.000	2889590	500.000	507	80.00- 120.00	100.00
4.569	4.569	0.000	3621706	500.000	510	105.34- 145.34	125.34
4.680	4.680	0.000	2444966	500.000	519	64.61- 104.61	84.61
4.878	4.878	0.000	2856865	500.000	514	78.87- 118.87	98.87
5.503	5.503	0.000	4615254	500.000	512	139.72- 179.72	159.72
Average of Peak Amounts =					513		

Data File: /chem/ecd2a.i/121409.b/013b1301.d
Date : 14-DEC-2009 09:13
Client ID: AR166003
Sample Info: IWAR091214-03 60

Column phase: CLP2

Instrument: ecd2a.i

Operator: YS1
Column diameter: 0.25

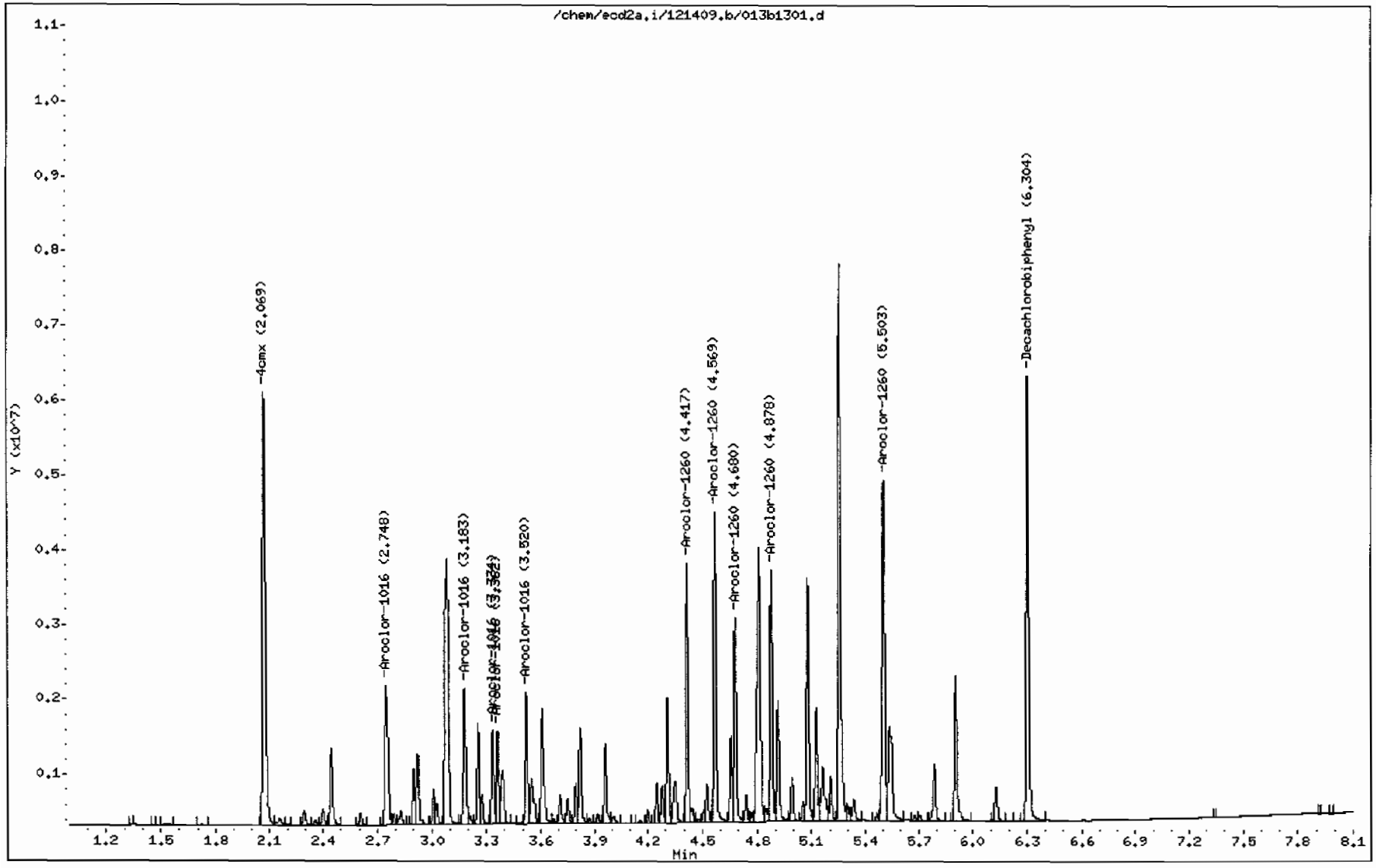

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121409.b/014f1401.d
Lab Smp Id: WAR091214-04 60 Client Smp ID: AR166004
Inj Date : 14-DEC-2009 09:24
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |WAR091214-04 60
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121409.b/ECD2-F-8082-111209A.m
Meth Date : 14-Dec-2009 10:16 yip00818 Quant Type: ESTD
Cal Date : 30-NOV-2009 10:45 Cal File: 014f1401.d
Als bottle: 14 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.770	1.771	-0.001	6307544	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.612	0.000	5336004	100.000	98.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.276	2.276	0.000	2152061	1000.00	962	80.00- 120.00	100.00
2.599	2.599	0.000	4616122	1000.00	985	194.50- 234.50	214.50
2.690	2.690	0.000	1817538	1000.00	956	64.46- 104.46	84.46
2.825	2.825	0.000	929960	1000.00	953	23.21- 63.21	43.21
2.977	2.977	0.000	1388706	1000.00	952	44.53- 84.53	64.53
Average of Peak Amounts =					962		
7 Aroclor-1260					CAS #: 11096-82-5		
4.018	4.018	0.000	4133997	1000.00	992	80.00- 120.00	100.00
4.290	4.290	0.000	2529425	1000.00	976	41.19- 81.19	61.19
4.455	4.455	0.000	2591482	1000.00	985	42.69- 82.69	62.69
4.668	4.668	0.000	6129394	1000.00	1010	128.27- 168.27	148.27
4.857	4.857	0.000	2919891	1000.00	992	50.63- 90.63	70.63
Average of Peak Amounts =					991		

Data File: /chem/ecd2a.i/121409.b/014f1401.d

Page 1

Date : 14-DEC-2009 09:24

Client ID: AR166004

Instrument: ecd2a.i

Sample Info: IWAR091214-04 60

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

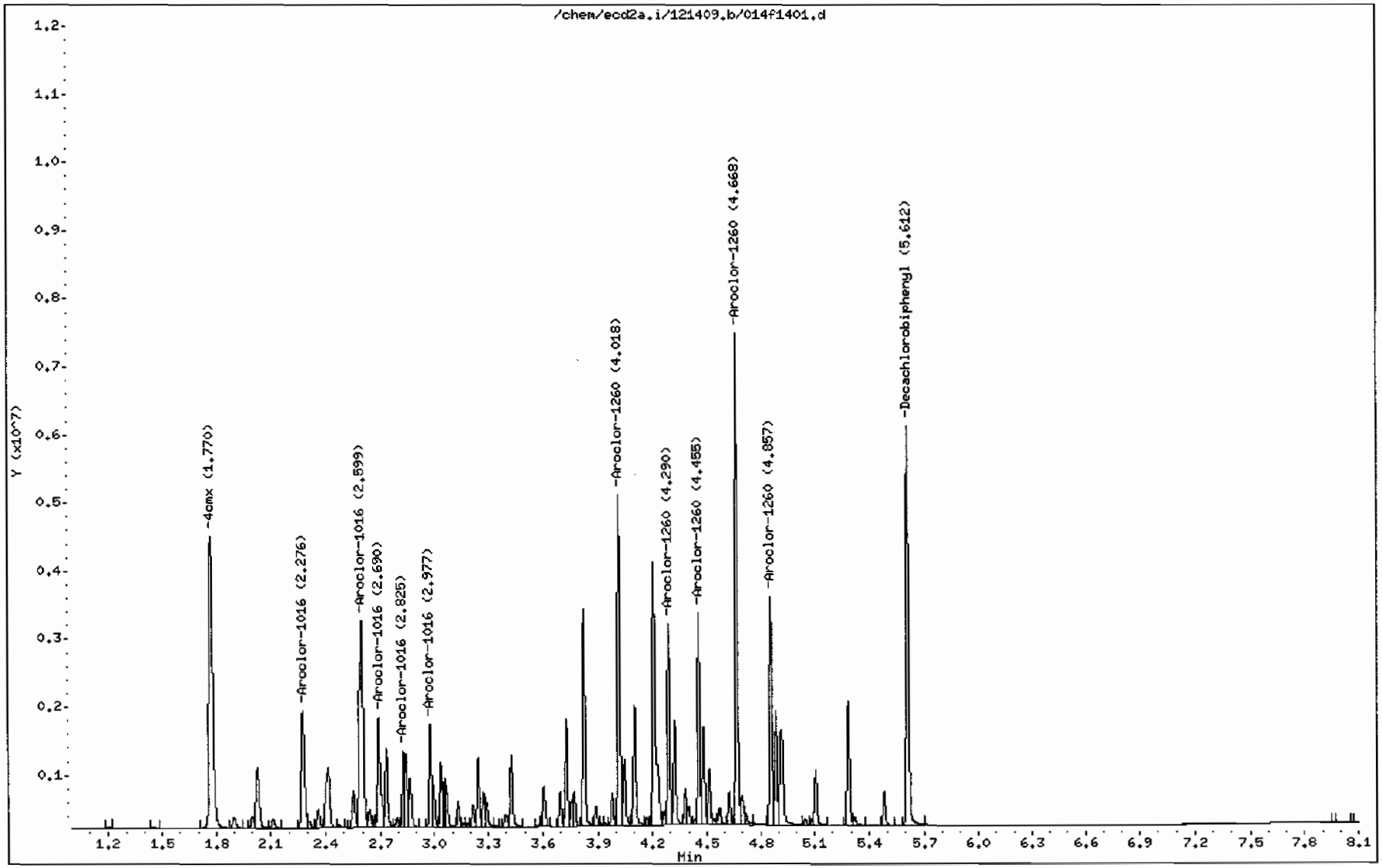

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121409.b/014b1401.d
Lab Smp Id: WAR091214-04 60 Client Smp ID: AR166004
Inj Date : 14-DEC-2009 09:24
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |WAR091214-04 60
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121409.b/ECD2-B-8082-111209A.m
Meth Date : 14-Dec-2009 10:16 yip00818 Quant Type: ESTD
Cal Date : 30-NOV-2009 10:45 Cal File: 014b1401.d
Als bottle: 14 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.070	0.000	13389121	100.000	104	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.304	0.000	11316982	100.000	100	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.748	2.748	0.000	4551428	1000.00	1000	80.00- 120.00	100.00
3.183	3.183	0.000	3575433	1000.00	1000	58.56- 98.56	78.56
3.334	3.334	0.000	2058749	1000.00	1020	25.23- 65.23	45.23
3.362	3.362	0.000	2140206	1000.00	1030	27.02- 67.02	47.02
3.521	3.521	0.000	2908375	1000.00	1030	43.90- 83.90	63.90
Average of Peak Amounts =					1.02e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.418	4.418	0.000	5816110	1000.00	1020	80.00- 120.00	100.00
4.569	4.569	0.000	7286359	1000.00	1030	105.28- 145.28	125.28
4.681	4.681	0.000	4941843	1000.00	1050	64.97- 104.97	84.97
4.878	4.878	0.000	5746452	1000.00	1030	78.80- 118.80	98.80
5.504	5.504	0.000	9252052	1000.00	1030	139.08- 179.08	159.08
Average of Peak Amounts =					1.03e+03		

Data File: /chem/ecd2a.i/121409.b/014b1401.d
Date : 14-DEC-2009 09:24
Client ID: AR166004
Sample Info: IWAR091214-04 60
Column phase: CLP2

Instrument: ecd2a.i
Operator: YS1
Column diameter: 0.25

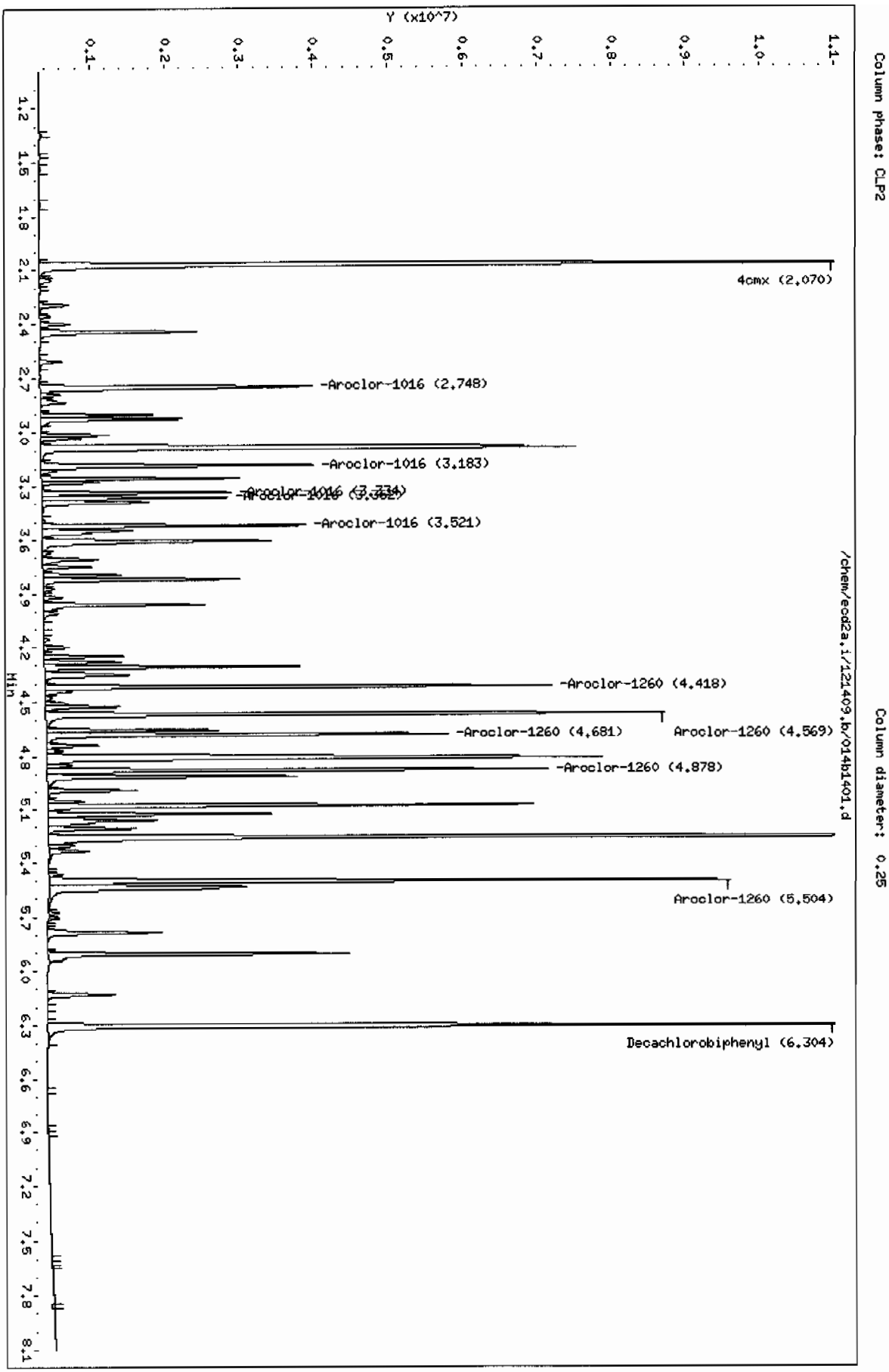

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121409.b/015f1501.d
Lab Smp Id: IAR091102-01 Client Smp ID: AR166005
Inj Date : 14-DEC-2009 09:35
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |IAR091102-01
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121409.b/ECD2-F-8082-111209A.m
Meth Date : 14-Dec-2009 11:22 yip00818 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpc1p1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.771	1.771	0.000	25187600	400.000	404	80.00- 120.00	100.00(A)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.612	0.000	21737918	400.000	402	80.00- 120.00	100.00(A)
1 Aroclor-1016					CAS #: 12674-11-2		
2.276	2.276	0.000	7942957	4000.00	3550	80.00- 120.00	100.00(M)
2.599	2.599	0.000	18375959	4000.00	3920	211.35- 251.35	231.35
2.690	2.690	0.000	7057920	4000.00	3710	68.86- 108.86	88.86
2.825	2.825	0.000	3661497	4000.00	3750	26.10- 66.10	46.10
2.977	2.977	0.000	5499132	4000.00	3770	49.23- 89.23	69.23
Average of Peak Amounts =					3.74e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.017	4.018	-0.001	16699157	4000.00	4010	80.00- 120.00	100.00(A)
4.289	4.290	-0.001	10142561	4000.00	3920	40.74- 80.74	60.74
4.454	4.456	-0.002	10455368	4000.00	3970	42.61- 82.61	62.61
4.667	4.667	0.000	25185511	4000.00	4140	130.82- 170.82	150.82
4.857	4.857	0.000	12134612	4000.00	4120	52.67- 92.67	72.67
Average of Peak Amounts =					4.03e+03		

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: /chem/ecd2a.i/121409.b/015f1501.d
Date : 14-DEC-2009 09:35
Client ID: AR166005
Sample Info: IIAR091102-01

Column phase: CLP1

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Instrument: ecd2a.i

Operator: YS1
Column diameter: 0.25

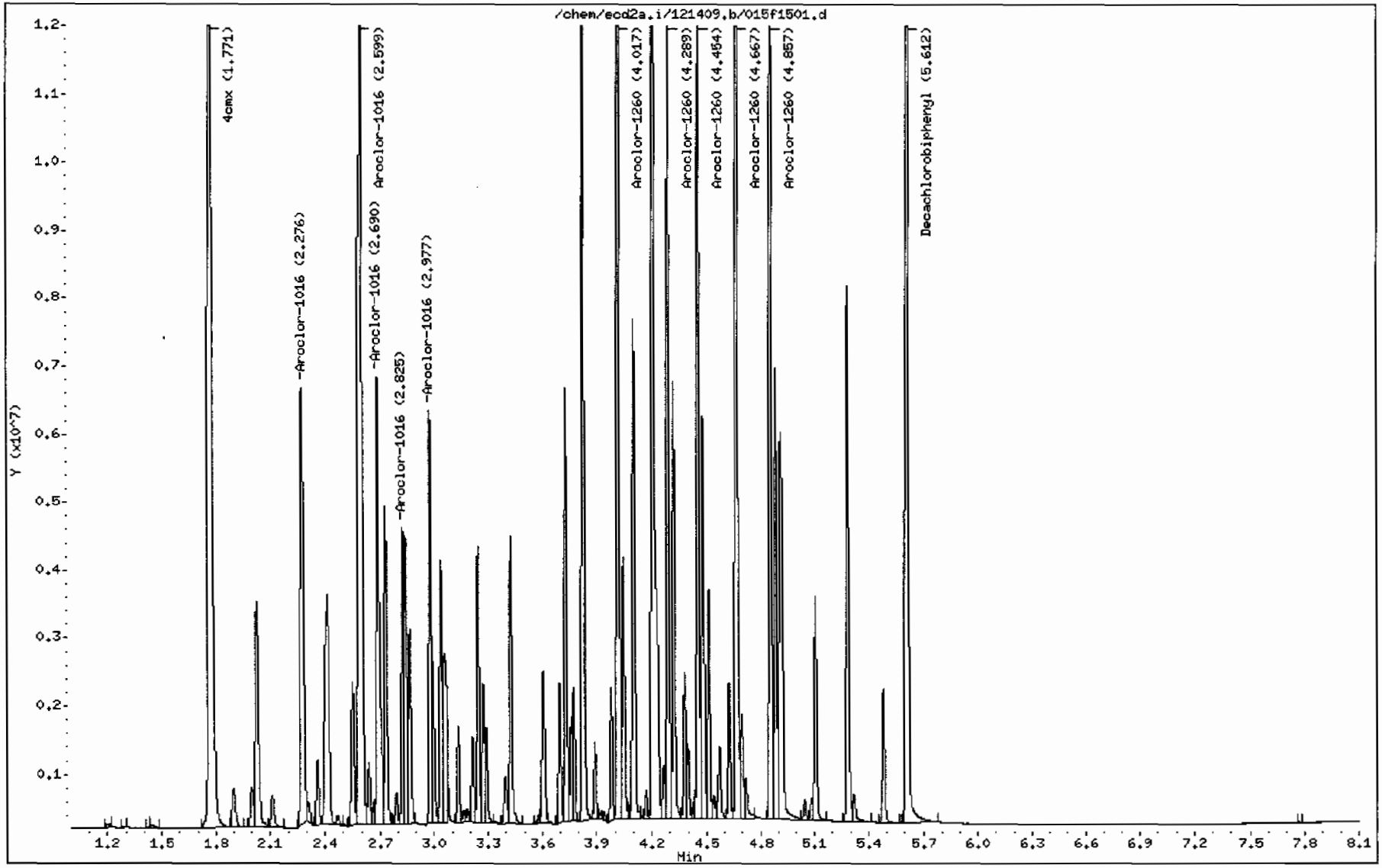

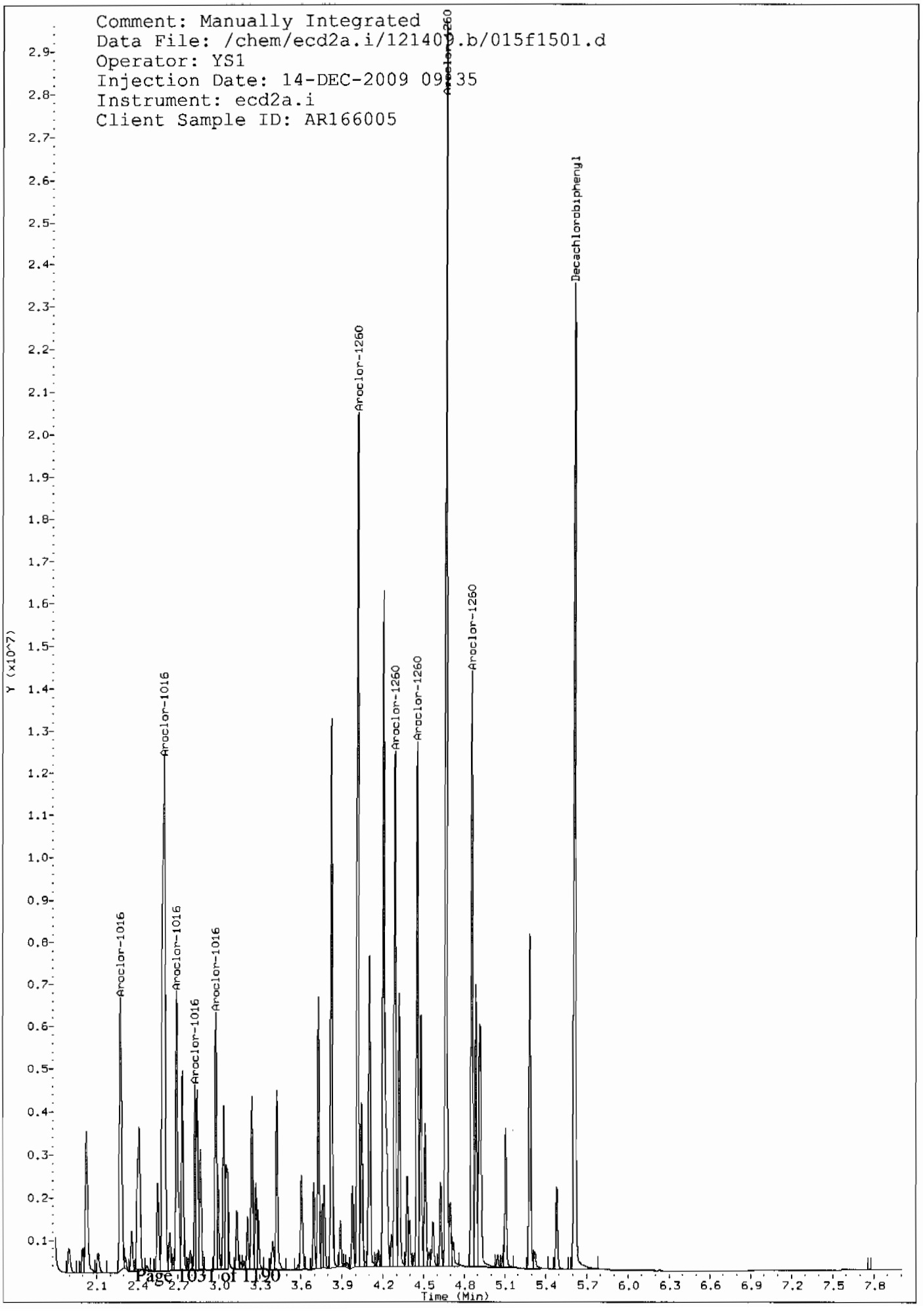
Comment: Manually Integrated
Data File: /chem/ecd2a.i/121409.b/015f1501.d
Operator: YS1
Injection Date: 14-DEC-2009 09:35
Instrument: ecd2a.i
Client Sample ID: AR166005
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
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Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

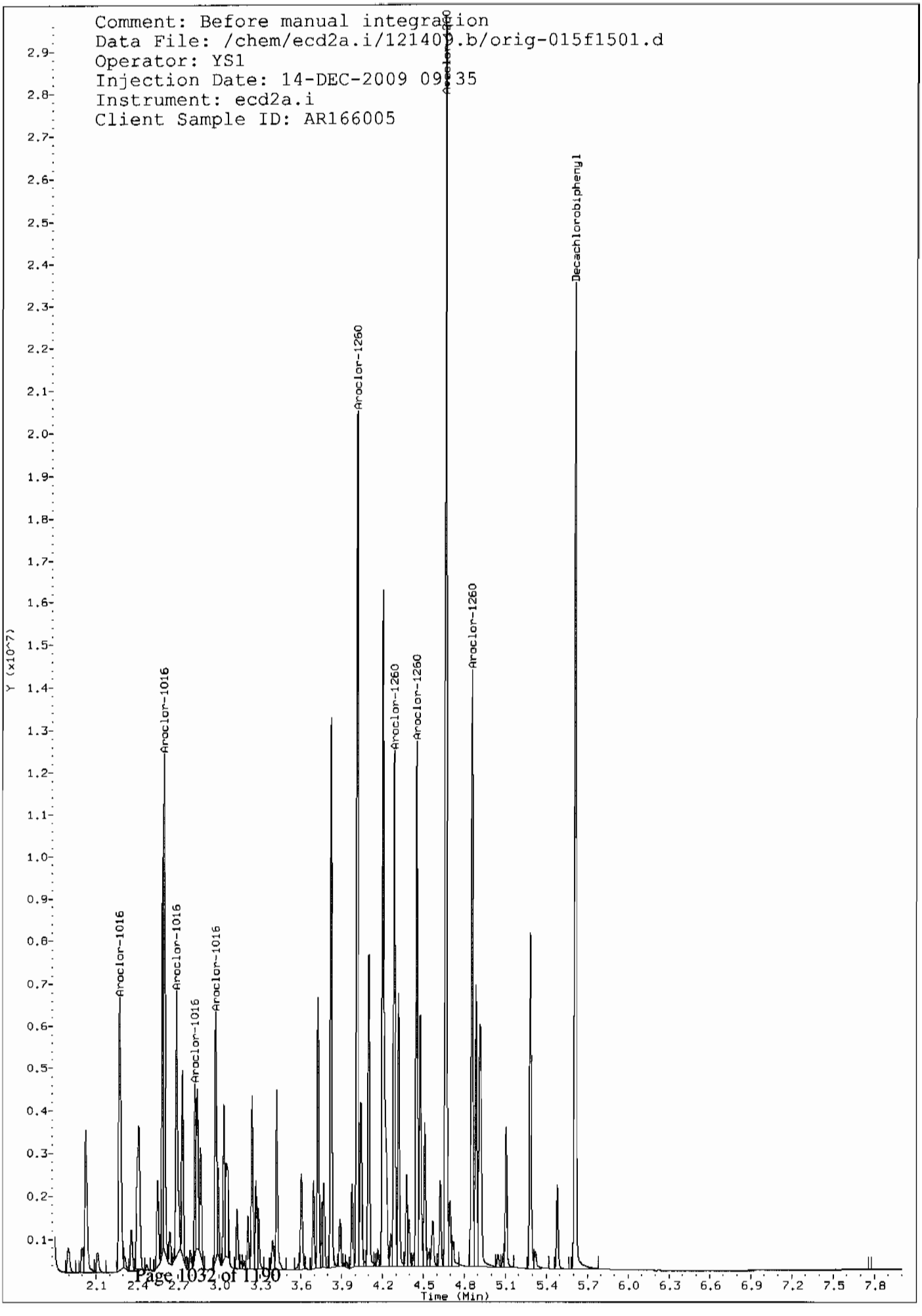
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Data File: /chem/ecd2a.i/121409.b/orig-015f1501.d
Operator: YS1
Injection Date: 14-DEC-2009 09:35
Instrument: ecd2a.i
Client Sample ID: AR166005
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/121409.b/015b1501.d
Lab Smp Id: IAR091102-01 Client Smp ID: AR166005
Inj Date : 14-DEC-2009 09:35
Operator : YS1 Inst ID: ecd2a.i
Smp Info : |IAR091102-01
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/121409.b/ECD2-B-8082-111209A.m
Meth Date : 14-Dec-2009 11:07 yip00818 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 15 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.070	0.000	54529324	400.000	422	80.00- 120.00	100.00(A)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.304	0.000	47633264	400.000	422	80.00- 120.00	100.00(A)
1 Aroclor-1016					CAS #: 12674-11-2		
2.748	2.749	-0.001	17138738	4000.00	3780	80.00- 120.00	100.00(M)
3.183	3.182	0.001	14113843	4000.00	3920	59.26- 99.26	82.35
3.334	3.334	0.000	8165633	4000.00	3980	25.45- 65.45	47.64
3.363	3.362	0.001	8552491	4000.00	4000	27.12- 67.12	49.90
3.521	3.521	0.000	11515504	4000.00	4010	44.37- 84.37	67.19
Average of Peak Amounts =				3.94e+03			
7 Aroclor-1260					CAS #: 11096-82-5		
4.417	4.418	-0.001	23507544	4000.00	4080	80.00- 120.00	100.00(AM)
4.569	4.569	0.000	29487010	4000.00	4140	105.84- 145.84	125.44
4.680	4.680	0.000	19952985	4000.00	4140	64.95- 104.95	84.88
4.878	4.878	0.000	23212717	4000.00	4120	79.01- 119.01	98.75
5.504	5.504	0.000	38912379	4000.00	4300	140.74- 180.74	165.53
Average of Peak Amounts =				4.16e+03			

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

Data File: /chem/ecd2a.i/121409.b/015b1501.d

Date : 14-DEC-2009 09:35

Client ID: AR166005

Sample Info: IIAR091102-01

Column phase: CLP2

Instrument: ecd2a.i

Operator: YS1

Column diameter: 0.25

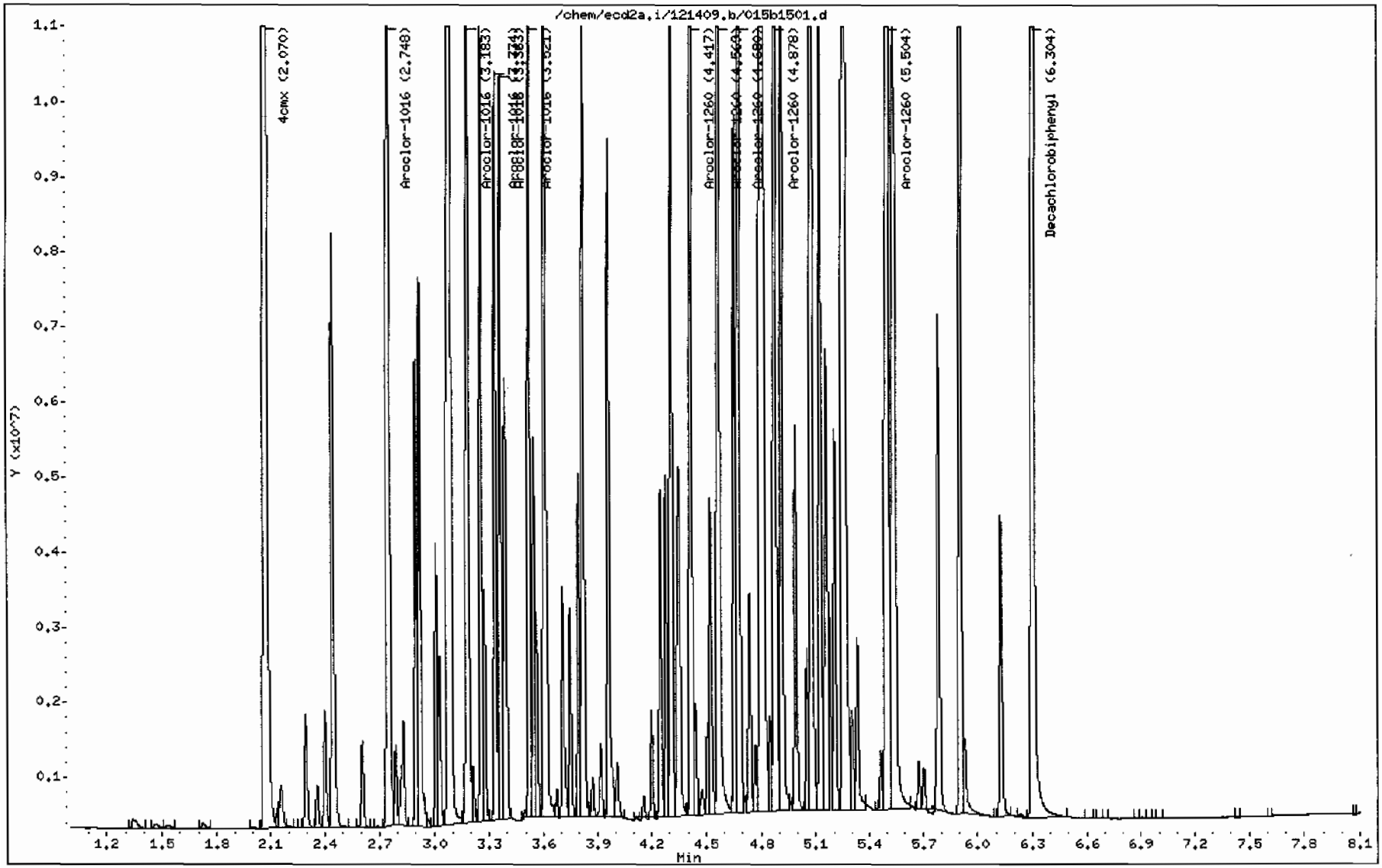

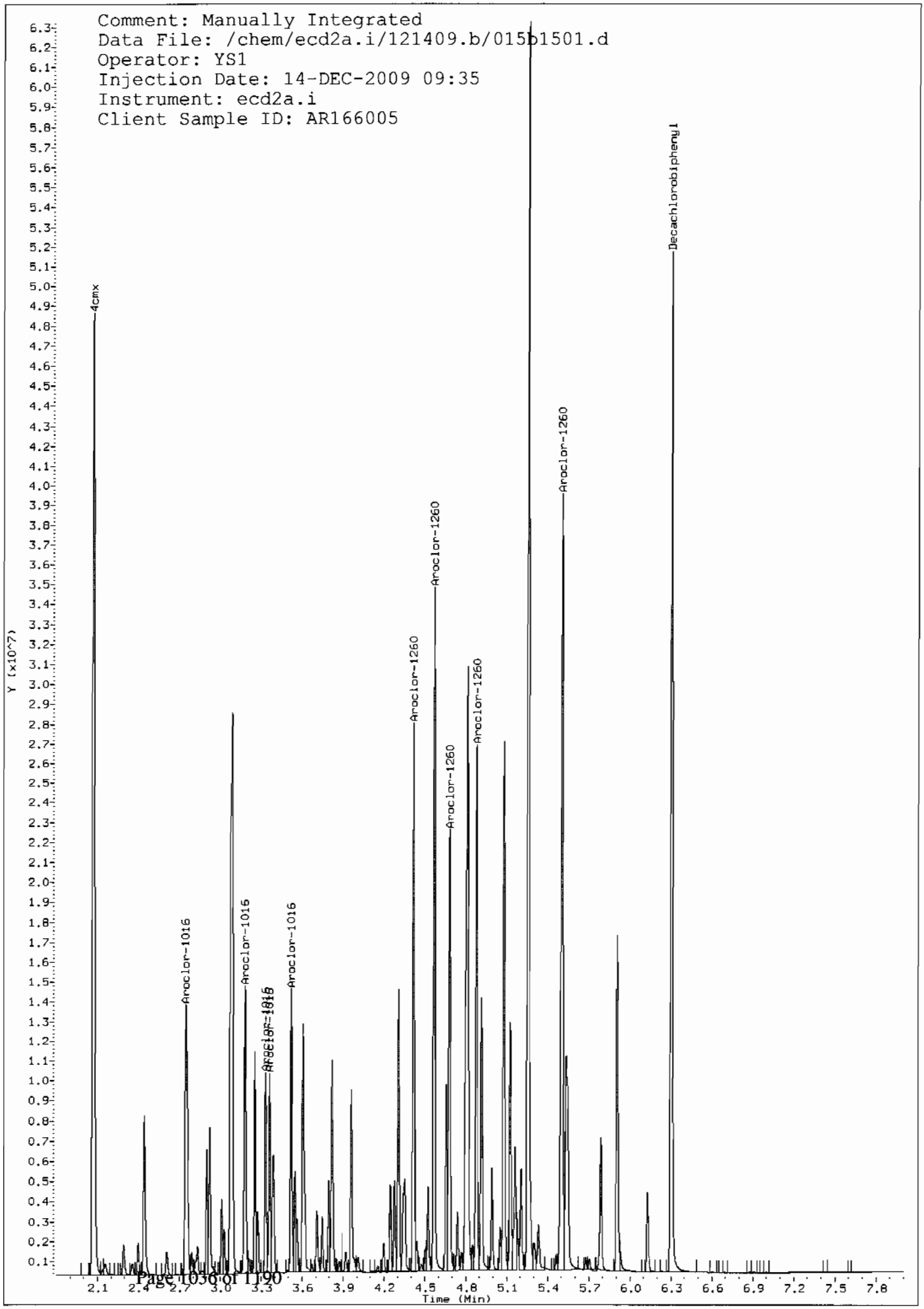
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Operator: YS1
Injection Date: 14-DEC-2009 09:35
Instrument: ecd2a.i
Client Sample ID: AR166005
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

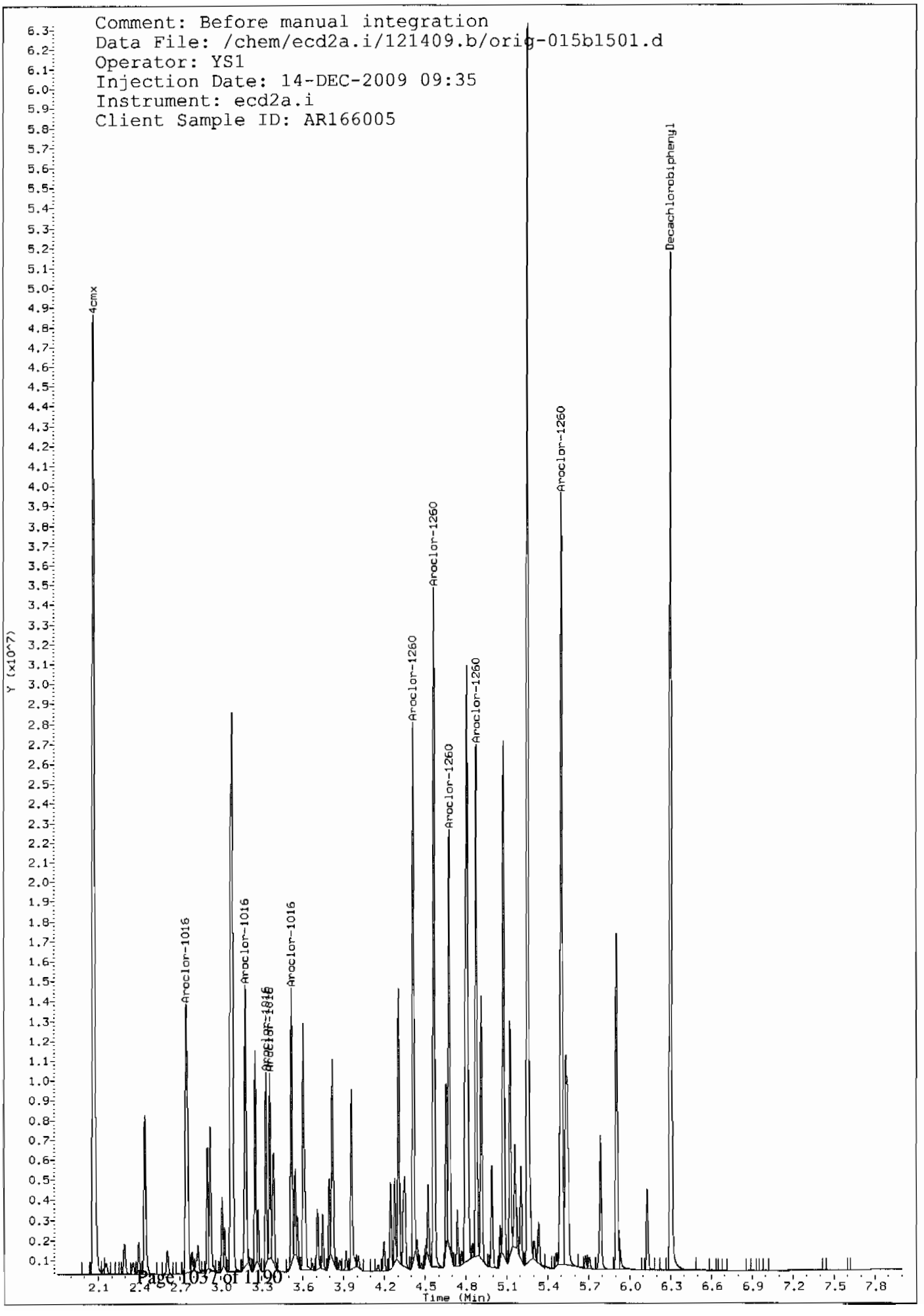
Comment: Before manual integration
Data File: /chem/ecd2a.i/121409.b/orig-015b1501.d
Operator: YS1
Injection Date: 14-DEC-2009 09:35
Instrument: ecd2a.i
Client Sample ID: AR166005
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-952

Instrument ID: ECD2A Calibration Date: 12/23/09 Time: 0858

Lab File ID: 012F1201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	2237.690	2086.452	0.01	-6.8	15.0
(2)	4685.268	4414.810	0.01	-5.8	15.0
(3)	1901.482	1757.987	0.01	-7.5	15.0
(4)	975.978	871.373	0.01	-10.7	15.0
(5)	1457.866	1330.304	0.01	-8.7	15.0
Aroclor-1260	4165.097	4262.036	0.01	2.3	15.0
(2)	2590.571	2693.879	0.01	4.0	15.0
(3)	2631.205	2766.997	0.01	5.2	15.0
(4)	6087.596	6543.094	0.01	7.5	15.0
(5)	2942.150	3135.206	0.01	6.6	15.0
4cmx	62291.660	60640.610	0.01	-2.6	15.0
Decachlorobiphenyl	54111.563	58271.590	0.01	7.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-952

Instrument ID: ECD2A Calibration Date: 12/23/09 Time: 0858

Lab File ID: 012B1201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4537.819	4459.813	0.01	-1.7	15.0
(2)	3602.166	3491.937	0.01	-3.1	15.0
(3)	2053.230	2027.076	0.01	-1.3	15.0
(4)	2137.091	2112.528	0.01	-1.1	15.0
(5)	2870.516	2845.754	0.01	-0.9	15.0
Aroclor-1260	5766.921	6008.110	0.01	4.2	15.0
(2)	7123.891	7841.925	0.01	10.1	15.0
(3)	4818.707	5327.232	0.01	10.6	15.0
(4)	5631.757	6114.860	0.01	8.6	15.0
(5)	9037.511	10087.158	0.01	11.6	15.0
4cmx	129318.03	131547.58	0.01	1.7	15.0
Decachlorobiphenyl	112782.99	123741.76	0.01	9.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-952

Instrument ID: ECD2A Calibration Date: 12/23/09 Time: 1113

Lab File ID: 022F2201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	2237.690	2078.717	0.01	-7.1	15.0
(2)	4685.268	4472.259	0.01	-4.5	15.0
(3)	1901.482	1760.493	0.01	-7.4	15.0
(4)	975.978	895.918	0.01	-8.2	15.0
(5)	1457.866	1369.838	0.01	-6.0	15.0
Aroclor-1260	4165.097	4308.701	0.01	3.4	15.0
(2)	2590.571	2691.822	0.01	3.9	15.0
(3)	2631.205	2846.509	0.01	8.2	15.0
(4)	6087.596	6649.186	0.01	9.2	15.0
(5)	2942.150	3207.910	0.01	9.0	15.0
4cmx	62291.660	61108.220	0.01	-1.9	15.0
Decachlorobiphenyl	54111.563	59645.700	0.01	10.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-952

Instrument ID: ECD2A Calibration Date: 12/23/09 Time: 1113

Lab File ID: 022B2201 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4537.819	4434.996	0.01	-2.3	15.0
(2)	3602.166	3490.861	0.01	-3.1	15.0
(3)	2053.230	2021.330	0.01	-1.6	15.0
(4)	2137.091	2103.309	0.01	-1.6	15.0
(5)	2870.516	2846.977	0.01	-0.8	15.0
Aroclor-1260	5766.921	5900.740	0.01	2.3	15.0
(2)	7123.891	7469.006	0.01	4.8	15.0
(3)	4818.707	5074.834	0.01	5.3	15.0
(4)	5631.757	5904.705	0.01	4.8	15.0
(5)	9037.511	9900.759	0.01	9.6	15.0
4cmx	129318.03	131144.75	0.01	1.4	15.0
Decachlorobiphenyl	112782.99	123901.80	0.01	9.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-952

Instrument ID: ECD2A Calibration Date: 12/23/09 Time: 1257

Lab File ID: 031F3101 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	2237.690	2068.127	0.01	-7.6	15.0
(2)	4685.268	4477.469	0.01	-4.4	15.0
(3)	1901.482	1753.749	0.01	-7.8	15.0
(4)	975.978	899.051	0.01	-7.9	15.0
(5)	1457.866	1350.823	0.01	-7.3	15.0
Aroclor-1260	4165.097	4275.208	0.01	2.6	15.0
(2)	2590.571	2650.885	0.01	2.3	15.0
(3)	2631.205	2723.840	0.01	3.5	15.0
(4)	6087.596	6604.431	0.01	8.5	15.0
(5)	2942.150	3175.527	0.01	7.9	15.0
4cmx	62291.660	60945.650	0.01	-2.2	15.0
Decachlorobiphenyl	54111.563	59046.760	0.01	9.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-952

Instrument ID: ECD2A Calibration Date: 12/23/09 Time: 1257

Lab File ID: 031B3101 Init. Calib. Date(s): 12/14/09 12/14/09

Heated Purge: (Y/N) N Init. Calib. Times: 0851 0935

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	4537.819	4404.376	0.01	-2.9	15.0
(2)	3602.166	3461.610	0.01	-3.9	15.0
(3)	2053.230	1997.671	0.01	-2.7	15.0
(4)	2137.091	2106.420	0.01	-1.4	15.0
(5)	2870.516	2811.196	0.01	-2.1	15.0
Aroclor-1260	5766.921	5801.144	0.01	0.6	15.0
(2)	7123.891	7466.104	0.01	4.8	15.0
(3)	4818.707	5103.297	0.01	5.9	15.0
(4)	5631.757	5895.514	0.01	4.7	15.0
(5)	9037.511	9859.420	0.01	9.1	15.0
4cmx	129318.03	130852.38	0.01	1.2	15.0
Decachlorobiphenyl	112782.99	122729.60	0.01	8.8	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/003f0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 23-DEC-2009 07:18
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091216-54
Misc Info : |PCB_CVS|1254||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.775	1.770	0.005	6693596	100.000	107	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.610	5.613	-0.003	6398228	100.000	118	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.242	3.242	0.000	1959041	1000.00	942	80.00- 120.00	100.00
3.426	3.426	0.000	2591895	1000.00	935	112.30- 152.30	132.30
3.696	3.696	0.000	3592536	1000.00	960	163.38- 203.38	183.38
3.887	3.887	0.000	2614610	1000.00	940	113.46- 153.46	133.46
4.017	4.017	0.000	2704517	1000.00	980	118.05- 158.05	138.05
Average of Peak Amounts =					951		

Data File: /chem/ecd2a.i/122309.b/003f0301.d

Date : 23-DEC-2009 07:18

Client ID: AR125401

Sample Info: IWAR091216-54

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

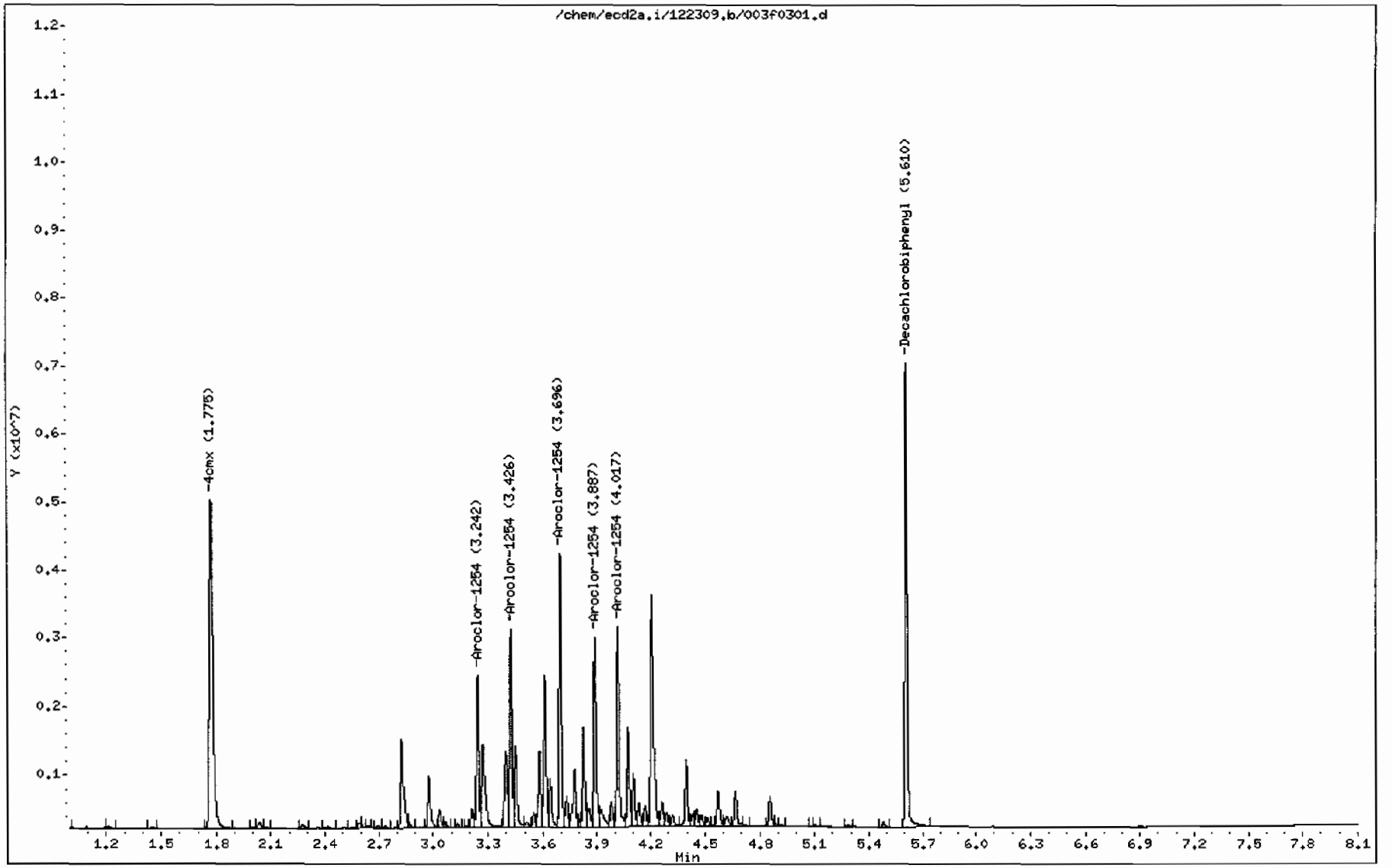

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/003b0301.d
Lab Smp Id: WAR091216-54 Client Smp ID: AR125401
Inj Date : 23-DEC-2009 07:18
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091216-54
Misc Info : |PCB_CVS|1254||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.067	0.004	14579708	100.000	113	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.304	-0.001	13580564	100.000	120	80.00- 120.00	100.00
6 Aroclor-1254					CAS #: 11097-69-1		
3.819	3.819	0.000	4910541	1000.00	985	80.00- 120.00	100.00
3.961	3.961	0.000	5637694	1000.00	972	94.81- 134.81	114.81
4.197	4.197	0.000	4000105	1000.00	994	61.46- 101.46	81.46
4.278	4.278	0.000	7674031	1000.00	992	136.28- 176.28	156.28
4.442	4.442	0.000	5548215	1000.00	989	92.99- 132.99	112.99
Average of Peak Amounts =					987		

Data File: /chem/ecd2a.i/122309.b/003b0301.d

Date : 23-DEC-2009 07:18

Client ID: AR125401

Sample Info: IWAR091216-54

Column phase: CLP2

Page 1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

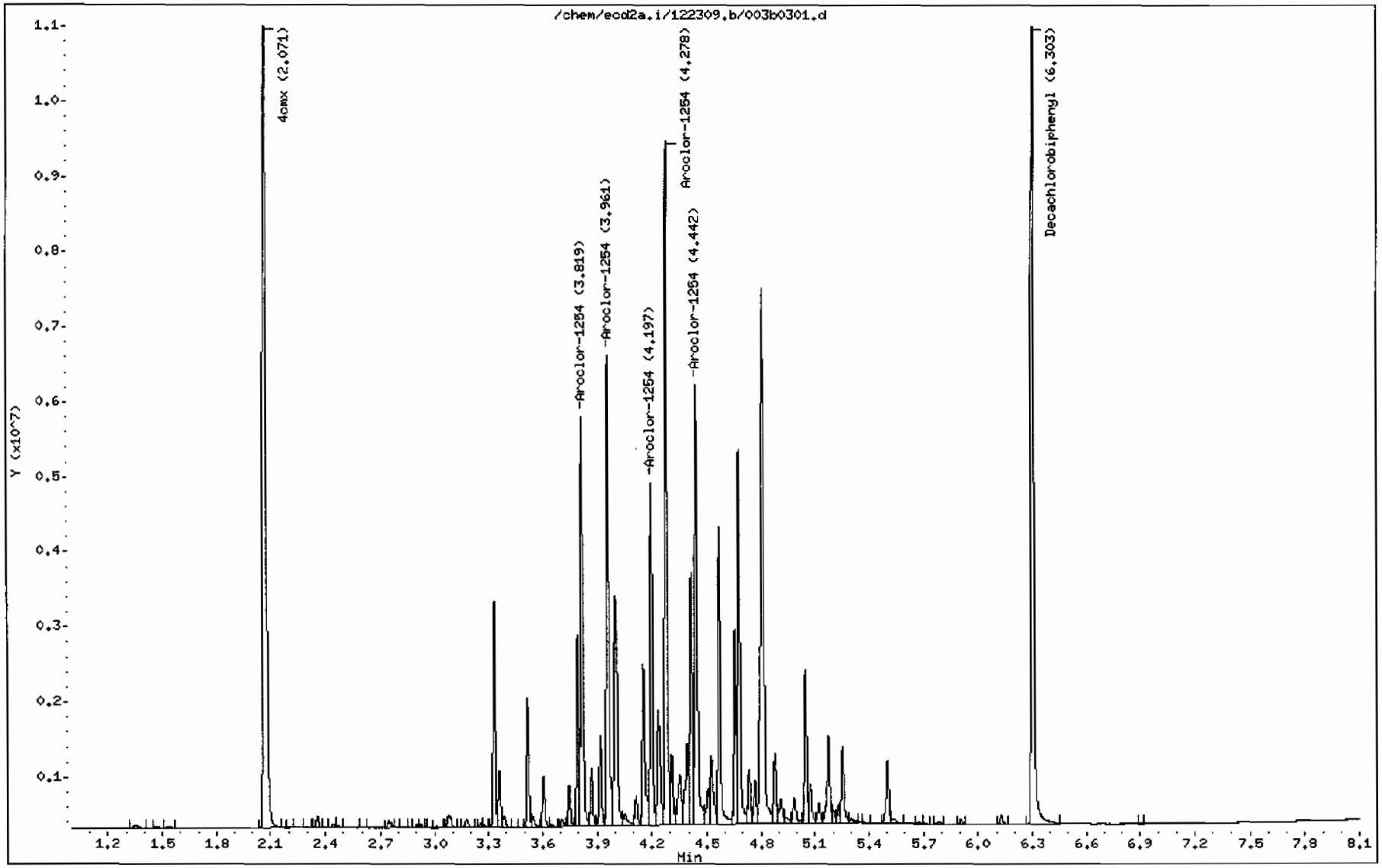

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/004f0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 23-DEC-2009 07:29
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091217-42
Misc Info : |PCB_CVS|1242||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.770	0.004	6774237	100.000	109	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.613	-0.002	6410286	100.000	118	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.276	2.276	0.000	1751986	1000.00	1010	80.00- 120.00	100.00
2.690	2.690	0.000	1460392	1000.00	984	63.36- 103.36	83.36
2.733	2.733	0.000	900899	1000.00	994	31.42- 71.42	51.42
2.825	2.825	0.000	752074	1000.00	1030	22.93- 62.93	42.93
2.977	2.977	0.000	1165237	1000.00	1040	46.51- 86.51	66.51

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd2a.i/122309.b/004f0401.d
Date : 23-DEC-2009 07:29
Client ID: AR124201
Sample Info: IWAR091217-42

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

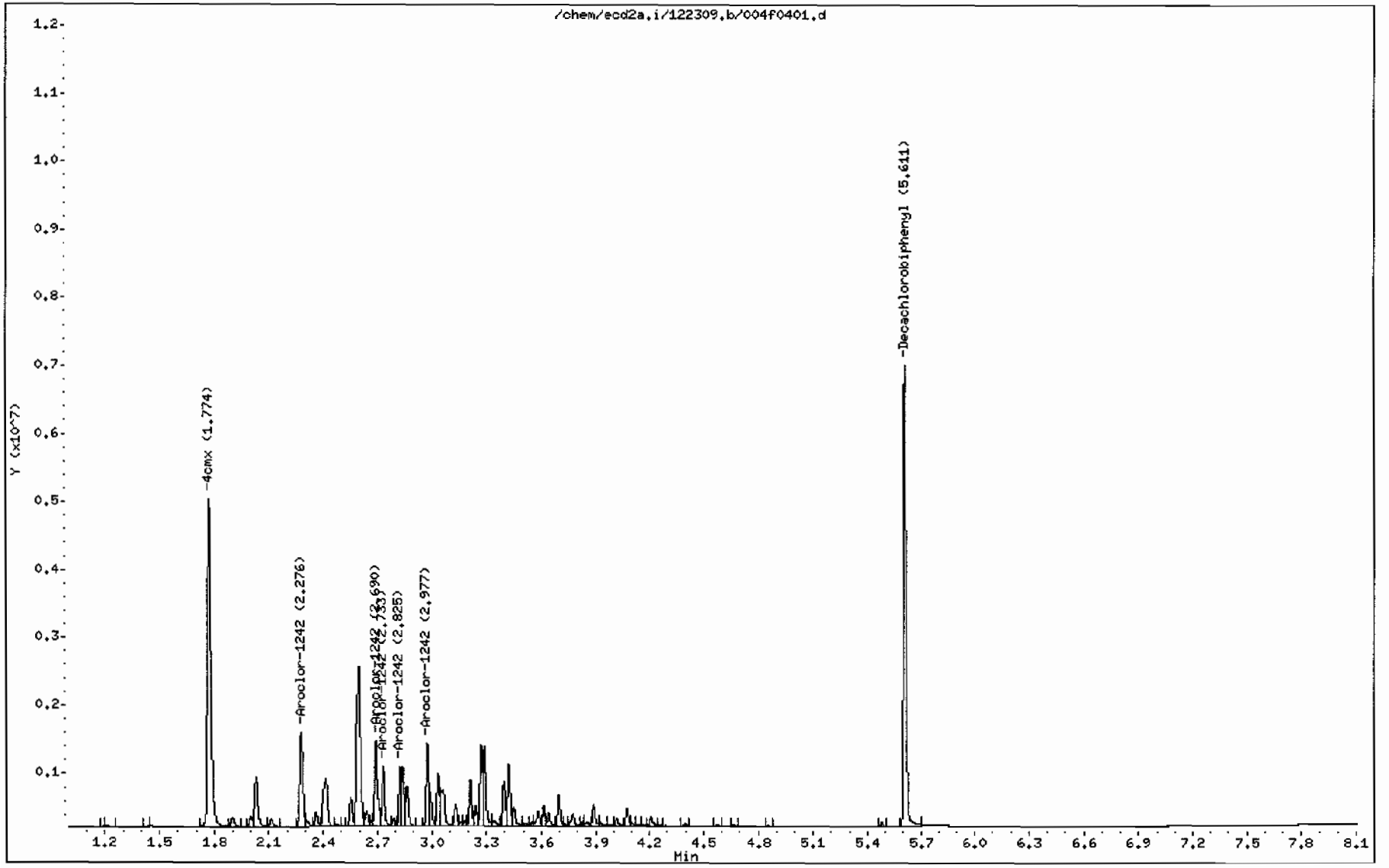

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/004b0401.d
Lab Smp Id: WAR091217-42 Client Smp ID: AR124201
Inj Date : 23-DEC-2009 07:29
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091217-42
Misc Info : |PCB_CVS|1242||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.067	0.003	14686382	100.000	114	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.304	-0.001	13648764	100.000	121	80.00- 120.00	100.00
4 Aroclor-1242					CAS #: 53469-21-9		
2.747	2.747	0.000	3729055	1000.00	1080	80.00- 120.00	100.00
3.182	3.182	0.000	2874618	1000.00	1070	57.09- 97.09	77.09
3.254	3.254	0.000	1729293	1000.00	1060	26.37- 66.37	46.37
3.333	3.333	0.000	1656377	1000.00	1100	24.42- 64.42	44.42
3.519	3.519	0.000	2400535	1000.00	1120	44.37- 84.37	64.37

Average of Peak Amounts = 1.09e+03

Data File: /chem/ecd2a.i/122309.b/004b0401.d
Date : 23-DEC-2009 07:29
Client ID: AR124201
Sample Info: !WAR091217-42

Column phase: CLP2

Page 1

Instrument: ecd2a.i

Operator: JADC
Column diameter: 0.25

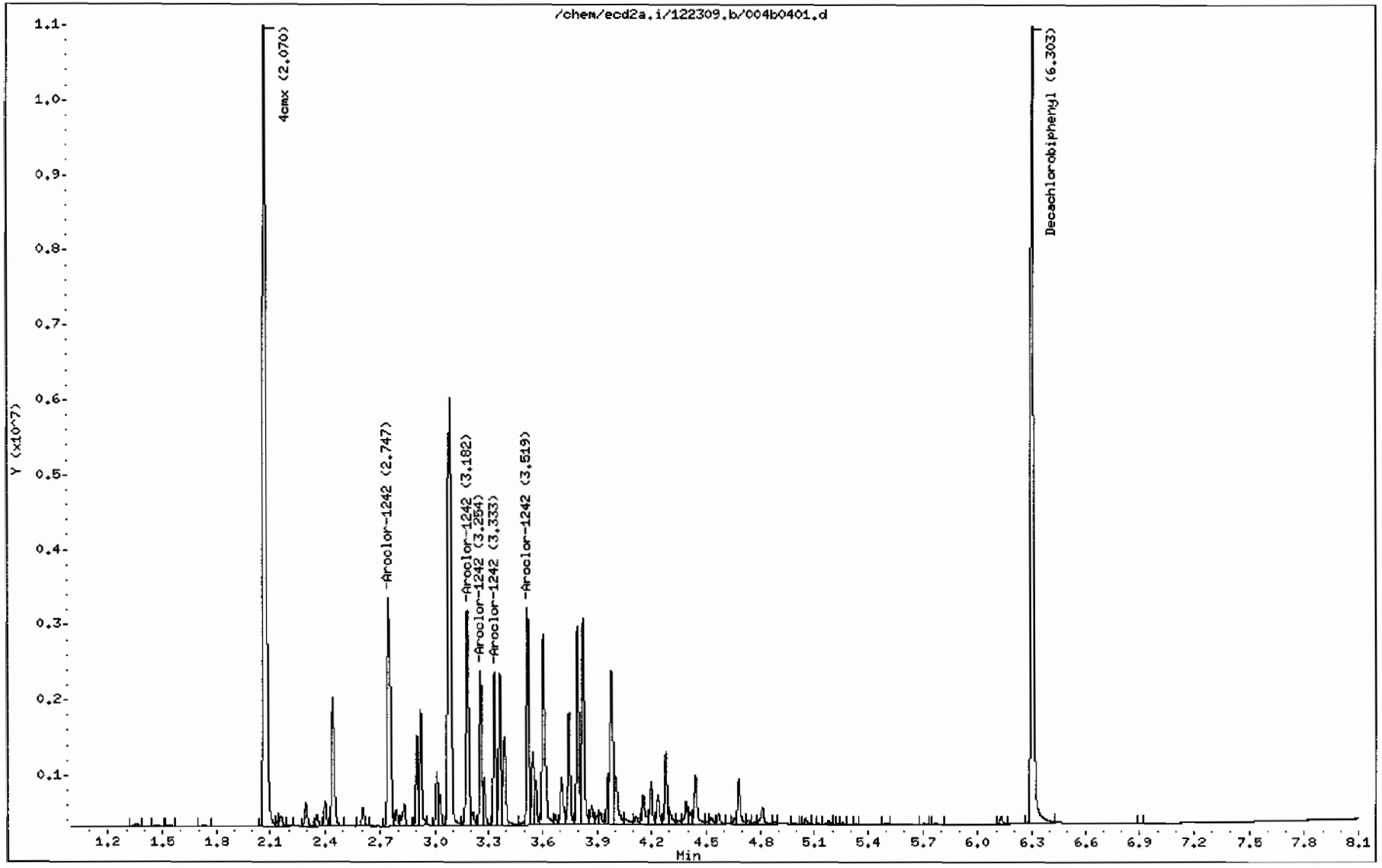

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/005f0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 23-DEC-2009 07:40
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091217-48
Misc Info : |PCB_CVS|1248||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.770	0.003	7344594	100.000	118	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.610	5.613	-0.003	7094595	100.000	131	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
2.825	2.825	0.000	1475321	1000.00	966	80.00- 120.00	100.00(M)
2.976	2.976	0.000	2008895	1000.00	991	116.17- 156.17	136.17
3.036	3.036	0.000	1504217	1000.00	958	81.96- 121.96	101.96
3.272	3.272	0.000	2181925	1000.00	984	127.89- 167.89	147.89
3.424	3.424	0.000	1816941	1000.00	950	103.16- 143.16	123.16
Average of Peak Amounts =					970		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/122309.b/005f0501.d
Date : 23-DEC-2009 07:40
Client ID: AR124801
Sample Info: IWAR091217-48

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

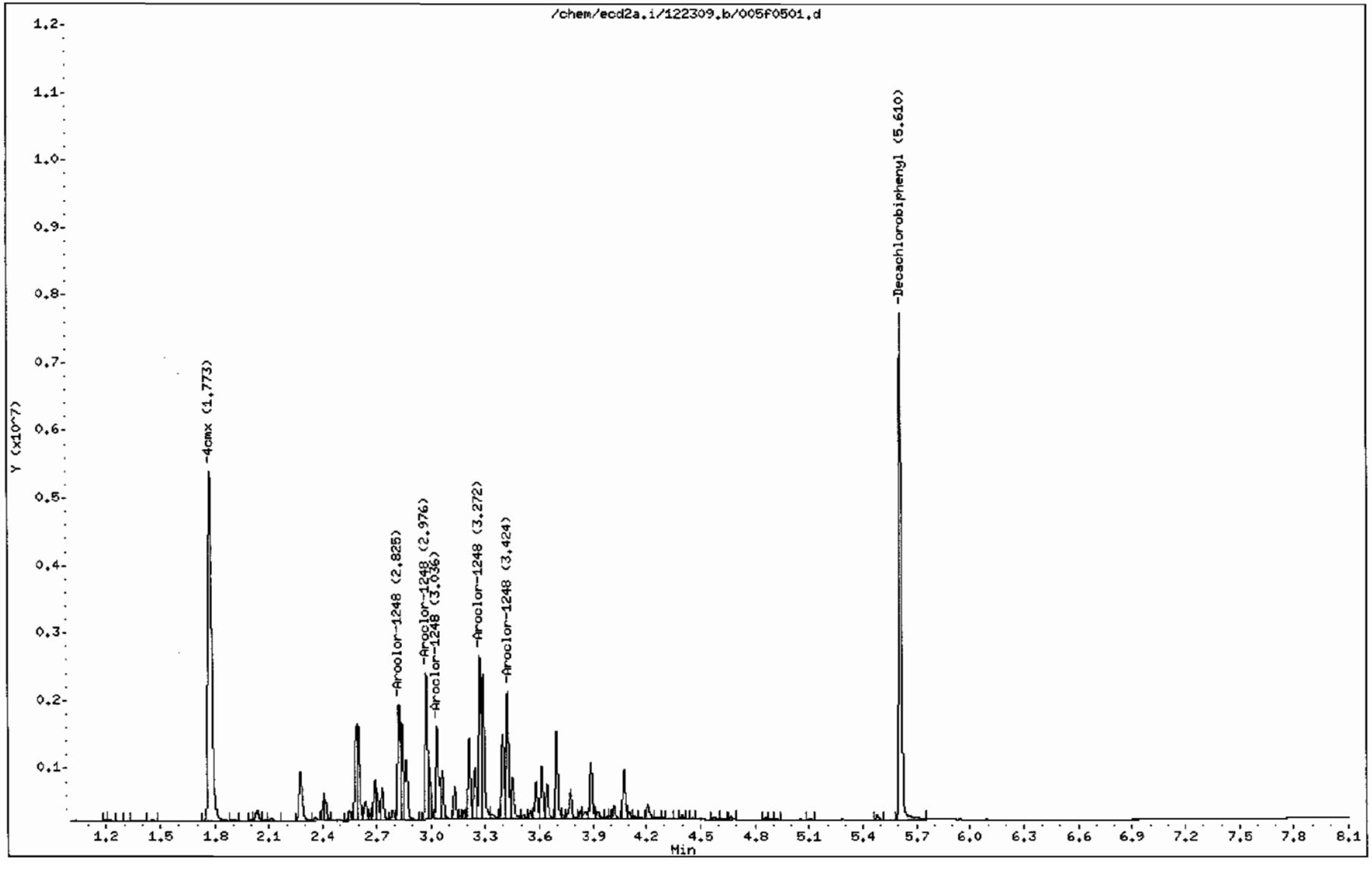

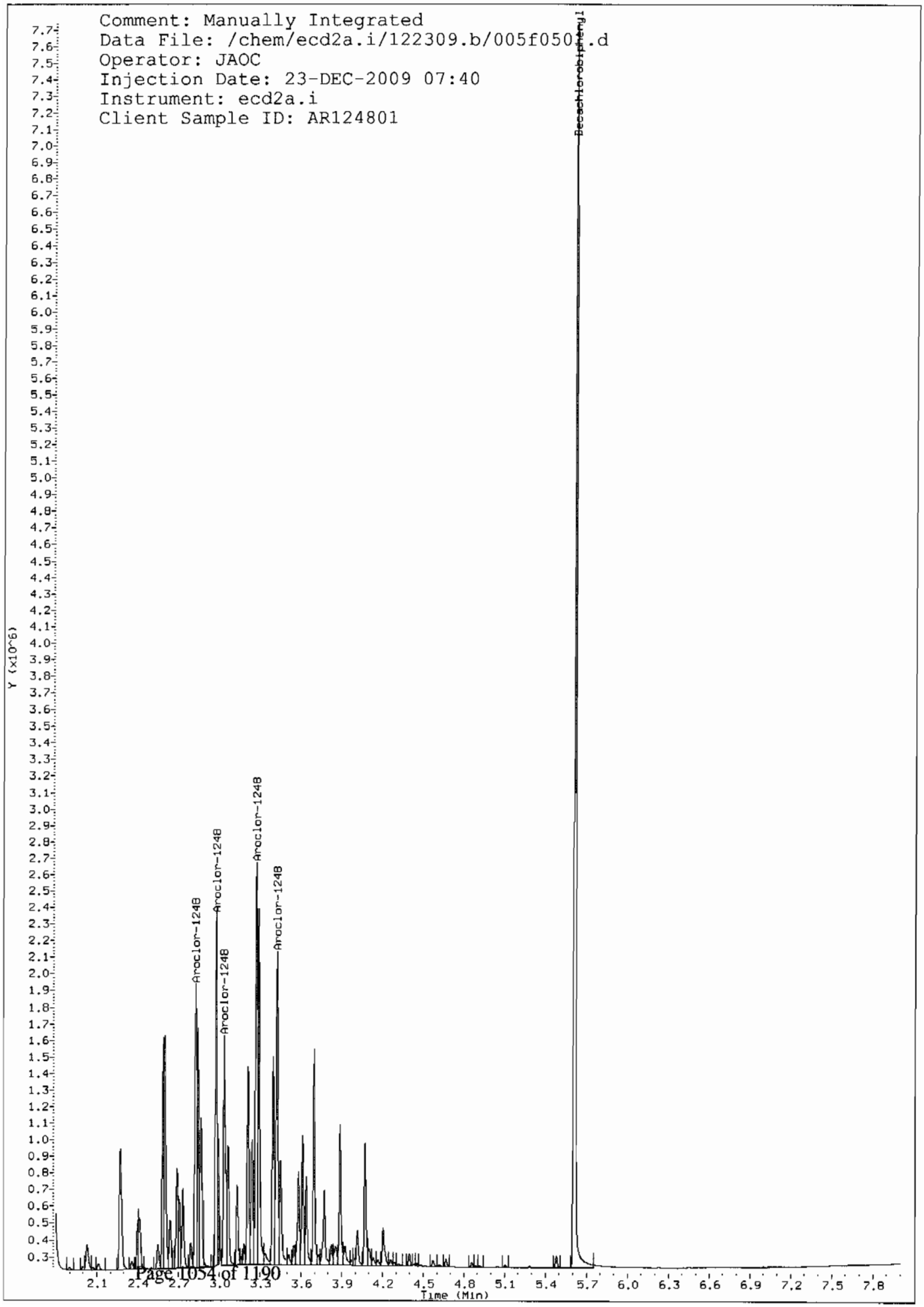
Comment: Manually Integrated
Data File: /chem/ecd2a.i/122309.b/005f050.d
Operator: JAOC
Injection Date: 23-DEC-2009 07:40
Instrument: ecd2a.i
Client Sample ID: AR124801
Decachlorobiphenyl
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Y (x10^6)
Time (Min)

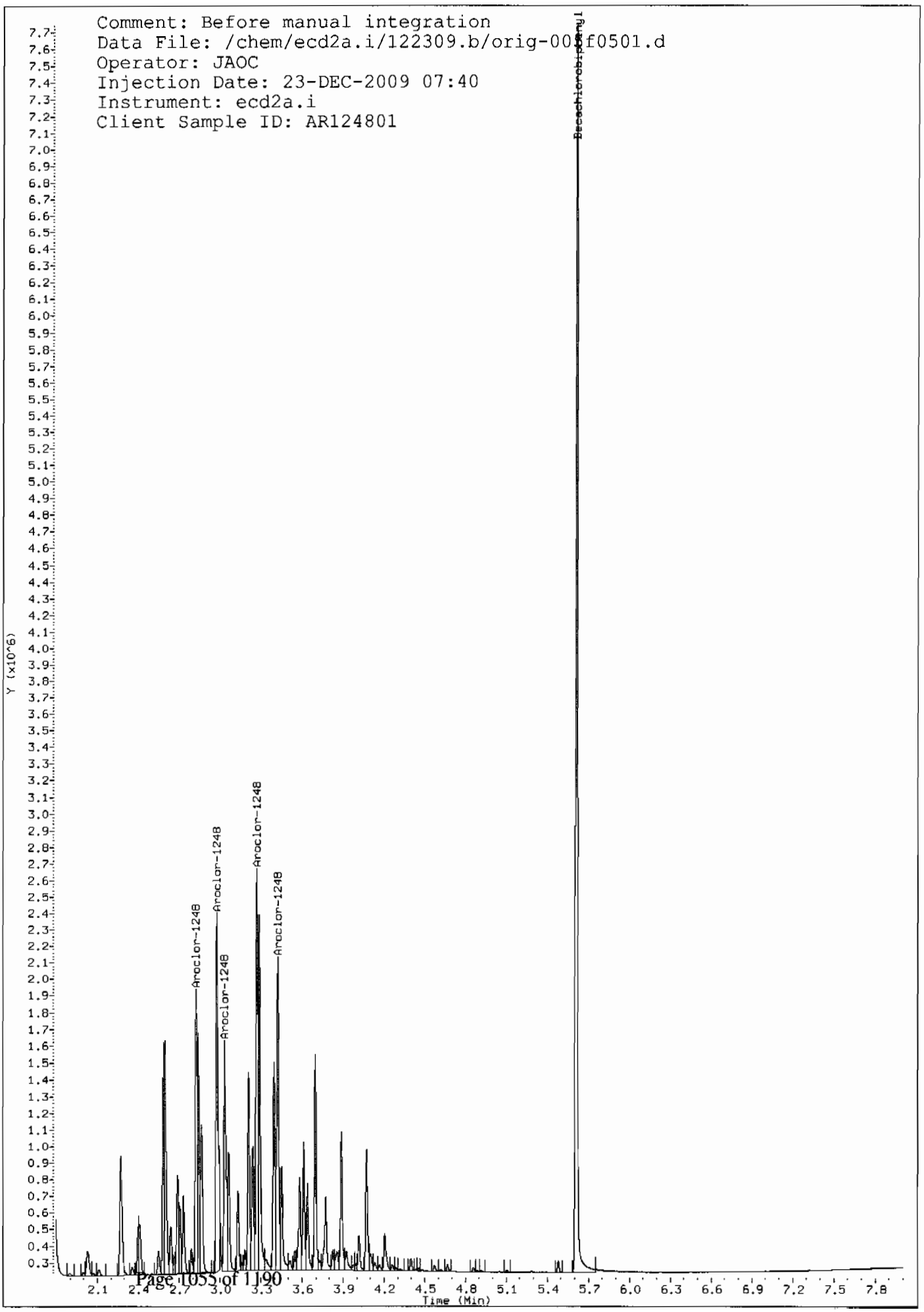
Comment: Before manual integration
Data File: /chem/ecd2a.i/122309.b/orig-00[illegible]f0501.d
Operator: JAOC
Injection Date: 23-DEC-2009 07:40
Instrument: ecd2a.i
Client Sample ID: AR124801
Decachlorobiphenyl
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Aroclor-1248
Y (x10^6)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/005b0501.d
Lab Smp Id: WAR091217-48 Client Smp ID: AR124801
Inj Date : 23-DEC-2009 07:40
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091217-48
Misc Info : |PCB_CVS|1248||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.067	0.003	16014266	100.000	124	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.304	-0.001	15104825	100.000	134	80.00- 120.00	100.00
5 Aroclor-1248					CAS #: 12672-29-6		
3.333	3.333	0.000	3309028	1000.00	1010	80.00- 120.00	100.00
3.520	3.520	0.000	4253683	1000.00	1020	108.55- 148.55	128.55
3.606	3.606	0.000	4526232	1000.00	1020	116.78- 156.78	136.78
3.795	3.795	0.000	4680066	1000.00	996	121.43- 161.43	141.43
3.825	3.825	0.000	5431713	1000.00	1010	144.15- 184.15	164.15

Average of Peak Amounts = 1.01e+03

Data File: /chem/ecd2a.i/122309.b/005b0501.d
Date : 23-DEC-2009 07:40
Client ID: AR124801
Sample Info: IWAR091217-48

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

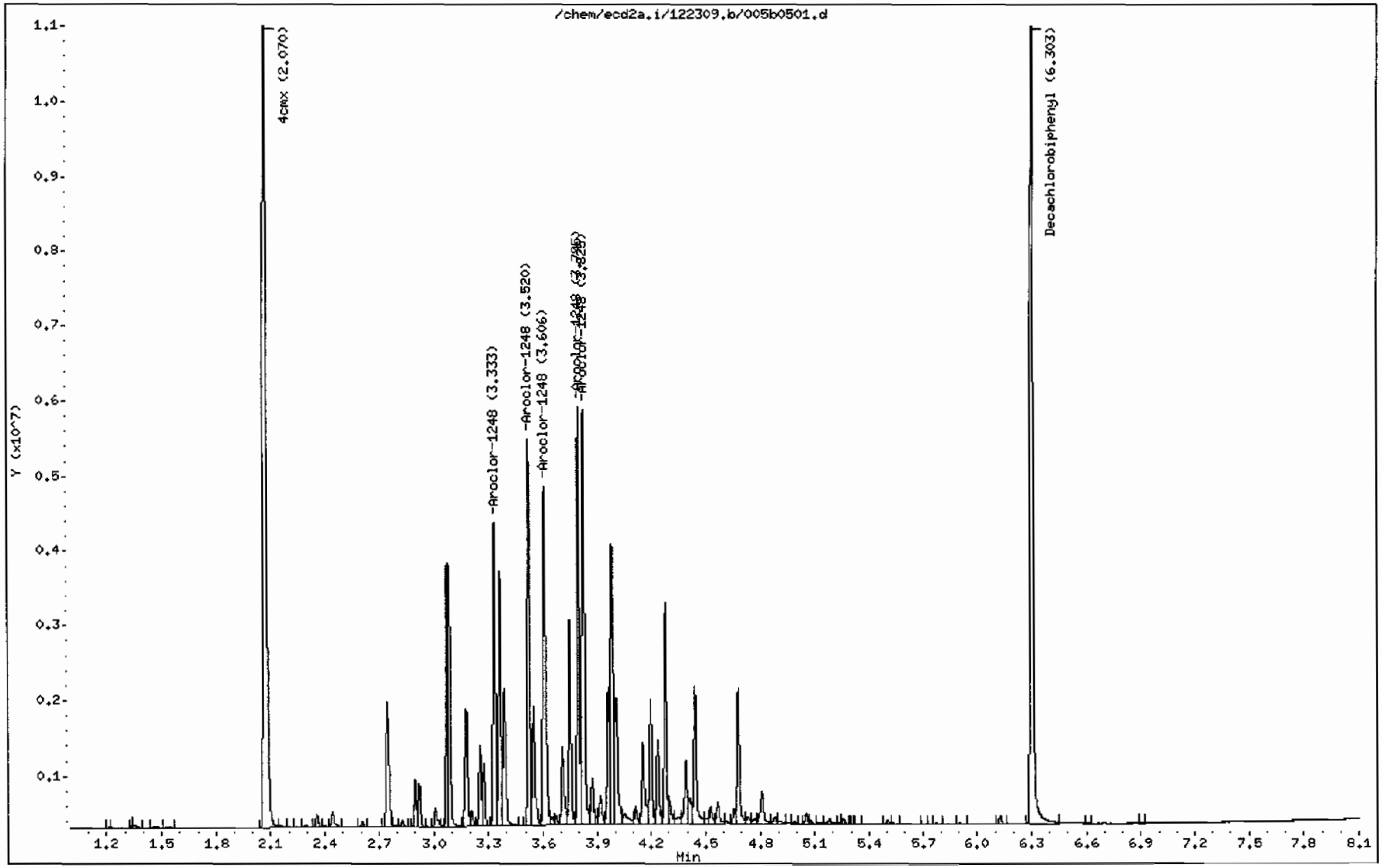

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/006f0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 23-DEC-2009 07:51
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR090930-32
Misc Info : |PCB_CVS|1232||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.770	0.004	9442968	100.000	152	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.610	5.613	-0.003	8836364	100.000	163	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.028	2.028	0.000	1439679	1000.00	1240	80.00- 120.00	100.00(M)
2.276	2.276	0.000	1154956	1000.00	1240	60.22- 100.22	80.22
2.690	2.690	0.000	988202	1000.00	1230	48.64- 88.64	68.64
2.733	2.733	0.000	632491	1000.00	1240	23.93- 63.93	43.93
2.977	2.977	0.000	944300	1000.00	1620	45.59- 85.59	65.59

Average of Peak Amounts = 1.31e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/122309.b/006f0601.d
Date : 23-DEC-2009 07:51
Client ID: AR123201
Sample Info: |WAR090930-32

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

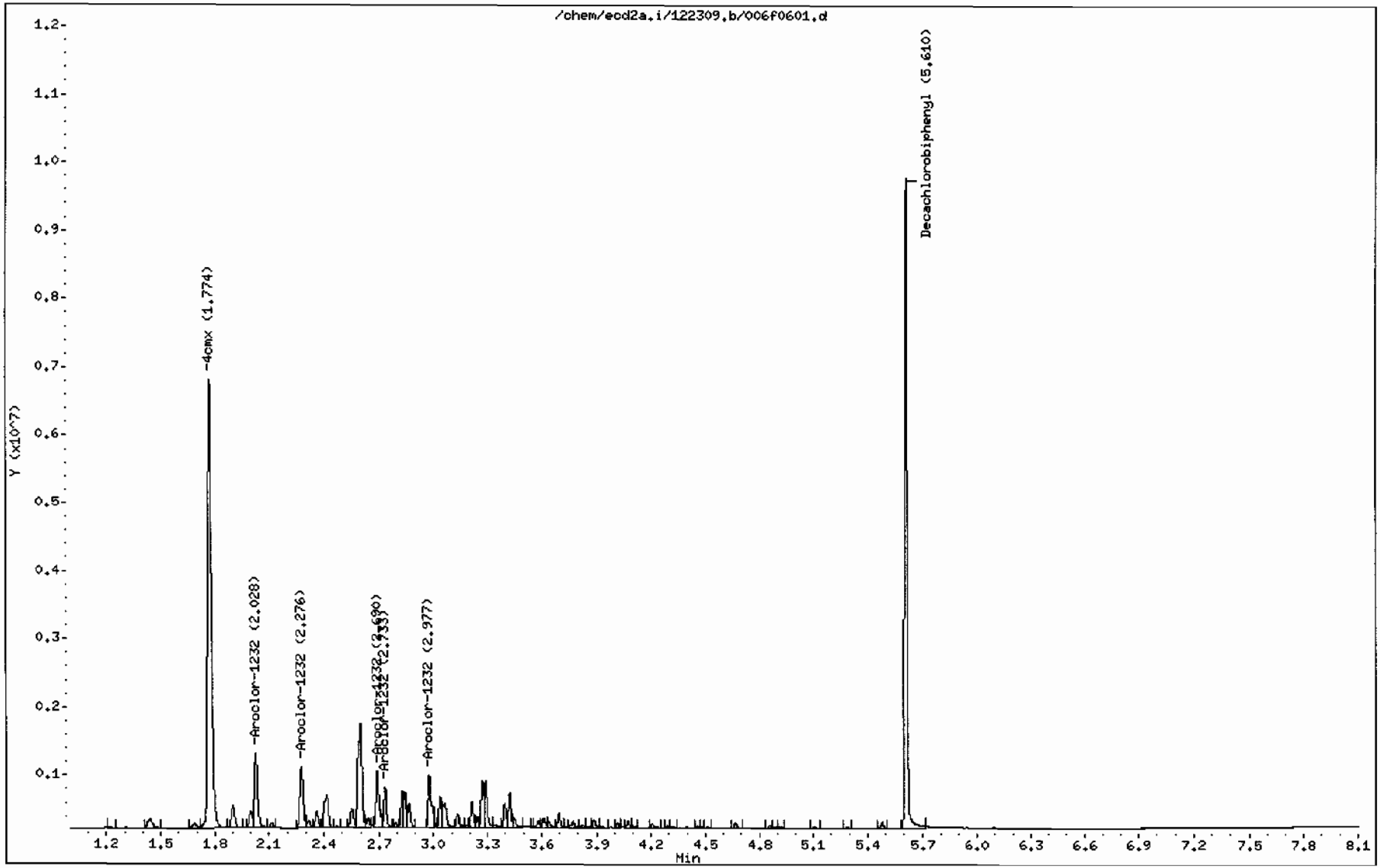

Comment: Manually Integrated
Data File: /chem/ecd2a.i/122309.b/006f0601.d
Operator: JAOC
Injection Date: 23-DEC-2009 07:51
Instrument: ecd2a.i
Client Sample ID: AR123201

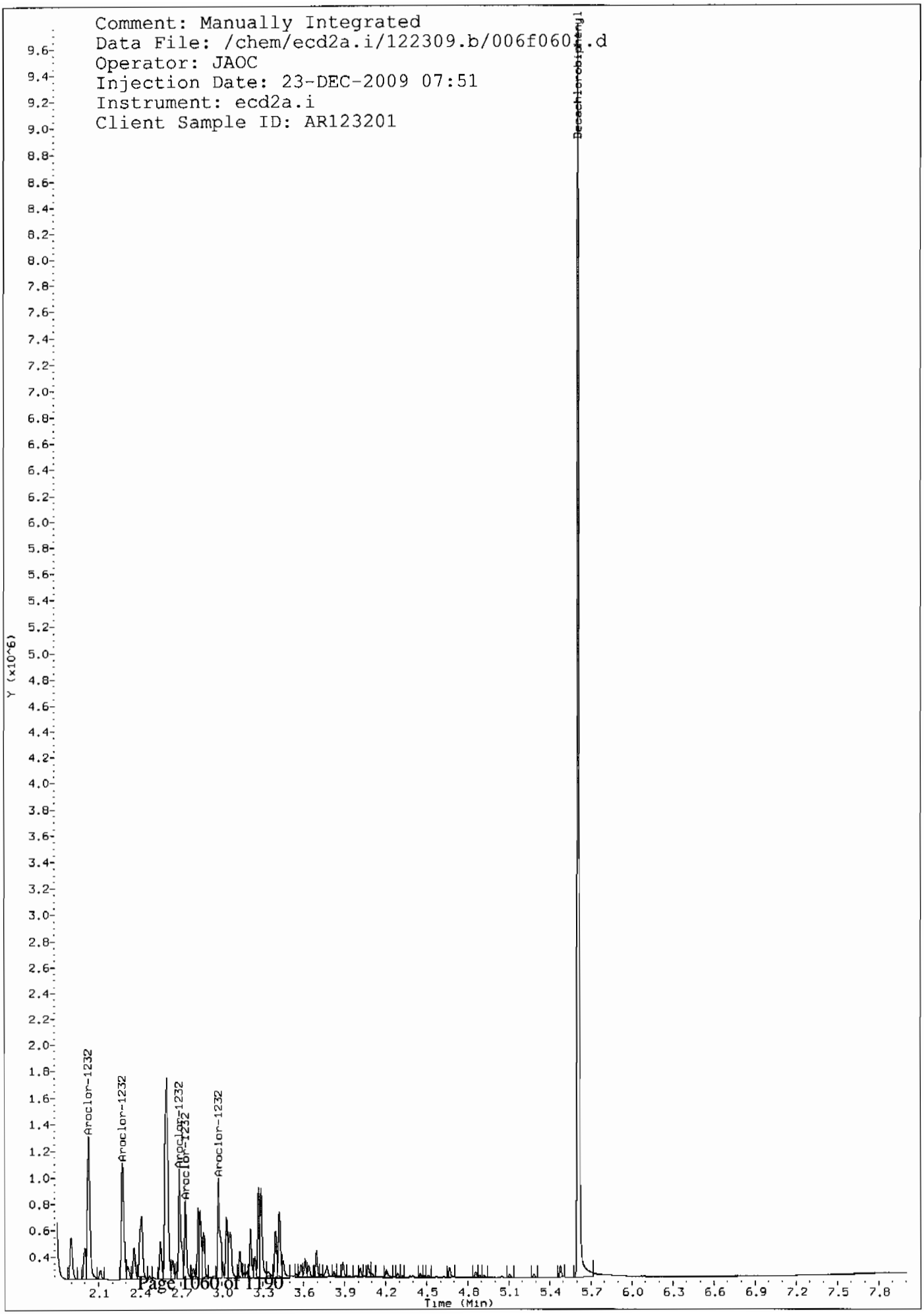

Comment: Before manual integration
Data File: /chem/ecd2a.i/122309.b/orig-00[illegible]f0601.d
Operator: JAOC
Injection Date: 23-DEC-2009 07:51
Instrument: ecd2a.i
Client Sample ID: AR123201

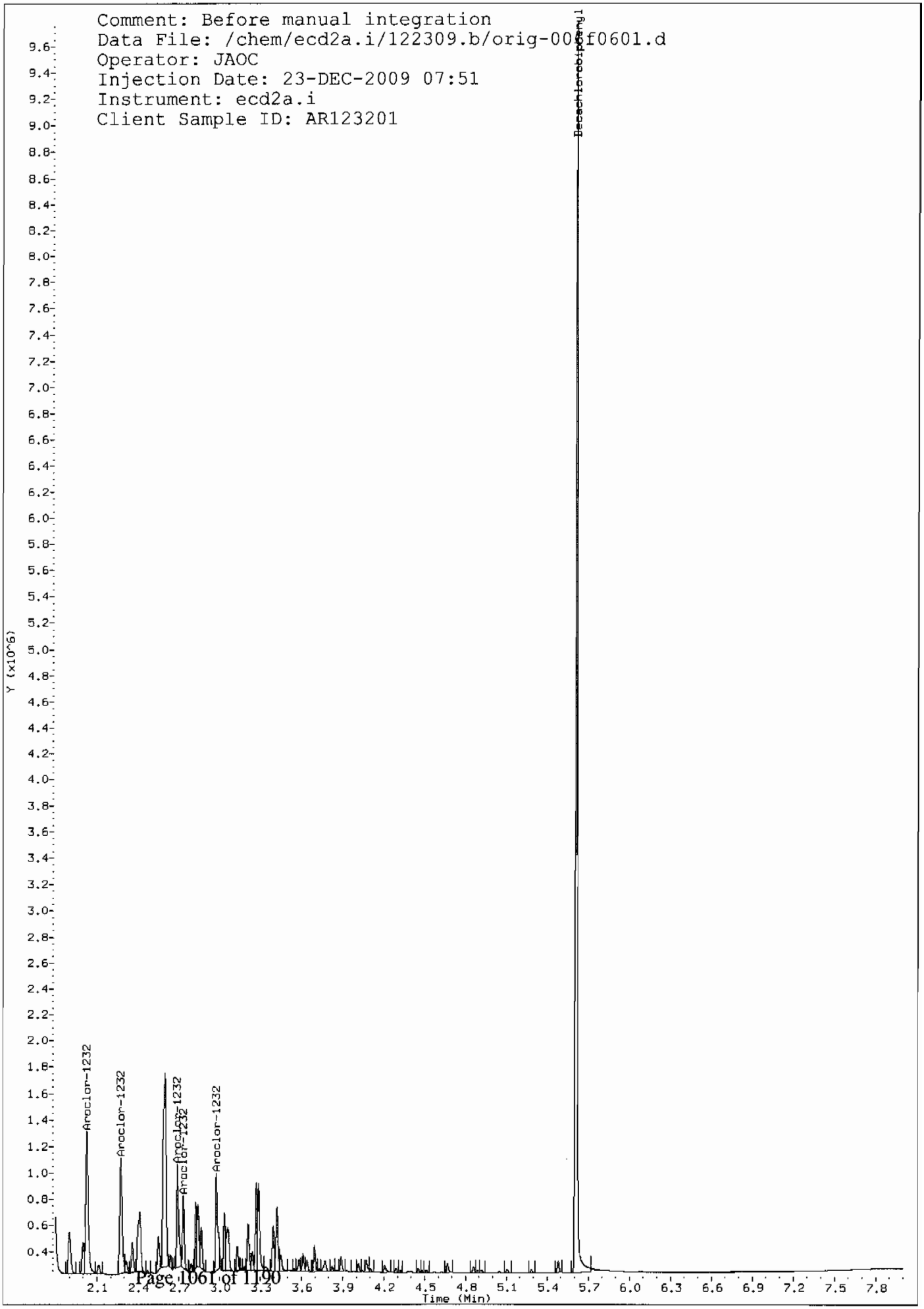

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/006b0601.d
Lab Smp Id: WAR090930-32 Client Smp ID: AR123201
Inj Date : 23-DEC-2009 07:51
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR090930-32
Misc Info : |PCB_CVS|1232||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.067	0.004	20505670	100.000	158	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.302	6.304	-0.002	18960329	100.000	168	80.00- 120.00	100.00
3 Aroclor-1232					CAS #: 11141-16-5		
2.444	2.444	0.000	2623860	1000.00	1270	80.00- 120.00	100.00
2.747	2.747	0.000	2513609	1000.00	1280	75.80- 115.80	95.80
3.182	3.182	0.000	1856359	1000.00	1240	50.75- 90.75	70.75
3.254	3.254	0.000	1141932	1000.00	1230	23.52- 63.52	43.52
3.520	3.520	0.000	1432339	1000.00	1290	34.59- 74.59	54.59

Average of Peak Amounts = 1.26e+03

Data File: /chem/ecd2a.i/122309.b/006b0601.d

Date : 23-DEC-2009 07:51

Client ID: AR123201

Sample Info: IWAR090930-32

Column phase: CLP2

Instrument: ecd2a.i

Operator: JADC

Column diameter: 0.25

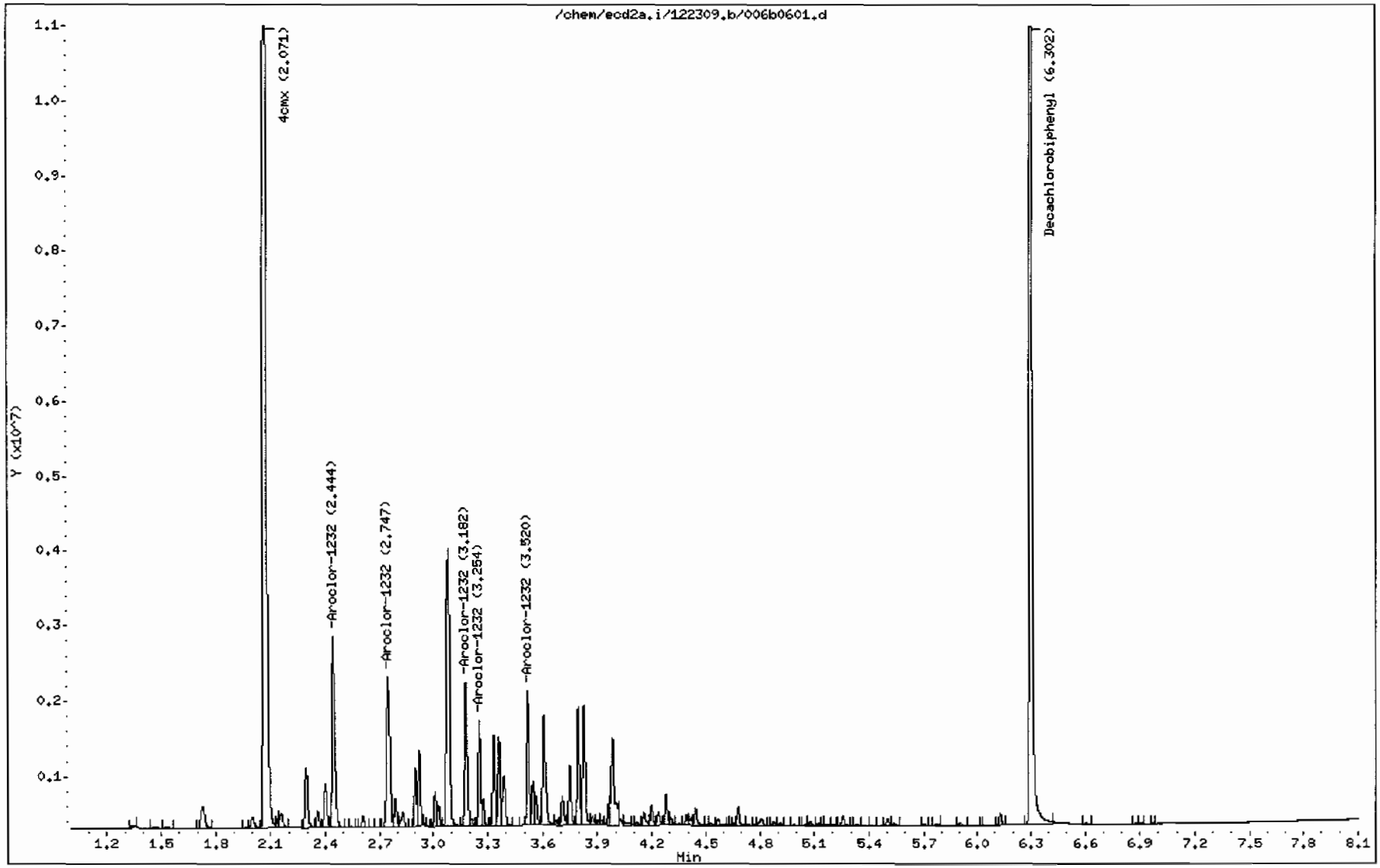

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/007f0701.d
Lab Smp Id: WAR091111-21 Client Smp ID: AR122101
Inj Date : 23-DEC-2009 08:02
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091111-21
Misc Info :
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 24-Dec-2009 06:31 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.770	0.003	6824026	100.000	110	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.613	-0.002	6560357	100.000	121	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
1.439	1.439	0.000	544216	1000.00	1170	80.00- 120.00	100.00
1.900	1.900	0.000	741424	1000.00	1130	116.24- 156.24	136.24
2.000	2.000	0.000	394251	1000.00	1140	52.44- 92.44	72.44

Average of Peak Amounts = 1.15e+03

Data File: /chem/ecd2a.i/122309.b/007f0701.d
Date : 23-DEC-2009 08:02
Client ID: AR122101
Sample Info: IWAR091111-21

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

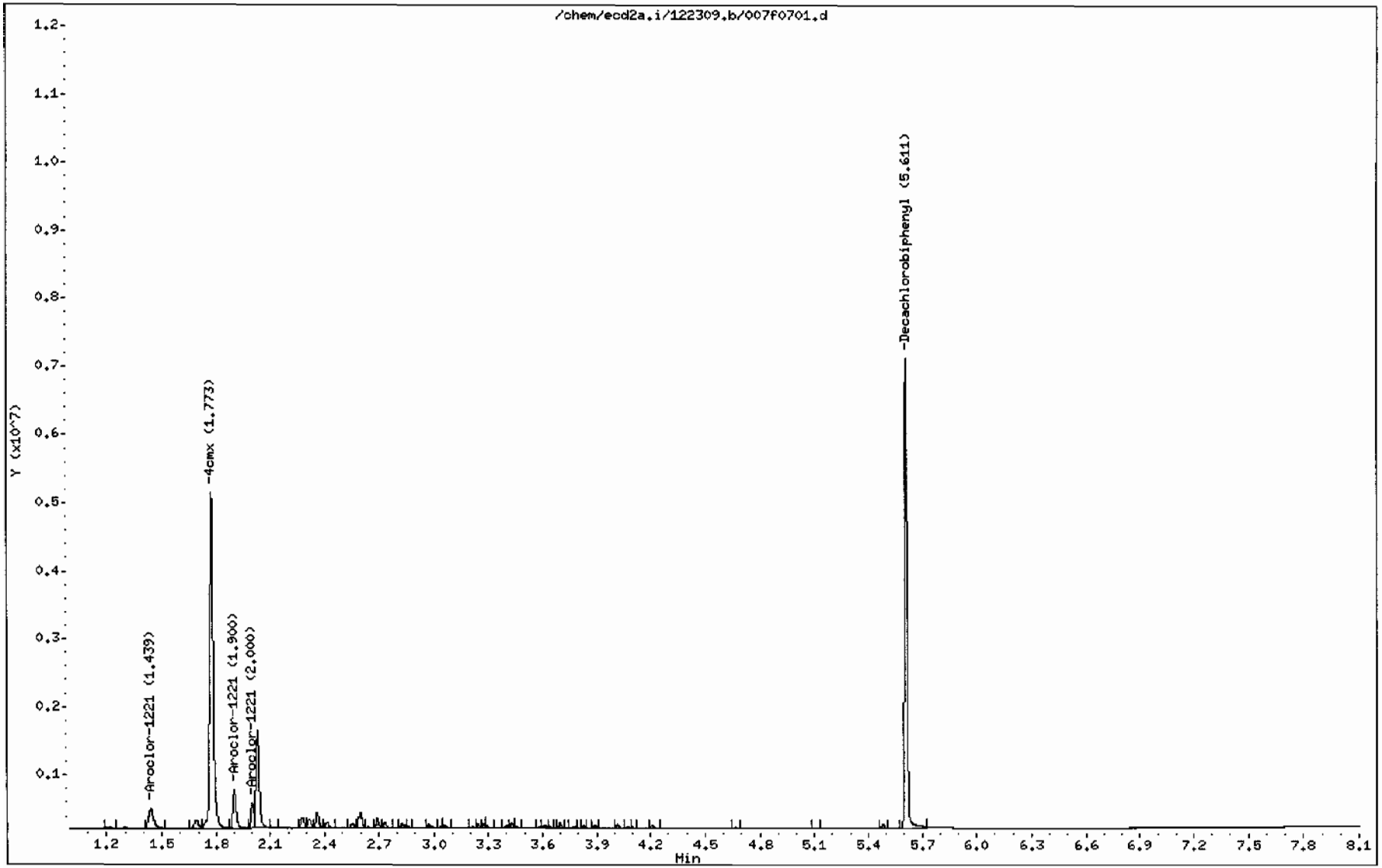

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/007b0701.d
Lab Smp Id: WAR091111-21 Client Smp ID: AR122101
Inj Date : 23-DEC-2009 08:02
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091111-21
Misc Info :
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 24-Dec-2009 06:29 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.070	2.067	0.003	14584438	100.000	113	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.304	-0.001	13945834	100.000	124	80.00- 120.00	100.00
2 Aroclor-1221					CAS #: 11104-28-2		
2.294	2.294	0.000	1438501	1000.00	1140	80.00- 120.00	100.00
2.400	2.400	0.000	875231	1000.00	1130	40.84- 80.84	60.84
2.444	2.444	0.000	3484567	1000.00	1140	222.24- 262.24	242.24

Average of Peak Amounts = 1.14e+03

Data File: /chem/ecd2a.i/122309.b/007b0701.d

Date : 23-DEC-2009 08:02

Client ID: AR122101

Sample Info: IWAR091111-21

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

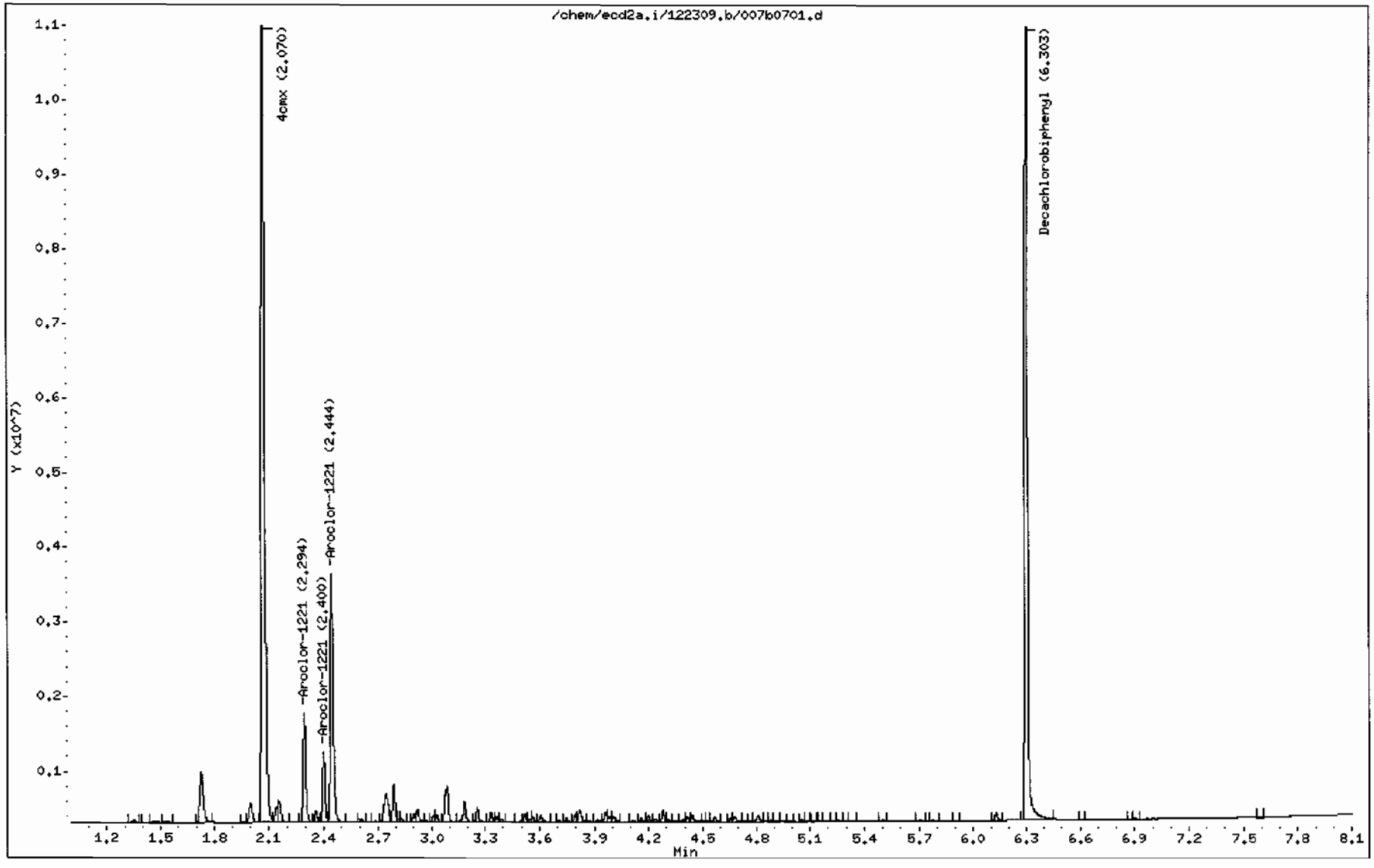

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/008f0801.d
Lab Smp Id: WAR091111-62 Client Smp ID: AR126201
Inj Date : 23-DEC-2009 08:13
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091111-62
Misc Info : |PCB_CVS|1262||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1262.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.770	0.003	8218204	100.000	132	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.610	5.613	-0.003	7988585	100.000	148	80.00- 120.00	100.00
8 Aroclor-1262					CAS #: 37324-23-5		
3.825	3.825	0.000	2509636	1000.00	1100	80.00- 120.00	100.00
4.017	4.017	0.000	3391947	1000.00	1100	115.16- 155.16	135.16
4.289	4.289	0.000	4569159	1000.00	1140	162.06- 202.06	182.06
4.455	4.455	0.000	4086284	1000.00	1140	142.82- 182.82	162.82
4.855	4.855	0.000	2940251	1000.00	1180	97.16- 137.16	117.16

Average of Peak Amounts = 1.13e+03

Data File: /chem/ecd2a.i/122309.b/008f0801.d
Date : 23-DEC-2009 08:13
Client ID: AR126201
Sample Info: IWAR091111-62

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

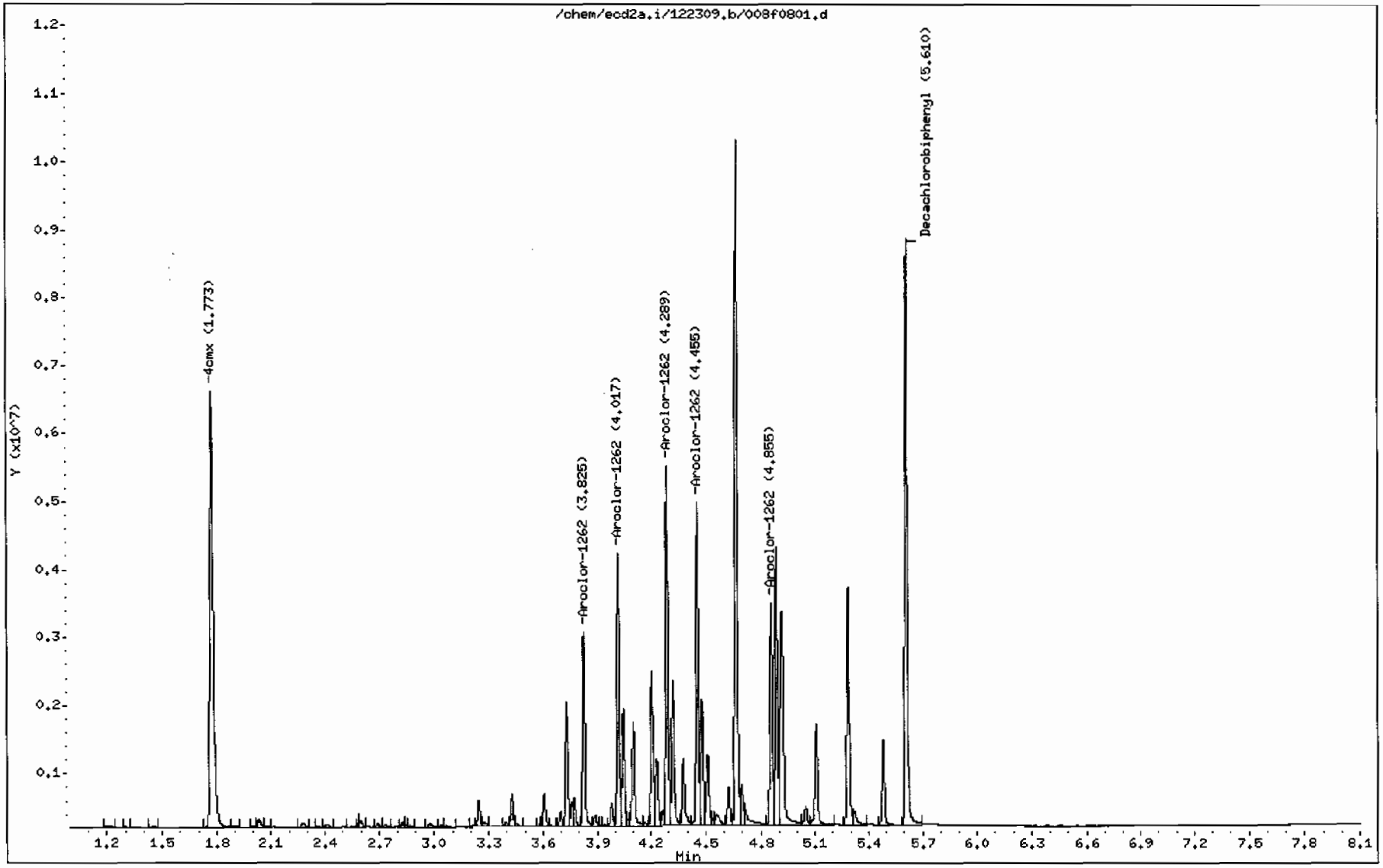

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/008b0801.d
Lab Smp Id: WAR091111-62 Client Smp ID: AR126201
Inj Date : 23-DEC-2009 08:13
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091111-62
Misc Info : |PCB_CVS|1262||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1262.sub
Target Version: 3.50 Sample Matrix: None

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.067	0.004	17983462	100.000	139	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.302	6.304	-0.002	17158413	100.000	152	80.00- 120.00	100.00
8 Aroclor-1262					CAS #: 37324-23-5		
4.417	4.417	0.000	5424313	1000.00	1150	80.00- 120.00	100.00
4.567	4.567	0.000	6554994	1000.00	1120	100.84- 140.84	120.84
4.877	4.877	0.000	10109414	1000.00	1130	166.37- 206.37	186.37
5.077	5.077	0.000	9068024	1000.00	1170	147.17- 187.17	167.17
5.255	5.255	0.000	19741290	1000.00	1180	343.94- 383.94	363.94

Average of Peak Amounts = 1.15e+03

Data File: /chem/ecd2a.i/122309.b/008b0801.d

Date : 23-DEC-2009 08:13

Client ID: AR126201

Sample Info: IWAR091111-62

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

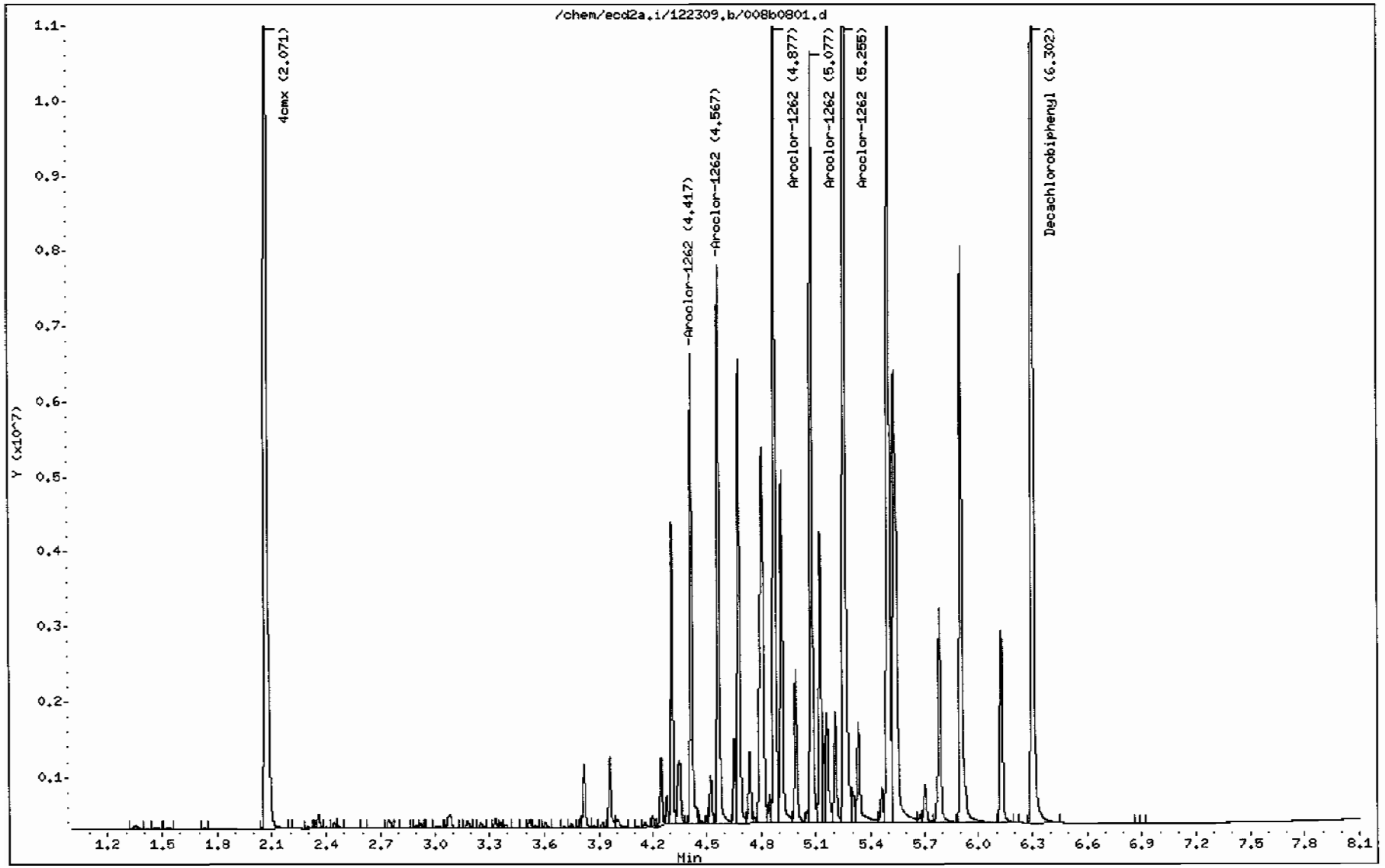

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/012f1201.d
Lab Smp Id: WAR091223-45 01 Client Smp ID: AR166001
Inj Date : 23-DEC-2009 08:58
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091223-45 01
Misc Info :
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 24-Dec-2009 06:31 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.770	1.770	0.000	6064061	100.000	97.3	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.613	5.613	0.000	5827159	100.000	108	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.274	2.274	0.000	2086452	1000.00	932	80.00- 120.00	100.00
2.598	2.598	0.000	4414810	1000.00	942	194.47- 234.47	211.59
2.689	2.689	0.000	1757986	1000.00	924	65.12- 105.12	84.26
2.825	2.825	0.000	871373	1000.00	893	24.29- 64.29	41.76
2.976	2.976	0.000	1330303	1000.00	912	46.34- 86.34	63.76
Average of Peak Amounts =					921		
7 Aroclor-1260					CAS #: 11096-82-5		
4.018	4.018	0.000	4262036	1000.00	1020	80.00- 120.00	100.00
4.290	4.290	0.000	2693879	1000.00	1040	41.58- 81.58	63.21
4.456	4.456	0.000	2766997	1000.00	1050	43.61- 83.61	64.92
4.669	4.669	0.000	6543094	1000.00	1070	134.36- 174.36	153.52
4.859	4.859	0.000	3135205	1000.00	1060	54.59- 94.59	73.56
Average of Peak Amounts =					1.05e+03		

Data File: /chem/ecd2a.i/122309.b/012f1201.d

Date : 23-DEC-2009 08:58

Client ID: AR166001

Sample Info: IWAR091223-45 01

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC

Column diameter: 0.25

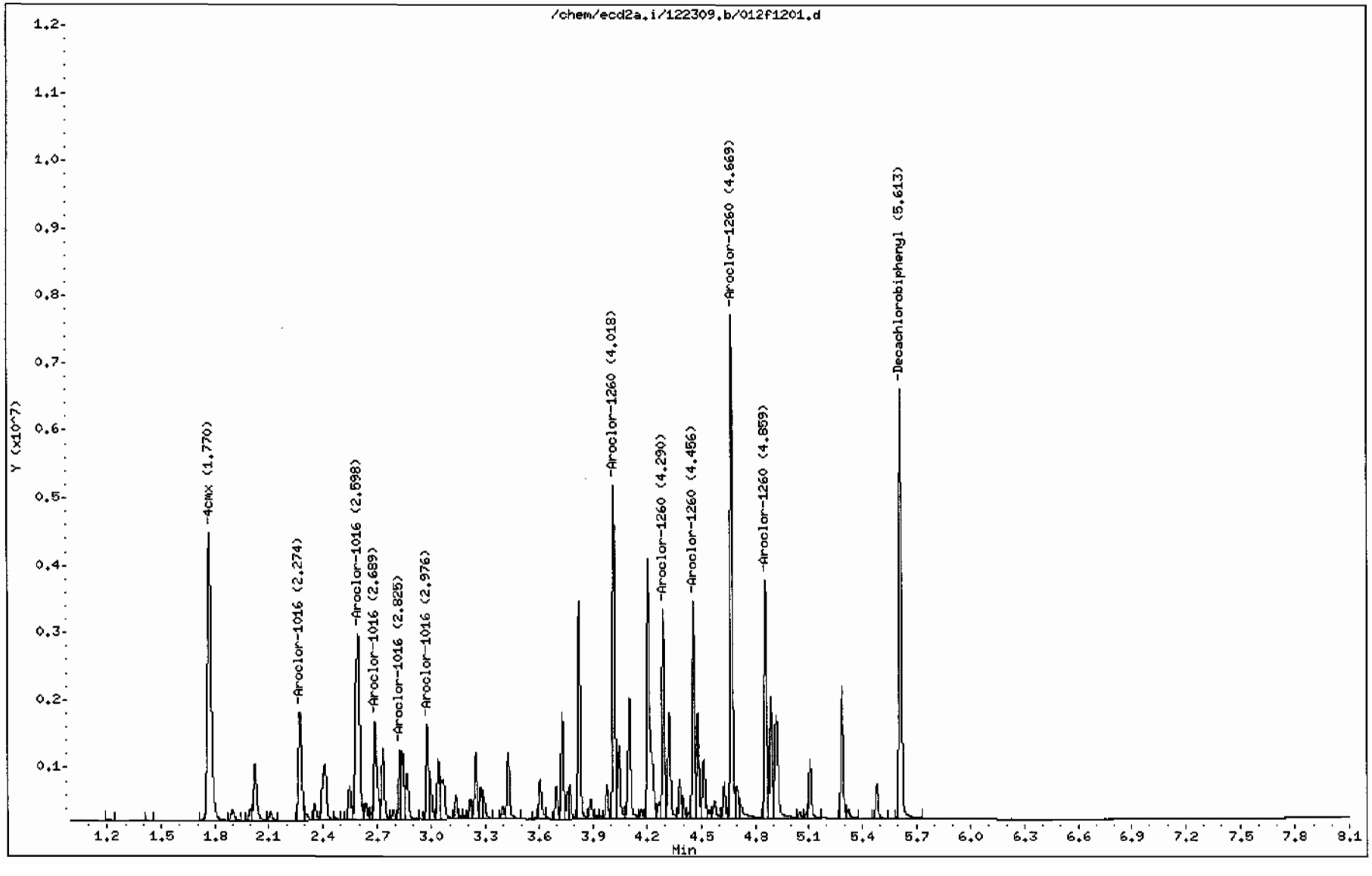

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/012b1201.d
Lab Smp Id: WAR091223-45 01 Client Smp ID: AR166001
Inj Date : 23-DEC-2009 08:58
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091223-45 01
Misc Info :
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 24-Dec-2009 06:29 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.067	2.067	0.000	13154758	100.000	102	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.304	6.304	0.000	12374176	100.000	110	80.00- 120.00	100.00(M)
1 Aroclor-1016					CAS #: 12674-11-2		
2.746	2.746	0.000	4459813	1000.00	983	80.00- 120.00	100.00
3.181	3.181	0.000	3491937	1000.00	969	57.58- 97.58	78.30
3.332	3.332	0.000	2027076	1000.00	987	25.10- 65.10	45.45
3.362	3.362	0.000	2112528	1000.00	988	27.32- 67.32	47.37
3.520	3.520	0.000	2845754	1000.00	991	44.43- 84.43	63.81
Average of Peak Amounts =					984		
7 Aroclor-1260					CAS #: 11096-82-5		
4.417	4.417	0.000	6008110	1000.00	1040	80.00- 120.00	100.00(M)
4.569	4.569	0.000	7841925	1000.00	1100	107.97- 147.97	130.52
4.681	4.681	0.000	5327232	1000.00	1100	66.44- 106.44	88.67
4.878	4.878	0.000	6114860	1000.00	1080	80.59- 120.59	101.78
5.504	5.504	0.000	10087158	1000.00	1120	151.12- 191.12	167.89
Average of Peak Amounts =					1.09e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd2a.i/122309.b/012b1201.d
Date : 23-DEC-2009 08:58
Client ID: AR166001
Sample Info: IWAR091223-45 01

Column phase: CLP2

Instrument: ecd2a.i

Operator: JADC
Column diameter: 0.25

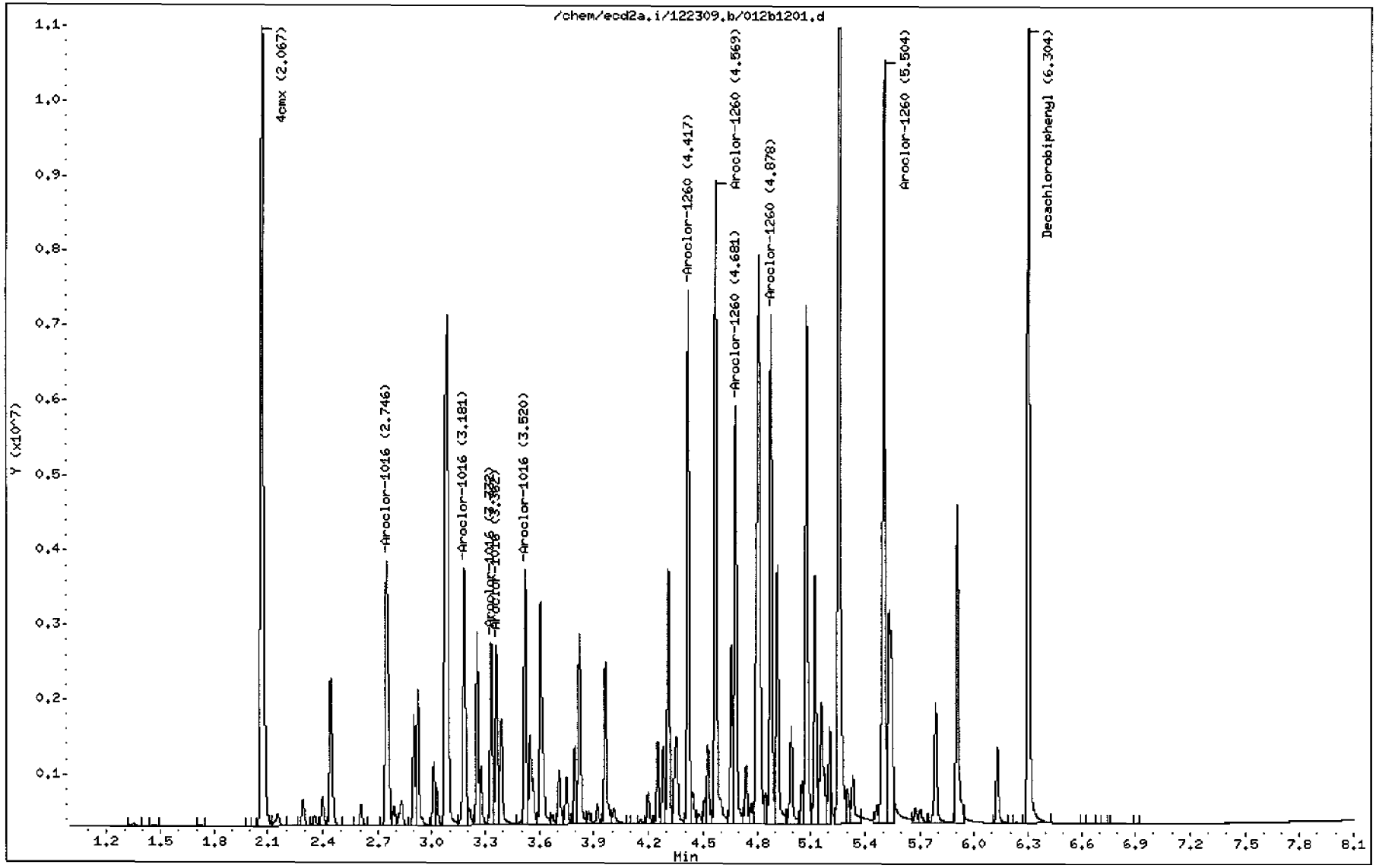

Comment: Manually Integrated
Data File: /chem/ecd2a.i/122309.b/0126b1201.d
Operator: JAOC
Injection Date: 23-DEC-2009 08:58
Instrument: ecd2a.i
Client Sample ID: AR166001

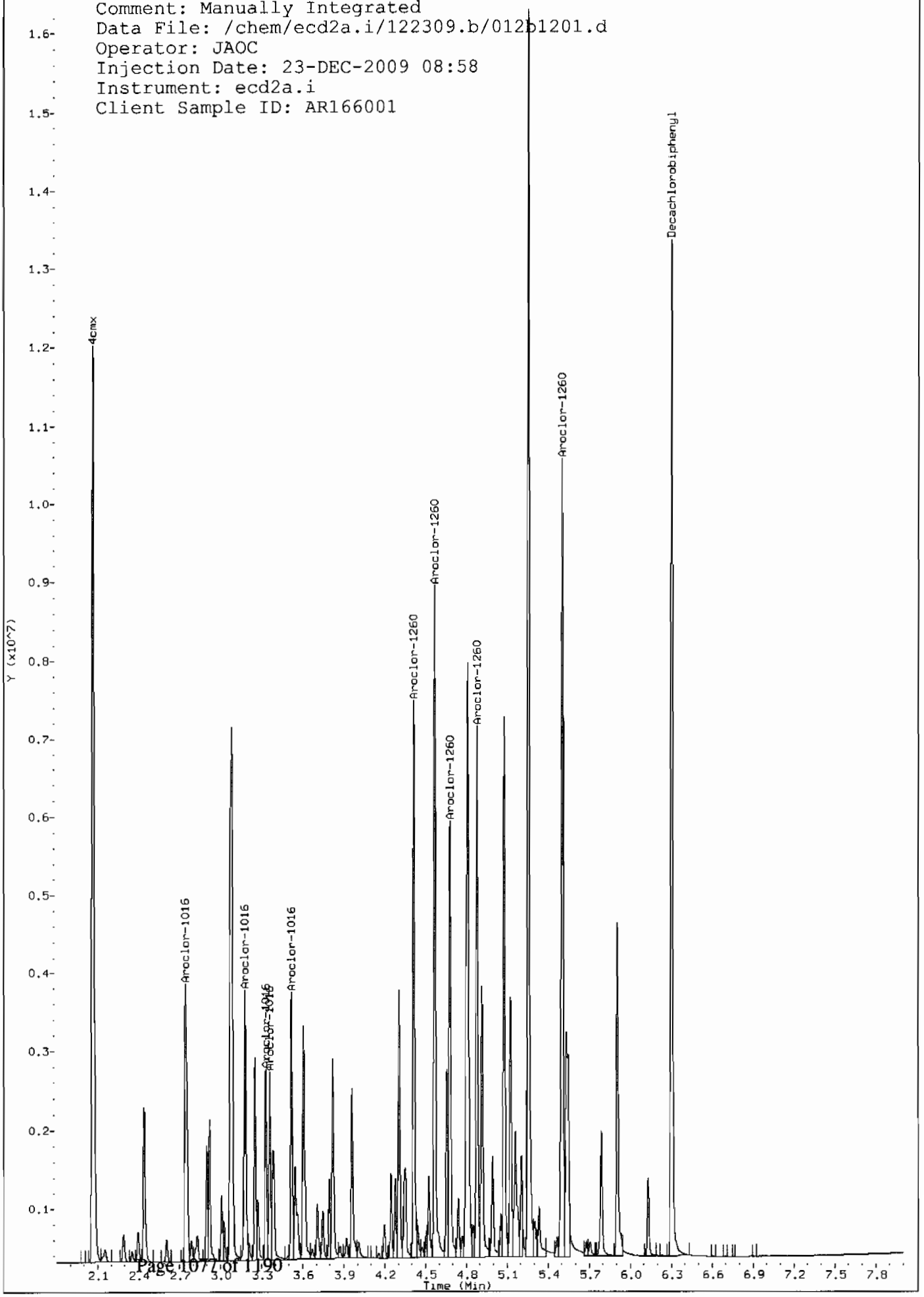

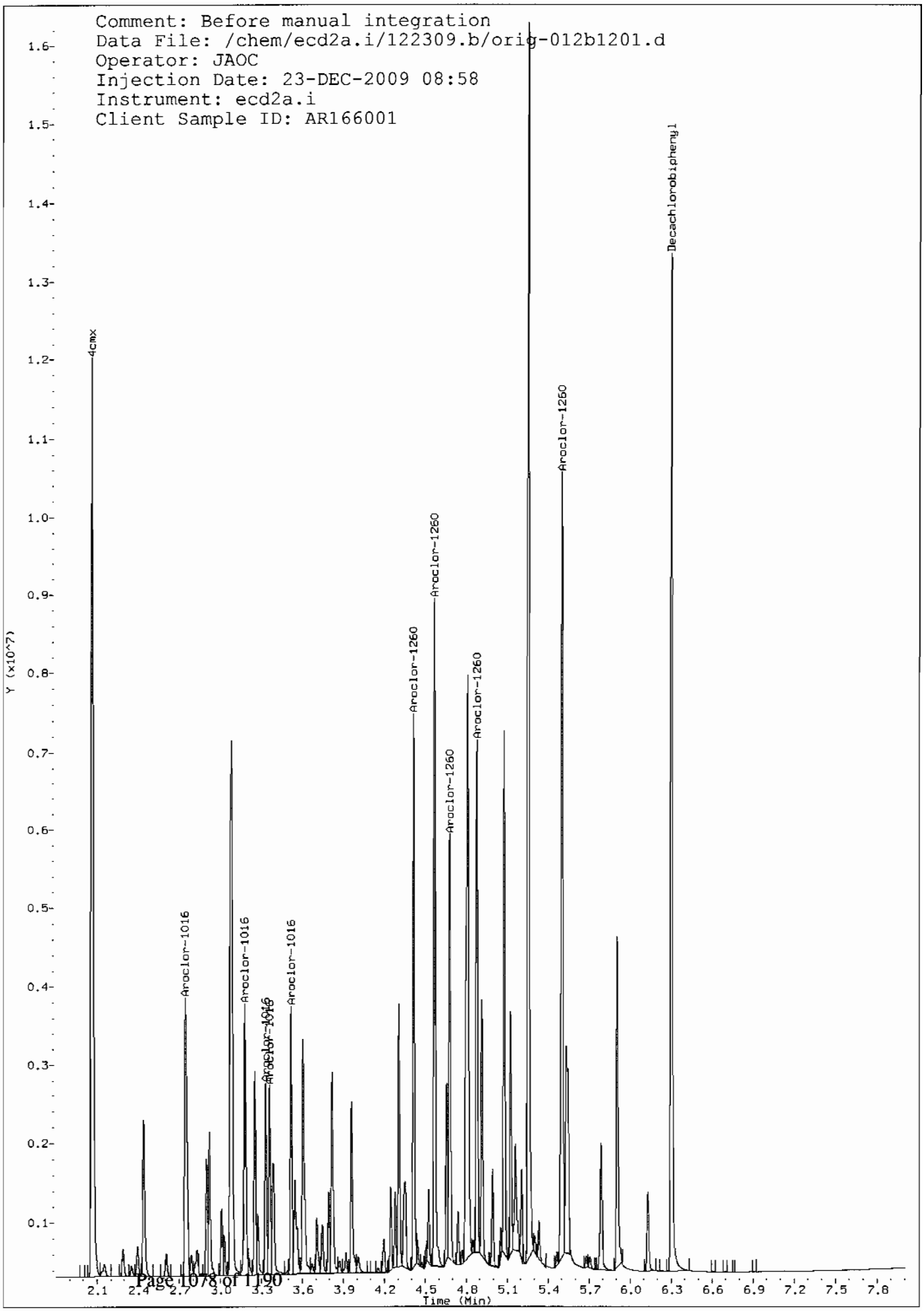
Comment: Before manual integration
Data File: /chem/ecd2a.i/122309.b/orig-012b1201.d
Operator: JAOC
Injection Date: 23-DEC-2009 08:58
Instrument: ecd2a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/022f2201.d
Lab Smp Id: WAR091223-45 02 Client Smp ID: AR166002
Inj Date : 23-DEC-2009 11:13
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091223-45 02
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.770	0.004	6110822	100.000	98.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.610	5.613	-0.003	5964570	100.000	110	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.277	2.274	0.003	2078717	1000.00	929	80.00- 120.00	100.00
2.599	2.598	0.001	4472258	1000.00	954	196.50- 236.50	215.15
2.691	2.689	0.002	1760493	1000.00	926	64.80- 104.80	84.69
2.825	2.825	0.000	895918	1000.00	918	23.47- 63.47	43.10
2.977	2.976	0.001	1369838	1000.00	940	45.32- 85.32	65.90
Average of Peak Amounts =					933		
7 Aroclor-1260					CAS #: 11096-82-5		
4.017	4.018	-0.001	4308701	1000.00	1030	80.00- 120.00	100.00
4.288	4.290	-0.002	2691821	1000.00	1040	42.01- 82.01	62.47
4.454	4.456	-0.002	2846508	1000.00	1080	43.71- 83.71	66.06
4.667	4.669	-0.002	6649186	1000.00	1090	134.48- 174.48	154.32
4.856	4.859	-0.003	3207909	1000.00	1090	54.28- 94.28	74.45
Average of Peak Amounts =					1.07e+03		

Data File: /chem/ecd2a.i/122309.b/022f2201.d
Date : 23-DEC-2009 11:13
Client ID: AR166002
Sample Info: IWAR091223-45 02

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

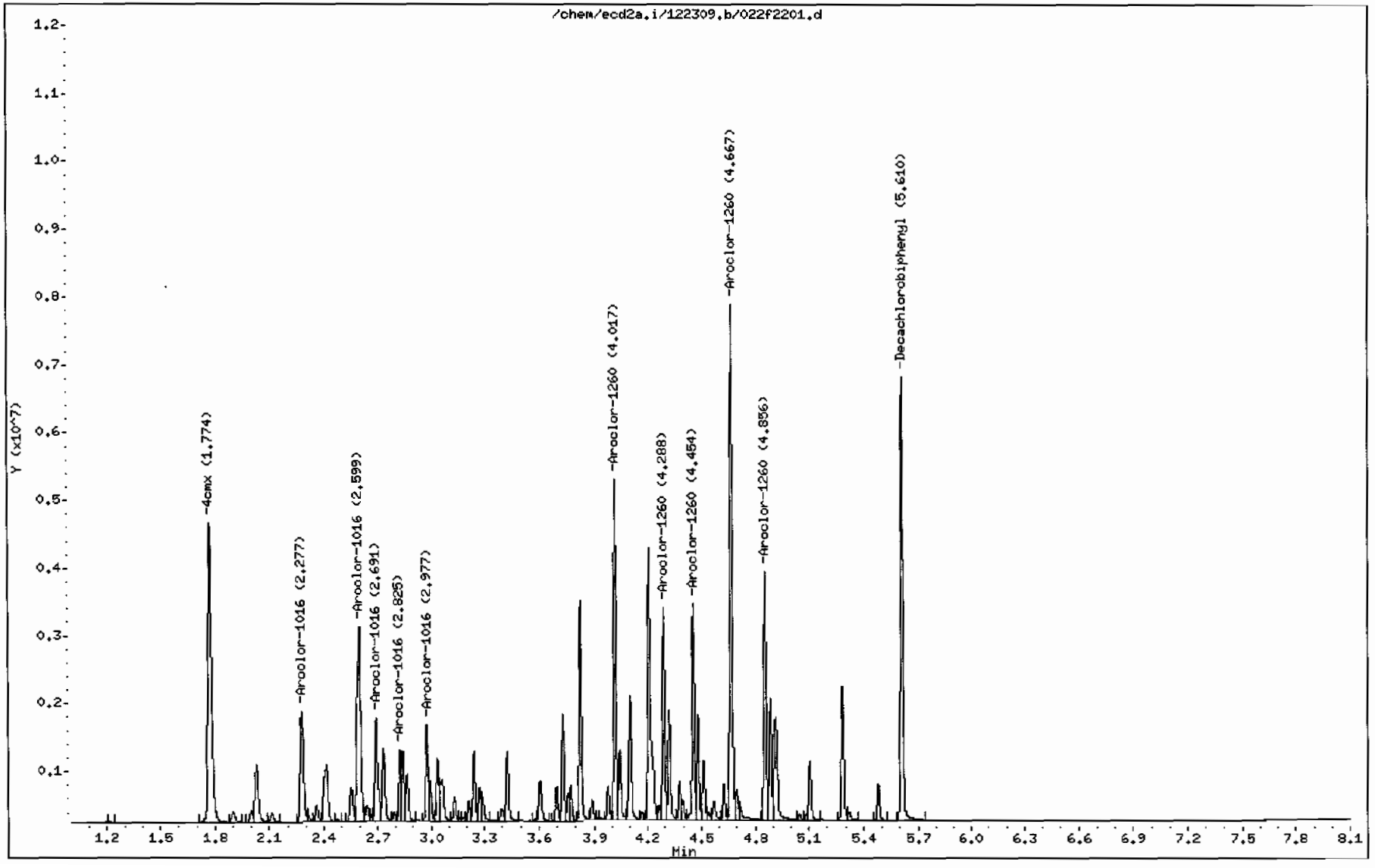

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/022b2201.d
Lab Smp Id: WAR091223-45 02 Client Smp ID: AR166002
Inj Date : 23-DEC-2009 11:13
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091223-45 02
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.067	0.004	13114475	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.302	6.304	-0.002	12390180	100.000	110	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.747	2.746	0.001	4434995	1000.00	977	80.00- 120.00	100.00
3.182	3.181	0.001	3490860	1000.00	969	58.59- 98.59	78.71
3.333	3.332	0.001	2021329	1000.00	984	25.36- 65.36	45.58
3.361	3.362	-0.001	2103308	1000.00	984	27.83- 67.83	47.43
3.519	3.520	-0.001	2846977	1000.00	992	43.83- 83.83	64.19
Average of Peak Amounts =					981		
7 Aroclor-1260					CAS #: 11096-82-5		
4.416	4.417	-0.001	5900740	1000.00	1020	80.00- 120.00	100.00
4.567	4.569	-0.002	7469005	1000.00	1050	108.70- 148.70	126.58
4.679	4.681	-0.002	5074833	1000.00	1050	67.97- 107.97	86.00
4.876	4.878	-0.002	5904704	1000.00	1050	81.63- 121.63	100.07
5.502	5.504	-0.002	9900758	1000.00	1100	149.96- 189.96	167.79
Average of Peak Amounts =					1.05e+03		

Data File: /chem/ecd2a.i/122309.b/022b2201.d
Date : 23-DEC-2009 11:13
Client ID: AR166002
Sample Info: IWAR091223-45 02

Column phase: CLP2

Instrument: ecd2a.i

Operator: JADC
Column diameter: 0.25

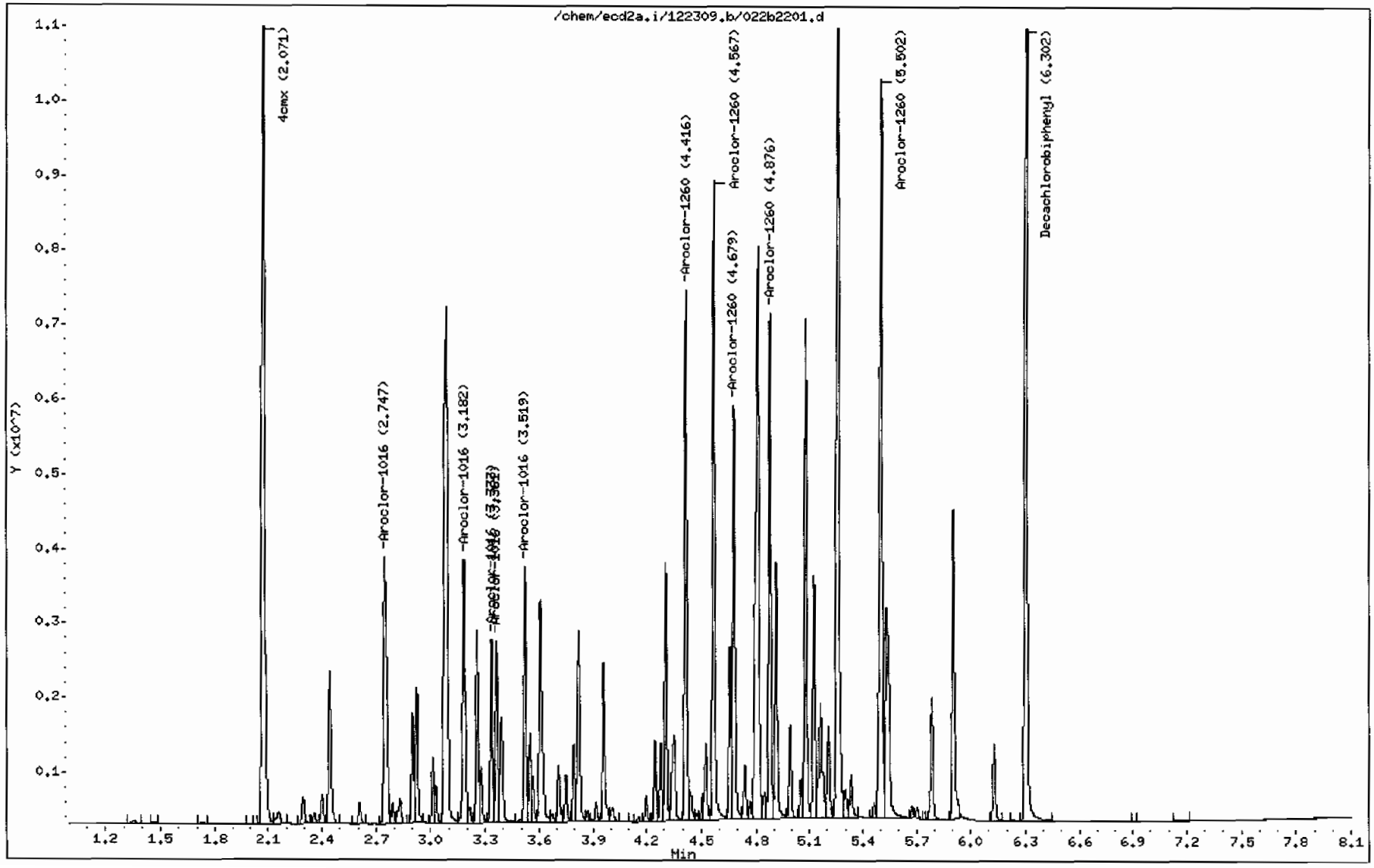

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/031f3101.d
Lab Smp Id: WAR091223-45 03 Client Smp ID: AR166003
Inj Date : 23-DEC-2009 12:57
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091223-45 03
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.772	1.770	0.002	6094565	100.000	97.8	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.613	5.613	0.000	5904676	100.000	109	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.275	2.274	0.001	2068127	1000.00	924	80.00- 120.00	100.00
2.600	2.598	0.002	4477468	1000.00	956	196.50- 236.50	216.50
2.692	2.689	0.003	1753748	1000.00	922	64.80- 104.80	84.80
2.827	2.825	0.002	899051	1000.00	921	23.47- 63.47	43.47
2.979	2.976	0.003	1350823	1000.00	926	45.32- 85.32	65.32
Average of Peak Amounts =					930		
7 Aroclor-1260					CAS #: 11096-82-5		
4.021	4.018	0.003	4275207	1000.00	1030	80.00- 120.00	100.00
4.292	4.290	0.002	2650884	1000.00	1020	42.01- 82.01	62.01
4.458	4.456	0.002	2723840	1000.00	1040	43.71- 83.71	63.71
4.671	4.669	0.002	6604430	1000.00	1080	134.48- 174.48	154.48
4.860	4.859	0.001	3175526	1000.00	1080	54.28- 94.28	74.28
Average of Peak Amounts =					1.05e+03		

Data File: /chem/ecd2a.i/122309.b/031f3101.d
Date : 23-DEC-2009 12:57
Client ID: AR166003
Sample Info: IWAR091223-45 03

Instrument: ecd2a.i
Operator: JADC
Column diameter: 0.25

Column phase: CLP1

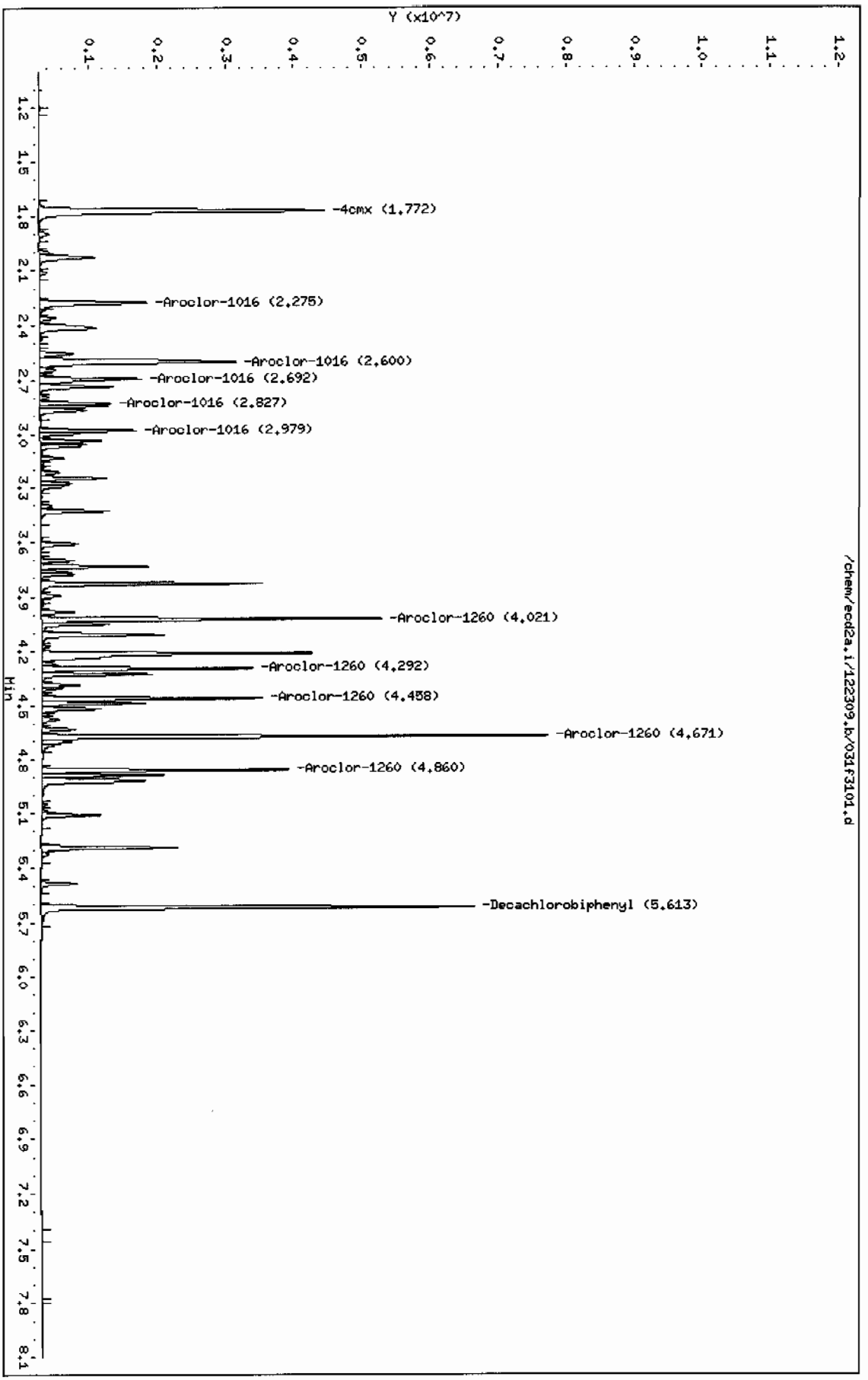

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RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/031b3101.d
Lab Smp Id: WAR091223-45 03 Client Smp ID: AR166003
Inj Date : 23-DEC-2009 12:57
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091223-45 03
Misc Info : |PCB_CVS|1660||CVS|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 31 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.068	2.067	0.001	13085238	100.000	101	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.305	6.304	0.001	12272960	100.000	109	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.747	2.746	0.001	4404375	1000.00	970	80.00- 120.00	100.00
3.183	3.181	0.002	3461610	1000.00	961	58.59- 98.59	78.59
3.334	3.332	0.002	1997670	1000.00	973	25.36- 65.36	45.36
3.362	3.362	0.000	2106419	1000.00	986	27.83- 67.83	47.83
3.521	3.520	0.001	2811195	1000.00	979	43.83- 83.83	63.83
Average of Peak Amounts =					974		
7 Aroclor-1260					CAS #: 11096-82-5		
4.419	4.417	0.002	5801143	1000.00	1000	80.00- 120.00	100.00
4.569	4.569	0.000	7466104	1000.00	1050	108.70- 148.70	128.70
4.681	4.681	0.000	5103297	1000.00	1060	67.97- 107.97	87.97
4.879	4.878	0.001	5895514	1000.00	1050	81.63- 121.63	101.63
5.504	5.504	0.000	9859419	1000.00	1090	149.96- 189.96	169.96
Average of Peak Amounts =					1.05e+03		

Data File: /chem/ecd2a.i/122309.b/031b3101.d
Date : 23-DEC-2009 12:57
Client ID: AR166003
Sample Info: IWAR091223-45 03

Column phase: CLP2

Page 1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

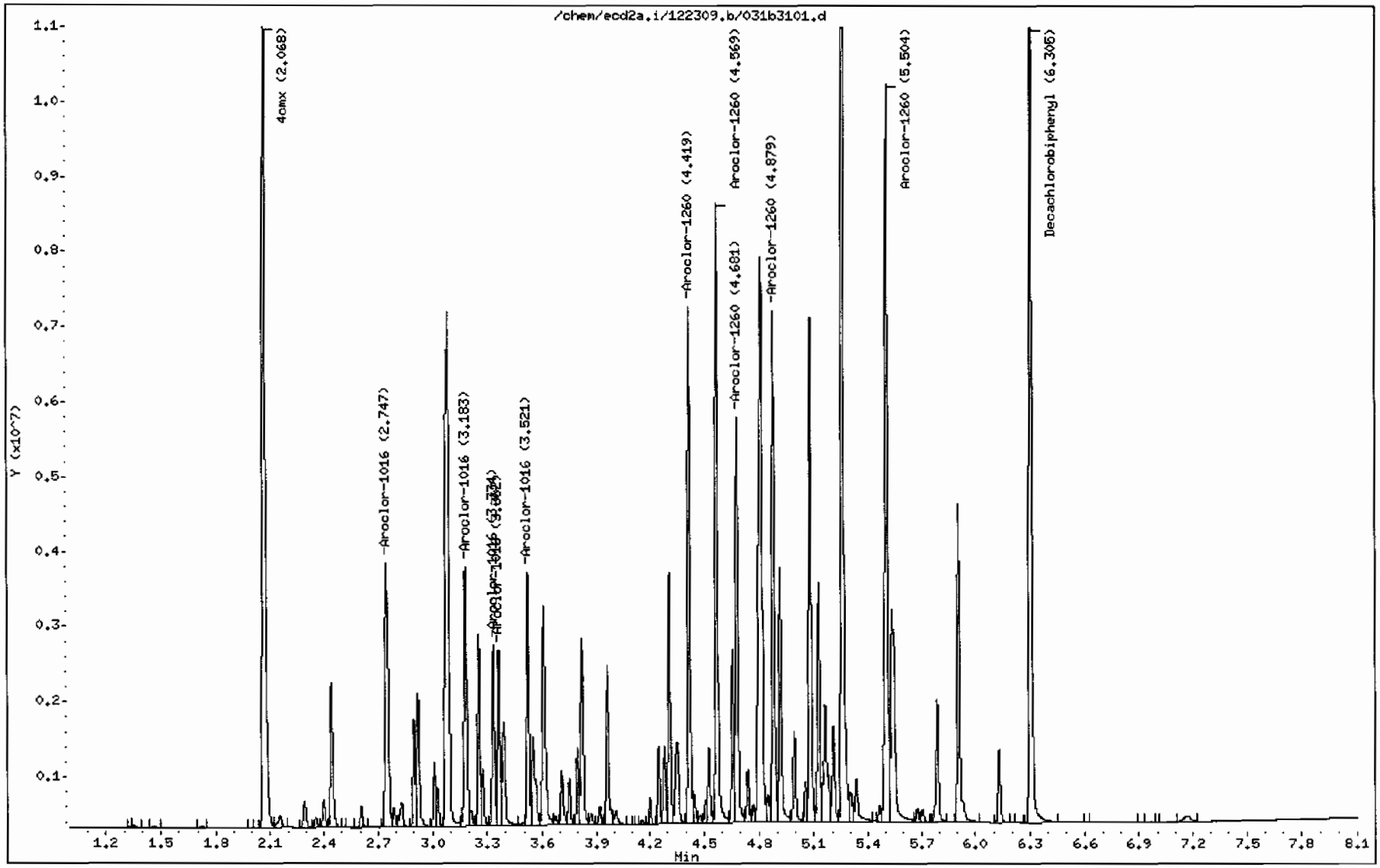

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-952

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.77 DCB: 5.61

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0700	1.77	5.61
02	ZZZZZ	ZZZZZ	12/14/09	0711	1.77	5.61
03	AR125401	WAR091102-54	12/14/09	0722	1.77	5.61
04	AR124201	WAR091102-42	12/14/09	0733	1.77	5.61
05	AR124801	WAR091027-48	12/14/09	0744	1.77	5.61
06	AR123201	WAR090930-32	12/14/09	0755	1.77	5.61
07	AR122101	WAR091111-21	12/14/09	0807	1.77	5.61
08	ZZZZZ	ZZZZZ	12/14/09	0818	1.77	5.61
09	AR126201	WAR091111-62	12/14/09	0829	1.77	5.61
10	AR126801	WAR091106-68	12/14/09	0840	1.77	5.61
11	AR166001	WAR091214-01	12/14/09	0851	1.77	5.61
12	AR166002	WAR091214-02	12/14/09	0902	1.77	5.61
13	AR166003	WAR091214-03	12/14/09	0913	1.77	5.61
14	AR166004	WAR091214-04	12/14/09	0924	1.77	5.61
15	AR166005	IAR091102-01	12/14/09	0935	1.77	5.61
16	AR166001	WAR091211-60	12/14/09	0946	1.77	5.61
17	DDTANALOGSTD	WAR091020-DD	12/14/09	0958		
18	PIBLK02	WAR091130-99	12/14/09	1009	1.77	5.61
19	ZZZZZ	ZZZZZ	12/14/09	1020	1.77	5.61
20	ZZZZZ	ZZZZZ	12/14/09	1031	1.77	5.61
21	ZZZZZ	ZZZZZ	12/14/09	1042	1.77	
22	ZZZZZ	ZZZZZ	12/14/09	1053	1.76	
23	ZZZZZ	ZZZZZ	12/14/09	1104	1.76	
24	ZZZZZ	ZZZZZ	12/14/09	1115	1.77	5.61
25	ZZZZZ	ZZZZZ	12/14/09	1126	1.77	5.61
26	ZZZZZ	ZZZZZ	12/14/09	1137	1.76	
27	ZZZZZ	ZZZZZ	12/14/09	1148	1.77	5.61
28	ZZZZZ	ZZZZZ	12/14/09	1159	1.76	5.62
29	AR166002	WAR091211-60	12/14/09	1211	1.77	5.61
30	PIBLK03	WAR091130-99	12/14/09	1222	1.77	5.61
31	ZZZZZ	ZZZZZ	12/14/09	1233	1.77	5.61
32	ZZZZZ	ZZZZZ	12/14/09	1244	1.76	

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-952

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.07 DCB: 6.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/14/09	0700	2.07	6.31
02	ZZZZZ	ZZZZZ	12/14/09	0711	2.07	6.30
03	AR125401	WAR091102-54	12/14/09	0722	2.07	6.30
04	AR124201	WAR091102-42	12/14/09	0733	2.07	6.30
05	AR124801	WAR091027-48	12/14/09	0744	2.07	6.30
06	AR123201	WAR090930-32	12/14/09	0755	2.07	6.30
07	AR122101	WAR091111-21	12/14/09	0807	2.07	6.30
08	ZZZZZ	ZZZZZ	12/14/09	0818	2.07	6.30
09	AR166201	WAR091111-62	12/14/09	0829	2.07	6.30
10	AR126801	WAR091106-68	12/14/09	0840	2.07	6.30
11	AR166001	WAR091214-01	12/14/09	0851	2.07	6.30
12	AR166002	WAR091214-02	12/14/09	0902	2.07	6.30
13	AR166003	WAR091214-03	12/14/09	0913	2.07	6.30
14	AR166004	WAR091214-04	12/14/09	0924	2.07	6.30
15	AR166005	IAR091102-01	12/14/09	0935	2.07	6.30
16	AR166001	WAR091211-60	12/14/09	0946	2.07	6.30
17	DDTANALOGSTD	WAR091020-DD	12/14/09	0958		
18	PIBLK02	WAR091130-99	12/14/09	1009	2.07	6.30
19	ZZZZZ	ZZZZZ	12/14/09	1020	2.07	6.30
20	ZZZZZ	ZZZZZ	12/14/09	1031	2.07	6.30
21	ZZZZZ	ZZZZZ	12/14/09	1042	2.07	
22	ZZZZZ	ZZZZZ	12/14/09	1053	2.07	
23	ZZZZZ	ZZZZZ	12/14/09	1104	2.06	
24	ZZZZZ	ZZZZZ	12/14/09	1115	2.07	6.30
25	ZZZZZ	ZZZZZ	12/14/09	1126	2.07	6.31
26	ZZZZZ	ZZZZZ	12/14/09	1137	2.07	
27	ZZZZZ	ZZZZZ	12/14/09	1148	2.07	6.30
28	ZZZZZ	ZZZZZ	12/14/09	1159	2.06	6.30
29	AR166002	WAR091211-60	12/14/09	1211	2.07	6.30
30	PIBLK03	WAR091130-99	12/14/09	1222	2.07	6.30
31	ZZZZZ	ZZZZZ	12/14/09	1233	2.07	6.31
32	ZZZZZ	ZZZZZ	12/14/09	1244	2.07	

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-952

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.77 DCB: 5.61

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/23/09	0656	1.77	5.61
02	ZZZZZ	ZZZZZ	12/23/09	0707	1.77	5.61
03	AR125401	WAR091216-54	12/23/09	0718	1.77	5.61
04	AR124201	WAR091217-42	12/23/09	0729	1.77	5.61
05	AR124801	WAR091217-48	12/23/09	0740	1.77	5.61
06	AR123201	WAR090930-32	12/23/09	0751	1.77	5.61
07	AR122101	WAR091111-21	12/23/09	0802	1.77	5.61
08	AR126201	WAR091111-62	12/23/09	0813	1.77	5.61
09	ZZZZZ	ZZZZZ	12/23/09	0824	1.77	5.61
10	AR126801	WAR091106-68	12/23/09	0835	1.77	5.61
11	DDTANALOGSTD	WAR091219-DD	12/23/09	0846		
12	AR166001	WAR091223-45	12/23/09	0858	1.77	5.61
13	PIBLK02	WAR091130-99	12/23/09	0934	1.77	5.62
14	PBLK01	1202001521	12/23/09	0945	1.78	5.61
15	PBLK01LCS	1202001522	12/23/09	0956	1.78	5.61
16	ZZZZZ	ZZZZZ	12/23/09	1007	1.78	5.61
17	ZZZZZ	ZZZZZ	12/23/09	1018	1.78	5.61
18	ZZZZZ	ZZZZZ	12/23/09	1029	1.78	5.61
19	ZZZZZ	ZZZZZ	12/23/09	1040	1.77	5.61
20	ZZZZZ	ZZZZZ	12/23/09	1051	1.78	5.61
21	ZZZZZ	ZZZZZ	12/23/09	1102	1.78	5.61
22	AR166002	WAR091223-45	12/23/09	1113	1.77	5.61
23	PIBLK03	WAR091130-99	12/23/09	1124	1.77	5.61
24	CAPA-10-6818	243099002	12/23/09	1136	1.78	5.61
25	ZZZZZ	ZZZZZ	12/23/09	1147	1.78	5.61
26	ZZZZZ	ZZZZZ	12/23/09	1158	1.78	5.61
27	ZZZZZ	ZZZZZ	12/23/09	1209	1.77	5.61
28	ZZZZZ	ZZZZZ	12/23/09	1220	1.78	5.61
29	ZZZZZ	ZZZZZ	12/23/09	1231	1.78	5.61
30	ZZZZZ	ZZZZZ	12/23/09	1242	1.78	5.61
31	AR166003	WAR091223-45	12/23/09	1257	1.77	5.61
32	PIBLK04	WAR091130-99	12/23/09	1322	1.77	5.62

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-952

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 12/14/09 12/14/09

Instrument ID: ECD2A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.07 DCB: 6.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR091130-99	12/23/09	0656	2.07	6.30
02	ZZZZZ	ZZZZZ	12/23/09	0707	2.07	6.30
03	AR125401	WAR091216-54	12/23/09	0718	2.07	6.30
04	AR124201	WAR091217-42	12/23/09	0729	2.07	6.30
05	AR124801	WAR091217-48	12/23/09	0740	2.07	6.30
06	AR123201	WAR090930-32	12/23/09	0751	2.07	6.30
07	AR122101	WAR091111-21	12/23/09	0802	2.07	6.30
08	AR126201	WAR091111-62	12/23/09	0813	2.07	6.30
09	ZZZZZ	ZZZZZ	12/23/09	0824	2.07	6.30
10	AR126801	WAR091106-68	12/23/09	0835	2.07	6.30
11	DDTANALOGSTD	WAR091219-DD	12/23/09	0846		
12	AR166001	WAR091223-45	12/23/09	0858	2.07	6.30
13	PIBLK02	WAR091130-99	12/23/09	0934	2.07	6.31
14	PBLK01	1202001521	12/23/09	0945	2.07	6.30
15	PBLK01LCS	1202001522	12/23/09	0956	2.07	6.30
16	ZZZZZ	ZZZZZ	12/23/09	1007	2.07	6.30
17	ZZZZZ	ZZZZZ	12/23/09	1018	2.07	6.30
18	ZZZZZ	ZZZZZ	12/23/09	1029	2.07	6.30
19	ZZZZZ	ZZZZZ	12/23/09	1040	2.07	6.30
20	ZZZZZ	ZZZZZ	12/23/09	1051	2.07	6.30
21	ZZZZZ	ZZZZZ	12/23/09	1102	2.07	6.30
22	AR166002	WAR091223-45	12/23/09	1113	2.07	6.30
23	PIBLK03	WAR091130-99	12/23/09	1124	2.07	6.30
24	CAPA-10-6818	243099002	12/23/09	1136	2.07	6.30
25	ZZZZZ	ZZZZZ	12/23/09	1147	2.07	6.30
26	ZZZZZ	ZZZZZ	12/23/09	1158	2.07	6.30
27	ZZZZZ	ZZZZZ	12/23/09	1209	2.07	6.30
28	ZZZZZ	ZZZZZ	12/23/09	1220	2.07	6.30
29	ZZZZZ	ZZZZZ	12/23/09	1231	2.07	6.30
30	ZZZZZ	ZZZZZ	12/23/09	1242	2.07	6.30
31	AR166003	WAR091223-45	12/23/09	1257	2.07	6.31
32	PIBLK04	WAR091130-99	12/23/09	1322	2.07	6.31

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10–952 **Client ID:** LCS for batch 935395

Lab Sample ID: 1202001522

Data File:	015f1501.d	**Data File:**	015b1501.d
Inst:	ECD2A.I_1	**Inst:**	ECD2A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	23–DEC–09 09:56	**Analyzed:**	23–DEC–09 09:56

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							3.32
Column 1	1	2.28	2.24 – 2.3	.623		ug/L	
	2	2.6	2.57 – 2.63	.667		ug/L	
	3	2.69	2.66 – 2.72	.652		ug/L	
	4	2.83	2.79 – 2.85	.668		ug/L	
	5	2.98	2.95 – 3.01	.687		ug/L	
					.659		
Column 2	1	2.75	2.72 – 2.78	.658		ug/L	
	2	3.18	3.15 – 3.21	.67		ug/L	
	3	3.33	3.3 – 3.36	.687		ug/L	
	4	3.36	3.33 – 3.39	.683		ug/L	
	5	3.52	3.49 – 3.55	.711		ug/L	
					.682		
Aroclor–1260							.984
Column 1	1	4.02	3.99 – 4.05	.81		ug/L	
	2	4.29	4.26 – 4.32	.797		ug/L	
	3	4.45	4.43 – 4.49	.826		ug/L	
	4	4.67	4.64 – 4.7	.867		ug/L	
	5	4.86	4.83 – 4.89	.855		ug/L	
					.831		
Column 2	1	4.42	4.39 – 4.45	.795		ug/L	
	2	4.57	4.54 – 4.6	.819		ug/L	
	3	4.68	4.65 – 4.71	.812		ug/L	
	4	4.88	4.85 – 4.91	.82		ug/L	
	5	5.5	5.47 – 5.53	.868		ug/L	
					.823		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202001521**				
Client Sample:	**QC for batch 935395**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 935395**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**935397**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 09:45**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/22/2009 17:32**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**014f1401-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	014b1401-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.100	ug/L	0.0333	0.100	1
11104-28-2	Aroclor-1221	U	0.100	ug/L	0.0333	0.100	1
11141-16-5	Aroclor-1232	U	0.100	ug/L	0.0333	0.100	1
53469-21-9	Aroclor-1242	U	0.100	ug/L	0.0333	0.100	1
12672-29-6	Aroclor-1248	U	0.100	ug/L	0.0333	0.100	1
11097-69-1	Aroclor-1254	U	0.100	ug/L	0.0333	0.100	1
11096-82-5	Aroclor-1260	U	0.100	ug/L	0.0333	0.100	1
37324-23-5	Aroclor-1262	U	0.100	ug/L	0.0333	0.100	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.132	0.200	ug/L	65.8	(29%-103%)
Decachlorobiphenyl	0.173	0.200	ug/L	86.4	(34%-118%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/014f1401-2.d
Lab Smp Id: 1202001521 Client Smp ID: PBLK01
Inj Date : 23-DEC-2009 09:45
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202001521|1|
Misc Info : |ECD82P_1L|935397|SVA|QC A|GROUND WATER|MB|||
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 15:37 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 14 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-952.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.776	1.770	0.006	7943576	127.522	0.13	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.612	5.613	-0.001	9053155	167.305	0.17	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/122309.b/014f1401-2.d
Date : 23-DEC-2009 09:45
Client ID: PBLK01
Sample Info: |1202001521|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

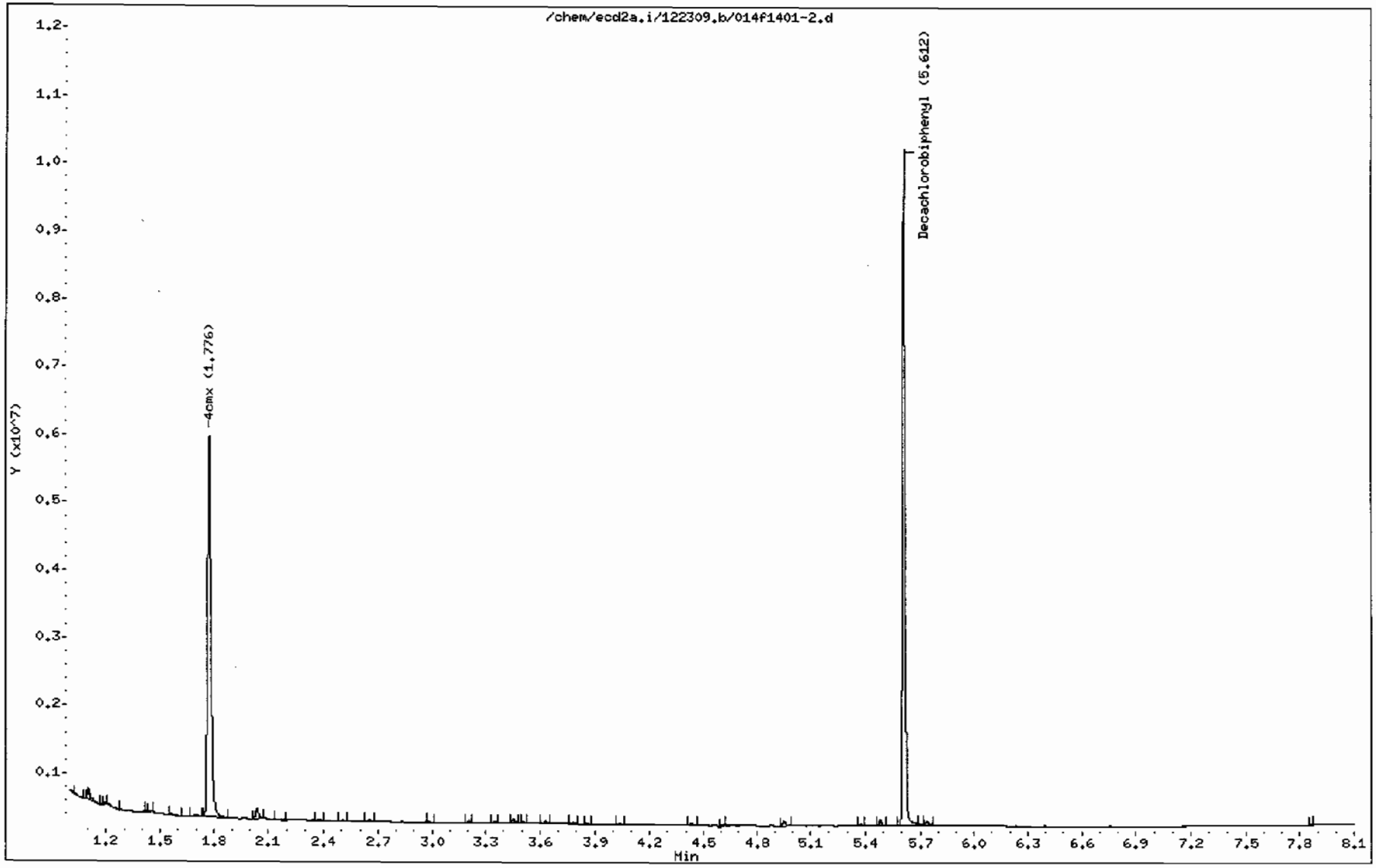

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/014b1401-2.d
Lab Smp Id: 1202001521 Client Smp ID: PBLK01
Inj Date : 23-DEC-2009 09:45
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202001521|1|
Misc Info : |ECD82P_1L|935397|SVA|QC A|GROUND WATER|MB|||
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 15:36 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 14 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-952.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.067	0.005	17015960	131.582	0.13	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.304	-0.001	19493678	172.842	0.17	80.00- 120.00	100.00

Data File: /chem/ecd2a.i/122309.b/014b1401-2.d
Date : 23-DEC-2009 09:45
Client ID: PBLK01
Sample Info: |120200152|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

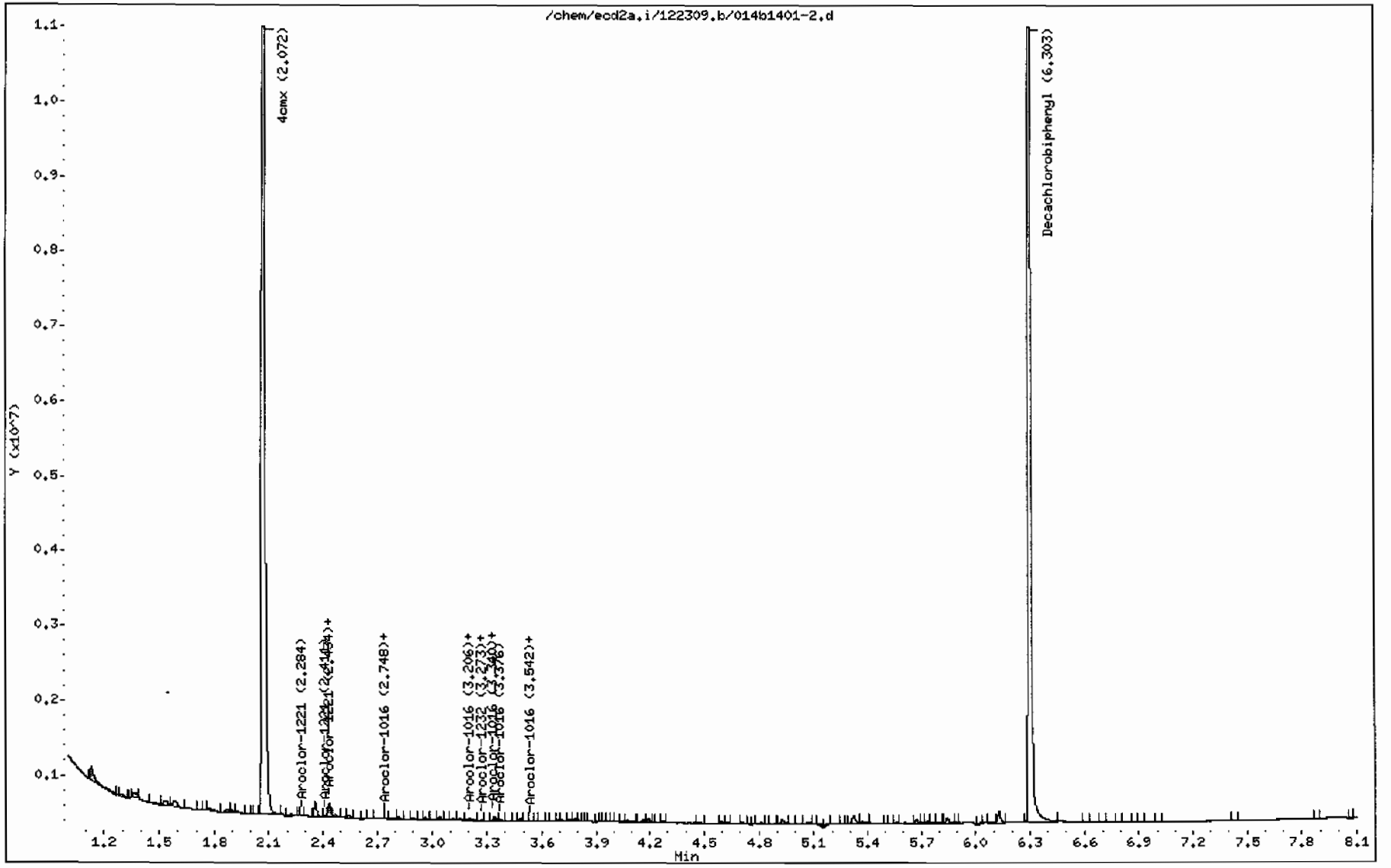

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-952**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202001522**				
Client Sample:	**QC for batch 935395**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 935395**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**935397**	**Inst:**	**ECD2A.I**	**Dilution:**	**1**
Run Date:	**12/23/2009 09:56**	**Analyst:**	**JAOC**	**Inj. Vol:**	**1 uL**
Prep Date:	**12/22/2009 17:32**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**015f1501-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	015b1501-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		0.680	ug/L	0.0333	0.100	2
11104-28-2	Aroclor-1221	U	0.100	ug/L	0.0333	0.100	1
11141-16-5	Aroclor-1232	U	0.100	ug/L	0.0333	0.100	1
53469-21-9	Aroclor-1242	U	0.100	ug/L	0.0333	0.100	1
12672-29-6	Aroclor-1248	U	0.100	ug/L	0.0333	0.100	1
11097-69-1	Aroclor-1254	U	0.100	ug/L	0.0333	0.100	1
11096-82-5	Aroclor-1260		0.830	ug/L	0.0333	0.100	1
37324-23-5	Aroclor-1262	U	0.100	ug/L	0.0333	0.100	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.126	0.200	ug/L	63.2	(29%-103%)
Decachlorobiphenyl	0.178	0.200	ug/L	89.1	(34%-118%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/015f1501-2.d
Lab Smp Id: 1202001522 Client Smp ID: PBLK01LCS
Inj Date : 23-DEC-2009 09:56
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202001522|1|
Misc Info : |ECD82P_1L|935397|SVA|QC A|GROUND WATER|LCS|||
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 15:37 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 15 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-952.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (uL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.776	1.770	0.006	7475971	120.016	0.12	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.611	5.613	-0.002	9250924	170.960	0.17	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.277	2.274	0.003	1394602	623.233	0.62	80.00- 120.00	100.00
2.601	2.598	0.003	3124437	666.864	0.67	195.14- 235.14	224.04
2.692	2.689	0.003	1239249	651.728	0.65	64.53- 104.53	88.86
2.826	2.825	0.001	652341	668.397	0.67	23.85- 63.85	46.78
2.978	2.976	0.002	1001030	686.641	0.69	44.86- 84.86	71.78

Average of Peak Concentrations = 0.66

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.017	4.018	-0.001	3373098	809.849	0.81	80.00- 120.00	100.00
4.289	4.290	-0.001	2064898	797.082	0.80	42.57- 82.57	61.22
4.454	4.456	-0.002	2172254	825.574	0.82	44.19- 84.19	64.40
4.667	4.669	-0.002	5278281	867.055	0.87	133.53- 173.53	156.48
4.856	4.859	-0.003	2515133	854.862	0.85	53.75- 93.75	74.56
			Average of Peak Concentrations =		0.83		

Data File: /chem/ecd2a.i/122309.b/015f1501-2.d
Date : 23-DEC-2009 09:56
Client ID: PBLK01LCS
Sample Info: |120200152211|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

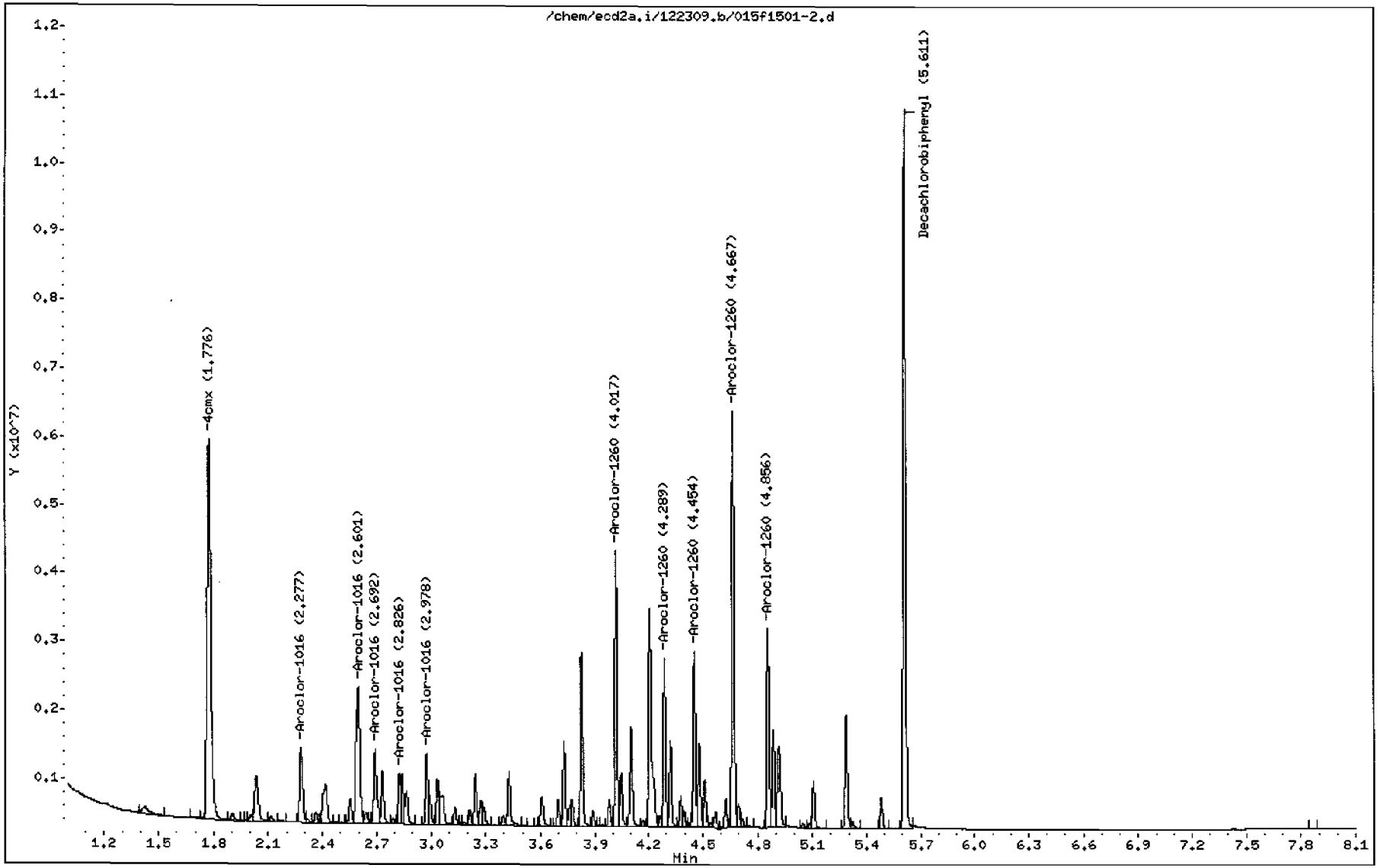

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/015b1501-2.d
Lab Smp Id: 1202001522 Client Smp ID: PBLK01LCS
Inj Date : 23-DEC-2009 09:56
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202001522|1|
Misc Info : |ECD82P_1L|935397|SVA|QC A|GROUND WATER|LCS|||
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 15:36 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 15 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-952.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.067	0.005	16337755	126.338	0.13	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.303	6.304	-0.001	20103448	178.249	0.18	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.748	2.746	0.002	2985137	657.835	0.66	80.00- 120.00	100.00
3.183	3.181	0.002	2411997	669.596	0.67	58.12- 98.12	80.80
3.333	3.332	0.001	1410304	686.871	0.69	25.36- 65.36	47.24
3.362	3.362	0.000	1459312	682.850	0.68	27.16- 67.16	48.89
3.520	3.520	0.000	2040994	711.020	0.71	43.90- 83.90	68.37
Average of Peak Concentrations =					0.68		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.416	4.417	-0.001	4586540	795.319	0.80	80.00- 120.00	100.00
4.568	4.569	-0.001	5834338	818.982	0.82	105.96- 145.96	127.21
4.679	4.681	-0.002	3910764	811.580	0.81	65.83- 105.83	85.27
4.877	4.878	-0.001	4619737	820.301	0.82	79.39- 119.39	100.72
5.503	5.504	-0.001	7840727	867.576	0.87	145.37- 185.37	170.95
Average of Peak Concentrations =					0.82		

Data File: /chem/ecd2a.i/122309.b/015b1501-2.d
Date : 23-DEC-2009 09:56
Client ID: PBLK01LCS
Sample Info: |1202001522|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

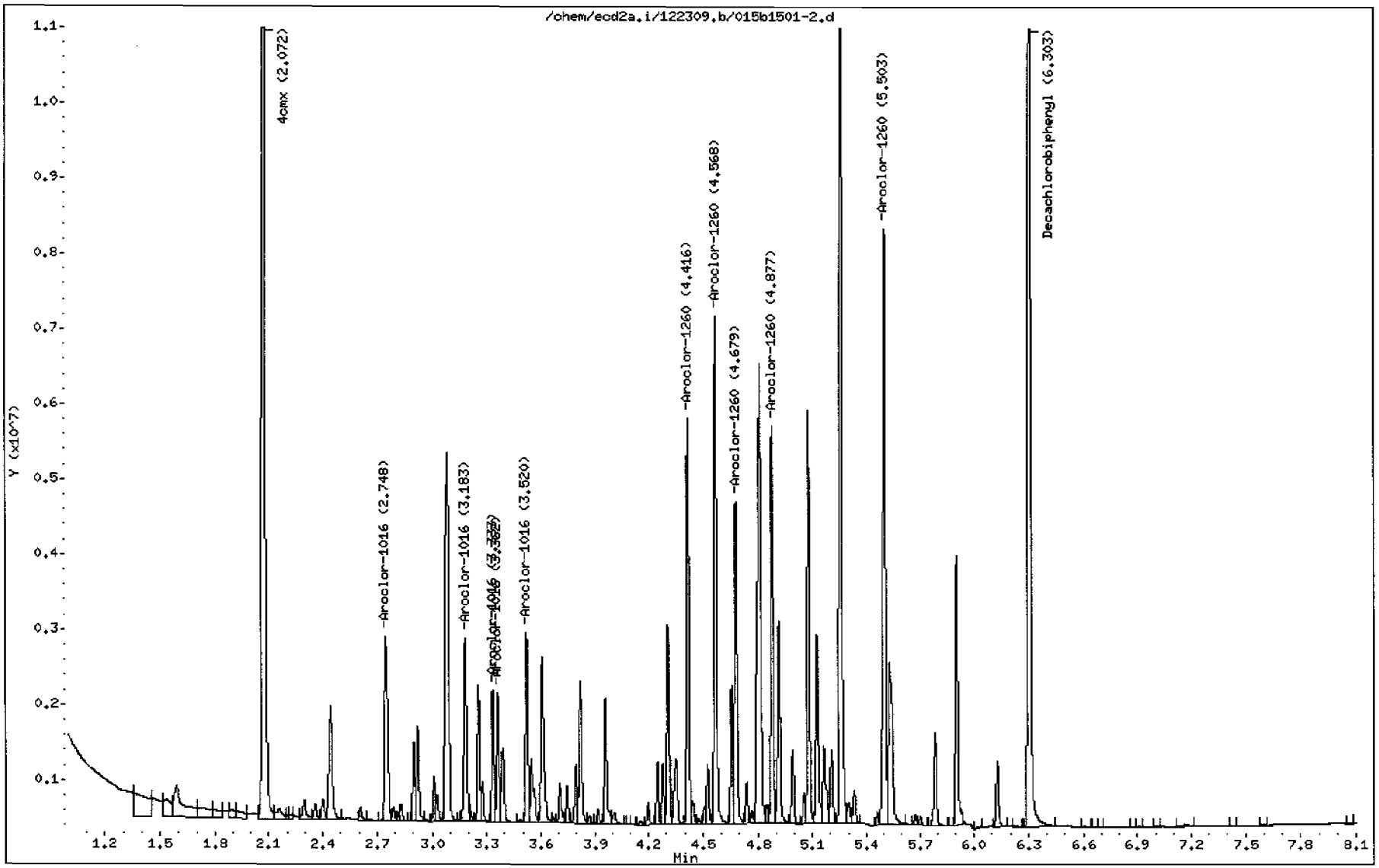

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD2

DATE: 12/14/2009 METHOD: ECD2-F-8082-111209A.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:DA385
ALUMINA LOT:1230997-A
COPPER LOT:236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number: Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 IB	YS1	14-DEC-2009 07:00		121409	1.0		CLEAN
002f0201.d	WAR091211-60 01	YS1	14-DEC-2009 07:11		121409	1.0		DUSE RE-I-CAL
003f0301.d	WAR091102-54	YS1	14-DEC-2009 07:22		121409	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR091102-42	YS1	14-DEC-2009 07:33		121409	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR091027-48	YS1	14-DEC-2009 07:44		121409	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR090930-32	YS1	14-DEC-2009 07:55		121409	1.0		PATTERN ONLY
007f0701.d	WAR091111-21	YS1	14-DEC-2009 08:07		121409	1.0		PATTERN ONLY
008f0801.d	AR1660-4	YS1	14-DEC-2009 08:18		121409	1.0		DUSE SCREEN
009f0901.d	WAR091111-62	YS1	14-DEC-2009 08:29		121409	1.0		PATTERN ONLY
010f1001.d	WAR091106-68	YS1	14-DEC-2009 08:40		121409	1.0		PATTERN ONLY
011f1101.d	WAR091214-01 60	YS1	14-DEC-2009 08:51		121409	1.0		AR1660 I-CAL LEVEL 1
012f1201.d	WAR091214-02 60	YS1	14-DEC-2009 09:02		121409	1.0		AR1660 I-CAL LEVEL 2
013f1301.d	WAR091214-03 60	YS1	14-DEC-2009 09:13		121409	1.0		AR1660 I-CAL LEVEL 3
014f1401.d	WAR091214-04 60	YS1	14-DEC-2009 09:24		121409	1.0		AR1660 I-CAL LEVEL 4
015f1501.d	IAR091102-01	YS1	14-DEC-2009 09:35		121409	1.0		AR1660 I-CAL LEVEL 5

Instrument Batch: /chem/ecd2a.i/121409.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	WAR091211-60 01	YS1	14-DEC-2009 09:46		121409	1.0		PASSED ON BOTH COLUMNS

017f1701.d	WAR091020-DDT	YS1	14-DEC-2009 09:58			121409	1.0		DDT ANALOG STANDARD
018f1801.d	WAR091130-99 02	YS1	14-DEC-2009 10:09	SOLV		121409	1.0	IB	CLEAN
019f1901.d	1201992205	YS1	14-DEC-2009 10:20	931371		241934	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
020f2001.d	1201992206	YS1	14-DEC-2009 10:31	931371		241934	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
021f2101.d	241934001	YS1	14-DEC-2009 10:42	931371		241934	10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
022f2201.d	1201992207	YS1	14-DEC-2009 10:53	931371		241934	10.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
023f2301.d	1201992208	YS1	14-DEC-2009 11:04	931371		241934	10.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
024f2401.d	241934002	YS1	14-DEC-2009 11:15	931371		241934	1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
025f2501.d	241934003	YS1	14-DEC-2009 11:26	931371		241934	1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
026f2601.d	241934004	YS1	14-DEC-2009 11:37	931371		241934	10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
027f2701.d	241934005	YS1	14-DEC-2009 11:48	931371		241934	1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	241934006	YS1	14-DEC-2009 11:59	931371		241934	20.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	WAR091211-60 02	YS1	14-DEC-2009 12:11	1660		121409	1.0	CVS	PASSED ON BOTH COLUMNS
030f3001.d	WAR091130-99 03	YS1	14-DEC-2009 12:22	SOLV		121409	1.0	IB	CLEAN
031f3101.d	241934007	YS1	14-DEC-2009 12:33	931371		241934	1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	241934008	YS1	14-DEC-2009 12:44	931371		241934	10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	241934009	YS1	14-DEC-2009 13:00	931371		241934	1.0	NREA	DUSE RR5X AFTER MORE SULFUR CLEANED
034f3401.d	241934010	YS1	14-DEC-2009 13:11	931371		241934	10.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	241934011	YS1	14-DEC-2009 13:27	931371		241934	5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd2a.i/121409.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	241935001	YS1	14-DEC-2009 13:43	931371	241935	1.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
037f3701.d	241935004	YS1	14-DEC-2009 13:54	931371	241935	5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
038f3801.d	241935005	YS1	14-DEC-2009 14:05	931371	241935	5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	241935006	YS1	14-DEC-2009 14:21	931371	241935	50.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	241935007	YS1	14-DEC-2009 14:36	931371	241935	5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
041f4101.d	WAR091211-60 03	YS1	14-DEC-2009 14:52		121409	1.0		PASSED ON BOTH COLUMNS

042f4201.d	WAR091130-99 04	YS1	14-DEC-2009 15:03	SOLV	121409		1.0	IB	CLEAN
043f4301.d	241934009	YS1	14-DEC-2009 15:14	931371	241934		5.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
044f4401.d	241935008	YS1	14-DEC-2009 15:30	931371	241935		20000.0	NREA	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	WAR091211-60 04	YS1	14-DEC-2009 15:45		121409		1.0		PASSED ON BOTH COLUMNS

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD2

DATE: 12/24/2009 METHOD: ECD2-F-8082-111209A.m OPERATOR:JAOC REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:DA385
ALUMINA LOT:1230997-A
COPPER LOT:236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standards Log
Initial Calibration Std ID's: See Calibration History and Standards Log
GEL SOP GL-OA-E-040
EPA Method: 8082 Polychlorinated Biphenyls PCBs by Gas Chromatography
Sequence Number:122309 Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR091130-99 IB	JAOC	23-DEC-2009 06:56		122309	1.0		CLEAN
002f0201.d	WAR091211-60 01	JAOC	23-DEC-2009 07:07		122309	1.0		DUSE
003f0301.d	WAR091216-54	JAOC	23-DEC-2009 07:18		122309	1.0		PASSES BOTH COLUMNS
004f0401.d	WAR091217-42	JAOC	23-DEC-2009 07:29		122309	1.0		PASSES BOTH COLUMNS
005f0501.d	WAR091217-48	JAOC	23-DEC-2009 07:40		122309	1.0		PASSES BOTH COLUMNS
006f0601.d	WAR090930-32	JAOC	23-DEC-2009 07:51		122309	1.0		PATTERN ONLY
007f0701.d	WAR091111-21	JAOC	23-DEC-2009 08:02		122309	1.0		PATTERN ONLY
008f0801.d	WAR091111-62	JAOC	23-DEC-2009 08:13		122309	1.0		PATTERN ONLY
009f0901.d	WAR091211-60 01	JAOC	23-DEC-2009 08:24		122309	1.0		DUSE
010f1001.d	WAR091106-68	JAOC	23-DEC-2009 08:35		122309	1.0		PATTERN ONLY
011f1101.d	WAR091219-DDT	JAOC	23-DEC-2009 08:46		122309	1.0		DDT
012f1201.d	WAR091223-45 01	JAOC	23-DEC-2009 08:58		122309	1.0		PASSES BOTH COLUMNS
013f1301.d	WAR091130-99 02	JAOC	23-DEC-2009 09:34		122309	1.0		CLEAN
014f1401.d	1202001521	JAOC	23-DEC-2009 09:45	935397	10-915	1.0	QC A	UPLOAD BOTH, USE HIGHER
015f1501.d	1202001522	JAOC	23-DEC-2009 09:56	935397	10-915	1.0	QC A	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd2a.i/122309.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
016f1601.d	242426002	JAOC	23-DEC-2009 10:07	935397	10-820	1.0	LANL	DUSE, CONFIRMS ORGINAL DATA

017f1701.d	242935002	JAOC	23-DEC-2009 10:18	935397	10-915	1.0	LANL	UPLOAD BOTH, USE HIGHER
018f1801.d	1202001523	JAOC	23-DEC-2009 10:29	935397	10-915	1.0	QC A	UPLOAD BOTH, USE HIGHER
019f1901.d	1202001524	JAOC	23-DEC-2009 10:40	935397	10-915	1.0	QC A	UPLOAD BOTH, USE HIGHER
020f2001.d	242935010	JAOC	23-DEC-2009 10:51	935397	10-915	1.0	LANL	UPLOAD BOTH, USE HIGHER
021f2101.d	243012003	JAOC	23-DEC-2009 11:02	935397	10-937	1.0	LANL	UPLOAD BOTH, USE HIGHER
022f2201.d	WAR091223-45 02	JAOC	23-DEC-2009 11:13		122309	1.0		PASSES BOTH COLUMNS
023f2301.d	WAR091130-99 03	JAOC	23-DEC-2009 11:24		122309	1.0		CLEAN
024f2401.d	243099002	JAOC	23-DEC-2009 11:36	935397	10-952	1.0	LANL	UPLOAD BOTH, USE HIGHER
025f2501.d	243254004	JAOC	23-DEC-2009 11:47	935397	10-972	1.0	LANL	UPLOAD BOTH, USE HIGHER
026f2601.d	243254009	JAOC	23-DEC-2009 11:58	935397	10-972	1.0	LANL	UPLOAD BOTH, USE HIGHER
027f2701.d	243283002	JAOC	23-DEC-2009 12:09	935397	10-994	1.0	LANL	UPLOAD BOTH, USE HIGHER
028f2801.d	243284003	JAOC	23-DEC-2009 12:20	935397	10-997	1.0	LANL	UPLOAD BOTH, USE HIGHER
029f2901.d	243284007	JAOC	23-DEC-2009 12:31	935397	10-997	1.0	LANL	UPLOAD BOTH, USE HIGHER
030f3001.d	243284010	JAOC	23-DEC-2009 12:42	935397	10-997	1.0	LANL	UPLOAD BOTH, USE HIGHER
031f3101.d	WAR091223-45 03	JAOC	23-DEC-2009 12:57		122309	1.0		PASSES BOTH COLUMNS
032f3201.d	WAR091130-99 04	JAOC	23-DEC-2009 13:22		122309	1.0		CLEAN
033f3301.d	1202001900	JAOC	23-DEC-2009 13:33	935581	EUI-7440	1.0	QC A	UPLOAD BOTH, USE HIGHER
034f3401.d	1202001901	JAOC	23-DEC-2009 13:44	935581	EUI-7440	1.0	QC A	UPLOAD BOTH, USE HIGHER
035f3501.d	1202001904	JAOC	23-DEC-2009 13:55	935581	EUI-7440	1.0	QC A	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd2a.i/122309.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	243194001	JAOC	23-DEC-2009 14:06	935581	EUI-7440	100.0	CARE	UPLOAD BOTH, USE HIGHER
037f3701.d	1202001902	JAOC	23-DEC-2009 14:17	935581	EUI-7440	100.0	QC A	UPLOAD BOTH, USE HIGHER
038f3801.d	1202001903	JAOC	23-DEC-2009 14:28	935581	EUI-7440	100.0	QC A	UPLOAD BOTH, USE HIGHER
039f3901.d	243208001	JAOC	23-DEC-2009 14:39	935581	EUI-7443	100.0	CARE	UPLOAD BOTH, USE HIGHER
040f4001.d	243208002	JAOC	23-DEC-2009 14:50	935581	EUI-7443	100.0	CARE	UPLOAD BOTH, USE HIGHER
041f4101.d	243208003	JAOC	23-DEC-2009 15:02	935581	EUI-7443	100.0	CARE	UPLOAD BOTH, USE HIGHER

042f4201.d	243208004	JAOC	23-DEC-2009 15:23	935581	EUI-7443	100.0	CARE	UPLOAD BOTH, USE HIGHER
043f4301.d	WAR091223-45 04	JAOC	23-DEC-2009 15:24		122309	1.0		PASSES BOTH COLUMNS
044f4401.d	WAR091130-99 05	JAOC	23-DEC-2009 15:35		122309	1.0		CLEAN
045f4501.d	1202002950	JAOC	23-DEC-2009 15:46	936077	243352	1.0	QC A	UPLOAD BOTH, USE FRONT
046f4601.d	1202002951	JAOC	23-DEC-2009 15:57	936077	243352	1.0	QC A	UPLOAD BOTH, USE FRONT
047f4701.d	1202002954	JAOC	23-DEC-2009 16:08	936077	243352	1.0	QC A	UPLOAD BOTH, USE FRONT
048f4801.d	243352001	JAOC	23-DEC-2009 16:19	936077	243352	5.0	MECP	UPLOAD BOTH, USE FRONT
049f4901.d	243372001	JAOC	23-DEC-2009 16:30	936077	243372	1.0	MECP	UPLOAD BOTH, USE FRONT
050f5001.d	243372002	JAOC	23-DEC-2009 16:41	936077	243372	1.0	MECP	UPLOAD BOTH, USE FRONT
051f5101.d	243372003	JAOC	23-DEC-2009 16:53	936077	243372	5.0	MECP	UPLOAD BOTH, USE FRONT
052f5201.d	243372004	JAOC	23-DEC-2009 17:04	936077	243372	1.0	MECP	UPLOAD BOTH, USE FRONT
053f5301.d	WAR091223-45 05	JAOC	23-DEC-2009 17:19		122309	1.0		PASSES BOTH COLUMNS
054f5401.d	WAR091130-99 06	JAOC	23-DEC-2009 17:30		122309	1.0		CLEAN
055f5501.d	1202002874	JAOC	23-DEC-2009 17:41	936046	33340-060-1	1.0	QC A	UPLOAD BOTH, USE HIGHER

Instrument Batch: /chem/ecd2a.i/122309.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056f5601.d	1202002875	JAOC	23-DEC-2009 17:52	936046	33340-060-1	1.0	QC A	UPLOAD BOTH, USE HIGHER
057f5701.d	243388002	JAOC	23-DEC-2009 18:04	936046	33340-060-1	5.0	PNLE	UPLOAD BOTH, USE HIGHER
058f5801.d	1202002876	JAOC	23-DEC-2009 18:15	936046	33340-060-1	5.0	QC A	UPLOAD BOTH, USE HIGHER
059f5901.d	1202002877	JAOC	23-DEC-2009 18:26	936046	33340-060-1	5.0	QC A	UPLOAD BOTH, USE HIGHER
060f6001.d	WAR091223-45 06	JAOC	23-DEC-2009 18:41		122309	1.0		PASSES BOTH COLUMNS
061f6101.d	WAR091130-99 07	JAOC	23-DEC-2009 18:53		122309	1.0		CLEAN

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/001b0101.d
Lab Smp Id: WAR091130-99 IB Client Smp ID: PIBLK01
Inj Date : 23-DEC-2009 06:56
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091130-99 IB
Misc Info : |INSTBLK|SOLV||IB|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.067	2.067	0.000	28117655	217.430	217	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.300	6.304	-0.004	26707845	236.807	237	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/122309.b/001b0101.d

Page 1

Date : 23-DEC-2009 06:56

Client ID: PIBLK01

Instrument: ecd2a.i

Sample Info: IWAR091130-99 IB

Operator: JAOC

Column phase: CLP2

Column diameter: 0.25

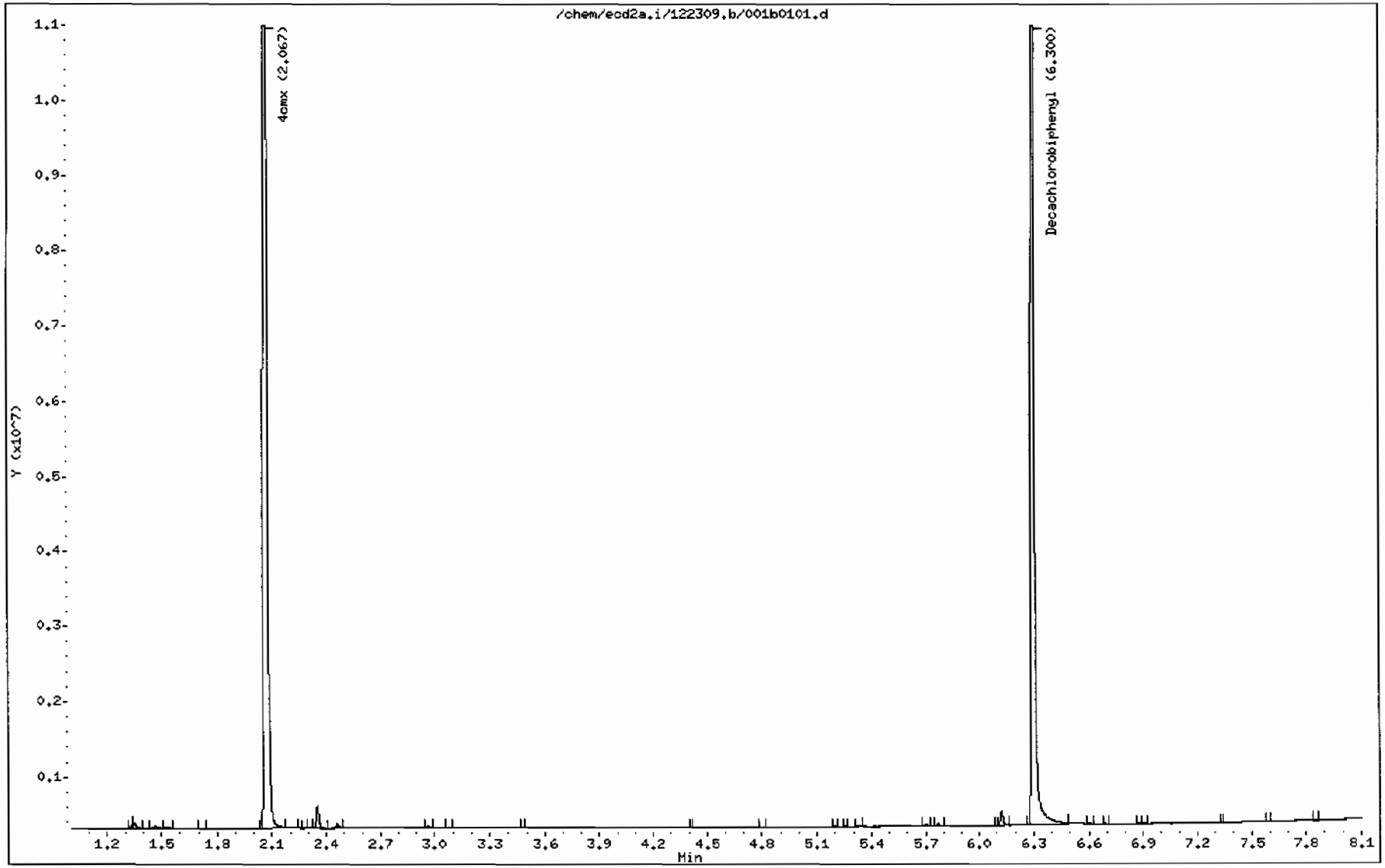

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/001f0101.d
Lab Smp Id: WAR091130-99 IB Client Smp ID: PIBLK01
Inj Date : 23-DEC-2009 06:56
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091130-99 IB
Misc Info : |INSTBLK|SOLV||IB|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.769	1.770	-0.001	12927811	207.537	208	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.606	5.613	-0.007	12409372	229.329	229	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/122309.b/001f0101.d
Date : 23-DEC-2009 06:56
Client ID: PIBLK01
Sample Info: IWAR091130-99 IB

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

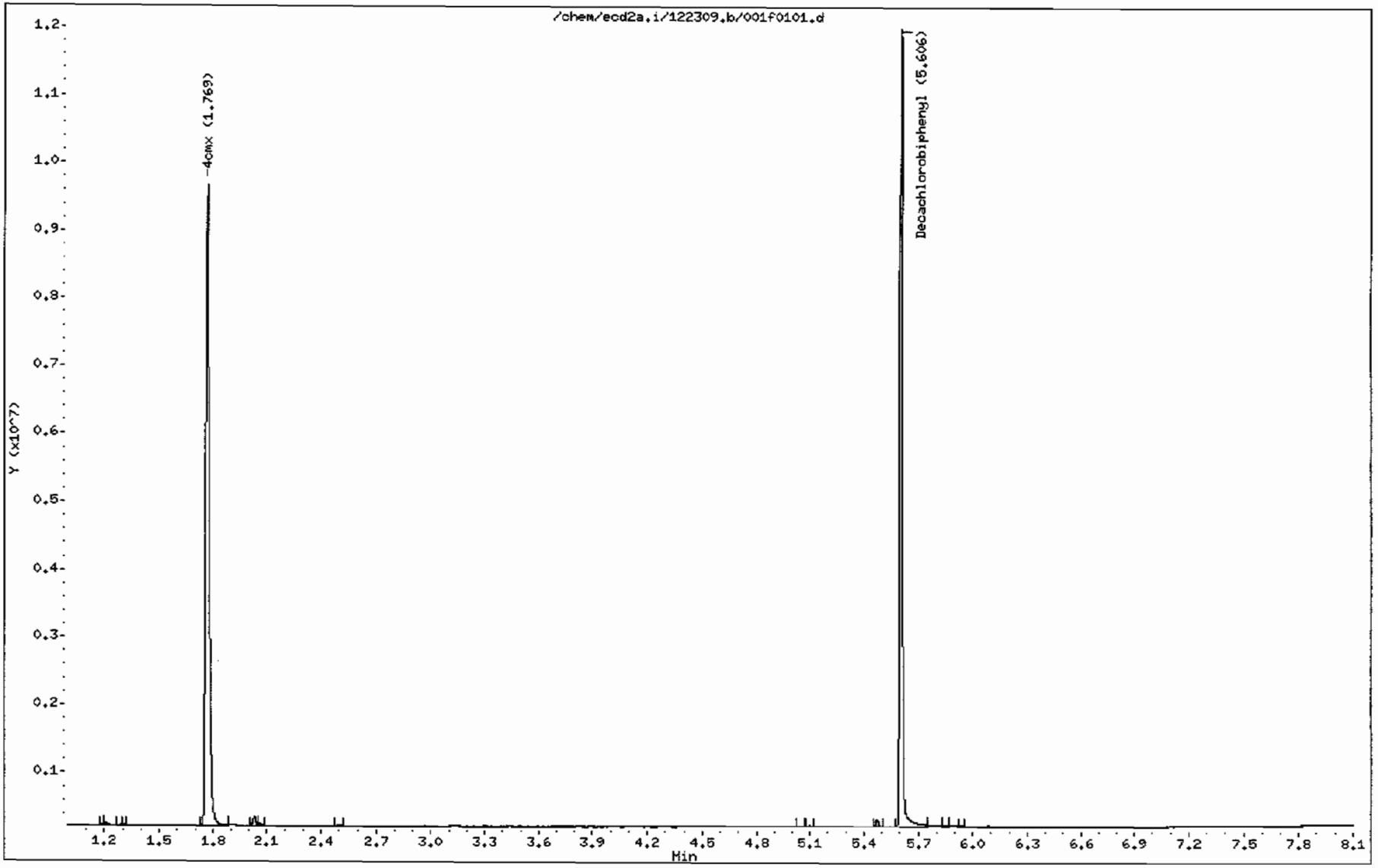

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/013b1301.d
Lab Smp Id: WAR091130-99 02 Client Smp ID: PIBLK02
Inj Date : 23-DEC-2009 09:34
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091130-99 02
Misc Info : |INSTBLK|SOLV||IB|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 13 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.069	2.067	0.002	27777461	214.800	215	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.306	6.304	0.002	26520056	235.142	235	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/122309.b/013b1301.d
Date : 23-DEC-2009 09:34
Client ID: PIBLK02
Sample Info: IWAR091130-99 02

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

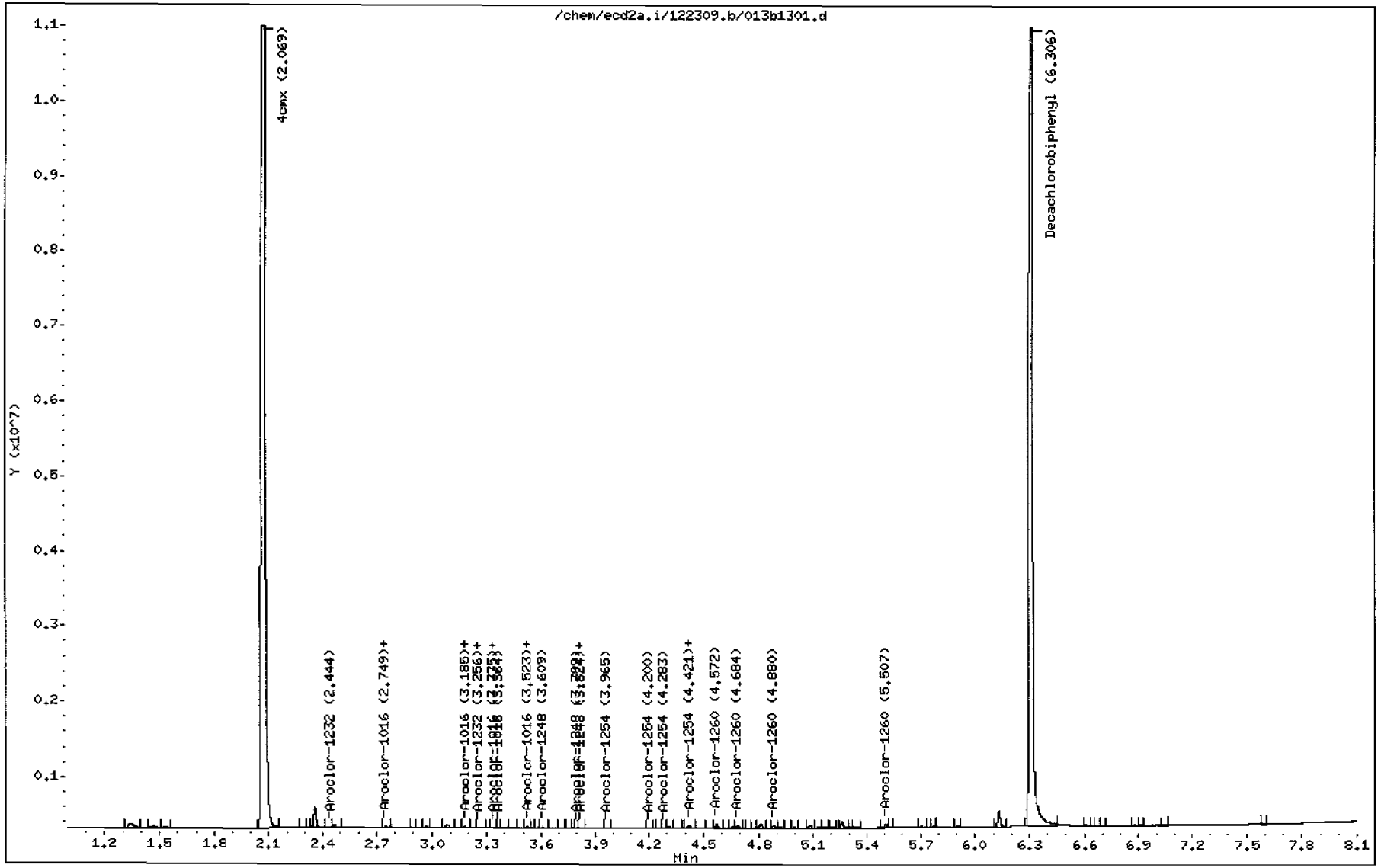

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/013f1301.d
Lab Smp Id: WAR091130-99 02 Client Smp ID: PIBLK02
Inj Date : 23-DEC-2009 09:34
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091130-99 02
Misc Info : |INSTBLK|SOLV||IB|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 13 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.773	1.770	0.003	12647853	203.042	203	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.618	5.613	0.005	12185131	225.185	225	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/122309.b/013f1301.d
Date : 23-DEC-2009 09:34
Client ID: PIBLK02
Sample Info: IWAR091130-99 02

Column phase: CLP1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

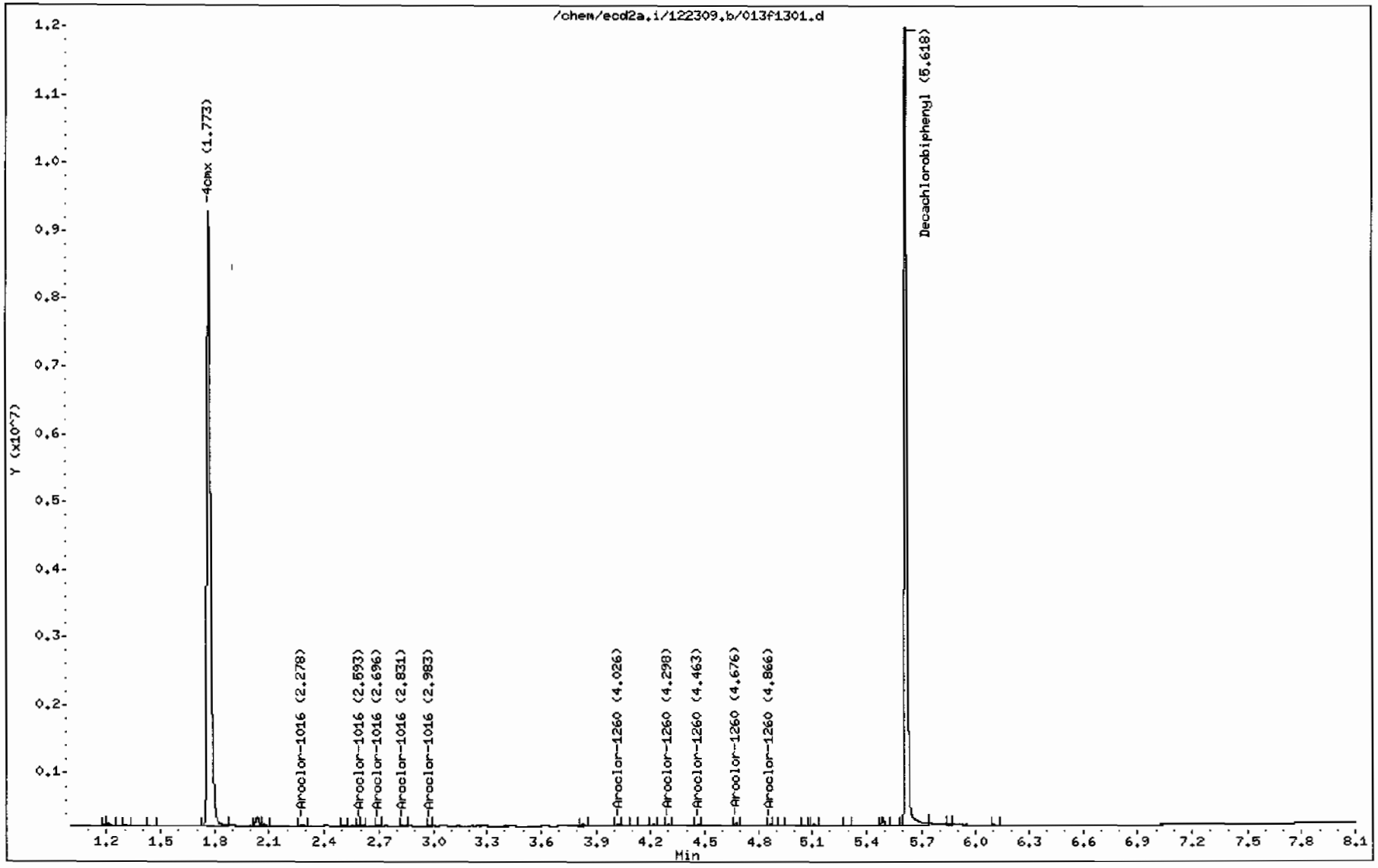

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/023b2301.d
Lab Smp Id: WAR091130-99 03 Client Smp ID: PIBLK03
Inj Date : 23-DEC-2009 11:24
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091130-99 03
Misc Info : |INSTBLK|SOLV||IB|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 23 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.067	0.004	28014959	216.636	217	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.302	6.304	-0.002	26181069	232.137	232	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/122309.b/023b2301.d
Date : 23-DEC-2009 11:24
Client ID: PIBLK03
Sample Info: IWAR091130-99 03

Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

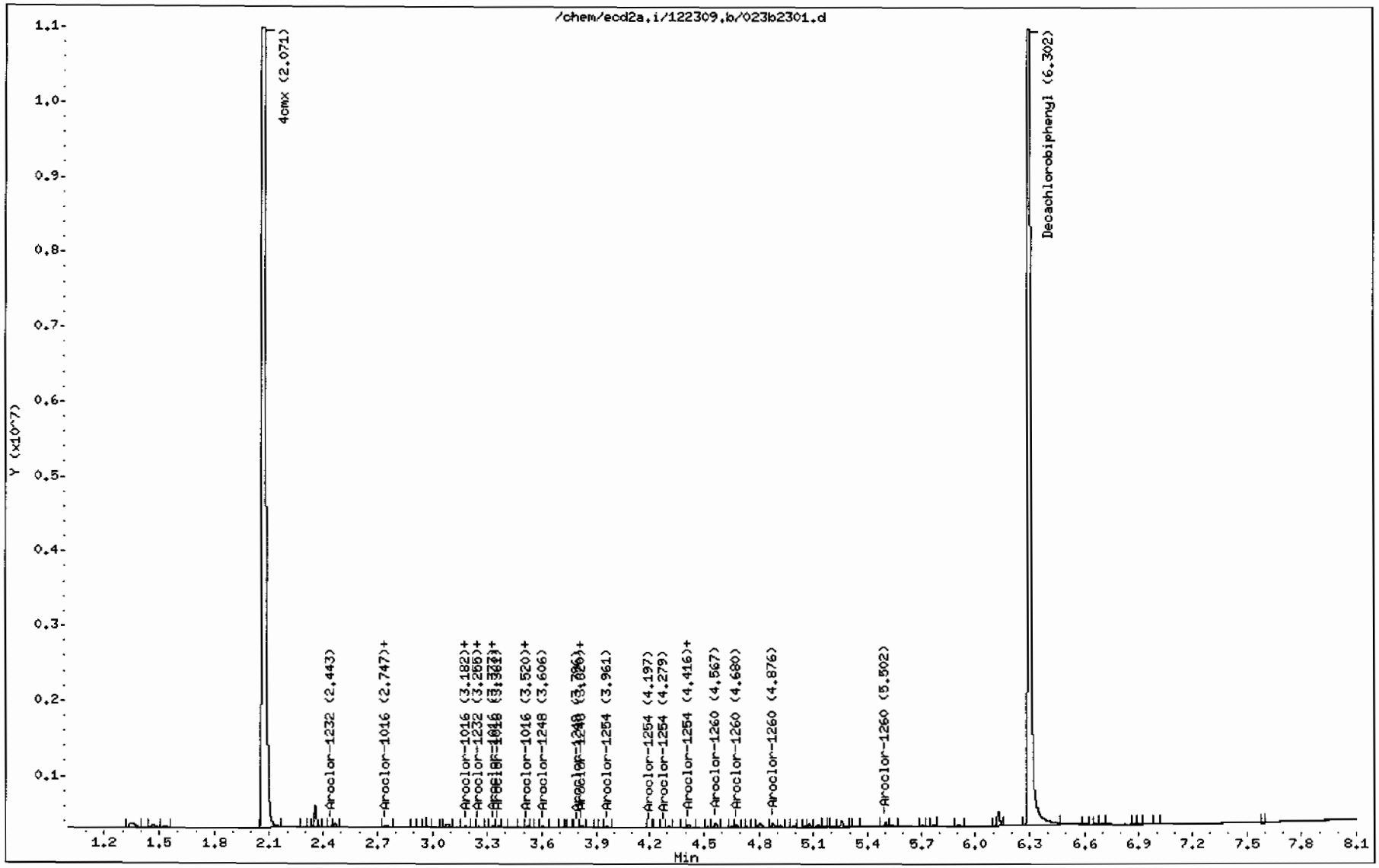

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/023f2301.d
Lab Smp Id: WAR091130-99 03 Client Smp ID: PIBLK03
Inj Date : 23-DEC-2009 11:24
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |WAR091130-99 03
Misc Info : |INSTBLK|SOLV||IB|
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 23 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.770	0.004	12884819	206.847	207	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.609	5.613	-0.004	12295355	227.222	227	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd2a.i/122309.b/023f2301.d
Date : 23-DEC-2009 11:24
Client ID: PIBLK03
Sample Info: IWAR091130-99 03

Column phase: CLP1

Instrument: ecd2a.i

Operator: JADC
Column diameter: 0.25

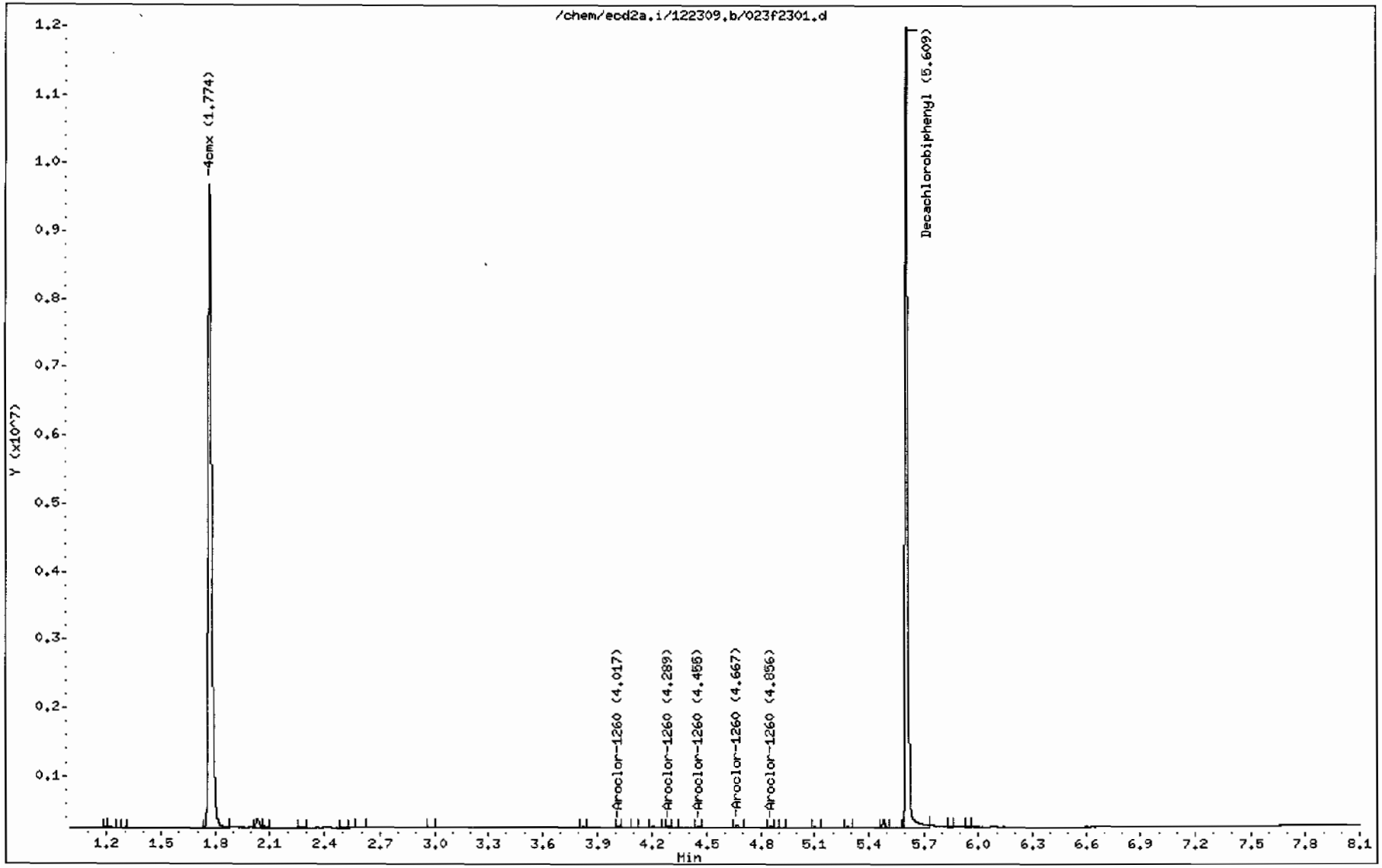

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/018b1801.d
Lab Smp Id: 1202001523 Client Smp ID: CAWA-10-5479MS
Inj Date : 23-DEC-2009 10:29
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202001523|1|
Misc Info : |ECD82P_1L|935397|SVA|QC A|GROUND WATER|MS|||
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 18 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-915.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.072	2.067	0.005	13710231	106.019	0.11	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.302	6.304	-0.002	16690771	147.990	0.15	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.748	2.746	0.002	2380755	524.647	0.52	80.00- 120.00	100.00
3.182	3.181	0.001	1936850	537.690	0.54	58.59- 98.59	81.35
3.334	3.332	0.002	1150515	560.344	0.56	25.36- 65.36	48.33
3.361	3.362	-0.001	1185533	554.742	0.55	27.83- 67.83	49.80
3.519	3.520	-0.001	1647935	574.090	0.57	43.83- 83.83	69.22

Average of Peak Concentrations = 0.55

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.416	4.417	-0.001	3996857	693.066	0.69	80.00- 120.00	100.00
4.568	4.569	-0.001	5108846	717.143	0.72	108.70- 148.70	127.82
4.679	4.681	-0.002	3488861	724.024	0.72	67.97- 107.97	87.29
4.876	4.878	-0.002	4113491	730.410	0.73	81.63- 121.63	102.92
5.502	5.504	-0.002	6601526	730.458	0.73	149.96- 189.96	165.17
			Average of Peak Concentrations =		0.72		

Data File: /chem/ecd2a.i/122309.b/018b1801.d
Date : 23-DEC-2009 10:29
Client ID: CAWA-10-5479MS
Sample Info: |12020015231|1|
Volume Injected (uL): 1.0
Column phase: CLP2

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Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

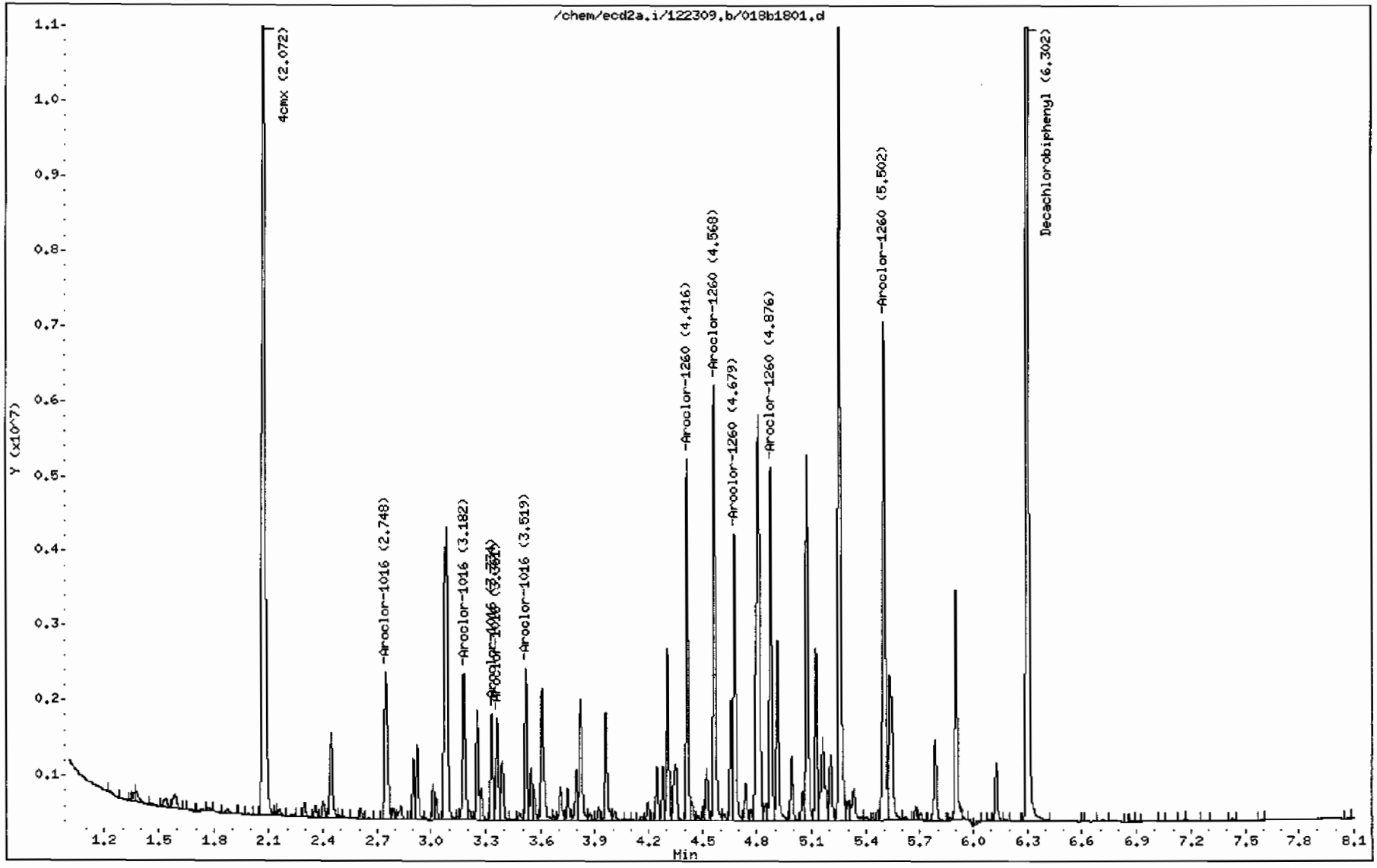

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/018f1801.d
Lab Smp Id: 1202001523 Client Smp ID: CAWA-10-5479MS
Inj Date : 23-DEC-2009 10:29
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202001523|1|
Misc Info : |ECD82P_1L|935397|SVA|QC A|GROUND WATER|MS|||
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 18 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-915.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.776	1.770	0.006	6439141	103.371	0.10	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.609	5.613	-0.004	7682884	141.982	0.14	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.277	2.274	0.003	1137241	508.221	0.51	80.00- 120.00	100.00
2.600	2.598	0.002	2490822	531.628	0.53	196.50- 236.50	219.02
2.692	2.689	0.003	1018943	535.868	0.54	64.80- 104.80	89.60
2.827	2.825	0.002	517318	530.051	0.53	23.47- 63.47	45.49
2.978	2.976	0.002	816188	559.851	0.56	45.32- 85.32	71.77

Average of Peak Concentrations = 0.53

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.017	4.018	-0.001	2983225	716.244	0.72	80.00- 120.00	100.00
4.288	4.290	-0.002	1849813	714.056	0.71	42.01- 82.01	62.01
4.454	4.456	-0.002	1931370	734.025	0.73	43.71- 83.71	64.74
4.667	4.669	-0.002	4723833	775.977	0.78	134.48- 174.48	158.35
4.856	4.859	-0.003	2259351	767.925	0.77	54.28- 94.28	75.74
			Average of Peak Concentrations =		0.74		

Data File: /chem/ecd2a.i/122309.b/018f1801.d
Date : 23-DEC-2009 10:29
Client ID: CAWA-10-5479MS
Sample Info: |120200152311|
Volume Injected (uL): 1.0
Column phase: CLP1

Page 1

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

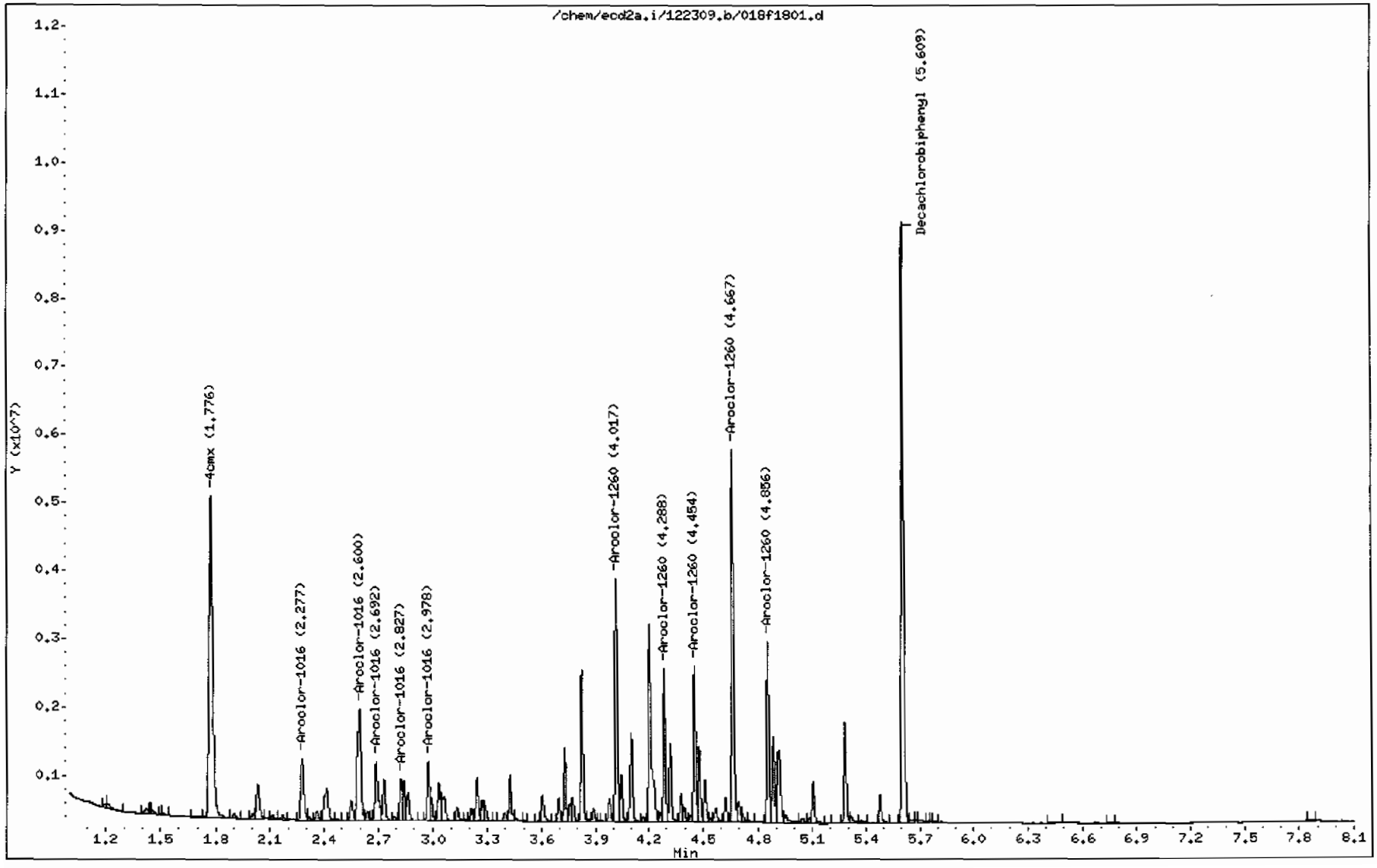

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/019b1901.d
Lab Smp Id: 1202001524 Client Smp ID: CAWA-10-5479MSD
Inj Date : 23-DEC-2009 10:40
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202001524|1|
Misc Info : |ECD82P_1L|935397|SVA|QC A|GROUND WATER|MSD|||
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-B-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012b1201.d
Als bottle: 19 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-915.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.071	2.067	0.004	16048419	124.100	0.12	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
6.302	6.304	-0.002	17926110	158.943	0.16	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.747	2.746	0.001	3306533	728.661	0.73	80.00- 120.00	100.00
3.182	3.181	0.001	2287819	635.123	0.64	58.59- 98.59	69.19
3.333	3.332	0.001	1407901	685.701	0.68	25.36- 65.36	42.58
3.361	3.362	-0.001	1372851	642.393	0.64	27.83- 67.83	41.52
3.519	3.520	-0.001	1920518	669.050	0.67	43.83- 83.83	58.08

Average of Peak Concentrations = 0.67

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.416	4.417	-0.001	4500634	780.422	0.78	80.00- 120.00	100.00
4.568	4.569	-0.001	5701110	800.280	0.80	108.70- 148.70	126.67
4.679	4.681	-0.002	3828806	794.571	0.79	67.97- 107.97	85.07
4.877	4.878	-0.001	4545560	807.130	0.81	81.63- 121.63	101.00
5.502	5.504	-0.002	7283295	805.896	0.80	149.96- 189.96	161.83
		Average of Peak Concentrations =			0.80		

Data File: /chem/ecd2a.i/122309.b/019b1901.d
Date : 23-DEC-2009 10:40
Client ID: CAWA-10-5479MSD
Sample Info: |120200152411|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd2a.i

Operator: JAOC
Column diameter: 0.25

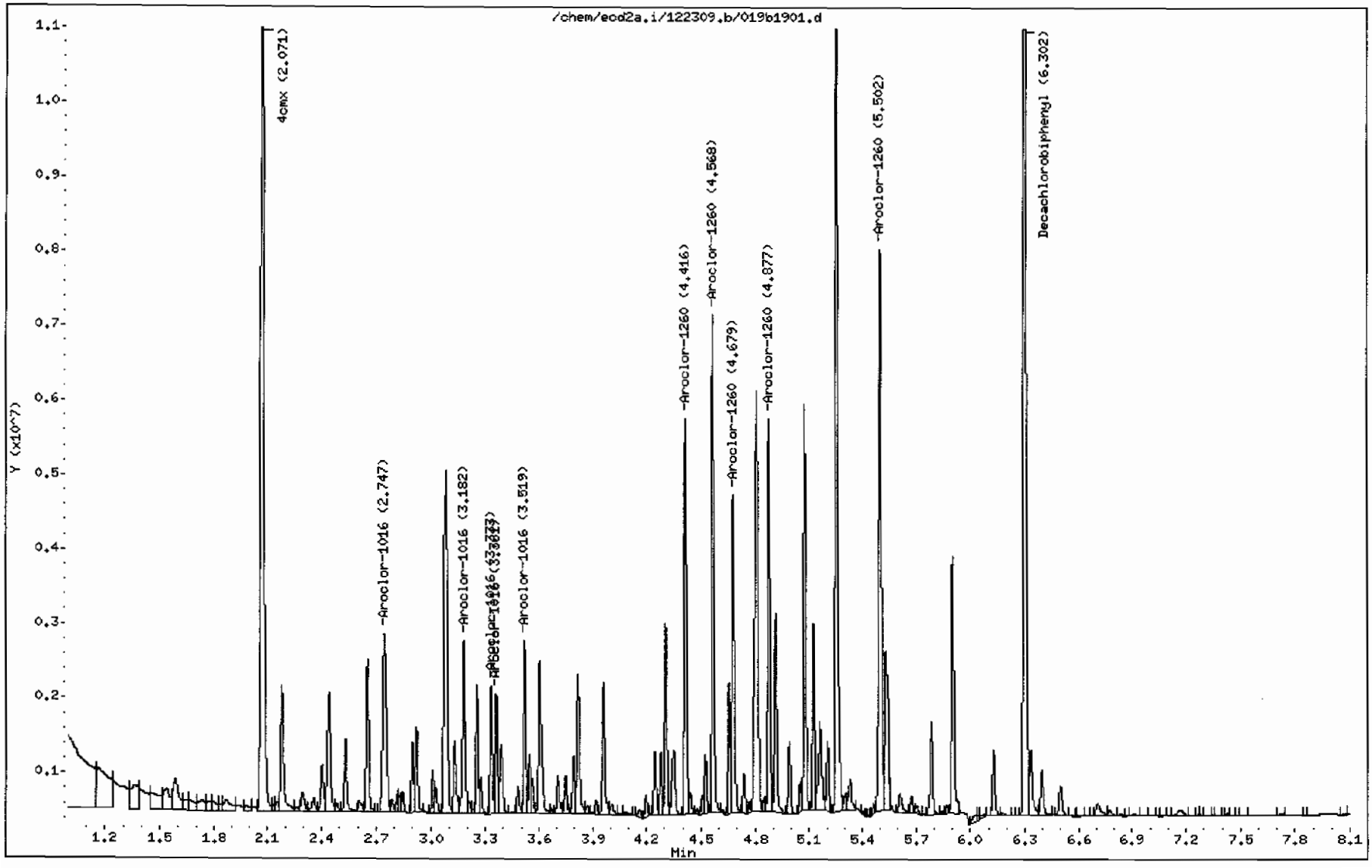

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd2a.i/122309.b/019f1901.d
Lab Smp Id: 1202001524 Client Smp ID: CAWA-10-5479MSD
Inj Date : 23-DEC-2009 10:40
Operator : JAOC Inst ID: ecd2a.i
Smp Info : |1202001524|1|
Misc Info : |ECD82P_1L|935397|SVA|QC A|GROUND WATER|MSD|||
Comment :
Method : /chem/ecd2a.i/122309.b/ECD2-F-8082-111209A.m
Meth Date : 23-Dec-2009 13:20 jen01212 Quant Type: ESTD
Cal Date : 02-DEC-2009 07:50 Cal File: 012f1201.d
Als bottle: 19 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-915.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (uL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.774	1.770	0.004	7378270	118.447	0.12	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.610	5.613	-0.003	8431797	155.822	0.16	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.276	2.274	0.002	1228732	549.107	0.55	80.00- 120.00	100.00
2.600	2.598	0.002	2843463	606.894	0.61	196.50- 236.50	231.41
2.691	2.689	0.002	1663706	874.952	0.87	64.80- 104.80	135.40
2.826	2.825	0.001	598181	612.904	0.61	23.47- 63.47	48.68
2.977	2.976	0.001	951424	652.614	0.65	45.32- 85.32	77.43

Average of Peak Concentrations = 0.66

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.016	4.018	-0.002	3342154	802.419	0.80	80.00- 120.00	100.00
4.288	4.290	-0.002	2036840	786.251	0.79	42.01- 82.01	60.94
4.454	4.456	-0.002	2196472	834.778	0.83	43.71- 83.71	65.72
4.667	4.669	-0.002	5290732	869.100	0.87	134.48- 174.48	158.30
4.856	4.859	-0.003	2514578	854.674	0.85	54.28- 94.28	75.24
			Average of Peak Concentrations =		0.83		

Data File: /chem/ecd2a.i/122309.b/019f1901.d
Date : 23-DEC-2009 10:40
Client ID: CAWA-10-5479MSD
Sample Info: 1120200152414
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd2a.i
Operator: JAOC
Column diameter: 0.25

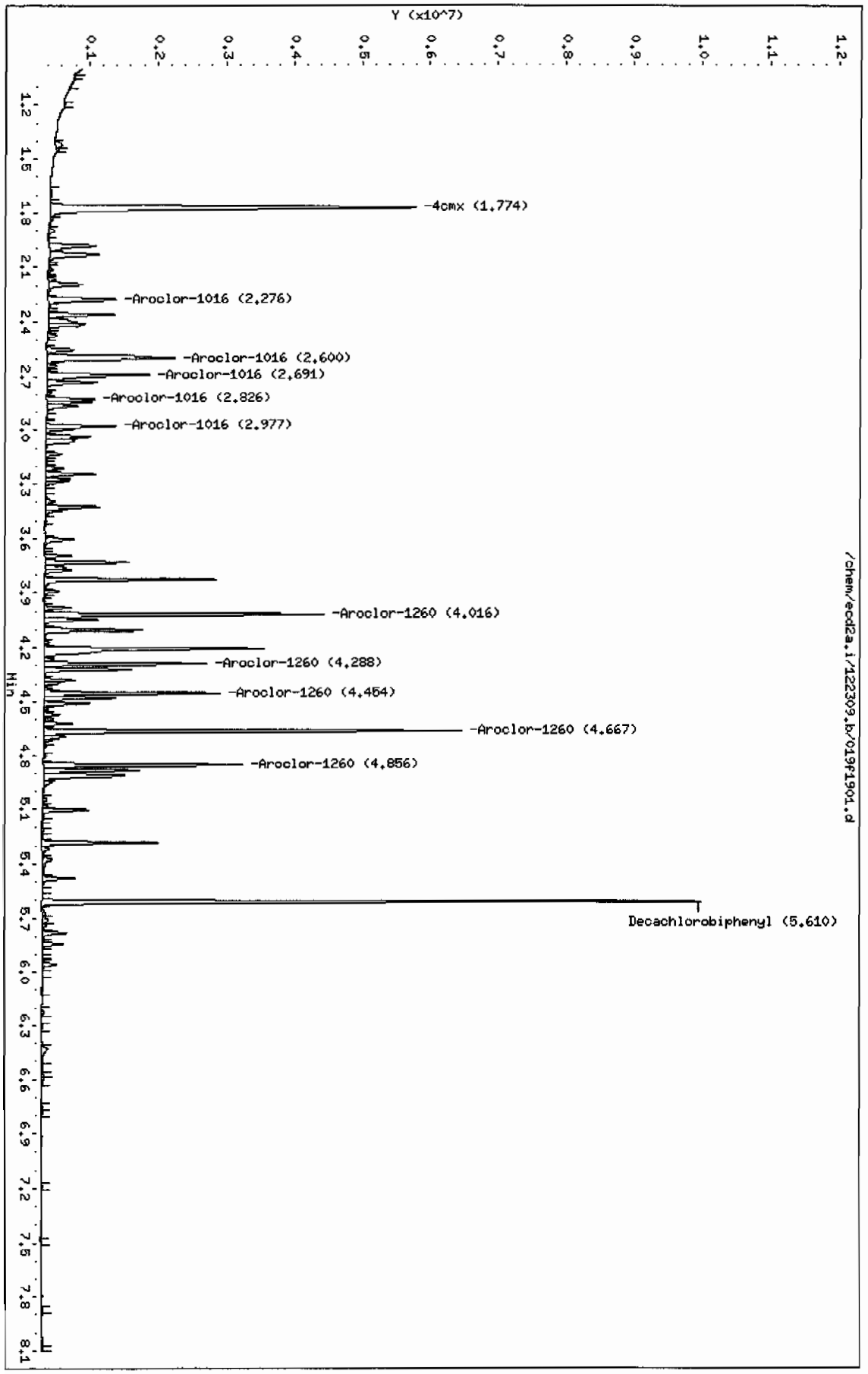

Page 1

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 935395 **Verified by:** _____

Analyst: Jesse Craig

Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Final Volume (mL)	Prepped Factor (mL/mL)
1202001521 MB	22-DEC-2009 17:32:47	1000	5	1	0.001
1202001522 LCS	22-DEC-2009 17:32:47	1000	5	1	0.001
242426002 - 2	22-DEC-2009 17:32:47	910	6	1	0.0011
242935002	22-DEC-2009 17:32:47	890	6	1	0.00112
1202001523 MS (242935002)	22-DEC-2009 17:32:47	500	6	0.5	0.001
1202001524 MSD (242935002)	22-DEC-2009 17:32:47	500	6	0.5	0.001
242935010	22-DEC-2009 17:32:47	890	5	1	0.00112
243012003	22-DEC-2009 17:32:47	940	6	1	0.00106
243099002	22-DEC-2009 17:32:47	825	6	1	0.00121
243254004	22-DEC-2009 17:32:47	830	6	1	0.0012
243254009	22-DEC-2009 17:32:47	835	5	1	0.0012
243283002	22-DEC-2009 17:32:47	985	6	1	0.00102
243284003	22-DEC-2009 17:32:47	970	6	1	0.00103
243284007	22-DEC-2009 17:32:47	915	6	1	0.00109
243284010	22-DEC-2009 17:32:47	910	6	1	0.0011

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202001522	PCB Laboratory Control	WE091120-07	1	mL
MS	1202001523	PCB Laboratory Control	WE091120-07	.5	mL
MSD	1202001524	PCB Laboratory Control	WE091120-07	.5	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE091103-15	.5	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE091103-15	1	mL
REGNT	All	Hexane	1241300-B2	5	mL
REGNT	All	Methylene Chloride	1245410-D	180	mL
REGNT	All	Sulfuric Acid Sol., 1:1	1245641	5	mL
REGNT	All	5% Potassium Permanganate	B1202457-F	5	mL
SOURC	All	SODIUM SULFATE	1242582	30	g

Comments:

Sample 242426002 was emulsive. No additional CH2CL2 was needed to break the emulsion.

Clean up Date: 12-22-09

Clean up Initials: JAC

Verified By: RLC

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-037

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-952

Method/Analysis Information

Product: **Carbon, Total Organic**

Analytical Batch: 934459 **Method:** SW846 9060

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9060:

Sample ID	Client ID
243099004	CAPA-10-6818
1201999252	Method Blank (MB)
1201999253	243016002(CAPA-10-6101) Sample Duplicate (DUP)
1201999254	243016002(CAPA-10-6101) Post Spike (PS)
1201999255	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-093 REV# 9.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Carbon analysis was performed on a O-I Analytical Model 1010 Total Organic Carbon Analyzer.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 243016002 (CAPA-10-6101).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following samples were re-analyzed due to CCV failure: 1201999252 (MB), 1201999253 (CAPA-10-6101), 1201999254 (CAPA-10-6101), 1201999255 (LCS) and 243099004 (CAPA-10-6818).

Miscellaneous Information

Nonconformance (NCR) Documentation
An NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all

initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Total Kjeldahl Nitrogen**		
Analytical Batch:	934822	**Method:**	EPA 351.2
Prep Batch :	934821	**Method:**	EPA 351.2 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 351.2:

Sample ID	Client ID
243099004	CAPA-10-6818
1202000067	Method Blank (MB)
1202000068	243099004(CAPA-10-6818) Sample Duplicate (DUP)
1202000069	243099004(CAPA-10-6818) Matrix Spike (MS)
1202000070	243099004(CAPA-10-6818) Matrix Spike Duplicate (MSD)
1202000071	Laboratory Control Sample (LCS)
1202000915	243253001(50FWC-09-2842) Sample Duplicate (DUP)
1202000916	243253001(50FWC-09-2842) Matrix Spike (MS)
1202000917	243253001(50FWC-09-2842) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-104 REV# 8.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 243099004 (CAPA-10-6818) and 243253001 (50FWC-09-2842).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the established acceptance limits due to matrix interference and/or sample matrix non-homogeneity: 1202000916 (50FWC-09-2842).

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the established acceptance limits. Since both the spike recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported. 1202000070 (CAPA-10-6818). The spike duplicate recovery falls outside of the established acceptance limits due to matrix interference and/or sample matrix non-homogeneity: 1202000917 (50FWC-09-2842).

MS/MSD Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) between the Matrix Spike and Matrix Spike Duplicate was outside of the required acceptance limits due to the heterogeneous matrix of the sample. 1202000916 (50FWC-09-2842) and 1202000917 (50FWC-09-2842).

Duplicate Relative Percent Difference (RPD) Statement
The Relative Percent Difference (RPD) between the sample and its duplicate falls outside of the normal acceptance limits for sample 1202000915 (50FWC-09-2842) because of the heterogeneous matrix of the sample. The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202000068 (CAPA-10-6818) and 243099004 (CAPA-10-6818).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions

The samples in this SDG did not require dilutions.

Sample Re-analysis
The following samples were re-analyzed due to instrument failure: 1202000069 (CAPA-10-6818) and 243099004 (CAPA-10-6818). The following sample was re-analyzed due to CCB failure: 1202000069 (CAPA-10-6818). The following samples were re-analyzed due to LCS failure: 1202000067 (MB), 1202000068 (CAPA-10-6818), 1202000069 (CAPA-10-6818), 1202000071 (LCS) and 243099004 (CAPA-10-6818).

Miscellaneous Information

Nonconformance (NCR) Documentation
The following NCR was generated for this SDG: 773518 1202000070 (CAPA-10-6818), 1202000915 (50FWC-09-2842), 1202000916 (50FWC-09-2842) and 1202000917 (50FWC-09-2842).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Tom Lewis, Jr. **Date:** 14Jan10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-952 GEL Work Order: 243099

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: December 28, 2009

Client SDG: 10-952

Client Sample ID:	CAPA-10-6818	Project:	ESHL01000
Sample ID:	243099004	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	15-DEC-09 12:00		
Receive Date:	17-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Carbon Analysis										
SW 9060 Total Organic Carbon "As Received"										
Total Organic Carbon Average	U	ND	0.330	1.00	mg/L	1	TSM 12/21/09	1455	934459	1
Nutrient Analysis										
Nitrogen, Total Kjeldahl (TKN) "As Received"										
Nitrogen, Total Kjeldahl	U	ND	0.033	0.100	mg/L	1	AXH3 12/22/09	1340	934822	2

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9060	
2	EPA 351.2	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: December 28, 2009
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 243099

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Carbon Analysis											
Batch 934459											
QC1201999253 243016002 DUP											
Total Organic Carbon Average			3.81		3.61	mg/L	5.31 ^		(+/-1.00)	TSM	12/21/09 13:35
QC1201999255 LCS											
Total Organic Carbon Average	10.0				9.98	mg/L		99.8	(85%-115%)		12/21/09 12:20
QC1201999252 MB											
Total Organic Carbon Average				U	ND	mg/L					12/21/09 12:11
QC1201999254 243016002 PS											
Total Organic Carbon Average	10.0		3.81		13.3	mg/L		94.8	(65%-121%)		12/21/09 13:55
Nutrient Analysis											
Batch 934822											
QC1202000068 243099004 DUP											
Nitrogen, Total Kjeldahl		U	ND	U	ND	mg/L	N/A			AXH3	12/22/09 13:30
QC1202000915 243253001 DUP											
Nitrogen, Total Kjeldahl			1.53		0.911	mg/L	50.7*		(0%-20%)		12/22/09 13:45
QC1202000071 LCS											
Nitrogen, Total Kjeldahl	1.00				0.981	mg/L		98.1	(90%-110%)		12/22/09 13:28
QC1202000067 MB											
Nitrogen, Total Kjeldahl				U	ND	mg/L					12/22/09 13:28
QC1202000069 243099004 MS											
Nitrogen, Total Kjeldahl	1.00	U	ND		0.900	mg/L		90	(90%-110%)		12/22/09 14:12
QC1202000916 243253001 MS											
Nitrogen, Total Kjeldahl	1.00		1.53		3.11	mg/L		158*	(90%-110%)		12/22/09 13:46
QC1202000070 243099004 MSD											
Nitrogen, Total Kjeldahl	1.00	U	ND		0.894	mg/L	0.669	89.4*	(0%-20%)		12/22/09 13:32
QC1202000917 243253001 MSD											
Nitrogen, Total Kjeldahl	1.00		1.53		2.24	mg/L	32.7*	70.8*	(0%-20%)		12/22/09 13:46

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value

QC Summary

Workorder: 243099

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

H	Analytical holding time was exceeded
J	Value is estimated
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 28-DEC-2009 16:07

GEL Laboratories LLC

Contract: **ESHL01000**

SDG #: **10-952**

Carbon Analysis

Method: SW846 9060 Concentration Units:mg/L

Instrument: O-I Analytical Model 1010 Total Organic Carbon Analyzer

Parmname: Total Organic Carbon
Average

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**18-DEC-2009 11:48:00**	**XN024.rlt**	**10.859**	**10**	**109**	**(90%-110%)**	**Yes**
CCV	18-DEC-2009 14:24:00	XN027.rlt	10.206	10	102	(90%-110%)	Yes
CCV	18-DEC-2009 18:18:00	XN039.rlt	11.258	10	113	(90%-110%)	No
ICV	**21-DEC-2009 10:05:00**	**XN063.rlt**	**10.371**	**10**	**104**	**(90%-110%)**	**Yes**
CCV	21-DEC-2009 11:53:00	XN066.rlt	9.761	10	98	(90%-110%)	Yes
CCV	21-DEC-2009 15:47:00	XN078.rlt	10.161	10	102	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**18-DEC-2009 11:57:00**	**XN025.rlt**	**0.004**	**1**	**Yes**
CCB	18-DEC-2009 14:33:00	XN028.rlt	0.09	1	Yes
CCB	18-DEC-2009 18:27:00	XN040.rlt	0.063	1	Yes
ICB	**21-DEC-2009 10:14:00**	**XN064.rlt**	**-0.035**	**1**	**Yes**
CCB	21-DEC-2009 12:02:00	XN067.rlt	0.028	1	Yes
CCB	21-DEC-2009 15:56:00	XN079.rlt	-0.026	1	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 28-DEC-2009 16:07

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-952

Nutrient Analysis

Method: EPA 351.2 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Nitrogen, Total Kjeldahl

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**22-DEC-2009 13:00:12**	**OM_12-22-2009_12-53-22**	**0.939**	**1**	**94**	**(90%-110%)**	**Yes**
CCV	22-DEC-2009 13:24:20	OM_12-22-2009_12-53-22	1.033	1	103	(90%-110%)	Yes
CCV	22-DEC-2009 13:36:32	OM_12-22-2009_12-53-22	1.03	1	103	(90%-110%)	Yes
CCV	22-DEC-2009 13:48:36	OM_12-22-2009_12-53-22	1.022	1	102	(90%-110%)	Yes
CCV	22-DEC-2009 14:06:34	OM_12-22-2009_14-05-47	1.027	1	103	(90%-110%)	Yes
CCV	22-DEC-2009 14:19:56	OM_12-22-2009_14-05-47	1.021	1	102	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**22-DEC-2009 13:02:08**	**OM_12-22-2009_12-53-22**	**-0.029**	**0.1**	**Yes**
CCB	22-DEC-2009 13:26:16	OM_12-22-2009_12-53-22	-0.03	0.1	Yes
CCB	22-DEC-2009 13:38:27	OM_12-22-2009_12-53-22	-0.033	0.1	Yes
CCB	22-DEC-2009 13:50:32	OM_12-22-2009_12-53-22	-0.032	0.1	Yes
CCB	22-DEC-2009 14:08:30	OM_12-22-2009_14-05-47	-0.031	0.1	Yes
CCB	22-DEC-2009 14:21:52	OM_12-22-2009_14-05-47	-0.03	0.1	Yes

Carbon, Total Organic

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
ICAL-01		1	TSM	18-Dec-09 11:03	XN019.rlt
ICAL-02		1	TSM	18-Dec-09 11:12	XN020.rlt
ICAL-03		1	TSM	18-Dec-09 11:21	XN021.rlt
ICAL-04		1	TSM	18-Dec-09 11:30	XN022.rlt
ICAL-05		1	TSM	18-Dec-09 11:39	XN023.rlt
ICV		1	TSM	18-Dec-09 11:48	XN024.rlt
ICB		1	TSM	18-Dec-09 11:57	XN025.rlt
TIC	934459	1	TSM	18-Dec-09 12:07	XN026.rlt
CCV		1	TSM	18-Dec-09 14:24	XN027.rlt
CCB		1	TSM	18-Dec-09 14:33	XN028.rlt
1201999252	934459	1	TSM	18-Dec-09 14:42	XN029.rlt
1201999255	934459	1	TSM	18-Dec-09 14:51	XN030.rlt
243012005	934459	1	TSM	18-Dec-09 15:00	XN031.rlt
243016002	934459	1	TSM	18-Dec-09 15:33	XN032.rlt
1201999253	934459	1	TSM	18-Dec-09 16:07	XN033.rlt
1201999254	934459	1	TSM	18-Dec-09 16:26	XN034.rlt
243016006	934459	1	TSM	18-Dec-09 16:35	XN035.rlt
243063001	934459	1	TSM	18-Dec-09 17:08	XN036.rlt
243099004	934459	1	TSM	18-Dec-09 17:26	XN037.rlt
243130001	934459	5	TSM	18-Dec-09 18:00	XN038.rlt
CCV		1	TSM	18-Dec-09 18:18	XN039.rlt
CCB		1	TSM	18-Dec-09 18:27	XN040.rlt
243130002	934459	5	TSM	18-Dec-09 18:36	XN041.rlt
243148001	934459	1	TSM	18-Dec-09 18:54	XN042.rlt
243148002	934459	1	TSM	18-Dec-09 19:12	XN043.rlt
243148003	934459	5	TSM	18-Dec-09 19:30	XN044.rlt
243178002	934459	1	TSM	18-Dec-09 19:48	XN045.rlt
243178003	934459	1	TSM	18-Dec-09 20:06	XN046.rlt
243178005	934459	1	TSM	18-Dec-09 20:24	XN047.rlt
243178006	934459	1	TSM	18-Dec-09 20:42	XN048.rlt
243178008	934459	1	TSM	18-Dec-09 21:00	XN049.rlt
CCV		1	TSM	18-Dec-09 21:18	XN050.rlt
CCB		1	TSM	18-Dec-09 21:27	XN051.rlt
243178007	934459	1	TSM	18-Dec-09 21:36	XN052.rlt
1201999720	934459	1	TSM	18-Dec-09 21:53	XN053.rlt
1201999721	934459	1	TSM	18-Dec-09 22:13	XN054.rlt
CCV		1	TSM	18-Dec-09 22:22	XN055.rlt
CCB		1	TSM	18-Dec-09 22:31	XN056.rlt

```
*********************************************************************
**                          CONFIGURATION                          **
*********************************************************************

Analysis Mode:  TOC          Spl Intro:  Autosampler 53
Remote Start :  OFF

Loop Size:  5 mL        Actual Volume  1mL   5mL   10mL   25mL
                        -------------  ----  ----  -----  -----
                         Loop A (uL):  1000  4900  10000  25000
                         Loop B (uL):  1000  4900  10000  25000

Tray Type:              53 Vial  Vial Option:                  Neither
Needle Depth:           97 %     Preacid Volume (uL):              200
Wash Needle Depth:      94 %     Preacid Purge Time (min:sec):    0:30

            TIC    TOC    TC
Blank      ----   ----   ----            Linearization Coeff:  53000
 Average:   183   1496    511

                          Sample Transfer Times (sec)
          Initial Fill          |        Loop Fill        | Sample Inject
     Non-AS    AS  AS w/Sep | Non-AS    AS  AS w/Sep |    (all)
     ------  ----- -------- | ------  ----- -------- | -------------
1mL:    6.0    4.5      3.5 |    1.2    1.2      1.0 |      4.5
5mL:    8.1    7.0      8.0 |    5.1    3.0      5.5 |     10.3
10mL:  14.2   12.2     11.0 |   10.5   10.5     11.0 |     16.5
25mL:  35.0   35.0     32.0 |    n/a    n/a      n/a |     38.0

Analog Concentration Signal indicates TOC
Analog Conc. Signal Timer is OFF, Timer duration (h:m:s): 00:00:00
Min Signal Range:   0.000 ppmC,  Max Signal Range:   0.000 ppmC

Alarms DISABLED
Alarm Relay Timer is OFF, Timer duration (h:m:s): 00:00:00
       Conc. Alarm Setpoints (ppm C)
          Low       |    High
      -----------   | -----------
TIC:     0.000          0.000
TOC:     0.000          0.000
TC:      0.000          0.000
```

```
*********************************************************************
**                          CALIBRATION                            **
*********************************************************************
```

12/18/09 Fri Dec 18 11:39:36 2009

Std. #	Used	Conc. (ppm)	Volume (mL)
1	Yes	20.000	5.000
2	Yes	10.000	5.000
3	Yes	1.000	5.000
4	Yes	0.200	5.000
5	Yes	0.000	5.000

RF (ugC/k-cts):	1.300
R-Squared:	0.9998
Offset (cts):	1254
Offset (ugC):	-1.631
Calibration Mode:	TOC
Allow Editing:	No

Rep	Std. 1	Std. 2	Std. 3	Std. 4	Std. 5
1	76286	39617	5151	1679	1132
2	-	-	-	-	-
3	-	-	-	-	-
4	-	-	-	-	-
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	-
9	-	-	-	-	-
10	-	-	-	-	-

(* = unused)

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
1	Blk	1	18Dec2009	10:32	-	-	-	638	-	-	-	-	-
1	Blk	2	18Dec2009	10:39	-	-	-	817	-	-	-	-	-
1	Blk	3	18Dec2009	10:46	-	-	-	1397	-	-	-	-	-
1	Blk	4	18Dec2009	10:54	-	-	-	732	-	-	-	-	-

** Std1 Name: ICAL-01 Data File: XN019
Remarks: 934459|1|1| WTC091218-01 ID:TOC267

1	Std1	1	18Dec2009	11:03	-	-	-	76286	98.000	20.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.301
R-Squared: 1.0000
Offset (cts): 0
Offset (ugC): 0.000

** Std2 Name: ICAL-02 Data File: XN020
Remarks: 934459|1|1| WTC091218-02 ID:TOC267

2	Std2	1	18Dec2009	11:12	-	-	-	39617	49.000	10.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.336
R-Squared: 1.0000
Offset (cts): 2947
Offset (ugC): -3.939

** Std3 Name: ICAL-03 Data File: XN021
Remarks: 934459|1|1| WTC091218-03 ID:TOC267

3	Std3	1	18Dec2009	11:21	-	-	-	5151	4.900	1.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.309
R-Squared: 0.9998
Offset (cts): 1672
Offset (ugC): -2.189

** Std4 Name: ICAL-04 Data File: XN022
Remarks: 934459|1|1| WTC091218-04 ID:TOC267

4	Std4	1	18Dec2009	11:30	-	-	-	1679	0.980	0.200	-	-	-

** Calibration:
RF (ugC/k-cts): 1.301
R-Squared: 0.9998
Offset (cts): 1313
Offset (ugC): -1.710

** Std5 Name: ICAL-05 Data File: XN023
Remarks: 934459|1|1| ID:TOC267

5	Std5	1	18Dec2009	11:39	-	-	-	1132	0.000	0.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.300
R-Squared: 0.9998
Offset (cts): 1254
Offset (ugC): -1.631

```
** Chk2      Name:     ICV                          Data File: XN024
             Remarks: 934459|1|1| WTC091218-01 ID:TOC267

6    Chk2    1 18Dec2009 11:48      -       -          -     42183  53.210     10.859      -       -          -

** Chk5      Name:     ICB                          Data File: XN025
             Remarks: 934459|1|1| ID:TOC267

7    Chk5    1 18Dec2009 11:57      -       -          -      1269   0.019      0.004      -       -          -

** Spl       Name:     TIC                          Data File: XN026
             Remarks: 934459|1|1| WIC091218-01 ID:TOC267

8    Spl     1 18Dec2009 12:07      -       -          -      1426   0.577      0.118      -       -          -
```

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Chk2		Name: CCV					Data File: XN027						
		Remarks: 934459|1|1| WTC091218-02 ID:TOC267											
9	Chk2	1	18Dec2009	14:24	-	-	-	39721	50.009	10.206	-	-	-
** Chk5		Name: CCB					Data File: XN028						
		Remarks: 934459|1|1| ID:TOC267											
10	Chk5	1	18Dec2009	14:33	-	-	-	1592	0.439	0.090	-	-	-
** Chk5		Name: 1201999252					Data File: XN029						
		Remarks: 934459|1|1|MB ID:TOC267											
11	Chk5	1	18Dec2009	14:42	-	-	-	1584	0.429	0.087	-	-	-
** Chk2		Name: 1201999255					Data File: XN030						
		Remarks: 934459|1|1|WTC091218-05:LCS ID:TOC267											
12	Chk2	1	18Dec2009	14:51	-	-	-	41058	51.748	10.561	-	-	-
** Spl		Name: 243012005					Data File: XN031						
		Remarks: 934459|1|1| ID:TOC267											
13	Spl	1	18Dec2009	15:00	-	-	-	2232	1.625	0.332	-	-	-
13	Spl	2	18Dec2009	15:07	-	-	-	2744	2.291	0.468	-	-	-
13	Spl	3	18Dec2009	15:15	-	-	-	2421	1.871	0.382	-	-	-
13	Spl	4	18Dec2009	15:25	-	-	-	2578	2.075	0.424	-	-	-
13	Spl	Avg						2493	1.965	0.401			
13	Spl	SDev						218.730					
13	Spl	%RSD						8.77					
** Spl		Name: 243016002					Data File: XN032						
		Remarks: 934459|1|1| ID:TOC267											
14	Spl	1	18Dec2009	15:33	-	-	-	17383	21.322	4.352	-	-	-
14	Spl	2	18Dec2009	15:41	-	-	-	20272	25.078	5.118	-	-	-
14	Spl	3	18Dec2009	15:49	-	-	-	19151	23.621	4.821	-	-	-
14	Spl	4	18Dec2009	15:58	-	-	-	18904	23.300	4.755	-	-	-
14	Spl	Avg						18927	23.330	4.761			
14	Spl	SDev						1189.351					
14	Spl	%RSD						6.28					
** Spl		Name: 1201999253					Data File: XN033						
		Remarks: 934459|1|1|243016002:DUP ID:TOC267											
15	Spl	1	18Dec2009	16:07	-	-	-	16700	20.435	4.170	-	-	-
15	Spl	2	18Dec2009	16:16	-	-	-	18905	23.301	4.755	-	-	-
15	Spl	Avg						17802	21.868	4.463			
15	Spl	SDev						1559.170					
15	Spl	%RSD						8.76					
** Spl		Name: 1201999254					Data File: XN034						
		Remarks: 934459|1|1|243016002:PS ID:TOC267											

16	Spl	1 18Dec2009 16:26	-	-	-	55969	71.487	14.589	-	-	-

** Spl Name: 243016006 Data File: XN035
Remarks: 934459|1|1| ID:TOC267

17	Spl	1 18Dec2009 16:35	-	-	-	15607	19.014	3.880	-	-	-
17	Spl	2 18Dec2009 16:43	-	-	-	18329	22.552	4.602	-	-	-
17	Spl	3 18Dec2009 16:50	-	-	-	17938	22.044	4.499	-	-	-
17	Spl	4 18Dec2009 17:00	-	-	-	17924	22.026	4.495	-	-	-
17	Spl	Avg				17449	21.409	4.369			
17	Spl	SDev				1242.593					
17	Spl	%RSD				7.12					

** Spl Name: 243063001 Data File: XN036
Remarks: 934459|1|1| ID:TOC267

18	Spl	1 18Dec2009 17:08	-	-	-	16755	20.506	4.185	-	-	-
18	Spl	2 18Dec2009 17:18	-	-	-	19950	24.660	5.033	-	-	-
18	Spl	Avg				18352	22.583	4.609			
18	Spl	SDev				2259.206					
18	Spl	%RSD				12.31					

** Spl Name: 243099004 Data File: XN037
Remarks: 934459|1|1| ID:TOC267

19	Spl	1 18Dec2009 17:26	-	-	-	2745	2.292	0.468	-	-	-
19	Spl	2 18Dec2009 17:34	-	-	-	3310	3.027	0.618	-	-	-
19	Spl	3 18Dec2009 17:42	-	-	-	3094	2.746	0.560	-	-	-
19	Spl	4 18Dec2009 17:51	-	-	-	3123	2.783	0.568	-	-	-
19	Spl	Avg				3068	2.712	0.553			
19	Spl	SDev				235.651					
19	Spl	%RSD				7.68					

** Spl Name: 243130001 Data File: XN038
Remarks: 934459|5|1| ID:TOC267

20	Spl	1 18Dec2009 18:00	-	-	-	37855	47.938	9.783	-	-	-
20	Spl	2 18Dec2009 18:09	-	-	-	45006	57.234	11.681	-	-	-
20	Spl	Avg				41430	52.586	10.732			
20	Spl	SDev				5056.521					
20	Spl	%RSD				12.20					

** Chk2 Name: CCV Data File: XN039
Remarks: 934459|1|1|WTC091218-02 ID:TOC267

21	Chk2	1 18Dec2009 18:18	-	-	-	43687	55.166	11.258	-	-	-

** Chk5 Name: CCB Data File: XN040
Remarks: 934459|1|1| ID:TOC267

22	Chk5	1 18Dec2009 18:27	-	-	-	1492	0.309	0.063	-	-	-

** Spl Name: 243130002 Data File: XN041
Remarks: 934459|5|1| ID:TOC267

23	Spl	1 18Dec2009 18:36	-	-	-	46752	59.504	12.144	-	-	-
23	Spl	2 18Dec2009 18:45	-	-	-	55834	71.311	14.553	-	-	-

23	Spl	Avg					51293	65.408	13.349			
23	Spl	SDev					6421.944					
23	Spl	%RSD					12.52					

** Spl Name: 243148001 Data File: XN042
Remarks: 934459|1|1| ID:TOC267

24	Spl	1 18Dec2009 18:54	-	-	-	27267	34.172	6.974	-	-	-
24	Spl	2 18Dec2009 19:03	-	-	-	32771	41.328	8.434	-	-	-
24	Spl	Avg				30019	37.750	7.704			
24	Spl	SDev				3891.916					
24	Spl	%RSD				12.96					

** Spl Name: 243148002 Data File: XN043
Remarks: 934459|1|1| ID:TOC267

25	Spl	1 18Dec2009 19:12	-	-	-	28862	36.246	7.397	-	-	-
25	Spl	2 18Dec2009 19:21	-	-	-	33562	42.356	8.644	-	-	-
25	Spl	Avg				31212	39.301	8.021			
25	Spl	SDev				3323.402					
25	Spl	%RSD				10.65					

** Spl Name: 243148003 Data File: XN044
Remarks: 934459|5|1| ID:TOC267

26	Spl	1 18Dec2009 19:30	-	-	-	19902	24.597	5.020	-	-	-
26	Spl	2 18Dec2009 19:39	-	-	-	24402	30.448	6.214	-	-	-
26	Spl	Avg				22152	27.522	5.617			
26	Spl	SDev				3181.981					
26	Spl	%RSD				14.36					

** Spl Name: 243178002 Data File: XN045
Remarks: 934459|1|1| ID:TOC267

27	Spl	1 18Dec2009 19:48	-	-	-	15653	19.073	3.892	-	-	-
27	Spl	2 18Dec2009 19:57	-	-	-	18180	22.359	4.563	-	-	-
27	Spl	Avg				16916	20.716	4.228			
27	Spl	SDev				1786.859					
27	Spl	%RSD				10.56					

** Spl Name: 243178003 Data File: XN046
Remarks: 934459|1|1| ID:TOC267

28	Spl	1 18Dec2009 20:06	-	-	-	83898106	109072.203	22259.633	-	-	-
28	Spl	2 18Dec2009 20:15	-	-	-	0	0.000	0.000	-	-	-
28	Spl	Avg				41949053	54535.465	11129.687			
28	Spl	SDev				59324920.000					
28	Spl	%RSD				141.42					

** Spl Name: 243178005 Data File: XN047
Remarks: 934459|1|1| ID:TOC267

29	Spl	1 18Dec2009 20:24	-	-	-	89234	114.734	23.415	-	-	-
29	Spl	2 18Dec2009 20:33	-	-	-	105025	135.263	27.605	-	-	-
29	Spl	Avg				97129	124.999	25.510			
29	Spl	SDev				11165.923					
29	Spl	%RSD				11.50					

```
** Spl      Name:    243178006                    Data File: XN048
            Remarks: 934459|1|1| ID:TOC267

30   Spl    1 18Dec2009 20:42      -       -          -    21009  26.037      5.314      -       -          -
30   Spl    2 18Dec2009 20:51      -       -          -    24677  30.805      6.287      -       -          -
30   Spl  Avg                                           22843  28.421      5.800
30   Spl  SDev                                       2593.668
30   Spl  %RSD                                          11.35


** Spl      Name:    243178008                    Data File: XN049
            Remarks: 934459|1|1| ID:TOC267

31   Spl    1 18Dec2009 21:00      -       -          -    16280  19.888      4.059      -       -          -
31   Spl    2 18Dec2009 21:09      -       -          -    20257  25.059      5.114      -       -          -
31   Spl  Avg                                           18268  22.474      4.587
31   Spl  SDev                                       2812.164
31   Spl  %RSD                                          15.39


** Chk2     Name:    CCV                          Data File: XN050
            Remarks: 934459|1|1|WTC091218-02 ID:TOC267

32   Chk2   1 18Dec2009 21:18      -       -          -    42242  53.287     10.875      -       -          -


** Chk5     Name:    CCB                          Data File: XN051
            Remarks: 934459|1|1| ID:TOC267

33   Chk5   1 18Dec2009 21:27      -       -          -     1636   0.496      0.101      -       -          -


** Spl      Name:    243178007                    Data File: XN052
            Remarks: 934459|1|1| ID:TOC267

34   Spl    1 18Dec2009 21:36      -       -          -    10879  12.867      2.626      -       -          -
34   Spl    2 18Dec2009 21:45      -       -          -    13559  16.351      3.337      -       -          -
34   Spl  Avg                                           12219  14.609      2.981
34   Spl  SDev                                       1895.046
34   Spl  %RSD                                          15.51


** Spl      Name:    1201999720                   Data File: XN053
            Remarks: 934459|1|1|243178007:DUP ID:TOC267

35   Spl    1 18Dec2009 21:53      -       -          -    11251  13.350      2.725      -       -          -
35   Spl    2 18Dec2009 22:03      -       -          -    13729  16.572      3.382      -       -          -
35   Spl  Avg                                           12490  14.961      3.053
35   Spl  SDev                                       1752.211
35   Spl  %RSD                                          14.03


** Spl      Name:    1201999721                   Data File: XN054
            Remarks: 934459|1|1|243178007:PS ID:TOC267

36   Spl    1 18Dec2009 22:13      -       -          -    51374  65.513     13.370      -       -          -


** Chk2     Name:    CCV                          Data File: XN055
            Remarks: 934459|1|1|WTC091218-02 ID:TOC267

37   Chk2   1 18Dec2009 22:22      -       -          -    43124  54.434     11.109      -       -          -


** Chk5     Name:    CCB                          Data File: XN056
```

		Remarks: 934459|1|1| ID:TOC267										
38	Chk5	1 18Dec2009 22:31	-	-	-	1601	0.451	0.092	-	-	-

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
ICAL-01		1	TSM	21-Dec-09 9:20	XN058.rlt
ICAL-02		1	TSM	21-Dec-09 9:29	XN059.rlt
ICAL-03		1	TSM	21-Dec-09 9:38	XN060.rlt
ICAL-04		1	TSM	21-Dec-09 9:47	XN061.rlt
ICAL-05		1	TSM	21-Dec-09 9:56	XN062.rlt
ICV		1	TSM	21-Dec-09 10:05	XN063.rlt
ICB		1	TSM	21-Dec-09 10:14	XN064.rlt
TIC	935196	1	TSM	21-Dec-09 10:24	XN065.rlt
CCV		1	TSM	21-Dec-09 11:53	XN066.rlt
CCB		1	TSM	21-Dec-09 12:02	XN067.rlt
1201999252	934459	1	TSM	21-Dec-09 12:11	XN068.rlt
1201999255	934459	1	TSM	21-Dec-09 12:20	XN069.rlt
243012005	934459	1	TSM	21-Dec-09 12:28	XN070.rlt
243016002	934459	1	TSM	21-Dec-09 13:02	XN071.rlt
1201999253	934459	1	TSM	21-Dec-09 13:35	XN072.rlt
1201999254	934459	1	TSM	21-Dec-09 13:55	XN073.rlt
243016006	934459	1	TSM	21-Dec-09 14:03	XN074.rlt
243063001	934459	1	TSM	21-Dec-09 14:37	XN075.rlt
243099004	934459	1	TSM	21-Dec-09 14:55	XN076.rlt
243130001	934459	5	TSM	21-Dec-09 15:29	XN077.rlt
CCV		1	TSM	21-Dec-09 15:47	XN078.rlt
CCB		1	TSM	21-Dec-09 15:56	XN079.rlt
243130002	934459	5	TSM	21-Dec-09 16:05	XN080.rlt
243148001	934459	1	TSM	21-Dec-09 16:23	XN081.rlt
243148002	934459	1	TSM	21-Dec-09 16:41	XN082.rlt
243148003	934459	1	TSM	21-Dec-09 16:59	XN083.rlt
243178002	934459	1	TSM	21-Dec-09 17:17	XN084.rlt
243178003	934459	2000	TSM	21-Dec-09 17:35	XN085.rlt
243178005	934459	2	TSM	21-Dec-09 17:53	XN086.rlt
243178006	934459	1	TSM	21-Dec-09 18:11	XN087.rlt
243178008	934459	1	TSM	21-Dec-09 18:29	XN088.rlt
CCV		1	TSM	21-Dec-09 18:47	XN089.rlt
CCB		1	TSM	21-Dec-09 18:56	XN090.rlt
243178007	934459	1	TSM	21-Dec-09 19:04	XN091.rlt
1201999720	934459	1	TSM	21-Dec-09 19:22	XN092.rlt
1201999721	934459	1	TSM	21-Dec-09 19:42	XN093.rlt
1202000895	935196	1	TSM	21-Dec-09 19:51	XN094.rlt
1202000898	935196	1	TSM	21-Dec-09 20:00	XN095.rlt
243250001	935196	2000	TSM	21-Dec-09 20:08	XN096.rlt
243255001	935196	1	TSM	21-Dec-09 20:26	XN097.rlt
243255004	935196	1	TSM	21-Dec-09 21:00	XN098.rlt
243255006	935196	1	TSM	21-Dec-09 21:33	XN099.rlt
243257003	935196	1	TSM	21-Dec-09 22:07	XN100.rlt
CCV		1	TSM	21-Dec-09 22:41	XN101.rlt
CCB		1	TSM	21-Dec-09 22:50	XN102.rlt
243257005	935196	1	TSM	21-Dec-09 22:58	XN103.rlt
243283004	935196	1	TSM	21-Dec-09 23:32	XN104.rlt
243284005	935196	1	TSM	22-Dec-09 0:05	XN105.rlt
243284012	935196	1	TSM	22-Dec-09 0:39	XN106.rlt
1202000896	935196	1	TSM	22-Dec-09 1:13	XN107.rlt
1202000897	935196	1	TSM	22-Dec-09 1:33	XN108.rlt
CCV		1	TSM	22-Dec-09 1:41	XN109.rlt
CCB		1	TSM	22-Dec-09 1:50	XN110.rlt
CCV		1	TSM	22-Dec-09 9:40	XN111.rlt
CCB		1	TSM	22-Dec-09 9:49	XN112.rlt
243178003	934459	20	TSM	22-Dec-09 9:57	XN113.rlt
CCV		1	TSM	22-Dec-09 10:16	XN114.rlt

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*********************************************************************
**                          CALIBRATION                            **
*********************************************************************
```

12/21/09 Mon Dec 21 09:56:41 2009

Std. #	Used	Conc. (ppm)	Volume (mL)
1	Yes	20.000	5.000
2	Yes	10.000	5.000
3	Yes	1.000	5.000
4	Yes	0.200	5.000
5	Yes	0.000	5.000

RF (ugC/k-cts):	1.204
R-Squared:	1.0000
Offset (cts):	1220
Offset (ugC):	-1.469
Calibration Mode:	TOC
Allow Editing:	No

Rep	Std. 1	Std. 2	Std. 3	Std. 4	Std. 5
1	82740	41706	5499	1911	1260
2	-	-	-	-	-
3	-	-	-	-	-
4	-	-	-	-	-
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	-
9	-	-	-	-	-
10	-	-	-	-	-

(* = unused)

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
1	Blk	1	21Dec2009	08:50	-	-	-	581	-	-	-	-	-
1	Blk	2	21Dec2009	08:56	-	-	-	883	-	-	-	-	-
1	Blk	3	21Dec2009	09:03	-	-	-	4185	-	-	-	-	-
1	Blk	4	21Dec2009	09:11	-	-	-	1908	-	-	-	-	-

** Std1 Name: ICAL-01 Data File: XN058
Remarks: 935196|1|1| WTC091221-01 ID:TOC267

1	Std1	1	21Dec2009	09:20	-	-	-	82740	98.000	20.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.219
R-Squared: 1.0000
Offset (cts): 0
Offset (ugC): 0.000

** Std2 Name: ICAL-02 Data File: XN059
Remarks: 935196|1|1| WTC091221-02 ID:TOC267

2	Std2	1	21Dec2009	09:29	-	-	-	41706	49.000	10.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.194
R-Squared: 1.0000
Offset (cts): 672
Offset (ugC): -0.802

** Std3 Name: ICAL-03 Data File: XN060
Remarks: 935196|1|1| WTC091221-03 ID:TOC267

3	Std3	1	21Dec2009	09:38	-	-	-	5499	4.900	1.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.205
R-Squared: 1.0000
Offset (cts): 1298
Offset (ugC): -1.564

** Std4 Name: ICAL-04 Data File: XN061
Remarks: 935196|1|1| WTC091221-04 ID:TOC267

4	Std4	1	21Dec2009	09:47	-	-	-	1911	0.980	0.200	-	-	-

** Calibration:
RF (ugC/k-cts): 1.203
R-Squared: 1.0000
Offset (cts): 1201
Offset (ugC): -1.446

** Std5 Name: ICAL-05 Data File: XN062
Remarks: 935196|1|1| ID:TOC267

5	Std5	1	21Dec2009	09:56	-	-	-	1260	0.000	0.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.204
R-Squared: 1.0000
Offset (cts): 1220
Offset (ugC): -1.469

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** Chk2      Name:     ICV                          Data File: XN063
             Remarks: 935196|1|1| WTC091221-05 ID:TOC267

6    Chk2    1 21Dec2009 10:05      -       -          -    43439  50.817     10.371      -       -          -

** Chk5      Name:     ICB                          Data File: XN064
             Remarks: 935196|1|1| ID:TOC267

7    Chk5    1 21Dec2009 10:14      -       -          -     1077  -0.173     -0.035      -       -          -

** Spl       Name:     TIC                          Data File: XN065
             Remarks: 935196|1|1| WIC091221-01 ID:TOC267

8    Spl     1 21Dec2009 10:24      -       -          -     1545   0.000      0.000      -       -          -
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                                  |- - - - - T I C  - - - -| |- - - - - T O C  - - - -| |- - - - - - T C  - - - -|
Pos/ Run  Rep   Run      Run     Area    Mass     Conc      Area    Mass     Conc      Area    Mass     Conc
Vial Type  #    Date     Time    (cts)   (ugC)    (ppm)     (cts)   (ugC)    (ppm)     (cts)   (ugC)    (ppm)
---- ---- --- --------- ----- ------- ------- ---------- ------- ------- ---------- ------- ------- ----------

** Chk2     Name:    CCV                          Data File: XN066
            Remarks: 934459|1|2| WTC091221-02 ID:TOC267

1    Chk2   1 21Dec2009 11:53      -       -          -    40957  47.829     9.761      -       -          -

** Chk5     Name:    CCB                          Data File: XN067
            Remarks: 934459|1|2| ID:TOC267

2    Chk5   1 21Dec2009 12:02      -       -          -     1333   0.135     0.028      -       -          -

** Chk5     Name:    1201999252                   Data File: XN068
            Remarks: 934459|1|2|MB ID:TOC267

3    Chk5   1 21Dec2009 12:11      -       -          -     1796   0.692     0.141      -       -          -

** Chk2     Name:    1201999255                   Data File: XN069
            Remarks: 934459|1|2|WTC091221-05:LCS ID:TOC267

4    Chk2   1 21Dec2009 12:20      -       -          -    41848  48.902     9.980      -       -          -

** Spl      Name:    243012005                    Data File: XN070
            Remarks: 934459|1|2| ID:TOC267

5    Spl    1 21Dec2009 12:28      -       -          -     2550   0.271     0.055      -       -          -
5    Spl    2 21Dec2009 12:36      -       -          -     2887   0.676     0.138      -       -          -
5    Spl    3 21Dec2009 12:44      -       -          -     2594   0.324     0.066      -       -          -
5    Spl    4 21Dec2009 12:53      -       -          -     2617   0.351     0.072      -       -          -
5    Spl  Avg                                           2662   0.406     0.083
5    Spl  SDev                                       152.554
5    Spl  %RSD                                          5.73

** Spl      Name:    243016002                    Data File: XN071
            Remarks: 934459|1|2| ID:TOC267

6    Spl    1 21Dec2009 13:02      -       -          -    16715  17.321     3.535      -       -          -
6    Spl    2 21Dec2009 13:09      -       -          -    18667  19.670     4.014      -       -          -
6    Spl    3 21Dec2009 13:17      -       -          -    17970  18.831     3.843      -       -          -
6    Spl    4 21Dec2009 13:27      -       -          -    17943  18.799     3.836      -       -          -
6    Spl  Avg                                          17823  18.655     3.807
6    Spl  SDev                                       811.584
6    Spl  %RSD                                          4.55

** Spl      Name:    1201999253                   Data File: XN072
            Remarks: 934459|1|2|243016002:DUP ID:TOC267

7    Spl    1 21Dec2009 13:35      -       -          -    16006  16.467     3.361      -       -          -
7    Spl    2 21Dec2009 13:45      -       -          -    18034  18.908     3.859      -       -          -
7    Spl  Avg                                          17020  17.688     3.610
7    Spl  SDev                                      1434.013
7    Spl  %RSD                                          8.43

** Spl      Name:    1201999254                   Data File: XN073
            Remarks: 934459|1|2|243016002:PS ID:TOC267
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8	Spl	1 21Dec2009 13:55	-	-	-	56411	65.102	13.286	-	-	-

** Spl Name: 243016006 Data File: XN074
Remarks: 934459|1|2| ID:TOC267

9	Spl	1 21Dec2009 14:03	-	-	-	16070	16.544	3.376	-	-	-
9	Spl	2 21Dec2009 14:11	-	-	-	17611	18.399	3.755	-	-	-
9	Spl	3 21Dec2009 14:19	-	-	-	17236	17.948	3.663	-	-	-
9	Spl	4 21Dec2009 14:29	-	-	-	17127	17.817	3.636	-	-	-
9	Spl	Avg				17011	17.677	3.608			
9	Spl	SDev				660.697					
9	Spl	%RSD				3.88					

** Spl Name: 243063001 Data File: XN075
Remarks: 934459|1|2| ID:TOC267

10	Spl	1 21Dec2009 14:37	-	-	-	17215	17.923	3.658	-	-	-
10	Spl	2 21Dec2009 14:47	-	-	-	19767	20.994	4.285	-	-	-
10	Spl	Avg				18491	19.458	3.971			
10	Spl	SDev				1804.537					
10	Spl	%RSD				9.76					

** Spl Name: 243099004 Data File: XN076
Remarks: 934459|1|2| ID:TOC267

11	Spl	1 21Dec2009 14:55	-	-	-	3149	0.992	0.202	-	-	-
11	Spl	2 21Dec2009 15:03	-	-	-	3459	1.365	0.279	-	-	-
11	Spl	3 21Dec2009 15:11	-	-	-	3367	1.254	0.256	-	-	-
11	Spl	4 21Dec2009 15:20	-	-	-	3381	1.271	0.259	-	-	-
11	Spl	Avg				3339	1.221	0.249			
11	Spl	SDev				132.976					
11	Spl	%RSD				3.98					

** Spl Name: 243130001 Data File: XN077
Remarks: 934459|5|2| ID:TOC267

12	Spl	1 21Dec2009 15:29	-	-	-	38078	43.035	8.783	-	-	-
12	Spl	2 21Dec2009 15:38	-	-	-	43902	50.045	10.213	-	-	-
12	Spl	Avg				40990	46.540	9.498			
12	Spl	SDev				4118.190					
12	Spl	%RSD				10.05					

** Chk2 Name: CCV Data File: XN078
Remarks: 934459|1|2|WTC091221-02 ID:TOC267

13	Chk2	1 21Dec2009 15:47	-	-	-	42585	49.789	10.161	-	-	-

** Chk5 Name: CCB Data File: XN079
Remarks: 934459|1|2| ID:TOC267

14	Chk5	1 21Dec2009 15:56	-	-	-	1116	-0.126	-0.026	-	-	-

** Spl Name: 243130002 Data File: XN080
Remarks: 934459|5|2| ID:TOC267

15	Spl	1 21Dec2009 16:05	-	-	-	40968	46.513	9.493	-	-	-
15	Spl	2 21Dec2009 16:14	-	-	-	45991	52.559	10.726	-	-	-

15	Spl	Avg				43479	49.536	10.109			
15	Spl	SDev				3551.797					
15	Spl	%RSD				8.17					

** Spl Name: 243148001 Data File: XN081
Remarks: 934459|1|2| ID:TOC267

16	Spl	1 21Dec2009 16:23	-	-	-	27596	30.418	6.208	-	-	-
16	Spl	2 21Dec2009 16:32	-	-	-	31868	35.560	7.257	-	-	-
16	Spl	Avg				29732	32.989	6.732			
16	Spl	SDev				3020.760					
16	Spl	%RSD				10.16					

** Spl Name: 243148002 Data File: XN082
Remarks: 934459|1|2| ID:TOC267

17	Spl	1 21Dec2009 16:41	-	-	-	30031	33.349	6.806	-	-	-
17	Spl	2 21Dec2009 16:50	-	-	-	34809	39.100	7.980	-	-	-
17	Spl	Avg				32420	36.224	7.393			
17	Spl	SDev				3378.556					
17	Spl	%RSD				10.42					

** Spl Name: 243148003 Data File: XN083
Remarks: 934459|1|2| ID:TOC267

18	Spl	1 21Dec2009 16:59	-	-	-	21269	22.802	4.654	-	-	-
18	Spl	2 21Dec2009 17:08	-	-	-	25254	27.599	5.632	-	-	-
18	Spl	Avg				23261	25.201	5.143			
18	Spl	SDev				2817.821					
18	Spl	%RSD				12.11					

** Spl Name: 243178002 Data File: XN084
Remarks: 934459|1|2| ID:TOC267

19	Spl	1 21Dec2009 17:17	-	-	-	16637	17.227	3.516	-	-	-
19	Spl	2 21Dec2009 17:26	-	-	-	18582	19.568	3.993	-	-	-
19	Spl	Avg				17609	18.397	3.755			
19	Spl	SDev				1375.323					
19	Spl	%RSD				7.81					

** Spl Name: 243178003 Data File: XN085
Remarks: 934459|2000|2| ID:TOC267

20	Spl	1 21Dec2009 17:35	-	-	-	2779	0.546	0.112	-	-	-
20	Spl	2 21Dec2009 17:44	-	-	-	2919	0.715	0.146	-	-	-
20	Spl	Avg				2849	0.631	0.129			
20	Spl	SDev				98.995					
20	Spl	%RSD				3.47					

** Spl Name: 243178005 Data File: XN086
Remarks: 934459|2|2| ID:TOC267

21	Spl	1 21Dec2009 17:53	-	-	-	42052	47.818	9.759	-	-	-
21	Spl	2 21Dec2009 18:02	-	-	-	47053	53.838	10.987	-	-	-
21	Spl	Avg				44552	50.828	10.373			
21	Spl	SDev				3536.241					
21	Spl	%RSD				7.94					

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** Spl      Name:    243178006                    Data File: XN087
            Remarks: 934459|1|2| ID:TOC267

22   Spl    1 21Dec2009 18:11      -       -          -    21107  22.607      4.614      -       -          -
22   Spl    2 21Dec2009 18:20      -       -          -    25279  27.629      5.639      -       -          -
22   Spl  Avg                                            23193  25.118      5.126
22   Spl  SDev                                         2950.049
22   Spl  %RSD                                            12.72


** Spl      Name:    243178008                    Data File: XN088
            Remarks: 934459|1|2| ID:TOC267

23   Spl    1 21Dec2009 18:29      -       -          -    17121  17.809      3.635      -       -          -
23   Spl    2 21Dec2009 18:38      -       -          -    20475  21.847      4.458      -       -          -
23   Spl  Avg                                            18798  19.828      4.047
23   Spl  SDev                                         2371.636
23   Spl  %RSD                                            12.62


** Chk2     Name:    CCV                          Data File: XN089
            Remarks: 934459|1|2|WTC091221-02 ID:TOC267

24   Chk2   1 21Dec2009 18:47      -       -          -    44055  51.558     10.522      -       -          -


** Chk5     Name:    CCB                          Data File: XN090
            Remarks: 934459|1|2| ID:TOC267

25   Chk5   1 21Dec2009 18:56      -       -          -      946  -0.331     -0.068      -       -          -


** Spl      Name:    243178007                    Data File: XN091
            Remarks: 934459|1|2| ID:TOC267

26   Spl    1 21Dec2009 19:04      -       -          -    11588  11.150      2.275      -       -          -
26   Spl    2 21Dec2009 19:14      -       -          -    12866  12.688      2.589      -       -          -
26   Spl  Avg                                            12227  11.919      2.432
26   Spl  SDev                                          903.682
26   Spl  %RSD                                             7.39


** Spl      Name:    1201999720                   Data File: XN092
            Remarks: 934459|1|2|243178007:DUP ID:TOC267

27   Spl    1 21Dec2009 19:22      -       -          -    11588  11.150      2.275      -       -          -
27   Spl    2 21Dec2009 19:32      -       -          -    12903  12.732      2.598      -       -          -
27   Spl  Avg                                            12245  11.941      2.437
27   Spl  SDev                                          929.845
27   Spl  %RSD                                             7.59


** Spl      Name:    1201999721                   Data File: XN093
            Remarks: 934459|1|2|243178007:PS ID:TOC267

28   Spl    1 21Dec2009 19:42      -       -          -    53330  61.393     12.529      -       -          -


** Chk5     Name:    1202000895                   Data File: XN094
            Remarks: 935196|1|1|MB ID:TOC267

29   Chk5   1 21Dec2009 19:51      -       -          -      983  -0.286     -0.058      -       -          -


** Chk2     Name:    1202000898                   Data File: XN095
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            Remarks: 935196|1|1|WTC091221-05:LCS ID:TOC267

30   Chk2   1 21Dec2009 20:00      -       -          -    46046  53.955     11.011      -       -          -

** Spl      Name:    243250001                    Data File: XN096
            Remarks: 935196|2000|1| ID:TOC267

31   Spl    1 21Dec2009 20:08      -       -          -    49324  56.571     11.545      -       -          -
31   Spl    2 21Dec2009 20:18      -       -          -    54477  62.774     12.811      -       -          -
31   Spl  Avg                                           51900  59.672     12.178
31   Spl  SDev                                        3643.721
31   Spl  %RSD                                           7.02

** Spl      Name:    243255001                    Data File: XN097
            Remarks: 935196|1|1| ID:TOC267

32   Spl    1 21Dec2009 20:26      -       -          -     6866   5.466      1.115      -       -          -
32   Spl    2 21Dec2009 20:34      -       -          -     7619   6.372      1.301      -       -          -
32   Spl    3 21Dec2009 20:42      -       -          -     7406   6.116      1.248      -       -          -
32   Spl    4 21Dec2009 20:51      -       -          -     7341   6.038      1.232      -       -          -
32   Spl  Avg                                            7308   5.998      1.224
32   Spl  SDev                                         317.689
32   Spl  %RSD                                           4.35

** Spl      Name:    243255004                    Data File: XN098
            Remarks: 935196|1|1| ID:TOC267

33   Spl    1 21Dec2009 21:00      -       -          -     8572   7.519      1.535      -       -          -
33   Spl    2 21Dec2009 21:08      -       -          -     9457   8.585      1.752      -       -          -
33   Spl    3 21Dec2009 21:15      -       -          -     9467   8.597      1.754      -       -          -
33   Spl    4 21Dec2009 21:25      -       -          -     9290   8.384      1.711      -       -          -
33   Spl  Avg                                            9196   8.271      1.688
33   Spl  SDev                                         424.175
33   Spl  %RSD                                           4.61

** Spl      Name:    243255006                    Data File: XN099
            Remarks: 935196|1|1| ID:TOC267

34   Spl    1 21Dec2009 21:33      -       -          -     8601   7.554      1.542      -       -          -
34   Spl    2 21Dec2009 21:41      -       -          -     9763   8.953      1.827      -       -          -
34   Spl    3 21Dec2009 21:49      -       -          -     9244   8.328      1.700      -       -          -
34   Spl    4 21Dec2009 21:59      -       -          -     9401   8.517      1.738      -       -          -
34   Spl  Avg                                            9252   8.338      1.702
34   Spl  SDev                                         485.519
34   Spl  %RSD                                           5.25

** Spl      Name:    243257003                    Data File: XN100
            Remarks: 935196|1|1| ID:TOC267

35   Spl    1 21Dec2009 22:07      -       -          -     4568   2.700      0.551      -       -          -
35   Spl    2 21Dec2009 22:15      -       -          -     5264   3.538      0.722      -       -          -
35   Spl    3 21Dec2009 22:22      -       -          -     5118   3.362      0.686      -       -          -
35   Spl    4 21Dec2009 22:32      -       -          -     5017   3.240      0.661      -       -          -
35   Spl  Avg                                            4991   3.210      0.655
35   Spl  SDev                                         300.145
35   Spl  %RSD                                           6.01

** Chk2     Name:    CCV                          Data File: XN101
            Remarks: 935196|1|1|WTC091221-02 ID:TOC267
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36	Chk2	1 21Dec2009 22:41	-	-	-	44353	51.917	10.595	-	-	-

** Chk5 Name: CCB Data File: XN102
Remarks: 935196|1|1| ID:TOC267

37	Chk5	1 21Dec2009 22:50	-	-	-	912	-0.372	-0.076	-	-	-

** Spl Name: 243257005 Data File: XN103
Remarks: 935196|1|1| ID:TOC267

38	Spl	1 21Dec2009 22:58	-	-	-	2682	0.430	0.088	-	-	-
38	Spl	2 21Dec2009 23:06	-	-	-	3057	0.881	0.180	-	-	-
38	Spl	3 21Dec2009 23:14	-	-	-	2859	0.643	0.131	-	-	-
38	Spl	4 21Dec2009 23:24	-	-	-	2799	0.571	0.116	-	-	-
38	Spl	Avg				2849	0.631	0.129			
38	Spl	SDev				156.794					
38	Spl	%RSD				5.50					

** Spl Name: 243283004 Data File: XN104
Remarks: 935196|1|1| ID:TOC267

39	Spl	1 21Dec2009 23:32	-	-	-	4307	2.386	0.487	-	-	-
39	Spl	2 21Dec2009 23:40	-	-	-	4789	2.966	0.605	-	-	-
39	Spl	3 21Dec2009 23:47	-	-	-	4672	2.825	0.576	-	-	-
39	Spl	4 21Dec2009 23:57	-	-	-	4831	3.016	0.616	-	-	-
39	Spl	Avg				4649	2.798	0.571			
39	Spl	SDev				238.198					
39	Spl	%RSD				5.12					

** Spl Name: 243284005 Data File: XN105
Remarks: 935196|1|1| ID:TOC267

40	Spl	1 22Dec2009 00:05	-	-	-	49440	56.711	11.574	-	-	-
40	Spl	2 22Dec2009 00:13	-	-	-	56419	65.111	13.288	-	-	-
40	Spl	3 22Dec2009 00:21	-	-	-	56321	64.993	13.264	-	-	-
40	Spl	4 22Dec2009 00:31	-	-	-	56317	64.988	13.263	-	-	-
40	Spl	Avg				54624	62.951	12.847			
40	Spl	SDev				3456.489					
40	Spl	%RSD				6.33					

** Spl Name: 243284012 Data File: XN106
Remarks: 935196|1|1| ID:TOC267

41	Spl	1 22Dec2009 00:39	-	-	-	49066	56.261	11.482	-	-	-
41	Spl	2 22Dec2009 00:47	-	-	-	55651	64.187	13.099	-	-	-
41	Spl	3 22Dec2009 00:55	-	-	-	55966	64.566	13.177	-	-	-
41	Spl	4 22Dec2009 01:04	-	-	-	55489	63.992	13.059	-	-	-
41	Spl	Avg				54043	62.251	12.704			
41	Spl	SDev				3323.905					
41	Spl	%RSD				6.15					

** Spl Name: 1202000896 Data File: XN107
Remarks: 935196|1|1|243284012:DUP ID:TOC267

42	Spl	1 22Dec2009 01:13	-	-	-	48736	55.863	11.401	-	-	-
42	Spl	2 22Dec2009 01:22	-	-	-	56445	65.142	13.294	-	-	-
42	Spl	Avg				52590	60.503	12.347			
42	Spl	SDev				5451.086					

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42   Spl  %RSD                                                10.37

** Spl      Name:    1202000897                    Data File: XN108
            Remarks: 935196|1|1|243284012:PS ID:TOC267

43   Spl    1 22Dec2009 01:33      -       -          -    93207 109.392     22.325      -       -          -

** Chk2     Name:    CCV                           Data File: XN109
            Remarks: 935196|1|1|WTC091221-02 ID:TOC267

44   Chk2   1 22Dec2009 01:41      -       -          -    46316  54.280     11.078      -       -          -

** Chk5     Name:    CCB                           Data File: XN110
            Remarks: 935196|1|1| ID:TOC267

45   Chk5   1 22Dec2009 01:50      -       -          -     1025  -0.236     -0.048      -       -          -
```

Total Kjeldahl Nitrogen

Prep LogBook

Analyst: SXJ1 Verified by:_____

Batch: 934821

Lab SOP: GL-GC-E-071 REV# 10

Type	Sample Id	Lot. Id	Spike Amount	Spike Units
LCS	1202000071	UTR1169166-01	.2	mL
MS	1202000069	UTR1169166-01	.2	mL
MS	1202000916	UTR1169166-01	.2	mL
MSD	1202000070	UTR1169166-01	.2	mL
MSD	1202000917	UTR1169166-01	.2	mL

Sample Type	Sample ID	Parent Sample ID	Method	Prep Date	Ph	Initial Wt.	Final Volume	Prep Factor	Matrix
MB	1202000067		EPA 351.2 Prep	21-DEC-2009 10:15	<2	20 mL	20 mL	1	GROUND WATER
LCS	1202000071		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	242734009		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	WASTE WATER
SAMPLE	242734010		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	WASTE WATER
SAMPLE	242734011		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	WASTE WATER
SAMPLE	242734012		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	WASTE WATER
SAMPLE	243099004		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	GROUND WATER
DUP	1202000068	243099004	EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	GROUND WATER
MS	1202000069	243099004	EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	GROUND WATER
MSD	1202000070	243099004	EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243223004		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	WASTE WATER
SAMPLE	243223005		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	WASTE WATER
SAMPLE	243223007		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	WASTE WATER
SAMPLE	243223008		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	WASTE WATER
SAMPLE	243253001		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	WASTE WATER
DUP	1202000915	243253001	EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	WASTE WATER
MS	1202000916	243253001	EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	WASTE WATER
MSD	1202000917	243253001	EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	WASTE WATER
SAMPLE	243283004		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243284005		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	GROUND WATER
SAMPLE	243284012		EPA 351.2 Prep	21-DEC-2009 15:36	<2	20 mL	20 mL	1	GROUND WATER

Reagent/Solvent Lot ID	Amount	Description
1238215-C	4 mL	TKN/PO4 Digestion Solution

Comments:

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
5.0 ppm Std.		1	axh3	12/22/2009 12:54:08	OM_12-22-2009_12-53-22
3.0 ppm Std.		1	axh3	12/22/2009 12:54:56	OM_12-22-2009_12-53-22
1.0 ppm Std.		1	axh3	12/22/2009 12:55:44	OM_12-22-2009_12-53-22
0.5 ppm Std		1	axh3	12/22/2009 12:56:34	OM_12-22-2009_12-53-22
0.1 ppm Std		1	axh3	12/22/2009 12:57:24	OM_12-22-2009_12-53-22
ICAL-00		1	axh3	12/22/2009 12:58:16	OM_12-22-2009_12-53-22
ICV		1	axh3	12/22/2009 13:00:12	OM_12-22-2009_12-53-22
ICB		1	axh3	12/22/2009 13:02:08	OM_12-22-2009_12-53-22
1201998900	934276	1	axh3	12/22/2009 13:04:03	OM_12-22-2009_12-53-22
1201998904	934276	1	axh3	12/22/2009 13:04:54	OM_12-22-2009_12-53-22
243012005	934276	1	axh3	12/22/2009 13:05:45	OM_12-22-2009_12-53-22
1201998901	934276	1	axh3	12/22/2009 13:06:35	OM_12-22-2009_12-53-22
1201998902	934276	1	axh3	12/22/2009 13:07:26	OM_12-22-2009_12-53-22
1201998903	934276	1	axh3	12/22/2009 13:08:16	OM_12-22-2009_12-53-22
243016002	934276	1	axh3	12/22/2009 13:09:05	OM_12-22-2009_12-53-22
243016006	934276	1	axh3	12/22/2009 13:09:55	OM_12-22-2009_12-53-22
243067009	934276	1	axh3	12/22/2009 13:10:44	OM_12-22-2009_12-53-22
243067010	934276	1	axh3	12/22/2009 13:11:33	OM_12-22-2009_12-53-22
CCV		1	axh3	12/22/2009 13:12:22	OM_12-22-2009_12-53-22
CCB		1	axh3	12/22/2009 13:14:18	OM_12-22-2009_12-53-22
243067011	934276	1	axh3	12/22/2009 13:16:11	OM_12-22-2009_12-53-22
243067012	934276	1	axh3	12/22/2009 13:16:59	OM_12-22-2009_12-53-22
243089001	934276	1	axh3	12/22/2009 13:17:47	OM_12-22-2009_12-53-22
243160001	934276	1	axh3	12/22/2009 13:18:34	OM_12-22-2009_12-53-22
243067011	934276	50	axh3	12/22/2009 13:19:22	OM_12-22-2009_12-53-22
1202000067*	934822	1	axh3	12/22/2009 13:20:11	OM_12-22-2009_12-53-22
1202000071*	934822	1	axh3	12/22/2009 13:21:00	OM_12-22-2009_12-53-22
243099004*	934822	1	axh3	12/22/2009 13:21:51	OM_12-22-2009_12-53-22
1202000068*	934822	1	axh3	12/22/2009 13:22:41	OM_12-22-2009_12-53-22
1202000069*	934822	1	axh3	12/22/2009 13:23:31	OM_12-22-2009_12-53-22
CCV		1	axh3	12/22/2009 13:24:20	OM_12-22-2009_12-53-22
CCB		1	axh3	12/22/2009 13:26:16	OM_12-22-2009_12-53-22
1202000067	934822	1	axh3	12/22/2009 13:28:09	OM_12-22-2009_12-53-22
1202000071	934822	1	axh3	12/22/2009 13:28:59	OM_12-22-2009_12-53-22
243099004*	934822	1	axh3	12/22/2009 13:29:50	OM_12-22-2009_12-53-22
1202000068	934822	1	axh3	12/22/2009 13:30:39	OM_12-22-2009_12-53-22
1202000069*	934822	1	axh3	12/22/2009 13:31:29	OM_12-22-2009_12-53-22
1202000070	934822	1	axh3	12/22/2009 13:32:18	OM_12-22-2009_12-53-22
242734009*	934822	1	axh3	12/22/2009 13:33:09	OM_12-22-2009_12-53-22
242734010*	934822	1	axh3	12/22/2009 13:34:00	OM_12-22-2009_12-53-22
242734011	934822	1	axh3	12/22/2009 13:34:51	OM_12-22-2009_12-53-22
242734012*	934822	1	axh3	12/22/2009 13:35:42	OM_12-22-2009_12-53-22
CCV		1	axh3	12/22/2009 13:36:32	OM_12-22-2009_12-53-22
CCB		1	axh3	12/22/2009 13:38:27	OM_12-22-2009_12-53-22
243099004	934822	1	axh3	12/22/2009 13:40:22	OM_12-22-2009_12-53-22
243223004	934822	1	axh3	12/22/2009 13:41:11	OM_12-22-2009_12-53-22
243223005	934822	1	axh3	12/22/2009 13:42:00	OM_12-22-2009_12-53-22
243223007	934822	1	axh3	12/22/2009 13:42:49	OM_12-22-2009_12-53-22
243223008	934822	1	axh3	12/22/2009 13:43:37	OM_12-22-2009_12-53-22
243253001	934822	1	axh3	12/22/2009 13:44:25	OM_12-22-2009_12-53-22
1202000915	934822	1	axh3	12/22/2009 13:45:13	OM_12-22-2009_12-53-22
1202000916	934822	1	axh3	12/22/2009 13:46:03	OM_12-22-2009_12-53-22
1202000917	934822	1	axh3	12/22/2009 13:46:55	OM_12-22-2009_12-53-22
243283004*	934822	1	axh3	12/22/2009 13:47:46	OM_12-22-2009_12-53-22
CCV		1	axh3	12/22/2009 13:48:36	OM_12-22-2009_12-53-22
CCB		1	axh3	12/22/2009 13:50:32	OM_12-22-2009_12-53-22
243284005*	934822	1	axh3	12/22/2009 13:52:27	OM_12-22-2009_12-53-22
243284012*	934822	1	axh3	12/22/2009 13:53:18	OM_12-22-2009_12-53-22

1202000069*	934822	1	axh3	12/22/2009	13:54:08	OM_12-22-2009_12-53-22
243283004*	934822	1	axh3	12/22/2009	13:54:59	OM_12-22-2009_12-53-22
242734009*	934822	1	axh3	12/22/2009	13:55:50	OM_12-22-2009_12-53-22
242734010*	934822	1	axh3	12/22/2009	13:56:42	OM_12-22-2009_12-53-22
242734012*	934822	1	axh3	12/22/2009	13:57:32	OM_12-22-2009_12-53-22
242734011*	934822	10	axh3	12/22/2009	13:58:23	OM_12-22-2009_12-53-22
243223004*	934822	250	axh3	12/22/2009	13:59:13	OM_12-22-2009_12-53-22
243223005*	934822	50	axh3	12/22/2009	14:00:02	OM_12-22-2009_12-53-22
CCV		1	axh3	12/22/2009	14:01:56	OM_12-22-2009_12-53-22
CCB		1	axh3	12/22/2009	14:03:52	OM_12-22-2009_12-53-22

Author: axh3 Date : 12/22/2009

Original Run Filename: OM_12-22-2009_12-53-22.OMN created 12/22/2009 12:53:22
Original Run Author's Signature: [axh3]
Current Run Filename: OM_12-22-2009_12-53-22.OMN last modified 12/22/2009 14:05:02
Current Run Author's Signature: [axh3]
Description: TKN EPA Method 351.2 GEL SOP: GL-GC-E-104
Detection 660 nM
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TKN Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR091222-12	1	S1	5.000	8.747	12/22/2009@12:54:08			5.0 ppm Std.
WTR091222-13	1	S2	3.000	5.300	12/22/2009@12:54:56			3.0 ppm Std.
WTR091222-14	1	S3	1.000	1.837	12/22/2009@12:55:44			1.0 ppm Std.
WTR091222-15	1	S4	0.500	0.836	12/22/2009@12:56:34			0.5 ppm Std
WTR091222-16	1	S5	0.100	0.218	12/22/2009@12:57:24			0.1 ppm Std
WTR091222-19 0.0 ppm	1	S7	0.000	-0.030	12/22/2009@12:58:16			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99990 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR091222-18 ICV	1	S8	0.939	1.659	12/22/2009@13:00:12			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	0.939 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.939 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR091222-19 ICB	1	S7	-0.029	-0.035	12/22/2009@13:02:08			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.029 < 0.100					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.029 > -0.100					
		Message	ICB Passed					
		Action	Continue					
1201998900|934276|MB	1	1	-0.021	-0.021	12/22/2009@13:04:03			
1201998904||LCS	1	2	0.956	1.689	12/22/2009@13:04:54			
243012005	1	3	-0.003	0.010	12/22/2009@13:05:45			
1201998901||DUP	1	4	-0.017	-0.015	12/22/2009@13:06:35			
1201998902||MS	1	5	0.988	1.745	12/22/2009@13:07:26			
1201998903||MSD	1	6	0.944	1.669	12/22/2009@13:08:16			
243016002	1	7	0.284	0.513	12/22/2009@13:09:05			
243016006	1	8	0.285	0.514	12/22/2009@13:09:55			
243067009	1	9	0.626	1.111	12/22/2009@13:10:44			
243067010	1	10	0.651	1.155	12/22/2009@13:11:33			
WTR091222-14 CCV	1	S3	1.028	1.815	12/22/2009@13:12:22			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.028 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.028 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-19 CCB	1	S7	-0.030	-0.038	12/22/2009@13:14:18			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.030 < 0.099					

		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.030 > -0.100					
		Message	CCB Passed					
		Action	Continue					
243067011	1	11	44.017	77.134	12/22/2009@13:16:11			
243067012	1	12	0.281	0.506	12/22/2009@13:16:59			
243089001	1	13	4.189	7.355	12/22/2009@13:17:47			
243160001	1	14	1.329	2.343	12/22/2009@13:18:34			
243067011	1	11	0.928	1.642	12/22/2009@13:19:22		50.00	
1202000067|934822|MB	1	15	-0.038	-0.051	12/22/2009@13:20:11			
1202000071||LCS	1	16	0.701	1.243	12/22/2009@13:21:00			
243099004	1	21	-0.168	-0.279	12/22/2009@13:21:51			
1202000068||DUP	1	22	-0.164	-0.272	12/22/2009@13:22:41			
1202000069||MS	1	23	0.746	1.322	12/22/2009@13:23:31			
WTR091222-14 CCV	1	S3	1.033	1.824	12/22/2009@13:24:20			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.033 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.033 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-19 CCB	1	S7	-0.030	-0.037	12/22/2009@13:26:16			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.030 < 0.099					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.030 > -0.100					
		Message	CCB Passed					
		Action	Continue					
1202000067|934822|MB	1	15	-0.045	-0.065	12/22/2009@13:28:09			
1202000071||LCS	1	16	0.981	1.733	12/22/2009@13:28:59			
243099004	1	21	5.145	9.029	12/22/2009@13:29:50			
1202000068||DUP	1	22	-0.037	-0.049	12/22/2009@13:30:39			
1202000069||MS	1	23	0.747	1.324	12/22/2009@13:31:29			
1202000070||MSD	1	24	0.894	1.581	12/22/2009@13:32:18			
242734009	1	17	-0.186	-0.311	12/22/2009@13:33:09			
242734010	1	18	-0.185	-0.309	12/22/2009@13:34:00			
242734011	1	19	13.618	23.873	12/22/2009@13:34:51			
242734012	1	20	-0.108	-0.175	12/22/2009@13:35:42			
WTR091222-14 CCV	1	S3	1.030	1.820	12/22/2009@13:36:32			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.030 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.030 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-19 CCB	1	S7	-0.033	-0.044	12/22/2009@13:38:27			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.033 < 0.099					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.033 > -0.100					
		Message	CCB Passed					
		Action	Continue					
243099004	1	21	-0.043	-0.060	12/22/2009@13:40:22			
243223004	1	25	132.115	231.482	12/22/2009@13:41:11			

243223005	1	26	30.680	53.766	12/22/2009@13:42:00			
243223007	1	27	3.071	5.395	12/22/2009@13:42:49			
243223008	1	28	2.008	3.532	12/22/2009@13:43:37			
243253001	1	29	1.529	2.693	12/22/2009@13:44:25			
1202000915||DUP	1	30	0.911	1.610	12/22/2009@13:45:13			
1202000916||MS	1	31	3.112	5.466	12/22/2009@13:46:03			
1202000917||MSD	1	32	2.237	3.935	12/22/2009@13:46:55			
243283004	1	33	-0.151	-0.249	12/22/2009@13:47:46			
WTR091222-14 CCV	1	S3	1.022	1.806	12/22/2009@13:48:36			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.022 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.022 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-19 CCB	1	S7	-0.032	-0.042	12/22/2009@13:50:32			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.032 < 0.099					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.032 > -0.100					
		Message	CCB Passed					
		Action	Continue					
243284005	1	34	-0.034	-0.045	12/22/2009@13:52:27			
243284012	1	35	-0.028	-0.033	12/22/2009@13:53:18			
1202000069||MS	1	23	0.896	1.585	12/22/2009@13:54:08			
243283004	1	33	-0.020	-0.020	12/22/2009@13:54:59			
242734009	1	17	-0.030	-0.037	12/22/2009@13:55:50			
242734010	1	18	-0.035	-0.047	12/22/2009@13:56:42			
242734012	1	20	-0.030	-0.038	12/22/2009@13:57:32			
242734011	1	19	1.488	2.621	12/22/2009@13:58:23		10.00	
243223004	1	25	1.438	2.535	12/22/2009@13:59:13		250.00	
243223005	1	26	0.571	1.015	12/22/2009@14:00:02		50.00	
WTR091222-14 CCV	1	S3	1.019	1.800	12/22/2009@14:01:56			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.019 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.019 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-19 CCB	1	S7	-0.122	-0.199	12/22/2009@14:03:52			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.122 < 0.099					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.122 < -0.100					
		Message	CCB Failed					
		Action	Stop Run					

Author: axh3

Date : 12/22/2009

Channel 1 (TKN) : Current View

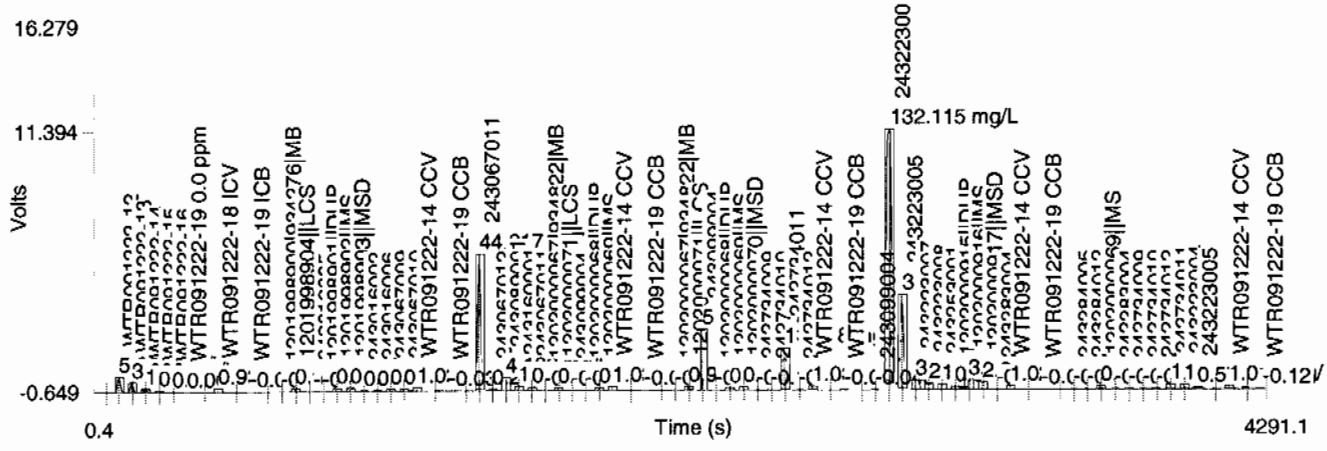

Table 1: TKN

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	5.000	1	8.747	0.712	0.3	12/22/2009	12:55:16
2	3.000	1	5.300	0.431	-0.6	12/22/2009	12:56:04
3	1.000	1	1.837	0.149	-4.0	12/22/2009	12:56:53
4	0.500	1	0.836	0.067	6.2	12/22/2009	12:57:42
5	0.100	1	0.218	0.017	-14.4	12/22/2009	12:58:32
6	0.000	1	-0.030	-0.001		12/22/2009	12:59:24

Figure 1: TKN

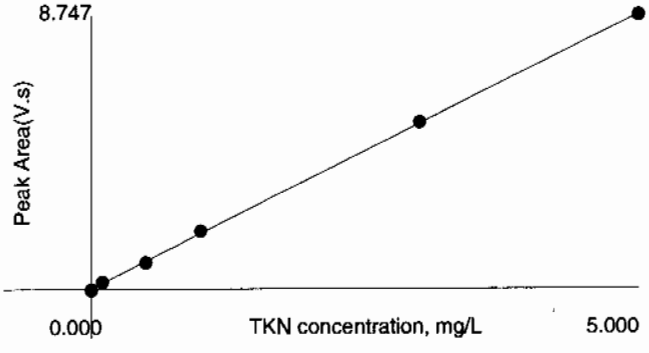

Area = 1.752 * Conc + 0.016
Conc = 0.571 * Area - 0.009
Correlation Coefficient (r) = 0.99990

No Weighting

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axh3	12/22/2009 14:06:34	OM_12-22-2009_14-05-47
CCB		1	axh3	12/22/2009 14:08:30	OM_12-22-2009_14-05-47
243284005	934822	1	axh3	12/22/2009 14:10:28	OM_12-22-2009_14-05-47
243284012	934822	1	axh3	12/22/2009 14:11:19	OM_12-22-2009_14-05-47
1202000069	934822	1	axh3	12/22/2009 14:12:09	OM_12-22-2009_14-05-47
243283004	934822	1	axh3	12/22/2009 14:13:00	OM_12-22-2009_14-05-47
242734009	934822	1	axh3	12/22/2009 14:13:51	OM_12-22-2009_14-05-47
242734010	934822	1	axh3	12/22/2009 14:14:42	OM_12-22-2009_14-05-47
242734012	934822	1	axh3	12/22/2009 14:15:33	OM_12-22-2009_14-05-47
242734011	934822	10	axh3	12/22/2009 14:16:24	OM_12-22-2009_14-05-47
243223004	934822	250	axh3	12/22/2009 14:17:14	OM_12-22-2009_14-05-47
243223005	934822	50	axh3	12/22/2009 14:18:02	OM_12-22-2009_14-05-47
CCV		1	axh3	12/22/2009 14:19:56	OM_12-22-2009_14-05-47
CCB		1	axh3	12/22/2009 14:21:52	OM_12-22-2009_14-05-47

Author: axh3 Date : 12/22/2009

Original Run Filename: OM_12-22-2009_14-05-47.OMN created 12/22/2009 14:05:47
Original Run Author's Signature: [axh3]
Current Run Filename: OM_12-22-2009_14-05-47.OMN last modified 12/22/2009 14:23:05
Current Run Author's Signature: [axh3]
Description: TKN EPA Method 351.2 GEL SOP: GL-GC-E-104
Detection 660 nM
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TKN Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR091222-14 CCV	1	S3	1.027	1.814	12/22/2009@14:06:34			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.027 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.027 > 0.895					
		Message	CCV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR091222-19 CCB	1	S7	-0.031	-0.039	12/22/2009@14:08:30			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.031 < 0.099					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.031 > -0.100					
		Message	CCB Passed					
		Action	Continue					
243284005|934822|	1	34	-0.031	-0.040	12/22/2009@14:10:28			
243284012	1	35	0.002	0.018	12/22/2009@14:11:19			
1202000069||MS	1	23	0.900	1.591	12/22/2009@14:12:09			
243283004	1	33	-0.020	-0.020	12/22/2009@14:13:00			
242734009	1	17	-0.030	-0.037	12/22/2009@14:13:51			
242734010	1	18	-0.034	-0.044	12/22/2009@14:14:42			
242734012	1	20	-0.031	-0.040	12/22/2009@14:15:33			
242734011	1	19	1.497	2.637	12/22/2009@14:16:24		10.00	
243223004	1	25	1.493	2.631	12/22/2009@14:17:14		250.00	
243223005	1	26	0.611	1.086	12/22/2009@14:18:02		50.00	
WTR091222-14 CCV	1	S3	1.021	1.804	12/22/2009@14:19:56			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.021 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.021 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR091222-19 CCB	1	S7	-0.030	-0.037	12/22/2009@14:21:52			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.030 < 0.099					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.030 > -0.100					
		Message	CCB Passed					
		Action	Continue					

Author: axh3 Date : 12/22/2009

Channel 1 (TKN) : Current View

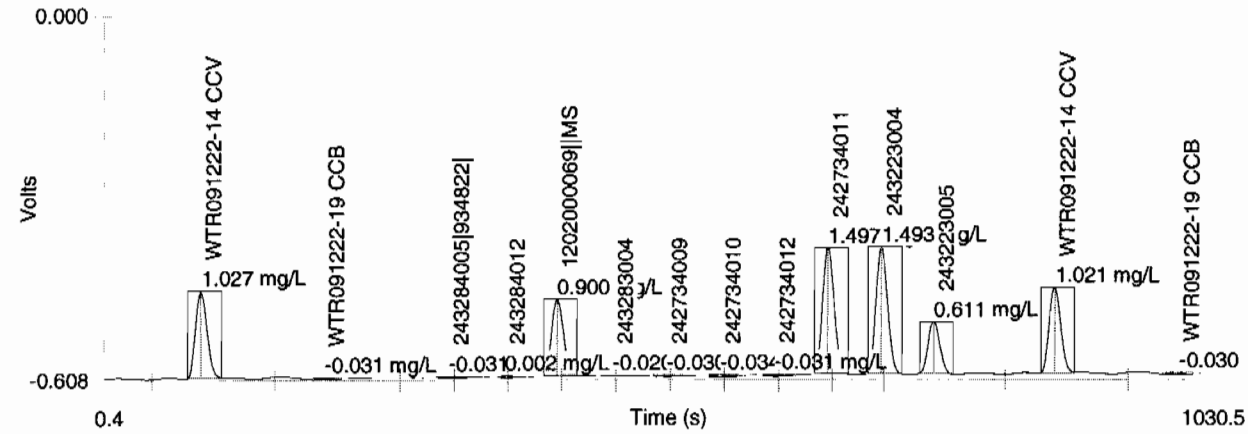

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4	0.500	1	0.836	0.067	6.2	12/22/2009	12:57:42
5	0.100	1	0.218	0.017	-14.4	12/22/2009	12:58:32
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Figure 1: TKN

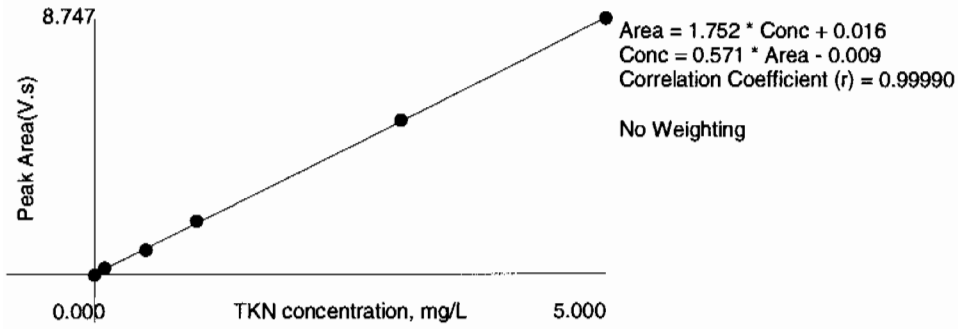

Miscellaneous

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
22-DEC-09	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 351.2	Liquid	BETT, ESHL, THRM
Batch ID:	**Sample Numbers:**		
934822	See Below		

Potentially affected work order(s)(SDG): 242734,243099(10-952),243223,243253(10-978),243283(10-994),243284(10-997)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for MS/MSD: QC 1202000916MS, QC 1202000917MSD 2. Failed RPD for DUP: QC 1202000915DUP 3. Failed RPD for MS/MSD: QC 1202000917MSD 4. Failed Recovery for MSD: QC 1202000070MSD 5. Failed Recovery for MSD for WOs 243099, 243253, 243283, and 243284: QC 1202000070MSD	1. The MS and MSD recoveries fall outside of the established acceptance limits due to matrix interference and/or sample matrix non-homogeneity: 2. The Relative Percent Difference (RPD) between the sample and duplicate falls outside of the normal acceptance limits because of the heterogeneous matrix of the sample. 3. The relative percent difference (RPD) between the Matrix Spike and Matrix Spike Duplicate was outside of the required acceptance limits due to the heterogeneous matrix of the sample. 4. The spike duplicate recovery falls outside of the established acceptance limits. Since both the spike recovery and the RPD between the spike and spike duplicate fall within acceptance limits, the data is reported. 5. The MSD recovery falls outside of the GEL acceptance limits but within the client specified limits.

Originator's Name:

Aubrey Kingsbury 22-DEC-09

Data Validator/Group Leader:

Julia Hamilton 22-DEC-09

Wednesday, December 16, 2009

REQUEST NUMBER: 10-951

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Mike Franks

Severn Trent Laboraties, Inc., St. Louis

13715 Rider Trail N.

Earth City, MO 63045

These Samples are on:

LANL Request Number:10-951

Per Agreement Number:126310021

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/16/2009

TURNAROUND/REPORT DUE: 1/15/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8330	1	CAPA-10-6818	WG	12/15/2009	
		2	CAPA-10-6818	WG	12/15/2009	

Final Page of REQUEST NUMBER 10-951

Wednesday, December 16, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-951

REQUEST NUMBER: 10-951

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Mike Franks

Severn Trent Laboraties, Inc., St. Louis

13715 Rider Trail N.

Earth City, MO 63045

TURNAROUND/REPORT DUE: 1/15/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6818	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-6818	2	AMBER GLASS	WSP-HEXMOD	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/16/09	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6817 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/15/09	MEDIA:	WGR	6K
TIME COLLECTED (HH:MM)		1010	SUB-MEDIA:	UA	
PRS ID:	C-00-011	6K	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-41		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

See CAPA-10-6816

COLLECTED BY (PRINT) J Berryhill, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/15/09	(Printed Name) [illegible]	12/15/09
(Signature) D. Woody	1245	(Signature) [illegible]	1245
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6818 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/15/09	MEDIA:	WGR	OV
TIME COLLECTED (HH:MM)		1010	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OV	SAMPLE TECH CODE:	GS1	
LOCATION ID:	R-41		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2 2	DW 12/15/09	WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
2 2	DW 12/15/09	WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH < 2
2 2	DW 12/15/09	WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
2 2	DW 12/15/09	WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH >12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH < 2
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	pH < 2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH < 2

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH (STU)	Temp (°C)	SC (µS/cm)	DO (mg/L)	Turb (NTU)	ORP mV	Q (gpm)
7.84	21.99	176	4.18	0.66	57.3	2.8

COLLECTED BY (PRINT) J Berryhill, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/15/09	(Printed Name) Sherri Sherwood	12/15/09
(Signature) D. Woody	1245	(Signature) Sherri Sherwood	1245
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6819 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/15/09	MEDIA:	WGR	GK
TIME COLLECTED (HH:MM)		1010	SUB-MEDIA:	UA	
PRS ID:	C-00-011	GK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-41		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / (NA)		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / (NA)

BOREHOLE: YES / NO / (NA) BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH <2

SAMPLE DESC: QC Sample of CAPA-10-6818

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/15/09	(Printed Name) Sherri Sherwood	12/15/09
(Signature) D. Woody	1245	(Signature) Sherri Sherwood	1245
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5117-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-951 VALIDATION DATE: 02/04/10 LAB CODE: STSL

CONTRACT LABORATORY NAME: TestAmerica Laboratories, Inc. - St. Louis

VALIDATOR: Kevin A. Lambert ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☒ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None

Reviewed by: Allison Felix Level: 1 Date: 2/5/10

VALIDATOR'S SIGNATURE: Kevin A. Lambert DATE: 02/04/10

HIGH EXPLOSIVE (HE) ANALYTICAL DATA VALIDATION CHECKLIST

5117-2

High Explosive (HE) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, H9	J-, H9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, H9a	J-, H9a
☐	☒	☐	3. The affected analytes are regarded as Rejected because the analytical holding time was exceeded.	R, H9b	R, H9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, H7	J, H7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multi-point calibration correlation coefficient is <0.995.	UJ, H7a	J, H7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method limits.	UJ, H7c	J, H7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, H7d	J, H7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, H7f	R, H7f
☐	☒	☐	9. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, H4	N/A
☐	☒	☐	10. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, H4a
☐	☐	☒	11. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, H4d	N/A
☐	☒	☐	12. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H4e	R, H4e

HIGH EXPLOSIVE (HE) ANALYTICAL DATA VALIDATION CHECKLIST	
5117-2 **High Explosive (HE) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, H0	J, H0
☐	☐	☒	14. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided (hexp – diode array detector).	N/A	J, H0a
☐	☒	☐	15. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H0b	R, H0b
☐	☒	☐	16. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, H3	J-, H3
☐	☒	☐	17. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, H3a	J-, H3a
☐	☒	☐	18. The surrogate %R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	N/A	J+, H3b
☐	☐	☒	19. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, H3c	J, H3c
☐	☒	☐	20. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H3d	R, H3d
☐	☒	☐	21. The LCS percent recover was <10%. Follow the external laboratory limits located within the associated data package.	R, H12	J-, H12
☐	☒	☐	22. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, H12a	J-, H12a

HIGH EXPLOSIVE (HE) ANALYTICAL DATA VALIDATION CHECKLIST

5117-2

High Explosive (HE) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, H12b
☐	☒	☐	24. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H12c	R, H12c
☐	☐	☒	25. The analyte was not confirmed on a second dissimilar column.	N/A	R, H8
☐	☐	☒	26. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H8a	R, H8a
☐	☒	☐	27. Duplicate, dilution, or reanalysis.	UJ, H88	J, H88
☐	☐	☒	28. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for cleanup or matrix interference.	UJ, R, H15	R, H15
☒	☐	☐	29. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, H19	J, R, H19

Los Alamos National Laboratory

Client Sample ID: CAPA-10-6818

HPLC

Lot-Sample #...: F9L170499-001 **Work Order #...:** LQ8X01AC **Matrix.....:** WATER
Date Sampled...: 12/15/09 **Date Received..:** 12/17/09
Prep Date.....: 12/18/09 **Analysis Date..:** 12/29/09
Prep Batch #...: 9352181 **Analysis Time..:** 14:25
Dilution Factor: 1

Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
MNX	ND	0.50	ug/L
DNX	ND	0.50	ug/L
TNX	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	76	(56 - 131)

KAL
02/04/10

Wednesday, December 16, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-951

REQUEST NUMBER: 10-951

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Mike Franks

Severn Trent Laboratories, Inc., St. Louis
13715 Rider Trail N.
Earth City, MO 63045

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 1/15/2010
TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6818	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-6818	2	AMBER GLASS	WSP-HEXMOD	Ice	WG

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	12/16/09	1400	Printed Name / Signature	12/17/09	0930
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Printed Name / Signature			

Wednesday, December 16, 2009

REQUEST NUMBER: 10-951

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Mike Franks
Severn Trent Laboraties, Inc., St. Louis
13715 Rider Trail N.
Earth City, MO 63045

These Samples are on:
LANL Request Number:10-951
Per Agreement Number:126310021
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/16/2009
TURNAROUND/REPORT DUE: 1/15/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8330	1	CAPA-10-6818	WG	12/15/2009	
		2	CAPA-10-6818	WG	12/15/2009	

Final Page of REQUEST NUMBER 10-951

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 10-951

Los Alamos RAD

Lot #: F9L170499

Joylene Valdez or Keith Greene

Los Alamos National Laboratory
SMO TA-00 Bldg 1237
DP: 03U; MS: 707
Los Alamos, NM 87545

TESTAMERICA LABORATORIES, INC.

Michael C. Franks
Project Manager

January 5, 2010

13715 Rider Trail North Earth City MO 63045 tel 314 298 8566 fax 314 298 8757 www.testamericainc.com

TABLE OF CONTENTS - LOT # F9L170499

COVER PAGE 1
CLIENT CHAIN OF CUSTODY 3
HPLC 14

TOTAL # OF PAGES IN PACKAGE 102

Case Narrative
LOT NUMBER: **F9L170499**
LANL Request Number: **10-951**

This report contains the analytical results for the sample received under chain of custody number 10-951 by TestAmerica St. Louis on December 17, 2009. This sample is associated with your Los Alamos RAD project.

All applicable quality control procedures met method-specified acceptance criteria.

This report shall not be reproduced, except in full, without the written approval of the laboratory.

This report is incomplete without the case narrative. All chemical analysis results are based upon dry weight correction as required per the statement of work. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Sample Receiving

Samples were received at 2 °C. No problems were noted at the time of sample receipt.

Explosives Method 8330

In accordance with method 8330, samples are air dried under normal laboratory conditions for a period of time prior to extraction. Explosive results for soil samples, requesting results reported on a dry weight, will be adjusted for the % moisture result.

QC Batch: 9352181
The Method Blank shows no contamination above the reporting limit. Surrogate recovery is within laboratory stated limits.

The LCS is within stated limits.

The Batch QC Matrix Spike and Matrix Spike Duplicate were performed on F9L170499-001 (this request). The Matrix Spike and Matrix Spike Duplicate recoveries and RPD values are within stated limits. Surrogate is in control for both the MS and MSD.

I certify that this data is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the signature on the front page, has authorized release of the data contained in this hardcopy.

F9L170499

CLIENT ANALYSIS SUMMARY

Storage Loc: 2-55

Project Manager: MCF | Quote #: 75496 | SDG: F9L170499 ✓

Date Received: 2009-12-17

Project: 10-951 ✓ | Los Alamos RAD

Analytical Due Date: 2010-01-07 ✓

PO#: 37954-001-06 | Report to: Joylene Valdez or Keith

Report Due Date: 2010-01-11 ✓

Client: 108581 Los Alamos National Laboratory

Report Type: D ✓ Expanded Deliverable

#SMPS in LOT: 0 | EDD Code: 99

Sample Receiving: LOS ALAMOS CLIENT REQUIREMENTS Enter COC NUMBER in the COC Field; SDG = "Lot Number" Project Name = "Request number"

LOG QC AS DETAILED BELOW FOR EACH DEPT. EXCEPT RAD ********** METALS AND WETCHEMISTRY ********** Can batch multiple Lots together and report Client sp

Batch QC: Matrix Spike and Sample Duplicate Met Prep: GFAA Spike Level and Standard Spike Level Sb spike at 100 ppb

Pb - Spike Solids at 100 ppb, spike Waters at 20 - Perform analytical spike when matrix spike is swamped with indigenous analyte.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	I
1	CAPA-10-6818 ✓			2009-12-15 / 0 ✓	LQ8X0	WATER

SAMPLE COMMENTS:

	XX	A0	SW846 8330	WATER, 8330, HEXPMOD (MNX/DNX/TNX) ✓	20	EXTRACTION, SOLID PHASE	9Q	ORG FLAGS FOR INORG; STANDARD	PROT: O	WRK LOC	06
	XX	ZV	RAD SCREEN	WATER, RAD SCREEN ✓	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
D	XX	A0	SW846 8330	WATER, 8330, HEXPMOD (MNX/DNX/TNX) ✓	20	EXTRACTION, SOLID PHASE	9Q	ORG FLAGS FOR INORG; STANDARD	PROT: O	WRK LOC	06
S	XX	A0	SW846 8330	WATER, 8330, HEXPMOD (MNX/DNX/TNX) ✓	20	EXTRACTION, SOLID PHASE	9Q	ORG FLAGS FOR INORG; STANDARD	PROT: O	WRK LOC	06

Wednesday, December 16, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-951

REQUEST NUMBER: 10-951

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Mike Franks

Severn Trent Laboratles, Inc., St. Louis
13715 Rider Trail N.
Earth City, MO 63045

TURNAROUND/REPORT DUE: 1/15/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6818	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-6818	2	AMBER GLASS	WSP-HEXMOD	Ice	WG

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	12/16/09	1400	Printed Name / Signature	12.17.09	0930
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Wednesday, December 16, 2009

REQUEST NUMBER: 10-951

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Mike Franks
Severn Trent Laboraties, Inc., St. Louis
13715 Rider Trail N.
Earth City, MO 63045

These Samples are on:
LANL Request Number:10-951
Per Agreement Number:126310021
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/16/2009
TURNAROUND/REPORT DUE: 1/15/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8330	1	CAPA-10-6818	WG	12/15/2009	
		2	CAPA-10-6818	WG	12/15/2009	

Final Page of REQUEST NUMBER 10-951

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): F9L170499

CONDITION UPON RECEIPT FORM

Client: LANL

Quote No: 7549

COC/RFA No: 10-951

415

Initiated By: SW Date: 12-17-09 Time: 0930

Shipping Information

Shipper: (FedEx) UPS DHL Courier Client Other: _____ Multiple Packages: Y (N)

Shipping # (s):*		Sample Temperature (s):**	
1. 7209 7849 2575	6.	1. 2	6.
2.	7.	2.	7.
3.	8.	3.	8.
4.	9.	4.	9.
5.	10.	5.	10.

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	(Y) N	Are there custody seals present on the cooler?	8.	(Y) N	Are there custody seals present on bottles?
2.	Y (N) N/A	Do custody seals on cooler appear to be tampered with?	9.	Y (N) N/A	Do custody seals on bottles appear to be tampered with?
3.	(Y) N	Were contents of cooler frisked after opening, but before unpacking?	10.	(Y) N N/A	Was sample received with proper pH[1]? (If not, make note below)
4.	(Y) N	Sample received with Chain of Custody?	11.	(Y) N	Sample received in proper containers?
5.	(Y) N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	Y N (N/A)	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6.	Y (N)	Was sample received broken?	13.	Y N (N/A)	Was Internal COC/Workshare received?
7.	(Y) N	Is sample volume sufficient for analysis?	14.	Y N (N/A)	Was pH taken by original TestAmerica lab?

[1] For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:

Corrective Action:

☐ Client Contact Name: _____ Informed by: _____

☐ Sample(s) processed "as is"

☐ Sample(s) on hold until: _____ If released, notify: _____

Project Management Review: Jaymar Pohl Date: 12-20-09

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004, REVISED 10/21/08 \\Slsvr01\QA\FORMS\ST-LOUIS\ADMIN\Admin004 rev11.doc

METHODS SUMMARY

F9L170499

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Nitroaromatics and Nitramines by HPLC	SW846 8330	SW846 3535

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

F9L170499

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LQ8X0	001	CAPA-10-6818	12/15/09	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

QC DATA ASSOCIATION SUMMARY

F9L170499

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	SW846 8330		9352181	9352090

Los Alamos National Laboratory

Client Sample ID: CAPA-10-6818

HPLC

Lot-Sample #...: F9L170499-001 **Work Order #...:** LQ8X01AC **Matrix.....:** WATER
Date Sampled...: 12/15/09 **Date Received..:** 12/17/09
Prep Date.....: 12/18/09 **Analysis Date..:** 12/29/09
Prep Batch #...: 9352181 **Analysis Time..:** 14:25
Dilution Factor: 1

Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
MNX	ND	0.50	ug/L
DNX	ND	0.50	ug/L
TNX	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	76	(56 - 131)

METHOD BLANK REPORT

HPLC

Client Lot #...: F9L170499 **Work Order #...:** LRAQN1AA **Matrix.....:** WATER
MB Lot-Sample #: F9L180000-181
Prep Date.....: 12/18/09 **Analysis Time..:** 13:57
Analysis Date..: 12/29/09 **Prep Batch #...:** 9352181
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
MNX	ND	0.50	ug/L	SW846 8330
DNX	ND	0.50	ug/L	SW846 8330
TNX	ND	0.50	ug/L	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	74	(56 - 131)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: F9L170499 **Work Order #...:** LRAQN1AC **Matrix.....:** WATER
LCS Lot-Sample#: F9L180000-181
Prep Date.....: 12/18/09 **Analysis Date..:** 12/29/09
Prep Batch #...: 9352181 **Analysis Time..:** 14:11
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
TNX	**70**	**(40 - 104)**	**SW846 8330**
MNX	**82**	**(49 - 115)**	**SW846 8330**
DNX	**74**	**(53 - 107)**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	84	(59 - 140)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: F9L170499 **Work Order #...:** LQ8X01AD-MS **Matrix.....:** WATER
MS Lot-Sample #: F9L170499-001 LQ8X01AE-MSD
Date Sampled...: 12/15/09 **Date Received..:** 12/17/09
Prep Date.....: 12/18/09 **Analysis Date..:** 12/29/09
Prep Batch #...: 9352181 **Analysis Time..:** 14:39
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
MNX	**82**	**(25 - 150)**			**SW846 8330**
	92	**(25 - 150)**	**11**	**(0-20)**	**SW846 8330**
DNX	**72**	**(27 - 150)**			**SW846 8330**
	78	**(27 - 150)**	**8.0**	**(0-20)**	**SW846 8330**
TNX	**75**	**(27 - 131)**			**SW846 8330**
	82	**(27 - 131)**	**8.4**	**(0-30)**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	83	(56 - 131)
	85	(56 - 131)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

HPLC SAMPLE AND QC DATA

Form I (s)

Explosives

Los Alamos National Laboratory

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F9L170499

Matrix: (soil/water) WATER Lab Sample ID:F9L170499 001
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 500 / mL Date Received: 12/17/09
Work Order: LQ8X01AC Date Extracted:12/18/09
Dilution factor: 1 Date Analyzed: 12/29/09
Moisture %:NA

QC Batch: 9352181

Client Sample Id: CAPA-10-6818

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.50	U
80251-29-2	DNX	0.50	U
13980-04-6	TNX	0.50	U

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	76	(56 - 131)

FORM I

Los Alamos National Laboratory
METHOD BLANK COMPOUNDS

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F9L170499

Matrix: (soil/water) WATER Lab Sample ID:F9L180000 181
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 500 / mL Date Received: 12/17/09
Work Order: LRAQN1AA Date Extracted:12/18/09
Dilution factor: 1 Date Analyzed: 12/29/09
Moisture %:NA

QC Batch: 9352181

Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.50	U
80251-29-2	DNX	0.50	U
13980-04-6	TNX	0.50	U

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	74	(56 - 131)

FORM I

Los Alamos National Laboratory
CHECK SAMPLE COMPOUNDS

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F9L170499

Matrix: (soil/water) WATER Lab Sample ID:F9L180000 181
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 500 / mL Date Received: 12/17/09
Work Order: LRAQN1AC Date Extracted:12/18/09
Dilution factor: 1 Date Analyzed: 12/29/09
Moisture %:NA

QC Batch: 9352181

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.595	
80251-29-2	DNX	0.428	
13980-04-6	TNX	0.579	

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	84	(59 - 140)

FORM I

Los Alamos National Laboratory
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F9L170499

Matrix: (soil/water) WATER Lab Sample ID:F9L170499 001
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 500 / mL Date Received: 12/17/09
Work Order: LQ8X01AE Date Extracted:12/18/09
Dilution factor: 1 Date Analyzed: 12/29/09
Moisture %:NA

QC Batch: 9352181

Client Sample Id: CAPA-10-6818

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.670	
80251-29-2	DNX	0.455	
13980-04-6	TNX	0.678	

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	85	(56 - 131)

FORM I

Los Alamos National Laboratory
MATRIX SPIKE COMPOUNDS

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F9L170499

Matrix: (soil/water) WATER Lab Sample ID:F9L170499 001
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 500 / mL Date Received: 12/17/09
Work Order: LQ8X01AD Date Extracted:12/18/09
Dilution factor: 1 Date Analyzed: 12/29/09
Moisture %:NA

QC Batch: 9352181

Client Sample Id: CAPA-10-6818

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.601	
80251-29-2	DNX	0.420	
13980-04-6	TNX	0.623	

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	83	(56 - 131)

FORM I

HPLC ADDITIONAL FORMS

SW846 8330 SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Los Alamos National Laboratory

Lab Code: TALSTL SDG No: F9L170499

Lot #: F9L170499

Extraction: XXI20A09Q

	CLIENT ID.	SRG01	TOT OUT
01	CAPA-10-6818	76	00
02	METHOD BLK. LRAQN1AA	74	00
03	LCS LRAQN1AC	84	00
04	CAPA-10-6818 D	85	00
05	CAPA-10-6818 S	83	00

SURROGATES	QC LIMITS
SRG01 = 1,2-Dinitrobenzene	(56-131)

Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8330 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Los Alamos National Laboratory

Lab Code: TALSTL SDG No: F9L170499

Matrix Spike ID: CAPA-10-6818

Lot #: F9L170499 WO #: LQ8X01AD
BATCH: 9352181

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	MS CONCENT. (ug/L)	MS % REC	LIMITS REC	QUAL
MNX	0.730	ND	0.601	82	25- 150	
DNX	0.580	ND	0.420	72	27- 150	
TNX	0.830	ND	0.623	75	27- 131	

NOTES(S):

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 3 outside limits

COMMENTS:

FORM III

SW846 8330 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Los Alamos National Laboratory

Lab Code: TALSTL SDG No: F9L170499

Matrix Spike ID: CAPA-10-6818

Lot #: F9L170499 WO #: LQ8X01AE
BATCH: 9352181

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENT. (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
MNX	0.730	0.670	92	11	20	25- 150	
DNX	0.580	0.455	78	8.0	20	27- 150	
TNX	0.830	0.678	82	8.4	30	27- 131	

NOTES(S):

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 3 outside limits
Spike Recovery: 0 out of 3 outside limits

COMMENTS:

FORM III

SW846 8330 CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Los Alamos National Laboratory

Lab Code: TALSTL SDG No: F9L170499

Lot #: F9L180000 WO #: LRAQN1AC
BATCH: 9352181

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
TNX	0.830	0.579	70	40- 104	
MNX	0.730	0.595	82	49- 115	
DNX	0.580	0.428	74	53- 107	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 3 outside limits

COMMENTS:

FORM III

BLANK WORKORDER NO.

LRAQN1AA

SW846 8330 METHOD BLANK SUMMARY

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALSTL

SDG Number:F9L170499

Lab File ID: NBLK1790

Lot Number: F9L170499

Date Analyzed: 12/29/09

Time Analyzed: 13:57

Matrix: WATER

Date Extracted:12/18/09

GC Column: C-18 ID: 4.60

Extraction Method: 3535

Instrument ID: LCN

Level:(low/med)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CAPA-10-6818	LQ8X01AC	NSMP1792	12/29/09	14:25
02	CAPA-10-6818	LQ8X01AD S	NSMP1793	12/29/09	14:39
03	CAPA-10-6818	LQ8X01AE D	NSMP1794	12/29/09	14:53
04	CHECK SAMPLE	LRAQN1AC C	NLCS1791	12/29/09	14:11
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IV

HPLC STANDARDS DATA

INITIAL CALIBRATION DATA

CALIBRATION VERIFICATION DATA

Report Date : 02-Dec-2009 13:00

TestAmerica St. Louis

INITIAL CALIBRATION DATA

Start Cal Date : 25-NOV-2009 10:16
End Cal Date : 25-NOV-2009 11:26
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Last Edit : 01-Dec-2009 11:37 hanw
Curve Type : Average

Calibration File Names:
Level 3: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1314.D
Level 4: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1315.D
Level 5: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1316.D
Level 6: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1317.D
Level 7: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1318.D
Level 8: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1319.D

Compound	25.000 Level 3	50.000 Level 4	125.000 Level 5	250.000 Level 6	500.000 Level 7	1000.000 Level 8	RRF	% RSD
1 TNX	598	625	647	678	664	670	647	4.705
2 DNX	690	619	613	637	608	613	630	4.970
3 MNX	522	500	474	499	481	484	493	3.537
$ 4 1,2-Dinitrobenzene	535	519	510	520	510	512	518	1.844

Report Date : 02-Dec-2009 15:37

TestAmerica St. Louis

COMPOUND LISTING

Method file : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Quant Method : ESTD Target Version : 4.14
Last Update : 01-Dec-2009 11:37 Number of Cpnds : 4
Data Type : LC DATA

Global Integrator : HP Genie

Chromat Events	Values
Initial:Thresh Units	5.000000
Initial:Peak Width	0.100000
Initial:Area Reject	20.000000
Initial:Solvent Slope	100000.000000
Initial:Split Solvent	2000.000000

	Compound	RT	RT Window	RF
	1 TNX	3.838	3.738-3.938	6.47e+002
	2 DNX	4.324	4.224-4.424	6.30e+002
	3 MNX	5.239	5.139-5.339	4.93e+002
$	4 1,2-Dinitrobenzene	8.707	8.607-8.807	5.18e+002

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1314.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1314.D
Lab Smp Id: 8330 ICAL-3 Client Smp ID: 8330 ICAL-3
Inj Date : 25-NOV-2009 10:16
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-3
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.860	3.837	0.023	12042	20.1213	18.61
2 DNX	4.360	4.324	0.036	9507	13.7700	15.09(M)
3 MNX	4.360	5.239	-0.879	9507	18.1975	19.26(M)
$ 4 1,2-Dinitrobenzene	8.833	8.706	0.127	13376	25.0000	25.84(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Slsvr01\HPLC\Lon,i\N112509,b\NICL1314.D
Date : 25-NOV-2009 10:16
Client ID: 8330 ICAL-3
Sample Info: 8330 ICAL-3
Purge Volume: 500.0
Column phase: C18

Instrument: Lon,i
Operator: WH
Column diameter: 4.60

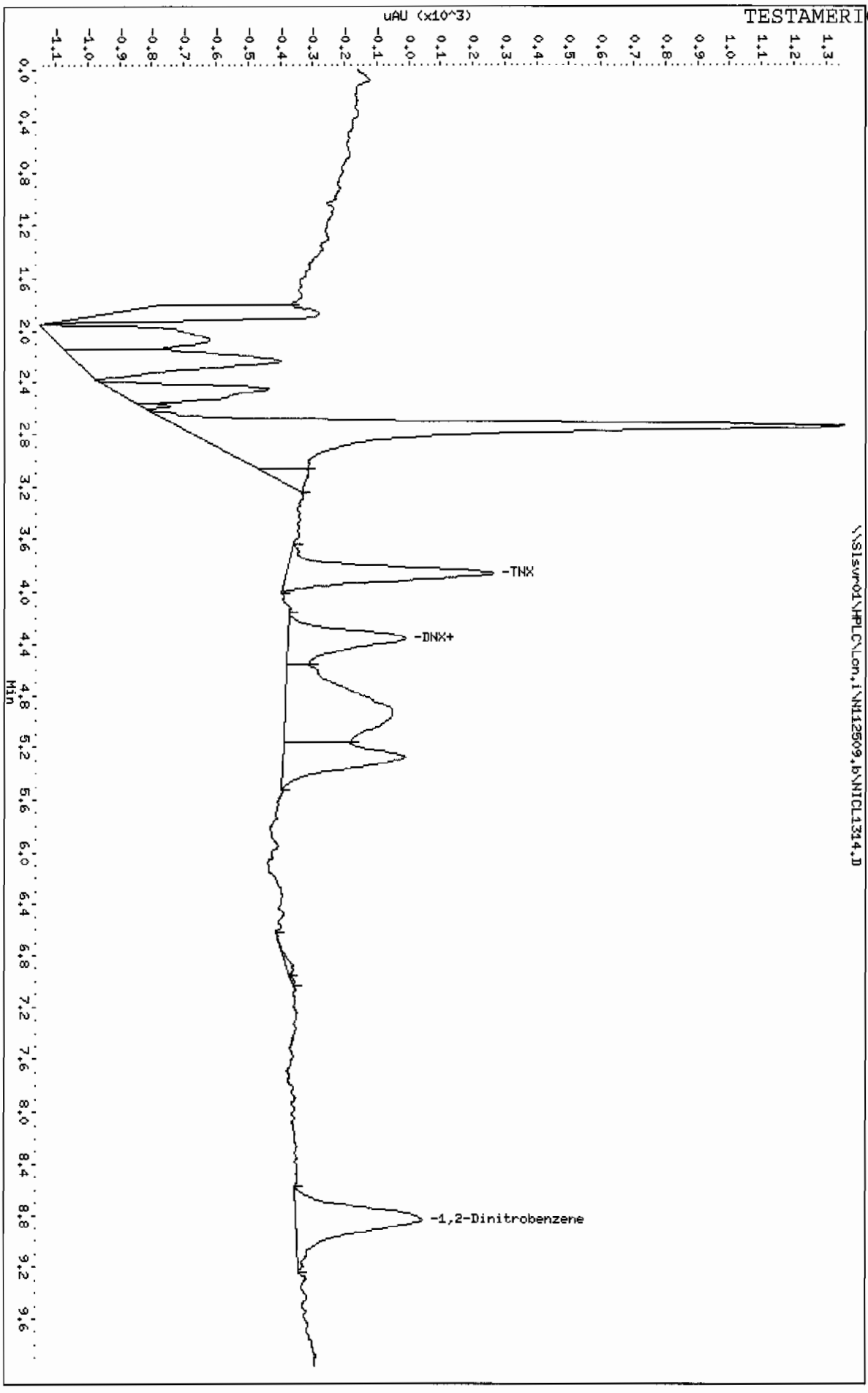

Data File Name: NICL1314.D
Inj. Date and Time: 25-NOV-2009 10:16
Instrument ID: Lcn.i
Client ID: 8330 ICAL-3
Compound Name: DNX
CAS #:

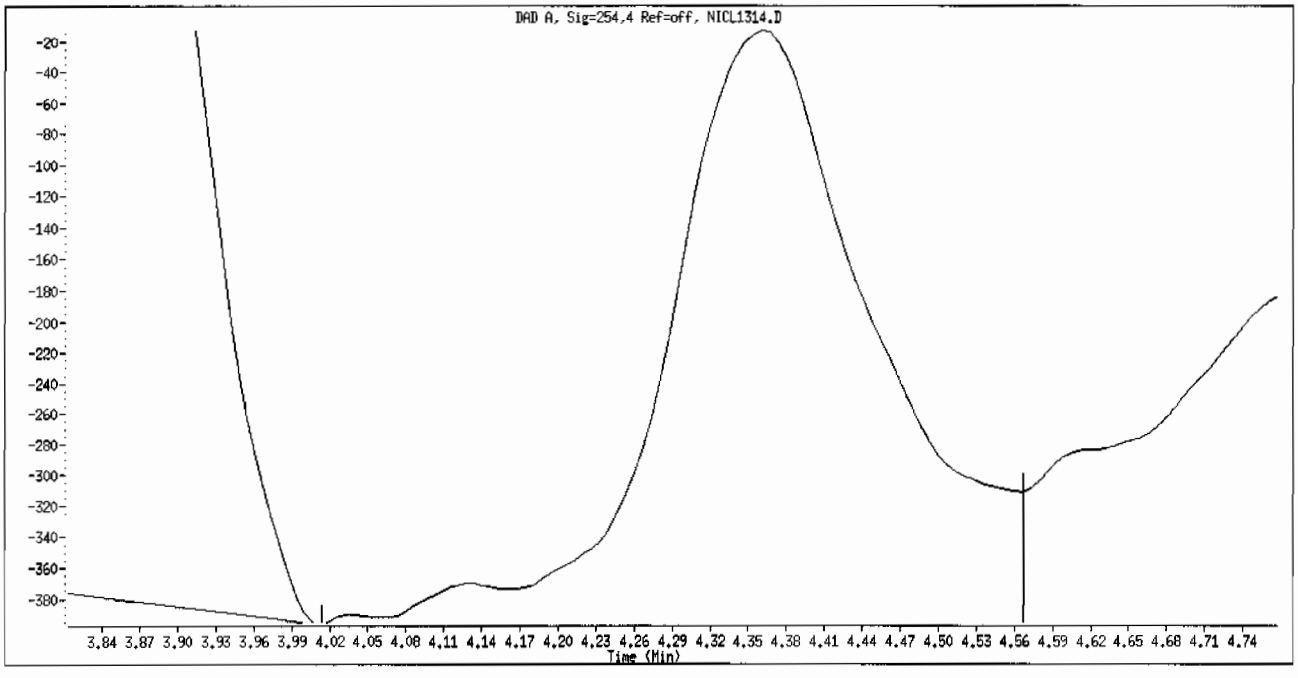

Original Integration

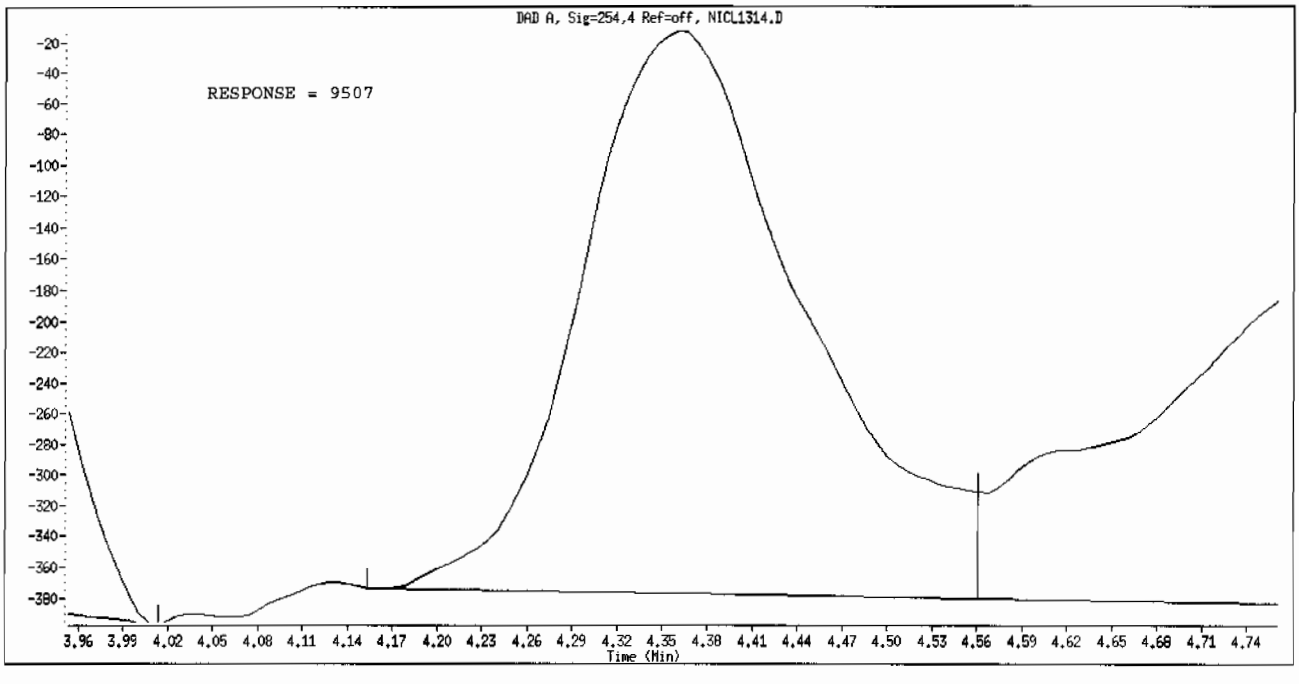

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1314.D
Inj. Date and Time: 25-NOV-2009 10:16
Instrument ID: Lcn.i
Client ID: 8330 ICAL-3
Compound Name: MNX
CAS #:

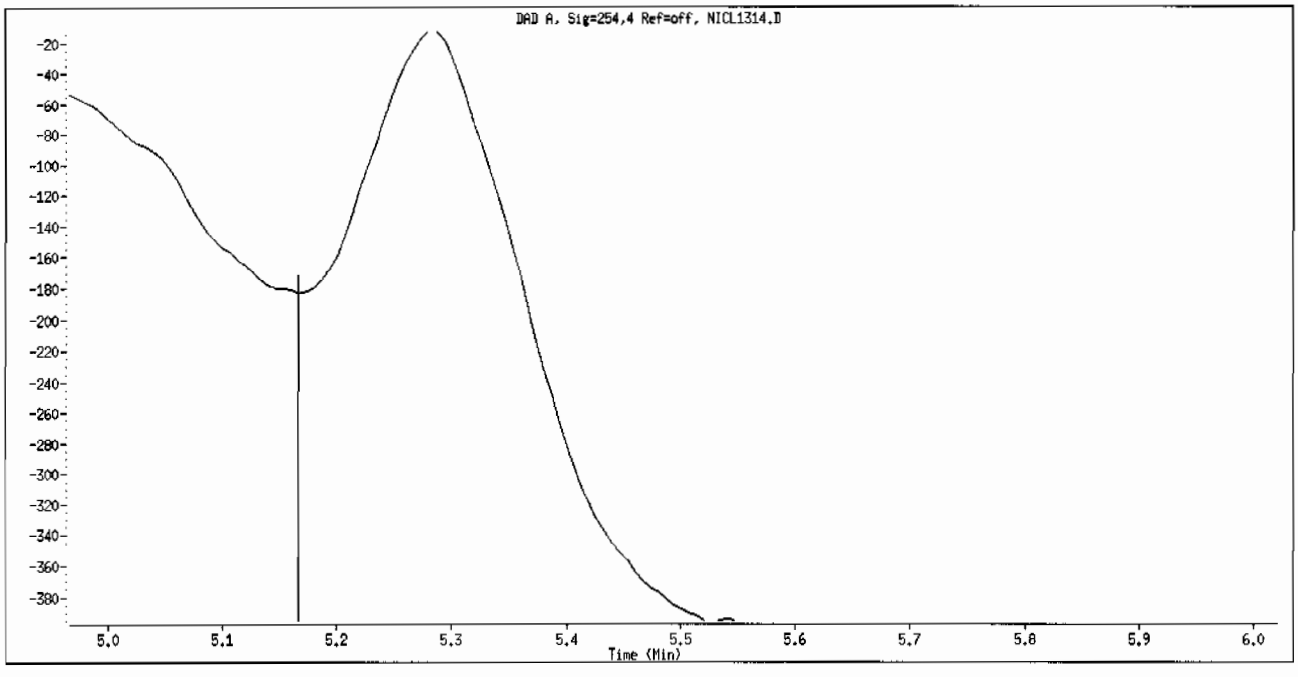

Original Integration

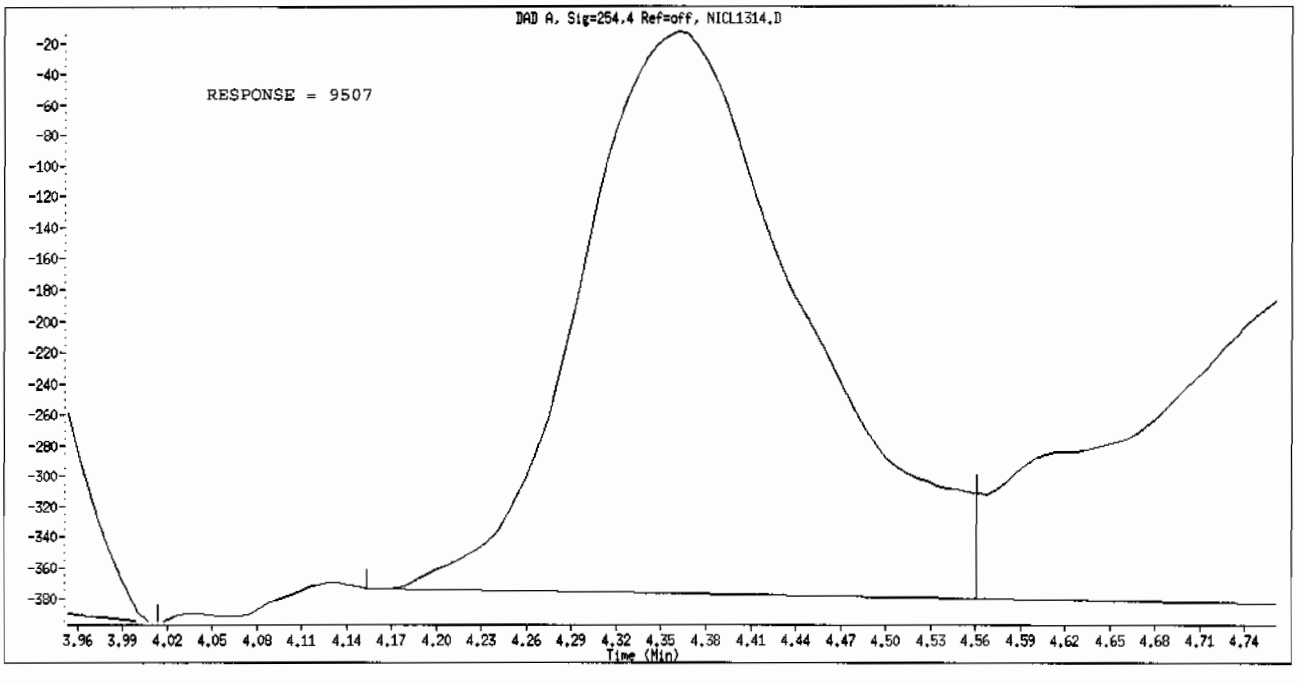

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1314.D
Inj. Date and Time: 25-NOV-2009 10:16
Instrument ID: Lcn.i
Client ID: 8330 ICAL-3
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

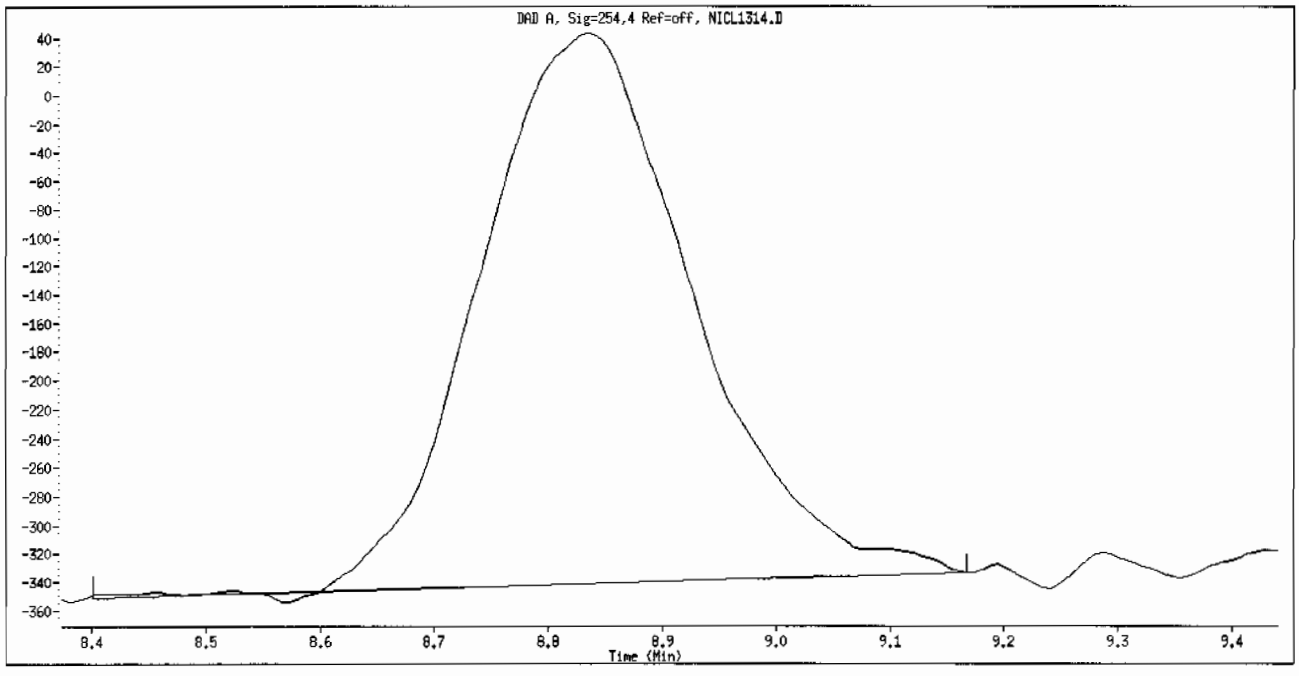

Original Integration

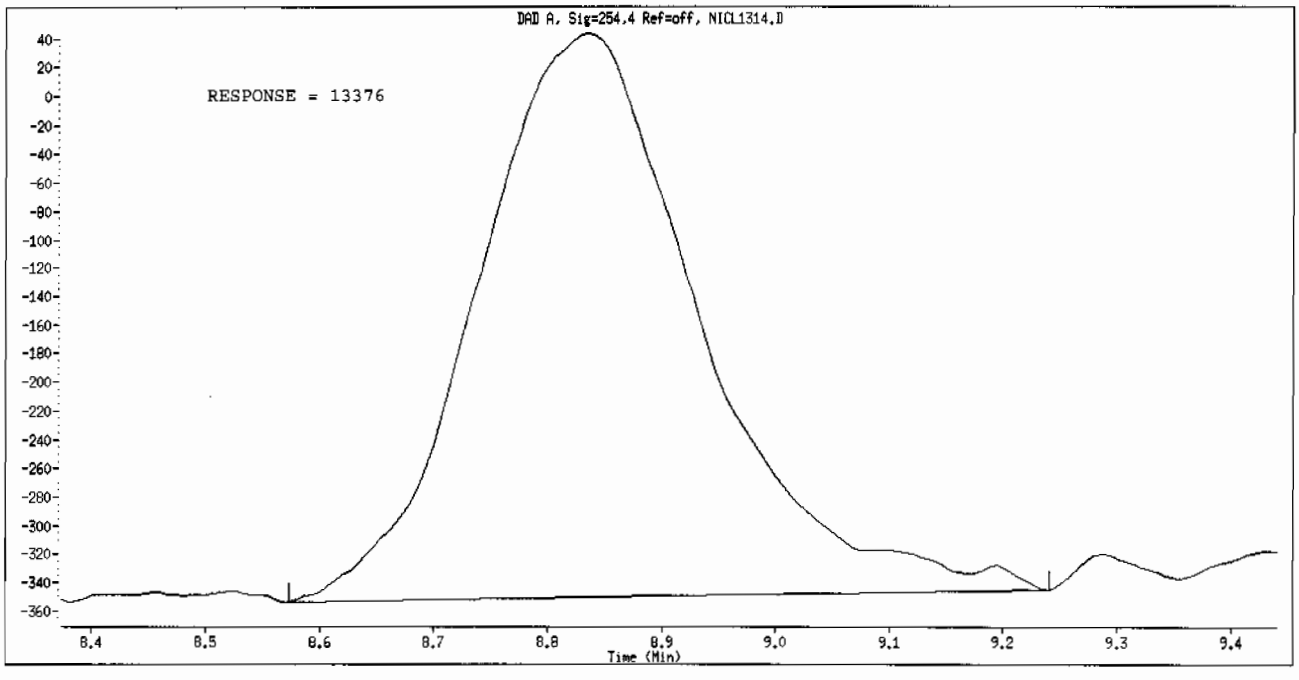

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1315.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1315.D
Lab Smp Id: 8330 ICAL-4 Client Smp ID: 8330 ICAL-4
Inj Date : 25-NOV-2009 10:30
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-4
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.832	3.837	-0.005	25142	40.2425	38.86(M)
2 DNX	4.319	4.324	-0.005	17047	27.5400	27.06(M)
3 MNX	5.232	5.239	-0.007	18212	36.3950	36.90(M)
$ 4 1,2-Dinitrobenzene	8.692	8.706	-0.014	25936	50.0000	50.09(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Slsvr01\HPLC\Lon,i\M112509,b\NICL1315.D
Date : 25-NOV-2009 10:30
Client ID: 8330 ICAL-4
Sample Info: 8330 ICAL-4
Purge Volume: 500.0
Column phase: C18

Instrument: Lon.i
Operator: WH
Column diameter: 4.60

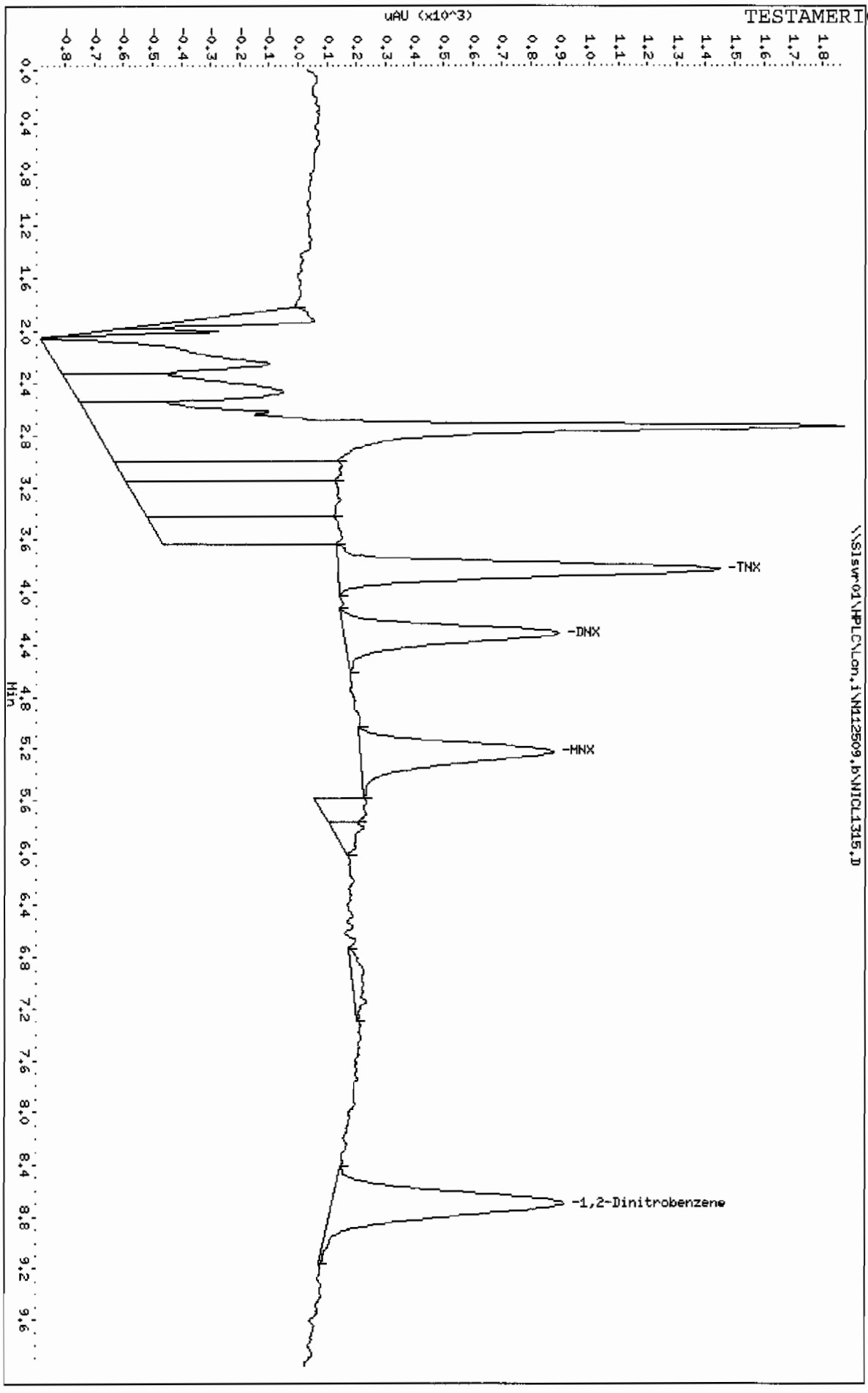

Data File Name: NICL1315.D
Inj. Date and Time: 25-NOV-2009 10:30
Instrument ID: Lcn.i
Client ID: 8330 ICAL-4
Compound Name: TNX
CAS #:

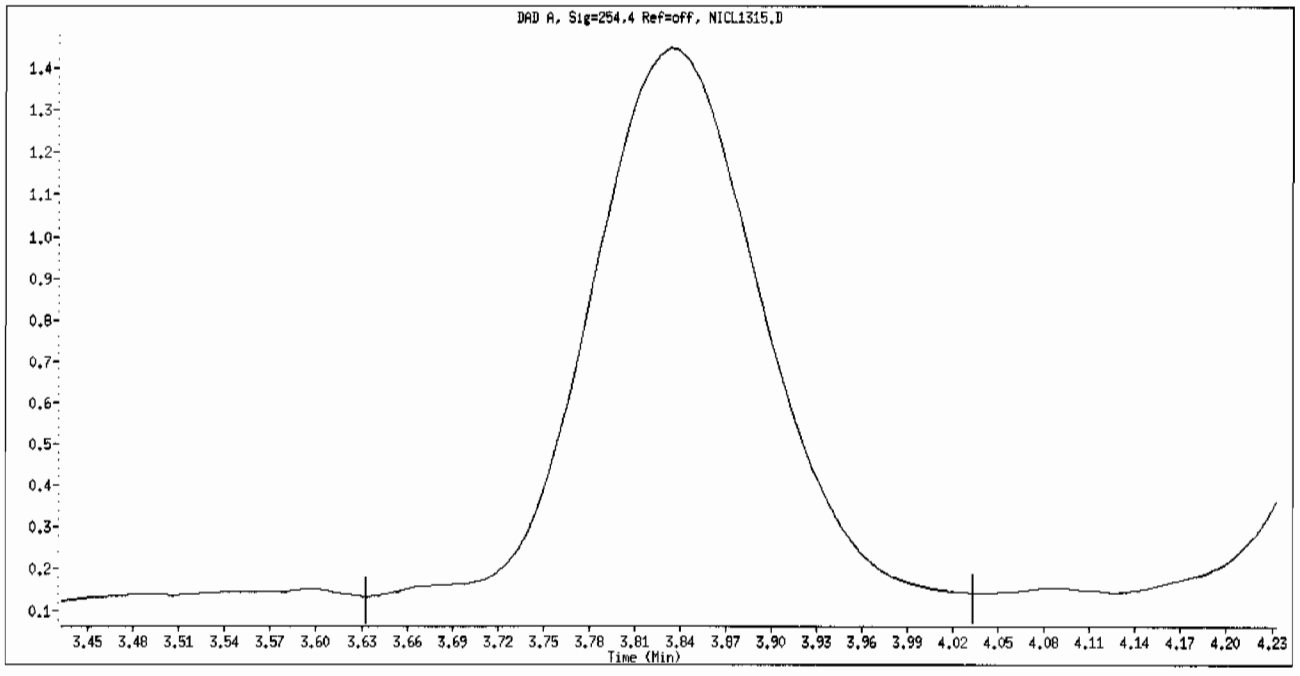

Original Integration

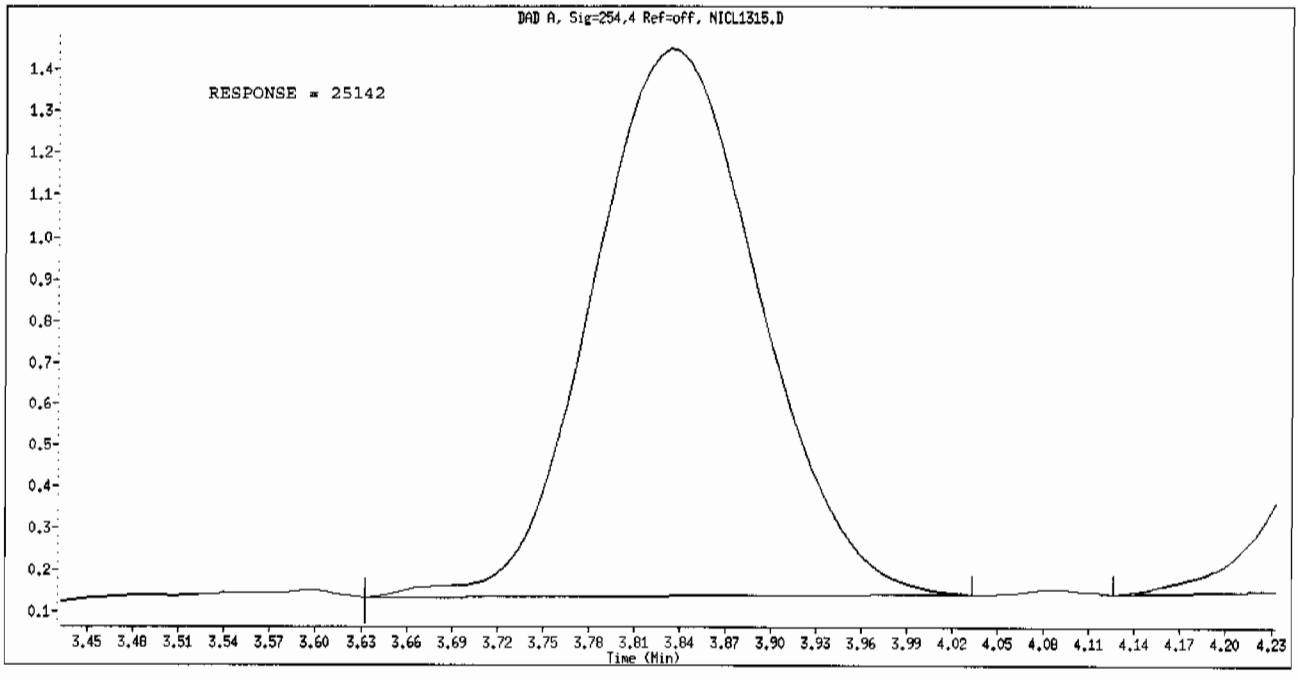

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1315.D

Inj. Date and Time: 25-NOV-2009 10:30

Instrument ID: Lcn.i

Client ID: 8330 ICAL-4

Compound Name: DNX

CAS #:

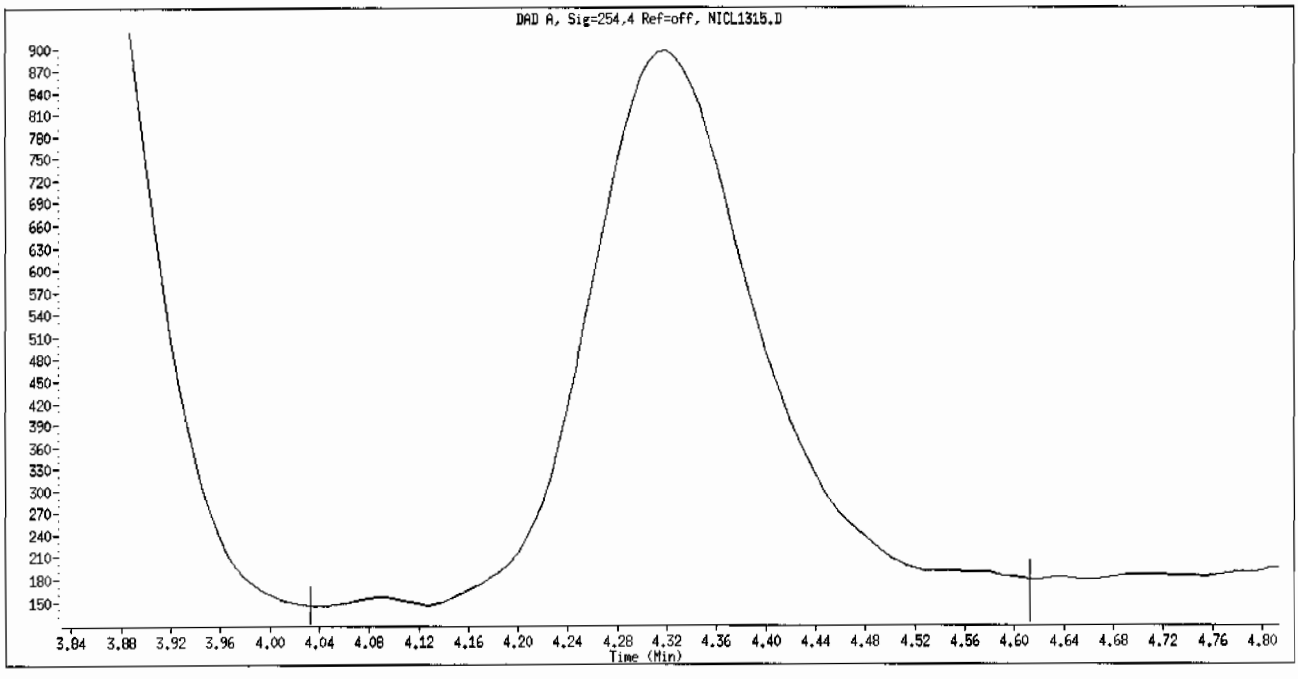

Original Integration

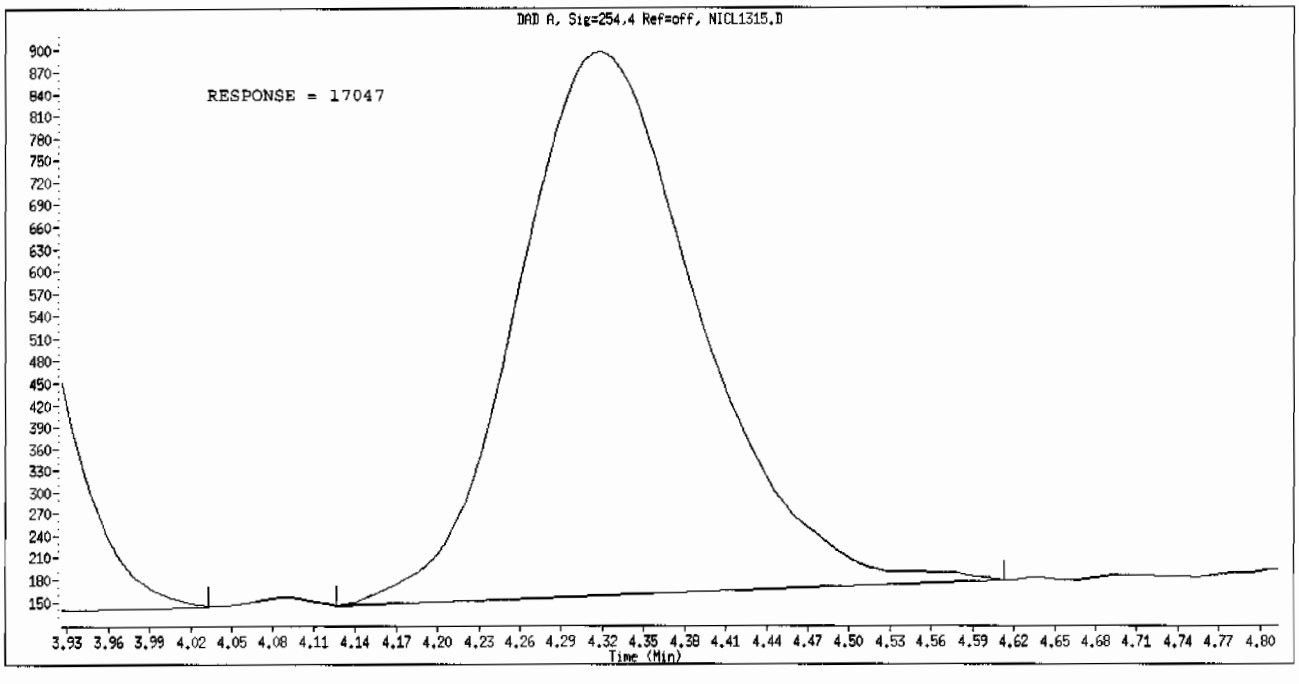

Manual Integration

Manually Integrated By: hanw

Manual Integration Reason: Baseline Event

Data File Name: NICL1315.D
Inj. Date and Time: 25-NOV-2009 10:30
Instrument ID: Lcn.i
Client ID: 8330 ICAL-4
Compound Name: MNX
CAS #:

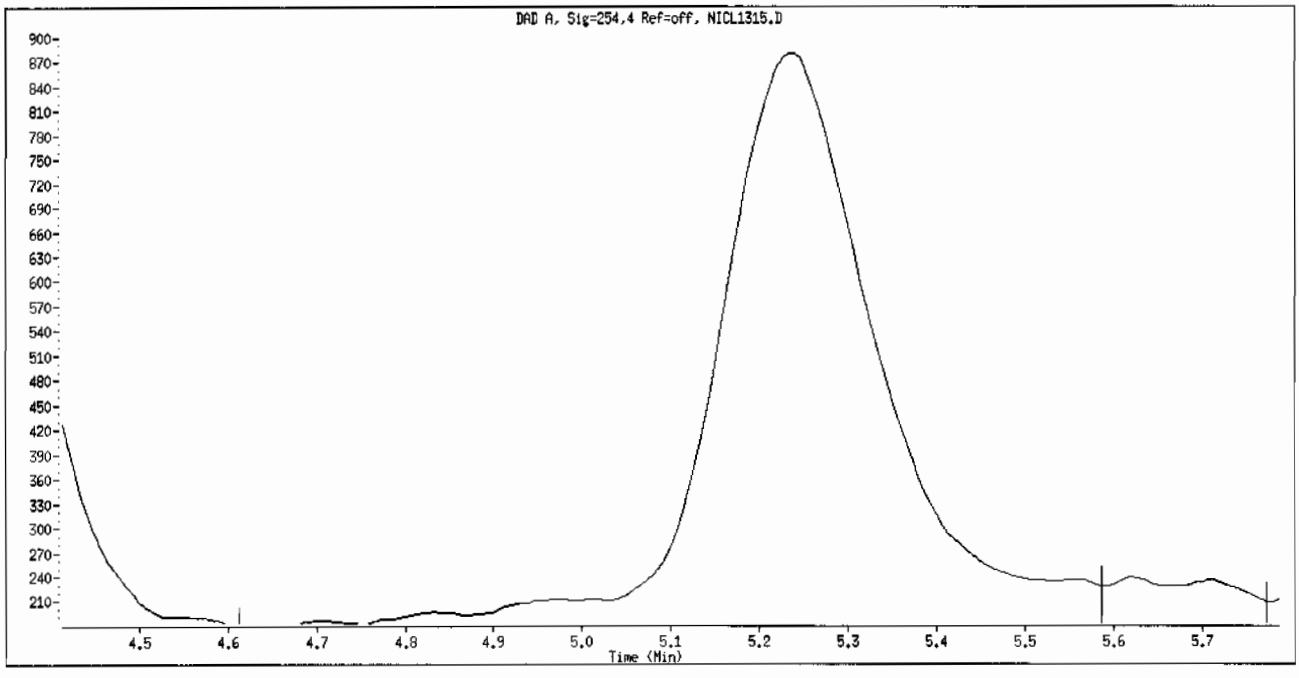

Original Integration

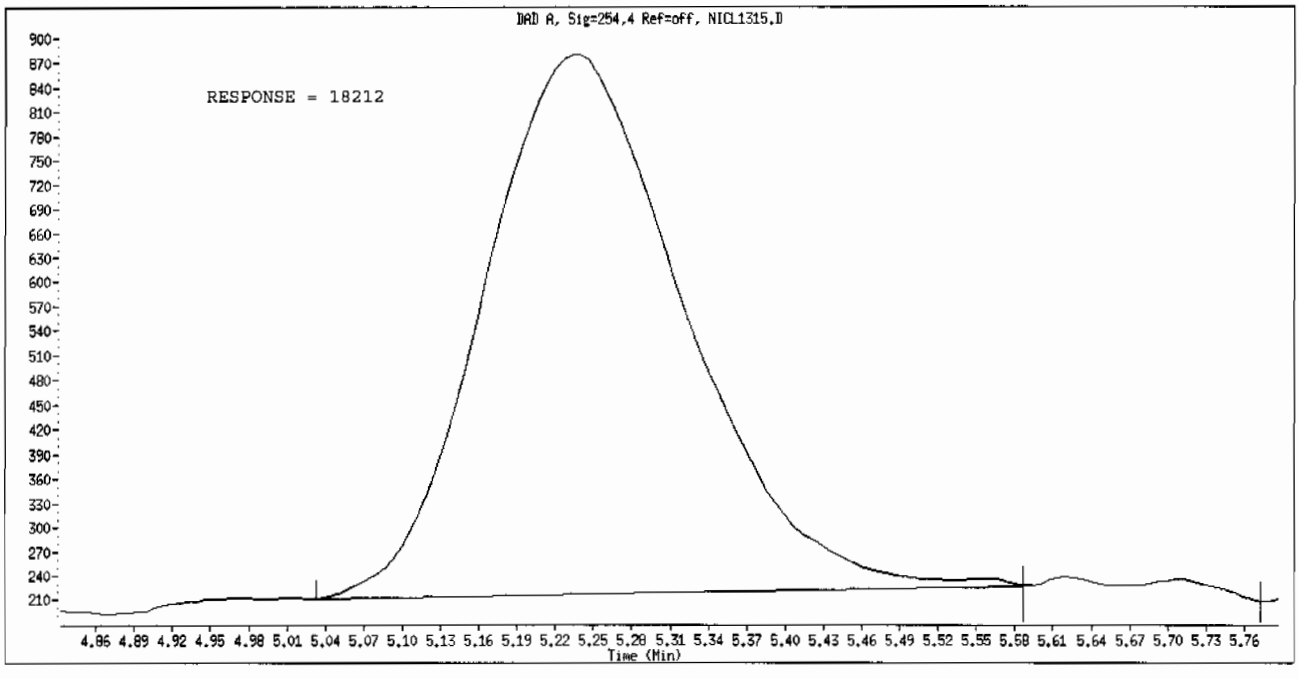

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1315.D
Inj. Date and Time: 25-NOV-2009 10:30
Instrument ID: Lcn.i
Client ID: 8330 ICAL-4
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

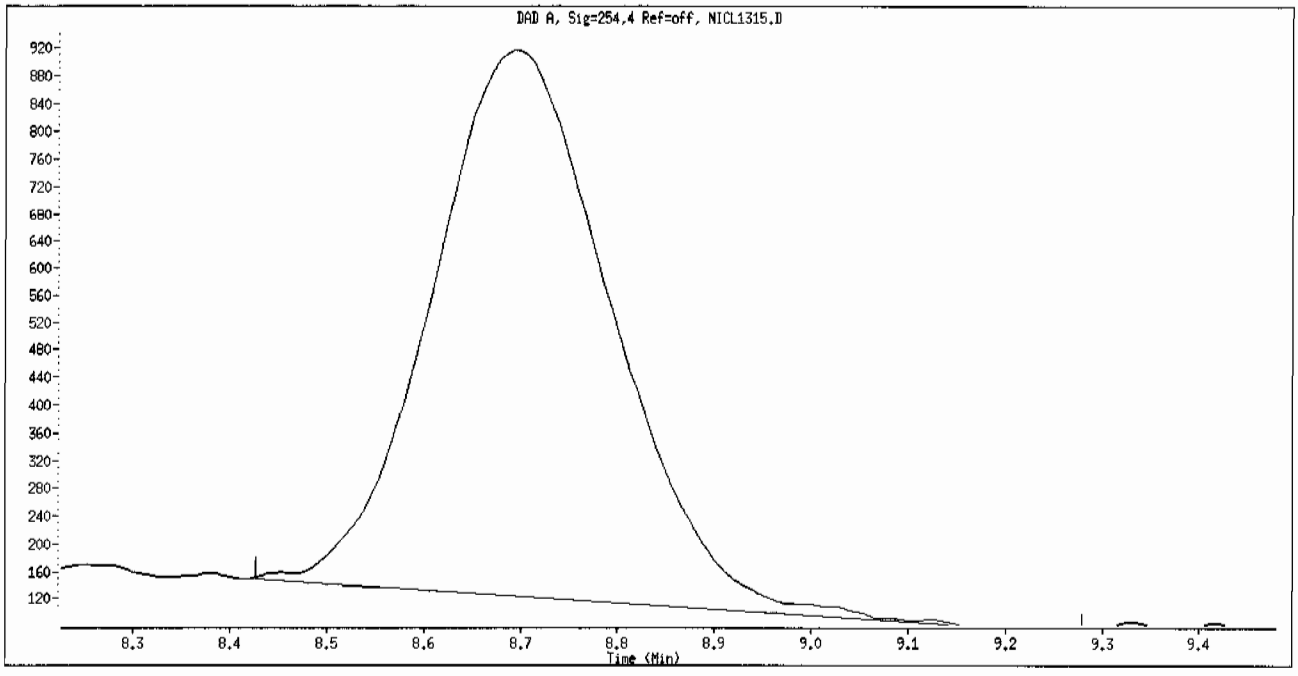

Original Integration

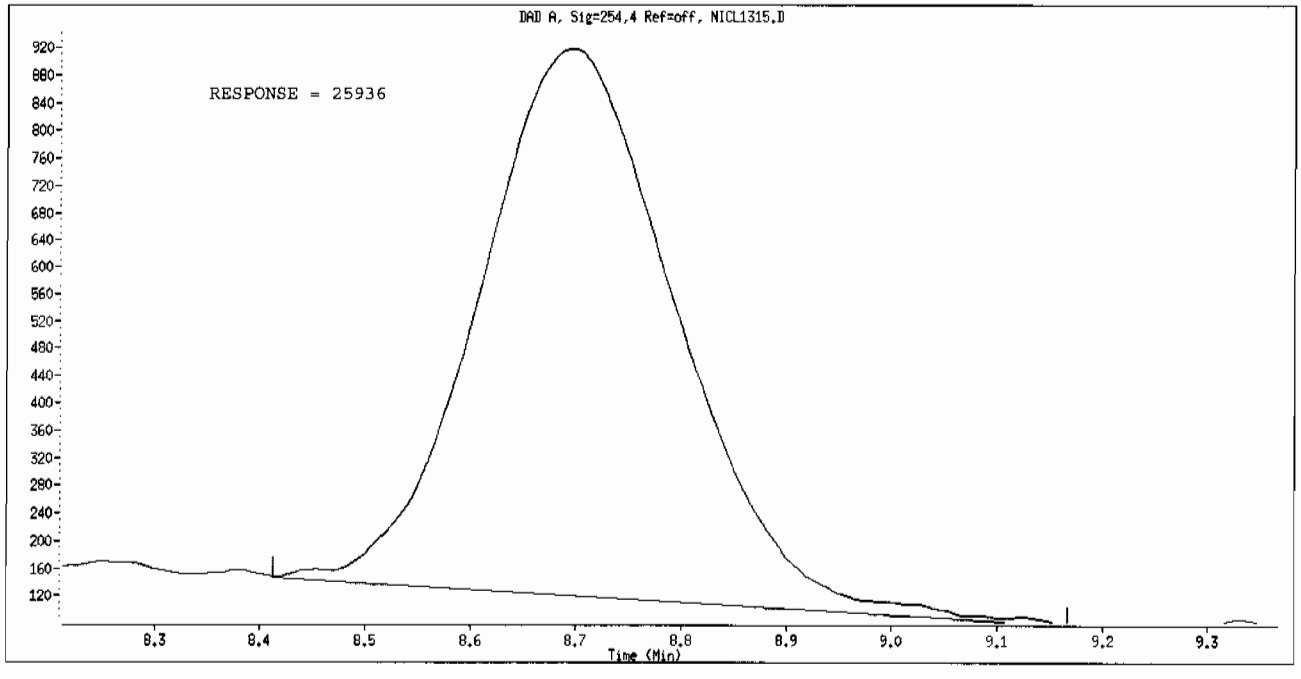

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1316.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1316.D
Lab Smp Id: 8330 ICAL-5 Client Smp ID: 8330 ICAL-5
Inj Date : 25-NOV-2009 10:44
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-5
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.828	3.837	-0.009	65101	100.606	100.6(M)
2 DNX	4.315	4.324	-0.009	42178	68.8500	66.95(M)
3 MNX	5.228	5.239	-0.011	43167	90.9875	87.47(M)
$ 4 1,2-Dinitrobenzene	8.688	8.706	-0.018	63701	125.000	123.0(M)

QC Flag Legend

M - Compound response manually integrated.

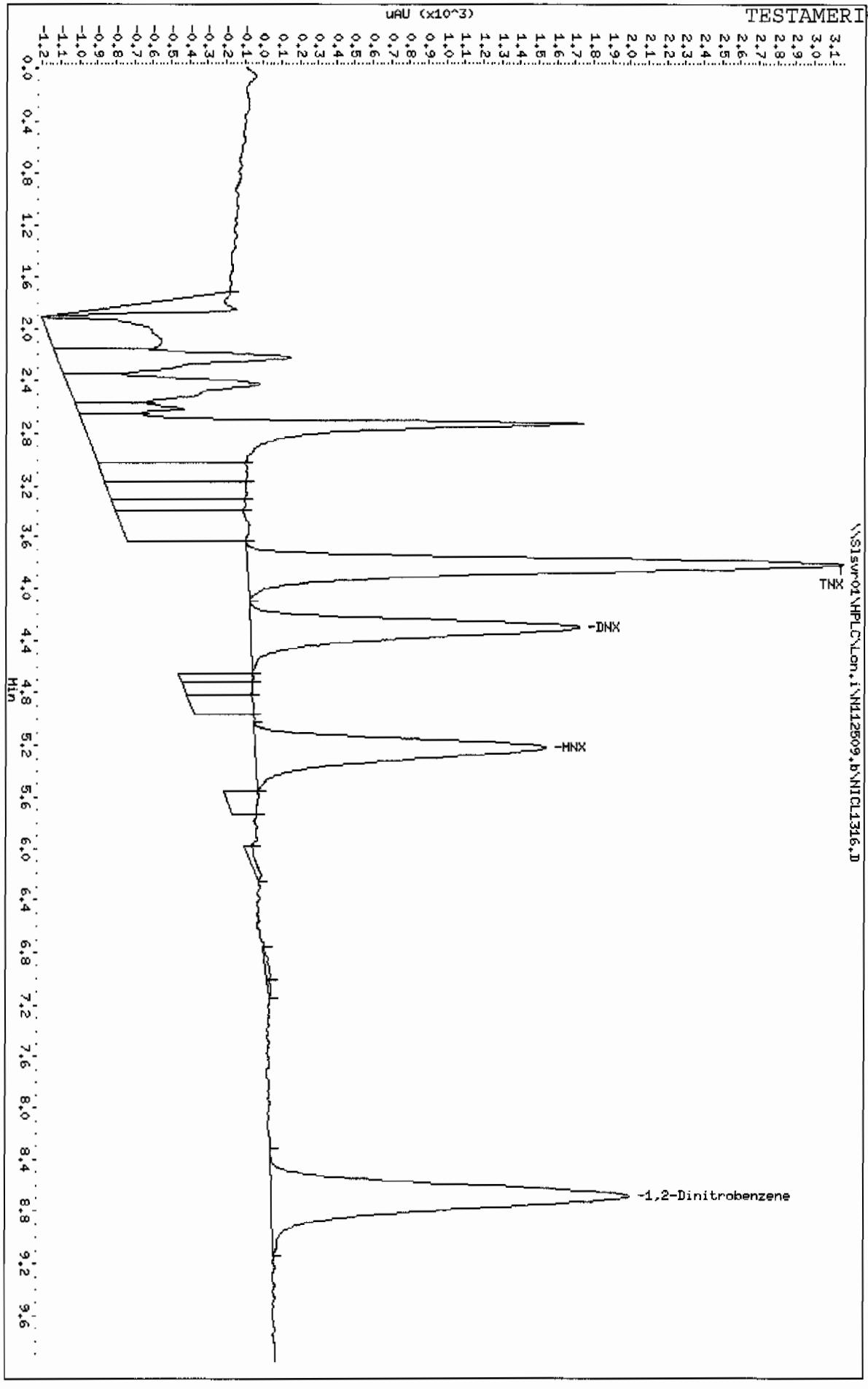
Data File: \\Slsvr01\HPLC\Lon,i\N112609,b\NICL1316,D
Date : 25-NOV-2009 10:44
Client ID: 8330 ICAL-5
Sample Info: 8330 ICAL-5
Purge Volume: 500.0
Column phase: C18
Instrument: Lon,i
Operator: WH
Column diameter: 4.60
uAU (x10^3)
\\Slsvr01\HPLC\Lon,i\N112609,b\NICL1316,D
TNX
-DNX
-HNX
-1,2-Dinitrobenzene
Min

Data File Name: NICL1316.D
Inj. Date and Time: 25-NOV-2009 10:44
Instrument ID: Lcn.i
Client ID: 8330 ICAL-5
Compound Name: TNX
CAS #:

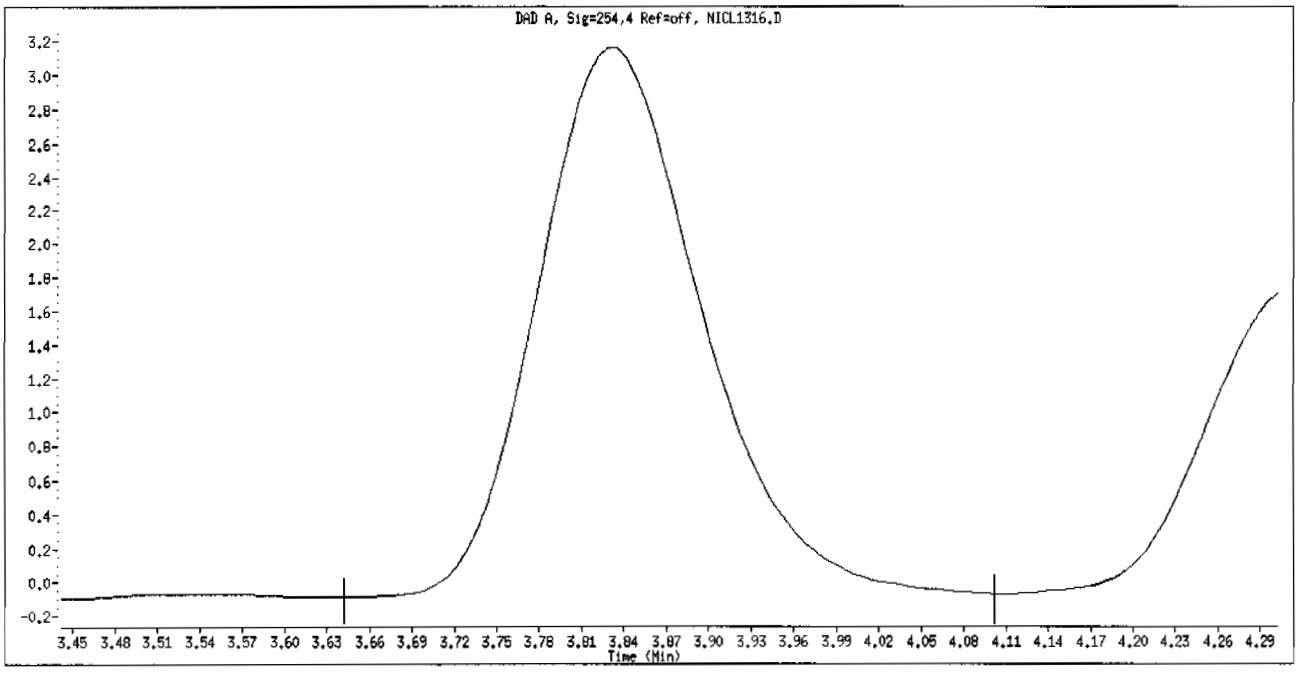

Original Integration

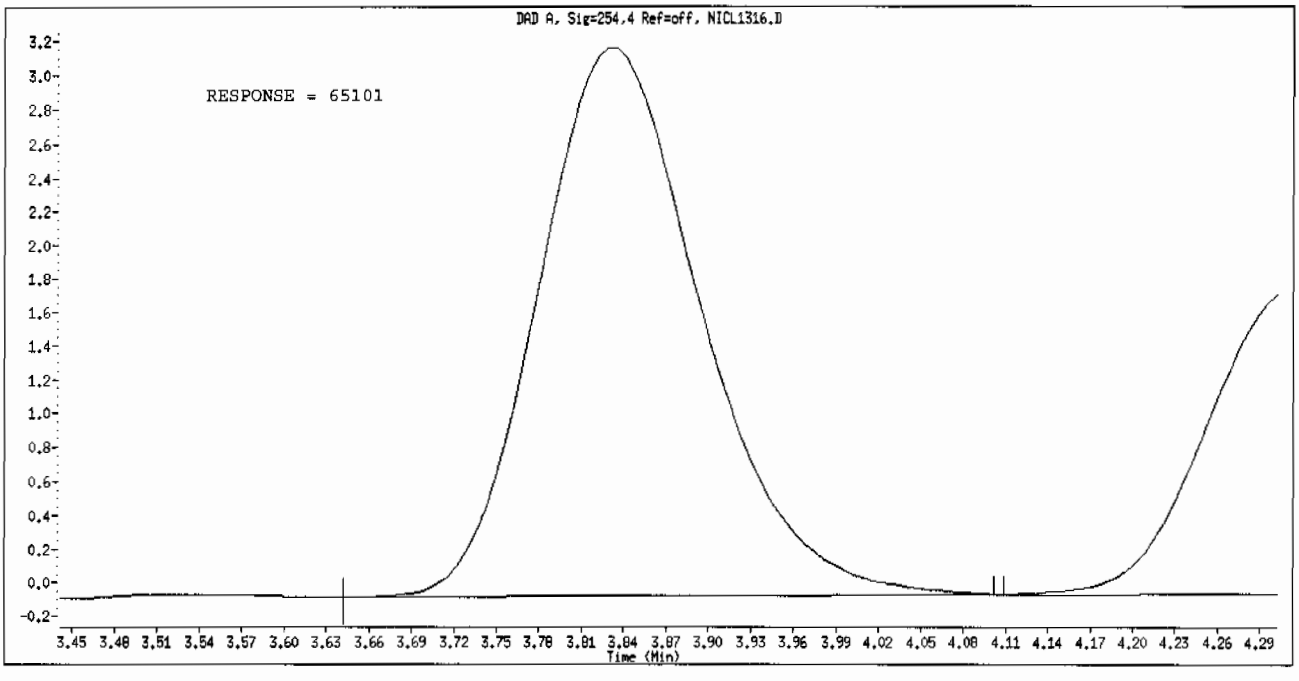

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1316.D
Inj. Date and Time: 25-NOV-2009 10:44
Instrument ID: Lcn.i
Client ID: 8330 ICAL-5
Compound Name: DNX
CAS #:

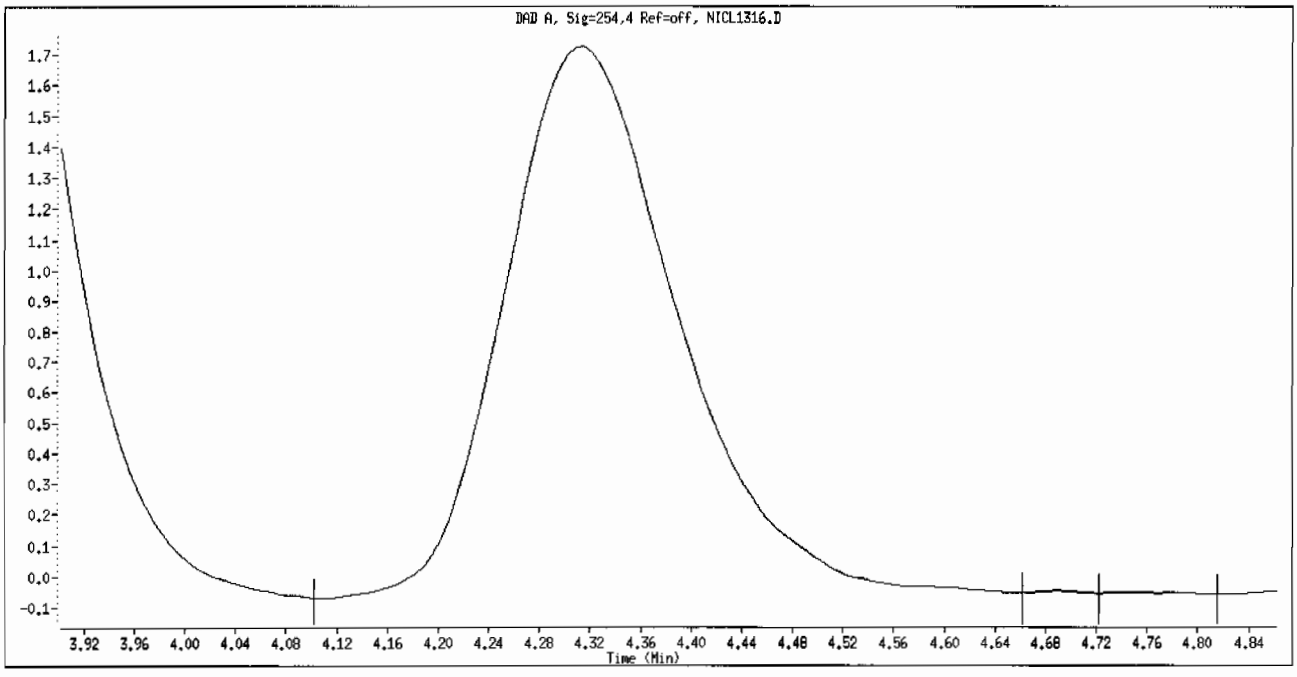

Original Integration

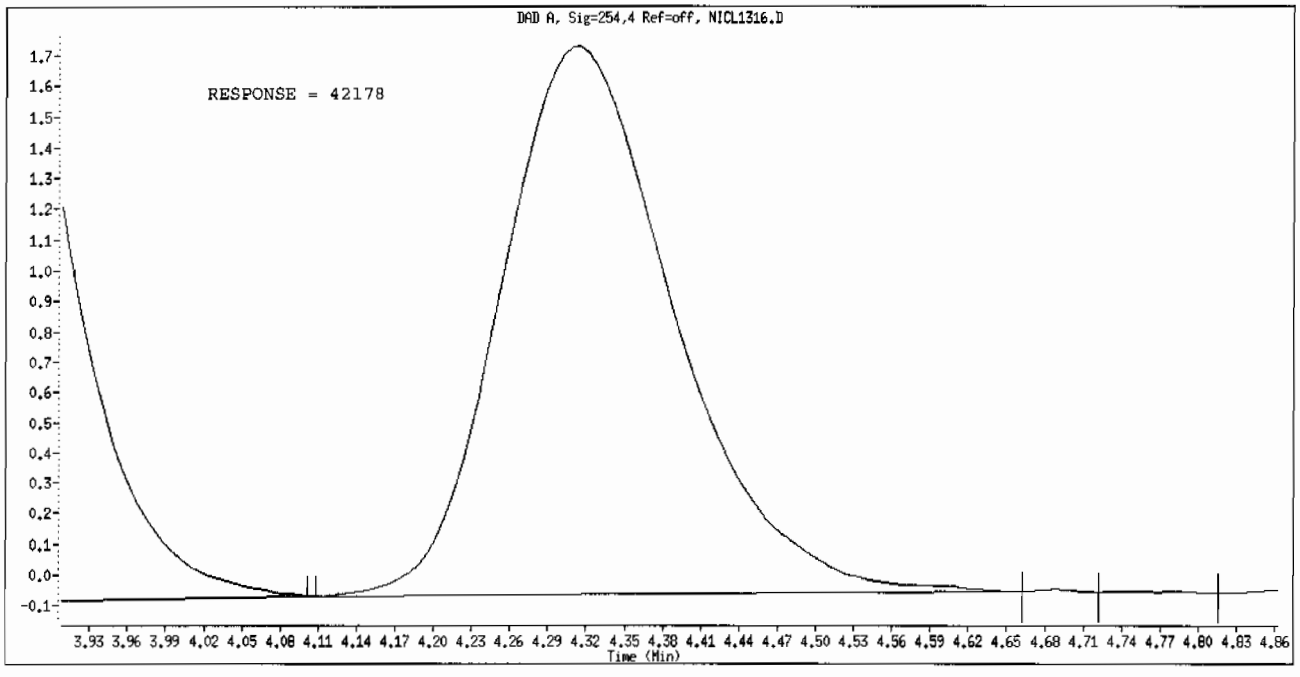

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1316.D
Inj. Date and Time: 25-NOV-2009 10:44
Instrument ID: Lcn.i
Client ID: 8330 ICAL-5
Compound Name: MNX
CAS #:

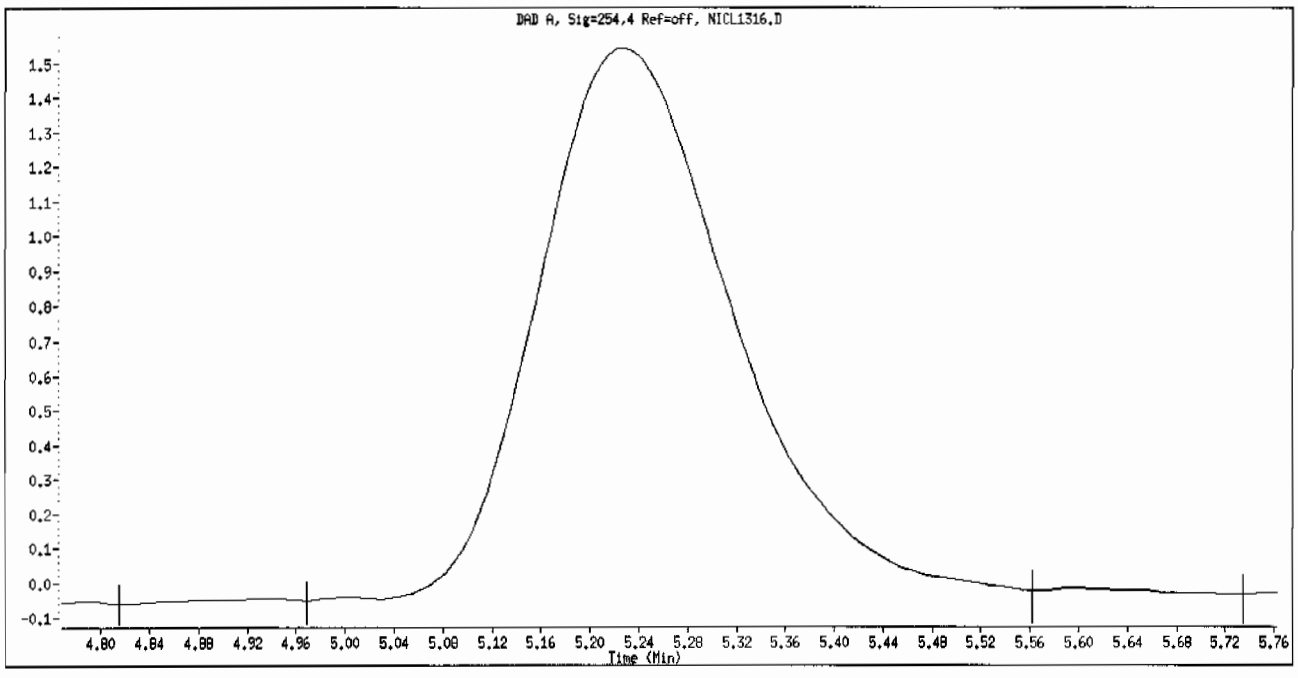

Original Integration

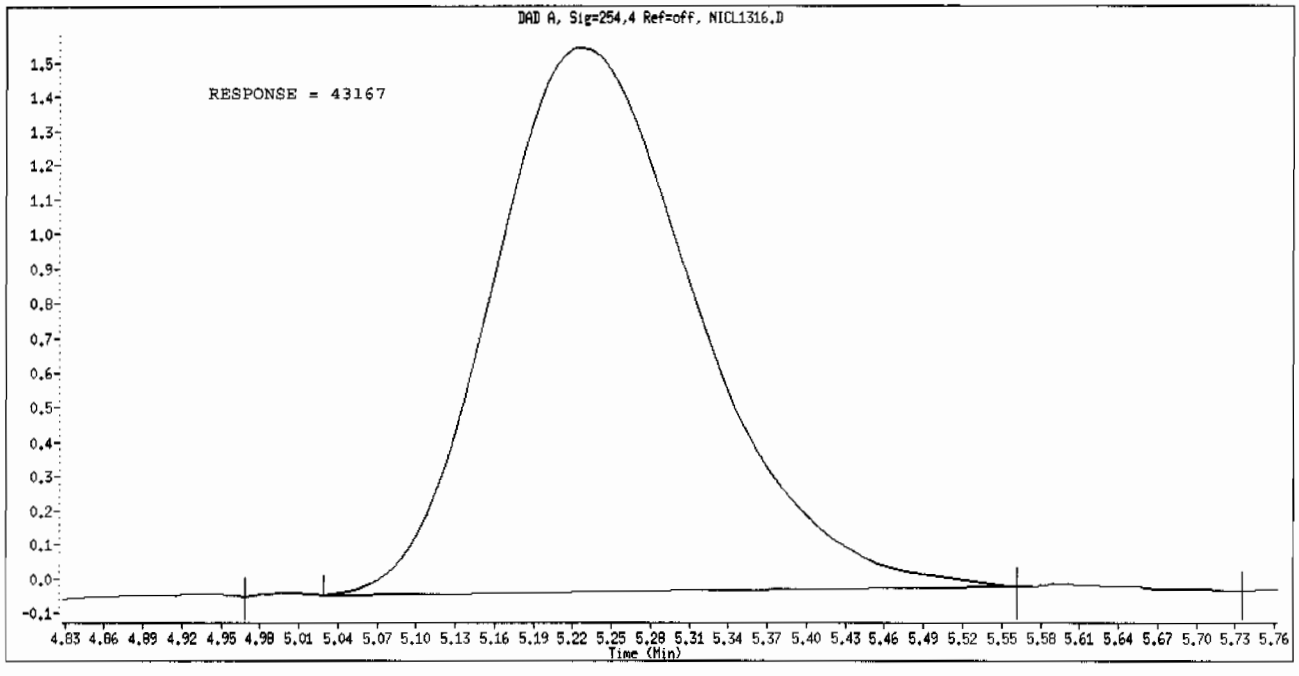

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1316.D
Inj. Date and Time: 25-NOV-2009 10:44
Instrument ID: Lcn.i
Client ID: 8330 ICAL-5
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

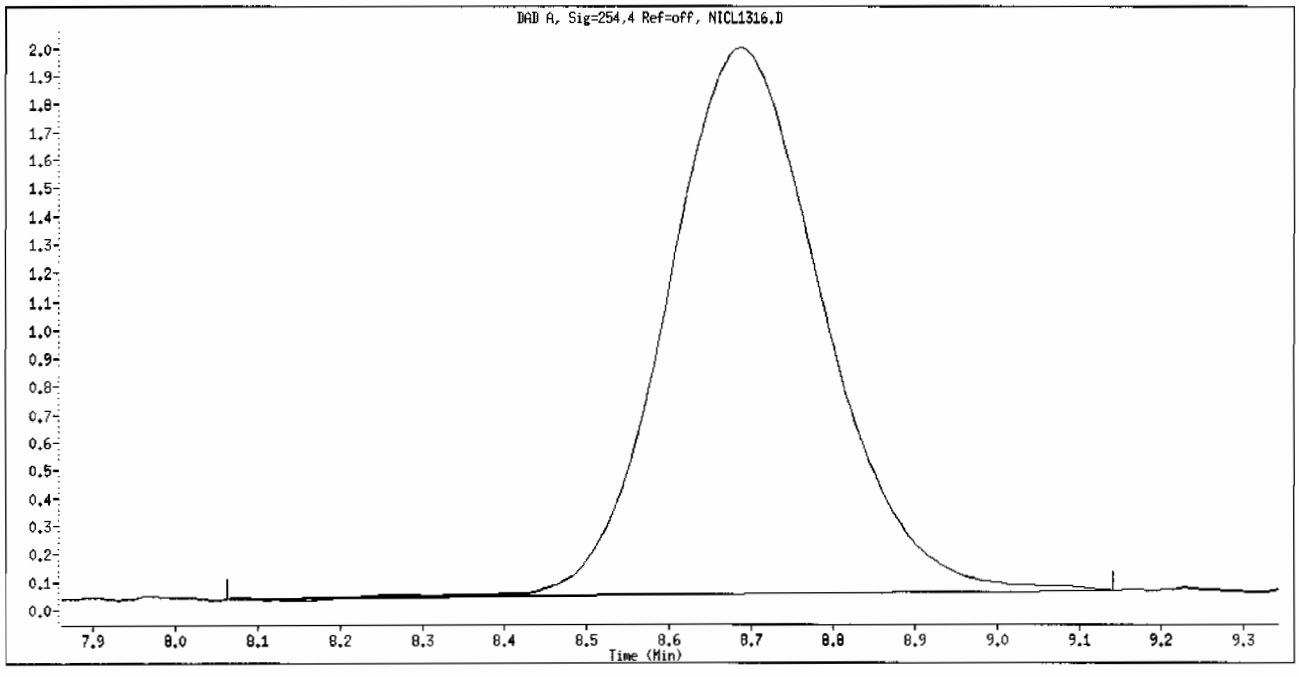

Original Integration

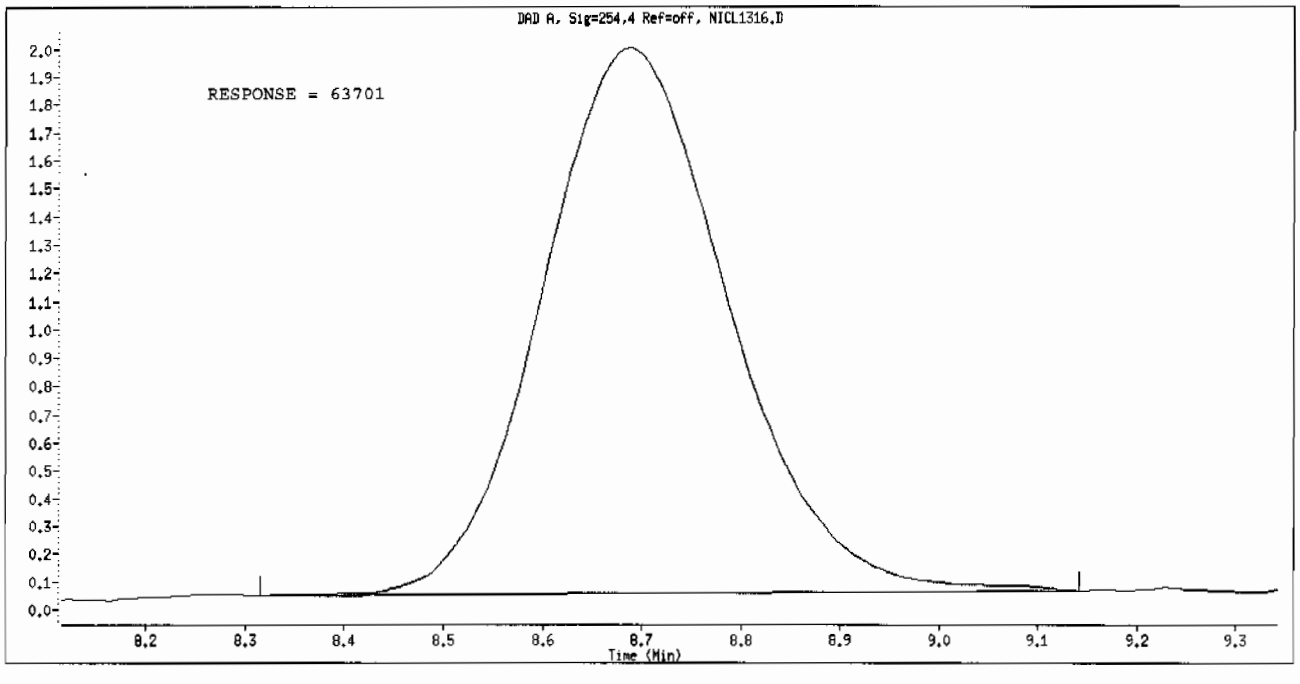

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1317.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1317.D
Lab Smp Id: 8330 ICAL-6 Client Smp ID: 8330 ICAL-6
Inj Date : 25-NOV-2009 10:58
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-6
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.833	3.837	-0.004	136444	201.213	210.9
2 DNX	4.315	4.324	-0.009	87699	137.700	139.2
3 MNX	5.232	5.239	-0.007	90745	181.975	183.9
$ 4 1,2-Dinitrobenzene	8.711	8.706	0.005	130071	250.000	251.2(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Slsvr01\HPLC\Lon.i\N112609.b\NICL1317.D
Date : 25-NOV-2009 10:58
Client ID: 8330 ICAL-6
Sample Info: 8330 ICAL-6
Purge Volume: 500.0
Column phase: C18

Instrument: Lon.i
Operator: WH
Column diameter: 4.60

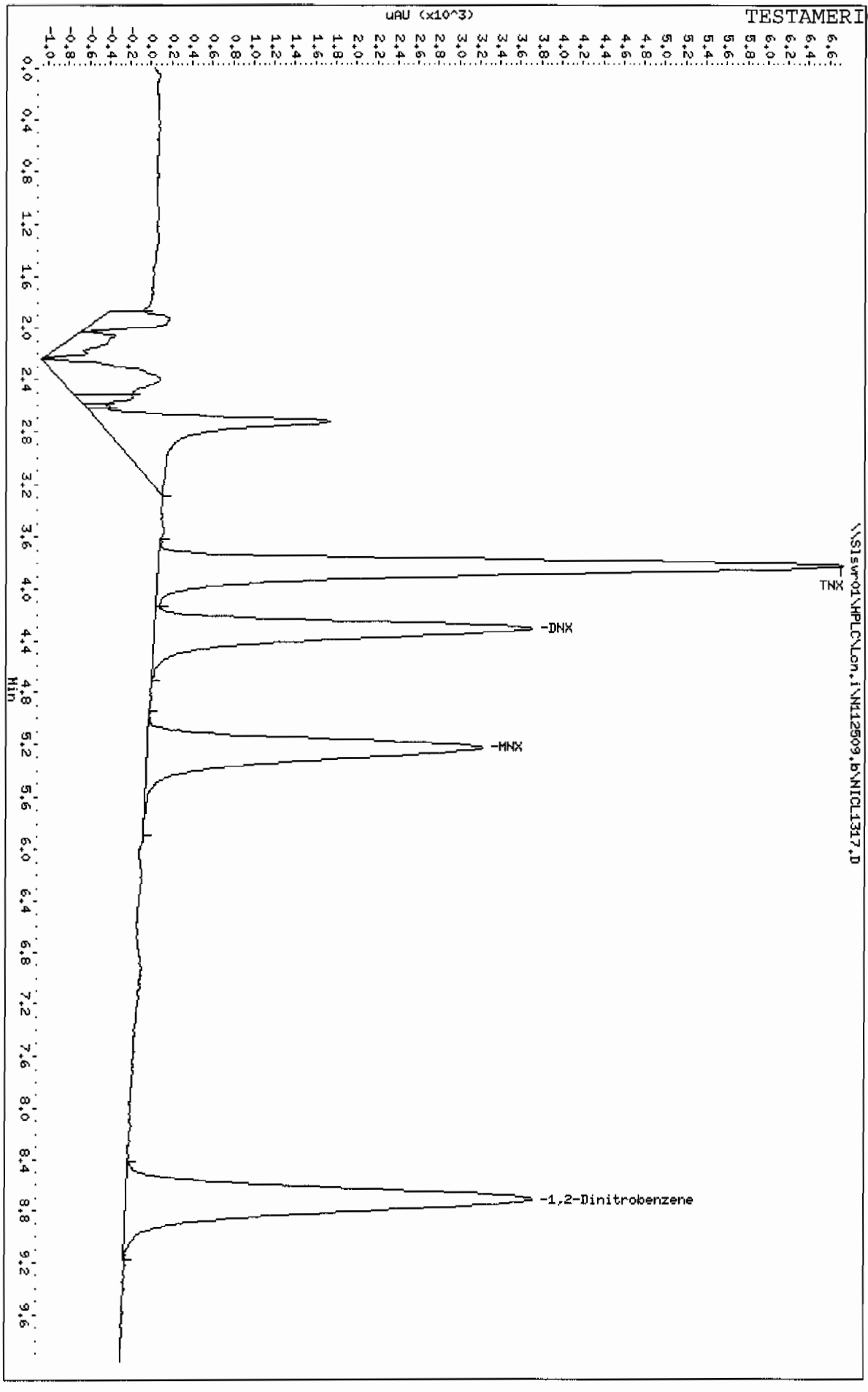

Data File Name: NICL1317.D
Inj. Date and Time: 25-NOV-2009 10:58
Instrument ID: Lcn.i
Client ID: 8330 ICAL-6
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

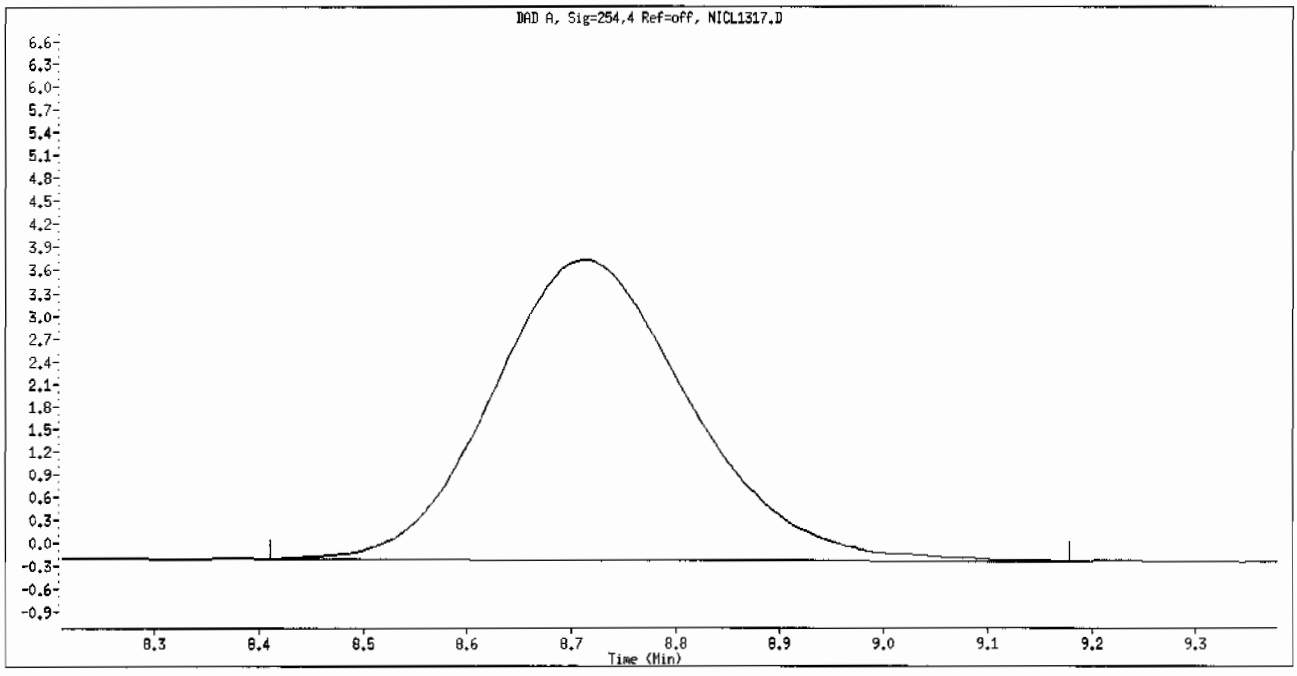

Original Integration

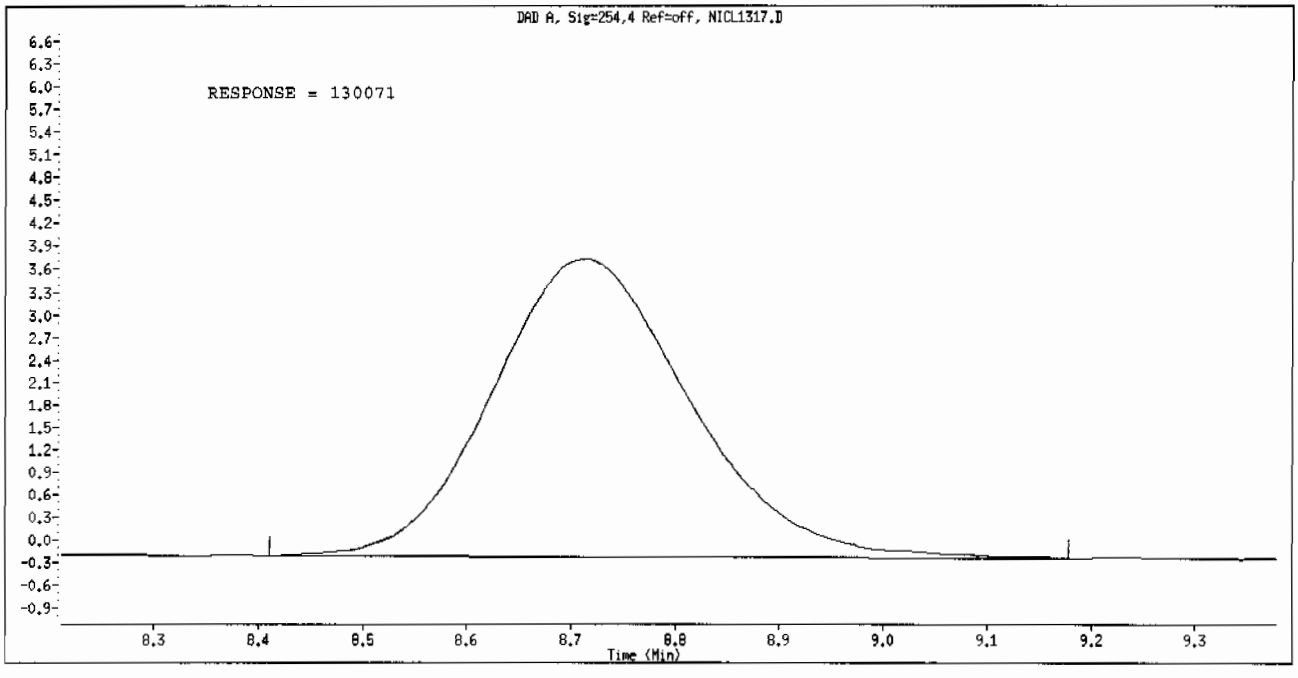

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1318.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1318.D
Lab Smp Id: 8330 ICAL-7 Client Smp ID: 8330 ICAL-7
Inj Date : 25-NOV-2009 11:12
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-7
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.831	3.837	-0.006	267028	402.425	412.7(M)
2 DNX	4.318	4.324	-0.006	167438	275.400	265.8(M)
3 MNX	5.231	5.239	-0.008	174954	363.950	354.5(M)
$ 4 1,2-Dinitrobenzene	8.704	8.706	-0.002	255155	500.000	492.8(M)

QC Flag Legend

M - Compound response manually integrated.

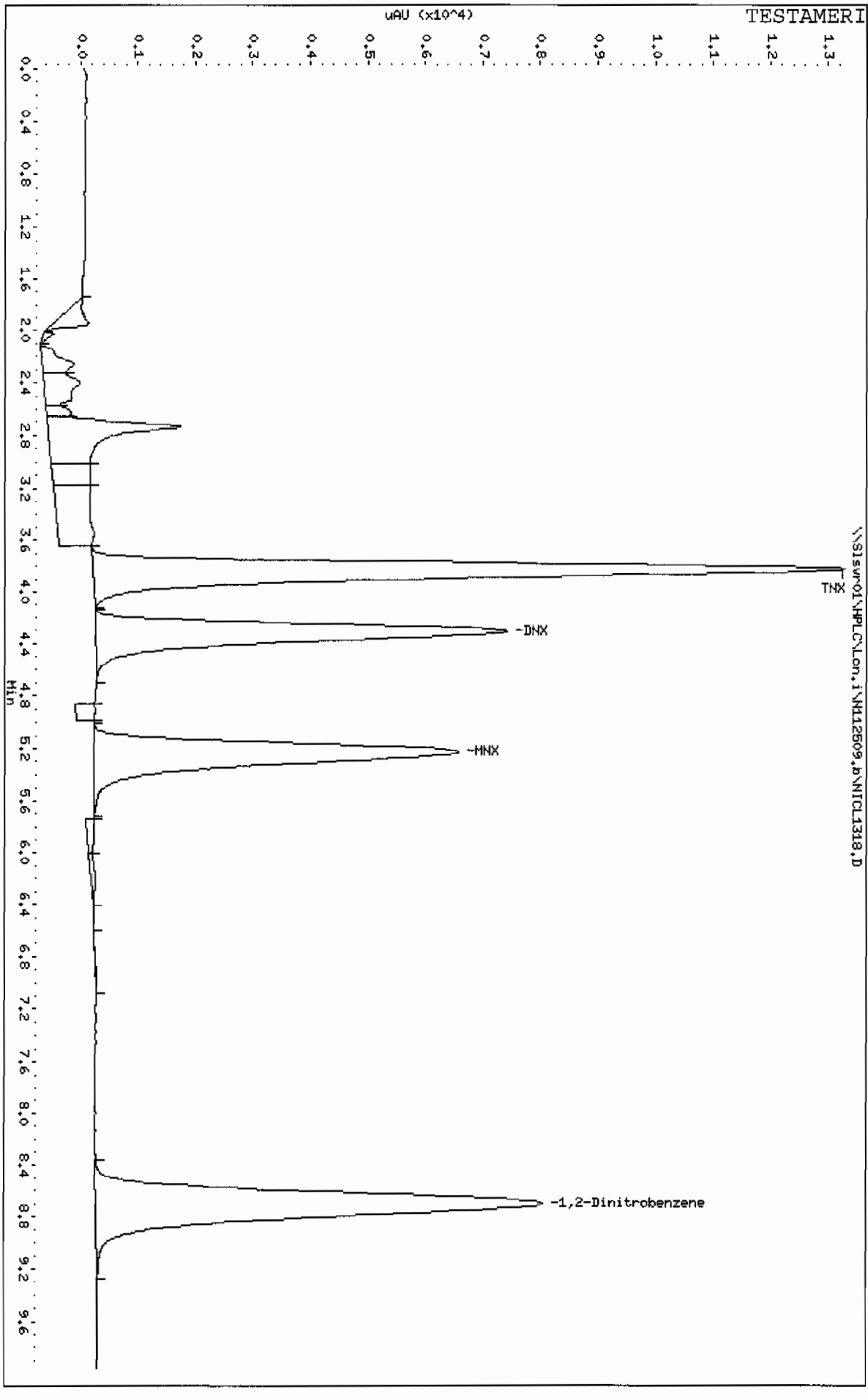
Data File: \\Slsvr01\HPLC\Lon.i\N112509.b\NICL1318.D
Date : 25-NOV-2009 11:12
Client ID: 8330 ICAL-7
Sample Info: 8330 ICAL-7
Purge Volume: 500.0
Column phase: C18
Instrument: Lon.i
Operator: WH
Column diameter: 4.60
uAU (x10^4)
\\Slsvr01\HPLC\Lon.i\N112509.b\NICL1318.D
TNX
-DNX
-MNX
-1,2-Dinitrobenzene
Min

Data File Name: NICL1318.D
Inj. Date and Time: 25-NOV-2009 11:12
Instrument ID: Lcn.i
Client ID: 8330 ICAL-7
Compound Name: TNX
CAS #:

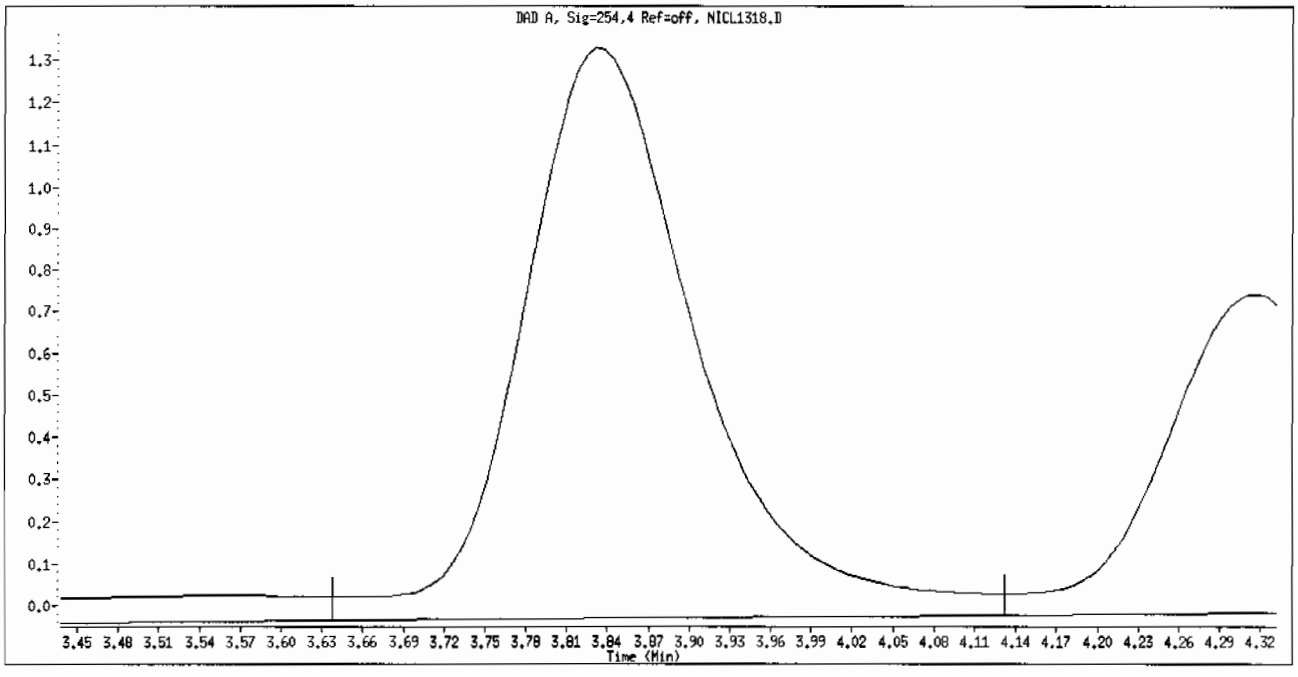

Original Integration

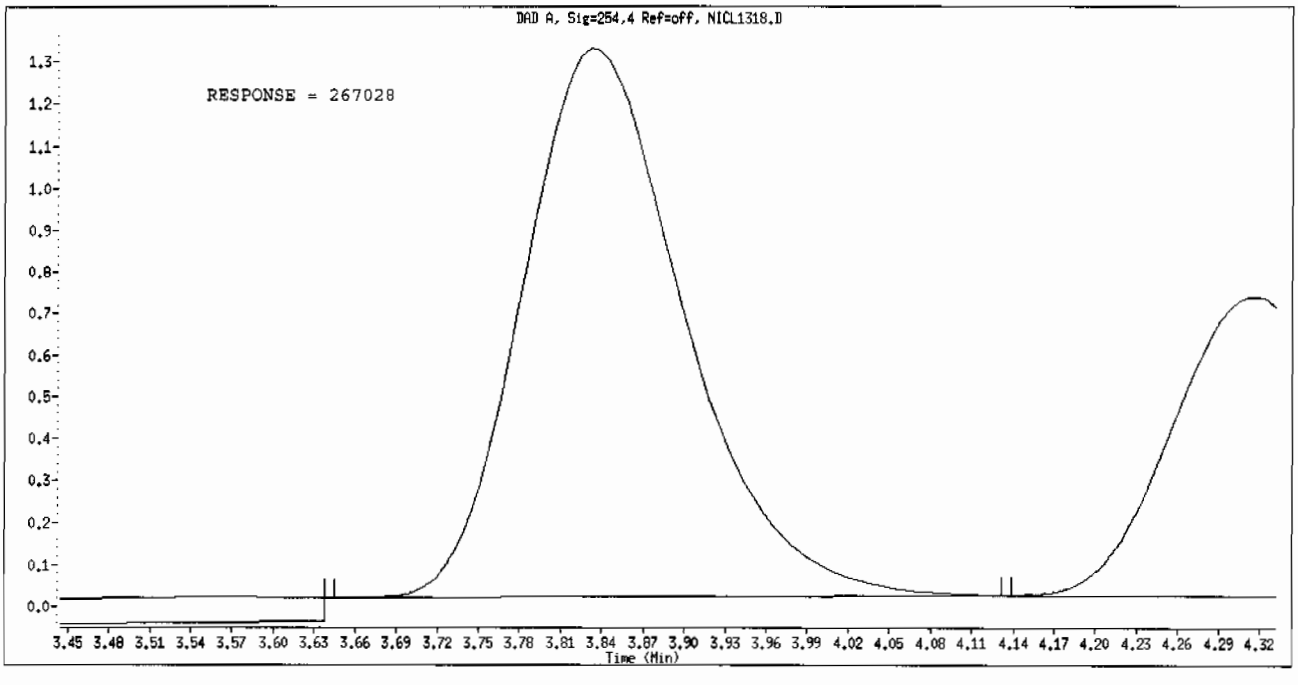

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1318.D
Inj. Date and Time: 25-NOV-2009 11:12
Instrument ID: Lcn.i
Client ID: 8330 ICAL-7
Compound Name: DNX
CAS #:

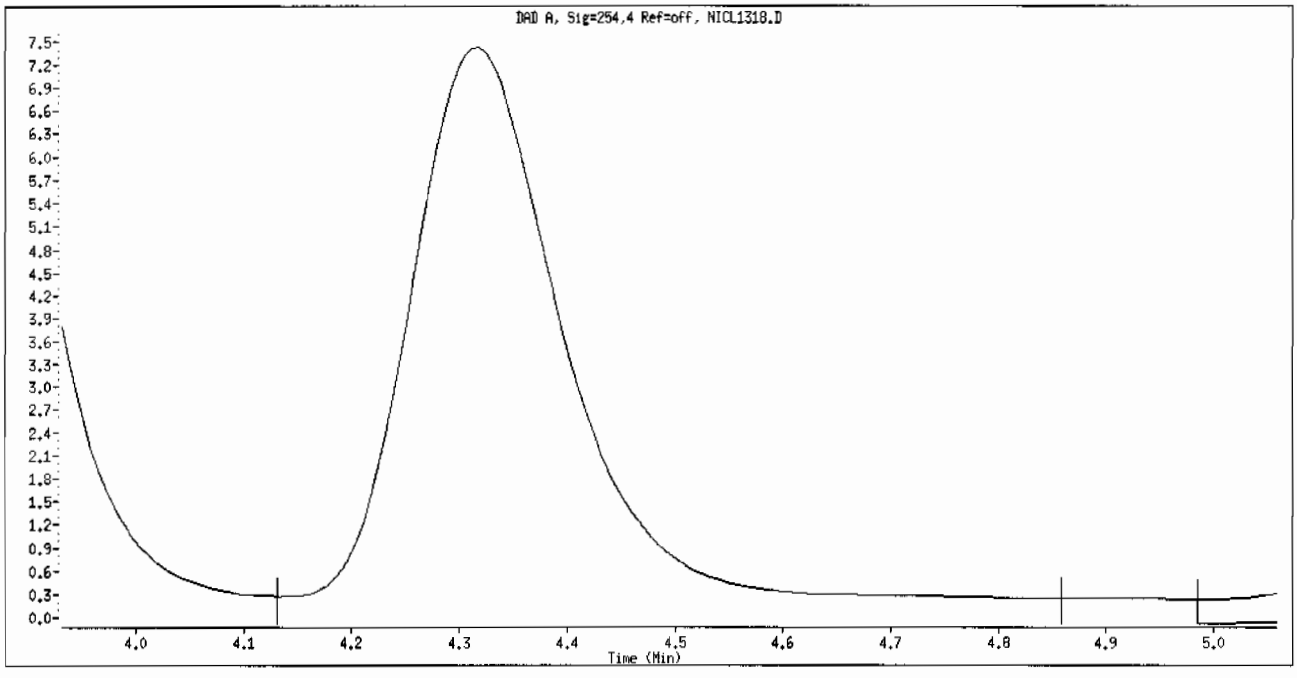

Original Integration

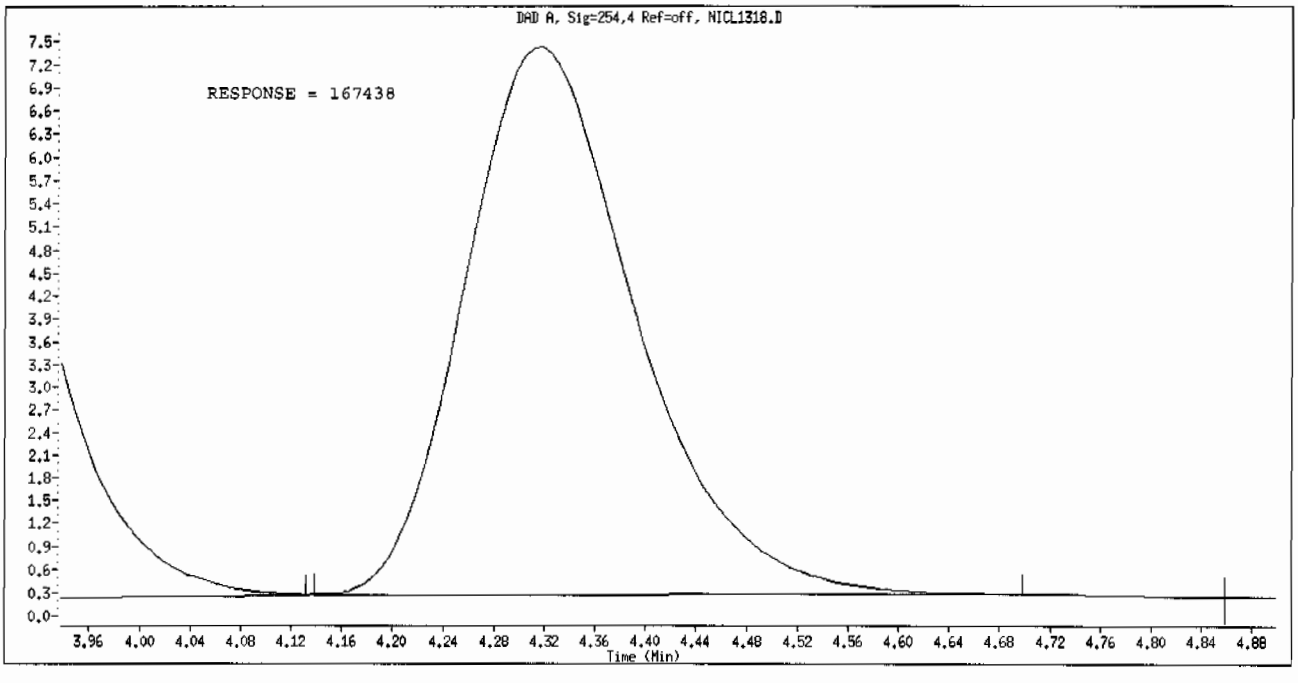

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1318.D
Inj. Date and Time: 25-NOV-2009 11:12
Instrument ID: Lcn.i
Client ID: 8330 ICAL-7
Compound Name: MNX
CAS #:

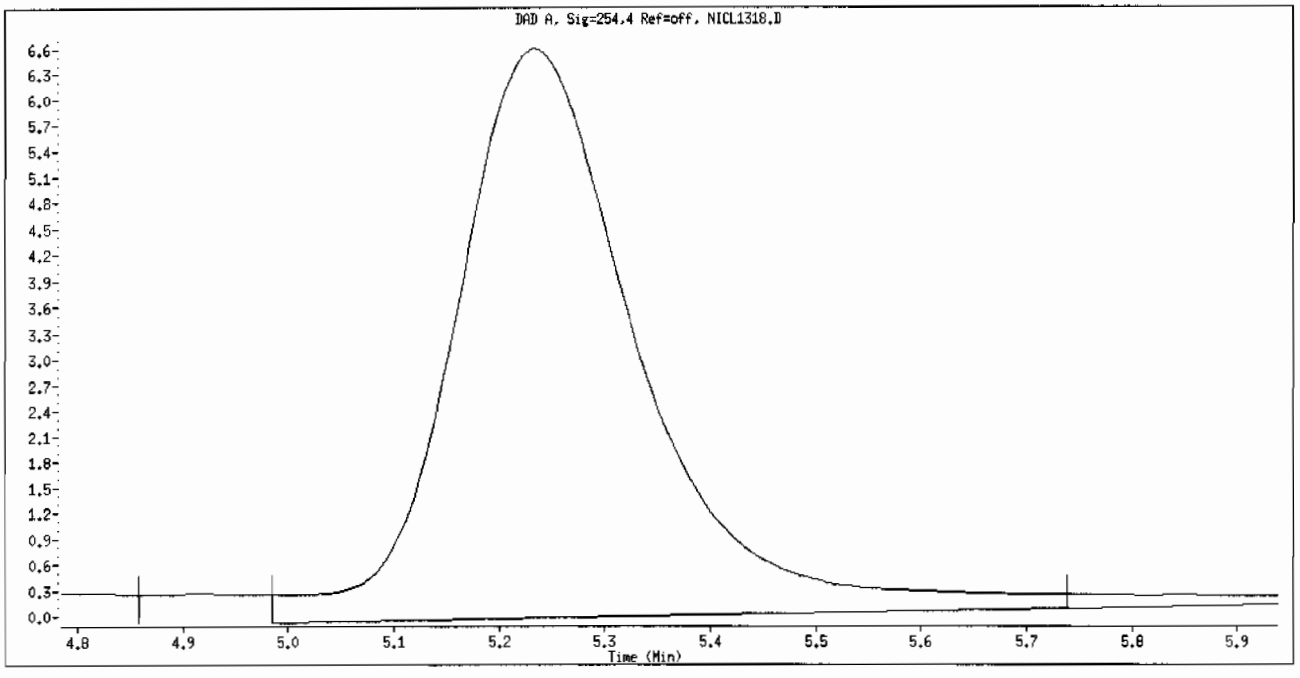

Original Integration

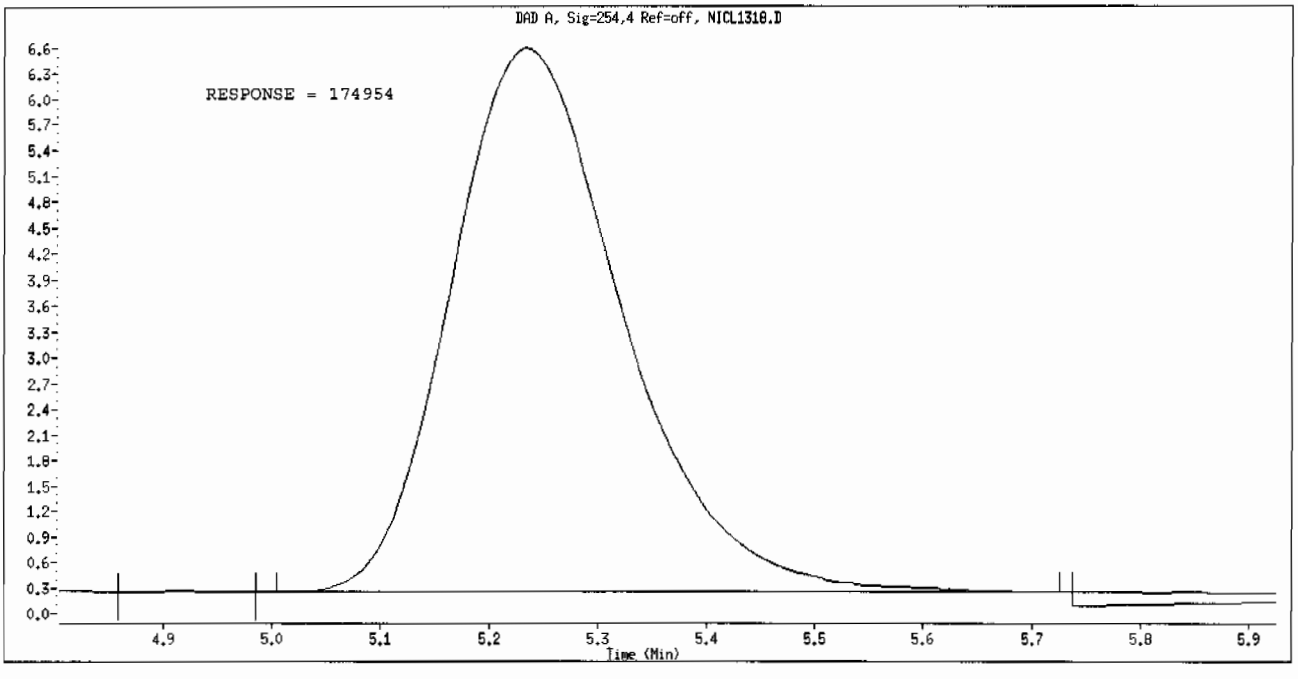

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1318.D
Inj. Date and Time: 25-NOV-2009 11:12
Instrument ID: Lcn.i
Client ID: 8330 ICAL-7
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

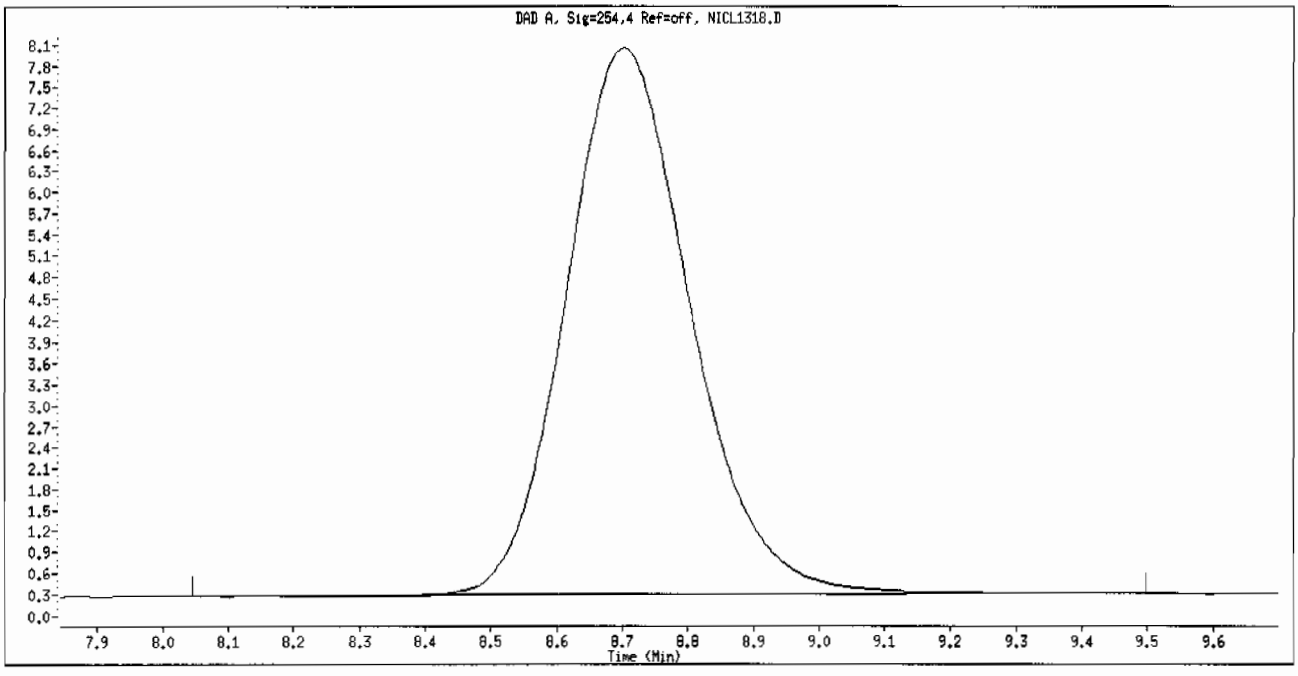

Original Integration

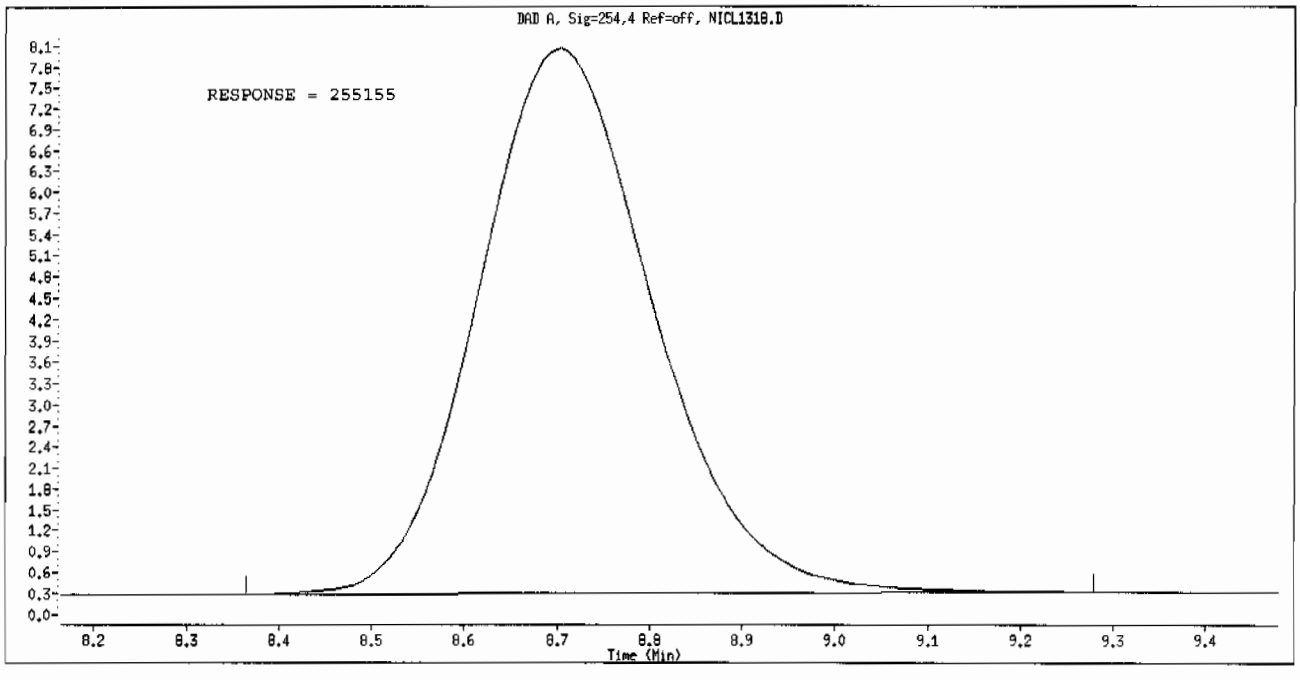

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1319.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1319.D
Lab Smp Id: 8330 ICAL-8 Client Smp ID: 8330 ICAL-8
Inj Date : 25-NOV-2009 11:26
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-8
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.838	3.837	0.001	539495	804.850	833.8(M)
2 DNX	4.318	4.324	-0.006	337552	550.800	535.8(M)
3 MNX	5.238	5.239	-0.001	352540	727.900	714.4(M)
$ 4 1,2-Dinitrobenzene	8.715	8.706	0.009	512457	1000.00	989.8(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1319.D
Date : 25-NOV-2009 11:26
Client ID: 8330 ICAL-8
Sample Info: 8330 ICAL-8
Purge Volume: 500.0
Column phase: C18

Instrument: Lcn.i
Operator: WH
Column diameter: 4.60

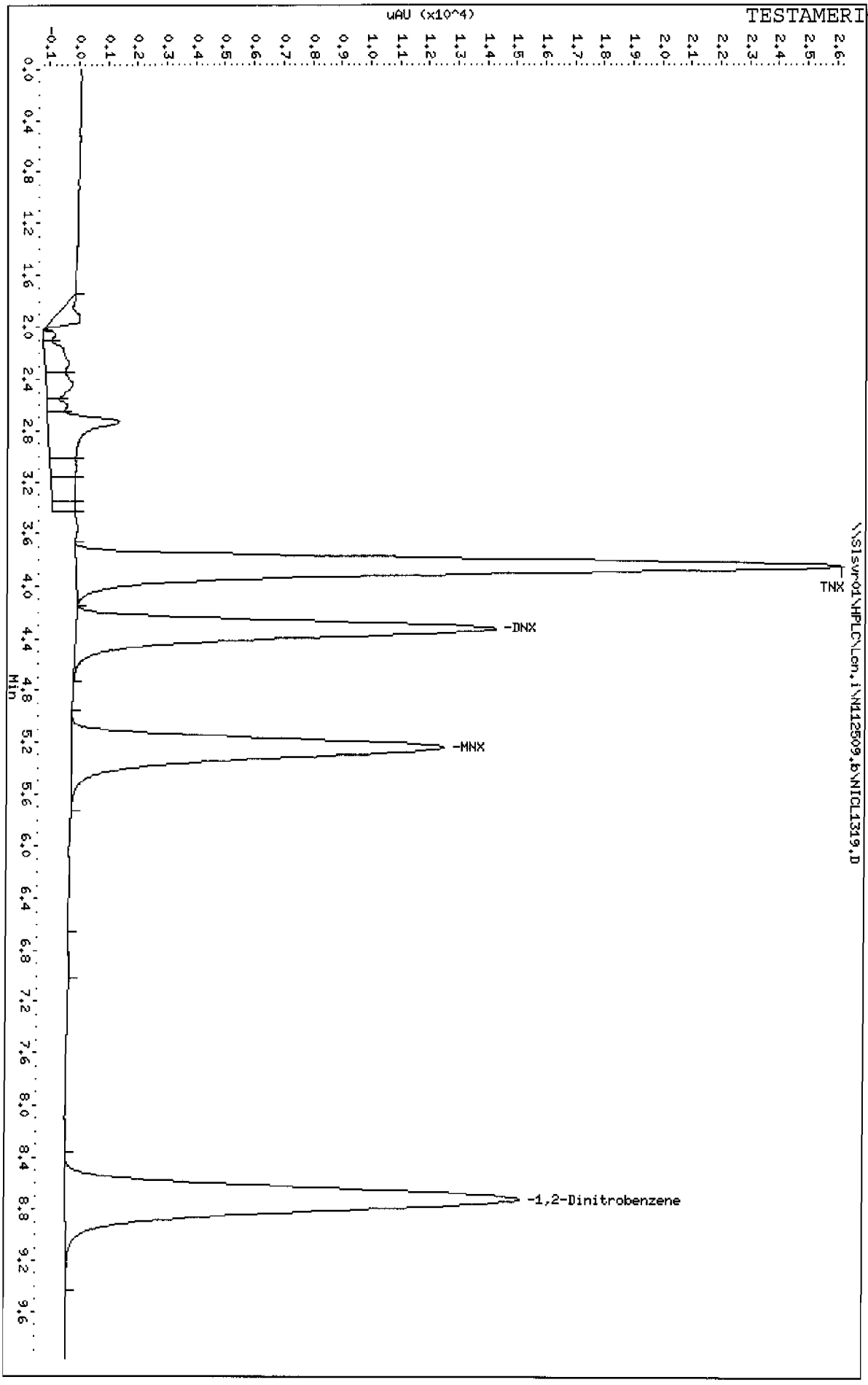

Data File Name: NICL1319.D
Inj. Date and Time: 25-NOV-2009 11:26
Instrument ID: Lcn.i
Client ID: 8330 ICAL-8
Compound Name: TNX
CAS #:

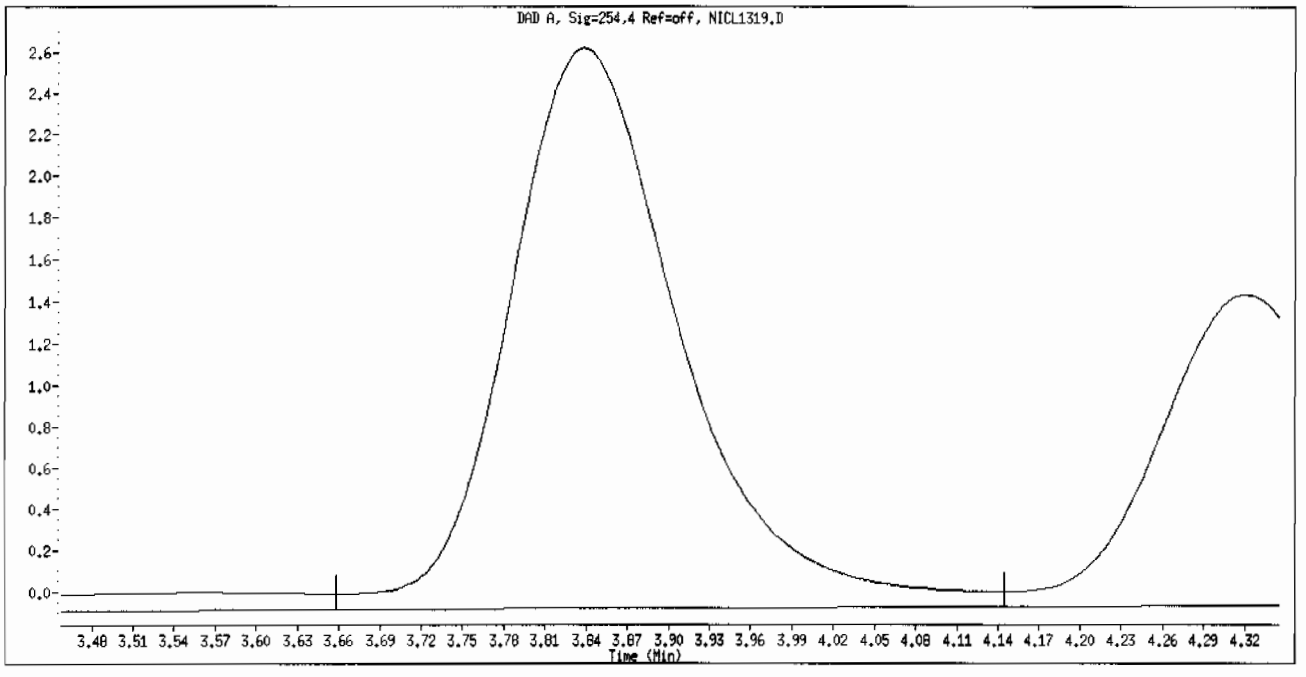

Original Integration

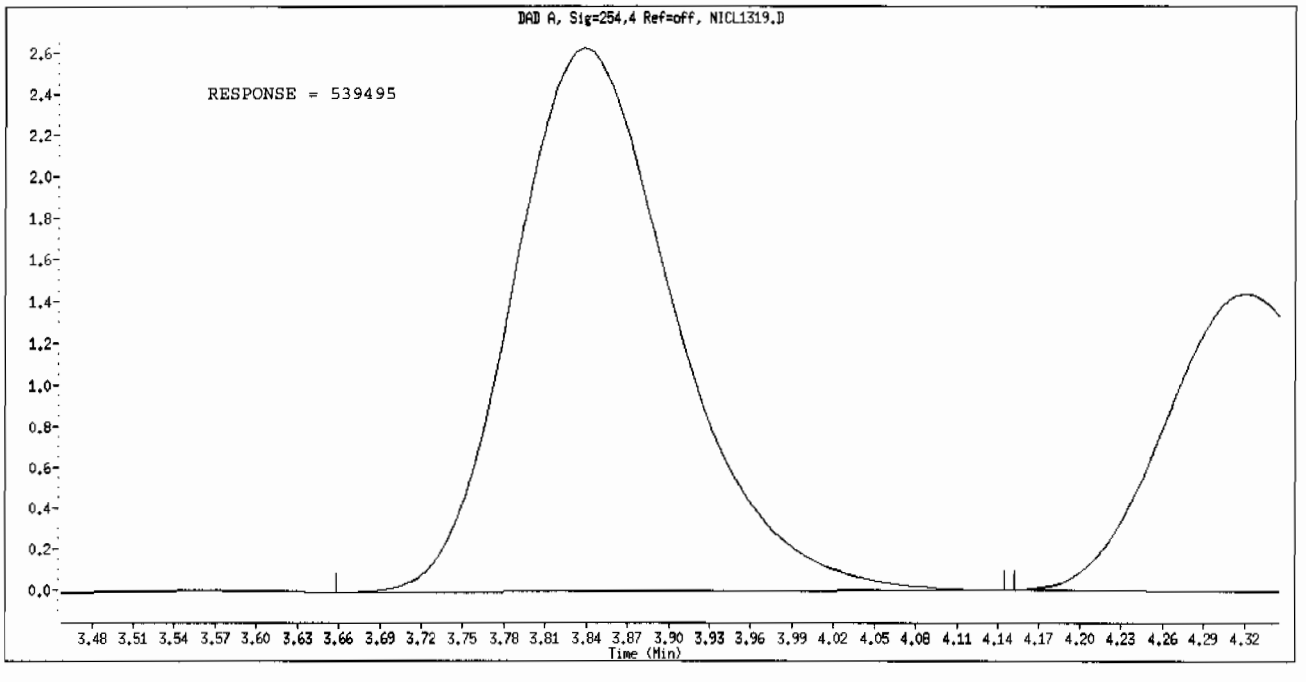

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1319.D
Inj. Date and Time: 25-NOV-2009 11:26
Instrument ID: Lcn.i
Client ID: 8330 ICAL-8
Compound Name: DNX
CAS #:

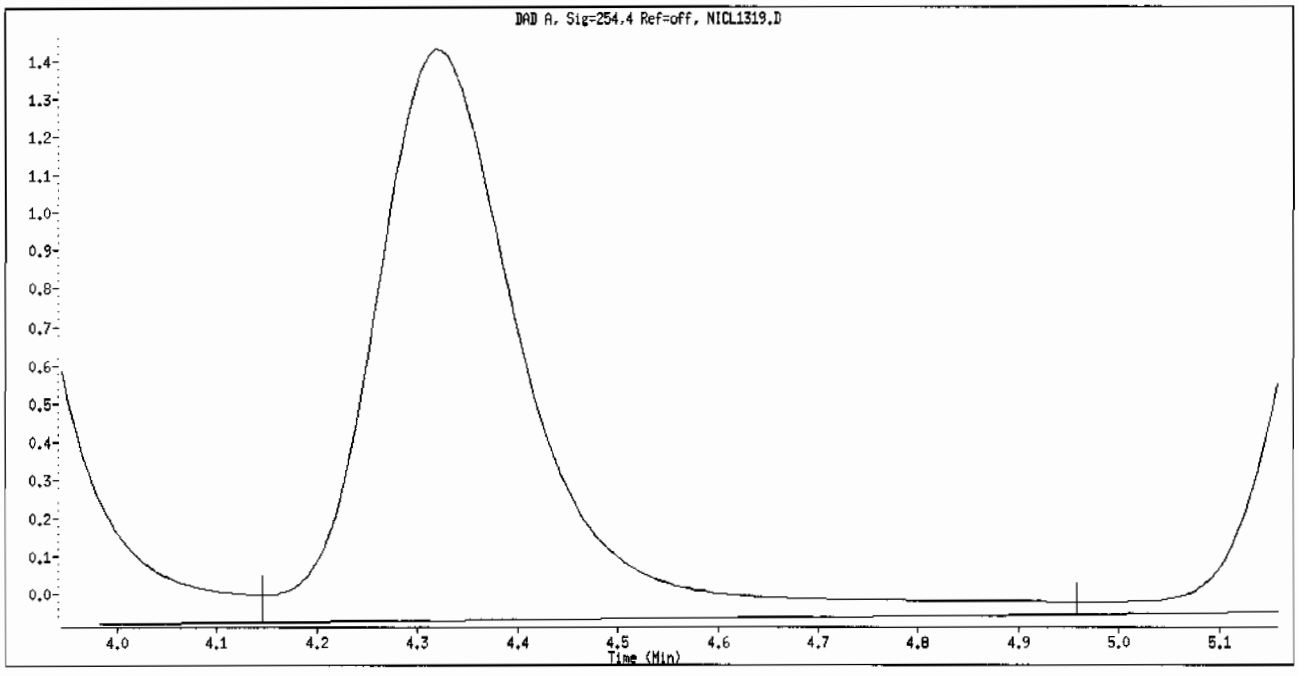

Original Integration

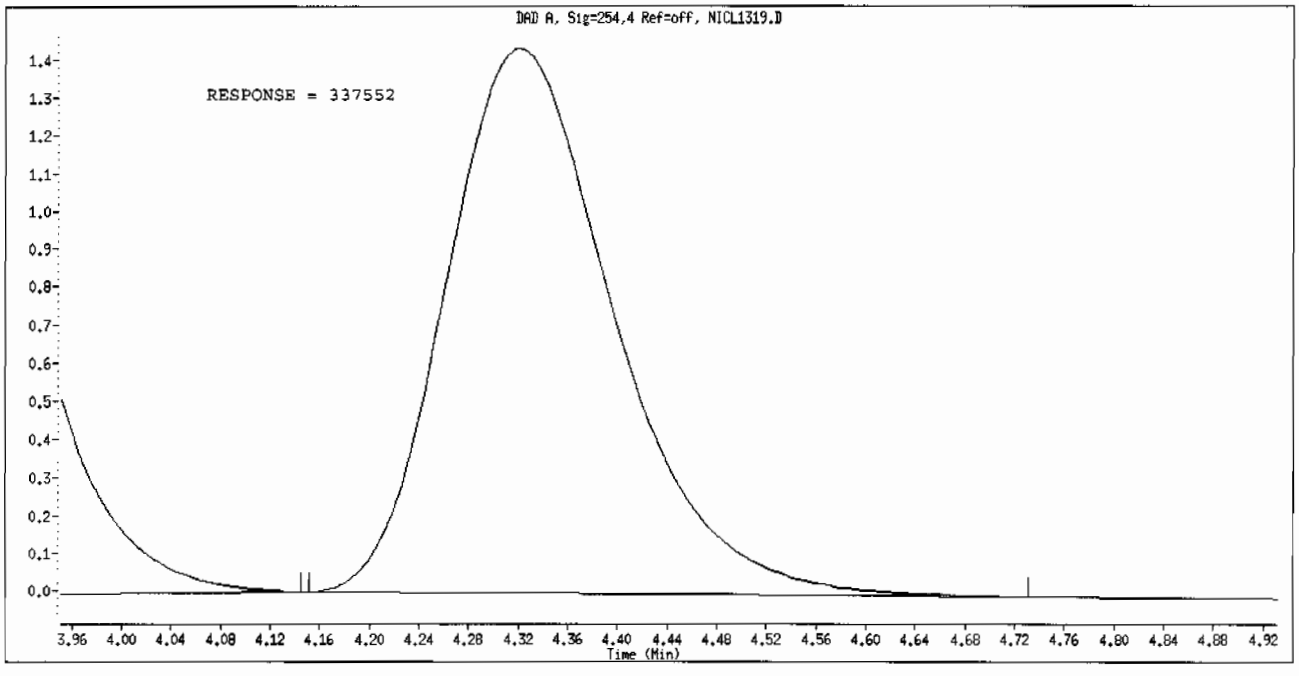

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1319.D
Inj. Date and Time: 25-NOV-2009 11:26
Instrument ID: Lcn.i
Client ID: 8330 ICAL-8
Compound Name: MNX
CAS #:

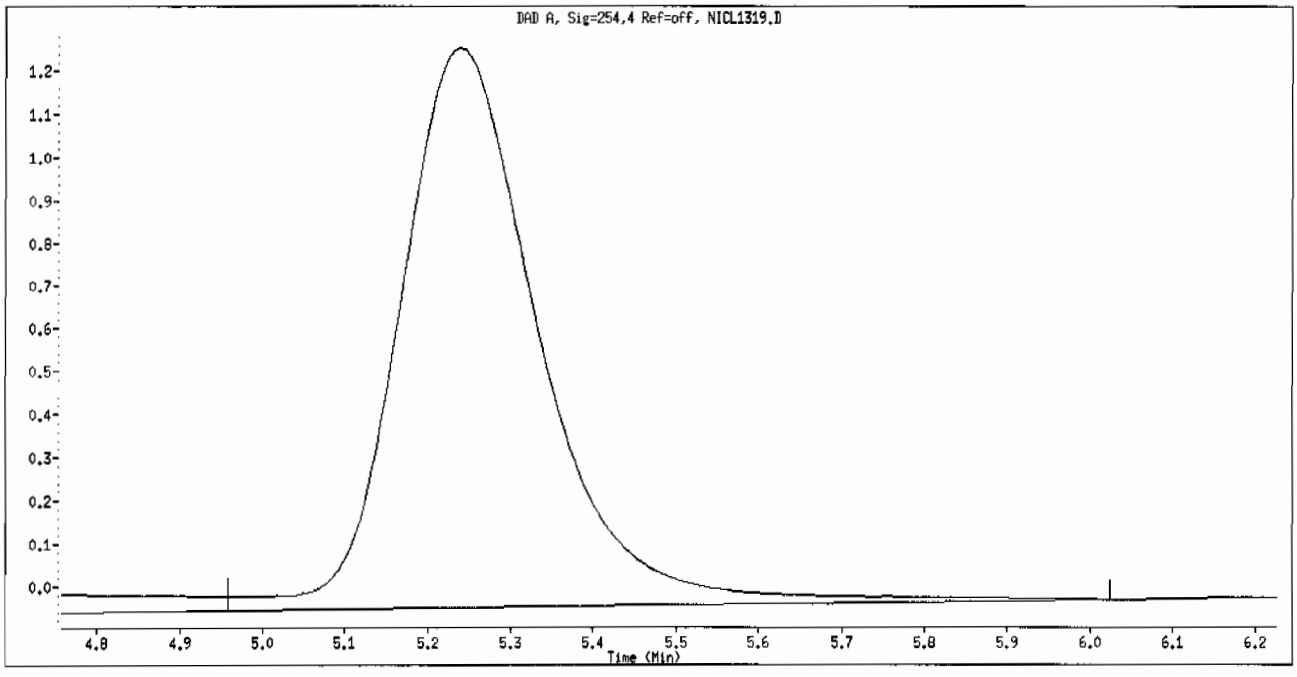

Original Integration

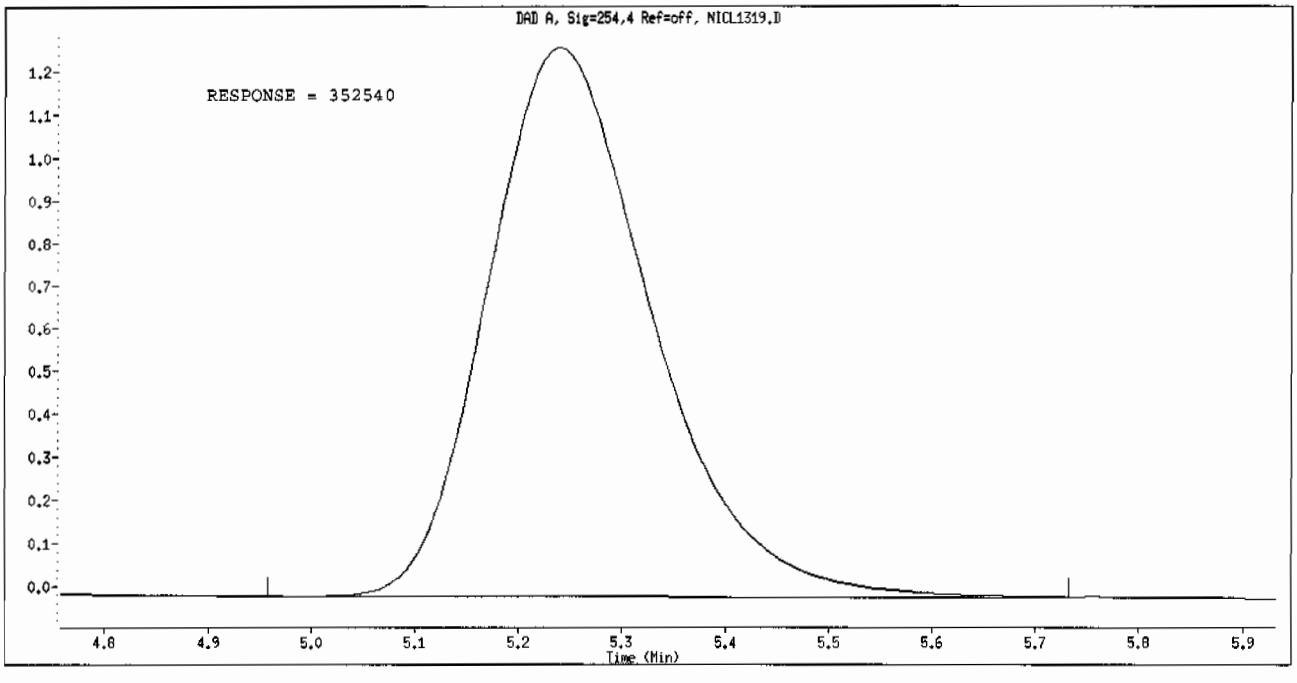

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1319.D
Inj. Date and Time: 25-NOV-2009 11:26
Instrument ID: Lcn.i
Client ID: 8330 ICAL-8
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

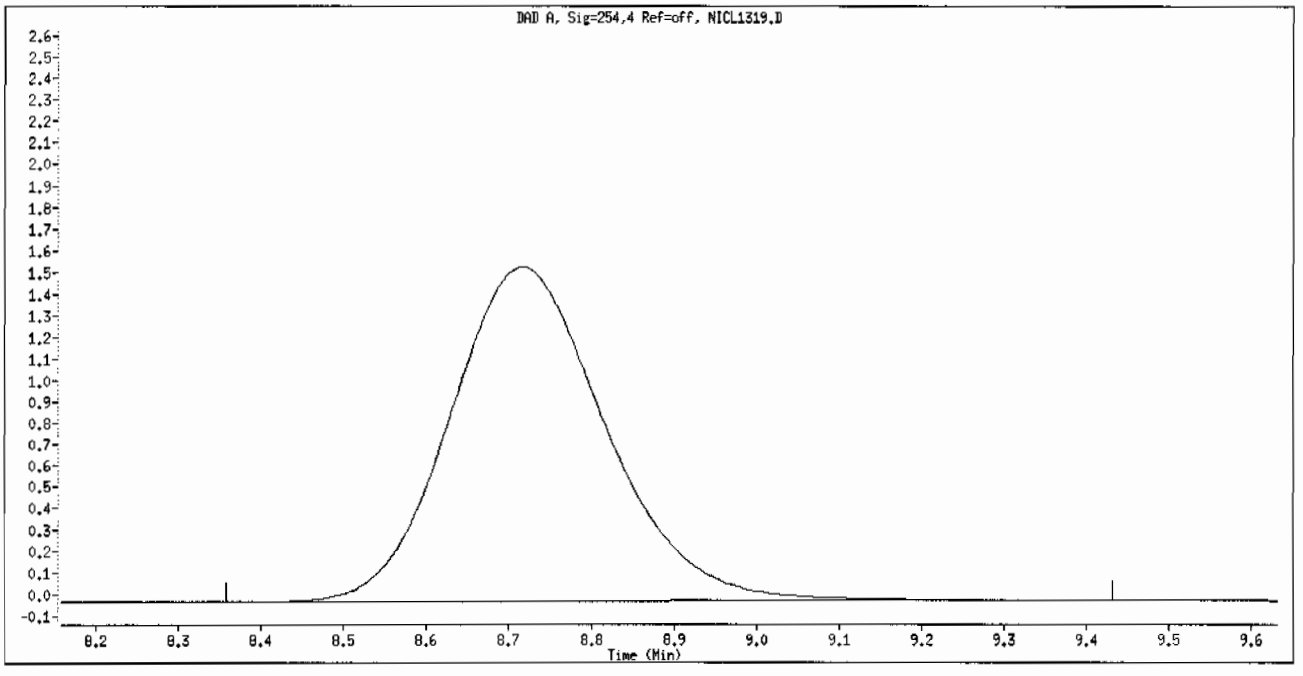

Original Integration

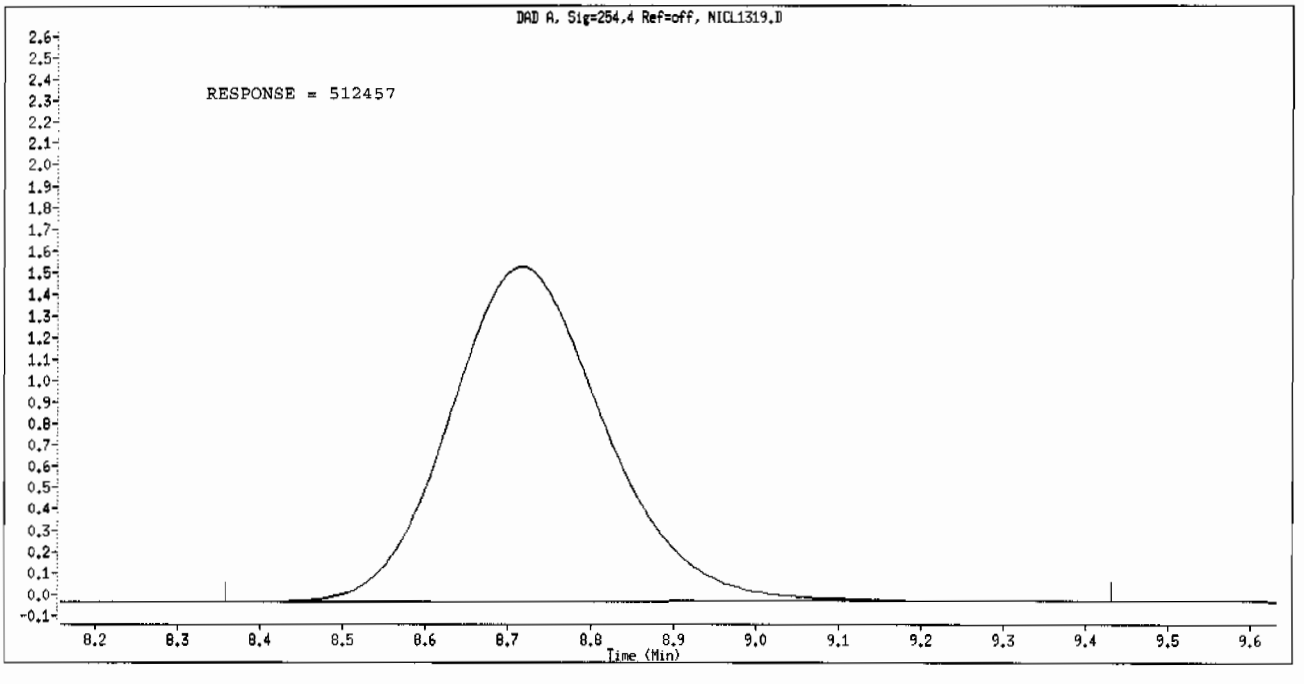

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICV1320.D
Report Date: 02-Dec-2009 16:06

TestAmerica St. Louis

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Lcn.i Injection Date: 25-NOV-2009 11:40
Lab File ID: NICV1320.D Init. Cal. Date(s): 25-NOV-2009 25-NOV-2009
Analysis Type: WATER Init. Cal. Times: 10:16 11:26
Lab Sample ID: XNX ICV Quant Type: ESTD
Method: \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m

COMPOUND	RRF / AMOUNT	RF125	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 TNX	647	687	0.010	-6.21077	20.00000	Averaged
2 DNX	630	652	0.010	-3.51780	20.00000	Averaged
3 MNX	493	518	0.010	-5.04045	20.00000	Averaged

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICV1320.D
Report Date: 02-Dec-2009 16:06

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICV1320.D
Lab Smp Id: XNX ICV Client Smp ID: XNX ICV
Inj Date : 25-NOV-2009 11:40
Operator : WH Inst ID: Lcn.i
Smp Info : XNX ICV
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:06 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.834	3.837	-0.003	69140	100.606	106.8
2 DNX	4.318	4.324	-0.006	44898	68.8500	71.27
3 MNX	5.239	5.239	0.000	47165	90.9875	95.57(M)

QC Flag Legend

M - Compound response manually integrated.

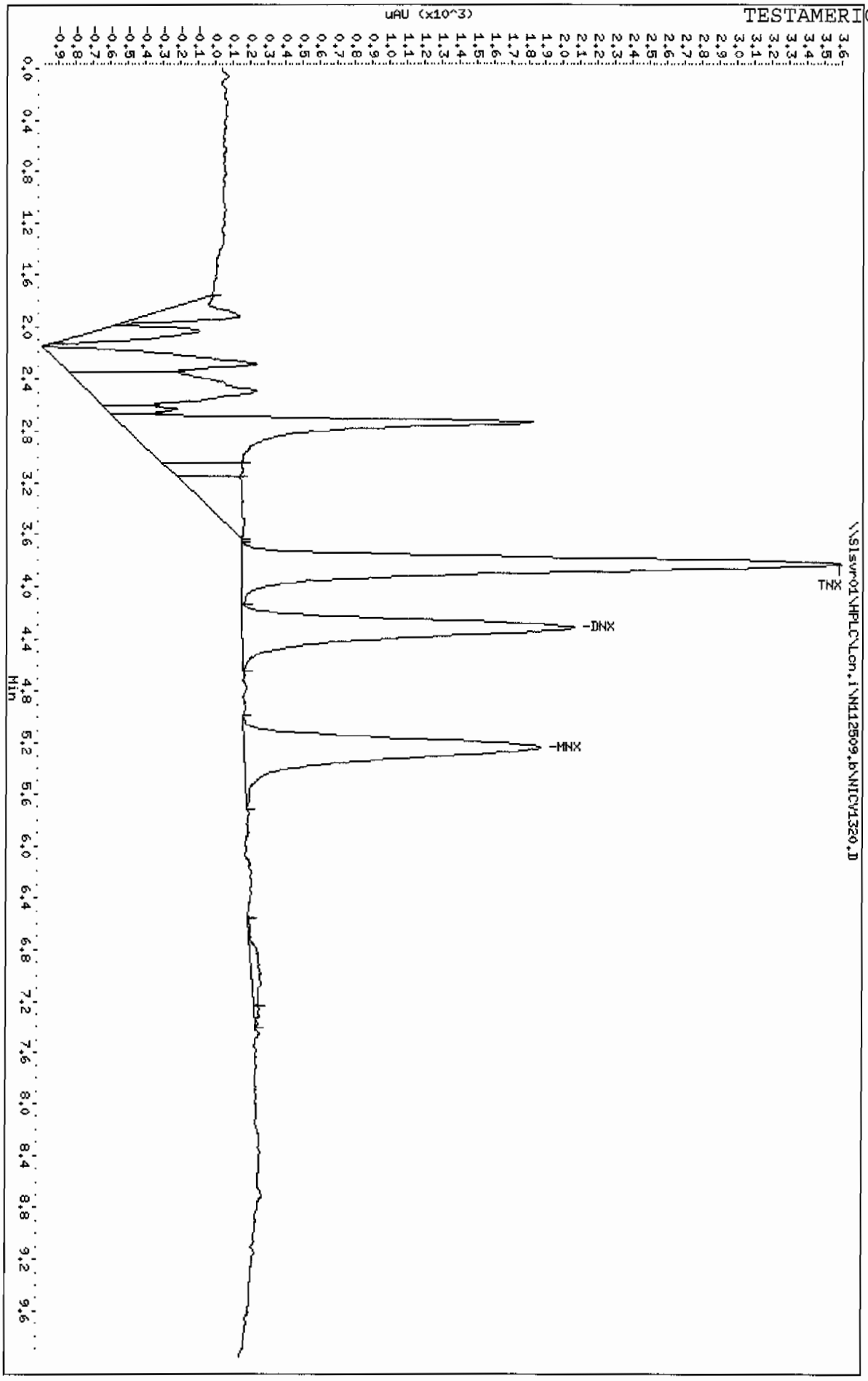
Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICV1320.D
Date : 25-NOV-2009 11:40
Client ID: XNX ICV
Sample Info: XNX ICV
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn.i
Operator: WH
Column diameter: 4.60
uAU (x10^3)
\\Slsvr01\HPLC\Lcn.i\N112509.b\NICV1320.D
TNX
-DNX
-MNX
Min

Data File Name: NICV1320.D
Inj. Date and Time: 25-NOV-2009 11:40
Instrument ID: Lcn.i
Client ID: XNX ICV
Compound Name: MNX
CAS #:

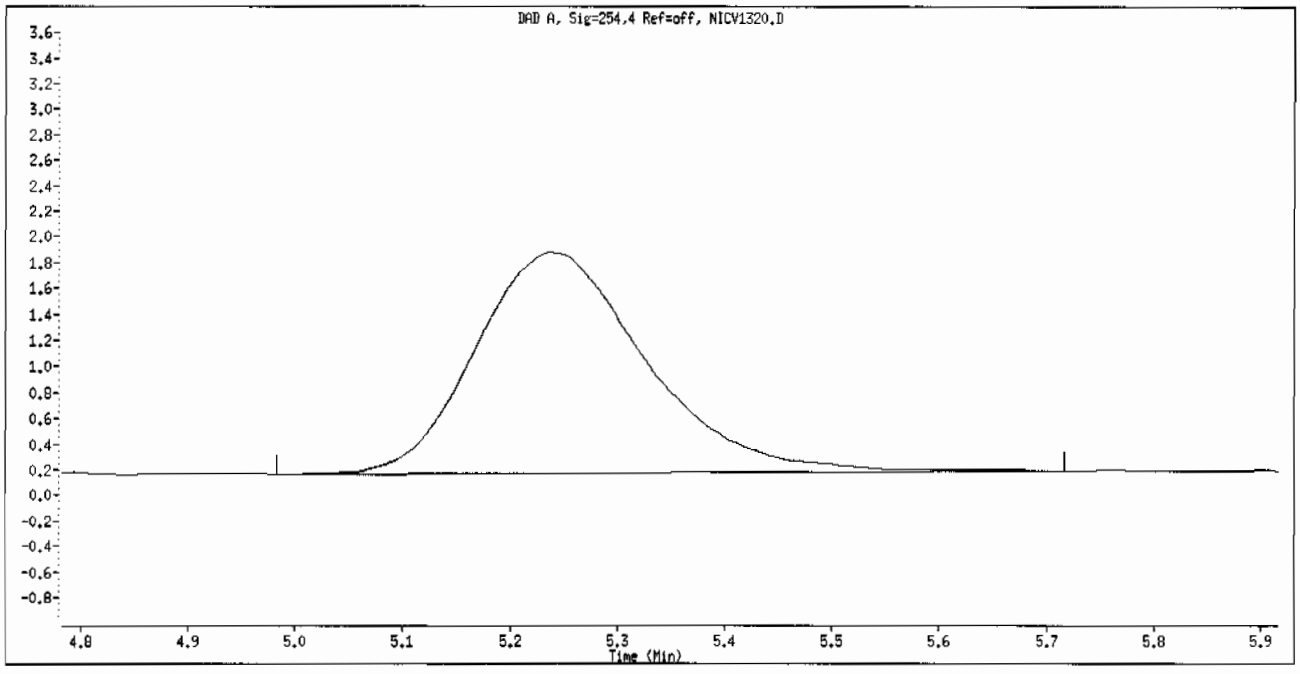

Original Integration

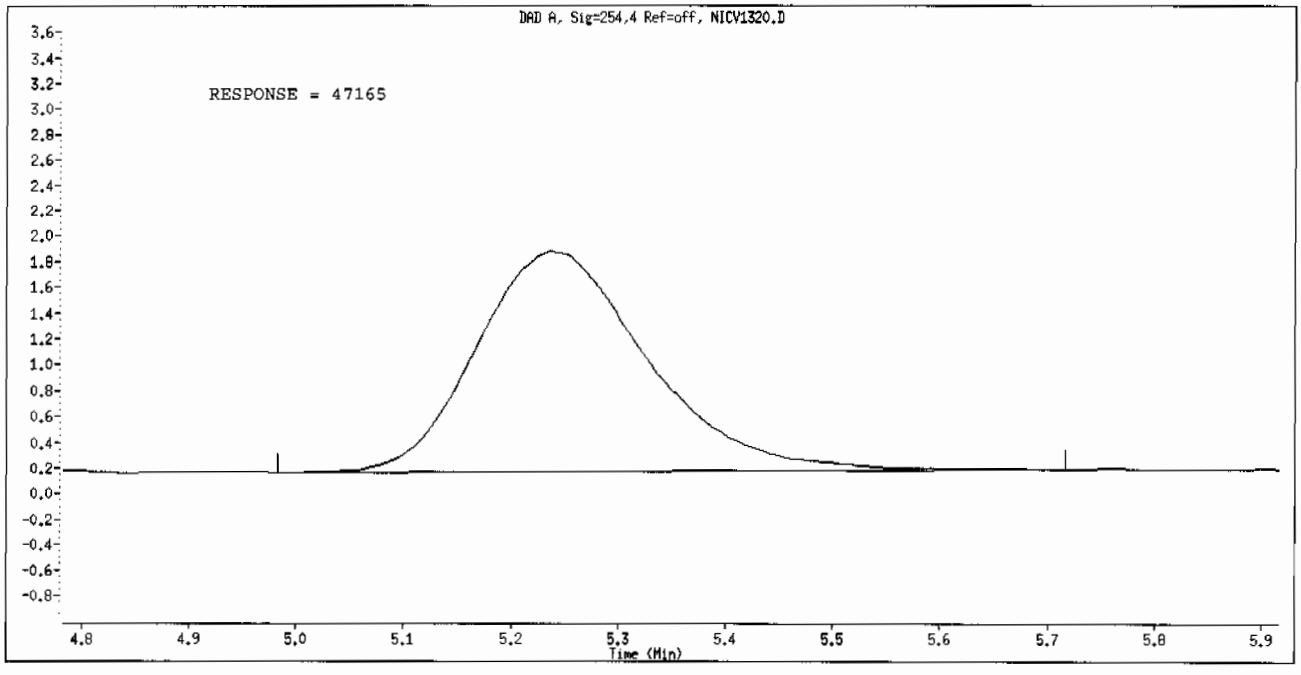

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NCAL1785.D
Report Date: 04-Jan-2010 14:00

TestAmerica St. Louis

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Lcn.i Injection Date: 29-DEC-2009 12:47
Lab File ID: NCAL1785.D Init. Cal. Date(s): 25-NOV-2009 25-NOV-2009
Analysis Type: WATER Init. Cal. Times: 10:16 11:26
Lab Sample ID: XNX CCAL Quant Type: ESTD
Method: \\slsvr01\HPLC\Lcn.i\N122909B.b\C18XNX.m

COMPOUND	RRF / AMOUNT	RF125	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 TNX	647	664	0.010	-2.68526	20.00000	Averaged
2 DNX	630	620	0.010	1.54995	20.00000	Averaged
3 MNX	493	499	0.010	-1.11633	20.00000	Averaged
$ 4 1,2-Dinitrobenzene	518	501	0.010	3.22954	20.00000	Averaged

Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NCAL1785.D
Report Date: 04-Jan-2010 14:00

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N122909B.b\NCAL1785.D
Lab Smp Id: XNX CCAL Client Smp ID: XNX CCAL
Inj Date : 29-DEC-2009 12:47
Operator : WH Inst ID: Lcn.i
Smp Info : XNX CCAL
Misc Info :
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N122909B.b\C18XNX.m
Meth Date : 04-Jan-2010 13:52 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.852	3.837	0.015	66845	100.606	103.3(M)
2 DNX	4.332	4.324	0.008	42700	68.8500	67.78(M)
3 MNX	5.265	5.239	0.026	45403	90.9875	92.00(M)
$ 4 1,2-Dinitrobenzene	8.765	8.706	0.059	62627	125.000	121.0

QC Flag Legend

M - Compound response manually integrated.

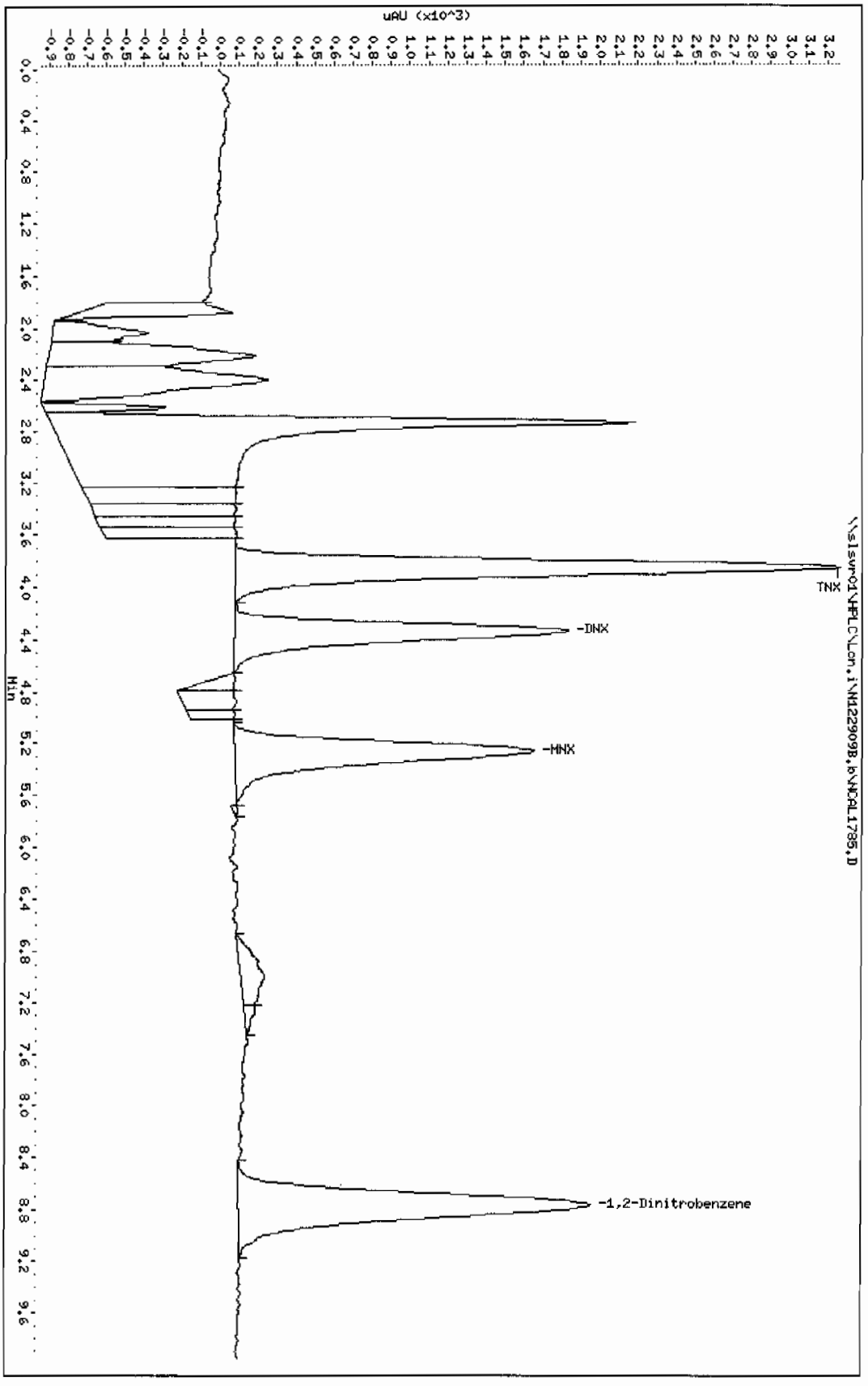
Data File: \\slsvr01\HPLC\Lcn.i\M122909B.b\NCAL1785.D
Date : 29-DEC-2009 12:47
Client ID: XNX CCAL
Sample Info: XNX CCAL
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn.i
Operator: WH
Column diameter: 4.60
uAU (x10^3)
\\slsvr01\HPLC\Lcn.i\M122909B.b\NCAL1785.D
TNX
-DNX
-MNX
-1,2-Dinitrobenzene
Min

Data File Name: NCAL1785.D
Inj. Date and Time: 29-DEC-2009 12:47
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: TNX
CAS #:

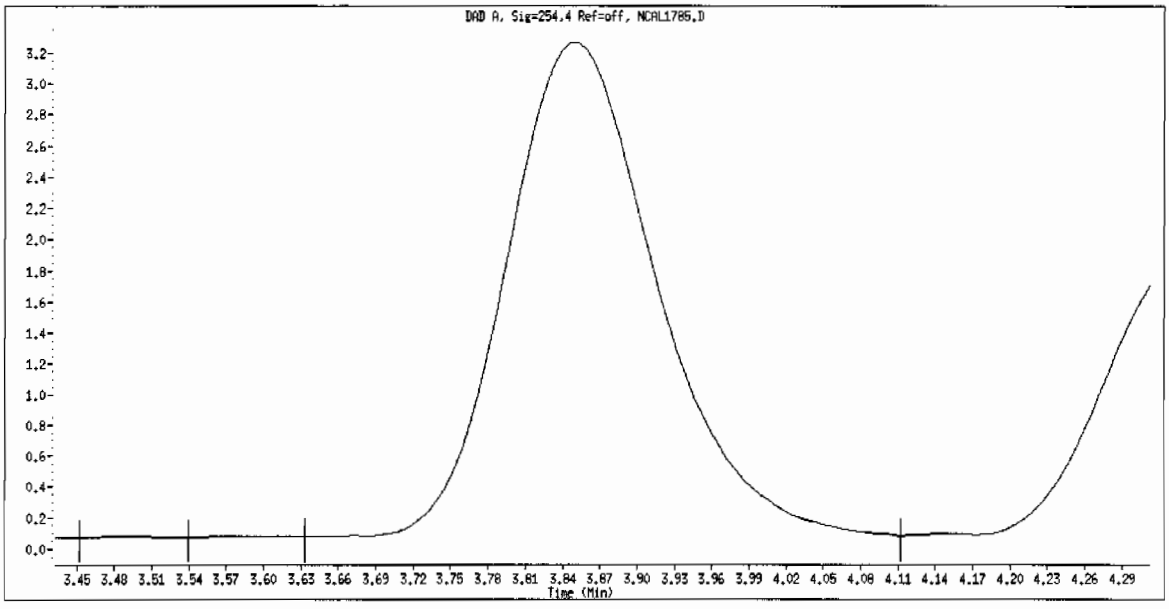

Original Integration

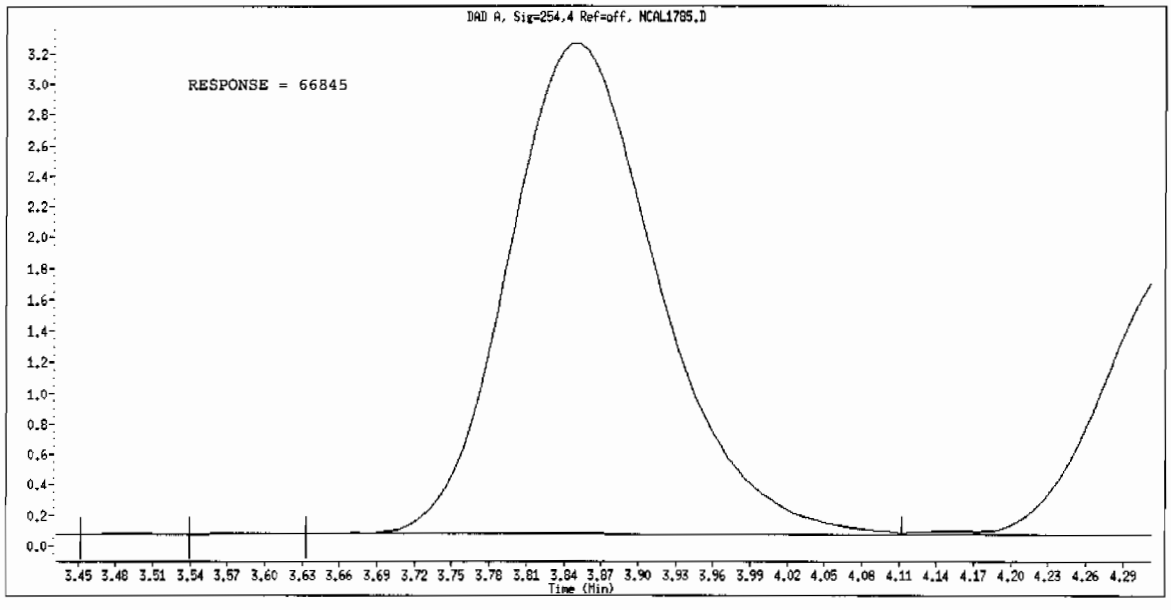

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NCAL1785.D
Inj. Date and Time: 29-DEC-2009 12:47
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: DNX
CAS #:

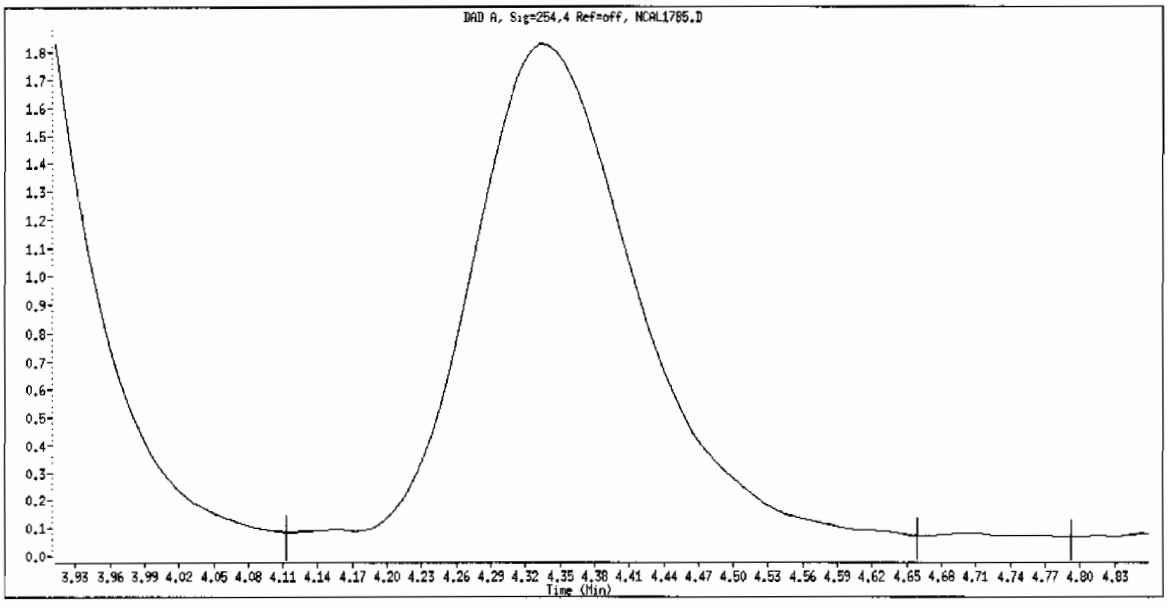

Original Integration

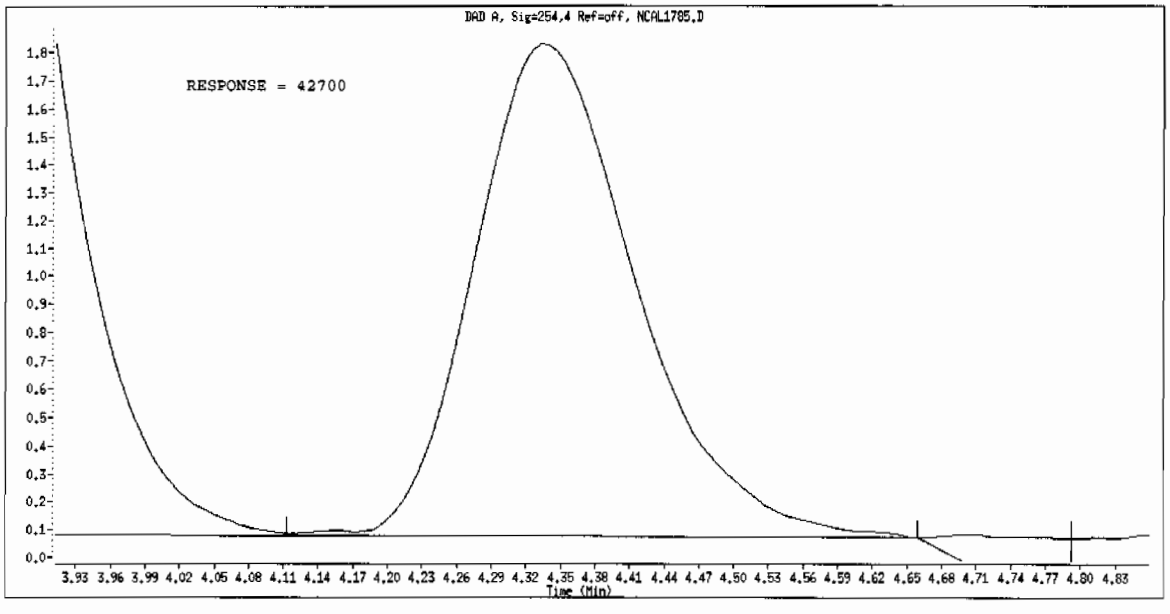

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NCAL1785.D
Inj. Date and Time: 29-DEC-2009 12:47
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: MNX
CAS #:

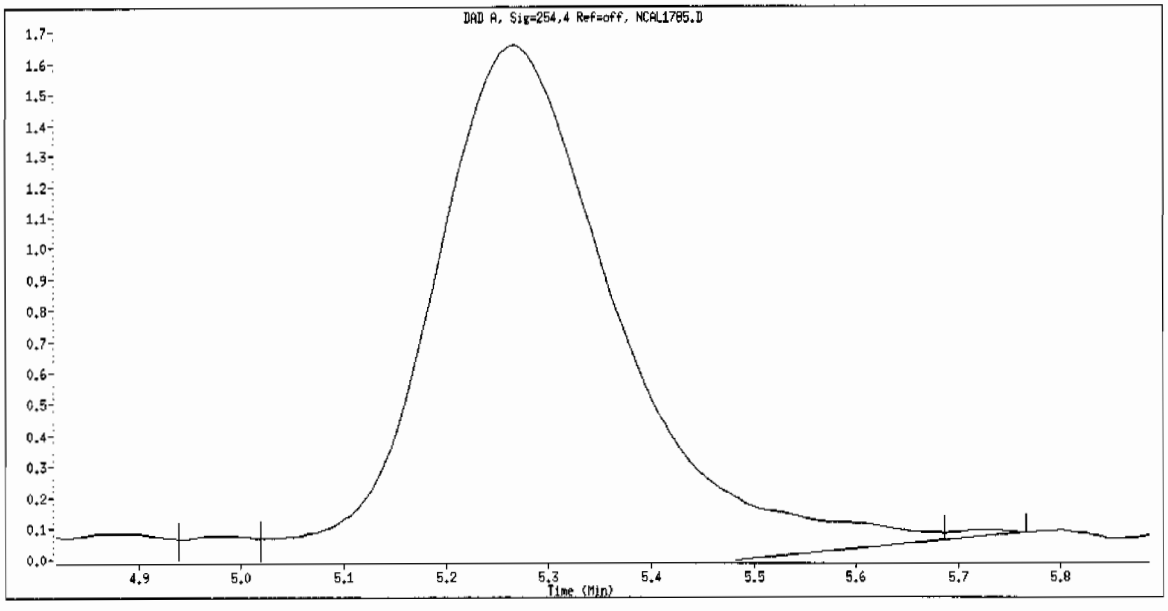

Original Integration

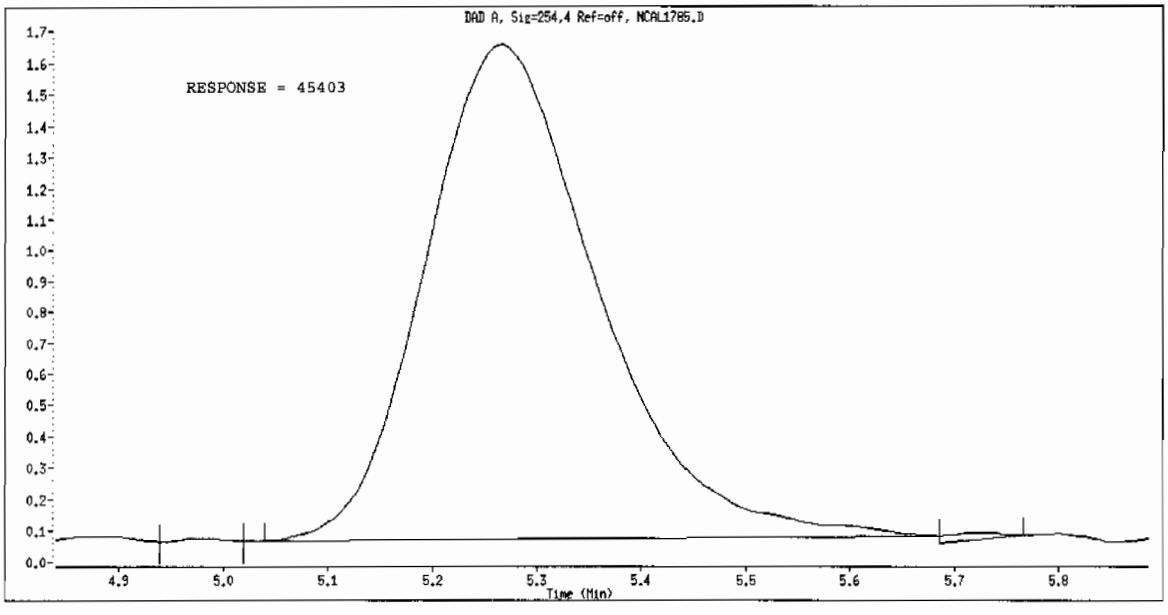

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NCAL1795.D
Report Date: 04-Jan-2010 13:52

TestAmerica St. Louis

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Lcn.i Injection Date: 29-DEC-2009 15:07
Lab File ID: NCAL1795.D Init. Cal. Date(s): 25-NOV-2009 25-NOV-2009
Analysis Type: WATER Init. Cal. Times: 10:16 11:26
Lab Sample ID: XNX CCAL Quant Type: ESTD
Method: \\slsvr01\HPLC\Lcn.i\N122909B.b\C18XNX.m

COMPOUND	RRF / AMOUNT	RF125	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 TNX	647	669	0.010	-3.35195	20.00000	Averaged
2 DNX	630	617	0.010	2.01800	20.00000	Averaged
3 MNX	493	489	0.010	0.93482	20.00000	Averaged
$ 4 1,2-Dinitrobenzene	518	492	0.010	5.02350	20.00000	Averaged

Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NCAL1795.D
Report Date: 04-Jan-2010 13:52

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N122909B.b\NCAL1795.D
Lab Smp Id: XNX CCAL Client Smp ID: XNX CCAL
Inj Date : 29-DEC-2009 15:07
Operator : WH Inst ID: Lcn.i
Smp Info : XNX CCAL
Misc Info :
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N122909B.b\C18XNX.m
Meth Date : 04-Jan-2010 13:52 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.851	3.837	0.014	67279	100.606	104.0(M)
2 DNX	4.337	4.324	0.013	42497	68.8500	67.46(M)
3 MNX	5.271	5.239	0.032	44482	90.9875	90.14(M)
$ 4 1,2-Dinitrobenzene	8.773	8.706	0.067	61466	125.000	118.7

QC Flag Legend

M - Compound response manually integrated.

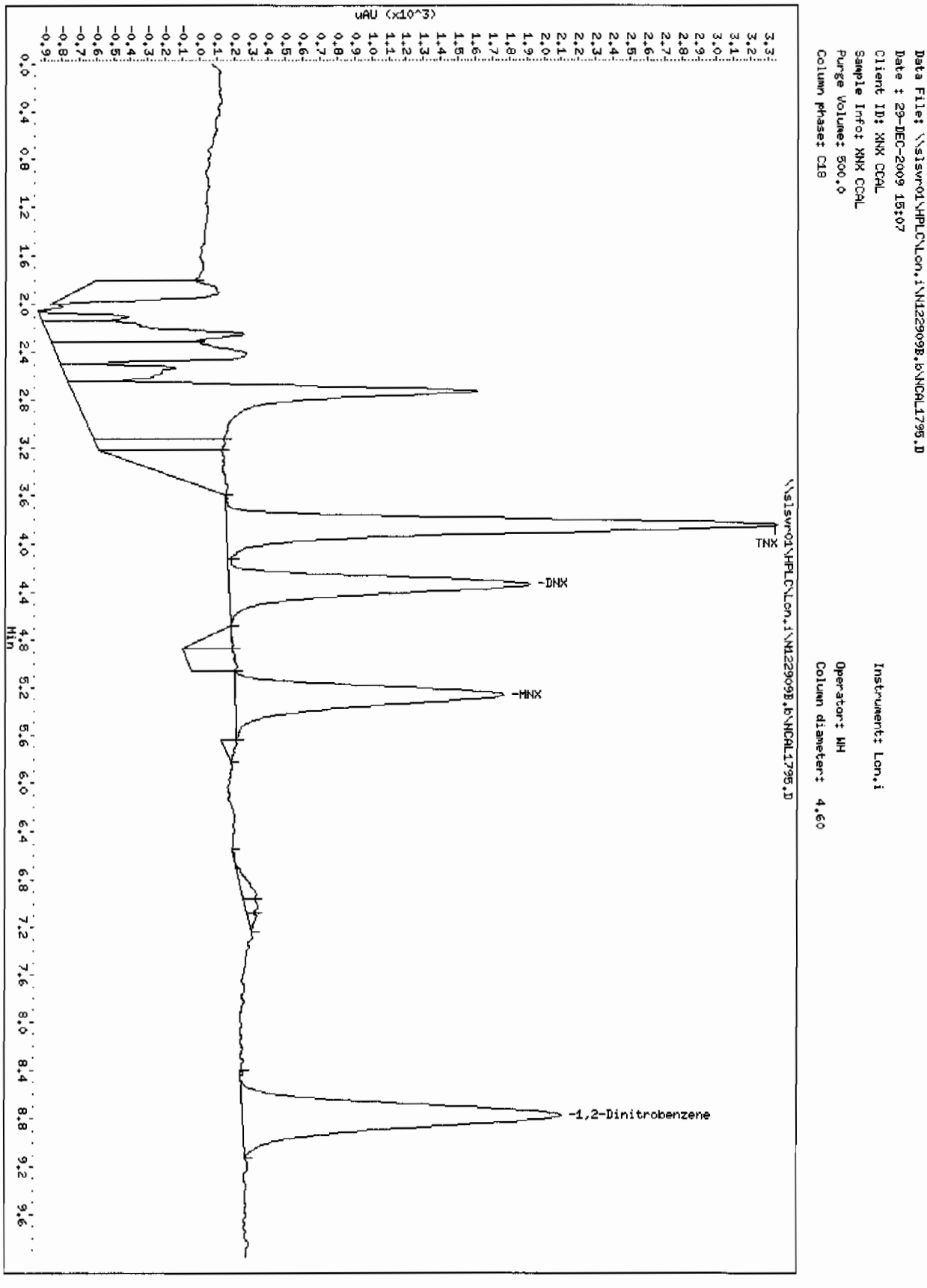
Data File: \\slsvr01\HPLC\Lon.i\N122909B.b\NCAL1795.D
Date : 29-DEC-2009 15:07
Client ID: XNX CCAL
Sample Info: XNX CCAL
Purge Volume: 500.0
Column phase: C18
Instrument: Lon.i
Operator: WH
Column diameter: 4.60
uAU (x10^3)
\\slsvr01\HPLC\Lon.i\N122909B.b\NCAL1795.D
TNX
-DNX
-MNX
-1,2-Dinitrobenzene
Min

Data File Name: NCAL1795.D
Inj. Date and Time: 29-DEC-2009 15:07
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: TNX
CAS #:

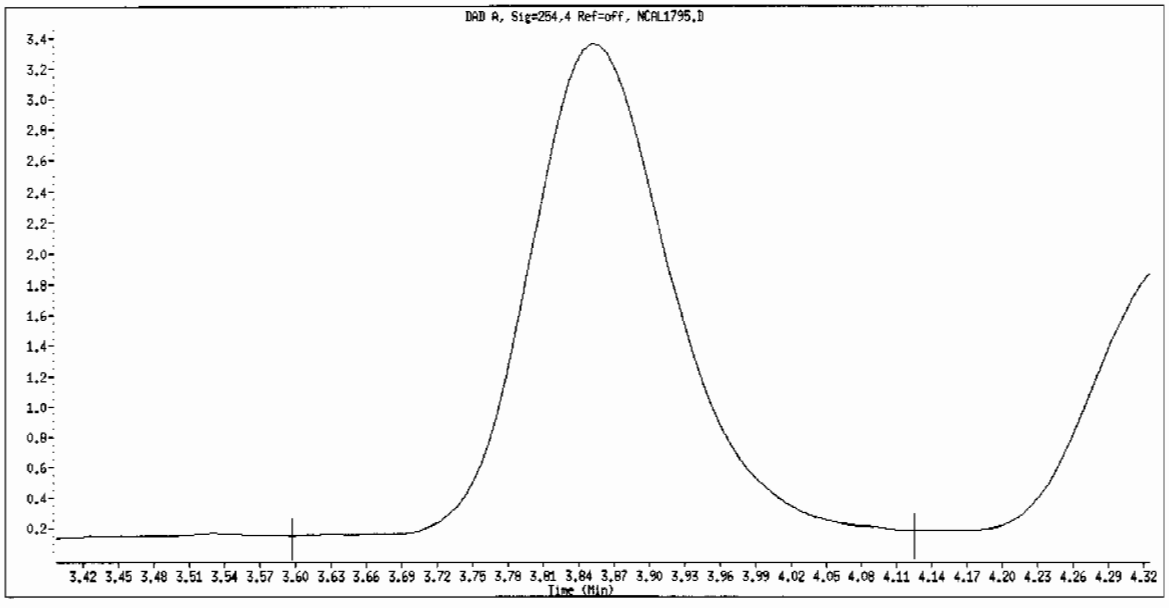

Original Integration

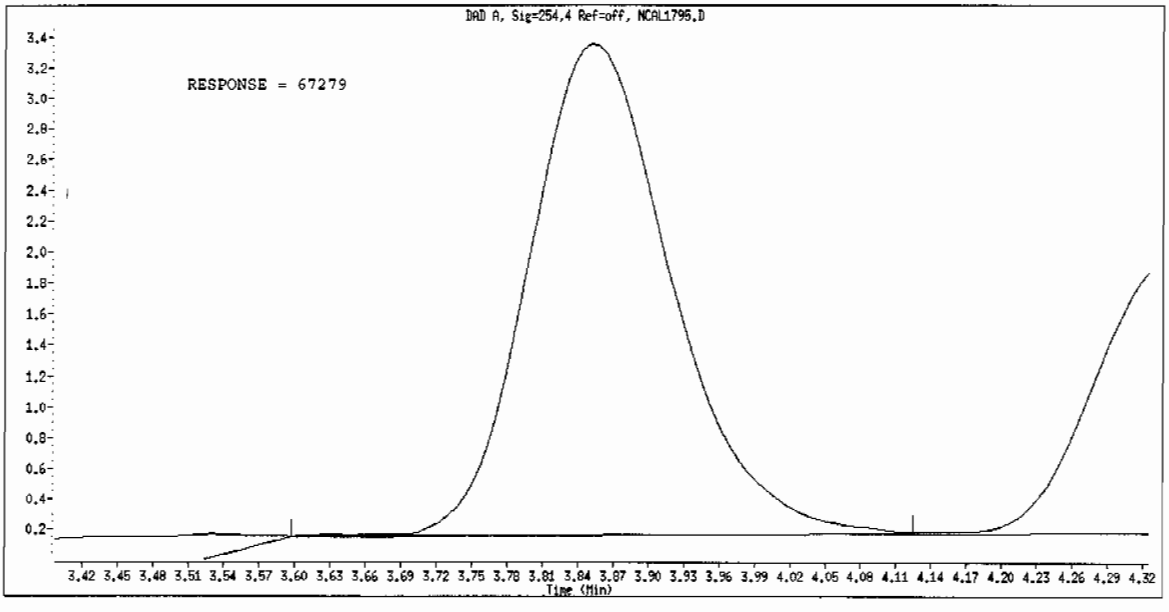

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NCAL1795.D
Inj. Date and Time: 29-DEC-2009 15:07
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: DNX
CAS #:

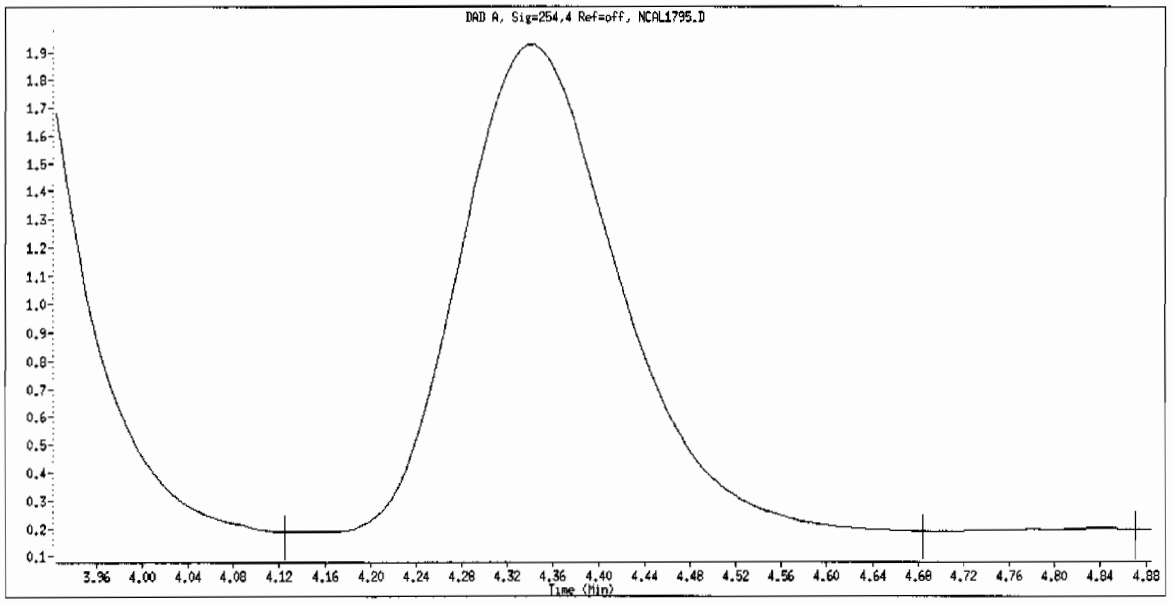

Original Integration

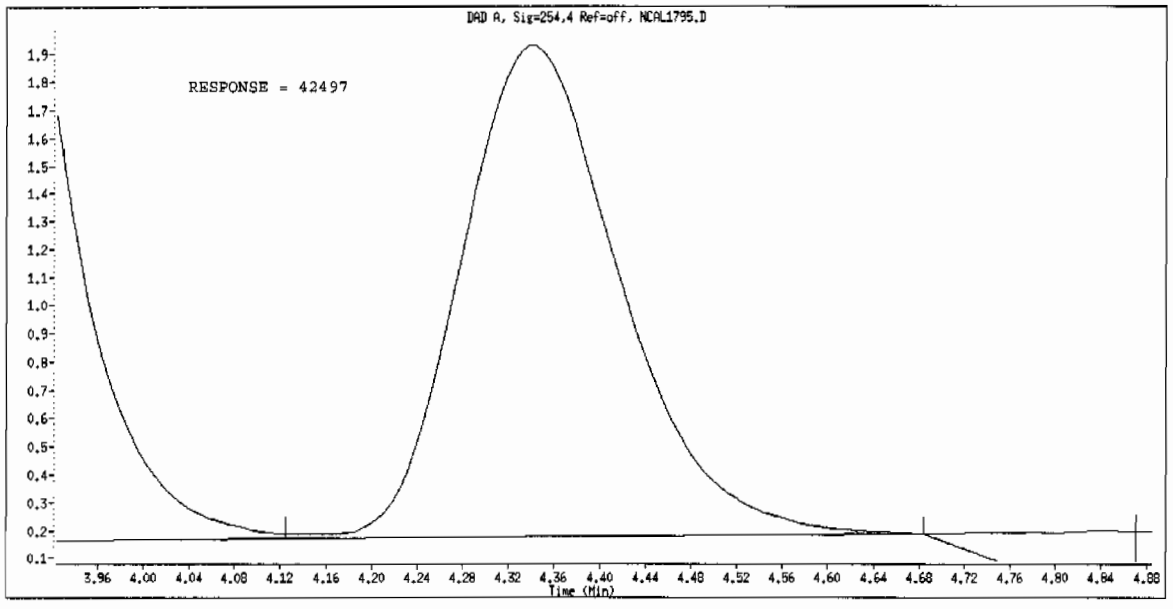

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NCAL1795.D
Inj. Date and Time: 29-DEC-2009 15:07
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: MNX
CAS #:

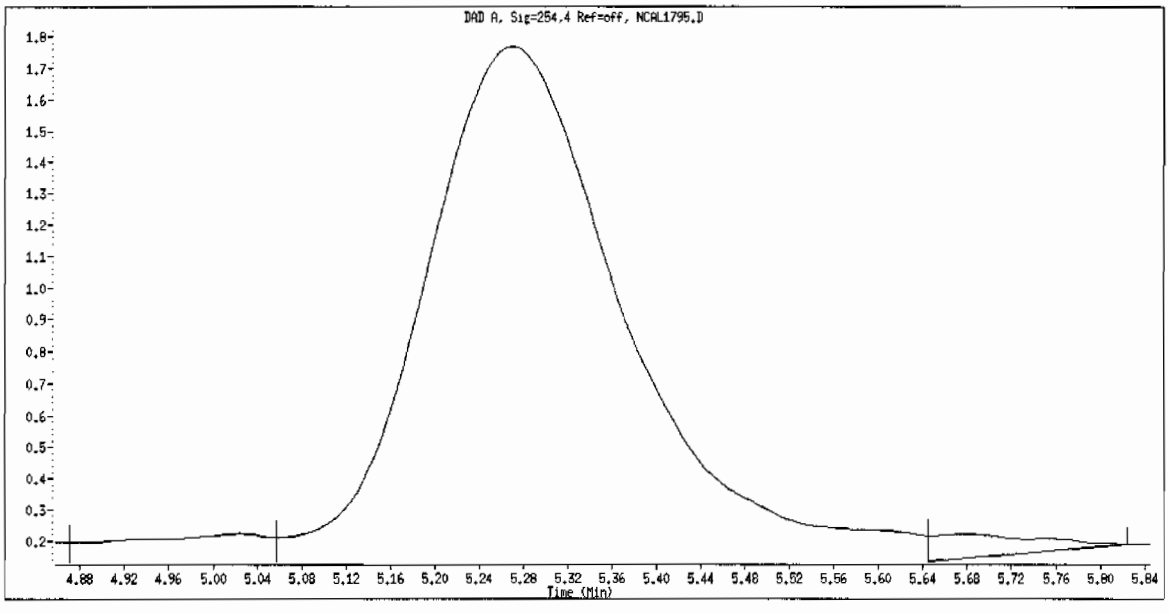

Original Integration

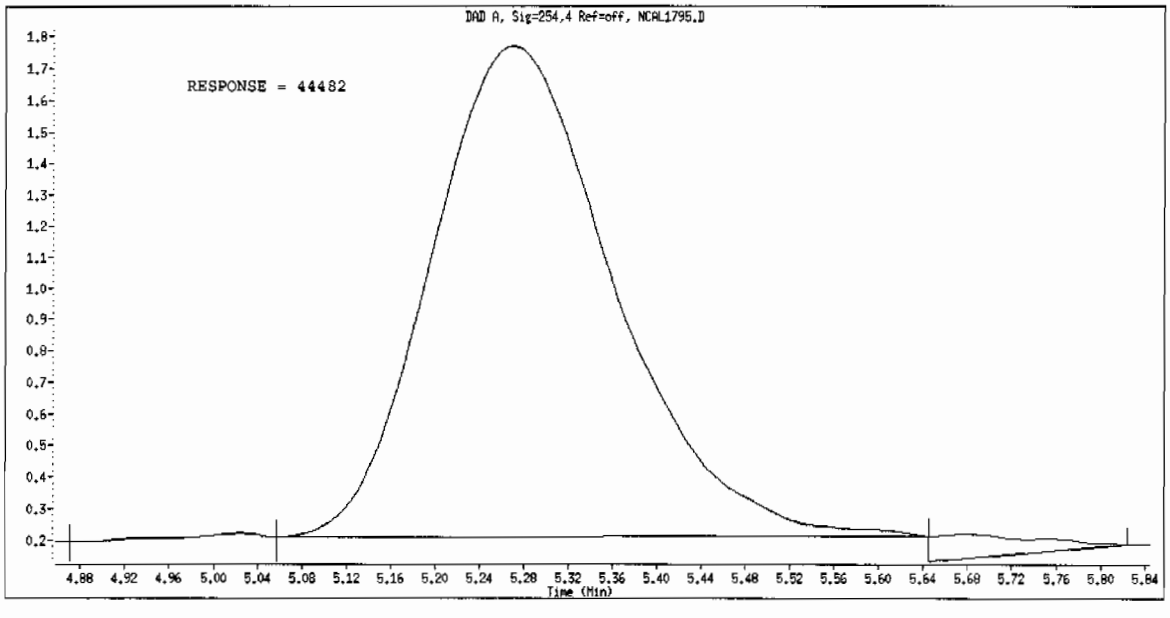

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

HPLC RAW SAMPLE DATA

Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NSMP1792.D
Report Date: 04-Jan-2010 13:52

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N122909B.b\NSMP1792.D
Lab Smp Id: LQ8X01AC Client Smp ID: CAPA-10-6818
Inj Date : 29-DEC-2009 14:25
Operator : WH Inst ID: Lcn.i
Smp Info : LQ8X01AC
Misc Info : F9L170499-001
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N122909B.b\C18XNX.m
Meth Date : 30-Dec-2009 09:08 flakera Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
$ 4 1,2-Dinitrobenzene	8.784	8.706	0.078	316133	610.606	6.106

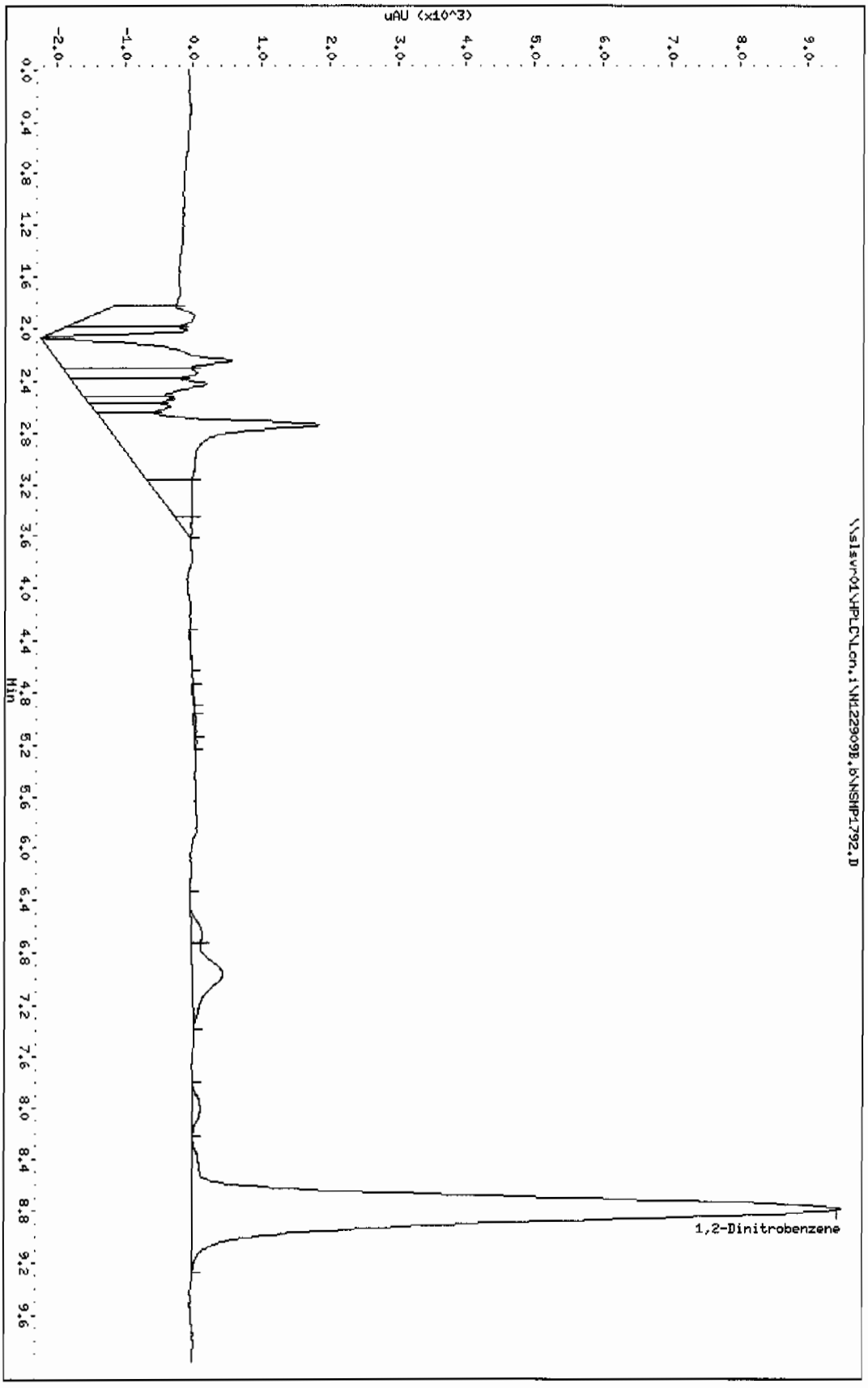
Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NSMP1792.D
Date : 29-DEC-2009 14:25
Client ID: CAPA-10-6818
Sample Info: LQ8X01AC
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn.i
Operator: WH
Column diameter: 4.60
\\slsvr01\HPLC\Lcn.i\N122909B.b\NSMP1792.D
uAU (x10^3)
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
-1.0
-2.0
Min
0.0 0.4 0.8 1.2 1.6 2.0 2.4 2.8 3.2 3.6 4.0 4.4 4.8 5.2 5.6 6.0 6.4 6.8 7.2 7.6 8.0 8.4 8.8 9.2 9.6
1,2-Dinitrobenzene

HPLC RAW QC DATA

Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NBLK1790.D
Report Date: 04-Jan-2010 13:51

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N122909B.b\NBLK1790.D
Lab Smp Id: LRAQN1AA Client Smp ID: LAB BLANK
Inj Date : 29-DEC-2009 13:57
Operator : WH Inst ID: Lcn.i
Smp Info : LRAQN1AA
Misc Info : F9L180000-181B
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N122909B.b\C18XNX.m
Meth Date : 30-Dec-2009 09:08 flakera Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
$ 4 1,2-Dinitrobenzene	8.794	8.706	0.088	306658	592.305	5.923

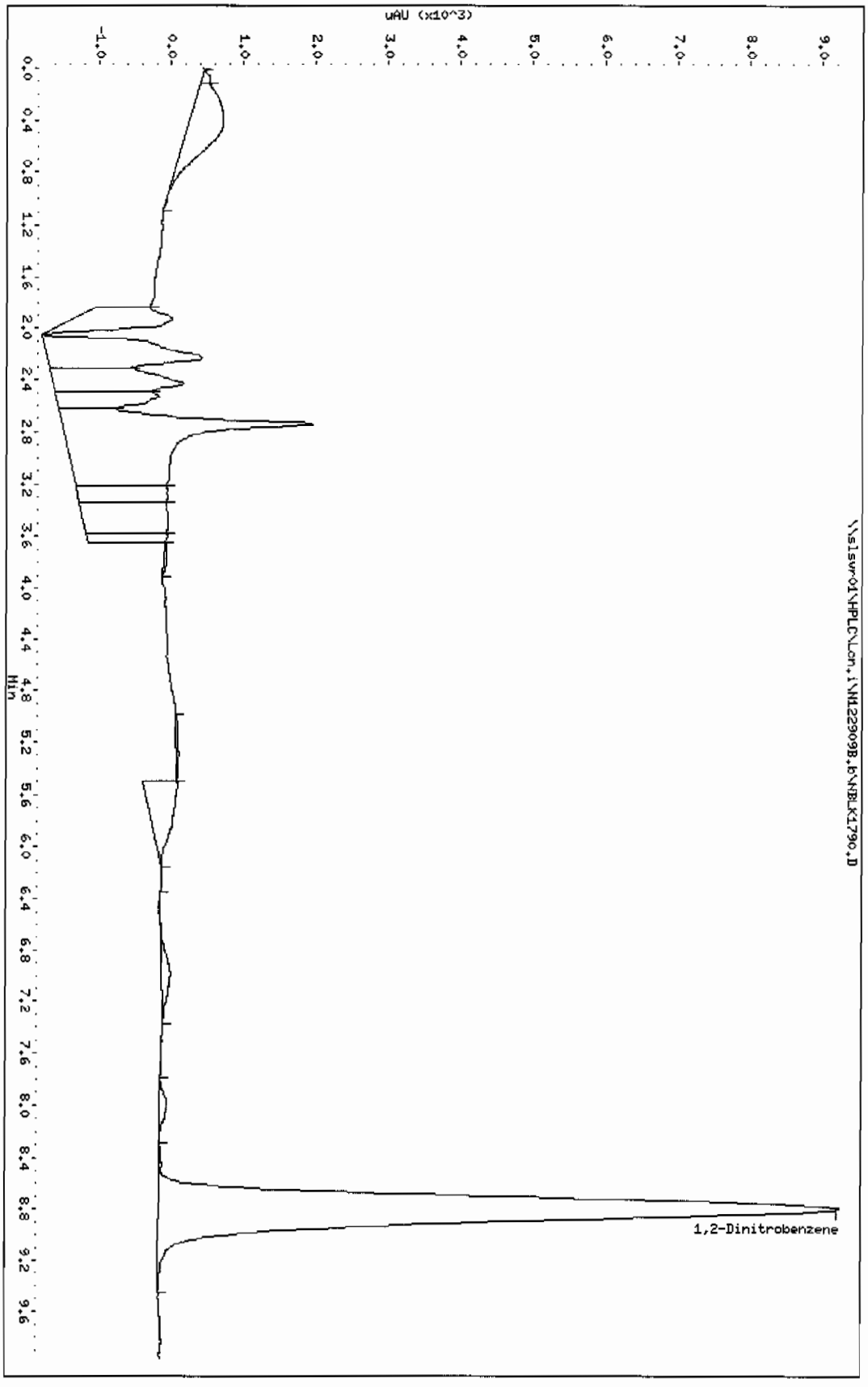
Data File: \\slsvr01\HPLC\Lcn.i\NH122909B.b\NBLK1790.D
Date : 29-DEC-2009 13:57
Client ID: LAB BLANK
Sample Info: LRAQN1AA
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn.i
Operator: WH
Column diameter: 4.60
\\slsvr01\HPLC\Lcn.i\NH122909B.b\NBLK1790.D
uAU (x10^3)
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
-1.0
0.0 0.4 0.8 1.2 1.6 2.0 2.4 2.8 3.2 3.6 4.0 4.4 4.8 5.2 5.6 6.0 6.4 6.8 7.2 7.6 8.0 8.4 8.8 9.2 9.6
Min
1,2-Dinitrobenzene

Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NLCS1791.D
Report Date: 04-Jan-2010 13:52

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N122909B.b\NLCS1791.D
Lab Smp Id: LRAQN1AC Client Smp ID: LAB CHECK
Inj Date : 29-DEC-2009 14:11
Operator : WH Inst ID: Lcn.i
Smp Info : LRAQN1AC
Misc Info : F9L180000-181C
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N122909B.b\C18XNX.m
Meth Date : 30-Dec-2009 09:08 flakera Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 TNX	3.852	3.837	0.015	37470	57.9092	0.5791(M)
2 DNX	4.339	4.324	0.015	26980	42.8286	0.4283(M)
3 MNX	5.272	5.239	0.033	29373	59.5205	0.5952(M)
$ 4 1,2-Dinitrobenzene	8.783	8.706	0.077	349241	674.554	6.746

QC Flag Legend

M - Compound response manually integrated.

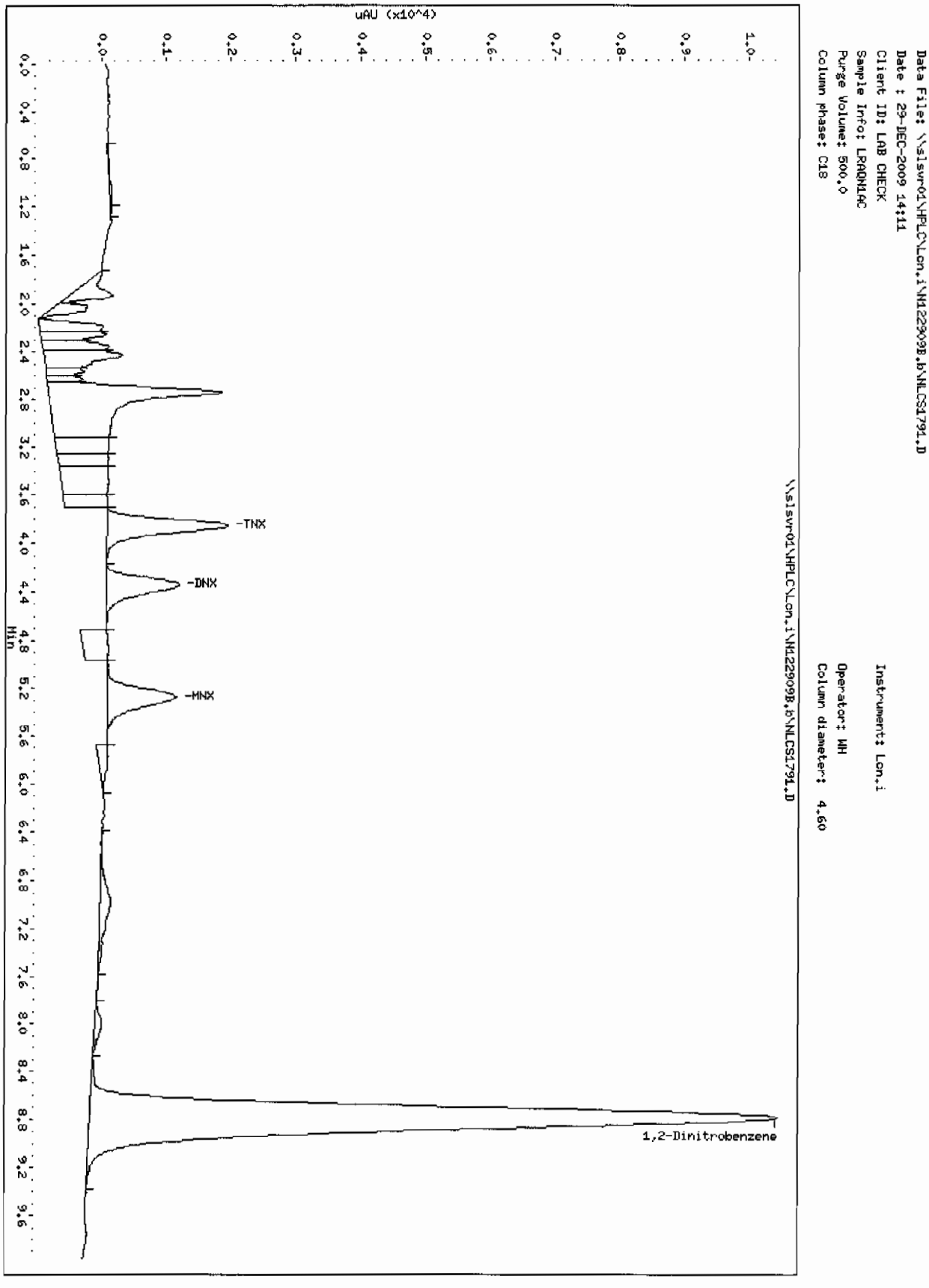
Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NLCS1791.D
Date : 29-DEC-2009 14:11
Client ID: LAB CHECK
Sample Info: LRAQN1AC
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn.i
Operator: WH
Column diameter: 4.60
\\slsvr01\HPLC\Lcn.i\N122909B.b\NLCS1791.D
uAU (x10^4)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
-TNX
-DNX
-MNX
1,2-Dinitrobenzene
Min
0.0 0.4 0.8 1.2 1.6 2.0 2.4 2.8 3.2 3.6 4.0 4.4 4.8 5.2 5.6 6.0 6.4 6.8 7.2 7.6 8.0 8.4 8.8 9.2 9.6

Data File Name: NLCS1791.D
Inj. Date and Time: 29-DEC-2009 14:11
Instrument ID: Lcn.i
Client ID: LAB CHECK
Compound Name: TNX
CAS #:

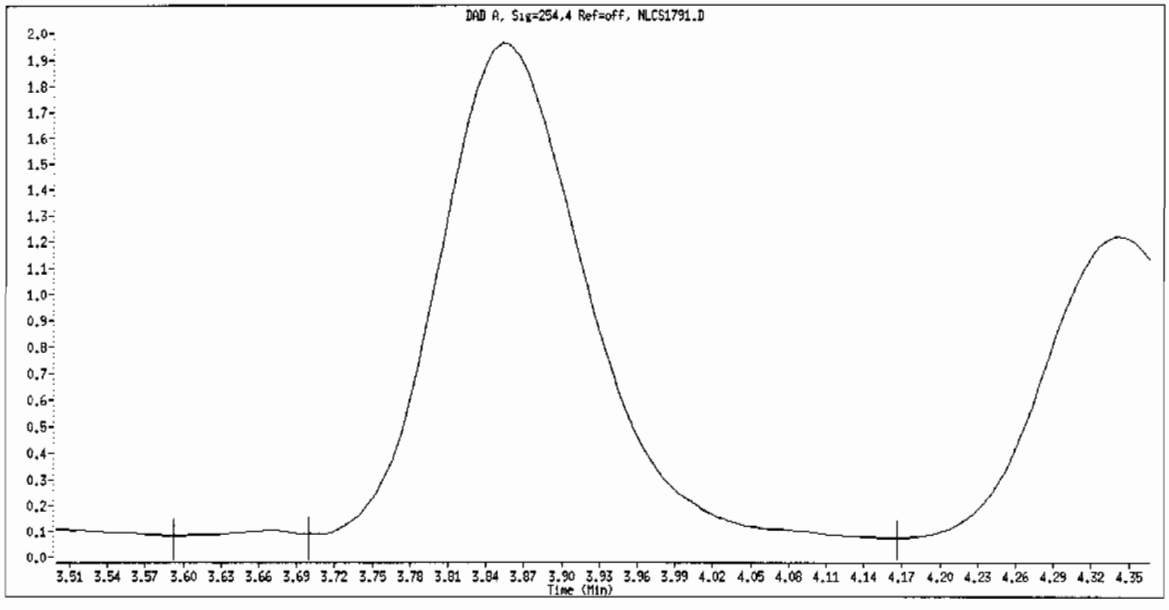

Original Integration

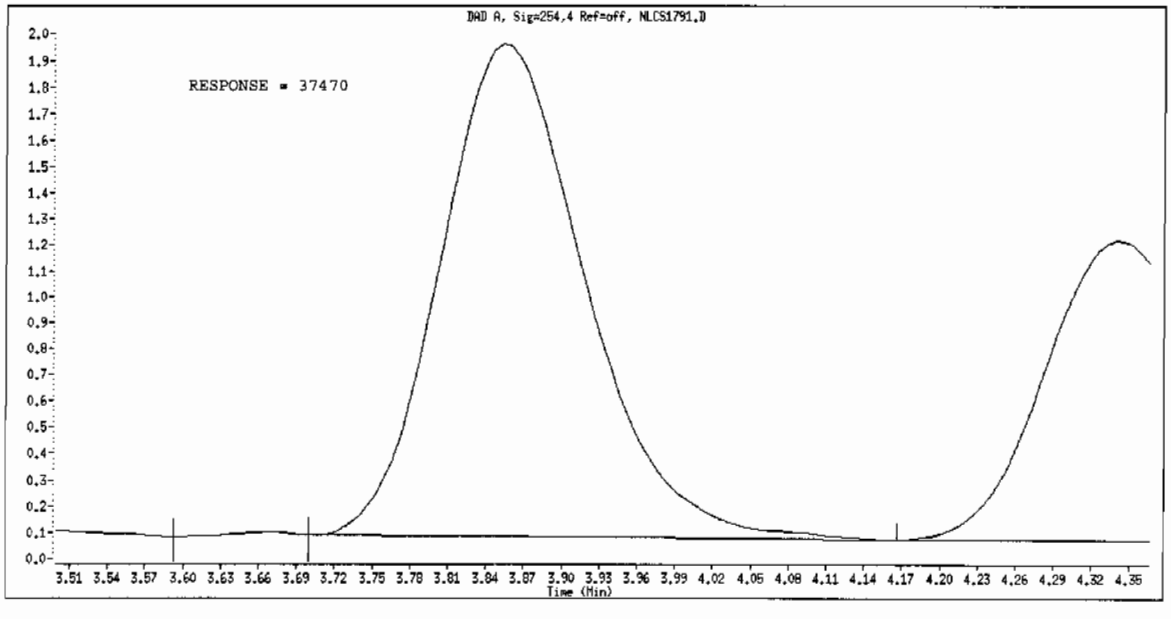

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NLCS1791.D
Inj. Date and Time: 29-DEC-2009 14:11
Instrument ID: Lcn.i
Client ID: LAB CHECK
Compound Name: DNX
CAS #:

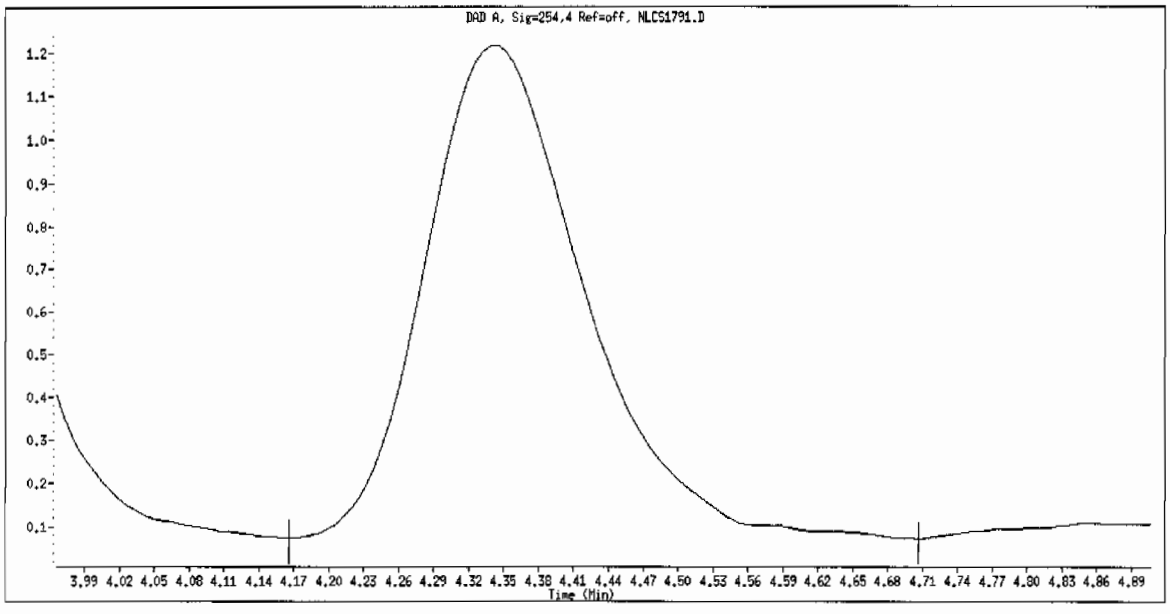

Original Integration

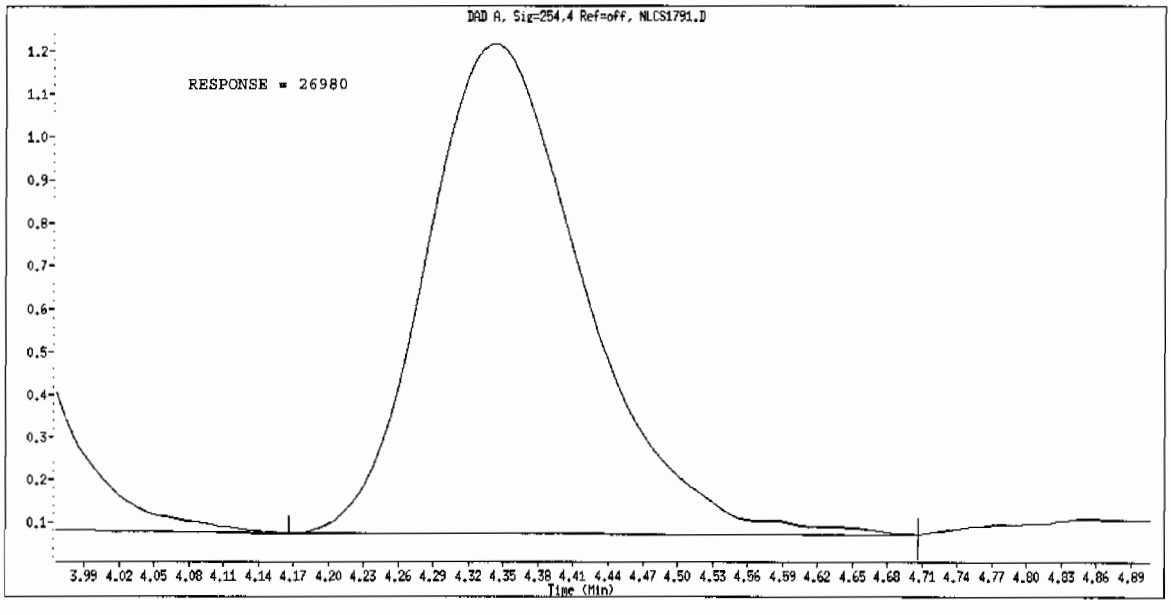

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NLCS1791.D
Inj. Date and Time: 29-DEC-2009 14:11
Instrument ID: Lcn.i
Client ID: LAB CHECK
Compound Name: MNX
CAS #:

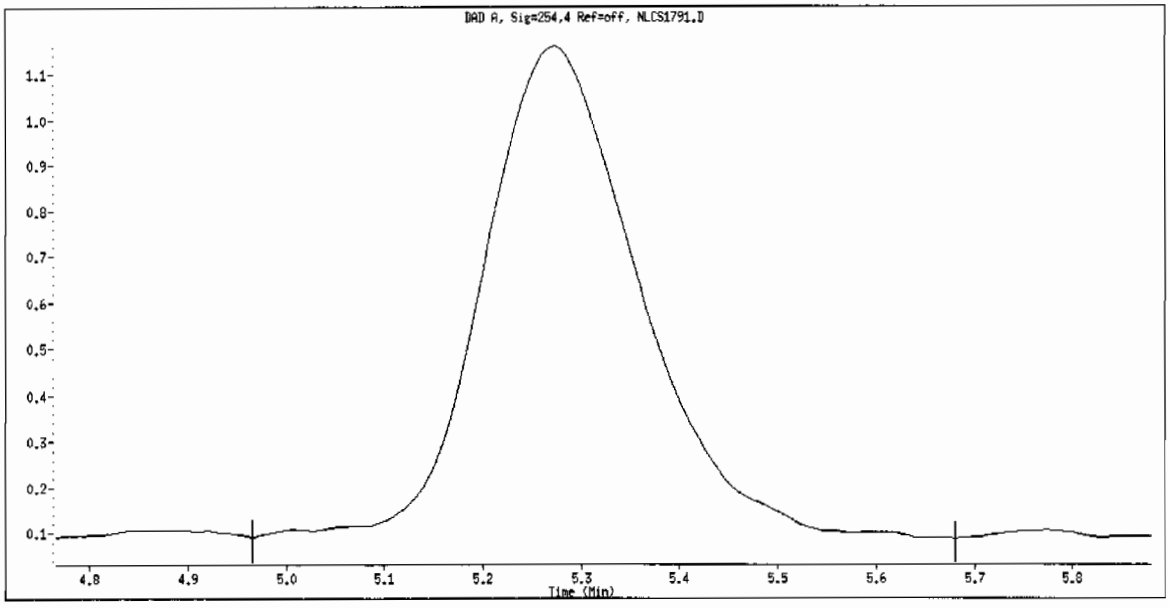

Original Integration

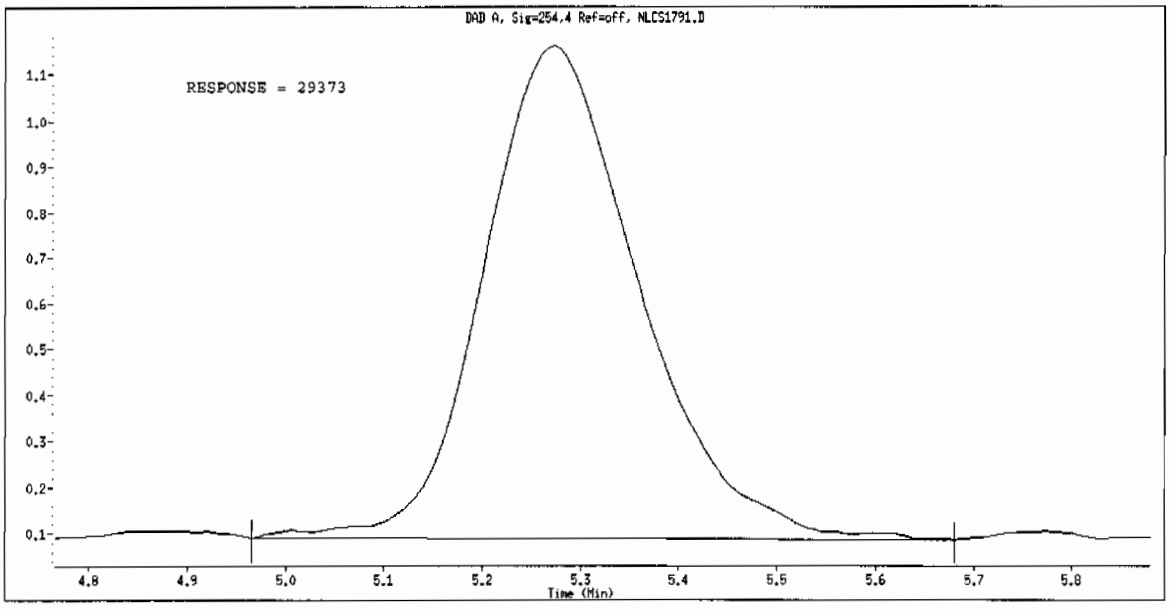

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NSMP1793.D
Report Date: 04-Jan-2010 13:54

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N122909B.b\NSMP1793.D
Lab Smp Id: LQ8X01AD Client Smp ID: CAPA-10-6818S
Inj Date : 29-DEC-2009 14:39
Operator : WH Inst ID: Lcn.i
Smp Info : LQ8X01AD
Misc Info : F9L170499-001S
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N122909B.b\C18XNX.m
Meth Date : 04-Jan-2010 13:52 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 TNX	3.859	3.837	0.022	40310	62.2984	0.6230(M)
2 DNX	4.345	4.324	0.021	26444	41.9777	0.4198(M)
3 MNX	5.279	5.239	0.040	29679	60.1406	0.6014(M)
$ 4 1,2-Dinitrobenzene	8.785	8.706	0.079	343026	662.549	6.625

QC Flag Legend

M - Compound response manually integrated.

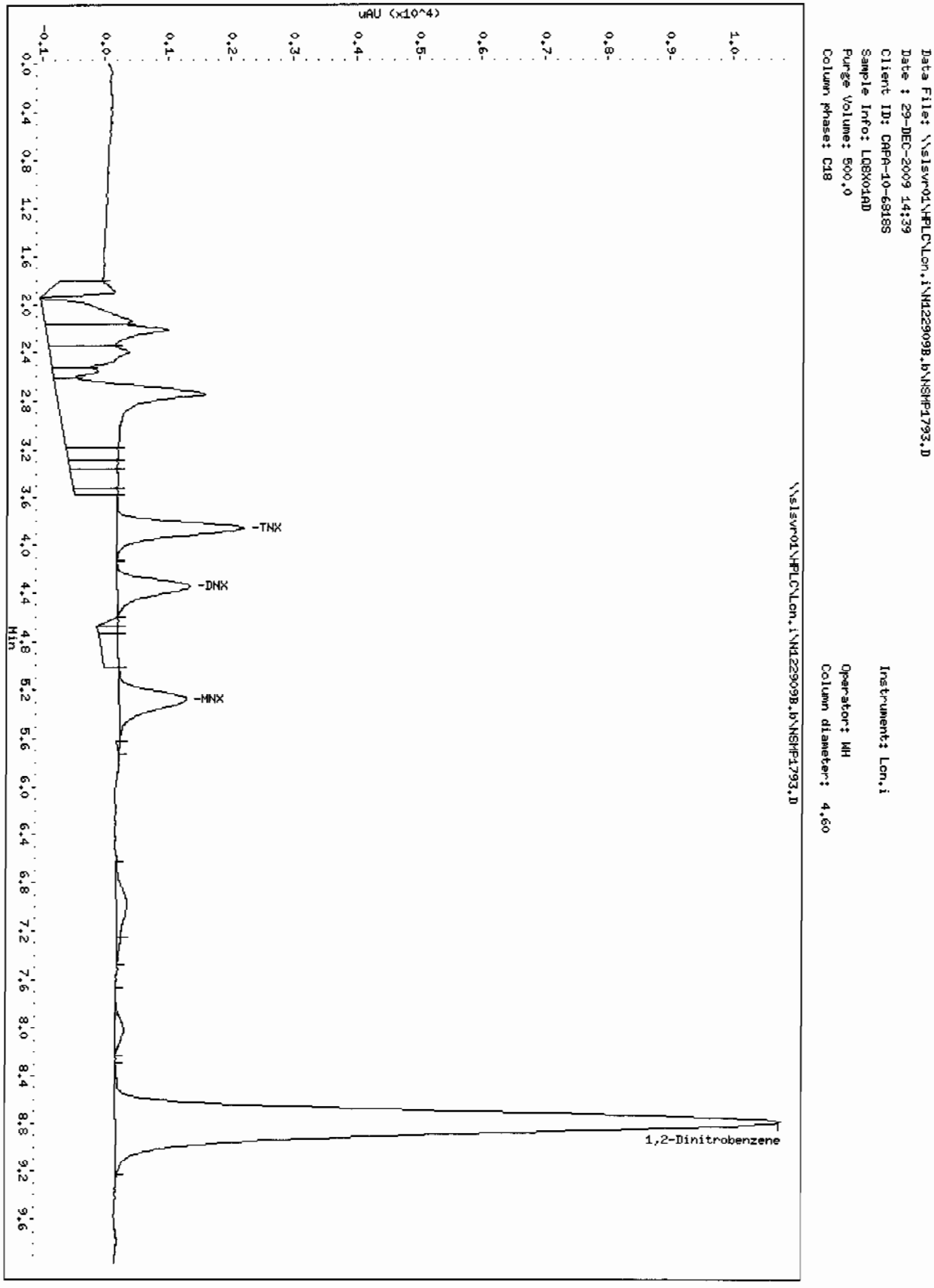
Data File: \\slsvr01\HPLC\Lon.i\M122909B.b\NSMP1793.D
Date : 29-DEC-2009 14:39
Client ID: CAFA-10-6818S
Sample Info: LQBXQ1AD
Purge Volume: 500.0
Column phase: C18
Instrument: Lon.i
Operator: MH
Column diameter: 4.60
\\slsvr01\HPLC\Lon.i\M122909B.b\NSMP1793.D
uAU (x10^4)
-TNX
-DNX
-MNX
1,2-Dinitrobenzene
Min

Data File Name: NSMP1793.D
Inj. Date and Time: 29-DEC-2009 14:39
Instrument ID: Lcn.i
Client ID: CAPA-10-6818S
Compound Name: TNX
CAS #:

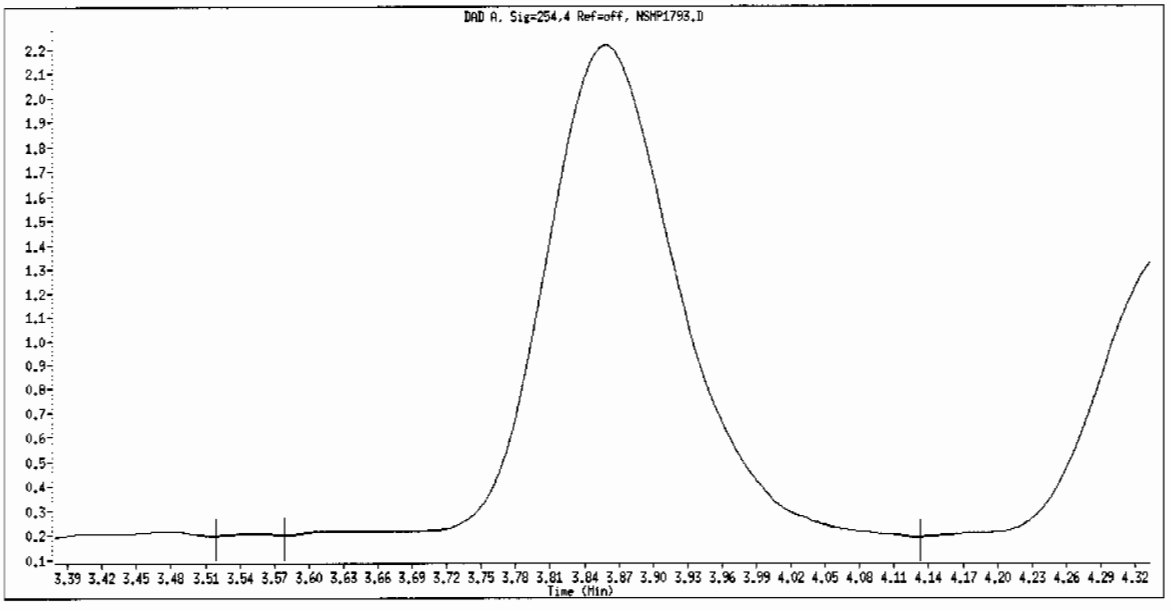

Original Integration

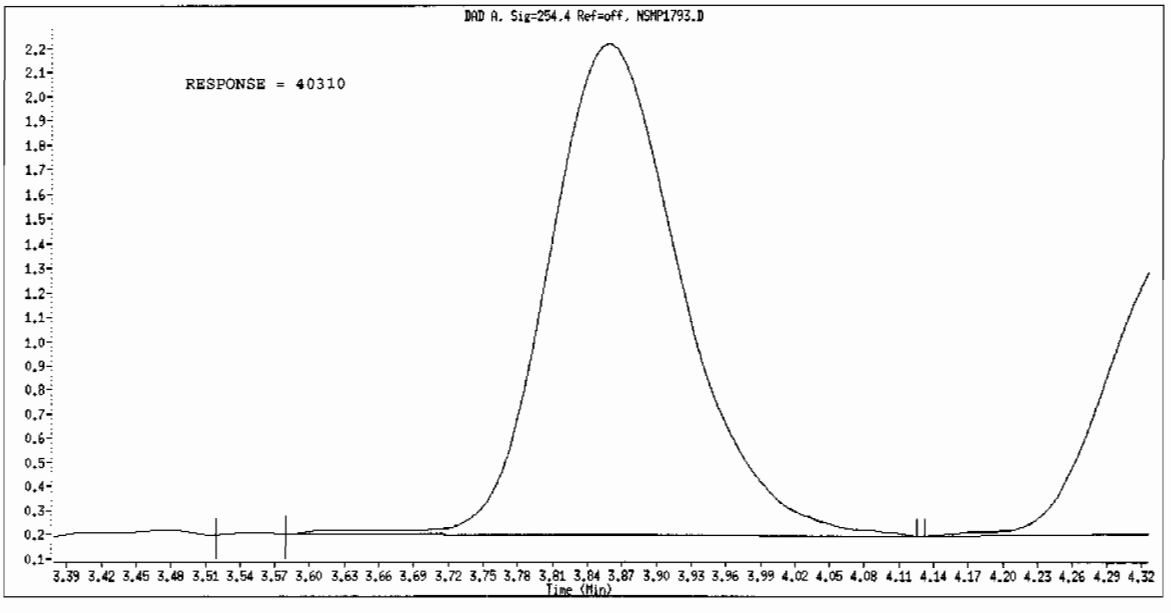

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NSMP1793.D
Inj. Date and Time: 29-DEC-2009 14:39
Instrument ID: Lcn.i
Client ID: CAPA-10-6818S
Compound Name: DNX
CAS #:

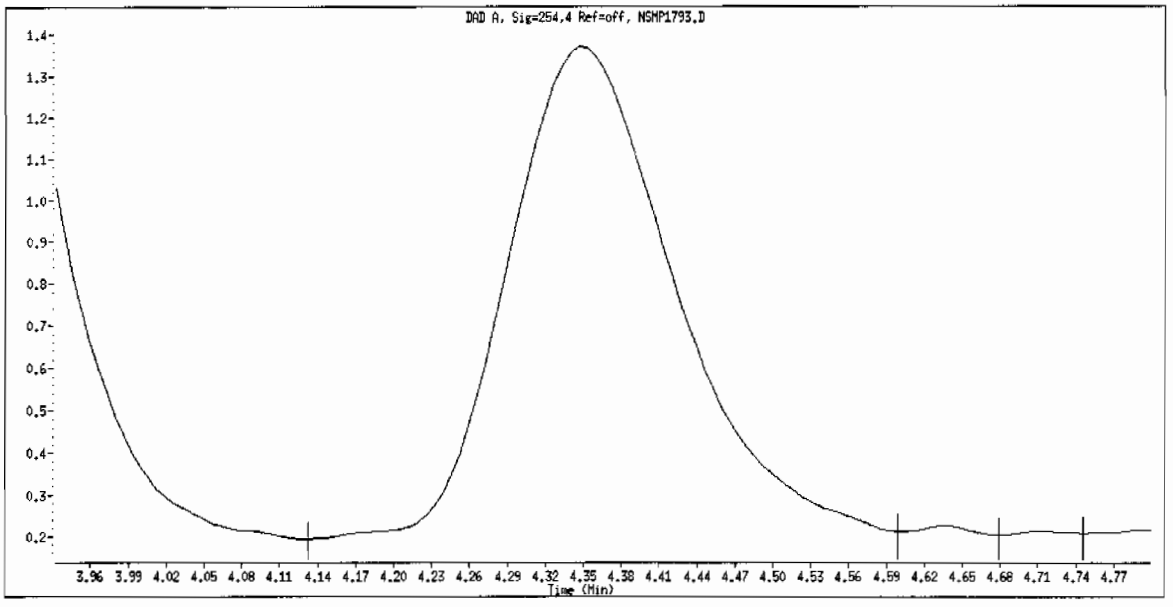

Original Integration

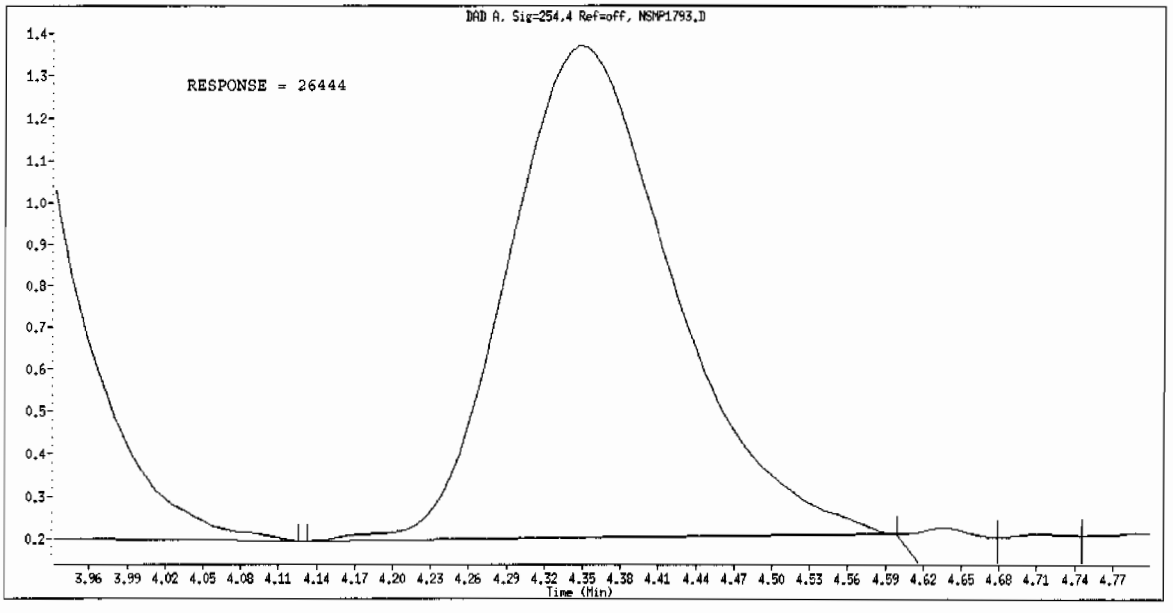

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NSMP1793.D
Inj. Date and Time: 29-DEC-2009 14:39
Instrument ID: Lcn.i
Client ID: CAPA-10-6818S
Compound Name: MNX
CAS #:

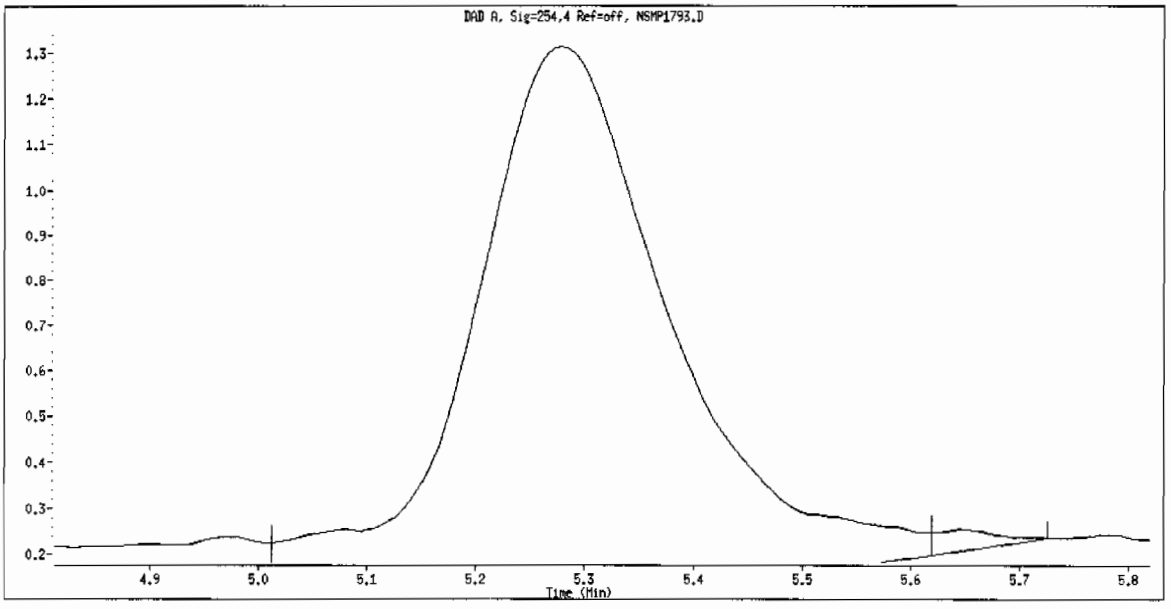

Original Integration

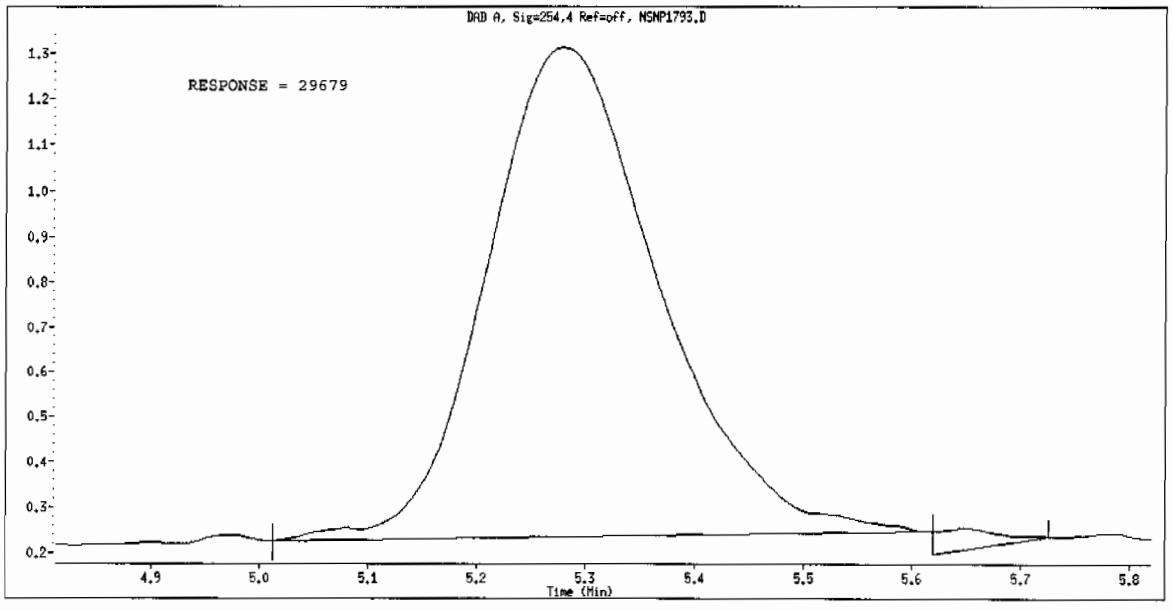

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N122909B.b\NSMP1794.D
Report Date: 04-Jan-2010 13:58

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N122909B.b\NSMP1794.D
Lab Smp Id: LQ8X01AE Client Smp ID: CAPA-10-6818D
Inj Date : 29-DEC-2009 14:53
Operator : WH Inst ID: Lcn.i
Smp Info : LQ8X01AE
Misc Info : F9L170499-001D
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N122909B.b\C18XNX.m
Meth Date : 04-Jan-2010 13:52 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 TNX	3.857	3.837	0.020	43864	67.7910	0.6779(M)
2 DNX	4.343	4.324	0.019	28657	45.4907	0.4549(M)
3 MNX	5.277	5.239	0.038	33040	66.9512	0.6695(M)
$ 4 1,2-Dinitrobenzene	8.783	8.706	0.077	351118	678.179	6.782(M)

QC Flag Legend

M - Compound response manually integrated.

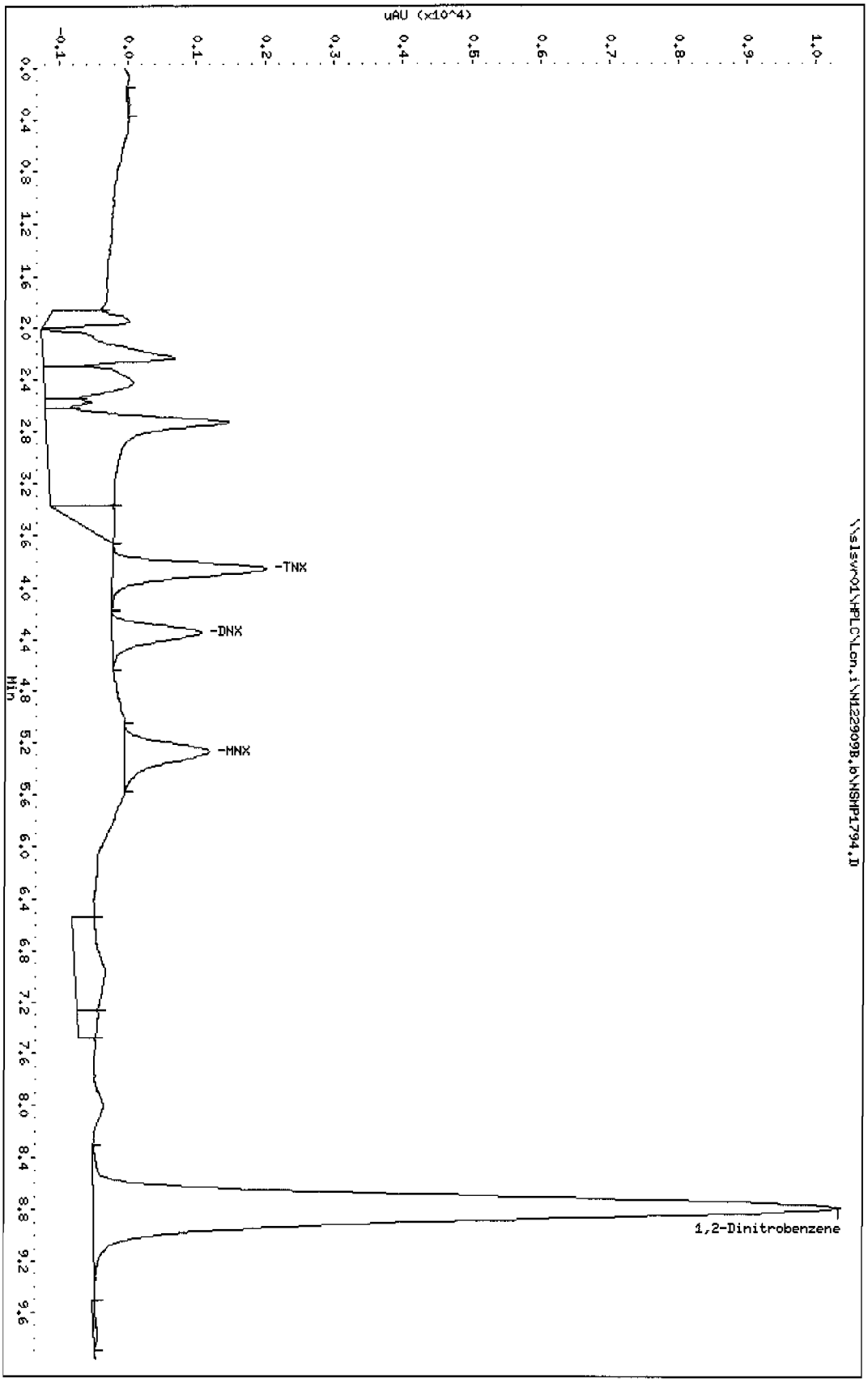
Data File: \\slsvr01\HPLC\Lon.i\N122909B.b\NSMP1794.D
Date : 29-DEC-2009 14:53
Client ID: CAPA-10-68180
Sample Info: LQ8X01AE
Purge Volume: 500.0
Column phase: C18
Instrument: Lon.i
Operator: WH
Column diameter: 4.60
\\slsvr01\HPLC\Lon.i\N122909B.b\NSMP1794.D
uAU (x10^4)
-TNX
-DNX
-MNX
1,2-Dinitrobenzene
Min

Data File Name: NSMP1794.D
Inj. Date and Time: 29-DEC-2009 14:53
Instrument ID: Lcn.i
Client ID: CAPA-10-6818D
Compound Name: TNX
CAS #:

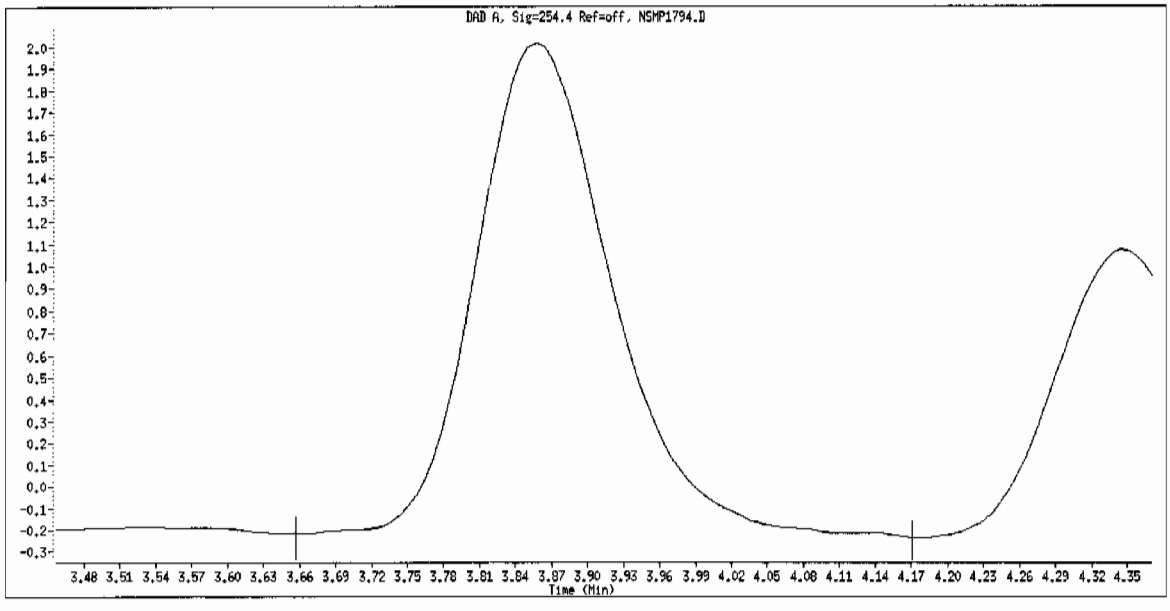

Original Integration

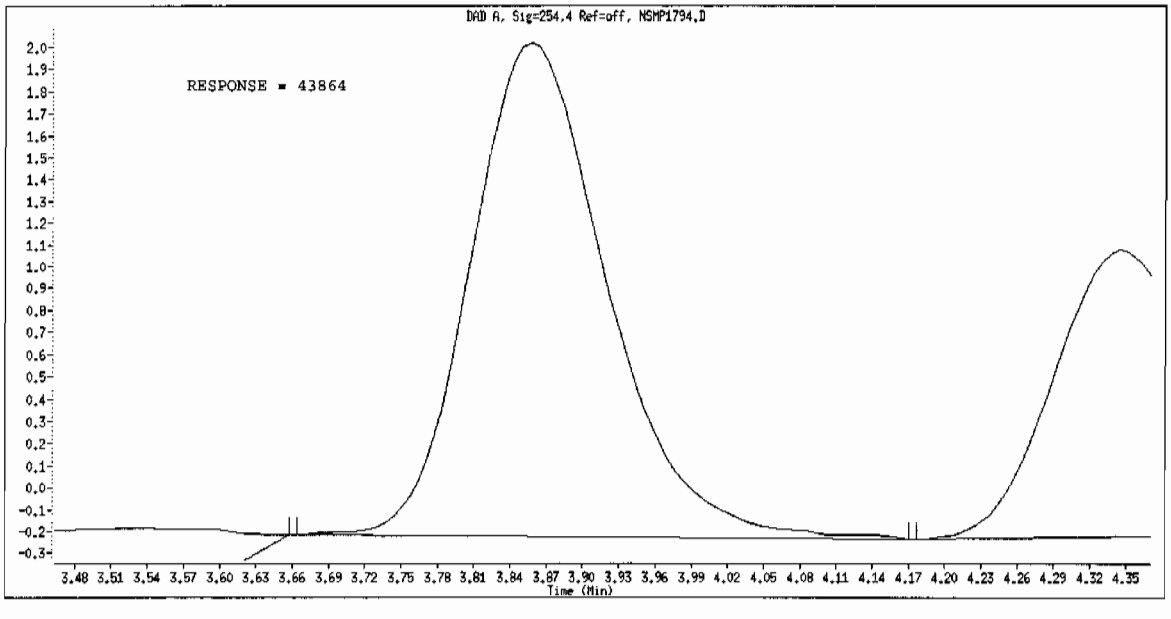

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NSMP1794.D
Inj. Date and Time: 29-DEC-2009 14:53
Instrument ID: Lcn.i
Client ID: CAPA-10-6818D
Compound Name: DNX
CAS #:

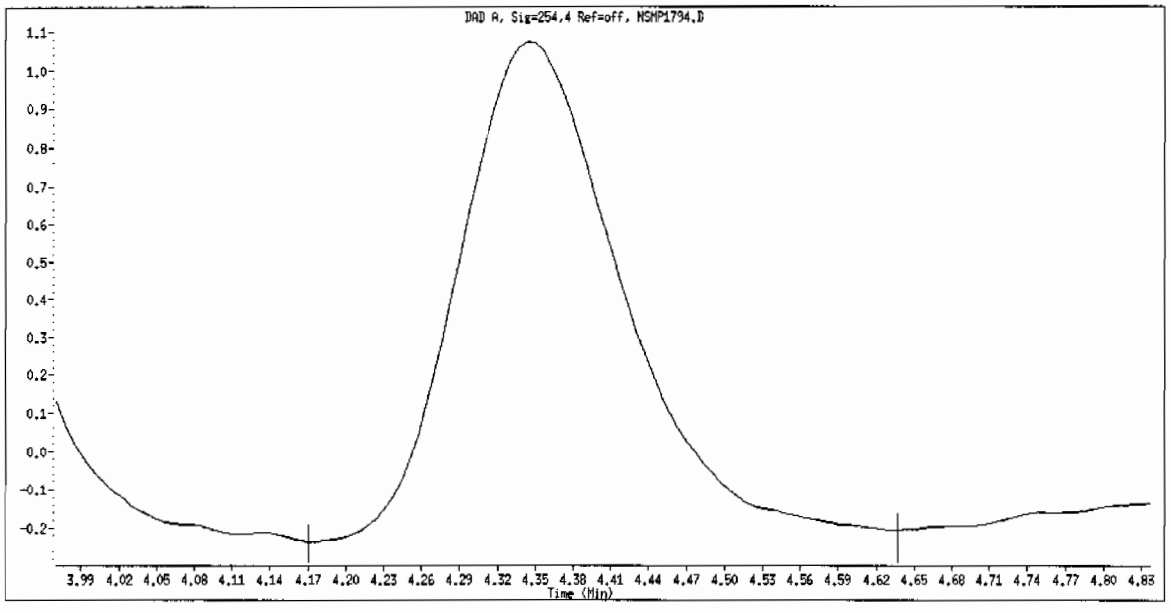

Original Integration

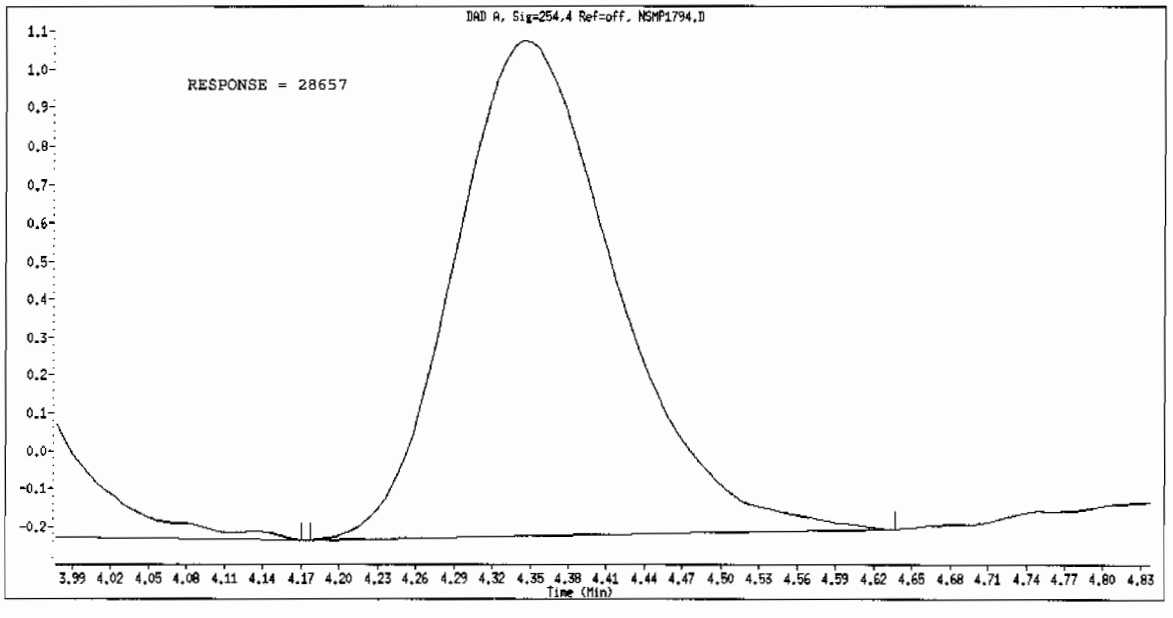

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NSMP1794.D
Inj. Date and Time: 29-DEC-2009 14:53
Instrument ID: Lcn.i
Client ID: CAPA-10-6818D
Compound Name: MNX
CAS #:

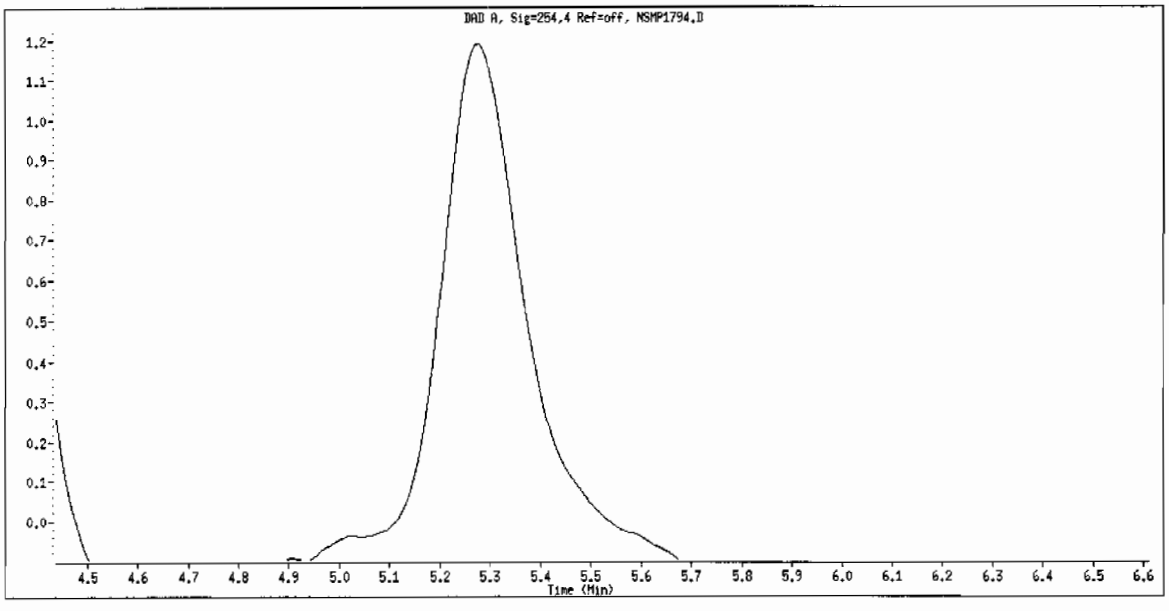

Original Integration

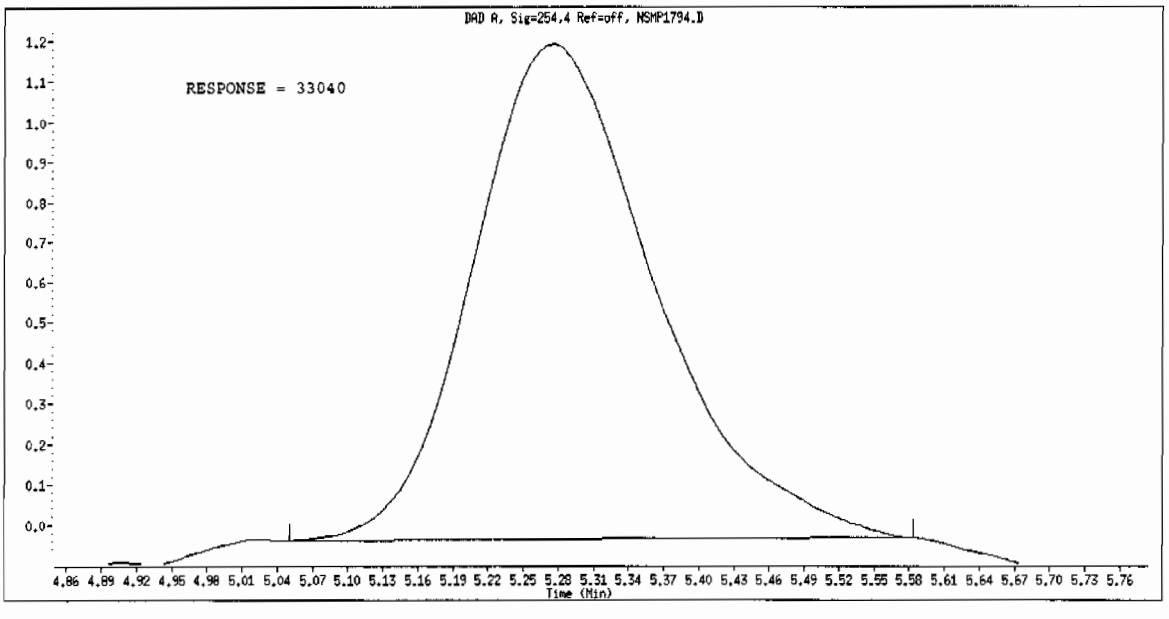

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NSMP1794.D
Inj. Date and Time: 29-DEC-2009 14:53
Instrument ID: Lcn.i
Client ID: CAPA-10-6818D
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

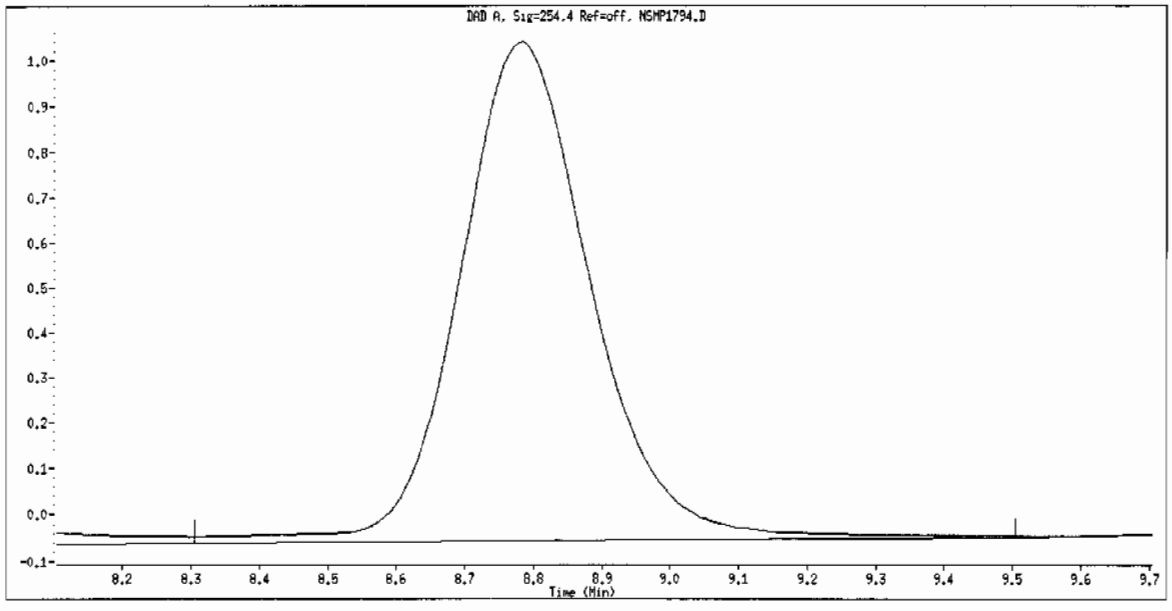

Original Integration

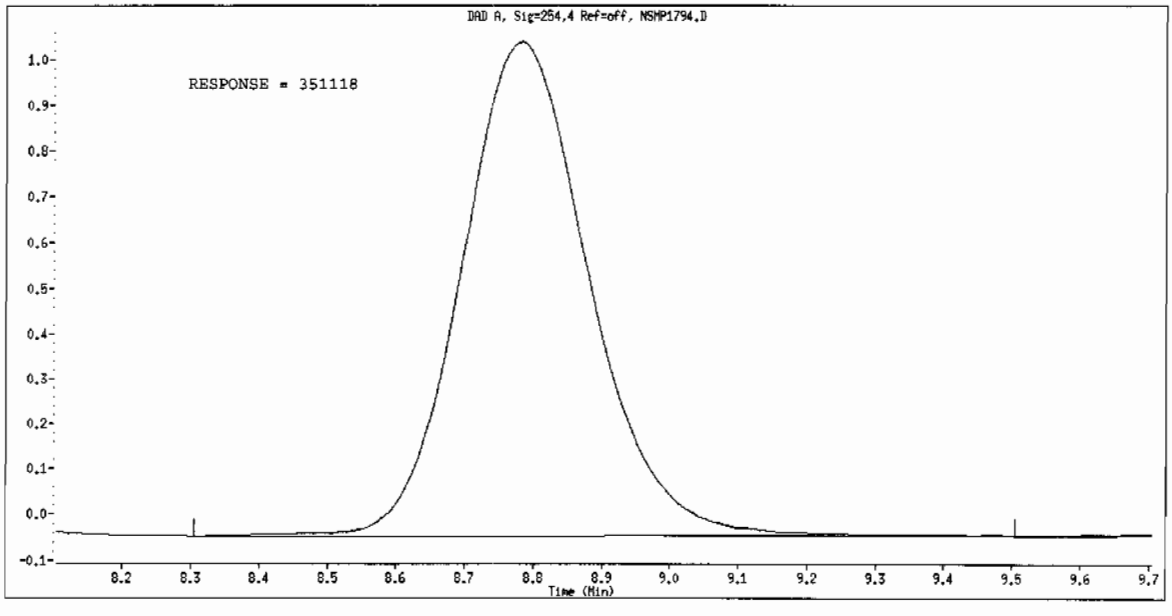

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

HPLC MISCELLANEOUS DATA

LOT # F9L170499

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Organic Prep Report for Batch # 9352181

TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045

N 122909B

Prep Method: SW-846 3535

Prep Description: EXTRACTION, SOLID PHASE

SOP Number: ST-OP-0008

Matrix: WATER

Extraction Date: 12/18/2009

			Initials: JBH				Initials: JBH		Initials:		Initials:	
							Concentration 1		Cleanup 1		Cleanup 2	
Lot Number	WorkOrder No	AnalDueDate	Wt/Vol	pH 1	pH 2	Extr Unit	Volume	Date	Method	Date	Method	Date
F9L170499 - 001	LQ8X01AC	01/07/2010	500 mL				2.5 mL					
F9L170499 - 001D	LQ8X01AE	01/07/2010	500 mL				2.5 mL					
F9L170499 - 001S	LQ8X01AD	01/07/2010	500 mL				2.5 mL					
F9L180000 - 181B	LRAQN1AA		500 mL				2.5 mL					
F9L180000 - 181C	LRAQN1AC		500 mL				2.5 mL					

Spike Information

Name	Standard ID	Exp Date	Vol Added
XNX Prep Spike	GC0382-09	12/19/2009	250 uL
8330 Surrogate	OP2029-09	1/16/2010	100 uL

Spiking verified by: CAL

Miscellaneous Information

Start: Stop:

Extr 1:

Extr 2:

Conc Method:

Conc Temp C:

Chemical Lot Information

Chemical	Lot Number
Acetonitrile	G50343
RDX Columns	P2755

Comments:

Custody Information

Relinquished By: JBH Review/Received By: AF Date of Transfer: 12/18/09

QC Suffix: B=reagent blank, C=lab control sample, L=lab control sample duplicate, X=sample duplicate, S=matrix spike, D=matrix spike duplicate

PrepSheet Generator 1.26, updated 11/14/2008

TESTAMERICA ST. LOUIS

100000102

Logbook No.: 3311 Instrument ID No.: LCN

TestAmerica St. Louis
HPLC Runlog

#	Data File	Clock	Lab I.D.	Dil.	STD#	Date	Oper.	Matrix	Method
1	NLCS 1303	N112509	LNQGFIAC		GC0384-09	11/25/09	WH/AF	~~NEW~~ SOIL	8330
2	NCAL 1304		8330 CCAL						
3	NSBK 1305		FLUSH		—				
4	1306								
5	1307								
6	1308								
7	1309								
8	1310								
9	1311								
10	NSBK 1312	N112509			—				
11	NSBK 1313				—				
12	NICL 1314		XNX-ICAL-3		GC0387-09		WH/AF	W	XNX
13	1315		-4						
14	1316		-5						
15	1317		-6						
16	1318		-7						
17	1319		-8						
18	NICV 1320		XNX ICV		GC0387-09				
19	NCAL 1321		XNX CCAL		GC0387-09				
20	NBLK 1322		LPJT8IAAB		—	12-2-09			
21	NLCS 1323		IACC						
22	NSMP 1324		LN84NIAC						
23	1325		IAD						
24	1326		IAE						
25	1327		LN84RIAC						
26	1328		LPH6MIAC						
27	1329		LPH6PIAC						
28	NBLK 1330		LN8EJIAA						
29	NSBK 1330		SBK		—				
30	NCAL 1331		XNX CCAL		GC0387-09				
31	NBLK 1332		LN8EJIAA		—	11/27/09			
32	NLCS 1333		IAC						
33	NSMP 1334		LNONG1AC						
34	1335		IAF						
35	1336		IAG		—				

Review documented on next page. Form: SL-ORG-0008, Rev. 1/4/05

QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Contol Sample Duplicate; S = Matrix Spike; D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard. SOP References: STL-GC-0017 Rev 11

Logbook No.: 3311 Instrument ID No.: LCN

TestAmerica St. Louis
HPLC Runlog

Batch #	Comments		#
9307388	F9K030000 - 388 C	OK	1
		OK	2
		—	3
			4
			5
			6
			7
			8
			9
		—	10
		OK	11
	XNX ICAL	OK	12
		OK	13
		OK	14
		OK	15
		OK	16
		OK	17
	XNX ICV	OK	18
		OK	19
9320111	F9K160000 - 111B ~~File # duplicated~~	OK	20
	- 111C File # duplicated	OK	21
	F9K110519 - 001	OK	22
	-001 S	OK	23
	-001 D	OK	24
	-002	OK	25
	F9K140506 - 001	OK	26
	- 002	OK	27
9315181	F9K110000 - 181 B Not Needed	~~OK~~	28
		—	29
		OK	30
9315181	F9K110000 - 181B	OK	31
	- 181C	OK	32
	F9K060412 - 001 MNX C	OK	33
	-001S	OK	34
	-001D	OK	35

Reviewed By: Lannis Hampton 12/1/09 11/30/09

Form: SL-ORG-0008, Rev. 1/4/05

QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Contol Sample Duplicate; S = Matrix Spike; D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard. SOP References: STL-GC-0017 Rev 11

Logbook No.: 3311 | Instrument ID No.: LCN

TestAmerica St. Louis
HPLC Runlog

#	Data File	Clock	Lab I.D.	Dil.	STD#	Date	Oper.	Matrix	Method
1	NSMP 1780	N122909	LQONO2AC			12/29/09	AF	W	XNX
2	1781		LRCRQIAC						
3	NCAL 1782	N122909B	XNX CCAL	16x	GC428 09	12/29/09	AF	W	XNX
4	NBLK 1775		LRGV9IAA						
5	NLCS 1776		LRGV9IAC						
6	NSMP 1777		LQONR2AC						
7	1778		LQONV2AC						
8	1779		LQONO2AC						
9	1780		LRCRQIAC						
10	1781		IAD						
11	1782		IAE						
12	1783		LRCRO1AC						
13	1784		LRCR91AC						
14	NCAL 1785		XNX CCAL	16x	GC428-09				
15	NSMP 1786		LRCTA1AC						
16	1787		LREE9IAC						
17	1788		LREFDIAC						
18	1789		LREFEIAC						
19	NBLK 1790		LRAQNIAA						
20	NLCS 1791		IAC						
21	NSMP 1792		LQ8XO1AC						
22	1793		IAD						
23	1794		IAE						
24	NCAL 1795		XNX CCAL	16x	GC428-09				
25	NSBK 1796		Flush						
26	NSBK 1797	N123109	SBK						
27	NCAL 1798		8330 CCAL	2X	GC 425-09	12/31/09	AF	W	8330
28	NBLK 1799		LRRWWIAA						
29	NSMP 1800		LNN3T1AA						
30	NSMP 1801		LNN3T1AA						
31	NCAL 1802		8330 CCAL	2X	GC425-09				
32	NSBK 1803		Flush						
33									
34									
35			AF 1-4-10						

Review documented on next page.
QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Contol Sample Duplicate; S = Matrix Spike; D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard.

Form: SL-ORG-0008, Rev. 1/4/05 | 91

SOP References: STL-GC-0017, current revisions.

Logbook No.: 3311 | Instrument ID No.: LCN

TestAmerica St. Louis
HPLC Runlog

#	Batch #	Comments	
1	9356248	F9L1105568-003 } data file duplicated	RR, DNR
2		F9L180535-001 }	RR, DNR
3			
4	9356248	~~F9L220248B~~ F9L220000-248B	
5		F9L220000-248C	
6		F9L1105568-001 confirmation only	DNR
7		-002 " "	DNR
8		-003 " "	DNR
9		F9L180535-001	
10		001S	
11		001D	
12		-002	
13		-003	
14			OK
15		F9L180535-004	
16		F9L190478-001	
17		-002	
18		-003	
19	9352181	F9L180000-181B	OK
20		-181C	OK
21		F9L170499-001	OK
22		-001S	OK
23		-001D	OK
24			OK
25			
26			
27			
28	9365259	F9L310000-257B	
29		F9K020447-008 spiked at 25ul	
30		-008 " " 50ul	
31			
32			
33			
34			
35		AF 1-4-10	

Reviewed By: [signature] 1/4/10

QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Contol Sample Duplicate; S = Matrix Spike; D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard.

Form: SL-ORG-0008, Rev. 1/4/05 | 92

SOP References: STL-GC-0017, current revisions.

Wednesday, December 16, 2009

REQUEST NUMBER: 10-950

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Martha Maier
Alta Analytical Lab Incorporated
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

These Samples are on:
LANL Request Number:10-950
Per Agreement Number:176450010
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/16/2009
TURNAROUND/REPORT DUE: 1/15/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8290	1	CAPA-10-6818	WG	12/15/2009	
		2	CAPA-10-6818	WG	12/15/2009	

Final Page of REQUEST NUMBER 10-950

Wednesday, December 16, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-950

REQUEST NUMBER: 10-950

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Martha Maier

Alta Analytical Lab Incorporated
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

TURNAROUND/REPORT DUE: 1/15/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6818	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6818	2	AMBER GLASS	WSP-8290-D/F	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/16/09	1900				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

Los Alamos National Laboratory

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6817 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/15/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1010	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-41		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / (NA)		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / (NA)

BOREHOLE: YES / NO / (NA) BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

See CAPA-10-6816

COLLECTED BY (PRINT) J Berryhill, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/15/09	(Printed Name)	12/15/09
(Signature) D. Woody	1245	(Signature)	1245
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6818 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/15/09	MEDIA:	WGR	OV
TIME COLLECTED (HH:MM)		1010	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OV	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-41		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2 2	DW 12/15/09	WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
2 2	DW 12/15/09	WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH < 2
2 2	DW 12/15/09	WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
2 2	DW 12/15/09	WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH > 12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH < 2
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	pH < 2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH < 2

SAMPLE DESC:

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH (STV)	Temp (°C)	SC (uS/cm)	DO (mg/L)	Turb (NTU)	ORP mV	Q (gpm)
7.84	21.99	176	4.18	0.66	57.3	2.8

COLLECTED BY (PRINT) J Berryhill, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/15/09	(Printed Name) Sherri Sherwood	12/15/09
(Signature) D. Woody	1245	(Signature) Sherri Sherwood	1245
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6819 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/15/09	MEDIA:	WGR	GW
TIME COLLECTED (HH:MM)		1010	SUB-MEDIA:	UA	
PRS ID:	C-00-011	GW	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-41		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH <2

SAMPLE DESC: QC Sample of CAPA-10-6818

SAMPLE COMMENTS: 2nd full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, D. Woody **REVIEWED BY (PRINT)** J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/15/09	(Printed Name) Sherri Sherwood	12/15/09
(Signature) D. Woody	1245	(Signature) Sherri Sherwood	1245
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5123-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-950 VALIDATION DATE: 02/04/10 LAB CODE: ALTC

CONTRACT LABORATORY NAME: Vista Analytical Laboratory

VALIDATOR: Maryann Jordan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☒ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that laboratory ion abundance limits were used for evaluation of the PeCDD compounds since the laboratory uses an alternate ion for these masses due to interferences.
2. MS/MSD analyses were not performed with the sample from this RN. No sample results were qualified.
3. Precision analysis was not performed with the sample from this RN. No sample results were qualified.
4. The sample was received by the laboratory at a temperature of -0.6° C. No sample results were qualified.

Reviewed by: Allison Felix Level: 1 Date: 2/5/10

VALIDATOR'S SIGNATURE: Maryann Jordan DATE: 02/04/10

DIOXIN/FURAN ANALYTICAL DATA VALIDATION CHECKLIST

5123-2

Dioxin/Furan Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time and qualitative criteria for target compound identification were not met.	R, DF0	R, DF0
☐	☒	☐	2. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF0b	R, DF0b
☐	☒	☐	3. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF1d	R, DF1d
☐	☒	☐	4. The sample result is ≤5 times the concentration of the related analyte in the method blank.	N/A	U, DF4
☐	☒	☐	5. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, DF4a
☐	☐	☒	6. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	N/A	U, DF4d
☐	☒	☐	7. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF4e	R, DF4e
☐	☒	☐	8. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, DF7	J, DF7
☐	☒	☐	9. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria.	UJ, R, DF7a	J, DF7a
☐	☒	☐	10. The affected analytes were analyzed with an out of range ion abundance in the initial calibration and/or CCV.	R, DF7b	R, DF7b
☐	☒	☐	11. The ICV and/or CCV were recovered outside the method specific limits.	UJ, R, DF7c	J, R, DF7c
☐	☒	☐	12. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, DF7d	J, DF7d

DIOXIN/FURAN ANALYTICAL DATA VALIDATION CHECKLIST	
5123-2 Dioxin/Furan Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, DF7f	R, DF7f
☐	☒	☐	14. The affected analyte is considered rejected because the ion abundances did not meet specifications.	N/A	R, DF8
☐	☒	☐	15. The ion abundance documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF8a	R, DF8a
☐	☒	☐	16. If GC column performance was not evaluated at the required frequency or if method criteria were not met, qualify all associated detects as J and all associated non-detects as UJ.	UJ, DF8b	J, DF8b
☐	☐	☒	17. If 2, 3, 7, 8-TCDF was detected in a sample and the result was not confirmed on a second column with successful analysis of the GC column performance mix, qualify all associated detects as U.	N/A	U, DF8c
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, DF9	J-, DF9
☐	☒	☐	19. The holding time was >2 times the applicable holding time requirement.	R, DF9a	J-, DF9a
☐	☒	☐	20. The LCS percent recovery was <10%.	R, DF12	J-, DF12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, DF12a	J-, DF12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, DF12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF12c	R, DF12c

DIOXIN/FURAN ANALYTICAL DATA VALIDATION CHECKLIST	
5123-2 **Dioxin/Furan Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	24. The MS/MSD percent recovery was <10%.	R, DF12d	R, DF12d
☐	☐	☒	25. The MS/MSD percent recovery was >10% but <70%.	UJ, DF12e	J, DF12e
☐	☐	☒	26. The MS/MSD percent recovery was >70%	N/A	J+, DF12f
☐	☐	☒	27. The MS/MSD relative percent difference was >30%.	UJ, DF12g	J, DF12g
☐	☒	☐	28. The fortification sample percent recovery was <10%.	R, DF12h	J-, DF12h
☐	☒	☐	29. The fortification sample percent recovery was <40% but >10%	UJ, DF12i	J-, DF12i
☐	☒	☐	30. The fortification sample percent recovery was >135%.	N/A	J+, DF12j
☐	☒	☐	31. The fortification sample documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF12k	R, DF12k
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference.	R, DF15	UJ, DF15
☐	☐	☒	33. Sample clean-up was not performed. If run log notations, spectral data and/or internal standard or labeled compound recoveries indicate interferences and extract cleanup was not performed, qualify all associated detects as J and all non-detects as UJ.	RJ, DF15a	J, DF15a
☐	☐	☒	34. The instrument performance sample did not pass method acceptance criteria.	R, DF16	R, DF16
☐	☐	☒	35. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, DF16c	R, DF16c

DIOXIN/FURAN ANALYTICAL DATA VALIDATION CHECKLIST

5123-2 Dioxin/Furan Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	36. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, DF19	J, R, DR19
☐	☒	☐	37. Duplicate, dilution, or reanalysis.	UJ, DF88	J, DF88

Sample ID: **CAPA-10-6818** **EPA Method 8290**

Client Data		Sample Data		Laboratory Data			
Name:	Los Alamos National Laboratory	Matrix:	Aqueous	Lab Sample:	32302-001	Date Received:	17-Dec-09
Project:	10-950	Sample Size:	0.904 L	QC Batch No.:	2711	Date Extracted:	9-Jan-10
Date Collected:	15-Dec-09			Date Analyzed DB-5:	13-Jan-10	Date Analyzed DB-225:	NA
Time Collected:	1010						

Analyte	Conc. (pg/L)	DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND	2.01		
1,2,3,7,8-PeCDD	ND	1.65		
1,2,3,4,7,8-HxCDD	ND	3.96		
1,2,3,6,7,8-HxCDD	ND	4.15		
1,2,3,7,8,9-HxCDD	ND	4.24		
1,2,3,4,6,7,8-HpCDD	ND	2.55		
OCDD	ND	5.87		
2,3,7,8-TCDF	ND	1.20		
1,2,3,7,8-PeCDF	ND	1.52		
2,3,4,7,8-PeCDF	ND	1.72		
1,2,3,4,7,8-HxCDF	ND	1.22		
1,2,3,6,7,8-HxCDF	ND	1.24		
2,3,4,6,7,8-HxCDF	ND	1.45		
1,2,3,7,8,9-HxCDF	ND	1.82		
1,2,3,4,6,7,8-HpCDF	ND	1.17		
1,2,3,4,7,8,9-HpCDF	ND	1.45		
OCDF	ND	3.69		

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	84.3	40 - 135	
	13C-1,2,3,7,8-PeCDD	87.4	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	84.1	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	84.3	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	86.2	40 - 135	
	13C-OCDD	85.9	40 - 135	
	13C-2,3,7,8-TCDF	83.4	40 - 135	
	13C-1,2,3,7,8-PeCDF	76.0	40 - 135	
	13C-2,3,4,7,8-PeCDF	79.3	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	77.7	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	76.5	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	81.1	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	80.4	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	82.0	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	83.9	40 - 135	
	13C-OCDF	82.3	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	94.4	40 - 135	

Totals		
Total TCDD	ND	2.01
Total PeCDD	ND	3.55
Total HxCDD	ND	4.12
Total HpCDD	ND	2.55
Total TCDF	ND	1.20
Total PeCDF	ND	1.61
Total HxCDF	ND	1.42
Total HpCDF	ND	1.30

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): **0**

a. Sample specific estimated detection limit.

b. Estimated maximum possible concentration.

c. Method detection limit.

d. Lower control limit - upper control limit.

e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: MAS

Approved By: Martha M. Maier 15-Jan-2010 08:38

MJ
02/04/10

Wednesday, December 16, 2009

REQUEST NUMBER: 10-950

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Martha Maier
Alta Analytical Lab Incorporated
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

These Samples are on:
LANL Request Number:10-950
Per Agreement Number:176450010
Project Cost Code: MR1A015AGWM0

32302, -0.6°C

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/16/2009
TURNAROUND/REPORT DUE: 1/15/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8290	1	CAPA-10-6818	WG	12/15/2009	
		2	CAPA-10-6818	WG	12/15/2009	

Final Page of REQUEST NUMBER 10-950

Wednesday, December 16, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-950

32302

REQUEST NUMBER: 10-950

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Martha Maier

Alta Analytical Lab Incorporated

5070 Robert J. Mathews Parkway

El Dorado Hills, CA 95762

TURNAROUND/REPORT DUE: 1/15/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6818	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6818	2	AMBER GLASS	WSP-8290-D/F	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/16/09	1400	B. Benedict	Bethia Benedict	12/18/09	1052
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Vista
Analytical Laboratory

January 15, 2010

Vista Project I.D.: 32302

Mr. Keith Greene
Los Alamos National Laboratory
ER Sample Management Office
TA-3, Building 271, DP O1-U
Los Alamos, NM 87545

Dear Mr. Greene,

Enclosed are the results for the one aqueous sample received at Vista Analytical Laboratory on December 17, 2009 under your Project Name "10-950". This sample was extracted and analyzed using EPA Method 8290 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

The following report consists of a Sample Inventory (Section I), Analytical Results (Section II) and the Appendix, which contains the chain-of-custody, a list of data qualifiers and abbreviations, Vista's current certifications, and copies of the raw data (if requested).

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com. Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier

Martha M. Maier
Laboratory Director

Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAC for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista Analytical Laboratory.

Vista

Section I: Sample Inventory Report

Date Received: **12/17/2009**

Vista Lab. ID	Client Sample ID
32302-001	CAPA-10-6818

SECTION II

Vista

Method Blank | **EPA Method 8290**

Matrix:	Aqueous	QC Batch No.:	2711	Lab Sample:	0-MB001
Sample Size:	1.00 L	Date Extracted:	9-Jan-10	Date Analyzed DB-5:	13-Jan-10
				Date Analyzed DB-225:	NA

Analyte	Conc. (pg/L)	DL [a]	EMPC [b]	Qualifiers
2,3,7,8-TCDD	ND	1.38		
1,2,3,7,8-PeCDD	ND	1.79		
1,2,3,4,7,8-HxCDD	ND	3.96		
1,2,3,6,7,8-HxCDD	ND	4.28		
1,2,3,7,8,9-HxCDD	ND	4.40		
1,2,3,4,6,7,8-HpCDD	ND	4.08		
OCDD	ND	9.10		
2,3,7,8-TCDF	ND	1.40		
1,2,3,7,8-PeCDF	ND	2.06		
2,3,4,7,8-PeCDF	ND	2.01		
1,2,3,4,7,8-HxCDF	ND	0.848		
1,2,3,6,7,8-HxCDF	ND	0.829		
2,3,4,6,7,8-HxCDF	ND	1.02		
1,2,3,7,8,9-HxCDF	ND	1.28		
1,2,3,4,6,7,8-HpCDF	ND	1.72		
1,2,3,4,7,8,9-HpCDF	ND	2.01		
OCDF	ND	3.88		

	Labeled Standard	%R	LCL-UCL [d]	Qualifiers
IS	13C-2,3,7,8-TCDD	81.0	40 - 135	
	13C-1,2,3,7,8-PeCDD	89.0	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	89.2	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	85.6	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	89.1	40 - 135	
	13C-OCDD	86.3	40 - 135	
	13C-2,3,7,8-TCDF	79.7	40 - 135	
	13C-1,2,3,7,8-PeCDF	77.4	40 - 135	
	13C-2,3,4,7,8-PeCDF	81.6	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	80.6	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	80.4	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	84.0	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	83.0	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	84.4	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	86.2	40 - 135	
	13C-OCDF	82.1	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	90.4	40 - 135	

Totals		
Total TCDD	ND	1.38
Total PeCDD	ND	1.79
Total HxCDD	ND	4.21
Total HpCDD	ND	4.08
Total TCDF	ND	1.40
Total PeCDF	ND	2.04
Total HxCDF	ND	0.982
Total HpCDF	ND	1.85

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): 0

a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Method detection limit.
d. Lower control limit - upper control limit.
e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: MAS

Approved By: Martha M. Maier 15-Jan-2010 08:38

Vista

OPR Results **EPA Method 8290**

Matrix:	Aqueous	QC Batch No.:	2711	Lab Sample:	0-OPR001		
Sample Size:	1.00 L	Date Extracted:	9-Jan-10	Date Analyzed DB-5:	13-Jan-10	Date Analyzed DB-225:	NA

Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits
2,3,7,8-TCDD	10.0	10.0	7 - 13
1,2,3,7,8-PeCDD	50.0	45.4	35 - 65
1,2,3,4,7,8-HxCDD	50.0	48.3	35 - 65
1,2,3,6,7,8-HxCDD	50.0	47.3	35 - 65
1,2,3,7,8,9-HxCDD	50.0	50.1	35 - 65
1,2,3,4,6,7,8-HpCDD	50.0	47.6	35 - 65
OCDD	100	92.8	70 - 130
2,3,7,8-TCDF	10.0	9.44	7 - 13
1,2,3,7,8-PeCDF	50.0	44.7	35 - 65
2,3,4,7,8-PeCDF	50.0	46.7	35 - 65
1,2,3,4,7,8-HxCDF	50.0	45.0	35 - 65
1,2,3,6,7,8-HxCDF	50.0	45.2	35 - 65
2,3,4,6,7,8-HxCDF	50.0	45.8	35 - 65
1,2,3,7,8,9-HxCDF	50.0	45.5	35 - 65
1,2,3,4,6,7,8-HpCDF	50.0	42.0	35 - 65
1,2,3,4,7,8,9-HpCDF	50.0	41.5	35 - 65
OCDF	100	92.7	70 - 130

	Labeled Standard	%R	LCL-UCL	Qualifier
IS	13C-2,3,7,8-TCDD	80.8	40 - 135	
	13C-1,2,3,7,8-PeCDD	87.1	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	81.5	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	83.4	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	86.9	40 - 135	
	13C-OCDD	83.7	40 - 135	
	13C-2,3,7,8-TCDF	81.9	40 - 135	
	13C-1,2,3,7,8-PeCDF	75.0	40 - 135	
	13C-2,3,4,7,8-PeCDF	80.6	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	78.0	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	76.1	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	79.2	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	81.3	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	81.7	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	83.7	40 - 135	
	13C-OCDF	79.8	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	94.8	40 - 135	

Analyst: MAS

Approved By: Martha M. Maier 15-Jan-2010 08:38

Vista

Sample ID: CAPA-10-6818 **EPA Method 8290**

Client Data		Sample Data		Laboratory Data			
Name:	Los Alamos National Laboratory	Matrix:	Aqueous	Lab Sample:	32302-001	Date Received:	17-Dec-09
Project:	10-950	Sample Size:	0.904 L	QC Batch No.:	2711	Date Extracted:	9-Jan-10
Date Collected:	15-Dec-09			Date Analyzed DB-5:	13-Jan-10	Date Analyzed DB-225:	NA
Time Collected:	1010						

Analyte	Conc. (pg/L)	DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND	2.01		
1,2,3,7,8-PeCDD	ND	1.65		
1,2,3,4,7,8-HxCDD	ND	3.96		
1,2,3,6,7,8-HxCDD	ND	4.15		
1,2,3,7,8,9-HxCDD	ND	4.24		
1,2,3,4,6,7,8-HpCDD	ND	2.55		
OCDD	ND	5.87		
2,3,7,8-TCDF	ND	1.20		
1,2,3,7,8-PeCDF	ND	1.52		
2,3,4,7,8-PeCDF	ND	1.72		
1,2,3,4,7,8-HxCDF	ND	1.22		
1,2,3,6,7,8-HxCDF	ND	1.24		
2,3,4,6,7,8-HxCDF	ND	1.45		
1,2,3,7,8,9-HxCDF	ND	1.82		
1,2,3,4,6,7,8-HpCDF	ND	1.17		
1,2,3,4,7,8,9-HpCDF	ND	1.45		
OCDF	ND	3.69		

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	84.3	40 - 135	
	13C-1,2,3,7,8-PeCDD	87.4	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	84.1	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	84.3	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	86.2	40 - 135	
	13C-OCDD	85.9	40 - 135	
	13C-2,3,7,8-TCDF	83.4	40 - 135	
	13C-1,2,3,7,8-PeCDF	76.0	40 - 135	
	13C-2,3,4,7,8-PeCDF	79.3	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	77.7	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	76.5	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	81.1	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	80.4	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	82.0	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	83.9	40 - 135	
	13C-OCDF	82.3	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	94.4	40 - 135	

Totals		
Total TCDD	ND	2.01
Total PeCDD	ND	3.55
Total HxCDD	ND	4.12
Total HpCDD	ND	2.55
Total TCDF	ND	1.20
Total PeCDF	ND	1.61
Total HxCDF	ND	1.42
Total HpCDF	ND	1.30

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): 0

a. Sample specific estimated detection limit.

b. Estimated maximum possible concentration.

c. Method detection limit.

d. Lower control limit - upper control limit.

e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: MAS

Approved By: Martha M. Maier 15-Jan-2010 08:38

APPENDIX

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank.
D	Dilution
E	The amount detected is above the High Calibration Limit.
P	The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.
H	Recovery was outside laboratory acceptance limits.
I	Chemical Interference
J	The amount detected is below the Low Calibration Limit.
*	See Cover Letter
Conc.	Concentration
DL	Sample-specific estimated detection limit
MDL	The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in the matrix tested.
EMPC	Estimated Maximum Possible Concentration
NA	Not applicable
RL	Reporting Limit – concentrations that correspond to low calibration point
ND	Not Detected
TEQ	Toxic Equivalency

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
State of Alaska, DEC	CA413-2008
State of Arizona	AZ0639
State of Arkansas, DEQ	08-043-0
State of Arkansas, DOH	Reciprocity through CA
State of California – NELAP Primary AA	02102CA
State of Colorado	N/A
State of Connecticut	PH-0182
State of Florida, DEP	E87777
State of Indiana Department of Health	C-CA-02
Commonwealth of Kentucky	90063
State of Louisiana, Health and Hospitals	LA08000
State of Louisiana, DEQ	01977
State of Maine	2008024
State of Michigan	9932
State of Mississippi	Reciprocity through CA
Naval Facilities Engineering Service Center	NFESC413
State of Nevada	CA004132007A
State of New Jersey	CA003
State of New Mexico	Reciprocity through CA
State of New York, DOH	11411
State of North Carolina	06700
State of North Dakota, DOH	R-078
State of Oklahoma	D9919
State of Oregon	CA200001-006
State of Pennsylvania	68-00490
State of South Carolina	87002001
State of Tennessee	TN02996
State of Texas	T104704189-08-TX
U.S. Army Corps of Engineers	N/A
State of Utah	CA16400
Commonwealth of Virginia	00013
State of Washington	C1285
State of Wisconsin	998036160
State of Wyoming	8TMS-Q

Wednesday, December 16, 2009

REQUEST NUMBER: 10-950

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Martha Maier

Alta Analytical Lab Incorporated

5070 Robert J. Mathews Parkway

El Dorado Hills, CA 95762

These Samples are on:

LANL Request Number:10-950

Per Agreement Number:176450010

Project Cost Code: MR1A015AGWM0

32302, -0.6°C

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/16/2009

TURNAROUND/REPORT DUE: 1/15/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8290	1	CAPA-10-6818	WG	12/15/2009	
		2	CAPA-10-6818	WG	12/15/2009	

Final Page of REQUEST NUMBER 10-950

Wednesday, December 16, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-950

32302

REQUEST NUMBER: 10-950

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Martha Maier

Alta Analytical Lab Incorporated
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

TURNAROUND/REPORT DUE: 1/15/2010
TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6818	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-6818	2	AMBER GLASS	WSP-8290-D/F	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/16/09	1900	B. Benedict	Bethia Benedict	12/18/09	1052
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE LOG-IN CHECKLIST

Vista Analytical Laboratory

Vista Project #: 32302 TAT 28

Samples Arrival:	Date/Time 12/17/09 0825	Initials: RB	Location: WR-2 Shelf/Rack: N/A
Logged In:	Date/Time 12/18/09 1053	Initials: RB	Location: WR-2 Shelf/Rack: C 3

Delivered By:	FedEx	UPS	Cal	DHL	Hand Delivered	Other
Preservation:	Ice	Blue Ice	Dry Ice	None		
Temp °C −0.6	Time: 0907	Thermometer ID: IR-1				

	YES	NO	NA
Adequate Sample Volume Received? A & B bottle	✓	✓	
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill Trk # 7209 7849 2564	✓		
Sample Container Intact?	✓		
Sample Custody Seals Intact?	✓		
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?			✓
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

$Na_2S_2O_3$ Preservation Documented?	COC	Sample Container	None		
Shipping Container	Vista	Client	Retain	Return	Dispose

Comments:

	date	time	
CAPA -10-6818	12/15/09	1010	A & B bottles

"B" bottle sample ID is difficult to read. TBB

EXTRACTION INFORMATION

PROCESS SHEET

Project No.-AR: 32302-1 of 1

Prep Due: 12/28/2009

Hold Due: 1/14/2010

Client: Los Alamos National Laboratory(LOANM01F

Client Manager: Rose Harrelson

Method: EPA Method 8290 | PCDD/F (Tetra - Octa)

Project Due: 1/14/2010

TAT: 28

Split Type: 2711

Matrix: Aqueous

LabID	Recon	Client-ID	Description	Date Received	SLoc	Shelf
001	☑	CAPA-10-6818 "A"		12/17/2009	WR-2	C-3

Instructions:

Report Options

Report Level:

EDD Type:

Report Group: Dioxins NoMDL

Vial Box ID: Kool Aid

TEQ Type: EPA(Default) : Min

Samples Reconciled By: CV 1/9/10

Date Requested

Percent Solids

Vista Analytical Laboratory

Project: 32302-1

Sample ID	Chemist/Date CJ 1/9/10		Chemist/Date CJ 1/14/10	Chemist/Date CJ 1/9/10		
	Boat Wt.	Sample + Boat Wt.	Residue + Boat Wt.	pH before	pH* after	Cl
1	1.29	11.61	1.30	6	N/A	0

Procedure:

- Tare the balance.
- Record Boat Weight.
- Add 2 - 10 g of sample.
- Record Wet Wt. + Boat Wt.
- Dry in oven overnight at 107°C.
- Tare the balance.
- Record Residue + Boat Wt.

Notes:

- *Methods 8280, 613, 1613, 8290, 1614 – pH <9*
- *Methods 1668/PCN – pH 2-3*
- *NCASI 551 – pH 1*

%Solids rmh 10/2009

Aqueous Sample Size Determination

Vista Analytical Laboratory

Project: 32302-1

	Chemist/Date	Chemist/Date	
	CJ 1/7/10	CJ 1/10/10	
Sample ID	**Container Weight (g)**		**Sample Wt (g)**
	Full	***Empty***	
1	1291.30	387.51	903.79

Procedure:

- Tare the balance.
- Record weight of bottle/cap and sample.
- If all of the sample is used, drain overnight.
- Tare the balance.
- Record weight of empty bottle/cap.
- Enter Sample Weight in HALs and on the Extraction Sheet*.

* *Record in 'Liters', rounded to 3 decimal places; assumes density of 1 g/mL*

Notes:

AqWt 3/2007 rmh

Project: 32302

Extraction Set: 2711

Chemist: Christian Vreekere 1/9/10

Method(s): EPA Method 8290 | PCDD/F (Tetra - Octa)

C	ALTA Sample ID	G Eqv	Sample Amt. (L)	IS/NS CHEM/ WIT DATE	CRS CHEM/WIT DATE	AP CHEM/Date	ABSG CHEM/Date	AA CHEM/Date	Florisil CHEM/Date	RS CHEM/WIT DATE
☐	0_2711_MB001	N/A	(1.000)	CV FEB 1/9/10	CV TEA 1/10/10	N/A	CV 1/10/10	CV 1/10/10	CV 1/10/10	CV N/A 1/10/10
☐	0_2711_OPR001	↓	↓	↓	↓	↓	↓	↓	↓	↓
☐	32302_2711_001	↓	0.904	↓	↓	↓	↓	↓	↓	↓

IS Name (V20)	NS Name (V8)	CRS Name (V2)	RS Name (V3)
PCDD/F 081104A10 µL	PCDD/F 070922A10 µL	PCDD/F 070922B10 µL	PCDD/F 070922C10 µL
PCB	PCB	PCB	PCB
PAH	PAH	PAH	PAH

Cycle Time 1/9 Start: 1630 1/10 Stop: 0830

APP.: SEFUN SOX (SDS)

SOLV: toluene

Other: SPE

Final Volume(s): 20 µL

Check Out: Chemist: CV 1/9/10

Check-In: Chemist: empty ↓

Comments:

SAMPLE DATA

Client ID: 0_2711_MB001 Filename: 100113C1 S:4 Acq:13-JAN-10 13:45:35 ConCal: ST100113C1-1
Lab ID: 0_2711_MB001 GC Column ID: db-5 ICal: 1613VG5-10-8-09 wt/vol: 1.000 EndCAL: ST100113C1-2

Name	Resp	RA		RRF	RT	Conc	Qual	noise	Fac	DL
2,3,7,8-TCDD	*	*	n	1.25	NotFound	*		2360	2.5	1.38
1,2,3,7,8-PeCDD	*	*	n	1.11	NotFound	*		3350	2.5	1.79
1,2,3,4,7,8-HxCDD	*	*	n	1.04	NotFound	*		3990	2.5	3.96
1,2,3,6,7,8-HxCDD	*	*	n	1.12	NotFound	*		3990	2.5	4.28
1,2,3,7,8,9-HxCDD	*	*	n	1.02	NotFound	*		3990	2.5	4.40
1,2,3,4,6,7,8-HpCDD	*	*	n	1.11	NotFound	*		4030	2.5	4.08
OCDD	*	*	n	1.24	NotFound	*		6530	2.5	9.10
2,3,7,8-TCDF	*	*	n	1.15	NotFound	*		3250	2.5	1.40
1,2,3,7,8-PeCDF	*	*	n	1.11	NotFound	*		3660	2.5	2.06
2,3,4,7,8-PeCDF	*	*	n	1.07	NotFound	*		3660	2.5	2.01
1,2,3,4,7,8-HxCDF	*	*	n	1.34	NotFound	*		2170	2.5	0.848
1,2,3,6,7,8-HxCDF	*	*	n	1.18	NotFound	*		2170	2.5	0.829
2,3,4,6,7,8-HxCDF	*	*	n	1.20	NotFound	*		2170	2.5	1.02
1,2,3,7,8,9-HxCDF	*	*	n	1.24	NotFound	*		2170	2.5	1.28
1,2,3,4,6,7,8-HpCDF	*	*	n	1.44	NotFound	*		3590	2.5	1.72
1,2,3,4,7,8,9-HpCDF	*	*	n	1.40	NotFound	*		3590	2.5	2.01
OCDF	*	*	n	1.07	NotFound	*		3660	2.5	3.88

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	*	*		2360	1.38
Total Penta-Dioxins	*	*		3350	1.79
Total Hexa-Dioxins	*	*		3990	4.21
Total Hepta-Dioxins	*	*		4030	4.08
Total Tetra-Furans	*	*		3250	1.40
Total Penta-Furans	0.0000	0.0000		3660	2.04
Total Hexa-Furans	*	*		2170	0.982
Total Hepta-Furans	*	*		3590	1.85

							Rec	Qual
IS	13C-2,3,7,8-TCDD	4.47e+07	0.81 y	1.04	26:34	1619.1	81.0	
IS	13C-1,2,3,7,8-PeCDD	4.33e+07	0.64 y	0.92	30:52	1779.0	89.0	
IS	13C-1,2,3,4,7,8-HxCDD	4.19e+07	1.29 y	0.76	34:13	1783.0	89.2	
IS	13C-1,2,3,6,7,8-HxCDD	4.03e+07	1.33 y	0.77	34:20	1712.3	85.6	
IS	13C-1,2,3,7,8,9-HxCDD	4.67e+07	1.35 y	0.85	34:39	1784.2	89.2	
IS	13C-1,2,3,4,6,7,8-HpCDD	3.97e+07	1.06 y	0.73	38:02	1782.3	89.1	
IS	13C-OCDD	6.16e+07	0.91 y	0.58	41:25	3450.6	86.3	
IS	13C-2,3,7,8-TCDF	7.16e+07	0.82 y	1.06	25:51	1594.4	79.7	
IS	13C-1,2,3,7,8-PeCDF	6.58e+07	1.61 y	1.00	29:45	1548.6	77.4	
IS	13C-2,3,4,7,8-PeCDF	6.79e+07	1.58 y	0.98	30:37	1632.5	81.6	
IS	13C-1,2,3,4,7,8-HxCDF	5.19e+07	0.54 y	1.05	33:19	1612.9	80.6	
IS	13C-1,2,3,6,7,8-HxCDF	6.55e+07	0.53 y	1.33	33:27	1608.6	80.4	
IS	13C-2,3,4,6,7,8-HxCDF	5.87e+07	0.54 y	1.14	34:03	1680.1	84.0	
IS	13C-1,2,3,7,8,9-HxCDF	5.08e+07	0.56 y	1.00	35:03	1660.2	83.0	
IS	13C-1,2,3,4,6,7,8-HpCDF	4.58e+07	0.44 y	0.88	36:54	1688.6	84.4	
IS	13C-1,2,3,4,7,8,9-HpCDF	4.09e+07	0.42 y	0.77	38:36	1724.3	86.2	
IS	13C-OCDF	8.94e+07	0.89 y	0.89	41:39	3285.3	82.1	
C/Up	37Cl-2,3,7,8-TCDD	1.30e+07		0.68	26:35	723.51	90.4	
RS/RT	13C-1,2,3,4-TCDD	5.29e+07	0.82 y	1.00	26:03	2000.0		
RS	13C-1,2,3,4-TCDF	8.51e+07	0.83 y	1.00	24:44	2000.0		
RS/RT	13C-1,2,3,4,6,9-HxCDF	6.14e+07	0.52 y	1.00	33:44	2000.0		

Integrations by Analyst: [illegible] Date: 1/14/10

Reviewed by Analyst: [illegible] Date: 1/15/10

File:100113C1 #1-546 Acq:13-JAN-2010 13:45:35 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:0_2711_MB001 Exp:OCDD_DB5
319.8965 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

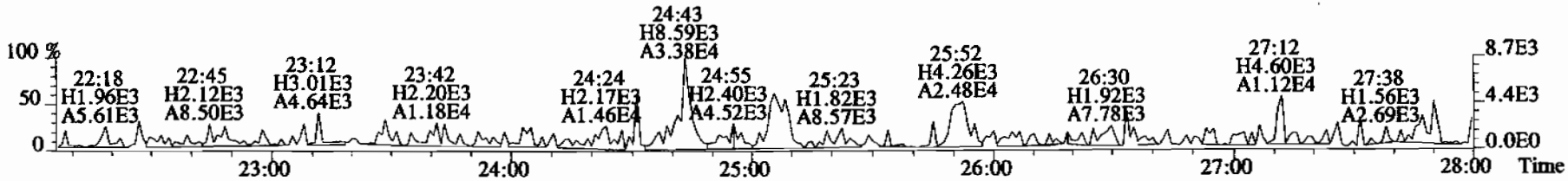

321.8936 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

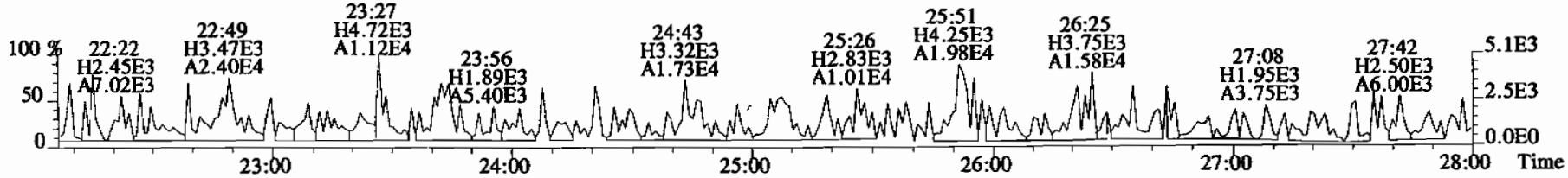

327.8847 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

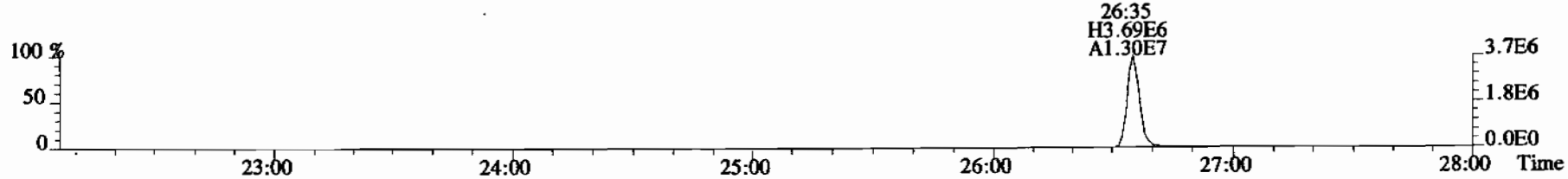

331.9368 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

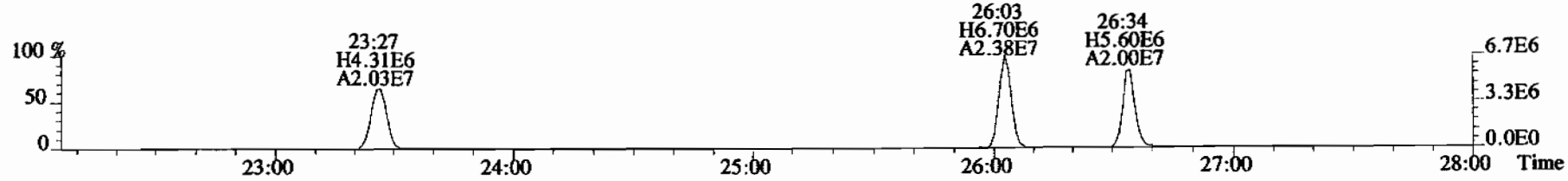

333.9339 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

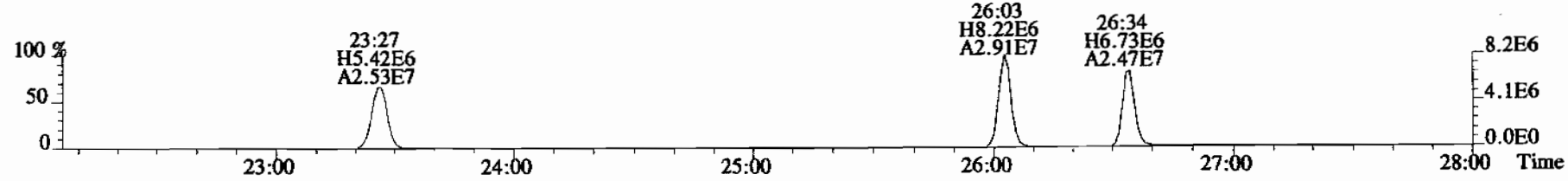

File:100113C1 #1-287 Acq:13-JAN-2010 13:45:35 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:0_2711_MB001 Exp:OCDD_DB5
353.8576 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

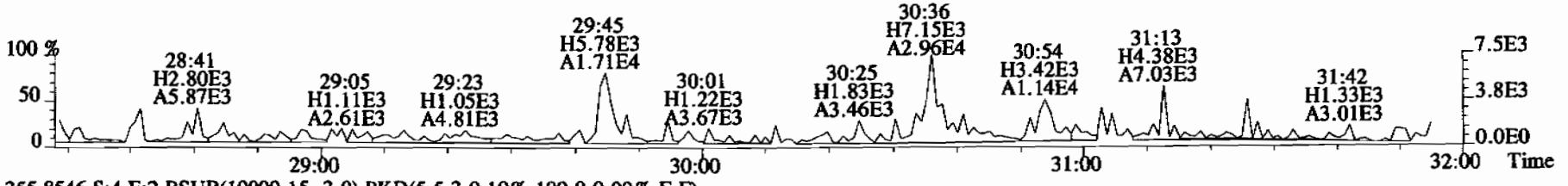

355.8546 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

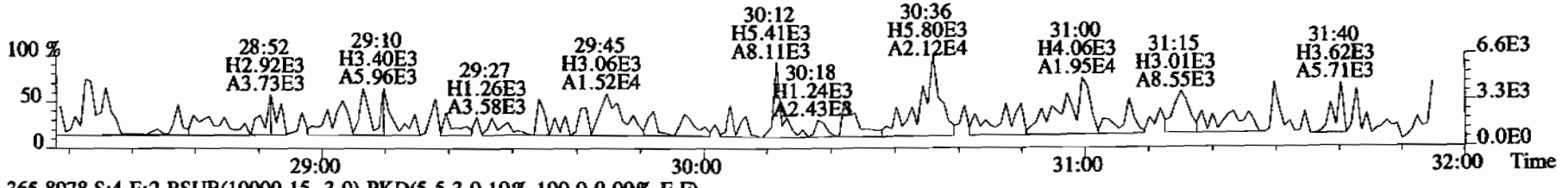

365.8978 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

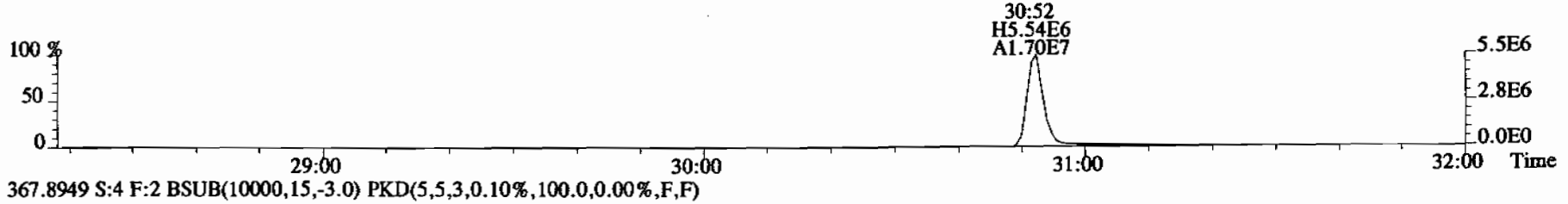

367.8949 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

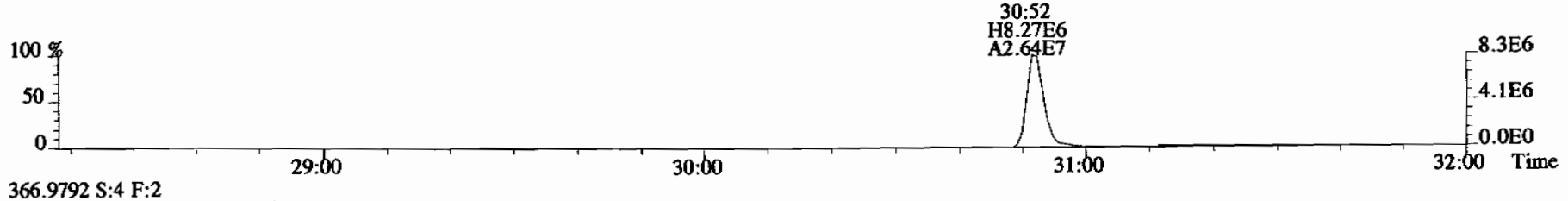

366.9792 S:4 F:2

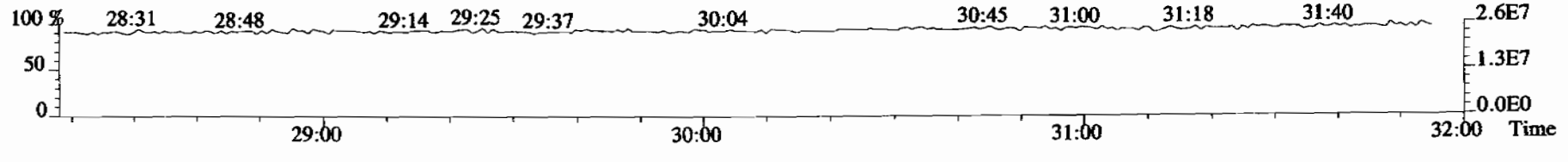

File:100113C1 #1-400 Acq:13-JAN-2010 13:45:35 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:0_2711_MB001 Exp:OCDD_DB5
389.8156 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

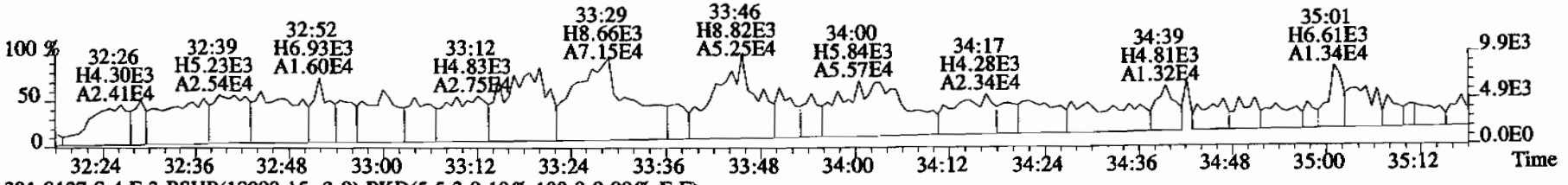

391.8127 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

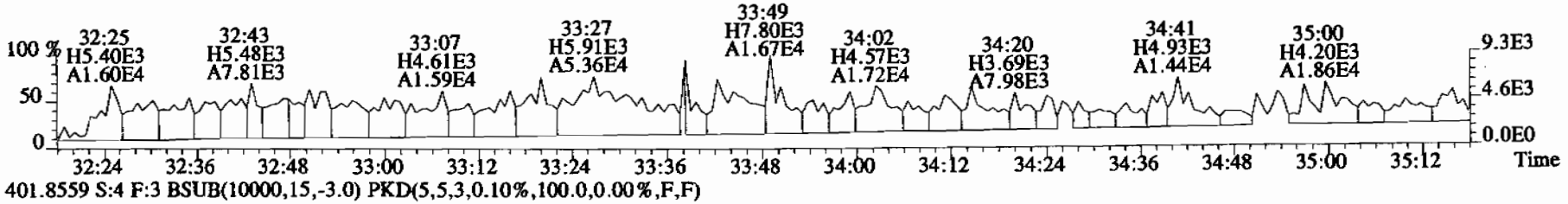

401.8559 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

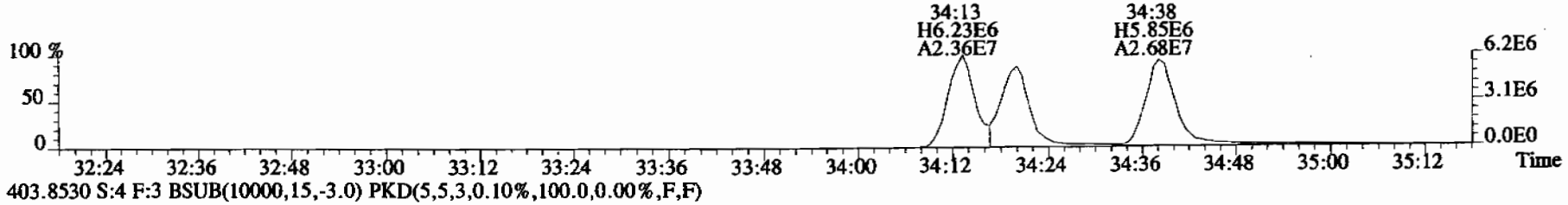

403.8530 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

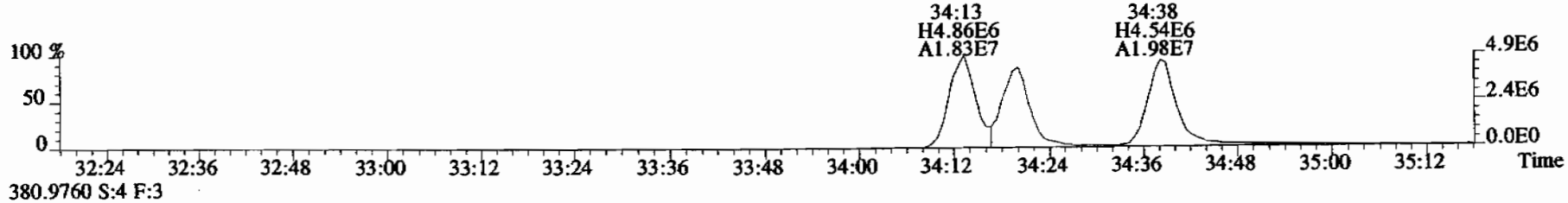

380.9760 S:4 F:3

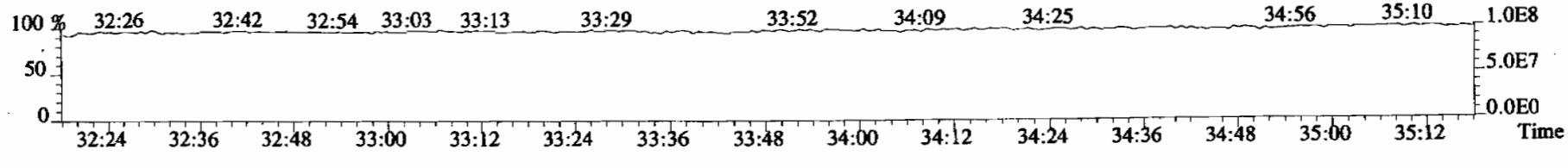

File:100113C1 #1-363 Acq:13-JAN-2010 13:45:35 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:0_2711_MB001 Exp:OCDD_DB5
423.7767 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

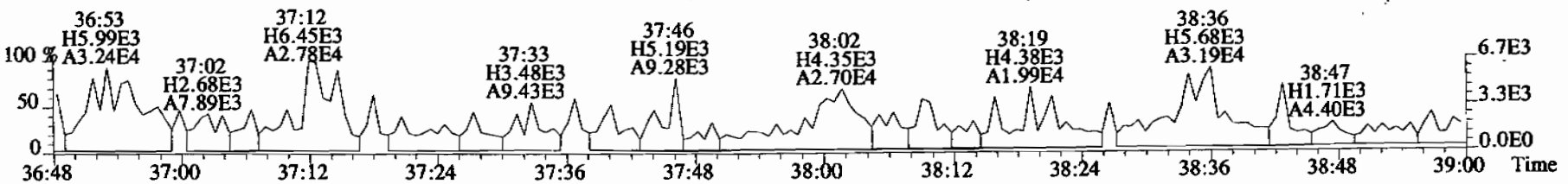

425.7737 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

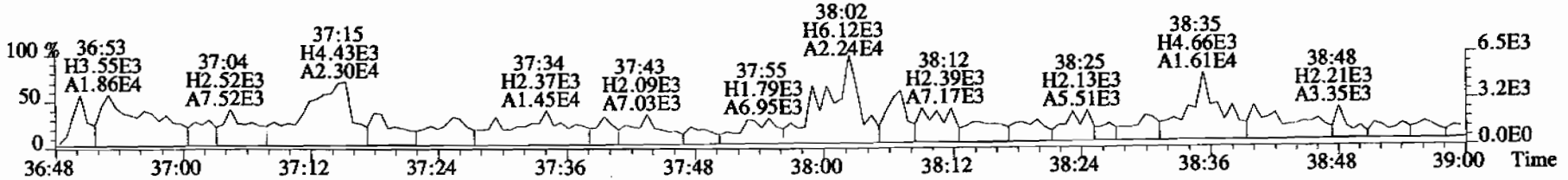

435.8169 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

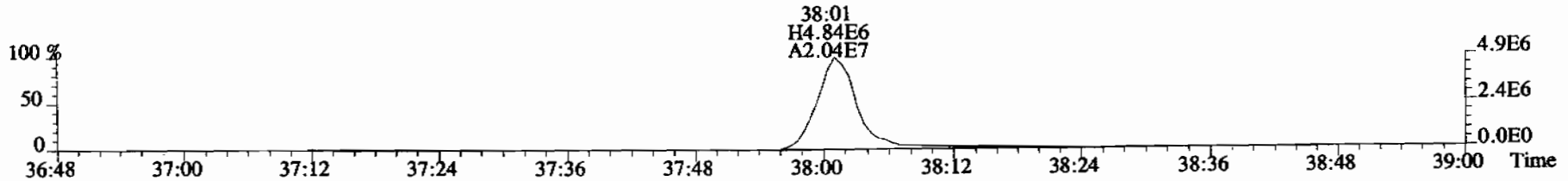

437.8140 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

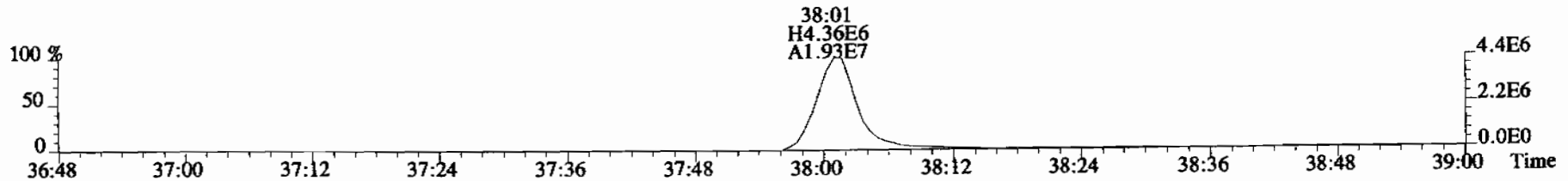

430.9728 S:4 F:4

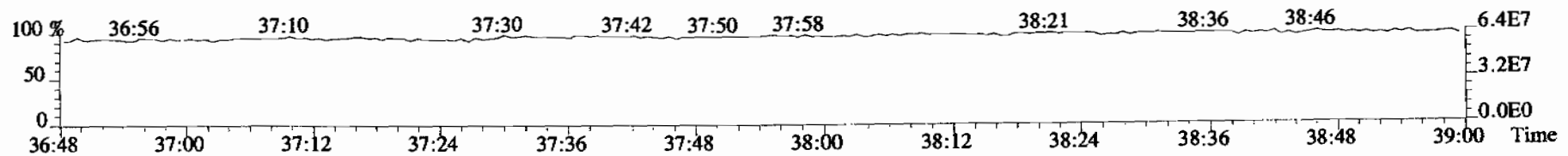

File:100113C1 #1-345 Acq:13-JAN-2010 13:45:35 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:0_2711_MB001 Exp:OCDD_DB5
457.7377 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

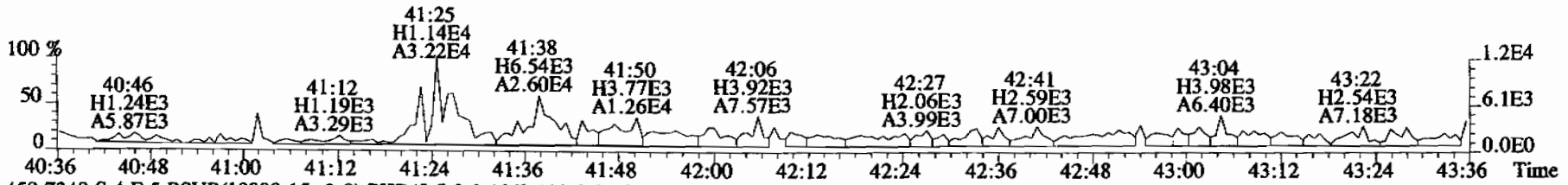

459.7348 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

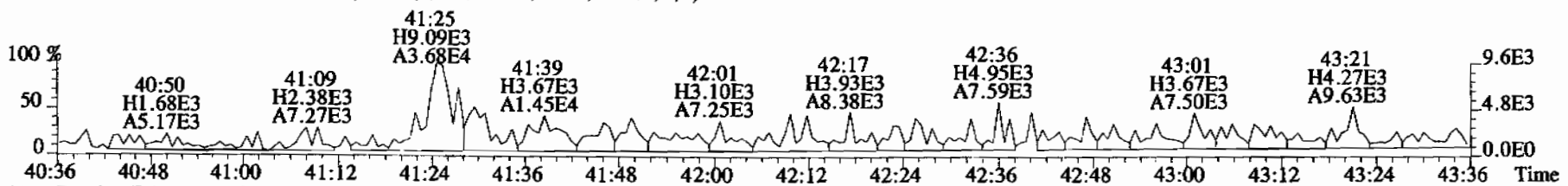

469.7780 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

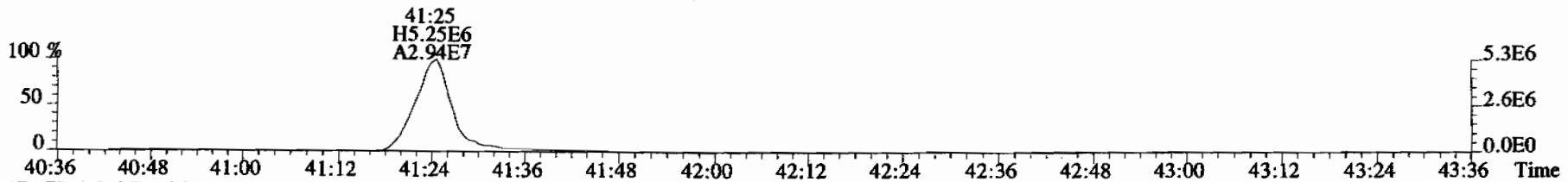

471.7750 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

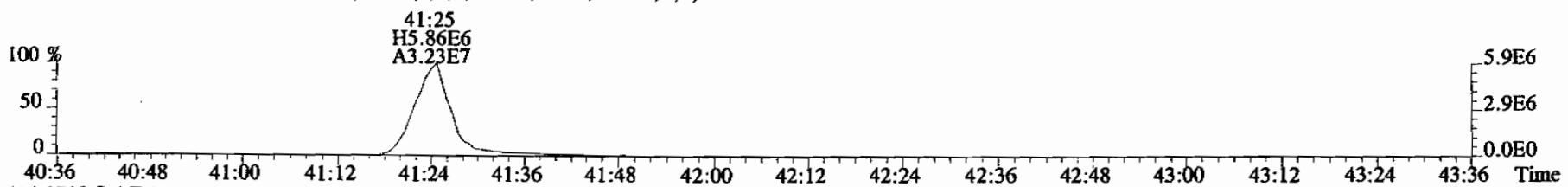

454.9728 S:4 F:5

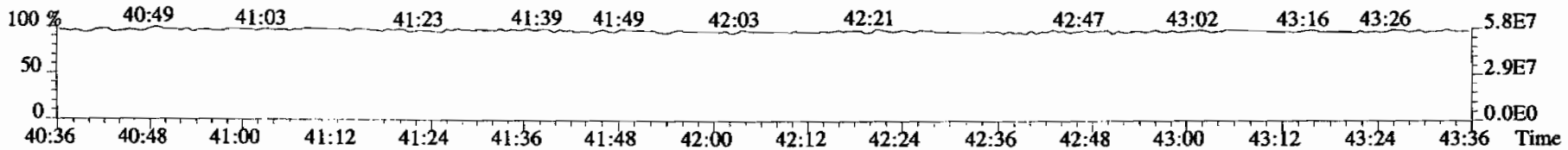

File:100113C1 #1-546 Acq:13-JAN-2010 13:45:35 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:0_2711_MB001 Exp:OCDD_DB5
303.9016 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

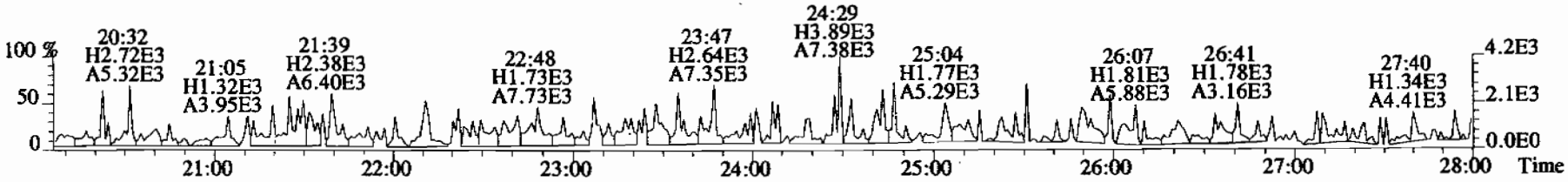

305.8987 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

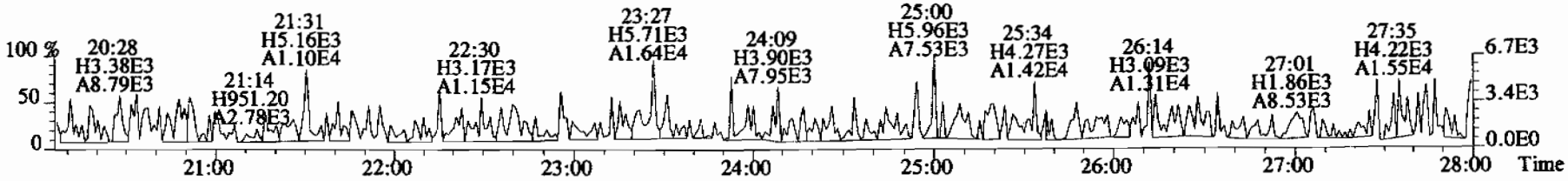

315.9419 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

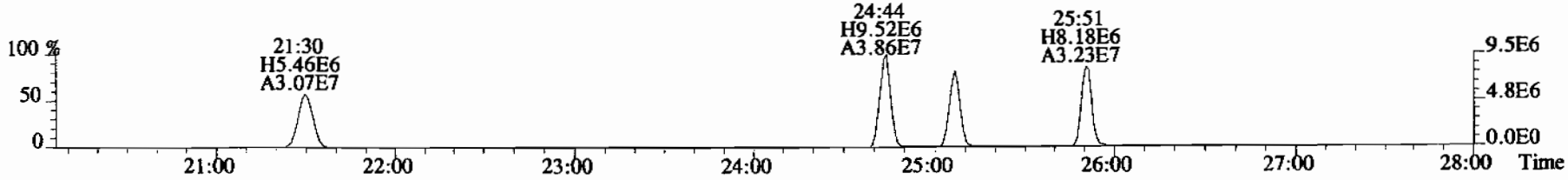

317.9389 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

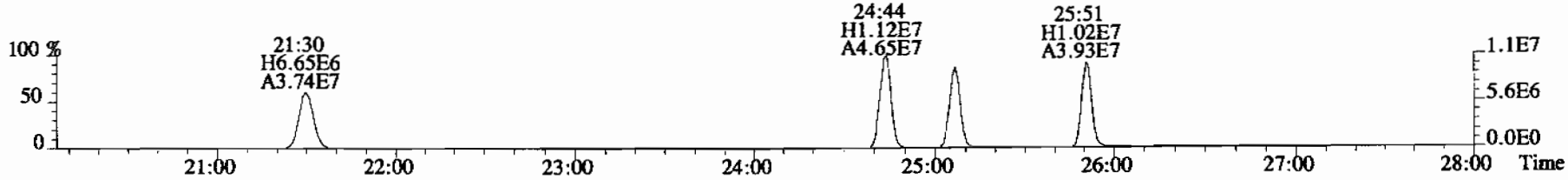

375.8364 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

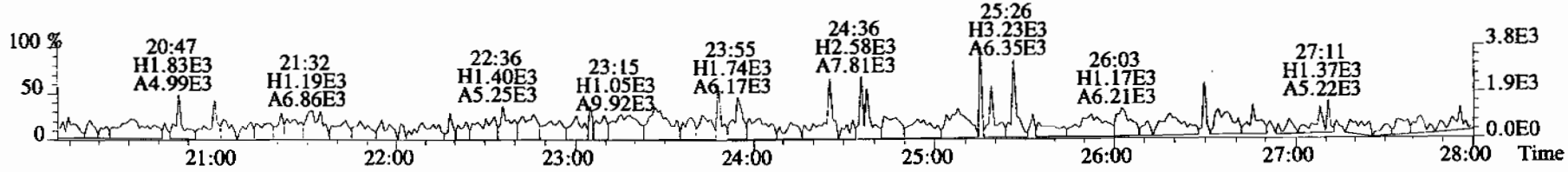

File:100113C1 #1-546 Acq:13-JAN-2010 13:45:35 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:0_2711_MB001 Exp:OCDD_DB5
339.8597 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

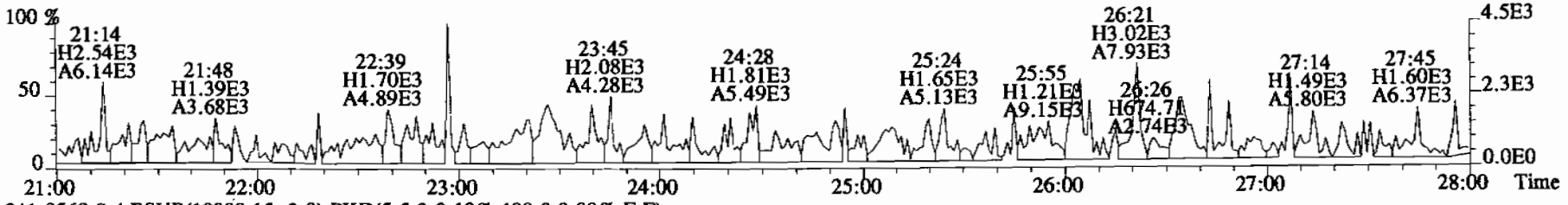

341.8568 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

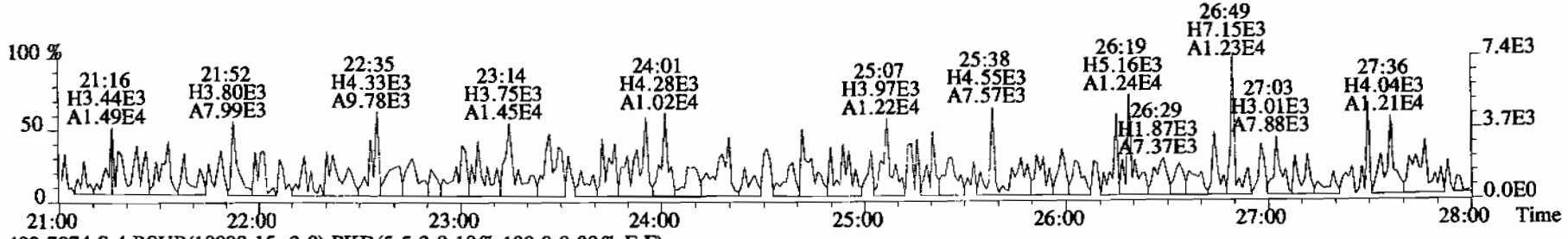

409.7974 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

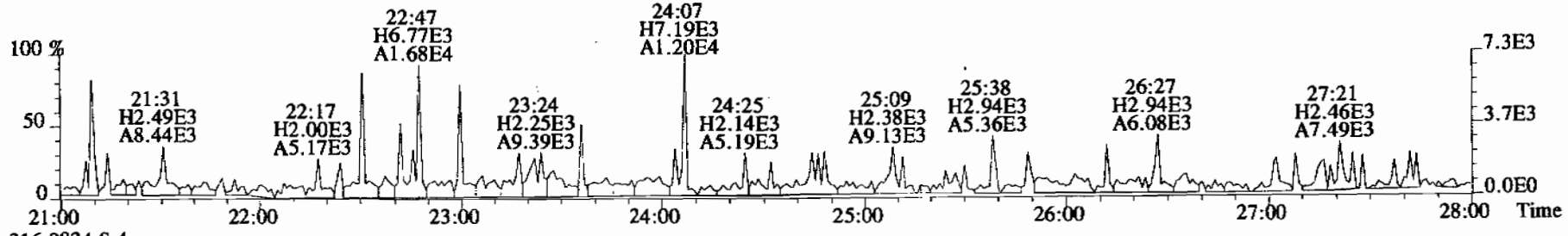

316.9824 S:4

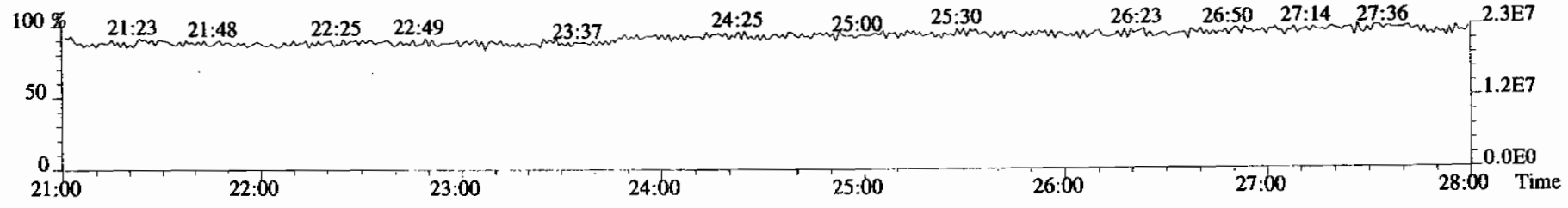

File:100113C1 #1-287 Acq:13-JAN-2010 13:45:35 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:0_2711_MB001 Exp:OCDD_DB5
339.8597 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

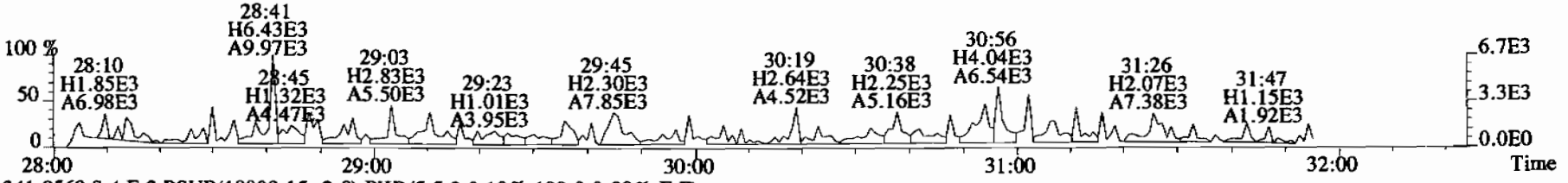

341.8568 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

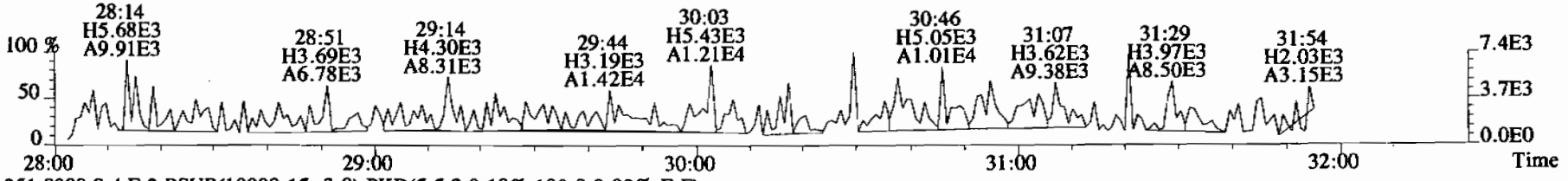

351.9000 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

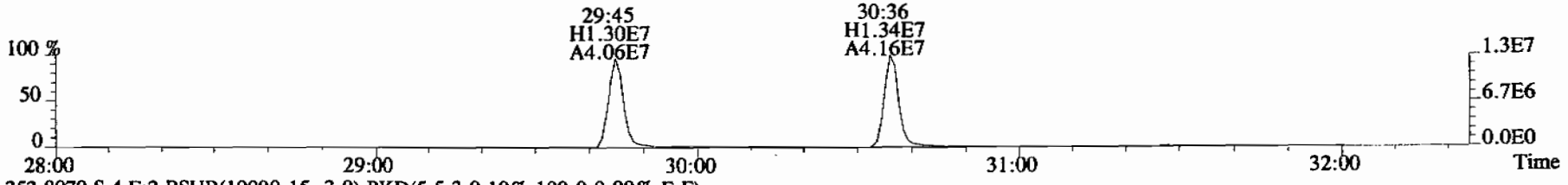

353.8970 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

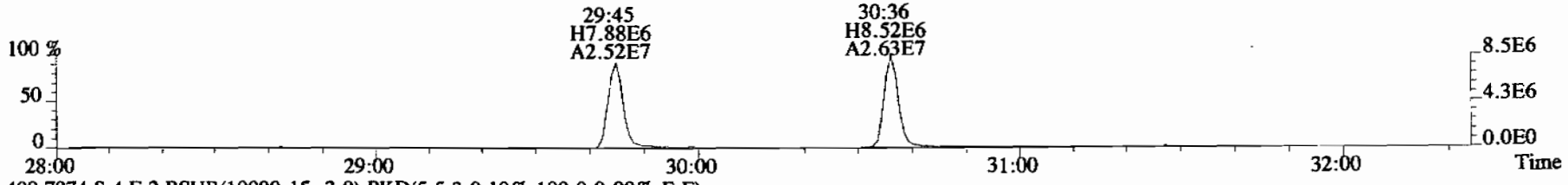

409.7974 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

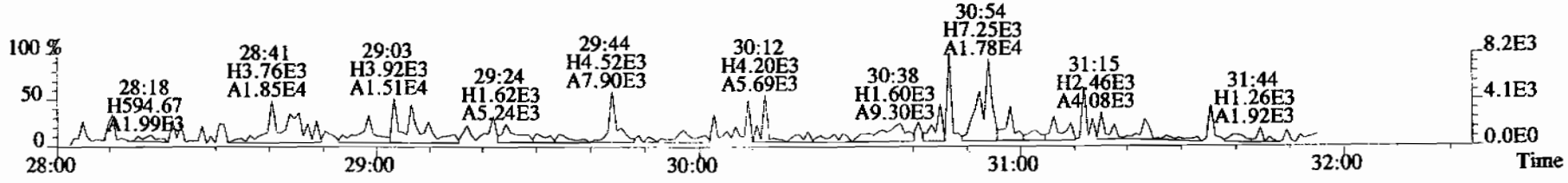

File:100113C1 #1-400 Acq:13-JAN-2010 13:45:35 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:0_2711_MB001 Exp:OCDD_DB5
373.8207 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

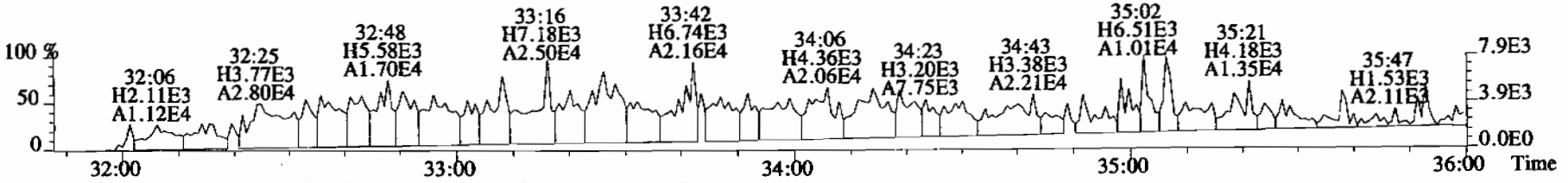

375.8178 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

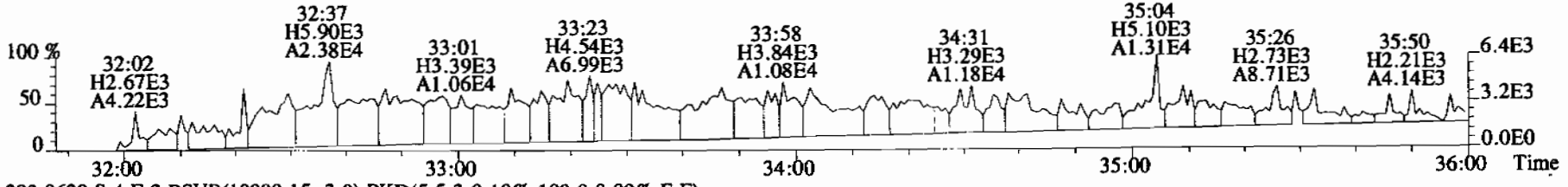

383.8639 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

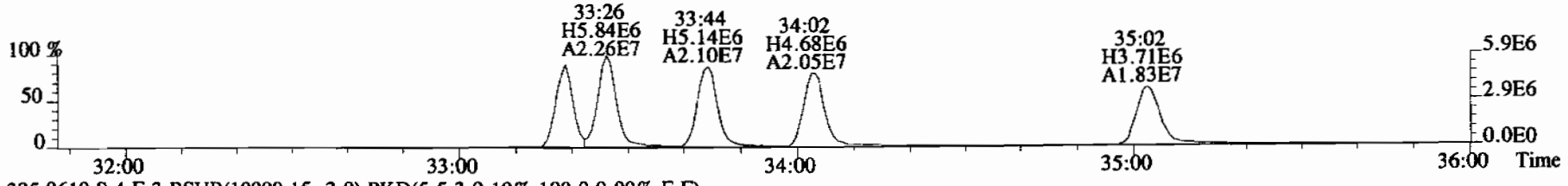

385.8610 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

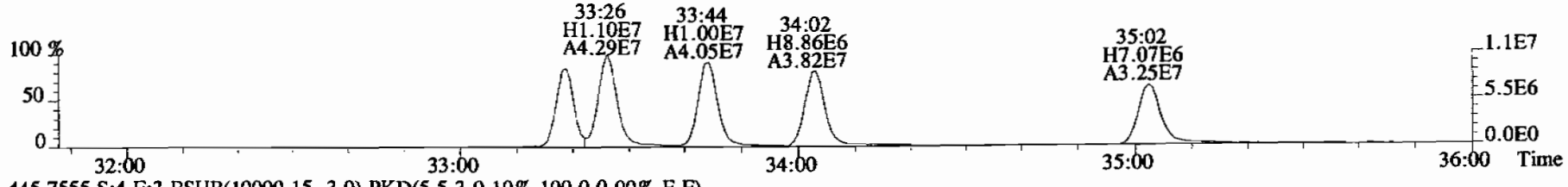

445.7555 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

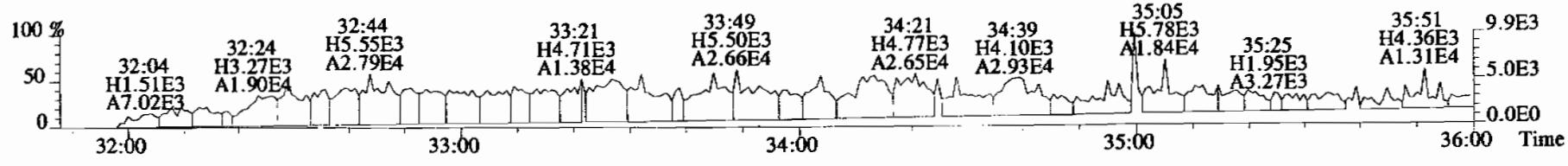

File:100113C1 #1-363 Acq:13-JAN-2010 13:45:35 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:0_2711_MB001 Exp:OCDD_DB5
407.7818 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

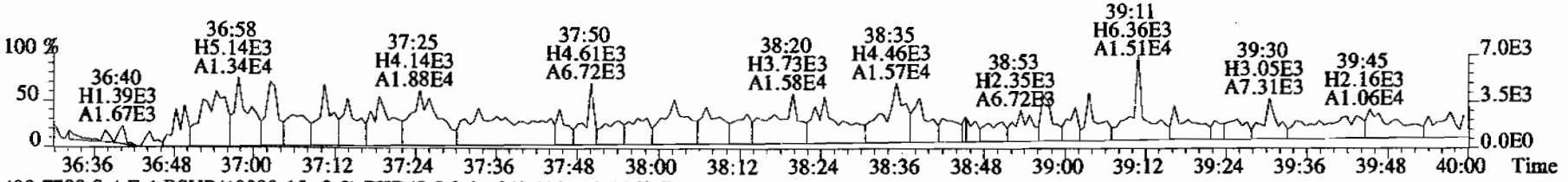

409.7788 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

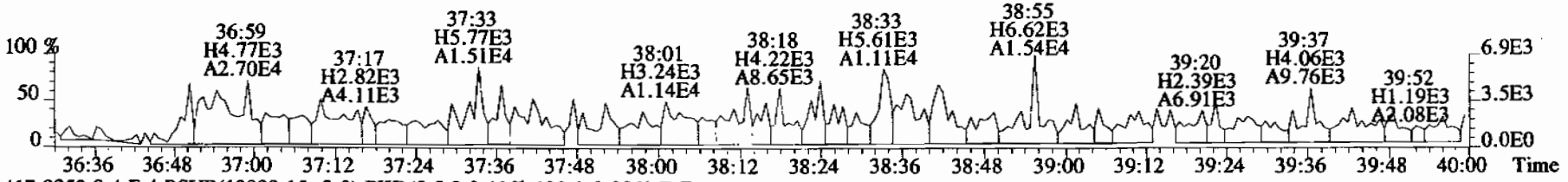

417.8253 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

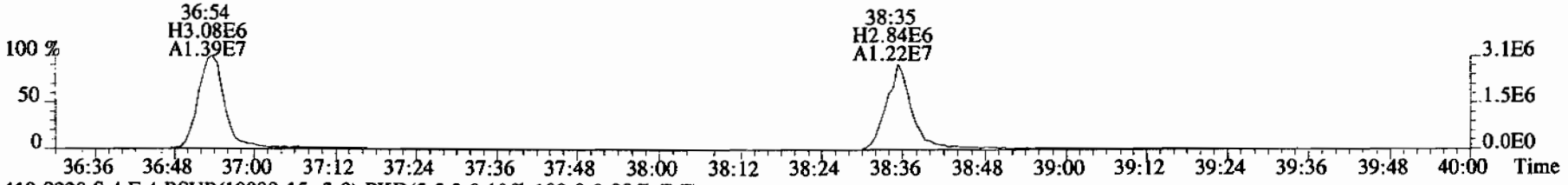

419.8220 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

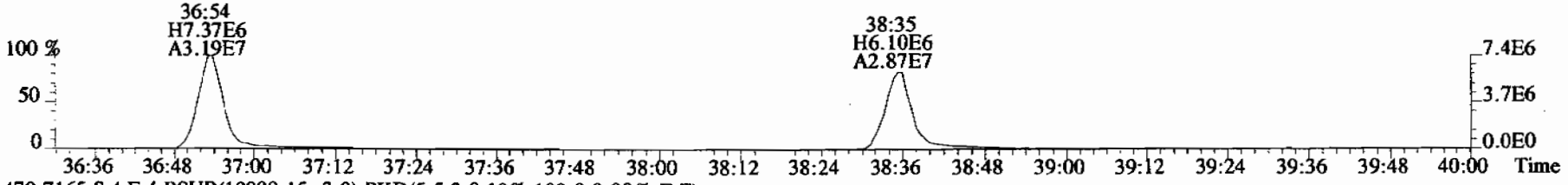

479.7165 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

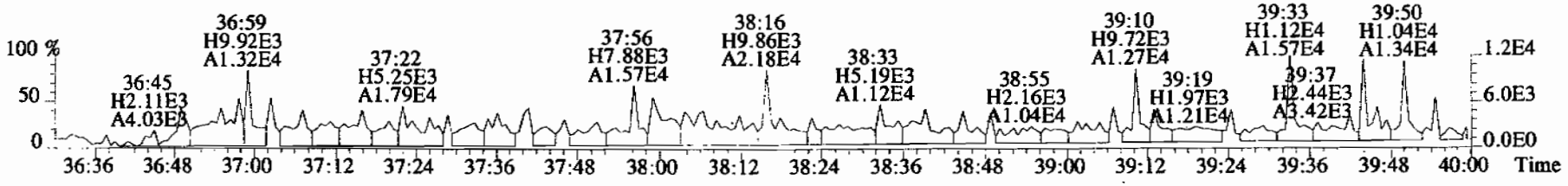

File:100113C1 #1-345 Acq:13-JAN-2010 13:45:35 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:0_2711_MB001 Exp:OCDD_DB5
441.7428 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

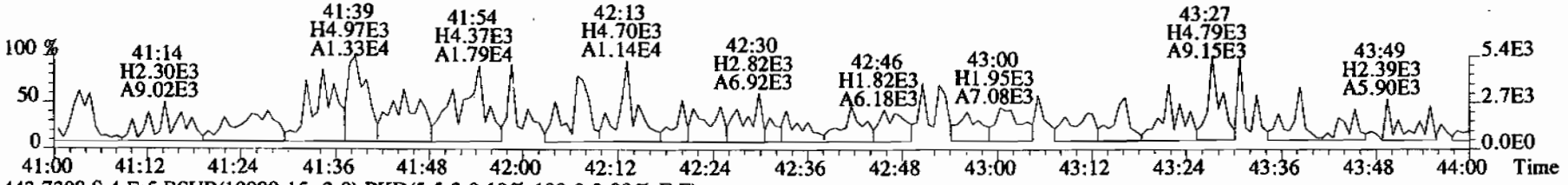

443.7398 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

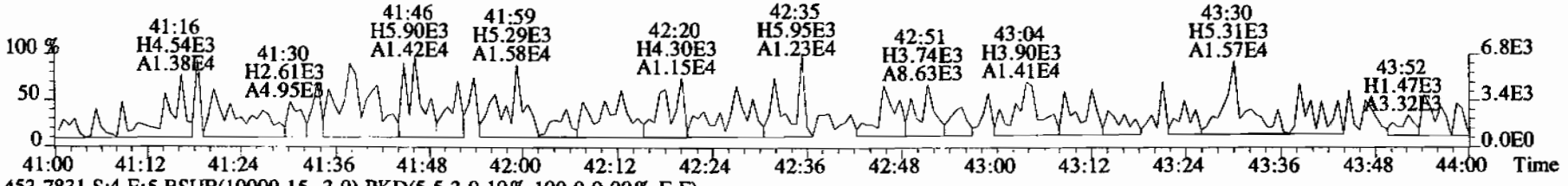

453.7831 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

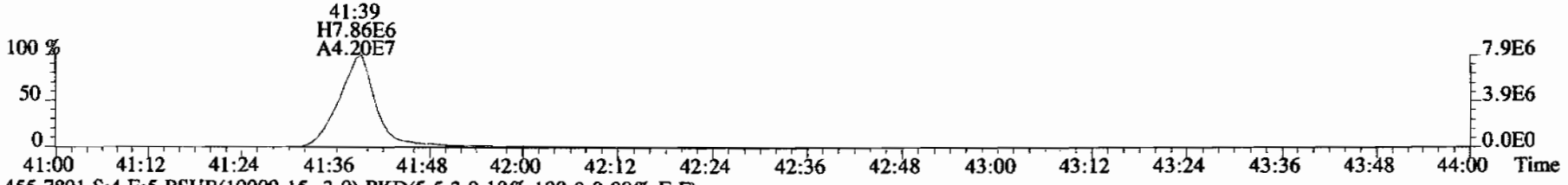

455.7801 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

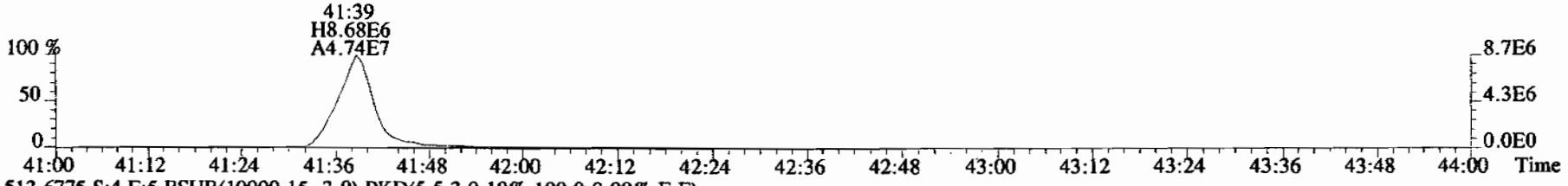

513.6775 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

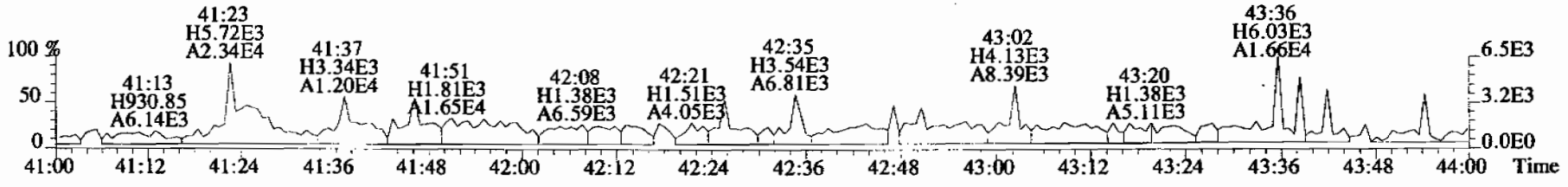

Client ID: 0_2711_OPR001 Filename: 100113C1 S:2 Acq:13-JAN-10 12:08:46 ConCal: ST100113C1-1
Lab ID: 0_2711_OPR001 GC Column ID: db-5 ICal: 1613VG5-10-8ηl wt/vol: 1.000 EndCAL: ST100113C1-2

Name	Resp	RA	RRF	RT	Conc	Method QC Limits	Alta Historical Limits Aqueous Limits	Alta Historical Limits Solid Limits
2,3,7,8-TCDD	5.84e+06	0.78 y	1.25	26:35	10.0	7.0 - 13	7.73 - 12.4	7.53 - 12.5
1,2,3,7,8-PeCDD	2.24e+07	0.61 y	1.11	30:54	45.4	35 - 65	37.8 - 57.5	40.4 - 65.1
1,2,3,4,7,8-HxCDD	2.07e+07	1.27 y	1.04	34:14	48.3	35 - 65	38.3 - 58.0	41.2 - 63.2
1,2,3,6,7,8-HxCDD	2.24e+07	1.28 y	1.12	34:21	47.3	35 - 65	38.7 - 57.0	40.8 - 65.2
1,2,3,7,8,9-HxCDD	2.42e+07	1.28 y	1.02	34:40	50.1	35 - 65	37.0 - 57.5	41.7 - 65.4
1,2,3,4,6,7,8-HpCDD	2.20e+07	1.03 y	1.11	38:03	47.6	35 - 65	39.0 - 58.5	21.3 - 87.7
OCDD	3.68e+07	0.92 y	1.24	41:26	92.8	70 - 130	83.2 - 126	0 - 400
2,3,7,8-TCDF	8.33e+06	0.83 y	1.15	25:52	9.44	7.0 - 13	7.65 - 12.4	7.82 - 12.0
1,2,3,7,8-PeCDF	3.29e+07	1.57 y	1.11	29:46	44.7	35 - 65	41.4 - 64.9	39.6 - 65.6
2,3,4,7,8-PeCDF	3.47e+07	1.57 y	1.07	30:38	46.7	35 - 65	36.9 - 56.0	40.2 - 66.5
1,2,3,4,7,8-HxCDF	3.26e+07	1.22 y	1.34	33:20	45.0	35 - 65	33.4 - 59.4	39.4 - 63.9
1,2,3,6,7,8-HxCDF	3.57e+07	1.24 y	1.18	33:28	45.2	35 - 65	38.7 - 59.0	41.1 - 62.9
2,3,4,6,7,8-HxCDF	3.28e+07	1.19 y	1.20	34:05	45.8	35 - 65	39.3 - 58.0	40.9 - 63.3
1,2,3,7,8,9-HxCDF	3.01e+07	1.24 y	1.24	35:04	45.5	35 - 65	38.8 - 58.0	39.5 - 64.9
1,2,3,4,6,7,8-HpCDF	2.89e+07	0.97 y	1.44	36:55	42.0	35 - 65	40.2 - 63.1	31.9 - 74.7
1,2,3,4,7,8,9-HpCDF	2.48e+07	0.98 y	1.40	38:37	41.5	35 - 65	40.5 - 62.2	39.8 - 63.8
OCDF	4.65e+07	0.90 y	1.07	41:41	92.7	70 - 130	80.0 - 120	69.8 - 136

						% Rec	Method QC Limits	Aqueous Limits	Solid Limits
13C-2,3,7,8-TCDD	4.67e+07	0.82 y	1.04	26:35	80.8	80.8	40 - 135	48.8 - 105	53.0 - 115
13C-1,2,3,7,8-PeCDD	4.44e+07	0.65 y	0.92	30:53	87.1	87.1	40 - 135	49.8 - 109	61.4 - 117
13C-1,2,3,4,7,8-HxCDD	4.12e+07	1.33 y	0.76	34:13	81.5	81.5	40 - 135	51.9 - 102	63.1 - 116
13C-1,2,3,6,7,8-HxCDD	4.22e+07	1.31 y	0.77	34:21	83.4	83.4	40 - 135	50.4 - 99.1	54.6 - 121
13C-1,2,3,7,8,9-HxCDD	4.72e+07	1.32 y	0.85	34:39	84.0	84.0	40 - 135	51.9 - 99.1	54.6 - 116
13C-1,2,3,4,6,7,8-HpCDD	4.16e+07	1.10 y	0.73	38:02	86.9	86.9	40 - 135	51.2 - 106	67.6 - 117
13C-OCDD	6.43e+07	0.93 y	0.58	41:25	167	83.7	40 - 135	30.8 - 113	14.0 - 147
13C-2,3,7,8-TCDF	7.64e+07	0.81 y	1.06	25:51	81.9	81.9	40 - 135	50.3 - 103	56.0 - 112
13C-1,2,3,7,8-PeCDF	6.62e+07	1.57 y	1.00	29:46	75.0	75.0	40 - 135	49.3 - 105	58.6 - 116
13C-2,3,4,7,8-PeCDF	6.96e+07	1.55 y	0.98	30:37	80.6	80.6	40 - 135	53.3 - 109	62.9 - 118
13C-1,2,3,4,7,8-HxCDF	5.40e+07	0.53 y	1.05	33:19	78.0	78.0	40 - 135	44.5 - 110	55.9 - 118
13C-1,2,3,6,7,8-HxCDF	6.66e+07	0.55 y	1.33	33:27	76.1	76.1	40 - 135	45.8 - 111	58.6 - 118
13C-2,3,4,6,7,8-HxCDF	5.95e+07	0.54 y	1.14	34:04	79.2	79.2	40 - 135	50.8 - 110	63.7 - 115
13C-1,2,3,7,8,9-HxCDF	5.35e+07	0.53 y	1.00	35:04	81.3	81.3	40 - 135	48.6 - 108	63.3 - 112
13C-1,2,3,4,6,7,8-HpCDF	4.76e+07	0.43 y	0.88	36:54	81.7	81.7	40 - 135	45.9 - 104	55.0 - 117
13C-1,2,3,4,7,8,9-HpCDF	4.26e+07	0.44 y	0.77	38:37	83.7	83.7	40 - 135	41.1 - 114	53.2 - 122
13C-OCDF	9.33e+07	0.94 y	0.89	41:40	160	79.8	40 - 135	36.8 - 109	48.3 - 109
37Cl-2,3,7,8-TCDD	1.42e+07		0.68	26:35	37.9	94.8	40 - 135	51.1 - 117	49.6 - 106

Analyst: MM

13C-1,2,3,4-TCDD	5.54e+07	0.80 y	1.00	26:03	100
13C-1,2,3,4-TCDF	8.84e+07	0.79 y	1.00	24:44	100
13C-1,2,3,4,6,9-HxCDF	6.60e+07	0.53 y	1.00	33:45	100

Date: 1/14/10

Client ID: 0_2711_OPR001 Filename: 100113C1 S:2 Acq:13-JAN-10 12:08:46 ConCal: ST100113C1-1

Lab ID: 0_2711_OPR001 GC Column ID: db-5 ICal: 1613VG5-10-8-09 wt/vol: 1.000 EndCAL: ST100113C1-2

	Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL
	2,3,7,8-TCDD	5.84e+06	0.78 y	1.25	26:35	10.014		*	2.5	*
	1,2,3,7,8-PeCDD	2.24e+07	0.61 y	1.11	30:54	45.380		*	2.5	*
	1,2,3,4,7,8-HxCDD	2.07e+07	1.27 y	1.04	34:14	48.251		*	2.5	*
	1,2,3,6,7,8-HxCDD	2.24e+07	1.28 y	1.12	34:21	47.295		*	2.5	*
	1,2,3,7,8,9-HxCDD	2.42e+07	1.28 y	1.02	34:40	50.069		*	2.5	*
	1,2,3,4,6,7,8-HpCDD	2.20e+07	1.03 y	1.11	38:03	47.643		*	2.5	*
	OCDD	3.68e+07	0.92 y	1.24	41:26	92.756		*	2.5	*
	2,3,7,8-TCDF	8.33e+06	0.83 y	1.15	25:52	9.4433		*	2.5	*
	1,2,3,7,8-PeCDF	3.29e+07	1.57 y	1.11	29:46	44.658		*	2.5	*
	2,3,4,7,8-PeCDF	3.47e+07	1.57 y	1.07	30:38	46.660		*	2.5	*
	1,2,3,4,7,8-HxCDF	3.26e+07	1.22 y	1.34	33:20	44.982		*	2.5	*
	1,2,3,6,7,8-HxCDF	3.57e+07	1.24 y	1.18	33:28	45.188		*	2.5	*
	2,3,4,6,7,8-HxCDF	3.28e+07	1.19 y	1.20	34:05	45.782		*	2.5	*
	1,2,3,7,8,9-HxCDF	3.01e+07	1.24 y	1.24	35:04	45.508		*	2.5	*
	1,2,3,4,6,7,8-HpCDF	2.89e+07	0.97 y	1.44	36:55	41.994		*	2.5	*
	1,2,3,4,7,8,9-HpCDF	2.48e+07	0.98 y	1.40	38:37	41.498		*	2.5	*
	OCDF	4.65e+07	0.90 y	1.07	41:41	92.691		*	2.5	*
IS	13C-2,3,7,8-TCDD	4.67e+07	0.82 y	1.04	26:35	80.777				
IS	13C-1,2,3,7,8-PeCDD	4.44e+07	0.65 y	0.92	30:53	87.136				
IS	13C-1,2,3,4,7,8-HxCDD	4.12e+07	1.33 y	0.76	34:13	81.525				
IS	13C-1,2,3,6,7,8-HxCDD	4.22e+07	1.31 y	0.77	34:21	83.414				
IS	13C-1,2,3,7,8,9-HxCDD	4.72e+07	1.32 y	0.85	34:39	83.973				
IS	13C-1,2,3,4,6,7,8-HpCDD	4.16e+07	1.10 y	0.73	38:02	86.897				
IS	13C-OCDD	6.43e+07	0.93 y	0.58	41:25	167.41				
IS	13C-2,3,7,8-TCDF	7.64e+07	0.81 y	1.06	25:51	81.919				
IS	13C-1,2,3,7,8-PeCDF	6.62e+07	1.57 y	1.00	29:46	75.034				
IS	13C-2,3,4,7,8-PeCDF	6.96e+07	1.55 y	0.98	30:37	80.641				
IS	13C-1,2,3,4,7,8-HxCDF	5.40e+07	0.53 y	1.05	33:19	77.973				
IS	13C-1,2,3,6,7,8-HxCDF	6.66e+07	0.55 y	1.33	33:27	76.150				
IS	13C-2,3,4,6,7,8-HxCDF	5.95e+07	0.54 y	1.14	34:04	79.214				
IS	13C-1,2,3,7,8,9-HxCDF	5.35e+07	0.53 y	1.00	35:04	81.283				
IS	13C-1,2,3,4,6,7,8-HpCDF	4.76e+07	0.43 y	0.88	36:54	81.664				
IS	13C-1,2,3,4,7,8,9-HpCDF	4.26e+07	0.44 y	0.77	38:37	83.718				
IS	13C-OCDF	9.33e+07	0.94 y	0.89	41:40	159.64				
C/Up	37Cl-2,3,7,8-TCDD	1.42e+07		0.68	26:35	37.924				
RS/RT	13C-1,2,3,4-TCDD	5.54e+07	0.80 y	1.00	26:03	100.00				
RS	13C-1,2,3,4-TCDF	8.84e+07	0.79 y	1.00	24:44	100.00				
RS/RT	13C-1,2,3,4,6,9-HxCDF	6.60e+07	0.53 y	1.00	33:45	100.00				

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	10.3	11.4		*	*
Total Penta-Dioxins	45.7	46.0		*	*
Total Hexa-Dioxins	146	148		*	*
Total Hepta-Dioxins	48.4	50.0		*	*
Total Tetra-Furans	9.78	10.1		*	*
Total Penta-Furans	92.739	94.552		*	*
Total Hexa-Furans	183	186		*	*
Total Hepta-Furans	84.8	86.8		*	*

Rec	Qual
80.8	
87.1	
81.5	
83.4	
84.0	
86.9	
83.7	
81.9	
75.0	
80.6	
78.0	
76.1	
79.2	
81.3	
81.7	
83.7	
79.8	
94.8	

Integrations by Analyst: [illegible] Date: 1/14/10

Reviewed by Analyst: [illegible] Date: 1/15/10

File:100113C1 #1-546 Acq:13-JAN-2010 12:08:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-5 Text:0_2711_OPR001 Exp:OCDD_DB5
319.8965 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

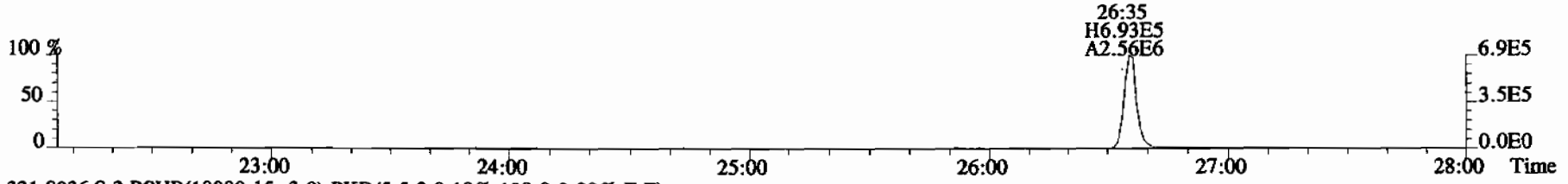

321.8936 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

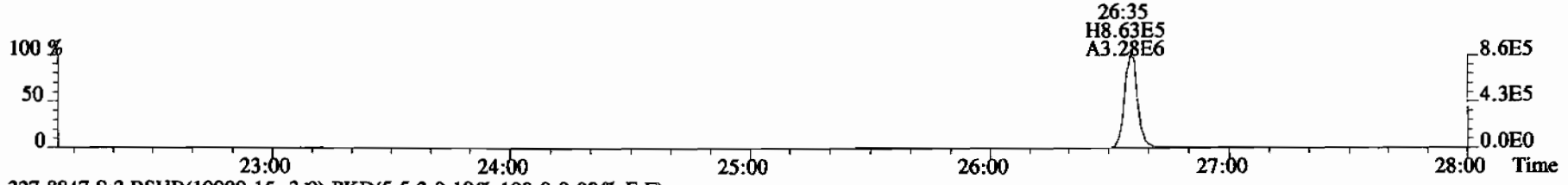

327.8847 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

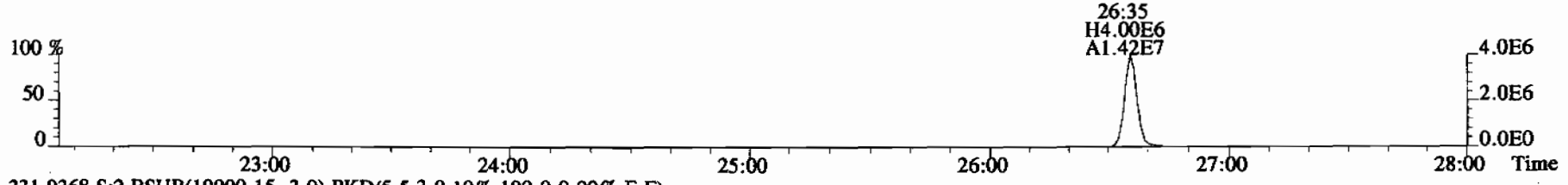

331.9368 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

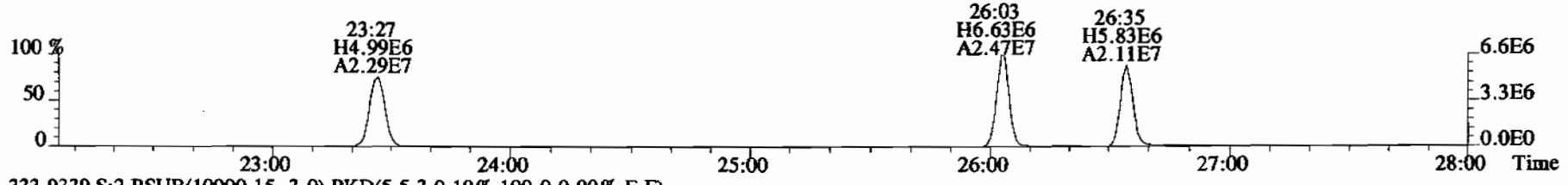

333.9339 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

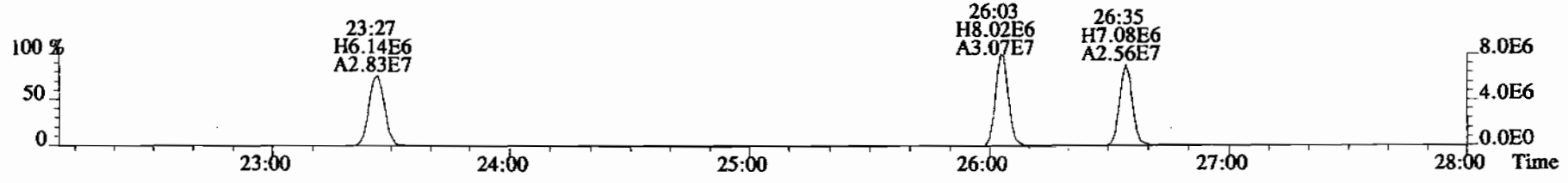

File:100113C1 #1-287 Acq:13-JAN-2010 12:08:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-5 Text:0_2711_OPR001 Exp:OCDD_DB5
353.8576 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

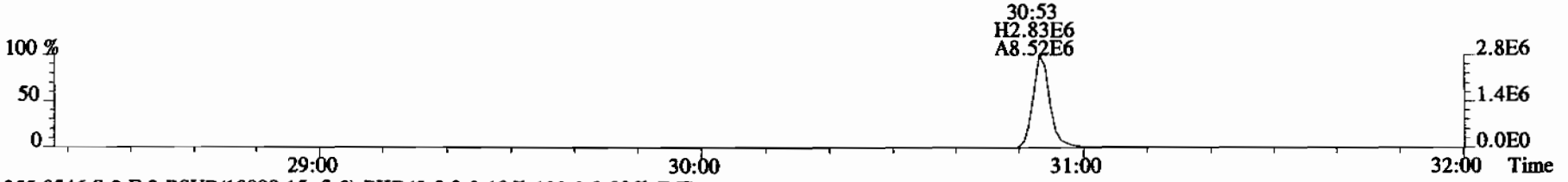

355.8546 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

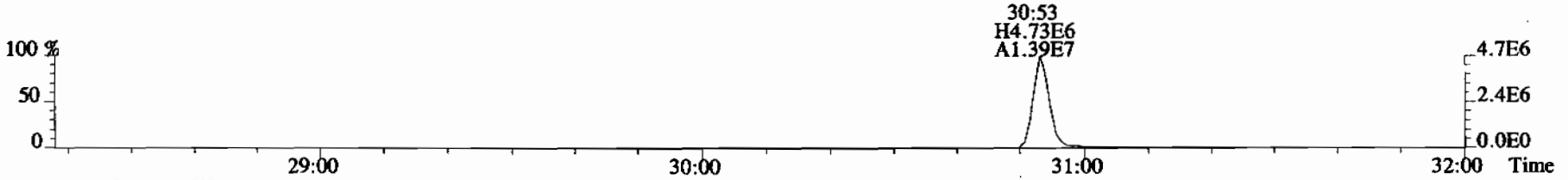

365.8978 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

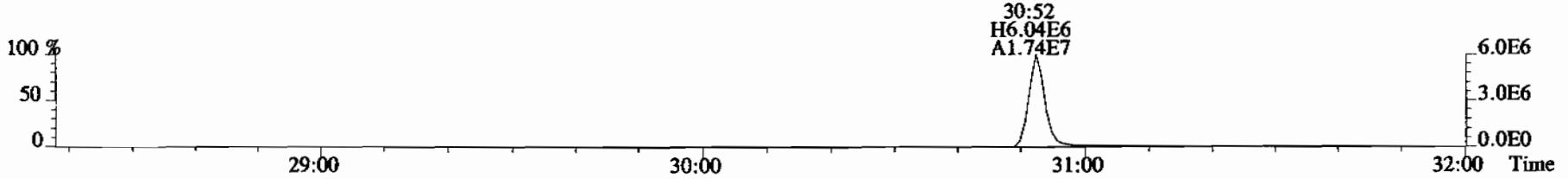

367.8949 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

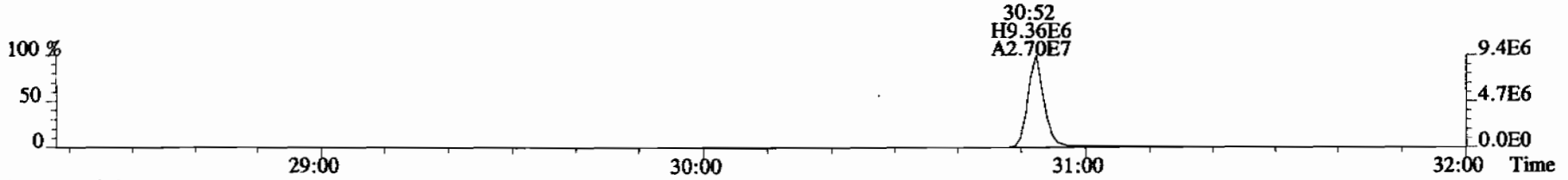

366.9792 S:2 F:2

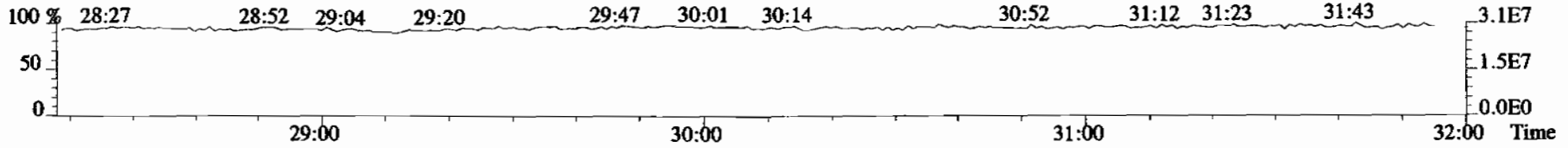

File:100113C1 #1-400 Acq:13-JAN-2010 12:08:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-5 Text:0_2711_OPR001 Exp:OCDD_DB5
389.8156 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

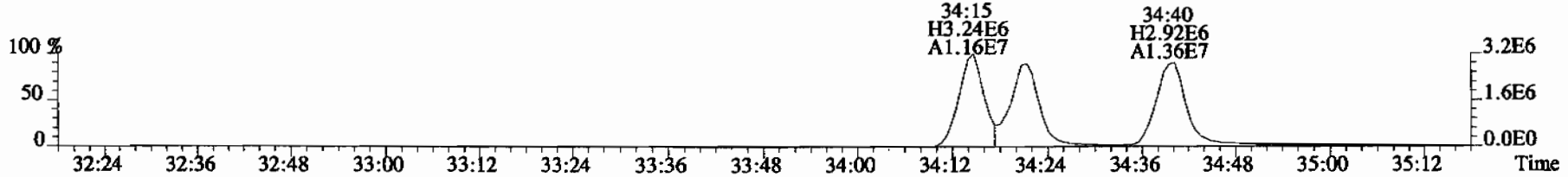

391.8127 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

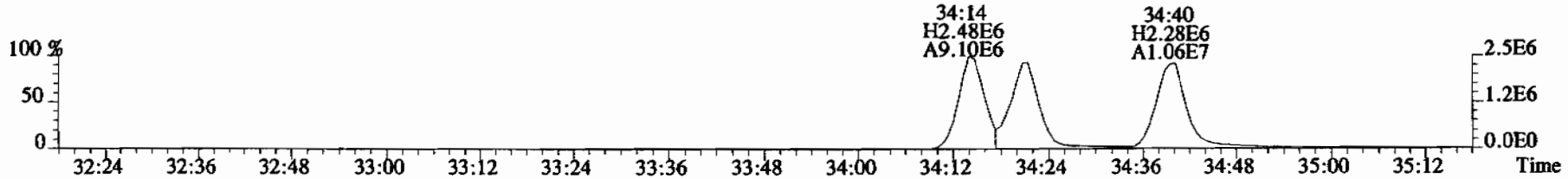

401.8559 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

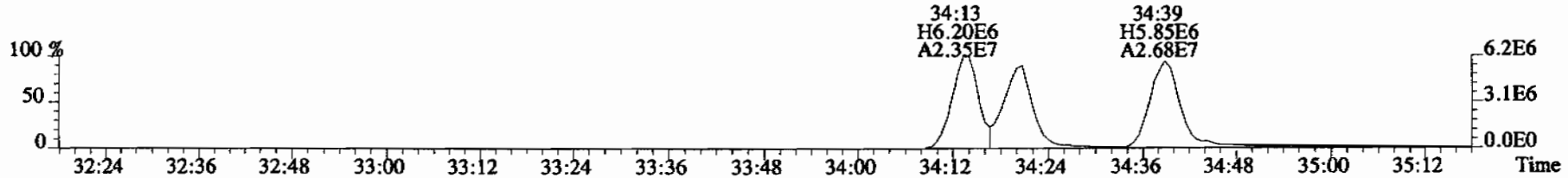

403.8530 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

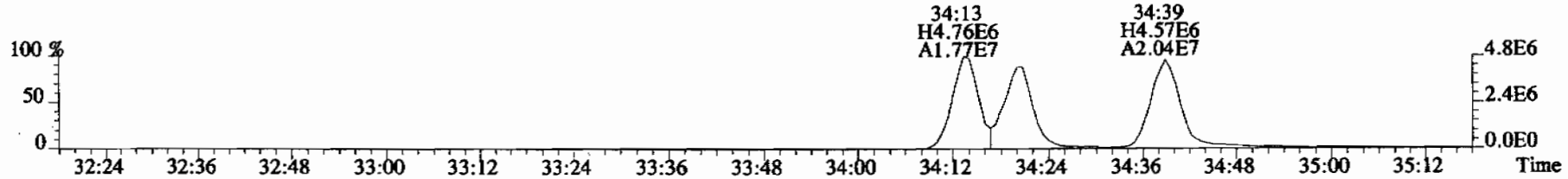

380.9760 S:2 F:3

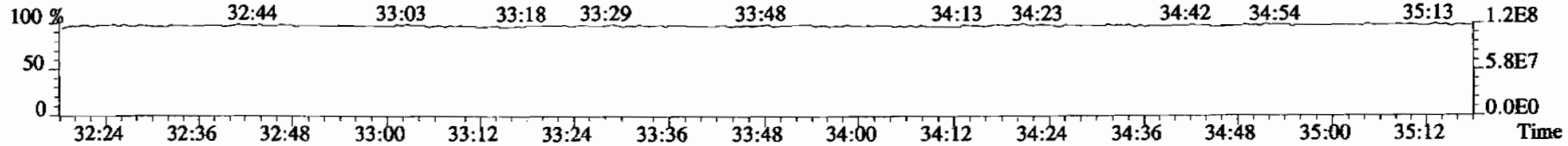

File:100113C1 #1-363 Acq:13-JAN-2010 12:08:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-5 Text:0_2711_OPR001 Exp:OCDD_DB5
423.7767 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

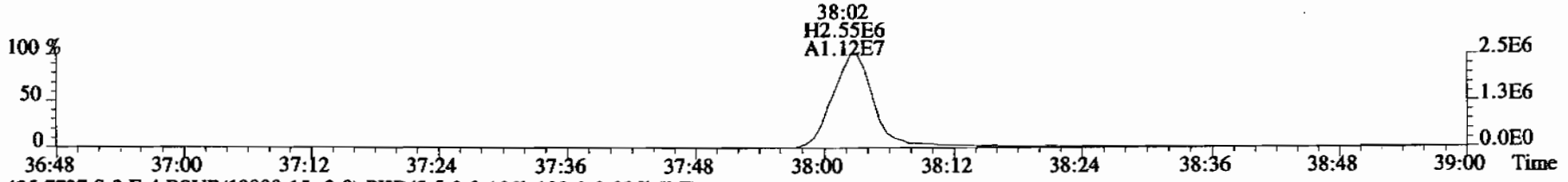

425.7737 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

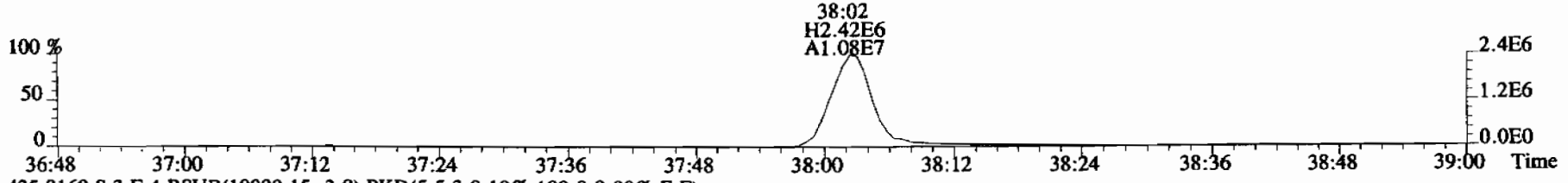

435.8169 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

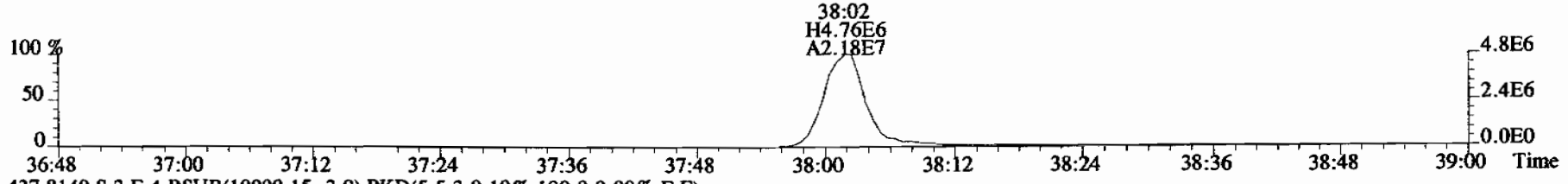

437.8140 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

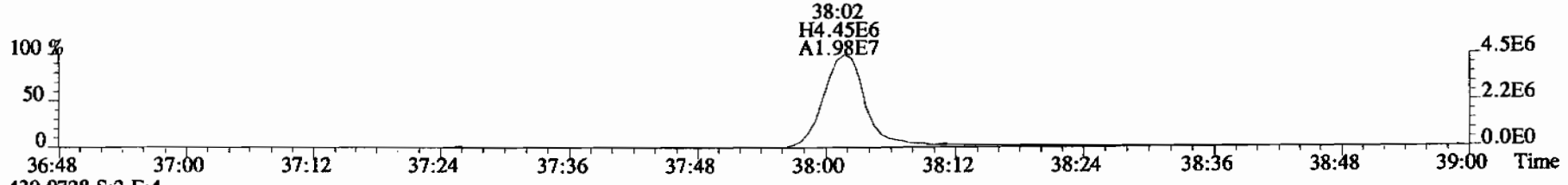

430.9728 S:2 F:4

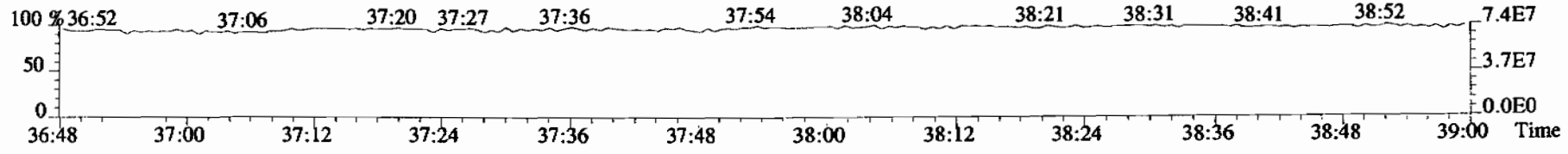

File:100113C1 #1-345 Acq:13-JAN-2010 12:08:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-5 Text:0_2711_OPR001 Exp:OCDD_DB5
457.7377 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

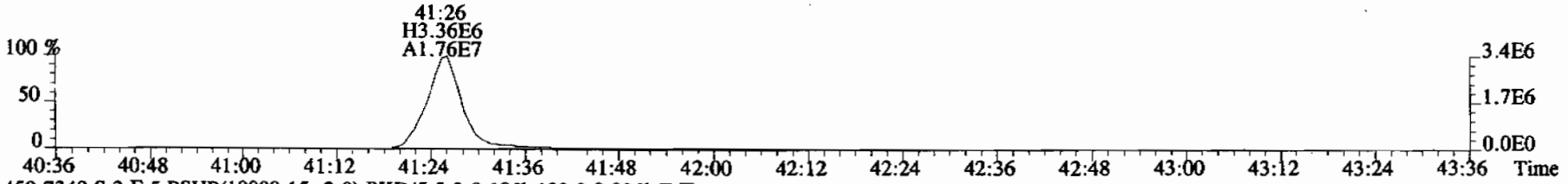

459.7348 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

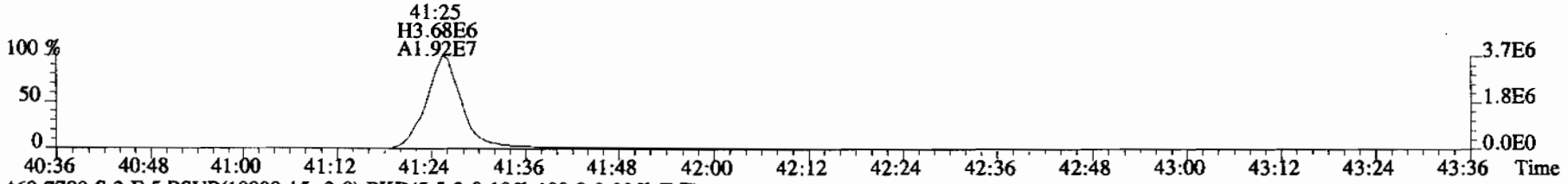

469.7780 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

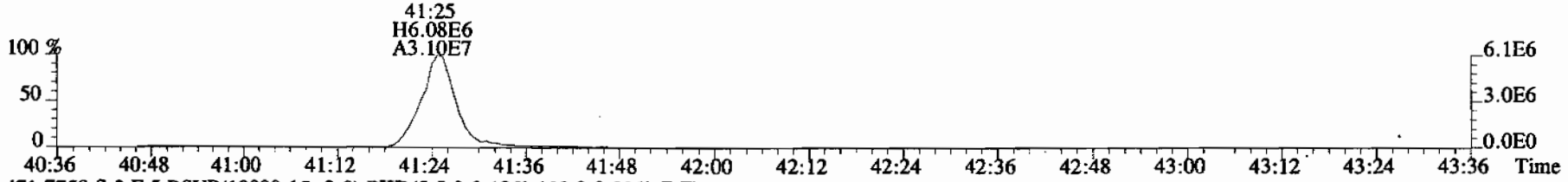

471.7750 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

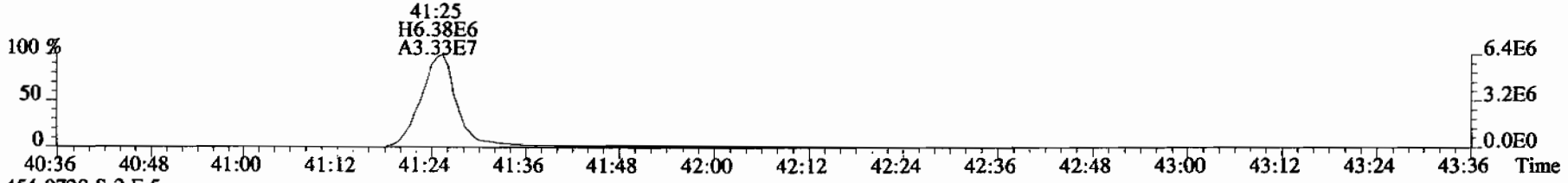

454.9728 S:2 F:5

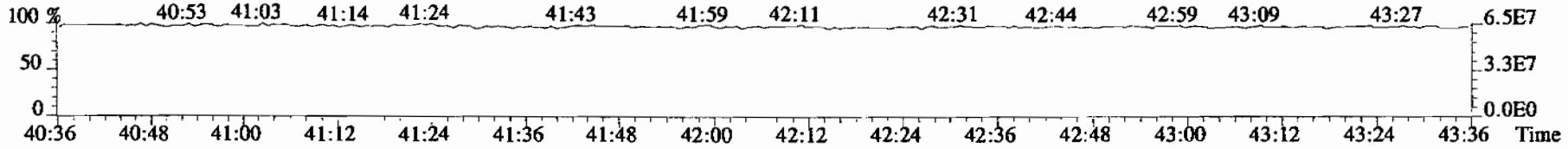

File:100113C1 #1-546 Acq:13-JAN-2010 12:08:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-5 Text:0_2711_OPR001 Exp:OCDD_DB5
303.9016 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

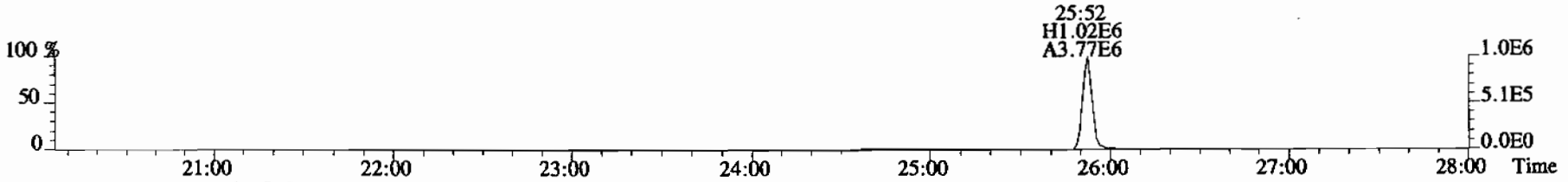

305.8987 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

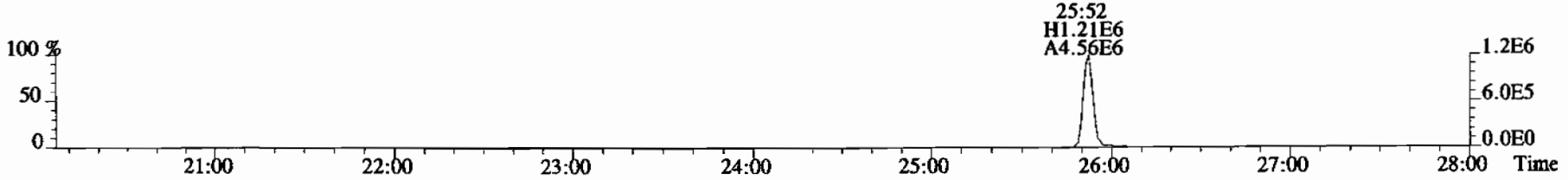

315.9419 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

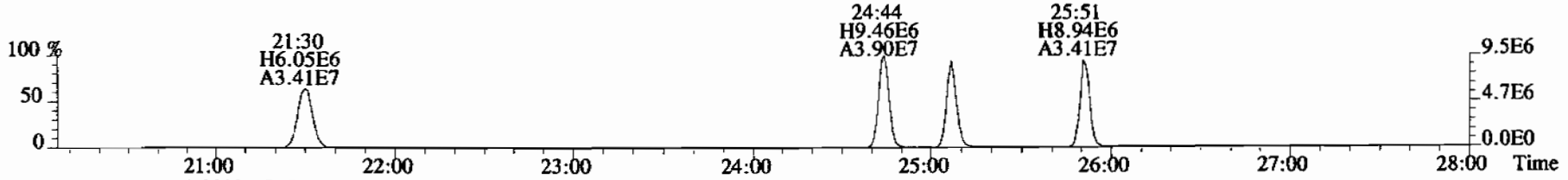

317.9389 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

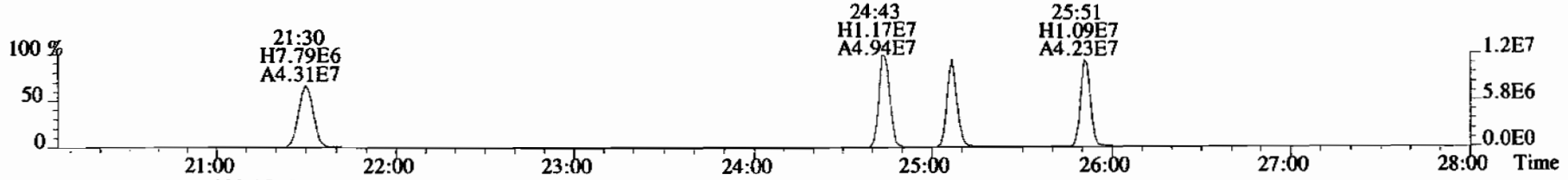

375.8364 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

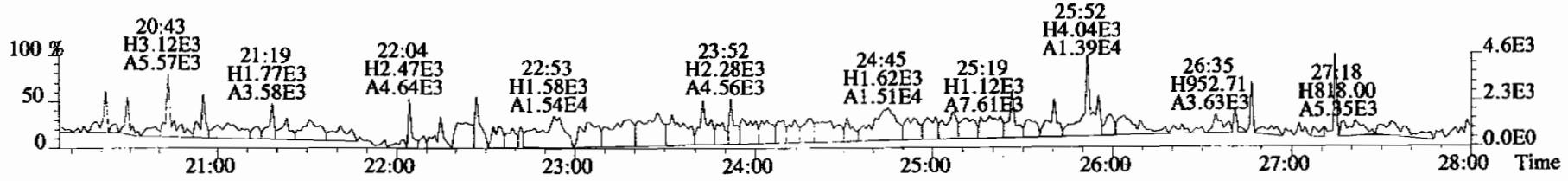

File:100113C1 #1-546 Acq:13-JAN-2010 12:08:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-5 Text:0_2711_OPR001 Exp:OCDD_DB5
339.8597 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

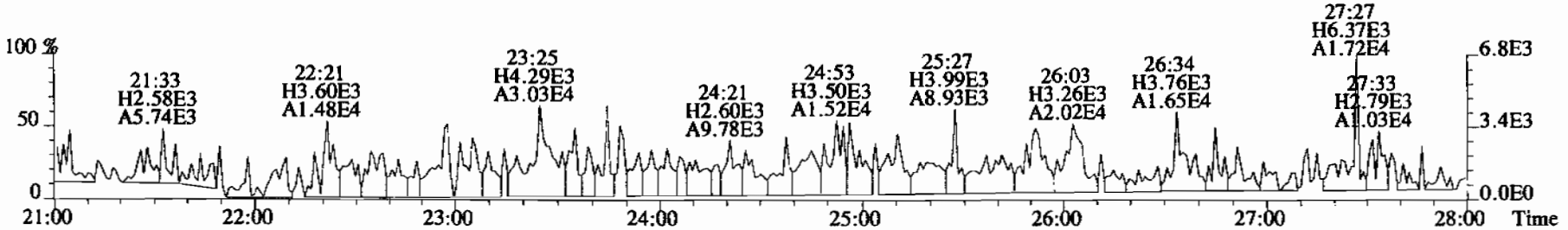

341.8568 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

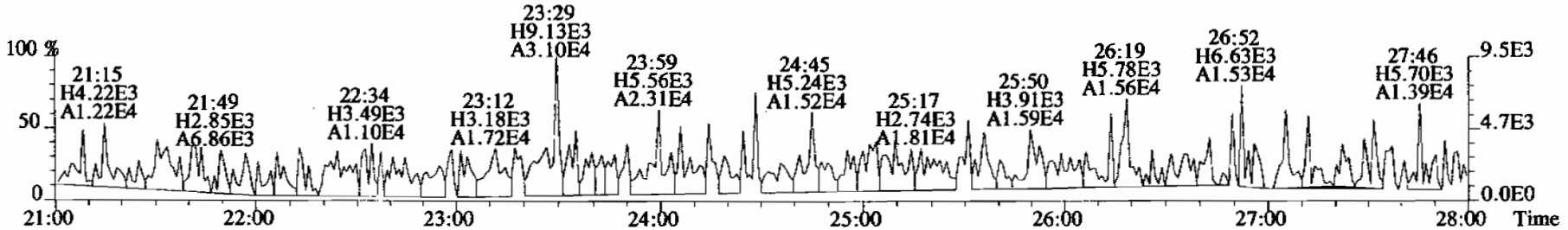

409.7974 S:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

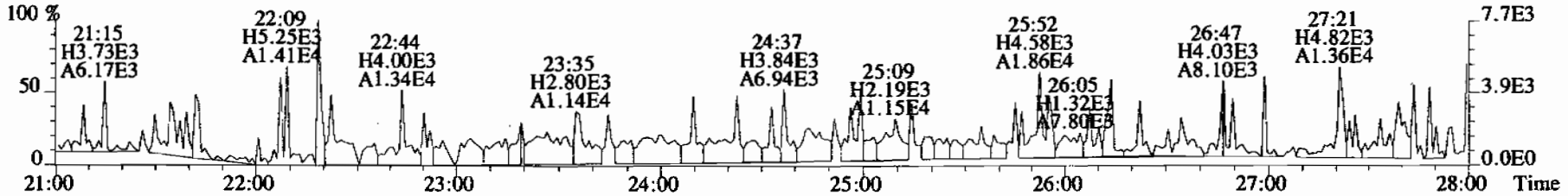

316.9824 S:2

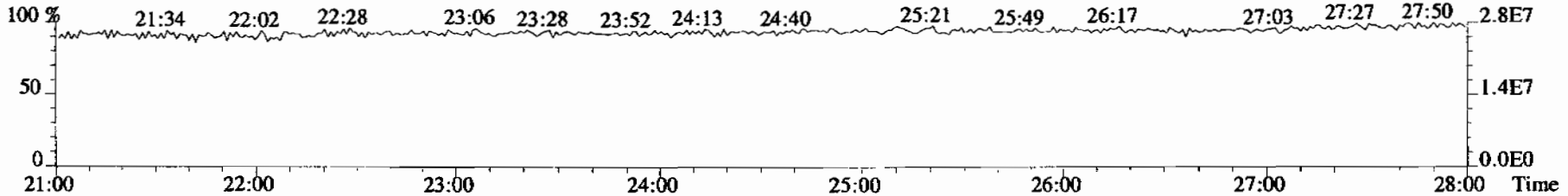

File:100113C1 #1-287 Acq:13-JAN-2010 12:08:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-5 Text:0_2711_OPR001 Exp:OCDD_DB5

339.8597 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

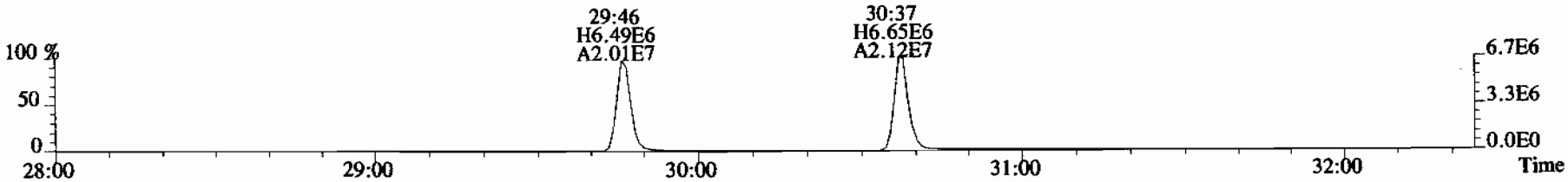

341.8568 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

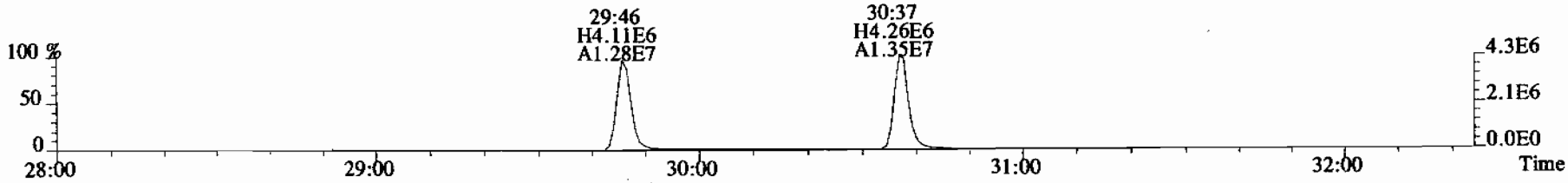

351.9000 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

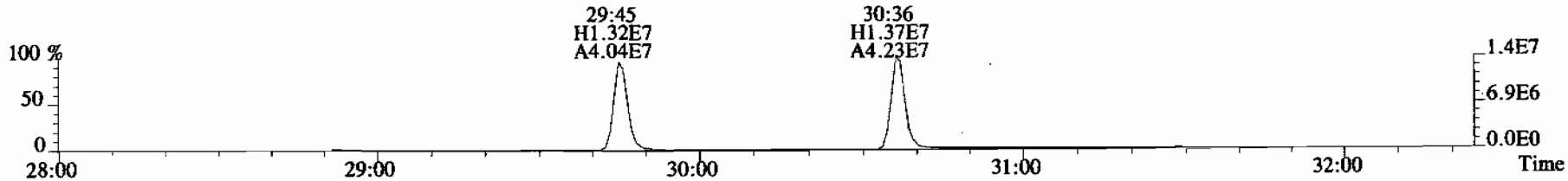

353.8970 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

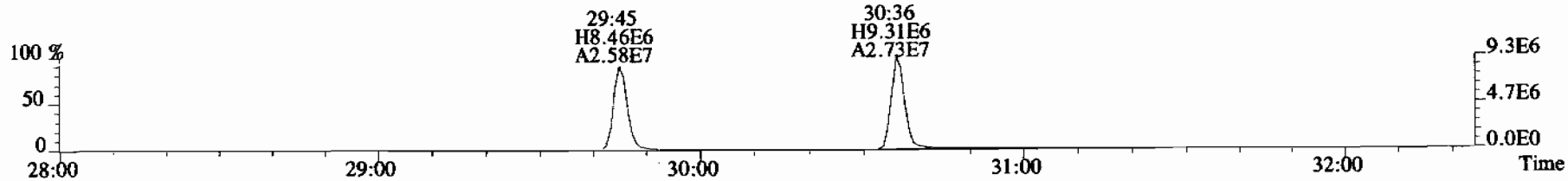

409.7974 S:2 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

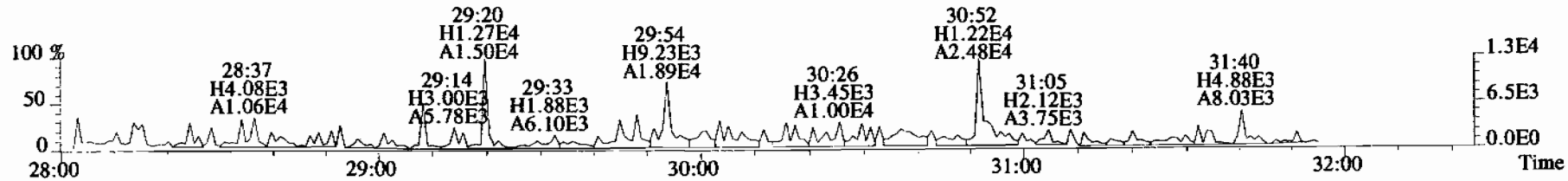

File:100113C1 #1-400 Acq:13-JAN-2010 12:08:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-5 Text:0_2711_OPR001 Exp:OCDD_DB5

373.8207 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

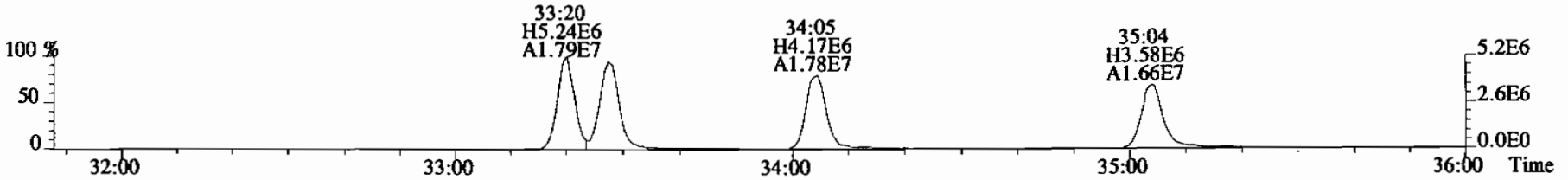

375.8178 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

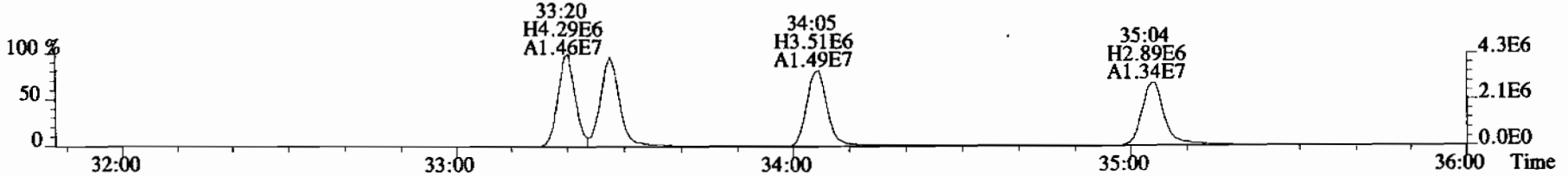

383.8639 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

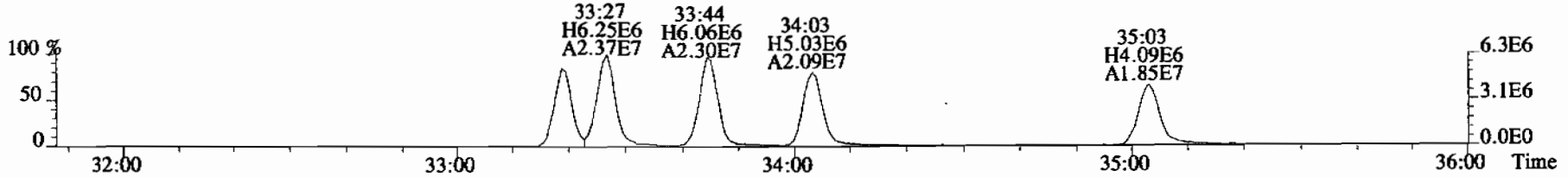

385.8610 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

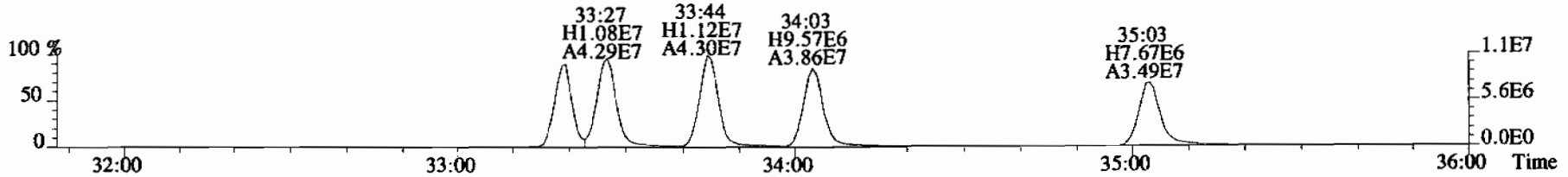

445.7555 S:2 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

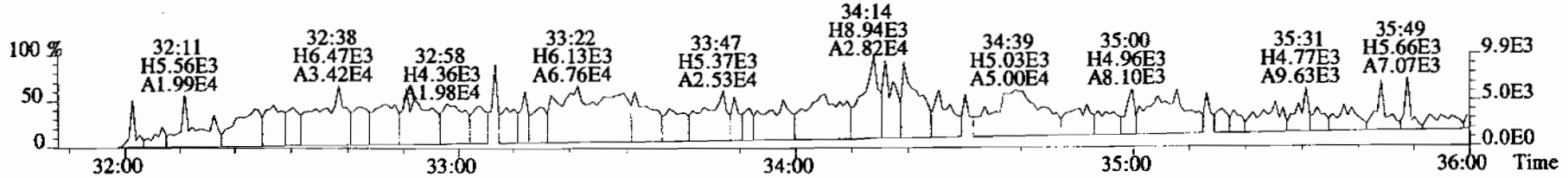

File:100113C1 #1-363 Acq:13-JAN-2010 12:08:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-5 Text:0_2711_OPR001 Exp:OCDD_DB5
407.7818 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

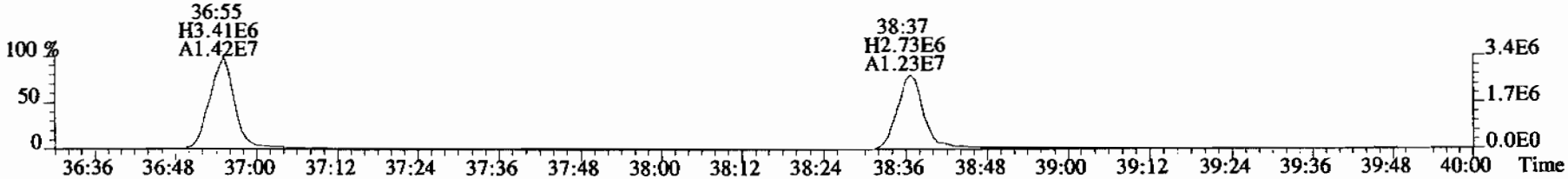

409.7788 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

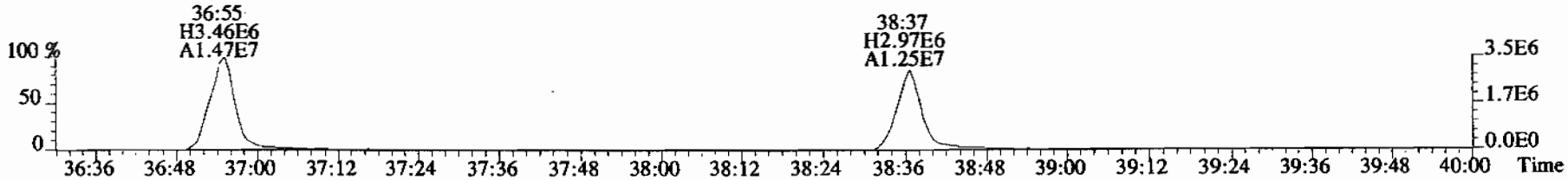

417.8253 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

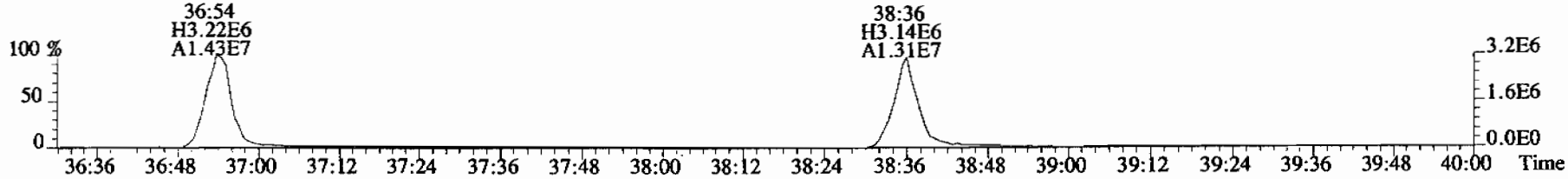

419.8220 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

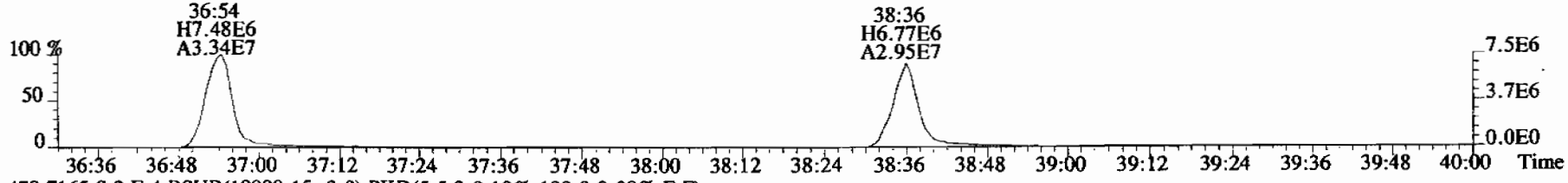

479.7165 S:2 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

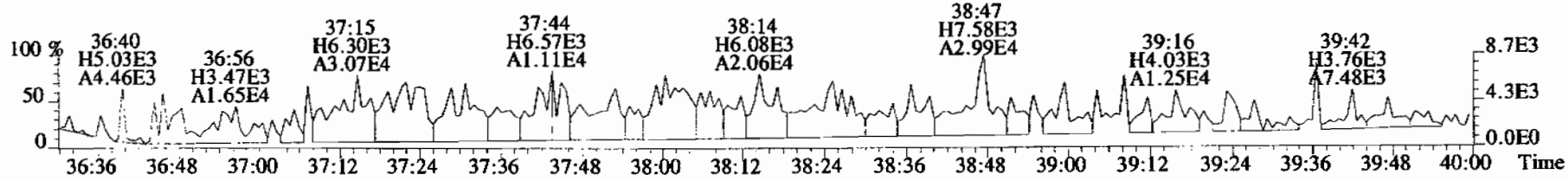

File:100113C1 #1-345 Acq:13-JAN-2010 12:08:46 GC EI+ Voltage SIR Autospec-UltimaE
Sample#2 File Text:Vista Analytical Laboratory VG-5 Text:0_2711_OPR001 Exp:OCDD_DB5
441.7428 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

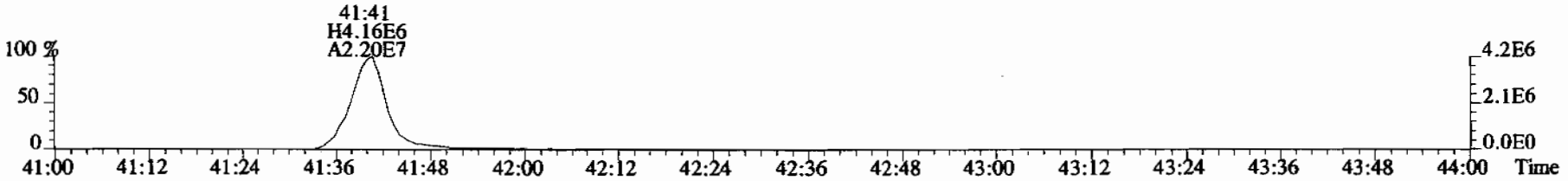

443.7398 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

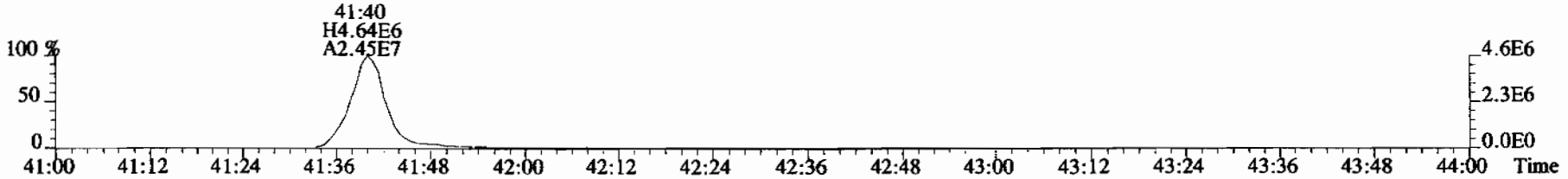

453.7831 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

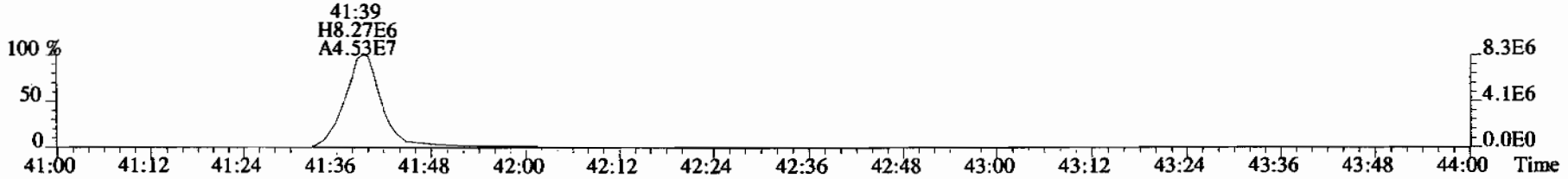

455.7801 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

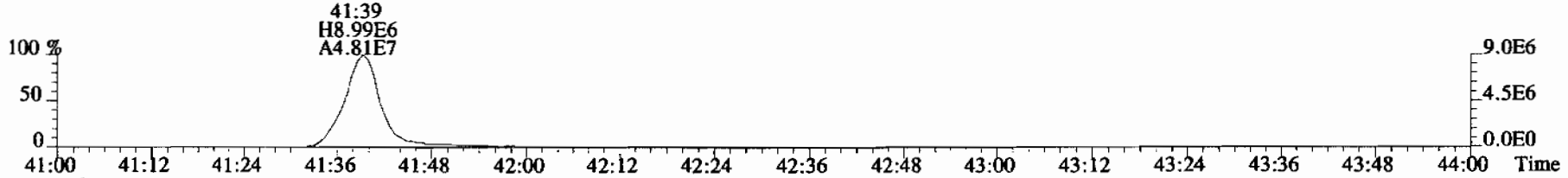

513.6775 S:2 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

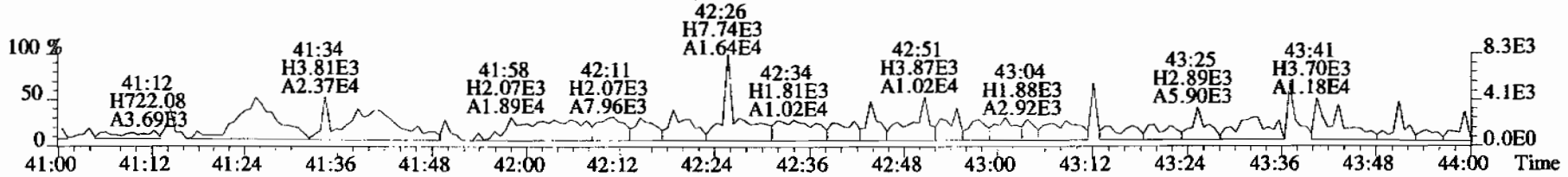

Client ID: CAPA-10-6818 Filename: 100113C1 S:11 Acq:13-JAN-10 19:24:28 ConCal: ST100113C1-1
Lab ID: 32302_2711_001 GC Column ID: db-5 ICal: 1613VG5-10-8-09 wt/vol: 0.904 EndCAL: ST100113C1-2

Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL
2,3,7,8-TCDD	*	* n	1.25	NotFound	*		3640	2.5	2.01
1,2,3,7,8-PeCDD	*	* n	1.11	NotFound	*		2940	2.5	1.65
1,2,3,4,7,8-HxCDD	*	* n	1.04	NotFound	*		3710	2.5	3.96
1,2,3,6,7,8-HxCDD	*	* n	1.12	NotFound	*		3710	2.5	4.15
1,2,3,7,8,9-HxCDD	*	* n	1.02	NotFound	*		3710	2.5	4.24
1,2,3,4,6,7,8-HpCDD	*	* n	1.11	NotFound	*		2470	2.5	2.55
OCDD	*	* n	1.24	NotFound	*		4390	2.5	5.87
2,3,7,8-TCDF	*	* n	1.15	NotFound	*		2840	2.5	1.20
1,2,3,7,8-PeCDF	*	* n	1.11	NotFound	*		2780	2.5	1.52
2,3,4,7,8-PeCDF	*	* n	1.07	NotFound	*		2780	2.5	1.72
1,2,3,4,7,8-HxCDF	*	* n	1.34	NotFound	*		3020	2.5	1.22
1,2,3,6,7,8-HxCDF	*	* n	1.18	NotFound	*		3020	2.5	1.24
2,3,4,6,7,8-HxCDF	*	* n	1.20	NotFound	*		3020	2.5	1.45
1,2,3,7,8,9-HxCDF	*	* n	1.24	NotFound	*		3020	2.5	1.82
1,2,3,4,6,7,8-HpCDF	*	* n	1.44	NotFound	*		2450	2.5	1.17
1,2,3,4,7,8,9-HpCDF	*	* n	1.40	NotFound	*		2450	2.5	1.45
OCDF	*	* n	1.07	NotFound	*		3470	2.5	3.69

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	*	*		3640	2.01
Total Penta-Dioxins	*	*		6320	3.55
Total Hexa-Dioxins	*	*		3710	4.12
Total Hepta-Dioxins	*	*		2470	2.55
Total Tetra-Furans	*	*		2840	1.20
Total Penta-Furans	0.0000	0.0000		2780	1.61
Total Hexa-Furans	*	*		3020	1.42
Total Hepta-Furans	*	*		2450	1.30

	Name	Resp	RA	RRF	RT	Conc	Rec	Qual
IS	13C-2,3,7,8-TCDD	4.98e+07	0.82 y	1.04	26:35	1864.1	84.3	
IS	13C-1,2,3,7,8-PeCDD	4.56e+07	0.65 y	0.92	30:53	1933.3	87.4	
IS	13C-1,2,3,4,7,8-HxCDD	4.30e+07	1.31 y	0.76	34:14	1860.4	84.1	
IS	13C-1,2,3,6,7,8-HxCDD	4.32e+07	1.33 y	0.77	34:21	1864.6	84.3	
IS	13C-1,2,3,7,8,9-HxCDD	4.75e+07	1.23 y	0.85	34:39	1844.8	83.4	
IS	13C-1,2,3,4,6,7,8-HpCDD	4.18e+07	1.08 y	0.73	38:02	1906.3	86.2	
IS	13C-OCDD	6.69e+07	0.90 y	0.58	41:25	3800.9	85.9	
IS	13C-2,3,7,8-TCDF	8.05e+07	0.82 y	1.06	25:52	1844.6	83.4	
IS	13C-1,2,3,7,8-PeCDF	6.94e+07	1.56 y	1.00	29:46	1681.4	76.0	
IS	13C-2,3,4,7,8-PeCDF	7.09e+07	1.60 y	0.98	30:37	1754.3	79.3	
IS	13C-1,2,3,4,7,8-HxCDF	5.45e+07	0.51 y	1.05	33:19	1719.2	77.7	
IS	13C-1,2,3,6,7,8-HxCDF	6.79e+07	0.52 y	1.33	33:27	1692.9	76.5	
IS	13C-2,3,4,6,7,8-HxCDF	6.17e+07	0.54 y	1.14	34:04	1794.1	81.1	
IS	13C-1,2,3,7,8,9-HxCDF	5.36e+07	0.52 y	1.00	35:03	1778.4	80.4	
IS	13C-1,2,3,4,6,7,8-HpCDF	4.85e+07	0.42 y	0.88	36:54	1814.7	82.0	
IS	13C-1,2,3,4,7,8,9-HpCDF	4.33e+07	0.44 y	0.77	38:36	1856.4	83.9	
IS	13C-OCDF	9.76e+07	0.91 y	0.89	41:40	3642.9	82.3	
C/Up	37Cl-2,3,7,8-TCDD	1.45e+07		0.68	26:36	835.03	94.4	
RS/RT	13C-1,2,3,4-TCDD	5.67e+07	0.82 y	1.00	26:04	2212.4		
RS	13C-1,2,3,4-TCDF	9.15e+07	0.81 y	1.00	24:45	2212.4		
RS/RT	13C-1,2,3,4,6,9-HxCDF	6.69e+07	0.53 y	1.00	33:45	2212.4		

Integrations by Analyst: MJ Date: 1/14/10

Reviewed by Analyst: [illegible] Date: 1/15/10

File:100113C1 #1-546 Acq:13-JAN-2010 19:24:28 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Vista Analytical Laboratory VG-5 Text:32302_2711_001 CAPA-10-6818 0.9040L Exp:OCDD_DB5
319.8965 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

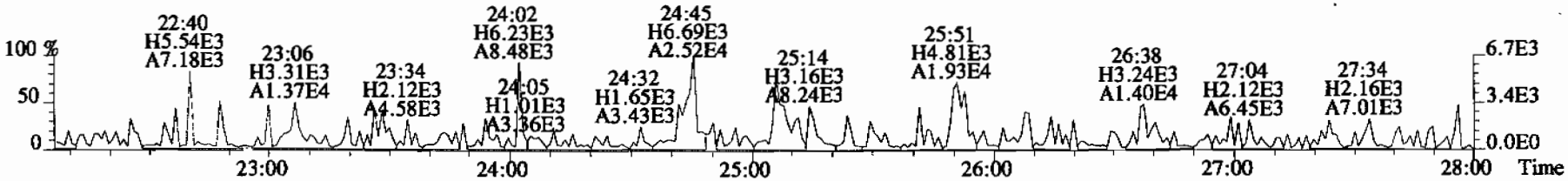

321.8936 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

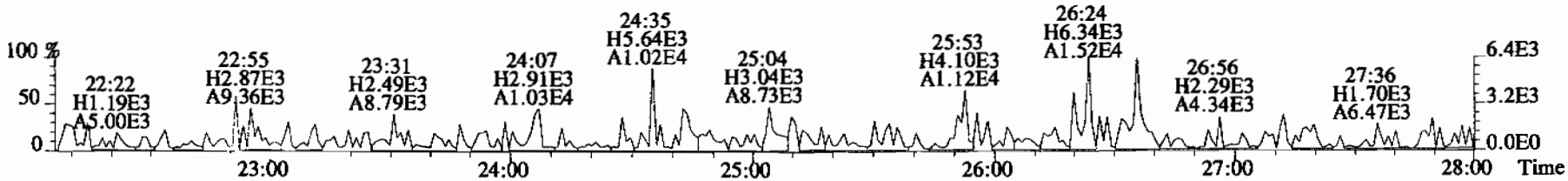

327.8847 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

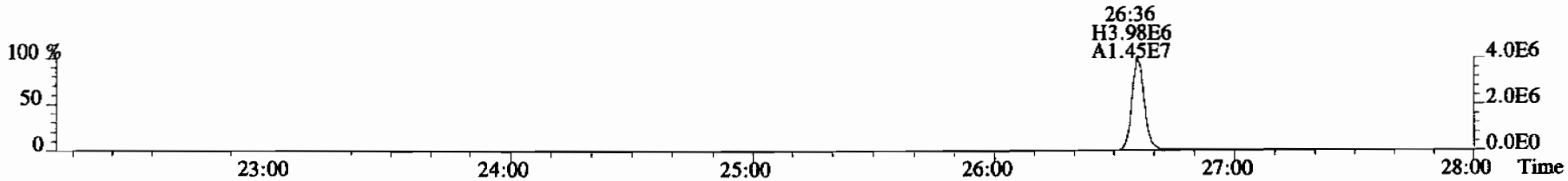

331.9368 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

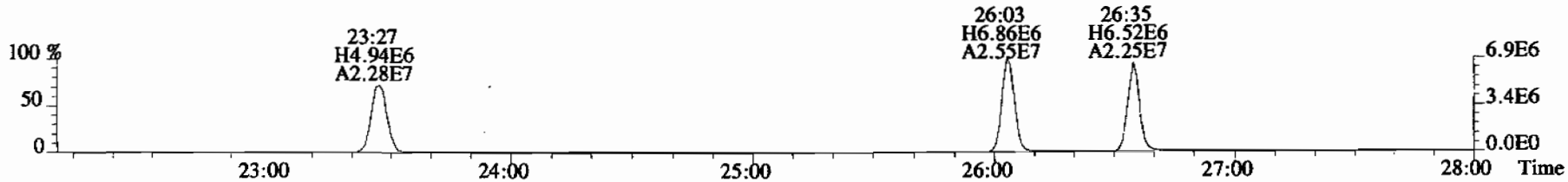

333.9339 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

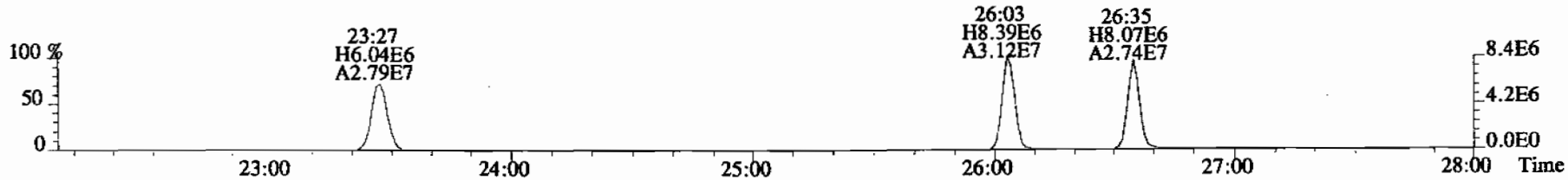

File:100113C1 #1-287 Acq:13-JAN-2010 19:24:28 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Vista Analytical Laboratory VG-5 Text:32302_2711_001 CAPA-10-6818 0.9040L Exp:OCDD_DB5
353.8576 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

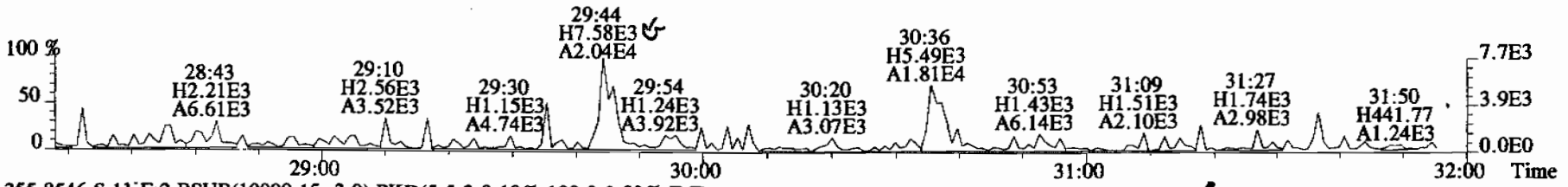

355.8546 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

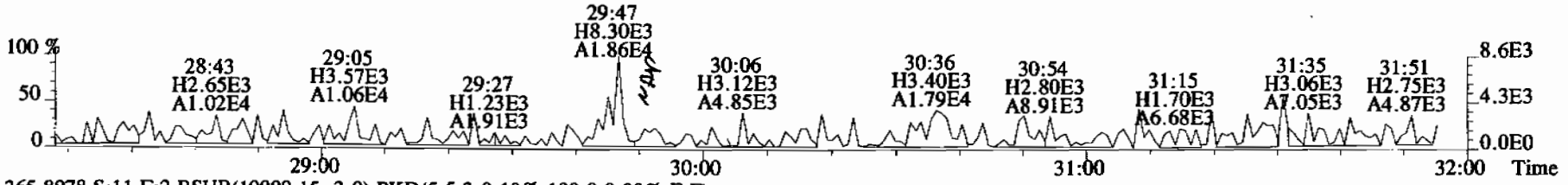

365.8978 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

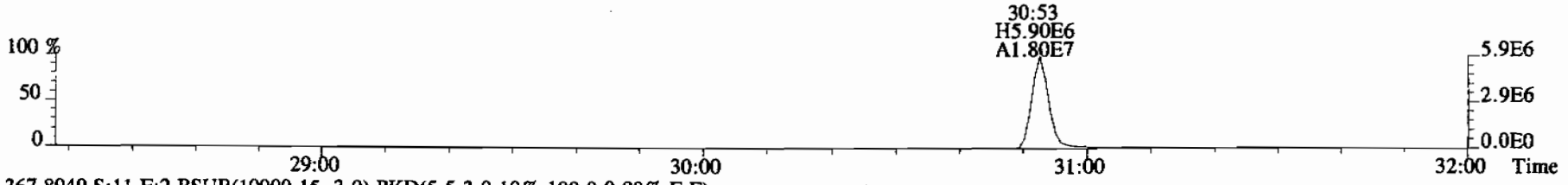

367.8949 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

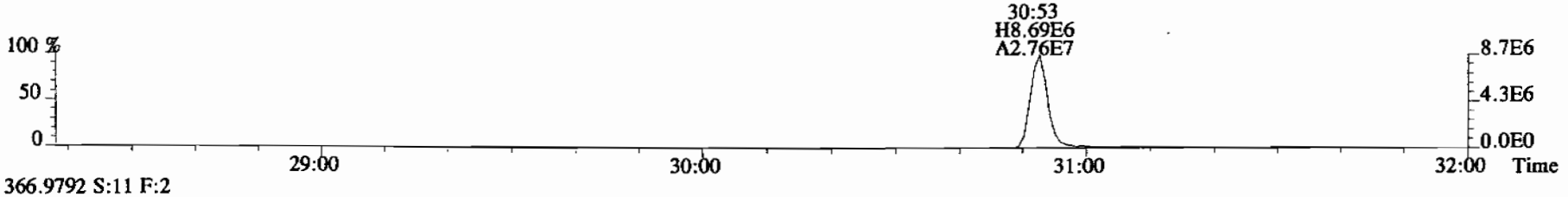

366.9792 S:11 F:2

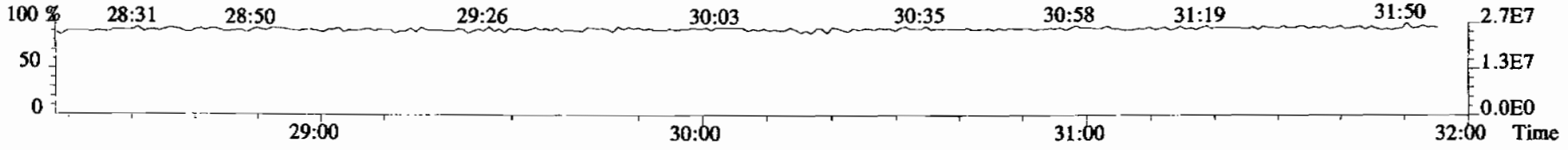

File:100113C1 #1-400 Acq:13-JAN-2010 19:24:28 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Vista Analytical Laboratory VG-5 Text:32302_2711_001 CAPA-10-6818 0.9040L Exp:OCDD_DB5
389.8156 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

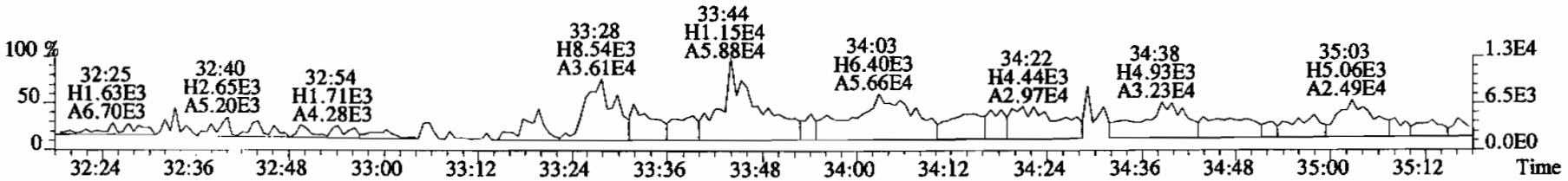

391.8127 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

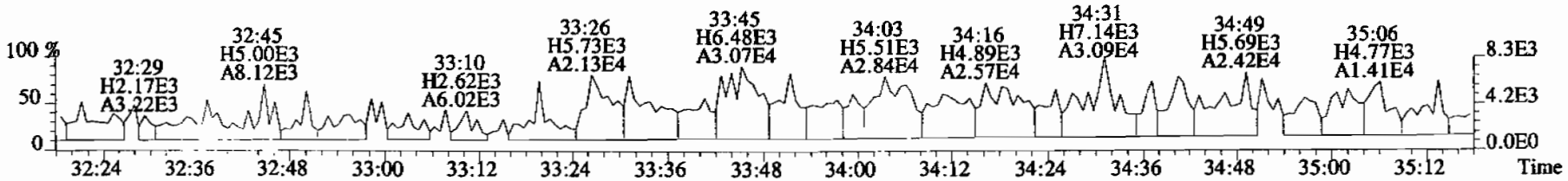

401.8559 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

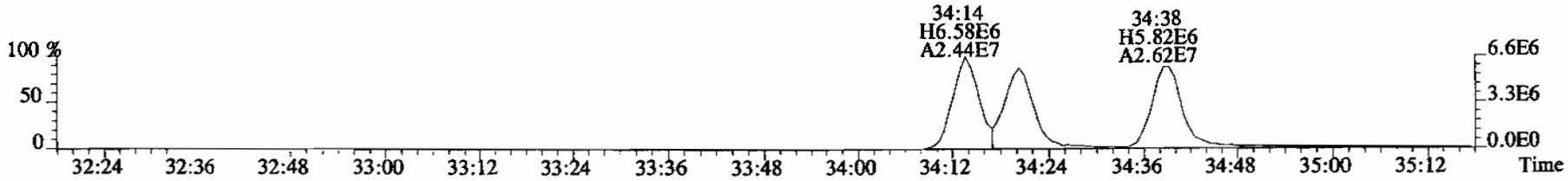

403.8530 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

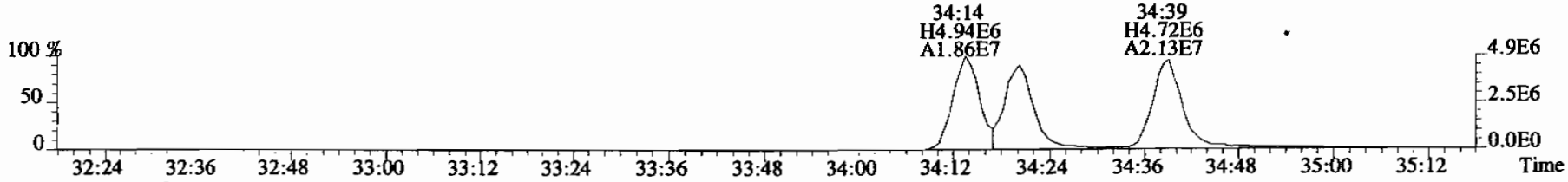

380.9760 S:11 F:3

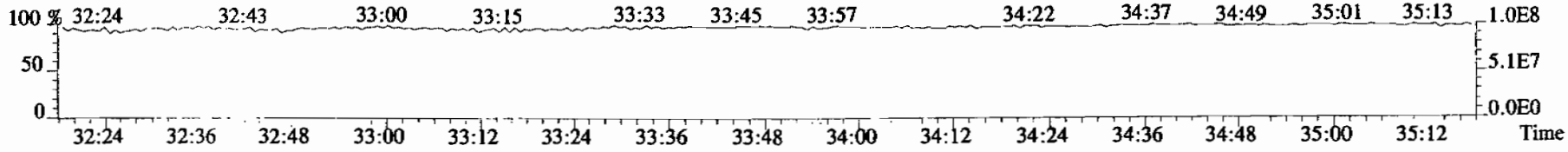

File:100113C1 #1-363 Acq:13-JAN-2010 19:24:28 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Vista Analytical Laboratory VG-5 Text:32302_2711_001 CAPA-10-6818 0.9040L Exp:OCDD_DB5
423.7767 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

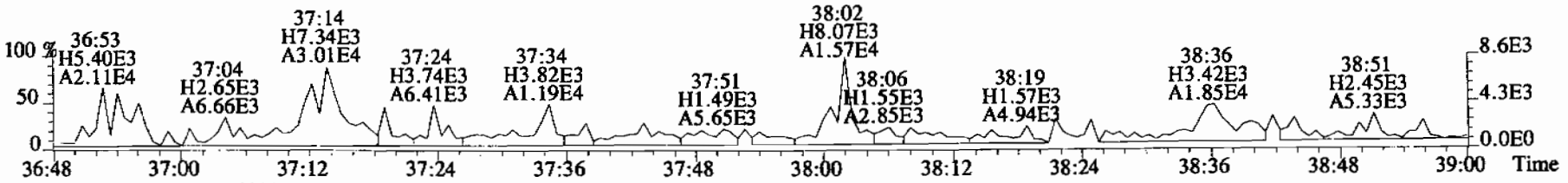

425.7737 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

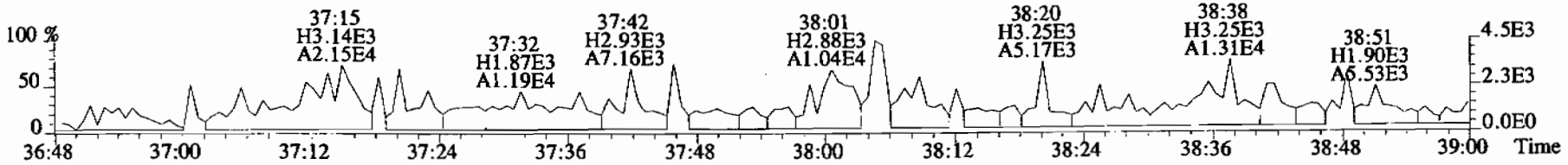

435.8169 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

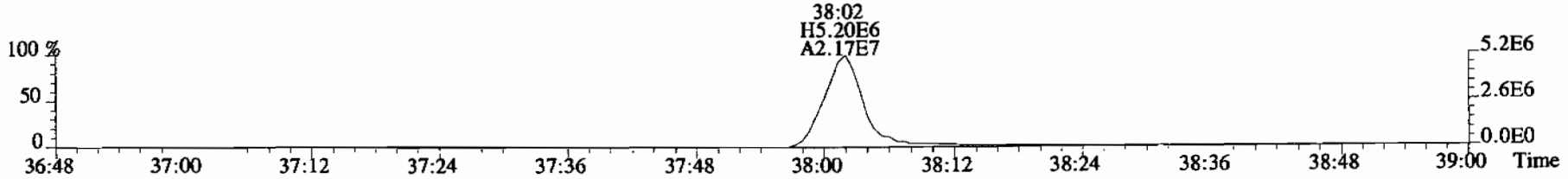

437.8140 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

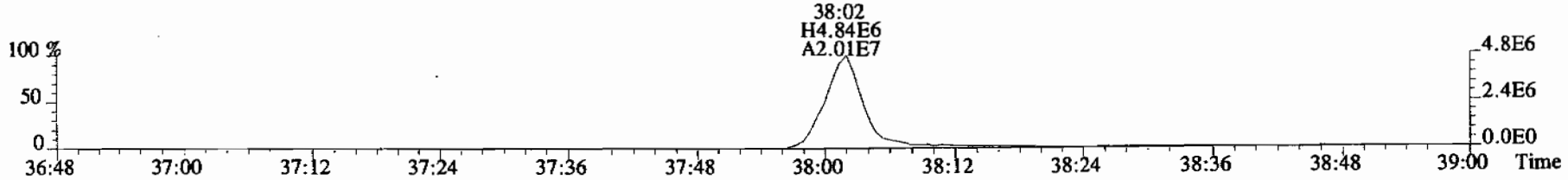

430.9728 S:11 F:4

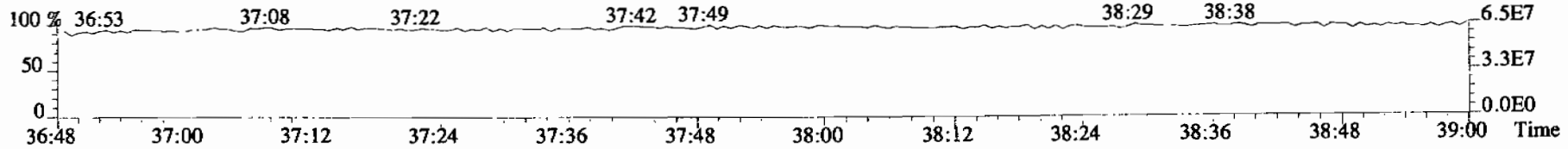

File:100113C1 #1-345 Acq:13-JAN-2010 19:24:28 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Vista Analytical Laboratory VG-5 Text:32302_2711_001 CAPA-10-6818 0.9040L Exp:OCDD_DB5
457.7377 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

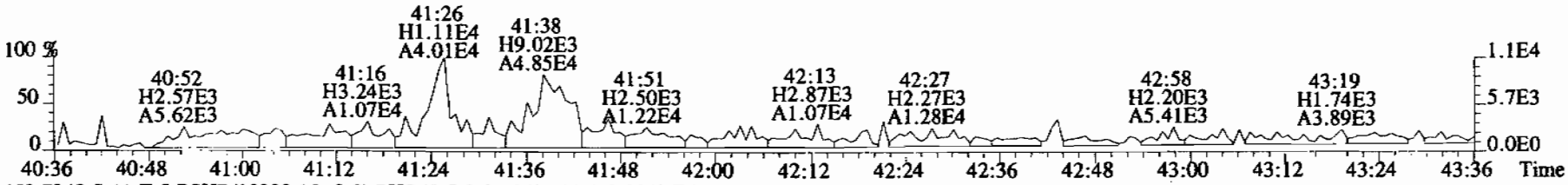

459.7348 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

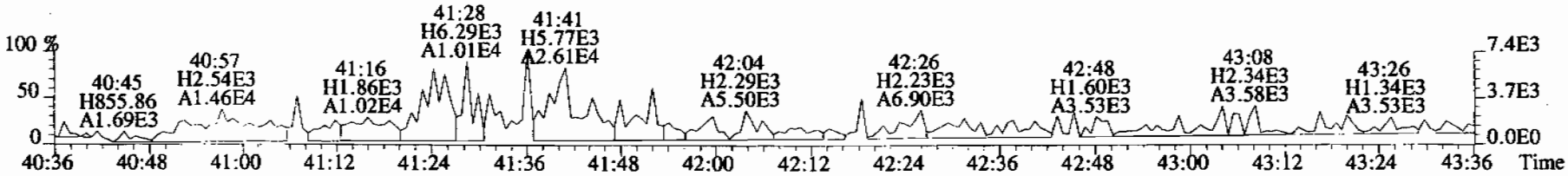

469.7780 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

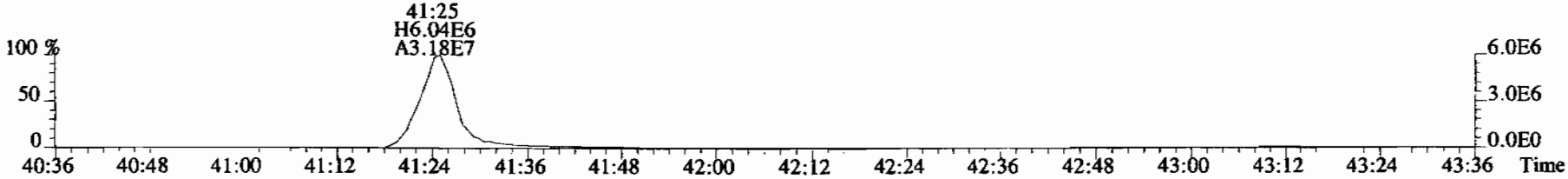

471.7750 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

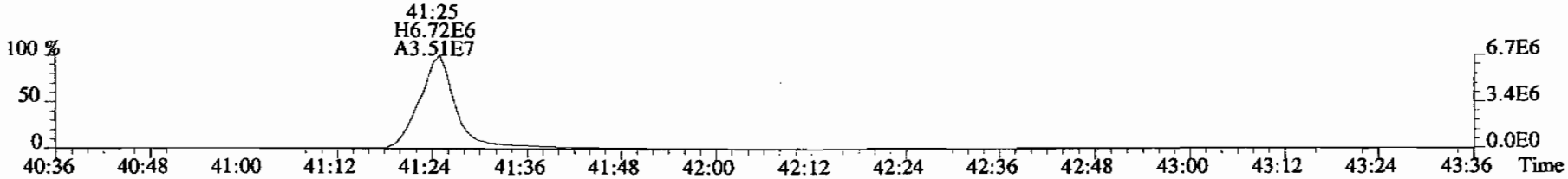

454.9728 S:11 F:5

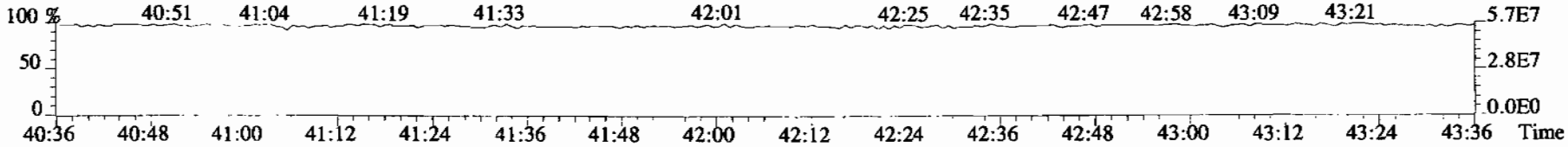

File:100113C1 #1-546 Acq:13-JAN-2010 19:24:28 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Vista Analytical Laboratory VG-5 Text:32302_2711_001 CAPA-10-6818 0.9040L Exp:OCDD_DB5
303.9016 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

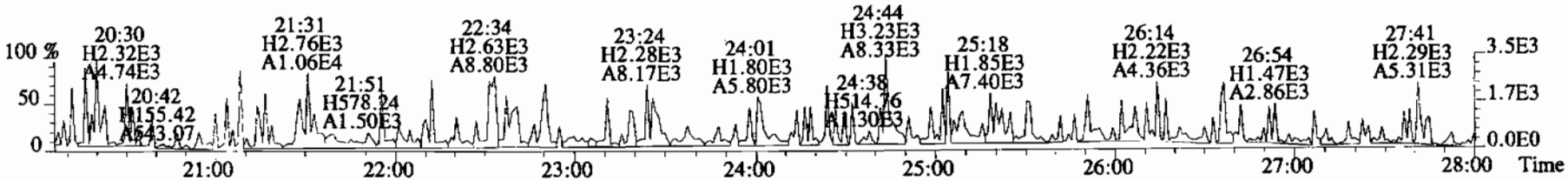

305.8987 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

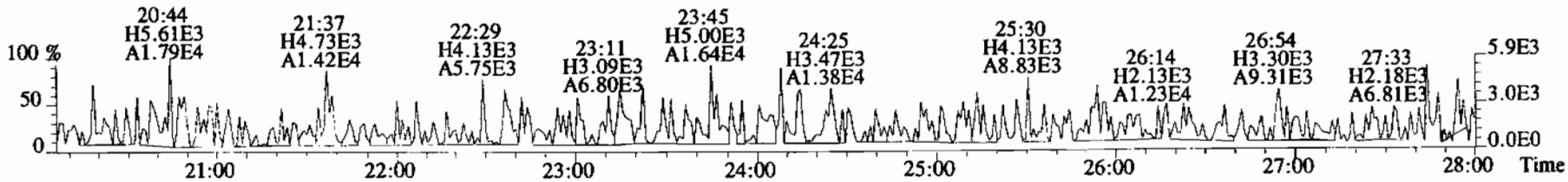

315.9419 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

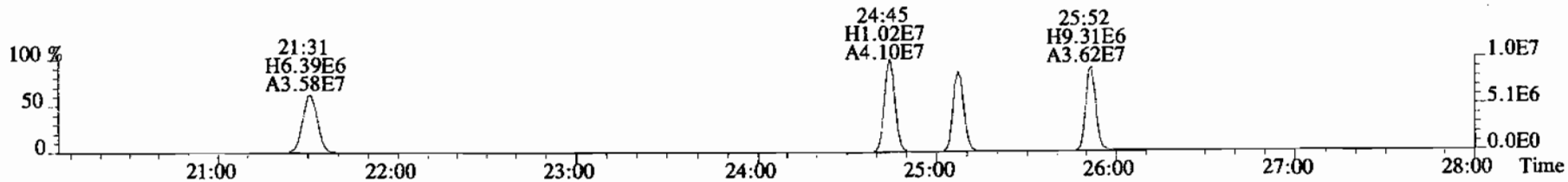

317.9389 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

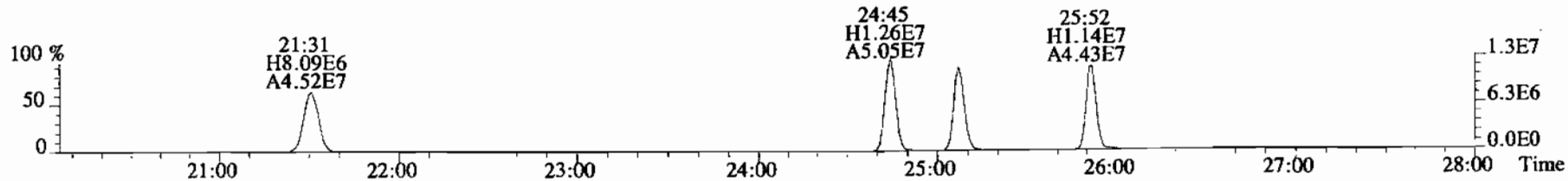

375.8364 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

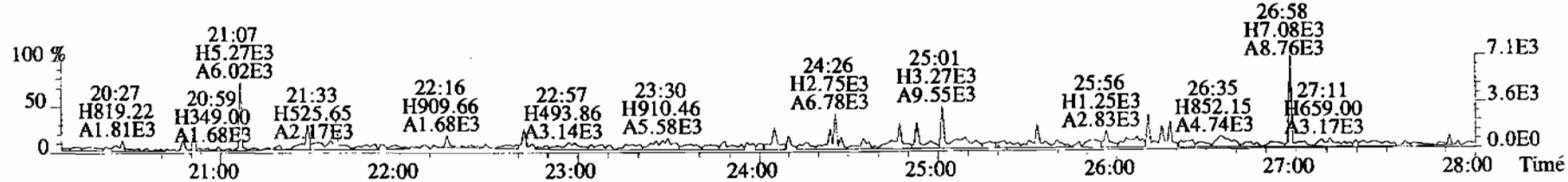

File:100113C1 #1-546 Acq:13-JAN-2010 19:24:28 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Vista Analytical Laboratory VG-5 Text:32302_2711_001 CAPA-10-6818 0.9040L Exp:OCDD_DB5
339.8597 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

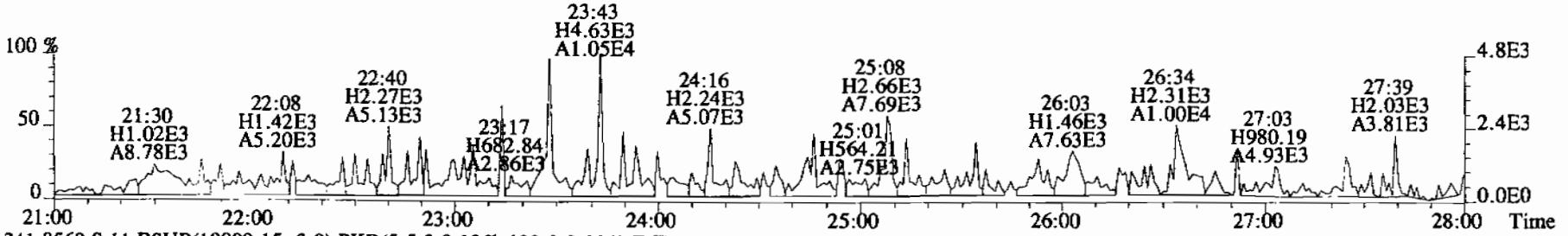

341.8568 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

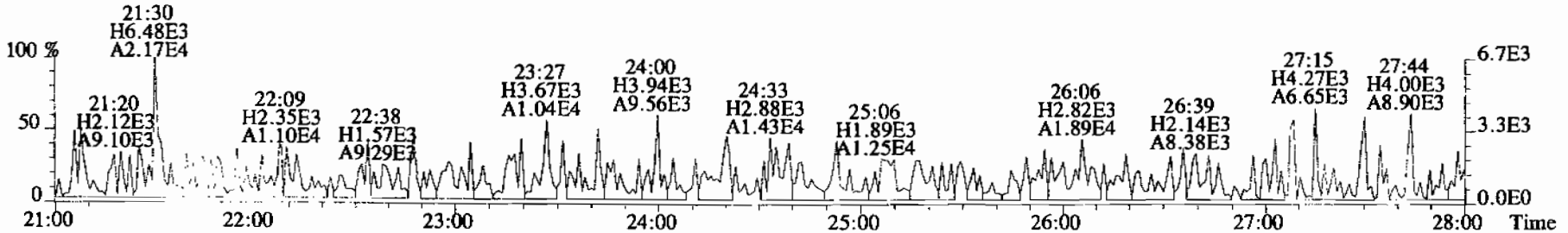

409.7974 S:11 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

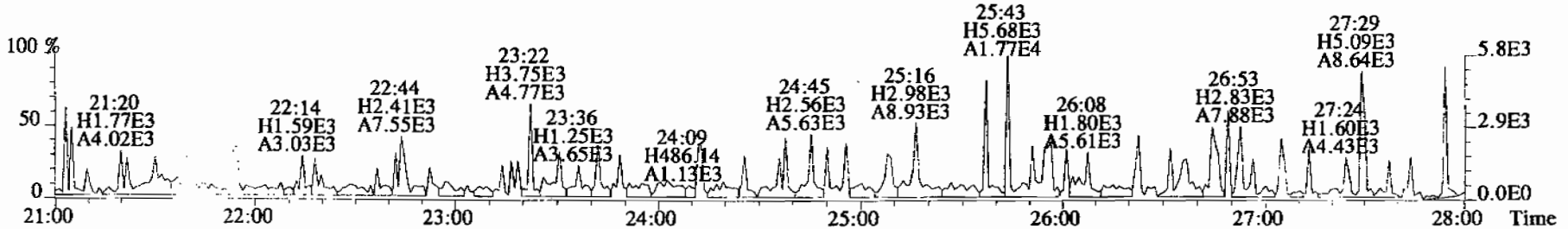

316.9824 S:11

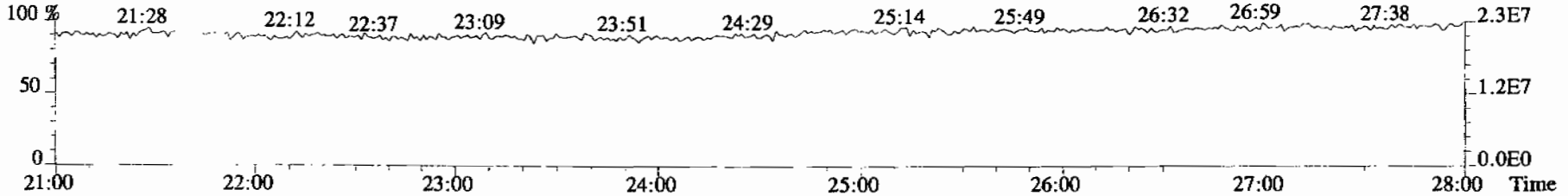

File:100113C1 #1-287 Acq:13-JAN-2010 19:24:28 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Vista Analytical Laboratory VG-5 Text:32302_2711_001 CAPA-10-6818 0.9040L Exp:OCDD_DB5
339.8597 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

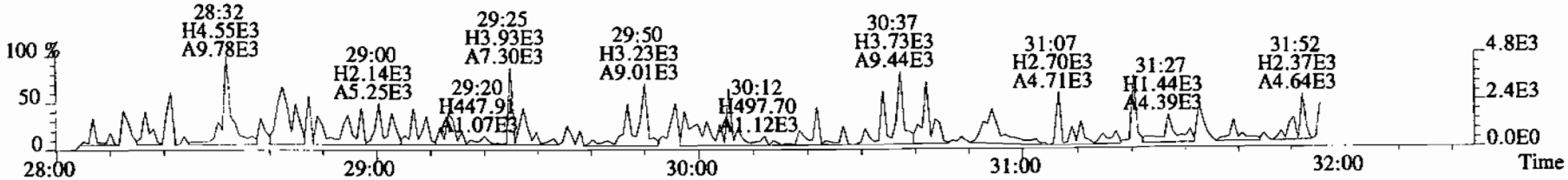

341.8568 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

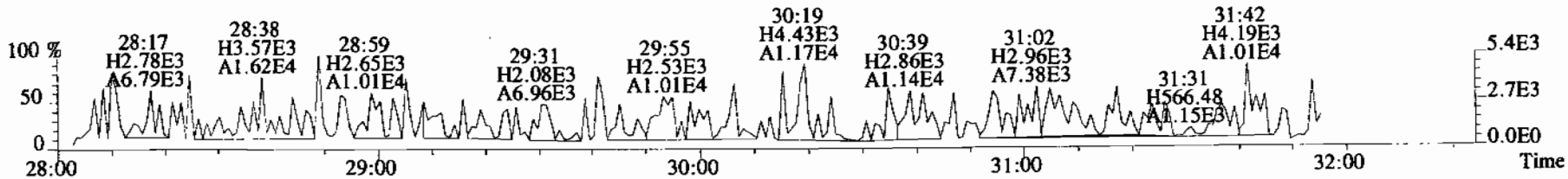

351.9000 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

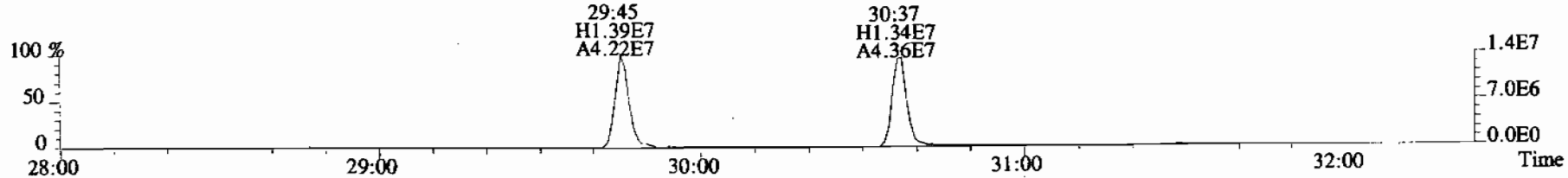

353.8970 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

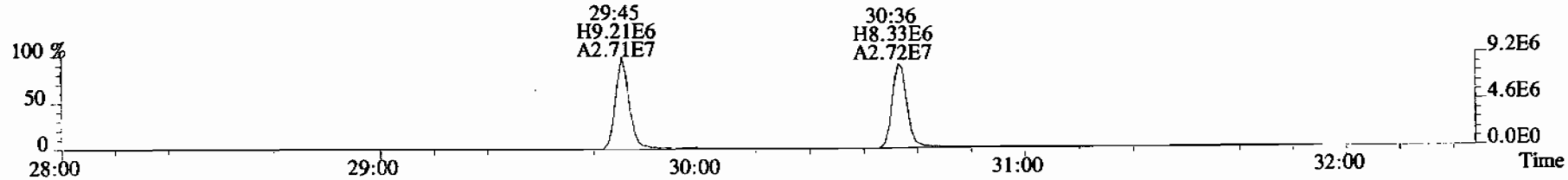

409.7974 S:11 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

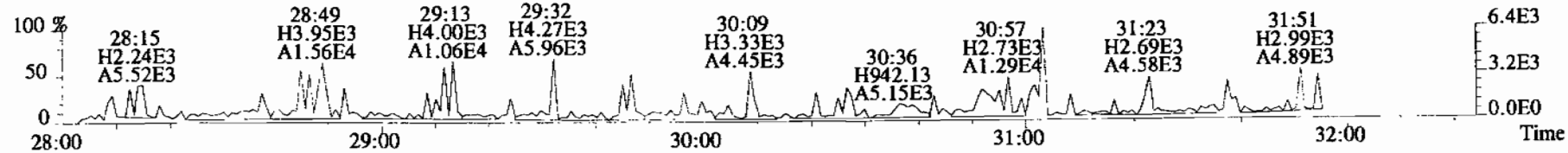

File:100113C1 #1-400 Acq:13-JAN-2010 19:24:28 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Vista Analytical Laboratory VG-5 Text:32302_2711_001 CAPA-10-6818 0.9040L Exp:OCDD_DB5
373.8207 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

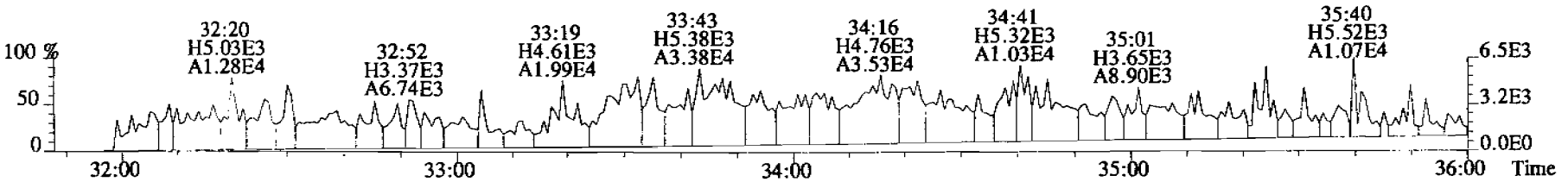

375.8178 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

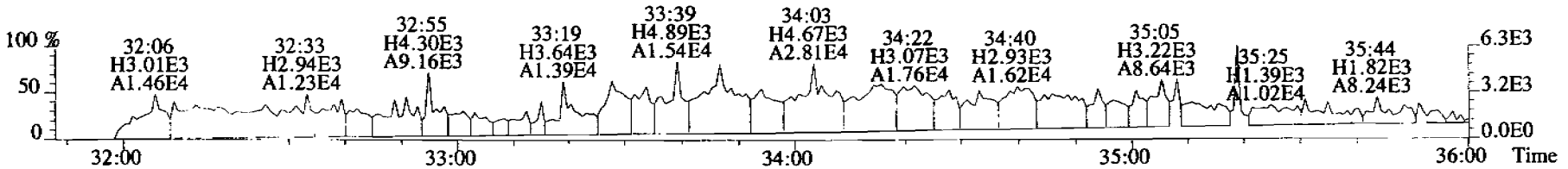

383.8639 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

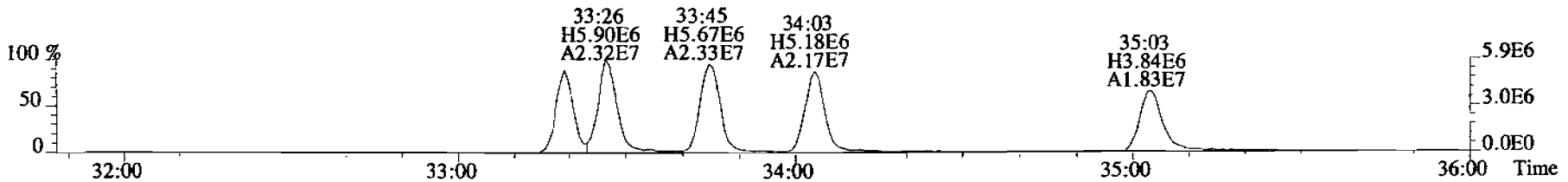

385.8610 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

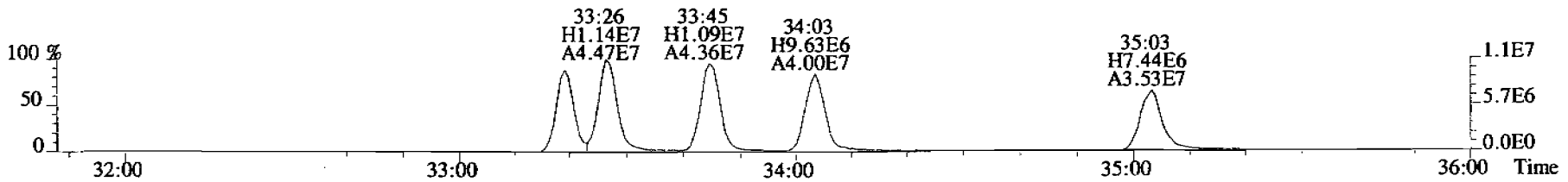

445.7555 S:11 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

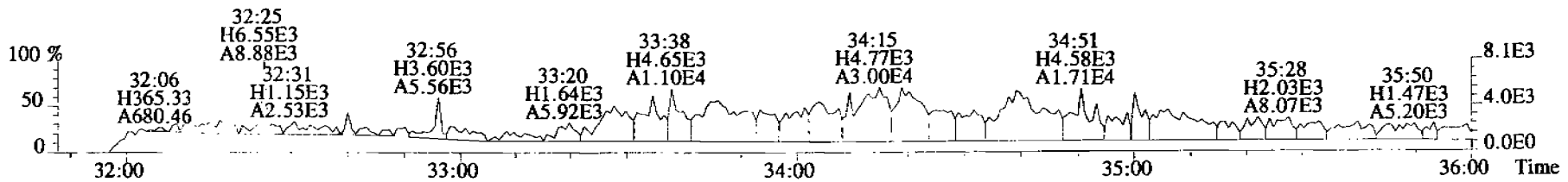

File:100113C1 #1-363 Acq:13-JAN-2010 19:24:28 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Vista Analytical Laboratory VG-5 Text:32302_2711_001 CAPA-10-6818 0.9040L Exp:OCDD_DB5
407.7818 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

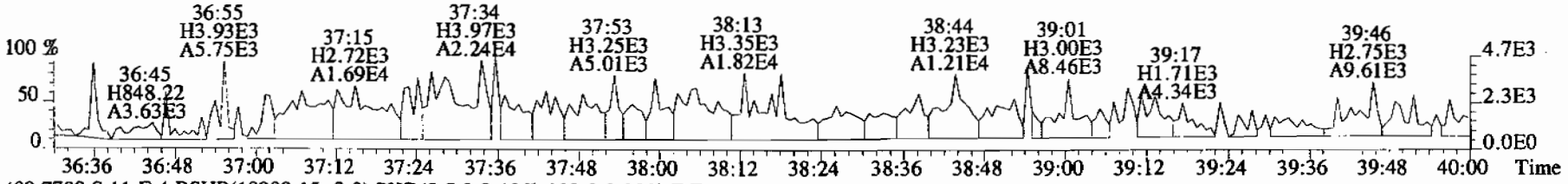

409.7788 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

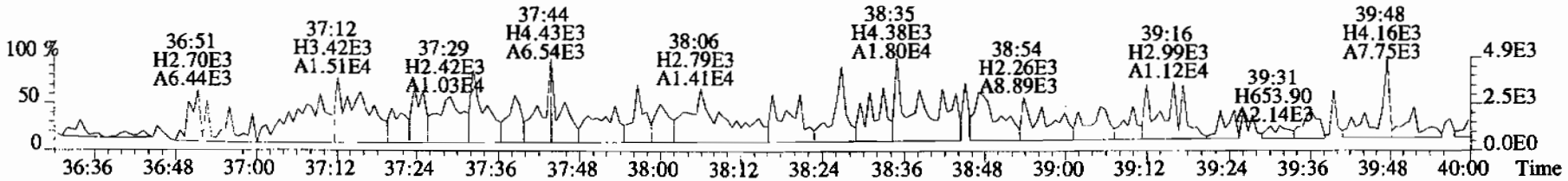

417.8253 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

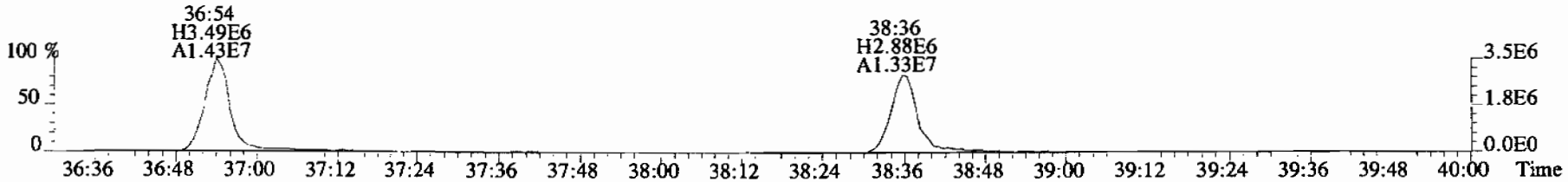

419.8220 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

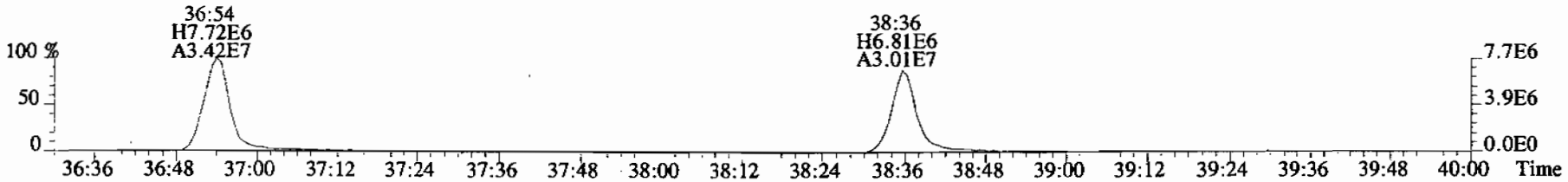

479.7165 S:11 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

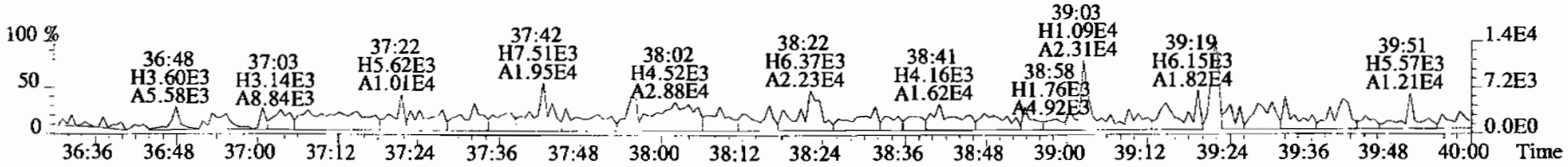

File:100113C1 #1-345 Acq:13-JAN-2010 19:24:28 GC EI+ Voltage SIR Autospec-UltimaE
Sample#11 File Text:Vista Analytical Laboratory VG-5 Text:32302_2711_001 CAPA-10-6818 0.9040L Exp:OCDD_DB5
441.7428 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

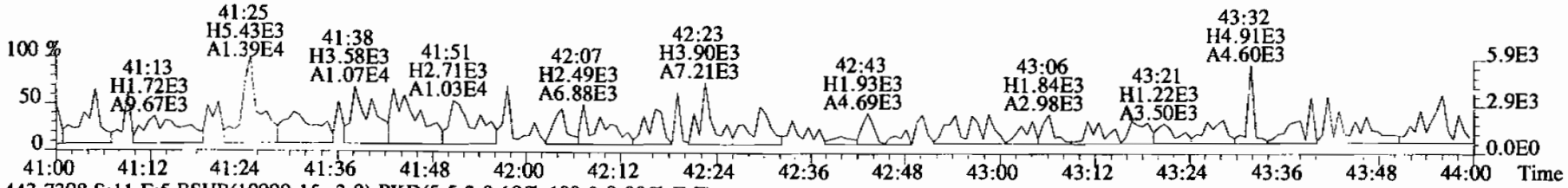

443.7398 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

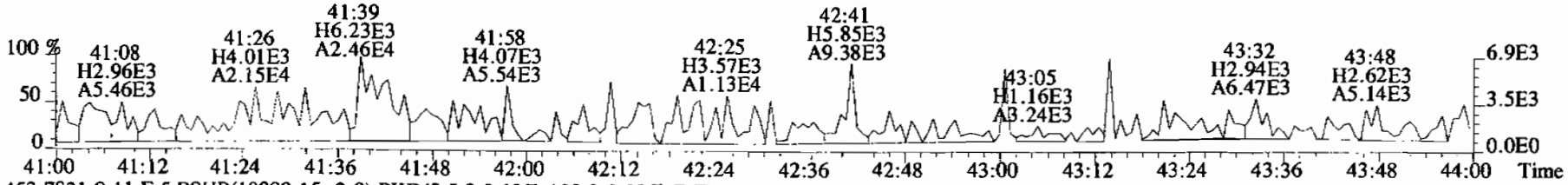

453.7831 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

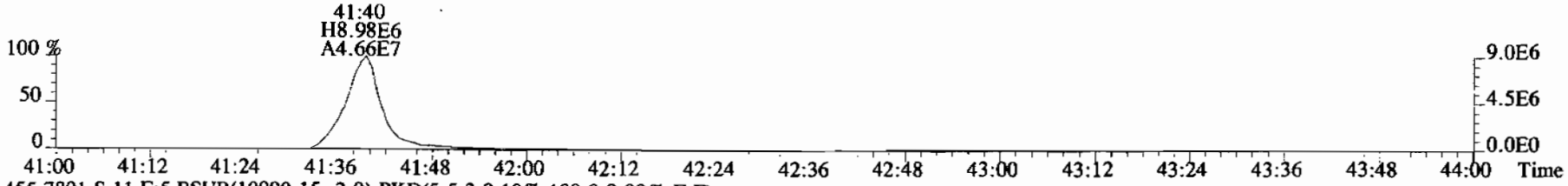

455.7801 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

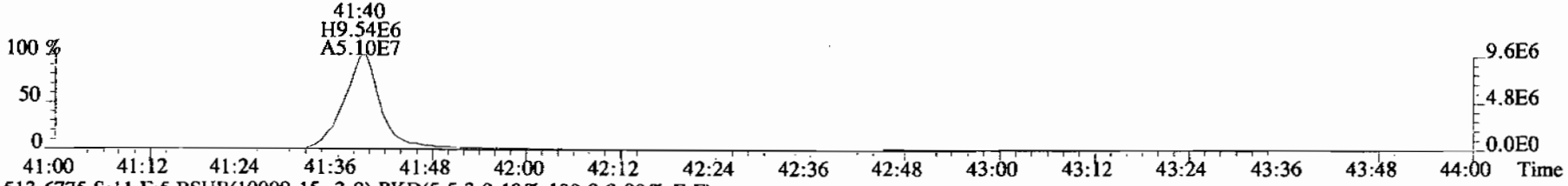

513.6775 S:11 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

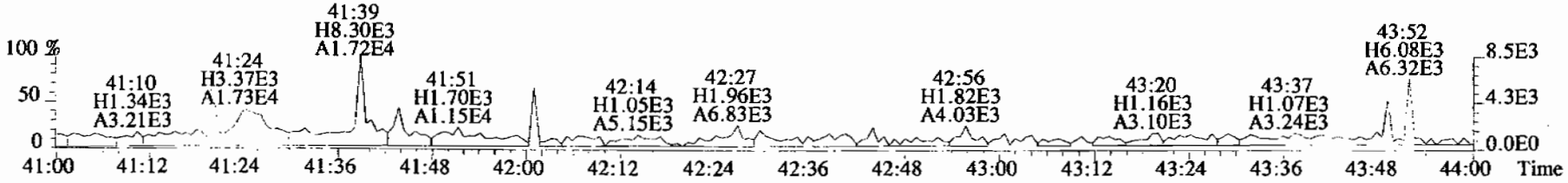

CALIBRATION DATA

EPA METHOD 8290

PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory Episode No.: CCAL ID: ST100113C1-1

Contract No.: SAS No.:

Initial Calibration Date: 10/8/09

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 100113C1 S#1 Analysis Date: 13-JAN-10 Time: 11:20:23

NATIVE ANALYTES	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
2,3,7,8-TCDD	M/M+2	0.77	0.65-0.89	y	10.2	8.00 - 12.0
1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	45.0	40.0 - 60.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.28	1.05-1.43	y	47.8	40.0 - 60.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.30	1.05-1.43	y	48.4	40.0 - 60.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.27	1.05-1.43	y	49.7	40.0 - 60.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.09	0.88-1.20	y	48.9	40.0 - 60.0
OCDD	M+2/M+4	0.88	0.76-1.02	y	90.8	80.0 - 120
2,3,7,8-TCDF	M/M+2	0.78	0.65-0.89	y	9.71	8.00 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	y	46.9	40.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	y	46.8	40.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.19	1.05-1.43	y	45.9	40.0 - 60.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.22	1.05-1.43	y	46.3	40.0 - 60.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.23	1.05-1.43	y	46.4	40.0 - 60.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.21	1.05-1.43	y	46.2	40.0 - 60.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.01	0.88-1.20	y	43.5	40.0 - 60.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.00	0.88-1.20	y	42.9	40.0 - 60.0
OCDF	M+2/M+4	0.90	0.76-1.02	y	95.9	80.0 - 120

Analyst: M

Date: 1/14/10

EPA METHOD 8290

PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 10/8/09

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 100113C1 S#1 Analysis Date: 13-JAN-10 Time: 11:20:23

LABELED COMPOUNDS	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
13C-2,3,7,8-TCDD	M/M+2	0.79	0.65-0.89	y	96.1	70.0 - 130
13C-1,2,3,7,8-PeCDD	M/M+2	0.64	0.54-0.72	y	104	70.0 - 130
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.32	1.05-1.43	y	105	70.0 - 130
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.27	1.05-1.43	y	103	70.0 - 130
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.27	1.05-1.43	y	107	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	y	107	70.0 - 130
13C-OCDD	M+2/M+4	0.91	0.76-1.02	y	219	140 - 260
13C-2,3,7,8-TCDF	M/M+2	0.78	0.65-0.89	y	99.7	70.0 - 130
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	y	96.4	70.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78	y	95.2	70.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.54	0.43-0.59	y	99.0	70.0 - 130
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.53	0.43-0.59	y	94.4	70.0 - 130
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.51	0.43-0.59	y	97.7	70.0 - 130
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.51	0.43-0.59	y	98.5	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.44	0.37-0.51	y	101	70.0 - 130
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.42	0.37-0.51	y	102	70.0 - 130
13C-OCDF	M+2/M+4	0.90	0.76-1.02	y	201	140 - 260
CLEANUP STANDARD						
37Cl-2,3,7,8-TCDD					9.86	7.00 - 13.0

Analyst: MJ

Date: 1/14/10

FORM 5

PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Instrument ID: VG-5 Initial Calibration Date: 10/8/09

RT Window Data Filename: 100113C1 S#1 Analysis Date: 13-JAN-10 Time: 11:20:23

DB-5 IS Data Filename: 100113C1 S#1 Analysis Date: 13-JAN-10 Time: 11:20:23

DB_225 IS Data Filename: Analysis Date: Time:

DB-5 RT WINDOW DEFINING STANDARDS RESULTS

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	23:28	1,3,6,8-TCDF (F)	21:32
1,2,8,9-TCDD (L)	27:25	1,2,8,9-TCDF (L)	27:34
1,2,4,7,9-PeCDD (F)	28:55	1,3,4,6,8-PeCDF (F)	27:30
1,2,3,8,9-PeCDD (L)	31:15	1,2,3,8,9-PeCDF (L)	31:29
1,2,4,6,7,9-HxCDD (F)	32:38	1,2,3,4,6,8-HxCDF (F)	32:07
1,2,3,7,8,9-HxCDD (L)	34:40	1,2,3,7,8,9-HxCDF (L)	35:04
1,2,3,4,6,7,9-HpCDD (F)	37:14	1,2,3,4,6,7,8-HpCDF (F)	36:55
1,2,3,4,6,7,8-HpCDD (L)	38:03	1,2,3,4,7,8,9-HpCDF (L)	38:37

(F) = First eluting isomer (DB-5); (L) = Last eluting isomer (DB-5).

==========

ISOMER SPECIFICITY (IS) TEST STANDARD RESULTS

% VALLEY HEIGHT BETWEEN COMPARED PEAKS (1)

<25%

(1) To meet contract requirements, %Valley Height Between Compared Peaks shall not exceed 25% (section 15.4.2.2, Method 1613).

Analyst: MJ

Date: 1/14/10

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 10/8/09

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 100113C1 S#1 Analysis Date: 13-JAN-10 Time: 11:20:23

Compounds Using 13C-1234-TCDD as RT Internal Standard

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999-1.002
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.000	0.999-1.002
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999-1.003
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999-1.002
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999-1.002
LABELED COMPOUNDS			
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.020	0.976-1.043
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.185	1.000-1.567
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.992	0.923-1.103
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.142	1.000-1.425
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.175	1.011-1.526
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.021	0.989-1.052

(1) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613. 10/94

Analyst: M

Date: 1/14/10

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 10/8/09

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 100113C1 S#1 Analysis Date: 13-JAN-10 Time: 11:20:23

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.001	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.001	0.997-1.005
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.001	0.999-1.001
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999-1.001
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999-1.001
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.001	0.998-1.004
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.001	0.999-1.002
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.000	0.999-1.001
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999-1.001
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999-1.001
OCDD	13C-OCDD	1.000	0.999-1.001
OCDF	13C-OCDF	1.000	0.999-1.001
LABELED COMPOUNDS			
13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.175	1.011-1.526
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.987	0.975-1.001
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.991	0.979-1.005
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.009	1.001-1.020
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.014	1.002-1.026
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.017	1.007-1.029
13C-1,2,3,7,8,9-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.039	1.002-1.072
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.027	1.014-1.038
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.094	1.069-1.111
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,9-HxCDF	1.127	1.117-1.141
13C-OCDD	13C-1,2,3,4,6,9-HxCDF	1.144	1.098-1.192
13C-OCDF	13C-1,2,3,4,6,9-HxCDF	1.234	1.091-1.371

(1) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613. 10/94

Analyst: MJ

Date: 1/14/10

Client ID: 1613 CS3 090922G Filename: 100113C1 S:1 Acq:13-JAN-10 11:20:23 ConCal: ST100113C1-1

Lab ID: ST100113C1-1 GC Column ID: db-5 ICal: 1613VG5-10-8-09 wt/vol: 1.000 EndCAL: NA

	Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL
	2,3,7,8-TCDD	7.55e+06	0.77 y	1.25	26:36	10.184		*	2.5	*
	1,2,3,7,8-PeCDD	2.84e+07	0.62 y	1.11	30:54	45.007		*	2.5	*
	1,2,3,4,7,8-HxCDD	2.72e+07	1.28 y	1.04	34:14	47.834		*	2.5	*
	1,2,3,6,7,8-HxCDD	2.93e+07	1.30 y	1.12	34:21	48.443		*	2.5	*
	1,2,3,7,8,9-HxCDD	3.18e+07	1.27 y	1.02	34:40	49.698		*	2.5	*
	1,2,3,4,6,7,8-HpCDD	2.88e+07	1.09 y	1.11	38:03	48.914		*	2.5	*
	OCDD	4.87e+07	0.88 y	1.24	41:25	90.777		*	2.5	*
	2,3,7,8-TCDF	1.08e+07	0.78 y	1.15	25:52	9.7087		*	2.5	*
	1,2,3,7,8-PeCDF	4.60e+07	1.55 y	1.11	29:46	46.862		*	2.5	*
	2,3,4,7,8-PeCDF	4.27e+07	1.57 y	1.07	30:37	46.780		*	2.5	*
	1,2,3,4,7,8-HxCDF	4.37e+07	1.19 y	1.34	33:20	45.878		*	2.5	*
	1,2,3,6,7,8-HxCDF	4.69e+07	1.22 y	1.18	33:28	46.308		*	2.5	*
	2,3,4,6,7,8-HxCDF	4.24e+07	1.23 y	1.20	34:04	46.354		*	2.5	*
	1,2,3,7,8,9-HxCDF	3.82e+07	1.21 y	1.24	35:04	46.157		*	2.5	*
	1,2,3,4,6,7,8-HpCDF	3.82e+07	1.01 y	1.44	36:55	43.502		*	2.5	*
	1,2,3,4,7,8,9-HpCDF	3.23e+07	1.00 y	1.40	38:37	42.889		*	2.5	*
	OCDF	6.27e+07	0.90 y	1.07	41:40	95.932		*	2.5	*
IS	13C-2,3,7,8-TCDD	5.93e+07	0.79 y	1.04	26:35	96.075				
IS	13C-1,2,3,7,8-PeCDD	5.67e+07	0.64 y	0.92	30:53	104.15				
IS	13C-1,2,3,4,7,8-HxCDD	5.46e+07	1.32 y	0.76	34:13	104.51				
IS	13C-1,2,3,6,7,8-HxCDD	5.39e+07	1.27 y	0.77	34:20	102.96				
IS	13C-1,2,3,7,8,9-HxCDD	6.26e+07	1.27 y	0.85	34:39	107.49				
IS	13C-1,2,3,4,6,7,8-HpCDD	5.30e+07	1.05 y	0.73	38:02	106.89				
IS	13C-OCDD	8.69e+07	0.91 y	0.58	41:25	218.70				
IS	13C-2,3,7,8-TCDF	9.65e+07	0.78 y	1.06	25:51	99.733				
IS	13C-1,2,3,7,8-PeCDF	8.81e+07	1.57 y	1.00	29:45	96.354				
IS	13C-2,3,4,7,8-PeCDF	8.53e+07	1.59 y	0.98	30:37	95.246				
IS	13C-1,2,3,4,7,8-HxCDF	7.09e+07	0.54 y	1.05	33:19	98.986				
IS	13C-1,2,3,6,7,8-HxCDF	8.55e+07	0.53 y	1.33	33:27	94.351				
IS	13C-2,3,4,6,7,8-HxCDF	7.60e+07	0.51 y	1.14	34:03	97.730				
IS	13C-1,2,3,7,8,9-HxCDF	6.71e+07	0.51 y	1.00	35:03	98.464				
IS	13C-1,2,3,4,6,7,8-HpCDF	6.08e+07	0.44 y	0.88	36:54	100.62				
IS	13C-1,2,3,4,7,8,9-HpCDF	5.37e+07	0.42 y	0.77	38:36	101.90				
IS	13C-OCDF	1.22e+08	0.90 y	0.89	41:39	200.81				
C/Up	37Cl-2,3,7,8-TCDD	3.94e+06		0.68	26:36	9.8562				
RS/RT	13C-1,2,3,4-TCDD	5.91e+07	0.81 y	1.00	26:03	100.00				
RS	13C-1,2,3,4-TCDF	9.16e+07	0.78 y	1.00	24:44	100.00				
RS/RT	13C-1,2,3,4,6,9-HxCDF	6.84e+07	0.54 y	1.00	33:45	100.00				

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	59.8	60.9		*	*
Total Penta-Dioxins	143	145		*	*
Total Hexa-Dioxins	238	241		*	*
Total Hepta-Dioxins	127	130		*	*
Total Tetra-Furans	30.6	31.3		*	*
Total Penta-Furans	186.28	187.01		*	*
Total Hexa-Furans	231	234		*	*
Total Hepta-Furans	86.8	89.0		*	*

	Rec	Qual
	96.1	
	104	
	105	
	103	
	107	
	107	
	109	
	99.7	
	96.4	
	95.2	
	99.0	
	94.4	
	97.7	
	98.5	
	101	
	102	
	100	
	24.6	

Integrations by Analyst: VM

Date: 1/14/10

Reviewed by Analyst: _____

Date: _____

Vista Analytical Laboratory - Injection Log Run file: 100113C1 Instrument ID: VG-5 GC Column ID: db-5

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
100113C1	1	ST100113C1-1	MAS	13-JAN-10	11:20:23	ST100113C1-1	ST100113C1-2
100113C1	2	0_2711_OPR001	MAS	13-JAN-10	12:08:46	ST100113C1-1	ST100113C1-2
100113C1	3	SOLVENT BLANK	MAS	13-JAN-10	12:57:11	ST100113C1-1	ST100113C1-2
100113C1	4	0_2711_MB001	MAS	13-JAN-10	13:45:35	ST100113C1-1	ST100113C1-2
100113C1	5	32288_2711_001	MAS	13-JAN-10	14:34:00	ST100113C1-1	ST100113C1-2
100113C1	6	32288_2711_002	MAS	13-JAN-10	15:22:24	ST100113C1-1	ST100113C1-2
100113C1	7	32289_2711_001	MAS	13-JAN-10	16:10:48	ST100113C1-1	ST100113C1-2
100113C1	8	32289_2711_002	MAS	13-JAN-10	16:59:13	ST100113C1-1	ST100113C1-2
100113C1	9	32290_2711_001	MAS	13-JAN-10	17:47:37	ST100113C1-1	ST100113C1-2
100113C1	10	32301_2711_001	MAS	13-JAN-10	18:36:05	ST100113C1-1	ST100113C1-2
100113C1	11	32302_2711_001	MAS	13-JAN-10	19:24:28	ST100113C1-1	ST100113C1-2
100113C1	12	32308_2711_001	MAS	13-JAN-10	20:12:56	ST100113C1-1	ST100113C1-2
100113C1	13	32308_2711_002	MAS	13-JAN-10	21:01:20	ST100113C1-1	ST100113C1-2
100113C1	14	SOLVENT BLANK	MAS	13-JAN-10	21:49:44	ST100113C1-1	ST100113C1-2
100113C1	15	ST100113C1-2	MAS	13-JAN-10	22:38:08	ST100113C1-1	ST100113C1-2

CALIBRATION STANDARDS REVIEW CHECKLIST

Vista Analytical Laboratory

Beg. Calibration ID: ST100113C1-1

End Calibration ID: ST100113C1-2

	Beg.	End
Ion abundance within QC limits?	✓	✓
Concentration within range?	* ✓	* ✓
First and last eluters present?	✓	✓
Retention Times within criteria?	✓	✓
Verification Std. named correctly? (ST-Year-Month-Day-VG ID)	✓	✓
Forms signed and dated?	✓	✓
Correct ICAL referenced?	✓	✓
Run Log:		
-Data file matches Conc Cal ID?	✓	✓
-Correct instrument listed?	✓	✓
-Samples within 12-hour clock?	y	n

	Beg.	End
Mass resolution > 10,000? ▪ Method 1614 > 5,000; ~~CARB~~ 429 > 8,000	✓	✓
TCDD/TCDF valleys < 25%?	✓	✓
Peaks integrated correctly?	✓	✓
Manual integrations included?	NA	→
8280 CS1 Ending Standard		
-Ratios within limits		NA
-S/N > 2.5:1		
-CS1 within 12-hour clock		✓

Comments: * 8290 only

Reviewed by: MLh 1/14/10
Initials & Date

* *Ending standard criteria applicable to 8290 only.*

Vista Analytical Laboratory
El Dorado Hills, CA 95762

Calib.Stds.Review 12/2009 mh

Peak Locate Examination:13-JAN-2010:11:18 File:100113C1

Experiment:OCDD_DB5 Function:1 Reference:PFK

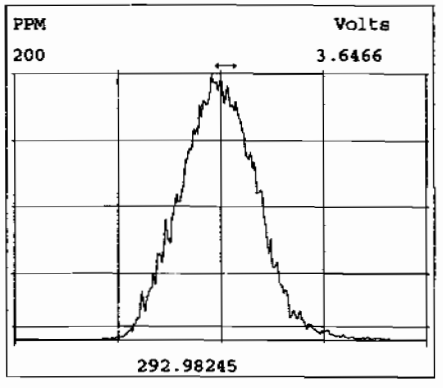

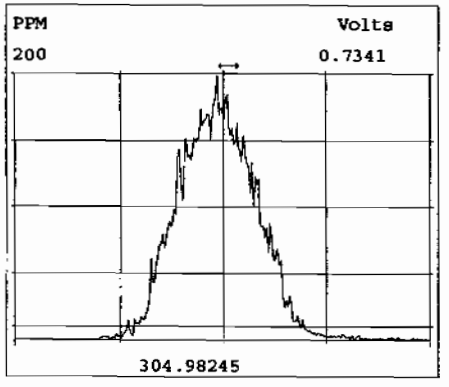

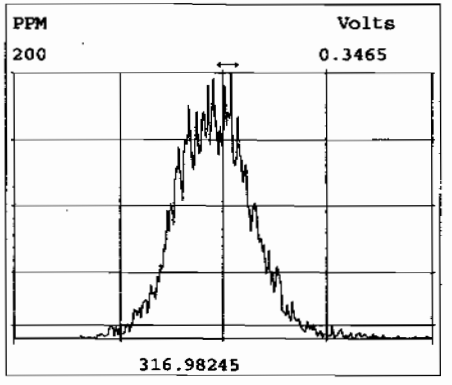

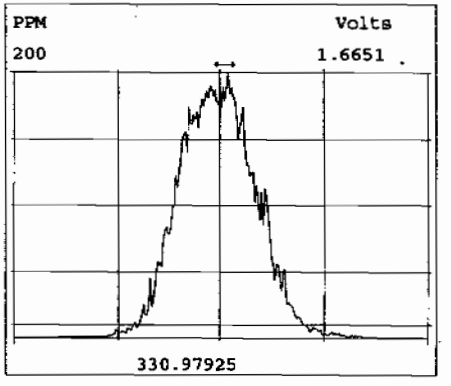

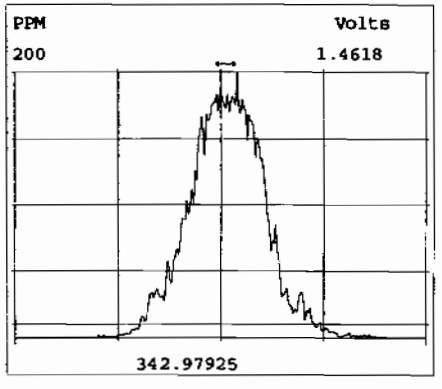

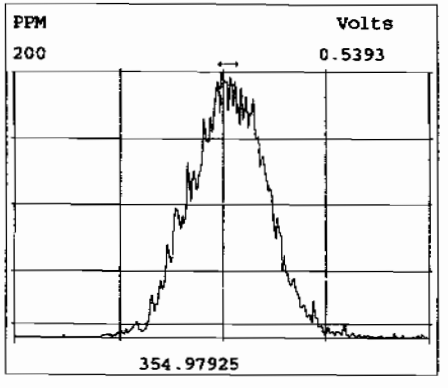

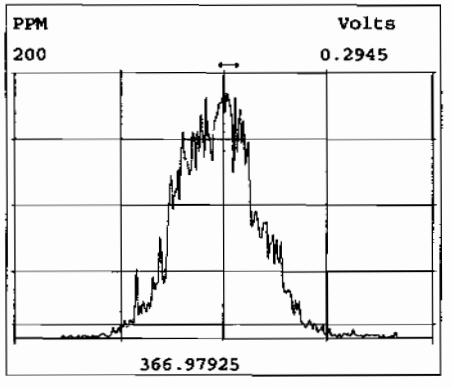

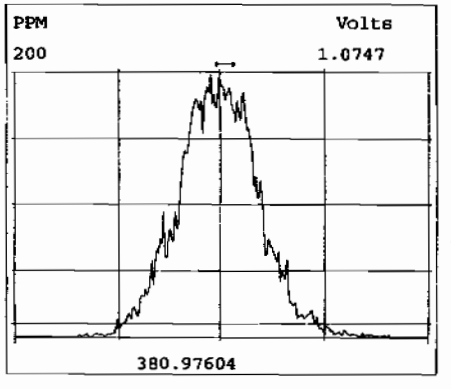

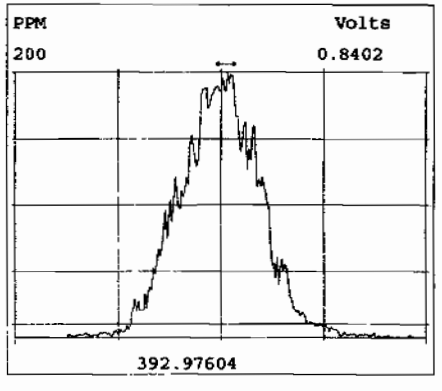

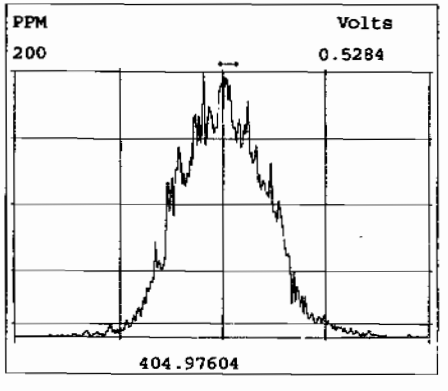

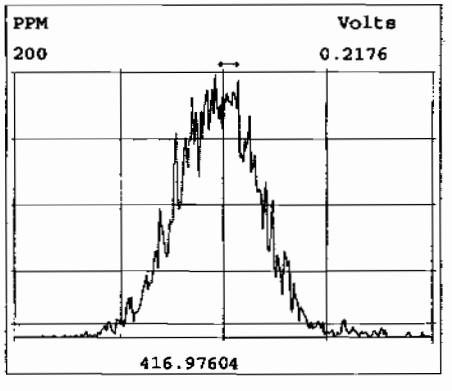

Peak Locate Examination:13-JAN-2010:11:19 File:100113C1

Experiment:OCDD_DB5 Function:2 Reference:PFK

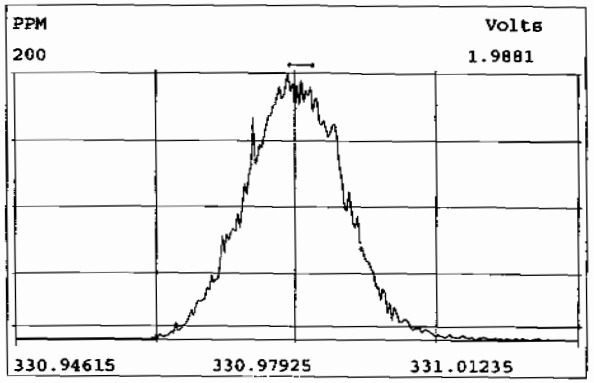

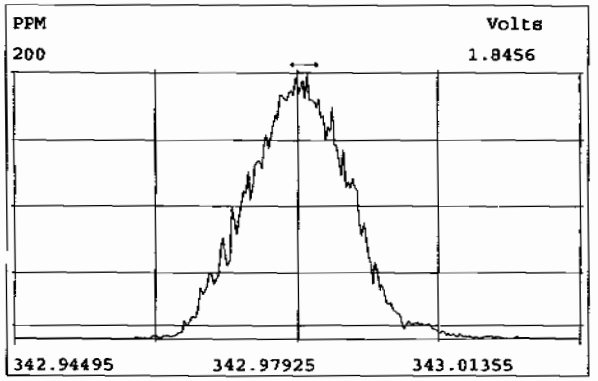

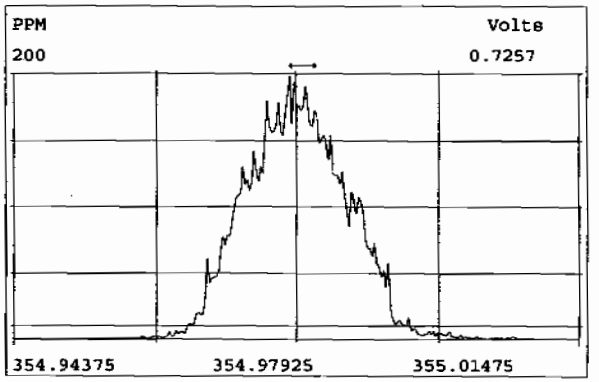

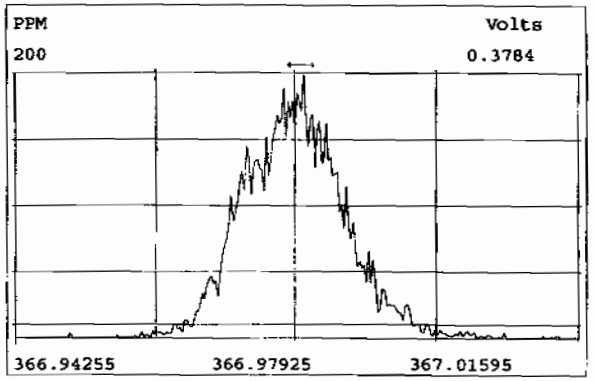

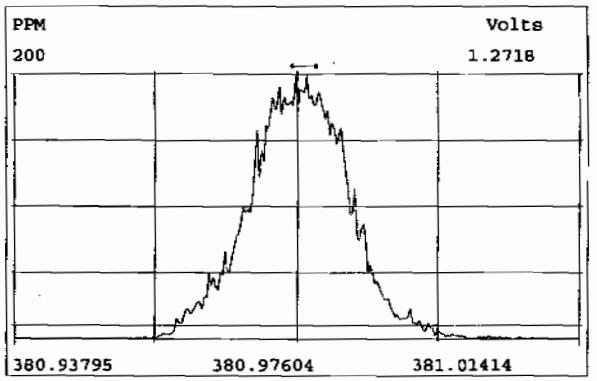

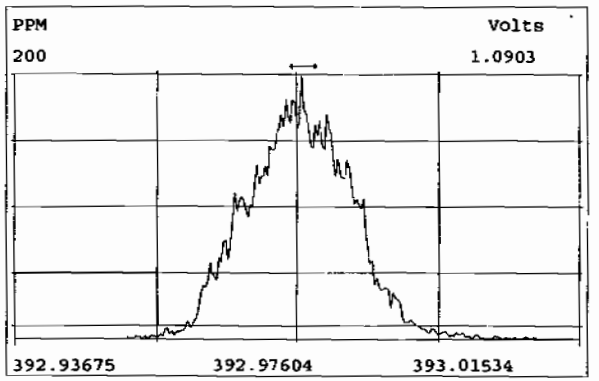

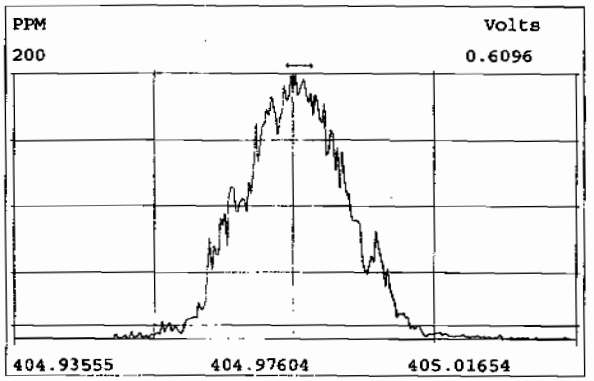

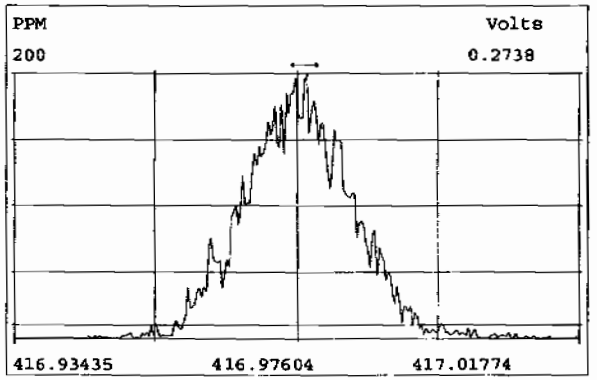

Peak Locate Examination:13-JAN-2010:11:19 File:100113C1

Experiment:OCDD_DB5 Function:3 Reference:PFK

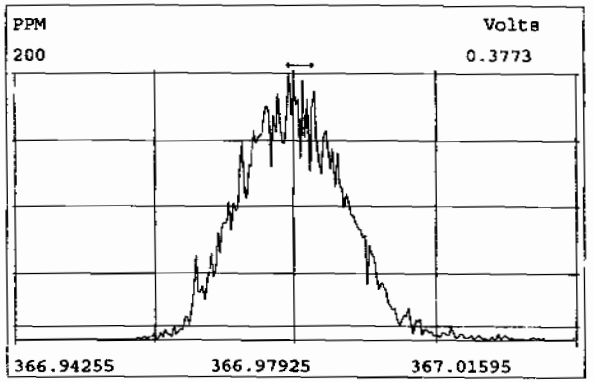

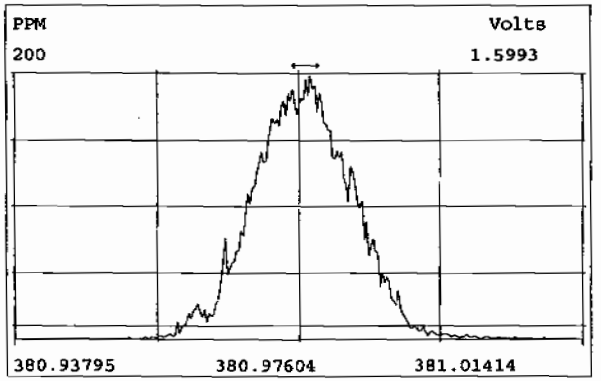

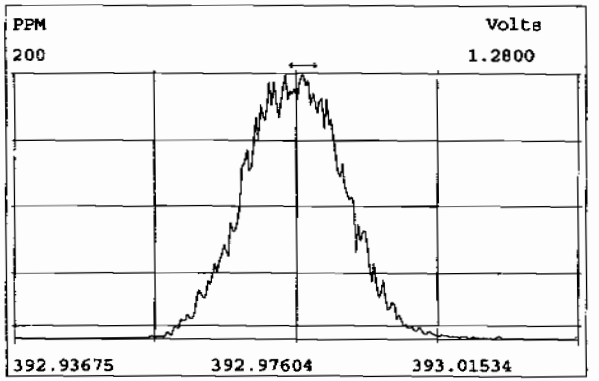

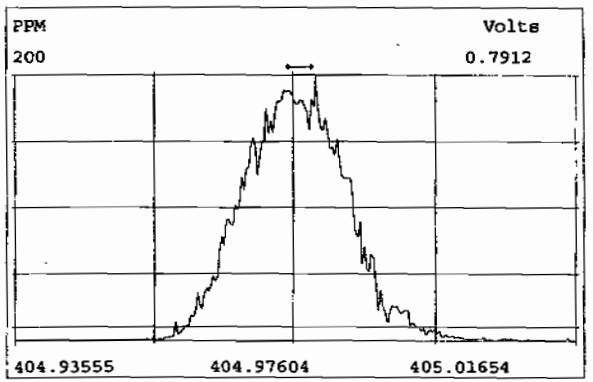

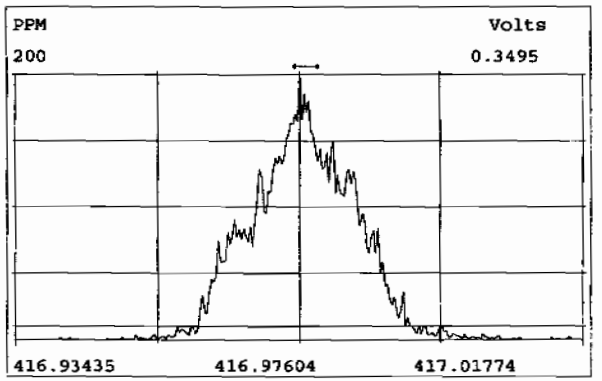

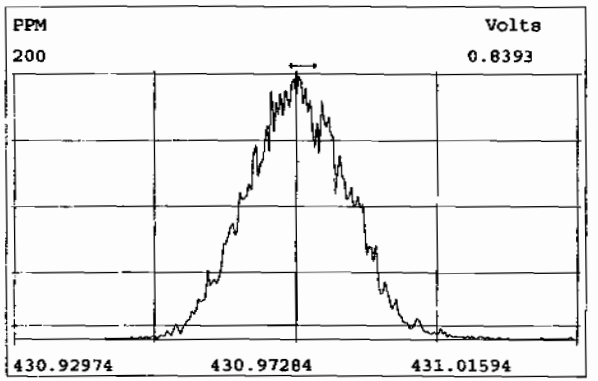

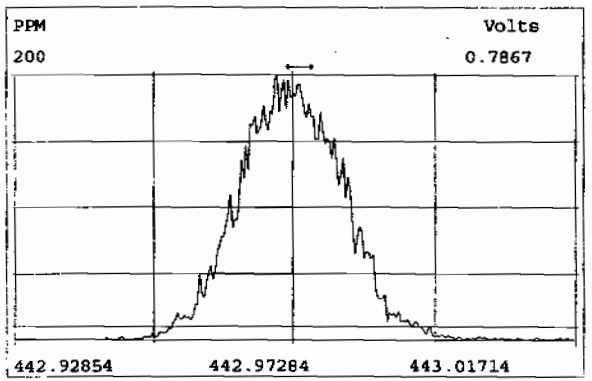

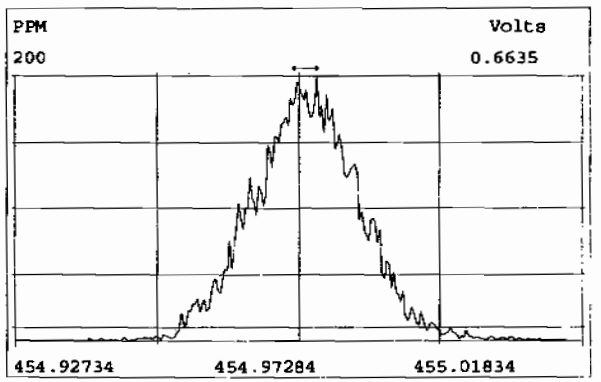

Peak Locate Examination:13-JAN-2010:11:19 File:100113C1

Experiment:OCDD_DB5 Function:4 Reference:PFK

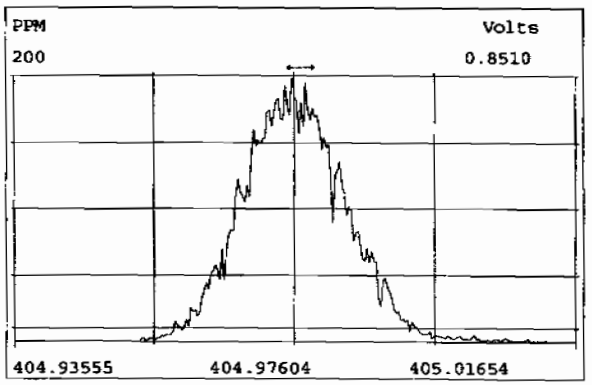

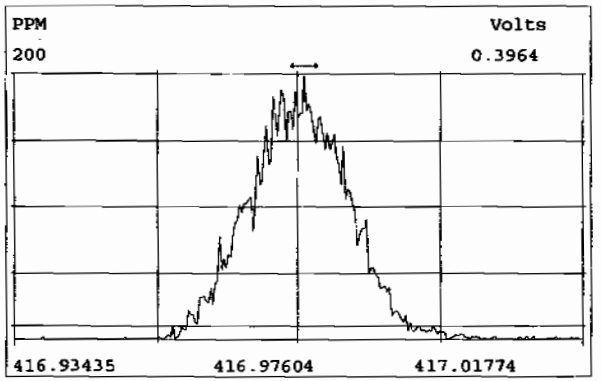

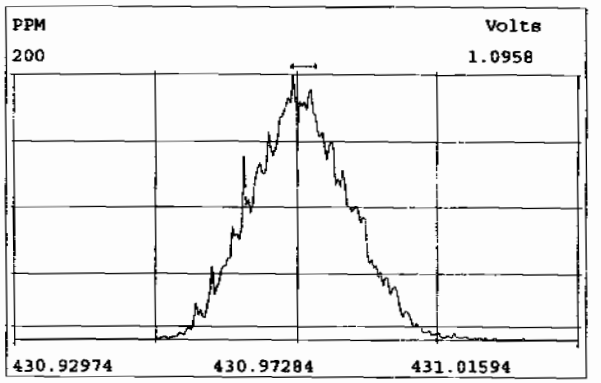

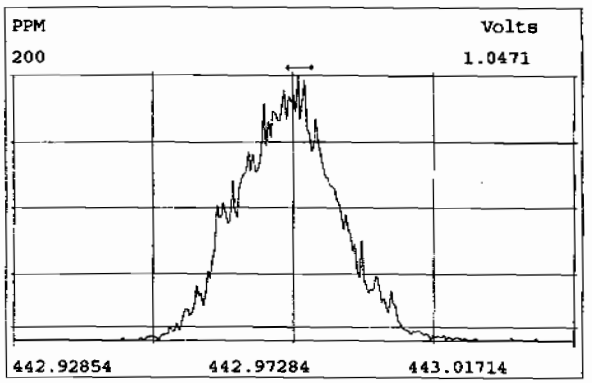

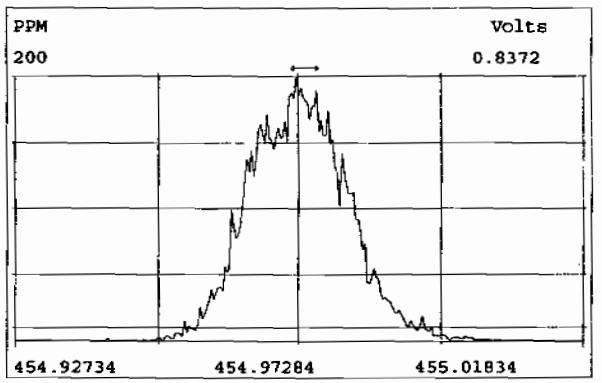

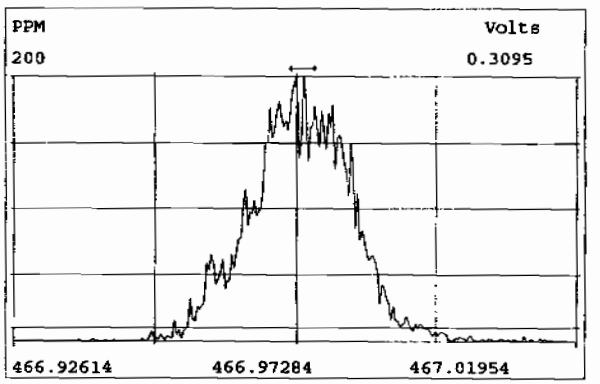

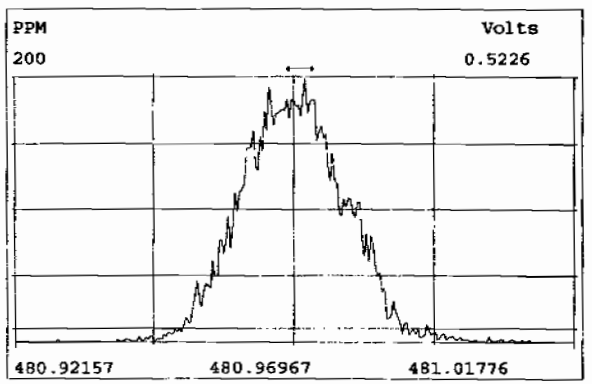

Peak Locate Examination:13-JAN-2010:11:19 File:100113C1

Experiment:OCDD_DB5 Function:5 Reference:PFK

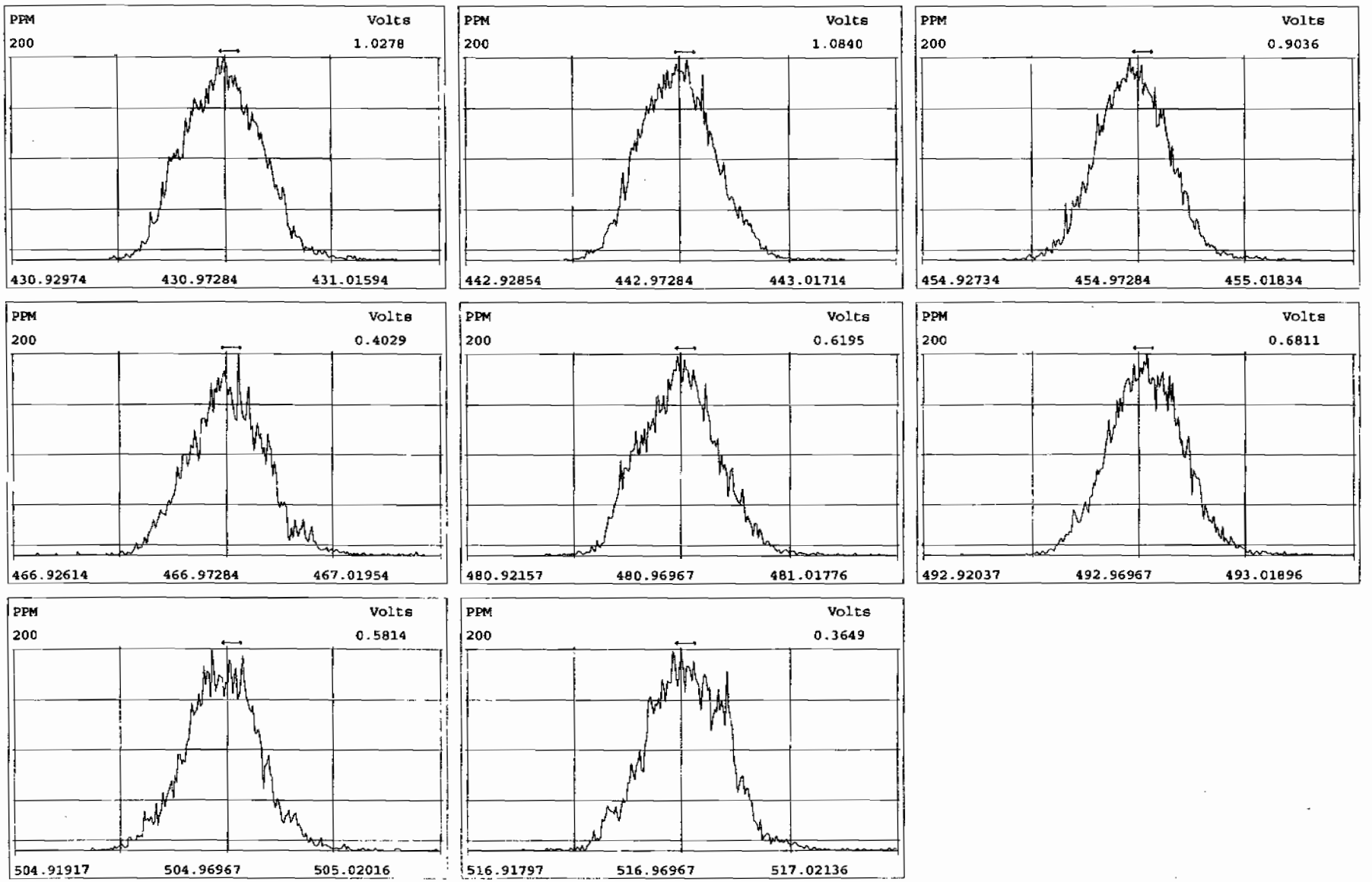

File:100113C1 #1-545 Acq:13-JAN-2010 11:20:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST100113C1-1 1613 CS3 090922G Exp:OCDD_DB5
321.8936

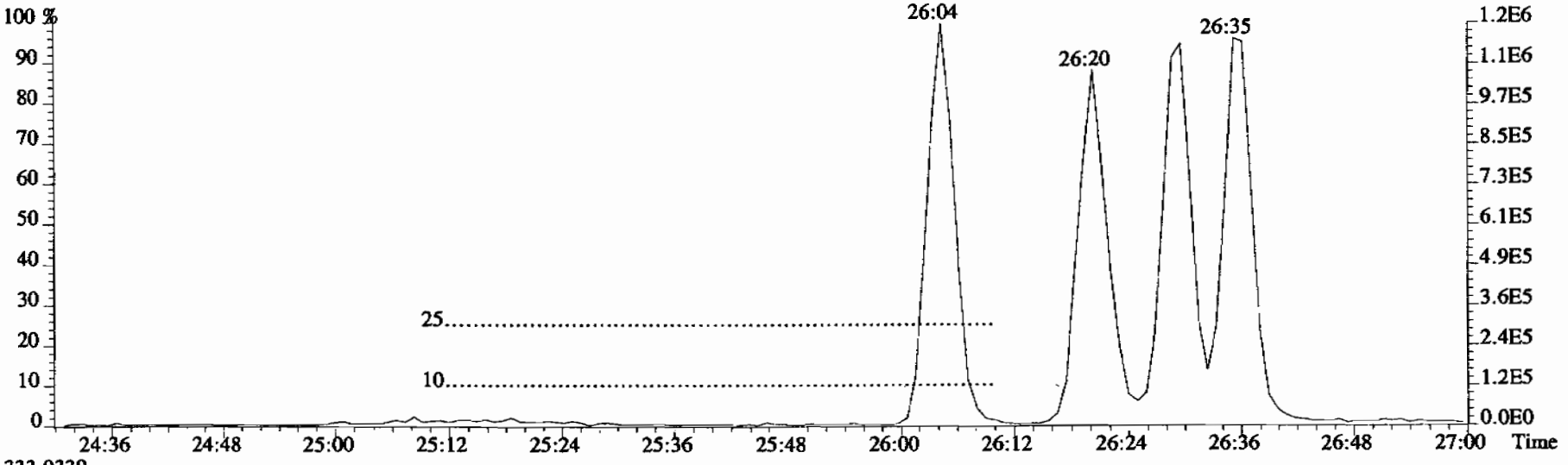

333.9339

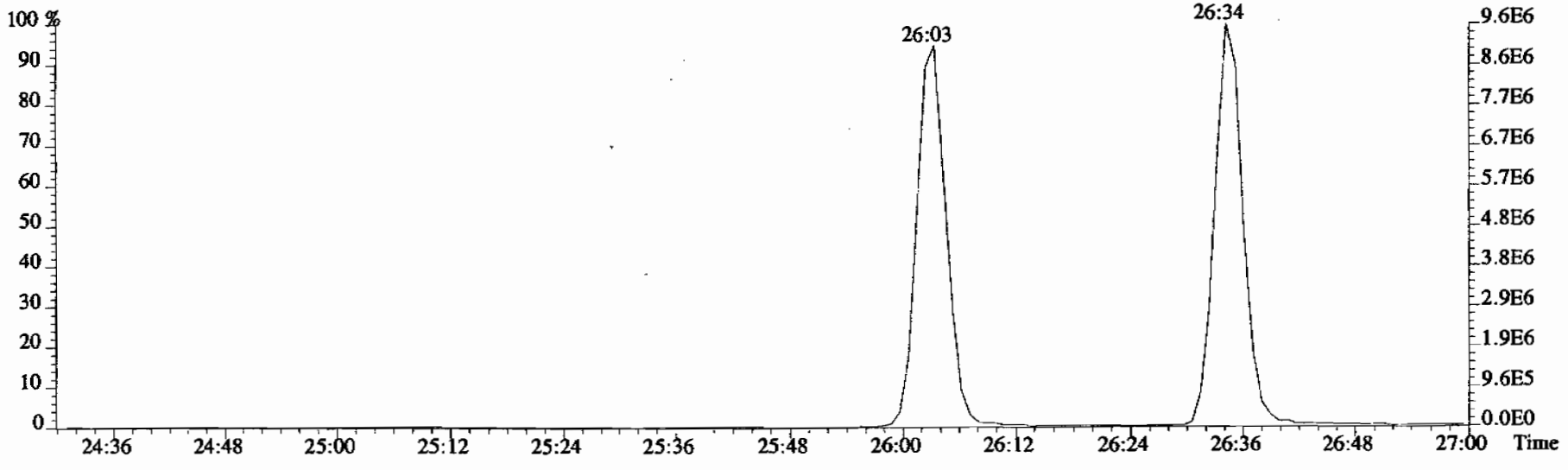

File:100113C1 #1-545 Acq:13-JAN-2010 11:20:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST100113C1-1 1613 CS3 090922G Exp:OCDD_DB5
319.8965 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

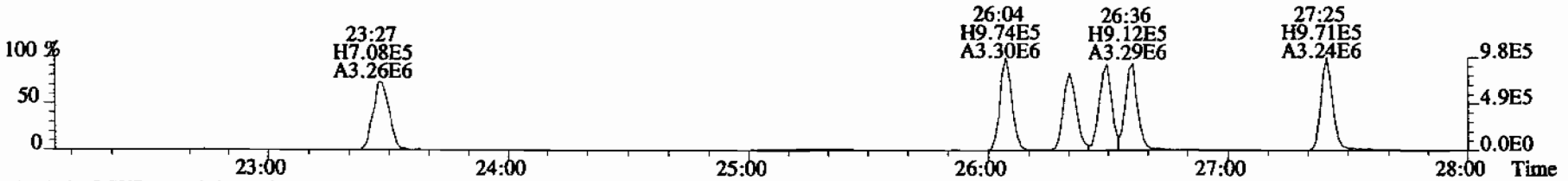

321.8936 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

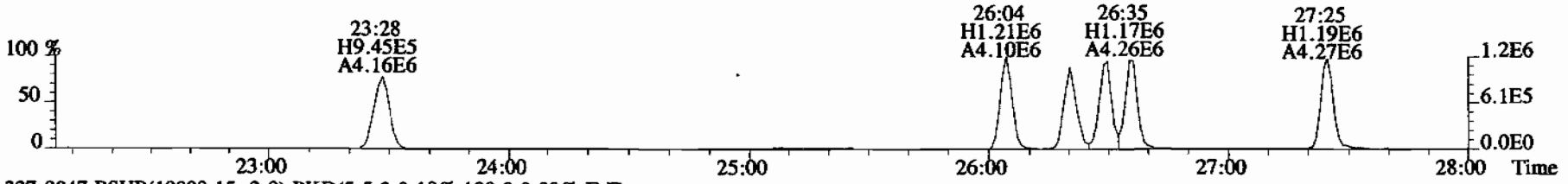

327.8847 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

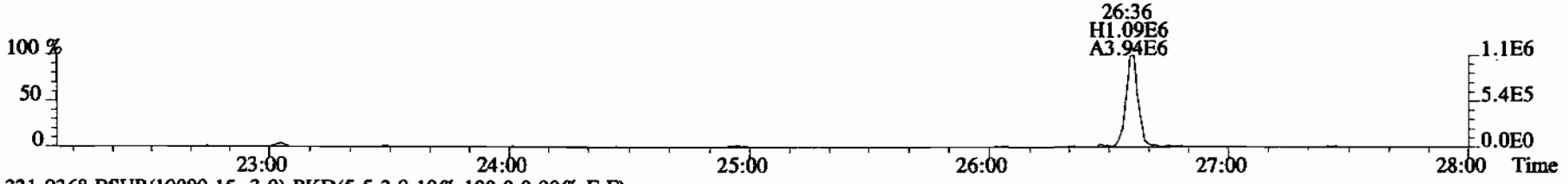

331.9368 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

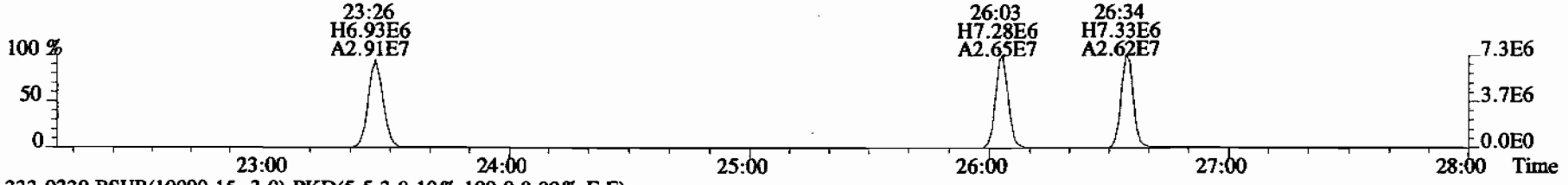

333.9339 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

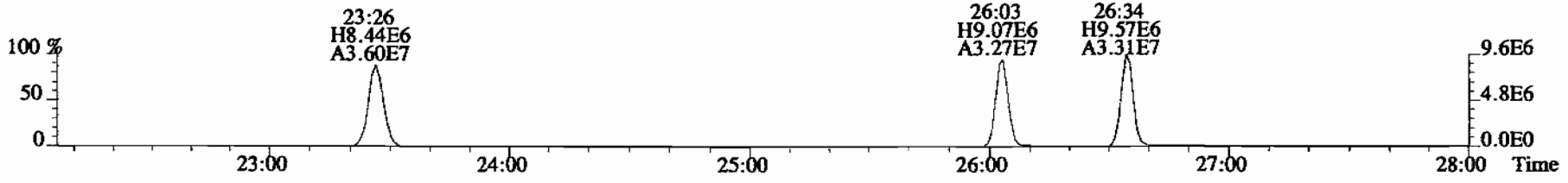

File:100113C1 #1-288 Acq:13-JAN-2010 11:20:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST100113C1-1 1613 CS3 090922G Exp:OCDD_DB5
353.8576 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

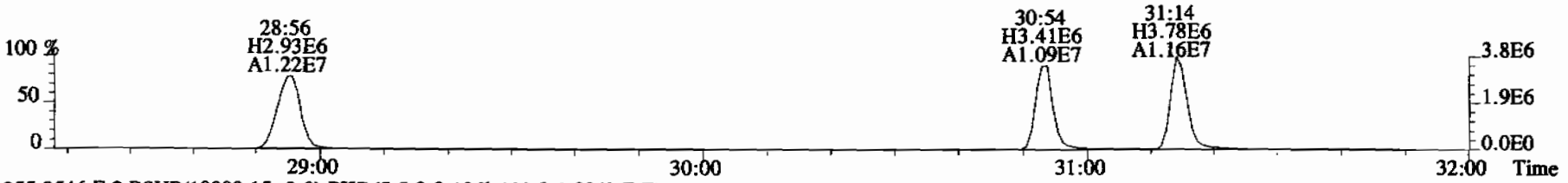

355.8546 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

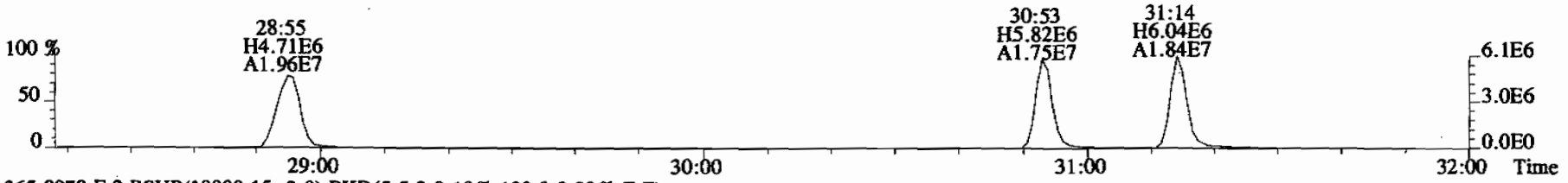

365.8978 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

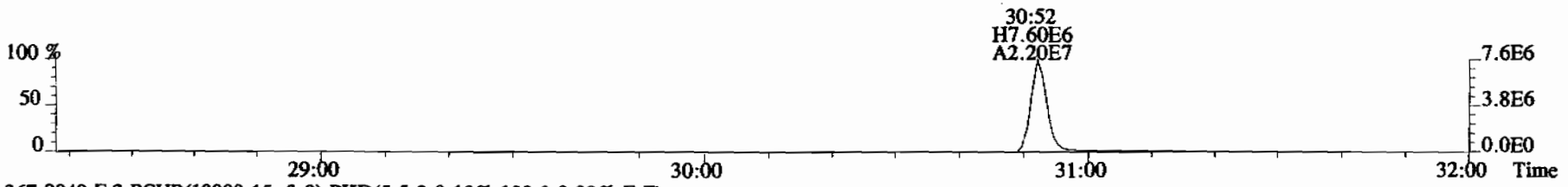

367.8949 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

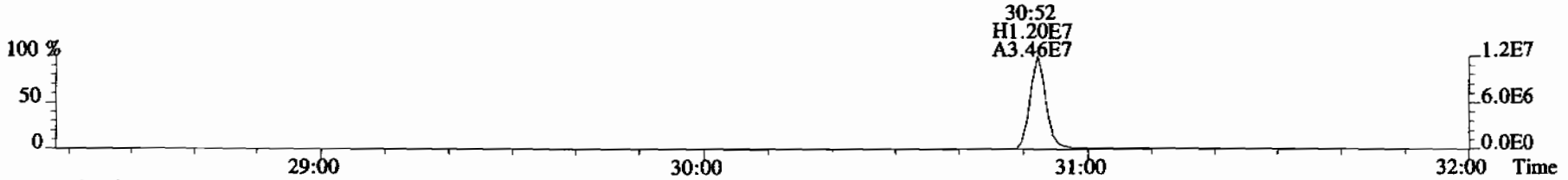

366.9792 F:2

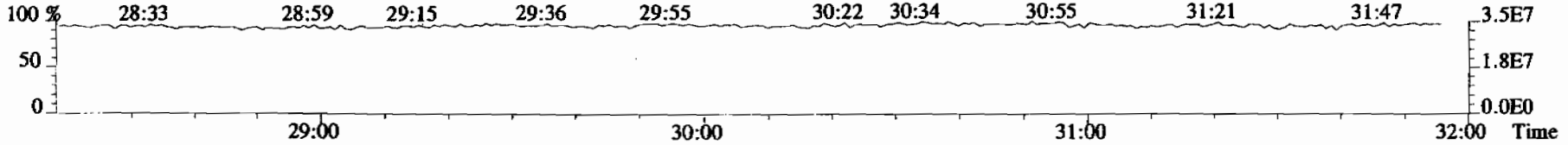

File:100113C1 #1-399 Acq:13-JAN-2010 11:20:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST100113C1-1 1613 CS3 090922G Exp:OCDD_DB5
389.8156 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

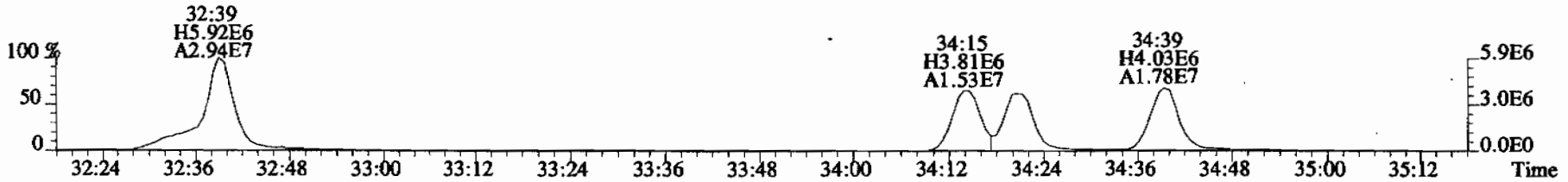

391.8127 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

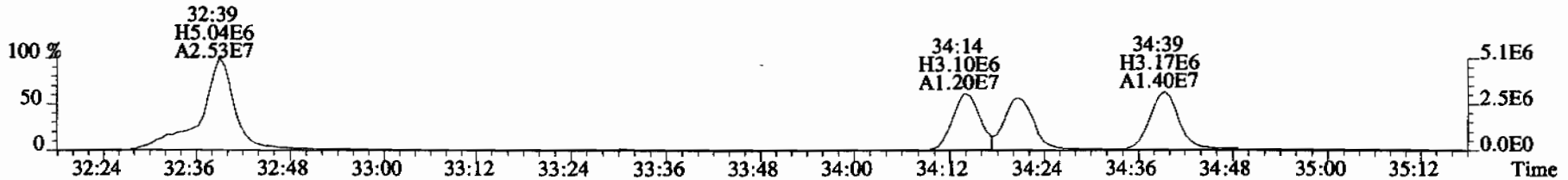

401.8559 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

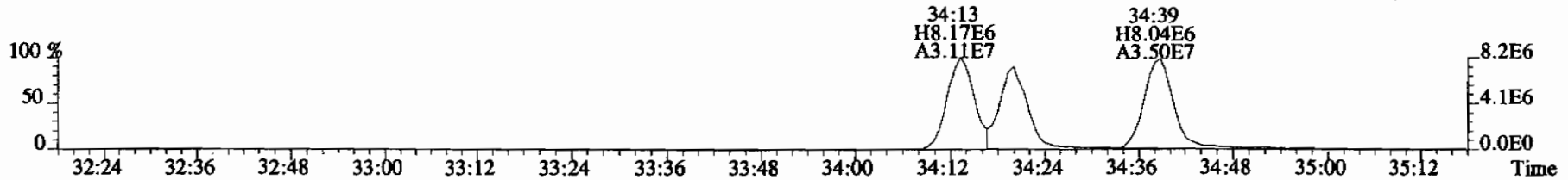

403.8530 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

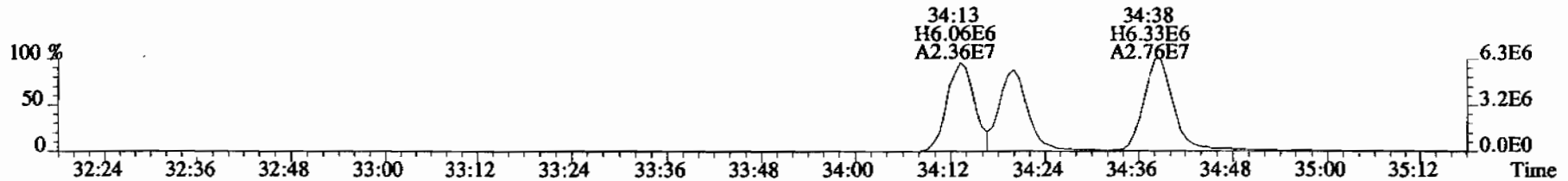

380.9760 F:3

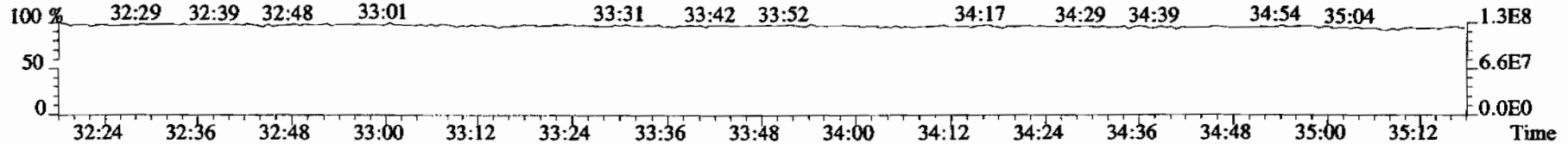

File:100113C1 #1-363 Acq:13-JAN-2010 11:20:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST100113C1-1 1613 CS3 090922G Exp:OCDD_DB5
423.7767 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

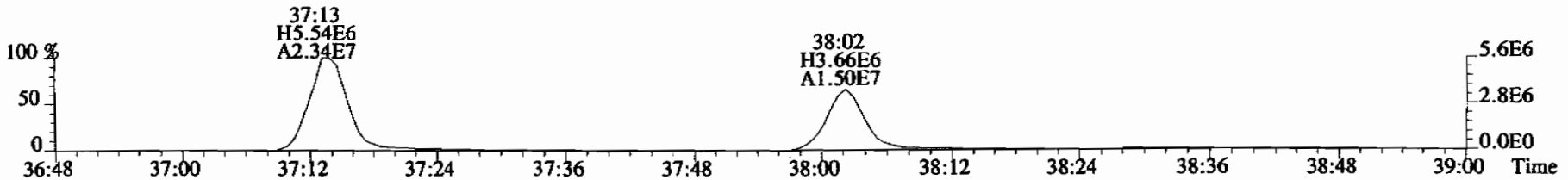

425.7737 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

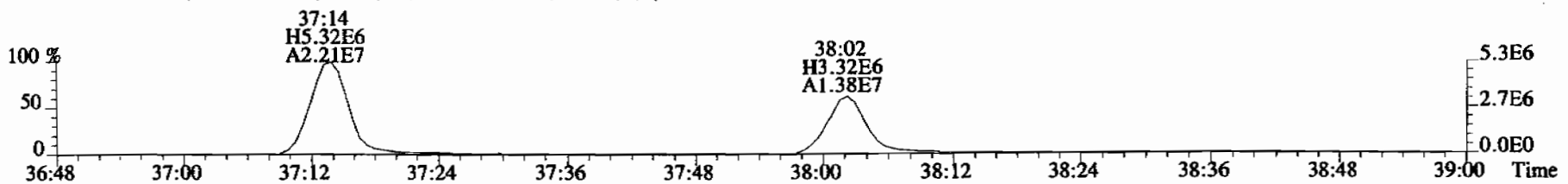

435.8169 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

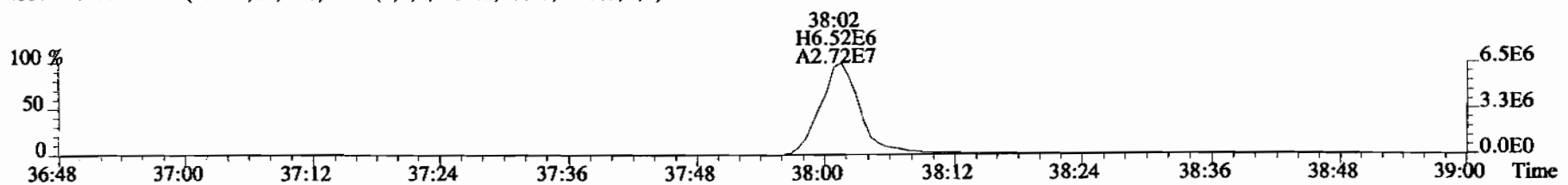

437.8140 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

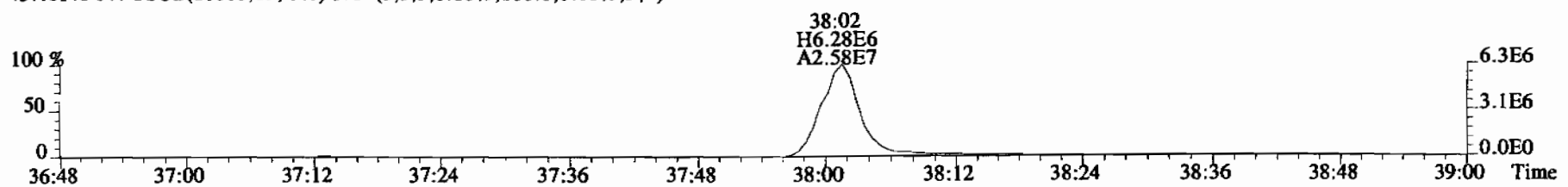

430.9728 F:4

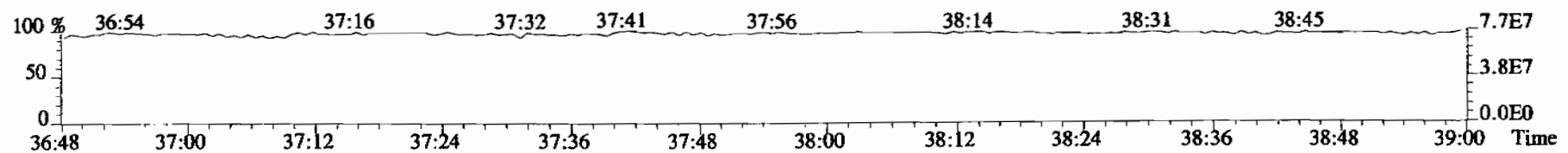

File:100113C1 #1-345 Acq:13-JAN-2010 11:20:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST100113C1-1 1613 CS3 090922G Exp:OCDD_DB5
457.7377 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

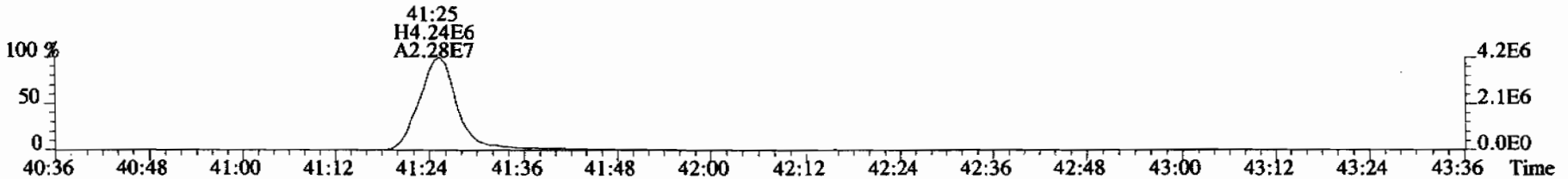

459.7348 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

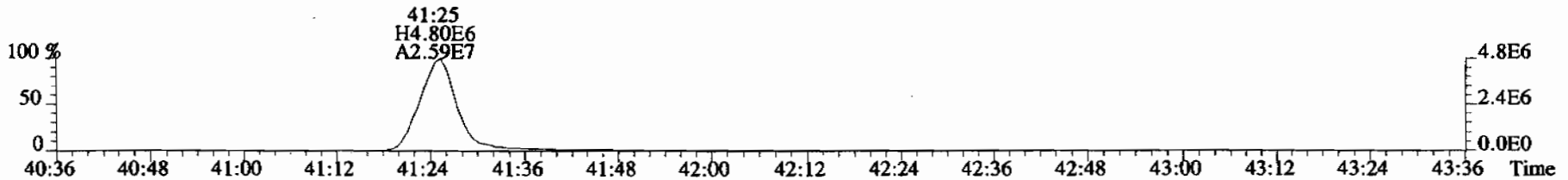

469.7780 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

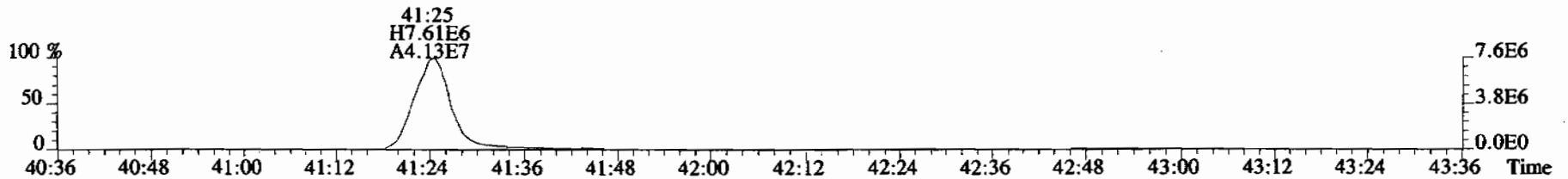

471.7750 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

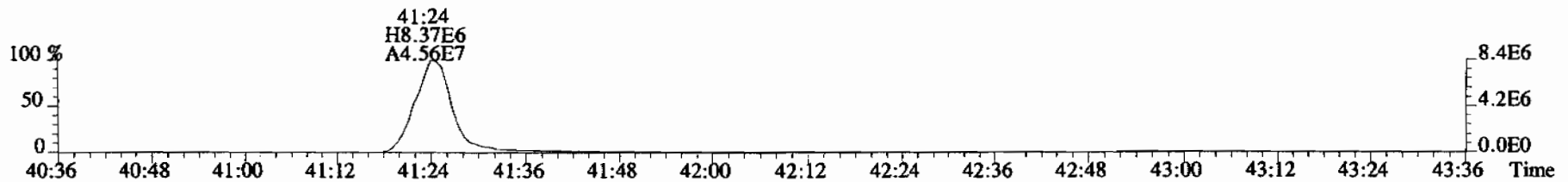

454.9728 F:5

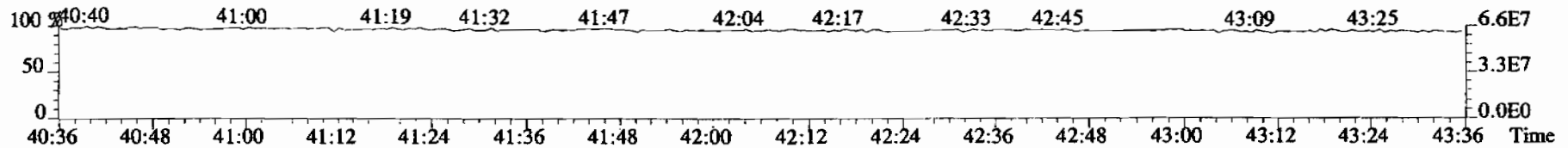

File:100113C1 #1-545 Acq:13-JAN-2010 11:20:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST100113C1-1 1613 CS3 090922G Exp:OCDD_DB5

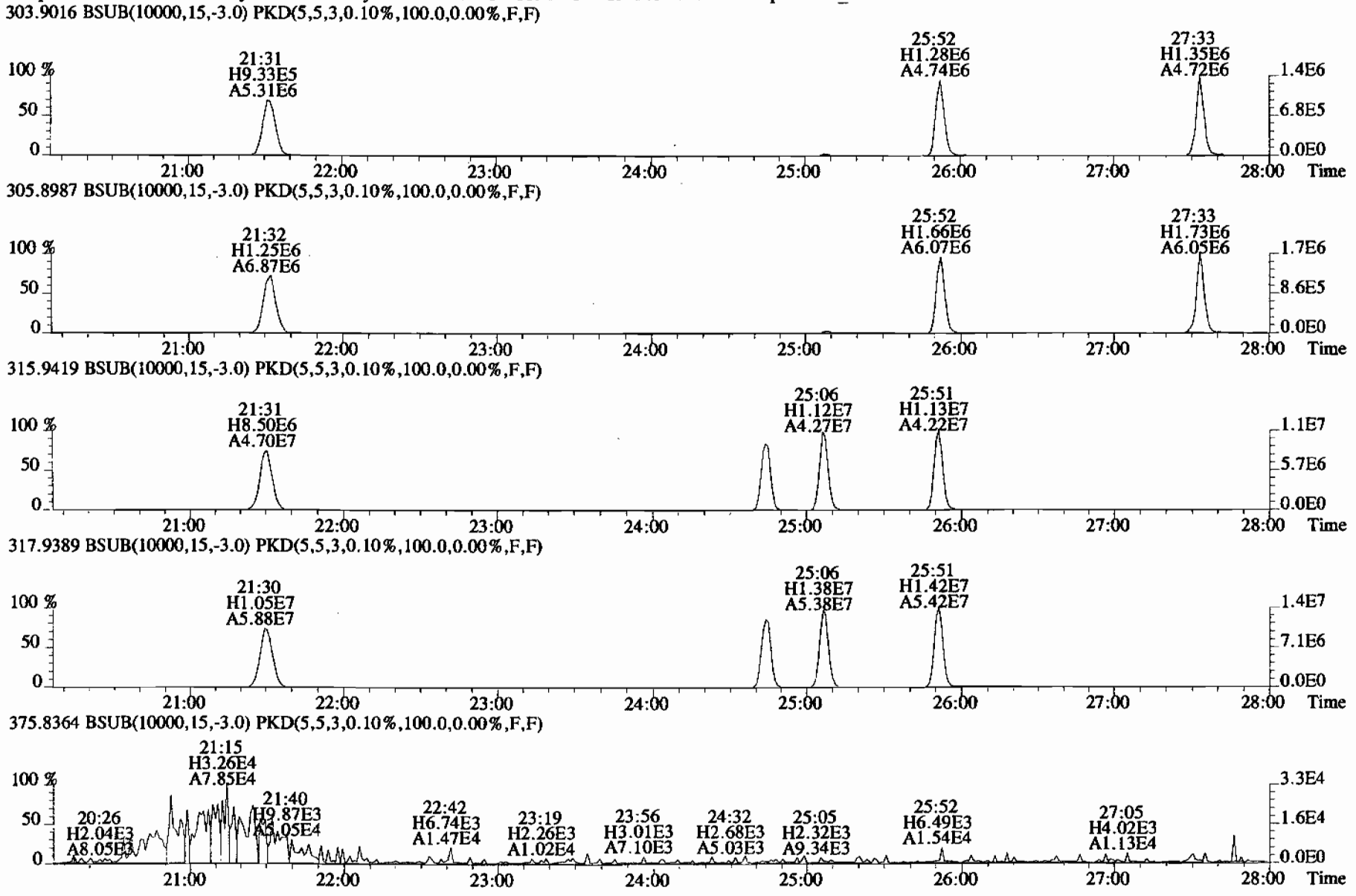

File:100113C1 #1-545 Acq:13-JAN-2010 11:20:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST100113C1-1 1613 CS3 090922G Exp:OCDD_DB5
339.8597 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

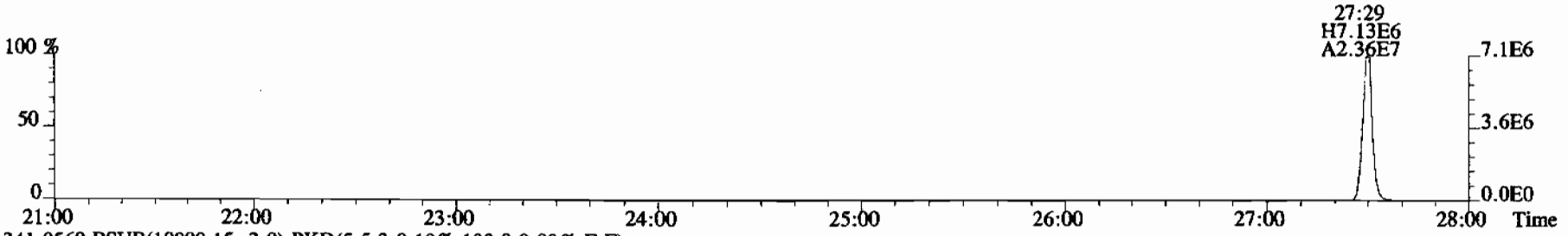

341.8568 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

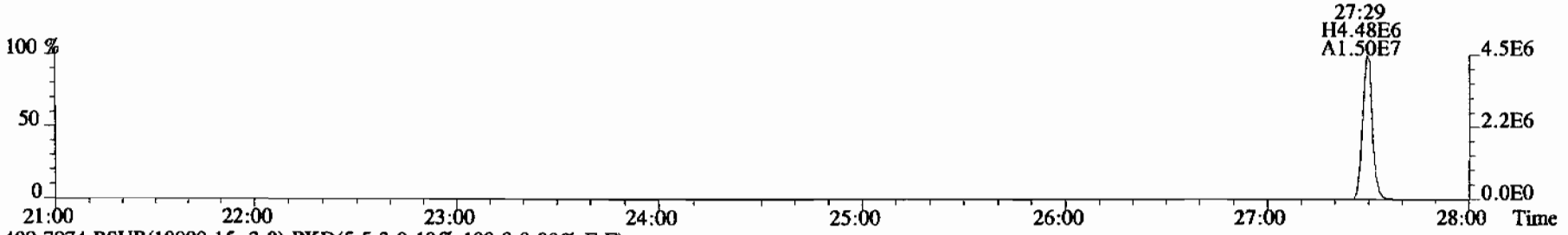

409.7974 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

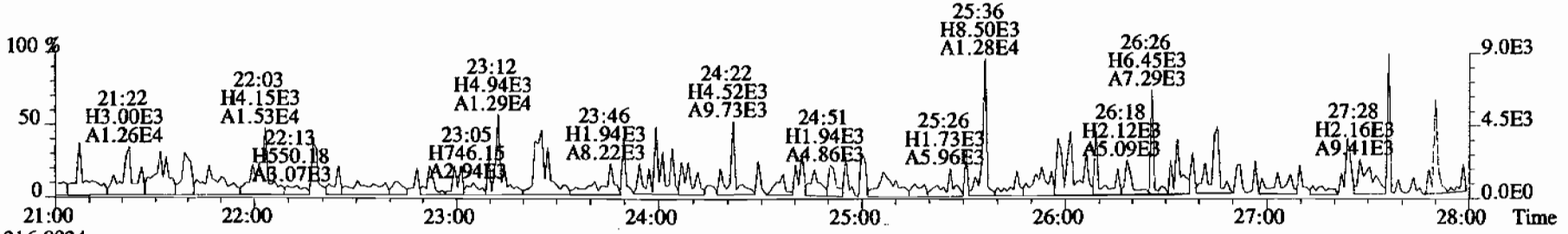

316.9824

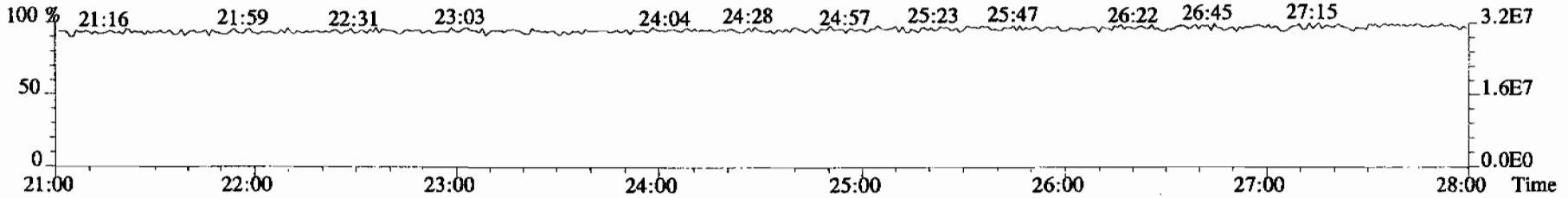

File:100113C1 #1-288 Acq:13-JAN-2010 11:20:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST100113C1-1 1613 CS3 090922G Exp:OCDD_DB5

339.8597 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

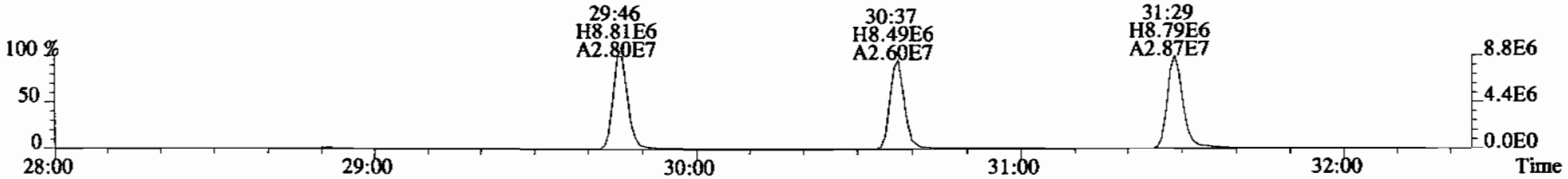

341.8568 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

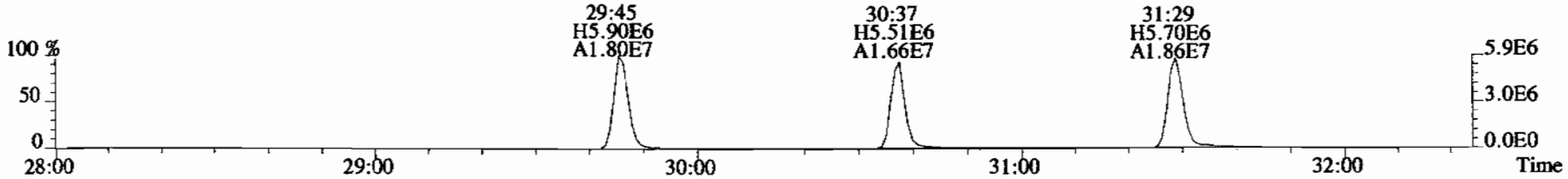

351.9000 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

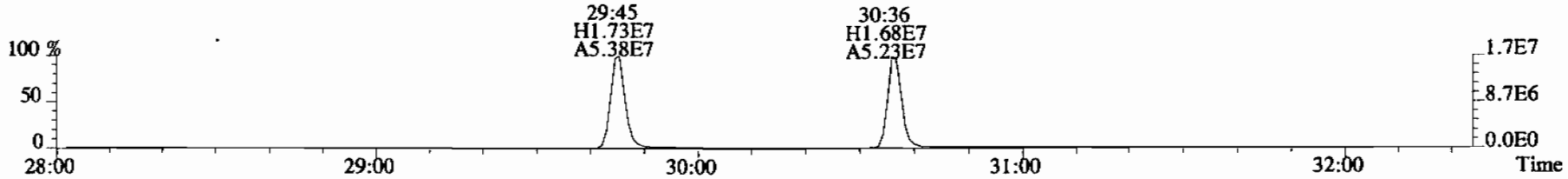

353.8970 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

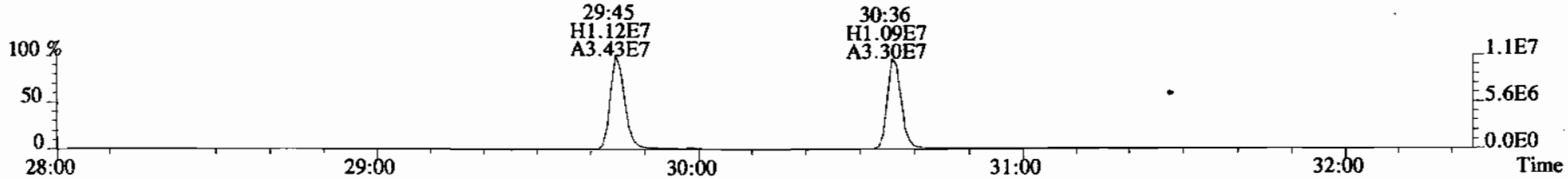

409.7974 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

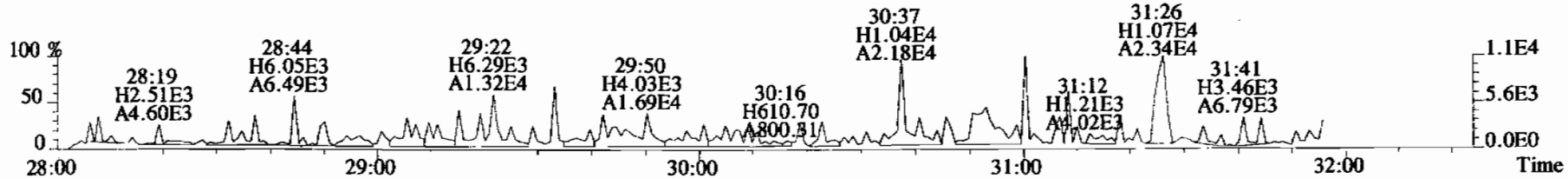

File:100113C1 #1-399 Acq:13-JAN-2010 11:20:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST100113C1-1 1613 CS3 090922G Exp:OCDD_DB5

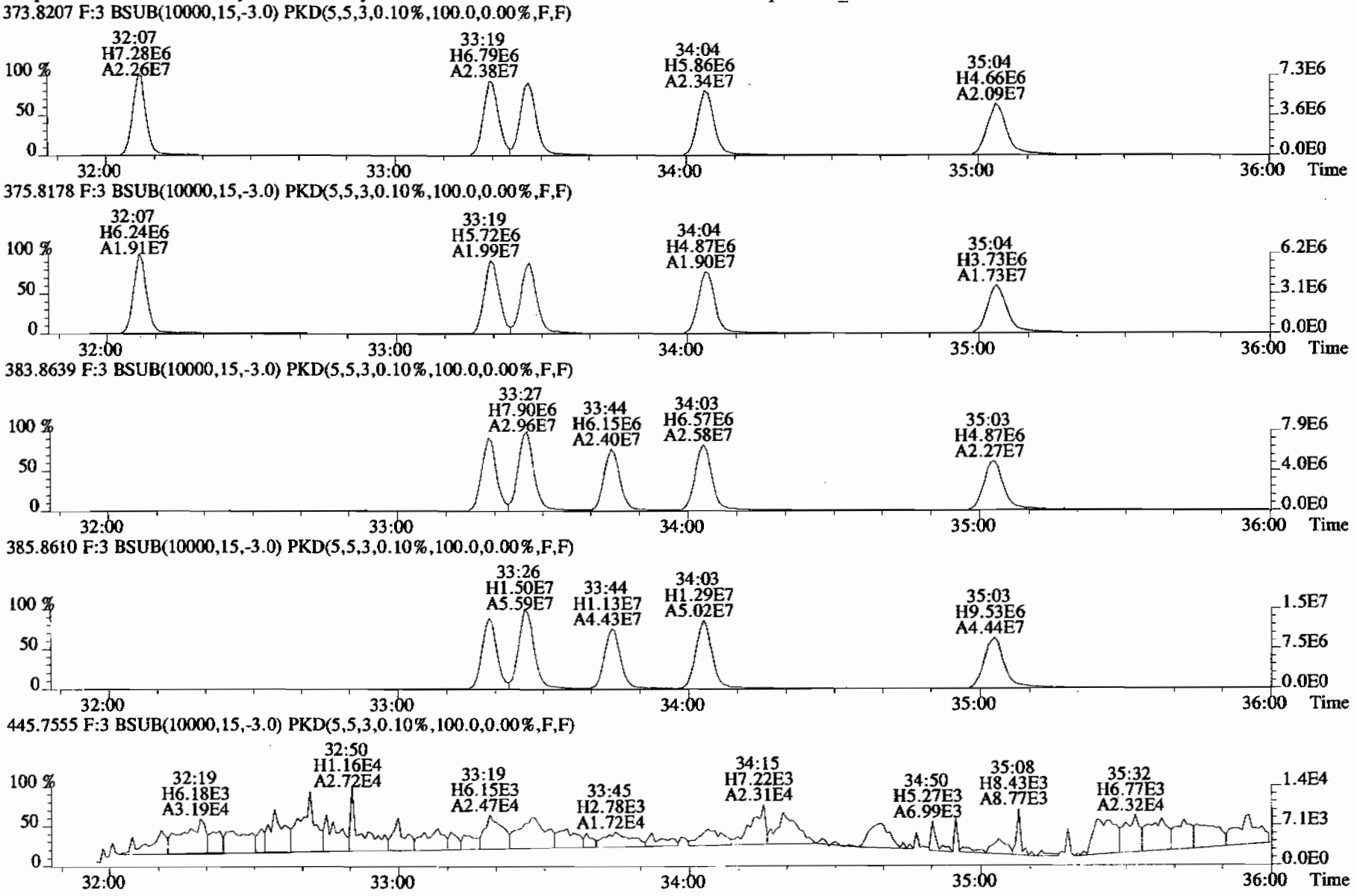

File:100113C1 #1-363 Acq:13-JAN-2010 11:20:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST100113C1-1 1613 CS3 090922G Exp:OCDD_DB5

407.7818 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

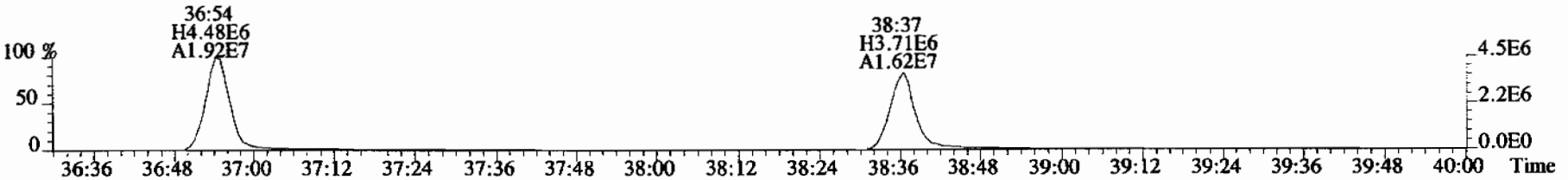

409.7788 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

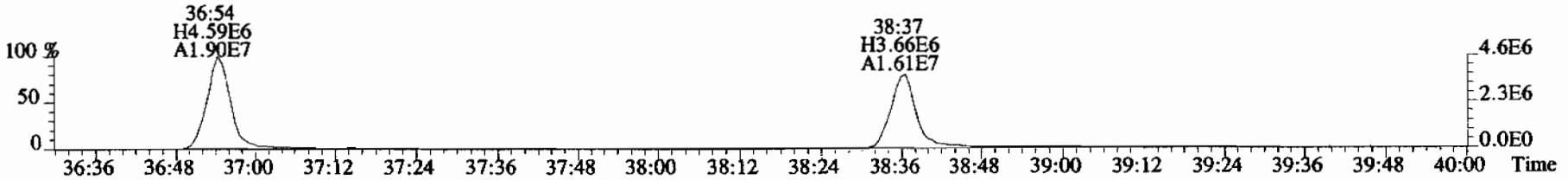

417.8253 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

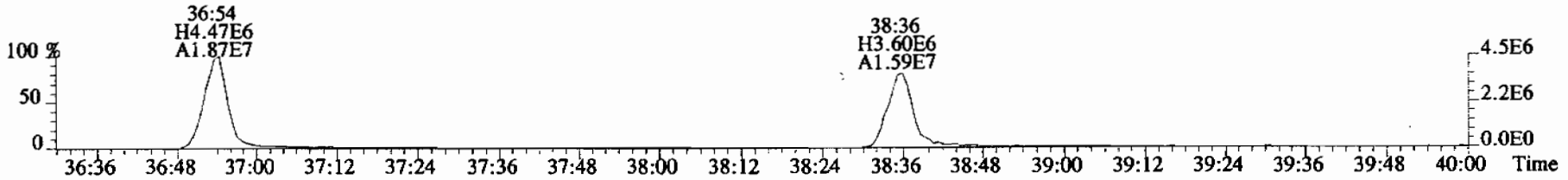

419.8220 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

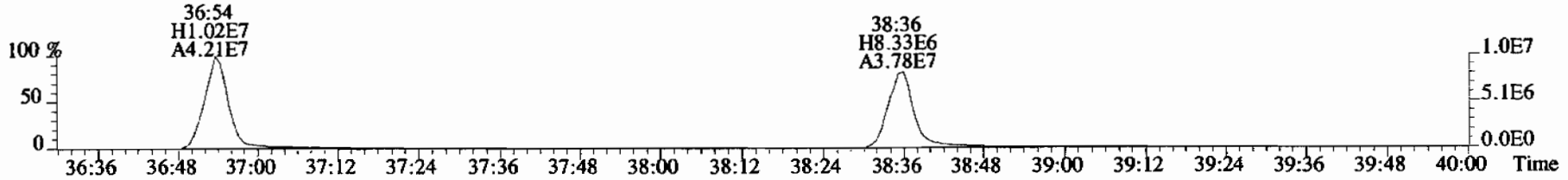

479.7165 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

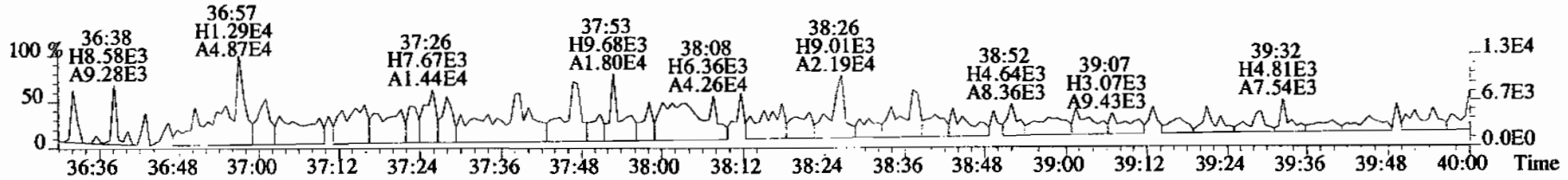

File:100113C1 #1-345 Acq:13-JAN-2010 11:20:23 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST100113C1-1 1613 CS3 090922G Exp:OCDD_DB5

441.7428 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

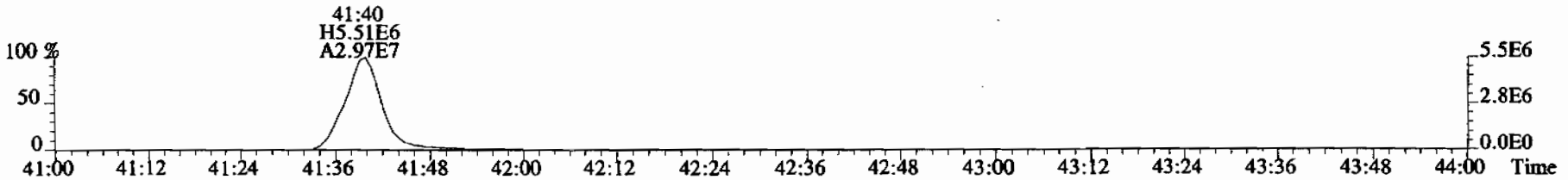

443.7398 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

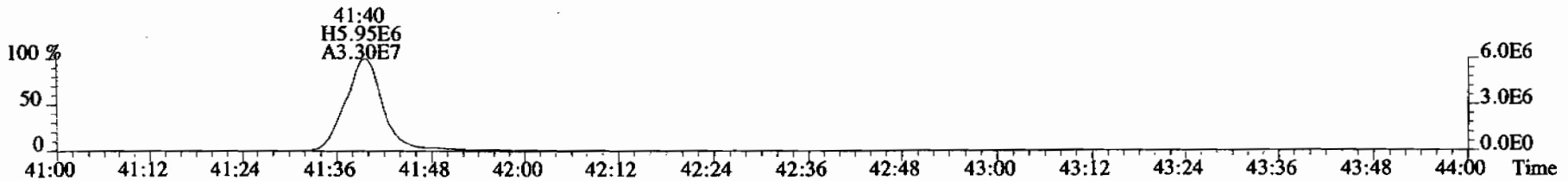

453.7831 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

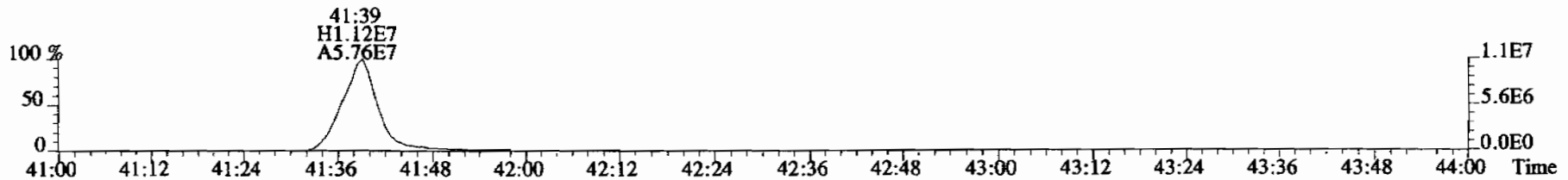

455.7801 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

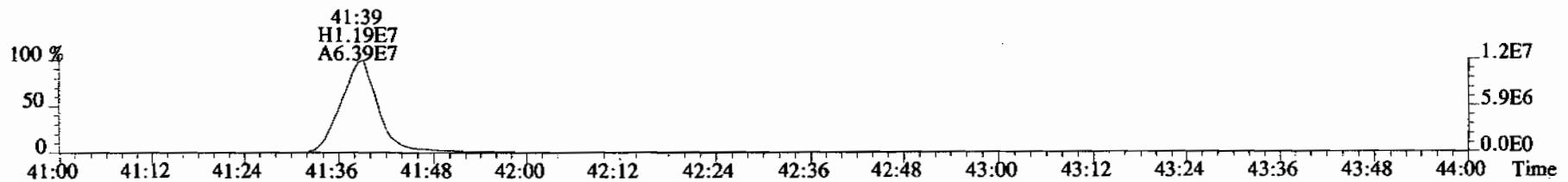

513.6775 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

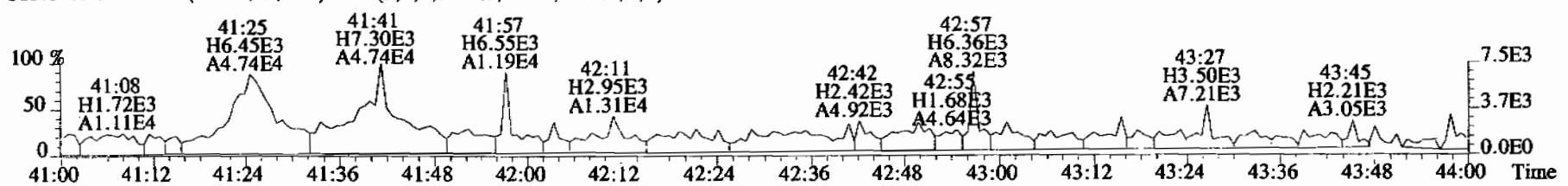

EPA METHOD 8290

PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory Episode No.: CCAL ID: ST100113C1-2

Contract No.: SAS No.:

Initial Calibration Date: 10/8/09

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 100113C1 S#15 Analysis Date: 13-JAN-10 Time: 22:38:08

NATIVE ANALYTES	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
2,3,7,8-TCDD	M/M+2	0.77	0.65-0.89	y	10.3	8.00 - 12.0
1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	y	45.9	40.0 - 60.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.29	1.05-1.43	y	48.5	40.0 - 60.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.29	1.05-1.43	y	49.9	40.0 - 60.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.28	1.05-1.43	y	51.2	40.0 - 60.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.06	0.88-1.20	y	49.5	40.0 - 60.0
OCDD	M+2/M+4	0.92	0.76-1.02	y	94.7	80.0 - 120
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	y	9.85	8.00 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	y	47.5	40.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.54	1.32-1.78	y	48.3	40.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.21	1.05-1.43	y	44.9	40.0 - 60.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	y	46.9	40.0 - 60.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.24	1.05-1.43	y	46.9	40.0 - 60.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.25	1.05-1.43	y	46.0	40.0 - 60.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.01	0.88-1.20	y	43.3	40.0 - 60.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.00	0.88-1.20	y	43.0	40.0 - 60.0
OCDF	M+2/M+4	0.91	0.76-1.02	y	93.3	80.0 - 120

Analyst: MS

Date: 1/14/10

EPA METHOD 8290

PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 10/8/09

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 100113C1 S#15 Analysis Date: 13-JAN-10 Time: 22:38:08

LABELED COMPOUNDS	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
13C-2,3,7,8-TCDD	M/M+2	0.81	0.65-0.89	y	96.6	70.0 - 130
13C-1,2,3,7,8-PeCDD	M/M+2	0.65	0.54-0.72	y	101	70.0 - 130
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.30	1.05-1.43	y	99.3	70.0 - 130
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.32	1.05-1.43	y	101	70.0 - 130
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.29	1.05-1.43	y	104	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.08	0.88-1.20	y	108	70.0 - 130
13C-OCDD	M+2/M+4	0.90	0.76-1.02	y	222	140 - 260
13C-2,3,7,8-TCDF	M/M+2	0.80	0.65-0.89	y	103	70.0 - 130
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	y	98.0	70.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.60	1.32-1.78	y	97.8	70.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.55	0.43-0.59	y	97.9	70.0 - 130
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.53	0.43-0.59	y	95.4	70.0 - 130
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.53	0.43-0.59	y	96.3	70.0 - 130
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.52	0.43-0.59	y	99.1	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.44	0.37-0.51	y	102	70.0 - 130
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.42	0.37-0.51	y	103	70.0 - 130
13C-OCDF	M+2/M+4	0.88	0.76-1.02	y	210	140 - 260
CLEANUP STANDARD						
37Cl-2,3,7,8-TCDD					9.44	7.00 - 13.0

Analyst: [illegible]

Date: 1/14/10

FORM 5
PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Instrument ID: VG-5 Initial Calibration Date: 10/8/09

RT Window Data Filename: 100113C1 S#15 Analysis Date: 13-JAN-10 Time: 22:38:08

DB-5 IS Data Filename: 100113C1 S#15 Analysis Date: 13-JAN-10 Time: 22:38:08

DB_225 IS Data Filename: Analysis Date: Time:

DB-5 RT WINDOW DEFINING STANDARDS RESULTS

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	23:29	1,3,6,8-TCDF (F)	21:33
1,2,8,9-TCDD (L)	27:26	1,2,8,9-TCDF (L)	27:34
1,2,4,7,9-PeCDD (F)	28:56	1,3,4,6,8-PeCDF (F)	27:31
1,2,3,8,9-PeCDD (L)	31:16	1,2,3,8,9-PeCDF (L)	31:30
1,2,4,6,7,9-HxCDD (F)	32:41	1,2,3,4,6,8-HxCDF (F)	32:08
1,2,3,7,8,9-HxCDD (L)	34:41	1,2,3,7,8,9-HxCDF (L)	35:06
1,2,3,4,6,7,9-HpCDD (F)	37:15	1,2,3,4,6,7,8-HpCDF (F)	36:56
1,2,3,4,6,7,8-HpCDD (L)	38:04	1,2,3,4,7,8,9-HpCDF (L)	38:38

(F) = First eluting isomer (DB-5); (L) = Last eluting isomer (DB-5).

==========

ISOMER SPECIFICITY (IS) TEST STANDARD RESULTS

% VALLEY HEIGHT
BETWEEN
COMPARED PEAKS (1)

<25%

(1) To meet contract requirements, %Valley Height Between Compared Peaks shall not exceed 25% (section 15.4.2.2, Method 1613).

Analyst: MJ

Date: 1/14/10

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 10/8/09

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 100113C1 S#15 Analysis Date: 13-JAN-10 Time: 22:38:08

Compounds Using 13C-1234-TCDD as RT Internal Standard

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999-1.002
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.000	0.999-1.002
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999-1.003
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999-1.002
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999-1.002
LABELED COMPOUNDS			
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.020	0.976-1.043
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.185	1.000-1.567
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.993	0.923-1.103
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.142	1.000-1.425
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.175	1.011-1.526
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.021	0.989-1.052

(1) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613. 10/94

Analyst: MJ

Date: 1/14/10

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 10/8/09

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 100113C1 S#15 Analysis Date: 13-JAN-10 Time: 22:38:08

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.001	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.001	0.997-1.005
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.001	0.999-1.001
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999-1.001
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999-1.001
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998-1.004
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.000	0.999-1.002
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.000	0.999-1.001
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999-1.001
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.001	0.999-1.001
OCDD	13C-OCDD	1.001	0.999-1.001
OCDF	13C-OCDF	1.000	0.999-1.001
LABELED COMPOUNDS			
13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.175	1.011-1.526
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.987	0.975-1.001
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.991	0.979-1.005
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.009	1.001-1.020
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.014	1.002-1.026
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.018	1.007-1.029
13C-1,2,3,7,8,9-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.039	1.002-1.072
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.027	1.014-1.038
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.093	1.069-1.111
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,9-HxCDF	1.127	1.117-1.141
13C-OCDD	13C-1,2,3,4,6,9-HxCDF	1.144	1.098-1.192
13C-OCDF	13C-1,2,3,4,6,9-HxCDF	1.234	1.091-1.371

(1) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613. 10/94

Analyst: MJ

Date: 1/14/10

Client ID: 1613 CS3 090922G Filename: 100113C1 S:15 Acq:13-JAN-10 22:38:08 ConCal: ST100113C1-1

Lab ID: ST100113C1-2 GC Column ID: db-5 ICal: 1613VG5-10-8-09 wt/vol: 1.000 EndCAL: NA

	Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL
	2,3,7,8-TCDD	9.08e+06	0.77 y	1.25	26:37	10.283		*	2.5	*
	1,2,3,7,8-PeCDD	3.33e+07	0.62 y	1.11	30:54	45.937		*	2.5	*
	1,2,3,4,7,8-HxCDD	3.10e+07	1.29 y	1.04	34:15	48.482		*	2.5	*
	1,2,3,6,7,8-HxCDD	3.52e+07	1.29 y	1.12	34:22	49.923		*	2.5	*
	1,2,3,7,8,9-HxCDD	3.74e+07	1.28 y	1.02	34:41	51.188		*	2.5	*
	1,2,3,4,6,7,8-HpCDD	3.49e+07	1.06 y	1.11	38:04	49.464		*	2.5	*
	OCDD	6.11e+07	0.92 y	1.24	41:28	94.667		*	2.5	*
	2,3,7,8-TCDF	1.30e+07	0.77 y	1.15	25:53	9.8505		*	2.5	*
	1,2,3,7,8-PeCDF	5.43e+07	1.57 y	1.11	29:47	47.500		*	2.5	*
	2,3,4,7,8-PeCDF	5.18e+07	1.54 y	1.07	30:38	48.284		*	2.5	*
	1,2,3,4,7,8-HxCDF	5.01e+07	1.21 y	1.34	33:21	44.869		*	2.5	*
	1,2,3,6,7,8-HxCDF	5.69e+07	1.25 y	1.18	33:29	46.898		*	2.5	*
	2,3,4,6,7,8-HxCDF	5.00e+07	1.24 y	1.20	34:06	46.882		*	2.5	*
	1,2,3,7,8,9-HxCDF	4.55e+07	1.25 y	1.24	35:06	45.982		*	2.5	*
	1,2,3,4,6,7,8-HpCDF	4.56e+07	1.01 y	1.44	36:56	43.315		*	2.5	*
	1,2,3,4,7,8,9-HpCDF	3.88e+07	1.00 y	1.40	38:38	43.046		*	2.5	*
	OCDF	7.54e+07	0.91 y	1.07	41:41	93.278		*	2.5	*
IS	13C-2,3,7,8-TCDD	7.06e+07	0.81 y	1.04	26:36	96.588				
IS	13C-1,2,3,7,8-PeCDD	6.52e+07	0.65 y	0.92	30:53	101.10				
IS	13C-1,2,3,4,7,8-HxCDD	6.15e+07	1.30 y	0.76	34:14	99.271				
IS	13C-1,2,3,6,7,8-HxCDD	6.28e+07	1.32 y	0.77	34:21	101.32				
IS	13C-1,2,3,7,8,9-HxCDD	7.14e+07	1.29 y	0.85	34:40	103.52				
IS	13C-1,2,3,4,6,7,8-HpCDD	6.37e+07	1.08 y	0.73	38:03	108.35				
IS	13C-OCDD	1.05e+08	0.90 y	0.58	41:26	221.87				
IS	13C-2,3,7,8-TCDF	1.14e+08	0.80 y	1.06	25:53	102.89				
IS	13C-1,2,3,7,8-PeCDF	1.03e+08	1.58 y	1.00	29:46	97.999				
IS	13C-2,3,4,7,8-PeCDF	1.00e+08	1.60 y	0.98	30:38	97.796				
IS	13C-1,2,3,4,7,8-HxCDF	8.31e+07	0.55 y	1.05	33:20	97.887				
IS	13C-1,2,3,6,7,8-HxCDF	1.02e+08	0.53 y	1.33	33:28	95.352				
IS	13C-2,3,4,6,7,8-HxCDF	8.87e+07	0.53 y	1.14	34:04	96.253				
IS	13C-1,2,3,7,8,9-HxCDF	8.01e+07	0.52 y	1.00	35:05	99.140				
IS	13C-1,2,3,4,6,7,8-HpCDF	7.29e+07	0.44 y	0.88	36:55	101.84				
IS	13C-1,2,3,4,7,8,9-HpCDF	6.43e+07	0.42 y	0.77	38:37	102.96				
IS	13C-OCDF	1.51e+08	0.88 y	0.89	41:40	209.85				
C/Up	37Cl-2,3,7,8-TCDD	4.48e+06		0.68	26:36	9.4387				
RS/RT	13C-1,2,3,4-TCDD	7.00e+07	0.83 y	1.00	26:04	100.00				
RS	13C-1,2,3,4-TCDF	1.05e+08	0.78 y	1.00	24:45	100.00				
RS/RT	13C-1,2,3,4,6,9-HxCDF	8.10e+07	0.54 y	1.00	33:46	100.00				

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	59.2	59.9		*	*
Total Penta-Dioxins	142	143		*	*
Total Hexa-Dioxins	194	199		*	*
Total Hepta-Dioxins	129	131		*	*
Total Tetra-Furans	31.3	31.8		*	*
Total Penta-Furans	186.99	188.65		*	*
Total Hexa-Furans	229	232		*	*
Total Hepta-Furans	88.1	89.7		*	*

	Rec	Qual
	96.6	
	101	
	99.3	
	101	
	104	
	108	
	111	
	103	
	98.0	
	97.8	
	97.9	
	95.4	
	96.3	
	99.1	
	102	
	103	
	105	
	23.6	

Integrations by Analyst: M

Date: 1/14/10

Reviewed by Analyst: _____

Date: _____

Vista Analytical Laboratory - Injection Log Run file: 100113C1 Instrument ID: VG-5 GC Column ID: db-5

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
100113C1	1	ST100113C1-1	MAS	13-JAN-10	11:20:23	ST100113C1-1	ST100113C1-2
100113C1	2	0_2711_OPR001	MAS	13-JAN-10	12:08:46	ST100113C1-1	ST100113C1-2
100113C1	3	SOLVENT BLANK	MAS	13-JAN-10	12:57:11	ST100113C1-1	ST100113C1-2
100113C1	4	0_2711_MB001	MAS	13-JAN-10	13:45:35	ST100113C1-1	ST100113C1-2
100113C1	5	32288_2711_001	MAS	13-JAN-10	14:34:00	ST100113C1-1	ST100113C1-2
100113C1	6	32288_2711_002	MAS	13-JAN-10	15:22:24	ST100113C1-1	ST100113C1-2
100113C1	7	32289_2711_001	MAS	13-JAN-10	16:10:48	ST100113C1-1	ST100113C1-2
100113C1	8	32289_2711_002	MAS	13-JAN-10	16:59:13	ST100113C1-1	ST100113C1-2
100113C1	9	32290_2711_001	MAS	13-JAN-10	17:47:37	ST100113C1-1	ST100113C1-2
100113C1	10	32301_2711_001	MAS	13-JAN-10	18:36:05	ST100113C1-1	ST100113C1-2
100113C1	11	32302_2711_001	MAS	13-JAN-10	19:24:28	ST100113C1-1	ST100113C1-2
100113C1	12	32308_2711_001	MAS	13-JAN-10	20:12:56	ST100113C1-1	ST100113C1-2
100113C1	13	32308_2711_002	MAS	13-JAN-10	21:01:20	ST100113C1-1	ST100113C1-2
100113C1	14	SOLVENT BLANK	MAS	13-JAN-10	21:49:44	ST100113C1-1	ST100113C1-2
100113C1	15	ST100113C1-2	MAS	13-JAN-10	22:38:08	ST100113C1-1	ST100113C1-2

File:100113C1 #1-546 Acq:13-JAN-2010 22:38:08 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-5 Text:ST100113C1-2 1613 CS3 090922G Exp:OCDD_DB5
321.8936 S:15

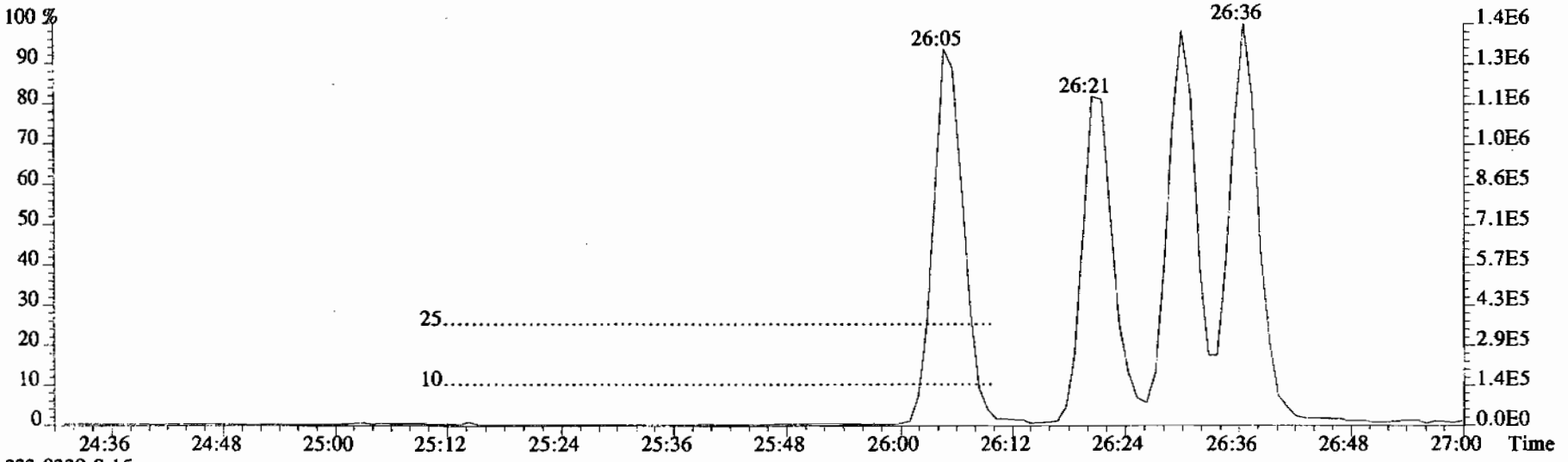

333.9339 S:15

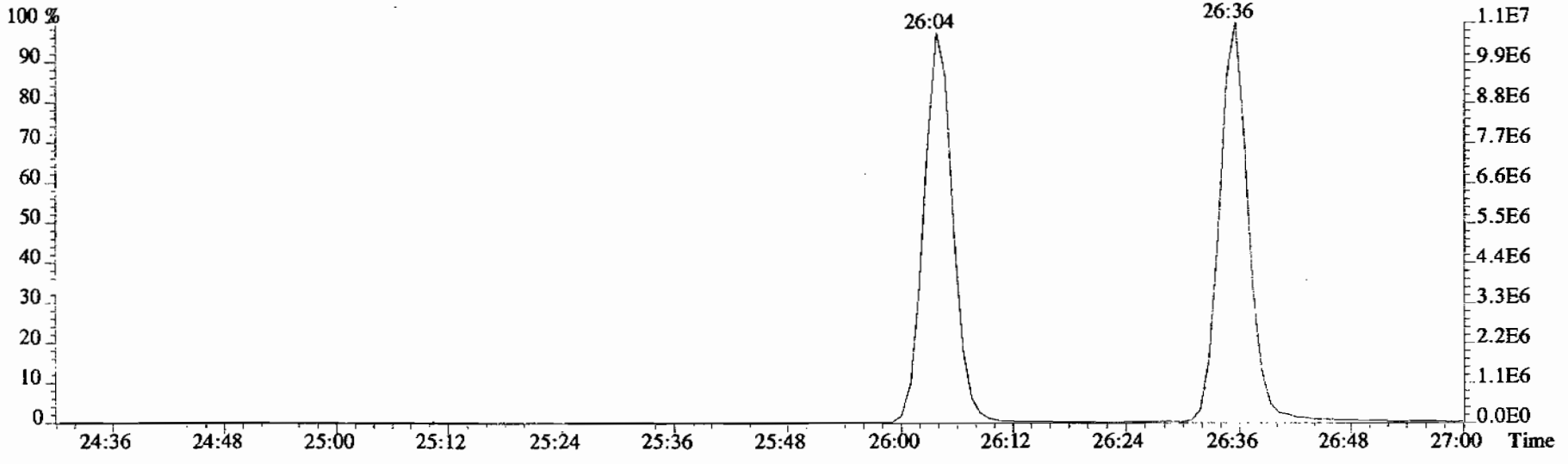

File:100113C1 #1-546 Acq:13-JAN-2010 22:38:08 GC EI+ Voltage SIR Autospec-UltimaE
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319.8965 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

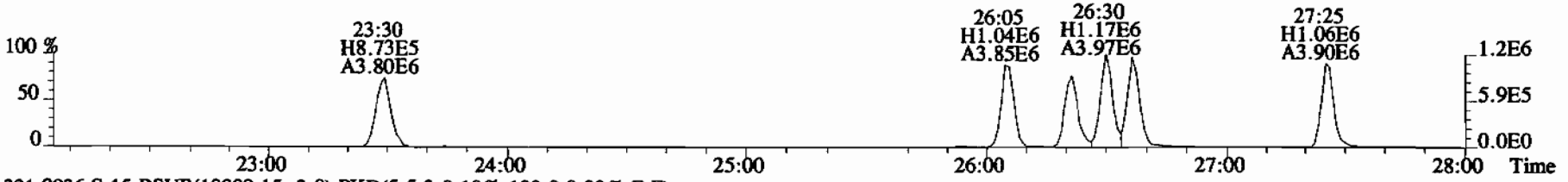

321.8936 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

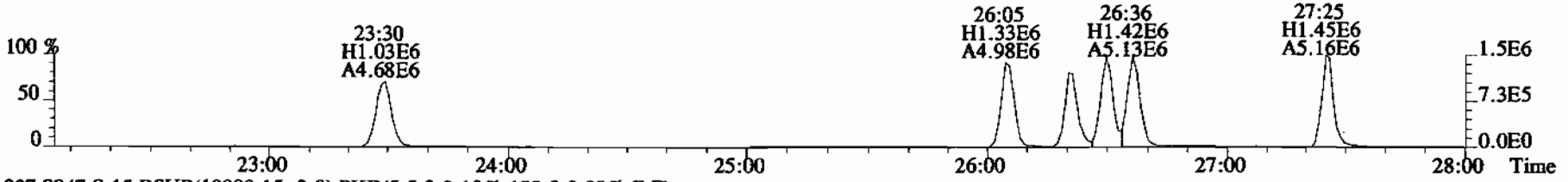

327.8847 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

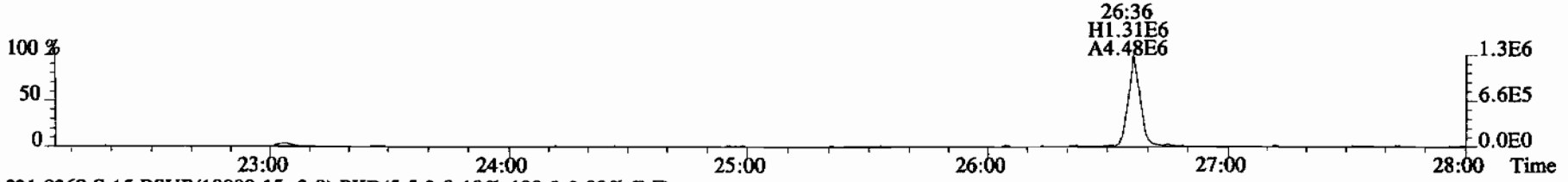

331.9368 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

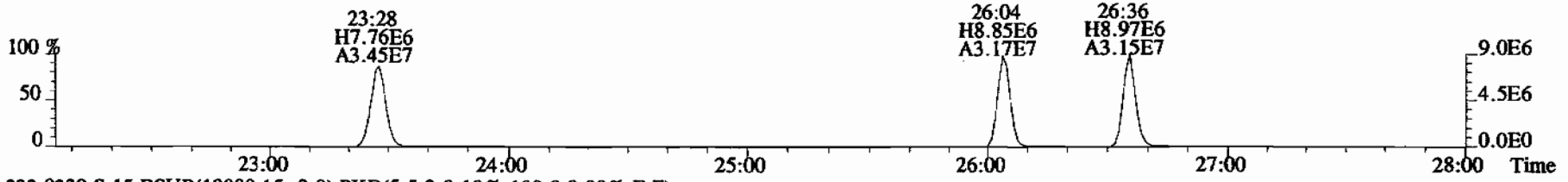

333.9339 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

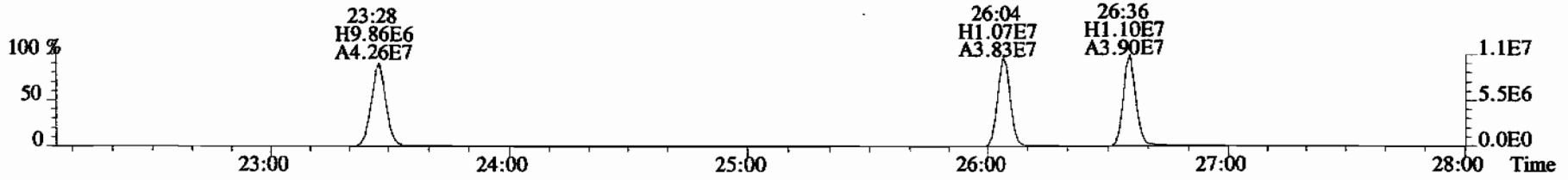

File:100113C1 #1-287 Acq:13-JAN-2010 22:38:08 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-5 Text:ST100113C1-2 1613 CS3 090922G Exp:OCDD_DB5
353.8576 S:15 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

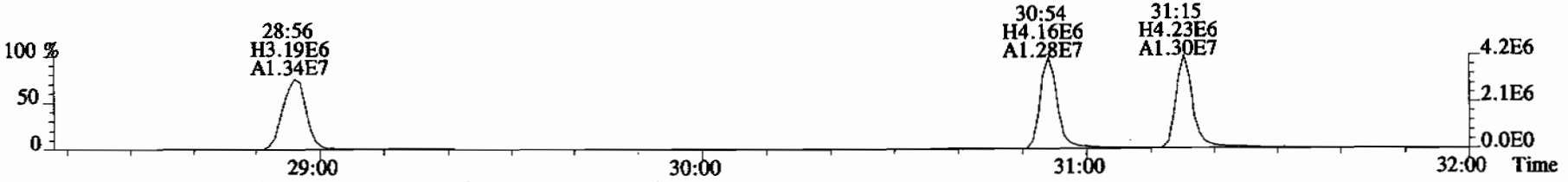

355.8546 S:15 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

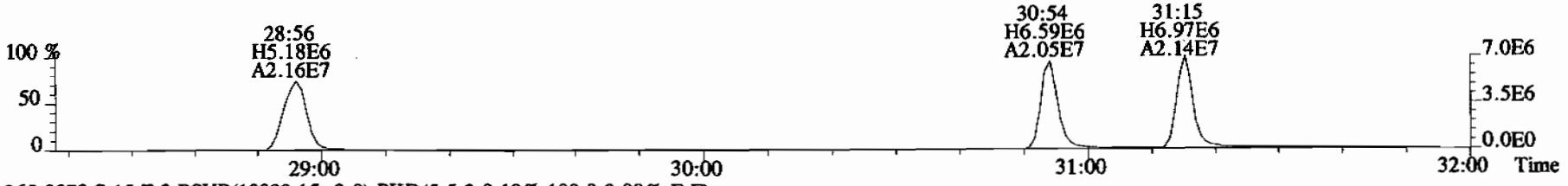

365.8978 S:15 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

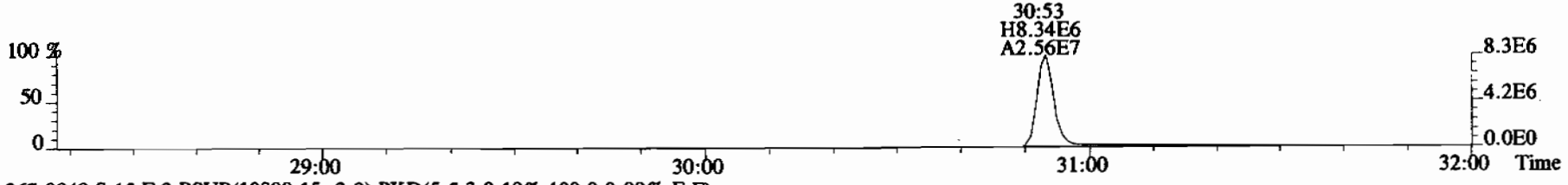

367.8949 S:15 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

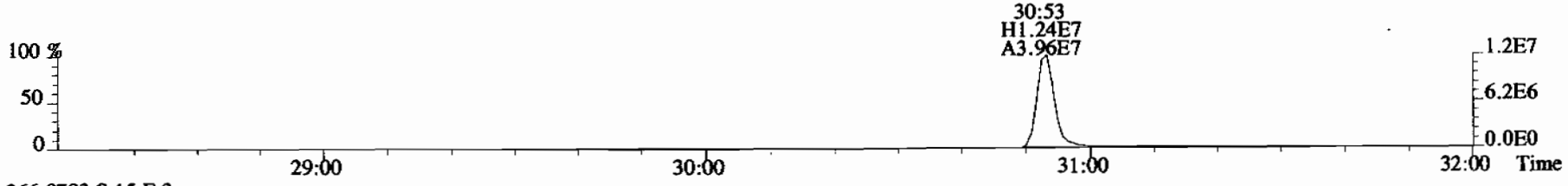

366.9792 S:15 F:2

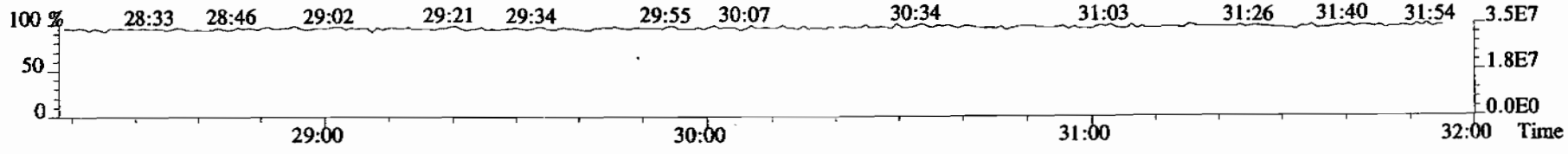

File:100113C1 #1-400 Acq:13-JAN-2010 22:38:08 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-5 Text:ST100113C1-2 1613 CS3 090922G Exp:OCDD_DB5
389.8156 S:15 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

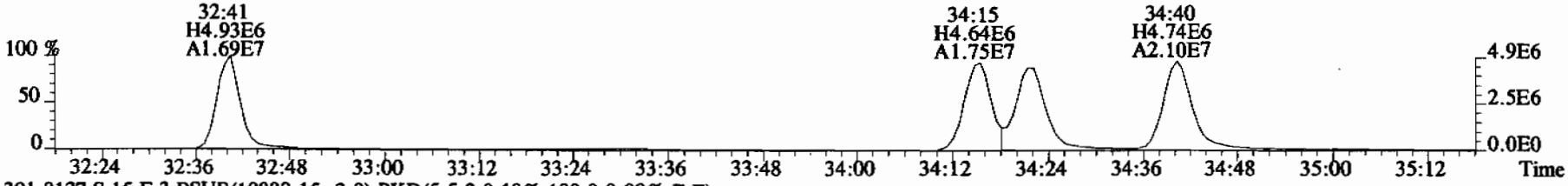

391.8127 S:15 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

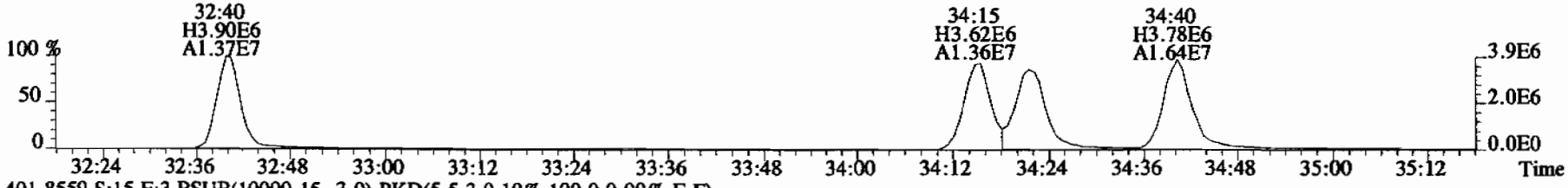

401.8559 S:15 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

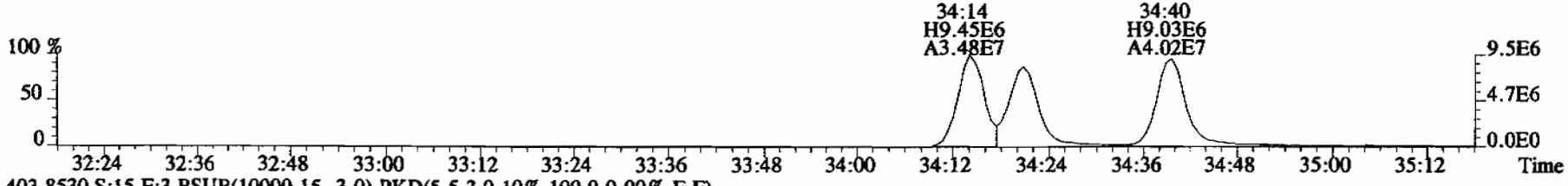

403.8530 S:15 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

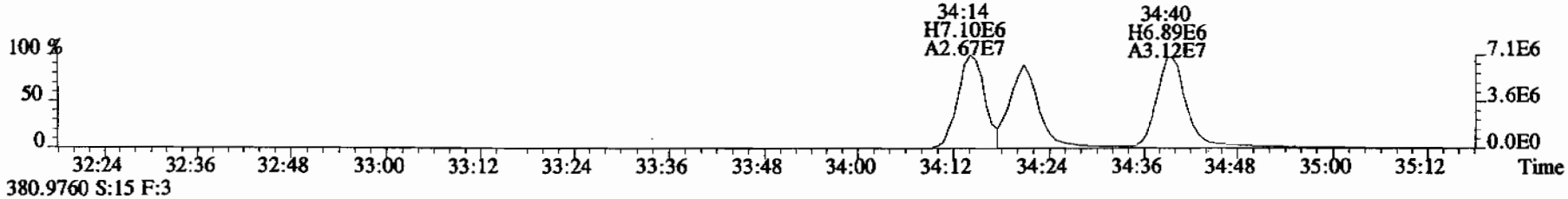

380.9760 S:15 F:3

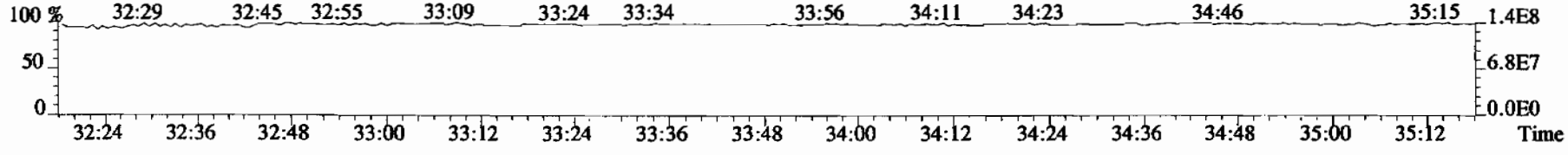

File:100113C1 #1-363 Acq:13-JAN-2010 22:38:08 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-5 Text:ST100113C1-2 1613 CS3 090922G Exp:OCDD_DB5
423.7767 S:15 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

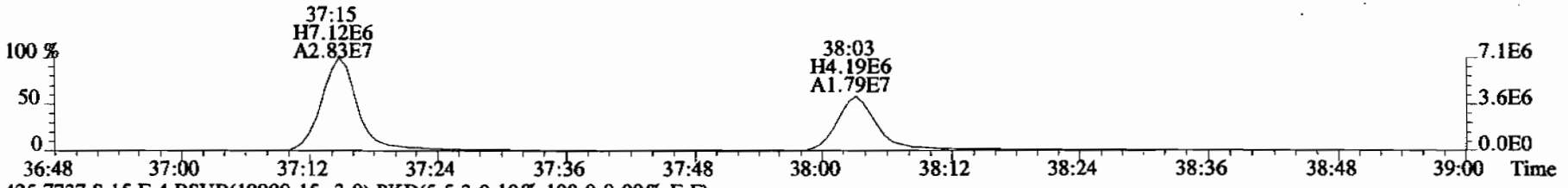

425.7737 S:15 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

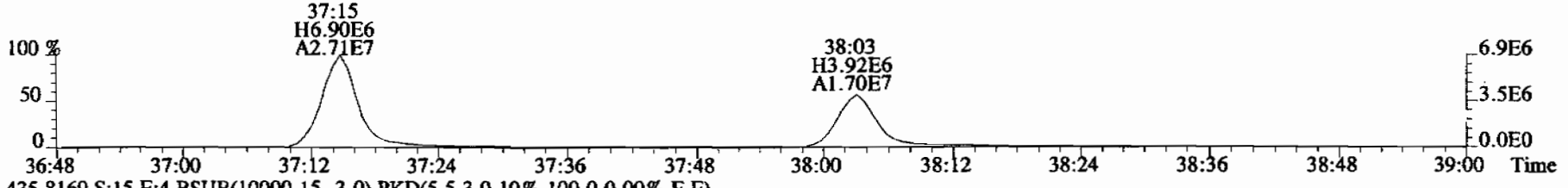

435.8169 S:15 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

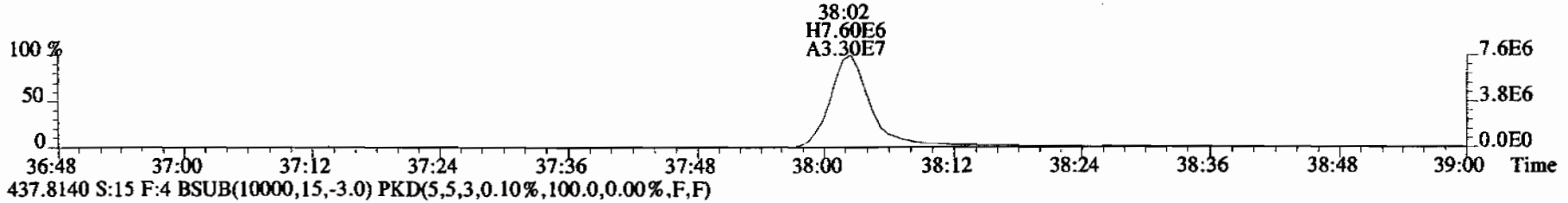

437.8140 S:15 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

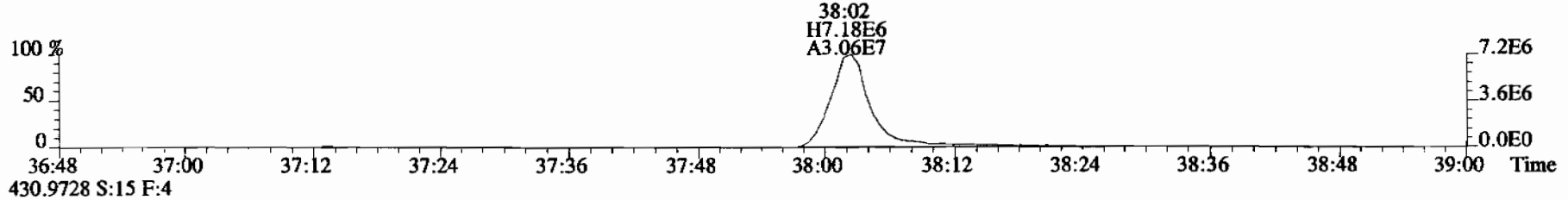

430.9728 S:15 F:4

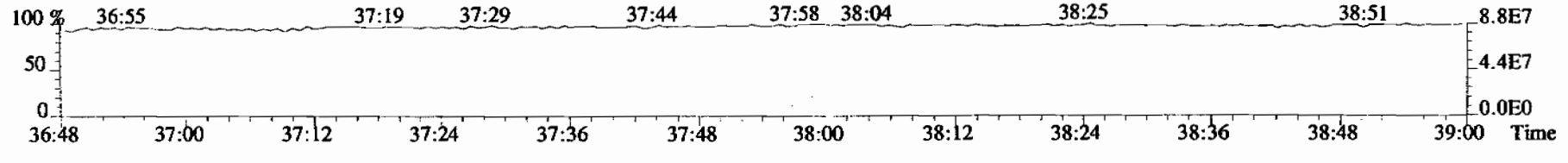

File:100113C1 #1-345 Acq:13-JAN-2010 22:38:08 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-5 Text:ST100113C1-2 1613 CS3 090922G Exp:OCDD_DB5
457.7377 S:15 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

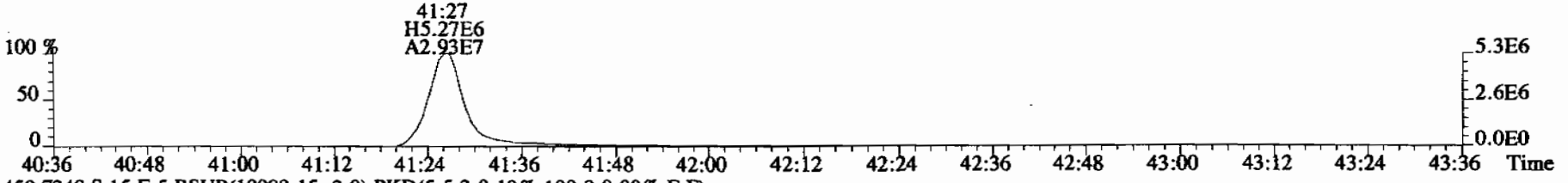

459.7348 S:15 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

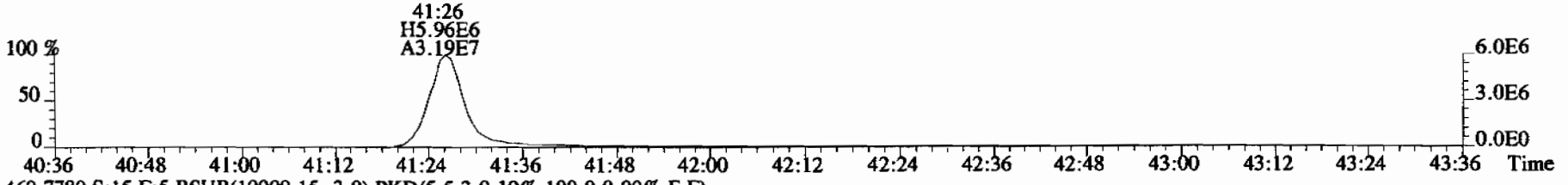

469.7780 S:15 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

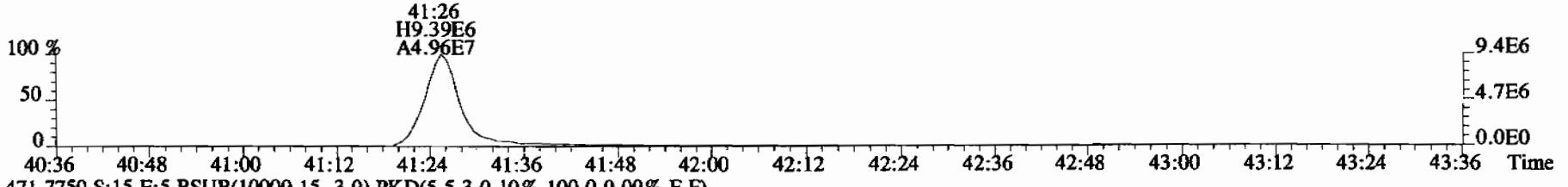

471.7750 S:15 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

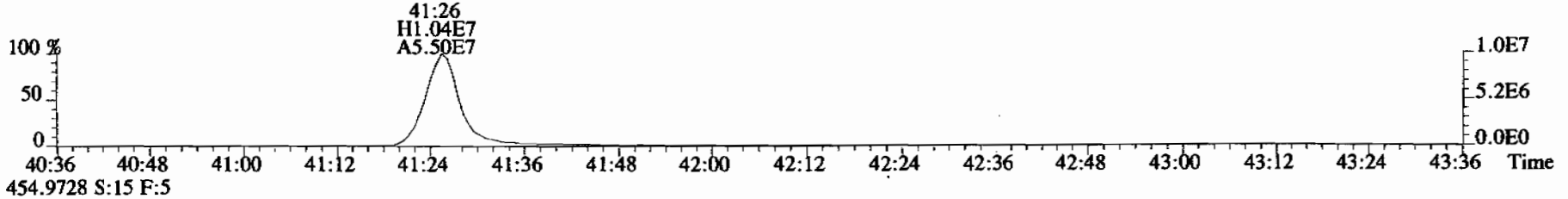

454.9728 S:15 F:5

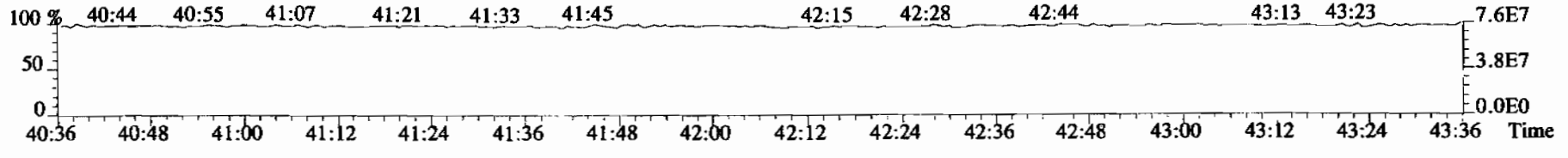

File:100113C1 #1-546 Acq:13-JAN-2010 22:38:08 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-5 Text:ST100113C1-2 1613 CS3 090922G Exp:OCDD_DB5
303.9016 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

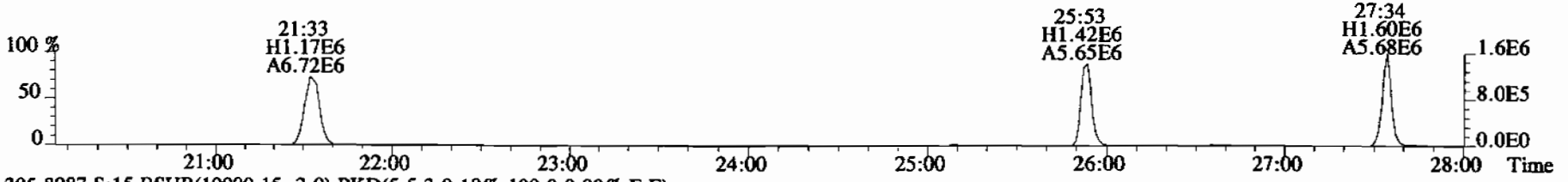

305.8987 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

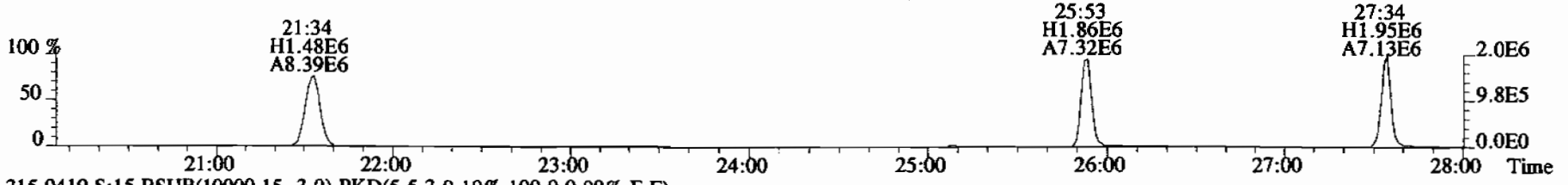

315.9419 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

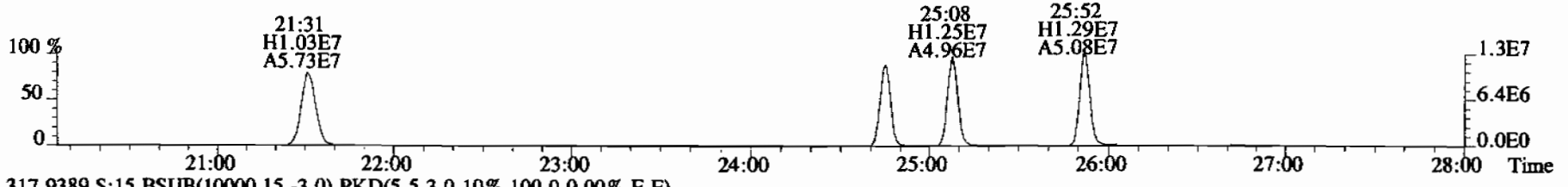

317.9389 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

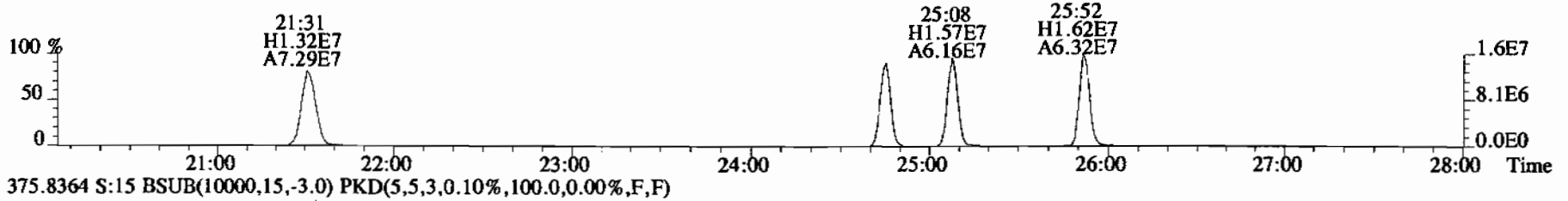

375.8364 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

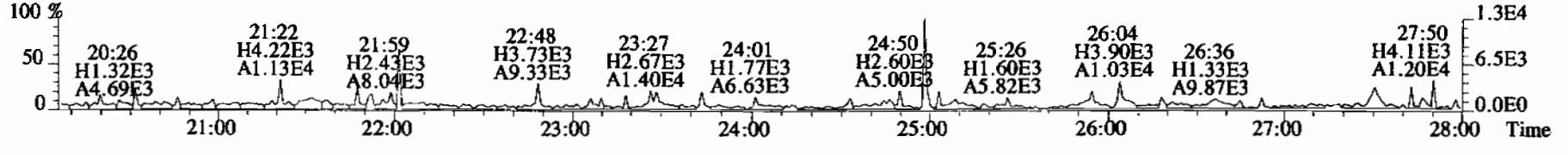

File:100113C1 #1-546 Acq:13-JAN-2010 22:38:08 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-5 Text:ST100113C1-2 1613 CS3 090922G Exp:OCDD_DB5
339.8597 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

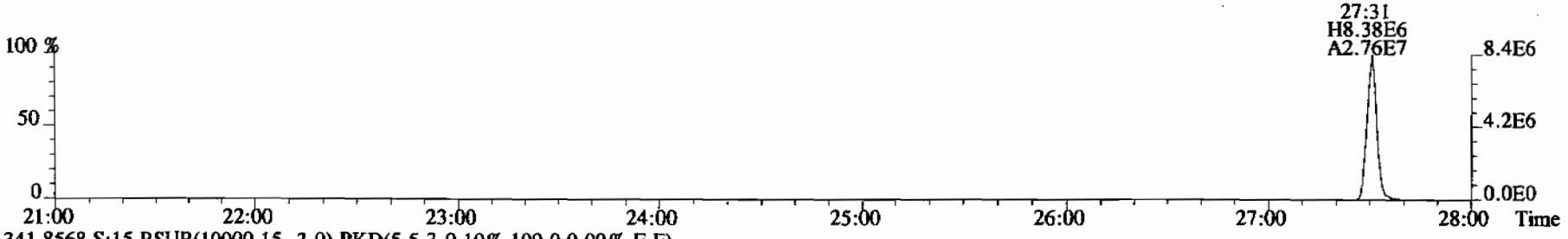

341.8568 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

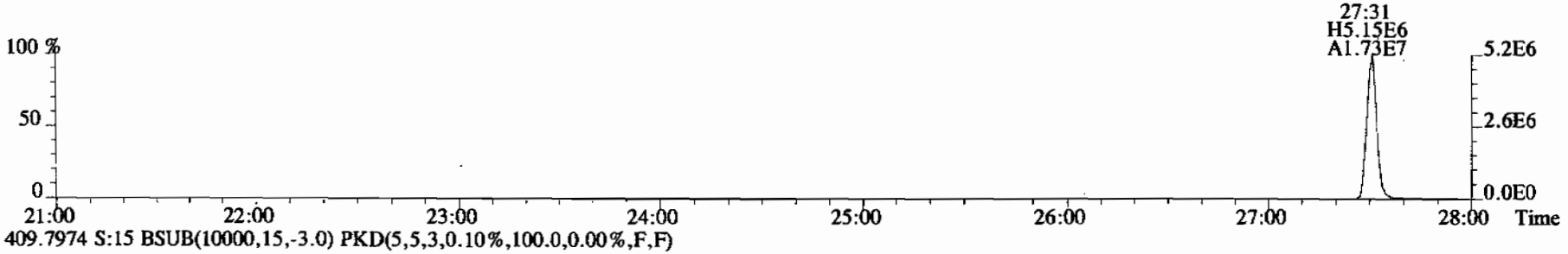

409.7974 S:15 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

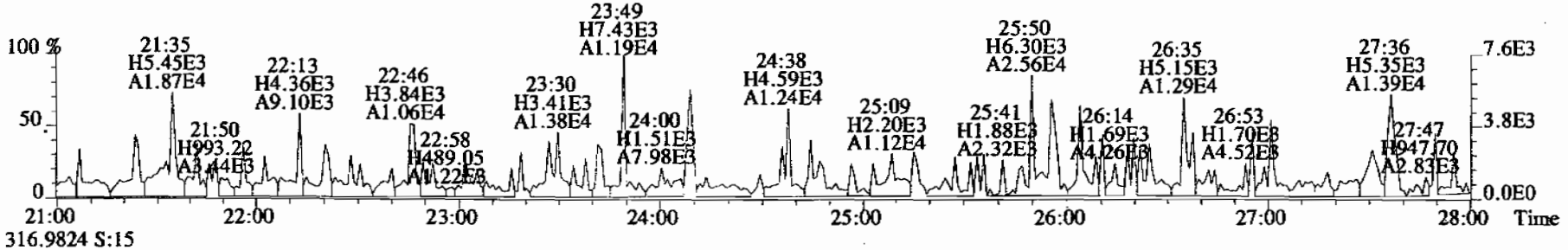

316.9824 S:15

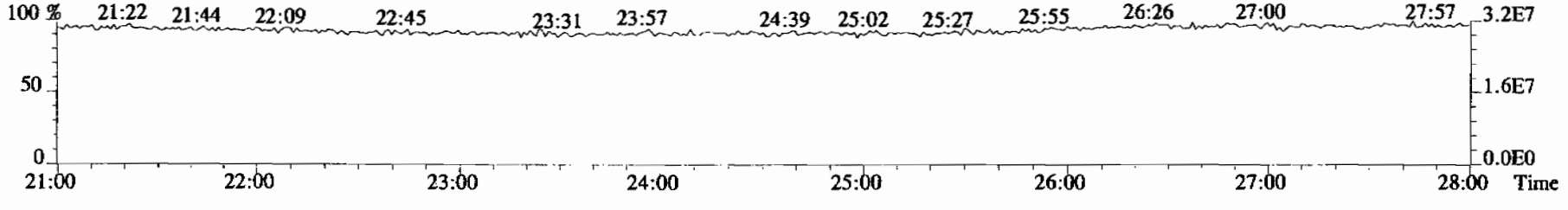

File:100113C1 #1-287 Acq:13-JAN-2010 22:38:08 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-5 Text:ST100113C1-2 1613 CS3 090922G Exp:OCDD_DB5
339.8597 S:15 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

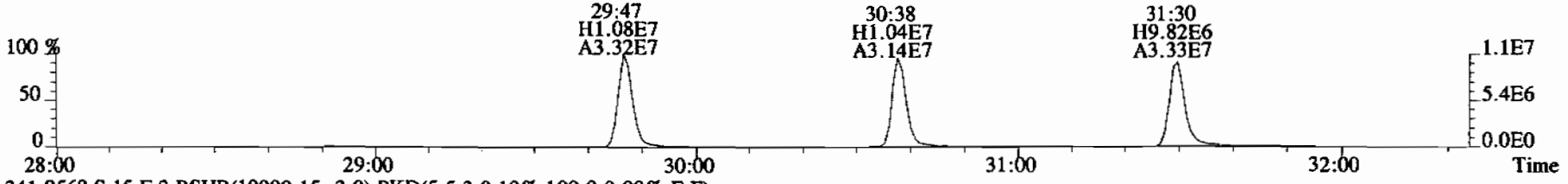

341.8568 S:15 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

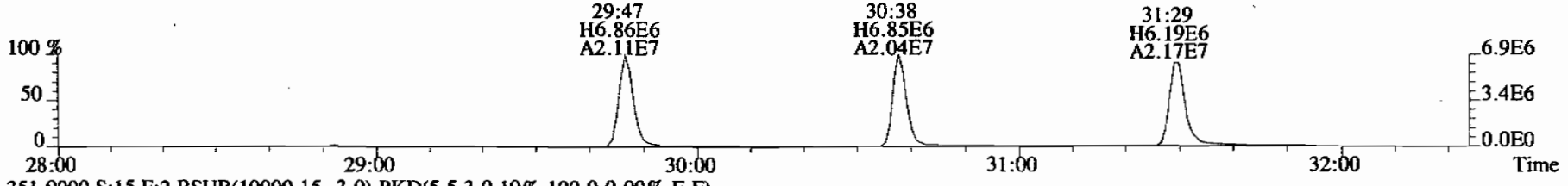

351.9000 S:15 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

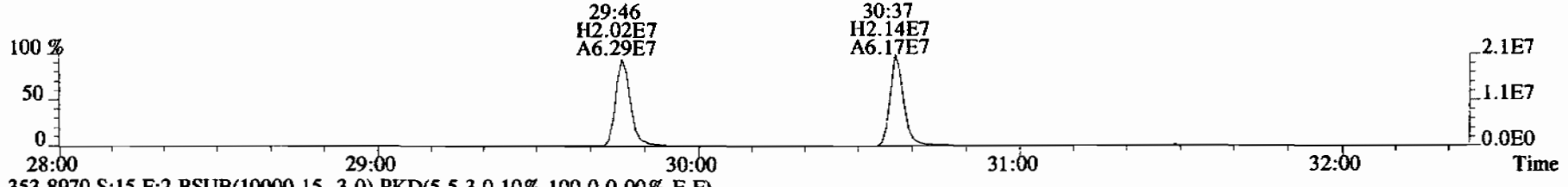

353.8970 S:15 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

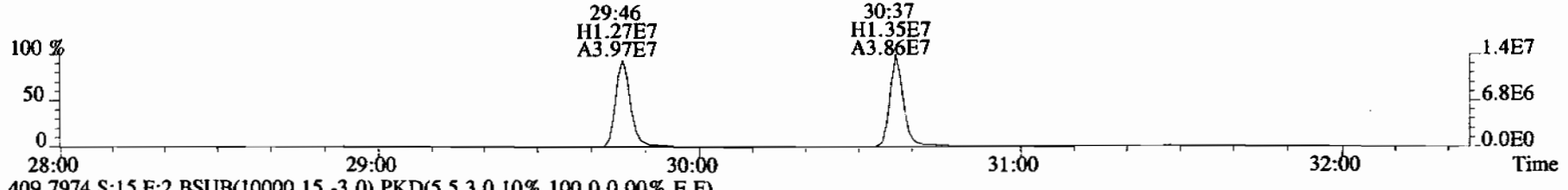

409.7974 S:15 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

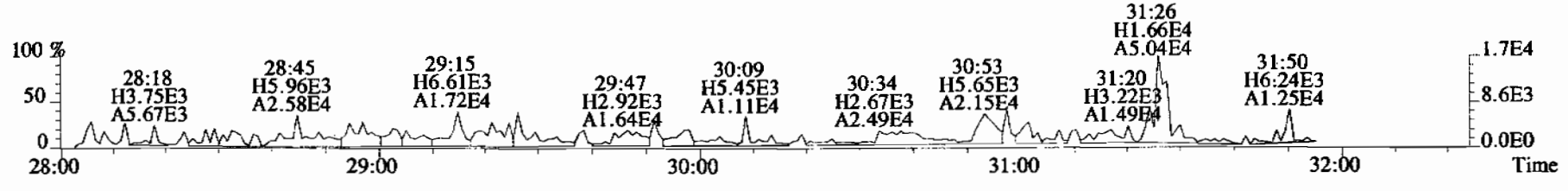

File:100113C1 #1-400 Acq:13-JAN-2010 22:38:08 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-5 Text:ST100113C1-2 1613 CS3 090922G Exp:OCDD_DB5
373.8207 S:15 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

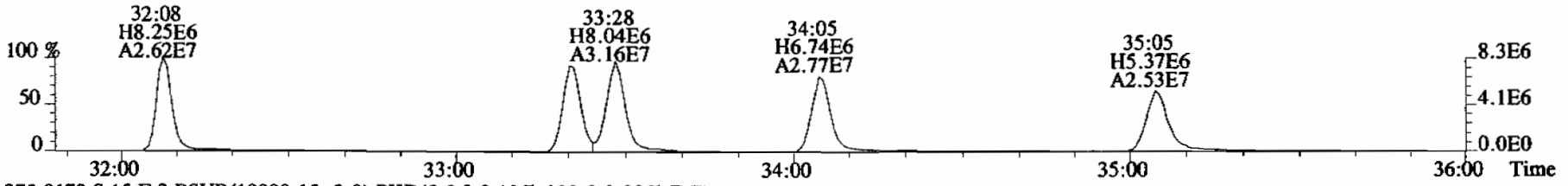

375.8178 S:15 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

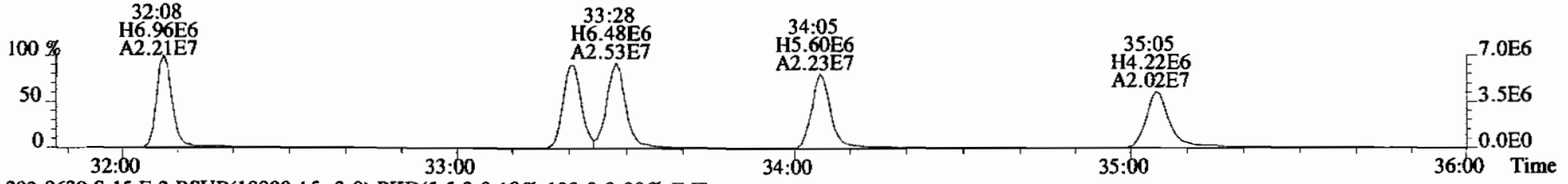

383.8639 S:15 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

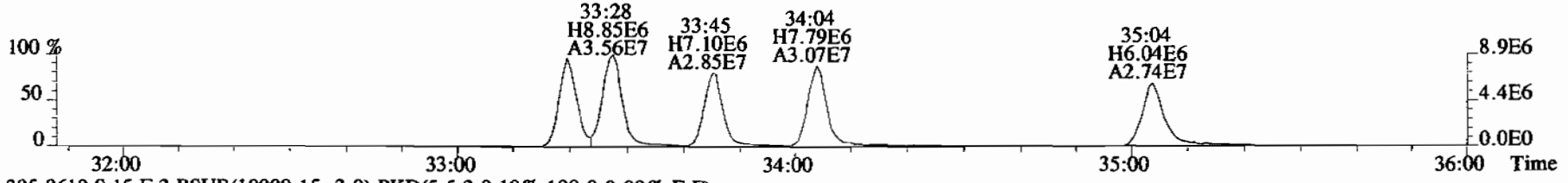

385.8610 S:15 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

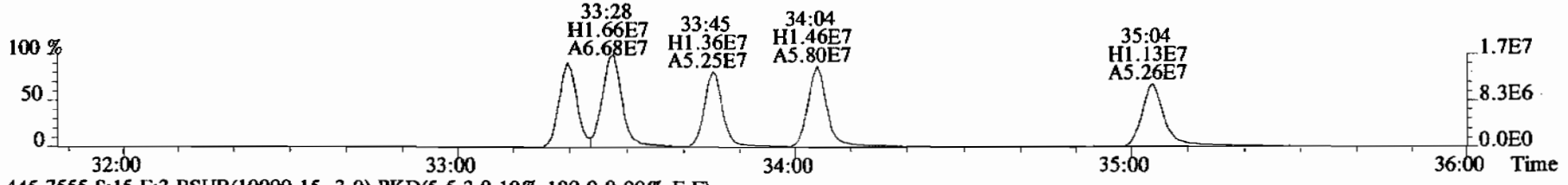

445.7555 S:15 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

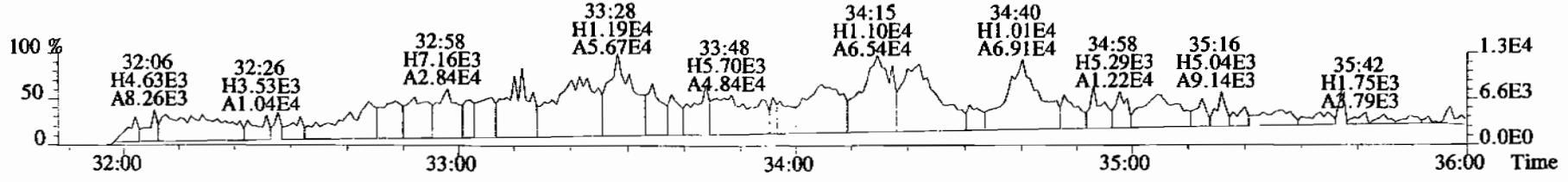

File:100113C1 #1-363 Acq:13-JAN-2010 22:38:08 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-5 Text:ST100113C1-2 1613 CS3 090922G Exp:OCDD_DB5

407.7818 S:15 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

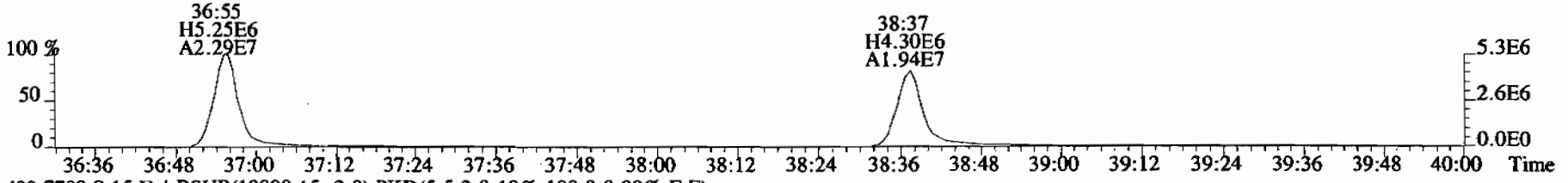

409.7788 S:15 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

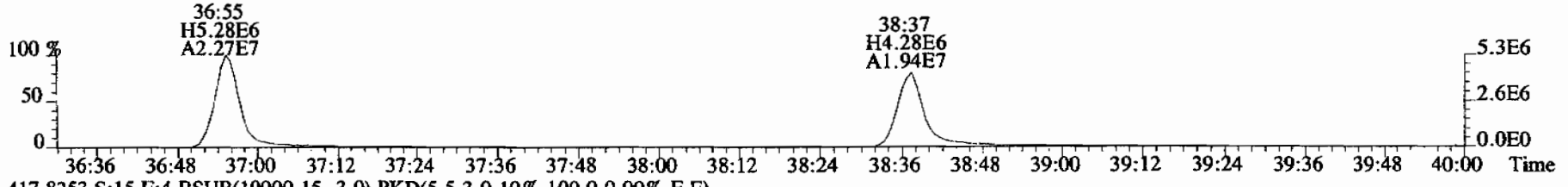

417.8253 S:15 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

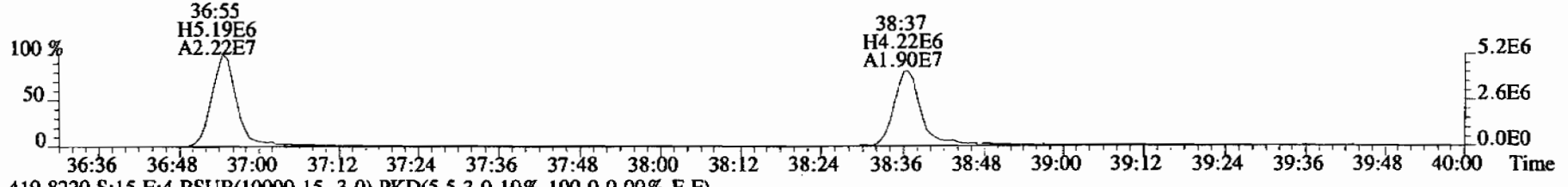

419.8220 S:15 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

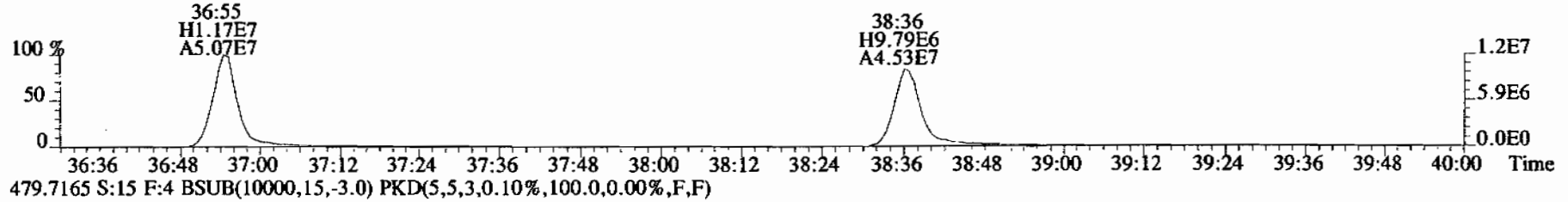

479.7165 S:15 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

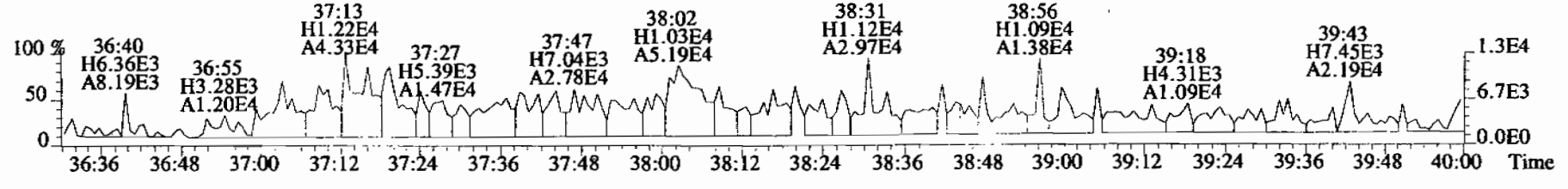

File:100113C1 #1-345 Acq:13-JAN-2010 22:38:08 GC EI+ Voltage SIR Autospec-UltimaE
Sample#15 File Text:Vista Analytical Laboratory VG-5 Text:ST100113C1-2 1613 CS3 090922G Exp:OCDD_DB5
441.7428 S:15 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

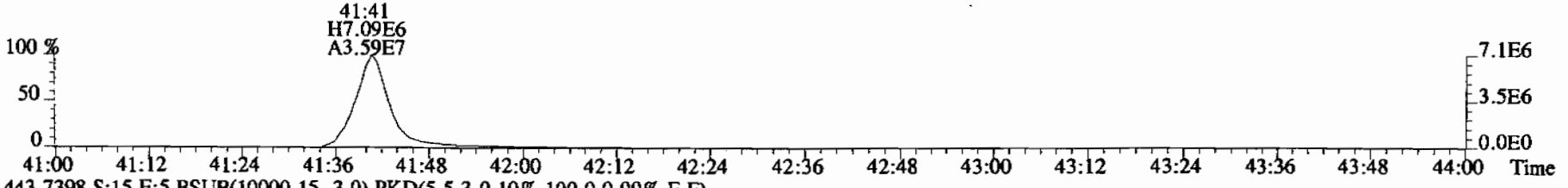

443.7398 S:15 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

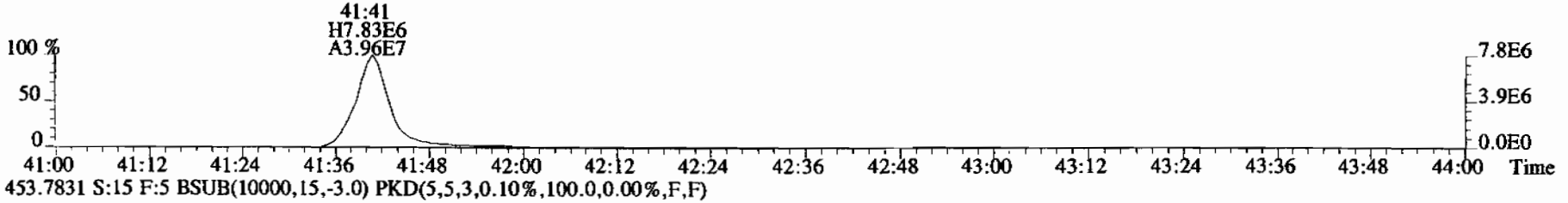

453.7831 S:15 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

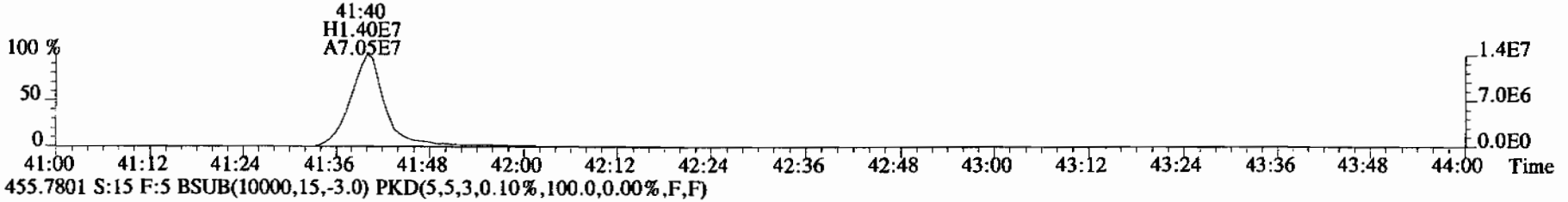

455.7801 S:15 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

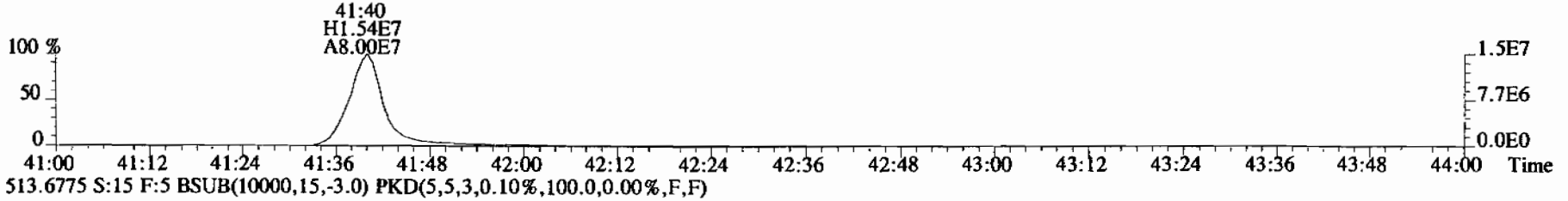

513.6775 S:15 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

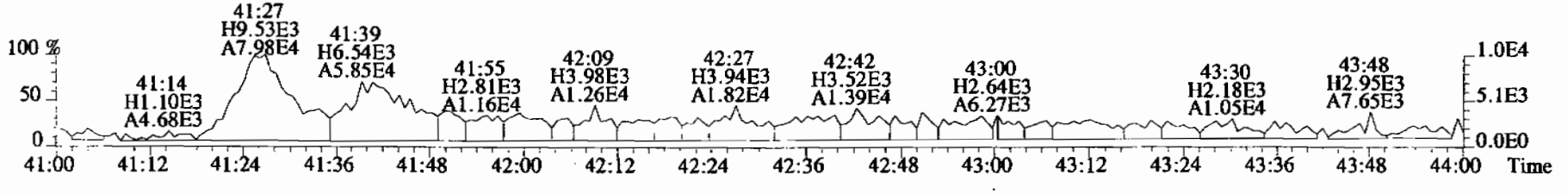

Peak Locate Examination:13-JAN-2010:23:30 File:RES_CHECK

Experiment:OCDD_DB5 Function:1 Reference:PFK

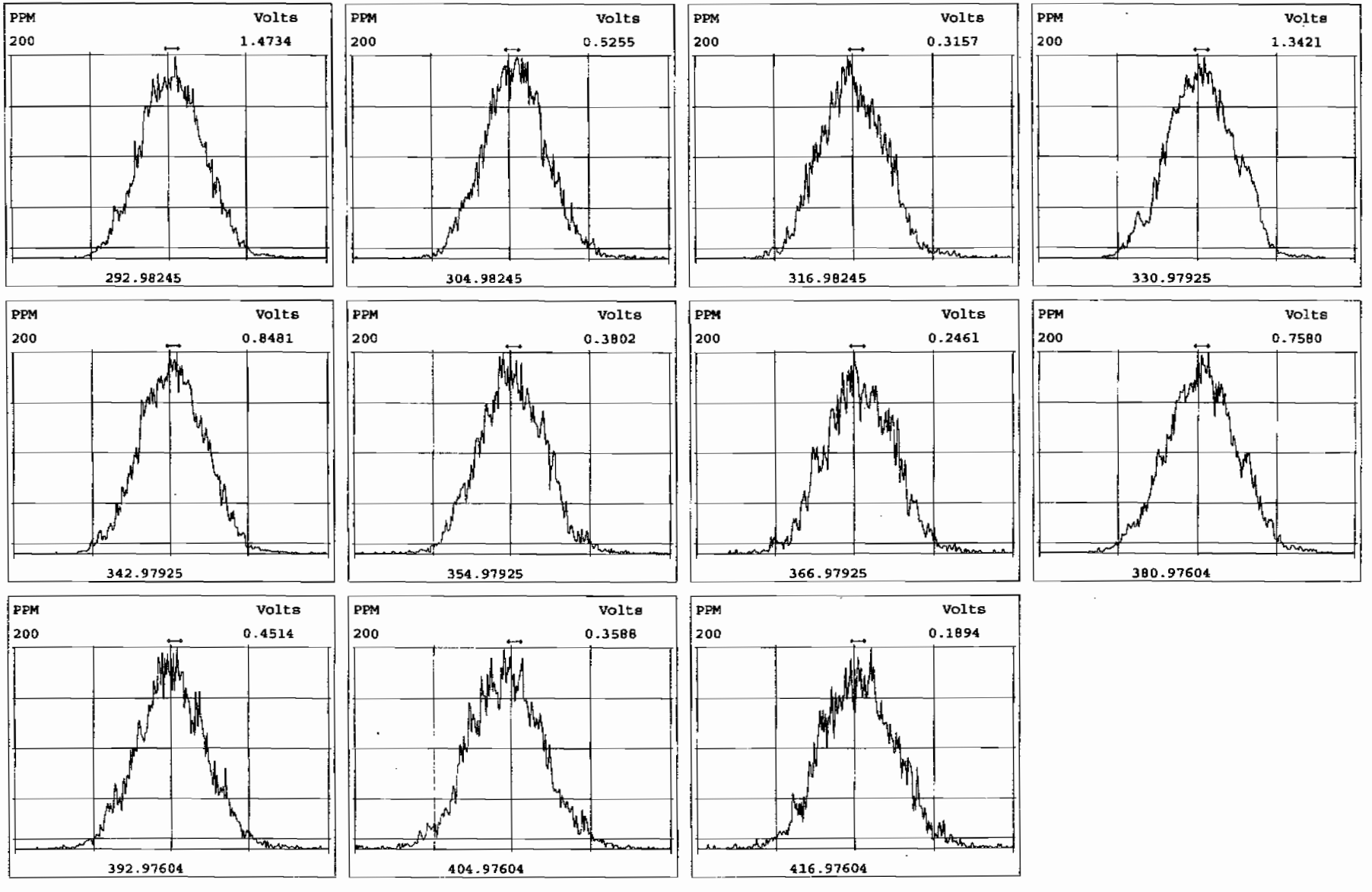

Peak Locate Examination:13-JAN-2010:23:31 File:RES_CHECK

Experiment:OCDD_DB5 Function:2 Reference:PFK

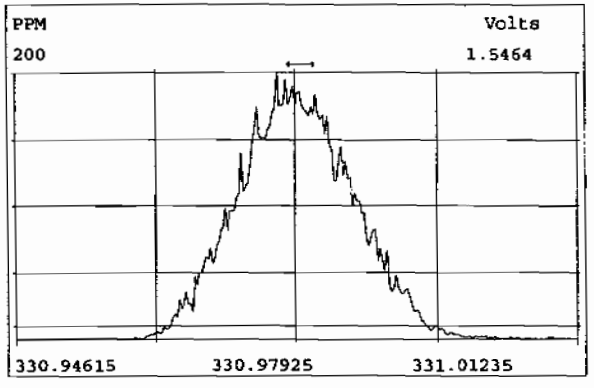

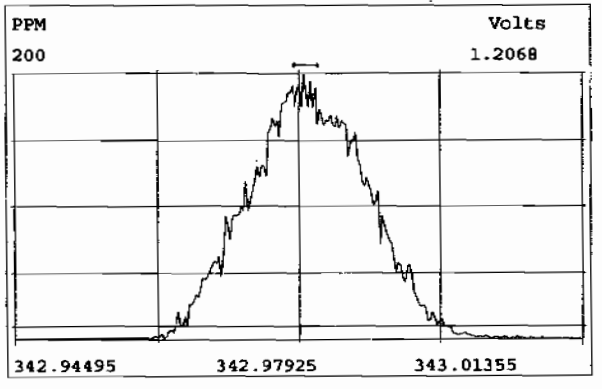

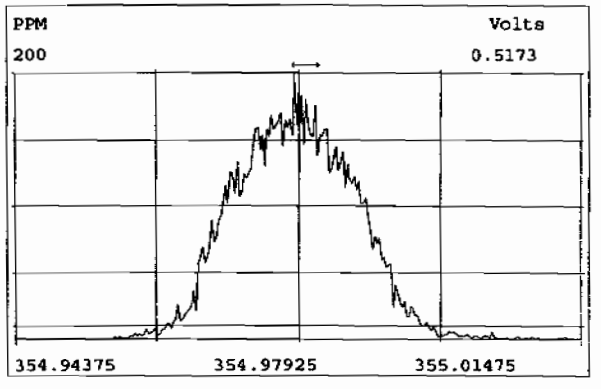

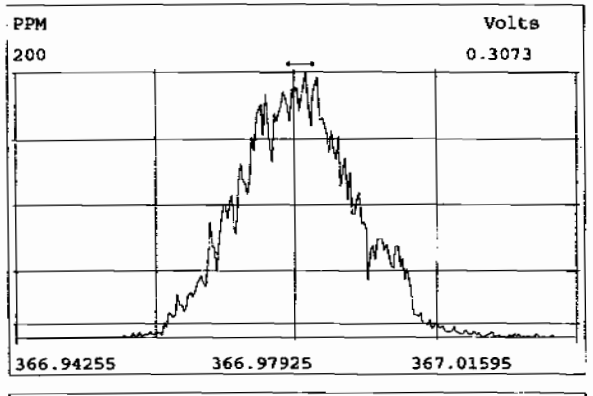

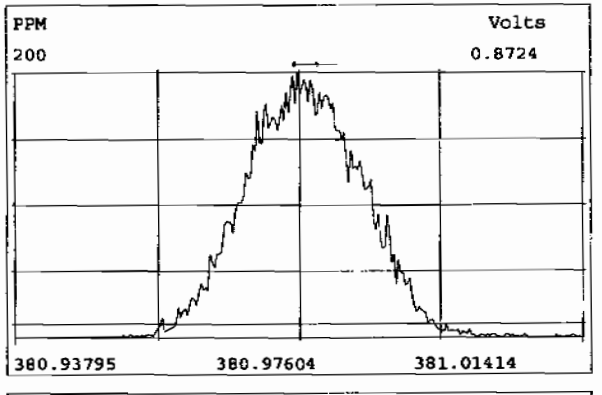

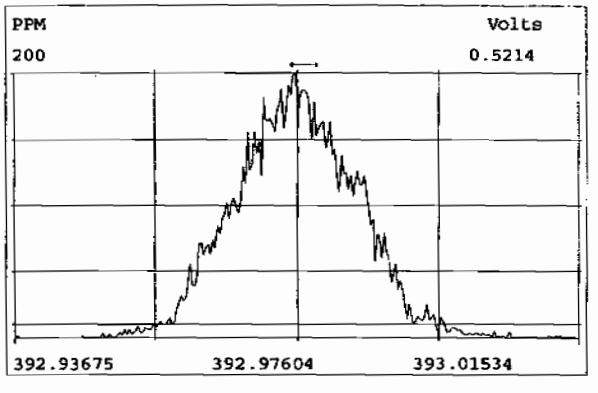

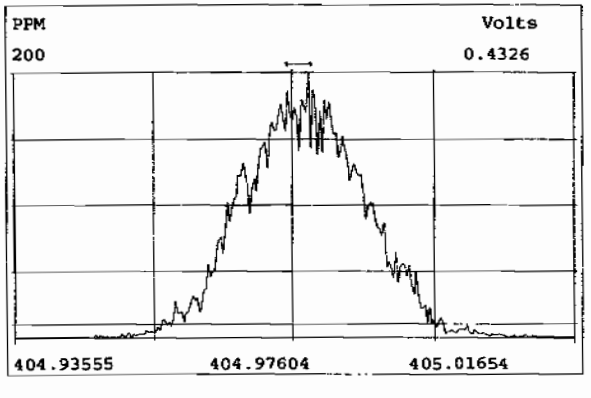

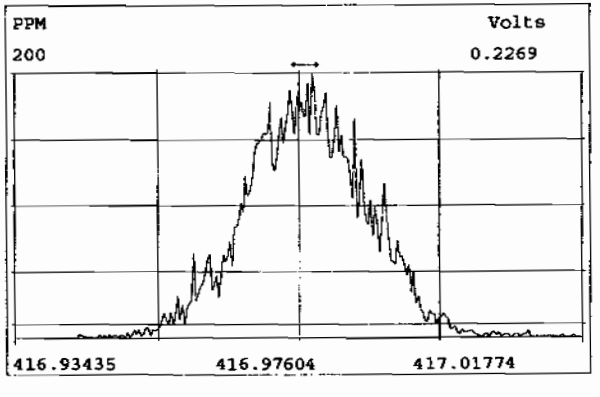

Peak Locate Examination:13-JAN-2010:23:32 File:RES_CHECK
Experiment:OCDD_DB5 Function:3 Reference:PFK

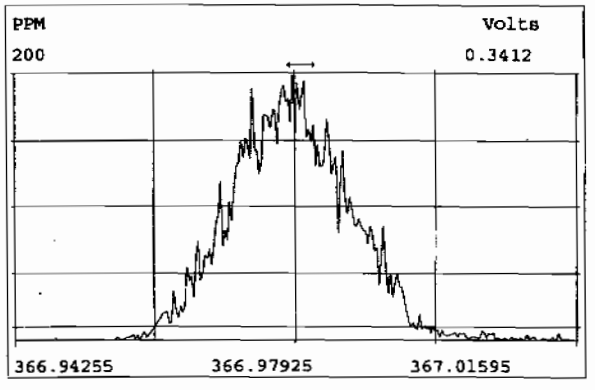

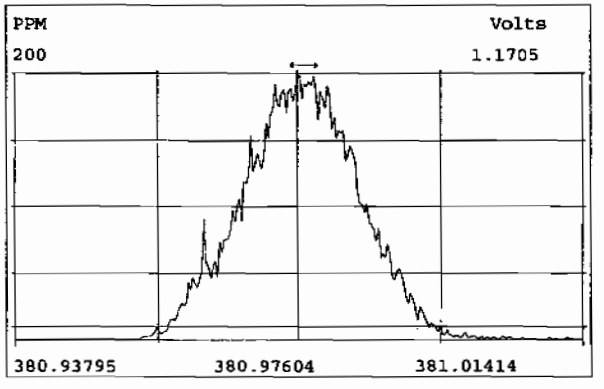

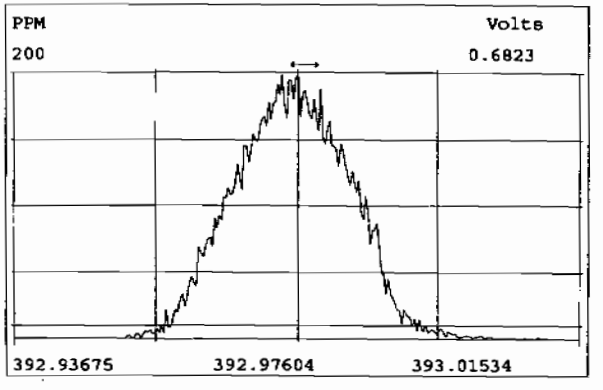

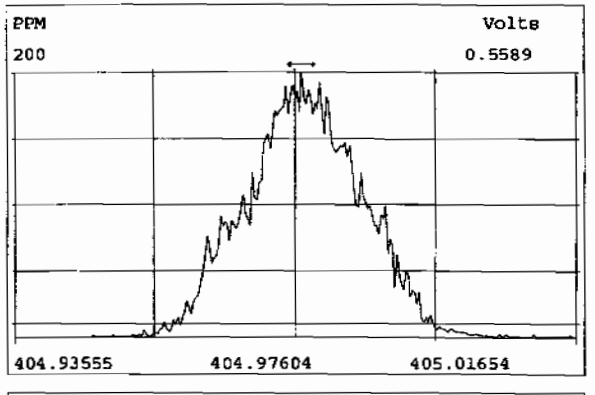

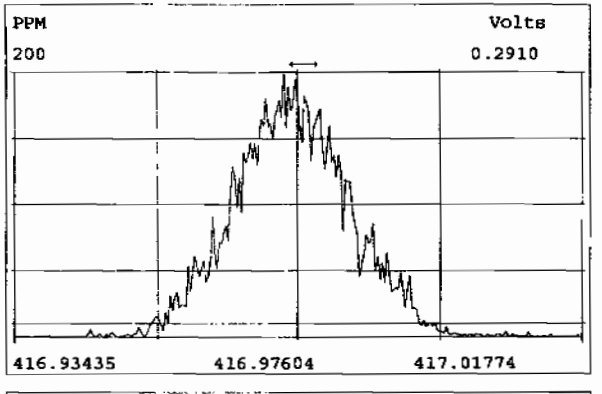

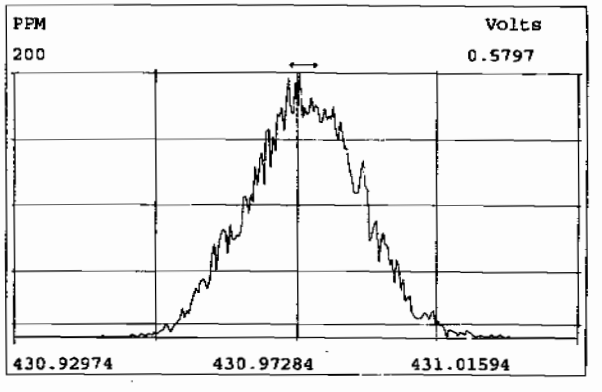

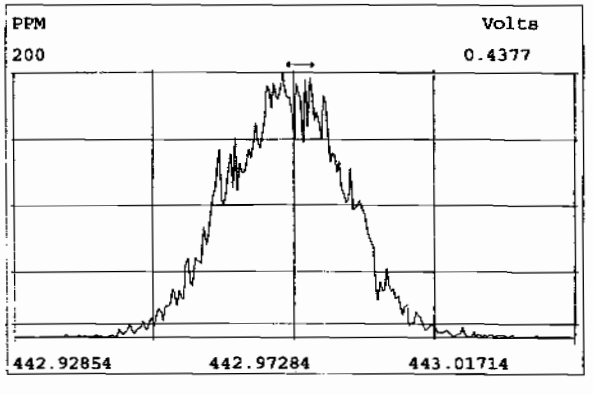

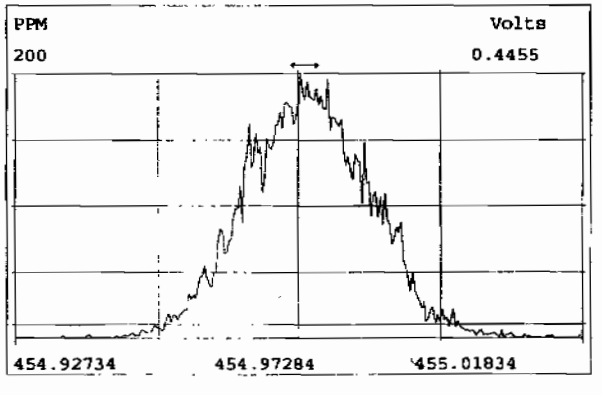

Peak Locate Examination:13-JAN-2010:23:33 File:RES_CHECK

Experiment:OCDD_DB5 Function:4 Reference:PFK

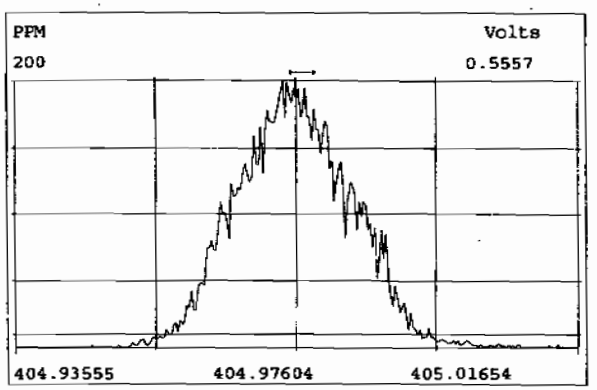

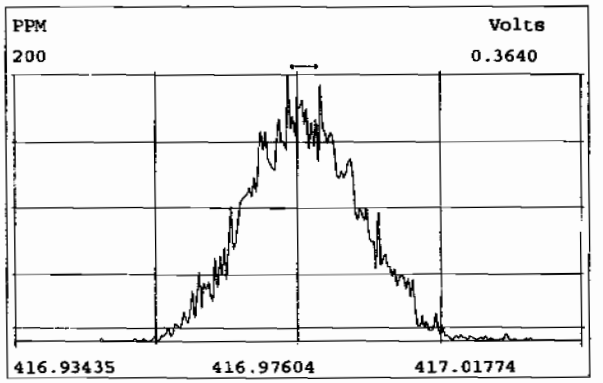

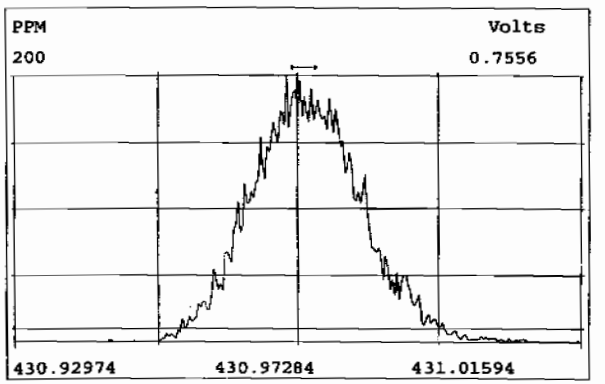

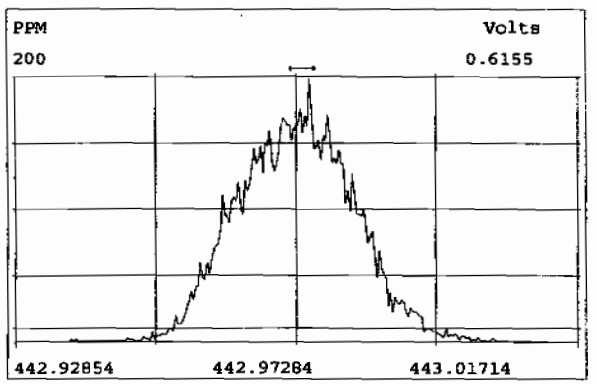

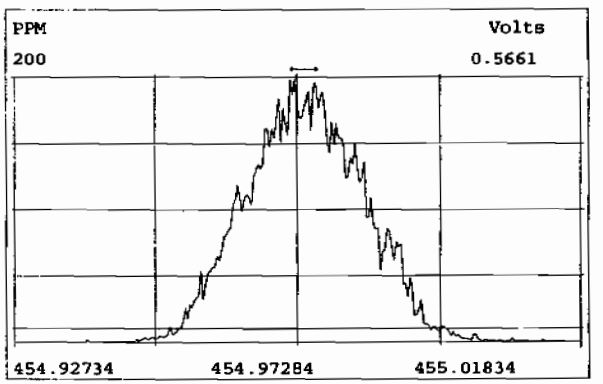

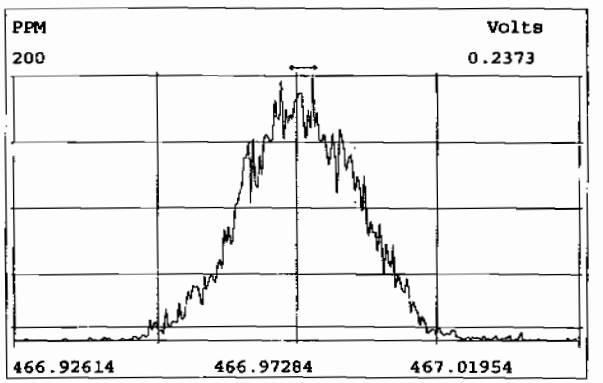

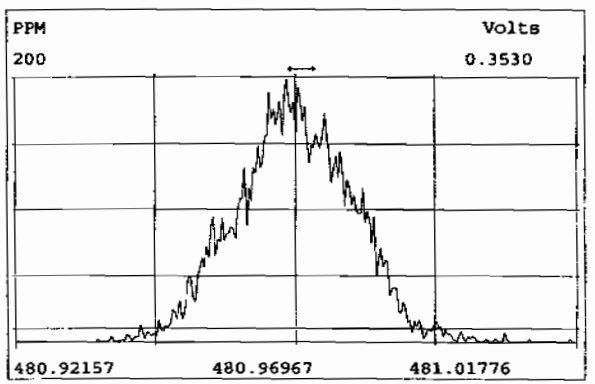

Peak Locate Examination:13-JAN-2010:23:34 File:RES_CHECK

Experiment:OCDD_DB5 Function:5 Reference:PFK

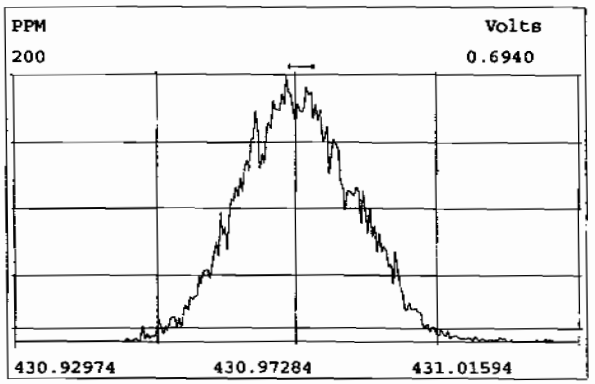

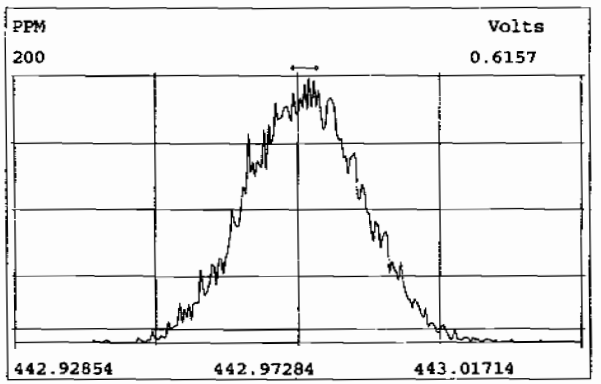

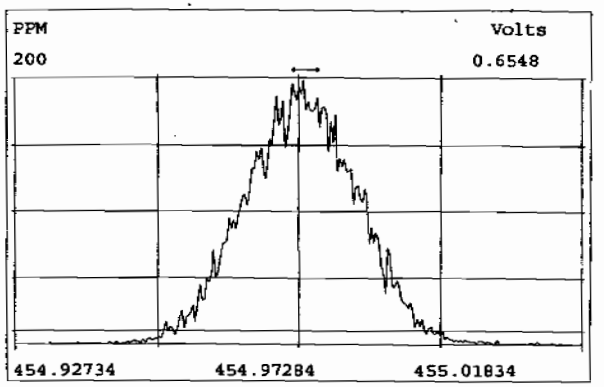

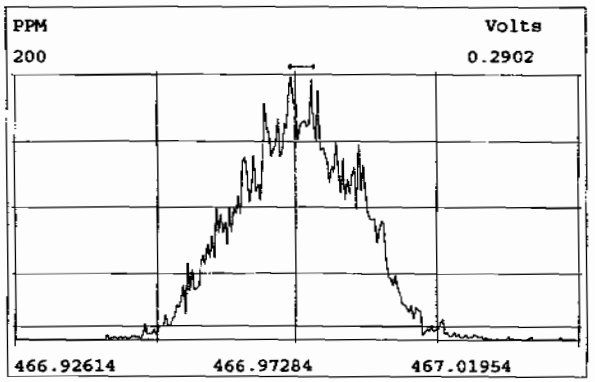

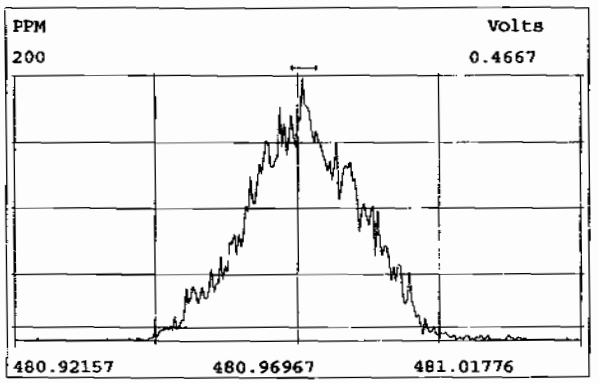

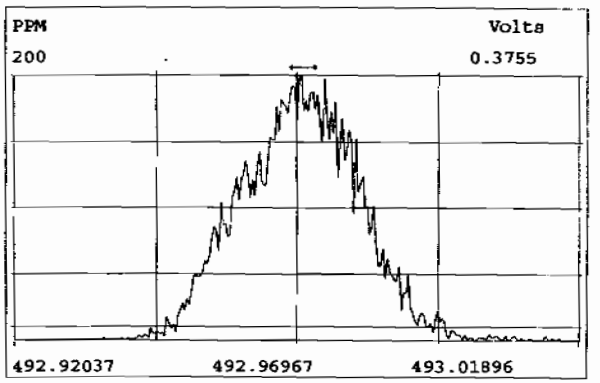

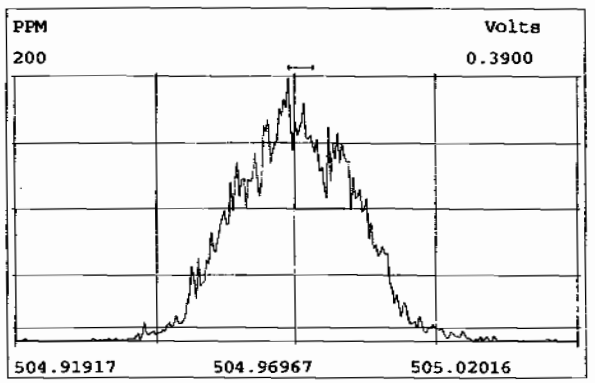

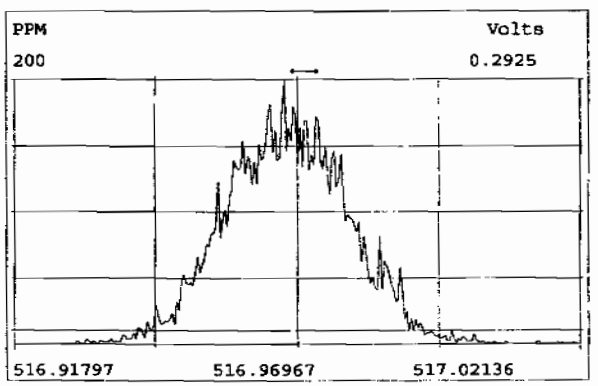

ICAL

Initial Calibration RRF Summary (ICAL) Vista Analytical Laboratory

Run: 091008C1 Analyte: 1613_NEW Cal: 1613VG5-10-8-09 Inst. ID. VG-5

Data filename: 091008C1

Name	Mean RRF	%RSD	Samp# 1 RRF#1	Samp# 3 RRF#2	Samp# 4 RRF#3	Samp# 5 RRF#4	Samp# 6 RRF#5	Samp# 7 RRF#6
2,3,7,8-TCDD	1.25	3.84 %	1.24	1.30	1.31	1.18	1.25	1.23
1,2,3,7,8-PeCDD	1.11	4.71 %	1.06	1.18	1.17	1.07	1.10	1.09
1,2,3,4,7,8-HxCDD	1.04	4.31 %	1.00	1.11	1.08	1.04	1.02	1.00
1,2,3,6,7,8-HxCDD	1.12	5.98 %	1.09	1.17	1.23	1.05	1.11	1.08
1,2,3,7,8,9-HxCDD	1.02	2.40 %	1.04	1.04	1.01	1.00	1.05	0.99
1,2,3,4,6,7,8-HpCDD	1.11	4.35 %	1.09	1.20	1.10	1.06	1.12	1.09
OCDD	1.24	4.38 %	1.18	1.21	1.32	1.19	1.29	1.22
2,3,7,8-TCDF	1.15	4.46 %	1.14	1.24	1.17	1.09	1.18	1.12
1,2,3,7,8-PeCDF	1.11	5.50 %	1.07	1.19	1.19	1.06	1.09	1.07
2,3,4,7,8-PeCDF	1.07	3.13 %	1.04	1.12	1.10	1.03	1.07	1.05
1,2,3,4,7,8-HxCDF	1.34	4.63 %	1.31	1.42	1.42	1.29	1.31	1.29
1,2,3,6,7,8-HxCDF	1.18	4.05 %	1.15	1.21	1.26	1.18	1.18	1.13
2,3,4,6,7,8-HxCDF	1.20	5.14 %	1.16	1.25	1.31	1.15	1.17	1.18
1,2,3,7,8,9-HxCDF	1.24	5.44 %	1.19	1.34	1.29	1.17	1.23	1.20
1,2,3,4,6,7,8-HpCDF	1.44	6.64 %	1.38	1.59	1.54	1.39	1.40	1.36
1,2,3,4,7,8,9-HpCDF	1.40	7.79 %	1.34	1.59	1.47	1.30	1.35	1.35
OCDF	1.07	6.00 %	1.06	1.14	1.17	1.02	1.05	1.01
13C-2,3,7,8-TCDD	1.04	5.88 %	0.97	1.03	1.01	1.05	1.04	1.16
13C-1,2,3,7,8-PeCDD	0.92	4.65 %	0.88	0.93	0.90	0.91	0.90	1.00
13C-1,2,3,4,7,8-HxCDD	0.76	4.87 %	0.79	0.74	0.74	0.72	0.77	0.82
13C-1,2,3,6,7,8-HxCDD	0.77	4.70 %	0.75	0.74	0.72	0.76	0.79	0.82
13C-1,2,3,7,8,9-HxCDD	0.85	4.74 %	0.87	0.83	0.82	0.82	0.85	0.92
13C-1,2,3,4,6,7,8-HpCDD	0.73	5.70 %	0.75	0.69	0.69	0.70	0.74	0.79
13C-OCDD	0.58	7.03 %	0.60	0.56	0.55	0.56	0.57	0.66
13C-2,3,7,8-TCDF	1.06	2.18 %	1.03	1.07	1.04	1.06	1.04	1.09
13C-1,2,3,7,8-PeCDF	1.00	4.64 %	0.95	1.02	0.95	0.98	1.01	1.07
13C-2,3,4,7,8-PeCDF	0.98	5.83 %	0.93	0.99	0.93	0.96	0.97	1.08
13C-1,2,3,4,7,8-HxCDF	1.05	5.01 %	1.02	1.03	1.00	1.02	1.07	1.15
13C-1,2,3,6,7,8-HxCDF	1.33	4.33 %	1.27	1.31	1.29	1.31	1.35	1.43
13C-2,3,4,6,7,8-HxCDF	1.14	3.19 %	1.12	1.12	1.11	1.14	1.14	1.21
13C-1,2,3,7,8,9-HxCDF	1.00	3.94 %	1.00	0.97	0.97	0.97	1.01	1.07
13C-1,2,3,4,6,7,8-HpCDF	0.88	5.58 %	0.89	0.84	0.85	0.85	0.90	0.97
13C-1,2,3,4,7,8,9-HpCDF	0.77	5.72 %	0.78	0.73	0.74	0.74	0.80	0.84
13C-OCDF	0.89	8.65 %	0.86	0.84	0.84	0.83	0.91	1.03
37Cl-2,3,7,8-TCDD	0.68	8.76 %	0.61	0.77	0.67	0.63	0.66	0.73
13C-1,2,3,4-TCDD	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00
13C-1,2,3,4-TCDF	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00
13C-1,2,3,4,6,9-HxCDF	1.00	0.00 %	1.00	1.00	1.00	1.00	1.00	1.00

MD 10/9/09

ok JL 10/9/09

RMK 10/12/09

Initial Calibration RRF Summary (ICAL) Vista Analytical Laboratory

Run: 091008C1 Analyte: 1613_NEW Cal: 1613VG5-10-8-09 Inst. ID. VG-5

Data filename: 091008C1

			Samp# 1	Samp# 3	Samp# 4	Samp# 5	Samp# 6	Samp# 7
			10	0.25	0.50	2.0	40	200
Name	Mean RRF	%RSD	RRF#1	RRF#2	RRF#3	RRF#4	RRF#5	RRF#6
Total Tetra-Dioxins	1.25	3.84 %	1.24	1.30	1.31	1.18	1.25	1.23
TCDD EMPC	1.25	3.84 %	1.24	1.30	1.31	1.18	1.25	1.23
Total Penta-Dioxins	1.11	4.71 %	1.06	1.18	1.17	1.07	1.10	1.09
PeCDD EMPC	1.11	4.71 %	1.06	1.18	1.17	1.07	1.10	1.09
Total Hexa-Dioxins	1.06	3.39 %	1.04	1.10	1.11	1.03	1.06	1.02
HxCDD EMPC	1.06	3.39 %	1.04	1.10	1.11	1.03	1.06	1.02
Total Hepta-Dioxins	1.11	4.35 %	1.09	1.20	1.10	1.06	1.12	1.09
HpCDD EMPC	1.11	4.35 %	1.09	1.20	1.10	1.06	1.12	1.09
Total Tetra-Furans	1.15	4.46 %	1.14	1.24	1.17	1.09	1.18	1.12
TCDF EMPC	1.15	4.46 %	1.14	1.24	1.17	1.09	1.18	1.12
1st Func. Penta-Furans	1.09	4.31 %	1.06	1.15	1.15	1.05	1.08	1.06
1st Func. PeCDF EMPC	1.09	4.31 %	1.06	1.15	1.15	1.05	1.08	1.06
Total Penta-Furans	1.09	4.31 %	1.06	1.15	1.15	1.05	1.08	1.06
PeCDF EMPC	1.09	4.31 %	1.06	1.15	1.15	1.05	1.08	1.06
Total Hexa-Furans	1.24	4.49 %	1.20	1.30	1.32	1.20	1.22	1.20
HxCDF EMPC	1.24	4.49 %	1.20	1.30	1.32	1.20	1.22	1.20
Total Hepta-Furans	1.42	7.08 %	1.36	1.59	1.51	1.35	1.38	1.36
HpCDF EMPC	1.42	7.08 %	1.36	1.59	1.51	1.35	1.38	1.36

Filename: 091008C1 S: 1 Acquired: 8-OCT-09 12:53:38
Run: 091008C1 Analyte: 1613_NEW Cal: 1613VG5-10-8-09 Results:
Sample text: ST091008C1-1 1613 CS3 090922G

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	10.00	1.07e+07	0.79 y	26:32	-	1.24
2	Unk	1,2,3,7,8-PeCDD	50.00	4.12e+07	0.63 y	30:56	-	1.06
3	Unk	1,2,3,4,7,8-HxCDD	50.00	3.63e+07	1.22 y	34:15	-	1.00
4	Unk	1,2,3,6,7,8-HxCDD	50.00	3.79e+07	1.21 y	34:22	-	1.09
5	Unk	1,2,3,7,8,9-HxCDD	50.00	4.17e+07	1.20 y	34:40	-	1.04
6	Unk	1,2,3,4,6,7,8-HpCDD	50.00	3.77e+07	1.05 y	38:06	-	1.09
7	Unk	OCDD	100.00	6.50e+07	0.91 y	41:26	-	1.18
8	Unk	2,3,7,8-TCDF	10.00	1.57e+07	0.76 y	25:46	-	1.14
9	Unk	1,2,3,7,8-PeCDF	50.00	6.86e+07	1.61 y	29:47	-	1.07
10	Unk	2,3,4,7,8-PeCDF	50.00	6.49e+07	1.59 y	30:40	-	1.04
11	Unk	1,2,3,4,7,8-HxCDF	50.00	6.20e+07	1.19 y	33:21	-	1.31
12	Unk	1,2,3,6,7,8-HxCDF	50.00	6.72e+07	1.23 y	33:29	-	1.15
13	Unk	2,3,4,6,7,8-HxCDF	50.00	6.00e+07	1.21 y	34:05	-	1.16
14	Unk	1,2,3,7,8,9-HxCDF	50.00	5.45e+07	1.20 y	35:04	-	1.19
15	Unk	1,2,3,4,6,7,8-HpCDF	50.00	5.66e+07	1.04 y	36:55	-	1.38
16	Unk	1,2,3,4,7,8,9-HpCDF	50.00	4.80e+07	1.03 y	38:39	-	1.34
17	Unk	OCDF	100.00	8.39e+07	0.91 y	41:39	-	1.06
36	IS	13C-2,3,7,8-TCDD	100.00	8.61e+07	0.80 y	26:30	-	0.97
37	IS	13C-1,2,3,7,8-PeCDD	100.00	7.77e+07	0.63 y	30:55	-	0.88
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	7.29e+07	1.26 y	34:14	-	0.79
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	6.94e+07	1.22 y	34:21	-	0.75
40	IS	13C-1,2,3,7,8,9-HxCDD	100.00	7.98e+07	1.24 y	34:39	-	0.87
41	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	6.92e+07	1.07 y	38:05	-	0.75
42	IS	13C-OCDD	200.00	1.10e+08	0.91 y	41:25	-	0.60
43	IS	13C-2,3,7,8-TCDF	100.00	1.38e+08	0.81 y	25:45	-	1.03
44	IS	13C-1,2,3,7,8-PeCDF	100.00	1.28e+08	1.61 y	29:46	-	0.95
45	IS	13C-2,3,4,7,8-PeCDF	100.00	1.24e+08	1.54 y	30:39	-	0.93
46	IS	13C-1,2,3,4,7,8-HxCDF	100.00	9.44e+07	0.53 y	33:20	-	1.02
47	IS	13C-1,2,3,6,7,8-HxCDF	100.00	1.17e+08	0.52 y	33:28	-	1.27
48	IS	13C-2,3,4,6,7,8-HxCDF	100.00	1.03e+08	0.53 y	34:04	-	1.12
49	IS	13C-1,2,3,7,8,9-HxCDF	100.00	9.19e+07	0.53 y	35:03	-	1.00
50	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	8.21e+07	0.45 y	36:54	-	0.89
51	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	7.16e+07	0.44 y	38:38	-	0.78
52	IS	13C-OCDF	200.00	1.59e+08	0.92 y	41:38	-	0.86
53	C/Up	37Cl-2,3,7,8-TCDD	10.00	5.42e+06		26:31	-	0.61
54	RS/RT	13C-1,2,3,4-TCDD	100.00	8.85e+07	0.79 y	25:58	-	1.00
55	RS	13C-1,2,3,4-TCDF	100.00	1.34e+08	0.79 y	24:34	-	1.00
56	RS/RT	13C-1,2,3,4,6,9-HxCDF	100.00	9.22e+07	0.53 y	33:46	-	1.00

Filename: 091008C1 S: 1 Acquired: 8-OCT-09 12:53:38
Run: 091008C1 Analyte: 1613_NEW Cal: 1613VG5-10-8-09 Results:
Sample text: ST091008C1-1 1613 CS3 090922G

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
18	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.24
19	Tot	TCDD EMPC	0.00	-	- n	-	-	1.24
20	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.06
21	Tot	PeCDD EMPC	0.00	-	- n	-	-	1.06
22	Tot	Total Hexa-Dioxins	0.00	-	- n	-	-	1.04
23	Tot	HxCDD EMPC	0.00	-	- n	-	-	1.04
24	Tot	Total Hepta-Dioxins	0.00	-	- n	-	-	1.09
25	Tot	HpCDD EMPC	0.00	-	- n	-	-	1.09
26	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.14
27	Tot	TCDF EMPC	0.00	-	- n	-	-	1.14
28	Tot	1st Func. Penta-Furans	0.00	-	- n	-	-	1.06
29	Tot	1st Func. PeCDF EMPC	0.00	-	- n	-	-	1.06
30	Tot	Total Penta-Furans	0.00	-	- n	-	-	1.06
31	Tot	PeCDF EMPC	0.00	-	- n	-	-	1.06
32	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.20
33	Tot	HxCDF EMPC	0.00	-	- n	-	-	1.20
34	Tot	Total Hepta-Furans	0.00	-	- n	-	-	1.36
35	Tot	HpCDF EMPC	0.00	-	- n	-	-	1.36

Filename: 091008C1 S: 3 Acquired: 8-OCT-09 14:31:01
Run: 091008C1 Analyte: 1613_NEW Cal: 1613VG5-10-8-09 Results:
Sample text: ST091008C1-2 1613 CS0 090922D

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	0.25	2.74e+05	0.88 y	26:32	-	1.30
2	Unk	1,2,3,7,8-PeCDD	1.25	1.13e+06	0.68 y	30:57	-	1.18
3	Unk	1,2,3,4,7,8-HxCDD	1.25	8.87e+05	1.16 y	34:16	-	1.11
4	Unk	1,2,3,6,7,8-HxCDD	1.25	9.41e+05	1.28 y	34:23	-	1.17
5	Unk	1,2,3,7,8,9-HxCDD	1.25	9.30e+05	1.28 y	34:41	-	1.04
6	Unk	1,2,3,4,6,7,8-HpCDD	1.25	8.87e+05	1.06 y	38:06	-	1.20
7	Unk	OCDD	2.50	1.45e+06	0.87 y	41:25	-	1.21
8	Unk	2,3,7,8-TCDF	0.25	4.21e+05	0.79 y	25:47	-	1.24
9	Unk	1,2,3,7,8-PeCDF	1.25	1.94e+06	1.52 y	29:48	-	1.19
10	Unk	2,3,4,7,8-PeCDF	1.25	1.76e+06	1.52 y	30:40	-	1.12
11	Unk	1,2,3,4,7,8-HxCDF	1.25	1.58e+06	1.22 y	33:22	-	1.42
12	Unk	1,2,3,6,7,8-HxCDF	1.25	1.71e+06	1.27 y	33:30	-	1.21
13	Unk	2,3,4,6,7,8-HxCDF	1.25	1.50e+06	1.23 y	34:06	-	1.25
14	Unk	1,2,3,7,8,9-HxCDF	1.25	1.40e+06	1.25 y	35:04	-	1.34
15	Unk	1,2,3,4,6,7,8-HpCDF	1.25	1.43e+06	1.10 y	36:56	-	1.59
16	Unk	1,2,3,4,7,8,9-HpCDF	1.25	1.25e+06	1.03 y	38:39	-	1.59
17	Unk	OCDF	2.50	2.07e+06	1.01 y	41:39	-	1.14
36	IS	13C-2,3,7,8-TCDD	100.00	8.45e+07	0.79 y	26:31	-	1.03
37	IS	13C-1,2,3,7,8-PeCDD	100.00	7.62e+07	0.64 y	30:56	-	0.93
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	6.42e+07	1.23 y	34:15	-	0.74
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	6.42e+07	1.25 y	34:22	-	0.74
40	IS	13C-1,2,3,7,8,9-HxCDD	100.00	7.16e+07	1.23 y	34:41	-	0.83
41	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	5.92e+07	1.05 y	38:06	-	0.69
42	IS	13C-OCDD	200.00	9.58e+07	0.91 y	41:25	-	0.56
43	IS	13C-2,3,7,8-TCDF	100.00	1.36e+08	0.81 y	25:46	-	1.07
44	IS	13C-1,2,3,7,8-PeCDF	100.00	1.31e+08	1.60 y	29:47	-	1.02
45	IS	13C-2,3,4,7,8-PeCDF	100.00	1.26e+08	1.62 y	30:40	-	0.99
46	IS	13C-1,2,3,4,7,8-HxCDF	100.00	8.92e+07	0.53 y	33:21	-	1.03
47	IS	13C-1,2,3,6,7,8-HxCDF	100.00	1.13e+08	0.53 y	33:29	-	1.31
48	IS	13C-2,3,4,6,7,8-HxCDF	100.00	9.61e+07	0.53 y	34:05	-	1.12
49	IS	13C-1,2,3,7,8,9-HxCDF	100.00	8.34e+07	0.53 y	35:04	-	0.97
50	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	7.22e+07	0.45 y	36:55	-	0.84
51	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	6.29e+07	0.44 y	38:39	-	0.73
52	IS	13C-OCDF	200.00	1.45e+08	0.93 y	41:39	-	0.84
53	C/Up	37Cl-2,3,7,8-TCDD	0.25	1.58e+05		26:31	-	0.77
54	RS/RT	13C-1,2,3,4-TCDD	100.00	8.21e+07	0.78 y	25:59	-	1.00
55	RS	13C-1,2,3,4-TCDF	100.00	1.27e+08	0.80 y	24:35	-	1.00
56	RS/RT	13C-1,2,3,4,6,9-HxCDF	100.00	8.62e+07	0.51 y	33:46	-	1.00

Filename: 091008C1 S: 3 Acquired: 8-OCT-09 14:31:01
Run: 091008C1 Analyte: 1613_NEW Cal: 1613VG5-10-8-09 Results:
Sample text: ST091008C1-2 1613 CS0 090922D

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
18	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.30
19	Tot	TCDD EMPC	0.00	-	- n	-	-	1.30
20	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.18
21	Tot	PeCDD EMPC	0.00	-	- n	-	-	1.18
22	Tot	Total Hexa-Dioxins	0.00	-	- n	-	-	1.10
23	Tot	HxCDD EMPC	0.00	-	- n	-	-	1.10
24	Tot	Total Hepta-Dioxins	0.00	-	- n	-	-	1.20
25	Tot	HpCDD EMPC	0.00	-	- n	-	-	1.20
26	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.24
27	Tot	TCDF EMPC	0.00	-	- n	-	-	1.24
28	Tot	1st Func. Penta-Furans	0.00	-	- n	-	-	1.15
29	Tot	1st Func. PeCDF EMPC	0.00	-	- n	-	-	1.15
30	Tot	Total Penta-Furans	0.00	-	- n	-	-	1.15
31	Tot	PeCDF EMPC	0.00	-	- n	-	-	1.15
32	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.30
33	Tot	HxCDF EMPC	0.00	-	- n	-	-	1.30
34	Tot	Total Hepta-Furans	0.00	-	- n	-	-	1.59
35	Tot	HpCDF EMPC	0.00	-	- n	-	-	1.59

Filename: 091008C1 S: 4 Acquired: 8-OCT-09 15:19:42
Run: 091008C1 Analyte: 1613_NEW Cal: 1613VG5-10-8-09 Results:
Sample text: ST091008C1-3 1613 CS1 090922E

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	0.50	5.30e+05	0.82 y	26:32	-	1.31
2	Unk	1,2,3,7,8-PeCDD	2.50	2.10e+06	0.63 y	30:57	-	1.17
3	Unk	1,2,3,4,7,8-HxCDD	2.50	1.73e+06	1.17 y	34:15	-	1.08
4	Unk	1,2,3,6,7,8-HxCDD	2.50	1.93e+06	1.24 y	34:22	-	1.23
5	Unk	1,2,3,7,8,9-HxCDD	2.50	1.80e+06	1.31 y	34:41	-	1.01
6	Unk	1,2,3,4,6,7,8-HpCDD	2.50	1.64e+06	1.05 y	38:06	-	1.10
7	Unk	OCDD	5.00	3.14e+06	0.90 y	41:25	-	1.32
8	Unk	2,3,7,8-TCDF	0.50	7.76e+05	0.74 y	25:47	-	1.17
9	Unk	1,2,3,7,8-PeCDF	2.50	3.65e+06	1.58 y	29:48	-	1.19
10	Unk	2,3,4,7,8-PeCDF	2.50	3.29e+06	1.52 y	30:40	-	1.10
11	Unk	1,2,3,4,7,8-HxCDF	2.50	3.07e+06	1.20 y	33:22	-	1.42
12	Unk	1,2,3,6,7,8-HxCDF	2.50	3.50e+06	1.09 y	33:29	-	1.26
13	Unk	2,3,4,6,7,8-HxCDF	2.50	3.13e+06	1.17 y	34:06	-	1.31
14	Unk	1,2,3,7,8,9-HxCDF	2.50	2.69e+06	1.24 y	35:04	-	1.29
15	Unk	1,2,3,4,6,7,8-HpCDF	2.50	2.84e+06	1.06 y	36:56	-	1.54
16	Unk	1,2,3,4,7,8,9-HpCDF	2.50	2.36e+06	0.96 y	38:39	-	1.47
17	Unk	OCDF	5.00	4.23e+06	0.86 y	41:39	-	1.17
36	IS	13C-2,3,7,8-TCDD	100.00	8.11e+07	0.80 y	26:31	-	1.01
37	IS	13C-1,2,3,7,8-PeCDD	100.00	7.20e+07	0.66 y	30:56	-	0.90
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	6.40e+07	1.22 y	34:15	-	0.74
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	6.26e+07	1.26 y	34:22	-	0.72
40	IS	13C-1,2,3,7,8,9-HxCDD	100.00	7.08e+07	1.24 y	34:41	-	0.82
41	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	5.96e+07	1.04 y	38:06	-	0.69
42	IS	13C-OCDD	200.00	9.53e+07	0.92 y	41:25	-	0.55
43	IS	13C-2,3,7,8-TCDF	100.00	1.33e+08	0.81 y	25:46	-	1.04
44	IS	13C-1,2,3,7,8-PeCDF	100.00	1.22e+08	1.59 y	29:47	-	0.95
45	IS	13C-2,3,4,7,8-PeCDF	100.00	1.19e+08	1.58 y	30:40	-	0.93
46	IS	13C-1,2,3,4,7,8-HxCDF	100.00	8.65e+07	0.53 y	33:21	-	1.00
47	IS	13C-1,2,3,6,7,8-HxCDF	100.00	1.11e+08	0.52 y	33:29	-	1.29
48	IS	13C-2,3,4,6,7,8-HxCDF	100.00	9.56e+07	0.51 y	34:05	-	1.11
49	IS	13C-1,2,3,7,8,9-HxCDF	100.00	8.35e+07	0.53 y	35:04	-	0.97
50	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	7.38e+07	0.45 y	36:55	-	0.85
51	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	6.41e+07	0.42 y	38:39	-	0.74
52	IS	13C-OCDF	200.00	1.45e+08	0.91 y	41:39	-	0.84
53	C/Up	37Cl-2,3,7,8-TCDD	0.50	2.68e+05		26:33	-	0.67
54	RS/RT	13C-1,2,3,4-TCDD	100.00	8.03e+07	0.81 y	25:59	-	1.00
55	RS	13C-1,2,3,4-TCDF	100.00	1.28e+08	0.80 y	24:36	-	1.00
56	RS/RT	13C-1,2,3,4,6,9-HxCDF	100.00	8.64e+07	0.52 y	33:46	-	1.00

Filename: 091008C1 S: 4 Acquired: 8-OCT-09 15:19:42
Run: 091008C1 Analyte: 1613_NEW Cal: 1613VG5-10-8-09 Results:
Sample text: ST091008C1-3 1613 CS1 090922E

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
18	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.31
19	Tot	TCDD EMPC	0.00	-	- n	-	-	1.31
20	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.17
21	Tot	PeCDD EMPC	0.00	-	- n	-	-	1.17
22	Tot	Total Hexa-Dioxins	0.00	-	- n	-	-	1.11
23	Tot	HxCDD EMPC	0.00	-	- n	-	-	1.11
24	Tot	Total Hepta-Dioxins	0.00	-	- n	-	-	1.10
25	Tot	HpCDD EMPC	0.00	-	- n	-	-	1.10
26	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.17
27	Tot	TCDF EMPC	0.00	-	- n	-	-	1.17
28	Tot	1st Func. Penta-Furans	0.00	-	- n	-	-	1.15
29	Tot	1st Func. PeCDF EMPC	0.00	-	- n	-	-	1.15
30	Tot	Total Penta-Furans	0.00	-	- n	-	-	1.15
31	Tot	PeCDF EMPC	0.00	-	- n	-	-	1.15
32	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.32
33	Tot	HxCDF EMPC	0.00	-	- n	-	-	1.32
34	Tot	Total Hepta-Furans	0.00	-	- n	-	-	1.51
35	Tot	HpCDF EMPC	0.00	-	- n	-	-	1.51

Filename: 091008C1 S: 5 Acquired: 8-OCT-09 16:08:29
Run: 091008C1 Analyte: 1613_NEW Cal: 1613VG5-10-8-09 Results:
Sample text: ST091008C1-4 1613 CS2 090922F

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	2.00	1.94e+06	0.82 y	26:32	-	1.18
2	Unk	1,2,3,7,8-PeCDD	10.00	7.64e+06	0.62 y	30:56	-	1.07
3	Unk	1,2,3,4,7,8-HxCDD	10.00	6.41e+06	1.24 y	34:15	-	1.04
4	Unk	1,2,3,6,7,8-HxCDD	10.00	6.80e+06	1.21 y	34:22	-	1.05
5	Unk	1,2,3,7,8,9-HxCDD	10.00	6.99e+06	1.20 y	34:41	-	1.00
6	Unk	1,2,3,4,6,7,8-HpCDD	10.00	6.29e+06	1.05 y	38:05	-	1.06
7	Unk	OCDD	20.00	1.14e+07	0.90 y	41:26	-	1.19
8	Unk	2,3,7,8-TCDF	2.00	2.86e+06	0.76 y	25:47	-	1.09
9	Unk	1,2,3,7,8-PeCDF	10.00	1.29e+07	1.55 y	29:47	-	1.06
10	Unk	2,3,4,7,8-PeCDF	10.00	1.23e+07	1.58 y	30:39	-	1.03
11	Unk	1,2,3,4,7,8-HxCDF	10.00	1.13e+07	1.21 y	33:21	-	1.29
12	Unk	1,2,3,6,7,8-HxCDF	10.00	1.32e+07	1.25 y	33:29	-	1.18
13	Unk	2,3,4,6,7,8-HxCDF	10.00	1.12e+07	1.23 y	34:06	-	1.15
14	Unk	1,2,3,7,8,9-HxCDF	10.00	9.72e+06	1.25 y	35:04	-	1.17
15	Unk	1,2,3,4,6,7,8-HpCDF	10.00	1.01e+07	1.08 y	36:55	-	1.39
16	Unk	1,2,3,4,7,8,9-HpCDF	10.00	8.23e+06	1.05 y	38:39	-	1.30
17	Unk	OCDF	20.00	1.45e+07	0.95 y	41:39	-	1.02
36	IS	13C-2,3,7,8-TCDD	100.00	8.26e+07	0.81 y	26:31	-	1.05
37	IS	13C-1,2,3,7,8-PeCDD	100.00	7.16e+07	0.62 y	30:56	-	0.91
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	6.16e+07	1.20 y	34:15	-	0.72
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	6.47e+07	1.29 y	34:22	-	0.76
40	IS	13C-1,2,3,7,8,9-HxCDD	100.00	6.99e+07	1.24 y	34:40	-	0.82
41	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	5.95e+07	1.13 y	38:05	-	0.70
42	IS	13C-OCDD	200.00	9.56e+07	0.91 y	41:25	-	0.56
43	IS	13C-2,3,7,8-TCDF	100.00	1.32e+08	0.79 y	25:46	-	1.06
44	IS	13C-1,2,3,7,8-PeCDF	100.00	1.21e+08	1.59 y	29:46	-	0.98
45	IS	13C-2,3,4,7,8-PeCDF	100.00	1.19e+08	1.64 y	30:39	-	0.96
46	IS	13C-1,2,3,4,7,8-HxCDF	100.00	8.72e+07	0.53 y	33:20	-	1.02
47	IS	13C-1,2,3,6,7,8-HxCDF	100.00	1.12e+08	0.52 y	33:29	-	1.31
48	IS	13C-2,3,4,6,7,8-HxCDF	100.00	9.71e+07	0.52 y	34:05	-	1.14
49	IS	13C-1,2,3,7,8,9-HxCDF	100.00	8.31e+07	0.51 y	35:03	-	0.97
50	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	7.28e+07	0.44 y	36:55	-	0.85
51	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	6.31e+07	0.43 y	38:38	-	0.74
52	IS	13C-OCDF	200.00	1.42e+08	0.91 y	41:39	-	0.83
53	C/Up	37Cl-2,3,7,8-TCDD	2.00	9.91e+05		26:32	-	0.63
54	RS/RT	13C-1,2,3,4-TCDD	100.00	7.84e+07	0.81 y	25:58	-	1.00
55	RS	13C-1,2,3,4-TCDF	100.00	1.24e+08	0.78 y	24:36	-	1.00
56	RS/RT	13C-1,2,3,4,6,9-HxCDF	100.00	8.56e+07	0.52 y	33:46	-	1.00

Filename: 091008C1 S: 5 Acquired: 8-OCT-09 16:08:29
Run: 091008C1 Analyte: 1613_NEW Cal: 1613VG5-10-8-09 Results:
Sample text: ST091008C1-4 1613 CS2 090922F

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
18	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.18
19	Tot	TCDD EMPC	0.00	-	- n	-	-	1.18
20	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.07
21	Tot	PeCDD EMPC	0.00	-	- n	-	-	1.07
22	Tot	Total Hexa-Dioxins	0.00	-	- n	-	-	1.03
23	Tot	HxCDD EMPC	0.00	-	- n	-	-	1.03
24	Tot	Total Hepta-Dioxins	0.00	-	- n	-	-	1.06
25	Tot	HpCDD EMPC	0.00	-	- n	-	-	1.06
26	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.09
27	Tot	TCDF EMPC	0.00	-	- n	-	-	1.09
28	Tot	1st Func. Penta-Furans	0.00	-	- n	-	-	1.05
29	Tot	1st Func. PeCDF EMPC	0.00	-	- n	-	-	1.05
30	Tot	Total Penta-Furans	0.00	-	- n	-	-	1.05
31	Tot	PeCDF EMPC	0.00	-	- n	-	-	1.05
32	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.20
33	Tot	HxCDF EMPC	0.00	-	- n	-	-	1.20
34	Tot	Total Hepta-Furans	0.00	-	- n	-	-	1.35
35	Tot	HpCDF EMPC	0.00	-	- n	-	-	1.35

Filename: 091008C1 S: 6 Acquired: 8-OCT-09 16:57:09
Run: 091008C1 Analyte: 1613_NEW Cal: 1613VG5-10-8-09 Results:
Sample text: ST091008C1-5 1613 CS4 090922H

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	40.00	4.13e+07	0.80 y	26:32	-	1.25
2	Unk	1,2,3,7,8-PeCDD	200.00	1.58e+08	0.64 y	30:57	-	1.10
3	Unk	1,2,3,4,7,8-HxCDD	200.00	1.31e+08	1.23 y	34:15	-	1.02
4	Unk	1,2,3,6,7,8-HxCDD	200.00	1.46e+08	1.23 y	34:23	-	1.11
5	Unk	1,2,3,7,8,9-HxCDD	200.00	1.49e+08	1.22 y	34:41	-	1.05
6	Unk	1,2,3,4,6,7,8-HpCDD	200.00	1.38e+08	1.05 y	38:06	-	1.12
7	Unk	OCDD	400.00	2.44e+08	0.90 y	41:26	-	1.29
8	Unk	2,3,7,8-TCDF	40.00	6.00e+07	0.78 y	25:46	-	1.18
9	Unk	1,2,3,7,8-PeCDF	200.00	2.67e+08	1.59 y	29:48	-	1.09
10	Unk	2,3,4,7,8-PeCDF	200.00	2.53e+08	1.59 y	30:40	-	1.07
11	Unk	1,2,3,4,7,8-HxCDF	200.00	2.33e+08	1.21 y	33:21	-	1.31
12	Unk	1,2,3,6,7,8-HxCDF	200.00	2.65e+08	1.21 y	33:30	-	1.18
13	Unk	2,3,4,6,7,8-HxCDF	200.00	2.23e+08	1.21 y	34:06	-	1.17
14	Unk	1,2,3,7,8,9-HxCDF	200.00	2.07e+08	1.22 y	35:04	-	1.23
15	Unk	1,2,3,4,6,7,8-HpCDF	200.00	2.10e+08	1.03 y	36:56	-	1.40
16	Unk	1,2,3,4,7,8,9-HpCDF	200.00	1.80e+08	1.03 y	38:39	-	1.35
17	Unk	OCDF	400.00	3.20e+08	0.89 y	41:40	-	1.05
36	IS	13C-2,3,7,8-TCDD	100.00	8.24e+07	0.78 y	26:31	-	1.04
37	IS	13C-1,2,3,7,8-PeCDD	100.00	7.17e+07	0.64 y	30:56	-	0.90
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	6.43e+07	1.23 y	34:15	-	0.77
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	6.59e+07	1.25 y	34:22	-	0.79
40	IS	13C-1,2,3,7,8,9-HxCDD	100.00	7.11e+07	1.22 y	34:40	-	0.85
41	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	6.17e+07	1.11 y	38:06	-	0.74
42	IS	13C-OCDD	200.00	9.49e+07	0.92 y	41:25	-	0.57
43	IS	13C-2,3,7,8-TCDF	100.00	1.27e+08	0.82 y	25:46	-	1.04
44	IS	13C-1,2,3,7,8-PeCDF	100.00	1.23e+08	1.61 y	29:47	-	1.01
45	IS	13C-2,3,4,7,8-PeCDF	100.00	1.18e+08	1.61 y	30:39	-	0.97
46	IS	13C-1,2,3,4,7,8-HxCDF	100.00	8.90e+07	0.52 y	33:21	-	1.07
47	IS	13C-1,2,3,6,7,8-HxCDF	100.00	1.13e+08	0.53 y	33:29	-	1.35
48	IS	13C-2,3,4,6,7,8-HxCDF	100.00	9.49e+07	0.53 y	34:05	-	1.14
49	IS	13C-1,2,3,7,8,9-HxCDF	100.00	8.41e+07	0.52 y	35:03	-	1.01
50	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	7.50e+07	0.45 y	36:54	-	0.90
51	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	6.66e+07	0.46 y	38:39	-	0.80
52	IS	13C-OCDF	200.00	1.52e+08	0.91 y	41:39	-	0.91
53	C/Up	37Cl-2,3,7,8-TCDD	40.00	2.08e+07		26:32	-	0.66
54	RS/RT	13C-1,2,3,4-TCDD	100.00	7.93e+07	0.80 y	25:58	-	1.00
55	RS	13C-1,2,3,4-TCDF	100.00	1.22e+08	0.81 y	24:35	-	1.00
56	RS/RT	13C-1,2,3,4,6,9-HxCDF	100.00	8.33e+07	0.51 y	33:46	-	1.00

Filename: 091008C1 S: 6 Acquired: 8-OCT-09 16:57:09
Run: 091008C1 Analyte: 1613_NEW Cal: 1613VG5-10-8-09 Results:
Sample text: ST091008C1-5 1613 CS4 090922H

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
18	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.25
19	Tot	TCDD EMPC	0.00	-	- n	-	-	1.25
20	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.10
21	Tot	PeCDD EMPC	0.00	-	- n	-	-	1.10
22	Tot	Total Hexa-Dioxins	0.00	-	- n	-	-	1.06
23	Tot	HxCDD EMPC	0.00	-	- n	-	-	1.06
24	Tot	Total Hepta-Dioxins	0.00	-	- n	-	-	1.12
25	Tot	HpCDD EMPC	0.00	-	- n	-	-	1.12
26	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.18
27	Tot	TCDF EMPC	0.00	-	- n	-	-	1.18
28	Tot	1st Func. Penta-Furans	0.00	-	- n	-	-	1.08
29	Tot	1st Func. PeCDF EMPC	0.00	-	- n	-	-	1.08
30	Tot	Total Penta-Furans	0.00	-	- n	-	-	1.08
31	Tot	PeCDF EMPC	0.00	-	- n	-	-	1.08
32	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.22
33	Tot	HxCDF EMPC	0.00	-	- n	-	-	1.22
34	Tot	Total Hepta-Furans	0.00	-	- n	-	-	1.38
35	Tot	HpCDF EMPC	0.00	-	- n	-	-	1.38

Filename: 091008C1 S: 7 Acquired: 8-OCT-09 17:45:51
Run: 091008C1 Analyte: 1613_NEW Cal: 1613VG5-10-8-09 Results:
Sample text: ST091008C1-6 1613 CS5 090922I

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
1	Unk	2,3,7,8-TCDD	200.00	2.17e+08	0.80 y	26:32	-	1.23
2	Unk	1,2,3,7,8-PeCDD	1000.00	8.33e+08	0.62 y	30:56	-	1.09
3	Unk	1,2,3,4,7,8-HxCDD	1000.00	7.08e+08	1.22 y	34:15	-	1.00
4	Unk	1,2,3,6,7,8-HxCDD	1000.00	7.65e+08	1.22 y	34:22	-	1.08
5	Unk	1,2,3,7,8,9-HxCDD	1000.00	7.90e+08	1.21 y	34:41	-	0.99
6	Unk	1,2,3,4,6,7,8-HpCDD	1000.00	7.41e+08	1.05 y	38:06	-	1.09
7	Unk	OCDD	2000.00	1.39e+09	0.90 y	41:26	-	1.22
8	Unk	2,3,7,8-TCDF	200.00	2.97e+08	0.76 y	25:46	-	1.12
9	Unk	1,2,3,7,8-PeCDF	1000.00	1.40e+09	1.59 y	29:47	-	1.07
10	Unk	2,3,4,7,8-PeCDF	1000.00	1.38e+09	1.57 y	30:40	-	1.05
11	Unk	1,2,3,4,7,8-HxCDF	1000.00	1.27e+09	1.22 y	33:21	-	1.29
12	Unk	1,2,3,6,7,8-HxCDF	1000.00	1.39e+09	1.21 y	33:29	-	1.13
13	Unk	2,3,4,6,7,8-HxCDF	1000.00	1.22e+09	1.21 y	34:06	-	1.18
14	Unk	1,2,3,7,8,9-HxCDF	1000.00	1.10e+09	1.22 y	35:04	-	1.20
15	Unk	1,2,3,4,6,7,8-HpCDF	1000.00	1.14e+09	1.04 y	36:55	-	1.36
16	Unk	1,2,3,4,7,8,9-HpCDF	1000.00	9.81e+08	1.04 y	38:39	-	1.35
17	Unk	OCDF	2000.00	1.80e+09	0.91 y	41:39	-	1.01
36	IS	13C-2,3,7,8-TCDD	100.00	8.84e+07	0.79 y	26:31	-	1.16
37	IS	13C-1,2,3,7,8-PeCDD	100.00	7.65e+07	0.65 y	30:56	-	1.00
38	IS	13C-1,2,3,4,7,8-HxCDD	100.00	7.06e+07	1.27 y	34:14	-	0.82
39	IS	13C-1,2,3,6,7,8-HxCDD	100.00	7.09e+07	1.22 y	34:22	-	0.82
40	IS	13C-1,2,3,7,8,9-HxCDD	100.00	7.95e+07	1.22 y	34:40	-	0.92
41	IS	13C-1,2,3,4,6,7,8-HpCDD	100.00	6.78e+07	1.04 y	38:05	-	0.79
42	IS	13C-OCDD	200.00	1.13e+08	0.90 y	41:25	-	0.66
43	IS	13C-2,3,7,8-TCDF	100.00	1.32e+08	0.80 y	25:45	-	1.09
44	IS	13C-1,2,3,7,8-PeCDF	100.00	1.30e+08	1.62 y	29:47	-	1.07
45	IS	13C-2,3,4,7,8-PeCDF	100.00	1.31e+08	1.58 y	30:39	-	1.08
46	IS	13C-1,2,3,4,7,8-HxCDF	100.00	9.85e+07	0.51 y	33:21	-	1.15
47	IS	13C-1,2,3,6,7,8-HxCDF	100.00	1.23e+08	0.54 y	33:29	-	1.43
48	IS	13C-2,3,4,6,7,8-HxCDF	100.00	1.04e+08	0.53 y	34:05	-	1.21
49	IS	13C-1,2,3,7,8,9-HxCDF	100.00	9.19e+07	0.53 y	35:03	-	1.07
50	IS	13C-1,2,3,4,6,7,8-HpCDF	100.00	8.35e+07	0.45 y	36:54	-	0.97
51	IS	13C-1,2,3,4,7,8,9-HpCDF	100.00	7.25e+07	0.46 y	38:38	-	0.84
52	IS	13C-OCDF	200.00	1.77e+08	0.90 y	41:38	-	1.03
53	C/Up	37Cl-2,3,7,8-TCDD	200.00	1.11e+08		26:32	-	0.73
54	RS/RT	13C-1,2,3,4-TCDD	100.00	7.65e+07	0.81 y	25:58	-	1.00
55	RS	13C-1,2,3,4-TCDF	100.00	1.21e+08	0.81 y	24:35	-	1.00
56	RS/RT	13C-1,2,3,4,6,9-HxCDF	100.00	8.60e+07	0.53 y	33:46	-	1.00

Filename: 091008C1 S: 7 Acquired: 8-OCT-09 17:45:51
Run: 091008C1 Analyte: 1613_NEW Cal: 1613VG5-10-8-09 Results:
Sample text: ST091008C1-6 1613 CS5 090922I

	Typ	Name	Amount	Resp	RA	RT	RF	RRF
18	Tot	Total Tetra-Dioxins	0.00	-	- n	-	-	1.23
19	Tot	TCDD EMPC	0.00	-	- n	-	-	1.23
20	Tot	Total Penta-Dioxins	0.00	-	- n	-	-	1.09
21	Tot	PeCDD EMPC	0.00	-	- n	-	-	1.09
22	Tot	Total Hexa-Dioxins	0.00	-	- n	-	-	1.02
23	Tot	HxCDD EMPC	0.00	-	- n	-	-	1.02
24	Tot	Total Hepta-Dioxins	0.00	-	- n	-	-	1.09
25	Tot	HpCDD EMPC	0.00	-	- n	-	-	1.09
26	Tot	Total Tetra-Furans	0.00	-	- n	-	-	1.12
27	Tot	TCDF EMPC	0.00	-	- n	-	-	1.12
28	Tot	1st Func. Penta-Furans	0.00	-	- n	-	-	1.06
29	Tot	1st Func. PeCDF EMPC	0.00	-	- n	-	-	1.06
30	Tot	Total Penta-Furans	0.00	-	- n	-	-	1.06
31	Tot	PeCDF EMPC	0.00	-	- n	-	-	1.06
32	Tot	Total Hexa-Furans	0.00	-	- n	-	-	1.20
33	Tot	HxCDF EMPC	0.00	-	- n	-	-	1.20
34	Tot	Total Hepta-Furans	0.00	-	- n	-	-	1.36
35	Tot	HpCDF EMPC	0.00	-	- n	-	-	1.36

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory Episode No.: CCAL ID: ST091008C1-1

Contract No.: SAS No.:

Initial Calibration Date: 10/8/09

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 091008C1 S#1 Analysis Date: 8-OCT-09 Time: 12:53:38

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	Pass	CONC. FOUND	CONC. RANGE (3) (ng/mL)
2,3,7,8-TCDD	M/M+2	0.79	0.65-0.89	y	9.91	7.8 - 12.9 8.2 - 12.3 (4)
1,2,3,7,8-PeCDD	M/M+2	0.63	0.54-0.72	y	47.7	39.0 - 65.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.22	1.05-1.43	y	47.9	39.0 - 64.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.21	1.05-1.43	y	48.6	39.0 - 64.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.20	1.05-1.43	y	51.0	41.0 - 61.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	y	49.0	43.0 - 58.0
OCDD	M+2/M+4	0.91	0.76-1.02	y	95.8	79.0 - 126.0
2,3,7,8-TCDF	M/M+2	0.76	0.65-0.89	y	9.88	8.4 - 12.0 8.6 - 11.6 (4)
1,2,3,7,8-PeCDF	M+2/M+4	1.61	1.32-1.78	y	48.1	41.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78	y	48.8	41.0 - 61.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.19	1.05-1.43	y	49.0	45.0 - 56.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.23	1.05-1.43	y	48.4	44.0 - 57.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.21	1.05-1.43	y	48.2	44.0 - 57.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.20	1.05-1.43	y	48.0	45.0 - 56.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.04	0.88-1.20	y	47.8	45.0 - 55.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.03	0.88-1.20	y	47.9	43.0 - 58.0
OCDF	M+2/M+4	0.91	0.76-1.02	y	98.4	63.0 - 159.0

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.

(3) Contract-required concentration range as specified in Table 6, Method 1613.

(4) Contract-required concentration range as specified in Table 6a, Method 1613, for tetras only.

Analyst: [illegible]

Date: 10/9/09

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 10/8/09

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 091008C1 S#1 Analysis Date: 8-OCT-09 Time: 12:53:38

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABUND. RATIO	QC LIMITS (2)	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
13C-2,3,7,8-TCDD	M/M+2	0.80	0.65-0.89	y	93.3	82.0 - 121.0
13C-1,2,3,7,8-PeCDD	M/M+2	0.63	0.54-0.72	y	95.4	62.0 - 160.0
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	y	103	85.0 - 117.0
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.22	1.05-1.43	y	98.3	85.0 - 118.0
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.24	1.05-1.43	y	102	85.0 - 118.0
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.07	0.88-1.20	y	103	72.0 - 138.0
13C-OCDD	M/M+2	0.91	0.76-1.02	y	205	96.0 - 415.0
13C-2,3,7,8-TCDF	M+2/M+4	0.81	0.65-0.89	y	97.4	71.0 - 140.0
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.61	1.32-1.78	y	95.6	76.0 - 130.0
13C-2,3,4,7,8-PeCDF	M/M+2	1.54	1.32-1.78	y	95.0	77.0 - 130.0
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.53	0.43-0.59	y	97.6	76.0 - 131.0
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	95.9	70.0 - 143.0
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.53	0.43-0.59	y	98.6	73.0 - 137.0
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.53	0.43-0.59	y	100.0	74.0 - 135.0
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.45	0.37-0.51	y	101	78.0 - 129.0
13C-1,2,3,4,7,8,9-HpCDF	M+2/M+4	0.44	0.37-0.51	y	101	77.0 - 129.0
13C-OCDF	M+2/M+4	0.92	0.76-1.02	y	194	96.0 - 415.0
CLEANUP STANDARD (3)						
37Cl-2,3,7,8-TCDD					9.05	39.5 - 63.5

(1) See Table 8, Method 1613, for m/z specifications.

(2) Ion Abundance Ratio Control Limits as specified

(3) No ion abundance ratio; report concentration found.

Analyst: MJ

Date: 10/12/09

EPA METHOD 8290

PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory Episode No.: CCAL ID: ST091008C1-1

Contract No.: SAS No.:

Initial Calibration Date: 10/8/09

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 091008C1 S#1 Analysis Date: 8-OCT-09 Time: 12:53:38

NATIVE ANALYTES	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
2,3,7,8-TCDD	M/M+2	0.79	0.65-0.89	y	9.91	8.00 - 12.0
1,2,3,7,8-PeCDD	M/M+2	0.63	0.54-0.72	y	47.7	40.0 - 60.0
1,2,3,4,7,8-HxCDD	M+2/M+4	1.22	1.05-1.43	y	47.9	40.0 - 60.0
1,2,3,6,7,8-HxCDD	M+2/M+4	1.21	1.05-1.43	y	48.6	40.0 - 60.0
1,2,3,7,8,9-HxCDD	M+2/M+4	1.20	1.05-1.43	y	51.0	40.0 - 60.0
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	y	49.0	40.0 - 60.0
OCDD	M+2/M+4	0.91	0.76-1.02	y	95.8	80.0 - 120
2,3,7,8-TCDF	M/M+2	0.76	0.65-0.89	y	9.88	8.00 - 12.0
1,2,3,7,8-PeCDF	M+2/M+4	1.61	1.32-1.78	y	48.1	40.0 - 60.0
2,3,4,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78	y	48.8	40.0 - 60.0
1,2,3,4,7,8-HxCDF	M+2/M+4	1.19	1.05-1.43	y	49.0	40.0 - 60.0
1,2,3,6,7,8-HxCDF	M+2/M+4	1.23	1.05-1.43	y	48.4	40.0 - 60.0
2,3,4,6,7,8-HxCDF	M+2/M+4	1.21	1.05-1.43	y	48.2	40.0 - 60.0
1,2,3,7,8,9-HxCDF	M+2/M+4	1.20	1.05-1.43	y	48.0	40.0 - 60.0
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.04	0.88-1.20	y	47.8	40.0 - 60.0
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.03	0.88-1.20	y	47.9	40.0 - 60.0
OCDF	M+2/M+4	0.91	0.76-1.02	y	98.4	80.0 - 120

Analyst: MJ

Date: 10/9/09

EPA METHOD 8290

PCDD/PCDF CALIBRATION VERIFICATION

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 10/8/09

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 091008C1 S#1 Analysis Date: 8-OCT-09 Time: 12:53:38

LABELED COMPOUNDS	M/Z'S FORMING RATIO	ION ABUND. RATIO	QC LIMITS	Pass	CONC. FOUND	CONC. RANGE (ng/mL)
13C-2,3,7,8-TCDD	M/M+2	0.80	0.65-0.89	y	93.3	70.0 - 130
13C-1,2,3,7,8-PeCDD	M/M+2	0.63	0.54-0.72	y	95.4	70.0 - 130
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	y	103	70.0 - 130
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.22	1.05-1.43	y	98.3	70.0 - 130
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.24	1.05-1.43	y	102	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.07	0.88-1.20	y	103	70.0 - 130
13C-OCDD	M+2/M+4	0.91	0.76-1.02	y	205	140 - 260
13C-2,3,7,8-TCDF	M/M+2	0.81	0.65-0.89	y	97.4	70.0 - 130
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.61	1.32-1.78	y	95.6	70.0 - 130
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.54	1.32-1.78	y	95.0	70.0 - 130
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.53	0.43-0.59	y	97.6	70.0 - 130
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	y	95.9	70.0 - 130
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.53	0.43-0.59	y	98.6	70.0 - 130
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.53	0.43-0.59	y	100.0	70.0 - 130
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.45	0.37-0.51	y	101	70.0 - 130
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	y	101	70.0 - 130
13C-OCDF	M+2/M+4	0.92	0.76-1.02	y	194	140 - 260
CLEANUP STANDARD						
37Cl-2,3,7,8-TCDD					9.05	7.00 - 13.0

Analyst: VM

Date: 10/9/09

FORM 5
PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Instrument ID: VG-5 Initial Calibration Date: 10/8/09

RT Window Data Filename: 091008C1 S#1 Analysis Date: 8-OCT-09 Time: 12:53:38

DB-5 IS Data Filename: 091008C1 S#1 Analysis Date: 8-OCT-09 Time: 12:53:38

DB_225 IS Data Filename: Analysis Date: Time:

DB-5 RT WINDOW DEFINING STANDARDS RESULTS

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	23:15	1,3,6,8-TCDF (F)	21:10
1,2,8,9-TCDD (L)	27:22	1,2,8,9-TCDF (L)	27:30
1,2,4,7,9-PeCDD (F)	28:55	1,3,4,6,8-PeCDF (F)	27:27
1,2,3,8,9-PeCDD (L)	31:18	1,2,3,8,9-PeCDF (L)	31:32
1,2,4,6,7,9-HxCDD (F)	32:42	1,2,3,4,6,8-HxCDF (F)	32:09
1,2,3,7,8,9-HxCDD (L)	34:40	1,2,3,7,8,9-HxCDF (L)	35:04
1,2,3,4,6,7,9-HpCDD (F)	37:16	1,2,3,4,6,7,8-HpCDF (F)	36:55
1,2,3,4,6,7,8-HpCDD (L)	38:06	1,2,3,4,7,8,9-HpCDF (L)	38:39

(F) = First eluting isomer (DB-5); (L) = Last eluting isomer (DB-5).

==========

ISOMER SPECIFICITY (IS) TEST STANDARD RESULTS

% VALLEY HEIGHT
BETWEEN
COMPARED PEAKS (1)

<25%

(1) To meet contract requirements, %Valley Height Between Compared Peaks shall not exceed 25% (section 15.4.2.2, Method 1613).

Analyst: MS

Date: 10/9/09

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 10/8/09

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 091008C1 S#1 Analysis Date: 8-OCT-09 Time: 12:53:38

Compounds Using 13C-1234-TCDD as RT Internal Standard

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999-1.002
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.000	0.999-1.002
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999-1.003
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999-1.002
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999-1.002
LABELED COMPOUNDS			
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.021	0.976-1.043
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.191	1.000-1.567
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.992	0.923-1.103
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.147	1.000-1.425
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.181	1.011-1.526
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.989-1.052

(1) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613. 10/94

Analyst: MN

Date: 10/9/09

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Lab Name: Vista Analytical Laboratory Episode No.:

Contract No.: SAS No.:

Initial Calibration Date: 10/8/09

Instrument ID: VG-5 GC Column ID: DB-5

VER Data Filename: 091008C1 S#1 Analysis Date: 8-OCT-09 Time: 12:53:38

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS (1)
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.000	0.999-1.001
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.001	0.997-1.005
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.001	0.999-1.001
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.000	0.999-1.001
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999-1.001
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998-1.004
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.001	0.999-1.002
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.000	0.999-1.001
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999-1.001
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999-1.001
OCDD	13C-OCDD	1.000	0.999-1.001
OCDF	13C-OCDF	1.000	0.999-1.001
LABELED COMPOUNDS			
13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.181	1.011-1.526
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.988	0.975-1.001
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.991	0.979-1.005
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.009	1.001-1.020
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.014	1.002-1.026
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.018	1.007-1.029
13C-1,2,3,7,8,9-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.038	1.002-1.072
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.027	1.014-1.038
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.093	1.069-1.111
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,9-HxCDF	1.128	1.117-1.141
13C-OCDD	13C-1,2,3,4,6,9-HxCDF	1.144	1.098-1.192
13C-OCDF	13C-1,2,3,4,6,9-HxCDF	1.233	1.091-1.371

(1) Contract-required limits for
Relative Retention Times (RRT)
as specified in Table 2, Method 1613. 10/94

Analyst: VM

Date: 10/9/09

Client ID: 1613 CS3 090922G Filename: 091008C1 S:1 Acq: 8-OCT-09 12:53:38 ConCal: NA

Lab ID: ST091008C1-1 GC Column ID: db-5 ICal: 1613VG5-10-8-09 wt/vol: 1.000 EndCAL: NA

	Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL
	2,3,7,8-TCDD	1.07e+07	0.79 y	1.25	26:32	9.9123		*	2.5	*
	1,2,3,7,8-PeCDD	4.12e+07	0.63 y	1.11	30:56	47.700		*	2.5	*
	1,2,3,4,7,8-HxCDD	3.63e+07	1.22 y	1.04	34:15	47.867		*	2.5	*
	1,2,3,6,7,8-HxCDD	3.79e+07	1.21 y	1.12	34:22	48.634		*	2.5	*
	1,2,3,7,8,9-HxCDD	4.17e+07	1.20 y	1.02	34:40	51.037		*	2.5	*
	1,2,3,4,6,7,8-HpCDD	3.77e+07	1.05 y	1.11	38:06	49.043		*	2.5	*
	OCDD	6.50e+07	0.91 y	1.24	41:26	95.822		*	2.5	*
	2,3,7,8-TCDF	1.57e+07	0.76 y	1.15	25:46	9.8804		*	2.5	*
	1,2,3,7,8-PeCDF	6.86e+07	1.61 y	1.11	29:47	48.118		*	2.5	*
	2,3,4,7,8-PeCDF	6.49e+07	1.59 y	1.07	30:40	48.807		*	2.5	*
	1,2,3,4,7,8-HxCDF	6.20e+07	1.19 y	1.34	33:21	48.965		*	2.5	*
	1,2,3,6,7,8-HxCDF	6.72e+07	1.23 y	1.18	33:29	48.358		*	2.5	*
	2,3,4,6,7,8-HxCDF	6.00e+07	1.21 y	1.20	34:05	48.225		*	2.5	*
	1,2,3,7,8,9-HxCDF	5.45e+07	1.20 y	1.24	35:04	47.972		*	2.5	*
	1,2,3,4,6,7,8-HpCDF	5.66e+07	1.04 y	1.44	36:55	47.792		*	2.5	*
	1,2,3,4,7,8,9-HpCDF	4.80e+07	1.03 y	1.40	38:39	47.858		*	2.5	*
	OCDF	8.39e+07	0.91 y	1.07	41:39	98.355		*	2.5	*
IS	13C-2,3,7,8-TCDD	8.61e+07	0.80 y	1.04	26:30	93.256				
IS	13C-1,2,3,7,8-PeCDD	7.77e+07	0.63 y	0.92	30:55	95.421				
IS	13C-1,2,3,4,7,8-HxCDD	7.29e+07	1.26 y	0.76	34:14	103.37				
IS	13C-1,2,3,6,7,8-HxCDD	6.94e+07	1.22 y	0.77	34:21	98.315				
IS	13C-1,2,3,7,8,9-HxCDD	7.98e+07	1.24 y	0.85	34:39	101.62				
IS	13C-1,2,3,4,6,7,8-HpCDD	6.92e+07	1.07 y	0.73	38:05	103.44				
IS	13C-OCDD	1.10e+08	0.91 y	0.58	41:25	204.76				
IS	13C-2,3,7,8-TCDF	1.38e+08	0.81 y	1.06	25:45	97.391				
IS	13C-1,2,3,7,8-PeCDF	1.28e+08	1.61 y	1.00	29:46	95.586				
IS	13C-2,3,4,7,8-PeCDF	1.24e+08	1.54 y	0.98	30:39	94.966				
IS	13C-1,2,3,4,7,8-HxCDF	9.44e+07	0.53 y	1.05	33:20	97.574				
IS	13C-1,2,3,6,7,8-HxCDF	1.17e+08	0.52 y	1.33	33:28	95.930				
IS	13C-2,3,4,6,7,8-HxCDF	1.03e+08	0.53 y	1.14	34:04	98.629				
IS	13C-1,2,3,7,8,9-HxCDF	9.19e+07	0.53 y	1.00	35:03	99.989				
IS	13C-1,2,3,4,6,7,8-HpCDF	8.21e+07	0.45 y	0.88	36:54	100.69				
IS	13C-1,2,3,4,7,8,9-HpCDF	7.16e+07	0.44 y	0.77	38:38	100.57				
IS	13C-OCDF	1.59e+08	0.92 y	0.89	41:38	194.33				
C/Up	37Cl-2,3,7,8-TCDD	5.42e+06		0.68	26:31	9.0510				
RS/RT	13C-1,2,3,4-TCDD	8.85e+07	0.79 y	1.00	25:58	100.00				
RS	13C-1,2,3,4-TCDF	1.34e+08	0.79 y	1.00	24:34	100.00				
RS/RT	13C-1,2,3,4,6,9-HxCDF	9.22e+07	0.53 y	1.00	33:46	100.00				

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	58.1	58.8		*	*
Total Penta-Dioxins	149	149		*	*
Total Hexa-Dioxins	189	191		*	*
Total Hepta-Dioxins	128	129		*	*
Total Tetra-Furans	31.5	31.9		*	*
Total Penta-Furans	186.92	187.86		*	*
Total Hexa-Furans	240	241		*	*
Total Hepta-Furans	95.8	96.8		*	*

	Rec	Qual
IS 13C-2,3,7,8-TCDD	93.3	
IS 13C-1,2,3,7,8-PeCDD	95.4	
IS 13C-1,2,3,4,7,8-HxCDD	103	
IS 13C-1,2,3,6,7,8-HxCDD	98.3	
IS 13C-1,2,3,7,8,9-HxCDD	102	
IS 13C-1,2,3,4,6,7,8-HpCDD	103	
IS 13C-OCDD	102	
IS 13C-2,3,7,8-TCDF	97.4	
IS 13C-1,2,3,7,8-PeCDF	95.6	
IS 13C-2,3,4,7,8-PeCDF	95.0	
IS 13C-1,2,3,4,7,8-HxCDF	97.6	
IS 13C-1,2,3,6,7,8-HxCDF	95.9	
IS 13C-2,3,4,6,7,8-HxCDF	98.6	
IS 13C-1,2,3,7,8,9-HxCDF	100.0	
IS 13C-1,2,3,4,6,7,8-HpCDF	101	
IS 13C-1,2,3,4,7,8,9-HpCDF	101	
IS 13C-OCDF	97.2	
C/Up 37Cl-2,3,7,8-TCDD	90.5	

Integrations by Analyst: MS Date: 10/9/09

Reviewed by Analyst: _____ Date: _____

Vista Analytical Laboratory - Injection Log Run file: 091008C1 Instrument ID: VG-5 GC Column ID: db-5

Data file	S#	Sample ID	Analyst	Acq date	Acq time	CCal	ECal
091008C1	1	ST091008C1-1	MAS	8-OCT-09	12:53:38	NA	NA
091008C1	2	SOLVENT BLANK	MAS	8-OCT-09	13:42:19	NA	NA
091008C1	3	ST091008C1-2	MAS	8-OCT-09	14:31:01	NA	NA
091008C1	4	ST091008C1-3	MAS	8-OCT-09	15:19:42	NA	NA
091008C1	5	ST091008C1-4	MAS	8-OCT-09	16:08:29	NA	NA
091008C1	6	ST091008C1-5	MAS	8-OCT-09	16:57:09	NA	NA
091008C1	7	ST091008C1-6	MAS	8-OCT-09	17:45:51	NA	NA
091008C1	8	SOLVENT BLANK	MAS	8-OCT-09	18:34:32	NA	NA
091008C1	9	SS091008C1-1	MAS	8-OCT-09	19:23:12	NA	NA

Peak Locate Examination: 8-OCT-2009:12:52 File:091008C1

Experiment:OCDD_DB5 Function:1 Reference:PFK

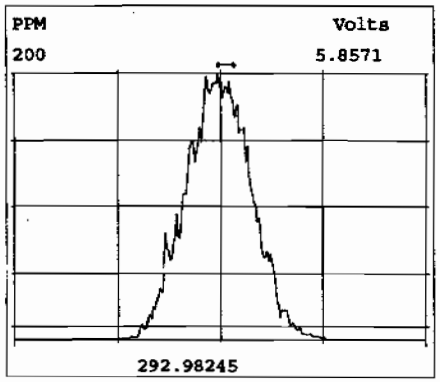

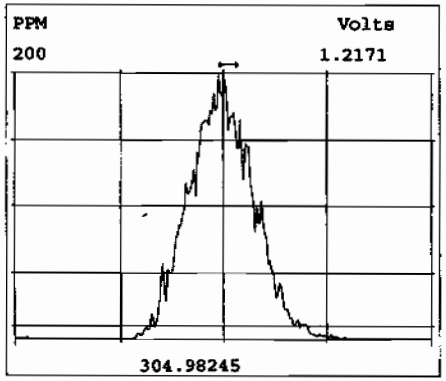

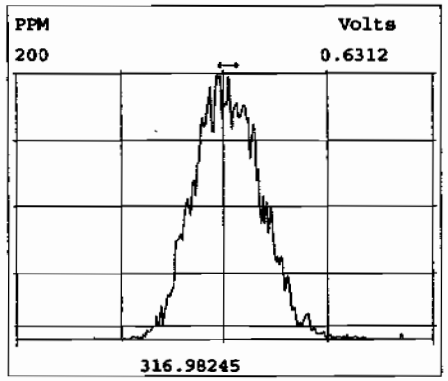

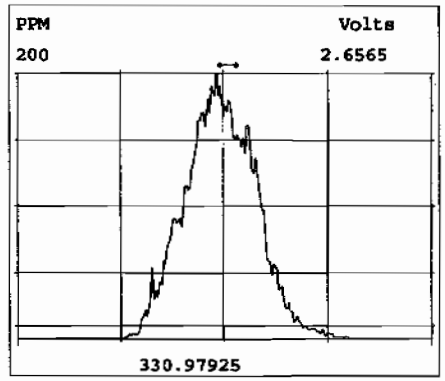

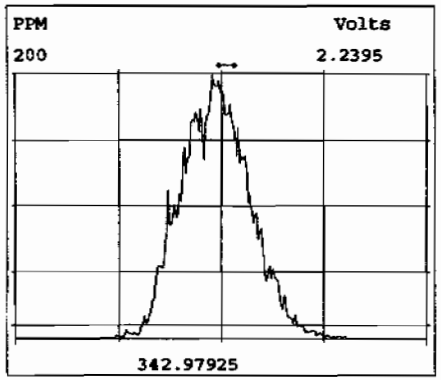

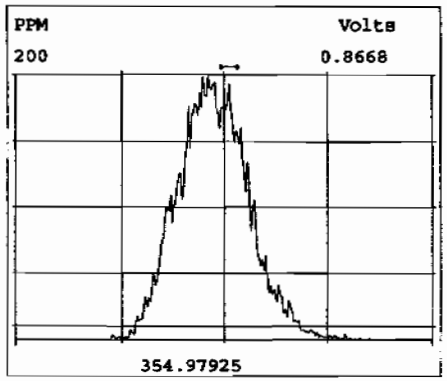

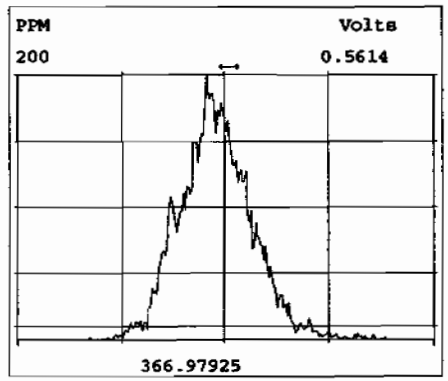

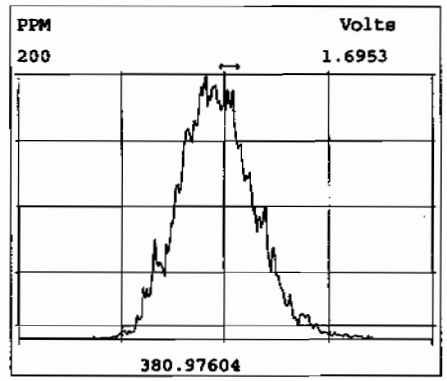

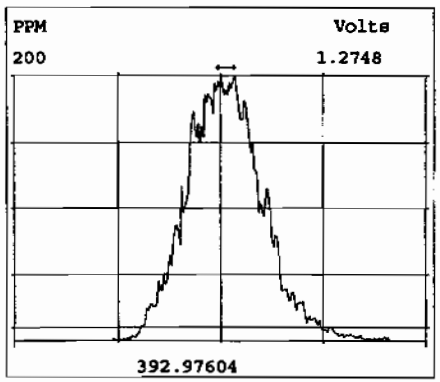

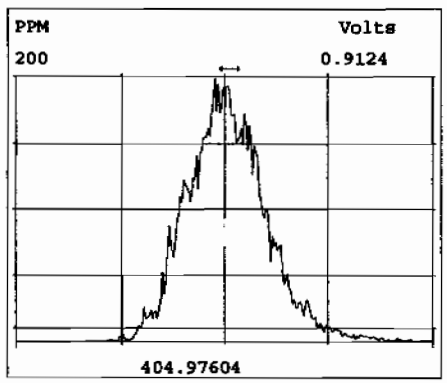

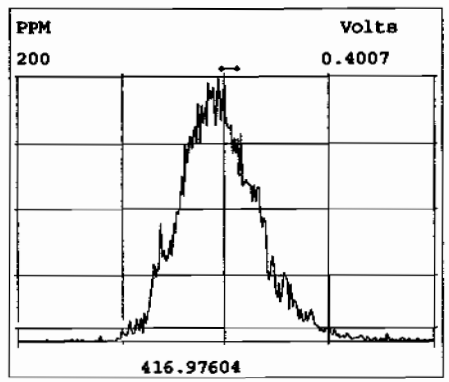

Peak Locate Examination: 8-OCT-2009:12:52 File:091008C1

Experiment:OCDD_DB5 Function:2 Reference:PFK

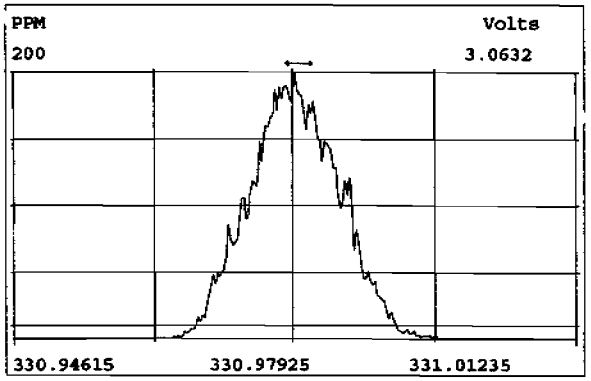

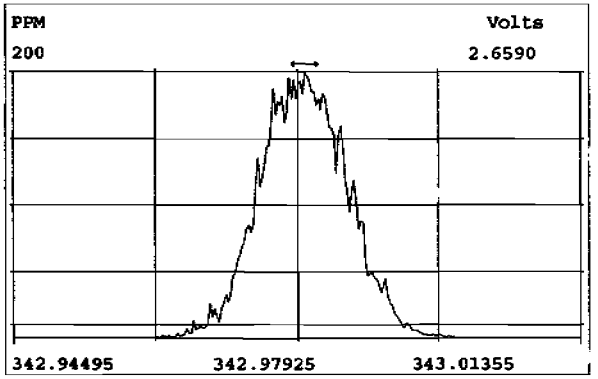

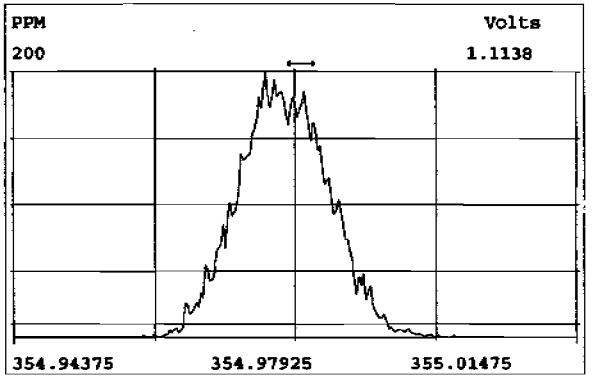

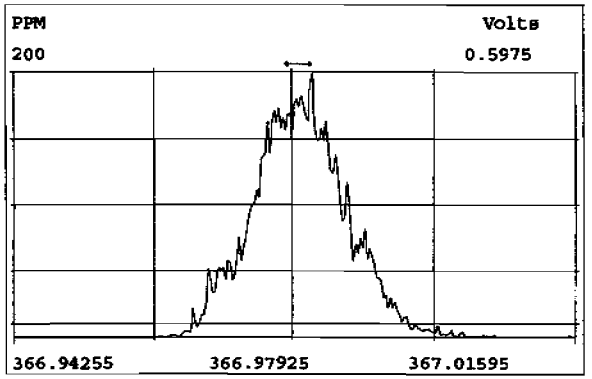

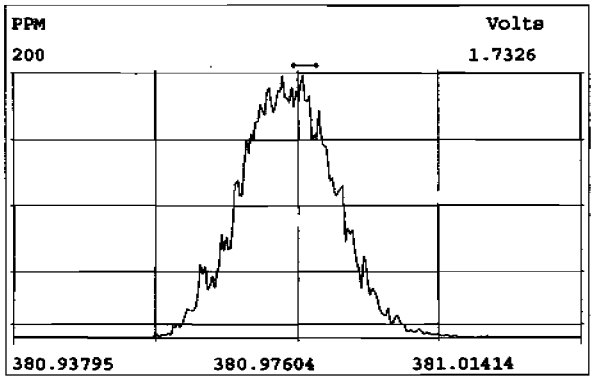

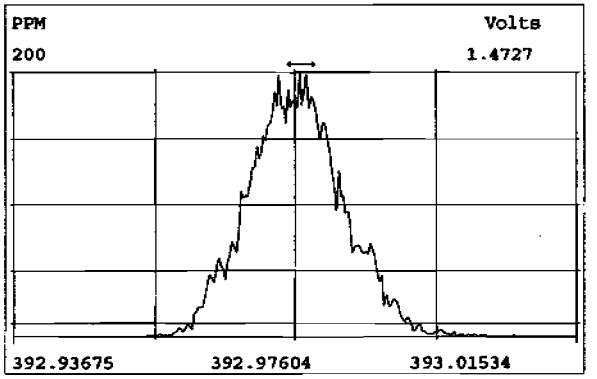

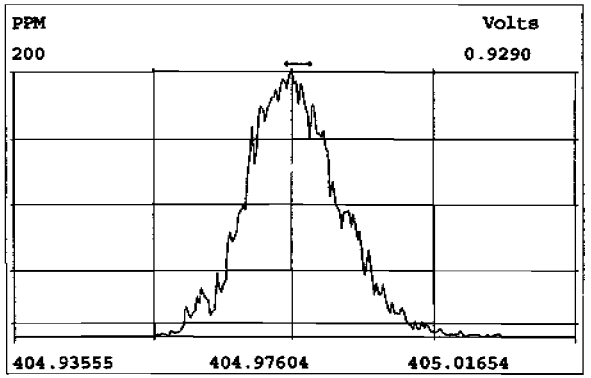

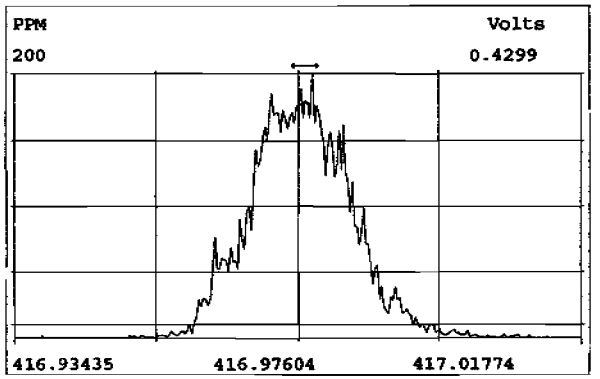

Peak Locate Examination: 8-OCT-2009:12:52 File:091008C1

Experiment:OCDD_DB5 Function:3 Reference:PFK

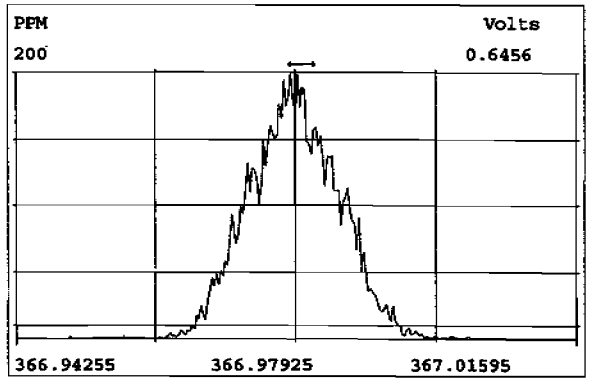

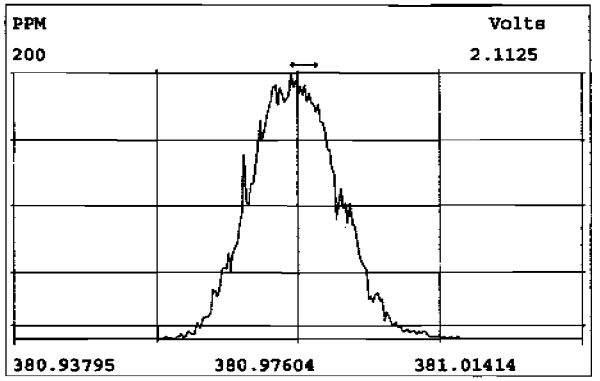

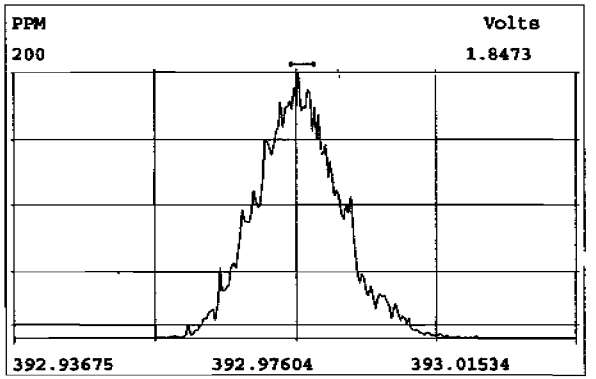

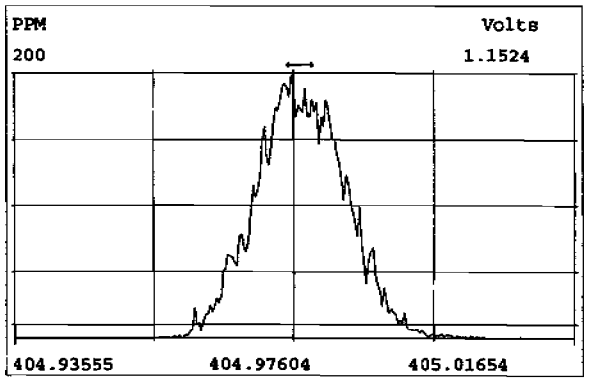

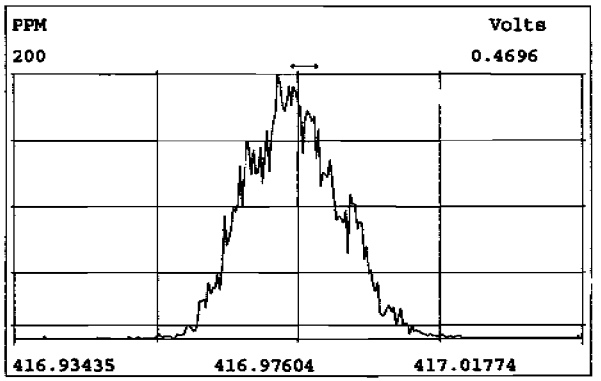

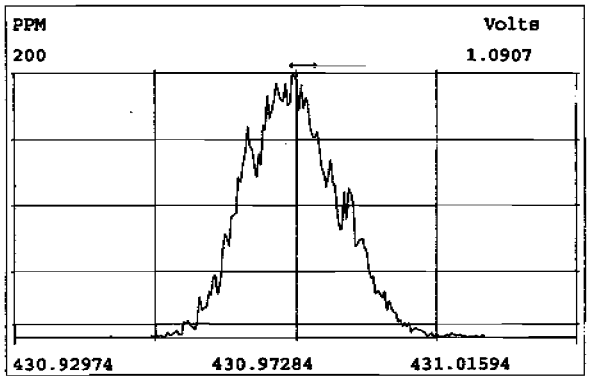

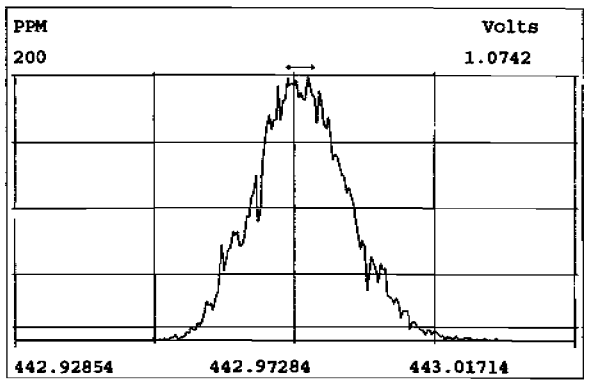

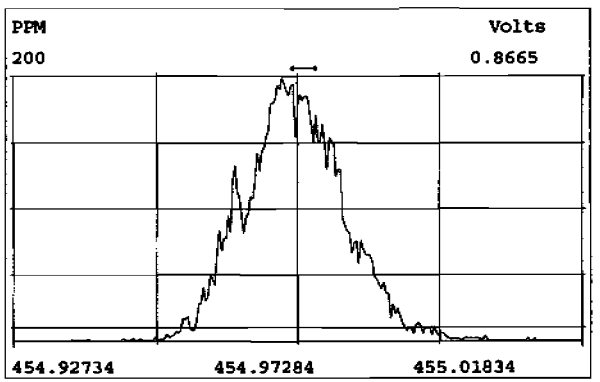

Peak Locate Examination: 8-OCT-2009:12:52 File:091008C1

Experiment:OCDD_DB5 Function:4 Reference:PFK

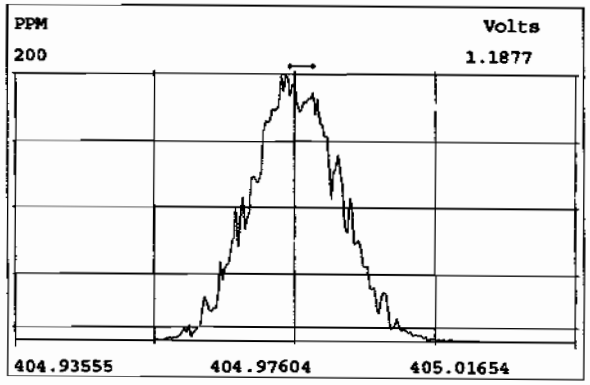

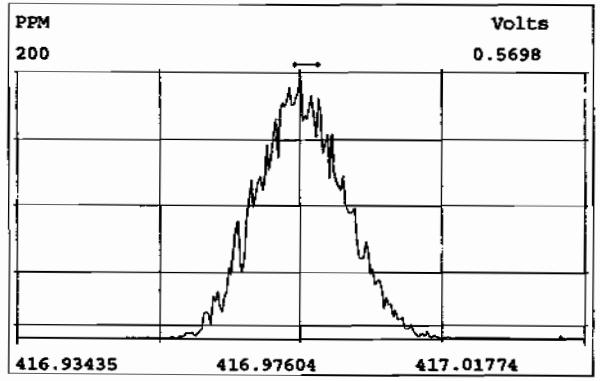

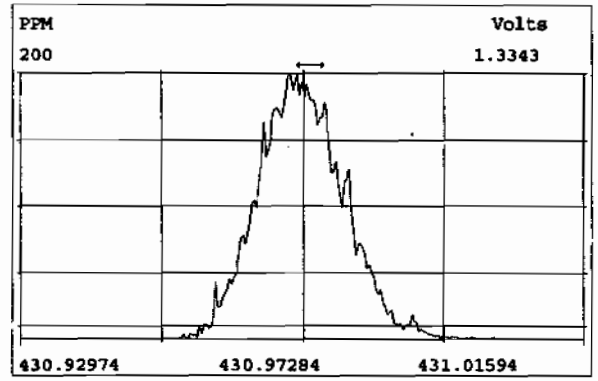

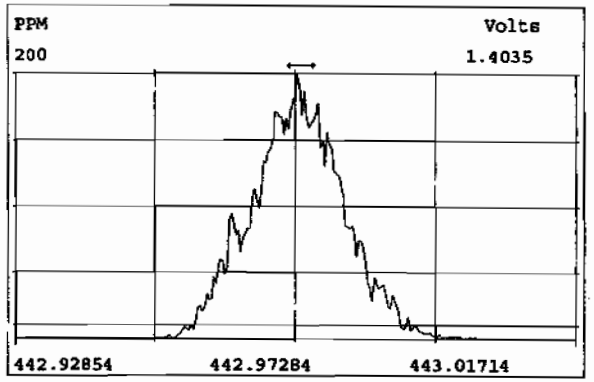

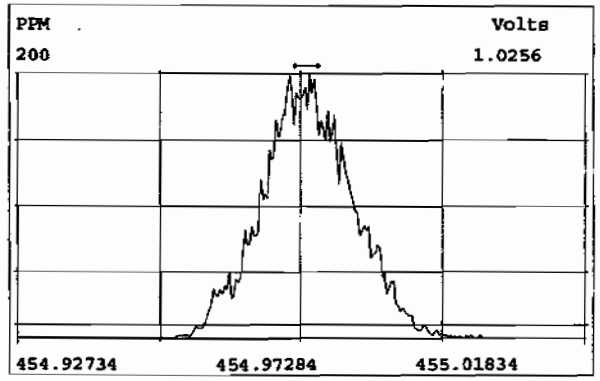

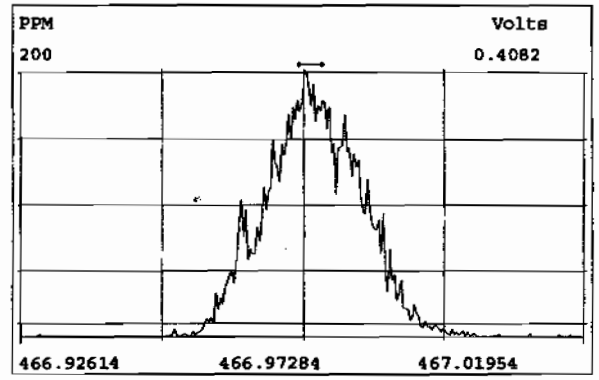

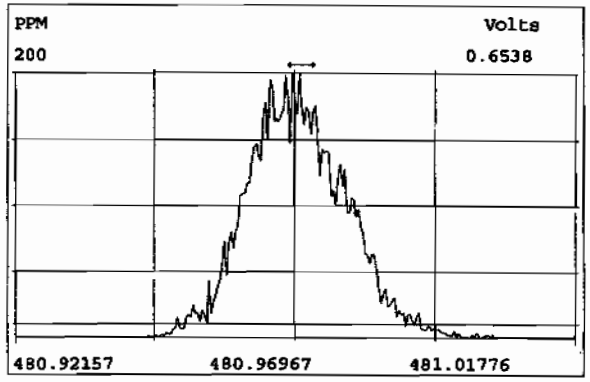

Peak Locate Examination: 8-OCT-2009:12:53 File:091008C1

Experiment:OCDD_DB5 Function:5 Reference:PFK

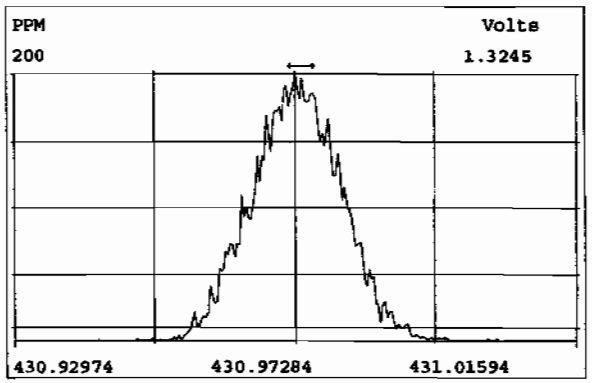

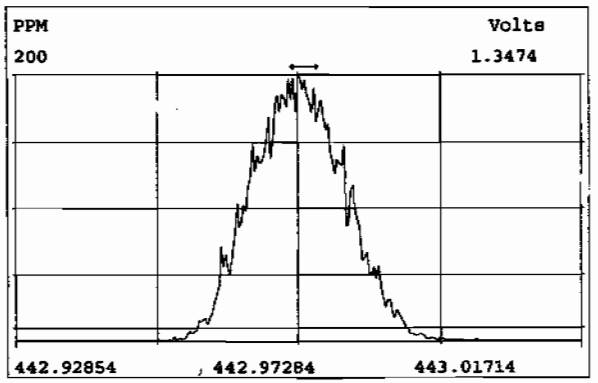

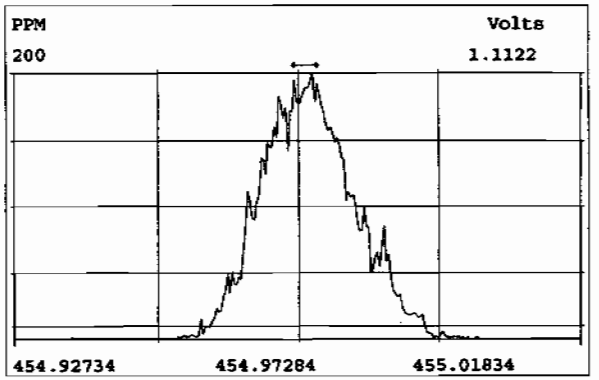

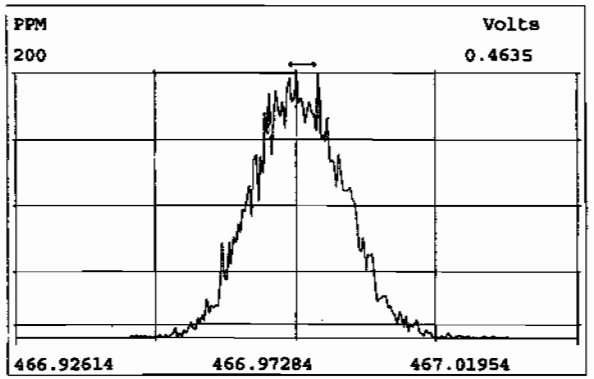

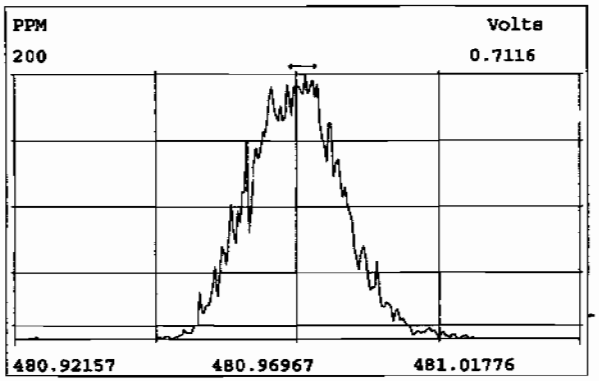

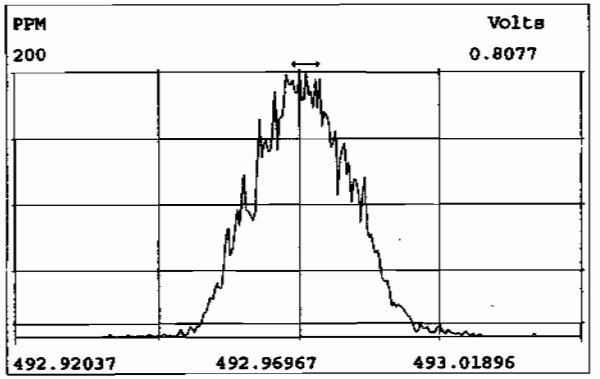

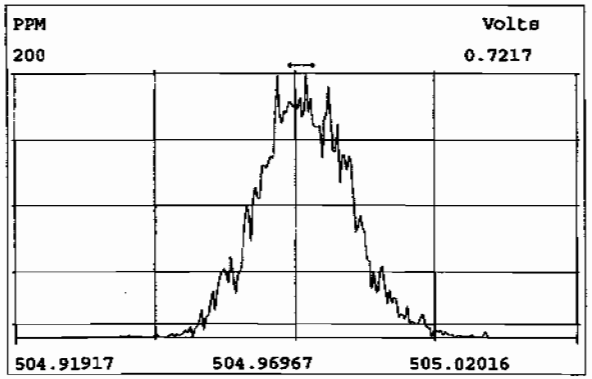

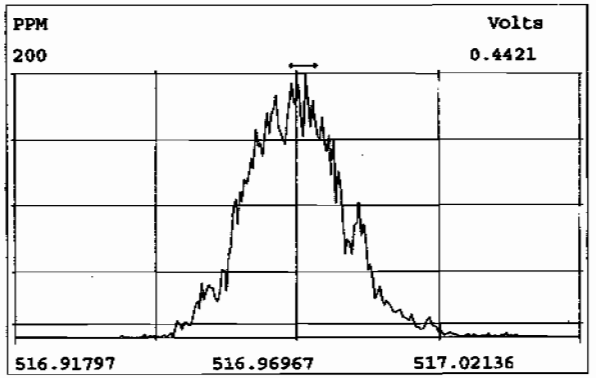

File:091008C1 #1-505 Acq: 8-OCT-2009 12:53:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-1 1613 CS3 090922G Exp:OCDD_DB5
321.8936

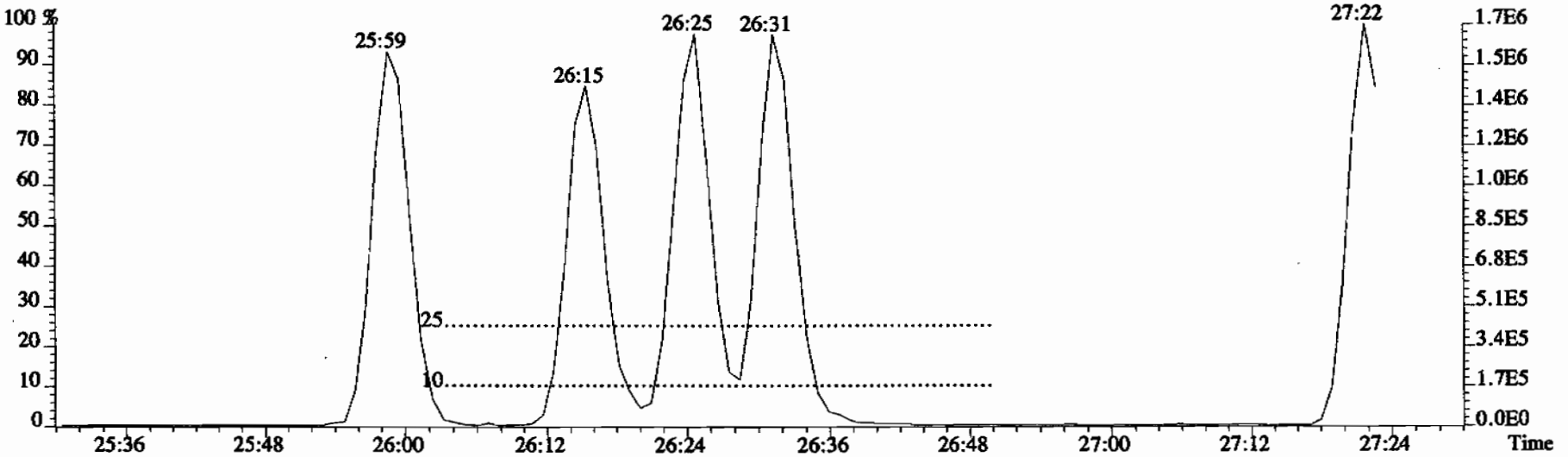

333.9339

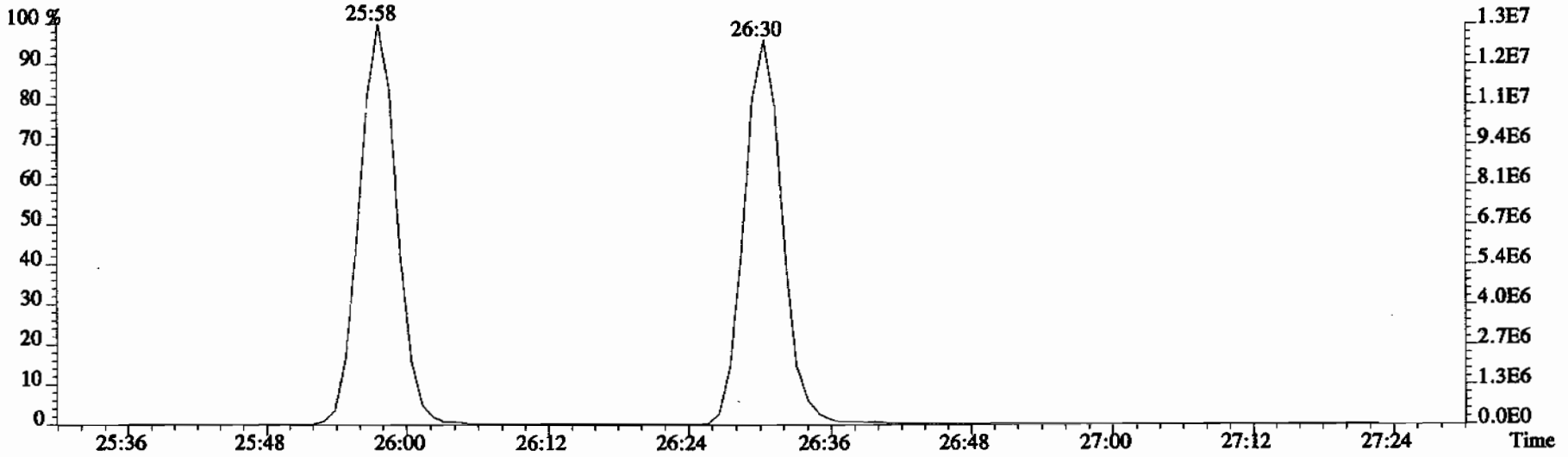

File:091008C1 #1-545 Acq: 8-OCT-2009 12:53:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-1 1613 CS3 090922G Exp:OCDD_DB5
319.8965 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

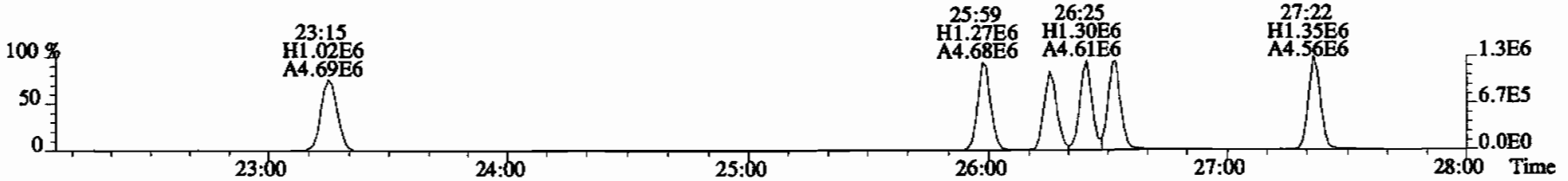

321.8936 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

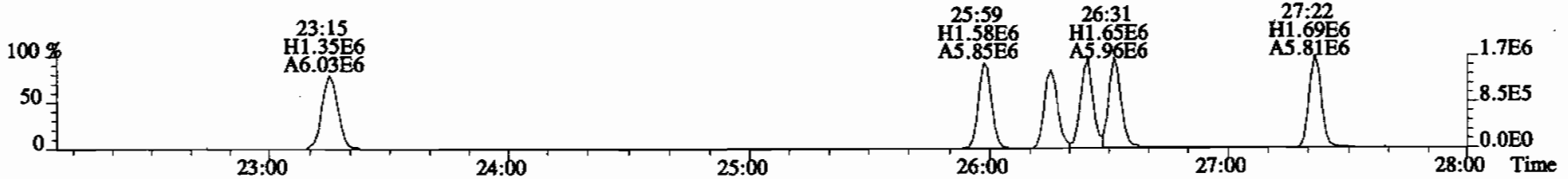

327.8847 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

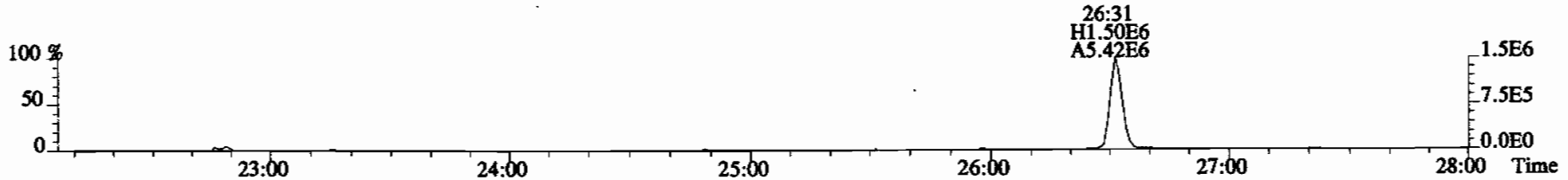

331.9368 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

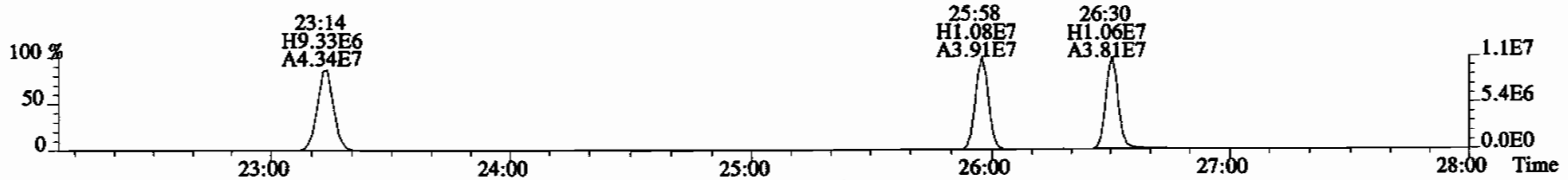

333.9339 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

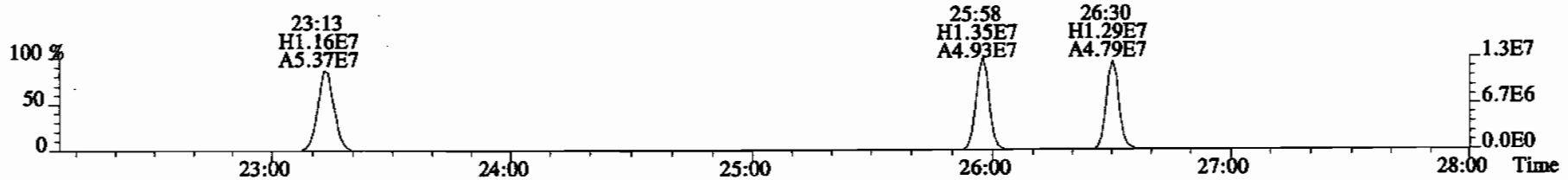

File:091008C1 #1-294 Acq: 8-OCT-2009 12:53:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-1 1613 CS3 090922G Exp:OCDD_DB5
353.8576 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

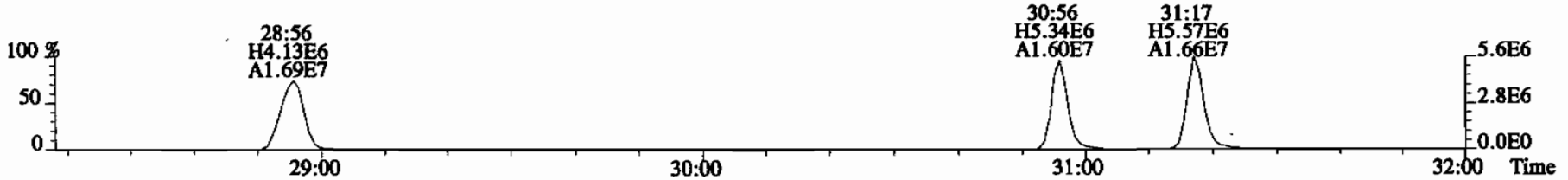

355.8546 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

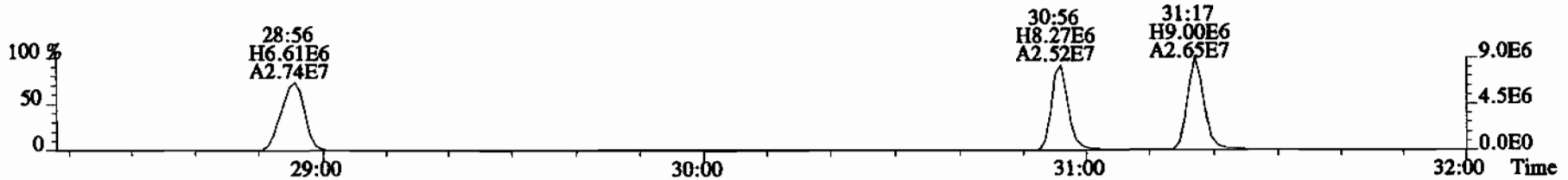

365.8978 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

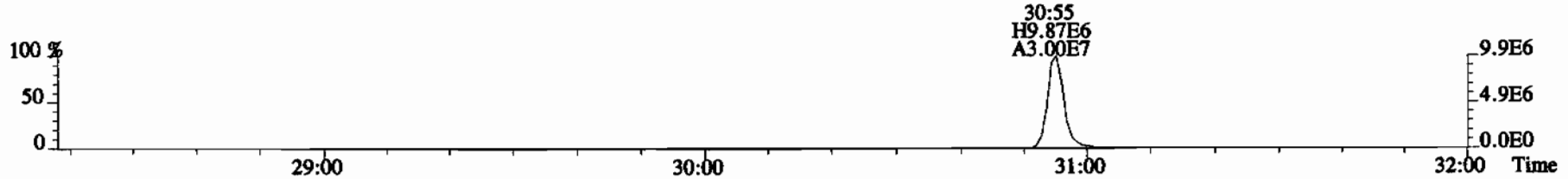

367.8949 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

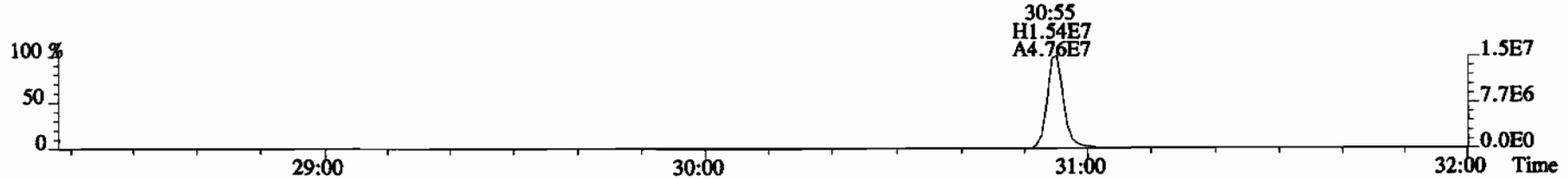

366.9792 F:2

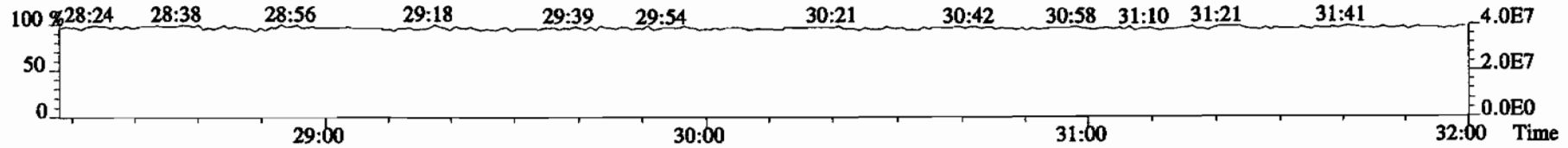

File:091008C1 #1-392 Acq: 8-OCT-2009 12:53:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-1 1613 CS3 090922G Exp:OCDD_DB5

389.8156 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

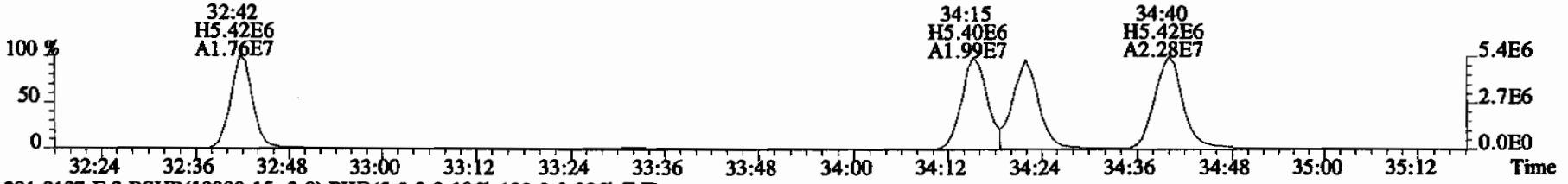

391.8127 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

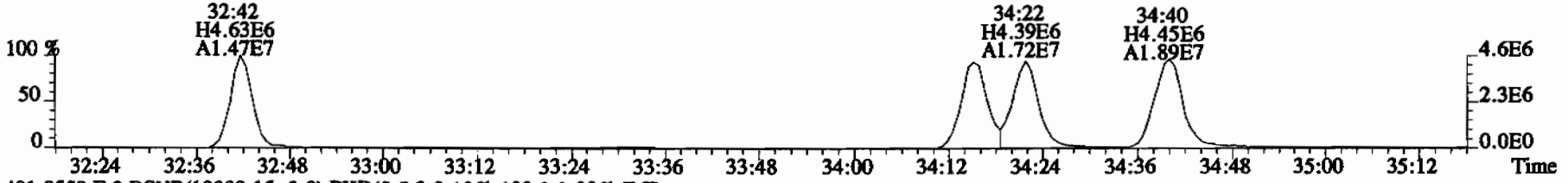

401.8559 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

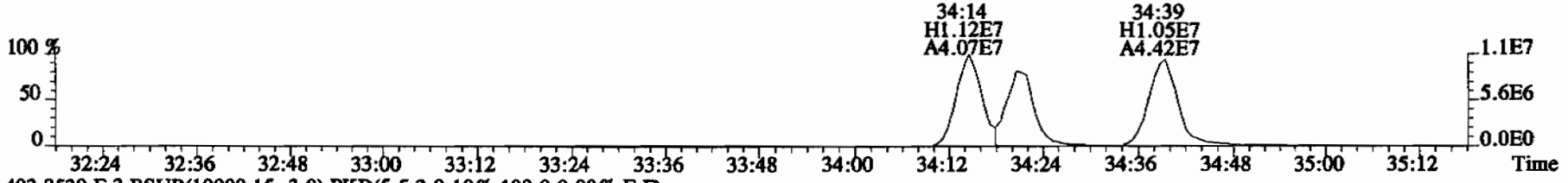

403.8530 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

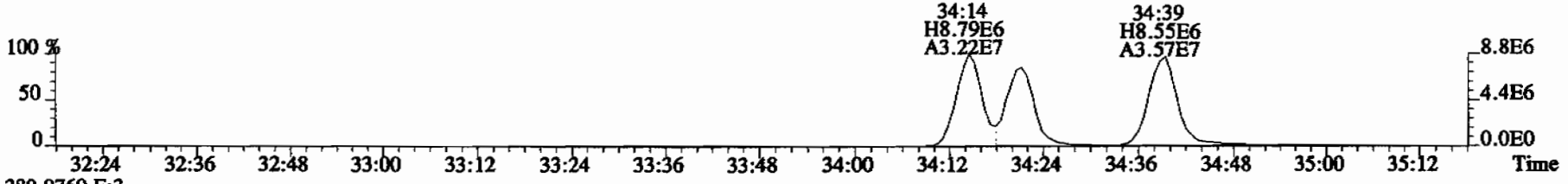

380.9760 F:3

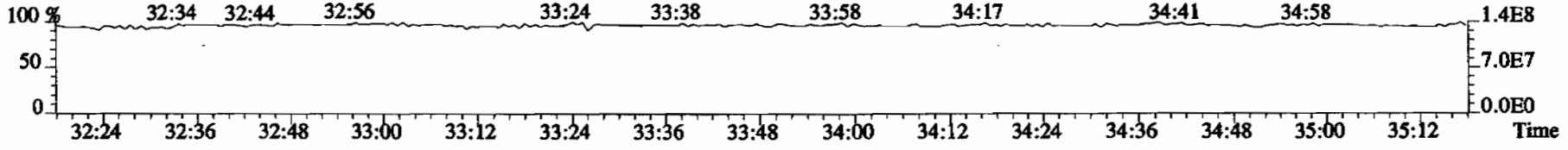

File:091008C1 #1-392 Acq: 8-OCT-2009 12:53:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-1 1613 CS3 090922G Exp:OCDD_DB5
401.8559 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

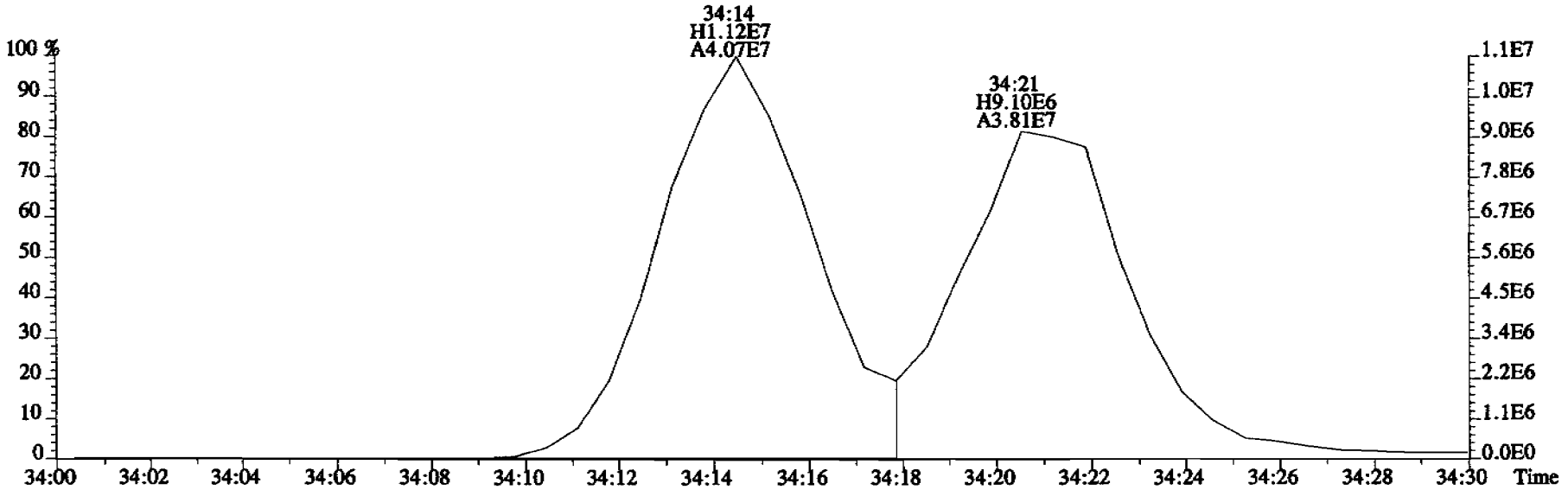

403.8530 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

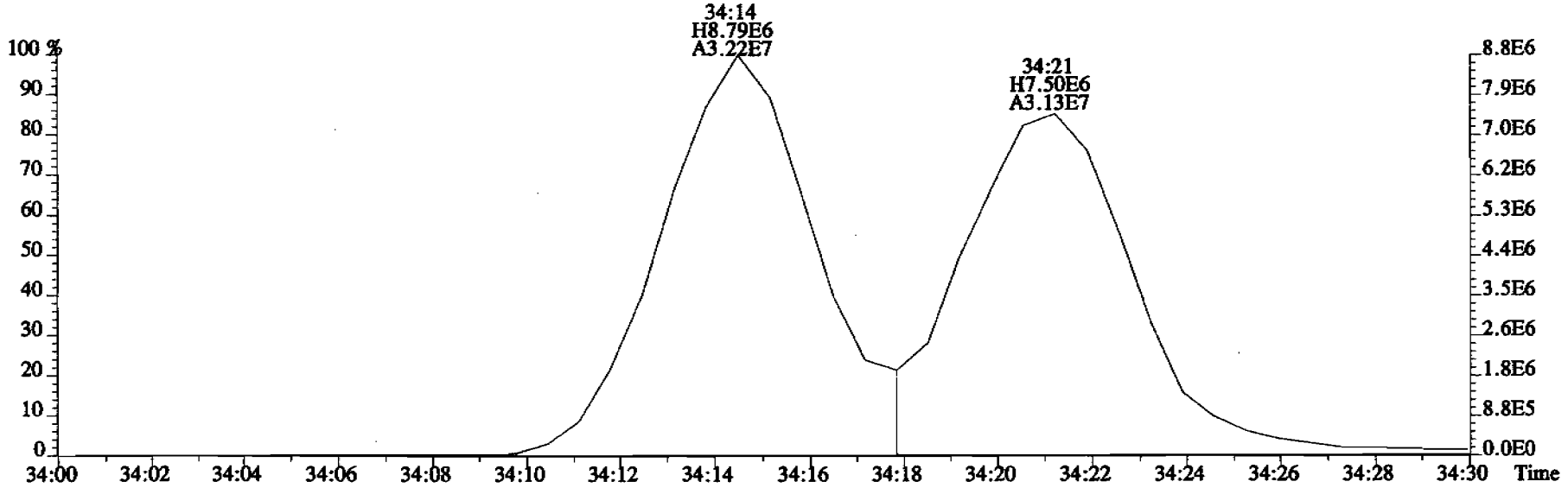

File:091008C1 #1-363 Acq: 8-OCT-2009 12:53:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-1 1613 CS3 090922G Exp:OCDD_DB5
423.7767 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

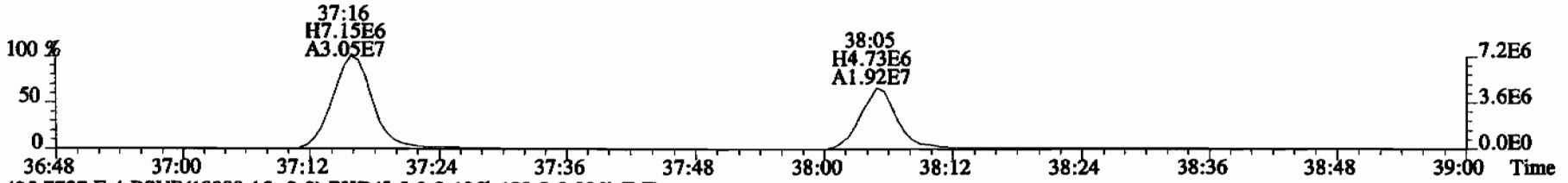

425.7737 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

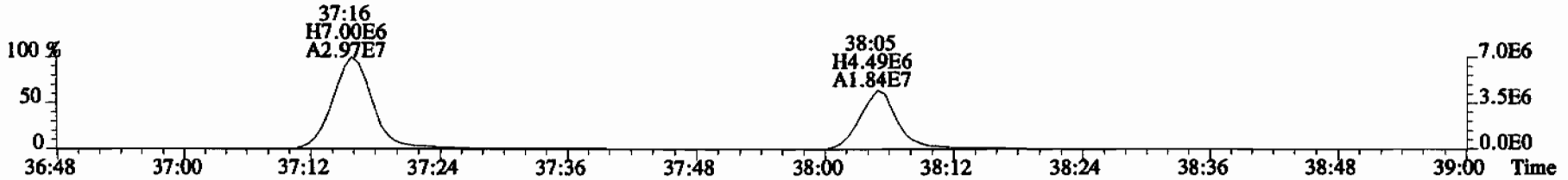

435.8169 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

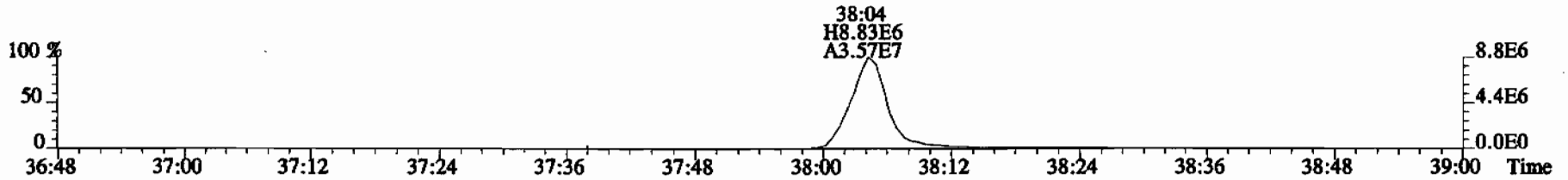

437.8140 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

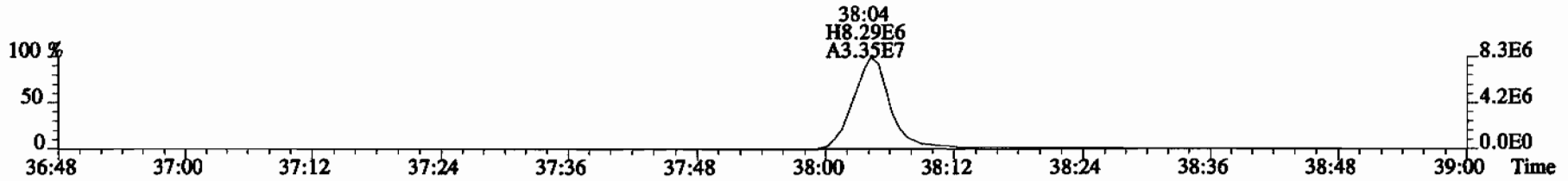

430.9728 F:4

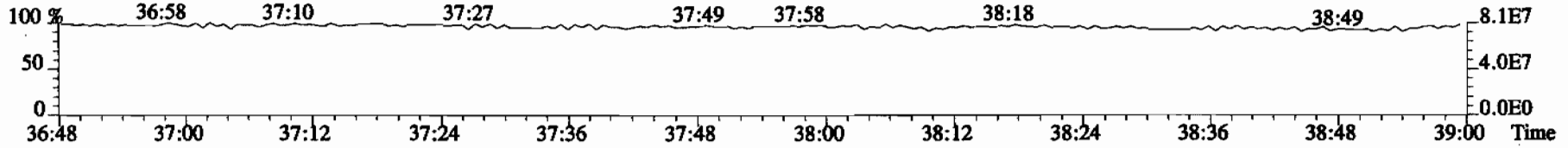

File:091008C1 #1-345 Acq: 8-OCT-2009 12:53:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-1 1613 CS3 090922G Exp:OCDD_DB5
457.7377 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

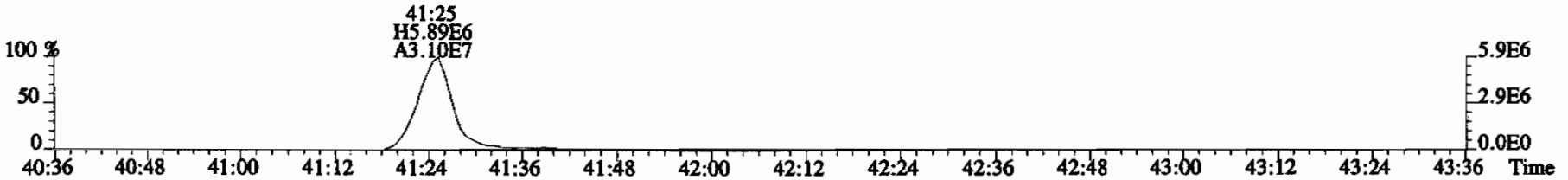

459.7348 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

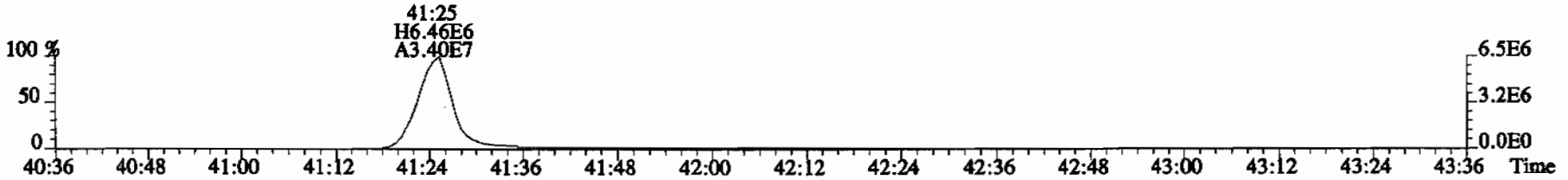

469.7780 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

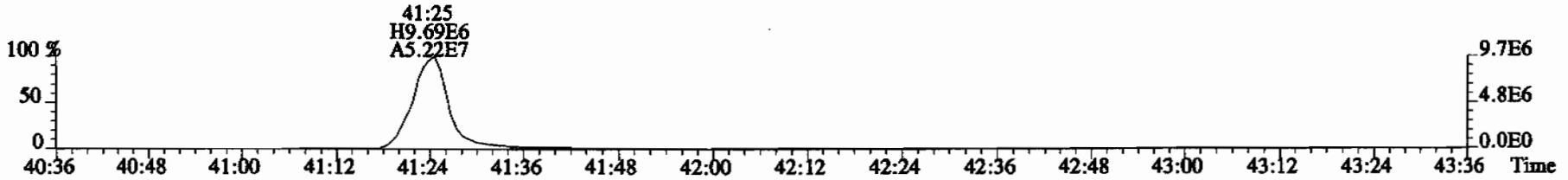

471.7750 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

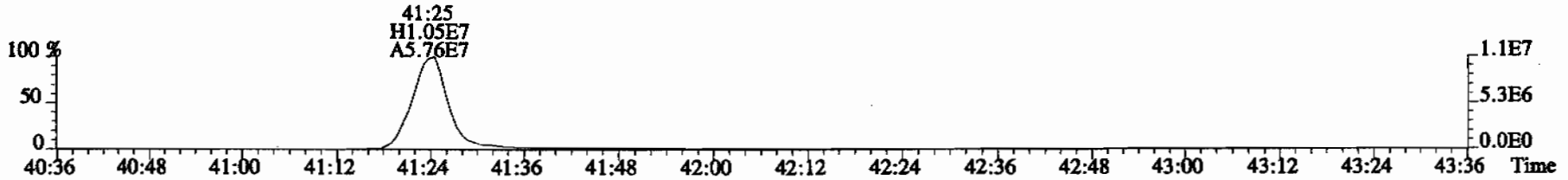

454.9728 F:5

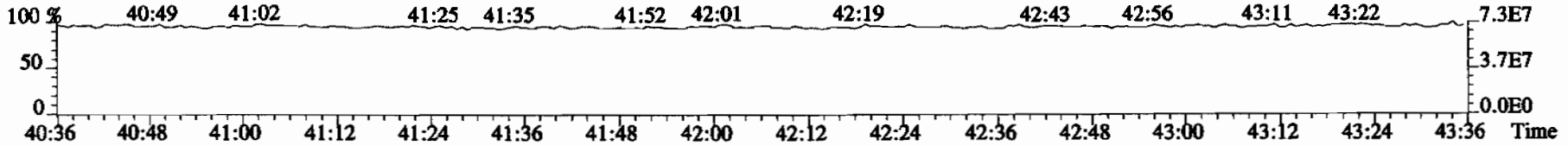

File:091008C1 #1-545 Acq: 8-OCT-2009 12:53:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-1 1613 CS3 090922G Exp:OCDD_DB5
303.9016 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

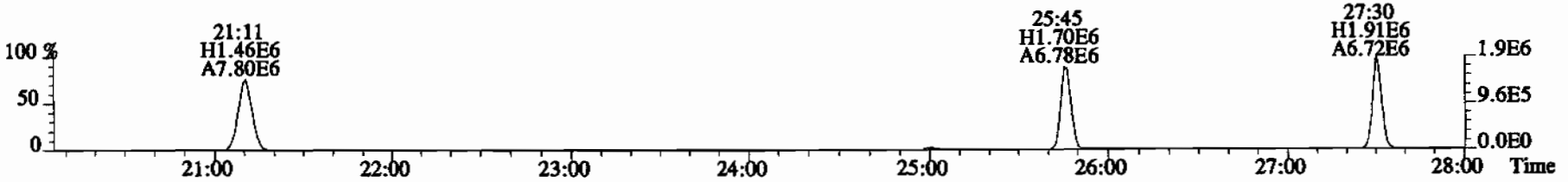

305.8987 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

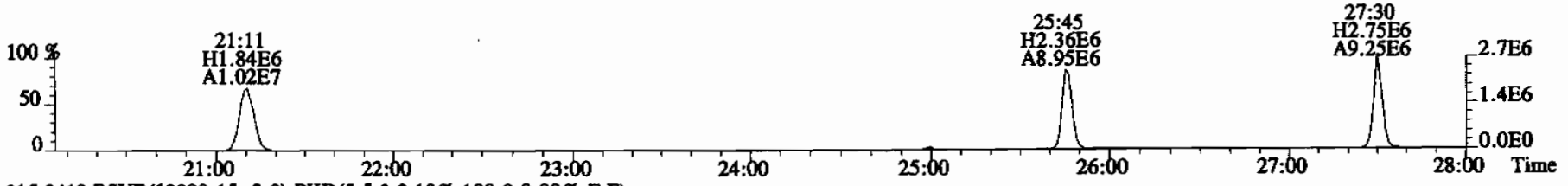

315.9419 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

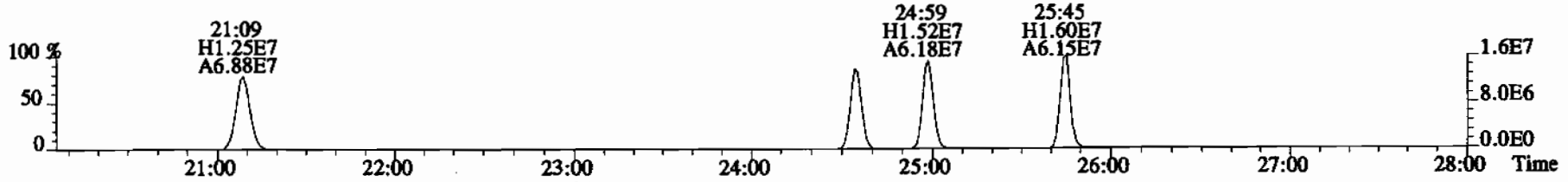

317.9389 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

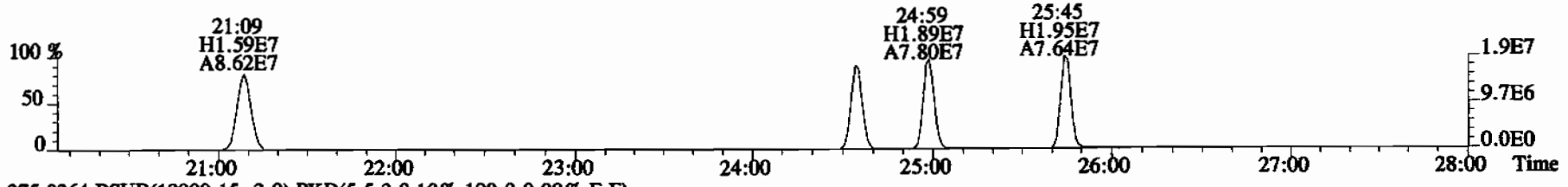

375.8364 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

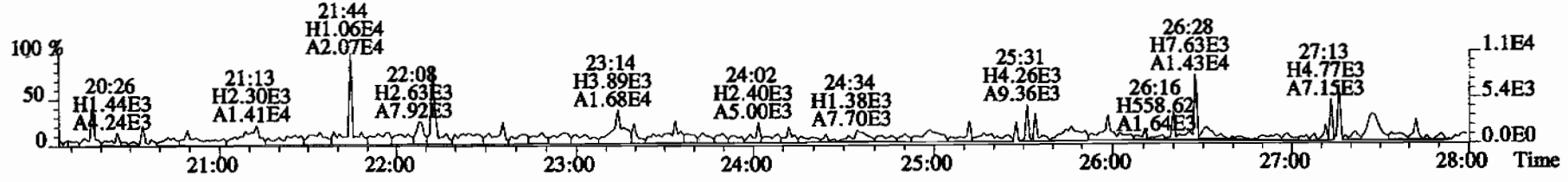

File:091008C1 #1-545 Acq: 8-OCT-2009 12:53:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-1 1613 CS3 090922G Exp:OCDD_DB5
339.8597 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

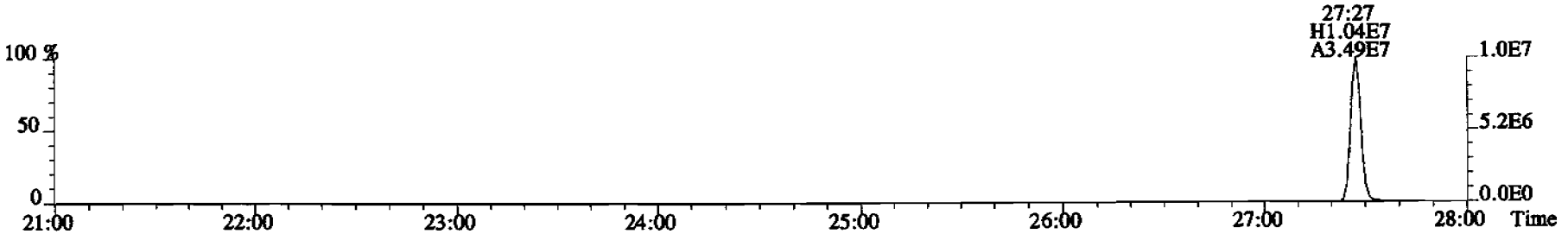

341.8568 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

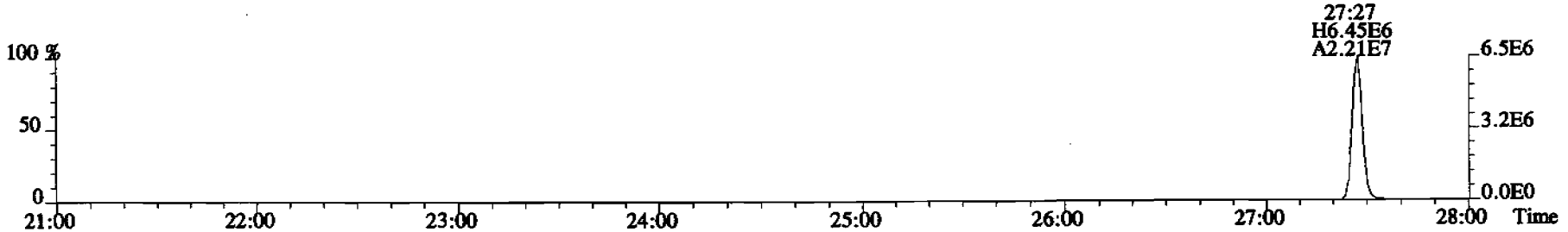

409.7974 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

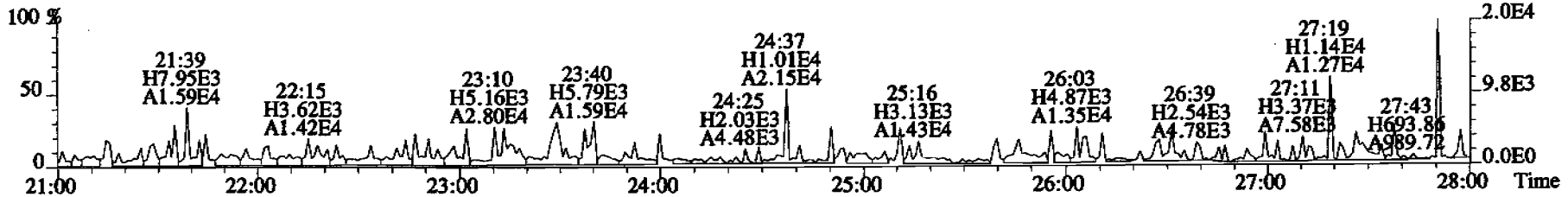

316.9824

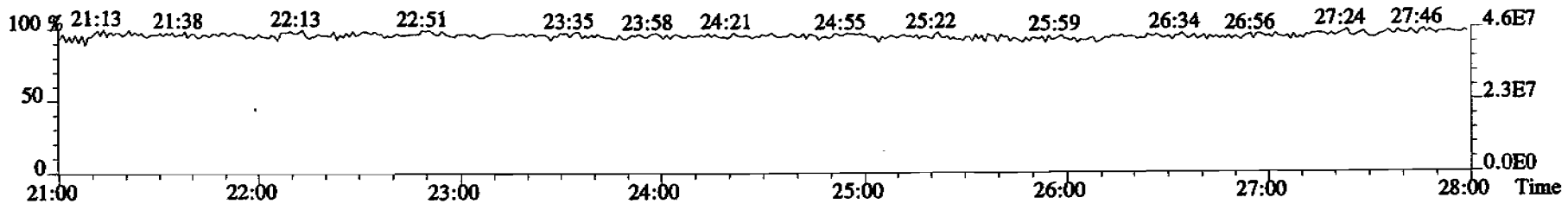

File:091008C1 #1-294 Acq: 8-OCT-2009 12:53:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-1 1613 CS3 090922G Exp:OCDD_DB5

339.8597 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

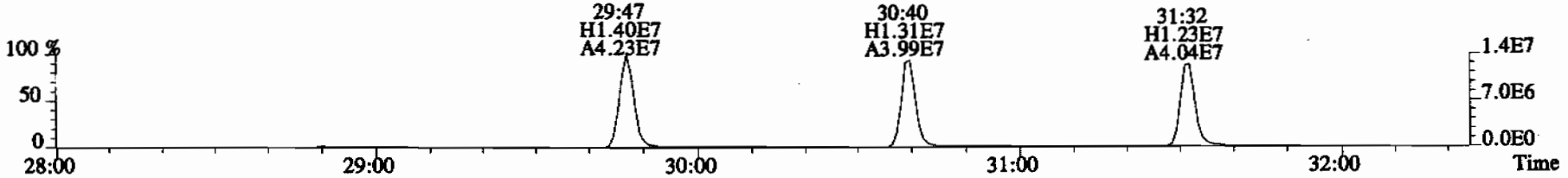

341.8568 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

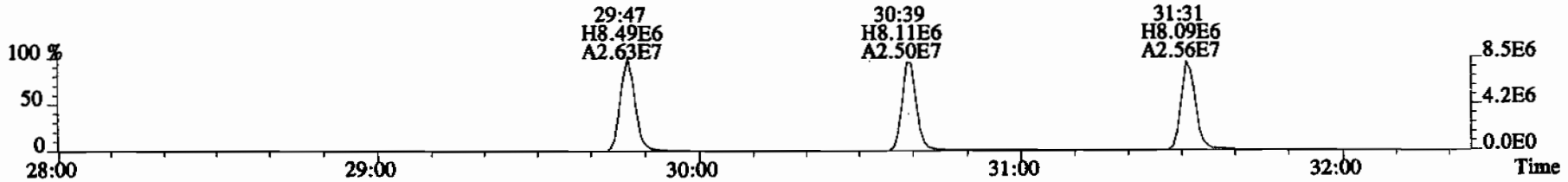

351.9000 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

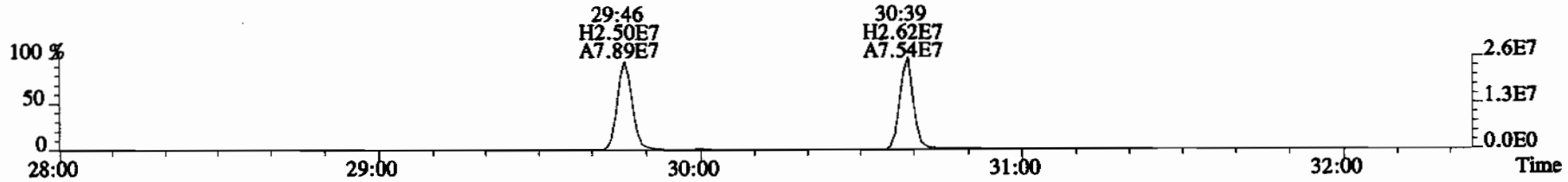

353.8970 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

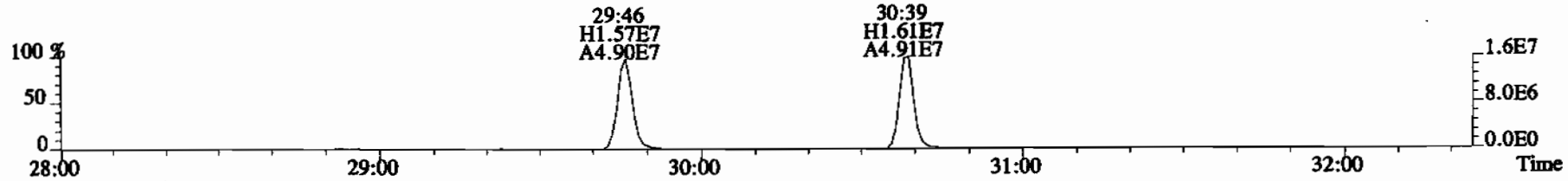

409.7974 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

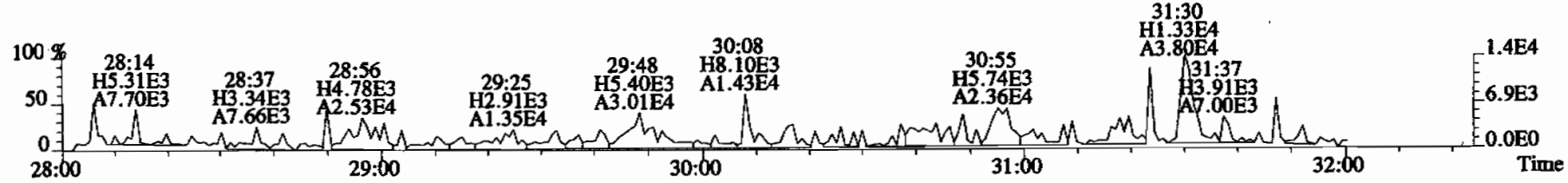

File:091008C1 #1-392 Acq: 8-OCT-2009 12:53:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-1 1613 CS3 090922G Exp:OCDD_DB5

373.8207 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

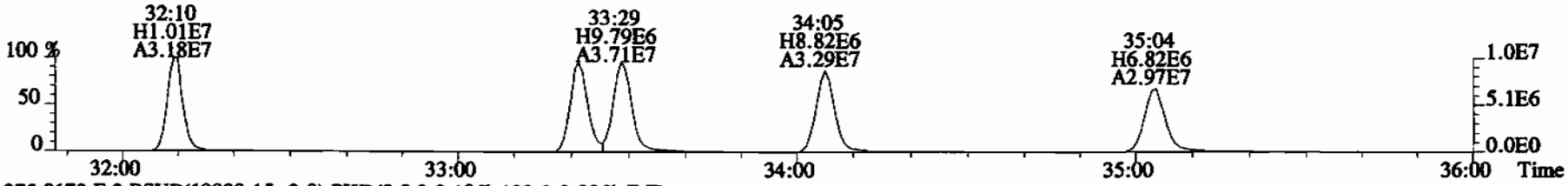

375.8178 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

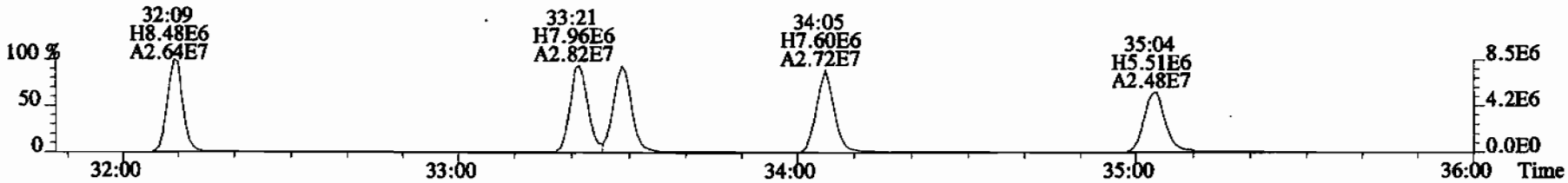

383.8639 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

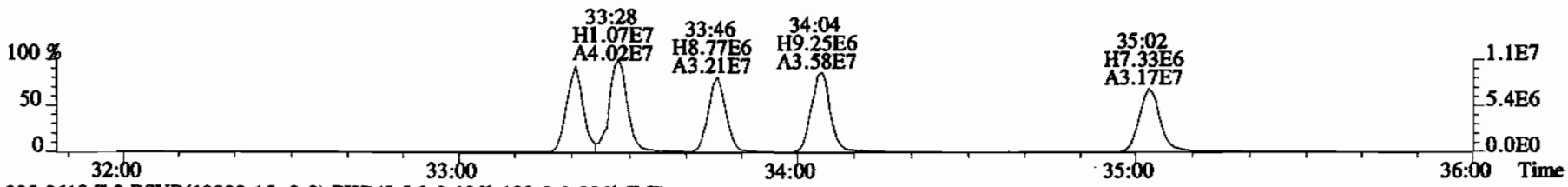

385.8610 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

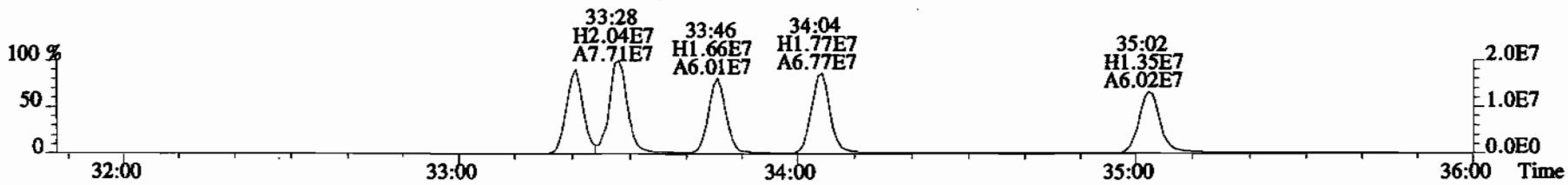

445.7555 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

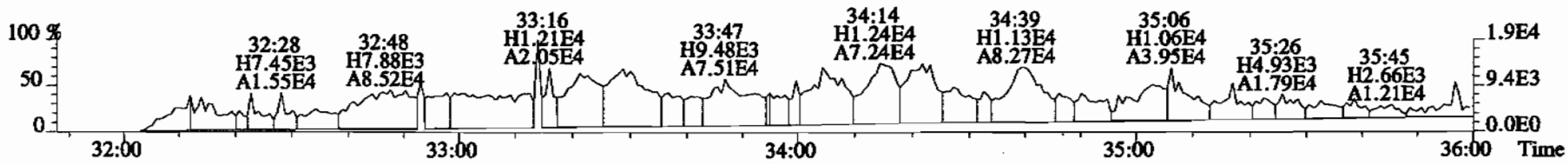

File:091008C1 #1-392 Acq: 8-OCT-2009 12:53:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-1 1613 CS3 090922G Exp:OCDD_DB5
383.8639 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

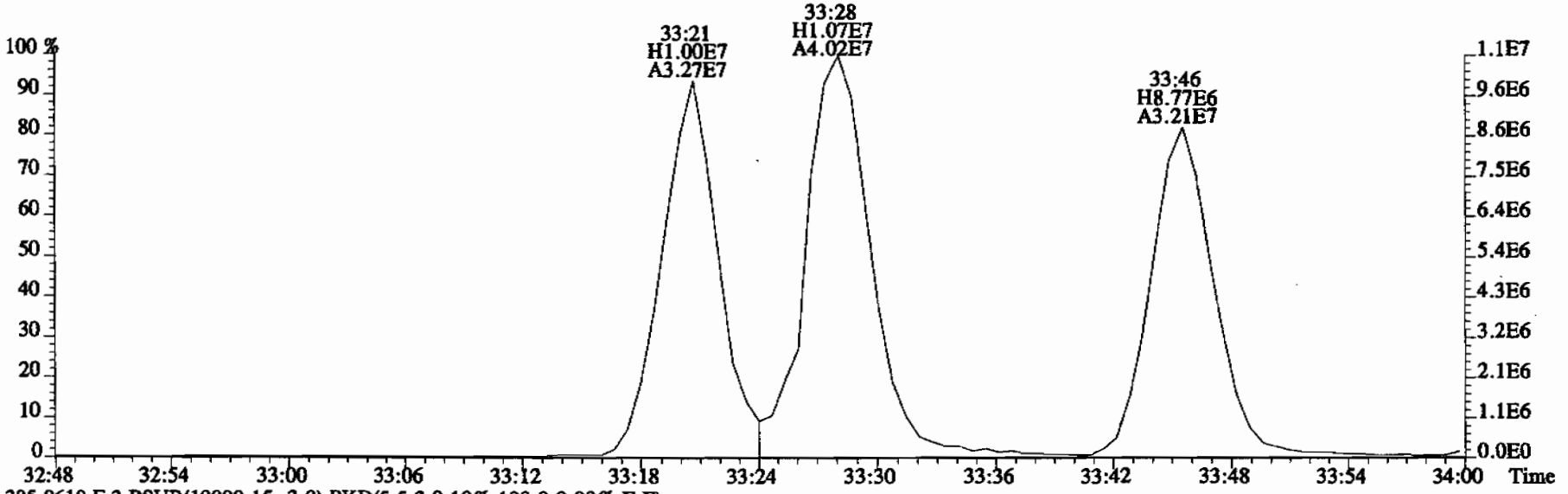

385.8610 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

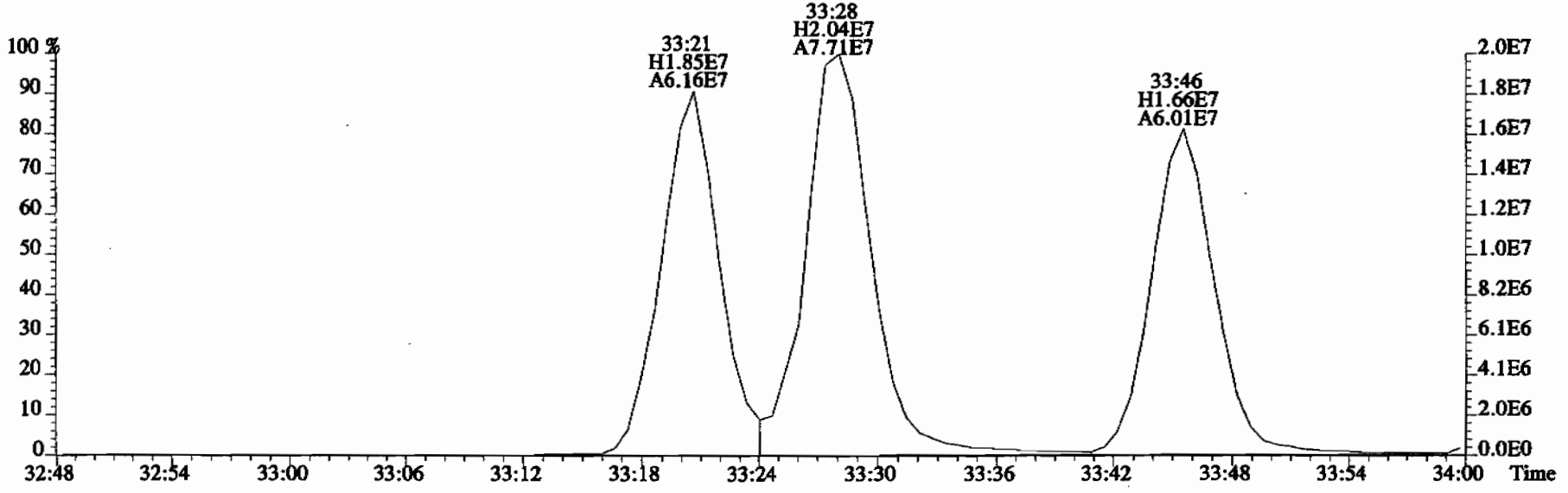

File:091008C1 #1-363 Acq: 8-OCT-2009 12:53:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-1 1613 CS3 090922G Exp:OCDD_DB5

407.7818 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

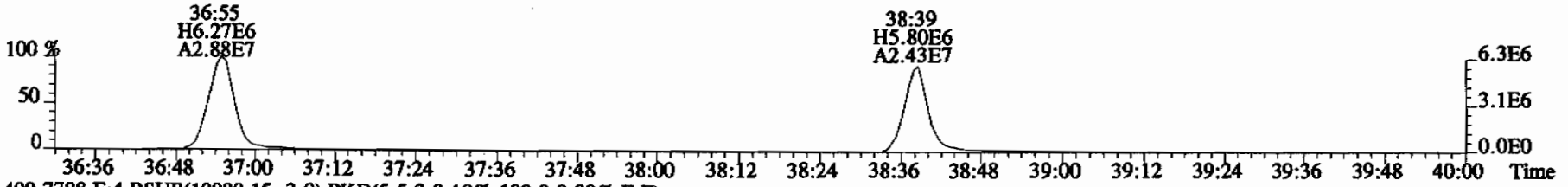

409.7788 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

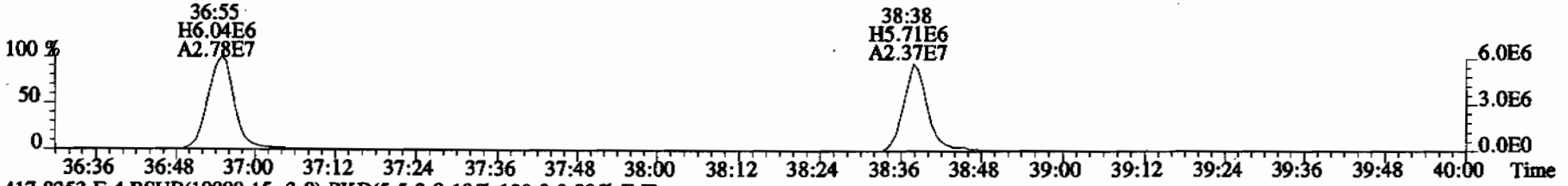

417.8253 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

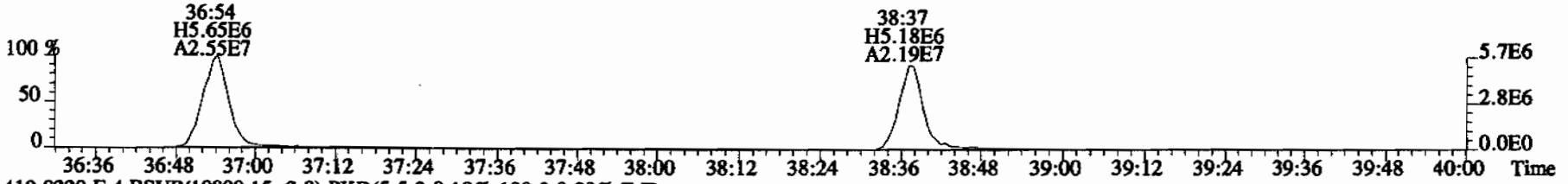

419.8220 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

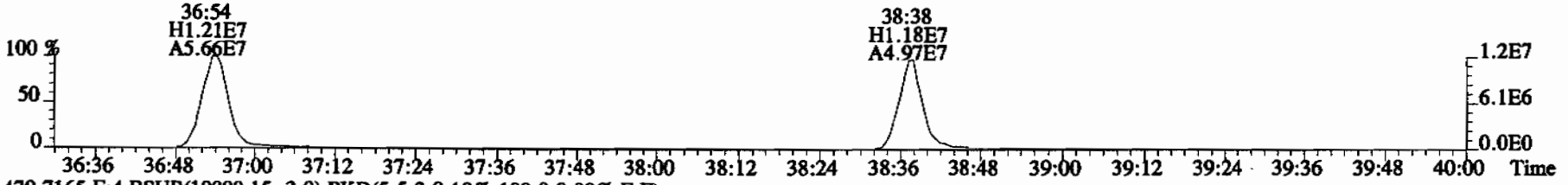

479.7165 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

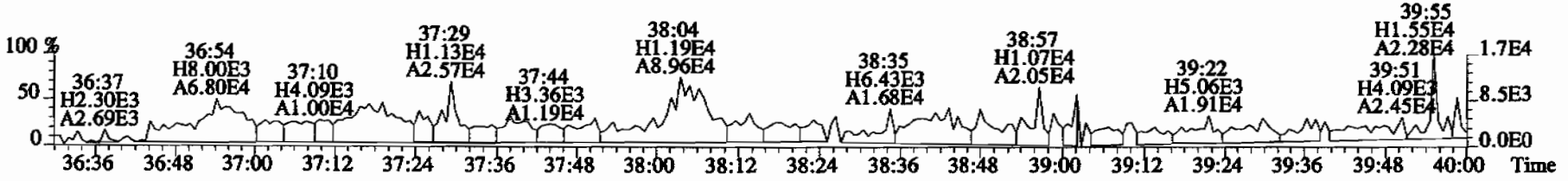

File:091008C1 #1-345 Acq: 8-OCT-2009 12:53:38 GC EI+ Voltage SIR Autospec-UltimaE
Sample#1 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-1 1613 CS3 090922G Exp:OCDD_DB5
441.7428 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

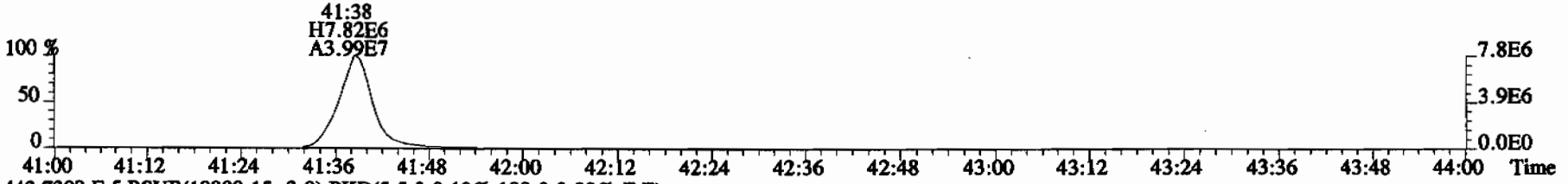

443.7398 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

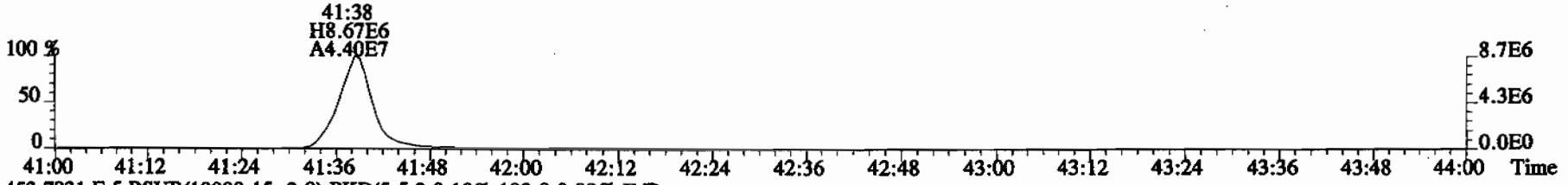

453.7831 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

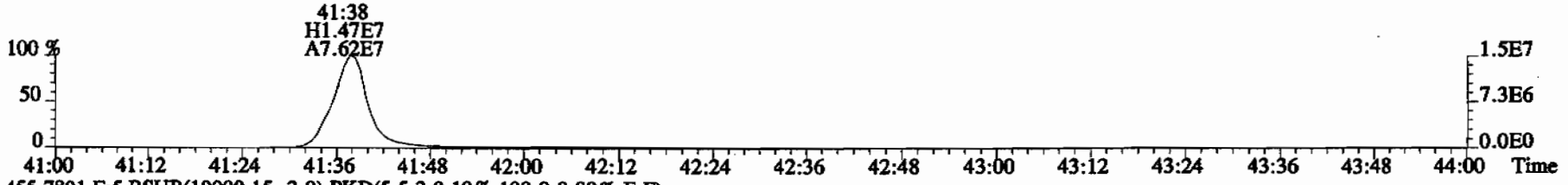

455.7801 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

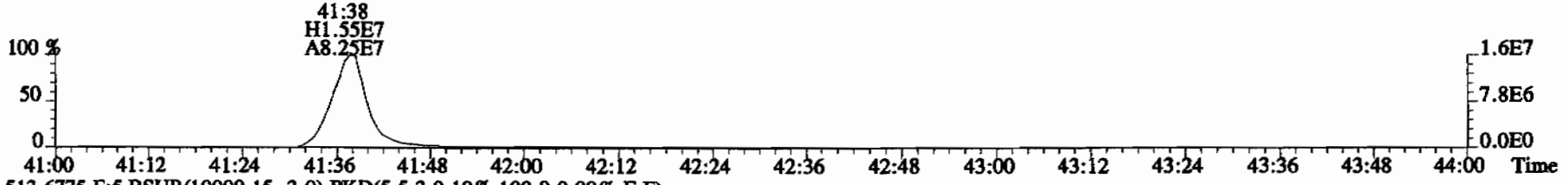

513.6775 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

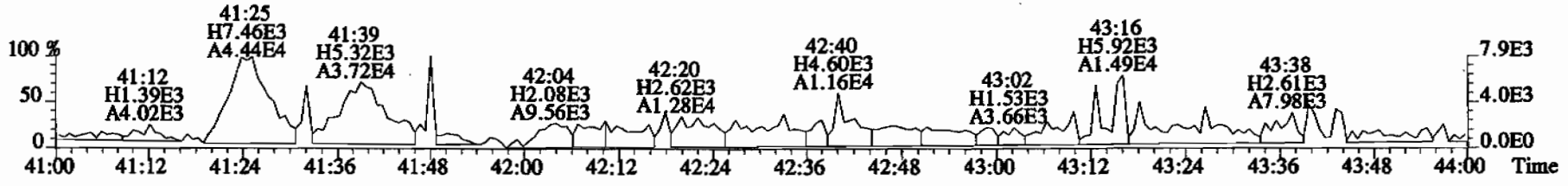

File:091008C1 #1-545 Acq: 8-OCT-2009 14:31:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-2 1613 CS0 090922D Exp:OCDD_DB5
319.8965 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

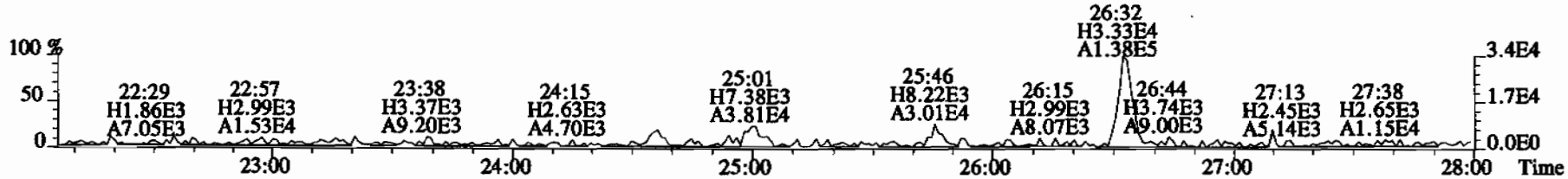

321.8936 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

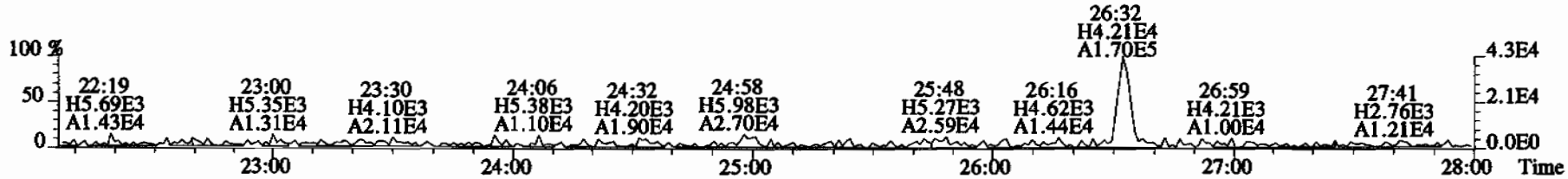

327.8847 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

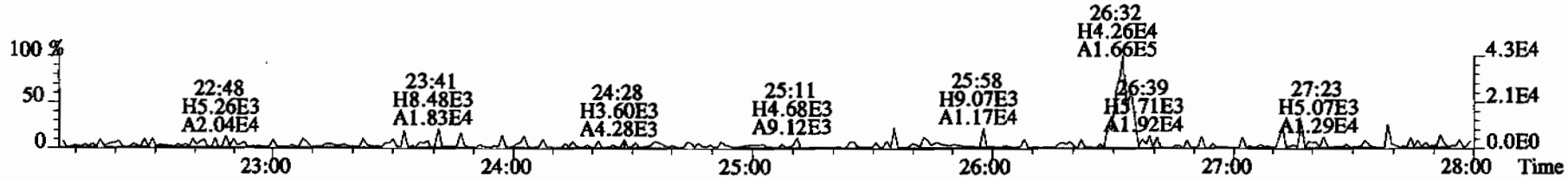

331.9368 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

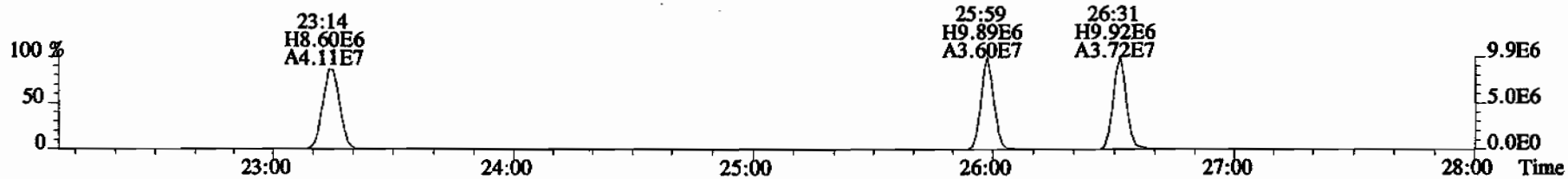

333.9339 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

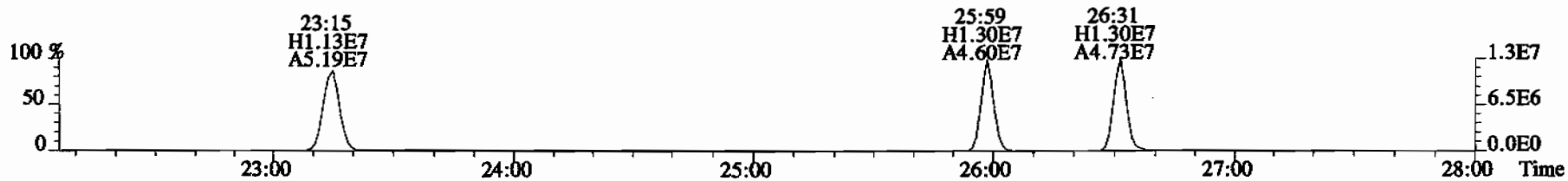

File:091008C1 #1-545 Acq: 8-OCT-2009 14:31:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-2 1613 CS0 090922D Exp:OCDD_DB5
319.8965 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

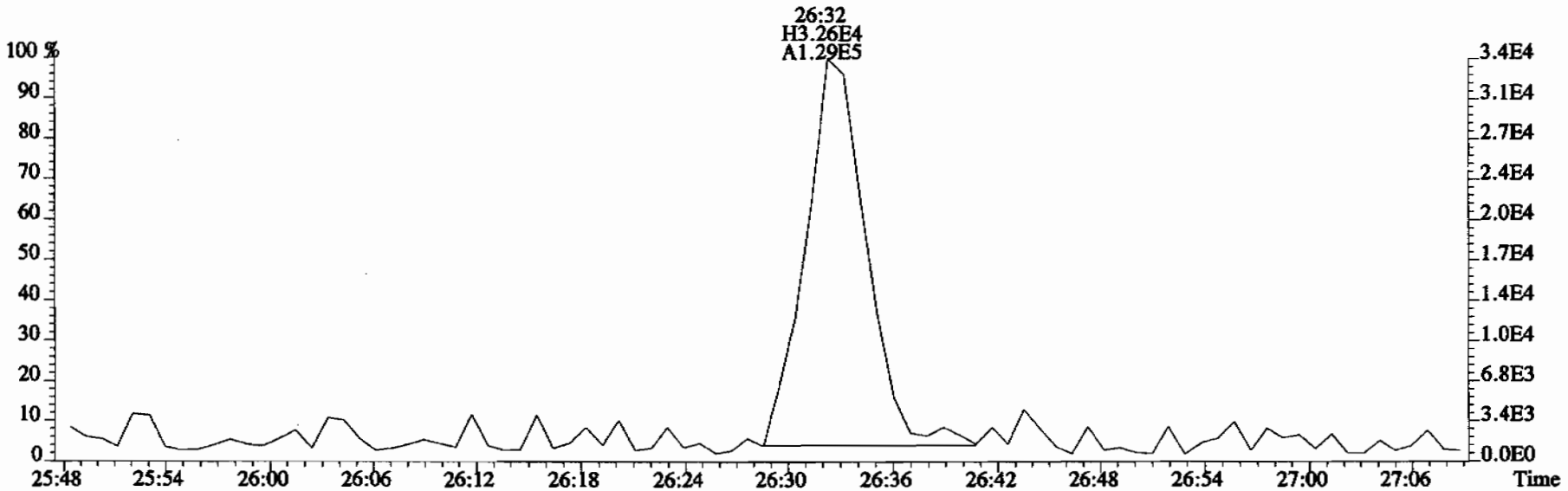

321.8936 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

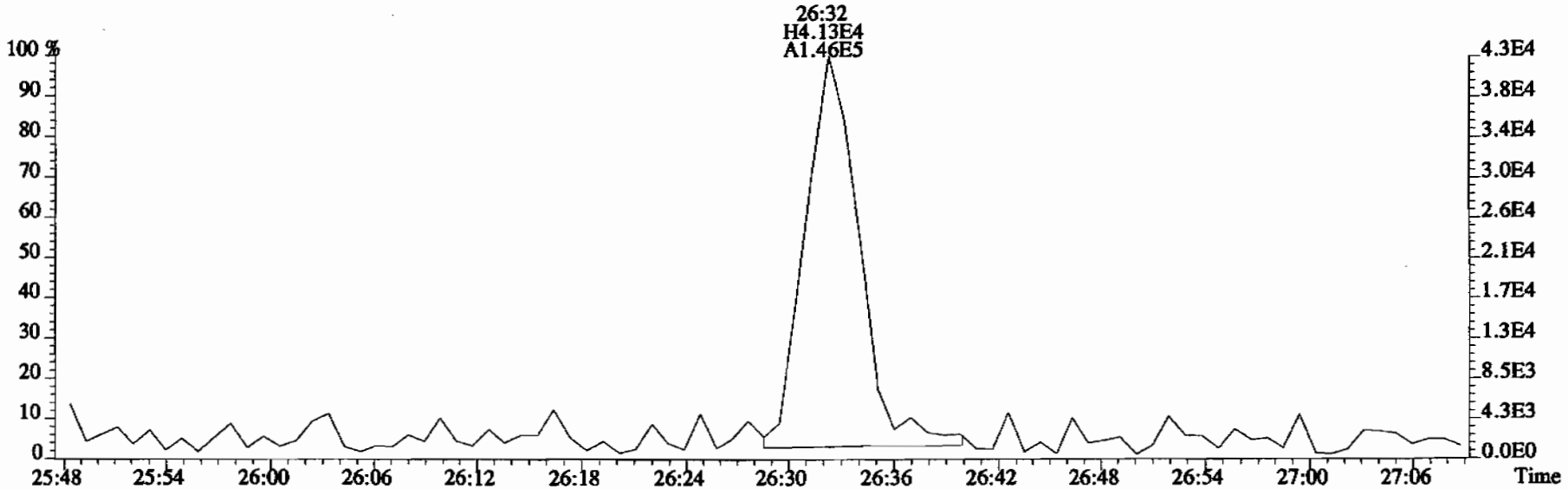

File:091008C1 #1-545 Acq: 8-OCT-2009 14:31:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-2 1613 CS0 090922D Exp:OCDD_DB5
327.8847 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

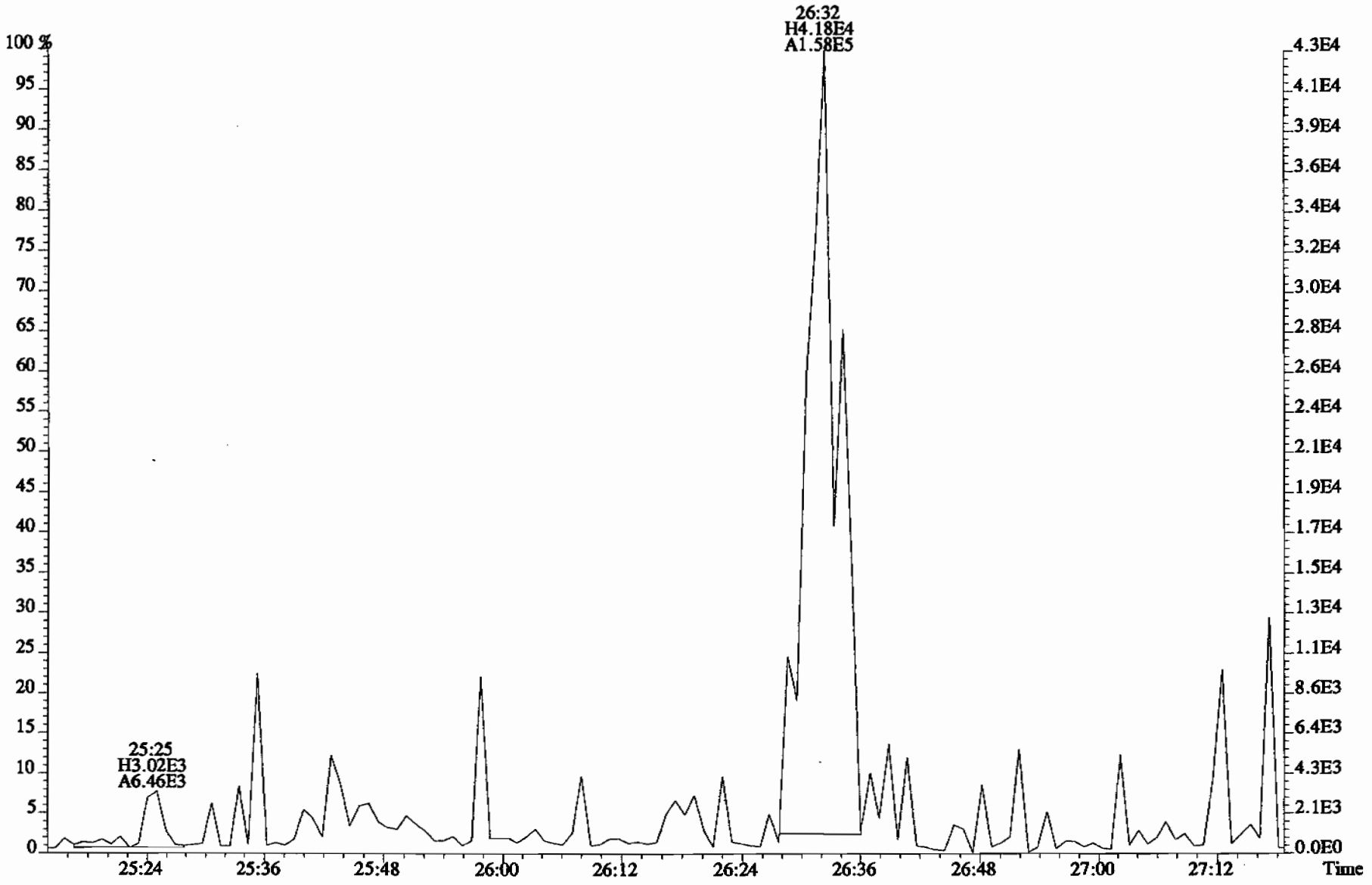

File:091008C1 #1-294 Acq: 8-OCT-2009 14:31:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-2 1613 CS0 090922D Exp:OCDD_DB5
353.8576 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

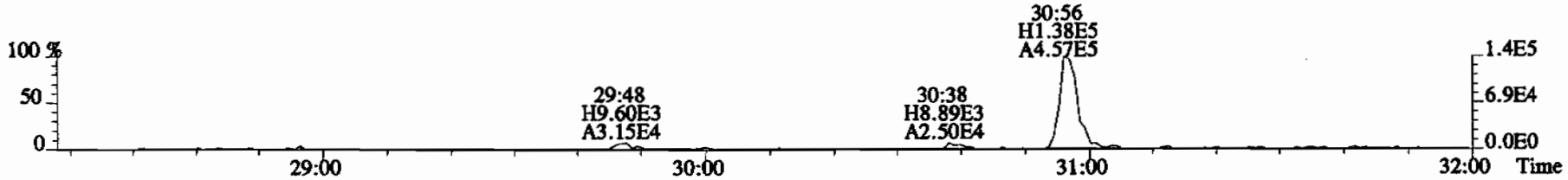

355.8546 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

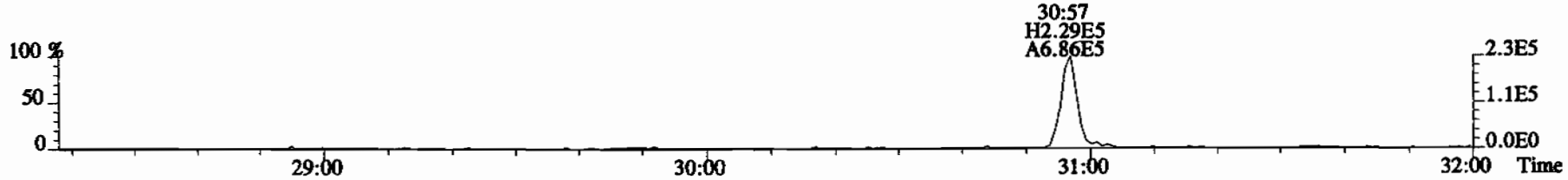

365.8978 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

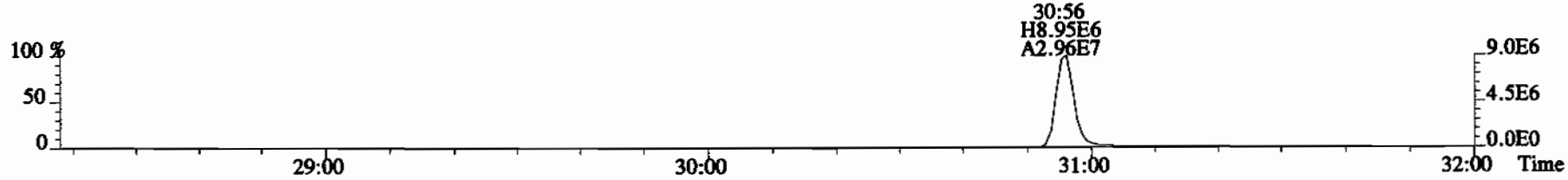

367.8949 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

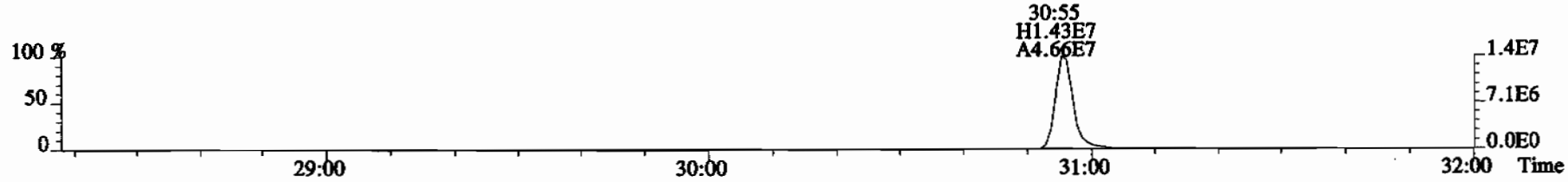

366.9792 S:3 F:2

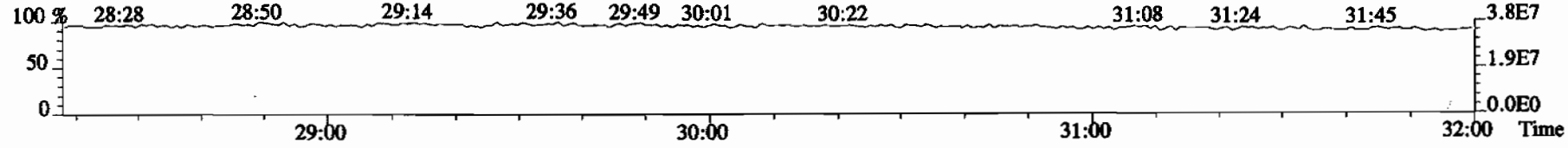

File:091008C1 #1-294 Acq: 8-OCT-2009 14:31:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-2 1613 CS0 090922D Exp:OCDD_DB5
353.8576 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

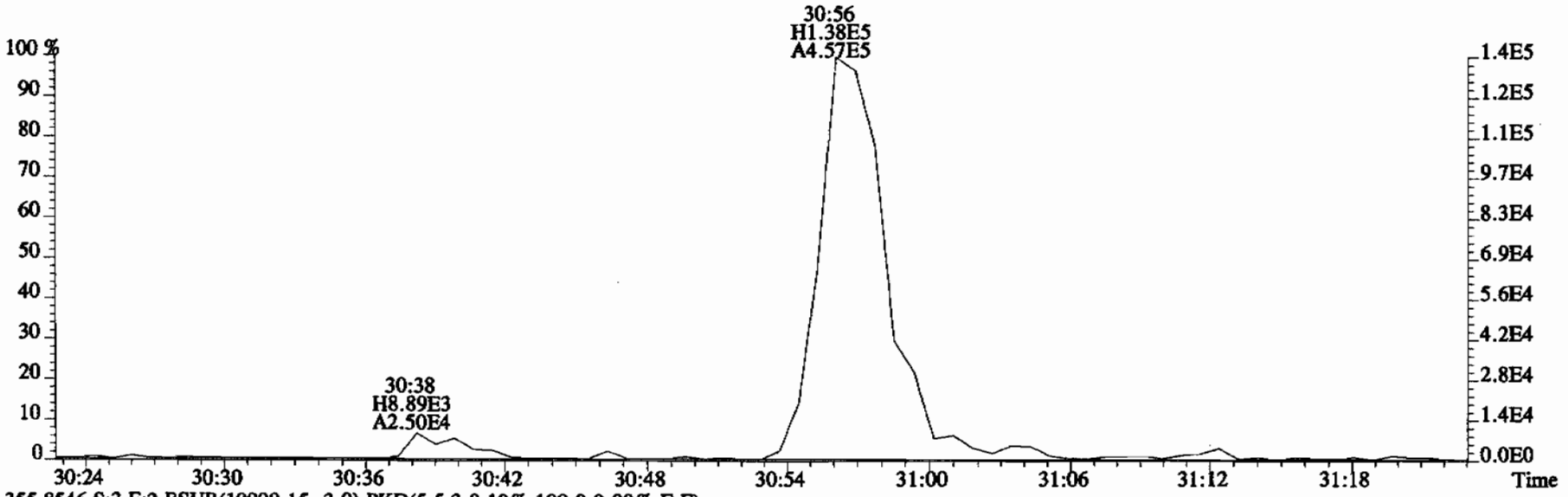

355.8546 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

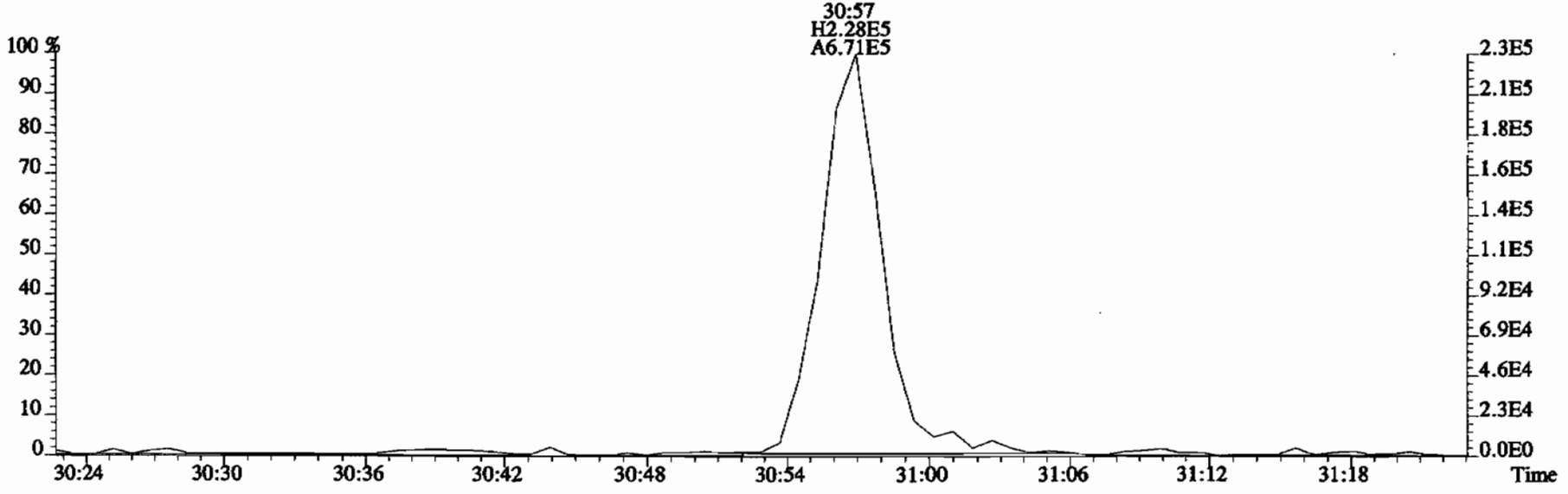

File:091008C1 #1-392 Acq: 8-OCT-2009 14:31:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-2 1613 CS0 090922D Exp:OCDD_DB5
389.8156 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

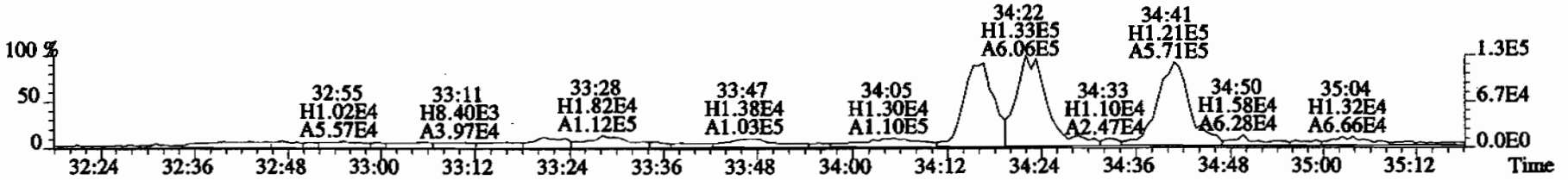

391.8127 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

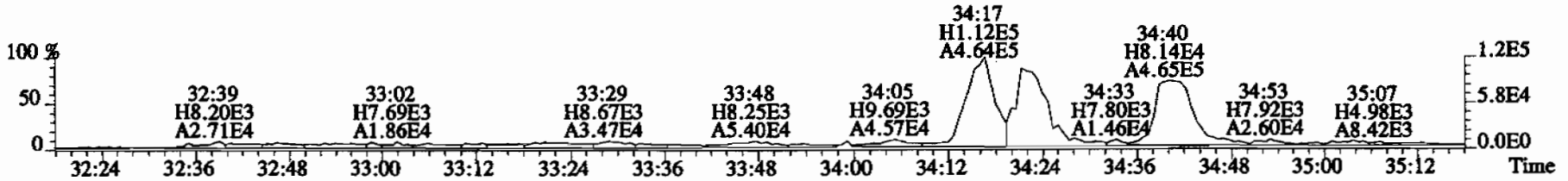

401.8559 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

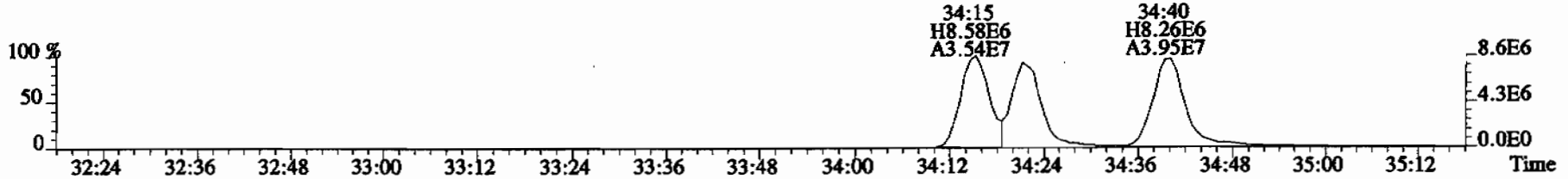

403.8530 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

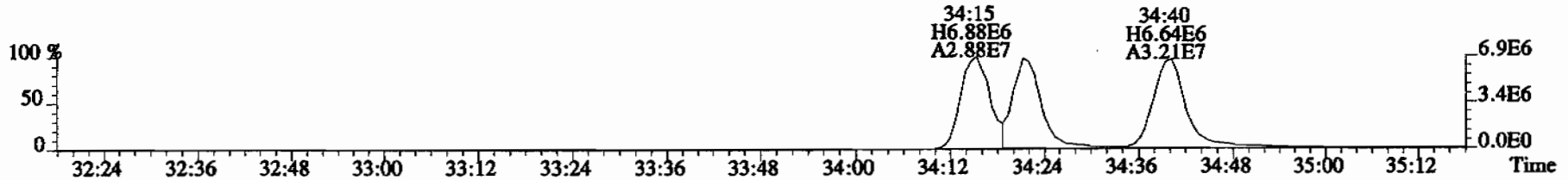

380.9760 S:3 F:3

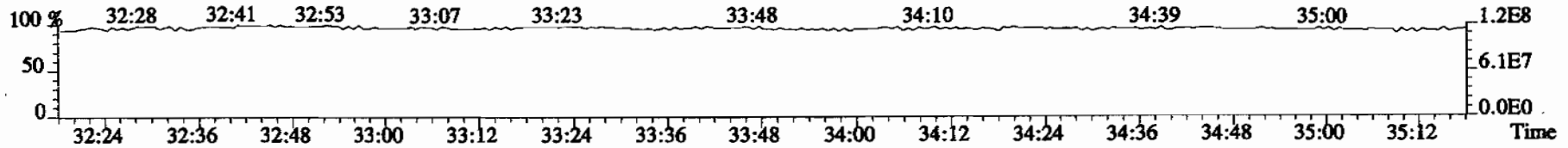

File:091008C1 #1-392 Acq: 8-OCT-2009 14:31:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-2 1613 CS0 090922D Exp:OCDD_DB5
401.8559 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

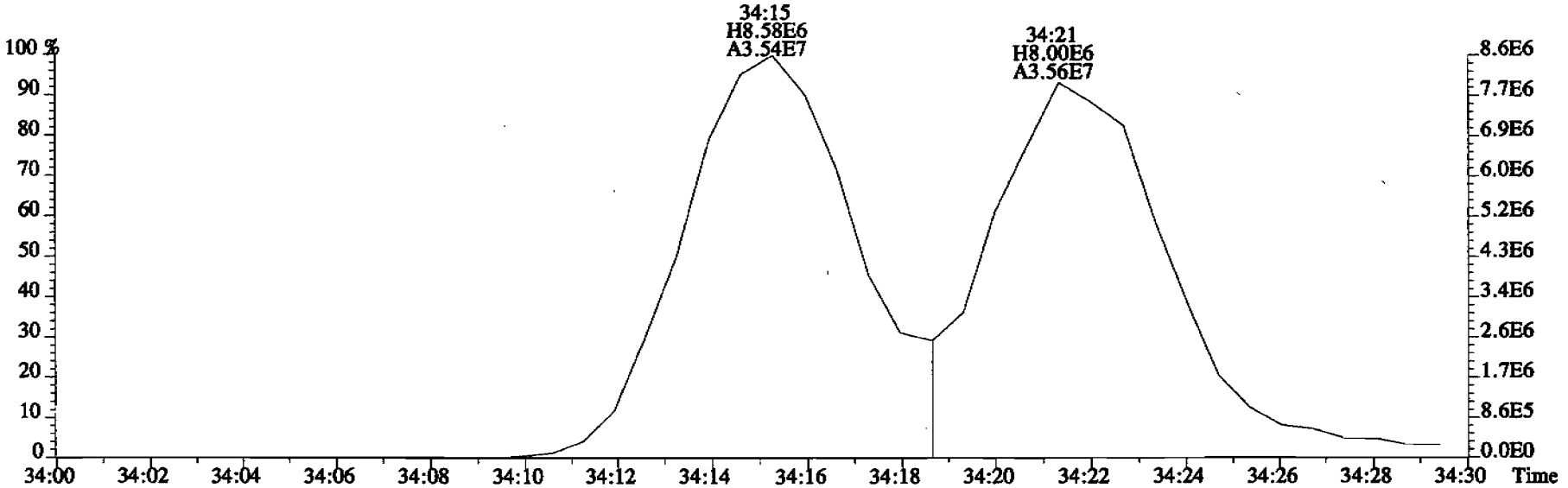

403.8530 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

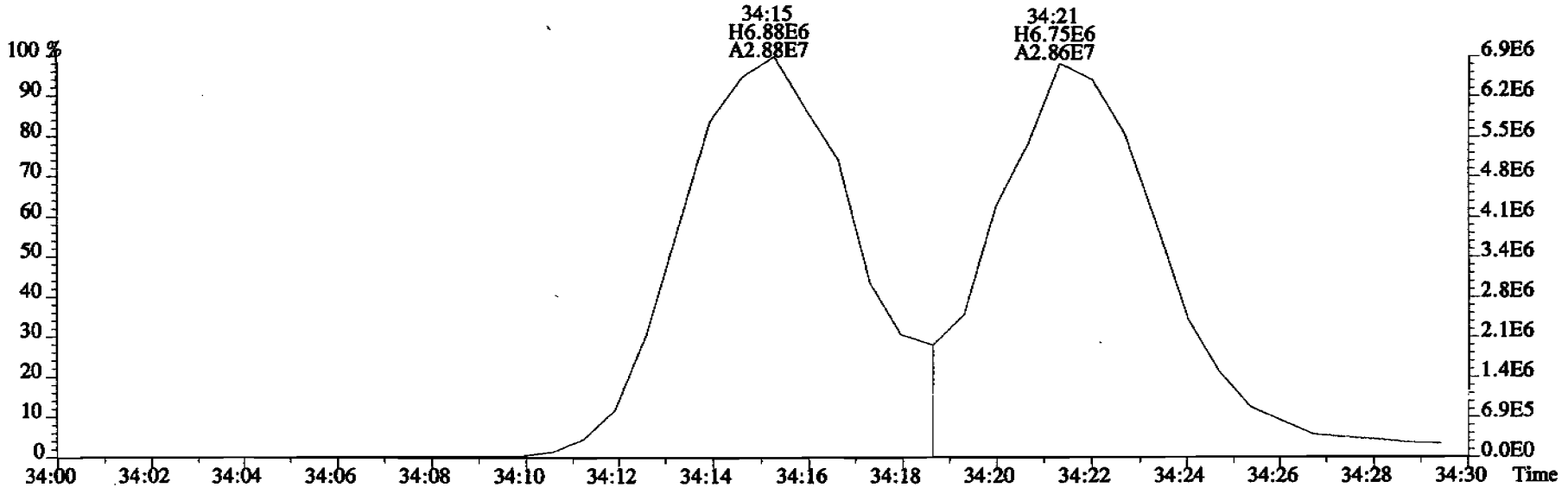

File:091008C1 #1-392 Acq: 8-OCT-2009 14:31:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-2 1613 CS0 090922D Exp:OCDD_DB5
389.8156 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

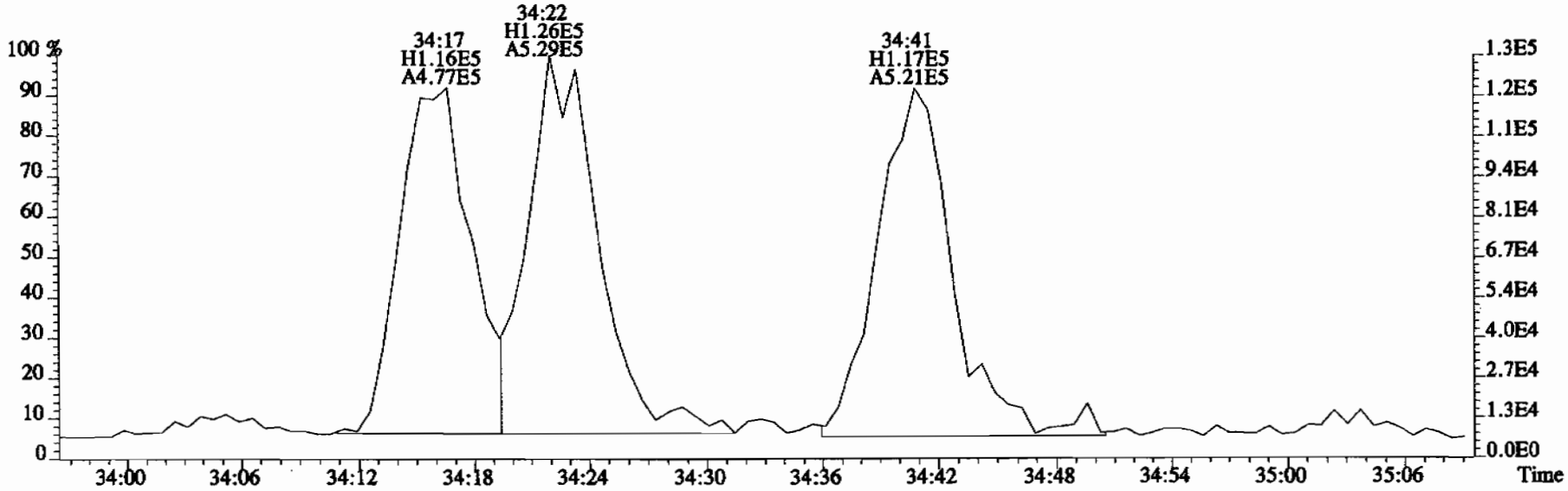

391.8127 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

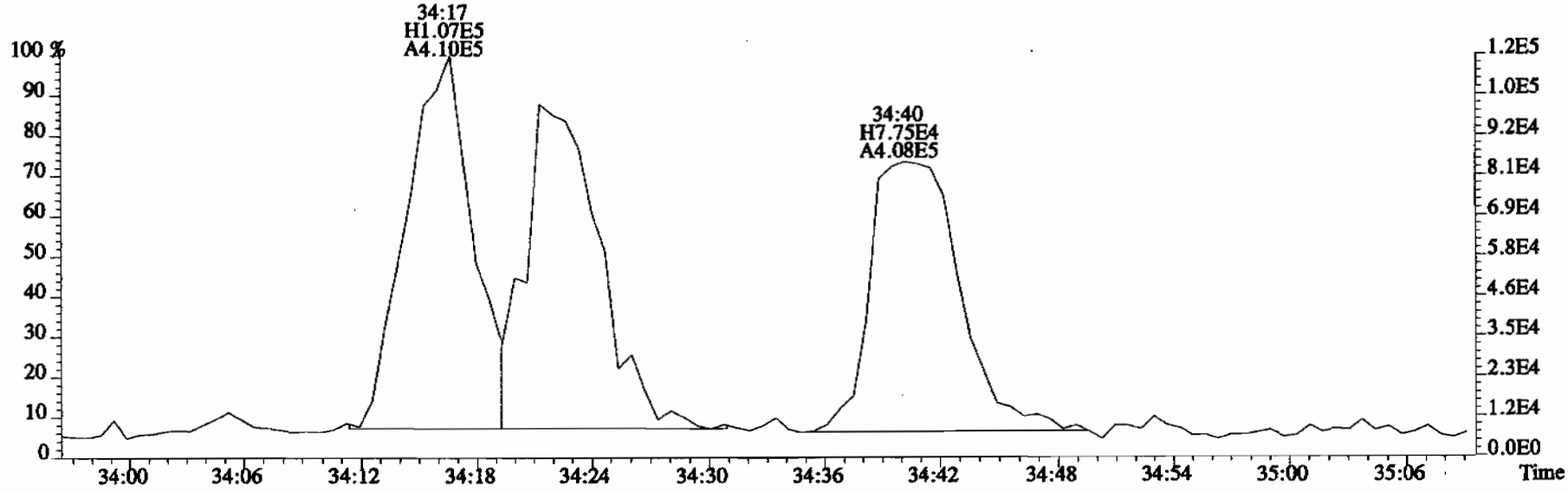

File:091008C1 #1-363 Acq: 8-OCT-2009 14:31:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-2 1613 CS0 090922D Exp:OCDD_DB5
423.7767 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

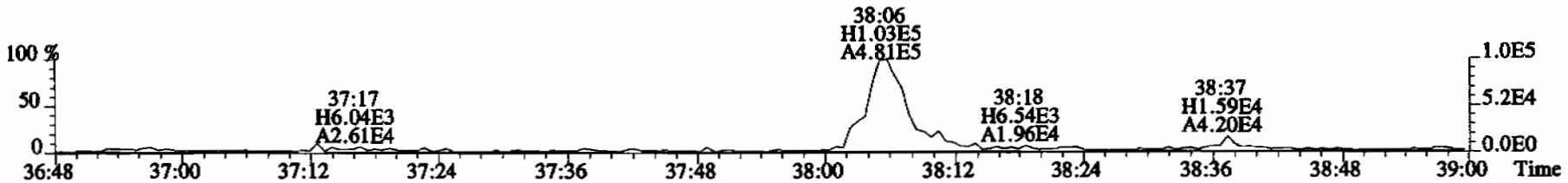

425.7737 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

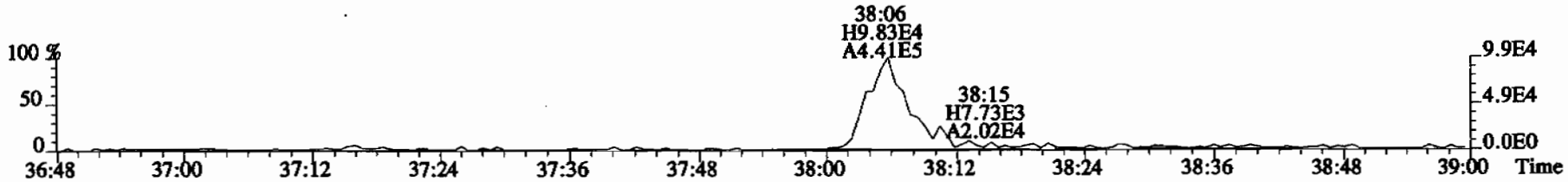

435.8169 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

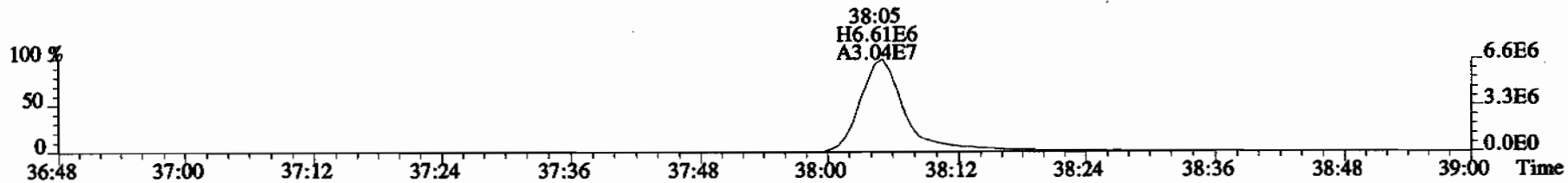

437.8140 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

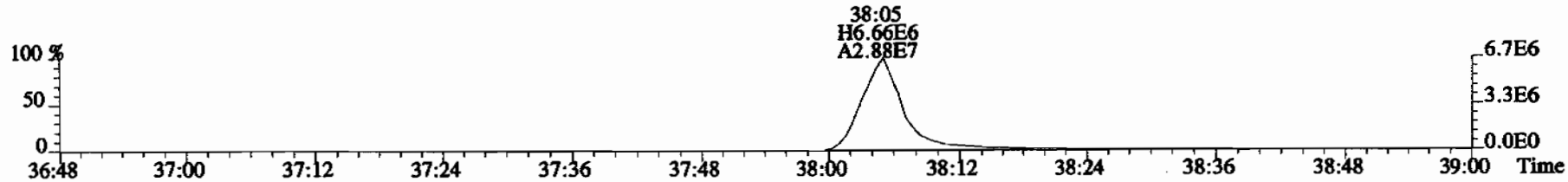

430.9728 S:3 F:4

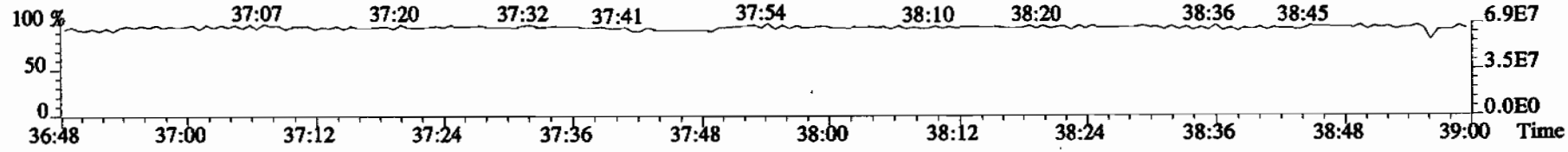

File:091008C1 #1-363 Acq: 8-OCT-2009 14:31:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-2 1613 CS0 090922D Exp:OCDD_DB5
423.7767 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

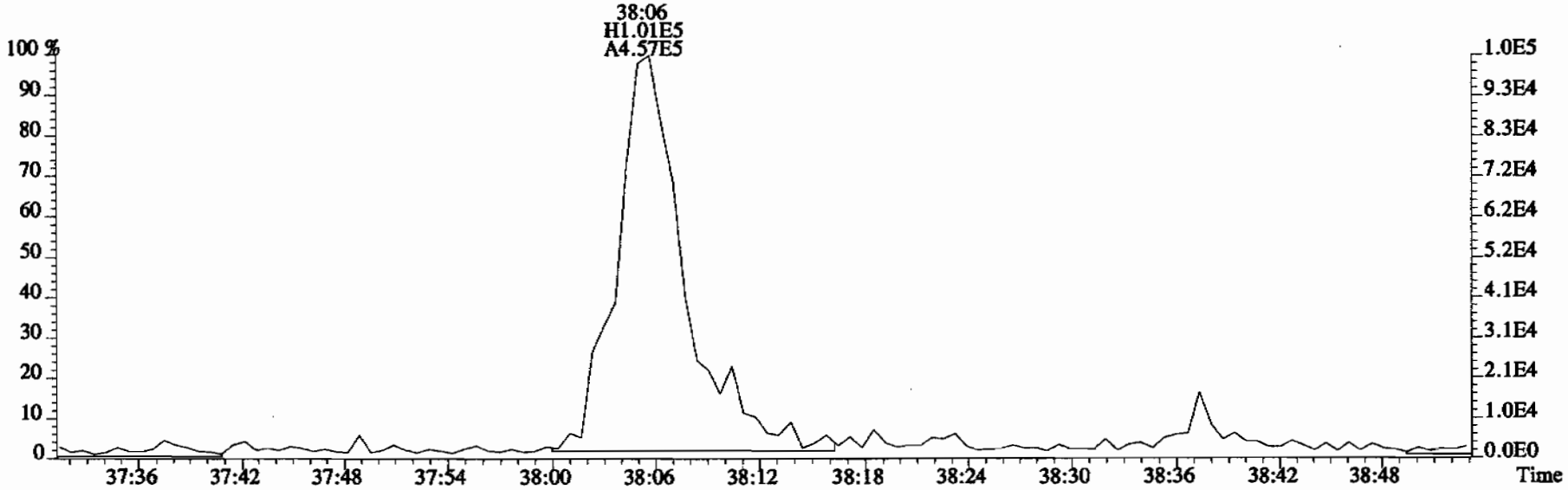

425.7737 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

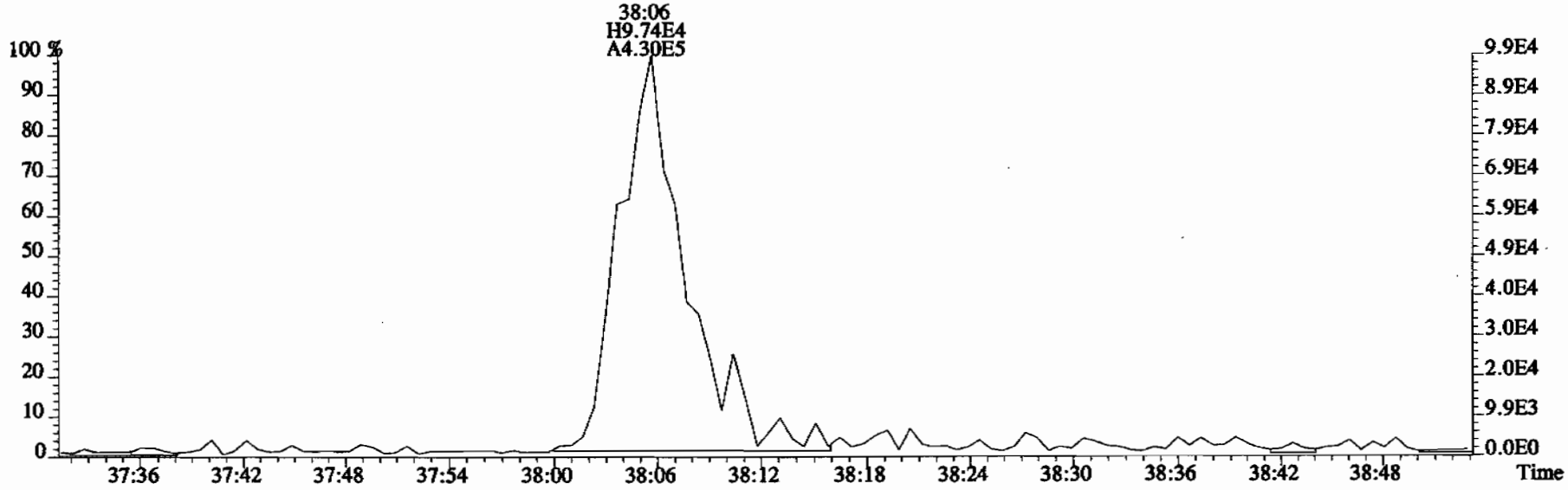

File:091008C1 #1-345 Acq: 8-OCT-2009 14:31:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-2 1613 CS0 090922D Exp:OCDD_DB5
457.7377 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

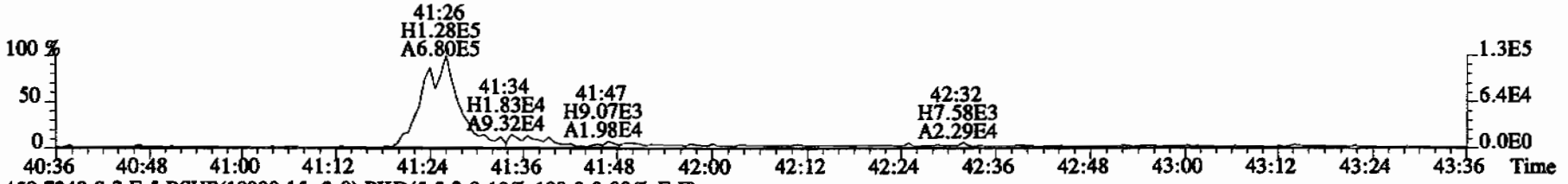

459.7348 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

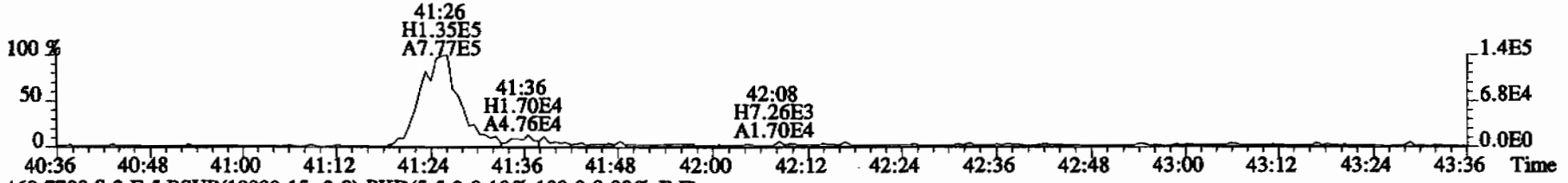

469.7780 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

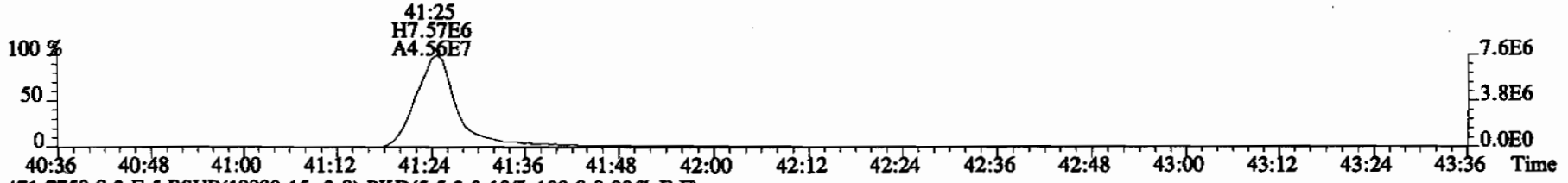

471.7750 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

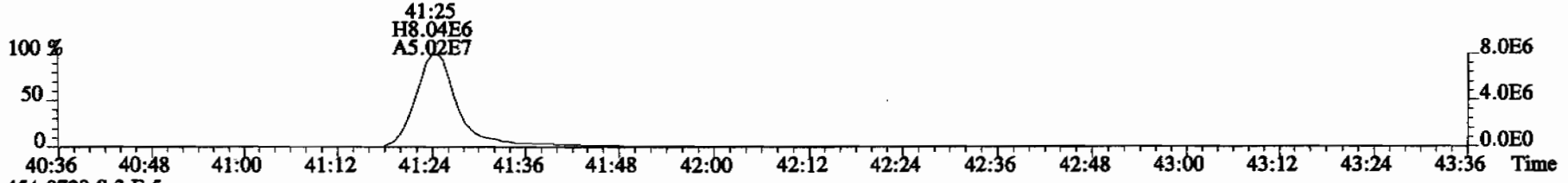

454.9728 S:3 F:5

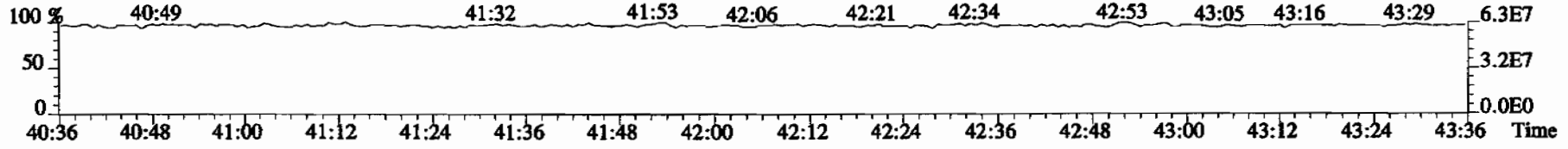

File:091008C1 #1-345 Acq: 8-OCT-2009 14:31:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-2 1613 CS0 090922D Exp:OCDD_DB5
457.7377 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

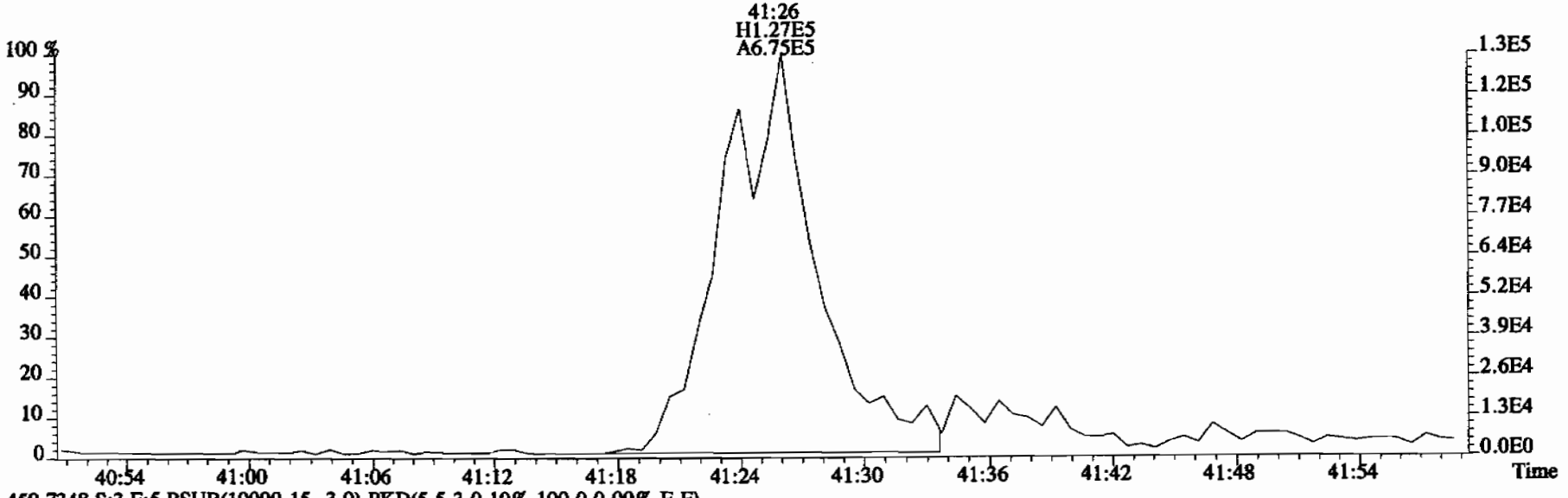

459.7348 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

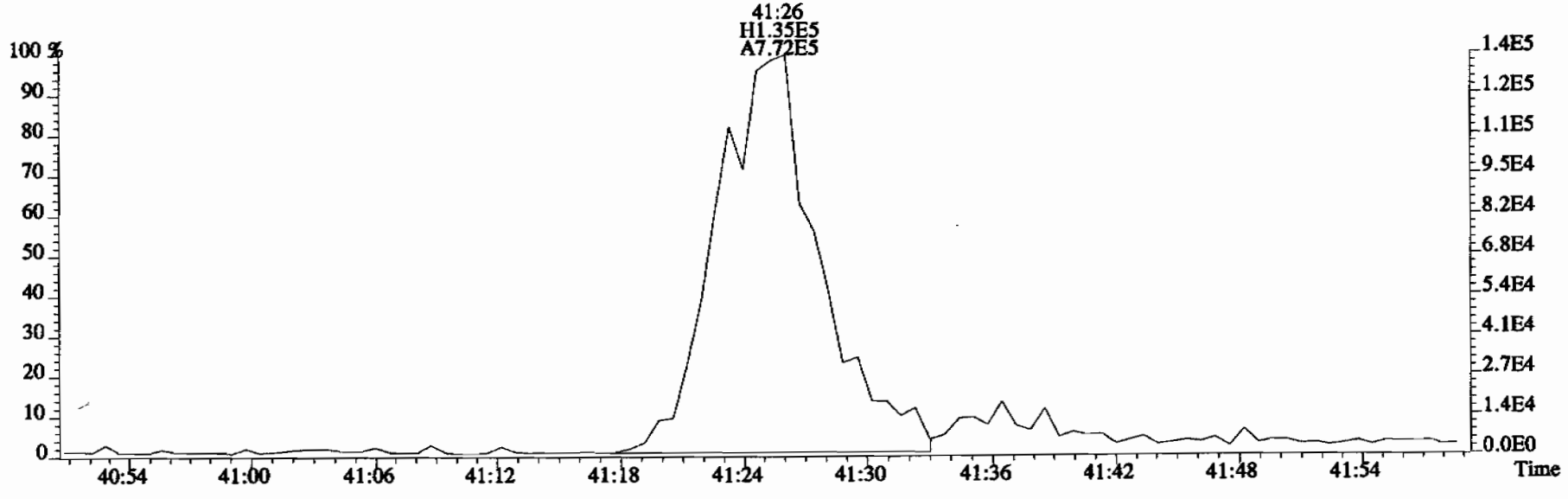

File:091008C1 #1-545 Acq: 8-OCT-2009 14:31:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-2 1613 CS0 090922D Exp:OCDD_DB5
303.9016 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

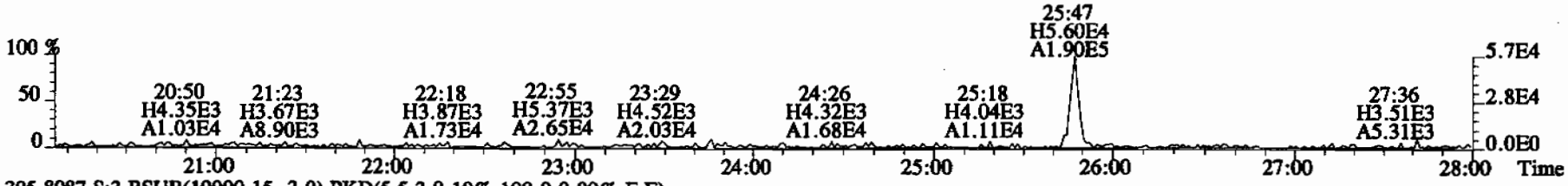

305.8987 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

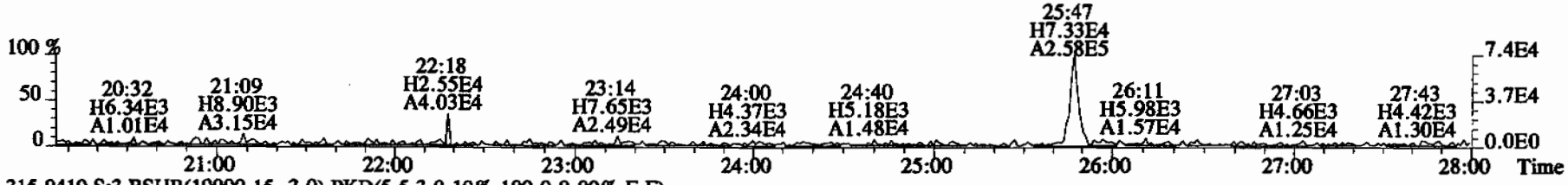

315.9419 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

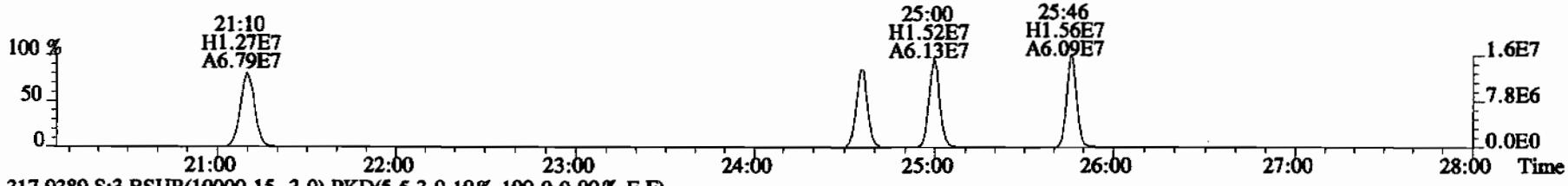

317.9389 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

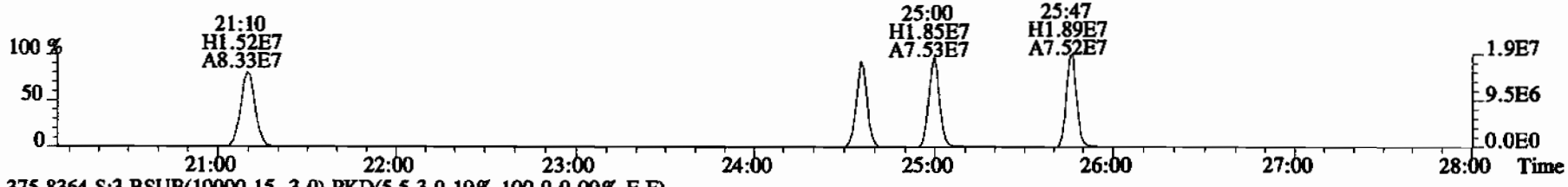

375.8364 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

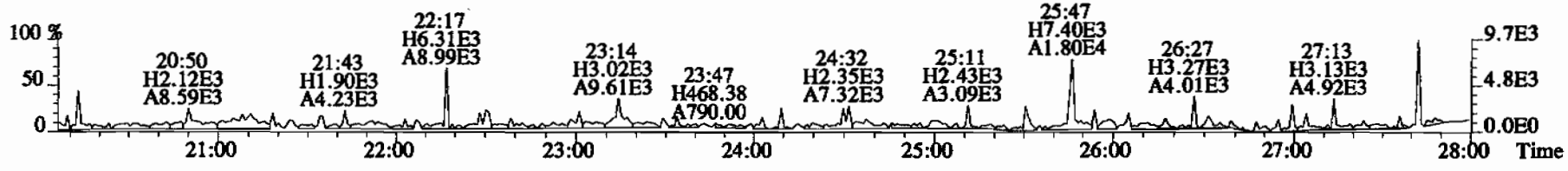

File:091008C1 #1-545 Acq: 8-OCT-2009 14:31:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-2 1613 CS0 090922D Exp:OCDD_DB5
303.9016 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

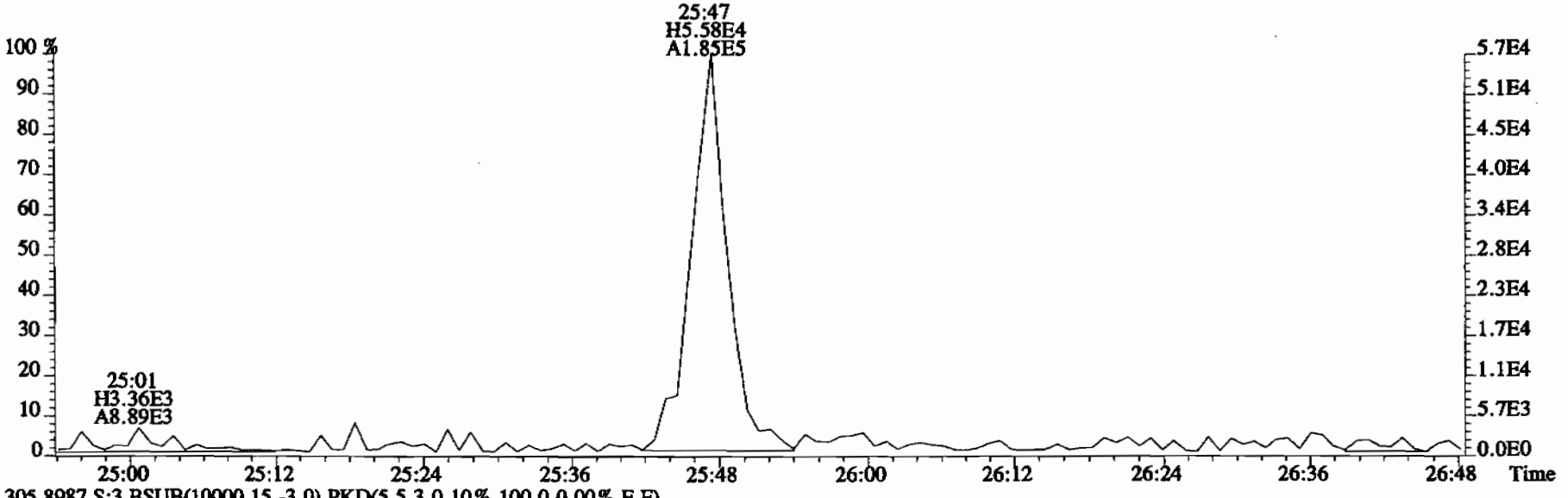

305.8987 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

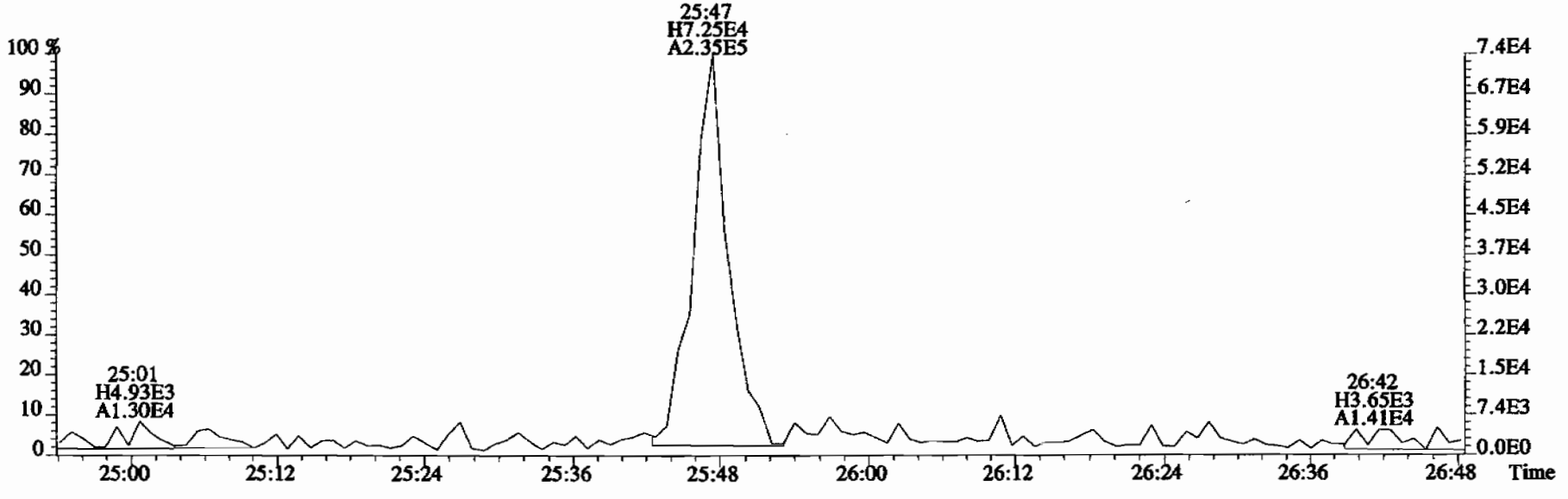

File:091008C1 #1-545 Acq: 8-OCT-2009 14:31:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-2 1613 CS0 090922D Exp:OCDD_DB5
339.8597 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

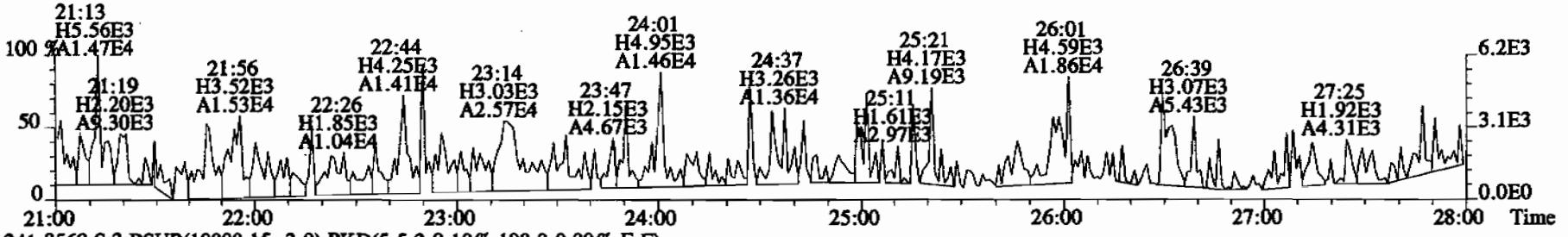

341.8568 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

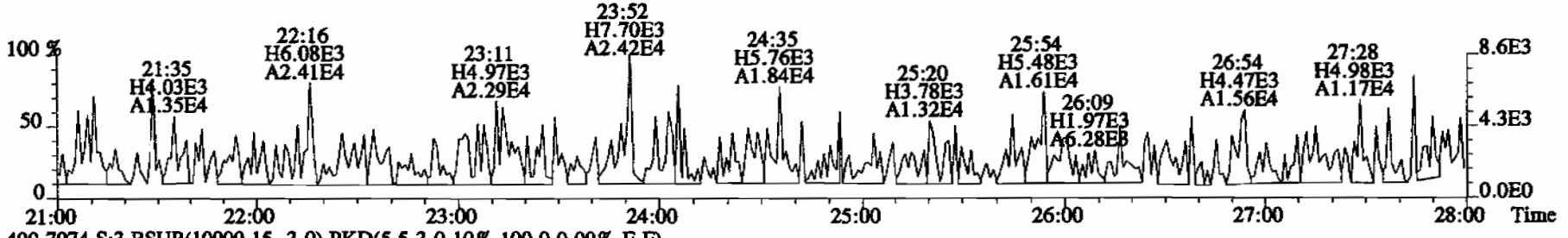

409.7974 S:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

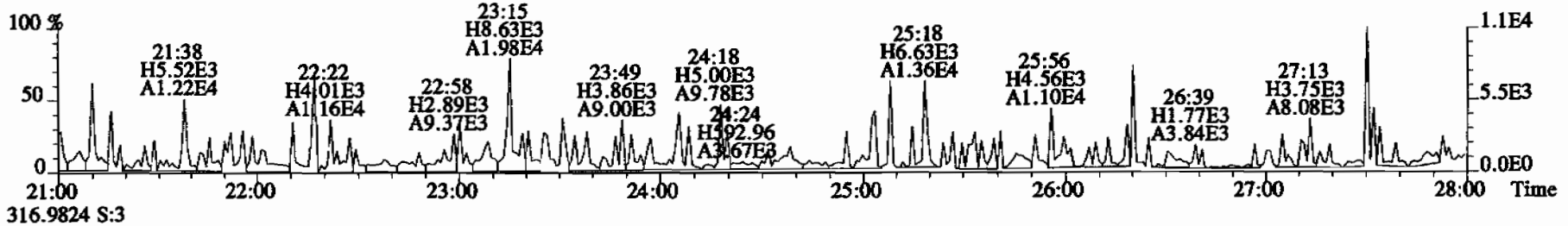

316.9824 S:3

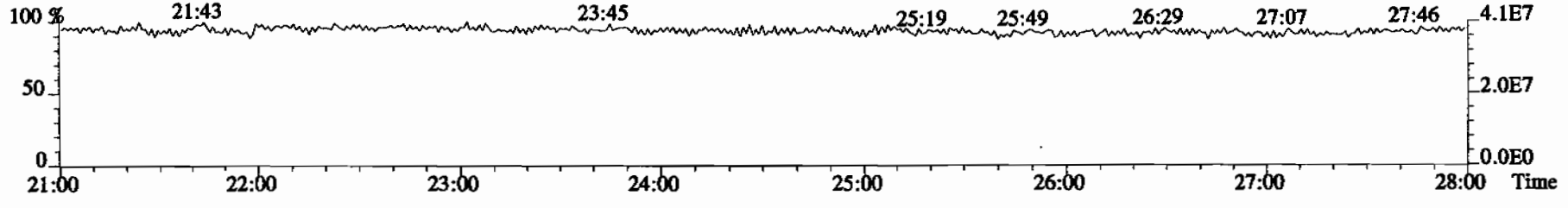

File:091008C1 #1-294 Acq: 8-OCT-2009 14:31:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-2 1613 CS0 090922D Exp:OCDD_DB5
339.8597 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

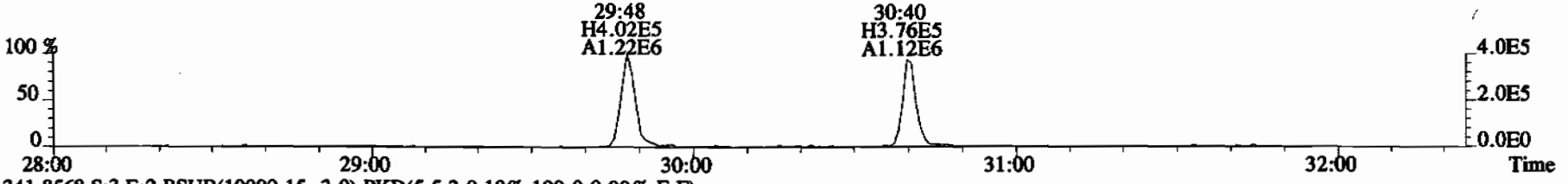

341.8568 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

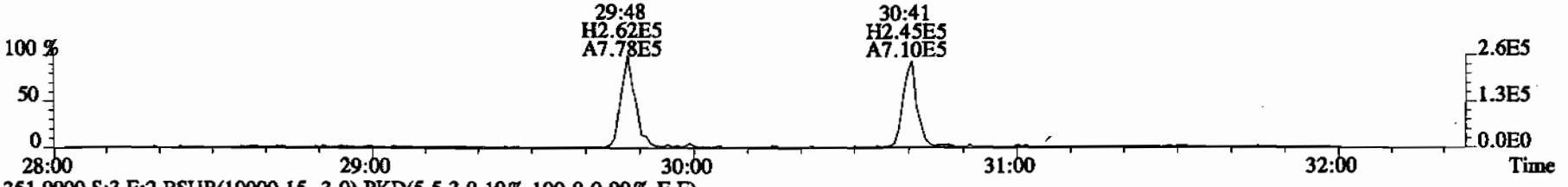

351.9000 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

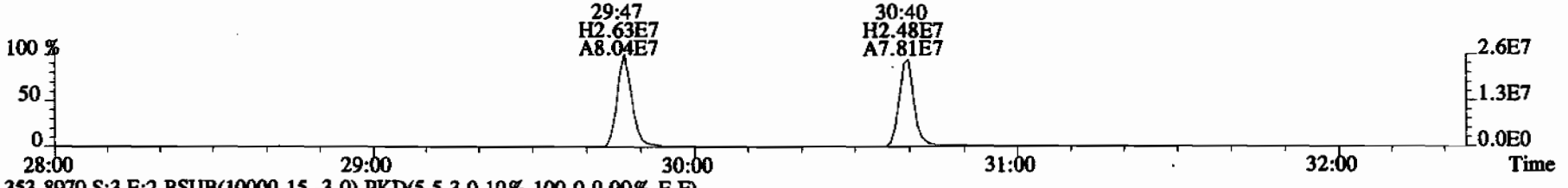

353.8970 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

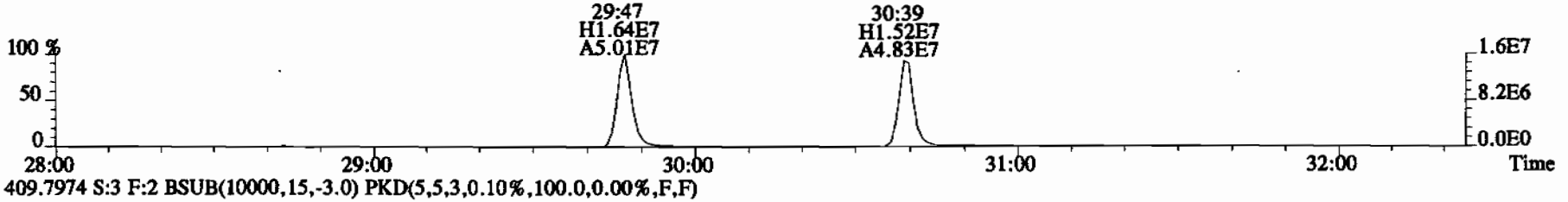

409.7974 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

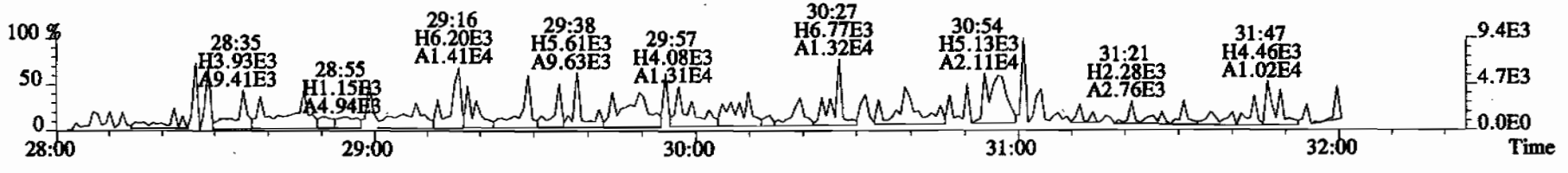

File:091008C1 #1-294 Acq: 8-OCT-2009 14:31:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-2 1613 CS0 090922D Exp:OCDD_DB5
339.8597 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

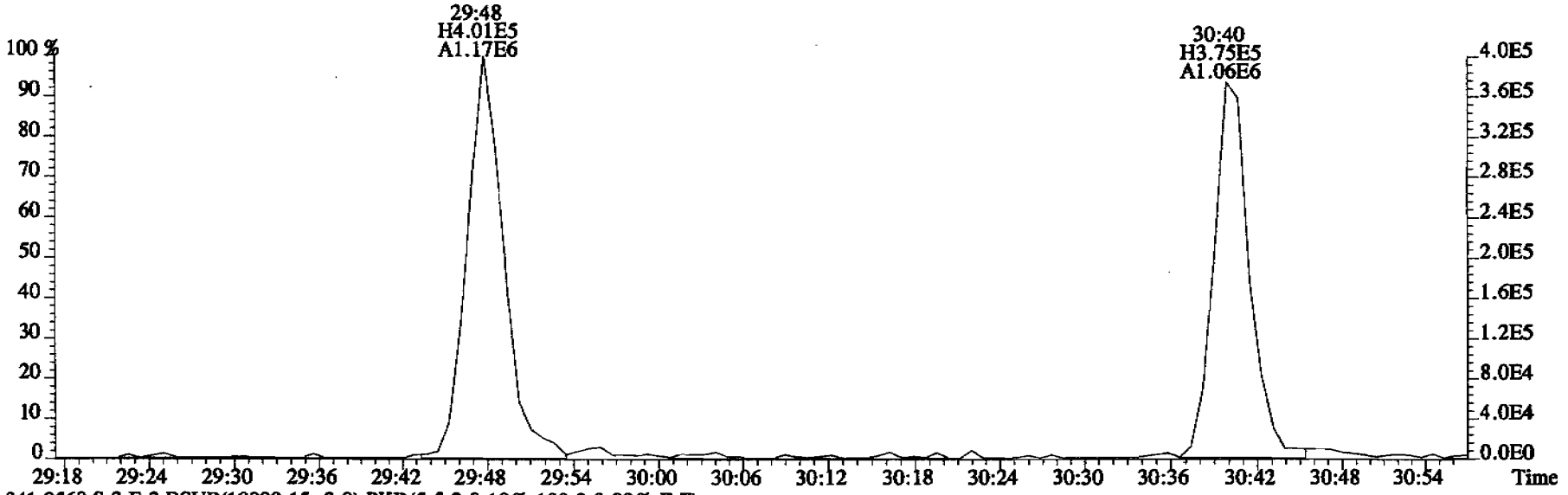

341.8568 S:3 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

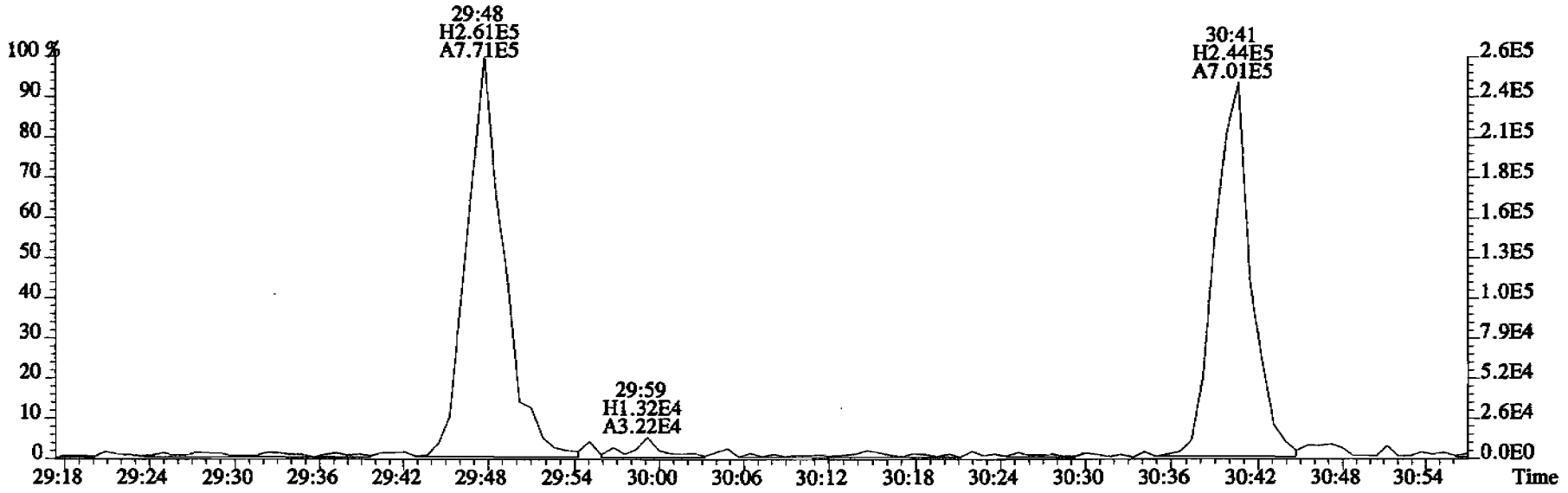

File:091008C1 #1-392 Acq: 8-OCT-2009 14:31:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-2 1613 CS0 090922D Exp:OCDD_DB5

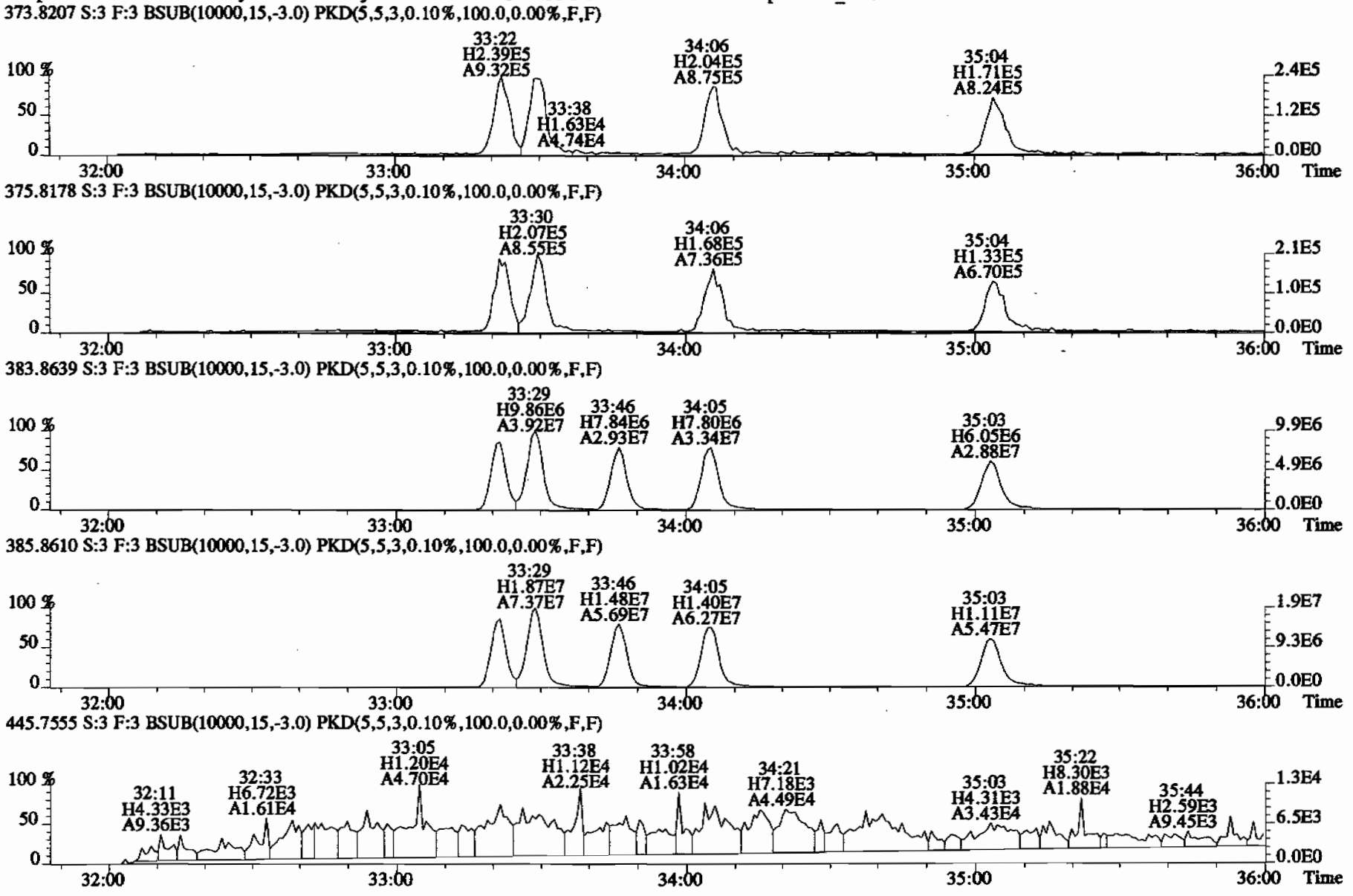

File:091008C1 #1-392 Acq: 8-OCT-2009 14:31:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-2 1613 CS0 090922D Exp:OCDD_DB5
383.8639 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

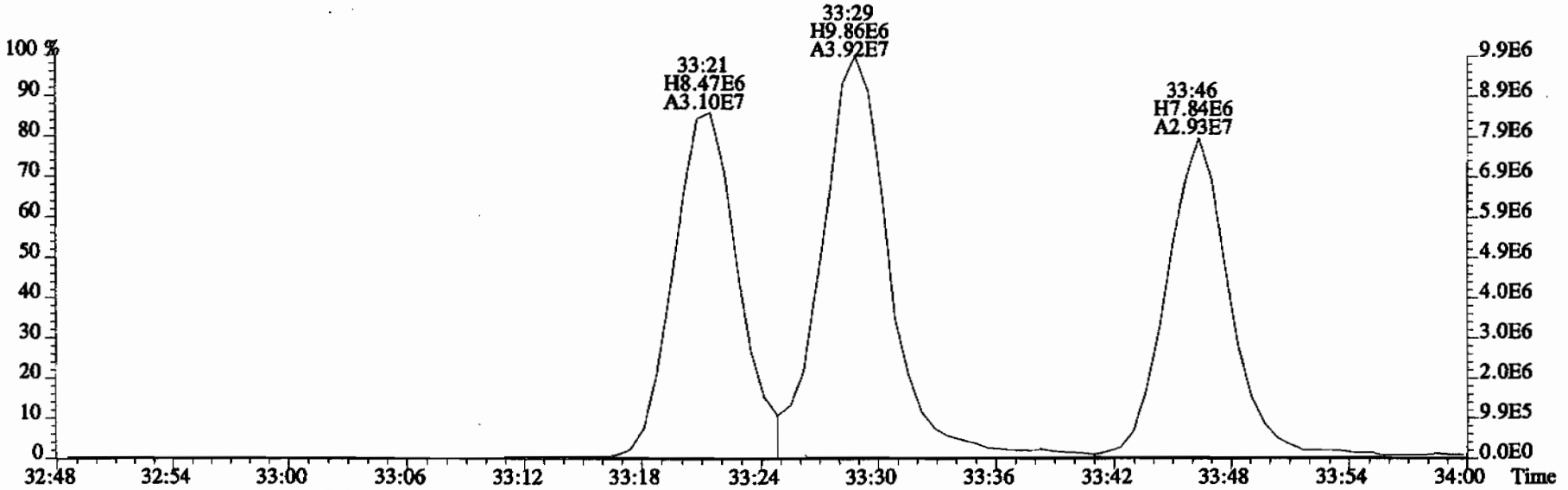

385.8610 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

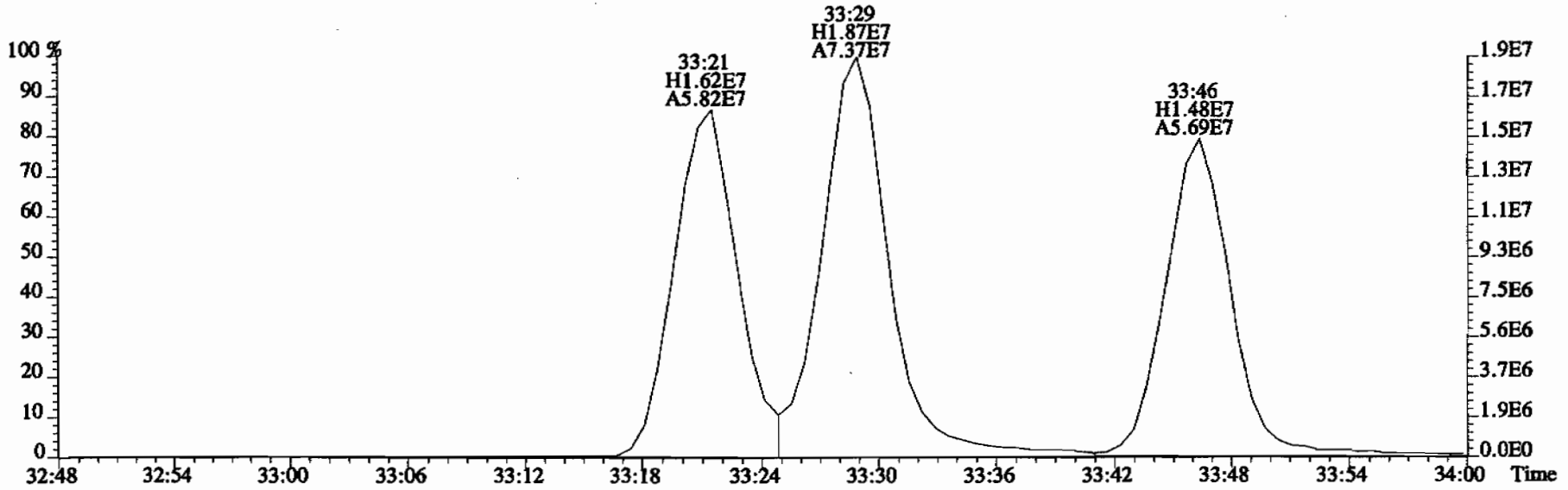

File:091008C1 #1-392 Acq: 8-OCT-2009 14:31:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-2 1613 CS0 090922D Exp:OCDD_DB5
373.8207 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

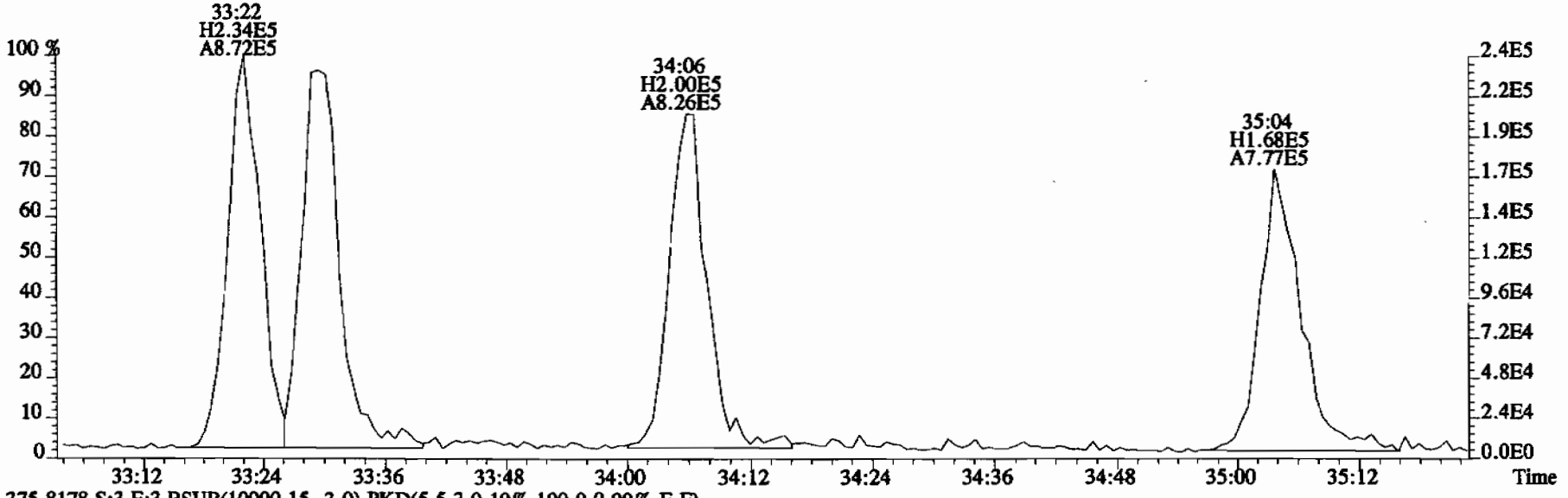

375.8178 S:3 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

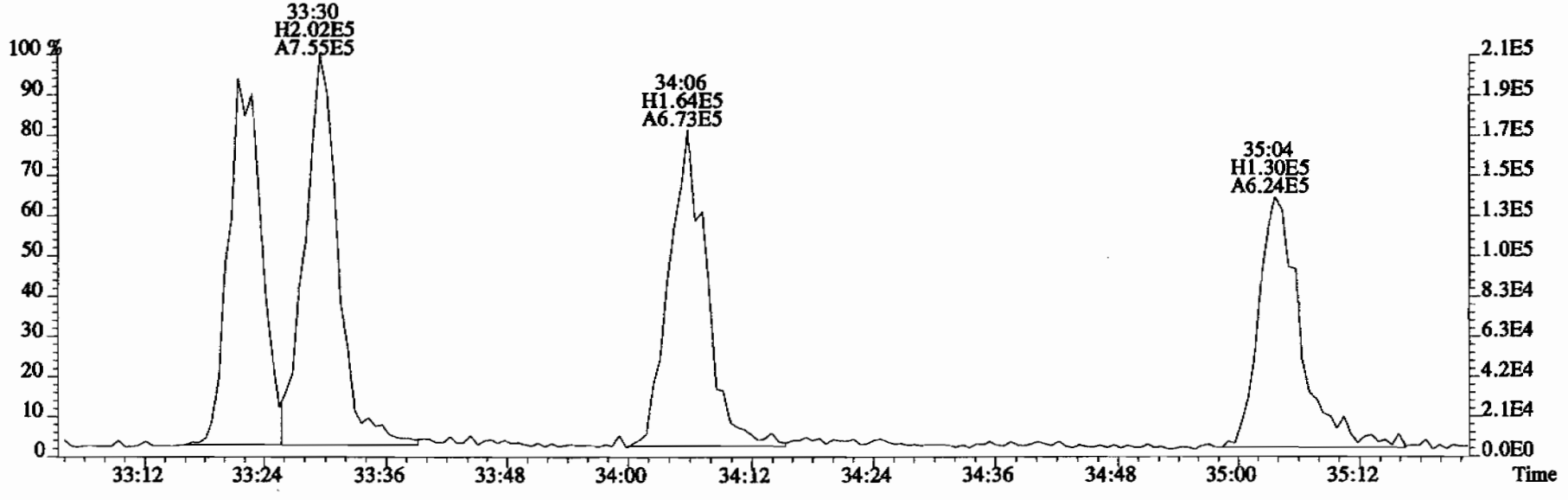

File:091008C1 #1-363 Acq: 8-OCT-2009 14:31:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-2 1613 CS0 090922D Exp:OCDD_DB5
407.7818 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

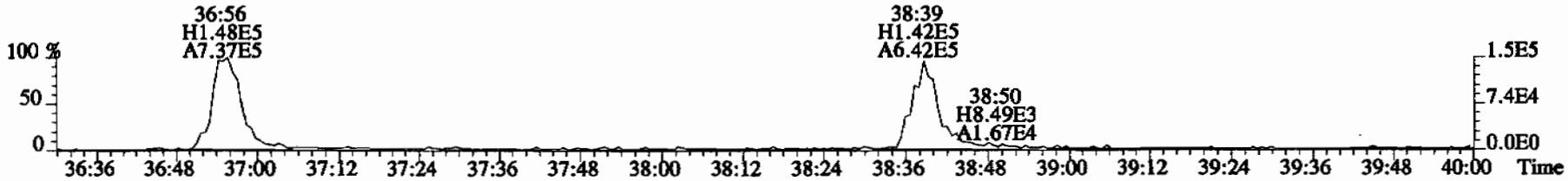

409.7788 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

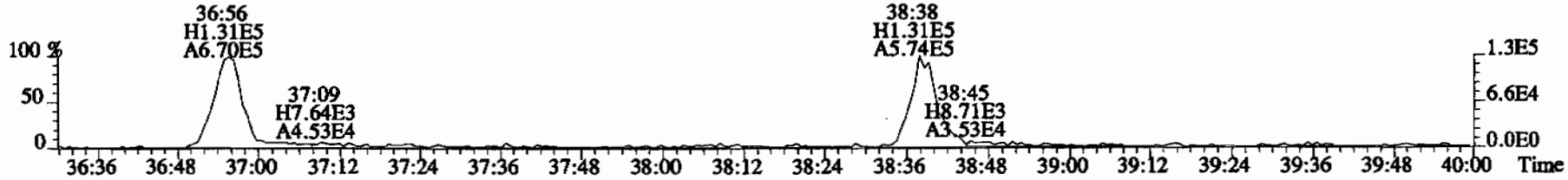

417.8253 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

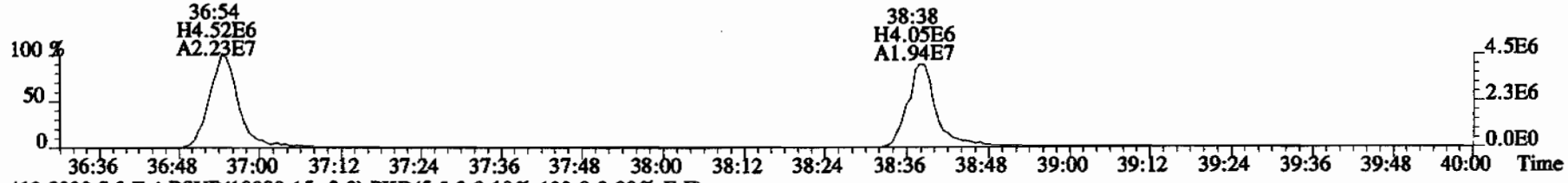

419.8220 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

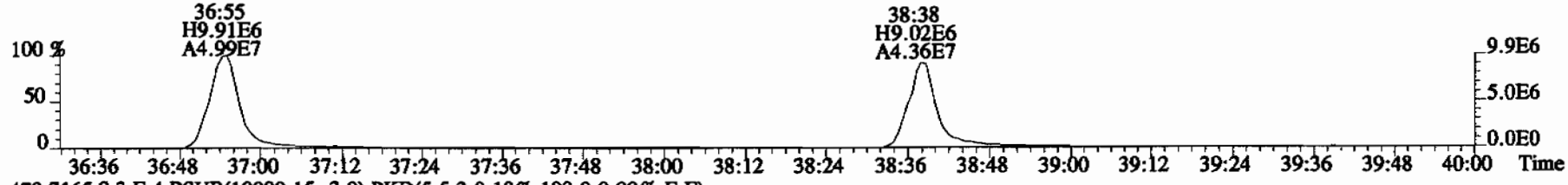

479.7165 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

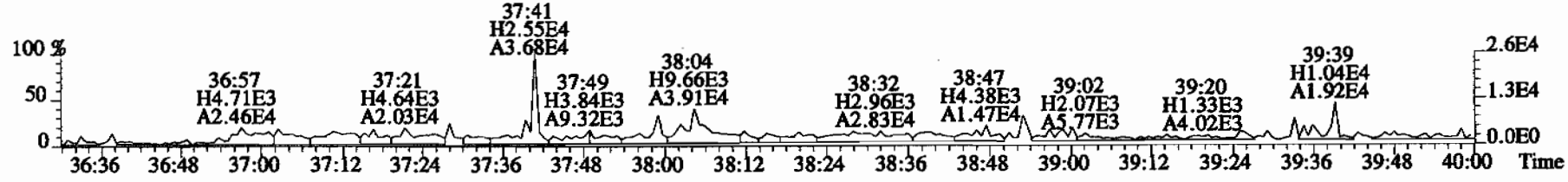

File:091008C1 #1-363 Acq: 8-OCT-2009 14:31:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-2 1613 CS0 090922D Exp:OCDD_DB5
407.7818 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

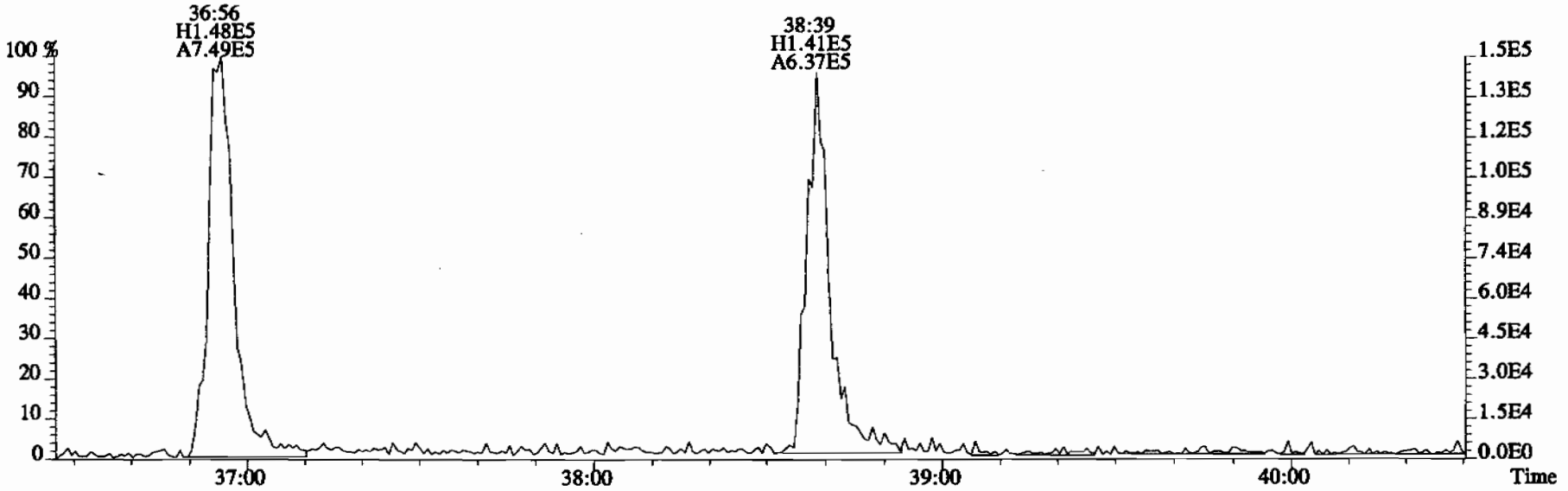

409.7788 S:3 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

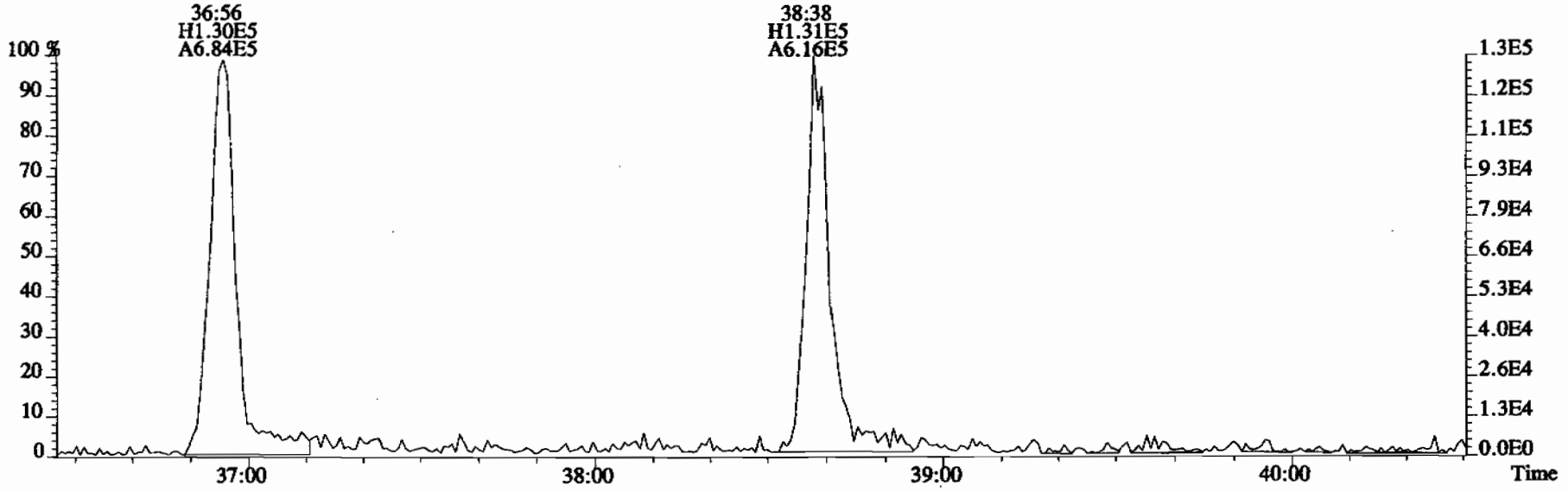

File:091008C1 #1-345 Acq: 8-OCT-2009 14:31:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-2 1613 CS0 090922D Exp:OCDD_DB5

441.7428 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

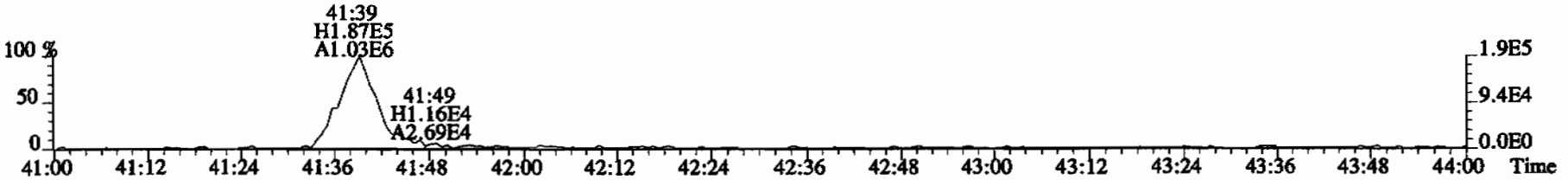

443.7398 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

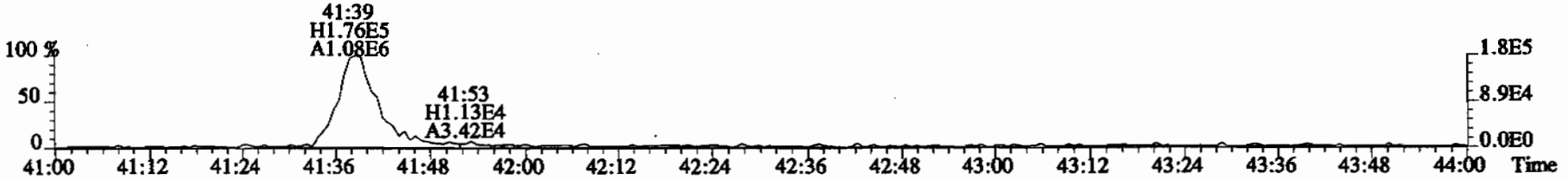

453.7831 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

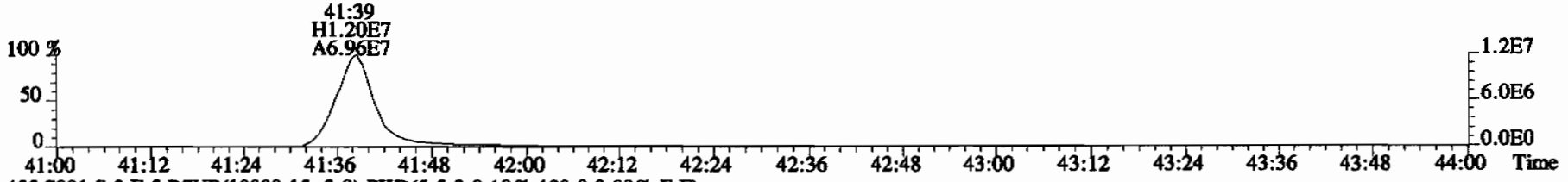

455.7801 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

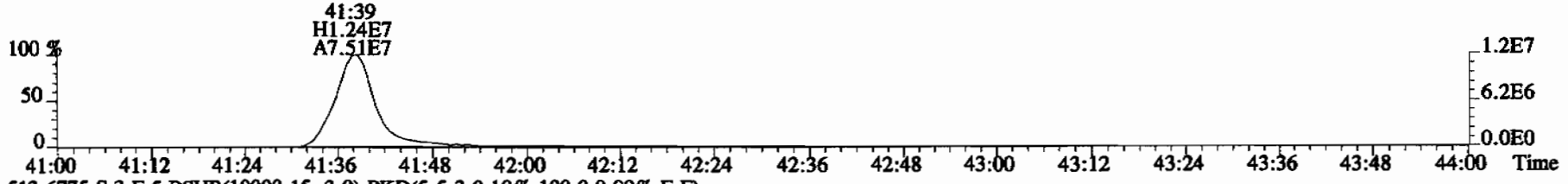

513.6775 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

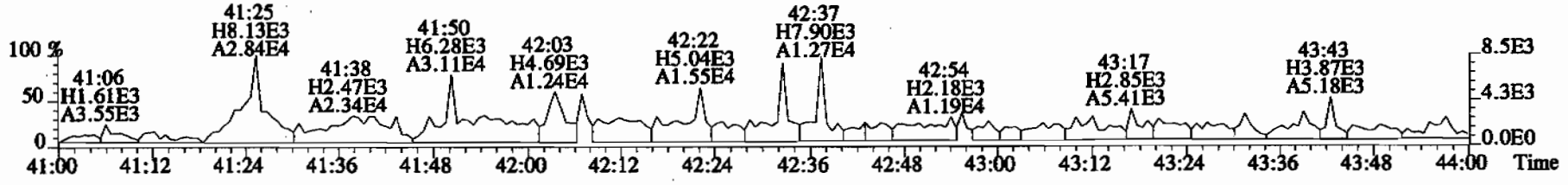

File:091008C1 #1-345 Acq: 8-OCT-2009 14:31:01 GC EI+ Voltage SIR Autospec-UltimaE
Sample#3 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-2 1613 CS0 090922D Exp:OCDD_DB5
441.7428 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

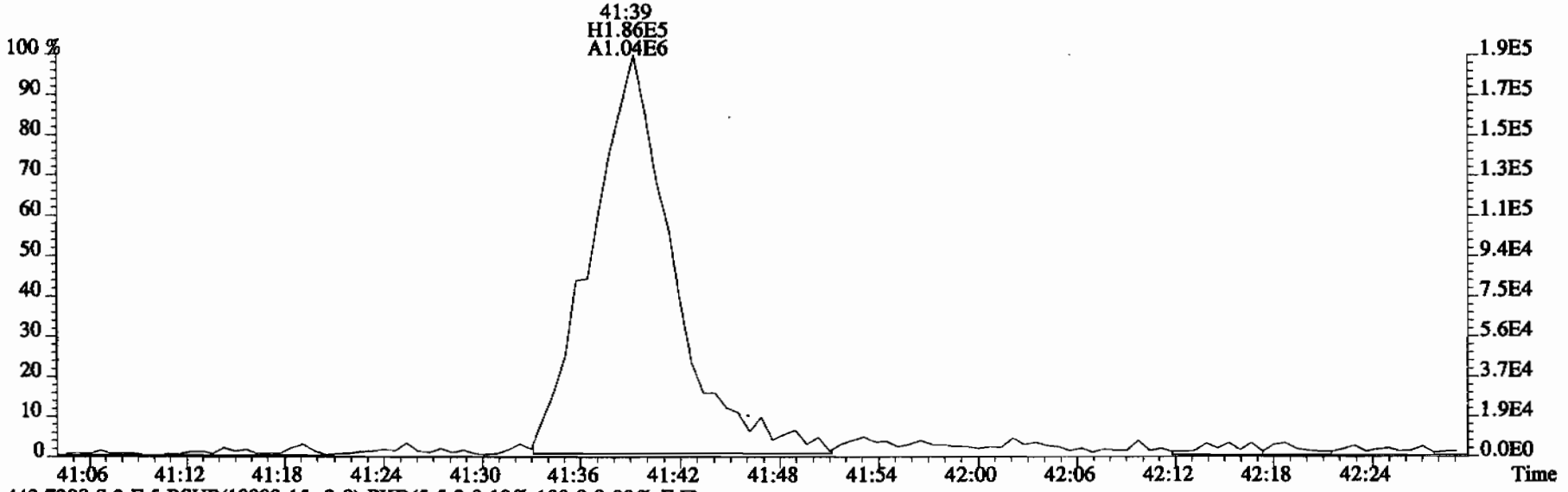

443.7398 S:3 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

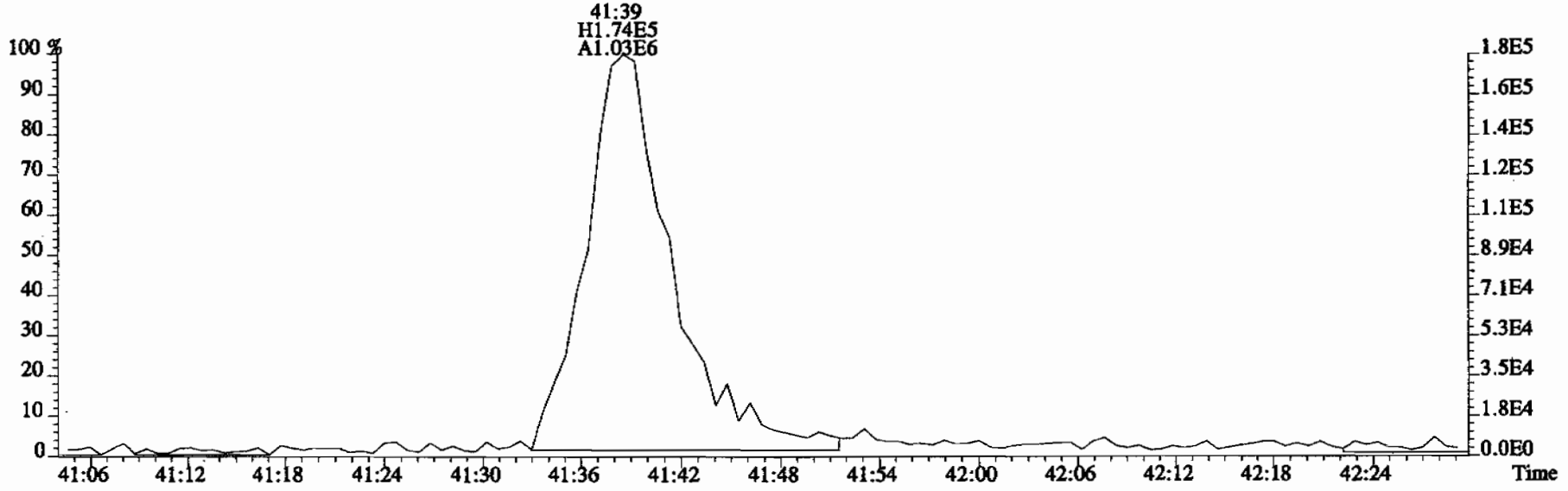

File:091008C1 #1-545 Acq: 8-OCT-2009 15:19:42 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-3 1613 CS1 090922E Exp:OCDD_DB5
319.8965 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

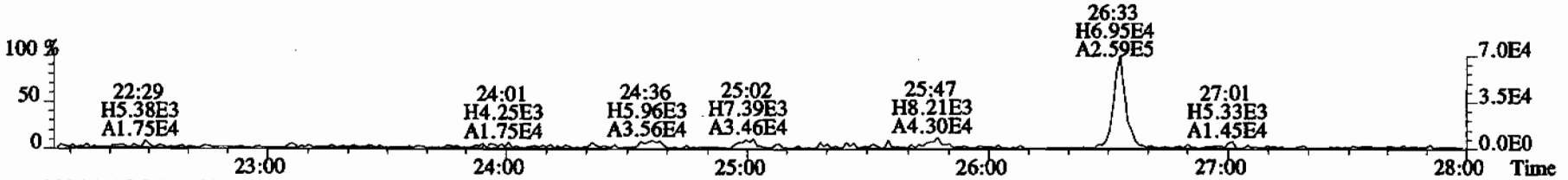

321.8936 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

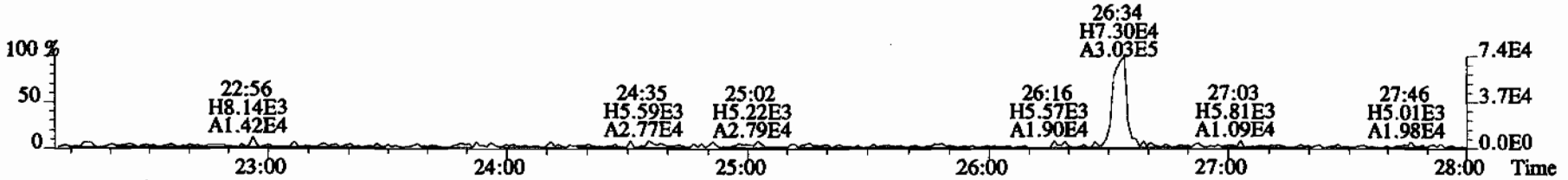

327.8847 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

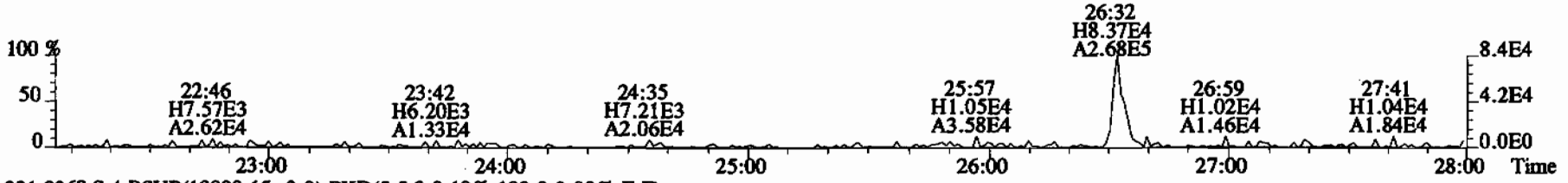

331.9368 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

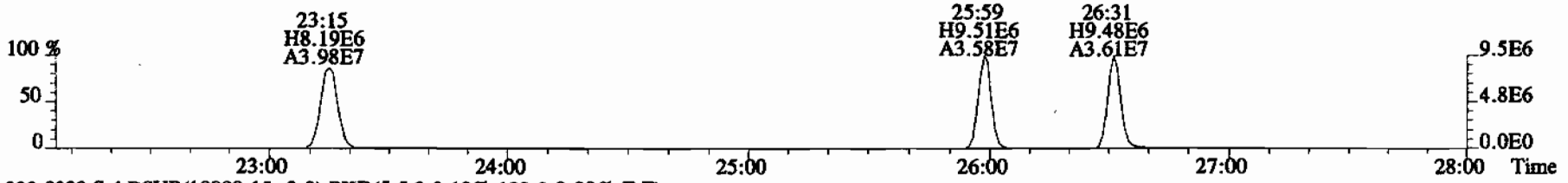

333.9339 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

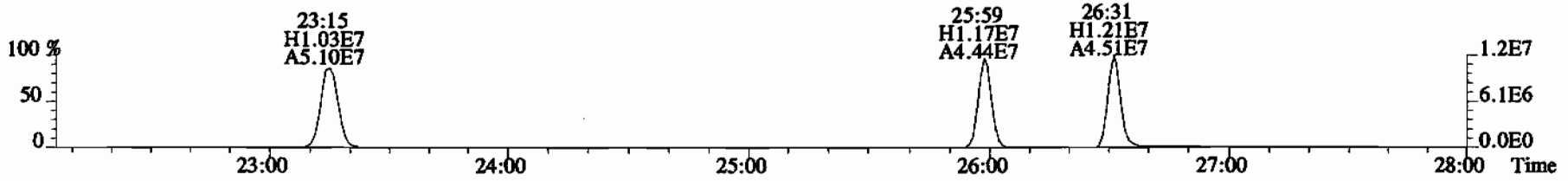

File:091008C1 #1-545 Acq: 8-OCT-2009 15:19:42 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-3 1613 CS1 090922E Exp:OCDD_DB5
319.8965 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

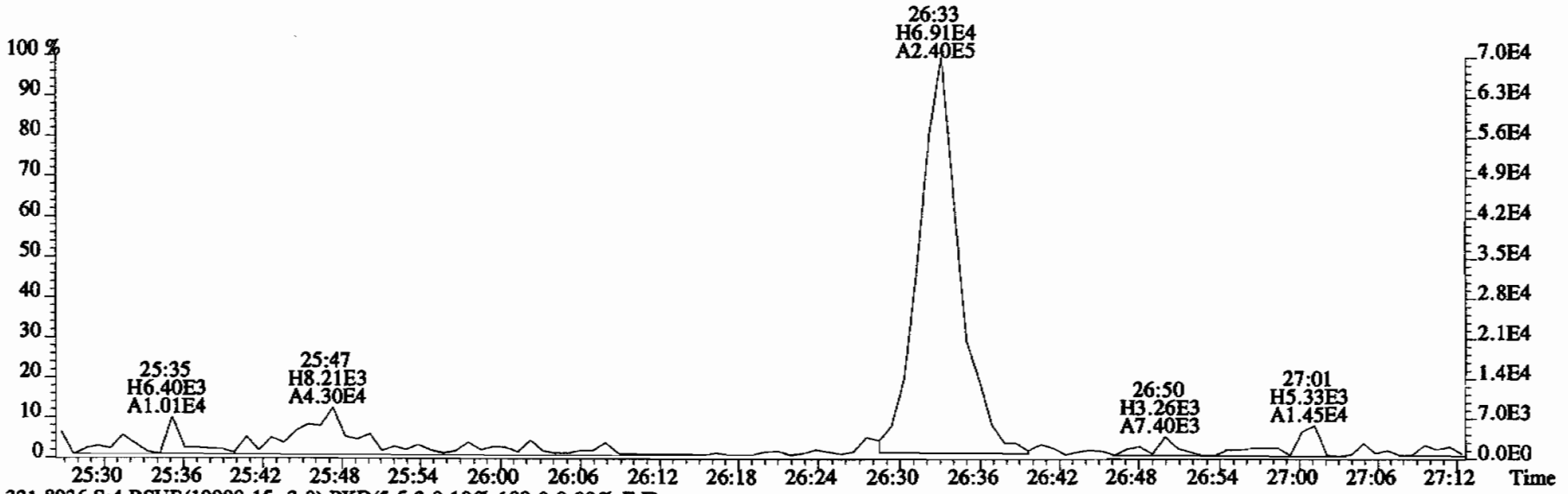

321.8936 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

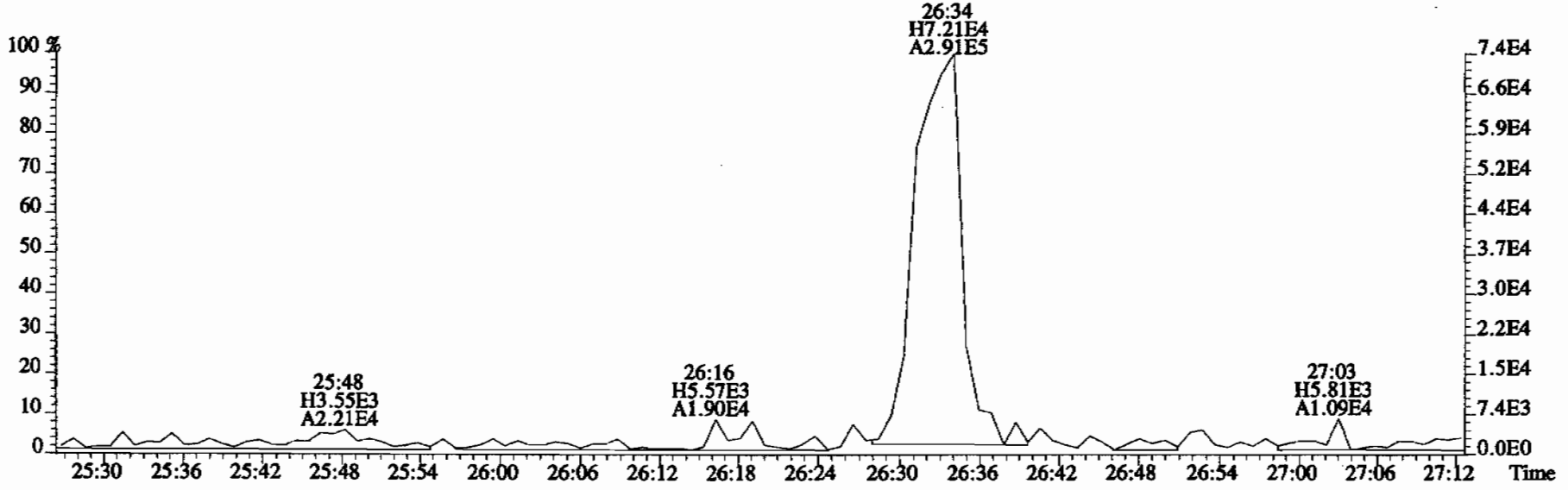

File:091008C1 #1-294 Acq: 8-OCT-2009 15:19:42 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-3 1613 CS1 090922E Exp:OCDD_DB5
353.8576 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

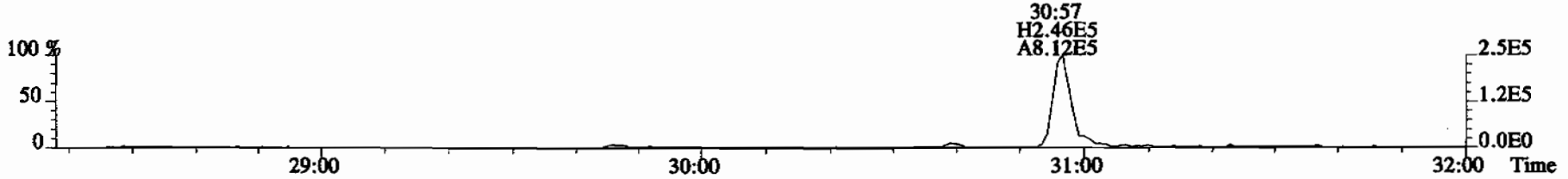

355.8546 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

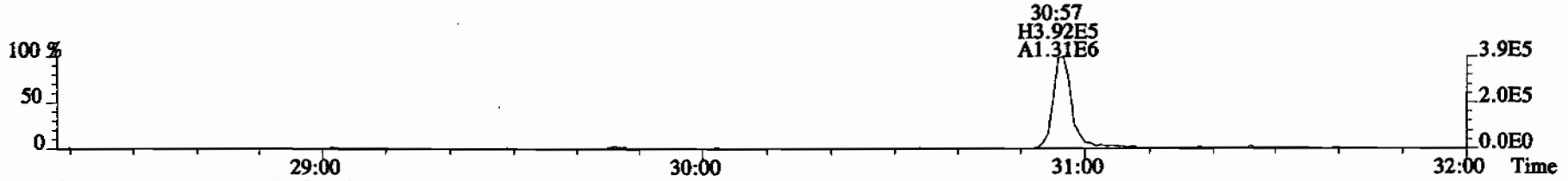

365.8978 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

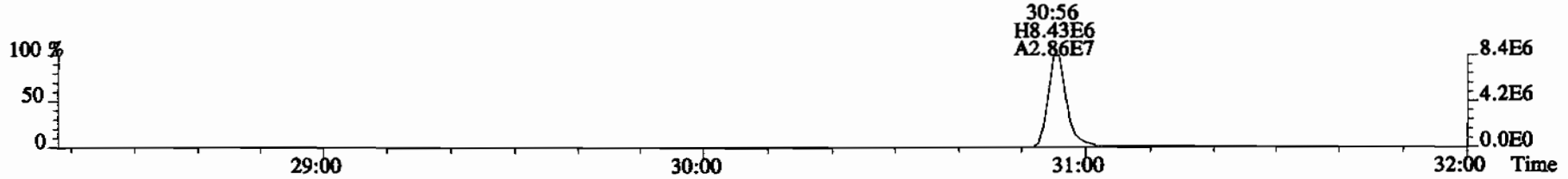

367.8949 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

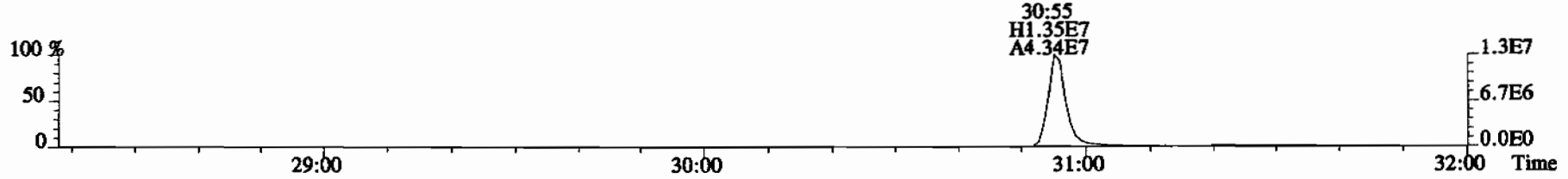

366.9792 S:4 F:2

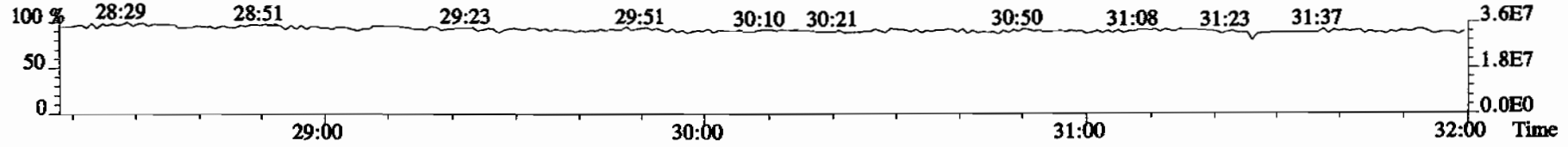

File:091008C1 #1-294 Acq: 8-OCT-2009 15:19:42 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-3 1613 CS1 090922E Exp:OCDD_DB5
353.8576 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

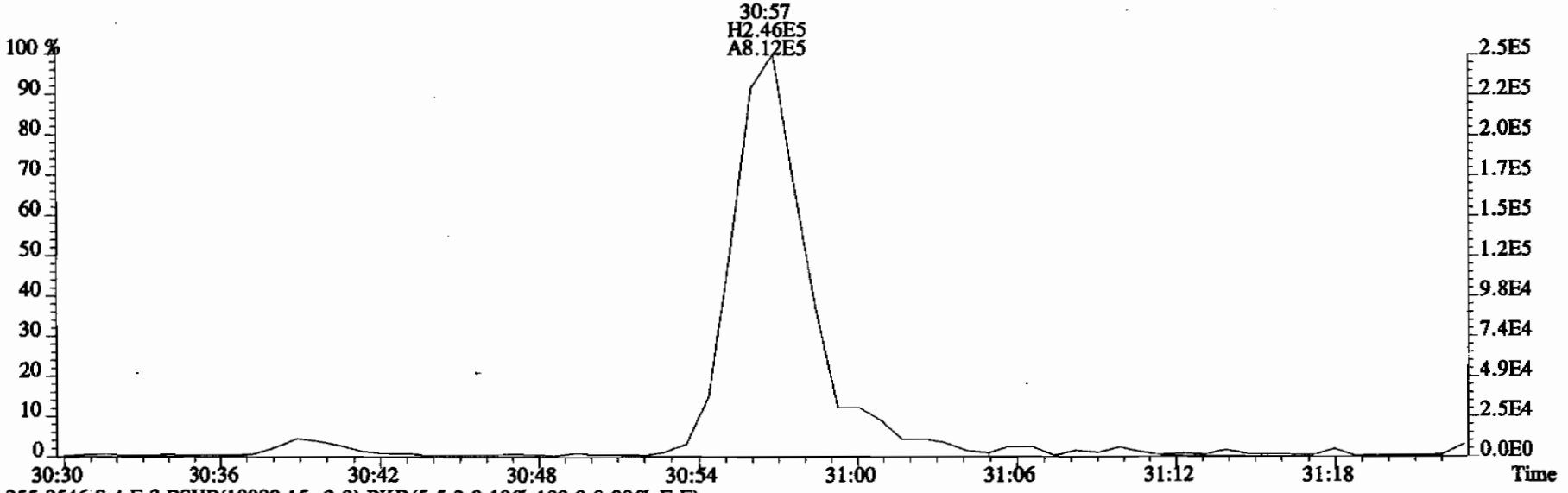

355.8546 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

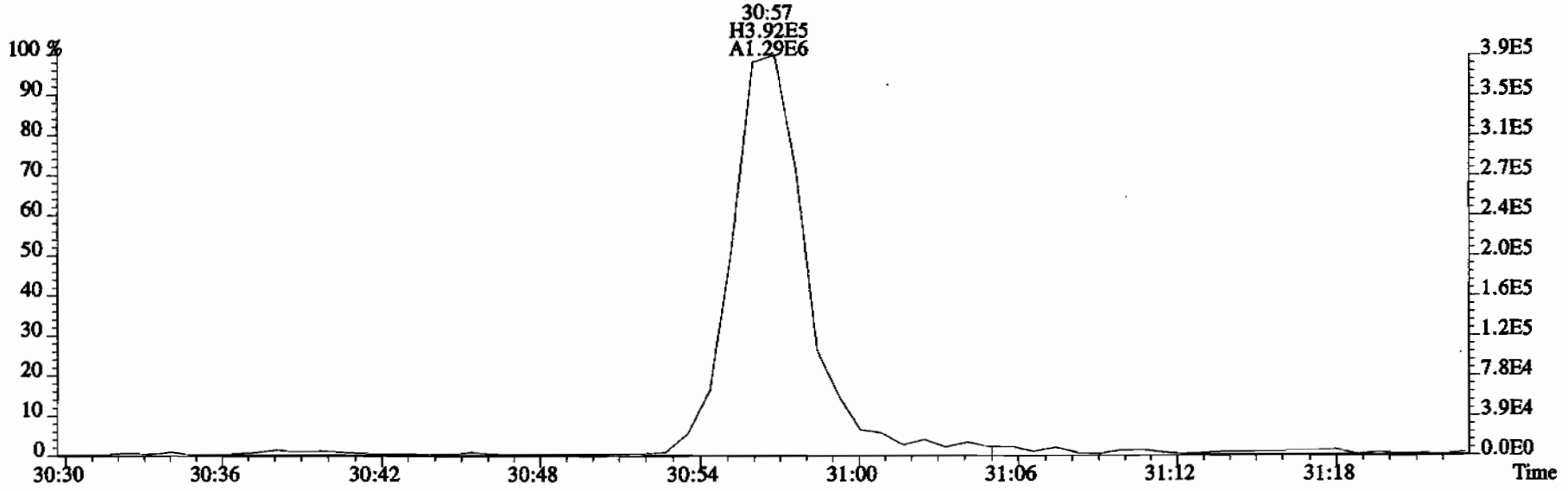

File:091008C1 #1-392 Acq: 8-OCT-2009 15:19:42 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-3 1613 CS1 090922E Exp:OCDD_DB5
389.8156 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

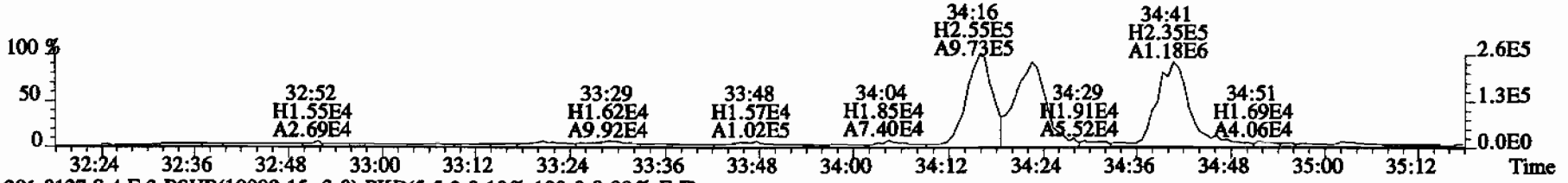

391.8127 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

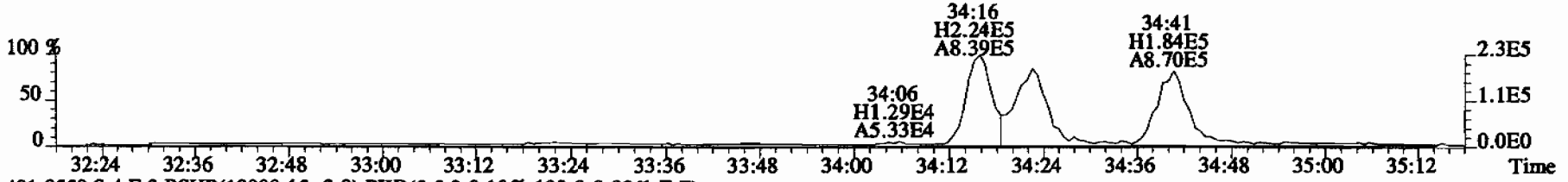

401.8559 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

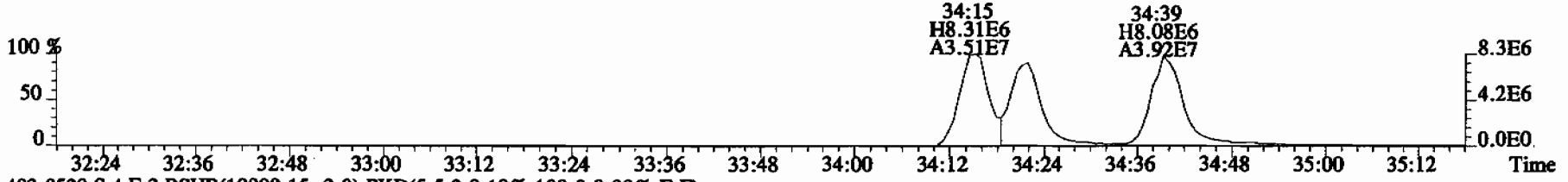

403.8530 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

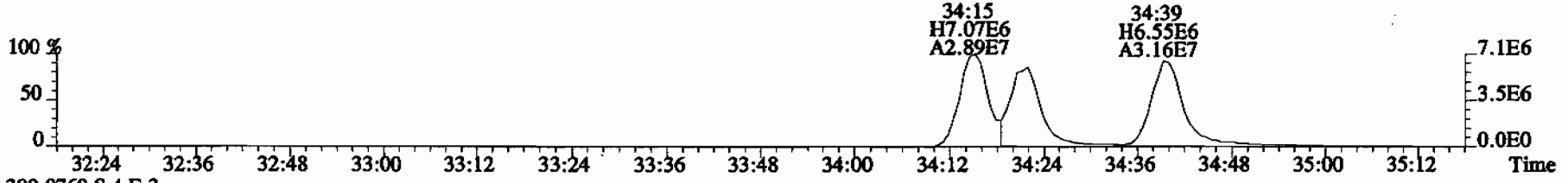

380.9760 S:4 F:3

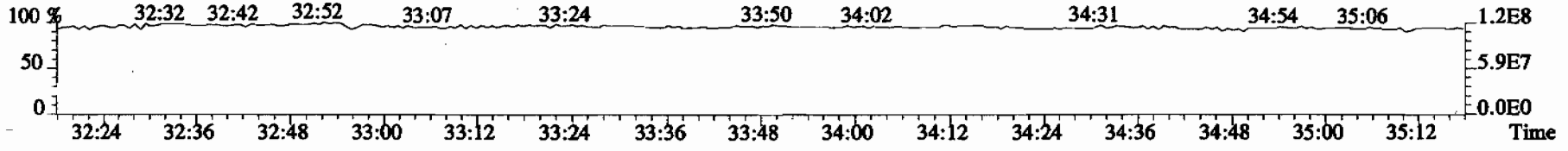

File:091008C1 #1-392 Acq: 8-OCT-2009 15:19:42 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-3 1613 CS1 090922E Exp:OCDD_DB5
401.8559 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

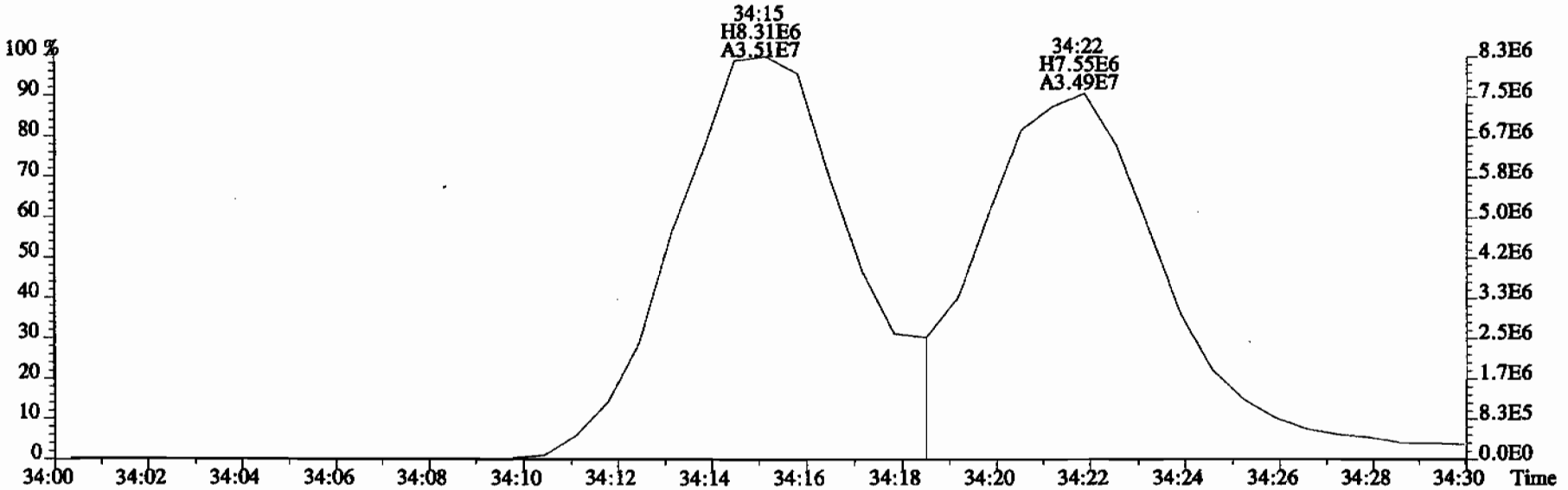

403.8530 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

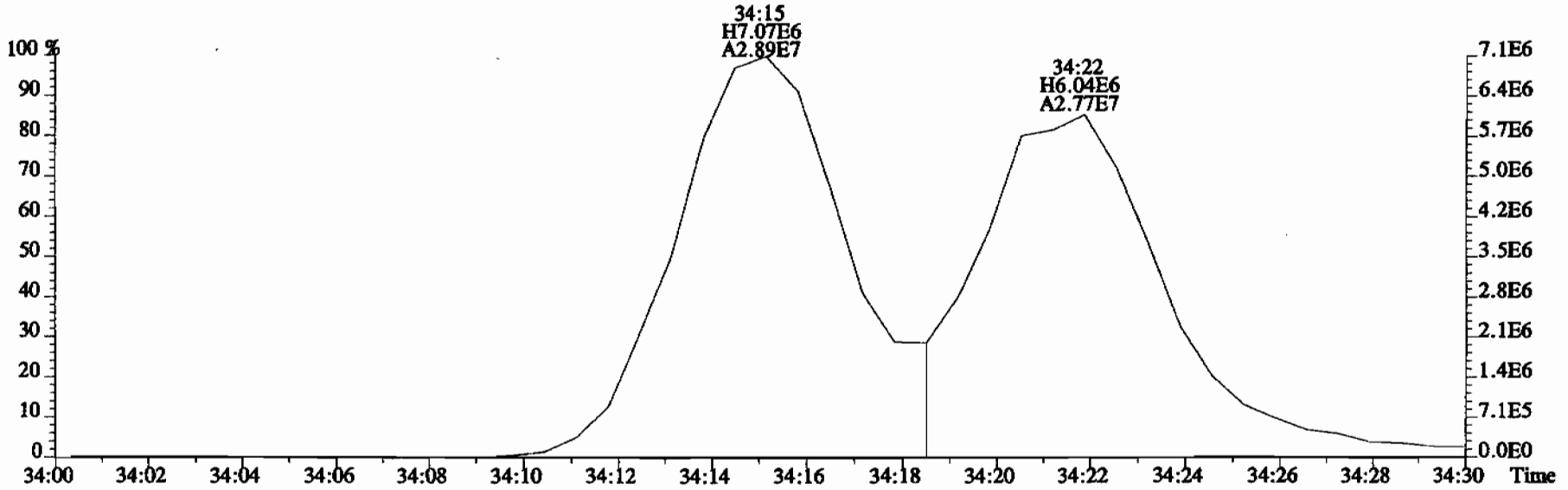

File:091008C1 #1-392 Acq: 8-OCT-2009 15:19:42 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-3 1613 CS1 090922E Exp:OCDD_DB5
389.8156 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

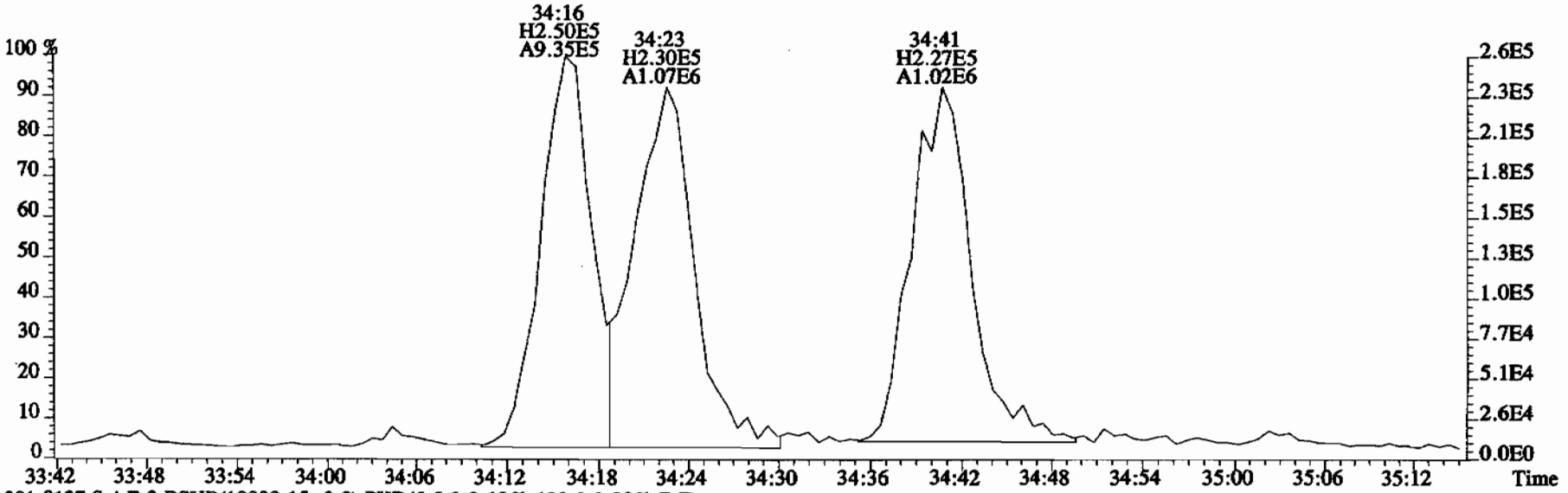

391.8127 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

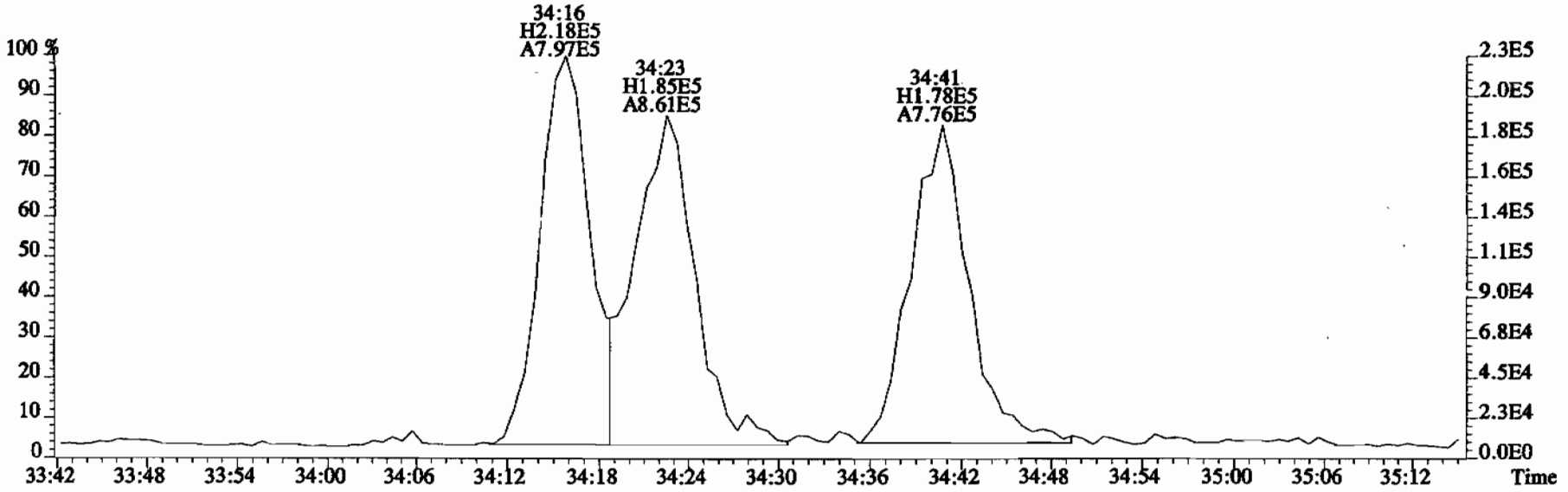

File:091008C1 #1-363 Acq: 8-OCT-2009 15:19:42 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-3 1613 CS1 090922E Exp:OCDD_DB5
423.7767 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

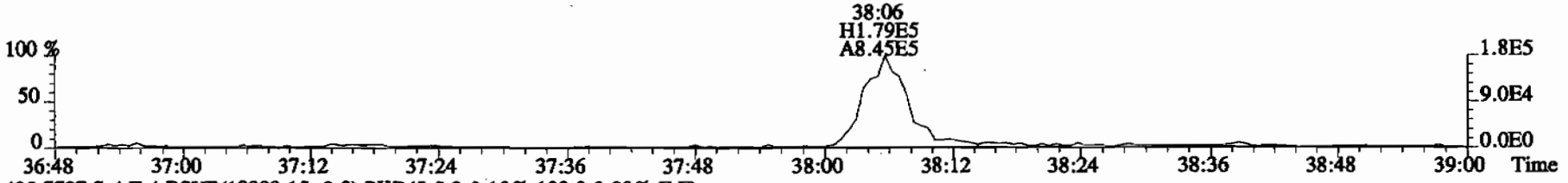

425.7737 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

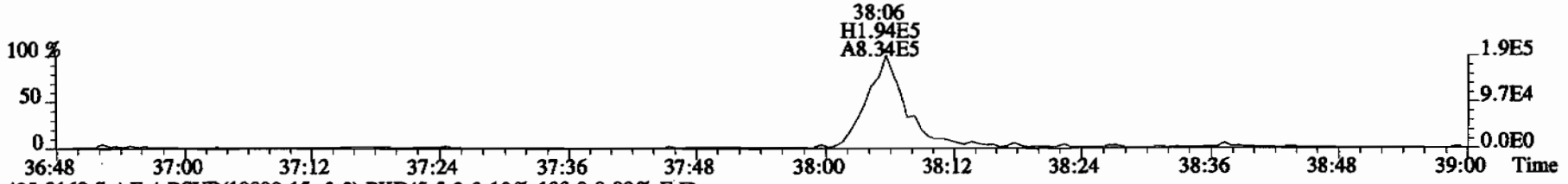

435.8169 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

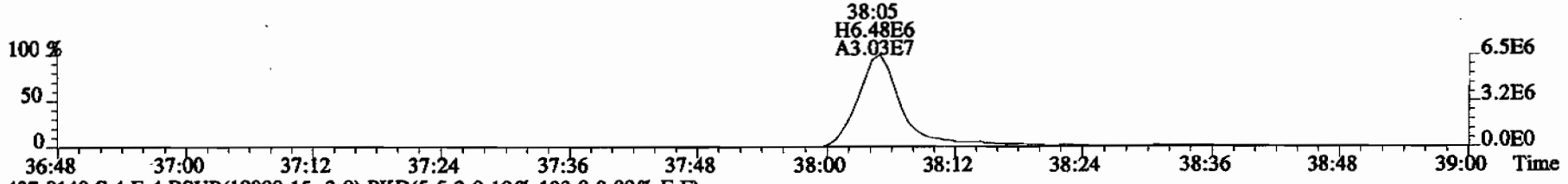

437.8140 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

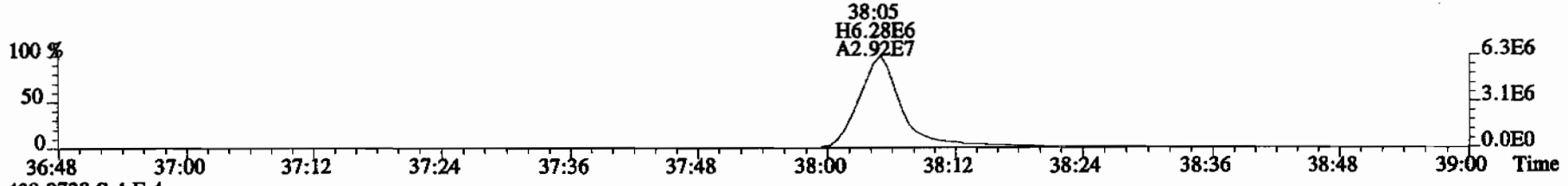

430.9728 S:4 F:4

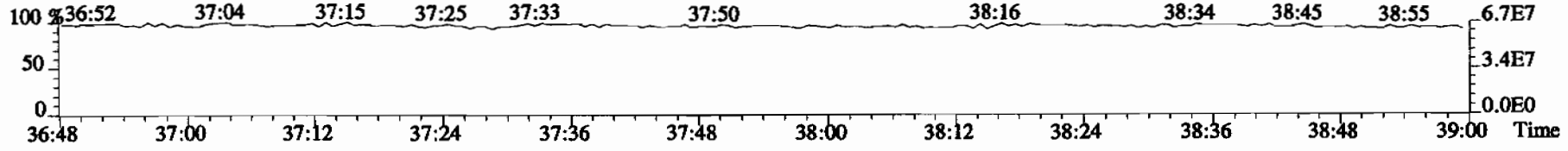

File:091008C1 #1-363 Acq: 8-OCT-2009 15:19:42 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-3 1613 CS1 090922E Exp:OCDD_DB5
423.7767 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

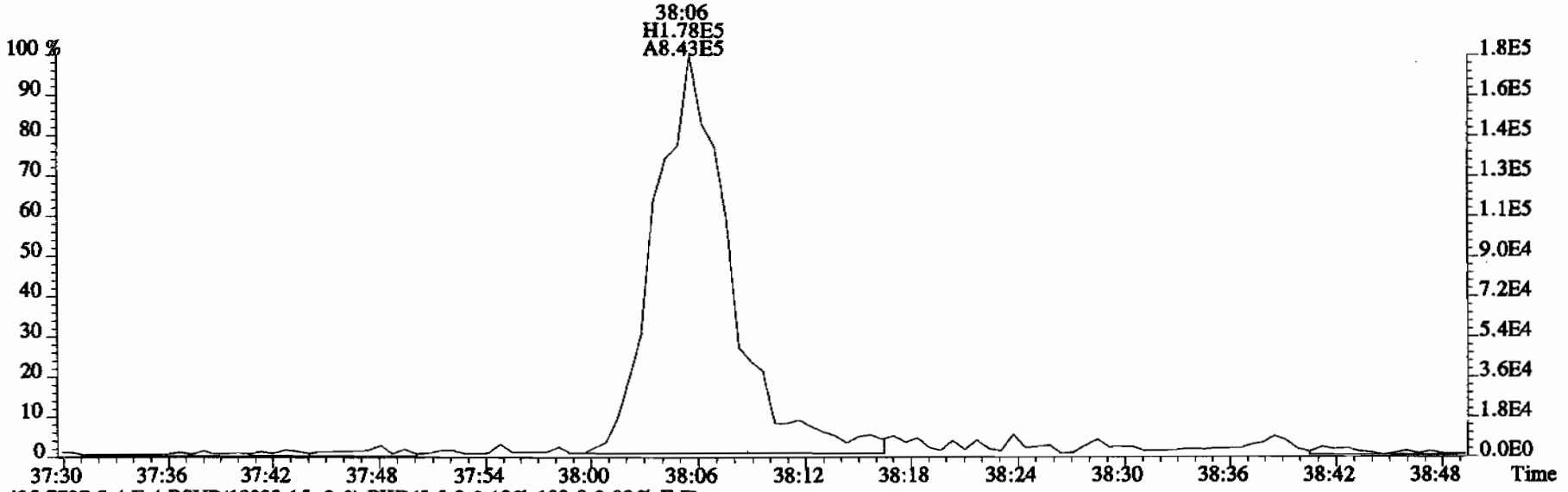

425.7737 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

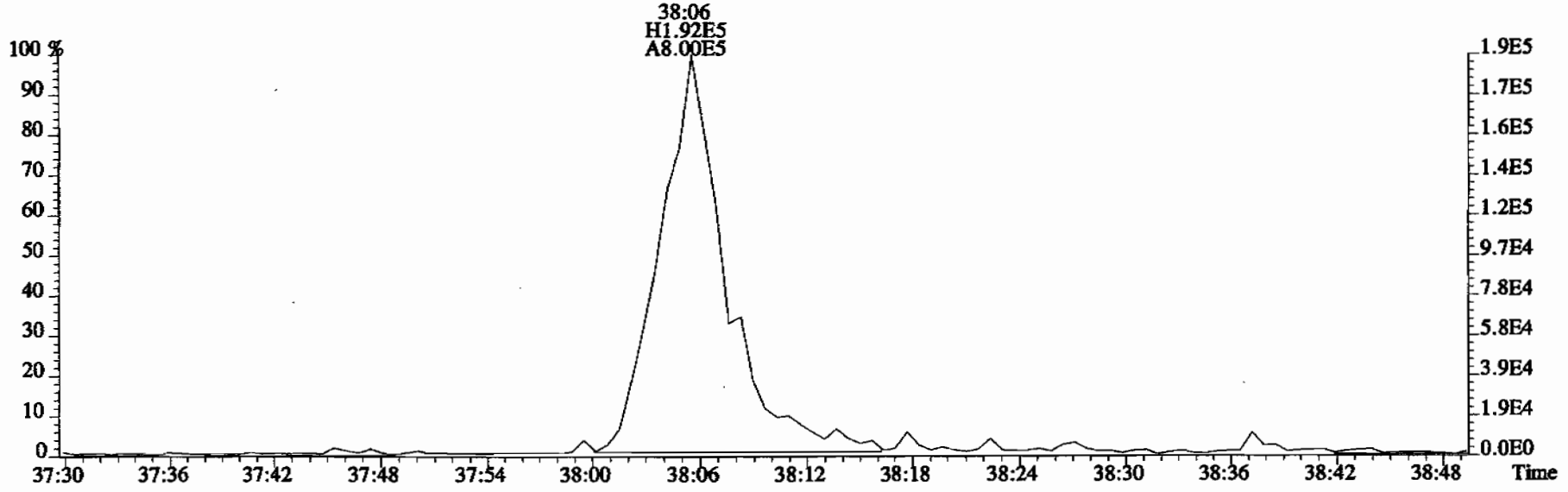

File:091008C1 #1-345 Acq: 8-OCT-2009 15:19:42 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-3 1613 CS1 090922E Exp:OCDD_DB5
457.7377 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

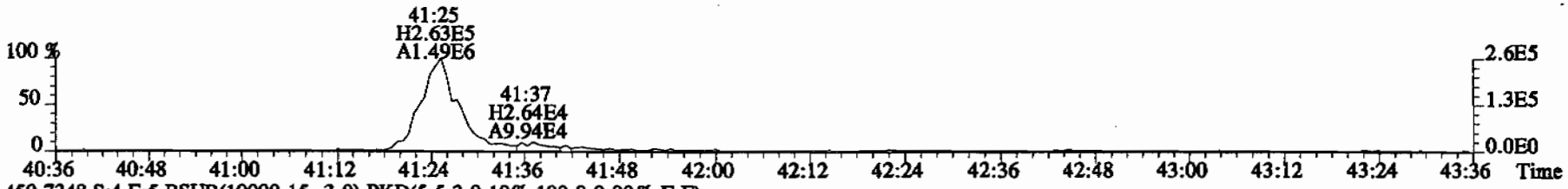

459.7348 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

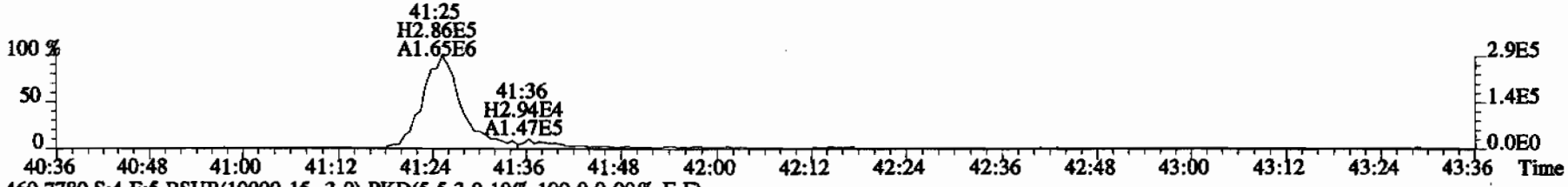

469.7780 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

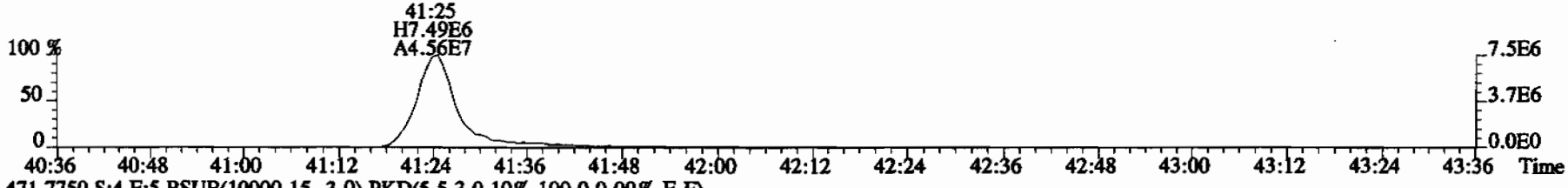

471.7750 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

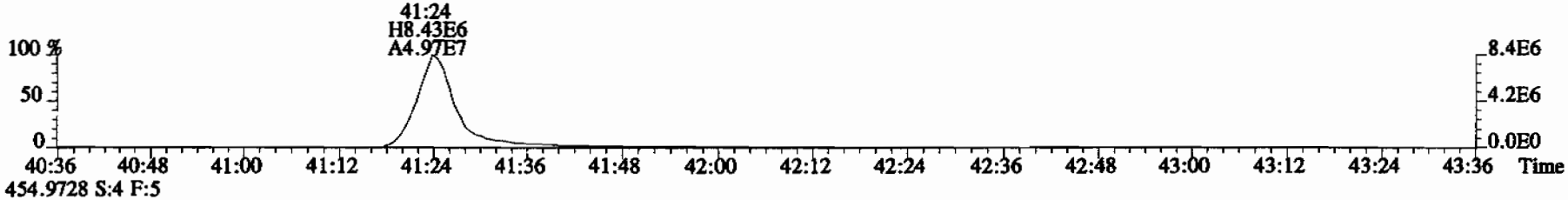

454.9728 S:4 F:5

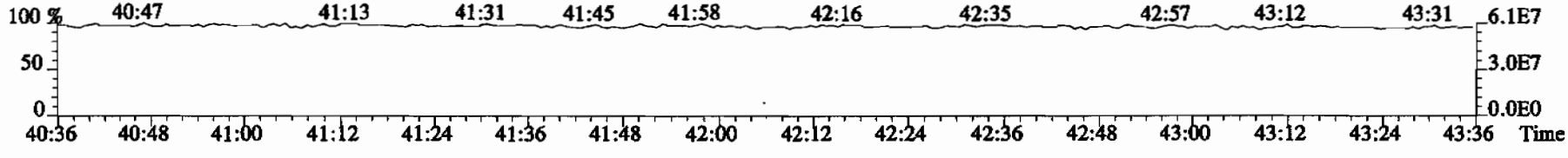

File:091008C1 #1-545 Acq: 8-OCT-2009 15:19:42 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-3 1613 CS1 090922E Exp:OCDD_DB5

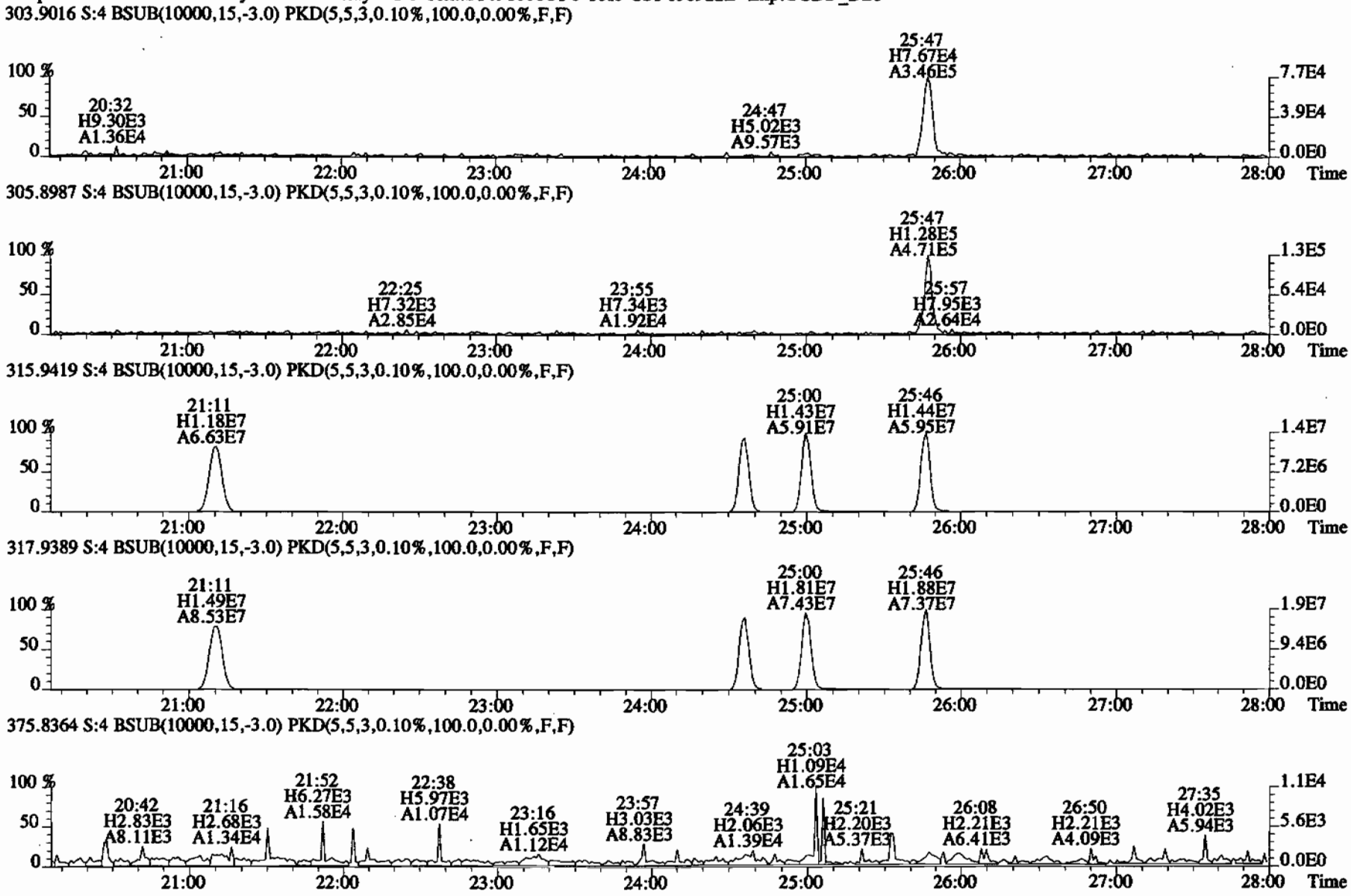

File:091008C1 #1-545 Acq: 8-OCT-2009 15:19:42 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-3 1613 CS1 090922E Exp:OCDD_DB5
303.9016 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

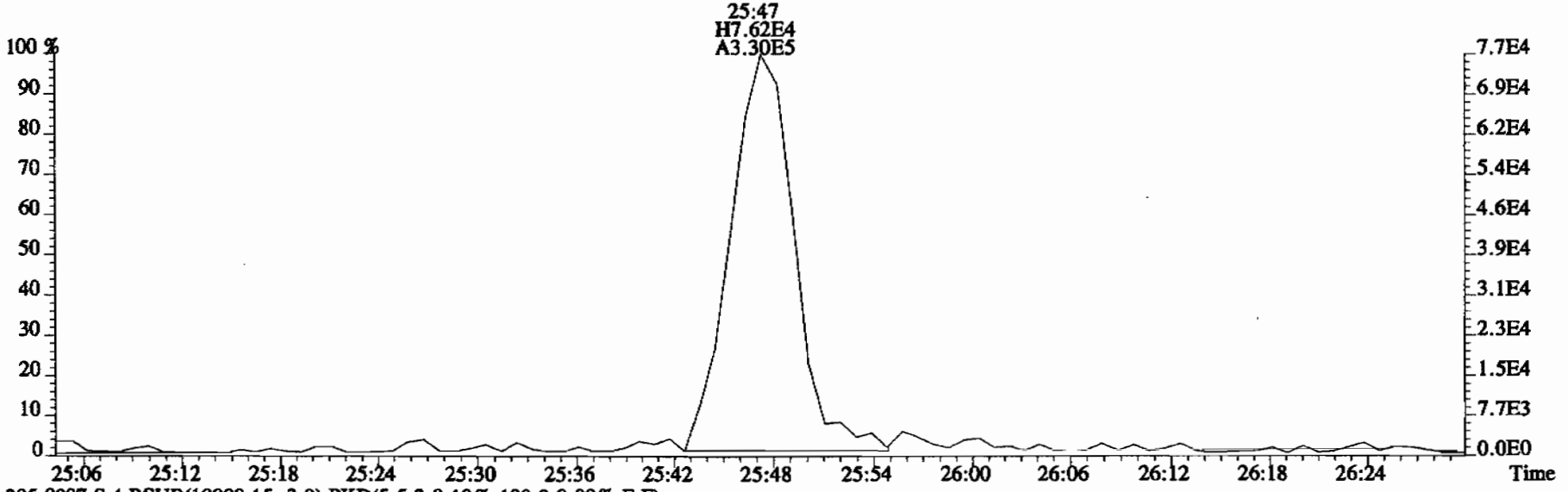

305.8987 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

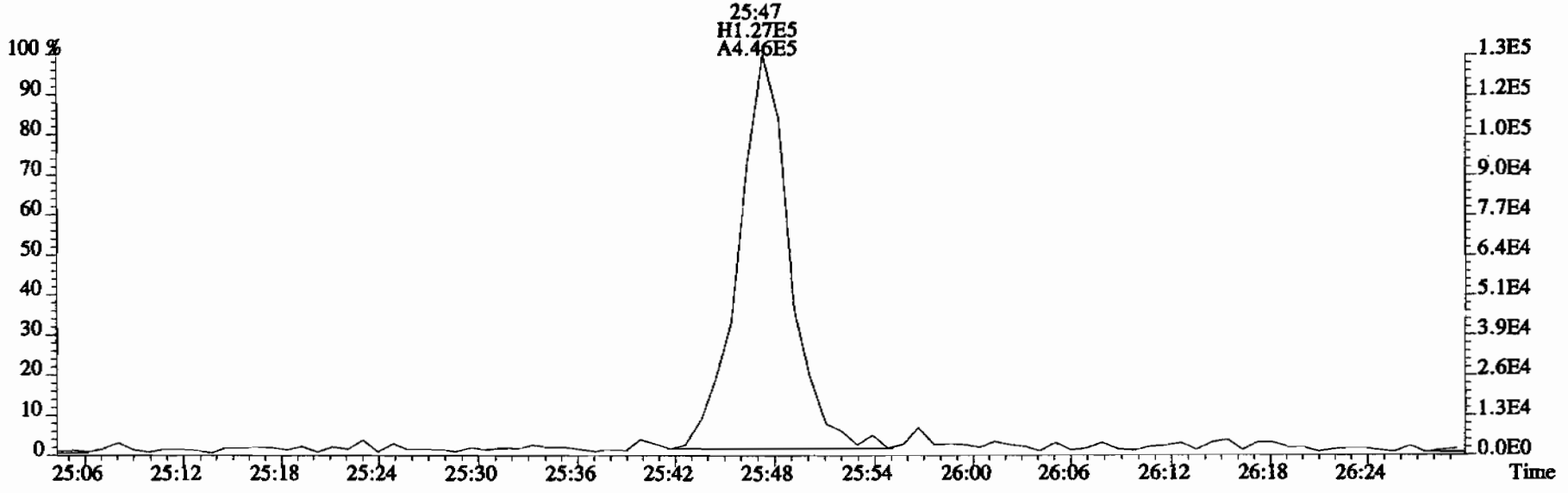

File:091008C1 #1-545 Acq: 8-OCT-2009 15:19:42 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-3 1613 CS1 090922E Exp:OCDD_DB5
339.8597 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

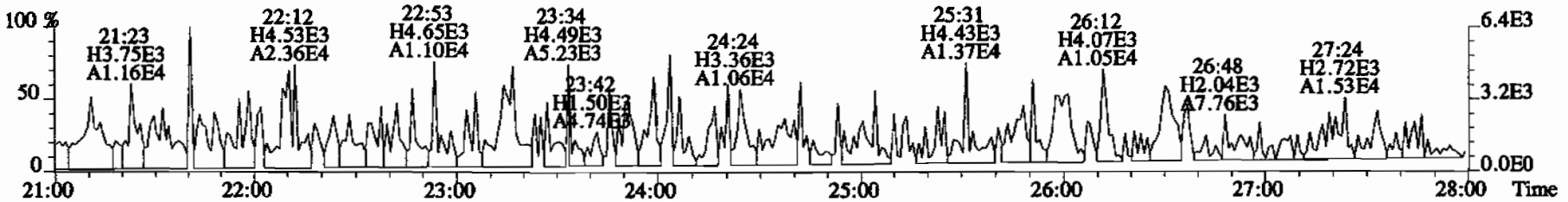

341.8568 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

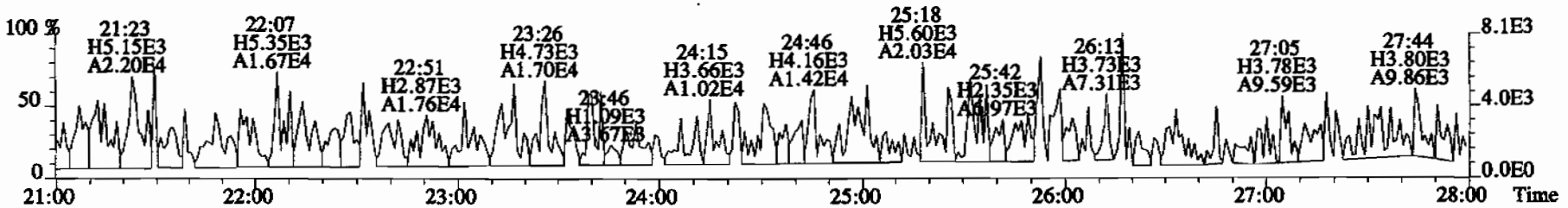

409.7974 S:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

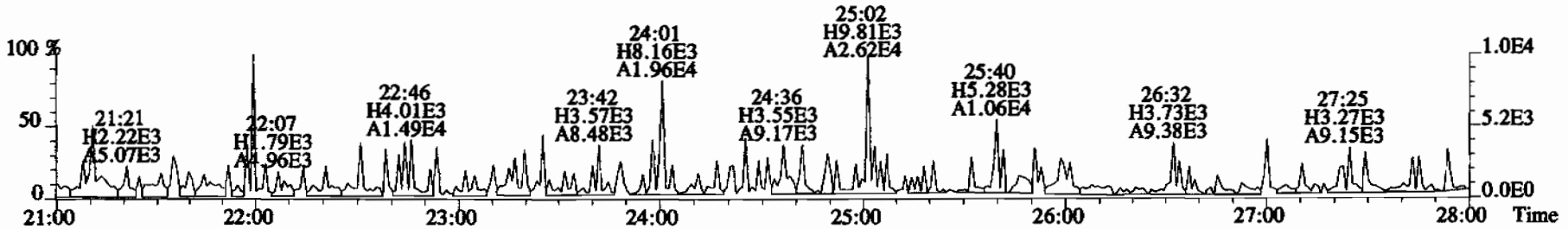

316.9824 S:4

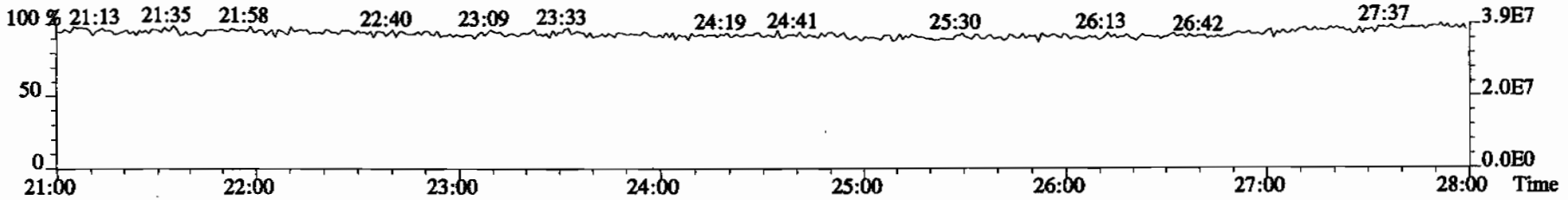

File:091008C1 #1-294 Acq: 8-OCT-2009 15:19:42 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-3 1613 CS1 090922E Exp:OCDD_DB5

339.8597 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

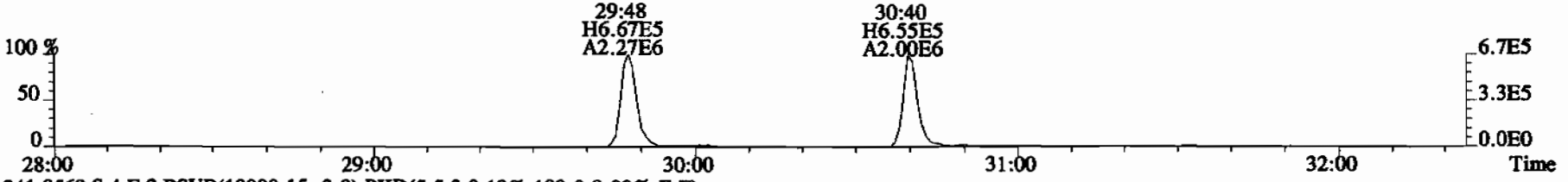

341.8568 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

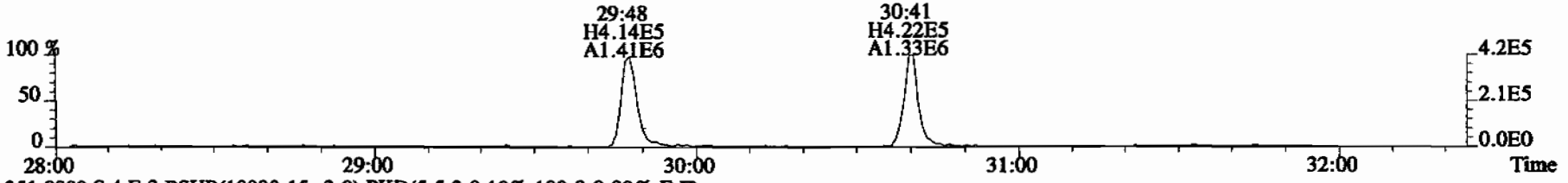

351.9000 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

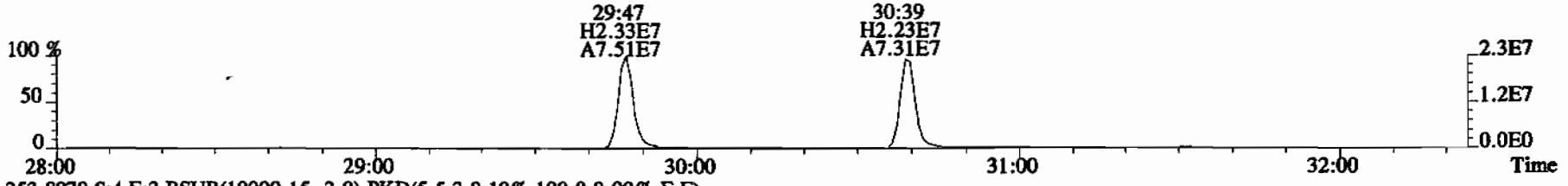

353.8970 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

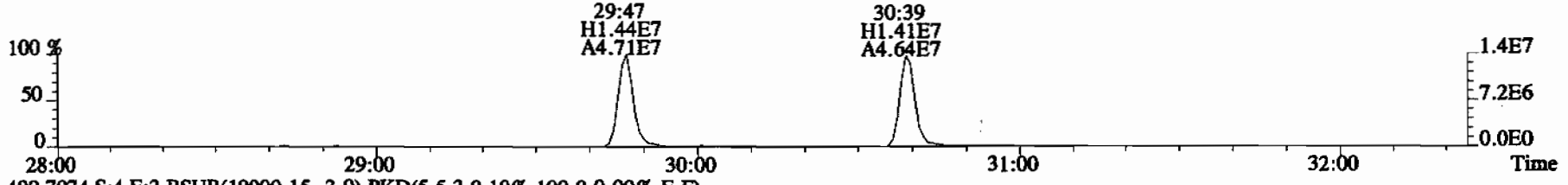

409.7974 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

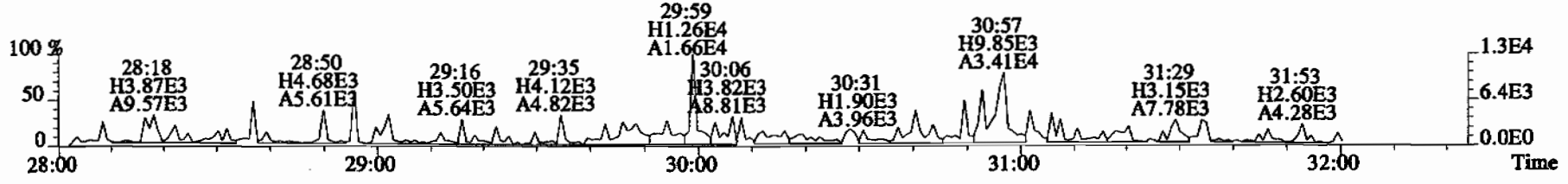

File:091008C1 #1-294 Acq: 8-OCT-2009 15:19:42 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-3 1613 CS1 090922E Exp:OCDD_DB5
339.8597 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

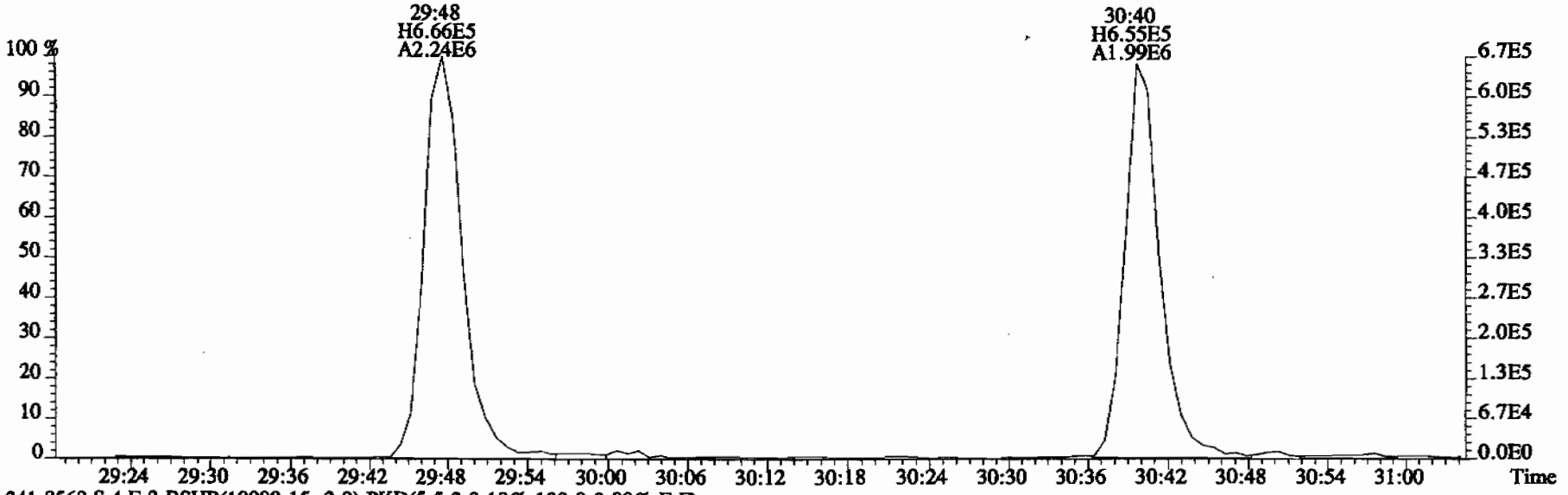

341.8568 S:4 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

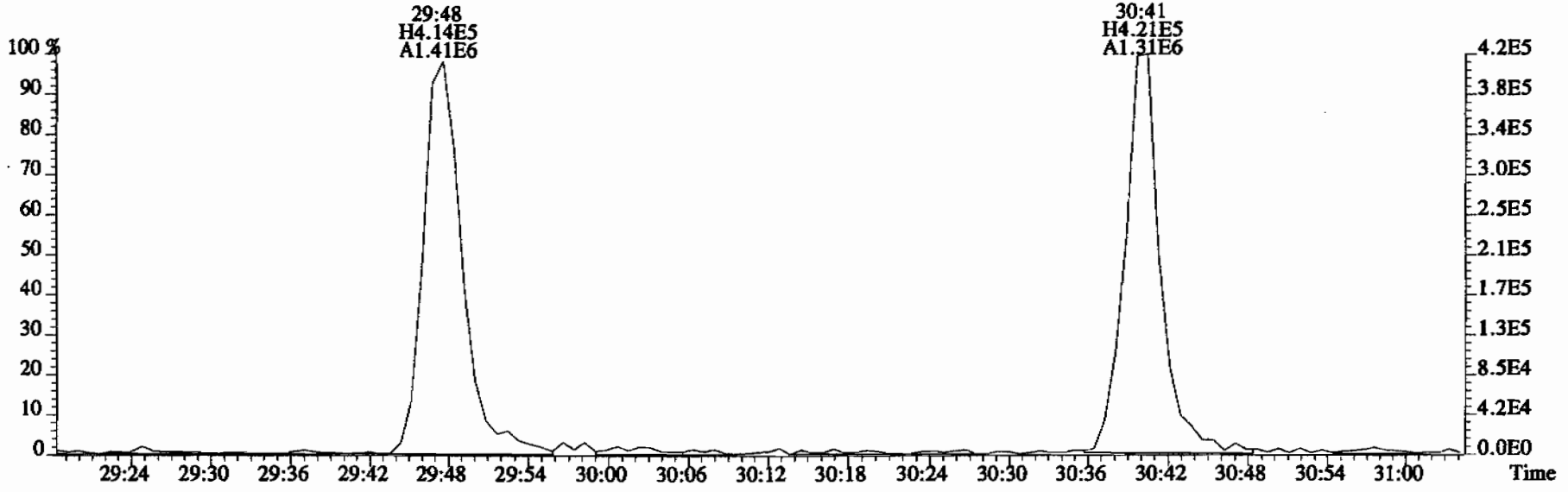

File:091008C1 #1-392 Acq: 8-OCT-2009 15:19:42 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-3 1613 CS1 090922E Exp:OCDD_DB5
373.8207 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

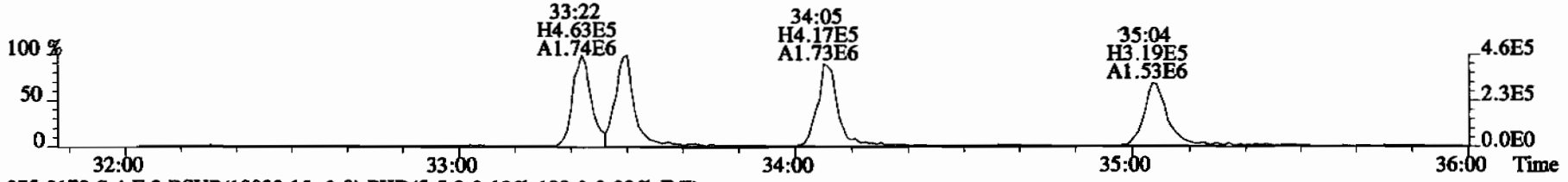

375.8178 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

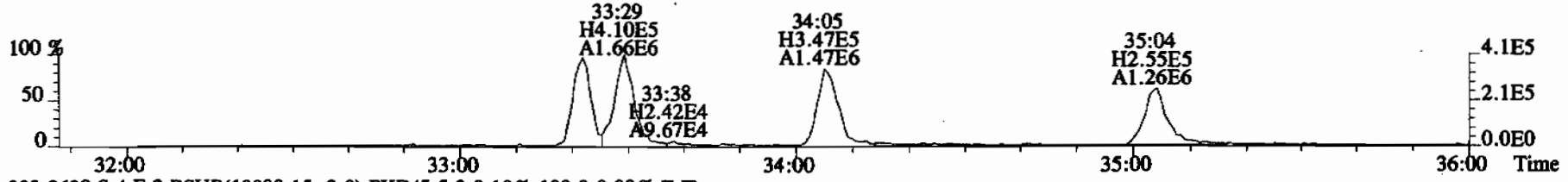

383.8639 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

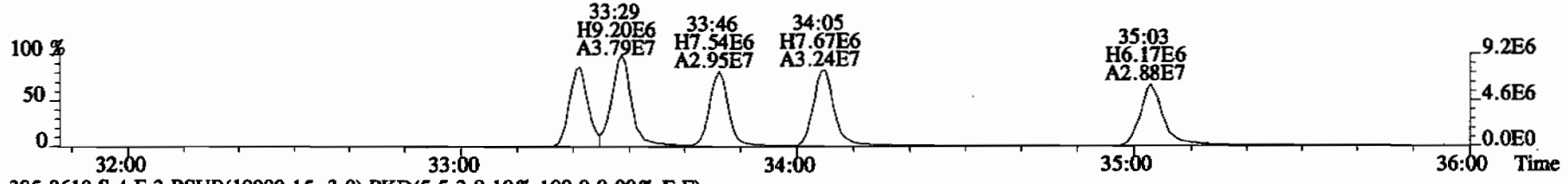

385.8610 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

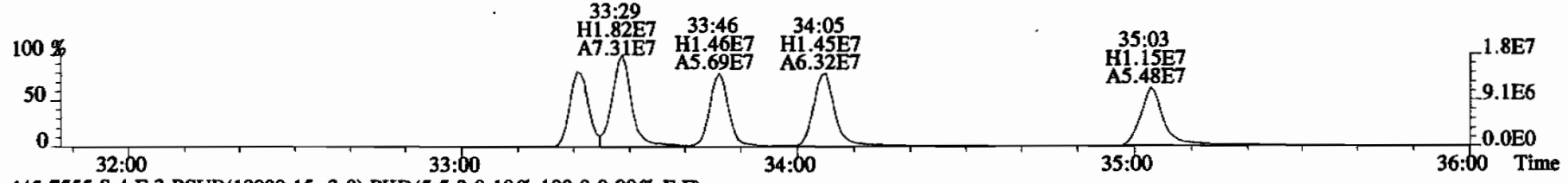

445.7555 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

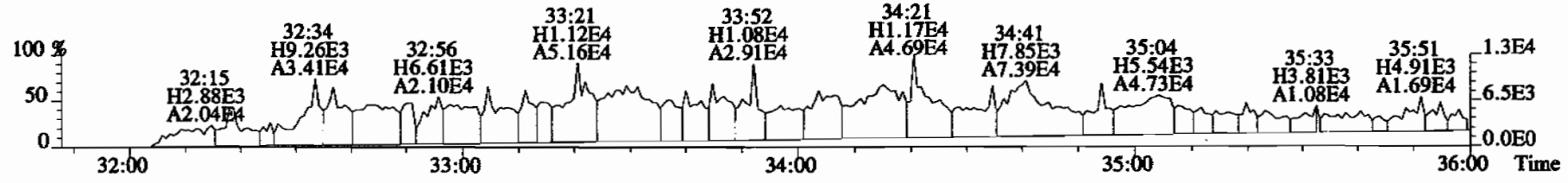

File:091008C1 #1-392 Acq: 8-OCT-2009 15:19:42 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-3 1613 CS1 090922E Exp:OCDD_DB5
383.8639 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

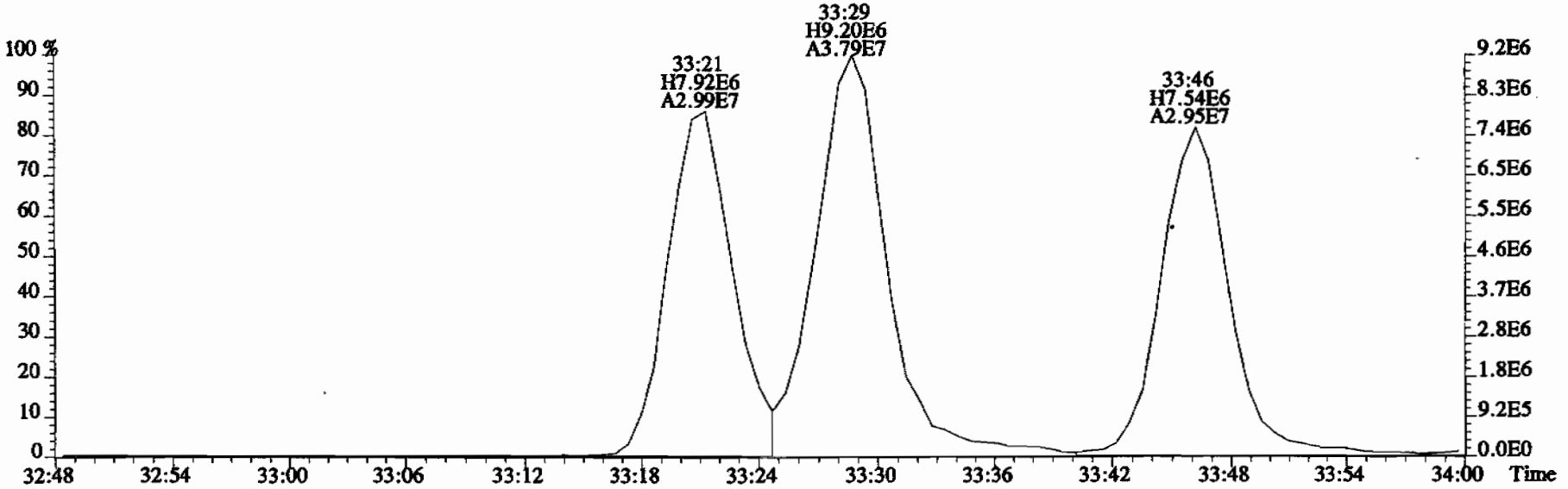

385.8610 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

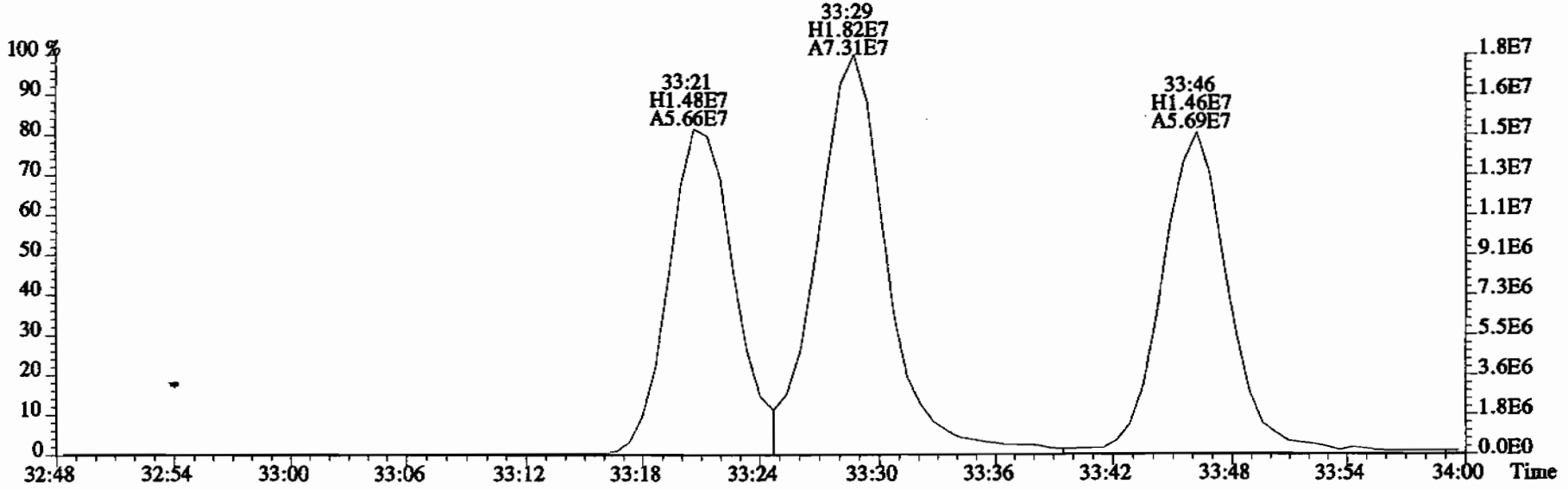

File:091008C1 #1-392 Acq: 8-OCT-2009 15:19:42 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-3 1613 CS1 090922E Exp:OCDD_DB5
373.8207 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

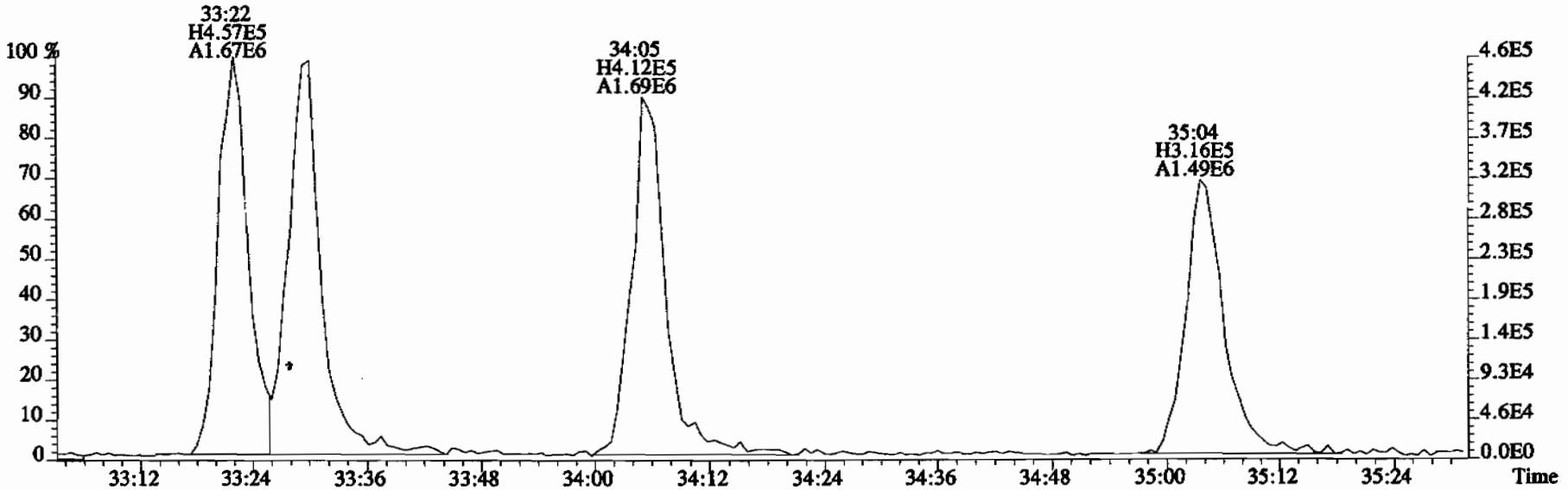

375.8178 S:4 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

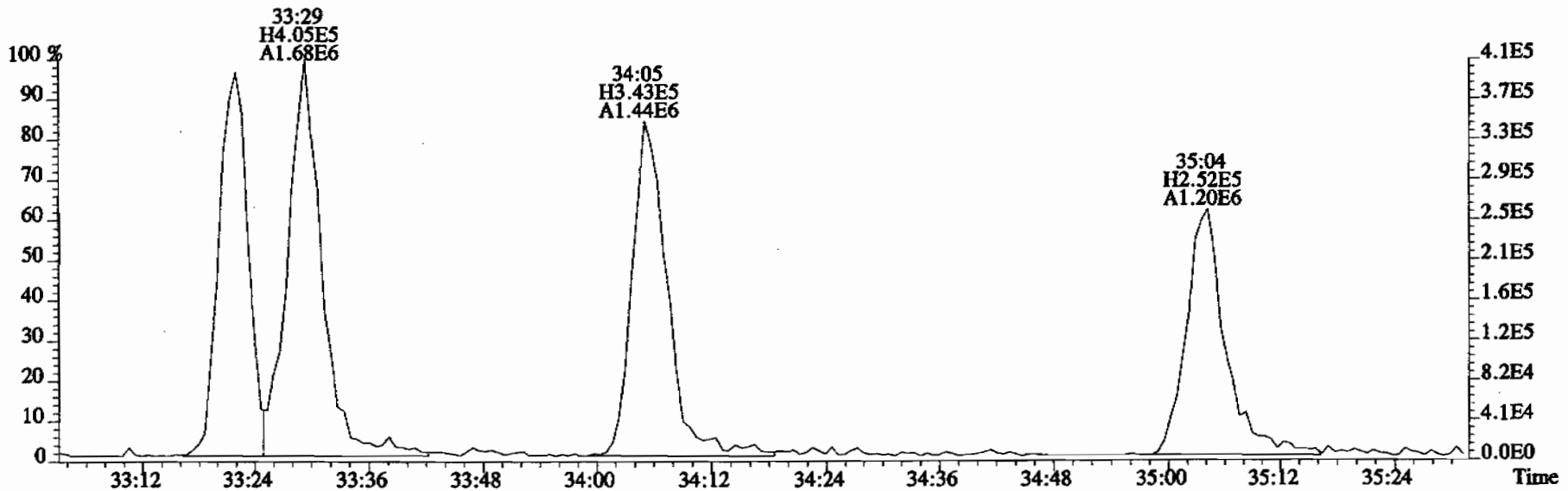

File:091008C1 #1-363 Acq: 8-OCT-2009 15:19:42 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-3 1613 CS1 090922E Exp:OCDD_DB5

407.7818 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

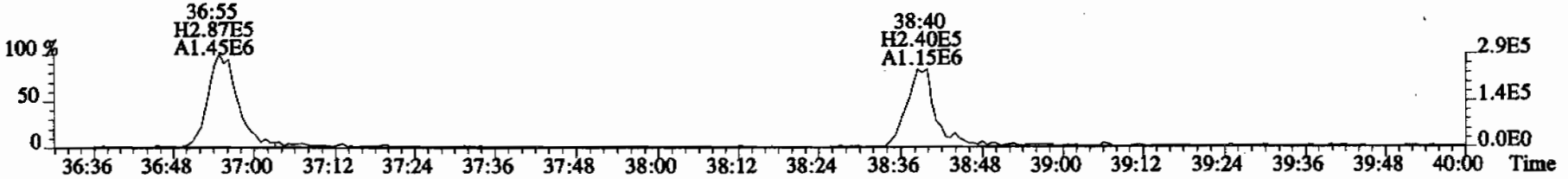

409.7788 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

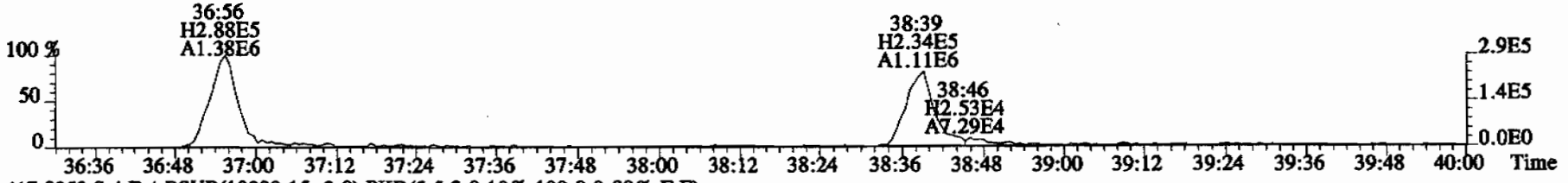

417.8253 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

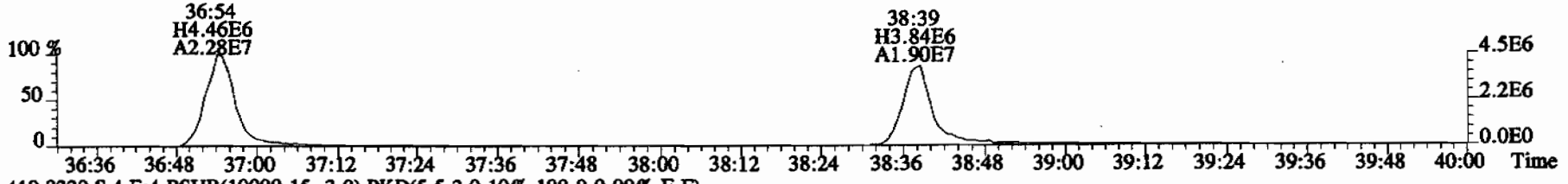

419.8220 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

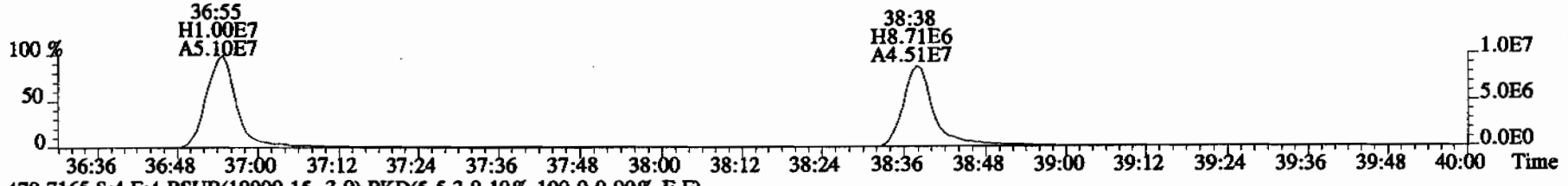

479.7165 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

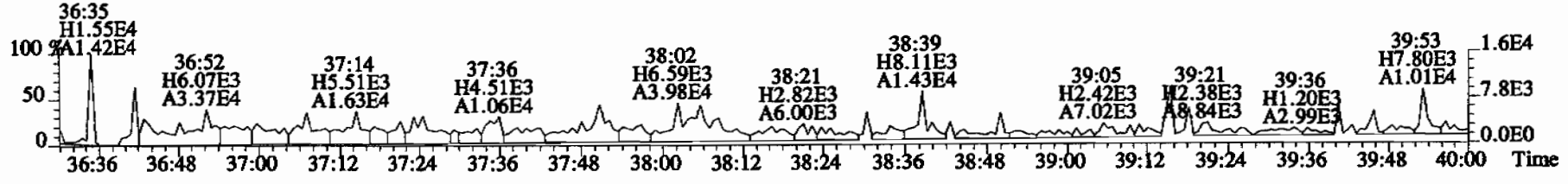

File:091008C1 #1-363 Acq: 8-OCT-2009 15:19:42 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-3 1613 CS1 090922E Exp:OCDD_DB5
407.7818 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

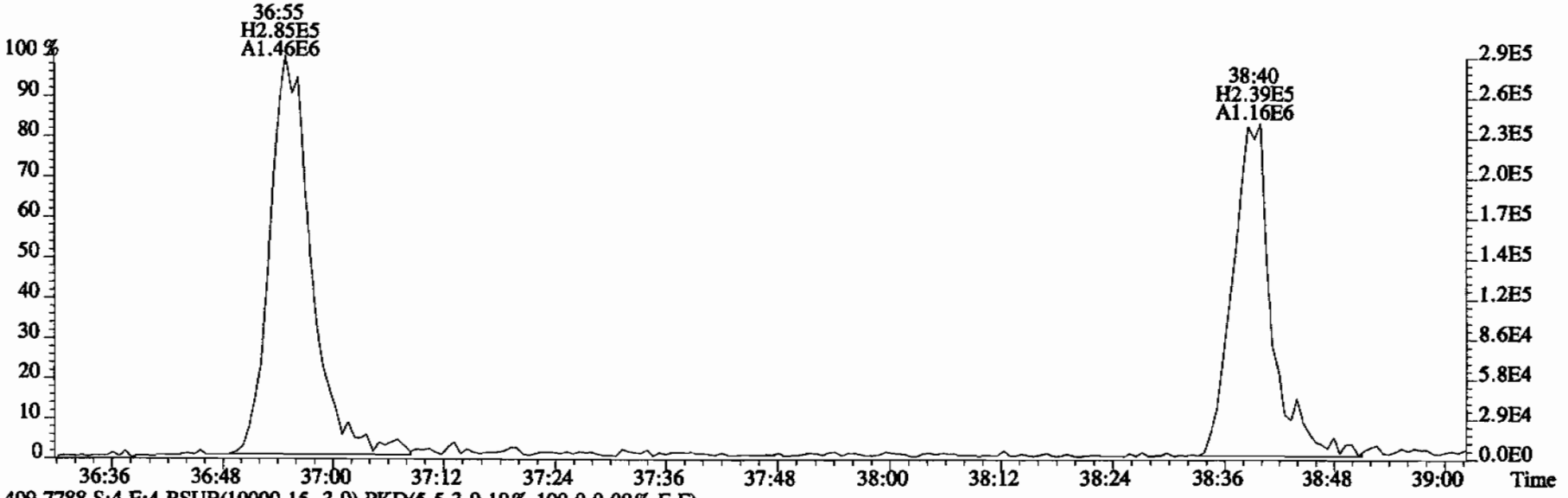

409.7788 S:4 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

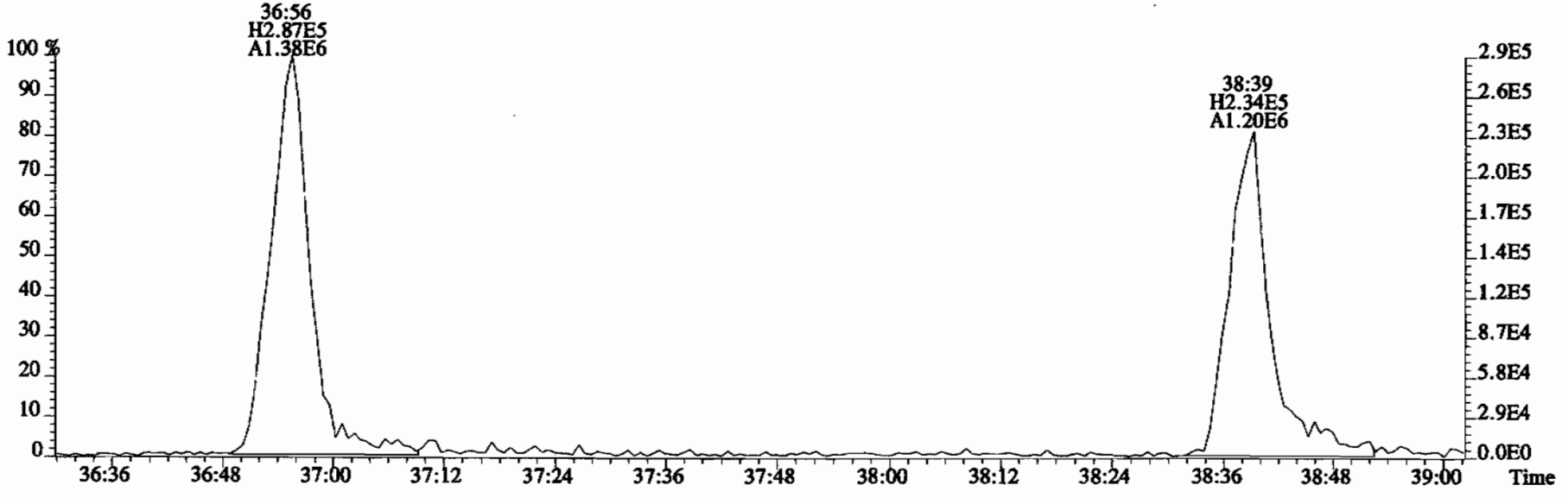

File:091008C1 #1-345 Acq: 8-OCT-2009 15:19:42 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-3 1613 CS1 090922E Exp:OCDD_DB5
441.7428 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

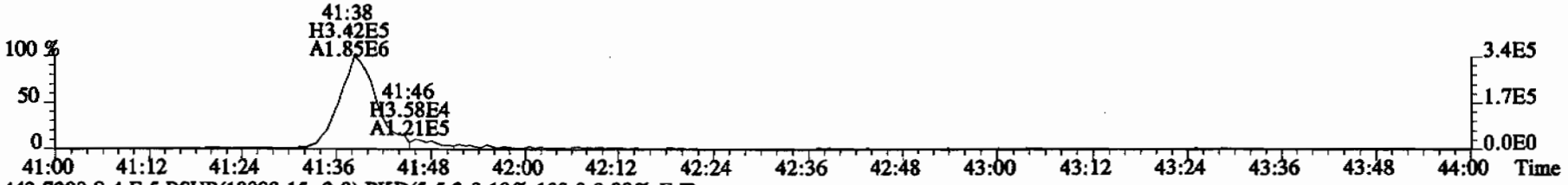

443.7398 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

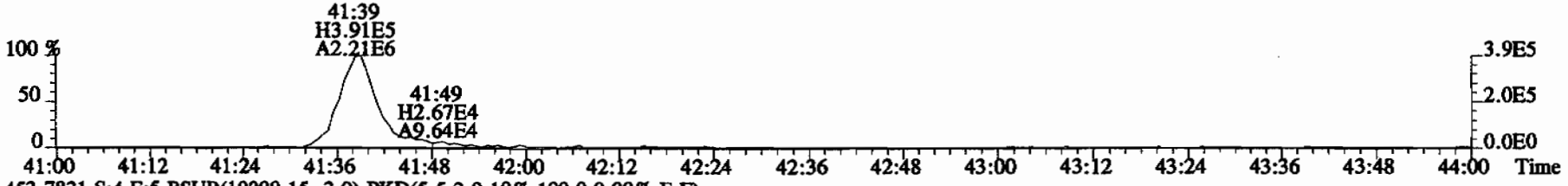

453.7831 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

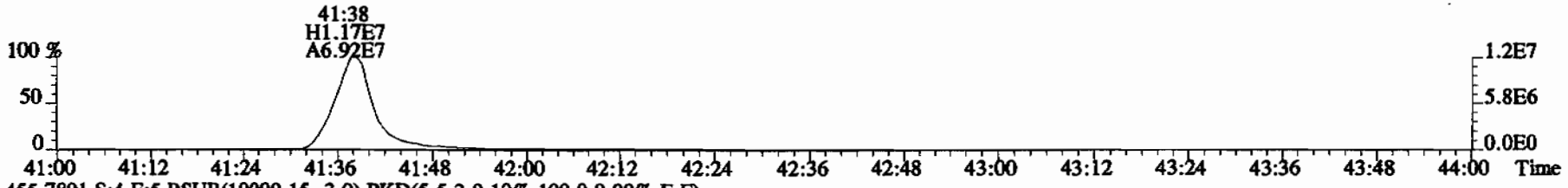

455.7801 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

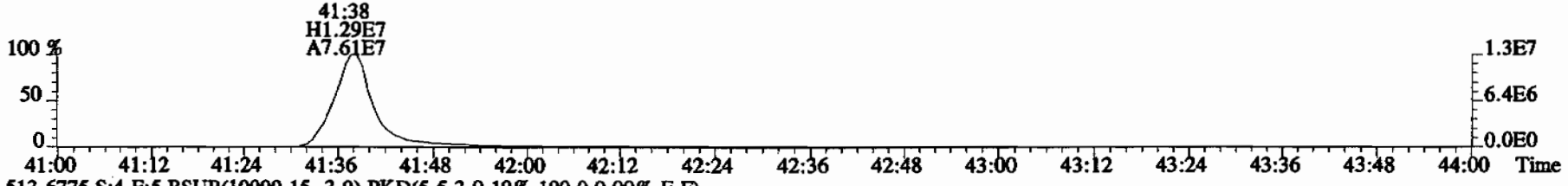

513.6775 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

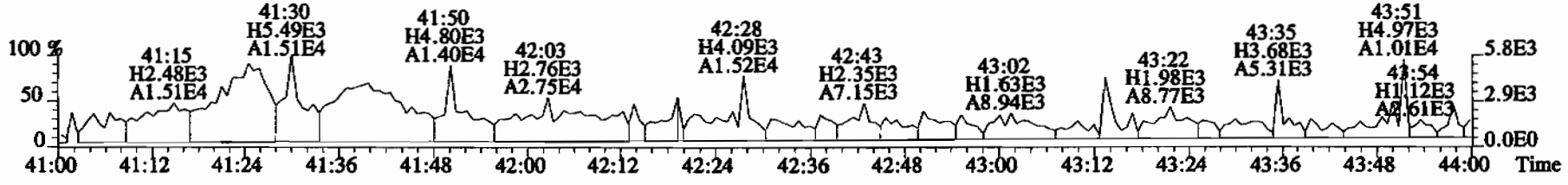

File:091008C1 #1-345 Acq: 8-OCT-2009 15:19:42 GC EI+ Voltage SIR Autospec-UltimaE
Sample#4 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-3 1613 CS1 090922E Exp:OCDD_DB5
441.7428 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

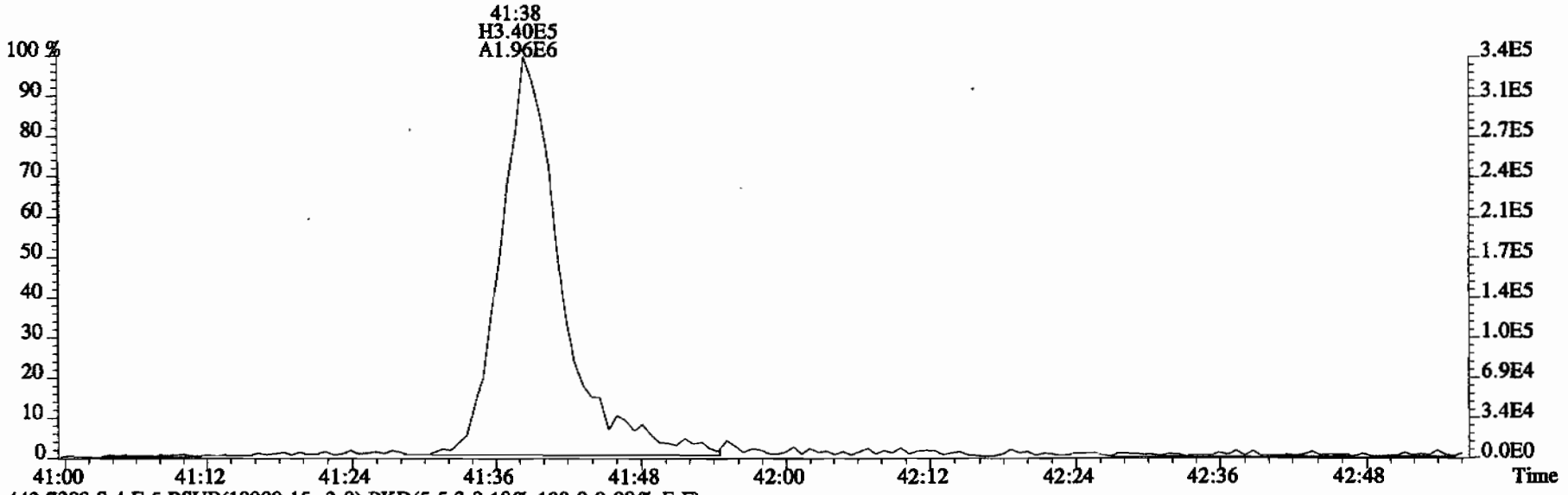

443.7398 S:4 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

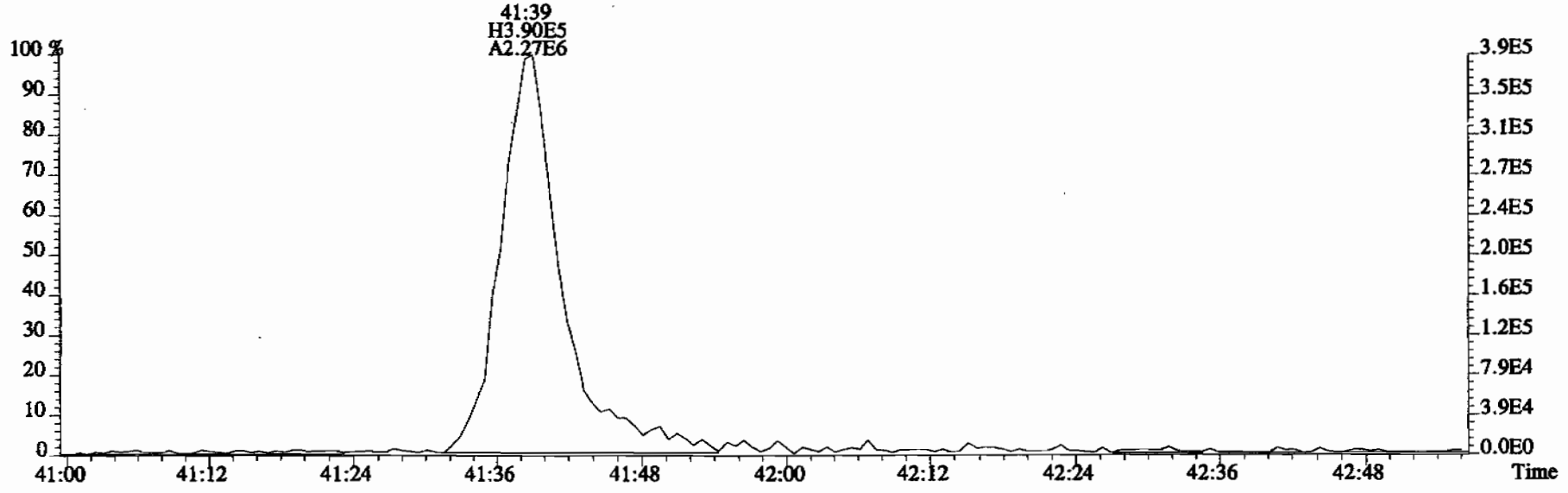

File:091008C1 #1-546 Acq: 8-OCT-2009 16:08:29 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-4 1613 CS2 090922F Exp:OCDD_DB5
319.8965 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

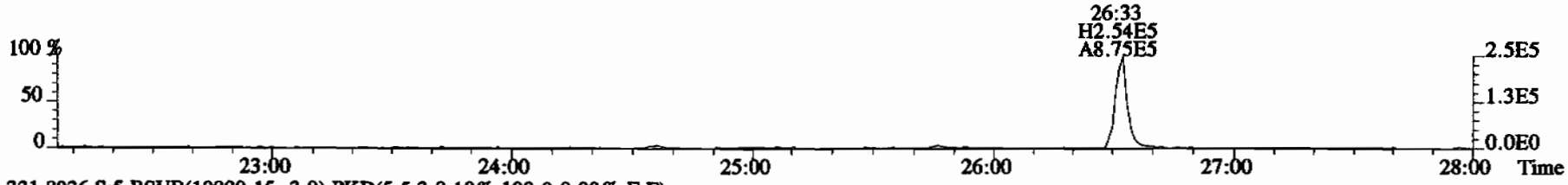

321.8936 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

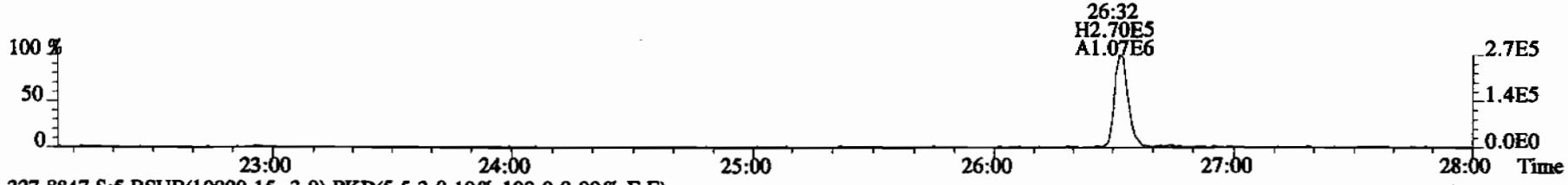

327.8847 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

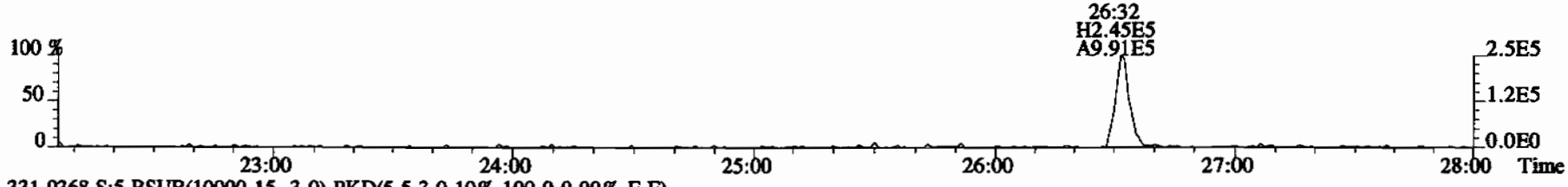

331.9368 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

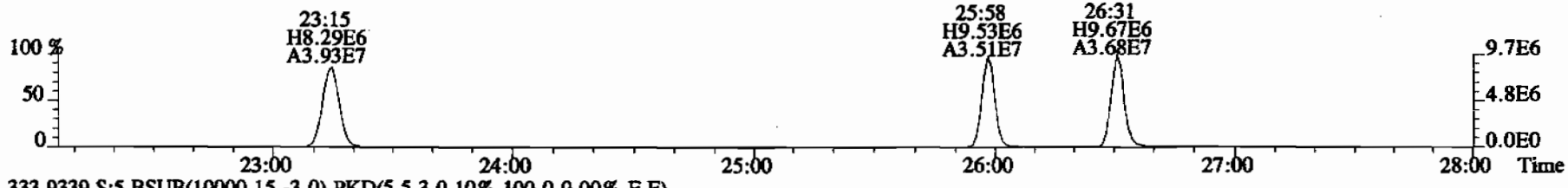

333.9339 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

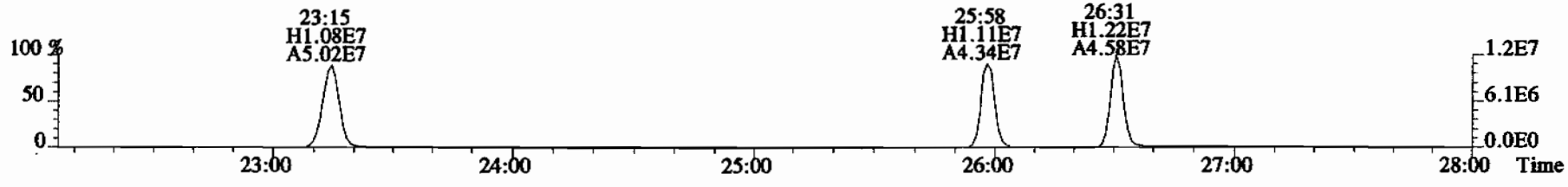

File:091008C1 #1-294 Acq: 8-OCT-2009 16:08:29 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-4 1613 CS2 090922F Exp:OCDD_DB5
353.8576 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

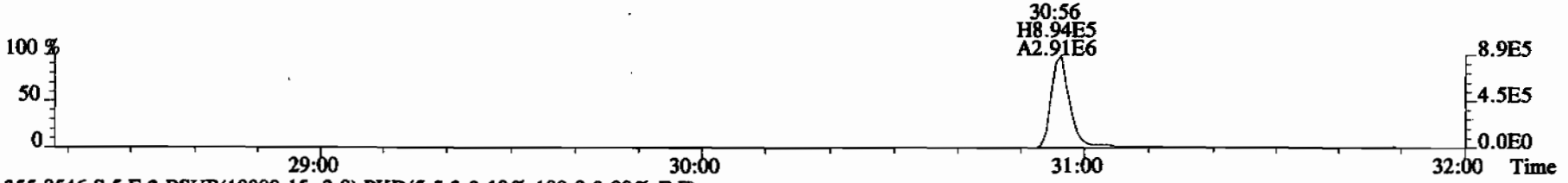

355.8546 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

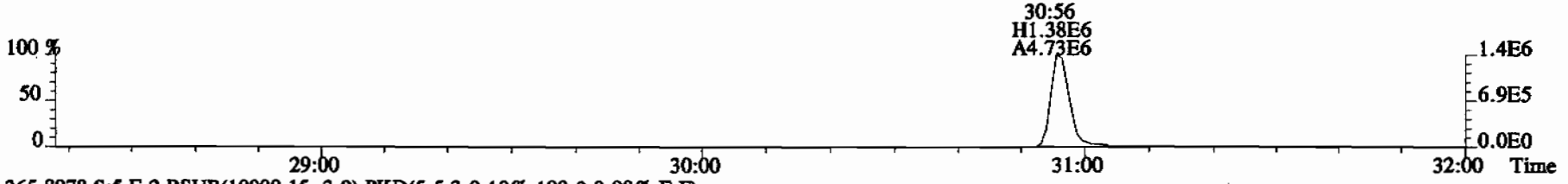

365.8978 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

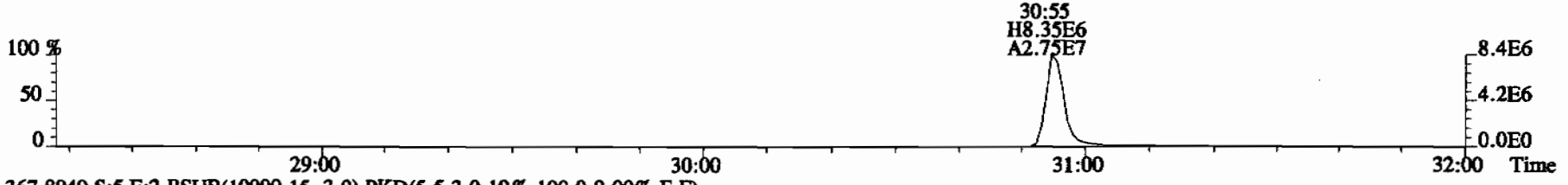

367.8949 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

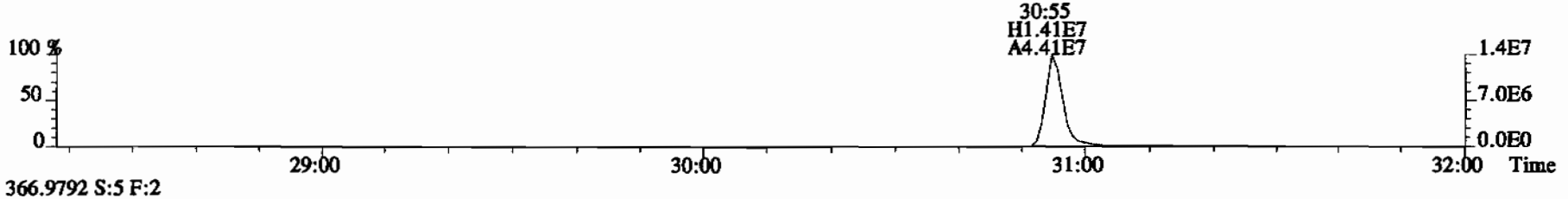

366.9792 S:5 F:2

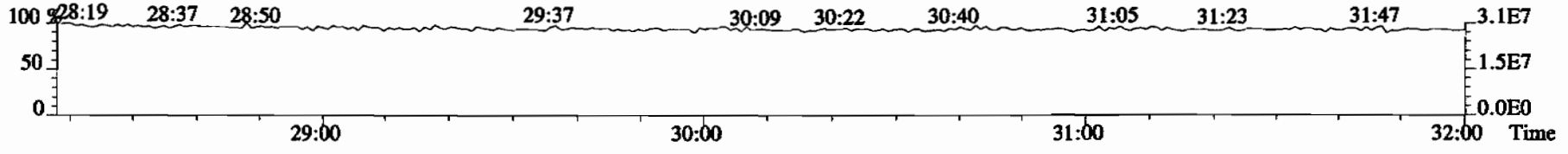

File:091008C1 #1-392 Acq: 8-OCT-2009 16:08:29 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-4 1613 CS2 090922F Exp:OCDD_DB5
389.8156 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

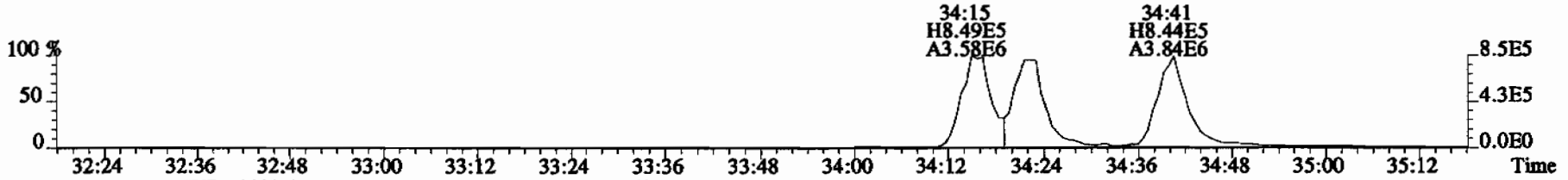

391.8127 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

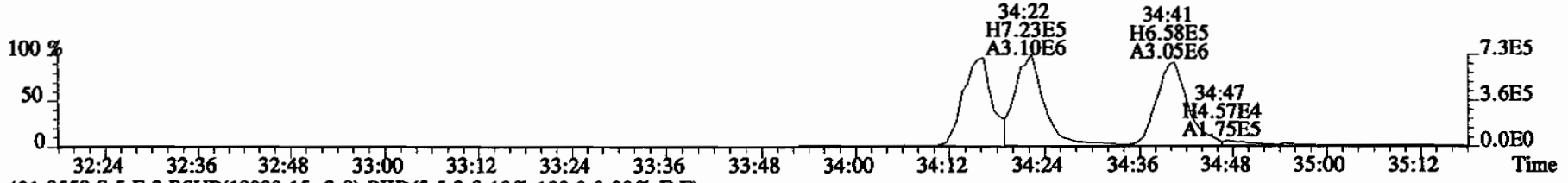

401.8559 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

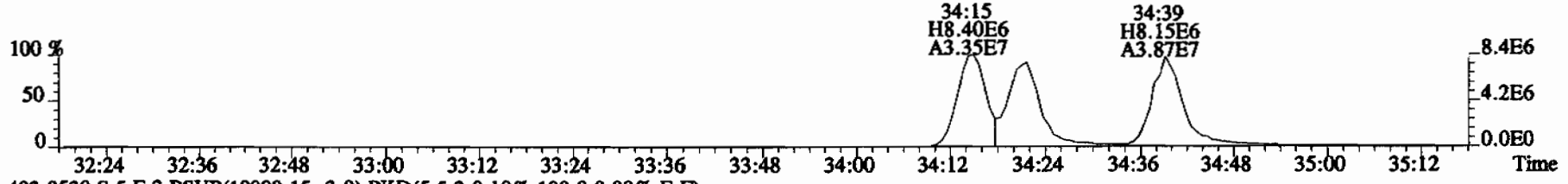

403.8530 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

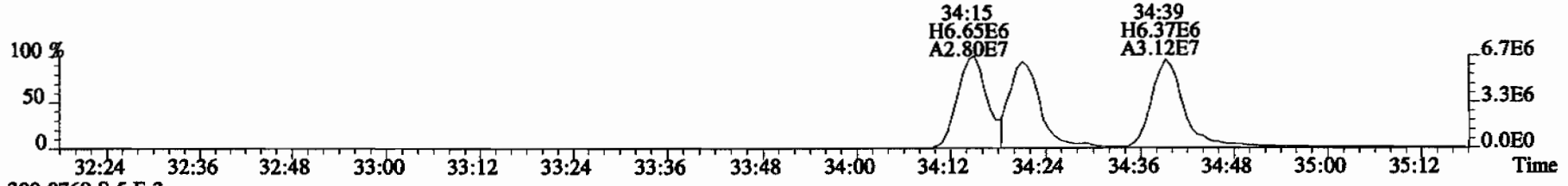

380.9760 S:5 F:3

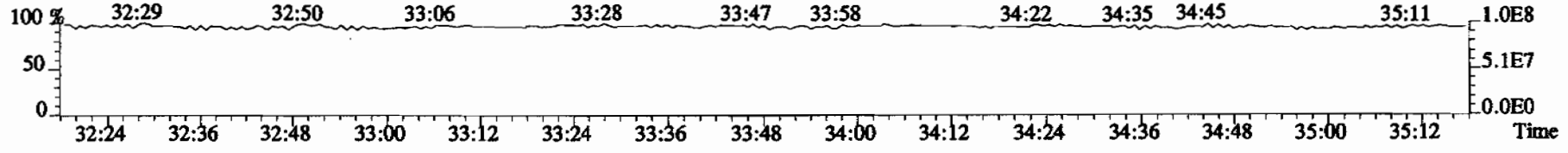

File:091008C1 #1-392 Acq: 8-OCT-2009 16:08:29 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-4 1613 CS2 090922F Exp:OCDD_DB5
401.8559 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

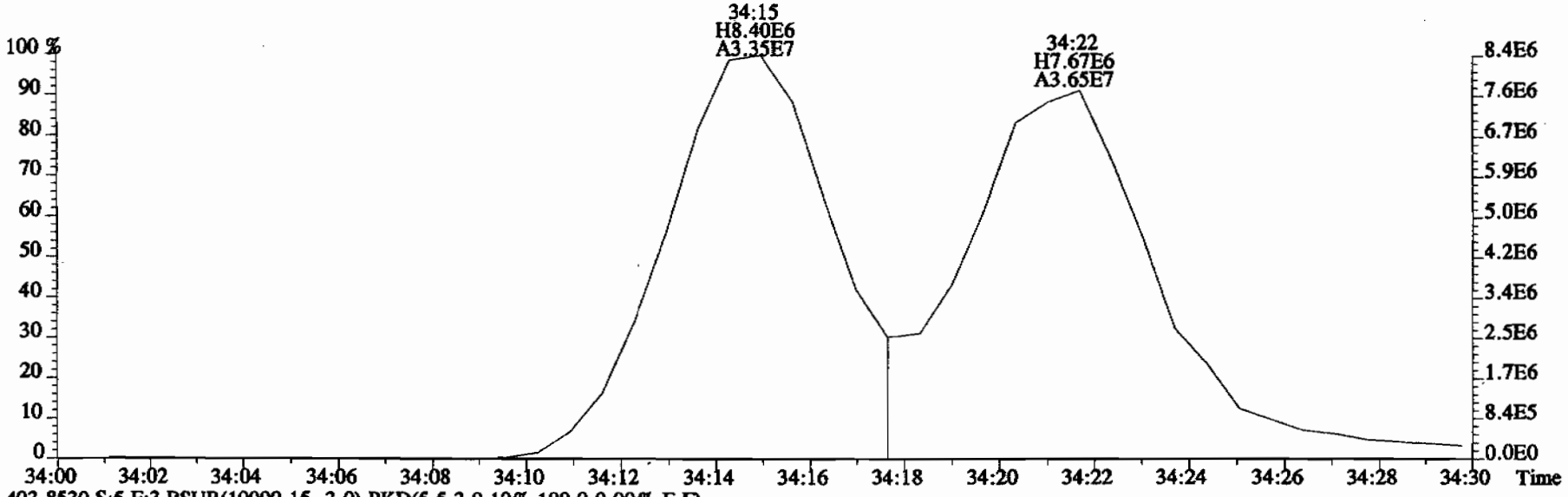

403.8530 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

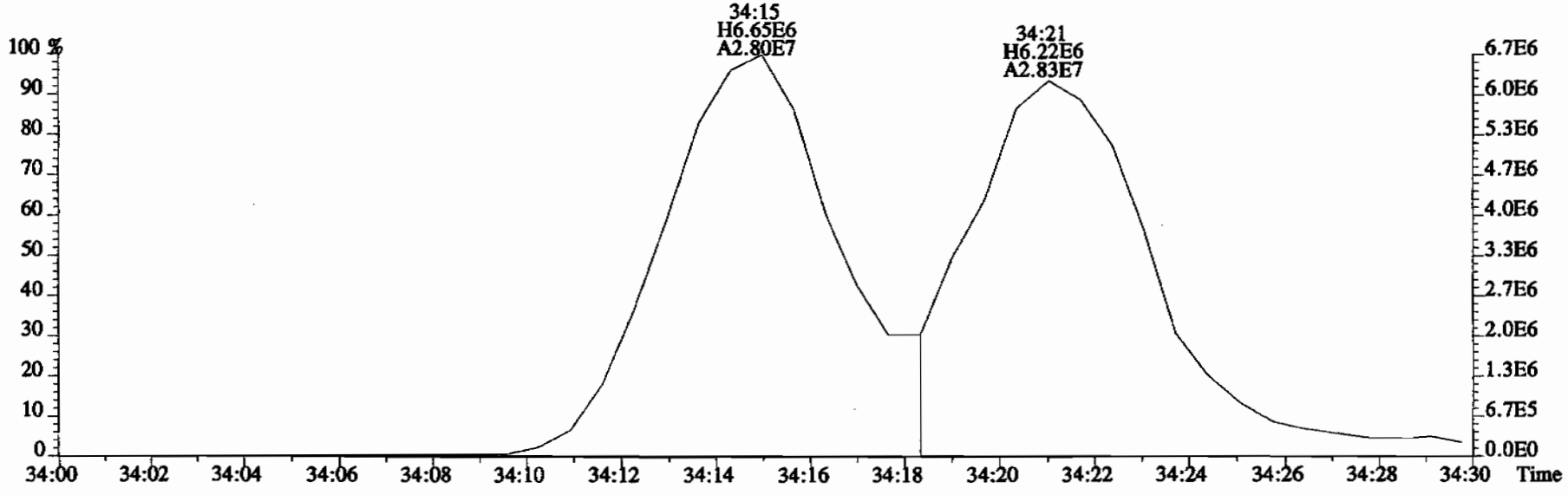

File:091008C1 #1-392 Acq: 8-OCT-2009 16:08:29 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-4 1613 CS2 090922F Exp:OCDD_DB5
389.8156 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

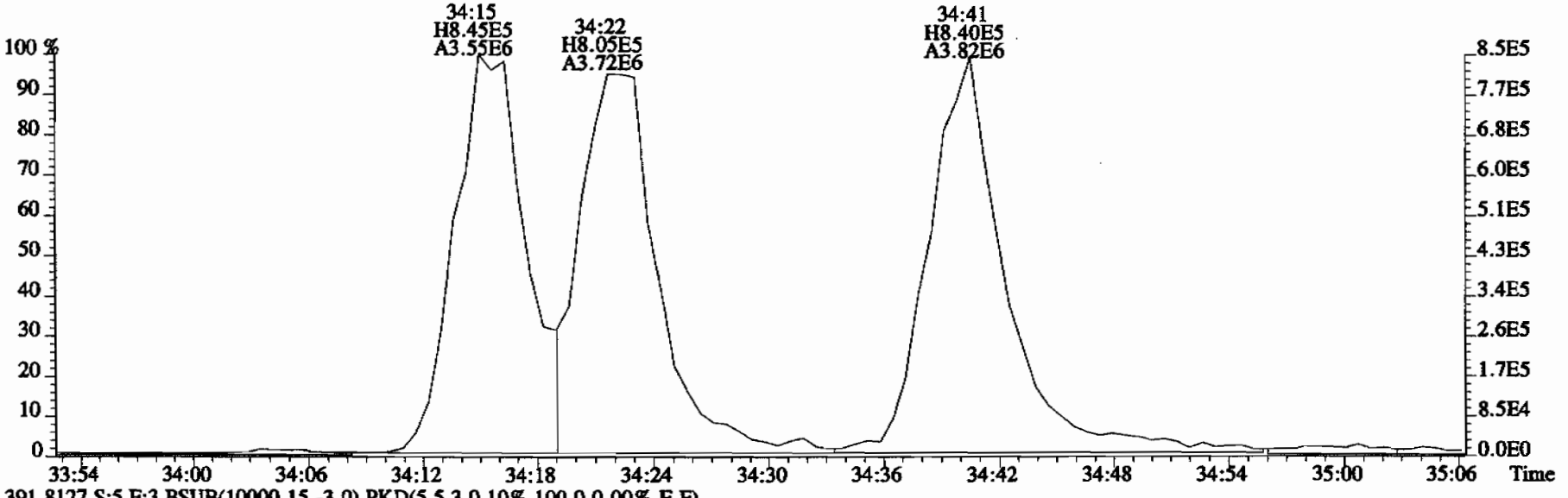

391.8127 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

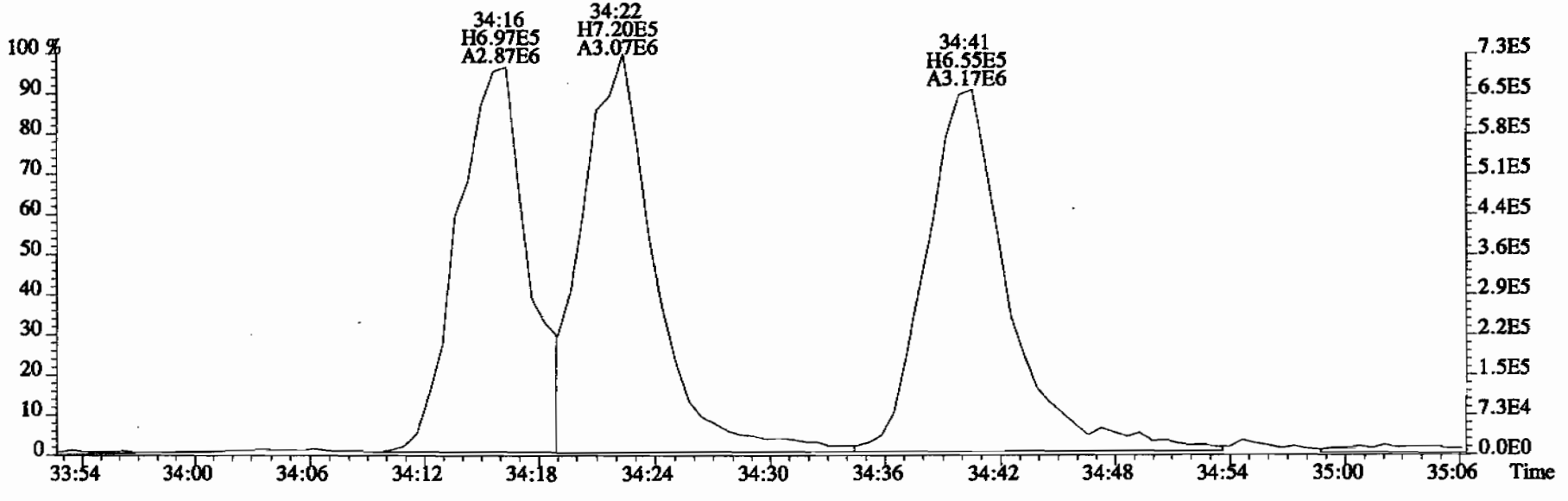

File:091008C1 #1-362 Acq: 8-OCT-2009 16:08:29 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-4 1613 CS2 090922F Exp:OCDD_DB5
423.7767 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

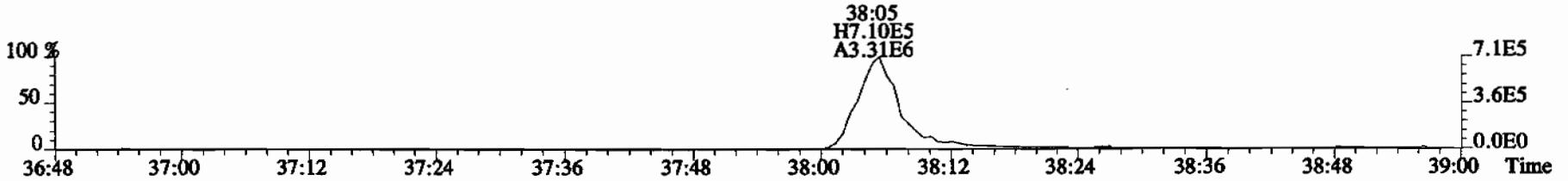

425.7737 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

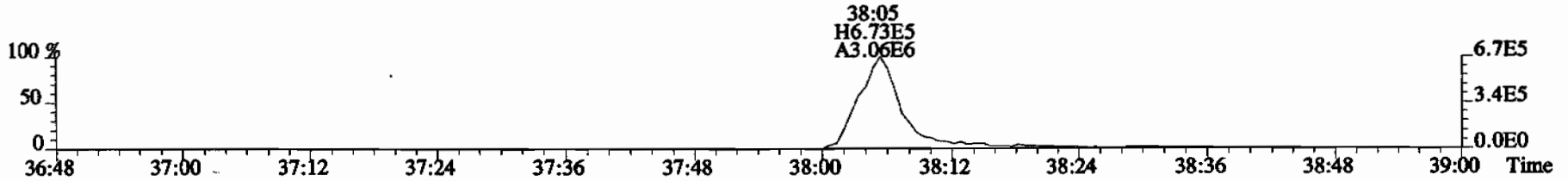

435.8169 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

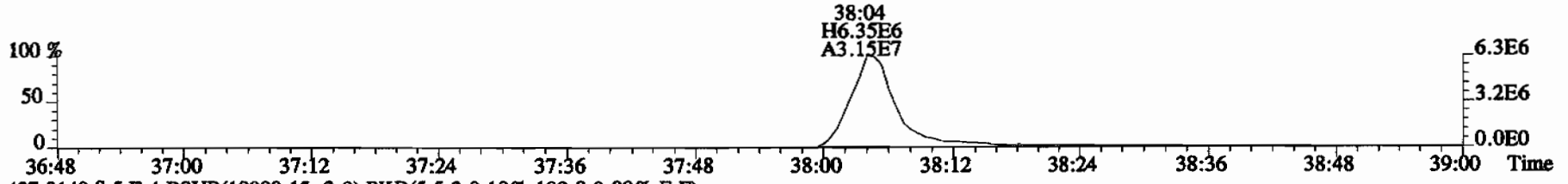

437.8140 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

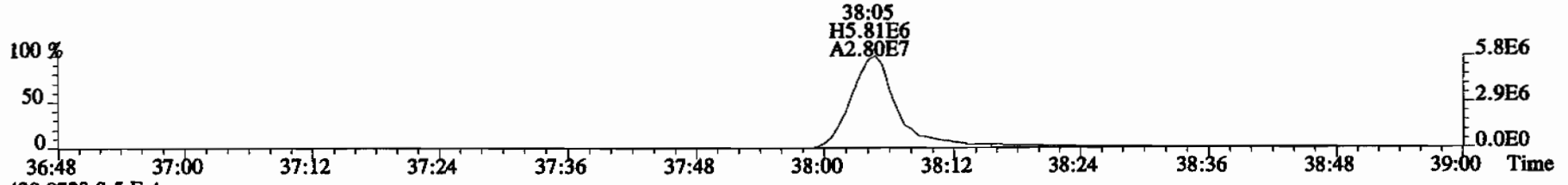

430.9728 S:5 F:4

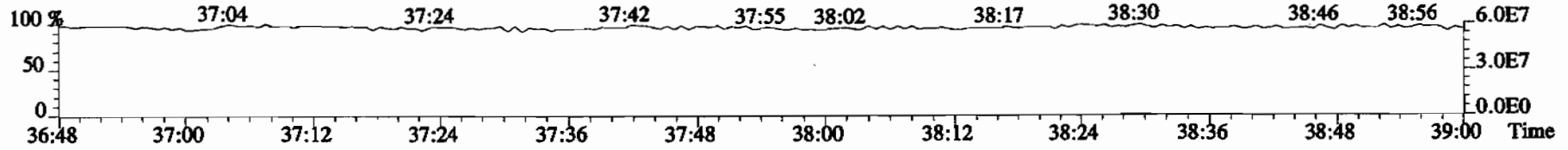

File:091008C1 #1-362 Acq: 8-OCT-2009 16:08:29 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-4 1613 CS2 090922F Exp:OCDD_DB5
423.7767 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

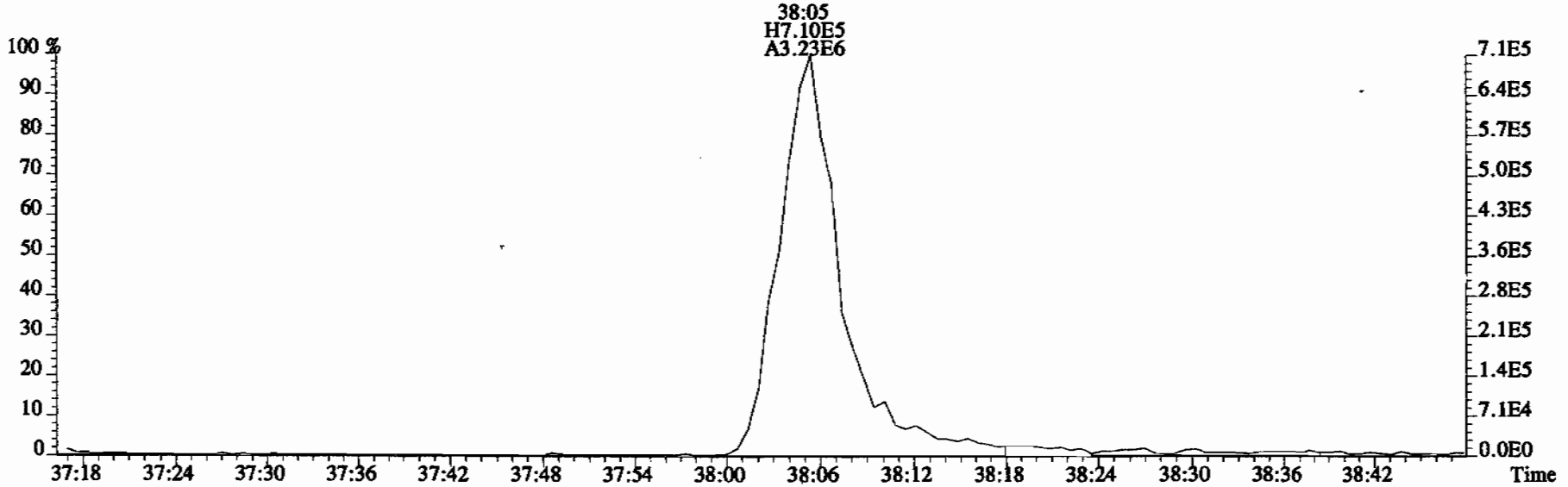

425.7737 S:5 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

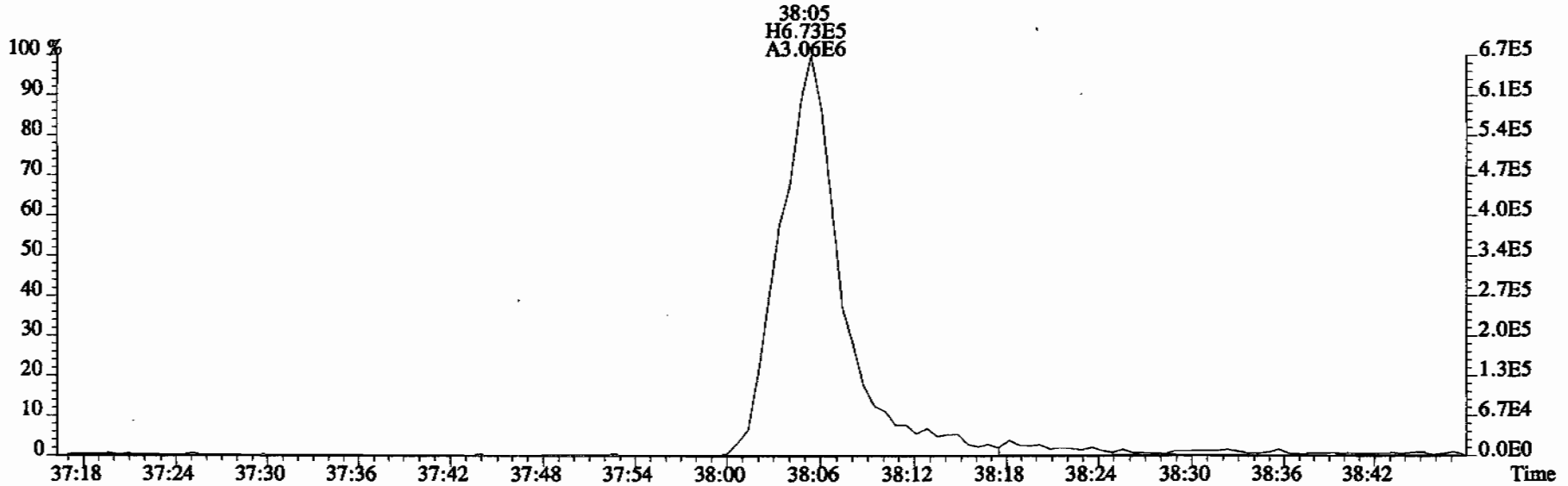

File:091008C1 #1-345 Acq: 8-OCT-2009 16:08:29 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-4 1613 CS2 090922F Exp:OCDD_DB5
457.7377 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

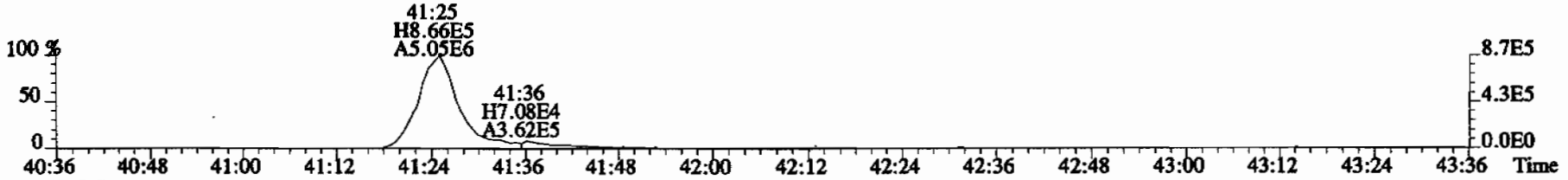

459.7348 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

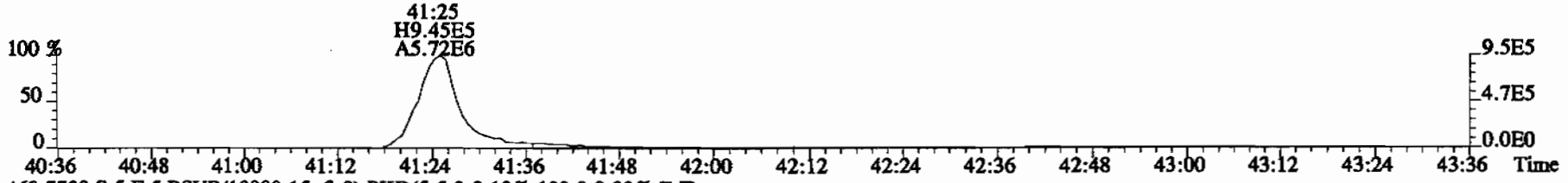

469.7780 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

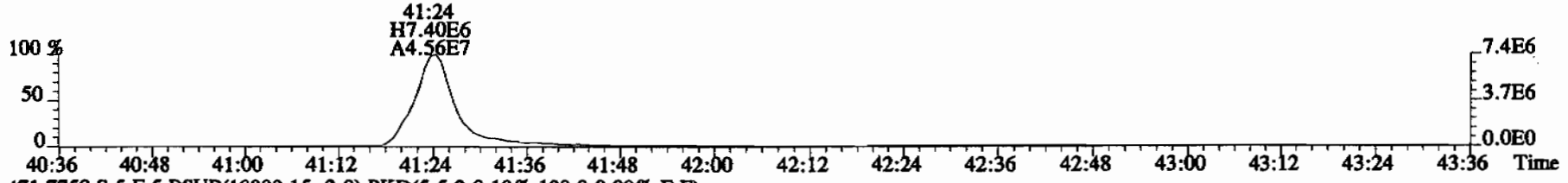

471.7750 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

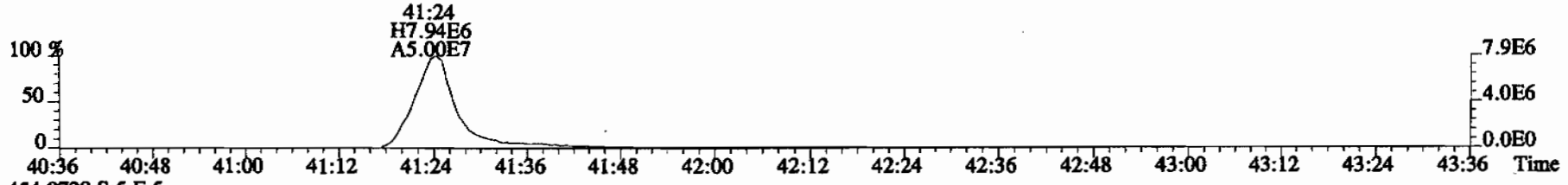

454.9728 S:5 F:5

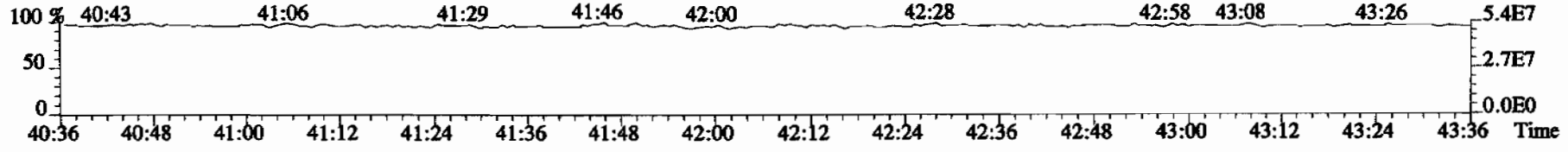

File:091008C1 #1-345 Acq: 8-OCT-2009 16:08:29 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-4 1613 CS2 090922F Exp:OCDD_DB5
457.7377 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

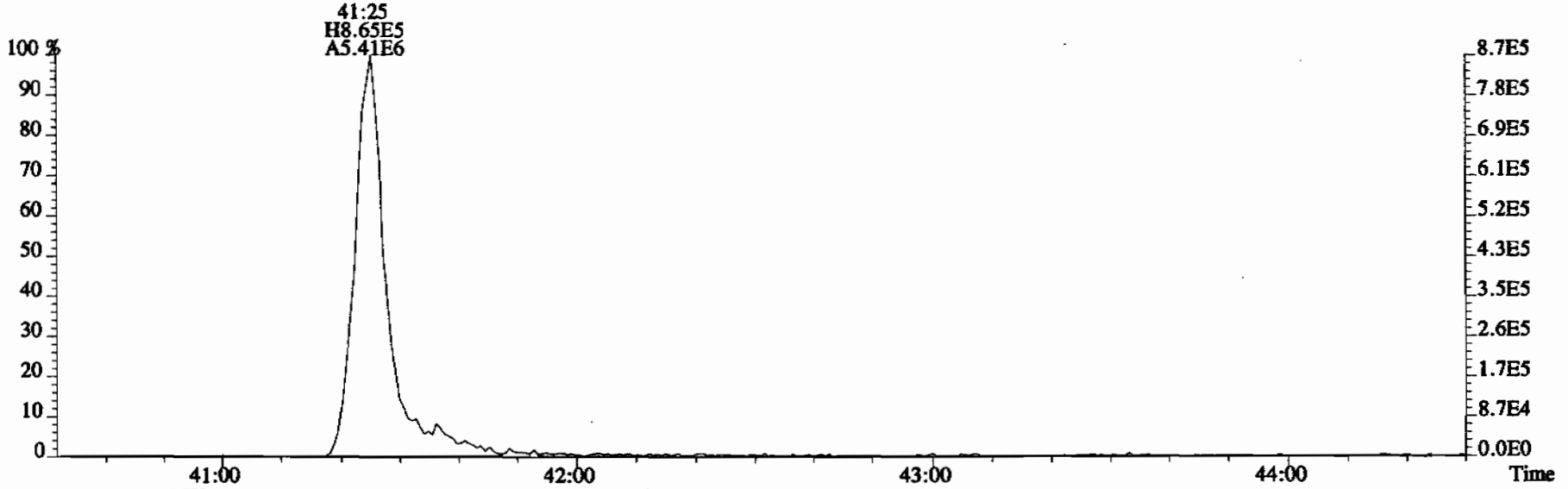

459.7348 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

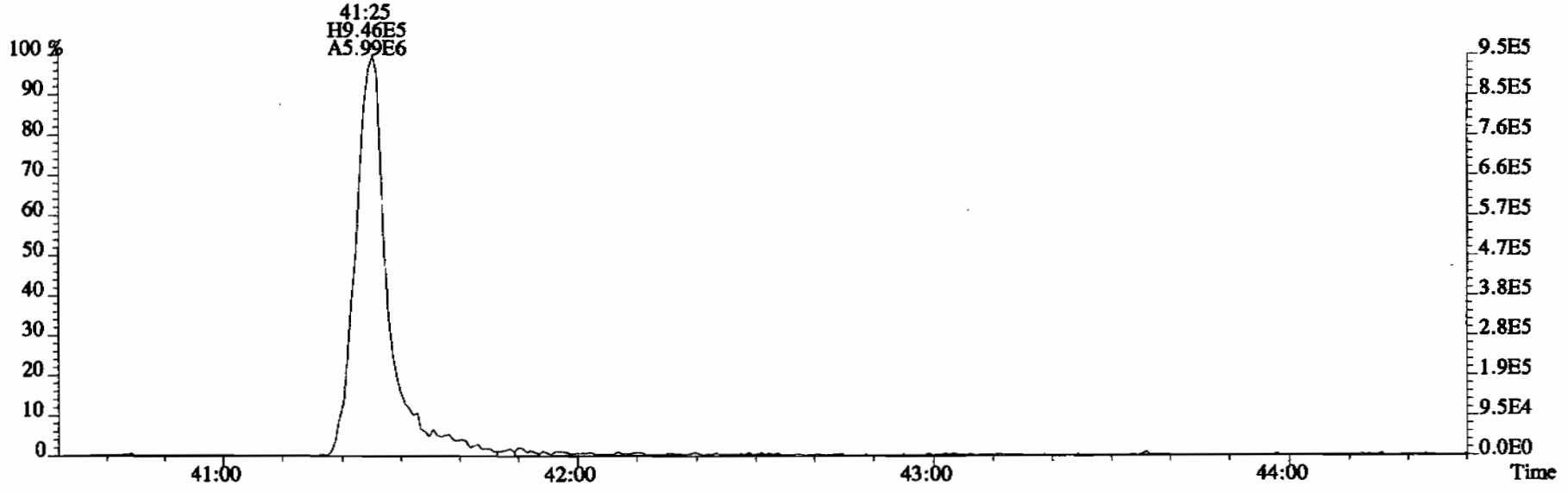

File:091008C1 #1-546 Acq: 8-OCT-2009 16:08:29 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-4 1613 CS2 090922F Exp:OCDD_DB5

303.9016 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

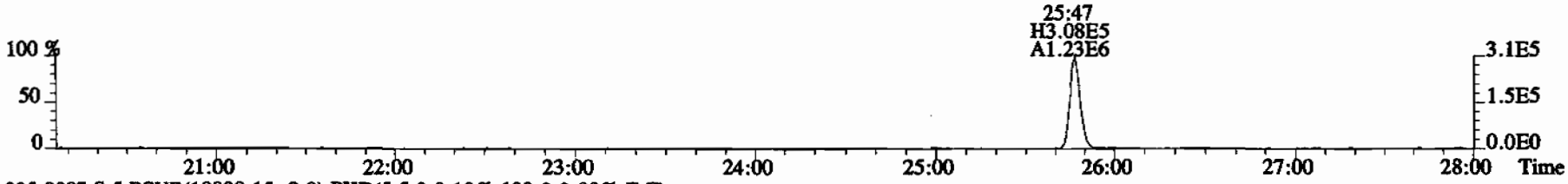

305.8987 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

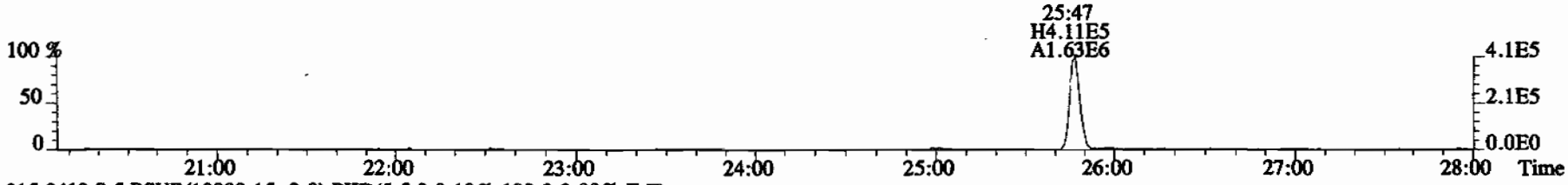

315.9419 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

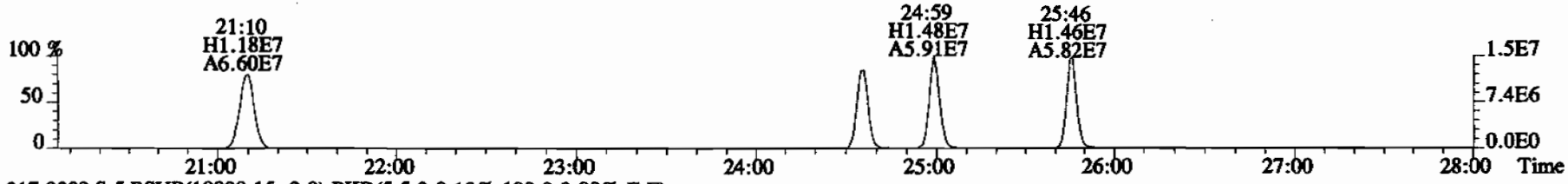

317.9389 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

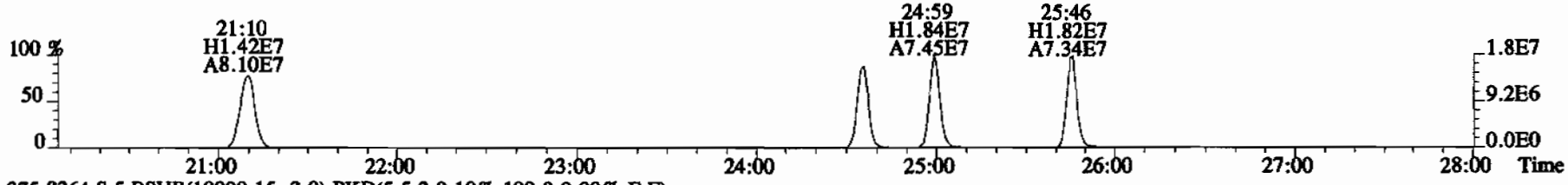

375.8364 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

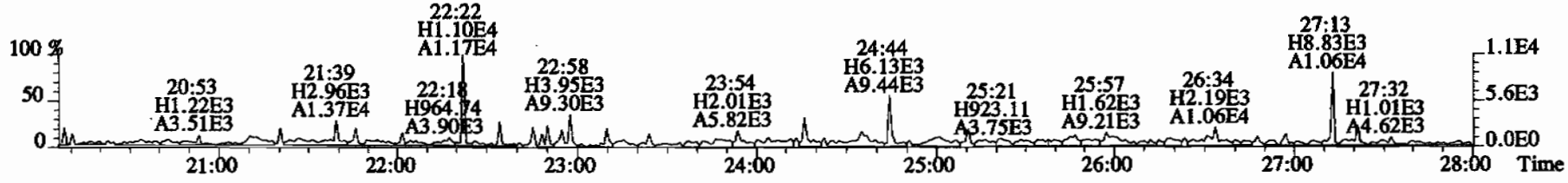

File:091008C1 #1-546 Acq: 8-OCT-2009 16:08:29 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-4 1613 CS2 090922F Exp:OCDD_DB5
339.8597 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

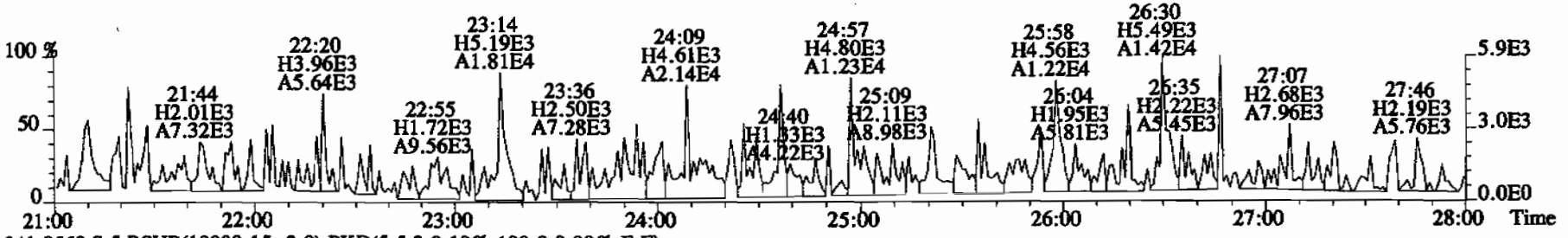

341.8568 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

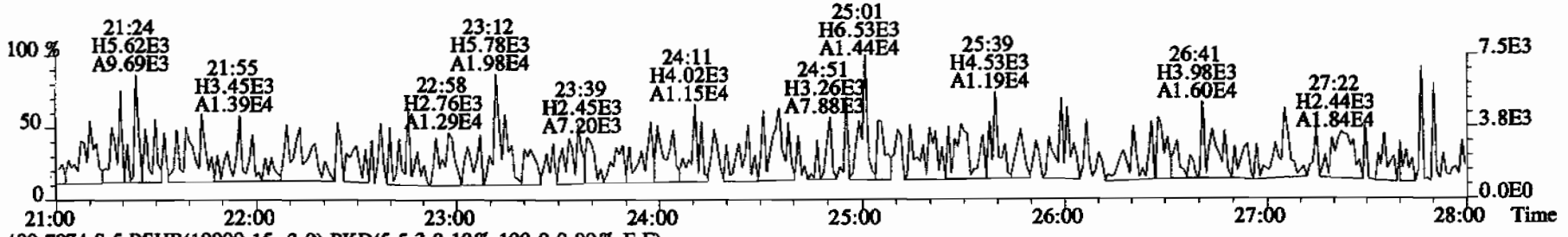

409.7974 S:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

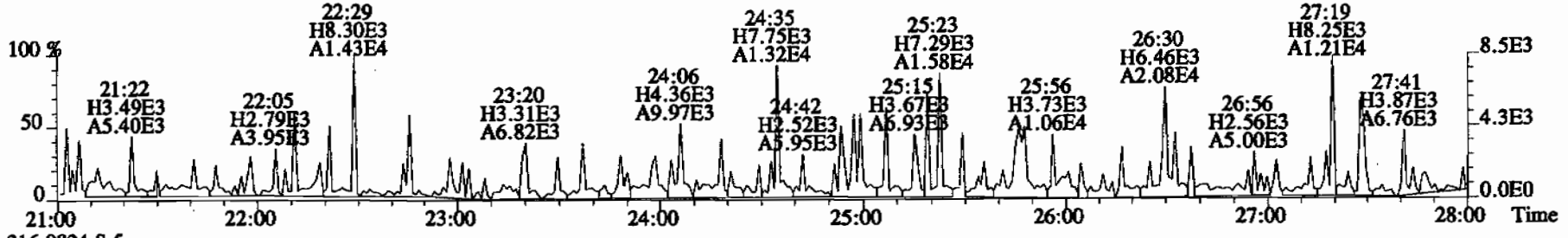

316.9824 S:5

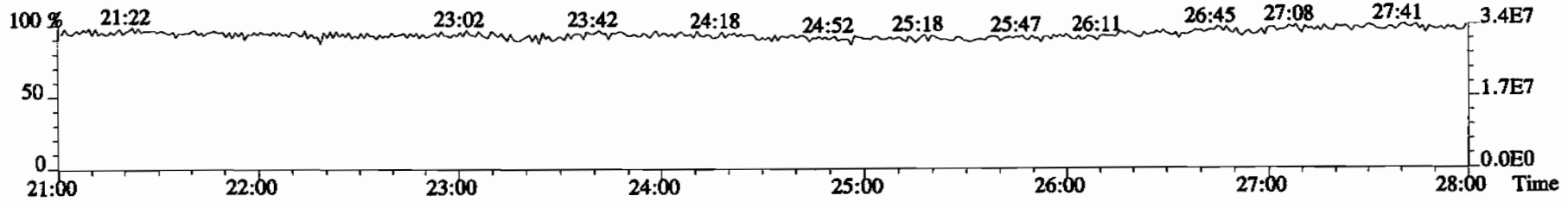

File:091008C1 #1-294 Acq: 8-OCT-2009 16:08:29 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-4 1613 CS2 090922F Exp:OCDD_DB5

339.8597 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

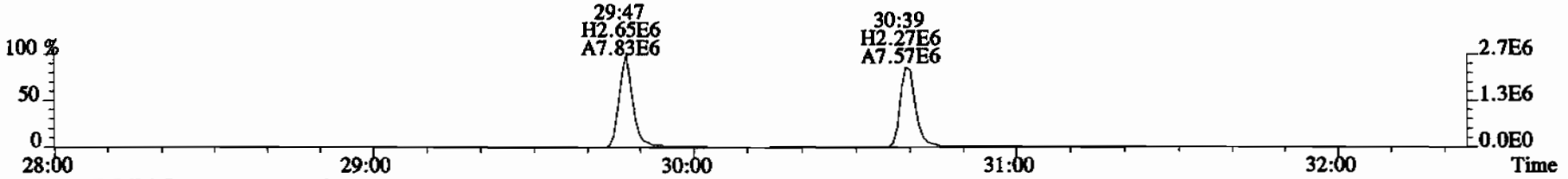

341.8568 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

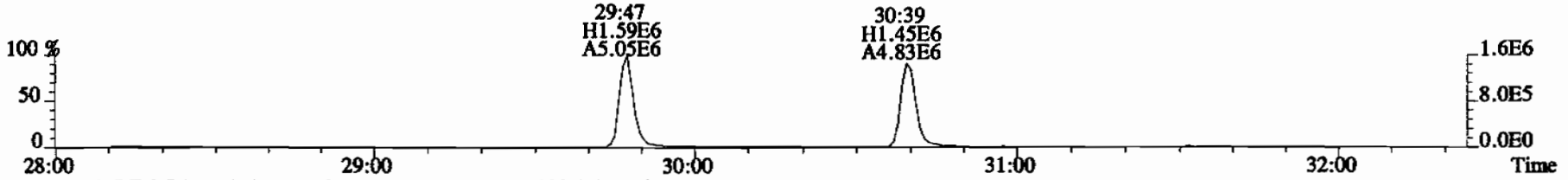

351.9000 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

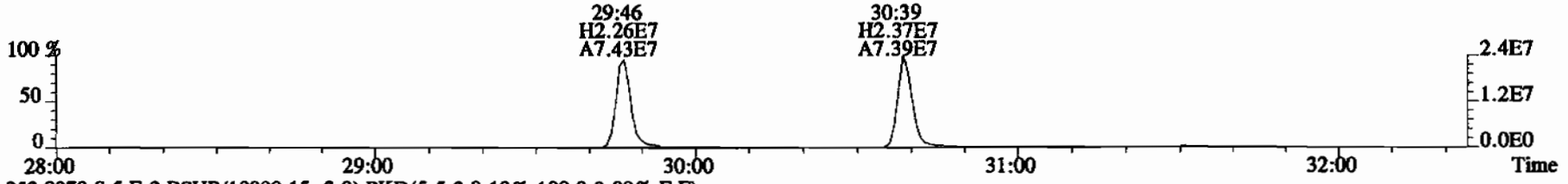

353.8970 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

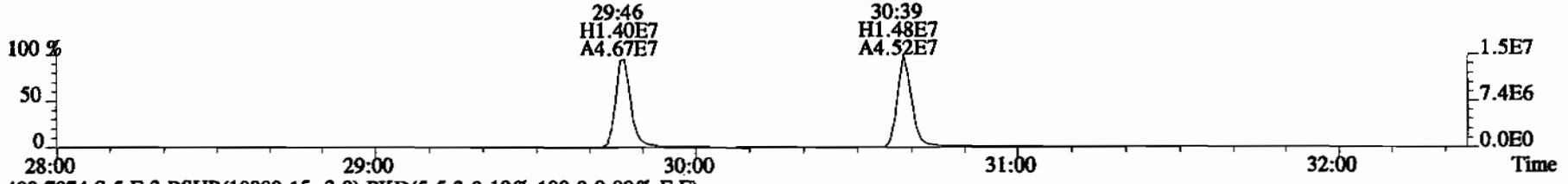

409.7974 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

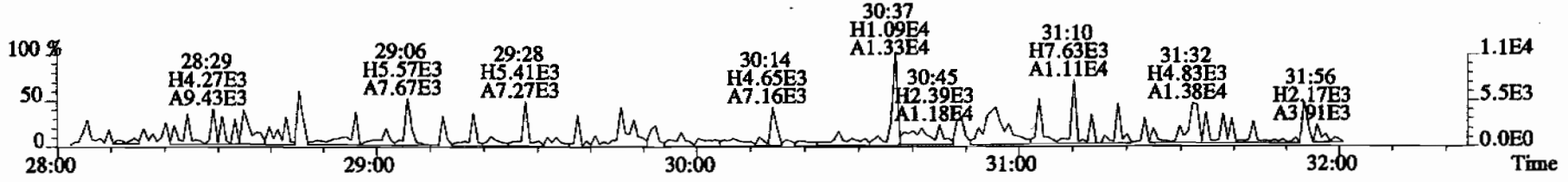

File:091008C1 #1-294 Acq: 8-OCT-2009 16:08:29 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-4 1613 CS2 090922F Exp:OCDD_DB5
339.8597 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

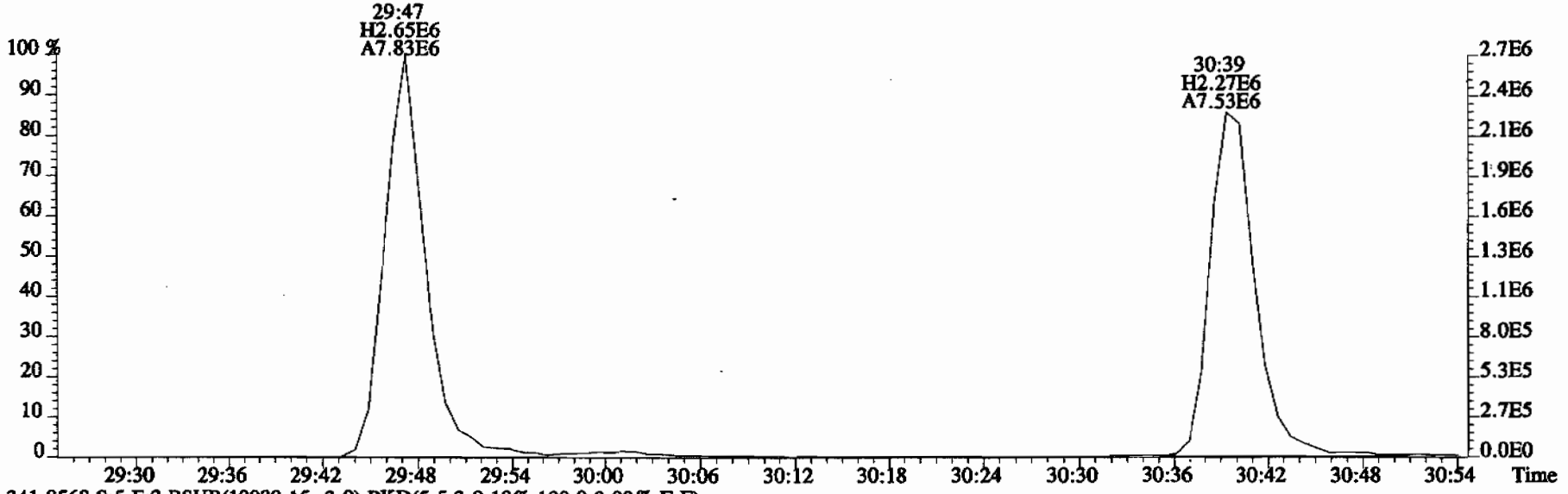

341.8568 S:5 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

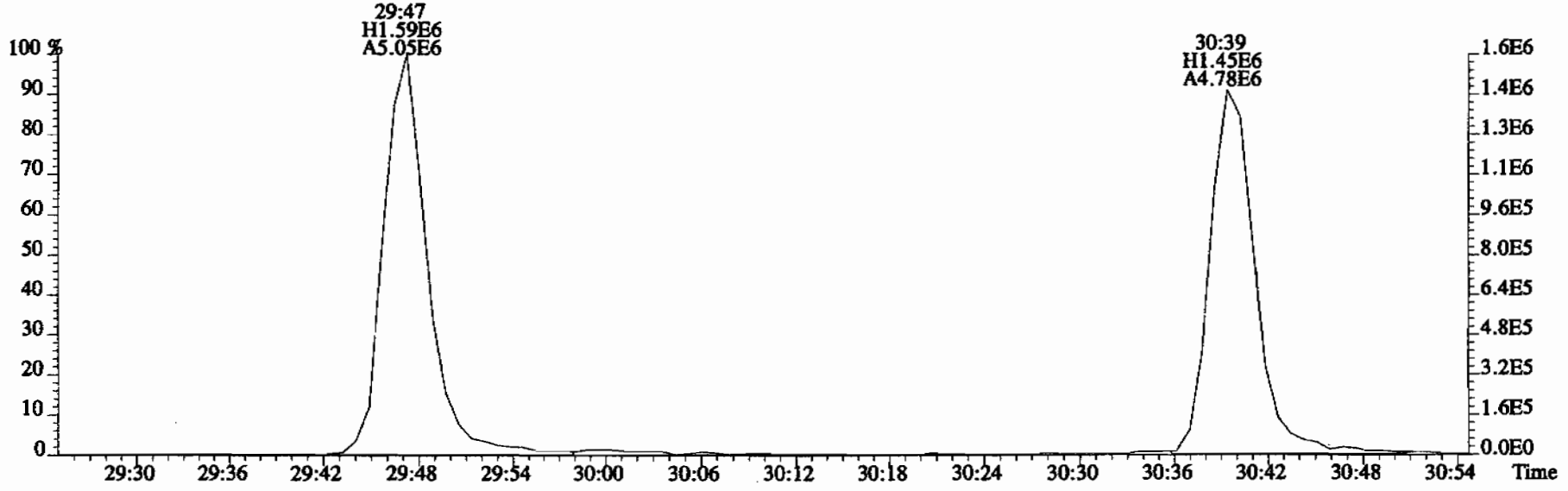

File:091008C1 #1-392 Acq: 8-OCT-2009 16:08:29 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-4 1613 CS2 090922F Exp:OCDD_DB5
373.8207 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

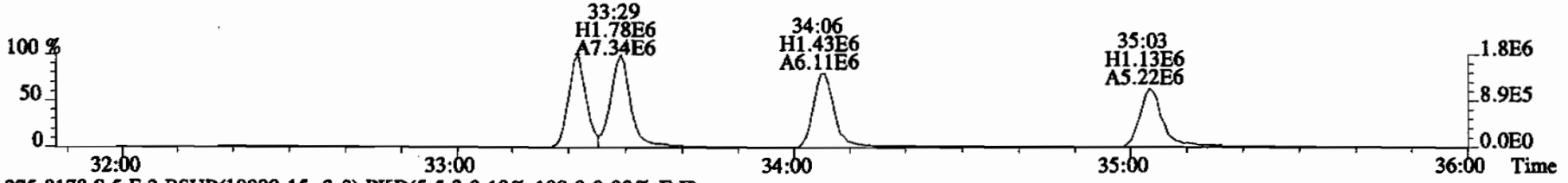

375.8178 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

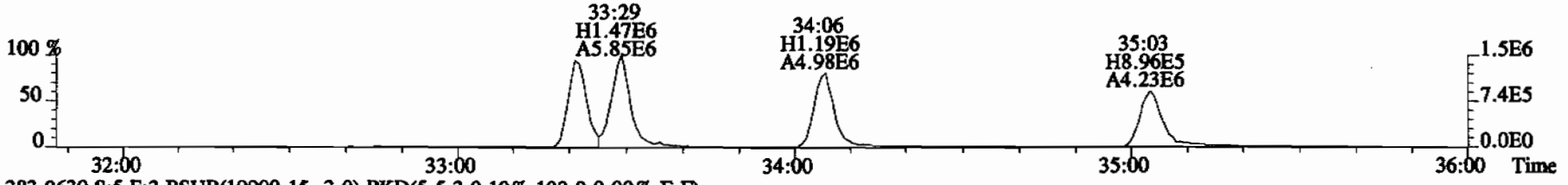

383.8639 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

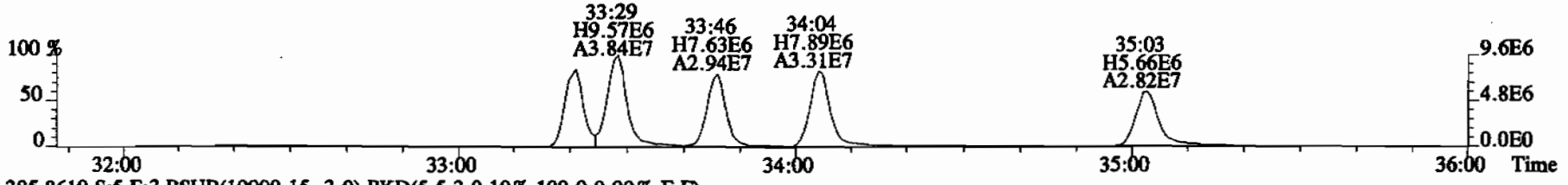

385.8610 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

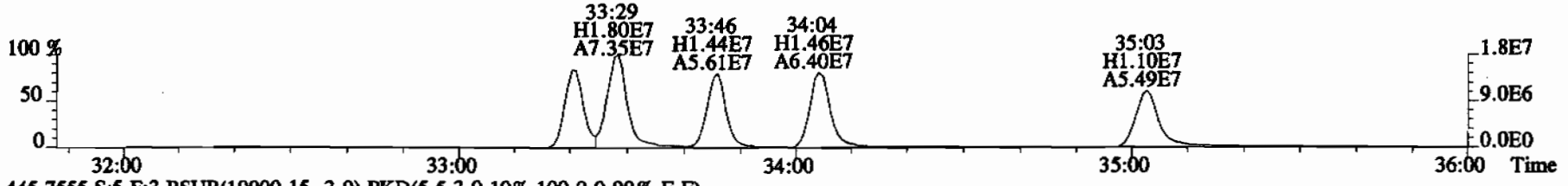

445.7555 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

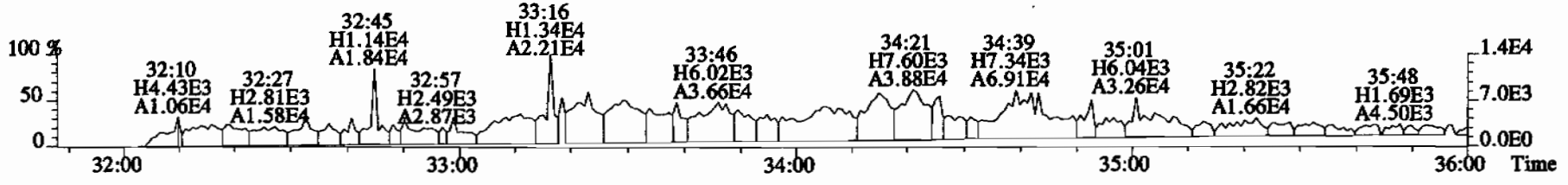

File:091008C1 #1-392 Acq: 8-OCT-2009 16:08:29 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-4 1613 CS2 090922F Exp:OCDD_DB5
383.8639 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

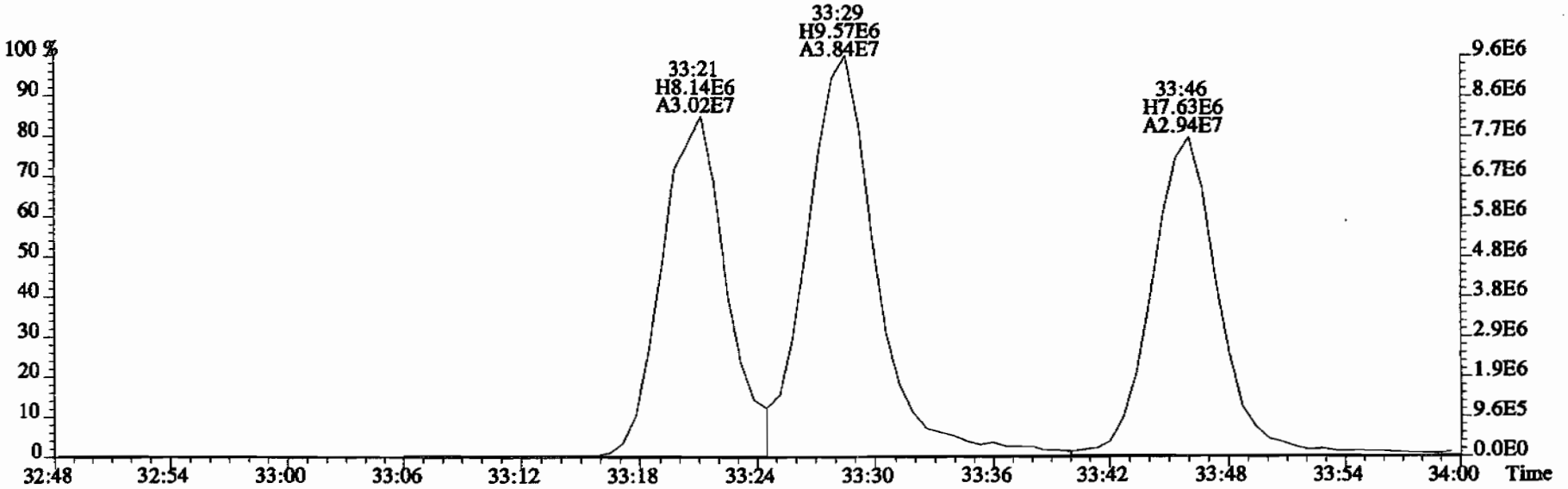

385.8610 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

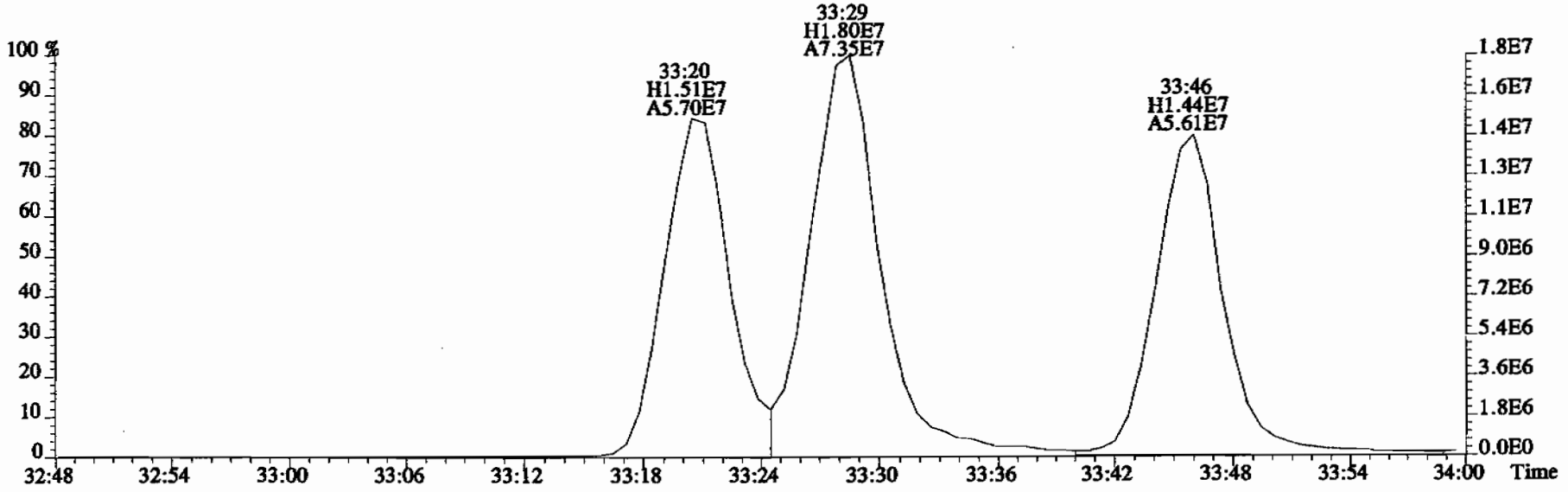

File:091008C1 #1-392 Acq: 8-OCT-2009 16:08:29 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-4 1613 CS2 090922F Exp:OCDD_DB5
373.8207 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

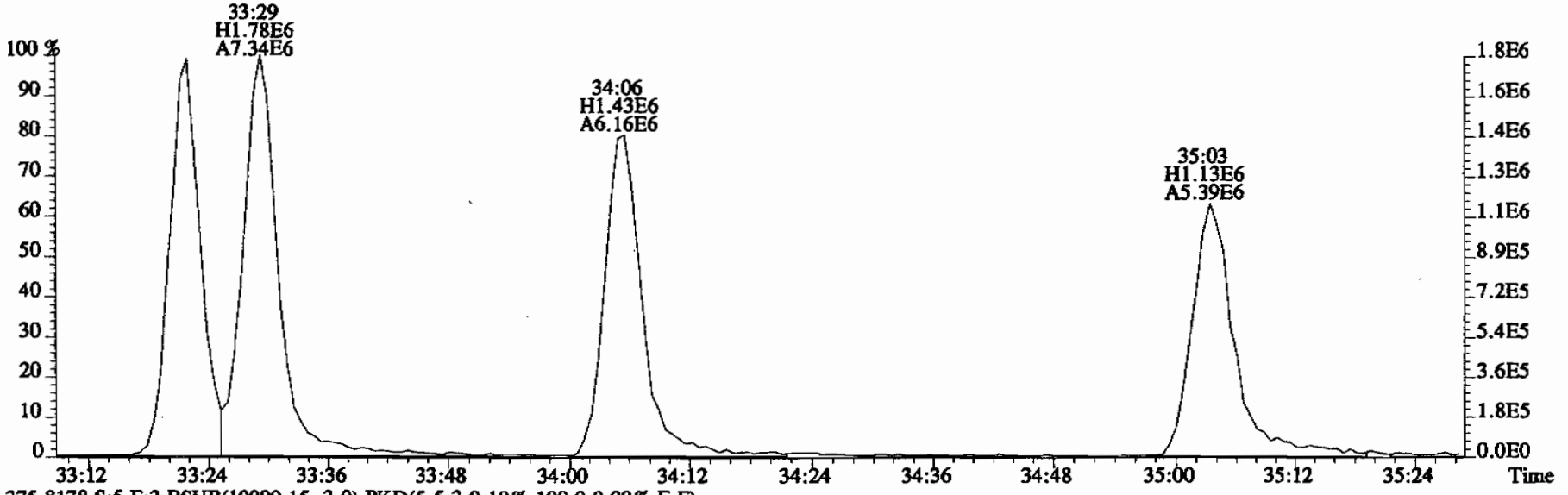

375.8178 S:5 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

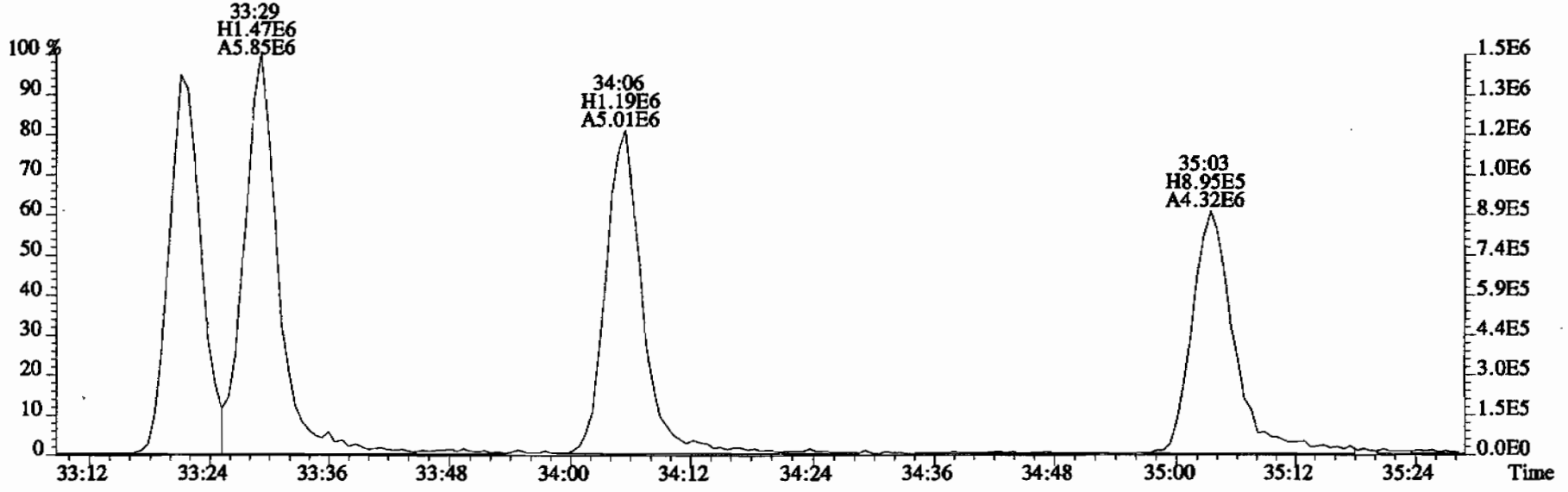

File:091008C1 #1-362 Acq: 8-OCT-2009 16:08:29 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-4 1613 CS2 090922F Exp:OCDD_DB5

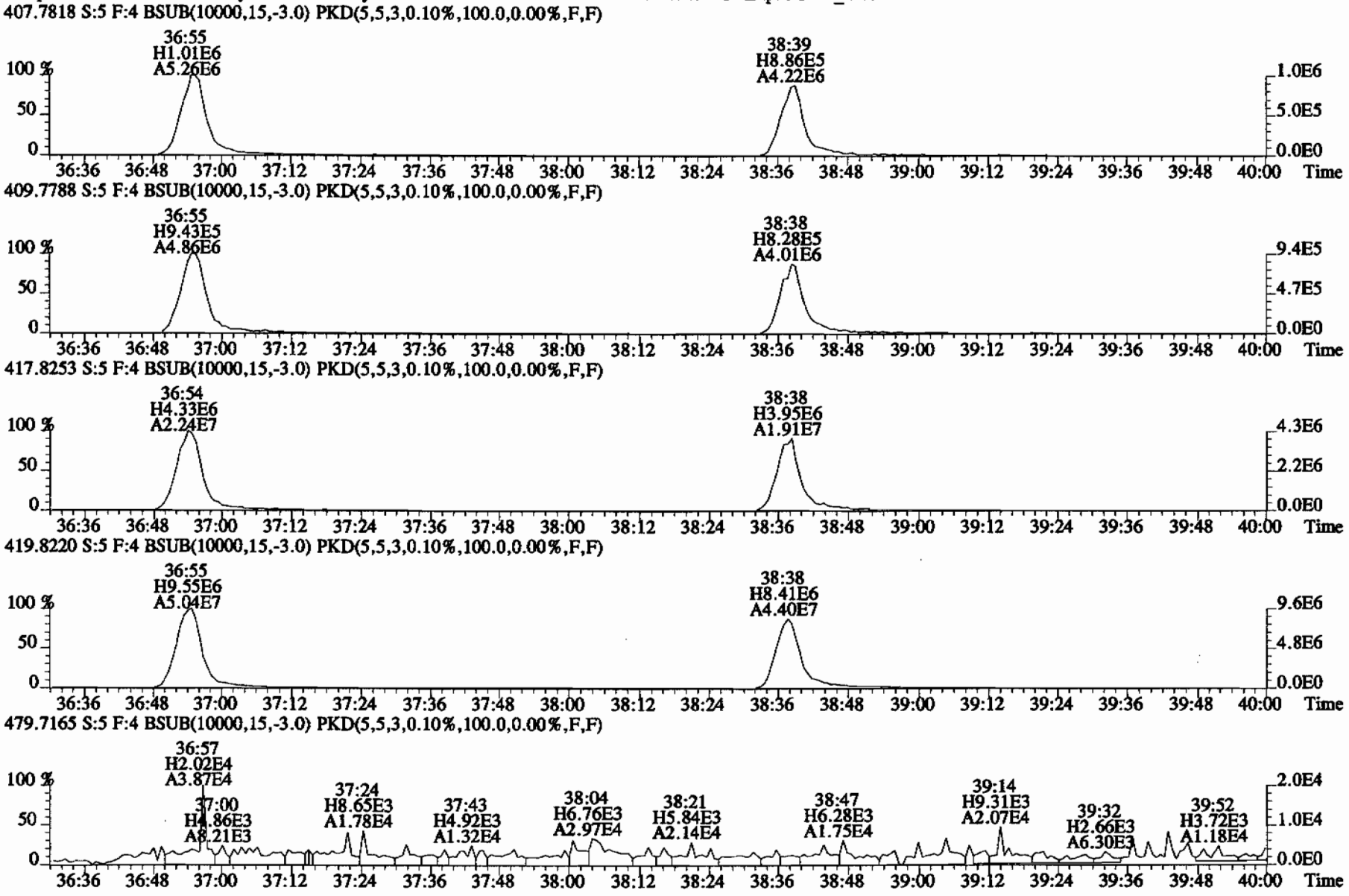

File:091008C1 #1-345 Acq: 8-OCT-2009 16:08:29 GC EI+ Voltage SIR Autospec-UltimaE
Sample#5 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-4 1613 CS2 090922F Exp:OCDD_DB5
441.7428 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

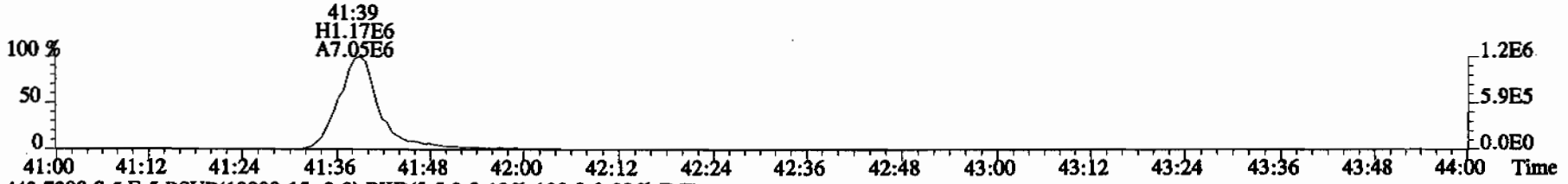

443.7398 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

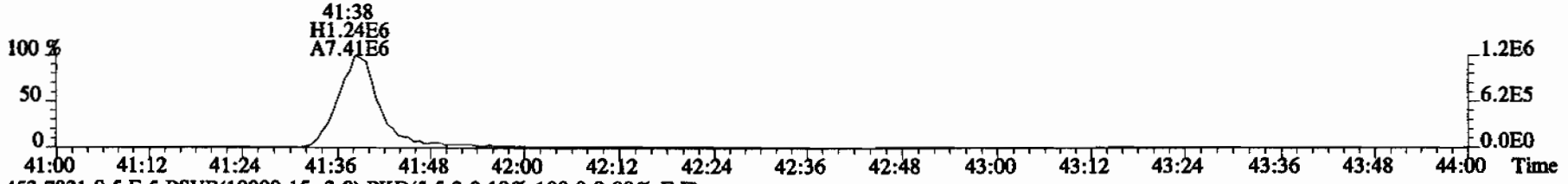

453.7831 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

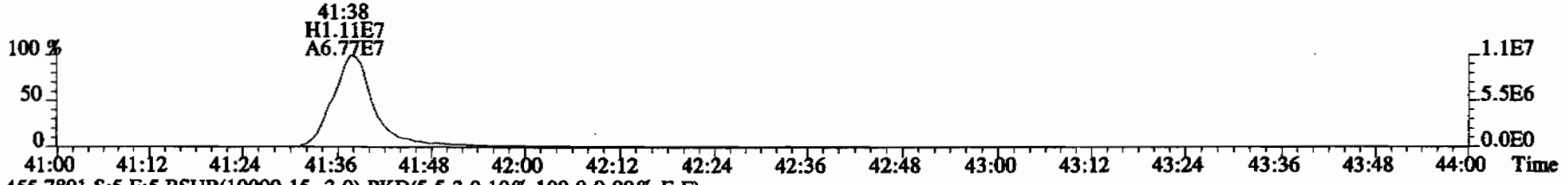

455.7801 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

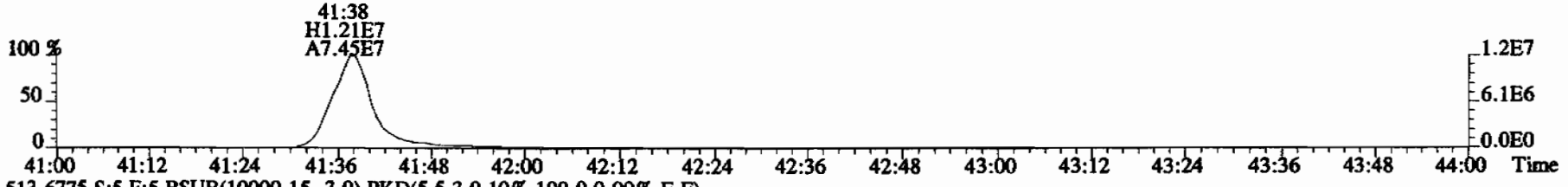

513.6775 S:5 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

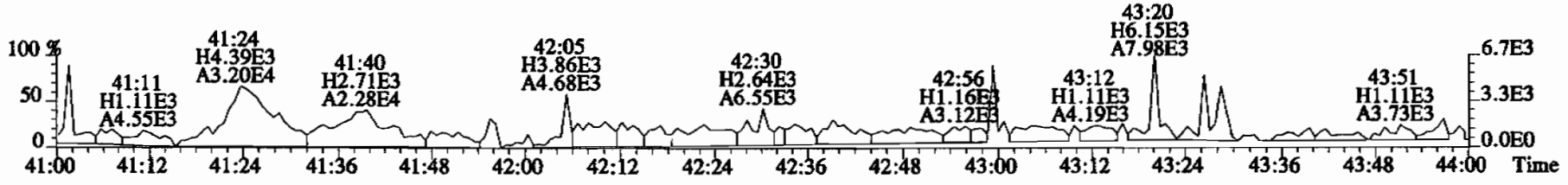

File:091008C1 #1-545 Acq: 8-OCT-2009 16:57:09 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-5 1613 CS4 090922H Exp:OCDD_DB5

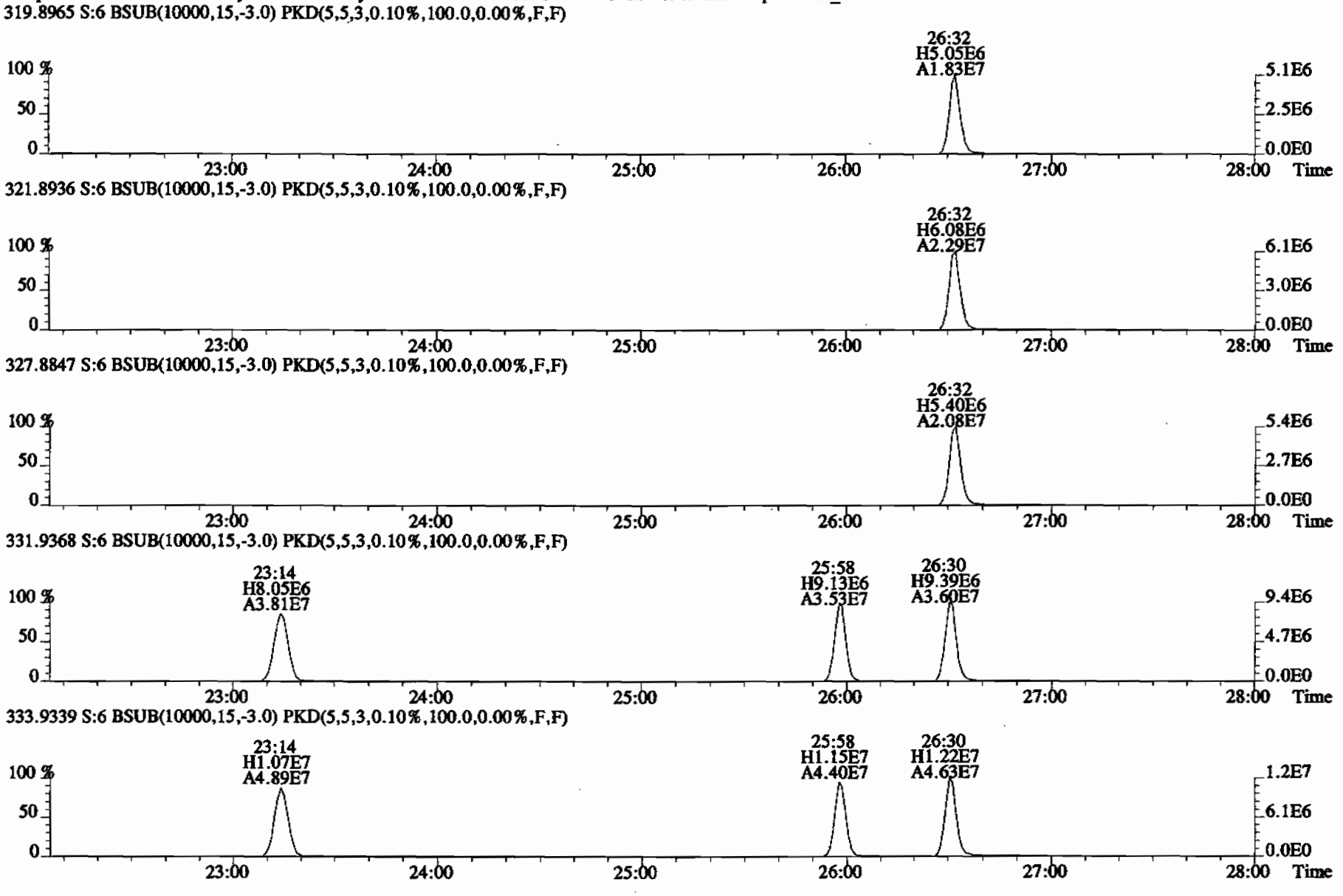

File:091008C1 #1-294 Acq: 8-OCT-2009 16:57:09 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-5 1613 CS4 090922H Exp:OCDD_DB5
353.8576 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

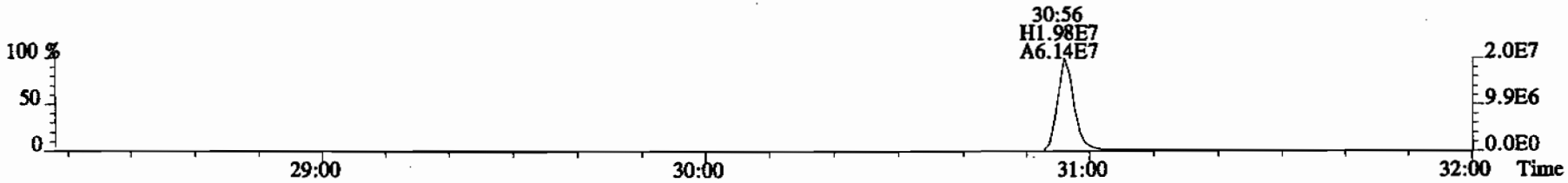

355.8546 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

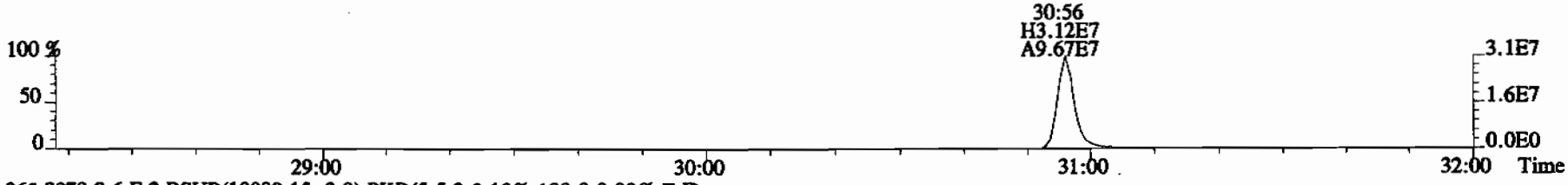

365.8978 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

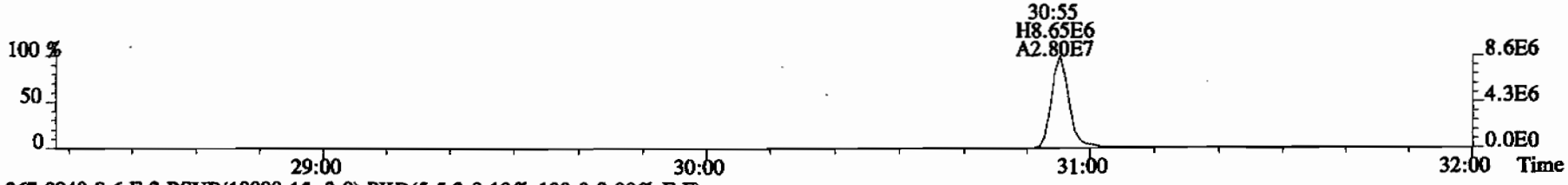

367.8949 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

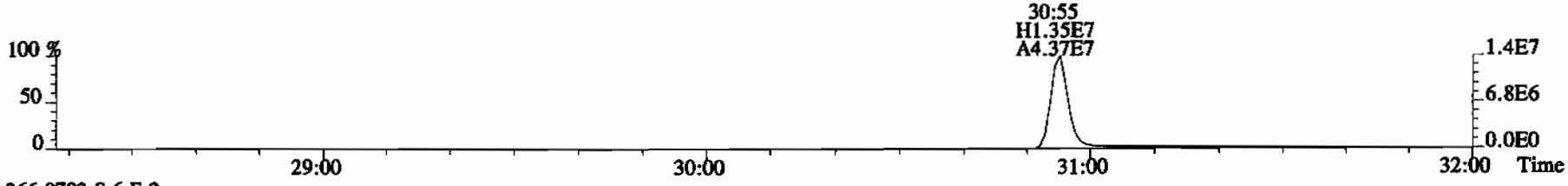

366.9792 S:6 F:2

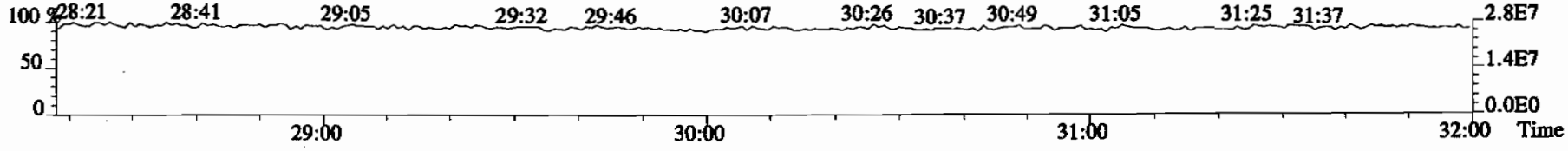

File:091008C1 #1-392 Acq: 8-OCT-2009 16:57:09 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-5 1613 CS4 090922H Exp:OCDD_DB5
389.8156 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

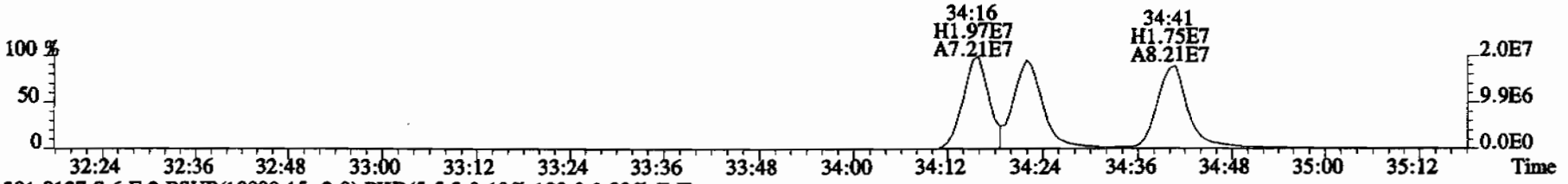

391.8127 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

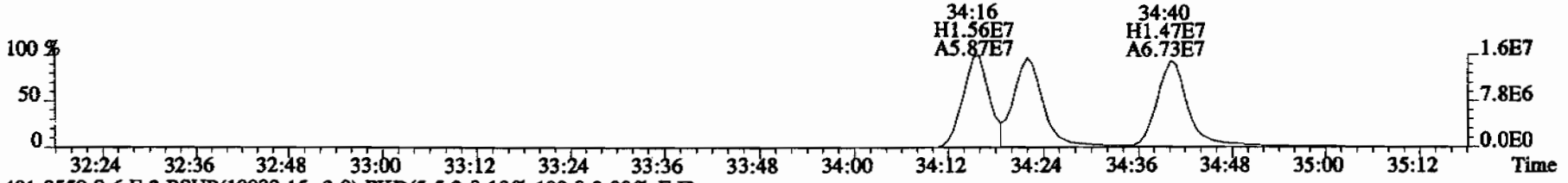

401.8559 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

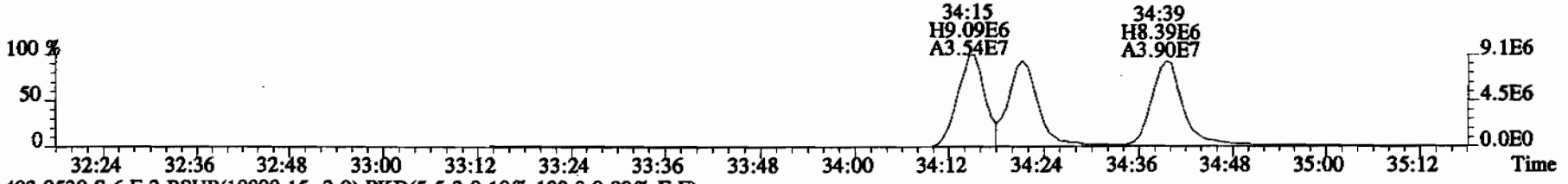

403.8530 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

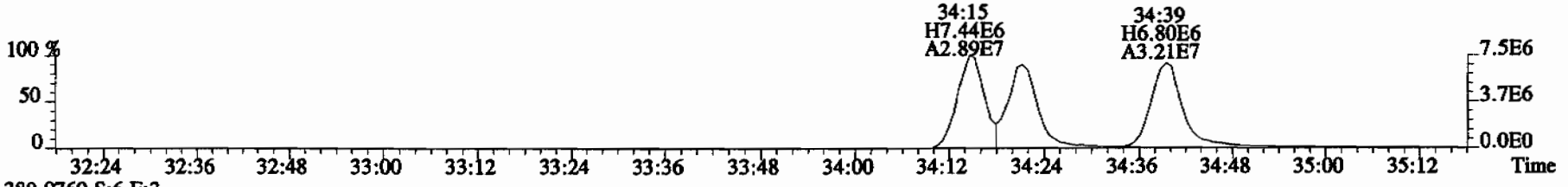

380.9760 S:6 F:3

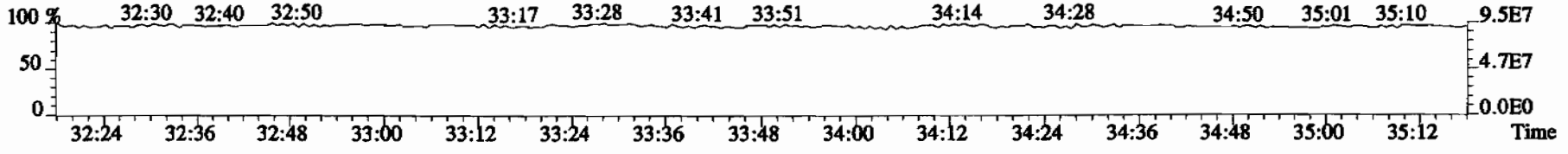

File:091008C1 #1-392 Acq: 8-OCT-2009 16:57:09 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-5 1613 CS4 090922H Exp:OCDD_DB5
401.8559 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

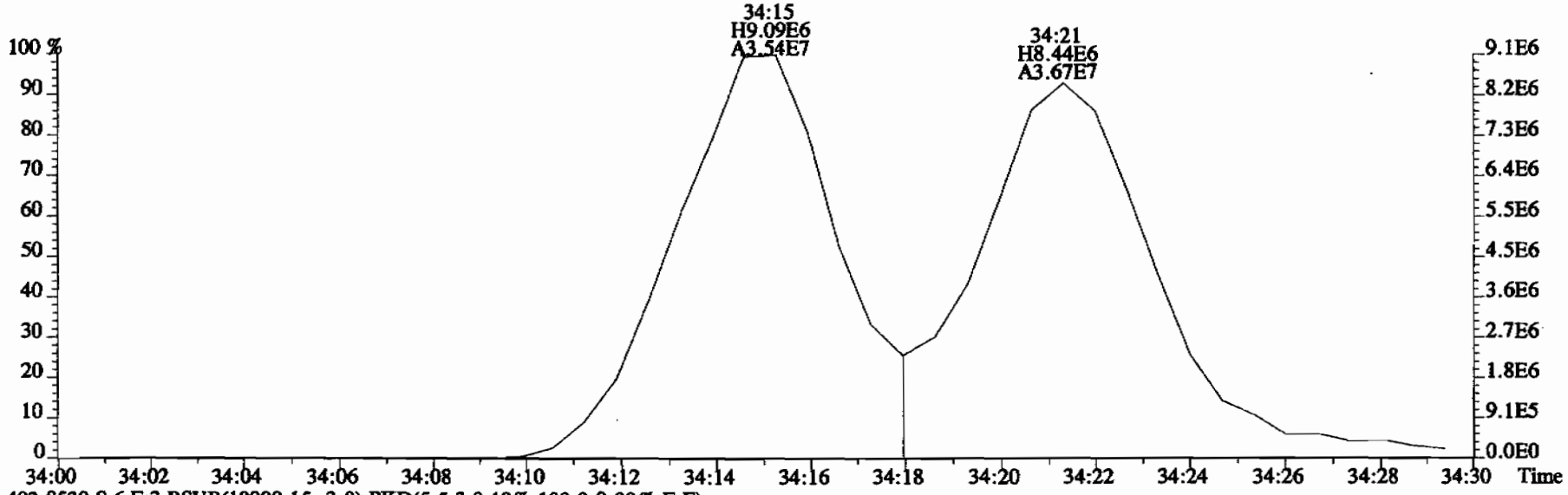

403.8530 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

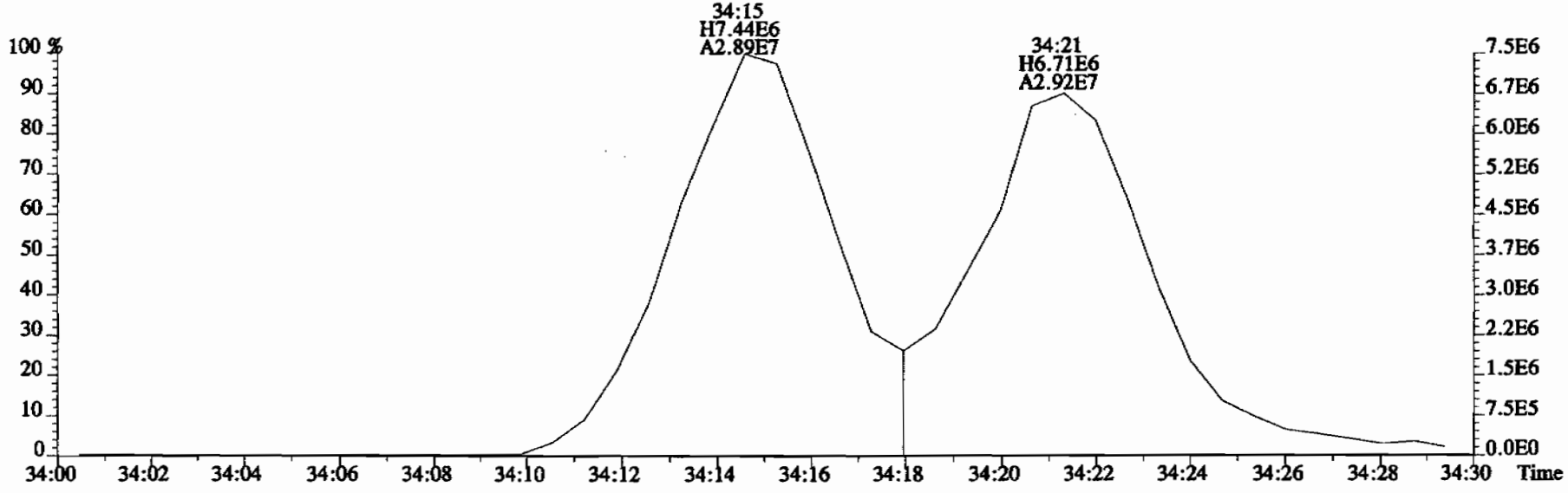

File:091008C1 #1-363 Acq: 8-OCT-2009 16:57:09 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-5 1613 CS4 090922H Exp:OCDD_DB5
423.7767 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

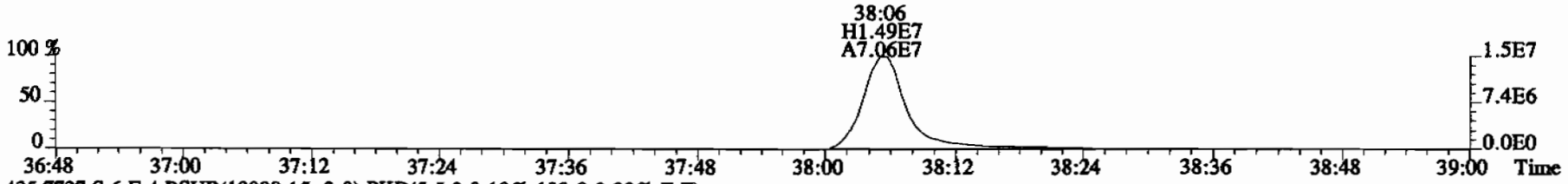

425.7737 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

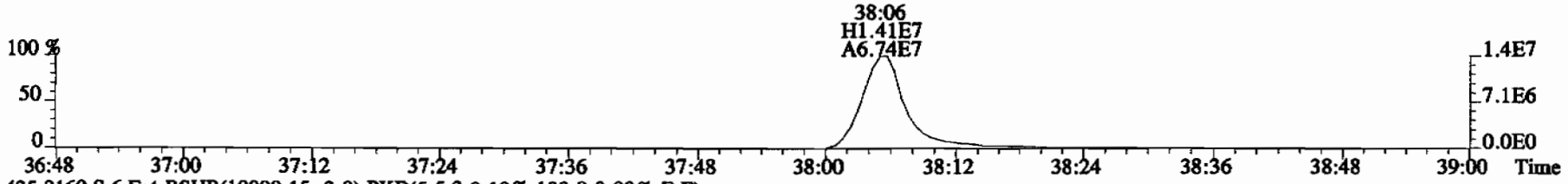

435.8169 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

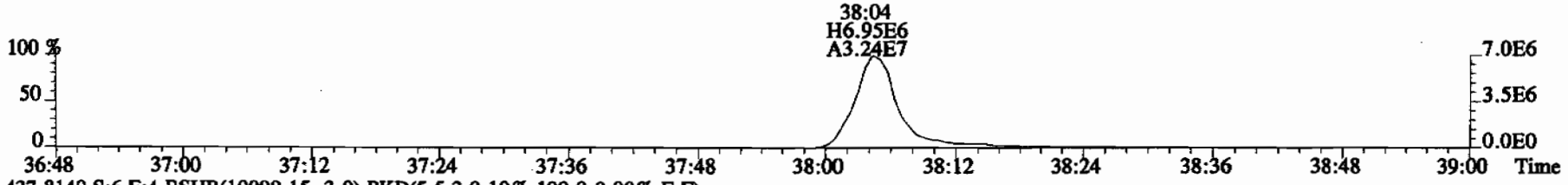

437.8140 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

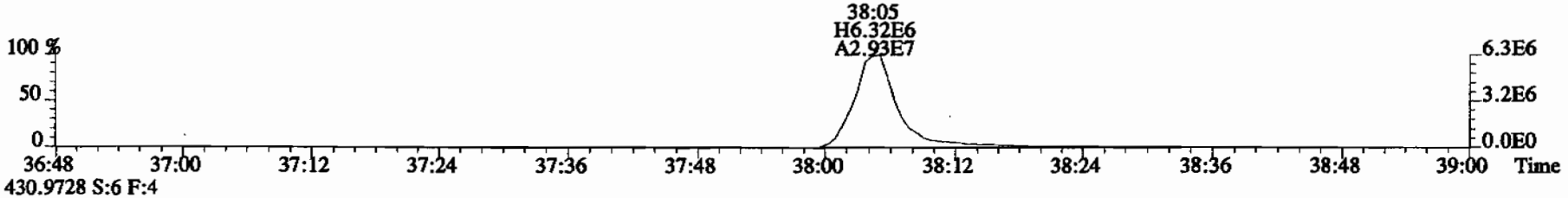

430.9728 S:6 F:4

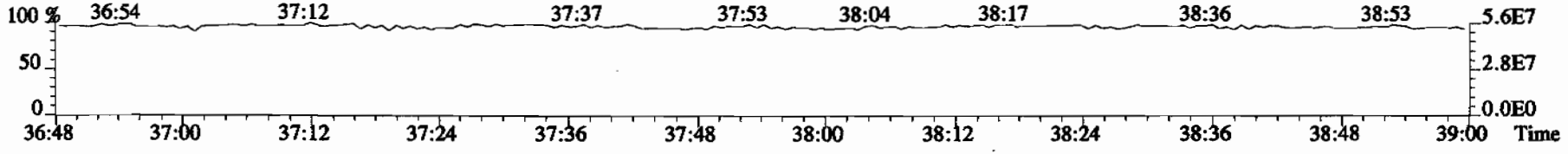

File:091008C1 #1-345 Acq: 8-OCT-2009 16:57:09 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-5 1613 CS4 090922H Exp:OCDD_DB5
457.7377 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

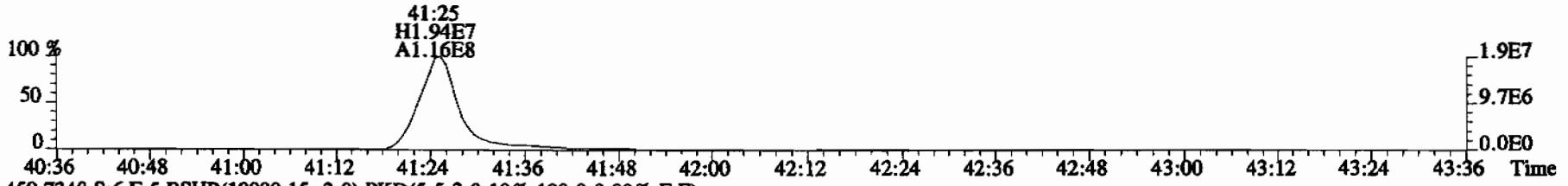

459.7348 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

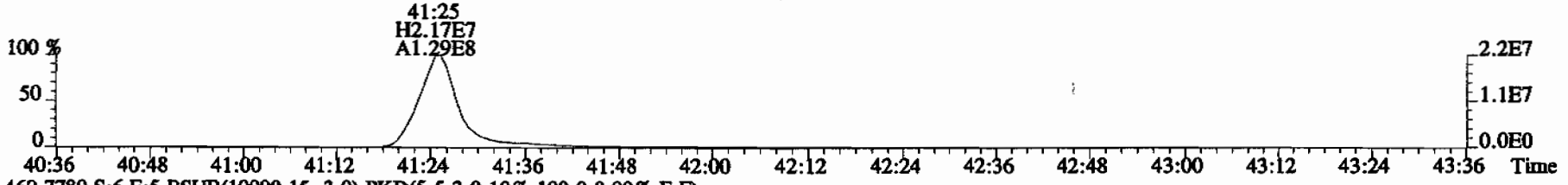

469.7780 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

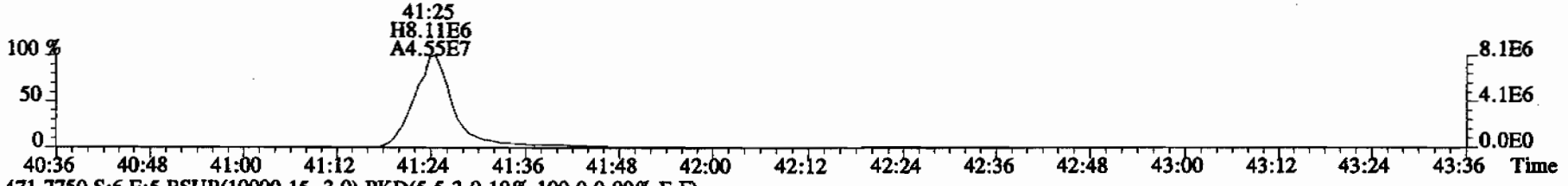

471.7750 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

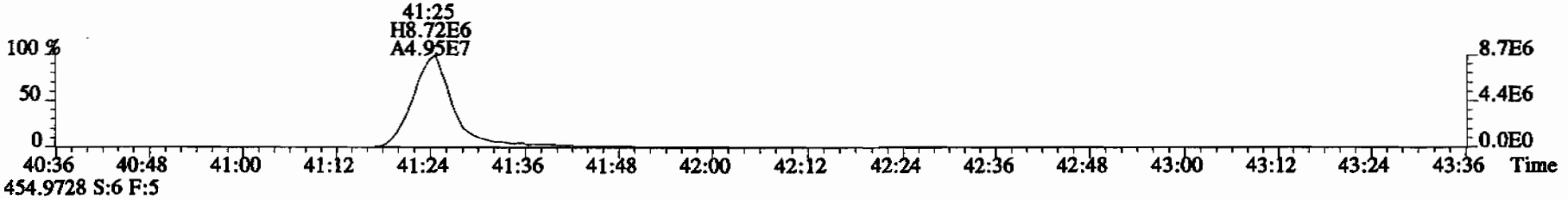

454.9728 S:6 F:5

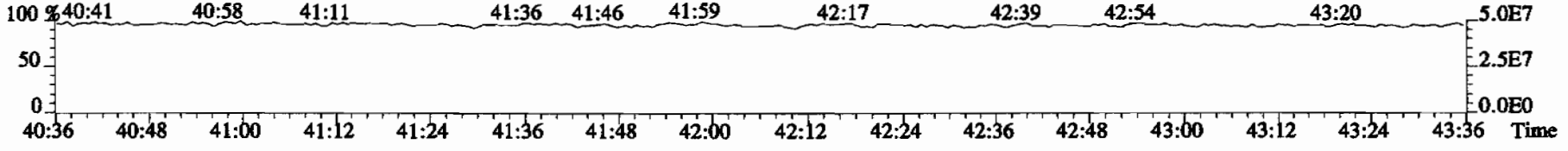

File:091008C1 #1-545 Acq: 8-OCT-2009 16:57:09 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-5 1613 CS4 090922H Exp:OCDD_DB5

303.9016 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

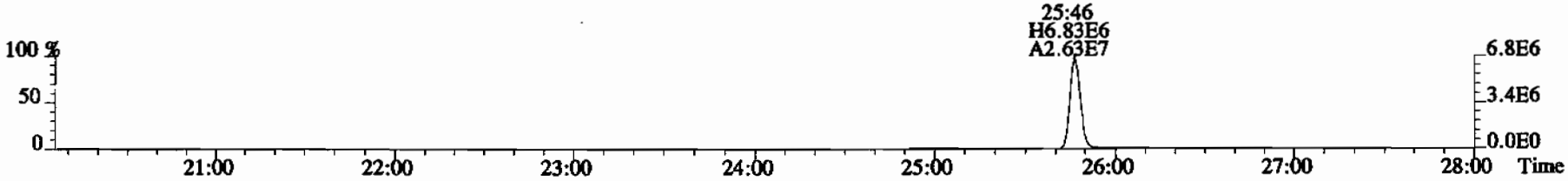

305.8987 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

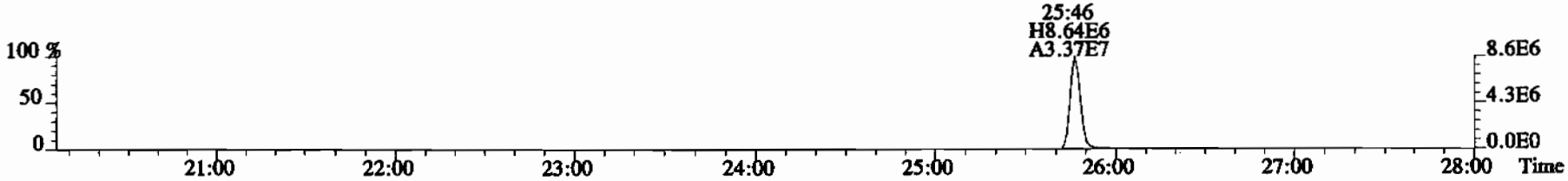

315.9419 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

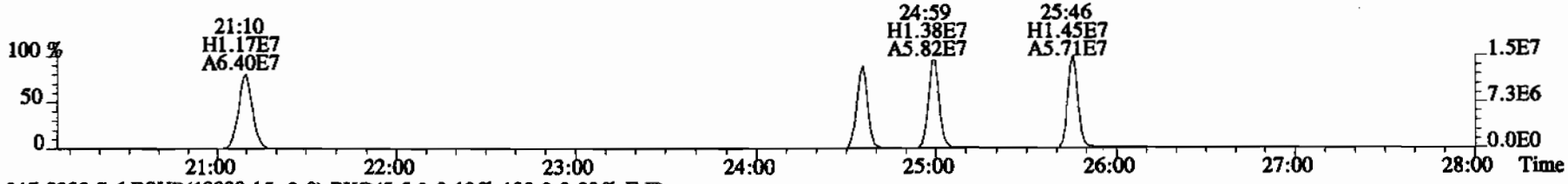

317.9389 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

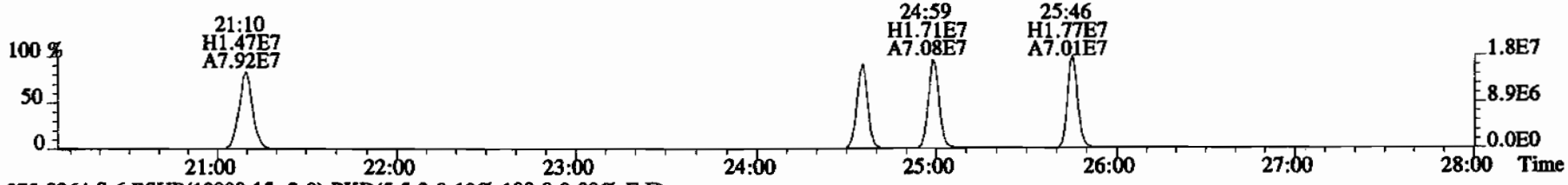

375.8364 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

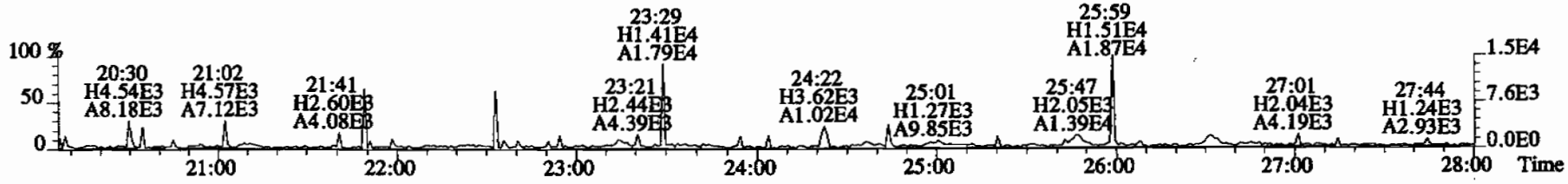

File:091008C1 #1-545 Acq: 8-OCT-2009 16:57:09 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-5 1613 CS4 090922H Exp:OCDD_DB5
339.8597 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

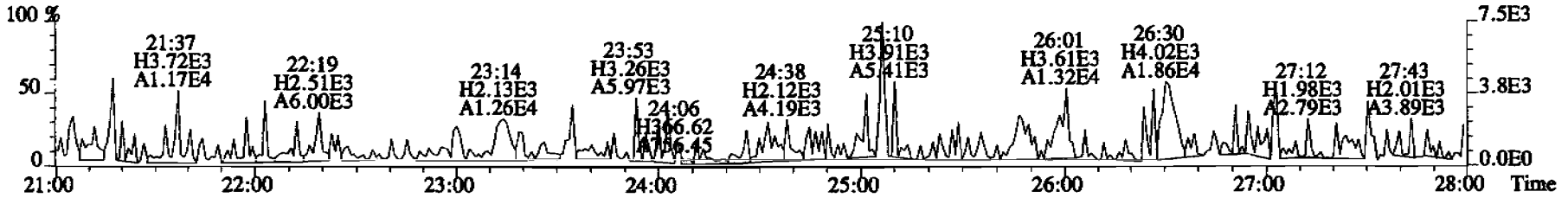

341.8568 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

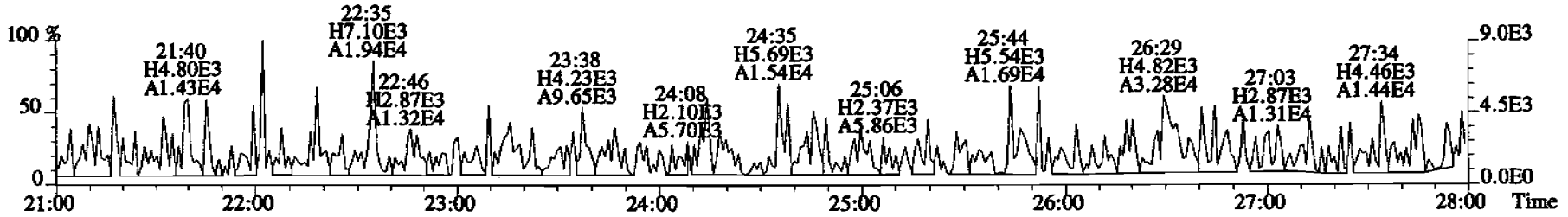

409.7974 S:6 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

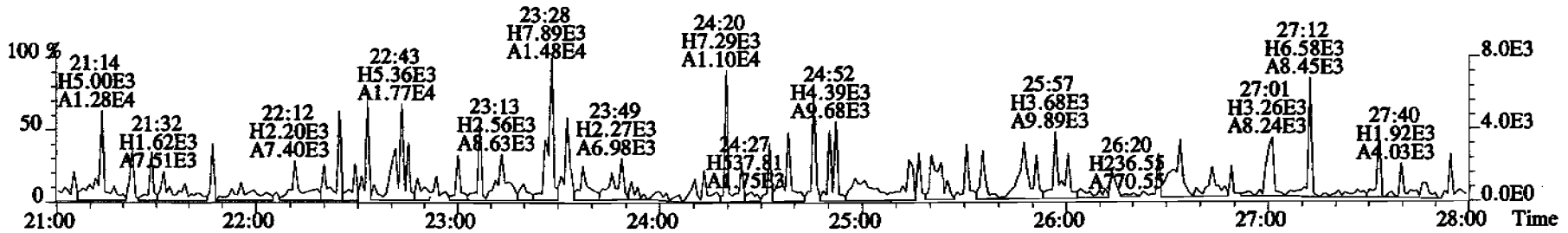

316.9824 S:6

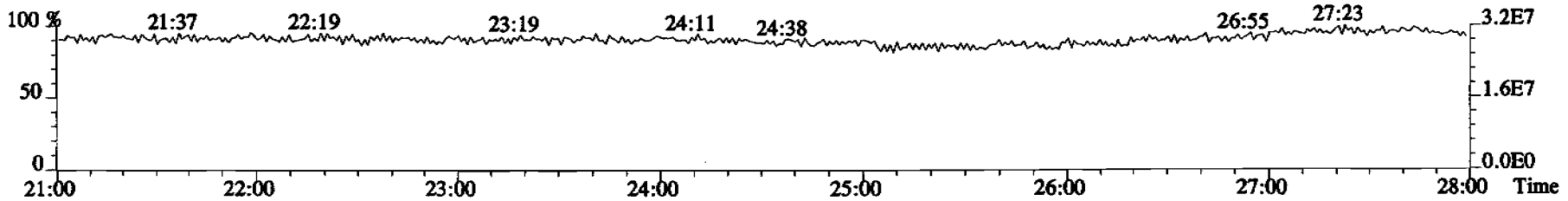

File:091008C1 #1-294 Acq: 8-OCT-2009 16:57:09 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-5 1613 CS4 090922H Exp:OCDD_DB5

339.8597 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

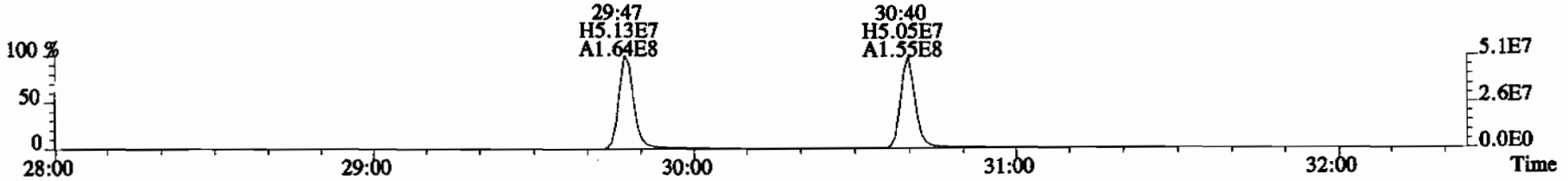

341.8568 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

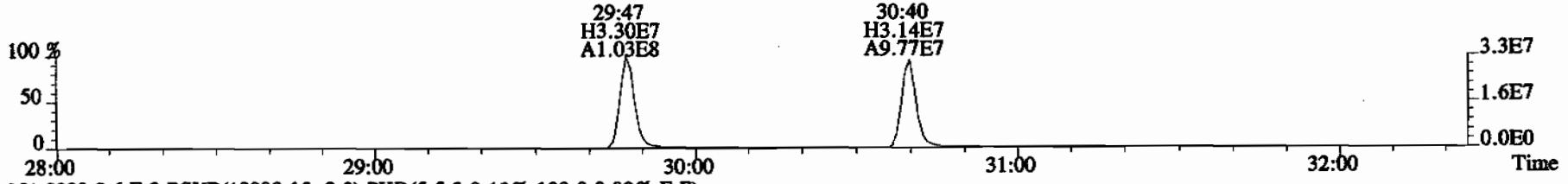

351.9000 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

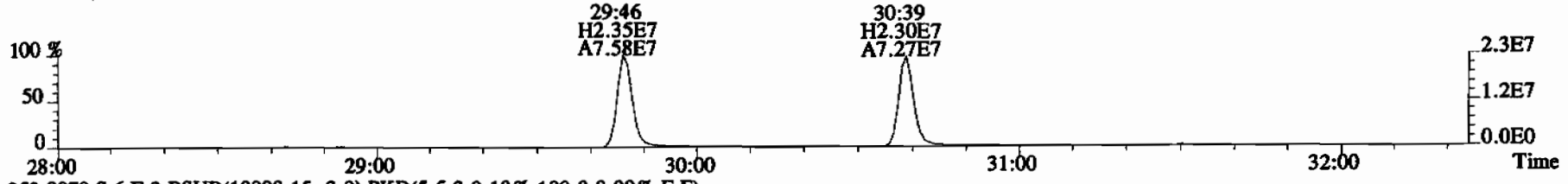

353.8970 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

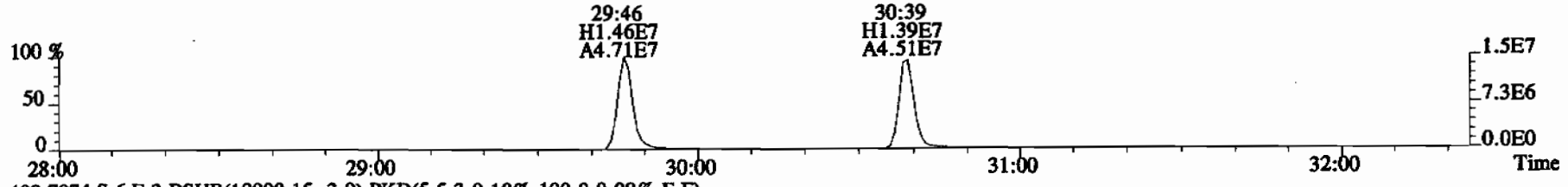

409.7974 S:6 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

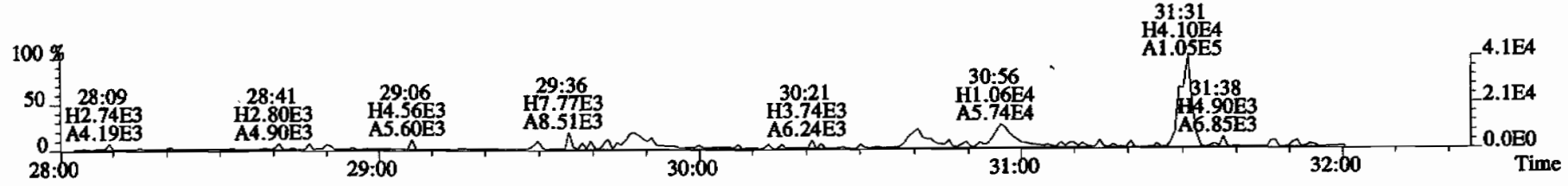

File:091008C1 #1-392 Acq: 8-OCT-2009 16:57:09 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-5 1613 CS4 090922H Exp:OCDD_DB5
373.8207 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

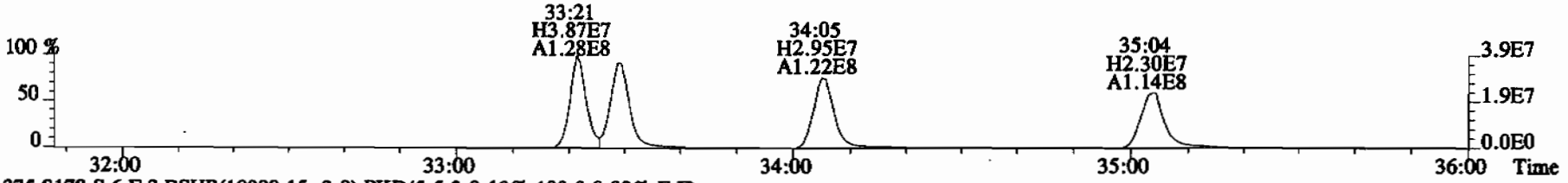

375.8178 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

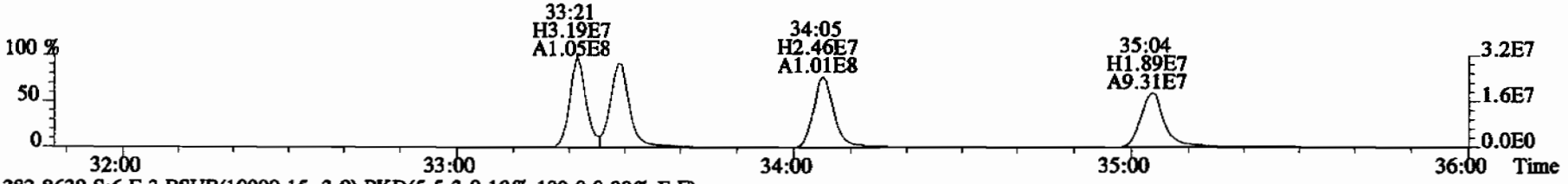

383.8639 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

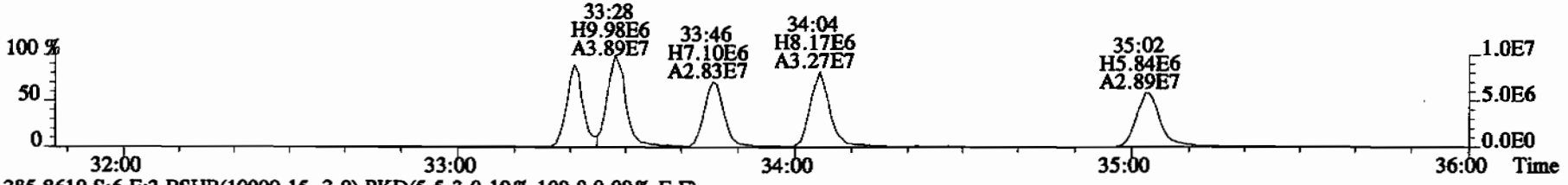

385.8610 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

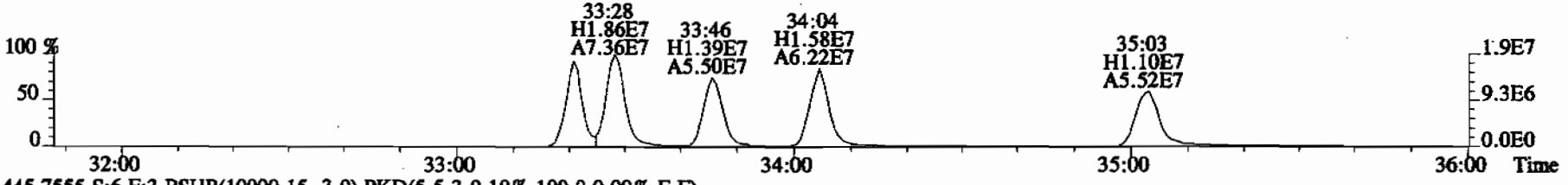

445.7555 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

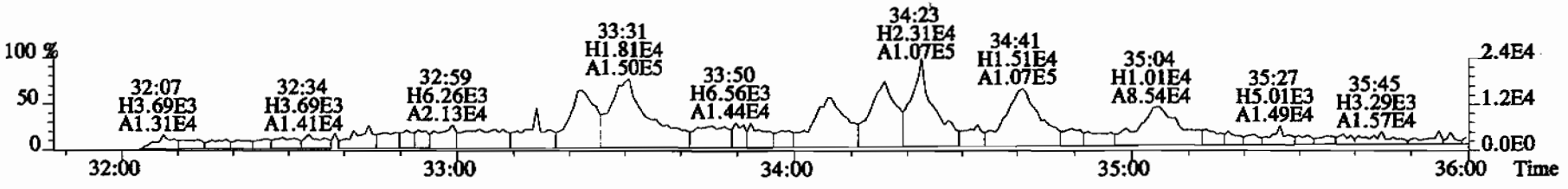

File:091008C1 #1-392 Acq: 8-OCT-2009 16:57:09 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-5 1613 CS4 090922H Exp:OCDD_DB5
383.8639 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

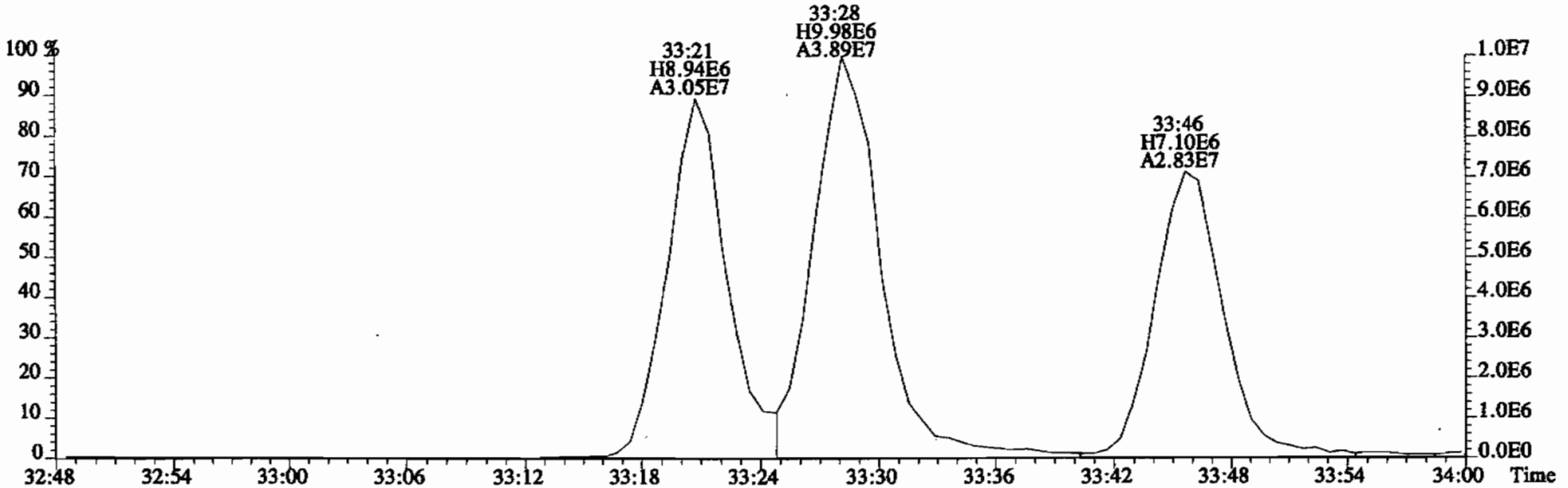

385.8610 S:6 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

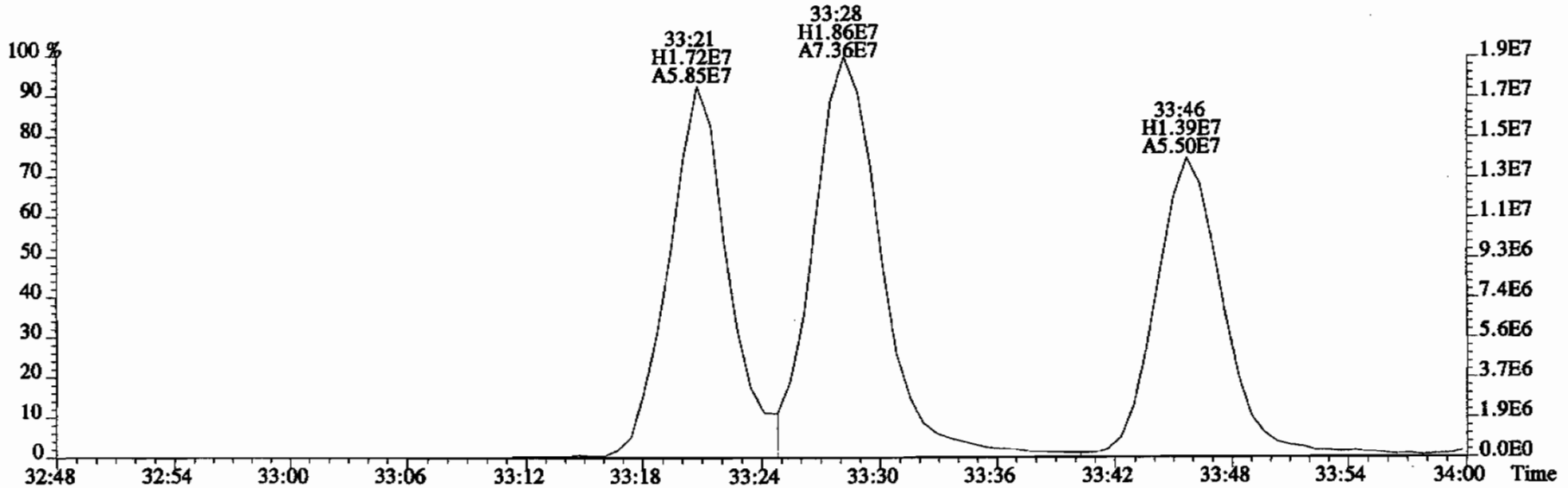

File:091008C1 #1-363 Acq: 8-OCT-2009 16:57:09 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-5 1613 CS4 090922H Exp:OCDD_DB5

407.7818 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

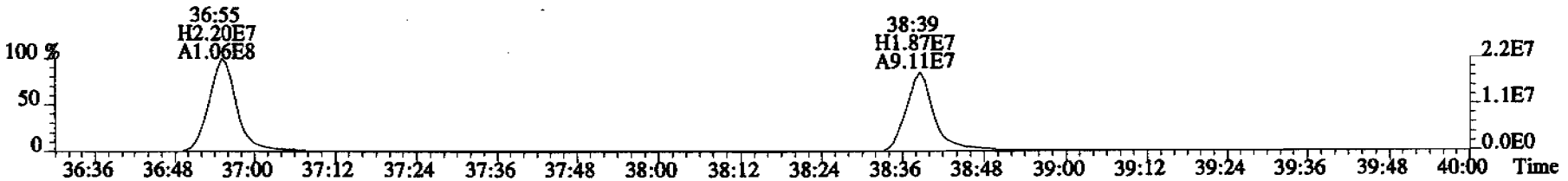

409.7788 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

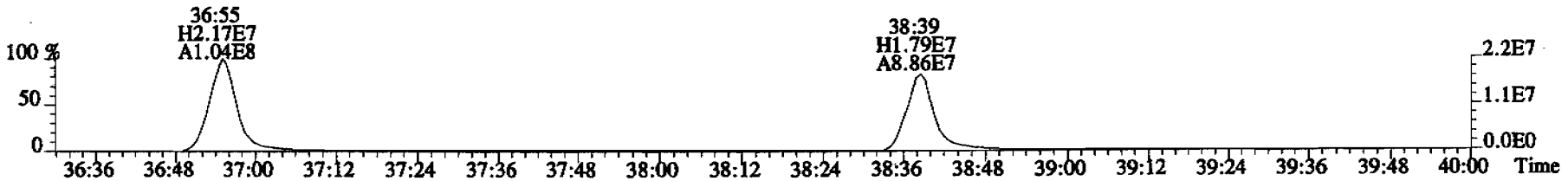

417.8253 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

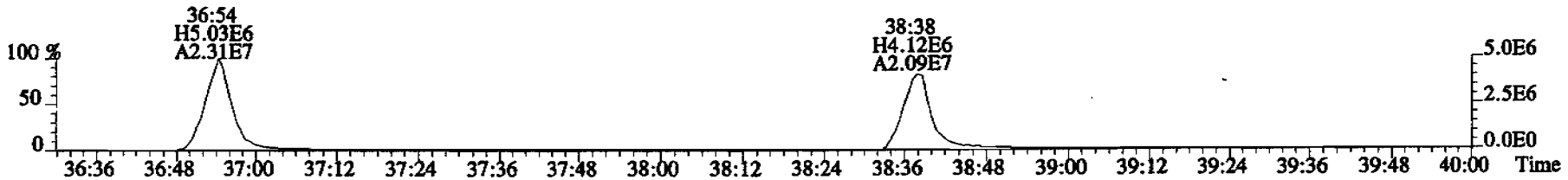

419.8220 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

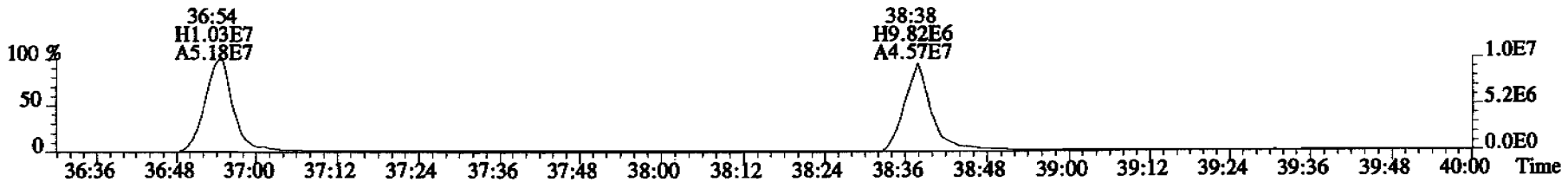

479.7165 S:6 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

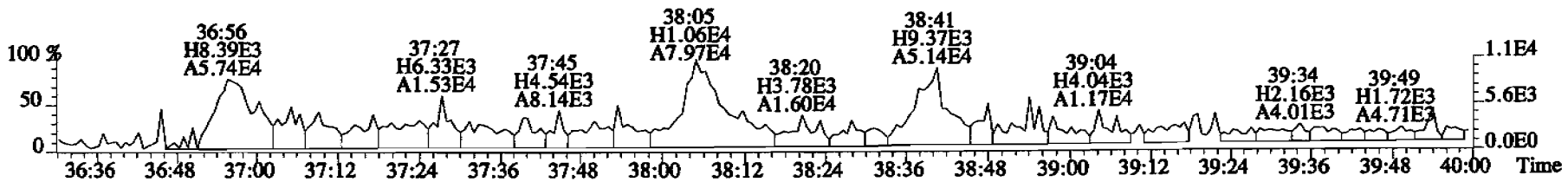

File:091008C1 #1-345 Acq: 8-OCT-2009 16:57:09 GC EI+ Voltage SIR Autospec-UltimaE
Sample#6 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-5 1613 CS4 090922H Exp:OCDD_DB5

441.7428 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

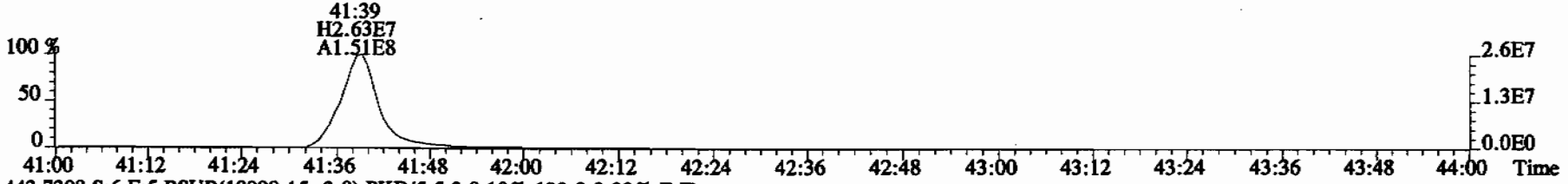

443.7398 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

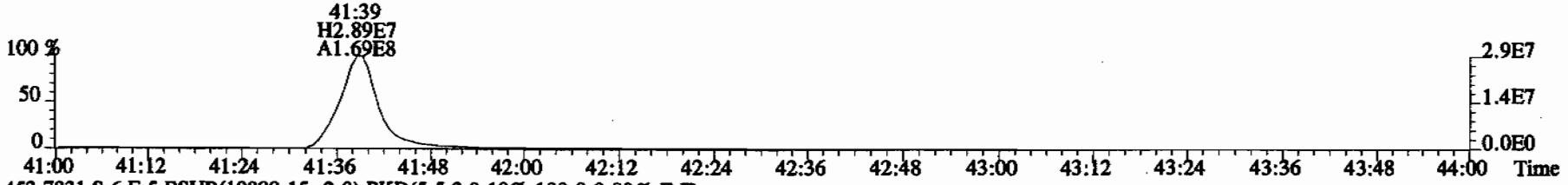

453.7831 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

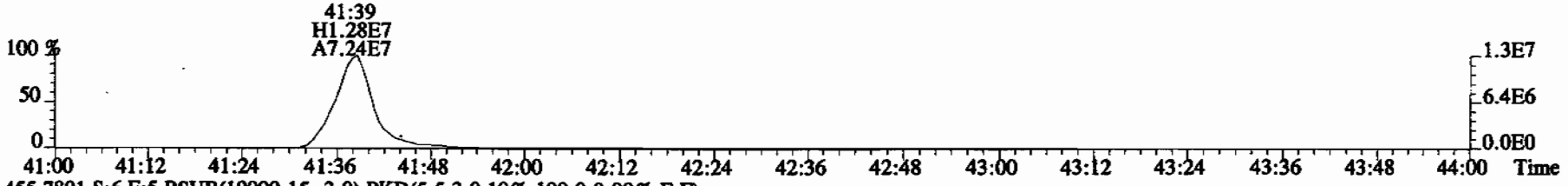

455.7801 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

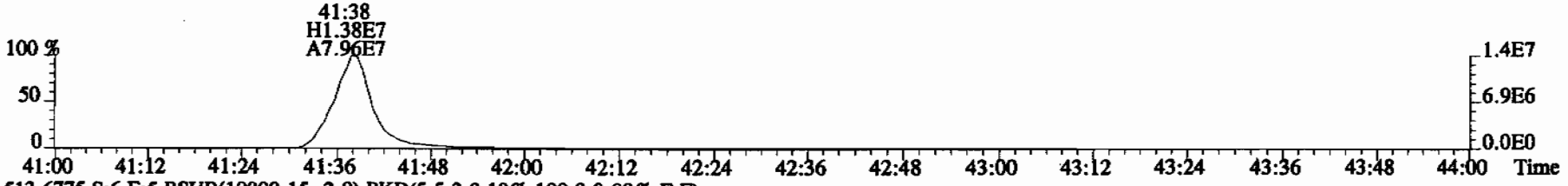

513.6775 S:6 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

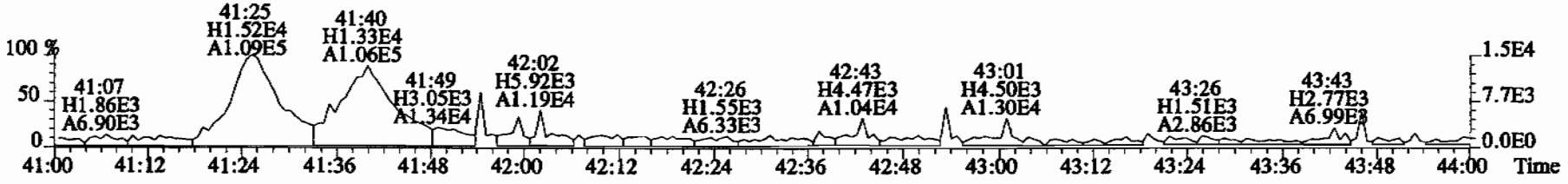

File:091008C1 #1-545 Acq: 8-OCT-2009 17:45:51 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-6 1613 CS5 0909221 Exp:OCDD_DB5
319.8965 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

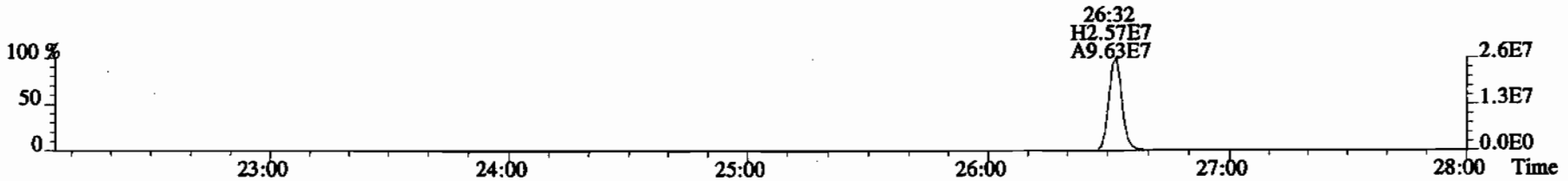

321.8936 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

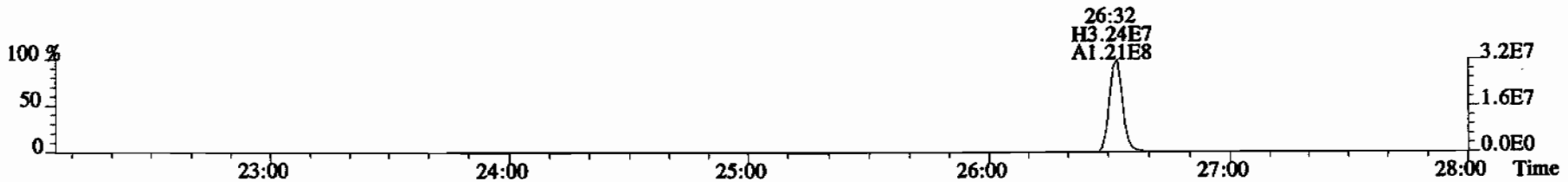

327.8847 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

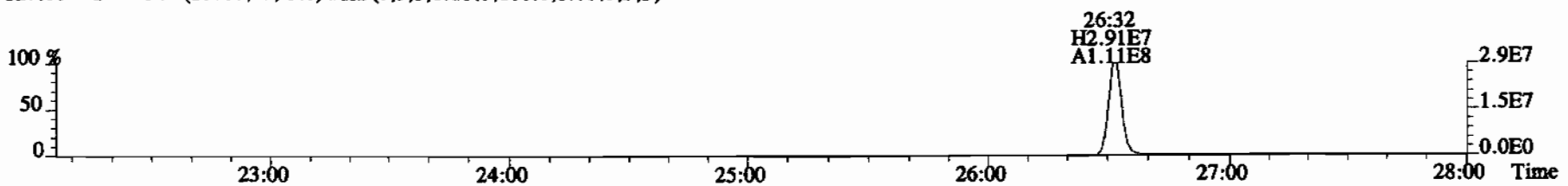

331.9368 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

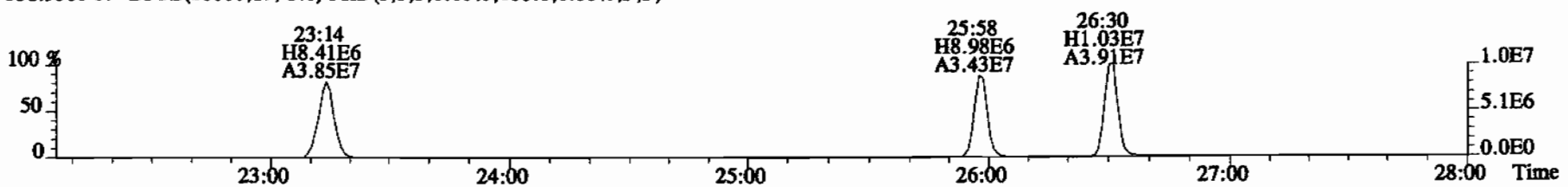

333.9339 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

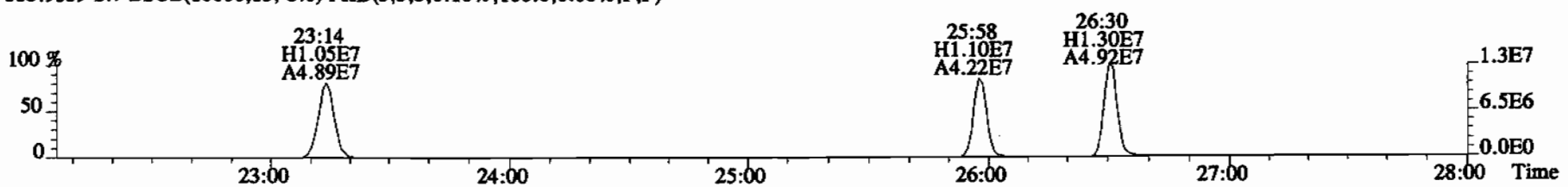

File:091008C1 #1-294 Acq: 8-OCT-2009 17:45:51 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-6 1613 CS5 090922I Exp:OCDD_DB5
353.8576 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

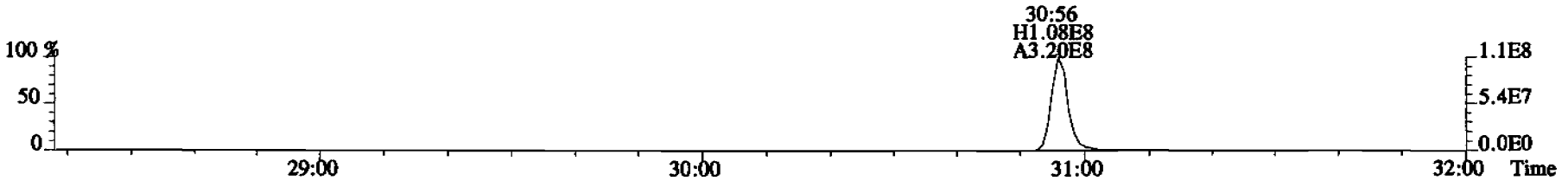

355.8546 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

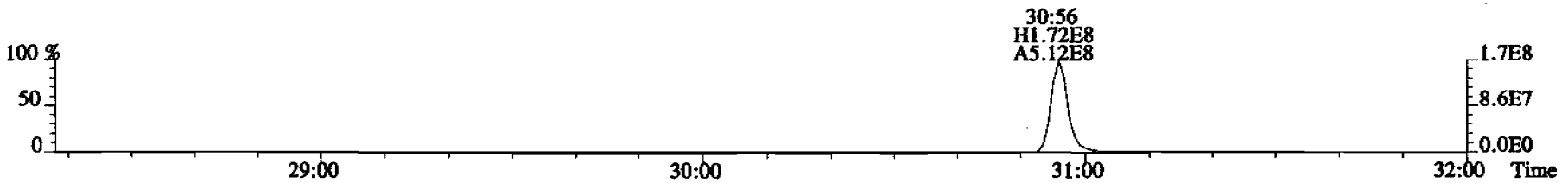

365.8978 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

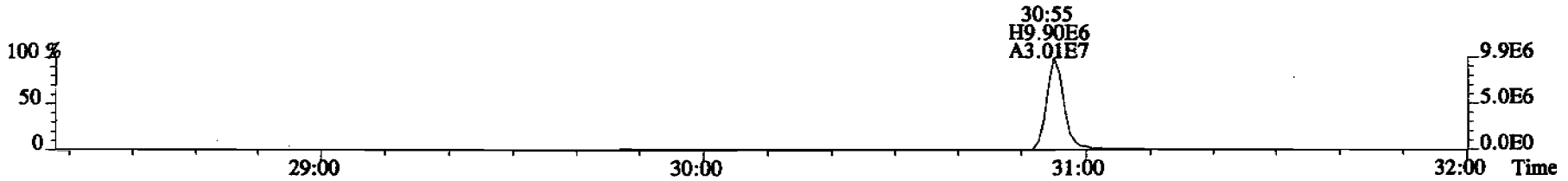

367.8949 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

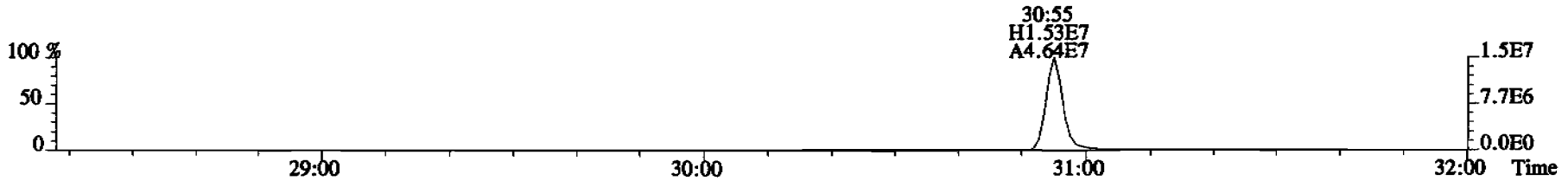

366.9792 S:7 F:2

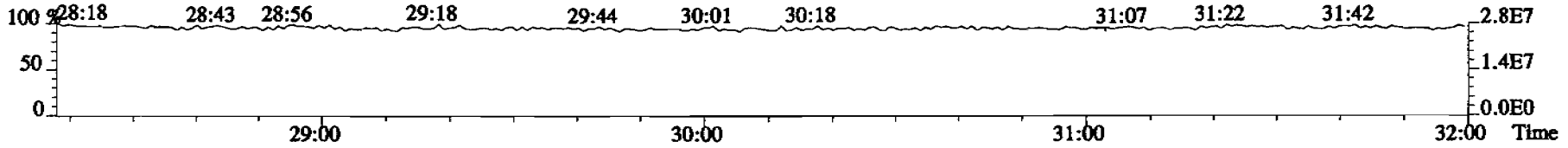

File:091008C1 #1-392 Acq: 8-OCT-2009 17:45:51 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-6 1613 CS5 090922I Exp:OCDD_DB5
389.8156 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

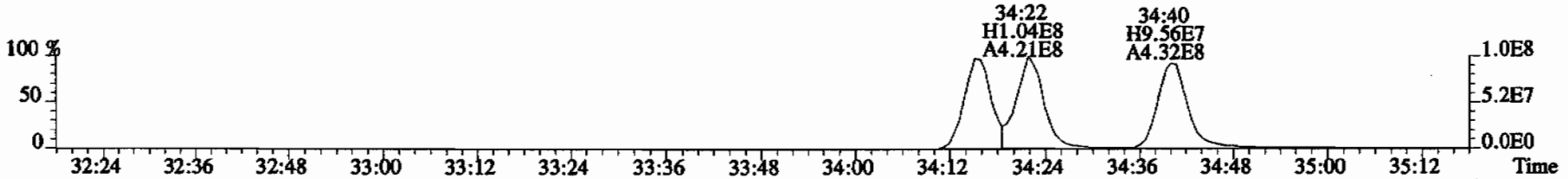

391.8127 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

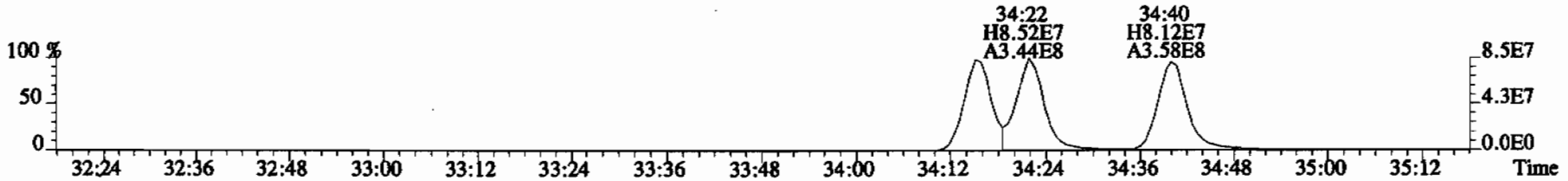

401.8559 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

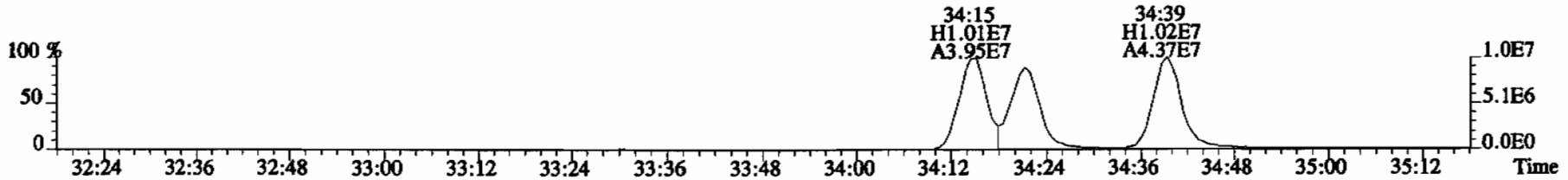

403.8530 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

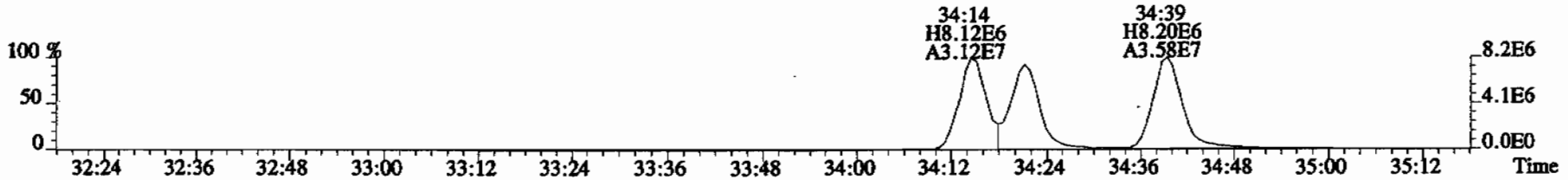

380.9760 S:7 F:3

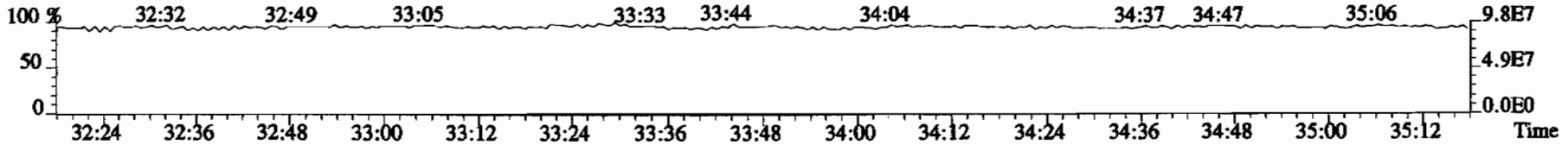

File:091008C1 #1-392 Acq: 8-OCT-2009 17:45:51 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-6 1613 CS5 090922I Exp:OCDD_DB5
401.8559 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

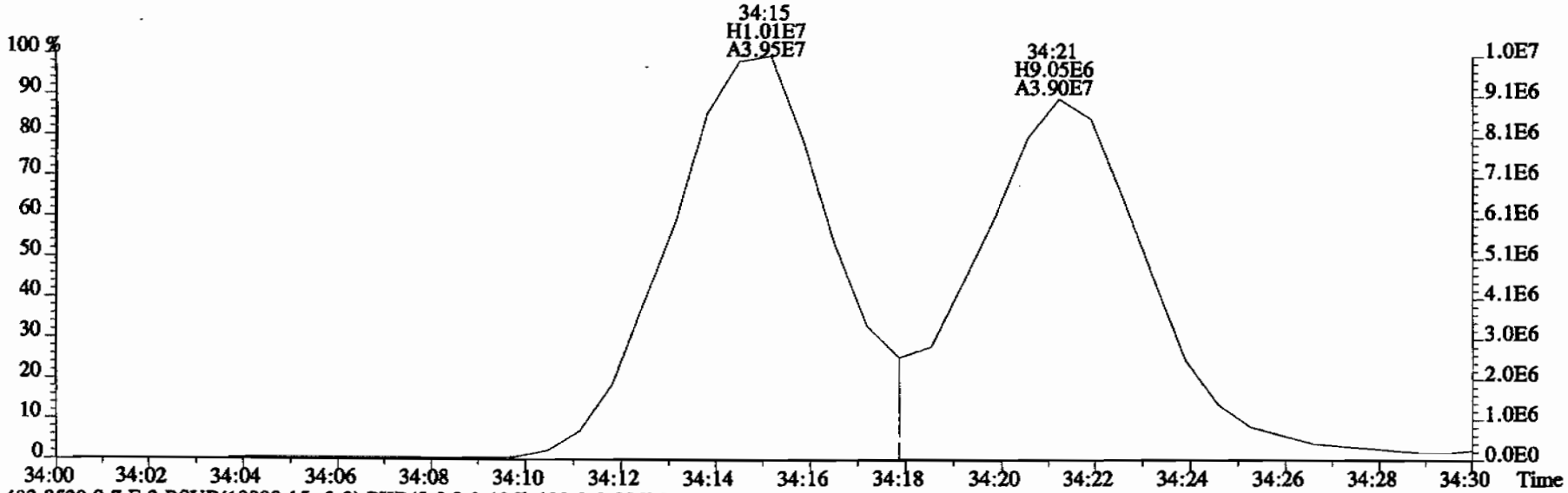

403.8530 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

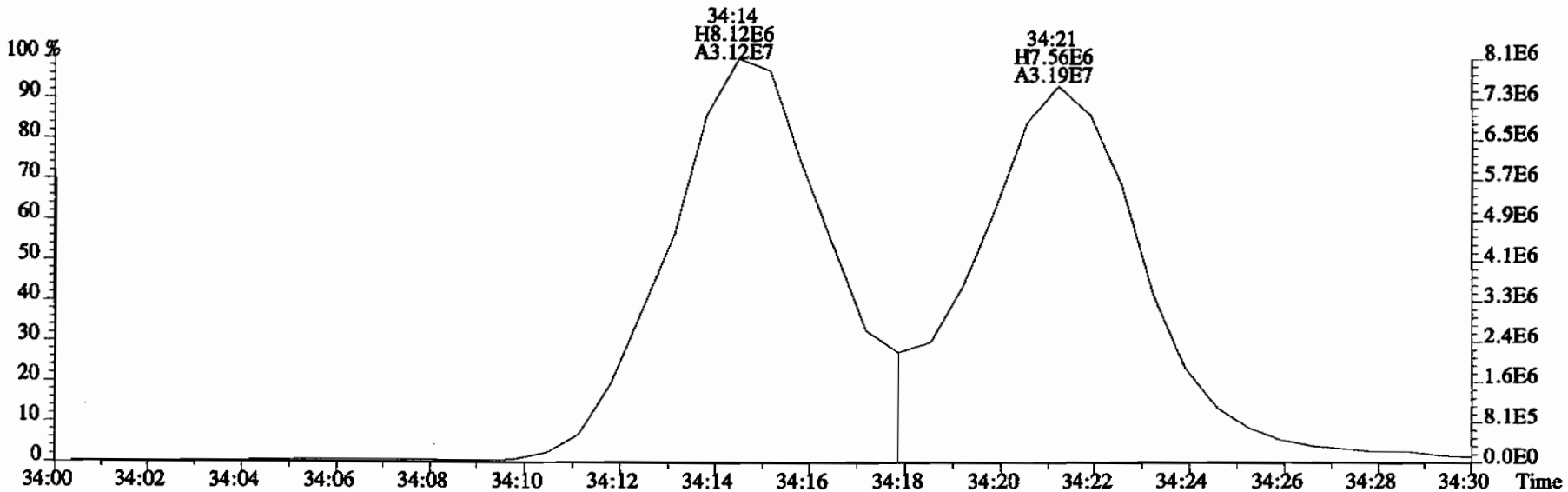

File:091008C1 #1-363 Acq: 8-OCT-2009 17:45:51 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-6 1613 CS5 090922I Exp:OCDD_DB5
423.7767 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

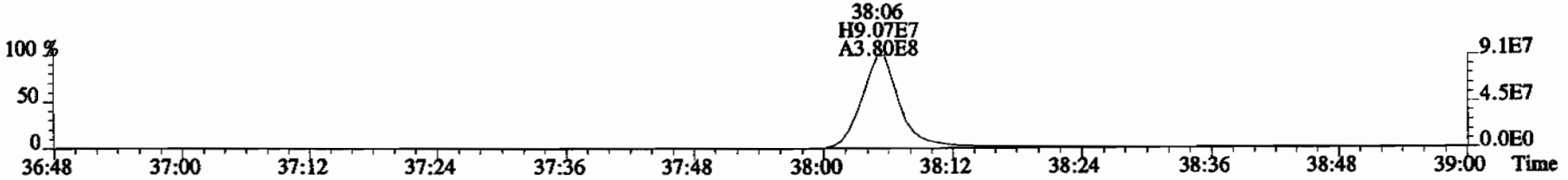

425.7737 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

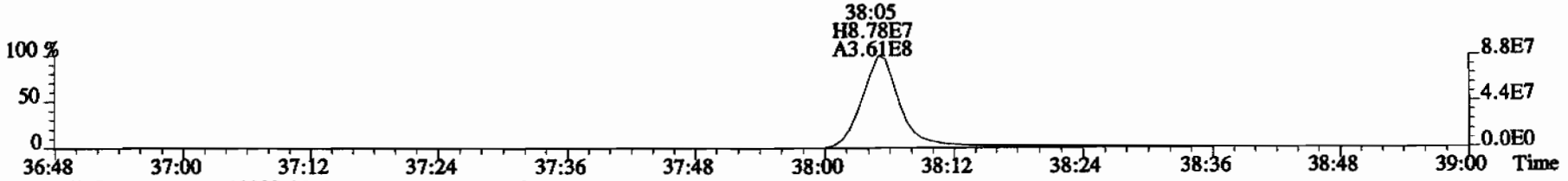

435.8169 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

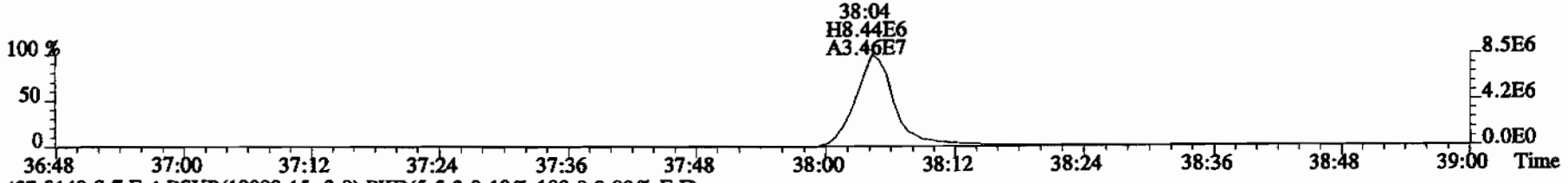

437.8140 S:7 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

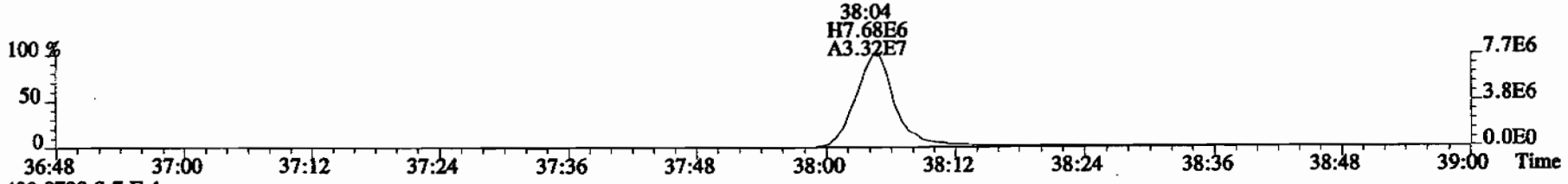

430.9728 S:7 F:4

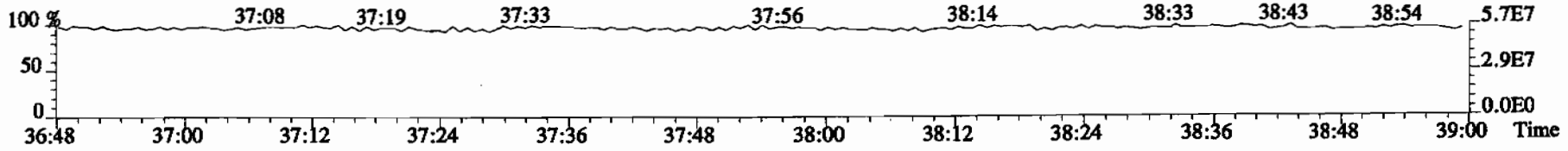

File:091008C1 #1-345 Acq: 8-OCT-2009 17:45:51 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-6 1613 CS5 090922I Exp:OCDD_DB5
457.7377 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

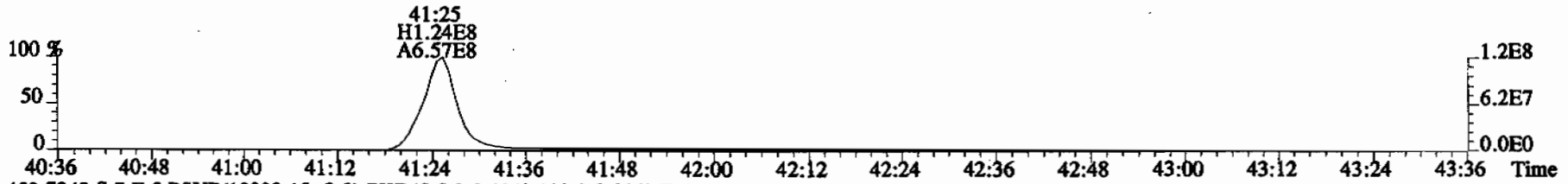

459.7348 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

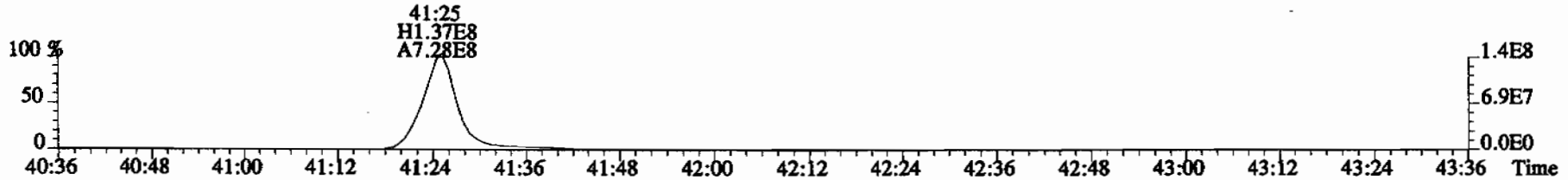

469.7780 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

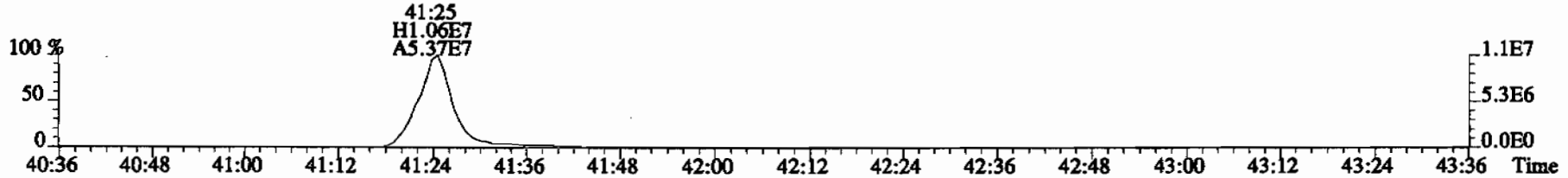

471.7750 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

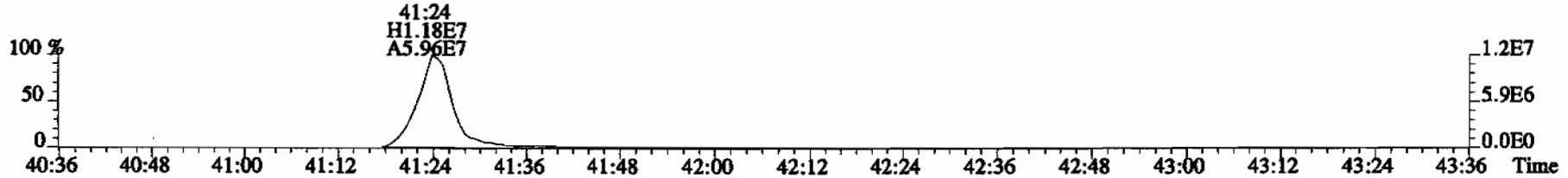

454.9728 S:7 F:5

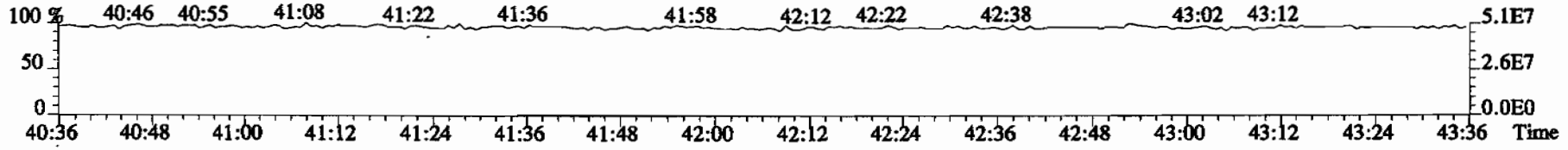

File:091008C1 #1-545 Acq: 8-OCT-2009 17:45:51 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-6 1613 CS5 090922I Exp:OCDD_DB5
303.9016 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

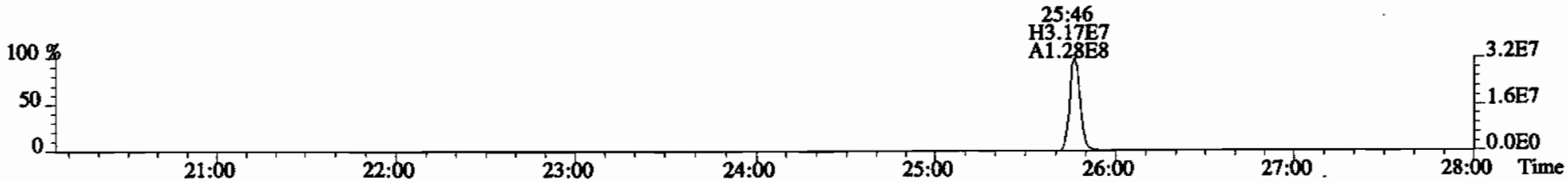

305.8987 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

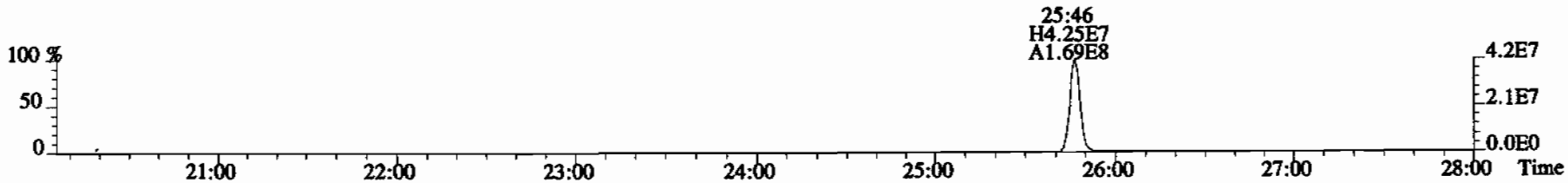

315.9419 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

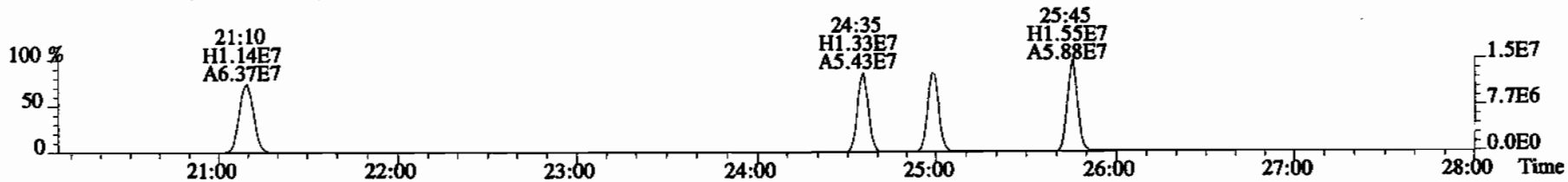

317.9389 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

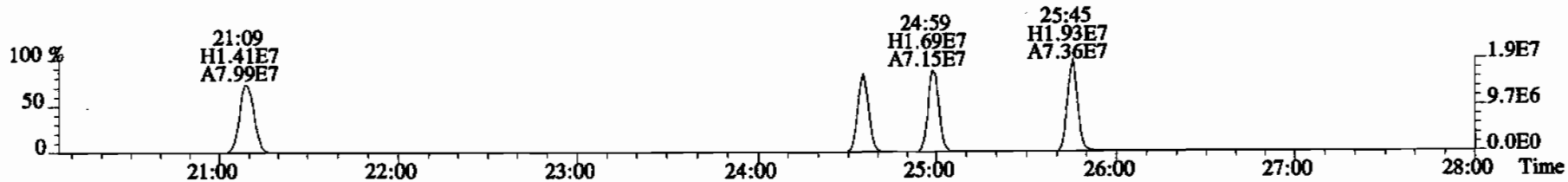

375.8364 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

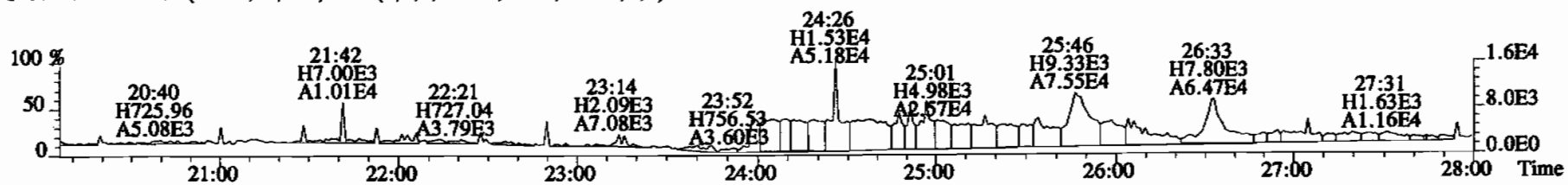

File:091008C1 #1-545 Acq: 8-OCT-2009 17:45:51 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-6 1613 CS5 090922I Exp:OCDD_DB5
339.8597 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

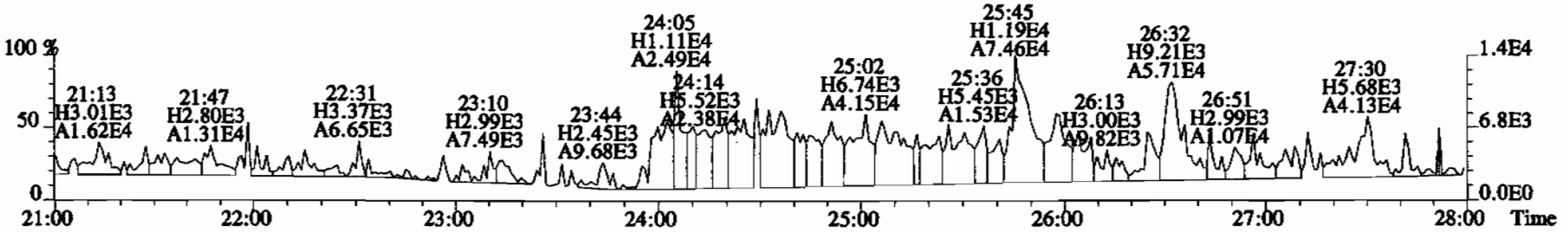

341.8568 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

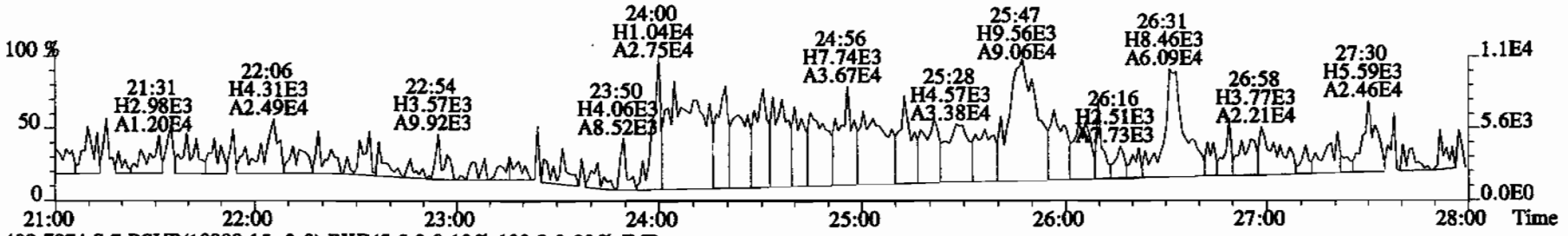

409.7974 S:7 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

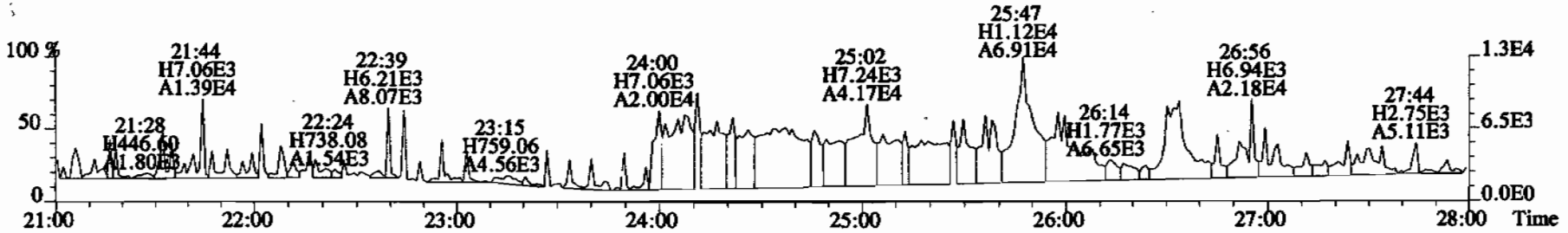

316.9824 S:7

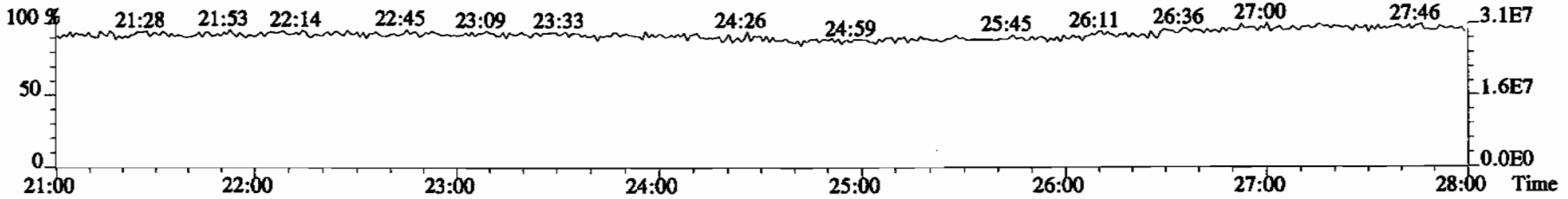

File:091008C1 #1-294 Acq: 8-OCT-2009 17:45:51 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-6 1613 CS5 090922I Exp:OCDD_DB5

339.8597 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

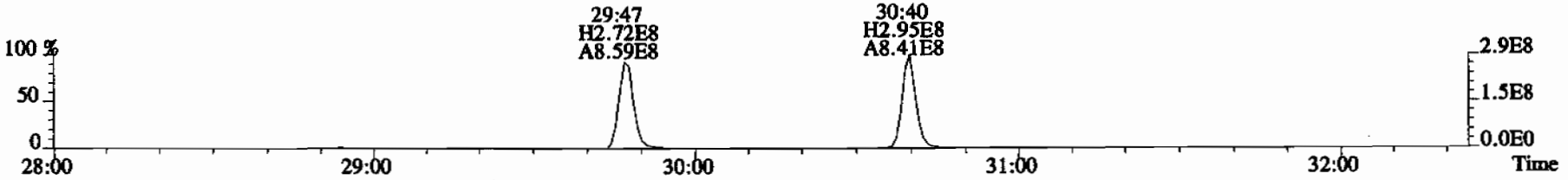

341.8568 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

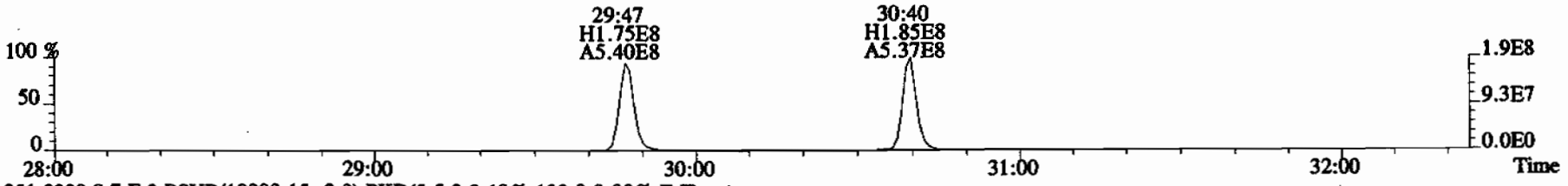

351.9000 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

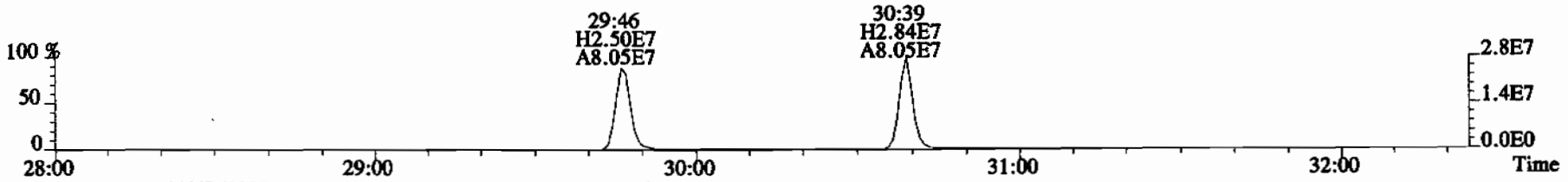

353.8970 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

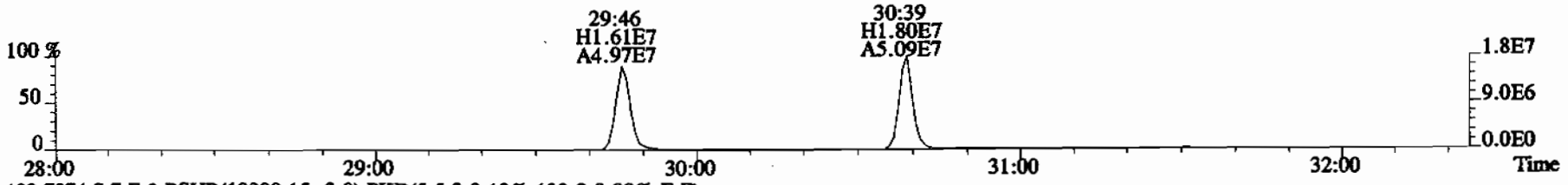

409.7974 S:7 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

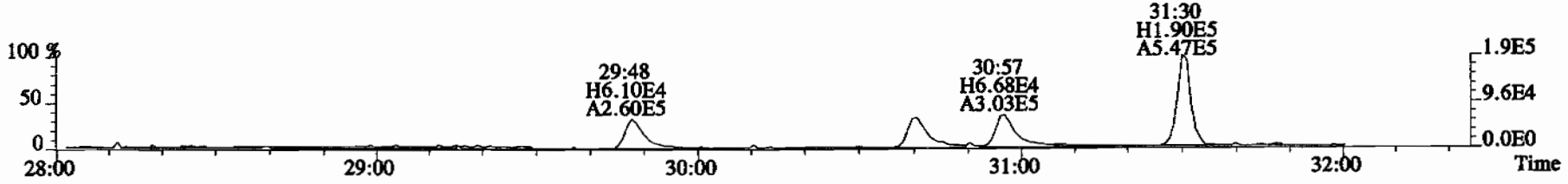

File:091008C1 #1-392 Acq: 8-OCT-2009 17:45:51 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-6 1613 CS5 090922I Exp:OCDD_DB5
373.8207 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

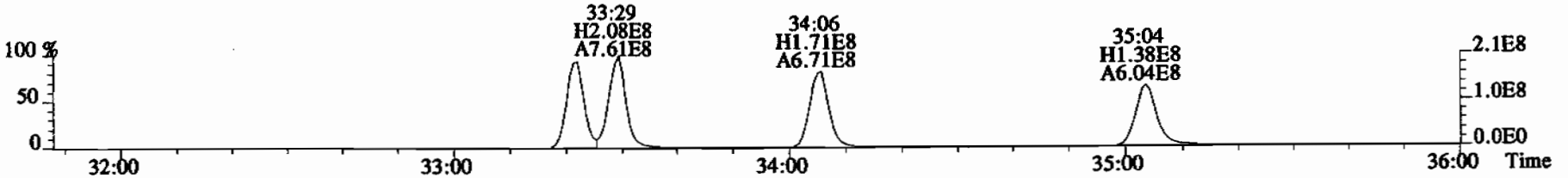

375.8178 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

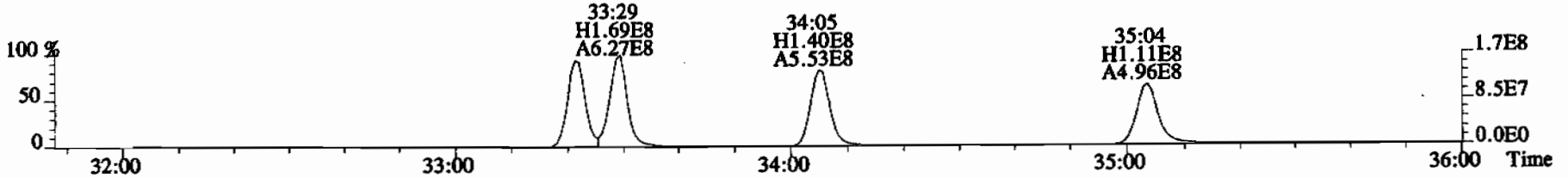

383.8639 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

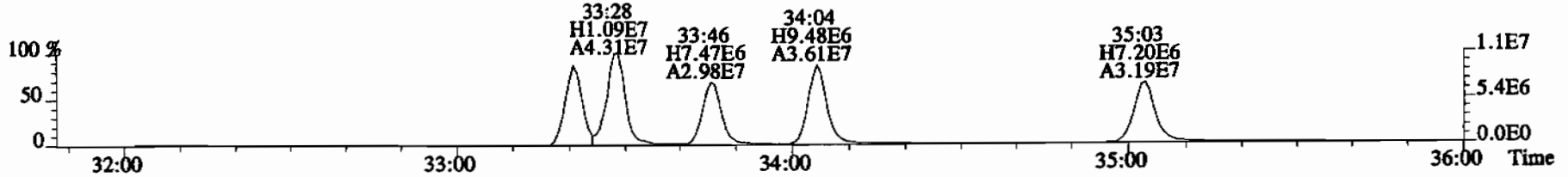

385.8610 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

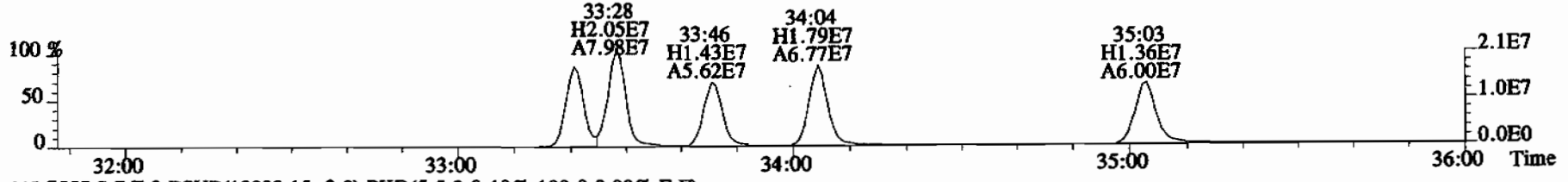

445.7555 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

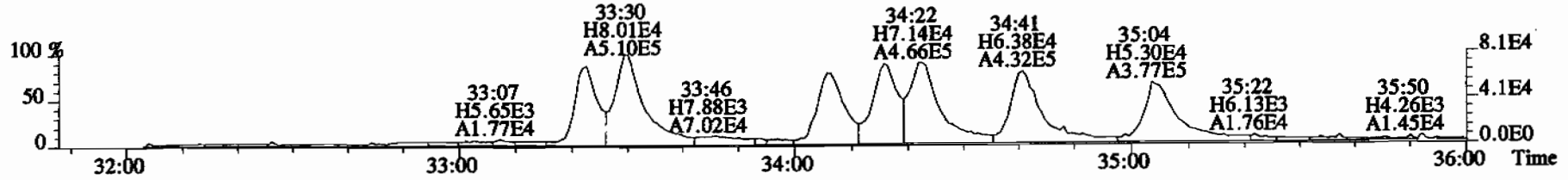

File:091008C1 #1-392 Acq: 8-OCT-2009 17:45:51 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-6 1613 CS5 090922I Exp:OCDD_DB5
383.8639 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

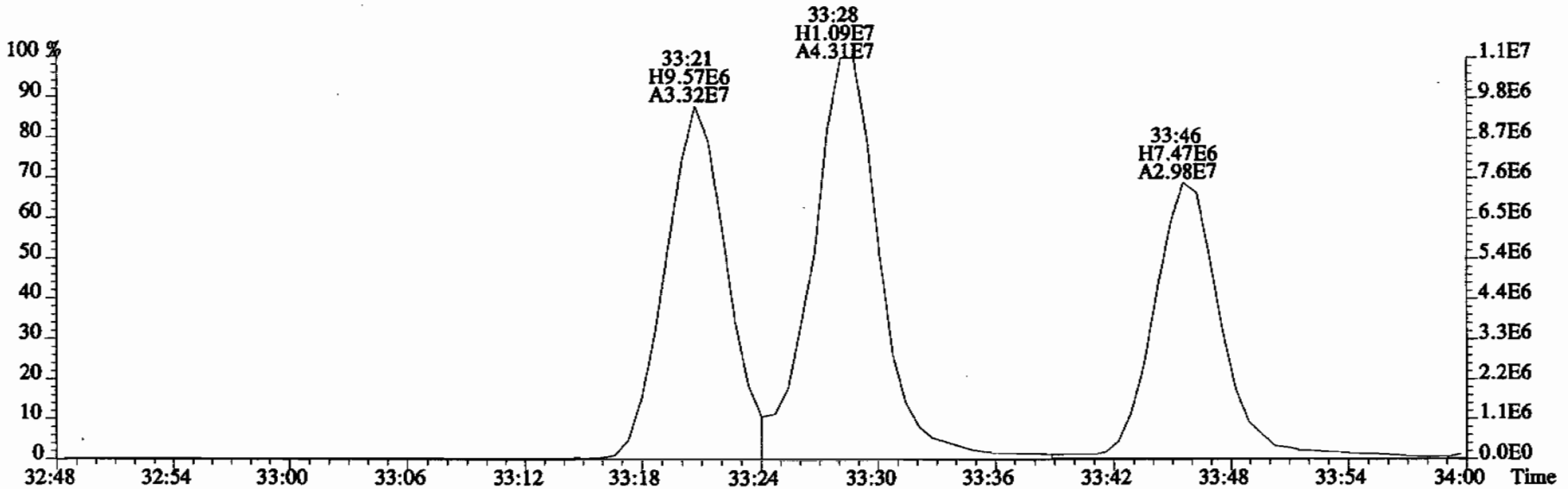

385.8610 S:7 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

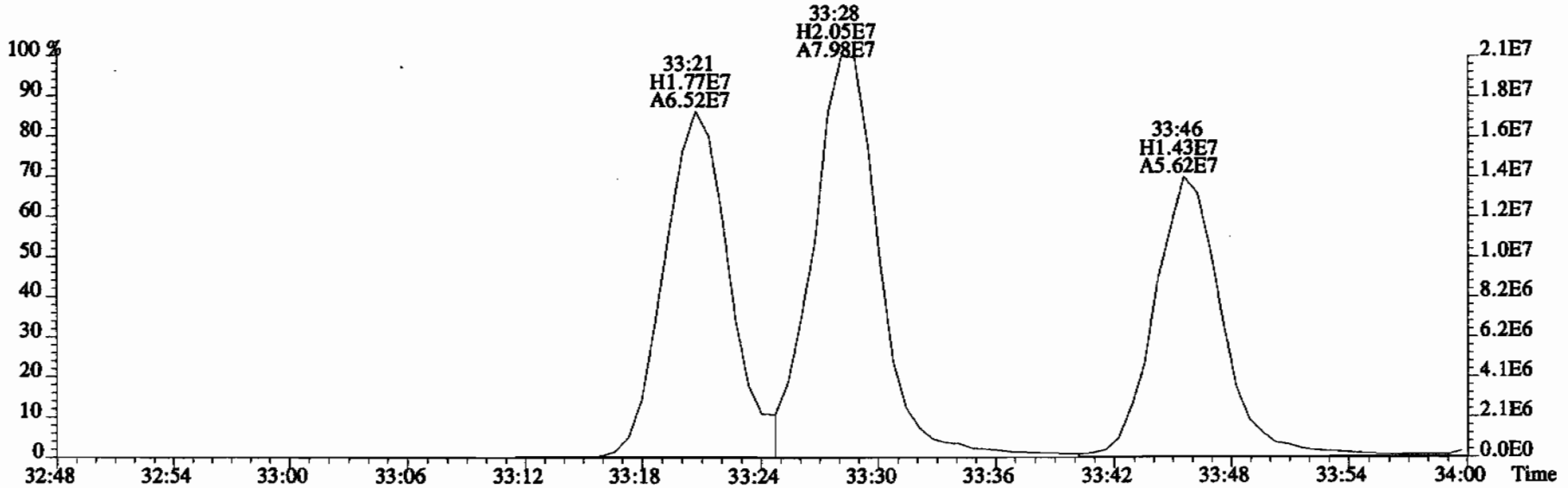

File:091008C1 #1-363 Acq: 8-OCT-2009 17:45:51 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-6 1613 CS5 090922I Exp:OCDD_DB5

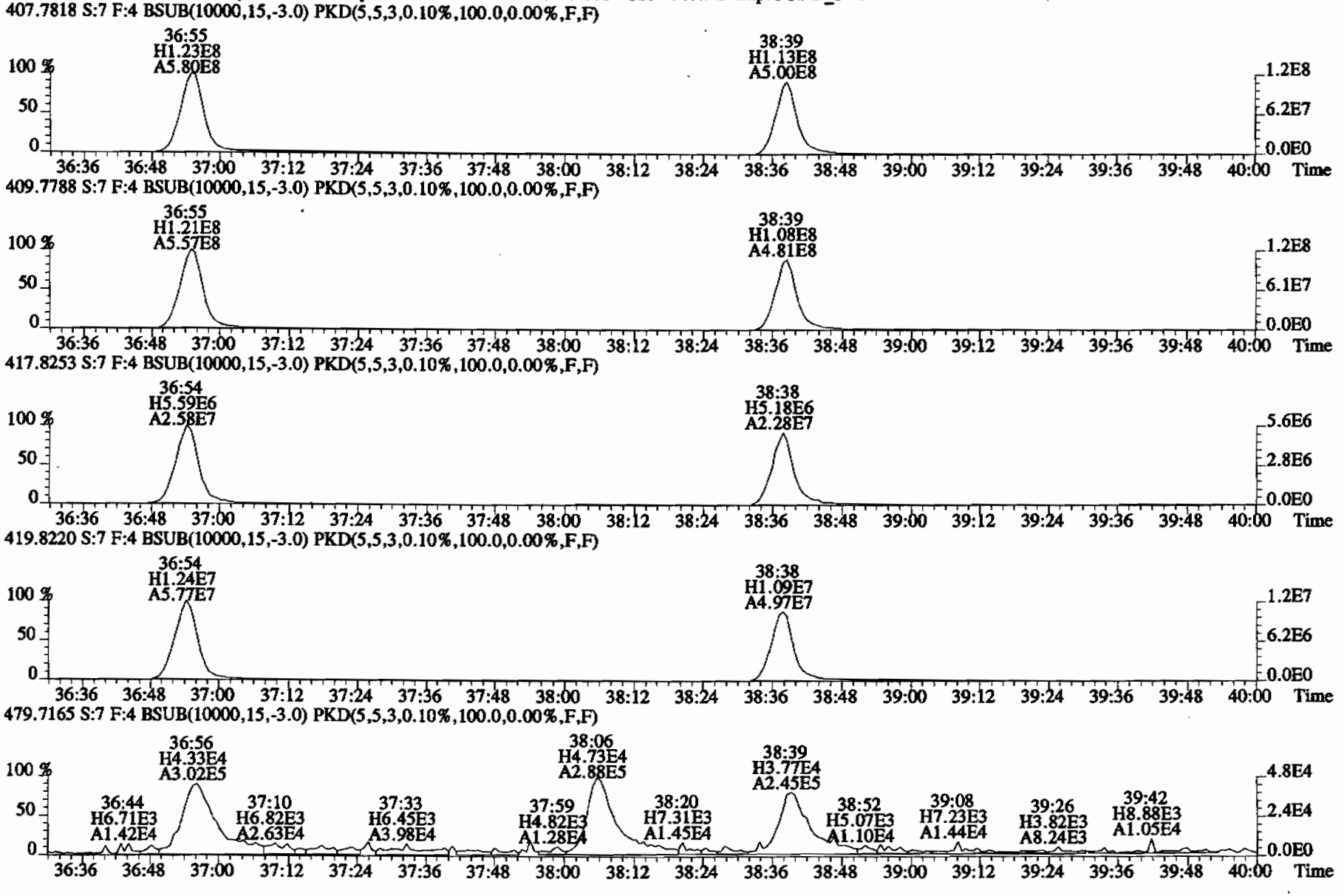

File:091008C1 #1-345 Acq: 8-OCT-2009 17:45:51 GC EI+ Voltage SIR Autospec-UltimaE
Sample#7 File Text:Vista Analytical Laboratory VG-5 Text:ST091008C1-6 1613 CS5 0909221 Exp:OCDD_DB5

441.7428 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

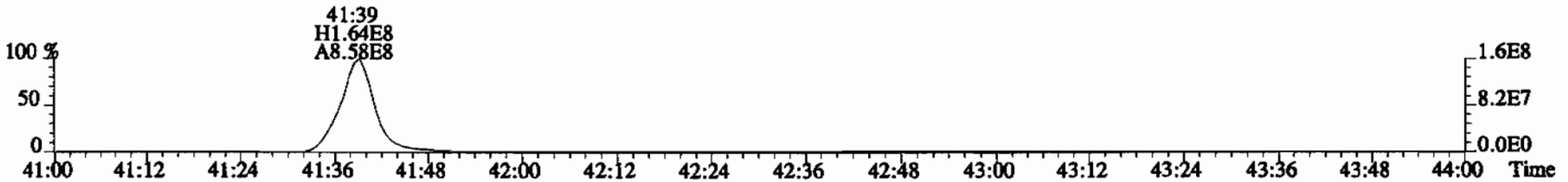

443.7398 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

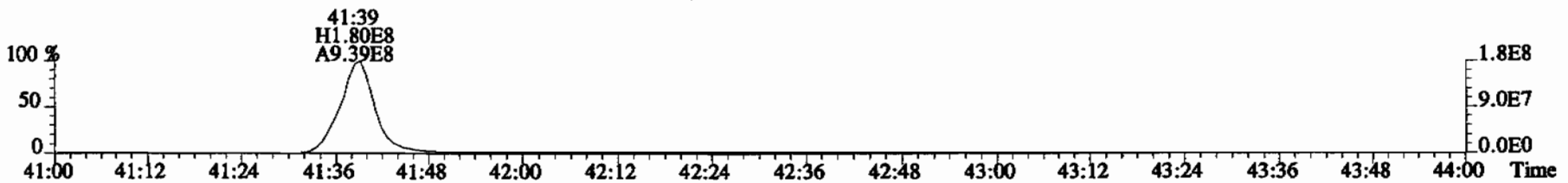

453.7831 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

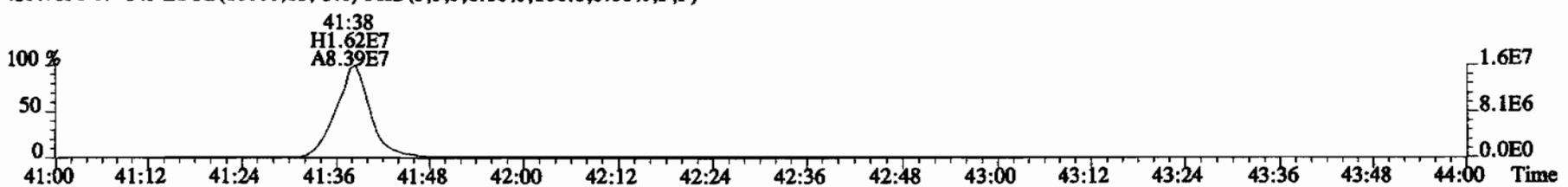

455.7801 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

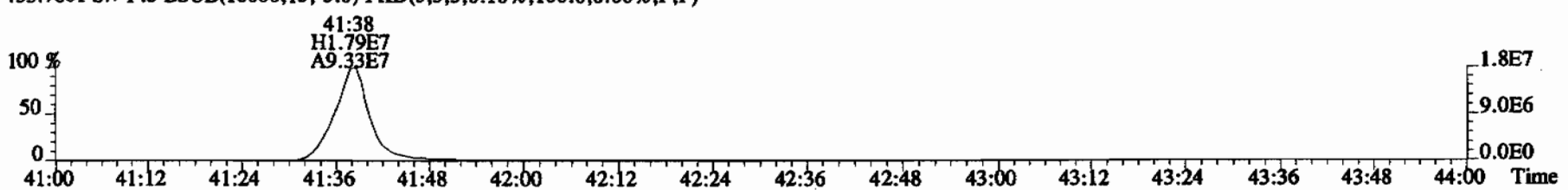

513.6775 S:7 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

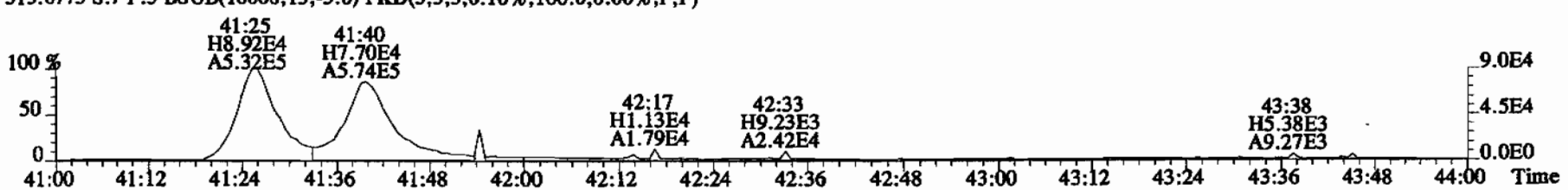

Peak Locate Examination: 8-OCT-2009:20:15 File:RES_CHECK

Experiment:OCDD_DB5 Function:1 Reference:PFK

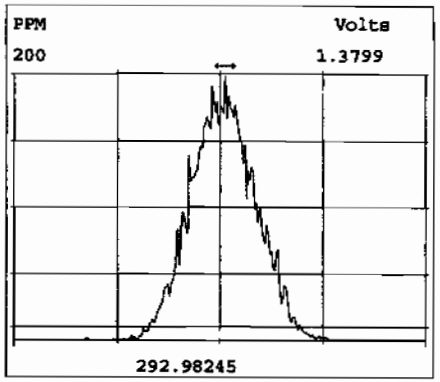

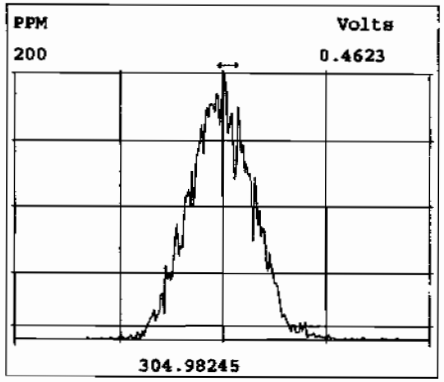

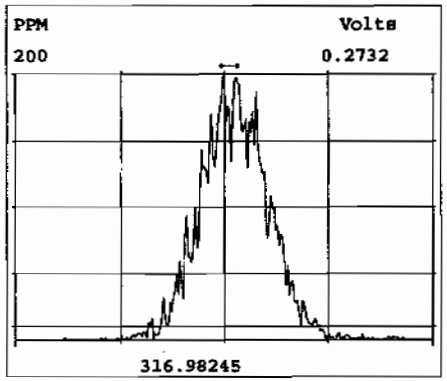

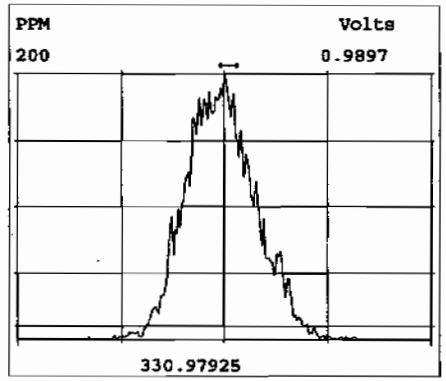

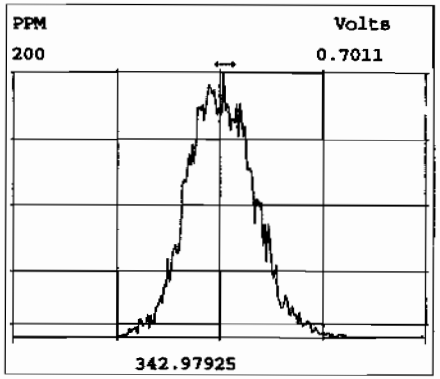

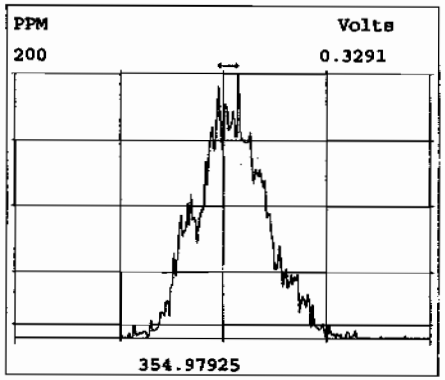

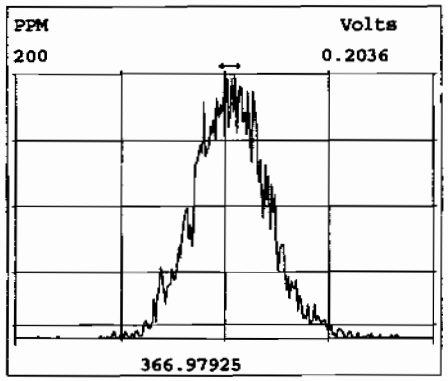

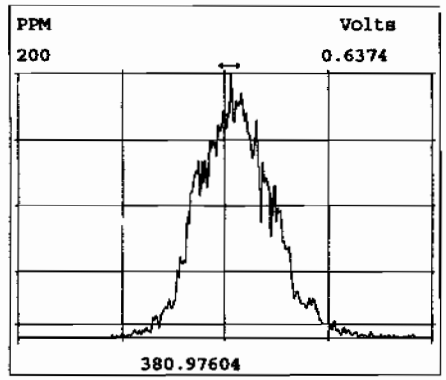

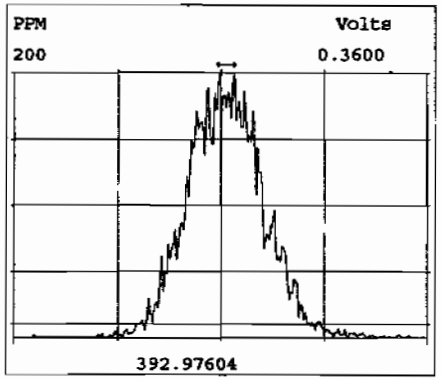

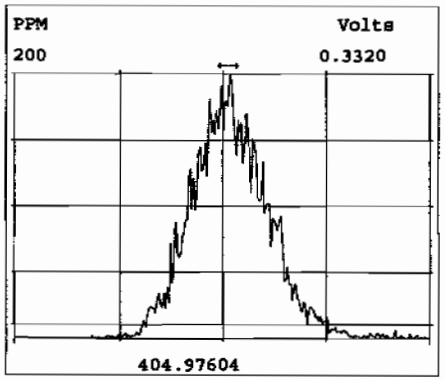

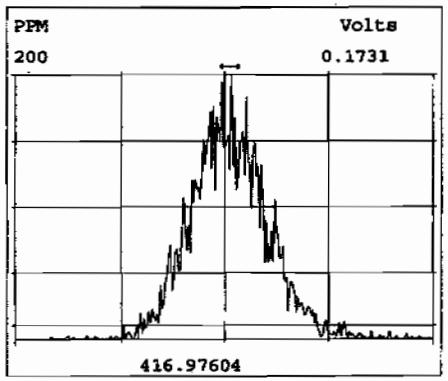

Peak Locate Examination: 8-OCT-2009:20:16 File:RES_CHECK

Experiment:OCDD_DB5 Function:2 Reference:PFK

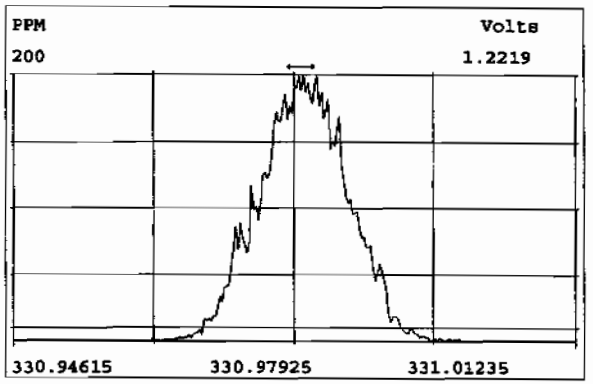

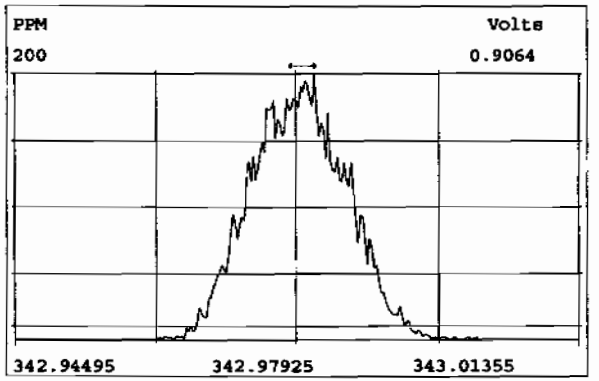

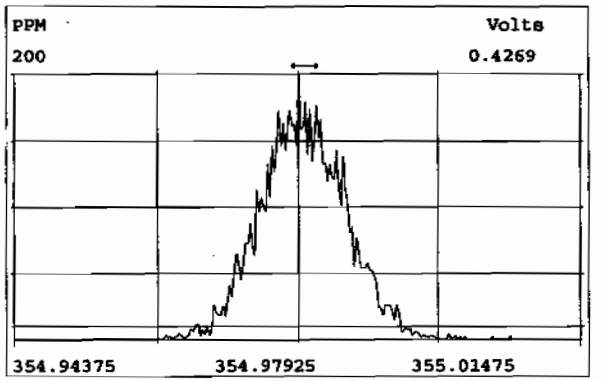

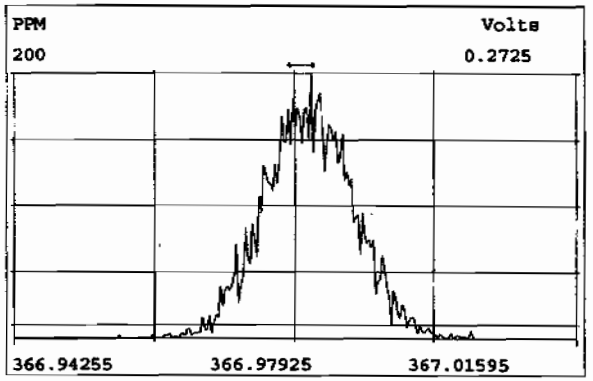

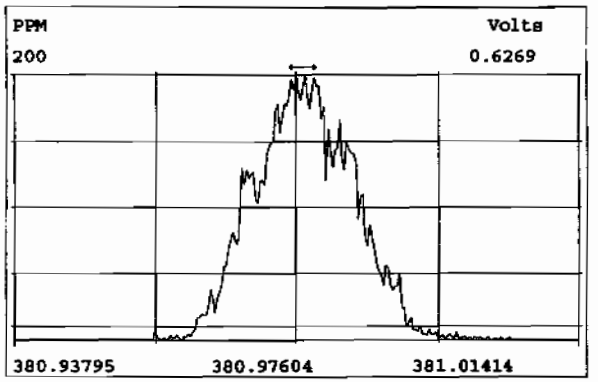

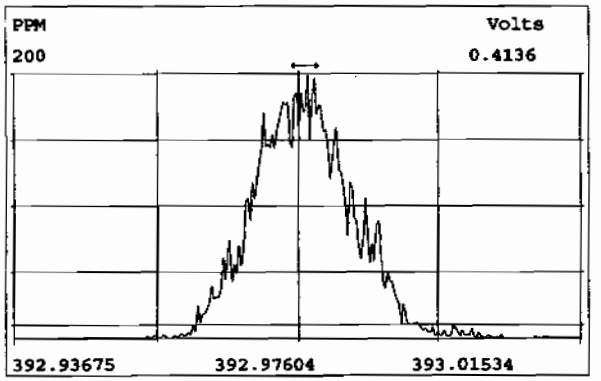

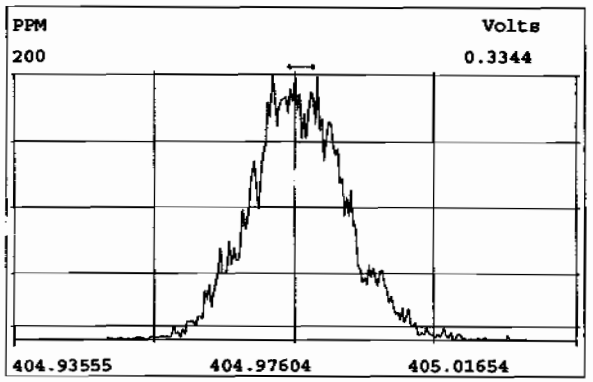

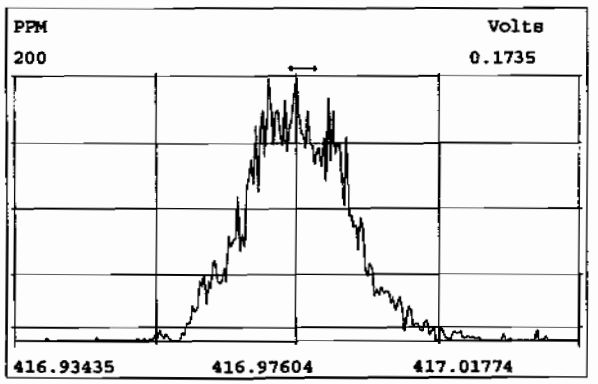

Peak Locate Examination: 8-OCT-2009:20:17 File:RES_CHECK
Experiment:OCDD_DB5 Function:3 Reference:PFK

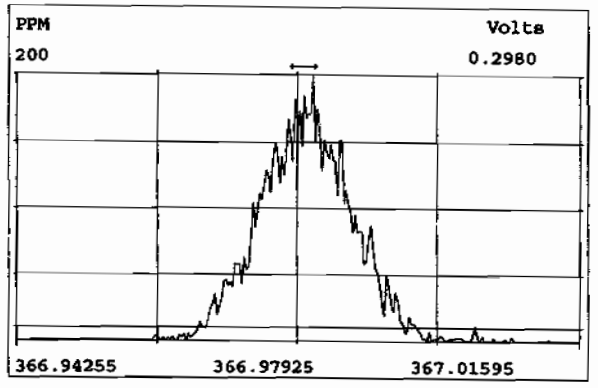

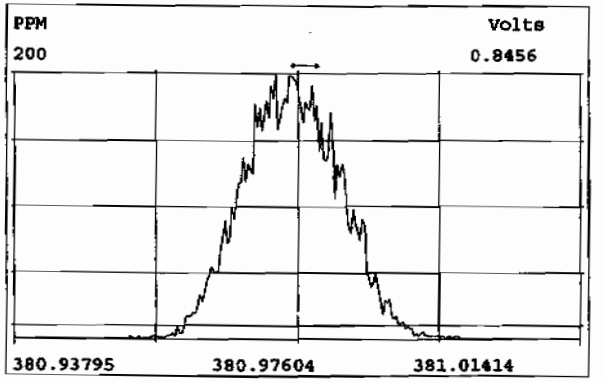

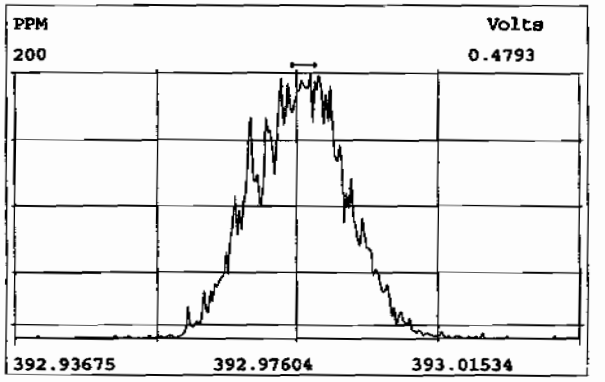

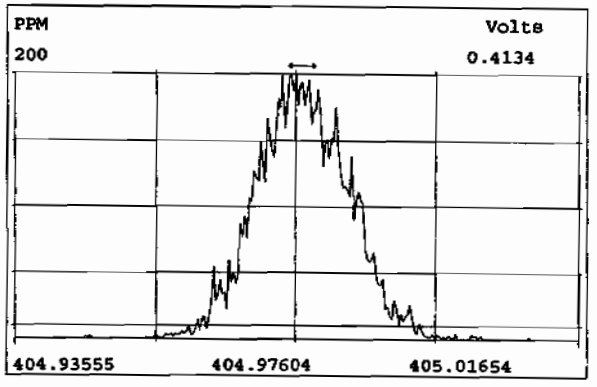

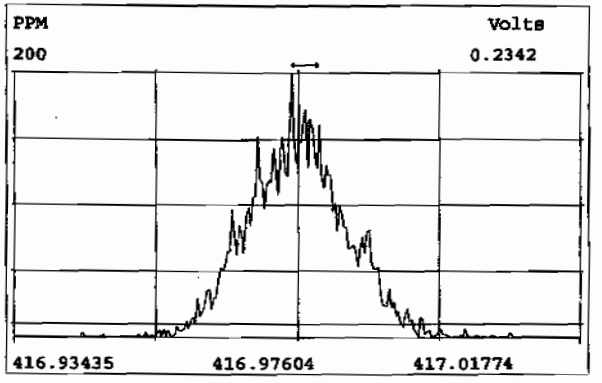

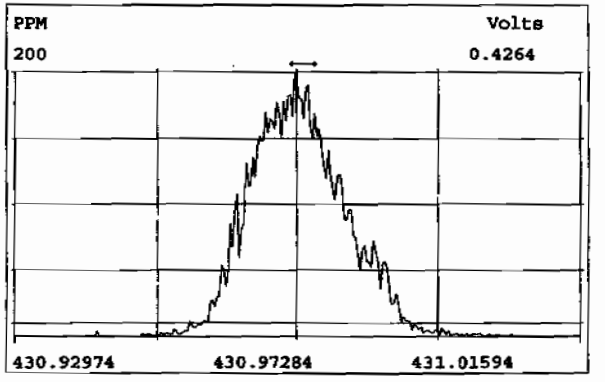

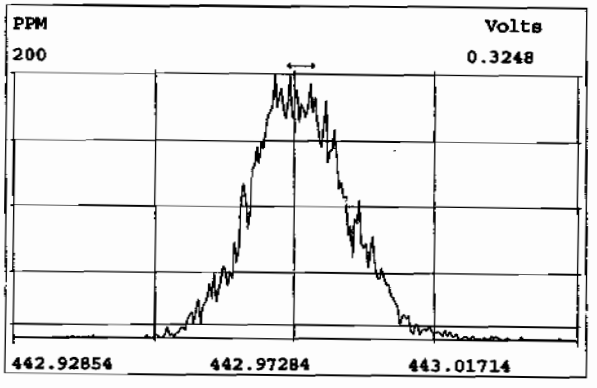

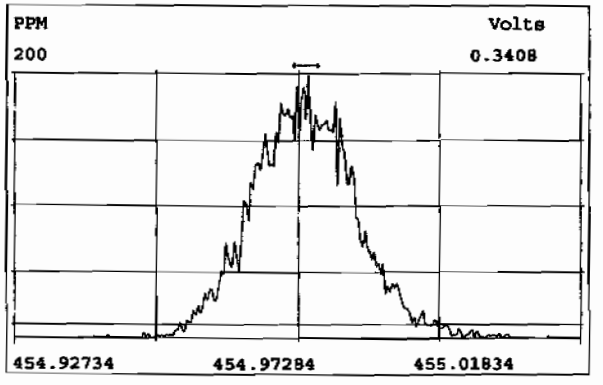

Peak Locate Examination: 8-OCT-2009:20:18 File:RES_CHECK
Experiment:OCDD_DB5 Function:4 Reference:PFK

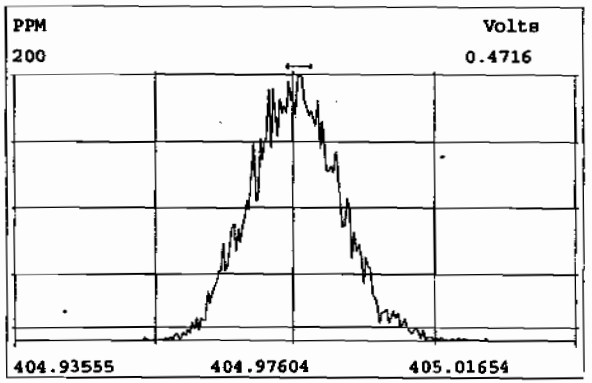

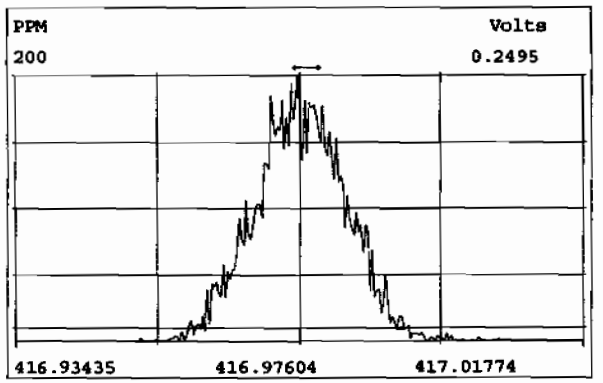

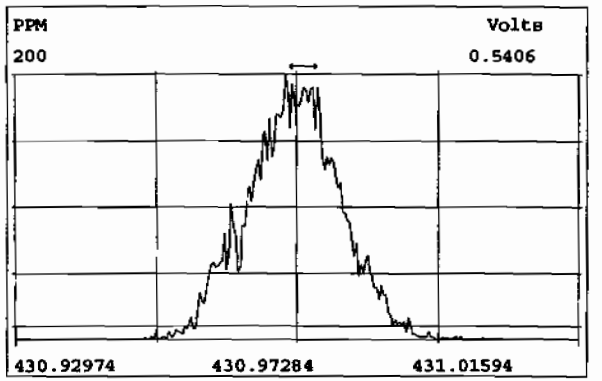

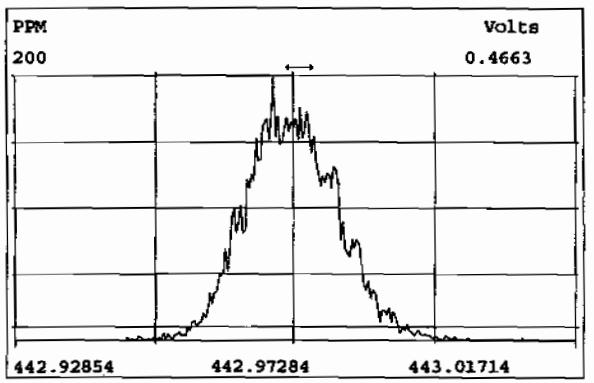

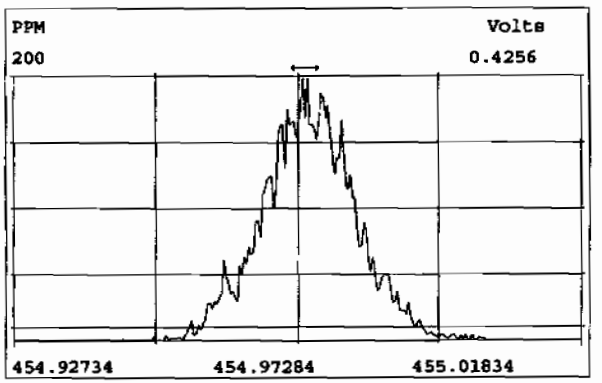

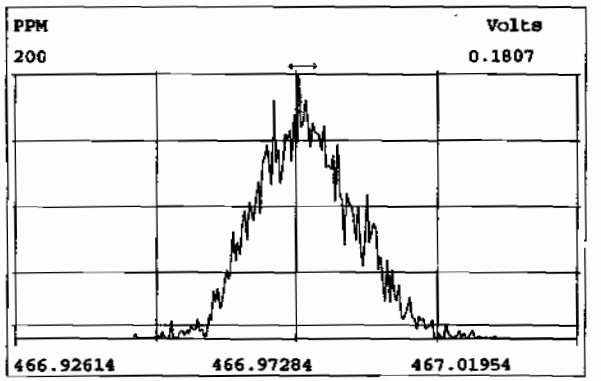

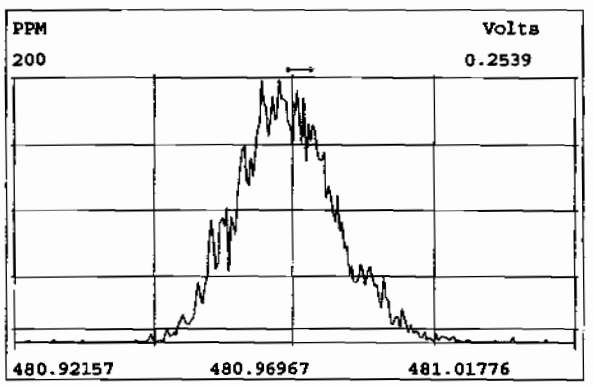

Peak Locate Examination: 8-OCT-2009:20:19 File:RES_CHECK
Experiment:OCDD_DB5 Function:5 Reference:PFK

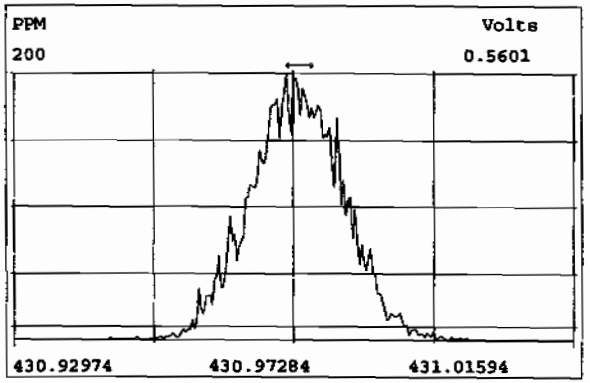

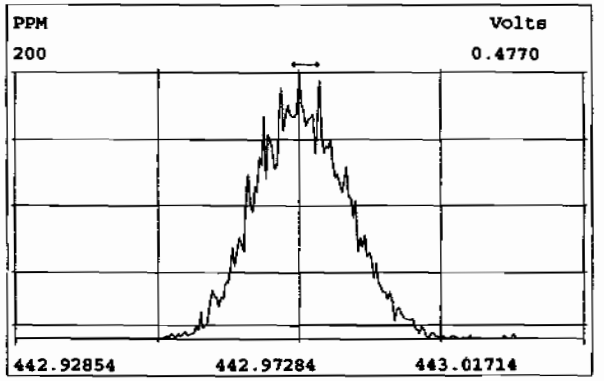

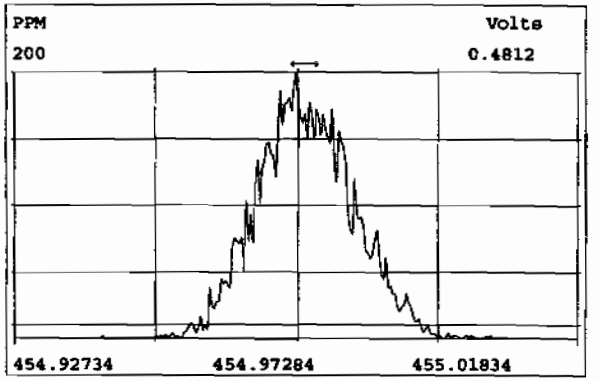

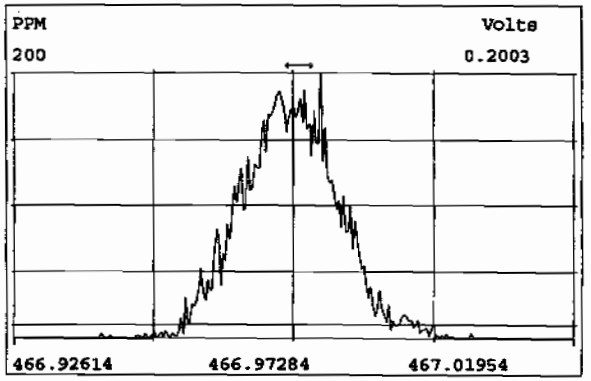

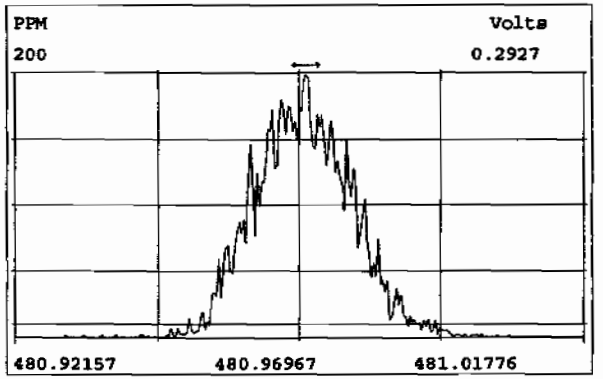

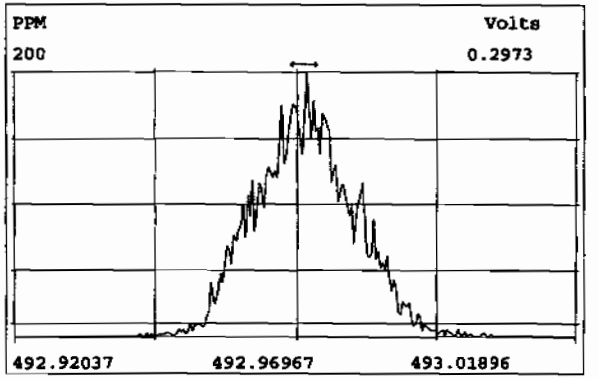

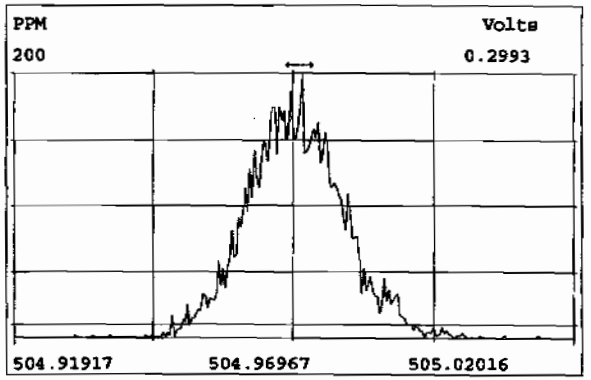

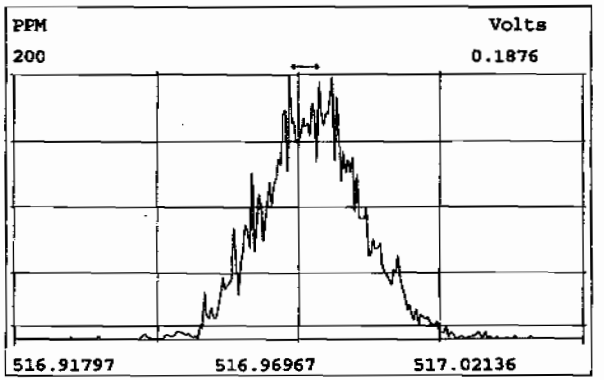

Client ID: SECOND SOURCE STD 0902 Filename: 091008C1 S:9 Acq: 8-OCT-09 19:23:12 ConCal: NA
Lab ID: SS091008C1-1 GC Column ID: db-5 ICal: 1613VG5-10-8-09 wt/vol: 1.000 EndCAL: NA

	Name	Resp	RA	RRF	RT	Conc	Qual	noise	Fac	DL
	2,3,7,8-TCDD	8.93e+06	0.78 y	1.25	26:32	9.3079		*	2.5	*
	1,2,3,7,8-PeCDD	3.76e+07	0.62 y	1.11	30:56	50.294		*	2.5	*
	1,2,3,4,7,8-HxCDD	3.32e+07	1.23 y	1.04	34:15	54.996		*	2.5	*
	1,2,3,6,7,8-HxCDD	3.61e+07	1.22 y	1.12	34:22	43.487		*	2.5	*
	1,2,3,7,8,9-HxCDD	3.46e+07	1.19 y	1.02	34:41	51.524		*	2.5	*
	1,2,3,4,6,7,8-HpCDD	3.15e+07	1.08 y	1.11	38:06	51.589		*	2.5	*
	OCDD	5.44e+07	0.91 y	1.24	41:26	91.813		*	2.5	*
	2,3,7,8-TCDF	1.32e+07	0.76 y	1.15	25:47	8.8767		*	2.5	*
	1,2,3,7,8-PeCDF	6.10e+07	1.60 y	1.11	29:47	46.720		*	2.5	*
	2,3,4,7,8-PeCDF	6.25e+07	1.58 y	1.07	30:40	50.761		*	2.5	*
	1,2,3,4,7,8-HxCDF	5.73e+07	1.20 y	1.34	33:21	45.724		*	2.5	*
	1,2,3,6,7,8-HxCDF	6.71e+07	1.24 y	1.18	33:29	50.749		*	2.5	*
	2,3,4,6,7,8-HxCDF	5.83e+07	1.20 y	1.20	34:05	48.645		*	2.5	*
	1,2,3,7,8,9-HxCDF	4.68e+07	1.22 y	1.24	35:04	46.725		*	2.5	*
	1,2,3,4,6,7,8-HpCDF	5.25e+07	1.03 y	1.44	36:55	47.299		*	2.5	*
	1,2,3,4,7,8,9-HpCDF	4.18e+07	1.02 y	1.40	38:39	49.848		*	2.5	*
	OCDF	7.24e+07	0.89 y	1.07	41:39	93.599		*	2.5	*
IS	13C-2,3,7,8-TCDD	7.67e+07	0.77 y	1.04	26:31	105.56				
IS	13C-1,2,3,7,8-PeCDD	6.72e+07	0.62 y	0.92	30:55	104.94				
IS	13C-1,2,3,4,7,8-HxCDD	5.80e+07	1.25 y	0.76	34:14	79.508				
IS	13C-1,2,3,6,7,8-HxCDD	7.39e+07	1.21 y	0.77	34:21	101.13				
IS	13C-1,2,3,7,8,9-HxCDD	6.56e+07	1.25 y	0.85	34:40	80.708				
IS	13C-1,2,3,4,6,7,8-HpCDD	5.50e+07	1.04 y	0.73	38:05	79.480				
IS	13C-OCDD	9.60e+07	0.89 y	0.58	41:25	173.04				
IS	13C-2,3,7,8-TCDF	1.29e+08	0.79 y	1.06	25:45	99.160				
IS	13C-1,2,3,7,8-PeCDF	1.17e+08	1.61 y	1.00	29:46	95.180				
IS	13C-2,3,4,7,8-PeCDF	1.15e+08	1.63 y	0.98	30:39	95.671				
IS	13C-1,2,3,4,7,8-HxCDF	9.35e+07	0.52 y	1.05	33:20	93.440				
IS	13C-1,2,3,6,7,8-HxCDF	1.12e+08	0.54 y	1.33	33:28	88.204				
IS	13C-2,3,4,6,7,8-HxCDF	9.96e+07	0.54 y	1.14	34:05	91.742				
IS	13C-1,2,3,7,8,9-HxCDF	8.10e+07	0.52 y	1.00	35:03	85.231				
IS	13C-1,2,3,4,6,7,8-HpCDF	7.69e+07	0.44 y	0.88	36:54	91.245				
IS	13C-1,2,3,4,7,8,9-HpCDF	5.99e+07	0.45 y	0.77	38:38	81.348				
IS	13C-OCDF	1.44e+08	0.90 y	0.89	41:38	170.44				
C/Up	37Cl-2,3,7,8-TCDD	8.20e+06		0.68	26:32	17.389				
RS/RT	13C-1,2,3,4-TCDD	6.96e+07	0.81 y	1.00	25:58	100.00				
RS	13C-1,2,3,4-TCDF	1.23e+08	0.82 y	1.00	24:35	100.00				
RS/RT	13C-1,2,3,4,6,9-HxCDF	9.54e+07	0.53 y	1.00	33:46	100.00				

Name	Conc	EMPC	Qual	noise	DL
Total Tetra-Dioxins	9.40	9.96		*	*
Total Penta-Dioxins	50.4	50.6		*	*
Total Hexa-Dioxins	151	152		*	*
Total Hepta-Dioxins	53.3	54.6		*	*
Total Tetra-Furans	8.92	9.26		*	*
Total Penta-Furans	98.754	101.13		*	*
Total Hexa-Furans	193	194		*	*
Total Hepta-Furans	97.8	99.4		*	*

	Rec	Qual
	106	
	105	
	79.5	
	101	
	80.7	
	79.5	
	86.5	
	99.2	
	95.2	
	95.7	
	93.4	
	88.2	
	91.7	
	85.2	
	91.2	
	81.3	
	85.2	
	174	

Integrations by Analyst: M

Date: 10/9/09

Reviewed by Analyst: _____

Date: _____

File:091008C1 #1-545 Acq: 8-OCT-2009 19:23:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Vista Analytical Laboratory VG-5 Text:SS091008C1-1 SECOND SOURCE STD 090219C Exp:OCDD_DB5

319.8965 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

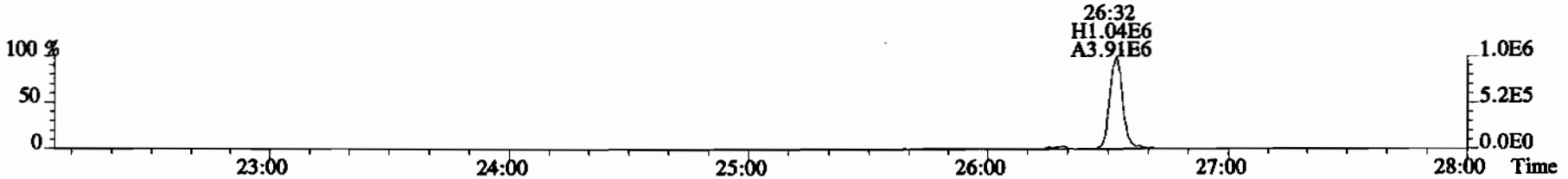

321.8936 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

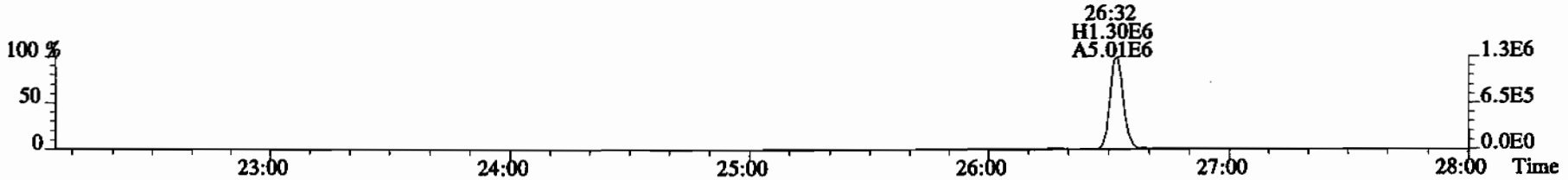

327.8847 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

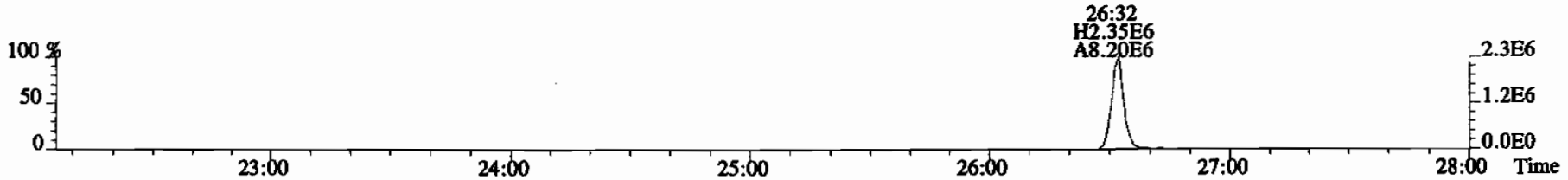

331.9368 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

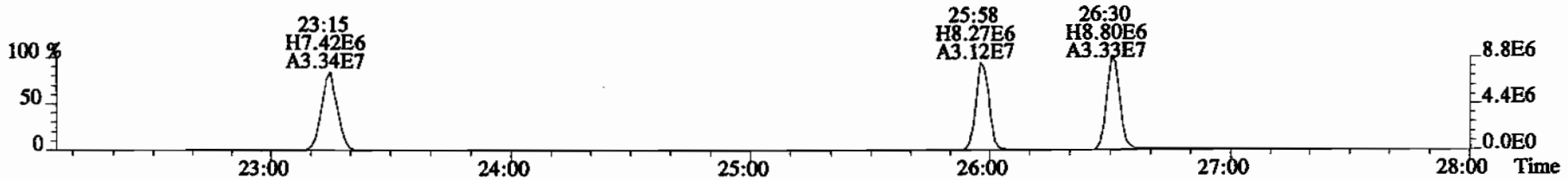

333.9339 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

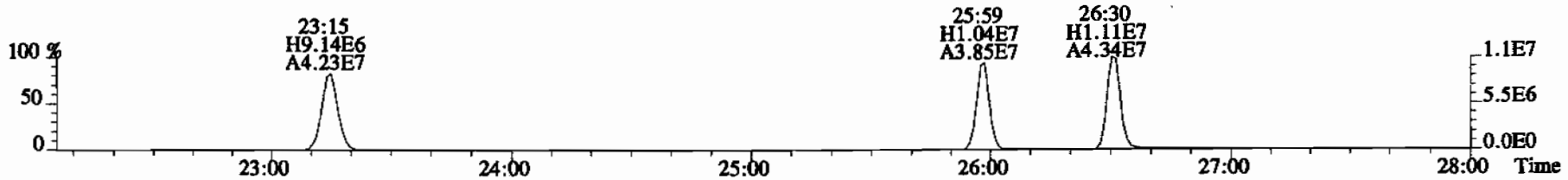

File:091008C1 #1-294 Acq: 8-OCT-2009 19:23:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Vista Analytical Laboratory VG-5 Text:SS091008C1-1 SECOND SOURCE STD 090219C Exp:OCDD_DB5
353.8576 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

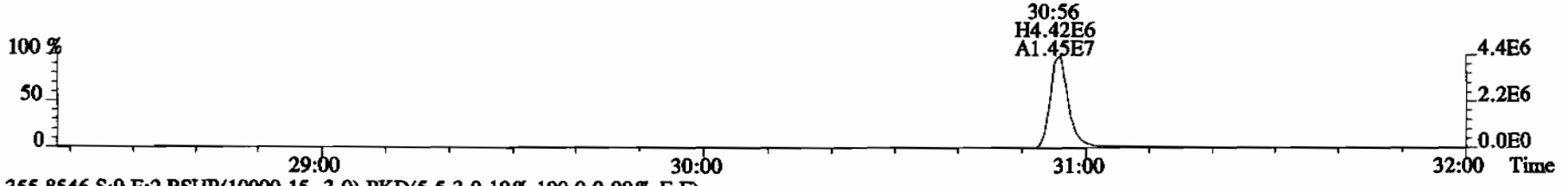

355.8546 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

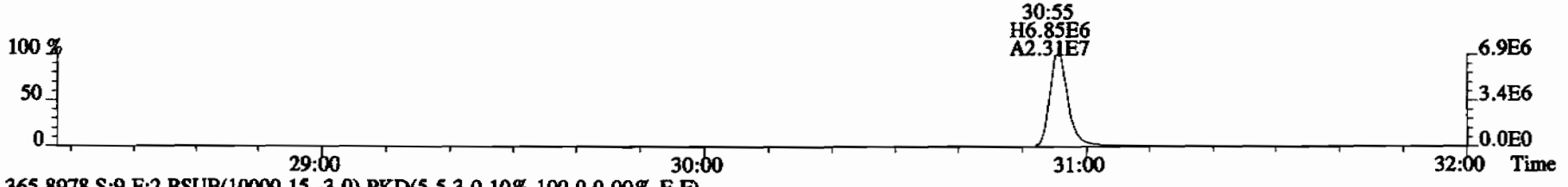

365.8978 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

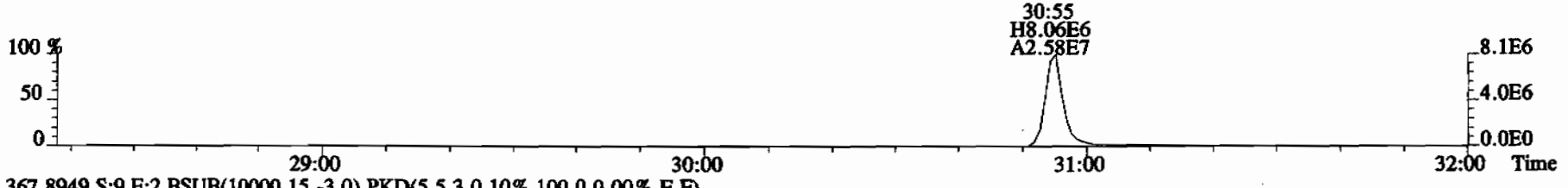

367.8949 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

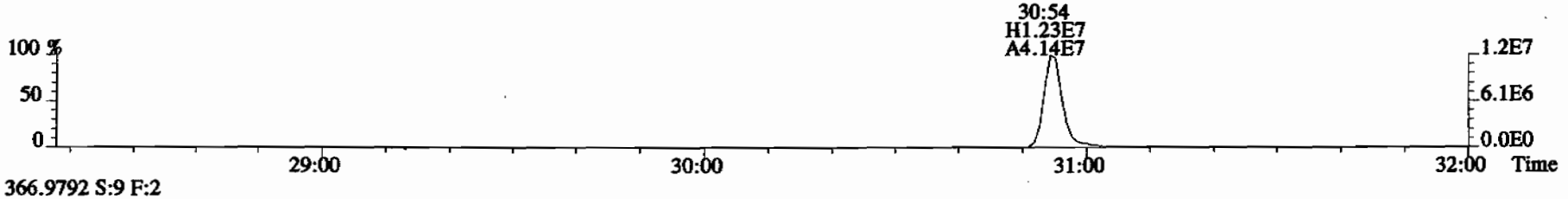

366.9792 S:9 F:2

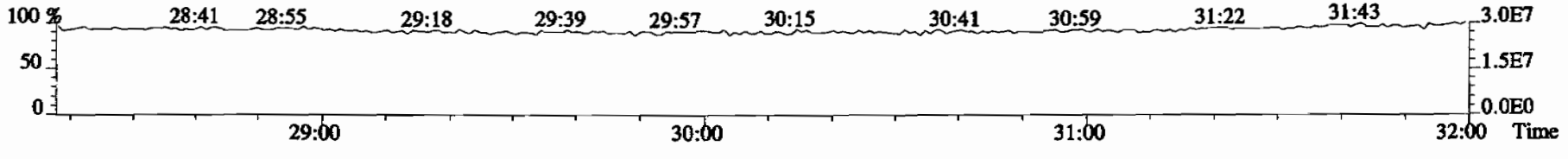

File:091008C1 #1-392 Acq: 8-OCT-2009 19:23:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Vista Analytical Laboratory VG-5 Text:SS091008C1-1 SECOND SOURCE STD 090219C Exp:OCDD_DB5
389.8156 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

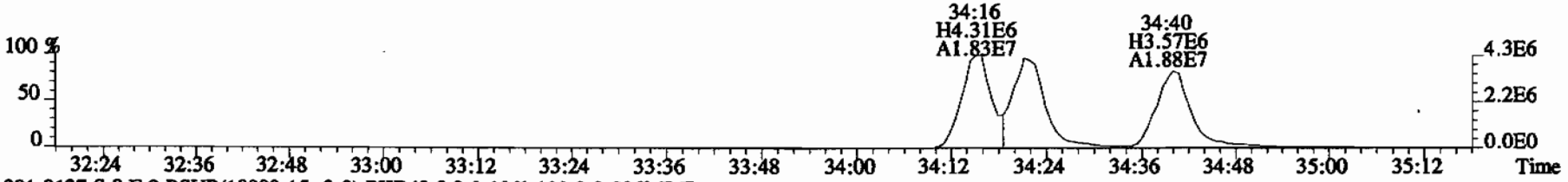

391.8127 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

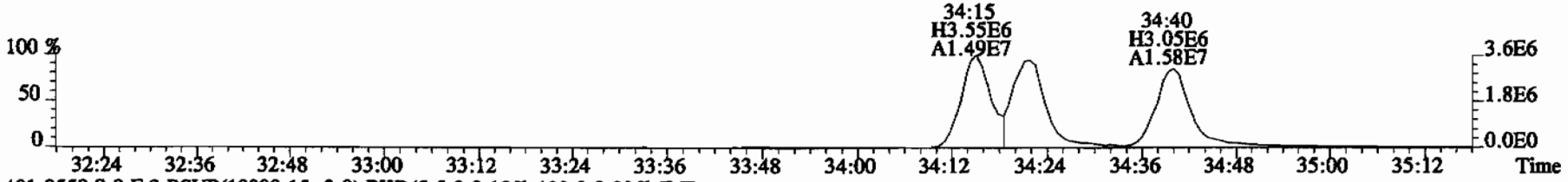

401.8559 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

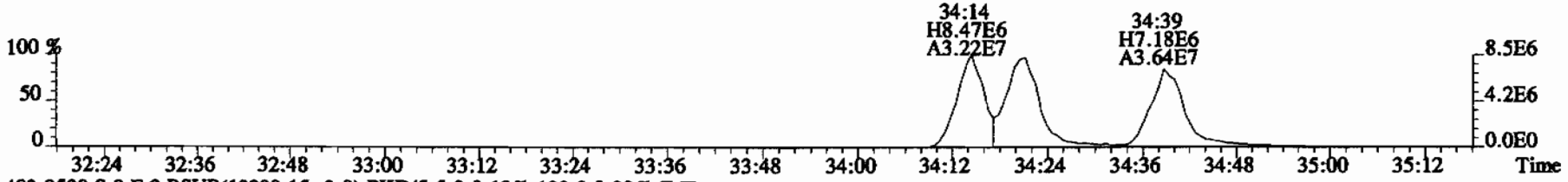

403.8530 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

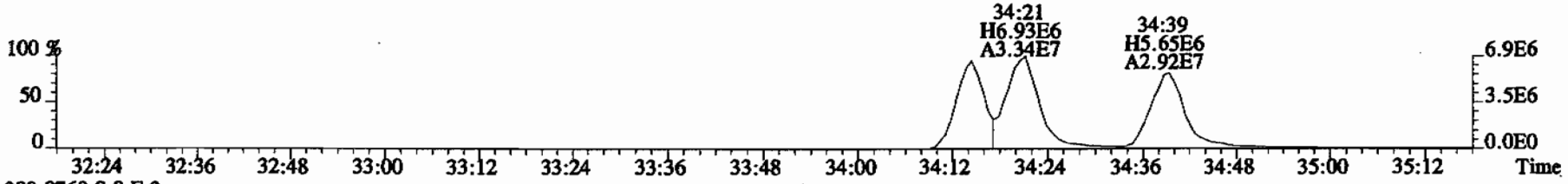

380.9760 S:9 F:3

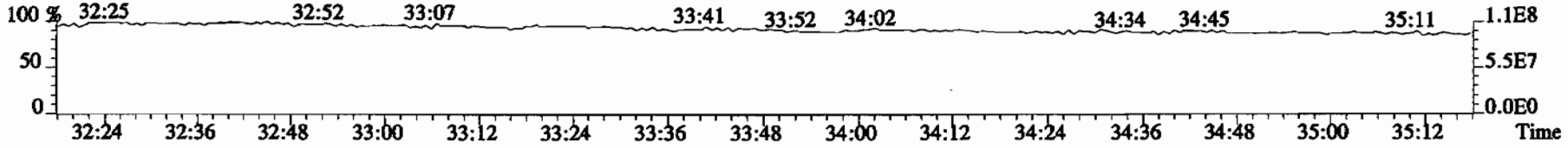

File:091008C1 #1-392 Acq: 8-OCT-2009 19:23:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Vista Analytical Laboratory VG-5 Text:SS091008C1-1 SECOND SOURCE STD 090219C Exp:OCDD_DB5
401.8559 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

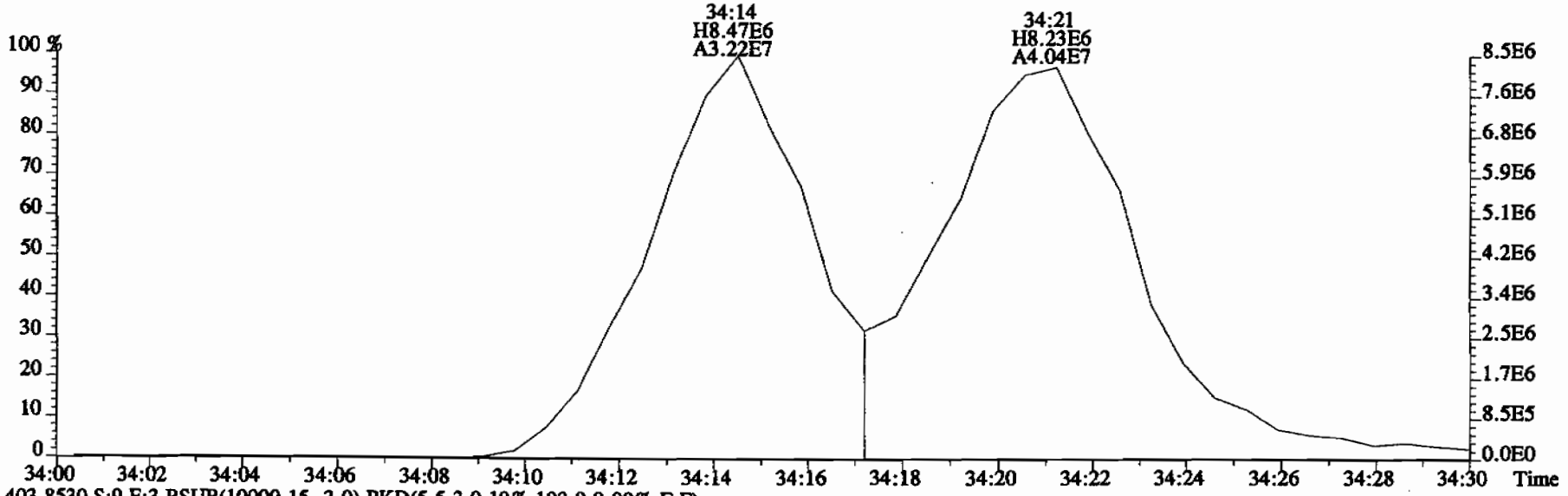

403.8530 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

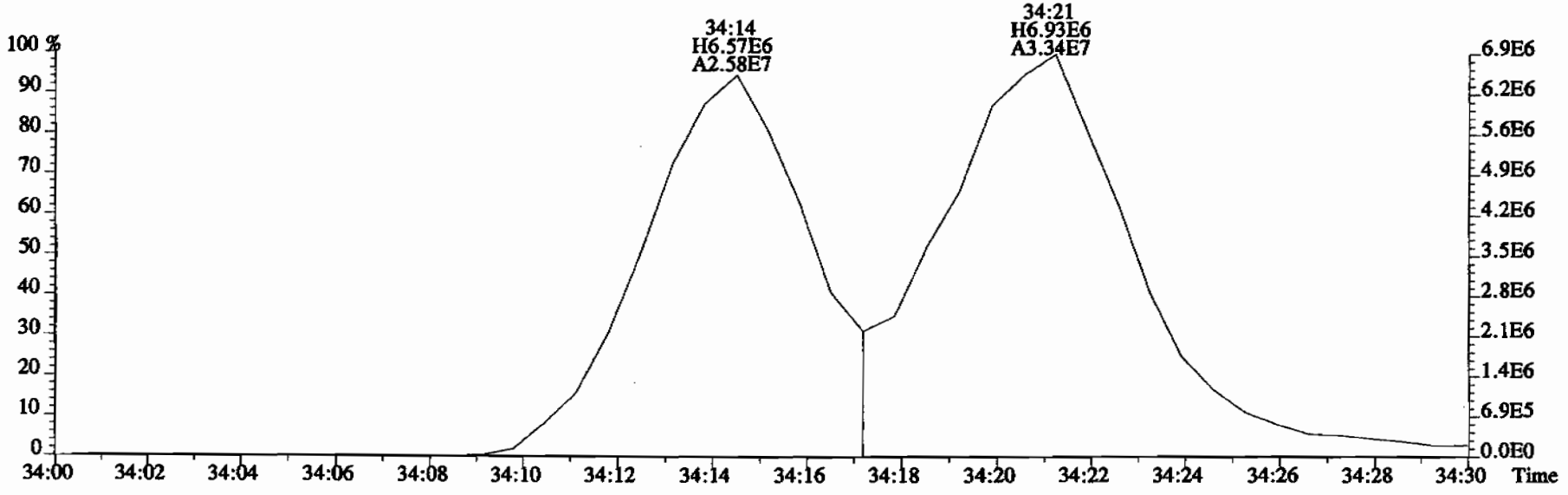

File:091008C1 #1-363 Acq: 8-OCT-2009 19:23:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Vista Analytical Laboratory VG-5 Text:SS091008C1-1 SECOND SOURCE STD 090219C Exp:OCDD_DB5
423.7767 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

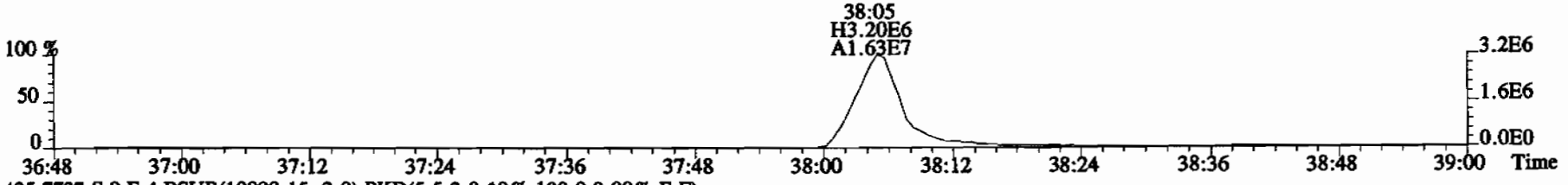

425.7737 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

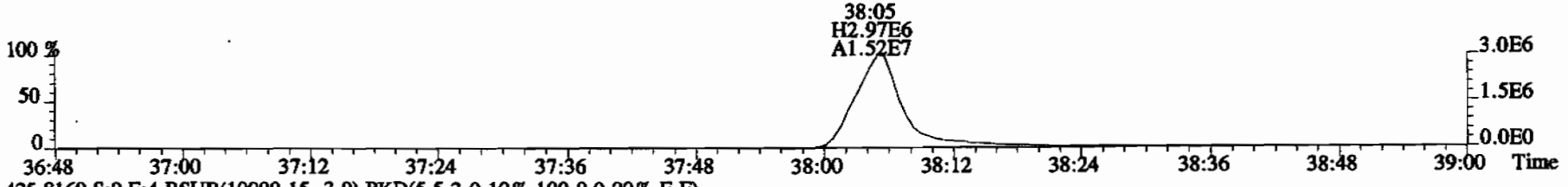

435.8169 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

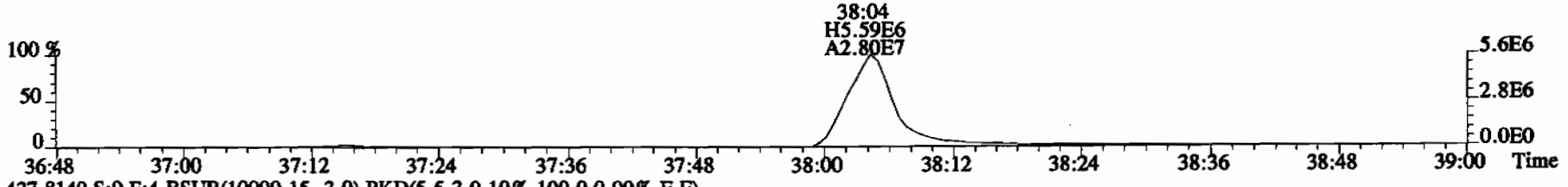

437.8140 S:9 F:4 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

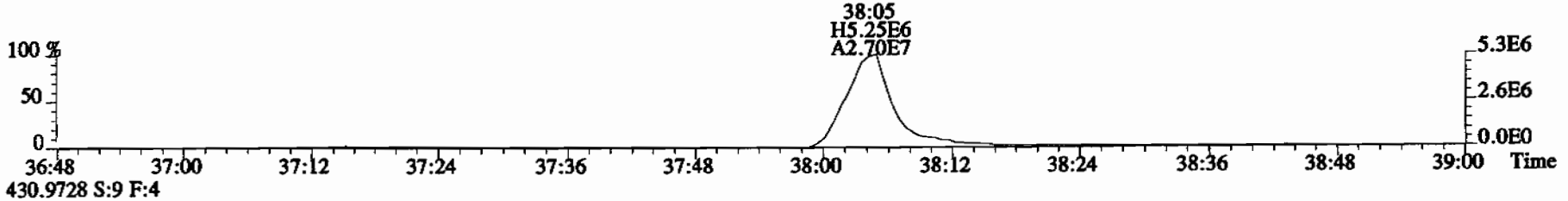

430.9728 S:9 F:4

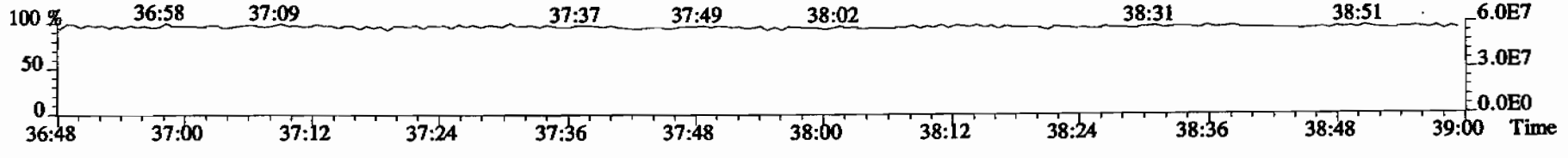

File:091008C1 #1-345 Acq: 8-OCT-2009 19:23:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Vista Analytical Laboratory VG-5 Text:SS091008C1-1 SECOND SOURCE STD 090219C Exp:OCDD_DB5
457.7377 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

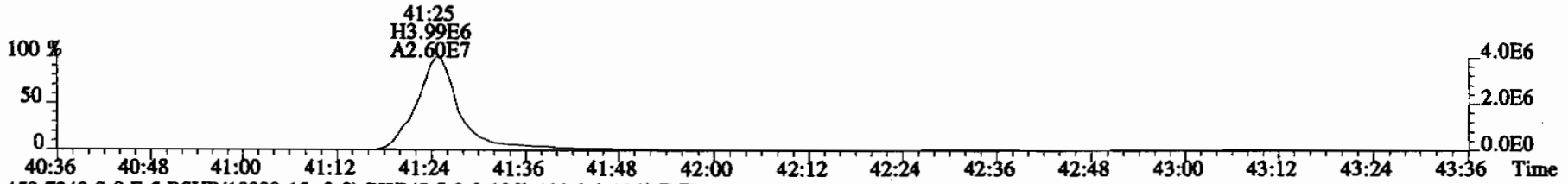

459.7348 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

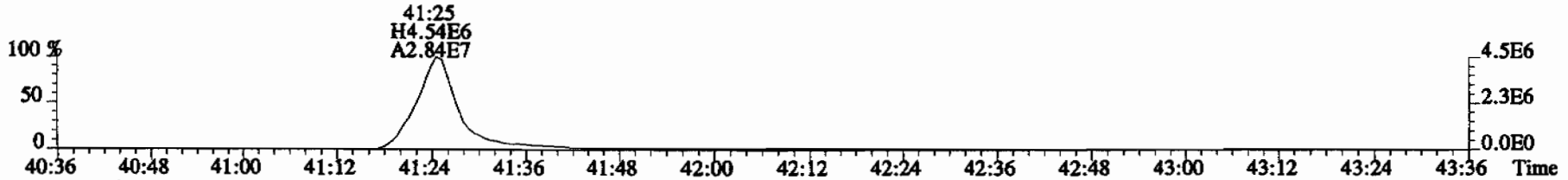

469.7780 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

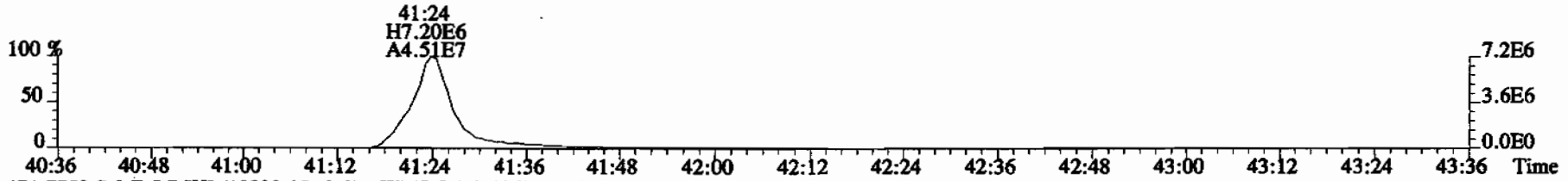

471.7750 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

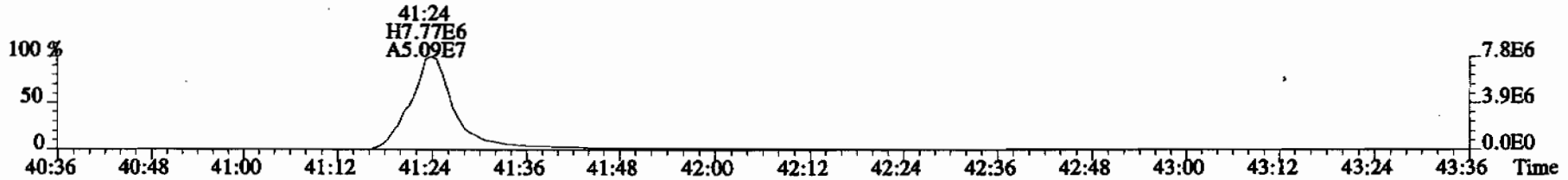

454.9728 S:9 F:5

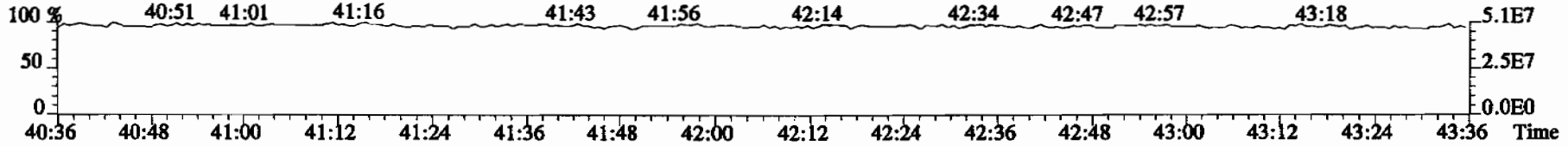

File:091008C1 #1-545 Acq: 8-OCT-2009 19:23:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Vista Analytical Laboratory VG-5 Text:SS091008C1-1 SECOND SOURCE STD 090219C Exp:OCDD_DB5

303.9016 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

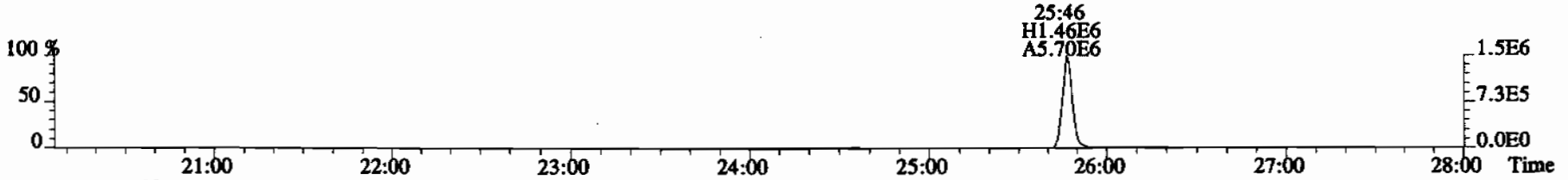

305.8987 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

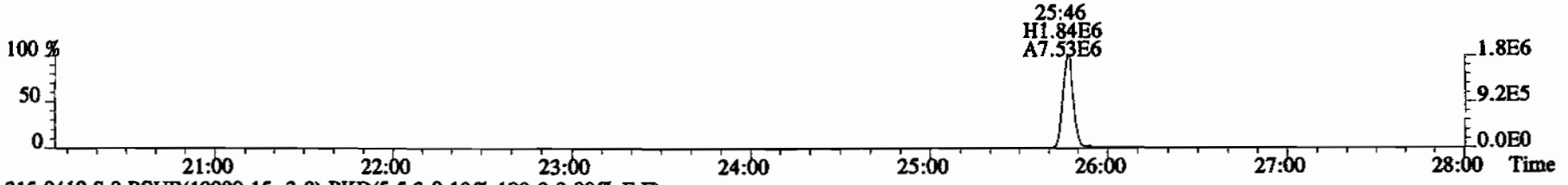

315.9419 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

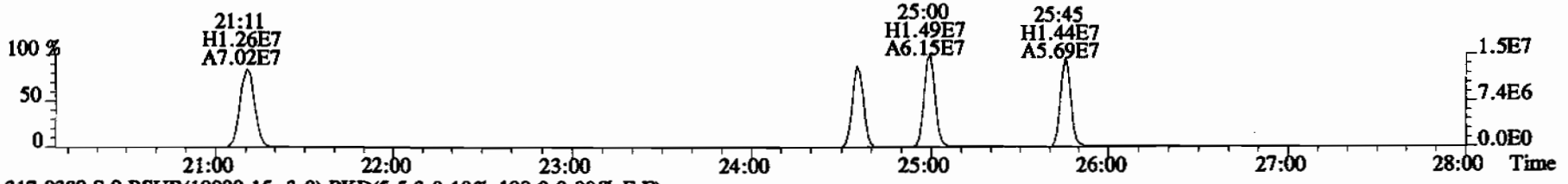

317.9389 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

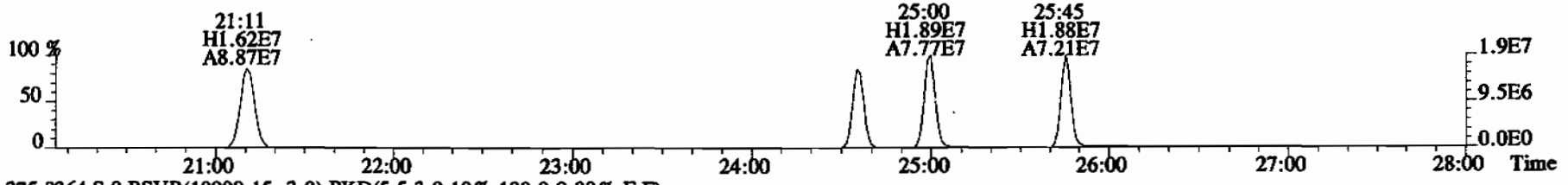

375.8364 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

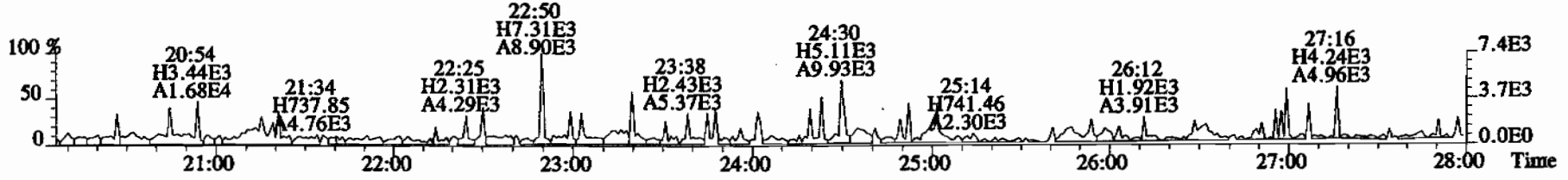

File:091008C1 #1-545 Acq: 8-OCT-2009 19:23:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Vista Analytical Laboratory VG-5 Text:SS091008C1-1 SECOND SOURCE STD 090219C Exp:OCDD_DB5
339.8597 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

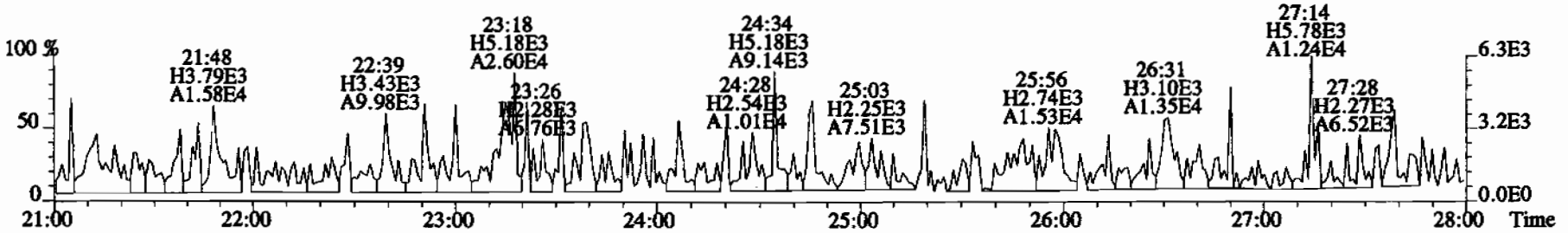

341.8568 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

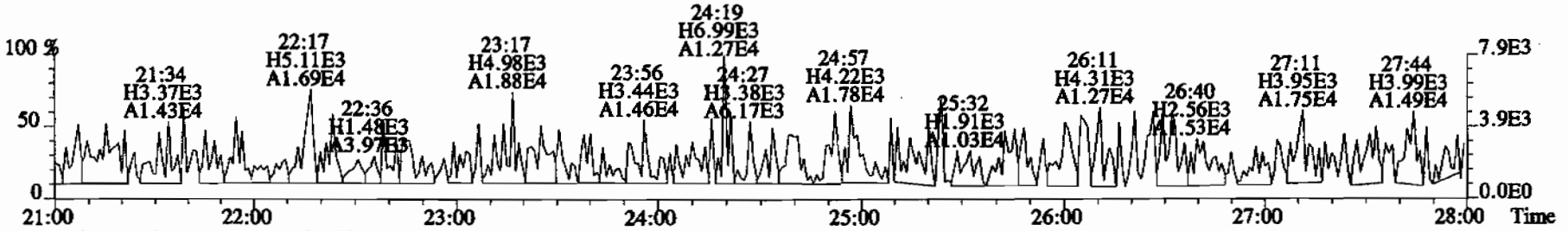

409.7974 S:9 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

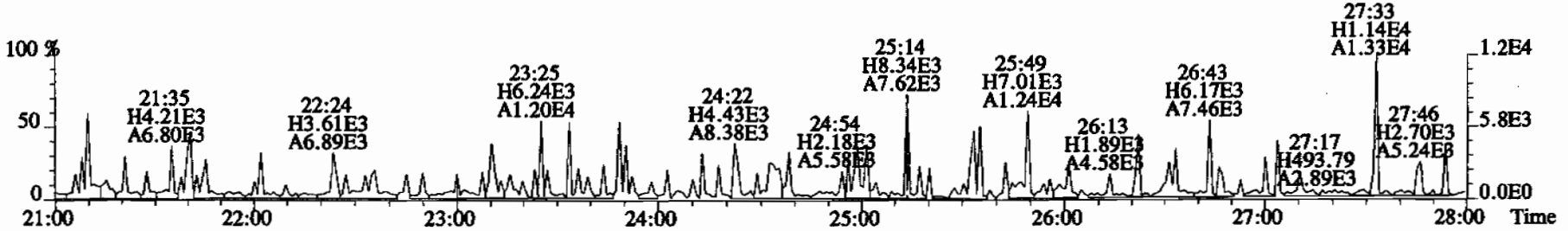

316.9824 S:9

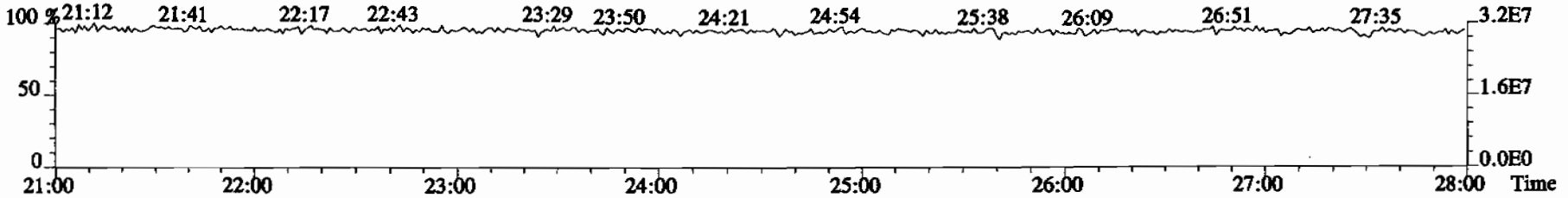

File:091008C1 #1-294 Acq: 8-OCT-2009 19:23:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Vista Analytical Laboratory VG-5 Text:SS091008C1-1 SECOND SOURCE STD 090219C Exp:OCDD_DB5

339.8597 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

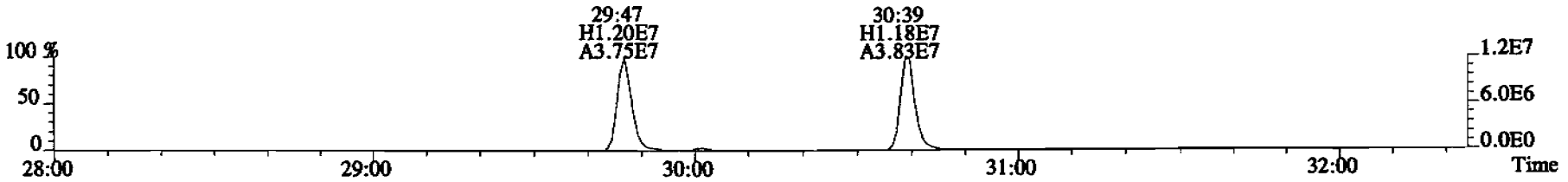

341.8568 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

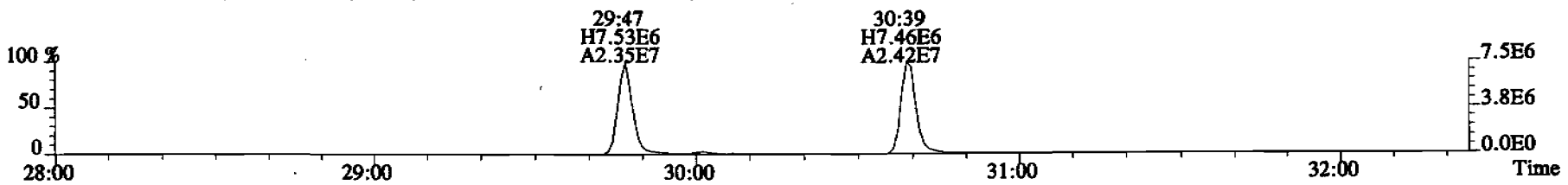

351.9000 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

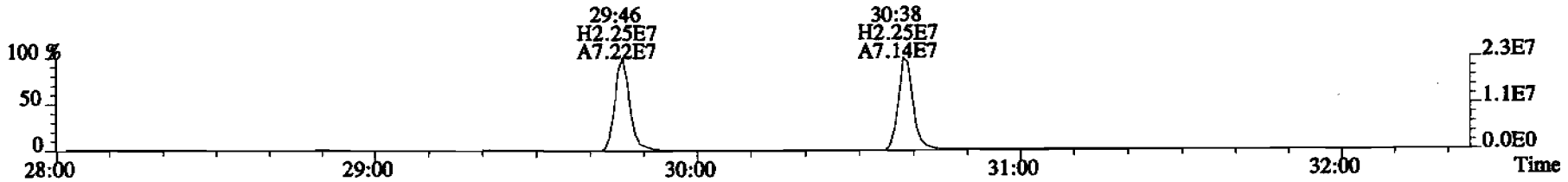

353.8970 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

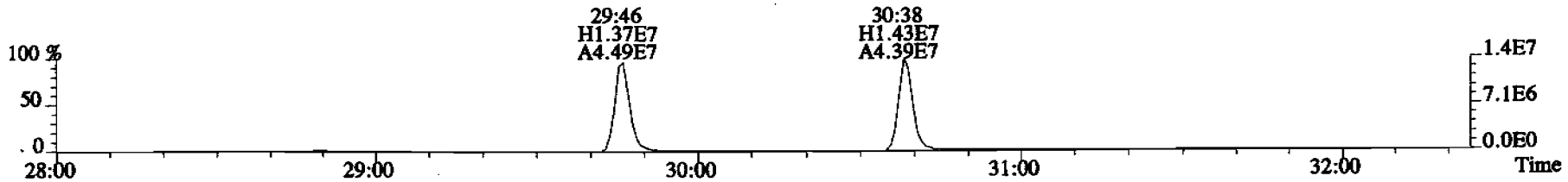

409.7974 S:9 F:2 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

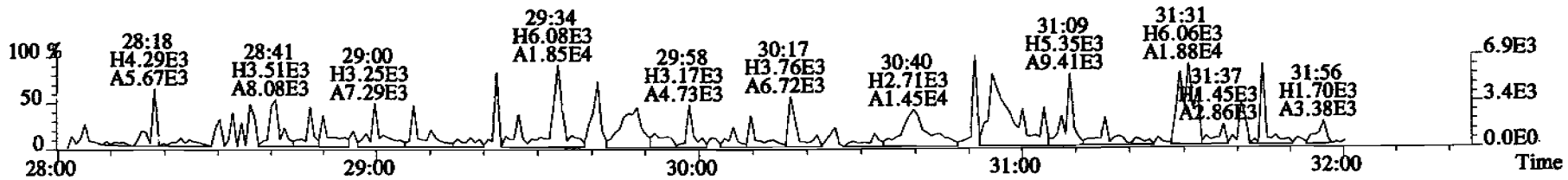

File:091008C1 #1-392 Acq: 8-OCT-2009 19:23:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Vista Analytical Laboratory VG-5 Text:SS091008C1-1 SECOND SOURCE STD 090219C Exp:OCDD_DB5

373.8207 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

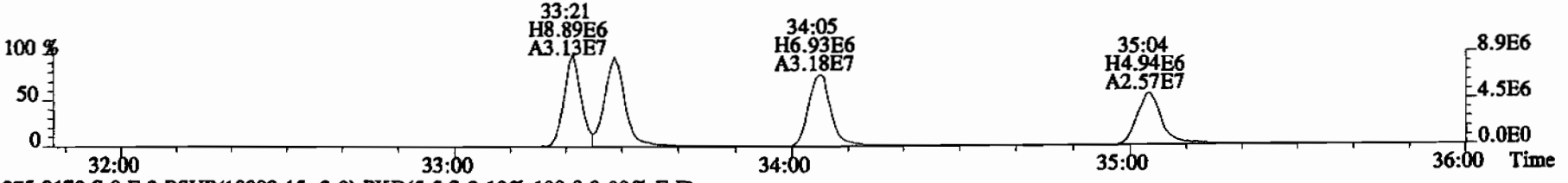

375.8178 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

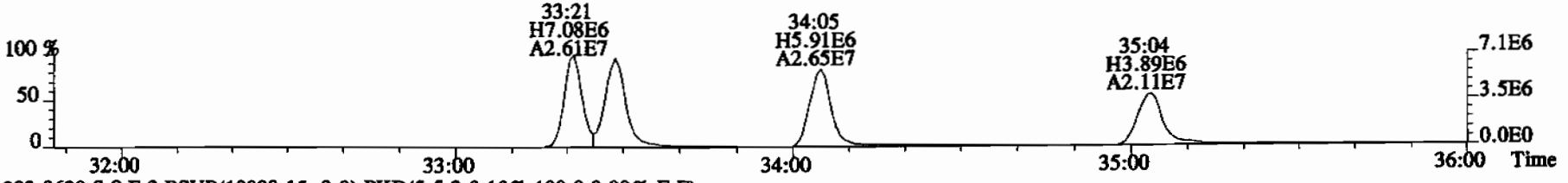

383.8639 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

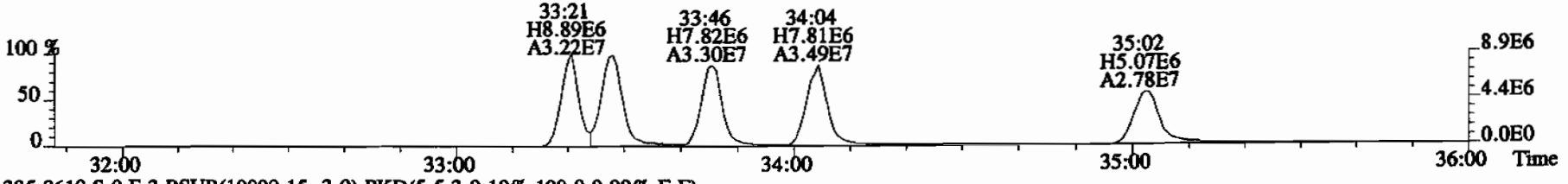

385.8610 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

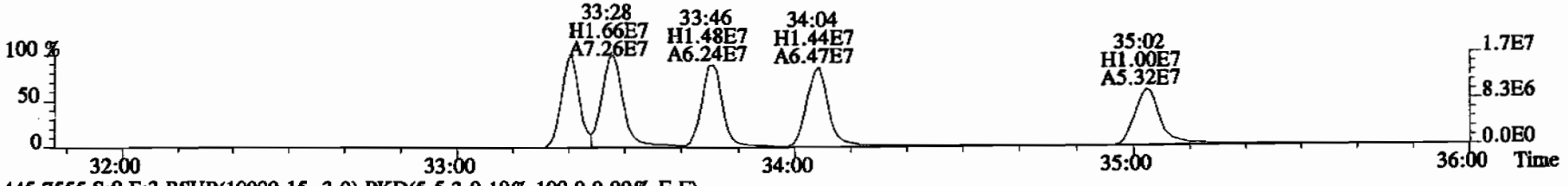

445.7555 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

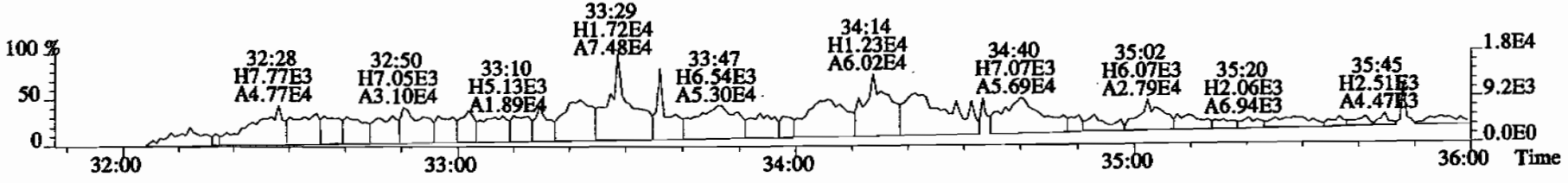

File:091008C1 #1-392 Acq: 8-OCT-2009 19:23:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Vista Analytical Laboratory VG-5 Text:SS091008C1-1 SECOND SOURCE STD 090219C Exp:OCDD_DB5
383.8639 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

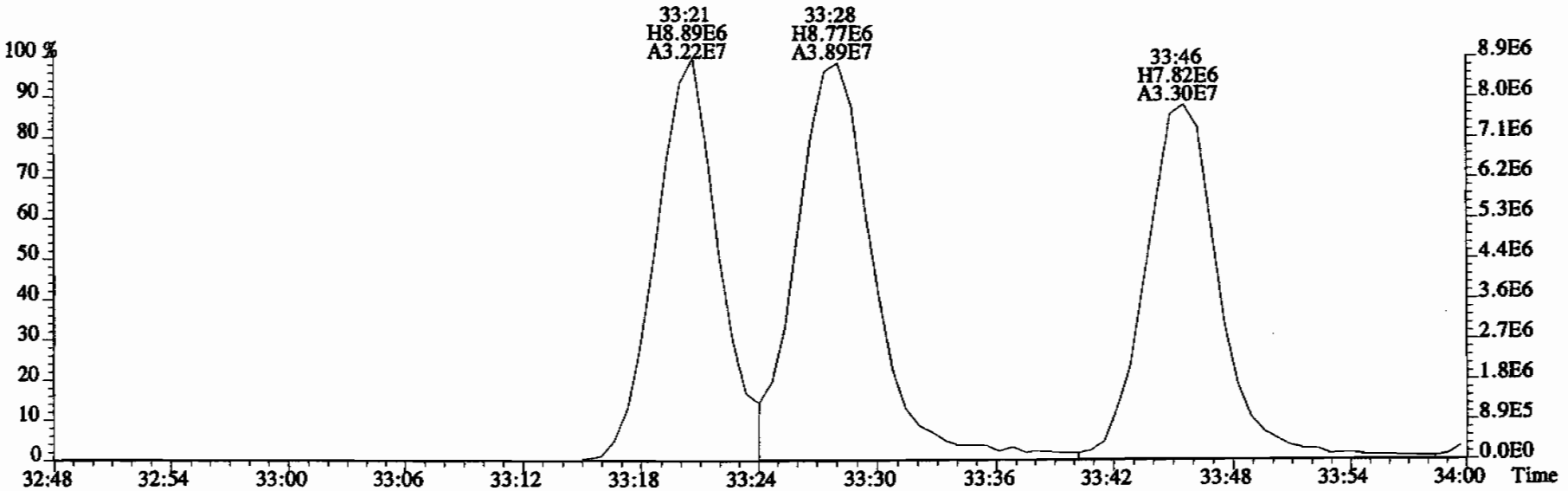

385.8610 S:9 F:3 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

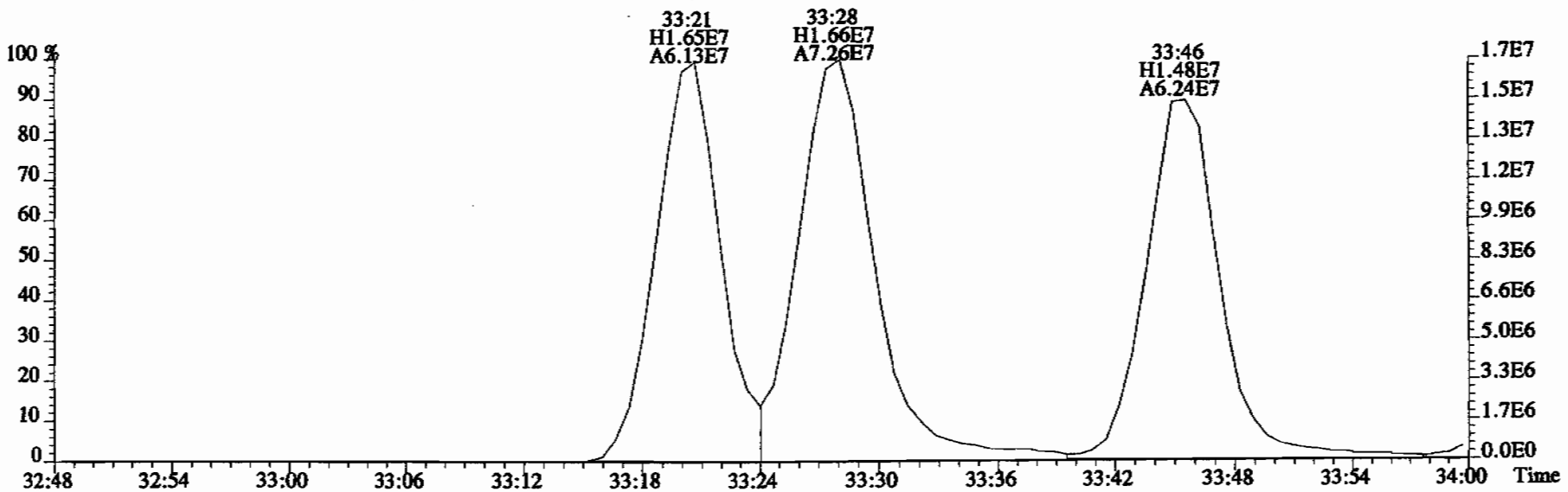

File:091008C1 #1-363 Acq: 8-OCT-2009 19:23:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Vista Analytical Laboratory VG-5 Text:SS091008C1-1 SECOND SOURCE STD 090219C Exp:OCDD_DB5

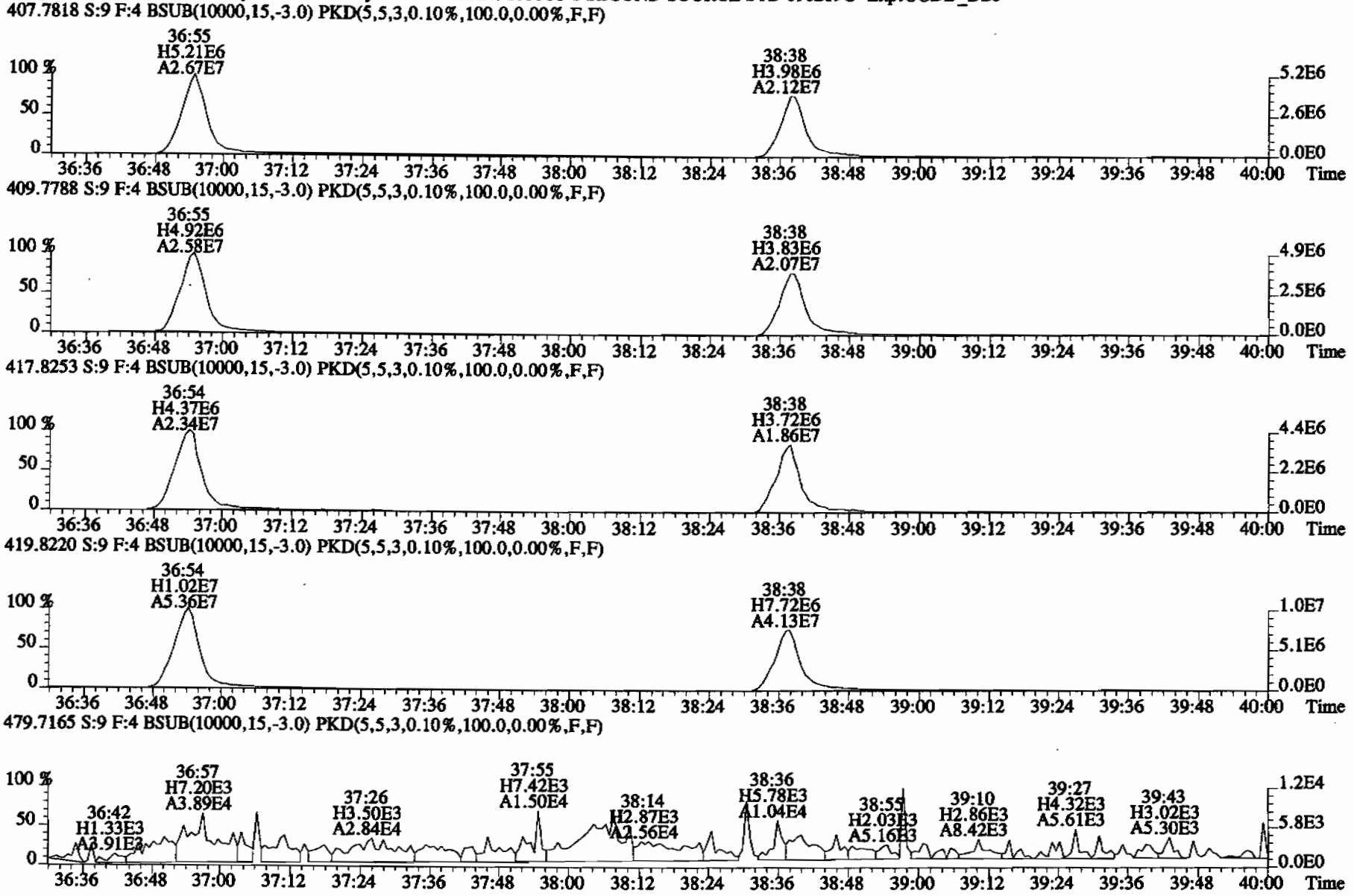

File:091008C1 #1-345 Acq: 8-OCT-2009 19:23:12 GC EI+ Voltage SIR Autospec-UltimaE
Sample#9 File Text:Vista Analytical Laboratory VG-5 Text:SS091008C1-1 SECOND SOURCE STD 090219C Exp:OCDD_DB5
441.7428 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

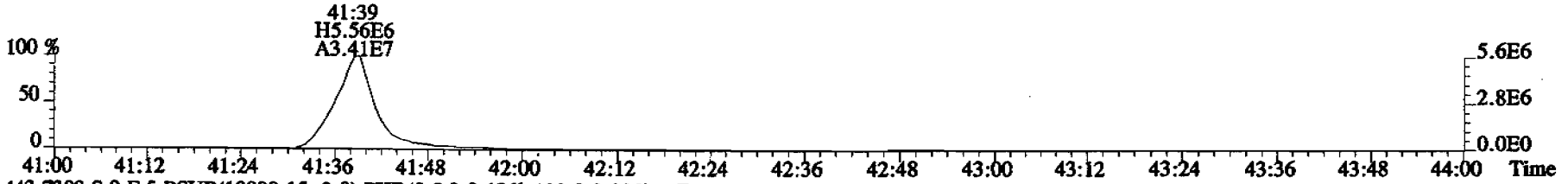

443.7398 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

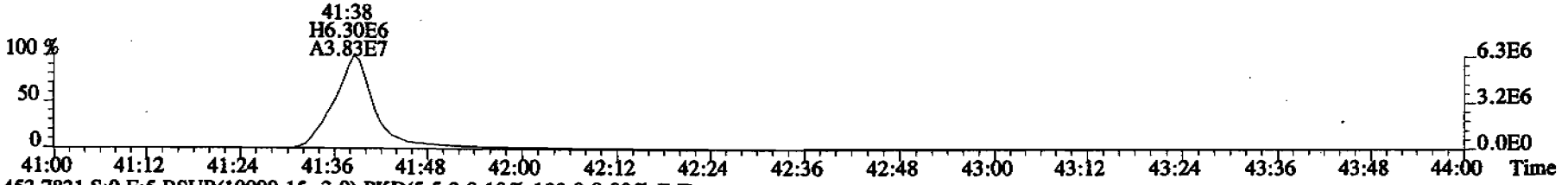

453.7831 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

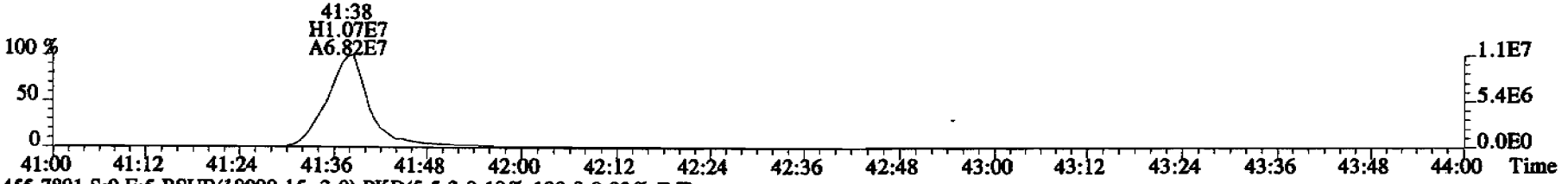

455.7801 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

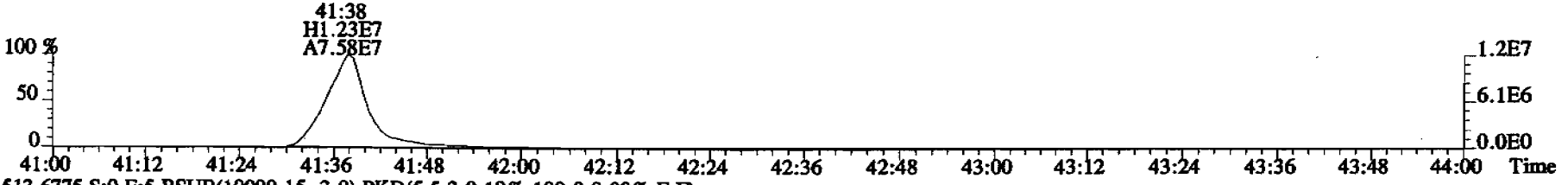

513.6775 S:9 F:5 BSUB(10000,15,-3.0) PKD(5,5,3,0.10%,100.0,0.00%,F,F)

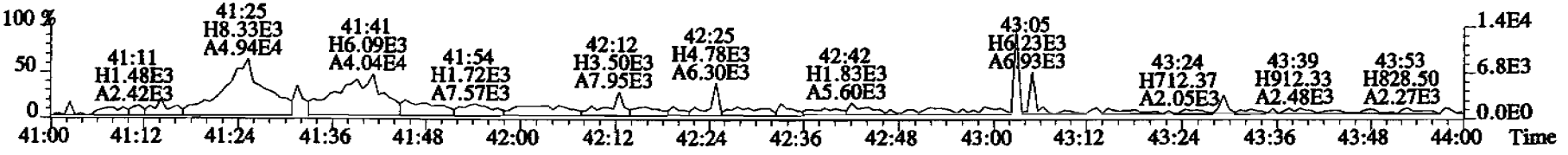

Thursday, December 10, 2009

REQUEST NUMBER: 10-882

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-882

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/10/2009

TURNAROUND/REPORT DUE: 1/9/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:900	1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:901.1	1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:905.0	1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	

Thursday, December 10, 2009

REQUEST NUMBER: 10-882

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	CAPA-10-6901	WG	12/9/2009	
	HASL-300:AM-241	1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	HASL-300:ISOPU	1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	HASL-300:ISOU	1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	

Final Page of REQUEST NUMBER 10-882

Thursday, December 10, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-882

LOS ALAMOS

NATIONAL LABORATORY

REQUEST NUMBER: 10-882

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/9/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6797	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-6797	1	POLY	WSP-RAD	Nitric Acid	WG
CAPA-10-6800	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-6800	1	POLY	WSP-RAD	Nitric Acid	WG
CAPA-10-6901	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-6901	1	POLY	WSP-RAD	Nitric Acid	WG
CAPA-10-6901	1	AMBER GLASS	WSP-H-3	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
Printed Name	Signature	12/10/09	0900	Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6347 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1118	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-23		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH>12
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH<2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH<2
2 3	DW 12/09/09	WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	

SAMPLE DESC:

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

pH	Temp °C	SC µS/cm	DO mg/L	Turb NTU	ORP mV	Q gpm
7.46	16.19	176	6.32	0.76	245.4	10

COLLECTED BY (PRINT) D. Woody, J Berryhill **REVIEWED BY (PRINT)** J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/09/09	(Printed Name) Alisa Martya	12/09/09
(Signature) D. Woody	1530	(Signature)	1530

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6348 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/09	MEDIA:	WGR	
TIME COLLECTED (HH:MM)		1118	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-23		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 2	ow 12/09/09	WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH < 2

SAMPLE DESC: QC Sample of CAPA-10-6347

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D. Woody, J Berryhill **REVIEWED BY (PRINT)** J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/09/09	(Printed Name) Sherri Sherwood	12/09/09
(Signature) D. Woody	1530	(Signature) Sherri Sherwood	1530
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6349 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1118	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-23		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO (NA)

BOREHOLE: YES / NO / (NA) **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH<2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH<2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC:

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

See CAPA-10-6347

COLLECTED BY (PRINT) D Wooly, J Berryhill

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Wooly	12/09/09	(Printed Name) Sherri Sherwood	12/09/09
(Signature) D. Wooly	1530	(Signature) Sherri Sherwood	1530
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6370 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1118	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-23		FIELD QC TYPE:	FB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
~~2~~ 3	DW 12/09/09	WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of CAPA-10-6347

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D. Woody, J. Berryhill **REVIEWED BY (PRINT)** J. Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/09/09	(Printed Name) Melissa Martin	12/09/09
(Signature) D. Woody	1530	(Signature)	1530
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6371 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1118	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-23		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH>12
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH<2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH<2
2 3	pw 12/09/09	WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	

SAMPLE DESC: QC Sample of CAPA-10-6347

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D. Wooly, J Berryhill **REVIEWED BY (PRINT)** J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Wooly	12/09/09 1530	(Printed Name) Sherri Sherwood	12/09/09 1530
(Signature) D. Wooly		(Signature) Sherri Sherwood	
RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6372 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1118	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-23		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / (NA)		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO (NA)

BOREHOLE: YES / NO (NA) **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2

SAMPLE DESC: QC Sample of CAPA-10-6349

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, D. Woody

REVIEWED BY (PRINT) J. Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/09/09	(Printed Name) Sherri Sherwood	12/09/09
(Signature) D. Woody	1530	(Signature) Sherri Sherwood	1530
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6796 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/09	MEDIA:	WGR	OV
TIME COLLECTED (HH:MM)		1330	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-39		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1	12/9/09	WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	

SAMPLE DESC: QC Sample of CAPA-10-6797

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D Woody, J Berryhill **REVIEWED BY (PRINT)** J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D - Woody	12/09/09	(Printed Name) Sheri Sherwood	12/09/09
(Signature) D. Woody	1530	(Signature) Sheri Sherwood	1530
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6797 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1330	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-39		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / (NA)		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / (NA)

BOREHOLE: YES / NO / (NA) **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2 ~~3~~	12/9/09	WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
2 ~~3~~		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH <2
2 ~~3~~		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
2 ~~3~~		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH >12
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	pH <2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2

SAMPLE DESC:

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH	Temp °C	SC µS/cm	D.O. mg/L	Turb NTU	ORP mV	Q gpm
7.73	21.61	145	4.42	6.02	78.6	2.75

COLLECTED BY (PRINT) J Berryhill, D. Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/09/09	(Printed Name) Sherri Sherwood	12/09/09
(Signature) D Woody	1530	(Signature) Sherri Sherwood	1530
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6798 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1530	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-39		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC:

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, D Woody **REVIEWED BY (PRINT)** J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/09/09	(Printed Name) Sherri Sherwood	12/09/09
(Signature) D. Woody	1530	(Signature) Sherri Sherwood	1530
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6799 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1330	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GS1	
LOCATION ID:	R-39		FIELD QC TYPE:	FB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
1 ~~3~~	4R3 12/9/09	WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
1 ~~3~~		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
1 ~~3~~		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
1 ~~2~~		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of CAPA-10-6797

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, D Wooly **REVIEWED BY (PRINT)** J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Wooly	12/09/09	(Printed Name) Sherri Sherwood	12/09/09
(Signature) D. Wooly	1530	(Signature) Sherri Sherwood	1530
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6800 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1330	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:		
LOCATION ID:	R-39		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 ~~3~~	3 12/9/09	WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
1 ~~3~~		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH < 2
1 ~~3~~		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
1 ~~2~~		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
~~1 3~~ 2		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH >12
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH < 2
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	pH < 2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH < 2

SAMPLE DESC: QC Sample of CAPA-10-6797

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, D Woody

REVIEWED BY (PRINT) J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/09/09	(Printed Name) Sherri Sherwood	12/19/09
(Signature) D. Woody	1530	(Signature) Sherri Sherwood	1530
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6801 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/09	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1330	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-39		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH <2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH <2

SAMPLE DESC: QC Sample of CAPA-10-6798

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J Berryhill, D. Woody **REVIEWED BY (PRINT)** J Berryhill

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	12/09/09	(Printed Name) Sherri Sherwood	12/09/09
(Signature) D. Woody	1530	(Signature) Sherri Sherwood	1530
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

SAMPLE ID: CAPA-10-6901 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		12/09/2009	MEDIA:	WGR	ok
TIME COLLECTED (HH:MM)		1015	SUB-MEDIA:	UA	
PRS ID:	C-00-011	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	R-39		FIELD QC TYPE:	PEB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 ~~3~~		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
1 ~~3~~		WSP-8082-PCB	1 LITER AMBER GLASS	Ice		
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)		
1 ~~3~~		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice		
1 ~~2~~		WSP-8290-D/F	1 LITER AMBER GLASS	Ice		
2 ~~3~~		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice		
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide		pH >10
1		WSP-GrossA/B	1 LITER POLY	None		
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice		
1		WSP-LL-H-3	1 LITER POLY	None		
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid		pH<2
1		WSP-RAD	1 GAL POLY	Nitric Acid		pH<2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		pH<2
1		WSP-GENINORG	1 LITER POLY	Ice		
1		WSP-H-3	250 ML AMBER GLASS	Ice		
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		pH<2

SAMPLE DESC: QC Sample of CAPA-10-6797

SAMPLE COMMENTS: 4th full suite sample. PEB suites apply to entire watershed.

DI water from ~~FA-6~~ TA-59 SBB 12/9/09 ; resistence = 2.7 Mohm/cm

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2458 **EVENT NAME:** Pajarito Watershed Sampling Qtr 2, Dec. 2009, IFWGMP 2009

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) J. Romero

REVIEWED BY (PRINT) S. Schmeer

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) S. Schmeer (Signature) [signature]	12/9/09 15:45	(Printed Name) Alise Martyn (Signature) [signature]	12/9/09 3:44
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-882 VALIDATION DATE: 2/16/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☒ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The tracer %R for Am-241 was > the laboratory UAL but ≤125% in sample CAPA-10-6901. The associated sample result was an ND and, thus, was qualified UJ,R3a.
2. It should be noted that the matrix QC analyses for gamma spec and Sr-90 were performed on LANL samples from other RNs. No sample results were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 02/16/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 2/16/10

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☐	☒	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☒	☐	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☒	☐	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☒	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: December 29, 2009

Client Sample ID: CAPA-10-6797
Sample ID: 242754001
Matrix: Ground Water
Collect Date: 09-DEC-09
Receive Date: 11-DEC-09
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
Alphaspec Am241 Liquid "As Received"												
Americium-241	U	-0.00285	0.0345	+/-0.0111	0.050	pCi/L		MXE1	12/17/09	1527	932635	1
Alphaspec Pu, Liquid "As Received"												
Plutonium-238	U	0.0038	0.0279	+/-0.0101	0.050	pCi/L		MXE1	12/19/09	1000	932637	2
Plutonium-239/240	U	0.0076	0.030	+/-0.00539	0.050	pCi/L						
Alphaspec U, Liquid "As Received"												
Uranium-234		0.240	0.094	+/-0.0318	1.00	pCi/L		MXE1	12/19/09	0919	932638	3
Uranium-235/236	U	0.00	0.0492	+/-0.00355	1.00	pCi/L						
Uranium-238		0.109	0.0587	+/-0.0193	0.500	pCi/L						
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Liquid "As Received"												
Cesium-137	U	0.699	4.46	+/-1.32	8.00	pCi/L		KXG3	12/18/09	0844	933232	4
Cobalt-60	U	-1.25	3.65	+/-1.27	8.00	pCi/L						
Gross Gamma	U	26.1	46.1	+/-31.3	120	pCi/L						
Neptunium-237	U	-18.3	33.1	+/-12.4	10.0	pCi/L						
Potassium-40	U	6.46	70.8	+/-20.0	10.0	pCi/L						
Sodium-22	U	2.05	4.85	+/-1.26	10.0	pCi/L						
Rad Gas Flow Proportional Counting												
GFPC, Gross A/B, liquid "As Received"												
Beta	U	-0.575	2.08	+/-0.471	3.00	pCi/L		DXF3	12/21/09	0642	932822	5
Alpha	U	0.740	2.53	+/-0.709	3.00	pCi/L		DXF3	12/21/09	1758	932822	6
GFPC, Sr90, liquid "As Received"												
Strontium-90	U	-0.0917	0.475	+/-0.129	0.500	pCi/L		JXR1	12/23/09	1300	932821	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	EPA 901.1
5	EPA 900.0
6	EPA 900.0

AMF
2/16/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: December 29, 2009

Client Sample ID:	CAPA-10-6800	Project:	ESHL01000
Sample ID:	242754002	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	09-DEC-09		
Receive Date:	11-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
Alphaspec Am241 Liquid "As Received"												
Americium-241	U	0.00277	0.0343	+/-0.00439	0.050	pCi/L		MXE1	12/17/09	1527	932635	1
Alphaspec Pu, Liquid "As Received"												
Plutonium-238	U	0.0138	0.0289	+/-0.0113	0.050	pCi/L		MXE1	12/19/09	1000	932637	2
Plutonium-239/240	U	-0.0059	0.0311	+/-0.00521	0.050	pCi/L						
Alphaspec U, Liquid "As Received"												
Uranium-234		0.266	0.0948	+/-0.0337	1.00	pCi/L		MXE1	12/19/09	0919	932638	3
Uranium-235/236	U	0.0143	0.0496	+/-0.00721	1.00	pCi/L						
Uranium-238		0.147	0.0592	+/-0.0235	0.500	pCi/L						
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Liquid "As Received"												
Cesium-137	U	-1.36	4.99	+/-1.65	8.00	pCi/L		KXG3	12/18/09	1012	933232	4
Cobalt-60	U	0.771	5.32	+/-1.55	8.00	pCi/L						
Gross Gamma	U	8.70	30.9	+/-12.3	120	pCi/L						
Neptunium-237	U	-6.88	45.3	+/-13.9	10.0	pCi/L						
Potassium-40	U	16.4	71.2	+/-18.8	10.0	pCi/L						
Sodium-22	U	-0.953	4.93	+/-1.62	10.0	pCi/L						
Rad Gas Flow Proportional Counting												
GFPC, Gross A/B, liquid "As Received"												
Beta	U	1.79	2.48	+/-0.813	3.00	pCi/L		DXF3	12/21/09	0642	932822	5
Alpha	U	-0.198	2.52	+/-0.515	3.00	pCi/L		DXF3	12/21/09	1758	932822	6
GFPC, Sr90, liquid "As Received"												
Strontium-90	U	0.0384	0.402	+/-0.110	0.500	pCi/L		JXR1	12/27/09	0706	932821	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	EPA 901.1
5	EPA 900.0
6	EPA 900.0

AMF
2/16/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: December 29, 2009

Client Sample ID: CAPA-10-6901
Sample ID: 242754003
Matrix: Ground Water
Collect Date: 09-DEC-09
Receive Date: 11-DEC-09
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result		DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Alphaspec Am241 Liquid "As Received"													
Americium-241	U	-0.00111	UJ,R3a	0.0319	+/-0.00247	0.050	pCi/L		MXE1	12/17/09	1527	932635	1
Alphaspec Pu, Liquid "As Received"													
Plutonium-238	U	0.00		0.0315	+/-0.00429	0.050	pCi/L		MXE1	12/19/09	1000	932637	2
Plutonium-239/240	U	-0.00429		0.0338	+/-0.00525	0.050	pCi/L						
Alphaspec U, Liquid "As Received"													
Uranium-234	U	0.00296		0.0975	+/-0.00298	1.00	pCi/L		MXE1	12/19/09	0919	932638	3
Uranium-235/236	U	0.00		0.051	+/-0.00368	1.00	pCi/L						
Uranium-238	U	0.00594		0.0609	+/-0.00595	0.500	pCi/L						
Rad Gamma Spec Analysis													
Gammaspec, Gamma, Liquid "As Received"													
Cesium-137	U	-0.187		4.64	+/-1.41	8.00	pCi/L		KXG3	12/18/09	1013	933232	4
Cobalt-60	U	1.32		6.23	+/-1.76	8.00	pCi/L						
Gross Gamma	U	3.58		19.3	+/-6.19	120	pCi/L						
Neptunium-237	U	2.24		35.9	+/-11.1	10.0	pCi/L						
Potassium-40	U	-10.7		60.1	+/-18.7	10.0	pCi/L						
Sodium-22	U	-0.493		3.93	+/-1.24	10.0	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Gross A/B, liquid "As Received"													
Beta	U	0.178		2.27	+/-0.617	3.00	pCi/L		DXF3	12/21/09	0642	932822	5
Alpha	U	0.404		1.70	+/-0.440	3.00	pCi/L		DXF3	12/21/09	1758	932822	6
GFPC, Sr90, liquid "As Received"													
Strontium-90	U	0.115		0.446	+/-0.130	0.500	pCi/L		JXR1	12/23/09	1301	932821	7
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid "As Received"													
Tritium	U	-72.8		144	+/-37.6	200	pCi/L		EXK2	12/17/09	2135	932551	8

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified

AMF
2/16/10

Thursday, December 10, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-882

LOS ALAMOS

NATIONAL LABORATORY

REQUEST NUMBER: 10-882

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/9/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 242754'1.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6797	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-6797	1	POLY	WSP-RAD	Nitric Acid	WG
CAPA-10-6800	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-6800	1	POLY	WSP-RAD	Nitric Acid	WG
CAPA-10-6901	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-6901	1	POLY	WSP-RAD	Nitric Acid	WG
CAPA-10-6901	1	AMBER GLASS	WSP-H-3	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/10/09	0900	Greg Tyler	[illegible]	12-11-09	0850
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Thursday, December 10, 2009

REQUEST NUMBER: 10-882

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-882
Per Agreement Number:126310011
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/10/2009
TURNAROUND/REPORT DUE: 1/8/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:900	1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:901.1	1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:905.0	1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	

Thursday, December 10, 2009

REQUEST NUMBER: 10-882

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	CAPA-10-6901	WG	12/9/2009	
	HASL-300:AM-241	1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	HASL-300:ISOPU	1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	HASL-300:ISOU	1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	

Final Page of REQUEST NUMBER 10-882

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171 F 843.766.1178

www.gel.com

December 18, 2009

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL-WQH Water Samples
Work Order: 242754
SDG: 10-882

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 11, 2009, and analyzed for Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-882
Enclosures

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 242754
SDG # : 10-882

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 242754
SDG # : 10-882

December 18, 2009

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on December 11, 2009 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. The Gross A/B containers were preserved prior to analysis. The containers for radiochemistry were received at 12C temperature. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
242754001	CAPA-10-6797
242754002	CAPA-10-6800
242754003	CAPA-10-6901

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 18 December 2009

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Thursday, December 10, 2009

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-882

REQUEST NUMBER: 10-882

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 1/9/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 242754'.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-6797	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-6797	1	POLY	WSP-RAD	Nitric Acid	WG
CAPA-10-6800	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-6800	1	POLY	WSP-RAD	Nitric Acid	WG
CAPA-10-6901	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-6901	1	POLY	WSP-RAD	Nitric Acid	WG
CAPA-10-6901	1	AMBER GLASS	WSP-H-3	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	12/10/09	0900	Greg Tyler	[illegible]	12-11-09	0850
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Thursday, December 10, 2009

REQUEST NUMBER: 10-882

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-882

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 12/10/2009

TURNAROUND/REPORT DUE: 1/9/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:900	1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:901.1	1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	EPA:905.0	1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	

Thursday, December 10, 2009

REQUEST NUMBER: 10-882

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:906.0	1	CAPA-10-6901	WG	12/9/2009	
	HASL-300:AM-241	1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	HASL-300:ISOPU	1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	
	HASL-300:ISOU	1	CAPA-10-6797	WG	12/9/2009	
		1	CAPA-10-6800	WG	12/9/2009	
		1	CAPA-10-6901	WG	12/9/2009	

Final Page of REQUEST NUMBER 10-882

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-882**
Received By: Greg Tyler	**Date Received: 12/11/09**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **40cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **1-3** **12C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?			X	Sample ID's, containers affected and observed pH: **CAPA-10-6800, 6797 and 6901 Gross A/B** If Preservation added, Lot#: **H14024**
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:
Fed Ex Tracking Numbers
7209 7849 1970 1C 7209 7849 1969 12C
7209 7849 2027 1C
7209 7849 1991 1C
7209 7849 2038 1C
7209 7849 2049 1C
7209 7849 2050 2C
7209 7849 2060 2C
7209 7849 1980 3C

PM (or PMA) review: Initials P. Nel. Date 12-15-09

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: [illegible]
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWM0

1c

FedEx Express

1 of 2
TRK# 0201 7209 7849 1970
FRI - 11DEC A1
PRIORITY OVERNIGHT
MASTER
XX CHSA
29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A054196D0

1c

FedEx Express

1 of 2
TRK# 0201 7209 7849 2027
FRI - 11DEC A1
PRIORITY OVERNIGHT
MASTER
XX CHSA
29407
SC-US
CHS

Part # 156148-434 NAIT V3 08-08

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWM0

1c

FedEx Express

TRK# 0201 7209 7849 1991
FRI - 11DEC A1
PRIORITY OVERNIGHT
29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR2A054196D0

1c

FedEx Express

2 of 2
MPS# 0263 7209 7849 2038
Mstr# 7209 7849 2027 0201
FRI - 11DEC A1
PRIORITY OVERNIGHT
29407
SC-US
XX CHSA

JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 59.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AAREW01105800

1c

FedEx Express

FRI - 11DEC A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 2049

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 34.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AWE6L11550000

2c

FedEx Express

FRI - 11DEC A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 2050

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 35.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR8R0325BF00

2c

FedEx Express

FRI - 11DEC A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7849 2060

CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR1A015AGWM0

3c

FedEx Express

2 of 2
MPS# 0263 7209 7849 1980
Mstr# 7209 7849 1970 0201

FRI - 11DEC A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505)665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 10DEC09
ACTWGT: 41.0 LB MAN
CAD: 0014176/CAFE2434

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843)556-8171
REF: 6B010AMR3A0352VA00

12c

FedEx Express

2 of 2
MPS# 0263 7209 7849 1969
Mstr# 7209 7849 1958 0201

FRI - 11DEC A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

DATA REVIEW QUALIFIER FLAG DEFINITION SHEET

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-882

Method/Analysis Information

Product:	**Alphaspec Am241 Liquid**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Analytical Batch Number:	932635

Sample ID	Client ID
242754001	CAPA-10-6797
242754002	CAPA-10-6800
242754003	CAPA-10-6901
1201995077	Method Blank (MB)
1201995078	242754002(CAPA-10-6800) Sample Duplicate (DUP)
1201995079	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1201995077 (MB) and 1201995079 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 242754002 (CAPA-10-6800). The QC was from LANL work order 242754.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population. Sample, 242754003 (CAPA-10-6901), did not meet the client tracer yield requirements, however it is less than 110 percent and does meet the GEL standard tracer yield requirements.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec Pu, Liquid**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	932637

Sample ID	Client ID
242754001	CAPA-10-6797
242754002	CAPA-10-6800
242754003	CAPA-10-6901
1201995084	Method Blank (MB)
1201995085	242754002(CAPA-10-6800) Sample Duplicate (DUP)
1201995086	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1201995084 (MB) and 1201995086 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 242754002 (CAPA-10-6800). The QC was from LANL work order 242754.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec U, Liquid**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Analytical Batch Number:	932638

Sample ID	Client ID
242754001	CAPA-10-6797
242754002	CAPA-10-6800
242754003	CAPA-10-6901
1201995087	Method Blank (MB)
1201995088	242754002(CAPA-10-6800) Sample Duplicate (DUP)
1201995089	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1201995087 (MB) and 1201995089 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 242754002 (CAPA-10-6800). The QC was from LANL work order 242754.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result for U-235/236 is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Gammaspec, Gamma, Liquid**
Analytical Method:	EPA 901.1
Analytical Batch Number:	933232

Sample ID	Client ID
242754001	CAPA-10-6797
242754002	CAPA-10-6800
242754003	CAPA-10-6901
1201996557	Method Blank (MB)
1201996558	242789002(CAPA-10-6758) Sample Duplicate (DUP)
1201996559	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in February 2009, March 2009, May 2009 and July 2009.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 242789002 (CAPA-10-6758). The QC was from LANL work order 242789.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The method blank, 1201996557 (MB), result for Cs-137 is greater than 1.65 times the CSU, but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Gross A/B, liquid**
Analytical Method:	EPA 900.0
Analytical Batch Number:	932822

Sample ID	Client ID
242754001	CAPA-10-6797
242754002	CAPA-10-6800
242754003	CAPA-10-6901
1201995519	Method Blank (MB)
1201995520	242754002(CAPA-10-6800) Sample Duplicate (DUP)
1201995521	242754002(CAPA-10-6800) Matrix Spike (MS)
1201995522	242754002(CAPA-10-6800) Matrix Spike Duplicate (MSD)
1201995523	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-001 REV# 12.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in July 2009. The discrimination settings are calibrated in beta discriminating mode to reduce beta to alpha crosstalk.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1201995519 (MB) and 1201995523 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 242754002 (CAPA-10-6800). The QC was from LANL work order 242754.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The beta blank result, 1201995519 (MB), is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples 1201995520 (CAPA-10-6800), 242754001 (CAPA-10-6797), 242754002 (CAPA-10-6800) and 242754003 (CAPA-10-6901) were recounted due to high MDAs.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Gross Alpha/Beta Preparation Information
High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating, especially to a dull red heat. For this sample set, the prepared planchet was counted for beta activity before being flamed. After flaming, the planchet was counted for alpha activity.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The beta blank result, 1201995519 (MB), is greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Sr90, liquid**
Analytical Method:	EPA 905.0 Modified
Analytical Batch Number:	932821

Sample ID	Client ID
242754001	CAPA-10-6797
242754002	CAPA-10-6800
242754003	CAPA-10-6901
1201995515	Method Blank (MB)
1201995516	242789002(CAPA-10-6758) Sample Duplicate (DUP)
1201995517	242789002(CAPA-10-6758) Matrix Spike (MS)
1201995518	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in January 2009.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1201995515 (MB) and 1201995518 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 242789002 (CAPA-10-6758). The QC was from LANL work order 242789.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis

Samples 1201995515 (MB), 1201995516 (CAPA-10-6758), 242754001 (CAPA-10-6797), 242754002 (CAPA-10-6800) and 242754003 (CAPA-10-6901) were recounted due to high MDAs. Sample 242754002 (CAPA-10-6800) was recounted to verify sample result. Second count being reported.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Liquid**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	932551

Sample ID	Client ID
242754003	CAPA-10-6901
1201994807	Method Blank (MB)
1201994808	242754003(CAPA-10-6901) Sample Duplicate (DUP)
1201994809	242754003(CAPA-10-6901) Matrix Spike (MS)
1201994810	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-002 REV# 17.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in July 2009, August 2009 and September 2009.

Standards Information
Standard solution(s) for these analyses are NIST traceable and used before the expiration date(s).

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 242754003 (CAPA-10-6901). The QC was from LANL work order 242754.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 1201994810 (LCS) was recounted due to high recovery.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A nonconformance report (NCR) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: 12/29/09

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-882 GEL Work Order: 242754

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by 12/29/09

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: December 29, 2009

Client Sample ID: CAPA-10-6797
Sample ID: 242754001
Matrix: Ground Water
Collect Date: 09-DEC-09
Receive Date: 11-DEC-09
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
Alphaspec Am241 Liquid "As Received"												
Americium-241	U	-0.00285	0.0345	+/-0.0111	0.050	pCi/L		MXE1	12/17/09	1527	932635	1
Alphaspec Pu, Liquid "As Received"												
Plutonium-238	U	0.0038	0.0279	+/-0.0101	0.050	pCi/L		MXE1	12/19/09	1000	932637	2
Plutonium-239/240	U	0.0076	0.030	+/-0.00539	0.050	pCi/L						
Alphaspec U, Liquid "As Received"												
Uranium-234		0.240	0.094	+/-0.0318	1.00	pCi/L		MXE1	12/19/09	0919	932638	3
Uranium-235/236	U	0.00	0.0492	+/-0.00355	1.00	pCi/L						
Uranium-238		0.109	0.0587	+/-0.0193	0.500	pCi/L						
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Liquid "As Received"												
Cesium-137	U	0.699	4.46	+/-1.32	8.00	pCi/L		KXG3	12/18/09	0844	933232	4
Cobalt-60	U	-1.25	3.65	+/-1.27	8.00	pCi/L						
Gross Gamma	U	26.1	46.1	+/-31.3	120	pCi/L						
Neptunium-237	U	-18.3	33.1	+/-12.4	10.0	pCi/L						
Potassium-40	U	6.46	70.8	+/-20.0	10.0	pCi/L						
Sodium-22	U	2.05	4.85	+/-1.26	10.0	pCi/L						
Rad Gas Flow Proportional Counting												
GFPC, Gross A/B, liquid "As Received"												
Beta	U	-0.575	2.08	+/-0.471	3.00	pCi/L		DXF3	12/21/09	0642	932822	5
Alpha	U	0.740	2.53	+/-0.709	3.00	pCi/L		DXF3	12/21/09	1758	932822	6
GFPC, Sr90, liquid "As Received"												
Strontium-90	U	-0.0917	0.475	+/-0.129	0.500	pCi/L		JXR1	12/23/09	1300	932821	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	EPA 901.1
5	EPA 900.0
6	EPA 900.0

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: December 29, 2009

Client Sample ID: CAPA-10-6797 Project: ESHL01000
Sample ID: 242754001 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
7	EPA 905.0 Modified											

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	Alphaspec Am241 Liquid "As Rec	97.3	(50%-105%)
Plutonium-242 Tracer	Alphaspec Pu, Liquid "As Receive	93.4	(50%-105%)
Uranium-232 Tracer	Alphaspec U, Liquid "As Received	79.1	(50%-105%)
Strontium Carrier	GFPC, Sr90, liquid "As Received"	72.8	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: December 29, 2009

Client Sample ID:	CAPA-10-6800	Project:	ESHL01000
Sample ID:	242754002	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	09-DEC-09		
Receive Date:	11-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
Alphaspec Am241 Liquid "As Received"												
Americium-241	U	0.00277	0.0343	+/-0.00439	0.050	pCi/L		MXE1	12/17/09	1527	932635	1
Alphaspec Pu, Liquid "As Received"												
Plutonium-238	U	0.0138	0.0289	+/-0.0113	0.050	pCi/L		MXE1	12/19/09	1000	932637	2
Plutonium-239/240	U	-0.0059	0.0311	+/-0.00521	0.050	pCi/L						
Alphaspec U, Liquid "As Received"												
Uranium-234		0.266	0.0948	+/-0.0337	1.00	pCi/L		MXE1	12/19/09	0919	932638	3
Uranium-235/236	U	0.0143	0.0496	+/-0.00721	1.00	pCi/L						
Uranium-238		0.147	0.0592	+/-0.0235	0.500	pCi/L						
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Liquid "As Received"												
Cesium-137	U	-1.36	4.99	+/-1.65	8.00	pCi/L		KXG3	12/18/09	1012	933232	4
Cobalt-60	U	0.771	5.32	+/-1.55	8.00	pCi/L						
Gross Gamma	U	8.70	30.9	+/-12.3	120	pCi/L						
Neptunium-237	U	-6.88	45.3	+/-13.9	10.0	pCi/L						
Potassium-40	U	16.4	71.2	+/-18.8	10.0	pCi/L						
Sodium-22	U	-0.953	4.93	+/-1.62	10.0	pCi/L						
Rad Gas Flow Proportional Counting												
GFPC, Gross A/B, liquid "As Received"												
Beta	U	1.79	2.48	+/-0.813	3.00	pCi/L		DXF3	12/21/09	0642	932822	5
Alpha	U	-0.198	2.52	+/-0.515	3.00	pCi/L		DXF3	12/21/09	1758	932822	6
GFPC, Sr90, liquid "As Received"												
Strontium-90	U	0.0384	0.402	+/-0.110	0.500	pCi/L		JXR1	12/27/09	0706	932821	7

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified
4	EPA 901.1
5	EPA 900.0
6	EPA 900.0

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: December 29, 2009

Client Sample ID: CAPA-10-6800 Project: ESHL01000
Sample ID: 242754002 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
7	EPA 905.0 Modified											

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	Alphaspec Am241 Liquid "As Rec	93.8	(50%-105%)
Plutonium-242 Tracer	Alphaspec Pu, Liquid "As Receive	88.8	(50%-105%)
Uranium-232 Tracer	Alphaspec U, Liquid "As Received	76.6	(50%-105%)
Strontium Carrier	GFPC, Sr90, liquid "As Received"	82.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: December 29, 2009

Client Sample ID:	CAPA-10-6901	Project:	ESHL01000
Sample ID:	242754003	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	09-DEC-09		
Receive Date:	11-DEC-09		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
Alphaspec Am241 Liquid "As Received"												
Americium-241	U	-0.00111	0.0319	+/-0.00247	0.050	pCi/L		MXE1	12/17/09	1527	932635	1
Alphaspec Pu, Liquid "As Received"												
Plutonium-238	U	0.00	0.0315	+/-0.00429	0.050	pCi/L		MXE1	12/19/09	1000	932637	2
Plutonium-239/240	U	-0.00429	0.0338	+/-0.00525	0.050	pCi/L						
Alphaspec U, Liquid "As Received"												
Uranium-234	U	0.00296	0.0975	+/-0.00298	1.00	pCi/L		MXE1	12/19/09	0919	932638	3
Uranium-235/236	U	0.00	0.051	+/-0.00368	1.00	pCi/L						
Uranium-238	U	0.00594	0.0609	+/-0.00595	0.500	pCi/L						
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Liquid "As Received"												
Cesium-137	U	-0.187	4.64	+/-1.41	8.00	pCi/L		KXG3	12/18/09	1013	933232	4
Cobalt-60	U	1.32	6.23	+/-1.76	8.00	pCi/L						
Gross Gamma	U	3.58	19.3	+/-6.19	120	pCi/L						
Neptunium-237	U	2.24	35.9	+/-11.1	10.0	pCi/L						
Potassium-40	U	-10.7	60.1	+/-18.7	10.0	pCi/L						
Sodium-22	U	-0.493	3.93	+/-1.24	10.0	pCi/L						
Rad Gas Flow Proportional Counting												
GFPC, Gross A/B, liquid "As Received"												
Beta	U	0.178	2.27	+/-0.617	3.00	pCi/L		DXF3	12/21/09	0642	932822	5
Alpha	U	0.404	1.70	+/-0.440	3.00	pCi/L		DXF3	12/21/09	1758	932822	6
GFPC, Sr90, liquid "As Received"												
Strontium-90	U	0.115	0.446	+/-0.130	0.500	pCi/L		JXR1	12/23/09	1301	932821	7
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid "As Received"												
Tritium	U	-72.8	144	+/-37.6	200	pCi/L		EXK2	12/17/09	2135	932551	8

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Pu-11-RC Modified
3	DOE EML HASL-300, U-02-RC Modified

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: December 29, 2009

Client Sample ID: CAPA-10-6901 Project: ESHL01000
Sample ID: 242754003 Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
4	EPA 901.1											
5	EPA 900.0											
6	EPA 900.0											
7	EPA 905.0 Modified											
8	EPA 906.0 Modified											

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243 Tracer	Alphaspec Am241 Liquid "As Rec	106*	(50%-105%)
Plutonium-242 Tracer	Alphaspec Pu, Liquid "As Receive	83.0	(50%-105%)
Uranium-232 Tracer	Alphaspec U, Liquid "As Received	74.3	(50%-105%)
Strontium Carrier	GFPC, Sr90, liquid "As Received"	78.4	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

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C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

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QC Summary

Report Date: December 29, 2009
Page 1 of 6

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 242754

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 932635										
QC1201995078 242754002 DUP										
Americium-241	U	0.00277	U	0.0013	pCi/L	0.0827		(0-1)	MXE1	12/17/0915:27
	TPU:	+/-0.00439		+/-0.00447						
	Yield:	93.8		84.9						
QC1201995079 LCS										
Americium-241	2.84			2.97	pCi/L		105	(75%-125%)		12/17/0915:27
	TPU:			+/-0.194						
	Yield:			93.1						
QC1201995077 MB										
Americium-241			U	-0.00228	pCi/L					12/17/0915:27
	TPU:			+/-0.00455						
	Yield:			99.6						
Batch 932637										
QC1201995085 242754002 DUP										
Plutonium-238	U	0.0138	U	0.0071	pCi/L	0.158		(0-1)	MXE1	12/19/0910:00
	TPU:	+/-0.0113		+/-0.00977						
	Yield:	88.8		69.2						
Plutonium-239/240	U	-0.0059	U	0.00473	pCi/L	0.447		(0-1)		
	TPU:	+/-0.00521		+/-0.0067						
	Yield:	88.8		69.2						
QC1201995086 LCS										
Plutonium-238			U	0.00894	pCi/L			(75%-125%)		
	TPU:			+/-0.00475						
	Yield:			73.5						
Plutonium-239/240	2.27			2.23	pCi/L		98.5	(75%-125%)		
	TPU:			+/-0.133						
	Yield:			73.5						
QC1201995084 MB										
Plutonium-238			U	-0.00562	pCi/L					
	TPU:			+/-0.00675						
	Yield:			78.2						
Plutonium-239/240			U	-8.93E-10	pCi/L					
	TPU:			+/-0.0053						
	Yield:			78.2						

QC Summary

Workorder: 242754

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 932638										
QC1201995088 242754002 DUP										
Uranium-234		0.266		0.282	pCi/L	0.120		(0-1)	MXE1	12/19/0909:20
	TPU:	+/-0.0337		+/-0.034						
	Yield:	76.6		81.1						
Uranium-235/236	U	0.0143	U	0.0101	pCi/L	0.162		(0-1)		
	TPU:	+/-0.00721		+/-0.00585						
	Yield:	76.6		81.1						
Uranium-238		0.147		0.119	pCi/L	0.314		(0-1)		
	TPU:	+/-0.0235		+/-0.0209						
	Yield:	76.6		81.1						
QC1201995089 LCS										
Uranium-234				2.55	pCi/L			(75%-125%)		12/19/0909:20
	TPU:			+/-0.193						
	Yield:			86.5						
Uranium-235/236				0.147	pCi/L			(75%-125%)		
	TPU:			+/-0.0223						
	Yield:			86.5						
Uranium-238	2.52			2.47	pCi/L		98.2	(75%-125%)		
	TPU:			+/-0.188						
	Yield:			86.5						
QC1201995087 MB										
Uranium-234			U	0.0038	pCi/L					12/19/0909:19
	TPU:			+/-0.00405						
	Yield:			86.7						
Uranium-235/236			U	0.00765	pCi/L					
	TPU:			+/-0.00445						
	Yield:			86.7						
Uranium-238			U	0.00206	pCi/L					
	TPU:			+/-0.00461						
	Yield:			86.7						
Rad Gamma Spec										
Batch 933232										
QC1201996558 242789002 DUP										
Cesium-137	U	-1.93	U	1.02	pCi/L	0.538		(0-1)	KXG3	12/18/0910:13
	TPU:	+/-1.04		+/-1.69						
Cobalt-60	U	0.598	U	-0.162	pCi/L	0.139		(0-1)		
	TPU:	+/-0.994		+/-1.74						

QC Summary

Workorder: 242754

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 933232										
Gross Gamma		66.8		53.5	pCi/L	0.105		(0-1)		
	TPU:	+/-43.0		+/-20.5						
Neptunium-237	U	11.3	U	-17.2	pCi/L	0.640		(0-1)		
	TPU:	+/-10.1		+/-12.2						
Potassium-40	U	-15.3	U	27.3	pCi/L	0.575		(0-1)		
	TPU:	+/-15.8		+/-21.2						
Sodium-22	U	-1.98	U	0.155	pCi/L	0.438		(0-1)		
	TPU:	+/-1.07		+/-1.36						
QC1201996559 LCS										
Americium-241	1240			1370	pCi/L		111	(75%-125%)		12/18/0912:29
	TPU:			+/-102						
Cesium-137	434			450	pCi/L		104	(75%-125%)		
	TPU:			+/-19.8						
Cobalt-60	507			530	pCi/L		105	(75%-125%)		
	TPU:			+/-27.7						
Gross Gamma	2180			2090	pCi/L		96.1	(75%-125%)		
	TPU:			+/-163						
Neptunium-237				385	pCi/L					
	TPU:			+/-60.9						
Potassium-40			U	-8.94	pCi/L					
	TPU:			+/-31.6						
Sodium-22			U	0.922	pCi/L					
	TPU:			+/-2.14						
QC1201996557 MB										
Cesium-137			U	1.45	pCi/L					12/17/0923:04
	TPU:			+/-0.854						
Cobalt-60			U	0.617	pCi/L					
	TPU:			+/-0.885						
Gross Gamma			U	0.617	pCi/L					
	TPU:			+/-1.29						
Neptunium-237			U	-0.916	pCi/L					
	TPU:			+/-5.40						
Potassium-40			U	5.78	pCi/L					

QC Summary

Workorder: 242754

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 933232										
	TPU:			+/-12.1						
Sodium-22			U	0.204	pCi/L					
	TPU:			+/-0.741						
Rad Gas Flow										
Batch 932821										
QC1201995516 242789002 DUP										
Strontium-90	U	-0.17	U	0.180	pCi/L	0.693		(0-1)	JXR1	12/23/0912:49
	TPU:	+/-0.111		+/-0.141						
	Yield:	85.2		78.4						
QC1201995518 LCS										
Strontium-90	19.3			22.5	pCi/L		116	(75%-125%)		12/22/0915:05
	TPU:			+/-1.92						
	Yield:			85.2						
QC1201995515 MB										
Strontium-90			U	-0.0768	pCi/L					12/23/0912:54
	TPU:			+/-0.123						
	Yield:			82.9						
QC1201995517 242789002 MS										
Strontium-90	96.7 U	-0.17		105	pCi/L		108	(75%-125%)		12/22/0915:03
	TPU:	+/-0.111		+/-9.24						
	Yield:	85.2		79.6						
Batch 932822										
QC1201995520 242754002 DUP										
Alpha	U	-0.198	U	-0.534	pCi/L	0.207		(0-1)	DXF3	12/21/0917:56
	TPU:	+/-0.515		+/-0.294						
Beta	U	1.79	U	0.414	pCi/L	0.492		(0-1)		12/21/0906:42
	TPU:	+/-0.813		+/-0.591						
QC1201995523 LCS										
Alpha	12.6			13.0	pCi/L		103	(75%-125%)		12/21/0918:07
	TPU:			+/-1.51						
Beta	38.6			40.4	pCi/L		105	(75%-125%)		12/19/0919:26
	TPU:			+/-3.47						
QC1201995519 MB										
Alpha			U	-0.00398	pCi/L					12/21/0917:56
	TPU:			+/-0.060						
Beta			U	0.367	pCi/L					12/19/0918:56
	TPU:			+/-0.137						

QC Summary

Workorder: 242754

Parmname	NOM		Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gas Flow											
Batch 932822											
QC1201995521 242754002 MS											
Alpha	252	U	-0.198		306	pCi/L		121	(75%-125%)		12/21/0918:07
		TPU:	+/-0.515		+/-35.2						
Beta	773	U	1.79		894	pCi/L		116	(75%-125%)		12/19/0918:40
		TPU:	+/-0.813		+/-76.4						
QC1201995522 242754002 MSD											
Alpha	252	U	-0.198		296	pCi/L	0.0712	118	(0-1)		12/21/0918:07
		TPU:	+/-0.515		+/-34.1						
Beta	773	U	1.79		913	pCi/L	0.0637	118	(0-1)		12/19/0919:26
		TPU:	+/-0.813		+/-78.1						
Rad Liquid Scintillation											
Batch 932551											
QC1201994808 242754003 DUP											
Tritium		U	-72.8	U	20.3	pCi/L	0.587		(0-1)	EXK2	12/17/0923:20
		TPU:	+/-37.6		+/-41.7						
QC1201994810 LCS											
Tritium	2240				2090	pCi/L		93	(75%-125%)		12/18/0912:13
		TPU:			+/-291						
QC1201994807 MB											
Tritium				U	-54.4	pCi/L					12/17/0922:27
		TPU:			+/-37.4						
QC1201994809 242754003 MS											
Tritium	2250	U	-72.8		2270	pCi/L		101	(75%-125%)		12/18/0900:12
		TPU:	+/-37.6		+/-281						

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
F	Estimated Value
H	Analytical holding time was exceeded

QC Summary

Workorder: 242754

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time

J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev 9

Batch# 932635 Product: Am Date: 12/18/09

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument blig check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		Case narrative
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initiated and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed. if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Denise Green 12/18/09

Secondary Review Performed By: Jack [illegible] 12/18/09

1/18

Am/Cm Que Sheet

15-DEC 15-DEC 15-DEC-09

PJ

Batch #: 932635 **Analyst:** MXE1 **First Client Due Date:** 10-JAN-10 **Internal Due Date**30-DEC-09 **Comments:**

Tracer(s): Am243/Cm244 **Tracer Code:** 445-96-2-SS **Expiration Date:** 5-11-10 **Vol:** 0.1ml

LCS Isotope(s): Am241/Cm244 **LCS Code(s):** 0533-0 / — **Expiration Date:** 9-10-10 / — **Vol(s):** 0.1ml / ~~0.1ml~~ KM 12-16-09

Spike Isotope(s): Am241/Cm244 **Spike Code(s):** — / — **Expiration Date:** — / — **Vol(s):** — / —

Prep Date: 12-16-09 **Initials:** DW 12-16-09 KM **Pipet ID:** 2971058 **Balance ID:** 1V150207 **Witness:** DWKD 12/16/09

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/L)	Am/Cm Det #
242754001-1	CAPA-10-6797	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	09-DEC-09	1	1	0.800	65
242754002-1	CAPA-10-6800	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	09-DEC-09	2	2	0.800	69
242754003-1	CAPA-10-6901	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	09-DEC-09	3	3	0.800	76
242789002-1	CAPA-10-6758	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	10-DEC-09	4	4	0.800	85
1201995077-1	MB for batch 932635	MB		.05 pCi/L	GROUND WATER	QC ACCOUNT		5	5	1.0 ~~0.800~~	67
1201995078-1	CAPA-10-6800(242754002DUP)	DUP		.05 pCi/L	GROUND WATER	QC ACCOUNT	09-DEC-09	6	6	0.800	87
1201995079-1	LCS for batch 932635	LCS		.05 pCi/L	GROUND WATER	QC ACCOUNT		7	7	1.0 ~~0.800~~	89

DW 12/16/09

Choose SOP Used: ~~GL-RAD-A-011~~
GL-RAD-A-036
GL-RAD-A-045

Solid Sample Dissolution by: LEACH ~~or~~ DIGESTION
Circle One
N/A

Data Reviewed By: 12/18/09

GEL Laboratories LLC, Radiochemistry Division

Blank Correction Report

Batch ID 932635

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1201995078	DUP	Americium-241	0.800 L	0.0013	0.00447	0.038	-.00285	pCi/L	NO
1201995079	LCS	Americium-241	1.00 L	2.97	0.194	0.0301	-.00228	pCi/L	NO
1201995077	MB	Americium-241	1.00 L	-0.00228	0.00455	0.0258	-.00228	pCi/L	NO
242754001	CAPA-10-6797	Americium-241	0.800 L	-0.00285	0.0111	0.0345	-.00285	pCi/L	NO
242754002	CAPA-10-6800	Americium-241	0.800 L	0.00277	0.00439	0.0343	-.00285	pCi/L	NO
242754003	CAPA-10-6901	Americium-241	0.800 L	-0.00111	0.00247	0.0319	-.00285	pCi/L	NO
242789002	CAPA-10-6758	Americium-241	0.800 L	-0.00285	0.00255	0.0329	-.00285	pCi/L	NO

JDM 12/18/09

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 932635 SAMPLE DATE : 9-DEC-2009 00:00:00.	SAMPLE ID : S0242754001_AM SAMPLE QTY: 0.800 L
DETECTOR NUMBER :68551 AVERAGE %EFFICIENCY :30.6638 % YIELD : 97.269	COUNT DATE:17-DEC-2009 15:27:50 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0533-O	ID : 0533-O	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B065.CNF;1924
PCI/L : 3.553E+00	PCI/L : 3.553E+00	NOMINAL : 2.91660 dpm	BKG DATE : 13-DEC-2009
		RESULTS : 2.83694 dpm	EFF FILE : W065.CNF;303
			CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
CM-3/4	5795.020	10.000	1.000	9.000	4.7860	100.0000	1.89E-03	8.24E-03	2.10E-02	4.72E-02	8.24E-03
CM-5/6	5386.000	7.000	4.000	3.000	20.9467	86.09000	8.77E-03	6.95E-03	1.07E-01	2.20E-01	6.93E-03
AM-241	5479.150	18.000	-1.511	18.000	3.3482	99.94000	-2.85E-03	1.11E-02	1.47E-02	3.45E-02	1.11E-02
CM-242	6102.000	5.000	4.000	1.000	3.7246	100.0000	7.85E-03	4.83E-03	1.64E-02	3.78E-02	4.80E-03
AM243	5270.000	871.000	868.000	3.000	1.7321	99.78000	1.64E+00	1.13E-01	7.62E-03	2.04E-02	5.59E-02
CM-247	4946.000	14.000	8.000	6.000	31.0273	79.30000	1.90E-02	1.07E-02	1.72E-01	3.50E-01	1.06E-02
CM-248	5078.600	10.000	7.000	3.000	52.5527	91.00000	1.45E-02	7.53E-03	2.54E-01	5.13E-01	7.48E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

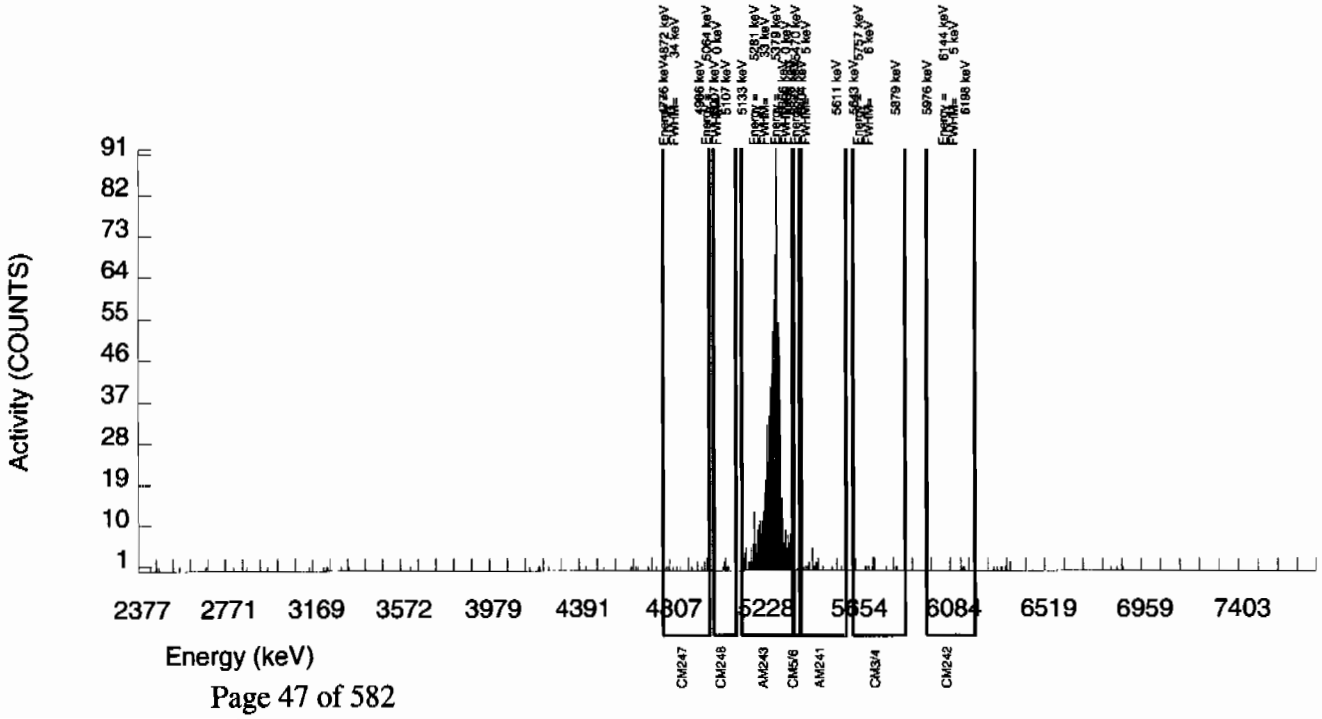

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 932635 SAMPLE DATE : 9-DEC-2009 00:00:00.	SAMPLE ID : S0242754002_AM SAMPLE QTY: 0.800 L
DETECTOR NUMBER :78795 AVERAGE %EFFICIENCY :32.0575 % YIELD : 93.790	COUNT DATE:17-DEC-2009 15:27:50 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0533-O	ID : 0533-O	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B069.CNF;1078
PCI/L : 3.553E+00	PCI/L : 3.553E+00	NOMINAL : 2.91660 dpm	BKG DATE : 13-DEC-2009
		RESULTS : 2.73549 dpm	EFF FILE : W069.CNF;283
			CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
CM-3/4	5795.020	3.000	-2.000	5.000	4.7860	100.0000	-3.75E-03	5.30E-03	2.09E-02	4.68E-02	5.30E-03
CM-5/6	5386.000	10.000	10.000	0.000	20.9467	86.09000	2.18E-02	7.00E-03	1.06E-01	2.18E-01	6.88E-03
AM-241	5479.150	5.000	1.477	2.000	3.3482	99.94000	2.77E-03	4.39E-03	1.46E-02	3.43E-02	4.39E-03
CM-242	6102.000	0.000	0.000	0.000	3.7246	100.0000	0.00E+00	1.95E-03	1.62E-02	3.75E-02	1.95E-03
AM243	5270.000	877.000	875.000	2.000	1.4142	99.78000	1.64E+00	1.13E-01	6.17E-03	1.74E-02	5.56E-02
CM-247	4946.000	11.000	3.000	8.000	31.0273	79.30000	7.08E-03	1.03E-02	1.70E-01	3.47E-01	1.03E-02
CM-248	5078.600	13.000	12.000	1.000	52.5527	91.00000	2.47E-02	7.84E-03	2.52E-01	5.09E-01	7.70E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

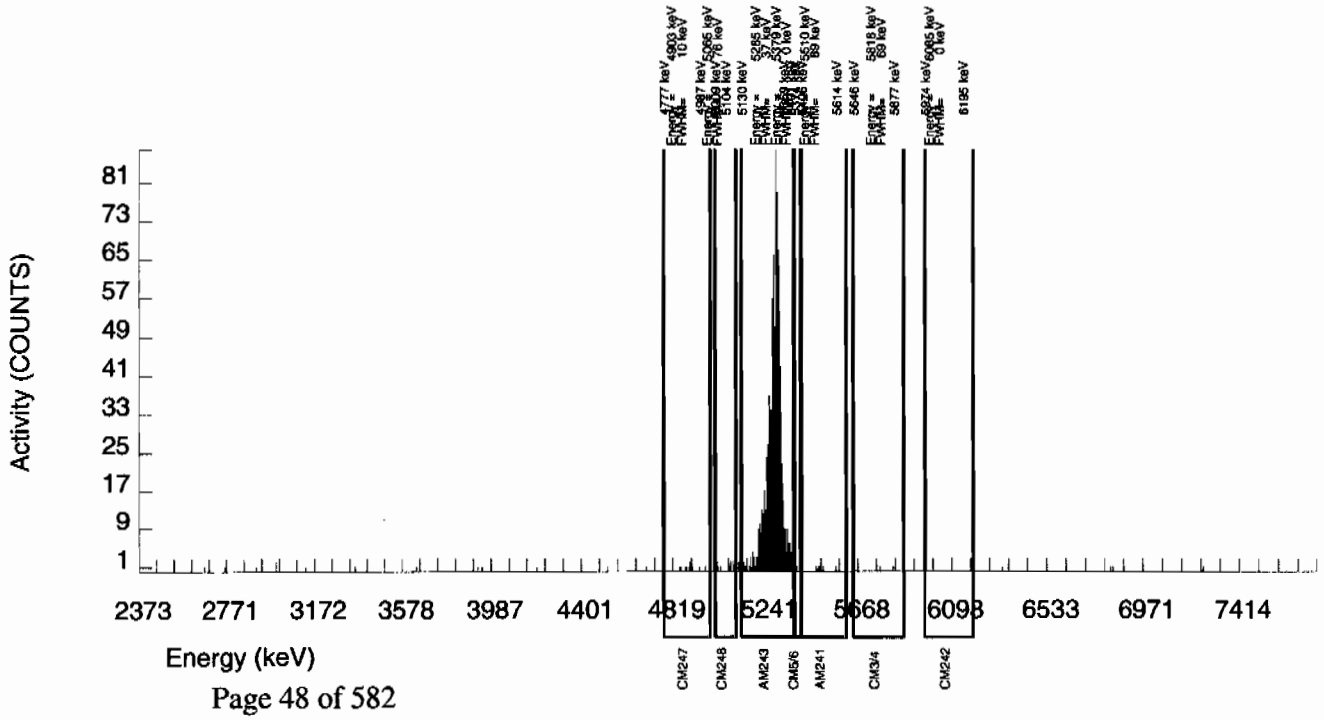

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 932635 SAMPLE DATE : 9-DEC-2009 00:00:00.	SAMPLE ID : S0242754003_AM SAMPLE QTY: 0.800 L
DETECTOR NUMBER :78779 AVERAGE %EFFICIENCY :30.5630 % YIELD : 105.797	COUNT DATE:17-DEC-2009 15:27:51 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0533-O ISOTOPE : AM-241 PCI/L : 3.553E+00	ID : 0533-O ISOTOPE : AM-241 PCI/L : 3.553E+00	ID : 445-96-2-SS ISOTOPE : AM243 NOMINAL : 2.91660 dpm RESULTS : 3.08568 dpm	LIB FILE : ENV_ALPHA_AM.N BKG FILE : B076.CNF;1087 BKG DATE : 13-DEC-2009 EFF FILE : W076.CNF;291 CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
CM-3/4	5795.020	1.000	1.000	0.000	4.7860	100.0000	1.74E-03	1.75E-03	1.94E-02	4.35E-02	1.74E-03
CM-5/6	5386.000	8.000	8.000	0.000	20.9467	86.09000	1.62E-02	5.80E-03	9.86E-02	2.03E-01	5.72E-03
AM-241	5479.150	2.000	-0.638	1.000	3.3482	99.94000	-1.11E-03	2.47E-03	1.36E-02	3.19E-02	2.46E-03
CM-242	6102.000	3.000	3.000	0.000	3.7246	100.0000	5.43E-03	3.15E-03	1.51E-02	3.49E-02	3.13E-03
AM243	5270.000	943.000	941.000	2.000	1.4142	99.78000	1.64E+00	1.11E-01	5.74E-03	1.62E-02	5.36E-02
CM-247	4946.000	7.000	3.000	4.000	31.0273	79.30000	6.59E-03	7.29E-03	1.59E-01	3.23E-01	7.28E-03
CM-248	5078.600	4.000	2.000	2.000	52.5527	91.00000	3.83E-03	4.69E-03	2.34E-01	4.73E-01	4.69E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

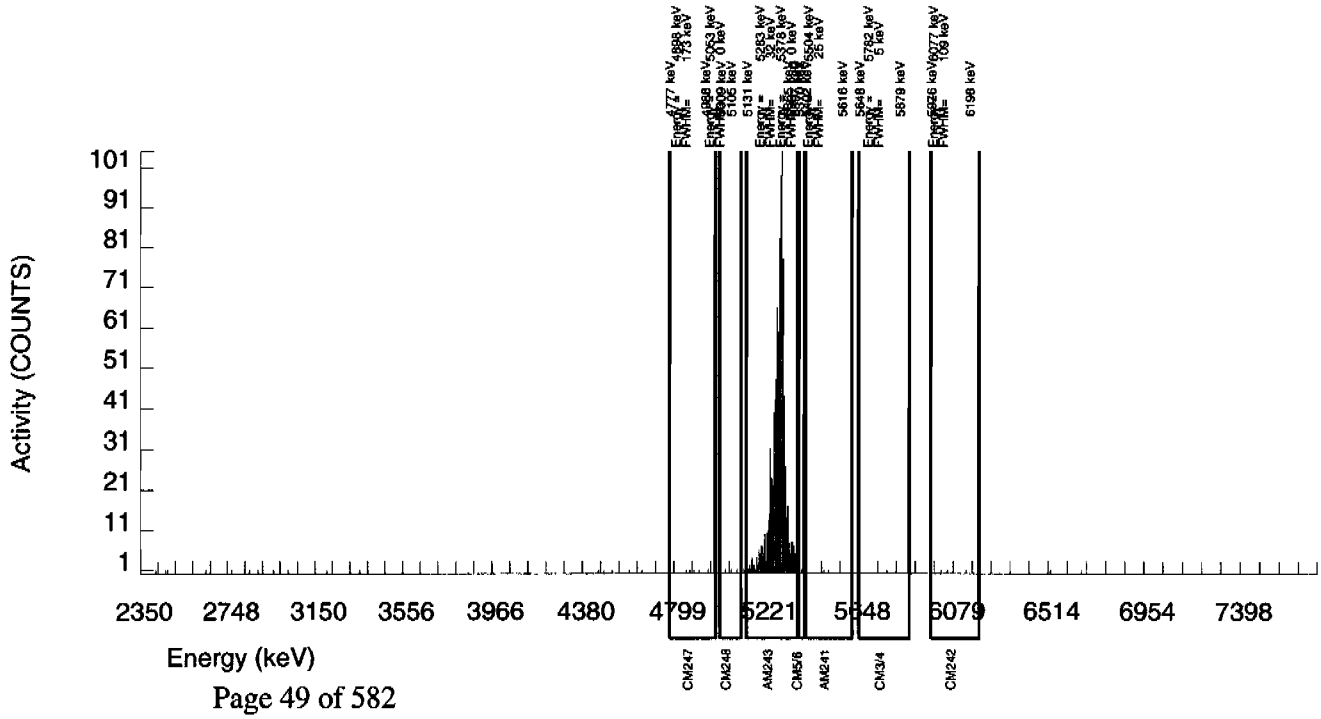

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 932635 SAMPLE DATE : 16-DEC-2009 00:00:00	SAMPLE ID : S1201995077_AM SAMPLE QTY: 1.000 L
DETECTOR NUMBER :46-089B4 AVERAGE %EFFICIENCY :32.0760 % YIELD : 99.628	COUNT DATE:17-DEC-2009 15:27:50 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0533-O	ID : 0533-O	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B067.CNF;1083
PCI/L : 2.842E+00	PCI/L : 2.842E+00	NOMINAL : 2.91660 dpm	BKG DATE : 13-DEC-2009
		RESULTS : 2.90575 dpm	EFF FILE : W067.CNF;285
			CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
CM-3/4	5795.020	3.000	2.000	1.000	4.7860	100.0000	2.82E-03	2.82E-03	1.57E-02	3.52E-02	2.82E-03
CM-5/6	5386.000	10.000	10.000	0.000	20.9467	86.09000	1.64E-02	5.27E-03	7.98E-02	1.64E-01	5.18E-03
AM-241	5479.150	6.000	-1.619	6.000	3.3482	99.94000	-2.28E-03	4.55E-03	1.10E-02	2.58E-02	4.54E-03
CM-242	6102.000	3.000	3.000	0.000	3.7246	100.0000	4.26E-03	2.48E-03	1.22E-02	2.82E-02	2.46E-03
AM243	5270.000	932.000	930.000	2.000	1.4142	99.78000	1.31E+00	8.89E-02	4.65E-03	1.31E-02	4.32E-02
CM-247	4946.000	5.000	-1.000	6.000	31.0273	79.30000	-1.78E-03	5.90E-03	1.28E-01	2.61E-01	5.90E-03
CM-248	5078.600	7.000	6.000	1.000	52.5527	91.00000	9.29E-03	4.42E-03	1.89E-01	3.83E-01	4.38E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

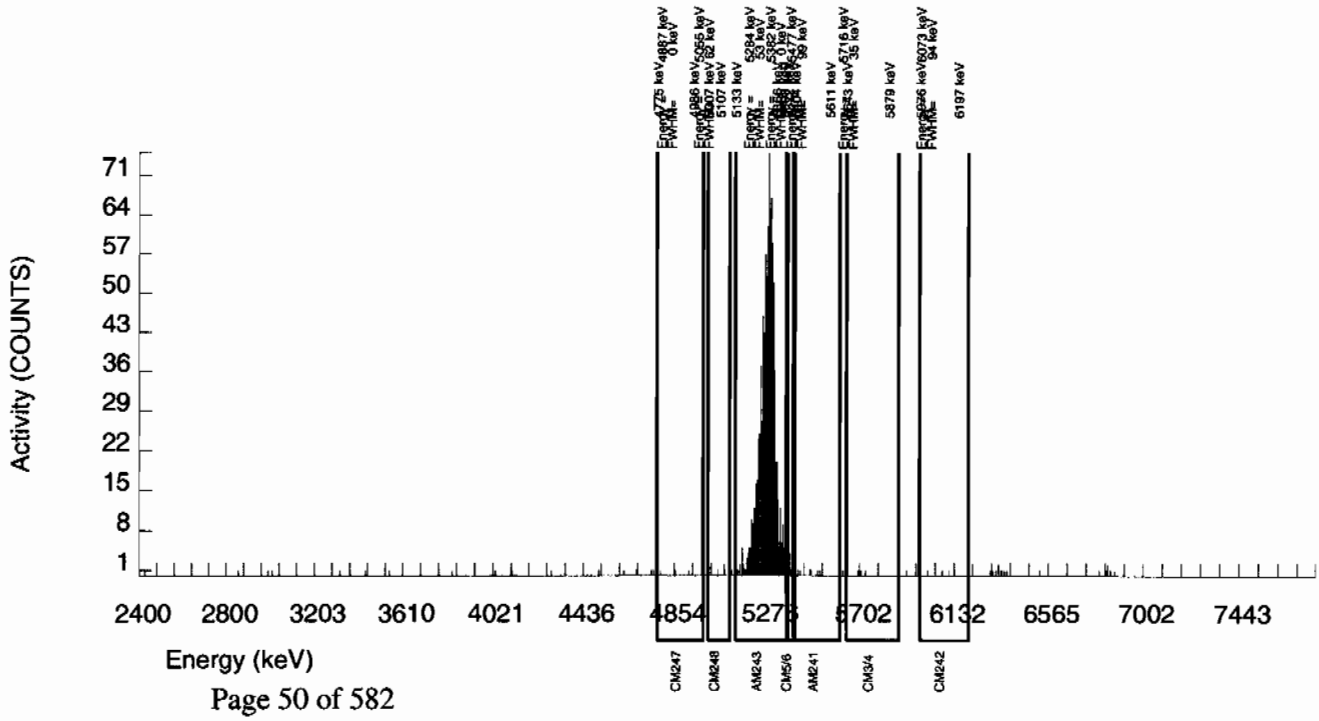

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 932635 SAMPLE DATE : 9-DEC-2009 00:00:00.	SAMPLE ID : S1201995078_AM SAMPLE QTY: 0.800 L
DETECTOR NUMBER :78199 AVERAGE %EFFICIENCY :31.9208 % YIELD : 84.934	COUNT DATE:17-DEC-2009 15:27:52 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0533-O	ID : 0533-O	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B087.CNF;1010
PCI/L : 3.553E+00	PCI/L : 3.553E+00	NOMINAL : 2.91660 dpm	BKG DATE : 13-DEC-2009
		RESULTS : 2.47719 dpm	EFF FILE : W087.CNF;272
			CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
CM-3/4	5795.020	5.000	-1.000	6.000	4.7860	100.0000	-2.08E-03	6.90E-03	2.31E-02	5.19E-02	6.89E-03
CM-5/6	5386.000	4.000	3.000	1.000	20.9467	86.09000	7.24E-03	5.41E-03	1.18E-01	2.42E-01	5.39E-03
AM-241	5479.150	4.000	0.627	2.000	3.3482	99.94000	1.30E-03	4.47E-03	1.62E-02	3.80E-02	4.47E-03
CM-242	6102.000	1.000	1.000	0.000	3.7246	100.0000	2.16E-03	2.16E-03	1.80E-02	4.16E-02	2.16E-03
AM243	5270.000	793.000	789.000	4.000	2.0000	99.78000	1.64E+00	1.16E-01	9.68E-03	2.50E-02	5.88E-02
CM-247	4946.000	6.000	-1.000	7.000	31.0273	79.30000	-2.62E-03	9.44E-03	1.89E-01	3.85E-01	9.44E-03
CM-248	5078.600	10.000	6.000	4.000	52.5527	91.00000	1.37E-02	8.58E-03	2.79E-01	5.64E-01	8.54E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

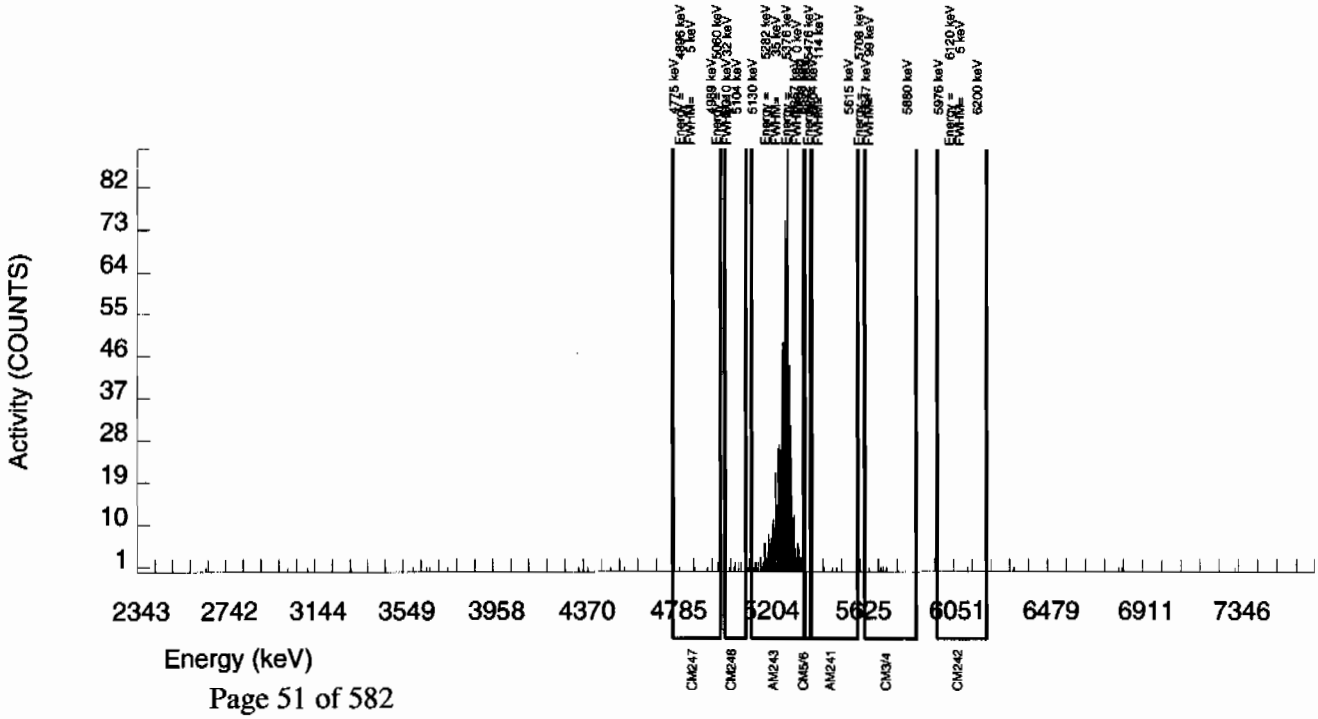

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 932635 SAMPLE DATE : 16-DEC-2009 00:00:00	SAMPLE ID : S1201995079_AM SAMPLE QTY: 1.000 L
DETECTOR NUMBER :78262 AVERAGE %EFFICIENCY :29.3731 % YIELD : 93.120	COUNT DATE:17-DEC-2009 15:27:53 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0533-O	ID : 0533-O	ID : 445-96-2-SS	LIB FILE : ENV_ALPHA_AM.N
ISOTOPE : AM-241	ISOTOPE : AM-241	ISOTOPE : AM243	BKG FILE : B089.CNF;695
PCI/L : 2.842E+00	PCI/L : 2.842E+00	NOMINAL : 2.91660 dpm	BKG DATE : 13-DEC-2009
		RESULTS : 2.71593 dpm	EFF FILE : W089.CNF;191
			CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
CM-3/4	5795.020	1.000	1.000	0.000	4.7860	100.0000	1.65E-03	1.65E-03	1.83E-02	4.11E-02	1.65E-03
CM-5/6	5386.000	41.000	41.000	0.000	20.9467	86.09000	7.84E-02	1.31E-02	9.32E-02	1.92E-01	1.22E-02
AM-241	5479.150	1806.000	1803.615	1.000	3.3482	99.94000	2.97E+00	1.94E-01	1.28E-02	3.01E-02	7.00E-02
CM-242	6102.000	0.000	-1.000	1.000	3.7246	100.0000	-1.66E-03	2.35E-03	1.43E-02	3.30E-02	2.35E-03
AM243	5270.000	800.000	796.000	4.000	2.0000	99.78000	1.31E+00	9.26E-02	7.68E-03	1.98E-02	4.68E-02
CM-247	4946.000	9.000	7.000	2.000	31.0273	79.30000	1.45E-02	6.94E-03	1.50E-01	3.05E-01	6.89E-03
CM-248	5078.600	11.000	10.000	1.000	52.5527	91.00000	1.81E-02	6.36E-03	2.21E-01	4.47E-01	6.27E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of AM243 calculated as sqrt(BKG AREA)
NOTE: Corrections made to AM-241 net area due to tracer impurity

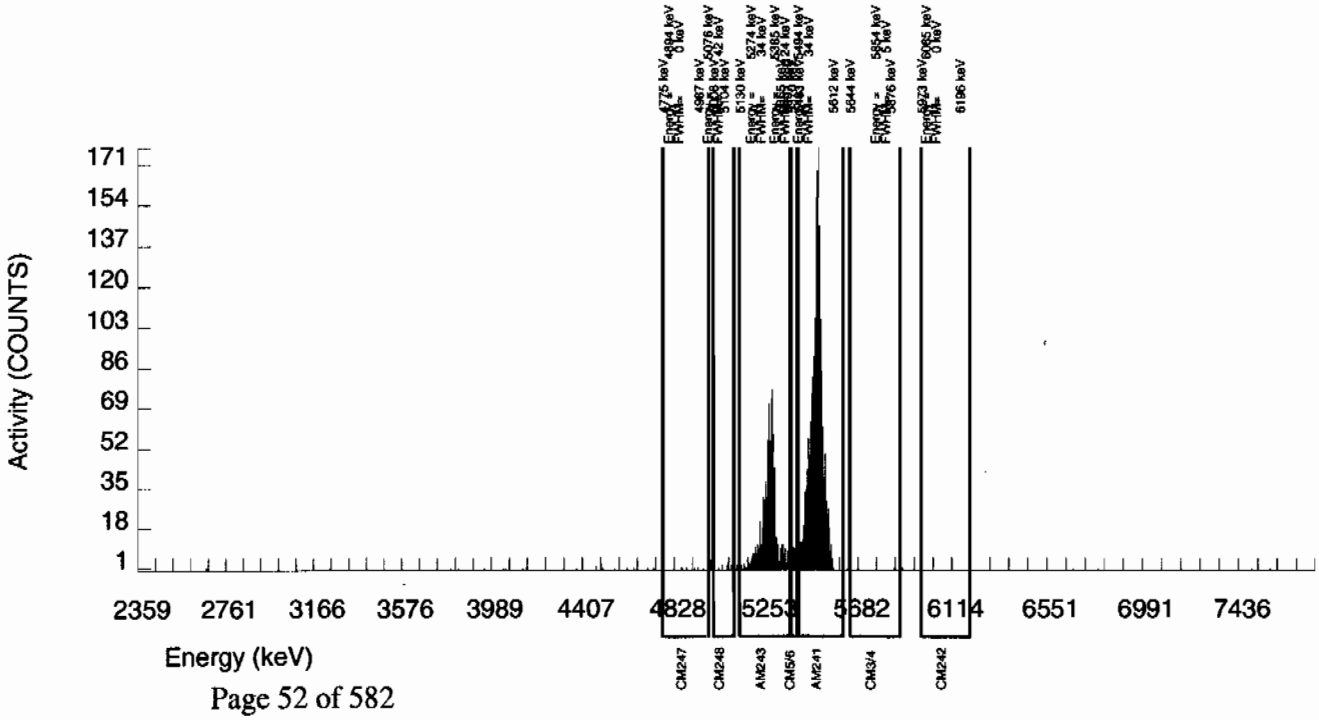

Radiochemistry Batch Checklist, Rev 9

Batch# 932637 Product: Pu Date: 12/21/09

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			N/A
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initiated and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed. If applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analyses.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Denise Green 12/21/09

Secondary Review Performed By: [illegible] 12/22/09

1/10

Plutonium Que Sheet

15-DEC-09

PJ

Batch #: 932637 **Analyst:** MXE1 **First Client Due Date:** 10-JAN-10 **Internal Due Date:** 30-DEC-09

Tracer Isotope(s): Pu-242/Pu-238 **Tracer Code:** 1374-A **Expiration Date:** 12-8-10 **Vol:** 0.1ml

LCS Isotope(s): Pu-239/Pu-238 **LCS Code:** 0338-BB **Expiration Date:** 6-23-10 **Vol:** 0.1ml

Spike Isotope(s): Pu-239/Pu-238 **Spike Code:** — **Expiration Date:** — **Vol:** —

Prep Date: 12-16-09 **Initials:** KM **Pipet ID:** 2971058 **Balance ID:** 16750207 **Witness:** [illegible] 12/16/09

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet Dry Aliquot (g l f)	Pu Det #
242754001-1	CAPA-10-6797	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	09-DEC-09	1	1	0.800	71
242754002-1	CAPA-10-6800	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	09-DEC-09	2	2	0.800	72
242754003-1	CAPA-10-6901	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	09-DEC-09	3	3	0.800	74
242789002-1	CAPA-10-6758	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	10-DEC-09	4	4	0.800	76
1201995084-1	MB for batch 932637	MB		.05 pCi/L	GROUND WATE	QC ACCOUNT		5	5	0.800	96
1201995085-1	CAPA-10-6800(242754002DUP)	DUP		.05 pCi/L	GROUND WATE	QC ACCOUNT	09-DEC-09	6	6	0.800	97
1201995086-1	LCS for batch 932637	LCS		.05 pCi/L	GROUND WATE	QC ACCOUNT		7	7	0.800	100

12/21/09

Choose SOP Used: GL-RAD-A-011
GL-RAD-A-045
GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One N/A

Data Reviewed By: [illegible] 12/21/09

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 932637

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1201995085	DUP	Plutonium-238	0.800 L	0.0071	0.00977	0.0347	-.007025	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00473	0.0067	0.0374	-.00000000	pCi/L	NO
1201995086	LCS	Plutonium-238	1.00 L	0.00894	0.00475	0.0262	-.00562	pCi/L	NO
		Plutonium-239/240	1.00 L	2.23	0.133	0.0282	-.00000000	pCi/L	NO
1201995084	MB	Plutonium-238	1.00 L	-0.00562	0.00675	0.0275	-.00562	pCi/L	NO
		Plutonium-239/240	1.00 L	-8.93E-10	0.0053	0.0296	-.00000000	pCi/L	NO
242754001	CAPA-10-6797	Plutonium-238	0.800 L	0.0038	0.0101	0.0279	-.007025	pCi/L	NO
		Plutonium-239/240	0.800 L	0.0076	0.00539	0.030	-.00000000	pCi/L	NO
242754002	CAPA-10-6800	Plutonium-238	0.800 L	0.0138	0.0113	0.0289	-.007025	pCi/L	NO
		Plutonium-239/240	0.800 L	-0.0059	0.00521	0.0311	-.00000000	pCi/L	YES
242754003	CAPA-10-6901	Plutonium-238	0.800 L	0.00	0.00429	0.0315	-.007025	pCi/L	NO
		Plutonium-239/240	0.800 L	-0.00429	0.00525	0.0338	-.00000000	pCi/L	YES
242789002	CAPA-10-6758	Plutonium-238	0.800 L	0.00633	0.00473	0.0309	-.007025	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00	0.00517	0.0333	-.00000000	pCi/L	NO

JDM 12/22/03

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 932637 SAMPLE DATE : 9-DEC-2009 00:00:00.	SAMPLE ID : S0242754001_PU SAMPLE QTY: 0.800 L
DETECTOR NUMBER :64259 AVERAGE %EFFICIENCY :31.7421 % YIELD : 93.429	COUNT DATE:19-DEC-2009 10:00:35 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0338-BB ISOTOPE : PU-9/0 PCI/L : 2.836E+00	ID : 0338-BB ISOTOPE : PU-9/0 PCI/L : 2.836E+00	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.16299 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B071.CNF;1081 BKG DATE : 13-DEC-2009 EFF FILE : W071.CNF;282 CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-9/0	5155.000	6.000	4.000	2.000	2.8102	99.90000	7.60E-03	5.39E-03	1.24E-02	3.00E-02	5.38E-03
PU-236	5749.000	8.000	-4.000	12.000	3.4259	100.0000	-7.65E-03	8.55E-03	1.51E-02	3.54E-02	8.55E-03
PU-238	5499.000	15.000	2.000	13.000	2.5715	99.90000	3.80E-03	1.01E-02	1.14E-02	2.79E-02	1.01E-02
PU242	4890.000	1012.000	1004.000	8.000	2.8284	100.0000	1.91E+00	1.14E-01	1.25E-02	3.01E-02	6.06E-02
PU-244	4589.000	5.000	5.000	0.000	6.1055	99.90000	9.50E-03	4.28E-03	2.70E-02	5.91E-02	4.25E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

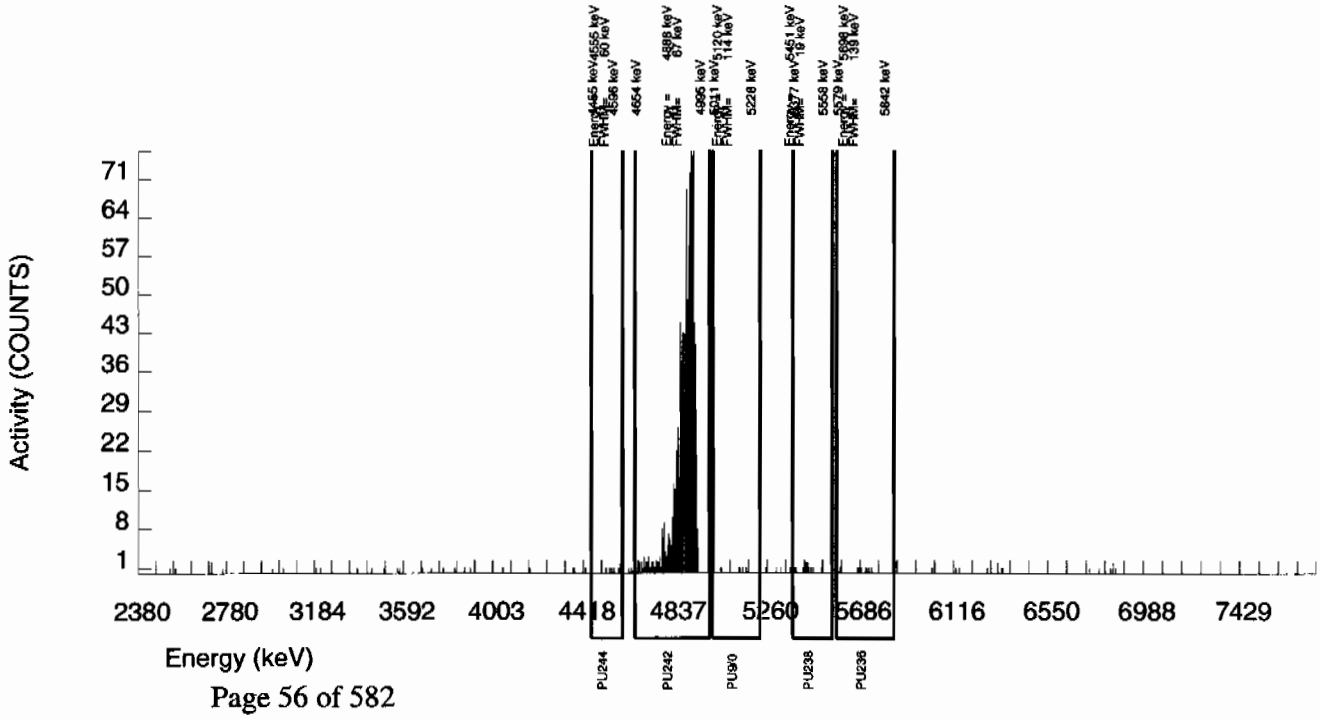

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 932637 SAMPLE DATE : 9-DEC-2009 00:00:00.	SAMPLE ID : S0242754002_PU SAMPLE QTY: 0.800 L
DETECTOR NUMBER :45-149AA3 AVERAGE %EFFICIENCY :32.2571 % YIELD : 88.824	COUNT DATE:19-DEC-2009 10:00:35 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0338-BB ISOTOPE : PU-9/0 PCI/L : 2.836E+00	ID : 0338-BB ISOTOPE : PU-9/0 PCI/L : 2.836E+00	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 3.00708 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B072.CNF;1079 BKG DATE : 13-DEC-2009 EFF FILE : W072.CNF;273 CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-9/0	5155.000	2.000	-3.000	5.000	2.8102	99.90000	-5.90E-03	5.21E-03	1.29E-02	3.11E-02	5.20E-03
PU-236	5749.000	14.000	7.000	7.000	3.4259	100.0000	1.39E-02	9.10E-03	1.57E-02	3.67E-02	9.07E-03
PU-238	5499.000	20.000	7.000	13.000	2.5715	99.90000	1.38E-02	1.13E-02	1.18E-02	2.89E-02	1.13E-02
PU242	4890.000	980.000	970.000	10.000	3.1623	100.0000	1.91E+00	1.16E-01	1.45E-02	3.42E-02	6.18E-02
PU-244	4589.000	6.000	6.000	0.000	6.1055	99.90000	1.18E-02	4.86E-03	2.79E-02	6.12E-02	4.82E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

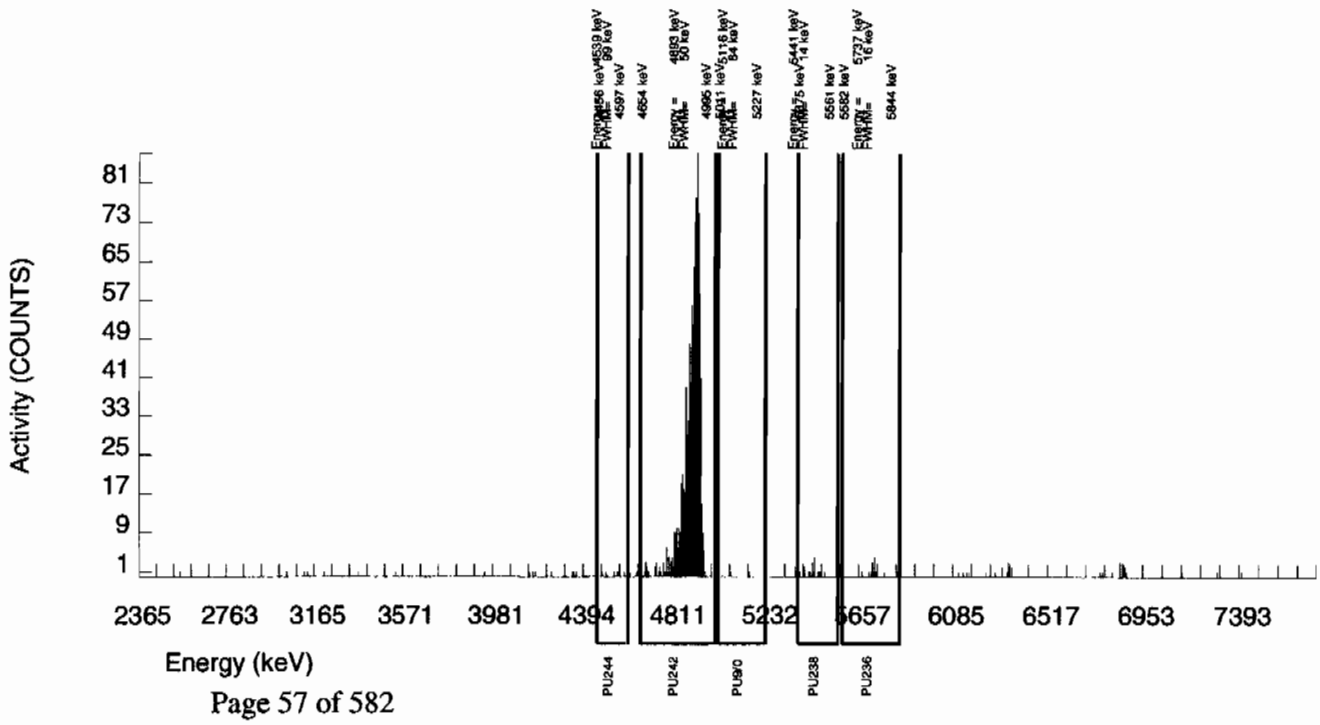

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 932637 SAMPLE DATE : 9-DEC-2009 00:00:00.	SAMPLE ID : S0242754003_PU SAMPLE QTY: 0.800 L
DETECTOR NUMBER :78266 AVERAGE %EFFICIENCY :31.6766 % YIELD : 82.992	COUNT DATE:19-DEC-2009 10:00:35 ELAPSED LIVE TIME(SEC): 59999.99 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0338-BB	ID : 0338-BB	ID : 1374-A	LIB FILE : ENV_ALPHA_PU.N
ISOTOPE : PU-9/0	ISOTOPE : PU-9/0	ISOTOPE : PU242	BKG FILE : B074.CNF;1103
PCI/L : 2.836E+00	PCI/L : 2.836E+00	NOMINAL : 3.38543 dpm	BKG DATE : 13-DEC-2009
		RESULTS : 2.80964 dpm	EFF FILE : W074.CNF;328
			CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-9/0	5155.000	2.000	-2.000	4.000	2.8102	99.90000	-4.29E-03	5.25E-03	1.40E-02	3.38E-02	5.25E-03
PU-236	5749.000	3.000	-1.000	4.000	3.4259	100.0000	-2.16E-03	5.71E-03	1.71E-02	3.99E-02	5.71E-03
PU-238	5499.000	2.000	0.000	2.000	2.5715	99.90000	0.00E+00	4.29E-03	1.28E-02	3.15E-02	4.29E-03
PU242	4890.000	897.000	890.000	7.000	2.6458	100.0000	1.91E+00	1.18E-01	1.32E-02	3.22E-02	6.44E-02
PU-244	4589.000	2.000	1.000	1.000	6.1055	99.90000	2.14E-03	3.72E-03	3.05E-02	6.67E-02	3.71E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

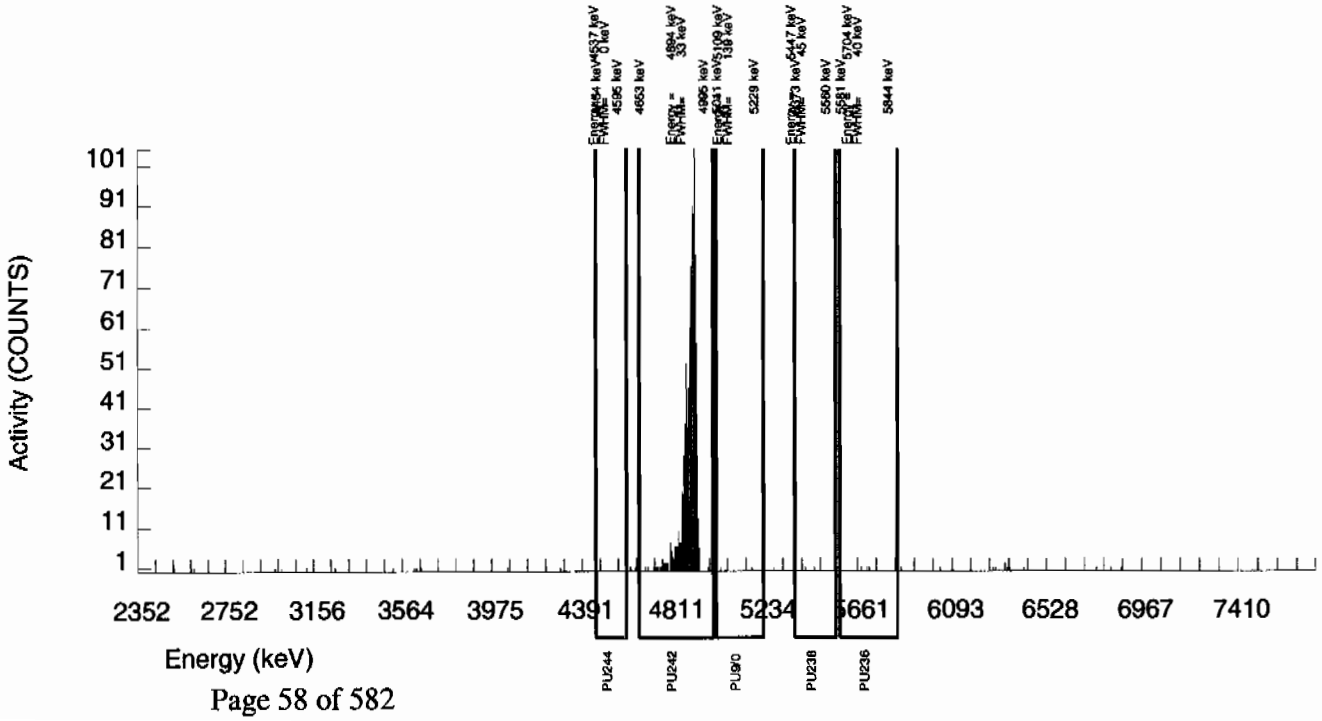

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 932637 SAMPLE DATE : 16-DEC-2009 00:00:00	SAMPLE ID : S1201995084_PU SAMPLE QTY: 1.000 L
DETECTOR NUMBER :67605 AVERAGE %EFFICIENCY :30.7688 % YIELD : 78.241	COUNT DATE:19-DEC-2009 10:00:36 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0338-BB ISOTOPE : PU-9/0 PCI/L : 2.269E+00	ID : 0338-BB ISOTOPE : PU-9/0 PCI/L : 2.269E+00	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 2.64879 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B096.CNF;658 BKG DATE : 13-DEC-2009 EFF FILE : W096.CNF;171 CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-9/0	5155.000	4.000	0.000	4.000	2.8102	99.90000	-8.93E-10	5.30E-03	1.22E-02	2.96E-02	5.30E-03
PU-236	5749.000	3.000	-3.000	6.000	3.4259	100.0000	-5.63E-03	5.63E-03	1.49E-02	3.49E-02	5.63E-03
PU-238	5499.000	5.000	-3.000	8.000	2.5715	99.90000	-5.62E-03	6.75E-03	1.12E-02	2.75E-02	6.75E-03
PU242	4890.000	817.000	815.000	2.000	1.4142	100.0000	1.52E+00	9.70E-02	6.16E-03	1.74E-02	5.35E-02
PU-244	4589.000	5.000	4.000	1.000	6.1055	99.90000	7.49E-03	4.61E-03	2.66E-02	5.83E-02	4.59E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

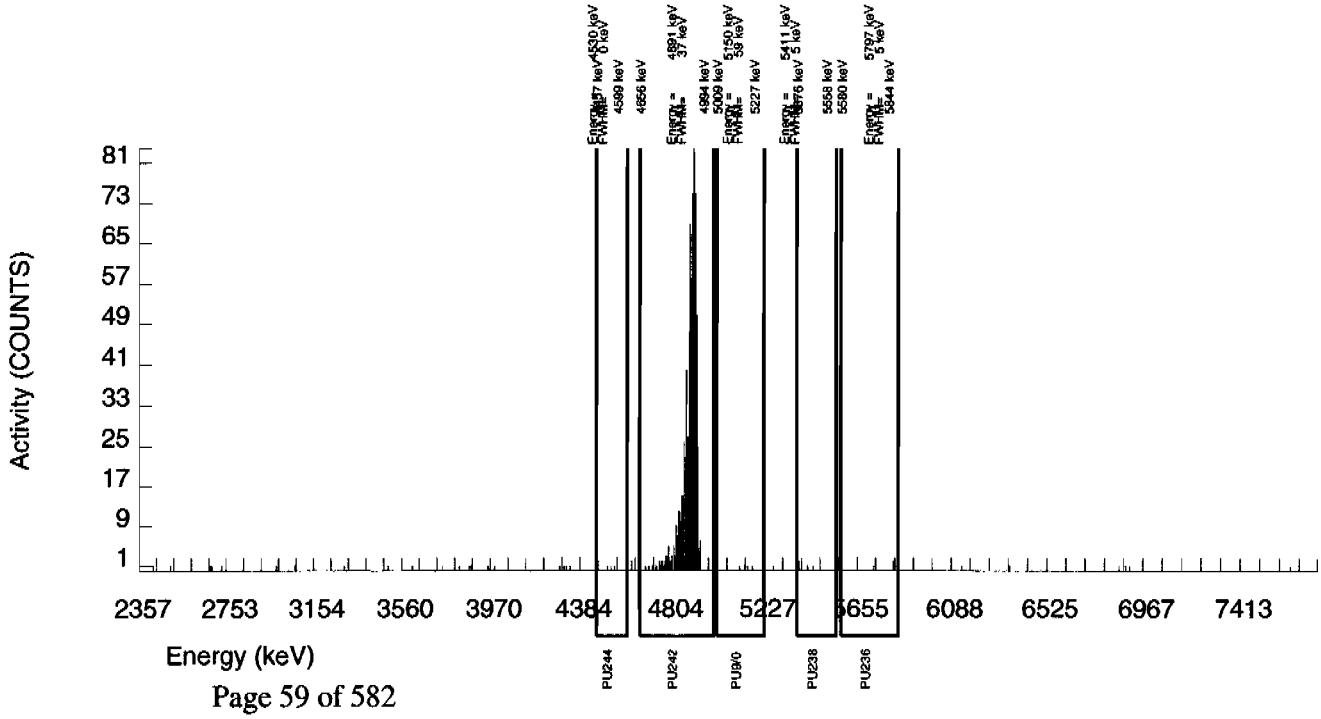

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 932637 SAMPLE DATE : 9-DEC-2009 00:00:00.	SAMPLE ID : S1201995085_PU SAMPLE QTY: 0.800 L
DETECTOR NUMBER :67599 AVERAGE %EFFICIENCY :34.4140 % YIELD : 69.181	COUNT DATE:19-DEC-2009 10:00:36 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0338-BB	ID : 0338-BB	ID : 1374-A	LIB FILE : ENV_ALPHA_PU.N
ISOTOPE : PU-9/0	ISOTOPE : PU-9/0	ISOTOPE : PU242	BKG FILE : B097.CNF;655
PCI/L : 2.836E+00	PCI/L : 2.836E+00	NOMINAL : 3.38543 dpm	BKG DATE : 13-DEC-2009
		RESULTS : 2.34207 dpm	EFF FILE : W097.CNF;189
			CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-9/0	5155.000	5.000	2.000	3.000	2.8102	99.90000	4.73E-03	6.70E-03	1.55E-02	3.74E-02	6.70E-03
PU-236	5749.000	8.000	3.000	5.000	3.4259	100.0000	7.15E-03	8.60E-03	1.88E-02	4.41E-02	8.59E-03
PU-238	5499.000	10.000	3.000	7.000	2.5715	99.90000	7.10E-03	9.77E-03	1.42E-02	3.47E-02	9.76E-03
PU242	4890.000	810.000	806.000	4.000	2.0000	100.0000	1.91E+00	1.22E-01	1.10E-02	2.84E-02	6.75E-02
PU-244	4589.000	2.000	-1.000	3.000	6.1055	99.90000	-2.37E-03	5.30E-03	3.36E-02	7.37E-02	5.29E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

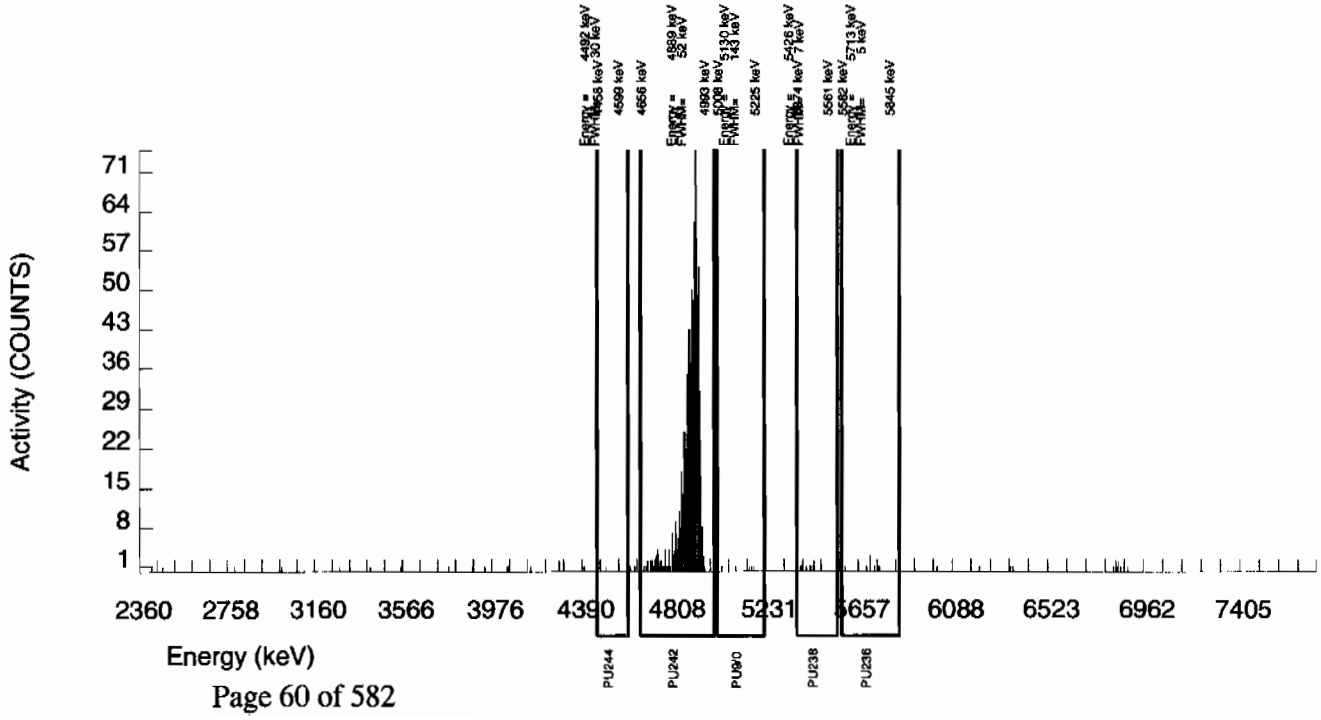

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 932637 SAMPLE DATE : 16-DEC-2009 00:00:00	SAMPLE ID : S1201995086_PU SAMPLE QTY: 1.000 L
DETECTOR NUMBER :79456 AVERAGE %EFFICIENCY :34.3138 % YIELD : 73.515	COUNT DATE:19-DEC-2009 10:00:36 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 0338-BB ISOTOPE : PU-9/0 PCI/L : 2.269E+00	ID : 0338-BB ISOTOPE : PU-9/0 PCI/L : 2.269E+00	ID : 1374-A ISOTOPE : PU242 NOMINAL : 3.38543 dpm RESULTS : 2.48879 dpm	LIB FILE : ENV_ALPHA_PU.N BKG FILE : B100.CNF;659 BKG DATE : 13-DEC-2009 EFF FILE : W100.CNF;197 CAL DATE : 10-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-9/0	5155.000	1250.000	1250.000	0.000	2.8102	99.90000	2.23E+00	1.33E-01	1.17E-02	2.82E-02	6.32E-02
PU-236	5749.000	3.000	2.000	1.000	3.4259	100.0000	3.58E-03	3.59E-03	1.42E-02	3.33E-02	3.58E-03
PU-238	5499.000	6.000	5.000	1.000	2.5715	99.90000	8.94E-03	4.75E-03	1.07E-02	2.62E-02	4.73E-03
PU242	4890.000	856.000	854.000	2.000	1.4142	100.0000	1.52E+00	9.56E-02	5.87E-03	1.66E-02	5.23E-02
PU-244	4589.000	6.000	5.000	1.000	6.1055	99.90000	8.94E-03	4.75E-03	2.54E-02	5.56E-02	4.73E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of PU242 calculated as sqrt(BKG AREA)

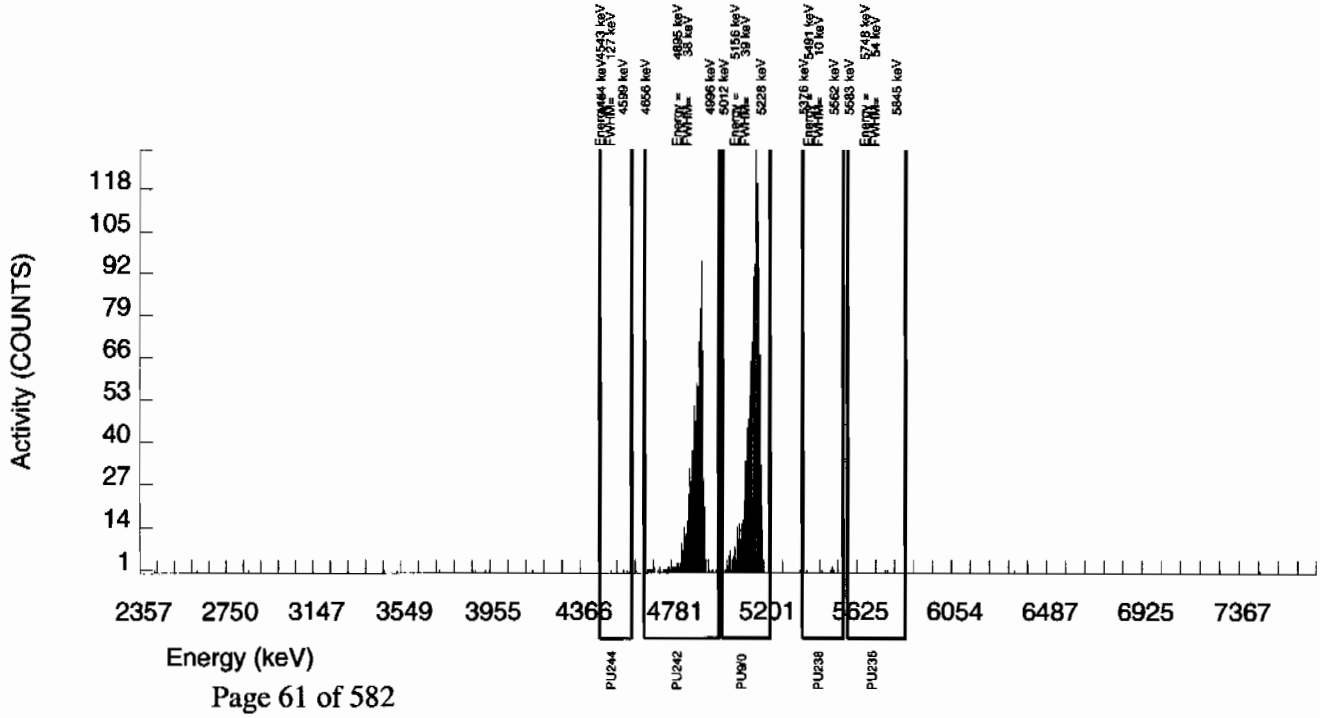

Radiochemistry Batch Checklist, Rev 9

Batch# 932638 Product: U Date: 12/21/09

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125%. Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			NA
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			NA
Batch non-conformances second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analyses.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Denise Green 12/21/09

Secondary Review Performed By: [illegible] 12/22/09

1/10

Uranium Que Sheet

15-DEC-09

Batch #: 932638 Analyst: MXE1 First Client Due Date:10-JAN-10 Internal Due Date:30-DEC-09

Tracer Isotope: U-232/U-236 Tracer Code: 1283-E Expiration Date: 1-15-10 Vol: 0.1ml

LCS Isotope: U-238 LCS Code: 1163-G Expiration Date: 4-16-10 Vol: 0.1ml

Spike Isotope: U-238 Spike Code: — Expiration Date: — Vol: —

Prep Date: 12-16-09 Initials: KM Pipet ID: 2971058 Balance ID: 16750207 Witness: 12/16/09

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l)	U Det #
242754001-1	CAPA-10-6797	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	09-DEC-09	1	1	0.800	113
242754002-1	CAPA-10-6800	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	09-DEC-09	2	2	0.800	114
242754003-1	CAPA-10-6901	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	09-DEC-09	3	3	0.800	115
242789002-1	CAPA-10-6758	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	10-DEC-09	4	4	0.800	116
1201995087-1	MB for batch 932638	MB		.5 pCi/L	GROUND WATER	QC ACCOUNT		5	5 1.0	~~0.800~~	117
1201995088-1	CAPA-10-6800(242754002DUP)	DUP		.5 pCi/L	GROUND WATER	QC ACCOUNT	09-DEC-09	6	6	0.800	118
1201995089-1	LCS for batch 932638	LCS		.5 pCi/L	GROUND WATER	QC ACCOUNT		7	7 1.0	~~0.800~~	132

DG 12/21/09

Choose SOP used: GL-RAD-A-011
GL-RAD-A-038
GL-RAD-A-045
GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION
Circle One N/A

Data Reviewed By: 12/21/09

GEL Laboratories LLC, Radiochemistry Division

Blank Correction Report

Batch ID 932638

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1201995088	DUP	Uranium-233/234	0.800 L	0.282	0.034	0.0891	.00475	pCi/L	NO
		Uranium-235/236	0.800 L	0.0101	0.00585	0.0466	.0095625	pCi/L	YES
		Uranium-238	0.800 L	0.119	0.0209	0.0556	.002575	pCi/L	NO
1201995089	LCS	Uranium-233/234	1.00 L	2.55	0.193	0.0685	.0038	pCi/L	NO
		Uranium-235/236	1.00 L	0.147	0.0223	0.0358	.00765	pCi/L	NO
		Uranium-238	1.00 L	2.47	0.188	0.0428	.00206	pCi/L	NO
1201995087	MB	Uranium-233/234	1.00 L	0.0038	0.00405	0.0677	.0038	pCi/L	YES
		Uranium-235/236	1.00 L	0.00765	0.00445	0.0354	.00765	pCi/L	YES
		Uranium-238	1.00 L	0.00206	0.00461	0.0423	.00206	pCi/L	YES
242754001	CAPA-10-6797	Uranium-233/234	0.800 L	0.240	0.0318	0.094	.00475	pCi/L	NO
		Uranium-235/236	0.800 L	0.00	0.00355	0.0492	.0095625	pCi/L	YES
		Uranium-238	0.800 L	0.109	0.0193	0.0587	.002575	pCi/L	NO
242754002	CAPA-10-6800	Uranium-233/234	0.800 L	0.266	0.0337	0.0948	.00475	pCi/L	NO
		Uranium-235/236	0.800 L	0.0143	0.00721	0.0496	.0095625	pCi/L	YES
		Uranium-238	0.800 L	0.147	0.0235	0.0592	.002575	pCi/L	NO
242754003	CAPA-10-6901	Uranium-233/234	0.800 L	0.00296	0.00298	0.0975	.00475	pCi/L	YES
		Uranium-235/236	0.800 L	0.00	0.00368	0.051	.0095625	pCi/L	YES
		Uranium-238	0.800 L	0.00594	0.00595	0.0609	.002575	pCi/L	YES
242789002	CAPA-10-6758	Uranium-233/234	0.800 L	0.0153	0.00922	0.100	.00475	pCi/L	YES
		Uranium-235/236	0.800 L	0.00377	0.00653	0.0524	.0095625	pCi/L	YES
		Uranium-238	0.800 L	0.0305	0.0108	0.0625	.002575	pCi/L	NO

DM 12/22/08

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 932638 SAMPLE DATE : 9-DEC-2009 00:00:00.	SAMPLE ID : S0242754001_UU SAMPLE QTY: 0.800 L
DETECTOR NUMBER :45-111B4 AVERAGE %EFFICIENCY :24.8555 % YIELD : 79.129	COUNT DATE:19-DEC-2009 09:19:48 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 1163-G ISOTOPE : U-238 PCI/L : 3.149E+00	ID : 1163-G ISOTOPE : U-238 PCI/L : 3.149E+00	ID : 1283-E ISOTOPE : U232 NOMINAL : 5.24358 dpm RESULTS : 4.14919 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B113.CNF;420 BKG DATE : 13-DEC-2009 EFF FILE : W113.CNF;121 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U-3/4	4763.020	87.000	83.958	2.000	6.4732	100.0000	2.40E-01	3.18E-02	4.31E-02	9.40E-02	2.68E-02
U232	5302.100	1033.000	1031.000	2.000	1.4142	100.0000	2.95E+00	2.28E-01	9.42E-03	2.66E-02	9.21E-02
U-235	4391.000	0.000	0.000	0.000	2.4030	80.90000	0.00E+00	3.55E-03	1.98E-02	4.92E-02	3.54E-03
U-238	4184.730	38.000	38.000	0.000	3.8252	100.0000	1.09E-01	1.93E-02	2.55E-02	5.87E-02	1.76E-02

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

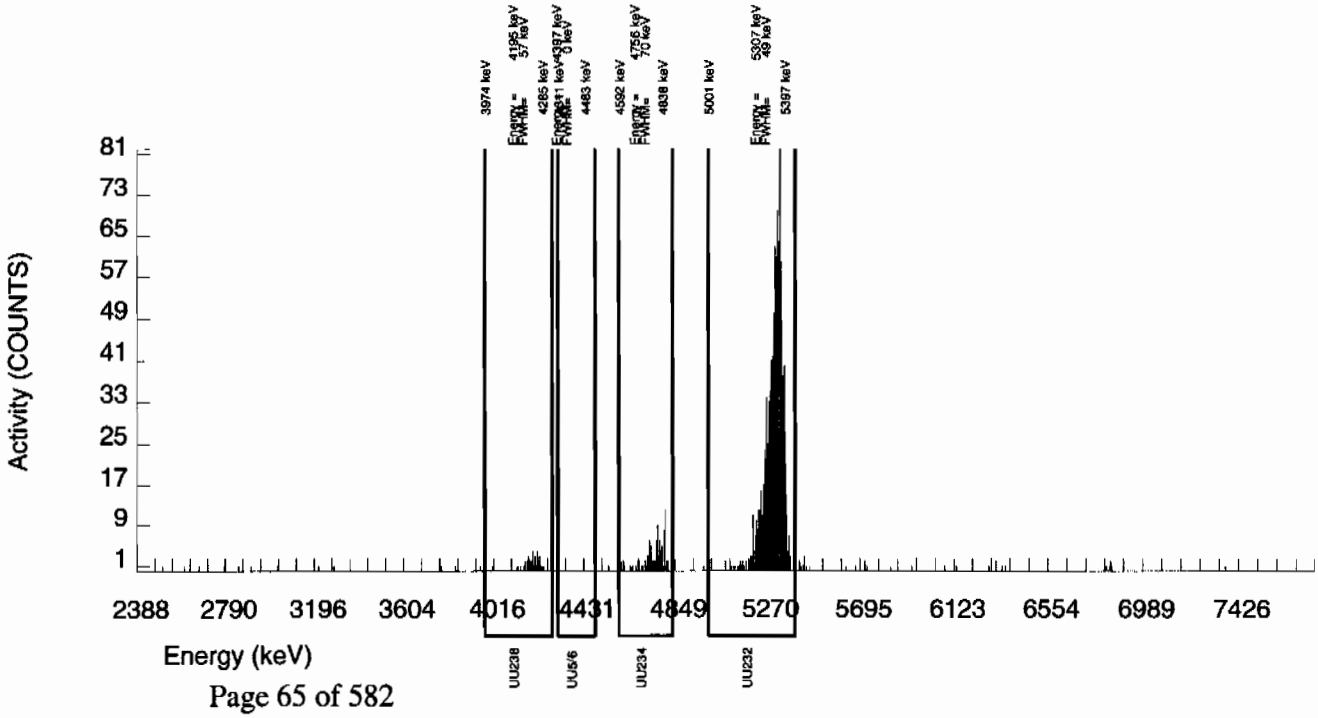

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 932638 SAMPLE DATE : 9-DEC-2009 00:00:00.	SAMPLE ID : S0242754002_UU SAMPLE QTY: 0.800 L
DETECTOR NUMBER :78258 AVERAGE %EFFICIENCY :25.4498 % YIELD : 76.607	COUNT DATE:19-DEC-2009 09:19:50 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 1163-G ISOTOPE : U-238 PCI/L : 3.149E+00	ID : 1163-G ISOTOPE : U-238 PCI/L : 3.149E+00	ID : 1283-E ISOTOPE : U232 NOMINAL : 5.24358 dpm RESULTS : 4.01693 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B114.CNF;421 BKG DATE : 13-DEC-2009 EFF FILE : W114.CNF;117 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U-3/4	4763.020	94.000	91.967	1.000	6.4732	100.0000	2.66E-01	3.37E-02	4.35E-02	9.48E-02	2.80E-02
U232	5302.100	1022.000	1022.000	0.000	0.0000	100.0000	2.95E+00	2.28E-01	0.00E+00	7.83E-03	9.24E-02
U-235	4391.000	4.000	4.000	0.000	2.4030	80.90000	1.43E-02	7.21E-03	2.00E-02	4.96E-02	7.14E-03
U-238	4184.730	52.000	51.000	1.000	3.8252	100.0000	1.47E-01	2.35E-02	2.57E-02	5.92E-02	2.10E-02

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

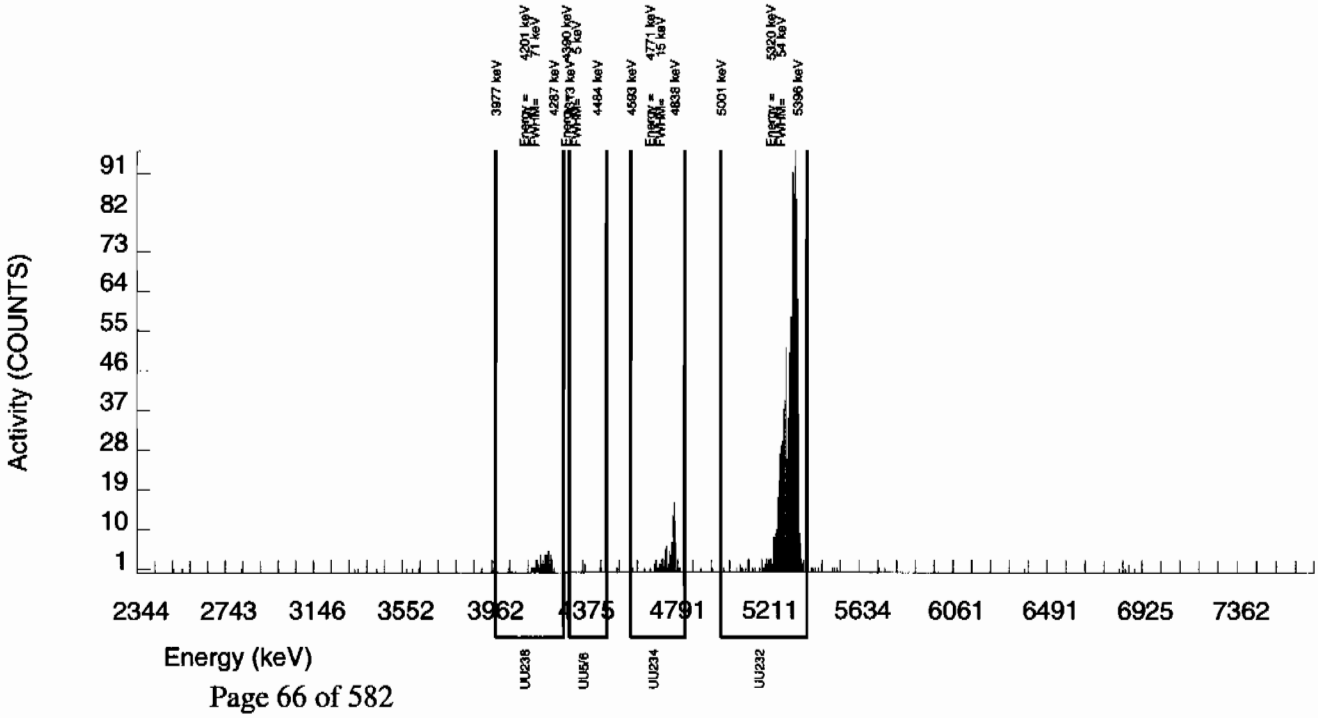

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 932638 SAMPLE DATE : 9-DEC-2009 00:00:00.	SAMPLE ID : S0242754003_UU SAMPLE QTY: 0.800 L
DETECTOR NUMBER :79995 AVERAGE %EFFICIENCY :25.5238 % YIELD : 74.292	COUNT DATE:19-DEC-2009 09:19:54 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 1163-G ISOTOPE : U-238 PCI/L : 3.149E+00	ID : 1163-G ISOTOPE : U-238 PCI/L : 3.149E+00	ID : 1283-E ISOTOPE : U232 NOMINAL : 5.24358 dpm RESULTS : 3.89556 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B115.CNF;428 BKG DATE : 13-DEC-2009 EFF FILE : W115.CNF;145 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U-3/4	4763.020	2.000	0.996	0.000	6.4732	100.0000	2.96E-03	2.98E-03	4.47E-02	9.75E-02	2.97E-03
U232	5302.100	995.000	994.000	1.000	1.0000	100.0000	2.95E+00	2.29E-01	6.91E-03	2.19E-02	9.37E-02
U-235	4391.000	0.000	0.000	0.000	2.4030	80.90000	0.00E+00	3.68E-03	2.05E-02	5.10E-02	3.67E-03
U-238	4184.730	3.000	2.000	1.000	3.8252	100.0000	5.94E-03	5.95E-03	2.64E-02	6.09E-02	5.94E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

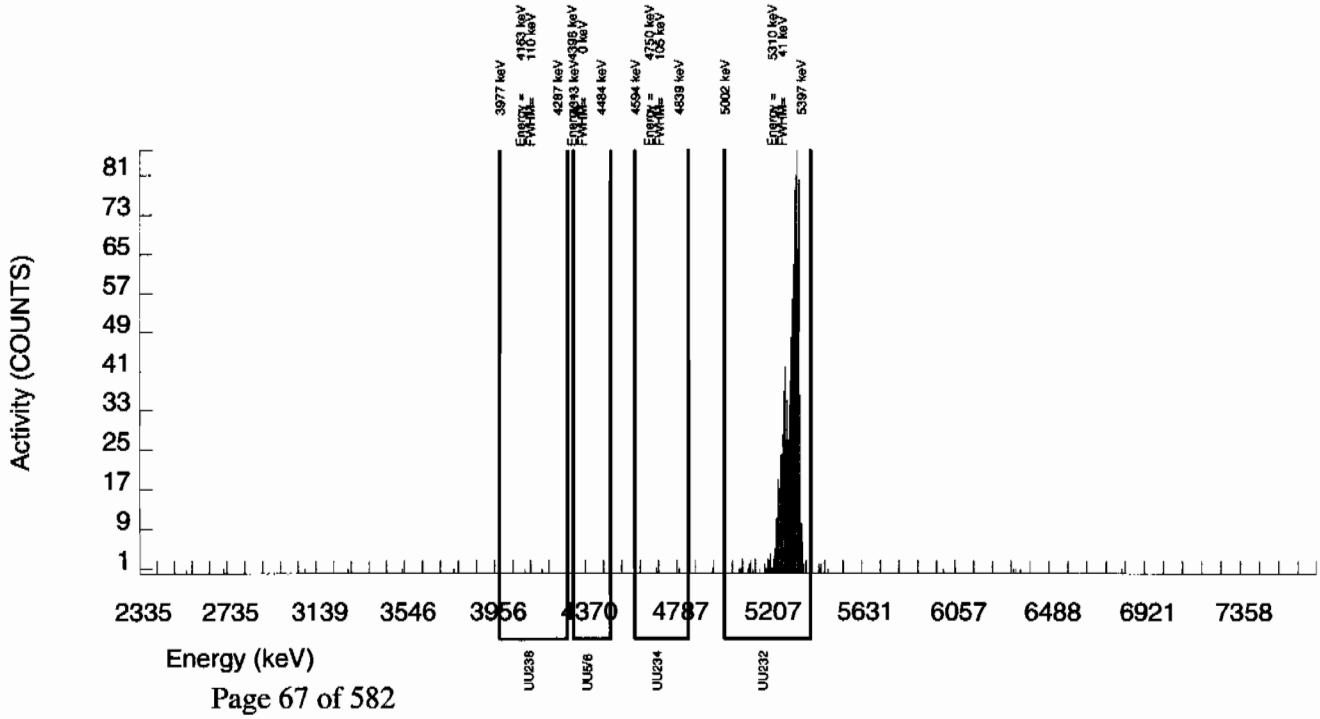

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 932638 SAMPLE DATE : 16-DEC-2009 00:00:00	SAMPLE ID : S1201995087_UU SAMPLE QTY: 1.000 L
DETECTOR NUMBER :33450 AVERAGE %EFFICIENCY :25.1810 % YIELD : 86.742	COUNT DATE:19-DEC-2009 09:19:59 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 1163-G ISOTOPE : U-238 PCI/L : 2.519E+00	ID : 1163-G ISOTOPE : U-238 PCI/L : 2.519E+00	ID : 1283-E ISOTOPE : U232 NOMINAL : 5.24257 dpm RESULTS : 4.54754 dpm	LIB FILE : ENV_ALPHA_UU.N BKG FILE : B117.CNF;425 BKG DATE : 13-DEC-2009 EFF FILE : W117.CNF;117 CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U-3/4	4763.020	4.000	1.843	1.000	6.4732	100.0000	3.80E-03	4.05E-03	3.11E-02	6.77E-02	4.04E-03
U232	5302.100	1156.000	1145.000	11.000	3.3166	100.0000	2.36E+00	1.80E-01	1.59E-02	3.74E-02	7.05E-02
U-235	4391.000	3.000	3.000	0.000	2.4030	80.90000	7.65E-03	4.45E-03	1.43E-02	3.54E-02	4.42E-03
U-238	4184.730	3.000	1.000	2.000	3.8252	100.0000	2.06E-03	4.61E-03	1.84E-02	4.23E-02	4.61E-03

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

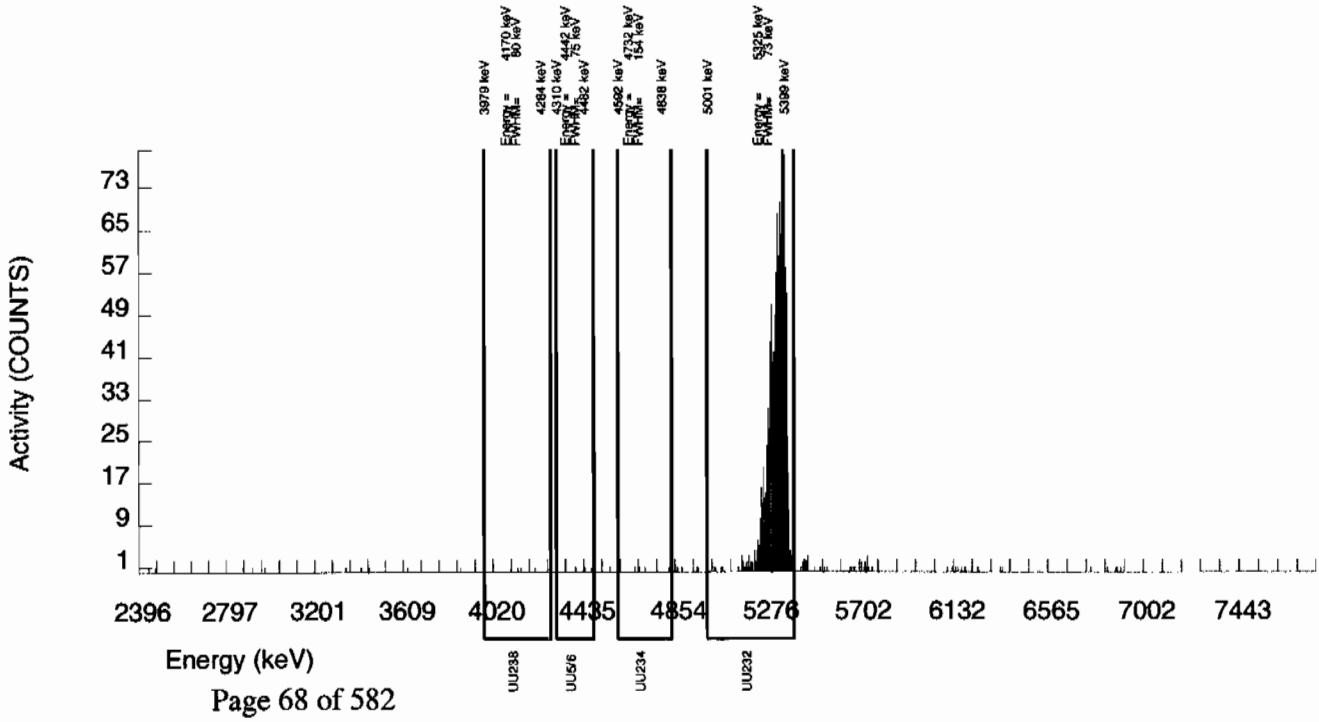

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 932638 SAMPLE DATE : 9-DEC-2009 00:00:00.	SAMPLE ID : S1201995088_UU SAMPLE QTY: 0.800 L
DETECTOR NUMBER :75544 AVERAGE %EFFICIENCY :25.5808 % YIELD : 81.136	COUNT DATE:19-DEC-2009 09:20:01 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 1163-G	ID : 1163-G	ID : 1283-E	LIB FILE : ENV_ALPHA_UU.N
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG FILE : B118.CNF;424
PCI/L : 3.149E+00	PCI/L : 3.149E+00	NOMINAL : 5.24358 dpm	BKG DATE : 13-DEC-2009
		RESULTS : 4.25444 dpm	EFF FILE : W118.CNF;114
			CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U-3/4	4763.020	105.000	103.901	0.000	6.4732	100.0000	2.82E-01	3.40E-02	4.09E-02	8.91E-02	2.77E-02
U232	5302.100	1095.000	1088.000	7.000	2.6458	100.0000	2.95E+00	2.26E-01	1.67E-02	4.07E-02	9.01E-02
U-235	4391.000	3.000	3.000	0.000	2.4030	80.90000	1.01E-02	5.85E-03	1.87E-02	4.66E-02	5.81E-03
U-238	4184.730	47.000	44.000	3.000	3.8252	100.0000	1.19E-01	2.09E-02	2.41E-02	5.56E-02	1.92E-02

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

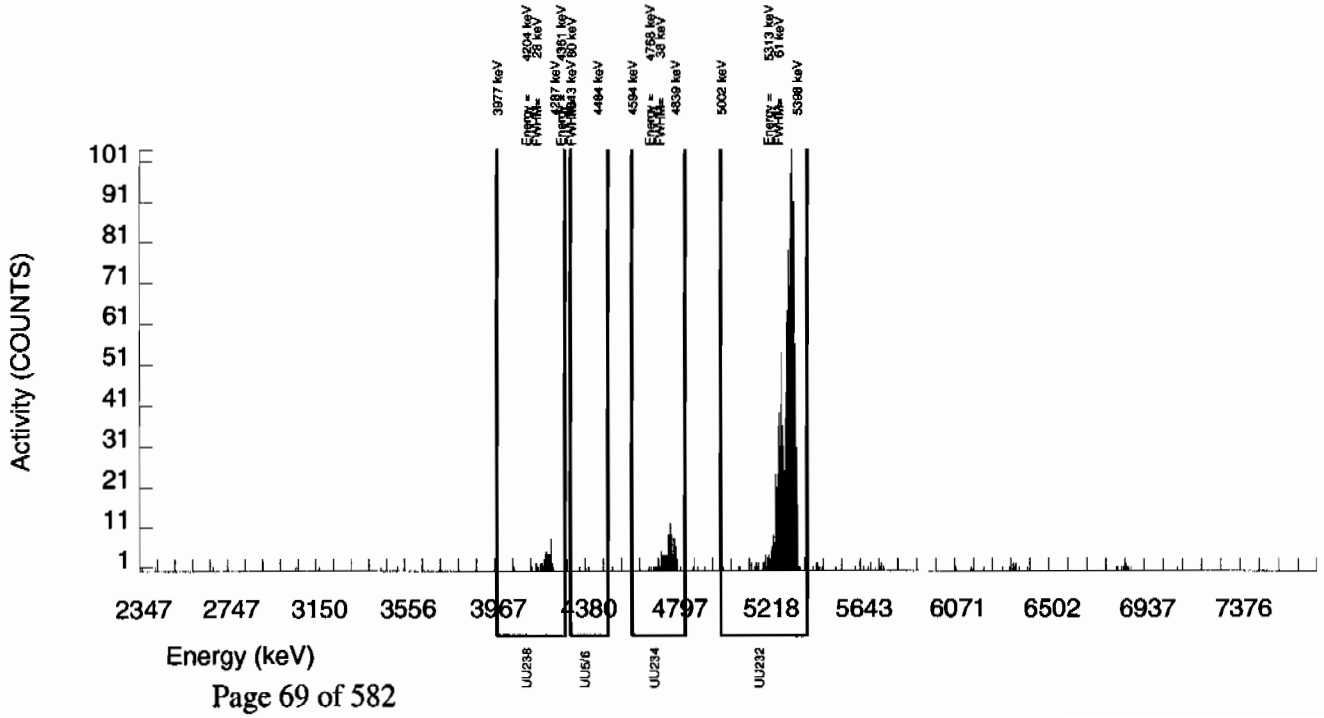

Alpha Spectroscopy Software Version 2.0
effective date: 09-Mar-1997

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER: 932638 SAMPLE DATE : 16-DEC-2009 00:00:00	SAMPLE ID : S1201995089_UU SAMPLE QTY: 1.000 L
DETECTOR NUMBER :67579 AVERAGE %EFFICIENCY :24.9541 % YIELD : 86.461	COUNT DATE:19-DEC-2009 09:20:04 ELAPSED LIVE TIME(SEC): 60000.00 ANALYST :MXE1

MS/MSD	LCS/LCSD	TRACER	
ID : 1163-G	ID : 1163-G	ID : 1283-E	LIB FILE : ENV_ALPHA_UU.N
ISOTOPE : U-238	ISOTOPE : U-238	ISOTOPE : U232	BKG FILE : B132.CNF;416
PCI/L : 2.519E+00	PCI/L : 2.519E+00	NOMINAL : 5.24257 dpm	BKG DATE : 13-DEC-2009
		RESULTS : 4.53278 dpm	EFF FILE : W132.CNF;128
			CAL DATE : 15-DEC-2009

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	ENERGY	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U-3/4	4763.020	1221.000	1219.857	0.000	6.4732	100.0000	2.55E+00	1.93E-01	3.14E-02	6.85E-02	7.29E-02
U232	5302.100	1133.000	1131.000	2.000	1.4142	100.0000	2.36E+00	1.80E-01	6.87E-03	1.94E-02	7.03E-02
U-235	4391.000	58.000	57.000	1.000	2.4030	80.90000	1.47E-01	2.23E-02	1.44E-02	3.58E-02	1.98E-02
U-238	4184.730	1187.000	1185.000	2.000	3.8252	100.0000	2.47E+00	1.88E-01	1.86E-02	4.28E-02	7.20E-02

NOTE: Sg calculated via blank population (updated 1-DEC-2009)
NOTE: Sg of U232 calculated as sqrt(BKG AREA)
NOTE: Corrections made to U-3/4 net area due to tracer impurity

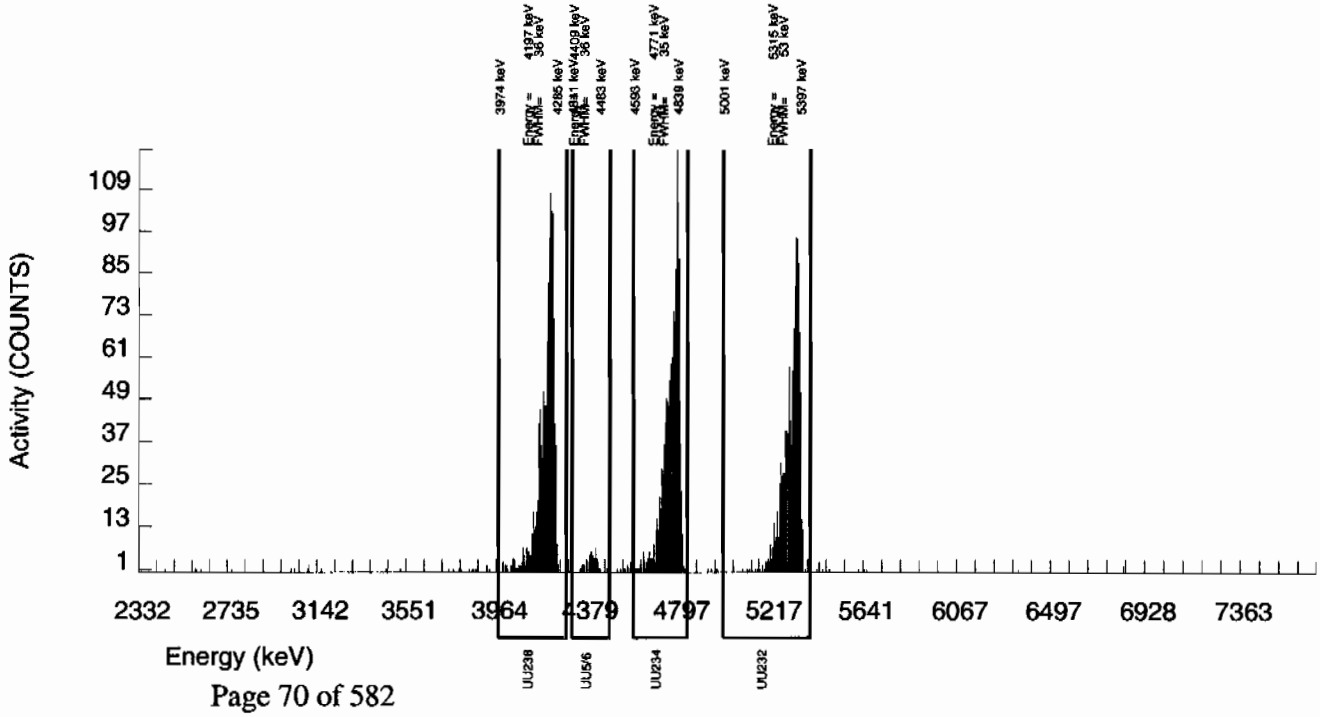

Radiochemistry Batch Checklist, Rev 9

Batch# 933232 Product: Gamma Liquid LANL Date: 12/23/09

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.	✓		
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: [illegible] 12/23/09

Secondary Review Performed By: [illegible] 12/28/09

1/9/2010

Gamma Spec Que Sheet

12/15/2009

Batch #:933232 Analyst: KXG3 First Client DueDate01/09/2010 Internal Due Date: 12/29/2009

Gamma Spike Isotope: Mixed Gamma Spike Code: na Expiration Date: na Vol: na Nominal Concentration: na

Gamma LCS Isotope: Mixed Gamma LCS Code: 1032-A Expiration Date: 12/2/10 Vol: 1.0mL Nominal Concentration: Cs137-433.6 Co60-507.1

Initials: KXG Prep Date: 12/15/09 Library: Liquid Witness: Am241-1236 Gross Gamma-2177

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date		Geometry	Wet/Dry Aliquot (W/D/g/F)	Detector	Sealing Date/Time (if Applicable)	
242653002-1	CAPA-10-6813	SAMPLE		LANL010	GROUND WATER	07-DEC-09 12:00:00	1	2LMB	2	11		
242667002-1	CAPA-10-6816	SAMPLE		LANL010	GROUND WATER	09-DEC-09 12:00:00	2		2	16		RF
242754001-1	CAPA-10-6797	SAMPLE		LANL010	GROUND WATER	09-DEC-09 12:00:00	3		2	14		RF
242754002-1	CAPA-10-6800	SAMPLE		LANL010	GROUND WATER	09-DEC-09 12:00:00	4		2	6		RF
242754003-1	CAPA-10-6901	SAMPLE		LANL010	GROUND WATER	09-DEC-09 12:00:00	5		2	8		RF
242789002-1	CAPA-10-6758	SAMPLE		LANL010	GROUND WATER	10-DEC-09 12:00:00	6		2	10		
1201996557-1	MB	MB		QC ACCOUNT	GROUND WATER	12/15/09	7		2	20		
1201996558-1	DUP CAPA-10-6758(242789002)	DUP		QC ACCOUNT	GROUND WATER	10-DEC-09 12:00:00			2	19		RF
1201996559-1	LCS	LCS		QC ACCOUNT	GROUND WATER	12/15/09			2	4		RF

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: 12/23/09

12/28/09

Page 1 of 1

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
933232	242653002	SAMPLE	18-DEC-09		Neptunium-237	10.24	29.47	10.0
					Potassium-40	8.758	64.66	10.0
933232	242667002	SAMPLE	18-DEC-09		Neptunium-237	-5.112	30.04	10.0
					Potassium-40	-44.21	50.19	10.0
933232	242754001	SAMPLE	18-DEC-09		Neptunium-237	-18.28	33.06	10.0
					Potassium-40	6.464	70.8	10.0
933232	242754002	SAMPLE	18-DEC-09		Neptunium-237	-6.878	45.32	10.0
					Potassium-40	16.43	71.2	10.0
933232	242754003	SAMPLE	18-DEC-09		Neptunium-237	2.244	35.88	10.0
					Potassium-40	-10.7	60.14	10.0
933232	242789002	SAMPLE	17-DEC-09		Neptunium-237	11.34	33.73	10.0
					Potassium-40	-15.3	49.05	10.0
933232	1201996557	MB	17-DEC-09		Neptunium-237	-0.9162	17.47	10.0
					Potassium-40	5.781	25.7	10.0
933232	1201996558	DUP	18-DEC-09		Neptunium-237	-17.2	36.35	10.0
					Potassium-40	27.31	76.57	10.0
933232	1201996559	LCS	18-DEC-09		Potassium-40	-8.94	110.5	10.0

Gamma Review Report based on Result > MDA for Batch:933232

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
242653002	07-DEC-09 12:00	18-DEC-09 08:36	10.9	SAMPLE	LOAD	1	LANL	ESHL01000|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Arsenic-74	HE	9.83	5.499	pCi/L	9.039	N	596.5	1	1.023	IDENTIFIED	55.76		
Bismuth-211	HE	45.86	14.08	pCi/L	24.43	N	352.1	1	1.417	IDENTIFIED	30.3		
Iodine-123	HE	1.27E+06	9.95E+05	pCi/L	0	N	0	9	0	SHORT_HLIF	0		
Iodine-135	HE	5.46E+11	3.66E+12	pCi/L	0	N	0	9	0	SHORT_HLIF	0		
Lead-214	HE	15.95	4.916	pCi/L	12.68	N	0	9	0	FAIL_ABUND	0		
Polonium-214	HE	15.95	4.916	pCi/L	12.68	N	0	9	0	FAIL_ABUND	0		
Polonium-218	HE	15.95	4.916	pCi/L	12.68	N	0	9	0	FAIL_ABUND	0		
Rhodium-101	HE	5.919	2.188	pCi/L	5.016	N	0	9	0	FAIL_ABUND	0		
Sodium-24	HE	27990	2.21E+05	pCi/L	0	N	0	9	0	SHORT_HLIF	0		
Technetium-99m		5.46E+13	1.83E+13	pCi/L	0	N	0	9	0	SHORT_HLIF	0		
Zirconium-97		3.83E+06	1.07E+06	pCi/L	0	N	0	9	0	SHORT_HLIF	0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
242667002	09-DEC-09 12:00	18-DEC-09 08:37	8.86	SAMPLE	LOAD	1	LANL	ESHL01000|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Arsenic-74	HE	15.5	5.556	pCi/L	8.212	N	596.9	1	5.719	IDENTIFIED	35.61		
Bismuth-211	int nr	66.22	17.08	pCi/L	25.31	N	352	4	1.389	IDENTIFIED	25.31		
Bismuth-214	HE	15.73	5.108	pCi/L	14.78	N	0	6	0	FAIL_ABUND	0		
Iodine-123	HE	4738	92590	pCi/L	0	N	0	6	0	SHORT_HLIF	0		
Iodine-133	HE	48.57	1399	pCi/L	0	N	0	6	0	SHORT_HLIF	0		
Iodine-135	HE	1.76E+10	2.63E+10	pCi/L	0	N	0	6	0	SHORT_HLIF	0		
Lead-214	nr	23.03	5.97	pCi/L	8.821	N	352	4	1.389	IDENTIFIED	25.31		
Polonium-214	nr	23.03	5.97	pCi/L	8.821	N	352	4	1.389	IDENTIFIED	25.31		
Polonium-218	nr	23.03	5.97	pCi/L	8.821	N	352	4	1.389	IDENTIFIED	25.31		
Sodium-24	HE	476.7	26180	pCi/L	0	N	0	6	0	SHORT_HLIF	0		
Technetium-99m	HE	1.30E+10	5.88E+10	pCi/L	0	N	0	6	0	SHORT_HLIF	0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
242754001	09-DEC-09 12:00	18-DEC-09 08:44	8.86	SAMPLE	LOAD	1	LANL	ESHL01000|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Antimony-122	HE	152.5	52.95	pCi/L	60.13	N	562.7	1	14.18	IDENTIFIED	34.6		
Iodine-133	HE	2363	1479	pCi/L	0	N	0	7	0	SHORT_HLIF	0		
Iodine-135	HE	4.43E+09	2.98E+10	pCi/L	0	N	0	7	0	SHORT_HLIF	0		
Niobium-97	HE	1210	6926	pCi/L	0	N	0	7	0	SHORT_HLIF	0		
Protactinium-227		1.00E+41	0	pCi/L	0	N	0	7	0	SHORT_HLIF	0		
Sodium-24	HE	11020	32650	pCi/L	0	N	0	7	0	SHORT_HLIF	0		

Technetium-99m	HE	1.16E+11	6.09E+10	pCi/L	0	N	0	7	0	SHORT_HLIF	0		
Zirconium-97	HE	2.13E+05	2.33E+05	pCi/L	0	N	0	7	0	SHORT_HLIF	0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
242754002	09-DEC-09 12:00	18-DEC-09 10:12	8.93	SAMPLE	LOAD	1	LANL	ESHL01000|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Iodine-123	HE	1.04E+05	1.27E+05	pCi/L	0	N	0	7	0	SHORT_HLIF	0		
Iodine-133	HE	71.24	2156	pCi/L	0	N	0	7	0	SHORT_HLIF	0		
Iodine-135	HE	4.34E+10	3.70E+10	pCi/L	0	N	0	7	0	SHORT_HLIF	0		
Niobium-97	HE	13250	9469	pCi/L	0	N	0	7	0	SHORT_HLIF	0		
Protactinium-227		1.00E+41	0	pCi/L	0	N	0	7	0	SHORT_HLIF	0		
Technetium-99m	HE	2.31E+10	9.33E+10	pCi/L	0	N	0	7	0	SHORT_HLIF	0		
Thallium-200	HE	36.79	452.6	pCi/L	0	N	0	7	0	SHORT_HLIF	0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
242754003	09-DEC-09 12:00	18-DEC-09 10:13	8.93	SAMPLE	LOAD	1	LANL	ESHL01000|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Iodine-133	HE	2017	1728	pCi/L	0	N	0	6	0	SHORT_HLIF	0		
Iodine-135	HE	2.59E+10	3.27E+10	pCi/L	0	N	0	6	0	SHORT_HLIF	0		
Niobium-97	HE	10730	8646	pCi/L	0	N	0	6	0	SHORT_HLIF	0		
Protactinium-227		1.00E+41	0	pCi/L	0	N	0	6	0	SHORT_HLIF	0		
Sodium-24	HE	18140	27940	pCi/L	0	N	0	6	0	SHORT_HLIF	0		
Technetium-99m	HE	9.66E+10	7.99E+10	pCi/L	0	N	0	6	0	SHORT_HLIF	0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
242789002	10-DEC-09 12:00	17-DEC-09 23:04	7.46	SAMPLE	LOAD	1	LANL	ESHL01000|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Bismuth-211	int nr	131.3	15.43	pCi/L	20.18	N	351.9	1	1.303	IDENTIFIED	11.27		
Bismuth-214	nr	38.86	4.494	pCi/L	6.153	N	609.8	1	1.162	IDENTIFIED	10.95		
Cerium-143	HE	537.3	118.8	pCi/L	365.7	N	0	8	0	FAIL_ABUND	0		
Gross Gamma		66.83	43.02	pCi/L	53.39	120		0					
Iodine-123	HE	14620	14260	pCi/L	0	N	0	8	0	SHORT_HLIF	0		
Iodine-133	HE	347.2	454.4	pCi/L	0	N	0	8	0	SHORT_HLIF	0		
Lead-214	la nr	45.68	5.498	pCi/L	13.91	N	0	8	0	FAIL_ABUND	0		
Polonium-214	nr	45.68	5.498	pCi/L	13.91	N	0	8	0	FAIL_ABUND	0		
Polonium-218	nr	45.68	5.498	pCi/L	13.91	N	0	8	0	FAIL_ABUND	0		
Radium-224	HE	86.47	35.78	pCi/L	70.87	N	242	1	1.72	IDENTIFIED	41.28		
Sodium-24	HE	561.9	4085	pCi/L	0	N	0	8	0	SHORT_HLIF	0		
Technetium-99m	HE	7.33E+08	1.11E+09	pCi/L	0	N	0	8	0	SHORT_HLIF	0		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1201996557		17-DEC-09 23:04	0	MB	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Technetium-99m	HE	116.3	3243	pCi/L	0	N	0	1	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1201996558	10-DEC-09 12:00	18-DEC-09 10:13	7.93	DUP	LOAD	1		ESHL01000!GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Bismuth-211	int nr	111.3	18.92	pCi/L	29.35	N	351.5	4	1.354	IDENTIFIED	16.68	☐	
Bismuth-214	nr	34.94	6.111	pCi/L	9.923	N	609	1	1.541	IDENTIFIED	17.1	☐	
Cerium-143	HE	693.1	213.8	pCi/L	673.5	N	0	3	0	FAIL_ABUND	0	☐	
Gross Gamma		53.47	20.54	pCi/L	45.86	120		0				☐	
Lead-214	nr	38.73	6.657	pCi/L	10.23	N	351.5	4	1.354	IDENTIFIED	16.68	☐	
Polonium-214	nr	38.73	6.657	pCi/L	10.23	N	351.5	4	1.354	IDENTIFIED	16.68	☐	
Polonium-218	nr	38.73	6.657	pCi/L	10.23	N	351.5	4	1.354	IDENTIFIED	16.68	☐	
Protactinium-227		1.00E+41	0	pCi/L	0	N	0	3	0	SHORT_HLIF	0	☐	
Technetium-99m		1.19E+10	4.77E+09	pCi/L	0	N	0	3	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1201996559		18-DEC-09 12:29	0	LCS	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Americium-241	✓	1370	101.7	pCi/L	113.9	N	59.39	3	0.8111	IDENTIFIED	6.323	☐	
Barium-137m		425.8	18.66	pCi/L	14.19	N	661.6	2	1.452	IDENTIFIED	3.622	☐	
Cadmium-109		3006	240.7	pCi/L	326.4	N	88	2	0.8937	IDENTIFIED	7.042	☐	
Cesium-137	✓	450.1	19.76	pCi/L	15	8.00	661.6	2	1.452	IDENTIFIED	3.622	☐	
Cobalt-57		23.26	5.747	pCi/L	10.26	N	121.8	1	1.04	IDENTIFIED	24.5	☐	
Cobalt-60	✓	529.9	27.67	pCi/L	9.299	8.00	1333	1	2.037	IDENTIFIED	3.644	☐	
Gross Gamma		2092	163.3	pCi/L	200.4	120		0				☐	
Neptunium-237		385.4	60.85	pCi/L	162.1	10.0	0	2	0	NOT_IDENTI	0	☐	
Plutonium-237		15830	1145	pCi/L	1316	N	59.39	3	0.8111	IDENTIFIED	6.323	☐	
Protactinium-227		1.00E+41	0	pCi/L	0	N	0	2	0	SHORT_HLIF	0	☐	
Thorium-232	HE	2.59E+05	1.36E+06	pCi/L	22450	N	59.39	3	0.8111	IDENTIFIED	6.323	☐	
Tin-126		300.6	24.07	pCi/L	32.93	N	88	2	0.8937	IDENTIFIED	7.042	☐	

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

BC 12/24/1

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
933232	242754001	SAMPLE	18-DEC-09	Protactinium-227	1.00E+41	0	pCi/L	0	N
				Radon-219	33.36	17.2	pCi/L	30.97	N
				Sodium-24	11020	32650	pCi/L	0	N
				Technetium-99m	1.16E+11	6.09E+10	pCi/L	0	N
				Zirconium-97	2.13E+05	2.33E+05	pCi/L	0	N
933232	242754002	SAMPLE	18-DEC-09	Bismuth-211	26.12	14.19	pCi/L	17.5	N
				Iodine-123	1.04E+05	1.27E+05	pCi/L	0	N
				Iodine-133	71.24	2156	pCi/L	0	N
				Iodine-135	4.34E+10	3.70E+10	pCi/L	0	N
				Niobium-97	13250	9469	pCi/L	0	N
				Protactinium-227	1.00E+41	0	pCi/L	0	N
				Technetium-99m	2.31E+10	9.33E+10	pCi/L	0	N
				Thallium-200	36.79	452.6	pCi/L	0	N
933232	242754003	SAMPLE	18-DEC-09	Indium-114m	18.28	8.393	pCi/L	13.74	N
				Iodine-133	2917	1728	pCi/L	0	N
				Iodine-135	2.59E+10	3.27E+10	pCi/L	0	N
				Niobium-97	10730	8646	pCi/L	0	N
				Protactinium-227	1.00E+41	0	pCi/L	0	N
				Sodium-24	18140	27940	pCi/L	0	N
				Technetium-99m	9.66E+10	7.99E+10	pCi/L	0	N
933232	242789002	SAMPLE	17-DEC-09	Bismuth-211	131.3	15.43	pCi/L	10.09	N
				Bismuth-214	38.86	4.494	pCi/L	3.078	N
				Cerium-143	537.3	118.8	pCi/L	183	N
				Gross Gamma	66.83	43.02	pCi/L	25.65	120
				Iodine-123	14620	14260	pCi/L	0	N
				Iodine-133	347.2	454.4	pCi/L	0	N
				Lead-214	45.68	5.498	pCi/L	6.958	N
				Polonium-214	45.68	5.498	pCi/L	6.958	N
				Polonium-218	45.68	5.498	pCi/L	6.958	N
				Radium-224	86.47	35.78	pCi/L	35.46	N
				Radon-219	21.83	11.99	pCi/L	20.9	N
				Sodium-24	561.9	4085	pCi/L	0	N
				Technetium-99m	7.33E+08	1.11E+09	pCi/L	0	N
				Thulium-171	3033	1549	pCi/L	2680	N
933232	1201996557	MB	17-DEC-09	Cerium-143	14.04	7.312	pCi/L	12.68	N
				Neodymium-147	13.29	6.28	pCi/L	11.1	N
				Polonium-215	36.72	17.52	pCi/L	30.6	N

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertanty	Units	DL	RDL
933232	1201996557	MB	17-DEC-09	Radium-223	36.72	17.52	pCi/L	30.6	N
				Technetium-99m	116.3	3243	pCi/L	0	N
				Thallium-207	36.72	17.52	pCi/L	30.6	N
933232	1201996558	DUP	18-DEC-09	Bismuth-211	111.3	18.92	pCi/L	14.68	N
				Bismuth-214	34.94	6.111	pCi/L	4.964	N
				Cerium-143	693.1	213.8	pCi/L	337	N
				Germanium-68	94.18	44.31	pCi/L	85.38	N
				Gross Gamma	53.47	20.54	pCi/L	21.77	120
				Lead-214	38.73	6.657	pCi/L	5.116	N
				Polonium-214	38.73	6.657	pCi/L	5.116	N
				Polonium-218	38.73	6.657	pCi/L	5.116	N
				Protactinium-227	1.00E+41	0	pCi/L	0	N
				Technetium-99m	1.19E+10	4.77E+09	pCi/L	0	N
				Tungsten-181	41.01	20.4	pCi/L	34.77	N
933232	1201996559	LCS	18-DEC-09	Americium-241	1370	101.7	pCi/L	56.98	25.0
				Barium-137m	425.8	18.66	pCi/L	7.097	N
				Cadmium-109	3006	240.7	pCi/L	163.3	N
				Cesium-137	450.1	19.76	pCi/L	7.503	8.00
				Cobalt-57	23.26	5.747	pCi/L	5.133	N
				Cobalt-60	529.9	27.67	pCi/L	4.652	8.00
				Gross Gamma	2092	163.3	pCi/L	95.56	120
				Lead-212	12.72	7.303	pCi/L	12.41	N
				Neptunium-237	385.4	60.85	pCi/L	81.09	10.0
				Plutonium-237	15830	1145	pCi/L	658.4	N
				Polonium-212	12.72	7.303	pCi/L	12.41	N
				Polonium-216	12.72	7.303	pCi/L	12.41	N
				Protactinium-227	1.00E+41	0	pCi/L	0	N
				Thorium-228	12.72	7.303	pCi/L	12.41	N
				Thorium-232	2.59E+05	1.36E+06	pCi/L	11230	N
				Thulium-171	10010	4748	pCi/L	8457	N
				Tin-126	300.6	24.07	pCi/L	16.47	N
				Tungsten-181	125.1	59.19	pCi/L	105.6	N
				Uranium-235	43.88	23.87	pCi/L	40.83	N

ASE 12/20/09

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 10:44:59.52

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G242754001.CNF;1
Sample date       : 9-DEC-2009 12:00:00. Acquisition date : 18-DEC-2009 08:44:06
Sample ID         : G242754001           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM14                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.59  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 933232                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	92.90*	5	212	1.24	185.47	179	13	7.14E-04	651.8	
2	0	175.66	54	120	1.83	350.86	343	11	7.56E-03	41.4	
3	0	238.22*	11	65	1.49	475.87	471	10	1.51E-03	166.7	
4	0	562.68	74	63	14.18	1124.41	1105	32	1.02E-02	34.6	
5	0	608.98*	20	32	1.44	1216.98	1210	12	2.78E-03	67.8	
6	0	766.20*	14	9	1.34	1531.34	1527	10	1.96E-03	52.8	
7	5	913.96	19	14	2.75	1826.84	1820	16	2.63E-03	47.5	1.48E+00

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 18-DEC-2009 10:45:07

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G242754001.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 9-DEC-2009 12:00:00 Acquisition date : 18-DEC-2009 08:44:06
Sample ID : G242754001 Sample quantity : 2.0000 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA14 Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.59 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NB-95	+	765.79	*	3.186E+00	3.371E+00	4.507E+00	2.744E-01	0.707
SB-122	+	563.90	*	1.525E+02	1.059E+02	6.013E+01	3.404E+00	2.536
		692.80		-1.320E+02	6.829E+02	1.074E+03	5.643E+01	-0.123

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	-2.496E+00	2.526E+01	4.115E+01	2.860E+00	-0.061
NA-22		1274.54	*	2.047E+00	2.527E+00	4.851E+00	3.212E-01	0.422
NA-24		1368.53	*	1.102E-02	2.527E+00	Half-Life too short		
AL-26		1129.67		2.126E+01	1.229E+02	2.087E+02	1.255E+01	0.102
		1808.65	*	2.524E+00	3.233E+00	6.218E+00	3.646E-01	0.406
K-40		1460.81	*	6.464E+00	3.992E+01	7.080E+01	5.196E+00	0.091
TI-44		67.85		9.064E-01	4.267E+00	7.148E+00	5.919E-01	0.127
		78.38	*	-2.776E+00	3.414E+00	5.219E+00	4.497E-01	-0.532
SC-46		889.25	*	-2.734E+00	2.502E+00	3.294E+00	2.515E-01	-0.830
		1120.51		1.728E+00	3.386E+00	6.034E+00	3.683E-01	0.286
V-48		944.10		2.599E+01	5.560E+01	9.873E+01	7.406E+00	0.263
		983.50	*	-7.102E-01	3.929E+00	6.339E+00	4.596E-01	-0.112
		1312.09		2.747E-02	3.573E+00	5.862E+00	4.114E-01	0.005
CR-51		320.08	*	-6.788E+00	2.761E+01	4.523E+01	3.014E+00	-0.150
MN-52		744.21		2.465E-01	8.526E+00	1.381E+01	8.061E-01	0.018
		848.13		5.139E+01	2.461E+02	4.244E+02	3.014E+01	0.121
		935.52		-2.792E+00	8.763E+00	1.389E+01	1.049E+00	-0.201
		1246.25		-2.036E+02	2.055E+02	2.631E+02	1.660E+01	-0.774
		1333.61		-9.123E+01	1.471E+02	2.007E+02	1.454E+01	-0.455
		1434.06	*	2.325E+00	9.931E+00	1.690E+01	1.200E+00	0.138
MN-54		834.83	*	-1.335E+00	2.976E+00	4.696E+00	3.256E-01	-0.284
CO-56		846.75	*	-9.394E-01	2.929E+00	4.686E+00	3.319E-01	-0.200
		977.42		9.410E+01	2.237E+02	3.949E+02	2.879E+01	0.238
		1037.82		4.079E+00	2.062E+01	3.537E+01	2.623E+00	0.115
		1175.09		1.561E+02	1.300E+02	2.588E+02	1.442E+01	0.603
		1238.25		2.295E+00	4.697E+00	8.407E+00	5.519E-01	0.273

Sample ID : G242754001 Acquisition date : 18-DEC-2009 08:44:06

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1360.21		-3.617E+01	7.764E+01	1.144E+02	8.251E+00	-0.316
		1771.40		2.323E+01	2.348E+01	4.627E+01	2.791E+00	0.502
CO-57		122.06	*	-7.781E-01	2.684E+00	4.303E+00	2.601E-01	-0.181
		136.48		-1.526E+01	2.082E+01	3.219E+01	2.137E+00	-0.474
CO-58		810.76	*	-1.996E-01	2.946E+00	4.570E+00	3.043E-01	-0.044
FE-59		142.65		-3.183E+02	2.616E+02	3.845E+02	2.152E+01	-0.828
		192.34		7.884E+01	8.333E+01	1.422E+02	1.653E+01	0.554
		1099.22	*	-2.538E+00	6.627E+00	1.030E+01	7.454E-01	-0.246
		1291.56		-4.022E+00	8.595E+00	1.283E+01	1.055E+00	-0.313
CO-60		1173.22		1.085E+00	2.719E+00	4.818E+00	2.675E-01	0.225
		1332.49	*	-1.248E+00	2.545E+00	3.645E+00	2.640E-01	-0.342
ZN-65		1115.52	*	-3.670E+00	6.513E+00	9.768E+00	6.023E-01	-0.376
GE-68		1077.35	*	-3.309E+01	1.023E+02	1.611E+02	1.049E+01	-0.205
AS-73		53.44	*	-4.625E+01	6.528E+01	1.029E+02	8.326E+00	-0.449
AS-74		595.88	*	4.920E+00	5.670E+00	1.025E+01	5.594E-01	0.480
		634.78		1.927E+01	2.236E+01	4.047E+01	2.087E+00	0.476
SE-75		66.05		-1.372E+02	4.674E+02	7.468E+02	7.579E+01	-0.184
		96.73		1.087E+01	8.234E+01	1.199E+02	1.592E+01	0.091
		121.11		6.991E+00	1.393E+01	2.342E+01	2.205E+00	0.299
		136.00		-4.756E+00	3.953E+00	5.912E+00	3.430E-01	-0.804
		198.60		1.444E+01	1.901E+02	2.849E+02	1.947E+01	0.051
		264.65	*	-3.672E+00	3.600E+00	5.548E+00	3.256E-01	-0.662
		279.53		2.258E+00	8.525E+00	1.464E+01	9.285E-01	0.154
		303.91		-1.835E+01	1.635E+02	2.715E+02	2.619E+01	-0.068
		400.65		7.350E+00	2.080E+01	3.569E+01	3.325E+00	0.206
BR-77		87.88		-1.400E+03	2.955E+03	4.094E+03	3.780E+02	-0.342
		200.40		1.862E+03	2.511E+03	4.250E+03	2.315E+02	0.438
	+	239.00		5.240E+01	1.748E+02	2.314E+02	1.313E+01	0.226
		249.79		-7.974E+02	9.382E+02	1.374E+03	7.874E+01	-0.581
		281.68		-5.563E+02	1.192E+03	1.925E+03	1.133E+02	-0.289
		297.23		1.619E+02	7.475E+02	1.275E+03	7.583E+01	0.127
		303.76		-6.234E+02	2.353E+03	3.854E+03	2.302E+02	-0.162
		439.47		2.204E+02	2.038E+03	3.405E+03	2.079E+02	0.065
		484.57		1.572E+02	3.162E+03	5.233E+03	3.146E+02	0.030
		520.65	*	1.026E+02	1.290E+02	2.326E+02	1.368E+01	0.441
		574.64		6.425E+01	2.743E+03	4.495E+03	2.515E+02	0.014
		578.91		-9.589E+02	1.096E+03	1.572E+03	8.757E+01	-0.610
		585.48		-1.246E+03	2.125E+03	3.197E+03	1.767E+02	-0.390
		755.35		-6.092E+02	2.076E+03	3.187E+03	1.901E+02	-0.191
		817.79		-3.333E+02	1.506E+03	2.315E+03	1.555E+02	-0.144
SR-82		698.33		1.455E+03	2.285E+03	4.010E+03	2.131E+02	0.363
		776.49	*	3.029E+00	2.299E+01	3.782E+01	2.351E+00	0.080
		1395.20		-3.911E+02	7.555E+02	1.090E+03	7.808E+01	-0.359
RB-83		520.41	*	4.154E+00	5.045E+00	9.118E+00	5.363E-01	0.456
		529.64		6.142E+00	7.331E+00	1.333E+01	7.787E-01	0.461
		552.65		5.788E+00	1.711E+01	2.573E+01	1.473E+00	0.225
RB-84		881.50	*	-3.559E-01	5.201E+00	8.524E+00	6.421E-01	-0.042
KR-85		513.99	*	-2.138E+03	8.187E+02	1.010E+03	5.968E+01	-2.117
SR-85		513.99	*	-1.027E+01	3.931E+00	4.850E+00	2.865E-01	-2.117

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RB-86		1076.63	*	-1.594E+01	5.118E+01	8.069E+01	5.258E+00	-0.198
Y-88		898.02		-1.121E+00	2.314E+00	3.478E+00	2.711E-01	-0.322
		1836.01	*	-2.076E+00	3.010E+00	4.080E+00	2.346E-01	-0.509
ZR-88		392.90	*	-2.400E+00	2.205E+00	3.181E+00	1.948E-01	-0.754
Y-91		1204.90	*	-6.723E+02	1.054E+03	1.508E+03	8.859E+01	-0.446
NB-94		702.63	*	-7.095E-01	2.730E+00	4.254E+00	2.281E-01	-0.167
		871.10		-7.538E-01	2.747E+00	4.417E+00	3.267E-01	-0.171
NB-95M		235.69	*	6.797E+00	1.047E+01	1.572E+01	1.166E+00	0.432
ZR-95		724.18		1.805E+00	6.759E+00	1.133E+01	7.585E-01	0.159
		756.15	*	-2.757E+00	5.211E+00	7.674E+00	5.508E-01	-0.359
NB-97		657.90	*	1.210E-03	5.211E+00	Half-Life too short		
		1024.50		-2.561E-01	5.211E+00	Half-Life too short		
ZR-97		254.15		7.372E-01	5.211E+00	Half-Life too short		
		355.39		-7.465E-01	5.211E+00	Half-Life too short		
		507.63	*	2.131E-01	5.211E+00	Half-Life too short		
		602.52		5.640E-01	5.211E+00	Half-Life too short		
		1021.30		-1.850E-01	5.211E+00	Half-Life too short		
		1147.95		2.302E-01	5.211E+00	Half-Life too short		
		1362.66		-2.878E-01	5.211E+00	Half-Life too short		
		1750.46		9.058E-02	5.211E+00	Half-Life too short		
MO-99		140.51		5.265E+02	5.642E+02	9.414E+02	2.533E+02	0.559
		181.06		-4.749E+02	3.670E+02	4.984E+02	8.468E+01	-0.953
		366.43		1.259E+03	1.547E+03	2.760E+03	1.687E+02	0.456
		739.58	*	-6.983E+01	1.931E+02	2.937E+02	4.045E+01	-0.238
		778.00		3.367E+02	5.089E+02	9.064E+02	5.650E+01	0.371
TC-99M		140.51	*	1.158E+05	5.089E+02	Half-Life too short		
RH-101		127.23		8.799E-01	3.071E+00	5.103E+00	3.009E-01	0.172
		198.01	*	-1.332E+00	3.656E+00	5.318E+00	2.889E-01	-0.251
		325.23		1.421E+01	1.863E+01	3.311E+01	1.999E+00	0.429
RH-102		418.52		6.348E+00	2.341E+01	3.987E+01	2.442E+00	0.159
		475.06	*	-1.706E+00	2.555E+00	3.890E+00	2.349E-01	-0.439
		631.29		-1.356E+00	4.411E+00	6.861E+00	3.557E-01	-0.198
		697.49		5.421E+00	6.425E+00	1.149E+01	6.098E-01	0.472
	+	766.84		7.889E+00	8.347E+00	1.342E+01	8.186E-01	0.588
		1046.59		-2.033E+00	8.768E+00	1.400E+01	9.482E-01	-0.145
		1112.84		4.183E+00	1.391E+01	2.427E+01	1.500E+00	0.172
RU-103		497.08	*	6.162E-01	3.136E+00	5.269E+00	6.704E-01	0.117
	+	610.33		6.611E+01	9.022E+01	1.296E+02	1.978E+01	0.510
RH-106		511.85		-5.819E+01	2.131E+01	3.555E+01	2.103E+00	-1.637
		621.84	*	-1.892E+01	2.651E+01	3.876E+01	4.449E+00	-0.488
		1050.47		-1.100E+02	1.679E+02	2.462E+02	1.660E+01	-0.447
RU-106		511.85		-5.819E+01	2.131E+01	3.555E+01	2.103E+00	-1.637
		621.84	*	-1.892E+01	2.644E+01	3.876E+01	2.039E+00	-0.488
		1050.47		-1.100E+02	1.679E+02	2.462E+02	1.660E+01	-0.447
AG-108M		433.93	*	-2.558E+00	3.001E+00	4.521E+00	2.978E-01	-0.566
		614.37		-1.189E+00	4.275E+00	5.745E+00	3.362E-01	-0.207
		722.95		-2.184E+00	3.503E+00	5.157E+00	3.145E-01	-0.423
CD-109		88.03	*	-3.363E+01	8.364E+01	1.166E+02	1.077E+01	-0.288
AG-110M		657.75	*	-2.805E-01	2.348E+00	3.736E+00	2.012E-01	-0.075

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		677.61		2.987E+00	2.516E+01	4.145E+01	2.275E+00	0.072
		706.67		6.811E+00	1.613E+01	2.761E+01	1.596E+00	0.247
		763.93		1.114E+01	1.385E+01	2.243E+01	1.437E+00	0.497
		884.67		7.662E-01	3.720E+00	6.414E+00	5.059E-01	0.119
		937.48		-1.335E+00	8.641E+00	1.409E+01	1.112E+00	-0.095
		1384.27		-2.971E+00	1.167E+01	1.792E+01	1.338E+00	-0.166
IN-111		171.28		7.692E+00	2.190E+01	3.209E+01	1.699E+00	0.240
		245.39	*	-6.724E+00	1.999E+01	3.096E+01	1.767E+00	-0.217
IN-113M		391.69	*	-3.180E+00	3.269E+00	4.805E+00	3.120E-01	-0.662
SN-113		391.69	*	-3.180E+00	3.269E+00	4.805E+00	3.120E-01	-0.662
IN-114M		190.27	*	-1.073E+01	1.691E+01	2.604E+01	1.403E+00	-0.412
CD-115		260.90		8.212E+02	1.513E+03	2.659E+03	1.540E+02	0.309
		492.35		-1.595E+02	4.278E+02	6.719E+02	4.023E+01	-0.237
		527.90	*	2.273E+01	1.119E+02	1.886E+02	1.103E+01	0.121
SN-117M		156.02		-6.414E+00	1.510E+02	2.442E+02	1.318E+01	-0.026
		158.56	*	4.904E-02	3.687E+00	5.981E+00	3.209E-01	0.008
I-123		159.00	*	-6.632E-02	3.687E+00	Half-Life too short		
		528.96		7.631E+00	3.687E+00	Half-Life too short		
TE-123M		159.00	*	-8.716E-01	2.577E+00	4.074E+00	2.218E-01	-0.214
I-124		602.71	*	9.009E+00	2.057E+01	3.134E+01	1.694E+00	0.287
		722.78		-8.090E+01	1.297E+02	1.910E+02	1.068E+01	-0.424
		1325.50		-4.499E+02	8.186E+02	1.158E+03	8.298E+01	-0.389
		1376.25		4.975E+02	8.159E+02	1.489E+03	1.071E+02	0.334
		1509.49		-2.777E+02	4.819E+02	6.794E+02	4.711E+01	-0.409
		1691.02		1.345E+02	1.696E+02	3.121E+02	1.985E+01	0.431
SB-124		602.71		1.374E+00	3.138E+00	4.781E+00	2.586E-01	0.287
		645.85		-7.673E+00	3.881E+01	6.132E+01	3.617E+00	-0.125
		709.31		-1.159E+02	2.071E+02	3.067E+02	1.667E+01	-0.378
		713.82		2.180E+01	1.242E+02	2.057E+02	2.064E+01	0.106
		722.78		-1.789E+01	2.869E+01	4.224E+01	2.480E+00	-0.424
		968.20		1.410E+02	1.752E+02	3.232E+02	2.376E+01	0.436
		1045.16		-3.249E+01	1.777E+02	2.861E+02	1.942E+01	-0.114
		1325.50		-1.063E+02	1.933E+02	2.735E+02	1.960E+01	-0.389
		1368.21		3.035E+01	1.440E+02	2.444E+02	3.084E+01	0.124
		1436.60		-1.317E+02	3.179E+02	4.731E+02	3.355E+01	-0.278
		1691.02	*	7.017E+00	8.846E+00	1.628E+01	1.109E+00	0.431
SB-125		427.89	*	3.090E+00	7.401E+00	1.279E+01	8.125E-01	0.242
		463.38		7.138E-01	2.199E+01	3.640E+01	2.545E+00	0.020
		600.56		8.805E+00	1.470E+01	2.516E+01	1.606E+00	0.350
		635.90		2.673E+01	2.236E+01	4.174E+01	2.605E+00	0.640
TE-125M		109.28	*	4.832E+02	8.952E+02	1.458E+03	1.299E+02	0.332
I-126		388.63		5.792E+00	1.158E+01	2.020E+01	1.237E+00	0.287
		666.33	*	4.100E+00	9.748E+00	1.676E+01	8.320E-01	0.245
		753.82		5.197E+01	7.899E+01	1.401E+02	8.332E+00	0.371
SB-126		223.80		5.148E+01	2.430E+02	3.964E+02	2.214E+01	0.130
		278.60		8.577E+01	1.371E+02	2.422E+02	1.422E+01	0.354
		296.50		1.818E+01	8.649E+01	1.474E+02	8.764E+00	0.123
		414.70		5.003E+00	4.609E+00	8.401E+00	5.146E-01	0.596
		415.30		2.579E+02	3.942E+02	6.926E+02	4.242E+01	0.372

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		555.20		1.519E+02	2.766E+02	4.275E+02	2.441E+01	0.355
		573.80		8.470E+00	5.955E+01	9.903E+01	5.547E+00	0.086
		593.00		5.650E+00	5.180E+01	8.573E+01	4.694E+00	0.066
		656.30		-6.119E+01	1.598E+02	2.424E+02	1.204E+01	-0.252
		666.33		1.689E+00	4.015E+00	6.902E+00	3.427E-01	0.245
		675.00		-2.424E+01	1.111E+02	1.743E+02	8.816E+00	-0.139
		695.00		2.351E+00	4.426E+00	7.671E+00	4.048E-01	0.306
		697.00		1.684E+01	1.582E+01	2.899E+01	1.536E+00	0.581
		720.50	*	-2.240E+00	8.386E+00	1.303E+01	7.248E-01	-0.172
		856.80		3.548E+00	2.421E+01	4.145E+01	2.989E+00	0.086
		989.30		-4.161E+01	5.761E+01	8.178E+01	5.896E+00	-0.509
		1034.80		-9.604E+01	4.188E+02	6.653E+02	4.571E+01	-0.144
		1213.00		-7.526E+01	2.134E+02	3.283E+02	1.957E+01	-0.229
SN-126		64.28		1.089E+01	5.084E+01	8.439E+01	1.265E+01	0.129
		86.94		-1.118E+01	3.397E+01	4.722E+01	1.959E+01	-0.237
		87.57	*	-3.825E+00	8.360E+00	1.160E+01	1.068E+00	-0.330
SB-127		61.10		1.361E+02	1.753E+03	2.873E+03	2.675E+02	0.047
		252.40		8.247E+01	1.272E+02	2.075E+02	8.537E+01	0.397
		290.80		-3.634E+02	6.224E+02	9.972E+02	7.222E+01	-0.364
		411.60		2.491E+01	3.471E+02	5.793E+02	7.720E+01	0.043
		444.90		-8.572E+01	2.256E+02	3.538E+02	3.301E+01	-0.242
		473.00		1.632E+01	4.910E+01	8.363E+01	8.144E+00	0.195
		543.00		-3.392E-01	4.409E+02	7.220E+02	8.337E+01	0.000
		603.60		-2.620E+01	3.438E+02	4.774E+02	4.227E+01	-0.055
		685.20	*	-1.836E+01	3.598E+01	5.386E+01	3.774E+00	-0.341
		698.50		1.666E+02	4.041E+02	6.886E+02	9.011E+01	0.242
		722.20		-2.783E+02	8.011E+02	1.231E+03	8.571E+01	-0.226
		783.80		-3.706E+01	1.011E+02	1.540E+02	1.434E+01	-0.241
XE-127		57.60		1.001E+01	4.557E+02	7.580E+02	6.295E+01	0.013
		145.22		-7.371E+00	5.955E+01	9.596E+01	5.331E+00	-0.077
		172.10		6.443E-01	1.140E+01	1.620E+01	8.579E-01	0.040
		202.84	*	-1.498E+00	3.908E+00	6.102E+00	3.333E-01	-0.245
		374.96		-3.802E+00	1.373E+01	2.216E+01	1.356E+00	-0.172
I-131		80.18		-2.857E+02	2.450E+02	3.734E+02	3.260E+01	-0.765
		284.30		-4.578E+01	7.550E+01	1.205E+02	7.819E+00	-0.380
		364.48	*	1.070E+00	5.983E+00	1.013E+01	6.793E-01	0.106
		636.97		2.716E+01	7.592E+01	1.292E+02	7.565E+00	0.210
		722.89		-2.146E+02	3.441E+02	5.067E+02	2.847E+01	-0.424
TE-132		49.72		-4.457E+02	4.188E+02	6.414E+02	5.513E+01	-0.695
		111.76		-2.966E+01	8.280E+02	1.314E+03	1.017E+02	-0.023
		116.30		-5.427E+02	7.353E+02	1.141E+03	8.525E+01	-0.475
		228.16	*	4.054E+00	1.566E+01	2.562E+01	3.396E+00	0.158
BA-133		53.15		-2.382E+02	2.937E+02	4.588E+02	3.702E+01	-0.519
		79.62		-7.877E+01	1.158E+02	1.821E+02	2.779E+01	-0.432
		81.00		-5.647E+00	8.718E+00	1.373E+01	2.190E+00	-0.411
		276.40		-6.348E+00	2.976E+01	4.918E+01	6.389E+00	-0.129
		302.84		-4.441E+00	1.167E+01	1.890E+01	2.220E+00	-0.235
		356.01	*	-1.462E-01	3.927E+00	6.524E+00	7.643E-01	-0.022
		383.85		5.648E+00	2.643E+01	4.480E+01	4.949E+00	0.126

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
I-133		510.53		-4.172E-01	2.643E+01	Half-Life too short		
		529.87	*	2.363E-03	2.643E+01	Half-Life too short		
		706.58		1.121E-01	2.643E+01	Half-Life too short		
		856.28		3.732E-02	2.643E+01	Half-Life too short		
		875.33		-3.918E-02	2.643E+01	Half-Life too short		
		1236.41		2.302E-02	2.643E+01	Half-Life too short		
		1298.22		1.437E-02	2.643E+01	Half-Life too short		
CS-134		475.35		-1.228E+02	1.655E+02	2.494E+02	1.505E+01	-0.492
	+	563.23		1.317E+02	9.144E+01	5.219E+01	3.021E+00	2.523
		569.32		9.081E+00	1.931E+01	2.942E+01	1.709E+00	0.309
		604.70		-5.174E-01	2.928E+00	3.982E+00	2.161E-01	-0.130
		795.84	*	-1.454E+00	3.143E+00	4.615E+00	3.015E-01	-0.315
		801.93		-1.827E+01	3.174E+01	4.723E+01	3.111E+00	-0.387
		1038.57		1.919E+02	2.529E+02	4.748E+02	3.247E+01	0.404
		1167.94		-5.424E+01	1.458E+02	2.216E+02	1.243E+01	-0.245
		1365.15		3.991E+01	1.073E+02	1.873E+02	1.437E+01	0.213
CS-135		268.24	*	1.094E+01	1.291E+01	2.309E+01	1.773E+00	0.474
I-135		288.45		-1.495E+05	1.291E+01	Half-Life too short		
		417.63		1.673E+04	1.291E+01	Half-Life too short		
		546.56		8.383E+04	1.291E+01	Half-Life too short		
		836.80		1.454E+04	1.291E+01	Half-Life too short		
		1038.76		1.047E+05	1.291E+01	Half-Life too short		
		1124.00		-3.499E+05	1.291E+01	Half-Life too short		
		1131.51		1.693E+04	1.291E+01	Half-Life too short		
		1260.41	*	4.426E+03	1.291E+01	Half-Life too short		
		1457.56		4.565E+04	1.291E+01	Half-Life too short		
		1678.03		9.297E+04	1.291E+01	Half-Life too short		
		1706.46		-5.765E+04	1.291E+01	Half-Life too short		
		1791.20		-1.896E+04	1.291E+01	Half-Life too short		
CS-136		66.91		-2.254E+01	5.608E+01	8.887E+01	1.355E+01	-0.254
		86.29		-3.288E+01	7.222E+01	1.061E+02	1.399E+01	-0.310
		153.22		-7.194E-01	4.253E+01	6.891E+01	4.775E+00	-0.010
		163.89		-2.740E+01	6.994E+01	1.077E+02	7.378E+00	-0.254
	+	176.55		4.592E+01	3.810E+01	4.720E+01	2.872E+00	0.973
		273.65		-3.322E+00	2.571E+01	4.280E+01	2.848E+00	-0.078
		340.57		-2.589E+00	8.159E+00	1.328E+01	8.521E-01	-0.195
		818.51		-2.936E+00	4.125E+00	5.754E+00	3.873E-01	-0.510
		1048.07	*	4.498E+00	5.546E+00	1.038E+01	7.490E-01	0.433
		1235.34		-3.923E+00	2.489E+01	3.971E+01	4.057E+00	-0.099
BA-137M		661.65	*	6.611E-01	2.501E+00	4.223E+00	2.076E-01	0.157
CS-137		661.65	*	6.989E-01	2.644E+00	4.464E+00	2.208E-01	0.157
CE-139		165.85	*	-1.177E+00	2.698E+00	4.065E+00	2.144E-01	-0.289
BA-140		162.64		-4.478E+01	5.045E+01	7.475E+01	4.555E+00	-0.599
		304.84		-5.558E+00	7.251E+01	1.207E+02	3.299E+01	-0.046
		423.70		-3.736E+01	1.035E+02	1.629E+02	5.188E+01	-0.229
		537.32	*	2.013E+00	1.426E+01	2.254E+01	7.329E+00	0.089
LA-140		328.77		-8.456E+00	1.688E+01	2.692E+01	1.809E+00	-0.314
		432.53		-8.869E+01	1.291E+02	1.977E+02	1.323E+01	-0.449
		487.03		5.208E+00	7.771E+00	1.378E+01	9.297E-01	0.378

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		751.79		3.270E+01	9.670E+01	1.637E+02	1.179E+01	0.200
		815.85		-7.309E+00	1.596E+01	2.328E+01	1.847E+00	-0.314
		867.82		2.482E+01	7.426E+01	1.304E+02	1.028E+01	0.190
		919.63		2.328E+01	1.709E+02	2.537E+02	2.504E+01	0.092
		925.24		-2.529E+01	5.965E+01	9.259E+01	7.608E+00	-0.273
		1596.49	*	2.021E+00	5.767E+00	9.994E+00	6.687E-01	0.202
CE-141		145.44	*	-5.793E-01	5.308E+00	8.561E+00	4.960E-01	-0.068
CE-143		57.37		4.662E+02	3.858E+03	6.459E+03	6.408E+02	0.072
		231.56		1.700E+01	9.571E+03	1.478E+04	4.582E+03	0.001
		293.26	*	4.992E+02	5.530E+02	9.320E+02	1.927E+02	0.536
		350.59		4.777E+03	7.356E+03	1.226E+04	3.742E+03	0.390
		490.36		-6.572E+03	1.025E+04	1.519E+04	4.721E+03	-0.433
		664.57		-2.215E+02	4.312E+03	6.943E+03	2.197E+03	-0.032
		721.93		-7.768E+02	4.778E+03	7.530E+03	2.149E+03	-0.103
CE-144		80.11		-2.221E+02	1.904E+02	2.903E+02	2.528E+01	-0.765
		133.54	*	1.006E+01	1.947E+01	3.272E+01	4.642E+00	0.307
PM-144		476.78		4.046E-01	5.494E+00	9.126E+00	6.512E-01	0.044
		618.01		1.869E+00	2.772E+00	4.871E+00	2.761E-01	0.384
		696.49	*	3.184E+00	2.819E+00	5.206E+00	2.757E-01	0.612
		778.57		3.236E+01	1.654E+02	2.748E+02	1.716E+01	0.118
PR-144		696.49	*	2.150E+02	1.904E+02	3.516E+02	1.861E+01	0.612
		1489.15		-7.798E+02	1.093E+03	1.486E+03	1.037E+02	-0.525
PM-146		453.90	*	-1.198E+00	3.259E+00	5.129E+00	4.522E-01	-0.234
		633.02		-1.787E+01	1.166E+02	1.854E+02	6.811E+01	-0.096
		735.90		2.260E+00	1.123E+01	1.867E+01	5.203E+00	0.121
		747.13		-3.782E+00	7.201E+00	1.060E+01	1.329E+00	-0.357
ND-147		91.11		-1.109E+01	2.243E+01	3.316E+01	3.138E+00	-0.335
		319.41		-4.719E+01	1.912E+02	3.131E+02	1.886E+01	-0.151
		439.89		1.076E+02	3.352E+02	5.725E+02	3.496E+01	0.188
		531.02	*	1.779E+00	2.744E+01	4.539E+01	6.144E+00	0.039
PM-149		285.90	*	7.079E+02	1.079E+03	1.901E+03	2.700E+02	0.372
EU-152		121.78		-3.148E+00	7.980E+00	1.271E+01	9.911E-01	-0.248
		244.69		9.044E+00	2.797E+01	4.449E+01	2.538E+00	0.203
		344.27	*	3.172E+00	9.222E+00	1.581E+01	1.073E+00	0.201
		443.98		-1.378E+01	6.950E+01	1.119E+02	6.828E+00	-0.123
		778.89		3.775E+00	1.931E+01	3.208E+01	2.003E+00	0.118
		867.32		3.387E-01	6.451E+01	1.081E+02	7.945E+00	0.003
		964.01		-1.424E+01	2.027E+01	3.001E+01	2.214E+00	-0.474
		1085.78		-2.760E+00	2.989E+01	4.873E+01	3.135E+00	-0.057
		1112.02		5.870E+00	1.901E+01	3.329E+01	2.060E+00	0.176
		1407.95		1.067E+01	1.522E+01	2.809E+01	2.006E+00	0.380
GD-153		69.67		-1.155E+02	1.462E+02	2.298E+02	1.909E+01	-0.503
		83.37		1.184E+02	1.341E+03	2.116E+03	1.885E+02	0.056
		97.43	*	5.643E+00	8.292E+00	1.265E+01	1.008E+00	0.446
		103.18		-1.460E-01	9.960E+00	1.632E+01	1.206E+00	-0.009
EU-154		123.07		-2.142E+00	5.500E+00	8.751E+00	8.342E-01	-0.245
		247.94		-1.012E+01	3.102E+01	4.798E+01	4.555E+00	-0.211
		591.81		-3.127E+01	4.859E+01	7.182E+01	6.888E+00	-0.435
		723.30		-5.740E+00	1.453E+01	2.218E+01	1.533E+00	-0.259

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		756.87		-6.382E+01	6.194E+01	8.213E+01	8.413E+00	-0.777
		873.19		3.776E+00	2.407E+01	4.118E+01	4.709E+00	0.092
		996.32		7.596E+00	2.699E+01	4.682E+01	8.008E+00	0.162
		1004.76		-5.617E-01	1.644E+01	2.719E+01	2.872E+00	-0.021
		1274.45	*	6.170E+00	7.196E+00	1.387E+01	1.368E+00	0.445
EU-155		48.70		-4.130E+01	1.932E+02	3.169E+02	2.368E+01	-0.130
		60.01		-5.374E+02	4.763E+02	7.200E+02	6.017E+01	-0.746
		86.54		-7.394E+00	1.003E+01	1.354E+01	1.247E+00	-0.546
		105.31	*	-4.417E+00	1.036E+01	1.649E+01	1.208E+00	-0.268
TB-160		86.79		-1.730E+01	2.528E+01	3.431E+01	3.139E+00	-0.504
		197.04		1.582E+01	5.262E+01	8.642E+01	4.691E+00	0.183
		215.65		2.221E+01	6.005E+01	9.930E+01	5.499E+00	0.224
		298.57		-5.474E+00	9.001E+00	1.435E+01	8.546E-01	-0.381
		879.36	*	-1.287E+00	1.084E+01	1.784E+01	1.339E+00	-0.072
		962.29		-6.953E+00	3.313E+01	5.334E+01	3.942E+00	-0.130
		966.15		3.218E+00	1.301E+01	2.245E+01	1.653E+00	0.143
		1177.93		-6.693E+00	2.230E+01	3.470E+01	1.943E+00	-0.193
		1271.85		-4.542E+00	4.803E+01	7.740E+01	5.093E+00	-0.059
HO-166M		80.57		-2.725E+01	2.473E+01	3.787E+01	3.308E+00	-0.720
		184.41		6.897E-01	3.580E+00	5.886E+00	3.153E-01	0.117
		280.46		-2.314E+00	7.033E+00	1.150E+01	6.766E-01	-0.201
		410.95		-3.086E-01	2.078E+01	3.439E+01	2.107E+00	-0.009
		711.68	*	-1.909E+00	4.838E+00	7.356E+00	4.019E-01	-0.260
		752.31		8.455E+00	2.088E+01	3.575E+01	2.120E+00	0.237
		810.29		8.902E-01	4.774E+00	7.727E+00	5.120E-01	0.115
TM-171		51.35		1.668E+03	2.343E+03	4.094E+03	3.234E+02	0.408
		52.39		-1.291E+03	1.290E+03	1.985E+03	1.589E+02	-0.651
		59.40		-3.434E+03	2.531E+03	3.748E+03	3.137E+02	-0.916
		66.72	*	-1.424E+03	2.831E+03	4.466E+03	3.694E+02	-0.319
HF-175		89.36		2.989E+01	1.377E+02	2.023E+02	1.825E+01	0.148
		343.40	*	3.207E-01	3.228E+00	5.430E+00	3.301E-01	0.059
		433.00		-1.708E+02	1.840E+02	2.744E+02	1.678E+01	-0.622
LU-176		88.36		-5.884E+00	1.971E+01	2.775E+01	2.548E+00	-0.212
		201.83		-4.074E+00	2.880E+00	4.138E+00	2.258E-01	-0.984
		306.84	*	-1.132E+00	2.282E+00	3.394E+00	2.031E-01	-0.334
		401.10		5.025E+02	5.499E+02	9.924E+02	6.080E+01	0.506
LU-177		112.95		-1.716E+01	8.930E+01	1.401E+02	9.265E+00	-0.122
		208.36	*	1.660E+01	5.125E+01	8.431E+01	4.632E+00	0.197
LU-177M		52.97		-1.135E+02	1.288E+02	2.000E+02	1.611E+01	-0.568
		54.07		3.933E+01	6.690E+01	1.157E+02	9.410E+00	0.340
		61.30		4.453E+01	1.379E+02	2.292E+02	1.907E+01	0.194
		121.62		-1.307E+01	4.002E+01	6.403E+01	3.876E+00	-0.204
		147.16		8.394E+00	5.979E+01	9.804E+01	5.417E+00	0.086
		171.86		-7.634E-01	5.018E+01	7.076E+01	3.747E+00	-0.011
		218.09		1.647E+01	7.205E+01	1.178E+02	6.538E+00	0.140
		268.79		3.884E+01	6.268E+01	1.105E+02	6.442E+00	0.351
		319.02		-8.016E+00	2.111E+01	3.412E+01	2.055E+00	-0.235
		367.43		1.459E+00	8.141E+01	1.357E+02	8.299E+00	0.011
		413.65	*	8.680E+00	1.501E+01	2.622E+01	1.606E+00	0.331

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
HF-181		56.28		1.188E+01	7.382E+01	1.239E+02	1.022E+01	0.096
		57.53		1.036E+00	3.901E+01	6.490E+01	5.388E+00	0.016
		65.20		6.550E+01	8.406E+01	1.421E+02	1.175E+01	0.461
		133.02		1.394E+00	5.693E+00	9.425E+00	5.439E-01	0.148
		136.25		-4.154E+01	4.240E+01	6.442E+01	3.677E+00	-0.645
		345.85		-1.248E+00	1.740E+01	2.888E+01	1.757E+00	-0.043
		482.03	*	1.015E-01	3.097E+00	5.119E+00	3.081E-01	0.020
W-181		56.28		5.013E+00	3.088E+01	5.186E+01	4.278E+00	0.097
		57.53		4.360E-01	1.633E+01	2.717E+01	2.256E+00	0.016
		65.20	*	2.720E+01	3.491E+01	5.900E+01	4.880E+00	0.461
TA-182		67.75		2.398E+00	9.829E+00	1.650E+01	1.366E+00	0.145
		100.10		-2.030E+00	1.701E+01	2.769E+01	2.128E+00	-0.073
		152.43		-1.691E+01	3.043E+01	4.739E+01	2.582E+00	-0.357
		222.10		-8.229E+00	2.886E+01	4.513E+01	2.516E+00	-0.182
		1001.68		1.697E+01	1.479E+02	2.501E+02	1.781E+01	0.068
		1121.28		6.263E+00	9.479E+00	1.723E+01	1.051E+00	0.363
		1189.05		9.236E+00	1.820E+01	3.273E+01	1.870E+00	0.282
		1221.42	*	-2.383E+00	1.172E+01	1.854E+01	1.121E+00	-0.129
		1230.97		3.782E+00	2.950E+01	4.956E+01	3.046E+00	0.076
RE-183		57.98		-7.610E+00	1.625E+01	2.613E+01	2.173E+00	-0.291
		59.32		-1.322E+01	9.852E+00	1.461E+01	1.223E+00	-0.905
		67.20		-5.905E+00	1.855E+01	2.957E+01	2.447E+00	-0.200
		162.32	*	-4.886E+00	9.588E+00	1.466E+01	7.791E-01	-0.333
		208.81		2.803E+01	8.192E+01	1.350E+02	7.418E+00	0.208
		291.72		-4.585E+01	8.147E+01	1.310E+02	7.765E+00	-0.350
RE-184		57.98		-2.908E+01	6.209E+01	9.982E+01	8.304E+00	-0.291
		59.32		-5.046E+01	3.761E+01	5.579E+01	4.668E+00	-0.905
		67.20		-2.255E+01	7.087E+01	1.129E+02	9.346E+00	-0.200
		161.27		9.279E+00	3.080E+01	5.099E+01	2.718E+00	0.182
		216.55		2.471E+00	2.202E+01	3.566E+01	1.976E+00	0.069
		252.85	*	7.302E+00	2.035E+01	3.350E+01	1.926E+00	0.218
		318.01		-1.283E+00	3.670E+01	6.124E+01	3.686E+00	-0.021
		792.07		-2.107E+01	6.709E+01	1.018E+02	6.517E+00	-0.207
		903.28		-5.590E+00	5.570E+01	9.125E+01	7.048E+00	-0.061
		920.93		1.159E+01	3.894E+01	5.970E+01	4.556E+00	0.194
OS-185		59.72		-3.595E+01	2.707E+01	4.025E+01	3.367E+00	-0.893
		61.14		1.874E+00	1.471E+01	2.419E+01	2.014E+00	0.077
		69.30		-1.230E+01	2.504E+01	4.016E+01	3.333E+00	-0.306
		592.07		-1.155E+02	1.936E+02	2.895E+02	1.587E+01	-0.399
		646.12	*	-2.966E-01	3.313E+00	5.314E+00	2.688E-01	-0.056
		717.42		5.189E+01	6.994E+01	1.244E+02	6.877E+00	0.417
		874.81		-6.243E+00	4.597E+01	7.550E+01	5.621E+00	-0.083
		880.27		-1.335E+01	6.512E+01	1.048E+02	7.880E+00	-0.127
RE-188		155.03	*	-5.589E+00	1.512E+01	2.387E+01	1.292E+00	-0.234
		477.96		-2.223E+01	2.407E+02	3.922E+02	2.365E+01	-0.057
		633.10		-4.076E+01	2.207E+02	3.499E+02	1.809E+01	-0.116
W-188		63.58		3.519E+02	4.963E+03	8.182E+03	6.776E+02	0.043
		227.08		-2.498E+02	1.030E+03	1.614E+03	9.047E+01	-0.155
		290.67	*	-5.166E+02	6.377E+02	1.004E+03	5.946E+01	-0.515

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
IR-192		295.96		9.420E-01	9.537E+00	1.545E+01	9.321E-01	0.061
		308.46		-5.462E-01	8.369E+00	1.297E+01	7.854E-01	-0.042
		316.51	*	-6.129E-01	2.679E+00	4.392E+00	2.654E-01	-0.140
		468.07		-3.154E+00	5.615E+00	8.695E+00	6.007E-01	-0.363
		604.41		-2.845E+00	3.798E+01	5.272E+01	5.877E+00	-0.054
		612.46		5.712E+00	7.066E+01	1.007E+02	7.273E+00	0.057
AU-195		65.12		1.326E+01	1.640E+01	2.776E+01	2.296E+00	0.478
		66.83		-4.570E+00	9.197E+00	1.451E+01	1.201E+00	-0.315
		75.70		1.906E+01	1.678E+01	2.827E+01	2.400E+00	0.674
		98.88	*	1.100E+01	2.432E+01	3.639E+01	2.842E+00	0.302
		129.76		-1.060E+02	2.702E+02	4.288E+02	2.504E+01	-0.247
TL-200		367.94	*	-6.623E-05	2.702E+02	Half-Life too short		
		579.30		-3.635E-03	2.702E+02	Half-Life too short		
		828.27		1.710E-04	2.702E+02	Half-Life too short		
		1205.75		-2.772E-04	2.702E+02	Half-Life too short		
TL-201		68.90		-9.180E+00	1.028E+02	1.692E+02	1.404E+01	-0.054
		70.82		-6.101E+01	5.765E+01	8.878E+01	7.396E+00	-0.687
		80.30		-1.285E+02	1.102E+02	1.679E+02	1.464E+01	-0.765
		135.34		-4.473E+02	6.176E+02	9.563E+02	5.475E+01	-0.468
		167.43	*	5.458E+01	1.619E+02	2.516E+02	1.327E+01	0.217
TL-202		68.90		-2.406E+00	2.694E+01	4.435E+01	3.678E+00	-0.054
		70.82		-1.594E+01	1.507E+01	2.320E+01	1.933E+00	-0.687
		80.30		-3.359E+01	2.880E+01	4.389E+01	3.827E+00	-0.765
		439.56	*	4.230E-01	4.283E+00	7.150E+00	4.366E-01	0.059
HG-203		70.83		-8.993E+01	8.531E+01	1.305E+02	1.752E+01	-0.689
		72.87		-2.953E+01	4.867E+01	7.728E+01	1.009E+01	-0.382
		82.60		3.482E+01	9.296E+01	1.490E+02	2.071E+01	0.234
		279.20	*	1.385E+00	2.959E+00	5.163E+00	3.217E-01	0.268
BI-207		72.80		-1.046E+01	1.565E+01	2.480E+01	2.079E+00	-0.422
		74.97		5.832E+00	9.606E+00	1.579E+01	1.336E+00	0.369
		84.90		-9.073E-01	1.741E+01	2.722E+01	2.453E+00	-0.033
		569.67		1.783E+00	2.843E+00	4.456E+00	2.507E-01	0.400
		1063.62	*	-9.569E-01	3.582E+00	5.646E+00	3.744E-01	-0.169
		1770.23		2.113E+01	4.936E+01	8.920E+01	5.384E+00	0.237
TL-207		81.07		-1.231E+01	1.919E+01	3.036E+01	2.661E+00	-0.405
		83.78		1.537E+00	1.146E+01	1.811E+01	1.618E+00	0.085
		94.90		2.843E+01	2.541E+01	3.974E+01	3.284E+00	0.715
		122.32		-2.835E+01	1.901E+02	3.075E+02	2.120E+01	-0.092
		144.24		-3.740E+01	6.862E+01	1.054E+02	7.434E+00	-0.355
		154.21		7.578E+00	3.585E+01	5.902E+01	3.957E+00	0.128
		269.46		-2.312E+00	1.527E+01	2.540E+01	1.547E+00	-0.091
		323.87	*	1.288E+01	5.727E+01	9.754E+01	1.619E+01	0.132
		338.28		4.090E+01	8.680E+01	1.503E+02	1.605E+01	0.272
		445.03		-6.988E+01	1.610E+02	2.503E+02	2.613E+01	-0.279
TL-208		72.80		-1.132E+02	1.695E+02	2.685E+02	2.251E+01	-0.422
		74.97		6.310E+01	1.041E+02	1.708E+02	2.079E+01	0.369
		277.35		1.720E+01	2.993E+01	5.257E+01	5.571E+00	0.327
		510.84		-3.068E+01	2.033E+01	3.636E+01	3.717E+00	-0.844
		583.14	*	2.429E+00	3.187E+00	5.432E+00	3.511E-01	0.447

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		763.13		9.730E+01	1.786E+02	2.772E+02	3.475E+01	0.351
		860.37		-2.230E+01	2.197E+01	3.126E+01	2.502E+00	-0.713
		1093.90		6.124E+01	8.642E+02	1.446E+03	3.258E+02	0.042
PO-209		260.50		4.367E+02	7.809E+02	1.374E+03	7.953E+01	0.318
		262.80		-2.698E+03	2.286E+03	3.473E+03	2.014E+02	-0.777
		896.60	*	8.110E+01	4.590E+02	7.922E+02	6.125E+01	0.102
BI-210		46.50	*	-2.984E+02	2.954E+02	4.740E+02	3.733E+01	-0.629
PB-210		46.50	*	-2.984E+02	2.954E+02	4.740E+02	3.733E+01	-0.629
PO-210		46.50	*	-2.984E+02	2.952E+02	4.740E+02	3.229E+01	-0.629
BI-211		72.87		-1.630E+02	2.680E+02	4.264E+02	3.576E+01	-0.382
		351.07	*	1.463E+01	2.112E+01	3.595E+01	2.408E+00	0.407
PB-211		404.84	*	-1.343E+01	7.605E+01	1.230E+02	7.674E+01	-0.109
		427.08		5.675E+01	1.659E+02	2.787E+02	1.724E+02	0.204
		831.96		2.154E-02	9.432E+01	1.583E+02	9.887E+01	0.000
BI-212		727.18	*	5.586E+00	2.295E+01	3.833E+01	2.911E+00	0.146
		785.46		1.391E+02	1.407E+02	2.578E+02	1.630E+01	0.539
		1620.62		-5.798E+01	1.166E+02	1.656E+02	1.095E+01	-0.350
PB-212		74.81		7.206E+00	3.385E+01	5.453E+01	6.872E+00	0.132
		77.11		-1.454E+00	1.904E+01	3.050E+01	2.609E+00	-0.048
		87.30		-6.703E+00	3.795E+01	5.398E+01	7.330E+00	-0.124
		115.19		-3.817E+02	3.692E+02	5.615E+02	3.627E+01	-0.680
	+	238.63	*	2.039E+00	6.802E+00	9.032E+00	6.530E-01	0.226
		300.09		-1.190E+01	6.329E+01	1.045E+02	8.738E+00	-0.114
PO-212		74.81		7.206E+00	3.385E+01	5.453E+01	6.872E+00	0.132
		77.11		-1.454E+00	1.904E+01	3.050E+01	2.609E+00	-0.048
		87.30		-6.703E+00	3.795E+01	5.398E+01	7.330E+00	-0.124
		115.19		-3.817E+02	3.692E+02	5.615E+02	3.627E+01	-0.680
	+	238.63	*	2.039E+00	6.802E+00	9.032E+00	6.530E-01	0.226
		300.09		-1.190E+01	6.329E+01	1.045E+02	8.738E+00	-0.114
BI-214	+	609.31	*	6.835E+00	9.284E+00	1.290E+01	9.618E-01	0.530
		1120.29		5.017E+00	2.152E+01	3.681E+01	3.316E+00	0.136
		1764.49		-2.193E+01	2.467E+01	3.329E+01	2.017E+00	-0.659
PB-214		74.81		1.231E+01	5.780E+01	9.313E+01	1.047E+01	0.132
		77.11		-2.471E+00	3.236E+01	5.183E+01	5.938E+00	-0.048
		87.30		-1.138E+01	6.443E+01	9.165E+01	1.099E+01	-0.124
		241.98		7.359E+00	3.133E+01	4.492E+01	3.588E+00	0.164
		295.21		8.537E+00	1.315E+01	2.210E+01	1.906E+00	0.386
		351.92	*	8.135E+00	7.296E+00	1.274E+01	1.082E+00	0.638
PO-214		74.81		1.231E+01	5.780E+01	9.313E+01	1.047E+01	0.132
		77.11		-2.471E+00	3.236E+01	5.183E+01	5.938E+00	-0.048
		87.30		-1.138E+01	6.443E+01	9.165E+01	1.099E+01	-0.124
		241.98		7.359E+00	3.133E+01	4.492E+01	3.588E+00	0.164
		295.21		8.537E+00	1.315E+01	2.210E+01	1.906E+00	0.386
		351.92	*	8.135E+00	7.296E+00	1.274E+01	1.082E+00	0.638
PO-215		81.07		-1.231E+01	1.919E+01	3.036E+01	2.661E+00	-0.405
		83.78		1.537E+00	1.146E+01	1.811E+01	1.618E+00	0.085
		94.90		2.843E+01	2.541E+01	3.974E+01	3.284E+00	0.715
		122.32		-2.835E+01	1.901E+02	3.075E+02	2.120E+01	-0.092
		144.24		-3.740E+01	6.862E+01	1.054E+02	7.434E+00	-0.355

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		154.21		7.578E+00	3.585E+01	5.902E+01	3.957E+00	0.128
		269.46		-2.312E+00	1.527E+01	2.540E+01	1.547E+00	-0.091
		323.87	*	1.288E+01	5.727E+01	9.754E+01	1.619E+01	0.132
		338.28		4.090E+01	8.680E+01	1.503E+02	1.605E+01	0.272
		445.03		-6.988E+01	1.610E+02	2.503E+02	2.613E+01	-0.279
PO-216		74.81		7.206E+00	3.385E+01	5.453E+01	6.872E+00	0.132
		77.11		-1.454E+00	1.904E+01	3.050E+01	2.609E+00	-0.048
		87.30		-6.703E+00	3.795E+01	5.398E+01	7.330E+00	-0.124
		115.19		-3.817E+02	3.692E+02	5.615E+02	3.627E+01	-0.680
	+	238.63	*	2.039E+00	6.802E+00	9.032E+00	6.530E-01	0.226
		300.09		-1.190E+01	6.329E+01	1.045E+02	8.738E+00	-0.114
PO-218		74.81		1.231E+01	5.780E+01	9.313E+01	1.047E+01	0.132
		77.11		-2.471E+00	3.236E+01	5.183E+01	5.938E+00	-0.048
		87.30		-1.138E+01	6.443E+01	9.165E+01	1.099E+01	-0.124
		241.98		7.359E+00	3.133E+01	4.492E+01	3.588E+00	0.164
		295.21		8.537E+00	1.315E+01	2.210E+01	1.906E+00	0.386
		351.92	*	8.135E+00	7.296E+00	1.274E+01	1.082E+00	0.638
RN-219		271.23		-3.402E+00	1.990E+01	3.304E+01	2.687E+00	-0.103
		401.81	*	3.336E+01	3.439E+01	6.190E+01	8.511E+00	0.539
RN-220		549.76	*	1.503E+02	2.150E+03	3.089E+03	1.773E+02	0.049
RA-223		81.07		-1.231E+01	1.919E+01	3.036E+01	2.661E+00	-0.405
		83.78		1.537E+00	1.146E+01	1.811E+01	1.618E+00	0.085
		94.90		2.843E+01	2.541E+01	3.974E+01	3.284E+00	0.715
		122.32		-2.835E+01	1.901E+02	3.075E+02	2.120E+01	-0.092
		144.24		-3.740E+01	6.862E+01	1.054E+02	7.434E+00	-0.355
		154.21		7.578E+00	3.585E+01	5.902E+01	3.957E+00	0.128
		269.46		-2.312E+00	1.527E+01	2.540E+01	1.547E+00	-0.091
		323.87	*	1.288E+01	5.727E+01	9.754E+01	1.619E+01	0.132
		338.28		4.090E+01	8.680E+01	1.503E+02	1.605E+01	0.272
		445.03		-6.988E+01	1.610E+02	2.503E+02	2.613E+01	-0.279
RA-224		240.98	*	2.086E+01	6.247E+01	9.049E+01	5.144E+00	0.231
RA-226		186.21	*	2.815E+01	8.260E+01	1.326E+02	9.731E+01	0.212
AC-227		79.80		-1.111E+02	1.475E+02	2.289E+02	4.928E+01	-0.485
		236.00		1.812E+01	2.132E+01	3.251E+01	3.373E+00	0.557
		256.20	*	-1.584E+01	3.352E+01	5.439E+01	7.585E+00	-0.291
		286.10		9.581E+01	1.293E+02	2.293E+02	2.664E+01	0.418
		299.80		-5.461E+01	1.201E+02	1.934E+02	3.161E+01	-0.282
		304.40		-1.560E+01	1.510E+02	2.508E+02	4.354E+01	-0.062
		329.70		-1.385E+01	6.985E+01	1.145E+02	1.441E+01	-0.121
		334.20		-1.954E+01	1.920E+02	3.179E+02	5.855E+01	-0.061
PA-227		64.62	*	1.000E+35	1.920E+02	Half-Life too short		
		110.05		1.000E+35	1.920E+02	Half-Life too short		
TH-227		79.80		-1.111E+02	1.476E+02	2.289E+02	4.991E+01	-0.485
	+	94.00		2.770E+01	3.611E+02	3.587E+02	7.777E+01	0.077
		236.00		1.812E+01	2.130E+01	3.251E+01	2.915E+00	0.557
		256.20	*	-1.584E+01	3.355E+01	5.439E+01	9.185E+00	-0.291
		286.10		9.581E+01	1.607E+02	2.293E+02	2.297E+02	0.418
		299.80		-5.461E+01	1.201E+02	1.934E+02	3.161E+01	-0.282
		304.40		-1.560E+01	1.510E+02	2.508E+02	4.354E+01	-0.062

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		329.70		-1.385E+01	6.985E+01	1.145E+02	1.441E+01	-0.121
		334.20		-1.954E+01	1.920E+02	3.179E+02	5.855E+01	-0.061
AC-228		338.32		9.607E+00	2.117E+01	3.604E+01	1.471E+01	0.267
		911.07	*	1.412E+00	1.183E+01	1.874E+01	1.976E+00	0.075
		969.11		7.737E+00	1.926E+01	3.366E+01	7.706E+00	0.230
RA-228		338.32		9.607E+00	2.117E+01	3.604E+01	1.471E+01	0.267
		911.07	*	1.412E+00	1.183E+01	1.874E+01	1.976E+00	0.075
		969.11		7.737E+00	1.926E+01	3.366E+01	7.706E+00	0.230
TH-228		74.81		7.206E+00	3.384E+01	5.453E+01	4.651E+00	0.132
		77.11		-1.454E+00	1.904E+01	3.050E+01	2.609E+00	-0.048
		87.30		-6.703E+00	3.794E+01	5.398E+01	4.959E+00	-0.124
	+	238.63	*	2.039E+00	6.802E+00	9.032E+00	6.530E-01	0.226
		300.09		-1.190E+01	6.367E+01	1.045E+02	6.160E+01	-0.114
TH-229		85.43		-2.478E+00	1.704E+01	2.686E+01	2.431E+00	-0.092
		88.47		-5.327E-01	1.117E+01	1.606E+01	1.472E+00	-0.033
		100.00		-1.948E+00	1.835E+01	2.991E+01	2.302E+00	-0.065
		193.63	*	4.070E+01	4.943E+01	8.407E+01	4.547E+00	0.484
		210.97		-2.296E+01	6.617E+01	1.033E+02	5.690E+00	-0.222
TH-230		67.67	*	2.903E+02	2.166E+03	1.797E+03	1.166E+04	0.162
PA-231		283.67	*	-7.258E+01	1.314E+02	2.102E+02	2.905E+01	-0.345
		301.29		-2.649E+00	4.484E+01	7.482E+01	7.890E+00	-0.035
		330.00		-4.026E+01	1.554E+02	2.526E+02	7.920E+01	-0.159
TH-231		84.21	*	2.613E-01	4.439E+01	6.965E+01	1.255E+01	0.004
U-231		84.21		1.039E+00	1.765E+02	2.769E+02	2.482E+01	0.004
	+	92.29		9.746E+00	1.271E+02	1.341E+02	1.153E+01	0.073
		95.87	*	-1.367E+00	4.256E+01	6.114E+01	4.980E+00	-0.022
		108.00		-5.468E+00	7.163E+01	1.167E+02	8.150E+00	-0.047
TH-232		59.00	*	-4.201E+03	4.432E+04	4.268E+03	4.493E+04	-0.984
PA-233		75.28		2.071E+02	2.821E+02	4.648E+02	7.095E+01	0.446
		86.59		-1.187E+02	1.661E+02	2.208E+02	5.960E+01	-0.538
		300.12		-6.353E+00	3.240E+01	5.344E+01	7.218E+00	-0.119
		311.98	*	1.477E+00	5.528E+00	9.467E+00	6.010E-01	0.156
		340.50		-1.648E+01	5.520E+01	8.977E+01	2.068E+01	-0.184
		398.62		-4.593E+01	1.782E+02	2.874E+02	7.453E+01	-0.160
		415.76		4.759E+01	1.489E+02	2.537E+02	5.246E+01	0.188
PA-234		63.00		-6.782E+01	1.575E+02	2.522E+02	3.863E+01	-0.269
		94.67		2.618E+01	1.865E+01	2.944E+01	3.584E+00	0.889
		98.44		6.075E+00	1.074E+01	1.544E+01	8.595E+00	0.394
		99.86		-1.596E+01	4.895E+01	7.582E+01	5.845E+00	-0.211
		111.00		3.585E+00	1.966E+01	3.135E+01	3.397E+00	0.114
		131.20		1.127E+00	1.018E+01	1.671E+01	9.707E-01	0.067
		152.70		-7.667E+00	3.003E+01	4.779E+01	7.494E+00	-0.160
		186.00		5.978E+01	1.317E+02	2.177E+02	6.635E+01	0.275
		226.40		-4.555E+00	3.501E+01	5.546E+01	6.356E+00	-0.082
		227.20		-1.068E+01	3.689E+01	5.758E+01	3.228E+00	-0.186
		248.90		-6.193E+01	7.490E+01	1.085E+02	2.329E+01	-0.571
		293.70		6.968E+01	6.407E+01	1.095E+02	1.766E+01	0.637
		369.80		5.611E+01	7.446E+01	1.309E+02	2.738E+01	0.429
		568.70		5.513E+01	1.016E+02	1.561E+02	8.792E+00	0.353

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		569.50		1.068E+01	2.668E+01	4.024E+01	2.264E+00	0.265
		574.00		2.329E+01	1.221E+02	2.041E+02	1.143E+01	0.114
		699.00		1.083E+01	6.006E+01	9.943E+01	1.773E+01	0.109
		706.10		3.248E+01	8.288E+01	1.394E+02	6.146E+01	0.233
		733.00		1.085E+01	2.803E+01	4.780E+01	1.015E+01	0.227
		742.81		6.446E+01	1.109E+02	1.809E+02	1.210E+02	0.356
		796.30		-3.610E+00	6.177E+01	9.823E+01	2.597E+01	-0.037
		805.60		3.546E+01	7.851E+01	1.339E+02	4.035E+01	0.265
		819.60		-2.707E+01	9.154E+01	1.380E+02	5.195E+01	-0.196
		826.30		3.478E+01	6.684E+01	1.170E+02	5.198E+01	0.297
		831.60		-2.583E+00	4.844E+01	8.071E+01	2.372E+01	-0.032
		876.40		-1.027E+00	7.001E+01	1.170E+02	1.201E+02	-0.009
		880.51		-1.935E+00	2.466E+01	4.041E+01	3.039E+00	-0.048
		883.24		1.265E+01	2.424E+01	4.095E+01	2.748E+01	0.309
		899.00		-2.036E+01	4.811E+01	7.185E+01	3.129E+01	-0.283
		925.00		-4.543E+01	8.554E+01	1.299E+02	9.884E+00	-0.350
		926.50		-1.014E+01	1.339E+01	1.913E+01	4.773E+00	-0.530
		946.00	*	1.264E+01	2.369E+01	4.236E+01	7.740E+00	0.298
		949.00		3.697E+00	3.401E+01	5.764E+01	4.307E+00	0.064
		980.50		1.182E+01	5.541E+01	9.529E+01	6.928E+00	0.124
		1394.10		-1.313E+01	9.218E+01	1.450E+02	9.409E+01	-0.091
PA-234M	+	766.42		8.333E+02	9.752E+02	1.450E+03	7.302E+02	0.575
		1001.03	*	-5.406E-01	3.585E+02	5.960E+02	5.188E+01	-0.001
TH-234		63.29	*	-3.471E+01	1.347E+02	2.180E+02	3.888E+01	-0.159
	+	92.38		7.168E+00	9.345E+01	9.822E+01	1.775E+01	0.073
U-234		53.20	*	-4.131E+03	4.164E+04	8.165E+03	8.165E+04	-0.506
U-235		89.95		8.928E+01	1.157E+02	1.723E+02	5.333E+01	0.518
	+	93.35		8.617E+00	1.124E+02	1.164E+02	3.255E+01	0.074
		105.00		-4.136E+01	1.027E+02	1.626E+02	4.793E+01	-0.254
		143.76	*	-1.377E+01	2.138E+01	3.247E+01	5.269E+00	-0.424
		163.35		-2.781E+01	4.415E+01	6.640E+01	1.184E+01	-0.419
		185.71		1.996E+00	4.818E+00	8.018E+00	4.301E-01	0.249
		205.31		-2.021E+01	4.915E+01	7.638E+01	1.366E+01	-0.265
NP-236		94.67		1.995E+01	1.404E+01	2.234E+01	1.853E+00	0.893
		98.44		4.595E+00	7.713E+00	1.167E+01	9.170E-01	0.394
		111.00		2.712E+00	1.487E+01	2.372E+01	1.601E+00	0.114
		160.31	*	2.750E+00	7.205E+00	1.200E+01	6.408E-01	0.229
NP-237		86.50	*	-1.828E+01	2.480E+01	3.306E+01	7.459E+00	-0.553
		95.87		-3.385E+00	1.054E+02	1.514E+02	3.706E+01	-0.022
PU-237		59.54	*	-2.632E+02	1.869E+02	2.758E+02	2.309E+01	-0.954
U-238		63.29	*	-3.471E+01	1.347E+02	2.180E+02	3.888E+01	-0.159
	+	92.38		7.168E+00	9.345E+01	9.822E+01	8.434E+00	0.073
NP-239		99.55		-5.021E+00	1.636E+01	2.538E+01	1.965E+00	-0.198
		117.00	*	-6.471E+00	1.954E+01	3.125E+01	1.981E+00	-0.207
		209.75		2.355E+01	6.740E+01	1.111E+02	6.115E+00	0.212
		228.18		5.106E+00	1.937E+01	3.172E+01	1.780E+00	0.161
		277.60		9.194E+00	1.439E+01	2.541E+01	1.492E+00	0.362
		334.30		3.774E+01	1.047E+02	1.806E+02	1.094E+01	0.209
AM-241		59.54	*	-2.098E+01	1.491E+01	2.198E+01	1.982E+00	-0.954

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AM-243		74.67	*	7.888E-01	5.433E+00	8.720E+00	7.369E-01	0.090
		86.72		-6.420E+02	9.187E+02	1.245E+03	1.139E+02	-0.516
		117.66		7.412E+01	4.006E+02	6.622E+02	4.171E+01	0.112
		142.18		-1.380E+03	1.845E+03	2.805E+03	1.572E+02	-0.492
CM-243		99.55		-5.165E+00	1.683E+01	2.610E+01	2.021E+00	-0.198
		103.76	*	-3.937E-03	9.364E+00	1.535E+01	1.127E+00	0.000
		117.00		-6.654E+00	2.009E+01	3.213E+01	2.037E+00	-0.207
		209.75		2.321E+01	6.641E+01	1.095E+02	6.025E+00	0.212
		228.18		5.157E+00	1.956E+01	3.203E+01	1.798E+00	0.161
		277.60		9.265E+00	1.450E+01	2.561E+01	1.503E+00	0.362
AM-246		798.80		2.597E-01	1.016E+01	1.639E+01	1.063E+00	0.016
		1036.00		-1.511E+01	2.209E+01	3.218E+01	2.208E+00	-0.470
		1062.04		-4.188E+00	1.406E+01	2.188E+01	1.454E+00	-0.191
		1078.86	*	-3.973E+00	1.131E+01	1.768E+01	1.149E+00	-0.225
CM-247		278.00		3.915E+01	5.939E+01	1.051E+02	6.170E+00	0.373
		287.40		2.232E+01	1.072E+02	1.831E+02	1.082E+01	0.122
		402.60	*	1.021E+00	3.074E+00	5.266E+00	3.227E-01	0.194
CF-249		252.85		2.811E+01	7.834E+01	1.290E+02	7.414E+00	0.218
		333.44		-4.095E+00	1.420E+01	2.312E+01	1.401E+00	-0.177
		387.95	*	2.147E+00	3.189E+00	5.651E+00	3.461E-01	0.380
CF-251	+	176.60	*	2.201E+01	1.825E+01	2.262E+01	1.203E+00	0.973
		227.00		-6.927E+00	3.297E+01	5.184E+01	2.906E+00	-0.134
		285.00		2.623E+01	1.467E+02	2.500E+02	1.476E+01	0.105
ANH-511		511.00	*	-6.836E+00	4.304E+00	7.736E+00	4.580E-01	-0.884

VAX/VMS Nuclide Identification Report Generated

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*************************************************************************
*                          GEL Laboratories LLC                         *
*                              2040 Savage Road                         *
*                            Charleston, SC 29414                       *
*************************************************************************
*                                                                       *
*                              DETECTOR DATA                            *
*                                                                       *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G242754001 *
* Acquisition date : 18-DEC-2009 08:44:06 Detector SN#     :           *
* Detector ID        : GAM14               Sensitivity     : 5.000     *
* Geometry           : 2LMB                Energy tolerance: 1.500     *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000    *
* Elapsed real time:     0 02:00:00.59     Half life ratio :  8.000    *
*************************************************************************
*                                                                       *
*                              SAMPLE DATA                              *
*                                                                       *
* Sample date        :  9-DEC-2009 12:00:00 Nuclide Library : LIQUI     *
* Sample ID          : G242754001           Analyst initials: KXG3      *
* Batch Number       : 933232               Sample Quantity : 2.0000E+00 LITER *
* Recovery           :    1.00000           Carrier Weight :    0.00000 *
*************************************************************************
*                                                                       *
*                                QC DATA                                *
* Standard Weight  :   0.00000                                          *
* CALIB. DATE/TIME :  9-MAR-2009 15:03:15 MS Isotope      :             *
* MSD DPM          :    0.000             MSD Isotope     :             *
* LCS DPM          :    0.000             LCS Isotope     :             *
* LCSD DPM         :    0.000             LCSD Isotope    :             *
*************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
NB-95	3.186E+00	3.304E+00	4.507E+00	0.000E+00
SB-122	1.525E+02	1.038E+02	6.013E+01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	-2.496E+00	2.476E+01	4.115E+01	0.000E+00	NOT IDENT.
NA-22	2.047E+00	2.477E+00	4.851E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00	6.399E+04	0.000E+00	0.000E+00	SHORT HLIF
AL-26	2.524E+00	3.168E+00	6.218E+00	0.000E+00	NOT IDENT.
K-40	6.464E+00	3.912E+01	7.080E+01	0.000E+00	NOT IDENT.
TI-44	-2.776E+00	3.346E+00	5.219E+00	0.000E+00	NOT IDENT.
SC-46	-2.734E+00	2.452E+00	3.294E+00	0.000E+00	NOT IDENT.
V-48	-7.102E-01	3.850E+00	6.339E+00	0.000E+00	NOT IDENT.
CR-51	-6.788E+00	2.706E+01	4.523E+01	0.000E+00	NOT IDENT.
MN-52	2.325E+00	9.733E+00	1.690E+01	0.000E+00	NOT IDENT.
MN-54	-1.335E+00	2.916E+00	4.696E+00	0.000E+00	NOT IDENT.
CO-56	-9.394E-01	2.871E+00	4.686E+00	0.000E+00	NOT IDENT.
CO-57	-7.781E-01	2.631E+00	4.303E+00	0.000E+00	NOT IDENT.
CO-58	-1.996E-01	2.887E+00	4.570E+00	0.000E+00	NOT IDENT.
FE-59	-2.538E+00	6.495E+00	1.030E+01	0.000E+00	NOT IDENT.
CO-60	-1.248E+00	2.495E+00	3.645E+00	0.000E+00	NOT IDENT.
ZN-65	-3.670E+00	6.383E+00	9.768E+00	0.000E+00	NOT IDENT.
GE-68	-3.309E+01	1.002E+02	1.611E+02	0.000E+00	NOT IDENT.
AS-73	-4.625E+01	6.397E+01	1.029E+02	0.000E+00	NOT IDENT.
AS-74	4.920E+00	5.557E+00	1.025E+01	0.000E+00	NOT IDENT.
SE-75	-3.672E+00	3.528E+00	5.548E+00	0.000E+00	NOT IDENT.
BR-77	1.026E+02	1.264E+02	2.326E+02	0.000E+00	FAIL ABUN
SR-82	3.029E+00	2.253E+01	3.782E+01	0.000E+00	NOT IDENT.
RB-83	4.154E+00	4.944E+00	9.118E+00	0.000E+00	NOT IDENT.
RB-84	-3.559E-01	5.097E+00	8.524E+00	0.000E+00	NOT IDENT.

KR-85	-2.138E+03	8.023E+02	1.010E+03	0.000E+00	NOT IDENT.
SR-85	-1.027E+01	3.852E+00	4.850E+00	0.000E+00	NOT IDENT.
RB-86	-1.594E+01	5.016E+01	8.069E+01	0.000E+00	NOT IDENT.
Y-88	-2.076E+00	2.950E+00	4.080E+00	0.000E+00	NOT IDENT.
ZR-88	-2.400E+00	2.160E+00	3.181E+00	0.000E+00	NOT IDENT.
Y-91	-6.723E+02	1.033E+03	1.508E+03	0.000E+00	NOT IDENT.
NB-94	-7.095E-01	2.675E+00	4.254E+00	0.000E+00	NOT IDENT.
NB-95M	6.797E+00	1.027E+01	1.572E+01	0.000E+00	NOT IDENT.
ZR-95	-2.757E+00	5.107E+00	7.674E+00	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.358E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	4.568E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-6.983E+01	1.893E+02	2.937E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.194E+11	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.332E+00	3.583E+00	5.318E+00	0.000E+00	NOT IDENT.
RH-102	-1.706E+00	2.504E+00	3.890E+00	0.000E+00	FAIL ABUN
RU-103	6.162E-01	3.073E+00	5.269E+00	0.000E+00	FAIL ABUN
RH-106	-1.892E+01	2.598E+01	3.876E+01	0.000E+00	NOT IDENT.
RU-106	-1.892E+01	2.591E+01	3.876E+01	0.000E+00	NOT IDENT.
AG-108M	-2.558E+00	2.941E+00	4.521E+00	0.000E+00	NOT IDENT.
CD-109	-3.363E+01	8.196E+01	1.166E+02	0.000E+00	NOT IDENT.
AG-110M	-2.805E-01	2.301E+00	3.736E+00	0.000E+00	NOT IDENT.
IN-111	-6.724E+00	1.959E+01	3.096E+01	0.000E+00	NOT IDENT.
IN-113M	-3.180E+00	3.203E+00	4.805E+00	0.000E+00	NOT IDENT.
SN-113	-3.180E+00	3.203E+00	4.805E+00	0.000E+00	NOT IDENT.
IN-114M	-1.073E+01	1.657E+01	2.604E+01	0.000E+00	NOT IDENT.
CD-115	2.273E+01	1.096E+02	1.886E+02	0.000E+00	NOT IDENT.
SN-117M	4.904E-02	3.613E+00	5.981E+00	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.922E+05	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-8.716E-01	2.526E+00	4.074E+00	0.000E+00	NOT IDENT.
I-124	9.009E+00	2.016E+01	3.134E+01	0.000E+00	NOT IDENT.
SB-124	7.017E+00	8.669E+00	1.628E+01	0.000E+00	NOT IDENT.
SB-125	3.090E+00	7.253E+00	1.279E+01	0.000E+00	NOT IDENT.
TE-125M	4.832E+02	8.773E+02	1.458E+03	0.000E+00	NOT IDENT.
I-126	4.100E+00	9.553E+00	1.676E+01	0.000E+00	NOT IDENT.
SB-126	-2.240E+00	8.219E+00	1.303E+01	0.000E+00	NOT IDENT.
SN-126	-3.825E+00	8.193E+00	1.160E+01	0.000E+00	NOT IDENT.
SB-127	-1.836E+01	3.526E+01	5.386E+01	0.000E+00	NOT IDENT.
XE-127	-1.498E+00	3.830E+00	6.102E+00	0.000E+00	NOT IDENT.
I-131	1.070E+00	5.864E+00	1.013E+01	0.000E+00	NOT IDENT.
TE-132	4.054E+00	1.535E+01	2.562E+01	0.000E+00	NOT IDENT.
BA-133	-1.462E-01	3.848E+00	6.524E+00	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.899E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-1.454E+00	3.080E+00	4.615E+00	0.000E+00	FAIL ABUN
CS-135	1.094E+01	1.265E+01	2.309E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	5.848E+10	0.000E+00	0.000E+00	SHORT HLIF
CS-136	4.498E+00	5.435E+00	1.038E+01	0.000E+00	FAIL ABUN
BA-137M	6.611E-01	2.451E+00	4.223E+00	0.000E+00	NOT IDENT.
CS-137	6.989E-01	2.591E+00	4.464E+00	0.000E+00	NOT IDENT.
CE-139	-1.177E+00	2.644E+00	4.065E+00	0.000E+00	NOT IDENT.
BA-140	2.013E+00	1.397E+01	2.254E+01	0.000E+00	NOT IDENT.
LA-140	2.021E+00	5.651E+00	9.994E+00	0.000E+00	NOT IDENT.
CE-141	-5.793E-01	5.202E+00	8.561E+00	0.000E+00	NOT IDENT.
CE-143	4.992E+02	5.420E+02	9.320E+02	0.000E+00	NOT IDENT.
CE-144	1.006E+01	1.908E+01	3.272E+01	0.000E+00	NOT IDENT.
PM-144	3.184E+00	2.763E+00	5.206E+00	0.000E+00	NOT IDENT.
PR-144	2.150E+02	1.866E+02	3.516E+02	0.000E+00	NOT IDENT.
PM-146	-1.198E+00	3.194E+00	5.129E+00	0.000E+00	NOT IDENT.
ND-147	1.779E+00	2.689E+01	4.539E+01	0.000E+00	NOT IDENT.
PM-149	7.079E+02	1.057E+03	1.901E+03	0.000E+00	NOT IDENT.
EU-152	3.172E+00	9.038E+00	1.581E+01	0.000E+00	NOT IDENT.
GD-153	5.643E+00	8.127E+00	1.265E+01	0.000E+00	NOT IDENT.
EU-154	6.170E+00	7.053E+00	1.387E+01	0.000E+00	NOT IDENT.
EU-155	-4.417E+00	1.016E+01	1.649E+01	0.000E+00	NOT IDENT.
TB-160	-1.287E+00	1.062E+01	1.784E+01	0.000E+00	NOT IDENT.
HO-166M	-1.909E+00	4.741E+00	7.356E+00	0.000E+00	NOT IDENT.
TM-171	-1.424E+03	2.774E+03	4.466E+03	0.000E+00	NOT IDENT.
HF-175	3.207E-01	3.163E+00	5.430E+00	0.000E+00	NOT IDENT.
LU-176	-1.132E+00	2.236E+00	3.394E+00	0.000E+00	NOT IDENT.
LU-177	1.660E+01	5.023E+01	8.431E+01	0.000E+00	NOT IDENT.
LU-177M	8.680E+00	1.471E+01	2.622E+01	0.000E+00	NOT IDENT.
HF-181	1.015E-01	3.035E+00	5.119E+00	0.000E+00	NOT IDENT.
W-181	2.720E+01	3.421E+01	5.900E+01	0.000E+00	NOT IDENT.
TA-182	-2.383E+00	1.149E+01	1.854E+01	0.000E+00	NOT IDENT.
RE-183	-4.886E+00	9.397E+00	1.466E+01	0.000E+00	NOT IDENT.
RE-184	7.302E+00	1.994E+01	3.350E+01	0.000E+00	NOT IDENT.
OS-185	-2.966E-01	3.247E+00	5.314E+00	0.000E+00	NOT IDENT.
RE-188	-5.589E+00	1.482E+01	2.387E+01	0.000E+00	NOT IDENT.
W-188	-5.166E+02	6.250E+02	1.004E+03	0.000E+00	NOT IDENT.

IR-192	-6.129E-01	2.626E+00	4.392E+00	0.000E+00	NOT IDENT.
AU-195	1.100E+01	2.383E+01	3.639E+01	0.000E+00	NOT IDENT.
TL-200	0.000E+00	7.757E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	5.458E+01	1.587E+02	2.516E+02	0.000E+00	NOT IDENT.
TL-202	4.230E-01	4.197E+00	7.150E+00	0.000E+00	NOT IDENT.
HG-203	1.385E+00	2.899E+00	5.163E+00	0.000E+00	NOT IDENT.
BI-207	-9.569E-01	3.511E+00	5.646E+00	0.000E+00	NOT IDENT.
TL-207	1.288E+01	5.612E+01	9.754E+01	0.000E+00	NOT IDENT.
TL-208	2.429E+00	3.124E+00	5.432E+00	0.000E+00	NOT IDENT.
PO-209	8.110E+01	4.498E+02	7.922E+02	0.000E+00	NOT IDENT.
BI-210	-2.984E+02	2.895E+02	4.740E+02	0.000E+00	NOT IDENT.
PB-210	-2.984E+02	2.895E+02	4.740E+02	0.000E+00	NOT IDENT.
PO-210	-2.984E+02	2.893E+02	4.740E+02	0.000E+00	NOT IDENT.
BI-211	1.463E+01	2.070E+01	3.595E+01	0.000E+00	NOT IDENT.
PB-211	-1.343E+01	7.453E+01	1.230E+02	0.000E+00	NOT IDENT.
BI-212	5.586E+00	2.249E+01	3.833E+01	0.000E+00	NOT IDENT.
PB-212	2.039E+00	6.666E+00	9.032E+00	0.000E+00	FAIL ABUN
PO-212	2.039E+00	6.666E+00	9.032E+00	0.000E+00	FAIL ABUN
BI-214	6.835E+00	9.098E+00	1.290E+01	0.000E+00	FAIL ABUN
PB-214	8.135E+00	7.150E+00	1.274E+01	0.000E+00	NOT IDENT.
PO-214	8.135E+00	7.150E+00	1.274E+01	0.000E+00	NOT IDENT.
PO-215	1.288E+01	5.612E+01	9.754E+01	0.000E+00	NOT IDENT.
PO-216	2.039E+00	6.666E+00	9.032E+00	0.000E+00	FAIL ABUN
PO-218	8.135E+00	7.150E+00	1.274E+01	0.000E+00	NOT IDENT.
RN-219	3.336E+01	3.371E+01	6.190E+01	0.000E+00	NOT IDENT.
RN-220	1.503E+02	2.107E+03	3.089E+03	0.000E+00	NOT IDENT.
RA-223	1.288E+01	5.612E+01	9.754E+01	0.000E+00	NOT IDENT.
RA-224	2.086E+01	6.122E+01	9.049E+01	0.000E+00	NOT IDENT.
RA-226	2.815E+01	8.095E+01	1.326E+02	0.000E+00	NOT IDENT.
AC-227	-1.584E+01	3.285E+01	5.439E+01	0.000E+00	NOT IDENT.
PA-227	0.000E+00	4.063E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-1.584E+01	3.288E+01	5.439E+01	0.000E+00	FAIL ABUN
AC-228	1.412E+00	1.159E+01	1.874E+01	0.000E+00	NOT IDENT.
RA-228	1.412E+00	1.159E+01	1.874E+01	0.000E+00	NOT IDENT.
TH-228	2.039E+00	6.666E+00	9.032E+00	0.000E+00	FAIL ABUN
TH-229	4.070E+01	4.844E+01	8.407E+01	0.000E+00	NOT IDENT.
TH-230	2.903E+02	2.122E+03	1.797E+03	0.000E+00	NOT IDENT.
PA-231	-7.258E+01	1.288E+02	2.102E+02	0.000E+00	NOT IDENT.
TH-231	2.613E-01	4.351E+01	6.965E+01	0.000E+00	NOT IDENT.
U-231	-1.367E+00	4.171E+01	6.114E+01	0.000E+00	FAIL ABUN
TH-232	-4.201E+03	4.343E+04	4.268E+03	0.000E+00	NOT IDENT.
PA-233	1.477E+00	5.418E+00	9.467E+00	0.000E+00	NOT IDENT.
PA-234	1.264E+01	2.322E+01	4.236E+01	0.000E+00	NOT IDENT.
PA-234M	-5.406E-01	3.514E+02	5.960E+02	0.000E+00	FAIL ABUN
TH-234	-3.471E+01	1.320E+02	2.180E+02	0.000E+00	FAIL ABUN
U-234	-4.131E+03	4.081E+04	8.165E+03	0.000E+00	NOT IDENT.
U-235	-1.377E+01	2.095E+01	3.247E+01	0.000E+00	FAIL ABUN
NP-236	2.750E+00	7.061E+00	1.200E+01	0.000E+00	NOT IDENT.
NP-237	-1.828E+01	2.430E+01	3.306E+01	0.000E+00	NOT IDENT.
PU-237	-2.632E+02	1.831E+02	2.758E+02	0.000E+00	NOT IDENT.
U-238	-3.471E+01	1.320E+02	2.180E+02	0.000E+00	FAIL ABUN
NP-239	-6.471E+00	1.915E+01	3.125E+01	0.000E+00	NOT IDENT.
AM-241	-2.098E+01	1.461E+01	2.198E+01	0.000E+00	NOT IDENT.
AM-243	7.888E-01	5.324E+00	8.720E+00	0.000E+00	NOT IDENT.
CM-243	-3.937E-03	9.177E+00	1.535E+01	0.000E+00	NOT IDENT.
AM-246	-3.973E+00	1.109E+01	1.768E+01	0.000E+00	NOT IDENT.
CM-247	1.021E+00	3.012E+00	5.266E+00	0.000E+00	NOT IDENT.
CF-249	2.147E+00	3.126E+00	5.651E+00	0.000E+00	NOT IDENT.
CF-251	2.201E+01	1.789E+01	2.262E+01	0.000E+00	FAIL ABUN
ANH-511	-6.836E+00	4.218E+00	7.736E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 10:44:52.48

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G242754001.CNF;1
Sample date       : 9-DEC-2009 12:00:00. Acquisition date : 18-DEC-2009 08:44:06
Sample ID         : G242754001           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM14                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.59  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 933232               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	92.90	107	212	1.24	185.47	179	13	1.48E-02	30.1	
2	0	175.66	54	120	1.83	350.86	343	11	7.56E-03	41.4	
3	0	238.22	54	65	1.49	475.87	471	10	7.56E-03	30.8	
4	0	510.50	123	54	1.70	1020.10	1011	17	1.71E-02	16.5	
5	0	562.68	74	63	14.18	1124.41	1105	32	1.02E-02	34.6	
6	0	608.98	34	32	1.44	1216.98	1210	12	4.74E-03	37.7	
7	0	766.20	18	9	1.34	1531.34	1527	10	2.53E-03	39.6	
8	5	911.45	10	4	1.35	1821.84	1820	16	1.34E-03	41.5	1.48E+00
9	5	913.96	19	14	2.75	1826.84	1820	16	2.63E-03	47.5	

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 10:45:01.60

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G242754001.CNF;1
Sample date       : 9-DEC-2009 12:00:00. Acquisition date : 18-DEC-2009 08:44:06
Sample ID         : G242754001           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM14                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.59  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 933232                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
NB-95	765.79	14	99.81*	9.929E-01	2.672E+00	3.186E+00	105.81
SB-122	563.90	74	70.60*	1.263E+00	1.550E+01	1.525E+02	69.43
	692.80	------	3.70	1.076E+00	------	Line Not Found	------

Flag: "*" = Keyline

Sample ID : G242754001 Acquisition date : 18-DEC-2009 08:44:06

Total number of lines in spectrum	7	
Number of unidentified lines	1	
Number of lines tentatively identified by NID	6	85.71%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
NB-95	35.06D	1.19	2.672E+00	3.186E+00	3.371E+00	105.81	
SB-122	2.70D	9.84	1.550E+01	1.525E+02	1.059E+02	69.43	
		Total Activity :	1.817E+01	1.557E+02			
		Grand Total Activity :	1.817E+01	1.557E+02			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G242754001 Acquisition date : 18-DEC-2009 08:44:06

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	92.90	5	212	1.24	185.47	179	13	7.14E-04	****	2.49E+00	T
0	175.66	54	120	1.83	350.86	343	11	7.56E-03	82.7	2.62E+00	T
0	238.22	11	65	1.49	475.87	471	10	1.51E-03	****	2.26E+00	T
0	608.98	20	32	1.44	1216.98	1210	12	2.78E-03	****	1.19E+00	T
5	913.96	19	14	2.75	1826.84	1820	16	2.63E-03	95.0	8.61E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 10:45:17.19

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                            *
*                                DETECTOR DATA                               *
*                                                                            *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G242754001.CNF;1  *
* Acquisition date  : 18-DEC-2009 08:44:06  Detector SN#     :               *
* Detector ID       : GAM14                 Sensitivity      : 5.00000       *
* Geometry          : 2LMB                  Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:00.59          Half life ratio : 8.00000        *
*****************************************************************************
*                                                                            *
*                                SAMPLE DATA                                 *
*                                                                            *
* Sample date       : 9-DEC-2009 12:00:00.  Nuclide Library : LIQUID         *
* Sample ID         : G242754001            Analyst initials: KXG3           *
* Batch Number      : 933232                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                            *
*                                  QC DATA                                   *
*                                                                            *
* CALIB. DATE/TIME : 9-MAR-2009 15:03:15.29MS Isotope      :                 *
* MSD ID           :                       MSD Isotope     :                 *
* LCS ID           : 1032-A                LCS Isotope     :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NB-95	3.186E+00	3.371E+00	4.507E+00	2.744E-01	0.707
SB-122	1.525E+02	1.059E+02	6.013E+01	3.404E+00	2.536

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	-2.496E+00		2.526E+01	4.115E+01	2.860E+00	-0.061
NA-22	2.047E+00		2.527E+00	4.851E+00	3.212E-01	0.422
NA-24	1.102E-02		3.265E-02	Half-Life too short		
AL-26	2.524E+00		3.233E+00	6.218E+00	3.646E-01	0.406
K-40	6.464E+00		3.992E+01	7.080E+01	5.196E+00	0.091
TI-44	-2.776E+00		3.414E+00	5.219E+00	4.497E-01	-0.532
SC-46	-2.734E+00		2.502E+00	3.294E+00	2.515E-01	-0.830
V-48	-7.102E-01		3.929E+00	6.339E+00	4.596E-01	-0.112
CR-51	-6.788E+00		2.761E+01	4.523E+01	3.014E+00	-0.150
MN-52	2.325E+00		9.931E+00	1.690E+01	1.200E+00	0.138

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
MN-54	-1.335E+00		2.976E+00	4.696E+00	3.256E-01	-0.284
CO-56	-9.394E-01		2.929E+00	4.686E+00	3.319E-01	-0.200
CO-57	-7.781E-01		2.684E+00	4.303E+00	2.601E-01	-0.181
CO-58	-1.996E-01		2.946E+00	4.570E+00	3.043E-01	-0.044
FE-59	-2.538E+00		6.627E+00	1.030E+01	7.454E-01	-0.246
CO-60	-1.248E+00		2.545E+00	3.645E+00	2.640E-01	-0.342
ZN-65	-3.670E+00		6.513E+00	9.768E+00	6.023E-01	-0.376
GE-68	-3.309E+01		1.023E+02	1.611E+02	1.049E+01	-0.205
AS-73	-4.625E+01		6.528E+01	1.029E+02	8.326E+00	-0.449
AS-74	4.920E+00		5.670E+00	1.025E+01	5.594E-01	0.480
SE-75	-3.672E+00		3.600E+00	5.548E+00	3.256E-01	-0.662
BR-77	1.026E+02		1.290E+02	2.326E+02	1.368E+01	0.441
SR-82	3.029E+00		2.299E+01	3.782E+01	2.351E+00	0.080
RB-83	4.154E+00		5.045E+00	9.118E+00	5.363E-01	0.456
RB-84	-3.559E-01		5.201E+00	8.524E+00	6.421E-01	-0.042
KR-85	-2.138E+03		8.187E+02	1.010E+03	5.968E+01	-2.117
SR-85	-1.027E+01		3.931E+00	4.850E+00	2.865E-01	-2.117
RB-86	-1.594E+01		5.118E+01	8.069E+01	5.258E+00	-0.198
Y-88	-2.076E+00		3.010E+00	4.080E+00	2.346E-01	-0.509
ZR-88	-2.400E+00		2.205E+00	3.181E+00	1.948E-01	-0.754
Y-91	-6.723E+02		1.054E+03	1.508E+03	8.859E+01	-0.446
NB-94	-7.095E-01		2.730E+00	4.254E+00	2.281E-01	-0.167
NB-95M	6.797E+00		1.047E+01	1.572E+01	1.166E+00	0.432
ZR-95	-2.757E+00		5.211E+00	7.674E+00	5.508E-01	-0.359
NB-97	1.210E-03		6.926E-03	Half-Life too short		
ZR-97	2.131E-01		2.331E-01	Half-Life too short		
MO-99	-6.983E+01		1.931E+02	2.937E+02	4.045E+01	-0.238
TC-99M	1.158E+05		6.090E+04	Half-Life too short		
RH-101	-1.332E+00		3.656E+00	5.318E+00	2.889E-01	-0.251
RH-102	-1.706E+00		2.555E+00	3.890E+00	2.349E-01	-0.439
RU-103	6.162E-01		3.136E+00	5.269E+00	6.704E-01	0.117
RH-106	-1.892E+01		2.651E+01	3.876E+01	4.449E+00	-0.488
RU-106	-1.892E+01		2.644E+01	3.876E+01	2.039E+00	-0.488
AG-108M	-2.558E+00		3.001E+00	4.521E+00	2.978E-01	-0.566
CD-109	-3.363E+01		8.364E+01	1.166E+02	1.077E+01	-0.288
AG-110M	-2.805E-01		2.348E+00	3.736E+00	2.012E-01	-0.075
IN-111	-6.724E+00		1.999E+01	3.096E+01	1.767E+00	-0.217
IN-113M	-3.180E+00		3.269E+00	4.805E+00	3.120E-01	-0.662
SN-113	-3.180E+00		3.269E+00	4.805E+00	3.120E-01	-0.662
IN-114M	-1.073E+01		1.691E+01	2.604E+01	1.403E+00	-0.412
CD-115	2.273E+01		1.119E+02	1.886E+02	1.103E+01	0.121
SN-117M	4.904E-02		3.687E+00	5.981E+00	3.209E-01	0.008
I-123	-6.632E-02		9.805E-02	Half-Life too short		
TE-123M	-8.716E-01		2.577E+00	4.074E+00	2.218E-01	-0.214
I-124	9.009E+00		2.057E+01	3.134E+01	1.694E+00	0.287
SB-124	7.017E+00		8.846E+00	1.628E+01	1.109E+00	0.431
SB-125	3.090E+00		7.401E+00	1.279E+01	8.125E-01	0.242
TE-125M	4.832E+02		8.952E+02	1.458E+03	1.299E+02	0.332

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
I-126	4.100E+00		9.748E+00	1.676E+01	8.320E-01	0.245
SB-126	-2.240E+00		8.386E+00	1.303E+01	7.248E-01	-0.172
SN-126	-3.825E+00		8.360E+00	1.160E+01	1.068E+00	-0.330
SB-127	-1.836E+01		3.598E+01	5.386E+01	3.774E+00	-0.341
XE-127	-1.498E+00		3.908E+00	6.102E+00	3.333E-01	-0.245
I-131	1.070E+00		5.983E+00	1.013E+01	6.793E-01	0.106
TE-132	4.054E+00		1.566E+01	2.562E+01	3.396E+00	0.158
BA-133	-1.462E-01		3.927E+00	6.524E+00	7.643E-01	-0.022
I-133	2.363E-03		1.479E-03	Half-Life too short		
CS-134	-1.454E+00		3.143E+00	4.615E+00	3.015E-01	-0.315
CS-135	1.094E+01		1.291E+01	2.309E+01	1.773E+00	0.474
I-135	4.426E+03		2.983E+04	Half-Life too short		
CS-136	4.498E+00		5.546E+00	1.038E+01	7.490E-01	0.433
BA-137M	6.611E-01		2.501E+00	4.223E+00	2.076E-01	0.157
CS-137	6.989E-01		2.644E+00	4.464E+00	2.208E-01	0.157
CE-139	-1.177E+00		2.698E+00	4.065E+00	2.144E-01	-0.289
BA-140	2.013E+00		1.426E+01	2.254E+01	7.329E+00	0.089
LA-140	2.021E+00		5.767E+00	9.994E+00	6.687E-01	0.202
CE-141	-5.793E-01		5.308E+00	8.561E+00	4.960E-01	-0.068
CE-143	4.992E+02		5.530E+02	9.320E+02	1.927E+02	0.536
CE-144	1.006E+01		1.947E+01	3.272E+01	4.642E+00	0.307
PM-144	3.184E+00		2.819E+00	5.206E+00	2.757E-01	0.612
PR-144	2.150E+02		1.904E+02	3.516E+02	1.861E+01	0.612
PM-146	-1.198E+00		3.259E+00	5.129E+00	4.522E-01	-0.234
ND-147	1.779E+00		2.744E+01	4.539E+01	6.144E+00	0.039
PM-149	7.079E+02		1.079E+03	1.901E+03	2.700E+02	0.372
EU-152	3.172E+00		9.222E+00	1.581E+01	1.073E+00	0.201
GD-153	5.643E+00		8.292E+00	1.265E+01	1.008E+00	0.446
EU-154	6.170E+00		7.196E+00	1.387E+01	1.368E+00	0.445
EU-155	-4.417E+00		1.036E+01	1.649E+01	1.208E+00	-0.268
TB-160	-1.287E+00		1.084E+01	1.784E+01	1.339E+00	-0.072
HO-166M	-1.909E+00		4.838E+00	7.356E+00	4.019E-01	-0.260
TM-171	-1.424E+03		2.831E+03	4.466E+03	3.694E+02	-0.319
HF-175	3.207E-01		3.228E+00	5.430E+00	3.301E-01	0.059
LU-176	-1.132E+00		2.282E+00	3.394E+00	2.031E-01	-0.334
LU-177	1.660E+01		5.125E+01	8.431E+01	4.632E+00	0.197
LU-177M	8.680E+00		1.501E+01	2.622E+01	1.606E+00	0.331
HF-181	1.015E-01		3.097E+00	5.119E+00	3.081E-01	0.020
W-181	2.720E+01		3.491E+01	5.900E+01	4.880E+00	0.461
TA-182	-2.383E+00		1.172E+01	1.854E+01	1.121E+00	-0.129
RE-183	-4.886E+00		9.588E+00	1.466E+01	7.791E-01	-0.333
RE-184	7.302E+00		2.035E+01	3.350E+01	1.926E+00	0.218
OS-185	-2.966E-01		3.313E+00	5.314E+00	2.688E-01	-0.056
RE-188	-5.589E+00		1.512E+01	2.387E+01	1.292E+00	-0.234
W-188	-5.166E+02		6.377E+02	1.004E+03	5.946E+01	-0.515
IR-192	-6.129E-01		2.679E+00	4.392E+00	2.654E-01	-0.140
AU-195	1.100E+01		2.432E+01	3.639E+01	2.842E+00	0.302
TL-200	-6.623E-05		3.957E-04	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TL-201	5.458E+01		1.619E+02	2.516E+02	1.327E+01	0.217
TL-202	4.230E-01		4.283E+00	7.150E+00	4.366E-01	0.059
HG-203	1.385E+00		2.959E+00	5.163E+00	3.217E-01	0.268
BI-207	-9.569E-01		3.582E+00	5.646E+00	3.744E-01	-0.169
TL-207	1.288E+01		5.727E+01	9.754E+01	1.619E+01	0.132
TL-208	2.429E+00		3.187E+00	5.432E+00	3.511E-01	0.447
PO-209	8.110E+01		4.590E+02	7.922E+02	6.125E+01	0.102
BI-210	-2.984E+02		2.954E+02	4.740E+02	3.733E+01	-0.629
PB-210	-2.984E+02		2.954E+02	4.740E+02	3.733E+01	-0.629
PO-210	-2.984E+02		2.952E+02	4.740E+02	3.229E+01	-0.629
BI-211	1.463E+01		2.112E+01	3.595E+01	2.408E+00	0.407
PB-211	-1.343E+01		7.605E+01	1.230E+02	7.674E+01	-0.109
BI-212	5.586E+00		2.295E+01	3.833E+01	2.911E+00	0.146
PB-212	2.039E+00	+	6.802E+00	9.032E+00	6.530E-01	0.226
PO-212	2.039E+00	+	6.802E+00	9.032E+00	6.530E-01	0.226
BI-214	6.835E+00	+	9.284E+00	1.290E+01	9.618E-01	0.530
PB-214	8.135E+00		7.296E+00	1.274E+01	1.082E+00	0.638
PO-214	8.135E+00		7.296E+00	1.274E+01	1.082E+00	0.638
PO-215	1.288E+01		5.727E+01	9.754E+01	1.619E+01	0.132
PO-216	2.039E+00	+	6.802E+00	9.032E+00	6.530E-01	0.226
PO-218	8.135E+00		7.296E+00	1.274E+01	1.082E+00	0.638
RN-219	3.336E+01		3.439E+01	6.190E+01	8.511E+00	0.539
RN-220	1.503E+02		2.150E+03	3.089E+03	1.773E+02	0.049
RA-223	1.288E+01		5.727E+01	9.754E+01	1.619E+01	0.132
RA-224	2.086E+01		6.247E+01	9.049E+01	5.144E+00	0.231
RA-226	2.815E+01		8.260E+01	1.326E+02	9.731E+01	0.212
AC-227	-1.584E+01		3.352E+01	5.439E+01	7.585E+00	-0.291
PA-227	1.000E+35		2.073E+35	Half-Life too short		
TH-227	-1.584E+01		3.355E+01	5.439E+01	9.185E+00	-0.291
AC-228	1.412E+00		1.183E+01	1.874E+01	1.976E+00	0.075
RA-228	1.412E+00		1.183E+01	1.874E+01	1.976E+00	0.075
TH-228	2.039E+00	+	6.802E+00	9.032E+00	6.530E-01	0.226
TH-229	4.070E+01		4.943E+01	8.407E+01	4.547E+00	0.484
TH-230	2.903E+02		2.166E+03	1.797E+03	1.166E+04	0.162
PA-231	-7.258E+01		1.314E+02	2.102E+02	2.905E+01	-0.345
TH-231	2.613E-01		4.439E+01	6.965E+01	1.255E+01	0.004
U-231	-1.367E+00		4.256E+01	6.114E+01	4.980E+00	-0.022
TH-232	-4.201E+03		4.432E+04	4.268E+03	4.493E+04	-0.984
PA-233	1.477E+00		5.528E+00	9.467E+00	6.010E-01	0.156
PA-234	1.264E+01		2.369E+01	4.236E+01	7.740E+00	0.298
PA-234M	-5.406E-01		3.585E+02	5.960E+02	5.188E+01	-0.001
TH-234	-3.471E+01		1.347E+02	2.180E+02	3.888E+01	-0.159
U-234	-4.131E+03		4.164E+04	8.165E+03	8.165E+04	-0.506
U-235	-1.377E+01		2.138E+01	3.247E+01	5.269E+00	-0.424
NP-236	2.750E+00		7.205E+00	1.200E+01	6.408E-01	0.229
NP-237	-1.828E+01		2.480E+01	3.306E+01	7.459E+00	-0.553
PU-237	-2.632E+02		1.869E+02	2.758E+02	2.309E+01	-0.954
U-238	-3.471E+01		1.347E+02	2.180E+02	3.888E+01	-0.159

Sample ID : G242754001 Acquisition date : 18-DEC-2009 08:44:06

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NP-239	-6.471E+00		1.954E+01	3.125E+01	1.981E+00	-0.207
AM-241	-2.098E+01		1.491E+01	2.198E+01	1.982E+00	-0.954
AM-243	7.888E-01		5.433E+00	8.720E+00	7.369E-01	0.090
CM-243	-3.937E-03		9.364E+00	1.535E+01	1.127E+00	0.000
AM-246	-3.973E+00		1.131E+01	1.768E+01	1.149E+00	-0.225
CM-247	1.021E+00		3.074E+00	5.266E+00	3.227E-01	0.194
CF-249	2.147E+00		3.189E+00	5.651E+00	3.461E-01	0.380
CF-251	2.201E+01	+	1.825E+01	2.262E+01	1.203E+00	0.973
ANH-511	-6.836E+00		4.304E+00	7.736E+00	4.580E-01	-0.884

VAX/VMS Nuclide Identification Report Generated

```
*************************************************************************
*                        GEL Laboratories LLC                           *
*                            2040 Savage Road                           *
*                          Charleston, SC 29414                         *
*************************************************************************
*                                                                       *
*                            DETECTOR DATA                              *
*                                                                       *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G242754001        *
* Acquisition date : 18-DEC-2009 08:44:06 Detector SN#    :             *
* Detector ID      : GAM14                Sensitivity     : 5.000       *
* Geometry         : 2LMB                 Energy tolerance: 1.500       *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000      *
* Elapsed real time:    0 02:00:00.59     Half life ratio : 8.000       *
*************************************************************************
*                                                                       *
*                             SAMPLE DATA                               *
*                                                                       *
* Sample date      :  9-DEC-2009 12:00:00 Nuclide Library : LIQUI       *
* Sample ID        : G242754001           Analyst initials: KXG3        *
* Batch Number     : 933232               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000   *
*************************************************************************
*                                                                       *
*                                QC DATA                                *
*                                                                       *
* CALIB. DATE/TIME :  9-MAR-2009 15:03:15 MS Isotope      :             *
* MSD DPM          :    0.000             MSD Isotope     :             *
* LCS DPM          :    0.000             LCS Isotope     :             *
* LCSD DPM         :    0.000             LCSD Isotope    :             *
*************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
NB-95	3.186E+00	3.304E+00	2.255E+00	1.686E+00
SB-122	1.525E+02	1.038E+02	3.008E+01	5.295E+01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU	
BE-7	-2.496E+00	2.476E+01	2.059E+01	1.263E+01	NOT IDENT.
NA-22	2.047E+00	2.477E+00	2.427E+00	1.264E+00	NOT IDENT.
NA-24	1.102E+04	6.399E+04	0.000E+00	3.265E+04	SHORT HLIF
AL-26	2.524E+00	3.168E+00	3.111E+00	1.616E+00	NOT IDENT.
K-40	6.464E+00	3.912E+01	3.542E+01	1.996E+01	NOT IDENT.
TI-44	-2.776E+00	3.346E+00	2.611E+00	1.707E+00	NOT IDENT.
SC-46	-2.734E+00	2.452E+00	1.648E+00	1.251E+00	NOT IDENT.
V-48	-7.102E-01	3.850E+00	3.172E+00	1.964E+00	NOT IDENT.
CR-51	-6.788E+00	2.706E+01	2.263E+01	1.381E+01	NOT IDENT.
MN-52	2.325E+00	9.733E+00	8.457E+00	4.966E+00	NOT IDENT.
MN-54	-1.335E+00	2.916E+00	2.350E+00	1.488E+00	NOT IDENT.
CO-56	-9.394E-01	2.871E+00	2.344E+00	1.465E+00	NOT IDENT.
CO-57	-7.781E-01	2.631E+00	2.153E+00	1.342E+00	NOT IDENT.
CO-58	-1.996E-01	2.887E+00	2.286E+00	1.473E+00	NOT IDENT.
FE-59	-2.538E+00	6.495E+00	5.154E+00	3.314E+00	NOT IDENT.
CO-60	-1.248E+00	2.495E+00	1.824E+00	1.273E+00	NOT IDENT.
ZN-65	-3.670E+00	6.383E+00	4.887E+00	3.257E+00	NOT IDENT.
GE-68	-3.309E+01	1.002E+02	8.060E+01	5.115E+01	NOT IDENT.
AS-73	-4.625E+01	6.397E+01	5.149E+01	3.264E+01	NOT IDENT.
AS-74	4.920E+00	5.557E+00	5.130E+00	2.835E+00	NOT IDENT.
SE-75	-3.672E+00	3.528E+00	2.775E+00	1.800E+00	NOT IDENT.
BR-77	1.026E+02	1.264E+02	1.164E+02	6.451E+01	FAIL ABUN
SR-82	3.029E+00	2.253E+01	1.892E+01	1.149E+01	NOT IDENT.
RB-83	4.154E+00	4.944E+00	4.562E+00	2.523E+00	NOT IDENT.
RB-84	-3.559E-01	5.097E+00	4.265E+00	2.601E+00	NOT IDENT.

KR-85	-2.138E+03	8.023E+02	5.054E+02	4.094E+02	NOT IDENT.
SR-85	-1.027E+01	3.852E+00	2.426E+00	1.965E+00	NOT IDENT.
RB-86	-1.594E+01	5.016E+01	4.037E+01	2.559E+01	NOT IDENT.
Y-88	-2.076E+00	2.950E+00	2.041E+00	1.505E+00	NOT IDENT.
ZR-88	-2.400E+00	2.160E+00	1.591E+00	1.102E+00	NOT IDENT.
Y-91	-6.723E+02	1.033E+03	7.543E+02	5.272E+02	NOT IDENT.
NB-94	-7.095E-01	2.675E+00	2.128E+00	1.365E+00	NOT IDENT.
NB-95M	6.797E+00	1.027E+01	7.864E+00	5.237E+00	NOT IDENT.
ZR-95	-2.757E+00	5.107E+00	3.839E+00	2.606E+00	NOT IDENT.
NB-97	1.210E+03	1.358E+04	0.000E+00	6.926E+03	SHORT HLIF
ZR-97	2.131E+05	4.568E+05	0.000E+00	2.331E+05	SHORT HLIF
MO-99	-6.983E+01	1.893E+02	1.469E+02	9.656E+01	NOT IDENT.
TC-99M	1.158E+11	1.194E+11	0.000E+00	6.090E+10	SHORT HLIF
RH-101	-1.332E+00	3.583E+00	2.661E+00	1.828E+00	NOT IDENT.
RH-102	-1.706E+00	2.504E+00	1.946E+00	1.277E+00	FAIL ABUN
RU-103	6.162E-01	3.073E+00	2.636E+00	1.568E+00	FAIL ABUN
RH-106	-1.892E+01	2.598E+01	1.939E+01	1.326E+01	NOT IDENT.
RU-106	-1.892E+01	2.591E+01	1.939E+01	1.322E+01	NOT IDENT.
AG-108M	-2.558E+00	2.941E+00	2.262E+00	1.501E+00	NOT IDENT.
CD-109	-3.363E+01	8.196E+01	5.836E+01	4.182E+01	NOT IDENT.
AG-110M	-2.805E-01	2.301E+00	1.869E+00	1.174E+00	NOT IDENT.
IN-111	-6.724E+00	1.959E+01	1.549E+01	9.997E+00	NOT IDENT.
IN-113M	-3.180E+00	3.203E+00	2.404E+00	1.634E+00	NOT IDENT.
SN-113	-3.180E+00	3.203E+00	2.404E+00	1.634E+00	NOT IDENT.
IN-114M	-1.073E+01	1.657E+01	1.303E+01	8.454E+00	NOT IDENT.
CD-115	2.273E+01	1.096E+02	9.435E+01	5.593E+01	NOT IDENT.
SN-117M	4.904E-02	3.613E+00	2.992E+00	1.844E+00	NOT IDENT.
I-123	-6.632E+04	1.922E+05	0.000E+00	9.805E+04	SHORT HLIF
TE-123M	-8.716E-01	2.526E+00	2.038E+00	1.289E+00	NOT IDENT.
I-124	9.009E+00	2.016E+01	1.568E+01	1.028E+01	NOT IDENT.
SB-124	7.017E+00	8.669E+00	8.143E+00	4.423E+00	NOT IDENT.
SB-125	3.090E+00	7.253E+00	6.400E+00	3.701E+00	NOT IDENT.
TE-125M	4.832E+02	8.773E+02	7.292E+02	4.476E+02	NOT IDENT.
I-126	4.100E+00	9.553E+00	8.383E+00	4.874E+00	NOT IDENT.
SB-126	-2.240E+00	8.219E+00	6.518E+00	4.193E+00	NOT IDENT.
SN-126	-3.825E+00	8.193E+00	5.805E+00	4.180E+00	NOT IDENT.
SB-127	-1.836E+01	3.526E+01	2.694E+01	1.799E+01	NOT IDENT.
XE-127	-1.498E+00	3.830E+00	3.053E+00	1.954E+00	NOT IDENT.
I-131	1.070E+00	5.864E+00	5.066E+00	2.992E+00	NOT IDENT.
TE-132	4.054E+00	1.535E+01	1.282E+01	7.830E+00	NOT IDENT.
BA-133	-1.462E-01	3.848E+00	3.264E+00	1.963E+00	NOT IDENT.
I-133	2.363E+03	2.899E+03	0.000E+00	1.479E+03	SHORT HLIF
CS-134	-1.454E+00	3.080E+00	2.309E+00	1.571E+00	FAIL ABUN
CS-135	1.094E+01	1.265E+01	1.155E+01	6.455E+00	NOT IDENT.
I-135	4.426E+09	5.848E+10	0.000E+00	2.983E+10	SHORT HLIF
CS-136	4.498E+00	5.435E+00	5.192E+00	2.773E+00	FAIL ABUN
BA-137M	6.611E-01	2.451E+00	2.113E+00	1.250E+00	NOT IDENT.
CS-137	6.989E-01	2.591E+00	2.233E+00	1.322E+00	NOT IDENT.
CE-139	-1.177E+00	2.644E+00	2.034E+00	1.349E+00	NOT IDENT.
BA-140	2.013E+00	1.397E+01	1.127E+01	7.128E+00	NOT IDENT.
LA-140	2.021E+00	5.651E+00	5.000E+00	2.883E+00	NOT IDENT.
CE-141	-5.793E-01	5.202E+00	4.283E+00	2.654E+00	NOT IDENT.
CE-143	4.992E+02	5.420E+02	4.663E+02	2.765E+02	NOT IDENT.
CE-144	1.006E+01	1.908E+01	1.637E+01	9.737E+00	NOT IDENT.
PM-144	3.184E+00	2.763E+00	2.604E+00	1.410E+00	NOT IDENT.
PR-144	2.150E+02	1.866E+02	1.759E+02	9.520E+01	NOT IDENT.
PM-146	-1.198E+00	3.194E+00	2.566E+00	1.630E+00	NOT IDENT.
ND-147	1.779E+00	2.689E+01	2.271E+01	1.372E+01	NOT IDENT.
PM-149	7.079E+02	1.057E+03	9.513E+02	5.395E+02	NOT IDENT.
EU-152	3.172E+00	9.038E+00	7.909E+00	4.611E+00	NOT IDENT.
GD-153	5.643E+00	8.127E+00	6.330E+00	4.146E+00	NOT IDENT.
EU-154	6.170E+00	7.053E+00	6.938E+00	3.598E+00	NOT IDENT.
EU-155	-4.417E+00	1.016E+01	8.250E+00	5.182E+00	NOT IDENT.
TB-160	-1.287E+00	1.062E+01	8.925E+00	5.419E+00	NOT IDENT.
HO-166M	-1.909E+00	4.741E+00	3.680E+00	2.419E+00	NOT IDENT.
TM-171	-1.424E+03	2.774E+03	2.234E+03	1.415E+03	NOT IDENT.
HF-175	3.207E-01	3.163E+00	2.716E+00	1.614E+00	NOT IDENT.
LU-176	-1.132E+00	2.236E+00	1.698E+00	1.141E+00	NOT IDENT.
LU-177	1.660E+01	5.023E+01	4.218E+01	2.563E+01	NOT IDENT.
LU-177M	8.680E+00	1.471E+01	1.312E+01	7.505E+00	NOT IDENT.
HF-181	1.015E-01	3.035E+00	2.561E+00	1.549E+00	NOT IDENT.
W-181	2.720E+01	3.421E+01	2.952E+01	1.746E+01	NOT IDENT.
TA-182	-2.383E+00	1.149E+01	9.275E+00	5.860E+00	NOT IDENT.
RE-183	-4.886E+00	9.397E+00	7.332E+00	4.794E+00	NOT IDENT.
RE-184	7.302E+00	1.994E+01	1.676E+01	1.018E+01	NOT IDENT.
OS-185	-2.966E-01	3.247E+00	2.659E+00	1.656E+00	NOT IDENT.
RE-188	-5.589E+00	1.482E+01	1.194E+01	7.559E+00	NOT IDENT.
W-188	-5.166E+02	6.250E+02	5.021E+02	3.189E+02	NOT IDENT.

IR-192	-6.129E-01	2.626E+00	2.197E+00	1.340E+00	NOT IDENT.
AU-195	1.100E+01	2.383E+01	1.820E+01	1.216E+01	NOT IDENT.
TL-200	-6.623E+01	7.757E+02	0.000E+00	3.957E+02	SHORT HLIF
TL-201	5.458E+01	1.587E+02	1.258E+02	8.096E+01	NOT IDENT.
TL-202	4.230E-01	4.197E+00	3.577E+00	2.141E+00	NOT IDENT.
HG-203	1.385E+00	2.899E+00	2.583E+00	1.479E+00	NOT IDENT.
BI-207	-9.569E-01	3.511E+00	2.825E+00	1.791E+00	NOT IDENT.
TL-207	1.288E+01	5.612E+01	4.880E+01	2.864E+01	NOT IDENT.
TL-208	2.429E+00	3.124E+00	2.718E+00	1.594E+00	NOT IDENT.
PO-209	8.110E+01	4.498E+02	3.963E+02	2.295E+02	NOT IDENT.
BI-210	-2.984E+02	2.895E+02	2.372E+02	1.477E+02	NOT IDENT.
PB-210	-2.984E+02	2.895E+02	2.372E+02	1.477E+02	NOT IDENT.
PO-210	-2.984E+02	2.893E+02	2.372E+02	1.476E+02	NOT IDENT.
BI-211	1.463E+01	2.070E+01	1.799E+01	1.056E+01	NOT IDENT.
PB-211	-1.343E+01	7.453E+01	6.156E+01	3.802E+01	NOT IDENT.
BI-212	5.586E+00	2.249E+01	1.918E+01	1.147E+01	NOT IDENT.
PB-212	2.039E+00	6.666E+00	4.519E+00	3.401E+00	FAIL ABUN
PO-212	2.039E+00	6.666E+00	4.519E+00	3.401E+00	FAIL ABUN
BI-214	6.835E+00	9.098E+00	6.454E+00	4.642E+00	FAIL ABUN
PB-214	8.135E+00	7.150E+00	6.376E+00	3.648E+00	NOT IDENT.
PO-214	8.135E+00	7.150E+00	6.376E+00	3.648E+00	NOT IDENT.
PO-215	1.288E+01	5.612E+01	4.880E+01	2.864E+01	NOT IDENT.
PO-216	2.039E+00	6.666E+00	4.519E+00	3.401E+00	FAIL ABUN
PO-218	8.135E+00	7.150E+00	6.376E+00	3.648E+00	NOT IDENT.
RN-219	3.336E+01	3.371E+01	3.097E+01	1.720E+01	NOT IDENT.
RN-220	1.503E+02	2.107E+03	1.545E+03	1.075E+03	NOT IDENT.
RA-223	1.288E+01	5.612E+01	4.880E+01	2.864E+01	NOT IDENT.
RA-224	2.086E+01	6.122E+01	4.527E+01	3.124E+01	NOT IDENT.
RA-226	2.815E+01	8.095E+01	6.635E+01	4.130E+01	NOT IDENT.
AC-227	-1.584E+01	3.285E+01	2.721E+01	1.676E+01	NOT IDENT.
PA-227	1.000E+41	4.063E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-1.584E+01	3.288E+01	2.721E+01	1.678E+01	FAIL ABUN
AC-228	1.412E+00	1.159E+01	9.375E+00	5.916E+00	NOT IDENT.
RA-228	1.412E+00	1.159E+01	9.375E+00	5.916E+00	NOT IDENT.
TH-228	2.039E+00	6.666E+00	4.519E+00	3.401E+00	FAIL ABUN
TH-229	4.070E+01	4.844E+01	4.206E+01	2.471E+01	NOT IDENT.
TH-230	2.903E+02	2.122E+03	8.991E+02	1.083E+03	NOT IDENT.
PA-231	-7.258E+01	1.288E+02	1.052E+02	6.572E+01	NOT IDENT.
TH-231	2.613E-01	4.351E+01	3.485E+01	2.220E+01	NOT IDENT.
U-231	-1.367E+00	4.171E+01	3.059E+01	2.128E+01	FAIL ABUN
TH-232	-4.201E+03	4.343E+04	2.135E+03	2.216E+04	NOT IDENT.
PA-233	1.477E+00	5.418E+00	4.736E+00	2.764E+00	NOT IDENT.
PA-234	1.264E+01	2.322E+01	2.119E+01	1.185E+01	NOT IDENT.
PA-234M	-5.406E-01	3.514E+02	2.982E+02	1.793E+02	FAIL ABUN
TH-234	-3.471E+01	1.320E+02	1.091E+02	6.734E+01	FAIL ABUN
U-234	-4.131E+03	4.081E+04	4.085E+03	2.082E+04	NOT IDENT.
U-235	-1.377E+01	2.095E+01	1.624E+01	1.069E+01	FAIL ABUN
NP-236	2.750E+00	7.061E+00	6.001E+00	3.603E+00	NOT IDENT.
NP-237	-1.828E+01	2.430E+01	1.654E+01	1.240E+01	NOT IDENT.
PU-237	-2.632E+02	1.831E+02	1.380E+02	9.343E+01	NOT IDENT.
U-238	-3.471E+01	1.320E+02	1.091E+02	6.734E+01	FAIL ABUN
NP-239	-6.471E+00	1.915E+01	1.563E+01	9.770E+00	NOT IDENT.
AM-241	-2.098E+01	1.461E+01	1.100E+01	7.455E+00	NOT IDENT.
AM-243	7.888E-01	5.324E+00	4.363E+00	2.716E+00	NOT IDENT.
CM-243	-3.937E-03	9.177E+00	7.681E+00	4.682E+00	NOT IDENT.
AM-246	-3.973E+00	1.109E+01	8.846E+00	5.656E+00	NOT IDENT.
CM-247	1.021E+00	3.012E+00	2.635E+00	1.537E+00	NOT IDENT.
CF-249	2.147E+00	3.126E+00	2.827E+00	1.595E+00	NOT IDENT.
CF-251	2.201E+01	1.789E+01	1.132E+01	9.125E+00	FAIL ABUN
ANH-511	-6.836E+00	4.218E+00	3.870E+00	2.152E+00	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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ENERGY	MDA COUNTS
46.50	99.1865
46.50	99.1865
46.50	99.1865
48.70	98.5684
49.72	112.9552
51.35	75.1653
52.39	109.5813
52.97	105.8570
53.15	105.8841
53.20	105.8915
53.44	106.8818
54.07	83.0978
56.28	104.4297
56.28	104.4301
57.37	102.6663
57.53	103.6482
57.53	103.6486
57.60	103.6581
57.98	117.1553
57.98	117.1553
59.00	152.8946
59.32	148.1497
59.32	148.1497
59.40	148.1653
59.54	151.0798
59.54	151.0798
59.72	151.1157
60.01	149.2480
61.10	129.2119
61.14	129.2188
61.30	129.2456
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63.29	152.7861
63.58	142.2019
64.28	140.3920
64.62	0.0000
65.12	131.8180
65.20	131.8311
65.20	131.8311
66.05	158.1718
66.72	162.1883
66.83	162.2106
66.91	158.3409
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67.20	153.5390
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67.75	140.0290
67.85	140.0466
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68.90	138.2786
69.30	142.2428
69.67	152.0542
70.82	154.2167
70.82	154.2167
70.83	154.2185
72.80	152.6234
72.80	152.6234
72.87	151.6575
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74.67	133.3474
74.81	133.3692
74.81	133.3692
74.81	133.3692
74.81	133.3692
74.81	133.3692
74.81	133.3692

74.81	133.3692
74.97	121.6240
74.97	121.6240
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75.70	112.8917
77.11	140.6053
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81.07	147.1579
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83.78	121.8406
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86.50	152.5975
86.54	152.6039
86.59	152.6121
86.72	152.6332
86.79	152.6443
86.94	139.9465
87.30	140.0002
87.30	140.0002
87.30	140.0002
87.30	140.0002
87.30	140.0002
87.30	140.0002
87.30	140.0002
87.57	152.7709
87.88	152.8213
88.03	151.2532
88.36	151.3059
88.47	143.3589
89.36	141.8981
89.95	135.6042
91.11	142.1561
92.29	132.9335
92.38	132.9462
92.38	132.9462
93.35	133.0776
94.00	128.1592
94.67	123.4364
94.67	123.4369
94.90	123.4655
94.90	123.4655
94.90	123.4655
95.87	133.2164
95.87	133.2164
96.73	125.2989
97.43	106.0959
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98.44	114.2474
98.88	114.2970
99.55	134.6232
99.55	134.6232
99.86	134.6640
100.00	126.9123
100.10	126.9253

103.18	116.1897
103.76	116.2542
105.00	122.4641
105.31	122.5001
108.00	121.7953
109.28	109.7464
110.05	0.0000
111.00	122.1341
111.00	122.1341
111.76	119.1638
112.95	119.2927
115.19	146.0974
115.19	146.0974
115.19	146.0974
116.30	134.9935
117.00	132.0077
117.00	132.0077
117.66	130.0371
121.11	124.2698
121.62	145.9018
121.78	145.9218
122.06	141.8461
122.32	141.8777
122.32	141.8777
122.32	141.8777
123.07	140.9410
127.23	113.5670
129.76	128.2932
131.20	116.0170
133.02	111.0042
133.54	106.9001
135.34	137.1996
136.00	152.8723
136.25	144.5824
136.48	137.3270
140.51	114.8096
140.51	0.0000
142.18	134.8185
142.65	147.4147
143.76	123.4763
144.24	120.3819
144.24	120.3819
144.24	120.3819
145.22	122.5701
145.44	121.5428
147.16	111.2130
152.43	119.0366
152.70	111.6853
153.22	102.2425
154.21	100.2091
154.21	100.2091
154.21	100.2091
155.03	116.1029
156.02	105.6267
158.56	103.7093
159.00	0.0000
159.00	112.2117
160.31	94.3065
161.27	92.2516
162.32	101.8733
162.64	110.3881
163.35	104.0734
163.89	95.6154
165.85	100.0055
167.43	87.6420
171.28	87.1495
171.86	102.5706
172.10	102.5881
176.55	89.1852
176.60	89.1884
181.06	137.6328
184.41	104.5367
185.71	102.4704
186.00	102.4907
186.21	105.7422
190.27	133.0748
192.34	95.3376
193.63	98.6710

197.04	114.1035
198.01	117.4370
198.60	105.5158
200.40	95.8358
201.83	139.5244
202.84	109.0736
205.31	113.6135
208.36	96.3185
208.81	94.1557
209.75	89.8289
209.75	89.8289
210.97	96.4742
215.65	75.8620
216.55	78.1037
218.09	79.2779
222.10	83.8846
223.80	75.1309
226.40	81.8860
227.00	80.8084
227.08	80.8123
227.20	80.8178
228.16	74.2172
228.18	74.2177
228.18	74.2177
231.56	76.1091
235.69	67.6453
236.00	69.4378
236.00	69.4378
238.63	80.2414
238.63	80.2414
238.63	80.2414
238.63	80.2414
239.00	67.7738
240.98	73.2069
241.98	67.8888
241.98	67.8888
241.98	67.8888
244.69	63.9029
245.39	78.3115
247.94	71.7017
248.90	84.0700
249.79	79.6258
252.40	60.6478
252.85	68.5268
252.85	68.5268
254.15	0.0000
256.20	83.7338
256.20	83.7338
260.50	58.6603
260.90	58.6730
262.80	85.8409
264.65	82.3088
268.24	59.8101
268.79	61.6408
269.46	72.5439
269.46	72.5439
269.46	72.5439
271.23	74.4276
273.65	68.1601
276.40	69.1682
277.35	57.3652
277.60	57.3729
277.60	57.3729
278.00	56.4736
278.60	55.5806
279.20	57.4206
279.53	61.9877
280.46	70.2258
281.68	69.3574
283.67	73.9966
284.30	75.8479
285.00	62.1621
285.90	55.7891
286.10	55.7943
286.10	55.7943
287.40	66.8148
288.45	0.0000
290.67	90.7617

290.80	84.3498
291.72	89.8928
293.26	67.9306
293.70	62.4360
295.21	67.9965
295.21	67.9965
295.21	67.9965
295.96	77.2140
296.50	78.1539
297.23	74.5038
298.57	79.1553
299.80	74.5987
299.80	74.5987
300.09	67.2407
300.09	67.2407
300.09	67.2407
300.09	67.2407
300.12	67.2416
301.29	60.8284
302.84	64.5646
303.76	62.7481
303.91	59.9838
304.40	59.0750
304.40	59.0750
304.84	57.2418
306.84	65.6143
308.46	60.1171
311.98	58.3665
316.51	57.5649
318.01	57.6058
319.02	61.3521
319.41	62.2932
320.08	64.1729
323.87	60.5606
323.87	60.5606
323.87	60.5606
325.23	52.2088
328.77	62.5671
329.70	53.2517
329.70	53.2517
330.00	53.2594
333.44	62.7021
334.20	60.8518
334.20	60.8518
334.30	51.4927
338.28	61.9040
338.28	61.9040
338.28	61.9040
338.32	61.9048
338.32	61.9048
340.50	76.9881
340.57	76.9911
343.40	71.4495
344.27	65.8344
345.85	79.0576
350.59	66.9646
351.07	65.0918
351.92	57.5665
351.92	57.5665
351.92	57.5665
355.39	0.0000
356.01	62.3987
364.48	53.1405
366.43	45.5877
367.43	58.9098
367.94	0.0000
369.80	43.7517
374.96	44.8020
383.85	50.7117
387.95	37.3804
388.63	38.3496
391.69	47.9980
391.69	47.9980
392.90	48.0219
398.62	51.0235
400.65	44.3210
401.10	36.6200
401.81	36.6307

402.60	43.3922
404.84	46.3271
410.95	49.3440
411.60	51.2926
413.65	44.5546
414.70	37.7903
415.30	44.5838
415.76	48.4698
417.63	0.0000
418.52	39.7888
423.70	38.8979
427.08	35.0543
427.89	36.0398
432.53	52.6935
433.00	58.5586
433.93	58.5798
439.47	45.0072
439.56	45.0089
439.89	40.1216
443.98	32.3438
444.90	32.3551
445.03	32.3567
445.03	32.3567
445.03	32.3567
453.90	35.4168
463.38	38.5039
468.07	51.4274
473.00	41.6129
475.06	48.5849
475.35	48.5897
476.78	36.7096
477.59	40.6902
477.96	38.7105
482.03	34.7911
484.57	38.8029
487.03	27.8831
490.36	40.8774
492.35	38.9110
497.08	36.9774
507.63	0.0000
510.53	0.0000
510.84	35.1476
511.00	35.1493
511.85	51.2331
511.85	51.2331
513.99	112.5954
513.99	112.5954
520.41	23.1735
520.65	23.1752
527.90	24.2426
528.96	0.0000
529.64	20.2139
529.87	0.0000
531.02	25.2795
537.32	22.2933
543.00	32.4883
546.56	0.0000
549.76	23.7423
552.65	27.1595
555.20	30.5801
563.23	38.8368
563.90	38.8452
568.70	34.1276
569.32	32.4274
569.50	32.4297
569.67	27.3105
573.80	30.7654
574.00	30.7676
574.64	31.7992
578.91	38.0063
579.30	0.0000
583.14	18.5142
585.48	37.0556
591.81	33.0039
592.07	34.0385
593.00	27.8576
595.88	22.7192
600.56	27.5788

602.52	0.0000
602.71	25.8722
602.71	25.8722
603.60	32.7807
604.41	31.0635
604.70	31.0657
609.31	51.8506
610.33	36.3065
612.46	43.2505
614.37	46.7380
618.01	29.1136
621.84	36.4347
621.84	36.4347
631.29	30.2744
633.02	31.3352
633.10	31.3359
634.78	20.9009
635.90	19.8623
636.97	27.1889
645.85	30.4061
646.12	28.3118
656.30	22.0859
657.75	21.0430
657.90	0.0000
661.65	20.0135
661.65	20.0135
664.57	27.4104
666.33	22.1505
666.33	22.1505
675.00	27.4930
677.61	27.5133
685.20	30.7544
692.80	27.6320
695.00	24.4588
696.49	21.2778
696.49	21.2778
697.00	22.3448
697.49	24.4762
698.33	23.4174
698.50	26.6119
699.00	29.8095
702.63	30.9053
706.10	23.4685
706.58	0.0000
706.67	23.4722
709.31	30.9633
711.68	28.8464
713.82	25.6564
717.42	21.4014
720.50	29.9872
721.93	28.9281
722.20	32.1445
722.78	35.3646
722.78	35.3646
722.89	35.3654
722.95	35.3662
723.30	33.2259
724.18	24.6576
727.18	24.6778
733.00	19.3434
735.90	20.4343
739.58	26.9135
742.81	17.2395
744.21	22.6355
747.13	26.9681
751.79	21.6011
752.31	19.4440
753.82	17.2902
755.35	24.8648
756.15	27.0331
756.87	31.3640
763.13	18.0550
763.93	18.0591
765.79	18.4290
766.42	19.5166
766.84	17.3500
776.49	18.4809
778.00	15.2253

778.57	18.4908
778.89	18.4921
783.80	31.5856
785.46	17.4340
792.07	20.7381
795.84	20.7581
796.30	18.5751
798.80	19.6805
801.93	18.6021
805.60	18.6191
810.29	17.5449
810.76	18.6436
815.85	18.6672
817.79	17.5777
818.51	24.1737
819.60	19.7842
826.30	19.2667
828.27	0.0000
831.60	23.8852
831.96	23.8873
834.83	30.3400
836.80	0.0000
846.75	24.8967
848.13	21.2153
856.28	0.0000
856.80	19.4115
860.37	22.2036
867.32	21.3145
867.82	17.6096
871.10	24.1163
873.19	21.3444
874.81	24.1375
875.33	0.0000
876.40	24.1470
879.36	24.1639
880.27	24.1692
880.51	23.2407
881.50	21.3866
883.24	17.6745
884.67	18.6112
889.25	21.4259
896.60	12.1314
898.02	14.0024
899.00	13.0717
903.28	12.1502
911.07	14.4464
911.07	14.4464
919.63	17.6916
920.93	17.6970
925.00	20.6657
925.24	20.6671
926.50	23.4919
935.52	21.6570
937.48	22.6089
944.10	18.8690
946.00	16.9893
949.00	18.8900
962.29	19.8939
964.01	25.5872
966.15	18.9628
968.20	17.0742
969.11	21.8213
969.11	21.8213
977.42	18.0595
980.50	17.1207
983.50	18.0839
989.30	17.1537
996.32	16.2256
1001.03	21.0193
1001.68	19.1113
1004.76	20.0801
1021.30	0.0000
1024.50	0.0000
1034.80	15.3978
1036.00	21.1773
1037.82	14.4446
1038.57	9.6313
1038.76	0.0000

1045.16	20.2540
1046.59	20.2600
1048.07	11.5811
1050.47	21.2427
1050.47	21.2427
1062.04	13.5505
1063.62	16.4598
1076.63	23.2998
1077.35	24.2737
1078.86	22.3393
1085.78	18.4805
1093.90	19.4849
1099.22	23.4072
1112.02	10.7561
1112.84	11.7358
1115.52	23.4844
1120.29	18.6096
1120.51	15.6719
1121.28	14.6948
1124.00	0.0000
1129.67	16.6818
1131.51	0.0000
1147.95	0.0000
1167.94	13.8416
1173.22	10.8868
1175.09	6.9305
1177.93	16.8402
1189.05	10.9203
1204.90	16.9274
1205.75	0.0000
1213.00	17.9509
1221.42	15.9818
1230.97	16.0104
1235.34	16.0234
1236.41	0.0000
1238.25	11.0219
1246.25	18.0630
1260.41	0.0000
1271.85	15.1233
1274.45	6.0522
1274.54	6.0522
1291.56	18.2131
1298.22	0.0000
1312.09	8.1247
1325.50	12.2158
1325.50	12.2158
1332.49	11.2117
1333.61	11.2139
1360.21	15.3632
1362.66	0.0000
1365.15	12.3013
1368.21	13.3333
1368.53	0.0000
1376.25	9.2435
1384.27	11.3133
1394.10	11.3321
1395.20	14.4255
1407.95	9.2937
1434.06	12.4463
1436.60	15.5640
1457.56	0.0000
1460.81	11.4597
1489.15	15.6995
1509.49	14.7013
1596.49	10.6458
1620.62	12.8223
1678.03	0.0000
1691.02	10.7987
1691.02	10.7987
1706.46	0.0000
1750.46	0.0000
1764.49	14.9688
1770.23	9.3631
1771.40	6.5552
1791.20	0.0000
1808.65	6.5898
1836.01	10.3950

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G242754001

Total Uranium Activity	-1.0963E+02	ug/g
Total Uranium Counting Unc.	3.9280E+02	ug/g
Total Uranium Tpu	2.0041E-04	ug/g
Total Uranium Mda	3.2459E+02	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 933232                    SAMPLE ID  : G242754001       *
*   ANALYST       : KXG3                      DETECTOR   : GAM14            *
*   SAMPLE DATE   :  9-DEC-2009 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 18-DEC-2009 08:44:06.41    SAMPLE ALQT:    2.000 LITER   *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 2.609E+01
        GROSS GAMMA ERROR  (pCi/LITER )   : 3.133E+01
        GROSS GAMMA MDA    (pCi/LITER )   : 4.611E+01
        GROSS GAMMA DLC    (pCi/LITER )   : 2.179E+01
```

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 12:13:17.45

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G242754002.CNF;1
Sample date       : 9-DEC-2009 12:00:00. Acquisition date : 18-DEC-2009 10:12:50
Sample ID         : G242754002           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM06                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.53  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 933232                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	185.79*	5	81	1.30	371.58	367	8	7.44E-04	341.5	
2	0	351.51*	27	41	1.07	703.02	697	11	3.76E-03	54.2	
3	0	609.50*	23	41	1.23	1218.99	1213	13	3.21E-03	64.5	
4	0	912.27*	2	11	1.00	1824.53	1817	15	2.87E-04	410.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 18-DEC-2009 12:13:20

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G242754002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 9-DEC-2009 12:00:00 Acquisition date : 18-DEC-2009 10:12:50
Sample ID : G242754002 Sample quantity : 2.0000 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA6 Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.53 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BI-211		72.87		-2.037E+02	3.817E+02	6.167E+02	4.308E+01	-0.330
	+	351.07	*	2.612E+01	2.838E+01	3.498E+01	2.306E+00	0.747
RA-226	+	186.21	*	1.386E+01	9.518E+01	1.374E+02	1.009E+02	0.101

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	7.286E+00	2.557E+01	4.364E+01	3.004E+00	0.167
NA-22		1274.54	*	-9.533E-01	3.238E+00	4.926E+00	3.026E-01	-0.194
NA-24		1368.53	*	-1.238E-02	3.238E+00	Half-Life too short		
AL-26		1129.67		-9.729E+00	8.271E+01	1.310E+02	8.257E+00	-0.074
		1808.65	*	1.226E+00	3.709E+00	6.582E+00	3.774E-01	0.186
K-40		1460.81	*	1.643E+01	3.757E+01	7.120E+01	4.709E+00	0.231
TI-44		67.85		6.734E-01	6.556E+00	1.102E+01	7.512E-01	0.061
		78.38	*	-2.355E-01	4.223E+00	6.896E+00	4.969E-01	-0.034
SC-46		889.25	*	-2.585E-01	2.619E+00	4.278E+00	3.485E-01	-0.060
		1120.51		3.461E+00	3.766E+00	7.106E+00	4.553E-01	0.487
V-48		944.10		3.055E+01	5.595E+01	1.012E+02	8.081E+00	0.302
		983.50	*	-7.860E-01	4.045E+00	6.440E+00	4.957E-01	-0.122
		1312.09		3.883E-01	3.860E+00	6.455E+00	4.035E-01	0.060
CR-51		320.08	*	-2.943E+00	2.989E+01	4.967E+01	3.292E+00	-0.059
MN-52		744.21		5.981E-01	9.594E+00	1.559E+01	9.744E-01	0.038
		848.13		-2.114E+01	2.721E+02	4.491E+02	3.407E+01	-0.047
		935.52		6.375E+00	9.887E+00	1.806E+01	1.452E+00	0.353
		1246.25		-4.239E+01	2.103E+02	3.265E+02	1.971E+01	-0.130
		1333.61		1.123E+02	1.688E+02	3.182E+02	2.009E+01	0.353
		1434.06	*	5.100E+00	1.008E+01	1.816E+01	1.144E+00	0.281
MN-54		834.83	*	-1.382E+00	3.158E+00	4.931E+00	3.653E-01	-0.280
CO-56		846.75	*	1.790E+00	3.236E+00	5.841E+00	4.420E-01	0.307
		977.42		6.857E+01	2.055E+02	3.621E+02	2.803E+01	0.189
		1037.82		-3.689E+01	2.203E+01	2.061E+01	1.603E+00	-1.790
		1175.09		6.809E+01	1.681E+02	2.950E+02	1.710E+01	0.231
		1238.25		-1.100E+00	5.573E+00	8.737E+00	5.560E-01	-0.126

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1360.21		-2.014E+01	7.463E+01	1.125E+02	7.104E+00	-0.179
		1771.40		-2.848E+01	2.743E+01	3.394E+01	1.976E+00	-0.839
CO-57		122.06	*	2.857E+00	3.011E+00	5.234E+00	3.376E-01	0.546
		136.48		-2.069E+01	2.521E+01	3.910E+01	2.698E+00	-0.529
CO-58		810.76	*	-8.881E-02	3.149E+00	5.251E+00	3.737E-01	-0.017
FE-59		142.65		-1.615E+02	2.963E+02	4.683E+02	2.750E+01	-0.345
		192.34		3.627E+01	9.677E+01	1.606E+02	1.879E+01	0.226
		1099.22	*	-5.569E-01	6.123E+00	9.888E+00	7.438E-01	-0.056
		1291.56		-4.067E+00	9.152E+00	1.345E+01	1.039E+00	-0.302
CO-60		1173.22		9.490E-01	3.691E+00	6.312E+00	3.655E-01	0.150
		1332.49	*	7.709E-01	3.097E+00	5.321E+00	3.360E-01	0.145
ZN-65		1115.52	*	-6.501E+00	7.554E+00	1.051E+01	6.802E-01	-0.619
GE-68		1077.35	*	-4.075E+01	8.875E+01	1.316E+02	9.028E+00	-0.310
AS-73		53.44	*	2.113E+01	1.226E+02	2.084E+02	1.472E+01	0.101
AS-74		595.88	*	6.253E+00	7.926E+00	1.401E+01	7.907E-01	0.446
		634.78		-1.069E+01	2.476E+01	3.743E+01	2.038E+00	-0.286
SE-75		66.05		3.338E+02	6.807E+02	1.167E+03	1.045E+02	0.286
		96.73		9.607E+01	9.438E+01	1.642E+02	2.083E+01	0.585
		121.11		1.320E+01	1.631E+01	2.807E+01	2.708E+00	0.470
		136.00		-4.041E+00	4.682E+00	7.247E+00	4.424E-01	-0.558
		198.60		1.558E+02	2.280E+02	3.655E+02	2.544E+01	0.426
		264.65	*	-2.351E-01	4.646E+00	7.392E+00	4.384E-01	-0.032
		279.53		-2.466E-01	1.029E+01	1.731E+01	1.104E+00	-0.014
		303.91		8.624E+00	1.942E+02	3.277E+02	3.160E+01	0.026
		400.65		-1.499E+01	2.888E+01	3.899E+01	3.576E+00	-0.384
BR-77		87.88		-2.166E+03	3.431E+03	5.482E+03	4.231E+02	-0.395
		200.40		8.602E+01	3.291E+03	5.329E+03	2.985E+02	0.016
		239.00		-1.864E+00	1.801E+02	2.858E+02	1.650E+01	-0.007
		249.79		5.554E+01	1.255E+03	2.018E+03	1.174E+02	0.028
		281.68		-2.417E+02	1.508E+03	2.510E+03	1.486E+02	-0.096
		297.23		3.910E+02	9.689E+02	1.619E+03	9.642E+01	0.242
		303.76		8.560E+01	2.815E+03	4.744E+03	2.831E+02	0.018
		439.47		1.293E+03	2.350E+03	4.106E+03	2.445E+02	0.315
		484.57		4.323E+03	3.809E+03	7.012E+03	4.171E+02	0.617
		520.65	*	-7.836E+00	1.728E+02	2.818E+02	1.661E+01	-0.028
		574.64		2.308E+03	3.234E+03	5.745E+03	3.293E+02	0.402
		578.91		-1.643E+03	1.361E+03	1.843E+03	1.053E+02	-0.892
		585.48		5.556E+02	2.506E+03	4.200E+03	2.389E+02	0.132
		755.35		-1.009E+03	2.310E+03	3.418E+03	2.184E+02	-0.295
		817.79		1.799E+02	1.750E+03	2.978E+03	2.140E+02	0.060
SR-82		698.33		8.891E+02	2.339E+03	4.002E+03	2.282E+02	0.222
		776.49	*	2.692E+01	2.873E+01	5.401E+01	3.593E+00	0.498
		1395.20		2.754E+01	7.215E+02	1.181E+03	7.451E+01	0.023
RB-83		520.41	*	7.392E-02	6.657E+00	1.093E+01	6.441E-01	0.007
		529.64		-8.403E-01	1.016E+01	1.647E+01	9.675E-01	-0.051
		552.65		-9.243E+00	1.612E+01	2.405E+01	1.397E+00	-0.384
RB-84		881.50	*	1.999E-01	5.054E+00	8.481E+00	6.818E-01	0.024
KR-85		513.99	*	-9.087E+02	9.706E+02	1.467E+03	8.667E+01	-0.619
SR-85		513.99	*	-4.366E+00	4.663E+00	7.049E+00	4.164E-01	-0.619

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RB-86		1076.63	*	-3.658E+01	4.601E+01	6.225E+01	4.276E+00	-0.588
Y-88		898.02		2.800E+00	3.085E+00	5.898E+00	4.902E-01	0.475
		1836.01	*	5.233E-01	3.329E+00	5.733E+00	3.254E-01	0.091
ZR-88		392.90	*	1.582E+00	2.828E+00	4.957E+00	2.920E-01	0.319
Y-91		1204.90	*	-7.545E+02	1.290E+03	1.859E+03	1.097E+02	-0.406
NB-94		702.63	*	-1.279E+00	3.155E+00	4.784E+00	2.752E-01	-0.267
		871.10		2.338E+00	3.451E+00	6.258E+00	4.941E-01	0.374
NB-95		765.79	*	-7.908E-02	3.900E+00	6.241E+00	4.069E-01	-0.013
NB-95M		235.69	*	-1.057E+01	1.225E+01	1.830E+01	1.372E+00	-0.578
ZR-95		724.18		4.019E+00	6.970E+00	1.226E+01	8.625E-01	0.328
		756.15	*	-2.919E+00	5.873E+00	8.617E+00	6.493E-01	-0.339
NB-97		657.90	*	1.325E-02	5.873E+00	Half-Life too short		
		1024.50		-7.155E-03	5.873E+00	Half-Life too short		
ZR-97		254.15		-4.130E-01	5.873E+00	Half-Life too short		
		355.39		4.958E-01	5.873E+00	Half-Life too short		
		507.63	*	-7.611E-01	5.873E+00	Half-Life too short		
		602.52		3.629E-01	5.873E+00	Half-Life too short		
		1021.30		-1.226E+00	5.873E+00	Half-Life too short		
		1147.95		-2.538E-01	5.873E+00	Half-Life too short		
		1362.66		3.085E-01	5.873E+00	Half-Life too short		
		1750.46		-7.567E-02	5.873E+00	Half-Life too short		
MO-99		140.51		8.986E+01	7.272E+02	1.144E+03	3.085E+02	0.079
		181.06		1.683E+02	4.208E+02	6.201E+02	1.057E+02	0.271
		366.43		-3.213E+02	1.937E+03	3.090E+03	1.840E+02	-0.104
		739.58	*	-1.539E+02	2.368E+02	3.399E+02	4.742E+01	-0.453
		778.00		1.847E+02	6.319E+02	1.103E+03	7.361E+01	0.167
TC-99M		140.51	*	2.307E+04	6.319E+02	Half-Life too short		
RH-101		127.23		6.766E-01	3.797E+00	6.306E+00	3.947E-01	0.107
		198.01	*	3.911E+00	4.339E+00	7.050E+00	3.942E-01	0.555
		325.23		2.166E+00	2.153E+01	3.639E+01	2.179E+00	0.060
RH-102		418.52		-1.356E+01	2.622E+01	4.084E+01	2.424E+00	-0.332
		475.06	*	-1.595E+00	2.539E+00	3.827E+00	2.279E-01	-0.417
		631.29		1.474E+00	4.663E+00	7.932E+00	4.334E-01	0.186
		697.49		6.790E-01	6.312E+00	1.036E+01	5.898E-01	0.066
		766.84		6.487E+00	9.094E+00	1.617E+01	1.056E+00	0.401
		1046.59		2.555E+00	8.474E+00	1.480E+01	1.059E+00	0.173
		1112.84		1.960E+01	1.773E+01	3.445E+01	2.236E+00	0.569
RU-103		497.08	*	1.546E+00	3.869E+00	6.623E+00	8.415E-01	0.233
	+	610.33		9.065E+01	1.178E+02	1.475E+02	2.262E+01	0.615
RH-106		511.85		-5.020E+01	2.496E+01	4.195E+01	2.479E+00	-1.197
		621.84	*	5.446E+00	2.613E+01	4.381E+01	5.081E+00	0.124
		1050.47		-1.440E+02	1.769E+02	2.420E+02	1.724E+01	-0.595
RU-106		511.85		-5.020E+01	2.496E+01	4.195E+01	2.479E+00	-1.197
		621.84	*	5.446E+00	2.612E+01	4.381E+01	2.416E+00	0.124
		1050.47		-1.440E+02	1.769E+02	2.420E+02	1.724E+01	-0.595
AG-108M		433.93	*	-3.883E-01	3.162E+00	5.160E+00	3.322E-01	-0.075
		614.37		-1.696E-01	4.136E+00	5.759E+00	3.494E-01	-0.029
		722.95		5.226E-02	3.521E+00	5.685E+00	3.678E-01	0.009
CD-109		88.03	*	-5.859E+01	9.562E+01	1.530E+02	1.181E+01	-0.383

---- Non-Identified Nuclides ----

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AG-110M		657.75	*	2.136E+00	2.970E+00	5.314E+00	3.035E-01	0.402
		677.61		-3.756E+00	2.337E+01	3.667E+01	2.140E+00	-0.102
		706.67		9.428E+00	1.910E+01	3.294E+01	2.025E+00	0.286
		763.93		-6.296E+00	1.480E+01	2.215E+01	1.510E+00	-0.284
		884.67		-5.025E-01	3.895E+00	6.345E+00	5.316E-01	-0.079
		937.48		1.779E+00	9.523E+00	1.628E+01	1.361E+00	0.109
		1384.27		7.011E+00	1.360E+01	2.459E+01	1.633E+00	0.285
IN-111		171.28		-9.262E-02	2.398E+01	3.898E+01	2.145E+00	-0.002
		245.39	*	-2.424E+01	2.640E+01	3.909E+01	2.267E+00	-0.620
IN-113M		391.69	*	6.387E-01	4.223E+00	7.125E+00	4.468E-01	0.090
SN-113		391.69	*	6.387E-01	4.223E+00	7.125E+00	4.468E-01	0.090
IN-114M		190.27	*	3.882E+00	2.147E+01	3.093E+01	1.720E+00	0.126
CD-115		260.90		-1.888E+02	2.129E+03	3.380E+03	1.980E+02	-0.056
		492.35		-4.277E+02	5.046E+02	7.385E+02	4.386E+01	-0.579
		527.90	*	-5.286E+01	1.551E+02	2.432E+02	1.429E+01	-0.217
SN-117M		156.02		8.461E+01	1.831E+02	3.077E+02	1.735E+01	0.275
		158.56	*	3.534E+00	4.490E+00	7.695E+00	4.309E-01	0.459
SB-122		563.90	*	-3.524E+00	3.414E+01	5.486E+01	3.167E+00	-0.064
		692.80		-4.588E+02	6.550E+02	9.105E+02	5.132E+01	-0.504
I-123		159.00	*	1.035E-01	6.550E+02	Half-Life too short		
		528.96		-7.532E+00	6.550E+02	Half-Life too short		
TE-123M		159.00	*	1.259E+00	3.098E+00	5.186E+00	2.942E-01	0.243
I-124		602.71	*	8.499E-01	2.590E+01	3.662E+01	2.055E+00	0.023
		722.78		8.606E+00	1.328E+02	2.160E+02	1.294E+01	0.040
		1325.50		5.950E+01	1.034E+03	1.703E+03	1.071E+02	0.035
		1376.25		5.243E+02	8.425E+02	1.560E+03	9.853E+01	0.336
		1509.49		-3.206E+02	6.382E+02	9.024E+02	5.638E+01	-0.355
		1691.02		-1.145E+02	1.550E+02	2.102E+02	1.260E+01	-0.544
SB-124		602.71		1.284E-01	3.913E+00	5.533E+00	3.107E-01	0.023
		645.85		2.902E+00	4.548E+01	7.437E+01	4.592E+00	0.039
		709.31		7.644E+01	2.269E+02	3.847E+02	2.243E+01	0.199
		713.82		-1.259E+02	1.439E+02	1.985E+02	2.036E+01	-0.634
		722.78		1.885E+00	2.908E+01	4.731E+01	2.960E+00	0.040
		968.20		7.546E+00	1.940E+02	3.219E+02	2.515E+01	0.023
		1045.16		1.226E+02	1.646E+02	3.102E+02	2.225E+01	0.395
		1325.50		1.392E+01	2.420E+02	3.983E+02	2.506E+01	0.035
		1368.21		9.941E+00	1.341E+02	2.214E+02	2.686E+01	0.045
		1436.60		8.067E+01	2.844E+02	4.938E+02	3.110E+01	0.163
		1691.02	*	-5.913E+00	8.010E+00	1.086E+01	7.032E-01	-0.544
SB-125		427.89	*	-3.843E+00	8.530E+00	1.338E+01	8.277E-01	-0.287
		463.38		-2.612E+01	2.824E+01	4.176E+01	2.882E+00	-0.625
		600.56		-1.424E+01	1.878E+01	2.769E+01	1.815E+00	-0.514
		635.90		-7.213E+00	2.489E+01	3.862E+01	2.505E+00	-0.187
TE-125M		109.28	*	-1.387E+02	1.089E+03	1.784E+03	1.547E+02	-0.078
I-126		388.63		-1.140E+01	1.523E+01	2.345E+01	1.383E+00	-0.486
		666.33	*	-1.383E+00	1.131E+01	1.796E+01	9.576E-01	-0.077
		753.82		-2.783E+01	8.045E+01	1.204E+02	7.667E+00	-0.231
SB-126		223.80		1.377E+02	3.025E+02	5.039E+02	2.876E+01	0.273
		278.60		-1.687E+01	1.688E+02	2.825E+02	1.671E+01	-0.060

---- Non-Identified Nuclides ----

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		296.50		1.324E+02	1.069E+02	1.883E+02	1.122E+01	0.703
		414.70		3.305E+00	4.876E+00	8.662E+00	5.137E-01	0.382
		415.30		3.601E+02	4.115E+02	7.437E+02	4.411E+01	0.484
		555.20		9.933E+01	2.348E+02	4.070E+02	2.361E+01	0.244
		573.80		9.761E+01	7.085E+01	1.342E+02	7.696E+00	0.727
		593.00		3.572E+00	7.003E+01	1.147E+02	6.490E+00	0.031
		656.30		1.332E+01	2.098E+02	3.430E+02	1.823E+01	0.039
		666.33		-5.697E-01	4.660E+00	7.399E+00	3.945E-01	-0.077
		675.00		-4.594E+01	1.165E+02	1.756E+02	9.538E+00	-0.262
		695.00		-1.697E+00	4.218E+00	6.307E+00	3.571E-01	-0.269
		697.00		8.456E+00	1.512E+01	2.660E+01	1.513E+00	0.318
		720.50	*	-3.775E+00	9.754E+00	1.480E+01	8.824E-01	-0.255
		856.80		-2.654E+01	2.310E+01	2.890E+01	2.226E+00	-0.918
		989.30		-3.440E+01	7.033E+01	1.053E+02	8.054E+00	-0.327
		1034.80		1.308E+02	4.464E+02	7.806E+02	5.673E+01	0.168
		1213.00		-1.223E+02	2.278E+02	3.294E+02	1.952E+01	-0.371
SN-126		64.28		-1.010E+01	7.790E+01	1.254E+02	1.778E+01	-0.081
		86.94		-1.705E+01	3.952E+01	6.291E+01	2.590E+01	-0.271
		87.57	*	-3.201E+00	9.289E+00	1.510E+01	1.163E+00	-0.212
SB-127		61.10		-9.509E+02	2.636E+03	4.316E+03	3.356E+02	-0.220
		252.40		-1.536E+01	1.646E+02	2.615E+02	1.076E+02	-0.059
		290.80		-1.303E+03	7.268E+02	1.033E+03	7.513E+01	-1.261
		411.60		-2.732E+02	3.883E+02	5.930E+02	7.855E+01	-0.461
		444.90		-4.805E+01	3.211E+02	5.220E+02	4.829E+01	-0.092
		473.00		-1.878E+01	5.024E+01	7.882E+01	7.643E+00	-0.238
		543.00		4.628E+02	5.070E+02	9.196E+02	1.066E+02	0.503
		603.60		-2.007E+01	4.053E+02	5.642E+02	5.076E+01	-0.036
		685.20	*	-6.651E+00	3.445E+01	5.368E+01	3.923E+00	-0.124
		698.50		9.142E+01	4.171E+02	6.959E+02	9.226E+01	0.131
		722.20		-1.018E+02	8.923E+02	1.412E+03	1.032E+02	-0.072
		783.80		-3.127E+01	9.917E+01	1.585E+02	1.526E+01	-0.197
XE-127		57.60		1.437E+02	7.781E+02	1.321E+03	8.740E+01	0.109
		145.22		-1.202E+01	7.004E+01	1.133E+02	6.595E+00	-0.106
		172.10		-1.973E+00	1.196E+01	1.922E+01	1.058E+00	-0.103
		202.84	*	-2.990E+00	4.922E+00	7.618E+00	4.275E-01	-0.393
		374.96		-8.405E+00	1.642E+01	2.585E+01	1.535E+00	-0.325
I-131		80.18		-3.076E+02	3.181E+02	4.967E+02	3.632E+01	-0.619
		284.30		-2.535E+00	9.376E+01	1.577E+02	1.028E+01	-0.016
		364.48	*	3.746E+00	7.299E+00	1.237E+01	8.131E-01	0.303
		636.97		-1.662E+01	8.473E+01	1.335E+02	8.167E+00	-0.125
		722.89		1.136E+01	3.487E+02	5.646E+02	3.399E+01	0.020
TE-132		49.72		-1.324E+03	8.778E+02	1.313E+03	1.105E+02	-1.008
		111.76		-8.807E+01	9.862E+02	1.617E+03	1.229E+02	-0.054
		116.30		-1.174E+03	9.160E+02	1.377E+03	1.040E+02	-0.853
		228.16	*	-7.084E+00	2.003E+01	3.127E+01	4.163E+00	-0.227
BA-133		53.15		2.564E+02	5.549E+02	9.603E+02	6.814E+01	0.267
		79.62		-1.430E+02	1.532E+02	2.380E+02	3.451E+01	-0.601
		81.00		-8.485E+00	1.147E+01	1.811E+01	2.755E+00	-0.469
		276.40		1.019E+00	3.749E+01	5.996E+01	7.803E+00	0.017

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		302.84		4.101E+00	1.409E+01	2.423E+01	2.844E+00	0.169
		356.01	*	5.585E+00	4.633E+00	7.734E+00	9.008E-01	0.722
		383.85		-5.880E+00	3.205E+01	5.241E+01	5.730E+00	-0.112
I-133		510.53		-4.687E-01	3.205E+01	Half-Life too short		
		529.87	*	7.124E-05	3.205E+01	Half-Life too short		
		706.58		1.208E-01	3.205E+01	Half-Life too short		
		856.28		-2.521E-01	3.205E+01	Half-Life too short		
		875.33		1.334E-02	3.205E+01	Half-Life too short		
		1236.41		-9.863E-02	3.205E+01	Half-Life too short		
		1298.22		7.915E-02	3.205E+01	Half-Life too short		
CS-134		475.35		-1.142E+02	1.672E+02	2.500E+02	1.489E+01	-0.457
		563.23		-1.953E+01	3.480E+01	4.785E+01	2.821E+00	-0.408
		569.32		6.491E+00	1.770E+01	3.028E+01	1.795E+00	0.214
		604.70		1.147E+00	3.389E+00	5.070E+00	2.858E-01	0.226
		795.84	*	-1.699E+00	3.517E+00	5.420E+00	3.782E-01	-0.313
		801.93		-3.278E+01	3.937E+01	6.180E+01	4.349E+00	-0.530
		1038.57		-4.157E+02	2.779E+02	2.808E+02	2.031E+01	-1.480
		1167.94		-4.841E+01	1.869E+02	2.906E+02	1.702E+01	-0.167
		1365.15		4.440E+01	1.031E+02	1.839E+02	1.258E+01	0.242
CS-135		268.24	*	1.164E+01	1.633E+01	2.765E+01	2.135E+00	0.421
I-135		288.45		4.262E+05	1.633E+01	Half-Life too short		
		417.63		5.803E+04	1.633E+01	Half-Life too short		
		546.56		1.604E+04	1.633E+01	Half-Life too short		
		836.80		-1.500E+05	1.633E+01	Half-Life too short		
		1038.76		-2.983E+05	1.633E+01	Half-Life too short		
		1124.00		7.941E+04	1.633E+01	Half-Life too short		
		1131.51		-1.284E+04	1.633E+01	Half-Life too short		
		1260.41	*	4.338E+04	1.633E+01	Half-Life too short		
		1457.56		1.249E+05	1.633E+01	Half-Life too short		
		1678.03		-8.992E+04	1.633E+01	Half-Life too short		
		1706.46		-1.292E+05	1.633E+01	Half-Life too short		
		1791.20		-1.086E+05	1.633E+01	Half-Life too short		
CS-136		66.91		4.521E+01	8.150E+01	1.398E+02	2.026E+01	0.323
		86.29		-1.134E+01	8.947E+01	1.475E+02	1.799E+01	-0.077
		153.22		-4.698E+01	5.382E+01	8.248E+01	5.875E+00	-0.570
		163.89		1.812E+01	8.345E+01	1.380E+02	9.692E+00	0.131
		176.55		-1.510E+01	3.053E+01	4.787E+01	2.996E+00	-0.315
		273.65		-1.739E+01	3.457E+01	5.268E+01	3.528E+00	-0.330
		340.57		-2.337E+00	7.872E+00	1.279E+01	8.100E-01	-0.183
		818.51		-9.032E-01	4.167E+00	6.713E+00	4.831E-01	-0.135
		1048.07	*	-2.300E+00	6.107E+00	9.330E+00	7.070E-01	-0.247
		1235.34		1.079E+01	2.795E+01	4.897E+01	4.946E+00	0.220
BA-137M		661.65	*	-1.284E+00	3.117E+00	4.718E+00	2.491E-01	-0.272
CS-137		661.65	*	-1.357E+00	3.295E+00	4.987E+00	2.647E-01	-0.272
CE-139		165.85	*	3.426E-02	3.155E+00	5.139E+00	2.826E-01	0.007
BA-140		162.64		-4.073E+00	5.970E+01	9.680E+01	6.092E+00	-0.042
		304.84		-4.285E+00	8.939E+01	1.496E+02	4.088E+01	-0.029
		423.70		1.129E+02	1.258E+02	2.205E+02	7.014E+01	0.512
		537.32	*	-7.210E+00	1.941E+01	3.013E+01	9.801E+00	-0.239

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
LA-140		328.77		-2.216E+00	2.061E+01	3.420E+01	2.280E+00	-0.065
		432.53		1.077E+02	1.354E+02	2.434E+02	1.593E+01	0.442
		487.03		8.982E+00	9.983E+00	1.799E+01	1.204E+00	0.499
		751.79		-1.916E+01	8.914E+01	1.369E+02	1.034E+01	-0.140
		815.85		-6.068E+00	1.746E+01	2.740E+01	2.282E+00	-0.221
		867.82		3.678E+01	9.859E+01	1.726E+02	1.441E+01	0.213
		919.63		-3.613E+01	1.313E+02	2.050E+02	2.104E+01	-0.176
		925.24		-2.085E+01	5.229E+01	7.890E+01	6.848E+00	-0.264
		1596.49	*	-8.909E-01	5.621E+00	9.031E+00	5.555E-01	-0.099
CE-141		145.44	*	-2.496E+00	6.332E+00	1.009E+01	6.101E-01	-0.247
CE-143		57.37		1.072E+03	6.814E+03	1.155E+04	9.941E+02	0.093
		231.56		2.594E+03	1.208E+04	1.970E+04	6.113E+03	0.132
		293.26	*	-8.463E+01	5.746E+02	9.557E+02	1.978E+02	-0.089
	+	350.59		9.134E+03	1.029E+04	1.363E+04	4.159E+03	0.670
		490.36		-9.665E+03	1.230E+04	1.756E+04	5.457E+03	-0.550
		664.57		-2.077E+03	4.900E+03	7.316E+03	2.319E+03	-0.284
		721.93		9.109E+02	5.453E+03	8.995E+03	2.575E+03	0.101
CE-144		80.11		-2.606E+02	2.475E+02	3.842E+02	2.799E+01	-0.678
		133.54	*	-1.043E+01	2.340E+01	3.717E+01	5.322E+00	-0.281
PM-144		476.78		3.410E+00	5.477E+00	9.750E+00	6.893E-01	0.350
		618.01		1.585E-01	2.830E+00	4.636E+00	2.734E-01	0.034
		696.49	*	1.594E+00	2.574E+00	4.587E+00	2.606E-01	0.347
		778.57		3.443E-01	1.995E+02	3.349E+02	2.237E+01	0.001
PR-144		696.49	*	1.077E+02	1.739E+02	3.098E+02	1.760E+01	0.347
		1489.15		5.820E+01	1.044E+03	1.709E+03	1.070E+02	0.034
PM-146		453.90	*	1.298E+00	4.234E+00	7.223E+00	6.306E-01	0.180
		633.02		-1.114E+01	1.281E+02	2.051E+02	7.542E+01	-0.054
		735.90		-2.446E+00	1.464E+01	2.294E+01	6.414E+00	-0.107
		747.13		1.481E+00	7.414E+00	1.234E+01	1.572E+00	0.120
ND-147		91.11		-1.586E+01	2.498E+01	3.958E+01	3.264E+00	-0.401
		319.41		-9.167E+01	2.183E+02	3.521E+02	2.107E+01	-0.260
		439.89		2.612E+02	3.898E+02	6.890E+02	4.104E+01	0.379
		531.02	*	-1.305E+01	3.857E+01	6.049E+01	8.198E+00	-0.216
PM-149		285.90	*	1.079E+03	1.403E+03	2.483E+03	3.528E+02	0.435
EU-152		121.78		8.734E+00	8.906E+00	1.549E+01	1.256E+00	0.564
		244.69		-3.869E+01	3.691E+01	5.400E+01	3.131E+00	-0.716
		344.27	*	4.282E+00	9.075E+00	1.511E+01	1.013E+00	0.283
		443.98		-2.457E+01	9.569E+01	1.537E+02	9.156E+00	-0.160
		778.89		4.193E-02	2.328E+01	3.908E+01	2.612E+00	0.001
		867.32		4.766E+01	7.985E+01	1.439E+02	1.129E+01	0.331
		964.01		6.030E+00	2.300E+01	3.969E+01	3.112E+00	0.152
		1085.78		-2.347E+01	3.262E+01	4.608E+01	3.122E+00	-0.509
		1112.02		3.432E+01	2.474E+01	4.990E+01	3.243E+00	0.688
		1407.95		-9.300E-01	1.460E+01	2.324E+01	1.466E+00	-0.040
GD-153		69.67		-5.437E+01	2.177E+02	3.583E+02	2.464E+01	-0.152
		83.37		6.562E+02	1.663E+03	2.830E+03	2.109E+02	0.232
		97.43	*	7.121E+00	9.874E+00	1.701E+01	1.191E+00	0.419
		103.18		7.988E+00	1.297E+01	2.221E+01	1.497E+00	0.360
EU-154		123.07		-1.868E+00	6.467E+00	1.044E+01	1.022E+00	-0.179

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		247.94		1.201E+01	3.976E+01	6.528E+01	6.233E+00	0.184
		591.81		-5.029E+01	6.637E+01	9.753E+01	9.454E+00	-0.516
		723.30		-1.578E+00	1.481E+01	2.343E+01	1.697E+00	-0.067
		756.87		9.089E+00	6.575E+01	1.081E+02	1.134E+01	0.084
		873.19		-1.312E+01	2.990E+01	4.669E+01	5.493E+00	-0.281
		996.32		-1.382E+01	3.038E+01	4.598E+01	7.951E+00	-0.301
		1004.76		-2.094E-01	1.680E+01	2.773E+01	3.010E+00	-0.008
		1274.45	*	-2.499E+00	9.112E+00	1.393E+01	1.330E+00	-0.179
EU-155		48.70		-2.084E+02	4.064E+02	6.603E+02	4.968E+01	-0.316
		60.01		-6.934E+02	7.148E+02	1.122E+03	7.273E+01	-0.618
		86.54		-3.033E+00	1.131E+01	1.849E+01	1.430E+00	-0.164
		105.31	*	-1.754E+00	1.380E+01	2.262E+01	1.540E+00	-0.078
TB-160		86.79		-1.398E+01	2.855E+01	4.602E+01	3.520E+00	-0.304
		197.04		1.597E+01	6.909E+01	1.078E+02	6.023E+00	0.148
		215.65		1.747E+01	7.825E+01	1.282E+02	7.269E+00	0.136
		298.57		-7.342E+00	1.108E+01	1.769E+01	1.054E+00	-0.415
		879.36	*	4.006E+00	1.143E+01	2.008E+01	1.608E+00	0.199
		962.29		5.273E+00	3.912E+01	6.628E+01	5.206E+00	0.080
		966.15		1.846E+01	1.433E+01	2.825E+01	2.211E+00	0.653
		1177.93		3.474E+00	2.550E+01	4.285E+01	2.488E+00	0.081
		1271.85		1.109E+01	4.835E+01	8.276E+01	5.066E+00	0.134
HO-166M		80.57		-3.378E+01	3.228E+01	5.014E+01	3.664E+00	-0.674
	+	184.41		6.312E-01	4.311E+00	6.411E+00	3.551E-01	0.098
		280.46		-3.577E+00	8.165E+00	1.327E+01	7.854E-01	-0.270
		410.95		-1.666E+01	2.278E+01	3.471E+01	2.056E+00	-0.480
		711.68	*	-3.846E+00	5.711E+00	8.230E+00	4.822E-01	-0.467
		752.31		-9.596E+00	2.125E+01	3.109E+01	1.974E+00	-0.309
		810.29		3.891E-01	5.001E+00	8.476E+00	6.006E-01	0.046
TM-171		51.35		1.762E+03	4.734E+03	8.159E+03	5.953E+02	0.216
		52.39		8.422E+02	2.392E+03	4.116E+03	2.956E+02	0.205
		59.40		-1.507E+03	3.756E+03	6.134E+03	3.958E+02	-0.246
		66.72	*	2.114E+03	4.082E+03	7.009E+03	4.752E+02	0.302
HF-175		89.36		-1.563E+02	1.622E+02	2.538E+02	1.926E+01	-0.616
		343.40	*	-1.171E+00	3.064E+00	4.928E+00	2.949E-01	-0.238
		433.00		1.020E+02	1.829E+02	3.216E+02	1.914E+01	0.317
LU-176		88.36		-2.597E+01	2.354E+01	3.653E+01	2.808E+00	-0.711
		201.83		-4.209E+00	3.557E+00	5.284E+00	2.963E-01	-0.797
		306.84	*	-1.201E+00	2.587E+00	4.180E+00	2.496E-01	-0.287
		401.10		-4.203E+02	7.805E+02	1.051E+03	6.208E+01	-0.400
LU-177		112.95		4.264E+01	1.057E+02	1.784E+02	1.160E+01	0.239
		208.36	*	-2.303E+01	5.858E+01	9.169E+01	5.169E+00	-0.251
LU-177M		52.97		1.073E+02	2.462E+02	4.254E+02	3.027E+01	0.252
		54.07		-5.137E+00	1.267E+02	2.122E+02	1.484E+01	-0.024
		61.30		-1.014E+01	2.016E+02	3.368E+02	2.209E+01	-0.030
		121.62		3.868E+01	4.485E+01	7.758E+01	4.993E+00	0.499
		147.16		-3.058E+01	7.346E+01	1.168E+02	6.759E+00	-0.262
		171.86		-9.556E+00	5.275E+01	8.467E+01	4.660E+00	-0.113
		218.09		-3.440E+01	9.018E+01	1.410E+02	8.009E+00	-0.244
		268.79		2.141E+01	8.185E+01	1.337E+02	7.866E+00	0.160

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		319.02		-4.688E+00	2.482E+01	4.093E+01	2.449E+00	-0.115
		367.43		-2.245E+01	9.239E+01	1.505E+02	8.962E+00	-0.149
		413.65	*	9.306E+00	1.580E+01	2.782E+01	1.649E+00	0.335
HF-181		56.28		3.592E+01	1.251E+02	2.139E+02	1.444E+01	0.168
		57.53		1.650E+01	6.635E+01	1.131E+02	7.491E+00	0.146
		65.20		6.528E+01	1.237E+02	2.128E+02	1.431E+01	0.307
		133.02		-3.999E+00	6.852E+00	1.080E+01	6.580E-01	-0.370
		136.25		-4.217E+01	5.087E+01	7.890E+01	4.745E+00	-0.534
		345.85		9.356E+00	1.750E+01	2.737E+01	1.637E+00	0.342
		482.03	*	-2.066E+00	3.780E+00	5.813E+00	3.458E-01	-0.355
W-181		56.28		1.494E+01	5.228E+01	8.938E+01	6.033E+00	0.167
		57.53		6.904E+00	2.776E+01	4.732E+01	3.134E+00	0.146
		65.20	*	2.709E+01	5.136E+01	8.830E+01	5.941E+00	0.307
TA-182		67.75		1.551E+00	1.510E+01	2.537E+01	1.729E+00	0.061
		100.10		-9.152E+00	2.208E+01	3.561E+01	2.445E+00	-0.257
		152.43		-9.177E+00	3.584E+01	5.749E+01	3.274E+00	-0.160
		222.10		-1.520E+01	3.504E+01	5.441E+01	3.101E+00	-0.279
		1001.68		-6.254E+01	1.621E+02	2.679E+02	2.023E+01	-0.233
		1121.28		1.105E+01	1.014E+01	1.966E+01	1.258E+00	0.562
		1189.05		5.271E+00	1.995E+01	3.443E+01	2.013E+00	0.153
		1221.42	*	5.380E+00	1.327E+01	2.335E+01	1.391E+00	0.230
		1230.97		-1.193E+00	3.359E+01	5.450E+01	3.263E+00	-0.022
RE-183		57.98		5.910E-01	2.728E+01	4.583E+01	3.016E+00	0.013
		59.32		-5.717E+00	1.465E+01	2.394E+01	1.546E+00	-0.239
		67.20		1.980E+01	2.668E+01	4.632E+01	3.148E+00	0.428
		162.32	*	-1.661E+00	1.148E+01	1.851E+01	1.026E+00	-0.090
		208.81		-8.293E+01	9.755E+01	1.472E+02	8.300E+00	-0.563
		291.72		-1.663E+02	9.157E+01	1.304E+02	7.755E+00	-1.275
RE-184		57.98		2.257E+00	1.042E+02	1.750E+02	1.152E+01	0.013
		59.32		-2.182E+01	5.591E+01	9.136E+01	5.901E+00	-0.239
		67.20		7.562E+01	1.019E+02	1.769E+02	1.202E+01	0.428
		161.27		-1.811E+00	3.913E+01	6.357E+01	3.534E+00	-0.028
		216.55		2.825E+00	2.831E+01	4.597E+01	2.608E+00	0.061
		252.85	*	-6.828E+00	2.635E+01	4.130E+01	2.408E+00	-0.165
		318.01		2.232E+00	4.203E+01	7.085E+01	4.239E+00	0.032
		792.07		-3.678E+01	7.123E+01	1.088E+02	7.451E+00	-0.338
		903.28		-2.543E+01	8.007E+01	1.189E+02	9.794E+00	-0.214
		920.93		-2.919E-01	2.809E+01	4.660E+01	3.789E+00	-0.006
OS-185		59.72		-3.640E+01	4.036E+01	6.364E+01	4.111E+00	-0.572
		61.14		-3.856E+00	2.165E+01	3.588E+01	2.350E+00	-0.107
		69.30		-1.762E+01	3.912E+01	6.368E+01	4.371E+00	-0.277
		592.07		-1.742E+02	2.611E+02	3.900E+02	2.208E+01	-0.447
		646.12	*	1.935E+00	3.814E+00	6.620E+00	3.560E-01	0.292
		717.42		6.102E+01	7.845E+01	1.406E+02	8.335E+00	0.434
		874.81		-4.975E+00	5.345E+01	8.793E+01	6.988E+00	-0.057
		880.27		3.642E+01	6.359E+01	1.153E+02	9.248E+00	0.316
RE-188		155.03	*	3.673E+00	1.749E+01	2.895E+01	1.637E+00	0.127
		477.96		1.015E+02	2.407E+02	4.182E+02	2.490E+01	0.243
		633.10		-2.121E+01	2.438E+02	3.905E+02	2.130E+01	-0.054

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
W-188		63.58		-3.881E+03	7.537E+03	1.184E+04	7.895E+02	-0.328
		227.08		-3.687E+02	1.317E+03	2.072E+03	1.185E+02	-0.178
		290.67	*	-1.246E+03	7.229E+02	1.040E+03	6.181E+01	-1.198
IR-192		295.96		1.174E+01	1.087E+01	1.897E+01	1.147E+00	0.619
		308.46		5.801E+00	9.194E+00	1.622E+01	9.795E-01	0.358
		316.51	*	3.226E-01	3.244E+00	5.489E+00	3.299E-01	0.059
		468.07		2.171E+00	6.181E+00	1.058E+01	7.217E-01	0.205
		604.41		1.500E+01	4.355E+01	6.518E+01	7.334E+00	0.230
		612.46		4.444E+01	7.009E+01	1.096E+02	8.102E+00	0.406
AU-195		65.12		1.317E+01	2.413E+01	4.153E+01	2.793E+00	0.317
		66.83		6.942E+00	1.325E+01	2.275E+01	1.544E+00	0.305
		75.70		5.722E+00	2.162E+01	3.601E+01	2.554E+00	0.159
		98.88	*	-5.023E+00	2.837E+01	4.645E+01	3.216E+00	-0.108
		129.76		9.145E+01	3.169E+02	5.297E+02	3.276E+01	0.173
TL-200		367.94	*	3.679E-05	3.169E+02	Half-Life too short		
		579.30		-7.016E-03	3.169E+02	Half-Life too short		
		828.27		-7.475E-04	3.169E+02	Half-Life too short		
		1205.75		-2.157E-03	3.169E+02	Half-Life too short		
TL-201		68.90		-9.412E+01	1.633E+02	2.639E+02	1.808E+01	-0.357
		70.82		1.113E+01	8.468E+01	1.424E+02	9.849E+00	0.078
		80.30		-1.395E+02	1.442E+02	2.252E+02	1.642E+01	-0.619
		135.34		-3.326E+02	7.381E+02	1.174E+03	7.089E+01	-0.283
		167.43	*	3.871E+01	1.826E+02	3.016E+02	1.658E+01	0.128
TL-202		68.90		-2.441E+01	4.234E+01	6.842E+01	4.688E+00	-0.357
		70.82		2.877E+00	2.190E+01	3.683E+01	2.547E+00	0.078
		80.30		-3.608E+01	3.730E+01	5.824E+01	4.248E+00	-0.619
		439.56	*	2.777E+00	4.883E+00	8.546E+00	5.089E-01	0.325
HG-203		70.83		1.592E+01	1.229E+02	2.067E+02	2.603E+01	0.077
		72.87		-3.694E+01	6.934E+01	1.119E+02	1.365E+01	-0.330
		82.60		5.508E+01	1.146E+02	1.958E+02	2.549E+01	0.281
		279.20	*	2.998E-01	3.645E+00	6.186E+00	3.877E-01	0.048
BI-207		72.80		-5.153E+00	2.194E+01	3.610E+01	2.521E+00	-0.143
		74.97		2.518E-01	1.200E+01	2.003E+01	1.415E+00	0.013
		84.90		2.060E+00	2.145E+01	3.584E+01	2.702E+00	0.057
		569.67		1.532E+00	2.842E+00	4.956E+00	2.850E-01	0.309
		1063.62	*	4.562E+00	4.394E+00	8.450E+00	5.913E-01	0.540
		1770.23		-4.987E+01	5.697E+01	7.459E+01	4.346E+00	-0.668
TL-207		81.07		-1.884E+01	2.521E+01	3.996E+01	2.930E+00	-0.472
		83.78		8.172E+00	1.434E+01	2.462E+01	1.840E+00	0.332
		94.90		-4.180E+01	3.002E+01	4.554E+01	3.256E+00	-0.918
		122.32		4.560E+01	2.199E+02	3.662E+02	2.656E+01	0.125
		144.24		-2.482E+01	8.055E+01	1.292E+02	9.387E+00	-0.192
		154.21		-2.626E+01	4.320E+01	6.745E+01	4.656E+00	-0.389
		269.46		-9.581E-01	2.023E+01	3.217E+01	1.977E+00	-0.030
		323.87	*	1.603E+00	6.444E+01	1.083E+02	1.795E+01	0.015
		338.28		3.155E+00	9.351E+01	1.569E+02	1.669E+01	0.020
		445.03		-3.084E+01	2.284E+02	3.719E+02	3.853E+01	-0.083
TL-208		72.80		-5.581E+01	2.376E+02	3.910E+02	2.730E+01	-0.143
		74.97		2.725E+00	1.298E+02	2.167E+02	2.436E+01	0.013

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		277.35		-5.891E-01	3.860E+01	6.148E+01	6.530E+00	-0.010
		510.84		-3.588E+01	2.374E+01	4.089E+01	4.178E+00	-0.878
		583.14	*	1.160E+00	3.728E+00	6.118E+00	4.037E-01	0.190
		763.13		-5.842E+01	2.013E+02	3.085E+02	3.933E+01	-0.189
		860.37		-2.836E+00	1.886E+01	3.052E+01	2.579E+00	-0.093
		1093.90		4.082E+02	8.208E+02	1.470E+03	3.328E+02	0.278
PO-209		260.50		-3.224E+02	1.095E+03	1.708E+03	1.001E+02	-0.189
		262.80		-2.256E+03	2.942E+03	4.377E+03	2.567E+02	-0.515
		896.60	*	3.231E+02	5.573E+02	1.022E+03	8.428E+01	0.316
BI-210		46.50	*	4.052E+02	6.441E+02	1.079E+03	9.170E+01	0.376
PB-210		46.50	*	4.052E+02	6.441E+02	1.079E+03	9.170E+01	0.376
PO-210		46.50	*	4.052E+02	6.439E+02	1.079E+03	8.119E+01	0.376
PB-211		404.84	*	-2.606E+01	9.222E+01	1.462E+02	9.118E+01	-0.178
		427.08		-7.189E+01	1.976E+02	3.051E+02	1.887E+02	-0.236
		831.96		6.340E+00	1.029E+02	1.736E+02	1.085E+02	0.037
BI-212		727.18	*	-3.740E+01	2.677E+01	3.255E+01	2.571E+00	-1.149
		785.46		-4.881E+01	1.311E+02	2.060E+02	1.394E+01	-0.237
		1620.62		-3.208E+01	1.263E+02	1.982E+02	1.212E+01	-0.162
PB-212		74.81		-6.092E+00	4.212E+01	6.962E+01	8.153E+00	-0.088
		77.11		6.343E+00	2.430E+01	4.044E+01	2.891E+00	0.157
		87.30		-2.064E+01	4.354E+01	7.015E+01	8.845E+00	-0.294
		115.19		-4.803E+01	4.330E+02	7.084E+02	4.588E+01	-0.068
		238.63	*	-9.489E-01	6.821E+00	1.072E+01	7.837E-01	-0.089
		300.09		-3.717E+01	7.802E+01	1.261E+02	1.055E+01	-0.295
PO-212		74.81		-6.092E+00	4.212E+01	6.962E+01	8.153E+00	-0.088
		77.11		6.343E+00	2.430E+01	4.044E+01	2.891E+00	0.157
		87.30		-2.064E+01	4.354E+01	7.015E+01	8.845E+00	-0.294
		115.19		-4.803E+01	4.330E+02	7.084E+02	4.588E+01	-0.068
		238.63	*	-9.489E-01	6.821E+00	1.072E+01	7.837E-01	-0.089
		300.09		-3.717E+01	7.802E+01	1.261E+02	1.055E+01	-0.295
BI-214	+	609.31	*	9.362E+00	1.210E+01	1.537E+01	1.171E+00	0.609
		1120.29		2.039E+01	2.303E+01	4.323E+01	3.985E+00	0.472
		1764.49		6.958E+00	2.540E+01	5.107E+01	2.982E+00	0.136
PB-214		74.81		-1.040E+01	7.193E+01	1.189E+02	1.216E+01	-0.088
		77.11		1.078E+01	4.129E+01	6.871E+01	7.180E+00	0.157
		87.30		-3.505E+01	7.390E+01	1.191E+02	1.296E+01	-0.294
		241.98		-2.341E+01	3.862E+01	5.903E+01	4.757E+00	-0.397
		295.21		1.231E+01	1.502E+01	2.575E+01	2.222E+00	0.478
	+	351.92	*	9.087E+00	9.883E+00	1.355E+01	1.139E+00	0.671
PO-214		74.81		-1.040E+01	7.193E+01	1.189E+02	1.216E+01	-0.088
		77.11		1.078E+01	4.129E+01	6.871E+01	7.180E+00	0.157
		87.30		-3.505E+01	7.390E+01	1.191E+02	1.296E+01	-0.294
		241.98		-2.341E+01	3.862E+01	5.903E+01	4.757E+00	-0.397
		295.21		1.231E+01	1.502E+01	2.575E+01	2.222E+00	0.478
	+	351.92	*	9.087E+00	9.883E+00	1.355E+01	1.139E+00	0.671
PO-215		81.07		-1.884E+01	2.521E+01	3.996E+01	2.930E+00	-0.472
		83.78		8.172E+00	1.434E+01	2.462E+01	1.840E+00	0.332
		94.90		-4.180E+01	3.002E+01	4.554E+01	3.256E+00	-0.918
		122.32		4.560E+01	2.199E+02	3.662E+02	2.656E+01	0.125

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		144.24		-2.482E+01	8.055E+01	1.292E+02	9.387E+00	-0.192
		154.21		-2.626E+01	4.320E+01	6.745E+01	4.656E+00	-0.389
		269.46		-9.581E-01	2.023E+01	3.217E+01	1.977E+00	-0.030
		323.87	*	1.603E+00	6.444E+01	1.083E+02	1.795E+01	0.015
		338.28		3.155E+00	9.351E+01	1.569E+02	1.669E+01	0.020
		445.03		-3.084E+01	2.284E+02	3.719E+02	3.853E+01	-0.083
PO-216		74.81		-6.092E+00	4.212E+01	6.962E+01	8.153E+00	-0.088
		77.11		6.343E+00	2.430E+01	4.044E+01	2.891E+00	0.157
		87.30		-2.064E+01	4.354E+01	7.015E+01	8.845E+00	-0.294
		115.19		-4.803E+01	4.330E+02	7.084E+02	4.588E+01	-0.068
		238.63	*	-9.489E-01	6.821E+00	1.072E+01	7.837E-01	-0.089
		300.09		-3.717E+01	7.802E+01	1.261E+02	1.055E+01	-0.295
PO-218		74.81		-1.040E+01	7.193E+01	1.189E+02	1.216E+01	-0.088
		77.11		1.078E+01	4.129E+01	6.871E+01	7.180E+00	0.157
		87.30		-3.505E+01	7.390E+01	1.191E+02	1.296E+01	-0.294
		241.98		-2.341E+01	3.862E+01	5.903E+01	4.757E+00	-0.397
		295.21		1.231E+01	1.502E+01	2.575E+01	2.222E+00	0.478
	+	351.92	*	9.087E+00	9.883E+00	1.355E+01	1.139E+00	0.671
RN-219		271.23		1.196E+01	2.513E+01	4.174E+01	3.411E+00	0.287
		401.81	*	-1.263E+01	3.974E+01	6.373E+01	8.702E+00	-0.198
RN-220		549.76	*	-6.774E+02	2.270E+03	3.550E+03	2.065E+02	-0.191
RA-223		81.07		-1.884E+01	2.521E+01	3.996E+01	2.930E+00	-0.472
		83.78		8.172E+00	1.434E+01	2.462E+01	1.840E+00	0.332
		94.90		-4.180E+01	3.002E+01	4.554E+01	3.256E+00	-0.918
		122.32		4.560E+01	2.199E+02	3.662E+02	2.656E+01	0.125
		144.24		-2.482E+01	8.055E+01	1.292E+02	9.387E+00	-0.192
		154.21		-2.626E+01	4.320E+01	6.745E+01	4.656E+00	-0.389
		269.46		-9.581E-01	2.023E+01	3.217E+01	1.977E+00	-0.030
		323.87	*	1.603E+00	6.444E+01	1.083E+02	1.795E+01	0.015
		338.28		3.155E+00	9.351E+01	1.569E+02	1.669E+01	0.020
		445.03		-3.084E+01	2.284E+02	3.719E+02	3.853E+01	-0.083
RA-224		240.98	*	9.279E+00	7.218E+01	1.169E+02	6.762E+00	0.079
AC-227		79.80		-1.924E+02	1.974E+02	3.018E+02	6.338E+01	-0.637
		236.00		-9.767E+00	2.413E+01	3.752E+01	3.913E+00	-0.260
		256.20	*	4.496E+00	4.604E+01	7.423E+01	1.038E+01	0.061
		286.10		1.163E+02	1.625E+02	2.872E+02	3.340E+01	0.405
		299.80		-1.064E+02	1.489E+02	2.348E+02	3.838E+01	-0.453
		304.40		-6.804E+01	1.860E+02	3.024E+02	5.248E+01	-0.225
		329.70		-1.531E+01	9.198E+01	1.519E+02	1.907E+01	-0.101
		334.20		1.664E+01	2.579E+02	4.002E+02	7.362E+01	0.042
PA-227		64.62	*	1.000E+35	2.579E+02	Half-Life too short		
		110.05		-1.000E+35	2.579E+02	Half-Life too short		
TH-227		79.80		-1.924E+02	1.975E+02	3.018E+02	6.423E+01	-0.637
		94.00		1.178E+02	2.388E+02	4.044E+02	8.597E+01	0.291
		236.00		-9.767E+00	2.413E+01	3.752E+01	3.389E+00	-0.260
		256.20	*	4.496E+00	4.604E+01	7.423E+01	1.256E+01	0.061
		286.10		1.163E+02	1.995E+02	2.872E+02	2.877E+02	0.405
		299.80		-1.064E+02	1.489E+02	2.348E+02	3.838E+01	-0.453
		304.40		-6.804E+01	1.860E+02	3.024E+02	5.248E+01	-0.225

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		329.70		-1.531E+01	9.198E+01	1.519E+02	1.907E+01	-0.101
		334.20		1.664E+01	2.579E+02	4.002E+02	7.362E+01	0.042
AC-228		338.32		2.446E-01	2.241E+01	3.753E+01	1.531E+01	0.007
	+	911.07	*	1.937E+00	1.591E+01	1.831E+01	1.999E+00	0.106
		969.11		-1.255E+01	2.038E+01	2.980E+01	6.869E+00	-0.421
RA-228		338.32		2.446E-01	2.241E+01	3.753E+01	1.531E+01	0.007
	+	911.07	*	1.937E+00	1.591E+01	1.831E+01	1.999E+00	0.106
		969.11		-1.255E+01	2.038E+01	2.980E+01	6.869E+00	-0.421
TH-228		74.81		-6.092E+00	4.212E+01	6.962E+01	4.975E+00	-0.088
		77.11		6.343E+00	2.430E+01	4.044E+01	2.891E+00	0.157
		87.30		-2.064E+01	4.349E+01	7.015E+01	5.388E+00	-0.294
		238.63	*	-9.489E-01	6.821E+00	1.072E+01	7.837E-01	-0.089
		300.09		-3.717E+01	8.098E+01	1.261E+02	7.437E+01	-0.295
TH-229		85.43		3.173E+00	2.121E+01	3.555E+01	2.691E+00	0.089
		88.47		-1.418E+01	1.357E+01	2.114E+01	1.623E+00	-0.671
		100.00		-8.208E+00	2.390E+01	3.872E+01	2.660E+00	-0.212
		193.63	*	-9.766E+01	6.092E+01	8.716E+01	4.858E+00	-1.121
		210.97		3.444E+01	8.119E+01	1.350E+02	7.624E+00	0.255
TH-230		67.67	*	1.686E+02	1.971E+03	2.756E+03	1.788E+04	0.061
PA-231		283.67	*	-7.927E+01	1.642E+02	2.661E+02	3.681E+01	-0.298
		301.29		-2.808E+01	5.564E+01	8.956E+01	9.443E+00	-0.314
		330.00		-2.188E+01	2.094E+02	3.475E+02	1.089E+02	-0.063
TH-231		84.21	*	3.456E+01	5.579E+01	9.556E+01	1.656E+01	0.362
U-231		84.21		1.388E+02	2.230E+02	3.838E+02	2.878E+01	0.362
		92.29		-6.692E+01	9.821E+01	1.551E+02	1.138E+01	-0.431
		95.87	*	-6.596E+01	5.145E+01	7.857E+01	5.570E+00	-0.839
		108.00		4.147E+01	9.264E+01	1.569E+02	1.036E+01	0.264
TH-232		59.00	*	-4.120E+02	6.042E+03	7.009E+03	7.378E+04	-0.059
PA-233		75.28		2.085E+01	3.506E+02	5.864E+02	8.525E+01	0.036
		86.59		-5.386E+01	1.844E+02	3.001E+02	7.958E+01	-0.179
		300.12		-1.894E+01	4.001E+01	6.463E+01	8.731E+00	-0.293
		311.98	*	-4.672E-01	6.798E+00	1.135E+01	7.181E-01	-0.041
		340.50		-1.342E+01	5.321E+01	8.669E+01	1.995E+01	-0.155
		398.62		-1.478E+01	2.441E+02	3.482E+02	9.011E+01	-0.042
		415.76		1.077E+02	1.542E+02	2.720E+02	5.609E+01	0.396
PA-234		63.00		-1.783E+02	2.355E+02	3.617E+02	5.242E+01	-0.493
		94.67		-1.908E+01	2.104E+01	3.285E+01	3.758E+00	-0.581
		98.44		4.146E+00	1.191E+01	1.975E+01	1.097E+01	0.210
		99.86		-1.514E+01	6.089E+01	9.924E+01	6.825E+00	-0.153
		111.00		1.173E+00	2.322E+01	3.841E+01	4.110E+00	0.031
		131.20		-3.313E+00	1.218E+01	1.963E+01	1.206E+00	-0.169
		152.70		-1.905E+01	3.609E+01	5.659E+01	8.924E+00	-0.337
	+	186.00		2.272E+01	1.554E+02	2.319E+02	7.076E+01	0.098
		226.40		7.776E+00	4.448E+01	7.249E+01	8.351E+00	0.107
		227.20		-1.443E+01	4.723E+01	7.415E+01	4.243E+00	-0.195
		248.90		-4.677E+01	9.611E+01	1.471E+02	3.162E+01	-0.318
		293.70		2.308E+01	6.617E+01	1.141E+02	1.841E+01	0.202
		369.80		4.655E+01	8.240E+01	1.439E+02	3.003E+01	0.323
		568.70		-2.044E+01	9.129E+01	1.445E+02	8.313E+00	-0.142

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		569.50		1.139E+01	2.494E+01	4.311E+01	2.479E+00	0.264
		574.00		1.817E+02	1.440E+02	2.698E+02	1.547E+01	0.674
		699.00		-3.175E+00	6.041E+01	9.666E+01	1.735E+01	-0.033
		706.10		1.737E+01	9.716E+01	1.603E+02	7.073E+01	0.108
		733.00		1.432E+01	3.540E+01	6.016E+01	1.284E+01	0.238
		742.81		5.065E+01	1.200E+02	1.987E+02	1.331E+02	0.255
		796.30		-1.547E+00	6.691E+01	1.117E+02	2.967E+01	-0.014
		805.60		-8.370E+00	9.062E+01	1.498E+02	4.529E+01	-0.056
		819.60		-4.299E+01	1.045E+02	1.611E+02	6.077E+01	-0.267
		826.30		-3.236E+00	7.440E+01	1.237E+02	5.503E+01	-0.026
		831.60		1.345E+01	5.379E+01	9.301E+01	2.744E+01	0.145
		876.40		-2.621E+01	7.988E+01	1.185E+02	1.218E+02	-0.221
		880.51		8.890E+00	2.386E+01	4.211E+01	3.379E+00	0.211
		883.24		2.555E+00	2.331E+01	3.947E+01	2.651E+01	0.065
		899.00		3.561E+01	6.837E+01	1.207E+02	5.269E+01	0.295
		925.00		-3.656E+01	7.828E+01	1.164E+02	9.433E+00	-0.314
		926.50		-1.170E+01	1.272E+01	1.622E+01	4.073E+00	-0.721
		946.00	*	9.385E-01	2.456E+01	4.104E+01	7.581E+00	0.023
		949.00		1.388E+00	3.623E+01	6.053E+01	4.811E+00	0.023
		980.50		5.652E+00	5.580E+01	9.420E+01	7.271E+00	0.060
		1394.10		6.349E+01	9.728E+01	1.693E+02	1.097E+02	0.375
PA-234M		766.42		3.886E+01	1.028E+03	1.659E+03	8.366E+02	0.023
		1001.03	*	-2.863E+02	4.022E+02	6.255E+02	5.668E+01	-0.458
TH-234		63.29	*	-1.798E+02	2.033E+02	3.084E+02	5.284E+01	-0.583
		92.38		-6.527E+01	7.294E+01	1.126E+02	1.971E+01	-0.580
U-234		53.20	*	4.436E+03	4.544E+04	1.700E+04	1.700E+05	0.261
U-235		89.95		-4.925E+01	1.298E+02	2.093E+02	6.397E+01	-0.235
		93.35		-7.797E+01	8.828E+01	1.338E+02	3.697E+01	-0.583
		105.00		-6.900E+00	1.350E+02	2.222E+02	6.521E+01	-0.031
		143.76	*	-1.309E+01	2.497E+01	3.936E+01	6.424E+00	-0.332
		163.35		-1.388E+01	5.253E+01	8.391E+01	1.502E+01	-0.165
	+	185.71		8.416E-01	5.748E+00	8.504E+00	4.714E-01	0.099
		205.31		-1.064E+01	5.655E+01	9.005E+01	1.614E+01	-0.118
NP-236		94.67		-1.438E+01	1.591E+01	2.494E+01	1.787E+00	-0.577
		98.44		3.138E+00	8.836E+00	1.493E+01	1.037E+00	0.210
		111.00		8.872E-01	1.756E+01	2.905E+01	1.899E+00	0.031
		160.31	*	-2.287E+00	9.160E+00	1.468E+01	8.181E-01	-0.156
NP-237		86.50	*	-6.878E+00	2.773E+01	4.532E+01	9.971E+00	-0.152
		95.87		-1.617E+02	1.316E+02	1.926E+02	4.650E+01	-0.839
PU-237		59.54	*	-1.883E+02	2.767E+02	4.432E+02	2.857E+01	-0.425
U-238		63.29	*	-1.798E+02	2.033E+02	3.084E+02	5.284E+01	-0.583
		92.38		-6.527E+01	7.220E+01	1.126E+02	8.254E+00	-0.580
NP-239		99.55		1.491E-01	2.001E+01	3.313E+01	2.283E+00	0.005
		117.00	*	-2.705E+01	2.343E+01	3.558E+01	2.298E+00	-0.760
		209.75		3.138E+00	8.270E+01	1.338E+02	7.552E+00	0.023
		228.18		-8.402E+00	2.445E+01	3.824E+01	2.190E+00	-0.220
		277.60		6.026E+00	1.795E+01	2.951E+01	1.745E+00	0.204
		334.30		7.059E+00	1.459E+02	2.261E+02	1.354E+01	0.031
AM-241		59.54	*	-1.499E+01	2.204E+01	3.529E+01	2.563E+00	-0.425

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AM-243		74.67	*	-1.220E+00	6.780E+00	1.118E+01	7.886E-01	-0.109
		86.72		-4.996E+02	1.039E+03	1.675E+03	1.281E+02	-0.298
		117.66		-4.353E+02	4.676E+02	7.222E+02	4.661E+01	-0.603
		142.18		-9.579E+02	2.096E+03	3.330E+03	1.959E+02	-0.288
CM-243		99.55		1.534E-01	2.059E+01	3.408E+01	2.348E+00	0.005
		103.76	*	1.699E+00	1.220E+01	2.034E+01	1.367E+00	0.084
		117.00		-2.781E+01	2.409E+01	3.659E+01	2.364E+00	-0.760
		209.75		3.092E+00	8.149E+01	1.319E+02	7.441E+00	0.023
		228.18		-8.486E+00	2.470E+01	3.863E+01	2.212E+00	-0.220
		277.60		6.073E+00	1.809E+01	2.974E+01	1.758E+00	0.204
AM-246		798.80		6.286E+00	1.139E+01	2.062E+01	1.431E+00	0.305
		1036.00		-1.788E+01	2.272E+01	3.115E+01	2.260E+00	-0.574
		1062.04		9.740E-01	1.996E+01	3.319E+01	2.327E+00	0.029
		1078.86	*	-5.895E-01	1.070E+01	1.743E+01	1.193E+00	-0.034
CM-247		278.00		-7.190E+00	7.114E+01	1.190E+02	7.037E+00	-0.060
		287.40		1.188E+02	1.307E+02	2.345E+02	1.392E+01	0.507
		402.60	*	-6.694E-01	3.572E+00	5.815E+00	3.437E-01	-0.115
CF-249		252.85		-2.628E+01	1.014E+02	1.590E+02	9.267E+00	-0.165
		333.44		-2.608E+00	1.924E+01	2.937E+01	1.759E+00	-0.089
		387.95	*	-3.339E+00	4.047E+00	6.168E+00	3.639E-01	-0.541
CF-251		176.60	*	-7.213E+00	1.458E+01	2.287E+01	1.261E+00	-0.315
		227.00		-7.579E+00	4.185E+01	6.636E+01	3.797E+00	-0.114
		285.00		1.842E+02	1.813E+02	3.280E+02	1.946E+01	0.562
ANH-511		511.00	*	-7.841E+00	5.034E+00	8.724E+00	5.157E-01	-0.899

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G242754002     *
* Acquisition date : 18-DEC-2009 10:12:50 Detector SN#     :               *
* Detector ID      : GAM06                Sensitivity     : 5.000          *
* Geometry         : 2LMB                 Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:00.53     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  9-DEC-2009 12:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G242754002           Analyst initials: KXG3            *
* Batch Number     : 933232               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  4-FEB-2009 16:29:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
BI-211	2.612E+01	2.781E+01	3.498E+01	0.000E+00
RA-226	1.386E+01	9.327E+01	1.374E+02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)		
BE-7	7.286E+00		2.506E+01	4.364E+01	0.000E+00	NOT IDENT.
NA-22	-9.533E-01		3.174E+00	4.926E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00		6.545E+04	0.000E+00	0.000E+00	SHORT HLIF
AL-26	1.226E+00		3.635E+00	6.582E+00	0.000E+00	NOT IDENT.
K-40	1.643E+01		3.682E+01	7.120E+01	0.000E+00	NOT IDENT.
TI-44	-2.355E-01		4.139E+00	6.896E+00	0.000E+00	NOT IDENT.
SC-46	-2.585E-01		2.567E+00	4.278E+00	0.000E+00	NOT IDENT.
V-48	-7.860E-01		3.964E+00	6.440E+00	0.000E+00	NOT IDENT.
CR-51	-2.943E+00		2.929E+01	4.967E+01	0.000E+00	NOT IDENT.
MN-52	5.100E+00		9.883E+00	1.816E+01	0.000E+00	NOT IDENT.
MN-54	-1.382E+00		3.095E+00	4.931E+00	0.000E+00	NOT IDENT.
CO-56	1.790E+00		3.171E+00	5.841E+00	0.000E+00	NOT IDENT.
CO-57	2.857E+00		2.950E+00	5.234E+00	0.000E+00	NOT IDENT.
CO-58	-8.881E-02		3.086E+00	5.251E+00	0.000E+00	NOT IDENT.
FE-59	-5.569E-01		6.000E+00	9.888E+00	0.000E+00	NOT IDENT.
CO-60	7.709E-01		3.035E+00	5.321E+00	0.000E+00	NOT IDENT.
ZN-65	-6.501E+00		7.403E+00	1.051E+01	0.000E+00	NOT IDENT.
GE-68	-4.075E+01		8.697E+01	1.316E+02	0.000E+00	NOT IDENT.
AS-73	2.113E+01		1.202E+02	2.084E+02	0.000E+00	NOT IDENT.
AS-74	6.253E+00		7.768E+00	1.401E+01	0.000E+00	NOT IDENT.
SE-75	-2.351E-01		4.553E+00	7.392E+00	0.000E+00	NOT IDENT.
BR-77	-7.836E+00		1.694E+02	2.818E+02	0.000E+00	NOT IDENT.
SR-82	2.692E+01		2.815E+01	5.401E+01	0.000E+00	NOT IDENT.
RB-83	7.392E-02		6.524E+00	1.093E+01	0.000E+00	NOT IDENT.
RB-84	1.999E-01		4.953E+00	8.481E+00	0.000E+00	NOT IDENT.

KR-85	-9.087E+02	9.512E+02	1.467E+03	0.000E+00	NOT IDENT.
SR-85	-4.366E+00	4.570E+00	7.049E+00	0.000E+00	NOT IDENT.
RB-86	-3.658E+01	4.509E+01	6.225E+01	0.000E+00	NOT IDENT.
Y-88	5.233E-01	3.262E+00	5.733E+00	0.000E+00	NOT IDENT.
ZR-88	1.582E+00	2.771E+00	4.957E+00	0.000E+00	NOT IDENT.
Y-91	-7.545E+02	1.264E+03	1.859E+03	0.000E+00	NOT IDENT.
NB-94	-1.279E+00	3.092E+00	4.784E+00	0.000E+00	NOT IDENT.
NB-95	-7.908E-02	3.822E+00	6.241E+00	0.000E+00	NOT IDENT.
NB-95M	-1.057E+01	1.200E+01	1.830E+01	0.000E+00	NOT IDENT.
ZR-95	-2.919E+00	5.755E+00	8.617E+00	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.856E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	5.309E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.539E+02	2.321E+02	3.399E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.829E+11	0.000E+00	0.000E+00	SHORT HLIF
RH-101	3.911E+00	4.252E+00	7.050E+00	0.000E+00	NOT IDENT.
RH-102	-1.595E+00	2.489E+00	3.827E+00	0.000E+00	NOT IDENT.
RU-103	1.546E+00	3.791E+00	6.623E+00	0.000E+00	FAIL ABUN
RH-106	5.446E+00	2.560E+01	4.381E+01	0.000E+00	NOT IDENT.
RU-106	5.446E+00	2.560E+01	4.381E+01	0.000E+00	NOT IDENT.
AG-108M	-3.883E-01	3.099E+00	5.160E+00	0.000E+00	NOT IDENT.
CD-109	-5.859E+01	9.371E+01	1.530E+02	0.000E+00	NOT IDENT.
AG-110M	2.136E+00	2.911E+00	5.314E+00	0.000E+00	NOT IDENT.
IN-111	-2.424E+01	2.587E+01	3.909E+01	0.000E+00	NOT IDENT.
IN-113M	6.387E-01	4.139E+00	7.125E+00	0.000E+00	NOT IDENT.
SN-113	6.387E-01	4.139E+00	7.125E+00	0.000E+00	NOT IDENT.
IN-114M	3.882E+00	2.104E+01	3.093E+01	0.000E+00	NOT IDENT.
CD-115	-5.286E+01	1.520E+02	2.432E+02	0.000E+00	NOT IDENT.
SN-117M	3.534E+00	4.401E+00	7.695E+00	0.000E+00	NOT IDENT.
SB-122	-3.524E+00	3.345E+01	5.486E+01	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.497E+05	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.259E+00	3.036E+00	5.186E+00	0.000E+00	NOT IDENT.
I-124	8.499E-01	2.538E+01	3.662E+01	0.000E+00	NOT IDENT.
SB-124	-5.913E+00	7.850E+00	1.086E+01	0.000E+00	NOT IDENT.
SB-125	-3.843E+00	8.359E+00	1.338E+01	0.000E+00	NOT IDENT.
TE-125M	-1.387E+02	1.068E+03	1.784E+03	0.000E+00	NOT IDENT.
I-126	-1.383E+00	1.109E+01	1.796E+01	0.000E+00	NOT IDENT.
SB-126	-3.775E+00	9.559E+00	1.480E+01	0.000E+00	NOT IDENT.
SN-126	-3.201E+00	9.103E+00	1.510E+01	0.000E+00	NOT IDENT.
SB-127	-6.651E+00	3.376E+01	5.368E+01	0.000E+00	NOT IDENT.
XE-127	-2.990E+00	4.823E+00	7.618E+00	0.000E+00	NOT IDENT.
I-131	3.746E+00	7.153E+00	1.237E+01	0.000E+00	NOT IDENT.
TE-132	-7.084E+00	1.963E+01	3.127E+01	0.000E+00	NOT IDENT.
BA-133	5.585E+00	4.540E+00	7.734E+00	0.000E+00	NOT IDENT.
I-133	0.000E+00	4.225E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-1.699E+00	3.447E+00	5.420E+00	0.000E+00	NOT IDENT.
CS-135	1.164E+01	1.600E+01	2.765E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	7.242E+10	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-2.300E+00	5.985E+00	9.330E+00	0.000E+00	NOT IDENT.
BA-137M	-1.284E+00	3.054E+00	4.718E+00	0.000E+00	NOT IDENT.
CS-137	-1.357E+00	3.229E+00	4.987E+00	0.000E+00	NOT IDENT.
CE-139	3.426E-02	3.091E+00	5.139E+00	0.000E+00	NOT IDENT.
BA-140	-7.210E+00	1.902E+01	3.013E+01	0.000E+00	NOT IDENT.
LA-140	-8.909E-01	5.508E+00	9.031E+00	0.000E+00	NOT IDENT.
CE-141	-2.496E+00	6.205E+00	1.009E+01	0.000E+00	NOT IDENT.
CE-143	-8.463E+01	5.631E+02	9.557E+02	0.000E+00	FAIL ABUN
CE-144	-1.043E+01	2.293E+01	3.717E+01	0.000E+00	NOT IDENT.
PM-144	1.594E+00	2.523E+00	4.587E+00	0.000E+00	NOT IDENT.
PR-144	1.077E+02	1.704E+02	3.098E+02	0.000E+00	NOT IDENT.
PM-146	1.298E+00	4.150E+00	7.223E+00	0.000E+00	NOT IDENT.
ND-147	-1.305E+01	3.779E+01	6.049E+01	0.000E+00	NOT IDENT.
PM-149	1.079E+03	1.375E+03	2.483E+03	0.000E+00	NOT IDENT.
EU-152	4.282E+00	8.894E+00	1.511E+01	0.000E+00	NOT IDENT.
GD-153	7.121E+00	9.677E+00	1.701E+01	0.000E+00	NOT IDENT.
EU-154	-2.499E+00	8.930E+00	1.393E+01	0.000E+00	NOT IDENT.
EU-155	-1.754E+00	1.352E+01	2.262E+01	0.000E+00	NOT IDENT.
TB-160	4.006E+00	1.120E+01	2.008E+01	0.000E+00	NOT IDENT.
HO-166M	-3.846E+00	5.597E+00	8.230E+00	0.000E+00	FAIL ABUN
TM-171	2.114E+03	4.000E+03	7.009E+03	0.000E+00	NOT IDENT.
HF-175	-1.171E+00	3.003E+00	4.928E+00	0.000E+00	NOT IDENT.
LU-176	-1.201E+00	2.536E+00	4.180E+00	0.000E+00	NOT IDENT.
LU-177	-2.303E+01	5.741E+01	9.169E+01	0.000E+00	NOT IDENT.
LU-177M	9.306E+00	1.549E+01	2.782E+01	0.000E+00	NOT IDENT.
HF-181	-2.066E+00	3.705E+00	5.813E+00	0.000E+00	NOT IDENT.
W-181	2.709E+01	5.033E+01	8.830E+01	0.000E+00	NOT IDENT.
TA-182	5.380E+00	1.301E+01	2.335E+01	0.000E+00	NOT IDENT.
RE-183	-1.661E+00	1.125E+01	1.851E+01	0.000E+00	NOT IDENT.
RE-184	-6.828E+00	2.582E+01	4.130E+01	0.000E+00	NOT IDENT.
OS-185	1.935E+00	3.738E+00	6.620E+00	0.000E+00	NOT IDENT.

RE-188	3.673E+00	1.714E+01	2.895E+01	0.000E+00	NOT IDENT.
W-188	-1.246E+03	7.084E+02	1.040E+03	0.000E+00	NOT IDENT.
IR-192	3.226E-01	3.179E+00	5.489E+00	0.000E+00	NOT IDENT.
AU-195	-5.023E+00	2.780E+01	4.645E+01	0.000E+00	NOT IDENT.
TL-200	0.000E+00	8.871E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	3.871E+01	1.789E+02	3.016E+02	0.000E+00	NOT IDENT.
TL-202	2.777E+00	4.786E+00	8.546E+00	0.000E+00	NOT IDENT.
HG-203	2.998E-01	3.572E+00	6.186E+00	0.000E+00	NOT IDENT.
BI-207	4.562E+00	4.307E+00	8.450E+00	0.000E+00	NOT IDENT.
TL-207	1.603E+00	6.315E+01	1.083E+02	0.000E+00	NOT IDENT.
TL-208	1.160E+00	3.654E+00	6.118E+00	0.000E+00	NOT IDENT.
PO-209	3.231E+02	5.462E+02	1.022E+03	0.000E+00	NOT IDENT.
BI-210	4.052E+02	6.312E+02	1.079E+03	0.000E+00	NOT IDENT.
PB-210	4.052E+02	6.312E+02	1.079E+03	0.000E+00	NOT IDENT.
PO-210	4.052E+02	6.310E+02	1.079E+03	0.000E+00	NOT IDENT.
PB-211	-2.606E+01	9.037E+01	1.462E+02	0.000E+00	NOT IDENT.
BI-212	-3.740E+01	2.624E+01	3.255E+01	0.000E+00	NOT IDENT.
PB-212	-9.489E-01	6.685E+00	1.072E+01	0.000E+00	NOT IDENT.
PO-212	-9.489E-01	6.685E+00	1.072E+01	0.000E+00	NOT IDENT.
BI-214	9.362E+00	1.186E+01	1.537E+01	0.000E+00	FAIL ABUN
PB-214	9.087E+00	9.686E+00	1.355E+01	0.000E+00	FAIL ABUN
PO-214	9.087E+00	9.686E+00	1.355E+01	0.000E+00	FAIL ABUN
PO-215	1.603E+00	6.315E+01	1.083E+02	0.000E+00	NOT IDENT.
PO-216	-9.489E-01	6.685E+00	1.072E+01	0.000E+00	NOT IDENT.
PO-218	9.087E+00	9.686E+00	1.355E+01	0.000E+00	FAIL ABUN
RN-219	-1.263E+01	3.894E+01	6.373E+01	0.000E+00	NOT IDENT.
RN-220	-6.774E+02	2.224E+03	3.550E+03	0.000E+00	NOT IDENT.
RA-223	1.603E+00	6.315E+01	1.083E+02	0.000E+00	NOT IDENT.
RA-224	9.279E+00	7.073E+01	1.169E+02	0.000E+00	NOT IDENT.
AC-227	4.496E+00	4.512E+01	7.423E+01	0.000E+00	NOT IDENT.
PA-227	0.000E+00	2.763E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	4.496E+00	4.512E+01	7.423E+01	0.000E+00	NOT IDENT.
AC-228	1.937E+00	1.560E+01	1.831E+01	0.000E+00	FAIL ABUN
RA-228	1.937E+00	1.560E+01	1.831E+01	0.000E+00	FAIL ABUN
TH-228	-9.489E-01	6.685E+00	1.072E+01	0.000E+00	NOT IDENT.
TH-229	-9.766E+01	5.970E+01	8.716E+01	0.000E+00	NOT IDENT.
TH-230	1.686E+02	1.932E+03	2.756E+03	0.000E+00	NOT IDENT.
PA-231	-7.927E+01	1.610E+02	2.661E+02	0.000E+00	NOT IDENT.
TH-231	3.456E+01	5.467E+01	9.556E+01	0.000E+00	NOT IDENT.
U-231	-6.596E+01	5.042E+01	7.857E+01	0.000E+00	NOT IDENT.
TH-232	-4.120E+02	5.922E+03	7.009E+03	0.000E+00	NOT IDENT.
PA-233	-4.672E-01	6.662E+00	1.135E+01	0.000E+00	NOT IDENT.
PA-234	9.385E-01	2.407E+01	4.104E+01	0.000E+00	FAIL ABUN
PA-234M	-2.863E+02	3.942E+02	6.255E+02	0.000E+00	NOT IDENT.
TH-234	-1.798E+02	1.992E+02	3.084E+02	0.000E+00	NOT IDENT.
U-234	4.436E+03	4.453E+04	1.700E+04	0.000E+00	NOT IDENT.
U-235	-1.309E+01	2.447E+01	3.936E+01	0.000E+00	FAIL ABUN
NP-236	-2.287E+00	8.977E+00	1.468E+01	0.000E+00	NOT IDENT.
NP-237	-6.878E+00	2.718E+01	4.532E+01	0.000E+00	NOT IDENT.
PU-237	-1.883E+02	2.712E+02	4.432E+02	0.000E+00	NOT IDENT.
U-238	-1.798E+02	1.992E+02	3.084E+02	0.000E+00	NOT IDENT.
NP-239	-2.705E+01	2.296E+01	3.558E+01	0.000E+00	NOT IDENT.
AM-241	-1.499E+01	2.160E+01	3.529E+01	0.000E+00	NOT IDENT.
AM-243	-1.220E+00	6.644E+00	1.118E+01	0.000E+00	NOT IDENT.
CM-243	1.699E+00	1.196E+01	2.034E+01	0.000E+00	NOT IDENT.
AM-246	-5.895E-01	1.049E+01	1.743E+01	0.000E+00	NOT IDENT.
CM-247	-6.694E-01	3.500E+00	5.815E+00	0.000E+00	NOT IDENT.
CF-249	-3.339E+00	3.966E+00	6.168E+00	0.000E+00	NOT IDENT.
CF-251	-7.213E+00	1.429E+01	2.287E+01	0.000E+00	NOT IDENT.
ANH-511	-7.841E+00	4.934E+00	8.724E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 12:13:15.41

```
*************************************************************************
*                          GEL Laboratories LLC                         *
*                            2040 Savage Road                           *
*                          Charleston, SC 29414                         *
*************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G242754002.CNF;1
Sample date       : 9-DEC-2009 12:00:00. Acquisition date : 18-DEC-2009 10:12:50
Sample ID         : G242754002           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM06                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.53  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 933232               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	92.68	31	186	1.02	185.35	180	10	4.28E-03	85.4	
2	0	185.79	49	81	1.30	371.58	367	8	6.78E-03	35.1	
3	0	351.51	42	41	1.07	703.02	697	11	5.83E-03	33.4	
4	0	510.62	105	44	2.36	1021.23	1013	15	1.46E-02	17.0	
5	0	609.50	33	41	1.23	1218.99	1213	13	4.64E-03	42.4	
6	0	912.27	11	11	1.00	1824.53	1817	15	1.53E-03	72.7	

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 12:13:18.48

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G242754002.CNF;1
Sample date       : 9-DEC-2009 12:00:00. Acquisition date : 18-DEC-2009 10:12:50
Sample ID         : G242754002           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM06                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.53  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 933232               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
BI-211	72.87	------	1.27	1.281E+00	------ Line Not Found		------
	351.07	27	12.94*	1.504E+00	2.612E+01	2.612E+01	108.64
RA-226	186.21	5	3.28*	2.211E+00	1.386E+01	1.386E+01	686.91

Flag: "*" = Keyline

Sample ID : G242754002 Acquisition date : 18-DEC-2009 10:12:50

Total number of lines in spectrum	4	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	4	100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
BI-211	7.04E+08Y	1.00	2.612E+01	2.612E+01	2.838E+01	108.64	
RA-226	1600.00Y	1.00	1.386E+01	1.386E+01	9.518E+01	686.91	
		Total Activity :	3.998E+01	3.998E+01			
		Grand Total Activity :	3.998E+01	3.998E+01			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G242754002 Acquisition date : 18-DEC-2009 10:12:50

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	609.50	23	41	1.23	1218.99	1213	13	3.21E-03	****	1.00E+00	T
0	912.27	2	11	1.00	1824.53	1817	15	2.87E-04	****	7.26E-01	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 12:13:24.53

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G242754002.CNF;1  *
* Acquisition date : 18-DEC-2009 10:12:50  Detector SN#    :                *
* Detector ID      : GAM06                 Sensitivity     : 5.00000        *
* Geometry         : 2LMB                  Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:00.53         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 9-DEC-2009 12:00:00.  Nuclide Library : LIQUID          *
* Sample ID        : G242754002            Analyst initials: KXG3            *
* Batch Number     : 933232                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 4-FEB-2009 16:29:43.04MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BI-211	2.612E+01	2.838E+01	3.498E+01	2.306E+00	0.747
RA-226	1.386E+01	9.518E+01	1.374E+02	1.009E+02	0.101

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	7.286E+00		2.557E+01	4.364E+01	3.004E+00	0.167
NA-22	-9.533E-01		3.238E+00	4.926E+00	3.026E-01	-0.194
NA-24	-1.238E-02		3.339E-02	Half-Life too short		
AL-26	1.226E+00		3.709E+00	6.582E+00	3.774E-01	0.186
K-40	1.643E+01		3.757E+01	7.120E+01	4.709E+00	0.231
TI-44	-2.355E-01		4.223E+00	6.896E+00	4.969E-01	-0.034
SC-46	-2.585E-01		2.619E+00	4.278E+00	3.485E-01	-0.060
V-48	-7.860E-01		4.045E+00	6.440E+00	4.957E-01	-0.122
CR-51	-2.943E+00		2.989E+01	4.967E+01	3.292E+00	-0.059
MN-52	5.100E+00		1.008E+01	1.816E+01	1.144E+00	0.281

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
MN-54	-1.382E+00		3.158E+00	4.931E+00	3.653E-01	-0.280
CO-56	1.790E+00		3.236E+00	5.841E+00	4.420E-01	0.307
CO-57	2.857E+00		3.011E+00	5.234E+00	3.376E-01	0.546
CO-58	-8.881E-02		3.149E+00	5.251E+00	3.737E-01	-0.017
FE-59	-5.569E-01		6.123E+00	9.888E+00	7.438E-01	-0.056
CO-60	7.709E-01		3.097E+00	5.321E+00	3.360E-01	0.145
ZN-65	-6.501E+00		7.554E+00	1.051E+01	6.802E-01	-0.619
GE-68	-4.075E+01		8.875E+01	1.316E+02	9.028E+00	-0.310
AS-73	2.113E+01		1.226E+02	2.084E+02	1.472E+01	0.101
AS-74	6.253E+00		7.926E+00	1.401E+01	7.907E-01	0.446
SE-75	-2.351E-01		4.646E+00	7.392E+00	4.384E-01	-0.032
BR-77	-7.836E+00		1.728E+02	2.818E+02	1.661E+01	-0.028
SR-82	2.692E+01		2.873E+01	5.401E+01	3.593E+00	0.498
RB-83	7.392E-02		6.657E+00	1.093E+01	6.441E-01	0.007
RB-84	1.999E-01		5.054E+00	8.481E+00	6.818E-01	0.024
KR-85	-9.087E+02		9.706E+02	1.467E+03	8.667E+01	-0.619
SR-85	-4.366E+00		4.663E+00	7.049E+00	4.164E-01	-0.619
RB-86	-3.658E+01		4.601E+01	6.225E+01	4.276E+00	-0.588
Y-88	5.233E-01		3.329E+00	5.733E+00	3.254E-01	0.091
ZR-88	1.582E+00		2.828E+00	4.957E+00	2.920E-01	0.319
Y-91	-7.545E+02		1.290E+03	1.859E+03	1.097E+02	-0.406
NB-94	-1.279E+00		3.155E+00	4.784E+00	2.752E-01	-0.267
NB-95	-7.908E-02		3.900E+00	6.241E+00	4.069E-01	-0.013
NB-95M	-1.057E+01		1.225E+01	1.830E+01	1.372E+00	-0.578
ZR-95	-2.919E+00		5.873E+00	8.617E+00	6.493E-01	-0.339
NB-97	1.325E-02		9.469E-03	Half-Life too short		
ZR-97	-7.611E-01		2.709E-01	Half-Life too short		
MO-99	-1.539E+02		2.368E+02	3.399E+02	4.742E+01	-0.453
TC-99M	2.307E+04		9.334E+04	Half-Life too short		
RH-101	3.911E+00		4.339E+00	7.050E+00	3.942E-01	0.555
RH-102	-1.595E+00		2.539E+00	3.827E+00	2.279E-01	-0.417
RU-103	1.546E+00		3.869E+00	6.623E+00	8.415E-01	0.233
RH-106	5.446E+00		2.613E+01	4.381E+01	5.081E+00	0.124
RU-106	5.446E+00		2.612E+01	4.381E+01	2.416E+00	0.124
AG-108M	-3.883E-01		3.162E+00	5.160E+00	3.322E-01	-0.075
CD-109	-5.859E+01		9.562E+01	1.530E+02	1.181E+01	-0.383
AG-110M	2.136E+00		2.970E+00	5.314E+00	3.035E-01	0.402
IN-111	-2.424E+01		2.640E+01	3.909E+01	2.267E+00	-0.620
IN-113M	6.387E-01		4.223E+00	7.125E+00	4.468E-01	0.090
SN-113	6.387E-01		4.223E+00	7.125E+00	4.468E-01	0.090
IN-114M	3.882E+00		2.147E+01	3.093E+01	1.720E+00	0.126
CD-115	-5.286E+01		1.551E+02	2.432E+02	1.429E+01	-0.217
SN-117M	3.534E+00		4.490E+00	7.695E+00	4.309E-01	0.459
SB-122	-3.524E+00		3.414E+01	5.486E+01	3.167E+00	-0.064
I-123	1.035E-01		1.274E-01	Half-Life too short		
TE-123M	1.259E+00		3.098E+00	5.186E+00	2.942E-01	0.243
I-124	8.499E-01		2.590E+01	3.662E+01	2.055E+00	0.023
SB-124	-5.913E+00		8.010E+00	1.086E+01	7.032E-01	-0.544

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
SB-125	-3.843E+00		8.530E+00	1.338E+01	8.277E-01	-0.287
TE-125M	-1.387E+02		1.089E+03	1.784E+03	1.547E+02	-0.078
I-126	-1.383E+00		1.131E+01	1.796E+01	9.576E-01	-0.077
SB-126	-3.775E+00		9.754E+00	1.480E+01	8.824E-01	-0.255
SN-126	-3.201E+00		9.289E+00	1.510E+01	1.163E+00	-0.212
SB-127	-6.651E+00		3.445E+01	5.368E+01	3.923E+00	-0.124
XE-127	-2.990E+00		4.922E+00	7.618E+00	4.275E-01	-0.393
I-131	3.746E+00		7.299E+00	1.237E+01	8.131E-01	0.303
TE-132	-7.084E+00		2.003E+01	3.127E+01	4.163E+00	-0.227
BA-133	5.585E+00		4.633E+00	7.734E+00	9.008E-01	0.722
I-133	7.124E-05		2.156E-03	Half-Life too short		
CS-134	-1.699E+00		3.517E+00	5.420E+00	3.782E-01	-0.313
CS-135	1.164E+01		1.633E+01	2.765E+01	2.135E+00	0.421
I-135	4.338E+04		3.695E+04	Half-Life too short		
CS-136	-2.300E+00		6.107E+00	9.330E+00	7.070E-01	-0.247
BA-137M	-1.284E+00		3.117E+00	4.718E+00	2.491E-01	-0.272
CS-137	-1.357E+00		3.295E+00	4.987E+00	2.647E-01	-0.272
CE-139	3.426E-02		3.155E+00	5.139E+00	2.826E-01	0.007
BA-140	-7.210E+00		1.941E+01	3.013E+01	9.801E+00	-0.239
LA-140	-8.909E-01		5.621E+00	9.031E+00	5.555E-01	-0.099
CE-141	-2.496E+00		6.332E+00	1.009E+01	6.101E-01	-0.247
CE-143	-8.463E+01		5.746E+02	9.557E+02	1.978E+02	-0.089
CE-144	-1.043E+01		2.340E+01	3.717E+01	5.322E+00	-0.281
PM-144	1.594E+00		2.574E+00	4.587E+00	2.606E-01	0.347
PR-144	1.077E+02		1.739E+02	3.098E+02	1.760E+01	0.347
PM-146	1.298E+00		4.234E+00	7.223E+00	6.306E-01	0.180
ND-147	-1.305E+01		3.857E+01	6.049E+01	8.198E+00	-0.216
PM-149	1.079E+03		1.403E+03	2.483E+03	3.528E+02	0.435
EU-152	4.282E+00		9.075E+00	1.511E+01	1.013E+00	0.283
GD-153	7.121E+00		9.874E+00	1.701E+01	1.191E+00	0.419
EU-154	-2.499E+00		9.112E+00	1.393E+01	1.330E+00	-0.179
EU-155	-1.754E+00		1.380E+01	2.262E+01	1.540E+00	-0.078
TB-160	4.006E+00		1.143E+01	2.008E+01	1.608E+00	0.199
HO-166M	-3.846E+00		5.711E+00	8.230E+00	4.822E-01	-0.467
TM-171	2.114E+03		4.082E+03	7.009E+03	4.752E+02	0.302
HF-175	-1.171E+00		3.064E+00	4.928E+00	2.949E-01	-0.238
LU-176	-1.201E+00		2.587E+00	4.180E+00	2.496E-01	-0.287
LU-177	-2.303E+01		5.858E+01	9.169E+01	5.169E+00	-0.251
LU-177M	9.306E+00		1.580E+01	2.782E+01	1.649E+00	0.335
HF-181	-2.066E+00		3.780E+00	5.813E+00	3.458E-01	-0.355
W-181	2.709E+01		5.136E+01	8.830E+01	5.941E+00	0.307
TA-182	5.380E+00		1.327E+01	2.335E+01	1.391E+00	0.230
RE-183	-1.661E+00		1.148E+01	1.851E+01	1.026E+00	-0.090
RE-184	-6.828E+00		2.635E+01	4.130E+01	2.408E+00	-0.165
OS-185	1.935E+00		3.814E+00	6.620E+00	3.560E-01	0.292
RE-188	3.673E+00		1.749E+01	2.895E+01	1.637E+00	0.127
W-188	-1.246E+03		7.229E+02	1.040E+03	6.181E+01	-1.198
IR-192	3.226E-01		3.244E+00	5.489E+00	3.299E-01	0.059

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AU-195	-5.023E+00		2.837E+01	4.645E+01	3.216E+00	-0.108
TL-200	3.679E-05		4.526E-04	Half-Life too short		
TL-201	3.871E+01		1.826E+02	3.016E+02	1.658E+01	0.128
TL-202	2.777E+00		4.883E+00	8.546E+00	5.089E-01	0.325
HG-203	2.998E-01		3.645E+00	6.186E+00	3.877E-01	0.048
BI-207	4.562E+00		4.394E+00	8.450E+00	5.913E-01	0.540
TL-207	1.603E+00		6.444E+01	1.083E+02	1.795E+01	0.015
TL-208	1.160E+00		3.728E+00	6.118E+00	4.037E-01	0.190
PO-209	3.231E+02		5.573E+02	1.022E+03	8.428E+01	0.316
BI-210	4.052E+02		6.441E+02	1.079E+03	9.170E+01	0.376
PB-210	4.052E+02		6.441E+02	1.079E+03	9.170E+01	0.376
PO-210	4.052E+02		6.439E+02	1.079E+03	8.119E+01	0.376
PB-211	-2.606E+01		9.222E+01	1.462E+02	9.118E+01	-0.178
BI-212	-3.740E+01		2.677E+01	3.255E+01	2.571E+00	-1.149
PB-212	-9.489E-01		6.821E+00	1.072E+01	7.837E-01	-0.089
PO-212	-9.489E-01		6.821E+00	1.072E+01	7.837E-01	-0.089
BI-214	9.362E+00	+	1.210E+01	1.537E+01	1.171E+00	0.609
PB-214	9.087E+00	+	9.883E+00	1.355E+01	1.139E+00	0.671
PO-214	9.087E+00	+	9.883E+00	1.355E+01	1.139E+00	0.671
PO-215	1.603E+00		6.444E+01	1.083E+02	1.795E+01	0.015
PO-216	-9.489E-01		6.821E+00	1.072E+01	7.837E-01	-0.089
PO-218	9.087E+00	+	9.883E+00	1.355E+01	1.139E+00	0.671
RN-219	-1.263E+01		3.974E+01	6.373E+01	8.702E+00	-0.198
RN-220	-6.774E+02		2.270E+03	3.550E+03	2.065E+02	-0.191
RA-223	1.603E+00		6.444E+01	1.083E+02	1.795E+01	0.015
RA-224	9.279E+00		7.218E+01	1.169E+02	6.762E+00	0.079
AC-227	4.496E+00		4.604E+01	7.423E+01	1.038E+01	0.061
PA-227	1.000E+35		1.410E+35	Half-Life too short		
TH-227	4.496E+00		4.604E+01	7.423E+01	1.256E+01	0.061
AC-228	1.937E+00	+	1.591E+01	1.831E+01	1.999E+00	0.106
RA-228	1.937E+00	+	1.591E+01	1.831E+01	1.999E+00	0.106
TH-228	-9.489E-01		6.821E+00	1.072E+01	7.837E-01	-0.089
TH-229	-9.766E+01		6.092E+01	8.716E+01	4.858E+00	-1.121
TH-230	1.686E+02		1.971E+03	2.756E+03	1.788E+04	0.061
PA-231	-7.927E+01		1.642E+02	2.661E+02	3.681E+01	-0.298
TH-231	3.456E+01		5.579E+01	9.556E+01	1.656E+01	0.362
U-231	-6.596E+01		5.145E+01	7.857E+01	5.570E+00	-0.839
TH-232	-4.120E+02		6.042E+03	7.009E+03	7.378E+04	-0.059
PA-233	-4.672E-01		6.798E+00	1.135E+01	7.181E-01	-0.041
PA-234	9.385E-01		2.456E+01	4.104E+01	7.581E+00	0.023
PA-234M	-2.863E+02		4.022E+02	6.255E+02	5.668E+01	-0.458
TH-234	-1.798E+02		2.033E+02	3.084E+02	5.284E+01	-0.583
U-234	4.436E+03		4.544E+04	1.700E+04	1.700E+05	0.261
U-235	-1.309E+01		2.497E+01	3.936E+01	6.424E+00	-0.332
NP-236	-2.287E+00		9.160E+00	1.468E+01	8.181E-01	-0.156
NP-237	-6.878E+00		2.773E+01	4.532E+01	9.971E+00	-0.152
PU-237	-1.883E+02		2.767E+02	4.432E+02	2.857E+01	-0.425
U-238	-1.798E+02		2.033E+02	3.084E+02	5.284E+01	-0.583

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NP-239	-2.705E+01		2.343E+01	3.558E+01	2.298E+00	-0.760
AM-241	-1.499E+01		2.204E+01	3.529E+01	2.563E+00	-0.425
AM-243	-1.220E+00		6.780E+00	1.118E+01	7.886E-01	-0.109
CM-243	1.699E+00		1.220E+01	2.034E+01	1.367E+00	0.084
AM-246	-5.895E-01		1.070E+01	1.743E+01	1.193E+00	-0.034
CM-247	-6.694E-01		3.572E+00	5.815E+00	3.437E-01	-0.115
CF-249	-3.339E+00		4.047E+00	6.168E+00	3.639E-01	-0.541
CF-251	-7.213E+00		1.458E+01	2.287E+01	1.261E+00	-0.315
ANH-511	-7.841E+00		5.034E+00	8.724E+00	5.157E-01	-0.899

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G242754002            *
* Acquisition date : 18-DEC-2009 10:12:50 Detector SN#    :                 *
* Detector ID      : GAM06                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:00.53     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  9-DEC-2009 12:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G242754002           Analyst initials: KXG3            *
* Batch Number     : 933232               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  4-FEB-2009 16:29:43 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
BI-211	2.612E+01	2.781E+01	1.750E+01	1.419E+01
RA-226	1.386E+01	9.327E+01	6.876E+01	4.759E+01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU	
BE-7	7.286E+00	2.506E+01	2.183E+01	1.279E+01	NOT IDENT.
NA-22	-9.533E-01	3.174E+00	2.464E+00	1.619E+00	NOT IDENT.
NA-24	-1.238E+04	6.545E+04	0.000E+00	3.339E+04	SHORT HLIF
AL-26	1.226E+00	3.635E+00	3.293E+00	1.855E+00	NOT IDENT.
K-40	1.643E+01	3.682E+01	3.562E+01	1.879E+01	NOT IDENT.
TI-44	-2.355E-01	4.139E+00	3.450E+00	2.112E+00	NOT IDENT.
SC-46	-2.585E-01	2.567E+00	2.140E+00	1.310E+00	NOT IDENT.
V-48	-7.860E-01	3.964E+00	3.222E+00	2.022E+00	NOT IDENT.
CR-51	-2.943E+00	2.929E+01	2.485E+01	1.494E+01	NOT IDENT.
MN-52	5.100E+00	9.883E+00	9.085E+00	5.042E+00	NOT IDENT.
MN-54	-1.382E+00	3.095E+00	2.467E+00	1.579E+00	NOT IDENT.
CO-56	1.790E+00	3.171E+00	2.922E+00	1.618E+00	NOT IDENT.
CO-57	2.857E+00	2.950E+00	2.619E+00	1.505E+00	NOT IDENT.
CO-58	-8.881E-02	3.086E+00	2.627E+00	1.574E+00	NOT IDENT.
FE-59	-5.569E-01	6.000E+00	4.947E+00	3.061E+00	NOT IDENT.
CO-60	7.709E-01	3.035E+00	2.662E+00	1.548E+00	NOT IDENT.
ZN-65	-6.501E+00	7.403E+00	5.256E+00	3.777E+00	NOT IDENT.
GE-68	-4.075E+01	8.697E+01	6.582E+01	4.437E+01	NOT IDENT.
AS-73	2.113E+01	1.202E+02	1.043E+02	6.132E+01	NOT IDENT.
AS-74	6.253E+00	7.768E+00	7.009E+00	3.963E+00	NOT IDENT.
SE-75	-2.351E-01	4.553E+00	3.698E+00	2.323E+00	NOT IDENT.
BR-77	-7.836E+00	1.694E+02	1.410E+02	8.640E+01	NOT IDENT.
SR-82	2.692E+01	2.815E+01	2.702E+01	1.436E+01	NOT IDENT.
RB-83	7.392E-02	6.524E+00	5.468E+00	3.328E+00	NOT IDENT.
RB-84	1.999E-01	4.953E+00	4.243E+00	2.527E+00	NOT IDENT.

KR-85	-9.087E+02	9.512E+02	7.341E+02	4.853E+02	NOT IDENT.
SR-85	-4.366E+00	4.570E+00	3.527E+00	2.332E+00	NOT IDENT.
RB-86	-3.658E+01	4.509E+01	3.114E+01	2.301E+01	NOT IDENT.
Y-88	5.233E-01	3.262E+00	2.868E+00	1.664E+00	NOT IDENT.
ZR-88	1.582E+00	2.771E+00	2.480E+00	1.414E+00	NOT IDENT.
Y-91	-7.545E+02	1.264E+03	9.301E+02	6.450E+02	NOT IDENT.
NB-94	-1.279E+00	3.092E+00	2.393E+00	1.578E+00	NOT IDENT.
NB-95	-7.908E-02	3.822E+00	3.122E+00	1.950E+00	NOT IDENT.
NB-95M	-1.057E+01	1.200E+01	9.156E+00	6.125E+00	NOT IDENT.
ZR-95	-2.919E+00	5.755E+00	4.311E+00	2.936E+00	NOT IDENT.
NB-97	1.325E+04	1.856E+04	0.000E+00	9.469E+03	SHORT HLIF
ZR-97	-7.611E+05	5.309E+05	0.000E+00	2.709E+05	SHORT HLIF
MO-99	-1.539E+02	2.321E+02	1.701E+02	1.184E+02	NOT IDENT.
TC-99M	2.307E+10	1.829E+11	0.000E+00	9.334E+10	SHORT HLIF
RH-101	3.911E+00	4.252E+00	3.527E+00	2.169E+00	NOT IDENT.
RH-102	-1.595E+00	2.489E+00	1.915E+00	1.270E+00	NOT IDENT.
RU-103	1.546E+00	3.791E+00	3.313E+00	1.934E+00	FAIL ABUN
RH-106	5.446E+00	2.560E+01	2.192E+01	1.306E+01	NOT IDENT.
RU-106	5.446E+00	2.560E+01	2.192E+01	1.306E+01	NOT IDENT.
AG-108M	-3.883E-01	3.099E+00	2.581E+00	1.581E+00	NOT IDENT.
CD-109	-5.859E+01	9.371E+01	7.652E+01	4.781E+01	NOT IDENT.
AG-110M	2.136E+00	2.911E+00	2.658E+00	1.485E+00	NOT IDENT.
IN-111	-2.424E+01	2.587E+01	1.956E+01	1.320E+01	NOT IDENT.
IN-113M	6.387E-01	4.139E+00	3.565E+00	2.112E+00	NOT IDENT.
SN-113	6.387E-01	4.139E+00	3.565E+00	2.112E+00	NOT IDENT.
IN-114M	3.882E+00	2.104E+01	1.547E+01	1.074E+01	NOT IDENT.
CD-115	-5.286E+01	1.520E+02	1.216E+02	7.754E+01	NOT IDENT.
SN-117M	3.534E+00	4.401E+00	3.850E+00	2.245E+00	NOT IDENT.
SB-122	-3.524E+00	3.345E+01	2.745E+01	1.707E+01	NOT IDENT.
I-123	1.035E+05	2.497E+05	0.000E+00	1.274E+05	SHORT HLIF
TE-123M	1.259E+00	3.036E+00	2.595E+00	1.549E+00	NOT IDENT.
I-124	8.499E-01	2.538E+01	1.832E+01	1.295E+01	NOT IDENT.
SB-124	-5.913E+00	7.850E+00	5.434E+00	4.005E+00	NOT IDENT.
SB-125	-3.843E+00	8.359E+00	6.694E+00	4.265E+00	NOT IDENT.
TE-125M	-1.387E+02	1.068E+03	8.924E+02	5.447E+02	NOT IDENT.
I-126	-1.383E+00	1.109E+01	8.985E+00	5.656E+00	NOT IDENT.
SB-126	-3.775E+00	9.559E+00	7.402E+00	4.877E+00	NOT IDENT.
SN-126	-3.201E+00	9.103E+00	7.557E+00	4.644E+00	NOT IDENT.
SB-127	-6.651E+00	3.376E+01	2.686E+01	1.723E+01	NOT IDENT.
XE-127	-2.990E+00	4.823E+00	3.811E+00	2.461E+00	NOT IDENT.
I-131	3.746E+00	7.153E+00	6.191E+00	3.649E+00	NOT IDENT.
TE-132	-7.084E+00	1.963E+01	1.565E+01	1.002E+01	NOT IDENT.
BA-133	5.585E+00	4.540E+00	3.869E+00	2.316E+00	NOT IDENT.
I-133	7.124E+01	4.225E+03	0.000E+00	2.156E+03	SHORT HLIF
CS-134	-1.699E+00	3.447E+00	2.712E+00	1.759E+00	NOT IDENT.
CS-135	1.164E+01	1.600E+01	1.384E+01	8.166E+00	NOT IDENT.
I-135	4.338E+10	7.242E+10	0.000E+00	3.695E+10	SHORT HLIF
CS-136	-2.300E+00	5.985E+00	4.668E+00	3.054E+00	NOT IDENT.
BA-137M	-1.284E+00	3.054E+00	2.360E+00	1.558E+00	NOT IDENT.
CS-137	-1.357E+00	3.229E+00	2.495E+00	1.647E+00	NOT IDENT.
CE-139	3.426E-02	3.091E+00	2.571E+00	1.577E+00	NOT IDENT.
BA-140	-7.210E+00	1.902E+01	1.507E+01	9.705E+00	NOT IDENT.
LA-140	-8.909E-01	5.508E+00	4.518E+00	2.810E+00	NOT IDENT.
CE-141	-2.496E+00	6.205E+00	5.046E+00	3.166E+00	NOT IDENT.
CE-143	-8.463E+01	5.631E+02	4.782E+02	2.873E+02	FAIL ABUN
CE-144	-1.043E+01	2.293E+01	1.859E+01	1.170E+01	NOT IDENT.
PM-144	1.594E+00	2.523E+00	2.295E+00	1.287E+00	NOT IDENT.
PR-144	1.077E+02	1.704E+02	1.550E+02	8.694E+01	NOT IDENT.
PM-146	1.298E+00	4.150E+00	3.614E+00	2.117E+00	NOT IDENT.
ND-147	-1.305E+01	3.779E+01	3.026E+01	1.928E+01	NOT IDENT.
PM-149	1.079E+03	1.375E+03	1.242E+03	7.015E+02	NOT IDENT.
EU-152	4.282E+00	8.894E+00	7.561E+00	4.538E+00	NOT IDENT.
GD-153	7.121E+00	9.677E+00	8.512E+00	4.937E+00	NOT IDENT.
EU-154	-2.499E+00	8.930E+00	6.970E+00	4.556E+00	NOT IDENT.
EU-155	-1.754E+00	1.352E+01	1.132E+01	6.898E+00	NOT IDENT.
TB-160	4.006E+00	1.120E+01	1.005E+01	5.714E+00	NOT IDENT.
HO-166M	-3.846E+00	5.597E+00	4.117E+00	2.856E+00	FAIL ABUN
TM-171	2.114E+03	4.000E+03	3.506E+03	2.041E+03	NOT IDENT.
HF-175	-1.171E+00	3.003E+00	2.465E+00	1.532E+00	NOT IDENT.
LU-176	-1.201E+00	2.536E+00	2.091E+00	1.294E+00	NOT IDENT.
LU-177	-2.303E+01	5.741E+01	4.587E+01	2.929E+01	NOT IDENT.
LU-177M	9.306E+00	1.549E+01	1.392E+01	7.902E+00	NOT IDENT.
HF-181	-2.066E+00	3.705E+00	2.908E+00	1.890E+00	NOT IDENT.
W-181	2.709E+01	5.033E+01	4.418E+01	2.568E+01	NOT IDENT.
TA-182	5.380E+00	1.301E+01	1.168E+01	6.637E+00	NOT IDENT.
RE-183	-1.661E+00	1.125E+01	9.261E+00	5.739E+00	NOT IDENT.
RE-184	-6.828E+00	2.582E+01	2.066E+01	1.317E+01	NOT IDENT.
OS-185	1.935E+00	3.738E+00	3.312E+00	1.907E+00	NOT IDENT.

RE-188	3.673E+00	1.714E+01	1.448E+01	8.745E+00	NOT IDENT.
W-188	-1.246E+03	7.084E+02	5.202E+02	3.614E+02	NOT IDENT.
IR-192	3.226E-01	3.179E+00	2.746E+00	1.622E+00	NOT IDENT.
AU-195	-5.023E+00	2.780E+01	2.324E+01	1.418E+01	NOT IDENT.
TL-200	3.679E+01	8.871E+02	0.000E+00	4.526E+02	SHORT HLIF
TL-201	3.871E+01	1.789E+02	1.509E+02	9.130E+01	NOT IDENT.
TL-202	2.777E+00	4.786E+00	4.275E+00	2.442E+00	NOT IDENT.
HG-203	2.998E-01	3.572E+00	3.095E+00	1.823E+00	NOT IDENT.
BI-207	4.562E+00	4.307E+00	4.228E+00	2.197E+00	NOT IDENT.
TL-207	1.603E+00	6.315E+01	5.416E+01	3.222E+01	NOT IDENT.
TL-208	1.160E+00	3.654E+00	3.061E+00	1.864E+00	NOT IDENT.
PO-209	3.231E+02	5.462E+02	5.112E+02	2.787E+02	NOT IDENT.
BI-210	4.052E+02	6.312E+02	5.398E+02	3.221E+02	NOT IDENT.
PB-210	4.052E+02	6.312E+02	5.398E+02	3.221E+02	NOT IDENT.
PO-210	4.052E+02	6.310E+02	5.398E+02	3.220E+02	NOT IDENT.
PB-211	-2.606E+01	9.037E+01	7.316E+01	4.611E+01	NOT IDENT.
BI-212	-3.740E+01	2.624E+01	1.629E+01	1.339E+01	NOT IDENT.
PB-212	-9.489E-01	6.685E+00	5.364E+00	3.411E+00	NOT IDENT.
PO-212	-9.489E-01	6.685E+00	5.364E+00	3.411E+00	NOT IDENT.
BI-214	9.362E+00	1.186E+01	7.692E+00	6.050E+00	FAIL ABUN
PB-214	9.087E+00	9.686E+00	6.777E+00	4.942E+00	FAIL ABUN
PO-214	9.087E+00	9.686E+00	6.777E+00	4.942E+00	FAIL ABUN
PO-215	1.603E+00	6.315E+01	5.416E+01	3.222E+01	NOT IDENT.
PO-216	-9.489E-01	6.685E+00	5.364E+00	3.411E+00	NOT IDENT.
PO-218	9.087E+00	9.686E+00	6.777E+00	4.942E+00	FAIL ABUN
RN-219	-1.263E+01	3.894E+01	3.189E+01	1.987E+01	NOT IDENT.
RN-220	-6.774E+02	2.224E+03	1.776E+03	1.135E+03	NOT IDENT.
RA-223	1.603E+00	6.315E+01	5.416E+01	3.222E+01	NOT IDENT.
RA-224	9.279E+00	7.073E+01	5.850E+01	3.609E+01	NOT IDENT.
AC-227	4.496E+00	4.512E+01	3.714E+01	2.302E+01	NOT IDENT.
PA-227	1.000E+41	2.763E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	4.496E+00	4.512E+01	3.714E+01	2.302E+01	NOT IDENT.
AC-228	1.937E+00	1.560E+01	9.159E+00	7.957E+00	FAIL ABUN
RA-228	1.937E+00	1.560E+01	9.159E+00	7.957E+00	FAIL ABUN
TH-228	-9.489E-01	6.685E+00	5.364E+00	3.411E+00	NOT IDENT.
TH-229	-9.766E+01	5.970E+01	4.360E+01	3.046E+01	NOT IDENT.
TH-230	1.686E+02	1.932E+03	1.379E+03	9.856E+02	NOT IDENT.
PA-231	-7.927E+01	1.610E+02	1.331E+02	8.212E+01	NOT IDENT.
TH-231	3.456E+01	5.467E+01	4.781E+01	2.789E+01	NOT IDENT.
U-231	-6.596E+01	5.042E+01	3.931E+01	2.573E+01	NOT IDENT.
TH-232	-4.120E+02	5.922E+03	3.507E+03	3.021E+03	NOT IDENT.
PA-233	-4.672E-01	6.662E+00	5.678E+00	3.399E+00	NOT IDENT.
PA-234	9.385E-01	2.407E+01	2.053E+01	1.228E+01	FAIL ABUN
PA-234M	-2.863E+02	3.942E+02	3.129E+02	2.011E+02	NOT IDENT.
TH-234	-1.798E+02	1.992E+02	1.543E+02	1.016E+02	NOT IDENT.
U-234	4.436E+03	4.453E+04	8.505E+03	2.272E+04	NOT IDENT.
U-235	-1.309E+01	2.447E+01	1.969E+01	1.249E+01	FAIL ABUN
NP-236	-2.287E+00	8.977E+00	7.344E+00	4.580E+00	NOT IDENT.
NP-237	-6.878E+00	2.718E+01	2.267E+01	1.387E+01	NOT IDENT.
PU-237	-1.883E+02	2.712E+02	2.217E+02	1.384E+02	NOT IDENT.
U-238	-1.798E+02	1.992E+02	1.543E+02	1.016E+02	NOT IDENT.
NP-239	-2.705E+01	2.296E+01	1.780E+01	1.171E+01	NOT IDENT.
AM-241	-1.499E+01	2.160E+01	1.766E+01	1.102E+01	NOT IDENT.
AM-243	-1.220E+00	6.644E+00	5.595E+00	3.390E+00	NOT IDENT.
CM-243	1.699E+00	1.196E+01	1.017E+01	6.101E+00	NOT IDENT.
AM-246	-5.895E-01	1.049E+01	8.720E+00	5.350E+00	NOT IDENT.
CM-247	-6.694E-01	3.500E+00	2.909E+00	1.786E+00	NOT IDENT.
CF-249	-3.339E+00	3.966E+00	3.086E+00	2.024E+00	NOT IDENT.
CF-251	-7.213E+00	1.429E+01	1.144E+01	7.292E+00	NOT IDENT.
ANH-511	-7.841E+00	4.934E+00	4.364E+00	2.517E+00	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	81.3086
46.50	81.3086
46.50	81.3086
48.70	107.0280
49.72	125.3941
51.35	87.4783
52.39	87.6343
52.97	92.2893
53.15	91.4034
53.20	91.4112
53.44	97.8494
54.07	98.8683
56.28	95.5542
56.28	95.5546
57.37	101.2464
57.53	98.5106
57.53	98.5108
57.60	100.3632
57.98	106.8738
57.98	106.8738
59.00	108.8934
59.32	117.2583
59.32	117.2583
59.40	117.2731
59.54	122.8407
59.54	122.8407
59.72	129.3429
60.01	134.0234
61.10	125.9190
61.14	121.2971
61.30	121.3273
63.00	136.5026
63.29	143.9947
63.29	143.9947
63.58	139.4114
64.28	139.5590
64.62	0.0000
65.12	140.6668
65.20	140.6835
65.20	140.6835
66.05	146.4592
66.72	145.6698
66.83	145.6942
66.91	144.7774
67.20	137.3633
67.20	137.3633
67.67	149.6143
67.75	149.6313
67.85	149.6533
68.90	162.9969
68.90	162.9969
69.30	158.4046
69.67	147.2360
70.82	134.3265
70.82	134.3265
70.83	134.3287
72.80	140.3548
72.80	140.3548
72.87	149.7891
72.87	149.7891
74.67	136.9420
74.81	136.9685
74.81	136.9685
74.81	136.9685
74.81	136.9685
74.81	136.9685
74.81	136.9685

74.81	136.9685
74.97	132.2743
74.97	132.2743
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75.70	122.9491
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77.11	122.2376
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77.11	122.2376
77.11	122.2376
77.11	122.2376
78.38	122.4468
79.62	144.5167
79.80	146.4529
79.80	146.4529
80.11	149.3675
80.18	146.5269
80.30	146.5498
80.30	146.5498
80.57	151.3619
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81.07	141.9355
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83.78	119.4930
83.78	119.4930
84.21	121.4722
84.21	121.4722
84.90	129.2378
85.43	131.2408
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86.50	141.9709
86.54	141.9777
86.59	141.9867
86.72	146.8081
86.79	146.8203
86.94	144.9288
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87.88	156.6310
88.03	156.6602
88.36	180.7617
88.47	180.7868
89.36	173.2846
89.95	158.9600
91.11	137.9617
92.29	134.2952
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92.38	143.0063
93.35	143.1740
94.00	145.2221
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94.67	168.5924
94.90	184.1459
94.90	184.1459
94.90	184.1459
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95.87	177.5661
96.73	118.4979
97.43	123.4556
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98.44	128.4677
98.88	140.2180
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99.55	134.4803
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100.00	143.3248
100.10	143.3422

103.18	119.3831
103.76	128.2740
105.00	136.2973
105.31	139.2872
108.00	125.9297
109.28	137.9289
110.05	0.0000
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111.00	134.2392
111.76	134.3492
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115.19	125.9187
115.19	125.9187
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117.00	145.0326
117.66	141.1566
121.11	114.7254
121.62	110.7929
121.78	106.8176
122.06	106.8482
122.32	128.8509
122.32	128.8509
122.32	128.8509
123.07	136.9462
127.23	126.4775
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131.20	125.9651
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133.54	127.2612
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136.48	147.8769
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143.76	142.7686
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144.24	138.7507
144.24	138.7507
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145.44	131.7538
147.16	132.9834
152.43	118.1963
152.70	123.3646
153.22	133.7064
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154.21	120.4402
154.21	120.4402
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156.02	107.2286
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159.00	109.5737
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162.64	114.0636
163.35	117.2451
163.89	103.8044
165.85	108.1355
167.43	99.9492
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171.86	113.9015
172.10	113.9239
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176.60	124.8314
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185.71	103.5485
186.00	111.6046
186.21	130.2261
190.27	111.9744
192.34	106.2042
193.63	150.9584

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198.60	110.9761
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201.83	155.0991
202.84	132.7358
205.31	110.4567
208.36	103.1792
208.81	117.1896
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209.75	106.5100
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216.55	97.2990
218.09	101.7339
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226.40	94.7036
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227.08	99.1043
227.20	99.1126
228.16	96.9975
228.18	96.9988
228.18	96.9988
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236.00	105.1824
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238.63	90.0009
238.63	90.0009
238.63	90.0009
239.00	90.0228
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241.98	113.3006
241.98	113.3006
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248.90	99.4476
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256.20	96.5820
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268.24	65.9915
268.79	74.9650
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269.46	82.8311
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277.60	62.9932
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278.60	71.1347
279.20	69.3592
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285.90	66.0181
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286.10	66.0253
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295.21	58.1930
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297.23	67.3642
298.57	88.3692
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300.09	78.4162
300.09	78.4162
300.09	78.4162
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304.40	68.5538
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319.02	59.8973
319.41	60.8317
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323.87	58.2081
323.87	58.2081
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329.70	66.7327
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334.20	63.1764
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338.28	56.7951
338.28	56.7951
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351.92	65.6370
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351.92	65.6370
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366.43	53.8404
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367.94	0.0000
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388.63	61.1102
391.69	45.8994
391.69	45.8994
392.90	40.1851
398.62	40.2937
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402.60	47.0973
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413.65	34.7792
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427.89	41.8106
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439.56	37.1405
439.89	35.1910
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445.03	43.1079
445.03	43.1079
445.03	43.1079
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468.07	36.6089
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475.35	35.7280
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477.96	23.8444
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487.03	30.9145
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510.53	0.0000
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511.00	44.3032
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513.99	92.7435
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529.87	0.0000
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546.56	0.0000
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555.20	20.4824
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563.90	23.6312
568.70	30.8774
569.32	25.7373
569.50	25.7391
569.67	25.7404
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574.00	21.6562
574.64	24.7559
578.91	42.3563
579.30	0.0000
583.14	23.7974
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591.81	43.5914
592.07	43.5955
593.00	36.3416
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600.56	45.8090

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602.71	31.2568
603.60	31.2671
604.41	26.0632
604.70	26.0657
609.31	29.2407
610.33	27.8581
612.46	26.1365
614.37	29.6414
618.01	25.1397
621.84	19.9282
621.84	19.9282
631.29	19.9931
633.02	26.3220
633.10	26.3226
634.78	26.3379
635.90	27.4016
636.97	27.4117
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646.12	22.2084
656.30	23.3449
657.75	18.0480
657.90	0.0000
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661.65	26.5753
664.57	25.5369
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666.33	24.4869
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677.61	18.1654
685.20	18.2098
692.80	20.4018
695.00	20.4162
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696.49	13.9756
697.00	16.1283
697.49	20.4324
698.33	18.2862
698.50	20.4389
699.00	22.5940
702.63	30.1595
706.10	24.8008
706.58	0.0000
706.67	22.6483
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711.68	30.2456
713.82	31.3463
717.42	18.3962
720.50	29.2452
721.93	22.7565
722.20	26.0095
722.78	21.6782
722.78	21.6782
722.89	21.6792
722.95	21.6797
723.30	22.7662
724.18	16.2660
727.18	34.7328
733.00	21.7466
735.90	27.2076
739.58	29.4166
742.81	16.3586
744.21	19.6387
747.13	16.3802
751.79	15.3094
752.31	18.5929
753.82	17.5074
755.35	21.8940
756.15	24.0894
756.87	18.6187
763.13	27.4310
763.93	27.4377
765.79	25.2568
766.42	25.2613
766.84	17.5754
776.49	16.5238
778.00	20.2047

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778.89	22.0469
783.80	22.9986
785.46	18.4078
792.07	19.3654
795.84	20.3094
796.30	16.6190
798.80	15.7072
801.93	21.2700
805.60	23.1435
810.29	18.5396
810.76	19.4692
815.85	16.7120
817.79	15.7922
818.51	16.7245
819.60	20.4473
826.30	21.4170
828.27	0.0000
831.60	18.6511
831.96	19.5858
834.83	24.2687
836.80	0.0000
846.75	15.9202
848.13	19.6738
856.28	0.0000
856.80	18.7813
860.37	12.2198
867.32	18.8350
867.82	21.6631
871.10	19.7969
873.19	27.3539
874.81	22.6479
875.33	0.0000
876.40	21.7132
879.36	16.0617
880.27	14.1757
880.51	15.1217
881.50	16.0710
883.24	15.1325
884.67	16.0845
889.25	12.3150
896.60	10.4407
898.02	9.4950
899.00	12.3467
903.28	17.1149
911.07	19.5996
911.07	19.5996
919.63	11.4585
920.93	9.5520
925.00	12.4306
925.24	11.4751
926.50	16.2619
935.52	13.4232
937.48	17.2668
944.10	12.4917
946.00	15.3818
949.00	15.3936
962.29	17.3756
964.01	17.3829
966.15	9.6625
968.20	15.4678
969.11	19.3392
969.11	19.3392
977.42	10.6585
980.50	12.6059
983.50	13.5859
989.30	16.5206
996.32	18.4959
1001.03	15.5934
1001.68	11.6968
1004.76	14.6320
1021.30	0.0000
1024.50	0.0000
1034.80	9.8254
1036.00	16.7074
1037.82	20.6479
1038.57	18.6846
1038.76	0.0000

1045.16	7.8796
1046.59	10.8380
1048.07	15.7695
1050.47	17.7510
1050.47	17.7510
1062.04	16.8105
1063.62	9.8922
1076.63	15.8750
1077.35	13.8929
1078.86	12.9048
1085.78	18.8910
1093.90	9.9609
1099.22	12.9651
1112.02	7.0014
1112.84	9.0037
1115.52	24.0234
1120.29	11.0228
1120.51	11.0233
1121.28	9.0205
1124.00	0.0000
1129.67	6.0249
1131.51	0.0000
1147.95	0.0000
1167.94	15.1892
1173.22	15.2069
1175.09	13.1846
1177.93	13.1925
1189.05	10.1725
1204.90	17.3514
1205.75	0.0000
1213.00	15.3363
1221.42	11.2668
1230.97	15.3943
1235.34	11.2994
1236.41	0.0000
1238.25	14.3896
1246.25	10.2954
1260.41	0.0000
1271.85	9.3146
1274.45	12.4258
1274.54	12.4263
1291.56	14.5469
1298.22	0.0000
1312.09	6.2600
1325.50	10.4610
1325.50	10.4610
1332.49	8.3805
1333.61	5.2389
1360.21	9.4790
1362.66	0.0000
1365.15	7.3794
1368.21	8.4388
1368.53	0.0000
1376.25	6.3389
1384.27	7.4067
1394.10	4.2402
1395.20	7.4221
1407.95	8.5026
1434.06	7.4762
1436.60	6.4111
1457.56	0.0000
1460.81	6.4399
1489.15	7.5520
1509.49	14.0759
1596.49	9.4228
1620.62	10.4076
1678.03	0.0000
1691.02	12.4446
1691.02	12.4446
1706.46	0.0000
1750.46	0.0000
1764.49	2.9059
1770.23	14.5428
1771.40	15.5151
1791.20	0.0000
1808.65	7.8030
1836.01	5.8770

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G242754002

Total Uranium Activity	-5.4098E+02	ug/g
Total Uranium Counting Unc.	5.9275E+02	ug/g
Total Uranium Tpu	3.0242E-04	ug/g
Total Uranium Mda	4.5909E+02	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 933232                    SAMPLE ID  : G242754002       *
*   ANALYST       : KXG3                      DETECTOR   : GAM06            *
*   SAMPLE DATE   :  9-DEC-2009 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 18-DEC-2009 10:12:50.34    SAMPLE ALQT:    2.000 LITER   *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 8.704E+00
        GROSS GAMMA ERROR  (pCi/LITER )   : 1.229E+01
        GROSS GAMMA MDA    (pCi/LITER )   : 3.088E+01
        GROSS GAMMA DLC    (pCi/LITER )   : 1.456E+01
```

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 12:14:12.07

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G242754003.CNF;1
Sample date       : 9-DEC-2009 12:00:00. Acquisition date : 18-DEC-2009 10:13:15
Sample ID         : G242754003           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM08                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.93  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 933232                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	186.29*	12	114	1.09	372.43	366	10	1.70E-03	181.4	
2	0	353.77*	10	63	1.28	707.05	702	12	1.34E-03	190.1	
3	0	910.53*	6	6	3.85	1820.07	1814	11	8.23E-04	118.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 18-DEC-2009 12:14:15

Configuration	: DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G242754003.CNF;1		
Analyses by	: PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8		
Sample title	: KXG3		
Sample date	: 9-DEC-2009 12:00:00	Acquisition date	: 18-DEC-2009 10:13:15
Sample ID	: G242754003	Sample quantity	: 2.0000 LITER
Sample type	: LIQUID	Sample geometry	:
Detector name	: GAMMA8	Detector geometry	: 2LMB
Elapsed live time	: 0 02:00:00.00	Elapsed real time	: 0 02:00:00.93 0.0%
Peak Width (FWHM)	: 3.00	Confidence level	: 5.00 %
Energy tolerance	: 1.50 keV	Half life ratio	: 8.00
Errors propagated	: Yes	Systematic Error	: 0.00 %
Efficiency type	: Empirical	Efficiencies at	: Peak Energy
Abundance limit	: 75.00	WTM error limit	: 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RA-226	+	186.21	*	3.077E+01	1.139E+02	1.143E+02	8.394E+01	0.269

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	-1.495E+01	2.657E+01	3.933E+01	2.758E+00	-0.380
NA-22		1274.54	*	-4.925E-01	2.484E+00	3.931E+00	2.671E-01	-0.125
NA-24		1368.53	*	1.814E-02	2.484E+00	Half-Life too short		
AL-26		1129.67		-8.326E+01	1.051E+02	1.456E+02	9.093E+00	-0.572
		1808.65	*	-1.448E+00	3.618E+00	5.287E+00	3.143E-01	-0.274
K-40		1460.81	*	-1.070E+01	3.739E+01	6.014E+01	4.478E+00	-0.178
TI-44		67.85		-3.024E+00	5.373E+00	8.203E+00	8.819E-01	-0.369
		78.38	*	-1.311E+00	3.458E+00	5.327E+00	5.531E-01	-0.246
SC-46		889.25	*	-1.794E+00	2.985E+00	4.325E+00	3.291E-01	-0.415
		1120.51		2.758E+00	3.723E+00	6.726E+00	4.254E-01	0.410
V-48		944.10		-1.244E+01	4.512E+01	6.878E+01	5.171E+00	-0.181
		983.50	*	-4.880E+00	4.338E+00	5.349E+00	3.910E-01	-0.912
		1312.09		3.138E+00	4.743E+00	8.849E+00	6.322E-01	0.355
CR-51		320.08	*	4.715E-03	3.282E+01	5.382E+01	3.782E+00	0.000
MN-52		744.21		4.064E+00	8.991E+00	1.581E+01	9.324E-01	0.257
		848.13		-5.387E+01	2.631E+02	4.164E+02	2.957E+01	-0.129
		935.52		-3.821E-01	7.561E+00	1.216E+01	9.193E-01	-0.031
		1246.25		1.407E+02	2.059E+02	3.885E+02	2.531E+01	0.362
		1333.61		4.054E+01	2.104E+02	3.611E+02	2.651E+01	0.112
		1434.06	*	-6.219E+00	9.777E+00	1.377E+01	9.925E-01	-0.452
MN-54		834.83	*	2.868E+00	2.621E+00	5.044E+00	3.501E-01	0.569
CO-56		846.75	*	0.000E+00	3.127E+00	5.120E+00	3.627E-01	0.000
		977.42		7.659E+00	2.075E+02	3.388E+02	2.488E+01	0.023
		1037.82		1.009E+01	1.968E+01	3.523E+01	2.653E+00	0.286
		1175.09		-1.083E+01	1.281E+02	2.108E+02	1.235E+01	-0.051
		1238.25		-4.259E+00	5.245E+00	7.276E+00	4.926E-01	-0.585
		1360.21		1.904E+01	7.044E+01	1.238E+02	9.058E+00	0.154
		1771.40		-4.098E+00	2.476E+01	3.864E+01	2.364E+00	-0.106

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-57		122.06	*	3.408E-01	2.757E+00	4.428E+00	3.101E-01	0.077
		136.48		-2.169E+01	2.181E+01	3.167E+01	2.340E+00	-0.685
CO-58		810.76	*	-1.169E+00	3.003E+00	4.612E+00	3.082E-01	-0.253
FE-59		142.65		-3.814E+02	2.774E+02	3.786E+02	2.434E+01	-1.007
		192.34		-2.165E+01	8.171E+01	1.346E+02	1.612E+01	-0.161
		1099.22	*	-5.209E+00	5.512E+00	6.704E+00	4.965E-01	-0.777
		1291.56		-2.395E+00	7.172E+00	1.099E+01	9.172E-01	-0.218
CO-60		1173.22		2.719E+00	2.772E+00	5.468E+00	3.193E-01	0.497
		1332.49	*	1.324E+00	3.523E+00	6.230E+00	4.574E-01	0.213
ZN-65		1115.52	*	-2.763E+00	6.950E+00	1.032E+01	6.586E-01	-0.268
GE-68		1077.35	*	-5.510E+01	9.717E+01	1.383E+02	9.236E+00	-0.398
AS-73		53.44	*	3.405E+01	1.083E+02	1.815E+02	2.182E+01	0.188
AS-74		595.88	*	6.375E+00	6.024E+00	1.132E+01	6.273E-01	0.563
		634.78		1.310E+01	2.382E+01	4.247E+01	2.230E+00	0.308
SE-75		66.05		-2.505E+02	5.677E+02	8.779E+02	1.089E+02	-0.285
		96.73		-2.108E+01	8.112E+01	1.277E+02	1.785E+01	-0.165
		121.11		-1.112E+01	1.474E+01	2.203E+01	2.217E+00	-0.505
		136.00		-1.017E+00	3.818E+00	5.915E+00	3.934E-01	-0.172
		198.60		3.093E+01	1.769E+02	2.809E+02	2.083E+01	0.110
		264.65	*	-1.013E+00	3.891E+00	6.292E+00	4.053E-01	-0.161
		279.53		3.390E+00	8.697E+00	1.489E+01	1.018E+00	0.228
		303.91		-3.428E+01	1.702E+02	2.740E+02	2.723E+01	-0.125
		400.65		-1.713E+00	2.180E+01	3.500E+01	3.279E+00	-0.049
BR-77		87.88		5.324E+02	2.635E+03	4.311E+03	4.601E+02	0.123
		200.40		-8.657E+02	2.467E+03	4.029E+03	2.482E+02	-0.215
		239.00		-5.566E+01	1.509E+02	2.504E+02	1.581E+01	-0.222
		249.79		-2.919E+02	1.047E+03	1.698E+03	1.078E+02	-0.172
		281.68		-9.752E+02	1.272E+03	1.937E+03	1.243E+02	-0.503
		297.23		3.259E+02	7.279E+02	1.248E+03	8.024E+01	0.261
		303.76		-4.974E+02	2.469E+03	3.977E+03	2.558E+02	-0.125
		439.47		1.471E+03	1.995E+03	3.508E+03	2.169E+02	0.419
		484.57		-1.320E+02	3.456E+03	5.510E+03	3.352E+02	-0.024
		520.65	*	-4.132E+01	1.465E+02	2.239E+02	1.333E+01	-0.184
		574.64		-1.076E+02	2.906E+03	4.854E+03	2.755E+02	-0.022
		578.91		-1.679E+03	1.217E+03	1.671E+03	9.442E+01	-1.004
		585.48		5.336E+02	2.113E+03	3.653E+03	2.049E+02	0.146
		755.35		7.101E+02	2.007E+03	3.499E+03	2.106E+02	0.203
		817.79		-1.044E+03	1.852E+03	2.756E+03	1.857E+02	-0.379
SR-82		698.33		3.977E+00	2.409E+03	3.994E+03	2.157E+02	0.001
		776.49	*	-7.770E+00	2.105E+01	3.215E+01	2.012E+00	-0.242
		1395.20		1.731E+02	7.529E+02	1.307E+03	9.505E+01	0.132
RB-83		520.41	*	-1.581E+00	5.607E+00	8.569E+00	5.103E-01	-0.184
		529.64		5.240E+00	7.921E+00	1.442E+01	8.526E-01	0.364
		552.65		1.016E-01	1.344E+01	2.262E+01	1.312E+00	0.004
RB-84		881.50	*	-1.787E+00	5.089E+00	7.801E+00	5.862E-01	-0.229
KR-85		513.99	*	-1.486E+03	9.823E+02	1.356E+03	8.109E+01	-1.096
SR-85		513.99	*	-7.141E+00	4.719E+00	6.513E+00	3.896E-01	-1.096
RB-86		1076.63	*	-9.010E+00	4.953E+01	7.691E+01	5.141E+00	-0.117
Y-88		898.02		1.370E+00	3.435E+00	5.949E+00	4.622E-01	0.230

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1836.01	*	3.799E+00	3.384E+00	6.938E+00	4.042E-01	0.548
ZR-88		392.90	*	1.267E+00	2.696E+00	4.592E+00	2.850E-01	0.276
Y-91		1204.90	*	2.284E+02	1.213E+03	2.092E+03	1.282E+02	0.109
NB-94		702.63	*	-1.368E+00	2.586E+00	3.941E+00	2.146E-01	-0.347
		871.10		1.565E+00	2.766E+00	4.935E+00	3.644E-01	0.317
NB-95		765.79	*	1.042E+00	3.282E+00	5.661E+00	3.474E-01	0.184
NB-95M		235.69	*	-1.303E+01	1.003E+01	1.483E+01	1.175E+00	-0.879
ZR-95		724.18		3.722E+00	7.346E+00	1.294E+01	8.740E-01	0.288
		756.15	*	-1.752E+00	4.566E+00	6.998E+00	5.054E-01	-0.250
NB-97		657.90	*	1.073E-02	4.566E+00	Half-Life too short		
		1024.50		1.101E+00	4.566E+00	Half-Life too short		
ZR-97		254.15		1.722E+00	4.566E+00	Half-Life too short		
		355.39		2.164E-01	4.566E+00	Half-Life too short		
		507.63	*	-1.081E+00	4.566E+00	Half-Life too short		
		602.52		1.729E-01	4.566E+00	Half-Life too short		
		1021.30		-1.100E+00	4.566E+00	Half-Life too short		
		1147.95		-1.397E-01	4.566E+00	Half-Life too short		
		1362.66		1.042E-01	4.566E+00	Half-Life too short		
		1750.46		2.826E-01	4.566E+00	Half-Life too short		
MO-99		140.51		3.758E+02	6.266E+02	9.926E+02	2.690E+02	0.379
		181.06		-1.729E+02	3.804E+02	5.379E+02	9.273E+01	-0.321
		366.43		9.322E+02	1.682E+03	2.893E+03	1.827E+02	0.322
		739.58	*	-1.151E+02	1.987E+02	2.974E+02	4.104E+01	-0.387
		778.00		-9.353E+01	4.360E+02	6.857E+02	4.303E+01	-0.136
TC-99M		140.51	*	9.658E+04	4.360E+02	Half-Life too short		
RH-101		127.23		2.624E-01	3.531E+00	5.640E+00	3.843E-01	0.047
		198.01	*	1.375E+00	3.361E+00	5.426E+00	3.337E-01	0.253
		325.23		-6.330E-01	2.132E+01	3.484E+01	2.236E+00	-0.018
RH-102		418.52		1.877E-01	2.320E+01	3.753E+01	2.328E+00	0.005
		475.06	*	-4.743E-03	2.471E+00	3.962E+00	2.421E-01	-0.001
		631.29		-2.838E+00	4.269E+00	6.411E+00	3.384E-01	-0.443
		697.49		2.777E+00	6.583E+00	1.149E+01	6.196E-01	0.242
		766.84		1.088E+01	7.941E+00	1.556E+01	9.567E-01	0.699
		1046.59		4.192E+00	7.676E+00	1.381E+01	9.536E-01	0.304
		1112.84		-2.555E+00	1.719E+01	2.681E+01	1.713E+00	-0.095
RU-103		497.08	*	-1.176E+00	3.549E+00	5.435E+00	6.934E-01	-0.216
		610.33		1.281E+01	6.640E+01	1.106E+02	1.691E+01	0.116
RH-106		511.85		-4.574E+01	2.430E+01	4.210E+01	2.521E+00	-1.087
		621.84	*	-5.333E+00	2.233E+01	3.588E+01	4.134E+00	-0.149
		1050.47		-9.013E+01	1.810E+02	2.628E+02	1.808E+01	-0.343
RU-106		511.85		-4.574E+01	2.430E+01	4.210E+01	2.521E+00	-1.087
		621.84	*	-5.333E+00	2.233E+01	3.588E+01	1.920E+00	-0.149
		1050.47		-9.013E+01	1.810E+02	2.628E+02	1.808E+01	-0.343
AG-108M		433.93	*	6.101E-01	2.857E+00	4.730E+00	3.149E-01	0.129
		614.37		4.082E-01	3.201E+00	5.433E+00	3.224E-01	0.075
		722.95		3.525E-01	3.536E+00	5.926E+00	3.654E-01	0.059
CD-109		88.03	*	1.403E+01	7.331E+01	1.198E+02	1.279E+01	0.117
AG-110M		657.75	*	9.848E-01	2.764E+00	4.819E+00	2.641E-01	0.204
		677.61		9.169E-01	2.591E+01	4.325E+01	2.412E+00	0.021

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		706.67		1.222E+01	1.668E+01	3.030E+01	1.774E+00	0.403
		763.93		-6.329E+00	1.246E+01	1.888E+01	1.218E+00	-0.335
		884.67		2.385E+00	3.756E+00	6.793E+00	5.345E-01	0.351
		937.48		8.258E+00	7.247E+00	1.431E+01	1.131E+00	0.577
		1384.27		-2.070E+01	1.349E+01	1.330E+01	1.007E+00	-1.556
IN-111		171.28		6.536E+00	2.040E+01	3.518E+01	2.131E+00	0.186
		245.39	*	-2.878E+01	2.113E+01	3.079E+01	1.951E+00	-0.935
IN-113M		391.69	*	1.391E+00	3.948E+00	6.647E+00	4.367E-01	0.209
SN-113		391.69	*	1.391E+00	3.948E+00	6.647E+00	4.367E-01	0.209
IN-114M		190.27	*	1.828E+01	1.679E+01	2.747E+01	1.681E+00	0.666
CD-115		260.90		1.437E+01	1.769E+03	2.933E+03	1.871E+02	0.005
		492.35		-7.066E+01	4.693E+02	7.357E+02	4.458E+01	-0.096
		527.90	*	-1.069E+00	1.233E+02	2.077E+02	1.230E+01	-0.005
SN-117M		156.02		6.563E+01	1.489E+02	2.596E+02	1.607E+01	0.253
		158.56	*	-3.430E+00	3.507E+00	5.491E+00	3.379E-01	-0.625
SB-122		563.90	*	-2.234E+01	3.460E+01	5.324E+01	3.056E+00	-0.420
		692.80		1.413E+01	7.435E+02	1.236E+03	6.604E+01	0.011
I-123		159.00	*	-2.018E-01	7.435E+02	Half-Life too short		
		528.96		3.213E+00	7.435E+02	Half-Life too short		
TE-123M		159.00	*	-2.453E+00	2.371E+00	3.688E+00	2.294E-01	-0.665
I-124		602.71	*	1.919E-01	1.737E+01	2.910E+01	1.598E+00	0.007
		722.78		1.935E+01	1.332E+02	2.245E+02	1.271E+01	0.086
		1325.50		0.000E+00	9.827E+02	1.632E+03	1.187E+02	0.000
		1376.25		-8.660E+01	9.353E+02	1.521E+03	1.110E+02	-0.057
		1509.49		-4.364E+02	5.369E+02	7.205E+02	5.076E+01	-0.606
		1691.02		-4.420E+01	1.536E+02	2.334E+02	1.508E+01	-0.189
SB-124		602.71		2.899E-02	2.624E+00	4.397E+00	2.416E-01	0.007
		645.85		-3.237E+01	4.181E+01	6.241E+01	3.734E+00	-0.519
		709.31		2.428E+02	2.128E+02	4.040E+02	2.229E+01	0.601
		713.82		-6.885E+01	1.219E+02	1.841E+02	1.856E+01	-0.374
		722.78		4.239E+00	2.916E+01	4.916E+01	2.921E+00	0.086
		968.20		-9.648E+01	1.908E+02	2.911E+02	2.153E+01	-0.331
		1045.16		2.438E+01	1.568E+02	2.615E+02	1.808E+01	0.093
		1325.50		0.000E+00	2.299E+02	3.817E+02	2.777E+01	0.000
		1368.21		1.945E+01	1.135E+02	1.960E+02	2.485E+01	0.099
		1436.60		2.343E+02	3.074E+02	5.846E+02	4.210E+01	0.401
		1691.02	*	-2.283E+00	7.936E+00	1.206E+01	8.332E-01	-0.189
SB-125		427.89	*	-3.953E+00	7.721E+00	1.160E+01	7.456E-01	-0.341
		463.38		-1.355E+01	2.212E+01	3.237E+01	2.284E+00	-0.418
		600.56		-1.149E+01	1.439E+01	2.149E+01	1.388E+00	-0.535
		635.90		1.668E+01	2.319E+01	4.208E+01	2.660E+00	0.396
TE-125M		109.28	*	-1.120E+02	9.419E+02	1.492E+03	1.443E+02	-0.075
I-126		388.63		-7.338E+00	1.326E+01	2.013E+01	1.252E+00	-0.365
		666.33	*	7.379E-01	9.495E+00	1.597E+01	8.093E-01	0.046
		753.82		5.686E+01	7.167E+01	1.339E+02	8.036E+00	0.425
SB-126		223.80		1.670E+02	2.578E+02	4.509E+02	2.821E+01	0.370
		278.60		-8.085E-01	1.491E+02	2.461E+02	1.578E+01	-0.003
		296.50		1.961E+01	8.315E+01	1.398E+02	8.992E+00	0.140
		414.70		-1.334E-01	4.518E+00	7.279E+00	4.517E-01	-0.018

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		415.30		2.155E+02	3.754E+02	6.485E+02	4.023E+01	0.332
		555.20		-1.413E+02	2.330E+02	3.606E+02	2.087E+01	-0.392
		573.80		-1.239E+01	6.376E+01	1.045E+02	5.936E+00	-0.119
		593.00		-3.064E+01	5.255E+01	8.086E+01	4.495E+00	-0.379
		656.30		-2.169E+01	2.005E+02	3.290E+02	1.667E+01	-0.066
		666.33		3.040E-01	3.912E+00	6.580E+00	3.334E-01	0.046
		675.00		-8.666E-01	1.171E+02	1.943E+02	1.002E+01	-0.004
		695.00		2.487E+00	4.740E+00	8.377E+00	4.494E-01	0.297
		697.00		5.375E+00	1.673E+01	2.884E+01	1.553E+00	0.186
		720.50	*	-2.004E+00	8.301E+00	1.325E+01	7.470E-01	-0.151
		856.80		9.124E+00	2.382E+01	4.159E+01	2.998E+00	0.219
		989.30		4.288E+01	5.881E+01	1.097E+02	7.980E+00	0.391
		1034.80		3.027E+02	4.382E+02	8.055E+02	5.629E+01	0.376
		1213.00		-1.426E+02	1.986E+02	2.802E+02	1.739E+01	-0.509
SN-126		64.28		-2.615E+01	6.728E+01	1.026E+02	1.717E+01	-0.255
		86.94		3.210E-01	3.139E+01	5.063E+01	2.117E+01	0.006
		87.57	*	-1.891E+00	7.557E+00	1.194E+01	1.272E+00	-0.158
SB-127		61.10		-6.814E+02	2.425E+03	3.870E+03	4.777E+02	-0.176
		252.40		-2.501E+01	1.454E+02	2.374E+02	9.789E+01	-0.105
		290.80		7.661E+00	5.754E+02	9.494E+02	7.286E+01	0.008
		411.60		-7.517E+01	3.142E+02	4.918E+02	6.577E+01	-0.153
		444.90		-2.607E+02	2.736E+02	3.796E+02	3.565E+01	-0.687
		473.00		2.329E+01	4.550E+01	7.799E+01	7.640E+00	0.299
		543.00		2.170E+02	4.611E+02	8.174E+02	9.478E+01	0.265
		603.60		-1.437E+01	2.878E+02	4.781E+02	4.265E+01	-0.030
		685.20	*	-1.852E+01	3.556E+01	5.435E+01	3.854E+00	-0.341
		698.50		1.043E+01	4.191E+02	6.971E+02	9.154E+01	0.015
		722.20		-2.168E+02	8.214E+02	1.309E+03	9.218E+01	-0.166
		783.80		5.342E+01	7.003E+01	1.319E+02	1.233E+01	0.405
XE-127		57.60		2.131E+02	7.129E+02	1.190E+03	1.428E+02	0.179
		145.22		-3.269E+01	6.539E+01	9.608E+01	6.128E+00	-0.340
		172.10		2.644E+00	1.006E+01	1.727E+01	1.047E+00	0.153
		202.84	*	6.873E-02	3.669E+00	6.156E+00	3.799E-01	0.011
		374.96		-1.478E+01	1.573E+01	2.268E+01	1.425E+00	-0.652
I-131		80.18		-1.453E+02	2.582E+02	3.979E+02	4.145E+01	-0.365
		284.30		4.665E+01	7.507E+01	1.310E+02	9.128E+00	0.356
		364.48	*	-1.080E+00	6.474E+00	1.036E+01	7.152E-01	-0.104
		636.97		1.623E+01	7.917E+01	1.354E+02	8.046E+00	0.120
		722.89		4.056E+01	3.500E+02	5.879E+02	3.346E+01	0.069
TE-132		49.72		-2.786E+02	8.198E+02	1.307E+03	1.557E+02	-0.213
		111.76		8.584E+02	8.495E+02	1.452E+03	1.247E+02	0.591
		116.30		-4.584E+02	8.268E+02	1.242E+03	1.032E+02	-0.369
		228.16	*	-8.961E+00	1.722E+01	2.747E+01	3.724E+00	-0.326
BA-133		53.15		1.992E+02	5.029E+02	8.479E+02	1.017E+02	0.235
		79.62		-2.856E+01	1.205E+02	1.909E+02	3.110E+01	-0.150
		81.00		-2.717E+00	9.169E+00	1.444E+01	2.444E+00	-0.188
		276.40		7.971E+00	3.232E+01	5.453E+01	7.224E+00	0.146
		302.84		-2.934E+00	1.216E+01	1.950E+01	2.337E+00	-0.150
		356.01	*	5.478E-01	3.966E+00	5.790E+00	6.859E-01	0.095

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		383.85		-1.049E+00	2.700E+01	4.365E+01	4.852E+00	-0.024
I-133		510.53		-3.383E-01	2.700E+01	Half-Life too short		
		529.87	*	2.017E-03	2.700E+01	Half-Life too short		
		706.58		1.436E-01	2.700E+01	Half-Life too short		
		856.28		1.486E-01	2.700E+01	Half-Life too short		
		875.33		-1.756E-03	2.700E+01	Half-Life too short		
		1236.41		1.524E-01	2.700E+01	Half-Life too short		
		1298.22		-7.556E-02	2.700E+01	Half-Life too short		
CS-134		475.35		-2.387E+01	1.612E+02	2.532E+02	1.547E+01	-0.094
		563.23		-1.819E+01	2.947E+01	4.556E+01	2.673E+00	-0.399
		569.32		3.152E+00	1.680E+01	2.847E+01	1.675E+00	0.111
		604.70		-3.029E+00	2.824E+00	4.072E+00	2.245E-01	-0.744
		795.84	*	4.718E+00	3.691E+00	7.136E+00	4.684E-01	0.661
		801.93		-2.445E+01	3.520E+01	5.368E+01	3.551E+00	-0.455
		1038.57		-1.167E+01	2.649E+02	4.235E+02	2.949E+01	-0.028
		1167.94		-3.118E+01	1.527E+02	2.451E+02	1.444E+01	-0.127
		1365.15		-8.427E+01	9.231E+01	1.155E+02	8.969E+00	-0.730
CS-135		268.24	*	-8.430E+00	1.407E+01	2.201E+01	1.786E+00	-0.383
I-135		288.45		8.996E+04	1.407E+01	Half-Life too short		
		417.63		2.528E+05	1.407E+01	Half-Life too short		
		546.56		-3.721E+04	1.407E+01	Half-Life too short		
		836.80		-6.654E+04	1.407E+01	Half-Life too short		
		1038.76		-2.556E+04	1.407E+01	Half-Life too short		
		1124.00		1.781E+05	1.407E+01	Half-Life too short		
		1131.51		-1.468E+04	1.407E+01	Half-Life too short		
		1260.41	*	2.587E+04	1.407E+01	Half-Life too short		
		1457.56		3.248E+03	1.407E+01	Half-Life too short		
		1678.03		3.390E+04	1.407E+01	Half-Life too short		
		1706.46		2.320E+05	1.407E+01	Half-Life too short		
		1791.20		2.175E+05	1.407E+01	Half-Life too short		
CS-136		66.91		-2.219E+01	6.495E+01	1.009E+02	1.691E+01	-0.220
		86.29		6.957E+00	7.064E+01	1.147E+02	1.635E+01	0.061
		153.22		-2.536E+01	4.827E+01	7.530E+01	5.702E+00	-0.337
		163.89		2.780E+01	6.916E+01	1.201E+02	8.972E+00	0.231
		176.55		1.736E+01	2.493E+01	4.394E+01	2.968E+00	0.395
		273.65		1.379E+01	2.927E+01	5.027E+01	3.592E+00	0.274
		340.57		-3.354E+00	7.543E+00	1.174E+01	7.889E-01	-0.286
		818.51		-1.373E+00	4.383E+00	6.816E+00	4.601E-01	-0.201
		1048.07	*	4.557E+00	5.583E+00	1.042E+01	7.652E-01	0.437
		1235.34		6.534E+00	2.300E+01	4.056E+01	4.198E+00	0.161
BA-137M		661.65	*	-1.771E-01	2.667E+00	4.393E+00	2.206E-01	-0.040
CS-137		661.65	*	-1.872E-01	2.819E+00	4.644E+00	2.345E-01	-0.040
CE-139		165.85	*	4.535E-01	2.511E+00	4.299E+00	2.601E-01	0.106
BA-140		162.64		4.186E+01	4.689E+01	8.410E+01	5.707E+00	0.498
		304.84		2.168E+01	7.322E+01	1.237E+02	3.394E+01	0.175
		423.70		4.261E+01	1.040E+02	1.760E+02	5.609E+01	0.242
		537.32	*	-2.787E+00	1.544E+01	2.539E+01	8.260E+00	-0.110
LA-140		328.77		8.472E+00	1.829E+01	3.130E+01	2.206E+00	0.271
		432.53		1.103E+02	1.225E+02	2.195E+02	1.484E+01	0.503

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		487.03		2.542E+00	8.226E+00	1.374E+01	9.357E-01	0.185
		751.79		-1.442E+01	9.467E+01	1.524E+02	1.104E+01	-0.095
		815.85		-2.235E+00	1.888E+01	3.039E+01	2.416E+00	-0.074
		867.82		-1.110E+01	8.380E+01	1.340E+02	1.055E+01	-0.083
		919.63		-1.281E+02	1.572E+02	2.141E+02	2.112E+01	-0.598
		925.24		1.250E+01	5.149E+01	8.825E+01	7.250E+00	0.142
		1596.49	*	2.435E-01	5.814E+00	9.610E+00	6.536E-01	0.025
CE-141		145.44	*	-1.918E+00	5.509E+00	8.451E+00	5.565E-01	-0.227
CE-143		57.37		1.222E+03	6.182E+03	1.025E+04	1.353E+03	0.119
		231.56		6.229E+03	1.022E+04	1.752E+04	5.456E+03	0.356
		293.26	*	-4.593E+02	5.344E+02	7.510E+02	1.565E+02	-0.612
		350.59		5.128E+03	7.778E+03	1.186E+04	3.626E+03	0.433
		490.36		3.833E+02	1.067E+04	1.718E+04	5.341E+03	0.022
		664.57		-3.016E+02	4.159E+03	6.839E+03	2.165E+03	-0.044
		721.93		-8.952E+02	5.030E+03	8.103E+03	2.314E+03	-0.110
CE-144		80.11		-1.145E+02	1.996E+02	3.074E+02	3.197E+01	-0.372
		133.54	*	-1.119E+00	2.130E+01	3.364E+01	4.898E+00	-0.033
PM-144		476.78		-6.190E-01	5.593E+00	8.832E+00	6.357E-01	-0.070
		618.01		-1.112E+00	2.425E+00	3.780E+00	2.174E-01	-0.294
		696.49	*	6.335E-01	2.908E+00	4.958E+00	2.668E-01	0.128
		778.57		-1.795E+01	1.347E+02	2.154E+02	1.354E+01	-0.083
PR-144		696.49	*	4.279E+01	1.964E+02	3.349E+02	1.802E+01	0.128
		1489.15		3.995E+02	8.149E+02	1.524E+03	1.081E+02	0.262
PM-146		453.90	*	-2.062E+00	3.898E+00	5.831E+00	5.171E-01	-0.354
		633.02		-4.299E+01	1.140E+02	1.782E+02	6.549E+01	-0.241
		735.90		-1.398E+00	1.121E+01	1.814E+01	5.057E+00	-0.077
		747.13		-2.051E+00	7.100E+00	1.117E+01	1.404E+00	-0.184
ND-147		91.11		2.419E+00	1.778E+01	2.888E+01	3.082E+00	0.084
		319.41		1.028E+02	2.225E+02	3.798E+02	2.440E+01	0.271
		439.89		1.878E+02	3.435E+02	5.904E+02	3.650E+01	0.318
		531.02	*	7.095E+00	2.981E+01	5.172E+01	7.018E+00	0.137
PM-149		285.90	*	9.750E+01	1.175E+03	1.952E+03	2.815E+02	0.050
EU-152		121.78		-2.109E+00	8.225E+00	1.283E+01	1.099E+00	-0.164
		244.69		-2.256E+01	2.968E+01	4.611E+01	2.920E+00	-0.489
		344.27	*	3.213E+00	9.470E+00	1.596E+01	1.127E+00	0.201
		443.98		-5.049E+01	8.449E+01	1.253E+02	7.736E+00	-0.403
		778.89		-1.636E+00	1.581E+01	2.547E+01	1.601E+00	-0.064
		867.32		-2.807E+01	7.226E+01	1.106E+02	8.118E+00	-0.254
		964.01		1.628E+01	2.202E+01	3.986E+01	2.957E+00	0.408
		1085.78		-3.027E+01	3.277E+01	4.268E+01	2.822E+00	-0.709
		1112.02		5.025E+00	2.422E+01	4.043E+01	2.587E+00	0.124
		1407.95		4.255E-01	1.793E+01	2.977E+01	2.158E+00	0.014
GD-153		69.67		-5.196E+01	1.748E+02	2.773E+02	2.944E+01	-0.187
		83.37		3.202E+01	1.381E+03	2.222E+03	2.329E+02	0.014
		97.43	*	5.240E+00	8.225E+00	1.381E+01	1.253E+00	0.380
		103.18		-1.166E+00	1.060E+01	1.682E+01	1.413E+00	-0.069
EU-154		123.07		3.601E+00	5.528E+00	9.212E+00	9.359E-01	0.391
		247.94		3.272E+01	3.238E+01	5.800E+01	5.731E+00	0.564
		591.81		-3.894E+01	4.990E+01	7.426E+01	7.157E+00	-0.524

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		723.30		-1.736E+00	1.486E+01	2.420E+01	1.687E+00	-0.072
		756.87		-3.816E+01	5.499E+01	7.896E+01	8.113E+00	-0.483
		873.19		-7.729E+00	2.543E+01	3.942E+01	4.504E+00	-0.196
		996.32		1.090E+01	2.887E+01	4.980E+01	8.534E+00	0.219
		1004.76		1.717E+00	1.590E+01	2.626E+01	2.789E+00	0.065
		1274.45	*	-1.380E+00	6.960E+00	1.101E+01	1.099E+00	-0.125
EU-155		48.70		-2.092E+02	3.971E+02	6.239E+02	6.694E+01	-0.335
		60.01		-2.454E+02	6.543E+02	1.037E+03	1.225E+02	-0.237
		86.54		9.959E-01	9.037E+00	1.469E+01	1.568E+00	0.068
		105.31	*	6.451E+00	1.081E+01	1.810E+01	1.502E+00	0.356
TB-160		86.79		1.550E+00	2.278E+01	3.690E+01	3.918E+00	0.042
		197.04		1.363E+01	5.468E+01	8.744E+01	5.374E+00	0.156
		215.65		2.355E+01	6.350E+01	1.091E+02	6.788E+00	0.216
		298.57		-1.691E+00	9.121E+00	1.475E+01	9.483E-01	-0.115
		879.36	*	7.968E-01	1.009E+01	1.671E+01	1.251E+00	0.048
		962.29		2.474E+01	3.662E+01	6.602E+01	4.903E+00	0.375
		966.15		-8.255E+00	1.479E+01	2.171E+01	1.608E+00	-0.380
		1177.93		-1.297E+01	1.884E+01	2.627E+01	1.546E+00	-0.494
		1271.85		5.543E+00	3.698E+01	6.388E+01	4.317E+00	0.087
HO-166M		80.57		-1.260E+01	2.585E+01	4.011E+01	4.174E+00	-0.314
		184.41		1.945E-01	3.908E+00	6.046E+00	3.687E-01	0.032
		280.46		-4.473E+00	7.065E+00	1.091E+01	7.001E-01	-0.410
		410.95		-8.571E+00	1.894E+01	2.875E+01	1.784E+00	-0.298
		711.68	*	-3.581E+00	5.099E+00	7.574E+00	4.197E-01	-0.473
		752.31		2.007E-01	2.012E+01	3.326E+01	1.991E+00	0.006
		810.29		-4.124E+00	4.938E+00	6.961E+00	4.629E-01	-0.592
TM-171		51.35		1.291E+03	4.521E+03	7.566E+03	8.892E+02	0.171
		52.39		3.018E+02	2.247E+03	3.718E+03	4.433E+02	0.081
		59.40		-1.296E+03	3.493E+03	5.537E+03	6.599E+02	-0.234
		66.72	*	-1.540E+03	3.326E+03	5.126E+03	5.563E+02	-0.301
HF-175		89.36		-8.155E+01	1.291E+02	1.976E+02	2.053E+01	-0.413
		343.40	*	1.999E+00	3.132E+00	5.428E+00	3.466E-01	0.368
		433.00		8.021E+01	1.734E+02	2.957E+02	1.830E+01	0.271
LU-176		88.36		4.981E+00	1.709E+01	2.814E+01	2.983E+00	0.177
		201.83		-3.036E+00	2.727E+00	4.191E+00	2.584E-01	-0.724
		306.84	*	-8.558E-01	2.083E+00	3.273E+00	2.105E-01	-0.261
		401.10		2.796E+01	5.753E+02	9.375E+02	5.819E+01	0.030
LU-177		112.95		-5.935E+01	9.614E+01	1.462E+02	1.105E+01	-0.406
		208.36	*	-7.400E+00	4.879E+01	8.071E+01	4.999E+00	-0.092
LU-177M		52.97		1.096E+02	2.202E+02	3.741E+02	4.483E+01	0.293
		54.07		-2.410E+01	1.132E+02	1.818E+02	2.191E+01	-0.133
		61.30		-1.429E+01	1.841E+02	2.984E+02	3.453E+01	-0.048
		121.62		-1.314E+01	4.094E+01	6.355E+01	4.458E+00	-0.207
		147.16		1.851E+01	5.953E+01	1.030E+02	6.535E+00	0.180
		171.86		1.268E+01	4.427E+01	7.613E+01	4.613E+00	0.166
		218.09		5.763E-01	7.549E+01	1.262E+02	7.865E+00	0.005
		268.79		-2.836E+01	7.001E+01	1.117E+02	7.145E+00	-0.254
		319.02		1.329E+01	2.513E+01	4.311E+01	2.770E+00	0.308
		367.43		-2.273E+01	9.071E+01	1.440E+02	9.092E+00	-0.158

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		413.65	*	5.226E+00	1.401E+01	2.370E+01	1.470E+00	0.221
HF-181		56.28		-2.379E+01	1.130E+02	1.815E+02	2.187E+01	-0.131
		57.53		1.640E+01	6.093E+01	1.015E+02	1.218E+01	0.162
		65.20		-6.098E+01	1.042E+02	1.592E+02	1.753E+01	-0.383
		133.02		-6.654E-01	6.469E+00	1.018E+01	6.767E-01	-0.065
		136.25		-4.229E+01	4.395E+01	6.406E+01	4.207E+00	-0.660
		345.85		5.180E+00	1.719E+01	2.885E+01	1.840E+00	0.180
		482.03	*	-3.586E-01	3.602E+00	5.701E+00	3.472E-01	-0.063
W-181		56.28		-9.902E+00	4.726E+01	7.590E+01	9.145E+00	-0.130
		57.53		6.837E+00	2.549E+01	4.245E+01	5.097E+00	0.161
		65.20	*	-2.531E+01	4.323E+01	6.606E+01	7.275E+00	-0.383
TA-182		67.75		-8.496E+00	1.252E+01	1.894E+01	2.038E+00	-0.449
		100.10		4.553E+00	1.777E+01	2.905E+01	2.538E+00	0.157
		152.43		5.749E-01	3.013E+01	5.113E+01	3.196E+00	0.011
		222.10		1.367E+01	3.044E+01	5.251E+01	3.282E+00	0.260
		1001.68		1.124E+02	1.451E+02	2.673E+02	1.925E+01	0.421
		1121.28		7.801E+00	1.077E+01	1.934E+01	1.222E+00	0.403
		1189.05		4.206E+00	1.742E+01	3.057E+01	1.830E+00	0.138
		1221.42	*	3.582E+00	1.189E+01	2.096E+01	1.317E+00	0.171
		1230.97		-1.766E+00	2.495E+01	4.103E+01	2.614E+00	-0.043
RE-183		57.98		1.820E+01	2.425E+01	4.168E+01	4.996E+00	0.437
		59.32		-5.051E+00	1.362E+01	2.158E+01	2.573E+00	-0.234
		67.20		-1.344E+01	2.174E+01	3.301E+01	3.567E+00	-0.407
		162.32	*	4.816E+00	9.092E+00	1.594E+01	9.720E-01	0.302
		208.81		1.293E+01	7.847E+01	1.329E+02	8.236E+00	0.097
		291.72		-5.714E+01	7.620E+01	1.162E+02	7.468E+00	-0.492
RE-184		57.98		6.952E+01	9.262E+01	1.592E+02	1.908E+01	0.437
		59.32		-1.928E+01	5.197E+01	8.237E+01	9.820E+00	-0.234
		67.20		-5.131E+01	8.300E+01	1.260E+02	1.362E+01	-0.407
		161.27		-5.448E+00	3.043E+01	5.080E+01	3.106E+00	-0.107
		216.55		1.401E+01	2.345E+01	4.090E+01	2.547E+00	0.343
		252.85	*	7.327E+00	2.287E+01	3.887E+01	2.471E+00	0.189
		318.01		3.570E+01	4.271E+01	7.516E+01	4.830E+00	0.475
		792.07		-4.869E+01	7.215E+01	1.047E+02	6.740E+00	-0.465
		903.28		-6.582E+01	9.340E+01	1.162E+02	8.945E+00	-0.567
		920.93		-4.496E+01	3.426E+01	3.977E+01	3.033E+00	-1.130
OS-185		59.72		-1.648E+01	3.716E+01	5.856E+01	6.950E+00	-0.281
		61.14		-5.209E-01	1.971E+01	3.207E+01	3.720E+00	-0.016
		69.30		-4.811E+00	3.024E+01	4.850E+01	5.161E+00	-0.099
		592.07		-1.742E+02	1.983E+02	2.916E+02	1.623E+01	-0.597
		646.12	*	-2.957E+00	3.631E+00	5.384E+00	2.776E-01	-0.549
		717.42		3.797E+00	6.620E+01	1.105E+02	6.193E+00	0.034
		874.81		-4.644E+00	4.683E+01	7.524E+01	5.590E+00	-0.062
		880.27		-1.213E+01	5.956E+01	9.376E+01	7.031E+00	-0.129
RE-188		155.03	*	-4.753E-01	1.594E+01	2.567E+01	1.594E+00	-0.019
		477.96		-1.402E+02	2.600E+02	3.863E+02	2.358E+01	-0.363
		633.10		-9.772E+01	2.168E+02	3.387E+02	1.783E+01	-0.288
W-188		63.58		8.946E+02	6.485E+03	1.027E+04	1.152E+03	0.087
		227.08		-8.295E+02	1.120E+03	1.757E+03	1.101E+02	-0.472

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		290.67	*	2.256E+01	5.725E+02	9.471E+02	6.087E+01	0.024
IR-192		295.96		-1.404E+00	9.426E+00	1.461E+01	9.516E-01	-0.096
		308.46		3.895E-01	7.781E+00	1.285E+01	8.340E-01	0.030
		316.51	*	-5.092E-01	3.124E+00	5.047E+00	3.257E-01	-0.101
		468.07		2.571E+00	5.065E+00	8.689E+00	6.059E-01	0.296
		604.41		-3.867E+01	3.645E+01	5.235E+01	5.858E+00	-0.739
		612.46		-1.704E+01	5.846E+01	9.438E+01	6.878E+00	-0.181
AU-195		65.12		-1.280E+01	2.052E+01	3.128E+01	3.448E+00	-0.409
		66.83		-3.267E+00	1.059E+01	1.650E+01	1.789E+00	-0.198
		75.70		-1.338E+01	1.847E+01	2.750E+01	2.858E+00	-0.486
		98.88	*	-3.346E+00	2.392E+01	3.797E+01	3.374E+00	-0.088
		129.76		7.317E+01	3.099E+02	5.002E+02	3.370E+01	0.146
TL-200		367.94	*	-3.997E-04	3.099E+02	Half-Life too short		
		579.30		-6.460E-03	3.099E+02	Half-Life too short		
		828.27		1.087E-03	3.099E+02	Half-Life too short		
		1205.75		1.993E-03	3.099E+02	Half-Life too short		
TL-201		68.90		4.448E+01	1.216E+02	2.028E+02	2.164E+01	0.219
		70.82		-2.248E+00	6.787E+01	1.098E+02	1.159E+01	-0.020
		80.30		-6.387E+01	1.172E+02	1.809E+02	1.882E+01	-0.353
		135.34		-1.298E+02	6.377E+02	9.938E+02	6.549E+01	-0.131
		167.43	*	-1.304E+02	1.517E+02	2.396E+02	1.449E+01	-0.544
TL-202		68.90		1.153E+01	3.152E+01	5.258E+01	5.610E+00	0.219
		70.82		-5.813E-01	1.755E+01	2.840E+01	2.996E+00	-0.020
		80.30		-1.652E+01	3.031E+01	4.679E+01	4.868E+00	-0.353
		439.56	*	3.051E+00	4.136E+00	7.273E+00	4.496E-01	0.419
HG-203		70.83		-2.979E+00	9.852E+01	1.595E+02	2.377E+01	-0.019
		72.87		-3.258E+01	5.693E+01	8.801E+01	1.274E+01	-0.370
		82.60		2.473E+01	9.393E+01	1.539E+02	2.303E+01	0.161
		279.20	*	1.320E+00	3.085E+00	5.298E+00	3.571E-01	0.249
BI-207		72.80		-9.957E+00	1.834E+01	2.847E+01	2.979E+00	-0.350
		74.97		-6.564E+00	1.067E+01	1.604E+01	1.669E+00	-0.409
		84.90		-6.687E+00	1.892E+01	2.851E+01	3.004E+00	-0.235
		569.67		2.689E-01	2.680E+00	4.498E+00	2.567E-01	0.060
		1063.62	*	1.386E+00	4.197E+00	7.170E+00	4.863E-01	0.193
		1770.23		-1.803E+01	5.526E+01	8.306E+01	5.087E+00	-0.217
TL-207		81.07		-6.000E+00	2.023E+01	3.189E+01	3.322E+00	-0.188
		83.78		-2.054E+00	1.263E+01	1.933E+01	2.028E+00	-0.106
		94.90		-2.369E+01	2.585E+01	3.872E+01	3.651E+00	-0.612
		122.32		4.062E+01	1.947E+02	3.146E+02	2.437E+01	0.129
		144.24		-4.602E+00	6.973E+01	1.061E+02	8.194E+00	-0.043
		154.21		-2.356E+01	3.936E+01	6.083E+01	4.480E+00	-0.387
		269.46		-1.324E-01	1.645E+01	2.719E+01	1.805E+00	-0.005
		323.87	*	2.201E+01	6.495E+01	1.095E+02	1.833E+01	0.201
		338.28		-3.883E+01	8.896E+01	1.316E+02	1.431E+01	-0.295
		445.03		-1.944E+02	1.935E+02	2.652E+02	2.780E+01	-0.733
TL-208		72.80		-1.078E+02	1.986E+02	3.083E+02	3.226E+01	-0.350
		74.97		-7.102E+01	1.156E+02	1.735E+02	2.359E+01	-0.409
		277.35		-4.422E+00	3.221E+01	5.253E+01	5.729E+00	-0.084
		510.84		-2.197E+01	2.340E+01	4.255E+01	4.368E+00	-0.516

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		583.14	*	-9.450E-01	3.410E+00	5.638E+00	3.683E-01	-0.168
		763.13		-1.203E+02	1.533E+02	2.162E+02	2.716E+01	-0.556
		860.37		-6.238E+00	2.151E+01	3.334E+01	2.666E+00	-0.187
		1093.90		2.771E+02	8.512E+02	1.450E+03	3.275E+02	0.191
PO-209		260.50		2.467E+02	8.955E+02	1.518E+03	9.679E+01	0.163
		262.80		1.986E+02	2.460E+03	4.102E+03	2.618E+02	0.048
		896.60	*	-2.938E+02	6.227E+02	9.315E+02	7.176E+01	-0.315
BI-210		46.50	*	3.792E+02	5.902E+02	1.014E+03	9.655E+01	0.374
PB-210		46.50	*	3.792E+02	5.902E+02	1.014E+03	9.655E+01	0.374
PO-210		46.50	*	3.792E+02	5.900E+02	1.014E+03	8.785E+01	0.374
BI-211		72.87		-1.796E+02	3.133E+02	4.852E+02	5.075E+01	-0.370
		351.07	*	-6.116E+00	2.420E+01	3.241E+01	2.252E+00	-0.189
PB-211		404.84	*	-3.667E+01	7.757E+01	1.121E+02	6.995E+01	-0.327
		427.08		6.225E+01	1.757E+02	2.895E+02	1.791E+02	0.215
		831.96		-7.023E+01	1.061E+02	1.386E+02	8.656E+01	-0.507
BI-212		727.18	*	1.154E+01	2.530E+01	4.426E+01	3.384E+00	0.261
		785.46		7.604E+01	1.128E+02	2.080E+02	1.323E+01	0.366
		1620.62		2.553E+01	1.186E+02	2.037E+02	1.369E+01	0.125
PB-212		74.81		-2.209E+01	3.727E+01	5.607E+01	7.842E+00	-0.394
		77.11		-1.879E+00	1.936E+01	3.052E+01	3.169E+00	-0.062
		87.30		-4.143E+00	3.533E+01	5.641E+01	8.238E+00	-0.073
		115.19		-3.194E+02	4.041E+02	5.956E+02	4.410E+01	-0.536
		238.63	*	-2.263E+00	5.753E+00	9.530E+00	7.379E-01	-0.237
		300.09		-1.125E+01	6.386E+01	1.032E+02	8.984E+00	-0.109
PO-212		74.81		-2.209E+01	3.727E+01	5.607E+01	7.842E+00	-0.394
		77.11		-1.879E+00	1.936E+01	3.052E+01	3.169E+00	-0.062
		87.30		-4.143E+00	3.533E+01	5.641E+01	8.238E+00	-0.073
		115.19		-3.194E+02	4.041E+02	5.956E+02	4.410E+01	-0.536
		238.63	*	-2.263E+00	5.753E+00	9.530E+00	7.379E-01	-0.237
		300.09		-1.125E+01	6.386E+01	1.032E+02	8.984E+00	-0.109
BI-214		609.31	*	1.001E+00	6.958E+00	1.154E+01	8.678E-01	0.087
		1120.29		1.249E+01	2.358E+01	4.119E+01	3.773E+00	0.303
		1764.49		-2.224E+01	2.579E+01	4.040E+01	2.484E+00	-0.551
PB-214		74.81		-3.772E+01	6.361E+01	9.575E+01	1.223E+01	-0.394
		77.11		-3.193E+00	3.289E+01	5.186E+01	6.679E+00	-0.062
		87.30		-7.034E+00	5.999E+01	9.578E+01	1.259E+01	-0.073
		241.98		-2.070E+00	3.235E+01	5.353E+01	4.524E+00	-0.039
		295.21		1.390E+00	1.261E+01	1.996E+01	1.790E+00	0.070
		351.92	*	-2.080E+00	8.334E+00	1.115E+01	9.687E-01	-0.187
PO-214		74.81		-3.772E+01	6.361E+01	9.575E+01	1.223E+01	-0.394
		77.11		-3.193E+00	3.289E+01	5.186E+01	6.679E+00	-0.062
		87.30		-7.034E+00	5.999E+01	9.578E+01	1.259E+01	-0.073
		241.98		-2.070E+00	3.235E+01	5.353E+01	4.524E+00	-0.039
		295.21		1.390E+00	1.261E+01	1.996E+01	1.790E+00	0.070
		351.92	*	-2.080E+00	8.334E+00	1.115E+01	9.687E-01	-0.187
PO-215		81.07		-6.000E+00	2.023E+01	3.189E+01	3.322E+00	-0.188
		83.78		-2.054E+00	1.263E+01	1.933E+01	2.028E+00	-0.106
		94.90		-2.369E+01	2.585E+01	3.872E+01	3.651E+00	-0.612
		122.32		4.062E+01	1.947E+02	3.146E+02	2.437E+01	0.129

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		144.24		-4.602E+00	6.973E+01	1.061E+02	8.194E+00	-0.043
		154.21		-2.356E+01	3.936E+01	6.083E+01	4.480E+00	-0.387
		269.46		-1.324E-01	1.645E+01	2.719E+01	1.805E+00	-0.005
		323.87	*	2.201E+01	6.495E+01	1.095E+02	1.833E+01	0.201
		338.28		-3.883E+01	8.896E+01	1.316E+02	1.431E+01	-0.295
		445.03		-1.944E+02	1.935E+02	2.652E+02	2.780E+01	-0.733
PO-216		74.81		-2.209E+01	3.727E+01	5.607E+01	7.842E+00	-0.394
		77.11		-1.879E+00	1.936E+01	3.052E+01	3.169E+00	-0.062
		87.30		-4.143E+00	3.533E+01	5.641E+01	8.238E+00	-0.073
		115.19		-3.194E+02	4.041E+02	5.956E+02	4.410E+01	-0.536
		238.63	*	-2.263E+00	5.753E+00	9.530E+00	7.379E-01	-0.237
		300.09		-1.125E+01	6.386E+01	1.032E+02	8.984E+00	-0.109
PO-218		74.81		-3.772E+01	6.361E+01	9.575E+01	1.223E+01	-0.394
		77.11		-3.193E+00	3.289E+01	5.186E+01	6.679E+00	-0.062
		87.30		-7.034E+00	5.999E+01	9.578E+01	1.259E+01	-0.073
		241.98		-2.070E+00	3.235E+01	5.353E+01	4.524E+00	-0.039
		295.21		1.390E+00	1.261E+01	1.996E+01	1.790E+00	0.070
		351.92	*	-2.080E+00	8.334E+00	1.115E+01	9.687E-01	-0.187
RN-219		271.23		-1.422E+00	2.253E+01	3.706E+01	3.167E+00	-0.038
		401.81	*	1.656E+01	3.425E+01	5.858E+01	8.075E+00	0.283
RN-220		549.76	*	4.613E+01	1.741E+03	2.939E+03	1.710E+02	0.016
RA-223		81.07		-6.000E+00	2.023E+01	3.189E+01	3.322E+00	-0.188
		83.78		-2.054E+00	1.263E+01	1.933E+01	2.028E+00	-0.106
		94.90		-2.369E+01	2.585E+01	3.872E+01	3.651E+00	-0.612
		122.32		4.062E+01	1.947E+02	3.146E+02	2.437E+01	0.129
		144.24		-4.602E+00	6.973E+01	1.061E+02	8.194E+00	-0.043
		154.21		-2.356E+01	3.936E+01	6.083E+01	4.480E+00	-0.387
		269.46		-1.324E-01	1.645E+01	2.719E+01	1.805E+00	-0.005
		323.87	*	2.201E+01	6.495E+01	1.095E+02	1.833E+01	0.201
		338.28		-3.883E+01	8.896E+01	1.316E+02	1.431E+01	-0.295
		445.03		-1.944E+02	1.935E+02	2.652E+02	2.780E+01	-0.733
RA-224		240.98	*	3.658E+01	6.003E+01	1.043E+02	6.590E+00	0.351
AC-227		79.80		-4.845E+01	1.521E+02	2.389E+02	5.321E+01	-0.203
		236.00		-2.050E+01	1.940E+01	2.925E+01	3.142E+00	-0.701
		256.20	*	-1.277E+01	3.887E+01	6.274E+01	8.913E+00	-0.204
		286.10		7.224E+00	1.378E+02	2.284E+02	2.715E+01	0.032
		299.80		-6.588E+01	1.212E+02	1.879E+02	3.104E+01	-0.351
		304.40		2.551E+01	1.492E+02	2.497E+02	4.374E+01	0.102
		329.70		4.725E+01	7.694E+01	1.334E+02	1.702E+01	0.354
		334.20		-9.661E+01	1.972E+02	3.045E+02	5.643E+01	-0.317
PA-227		64.62	*	1.000E+35	1.972E+02	Half-Life too short		
		110.05		-1.000E+35	1.972E+02	Half-Life too short		
TH-227		79.80		-4.845E+01	1.521E+02	2.389E+02	5.384E+01	-0.203
		94.00		-2.584E+02	2.381E+02	3.435E+02	7.616E+01	-0.752
		236.00		-2.050E+01	1.937E+01	2.925E+01	2.746E+00	-0.701
		256.20	*	-1.277E+01	3.889E+01	6.274E+01	1.073E+01	-0.204
		286.10		7.224E+00	1.380E+02	2.284E+02	2.289E+02	0.032
		299.80		-6.588E+01	1.212E+02	1.879E+02	3.104E+01	-0.351
		304.40		2.551E+01	1.492E+02	2.497E+02	4.374E+01	0.102

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		329.70		4.725E+01	7.694E+01	1.334E+02	1.702E+01	0.354
		334.20		-9.661E+01	1.972E+02	3.045E+02	5.643E+01	-0.317
AC-228		338.32		-9.490E+00	2.168E+01	3.155E+01	1.289E+01	-0.301
	+	911.07	*	5.143E+00	1.215E+01	1.893E+01	1.994E+00	0.272
		969.11		-1.138E+00	1.878E+01	3.098E+01	7.098E+00	-0.037
RA-228		338.32		-9.490E+00	2.168E+01	3.155E+01	1.289E+01	-0.301
	+	911.07	*	5.143E+00	1.215E+01	1.893E+01	1.994E+00	0.272
		969.11		-1.138E+00	1.878E+01	3.098E+01	7.098E+00	-0.037
TH-228		74.81		-2.209E+01	3.721E+01	5.607E+01	5.869E+00	-0.394
		77.11		-1.879E+00	1.936E+01	3.052E+01	3.169E+00	-0.062
		87.30		-4.143E+00	3.533E+01	5.641E+01	6.003E+00	-0.073
		238.63	*	-2.263E+00	5.753E+00	9.530E+00	7.379E-01	-0.237
		300.09		-1.125E+01	6.420E+01	1.032E+02	6.090E+01	-0.109
TH-229		85.43		-9.961E+00	1.876E+01	2.788E+01	2.943E+00	-0.357
		88.47		3.177E+00	9.848E+00	1.625E+01	1.719E+00	0.196
		100.00		1.375E+00	1.946E+01	3.137E+01	2.745E+00	0.044
		193.63	*	1.630E+01	4.588E+01	7.898E+01	4.844E+00	0.206
		210.97		1.329E+01	6.318E+01	1.074E+02	6.665E+00	0.124
TH-230		67.67	*	-9.372E+02	6.229E+03	2.055E+03	1.333E+04	-0.456
PA-231		283.67	*	3.660E+00	1.317E+02	2.179E+02	3.063E+01	0.017
		301.29		8.401E+00	4.595E+01	7.696E+01	8.324E+00	0.109
		330.00		2.974E+01	1.765E+02	2.934E+02	9.221E+01	0.101
TH-231		84.21	*	-1.711E+01	4.929E+01	7.432E+01	1.399E+01	-0.230
U-231		84.21		-6.872E+01	1.977E+02	2.985E+02	3.136E+01	-0.230
		92.29		-3.456E+01	8.261E+01	1.287E+02	1.267E+01	-0.269
		95.87	*	-5.129E+01	4.428E+01	6.477E+01	6.016E+00	-0.792
		108.00		-6.171E+01	7.905E+01	1.184E+02	9.407E+00	-0.521
TH-232		59.00	*	8.969E+02	1.020E+04	6.399E+03	6.736E+04	0.140
PA-233		75.28		-1.988E+02	3.078E+02	4.594E+02	7.540E+01	-0.433
		86.59		1.781E+01	1.473E+02	2.395E+02	6.592E+01	0.074
		300.12		-5.273E+00	3.276E+01	5.302E+01	7.275E+00	-0.099
		311.98	*	3.646E+00	5.665E+00	9.878E+00	6.673E-01	0.369
		340.50		-1.891E+01	5.013E+01	7.831E+01	1.811E+01	-0.241
		398.62		-1.309E+02	1.967E+02	2.897E+02	7.517E+01	-0.452
		415.76		6.571E+01	1.414E+02	2.404E+02	4.977E+01	0.273
PA-234		63.00		2.361E+00	2.063E+02	3.238E+02	5.550E+01	0.007
		94.67		-2.150E+00	1.795E+01	2.860E+01	3.720E+00	-0.075
		98.44		3.037E+00	9.976E+00	1.614E+01	9.011E+00	0.188
		99.86		3.517E+00	4.958E+01	7.994E+01	7.008E+00	0.044
		111.00		2.015E+01	2.021E+01	3.440E+01	3.940E+00	0.586
		131.20		1.177E+00	1.191E+01	1.903E+01	1.275E+00	0.062
		152.70		2.843E+00	3.000E+01	5.116E+01	8.174E+00	0.056
	+	186.00		5.046E+01	1.838E+02	2.197E+02	6.726E+01	0.230
		226.40		-1.685E+01	3.679E+01	5.904E+01	6.968E+00	-0.285
		227.20		-3.019E+01	4.021E+01	6.302E+01	3.951E+00	-0.479
		248.90		4.964E+01	7.633E+01	1.322E+02	2.861E+01	0.375
		293.70		-3.369E+01	6.113E+01	9.032E+01	1.474E+01	-0.373
		369.80		1.195E+01	8.605E+01	1.419E+02	2.975E+01	0.084
		568.70		5.477E+01	8.438E+01	1.505E+02	8.596E+00	0.364

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		569.50		1.366E+00	2.366E+01	3.951E+01	2.255E+00	0.035
		574.00		2.665E+01	1.247E+02	2.146E+02	1.219E+01	0.124
		699.00		1.576E+01	5.899E+01	1.012E+02	1.807E+01	0.156
		706.10		-5.607E-01	8.730E+01	1.445E+02	6.372E+01	-0.004
		733.00		-1.945E+01	3.044E+01	4.484E+01	9.529E+00	-0.434
		742.81		9.078E+01	1.273E+02	2.058E+02	1.377E+02	0.441
		796.30		8.088E+01	7.499E+01	1.370E+02	3.624E+01	0.590
		805.60		1.117E+02	9.064E+01	1.637E+02	4.936E+01	0.682
		819.60		-7.731E+01	1.057E+02	1.449E+02	5.455E+01	-0.534
		826.30		3.251E+01	6.845E+01	1.181E+02	5.247E+01	0.275
		831.60		-3.317E+01	5.016E+01	7.125E+01	2.094E+01	-0.466
		876.40		3.682E+00	6.603E+01	1.087E+02	1.117E+02	0.034
		880.51		-5.508E+00	2.239E+01	3.496E+01	2.622E+00	-0.158
		883.24		3.954E+00	2.191E+01	3.668E+01	2.461E+01	0.108
		899.00		2.676E+01	7.273E+01	1.240E+02	5.398E+01	0.216
		925.00		1.909E+00	7.864E+01	1.287E+02	9.788E+00	0.015
		926.50		9.138E+00	1.110E+01	2.082E+01	5.195E+00	0.439
		946.00	*	-2.450E+00	2.214E+01	3.519E+01	6.433E+00	-0.070
		949.00		1.478E+01	3.367E+01	5.904E+01	4.425E+00	0.250
		980.50		5.188E+01	5.155E+01	9.943E+01	7.285E+00	0.522
		1394.10		8.989E+00	9.364E+01	1.580E+02	1.026E+02	0.057
PA-234M		766.42		8.787E+02	9.257E+02	1.552E+03	7.820E+02	0.566
		1001.03	*	2.059E+02	3.434E+02	6.156E+02	5.400E+01	0.334
TH-234		63.29	*	1.141E+01	1.734E+02	2.732E+02	5.297E+01	0.042
		92.38		-3.003E+01	6.066E+01	9.369E+01	1.751E+01	-0.321
U-234		53.20	*	3.776E+03	3.879E+04	1.500E+04	1.500E+05	0.252
U-235		89.95		-1.706E+02	1.206E+02	1.534E+02	4.812E+01	-1.112
		93.35		-3.198E+01	7.260E+01	1.121E+02	3.180E+01	-0.285
		105.00		1.909E+01	1.085E+02	1.758E+02	5.227E+01	0.109
		143.76	*	-1.069E+01	2.193E+01	3.213E+01	5.310E+00	-0.333
		163.35		3.924E+01	4.146E+01	7.374E+01	1.333E+01	0.532
	+	185.71		1.869E+00	6.783E+00	8.113E+00	4.951E-01	0.230
		205.31		-2.776E+01	4.628E+01	7.354E+01	1.332E+01	-0.378
NP-236		94.67		-1.558E+00	1.362E+01	2.171E+01	2.055E+00	-0.072
		98.44		2.300E+00	7.435E+00	1.220E+01	1.091E+00	0.189
		111.00		1.524E+01	1.523E+01	2.602E+01	2.005E+00	0.586
		160.31	*	-4.559E+00	7.004E+00	1.127E+01	6.907E-01	-0.404
NP-237		86.50	*	2.244E+00	2.209E+01	3.588E+01	8.323E+00	0.063
		95.87		-1.257E+02	1.124E+02	1.588E+02	3.950E+01	-0.792
PU-237		59.54	*	-9.490E+01	2.557E+02	4.053E+02	4.824E+01	-0.234
U-238		63.29	*	1.141E+01	1.734E+02	2.732E+02	5.297E+01	0.042
		92.38		-3.003E+01	6.047E+01	9.369E+01	9.214E+00	-0.321
NP-239		99.55		2.529E+00	1.666E+01	2.702E+01	2.379E+00	0.094
		117.00	*	2.295E+00	2.042E+01	3.283E+01	2.393E+00	0.070
		209.75		2.291E+01	6.342E+01	1.091E+02	6.761E+00	0.210
		228.18		-1.067E+01	2.101E+01	3.362E+01	2.109E+00	-0.317
		277.60		-2.929E+00	1.546E+01	2.509E+01	1.609E+00	-0.117
		334.30		-4.799E+01	1.120E+02	1.749E+02	1.120E+01	-0.274
AM-241		59.54	*	-7.557E+00	2.036E+01	3.227E+01	3.990E+00	-0.234

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AM-243		74.67	*	-2.431E+00	5.958E+00	9.115E+00	9.489E-01	-0.267
		86.72		6.033E+01	8.285E+02	1.343E+03	1.425E+02	0.045
		117.66		2.884E+02	4.050E+02	6.796E+02	4.925E+01	0.424
		142.18		-1.878E+03	1.907E+03	2.778E+03	1.789E+02	-0.676
CM-243		99.55		2.601E+00	1.714E+01	2.780E+01	2.447E+00	0.094
		103.76	*	-4.259E+00	9.960E+00	1.538E+01	1.283E+00	-0.277
		117.00		2.360E+00	2.100E+01	3.376E+01	2.461E+00	0.070
		209.75		2.257E+01	6.249E+01	1.075E+02	6.663E+00	0.210
		228.18		-1.077E+01	2.122E+01	3.395E+01	2.130E+00	-0.317
		277.60		-2.952E+00	1.558E+01	2.528E+01	1.621E+00	-0.117
AM-246		798.80		-8.427E+00	1.232E+01	1.817E+01	1.184E+00	-0.464
		1036.00		1.991E+00	2.213E+01	3.638E+01	2.539E+00	0.055
		1062.04		2.779E+00	1.840E+01	3.048E+01	2.071E+00	0.091
		1078.86	*	9.915E-01	1.097E+01	1.798E+01	1.199E+00	0.055
CM-247		278.00		-1.629E+01	6.490E+01	1.047E+02	6.713E+00	-0.156
		287.40		1.695E+01	1.098E+02	1.836E+02	1.179E+01	0.092
		402.60	*	2.761E+00	2.944E+00	5.304E+00	3.293E-01	0.520
CF-249		252.85		2.820E+01	8.803E+01	1.496E+02	9.509E+00	0.189
		333.44		-8.047E+00	1.430E+01	2.197E+01	1.407E+00	-0.366
		387.95	*	-1.662E+00	3.465E+00	5.300E+00	3.299E-01	-0.314
CF-251		176.60	*	8.387E+00	1.192E+01	2.102E+01	1.276E+00	0.399
		227.00		-2.624E+01	3.576E+01	5.614E+01	3.520E+00	-0.467
		285.00		5.885E+00	1.541E+02	2.551E+02	1.638E+01	0.023
ANH-511		511.00	*	-5.183E+00	4.990E+00	9.056E+00	5.427E-01	-0.572

VAX/VMS Nuclide Identification Report Generated

```
*************************************************************************
*                          GEL Laboratories LLC                         *
*                              2040 Savage Road                         *
*                            Charleston, SC 29414                       *
*************************************************************************
*                                                                       *
*                              DETECTOR DATA                            *
*                                                                       *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G242754003  *
* Acquisition date : 18-DEC-2009 10:13:15 Detector SN#    :             *
* Detector ID        : GAM08               Sensitivity     : 5.000     *
* Geometry           : 2LMB                Energy tolerance: 1.500     *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000    *
* Elapsed real time:     0 02:00:00.93     Half life ratio :  8.000    *
*************************************************************************
*                                                                       *
*                              SAMPLE DATA                              *
*                                                                       *
* Sample date        :  9-DEC-2009 12:00:00 Nuclide Library : LIQUI     *
* Sample ID          : G242754003           Analyst initials: KXG3      *
* Batch Number       : 933232               Sample Quantity : 2.0000E+00 LITER *
* Recovery           :    1.00000           Carrier Weight :    0.00000 *
*************************************************************************
*                                                                       *
*                                QC DATA                                *
* Standard Weight  :   0.00000                                          *
* CALIB. DATE/TIME :  2-FEB-2009 11:09:33 MS Isotope      :             *
* MSD DPM          :    0.000             MSD Isotope     :             *
* LCS DPM          :    0.000             LCS Isotope     :             *
* LCSD DPM         :    0.000             LCSD Isotope    :             *
*************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
RA-226	3.077E+01	1.116E+02	1.143E+02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	-1.495E+01	2.604E+01	3.933E+01	0.000E+00	NOT IDENT.
NA-22	-4.925E-01	2.434E+00	3.931E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00	5.476E+04	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.448E+00	3.546E+00	5.287E+00	0.000E+00	NOT IDENT.
K-40	-1.070E+01	3.665E+01	6.014E+01	0.000E+00	NOT IDENT.
TI-44	-1.311E+00	3.389E+00	5.327E+00	0.000E+00	NOT IDENT.
SC-46	-1.794E+00	2.925E+00	4.325E+00	0.000E+00	NOT IDENT.
V-48	-4.880E+00	4.251E+00	5.349E+00	0.000E+00	NOT IDENT.
CR-51	4.715E-03	3.216E+01	5.382E+01	0.000E+00	NOT IDENT.
MN-52	-6.219E+00	9.581E+00	1.377E+01	0.000E+00	NOT IDENT.
MN-54	2.868E+00	2.568E+00	5.044E+00	0.000E+00	NOT IDENT.
CO-56	0.000E+00	3.064E+00	5.120E+00	0.000E+00	NOT IDENT.
CO-57	3.408E-01	2.702E+00	4.428E+00	0.000E+00	NOT IDENT.
CO-58	-1.169E+00	2.943E+00	4.612E+00	0.000E+00	NOT IDENT.
FE-59	-5.209E+00	5.402E+00	6.704E+00	0.000E+00	NOT IDENT.
CO-60	1.324E+00	3.453E+00	6.230E+00	0.000E+00	NOT IDENT.
ZN-65	-2.763E+00	6.811E+00	1.032E+01	0.000E+00	NOT IDENT.
GE-68	-5.510E+01	9.523E+01	1.383E+02	0.000E+00	NOT IDENT.
AS-73	3.405E+01	1.061E+02	1.815E+02	0.000E+00	NOT IDENT.
AS-74	6.375E+00	5.904E+00	1.132E+01	0.000E+00	NOT IDENT.
SE-75	-1.013E+00	3.813E+00	6.292E+00	0.000E+00	NOT IDENT.
BR-77	-4.132E+01	1.436E+02	2.239E+02	0.000E+00	NOT IDENT.
SR-82	-7.770E+00	2.063E+01	3.215E+01	0.000E+00	NOT IDENT.
RB-83	-1.581E+00	5.495E+00	8.569E+00	0.000E+00	NOT IDENT.
RB-84	-1.787E+00	4.987E+00	7.801E+00	0.000E+00	NOT IDENT.
KR-85	-1.486E+03	9.627E+02	1.356E+03	0.000E+00	NOT IDENT.

SR-85	-7.141E+00	4.625E+00	6.513E+00	0.000E+00	NOT IDENT.
RB-86	-9.010E+00	4.854E+01	7.691E+01	0.000E+00	NOT IDENT.
Y-88	3.799E+00	3.317E+00	6.938E+00	0.000E+00	NOT IDENT.
ZR-88	1.267E+00	2.642E+00	4.592E+00	0.000E+00	NOT IDENT.
Y-91	2.284E+02	1.188E+03	2.092E+03	0.000E+00	NOT IDENT.
NB-94	-1.368E+00	2.534E+00	3.941E+00	0.000E+00	NOT IDENT.
NB-95	1.042E+00	3.217E+00	5.661E+00	0.000E+00	NOT IDENT.
NB-95M	-1.303E+01	9.834E+00	1.483E+01	0.000E+00	NOT IDENT.
ZR-95	-1.752E+00	4.474E+00	6.998E+00	0.000E+00	NOT IDENT.
NB-97	0.000E+00	1.695E+04	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	5.617E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.151E+02	1.948E+02	2.974E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.566E+11	0.000E+00	0.000E+00	SHORT HLIF
RH-101	1.375E+00	3.293E+00	5.426E+00	0.000E+00	NOT IDENT.
RH-102	-4.743E-03	2.421E+00	3.962E+00	0.000E+00	NOT IDENT.
RU-103	-1.176E+00	3.478E+00	5.435E+00	0.000E+00	NOT IDENT.
RH-106	-5.333E+00	2.189E+01	3.588E+01	0.000E+00	NOT IDENT.
RU-106	-5.333E+00	2.188E+01	3.588E+01	0.000E+00	NOT IDENT.
AG-108M	6.101E-01	2.800E+00	4.730E+00	0.000E+00	NOT IDENT.
CD-109	1.403E+01	7.184E+01	1.198E+02	0.000E+00	NOT IDENT.
AG-110M	9.848E-01	2.708E+00	4.819E+00	0.000E+00	NOT IDENT.
IN-111	-2.878E+01	2.071E+01	3.079E+01	0.000E+00	NOT IDENT.
IN-113M	1.391E+00	3.869E+00	6.647E+00	0.000E+00	NOT IDENT.
SN-113	1.391E+00	3.869E+00	6.647E+00	0.000E+00	NOT IDENT.
IN-114M	1.828E+01	1.645E+01	2.747E+01	0.000E+00	NOT IDENT.
CD-115	-1.069E+00	1.209E+02	2.077E+02	0.000E+00	NOT IDENT.
SN-117M	-3.430E+00	3.437E+00	5.491E+00	0.000E+00	NOT IDENT.
SB-122	-2.234E+01	3.391E+01	5.324E+01	0.000E+00	NOT IDENT.
I-123	0.000E+00	1.911E+05	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-2.453E+00	2.323E+00	3.688E+00	0.000E+00	NOT IDENT.
I-124	1.919E-01	1.702E+01	2.910E+01	0.000E+00	NOT IDENT.
SB-124	-2.283E+00	7.777E+00	1.206E+01	0.000E+00	NOT IDENT.
SB-125	-3.953E+00	7.567E+00	1.160E+01	0.000E+00	NOT IDENT.
TE-125M	-1.120E+02	9.231E+02	1.492E+03	0.000E+00	NOT IDENT.
I-126	7.379E-01	9.305E+00	1.597E+01	0.000E+00	NOT IDENT.
SB-126	-2.004E+00	8.135E+00	1.325E+01	0.000E+00	NOT IDENT.
SN-126	-1.891E+00	7.405E+00	1.194E+01	0.000E+00	NOT IDENT.
SB-127	-1.852E+01	3.485E+01	5.435E+01	0.000E+00	NOT IDENT.
XE-127	6.873E-02	3.595E+00	6.156E+00	0.000E+00	NOT IDENT.
I-131	-1.080E+00	6.344E+00	1.036E+01	0.000E+00	NOT IDENT.
TE-132	-8.961E+00	1.688E+01	2.747E+01	0.000E+00	NOT IDENT.
BA-133	5.478E-01	3.887E+00	5.790E+00	0.000E+00	NOT IDENT.
I-133	0.000E+00	3.387E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	4.718E+00	3.617E+00	7.136E+00	0.000E+00	NOT IDENT.
CS-135	-8.430E+00	1.379E+01	2.201E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	6.411E+10	0.000E+00	0.000E+00	SHORT HLIF
CS-136	4.557E+00	5.471E+00	1.042E+01	0.000E+00	NOT IDENT.
BA-137M	-1.771E-01	2.614E+00	4.393E+00	0.000E+00	NOT IDENT.
CS-137	-1.872E-01	2.763E+00	4.644E+00	0.000E+00	NOT IDENT.
CE-139	4.535E-01	2.461E+00	4.299E+00	0.000E+00	NOT IDENT.
BA-140	-2.787E+00	1.513E+01	2.539E+01	0.000E+00	NOT IDENT.
LA-140	2.435E-01	5.697E+00	9.610E+00	0.000E+00	NOT IDENT.
CE-141	-1.918E+00	5.399E+00	8.451E+00	0.000E+00	NOT IDENT.
CE-143	-4.593E+02	5.237E+02	7.510E+02	0.000E+00	NOT IDENT.
CE-144	-1.119E+00	2.088E+01	3.364E+01	0.000E+00	NOT IDENT.
PM-144	6.335E-01	2.850E+00	4.958E+00	0.000E+00	NOT IDENT.
PR-144	4.279E+01	1.925E+02	3.349E+02	0.000E+00	NOT IDENT.
PM-146	-2.062E+00	3.820E+00	5.831E+00	0.000E+00	NOT IDENT.
ND-147	7.095E+00	2.922E+01	5.172E+01	0.000E+00	NOT IDENT.
PM-149	9.750E+01	1.151E+03	1.952E+03	0.000E+00	NOT IDENT.
EU-152	3.213E+00	9.281E+00	1.596E+01	0.000E+00	NOT IDENT.
GD-153	5.240E+00	8.061E+00	1.381E+01	0.000E+00	NOT IDENT.
EU-154	-1.380E+00	6.821E+00	1.101E+01	0.000E+00	NOT IDENT.
EU-155	6.451E+00	1.059E+01	1.810E+01	0.000E+00	NOT IDENT.
TB-160	7.968E-01	9.884E+00	1.671E+01	0.000E+00	NOT IDENT.
HO-166M	-3.581E+00	4.997E+00	7.574E+00	0.000E+00	NOT IDENT.
TM-171	-1.540E+03	3.260E+03	5.126E+03	0.000E+00	NOT IDENT.
HF-175	1.999E+00	3.069E+00	5.428E+00	0.000E+00	NOT IDENT.
LU-176	-8.558E-01	2.042E+00	3.273E+00	0.000E+00	NOT IDENT.
LU-177	-7.400E+00	4.782E+01	8.071E+01	0.000E+00	NOT IDENT.
LU-177M	5.226E+00	1.373E+01	2.370E+01	0.000E+00	NOT IDENT.
HF-181	-3.586E-01	3.530E+00	5.701E+00	0.000E+00	NOT IDENT.
W-181	-2.531E+01	4.237E+01	6.606E+01	0.000E+00	NOT IDENT.
TA-182	3.582E+00	1.165E+01	2.096E+01	0.000E+00	NOT IDENT.
RE-183	4.816E+00	8.910E+00	1.594E+01	0.000E+00	NOT IDENT.
RE-184	7.327E+00	2.241E+01	3.887E+01	0.000E+00	NOT IDENT.
OS-185	-2.957E+00	3.558E+00	5.384E+00	0.000E+00	NOT IDENT.
RE-188	-4.753E-01	1.562E+01	2.567E+01	0.000E+00	NOT IDENT.

W-188	2.256E+01	5.611E+02	9.471E+02	0.000E+00	NOT IDENT.
IR-192	-5.092E-01	3.061E+00	5.047E+00	0.000E+00	NOT IDENT.
AU-195	-3.346E+00	2.345E+01	3.797E+01	0.000E+00	NOT IDENT.
TL-200	0.000E+00	8.607E+02	0.000E+00	0.000E+00	SHORT HLIF
TL-201	-1.304E+02	1.487E+02	2.396E+02	0.000E+00	NOT IDENT.
TL-202	3.051E+00	4.054E+00	7.273E+00	0.000E+00	NOT IDENT.
HG-203	1.320E+00	3.024E+00	5.298E+00	0.000E+00	NOT IDENT.
BI-207	1.386E+00	4.113E+00	7.170E+00	0.000E+00	NOT IDENT.
TL-207	2.201E+01	6.366E+01	1.095E+02	0.000E+00	NOT IDENT.
TL-208	-9.450E-01	3.341E+00	5.638E+00	0.000E+00	NOT IDENT.
PO-209	-2.938E+02	6.102E+02	9.315E+02	0.000E+00	NOT IDENT.
BI-210	3.792E+02	5.784E+02	1.014E+03	0.000E+00	NOT IDENT.
PB-210	3.792E+02	5.784E+02	1.014E+03	0.000E+00	NOT IDENT.
PO-210	3.792E+02	5.782E+02	1.014E+03	0.000E+00	NOT IDENT.
BI-211	-6.116E+00	2.372E+01	3.241E+01	0.000E+00	NOT IDENT.
PB-211	-3.667E+01	7.602E+01	1.121E+02	0.000E+00	NOT IDENT.
BI-212	1.154E+01	2.480E+01	4.426E+01	0.000E+00	NOT IDENT.
PB-212	-2.263E+00	5.638E+00	9.530E+00	0.000E+00	NOT IDENT.
PO-212	-2.263E+00	5.638E+00	9.530E+00	0.000E+00	NOT IDENT.
BI-214	1.001E+00	6.818E+00	1.154E+01	0.000E+00	NOT IDENT.
PB-214	-2.080E+00	8.167E+00	1.115E+01	0.000E+00	NOT IDENT.
PO-214	-2.080E+00	8.167E+00	1.115E+01	0.000E+00	NOT IDENT.
PO-215	2.201E+01	6.366E+01	1.095E+02	0.000E+00	NOT IDENT.
PO-216	-2.263E+00	5.638E+00	9.530E+00	0.000E+00	NOT IDENT.
PO-218	-2.080E+00	8.167E+00	1.115E+01	0.000E+00	NOT IDENT.
RN-219	1.656E+01	3.357E+01	5.858E+01	0.000E+00	NOT IDENT.
RN-220	4.613E+01	1.706E+03	2.939E+03	0.000E+00	NOT IDENT.
RA-223	2.201E+01	6.366E+01	1.095E+02	0.000E+00	NOT IDENT.
RA-224	3.658E+01	5.883E+01	1.043E+02	0.000E+00	NOT IDENT.
AC-227	-1.277E+01	3.810E+01	6.274E+01	0.000E+00	NOT IDENT.
PA-227	0.000E+00	2.049E+43	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-1.277E+01	3.812E+01	6.274E+01	0.000E+00	NOT IDENT.
AC-228	5.143E+00	1.191E+01	1.893E+01	0.000E+00	FAIL ABUN
RA-228	5.143E+00	1.191E+01	1.893E+01	0.000E+00	FAIL ABUN
TH-228	-2.263E+00	5.638E+00	9.530E+00	0.000E+00	NOT IDENT.
TH-229	1.630E+01	4.496E+01	7.898E+01	0.000E+00	NOT IDENT.
TH-230	-9.372E+02	6.105E+03	2.055E+03	0.000E+00	NOT IDENT.
PA-231	3.660E+00	1.291E+02	2.179E+02	0.000E+00	NOT IDENT.
TH-231	-1.711E+01	4.831E+01	7.432E+01	0.000E+00	NOT IDENT.
U-231	-5.129E+01	4.340E+01	6.477E+01	0.000E+00	NOT IDENT.
TH-232	8.969E+02	9.994E+03	6.399E+03	0.000E+00	NOT IDENT.
PA-233	3.646E+00	5.552E+00	9.878E+00	0.000E+00	NOT IDENT.
PA-234	-2.450E+00	2.170E+01	3.519E+01	0.000E+00	FAIL ABUN
PA-234M	2.059E+02	3.366E+02	6.156E+02	0.000E+00	NOT IDENT.
TH-234	1.141E+01	1.700E+02	2.732E+02	0.000E+00	NOT IDENT.
U-234	3.776E+03	3.801E+04	1.500E+04	0.000E+00	NOT IDENT.
U-235	-1.069E+01	2.149E+01	3.213E+01	0.000E+00	FAIL ABUN
NP-236	-4.559E+00	6.863E+00	1.127E+01	0.000E+00	NOT IDENT.
NP-237	2.244E+00	2.165E+01	3.588E+01	0.000E+00	NOT IDENT.
PU-237	-9.490E+01	2.506E+02	4.053E+02	0.000E+00	NOT IDENT.
U-238	1.141E+01	1.700E+02	2.732E+02	0.000E+00	NOT IDENT.
NP-239	2.295E+00	2.001E+01	3.283E+01	0.000E+00	NOT IDENT.
AM-241	-7.557E+00	1.996E+01	3.227E+01	0.000E+00	NOT IDENT.
AM-243	-2.431E+00	5.839E+00	9.115E+00	0.000E+00	NOT IDENT.
CM-243	-4.259E+00	9.761E+00	1.538E+01	0.000E+00	NOT IDENT.
AM-246	9.915E-01	1.075E+01	1.798E+01	0.000E+00	NOT IDENT.
CM-247	2.761E+00	2.885E+00	5.304E+00	0.000E+00	NOT IDENT.
CF-249	-1.662E+00	3.396E+00	5.300E+00	0.000E+00	NOT IDENT.
CF-251	8.387E+00	1.168E+01	2.102E+01	0.000E+00	NOT IDENT.
ANH-511	-5.183E+00	4.890E+00	9.056E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 12:14:10.03

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G242754003.CNF;1
Sample date       : 9-DEC-2009 12:00:00. Acquisition date : 18-DEC-2009 10:13:15
Sample ID         : G242754003           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM08                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.93  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 933232                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	93.08	42	130	1.40	186.21	181	9	5.80E-03	51.7	
2	0	186.29	53	114	1.09	372.43	366	10	7.30E-03	40.8	
3	0	353.77	20	63	1.28	707.05	702	12	2.81E-03	86.8	
4	0	511.10	137	59	3.06	1021.47	1015	16	1.91E-02	15.5	
5	0	910.53	21	6	3.85	1820.07	1814	11	2.85E-03	31.3	

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 12:14:12.96

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G242754003.CNF;1
Sample date       : 9-DEC-2009 12:00:00. Acquisition date : 18-DEC-2009 10:13:15
Sample ID         : G242754003           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM08                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.93  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 933232                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
RA-226	186.21	12	3.28*	2.283E+00	3.077E+01	3.077E+01	370.23

Flag: "*" = Keyline

Sample ID : G242754003 Acquisition date : 18-DEC-2009 10:13:15

Total number of lines in spectrum	3	
Number of unidentified lines	1	
Number of lines tentatively identified by NID	2	66.67%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
RA-226	1600.00Y	1.00	3.077E+01	3.077E+01	11.39E+01	370.23	
	Total Activity :		3.077E+01	3.077E+01			
	Grand Total Activity :		3.077E+01	3.077E+01			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G242754003 Acquisition date : 18-DEC-2009 10:13:15

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	353.77	10	63	1.28	707.05	702	12	1.34E-03	****	1.58E+00	
0	910.53	6	6	3.85	1820.07	1814	11	8.23E-04	****	7.83E-01	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 12:14:18.03

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G242754003.CNF;1 *
* Acquisition date  : 18-DEC-2009 10:13:15  Detector SN#     :             *
* Detector ID       : GAM08                 Sensitivity      : 5.00000     *
* Geometry          : 2LMB                  Energy tolerance: 1.50000      *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 02:00:00.93          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 9-DEC-2009 12:00:00.  Nuclide Library : LIQUID       *
* Sample ID         : G242754003            Analyst initials: KXG3         *
* Batch Number      : 933232                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 2-FEB-2009 11:09:33.32MS Isotope      :                *
* MSD ID           :                      MSD Isotope      :               *
* LCS ID           : 1032-A               LCS Isotope      :               *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RA-226	3.077E+01	1.139E+02	1.143E+02	8.394E+01	0.269

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	-1.495E+01		2.657E+01	3.933E+01	2.758E+00	-0.380
NA-22	-4.925E-01		2.484E+00	3.931E+00	2.671E-01	-0.125
NA-24	1.814E-02		2.794E-02	Half-Life too short		
AL-26	-1.448E+00		3.618E+00	5.287E+00	3.143E-01	-0.274
K-40	-1.070E+01		3.739E+01	6.014E+01	4.478E+00	-0.178
TI-44	-1.311E+00		3.458E+00	5.327E+00	5.531E-01	-0.246
SC-46	-1.794E+00		2.985E+00	4.325E+00	3.291E-01	-0.415
V-48	-4.880E+00		4.338E+00	5.349E+00	3.910E-01	-0.912
CR-51	4.715E-03		3.282E+01	5.382E+01	3.782E+00	0.000
MN-52	-6.219E+00		9.777E+00	1.377E+01	9.925E-01	-0.452
MN-54	2.868E+00		2.621E+00	5.044E+00	3.501E-01	0.569

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-56	0.000E+00		3.127E+00	5.120E+00	3.627E-01	0.000
CO-57	3.408E-01		2.757E+00	4.428E+00	3.101E-01	0.077
CO-58	-1.169E+00		3.003E+00	4.612E+00	3.082E-01	-0.253
FE-59	-5.209E+00		5.512E+00	6.704E+00	4.965E-01	-0.777
CO-60	1.324E+00		3.523E+00	6.230E+00	4.574E-01	0.213
ZN-65	-2.763E+00		6.950E+00	1.032E+01	6.586E-01	-0.268
GE-68	-5.510E+01		9.717E+01	1.383E+02	9.236E+00	-0.398
AS-73	3.405E+01		1.083E+02	1.815E+02	2.182E+01	0.188
AS-74	6.375E+00		6.024E+00	1.132E+01	6.273E-01	0.563
SE-75	-1.013E+00		3.891E+00	6.292E+00	4.053E-01	-0.161
BR-77	-4.132E+01		1.465E+02	2.239E+02	1.333E+01	-0.184
SR-82	-7.770E+00		2.105E+01	3.215E+01	2.012E+00	-0.242
RB-83	-1.581E+00		5.607E+00	8.569E+00	5.103E-01	-0.184
RB-84	-1.787E+00		5.089E+00	7.801E+00	5.862E-01	-0.229
KR-85	-1.486E+03		9.823E+02	1.356E+03	8.109E+01	-1.096
SR-85	-7.141E+00		4.719E+00	6.513E+00	3.896E-01	-1.096
RB-86	-9.010E+00		4.953E+01	7.691E+01	5.141E+00	-0.117
Y-88	3.799E+00		3.384E+00	6.938E+00	4.042E-01	0.548
ZR-88	1.267E+00		2.696E+00	4.592E+00	2.850E-01	0.276
Y-91	2.284E+02		1.213E+03	2.092E+03	1.282E+02	0.109
NB-94	-1.368E+00		2.586E+00	3.941E+00	2.146E-01	-0.347
NB-95	1.042E+00		3.282E+00	5.661E+00	3.474E-01	0.184
NB-95M	-1.303E+01		1.003E+01	1.483E+01	1.175E+00	-0.879
ZR-95	-1.752E+00		4.566E+00	6.998E+00	5.054E-01	-0.250
NB-97	1.073E-02		8.646E-03	Half-Life too short		
ZR-97	-1.081E+00		2.866E-01	Half-Life too short		
MO-99	-1.151E+02		1.987E+02	2.974E+02	4.104E+01	-0.387
TC-99M	9.658E+04		7.989E+04	Half-Life too short		
RH-101	1.375E+00		3.361E+00	5.426E+00	3.337E-01	0.253
RH-102	-4.743E-03		2.471E+00	3.962E+00	2.421E-01	-0.001
RU-103	-1.176E+00		3.549E+00	5.435E+00	6.934E-01	-0.216
RH-106	-5.333E+00		2.233E+01	3.588E+01	4.134E+00	-0.149
RU-106	-5.333E+00		2.233E+01	3.588E+01	1.920E+00	-0.149
AG-108M	6.101E-01		2.857E+00	4.730E+00	3.149E-01	0.129
CD-109	1.403E+01		7.331E+01	1.198E+02	1.279E+01	0.117
AG-110M	9.848E-01		2.764E+00	4.819E+00	2.641E-01	0.204
IN-111	-2.878E+01		2.113E+01	3.079E+01	1.951E+00	-0.935
IN-113M	1.391E+00		3.948E+00	6.647E+00	4.367E-01	0.209
SN-113	1.391E+00		3.948E+00	6.647E+00	4.367E-01	0.209
IN-114M	1.828E+01		1.679E+01	2.747E+01	1.681E+00	0.666
CD-115	-1.069E+00		1.233E+02	2.077E+02	1.230E+01	-0.005
SN-117M	-3.430E+00		3.507E+00	5.491E+00	3.379E-01	-0.625
SB-122	-2.234E+01		3.460E+01	5.324E+01	3.056E+00	-0.420
I-123	-2.018E-01		9.752E-02	Half-Life too short		
TE-123M	-2.453E+00		2.371E+00	3.688E+00	2.294E-01	-0.665
I-124	1.919E-01		1.737E+01	2.910E+01	1.598E+00	0.007
SB-124	-2.283E+00		7.936E+00	1.206E+01	8.332E-01	-0.189
SB-125	-3.953E+00		7.721E+00	1.160E+01	7.456E-01	-0.341

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TE-125M	-1.120E+02		9.419E+02	1.492E+03	1.443E+02	-0.075
I-126	7.379E-01		9.495E+00	1.597E+01	8.093E-01	0.046
SB-126	-2.004E+00		8.301E+00	1.325E+01	7.470E-01	-0.151
SN-126	-1.891E+00		7.557E+00	1.194E+01	1.272E+00	-0.158
SB-127	-1.852E+01		3.556E+01	5.435E+01	3.854E+00	-0.341
XE-127	6.873E-02		3.669E+00	6.156E+00	3.799E-01	0.011
I-131	-1.080E+00		6.474E+00	1.036E+01	7.152E-01	-0.104
TE-132	-8.961E+00		1.722E+01	2.747E+01	3.724E+00	-0.326
BA-133	5.478E-01		3.966E+00	5.790E+00	6.859E-01	0.095
I-133	2.017E-03		1.728E-03	Half-Life too short		
CS-134	4.718E+00		3.691E+00	7.136E+00	4.684E-01	0.661
CS-135	-8.430E+00		1.407E+01	2.201E+01	1.786E+00	-0.383
I-135	2.587E+04		3.271E+04	Half-Life too short		
CS-136	4.557E+00		5.583E+00	1.042E+01	7.652E-01	0.437
BA-137M	-1.771E-01		2.667E+00	4.393E+00	2.206E-01	-0.040
CS-137	-1.872E-01		2.819E+00	4.644E+00	2.345E-01	-0.040
CE-139	4.535E-01		2.511E+00	4.299E+00	2.601E-01	0.106
BA-140	-2.787E+00		1.544E+01	2.539E+01	8.260E+00	-0.110
LA-140	2.435E-01		5.814E+00	9.610E+00	6.536E-01	0.025
CE-141	-1.918E+00		5.509E+00	8.451E+00	5.565E-01	-0.227
CE-143	-4.593E+02		5.344E+02	7.510E+02	1.565E+02	-0.612
CE-144	-1.119E+00		2.130E+01	3.364E+01	4.898E+00	-0.033
PM-144	6.335E-01		2.908E+00	4.958E+00	2.668E-01	0.128
PR-144	4.279E+01		1.964E+02	3.349E+02	1.802E+01	0.128
PM-146	-2.062E+00		3.898E+00	5.831E+00	5.171E-01	-0.354
ND-147	7.095E+00		2.981E+01	5.172E+01	7.018E+00	0.137
PM-149	9.750E+01		1.175E+03	1.952E+03	2.815E+02	0.050
EU-152	3.213E+00		9.470E+00	1.596E+01	1.127E+00	0.201
GD-153	5.240E+00		8.225E+00	1.381E+01	1.253E+00	0.380
EU-154	-1.380E+00		6.960E+00	1.101E+01	1.099E+00	-0.125
EU-155	6.451E+00		1.081E+01	1.810E+01	1.502E+00	0.356
TB-160	7.968E-01		1.009E+01	1.671E+01	1.251E+00	0.048
HO-166M	-3.581E+00		5.099E+00	7.574E+00	4.197E-01	-0.473
TM-171	-1.540E+03		3.326E+03	5.126E+03	5.563E+02	-0.301
HF-175	1.999E+00		3.132E+00	5.428E+00	3.466E-01	0.368
LU-176	-8.558E-01		2.083E+00	3.273E+00	2.105E-01	-0.261
LU-177	-7.400E+00		4.879E+01	8.071E+01	4.999E+00	-0.092
LU-177M	5.226E+00		1.401E+01	2.370E+01	1.470E+00	0.221
HF-181	-3.586E-01		3.602E+00	5.701E+00	3.472E-01	-0.063
W-181	-2.531E+01		4.323E+01	6.606E+01	7.275E+00	-0.383
TA-182	3.582E+00		1.189E+01	2.096E+01	1.317E+00	0.171
RE-183	4.816E+00		9.092E+00	1.594E+01	9.720E-01	0.302
RE-184	7.327E+00		2.287E+01	3.887E+01	2.471E+00	0.189
OS-185	-2.957E+00		3.631E+00	5.384E+00	2.776E-01	-0.549
RE-188	-4.753E-01		1.594E+01	2.567E+01	1.594E+00	-0.019
W-188	2.256E+01		5.725E+02	9.471E+02	6.087E+01	0.024
IR-192	-5.092E-01		3.124E+00	5.047E+00	3.257E-01	-0.101
AU-195	-3.346E+00		2.392E+01	3.797E+01	3.374E+00	-0.088

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TL-200	-3.997E-04		4.391E-04	Half-Life too short		
TL-201	-1.304E+02		1.517E+02	2.396E+02	1.449E+01	-0.544
TL-202	3.051E+00		4.136E+00	7.273E+00	4.496E-01	0.419
HG-203	1.320E+00		3.085E+00	5.298E+00	3.571E-01	0.249
BI-207	1.386E+00		4.197E+00	7.170E+00	4.863E-01	0.193
TL-207	2.201E+01		6.495E+01	1.095E+02	1.833E+01	0.201
TL-208	-9.450E-01		3.410E+00	5.638E+00	3.683E-01	-0.168
PO-209	-2.938E+02		6.227E+02	9.315E+02	7.176E+01	-0.315
BI-210	3.792E+02		5.902E+02	1.014E+03	9.655E+01	0.374
PB-210	3.792E+02		5.902E+02	1.014E+03	9.655E+01	0.374
PO-210	3.792E+02		5.900E+02	1.014E+03	8.785E+01	0.374
BI-211	-6.116E+00		2.420E+01	3.241E+01	2.252E+00	-0.189
PB-211	-3.667E+01		7.757E+01	1.121E+02	6.995E+01	-0.327
BI-212	1.154E+01		2.530E+01	4.426E+01	3.384E+00	0.261
PB-212	-2.263E+00		5.753E+00	9.530E+00	7.379E-01	-0.237
PO-212	-2.263E+00		5.753E+00	9.530E+00	7.379E-01	-0.237
BI-214	1.001E+00		6.958E+00	1.154E+01	8.678E-01	0.087
PB-214	-2.080E+00		8.334E+00	1.115E+01	9.687E-01	-0.187
PO-214	-2.080E+00		8.334E+00	1.115E+01	9.687E-01	-0.187
PO-215	2.201E+01		6.495E+01	1.095E+02	1.833E+01	0.201
PO-216	-2.263E+00		5.753E+00	9.530E+00	7.379E-01	-0.237
PO-218	-2.080E+00		8.334E+00	1.115E+01	9.687E-01	-0.187
RN-219	1.656E+01		3.425E+01	5.858E+01	8.075E+00	0.283
RN-220	4.613E+01		1.741E+03	2.939E+03	1.710E+02	0.016
RA-223	2.201E+01		6.495E+01	1.095E+02	1.833E+01	0.201
RA-224	3.658E+01		6.003E+01	1.043E+02	6.590E+00	0.351
AC-227	-1.277E+01		3.887E+01	6.274E+01	8.913E+00	-0.204
PA-227	1.000E+35		1.045E+37	Half-Life too short		
TH-227	-1.277E+01		3.889E+01	6.274E+01	1.073E+01	-0.204
AC-228	5.143E+00	+	1.215E+01	1.893E+01	1.994E+00	0.272
RA-228	5.143E+00	+	1.215E+01	1.893E+01	1.994E+00	0.272
TH-228	-2.263E+00		5.753E+00	9.530E+00	7.379E-01	-0.237
TH-229	1.630E+01		4.588E+01	7.898E+01	4.844E+00	0.206
TH-230	-9.372E+02		6.229E+03	2.055E+03	1.333E+04	-0.456
PA-231	3.660E+00		1.317E+02	2.179E+02	3.063E+01	0.017
TH-231	-1.711E+01		4.929E+01	7.432E+01	1.399E+01	-0.230
U-231	-5.129E+01		4.428E+01	6.477E+01	6.016E+00	-0.792
TH-232	8.969E+02		1.020E+04	6.399E+03	6.736E+04	0.140
PA-233	3.646E+00		5.665E+00	9.878E+00	6.673E-01	0.369
PA-234	-2.450E+00		2.214E+01	3.519E+01	6.433E+00	-0.070
PA-234M	2.059E+02		3.434E+02	6.156E+02	5.400E+01	0.334
TH-234	1.141E+01		1.734E+02	2.732E+02	5.297E+01	0.042
U-234	3.776E+03		3.879E+04	1.500E+04	1.500E+05	0.252
U-235	-1.069E+01		2.193E+01	3.213E+01	5.310E+00	-0.333
NP-236	-4.559E+00		7.004E+00	1.127E+01	6.907E-01	-0.404
NP-237	2.244E+00		2.209E+01	3.588E+01	8.323E+00	0.063
PU-237	-9.490E+01		2.557E+02	4.053E+02	4.824E+01	-0.234
U-238	1.141E+01		1.734E+02	2.732E+02	5.297E+01	0.042

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NP-239	2.295E+00		2.042E+01	3.283E+01	2.393E+00	0.070
AM-241	-7.557E+00		2.036E+01	3.227E+01	3.990E+00	-0.234
AM-243	-2.431E+00		5.958E+00	9.115E+00	9.489E-01	-0.267
CM-243	-4.259E+00		9.960E+00	1.538E+01	1.283E+00	-0.277
AM-246	9.915E-01		1.097E+01	1.798E+01	1.199E+00	0.055
CM-247	2.761E+00		2.944E+00	5.304E+00	3.293E-01	0.520
CF-249	-1.662E+00		3.465E+00	5.300E+00	3.299E-01	-0.314
CF-251	8.387E+00		1.192E+01	2.102E+01	1.276E+00	0.399
ANH-511	-5.183E+00		4.990E+00	9.056E+00	5.427E-01	-0.572

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G242754003            *
* Acquisition date : 18-DEC-2009 10:13:15 Detector SN#    :                 *
* Detector ID      : GAM08                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:00.93     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  9-DEC-2009 12:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G242754003           Analyst initials: KXG3            *
* Batch Number     : 933232               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  2-FEB-2009 11:09:33 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
RA-226	3.077E+01	1.116E+02	5.719E+01	5.696E+01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU
BE-7	-1.495E+01	2.604E+01	1.968E+01	1.328E+01 NOT IDENT.
NA-22	-4.925E-01	2.434E+00	1.966E+00	1.242E+00 NOT IDENT.
NA-24	1.814E+04	5.476E+04	0.000E+00	2.794E+04 SHORT HLIF
AL-26	-1.448E+00	3.546E+00	2.645E+00	1.809E+00 NOT IDENT.
K-40	-1.070E+01	3.665E+01	3.009E+01	1.870E+01 NOT IDENT.
TI-44	-1.311E+00	3.389E+00	2.665E+00	1.729E+00 NOT IDENT.
SC-46	-1.794E+00	2.925E+00	2.164E+00	1.493E+00 NOT IDENT.
V-48	-4.880E+00	4.251E+00	2.676E+00	2.169E+00 NOT IDENT.
CR-51	4.715E-03	3.216E+01	2.692E+01	1.641E+01 NOT IDENT.
MN-52	-6.219E+00	9.581E+00	6.890E+00	4.888E+00 NOT IDENT.
MN-54	2.868E+00	2.568E+00	2.523E+00	1.310E+00 NOT IDENT.
CO-56	0.000E+00	3.064E+00	2.561E+00	0.000E+00 NOT IDENT.
CO-57	3.408E-01	2.702E+00	2.215E+00	1.378E+00 NOT IDENT.
CO-58	-1.169E+00	2.943E+00	2.307E+00	1.501E+00 NOT IDENT.
FE-59	-5.209E+00	5.402E+00	3.354E+00	2.756E+00 NOT IDENT.
CO-60	1.324E+00	3.453E+00	3.117E+00	1.762E+00 NOT IDENT.
ZN-65	-2.763E+00	6.811E+00	5.164E+00	3.475E+00 NOT IDENT.
GE-68	-5.510E+01	9.523E+01	6.919E+01	4.859E+01 NOT IDENT.
AS-73	3.405E+01	1.061E+02	9.082E+01	5.414E+01 NOT IDENT.
AS-74	6.375E+00	5.904E+00	5.665E+00	3.012E+00 NOT IDENT.
SE-75	-1.013E+00	3.813E+00	3.148E+00	1.945E+00 NOT IDENT.
BR-77	-4.132E+01	1.436E+02	1.120E+02	7.326E+01 NOT IDENT.
SR-82	-7.770E+00	2.063E+01	1.608E+01	1.052E+01 NOT IDENT.
RB-83	-1.581E+00	5.495E+00	4.287E+00	2.803E+00 NOT IDENT.
RB-84	-1.787E+00	4.987E+00	3.903E+00	2.544E+00 NOT IDENT.
KR-85	-1.486E+03	9.627E+02	6.783E+02	4.912E+02 NOT IDENT.

SR-85	-7.141E+00	4.625E+00	3.258E+00	2.360E+00	NOT IDENT.
RB-86	-9.010E+00	4.854E+01	3.848E+01	2.477E+01	NOT IDENT.
Y-88	3.799E+00	3.317E+00	3.471E+00	1.692E+00	NOT IDENT.
ZR-88	1.267E+00	2.642E+00	2.297E+00	1.348E+00	NOT IDENT.
Y-91	2.284E+02	1.188E+03	1.047E+03	6.063E+02	NOT IDENT.
NB-94	-1.368E+00	2.534E+00	1.972E+00	1.293E+00	NOT IDENT.
NB-95	1.042E+00	3.217E+00	2.832E+00	1.641E+00	NOT IDENT.
NB-95M	-1.303E+01	9.834E+00	7.421E+00	5.017E+00	NOT IDENT.
ZR-95	-1.752E+00	4.474E+00	3.501E+00	2.283E+00	NOT IDENT.
NB-97	1.073E+04	1.695E+04	0.000E+00	8.646E+03	SHORT HLIF
ZR-97	-1.081E+06	5.617E+05	0.000E+00	2.866E+05	SHORT HLIF
MO-99	-1.151E+02	1.948E+02	1.488E+02	9.936E+01	NOT IDENT.
TC-99M	9.658E+10	1.566E+11	0.000E+00	7.989E+10	SHORT HLIF
RH-101	1.375E+00	3.293E+00	2.715E+00	1.680E+00	NOT IDENT.
RH-102	-4.743E-03	2.421E+00	1.982E+00	1.235E+00	NOT IDENT.
RU-103	-1.176E+00	3.478E+00	2.719E+00	1.775E+00	NOT IDENT.
RH-106	-5.333E+00	2.189E+01	1.795E+01	1.117E+01	NOT IDENT.
RU-106	-5.333E+00	2.188E+01	1.795E+01	1.116E+01	NOT IDENT.
AG-108M	6.101E-01	2.800E+00	2.366E+00	1.429E+00	NOT IDENT.
CD-109	1.403E+01	7.184E+01	5.995E+01	3.665E+01	NOT IDENT.
AG-110M	9.848E-01	2.708E+00	2.411E+00	1.382E+00	NOT IDENT.
IN-111	-2.878E+01	2.071E+01	1.540E+01	1.057E+01	NOT IDENT.
IN-113M	1.391E+00	3.869E+00	3.325E+00	1.974E+00	NOT IDENT.
SN-113	1.391E+00	3.869E+00	3.325E+00	1.974E+00	NOT IDENT.
IN-114M	1.828E+01	1.645E+01	1.374E+01	8.393E+00	NOT IDENT.
CD-115	-1.069E+00	1.209E+02	1.039E+02	6.167E+01	NOT IDENT.
SN-117M	-3.430E+00	3.437E+00	2.747E+00	1.753E+00	NOT IDENT.
SB-122	-2.234E+01	3.391E+01	2.664E+01	1.730E+01	NOT IDENT.
I-123	-2.018E+05	1.911E+05	0.000E+00	9.752E+04	SHORT HLIF
TE-123M	-2.453E+00	2.323E+00	1.845E+00	1.185E+00	NOT IDENT.
I-124	1.919E-01	1.702E+01	1.456E+01	8.684E+00	NOT IDENT.
SB-124	-2.283E+00	7.777E+00	6.033E+00	3.968E+00	NOT IDENT.
SB-125	-3.953E+00	7.567E+00	5.805E+00	3.860E+00	NOT IDENT.
TE-125M	-1.120E+02	9.231E+02	7.464E+02	4.710E+02	NOT IDENT.
I-126	7.379E-01	9.305E+00	7.990E+00	4.747E+00	NOT IDENT.
SB-126	-2.004E+00	8.135E+00	6.630E+00	4.150E+00	NOT IDENT.
SN-126	-1.891E+00	7.405E+00	5.972E+00	3.778E+00	NOT IDENT.
SB-127	-1.852E+01	3.485E+01	2.719E+01	1.778E+01	NOT IDENT.
XE-127	6.873E-02	3.595E+00	3.080E+00	1.834E+00	NOT IDENT.
I-131	-1.080E+00	6.344E+00	5.183E+00	3.237E+00	NOT IDENT.
TE-132	-8.961E+00	1.688E+01	1.375E+01	8.612E+00	NOT IDENT.
BA-133	5.478E-01	3.887E+00	2.897E+00	1.983E+00	NOT IDENT.
I-133	2.017E+03	3.387E+03	0.000E+00	1.728E+03	SHORT HLIF
CS-134	4.718E+00	3.617E+00	3.570E+00	1.846E+00	NOT IDENT.
CS-135	-8.430E+00	1.379E+01	1.101E+01	7.034E+00	NOT IDENT.
I-135	2.587E+10	6.411E+10	0.000E+00	3.271E+10	SHORT HLIF
CS-136	4.557E+00	5.471E+00	5.213E+00	2.791E+00	NOT IDENT.
BA-137M	-1.771E-01	2.614E+00	2.198E+00	1.334E+00	NOT IDENT.
CS-137	-1.872E-01	2.763E+00	2.323E+00	1.410E+00	NOT IDENT.
CE-139	4.535E-01	2.461E+00	2.151E+00	1.256E+00	NOT IDENT.
BA-140	-2.787E+00	1.513E+01	1.270E+01	7.722E+00	NOT IDENT.
LA-140	2.435E-01	5.697E+00	4.808E+00	2.907E+00	NOT IDENT.
CE-141	-1.918E+00	5.399E+00	4.228E+00	2.754E+00	NOT IDENT.
CE-143	-4.593E+02	5.237E+02	3.757E+02	2.672E+02	NOT IDENT.
CE-144	-1.119E+00	2.088E+01	1.683E+01	1.065E+01	NOT IDENT.
PM-144	6.335E-01	2.850E+00	2.480E+00	1.454E+00	NOT IDENT.
PR-144	4.279E+01	1.925E+02	1.675E+02	9.822E+01	NOT IDENT.
PM-146	-2.062E+00	3.820E+00	2.917E+00	1.949E+00	NOT IDENT.
ND-147	7.095E+00	2.922E+01	2.588E+01	1.491E+01	NOT IDENT.
PM-149	9.750E+01	1.151E+03	9.766E+02	5.873E+02	NOT IDENT.
EU-152	3.213E+00	9.281E+00	7.985E+00	4.735E+00	NOT IDENT.
GD-153	5.240E+00	8.061E+00	6.907E+00	4.113E+00	NOT IDENT.
EU-154	-1.380E+00	6.821E+00	5.510E+00	3.480E+00	NOT IDENT.
EU-155	6.451E+00	1.059E+01	9.057E+00	5.405E+00	NOT IDENT.
TB-160	7.968E-01	9.884E+00	8.358E+00	5.043E+00	NOT IDENT.
HO-166M	-3.581E+00	4.997E+00	3.789E+00	2.550E+00	NOT IDENT.
TM-171	-1.540E+03	3.260E+03	2.565E+03	1.663E+03	NOT IDENT.
HF-175	1.999E+00	3.069E+00	2.715E+00	1.566E+00	NOT IDENT.
LU-176	-8.558E-01	2.042E+00	1.637E+00	1.042E+00	NOT IDENT.
LU-177	-7.400E+00	4.782E+01	4.038E+01	2.440E+01	NOT IDENT.
LU-177M	5.226E+00	1.373E+01	1.186E+01	7.003E+00	NOT IDENT.
HF-181	-3.586E-01	3.530E+00	2.852E+00	1.801E+00	NOT IDENT.
W-181	-2.531E+01	4.237E+01	3.305E+01	2.162E+01	NOT IDENT.
TA-182	3.582E+00	1.165E+01	1.048E+01	5.946E+00	NOT IDENT.
RE-183	4.816E+00	8.910E+00	7.974E+00	4.546E+00	NOT IDENT.
RE-184	7.327E+00	2.241E+01	1.944E+01	1.144E+01	NOT IDENT.
OS-185	-2.957E+00	3.558E+00	2.694E+00	1.815E+00	NOT IDENT.
RE-188	-4.753E-01	1.562E+01	1.284E+01	7.971E+00	NOT IDENT.

W-188	2.256E+01	5.611E+02	4.739E+02	2.863E+02	NOT IDENT.
IR-192	-5.092E-01	3.061E+00	2.525E+00	1.562E+00	NOT IDENT.
AU-195	-3.346E+00	2.345E+01	1.900E+01	1.196E+01	NOT IDENT.
TL-200	-3.997E+02	8.607E+02	0.000E+00	4.391E+02	SHORT HLIF
TL-201	-1.304E+02	1.487E+02	1.199E+02	7.587E+01	NOT IDENT.
TL-202	3.051E+00	4.054E+00	3.639E+00	2.068E+00	NOT IDENT.
HG-203	1.320E+00	3.024E+00	2.651E+00	1.543E+00	NOT IDENT.
BI-207	1.386E+00	4.113E+00	3.587E+00	2.098E+00	NOT IDENT.
TL-207	2.201E+01	6.366E+01	5.478E+01	3.248E+01	NOT IDENT.
TL-208	-9.450E-01	3.341E+00	2.820E+00	1.705E+00	NOT IDENT.
PO-209	-2.938E+02	6.102E+02	4.660E+02	3.113E+02	NOT IDENT.
BI-210	3.792E+02	5.784E+02	5.073E+02	2.951E+02	NOT IDENT.
PB-210	3.792E+02	5.784E+02	5.073E+02	2.951E+02	NOT IDENT.
PO-210	3.792E+02	5.782E+02	5.073E+02	2.950E+02	NOT IDENT.
BI-211	-6.116E+00	2.372E+01	1.622E+01	1.210E+01	NOT IDENT.
PB-211	-3.667E+01	7.602E+01	5.610E+01	3.879E+01	NOT IDENT.
BI-212	1.154E+01	2.480E+01	2.214E+01	1.265E+01	NOT IDENT.
PB-212	-2.263E+00	5.638E+00	4.768E+00	2.876E+00	NOT IDENT.
PO-212	-2.263E+00	5.638E+00	4.768E+00	2.876E+00	NOT IDENT.
BI-214	1.001E+00	6.818E+00	5.774E+00	3.479E+00	NOT IDENT.
PB-214	-2.080E+00	8.167E+00	5.579E+00	4.167E+00	NOT IDENT.
PO-214	-2.080E+00	8.167E+00	5.579E+00	4.167E+00	NOT IDENT.
PO-215	2.201E+01	6.366E+01	5.478E+01	3.248E+01	NOT IDENT.
PO-216	-2.263E+00	5.638E+00	4.768E+00	2.876E+00	NOT IDENT.
PO-218	-2.080E+00	8.167E+00	5.579E+00	4.167E+00	NOT IDENT.
RN-219	1.656E+01	3.357E+01	2.931E+01	1.713E+01	NOT IDENT.
RN-220	4.613E+01	1.706E+03	1.471E+03	8.704E+02	NOT IDENT.
RA-223	2.201E+01	6.366E+01	5.478E+01	3.248E+01	NOT IDENT.
RA-224	3.658E+01	5.883E+01	5.217E+01	3.001E+01	NOT IDENT.
AC-227	-1.277E+01	3.810E+01	3.139E+01	1.944E+01	NOT IDENT.
PA-227	1.000E+41	2.049E+43	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-1.277E+01	3.812E+01	3.139E+01	1.945E+01	NOT IDENT.
AC-228	5.143E+00	1.191E+01	9.473E+00	6.076E+00	FAIL ABUN
RA-228	5.143E+00	1.191E+01	9.473E+00	6.076E+00	FAIL ABUN
TH-228	-2.263E+00	5.638E+00	4.768E+00	2.876E+00	NOT IDENT.
TH-229	1.630E+01	4.496E+01	3.952E+01	2.294E+01	NOT IDENT.
TH-230	-9.372E+02	6.105E+03	1.028E+03	3.115E+03	NOT IDENT.
PA-231	3.660E+00	1.291E+02	1.090E+02	6.587E+01	NOT IDENT.
TH-231	-1.711E+01	4.831E+01	3.718E+01	2.465E+01	NOT IDENT.
U-231	-5.129E+01	4.340E+01	3.241E+01	2.214E+01	NOT IDENT.
TH-232	8.969E+02	9.994E+03	3.201E+03	5.099E+03	NOT IDENT.
PA-233	3.646E+00	5.552E+00	4.942E+00	2.833E+00	NOT IDENT.
PA-234	-2.450E+00	2.170E+01	1.761E+01	1.107E+01	FAIL ABUN
PA-234M	2.059E+02	3.366E+02	3.080E+02	1.717E+02	NOT IDENT.
TH-234	1.141E+01	1.700E+02	1.367E+02	8.672E+01	NOT IDENT.
U-234	3.776E+03	3.801E+04	7.504E+03	1.939E+04	NOT IDENT.
U-235	-1.069E+01	2.149E+01	1.607E+01	1.097E+01	FAIL ABUN
NP-236	-4.559E+00	6.863E+00	5.640E+00	3.502E+00	NOT IDENT.
NP-237	2.244E+00	2.165E+01	1.795E+01	1.105E+01	NOT IDENT.
PU-237	-9.490E+01	2.506E+02	2.028E+02	1.278E+02	NOT IDENT.
U-238	1.141E+01	1.700E+02	1.367E+02	8.672E+01	NOT IDENT.
NP-239	2.295E+00	2.001E+01	1.643E+01	1.021E+01	NOT IDENT.
AM-241	-7.557E+00	1.996E+01	1.615E+01	1.018E+01	NOT IDENT.
AM-243	-2.431E+00	5.839E+00	4.560E+00	2.979E+00	NOT IDENT.
CM-243	-4.259E+00	9.761E+00	7.696E+00	4.980E+00	NOT IDENT.
AM-246	9.915E-01	1.075E+01	8.993E+00	5.486E+00	NOT IDENT.
CM-247	2.761E+00	2.885E+00	2.654E+00	1.472E+00	NOT IDENT.
CF-249	-1.662E+00	3.396E+00	2.651E+00	1.733E+00	NOT IDENT.
CF-251	8.387E+00	1.168E+01	1.051E+01	5.958E+00	NOT IDENT.
ANH-511	-5.183E+00	4.890E+00	4.531E+00	2.495E+00	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	78.2991
46.50	78.2991
46.50	78.2991
48.70	95.8335
49.72	90.9922
51.35	78.1222
52.39	78.2944
52.97	71.2632
53.15	74.3454
53.20	73.3345
53.44	73.3713
54.07	80.6097
56.28	85.0730
56.28	85.0734
57.37	84.2320
57.53	84.2589
57.53	84.2591
57.60	84.2706
57.98	76.1062
57.98	76.1062
59.00	89.6559
59.32	104.1483
59.32	104.1483
59.40	104.1647
59.54	104.1930
59.54	104.1930
59.72	107.3254
60.01	108.4182
61.10	109.6807
61.14	102.4455
61.30	105.5823
63.00	96.5766
63.29	94.5511
63.29	94.5511
63.58	94.6024
64.28	109.2990
64.62	0.0000
65.12	110.5114
65.20	107.3995
65.20	107.3995
66.05	107.5667
66.72	102.4696
66.83	96.2152
66.91	96.2292
67.20	101.5123
67.20	101.5123
67.67	106.8352
67.75	106.8503
67.85	102.6790
68.90	85.0264
68.90	85.0264
69.30	97.6924
69.67	101.9613
70.82	93.7404
70.82	93.7404
70.83	93.7422
72.80	108.8591
72.80	108.8591
72.87	108.8722
72.87	108.8722
74.67	96.4834
74.81	100.7481
74.81	100.7481
74.81	100.7481
74.81	100.7481
74.81	100.7481
74.81	100.7481

74.81	100.7481
74.97	100.7751
74.97	100.7751
75.28	99.7665
75.70	103.0230
77.11	84.1026
77.11	84.1026
77.11	84.1026
77.11	84.1026
77.11	84.1026
77.11	84.1026
77.11	84.1026
78.38	89.6132
79.62	89.7943
79.80	89.8208
79.80	89.8208
80.11	99.4941
80.18	99.5055
80.30	99.5249
80.30	99.5249
80.57	98.4973
81.00	93.2088
81.07	93.2194
81.07	93.2194
81.07	93.2194
82.60	80.5576
83.37	89.2589
83.78	89.3168
83.78	89.3168
83.78	89.3168
84.21	95.8381
84.21	95.8381
84.90	93.7856
85.43	99.2572
86.29	90.7471
86.50	91.8572
86.54	91.8628
86.59	91.8698
86.72	92.9694
86.79	92.9790
86.94	95.1633
87.30	98.4621
87.30	98.4621
87.30	98.4621
87.30	98.4621
87.30	98.4621
87.30	98.4621
87.30	98.4621
87.57	100.6677
87.88	88.8025
88.03	88.8229
88.36	86.7000
88.47	86.7147
89.36	113.9663
89.95	136.8813
91.11	107.7364
92.29	91.5729
92.38	94.8558
92.38	94.8558
93.35	94.9916
94.00	108.1967
94.67	120.3354
94.67	120.3360
94.90	138.9799
94.90	138.9799
94.90	138.9799
95.87	138.0791
95.87	138.0791
96.73	110.8201
97.43	90.0625
98.44	95.6917
98.44	95.6917
98.88	104.5561
99.55	95.8421
99.55	95.8421
99.86	95.8837
100.00	94.8004
100.10	89.3015

103.18	91.8987
103.76	96.4046
105.00	88.7980
105.31	79.9519
108.00	111.4476
109.28	107.1724
110.05	0.0000
111.00	90.6323
111.00	90.6323
111.76	87.3624
112.95	121.1512
115.19	113.6265
115.19	113.6265
115.19	113.6265
116.30	108.1548
117.00	98.1024
117.00	98.1024
117.66	88.0277
121.11	117.8786
121.62	111.1482
121.78	111.1702
122.06	103.2651
122.32	103.2984
122.32	103.2984
122.32	103.2984
123.07	89.7594
127.23	113.0530
129.76	114.5406
131.20	117.0306
133.02	110.3818
133.54	102.3956
135.34	99.1506
136.00	95.7644
136.25	115.4124
136.48	115.4429
140.51	97.4172
140.51	0.0000
142.18	126.6477
142.65	127.8768
143.76	96.6079
144.24	87.3428
144.24	87.3428
144.24	87.3428
145.22	100.2616
145.44	100.2852
147.16	92.0048
152.43	93.4107
152.70	91.6744
153.22	100.5450
154.21	96.2365
154.21	96.2365
154.21	96.2365
155.03	86.5994
156.02	81.3823
158.56	93.1295
159.00	0.0000
159.00	91.3965
160.31	89.7435
161.27	83.6069
162.32	74.7926
162.64	68.5822
163.35	66.8495
163.89	79.3716
165.85	76.8490
167.43	93.0812
171.28	82.6570
171.86	86.2998
172.10	87.2195
176.55	80.3745
176.60	80.3785
181.06	98.6822
184.41	88.8044
185.71	92.0098
186.00	92.0352
186.21	96.2454
190.27	68.7966
192.34	95.3251
193.63	78.0021

197.04	78.2426
198.01	73.7042
198.60	76.5080
200.40	90.4806
201.83	107.2349
202.84	78.6473
205.31	89.9451
208.36	79.9571
208.81	76.2678
209.75	67.9518
209.75	67.9518
210.97	69.8868
215.65	72.9727
216.55	70.2192
218.09	77.8100
222.10	71.4866
223.80	66.8772
226.40	82.1234
227.00	88.7740
227.08	88.7805
227.20	88.7891
228.16	85.0768
228.18	85.0781
228.18	85.0781
231.56	65.4055
235.69	93.2021
236.00	86.5664
236.00	86.5664
238.63	75.3071
238.63	75.3071
238.63	75.3071
238.63	75.3071
239.00	75.3294
240.98	72.5813
241.98	86.0188
241.98	86.0188
241.98	86.0188
244.69	79.4963
245.39	85.2892
247.94	51.8503
248.90	59.5758
249.79	75.9623
252.40	82.8578
252.85	75.1757
252.85	75.1757
254.15	0.0000
256.20	85.0284
256.20	85.0284
260.50	63.0064
260.90	65.9341
262.80	63.1145
264.65	66.1168
268.24	71.1654
268.79	71.1933
269.46	63.4220
269.46	63.4220
269.46	63.4220
271.23	72.2961
273.65	60.6784
276.40	57.8558
277.35	58.8757
277.60	59.8682
277.60	59.8682
278.00	61.8484
278.60	56.9645
279.20	48.1454
279.53	48.1566
280.46	58.0223
281.68	62.0099
283.67	52.2398
284.30	45.3599
285.00	54.2615
285.90	55.2822
286.10	56.2772
286.10	56.2772
287.40	54.3521
288.45	0.0000
290.67	49.5224

290.80	49.5270
291.72	63.4346
293.26	59.5322
293.70	57.5655
295.21	48.6830
295.21	48.6830
295.21	48.6830
295.96	56.6599
296.50	54.6920
297.23	49.7444
298.57	58.7515
299.80	59.7968
299.80	59.7968
300.09	52.8310
300.09	52.8310
300.09	52.8310
300.09	52.8310
300.12	52.8318
301.29	46.8881
302.84	52.9288
303.76	50.9626
303.91	50.9673
304.40	41.9872
304.40	41.9872
304.84	40.9994
306.84	50.0656
308.46	47.1119
311.98	43.2021
316.51	59.4528
318.01	50.4326
319.02	56.5212
319.41	56.5358
320.08	66.6596
323.87	58.7222
323.87	58.7222
323.87	58.7222
325.23	61.8126
328.77	46.7173
329.70	41.6638
329.70	41.6638
330.00	48.7866
333.44	51.9471
334.20	52.9910
334.20	52.9910
334.30	52.9942
338.28	49.0386
338.28	49.0386
338.28	49.0386
338.32	49.0400
338.32	49.0400
340.50	50.1290
340.57	52.1774
343.40	46.1189
344.27	53.3211
345.85	55.4255
350.59	47.7615
351.07	54.3654
351.92	52.7445
351.92	52.7445
351.92	52.7445
355.39	0.0000
356.01	36.3510
364.48	50.8557
366.43	42.6016
367.43	59.2614
367.94	0.0000
369.80	53.0965
374.96	51.1660
383.85	43.0295
387.95	44.1809
388.63	48.4075
391.69	41.1108
391.69	41.1108
392.90	40.0839
398.62	50.7927
400.65	41.3149
401.10	38.1462
401.81	31.8008

402.60	25.4517
404.84	37.1624
410.95	35.1546
411.60	34.1011
413.65	30.9382
414.70	36.2926
415.30	30.9656
415.76	32.0412
417.63	0.0000
418.52	32.0883
423.70	24.6684
427.08	30.0845
427.89	37.6212
432.53	24.7825
433.00	30.1772
433.93	33.4266
439.47	27.0340
439.56	27.0351
439.89	30.2845
443.98	40.1023
444.90	40.1210
445.03	40.1238
445.03	40.1238
445.03	40.1238
453.90	40.3033
463.38	35.0215
468.07	25.2296
473.00	25.2903
475.06	30.8190
475.35	31.9243
476.78	30.8446
477.59	38.5712
477.96	38.5777
482.03	37.5491
484.57	35.3833
487.03	26.5686
490.36	28.8279
492.35	33.2945
497.08	41.1541
507.63	0.0000
510.53	0.0000
510.84	40.2984
511.00	41.4209
511.85	49.2761
511.85	49.2761
513.99	109.8590
513.99	109.8590
520.41	30.3560
520.65	30.3593
527.90	26.1715
528.96	0.0000
529.64	21.6762
529.87	0.0000
531.02	24.4009
537.32	30.8133
543.00	26.3478
546.56	0.0000
549.76	18.2246
552.65	20.9841
555.20	32.8816
563.23	33.9115
563.90	33.9215
568.70	19.2917
569.32	23.8913
569.50	25.7312
569.67	25.7332
573.80	33.1436
574.00	27.6218
574.64	30.3921
578.91	43.3637
579.30	0.0000
583.14	22.1818
585.48	24.9790
591.81	31.5372
592.07	33.3958
593.00	29.6969
595.88	20.4408
600.56	34.4436

602.52	0.0000
602.71	23.2928
602.71	23.2928
603.60	26.0976
604.41	41.0233
604.70	41.0287
609.31	31.7629
610.33	29.9070
612.46	37.4160
614.37	28.0833
618.01	26.2493
621.84	20.6556
621.84	20.6556
631.29	27.3298
633.02	27.3482
633.10	28.2920
634.78	22.6488
635.90	21.7147
636.97	26.4462
645.85	35.0669
646.12	35.0705
656.30	27.5953
657.75	21.8983
657.90	0.0000
661.65	21.9303
661.65	21.9303
664.57	20.9999
666.33	20.0587
666.33	20.0587
675.00	24.9158
677.61	25.8992
685.20	25.9723
692.80	26.0448
695.00	24.1351
696.49	26.0798
696.49	26.0798
697.00	27.0505
697.49	25.1228
698.33	27.0642
698.50	27.0655
699.00	24.1699
702.63	26.1378
706.10	26.1708
706.58	0.0000
706.67	19.3896
709.31	16.4970
711.68	30.1084
713.82	26.2433
717.42	20.4381
720.50	25.3316
721.93	26.3197
722.20	28.2715
722.78	26.3276
722.78	26.3276
722.89	26.3283
722.95	26.3290
723.30	28.2828
724.18	23.4135
727.18	24.4153
733.00	26.4226
735.90	19.5918
739.58	25.5023
742.81	16.6933
744.21	18.6665
747.13	21.6353
751.79	20.6852
752.31	17.7333
753.82	10.8426
755.35	15.7793
756.15	17.7565
756.87	20.7211
763.13	22.7434
763.93	24.7278
765.79	19.7944
766.42	12.8692
766.84	11.8811
776.49	15.8930
778.00	12.9197

778.57	11.9279
778.89	11.9294
783.80	7.9660
785.46	9.9629
792.07	22.9652
795.84	12.9965
796.30	13.9983
798.80	30.0212
801.93	22.0381
805.60	13.0381
810.29	26.1162
810.76	22.1015
815.85	20.1255
817.79	24.1658
818.51	21.1497
819.60	24.1799
826.30	16.1547
828.27	0.0000
831.60	23.2617
831.96	24.2754
834.83	10.1240
836.80	0.0000
846.75	20.3247
848.13	21.3502
856.28	0.0000
856.80	13.2526
860.37	18.3700
867.32	23.5233
867.82	20.4580
871.10	14.3353
873.19	21.5168
874.81	19.4773
875.33	0.0000
876.40	16.4098
879.36	15.3981
880.27	18.4830
880.51	18.4843
881.50	20.5439
883.24	14.3886
884.67	12.3384
889.25	20.5928
896.60	21.6701
898.02	17.5499
899.00	17.5553
903.28	25.1110
911.07	22.4548
911.07	22.4548
919.63	20.7803
920.93	22.8669
925.00	11.4471
925.24	9.3665
926.50	6.2467
935.52	11.4823
937.48	6.2667
944.10	12.5575
946.00	14.6583
949.00	12.5754
962.29	13.6751
964.01	14.7342
966.15	24.2208
968.20	18.9664
969.11	13.7017
969.11	13.7017
977.42	13.7338
980.50	7.4014
983.50	22.2233
989.30	7.4197
996.32	13.8065
1001.03	11.6977
1001.68	10.6360
1004.76	13.8385
1021.30	0.0000
1024.50	0.0000
1034.80	8.5859
1036.00	12.8830
1037.82	8.5930
1038.57	11.8175
1038.76	0.0000

1045.16	10.7622
1046.59	8.6133
1048.07	8.6164
1050.47	18.3215
1050.47	18.3215
1062.04	15.1348
1063.62	14.0594
1076.63	16.2781
1077.35	18.4518
1078.86	14.1159
1085.78	21.7559
1093.90	13.0811
1099.22	13.0986
1112.02	14.2372
1112.84	16.4304
1115.52	19.7306
1120.29	15.3645
1120.51	13.1701
1121.28	14.2702
1124.00	0.0000
1129.67	14.6673
1131.51	0.0000
1147.95	0.0000
1167.94	12.0309
1173.22	6.4865
1175.09	11.1245
1177.93	12.0600
1189.05	9.3022
1204.90	14.0063
1205.75	0.0000
1213.00	14.9688
1221.42	11.2490
1230.97	10.3349
1235.34	9.4051
1236.41	0.0000
1238.25	13.1757
1246.25	7.5433
1260.41	0.0000
1271.85	6.6394
1274.45	8.5415
1274.54	8.5415
1291.56	10.4803
1298.22	0.0000
1312.09	8.6144
1325.50	11.5200
1325.50	11.5200
1332.49	12.4996
1333.61	13.4639
1360.21	7.7386
1362.66	0.0000
1365.15	12.5890
1368.21	6.7830
1368.53	0.0000
1376.25	13.5898
1384.27	18.4751
1394.10	8.7697
1395.20	8.7719
1407.95	14.6588
1434.06	13.7568
1436.60	6.8821
1457.56	0.0000
1460.81	4.9404
1489.15	3.9751
1509.49	15.9655
1596.49	10.1493
1620.62	8.1569
1678.03	0.0000
1691.02	11.3630
1691.02	11.3630
1706.46	0.0000
1750.46	0.0000
1764.49	8.3734
1770.23	12.5728
1771.40	10.4793
1791.20	0.0000
1808.65	11.6025
1836.01	3.1792

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G242754003

Total Uranium Activity	2.9006E+01	ug/g
Total Uranium Counting Unc.	5.0575E+02	ug/g
Total Uranium Tpu	2.5803E-04	ug/g
Total Uranium Mda	4.0666E+02	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 933232                    SAMPLE ID  : G242754003       *
*   ANALYST       : KXG3                      DETECTOR   : GAM08            *
*   SAMPLE DATE   :  9-DEC-2009 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE: 18-DEC-2009 10:13:15.15    SAMPLE ALQT:    2.000 LITER   *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 3.575E+00
        GROSS GAMMA ERROR  (pCi/LITER )   : 6.190E+00
        GROSS GAMMA MDA    (pCi/LITER )   : 1.932E+01
        GROSS GAMMA DLC    (pCi/LITER )   : 9.071E+00
```

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 03:04:43.34

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G242789002.CNF;1
Sample date       : 10-DEC-2009 12:00:00 Acquisition date : 17-DEC-2009 23:04:14
Sample ID         : G242789002           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM10                Detector geometry: 2LMB
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:00.90  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 933232                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	185.59*	12	263	1.05	371.14	367	9	8.61E-04	262.5	
2	0	198.63*	46	212	0.98	397.19	393	8	3.18E-03	63.7	
3	4	238.57*	3	201	1.27	477.00	471	18	2.31E-04	815.0	2.26E+00
4	4	242.03	74	254	1.72	483.92	471	18	5.14E-03	41.3	
5	0	295.21*	148	151	1.14	590.21	586	9	1.03E-02	18.2	
6	0	351.91*	292	133	1.30	703.52	696	16	2.03E-02	11.3	
7	0	583.68*	24	62	1.55	1166.81	1159	13	1.68E-03	77.5	
8	0	609.82*	208	45	1.16	1219.06	1213	13	1.45E-02	10.9	
9	0	1121.95*	43	37	2.40	2243.10	2236	20	3.01E-03	45.5	
10	0	1765.98*	52	4	3.42	3531.54	3525	14	3.64E-03	19.9	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 18-DEC-2009 03:04:46

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G242789002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 10-DEC-2009 12:00:00 Acquisition date : 17-DEC-2009 23:04:14
Sample ID : G242789002 Sample quantity : 2.0000 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA10 Detector geometry: 2LMB
Elapsed live time: 0 04:00:00.00 Elapsed real time: 0 04:00:00.90 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BI-211		72.87		2.620E+01	3.020E+02	5.018E+02	3.705E+01	0.052
	+	351.07	*	1.313E+02	3.086E+01	2.018E+01	1.342E+00	6.509
BI-214	+	609.31	*	3.886E+01	8.988E+00	6.153E+00	4.582E-01	6.316
		1120.29		2.837E+01	2.691E+01	3.886E+01	3.529E+00	0.730
	+	1764.49		6.413E+01	2.584E+01	2.300E+01	1.367E+00	2.788
RA-224	+	240.98	*	8.647E+01	7.156E+01	7.087E+01	3.961E+00	1.220
RA-226	+	186.21	*	1.519E+01	8.052E+01	7.920E+01	5.811E+01	0.192

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	4.646E+00	1.832E+01	3.024E+01	2.095E+00	0.154
NA-22		1274.54	*	-1.982E+00	2.146E+00	3.070E+00	1.968E-01	-0.646
NA-24		1368.53	*	5.619E-04	2.146E+00	Half-Life too short		
AL-26		1129.67		-7.753E+01	1.033E+02	1.287E+02	7.889E+00	-0.602
		1808.65	*	-9.106E-01	2.253E+00	3.354E+00	1.941E-01	-0.272
K-40		1460.81	*	-1.530E+01	3.163E+01	4.905E+01	3.429E+00	-0.312
TI-44		67.85		-3.708E+00	4.962E+00	7.938E+00	5.873E-01	-0.467
		78.38	*	2.136E+00	3.054E+00	5.196E+00	3.858E-01	0.411
SC-46		889.25	*	-4.430E-01	2.021E+00	3.211E+00	2.423E-01	-0.138
	+	1120.51		6.488E+00	5.916E+00	6.239E+00	3.874E-01	1.040
V-48		944.10		1.318E+01	3.590E+01	6.105E+01	4.543E+00	0.216
		983.50	*	2.612E-01	2.807E+00	4.608E+00	3.329E-01	0.057
		1312.09		-1.913E-01	2.886E+00	4.742E+00	3.154E-01	-0.040
CR-51		320.08	*	-1.670E+01	1.950E+01	3.034E+01	2.004E+00	-0.551
MN-52		744.21		4.314E+00	5.110E+00	9.197E+00	5.338E-01	0.469
		848.13		-4.296E+01	1.393E+02	2.196E+02	1.543E+01	-0.196
		935.52		7.283E+00	5.528E+00	1.032E+01	7.723E-01	0.706
		1246.25		-2.949E+01	1.310E+02	2.117E+02	1.314E+01	-0.139
		1333.61		7.359E+01	1.043E+02	1.901E+02	1.291E+01	0.387
		1434.06	*	7.272E-02	5.578E+00	9.211E+00	6.183E-01	0.008
MN-54		834.83	*	2.851E-01	2.094E+00	3.490E+00	2.396E-01	0.082
CO-56		846.75	*	1.519E+00	1.932E+00	3.463E+00	2.428E-01	0.439

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		977.42		-7.697E+01	1.717E+02	2.637E+02	1.914E+01	-0.292
		1037.82		-3.006E+00	1.424E+01	2.226E+01	1.655E+00	-0.135
		1175.09		4.686E+01	9.299E+01	1.660E+02	9.508E+00	0.282
		1238.25		-1.371E+00	4.690E+00	6.657E+00	4.325E-01	-0.206
		1360.21		-2.870E+01	4.833E+01	7.170E+01	4.860E+00	-0.400
		1771.40		-6.123E+00	1.612E+01	1.959E+01	1.160E+00	-0.313
CO-57		122.06	*	-6.334E-02	1.948E+00	3.152E+00	1.988E-01	-0.020
		136.48		-1.805E+01	1.674E+01	2.549E+01	1.713E+00	-0.708
CO-58		810.76	*	1.040E+00	1.989E+00	3.466E+00	2.288E-01	0.300
FE-59		142.65		-2.785E+02	2.129E+02	3.010E+02	1.699E+01	-0.925
		192.34		3.298E+01	6.147E+01	1.000E+02	1.158E+01	0.330
		1099.22	*	4.688E+00	4.745E+00	8.511E+00	6.220E-01	0.551
		1291.56		-2.650E+00	5.876E+00	9.153E+00	7.313E-01	-0.289
CO-60		1173.22		9.517E-02	2.117E+00	3.565E+00	2.038E-01	0.027
		1332.49	*	5.978E-01	1.987E+00	3.446E+00	2.340E-01	0.173
ZN-65		1115.52	*	-2.643E+00	5.457E+00	6.819E+00	4.273E-01	-0.388
GE-68		1077.35	*	-7.215E+01	6.991E+01	9.593E+01	6.304E+00	-0.752
AS-73		53.44	*	4.395E+01	1.406E+02	2.385E+02	1.992E+01	0.184
AS-74		595.88	*	2.910E+00	4.456E+00	7.861E+00	4.277E-01	0.370
		634.78		3.318E+00	1.625E+01	2.770E+01	1.426E+00	0.120
SE-75		66.05		2.152E+02	5.417E+02	9.146E+02	8.649E+01	0.235
		96.73		-3.744E+01	6.047E+01	9.562E+01	1.206E+01	-0.392
		121.11		1.961E+00	1.015E+01	1.661E+01	1.587E+00	0.118
		136.00		2.493E-01	2.951E+00	4.777E+00	2.818E-01	0.052
	+	198.60		1.365E+02	1.741E+02	2.222E+02	1.502E+01	0.614
		264.65	*	-3.298E-01	2.515E+00	4.175E+00	2.414E-01	-0.079
		279.53		1.186E+00	6.840E+00	1.153E+01	7.224E-01	0.103
		303.91		-2.006E+01	1.376E+02	2.266E+02	2.177E+01	-0.089
		400.65		4.213E+00	1.432E+01	2.396E+01	2.227E+00	0.176
BR-77		87.88		-1.687E+02	1.589E+03	2.599E+03	1.997E+02	-0.065
		200.40		9.464E+02	1.484E+03	2.174E+03	1.165E+02	0.435
	+	239.00		5.908E+00	9.631E+01	1.207E+02	6.735E+00	0.049
		249.79		2.742E+02	4.918E+02	8.495E+02	4.791E+01	0.323
		281.68		-1.091E+02	6.498E+02	1.074E+03	6.233E+01	-0.102
		297.23		4.360E+02	5.105E+02	7.423E+02	4.362E+01	0.587
		303.76		-4.192E+02	1.344E+03	2.191E+03	1.293E+02	-0.191
		439.47		4.279E+01	1.016E+03	1.655E+03	1.006E+02	0.026
		484.57		7.722E+02	1.476E+03	2.497E+03	1.495E+02	0.309
		520.65	*	-1.232E+01	6.523E+01	1.026E+02	6.012E+00	-0.120
		574.64		5.099E+02	1.409E+03	2.443E+03	1.363E+02	0.209
		578.91		-4.409E+02	6.633E+02	8.960E+02	4.975E+01	-0.492
		585.48		1.466E+03	1.218E+03	2.025E+03	1.116E+02	0.724
		755.35		-4.688E+02	9.244E+02	1.436E+03	8.515E+01	-0.326
		817.79		-1.112E+02	7.619E+02	1.231E+03	8.195E+01	-0.090
SR-82		698.33		-5.338E+01	1.699E+03	2.820E+03	1.495E+02	-0.019
		776.49	*	1.067E+01	1.611E+01	2.855E+01	1.762E+00	0.374
		1395.20		2.768E+02	5.561E+02	9.808E+02	6.623E+01	0.282
RB-83		520.41	*	-3.653E-01	3.769E+00	5.990E+00	3.510E-01	-0.061
		529.64		4.034E-01	6.674E+00	1.076E+01	6.261E-01	0.037

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		552.65		-2.605E+00	1.008E+01	1.563E+01	8.917E-01	-0.167
RB-84		881.50	*	-1.657E+00	3.193E+00	4.862E+00	3.620E-01	-0.341
KR-85		513.99	*	-2.717E+02	6.468E+02	1.013E+03	5.960E+01	-0.268
SR-85		513.99	*	-1.286E+00	3.061E+00	4.793E+00	2.821E-01	-0.268
RB-86		1076.63	*	-2.212E+01	3.387E+01	4.960E+01	3.262E+00	-0.446
Y-88		898.02		-1.037E-01	2.507E+00	4.077E+00	3.141E-01	-0.025
		1836.01	*	1.014E-01	2.344E+00	3.814E+00	2.173E-01	0.027
ZR-88		392.90	*	-9.382E-01	1.897E+00	2.987E+00	1.819E-01	-0.314
Y-91		1204.90	*	-2.976E+02	7.859E+02	1.247E+03	7.390E+01	-0.239
NB-94		702.63	*	8.362E-01	2.014E+00	3.473E+00	1.857E-01	0.241
		871.10		2.109E+00	1.857E+00	3.436E+00	2.513E-01	0.614
NB-95		765.79	*	-1.636E-01	2.433E+00	3.996E+00	2.418E-01	-0.041
NB-95M		235.69	*	1.190E+00	7.760E+00	1.166E+01	8.563E-01	0.102
ZR-95		724.18		1.745E+00	4.603E+00	7.927E+00	5.291E-01	0.220
		756.15	*	-1.853E+00	3.388E+00	5.237E+00	3.744E-01	-0.354
NB-97		657.90	*	-8.168E-04	3.388E+00	Half-Life too short		
		1024.50		7.422E-02	3.388E+00	Half-Life too short		
ZR-97		254.15		-1.086E-01	3.388E+00	Half-Life too short		
		355.39		-6.370E-02	3.388E+00	Half-Life too short		
		507.63	*	-2.648E-01	3.388E+00	Half-Life too short		
		602.52		3.094E-02	3.388E+00	Half-Life too short		
		1021.30		-5.618E-02	3.388E+00	Half-Life too short		
		1147.95		5.411E-02	3.388E+00	Half-Life too short		
		1362.66		7.920E-02	3.388E+00	Half-Life too short		
		1750.46		-1.026E-01	3.388E+00	Half-Life too short		
MO-99		140.51		1.023E+02	3.098E+02	5.044E+02	1.358E+02	0.203
		181.06		-4.983E+01	2.035E+02	2.819E+02	4.784E+01	-0.177
		366.43		5.582E+01	8.286E+02	1.368E+03	8.301E+01	0.041
		739.58	*	-1.437E+01	1.008E+02	1.647E+02	2.266E+01	-0.087
		778.00		4.159E+01	2.540E+02	4.275E+02	2.646E+01	0.097
TC-99M		140.51	*	7.329E+02	2.540E+02	Half-Life too short		
RH-101		127.23		-6.899E-01	2.441E+00	3.891E+00	2.369E-01	-0.177
	+	198.01	*	2.607E+00	3.323E+00	4.215E+00	2.252E-01	0.619
		325.23		1.871E+01	1.556E+01	2.744E+01	1.640E+00	0.682
RH-102		418.52		-5.741E+00	1.860E+01	2.956E+01	1.801E+00	-0.194
		475.06	*	3.004E-01	1.808E+00	2.964E+00	1.782E-01	0.101
		631.29		-4.214E-02	3.286E+00	5.499E+00	2.846E-01	-0.008
		697.49		1.938E-01	4.636E+00	7.743E+00	4.097E-01	0.025
		766.84		3.141E+00	6.021E+00	1.045E+01	6.333E-01	0.301
		1046.59		1.671E+00	6.619E+00	1.102E+01	7.500E-01	0.152
		1112.84		3.205E+00	1.116E+01	1.865E+01	1.171E+00	0.172
RU-103		497.08	*	5.633E-01	2.156E+00	3.556E+00	4.520E-01	0.158
	+	610.33		3.670E+02	9.793E+01	1.379E+02	2.103E+01	2.661
RH-106		511.85		-5.521E+01	1.940E+01	2.815E+01	1.659E+00	-1.961
		621.84	*	-2.957E+00	1.761E+01	2.905E+01	3.333E+00	-0.102
		1050.47		-4.221E+01	1.297E+02	1.922E+02	1.302E+01	-0.220
RU-106		511.85		-5.521E+01	1.940E+01	2.815E+01	1.659E+00	-1.961
		621.84	*	-2.957E+00	1.760E+01	2.905E+01	1.525E+00	-0.102
		1050.47		-4.221E+01	1.297E+02	1.922E+02	1.302E+01	-0.220

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AG-108M		433.93	*	1.196E+00	2.311E+00	3.589E+00	2.354E-01	0.333
		614.37		1.921E-01	2.302E+00	3.403E+00	1.988E-01	0.056
		722.95		8.168E-01	2.345E+00	4.023E+00	2.445E-01	0.203
CD-109		88.03	*	-1.516E+01	6.645E+01	1.081E+02	8.304E+00	-0.140
AG-110M		657.75	*	-3.976E-01	1.803E+00	2.943E+00	1.585E-01	-0.135
		677.61		1.474E+01	1.592E+01	2.900E+01	1.590E+00	0.508
		706.67		1.146E+00	1.168E+01	1.960E+01	1.129E+00	0.058
		763.93		-2.986E+00	8.959E+00	1.429E+01	9.106E-01	-0.209
		884.67		-7.953E-01	2.588E+00	4.061E+00	3.169E-01	-0.196
		937.48		5.449E-01	6.387E+00	1.050E+01	8.228E-01	0.052
		1384.27		-1.377E+01	9.897E+00	1.274E+01	9.007E-01	-1.080
IN-111		171.28		-4.795E-01	1.186E+01	1.886E+01	9.880E-01	-0.025
		245.39	*	5.130E+00	1.215E+01	1.857E+01	1.043E+00	0.276
IN-113M		391.69	*	3.896E-01	2.825E+00	4.668E+00	3.016E-01	0.083
SN-113		391.69	*	3.896E-01	2.825E+00	4.668E+00	3.016E-01	0.083
IN-114M		190.27	*	-9.927E+00	1.382E+01	1.842E+01	9.774E-01	-0.539
CD-115		260.90		-9.093E+01	7.847E+02	1.306E+03	7.445E+01	-0.070
		492.35		-8.947E+00	2.029E+02	3.256E+02	1.941E+01	-0.027
		527.90	*	1.694E+01	6.552E+01	1.076E+02	6.268E+00	0.157
SN-117M		156.02		-5.261E+01	1.173E+02	1.834E+02	9.876E+00	-0.287
		158.56	*	1.048E+00	2.866E+00	4.668E+00	2.494E-01	0.225
SB-122		563.90	*	-6.389E-02	1.796E+01	2.866E+01	1.617E+00	-0.002
		692.80		-1.196E+02	3.518E+02	5.661E+02	2.967E+01	-0.211
I-123		159.00	*	1.462E-02	3.518E+02	Half-Life too short		
		528.96		-6.228E-01	3.518E+02	Half-Life too short		
TE-123M		159.00	*	1.071E+00	2.090E+00	3.427E+00	1.857E-01	0.312
I-124		602.71	*	5.566E-01	1.115E+01	1.780E+01	9.602E-01	0.031
		722.78		2.294E+01	6.918E+01	1.185E+02	6.596E+00	0.194
		1325.50		-3.068E+02	4.404E+02	6.340E+02	4.276E+01	-0.484
		1376.25		1.518E+02	4.862E+02	8.388E+02	5.677E+01	0.181
		1509.49		-1.829E+01	2.917E+02	4.742E+02	3.132E+01	-0.039
		1691.02		8.531E-01	7.660E+01	1.247E+02	7.708E+00	0.007
SB-124		602.71		1.047E-01	2.098E+00	3.350E+00	1.808E-01	0.031
		645.85		9.875E+00	2.771E+01	4.782E+01	2.818E+00	0.207
		709.31		-8.939E+01	1.436E+02	2.234E+02	1.210E+01	-0.400
		713.82		7.622E+01	9.034E+01	1.611E+02	1.616E+01	0.473
		722.78		6.258E+00	1.887E+01	3.233E+01	1.891E+00	0.194
		968.20		8.442E+01	1.221E+02	2.141E+02	1.566E+01	0.394
		1045.16		6.311E+01	1.347E+02	2.296E+02	1.565E+01	0.275
		1325.50		-8.940E+01	1.283E+02	1.847E+02	1.246E+01	-0.484
		1368.21		1.115E+00	8.179E+01	1.356E+02	1.679E+01	0.008
		1436.60		2.054E-02	2.285E+02	3.764E+02	2.526E+01	0.000
		1691.02	*	5.490E-02	4.929E+00	8.027E+00	5.335E-01	0.007
SB-125		427.89	*	3.230E+00	5.727E+00	9.739E+00	6.158E-01	0.332
		463.38		1.391E+01	1.631E+01	2.829E+01	1.972E+00	0.492
		600.56		-5.840E+00	1.147E+01	1.851E+01	1.180E+00	-0.315
		635.90		7.898E+00	1.634E+01	2.852E+01	1.779E+00	0.277
TE-125M		109.28	*	-1.710E+02	6.713E+02	1.079E+03	9.222E+01	-0.158
I-126		388.63		5.451E+00	8.985E+00	1.533E+01	9.336E-01	0.356

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		666.33	*	2.737E+00	7.286E+00	1.256E+01	6.232E-01	0.218
		753.82		-3.608E+01	4.888E+01	7.336E+01	4.337E+00	-0.492
SB-126		223.80		-9.963E+00	1.679E+02	2.828E+02	1.552E+01	-0.035
		278.60		-2.270E+01	1.035E+02	1.705E+02	9.876E+00	-0.133
	+	296.50		2.592E+02	9.560E+01	1.353E+02	7.943E+00	1.917
		414.70		-8.234E-01	3.226E+00	5.154E+00	3.141E-01	-0.160
		415.30		-1.342E+02	2.705E+02	4.237E+02	2.582E+01	-0.317
		555.20		-1.064E+02	1.639E+02	2.443E+02	1.390E+01	-0.436
		573.80		1.499E+01	4.247E+01	7.359E+01	4.109E+00	0.204
		593.00		-4.818E+01	3.769E+01	5.610E+01	3.064E+00	-0.859
		656.30		4.905E+01	1.164E+02	2.027E+02	1.006E+01	0.242
		666.33		1.124E+00	2.992E+00	5.158E+00	2.559E-01	0.218
		675.00		1.594E+00	7.155E+01	1.196E+02	6.043E+00	0.013
		695.00		8.587E-01	2.930E+00	5.010E+00	2.638E-01	0.171
		697.00		5.900E+00	1.038E+01	1.816E+01	9.597E-01	0.325
		720.50	*	-2.149E-01	5.325E+00	8.805E+00	4.878E-01	-0.024
		856.80		1.425E+00	1.593E+01	2.641E+01	1.884E+00	0.054
		989.30		-3.138E+01	4.351E+01	6.304E+01	4.531E+00	-0.498
		1034.80		-3.688E+02	2.857E+02	3.587E+02	2.471E+01	-1.028
		1213.00		4.458E+01	1.491E+02	2.577E+02	1.541E+01	0.173
SN-126		64.28		-7.362E+00	6.678E+01	1.044E+02	1.517E+01	-0.070
		86.94		1.892E+00	2.836E+01	4.675E+01	1.925E+01	0.040
		87.57	*	1.463E+00	6.703E+00	1.112E+01	8.533E-01	0.132
SB-127		61.10		-2.231E+03	1.862E+03	2.913E+03	2.370E+02	-0.766
		252.40		1.606E+01	7.571E+01	1.280E+02	5.257E+01	0.125
		290.80		-3.883E+02	4.203E+02	5.676E+02	3.877E+01	-0.684
		411.60		2.501E+02	2.017E+02	3.544E+02	4.652E+01	0.706
		444.90		4.485E+01	1.551E+02	2.577E+02	2.331E+01	0.174
		473.00		-2.333E+01	2.774E+01	4.131E+01	3.911E+00	-0.565
		543.00		9.516E+01	2.824E+02	4.655E+02	5.271E+01	0.204
		603.60		-1.087E+02	1.957E+02	2.659E+02	2.277E+01	-0.409
		685.20	*	9.791E+00	1.879E+01	3.293E+01	2.187E+00	0.297
		698.50		-8.206E+00	2.354E+02	3.904E+02	5.033E+01	-0.021
		722.20		-6.000E+01	4.227E+02	6.917E+02	4.554E+01	-0.087
		783.80		1.158E+01	4.733E+01	8.026E+01	7.233E+00	0.144
XE-127		57.60		1.467E+02	7.499E+02	1.263E+03	9.553E+01	0.116
		145.22		2.036E+01	4.568E+01	7.499E+01	4.191E+00	0.272
		172.10		-2.444E+00	7.901E+00	1.238E+01	6.488E-01	-0.197
		202.84	*	-9.052E-01	3.140E+00	4.623E+00	2.483E-01	-0.196
		374.96		4.618E+00	1.076E+01	1.820E+01	1.107E+00	0.254
I-131		80.18		-1.438E+02	1.996E+02	3.171E+02	2.369E+01	-0.453
		284.30		1.286E+00	5.321E+01	8.886E+01	5.696E+00	0.014
		364.48	*	1.001E+00	4.056E+00	6.779E+00	4.515E-01	0.148
		636.97		-3.795E+01	4.886E+01	7.583E+01	4.431E+00	-0.500
		722.89		7.011E+01	2.047E+02	3.511E+02	1.962E+01	0.200
TE-132		49.72		-4.096E+02	7.509E+02	1.225E+03	1.161E+02	-0.334
		111.76		6.107E+02	4.624E+02	7.974E+02	5.706E+01	0.766
		116.30		4.351E+02	4.268E+02	7.265E+02	5.166E+01	0.599
		228.16	*	-1.405E+00	8.656E+00	1.448E+01	1.890E+00	-0.097

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BA-133		53.15		3.821E+02	6.494E+02	1.114E+03	9.365E+01	0.343
		79.62		-1.427E+02	1.152E+02	1.757E+02	2.564E+01	-0.812
		81.00		-9.691E+00	8.895E+00	1.271E+01	1.943E+00	-0.762
		276.40		-8.623E+00	2.378E+01	3.884E+01	5.032E+00	-0.222
		302.84		-1.320E+00	9.693E+00	1.597E+01	1.870E+00	-0.083
		356.01	*	-9.002E-01	3.255E+00	4.571E+00	5.343E-01	-0.197
		383.85		-1.406E+01	1.896E+01	2.914E+01	3.214E+00	-0.483
I-133		510.53		-2.656E-01	1.896E+01	Half-Life too short		
		529.87	*	3.472E-04	1.896E+01	Half-Life too short		
		706.58		3.777E-03	1.896E+01	Half-Life too short		
		856.28		6.045E-03	1.896E+01	Half-Life too short		
		875.33		-8.140E-03	1.896E+01	Half-Life too short		
		1236.41		-1.437E-02	1.896E+01	Half-Life too short		
		1298.22		-2.200E-02	1.896E+01	Half-Life too short		
CS-134		475.35		6.898E+01	1.147E+02	1.953E+02	1.174E+01	0.353
		563.23		-8.176E+00	2.306E+01	3.554E+01	2.051E+00	-0.230
		569.32		-2.161E+00	1.493E+01	1.914E+01	1.108E+00	-0.113
		604.70		-6.786E-01	2.026E+00	2.828E+00	1.531E-01	-0.240
		795.84	*	2.271E+00	2.258E+00	4.146E+00	2.688E-01	0.548
		801.93		-1.463E+01	2.460E+01	3.455E+01	2.258E+00	-0.423
		1038.57		-2.083E+01	1.951E+02	3.102E+02	2.129E+01	-0.067
		1167.94		1.129E+01	1.143E+02	1.940E+02	1.119E+01	0.058
		1365.15		3.376E+01	6.606E+01	1.178E+02	8.564E+00	0.286
CS-135		268.24	*	2.741E+00	9.247E+00	1.575E+01	1.199E+00	0.174
I-135		288.45		-1.340E+03	9.247E+00	Half-Life too short		
		417.63		-3.986E+03	9.247E+00	Half-Life too short		
		546.56		5.594E+02	9.247E+00	Half-Life too short		
		836.80		1.345E+03	9.247E+00	Half-Life too short		
		1038.76		-5.696E+02	9.247E+00	Half-Life too short		
		1124.00		1.493E+04	9.247E+00	Half-Life too short		
		1131.51		2.440E+02	9.247E+00	Half-Life too short		
		1260.41	*	-1.117E+03	9.247E+00	Half-Life too short		
		1457.56		-6.235E+03	9.247E+00	Half-Life too short		
		1678.03		-4.698E+03	9.247E+00	Half-Life too short		
		1706.46		3.610E+03	9.247E+00	Half-Life too short		
		1791.20		1.268E+03	9.247E+00	Half-Life too short		
CS-136		66.91		4.444E+01	5.729E+01	9.781E+01	1.446E+01	0.454
		86.29		4.747E+01	6.067E+01	1.027E+02	1.254E+01	0.462
		153.22		-1.089E+01	3.297E+01	5.192E+01	3.595E+00	-0.210
		163.89		2.887E+01	5.257E+01	8.633E+01	5.888E+00	0.334
		176.55		-4.981E+00	1.856E+01	2.911E+01	1.754E+00	-0.171
		273.65		-2.996E+00	1.926E+01	3.190E+01	2.098E+00	-0.094
		340.57		-9.979E-01	5.332E+00	8.692E+00	5.532E-01	-0.115
		818.51		-9.892E-02	2.657E+00	4.351E+00	2.902E-01	-0.023
		1048.07	*	1.647E+00	4.197E+00	7.102E+00	5.146E-01	0.232
		1235.34		-1.223E+01	1.681E+01	2.519E+01	2.564E+00	-0.486
BA-137M		661.65	*	-1.821E+00	1.973E+00	2.982E+00	1.465E-01	-0.611
CS-137		661.65	*	-1.925E+00	2.086E+00	3.152E+00	1.558E-01	-0.611
CE-139		165.85	*	-1.888E+00	2.113E+00	3.204E+00	1.677E-01	-0.589

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BA-140		162.64		2.577E+01	3.687E+01	6.098E+01	3.698E+00	0.423
		304.84		2.159E+01	5.760E+01	9.727E+01	2.657E+01	0.222
		423.70		1.550E+01	8.198E+01	1.352E+02	4.304E+01	0.115
		537.32	*	-2.979E-01	1.117E+01	1.784E+01	5.801E+00	-0.017
LA-140		328.77		-6.054E-01	1.295E+01	2.135E+01	1.423E+00	-0.028
		432.53		-5.137E+01	1.005E+02	1.438E+02	9.588E+00	-0.357
		487.03		-4.635E+00	5.778E+00	8.603E+00	5.784E-01	-0.539
		751.79		-3.623E+00	5.889E+01	9.679E+01	6.941E+00	-0.037
		815.85		-6.224E+00	1.117E+01	1.705E+01	1.344E+00	-0.365
		867.82		-3.966E+01	5.280E+01	7.835E+01	6.118E+00	-0.506
		919.63		1.923E+01	1.062E+02	1.769E+02	1.735E+01	0.109
		925.24		-1.965E+01	4.075E+01	6.208E+01	5.059E+00	-0.316
		1596.49	*	4.250E-01	3.391E+00	5.658E+00	3.638E-01	0.075
CE-141		145.44	*	5.155E-01	4.080E+00	6.596E+00	3.841E-01	0.078
CE-143		57.37		4.625E+02	3.342E+03	5.616E+03	4.994E+02	0.082
		231.56		1.220E+02	3.520E+03	5.754E+03	1.775E+03	0.021
		293.26	*	5.373E+02	2.376E+02	3.657E+02	7.481E+01	1.469
	+	350.59		2.241E+04	8.476E+03	6.419E+03	1.950E+03	3.491
		490.36		2.332E+03	3.965E+03	6.619E+03	2.048E+03	0.352
		664.57		2.687E+03	1.784E+03	3.018E+03	9.508E+02	0.890
		721.93		-6.147E+02	1.675E+03	2.662E+03	7.556E+02	-0.231
CE-144		80.11		-3.012E+02	1.838E+02	2.772E+02	2.066E+01	-1.087
		133.54	*	1.063E+01	1.553E+01	2.579E+01	3.671E+00	0.412
PM-144		476.78		1.998E+00	4.157E+00	6.994E+00	4.975E-01	0.286
		618.01		-1.619E-01	1.753E+00	2.915E+00	1.649E-01	-0.056
		696.49	*	1.126E+00	1.993E+00	3.486E+00	1.841E-01	0.323
		778.57		-6.175E+01	1.167E+02	1.801E+02	1.116E+01	-0.343
PR-144		696.49	*	7.598E+01	1.345E+02	2.353E+02	1.242E+01	0.323
		1489.15		3.732E+02	7.717E+02	1.358E+03	9.016E+01	0.275
PM-146		453.90	*	-2.123E+00	2.834E+00	4.287E+00	3.771E-01	-0.495
		633.02		7.201E+01	9.045E+01	1.550E+02	5.693E+01	0.465
		735.90		6.996E+00	8.556E+00	1.499E+01	4.176E+00	0.467
		747.13		-3.528E-03	5.208E+00	8.623E+00	1.080E+00	0.000
ND-147		91.11		-2.536E+01	1.643E+01	2.439E+01	1.993E+00	-1.040
		319.41		-6.945E+01	1.288E+02	2.052E+02	1.223E+01	-0.338
		439.89		-3.014E+01	2.326E+02	3.736E+02	2.271E+01	-0.081
		531.02	*	1.380E+00	2.399E+01	3.864E+01	5.227E+00	0.036
PM-149		285.90	*	4.738E+01	5.695E+02	9.539E+02	1.351E+02	0.050
EU-152		121.78		1.292E+00	5.720E+00	9.374E+00	7.494E-01	0.138
		244.69		1.293E+01	2.404E+01	3.703E+01	2.078E+00	0.349
		344.27	*	2.599E+00	6.481E+00	1.063E+01	7.168E-01	0.244
		443.98		-1.685E+00	5.983E+01	9.687E+01	5.882E+00	-0.017
		778.89		-1.517E+01	1.443E+01	2.078E+01	1.288E+00	-0.730
		867.32		-3.495E+01	4.626E+01	6.843E+01	4.973E+00	-0.511
		964.01		-1.795E+01	1.570E+01	2.178E+01	1.598E+00	-0.824
		1085.78		-8.994E+00	2.148E+01	3.249E+01	2.113E+00	-0.277
		1112.02		-4.436E+00	1.627E+01	2.509E+01	1.577E+00	-0.177
		1407.95		8.616E+00	1.291E+01	2.298E+01	1.549E+00	0.375
GD-153		69.67		-9.994E+01	1.640E+02	2.639E+02	1.950E+01	-0.379

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		83.37		-1.052E+03	1.411E+03	2.035E+03	1.532E+02	-0.517
		97.43	*	-2.278E+00	6.394E+00	1.028E+01	7.051E-01	-0.222
		103.18		-5.266E+00	9.340E+00	1.338E+01	8.809E-01	-0.393
EU-154		123.07		-4.496E-01	4.109E+00	6.619E+00	6.415E-01	-0.068
		247.94		-2.384E+01	2.547E+01	3.892E+01	3.673E+00	-0.613
		591.81		-4.602E+01	3.769E+01	5.602E+01	5.367E+00	-0.822
		723.30		-4.537E-01	9.876E+00	1.632E+01	1.125E+00	-0.028
		756.87		-1.096E+01	4.018E+01	6.434E+01	6.577E+00	-0.170
		873.19		-4.684E+00	1.754E+01	2.781E+01	3.165E+00	-0.168
		996.32		7.353E+00	2.191E+01	3.685E+01	6.301E+00	0.200
		1004.76		1.257E+00	1.160E+01	1.905E+01	2.011E+00	0.066
		1274.45	*	-4.943E+00	5.996E+00	8.718E+00	8.477E-01	-0.567
EU-155		48.70		-5.768E+02	4.887E+02	7.672E+02	6.836E+01	-0.752
		60.01		-8.298E+02	6.633E+02	1.036E+03	7.534E+01	-0.801
		86.54		4.281E+00	8.165E+00	1.373E+01	1.062E+00	0.312
		105.31	*	4.223E+00	8.611E+00	1.438E+01	9.558E-01	0.294
TB-160		86.79		5.363E-01	2.042E+01	3.362E+01	2.569E+00	0.016
		197.04		2.598E+00	4.921E+01	6.413E+01	3.424E+00	0.041
		215.65		-1.639E+01	4.485E+01	7.449E+01	4.054E+00	-0.220
		298.57		2.913E-01	7.775E+00	1.141E+01	6.708E-01	0.026
		879.36	*	3.092E+00	6.766E+00	1.171E+01	8.686E-01	0.264
		962.29		6.935E+00	2.571E+01	4.311E+01	3.167E+00	0.161
		966.15		-4.125E+00	9.787E+00	1.508E+01	1.104E+00	-0.274
		1177.93		-6.396E+00	1.453E+01	2.277E+01	1.308E+00	-0.281
		1271.85		1.456E+00	3.271E+01	5.477E+01	3.493E+00	0.027
HO-166M		80.57		-1.931E+01	2.237E+01	3.522E+01	2.629E+00	-0.548
	+	184.41		6.919E-01	3.633E+00	4.437E+00	2.343E-01	0.156
		280.46		3.539E-01	5.597E+00	9.374E+00	5.438E-01	0.038
		410.95		3.588E+00	1.607E+01	2.665E+01	1.624E+00	0.135
		711.68	*	-8.114E-01	3.603E+00	5.857E+00	3.189E-01	-0.139
		752.31		-4.905E+00	1.434E+01	2.278E+01	1.343E+00	-0.215
		810.29		1.330E+00	3.270E+00	5.628E+00	3.697E-01	0.236
TM-171		51.35		4.945E+03	5.697E+03	9.899E+03	8.627E+02	0.500
		52.39		2.809E+03	2.907E+03	5.060E+03	4.323E+02	0.555
		59.40		-9.795E+02	3.439E+03	5.655E+03	4.103E+02	-0.173
		66.72	*	3.033E+03	3.098E+03	5.356E+03	3.965E+02	0.566
HF-175		89.36		-2.526E+02	1.168E+02	1.710E+02	1.288E+01	-1.477
		343.40	*	-7.831E-02	2.172E+00	3.574E+00	2.154E-01	-0.022
		433.00		1.489E+01	1.427E+02	2.146E+02	1.306E+01	0.069
LU-176		88.36		-1.030E+01	1.567E+01	2.494E+01	1.906E+00	-0.413
		201.83		-2.451E-01	2.204E+00	3.283E+00	1.761E-01	-0.075
		306.84	*	3.044E-01	1.701E+00	2.854E+00	1.688E-01	0.107
		401.10		3.873E+02	3.814E+02	6.740E+02	4.108E+01	0.575
LU-177		112.95		-5.418E+01	6.128E+01	9.518E+01	6.036E+00	-0.569
		208.36	*	3.743E+00	3.154E+01	5.375E+01	2.903E+00	0.070
LU-177M		52.97		1.883E+02	2.848E+02	4.901E+02	4.136E+01	0.384
		54.07		2.214E+01	1.449E+02	2.440E+02	2.008E+01	0.091
		61.30		-8.171E+01	1.755E+02	2.856E+02	2.097E+01	-0.286
		121.62		1.141E+01	2.823E+01	4.669E+01	2.938E+00	0.244

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		147.16		-1.425E+01	4.799E+01	7.591E+01	4.211E+00	-0.188
		171.86		-1.225E+01	3.584E+01	5.607E+01	2.938E+00	-0.219
		218.09		5.161E+00	5.410E+01	9.192E+01	5.015E+00	0.056
		268.79		2.048E+01	4.568E+01	7.843E+01	4.504E+00	0.261
		319.02		-7.094E-01	1.551E+01	2.561E+01	1.526E+00	-0.028
		367.43		4.088E+00	5.708E+01	9.425E+01	5.721E+00	0.043
		413.65	*	3.186E-01	1.137E+01	1.858E+01	1.132E+00	0.017
HF-181		56.28		-4.430E+00	1.282E+02	2.139E+02	1.669E+01	-0.021
		57.53		4.258E+00	6.518E+01	1.091E+02	8.267E+00	0.039
		65.20		-8.732E+00	9.966E+01	1.650E+02	1.222E+01	-0.053
		133.02		1.604E+00	4.413E+00	7.250E+00	4.275E-01	0.221
		136.25		-1.528E+01	3.227E+01	5.079E+01	2.948E+00	-0.301
		345.85		3.227E+00	1.206E+01	1.790E+01	1.080E+00	0.180
		482.03	*	-8.129E-01	2.340E+00	3.654E+00	2.190E-01	-0.222
W-181		56.28		-1.790E+00	5.442E+01	9.077E+01	7.085E+00	-0.020
		57.53		1.834E+00	2.769E+01	4.636E+01	3.512E+00	0.040
		65.20	*	-3.680E+00	4.199E+01	6.954E+01	5.148E+00	-0.053
TA-182		67.75		-7.935E+00	1.136E+01	1.823E+01	1.349E+00	-0.435
		100.10		1.121E+01	1.387E+01	2.354E+01	1.581E+00	0.476
		152.43		-3.837E+00	2.398E+01	3.813E+01	2.077E+00	-0.101
		222.10		-4.800E+00	2.089E+01	3.487E+01	1.911E+00	-0.138
		1001.68		-1.000E+02	1.302E+02	1.694E+02	1.204E+01	-0.590
	+	1121.28		1.822E+01	1.662E+01	1.754E+01	1.088E+00	1.039
		1189.05		-9.754E+00	1.350E+01	2.031E+01	1.183E+00	-0.480
		1221.42	*	-3.483E+00	9.800E+00	1.321E+01	7.977E-01	-0.264
		1230.97		6.727E+00	1.851E+01	3.241E+01	1.977E+00	0.208
RE-183		57.98		3.157E+00	2.580E+01	4.330E+01	3.246E+00	0.073
		59.32		-3.777E+00	1.325E+01	2.179E+01	1.584E+00	-0.173
		67.20		3.314E+00	2.024E+01	3.384E+01	2.505E+00	0.098
		162.32	*	1.873E+00	7.662E+00	1.240E+01	6.549E-01	0.151
		208.81		-2.216E+01	5.777E+01	9.612E+01	5.193E+00	-0.231
		291.72		1.849E+00	6.350E+01	9.325E+01	5.457E+00	0.020
RE-184		57.98		1.216E+01	9.935E+01	1.668E+02	1.250E+01	0.073
		59.32		-1.453E+01	5.099E+01	8.384E+01	6.094E+00	-0.173
		67.20		1.276E+01	7.791E+01	1.303E+02	9.643E+00	0.098
		161.27		-2.233E+01	2.686E+01	4.107E+01	2.177E+00	-0.544
		216.55		8.103E+00	1.695E+01	2.932E+01	1.597E+00	0.276
		252.85	*	7.956E-01	1.541E+01	2.593E+01	1.467E+00	0.031
		318.01		7.203E+00	2.692E+01	4.540E+01	2.703E+00	0.159
		792.07		-2.790E+01	4.810E+01	7.359E+01	4.676E+00	-0.379
		903.28		8.019E+00	6.166E+01	1.021E+02	7.791E+00	0.079
		920.93		8.113E+00	2.422E+01	4.112E+01	3.106E+00	0.197
OS-185		59.72		-7.159E+00	3.587E+01	5.923E+01	4.297E+00	-0.121
		61.14		-2.398E+01	1.966E+01	3.074E+01	2.254E+00	-0.780
		69.30		-3.397E+01	2.903E+01	4.533E+01	3.350E+00	-0.750
		592.07		-1.814E+02	1.447E+02	2.153E+02	1.177E+01	-0.842
		646.12	*	8.515E-02	2.521E+00	4.230E+00	2.137E-01	0.020
		717.42		-2.409E+01	5.016E+01	7.929E+01	4.367E+00	-0.304
		874.81		-1.730E+01	3.075E+01	4.668E+01	3.436E+00	-0.371

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		880.27		-4.886E+00	3.871E+01	6.229E+01	4.628E+00	-0.078
RE-188		155.03	*	-1.514E+00	1.200E+01	1.909E+01	1.031E+00	-0.079
		477.96		1.987E+01	1.788E+02	2.916E+02	1.750E+01	0.068
		633.10		1.304E+02	1.621E+02	2.897E+02	1.495E+01	0.450
W-188		63.58		-3.940E+03	6.560E+03	1.002E+04	7.412E+02	-0.393
		227.08		1.899E+01	7.427E+02	1.255E+03	6.914E+01	0.015
		290.67	*	-3.444E+02	5.216E+02	7.217E+02	4.220E+01	-0.477
IR-192	+	295.96		2.830E+01	1.044E+01	1.508E+01	8.989E-01	1.876
		308.46		-2.982E+00	6.129E+00	9.865E+00	5.904E-01	-0.302
		316.51	*	5.198E-01	2.014E+00	3.395E+00	2.029E-01	0.153
		468.07		2.107E+00	3.888E+00	6.573E+00	4.525E-01	0.321
		604.41		-4.702E+00	2.602E+01	3.716E+01	4.140E+00	-0.127
		612.46		9.356E+01	4.689E+01	8.204E+01	5.918E+00	1.140
AU-195		65.12		-3.297E+00	1.971E+01	3.253E+01	2.408E+00	-0.101
		66.83		8.327E+00	9.987E+00	1.717E+01	1.271E+00	0.485
		75.70		1.942E+01	1.922E+01	3.050E+01	2.256E+00	0.637
		98.88	*	5.967E+00	1.805E+01	2.999E+01	2.033E+00	0.199
		129.76		1.548E+02	2.032E+02	3.407E+02	2.044E+01	0.454
TL-200		367.94	*	-9.382E+00	2.347E+02	3.843E+02	2.333E+01	-0.024
		579.30		-1.105E+03	1.904E+03	2.599E+03	1.442E+02	-0.425
		828.27		-1.900E+03	2.497E+03	3.459E+03	2.347E+02	-0.549
		1205.75		-5.998E+02	8.618E+02	1.299E+03	7.708E+01	-0.462
TL-201		68.90		-1.173E+02	8.856E+01	1.371E+02	1.013E+01	-0.856
		70.82		1.782E+01	4.681E+01	7.890E+01	5.828E+00	0.226
		80.30		-5.555E+01	7.365E+01	1.168E+02	8.708E+00	-0.476
		135.34		4.262E+01	3.464E+02	5.620E+02	3.276E+01	0.076
		167.43	*	-3.684E+01	9.053E+01	1.412E+02	7.387E+00	-0.261
TL-202		68.90		-3.878E+01	2.929E+01	4.533E+01	3.352E+00	-0.856
		70.82		5.879E+00	1.544E+01	2.602E+01	1.922E+00	0.226
		80.30		-1.833E+01	2.430E+01	3.852E+01	2.873E+00	-0.476
		439.56	*	4.338E-01	2.909E+00	4.782E+00	2.906E-01	0.091
HG-203		70.83		3.546E+01	9.206E+01	1.551E+02	1.994E+01	0.229
		72.87		4.654E+00	5.364E+01	8.912E+01	1.108E+01	0.052
		82.60		-4.577E+01	8.973E+01	1.346E+02	1.760E+01	-0.340
		279.20	*	4.389E-01	2.363E+00	3.987E+00	2.453E-01	0.110
BI-207		72.80		1.496E-01	1.759E+01	2.913E+01	2.151E+00	0.005
		74.97		-1.654E+00	1.135E+01	1.725E+01	1.275E+00	-0.096
		84.90		-1.022E+01	1.837E+01	2.690E+01	2.038E+00	-0.380
		569.67		-2.217E-01	2.351E+00	3.040E+00	1.705E-01	-0.073
		1063.62	*	1.679E+00	2.649E+00	4.647E+00	3.103E-01	0.361
		1770.23		3.205E+01	3.897E+01	6.456E+01	3.825E+00	0.496
TL-207		81.07		-2.103E+01	1.944E+01	2.812E+01	2.102E+00	-0.748
		83.78		-6.536E+00	1.229E+01	1.798E+01	1.356E+00	-0.364
		94.90		-4.790E+01	2.019E+01	2.891E+01	2.032E+00	-1.657
		122.32		-2.415E+00	1.374E+02	2.223E+02	1.584E+01	-0.011
		144.24		3.516E+00	5.625E+01	8.482E+01	6.006E+00	0.041
		154.21		1.080E+01	2.914E+01	4.757E+01	3.187E+00	0.227
		269.46		2.858E+00	1.143E+01	1.940E+01	1.166E+00	0.147
		323.87	*	2.997E+01	4.647E+01	7.938E+01	1.316E+01	0.378

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		338.28		-2.527E+01	7.338E+01	1.063E+02	1.132E+01	-0.238
		445.03		3.355E+01	1.416E+02	2.344E+02	2.444E+01	0.143
TL-208		72.80		1.618E+00	1.902E+02	3.150E+02	2.326E+01	0.005
		74.97		-1.787E+01	1.227E+02	1.864E+02	2.134E+01	-0.096
		277.35		-3.144E+00	2.426E+01	4.020E+01	4.242E+00	-0.078
		510.84		-5.191E+01	1.898E+01	2.689E+01	2.745E+00	-1.930
	+	583.14	*	2.425E+00	3.762E+00	4.290E+00	2.767E-01	0.565
		763.13		2.222E+01	1.175E+02	1.980E+02	2.479E+01	0.112
		860.37		-3.677E+00	1.431E+01	2.266E+01	1.797E+00	-0.162
		1093.90		-7.621E+01	6.207E+02	9.816E+02	2.214E+02	-0.078
PO-209		260.50		-5.715E+00	6.215E+02	1.041E+03	5.932E+01	-0.005
		262.80		1.564E+02	1.659E+03	2.794E+03	1.596E+02	0.056
		896.60	*	-1.444E+02	4.549E+02	7.160E+02	5.469E+01	-0.202
BI-210		46.50	*	4.502E+02	8.464E+02	1.327E+03	1.235E+02	0.339
PB-210		46.50	*	4.502E+02	8.464E+02	1.327E+03	1.235E+02	0.339
PO-210		46.50	*	4.502E+02	8.462E+02	1.327E+03	1.118E+02	0.339
PB-211		404.84	*	-1.053E+01	5.811E+01	9.290E+01	5.794E+01	-0.113
		427.08		7.191E+01	1.365E+02	2.195E+02	1.357E+02	0.328
		831.96		4.983E+00	6.864E+01	1.136E+02	7.092E+01	0.044
BI-212		727.18	*	3.445E+00	1.612E+01	2.732E+01	2.069E+00	0.126
		785.46		8.924E+01	8.977E+01	1.643E+02	1.031E+01	0.543
		1620.62		-6.230E+00	8.857E+01	1.429E+02	9.102E+00	-0.044
PB-212		74.81		-5.276E+00	3.957E+01	6.015E+01	7.166E+00	-0.088
		77.11		-8.572E+00	1.902E+01	3.080E+01	2.281E+00	-0.278
		87.30		7.987E+00	3.146E+01	5.227E+01	6.585E+00	0.153
		115.19		1.351E+02	2.852E+02	4.739E+02	2.993E+01	0.285
	+	238.63	*	3.415E-01	5.567E+00	6.925E+00	4.955E-01	0.049
		300.09		-2.615E+00	5.854E+01	8.527E+01	7.086E+00	-0.031
PO-212		74.81		-5.276E+00	3.957E+01	6.015E+01	7.166E+00	-0.088
		77.11		-8.572E+00	1.902E+01	3.080E+01	2.281E+00	-0.278
		87.30		7.987E+00	3.146E+01	5.227E+01	6.585E+00	0.153
		115.19		1.351E+02	2.852E+02	4.739E+02	2.993E+01	0.285
	+	238.63	*	3.415E-01	5.567E+00	6.925E+00	4.955E-01	0.049
		300.09		-2.615E+00	5.854E+01	8.527E+01	7.086E+00	-0.031
PB-214		74.81		-9.022E+00	6.767E+01	1.029E+02	1.076E+01	-0.088
		77.11		-1.459E+01	3.238E+01	5.240E+01	5.568E+00	-0.278
		87.30		1.358E+01	5.348E+01	8.888E+01	9.660E+00	0.153
	+	241.98		4.526E+01	3.754E+01	4.407E+01	3.491E+00	1.027
	+	295.21		3.985E+01	1.491E+01	2.111E+01	1.810E+00	1.888
	+	351.92	*	4.568E+01	1.100E+01	1.391E+01	1.176E+00	3.284
PO-214		74.81		-9.022E+00	6.767E+01	1.029E+02	1.076E+01	-0.088
		77.11		-1.459E+01	3.238E+01	5.240E+01	5.568E+00	-0.278
		87.30		1.358E+01	5.348E+01	8.888E+01	9.660E+00	0.153
	+	241.98		4.526E+01	3.754E+01	4.407E+01	3.491E+00	1.027
	+	295.21		3.985E+01	1.491E+01	2.111E+01	1.810E+00	1.888
	+	351.92	*	4.568E+01	1.100E+01	1.391E+01	1.176E+00	3.284
PO-215		81.07		-2.103E+01	1.944E+01	2.812E+01	2.102E+00	-0.748
		83.78		-6.536E+00	1.229E+01	1.798E+01	1.356E+00	-0.364
		94.90		-4.790E+01	2.019E+01	2.891E+01	2.032E+00	-1.657

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		122.32		-2.415E+00	1.374E+02	2.223E+02	1.584E+01	-0.011
		144.24		3.516E+00	5.625E+01	8.482E+01	6.006E+00	0.041
		154.21		1.080E+01	2.914E+01	4.757E+01	3.187E+00	0.227
		269.46		2.858E+00	1.143E+01	1.940E+01	1.166E+00	0.147
		323.87	*	2.997E+01	4.647E+01	7.938E+01	1.316E+01	0.378
		338.28		-2.527E+01	7.338E+01	1.063E+02	1.132E+01	-0.238
		445.03		3.355E+01	1.416E+02	2.344E+02	2.444E+01	0.143
PO-216		74.81		-5.276E+00	3.957E+01	6.015E+01	7.166E+00	-0.088
		77.11		-8.572E+00	1.902E+01	3.080E+01	2.281E+00	-0.278
		87.30		7.987E+00	3.146E+01	5.227E+01	6.585E+00	0.153
		115.19		1.351E+02	2.852E+02	4.739E+02	2.993E+01	0.285
	+	238.63	*	3.415E-01	5.567E+00	6.925E+00	4.955E-01	0.049
		300.09		-2.615E+00	5.854E+01	8.527E+01	7.086E+00	-0.031
PO-218		74.81		-9.022E+00	6.767E+01	1.029E+02	1.076E+01	-0.088
		77.11		-1.459E+01	3.238E+01	5.240E+01	5.568E+00	-0.278
		87.30		1.358E+01	5.348E+01	8.888E+01	9.660E+00	0.153
	+	241.98		4.526E+01	3.754E+01	4.407E+01	3.491E+00	1.027
	+	295.21		3.985E+01	1.491E+01	2.111E+01	1.810E+00	1.888
	+	351.92	*	4.568E+01	1.100E+01	1.391E+01	1.176E+00	3.284
RN-219		271.23		7.689E+00	1.490E+01	2.563E+01	2.069E+00	0.300
		401.81	*	2.183E+01	2.399E+01	4.178E+01	5.739E+00	0.522
RN-220		549.76	*	-9.802E+02	1.521E+03	2.258E+03	1.291E+02	-0.434
RA-223		81.07		-2.103E+01	1.944E+01	2.812E+01	2.102E+00	-0.748
		83.78		-6.536E+00	1.229E+01	1.798E+01	1.356E+00	-0.364
		94.90		-4.790E+01	2.019E+01	2.891E+01	2.032E+00	-1.657
		122.32		-2.415E+00	1.374E+02	2.223E+02	1.584E+01	-0.011
		144.24		3.516E+00	5.625E+01	8.482E+01	6.006E+00	0.041
		154.21		1.080E+01	2.914E+01	4.757E+01	3.187E+00	0.227
		269.46		2.858E+00	1.143E+01	1.940E+01	1.166E+00	0.147
		323.87	*	2.997E+01	4.647E+01	7.938E+01	1.316E+01	0.378
		338.28		-2.527E+01	7.338E+01	1.063E+02	1.132E+01	-0.238
		445.03		3.355E+01	1.416E+02	2.344E+02	2.444E+01	0.143
AC-227		79.80		-2.281E+02	1.528E+02	2.214E+02	4.662E+01	-1.030
		236.00		2.143E+00	1.555E+01	2.333E+01	2.408E+00	0.092
		256.20	*	-3.154E+00	2.554E+01	4.254E+01	5.916E+00	-0.074
		286.10		3.472E+01	1.015E+02	1.725E+02	1.996E+01	0.201
		299.80		5.868E+00	1.064E+02	1.563E+02	2.550E+01	0.038
		304.40		4.218E+01	1.271E+02	2.148E+02	3.723E+01	0.196
		329.70		-4.932E+01	5.902E+01	9.168E+01	1.151E+01	-0.538
		334.20		1.971E+01	1.443E+02	2.405E+02	4.425E+01	0.082
PA-227		64.62	*	-1.000E+35	1.443E+02	Half-Life too short		
		110.05		-1.000E+35	1.443E+02	Half-Life too short		
TH-227		79.80		-2.281E+02	1.530E+02	2.214E+02	4.724E+01	-1.030
		94.00		-4.902E+02	2.146E+02	2.655E+02	5.635E+01	-1.846
		236.00		2.143E+00	1.555E+01	2.333E+01	2.078E+00	0.092
		256.20	*	-3.154E+00	2.554E+01	4.254E+01	7.170E+00	-0.074
		286.10		3.472E+01	1.072E+02	1.725E+02	1.728E+02	0.201
		299.80		5.868E+00	1.064E+02	1.563E+02	2.550E+01	0.038
		304.40		4.218E+01	1.271E+02	2.148E+02	3.723E+01	0.196

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		329.70		-4.932E+01	5.902E+01	9.168E+01	1.151E+01	-0.538
		334.20		1.971E+01	1.443E+02	2.405E+02	4.425E+01	0.082
AC-228		338.32		-5.828E+00	1.778E+01	2.556E+01	1.043E+01	-0.228
		911.07	*	3.314E+00	9.794E+00	1.570E+01	1.646E+00	0.211
		969.11		-5.061E+00	1.528E+01	2.336E+01	5.347E+00	-0.217
RA-228		338.32		-5.828E+00	1.778E+01	2.556E+01	1.043E+01	-0.228
		911.07	*	3.314E+00	9.794E+00	1.570E+01	1.646E+00	0.211
		969.11		-5.061E+00	1.528E+01	2.336E+01	5.347E+00	-0.217
TH-228		74.81		-5.276E+00	3.957E+01	6.015E+01	4.496E+00	-0.088
		77.11		-8.572E+00	1.902E+01	3.080E+01	2.281E+00	-0.278
		87.30		7.987E+00	3.145E+01	5.227E+01	4.005E+00	0.153
	+	238.63	*	3.415E-01	5.567E+00	6.925E+00	4.955E-01	0.049
		300.09		-2.615E+00	5.856E+01	8.527E+01	5.026E+01	-0.031
TH-229		85.43		-6.375E+00	1.804E+01	2.672E+01	2.029E+00	-0.239
		88.47		-6.096E+00	8.992E+00	1.430E+01	1.091E+00	-0.426
		100.00		1.227E+01	1.509E+01	2.562E+01	1.721E+00	0.479
		193.63	*	-3.654E+00	4.307E+01	6.017E+01	3.202E+00	-0.061
		210.97		-1.906E+01	4.626E+01	7.672E+01	4.154E+00	-0.248
TH-230		67.67	*	-7.489E+02	5.016E+03	2.014E+03	1.306E+04	-0.372
PA-231		283.67	*	8.914E-01	1.044E+02	1.741E+02	2.401E+01	0.005
		301.29		-2.642E+00	3.770E+01	6.240E+01	6.555E+00	-0.042
		330.00		-1.570E+02	1.401E+02	1.997E+02	6.259E+01	-0.786
TH-231		84.21	*	-4.540E+01	4.803E+01	6.800E+01	1.180E+01	-0.668
U-231		84.21		-1.442E+02	1.508E+02	2.159E+02	1.631E+01	-0.668
		92.29		-1.799E+01	5.548E+01	8.737E+01	6.327E+00	-0.206
		95.87	*	-1.991E+01	2.537E+01	3.989E+01	2.777E+00	-0.499
		108.00		-4.200E+01	4.797E+01	7.463E+01	4.801E+00	-0.563
TH-232		59.00	*	-2.705E+03	2.876E+04	6.597E+03	6.945E+04	-0.410
PA-233		75.28		1.787E+02	3.211E+02	4.992E+02	7.334E+01	0.358
		86.59		6.252E+01	1.336E+02	2.226E+02	5.902E+01	0.281
		300.12		-1.199E+00	3.003E+01	4.376E+01	5.897E+00	-0.027
		311.98	*	3.653E+00	4.235E+00	7.389E+00	4.644E-01	0.494
		340.50		-6.342E+00	3.870E+01	6.314E+01	1.454E+01	-0.100
		398.62		-5.454E+01	1.235E+02	1.929E+02	5.001E+01	-0.283
		415.76		-4.688E+01	1.074E+02	1.683E+02	3.479E+01	-0.279
PA-234		63.00		-1.173E+02	2.143E+02	3.278E+02	4.867E+01	-0.358
		94.67		-3.365E+01	1.467E+01	2.058E+01	2.339E+00	-1.635
		98.44		-2.303E-01	7.540E+00	1.231E+01	6.839E+00	-0.019
		99.86		3.137E+01	3.825E+01	6.496E+01	4.370E+00	0.483
		111.00		5.179E+00	1.489E+01	2.463E+01	2.612E+00	0.210
		131.20		-7.035E+00	8.172E+00	1.260E+01	7.503E-01	-0.558
		152.70		-1.011E+01	2.448E+01	3.832E+01	6.009E+00	-0.264
	+	186.00		2.491E+01	1.310E+02	1.679E+02	5.115E+01	0.148
		226.40		5.560E+00	2.513E+01	4.290E+01	4.897E+00	0.130
		227.20		-1.021E+00	2.713E+01	4.569E+01	2.517E+00	-0.022
		248.90		-2.707E-01	5.497E+01	9.230E+01	1.979E+01	-0.003
		293.70		1.781E+02	5.944E+01	9.385E+01	1.511E+01	1.898
		369.80		-2.573E+01	5.484E+01	8.643E+01	1.806E+01	-0.298
		568.70		-5.533E+01	7.632E+01	9.052E+01	5.083E+00	-0.611

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		569.50		-2.474E+00	2.084E+01	2.684E+01	1.505E+00	-0.092
		574.00		3.294E+01	9.336E+01	1.617E+02	9.030E+00	0.204
		699.00		-8.159E+00	4.343E+01	7.100E+01	1.266E+01	-0.115
		706.10		-1.375E+01	5.959E+01	9.632E+01	4.246E+01	-0.143
		733.00		-1.537E+01	2.112E+01	3.183E+01	6.756E+00	-0.483
		742.81		-5.655E+01	8.941E+01	1.244E+02	8.328E+01	-0.454
		796.30		3.204E+01	4.537E+01	7.960E+01	2.104E+01	0.403
		805.60		1.182E-01	5.473E+01	9.015E+01	2.716E+01	0.001
		819.60		-5.134E-02	6.632E+01	1.091E+02	4.105E+01	0.000
		826.30		1.970E+01	4.658E+01	7.891E+01	3.505E+01	0.250
		831.60		2.119E+00	3.501E+01	5.791E+01	1.701E+01	0.037
		876.40		-2.331E+01	5.254E+01	7.175E+01	7.369E+01	-0.325
		880.51		-2.774E+00	1.469E+01	2.344E+01	1.742E+00	-0.118
		883.24		1.459E+00	1.511E+01	2.497E+01	1.675E+01	0.058
		899.00		2.483E+01	5.403E+01	9.075E+01	3.951E+01	0.274
		925.00		-5.123E+01	6.567E+01	9.574E+01	7.215E+00	-0.535
		926.50		1.967E-01	9.161E+00	1.497E+01	3.732E+00	0.013
		946.00	*	-1.170E+01	1.785E+01	2.646E+01	4.828E+00	-0.442
		949.00		5.082E+00	2.502E+01	4.172E+01	3.094E+00	0.122
		980.50		1.211E+01	4.331E+01	7.263E+01	5.259E+00	0.167
		1394.10		4.594E+01	7.970E+01	1.325E+02	8.593E+01	0.347
PA-234M		766.42		3.076E+02	6.643E+02	1.116E+03	5.622E+02	0.276
		1001.03	*	-1.616E+02	3.133E+02	4.261E+02	3.706E+01	-0.379
TH-234		63.29	*	-9.712E+01	1.804E+02	2.757E+02	4.806E+01	-0.352
		92.38		-1.671E+01	5.107E+01	8.031E+01	1.403E+01	-0.208
U-234		53.20	*	6.935E+03	7.030E+04	1.976E+04	1.976E+05	0.351
U-235		89.95		-1.891E+02	1.109E+02	1.419E+02	4.337E+01	-1.332
		93.35		-7.182E+01	6.358E+01	9.174E+01	2.533E+01	-0.783
		105.00		-5.305E+01	9.860E+01	1.406E+02	4.120E+01	-0.377
		143.76	*	-6.297E+00	1.776E+01	2.625E+01	4.263E+00	-0.240
		163.35		1.603E+01	3.512E+01	5.724E+01	1.020E+01	0.280
	+	185.71		9.226E-01	4.844E+00	6.226E+00	3.291E-01	0.148
		205.31		-2.137E+01	3.935E+01	5.924E+01	1.058E+01	-0.361
NP-236		94.67		-2.543E+01	1.089E+01	1.563E+01	1.101E+00	-1.627
		98.44		-1.769E-01	5.699E+00	9.309E+00	6.332E-01	-0.019
		111.00		3.918E+00	1.126E+01	1.863E+01	1.187E+00	0.210
		160.31	*	-2.434E+00	6.201E+00	9.715E+00	5.163E-01	-0.251
NP-237		86.50	*	1.134E+01	2.016E+01	3.373E+01	7.420E+00	0.336
		95.87		-6.172E+01	7.994E+01	1.237E+02	2.981E+01	-0.499
PU-237		59.54	*	-7.002E+01	2.462E+02	4.048E+02	2.931E+01	-0.173
U-238		63.29	*	-9.712E+01	1.804E+02	2.757E+02	4.806E+01	-0.352
		92.38		-1.671E+01	5.101E+01	8.031E+01	5.809E+00	-0.208
NP-239		99.55		5.015E+00	1.305E+01	2.172E+01	1.465E+00	0.231
		117.00	*	5.664E+00	1.494E+01	2.471E+01	1.558E+00	0.229
		209.75		-5.178E+01	4.830E+01	7.738E+01	4.185E+00	-0.669
		228.18		-2.454E+00	1.429E+01	2.390E+01	1.318E+00	-0.103
		277.60		7.032E-01	1.160E+01	1.943E+01	1.124E+00	0.036
		334.30		1.061E+01	8.171E+01	1.361E+02	8.173E+00	0.078
AM-241		59.54	*	-5.699E+00	2.004E+01	3.294E+01	2.627E+00	-0.173

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AM-243		74.67	*	-1.149E+00	6.415E+00	9.736E+00	7.194E-01	-0.118
		86.72		6.105E+00	7.523E+02	1.237E+03	9.454E+01	0.005
		117.66		-1.541E+02	2.979E+02	4.703E+02	2.963E+01	-0.328
		142.18		-2.311E+03	1.534E+03	2.134E+03	1.207E+02	-1.083
CM-243		99.55		5.158E+00	1.342E+01	2.234E+01	1.506E+00	0.231
		103.76	*	-3.761E+00	8.883E+00	1.287E+01	8.445E-01	-0.292
		117.00		5.824E+00	1.536E+01	2.541E+01	1.602E+00	0.229
		209.75		-5.102E+01	4.759E+01	7.624E+01	4.123E+00	-0.669
		228.18		-2.478E+00	1.444E+01	2.414E+01	1.331E+00	-0.103
		277.60		7.086E-01	1.169E+01	1.958E+01	1.133E+00	0.036
AM-246		798.80		-3.491E+00	7.428E+00	1.156E+01	7.434E-01	-0.302
		1036.00		-9.126E+00	1.383E+01	1.982E+01	1.364E+00	-0.461
		1062.04		3.838E+00	1.205E+01	2.027E+01	1.356E+00	0.189
		1078.86	*	-2.331E+00	7.636E+00	1.176E+01	7.713E-01	-0.198
CM-247		278.00		2.651E+00	4.764E+01	7.980E+01	4.619E+00	0.033
		287.40		3.726E+01	8.263E+01	1.412E+02	8.238E+00	0.264
		402.60	*	-2.013E-01	2.226E+00	3.609E+00	2.200E-01	-0.056
CF-249		252.85		3.080E+00	5.965E+01	1.004E+02	5.678E+00	0.031
		333.44		3.798E-01	1.056E+01	1.749E+01	1.050E+00	0.022
		387.95	*	3.960E-01	2.635E+00	4.360E+00	2.655E-01	0.091
CF-251		176.60	*	-4.713E-01	9.453E+00	1.500E+01	7.879E-01	-0.031
		227.00		7.547E+00	2.383E+01	4.088E+01	2.251E+00	0.185
		285.00		2.926E+01	1.178E+02	1.992E+02	1.160E+01	0.147
ANH-511		511.00	*	-1.103E+01	3.966E+00	5.780E+00	3.408E-01	-1.909

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G242789002       *
* Acquisition date : 17-DEC-2009 23:04:14 Detector SN#    :                 *
* Detector ID       : GAM10               Sensitivity     : 5.000           *
* Geometry          : 2LMB                Energy tolerance: 1.500           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:00.90     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 10-DEC-2009 12:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G242789002           Analyst initials: KXG3           *
* Batch Number      : 933232               Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 25-FEB-2009 11:11:10 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
BI-211	1.313E+02	3.024E+01	2.018E+01	0.000E+00
BI-214	3.886E+01	8.808E+00	6.153E+00	0.000E+00
RA-224	8.647E+01	7.013E+01	7.087E+01	0.000E+00
RA-226	1.519E+01	7.891E+01	7.920E+01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	4.646E+00	1.795E+01	3.024E+01	0.000E+00	NOT IDENT.
NA-22	-1.982E+00	2.103E+00	3.070E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00	8.006E+03	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-9.106E-01	2.208E+00	3.354E+00	0.000E+00	NOT IDENT.
K-40	-1.530E+01	3.100E+01	4.905E+01	0.000E+00	NOT IDENT.
TI-44	2.136E+00	2.993E+00	5.196E+00	0.000E+00	NOT IDENT.
SC-46	-4.430E-01	1.980E+00	3.211E+00	0.000E+00	FAIL ABUN
V-48	2.612E-01	2.751E+00	4.608E+00	0.000E+00	NOT IDENT.
CR-51	-1.670E+01	1.911E+01	3.034E+01	0.000E+00	NOT IDENT.
MN-52	7.272E-02	5.466E+00	9.211E+00	0.000E+00	NOT IDENT.
MN-54	2.851E-01	2.052E+00	3.490E+00	0.000E+00	NOT IDENT.
CO-56	1.519E+00	1.894E+00	3.463E+00	0.000E+00	NOT IDENT.
CO-57	-6.334E-02	1.909E+00	3.152E+00	0.000E+00	NOT IDENT.
CO-58	1.040E+00	1.949E+00	3.466E+00	0.000E+00	NOT IDENT.
FE-59	4.688E+00	4.650E+00	8.511E+00	0.000E+00	NOT IDENT.
CO-60	5.978E-01	1.947E+00	3.446E+00	0.000E+00	NOT IDENT.
ZN-65	-2.643E+00	5.348E+00	6.819E+00	0.000E+00	NOT IDENT.
GE-68	-7.215E+01	6.851E+01	9.593E+01	0.000E+00	NOT IDENT.
AS-73	4.395E+01	1.378E+02	2.385E+02	0.000E+00	NOT IDENT.
AS-74	2.910E+00	4.367E+00	7.861E+00	0.000E+00	NOT IDENT.
SE-75	-3.298E-01	2.464E+00	4.175E+00	0.000E+00	FAIL ABUN
BR-77	-1.232E+01	6.393E+01	1.026E+02	0.000E+00	FAIL ABUN
SR-82	1.067E+01	1.578E+01	2.855E+01	0.000E+00	NOT IDENT.

RB-83	-3.653E-01	3.694E+00	5.990E+00	0.000E+00	NOT IDENT.
RB-84	-1.657E+00	3.129E+00	4.862E+00	0.000E+00	NOT IDENT.
KR-85	-2.717E+02	6.339E+02	1.013E+03	0.000E+00	NOT IDENT.
SR-85	-1.286E+00	3.000E+00	4.793E+00	0.000E+00	NOT IDENT.
RB-86	-2.212E+01	3.319E+01	4.960E+01	0.000E+00	NOT IDENT.
Y-88	1.014E-01	2.297E+00	3.814E+00	0.000E+00	NOT IDENT.
ZR-88	-9.382E-01	1.860E+00	2.987E+00	0.000E+00	NOT IDENT.
Y-91	-2.976E+02	7.702E+02	1.247E+03	0.000E+00	NOT IDENT.
NB-94	8.362E-01	1.974E+00	3.473E+00	0.000E+00	NOT IDENT.
NB-95	-1.636E-01	2.385E+00	3.996E+00	0.000E+00	NOT IDENT.
NB-95M	1.190E+00	7.605E+00	1.166E+01	0.000E+00	NOT IDENT.
ZR-95	-1.853E+00	3.321E+00	5.237E+00	0.000E+00	NOT IDENT.
NB-97	0.000E+00	2.775E+03	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	8.647E+04	0.000E+00	0.000E+00	SHORT HLIF
MO-99	-1.437E+01	9.882E+01	1.647E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.169E+09	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.607E+00	3.256E+00	4.215E+00	0.000E+00	FAIL ABUN
RH-102	3.004E-01	1.772E+00	2.964E+00	0.000E+00	NOT IDENT.
RU-103	5.633E-01	2.113E+00	3.556E+00	0.000E+00	FAIL ABUN
RH-106	-2.957E+00	1.725E+01	2.905E+01	0.000E+00	NOT IDENT.
RU-106	-2.957E+00	1.725E+01	2.905E+01	0.000E+00	NOT IDENT.
AG-108M	1.196E+00	2.265E+00	3.589E+00	0.000E+00	NOT IDENT.
CD-109	-1.516E+01	6.512E+01	1.081E+02	0.000E+00	NOT IDENT.
AG-110M	-3.976E-01	1.767E+00	2.943E+00	0.000E+00	NOT IDENT.
IN-111	5.130E+00	1.191E+01	1.857E+01	0.000E+00	NOT IDENT.
IN-113M	3.896E-01	2.769E+00	4.668E+00	0.000E+00	NOT IDENT.
SN-113	3.896E-01	2.769E+00	4.668E+00	0.000E+00	NOT IDENT.
IN-114M	-9.927E+00	1.355E+01	1.842E+01	0.000E+00	NOT IDENT.
CD-115	1.694E+01	6.420E+01	1.076E+02	0.000E+00	NOT IDENT.
SN-117M	1.048E+00	2.809E+00	4.668E+00	0.000E+00	NOT IDENT.
SB-122	-6.389E-02	1.760E+01	2.866E+01	0.000E+00	NOT IDENT.
I-123	0.000E+00	2.796E+04	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	1.071E+00	2.048E+00	3.427E+00	0.000E+00	NOT IDENT.
I-124	5.566E-01	1.093E+01	1.780E+01	0.000E+00	NOT IDENT.
SB-124	5.490E-02	4.830E+00	8.027E+00	0.000E+00	NOT IDENT.
SB-125	3.230E+00	5.613E+00	9.739E+00	0.000E+00	NOT IDENT.
TE-125M	-1.710E+02	6.579E+02	1.079E+03	0.000E+00	NOT IDENT.
I-126	2.737E+00	7.140E+00	1.256E+01	0.000E+00	NOT IDENT.
SB-126	-2.149E-01	5.218E+00	8.805E+00	0.000E+00	FAIL ABUN
SN-126	1.463E+00	6.569E+00	1.112E+01	0.000E+00	NOT IDENT.
SB-127	9.791E+00	1.841E+01	3.293E+01	0.000E+00	NOT IDENT.
XE-127	-9.052E-01	3.077E+00	4.623E+00	0.000E+00	NOT IDENT.
I-131	1.001E+00	3.975E+00	6.779E+00	0.000E+00	NOT IDENT.
TE-132	-1.405E+00	8.483E+00	1.448E+01	0.000E+00	NOT IDENT.
BA-133	-9.002E-01	3.190E+00	4.571E+00	0.000E+00	NOT IDENT.
I-133	0.000E+00	8.907E+02	0.000E+00	0.000E+00	SHORT HLIF
CS-134	2.271E+00	2.213E+00	4.146E+00	0.000E+00	NOT IDENT.
CS-135	2.741E+00	9.063E+00	1.575E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.349E+09	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.647E+00	4.113E+00	7.102E+00	0.000E+00	NOT IDENT.
BA-137M	-1.821E+00	1.934E+00	2.982E+00	0.000E+00	NOT IDENT.
CS-137	-1.925E+00	2.044E+00	3.152E+00	0.000E+00	NOT IDENT.
CE-139	-1.888E+00	2.071E+00	3.204E+00	0.000E+00	NOT IDENT.
BA-140	-2.979E-01	1.094E+01	1.784E+01	0.000E+00	NOT IDENT.
LA-140	4.250E-01	3.323E+00	5.658E+00	0.000E+00	NOT IDENT.
CE-141	5.155E-01	3.998E+00	6.596E+00	0.000E+00	NOT IDENT.
CE-143	0.000E+00	2.329E+02	3.657E+02	0.000E+00	FAIL ABUN
CE-144	1.063E+01	1.522E+01	2.579E+01	0.000E+00	NOT IDENT.
PM-144	1.126E+00	1.954E+00	3.486E+00	0.000E+00	NOT IDENT.
PR-144	7.598E+01	1.318E+02	2.353E+02	0.000E+00	NOT IDENT.
PM-146	-2.123E+00	2.778E+00	4.287E+00	0.000E+00	NOT IDENT.
ND-147	1.380E+00	2.351E+01	3.864E+01	0.000E+00	NOT IDENT.
PM-149	4.738E+01	5.582E+02	9.539E+02	0.000E+00	NOT IDENT.
EU-152	2.599E+00	6.351E+00	1.063E+01	0.000E+00	NOT IDENT.
GD-153	-2.278E+00	6.266E+00	1.028E+01	0.000E+00	NOT IDENT.
EU-154	-4.943E+00	5.876E+00	8.718E+00	0.000E+00	NOT IDENT.
EU-155	4.223E+00	8.439E+00	1.438E+01	0.000E+00	NOT IDENT.
TB-160	3.092E+00	6.631E+00	1.171E+01	0.000E+00	NOT IDENT.
HO-166M	-8.114E-01	3.531E+00	5.857E+00	0.000E+00	FAIL ABUN
TM-171	3.033E+03	3.036E+03	5.356E+03	0.000E+00	NOT IDENT.
HF-175	-7.831E-02	2.129E+00	3.574E+00	0.000E+00	NOT IDENT.
LU-176	3.044E-01	1.667E+00	2.854E+00	0.000E+00	NOT IDENT.
LU-177	3.743E+00	3.091E+01	5.375E+01	0.000E+00	NOT IDENT.
LU-177M	3.186E-01	1.114E+01	1.858E+01	0.000E+00	NOT IDENT.
HF-181	-8.129E-01	2.293E+00	3.654E+00	0.000E+00	NOT IDENT.
W-181	-3.680E+00	4.116E+01	6.954E+01	0.000E+00	NOT IDENT.
TA-182	-3.483E+00	9.604E+00	1.321E+01	0.000E+00	FAIL ABUN
RE-183	1.873E+00	7.509E+00	1.240E+01	0.000E+00	NOT IDENT.

RE-184	7.956E-01	1.510E+01	2.593E+01	0.000E+00	NOT IDENT.
OS-185	8.515E-02	2.471E+00	4.230E+00	0.000E+00	NOT IDENT.
RE-188	-1.514E+00	1.176E+01	1.909E+01	0.000E+00	NOT IDENT.
W-188	-3.444E+02	5.111E+02	7.217E+02	0.000E+00	NOT IDENT.
IR-192	5.198E-01	1.974E+00	3.395E+00	0.000E+00	FAIL ABUN
AU-195	5.967E+00	1.769E+01	2.999E+01	0.000E+00	NOT IDENT.
TL-200	-9.382E+00	2.300E+02	3.843E+02	0.000E+00	NOT IDENT.
TL-201	-3.684E+01	8.872E+01	1.412E+02	0.000E+00	NOT IDENT.
TL-202	4.338E-01	2.851E+00	4.782E+00	0.000E+00	NOT IDENT.
HG-203	4.389E-01	2.316E+00	3.987E+00	0.000E+00	NOT IDENT.
BI-207	1.679E+00	2.596E+00	4.647E+00	0.000E+00	NOT IDENT.
TL-207	2.997E+01	4.554E+01	7.938E+01	0.000E+00	NOT IDENT.
TL-208	2.425E+00	3.686E+00	4.290E+00	0.000E+00	FAIL ABUN
PO-209	-1.444E+02	4.458E+02	7.160E+02	0.000E+00	NOT IDENT.
BI-210	4.502E+02	8.295E+02	1.327E+03	0.000E+00	NOT IDENT.
PB-210	4.502E+02	8.295E+02	1.327E+03	0.000E+00	NOT IDENT.
PO-210	4.502E+02	8.293E+02	1.327E+03	0.000E+00	NOT IDENT.
PB-211	-1.053E+01	5.695E+01	9.290E+01	0.000E+00	NOT IDENT.
BI-212	3.445E+00	1.580E+01	2.732E+01	0.000E+00	NOT IDENT.
PB-212	3.415E-01	5.456E+00	6.925E+00	0.000E+00	FAIL ABUN
PO-212	3.415E-01	5.456E+00	6.925E+00	0.000E+00	FAIL ABUN
PB-214	0.000E+00	1.078E+01	1.391E+01	0.000E+00	FAIL ABUN
PO-214	0.000E+00	1.078E+01	1.391E+01	0.000E+00	FAIL ABUN
PO-215	2.997E+01	4.554E+01	7.938E+01	0.000E+00	NOT IDENT.
PO-216	3.415E-01	5.456E+00	6.925E+00	0.000E+00	FAIL ABUN
PO-218	0.000E+00	1.078E+01	1.391E+01	0.000E+00	FAIL ABUN
RN-219	2.183E+01	2.351E+01	4.178E+01	0.000E+00	NOT IDENT.
RN-220	-9.802E+02	1.491E+03	2.258E+03	0.000E+00	NOT IDENT.
RA-223	2.997E+01	4.554E+01	7.938E+01	0.000E+00	NOT IDENT.
AC-227	-3.154E+00	2.503E+01	4.254E+01	0.000E+00	NOT IDENT.
PA-227	0.000E+00	4.048E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-3.154E+00	2.503E+01	4.254E+01	0.000E+00	NOT IDENT.
AC-228	3.314E+00	9.599E+00	1.570E+01	0.000E+00	NOT IDENT.
RA-228	3.314E+00	9.599E+00	1.570E+01	0.000E+00	NOT IDENT.
TH-228	3.415E-01	5.456E+00	6.925E+00	0.000E+00	FAIL ABUN
TH-229	-3.654E+00	4.221E+01	6.017E+01	0.000E+00	NOT IDENT.
TH-230	-7.489E+02	4.915E+03	2.014E+03	0.000E+00	NOT IDENT.
PA-231	8.914E-01	1.023E+02	1.741E+02	0.000E+00	NOT IDENT.
TH-231	-4.540E+01	4.707E+01	6.800E+01	0.000E+00	NOT IDENT.
U-231	-1.991E+01	2.486E+01	3.989E+01	0.000E+00	NOT IDENT.
TH-232	-2.705E+03	2.819E+04	6.597E+03	0.000E+00	NOT IDENT.
PA-233	3.653E+00	4.150E+00	7.389E+00	0.000E+00	NOT IDENT.
PA-234	-1.170E+01	1.749E+01	2.646E+01	0.000E+00	FAIL ABUN
PA-234M	-1.616E+02	3.070E+02	4.261E+02	0.000E+00	NOT IDENT.
TH-234	-9.712E+01	1.768E+02	2.757E+02	0.000E+00	NOT IDENT.
U-234	6.935E+03	6.889E+04	1.976E+04	0.000E+00	NOT IDENT.
U-235	-6.297E+00	1.741E+01	2.625E+01	0.000E+00	FAIL ABUN
NP-236	-2.434E+00	6.077E+00	9.715E+00	0.000E+00	NOT IDENT.
NP-237	1.134E+01	1.976E+01	3.373E+01	0.000E+00	NOT IDENT.
PU-237	-7.002E+01	2.413E+02	4.048E+02	0.000E+00	NOT IDENT.
U-238	-9.712E+01	1.768E+02	2.757E+02	0.000E+00	NOT IDENT.
NP-239	5.664E+00	1.464E+01	2.471E+01	0.000E+00	NOT IDENT.
AM-241	-5.699E+00	1.964E+01	3.294E+01	0.000E+00	NOT IDENT.
AM-243	-1.149E+00	6.287E+00	9.736E+00	0.000E+00	NOT IDENT.
CM-243	-3.761E+00	8.705E+00	1.287E+01	0.000E+00	NOT IDENT.
AM-246	-2.331E+00	7.483E+00	1.176E+01	0.000E+00	NOT IDENT.
CM-247	-2.013E-01	2.182E+00	3.609E+00	0.000E+00	NOT IDENT.
CF-249	3.960E-01	2.582E+00	4.360E+00	0.000E+00	NOT IDENT.
CF-251	-4.713E-01	9.264E+00	1.500E+01	0.000E+00	NOT IDENT.
ANH-511	-1.103E+01	3.887E+00	5.780E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 03:04:40.99

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G242789002.CNF;1
Sample date       : 10-DEC-2009 12:00:00 Acquisition date : 17-DEC-2009 23:04:14
Sample ID         : G242789002           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM10                Detector geometry: 2LMB
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:00.90  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 933232               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	92.20	138	349	1.28	184.51	180	10	9.59E-03	26.7	
2	0	185.59	117	263	1.05	371.14	367	9	8.11E-03	26.6	
3	0	198.63	69	212	0.98	397.19	393	8	4.77E-03	38.7	
4	4	238.57	62	201	1.27	477.00	471	18	4.30E-03	40.6	2.26E+00
5	4	242.03	74	254	1.72	483.92	471	18	5.14E-03	41.3	
6	0	295.21	156	151	1.14	590.21	586	9	1.09E-02	16.2	
7	0	351.91	330	133	1.30	703.52	696	16	2.29E-02	9.5	
8	0	511.20	156	153	1.61	1021.92	1017	12	1.08E-02	17.6	
9	0	583.68	45	62	1.55	1166.81	1159	13	3.14E-03	38.7	
10	0	609.82	253	45	1.16	1219.06	1213	13	1.76E-02	8.3	
11	0	1121.95	61	37	2.40	2243.10	2236	20	4.23E-03	29.5	
12	0	1765.98	72	4	3.42	3531.54	3525	14	5.02E-03	13.0	

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 03:04:44.18

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G242789002.CNF;1
Sample date       : 10-DEC-2009 12:00:00 Acquisition date : 17-DEC-2009 23:04:14
Sample ID         : G242789002           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM10                Detector geometry: 2LMB
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:00:00.90  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 933232                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
BI-211	72.87	------	1.27	1.097E+00	------ Line Not Found		------
	351.07	292	12.94*	1.612E+00	1.313E+02	1.313E+02	23.50
BI-214	609.31	208	46.30*	1.087E+00	3.886E+01	3.886E+01	23.13
	1120.29	------	15.10	6.689E-01	------ Line Not Found		------
	1764.49	52	15.80	4.857E-01	6.413E+01	6.413E+01	40.30
RA-224	240.98	74	3.95*	2.048E+00	8.583E+01	8.647E+01	82.75
RA-226	186.21	12	3.28*	2.336E+00	1.519E+01	1.519E+01	530.15

Flag: "*" = Keyline

Sample ID : G242789002 Acquisition date : 17-DEC-2009 23:04:14

Total number of lines in spectrum	10	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	10	100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
BI-211	7.04E+08Y	1.00	1.313E+02	1.313E+02	0.309E+02	23.50	
BI-214	1600.00Y	1.00	3.886E+01	3.886E+01	0.899E+01	23.13	
RA-224	1.91Y	1.01	8.583E+01	8.647E+01	7.156E+01	82.75	
RA-226	1600.00Y	1.00	1.519E+01	1.519E+01	8.052E+01	530.15	
	Total Activity :		2.712E+02	2.718E+02			
	Grand Total Activity :		2.712E+02	2.718E+02			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G242789002 Acquisition date : 17-DEC-2009 23:04:14

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	198.63	46	212	0.98	397.19	393	8	3.18E-03	****	2.27E+00	T
4	238.57	3	201	1.27	477.00	471	18	2.31E-04	****	2.07E+00	T
0	295.21	148	151	1.14	590.21	586	9	1.03E-02	36.4	1.81E+00	T
0	583.68	24	62	1.55	1166.81	1159	13	1.68E-03	****	1.12E+00	T
0	1121.95	43	37	2.40	2243.10	2236	20	3.01E-03	91.0	6.68E-01	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 03:04:49.53

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                            *
*                                DETECTOR DATA                               *
*                                                                            *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G242789002.CNF;1  *
* Acquisition date  : 17-DEC-2009 23:04:14  Detector SN#     :               *
* Detector ID       : GAM10                 Sensitivity      : 5.00000      *
* Geometry          : 2LMB                  Energy tolerance: 1.50000       *
* Elapsed live time: 0 04:00:00.00          Abundance limit : 75.00000      *
* Elapsed real time: 0 04:00:00.90          Half life ratio : 8.00000       *
*****************************************************************************
*                                                                            *
*                                SAMPLE DATA                                 *
*                                                                            *
* Sample date       : 10-DEC-2009 12:00:00  Nuclide Library : LIQUID        *
* Sample ID         : G242789002            Analyst initials: KXG3          *
* Batch Number      : 933232                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                            *
*                                  QC DATA                                   *
*                                                                            *
* CALIB. DATE/TIME : 25-FEB-2009 11:11:10.0MS Isotope      :                 *
* MSD ID           :                      MSD Isotope      :                 *
* LCS ID           : 1032-A               LCS Isotope      :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BI-211	1.313E+02	3.086E+01	2.018E+01	1.342E+00	6.509
BI-214	3.886E+01	8.988E+00	6.153E+00	4.582E-01	6.316
RA-224	8.647E+01	7.156E+01	7.087E+01	3.961E+00	1.220
RA-226	1.519E+01	8.052E+01	7.920E+01	5.811E+01	0.192

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	4.646E+00		1.832E+01	3.024E+01	2.095E+00	0.154
NA-22	-1.982E+00		2.146E+00	3.070E+00	1.968E-01	-0.646
NA-24	5.619E-04		4.085E-03	Half-Life too short		
AL-26	-9.106E-01		2.253E+00	3.354E+00	1.941E-01	-0.272
K-40	-1.530E+01		3.163E+01	4.905E+01	3.429E+00	-0.312
TI-44	2.136E+00		3.054E+00	5.196E+00	3.858E-01	0.411
SC-46	-4.430E-01		2.021E+00	3.211E+00	2.423E-01	-0.138
V-48	2.612E-01		2.807E+00	4.608E+00	3.329E-01	0.057

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CR-51	-1.670E+01		1.950E+01	3.034E+01	2.004E+00	-0.551
MN-52	7.272E-02		5.578E+00	9.211E+00	6.183E-01	0.008
MN-54	2.851E-01		2.094E+00	3.490E+00	2.396E-01	0.082
CO-56	1.519E+00		1.932E+00	3.463E+00	2.428E-01	0.439
CO-57	-6.334E-02		1.948E+00	3.152E+00	1.988E-01	-0.020
CO-58	1.040E+00		1.989E+00	3.466E+00	2.288E-01	0.300
FE-59	4.688E+00		4.745E+00	8.511E+00	6.220E-01	0.551
CO-60	5.978E-01		1.987E+00	3.446E+00	2.340E-01	0.173
ZN-65	-2.643E+00		5.457E+00	6.819E+00	4.273E-01	-0.388
GE-68	-7.215E+01		6.991E+01	9.593E+01	6.304E+00	-0.752
AS-73	4.395E+01		1.406E+02	2.385E+02	1.992E+01	0.184
AS-74	2.910E+00		4.456E+00	7.861E+00	4.277E-01	0.370
SE-75	-3.298E-01		2.515E+00	4.175E+00	2.414E-01	-0.079
BR-77	-1.232E+01		6.523E+01	1.026E+02	6.012E+00	-0.120
SR-82	1.067E+01		1.611E+01	2.855E+01	1.762E+00	0.374
RB-83	-3.653E-01		3.769E+00	5.990E+00	3.510E-01	-0.061
RB-84	-1.657E+00		3.193E+00	4.862E+00	3.620E-01	-0.341
KR-85	-2.717E+02		6.468E+02	1.013E+03	5.960E+01	-0.268
SR-85	-1.286E+00		3.061E+00	4.793E+00	2.821E-01	-0.268
RB-86	-2.212E+01		3.387E+01	4.960E+01	3.262E+00	-0.446
Y-88	1.014E-01		2.344E+00	3.814E+00	2.173E-01	0.027
ZR-88	-9.382E-01		1.897E+00	2.987E+00	1.819E-01	-0.314
Y-91	-2.976E+02		7.859E+02	1.247E+03	7.390E+01	-0.239
NB-94	8.362E-01		2.014E+00	3.473E+00	1.857E-01	0.241
NB-95	-1.636E-01		2.433E+00	3.996E+00	2.418E-01	-0.041
NB-95M	1.190E+00		7.760E+00	1.166E+01	8.563E-01	0.102
ZR-95	-1.853E+00		3.388E+00	5.237E+00	3.744E-01	-0.354
NB-97	-8.168E-04		1.416E-03	Half-Life too short		
ZR-97	-2.648E-01		4.412E-02	Half-Life too short		
MO-99	-1.437E+01		1.008E+02	1.647E+02	2.266E+01	-0.087
TC-99M	7.329E+02		1.106E+03	Half-Life too short		
RH-101	2.607E+00	+	3.323E+00	4.215E+00	2.252E-01	0.619
RH-102	3.004E-01		1.808E+00	2.964E+00	1.782E-01	0.101
RU-103	5.633E-01		2.156E+00	3.556E+00	4.520E-01	0.158
RH-106	-2.957E+00		1.761E+01	2.905E+01	3.333E+00	-0.102
RU-106	-2.957E+00		1.760E+01	2.905E+01	1.525E+00	-0.102
AG-108M	1.196E+00		2.311E+00	3.589E+00	2.354E-01	0.333
CD-109	-1.516E+01		6.645E+01	1.081E+02	8.304E+00	-0.140
AG-110M	-3.976E-01		1.803E+00	2.943E+00	1.585E-01	-0.135
IN-111	5.130E+00		1.215E+01	1.857E+01	1.043E+00	0.276
IN-113M	3.896E-01		2.825E+00	4.668E+00	3.016E-01	0.083
SN-113	3.896E-01		2.825E+00	4.668E+00	3.016E-01	0.083
IN-114M	-9.927E+00		1.382E+01	1.842E+01	9.774E-01	-0.539
CD-115	1.694E+01		6.552E+01	1.076E+02	6.268E+00	0.157
SN-117M	1.048E+00		2.866E+00	4.668E+00	2.494E-01	0.225
SB-122	-6.389E-02		1.796E+01	2.866E+01	1.617E+00	-0.002
I-123	1.462E-02		1.426E-02	Half-Life too short		
TE-123M	1.071E+00		2.090E+00	3.427E+00	1.857E-01	0.312

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
I-124	5.566E-01		1.115E+01	1.780E+01	9.602E-01	0.031
SB-124	5.490E-02		4.929E+00	8.027E+00	5.335E-01	0.007
SB-125	3.230E+00		5.727E+00	9.739E+00	6.158E-01	0.332
TE-125M	-1.710E+02		6.713E+02	1.079E+03	9.222E+01	-0.158
I-126	2.737E+00		7.286E+00	1.256E+01	6.232E-01	0.218
SB-126	-2.149E-01		5.325E+00	8.805E+00	4.878E-01	-0.024
SN-126	1.463E+00		6.703E+00	1.112E+01	8.533E-01	0.132
SB-127	9.791E+00		1.879E+01	3.293E+01	2.187E+00	0.297
XE-127	-9.052E-01		3.140E+00	4.623E+00	2.483E-01	-0.196
I-131	1.001E+00		4.056E+00	6.779E+00	4.515E-01	0.148
TE-132	-1.405E+00		8.656E+00	1.448E+01	1.890E+00	-0.097
BA-133	-9.002E-01		3.255E+00	4.571E+00	5.343E-01	-0.197
I-133	3.472E-04		4.544E-04	Half-Life too short		
CS-134	2.271E+00		2.258E+00	4.146E+00	2.688E-01	0.548
CS-135	2.741E+00		9.247E+00	1.575E+01	1.199E+00	0.174
I-135	-1.117E+03		6.881E+02	Half-Life too short		
CS-136	1.647E+00		4.197E+00	7.102E+00	5.146E-01	0.232
BA-137M	-1.821E+00		1.973E+00	2.982E+00	1.465E-01	-0.611
CS-137	-1.925E+00		2.086E+00	3.152E+00	1.558E-01	-0.611
CE-139	-1.888E+00		2.113E+00	3.204E+00	1.677E-01	-0.589
BA-140	-2.979E-01		1.117E+01	1.784E+01	5.801E+00	-0.017
LA-140	4.250E-01		3.391E+00	5.658E+00	3.638E-01	0.075
CE-141	5.155E-01		4.080E+00	6.596E+00	3.841E-01	0.078
CE-143	5.373E+02		2.376E+02	3.657E+02	7.481E+01	1.469
CE-144	1.063E+01		1.553E+01	2.579E+01	3.671E+00	0.412
PM-144	1.126E+00		1.993E+00	3.486E+00	1.841E-01	0.323
PR-144	7.598E+01		1.345E+02	2.353E+02	1.242E+01	0.323
PM-146	-2.123E+00		2.834E+00	4.287E+00	3.771E-01	-0.495
ND-147	1.380E+00		2.399E+01	3.864E+01	5.227E+00	0.036
PM-149	4.738E+01		5.695E+02	9.539E+02	1.351E+02	0.050
EU-152	2.599E+00		6.481E+00	1.063E+01	7.168E-01	0.244
GD-153	-2.278E+00		6.394E+00	1.028E+01	7.051E-01	-0.222
EU-154	-4.943E+00		5.996E+00	8.718E+00	8.477E-01	-0.567
EU-155	4.223E+00		8.611E+00	1.438E+01	9.558E-01	0.294
TB-160	3.092E+00		6.766E+00	1.171E+01	8.686E-01	0.264
HO-166M	-8.114E-01		3.603E+00	5.857E+00	3.189E-01	-0.139
TM-171	3.033E+03		3.098E+03	5.356E+03	3.965E+02	0.566
HF-175	-7.831E-02		2.172E+00	3.574E+00	2.154E-01	-0.022
LU-176	3.044E-01		1.701E+00	2.854E+00	1.688E-01	0.107
LU-177	3.743E+00		3.154E+01	5.375E+01	2.903E+00	0.070
LU-177M	3.186E-01		1.137E+01	1.858E+01	1.132E+00	0.017
HF-181	-8.129E-01		2.340E+00	3.654E+00	2.190E-01	-0.222
W-181	-3.680E+00		4.199E+01	6.954E+01	5.148E+00	-0.053
TA-182	-3.483E+00		9.800E+00	1.321E+01	7.977E-01	-0.264
RE-183	1.873E+00		7.662E+00	1.240E+01	6.549E-01	0.151
RE-184	7.956E-01		1.541E+01	2.593E+01	1.467E+00	0.031
OS-185	8.515E-02		2.521E+00	4.230E+00	2.137E-01	0.020
RE-188	-1.514E+00		1.200E+01	1.909E+01	1.031E+00	-0.079

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
W-188	-3.444E+02		5.216E+02	7.217E+02	4.220E+01	-0.477
IR-192	5.198E-01		2.014E+00	3.395E+00	2.029E-01	0.153
AU-195	5.967E+00		1.805E+01	2.999E+01	2.033E+00	0.199
TL-200	-9.382E+00		2.347E+02	3.843E+02	2.333E+01	-0.024
TL-201	-3.684E+01		9.053E+01	1.412E+02	7.387E+00	-0.261
TL-202	4.338E-01		2.909E+00	4.782E+00	2.906E-01	0.091
HG-203	4.389E-01		2.363E+00	3.987E+00	2.453E-01	0.110
BI-207	1.679E+00		2.649E+00	4.647E+00	3.103E-01	0.361
TL-207	2.997E+01		4.647E+01	7.938E+01	1.316E+01	0.378
TL-208	2.425E+00	+	3.762E+00	4.290E+00	2.767E-01	0.565
PO-209	-1.444E+02		4.549E+02	7.160E+02	5.469E+01	-0.202
BI-210	4.502E+02		8.464E+02	1.327E+03	1.235E+02	0.339
PB-210	4.502E+02		8.464E+02	1.327E+03	1.235E+02	0.339
PO-210	4.502E+02		8.462E+02	1.327E+03	1.118E+02	0.339
PB-211	-1.053E+01		5.811E+01	9.290E+01	5.794E+01	-0.113
BI-212	3.445E+00		1.612E+01	2.732E+01	2.069E+00	0.126
PB-212	3.415E-01	+	5.567E+00	6.925E+00	4.955E-01	0.049
PO-212	3.415E-01	+	5.567E+00	6.925E+00	4.955E-01	0.049
PB-214	4.568E+01	+	1.100E+01	1.391E+01	1.176E+00	3.284
PO-214	4.568E+01	+	1.100E+01	1.391E+01	1.176E+00	3.284
PO-215	2.997E+01		4.647E+01	7.938E+01	1.316E+01	0.378
PO-216	3.415E-01	+	5.567E+00	6.925E+00	4.955E-01	0.049
PO-218	4.568E+01	+	1.100E+01	1.391E+01	1.176E+00	3.284
RN-219	2.183E+01		2.399E+01	4.178E+01	5.739E+00	0.522
RN-220	-9.802E+02		1.521E+03	2.258E+03	1.291E+02	-0.434
RA-223	2.997E+01		4.647E+01	7.938E+01	1.316E+01	0.378
AC-227	-3.154E+00		2.554E+01	4.254E+01	5.916E+00	-0.074
PA-227	-1.000E+35		2.065E+35	Half-Life too short		
TH-227	-3.154E+00		2.554E+01	4.254E+01	7.170E+00	-0.074
AC-228	3.314E+00		9.794E+00	1.570E+01	1.646E+00	0.211
RA-228	3.314E+00		9.794E+00	1.570E+01	1.646E+00	0.211
TH-228	3.415E-01	+	5.567E+00	6.925E+00	4.955E-01	0.049
TH-229	-3.654E+00		4.307E+01	6.017E+01	3.202E+00	-0.061
TH-230	-7.489E+02		5.016E+03	2.014E+03	1.306E+04	-0.372
PA-231	8.914E-01		1.044E+02	1.741E+02	2.401E+01	0.005
TH-231	-4.540E+01		4.803E+01	6.800E+01	1.180E+01	-0.668
U-231	-1.991E+01		2.537E+01	3.989E+01	2.777E+00	-0.499
TH-232	-2.705E+03		2.876E+04	6.597E+03	6.945E+04	-0.410
PA-233	3.653E+00		4.235E+00	7.389E+00	4.644E-01	0.494
PA-234	-1.170E+01		1.785E+01	2.646E+01	4.828E+00	-0.442
PA-234M	-1.616E+02		3.133E+02	4.261E+02	3.706E+01	-0.379
TH-234	-9.712E+01		1.804E+02	2.757E+02	4.806E+01	-0.352
U-234	6.935E+03		7.030E+04	1.976E+04	1.976E+05	0.351
U-235	-6.297E+00		1.776E+01	2.625E+01	4.263E+00	-0.240
NP-236	-2.434E+00		6.201E+00	9.715E+00	5.163E-01	-0.251
NP-237	1.134E+01		2.016E+01	3.373E+01	7.420E+00	0.336
PU-237	-7.002E+01		2.462E+02	4.048E+02	2.931E+01	-0.173
U-238	-9.712E+01		1.804E+02	2.757E+02	4.806E+01	-0.352

Sample ID : G242789002 Acquisition date : 17-DEC-2009 23:04:14

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NP-239	5.664E+00		1.494E+01	2.471E+01	1.558E+00	0.229
AM-241	-5.699E+00		2.004E+01	3.294E+01	2.627E+00	-0.173
AM-243	-1.149E+00		6.415E+00	9.736E+00	7.194E-01	-0.118
CM-243	-3.761E+00		8.883E+00	1.287E+01	8.445E-01	-0.292
AM-246	-2.331E+00		7.636E+00	1.176E+01	7.713E-01	-0.198
CM-247	-2.013E-01		2.226E+00	3.609E+00	2.200E-01	-0.056
CF-249	3.960E-01		2.635E+00	4.360E+00	2.655E-01	0.091
CF-251	-4.713E-01		9.453E+00	1.500E+01	7.879E-01	-0.031
ANH-511	-1.103E+01		3.966E+00	5.780E+00	3.408E-01	-1.909

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G242789002            *
* Acquisition date : 17-DEC-2009 23:04:14 Detector SN#    :                 *
* Detector ID      : GAM10                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:00:00.90     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 10-DEC-2009 12:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G242789002           Analyst initials: KXG3            *
* Batch Number     : 933232               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 25-FEB-2009 11:11:10 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
BI-211	1.313E+02	3.024E+01	1.009E+01	1.543E+01
BI-214	3.886E+01	8.808E+00	3.078E+00	4.494E+00
RA-224	8.647E+01	7.013E+01	3.546E+01	3.578E+01
RA-226	1.519E+01	7.891E+01	3.963E+01	4.026E+01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU	
BE-7	4.646E+00	1.795E+01	1.513E+01	9.158E+00	NOT IDENT.
NA-22	-1.982E+00	2.103E+00	1.536E+00	1.073E+00	NOT IDENT.
NA-24	5.619E+02	8.006E+03	0.000E+00	4.085E+03	SHORT HLIF
AL-26	-9.106E-01	2.208E+00	1.678E+00	1.126E+00	NOT IDENT.
K-40	-1.530E+01	3.100E+01	2.454E+01	1.582E+01	NOT IDENT.
TI-44	2.136E+00	2.993E+00	2.600E+00	1.527E+00	NOT IDENT.
SC-46	-4.430E-01	1.980E+00	1.607E+00	1.010E+00	FAIL ABUN
V-48	2.612E-01	2.751E+00	2.306E+00	1.403E+00	NOT IDENT.
CR-51	-1.670E+01	1.911E+01	1.518E+01	9.750E+00	NOT IDENT.
MN-52	7.272E-02	5.466E+00	4.608E+00	2.789E+00	NOT IDENT.
MN-54	2.851E-01	2.052E+00	1.746E+00	1.047E+00	NOT IDENT.
CO-56	1.519E+00	1.894E+00	1.733E+00	9.662E-01	NOT IDENT.
CO-57	-6.334E-02	1.909E+00	1.577E+00	9.742E-01	NOT IDENT.
CO-58	1.040E+00	1.949E+00	1.734E+00	9.943E-01	NOT IDENT.
FE-59	4.688E+00	4.650E+00	4.258E+00	2.373E+00	NOT IDENT.
CO-60	5.978E-01	1.947E+00	1.724E+00	9.936E-01	NOT IDENT.
ZN-65	-2.643E+00	5.348E+00	3.411E+00	2.729E+00	NOT IDENT.
GE-68	-7.215E+01	6.851E+01	4.799E+01	3.496E+01	NOT IDENT.
AS-73	4.395E+01	1.378E+02	1.193E+02	7.030E+01	NOT IDENT.
AS-74	2.910E+00	4.367E+00	3.933E+00	2.228E+00	NOT IDENT.
SE-75	-3.298E-01	2.464E+00	2.089E+00	1.257E+00	FAIL ABUN
BR-77	-1.232E+01	6.393E+01	5.135E+01	3.262E+01	FAIL ABUN
SR-82	1.067E+01	1.578E+01	1.428E+01	8.053E+00	NOT IDENT.

RB-83	-3.653E-01	3.694E+00	2.997E+00	1.885E+00	NOT IDENT.
RB-84	-1.657E+00	3.129E+00	2.432E+00	1.597E+00	NOT IDENT.
KR-85	-2.717E+02	6.339E+02	5.067E+02	3.234E+02	NOT IDENT.
SR-85	-1.286E+00	3.000E+00	2.398E+00	1.531E+00	NOT IDENT.
RB-86	-2.212E+01	3.319E+01	2.481E+01	1.693E+01	NOT IDENT.
Y-88	1.014E-01	2.297E+00	1.908E+00	1.172E+00	NOT IDENT.
ZR-88	-9.382E-01	1.860E+00	1.494E+00	9.487E-01	NOT IDENT.
Y-91	-2.976E+02	7.702E+02	6.238E+02	3.929E+02	NOT IDENT.
NB-94	8.362E-01	1.974E+00	1.738E+00	1.007E+00	NOT IDENT.
NB-95	-1.636E-01	2.385E+00	1.999E+00	1.217E+00	NOT IDENT.
NB-95M	1.190E+00	7.605E+00	5.833E+00	3.880E+00	NOT IDENT.
ZR-95	-1.853E+00	3.321E+00	2.620E+00	1.694E+00	NOT IDENT.
NB-97	-8.168E+02	2.775E+03	0.000E+00	1.416E+03	SHORT HLIF
ZR-97	-2.648E+05	8.647E+04	0.000E+00	4.412E+04	SHORT HLIF
MO-99	-1.437E+01	9.882E+01	8.238E+01	5.042E+01	NOT IDENT.
TC-99M	7.329E+08	2.169E+09	0.000E+00	1.106E+09	SHORT HLIF
RH-101	2.607E+00	3.256E+00	2.109E+00	1.661E+00	FAIL ABUN
RH-102	3.004E-01	1.772E+00	1.483E+00	9.040E-01	NOT IDENT.
RU-103	5.633E-01	2.113E+00	1.779E+00	1.078E+00	FAIL ABUN
RH-106	-2.957E+00	1.725E+01	1.453E+01	8.803E+00	NOT IDENT.
RU-106	-2.957E+00	1.725E+01	1.453E+01	8.801E+00	NOT IDENT.
AG-108M	1.196E+00	2.265E+00	1.796E+00	1.156E+00	NOT IDENT.
CD-109	-1.516E+01	6.512E+01	5.406E+01	3.322E+01	NOT IDENT.
AG-110M	-3.976E-01	1.767E+00	1.473E+00	9.016E-01	NOT IDENT.
IN-111	5.130E+00	1.191E+01	9.289E+00	6.076E+00	NOT IDENT.
IN-113M	3.896E-01	2.769E+00	2.336E+00	1.413E+00	NOT IDENT.
SN-113	3.896E-01	2.769E+00	2.336E+00	1.413E+00	NOT IDENT.
IN-114M	-9.927E+00	1.355E+01	9.215E+00	6.911E+00	NOT IDENT.
CD-115	1.694E+01	6.420E+01	5.382E+01	3.276E+01	NOT IDENT.
SN-117M	1.048E+00	2.809E+00	2.336E+00	1.433E+00	NOT IDENT.
SB-122	-6.389E-02	1.760E+01	1.434E+01	8.980E+00	NOT IDENT.
I-123	1.462E+04	2.796E+04	0.000E+00	1.426E+04	SHORT HLIF
TE-123M	1.071E+00	2.048E+00	1.715E+00	1.045E+00	NOT IDENT.
I-124	5.566E-01	1.093E+01	8.907E+00	5.575E+00	NOT IDENT.
SB-124	5.490E-02	4.830E+00	4.016E+00	2.464E+00	NOT IDENT.
SB-125	3.230E+00	5.613E+00	4.872E+00	2.864E+00	NOT IDENT.
TE-125M	-1.710E+02	6.579E+02	5.398E+02	3.357E+02	NOT IDENT.
I-126	2.737E+00	7.140E+00	6.284E+00	3.643E+00	NOT IDENT.
SB-126	-2.149E-01	5.218E+00	4.405E+00	2.662E+00	FAIL ABUN
SN-126	1.463E+00	6.569E+00	5.565E+00	3.351E+00	NOT IDENT.
SB-127	9.791E+00	1.841E+01	1.648E+01	9.393E+00	NOT IDENT.
XE-127	-9.052E-01	3.077E+00	2.313E+00	1.570E+00	NOT IDENT.
I-131	1.001E+00	3.975E+00	3.391E+00	2.028E+00	NOT IDENT.
TE-132	-1.405E+00	8.483E+00	7.244E+00	4.328E+00	NOT IDENT.
BA-133	-9.002E-01	3.190E+00	2.287E+00	1.628E+00	NOT IDENT.
I-133	3.472E+02	8.907E+02	0.000E+00	4.544E+02	SHORT HLIF
CS-134	2.271E+00	2.213E+00	2.074E+00	1.129E+00	NOT IDENT.
CS-135	2.741E+00	9.063E+00	7.877E+00	4.624E+00	NOT IDENT.
I-135	-1.117E+09	1.349E+09	0.000E+00	6.881E+08	SHORT HLIF
CS-136	1.647E+00	4.113E+00	3.553E+00	2.099E+00	NOT IDENT.
BA-137M	-1.821E+00	1.934E+00	1.492E+00	9.866E-01	NOT IDENT.
CS-137	-1.925E+00	2.044E+00	1.577E+00	1.043E+00	NOT IDENT.
CE-139	-1.888E+00	2.071E+00	1.603E+00	1.056E+00	NOT IDENT.
BA-140	-2.979E-01	1.094E+01	8.925E+00	5.583E+00	NOT IDENT.
LA-140	4.250E-01	3.323E+00	2.831E+00	1.695E+00	NOT IDENT.
CE-141	5.155E-01	3.998E+00	3.300E+00	2.040E+00	NOT IDENT.
CE-143	5.373E+02	2.329E+02	1.830E+02	1.188E+02	FAIL ABUN
CE-144	1.063E+01	1.522E+01	1.290E+01	7.766E+00	NOT IDENT.
PM-144	1.126E+00	1.954E+00	1.744E+00	9.967E-01	NOT IDENT.
PR-144	7.598E+01	1.318E+02	1.177E+02	6.727E+01	NOT IDENT.
PM-146	-2.123E+00	2.778E+00	2.145E+00	1.417E+00	NOT IDENT.
ND-147	1.380E+00	2.351E+01	1.933E+01	1.199E+01	NOT IDENT.
PM-149	4.738E+01	5.582E+02	4.772E+02	2.848E+02	NOT IDENT.
EU-152	2.599E+00	6.351E+00	5.319E+00	3.240E+00	NOT IDENT.
GD-153	-2.278E+00	6.266E+00	5.141E+00	3.197E+00	NOT IDENT.
EU-154	-4.943E+00	5.876E+00	4.362E+00	2.998E+00	NOT IDENT.
EU-155	4.223E+00	8.439E+00	7.195E+00	4.305E+00	NOT IDENT.
TB-160	3.092E+00	6.631E+00	5.857E+00	3.383E+00	NOT IDENT.
HO-166M	-8.114E-01	3.531E+00	2.930E+00	1.802E+00	FAIL ABUN
TM-171	3.033E+03	3.036E+03	2.680E+03	1.549E+03	NOT IDENT.
HF-175	-7.831E-02	2.129E+00	1.788E+00	1.086E+00	NOT IDENT.
LU-176	3.044E-01	1.667E+00	1.428E+00	8.505E-01	NOT IDENT.
LU-177	3.743E+00	3.091E+01	2.689E+01	1.577E+01	NOT IDENT.
LU-177M	3.186E-01	1.114E+01	9.294E+00	5.685E+00	NOT IDENT.
HF-181	-8.129E-01	2.293E+00	1.828E+00	1.170E+00	NOT IDENT.
W-181	-3.680E+00	4.116E+01	3.479E+01	2.100E+01	NOT IDENT.
TA-182	-3.483E+00	9.604E+00	6.610E+00	4.900E+00	FAIL ABUN
RE-183	1.873E+00	7.509E+00	6.202E+00	3.831E+00	NOT IDENT.

RE-184	7.956E-01	1.510E+01	1.297E+01	7.704E+00	NOT IDENT.
OS-185	8.515E-02	2.471E+00	2.116E+00	1.261E+00	NOT IDENT.
RE-188	-1.514E+00	1.176E+01	9.553E+00	5.999E+00	NOT IDENT.
W-188	-3.444E+02	5.111E+02	3.611E+02	2.608E+02	NOT IDENT.
IR-192	5.198E-01	1.974E+00	1.699E+00	1.007E+00	FAIL ABUN
AU-195	5.967E+00	1.769E+01	1.501E+01	9.025E+00	NOT IDENT.
TL-200	-9.382E+00	2.300E+02	1.923E+02	1.173E+02	NOT IDENT.
TL-201	-3.684E+01	8.872E+01	7.064E+01	4.526E+01	NOT IDENT.
TL-202	4.338E-01	2.851E+00	2.392E+00	1.455E+00	NOT IDENT.
HG-203	4.389E-01	2.316E+00	1.995E+00	1.182E+00	NOT IDENT.
BI-207	1.679E+00	2.596E+00	2.325E+00	1.325E+00	NOT IDENT.
TL-207	2.997E+01	4.554E+01	3.971E+01	2.323E+01	NOT IDENT.
TL-208	2.425E+00	3.686E+00	2.146E+00	1.881E+00	FAIL ABUN
PO-209	-1.444E+02	4.458E+02	3.582E+02	2.274E+02	NOT IDENT.
BI-210	4.502E+02	8.295E+02	6.639E+02	4.232E+02	NOT IDENT.
PB-210	4.502E+02	8.295E+02	6.639E+02	4.232E+02	NOT IDENT.
PO-210	4.502E+02	8.293E+02	6.639E+02	4.231E+02	NOT IDENT.
PB-211	-1.053E+01	5.695E+01	4.648E+01	2.905E+01	NOT IDENT.
BI-212	3.445E+00	1.580E+01	1.367E+01	8.061E+00	NOT IDENT.
PB-212	3.415E-01	5.456E+00	3.464E+00	2.784E+00	FAIL ABUN
PO-212	3.415E-01	5.456E+00	3.464E+00	2.784E+00	FAIL ABUN
PB-214	4.568E+01	1.078E+01	6.958E+00	5.498E+00	FAIL ABUN
PO-214	4.568E+01	1.078E+01	6.958E+00	5.498E+00	FAIL ABUN
PO-215	2.997E+01	4.554E+01	3.971E+01	2.323E+01	NOT IDENT.
PO-216	3.415E-01	5.456E+00	3.464E+00	2.784E+00	FAIL ABUN
PO-218	4.568E+01	1.078E+01	6.958E+00	5.498E+00	FAIL ABUN
RN-219	2.183E+01	2.351E+01	2.090E+01	1.199E+01	NOT IDENT.
RN-220	-9.802E+02	1.491E+03	1.130E+03	7.607E+02	NOT IDENT.
RA-223	2.997E+01	4.554E+01	3.971E+01	2.323E+01	NOT IDENT.
AC-227	-3.154E+00	2.503E+01	2.128E+01	1.277E+01	NOT IDENT.
PA-227	-1.000E+41	4.048E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-3.154E+00	2.503E+01	2.128E+01	1.277E+01	NOT IDENT.
AC-228	3.314E+00	9.599E+00	7.855E+00	4.897E+00	NOT IDENT.
RA-228	3.314E+00	9.599E+00	7.855E+00	4.897E+00	NOT IDENT.
TH-228	3.415E-01	5.456E+00	3.464E+00	2.784E+00	FAIL ABUN
TH-229	-3.654E+00	4.221E+01	3.010E+01	2.153E+01	NOT IDENT.
TH-230	-7.489E+02	4.915E+03	1.008E+03	2.508E+03	NOT IDENT.
PA-231	8.914E-01	1.023E+02	8.712E+01	5.218E+01	NOT IDENT.
TH-231	-4.540E+01	4.707E+01	3.402E+01	2.401E+01	NOT IDENT.
U-231	-1.991E+01	2.486E+01	1.996E+01	1.268E+01	NOT IDENT.
TH-232	-2.705E+03	2.819E+04	3.301E+03	1.438E+04	NOT IDENT.
PA-233	3.653E+00	4.150E+00	3.697E+00	2.117E+00	NOT IDENT.
PA-234	-1.170E+01	1.749E+01	1.324E+01	8.925E+00	FAIL ABUN
PA-234M	-1.616E+02	3.070E+02	2.132E+02	1.567E+02	NOT IDENT.
TH-234	-9.712E+01	1.768E+02	1.379E+02	9.022E+01	NOT IDENT.
U-234	6.935E+03	6.889E+04	9.884E+03	3.515E+04	NOT IDENT.
U-235	-6.297E+00	1.741E+01	1.313E+01	8.881E+00	FAIL ABUN
NP-236	-2.434E+00	6.077E+00	4.860E+00	3.100E+00	NOT IDENT.
NP-237	1.134E+01	1.976E+01	1.687E+01	1.008E+01	NOT IDENT.
PU-237	-7.002E+01	2.413E+02	2.025E+02	1.231E+02	NOT IDENT.
U-238	-9.712E+01	1.768E+02	1.379E+02	9.022E+01	NOT IDENT.
NP-239	5.664E+00	1.464E+01	1.236E+01	7.471E+00	NOT IDENT.
AM-241	-5.699E+00	1.964E+01	1.648E+01	1.002E+01	NOT IDENT.
AM-243	-1.149E+00	6.287E+00	4.871E+00	3.207E+00	NOT IDENT.
CM-243	-3.761E+00	8.705E+00	6.441E+00	4.442E+00	NOT IDENT.
AM-246	-2.331E+00	7.483E+00	5.883E+00	3.818E+00	NOT IDENT.
CM-247	-2.013E-01	2.182E+00	1.806E+00	1.113E+00	NOT IDENT.
CF-249	3.960E-01	2.582E+00	2.181E+00	1.317E+00	NOT IDENT.
CF-251	-4.713E-01	9.264E+00	7.504E+00	4.727E+00	NOT IDENT.
ANH-511	-1.103E+01	3.887E+00	2.892E+00	1.983E+00	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	161.6842
46.50	161.6842
46.50	161.6842
48.70	209.5207
49.72	204.5620
51.35	184.1525
52.39	195.7809
52.97	203.5047
53.15	208.2460
53.20	208.2722
53.44	218.6326
54.07	219.9116
56.28	207.0627
56.28	207.0644
57.37	201.9769
57.53	202.0551
57.53	202.0560
57.60	195.5094
57.98	194.7474
57.98	194.7474
59.00	223.5147
59.32	201.9763
59.32	201.9763
59.40	202.0144
59.54	202.0814
59.54	202.0814
59.72	202.1674
60.01	244.8458
61.10	245.4696
61.14	245.4920
61.30	215.2406
63.00	231.3124
63.29	230.5122
63.29	230.5122
63.58	230.6636
64.28	219.5720
64.62	0.0000
65.12	254.4174
65.20	254.4624
65.20	254.4624
66.05	243.4412
66.72	207.3252
66.83	210.2560
66.91	210.2927
67.20	227.7217
67.20	227.7217
67.67	242.3818
67.75	243.3861
67.85	243.4389
68.90	257.4924
68.90	257.4924
69.30	252.8877
69.67	235.7011
70.82	214.0027
70.82	214.0027
70.83	214.0072
72.80	252.8126
72.80	252.8126
72.87	252.8496
72.87	252.8496
74.67	273.3079
74.81	270.4571
74.81	270.4571
74.81	270.4571
74.81	270.4571
74.81	270.4571
74.81	270.4571

74.81	270.4571
74.97	270.5445
74.97	270.5445
75.28	235.5318
75.70	231.8190
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77.11	282.5024
77.11	282.5024
77.11	282.5024
77.11	282.5024
77.11	282.5024
77.11	282.5024
78.38	211.4285
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79.80	268.2273
79.80	268.2273
80.11	268.3905
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80.30	225.0568
80.30	225.0568
80.57	225.1750
81.00	227.3398
81.07	227.3702
81.07	227.3702
81.07	227.3702
82.60	227.0467
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83.78	224.5758
83.78	224.5758
84.21	241.6639
84.21	241.6639
84.90	233.0157
85.43	232.2498
86.29	233.6191
86.50	233.7108
86.54	233.7274
86.59	233.7489
86.72	249.7927
86.79	249.8233
86.94	249.8932
87.30	244.0583
87.30	244.0583
87.30	244.0583
87.30	244.0583
87.30	244.0583
87.30	244.0583
87.30	244.0583
87.57	244.1787
87.88	251.3268
88.03	251.3958
88.36	263.5739
88.47	263.6260
89.36	338.3490
89.95	337.7056
91.11	252.8001
92.29	214.9782
92.38	215.0129
92.38	215.0129
93.35	238.6384
94.00	258.1452
94.67	308.1068
94.67	308.1099
94.90	312.2892
94.90	312.2892
94.90	312.2892
95.87	238.6731
95.87	238.6731
96.73	223.7710
97.43	219.9650
98.44	209.1228
98.44	209.1228
98.88	203.1539
99.55	206.4498
99.55	206.4498
99.86	189.1741
100.00	189.2193
100.10	189.2522

103.18	209.7576
103.76	213.0455
105.00	222.7588
105.31	196.0448
108.00	240.4194
109.28	213.9107
110.05	0.0000
111.00	211.3664
111.00	211.3664
111.76	182.4296
112.95	252.7406
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115.19	205.4058
115.19	205.4058
116.30	185.8073
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117.00	199.6658
117.66	216.6956
121.11	200.8960
121.62	194.6989
121.78	201.0951
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122.32	209.7274
122.32	209.7274
122.32	209.7274
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133.02	208.6491
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136.00	227.8643
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136.48	271.2400
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140.51	0.0000
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142.65	270.2232
143.76	220.4238
144.24	198.7237
144.24	198.7237
144.24	198.7237
145.22	221.9383
145.44	229.6576
147.16	235.6505
152.43	222.8978
152.70	232.9083
153.22	228.6425
154.21	206.8064
154.21	206.8064
154.21	206.8064
155.03	228.0535
156.02	238.3100
158.56	220.1558
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161.27	252.1211
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162.64	198.9028
163.35	204.6650
163.89	198.0825
165.85	226.5904
167.43	213.5297
171.28	219.0117
171.86	228.1973
172.10	224.8710
176.55	220.3438
176.60	211.2689
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185.71	195.0735
186.00	195.1358
186.21	192.8845
190.27	230.0651
192.34	190.7040
193.63	215.2725

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198.01	202.3185
198.60	205.9346
200.40	197.5793
201.83	204.5283
202.84	210.3516
205.31	205.6141
208.36	185.9805
208.81	195.7659
209.75	201.2482
209.75	201.2482
210.97	174.9827
215.65	178.4636
216.55	167.9590
218.09	172.6628
222.10	163.5107
223.80	161.9889
226.40	149.8327
227.00	146.3272
227.08	154.4184
227.20	156.2325
228.16	159.9694
228.18	159.9721
228.18	159.9721
231.56	151.4681
235.69	157.8451
236.00	157.8917
236.00	157.8917
238.63	170.6174
238.63	170.6174
238.63	170.6174
238.63	170.6174
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240.98	170.9846
241.98	171.1409
241.98	171.1409
241.98	171.1409
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245.39	147.5633
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249.79	147.5964
252.40	152.5323
252.85	155.3508
252.85	155.3508
254.15	0.0000
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256.20	152.1194
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260.90	137.0043
262.80	123.3197
264.65	117.0157
268.24	114.5768
268.79	115.5632
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269.46	126.8173
269.46	126.8173
271.23	125.1384
273.65	145.0429
276.40	146.3119
277.35	141.7330
277.60	138.0076
277.60	138.0076
278.00	135.2351
278.60	140.9409
279.20	134.4291
279.53	137.2871
280.46	137.3918
281.68	141.2956
283.67	140.5810
284.30	141.5977
285.00	132.2327
285.90	136.1096
286.10	125.7327
286.10	125.7327
287.40	127.7552
288.45	0.0000
290.67	150.2934

290.80	159.4175
291.72	130.6671
293.26	106.4868
293.70	106.5244
295.21	136.1703
295.21	136.1703
295.21	136.1703
295.96	157.0222
296.50	138.7861
297.23	152.6001
298.57	139.0127
299.80	137.6169
299.80	137.6169
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300.09	142.2360
300.09	142.2360
300.12	142.2382
301.29	140.6455
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303.76	146.6662
303.91	140.9326
304.40	128.5162
304.40	128.5162
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306.84	127.7966
308.46	136.6135
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316.51	100.6659
318.01	97.8715
319.02	102.7943
319.41	112.5237
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323.87	123.6010
323.87	123.6010
325.23	117.8797
328.77	127.9537
329.70	130.9718
329.70	130.9718
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334.20	107.8650
334.20	107.8650
334.30	107.8717
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338.28	116.0464
338.28	116.0464
338.32	116.0500
338.32	116.0500
340.50	120.1701
340.57	120.1757
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351.07	93.2785
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351.92	93.3345
351.92	93.3345
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367.43	94.3256
367.94	97.3685
369.80	98.4950
374.96	82.6969
383.85	97.3799
387.95	94.5879
388.63	88.5240
391.69	94.8150
391.69	94.8150
392.90	101.0091
398.62	79.8722
400.65	70.7467
401.10	58.4594
401.81	61.5637

402.60	80.0721
404.84	86.3520
410.95	91.8396
411.60	73.2946
413.65	94.0590
414.70	93.0858
415.30	97.2588
415.76	92.1113
417.63	0.0000
418.52	90.1927
423.70	82.1559
427.08	70.8596
427.89	69.8523
432.53	86.7728
433.00	72.1565
433.93	63.8249
439.47	80.8291
439.56	77.6844
439.89	80.8491
443.98	73.6754
444.90	69.5016
445.03	69.5077
445.03	69.5077
445.03	69.5077
453.90	87.8582
463.38	58.5332
468.07	66.1569
473.00	84.5282
475.06	66.4142
475.35	57.8537
476.78	63.2601
477.59	66.5060
477.96	67.5931
482.03	70.9699
484.57	54.9159
487.03	77.6327
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492.35	60.5544
497.08	58.5393
507.63	0.0000
510.53	0.0000
510.84	108.1053
511.00	108.1143
511.85	103.7910
511.85	103.7910
513.99	169.5324
513.99	169.5324
520.41	54.8706
520.65	54.8767
527.90	62.7925
528.96	0.0000
529.64	70.5664
529.87	0.0000
531.02	73.9253
537.32	66.4124
543.00	65.4909
546.56	0.0000
549.76	57.9152
552.65	46.8437
555.20	67.0038
563.23	69.5097
563.90	59.4390
568.70	64.0728
569.32	56.2210
569.50	56.2256
569.67	56.2302
573.80	63.1025
574.00	63.1077
574.64	62.2263
578.91	75.3052
579.30	72.3066
583.14	58.8555
585.48	51.3666
591.81	73.6416
592.07	73.6515
593.00	77.3218
595.88	63.7622
600.56	80.3301

602.52	0.0000
602.71	55.9669
602.71	55.9669
603.60	67.0366
604.41	54.8687
604.70	54.8760
609.31	50.4091
610.33	50.4319
612.46	48.9505
614.37	45.9314
618.01	50.6078
621.84	50.6951
621.84	50.6951
631.29	55.5366
633.02	50.0212
633.10	50.0238
634.78	54.6960
635.90	50.0858
636.97	64.0288
645.85	50.3046
646.12	57.7632
656.30	39.3032
657.75	44.9461
657.90	0.0000
661.65	57.2143
661.65	57.2143
664.57	32.8689
666.33	53.5683
666.33	53.5683
675.00	44.3333
677.61	32.1058
685.20	37.8916
692.80	53.2150
695.00	48.5085
696.49	47.5854
696.49	47.5854
697.00	48.5484
697.49	57.1260
698.33	60.0038
698.50	59.0559
699.00	60.0207
702.63	51.5228
706.10	51.5953
706.58	0.0000
706.67	48.7401
709.31	53.5760
711.68	53.6266
713.82	43.1301
717.42	54.7108
720.50	47.0901
721.93	50.9633
722.20	49.0452
722.78	45.2088
722.78	45.2088
722.89	45.2111
722.95	45.2123
723.30	50.0297
724.18	41.3844
727.18	44.3244
733.00	50.2214
735.90	34.8091
739.58	48.4155
742.81	54.2938
744.21	32.9823
747.13	43.7025
751.79	36.9711
752.31	39.8979
753.82	39.9209
755.35	39.9440
756.15	40.9315
756.87	38.9932
763.13	42.0184
763.93	48.8733
765.79	52.8201
766.42	45.9845
766.84	44.0343
776.49	30.4460
778.00	32.4288

778.57	39.3164
778.89	48.1674
783.80	34.4694
785.46	26.6071
792.07	39.5146
795.84	24.7314
796.30	27.7033
798.80	41.5939
801.93	35.6933
805.60	37.7263
810.29	33.8132
810.76	31.8297
815.85	36.8708
817.79	33.9054
818.51	33.9145
819.60	33.9278
826.30	33.0089
828.27	47.0459
831.60	39.0847
831.96	40.0918
834.83	42.1395
836.80	0.0000
846.75	26.1968
848.13	35.2820
856.28	0.0000
856.80	32.3555
860.37	32.3961
867.32	41.6076
867.82	43.6446
871.10	23.3712
873.19	40.6748
874.81	38.6624
875.33	0.0000
876.40	38.6837
879.36	26.4945
880.27	31.5994
880.51	31.6017
881.50	35.6913
883.24	29.5905
884.67	33.6880
889.25	34.7628
896.60	44.0740
898.02	45.1204
899.00	40.0064
903.28	45.1999
911.07	36.0476
911.07	36.0476
919.63	34.0844
920.93	29.9657
925.00	39.3183
925.24	35.1820
926.50	28.9851
935.52	23.8793
937.48	37.4001
944.10	30.1930
946.00	42.7127
949.00	32.3260
962.29	34.5573
964.01	50.2934
966.15	41.9395
968.20	30.4259
969.11	35.6817
969.11	35.6817
977.42	44.1933
980.50	33.7031
983.50	30.5725
989.30	33.7961
996.32	34.9280
1001.03	33.9188
1001.68	34.9852
1004.76	30.7736
1021.30	0.0000
1024.50	0.0000
1034.80	33.1963
1036.00	25.7098
1037.82	25.7238
1038.57	26.8018
1038.76	0.0000

1045.16	32.2251
1046.59	32.2397
1048.07	31.1778
1050.47	25.8211
1050.47	25.8211
1062.04	25.9090
1063.62	21.6006
1076.63	37.9446
1077.35	41.2062
1078.86	31.4610
1085.78	32.6104
1093.90	33.7761
1099.22	27.2803
1112.02	30.6646
1112.84	25.1944
1115.52	36.5413
1120.29	32.9312
1120.51	34.7638
1121.28	27.4512
1124.00	0.0000
1129.67	37.7352
1131.51	0.0000
1147.95	0.0000
1167.94	25.0258
1173.22	26.9185
1175.09	20.4307
1177.93	26.0233
1189.05	31.6938
1204.90	29.9557
1205.75	30.8986
1213.00	29.0814
1221.42	25.3850
1230.97	20.7351
1235.34	33.0261
1236.41	0.0000
1238.25	25.4960
1246.25	27.4412
1260.41	0.0000
1271.85	23.8108
1274.45	29.5456
1274.54	30.4987
1291.56	29.6730
1298.22	0.0000
1312.09	21.1657
1325.50	19.3050
1325.50	19.3050
1332.49	17.4038
1333.61	16.4418
1360.21	21.4146
1362.66	0.0000
1365.15	15.5924
1368.21	16.5794
1368.53	0.0000
1376.25	21.4960
1384.27	35.2427
1394.10	19.6248
1395.20	20.6112
1407.95	26.5792
1434.06	20.7975
1436.60	24.7732
1457.56	0.0000
1460.81	24.9105
1489.15	18.0491
1509.49	24.1738
1596.49	16.4199
1620.62	21.6597
1678.03	0.0000
1691.02	16.7402
1691.02	16.7402
1706.46	0.0000
1750.46	0.0000
1764.49	16.3765
1770.23	12.7515
1771.40	14.5765
1791.20	0.0000
1808.65	18.1974
1836.01	15.0630

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G242789002

Total Uranium Activity	-2.9186E+02	ug/g
Total Uranium Counting Unc.	5.2614E+02	ug/g
Total Uranium Tpu	2.6844E-04	ug/g
Total Uranium Mda	4.1039E+02	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 933232                    SAMPLE ID  : G242789002         *
*   ANALYST       : KXG3                      DETECTOR   : GAM10              *
*   SAMPLE DATE   : 10-DEC-2009 12:00:00.00   COUNT TIME :    0 04:00:00.00   *
*   ANALYSIS DATE: 17-DEC-2009 23:04:14.68    SAMPLE ALQT:    2.000 LITER     *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 6.683E+01
        GROSS GAMMA ERROR   (pCi/LITER )  : 4.302E+01
        GROSS GAMMA MDA     (pCi/LITER )  : 5.339E+01
        GROSS GAMMA DLC     (pCi/LITER )  : 2.565E+01
```

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 03:06:22.21

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201996557.CNF;1
Sample date       : 15-DEC-2009 00:00:00 Acquisition date : 17-DEC-2009 23:04:42
Sample ID         : G1201996557          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM20                Detector geometry: 2LMB
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:01:03.59  0.4%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 933232                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	1459.92*	4	9	0.72	2919.10	2913	10	2.91E-04	208.5	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 18-DEC-2009 03:06:24

Configuration	: DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201996557.CNF;1		
Analyses by	: PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8		
Sample title	: KXG3		
Sample date	: 15-DEC-2009 00:00:00	Acquisition date	: 17-DEC-2009 23:04:42
Sample ID	: G1201996557	Sample quantity	: 2.0000 LITER
Sample type	: LIQUID	Sample geometry	:
Detector name	: GAMMA20	Detector geometry	: 2LMB
Elapsed live time	: 0 04:00:00.00	Elapsed real time	: 0 04:01:03.59 0.4%
Peak Width (FWHM)	: 3.00	Confidence level	: 5.00 %
Energy tolerance	: 1.50 keV	Half life ratio	: 8.00
Errors propagated	: Yes	Systematic Error	: 0.00 %
Efficiency type	: Empirical	Efficiencies at	: Peak Energy
Abundance limit	: 75.00	WTM error limit	: 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
K-40	+	1460.81	*	5.781E+00	2.411E+01	2.570E+01	2.463E+00	0.225

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	-1.280E+00	1.271E+01	2.040E+01	1.844E+00	-0.063
NA-22		1274.54	*	2.044E-01	1.482E+00	2.452E+00	2.262E-01	0.083
NA-24		1368.53	*	-6.064E+00	4.253E+01	6.953E+01	6.662E+00	-0.087
AL-26		1129.67		9.244E+00	5.985E+01	9.979E+01	9.034E+00	0.093
		1808.65	*	-6.518E-01	1.756E+00	2.675E+00	2.258E-01	-0.244
TI-44		67.85		-2.724E+00	2.384E+00	3.269E+00	3.949E-01	-0.833
		78.38	*	-2.142E+00	1.633E+00	2.288E+00	2.862E-01	-0.936
SC-46		889.25	*	-6.035E-01	1.604E+00	2.521E+00	2.413E-01	-0.239
		1120.51		-2.005E+00	1.633E+00	2.060E+00	1.873E-01	-0.973
V-48		944.10		8.929E+00	2.286E+01	3.952E+01	3.782E+00	0.226
		983.50	*	2.231E-01	1.781E+00	2.973E+00	2.828E-01	0.075
		1312.09		1.067E+00	1.799E+00	3.204E+00	2.993E-01	0.333
CR-51		320.08	*	-8.564E+00	1.412E+01	2.230E+01	2.271E+00	-0.384
MN-52		744.21		-8.361E-01	2.275E+00	3.635E+00	3.246E-01	-0.230
		848.13		-2.355E+01	7.601E+01	1.217E+02	1.145E+01	-0.194
		935.52		7.600E-01	2.176E+00	3.759E+00	3.601E-01	0.202
		1246.25		2.391E-02	5.582E+01	9.011E+01	8.218E+00	0.000
		1333.61		5.785E+01	5.035E+01	9.517E+01	8.952E+00	0.608
		1434.06	*	-1.350E+00	2.447E+00	3.704E+00	3.476E-01	-0.365
MN-54		834.83	*	-1.343E+00	1.676E+00	2.159E+00	2.019E-01	-0.622
CO-56		846.75	*	2.530E-01	1.718E+00	2.893E+00	2.720E-01	0.087
		977.42		-1.000E+02	9.803E+01	1.313E+02	1.251E+01	-0.761
		1037.82		8.182E+00	1.184E+01	2.115E+01	2.074E+00	0.387
		1175.09		-9.965E+01	8.891E+01	1.065E+02	9.420E+00	-0.936
		1238.25		-1.321E+00	2.599E+00	3.824E+00	3.567E-01	-0.345
		1360.21		6.506E+00	3.782E+01	6.523E+01	6.139E+00	0.100
		1771.40		1.791E+00	1.176E+01	1.991E+01	1.710E+00	0.090
CO-57		122.06	*	5.870E-01	1.173E+00	1.949E+00	1.737E-01	0.301

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		136.48		1.861E+00	1.066E+01	1.723E+01	1.585E+00	0.108
CO-58		810.76	*	6.226E-01	1.489E+00	2.597E+00	2.407E-01	0.240
FE-59		142.65		-1.031E+02	1.385E+02	1.908E+02	1.607E+01	-0.541
		192.34		-1.307E+01	3.774E+01	6.261E+01	8.387E+00	-0.209
		1099.22	*	-9.073E-02	2.910E+00	4.717E+00	4.642E-01	-0.019
		1291.56		-1.662E+00	3.226E+00	4.559E+00	4.727E-01	-0.365
CO-60		1173.22		-5.361E-01	1.900E+00	2.693E+00	2.381E-01	-0.199
		1332.49	*	6.173E-01	1.771E+00	3.007E+00	2.829E-01	0.205
ZN-65		1115.52	*	1.316E+00	3.227E+00	5.567E+00	5.079E-01	0.236
GE-68		1077.35	*	1.658E+01	4.640E+01	7.981E+01	7.392E+00	0.208
AS-73		53.44	*	1.431E+01	2.903E+01	4.936E+01	5.933E+00	0.290
AS-74		595.88	*	2.493E+00	3.074E+00	5.290E+00	4.512E-01	0.471
		634.78		-3.523E+00	9.256E+00	1.495E+01	1.273E+00	-0.236
SE-75		66.05		-4.399E+02	2.550E+02	3.388E+02	4.557E+01	-1.299
		96.73		-4.064E+01	3.452E+01	5.062E+01	8.023E+00	-0.803
		121.11		-6.409E-01	6.107E+00	9.741E+00	1.121E+00	-0.066
		136.00		1.675E-01	1.938E+00	3.117E+00	2.686E-01	0.054
		198.60		-7.156E+01	9.951E+01	1.337E+02	1.289E+01	-0.535
		264.65	*	-4.382E-01	2.259E+00	3.243E+00	3.299E-01	-0.135
		279.53		2.706E+00	5.253E+00	9.038E+00	9.680E-01	0.299
		303.91		-3.847E+01	9.478E+01	1.525E+02	1.922E+01	-0.252
		400.65		4.072E+00	1.156E+01	1.950E+01	2.084E+00	0.209
BR-77		87.88		-9.307E+01	2.325E+02	3.688E+02	4.965E+01	-0.252
		200.40		-1.630E+02	2.158E+02	3.469E+02	3.035E+01	-0.470
		239.00		-3.989E+00	1.693E+01	2.599E+01	2.490E+00	-0.154
		249.79		-7.562E+01	9.658E+01	1.529E+02	1.501E+01	-0.495
		281.68		-6.055E+00	1.356E+02	2.255E+02	2.348E+01	-0.027
		297.23		-1.222E+01	7.701E+01	1.267E+02	1.290E+01	-0.096
		303.76		-7.943E+01	2.547E+02	4.132E+02	4.163E+01	-0.192
		439.47		1.101E+02	1.959E+02	3.361E+02	2.764E+01	0.327
		484.57		7.398E+01	3.295E+02	5.458E+02	4.569E+01	0.136
		520.65	*	-1.114E+00	1.844E+01	2.289E+01	1.935E+00	-0.049
		574.64		2.030E+01	2.802E+02	4.533E+02	3.862E+01	0.045
		578.91		-7.528E+01	1.265E+02	1.900E+02	1.619E+01	-0.396
		585.48		-6.171E+01	2.187E+02	3.391E+02	2.891E+01	-0.182
		755.35		-1.443E+02	1.901E+02	2.847E+02	2.558E+01	-0.507
		817.79		8.892E+01	1.743E+02	3.063E+02	2.841E+01	0.290
SR-82		698.33		-4.928E+02	1.238E+03	2.001E+03	1.739E+02	-0.246
		776.49	*	2.266E+00	1.147E+01	1.955E+01	1.776E+00	0.116
		1395.20		1.141E+01	3.365E+02	5.670E+02	5.333E+01	0.020
RB-83		520.41	*	-1.069E+00	3.872E+00	4.736E+00	4.002E-01	-0.226
		529.64		8.228E-01	4.426E+00	7.282E+00	6.167E-01	0.113
		552.65		-1.524E+00	8.163E+00	1.285E+01	1.092E+00	-0.119
RB-84		881.50	*	5.223E-01	2.314E+00	3.937E+00	3.756E-01	0.133
KR-85		513.99	*	-3.002E+03	6.681E+02	7.001E+02	5.908E+01	-4.288
SR-85		513.99	*	-1.355E+01	3.016E+00	3.160E+00	2.667E-01	-4.288
RB-86		1076.63	*	-3.643E+00	2.096E+01	3.330E+01	3.085E+00	-0.109
Y-88		898.02		-3.359E-01	1.963E+00	3.180E+00	3.066E-01	-0.106
		1836.01	*	1.004E+00	1.602E+00	2.960E+00	2.466E-01	0.339

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
ZR-88		392.90	*	-4.928E-01	1.382E+00	2.196E+00	1.761E-01	-0.224
Y-91		1204.90	*	-2.456E+02	5.300E+02	7.834E+02	7.023E+01	-0.314
NB-94		702.63	*	6.737E-01	1.721E+00	2.982E+00	2.599E-01	0.226
		871.10		-8.264E-01	1.399E+00	2.116E+00	2.010E-01	-0.391
NB-95		765.79	*	6.153E-02	1.485E+00	2.489E+00	2.250E-01	0.025
NB-95M		235.69	*	-9.805E+00	5.338E+00	7.768E+00	8.276E-01	-1.262
ZR-95		724.18		2.466E-01	3.403E+00	5.740E+00	5.485E-01	0.043
		756.15	*	-2.596E+00	2.509E+00	3.597E+00	3.536E-01	-0.722
NB-97		657.90	*	-2.696E+01	2.929E+01	4.441E+01	3.772E+00	-0.607
		1024.50		5.692E+01	2.659E+03	4.367E+03	4.115E+02	0.013
ZR-97		254.15		-9.979E+02	1.829E+03	2.943E+03	2.916E+02	-0.339
		355.39		-4.680E+02	1.108E+03	1.761E+03	1.585E+02	-0.266
		507.63	*	-3.809E+03	1.088E+03	1.334E+03	1.124E+02	-2.856
		602.52		2.990E+03	2.436E+03	4.314E+03	3.680E+02	0.693
		1021.30		-1.484E+03	2.424E+03	3.566E+03	3.363E+02	-0.416
		1147.95		6.670E+02	1.365E+03	2.367E+03	2.123E+02	0.282
		1362.66		-8.349E+02	2.255E+03	3.538E+03	3.330E+02	-0.236
		1750.46		2.702E+02	2.308E+03	3.895E+03	3.377E+02	0.069
MO-99		140.51		1.312E+00	7.316E+01	1.071E+02	2.962E+01	0.012
		181.06		2.252E+01	3.925E+01	6.428E+01	1.167E+01	0.350
		366.43		-2.398E+01	1.906E+02	3.103E+02	2.706E+01	-0.077
		739.58	*	1.217E+00	2.307E+01	3.879E+01	5.954E+00	0.031
		778.00		-4.480E+01	7.082E+01	1.089E+02	9.909E+00	-0.411
TC-99M		140.51	*	1.163E-04	7.082E+01	Half-Life too short		
RH-101		127.23		9.309E-01	1.496E+00	2.499E+00	2.189E-01	0.373
		198.01	*	-1.348E+00	1.939E+00	2.610E+00	2.270E-01	-0.517
		325.23		1.962E+00	1.132E+01	1.898E+01	1.837E+00	0.103
RH-102		418.52		4.154E+00	1.388E+01	2.328E+01	1.894E+00	0.178
		475.06	*	-1.467E+00	1.404E+00	2.022E+00	1.687E-01	-0.725
		631.29		-1.974E-01	2.350E+00	3.708E+00	3.159E-01	-0.053
		697.49		-6.605E-02	3.767E+00	6.309E+00	5.481E-01	-0.010
		766.84		-2.168E-01	4.070E+00	6.744E+00	6.098E-01	-0.032
		1046.59		1.964E+00	4.900E+00	8.440E+00	7.901E-01	0.233
		1112.84		-7.754E+00	9.248E+00	1.309E+01	1.194E+00	-0.592
RU-103		497.08	*	-6.090E-01	1.535E+00	2.374E+00	3.331E-01	-0.256
		610.33		-1.641E+01	3.926E+01	5.135E+01	8.544E+00	-0.320
RH-106		511.85		-3.488E+01	1.680E+01	2.704E+01	2.281E+00	-1.290
		621.84	*	9.457E+00	1.564E+01	2.651E+01	3.525E+00	0.357
		1050.47		-3.154E+01	9.487E+01	1.474E+02	1.378E+01	-0.214
RU-106		511.85		-3.488E+01	1.680E+01	2.704E+01	2.281E+00	-1.290
		621.84	*	9.457E+00	1.561E+01	2.651E+01	2.260E+00	0.357
		1050.47		-3.154E+01	9.487E+01	1.474E+02	1.378E+01	-0.214
AG-108M		433.93	*	8.822E-01	1.665E+00	2.839E+00	2.431E-01	0.311
		614.37		-1.253E+00	1.814E+00	2.661E+00	2.360E-01	-0.471
		722.95		9.386E-01	1.761E+00	3.110E+00	2.846E-01	0.302
CD-109		88.03	*	-1.504E+01	3.610E+01	5.718E+01	7.703E+00	-0.263
AG-110M		657.75	*	-1.386E+00	1.536E+00	2.334E+00	2.044E-01	-0.594
		677.61		-3.465E-01	1.178E+01	1.973E+01	1.741E+00	-0.018
		706.67		-8.767E+00	1.010E+01	1.547E+01	1.388E+00	-0.567

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		763.93		1.524E+00	6.188E+00	1.062E+01	9.837E-01	0.143
		884.67		5.111E-01	2.055E+00	3.505E+00	3.436E-01	0.146
		937.48		-5.031E+00	4.636E+00	6.406E+00	6.315E-01	-0.785
		1384.27		-6.338E+00	7.203E+00	1.030E+01	9.921E-01	-0.615
IN-111		171.28		8.633E-01	2.599E+00	4.215E+00	3.435E-01	0.205
		245.39	*	1.344E+00	2.807E+00	4.842E+00	4.707E-01	0.278
IN-113M		391.69	*	2.470E-02	1.967E+00	3.230E+00	2.680E-01	0.008
SN-113		391.69	*	2.470E-02	1.967E+00	3.230E+00	2.680E-01	0.008
IN-114M		190.27	*	1.696E+00	7.072E+00	1.216E+01	1.038E+00	0.139
CD-115		260.90		-7.238E+01	1.433E+02	2.308E+02	2.321E+01	-0.314
		492.35		-3.684E+01	4.144E+01	6.072E+01	5.094E+00	-0.607
		527.90	*	3.373E+00	1.142E+01	1.902E+01	1.610E+00	0.177
SN-117M		156.02		-5.316E+01	6.249E+01	9.326E+01	7.649E+00	-0.570
		158.56	*	-7.286E-02	1.487E+00	2.357E+00	1.923E-01	-0.031
SB-122		563.90	*	1.528E+00	3.992E+00	6.696E+00	5.699E-01	0.228
		692.80		1.631E+02	9.336E+01	1.792E+02	1.552E+01	0.910
I-123		159.00	*	1.533E+01	6.131E+01	9.918E+01	8.087E+00	0.155
		528.96		-7.515E+02	4.647E+03	7.365E+03	6.236E+02	-0.102
TE-123M		159.00	*	3.272E-01	1.308E+00	2.116E+00	1.737E-01	0.155
I-124		602.71	*	3.674E+00	4.882E+00	8.329E+00	7.104E-01	0.441
		722.78		1.413E+01	2.480E+01	4.394E+01	3.875E+00	0.322
		1325.50		1.880E+02	2.208E+02	3.994E+02	3.748E+01	0.471
		1376.25		-2.232E-02	1.535E+02	2.575E+02	2.423E+01	0.000
		1509.49		-1.175E+01	8.772E+01	1.425E+02	1.326E+01	-0.082
		1691.02		-2.737E+01	2.402E+01	2.810E+01	2.494E+00	-0.974
SB-124		602.71		1.384E+00	1.840E+00	3.139E+00	2.677E-01	0.441
		645.85		9.536E+00	2.065E+01	3.628E+01	3.277E+00	0.263
		709.31		9.378E+01	1.174E+02	2.107E+02	1.843E+01	0.445
		713.82		6.165E+01	7.056E+01	1.270E+02	1.543E+01	0.485
		722.78		7.720E+00	1.355E+01	2.400E+01	2.161E+00	0.322
		968.20		5.022E+01	8.830E+01	1.553E+02	1.481E+01	0.323
		1045.16		6.095E+01	9.045E+01	1.612E+02	1.510E+01	0.378
		1325.50		1.097E+02	1.288E+02	2.330E+02	2.187E+01	0.471
		1368.21		-2.276E+01	6.316E+01	9.919E+01	1.388E+01	-0.229
		1436.60		-9.858E+01	1.416E+02	2.055E+02	1.928E+01	-0.480
		1691.02	*	-3.526E+00	3.096E+00	3.620E+00	3.333E-01	-0.974
SB-125		427.89	*	-1.420E+00	4.314E+00	6.818E+00	5.696E-01	-0.208
		463.38		2.923E+00	1.290E+01	2.141E+01	1.928E+00	0.137
		600.56		-4.392E+00	1.013E+01	1.555E+01	1.426E+00	-0.282
		635.90		-6.217E+00	1.128E+01	1.782E+01	1.643E+00	-0.349
TE-125M		109.28	*	-3.201E+02	4.126E+02	6.299E+02	7.330E+01	-0.508
I-126		388.63		-1.156E+00	5.501E+00	8.871E+00	7.189E-01	-0.130
		666.33	*	-3.712E-01	4.233E+00	7.056E+00	6.009E-01	-0.053
		753.82		2.419E+01	2.853E+01	5.257E+01	4.720E+00	0.460
SB-126		223.80		-3.730E+01	1.001E+02	1.646E+02	1.523E+01	-0.227
		278.60		-8.402E-01	6.446E+01	1.074E+02	1.121E+01	-0.008
		296.50		-1.699E+01	3.518E+01	5.654E+01	5.764E+00	-0.301
		414.70		-1.392E+00	1.877E+00	2.856E+00	2.319E-01	-0.487
		415.30		-5.250E+01	1.546E+02	2.448E+02	1.989E+01	-0.214

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		555.20		-6.700E+01	8.922E+01	1.298E+02	1.103E+01	-0.516
		573.80		-1.339E+01	2.450E+01	3.677E+01	3.133E+00	-0.364
		593.00		-2.865E+01	2.494E+01	3.475E+01	2.963E+00	-0.824
		656.30		-2.764E+01	7.568E+01	1.225E+02	1.041E+01	-0.226
		666.33		-1.509E-01	1.720E+00	2.868E+00	2.442E-01	-0.053
		675.00		-2.846E+01	4.099E+01	6.307E+01	5.401E+00	-0.451
		695.00		-3.994E-01	2.011E+00	3.313E+00	2.874E-01	-0.121
		697.00		-1.402E+00	6.923E+00	1.140E+01	9.900E-01	-0.123
		720.50	*	4.289E-01	3.101E+00	5.270E+00	4.642E-01	0.081
		856.80		-1.791E+00	1.142E+01	1.859E+01	1.755E+00	-0.096
		989.30		2.541E+01	3.035E+01	5.463E+01	5.190E+00	0.465
		1034.80		-8.342E+01	1.916E+02	2.930E+02	2.753E+01	-0.285
		1213.00		3.081E+01	8.482E+01	1.449E+02	1.303E+01	0.213
SN-126		64.28		-3.553E+01	2.718E+01	4.330E+01	7.547E+00	-0.821
		86.94		-1.400E+01	1.658E+01	2.387E+01	1.017E+01	-0.586
		87.57	*	-1.208E+00	3.641E+00	5.801E+00	7.788E-01	-0.208
SB-127		61.10		-6.441E+02	3.133E+02	4.386E+02	5.450E+01	-1.468
		252.40		5.453E+00	2.361E+01	4.000E+01	1.669E+01	0.136
		290.80		-1.015E+01	1.176E+02	1.945E+02	2.019E+01	-0.052
		411.60		3.465E+01	6.578E+01	1.123E+02	1.549E+01	0.309
		444.90		1.298E+00	4.893E+01	7.993E+01	8.091E+00	0.016
		473.00		3.686E+00	8.920E+00	1.506E+01	1.597E+00	0.245
		543.00		-1.766E+01	7.972E+01	1.248E+02	1.563E+01	-0.141
		603.60		4.247E+01	7.053E+01	1.189E+02	1.228E+01	0.357
		685.20	*	7.339E+00	6.315E+00	1.187E+01	1.071E+00	0.618
		698.50		-2.616E+01	8.798E+01	1.435E+02	2.046E+01	-0.182
		722.20		1.330E+02	1.393E+02	2.559E+02	2.285E+01	0.520
		783.80		-9.583E+00	1.773E+01	2.761E+01	2.959E+00	-0.347
XE-127		57.60		-5.985E+01	1.980E+02	3.194E+02	3.951E+01	-0.187
		145.22		-2.407E+00	3.393E+01	4.898E+01	4.105E+00	-0.049
		172.10		5.230E+00	4.842E+00	8.214E+00	6.706E-01	0.637
		202.84	*	-1.083E+00	1.697E+00	2.751E+00	2.421E-01	-0.394
		374.96		-8.486E-01	7.524E+00	1.225E+01	1.040E+00	-0.069
I-131		80.18		-6.358E+01	6.806E+01	1.038E+02	1.313E+01	-0.613
		284.30		-1.878E+00	2.604E+01	4.317E+01	4.624E+00	-0.044
		364.48	*	5.616E-01	1.946E+00	3.281E+00	3.013E-01	0.171
		636.97		-1.170E+01	2.404E+01	3.842E+01	3.440E+00	-0.305
		722.89		5.710E+01	1.046E+02	1.849E+02	1.631E+01	0.309
TE-132		49.72		-4.978E+01	6.034E+01	9.397E+01	1.076E+01	-0.530
		111.76		-6.495E+00	1.376E+02	1.952E+02	1.950E+01	-0.033
		116.30		1.037E+01	1.089E+02	1.763E+02	1.681E+01	0.059
		228.16	*	6.907E-01	2.434E+00	4.169E+00	6.159E-01	0.166
BA-133		53.15		-1.730E+00	1.420E+02	2.341E+02	2.805E+01	-0.007
		79.62		-9.225E+01	5.707E+01	7.977E+01	1.419E+01	-1.157
		81.00		1.350E+00	3.973E+00	6.597E+00	1.216E+00	0.205
		276.40		6.550E+00	1.824E+01	3.112E+01	4.845E+00	0.210
		302.84		-1.584E+00	7.054E+00	1.153E+01	1.647E+00	-0.137
		356.01	*	-4.998E-01	2.044E+00	3.299E+00	4.435E-01	-0.151
		383.85		4.014E+00	1.431E+01	2.406E+01	2.971E+00	0.167

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I-133		510.53		-2.024E+03	2.195E+03	3.732E+03	3.266E+02	-0.542
		529.87	*	4.849E+00	1.748E+01	2.903E+01	2.565E+00	0.167
		706.58		-1.065E+03	1.284E+03	1.976E+03	1.787E+02	-0.539
		856.28		-6.747E+02	1.584E+03	2.495E+03	2.427E+02	-0.270
		875.33		1.970E+01	3.502E+02	5.838E+02	6.186E+01	0.034
		1236.41		-9.128E+02	1.453E+03	2.115E+03	1.984E+02	-0.432
		1298.22		2.001E+01	8.005E+02	1.294E+03	1.359E+02	0.015
CS-134		475.35		-1.202E+02	9.367E+01	1.310E+02	1.093E+01	-0.918
		563.23		6.515E-01	1.483E+01	2.396E+01	2.059E+00	0.027
		569.32		1.700E+00	1.120E+01	1.596E+01	1.378E+00	0.107
		604.70		-5.356E-01	1.853E+00	2.884E+00	2.466E-01	-0.186
		795.84	*	-1.127E-01	2.053E+00	3.396E+00	3.137E-01	-0.033
		801.93		-1.102E+01	2.381E+01	3.504E+01	3.242E+00	-0.315
		1038.57		9.916E+01	1.637E+02	2.892E+02	2.714E+01	0.343
		1167.94		6.121E+01	9.151E+01	1.633E+02	1.448E+01	0.375
		1365.15		-4.828E+00	4.823E+01	7.950E+01	7.769E+00	-0.061
CS-135		268.24	*	-1.261E-01	7.104E+00	1.186E+01	1.348E+00	-0.011
I-135		288.45		-7.505E-02	7.104E+00	Half-Life too short		
		417.63		-2.371E-02	7.104E+00	Half-Life too short		
		546.56		-1.741E-02	7.104E+00	Half-Life too short		
		836.80		-5.266E-02	7.104E+00	Half-Life too short		
		1038.76		2.648E-02	7.104E+00	Half-Life too short		
		1124.00		-3.817E-02	7.104E+00	Half-Life too short		
		1131.51		-5.022E-03	7.104E+00	Half-Life too short		
		1260.41	*	-3.363E-03	7.104E+00	Half-Life too short		
		1457.56		2.567E-02	7.104E+00	Half-Life too short		
		1678.03		-1.674E-02	7.104E+00	Half-Life too short		
		1706.46		-2.899E-02	7.104E+00	Half-Life too short		
		1791.20		4.885E-04	7.104E+00	Half-Life too short		
CS-136		66.91		-9.708E+00	2.095E+01	3.018E+01	5.312E+00	-0.322
		86.29		1.138E+01	2.516E+01	4.185E+01	6.837E+00	0.272
		153.22		1.014E+01	1.712E+01	2.832E+01	2.633E+00	0.358
		163.89		-7.202E+00	2.786E+01	4.339E+01	3.979E+00	-0.166
		176.55		-5.121E+00	1.008E+01	1.536E+01	1.346E+00	-0.333
		273.65		-4.912E+00	1.152E+01	1.866E+01	2.015E+00	-0.263
		340.57		2.569E+00	3.143E+00	5.493E+00	5.259E-01	0.468
		818.51		1.246E+00	1.802E+00	3.220E+00	2.988E-01	0.387
		1048.07	*	1.965E-01	2.441E+00	4.035E+00	3.909E-01	0.049
		1235.34		-1.827E+00	1.129E+01	1.780E+01	2.169E+00	-0.103
BA-137M		661.65	*	1.367E+00	1.616E+00	2.929E+00	2.487E-01	0.467
CS-137		661.65	*	1.446E+00	1.708E+00	3.097E+00	2.634E-01	0.467
CE-139		165.85	*	-6.041E-01	1.362E+00	2.089E+00	1.682E-01	-0.289
BA-140		162.64		1.427E+01	1.866E+01	3.120E+01	2.693E+00	0.457
		304.84		5.870E+00	3.124E+01	5.255E+01	1.498E+01	0.112
		423.70		1.932E+01	4.690E+01	7.884E+01	2.546E+01	0.245
		537.32	*	7.501E+00	6.505E+00	1.099E+01	3.638E+00	0.683
LA-140		328.77		-2.119E+00	7.183E+00	1.161E+01	1.166E+00	-0.182
		432.53		2.263E+01	5.462E+01	9.228E+01	7.970E+00	0.245
		487.03		8.362E-01	3.534E+00	5.858E+00	5.227E-01	0.143

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		751.79		4.200E+00	3.601E+01	6.097E+01	6.010E+00	0.069
		815.85		-3.590E+00	7.839E+00	1.231E+01	1.256E+00	-0.292
		867.82		-1.878E+00	3.223E+01	5.294E+01	5.244E+00	-0.035
		919.63		2.208E+01	6.704E+01	1.149E+02	1.315E+01	0.192
		925.24		-8.315E+00	2.648E+01	4.183E+01	4.215E+00	-0.199
		1596.49	*	2.047E+00	1.887E+00	3.726E+00	3.404E-01	0.549
CE-141		145.44	*	1.838E+00	2.571E+00	4.277E+00	3.652E-01	0.430
CE-143		57.37		-3.228E+01	9.724E+01	1.566E+02	1.956E+01	-0.206
		231.56		1.073E+02	2.599E+02	4.454E+02	1.403E+02	0.241
		293.26	*	1.404E+01	1.462E+01	2.534E+01	5.501E+00	0.554
		350.59		-3.032E+02	2.525E+02	2.968E+02	9.155E+01	-1.022
		490.36		-5.340E+01	3.064E+02	4.867E+02	1.519E+02	-0.110
		664.57		-2.252E+02	1.515E+02	1.842E+02	5.892E+01	-1.222
		721.93		1.296E+02	1.323E+02	2.355E+02	6.803E+01	0.550
CE-144		80.11		-8.457E+01	8.628E+01	1.310E+02	1.657E+01	-0.645
		133.54	*	-2.203E+00	9.945E+00	1.567E+01	2.439E+00	-0.141
PM-144		476.78		-3.510E-01	3.039E+00	4.872E+00	4.471E-01	-0.072
		618.01		-2.480E-02	1.588E+00	2.533E+00	2.220E-01	-0.010
		696.49	*	1.074E-01	1.698E+00	2.865E+00	2.487E-01	0.037
		778.57		-3.337E+01	9.671E+01	1.545E+02	1.405E+01	-0.216
PR-144		696.49	*	7.230E+00	1.143E+02	1.929E+02	1.674E+01	0.037
		1489.15		-1.302E+02	5.993E+02	9.647E+02	9.000E+01	-0.135
PM-146		453.90	*	3.154E-02	2.030E+00	3.308E+00	3.457E-01	0.010
		633.02		6.811E+00	5.747E+01	9.304E+01	3.475E+01	0.073
		735.90		-3.708E-01	6.549E+00	1.088E+01	3.121E+00	-0.034
		747.13		9.752E-01	3.829E+00	6.581E+00	9.371E-01	0.148
ND-147		91.11		3.913E+00	7.187E+00	1.169E+01	1.555E+00	0.335
		319.41		-5.444E+01	7.854E+01	1.230E+02	1.205E+01	-0.443
		439.89		-1.180E+01	1.298E+02	2.097E+02	1.725E+01	-0.056
		531.02	*	1.329E+01	1.256E+01	2.219E+01	3.299E+00	0.599
PM-149		285.90	*	-1.473E+01	9.539E+01	1.570E+02	2.598E+01	-0.094
EU-152		121.78		2.198E-01	3.569E+00	5.760E+00	5.876E-01	0.038
		244.69		-9.581E-01	1.699E+01	2.841E+01	2.758E+00	-0.034
		344.27	*	-6.266E+00	4.976E+00	7.324E+00	7.137E-01	-0.856
		443.98		-2.382E+01	4.472E+01	6.887E+01	5.675E+00	-0.346
		778.89		-1.203E+00	1.158E+01	1.906E+01	1.734E+00	-0.063
		867.32		7.392E-01	3.677E+01	6.100E+01	5.786E+00	0.012
		964.01		-6.934E+00	1.188E+01	1.802E+01	1.719E+00	-0.385
		1085.78		5.481E+00	1.602E+01	2.742E+01	2.532E+00	0.200
		1112.02		-1.244E+01	1.300E+01	1.792E+01	1.636E+00	-0.695
		1407.95		3.850E+00	8.520E+00	1.520E+01	1.429E+00	0.253
GD-153		69.67		-3.801E+01	6.753E+01	1.067E+02	1.290E+01	-0.356
		83.37		-2.645E+02	7.363E+02	1.043E+03	1.351E+02	-0.254
		97.43	*	1.200E-01	3.522E+00	5.717E+00	6.695E-01	0.021
		103.18		1.814E+00	5.060E+00	8.357E+00	9.107E-01	0.217
EU-154		123.07		3.564E-01	2.462E+00	3.995E+00	4.617E-01	0.089
		247.94		8.329E-01	1.845E+01	3.104E+01	3.839E+00	0.027
		591.81		-1.371E+01	3.010E+01	4.565E+01	5.297E+00	-0.300
		723.30		1.290E+00	7.389E+00	1.260E+01	1.223E+00	0.102

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		756.87		-4.146E+01	3.058E+01	4.072E+01	4.987E+00	-1.018
		873.19		3.745E+00	1.165E+01	2.012E+01	2.592E+00	0.186
		996.32		-1.942E+01	1.743E+01	2.366E+01	4.307E+00	-0.821
		1004.76		1.435E-01	8.424E+00	1.384E+01	1.700E+00	0.010
		1274.45	*	-3.441E-02	4.207E+00	6.770E+00	7.971E-01	-0.005
EU-155		48.70		2.115E+01	9.865E+01	1.652E+02	1.828E+01	0.128
		60.01		-1.790E+02	2.150E+02	3.342E+02	4.159E+01	-0.536
		86.54		-5.437E-01	4.395E+00	7.097E+00	9.481E-01	-0.077
		105.31	*	1.318E+00	5.199E+00	8.532E+00	9.143E-01	0.154
TB-160		86.79		-4.260E+00	1.040E+01	1.648E+01	2.198E+00	-0.258
		197.04		-7.816E+00	2.962E+01	4.122E+01	3.576E+00	-0.190
		215.65		6.165E+00	3.122E+01	5.331E+01	4.839E+00	0.116
		298.57		3.564E+00	4.924E+00	8.565E+00	8.703E-01	0.416
		879.36	*	-2.804E+00	5.408E+00	8.314E+00	7.926E-01	-0.337
		962.29		1.773E+00	1.806E+01	3.007E+01	2.871E+00	0.059
		966.15		-1.802E+00	7.018E+00	1.114E+01	1.063E+00	-0.162
		1177.93		-4.677E+00	1.139E+01	1.714E+01	1.519E+00	-0.273
		1271.85		-1.655E+01	2.368E+01	3.297E+01	3.037E+00	-0.502
HO-166M		80.57		-4.450E+00	1.117E+01	1.774E+01	2.251E+00	-0.251
		184.41		-1.906E+00	2.268E+00	3.420E+00	2.877E-01	-0.557
		280.46		9.072E-01	4.338E+00	7.334E+00	7.649E-01	0.124
		410.95		4.425E+00	1.182E+01	1.995E+01	1.617E+00	0.222
		711.68	*	-4.889E-01	3.155E+00	5.212E+00	4.567E-01	-0.094
		752.31		7.864E+00	1.080E+01	1.956E+01	1.755E+00	0.402
		810.29		6.609E-01	2.588E+00	4.430E+00	4.095E-01	0.149
TM-171		51.35		-8.765E+02	1.183E+03	1.848E+03	2.166E+02	-0.474
		52.39		-3.532E+02	6.147E+02	9.727E+02	1.156E+02	-0.363
		59.40		2.125E+02	1.059E+03	1.763E+03	2.202E+02	0.120
		66.72	*	-1.918E+03	1.506E+03	2.070E+03	2.502E+02	-0.926
HF-175		89.36		-2.711E+02	7.905E+01	8.938E+01	1.178E+01	-3.033
		343.40	*	-1.757E+00	1.565E+00	2.333E+00	2.166E-01	-0.753
		433.00		4.242E+01	9.771E+01	1.653E+02	1.355E+01	0.257
LU-176		88.36		-1.054E+01	9.284E+00	1.353E+01	1.812E+00	-0.779
		201.83		-5.366E-01	1.309E+00	2.156E+00	1.893E-01	-0.249
		306.84	*	-9.727E-01	1.245E+00	1.940E+00	1.944E-01	-0.502
		401.10		4.503E+01	3.178E+02	5.272E+02	4.248E+01	0.085
LU-177		112.95		2.671E+00	2.867E+01	4.114E+01	4.022E+00	0.065
		208.36	*	4.062E+00	1.476E+01	2.533E+01	2.259E+00	0.160
LU-177M		52.97		-7.319E+00	6.065E+01	9.925E+01	1.187E+01	-0.074
		54.07		1.620E+01	3.166E+01	5.387E+01	6.511E+00	0.301
		61.30		-6.175E+01	6.314E+01	9.724E+01	1.199E+01	-0.635
		121.62		1.442E+00	1.718E+01	2.777E+01	2.484E+00	0.052
		147.16		-3.241E+00	3.328E+01	5.275E+01	4.403E+00	-0.061
		171.86		2.311E+01	2.318E+01	3.915E+01	3.195E+00	0.590
		218.09		-1.899E+01	3.835E+01	6.259E+01	5.714E+00	-0.303
		268.79		3.954E-02	3.397E+01	5.678E+01	5.806E+00	0.001
		319.02		-7.434E+00	1.250E+01	1.975E+01	1.936E+00	-0.376
		367.43		-2.705E+01	4.165E+01	6.453E+01	5.610E+00	-0.419
		413.65	*	2.249E+00	8.083E+00	1.354E+01	1.099E+00	0.166

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
HF-181		56.28		7.099E+00	3.138E+01	5.241E+01	6.434E+00	0.135
		57.53		-5.350E+00	1.720E+01	2.774E+01	3.430E+00	-0.193
		65.20		-4.787E+01	4.159E+01	5.783E+01	7.008E+00	-0.828
		133.02		-2.294E+00	2.679E+00	4.023E+00	3.467E-01	-0.570
		136.25		2.132E+00	1.968E+01	3.170E+01	2.710E+00	0.067
		345.85		3.166E+00	7.592E+00	1.294E+01	1.194E+00	0.245
		482.03	*	-4.830E-01	1.761E+00	2.780E+00	2.325E-01	-0.174
W-181		56.28		3.168E+00	1.397E+01	2.334E+01	2.865E+00	0.136
		57.53		-2.386E+00	7.663E+00	1.236E+01	1.528E+00	-0.193
		65.20	*	-2.116E+01	1.838E+01	2.556E+01	3.098E+00	-0.828
TA-182		67.75		-5.496E+00	5.274E+00	7.288E+00	8.803E-01	-0.754
		100.10		2.070E+00	8.122E+00	1.335E+01	1.510E+00	0.155
		152.43		4.526E-01	1.632E+01	2.603E+01	2.150E+00	0.017
		222.10		1.011E+01	1.506E+01	2.640E+01	2.433E+00	0.383
		1001.68		1.100E+01	9.540E+01	1.507E+02	1.428E+01	0.073
		1121.28		-2.342E+00	4.322E+00	6.344E+00	5.767E-01	-0.369
		1189.05		-1.942E+00	1.012E+01	1.586E+01	1.412E+00	-0.122
		1221.42	*	-2.735E-01	7.159E+00	1.151E+01	1.039E+00	-0.024
		1230.97		6.893E+00	1.800E+01	3.055E+01	2.769E+00	0.226
RE-183		57.98		-5.081E+00	7.414E+00	1.163E+01	1.442E+00	-0.437
		59.32		6.858E-01	3.904E+00	6.491E+00	8.103E-01	0.106
		67.20		-5.159E+00	8.951E+00	1.280E+01	1.546E+00	-0.403
		162.32	*	4.796E+00	4.655E+00	7.912E+00	6.410E-01	0.606
		208.81		-1.553E+00	4.152E+01	6.999E+01	6.249E+00	-0.022
		291.72		4.660E+01	3.997E+01	7.140E+01	7.333E+00	0.653
RE-184		57.98		-2.009E+01	2.931E+01	4.599E+01	5.701E+00	-0.437
		59.32		2.709E+00	1.542E+01	2.564E+01	3.201E+00	0.106
		67.20		-2.039E+01	3.537E+01	5.058E+01	6.111E+00	-0.403
		161.27		-4.119E+00	1.690E+01	2.638E+01	2.141E+00	-0.156
		216.55		9.853E+00	1.177E+01	2.082E+01	1.893E+00	0.473
		252.85	*	6.554E-01	1.062E+01	1.787E+01	1.766E+00	0.037
		318.01		1.049E+01	2.035E+01	3.504E+01	3.441E+00	0.299
		792.07		-7.795E+00	3.927E+01	6.381E+01	5.846E+00	-0.122
		903.28		3.967E+01	4.139E+01	7.590E+01	7.288E+00	0.523
		920.93		-2.560E+00	2.037E+01	3.307E+01	3.172E+00	-0.077
OS-185		59.72		3.255E+00	1.087E+01	1.819E+01	2.269E+00	0.179
		61.14		-1.470E+01	7.213E+00	1.012E+01	1.249E+00	-1.452
		69.30		-8.626E+00	1.136E+01	1.768E+01	2.137E+00	-0.488
		592.07		-8.078E+01	1.149E+02	1.692E+02	1.443E+01	-0.478
		646.12	*	9.348E-01	1.782E+00	3.154E+00	2.683E-01	0.296
		717.42		-9.278E+00	3.655E+01	5.952E+01	5.233E+00	-0.156
		874.81		7.805E+00	2.196E+01	3.803E+01	3.618E+00	0.205
		880.27		-1.096E+01	3.260E+01	5.162E+01	4.923E+00	-0.212
RE-188		155.03	*	-1.413E+00	7.625E+00	1.198E+01	9.843E-01	-0.118
		477.96		4.370E+00	1.266E+02	2.061E+02	1.721E+01	0.021
		633.10		-1.161E+01	1.057E+02	1.662E+02	1.415E+01	-0.070
W-188		63.58		-3.731E+03	2.473E+03	3.944E+03	4.804E+02	-0.946
		227.08		-6.686E+01	5.332E+02	8.904E+02	8.302E+01	-0.075
		290.67	*	-6.175E+01	3.169E+02	5.201E+02	5.350E+01	-0.119

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
IR-192		295.96		-2.547E+00	4.690E+00	7.500E+00	7.692E-01	-0.340
		308.46		7.588E-01	4.233E+00	7.121E+00	7.145E-01	0.107
		316.51	*	8.294E-02	1.503E+00	2.503E+00	2.469E-01	0.033
		468.07		-5.716E-01	2.864E+00	4.562E+00	4.088E-01	-0.125
		604.41		-5.383E-01	2.221E+01	3.546E+01	4.595E+00	-0.015
		612.46		-3.283E+01	3.132E+01	4.409E+01	4.329E+00	-0.745
AU-195		65.12		-8.793E+00	8.755E+00	1.234E+01	1.496E+00	-0.713
		66.83		-1.972E+00	4.548E+00	6.580E+00	7.953E-01	-0.300
		75.70		4.265E+00	8.329E+00	1.279E+01	1.576E+00	0.334
		98.88	*	7.270E+00	1.013E+01	1.709E+01	1.964E+00	0.425
		129.76		-7.446E+01	1.289E+02	1.979E+02	1.721E+01	-0.376
TL-200		367.94	*	-8.014E+00	1.007E+01	1.540E+01	1.336E+00	-0.521
		579.30		-5.878E+01	7.830E+01	1.154E+02	9.833E+00	-0.509
		828.27		4.249E+01	9.785E+01	1.705E+02	1.589E+01	0.249
		1205.75		-5.035E+01	4.361E+01	4.960E+01	4.448E+00	-1.015
TL-201		68.90		-1.103E+01	1.281E+01	1.979E+01	2.391E+00	-0.557
		70.82		1.335E+00	6.864E+00	1.136E+01	1.376E+00	0.118
		80.30		-1.297E+01	1.348E+01	2.052E+01	2.598E+00	-0.632
		135.34		5.036E+01	8.219E+01	1.366E+02	1.171E+01	0.369
		167.43	*	1.268E+01	2.080E+01	3.446E+01	2.782E+00	0.368
TL-202		68.90		-7.875E+00	9.143E+00	1.413E+01	1.707E+00	-0.557
		70.82		9.508E-01	4.887E+00	8.088E+00	9.798E-01	0.118
		80.30		-9.234E+00	9.601E+00	1.461E+01	1.850E+00	-0.632
		439.56	*	8.348E-01	1.626E+00	2.778E+00	2.284E-01	0.301
HG-203		70.83		6.920E+00	3.515E+01	5.817E+01	9.336E+00	0.119
		72.87		-1.995E+01	2.145E+01	3.279E+01	5.167E+00	-0.609
		82.60		-5.651E+00	4.018E+01	6.488E+01	1.086E+01	-0.087
		279.20	*	1.498E+00	1.743E+00	3.056E+00	3.254E-01	0.490
BI-207		72.80		-5.551E+00	7.374E+00	1.147E+01	1.397E+00	-0.484
		74.97		-1.030E+00	4.920E+00	7.267E+00	8.925E-01	-0.142
		84.90		-6.739E-01	9.855E+00	1.430E+01	1.876E+00	-0.047
		569.67		9.247E-02	1.763E+00	2.484E+00	2.115E-01	0.037
		1063.62	*	1.202E+00	2.939E+00	4.427E+00	4.121E-01	0.271
		1770.23		4.629E+00	2.429E+01	4.146E+01	3.564E+00	0.112
TL-207		81.07		3.351E+00	8.802E+00	1.466E+01	1.867E+00	0.229
		83.78		-2.267E+00	6.683E+00	9.565E+00	1.243E+00	-0.237
		94.90		-6.152E+01	1.533E+01	1.623E+01	1.967E+00	-3.791
		122.32		3.076E+01	8.412E+01	1.385E+02	1.317E+01	0.222
		144.24		-2.092E+01	4.168E+01	5.830E+01	5.506E+00	-0.359
		154.21		8.234E+00	1.969E+01	3.221E+01	2.940E+00	0.256
		269.46		2.073E+00	8.557E+00	1.454E+01	1.510E+00	0.143
		323.87	*	3.672E+01	3.505E+01	6.116E+01	1.116E+01	0.600
		338.28		1.389E+01	4.723E+01	7.974E+01	1.026E+01	0.174
		445.03		1.355E+00	1.008E+02	1.644E+02	1.944E+01	0.008
TL-208		72.80		-5.978E+01	7.942E+01	1.236E+02	1.505E+01	-0.484
		74.97		-1.108E+01	5.294E+01	7.819E+01	1.179E+01	-0.142
		277.35		9.587E+00	1.916E+01	3.292E+01	4.492E+00	0.291
		510.84		-1.318E+01	1.619E+01	2.758E+01	3.270E+00	-0.478
		583.14	*	-8.910E-01	2.272E+00	3.149E+00	2.882E-01	-0.283

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		763.13		2.501E+00	7.984E+01	1.337E+02	1.900E+01	0.019
		860.37		1.136E+00	1.357E+01	2.268E+01	2.278E+00	0.050
		1093.90		6.860E+01	4.453E+02	7.415E+02	1.742E+02	0.093
PO-209		260.50		-3.813E+02	4.634E+02	7.271E+02	7.305E+01	-0.524
		262.80		-1.573E+02	1.476E+03	2.139E+03	2.160E+02	-0.074
		896.60	*	2.604E+02	3.774E+02	6.679E+02	6.411E+01	0.390
BI-210		46.50	*	-8.179E+01	1.877E+02	2.716E+02	2.929E+01	-0.301
PB-210		46.50	*	-8.179E+01	1.877E+02	2.716E+02	2.929E+01	-0.301
PO-210		46.50	*	-8.179E+01	1.877E+02	2.716E+02	2.725E+01	-0.301
BI-211		72.87		-1.201E+02	1.286E+02	1.974E+02	2.404E+01	-0.609
		351.07	*	-1.926E+01	1.371E+01	1.718E+01	1.636E+00	-1.121
PB-211		404.84	*	-4.617E+00	4.221E+01	6.825E+01	4.272E+01	-0.068
		427.08		-4.766E+01	1.016E+02	1.512E+02	9.387E+01	-0.315
		831.96		7.456E+00	5.081E+01	8.547E+01	5.365E+01	0.087
BI-212		727.18	*	-7.548E+00	1.252E+01	1.951E+01	1.991E+00	-0.387
		785.46		-5.149E+01	7.463E+01	1.136E+02	1.037E+01	-0.453
		1620.62		-7.092E+00	6.380E+01	1.037E+02	9.415E+00	-0.068
PB-212		74.81		-2.602E+00	1.682E+01	2.487E+01	3.837E+00	-0.105
		77.11		-1.245E+00	9.164E+00	1.411E+01	1.752E+00	-0.088
		87.30		-1.427E+01	1.764E+01	2.713E+01	4.534E+00	-0.526
		115.19		2.555E+00	1.915E+02	3.086E+02	2.947E+01	0.008
		238.63	*	-6.751E-01	3.607E+00	5.551E+00	5.869E-01	-0.122
		300.09		1.638E+01	3.813E+01	6.517E+01	7.632E+00	0.251
PO-212		74.81		-2.602E+00	1.682E+01	2.487E+01	3.837E+00	-0.105
		77.11		-1.245E+00	9.164E+00	1.411E+01	1.752E+00	-0.088
		87.30		-1.427E+01	1.764E+01	2.713E+01	4.534E+00	-0.526
		115.19		2.555E+00	1.915E+02	3.086E+02	2.947E+01	0.008
		238.63	*	-6.751E-01	3.607E+00	5.551E+00	5.869E-01	-0.122
		300.09		1.638E+01	3.813E+01	6.517E+01	7.632E+00	0.251
BI-214		609.31	*	-4.029E-01	4.372E+00	5.894E+00	5.883E-01	-0.068
		1120.29		-1.088E+01	1.061E+01	1.407E+01	1.583E+00	-0.773
		1764.49		-3.960E+00	1.460E+01	2.280E+01	1.965E+00	-0.174
PB-214		74.81		-4.470E+00	2.890E+01	4.272E+01	6.125E+00	-0.105
		77.11		-2.128E+00	1.566E+01	2.411E+01	3.512E+00	-0.088
		87.30		-2.438E+01	3.009E+01	4.633E+01	7.160E+00	-0.526
		241.98		-2.049E+01	1.845E+01	2.878E+01	3.211E+00	-0.712
		295.21		-4.252E+00	7.004E+00	1.115E+01	1.335E+00	-0.381
		351.92	*	-5.554E+00	4.664E+00	5.901E+00	6.397E-01	-0.941
PO-214		74.81		-4.470E+00	2.890E+01	4.272E+01	6.125E+00	-0.105
		77.11		-2.128E+00	1.566E+01	2.411E+01	3.512E+00	-0.088
		87.30		-2.438E+01	3.009E+01	4.633E+01	7.160E+00	-0.526
		241.98		-2.049E+01	1.845E+01	2.878E+01	3.211E+00	-0.712
		295.21		-4.252E+00	7.004E+00	1.115E+01	1.335E+00	-0.381
		351.92	*	-5.554E+00	4.664E+00	5.901E+00	6.397E-01	-0.941
PO-215		81.07		3.351E+00	8.802E+00	1.466E+01	1.867E+00	0.229
		83.78		-2.267E+00	6.683E+00	9.565E+00	1.243E+00	-0.237
		94.90		-6.152E+01	1.533E+01	1.623E+01	1.967E+00	-3.791
		122.32		3.076E+01	8.412E+01	1.385E+02	1.317E+01	0.222
		144.24		-2.092E+01	4.168E+01	5.830E+01	5.506E+00	-0.359

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		154.21		8.234E+00	1.969E+01	3.221E+01	2.940E+00	0.256
		269.46		2.073E+00	8.557E+00	1.454E+01	1.510E+00	0.143
		323.87	*	3.672E+01	3.505E+01	6.116E+01	1.116E+01	0.600
		338.28		1.389E+01	4.723E+01	7.974E+01	1.026E+01	0.174
		445.03		1.355E+00	1.008E+02	1.644E+02	1.944E+01	0.008
PO-216		74.81		-2.602E+00	1.682E+01	2.487E+01	3.837E+00	-0.105
		77.11		-1.245E+00	9.164E+00	1.411E+01	1.752E+00	-0.088
		87.30		-1.427E+01	1.764E+01	2.713E+01	4.534E+00	-0.526
		115.19		2.555E+00	1.915E+02	3.086E+02	2.947E+01	0.008
		238.63	*	-6.751E-01	3.607E+00	5.551E+00	5.869E-01	-0.122
		300.09		1.638E+01	3.813E+01	6.517E+01	7.632E+00	0.251
PO-218		74.81		-4.470E+00	2.890E+01	4.272E+01	6.125E+00	-0.105
		77.11		-2.128E+00	1.566E+01	2.411E+01	3.512E+00	-0.088
		87.30		-2.438E+01	3.009E+01	4.633E+01	7.160E+00	-0.526
		241.98		-2.049E+01	1.845E+01	2.878E+01	3.211E+00	-0.712
		295.21		-4.252E+00	7.004E+00	1.115E+01	1.335E+00	-0.381
		351.92	*	-5.554E+00	4.664E+00	5.901E+00	6.397E-01	-0.941
RN-219		271.23		5.852E+00	1.117E+01	1.930E+01	2.264E+00	0.303
		401.81	*	-6.399E+00	1.957E+01	3.108E+01	4.572E+00	-0.206
RN-220		549.76	*	9.755E+02	1.193E+03	2.086E+03	1.772E+02	0.468
RA-223		81.07		3.351E+00	8.802E+00	1.466E+01	1.867E+00	0.229
		83.78		-2.267E+00	6.683E+00	9.565E+00	1.243E+00	-0.237
		94.90		-6.152E+01	1.533E+01	1.623E+01	1.967E+00	-3.791
		122.32		3.076E+01	8.412E+01	1.385E+02	1.317E+01	0.222
		144.24		-2.092E+01	4.168E+01	5.830E+01	5.506E+00	-0.359
		154.21		8.234E+00	1.969E+01	3.221E+01	2.940E+00	0.256
		269.46		2.073E+00	8.557E+00	1.454E+01	1.510E+00	0.143
		323.87	*	3.672E+01	3.505E+01	6.116E+01	1.116E+01	0.600
		338.28		1.389E+01	4.723E+01	7.974E+01	1.026E+01	0.174
		445.03		1.355E+00	1.008E+02	1.644E+02	1.944E+01	0.008
RA-224		240.98	*	-2.842E+01	3.502E+01	5.594E+01	5.385E+00	-0.508
RA-226		186.21	*	-5.081E+01	6.277E+01	7.573E+01	5.578E+01	-0.671
AC-227		79.80		-1.005E+02	7.268E+01	1.019E+02	2.384E+01	-0.986
		236.00		-1.909E+01	1.147E+01	1.686E+01	2.174E+00	-1.132
		256.20	*	6.309E+00	1.809E+01	3.098E+01	4.999E+00	0.204
		286.10		-3.600E+01	7.271E+01	1.163E+02	1.674E+01	-0.310
		299.80		4.518E+01	6.982E+01	1.204E+02	2.202E+01	0.375
		304.40		-3.096E+01	9.170E+01	1.482E+02	2.839E+01	-0.209
		329.70		-1.541E+01	4.138E+01	6.630E+01	9.690E+00	-0.232
		334.20		-1.676E+01	1.072E+02	1.749E+02	3.466E+01	-0.096
PA-227		64.62	*	-1.076E+30	1.072E+02	Half-Life too short		
		110.05		-5.427E+29	1.072E+02	Half-Life too short		
TH-227		79.80		-1.005E+02	7.276E+01	1.019E+02	2.410E+01	-0.986
		94.00		-4.146E+02	1.561E+02	1.898E+02	4.454E+01	-2.184
		236.00		-1.909E+01	1.142E+01	1.686E+01	1.988E+00	-1.132
		256.20	*	6.309E+00	1.810E+01	3.098E+01	5.805E+00	0.204
		286.10		-3.600E+01	8.105E+01	1.163E+02	1.169E+02	-0.310
		299.80		4.518E+01	6.982E+01	1.204E+02	2.202E+01	0.375
		304.40		-3.096E+01	9.170E+01	1.482E+02	2.839E+01	-0.209

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		329.70		-1.541E+01	4.138E+01	6.630E+01	9.690E+00	-0.232
		334.20		-1.676E+01	1.072E+02	1.749E+02	3.466E+01	-0.096
AC-228		338.32		3.506E+00	1.142E+01	1.916E+01	7.939E+00	0.183
		911.07	*	3.248E+00	6.912E+00	1.055E+01	1.267E+00	0.308
		969.11		9.369E+00	9.931E+00	1.784E+01	4.225E+00	0.525
RA-228		338.32		3.506E+00	1.142E+01	1.916E+01	7.939E+00	0.183
		911.07	*	3.248E+00	6.912E+00	1.055E+01	1.267E+00	0.308
		969.11		9.369E+00	9.931E+00	1.784E+01	4.225E+00	0.525
TH-228		74.81		-2.602E+00	1.682E+01	2.487E+01	3.065E+00	-0.105
		77.11		-1.245E+00	9.164E+00	1.411E+01	1.752E+00	-0.088
		87.30		-1.427E+01	1.758E+01	2.713E+01	3.633E+00	-0.526
		238.63	*	-6.751E-01	3.607E+00	5.551E+00	5.869E-01	-0.122
		300.09		1.638E+01	3.931E+01	6.517E+01	3.879E+01	0.251
TH-229		85.43		1.268E-01	9.717E+00	1.418E+01	1.868E+00	0.009
		88.47		-4.146E+00	5.203E+00	7.774E+00	1.040E+00	-0.533
		100.00		2.368E+00	9.073E+00	1.492E+01	1.690E+00	0.159
		193.63	*	-1.775E-01	2.492E+01	4.221E+01	3.632E+00	-0.004
		210.97		1.189E+01	3.462E+01	5.966E+01	5.354E+00	0.199
TH-230		67.67	*	-4.923E+02	3.246E+03	8.223E+02	5.335E+03	-0.599
PA-231		283.67	*	2.245E+01	7.504E+01	1.276E+02	2.074E+01	0.176
		301.29		-1.698E+00	2.763E+01	4.573E+01	6.101E+00	-0.037
		330.00		-2.983E+01	9.311E+01	1.493E+02	4.810E+01	-0.200
TH-231		84.21	*	-1.245E+01	2.548E+01	3.587E+01	7.302E+00	-0.347
U-231		84.21		-1.881E+01	3.840E+01	5.422E+01	7.071E+00	-0.347
		92.29		-1.666E+01	1.700E+01	2.892E+01	3.640E+00	-0.576
		95.87	*	-4.153E+01	9.940E+00	1.011E+01	1.209E+00	-4.109
		108.00		-8.182E+00	1.360E+01	2.104E+01	2.170E+00	-0.389
TH-232		59.00	*	-2.663E+02	3.052E+03	1.958E+03	2.062E+04	-0.136
PA-233		75.28		5.096E+01	1.415E+02	2.153E+02	3.806E+01	0.237
		86.59		-1.234E+01	7.163E+01	1.152E+02	3.304E+01	-0.107
		300.12		8.564E+00	1.967E+01	3.360E+01	5.309E+00	0.255
		311.98	*	2.512E+00	3.150E+00	5.518E+00	5.598E-01	0.455
		340.50		2.358E+01	2.932E+01	5.042E+01	1.216E+01	0.468
		398.62		3.550E+01	1.027E+02	1.725E+02	4.563E+01	0.206
		415.76		-2.748E+01	8.072E+01	1.276E+02	2.724E+01	-0.215
PA-234		63.00		-1.407E+02	8.436E+01	1.295E+02	2.299E+01	-1.087
		94.67		-2.654E+01	1.006E+01	1.265E+01	1.907E+00	-2.098
		98.44		3.418E+00	4.703E+00	7.301E+00	4.112E+00	0.468
		99.86		7.114E+00	2.295E+01	3.785E+01	4.295E+00	0.188
		111.00		-2.903E+00	1.121E+01	1.563E+01	2.047E+00	-0.186
		131.20		-2.025E-01	4.840E+00	7.731E+00	6.696E-01	-0.026
		152.70		3.317E+00	1.673E+01	2.698E+01	4.550E+00	0.123
		186.00		-8.308E+01	8.682E+01	1.247E+02	3.885E+01	-0.666
		226.40		-8.142E+00	1.936E+01	3.167E+01	4.327E+00	-0.257
		227.20		2.714E+00	1.991E+01	3.381E+01	3.154E+00	0.080
		248.90		-3.442E+01	4.262E+01	6.644E+01	1.521E+01	-0.518
		293.70		8.023E+00	3.287E+01	5.554E+01	1.009E+01	0.144
		369.80		3.735E+01	4.061E+01	7.070E+01	1.540E+01	0.528
		568.70		2.108E+01	5.620E+01	8.161E+01	6.950E+00	0.258

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		569.50		2.148E+00	1.565E+01	2.225E+01	1.895E+00	0.097
		574.00		-4.209E+01	6.882E+01	1.024E+02	8.721E+00	-0.411
		699.00		-1.818E+01	3.760E+01	6.011E+01	1.149E+01	-0.302
		706.10		-2.498E+01	5.248E+01	8.197E+01	3.657E+01	-0.305
		733.00		7.401E+00	1.633E+01	2.851E+01	6.357E+00	0.260
		742.81		-2.216E+01	6.013E+01	9.299E+01	6.255E+01	-0.238
		796.30		-5.428E+00	4.102E+01	6.723E+01	1.831E+01	-0.081
		805.60		-2.891E+01	4.756E+01	7.218E+01	2.225E+01	-0.400
		819.60		4.714E+01	5.809E+01	1.007E+02	3.843E+01	0.468
		826.30		2.485E+00	3.630E+01	6.074E+01	2.726E+01	0.041
		831.60		1.032E+01	2.557E+01	4.424E+01	1.330E+01	0.233
		876.40		-2.414E+00	3.492E+01	5.707E+01	5.871E+01	-0.042
		880.51		1.050E+00	1.239E+01	2.070E+01	1.974E+00	0.051
		883.24		5.525E+00	1.317E+01	2.201E+01	1.483E+01	0.251
		899.00		-8.916E+00	4.233E+01	6.793E+01	2.983E+01	-0.131
		925.00		-1.665E+01	5.304E+01	8.379E+01	8.034E+00	-0.199
		926.50		-3.229E+00	7.833E+00	1.213E+01	3.108E+00	-0.266
		946.00	*	-4.175E+00	1.338E+01	2.106E+01	4.047E+00	-0.198
		949.00		-7.862E+00	1.949E+01	3.030E+01	2.898E+00	-0.259
		980.50		-3.695E+00	3.004E+01	4.843E+01	4.609E+00	-0.076
		1394.10		-9.506E+00	5.066E+01	8.153E+01	5.316E+01	-0.117
PA-234M		766.42		-1.842E+01	4.320E+02	7.167E+02	3.641E+02	-0.026
		1001.03	*	2.398E+01	2.355E+02	3.718E+02	3.984E+01	0.064
TH-234		63.29	*	-1.150E+02	7.232E+01	1.106E+02	2.206E+01	-1.041
		92.38		-3.210E+01	3.327E+01	5.592E+01	1.133E+01	-0.574
U-234		53.20	*	4.465E+01	2.566E+03	4.174E+03	4.175E+04	0.011
U-235		89.95		-2.884E+02	1.130E+02	7.813E+01	2.530E+01	-3.692
		93.35		-5.107E+01	4.149E+01	6.551E+01	1.926E+01	-0.780
		105.00		2.925E+00	5.267E+01	8.538E+01	2.604E+01	0.034
		143.76	*	-1.009E+01	1.306E+01	1.781E+01	3.100E+00	-0.566
		163.35		1.150E+01	2.297E+01	3.762E+01	7.090E+00	0.306
		185.71		-2.919E+00	3.083E+00	4.638E+00	3.914E-01	-0.630
		205.31		-1.012E+01	2.749E+01	4.125E+01	7.913E+00	-0.245
NP-236		94.67		-2.002E+01	7.420E+00	9.613E+00	1.169E+00	-2.083
		98.44		2.584E+00	3.258E+00	5.519E+00	6.378E-01	0.468
		111.00		-2.196E+00	8.479E+00	1.183E+01	1.180E+00	-0.186
		160.31	*	-2.638E+00	4.048E+00	6.126E+00	4.982E-01	-0.431
NP-237		86.50	*	-9.162E-01	1.079E+01	1.747E+01	4.288E+00	-0.052
		95.87		-2.706E+02	8.996E+01	6.586E+01	1.712E+01	-4.109
PU-237		59.54	*	1.747E+01	7.160E+01	1.195E+02	1.493E+01	0.146
U-238		63.29	*	-1.150E+02	7.232E+01	1.106E+02	2.206E+01	-1.041
		92.38		-3.210E+01	3.287E+01	5.592E+01	7.030E+00	-0.574
NP-239		99.55		2.278E+00	7.770E+00	1.280E+01	1.458E+00	0.178
		117.00	*	2.176E+00	9.761E+00	1.593E+01	1.493E+00	0.137
		209.75		1.641E+01	3.520E+01	6.106E+01	5.464E+00	0.269
		228.18		5.957E+00	1.028E+01	1.792E+01	1.675E+00	0.332
		277.60		3.859E+00	9.234E+00	1.580E+01	1.646E+00	0.244
		334.30		-9.987E+00	6.065E+01	9.898E+01	9.391E+00	-0.101
AM-241		59.54	*	1.524E+00	6.244E+00	1.042E+01	1.347E+00	0.146

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AM-243		74.67	*	-1.143E+00	2.760E+00	4.023E+00	4.934E-01	-0.284
		86.72		-1.199E+02	3.996E+02	6.381E+02	8.502E+01	-0.188
		117.66		6.920E+01	1.925E+02	3.168E+02	2.950E+01	0.218
		142.18		-4.912E+02	9.468E+02	1.461E+03	1.233E+02	-0.336
CM-243		99.55		2.342E+00	7.989E+00	1.316E+01	1.499E+00	0.178
		103.76	*	7.388E-01	4.849E+00	7.912E+00	8.562E-01	0.093
		117.00		2.237E+00	1.003E+01	1.637E+01	1.535E+00	0.137
		209.75		1.617E+01	3.468E+01	6.015E+01	5.382E+00	0.269
		228.18		6.015E+00	1.037E+01	1.810E+01	1.692E+00	0.332
		277.60		3.887E+00	9.302E+00	1.592E+01	1.658E+00	0.244
AM-246		798.80		-3.956E+00	6.887E+00	1.075E+01	9.883E-01	-0.368
		1036.00		2.382E+00	1.230E+01	2.068E+01	1.942E+00	0.115
		1062.04		2.245E+00	1.125E+01	1.881E+01	1.752E+00	0.119
		1078.86	*	7.008E-01	5.794E+00	9.618E+00	8.903E-01	0.073
CM-247		278.00		9.527E+00	3.786E+01	6.418E+01	6.688E+00	0.148
		287.40		-3.545E+01	5.646E+01	8.922E+01	9.219E+00	-0.397
		402.60	*	-1.356E-01	1.736E+00	2.824E+00	2.278E-01	-0.048
CF-249		252.85		2.584E+00	4.188E+01	7.047E+01	6.964E+00	0.037
		333.44		5.063E+00	7.545E+00	1.313E+01	1.248E+00	0.386
		387.95	*	2.794E-01	2.034E+00	3.375E+00	2.741E-01	0.083
CF-251		176.60	*	-3.362E+00	6.577E+00	1.002E+01	8.268E-01	-0.336
		227.00		-1.849E+00	1.809E+01	3.025E+01	2.820E+00	-0.061
		285.00		-6.080E-01	8.301E+01	1.383E+02	1.434E+01	-0.004
ANH-511		511.00	*	-3.117E+00	3.480E+00	5.924E+00	4.996E-01	-0.526

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201996557      *
* Acquisition date : 17-DEC-2009 23:04:42 Detector SN#    :                 *
* Detector ID       : GAM20               Sensitivity     : 5.000           *
* Geometry          : 2LMB                Energy tolerance: 1.500           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:01:03.59     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 15-DEC-2009 00:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G1201996557          Analyst initials: KXG3           *
* Batch Number      : 933232               Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-JUL-2009 16:37:21 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
K-40	5.781E+00	2.363E+01	2.570E+01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	-1.280E+00	1.245E+01	2.040E+01	0.000E+00	NOT IDENT.
NA-22	2.044E-01	1.452E+00	2.452E+00	0.000E+00	NOT IDENT.
NA-24	-6.064E+00	4.168E+01	6.953E+01	0.000E+00	NOT IDENT.
AL-26	-6.518E-01	1.720E+00	2.675E+00	0.000E+00	NOT IDENT.
TI-44	-2.142E+00	1.600E+00	2.288E+00	0.000E+00	NOT IDENT.
SC-46	-6.035E-01	1.572E+00	2.521E+00	0.000E+00	NOT IDENT.
V-48	2.231E-01	1.745E+00	2.973E+00	0.000E+00	NOT IDENT.
CR-51	-8.564E+00	1.384E+01	2.230E+01	0.000E+00	NOT IDENT.
MN-52	-1.350E+00	2.398E+00	3.704E+00	0.000E+00	NOT IDENT.
MN-54	-1.343E+00	1.643E+00	2.159E+00	0.000E+00	NOT IDENT.
CO-56	2.530E-01	1.683E+00	2.893E+00	0.000E+00	NOT IDENT.
CO-57	5.870E-01	1.150E+00	1.949E+00	0.000E+00	NOT IDENT.
CO-58	6.226E-01	1.460E+00	2.597E+00	0.000E+00	NOT IDENT.
FE-59	-9.073E-02	2.852E+00	4.717E+00	0.000E+00	NOT IDENT.
CO-60	6.173E-01	1.735E+00	3.007E+00	0.000E+00	NOT IDENT.
ZN-65	1.316E+00	3.163E+00	5.567E+00	0.000E+00	NOT IDENT.
GE-68	1.658E+01	4.547E+01	7.981E+01	0.000E+00	NOT IDENT.
AS-73	1.431E+01	2.845E+01	4.936E+01	0.000E+00	NOT IDENT.
AS-74	2.493E+00	3.013E+00	5.290E+00	0.000E+00	NOT IDENT.
SE-75	-4.382E-01	2.214E+00	3.243E+00	0.000E+00	NOT IDENT.
BR-77	-1.114E+00	1.807E+01	2.289E+01	0.000E+00	NOT IDENT.
SR-82	2.266E+00	1.124E+01	1.955E+01	0.000E+00	NOT IDENT.
RB-83	-1.069E+00	3.795E+00	4.736E+00	0.000E+00	NOT IDENT.
RB-84	5.223E-01	2.268E+00	3.937E+00	0.000E+00	NOT IDENT.
KR-85	-3.002E+03	6.547E+02	7.001E+02	0.000E+00	NOT IDENT.
SR-85	-1.355E+01	2.956E+00	3.160E+00	0.000E+00	NOT IDENT.

RB-86	-3.643E+00	2.054E+01	3.330E+01	0.000E+00	NOT IDENT.
Y-88	1.004E+00	1.570E+00	2.960E+00	0.000E+00	NOT IDENT.
ZR-88	-4.928E-01	1.354E+00	2.196E+00	0.000E+00	NOT IDENT.
Y-91	-2.456E+02	5.194E+02	7.834E+02	0.000E+00	NOT IDENT.
NB-94	6.737E-01	1.687E+00	2.982E+00	0.000E+00	NOT IDENT.
NB-95	6.153E-02	1.456E+00	2.489E+00	0.000E+00	NOT IDENT.
NB-95M	-9.805E+00	5.231E+00	7.768E+00	0.000E+00	NOT IDENT.
ZR-95	-2.596E+00	2.459E+00	3.597E+00	0.000E+00	NOT IDENT.
NB-97	-2.696E+01	2.870E+01	4.441E+01	0.000E+00	NOT IDENT.
ZR-97	-3.809E+03	1.066E+03	1.334E+03	0.000E+00	NOT IDENT.
MO-99	1.217E+00	2.261E+01	3.879E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	6.356E+03	0.000E+00	0.000E+00	SHORT HLIF
RH-101	-1.348E+00	1.900E+00	2.610E+00	0.000E+00	NOT IDENT.
RH-102	-1.467E+00	1.376E+00	2.022E+00	0.000E+00	NOT IDENT.
RU-103	-6.090E-01	1.504E+00	2.374E+00	0.000E+00	NOT IDENT.
RH-106	9.457E+00	1.533E+01	2.651E+01	0.000E+00	NOT IDENT.
RU-106	9.457E+00	1.530E+01	2.651E+01	0.000E+00	NOT IDENT.
AG-108M	8.822E-01	1.632E+00	2.839E+00	0.000E+00	NOT IDENT.
CD-109	-1.504E+01	3.537E+01	5.718E+01	0.000E+00	NOT IDENT.
AG-110M	-1.386E+00	1.505E+00	2.334E+00	0.000E+00	NOT IDENT.
IN-111	1.344E+00	2.751E+00	4.842E+00	0.000E+00	NOT IDENT.
IN-113M	2.470E-02	1.927E+00	3.230E+00	0.000E+00	NOT IDENT.
SN-113	2.470E-02	1.927E+00	3.230E+00	0.000E+00	NOT IDENT.
IN-114M	1.696E+00	6.931E+00	1.216E+01	0.000E+00	NOT IDENT.
CD-115	3.373E+00	1.119E+01	1.902E+01	0.000E+00	NOT IDENT.
SN-117M	-7.286E-02	1.458E+00	2.357E+00	0.000E+00	NOT IDENT.
SB-122	1.528E+00	3.912E+00	6.696E+00	0.000E+00	NOT IDENT.
I-123	1.533E+01	6.009E+01	9.918E+01	0.000E+00	NOT IDENT.
TE-123M	3.272E-01	1.282E+00	2.116E+00	0.000E+00	NOT IDENT.
I-124	3.674E+00	4.784E+00	8.329E+00	0.000E+00	NOT IDENT.
SB-124	-3.526E+00	3.034E+00	3.620E+00	0.000E+00	NOT IDENT.
SB-125	-1.420E+00	4.228E+00	6.818E+00	0.000E+00	NOT IDENT.
TE-125M	-3.201E+02	4.043E+02	6.299E+02	0.000E+00	NOT IDENT.
I-126	-3.712E-01	4.148E+00	7.056E+00	0.000E+00	NOT IDENT.
SB-126	4.289E-01	3.039E+00	5.270E+00	0.000E+00	NOT IDENT.
SN-126	-1.208E+00	3.568E+00	5.801E+00	0.000E+00	NOT IDENT.
SB-127	7.339E+00	6.188E+00	1.187E+01	0.000E+00	NOT IDENT.
XE-127	-1.083E+00	1.663E+00	2.751E+00	0.000E+00	NOT IDENT.
I-131	5.616E-01	1.907E+00	3.281E+00	0.000E+00	NOT IDENT.
TE-132	6.907E-01	2.386E+00	4.169E+00	0.000E+00	NOT IDENT.
BA-133	-4.998E-01	2.004E+00	3.299E+00	0.000E+00	NOT IDENT.
I-133	4.849E+00	1.713E+01	2.903E+01	0.000E+00	NOT IDENT.
CS-134	-1.127E-01	2.012E+00	3.396E+00	0.000E+00	NOT IDENT.
CS-135	-1.261E-01	6.962E+00	1.186E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.197E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.965E-01	2.393E+00	4.035E+00	0.000E+00	NOT IDENT.
BA-137M	1.367E+00	1.583E+00	2.929E+00	0.000E+00	NOT IDENT.
CS-137	1.446E+00	1.674E+00	3.097E+00	0.000E+00	NOT IDENT.
CE-139	-6.041E-01	1.335E+00	2.089E+00	0.000E+00	NOT IDENT.
BA-140	7.501E+00	6.375E+00	1.099E+01	0.000E+00	NOT IDENT.
LA-140	2.047E+00	1.849E+00	3.726E+00	0.000E+00	NOT IDENT.
CE-141	1.838E+00	2.519E+00	4.277E+00	0.000E+00	NOT IDENT.
CE-143	1.404E+01	1.433E+01	2.534E+01	0.000E+00	NOT IDENT.
CE-144	-2.203E+00	9.746E+00	1.567E+01	0.000E+00	NOT IDENT.
PM-144	1.074E-01	1.664E+00	2.865E+00	0.000E+00	NOT IDENT.
PR-144	7.230E+00	1.120E+02	1.929E+02	0.000E+00	NOT IDENT.
PM-146	3.154E-02	1.989E+00	3.308E+00	0.000E+00	NOT IDENT.
ND-147	1.329E+01	1.231E+01	2.219E+01	0.000E+00	NOT IDENT.
PM-149	-1.473E+01	9.348E+01	1.570E+02	0.000E+00	NOT IDENT.
EU-152	-6.266E+00	4.876E+00	7.324E+00	0.000E+00	NOT IDENT.
GD-153	1.200E-01	3.451E+00	5.717E+00	0.000E+00	NOT IDENT.
EU-154	-3.441E-02	4.123E+00	6.770E+00	0.000E+00	NOT IDENT.
EU-155	1.318E+00	5.095E+00	8.532E+00	0.000E+00	NOT IDENT.
TB-160	-2.804E+00	5.300E+00	8.314E+00	0.000E+00	NOT IDENT.
HO-166M	-4.889E-01	3.092E+00	5.212E+00	0.000E+00	NOT IDENT.
TM-171	-1.918E+03	1.476E+03	2.070E+03	0.000E+00	NOT IDENT.
HF-175	-1.757E+00	1.534E+00	2.333E+00	0.000E+00	NOT IDENT.
LU-176	-9.727E-01	1.220E+00	1.940E+00	0.000E+00	NOT IDENT.
LU-177	4.062E+00	1.447E+01	2.533E+01	0.000E+00	NOT IDENT.
LU-177M	2.249E+00	7.921E+00	1.354E+01	0.000E+00	NOT IDENT.
HF-181	-4.830E-01	1.726E+00	2.780E+00	0.000E+00	NOT IDENT.
W-181	-2.116E+01	1.802E+01	2.556E+01	0.000E+00	NOT IDENT.
TA-182	-2.735E-01	7.016E+00	1.151E+01	0.000E+00	NOT IDENT.
RE-183	4.796E+00	4.561E+00	7.912E+00	0.000E+00	NOT IDENT.
RE-184	6.554E-01	1.041E+01	1.787E+01	0.000E+00	NOT IDENT.
OS-185	9.348E-01	1.747E+00	3.154E+00	0.000E+00	NOT IDENT.
RE-188	-1.413E+00	7.473E+00	1.198E+01	0.000E+00	NOT IDENT.
W-188	-6.175E+01	3.105E+02	5.201E+02	0.000E+00	NOT IDENT.

IR-192	8.294E-02	1.473E+00	2.503E+00	0.000E+00	NOT IDENT.
AU-195	7.270E+00	9.926E+00	1.709E+01	0.000E+00	NOT IDENT.
TL-200	-8.014E+00	9.871E+00	1.540E+01	0.000E+00	NOT IDENT.
TL-201	1.268E+01	2.038E+01	3.446E+01	0.000E+00	NOT IDENT.
TL-202	8.348E-01	1.593E+00	2.778E+00	0.000E+00	NOT IDENT.
HG-203	1.498E+00	1.708E+00	3.056E+00	0.000E+00	NOT IDENT.
BI-207	1.202E+00	2.880E+00	4.427E+00	0.000E+00	NOT IDENT.
TL-207	3.672E+01	3.435E+01	6.116E+01	0.000E+00	NOT IDENT.
TL-208	-8.910E-01	2.227E+00	3.149E+00	0.000E+00	NOT IDENT.
PO-209	2.604E+02	3.699E+02	6.679E+02	0.000E+00	NOT IDENT.
BI-210	-8.179E+01	1.840E+02	2.716E+02	0.000E+00	NOT IDENT.
PB-210	-8.179E+01	1.840E+02	2.716E+02	0.000E+00	NOT IDENT.
PO-210	-8.179E+01	1.840E+02	2.716E+02	0.000E+00	NOT IDENT.
BI-211	-1.926E+01	1.343E+01	1.718E+01	0.000E+00	NOT IDENT.
PB-211	-4.617E+00	4.137E+01	6.825E+01	0.000E+00	NOT IDENT.
BI-212	-7.548E+00	1.227E+01	1.951E+01	0.000E+00	NOT IDENT.
PB-212	-6.751E-01	3.535E+00	5.551E+00	0.000E+00	NOT IDENT.
PO-212	-6.751E-01	3.535E+00	5.551E+00	0.000E+00	NOT IDENT.
BI-214	-4.029E-01	4.285E+00	5.894E+00	0.000E+00	NOT IDENT.
PB-214	-5.554E+00	4.570E+00	5.901E+00	0.000E+00	NOT IDENT.
PO-214	-5.554E+00	4.570E+00	5.901E+00	0.000E+00	NOT IDENT.
PO-215	3.672E+01	3.435E+01	6.116E+01	0.000E+00	NOT IDENT.
PO-216	-6.751E-01	3.535E+00	5.551E+00	0.000E+00	NOT IDENT.
PO-218	-5.554E+00	4.570E+00	5.901E+00	0.000E+00	NOT IDENT.
RN-219	-6.399E+00	1.918E+01	3.108E+01	0.000E+00	NOT IDENT.
RN-220	9.755E+02	1.169E+03	2.086E+03	0.000E+00	NOT IDENT.
RA-223	3.672E+01	3.435E+01	6.116E+01	0.000E+00	NOT IDENT.
RA-224	-2.842E+01	3.432E+01	5.594E+01	0.000E+00	NOT IDENT.
RA-226	-5.081E+01	6.152E+01	7.573E+01	0.000E+00	NOT IDENT.
AC-227	6.309E+00	1.773E+01	3.098E+01	0.000E+00	NOT IDENT.
PA-227	0.000E+00	5.918E+35	0.000E+00	0.000E+00	SHORT HLIF
TH-227	6.309E+00	1.774E+01	3.098E+01	0.000E+00	NOT IDENT.
AC-228	3.248E+00	6.774E+00	1.055E+01	0.000E+00	NOT IDENT.
RA-228	3.248E+00	6.774E+00	1.055E+01	0.000E+00	NOT IDENT.
TH-228	-6.751E-01	3.535E+00	5.551E+00	0.000E+00	NOT IDENT.
TH-229	-1.775E-01	2.442E+01	4.221E+01	0.000E+00	NOT IDENT.
TH-230	-4.923E+02	3.182E+03	8.223E+02	0.000E+00	NOT IDENT.
PA-231	2.245E+01	7.354E+01	1.276E+02	0.000E+00	NOT IDENT.
TH-231	-1.245E+01	2.498E+01	3.587E+01	0.000E+00	NOT IDENT.
U-231	-4.153E+01	9.741E+00	1.011E+01	0.000E+00	NOT IDENT.
TH-232	-2.663E+02	2.991E+03	1.958E+03	0.000E+00	NOT IDENT.
PA-233	2.512E+00	3.087E+00	5.518E+00	0.000E+00	NOT IDENT.
PA-234	-4.175E+00	1.311E+01	2.106E+01	0.000E+00	NOT IDENT.
PA-234M	2.398E+01	2.308E+02	3.718E+02	0.000E+00	NOT IDENT.
TH-234	-1.150E+02	7.087E+01	1.106E+02	0.000E+00	NOT IDENT.
U-234	4.465E+01	2.515E+03	4.174E+03	0.000E+00	NOT IDENT.
U-235	-1.009E+01	1.280E+01	1.781E+01	0.000E+00	NOT IDENT.
NP-236	-2.638E+00	3.967E+00	6.126E+00	0.000E+00	NOT IDENT.
NP-237	-9.162E-01	1.058E+01	1.747E+01	0.000E+00	NOT IDENT.
PU-237	1.747E+01	7.017E+01	1.195E+02	0.000E+00	NOT IDENT.
U-238	-1.150E+02	7.087E+01	1.106E+02	0.000E+00	NOT IDENT.
NP-239	2.176E+00	9.566E+00	1.593E+01	0.000E+00	NOT IDENT.
AM-241	1.524E+00	6.119E+00	1.042E+01	0.000E+00	NOT IDENT.
AM-243	-1.143E+00	2.705E+00	4.023E+00	0.000E+00	NOT IDENT.
CM-243	7.388E-01	4.752E+00	7.912E+00	0.000E+00	NOT IDENT.
AM-246	7.008E-01	5.678E+00	9.618E+00	0.000E+00	NOT IDENT.
CM-247	-1.356E-01	1.701E+00	2.824E+00	0.000E+00	NOT IDENT.
CF-249	2.794E-01	1.993E+00	3.375E+00	0.000E+00	NOT IDENT.
CF-251	-3.362E+00	6.446E+00	1.002E+01	0.000E+00	NOT IDENT.
ANH-511	-3.117E+00	3.411E+00	5.924E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 03:06:20.07

```
*************************************************************************
*                          GEL Laboratories LLC                         *
*                            2040 Savage Road                           *
*                          Charleston, SC 29414                         *
*************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201996557.CNF;1
Sample date       : 15-DEC-2009 00:00:00 Acquisition date : 17-DEC-2009 23:04:42
Sample ID         : G1201996557          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM20                Detector geometry: 2LMB
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:01:03.59  0.4%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 933232               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.72	55	140	1.34	93.47	90	7	3.81E-03	38.4	
2	0	63.63	57	220	0.87	127.24	122	8	3.97E-03	46.8	
3	0	92.54	239	250	0.97	184.97	179	12	1.66E-02	14.8	
4	0	185.55	123	127	1.06	370.73	366	9	8.52E-03	18.9	
5	0	238.55	51	140	0.87	476.59	472	9	3.54E-03	44.1	
6	0	510.83	323	147	2.28	1020.62	1012	19	2.24E-02	10.7	
7	0	1459.92	23	9	0.72	2919.10	2913	10	1.56E-03	33.5	

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 03:06:23.16

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201996557.CNF;1
Sample date       : 15-DEC-2009 00:00:00 Acquisition date : 17-DEC-2009 23:04:42
Sample ID         : G1201996557          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM20                Detector geometry: 2LMB
Elapsed live time: 0 04:00:00.00         Elapsed real time: 0 04:01:03.59  0.4%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 933232                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
K-40	1460.81	4	10.67*	6.383E-01	5.781E+00	5.781E+00	417.07

Flag: "*" = Keyline

Sample ID : G1201996557 Acquisition date : 17-DEC-2009 23:04:42

Total number of lines in spectrum	1	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	1	100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
K-40	1.28E+09Y	1.00	5.781E+00	5.781E+00	24.11E+00	417.07	
	Total Activity :		5.781E+00	5.781E+00			
	Grand Total Activity :		5.781E+00	5.781E+00			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

None

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 03:06:27.93

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201996557.CNF;1  *
* Acquisition date  : 17-DEC-2009 23:04:42  Detector SN#     :             *
* Detector ID       : GAM20                 Sensitivity      : 5.00000     *
* Geometry          : 2LMB                  Energy tolerance: 1.50000      *
* Elapsed live time: 0 04:00:00.00          Abundance limit : 75.00000     *
* Elapsed real time: 0 04:01:03.59          Half life ratio : 8.00000      *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 15-DEC-2009 00:00:00  Nuclide Library : LIQUID       *
* Sample ID         : G1201996557           Analyst initials: KXG3         *
* Batch Number      : 933232                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 6-JUL-2009 16:37:21.51MS Isotope      :                *
* MSD ID           :                      MSD Isotope     :                *
* LCS ID           : 1032-A               LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
K-40	5.781E+00	2.411E+01	2.570E+01	2.463E+00	0.225

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	-1.280E+00		1.271E+01	2.040E+01	1.844E+00	-0.063
NA-22	2.044E-01		1.482E+00	2.452E+00	2.262E-01	0.083
NA-24	-6.064E+00		4.253E+01	6.953E+01	6.662E+00	-0.087
AL-26	-6.518E-01		1.756E+00	2.675E+00	2.258E-01	-0.244
TI-44	-2.142E+00		1.633E+00	2.288E+00	2.862E-01	-0.936
SC-46	-6.035E-01		1.604E+00	2.521E+00	2.413E-01	-0.239
V-48	2.231E-01		1.781E+00	2.973E+00	2.828E-01	0.075
CR-51	-8.564E+00		1.412E+01	2.230E+01	2.271E+00	-0.384
MN-52	-1.350E+00		2.447E+00	3.704E+00	3.476E-01	-0.365
MN-54	-1.343E+00		1.676E+00	2.159E+00	2.019E-01	-0.622
CO-56	2.530E-01		1.718E+00	2.893E+00	2.720E-01	0.087

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-57	5.870E-01		1.173E+00	1.949E+00	1.737E-01	0.301
CO-58	6.226E-01		1.489E+00	2.597E+00	2.407E-01	0.240
FE-59	-9.073E-02		2.910E+00	4.717E+00	4.642E-01	-0.019
CO-60	6.173E-01		1.771E+00	3.007E+00	2.829E-01	0.205
ZN-65	1.316E+00		3.227E+00	5.567E+00	5.079E-01	0.236
GE-68	1.658E+01		4.640E+01	7.981E+01	7.392E+00	0.208
AS-73	1.431E+01		2.903E+01	4.936E+01	5.933E+00	0.290
AS-74	2.493E+00		3.074E+00	5.290E+00	4.512E-01	0.471
SE-75	-4.382E-01		2.259E+00	3.243E+00	3.299E-01	-0.135
BR-77	-1.114E+00		1.844E+01	2.289E+01	1.935E+00	-0.049
SR-82	2.266E+00		1.147E+01	1.955E+01	1.776E+00	0.116
RB-83	-1.069E+00		3.872E+00	4.736E+00	4.002E-01	-0.226
RB-84	5.223E-01		2.314E+00	3.937E+00	3.756E-01	0.133
KR-85	-3.002E+03		6.681E+02	7.001E+02	5.908E+01	-4.288
SR-85	-1.355E+01		3.016E+00	3.160E+00	2.667E-01	-4.288
RB-86	-3.643E+00		2.096E+01	3.330E+01	3.085E+00	-0.109
Y-88	1.004E+00		1.602E+00	2.960E+00	2.466E-01	0.339
ZR-88	-4.928E-01		1.382E+00	2.196E+00	1.761E-01	-0.224
Y-91	-2.456E+02		5.300E+02	7.834E+02	7.023E+01	-0.314
NB-94	6.737E-01		1.721E+00	2.982E+00	2.599E-01	0.226
NB-95	6.153E-02		1.485E+00	2.489E+00	2.250E-01	0.025
NB-95M	-9.805E+00		5.338E+00	7.768E+00	8.276E-01	-1.262
ZR-95	-2.596E+00		2.509E+00	3.597E+00	3.536E-01	-0.722
NB-97	-2.696E+01		2.929E+01	4.441E+01	3.772E+00	-0.607
ZR-97	-3.809E+03		1.088E+03	1.334E+03	1.124E+02	-2.856
MO-99	1.217E+00		2.307E+01	3.879E+01	5.954E+00	0.031
TC-99M	1.163E-04		3.243E-03	Half-Life too short		
RH-101	-1.348E+00		1.939E+00	2.610E+00	2.270E-01	-0.517
RH-102	-1.467E+00		1.404E+00	2.022E+00	1.687E-01	-0.725
RU-103	-6.090E-01		1.535E+00	2.374E+00	3.331E-01	-0.256
RH-106	9.457E+00		1.564E+01	2.651E+01	3.525E+00	0.357
RU-106	9.457E+00		1.561E+01	2.651E+01	2.260E+00	0.357
AG-108M	8.822E-01		1.665E+00	2.839E+00	2.431E-01	0.311
CD-109	-1.504E+01		3.610E+01	5.718E+01	7.703E+00	-0.263
AG-110M	-1.386E+00		1.536E+00	2.334E+00	2.044E-01	-0.594
IN-111	1.344E+00		2.807E+00	4.842E+00	4.707E-01	0.278
IN-113M	2.470E-02		1.967E+00	3.230E+00	2.680E-01	0.008
SN-113	2.470E-02		1.967E+00	3.230E+00	2.680E-01	0.008
IN-114M	1.696E+00		7.072E+00	1.216E+01	1.038E+00	0.139
CD-115	3.373E+00		1.142E+01	1.902E+01	1.610E+00	0.177
SN-117M	-7.286E-02		1.487E+00	2.357E+00	1.923E-01	-0.031
SB-122	1.528E+00		3.992E+00	6.696E+00	5.699E-01	0.228
I-123	1.533E+01		6.131E+01	9.918E+01	8.087E+00	0.155
TE-123M	3.272E-01		1.308E+00	2.116E+00	1.737E-01	0.155
I-124	3.674E+00		4.882E+00	8.329E+00	7.104E-01	0.441
SB-124	-3.526E+00		3.096E+00	3.620E+00	3.333E-01	-0.974
SB-125	-1.420E+00		4.314E+00	6.818E+00	5.696E-01	-0.208
TE-125M	-3.201E+02		4.126E+02	6.299E+02	7.330E+01	-0.508

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
I-126	-3.712E-01		4.233E+00	7.056E+00	6.009E-01	-0.053
SB-126	4.289E-01		3.101E+00	5.270E+00	4.642E-01	0.081
SN-126	-1.208E+00		3.641E+00	5.801E+00	7.788E-01	-0.208
SB-127	7.339E+00		6.315E+00	1.187E+01	1.071E+00	0.618
XE-127	-1.083E+00		1.697E+00	2.751E+00	2.421E-01	-0.394
I-131	5.616E-01		1.946E+00	3.281E+00	3.013E-01	0.171
TE-132	6.907E-01		2.434E+00	4.169E+00	6.159E-01	0.166
BA-133	-4.998E-01		2.044E+00	3.299E+00	4.435E-01	-0.151
I-133	4.849E+00		1.748E+01	2.903E+01	2.565E+00	0.167
CS-134	-1.127E-01		2.053E+00	3.396E+00	3.137E-01	-0.033
CS-135	-1.261E-01		7.104E+00	1.186E+01	1.348E+00	-0.011
I-135	-3.363E-03		6.107E-03	Half-Life too short		
CS-136	1.965E-01		2.441E+00	4.035E+00	3.909E-01	0.049
BA-137M	1.367E+00		1.616E+00	2.929E+00	2.487E-01	0.467
CS-137	1.446E+00		1.708E+00	3.097E+00	2.634E-01	0.467
CE-139	-6.041E-01		1.362E+00	2.089E+00	1.682E-01	-0.289
BA-140	7.501E+00		6.505E+00	1.099E+01	3.638E+00	0.683
LA-140	2.047E+00		1.887E+00	3.726E+00	3.404E-01	0.549
CE-141	1.838E+00		2.571E+00	4.277E+00	3.652E-01	0.430
CE-143	1.404E+01		1.462E+01	2.534E+01	5.501E+00	0.554
CE-144	-2.203E+00		9.945E+00	1.567E+01	2.439E+00	-0.141
PM-144	1.074E-01		1.698E+00	2.865E+00	2.487E-01	0.037
PR-144	7.230E+00		1.143E+02	1.929E+02	1.674E+01	0.037
PM-146	3.154E-02		2.030E+00	3.308E+00	3.457E-01	0.010
ND-147	1.329E+01		1.256E+01	2.219E+01	3.299E+00	0.599
PM-149	-1.473E+01		9.539E+01	1.570E+02	2.598E+01	-0.094
EU-152	-6.266E+00		4.976E+00	7.324E+00	7.137E-01	-0.856
GD-153	1.200E-01		3.522E+00	5.717E+00	6.695E-01	0.021
EU-154	-3.441E-02		4.207E+00	6.770E+00	7.971E-01	-0.005
EU-155	1.318E+00		5.199E+00	8.532E+00	9.143E-01	0.154
TB-160	-2.804E+00		5.408E+00	8.314E+00	7.926E-01	-0.337
HO-166M	-4.889E-01		3.155E+00	5.212E+00	4.567E-01	-0.094
TM-171	-1.918E+03		1.506E+03	2.070E+03	2.502E+02	-0.926
HF-175	-1.757E+00		1.565E+00	2.333E+00	2.166E-01	-0.753
LU-176	-9.727E-01		1.245E+00	1.940E+00	1.944E-01	-0.502
LU-177	4.062E+00		1.476E+01	2.533E+01	2.259E+00	0.160
LU-177M	2.249E+00		8.083E+00	1.354E+01	1.099E+00	0.166
HF-181	-4.830E-01		1.761E+00	2.780E+00	2.325E-01	-0.174
W-181	-2.116E+01		1.838E+01	2.556E+01	3.098E+00	-0.828
TA-182	-2.735E-01		7.159E+00	1.151E+01	1.039E+00	-0.024
RE-183	4.796E+00		4.655E+00	7.912E+00	6.410E-01	0.606
RE-184	6.554E-01		1.062E+01	1.787E+01	1.766E+00	0.037
OS-185	9.348E-01		1.782E+00	3.154E+00	2.683E-01	0.296
RE-188	-1.413E+00		7.625E+00	1.198E+01	9.843E-01	-0.118
W-188	-6.175E+01		3.169E+02	5.201E+02	5.350E+01	-0.119
IR-192	8.294E-02		1.503E+00	2.503E+00	2.469E-01	0.033
AU-195	7.270E+00		1.013E+01	1.709E+01	1.964E+00	0.425
TL-200	-8.014E+00		1.007E+01	1.540E+01	1.336E+00	-0.521

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TL-201	1.268E+01		2.080E+01	3.446E+01	2.782E+00	0.368
TL-202	8.348E-01		1.626E+00	2.778E+00	2.284E-01	0.301
HG-203	1.498E+00		1.743E+00	3.056E+00	3.254E-01	0.490
BI-207	1.202E+00		2.939E+00	4.427E+00	4.121E-01	0.271
TL-207	3.672E+01		3.505E+01	6.116E+01	1.116E+01	0.600
TL-208	-8.910E-01		2.272E+00	3.149E+00	2.882E-01	-0.283
PO-209	2.604E+02		3.774E+02	6.679E+02	6.411E+01	0.390
BI-210	-8.179E+01		1.877E+02	2.716E+02	2.929E+01	-0.301
PB-210	-8.179E+01		1.877E+02	2.716E+02	2.929E+01	-0.301
PO-210	-8.179E+01		1.877E+02	2.716E+02	2.725E+01	-0.301
BI-211	-1.926E+01		1.371E+01	1.718E+01	1.636E+00	-1.121
PB-211	-4.617E+00		4.221E+01	6.825E+01	4.272E+01	-0.068
BI-212	-7.548E+00		1.252E+01	1.951E+01	1.991E+00	-0.387
PB-212	-6.751E-01		3.607E+00	5.551E+00	5.869E-01	-0.122
PO-212	-6.751E-01		3.607E+00	5.551E+00	5.869E-01	-0.122
BI-214	-4.029E-01		4.372E+00	5.894E+00	5.883E-01	-0.068
PB-214	-5.554E+00		4.664E+00	5.901E+00	6.397E-01	-0.941
PO-214	-5.554E+00		4.664E+00	5.901E+00	6.397E-01	-0.941
PO-215	3.672E+01		3.505E+01	6.116E+01	1.116E+01	0.600
PO-216	-6.751E-01		3.607E+00	5.551E+00	5.869E-01	-0.122
PO-218	-5.554E+00		4.664E+00	5.901E+00	6.397E-01	-0.941
RN-219	-6.399E+00		1.957E+01	3.108E+01	4.572E+00	-0.206
RN-220	9.755E+02		1.193E+03	2.086E+03	1.772E+02	0.468
RA-223	3.672E+01		3.505E+01	6.116E+01	1.116E+01	0.600
RA-224	-2.842E+01		3.502E+01	5.594E+01	5.385E+00	-0.508
RA-226	-5.081E+01		6.277E+01	7.573E+01	5.578E+01	-0.671
AC-227	6.309E+00		1.809E+01	3.098E+01	4.999E+00	0.204
PA-227	-1.076E+30		3.019E+29	Half-Life too short		
TH-227	6.309E+00		1.810E+01	3.098E+01	5.805E+00	0.204
AC-228	3.248E+00		6.912E+00	1.055E+01	1.267E+00	0.308
RA-228	3.248E+00		6.912E+00	1.055E+01	1.267E+00	0.308
TH-228	-6.751E-01		3.607E+00	5.551E+00	5.869E-01	-0.122
TH-229	-1.775E-01		2.492E+01	4.221E+01	3.632E+00	-0.004
TH-230	-4.923E+02		3.246E+03	8.223E+02	5.335E+03	-0.599
PA-231	2.245E+01		7.504E+01	1.276E+02	2.074E+01	0.176
TH-231	-1.245E+01		2.548E+01	3.587E+01	7.302E+00	-0.347
U-231	-4.153E+01		9.940E+00	1.011E+01	1.209E+00	-4.109
TH-232	-2.663E+02		3.052E+03	1.958E+03	2.062E+04	-0.136
PA-233	2.512E+00		3.150E+00	5.518E+00	5.598E-01	0.455
PA-234	-4.175E+00		1.338E+01	2.106E+01	4.047E+00	-0.198
PA-234M	2.398E+01		2.355E+02	3.718E+02	3.984E+01	0.064
TH-234	-1.150E+02		7.232E+01	1.106E+02	2.206E+01	-1.041
U-234	4.465E+01		2.566E+03	4.174E+03	4.175E+04	0.011
U-235	-1.009E+01		1.306E+01	1.781E+01	3.100E+00	-0.566
NP-236	-2.638E+00		4.048E+00	6.126E+00	4.982E-01	-0.431
NP-237	-9.162E-01		1.079E+01	1.747E+01	4.288E+00	-0.052
PU-237	1.747E+01		7.160E+01	1.195E+02	1.493E+01	0.146
U-238	-1.150E+02		7.232E+01	1.106E+02	2.206E+01	-1.041

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NP-239	2.176E+00		9.761E+00	1.593E+01	1.493E+00	0.137
AM-241	1.524E+00		6.244E+00	1.042E+01	1.347E+00	0.146
AM-243	-1.143E+00		2.760E+00	4.023E+00	4.934E-01	-0.284
CM-243	7.388E-01		4.849E+00	7.912E+00	8.562E-01	0.093
AM-246	7.008E-01		5.794E+00	9.618E+00	8.903E-01	0.073
CM-247	-1.356E-01		1.736E+00	2.824E+00	2.278E-01	-0.048
CF-249	2.794E-01		2.034E+00	3.375E+00	2.741E-01	0.083
CF-251	-3.362E+00		6.577E+00	1.002E+01	8.268E-01	-0.336
ANH-511	-3.117E+00		3.480E+00	5.924E+00	4.996E-01	-0.526

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1201996557           *
* Acquisition date : 17-DEC-2009 23:04:42 Detector SN#    :                 *
* Detector ID      : GAM20                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 04:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 04:01:03.59     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 15-DEC-2009 00:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G1201996557          Analyst initials: KXG3            *
* Batch Number     : 933232               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  6-JUL-2009 16:37:21 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
K-40	5.781E+00	2.363E+01	1.286E+01	1.206E+01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU
BE-7	-1.280E+00	1.245E+01	1.021E+01	6.353E+00 NOT IDENT.
NA-22	2.044E-01	1.452E+00	1.226E+00	7.410E-01 NOT IDENT.
NA-24	-6.064E+00	4.168E+01	3.478E+01	2.127E+01 NOT IDENT.
AL-26	-6.518E-01	1.720E+00	1.339E+00	8.778E-01 NOT IDENT.
TI-44	-2.142E+00	1.600E+00	1.145E+00	8.166E-01 NOT IDENT.
SC-46	-6.035E-01	1.572E+00	1.261E+00	8.020E-01 NOT IDENT.
V-48	2.231E-01	1.745E+00	1.487E+00	8.904E-01 NOT IDENT.
CR-51	-8.564E+00	1.384E+01	1.116E+01	7.062E+00 NOT IDENT.
MN-52	-1.350E+00	2.398E+00	1.853E+00	1.223E+00 NOT IDENT.
MN-54	-1.343E+00	1.643E+00	1.080E+00	8.382E-01 NOT IDENT.
CO-56	2.530E-01	1.683E+00	1.447E+00	8.589E-01 NOT IDENT.
CO-57	5.870E-01	1.150E+00	9.748E-01	5.866E-01 NOT IDENT.
CO-58	6.226E-01	1.460E+00	1.299E+00	7.447E-01 NOT IDENT.
FE-59	-9.073E-02	2.852E+00	2.360E+00	1.455E+00 NOT IDENT.
CO-60	6.173E-01	1.735E+00	1.505E+00	8.854E-01 NOT IDENT.
ZN-65	1.316E+00	3.163E+00	2.785E+00	1.614E+00 NOT IDENT.
GE-68	1.658E+01	4.547E+01	3.993E+01	2.320E+01 NOT IDENT.
AS-73	1.431E+01	2.845E+01	2.470E+01	1.451E+01 NOT IDENT.
AS-74	2.493E+00	3.013E+00	2.647E+00	1.537E+00 NOT IDENT.
SE-75	-4.382E-01	2.214E+00	1.623E+00	1.129E+00 NOT IDENT.
BR-77	-1.114E+00	1.807E+01	1.145E+01	9.219E+00 NOT IDENT.
SR-82	2.266E+00	1.124E+01	9.779E+00	5.733E+00 NOT IDENT.
RB-83	-1.069E+00	3.795E+00	2.369E+00	1.936E+00 NOT IDENT.
RB-84	5.223E-01	2.268E+00	1.970E+00	1.157E+00 NOT IDENT.
KR-85	-3.002E+03	6.547E+02	3.502E+02	3.341E+02 NOT IDENT.
SR-85	-1.355E+01	2.956E+00	1.581E+00	1.508E+00 NOT IDENT.

RB-86	-3.643E+00	2.054E+01	1.666E+01	1.048E+01	NOT IDENT.
Y-88	1.004E+00	1.570E+00	1.481E+00	8.010E-01	NOT IDENT.
ZR-88	-4.928E-01	1.354E+00	1.099E+00	6.909E-01	NOT IDENT.
Y-91	-2.456E+02	5.194E+02	3.919E+02	2.650E+02	NOT IDENT.
NB-94	6.737E-01	1.687E+00	1.492E+00	8.605E-01	NOT IDENT.
NB-95	6.153E-02	1.456E+00	1.245E+00	7.426E-01	NOT IDENT.
NB-95M	-9.805E+00	5.231E+00	3.886E+00	2.669E+00	NOT IDENT.
ZR-95	-2.596E+00	2.459E+00	1.800E+00	1.255E+00	NOT IDENT.
NB-97	-2.696E+01	2.870E+01	2.222E+01	1.464E+01	NOT IDENT.
ZR-97	-3.809E+03	1.066E+03	6.673E+02	5.439E+02	NOT IDENT.
MO-99	1.217E+00	2.261E+01	1.941E+01	1.153E+01	NOT IDENT.
TC-99M	1.163E+02	6.356E+03	0.000E+00	3.243E+03	SHORT HLIF
RH-101	-1.348E+00	1.900E+00	1.306E+00	9.696E-01	NOT IDENT.
RH-102	-1.467E+00	1.376E+00	1.012E+00	7.021E-01	NOT IDENT.
RU-103	-6.090E-01	1.504E+00	1.188E+00	7.673E-01	NOT IDENT.
RH-106	9.457E+00	1.533E+01	1.327E+01	7.821E+00	NOT IDENT.
RU-106	9.457E+00	1.530E+01	1.327E+01	7.806E+00	NOT IDENT.
AG-108M	8.822E-01	1.632E+00	1.420E+00	8.326E-01	NOT IDENT.
CD-109	-1.504E+01	3.537E+01	2.861E+01	1.805E+01	NOT IDENT.
AG-110M	-1.386E+00	1.505E+00	1.168E+00	7.679E-01	NOT IDENT.
IN-111	1.344E+00	2.751E+00	2.422E+00	1.404E+00	NOT IDENT.
IN-113M	2.470E-02	1.927E+00	1.616E+00	9.834E-01	NOT IDENT.
SN-113	2.470E-02	1.927E+00	1.616E+00	9.834E-01	NOT IDENT.
IN-114M	1.696E+00	6.931E+00	6.084E+00	3.536E+00	NOT IDENT.
CD-115	3.373E+00	1.119E+01	9.513E+00	5.711E+00	NOT IDENT.
SN-117M	-7.286E-02	1.458E+00	1.179E+00	7.437E-01	NOT IDENT.
SB-122	1.528E+00	3.912E+00	3.350E+00	1.996E+00	NOT IDENT.
I-123	1.533E+01	6.009E+01	4.962E+01	3.066E+01	NOT IDENT.
TE-123M	3.272E-01	1.282E+00	1.059E+00	6.542E-01	NOT IDENT.
I-124	3.674E+00	4.784E+00	4.167E+00	2.441E+00	NOT IDENT.
SB-124	-3.526E+00	3.034E+00	1.811E+00	1.548E+00	NOT IDENT.
SB-125	-1.420E+00	4.228E+00	3.411E+00	2.157E+00	NOT IDENT.
TE-125M	-3.201E+02	4.043E+02	3.152E+02	2.063E+02	NOT IDENT.
I-126	-3.712E-01	4.148E+00	3.530E+00	2.116E+00	NOT IDENT.
SB-126	4.289E-01	3.039E+00	2.636E+00	1.550E+00	NOT IDENT.
SN-126	-1.208E+00	3.568E+00	2.902E+00	1.820E+00	NOT IDENT.
SB-127	7.339E+00	6.188E+00	5.938E+00	3.157E+00	NOT IDENT.
XE-127	-1.083E+00	1.663E+00	1.376E+00	8.486E-01	NOT IDENT.
I-131	5.616E-01	1.907E+00	1.642E+00	9.729E-01	NOT IDENT.
TE-132	6.907E-01	2.386E+00	2.086E+00	1.217E+00	NOT IDENT.
BA-133	-4.998E-01	2.004E+00	1.650E+00	1.022E+00	NOT IDENT.
I-133	4.849E+00	1.713E+01	1.452E+01	8.742E+00	NOT IDENT.
CS-134	-1.127E-01	2.012E+00	1.699E+00	1.027E+00	NOT IDENT.
CS-135	-1.261E-01	6.962E+00	5.932E+00	3.552E+00	NOT IDENT.
I-135	-3.363E+03	1.197E+04	0.000E+00	6.107E+03	SHORT HLIF
CS-136	1.965E-01	2.393E+00	2.018E+00	1.221E+00	NOT IDENT.
BA-137M	1.367E+00	1.583E+00	1.466E+00	8.078E-01	NOT IDENT.
CS-137	1.446E+00	1.674E+00	1.549E+00	8.539E-01	NOT IDENT.
CE-139	-6.041E-01	1.335E+00	1.045E+00	6.812E-01	NOT IDENT.
BA-140	7.501E+00	6.375E+00	5.498E+00	3.253E+00	NOT IDENT.
LA-140	2.047E+00	1.849E+00	1.864E+00	9.434E-01	NOT IDENT.
CE-141	1.838E+00	2.519E+00	2.140E+00	1.285E+00	NOT IDENT.
CE-143	1.404E+01	1.433E+01	1.268E+01	7.312E+00	NOT IDENT.
CE-144	-2.203E+00	9.746E+00	7.842E+00	4.972E+00	NOT IDENT.
PM-144	1.074E-01	1.664E+00	1.433E+00	8.490E-01	NOT IDENT.
PR-144	7.230E+00	1.120E+02	9.649E+01	5.716E+01	NOT IDENT.
PM-146	3.154E-02	1.989E+00	1.655E+00	1.015E+00	NOT IDENT.
ND-147	1.329E+01	1.231E+01	1.110E+01	6.280E+00	NOT IDENT.
PM-149	-1.473E+01	9.348E+01	7.856E+01	4.769E+01	NOT IDENT.
EU-152	-6.266E+00	4.876E+00	3.664E+00	2.488E+00	NOT IDENT.
GD-153	1.200E-01	3.451E+00	2.860E+00	1.761E+00	NOT IDENT.
EU-154	-3.441E-02	4.123E+00	3.387E+00	2.104E+00	NOT IDENT.
EU-155	1.318E+00	5.095E+00	4.269E+00	2.599E+00	NOT IDENT.
TB-160	-2.804E+00	5.300E+00	4.160E+00	2.704E+00	NOT IDENT.
HO-166M	-4.889E-01	3.092E+00	2.607E+00	1.578E+00	NOT IDENT.
TM-171	-1.918E+03	1.476E+03	1.036E+03	7.530E+02	NOT IDENT.
HF-175	-1.757E+00	1.534E+00	1.167E+00	7.827E-01	NOT IDENT.
LU-176	-9.727E-01	1.220E+00	9.703E-01	6.226E-01	NOT IDENT.
LU-177	4.062E+00	1.447E+01	1.267E+01	7.382E+00	NOT IDENT.
LU-177M	2.249E+00	7.921E+00	6.774E+00	4.041E+00	NOT IDENT.
HF-181	-4.830E-01	1.726E+00	1.391E+00	8.806E-01	NOT IDENT.
W-181	-2.116E+01	1.802E+01	1.279E+01	9.191E+00	NOT IDENT.
TA-182	-2.735E-01	7.016E+00	5.758E+00	3.580E+00	NOT IDENT.
RE-183	4.796E+00	4.561E+00	3.958E+00	2.327E+00	NOT IDENT.
RE-184	6.554E-01	1.041E+01	8.941E+00	5.310E+00	NOT IDENT.
OS-185	9.348E-01	1.747E+00	1.578E+00	8.912E-01	NOT IDENT.
RE-188	-1.413E+00	7.473E+00	5.993E+00	3.813E+00	NOT IDENT.
W-188	-6.175E+01	3.105E+02	2.602E+02	1.584E+02	NOT IDENT.

IR-192	8.294E-02	1.473E+00	1.252E+00	7.516E-01	NOT IDENT.
AU-195	7.270E+00	9.926E+00	8.552E+00	5.064E+00	NOT IDENT.
TL-200	-8.014E+00	9.871E+00	7.703E+00	5.036E+00	NOT IDENT.
TL-201	1.268E+01	2.038E+01	1.724E+01	1.040E+01	NOT IDENT.
TL-202	8.348E-01	1.593E+00	1.390E+00	8.128E-01	NOT IDENT.
HG-203	1.498E+00	1.708E+00	1.529E+00	8.715E-01	NOT IDENT.
BI-207	1.202E+00	2.880E+00	2.215E+00	1.469E+00	NOT IDENT.
TL-207	3.672E+01	3.435E+01	3.060E+01	1.752E+01	NOT IDENT.
TL-208	-8.910E-01	2.227E+00	1.576E+00	1.136E+00	NOT IDENT.
PO-209	2.604E+02	3.699E+02	3.341E+02	1.887E+02	NOT IDENT.
BI-210	-8.179E+01	1.840E+02	1.359E+02	9.387E+01	NOT IDENT.
PB-210	-8.179E+01	1.840E+02	1.359E+02	9.387E+01	NOT IDENT.
PO-210	-8.179E+01	1.840E+02	1.359E+02	9.385E+01	NOT IDENT.
BI-211	-1.926E+01	1.343E+01	8.597E+00	6.853E+00	NOT IDENT.
PB-211	-4.617E+00	4.137E+01	3.415E+01	2.111E+01	NOT IDENT.
BI-212	-7.548E+00	1.227E+01	9.762E+00	6.260E+00	NOT IDENT.
PB-212	-6.751E-01	3.535E+00	2.777E+00	1.803E+00	NOT IDENT.
PO-212	-6.751E-01	3.535E+00	2.777E+00	1.803E+00	NOT IDENT.
BI-214	-4.029E-01	4.285E+00	2.949E+00	2.186E+00	NOT IDENT.
PB-214	-5.554E+00	4.570E+00	2.952E+00	2.332E+00	NOT IDENT.
PO-214	-5.554E+00	4.570E+00	2.952E+00	2.332E+00	NOT IDENT.
PO-215	3.672E+01	3.435E+01	3.060E+01	1.752E+01	NOT IDENT.
PO-216	-6.751E-01	3.535E+00	2.777E+00	1.803E+00	NOT IDENT.
PO-218	-5.554E+00	4.570E+00	2.952E+00	2.332E+00	NOT IDENT.
RN-219	-6.399E+00	1.918E+01	1.555E+01	9.786E+00	NOT IDENT.
RN-220	9.755E+02	1.169E+03	1.044E+03	5.963E+02	NOT IDENT.
RA-223	3.672E+01	3.435E+01	3.060E+01	1.752E+01	NOT IDENT.
RA-224	-2.842E+01	3.432E+01	2.799E+01	1.751E+01	NOT IDENT.
RA-226	-5.081E+01	6.152E+01	3.789E+01	3.139E+01	NOT IDENT.
AC-227	6.309E+00	1.773E+01	1.550E+01	9.047E+00	NOT IDENT.
PA-227	-1.076E+36	5.918E+35	0.000E+00	0.000E+00	SHORT HLIF
TH-227	6.309E+00	1.774E+01	1.550E+01	9.052E+00	NOT IDENT.
AC-228	3.248E+00	6.774E+00	5.280E+00	3.456E+00	NOT IDENT.
RA-228	3.248E+00	6.774E+00	5.280E+00	3.456E+00	NOT IDENT.
TH-228	-6.751E-01	3.535E+00	2.777E+00	1.803E+00	NOT IDENT.
TH-229	-1.775E-01	2.442E+01	2.112E+01	1.246E+01	NOT IDENT.
TH-230	-4.923E+02	3.182E+03	4.114E+02	1.623E+03	NOT IDENT.
PA-231	2.245E+01	7.354E+01	6.383E+01	3.752E+01	NOT IDENT.
TH-231	-1.245E+01	2.498E+01	1.795E+01	1.274E+01	NOT IDENT.
U-231	-4.153E+01	9.741E+00	5.057E+00	4.970E+00	NOT IDENT.
TH-232	-2.663E+02	2.991E+03	9.797E+02	1.526E+03	NOT IDENT.
PA-233	2.512E+00	3.087E+00	2.761E+00	1.575E+00	NOT IDENT.
PA-234	-4.175E+00	1.311E+01	1.054E+01	6.688E+00	NOT IDENT.
PA-234M	2.398E+01	2.308E+02	1.860E+02	1.178E+02	NOT IDENT.
TH-234	-1.150E+02	7.087E+01	5.531E+01	3.616E+01	NOT IDENT.
U-234	4.465E+01	2.515E+03	2.088E+03	1.283E+03	NOT IDENT.
U-235	-1.009E+01	1.280E+01	8.912E+00	6.532E+00	NOT IDENT.
NP-236	-2.638E+00	3.967E+00	3.065E+00	2.024E+00	NOT IDENT.
NP-237	-9.162E-01	1.058E+01	8.738E+00	5.397E+00	NOT IDENT.
PU-237	1.747E+01	7.017E+01	5.978E+01	3.580E+01	NOT IDENT.
U-238	-1.150E+02	7.087E+01	5.531E+01	3.616E+01	NOT IDENT.
NP-239	2.176E+00	9.566E+00	7.969E+00	4.881E+00	NOT IDENT.
AM-241	1.524E+00	6.119E+00	5.213E+00	3.122E+00	NOT IDENT.
AM-243	-1.143E+00	2.705E+00	2.012E+00	1.380E+00	NOT IDENT.
CM-243	7.388E-01	4.752E+00	3.958E+00	2.425E+00	NOT IDENT.
AM-246	7.008E-01	5.678E+00	4.812E+00	2.897E+00	NOT IDENT.
CM-247	-1.356E-01	1.701E+00	1.413E+00	8.681E-01	NOT IDENT.
CF-249	2.794E-01	1.993E+00	1.688E+00	1.017E+00	NOT IDENT.
CF-251	-3.362E+00	6.446E+00	5.012E+00	3.289E+00	NOT IDENT.
ANH-511	-3.117E+00	3.411E+00	2.964E+00	1.740E+00	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	128.3728
46.50	128.3728
46.50	128.3728
48.70	121.1606
49.72	136.1073
51.35	120.8457
52.39	120.1161
52.97	113.3564
53.15	113.3970
53.20	113.4084
53.44	100.6366
54.07	101.7503
56.28	116.0800
56.28	116.0806
57.37	130.2428
57.53	130.2824
57.53	130.2827
57.60	130.2997
57.98	142.3381
57.98	142.3381
59.00	130.6449
59.32	123.7379
59.32	123.7379
59.40	123.7562
59.54	123.7887
59.54	123.7887
59.72	123.8303
60.01	163.8636
61.10	221.2613
61.14	221.2771
61.30	182.2819
63.00	163.7576
63.29	163.8427
63.29	163.8427
63.58	163.9279
64.28	162.1194
64.62	0.0000
65.12	189.5890
65.20	189.6158
65.20	189.6158
66.05	222.2223
66.72	191.1322
66.83	150.7097
66.91	150.7309
67.20	150.8067
67.20	150.8067
67.67	155.9942
67.75	164.1201
67.85	167.1879
68.90	167.4892
68.90	167.4892
69.30	163.5402
69.67	163.6434
70.82	137.4822
70.82	137.4822
70.83	137.4843
72.80	168.5877
72.80	168.5877
72.87	176.7819
72.87	176.7819
74.67	172.1785
74.81	161.9667
74.81	161.9667
74.81	161.9667
74.81	161.9667
74.81	161.9667
74.81	161.9667

74.81	161.9667
74.97	168.1607
74.97	168.1607
75.28	151.8308
75.70	150.9066
77.11	152.2765
77.11	152.2765
77.11	152.2765
77.11	152.2765
77.11	152.2765
77.11	152.2765
77.11	152.2765
78.38	165.9854
79.62	179.7366
79.80	172.5543
79.80	172.5543
80.11	162.2999
80.18	162.3175
80.30	165.4500
80.30	165.4500
80.57	148.9673
81.00	132.5033
81.07	132.5176
81.07	132.5176
81.07	132.5176
82.60	158.7719
83.37	148.5670
83.78	163.2143
83.78	163.2143
83.78	163.2143
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84.21	161.2392
84.90	150.9930
85.43	151.1132
86.29	157.5674
86.50	171.1862
86.54	171.1962
86.59	171.2087
86.72	171.2412
86.79	173.3473
86.94	192.1870
87.30	196.4692
87.30	196.4692
87.30	196.4692
87.30	196.4692
87.30	196.4692
87.30	196.4692
87.30	196.4692
87.57	175.6375
87.88	175.7178
88.03	175.7562
88.36	172.7008
88.47	158.0727
89.36	302.9291
89.95	351.4460
91.11	215.4227
92.29	136.8396
92.38	136.8575
92.38	136.8575
93.35	140.2078
94.00	181.4876
94.67	277.7654
94.67	277.7681
94.90	332.7937
94.90	332.7937
94.90	332.7937
95.87	324.7806
95.87	324.7806
96.73	156.7584
97.43	127.2235
98.44	115.7210
98.44	115.7210
98.88	116.8526
99.55	137.1609
99.55	137.1609
99.86	132.9638
100.00	134.0532
100.10	134.0717

103.18	132.4873
103.76	136.8659
105.00	137.0892
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108.00	141.9244
109.28	157.2347
110.05	0.0000
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111.00	140.3093
111.76	139.3635
112.95	139.5715
115.19	152.9795
115.19	152.9795
115.19	152.9795
116.30	140.1516
117.00	132.6600
117.00	132.6600
117.66	126.2372
121.11	118.0212
121.62	114.8122
121.78	118.1151
122.06	107.2144
122.32	110.5304
122.32	110.5304
122.32	110.5304
123.07	112.8197
127.23	108.9671
129.76	130.2581
131.20	111.6749
133.02	140.7123
133.54	131.9248
135.34	123.3044
136.00	141.1813
136.25	137.8842
136.48	137.9195
140.51	135.1772
140.51	0.0000
142.18	162.2828
142.65	150.0466
143.76	150.2252
144.24	141.3296
144.24	141.3296
144.24	141.3296
145.22	134.7400
145.44	134.7717
147.16	151.8942
152.43	138.0219
152.70	132.4016
153.22	114.3565
154.21	119.0062
154.21	119.0062
154.21	119.0062
155.03	130.4489
156.02	144.2057
158.56	124.0842
159.00	115.0274
159.00	115.0274
160.31	135.7053
161.27	125.5616
162.32	95.9825
162.64	100.5854
163.35	107.5181
163.89	122.4529
165.85	120.3937
167.43	96.4628
171.28	112.9566
171.86	103.7924
172.10	103.8162
176.55	133.2109
176.60	133.2179
181.06	105.8519
184.41	111.1347
185.71	122.6549
186.00	122.6869
186.21	120.9564
190.27	111.7199
192.34	128.6701
193.63	127.9337

197.04	106.1911
198.01	114.2519
198.60	115.1951
200.40	119.8121
201.83	117.2926
202.84	120.0624
205.31	126.5522
208.36	122.4086
208.81	129.6053
209.75	109.1328
209.75	109.1328
210.97	108.3481
215.65	106.9676
216.55	94.4529
218.09	117.9882
222.10	95.7803
223.80	120.3405
226.40	116.9623
227.00	107.9463
227.08	107.9527
227.20	99.7983
228.16	98.0571
228.18	89.8872
228.18	89.8872
231.56	92.8562
235.69	156.1690
236.00	158.0325
236.00	158.0325
238.63	116.2458
238.63	116.2458
238.63	116.2458
238.63	116.2458
239.00	118.1099
240.98	158.6344
241.98	162.4238
241.98	162.4238
241.98	162.4238
244.69	122.2968
245.39	109.4807
247.94	108.7668
248.90	120.8356
249.79	113.5314
252.40	90.6294
252.85	93.4346
252.85	93.4346
254.15	100.9318
256.20	87.1715
256.20	87.1715
260.50	104.1865
260.90	97.7037
262.80	81.9965
264.65	82.1039
268.24	86.9902
268.79	87.0229
269.46	87.0640
269.46	87.0640
269.46	87.0640
271.23	85.2972
273.65	107.0368
276.40	96.8925
277.35	100.7207
277.60	102.6216
277.60	102.6216
278.00	102.6499
278.60	109.2863
279.20	92.3655
279.53	99.9282
280.46	99.9921
281.68	103.8518
283.67	86.0290
284.30	92.6870
285.00	84.2143
285.90	82.3723
286.10	89.9583
286.10	89.9583
287.40	86.2456
288.45	0.0000
290.67	94.0331

290.80	94.0421
291.72	74.1390
293.26	86.5830
293.70	99.9323
295.21	116.2273
295.21	116.2273
295.21	116.2273
295.96	111.5192
296.50	112.5120
297.23	104.9344
298.57	87.8405
299.80	85.9996
299.80	85.9996
300.09	91.7505
300.09	91.7505
300.09	91.7505
300.09	91.7505
300.12	91.7520
301.29	94.6917
302.84	93.8294
303.76	91.9688
303.91	91.9775
304.40	92.0068
304.40	92.0068
304.84	78.6117
306.84	97.9113
308.46	81.6771
311.98	71.2663
316.51	79.1973
318.01	69.6039
319.02	94.7984
319.41	95.7884
320.08	96.7972
323.87	79.5601
323.87	79.5601
323.87	79.5601
325.23	91.2791
328.77	84.6662
329.70	78.8717
329.70	78.8717
330.00	78.8853
333.44	61.4840
334.20	79.0867
334.20	79.0867
334.30	79.0917
338.28	79.2808
338.28	79.2808
338.28	79.2808
338.32	79.2832
338.32	79.2832
340.50	72.5253
340.57	72.5287
343.40	93.2677
344.27	100.1915
345.85	69.8061
350.59	80.8464
351.07	89.7448
351.92	78.9355
351.92	78.9355
351.92	78.9355
355.39	79.0942
356.01	73.1881
364.48	63.6055
366.43	67.6555
367.43	75.6579
367.94	80.6589
369.80	52.8318
374.96	67.9803
383.85	62.2867
387.95	73.5024
388.63	79.5726
391.69	64.5713
391.69	64.5713
392.90	74.7091
398.62	63.7988
400.65	62.8533
401.10	62.8685
401.81	67.9641

402.60	63.9334
404.84	59.9453
410.95	63.1949
411.60	59.1381
413.65	62.2631
414.70	74.5528
415.30	68.4466
415.76	68.4630
417.63	0.0000
418.52	60.3738
423.70	54.3781
427.08	63.7218
427.89	61.6919
432.53	61.8365
433.00	61.8503
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439.56	49.6428
439.89	58.9604
443.98	60.1169
444.90	48.7377
445.03	48.7406
445.03	48.7406
445.03	48.7406
453.90	54.1598
463.38	55.4545
468.07	59.7728
473.00	48.3507
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475.35	71.5538
476.78	51.5952
477.59	51.6146
477.96	50.5701
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484.57	53.8965
487.03	53.9579
490.36	54.0404
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497.08	53.1441
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511.00	74.8690
511.85	87.7375
511.85	87.7375
513.99	297.7335
513.99	297.7335
520.41	52.6277
520.65	46.1875
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529.87	44.2169
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537.32	31.3763
543.00	40.1300
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552.65	44.6498
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563.23	37.1906
563.90	37.2010
568.70	41.6599
569.32	47.1546
569.50	47.1572
569.67	48.2579
573.80	50.5371
574.00	50.5413
574.64	43.9600
578.91	61.6516
579.30	63.8641
583.14	47.4210
585.48	48.5695
591.81	52.0130
592.07	56.4458
593.00	67.5378
595.88	50.9891
600.56	76.6269

602.52	48.9011
602.71	57.7970
602.71	57.7970
603.60	58.9279
604.41	68.9572
604.70	74.5265
609.31	41.2309
610.33	50.1663
612.46	66.9434
614.37	53.5957
618.01	51.4341
621.84	42.5529
621.84	42.5529
631.29	35.9639
633.02	31.4889
633.10	34.8636
634.78	39.6129
635.90	41.4314
636.97	45.0525
645.85	41.5864
646.12	37.9743
656.30	45.3796
657.75	52.6687
657.90	52.6715
661.65	36.3750
661.65	36.3750
664.57	63.7255
666.33	44.6371
666.33	44.6371
675.00	39.2952
677.61	32.0144
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692.80	30.3502
695.00	57.9874
696.49	54.3344
696.49	54.3344
697.00	58.0274
697.49	53.4319
698.33	60.8196
698.50	60.8228
699.00	65.4427
702.63	52.6053
706.10	56.3669
706.58	61.9210
706.67	61.9227
709.31	40.7032
711.68	56.4771
713.82	39.8411
717.42	41.7458
720.50	35.2901
721.93	26.9454
722.20	27.8767
722.78	33.4591
722.78	33.4591
722.89	33.4600
722.95	33.4608
723.30	37.1836
724.18	37.1943
727.18	44.6801
733.00	32.6442
735.90	37.3438
739.58	32.7168
742.81	37.4316
744.21	37.4492
747.13	30.9262
751.79	30.0359
752.31	23.4698
753.82	19.7244
755.35	34.7706
756.15	38.5396
756.87	39.4888
763.13	28.2656
763.93	29.2154
765.79	32.0626
766.42	32.0692
766.84	32.0734
776.49	31.2292
778.00	40.7125

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783.80	40.7891
785.46	39.8621
792.07	35.1916
795.84	39.0431
796.30	40.9539
798.80	50.5182
801.93	37.2109
805.60	43.9415
810.29	30.6133
810.76	27.7475
815.85	40.2507
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818.51	28.7747
819.60	25.9058
826.30	31.7295
828.27	29.8246
831.60	26.0033
831.96	29.8587
834.83	34.7054
836.80	0.0000
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848.13	44.5277
856.28	43.6685
856.80	40.7634
860.37	37.8927
867.32	31.1570
867.82	32.1355
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873.19	21.4581
874.81	23.4199
875.33	24.3994
876.40	27.3362
879.36	33.2239
880.27	35.1870
880.51	29.3247
881.50	26.4001
883.24	26.4140
884.67	26.4252
889.25	34.3010
896.60	33.3932
898.02	42.2494
899.00	41.2791
903.28	22.6333
911.07	23.6713
911.07	23.6713
919.63	29.6624
920.93	34.6189
925.00	32.6785
925.24	32.6810
926.50	32.6922
935.52	20.8580
937.48	36.7697
944.10	24.8914
946.00	31.8773
949.00	31.9047
962.29	27.0198
964.01	37.0443
966.15	32.0570
968.20	25.0592
969.11	21.0549
969.11	21.0549
977.42	26.1276
980.50	25.1440
983.50	25.1648
989.30	25.2045
996.32	41.4144
1001.03	23.2617
1001.68	22.2541
1004.76	23.2853
1021.30	25.4218
1024.50	20.3547
1034.80	28.5742
1036.00	22.4582
1037.82	20.4258
1038.57	21.4522
1038.76	0.0000

1045.16	20.4658
1046.59	23.5436
1048.07	25.6018
1050.47	27.6671
1050.47	27.6671
1062.04	32.8875
1063.62	27.7607
1076.63	25.7898
1077.35	18.5722
1078.86	22.7079
1085.78	20.6797
1093.90	22.7949
1099.22	21.7875
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1112.84	32.2715
1115.52	19.7932
1120.29	28.1602
1120.51	29.2045
1121.28	21.9075
1124.00	0.0000
1129.67	17.7711
1131.51	0.0000
1147.95	22.0510
1167.94	16.8813
1173.22	15.8467
1175.09	24.3083
1177.93	22.2100
1189.05	21.2080
1204.90	20.2228
1205.75	21.2910
1213.00	19.1944
1221.42	26.7114
1230.97	26.7700
1235.34	26.7969
1236.41	30.0193
1238.25	23.5963
1246.25	18.2667
1260.41	0.0000
1271.85	21.6152
1274.45	15.1396
1274.54	14.0582
1291.56	14.1115
1298.22	17.3938
1312.09	11.9942
1325.50	16.4041
1325.50	16.4041
1332.49	17.5234
1333.61	12.0506
1360.21	15.6082
1362.66	17.4530
1365.15	14.7051
1368.21	17.4739
1368.53	14.7161
1376.25	14.7396
1384.27	24.9148
1394.10	16.6443
1395.20	15.7231
1407.95	16.6919
1434.06	20.5113
1436.60	18.6556
1457.56	0.0000
1460.81	16.0693
1489.15	19.7960
1509.49	14.1968
1596.49	6.7360
1620.62	16.4328
1678.03	0.0000
1691.02	15.6647
1691.02	15.6647
1706.46	0.0000
1750.46	10.8827
1764.49	10.9091
1770.23	11.9126
1771.40	13.9009
1791.20	0.0000
1808.65	15.9883
1836.01	8.0309

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201996557

Total Uranium Activity	-3.4689E+02	ug/g
Total Uranium Counting Unc.	2.1093E+02	ug/g
Total Uranium Tpu	1.0762E-04	ug/g
Total Uranium Mda	1.6460E+02	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 933232                    SAMPLE ID  : G1201996557        *
*   ANALYST       : KXG3                      DETECTOR   : GAM20              *
*   SAMPLE DATE   : 15-DEC-2009 00:00:00.00   COUNT TIME :    0 04:00:00.00   *
*   ANALYSIS DATE: 17-DEC-2009 23:04:42.57    SAMPLE ALQT:    2.000 LITER     *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 6.169E-01
        GROSS GAMMA ERROR  (pCi/LITER )   : 1.286E+00
        GROSS GAMMA MDA    (pCi/LITER )   : 8.145E+00
        GROSS GAMMA DLC    (pCi/LITER )   : 3.875E+00
```

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 12:15:07.19

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201996558.CNF;1
Sample date       : 10-DEC-2009 12:00:00 Acquisition date : 18-DEC-2009 10:13:50
Sample ID         : G1201996558          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM19                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.78  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 933232                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	77.28	46	180	0.68	154.40	151	9	6.33E-03	56.9	
2	0	185.82*	15	116	1.36	371.31	365	11	2.10E-03	155.4	
3	0	295.12*	107	60	1.68	589.77	585	12	1.48E-02	18.1	
4	0	351.45*	137	80	1.35	702.37	696	13	1.91E-02	16.7	
5	0	608.96*	105	45	1.54	1217.15	1212	14	1.46E-02	17.1	
6	0	1763.53	21	6	1.11	3526.79	3521	11	2.97E-03	30.3	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 18-DEC-2009 12:15:12

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201996558.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : KXG3
Sample date       : 10-DEC-2009 12:00:00 Acquisition date : 18-DEC-2009 10:13:50
Sample ID         : G1201996558          Sample quantity  : 2.0000 LITER
Sample type       : LIQUID               Sample geometry  :
Detector name     : GAMMA19              Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.78   0.0%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     1.50 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BI-211		72.87		-2.289E+02	3.781E+02	5.197E+02	4.698E+01	-0.440
	+	351.07	*	1.113E+02	3.783E+01	2.935E+01	1.912E+00	3.793
BI-214	+	609.31	*	3.494E+01	1.222E+01	9.923E+00	7.315E-01	3.521
		1120.29		3.253E+01	2.451E+01	4.696E+01	4.175E+00	0.693
	+	1764.49		4.614E+01	2.811E+01	4.417E+01	2.584E+00	1.045
PB-214		74.81		7.719E+01	7.354E+01	1.113E+02	1.304E+01	0.693
	+	77.11		4.284E+01	4.900E+01	6.168E+01	7.345E+00	0.695
		87.30		-4.657E+01	6.437E+01	9.658E+01	1.197E+01	-0.482
		241.98		7.944E+00	3.613E+01	5.863E+01	4.788E+00	0.135
	+	295.21		5.209E+01	1.941E+01	1.880E+01	1.629E+00	2.770
	+	351.92	*	3.873E+01	1.331E+01	1.023E+01	8.535E-01	3.787
PO-214		74.81		7.719E+01	7.354E+01	1.113E+02	1.304E+01	0.693
	+	77.11		4.284E+01	4.900E+01	6.168E+01	7.345E+00	0.695
		87.30		-4.657E+01	6.437E+01	9.658E+01	1.197E+01	-0.482
		241.98		7.944E+00	3.613E+01	5.863E+01	4.788E+00	0.135
	+	295.21		5.209E+01	1.941E+01	1.880E+01	1.629E+00	2.770
	+	351.92	*	3.873E+01	1.331E+01	1.023E+01	8.535E-01	3.787
PO-218		74.81		7.719E+01	7.354E+01	1.113E+02	1.304E+01	0.693
	+	77.11		4.284E+01	4.900E+01	6.168E+01	7.345E+00	0.695
		87.30		-4.657E+01	6.437E+01	9.658E+01	1.197E+01	-0.482
		241.98		7.944E+00	3.613E+01	5.863E+01	4.788E+00	0.135
	+	295.21		5.209E+01	1.941E+01	1.880E+01	1.629E+00	2.770
	+	351.92	*	3.873E+01	1.331E+01	1.023E+01	8.535E-01	3.787
RA-226	+	186.21	*	3.362E+01	1.074E+02	1.073E+02	7.875E+01	0.313

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	1.363E+01	2.533E+01	4.421E+01	2.943E+00	0.308
NA-22		1274.54	*	1.550E-01	2.728E+00	4.579E+00	2.834E-01	0.034
NA-24		1368.53	*	-1.546E-02	2.728E+00	Half-Life too short		
AL-26		1129.67		-5.986E+01	1.294E+02	2.012E+02	1.182E+01	-0.298
		1808.65	*	-1.938E+00	3.811E+00	5.583E+00	3.195E-01	-0.347

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
K-40		1460.81	*	2.731E+01	4.243E+01	7.657E+01	5.177E+00	0.357
TI-44		67.85		-2.857E+00	5.098E+00	7.992E+00	7.201E-01	-0.358
	+	78.38	*	4.610E+00	5.261E+00	6.182E+00	5.689E-01	0.746
SC-46		889.25	*	5.251E-01	3.065E+00	5.074E+00	3.471E-01	0.103
		1120.51		4.538E+00	3.968E+00	7.494E+00	4.445E-01	0.606
V-48		944.10		-1.983E+01	5.091E+01	7.638E+01	5.177E+00	-0.260
		983.50	*	1.386E+00	3.781E+00	6.460E+00	4.284E-01	0.215
		1312.09		-6.276E-01	3.861E+00	6.188E+00	3.960E-01	-0.101
CR-51		320.08	*	-2.107E+01	2.779E+01	4.359E+01	2.884E+00	-0.483
MN-52		744.21		3.720E+00	7.492E+00	1.305E+01	7.294E-01	0.285
		848.13		-5.314E+01	2.293E+02	3.578E+02	2.317E+01	-0.149
		935.52		1.044E-01	7.730E+00	1.247E+01	8.489E-01	0.008
		1246.25		6.382E+01	2.025E+02	3.532E+02	2.122E+01	0.181
		1333.61		1.107E+02	1.689E+02	3.092E+02	2.016E+01	0.358
		1434.06	*	-1.589E+00	1.065E+01	1.718E+01	1.111E+00	-0.092
MN-54		834.83	*	7.792E-01	2.803E+00	4.720E+00	3.002E-01	0.165
CO-56		846.75	*	-3.136E+00	3.093E+00	4.187E+00	2.707E-01	-0.749
		977.42		-6.432E+01	2.095E+02	3.179E+02	2.116E+01	-0.202
		1037.82		-8.012E+00	2.175E+01	3.439E+01	2.406E+00	-0.233
		1175.09		-1.115E+02	1.390E+02	1.885E+02	1.054E+01	-0.592
		1238.25		8.881E+00	6.071E+00	1.187E+01	7.496E-01	0.748
		1360.21		6.327E+01	7.021E+01	1.351E+02	8.797E+00	0.468
		1771.40		2.693E+01	2.510E+01	4.867E+01	2.838E+00	0.553
CO-57		122.06	*	-9.129E-01	3.077E+00	4.425E+00	2.833E-01	-0.206
		136.48		-2.881E+01	2.188E+01	3.230E+01	2.248E+00	-0.892
CO-58		810.76	*	-2.821E+00	2.981E+00	4.095E+00	2.531E-01	-0.689
FE-59		142.65		-2.647E+02	2.837E+02	4.082E+02	2.441E+01	-0.648
		192.34		2.180E+01	8.380E+01	1.373E+02	1.620E+01	0.159
		1099.22	*	-1.686E+00	6.098E+00	9.770E+00	6.856E-01	-0.173
		1291.56		-9.790E-01	7.183E+00	1.160E+01	9.048E-01	-0.084
CO-60		1173.22		-1.251E-01	3.098E+00	4.950E+00	2.764E-01	-0.025
		1332.49	*	-1.619E-01	3.479E+00	5.775E+00	3.766E-01	-0.028
ZN-65		1115.52	*	-5.986E+00	7.050E+00	1.038E+01	6.199E-01	-0.577
GE-68		1077.35	*	9.418E+01	8.862E+01	1.707E+02	1.055E+01	0.552
AS-73		53.44	*	4.574E+01	8.350E+01	1.427E+02	1.291E+01	0.321
AS-74		595.88	*	-3.622E-01	6.067E+00	9.890E+00	5.252E-01	-0.037
		634.78		7.067E+00	1.860E+01	3.217E+01	1.640E+00	0.220
SE-75		66.05		-7.429E+02	5.512E+02	8.204E+02	8.844E+01	-0.905
		96.73		-1.393E+02	8.874E+01	1.288E+02	1.742E+01	-1.082
		121.11		-1.430E+01	1.636E+01	2.252E+01	2.173E+00	-0.635
		136.00		-5.497E+00	4.063E+00	5.997E+00	3.699E-01	-0.917
		198.60		8.792E+01	1.879E+02	3.008E+02	2.145E+01	0.292
		264.65	*	-2.912E+00	3.922E+00	6.251E+00	3.775E-01	-0.466
		279.53		5.717E-01	9.704E+00	1.641E+01	1.059E+00	0.035
		303.91		-3.629E+01	1.684E+02	2.777E+02	2.683E+01	-0.131
		400.65		2.386E+01	2.119E+01	3.869E+01	3.500E+00	0.617
BR-77		87.88		-1.081E+03	2.212E+03	3.388E+03	3.301E+02	-0.319
		200.40		-2.906E+03	2.088E+03	3.018E+03	1.755E+02	-0.963
		239.00		-8.387E+01	1.231E+02	1.846E+02	1.095E+01	-0.454

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		249.79		-4.721E+02	8.164E+02	1.242E+03	7.396E+01	-0.380
		281.68		4.010E+02	1.030E+03	1.781E+03	1.068E+02	0.225
		297.23		8.083E+02	6.748E+02	1.102E+03	6.611E+01	0.733
		303.76		-2.374E+02	1.838E+03	3.054E+03	1.830E+02	-0.078
		439.47		1.354E+03	1.489E+03	2.691E+03	1.540E+02	0.503
		484.57		9.576E+02	2.446E+03	4.211E+03	2.392E+02	0.227
		520.65	*	-7.814E+01	1.016E+02	1.510E+02	8.454E+00	-0.518
		574.64		-1.775E+03	2.262E+03	3.373E+03	1.825E+02	-0.526
		578.91		-1.181E+02	9.242E+02	1.497E+03	8.069E+01	-0.079
		585.48		4.628E+02	1.660E+03	2.814E+03	1.508E+02	0.164
		755.35		1.101E+03	1.727E+03	3.035E+03	1.725E+02	0.363
		817.79		-5.497E+02	1.284E+03	1.935E+03	1.202E+02	-0.284
SR-82		698.33		-1.782E+03	2.315E+03	3.386E+03	1.766E+02	-0.526
		776.49	*	1.152E+01	2.241E+01	3.923E+01	2.299E+00	0.294
		1395.20		-3.406E+02	7.778E+02	1.180E+03	7.664E+01	-0.289
RB-83		520.41	*	-4.643E+00	5.156E+00	7.508E+00	4.205E-01	-0.618
		529.64		-4.235E+00	7.822E+00	1.200E+01	6.688E-01	-0.353
		552.65		-1.215E+01	1.667E+01	2.511E+01	1.380E+00	-0.484
RB-84		881.50	*	3.791E+00	4.596E+00	8.361E+00	5.661E-01	0.453
KR-85		513.99	*	-1.863E+03	9.274E+02	1.299E+03	7.298E+01	-1.434
SR-85		513.99	*	-8.855E+00	4.409E+00	6.176E+00	3.469E-01	-1.434
RB-86		1076.63	*	1.585E+01	4.400E+01	7.760E+01	4.802E+00	0.204
Y-88		898.02		5.452E-01	2.952E+00	4.907E+00	3.421E-01	0.111
		1836.01	*	4.120E-01	3.319E+00	5.558E+00	3.142E-01	0.074
ZR-88		392.90	*	5.308E-01	2.414E+00	4.107E+00	2.342E-01	0.129
Y-91		1204.90	*	2.730E+02	1.114E+03	1.926E+03	1.111E+02	0.142
NB-94		702.63	*	2.890E-02	2.757E+00	4.501E+00	2.364E-01	0.006
		871.10		-9.725E-01	3.328E+00	5.166E+00	3.450E-01	-0.188
NB-95		765.79	*	1.417E+00	3.873E+00	6.539E+00	3.774E-01	0.217
NB-95M		235.69	*	1.881E+00	1.058E+01	1.716E+01	1.308E+00	0.110
ZR-95		724.18		1.517E+00	7.013E+00	1.173E+01	7.680E-01	0.129
		756.15	*	2.312E+00	5.509E+00	9.444E+00	6.557E-01	0.245
NB-97		657.90	*	-4.254E-03	5.509E+00	Half-Life too short		
		1024.50		4.286E-01	5.509E+00	Half-Life too short		
ZR-97		254.15		1.520E-01	5.509E+00	Half-Life too short		
		355.39		-3.106E-01	5.509E+00	Half-Life too short		
		507.63	*	-2.696E-01	5.509E+00	Half-Life too short		
		602.52		3.416E-01	5.509E+00	Half-Life too short		
		1021.30		-2.565E-01	5.509E+00	Half-Life too short		
		1147.95		-2.907E-02	5.509E+00	Half-Life too short		
		1362.66		2.185E-01	5.509E+00	Half-Life too short		
		1750.46		1.972E-01	5.509E+00	Half-Life too short		
MO-99		140.51		5.716E+02	4.736E+02	7.821E+02	2.111E+02	0.731
		181.06		-5.521E+01	3.165E+02	4.380E+02	7.501E+01	-0.126
		366.43		5.092E+02	1.213E+03	2.100E+03	1.225E+02	0.242
		739.58	*	4.569E+01	1.478E+02	2.508E+02	3.431E+01	0.182
		778.00		-4.402E+01	4.037E+02	6.439E+02	3.782E+01	-0.068
TC-99M		140.51	*	1.193E+04	4.037E+02	Half-Life too short		
RH-101		127.23		-6.615E-01	3.299E+00	5.295E+00	3.313E-01	-0.125

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		198.01	*	2.424E+00	3.578E+00	5.803E+00	3.369E-01	0.418
		325.23		1.635E+01	2.113E+01	3.736E+01	2.228E+00	0.438
RH-102		418.52		6.281E+00	2.549E+01	4.336E+01	2.481E+00	0.145
		475.06	*	-4.548E-01	2.620E+00	4.260E+00	2.426E-01	-0.107
		631.29		-9.974E-01	4.149E+00	6.564E+00	3.360E-01	-0.152
		697.49		-5.495E+00	6.575E+00	9.560E+00	4.980E-01	-0.575
		766.84		5.030E+00	9.551E+00	1.642E+01	9.487E-01	0.306
		1046.59		-3.777E+00	7.963E+00	1.229E+01	7.798E-01	-0.307
		1112.84		-1.123E+01	1.943E+01	2.529E+01	1.512E+00	-0.444
RU-103		497.08	*	1.621E+00	3.136E+00	5.452E+00	6.858E-01	0.297
	+	610.33		3.324E+02	1.244E+02	1.769E+02	2.692E+01	1.879
RH-106		511.85		-4.734E+01	2.357E+01	4.091E+01	2.300E+00	-1.157
		621.84	*	-9.398E-01	2.245E+01	3.657E+01	4.183E+00	-0.026
		1050.47		2.832E+01	1.466E+02	2.536E+02	1.604E+01	0.112
RU-106		511.85		-4.734E+01	2.357E+01	4.091E+01	2.300E+00	-1.157
		621.84	*	-9.398E-01	2.245E+01	3.657E+01	1.892E+00	-0.026
		1050.47		2.832E+01	1.466E+02	2.536E+02	1.604E+01	0.112
AG-108M		433.93	*	-1.788E+00	2.688E+00	4.133E+00	2.574E-01	-0.432
		614.37		2.490E+00	3.301E+00	5.316E+00	3.060E-01	0.468
		722.95		1.923E+00	3.402E+00	5.929E+00	3.521E-01	0.324
CD-109		88.03	*	-3.620E+01	8.253E+01	1.269E+02	1.236E+01	-0.285
AG-110M		657.75	*	-1.879E+00	2.718E+00	4.013E+00	2.161E-01	-0.468
		677.61		1.527E+01	2.183E+01	3.917E+01	2.137E+00	0.390
		706.67		8.763E+00	1.750E+01	3.023E+01	1.712E+00	0.290
		763.93		-5.184E+00	1.468E+01	2.282E+01	1.395E+00	-0.227
		884.67		-3.101E+00	4.298E+00	6.167E+00	4.408E-01	-0.503
		937.48		-7.080E+00	8.605E+00	1.185E+01	8.522E-01	-0.598
		1384.27		-4.386E+00	1.314E+01	2.037E+01	1.389E+00	-0.215
IN-111		171.28		-1.442E+01	1.747E+01	2.655E+01	1.523E+00	-0.543
		245.39	*	-6.568E+00	1.948E+01	3.036E+01	1.805E+00	-0.216
IN-113M		391.69	*	-1.380E+00	3.634E+00	5.832E+00	3.555E-01	-0.237
SN-113		391.69	*	-1.380E+00	3.634E+00	5.832E+00	3.555E-01	-0.237
IN-114M		190.27	*	-3.785E+00	1.856E+01	2.556E+01	1.478E+00	-0.148
CD-115		260.90		7.440E+02	1.333E+03	2.225E+03	1.329E+02	0.334
		492.35		-2.424E+02	3.309E+02	5.009E+02	2.838E+01	-0.484
		527.90	*	1.065E+01	8.858E+01	1.483E+02	8.273E+00	0.072
SN-117M		156.02		7.499E+01	1.655E+02	2.752E+02	1.602E+01	0.272
		158.56	*	-1.566E+00	3.984E+00	6.279E+00	3.639E-01	-0.249
SB-122		563.90	*	9.763E+00	2.735E+01	4.681E+01	2.553E+00	0.209
		692.80		3.387E+02	5.919E+02	1.031E+03	5.332E+01	0.329
I-123		159.00	*	-6.481E-02	5.919E+02	Half-Life too short		
		528.96		-1.031E+00	5.919E+02	Half-Life too short		
TE-123M		159.00	*	-2.779E+00	2.955E+00	4.485E+00	2.632E-01	-0.620
I-124		602.71	*	1.532E+01	1.951E+01	3.110E+01	1.641E+00	0.493
		722.78		5.412E+01	1.070E+02	1.853E+02	1.003E+01	0.292
		1325.50		2.939E+02	7.738E+02	1.370E+03	8.875E+01	0.215
		1376.25		1.226E+03	7.551E+02	1.553E+03	1.010E+02	0.790
		1509.49		-7.652E+01	3.866E+02	6.101E+02	3.893E+01	-0.125
		1691.02		-1.036E+01	8.355E+01	1.315E+02	7.945E+00	-0.079

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
SB-124		602.71		2.701E+00	3.439E+00	5.482E+00	2.894E-01	0.493
		645.85		2.924E-01	3.930E+01	6.436E+01	3.779E+00	0.005
		709.31		-1.721E+02	2.274E+02	3.346E+02	1.775E+01	-0.514
		713.82		1.027E+02	1.229E+02	2.209E+02	2.200E+01	0.465
		722.78		1.383E+01	2.734E+01	4.735E+01	2.702E+00	0.292
		968.20		-1.799E+02	1.877E+02	2.556E+02	1.710E+01	-0.704
		1045.16		-1.482E+01	1.563E+02	2.579E+02	1.638E+01	-0.057
		1325.50		8.021E+01	2.112E+02	3.739E+02	2.422E+01	0.215
		1368.21		-1.061E+02	1.283E+02	1.745E+02	2.135E+01	-0.608
		1436.60		-2.327E+02	3.971E+02	5.982E+02	3.865E+01	-0.389
		1691.02	*	-6.245E-01	5.036E+00	7.926E+00	5.167E-01	-0.079
SB-125		427.89	*	2.131E+00	7.933E+00	1.353E+01	8.079E-01	0.158
		463.38		1.452E+01	2.072E+01	3.696E+01	2.471E+00	0.393
		600.56		-6.079E+00	1.610E+01	2.533E+01	1.588E+00	-0.240
		635.90		4.268E+00	1.779E+01	3.022E+01	1.873E+00	0.141
TE-125M		109.28	*	-1.119E+03	8.856E+02	1.313E+03	1.206E+02	-0.852
I-126		388.63		4.158E-01	1.171E+01	1.959E+01	1.120E+00	0.021
		666.33	*	2.327E+00	1.062E+01	1.781E+01	8.836E-01	0.131
		753.82		1.219E+01	8.376E+01	1.388E+02	7.870E+00	0.088
SB-126		223.80		-9.594E+01	2.525E+02	3.923E+02	2.310E+01	-0.245
		278.60		1.433E+01	1.488E+02	2.523E+02	1.512E+01	0.057
	+	296.50		3.469E+02	1.275E+02	1.794E+02	1.076E+01	1.934
		414.70		2.981E+00	4.503E+00	7.933E+00	4.538E-01	0.376
		415.30		1.214E+02	3.860E+02	6.601E+02	3.776E+01	0.184
		555.20		1.284E+02	2.477E+02	4.295E+02	2.357E+01	0.299
		573.80		-3.425E+01	5.898E+01	9.013E+01	4.878E+00	-0.380
		593.00		-1.816E+01	5.423E+01	8.549E+01	4.552E+00	-0.212
		656.30		-1.171E+02	1.793E+02	2.666E+02	1.323E+01	-0.439
		666.33		9.567E-01	4.366E+00	7.321E+00	3.632E-01	0.131
		675.00		2.636E+01	1.043E+02	1.762E+02	8.864E+00	0.150
		695.00		5.454E+00	4.340E+00	8.110E+00	4.209E-01	0.672
		697.00		-1.016E+01	1.535E+01	2.290E+01	1.192E+00	-0.444
		720.50	*	-8.912E-02	8.156E+00	1.327E+01	7.158E-01	-0.007
		856.80		-2.236E+01	2.475E+01	3.397E+01	2.226E+00	-0.658
		989.30		-7.575E+00	7.148E+01	1.128E+02	7.455E+00	-0.067
		1034.80		-3.260E+01	4.112E+02	6.807E+02	4.359E+01	-0.048
		1213.00		-4.727E+01	1.767E+02	2.792E+02	1.623E+01	-0.169
SN-126		64.28		5.387E+01	5.828E+01	1.008E+02	1.557E+01	0.534
		86.94		-2.590E+01	3.540E+01	5.064E+01	2.106E+01	-0.511
		87.57	*	-4.628E+00	8.120E+00	1.235E+01	1.200E+00	-0.375
SB-127		61.10		-6.163E+02	1.762E+03	2.846E+03	2.824E+02	-0.217
		252.40		3.714E+01	1.154E+02	1.876E+02	7.716E+01	0.198
		290.80		-1.449E+02	5.701E+02	8.106E+02	5.724E+01	-0.179
		411.60		-2.787E+01	2.939E+02	4.846E+02	6.306E+01	-0.058
		444.90		-2.152E+02	2.160E+02	3.154E+02	2.806E+01	-0.682
		473.00		5.501E+00	4.059E+01	6.814E+01	6.366E+00	0.081
		543.00		1.770E+02	3.407E+02	5.973E+02	6.735E+01	0.296
		603.60		2.697E+02	2.867E+02	4.688E+02	4.021E+01	0.575
		685.20	*	3.421E+00	2.533E+01	4.223E+01	2.834E+00	0.081

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		698.50		-2.797E+02	3.447E+02	4.979E+02	6.430E+01	-0.562
		722.20		3.547E+02	6.771E+02	1.174E+03	7.710E+01	0.302
		783.80		6.501E+01	7.098E+01	1.304E+02	1.155E+01	0.499
XE-127		57.60		-4.697E+02	5.705E+02	8.888E+02	8.216E+01	-0.528
		145.22		-7.276E+01	6.134E+01	9.128E+01	5.427E+00	-0.797
		172.10		2.976E-01	1.042E+01	1.686E+01	9.670E-01	0.018
		202.84	*	-4.201E-01	3.972E+00	6.336E+00	3.688E-01	-0.066
		374.96		-2.857E+00	1.426E+01	2.334E+01	1.351E+00	-0.122
I-131		80.18		-1.770E+01	2.646E+02	3.786E+02	3.519E+01	-0.047
		284.30		7.901E+00	7.460E+01	1.265E+02	8.319E+00	0.062
		364.48	*	6.594E+00	5.455E+00	1.003E+01	6.480E-01	0.657
		636.97		-4.095E+01	5.892E+01	8.573E+01	4.977E+00	-0.478
		722.89		1.674E+02	3.073E+02	5.345E+02	2.908E+01	0.313
TE-132		49.72		-1.940E+00	4.685E+02	7.748E+02	7.113E+01	-0.003
		111.76		6.297E+02	6.396E+02	1.106E+03	8.685E+01	0.569
		116.30		-4.013E+02	6.142E+02	9.560E+02	7.244E+01	-0.420
		228.16	*	-3.181E+00	1.383E+01	2.173E+01	2.882E+00	-0.146
BA-133		53.15		2.771E+02	3.837E+02	6.622E+02	5.976E+01	0.418
		79.62		1.383E+01	1.388E+02	2.014E+02	3.141E+01	0.069
		81.00		8.371E-01	1.051E+01	1.523E+01	2.477E+00	0.055
		276.40		-4.037E+00	3.262E+01	5.445E+01	7.107E+00	-0.074
		302.84		-2.430E-01	1.218E+01	1.990E+01	2.339E+00	-0.012
		356.01	*	-3.850E+00	4.566E+00	5.890E+00	6.831E-01	-0.654
		383.85		1.136E+00	2.653E+01	4.442E+01	4.817E+00	0.026
I-133		510.53		-1.088E-01	2.653E+01	Half-Life too short		
		529.87	*	-7.735E-04	2.653E+01	Half-Life too short		
		706.58		5.618E-02	2.653E+01	Half-Life too short		
		856.28		-8.598E-02	2.653E+01	Half-Life too short		
		875.33		8.455E-03	2.653E+01	Half-Life too short		
		1236.41		2.192E-01	2.653E+01	Half-Life too short		
		1298.22		9.473E-02	2.653E+01	Half-Life too short		
CS-134		475.35		3.251E+01	1.703E+02	2.873E+02	1.636E+01	0.113
		563.23		1.159E+01	3.127E+01	5.352E+01	2.989E+00	0.217
		569.32		-2.867E+00	1.585E+01	2.548E+01	1.431E+00	-0.113
		604.70		6.142E-01	3.200E+00	4.686E+00	2.484E-01	0.131
		795.84	*	3.526E-01	3.521E+00	5.793E+00	3.541E-01	0.061
		801.93		1.609E+01	3.754E+01	6.347E+01	3.900E+00	0.253
		1038.57		9.642E+01	2.724E+02	4.813E+02	3.073E+01	0.200
		1167.94		8.041E+01	1.677E+02	3.002E+02	1.687E+01	0.268
		1365.15		-4.059E+00	9.374E+01	1.538E+02	1.080E+01	-0.026
CS-135		268.24	*	5.303E+00	1.387E+01	2.401E+01	1.872E+00	0.221
I-135		288.45		7.262E+02	1.387E+01	Half-Life too short		
		417.63		1.593E+04	1.387E+01	Half-Life too short		
		546.56		-2.948E+03	1.387E+01	Half-Life too short		
		836.80		5.773E+03	1.387E+01	Half-Life too short		
		1038.76		7.322E+03	1.387E+01	Half-Life too short		
		1124.00		-3.714E+04	1.387E+01	Half-Life too short		
		1131.51		-5.533E+02	1.387E+01	Half-Life too short		
		1260.41	*	-2.968E+03	1.387E+01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1457.56		2.181E+04	1.387E+01	Half-Life too short		
		1678.03		1.838E+03	1.387E+01	Half-Life too short		
		1706.46		-1.608E+04	1.387E+01	Half-Life too short		
		1791.20		6.543E+03	1.387E+01	Half-Life too short		
CS-136		66.91		-1.285E+02	6.558E+01	8.972E+01	1.405E+01	-1.433
		86.29		-2.087E+01	6.959E+01	1.119E+02	1.516E+01	-0.186
		153.22		1.676E+01	4.691E+01	7.762E+01	5.633E+00	0.216
		163.89		1.088E+01	7.535E+01	1.229E+02	8.853E+00	0.088
		176.55		-1.041E+01	2.653E+01	4.169E+01	2.693E+00	-0.250
		273.65		-1.095E+00	2.640E+01	4.435E+01	3.005E+00	-0.025
		340.57		-2.974E+00	7.220E+00	1.166E+01	7.320E-01	-0.255
		818.51		-5.683E-01	3.971E+00	6.286E+00	3.911E-01	-0.090
		1048.07	*	8.817E-01	4.903E+00	8.459E+00	5.770E-01	0.104
		1235.34		2.915E+01	2.728E+01	5.160E+01	5.195E+00	0.565
BA-137M		661.65	*	9.620E-01	3.199E+00	5.408E+00	2.663E-01	0.178
CS-137		661.65	*	1.017E+00	3.382E+00	5.717E+00	2.832E-01	0.178
CE-139		165.85	*	6.396E-01	2.922E+00	4.790E+00	2.745E-01	0.134
BA-140		162.64		6.265E+00	5.268E+01	8.582E+01	5.565E+00	0.073
		304.84		-2.795E+01	7.260E+01	1.173E+02	3.206E+01	-0.238
		423.70		8.062E+01	1.185E+02	2.045E+02	6.498E+01	0.394
		537.32	*	7.824E+00	1.450E+01	2.502E+01	8.126E+00	0.313
LA-140		328.77		6.842E+00	1.870E+01	3.217E+01	2.135E+00	0.213
		432.53		-2.594E+01	1.121E+02	1.814E+02	1.150E+01	-0.143
		487.03		7.244E+00	8.220E+00	1.478E+01	9.544E-01	0.490
		751.79		-2.424E+00	9.514E+01	1.541E+02	1.076E+01	-0.016
		815.85		-1.115E+01	1.695E+01	2.443E+01	1.836E+00	-0.456
		867.82		6.218E+01	8.198E+01	1.459E+02	1.055E+01	0.426
		919.63		2.059E+01	1.296E+02	2.149E+02	1.994E+01	0.096
		925.24		-1.782E+01	6.347E+01	9.760E+01	7.331E+00	-0.183
		1596.49	*	-4.591E+00	5.406E+00	7.268E+00	4.538E-01	-0.632
CE-141		145.44	*	-6.692E+00	5.464E+00	8.102E+00	4.998E-01	-0.826
CE-143		57.37		-2.835E+03	3.047E+03	4.701E+03	4.909E+02	-0.603
		231.56		-7.013E+03	6.918E+03	9.624E+03	2.980E+03	-0.729
		293.26	*	6.931E+02	4.277E+02	6.735E+02	1.384E+02	1.029
	+	350.59		2.352E+04	1.061E+04	1.181E+04	3.589E+03	1.992
		490.36		-4.874E+02	6.444E+03	1.056E+04	3.266E+03	-0.046
		664.57		2.262E+03	3.070E+03	5.305E+03	1.673E+03	0.426
		721.93		1.300E+03	3.054E+03	5.204E+03	1.478E+03	0.250
CE-144		80.11		-1.822E+01	2.224E+02	3.177E+02	2.948E+01	-0.057
		133.54	*	5.125E+00	2.086E+01	3.439E+01	4.931E+00	0.149
PM-144		476.78		6.142E+00	5.892E+00	1.073E+01	7.347E-01	0.573
		618.01		-1.368E+00	2.491E+00	3.643E+00	2.032E-01	-0.375
		696.49	*	-1.361E+00	2.889E+00	4.427E+00	2.304E-01	-0.307
		778.57		-6.512E+01	1.691E+02	2.576E+02	1.515E+01	-0.253
PR-144		696.49	*	-9.187E+01	1.950E+02	2.989E+02	1.555E+01	-0.307
		1489.15		6.505E+01	9.778E+02	1.633E+03	1.046E+02	0.040
PM-146		453.90	*	1.335E+00	3.750E+00	6.439E+00	5.516E-01	0.207
		633.02		-5.406E+01	1.075E+02	1.604E+02	5.889E+01	-0.337
		735.90		6.518E+00	1.060E+01	1.863E+01	5.183E+00	0.350

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		747.13		-2.209E+00	7.242E+00	1.124E+01	1.397E+00	-0.196
ND-147		91.11		2.334E+01	1.825E+01	3.159E+01	3.126E+00	0.739
		319.41		-6.702E+01	1.911E+02	3.114E+02	1.861E+01	-0.215
		439.89		2.590E+02	3.142E+02	5.636E+02	3.226E+01	0.459
		531.02	*	-3.497E+00	2.697E+01	4.371E+01	5.868E+00	-0.080
PM-149		285.90	*	-1.551E+02	8.835E+02	1.467E+03	2.088E+02	-0.106
EU-152		121.78		-7.580E+00	9.331E+00	1.299E+01	1.050E+00	-0.583
		244.69		-2.747E+01	3.557E+01	5.363E+01	3.188E+00	-0.512
		344.27	*	-7.502E+00	9.823E+00	1.368E+01	9.086E-01	-0.548
		443.98		-3.006E+01	7.739E+01	1.228E+02	7.029E+00	-0.245
		778.89		-8.789E+00	1.960E+01	2.950E+01	1.735E+00	-0.298
		867.32		1.959E+01	7.714E+01	1.288E+02	8.556E+00	0.152
		964.01		1.691E+01	2.043E+01	3.693E+01	2.477E+00	0.458
		1085.78		3.054E+01	3.021E+01	5.750E+01	3.528E+00	0.531
		1112.02		-5.689E+00	2.721E+01	3.779E+01	2.261E+00	-0.151
		1407.95		5.035E+00	1.410E+01	2.487E+01	1.613E+00	0.202
GD-153		69.67		-1.035E+01	1.707E+02	2.799E+02	2.521E+01	-0.037
		83.37		-5.348E+02	1.525E+03	2.332E+03	2.204E+02	-0.229
		97.43	*	-1.965E+00	8.253E+00	1.330E+01	1.113E+00	-0.148
		103.18		-7.241E+00	1.129E+01	1.703E+01	1.321E+00	-0.425
EU-154		123.07		1.189E+00	6.288E+00	9.319E+00	9.099E-01	0.128
		247.94		-1.164E+01	3.704E+01	5.770E+01	5.558E+00	-0.202
		591.81		7.356E-01	5.393E+01	8.870E+01	8.429E+00	0.008
		723.30		5.348E+00	1.456E+01	2.478E+01	1.678E+00	0.216
		756.87		8.569E-01	6.701E+01	1.091E+02	1.099E+01	0.008
		873.19		2.419E+01	2.640E+01	4.768E+01	5.233E+00	0.507
		996.32		-2.837E+01	3.183E+01	4.224E+01	7.126E+00	-0.672
		1004.76		-1.408E+01	1.485E+01	2.080E+01	2.121E+00	-0.677
		1274.45	*	-4.161E-01	7.765E+00	1.276E+01	1.223E+00	-0.033
EU-155		48.70		7.873E+01	2.601E+02	4.387E+02	3.603E+01	0.179
		60.01		-3.572E+02	5.527E+02	8.753E+02	8.100E+01	-0.408
		86.54		-7.139E+00	9.869E+00	1.484E+01	1.443E+00	-0.481
		105.31	*	-3.560E+00	1.146E+01	1.766E+01	1.356E+00	-0.202
TB-160		86.79		-1.948E+01	2.451E+01	3.664E+01	3.542E+00	-0.532
		197.04		4.195E+01	5.711E+01	9.294E+01	5.393E+00	0.451
		215.65		-1.923E+01	6.613E+01	1.037E+02	6.081E+00	-0.185
		298.57		6.067E+00	9.927E+00	1.551E+01	9.303E-01	0.391
		879.36	*	-5.570E+00	1.116E+01	1.663E+01	1.123E+00	-0.335
		962.29		2.437E+01	3.706E+01	6.525E+01	4.381E+00	0.373
		966.15		-1.911E+00	1.383E+01	2.176E+01	1.457E+00	-0.088
		1177.93		-1.570E+00	1.601E+01	2.609E+01	1.464E+00	-0.060
		1271.85		-4.085E+01	4.496E+01	6.182E+01	3.808E+00	-0.661
HO-166M		80.57		-7.035E+00	2.953E+01	4.162E+01	3.871E+00	-0.169
	+	184.41		1.532E+00	4.761E+00	5.988E+00	3.451E-01	0.256
		280.46		3.951E+00	7.872E+00	1.372E+01	8.223E-01	0.288
		410.95		2.786E+00	2.113E+01	3.558E+01	2.035E+00	0.078
		711.68	*	-9.203E-01	5.361E+00	8.549E+00	4.552E-01	-0.108
		752.31		-1.213E+00	2.281E+01	3.681E+01	2.083E+00	-0.033
		810.29		-1.556E+00	4.717E+00	7.254E+00	4.459E-01	-0.215

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TM-171		51.35		-1.846E+03	3.368E+03	5.363E+03	4.727E+02	-0.344
		52.39		8.378E+02	1.701E+03	2.897E+03	2.593E+02	0.289
		59.40		-2.088E+03	2.969E+03	4.683E+03	4.347E+02	-0.446
		66.72	*	-5.879E+03	3.305E+03	4.763E+03	4.297E+02	-1.234
HF-175		89.36		-2.151E+02	1.436E+02	2.055E+02	1.955E+01	-1.047
		343.40	*	-1.845E+00	3.076E+00	4.736E+00	2.802E-01	-0.390
		433.00		-4.145E+01	1.642E+02	2.653E+02	1.519E+01	-0.156
LU-176		88.36		-2.286E+01	2.048E+01	3.019E+01	2.924E+00	-0.757
		201.83		-3.602E+00	2.910E+00	4.252E+00	2.474E-01	-0.847
		306.84	*	-9.821E-01	2.106E+00	3.394E+00	2.033E-01	-0.289
		401.10		4.065E+02	5.768E+02	1.022E+03	5.835E+01	0.398
LU-177		112.95		7.791E+01	7.782E+01	1.346E+02	9.373E+00	0.579
		208.36	*	-3.013E+01	4.650E+01	7.090E+01	4.140E+00	-0.425
LU-177M		52.97		1.279E+02	1.691E+02	2.924E+02	2.634E+01	0.437
		54.07		-1.463E+01	9.044E+01	1.478E+02	1.345E+01	-0.099
		61.30		-9.307E+01	1.644E+02	2.621E+02	2.408E+01	-0.355
		121.62		-4.116E+01	4.625E+01	6.399E+01	4.104E+00	-0.643
		147.16		-1.533E+01	6.201E+01	9.881E+01	5.850E+00	-0.155
		171.86		-1.511E+01	4.736E+01	7.477E+01	4.288E+00	-0.202
		218.09		-1.769E+01	7.579E+01	1.193E+02	7.003E+00	-0.148
		268.79		1.258E+01	6.840E+01	1.168E+02	6.992E+00	0.108
		319.02		-5.333E-01	2.263E+01	3.788E+01	2.263E+00	-0.014
		367.43		-1.439E+01	7.519E+01	1.233E+02	7.184E+00	-0.117
		413.65	*	8.641E+00	1.553E+01	2.709E+01	1.550E+00	0.319
HF-181		56.28		-3.911E+01	8.912E+01	1.428E+02	1.314E+01	-0.274
		57.53		-4.180E+01	4.888E+01	7.596E+01	7.019E+00	-0.550
		65.20		9.776E+01	9.728E+01	1.657E+02	1.499E+01	0.590
		133.02		4.133E+00	6.004E+00	1.017E+01	6.241E-01	0.406
		136.25		-6.327E+01	4.370E+01	6.397E+01	3.889E+00	-0.989
		345.85		4.146E+00	1.743E+01	2.609E+01	1.542E+00	0.159
		482.03	*	-3.718E+00	3.341E+00	4.832E+00	2.747E-01	-0.769
W-181		56.28		-2.018E+01	3.791E+01	6.033E+01	5.552E+00	-0.334
		57.53		-1.769E+01	2.067E+01	3.211E+01	2.968E+00	-0.551
		65.20	*	4.101E+01	4.080E+01	6.949E+01	6.290E+00	0.590
TA-182		67.75		-1.551E+01	1.216E+01	1.820E+01	1.640E+00	-0.852
		100.10		1.255E+01	1.765E+01	3.008E+01	2.427E+00	0.417
		152.43		-1.178E+01	3.363E+01	5.322E+01	3.118E+00	-0.221
		222.10		-3.368E+00	3.039E+01	4.829E+01	2.841E+00	-0.070
		1001.68		4.922E+01	1.284E+02	2.284E+02	1.497E+01	0.215
		1121.28		1.274E+01	1.060E+01	2.025E+01	1.200E+00	0.629
		1189.05		1.097E+00	1.815E+01	3.055E+01	1.734E+00	0.036
		1221.42	*	-3.381E+00	8.843E+00	1.342E+01	7.871E-01	-0.252
		1230.97		-1.739E+01	2.556E+01	3.692E+01	2.185E+00	-0.471
RE-183		57.98		-1.011E+01	1.993E+01	3.179E+01	2.941E+00	-0.318
		59.32		1.352E+00	1.085E+01	1.803E+01	1.673E+00	0.075
		67.20		-4.406E+01	2.210E+01	3.133E+01	2.825E+00	-1.406
		162.32	*	2.495E+00	1.067E+01	1.750E+01	1.008E+00	0.143
		208.81		-7.963E+01	8.326E+01	1.237E+02	7.224E+00	-0.644
		291.72		1.831E+01	8.390E+01	1.260E+02	7.555E+00	0.145

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RE-184		57.98		-3.885E+01	7.655E+01	1.221E+02	1.130E+01	-0.318
		59.32		5.192E+00	4.163E+01	6.920E+01	6.422E+00	0.075
		67.20		-1.692E+02	8.489E+01	1.203E+02	1.085E+01	-1.406
		161.27		1.797E+01	3.530E+01	5.894E+01	3.400E+00	0.305
		216.55		-1.690E+01	2.481E+01	3.768E+01	2.210E+00	-0.448
		252.85	*	1.325E+01	2.175E+01	3.643E+01	2.172E+00	0.364
		318.01		2.410E+01	3.861E+01	6.798E+01	4.062E+00	0.355
		792.07		-3.077E+01	6.780E+01	1.017E+02	6.092E+00	-0.303
		903.28		-3.813E+01	7.491E+01	1.103E+02	7.619E+00	-0.346
		920.93		1.214E+01	3.048E+01	5.258E+01	3.603E+00	0.231
OS-185		59.72		-2.076E+01	3.123E+01	4.939E+01	4.579E+00	-0.420
		61.14		-5.788E+00	1.735E+01	2.805E+01	2.580E+00	-0.206
		69.30		-5.087E+00	2.978E+01	4.853E+01	4.371E+00	-0.105
		592.07		-9.721E+00	2.076E+02	3.390E+02	1.807E+01	-0.029
		646.12	*	3.554E-01	3.589E+00	5.942E+00	2.987E-01	0.060
		717.42		-4.426E+01	7.335E+01	1.099E+02	5.900E+00	-0.403
		874.81		2.743E+01	4.557E+01	8.005E+01	5.373E+00	0.343
		880.27		-1.433E+01	6.016E+01	9.343E+01	6.316E+00	-0.153
RE-188		155.03	*	6.611E+00	1.670E+01	2.769E+01	1.615E+00	0.239
		477.96		5.434E+01	2.476E+02	4.193E+02	2.386E+01	0.130
		633.10		-1.085E+02	1.985E+02	2.992E+02	1.528E+01	-0.362
W-188		63.58		3.441E+03	5.681E+03	9.757E+03	8.875E+02	0.353
		227.08		3.566E+02	1.073E+03	1.765E+03	1.041E+02	0.202
		290.67	*	-4.490E+01	6.581E+02	9.566E+02	5.738E+01	-0.047
IR-192	+	295.96		3.713E+01	1.365E+01	2.027E+01	1.233E+00	1.832
		308.46		-3.083E+00	7.606E+00	1.232E+01	7.459E-01	-0.250
		316.51	*	2.276E+00	2.942E+00	5.227E+00	3.140E-01	0.436
		468.07		-2.774E+00	5.049E+00	7.838E+00	5.175E-01	-0.354
		604.41		1.944E+01	3.922E+01	6.018E+01	6.672E+00	0.323
		612.46		5.850E+01	6.098E+01	9.960E+01	7.114E+00	0.587
AU-195		65.12		2.056E+01	1.926E+01	3.288E+01	2.976E+00	0.625
		66.83		-2.287E+01	1.090E+01	1.531E+01	1.381E+00	-1.493
		75.70		3.107E+01	2.292E+01	3.524E+01	3.210E+00	0.882
		98.88	*	-6.442E+00	2.341E+01	3.762E+01	3.085E+00	-0.171
		129.76		4.841E+01	2.816E+02	4.626E+02	2.869E+01	0.105
TL-200		367.94	*	-1.216E+02	3.931E+02	6.368E+02	3.708E+01	-0.191
		579.30		-5.623E+02	3.101E+03	4.992E+03	2.690E+02	-0.113
		828.27		-3.275E+03	4.242E+03	6.047E+03	3.811E+02	-0.542
		1205.75		5.248E+02	1.652E+03	2.887E+03	1.666E+02	0.182
TL-201		68.90		-3.008E+01	9.799E+01	1.584E+02	1.426E+01	-0.190
		70.82		1.057E+01	5.494E+01	9.133E+01	8.230E+00	0.116
		80.30		-4.295E+00	1.043E+02	1.496E+02	1.389E+01	-0.029
		135.34		-5.776E+02	5.294E+02	7.974E+02	4.860E+01	-0.724
		167.43	*	1.417E+01	1.367E+02	2.224E+02	1.274E+01	0.064
TL-202		68.90		-9.254E+00	3.014E+01	4.872E+01	4.388E+00	-0.190
		70.82		3.242E+00	1.685E+01	2.802E+01	2.525E+00	0.116
		80.30		-1.318E+00	3.201E+01	4.590E+01	4.263E+00	-0.029
		439.56	*	3.626E+00	3.914E+00	7.081E+00	4.053E-01	0.512
HG-203		70.83		1.104E+01	9.912E+01	1.640E+02	2.273E+01	0.067

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		72.87		-4.090E+01	6.771E+01	9.289E+01	1.252E+01	-0.440
		82.60		1.495E+02	1.026E+02	1.627E+02	2.319E+01	0.919
		279.20	*	-3.217E-01	3.376E+00	5.646E+00	3.581E-01	-0.057
BI-207		72.80		-1.348E+01	2.198E+01	3.018E+01	2.728E+00	-0.447
		74.97		1.216E+01	1.266E+01	1.910E+01	1.736E+00	0.637
		84.90		-1.211E+01	1.855E+01	2.865E+01	2.734E+00	-0.423
		569.67		-8.817E-01	2.542E+00	4.005E+00	2.175E-01	-0.220
		1063.62	*	-2.970E+00	4.092E+00	6.096E+00	3.814E-01	-0.487
		1770.23		-6.679E+00	6.187E+01	9.913E+01	5.784E+00	-0.067
TL-207		81.07		2.709E+00	2.327E+01	3.381E+01	3.152E+00	0.080
		83.78		-5.803E+00	1.313E+01	1.995E+01	1.890E+00	-0.291
		94.90		-4.507E+00	2.603E+01	4.218E+01	3.663E+00	-0.107
		122.32		-6.599E+01	2.159E+02	3.099E+02	2.235E+01	-0.213
		144.24		4.567E+01	6.739E+01	1.139E+02	8.383E+00	0.401
		154.21		3.335E+01	4.101E+01	6.964E+01	4.907E+00	0.479
		269.46		1.393E-01	1.641E+01	2.768E+01	1.727E+00	0.005
		323.87	*	6.965E+00	6.210E+01	1.050E+02	1.740E+01	0.066
		338.28		1.121E+02	7.971E+01	1.476E+02	1.566E+01	0.759
		445.03		-1.916E+02	1.830E+02	2.645E+02	2.705E+01	-0.724
TL-208		72.80		-1.458E+02	2.378E+02	3.266E+02	2.951E+01	-0.447
		74.97		1.315E+02	1.374E+02	2.065E+02	2.604E+01	0.637
		277.35		-1.140E+01	3.394E+01	5.574E+01	5.946E+00	-0.205
		510.84		-1.578E+01	2.238E+01	4.141E+01	4.163E+00	-0.381
		583.14	*	-1.616E-01	3.446E+00	5.564E+00	3.515E-01	-0.029
		763.13		-1.350E+02	2.002E+02	2.954E+02	3.660E+01	-0.457
		860.37		2.542E+00	2.182E+01	3.589E+01	2.655E+00	0.071
		1093.90		1.561E+02	8.122E+02	1.396E+03	3.136E+02	0.112
PO-209		260.50		5.340E+02	9.213E+02	1.540E+03	9.199E+01	0.347
		262.80		-6.967E+02	2.635E+03	4.110E+03	2.457E+02	-0.170
		896.60	*	2.048E+02	5.254E+02	9.044E+02	6.246E+01	0.226
BI-210		46.50	*	-8.459E+01	3.902E+02	6.225E+02	5.118E+01	-0.136
PB-210		46.50	*	-8.459E+01	3.902E+02	6.225E+02	5.118E+01	-0.136
PO-210		46.50	*	-8.459E+01	3.902E+02	6.225E+02	4.488E+01	-0.136
PB-211		404.84	*	7.387E+00	7.595E+01	1.274E+02	7.943E+01	0.058
		427.08		7.429E+01	1.912E+02	3.200E+02	1.978E+02	0.232
		831.96		-1.311E+01	9.142E+01	1.440E+02	8.985E+01	-0.091
BI-212		727.18	*	3.756E+00	2.311E+01	3.844E+01	2.865E+00	0.098
		785.46		5.091E+01	1.382E+02	2.358E+02	1.400E+01	0.216
		1620.62		-4.000E+00	1.207E+02	1.967E+02	1.219E+01	-0.020
PB-212		74.81		4.516E+01	4.310E+01	6.512E+01	8.485E+00	0.693
	+	77.11		2.519E+01	2.875E+01	3.784E+01	3.464E+00	0.666
		87.30		-2.740E+01	3.792E+01	5.683E+01	7.918E+00	-0.482
		115.19		-5.624E+02	3.787E+02	5.528E+02	3.764E+01	-1.017
		238.63	*	-8.311E+00	6.433E+00	9.183E+00	6.826E-01	-0.905
		300.09		3.807E+01	7.005E+01	1.090E+02	9.143E+00	0.349
PO-212		74.81		4.516E+01	4.310E+01	6.512E+01	8.485E+00	0.693
	+	77.11		2.519E+01	2.875E+01	3.784E+01	3.464E+00	0.666
		87.30		-2.740E+01	3.792E+01	5.683E+01	7.918E+00	-0.482
		115.19		-5.624E+02	3.787E+02	5.528E+02	3.764E+01	-1.017

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		238.63	*	-8.311E+00	6.433E+00	9.183E+00	6.826E-01	-0.905
		300.09		3.807E+01	7.005E+01	1.090E+02	9.143E+00	0.349
PO-215		81.07		2.709E+00	2.327E+01	3.381E+01	3.152E+00	0.080
		83.78		-5.803E+00	1.313E+01	1.995E+01	1.890E+00	-0.291
		94.90		-4.507E+00	2.603E+01	4.218E+01	3.663E+00	-0.107
		122.32		-6.599E+01	2.159E+02	3.099E+02	2.235E+01	-0.213
		144.24		4.567E+01	6.739E+01	1.139E+02	8.383E+00	0.401
		154.21		3.335E+01	4.101E+01	6.964E+01	4.907E+00	0.479
		269.46		1.393E-01	1.641E+01	2.768E+01	1.727E+00	0.005
		323.87	*	6.965E+00	6.210E+01	1.050E+02	1.740E+01	0.066
		338.28		1.121E+02	7.971E+01	1.476E+02	1.566E+01	0.759
		445.03		-1.916E+02	1.830E+02	2.645E+02	2.705E+01	-0.724
PO-216		74.81		4.516E+01	4.310E+01	6.512E+01	8.485E+00	0.693
	+	77.11		2.519E+01	2.875E+01	3.784E+01	3.464E+00	0.666
		87.30		-2.740E+01	3.792E+01	5.683E+01	7.918E+00	-0.482
		115.19		-5.624E+02	3.787E+02	5.528E+02	3.764E+01	-1.017
		238.63	*	-8.311E+00	6.433E+00	9.183E+00	6.826E-01	-0.905
		300.09		3.807E+01	7.005E+01	1.090E+02	9.143E+00	0.349
RN-219		271.23		-1.105E+01	2.108E+01	3.412E+01	2.812E+00	-0.324
		401.81	*	-2.405E+01	3.598E+01	5.580E+01	7.571E+00	-0.431
RN-220		549.76	*	5.891E+01	2.012E+03	3.325E+03	1.831E+02	0.018
RA-223		81.07		2.709E+00	2.327E+01	3.381E+01	3.152E+00	0.080
		83.78		-5.803E+00	1.313E+01	1.995E+01	1.890E+00	-0.291
		94.90		-4.507E+00	2.603E+01	4.218E+01	3.663E+00	-0.107
		122.32		-6.599E+01	2.159E+02	3.099E+02	2.235E+01	-0.213
		144.24		4.567E+01	6.739E+01	1.139E+02	8.383E+00	0.401
		154.21		3.335E+01	4.101E+01	6.964E+01	4.907E+00	0.479
		269.46		1.393E-01	1.641E+01	2.768E+01	1.727E+00	0.005
		323.87	*	6.965E+00	6.210E+01	1.050E+02	1.740E+01	0.066
		338.28		1.121E+02	7.971E+01	1.476E+02	1.566E+01	0.759
		445.03		-1.916E+02	1.830E+02	2.645E+02	2.705E+01	-0.724
RA-224		240.98	*	5.481E+01	6.737E+01	1.136E+02	6.742E+00	0.482
AC-227		79.80		-1.109E+01	1.746E+02	2.499E+02	5.439E+01	-0.044
		236.00		7.126E+00	2.102E+01	3.447E+01	3.626E+00	0.207
		256.20	*	-1.958E+01	3.732E+01	5.679E+01	7.968E+00	-0.345
		286.10		-2.703E+01	1.408E+02	2.335E+02	2.722E+01	-0.116
		299.80		7.890E+01	1.299E+02	2.028E+02	3.316E+01	0.389
		304.40		-3.375E+01	1.541E+02	2.539E+02	4.408E+01	-0.133
		329.70		6.908E+00	8.346E+01	1.407E+02	1.765E+01	0.049
		334.20		-2.293E+02	1.912E+02	2.767E+02	5.086E+01	-0.829
PA-227		64.62	*	1.000E+35	1.912E+02	Half-Life too short		
		110.05		-1.000E+35	1.912E+02	Half-Life too short		
TH-227		79.80		-1.109E+01	1.746E+02	2.499E+02	5.507E+01	-0.044
		94.00		-8.750E+01	2.282E+02	3.736E+02	8.163E+01	-0.234
		236.00		7.126E+00	2.102E+01	3.447E+01	3.149E+00	0.207
		256.20	*	-1.958E+01	3.737E+01	5.679E+01	9.630E+00	-0.345
		286.10		-2.703E+01	1.433E+02	2.335E+02	2.339E+02	-0.116
		299.80		7.890E+01	1.299E+02	2.028E+02	3.316E+01	0.389
		304.40		-3.375E+01	1.541E+02	2.539E+02	4.408E+01	-0.133

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		329.70		6.908E+00	8.346E+01	1.407E+02	1.765E+01	0.049
		334.20		-2.293E+02	1.912E+02	2.767E+02	5.086E+01	-0.829
AC-228		338.32		2.713E+01	2.194E+01	3.551E+01	1.448E+01	0.764
		911.07	*	-6.942E+00	1.004E+01	1.377E+01	1.374E+00	-0.504
		969.11		-2.074E+00	1.844E+01	2.909E+01	6.602E+00	-0.071
RA-228		338.32		2.713E+01	2.194E+01	3.551E+01	1.448E+01	0.764
		911.07	*	-6.942E+00	1.004E+01	1.377E+01	1.374E+00	-0.504
		969.11		-2.074E+00	1.844E+01	2.909E+01	6.602E+00	-0.071
TH-228		74.81		4.516E+01	4.290E+01	6.512E+01	5.958E+00	0.693
	+	77.11		2.519E+01	2.875E+01	3.784E+01	3.464E+00	0.666
		87.30		-2.740E+01	3.782E+01	5.683E+01	5.513E+00	-0.482
		238.63	*	-8.311E+00	6.433E+00	9.183E+00	6.826E-01	-0.905
		300.09		3.807E+01	7.349E+01	1.090E+02	6.427E+01	0.349
TH-229		85.43		-1.038E+01	1.844E+01	2.868E+01	2.746E+00	-0.362
		88.47		-9.541E+00	1.161E+01	1.745E+01	1.687E+00	-0.547
		100.00		1.336E+01	1.913E+01	3.257E+01	2.631E+00	0.410
		193.63	*	-6.148E+01	5.446E+01	8.079E+01	4.679E+00	-0.761
		210.97		-1.102E+01	6.783E+01	1.075E+02	6.288E+00	-0.102
TH-230		67.67	*	-1.733E+03	1.132E+04	1.981E+03	1.285E+04	-0.875
PA-231		283.67	*	1.288E+01	1.447E+02	2.451E+02	3.398E+01	0.053
		301.29		1.820E+01	5.338E+01	8.114E+01	8.570E+00	0.224
		330.00		2.371E+00	1.852E+02	3.107E+02	9.736E+01	0.008
TH-231		84.21	*	-2.889E+01	4.835E+01	7.466E+01	1.365E+01	-0.387
U-231		84.21		-9.839E+01	1.639E+02	2.543E+02	2.415E+01	-0.387
		92.29		-2.369E+01	7.017E+01	1.155E+02	1.045E+01	-0.205
		95.87	*	-7.999E+01	3.884E+01	5.502E+01	4.709E+00	-1.454
		108.00		-4.403E+01	6.317E+01	9.814E+01	7.198E+00	-0.449
TH-232		59.00	*	-8.970E+02	9.962E+03	5.142E+03	5.413E+04	-0.174
PA-233		75.28		5.001E+02	3.803E+02	5.767E+02	9.008E+01	0.867
		86.59		-1.185E+02	1.634E+02	2.413E+02	6.555E+01	-0.491
		300.12		1.926E+01	3.595E+01	5.581E+01	7.547E+00	0.345
		311.98	*	1.207E+00	5.662E+00	9.667E+00	6.122E-01	0.125
		340.50		-2.106E+01	5.135E+01	8.261E+01	1.900E+01	-0.255
		398.62		2.296E+01	1.868E+02	3.145E+02	8.124E+01	0.073
		415.76		4.117E+01	1.536E+02	2.612E+02	5.372E+01	0.158
PA-234		63.00		6.623E+01	1.827E+02	3.100E+02	4.892E+01	0.214
		94.67		2.098E+01	1.826E+01	3.140E+01	3.915E+00	0.668
		98.44		-3.542E-01	9.809E+00	1.600E+01	8.916E+00	-0.022
		99.86		2.784E+01	4.863E+01	8.223E+01	6.654E+00	0.339
		111.00		1.925E+01	1.843E+01	3.188E+01	3.525E+00	0.604
		131.20		2.465E+00	1.110E+01	1.829E+01	1.129E+00	0.135
		152.70		-5.157E+00	3.434E+01	5.506E+01	8.715E+00	-0.094
	+	186.00		5.513E+01	1.722E+02	2.106E+02	6.435E+01	0.262
		226.40		2.725E+01	3.614E+01	6.116E+01	7.100E+00	0.446
		227.20		1.652E+00	3.933E+01	6.323E+01	3.729E+00	0.026
		248.90		-6.236E+01	8.434E+01	1.250E+02	2.691E+01	-0.499
	+	293.70		2.500E+02	9.922E+01	1.287E+02	2.080E+01	1.942
		369.80		-4.624E+01	7.106E+01	1.098E+02	2.288E+01	-0.421
		568.70		-4.155E+00	7.854E+01	1.283E+02	6.972E+00	-0.032

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		569.50		-3.993E+00	2.207E+01	3.549E+01	1.927E+00	-0.113
		574.00		-7.352E+01	1.266E+02	1.935E+02	1.047E+01	-0.380
		699.00		-1.556E+01	5.642E+01	8.848E+01	1.575E+01	-0.176
		706.10		6.043E+01	9.223E+01	1.558E+02	6.866E+01	0.388
		733.00		-1.710E+01	2.819E+01	4.115E+01	8.715E+00	-0.416
		742.81		7.826E+01	1.141E+02	1.833E+02	1.226E+02	0.427
		796.30		-1.339E+00	7.065E+01	1.143E+02	3.010E+01	-0.012
		805.60		1.329E+01	9.455E+01	1.558E+02	4.679E+01	0.085
		819.60		-6.403E+01	1.075E+02	1.540E+02	5.784E+01	-0.416
		826.30		7.484E+00	7.074E+01	1.161E+02	5.149E+01	0.064
		831.60		-1.387E+01	4.738E+01	7.282E+01	2.131E+01	-0.190
		876.40		-3.758E+01	8.374E+01	1.110E+02	1.140E+02	-0.338
		880.51		-4.733E+00	2.251E+01	3.510E+01	2.373E+00	-0.135
		883.24		1.438E+01	2.500E+01	4.073E+01	2.730E+01	0.353
		899.00		1.533E+01	6.502E+01	1.083E+02	4.700E+01	0.142
		925.00		-3.407E+01	9.641E+01	1.463E+02	1.001E+01	-0.233
		926.50		6.526E+00	1.369E+01	2.358E+01	5.831E+00	0.277
		946.00	*	-1.651E+01	2.424E+01	3.413E+01	6.140E+00	-0.484
		949.00		1.696E+01	3.540E+01	6.117E+01	4.136E+00	0.277
		980.50		-4.768E+01	5.404E+01	7.161E+01	4.757E+00	-0.666
		1394.10		-2.724E+01	1.006E+02	1.552E+02	1.006E+02	-0.176
PA-234M		766.42		3.395E+02	1.042E+03	1.730E+03	8.707E+02	0.196
		1001.03	*	2.599E+01	3.248E+02	5.316E+02	4.384E+01	0.049
TH-234		63.29	*	4.679E+01	1.542E+02	2.610E+02	4.758E+01	0.179
		92.38		-3.393E+01	6.111E+01	9.901E+01	1.810E+01	-0.343
U-234		53.20	*	4.848E+03	4.895E+04	1.173E+04	1.173E+05	0.413
U-235		89.95		-1.676E+02	1.248E+02	1.705E+02	5.299E+01	-0.983
		93.35		-1.318E+01	7.229E+01	1.197E+02	3.365E+01	-0.110
		105.00		-2.472E+01	1.119E+02	1.730E+02	5.114E+01	-0.143
		143.76	*	1.165E+00	2.348E+01	3.588E+01	5.872E+00	0.032
		163.35		-1.079E+01	4.946E+01	7.876E+01	1.415E+01	-0.137
	+	185.71		2.042E+00	6.348E+00	7.869E+00	4.539E-01	0.259
		205.31		4.426E+01	4.780E+01	8.091E+01	1.456E+01	0.547
NP-236		94.67		1.602E+01	1.378E+01	2.383E+01	2.077E+00	0.672
		98.44		-2.660E-01	7.413E+00	1.209E+01	9.977E-01	-0.022
		111.00		1.456E+01	1.389E+01	2.411E+01	1.713E+00	0.604
		160.31	*	-3.931E+00	8.336E+00	1.306E+01	7.547E-01	-0.301
NP-237		86.50	*	-1.720E+01	2.441E+01	3.635E+01	8.280E+00	-0.473
		95.87		-2.313E+02	1.243E+02	1.591E+02	3.916E+01	-1.454
PU-237		59.54	*	-1.474E+02	2.147E+02	3.391E+02	3.147E+01	-0.435
U-238		63.29	*	4.679E+01	1.542E+02	2.610E+02	4.758E+01	0.179
		92.38		-3.393E+01	6.087E+01	9.901E+01	8.944E+00	-0.343
NP-239		99.55		2.495E+00	1.638E+01	2.703E+01	2.197E+00	0.092
		117.00	*	4.314E+00	1.910E+01	3.158E+01	2.113E+00	0.137
		209.75		-5.976E+01	7.011E+01	1.051E+02	6.139E+00	-0.569
		228.18		-4.774E+00	2.087E+01	3.281E+01	1.936E+00	-0.145
		277.60		-4.499E+00	1.632E+01	2.693E+01	1.614E+00	-0.167
		334.30		-1.259E+02	1.063E+02	1.582E+02	9.399E+00	-0.796
AM-241		59.54	*	-1.192E+01	1.737E+01	2.742E+01	2.705E+00	-0.435

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AM-243		74.67	*	7.376E+00	6.927E+00	1.052E+01	9.553E-01	0.701
		86.72		-6.979E+02	9.005E+02	1.348E+03	1.303E+02	-0.518
		117.66		4.408E+01	3.879E+02	6.365E+02	4.233E+01	0.069
		142.18		-2.207E+03	2.076E+03	2.960E+03	1.772E+02	-0.746
CM-243		99.55		2.566E+00	1.685E+01	2.780E+01	2.259E+00	0.092
		103.76	*	-1.613E+00	1.034E+01	1.611E+01	1.241E+00	-0.100
		117.00		4.436E+00	1.964E+01	3.247E+01	2.173E+00	0.137
		209.75		-5.888E+01	6.909E+01	1.035E+02	6.049E+00	-0.569
		228.18		-4.822E+00	2.108E+01	3.314E+01	1.956E+00	-0.145
		277.60		-4.534E+00	1.644E+01	2.714E+01	1.627E+00	-0.167
AM-246		798.80		-5.108E+00	1.242E+01	1.904E+01	1.152E+00	-0.268
		1036.00		-5.685E-01	2.095E+01	3.498E+01	2.238E+00	-0.016
		1062.04		-8.685E+00	1.778E+01	2.761E+01	1.730E+00	-0.315
		1078.86	*	7.138E+00	1.042E+01	1.916E+01	1.183E+00	0.373
CM-247		278.00		-7.782E+00	6.786E+01	1.134E+02	6.795E+00	-0.069
		287.40		9.004E+00	1.095E+02	1.855E+02	1.112E+01	0.049
		402.60	*	-1.895E+00	3.212E+00	5.041E+00	2.879E-01	-0.376
CF-249		252.85		5.120E+01	8.405E+01	1.408E+02	8.393E+00	0.364
		333.44		-2.547E+01	1.430E+01	1.986E+01	1.181E+00	-1.283
		387.95	*	-8.340E-01	3.425E+00	5.578E+00	3.192E-01	-0.150
CF-251		176.60	*	-6.536E+00	1.339E+01	2.090E+01	1.201E+00	-0.313
		227.00		1.422E+01	3.480E+01	5.756E+01	3.394E+00	0.247
		285.00		-6.559E+00	1.633E+02	2.741E+02	1.644E+01	-0.024
ANH-511		511.00	*	-3.641E+00	4.774E+00	8.832E+00	4.968E-01	-0.412

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201996558    *
* Acquisition date : 18-DEC-2009 10:13:50 Detector SN#     :               *
* Detector ID        : GAM19               Sensitivity      : 5.000        *
* Geometry           : 2LMB                Energy tolerance: 1.500         *
* Elapsed live time:     0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 02:00:00.78     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 10-DEC-2009 12:00:00 Nuclide Library : LIQUI         *
* Sample ID          : G1201996558          Analyst initials: KXG3          *
* Batch Number       : 933232               Sample Quantity : 2.0000E+00 LITER *
* Recovery           :     1.00000          Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :    0.00000                                             *
* CALIB. DATE/TIME : 11-MAR-2009 08:32:49 MS Isotope       :               *
* MSD DPM          :     0.000            MSD Isotope      :               *
* LCS DPM          :     0.000            LCS Isotope      :               *
* LCSD DPM         :     0.000            LCSD Isotope     :               *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
BI-211	1.113E+02	3.708E+01	2.935E+01	0.000E+00
BI-214	3.494E+01	1.198E+01	9.923E+00	0.000E+00
PB-214	3.873E+01	1.305E+01	1.023E+01	0.000E+00
PO-214	3.873E+01	1.305E+01	1.023E+01	0.000E+00
PO-218	3.873E+01	1.305E+01	1.023E+01	0.000E+00
RA-226	3.362E+01	1.052E+02	1.073E+02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	1.363E+01	2.482E+01	4.421E+01	0.000E+00	NOT IDENT.
NA-22	1.550E-01	2.674E+00	4.579E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.999E+04	0.000E+00	0.000E+00	SHORT HLIF
AL-26	-1.938E+00	3.735E+00	5.583E+00	0.000E+00	NOT IDENT.
K-40	2.731E+01	4.158E+01	7.657E+01	0.000E+00	NOT IDENT.
TI-44	4.610E+00	5.156E+00	6.182E+00	0.000E+00	FAIL ABUN
SC-46	5.251E-01	3.004E+00	5.074E+00	0.000E+00	NOT IDENT.
V-48	1.386E+00	3.705E+00	6.460E+00	0.000E+00	NOT IDENT.
CR-51	-2.107E+01	2.724E+01	4.359E+01	0.000E+00	NOT IDENT.
MN-52	-1.589E+00	1.043E+01	1.718E+01	0.000E+00	NOT IDENT.
MN-54	7.792E-01	2.747E+00	4.720E+00	0.000E+00	NOT IDENT.
CO-56	-3.136E+00	3.032E+00	4.187E+00	0.000E+00	NOT IDENT.
CO-57	-9.129E-01	3.015E+00	4.425E+00	0.000E+00	NOT IDENT.
CO-58	-2.821E+00	2.922E+00	4.095E+00	0.000E+00	NOT IDENT.
FE-59	-1.686E+00	5.976E+00	9.770E+00	0.000E+00	NOT IDENT.
CO-60	-1.619E-01	3.410E+00	5.775E+00	0.000E+00	NOT IDENT.
ZN-65	-5.986E+00	6.909E+00	1.038E+01	0.000E+00	NOT IDENT.
GE-68	9.418E+01	8.685E+01	1.707E+02	0.000E+00	NOT IDENT.
AS-73	4.574E+01	8.183E+01	1.427E+02	0.000E+00	NOT IDENT.
AS-74	-3.622E-01	5.945E+00	9.890E+00	0.000E+00	NOT IDENT.
SE-75	-2.912E+00	3.843E+00	6.251E+00	0.000E+00	NOT IDENT.

BR-77	-7.814E+01	9.954E+01	1.510E+02	0.000E+00	NOT IDENT.
SR-82	1.152E+01	2.196E+01	3.923E+01	0.000E+00	NOT IDENT.
RB-83	-4.643E+00	5.053E+00	7.508E+00	0.000E+00	NOT IDENT.
RB-84	3.791E+00	4.504E+00	8.361E+00	0.000E+00	NOT IDENT.
KR-85	-1.863E+03	9.089E+02	1.299E+03	0.000E+00	NOT IDENT.
SR-85	-8.855E+00	4.321E+00	6.176E+00	0.000E+00	NOT IDENT.
RB-86	1.585E+01	4.312E+01	7.760E+01	0.000E+00	NOT IDENT.
Y-88	4.120E-01	3.253E+00	5.558E+00	0.000E+00	NOT IDENT.
ZR-88	5.308E-01	2.366E+00	4.107E+00	0.000E+00	NOT IDENT.
Y-91	2.730E+02	1.091E+03	1.926E+03	0.000E+00	NOT IDENT.
NB-94	2.890E-02	2.702E+00	4.501E+00	0.000E+00	NOT IDENT.
NB-95	1.417E+00	3.795E+00	6.539E+00	0.000E+00	NOT IDENT.
NB-95M	1.881E+00	1.037E+01	1.716E+01	0.000E+00	NOT IDENT.
ZR-95	2.312E+00	5.399E+00	9.444E+00	0.000E+00	NOT IDENT.
NB-97	0.000E+00	6.420E+03	0.000E+00	0.000E+00	SHORT HLIF
ZR-97	0.000E+00	1.999E+05	0.000E+00	0.000E+00	SHORT HLIF
MO-99	4.569E+01	1.449E+02	2.508E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	9.344E+09	0.000E+00	0.000E+00	SHORT HLIF
RH-101	2.424E+00	3.507E+00	5.803E+00	0.000E+00	NOT IDENT.
RH-102	-4.548E-01	2.567E+00	4.260E+00	0.000E+00	NOT IDENT.
RU-103	1.621E+00	3.073E+00	5.452E+00	0.000E+00	FAIL ABUN
RH-106	-9.398E-01	2.200E+01	3.657E+01	0.000E+00	NOT IDENT.
RU-106	-9.398E-01	2.200E+01	3.657E+01	0.000E+00	NOT IDENT.
AG-108M	-1.788E+00	2.634E+00	4.133E+00	0.000E+00	NOT IDENT.
CD-109	-3.620E+01	8.088E+01	1.269E+02	0.000E+00	NOT IDENT.
AG-110M	-1.879E+00	2.663E+00	4.013E+00	0.000E+00	NOT IDENT.
IN-111	-6.568E+00	1.909E+01	3.036E+01	0.000E+00	NOT IDENT.
IN-113M	-1.380E+00	3.561E+00	5.832E+00	0.000E+00	NOT IDENT.
SN-113	-1.380E+00	3.561E+00	5.832E+00	0.000E+00	NOT IDENT.
IN-114M	-3.785E+00	1.819E+01	2.556E+01	0.000E+00	NOT IDENT.
CD-115	1.065E+01	8.681E+01	1.483E+02	0.000E+00	NOT IDENT.
SN-117M	-1.566E+00	3.905E+00	6.279E+00	0.000E+00	NOT IDENT.
SB-122	9.763E+00	2.680E+01	4.681E+01	0.000E+00	NOT IDENT.
I-123	0.000E+00	6.753E+04	0.000E+00	0.000E+00	SHORT HLIF
TE-123M	-2.779E+00	2.896E+00	4.485E+00	0.000E+00	NOT IDENT.
I-124	1.532E+01	1.912E+01	3.110E+01	0.000E+00	NOT IDENT.
SB-124	-6.245E-01	4.935E+00	7.926E+00	0.000E+00	NOT IDENT.
SB-125	2.131E+00	7.774E+00	1.353E+01	0.000E+00	NOT IDENT.
TE-125M	-1.119E+03	8.679E+02	1.313E+03	0.000E+00	NOT IDENT.
I-126	2.327E+00	1.041E+01	1.781E+01	0.000E+00	NOT IDENT.
SB-126	-8.912E-02	7.993E+00	1.327E+01	0.000E+00	FAIL ABUN
SN-126	-4.628E+00	7.958E+00	1.235E+01	0.000E+00	NOT IDENT.
SB-127	3.421E+00	2.483E+01	4.223E+01	0.000E+00	NOT IDENT.
XE-127	-4.201E-01	3.893E+00	6.336E+00	0.000E+00	NOT IDENT.
I-131	6.594E+00	5.346E+00	1.003E+01	0.000E+00	NOT IDENT.
TE-132	-3.181E+00	1.355E+01	2.173E+01	0.000E+00	NOT IDENT.
BA-133	-3.850E+00	4.475E+00	5.890E+00	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.485E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	3.526E-01	3.450E+00	5.793E+00	0.000E+00	NOT IDENT.
CS-135	5.303E+00	1.359E+01	2.401E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	4.773E+09	0.000E+00	0.000E+00	SHORT HLIF
CS-136	8.817E-01	4.805E+00	8.459E+00	0.000E+00	NOT IDENT.
BA-137M	9.620E-01	3.135E+00	5.408E+00	0.000E+00	NOT IDENT.
CS-137	1.017E+00	3.314E+00	5.717E+00	0.000E+00	NOT IDENT.
CE-139	6.396E-01	2.864E+00	4.790E+00	0.000E+00	NOT IDENT.
BA-140	7.824E+00	1.421E+01	2.502E+01	0.000E+00	NOT IDENT.
LA-140	-4.591E+00	5.297E+00	7.268E+00	0.000E+00	NOT IDENT.
CE-141	-6.692E+00	5.354E+00	8.102E+00	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.191E+02	6.735E+02	0.000E+00	FAIL ABUN
CE-144	5.125E+00	2.044E+01	3.439E+01	0.000E+00	NOT IDENT.
PM-144	-1.361E+00	2.831E+00	4.427E+00	0.000E+00	NOT IDENT.
PR-144	-9.187E+01	1.911E+02	2.989E+02	0.000E+00	NOT IDENT.
PM-146	1.335E+00	3.675E+00	6.439E+00	0.000E+00	NOT IDENT.
ND-147	-3.497E+00	2.643E+01	4.371E+01	0.000E+00	NOT IDENT.
PM-149	-1.551E+02	8.659E+02	1.467E+03	0.000E+00	NOT IDENT.
EU-152	-7.502E+00	9.627E+00	1.368E+01	0.000E+00	NOT IDENT.
GD-153	-1.965E+00	8.088E+00	1.330E+01	0.000E+00	NOT IDENT.
EU-154	-4.161E-01	7.610E+00	1.276E+01	0.000E+00	NOT IDENT.
EU-155	-3.560E+00	1.123E+01	1.766E+01	0.000E+00	NOT IDENT.
TB-160	-5.570E+00	1.094E+01	1.663E+01	0.000E+00	NOT IDENT.
HO-166M	-9.203E-01	5.254E+00	8.549E+00	0.000E+00	FAIL ABUN
TM-171	-5.879E+03	3.239E+03	4.763E+03	0.000E+00	NOT IDENT.
HF-175	-1.845E+00	3.015E+00	4.736E+00	0.000E+00	NOT IDENT.
LU-176	-9.821E-01	2.064E+00	3.394E+00	0.000E+00	NOT IDENT.
LU-177	-3.013E+01	4.557E+01	7.090E+01	0.000E+00	NOT IDENT.
LU-177M	8.641E+00	1.522E+01	2.709E+01	0.000E+00	NOT IDENT.
HF-181	-3.718E+00	3.275E+00	4.832E+00	0.000E+00	NOT IDENT.
W-181	4.101E+01	3.999E+01	6.949E+01	0.000E+00	NOT IDENT.

TA-182	-3.381E+00	8.666E+00	1.342E+01	0.000E+00	NOT IDENT.
RE-183	2.495E+00	1.045E+01	1.750E+01	0.000E+00	NOT IDENT.
RE-184	1.325E+01	2.131E+01	3.643E+01	0.000E+00	NOT IDENT.
OS-185	3.554E-01	3.517E+00	5.942E+00	0.000E+00	NOT IDENT.
RE-188	6.611E+00	1.637E+01	2.769E+01	0.000E+00	NOT IDENT.
W-188	-4.490E+01	6.449E+02	9.566E+02	0.000E+00	NOT IDENT.
IR-192	2.276E+00	2.883E+00	5.227E+00	0.000E+00	FAIL ABUN
AU-195	-6.442E+00	2.295E+01	3.762E+01	0.000E+00	NOT IDENT.
TL-200	-1.216E+02	3.852E+02	6.368E+02	0.000E+00	NOT IDENT.
TL-201	1.417E+01	1.340E+02	2.224E+02	0.000E+00	NOT IDENT.
TL-202	3.626E+00	3.835E+00	7.081E+00	0.000E+00	NOT IDENT.
HG-203	-3.217E-01	3.308E+00	5.646E+00	0.000E+00	NOT IDENT.
BI-207	-2.970E+00	4.010E+00	6.096E+00	0.000E+00	NOT IDENT.
TL-207	6.965E+00	6.086E+01	1.050E+02	0.000E+00	NOT IDENT.
TL-208	-1.616E-01	3.377E+00	5.564E+00	0.000E+00	NOT IDENT.
PO-209	2.048E+02	5.149E+02	9.044E+02	0.000E+00	NOT IDENT.
BI-210	-8.459E+01	3.824E+02	6.225E+02	0.000E+00	NOT IDENT.
PB-210	-8.459E+01	3.824E+02	6.225E+02	0.000E+00	NOT IDENT.
PO-210	-8.459E+01	3.824E+02	6.225E+02	0.000E+00	NOT IDENT.
PB-211	7.387E+00	7.443E+01	1.274E+02	0.000E+00	NOT IDENT.
BI-212	3.756E+00	2.265E+01	3.844E+01	0.000E+00	NOT IDENT.
PB-212	-8.311E+00	6.304E+00	9.183E+00	0.000E+00	FAIL ABUN
PO-212	-8.311E+00	6.304E+00	9.183E+00	0.000E+00	FAIL ABUN
PO-215	6.965E+00	6.086E+01	1.050E+02	0.000E+00	NOT IDENT.
PO-216	-8.311E+00	6.304E+00	9.183E+00	0.000E+00	FAIL ABUN
RN-219	-2.405E+01	3.526E+01	5.580E+01	0.000E+00	NOT IDENT.
RN-220	5.891E+01	1.971E+03	3.325E+03	0.000E+00	NOT IDENT.
RA-223	6.965E+00	6.086E+01	1.050E+02	0.000E+00	NOT IDENT.
RA-224	5.481E+01	6.602E+01	1.136E+02	0.000E+00	NOT IDENT.
AC-227	-1.958E+01	3.658E+01	5.679E+01	0.000E+00	NOT IDENT.
PA-227	0.000E+00	1.002E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-1.958E+01	3.662E+01	5.679E+01	0.000E+00	NOT IDENT.
AC-228	-6.942E+00	9.836E+00	1.377E+01	0.000E+00	NOT IDENT.
RA-228	-6.942E+00	9.836E+00	1.377E+01	0.000E+00	NOT IDENT.
TH-228	-8.311E+00	6.304E+00	9.183E+00	0.000E+00	FAIL ABUN
TH-229	-6.148E+01	5.337E+01	8.079E+01	0.000E+00	NOT IDENT.
TH-230	-1.733E+03	1.109E+04	1.981E+03	0.000E+00	NOT IDENT.
PA-231	1.288E+01	1.418E+02	2.451E+02	0.000E+00	NOT IDENT.
TH-231	-2.889E+01	4.738E+01	7.466E+01	0.000E+00	NOT IDENT.
U-231	-7.999E+01	3.806E+01	5.502E+01	0.000E+00	NOT IDENT.
TH-232	-8.970E+02	9.762E+03	5.142E+03	0.000E+00	NOT IDENT.
PA-233	1.207E+00	5.548E+00	9.667E+00	0.000E+00	NOT IDENT.
PA-234	-1.651E+01	2.375E+01	3.413E+01	0.000E+00	FAIL ABUN
PA-234M	2.599E+01	3.183E+02	5.316E+02	0.000E+00	NOT IDENT.
TH-234	4.679E+01	1.512E+02	2.610E+02	0.000E+00	NOT IDENT.
U-234	4.848E+03	4.798E+04	1.173E+04	0.000E+00	NOT IDENT.
U-235	1.165E+00	2.301E+01	3.588E+01	0.000E+00	FAIL ABUN
NP-236	-3.931E+00	8.169E+00	1.306E+01	0.000E+00	NOT IDENT.
NP-237	-1.720E+01	2.392E+01	3.635E+01	0.000E+00	NOT IDENT.
PU-237	-1.474E+02	2.105E+02	3.391E+02	0.000E+00	NOT IDENT.
U-238	4.679E+01	1.512E+02	2.610E+02	0.000E+00	NOT IDENT.
NP-239	4.314E+00	1.872E+01	3.158E+01	0.000E+00	NOT IDENT.
AM-241	-1.192E+01	1.702E+01	2.742E+01	0.000E+00	NOT IDENT.
AM-243	7.376E+00	6.788E+00	1.052E+01	0.000E+00	NOT IDENT.
CM-243	-1.613E+00	1.013E+01	1.611E+01	0.000E+00	NOT IDENT.
AM-246	7.138E+00	1.021E+01	1.916E+01	0.000E+00	NOT IDENT.
CM-247	-1.895E+00	3.148E+00	5.041E+00	0.000E+00	NOT IDENT.
CF-249	-8.340E-01	3.357E+00	5.578E+00	0.000E+00	NOT IDENT.
CF-251	-6.536E+00	1.313E+01	2.090E+01	0.000E+00	NOT IDENT.
ANH-511	-3.641E+00	4.678E+00	8.832E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 12:15:03.77

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201996558.CNF;1
Sample date       : 10-DEC-2009 12:00:00 Acquisition date : 18-DEC-2009 10:13:50
Sample ID         : G1201996558          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM19                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.78  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 933232               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	77.28	46	180	0.68	154.40	151	9	6.33E-03	56.9	
2	0	92.46	59	152	0.96	184.74	182	8	8.18E-03	38.4	
3	0	185.82	66	116	1.36	371.31	365	11	9.15E-03	34.2	
4	0	295.12	115	60	1.68	589.77	585	12	1.60E-02	16.4	
5	0	351.45	159	80	1.35	702.37	696	13	2.20E-02	14.1	
6	0	510.72	178	77	3.34	1020.75	1012	22	2.47E-02	14.6	
7	0	608.96	118	45	1.54	1217.15	1212	14	1.64E-02	14.9	
8	0	1763.53	21	6	1.11	3526.79	3521	11	2.97E-03	30.3	

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 12:15:09.01

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201996558.CNF;1
Sample date       : 10-DEC-2009 12:00:00 Acquisition date : 18-DEC-2009 10:13:50
Sample ID         : G1201996558          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM19                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.78  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 933232               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
BI-211	72.87	------	1.27	1.709E+00	------ Line Not Found		------
	351.07	137	12.94*	1.788E+00	1.113E+02	1.113E+02	33.98
BI-214	609.31	105	46.30*	1.223E+00	3.494E+01	3.494E+01	34.98
	1120.29	------	15.10	7.665E-01	------ Line Not Found		------
	1764.49	21	15.80	5.511E-01	4.614E+01	4.614E+01	60.92
PB-214	74.81	------	6.21	1.796E+00	------ Line Not Found		------
	77.11	46	10.50	1.901E+00	4.284E+01	4.284E+01	114.38
	87.30	------	4.67	2.255E+00	------ Line Not Found		------
	241.98	------	7.49	2.253E+00	------ Line Not Found		------
	295.21	107	19.20	2.000E+00	5.208E+01	5.209E+01	37.27
	351.92	137	37.20*	1.788E+00	3.873E+01	3.873E+01	34.38
PO-214	74.81	------	6.21	1.796E+00	------ Line Not Found		------
	77.11	46	10.50	1.901E+00	4.284E+01	4.284E+01	114.38
	87.30	------	4.67	2.255E+00	------ Line Not Found		------
	241.98	------	7.49	2.253E+00	------ Line Not Found		------
	295.21	107	19.20	2.000E+00	5.208E+01	5.209E+01	37.27
	351.92	137	37.20*	1.788E+00	3.873E+01	3.873E+01	34.38
PO-218	74.81	------	6.21	1.796E+00	------ Line Not Found		------
	77.11	46	10.50	1.901E+00	4.284E+01	4.284E+01	114.38
	87.30	------	4.67	2.255E+00	------ Line Not Found		------
	241.98	------	7.49	2.253E+00	------ Line Not Found		------
	295.21	107	19.20	2.000E+00	5.208E+01	5.209E+01	37.27
	351.92	137	37.20*	1.788E+00	3.873E+01	3.873E+01	34.38
RA-226	186.21	15	3.28*	2.573E+00	3.362E+01	3.362E+01	319.37

Flag: "*" = Keyline

Sample ID : G1201996558 Acquisition date : 18-DEC-2009 10:13:50

Total number of lines in spectrum	6	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	6	100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
BI-211	7.04E+08Y	1.00	1.113E+02	1.113E+02	0.378E+02	33.98	
BI-214	1600.00Y	1.00	3.494E+01	3.494E+01	1.222E+01	34.98	
PB-214	1600.00Y	1.00	3.873E+01	3.873E+01	1.331E+01	34.38	
PO-214	1600.00Y	1.00	3.873E+01	3.873E+01	1.331E+01	34.38	
PO-218	1600.00Y	1.00	3.873E+01	3.873E+01	1.331E+01	34.38	
RA-226	1600.00Y	1.00	3.362E+01	3.362E+01	10.74E+01	319.37	
	Total Activity :		2.961E+02	2.961E+02			
	Grand Total Activity :		2.961E+02	2.961E+02			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

None

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 12:15:15.31

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201996558.CNF;1  *
* Acquisition date  : 18-DEC-2009 10:13:50  Detector SN#     :              *
* Detector ID       : GAM19                 Sensitivity      : 5.00000      *
* Geometry          : 2LMB                  Energy tolerance: 1.50000       *
* Elapsed live time: 0 02:00:00.00          Abundance limit : 75.00000      *
* Elapsed real time: 0 02:00:00.78          Half life ratio : 8.00000       *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date       : 10-DEC-2009 12:00:00  Nuclide Library : LIQUID        *
* Sample ID         : G1201996558           Analyst initials: KXG3          *
* Batch Number      : 933232                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 11-MAR-2009 08:32:49.9MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BI-211	1.113E+02	3.783E+01	2.935E+01	1.912E+00	3.793
BI-214	3.494E+01	1.222E+01	9.923E+00	7.315E-01	3.521
PB-214	3.873E+01	1.331E+01	1.023E+01	8.535E-01	3.787
PO-214	3.873E+01	1.331E+01	1.023E+01	8.535E-01	3.787
PO-218	3.873E+01	1.331E+01	1.023E+01	8.535E-01	3.787
RA-226	3.362E+01	1.074E+02	1.073E+02	7.875E+01	0.313

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	1.363E+01		2.533E+01	4.421E+01	2.943E+00	0.308
NA-22	1.550E-01		2.728E+00	4.579E+00	2.834E-01	0.034
NA-24	-1.546E-02		1.020E-02	Half-Life too short		
AL-26	-1.938E+00		3.811E+00	5.583E+00	3.195E-01	-0.347
K-40	2.731E+01		4.243E+01	7.657E+01	5.177E+00	0.357
TI-44	4.610E+00	+	5.261E+00	6.182E+00	5.689E-01	0.746

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
SC-46	5.251E-01		3.065E+00	5.074E+00	3.471E-01	0.103
V-48	1.386E+00		3.781E+00	6.460E+00	4.284E-01	0.215
CR-51	-2.107E+01		2.779E+01	4.359E+01	2.884E+00	-0.483
MN-52	-1.589E+00		1.065E+01	1.718E+01	1.111E+00	-0.092
MN-54	7.792E-01		2.803E+00	4.720E+00	3.002E-01	0.165
CO-56	-3.136E+00		3.093E+00	4.187E+00	2.707E-01	-0.749
CO-57	-9.129E-01		3.077E+00	4.425E+00	2.833E-01	-0.206
CO-58	-2.821E+00		2.981E+00	4.095E+00	2.531E-01	-0.689
FE-59	-1.686E+00		6.098E+00	9.770E+00	6.856E-01	-0.173
CO-60	-1.619E-01		3.479E+00	5.775E+00	3.766E-01	-0.028
ZN-65	-5.986E+00		7.050E+00	1.038E+01	6.199E-01	-0.577
GE-68	9.418E+01		8.862E+01	1.707E+02	1.055E+01	0.552
AS-73	4.574E+01		8.350E+01	1.427E+02	1.291E+01	0.321
AS-74	-3.622E-01		6.067E+00	9.890E+00	5.252E-01	-0.037
SE-75	-2.912E+00		3.922E+00	6.251E+00	3.775E-01	-0.466
BR-77	-7.814E+01		1.016E+02	1.510E+02	8.454E+00	-0.518
SR-82	1.152E+01		2.241E+01	3.923E+01	2.299E+00	0.294
RB-83	-4.643E+00		5.156E+00	7.508E+00	4.205E-01	-0.618
RB-84	3.791E+00		4.596E+00	8.361E+00	5.661E-01	0.453
KR-85	-1.863E+03		9.274E+02	1.299E+03	7.298E+01	-1.434
SR-85	-8.855E+00		4.409E+00	6.176E+00	3.469E-01	-1.434
RB-86	1.585E+01		4.400E+01	7.760E+01	4.802E+00	0.204
Y-88	4.120E-01		3.319E+00	5.558E+00	3.142E-01	0.074
ZR-88	5.308E-01		2.414E+00	4.107E+00	2.342E-01	0.129
Y-91	2.730E+02		1.114E+03	1.926E+03	1.111E+02	0.142
NB-94	2.890E-02		2.757E+00	4.501E+00	2.364E-01	0.006
NB-95	1.417E+00		3.873E+00	6.539E+00	3.774E-01	0.217
NB-95M	1.881E+00		1.058E+01	1.716E+01	1.308E+00	0.110
ZR-95	2.312E+00		5.509E+00	9.444E+00	6.557E-01	0.245
NB-97	-4.254E-03		3.275E-03	Half-Life too short		
ZR-97	-2.696E-01		1.020E-01	Half-Life too short		
MO-99	4.569E+01		1.478E+02	2.508E+02	3.431E+01	0.182
TC-99M	1.193E+04		4.768E+03	Half-Life too short		
RH-101	2.424E+00		3.578E+00	5.803E+00	3.369E-01	0.418
RH-102	-4.548E-01		2.620E+00	4.260E+00	2.426E-01	-0.107
RU-103	1.621E+00		3.136E+00	5.452E+00	6.858E-01	0.297
RH-106	-9.398E-01		2.245E+01	3.657E+01	4.183E+00	-0.026
RU-106	-9.398E-01		2.245E+01	3.657E+01	1.892E+00	-0.026
AG-108M	-1.788E+00		2.688E+00	4.133E+00	2.574E-01	-0.432
CD-109	-3.620E+01		8.253E+01	1.269E+02	1.236E+01	-0.285
AG-110M	-1.879E+00		2.718E+00	4.013E+00	2.161E-01	-0.468
IN-111	-6.568E+00		1.948E+01	3.036E+01	1.805E+00	-0.216
IN-113M	-1.380E+00		3.634E+00	5.832E+00	3.555E-01	-0.237
SN-113	-1.380E+00		3.634E+00	5.832E+00	3.555E-01	-0.237
IN-114M	-3.785E+00		1.856E+01	2.556E+01	1.478E+00	-0.148
CD-115	1.065E+01		8.858E+01	1.483E+02	8.273E+00	0.072
SN-117M	-1.566E+00		3.984E+00	6.279E+00	3.639E-01	-0.249
SB-122	9.763E+00		2.735E+01	4.681E+01	2.553E+00	0.209

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
I-123	-6.481E-02		3.446E-02	Half-Life too short		
TE-123M	-2.779E+00		2.955E+00	4.485E+00	2.632E-01	-0.620
I-124	1.532E+01		1.951E+01	3.110E+01	1.641E+00	0.493
SB-124	-6.245E-01		5.036E+00	7.926E+00	5.167E-01	-0.079
SB-125	2.131E+00		7.933E+00	1.353E+01	8.079E-01	0.158
TE-125M	-1.119E+03		8.856E+02	1.313E+03	1.206E+02	-0.852
I-126	2.327E+00		1.062E+01	1.781E+01	8.836E-01	0.131
SB-126	-8.912E-02		8.156E+00	1.327E+01	7.158E-01	-0.007
SN-126	-4.628E+00		8.120E+00	1.235E+01	1.200E+00	-0.375
SB-127	3.421E+00		2.533E+01	4.223E+01	2.834E+00	0.081
XE-127	-4.201E-01		3.972E+00	6.336E+00	3.688E-01	-0.066
I-131	6.594E+00		5.455E+00	1.003E+01	6.480E-01	0.657
TE-132	-3.181E+00		1.383E+01	2.173E+01	2.882E+00	-0.146
BA-133	-3.850E+00		4.566E+00	5.890E+00	6.831E-01	-0.654
I-133	-7.735E-04		7.574E-04	Half-Life too short		
CS-134	3.526E-01		3.521E+00	5.793E+00	3.541E-01	0.061
CS-135	5.303E+00		1.387E+01	2.401E+01	1.872E+00	0.221
I-135	-2.968E+03		2.435E+03	Half-Life too short		
CS-136	8.817E-01		4.903E+00	8.459E+00	5.770E-01	0.104
BA-137M	9.620E-01		3.199E+00	5.408E+00	2.663E-01	0.178
CS-137	1.017E+00		3.382E+00	5.717E+00	2.832E-01	0.178
CE-139	6.396E-01		2.922E+00	4.790E+00	2.745E-01	0.134
BA-140	7.824E+00		1.450E+01	2.502E+01	8.126E+00	0.313
LA-140	-4.591E+00		5.406E+00	7.268E+00	4.538E-01	-0.632
CE-141	-6.692E+00		5.464E+00	8.102E+00	4.998E-01	-0.826
CE-143	6.931E+02		4.277E+02	6.735E+02	1.384E+02	1.029
CE-144	5.125E+00		2.086E+01	3.439E+01	4.931E+00	0.149
PM-144	-1.361E+00		2.889E+00	4.427E+00	2.304E-01	-0.307
PR-144	-9.187E+01		1.950E+02	2.989E+02	1.555E+01	-0.307
PM-146	1.335E+00		3.750E+00	6.439E+00	5.516E-01	0.207
ND-147	-3.497E+00		2.697E+01	4.371E+01	5.868E+00	-0.080
PM-149	-1.551E+02		8.835E+02	1.467E+03	2.088E+02	-0.106
EU-152	-7.502E+00		9.823E+00	1.368E+01	9.086E-01	-0.548
GD-153	-1.965E+00		8.253E+00	1.330E+01	1.113E+00	-0.148
EU-154	-4.161E-01		7.765E+00	1.276E+01	1.223E+00	-0.033
EU-155	-3.560E+00		1.146E+01	1.766E+01	1.356E+00	-0.202
TB-160	-5.570E+00		1.116E+01	1.663E+01	1.123E+00	-0.335
HO-166M	-9.203E-01		5.361E+00	8.549E+00	4.552E-01	-0.108
TM-171	-5.879E+03		3.305E+03	4.763E+03	4.297E+02	-1.234
HF-175	-1.845E+00		3.076E+00	4.736E+00	2.802E-01	-0.390
LU-176	-9.821E-01		2.106E+00	3.394E+00	2.033E-01	-0.289
LU-177	-3.013E+01		4.650E+01	7.090E+01	4.140E+00	-0.425
LU-177M	8.641E+00		1.553E+01	2.709E+01	1.550E+00	0.319
HF-181	-3.718E+00		3.341E+00	4.832E+00	2.747E-01	-0.769
W-181	4.101E+01		4.080E+01	6.949E+01	6.290E+00	0.590
TA-182	-3.381E+00		8.843E+00	1.342E+01	7.871E-01	-0.252
RE-183	2.495E+00		1.067E+01	1.750E+01	1.008E+00	0.143
RE-184	1.325E+01		2.175E+01	3.643E+01	2.172E+00	0.364

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
OS-185	3.554E-01		3.589E+00	5.942E+00	2.987E-01	0.060
RE-188	6.611E+00		1.670E+01	2.769E+01	1.615E+00	0.239
W-188	-4.490E+01		6.581E+02	9.566E+02	5.738E+01	-0.047
IR-192	2.276E+00		2.942E+00	5.227E+00	3.140E-01	0.436
AU-195	-6.442E+00		2.341E+01	3.762E+01	3.085E+00	-0.171
TL-200	-1.216E+02		3.931E+02	6.368E+02	3.708E+01	-0.191
TL-201	1.417E+01		1.367E+02	2.224E+02	1.274E+01	0.064
TL-202	3.626E+00		3.914E+00	7.081E+00	4.053E-01	0.512
HG-203	-3.217E-01		3.376E+00	5.646E+00	3.581E-01	-0.057
BI-207	-2.970E+00		4.092E+00	6.096E+00	3.814E-01	-0.487
TL-207	6.965E+00		6.210E+01	1.050E+02	1.740E+01	0.066
TL-208	-1.616E-01		3.446E+00	5.564E+00	3.515E-01	-0.029
PO-209	2.048E+02		5.254E+02	9.044E+02	6.246E+01	0.226
BI-210	-8.459E+01		3.902E+02	6.225E+02	5.118E+01	-0.136
PB-210	-8.459E+01		3.902E+02	6.225E+02	5.118E+01	-0.136
PO-210	-8.459E+01		3.902E+02	6.225E+02	4.488E+01	-0.136
PB-211	7.387E+00		7.595E+01	1.274E+02	7.943E+01	0.058
BI-212	3.756E+00		2.311E+01	3.844E+01	2.865E+00	0.098
PB-212	-8.311E+00		6.433E+00	9.183E+00	6.826E-01	-0.905
PO-212	-8.311E+00		6.433E+00	9.183E+00	6.826E-01	-0.905
PO-215	6.965E+00		6.210E+01	1.050E+02	1.740E+01	0.066
PO-216	-8.311E+00		6.433E+00	9.183E+00	6.826E-01	-0.905
RN-219	-2.405E+01		3.598E+01	5.580E+01	7.571E+00	-0.431
RN-220	5.891E+01		2.012E+03	3.325E+03	1.831E+02	0.018
RA-223	6.965E+00		6.210E+01	1.050E+02	1.740E+01	0.066
RA-224	5.481E+01		6.737E+01	1.136E+02	6.742E+00	0.482
AC-227	-1.958E+01		3.732E+01	5.679E+01	7.968E+00	-0.345
PA-227	1.000E+35		5.112E+34	Half-Life too short		
TH-227	-1.958E+01		3.737E+01	5.679E+01	9.630E+00	-0.345
AC-228	-6.942E+00		1.004E+01	1.377E+01	1.374E+00	-0.504
RA-228	-6.942E+00		1.004E+01	1.377E+01	1.374E+00	-0.504
TH-228	-8.311E+00		6.433E+00	9.183E+00	6.826E-01	-0.905
TH-229	-6.148E+01		5.446E+01	8.079E+01	4.679E+00	-0.761
TH-230	-1.733E+03		1.132E+04	1.981E+03	1.285E+04	-0.875
PA-231	1.288E+01		1.447E+02	2.451E+02	3.398E+01	0.053
TH-231	-2.889E+01		4.835E+01	7.466E+01	1.365E+01	-0.387
U-231	-7.999E+01		3.884E+01	5.502E+01	4.709E+00	-1.454
TH-232	-8.970E+02		9.962E+03	5.142E+03	5.413E+04	-0.174
PA-233	1.207E+00		5.662E+00	9.667E+00	6.122E-01	0.125
PA-234	-1.651E+01		2.424E+01	3.413E+01	6.140E+00	-0.484
PA-234M	2.599E+01		3.248E+02	5.316E+02	4.384E+01	0.049
TH-234	4.679E+01		1.542E+02	2.610E+02	4.758E+01	0.179
U-234	4.848E+03		4.895E+04	1.173E+04	1.173E+05	0.413
U-235	1.165E+00		2.348E+01	3.588E+01	5.872E+00	0.032
NP-236	-3.931E+00		8.336E+00	1.306E+01	7.547E-01	-0.301
NP-237	-1.720E+01		2.441E+01	3.635E+01	8.280E+00	-0.473
PU-237	-1.474E+02		2.147E+02	3.391E+02	3.147E+01	-0.435
U-238	4.679E+01		1.542E+02	2.610E+02	4.758E+01	0.179

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
NP-239	4.314E+00		1.910E+01	3.158E+01	2.113E+00	0.137
AM-241	-1.192E+01		1.737E+01	2.742E+01	2.705E+00	-0.435
AM-243	7.376E+00		6.927E+00	1.052E+01	9.553E-01	0.701
CM-243	-1.613E+00		1.034E+01	1.611E+01	1.241E+00	-0.100
AM-246	7.138E+00		1.042E+01	1.916E+01	1.183E+00	0.373
CM-247	-1.895E+00		3.212E+00	5.041E+00	2.879E-01	-0.376
CF-249	-8.340E-01		3.425E+00	5.578E+00	3.192E-01	-0.150
CF-251	-6.536E+00		1.339E+01	2.090E+01	1.201E+00	-0.313
ANH-511	-3.641E+00		4.774E+00	8.832E+00	4.968E-01	-0.412

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1201996558          *
* Acquisition date : 18-DEC-2009 10:13:50 Detector SN#    :                *
* Detector ID      : GAM19                Sensitivity     : 5.000          *
* Geometry         : 2LMB                 Energy tolerance: 1.500          *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 02:00:00.78     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 10-DEC-2009 12:00:00 Nuclide Library : LIQUI          *
* Sample ID        : G1201996558          Analyst initials: KXG3           *
* Batch Number     : 933232               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 11-MAR-2009 08:32:49 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
BI-211	1.113E+02	3.708E+01	1.468E+01	1.892E+01
BI-214	3.494E+01	1.198E+01	4.964E+00	6.111E+00
PB-214	3.873E+01	1.305E+01	5.116E+00	6.657E+00
PO-214	3.873E+01	1.305E+01	5.116E+00	6.657E+00
PO-218	3.873E+01	1.305E+01	5.116E+00	6.657E+00
RA-226	3.362E+01	1.052E+02	5.368E+01	5.368E+01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU
BE-7	1.363E+01	2.482E+01	2.212E+01	1.266E+01 NOT IDENT.
NA-22	1.550E-01	2.674E+00	2.291E+00	1.364E+00 NOT IDENT.
NA-24	-1.546E+04	1.999E+04	0.000E+00	1.020E+04 SHORT HLIF
AL-26	-1.938E+00	3.735E+00	2.793E+00	1.906E+00 NOT IDENT.
K-40	2.731E+01	4.158E+01	3.831E+01	2.121E+01 NOT IDENT.
TI-44	4.610E+00	5.156E+00	3.093E+00	2.631E+00 FAIL ABUN
SC-46	5.251E-01	3.004E+00	2.538E+00	1.533E+00 NOT IDENT.
V-48	1.386E+00	3.705E+00	3.232E+00	1.890E+00 NOT IDENT.
CR-51	-2.107E+01	2.724E+01	2.181E+01	1.390E+01 NOT IDENT.
MN-52	-1.589E+00	1.043E+01	8.597E+00	5.324E+00 NOT IDENT.
MN-54	7.792E-01	2.747E+00	2.362E+00	1.401E+00 NOT IDENT.
CO-56	-3.136E+00	3.032E+00	2.095E+00	1.547E+00 NOT IDENT.
CO-57	-9.129E-01	3.015E+00	2.214E+00	1.539E+00 NOT IDENT.
CO-58	-2.821E+00	2.922E+00	2.048E+00	1.491E+00 NOT IDENT.
FE-59	-1.686E+00	5.976E+00	4.888E+00	3.049E+00 NOT IDENT.
CO-60	-1.619E-01	3.410E+00	2.889E+00	1.740E+00 NOT IDENT.
ZN-65	-5.986E+00	6.909E+00	5.191E+00	3.525E+00 NOT IDENT.
GE-68	9.418E+01	8.685E+01	8.538E+01	4.431E+01 NOT IDENT.
AS-73	4.574E+01	8.183E+01	7.139E+01	4.175E+01 NOT IDENT.
AS-74	-3.622E-01	5.945E+00	4.948E+00	3.033E+00 NOT IDENT.
SE-75	-2.912E+00	3.843E+00	3.127E+00	1.961E+00 NOT IDENT.

BR-77	-7.814E+01	9.954E+01	7.553E+01	5.079E+01	NOT IDENT.
SR-82	1.152E+01	2.196E+01	1.963E+01	1.120E+01	NOT IDENT.
RB-83	-4.643E+00	5.053E+00	3.756E+00	2.578E+00	NOT IDENT.
RB-84	3.791E+00	4.504E+00	4.183E+00	2.298E+00	NOT IDENT.
KR-85	-1.863E+03	9.089E+02	6.499E+02	4.637E+02	NOT IDENT.
SR-85	-8.855E+00	4.321E+00	3.090E+00	2.204E+00	NOT IDENT.
RB-86	1.585E+01	4.312E+01	3.882E+01	2.200E+01	NOT IDENT.
Y-88	4.120E-01	3.253E+00	2.781E+00	1.660E+00	NOT IDENT.
ZR-88	5.308E-01	2.366E+00	2.055E+00	1.207E+00	NOT IDENT.
Y-91	2.730E+02	1.091E+03	9.636E+02	5.568E+02	NOT IDENT.
NB-94	2.890E-02	2.702E+00	2.252E+00	1.378E+00	NOT IDENT.
NB-95	1.417E+00	3.795E+00	3.271E+00	1.936E+00	NOT IDENT.
NB-95M	1.881E+00	1.037E+01	8.584E+00	5.291E+00	NOT IDENT.
ZR-95	2.312E+00	5.399E+00	4.725E+00	2.755E+00	NOT IDENT.
NB-97	-4.254E+03	6.420E+03	0.000E+00	3.275E+03	SHORT HLIF
ZR-97	-2.696E+05	1.999E+05	0.000E+00	1.020E+05	SHORT HLIF
MO-99	4.569E+01	1.449E+02	1.255E+02	7.391E+01	NOT IDENT.
TC-99M	1.193E+10	9.344E+09	0.000E+00	4.768E+09	SHORT HLIF
RH-101	2.424E+00	3.507E+00	2.903E+00	1.789E+00	NOT IDENT.
RH-102	-4.548E-01	2.567E+00	2.131E+00	1.310E+00	NOT IDENT.
RU-103	1.621E+00	3.073E+00	2.728E+00	1.568E+00	FAIL ABUN
RH-106	-9.398E-01	2.200E+01	1.829E+01	1.123E+01	NOT IDENT.
RU-106	-9.398E-01	2.200E+01	1.829E+01	1.123E+01	NOT IDENT.
AG-108M	-1.788E+00	2.634E+00	2.068E+00	1.344E+00	NOT IDENT.
CD-109	-3.620E+01	8.088E+01	6.346E+01	4.127E+01	NOT IDENT.
AG-110M	-1.879E+00	2.663E+00	2.008E+00	1.359E+00	NOT IDENT.
IN-111	-6.568E+00	1.909E+01	1.519E+01	9.738E+00	NOT IDENT.
IN-113M	-1.380E+00	3.561E+00	2.918E+00	1.817E+00	NOT IDENT.
SN-113	-1.380E+00	3.561E+00	2.918E+00	1.817E+00	NOT IDENT.
IN-114M	-3.785E+00	1.819E+01	1.279E+01	9.278E+00	NOT IDENT.
CD-115	1.065E+01	8.681E+01	7.419E+01	4.429E+01	NOT IDENT.
SN-117M	-1.566E+00	3.905E+00	3.141E+00	1.992E+00	NOT IDENT.
SB-122	9.763E+00	2.680E+01	2.342E+01	1.367E+01	NOT IDENT.
I-123	-6.481E+04	6.753E+04	0.000E+00	3.446E+04	SHORT HLIF
TE-123M	-2.779E+00	2.896E+00	2.244E+00	1.478E+00	NOT IDENT.
I-124	1.532E+01	1.912E+01	1.556E+01	9.753E+00	NOT IDENT.
SB-124	-6.245E-01	4.935E+00	3.965E+00	2.518E+00	NOT IDENT.
SB-125	2.131E+00	7.774E+00	6.767E+00	3.966E+00	NOT IDENT.
TE-125M	-1.119E+03	8.679E+02	6.571E+02	4.428E+02	NOT IDENT.
I-126	2.327E+00	1.041E+01	8.910E+00	5.311E+00	NOT IDENT.
SB-126	-8.912E-02	7.993E+00	6.637E+00	4.078E+00	FAIL ABUN
SN-126	-4.628E+00	7.958E+00	6.177E+00	4.060E+00	NOT IDENT.
SB-127	3.421E+00	2.483E+01	2.113E+01	1.267E+01	NOT IDENT.
XE-127	-4.201E-01	3.893E+00	3.170E+00	1.986E+00	NOT IDENT.
I-131	6.594E+00	5.346E+00	5.020E+00	2.728E+00	NOT IDENT.
TE-132	-3.181E+00	1.355E+01	1.087E+01	6.913E+00	NOT IDENT.
BA-133	-3.850E+00	4.475E+00	2.947E+00	2.283E+00	NOT IDENT.
I-133	-7.735E+02	1.485E+03	0.000E+00	7.574E+02	SHORT HLIF
CS-134	3.526E-01	3.450E+00	2.898E+00	1.760E+00	NOT IDENT.
CS-135	5.303E+00	1.359E+01	1.201E+01	6.934E+00	NOT IDENT.
I-135	-2.968E+09	4.773E+09	0.000E+00	2.435E+09	SHORT HLIF
CS-136	8.817E-01	4.805E+00	4.232E+00	2.451E+00	NOT IDENT.
BA-137M	9.620E-01	3.135E+00	2.706E+00	1.600E+00	NOT IDENT.
CS-137	1.017E+00	3.314E+00	2.860E+00	1.691E+00	NOT IDENT.
CE-139	6.396E-01	2.864E+00	2.396E+00	1.461E+00	NOT IDENT.
BA-140	7.824E+00	1.421E+01	1.252E+01	7.248E+00	NOT IDENT.
LA-140	-4.591E+00	5.297E+00	3.636E+00	2.703E+00	NOT IDENT.
CE-141	-6.692E+00	5.354E+00	4.053E+00	2.732E+00	NOT IDENT.
CE-143	6.931E+02	4.191E+02	3.370E+02	2.138E+02	FAIL ABUN
CE-144	5.125E+00	2.044E+01	1.721E+01	1.043E+01	NOT IDENT.
PM-144	-1.361E+00	2.831E+00	2.215E+00	1.444E+00	NOT IDENT.
PR-144	-9.187E+01	1.911E+02	1.495E+02	9.750E+01	NOT IDENT.
PM-146	1.335E+00	3.675E+00	3.222E+00	1.875E+00	NOT IDENT.
ND-147	-3.497E+00	2.643E+01	2.187E+01	1.348E+01	NOT IDENT.
PM-149	-1.551E+02	8.659E+02	7.339E+02	4.418E+02	NOT IDENT.
EU-152	-7.502E+00	9.627E+00	6.846E+00	4.912E+00	NOT IDENT.
GD-153	-1.965E+00	8.088E+00	6.652E+00	4.126E+00	NOT IDENT.
EU-154	-4.161E-01	7.610E+00	6.385E+00	3.883E+00	NOT IDENT.
EU-155	-3.560E+00	1.123E+01	8.834E+00	5.729E+00	NOT IDENT.
TB-160	-5.570E+00	1.094E+01	8.318E+00	5.580E+00	NOT IDENT.
HO-166M	-9.203E-01	5.254E+00	4.277E+00	2.680E+00	FAIL ABUN
TM-171	-5.879E+03	3.239E+03	2.383E+03	1.652E+03	NOT IDENT.
HF-175	-1.845E+00	3.015E+00	2.369E+00	1.538E+00	NOT IDENT.
LU-176	-9.821E-01	2.064E+00	1.698E+00	1.053E+00	NOT IDENT.
LU-177	-3.013E+01	4.557E+01	3.547E+01	2.325E+01	NOT IDENT.
LU-177M	8.641E+00	1.522E+01	1.355E+01	7.764E+00	NOT IDENT.
HF-181	-3.718E+00	3.275E+00	2.418E+00	1.671E+00	NOT IDENT.
W-181	4.101E+01	3.999E+01	3.477E+01	2.040E+01	NOT IDENT.

TA-182	-3.381E+00	8.666E+00	6.716E+00	4.421E+00	NOT IDENT.
RE-183	2.495E+00	1.045E+01	8.756E+00	5.333E+00	NOT IDENT.
RE-184	1.325E+01	2.131E+01	1.823E+01	1.087E+01	NOT IDENT.
OS-185	3.554E-01	3.517E+00	2.973E+00	1.795E+00	NOT IDENT.
RE-188	6.611E+00	1.637E+01	1.385E+01	8.350E+00	NOT IDENT.
W-188	-4.490E+01	6.449E+02	4.786E+02	3.290E+02	NOT IDENT.
IR-192	2.276E+00	2.883E+00	2.615E+00	1.471E+00	FAIL ABUN
AU-195	-6.442E+00	2.295E+01	1.882E+01	1.171E+01	NOT IDENT.
TL-200	-1.216E+02	3.852E+02	3.186E+02	1.965E+02	NOT IDENT.
TL-201	1.417E+01	1.340E+02	1.113E+02	6.836E+01	NOT IDENT.
TL-202	3.626E+00	3.835E+00	3.543E+00	1.957E+00	NOT IDENT.
HG-203	-3.217E-01	3.308E+00	2.825E+00	1.688E+00	NOT IDENT.
BI-207	-2.970E+00	4.010E+00	3.050E+00	2.046E+00	NOT IDENT.
TL-207	6.965E+00	6.086E+01	5.253E+01	3.105E+01	NOT IDENT.
TL-208	-1.616E-01	3.377E+00	2.784E+00	1.723E+00	NOT IDENT.
PO-209	2.048E+02	5.149E+02	4.525E+02	2.627E+02	NOT IDENT.
BI-210	-8.459E+01	3.824E+02	3.114E+02	1.951E+02	NOT IDENT.
PB-210	-8.459E+01	3.824E+02	3.114E+02	1.951E+02	NOT IDENT.
PO-210	-8.459E+01	3.824E+02	3.114E+02	1.951E+02	NOT IDENT.
PB-211	7.387E+00	7.443E+01	6.376E+01	3.798E+01	NOT IDENT.
BI-212	3.756E+00	2.265E+01	1.923E+01	1.156E+01	NOT IDENT.
PB-212	-8.311E+00	6.304E+00	4.594E+00	3.216E+00	FAIL ABUN
PO-212	-8.311E+00	6.304E+00	4.594E+00	3.216E+00	FAIL ABUN
PO-215	6.965E+00	6.086E+01	5.253E+01	3.105E+01	NOT IDENT.
PO-216	-8.311E+00	6.304E+00	4.594E+00	3.216E+00	FAIL ABUN
RN-219	-2.405E+01	3.526E+01	2.791E+01	1.799E+01	NOT IDENT.
RN-220	5.891E+01	1.971E+03	1.663E+03	1.006E+03	NOT IDENT.
RA-223	6.965E+00	6.086E+01	5.253E+01	3.105E+01	NOT IDENT.
RA-224	5.481E+01	6.602E+01	5.683E+01	3.368E+01	NOT IDENT.
AC-227	-1.958E+01	3.658E+01	2.841E+01	1.866E+01	NOT IDENT.
PA-227	1.000E+41	1.002E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-1.958E+01	3.662E+01	2.841E+01	1.868E+01	NOT IDENT.
AC-228	-6.942E+00	9.836E+00	6.890E+00	5.018E+00	NOT IDENT.
RA-228	-6.942E+00	9.836E+00	6.890E+00	5.018E+00	NOT IDENT.
TH-228	-8.311E+00	6.304E+00	4.594E+00	3.216E+00	FAIL ABUN
TH-229	-6.148E+01	5.337E+01	4.042E+01	2.723E+01	NOT IDENT.
TH-230	-1.733E+03	1.109E+04	9.912E+02	5.659E+03	NOT IDENT.
PA-231	1.288E+01	1.418E+02	1.226E+02	7.235E+01	NOT IDENT.
TH-231	-2.889E+01	4.738E+01	3.735E+01	2.417E+01	NOT IDENT.
U-231	-7.999E+01	3.806E+01	2.753E+01	1.942E+01	NOT IDENT.
TH-232	-8.970E+02	9.762E+03	2.573E+03	4.981E+03	NOT IDENT.
PA-233	1.207E+00	5.548E+00	4.836E+00	2.831E+00	NOT IDENT.
PA-234	-1.651E+01	2.375E+01	1.708E+01	1.212E+01	FAIL ABUN
PA-234M	2.599E+01	3.183E+02	2.660E+02	1.624E+02	NOT IDENT.
TH-234	4.679E+01	1.512E+02	1.306E+02	7.712E+01	NOT IDENT.
U-234	4.848E+03	4.798E+04	5.870E+03	2.448E+04	NOT IDENT.
U-235	1.165E+00	2.301E+01	1.795E+01	1.174E+01	FAIL ABUN
NP-236	-3.931E+00	8.169E+00	6.534E+00	4.168E+00	NOT IDENT.
NP-237	-1.720E+01	2.392E+01	1.819E+01	1.221E+01	NOT IDENT.
PU-237	-1.474E+02	2.105E+02	1.697E+02	1.074E+02	NOT IDENT.
U-238	4.679E+01	1.512E+02	1.306E+02	7.712E+01	NOT IDENT.
NP-239	4.314E+00	1.872E+01	1.580E+01	9.549E+00	NOT IDENT.
AM-241	-1.192E+01	1.702E+01	1.372E+01	8.684E+00	NOT IDENT.
AM-243	7.376E+00	6.788E+00	5.265E+00	3.463E+00	NOT IDENT.
CM-243	-1.613E+00	1.013E+01	8.058E+00	5.170E+00	NOT IDENT.
AM-246	7.138E+00	1.021E+01	9.586E+00	5.210E+00	NOT IDENT.
CM-247	-1.895E+00	3.148E+00	2.522E+00	1.606E+00	NOT IDENT.
CF-249	-8.340E-01	3.357E+00	2.791E+00	1.713E+00	NOT IDENT.
CF-251	-6.536E+00	1.313E+01	1.046E+01	6.697E+00	NOT IDENT.
ANH-511	-3.641E+00	4.678E+00	4.419E+00	2.387E+00	NOT IDENT.

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*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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ENERGY	MDA COUNTS
46.50	108.8437
46.50	108.8437
46.50	108.8437
48.70	106.2106
49.72	119.9978
51.35	126.0917
52.39	106.6705
52.97	100.8655
53.15	100.8863
53.20	100.8920
53.44	103.8589
54.07	120.6014
56.28	122.8643
56.28	125.8135
57.37	136.7888
57.53	136.8126
57.53	136.8130
57.60	136.8231
57.98	132.9406
57.98	132.9406
59.00	133.0868
59.32	128.2016
59.32	128.2016
59.40	156.8137
59.54	156.8374
59.54	156.8374
59.72	156.8674
60.01	157.9028
61.10	162.0372
61.14	162.0437
61.30	172.9415
63.00	147.5087
63.29	147.5529
63.29	147.5529
63.58	140.6628
64.28	130.8509
64.62	0.0000
65.12	143.8607
65.20	143.8723
65.20	143.8723
66.05	198.6153
66.72	201.7300
66.83	213.6787
66.91	210.7141
67.20	210.7748
67.20	210.7748
67.67	187.0010
67.75	187.0153
67.85	160.1733
68.90	162.3309
68.90	162.3309
69.30	162.3950
69.67	159.4641
70.82	156.6484
70.82	156.6484
70.83	159.6436
72.80	191.9348
72.80	191.9348
72.87	193.5476
72.87	193.5476
74.67	153.8197
74.81	153.8402
74.81	153.8402
74.81	153.8402
74.81	153.8402
74.81	153.8402
74.81	153.8402

74.81	153.8402
74.97	165.0823
74.97	165.0823
75.28	165.1301
75.70	174.8178
77.11	197.5297
77.11	197.5297
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80.30	135.2911
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81.07	135.3844
82.60	100.0632
83.37	145.3513
83.78	145.4041
83.78	145.4041
83.78	145.4041
84.21	143.4387
84.21	143.4387
84.90	141.5039
85.43	144.6027
86.29	149.7705
86.50	155.8705
86.54	155.8758
86.59	155.8828
86.72	155.9005
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86.94	154.9173
87.30	154.9651
87.30	154.9651
87.30	154.9651
87.30	154.9651
87.30	154.9651
87.30	154.9651
87.30	154.9651
87.57	153.9883
87.88	157.0689
88.03	157.0890
88.36	188.5600
88.47	178.4391
89.36	197.8520
89.95	207.0871
91.11	159.5310
92.29	146.4659
92.38	155.6317
92.38	155.6317
93.35	146.5944
94.00	144.6358
94.67	147.7723
94.67	147.7728
94.90	182.4579
94.90	182.4579
94.90	182.4579
95.87	216.2660
95.87	216.2660
96.73	203.1463
97.43	144.0191
98.44	139.0246
98.44	139.0251
98.88	142.1417
99.55	128.9166
99.55	128.9166
99.86	119.7377
100.00	116.6806
100.10	116.6901

103.18	134.4161
103.76	119.0789
105.00	118.1656
105.31	122.3052
108.00	132.8561
109.28	148.4478
110.05	0.0000
111.00	102.1897
111.00	102.1897
111.76	104.3134
112.95	106.4730
115.19	155.3135
115.19	155.3135
115.19	155.3135
116.30	134.7136
117.00	114.0464
117.00	114.0464
117.66	119.2873
121.11	140.3795
121.62	145.6311
121.78	145.6477
122.06	126.9467
122.32	125.9292
122.32	125.9292
122.32	125.9292
123.07	113.5006
127.23	136.8048
129.76	128.6734
131.20	134.0352
133.02	118.4736
133.54	126.9054
135.34	157.5096
136.00	162.8309
136.25	162.8581
136.48	158.6795
140.51	118.0079
140.51	0.0000
142.18	151.8882
142.65	147.7139
143.76	114.0323
144.24	115.1239
144.24	115.1239
144.24	115.1239
145.22	150.0722
145.44	150.0928
147.16	125.9191
152.43	142.2605
152.70	143.3458
153.22	130.6462
154.21	121.1607
154.21	121.1607
154.21	121.1607
155.03	130.7917
156.02	130.8714
158.56	139.5993
159.00	0.0000
159.00	157.7570
160.31	140.8130
161.27	119.5469
162.32	129.2346
162.64	129.2595
163.35	137.8636
163.89	127.2174
165.85	122.0130
167.43	119.9844
171.28	133.1378
171.86	125.6640
172.10	117.0873
176.55	137.8477
176.60	140.0055
181.06	124.3793
184.41	124.6113
185.71	113.6589
186.00	107.3980
186.21	107.4102
190.27	119.8033
192.34	111.8979
193.63	153.2872

197.04	108.9127
198.01	110.0580
198.60	113.3628
200.40	149.4758
201.83	140.8526
202.84	113.6159
205.31	87.5092
208.36	110.6545
208.81	118.3508
209.75	115.1185
209.75	115.1185
210.97	99.8319
215.65	104.4672
216.55	112.2154
218.09	95.7875
222.10	92.6690
223.80	99.3713
226.40	76.2816
227.00	82.9393
227.08	82.9428
227.20	88.4772
228.16	94.0511
228.18	94.0517
228.18	94.0517
231.56	115.2631
235.69	101.0552
236.00	97.7385
236.00	97.7385
238.63	139.0066
238.63	139.0066
238.63	139.0066
238.63	139.0066
239.00	123.4590
240.98	106.8750
241.98	121.4050
241.98	121.4050
241.98	121.4050
244.69	130.4806
245.39	118.2512
247.94	102.7546
248.90	106.1524
249.79	100.6066
252.40	80.5820
252.85	77.2402
252.85	77.2402
254.15	0.0000
256.20	94.1751
256.20	94.1751
260.50	75.2615
260.90	75.2748
262.80	89.9561
264.65	95.4324
268.24	77.5491
268.79	82.0777
269.46	83.0044
269.46	83.0044
269.46	83.0044
271.23	89.3888
273.65	79.5405
276.40	83.2560
277.35	88.7216
277.60	88.7312
277.60	88.7312
278.00	86.9355
278.60	82.4288
279.20	86.9801
279.53	86.0862
280.46	77.9616
281.68	78.9096
283.67	82.6076
284.30	78.9977
285.00	81.7460
285.90	80.8681
286.10	80.8757
286.10	80.8757
287.40	72.7368
288.45	0.0000
290.67	68.2846

290.80	72.8408
291.72	66.7967
293.26	72.9160
293.70	69.8900
295.21	68.4137
295.21	68.4137
295.21	68.4137
295.96	68.4348
296.50	69.9714
297.23	69.9930
298.57	62.4192
299.80	56.3582
299.80	56.3582
300.09	56.3649
300.09	56.3649
300.09	56.3649
300.09	56.3649
300.12	56.3657
301.29	62.4893
302.84	64.0536
303.76	65.9083
303.91	66.8281
304.40	64.0946
304.40	64.0946
304.84	67.7689
306.84	67.8240
308.46	66.0340
311.98	63.3727
316.51	59.8068
318.01	58.0012
319.02	68.1555
319.41	72.7717
320.08	75.5547
323.87	74.7450
323.87	74.7450
323.87	74.7450
325.23	70.1683
328.77	74.8874
329.70	73.9902
329.70	73.9902
330.00	73.9980
333.44	81.5063
334.20	71.3387
334.20	71.3387
334.30	71.3416
338.28	41.7568
338.28	41.7568
338.28	41.7568
338.32	41.7574
338.32	41.7574
340.50	69.6533
340.57	69.6552
343.40	72.3119
344.27	75.7310
345.85	60.4884
350.59	60.5955
351.07	60.6066
351.92	60.6257
351.92	60.6257
351.92	60.6257
355.39	0.0000
356.01	73.1726
364.48	42.1655
366.43	50.6349
367.43	54.4047
367.94	53.4765
369.80	55.3903
374.96	50.7898
383.85	54.7248
387.95	54.8033
388.63	50.0906
391.69	54.8749
391.69	54.8749
392.90	46.3789
398.62	54.0575
400.65	39.8595
401.10	44.6116
401.81	59.8131

402.60	58.8796
404.84	45.6193
410.95	51.4279
411.60	55.2494
413.65	50.5208
414.70	46.7247
415.30	53.4105
415.76	54.3727
417.63	0.0000
418.52	49.6488
423.70	44.9518
427.08	47.8741
427.89	45.0137
432.53	42.2044
433.00	44.1296
433.93	47.9816
439.47	35.5700
439.56	35.5714
439.89	36.5365
443.98	43.3240
444.90	48.1519
445.03	48.1537
445.03	48.1537
445.03	48.1537
453.90	41.5292
463.38	30.0290
468.07	44.6237
473.00	43.7201
475.06	48.6090
475.35	44.7242
476.78	35.0169
477.59	37.9441
477.96	40.8675
482.03	54.5576
484.57	39.0000
487.03	35.1259
490.36	40.0451
492.35	46.9096
497.08	37.1896
507.63	0.0000
510.53	0.0000
510.84	44.2197
511.00	44.2216
511.85	64.8741
511.85	64.8741
513.99	138.6824
513.99	138.6824
520.41	40.4014
520.65	39.4189
527.90	29.6257
528.96	0.0000
529.64	36.5565
529.87	0.0000
531.02	30.6405
537.32	29.7056
543.00	24.7943
546.56	0.0000
549.76	29.8096
552.65	46.7384
555.20	38.8105
563.23	36.9024
563.90	33.9162
568.70	32.9621
569.32	35.9648
569.50	35.9666
569.67	38.9657
573.80	42.0103
574.00	42.0123
574.64	47.0218
578.91	42.0677
579.30	42.0728
583.14	36.0993
585.48	34.1154
591.81	37.1879
592.07	37.1906
593.00	40.2158
595.88	39.2409
600.56	47.3488

602.52	0.0000
602.71	31.9195
602.71	31.9195
603.60	26.8861
604.41	31.9342
604.70	36.9791
609.31	41.3994
610.33	41.4104
612.46	28.6322
614.37	23.5914
618.01	32.6093
621.84	24.3123
621.84	24.3123
631.29	28.4334
633.02	30.4775
633.10	30.4783
634.78	19.3108
635.90	18.2997
636.97	27.4575
645.85	32.6148
646.12	34.6558
656.30	34.7438
657.75	34.7562
657.90	0.0000
661.65	35.8135
661.65	35.8135
664.57	29.6953
666.33	33.8057
666.33	33.8057
675.00	25.6647
677.61	18.4904
685.20	19.5534
692.80	29.8992
695.00	22.6942
696.49	38.1815
696.49	38.1815
697.00	40.2502
697.49	42.3193
698.33	39.2302
698.50	39.2320
699.00	32.0089
702.63	32.0361
706.10	27.9255
706.58	0.0000
706.67	29.9983
709.31	42.4374
711.68	36.2476
713.82	22.7955
717.42	37.3333
720.50	32.1716
721.93	28.0296
722.20	28.0316
722.78	26.9966
722.78	26.9966
722.89	26.9972
722.95	26.9979
723.30	30.1151
724.18	30.1215
727.18	28.0639
733.00	28.1015
735.90	16.6641
739.58	22.9324
742.81	17.7334
744.21	20.8696
747.13	28.1931
751.79	28.2228
752.31	29.2715
753.82	28.2360
755.35	25.1068
756.15	26.1578
756.87	31.3945
763.13	40.8710
763.93	40.8776
765.79	32.5061
766.42	32.5106
766.84	29.3672
776.49	17.8687
778.00	22.0802

778.57	25.2381
778.89	25.2398
783.80	15.7917
785.46	23.1698
792.07	24.2584
795.84	24.2786
796.30	26.3922
798.80	35.9125
801.93	26.4246
805.60	33.8500
810.29	26.4722
810.76	31.7703
815.85	26.5039
817.79	25.4543
818.51	23.3369
819.60	30.7693
826.30	26.5631
828.27	31.8896
831.60	24.4656
831.96	23.4040
834.83	22.3535
836.80	0.0000
846.75	33.0813
848.13	26.6858
856.28	0.0000
856.80	29.9421
860.37	21.4033
867.32	28.9360
867.82	21.4360
871.10	35.3936
873.19	20.3870
874.81	19.3201
875.33	0.0000
876.40	31.1375
879.36	29.0072
880.27	24.7143
880.51	23.6414
881.50	15.0473
883.24	18.2783
884.67	32.2654
889.25	22.6068
896.60	15.0934
898.02	18.3331
899.00	19.4155
903.28	24.8300
911.07	17.2996
911.07	17.2996
919.63	15.1631
920.93	14.0835
925.00	24.9373
925.24	24.9384
926.50	17.3527
935.52	19.5565
937.48	27.1722
944.10	22.8539
946.00	26.1287
949.00	18.5186
962.29	19.6581
964.01	16.3872
966.15	25.1372
968.20	33.8941
969.11	24.0582
969.11	24.0582
977.42	20.8100
980.50	23.0144
983.50	15.3515
989.30	24.1500
996.32	26.3807
1001.03	14.6686
1001.68	14.6706
1004.76	23.8534
1021.30	0.0000
1024.50	0.0000
1034.80	17.5280
1036.00	17.5319
1037.82	22.1533
1038.57	15.6940
1038.76	0.0000

1045.16	17.5612
1046.59	20.3394
1048.07	14.7962
1050.47	13.8776
1050.47	13.8776
1062.04	25.0313
1063.62	26.8937
1076.63	16.7307
1077.35	12.0849
1078.86	14.8783
1085.78	13.9655
1093.90	18.6466
1099.22	22.3975
1112.02	16.8354
1112.84	20.5793
1115.52	32.7555
1120.29	18.7329
1120.51	20.6071
1121.28	17.7994
1124.00	0.0000
1129.67	25.3301
1131.51	0.0000
1147.95	0.0000
1167.94	15.1081
1173.22	14.1766
1175.09	17.0171
1177.93	9.4584
1189.05	15.1615
1204.90	16.1512
1205.75	16.1540
1213.00	15.2214
1221.42	11.4316
1230.97	18.1287
1235.34	15.2767
1236.41	0.0000
1238.25	15.2839
1246.25	16.2605
1260.41	0.0000
1271.85	17.2874
1274.45	13.4508
1274.54	12.4906
1291.56	13.4873
1298.22	0.0000
1312.09	12.5641
1325.50	11.6216
1325.50	11.6216
1332.49	14.5422
1333.61	12.6054
1360.21	7.7887
1362.66	0.0000
1365.15	12.6662
1368.21	17.5459
1368.53	0.0000
1376.25	6.8317
1384.27	16.6106
1394.10	15.6569
1395.20	17.6162
1407.95	10.7861
1434.06	23.6230
1436.60	28.5551
1457.56	0.0000
1460.81	16.7980
1489.15	10.9132
1509.49	12.9344
1596.49	18.1245
1620.62	13.1322
1678.03	0.0000
1691.02	6.1172
1691.02	6.1172
1706.46	0.0000
1750.46	0.0000
1764.49	19.4065
1770.23	19.5675
1771.40	8.2399
1791.20	0.0000
1808.65	17.5914
1836.01	9.3442

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201996558

Total Uranium Activity	1.3973E+02	ug/g
Total Uranium Counting Unc.	4.4983E+02	ug/g
Total Uranium Tpu	2.2951E-04	ug/g
Total Uranium Mda	3.8863E+02	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 933232                    SAMPLE ID   : G1201996558       *
*   ANALYST       : KXG3                      DETECTOR    : GAM19             *
*   SAMPLE DATE   : 10-DEC-2009 12:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE: 18-DEC-2009 10:13:50.26    SAMPLE ALQT:    2.000 LITER     *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 5.347E+01
        GROSS GAMMA ERROR   (pCi/LITER )  : 2.054E+01
        GROSS GAMMA MDA     (pCi/LITER )  : 4.586E+01
        GROSS GAMMA DLC     (pCi/LITER )  : 2.177E+01
```

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 13:30:09.72

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201996559.CNF;1
Sample date       : 15-DEC-2009 00:00:00 Acquisition date : 18-DEC-2009 12:29:28
Sample ID         : G1201996559          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM04                Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:00.72  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 933232                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.39	643	287	0.81	118.82	114	10	1.79E-01	6.3	
2	0	88.00*	485	208	0.89	176.04	171	9	1.35E-01	7.0	
3	0	121.76	119	215	1.04	243.57	241	10	3.30E-02	24.5	
4	0	661.64*	977	58	1.45	1323.37	1317	14	2.71E-01	3.6	
5	0	1168.10	6	14	0.51	2336.19	2330	8	1.63E-03	117.9	
6	0	1173.25	891	30	1.82	2346.50	2340	16	2.47E-01	3.6	
7	0	1332.51*	773	4	2.04	2664.95	2657	15	2.15E-01	3.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 18-DEC-2009 13:30:14

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201996559.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : KXG3
Sample date       : 15-DEC-2009 00:00:00 Acquisition date : 18-DEC-2009 12:29:28
Sample ID         : G1201996559          Sample quantity  : 2.0000 LITER
Sample type       : LIQUID               Sample geometry  :
Detector name     : GAMMA4               Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:00.72   0.0%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     1.50 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-57	+	122.06	*	2.326E+01	1.149E+01	1.026E+01	6.527E-01	2.267
		136.48		2.473E+01	4.862E+01	8.201E+01	5.533E+00	0.302
CO-60	+	1173.22		5.535E+02	5.080E+01	1.394E+01	7.904E-01	39.707
	+	1332.49	*	5.299E+02	5.534E+01	9.299E+00	6.956E-01	56.986
CD-109	+	88.03	*	3.006E+03	4.814E+02	3.264E+02	2.487E+01	9.209
SN-126		64.28		-1.397E+02	1.905E+02	2.908E+02	4.197E+01	-0.481
	+	86.94		1.250E+03	5.437E+02	1.386E+02	5.703E+01	9.019
	+	87.57	*	3.006E+02	4.815E+01	3.293E+01	2.505E+00	9.129
BA-137M	+	661.65	*	4.258E+02	3.732E+01	1.419E+01	6.998E-01	30.015
CS-137	+	661.65	*	4.501E+02	3.952E+01	1.500E+01	7.441E-01	30.015
TH-232	+	59.00	*	2.589E+05	2.725E+06	2.245E+04	2.363E+05	11.533
PU-237	+	59.54	*	1.583E+04	2.290E+03	1.316E+03	9.230E+01	12.030
AM-241	+	59.54	*	1.370E+03	2.034E+02	1.139E+02	8.848E+00	12.030

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.59	*	2.078E+01	7.070E+01	1.183E+02	8.362E+00	0.176
NA-22		1274.54	*	9.221E-01	4.279E+00	7.593E+00	5.174E-01	0.121
NA-24		1368.53	*	-6.430E+01	1.685E+02	2.333E+02	1.801E+01	-0.276
AL-26		1129.67		-9.264E+01	3.952E+02	6.183E+02	3.945E+01	-0.150
		1808.65	*	-3.531E+00	4.246E+00	3.865E+00	2.280E-01	-0.914
K-40		1460.81	*	-8.940E+00	6.315E+01	1.105E+02	8.322E+00	-0.081
TI-44		67.85		-6.548E+00	1.525E+01	2.504E+01	1.813E+00	-0.261
		78.38	*	-5.285E-01	9.641E+00	1.607E+01	1.177E+00	-0.033
SC-46		889.25	*	-1.016E+00	1.158E+01	1.892E+01	1.703E+00	-0.054
		1120.51		1.410E+00	1.005E+01	1.653E+01	1.078E+00	0.085
V-48		944.10		-2.944E-01	1.772E+02	2.903E+02	2.542E+01	-0.001
		983.50	*	-3.689E+00	1.202E+01	1.898E+01	1.583E+00	-0.194
		1312.09		2.171E+00	7.331E+00	1.319E+01	9.552E-01	0.165
CR-51		320.08	*	-1.491E+00	6.493E+01	1.085E+02	7.287E+00	-0.014
MN-52		744.21		6.276E+00	1.195E+01	2.112E+01	1.325E+00	0.297
		848.13		-7.943E+01	4.260E+02	6.905E+02	5.648E+01	-0.115

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		935.52		-1.427E+01	1.901E+01	2.892E+01	2.556E+00	-0.494
		1246.25		1.482E+02	2.168E+02	4.108E+02	2.661E+01	0.361
	+	1333.61		1.619E+04	1.691E+03	2.690E+03	2.012E+02	6.019
		1434.06	*	3.540E+00	7.990E+00	1.474E+01	1.077E+00	0.240
MN-54		834.83	*	-1.793E+00	9.590E+00	1.558E+01	1.234E+00	-0.115
CO-56		846.75	*	2.973E+00	8.668E+00	1.486E+01	1.211E+00	0.200
		977.42		-3.650E+02	6.580E+02	9.993E+02	8.402E+01	-0.365
		1037.82		-3.199E+00	7.307E+01	1.182E+02	9.696E+00	-0.027
		1175.09		2.183E+04	2.051E+03	3.698E+03	2.104E+02	5.904
		1238.25		-2.223E+00	7.916E+00	1.274E+01	8.565E-01	-0.174
		1360.21		-6.193E+01	1.207E+02	1.714E+02	1.276E+01	-0.361
		1771.40		-2.414E+01	4.488E+01	6.222E+01	3.787E+00	-0.388
CO-58		810.76	*	-6.763E+00	9.489E+00	1.458E+01	1.092E+00	-0.464
FE-59		142.65		-8.525E+00	5.237E+02	8.531E+02	4.835E+01	-0.010
		192.34		3.657E+01	1.802E+02	2.933E+02	3.397E+01	0.125
		1099.22	*	-1.727E+01	2.115E+01	3.091E+01	2.381E+00	-0.559
		1291.56		-1.405E+01	1.414E+01	1.773E+01	1.488E+00	-0.792
ZN-65		1115.52	*	-1.272E+01	1.970E+01	2.905E+01	1.921E+00	-0.438
GE-68		1077.35	*	3.528E+01	3.049E+02	5.014E+02	3.589E+01	0.070
AS-73		53.44	*	1.412E+02	4.689E+02	8.086E+02	6.387E+01	0.175
AS-74		595.88	*	-9.806E+00	1.350E+01	1.978E+01	1.092E+00	-0.496
		634.78		-7.688E+01	5.777E+01	7.732E+01	4.015E+00	-0.994
SE-75		66.05		1.748E+03	1.562E+03	2.783E+03	2.595E+02	0.628
		96.73		-5.293E+01	1.773E+02	2.886E+02	3.637E+01	-0.183
	+	121.11		1.205E+02	6.016E+01	7.140E+01	6.844E+00	1.688
		136.00		5.224E+00	8.706E+00	1.477E+01	8.763E-01	0.354
		198.60		3.341E+02	4.226E+02	7.079E+02	4.792E+01	0.472
		264.65	*	3.025E-01	9.646E+00	1.636E+01	9.569E-01	0.018
		279.53		4.296E+00	2.450E+01	4.178E+01	2.650E+00	0.103
		303.91		-4.164E+01	4.526E+02	7.500E+02	7.252E+01	-0.056
		400.65		-2.673E+01	5.379E+01	8.463E+01	7.977E+00	-0.316
BR-77	+	87.88		2.232E+04	3.574E+03	5.367E+03	4.089E+02	4.158
		200.40		-2.112E+03	1.399E+03	1.999E+03	1.073E+02	-1.057
		239.00		7.071E+01	7.768E+01	1.324E+02	7.448E+00	0.534
		249.79		-7.806E+00	5.508E+02	9.343E+02	5.321E+01	-0.008
		281.68		1.986E+02	7.321E+02	1.256E+03	7.399E+01	0.158
		297.23		-6.611E+01	3.846E+02	6.385E+02	3.815E+01	-0.104
		303.76		-6.462E+02	1.425E+03	2.301E+03	1.383E+02	-0.281
		439.47		1.117E+02	1.236E+03	2.043E+03	1.279E+02	0.055
		484.57		9.709E+02	1.956E+03	3.327E+03	2.045E+02	0.292
		520.65	*	-1.233E+01	8.191E+01	1.306E+02	7.829E+00	-0.094
		574.64		-1.303E+01	1.624E+03	2.610E+03	1.482E+02	-0.005
		578.91		7.042E+01	6.807E+02	1.106E+03	6.248E+01	0.064
		585.48		5.444E+02	1.280E+03	2.150E+03	1.204E+02	0.253
		755.35		5.005E+02	1.296E+03	2.247E+03	1.453E+02	0.223
		817.79		-3.928E+02	1.060E+03	1.681E+03	1.277E+02	-0.234
SR-82		698.33		-2.459E+03	5.214E+03	8.290E+03	4.567E+02	-0.297
		776.49	*	5.406E+01	7.083E+01	1.262E+02	8.632E+00	0.428
		1395.20		-4.287E+02	7.883E+02	1.008E+03	7.442E+01	-0.425

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RB-83		520.41	*	-1.361E-01	1.449E+01	2.346E+01	1.407E+00	-0.006
		529.64		-2.691E+00	2.334E+01	3.733E+01	2.221E+00	-0.072
		552.65		-2.144E+00	4.286E+01	6.877E+01	4.002E+00	-0.031
RB-84		881.50	*	-1.632E+00	1.585E+01	2.586E+01	2.287E+00	-0.063
KR-85		513.99	*	-1.720E+03	1.953E+03	2.929E+03	1.765E+02	-0.587
SR-85		513.99	*	-7.807E+00	8.862E+00	1.329E+01	8.009E-01	-0.587
RB-86		1076.63	*	7.002E+01	1.337E+02	2.297E+02	1.646E+01	0.305
Y-88		898.02		-4.990E+00	1.181E+01	1.864E+01	1.719E+00	-0.268
		1836.01	*	4.702E+00	4.759E+00	1.021E+01	5.891E-01	0.461
ZR-88		392.90	*	-9.442E-01	7.253E+00	1.186E+01	7.465E-01	-0.080
Y-91		1204.90	*	-3.984E+02	2.771E+03	4.337E+03	2.609E+02	-0.092
NB-94		702.63	*	1.006E+00	7.460E+00	1.267E+01	7.071E-01	0.079
		871.10		3.406E+00	9.615E+00	1.640E+01	1.416E+00	0.208
NB-95		765.79	*	-1.687E+00	8.525E+00	1.390E+01	9.244E-01	-0.121
NB-95M		235.69	*	-2.297E+01	2.749E+01	4.099E+01	3.024E+00	-0.560
ZR-95		724.18		-3.850E+00	1.896E+01	3.107E+01	2.166E+00	-0.124
		756.15	*	4.664E+00	1.505E+01	2.588E+01	1.968E+00	0.180
NB-97		657.90	*	1.293E+02	3.020E+02	4.671E+02	2.322E+01	0.277
		1024.50		-4.373E+02	3.168E+04	5.150E+04	4.047E+03	-0.008
ZR-97		254.15		4.212E+03	1.451E+04	2.506E+04	1.434E+03	0.168
		355.39		5.032E+03	8.655E+03	1.503E+04	9.337E+02	0.335
		507.63	*	-5.850E+03	5.192E+03	7.607E+03	4.606E+02	-0.769
		602.52		1.300E+04	1.581E+04	2.770E+04	1.515E+03	0.469
		1021.30		-7.782E+03	2.740E+04	4.314E+04	3.407E+03	-0.180
		1147.95		-1.789E+03	1.169E+04	1.843E+04	1.122E+03	-0.097
		1362.66		-9.375E+03	1.127E+04	1.357E+04	1.009E+03	-0.691
		1750.46		3.800E+03	9.799E+03	1.836E+04	1.136E+03	0.207
MO-99		140.51		-3.878E+01	3.198E+02	5.174E+02	1.393E+02	-0.075
		181.06		-1.558E+02	2.004E+02	3.011E+02	5.109E+01	-0.517
		366.43		-5.217E+02	1.061E+03	1.687E+03	1.053E+02	-0.309
		739.58	*	-8.982E+01	1.396E+02	2.150E+02	2.999E+01	-0.418
		778.00		1.086E+02	4.488E+02	7.649E+02	5.253E+01	0.142
TC-99M		140.51	*	-1.205E-02	4.488E+02	Half-Life too short		
RH-101		127.23		-2.283E-01	8.397E+00	1.228E+01	7.536E-01	-0.019
		198.01	*	8.933E+00	8.140E+00	1.389E+01	7.434E-01	0.643
		325.23		1.433E+00	4.846E+01	8.120E+01	4.957E+00	0.018
RH-102		418.52		-4.849E+01	7.149E+01	1.107E+02	6.957E+00	-0.438
		475.06	*	1.893E+00	7.480E+00	1.247E+01	7.703E-01	0.152
		631.29		1.074E+01	1.281E+01	2.238E+01	1.169E+00	0.480
		697.49		1.562E+00	1.585E+01	2.686E+01	1.476E+00	0.058
		766.84		7.735E+00	2.320E+01	3.997E+01	2.666E+00	0.194
		1046.59		-1.050E+01	3.130E+01	4.891E+01	3.706E+00	-0.215
		1112.84		4.256E-01	5.677E+01	9.187E+01	6.100E+00	0.005
RU-103		497.08	*	6.627E+00	8.488E+00	1.471E+01	1.880E+00	0.451
		610.33		2.332E+01	1.342E+02	2.223E+02	3.396E+01	0.105
RH-106		511.85		-4.566E+01	4.388E+01	7.622E+01	4.601E+00	-0.599
		621.84	*	-7.659E+01	8.589E+01	1.237E+02	1.423E+01	-0.619
		1050.47		8.531E+02	6.232E+02	1.152E+03	8.665E+01	0.741
RU-106		511.85		-4.566E+01	4.388E+01	7.622E+01	4.601E+00	-0.599

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		621.84	*	-7.659E+01	8.553E+01	1.237E+02	6.568E+00	-0.619
		1050.47		8.531E+02	6.232E+02	1.152E+03	8.665E+01	0.741
AG-108M		433.93	*	-6.630E+00	8.130E+00	1.234E+01	8.304E-01	-0.537
		614.37		-2.354E+00	9.257E+00	1.440E+01	8.496E-01	-0.163
		722.95		-3.490E+00	9.637E+00	1.553E+01	9.931E-01	-0.225
AG-110M		657.75	*	3.402E+00	9.640E+00	1.478E+01	7.989E-01	0.230
		677.61		-2.953E+01	6.889E+01	1.106E+02	6.167E+00	-0.267
		706.67		4.509E+01	4.439E+01	8.173E+01	4.906E+00	0.552
		763.93		3.451E+01	3.485E+01	6.384E+01	4.426E+00	0.541
		884.67		7.524E+00	1.466E+01	2.524E+01	2.316E+00	0.298
		937.48		1.327E+01	3.354E+01	5.694E+01	5.196E+00	0.233
		1384.27		-6.331E-01	2.106E+01	3.472E+01	2.668E+00	-0.018
IN-111		171.28		7.275E+00	1.289E+01	2.164E+01	1.130E+00	0.336
		245.39	*	-3.081E+00	1.477E+01	2.296E+01	1.301E+00	-0.134
IN-113M		391.69	*	1.986E+00	1.071E+01	1.794E+01	1.193E+00	0.111
SN-113		391.69	*	1.986E+00	1.071E+01	1.794E+01	1.193E+00	0.111
IN-114M		190.27	*	-1.577E+01	3.522E+01	5.471E+01	2.904E+00	-0.288
CD-115		260.90		7.934E+02	8.157E+02	1.464E+03	8.441E+01	0.542
		492.35		-3.884E+00	2.406E+02	3.909E+02	2.391E+01	-0.010
		527.90	*	-2.040E+01	7.188E+01	1.129E+02	6.730E+00	-0.181
SN-117M		156.02		-3.519E+02	2.834E+02	4.180E+02	2.250E+01	-0.842
		158.56	*	4.555E+00	7.042E+00	1.190E+01	6.351E-01	0.383
SB-122		563.90	*	8.626E+00	2.410E+01	4.031E+01	2.317E+00	0.214
		692.80		-4.820E+02	4.581E+02	6.805E+02	3.688E+01	-0.708
I-123		159.00	*	4.295E+02	5.443E+02	9.276E+02	4.942E+01	0.463
		528.96		-6.229E+02	4.385E+04	7.087E+04	4.219E+03	-0.009
TE-123M		159.00	*	4.895E+00	6.203E+00	1.057E+01	5.721E-01	0.463
I-124		602.71	*	1.645E+01	2.048E+01	3.583E+01	1.959E+00	0.459
		722.78		-4.091E+01	1.449E+02	2.355E+02	1.392E+01	-0.174
		1325.50		-1.152E+02	9.326E+02	1.289E+03	9.538E+01	-0.089
		1376.25		-1.654E+02	4.186E+02	5.899E+02	4.376E+01	-0.280
		1509.49		-4.225E+01	3.045E+02	4.811E+02	3.423E+01	-0.088
		1691.02		3.630E+01	1.107E+02	1.958E+02	1.265E+01	0.185
SB-124		602.71		5.742E+00	7.149E+00	1.251E+01	6.840E-01	0.459
		645.85		-3.244E+01	1.048E+02	1.714E+02	1.015E+01	-0.189
		709.31		-1.778E+02	5.662E+02	9.182E+02	5.223E+01	-0.194
		713.82		3.950E+01	3.239E+02	5.490E+02	5.594E+01	0.072
		722.78		-2.070E+01	7.334E+01	1.191E+02	7.362E+00	-0.174
		968.20		-7.114E+01	5.782E+02	9.337E+02	7.943E+01	-0.076
		1045.16		-3.130E+02	5.744E+02	8.721E+02	6.623E+01	-0.359
		1325.50		-6.228E+01	5.040E+02	6.967E+02	5.154E+01	-0.089
		1368.21		-5.253E+01	1.378E+02	1.906E+02	2.430E+01	-0.276
		1436.60		3.141E+02	4.658E+02	9.029E+02	6.591E+01	0.348
		1691.02	*	4.332E+00	1.321E+01	2.337E+01	1.614E+00	0.185
SB-125		427.89	*	1.434E+01	2.263E+01	3.913E+01	2.545E+00	0.367
		463.38		-4.336E+01	6.926E+01	1.067E+02	7.598E+00	-0.406
		600.56		-2.751E-01	3.847E+01	6.163E+01	3.968E+00	-0.004
		635.90		-4.767E+01	6.743E+01	9.863E+01	6.186E+00	-0.483
TE-125M		109.28	*	-1.139E+03	2.081E+03	3.292E+03	2.817E+02	-0.346

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
I-126		388.63		1.725E+01	2.628E+01	4.570E+01	2.873E+00	0.377
		666.33	*	-1.828E+01	2.450E+01	3.171E+01	1.587E+00	-0.577
		753.82		-4.576E+01	1.963E+02	3.197E+02	2.059E+01	-0.143
SB-126		223.80		3.557E+02	5.400E+02	8.963E+02	4.948E+01	0.397
		278.60		1.555E+02	3.006E+02	5.236E+02	3.075E+01	0.297
		296.50		-1.594E+02	1.606E+02	2.515E+02	1.502E+01	-0.634
		414.70		7.892E-01	9.730E+00	1.613E+01	1.014E+00	0.049
		415.30		-1.402E+02	7.999E+02	1.297E+03	8.156E+01	-0.108
		555.20		3.023E+02	4.777E+02	8.226E+02	4.774E+01	0.368
		573.80		-1.342E+02	1.308E+02	1.857E+02	1.055E+01	-0.723
		593.00		2.230E+00	1.128E+02	1.815E+02	1.006E+01	0.012
		656.30		1.205E+02	4.735E+02	7.189E+02	3.585E+01	0.168
		666.33		-7.439E+00	9.969E+00	1.290E+01	6.456E-01	-0.577
		675.00		-1.374E+01	2.204E+02	3.679E+02	1.890E+01	-0.037
		695.00		-4.129E+00	8.195E+00	1.307E+01	7.133E-01	-0.316
		697.00		9.579E+00	2.930E+01	5.084E+01	2.790E+00	0.188
		720.50	*	-2.910E+00	1.787E+01	2.941E+01	1.727E+00	-0.099
		856.80		-3.819E+01	7.029E+01	1.099E+02	9.180E+00	-0.347
		989.30		-5.033E+01	1.867E+02	2.958E+02	2.448E+01	-0.170
		1034.80		-8.411E+02	1.267E+03	1.898E+03	1.467E+02	-0.443
		1213.00		-2.307E+02	4.179E+02	6.038E+02	3.687E+01	-0.382
SB-127		61.10		1.306E+04	3.802E+03	6.771E+03	4.949E+02	1.929
		252.40		2.428E+01	1.325E+02	2.266E+02	9.280E+01	0.107
		290.80		-2.467E+02	5.699E+02	9.284E+02	5.726E+01	-0.266
		411.60		-1.103E+02	3.803E+02	6.113E+02	7.854E+01	-0.180
		444.90		3.148E+02	3.012E+02	5.319E+02	4.585E+01	0.592
		473.00		-2.000E+01	5.349E+01	8.426E+01	7.627E+00	-0.237
		543.00		2.674E+02	5.208E+02	8.820E+02	9.659E+01	0.303
		603.60		1.070E+02	3.012E+02	5.026E+02	4.035E+01	0.213
		685.20	*	-5.126E+01	3.866E+01	5.527E+01	3.309E+00	-0.927
		698.50		-4.606E+00	3.886E+02	6.507E+02	8.199E+01	-0.007
		722.20		-7.259E+01	8.531E+02	1.415E+03	8.673E+01	-0.051
		783.80		1.011E+02	1.077E+02	1.948E+02	1.753E+01	0.519
XE-127		57.60		6.070E+03	3.231E+03	5.410E+03	3.939E+02	1.122
		145.22		-1.369E+01	1.268E+02	2.051E+02	1.150E+01	-0.067
		172.10		-1.251E+01	2.170E+01	3.355E+01	1.753E+00	-0.373
		202.84	*	1.664E+00	8.731E+00	1.415E+01	7.619E-01	0.118
		374.96		1.448E+01	3.731E+01	6.377E+01	3.993E+00	0.227
I-131		80.18		-1.457E+02	4.730E+02	7.769E+02	5.722E+01	-0.188
		284.30		6.709E+01	1.354E+02	2.352E+02	1.523E+01	0.285
		364.48	*	4.186E+00	9.503E+00	1.636E+01	1.113E+00	0.256
		636.97		5.719E+01	1.325E+02	2.222E+02	1.303E+01	0.257
		722.89		-2.235E+02	5.954E+02	9.579E+02	5.669E+01	-0.233
TE-132		49.72		-4.115E+02	1.102E+03	1.839E+03	1.528E+02	-0.224
		111.76		4.309E+02	6.168E+02	1.061E+03	6.971E+01	0.406
		116.30		-4.510E+02	5.861E+02	9.163E+02	5.985E+01	-0.492
		228.16	*	2.599E+00	1.462E+01	2.350E+01	2.994E+00	0.111
BA-133		53.15		4.000E+02	2.261E+03	3.877E+03	3.078E+02	0.103
		79.62		-8.766E+01	3.607E+02	5.945E+02	8.645E+01	-0.147

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		81.00		-9.177E-01	2.683E+01	4.476E+01	6.821E+00	-0.021
		276.40		2.628E+01	8.363E+01	1.440E+02	1.870E+01	0.183
		302.84		-2.369E+01	3.453E+01	5.470E+01	6.433E+00	-0.433
		356.01	*	2.817E+00	9.861E+00	1.676E+01	1.973E+00	0.168
		383.85		3.501E+01	7.579E+01	1.297E+02	1.444E+01	0.270
I-133		510.53		-4.729E+03	8.402E+03	1.507E+04	9.988E+02	-0.314
		529.87	*	-1.467E+01	1.340E+02	2.144E+02	1.417E+01	-0.068
		706.58		8.910E+03	8.406E+03	1.553E+04	9.728E+02	0.574
		856.28		-4.673E+03	1.391E+04	2.222E+04	1.950E+03	-0.210
		875.33		1.207E+02	3.392E+03	5.613E+03	5.603E+02	0.022
		1236.41		-2.605E+02	5.708E+03	9.729E+03	6.738E+02	-0.027
		1298.22		1.333E+03	4.663E+03	8.215E+03	7.158E+02	0.162
CS-134		475.35		2.415E+02	4.825E+02	8.214E+02	5.073E+01	0.294
		563.23		6.438E+01	8.179E+01	1.426E+02	8.378E+00	0.452
		569.32		1.866E+01	4.188E+01	7.167E+01	4.220E+00	0.260
		604.70		-2.005E+00	7.233E+00	1.121E+01	6.152E-01	-0.179
		795.84	*	1.751E+00	1.034E+01	1.748E+01	1.270E+00	0.100
		801.93		7.415E+00	9.293E+01	1.560E+02	1.148E+01	0.048
		1038.57		-4.247E+02	1.023E+03	1.581E+03	1.214E+02	-0.269
	+	1167.94		2.025E+02	4.778E+02	8.266E+02	4.760E+01	0.245
		1365.15		9.286E+01	1.120E+02	2.390E+02	1.885E+01	0.389
CS-135		268.24	*	-1.133E+01	3.431E+01	5.669E+01	4.346E+00	-0.200
I-135		288.45		-2.209E-02	3.431E+01	Half-Life too short		
		417.63		-5.765E-01	3.431E+01	Half-Life too short		
		546.56		-4.157E-01	3.431E+01	Half-Life too short		
		836.80		8.149E-01	3.431E+01	Half-Life too short		
		1038.76		-2.438E-01	3.431E+01	Half-Life too short		
		1124.00		1.734E+00	3.431E+01	Half-Life too short		
		1131.51		-3.032E-01	3.431E+01	Half-Life too short		
		1260.41	*	-7.795E-02	3.431E+01	Half-Life too short		
		1457.56		-1.675E-01	3.431E+01	Half-Life too short		
		1678.03		1.054E-01	3.431E+01	Half-Life too short		
		1706.46		4.303E-01	3.431E+01	Half-Life too short		
		1791.20		2.277E-01	3.431E+01	Half-Life too short		
CS-136		66.91		1.404E+02	1.427E+02	2.513E+02	3.695E+01	0.559
		86.29		5.046E+02	2.018E+02	3.344E+02	4.065E+01	1.509
		153.22		9.206E+01	8.177E+01	1.421E+02	9.844E+00	0.648
		163.89		-7.344E+01	1.367E+02	2.131E+02	1.450E+01	-0.345
		176.55		1.863E+01	4.751E+01	7.860E+01	4.728E+00	0.237
		273.65		-8.189E+00	5.251E+01	8.775E+01	5.830E+00	-0.093
		340.57		-6.460E+00	1.536E+01	2.479E+01	1.611E+00	-0.261
		818.51		-8.672E+00	1.050E+01	1.580E+01	1.203E+00	-0.549
		1048.07	*	-7.360E+00	1.686E+01	2.607E+01	2.076E+00	-0.282
		1235.34		-8.684E+00	3.230E+01	5.217E+01	5.380E+00	-0.166
CE-139		165.85	*	7.193E+00	6.478E+00	1.123E+01	5.855E-01	0.640
BA-140		162.64		-6.856E+01	9.278E+01	1.424E+02	8.617E+00	-0.481
		304.84		-2.585E+01	1.589E+02	2.617E+02	7.154E+01	-0.099
		423.70		6.471E+01	2.430E+02	4.073E+02	1.298E+02	0.159
		537.32	*	-1.973E+01	3.355E+01	4.976E+01	1.619E+01	-0.397

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
LA-140		328.77		-1.046E+01	3.597E+01	5.881E+01	3.989E+00	-0.178
		432.53		-2.388E+02	2.832E+02	4.299E+02	2.939E+01	-0.556
		487.03		-4.279E+00	1.913E+01	3.052E+01	2.095E+00	-0.140
		751.79		8.874E+01	2.145E+02	3.727E+02	2.833E+01	0.238
		815.85		1.621E+01	4.033E+01	6.981E+01	6.058E+00	0.232
		867.82		-2.112E+01	2.048E+02	3.343E+02	3.018E+01	-0.063
		919.63		-2.659E+02	4.170E+02	6.364E+02	6.967E+01	-0.418
		925.24		2.101E+01	1.689E+02	2.808E+02	2.656E+01	0.075
		1596.49	*	-3.308E-02	7.382E+00	1.211E+01	8.277E-01	-0.003
CE-141		145.44	*	-4.004E+00	1.122E+01	1.784E+01	1.042E+00	-0.224
CE-143		57.37		2.186E+03	1.930E+03	3.138E+03	2.394E+02	0.697
		231.56		5.754E+02	1.890E+03	3.049E+03	9.327E+02	0.189
		293.26	*	1.317E+01	7.693E+01	1.310E+02	2.629E+01	0.101
		350.59		4.015E+02	1.167E+03	1.990E+03	5.995E+02	0.202
		490.36		1.357E+03	2.042E+03	3.461E+03	1.062E+03	0.392
		664.57		6.019E+03	2.310E+03	2.720E+03	8.499E+02	2.213
		721.93		8.930E+01	9.307E+02	1.571E+03	4.424E+02	0.057
CE-144		80.11		-2.467E+02	5.822E+02	9.498E+02	6.991E+01	-0.260
		133.54	*	-4.462E+01	4.959E+01	7.577E+01	1.080E+01	-0.589
PM-144		476.78		1.192E+01	1.679E+01	2.905E+01	2.107E+00	0.410
		618.01		8.974E+00	7.920E+00	1.410E+01	8.054E-01	0.637
		696.49	*	1.893E+00	6.914E+00	1.194E+01	6.543E-01	0.159
		778.57		-2.974E+01	5.756E+02	9.527E+02	6.553E+01	-0.031
PR-144		696.49	*	1.275E+02	4.656E+02	8.041E+02	4.406E+01	0.159
		1489.15		-5.805E+02	2.285E+03	3.563E+03	2.555E+02	-0.163
PM-146		453.90	*	-1.321E+00	1.129E+01	1.819E+01	1.623E+00	-0.073
		633.02		-4.580E+01	3.361E+02	5.275E+02	1.938E+02	-0.087
		735.90		2.163E+01	3.404E+01	5.975E+01	1.670E+01	0.362
		747.13		-8.697E-01	2.059E+01	3.420E+01	4.364E+00	-0.025
ND-147		91.11		-4.380E+00	3.462E+01	5.119E+01	4.161E+00	-0.086
		319.41		-9.105E+01	3.803E+02	6.253E+02	3.802E+01	-0.146
		439.89		-1.013E+02	7.279E+02	1.179E+03	7.384E+01	-0.086
		531.02	*	-3.752E+01	6.645E+01	1.008E+02	1.369E+01	-0.372
PM-149		285.90	*	3.051E+01	5.819E+02	9.838E+02	1.397E+02	0.031
EU-152	+	121.78		6.945E+01	3.448E+01	4.261E+01	3.424E+00	1.630
		244.69		3.518E+01	7.721E+01	1.264E+02	7.155E+00	0.278
		344.27	*	-4.438E+00	2.304E+01	3.783E+01	2.600E+00	-0.117
		443.98		4.593E+01	2.399E+02	3.967E+02	2.481E+01	0.116
		778.89		-1.241E+01	6.691E+01	1.092E+02	7.518E+00	-0.114
		867.32		-6.169E+01	2.272E+02	3.643E+02	3.118E+01	-0.169
		964.01		3.143E+01	7.095E+01	1.220E+02	1.043E+01	0.258
		1085.78		4.359E+01	9.967E+01	1.699E+02	1.196E+01	0.256
		1112.02		1.133E+01	7.988E+01	1.313E+02	8.737E+00	0.086
		1407.95		-1.415E+01	2.084E+01	2.600E+01	1.914E+00	-0.544
GD-153		69.67		-1.233E+02	4.982E+02	8.227E+02	5.959E+01	-0.150
		83.37		1.441E+02	4.245E+03	6.386E+03	4.758E+02	0.023
		97.43	*	-1.804E+00	1.856E+01	3.063E+01	2.095E+00	-0.059
		103.18		1.173E+01	2.593E+01	4.415E+01	2.906E+00	0.266
EU-154	+	123.07		4.871E+01	2.434E+01	2.944E+01	2.864E+00	1.655

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		247.94		3.591E+01	9.230E+01	1.500E+02	1.420E+01	0.239
		591.81		1.433E+01	1.430E+02	2.321E+02	2.235E+01	0.062
		723.30		-1.581E+01	4.048E+01	6.503E+01	4.668E+00	-0.243
		756.87		3.599E+01	1.890E+02	3.210E+02	3.386E+01	0.112
		873.19		2.259E+01	7.878E+01	1.337E+02	1.643E+01	0.169
		996.32		2.612E+01	1.030E+02	1.724E+02	3.027E+01	0.152
		1004.76		1.007E+01	5.365E+01	8.938E+01	1.006E+01	0.113
		1274.45	*	6.300E+00	1.107E+01	2.156E+01	2.154E+00	0.292
EU-155		48.70		-5.692E+02	1.625E+03	2.716E+03	2.191E+02	-0.210
	+	60.01		4.437E+04	6.418E+03	8.299E+03	5.852E+02	5.346
	+	86.54		3.605E+02	5.790E+01	6.799E+01	5.210E+00	5.302
		105.31	*	-8.592E+00	2.816E+01	4.571E+01	3.042E+00	-0.188
TB-160	+	86.79		8.652E+02	1.386E+02	1.880E+02	1.424E+01	4.602
		197.04		8.747E+01	1.283E+02	2.137E+02	1.143E+01	0.409
		215.65		-1.065E+02	1.734E+02	2.646E+02	1.447E+01	-0.402
		298.57		7.437E+00	2.279E+01	3.914E+01	2.341E+00	0.190
		879.36	*	-2.738E+01	3.260E+01	4.844E+01	4.262E+00	-0.565
		962.29		9.365E+00	1.253E+02	2.077E+02	1.780E+01	0.045
		966.15		-1.561E+01	4.399E+01	6.918E+01	5.901E+00	-0.226
		1177.93		-1.055E+00	7.812E+01	1.080E+02	6.178E+00	-0.010
		1271.85		-3.292E+01	6.990E+01	1.016E+02	6.880E+00	-0.324
HO-166M		80.57		-2.335E+01	7.500E+01	1.231E+02	9.076E+00	-0.190
		184.41		-2.624E-01	7.582E+00	1.234E+01	6.513E-01	-0.021
		280.46		-4.524E+00	2.034E+01	3.381E+01	1.990E+00	-0.134
		410.95		-3.576E+01	6.199E+01	9.728E+01	6.120E+00	-0.368
		711.68	*	-4.496E+00	1.387E+01	2.244E+01	1.285E+00	-0.200
		752.31		4.316E+00	6.554E+01	1.100E+02	7.058E+00	0.039
		810.29		-2.852E+00	1.592E+01	2.593E+01	1.934E+00	-0.110
TM-171		51.35		7.412E+03	1.957E+04	3.394E+04	2.759E+03	0.218
		52.39		-1.987E+03	1.004E+04	1.691E+04	1.358E+03	-0.118
	+	59.40		2.317E+05	3.352E+04	4.654E+04	3.269E+03	4.979
		66.72	*	1.001E+04	9.496E+03	1.690E+04	1.223E+03	0.592
HF-175	+	89.36		4.800E+03	7.688E+02	8.800E+02	6.577E+01	5.455
		343.40	*	-3.754E+00	7.767E+00	1.247E+01	7.698E-01	-0.301
		433.00		-2.831E+02	4.773E+02	7.414E+02	4.649E+01	-0.382
LU-176	+	88.36		7.130E+02	1.142E+02	1.676E+02	1.271E+01	4.254
		201.83		-2.972E+00	6.794E+00	1.053E+01	5.663E-01	-0.282
		306.84	*	1.608E+00	5.836E+00	9.982E+00	6.012E-01	0.161
		401.10		-4.672E+02	1.454E+03	2.327E+03	1.465E+02	-0.201
LU-177		112.95		1.306E+02	1.196E+02	2.102E+02	1.339E+01	0.622
		208.36	*	-6.574E+01	7.545E+01	1.129E+02	6.118E+00	-0.582
LU-177M		52.97		1.194E+02	9.813E+02	1.679E+03	1.336E+02	0.071
		54.07		4.049E+01	5.229E+02	8.534E+02	6.667E+01	0.047
		61.30		1.438E+03	6.777E+02	1.164E+03	8.296E+01	1.236
	+	121.62		3.393E+02	1.676E+02	2.073E+02	1.316E+01	1.636
		147.16		-8.930E+01	1.418E+02	2.209E+02	1.229E+01	-0.404
		171.86		-5.486E+01	1.041E+02	1.616E+02	8.441E+00	-0.340
		218.09		9.585E+01	2.059E+02	3.381E+02	1.853E+01	0.284
		268.79		-1.727E+02	1.634E+02	2.552E+02	1.484E+01	-0.677

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		319.02		-1.719E+00	5.674E+01	9.476E+01	5.760E+00	-0.018
		367.43		-1.539E+02	1.989E+02	3.074E+02	1.919E+01	-0.501
		413.65	*	2.587E+01	4.071E+01	7.047E+01	4.432E+00	0.367
HF-181		56.28		1.301E+02	5.020E+02	7.795E+02	5.831E+01	0.167
		57.53		4.616E+02	2.748E+02	4.573E+02	3.334E+01	1.009
		65.20		2.844E+02	2.693E+02	4.801E+02	3.469E+01	0.592
		133.02		-1.071E+01	1.333E+01	2.066E+01	1.226E+00	-0.519
		136.25		3.707E+01	9.057E+01	1.519E+02	8.866E+00	0.244
		345.85		-1.316E+01	3.991E+01	6.487E+01	4.010E+00	-0.203
		482.03	*	-5.713E+00	9.011E+00	1.380E+01	8.490E-01	-0.414
W-181		56.28		5.798E+01	2.223E+02	3.452E+02	2.582E+01	0.168
		57.53		2.034E+02	1.217E+02	2.025E+02	1.477E+01	1.005
		65.20	*	1.251E+02	1.184E+02	2.111E+02	1.525E+01	0.592
TA-182		67.75		-1.286E+01	3.412E+01	5.623E+01	4.071E+00	-0.229
		100.10		-1.218E+01	4.069E+01	6.613E+01	4.434E+00	-0.184
		152.43		8.113E+01	7.163E+01	1.248E+02	6.802E+00	0.650
		222.10		-2.254E+01	8.634E+01	1.350E+02	7.436E+00	-0.167
		1001.68		-2.779E+02	5.134E+02	7.864E+02	6.396E+01	-0.353
		1121.28		-3.862E+00	2.942E+01	4.674E+01	3.043E+00	-0.083
		1189.05		-1.199E+01	5.267E+01	8.147E+01	4.759E+00	-0.147
		1221.42	*	1.365E+00	2.958E+01	5.001E+01	3.100E+00	0.027
		1230.97		1.215E+01	5.317E+01	9.316E+01	5.875E+00	0.130
RE-183	+	57.98		1.489E+03	2.155E+02	2.330E+02	1.683E+01	6.394
	+	59.32		8.561E+02	1.238E+02	1.733E+02	1.219E+01	4.940
		67.20		4.433E+01	5.904E+01	1.036E+02	7.499E+00	0.428
		162.32	*	-1.491E+01	2.280E+01	3.525E+01	1.857E+00	-0.423
		208.81		-1.693E+02	2.060E+02	3.099E+02	1.680E+01	-0.546
		291.72		-4.268E+01	1.813E+02	3.000E+02	1.784E+01	-0.142
RE-184	+	57.98		5.871E+03	8.493E+02	9.183E+02	6.635E+01	6.394
	+	59.32		3.372E+03	4.877E+02	6.826E+02	4.802E+01	4.940
		67.20		1.747E+02	2.326E+02	4.083E+02	2.955E+01	0.428
		161.27		-3.072E+01	8.029E+01	1.267E+02	6.701E+00	-0.242
		216.55		-5.345E+01	6.598E+01	9.923E+01	5.430E+00	-0.539
		252.85	*	3.084E+00	5.475E+01	9.321E+01	5.327E+00	0.033
		318.01		-5.652E+00	1.025E+02	1.709E+02	1.038E+01	-0.033
		792.07		1.167E+02	2.136E+02	3.752E+02	2.672E+01	0.311
		903.28		1.781E+02	2.713E+02	4.733E+02	4.323E+01	0.376
		920.93		1.540E+01	1.190E+02	1.980E+02	1.777E+01	0.078
OS-185	+	59.72		2.404E+03	3.478E+02	4.648E+02	3.267E+01	5.172
		61.14		2.512E+02	7.856E+01	1.394E+02	9.925E+00	1.803
		69.30		-5.262E+01	8.617E+01	1.391E+02	1.007E+01	-0.378
		592.07		4.438E+01	5.359E+02	8.683E+02	4.819E+01	0.051
		646.12	*	-6.791E-01	9.321E+00	1.561E+01	7.937E-01	-0.044
		717.42		1.580E+01	1.946E+02	3.284E+02	1.912E+01	0.048
		874.81		5.652E+01	1.408E+02	2.419E+02	2.106E+01	0.234
		880.27		-8.208E+01	1.854E+02	2.903E+02	2.559E+01	-0.283
RE-188		155.03	*	-3.840E+01	3.529E+01	5.288E+01	2.856E+00	-0.726
		477.96		7.029E+01	6.950E+02	1.143E+03	7.052E+01	0.061
		633.10		-1.027E+02	6.044E+02	9.460E+02	4.927E+01	-0.109

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
W-188		63.58		-2.749E+04	1.930E+04	2.593E+04	1.867E+03	-1.060
		227.08		-3.100E+03	2.930E+03	4.294E+03	2.380E+02	-0.722
		290.67	*	-6.161E+02	1.423E+03	2.318E+03	1.377E+02	-0.266
IR-192		295.96		-2.236E+01	2.150E+01	3.358E+01	2.034E+00	-0.666
		308.46		-2.522E+00	2.033E+01	3.379E+01	2.059E+00	-0.075
		316.51	*	2.176E+00	7.365E+00	1.259E+01	7.677E-01	0.173
		468.07		1.534E+01	1.570E+01	2.763E+01	1.943E+00	0.555
		604.41		1.986E+01	8.772E+01	1.442E+02	1.611E+01	0.138
		612.46		-6.783E+01	1.418E+02	2.144E+02	1.557E+01	-0.316
AU-195		65.12		5.821E+01	5.612E+01	1.000E+02	7.225E+00	0.582
		66.83		3.002E+01	3.018E+01	5.358E+01	3.877E+00	0.560
		75.70		-8.380E+00	4.612E+01	7.685E+01	5.596E+00	-0.109
		98.88	*	-1.779E+01	5.342E+01	8.669E+01	5.864E+00	-0.205
		129.76		3.723E+02	6.401E+02	1.087E+03	6.568E+01	0.343
TL-200		367.94	*	-3.972E+01	6.385E+01	1.001E+02	6.253E+00	-0.397
		579.30		-2.966E+01	5.004E+02	7.994E+02	4.512E+01	-0.037
		828.27		3.787E+02	8.252E+02	1.425E+03	1.111E+02	0.266
		1205.75		-5.552E+01	2.516E+02	3.879E+02	2.337E+01	-0.143
TL-201		68.90		-1.570E+02	1.099E+02	1.674E+02	1.212E+01	-0.938
		70.82		3.531E+01	5.713E+01	9.906E+01	7.179E+00	0.356
		80.30		-3.498E+01	9.920E+01	1.625E+02	1.197E+01	-0.215
		135.34		9.516E+01	4.342E+02	7.199E+02	4.221E+01	0.132
		167.43	*	-4.927E+01	1.165E+02	1.829E+02	9.530E+00	-0.269
TL-202		68.90		-1.030E+02	7.205E+01	1.098E+02	7.950E+00	-0.938
		70.82		2.309E+01	3.736E+01	6.479E+01	4.695E+00	0.356
		80.30		-2.288E+01	6.490E+01	1.063E+02	7.828E+00	-0.215
		439.56	*	6.897E-01	9.161E+00	1.512E+01	9.465E-01	0.046
HG-203		70.83		1.645E+02	2.638E+02	4.566E+02	5.835E+01	0.360
		72.87		5.788E+00	1.432E+02	2.412E+02	2.980E+01	0.024
		82.60		-1.399E+01	2.651E+02	4.219E+02	5.496E+01	-0.033
		279.20	*	5.980E+00	8.040E+00	1.419E+01	8.842E-01	0.421
BI-207		72.80		-1.695E+01	5.099E+01	8.400E+01	6.094E+00	-0.202
		74.97		-1.591E+01	2.791E+01	4.541E+01	3.303E+00	-0.350
		84.90		-4.055E+01	5.649E+01	7.987E+01	5.992E+00	-0.508
		569.67		2.704E+00	6.482E+00	1.107E+01	6.322E-01	0.244
		1063.62	*	1.502E+00	1.493E+01	2.456E+01	1.804E+00	0.061
		1770.23		-9.517E+01	1.009E+02	1.194E+02	7.274E+00	-0.797
TL-207		81.07		-1.270E+00	5.932E+01	9.903E+01	7.313E+00	-0.013
		83.78		7.561E+00	3.705E+01	5.645E+01	4.213E+00	0.134
		94.90		1.102E+01	5.540E+01	9.324E+01	6.527E+00	0.118
	+	122.32		1.657E+03	8.204E+02	1.028E+03	7.372E+01	1.612
		144.24		1.121E+02	1.527E+02	2.605E+02	1.849E+01	0.430
		154.21		7.740E+00	8.728E+01	1.426E+02	9.557E+00	0.054
		269.46		-2.477E+01	4.044E+01	6.544E+01	3.979E+00	-0.378
		323.87	*	-8.750E+01	1.442E+02	2.281E+02	3.791E+01	-0.384
		338.28		1.000E+02	2.277E+02	3.909E+02	4.195E+01	0.256
		445.03		6.262E+02	5.726E+02	1.012E+03	1.066E+02	0.619
TL-208		72.80		-1.826E+02	5.493E+02	9.050E+02	6.567E+01	-0.202
		74.97		-1.713E+02	3.008E+02	4.888E+02	5.561E+01	-0.350

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		277.35		9.814E-01	8.649E+01	1.461E+02	1.548E+01	0.007
		510.84		-3.367E+01	4.217E+01	7.414E+01	7.631E+00	-0.454
		583.14	*	1.061E+00	8.909E+00	1.477E+01	9.640E-01	0.072
		763.13		2.202E+02	4.811E+02	8.380E+02	1.073E+02	0.263
		860.37		8.805E+00	7.532E+01	1.258E+02	1.141E+01	0.070
		1093.90		2.915E+03	3.239E+03	5.615E+03	1.275E+03	0.519
PO-209		260.50		2.234E+03	2.235E+03	4.017E+03	2.315E+02	0.556
		262.80		-1.771E+03	6.459E+03	1.075E+04	6.209E+02	-0.165
		896.60	*	5.639E+02	2.274E+03	3.827E+03	3.501E+02	0.147
BI-210		46.50	*	2.149E+02	2.492E+03	4.276E+03	3.531E+02	0.050
PB-210		46.50	*	2.149E+02	2.492E+03	4.276E+03	3.531E+02	0.050
PO-210		46.50	*	2.149E+02	2.492E+03	4.276E+03	3.101E+02	0.050
BI-211		72.87		3.459E+01	8.556E+02	1.442E+03	1.046E+02	0.024
		351.07	*	7.345E+00	4.992E+01	8.442E+01	5.736E+00	0.087
PB-211		404.84	*	-5.265E+01	2.160E+02	3.443E+02	2.148E+02	-0.153
		427.08		1.976E+02	5.083E+02	8.390E+02	5.190E+02	0.235
		831.96		-1.201E+02	3.474E+02	5.426E+02	3.395E+02	-0.221
BI-212		727.18	*	4.276E+01	6.661E+01	1.182E+02	9.283E+00	0.362
		785.46		2.094E+02	4.371E+02	7.603E+02	5.324E+01	0.275
		1620.62		5.598E+01	1.814E+02	3.253E+02	2.194E+01	0.172
PB-212		74.81		-6.481E+01	9.681E+01	1.561E+02	1.849E+01	-0.415
		77.11		-7.497E+00	5.348E+01	8.875E+01	6.480E+00	-0.084
	+	87.30		1.395E+03	2.634E+02	3.375E+02	4.237E+01	4.135
		115.19		-9.492E+02	8.980E+02	1.375E+03	8.734E+01	-0.690
		238.63	*	1.272E+01	1.461E+01	2.480E+01	1.783E+00	0.513
		300.09		1.620E+02	1.744E+02	3.104E+02	2.602E+01	0.522
PO-212		74.81		-6.481E+01	9.681E+01	1.561E+02	1.849E+01	-0.415
		77.11		-7.497E+00	5.348E+01	8.875E+01	6.480E+00	-0.084
	+	87.30		1.395E+03	2.634E+02	3.375E+02	4.237E+01	4.135
		115.19		-9.492E+02	8.980E+02	1.375E+03	8.734E+01	-0.690
		238.63	*	1.272E+01	1.461E+01	2.480E+01	1.783E+00	0.513
		300.09		1.620E+02	1.744E+02	3.104E+02	2.602E+01	0.522
BI-214		609.31	*	6.546E+00	1.544E+01	2.624E+01	1.967E+00	0.249
		1120.29		1.199E+01	6.389E+01	1.058E+02	9.834E+00	0.113
		1764.49		1.365E+01	4.004E+01	8.001E+01	4.897E+00	0.171
PB-214		74.81		-1.113E+02	1.661E+02	2.681E+02	2.783E+01	-0.415
		77.11		-1.281E+01	9.136E+01	1.516E+02	1.600E+01	-0.084
	+	87.30		2.382E+03	4.234E+02	5.760E+02	6.233E+01	4.135
		241.98		-7.908E+01	8.249E+01	1.206E+02	9.598E+00	-0.656
		295.21		-1.963E+01	2.961E+01	4.749E+01	4.103E+00	-0.413
		351.92	*	5.998E-01	1.715E+01	2.878E+01	2.466E+00	0.021
PO-214		74.81		-1.113E+02	1.661E+02	2.681E+02	2.783E+01	-0.415
		77.11		-1.281E+01	9.136E+01	1.516E+02	1.600E+01	-0.084
	+	87.30		2.382E+03	4.234E+02	5.760E+02	6.233E+01	4.135
		241.98		-7.908E+01	8.249E+01	1.206E+02	9.598E+00	-0.656
		295.21		-1.963E+01	2.961E+01	4.749E+01	4.103E+00	-0.413
		351.92	*	5.998E-01	1.715E+01	2.878E+01	2.466E+00	0.021
PO-215		81.07		-1.270E+00	5.932E+01	9.903E+01	7.313E+00	-0.013
		83.78		7.561E+00	3.705E+01	5.645E+01	4.213E+00	0.134

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		94.90		1.102E+01	5.540E+01	9.324E+01	6.527E+00	0.118
	+	122.32		1.657E+03	8.204E+02	1.028E+03	7.372E+01	1.612
		144.24		1.121E+02	1.527E+02	2.605E+02	1.849E+01	0.430
		154.21		7.740E+00	8.728E+01	1.426E+02	9.557E+00	0.054
		269.46		-2.477E+01	4.044E+01	6.544E+01	3.979E+00	-0.378
		323.87	*	-8.750E+01	1.442E+02	2.281E+02	3.791E+01	-0.384
		338.28		1.000E+02	2.277E+02	3.909E+02	4.195E+01	0.256
		445.03		6.262E+02	5.726E+02	1.012E+03	1.066E+02	0.619
PO-216		74.81		-6.481E+01	9.681E+01	1.561E+02	1.849E+01	-0.415
		77.11		-7.497E+00	5.348E+01	8.875E+01	6.480E+00	-0.084
	+	87.30		1.395E+03	2.634E+02	3.375E+02	4.237E+01	4.135
		115.19		-9.492E+02	8.980E+02	1.375E+03	8.734E+01	-0.690
		238.63	*	1.272E+01	1.461E+01	2.480E+01	1.783E+00	0.513
		300.09		1.620E+02	1.744E+02	3.104E+02	2.602E+01	0.522
PO-218		74.81		-1.113E+02	1.661E+02	2.681E+02	2.783E+01	-0.415
		77.11		-1.281E+01	9.136E+01	1.516E+02	1.600E+01	-0.084
	+	87.30		2.382E+03	4.234E+02	5.760E+02	6.233E+01	4.135
		241.98		-7.908E+01	8.249E+01	1.206E+02	9.598E+00	-0.656
		295.21		-1.963E+01	2.961E+01	4.749E+01	4.103E+00	-0.413
		351.92	*	5.998E-01	1.715E+01	2.878E+01	2.466E+00	0.021
RN-219		271.23		1.303E+01	5.048E+01	8.681E+01	7.054E+00	0.150
		401.81	*	-6.873E+01	9.099E+01	1.385E+02	1.915E+01	-0.496
RN-220		549.76	*	-2.658E+03	5.728E+03	8.727E+03	5.094E+02	-0.305
RA-223		81.07		-1.270E+00	5.932E+01	9.903E+01	7.313E+00	-0.013
		83.78		7.561E+00	3.705E+01	5.645E+01	4.213E+00	0.134
		94.90		1.102E+01	5.540E+01	9.324E+01	6.527E+00	0.118
	+	122.32		1.657E+03	8.204E+02	1.028E+03	7.372E+01	1.612
		144.24		1.121E+02	1.527E+02	2.605E+02	1.849E+01	0.430
		154.21		7.740E+00	8.728E+01	1.426E+02	9.557E+00	0.054
		269.46		-2.477E+01	4.044E+01	6.544E+01	3.979E+00	-0.378
		323.87	*	-8.750E+01	1.442E+02	2.281E+02	3.791E+01	-0.384
		338.28		1.000E+02	2.277E+02	3.909E+02	4.195E+01	0.256
		445.03		6.262E+02	5.726E+02	1.012E+03	1.066E+02	0.619
RA-224		240.98	*	-1.090E+02	1.610E+02	2.421E+02	1.365E+01	-0.450
RA-226		186.21	*	4.176E+01	1.737E+02	2.830E+02	2.076E+02	0.148
AC-227		79.80		-7.316E+01	4.581E+02	7.587E+02	1.595E+02	-0.096
		236.00		-4.216E+01	5.798E+01	8.708E+01	9.008E+00	-0.484
		256.20	*	-7.366E+01	9.053E+01	1.445E+02	2.013E+01	-0.510
		286.10		-3.979E+00	3.735E+02	6.288E+02	7.306E+01	-0.006
		299.80		2.009E+02	3.248E+02	5.656E+02	9.249E+01	0.355
		304.40		7.779E+01	4.411E+02	7.446E+02	1.293E+02	0.104
		329.70		5.593E+01	2.149E+02	3.655E+02	4.612E+01	0.153
		334.20		-3.974E+02	5.637E+02	8.852E+02	1.633E+02	-0.449
PA-227		64.62	*	1.000E+35	5.637E+02	Half-Life too short		
		110.05		-1.000E+35	5.637E+02	Half-Life too short		
TH-227		79.80		-7.316E+01	4.581E+02	7.587E+02	1.617E+02	-0.096
		94.00		-3.161E+02	4.731E+02	7.636E+02	1.620E+02	-0.414
		236.00		-4.216E+01	5.794E+01	8.708E+01	7.778E+00	-0.484
		256.20	*	-7.366E+01	9.081E+01	1.445E+02	2.438E+01	-0.510

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		286.10		-3.979E+00	3.735E+02	6.288E+02	6.299E+02	-0.006
		299.80		2.009E+02	3.248E+02	5.656E+02	9.249E+01	0.355
		304.40		7.779E+01	4.411E+02	7.446E+02	1.293E+02	0.104
		329.70		5.593E+01	2.149E+02	3.655E+02	4.612E+01	0.153
		334.20		-3.974E+02	5.637E+02	8.852E+02	1.633E+02	-0.449
AC-228		338.32		2.364E+01	5.536E+01	9.364E+01	3.822E+01	0.252
		911.07	*	6.991E+00	3.841E+01	6.472E+01	7.500E+00	0.108
		969.11		-2.304E+01	6.280E+01	9.842E+01	2.292E+01	-0.234
RA-228		338.32		2.364E+01	5.536E+01	9.364E+01	3.822E+01	0.252
		911.07	*	6.991E+00	3.841E+01	6.472E+01	7.500E+00	0.108
		969.11		-2.304E+01	6.280E+01	9.842E+01	2.292E+01	-0.234
TH-228		74.81		-6.481E+01	9.662E+01	1.561E+02	1.149E+01	-0.415
		77.11		-7.497E+00	5.348E+01	8.875E+01	6.480E+00	-0.084
	+	87.30		1.395E+03	2.235E+02	3.375E+02	2.563E+01	4.135
		238.63	*	1.272E+01	1.461E+01	2.480E+01	1.783E+00	0.513
		300.09		1.620E+02	1.984E+02	3.104E+02	1.830E+02	0.522
TH-229		85.43		-1.852E+01	5.571E+01	8.137E+01	6.120E+00	-0.228
	+	88.47		4.104E+02	6.574E+01	9.610E+01	7.275E+00	4.271
		100.00		-1.422E+01	4.529E+01	7.354E+01	4.934E+00	-0.193
		193.63	*	2.201E+01	1.187E+02	1.929E+02	1.027E+01	0.114
		210.97		1.122E+02	1.822E+02	3.026E+02	1.645E+01	0.371
TH-230		67.67	*	-1.291E+03	9.216E+03	6.349E+03	4.119E+04	-0.203
PA-231		283.67	*	-2.228E+01	3.844E+02	6.455E+02	8.923E+01	-0.035
		301.29		4.090E+01	1.301E+02	2.230E+02	2.355E+01	0.183
		330.00		1.204E+02	4.832E+02	8.190E+02	2.569E+02	0.147
TH-231		84.21	*	-1.175E+01	1.437E+02	2.142E+02	3.710E+01	-0.055
U-231		84.21		-1.928E+01	2.357E+02	3.513E+02	2.627E+01	-0.055
		92.29		4.650E+00	7.342E+01	1.201E+02	8.645E+00	0.039
		95.87	*	-9.361E+00	3.894E+01	6.371E+01	4.419E+00	-0.147
		108.00		8.555E+00	7.706E+01	1.283E+02	8.271E+00	0.067
PA-233		75.28		-1.236E+02	7.927E+02	1.323E+03	1.936E+02	-0.093
	+	86.59		5.885E+03	1.767E+03	1.146E+03	3.036E+02	5.137
		300.12		8.380E+01	9.028E+01	1.599E+02	2.162E+01	0.524
		311.98	*	4.287E+00	1.518E+01	2.595E+01	1.659E+00	0.165
		340.50		-6.306E+01	1.377E+02	2.203E+02	5.080E+01	-0.286
		398.62		-1.803E+02	4.921E+02	7.827E+02	2.033E+02	-0.230
		415.76		-6.063E+01	4.036E+02	6.555E+02	1.359E+02	-0.092
PA-234		63.00		-6.992E+02	6.409E+02	8.785E+02	1.296E+02	-0.796
		94.67		9.936E+00	3.962E+01	6.689E+01	7.590E+00	0.149
		98.44		-7.988E+00	2.321E+01	3.695E+01	2.052E+01	-0.216
		99.86		-3.825E+01	1.146E+02	1.859E+02	1.248E+01	-0.206
		111.00		-3.773E+01	4.767E+01	7.395E+01	7.852E+00	-0.510
		131.20		1.188E+01	2.519E+01	4.247E+01	2.545E+00	0.280
		152.70		8.455E+01	7.505E+01	1.290E+02	2.023E+01	0.656
		186.00		8.628E+01	2.802E+02	4.637E+02	1.413E+02	0.186
		226.40		-7.304E+01	1.021E+02	1.534E+02	1.754E+01	-0.476
		227.20		-1.216E+02	1.109E+02	1.620E+02	8.980E+00	-0.751
		248.90		9.995E+01	2.170E+02	3.526E+02	7.567E+01	0.283
		293.70		1.116E+02	1.378E+02	2.431E+02	3.924E+01	0.459

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		369.80		-6.194E+01	2.008E+02	3.237E+02	6.783E+01	-0.191
		568.70		2.048E+01	2.149E+02	3.541E+02	2.024E+01	0.058
		569.50		3.948E+01	5.609E+01	9.888E+01	5.648E+00	0.399
		574.00		-2.577E+02	3.506E+02	5.162E+02	2.932E+01	-0.499
		699.00		8.701E+01	1.486E+02	2.632E+02	4.709E+01	0.331
		706.10		1.990E+02	2.461E+02	4.183E+02	1.845E+02	0.476
		733.00		-5.192E+01	8.789E+01	1.364E+02	2.911E+01	-0.381
		742.81		-9.976E+01	2.970E+02	4.633E+02	3.102E+02	-0.215
		796.30		3.673E+01	2.011E+02	3.403E+02	9.064E+01	0.108
		805.60		1.758E+01	2.662E+02	4.445E+02	1.348E+02	0.040
		819.60		-1.870E+02	3.237E+02	4.896E+02	1.851E+02	-0.382
		826.30		-2.018E+02	2.439E+02	3.413E+02	1.522E+02	-0.591
		831.60		-2.408E+01	1.747E+02	2.853E+02	8.453E+01	-0.084
		876.40		-1.062E+02	2.395E+02	3.315E+02	3.408E+02	-0.320
		880.51		-1.306E+01	7.512E+01	1.215E+02	1.072E+01	-0.108
		883.24		2.841E+01	8.732E+01	1.448E+02	9.738E+01	0.196
		899.00		-7.454E+01	2.532E+02	4.013E+02	1.759E+02	-0.186
		925.00		-3.793E+01	3.354E+02	5.441E+02	4.864E+01	-0.070
		926.50		-6.504E+00	5.238E+01	8.488E+01	2.154E+01	-0.077
		946.00	*	5.087E+01	9.556E+01	1.633E+02	3.073E+01	0.311
		949.00		-4.184E+01	1.404E+02	2.235E+02	1.946E+01	-0.187
		980.50		-5.177E+01	1.898E+02	3.001E+02	2.513E+01	-0.172
		1394.10		-5.542E+01	1.259E+02	1.635E+02	1.062E+02	-0.339
PA-234M		766.42		9.092E+02	2.453E+03	4.174E+03	2.106E+03	0.218
		1001.03	*	-5.528E+02	1.234E+03	1.910E+03	1.825E+02	-0.289
TH-234		63.29	*	-5.936E+02	5.451E+02	7.434E+02	1.290E+02	-0.799
		92.38		2.520E+01	1.295E+02	2.136E+02	3.726E+01	0.118
U-234		53.20	*	7.432E+03	8.444E+04	6.879E+04	6.879E+05	0.108
U-235		89.95		2.796E+02	3.241E+02	4.974E+02	1.519E+02	0.562
		93.35		-7.721E+01	1.477E+02	2.407E+02	6.642E+01	-0.321
		105.00		-8.889E+01	2.808E+02	4.537E+02	1.330E+02	-0.196
		143.76	*	4.388E+01	4.774E+01	8.162E+01	1.326E+01	0.538
		163.35		-6.132E+01	1.096E+02	1.697E+02	3.023E+01	-0.361
		185.71		9.394E-01	1.045E+01	1.713E+01	9.048E-01	0.055
		205.31		1.442E+01	1.175E+02	1.895E+02	3.384E+01	0.076
NP-236		94.67		7.536E+00	3.005E+01	5.074E+01	3.560E+00	0.149
		98.44		-6.037E+00	1.723E+01	2.794E+01	1.896E+00	-0.216
		111.00		-2.854E+01	3.598E+01	5.594E+01	3.578E+00	-0.510
		160.31	*	3.024E+00	1.863E+01	3.053E+01	1.619E+00	0.099
NP-237		86.50	*	3.854E+02	1.217E+02	1.621E+02	3.562E+01	2.378
		95.87		-5.620E+01	2.341E+02	3.825E+02	9.216E+01	-0.147
U-238		63.29	*	-5.936E+02	5.451E+02	7.434E+02	1.290E+02	-0.799
		92.38		2.520E+01	1.294E+02	2.136E+02	1.536E+01	0.118
NP-239		99.55		-1.227E+01	3.852E+01	6.255E+01	4.211E+00	-0.196
		117.00	*	1.533E+01	4.755E+01	7.989E+01	5.069E+00	0.192
		209.75		1.667E+01	1.783E+02	2.868E+02	1.556E+01	0.058
		228.18		1.006E+01	5.658E+01	9.100E+01	5.051E+00	0.111
		277.60		-4.350E+00	4.162E+01	6.976E+01	4.093E+00	-0.062
		334.30		-2.134E+02	3.179E+02	5.046E+02	3.099E+01	-0.423

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AM-243		74.67	*	-1.037E+01	1.569E+01	2.538E+01	1.845E+00	-0.409
	+	86.72		3.310E+04	5.302E+03	6.945E+03	5.258E+02	4.767
		117.66		8.372E+02	9.883E+02	1.643E+03	1.042E+02	0.509
		142.18		-6.862E+02	4.026E+03	6.492E+03	3.687E+02	-0.106
CM-243		99.55		-1.262E+01	3.961E+01	6.432E+01	4.330E+00	-0.196
		103.76	*	2.464E+00	2.509E+01	4.180E+01	2.743E+00	0.059
		117.00		1.576E+01	4.889E+01	8.213E+01	5.211E+00	0.192
		209.75		1.642E+01	1.756E+02	2.825E+02	1.533E+01	0.058
		228.18		1.016E+01	5.713E+01	9.188E+01	5.100E+00	0.111
		277.60		-4.382E+00	4.193E+01	7.028E+01	4.124E+00	-0.062
AM-246		798.80		-1.891E+01	3.166E+01	4.890E+01	3.543E+00	-0.387
		1036.00		-4.384E+01	7.997E+01	1.215E+02	9.368E+00	-0.361
		1062.04		-4.599E+01	6.582E+01	9.837E+01	7.250E+00	-0.467
		1078.86	*	-1.624E+01	3.816E+01	5.871E+01	4.190E+00	-0.277
CM-247		278.00		2.726E+01	1.699E+02	2.897E+02	1.701E+01	0.094
		287.40		3.293E+01	2.971E+02	5.041E+02	2.986E+01	0.065
		402.60	*	-4.647E+00	8.193E+00	1.279E+01	8.052E-01	-0.363
CF-249		252.85		1.214E+01	2.155E+02	3.668E+02	2.096E+01	0.033
		333.44		-1.466E+01	4.039E+01	6.562E+01	4.028E+00	-0.223
		387.95	*	-5.974E+00	1.003E+01	1.578E+01	9.920E-01	-0.379
CF-251		176.60	*	1.185E+01	3.021E+01	4.997E+01	2.619E+00	0.237
		227.00		-7.834E+01	9.715E+01	1.452E+02	8.048E+00	-0.539
		285.00		2.312E+02	4.293E+02	7.480E+02	4.420E+01	0.309
ANH-511		511.00	*	-7.871E+00	9.016E+00	1.583E+01	9.559E-01	-0.497

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201996559    *
* Acquisition date : 18-DEC-2009 12:29:28 Detector SN#     :               *
* Detector ID        : GAM04               Sensitivity      : 5.000        *
* Geometry           : 2LMB                Energy tolerance: 1.500         *
* Elapsed live time:     0 01:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:     0 01:00:00.72     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date        : 15-DEC-2009 00:00:00 Nuclide Library : LIQUI        *
* Sample ID          : G1201996559          Analyst initials: KXG3          *
* Batch Number       : 933232               Sample Quantity : 2.0000E+00 LITER *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 26-MAY-2009 11:04:58 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
CO-57	2.326E+01	1.126E+01	1.026E+01	0.000E+00
CO-60	5.299E+02	5.423E+01	9.299E+00	0.000E+00
CD-109	3.006E+03	4.718E+02	3.264E+02	0.000E+00
SN-126	3.006E+02	4.718E+01	3.293E+01	0.000E+00
BA-137M	4.258E+02	3.657E+01	1.419E+01	0.000E+00
CS-137	4.501E+02	3.873E+01	1.500E+01	0.000E+00
TH-232	2.589E+05	2.671E+06	2.245E+04	0.000E+00
PU-237	1.583E+04	2.244E+03	1.316E+03	0.000E+00
AM-241	1.370E+03	1.993E+02	1.139E+02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	2.078E+01	6.928E+01	1.183E+02	0.000E+00	NOT IDENT.
NA-22	9.221E-01	4.194E+00	7.593E+00	0.000E+00	NOT IDENT.
NA-24	-6.430E+01	1.651E+02	2.333E+02	0.000E+00	NOT IDENT.
AL-26	-3.531E+00	4.161E+00	3.865E+00	0.000E+00	NOT IDENT.
K-40	-8.940E+00	6.188E+01	1.105E+02	0.000E+00	NOT IDENT.
TI-44	-5.285E-01	9.449E+00	1.607E+01	0.000E+00	NOT IDENT.
SC-46	-1.016E+00	1.135E+01	1.892E+01	0.000E+00	NOT IDENT.
V-48	-3.689E+00	1.178E+01	1.898E+01	0.000E+00	NOT IDENT.
CR-51	-1.491E+00	6.363E+01	1.085E+02	0.000E+00	NOT IDENT.
MN-52	3.540E+00	7.830E+00	1.474E+01	0.000E+00	FAIL ABUN
MN-54	-1.793E+00	9.398E+00	1.558E+01	0.000E+00	NOT IDENT.
CO-56	2.973E+00	8.495E+00	1.486E+01	0.000E+00	NOT IDENT.
CO-58	-6.763E+00	9.299E+00	1.458E+01	0.000E+00	NOT IDENT.
FE-59	-1.727E+01	2.073E+01	3.091E+01	0.000E+00	NOT IDENT.
ZN-65	-1.272E+01	1.931E+01	2.905E+01	0.000E+00	NOT IDENT.
GE-68	3.528E+01	2.988E+02	5.014E+02	0.000E+00	NOT IDENT.
AS-73	1.412E+02	4.595E+02	8.086E+02	0.000E+00	NOT IDENT.
AS-74	-9.806E+00	1.323E+01	1.978E+01	0.000E+00	NOT IDENT.

SE-75	3.025E-01	9.453E+00	1.636E+01	0.000E+00	FAIL ABUN
BR-77	-1.233E+01	8.028E+01	1.306E+02	0.000E+00	FAIL ABUN
SR-82	5.406E+01	6.941E+01	1.262E+02	0.000E+00	NOT IDENT.
RB-83	-1.361E-01	1.420E+01	2.346E+01	0.000E+00	NOT IDENT.
RB-84	-1.632E+00	1.554E+01	2.586E+01	0.000E+00	NOT IDENT.
KR-85	-1.720E+03	1.914E+03	2.929E+03	0.000E+00	NOT IDENT.
SR-85	-7.807E+00	8.685E+00	1.329E+01	0.000E+00	NOT IDENT.
RB-86	7.002E+01	1.310E+02	2.297E+02	0.000E+00	NOT IDENT.
Y-88	4.702E+00	4.664E+00	1.021E+01	0.000E+00	NOT IDENT.
ZR-88	-9.442E-01	7.108E+00	1.186E+01	0.000E+00	NOT IDENT.
Y-91	-3.984E+02	2.716E+03	4.337E+03	0.000E+00	NOT IDENT.
NB-94	1.006E+00	7.310E+00	1.267E+01	0.000E+00	NOT IDENT.
NB-95	-1.687E+00	8.354E+00	1.390E+01	0.000E+00	NOT IDENT.
NB-95M	-2.297E+01	2.694E+01	4.099E+01	0.000E+00	NOT IDENT.
ZR-95	4.664E+00	1.475E+01	2.588E+01	0.000E+00	NOT IDENT.
NB-97	1.293E+02	2.960E+02	4.671E+02	0.000E+00	NOT IDENT.
ZR-97	-5.850E+03	5.088E+03	7.607E+03	0.000E+00	NOT IDENT.
MO-99	-8.982E+01	1.368E+02	2.150E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	9.730E+04	0.000E+00	0.000E+00	SHORT HLIF
RH-101	8.933E+00	7.977E+00	1.389E+01	0.000E+00	NOT IDENT.
RH-102	1.893E+00	7.331E+00	1.247E+01	0.000E+00	NOT IDENT.
RU-103	6.627E+00	8.319E+00	1.471E+01	0.000E+00	NOT IDENT.
RH-106	-7.659E+01	8.417E+01	1.237E+02	0.000E+00	NOT IDENT.
RU-106	-7.659E+01	8.382E+01	1.237E+02	0.000E+00	NOT IDENT.
AG-108M	-6.630E+00	7.967E+00	1.234E+01	0.000E+00	NOT IDENT.
AG-110M	3.402E+00	9.447E+00	1.478E+01	0.000E+00	NOT IDENT.
IN-111	-3.081E+00	1.447E+01	2.296E+01	0.000E+00	NOT IDENT.
IN-113M	1.986E+00	1.049E+01	1.794E+01	0.000E+00	NOT IDENT.
SN-113	1.986E+00	1.049E+01	1.794E+01	0.000E+00	NOT IDENT.
IN-114M	-1.577E+01	3.452E+01	5.471E+01	0.000E+00	NOT IDENT.
CD-115	-2.040E+01	7.044E+01	1.129E+02	0.000E+00	NOT IDENT.
SN-117M	4.555E+00	6.901E+00	1.190E+01	0.000E+00	NOT IDENT.
SB-122	8.626E+00	2.362E+01	4.031E+01	0.000E+00	NOT IDENT.
I-123	4.295E+02	5.335E+02	9.276E+02	0.000E+00	NOT IDENT.
TE-123M	4.895E+00	6.079E+00	1.057E+01	0.000E+00	NOT IDENT.
I-124	1.645E+01	2.007E+01	3.583E+01	0.000E+00	NOT IDENT.
SB-124	4.332E+00	1.294E+01	2.337E+01	0.000E+00	NOT IDENT.
SB-125	1.434E+01	2.218E+01	3.913E+01	0.000E+00	NOT IDENT.
TE-125M	-1.139E+03	2.039E+03	3.292E+03	0.000E+00	NOT IDENT.
I-126	-1.828E+01	2.401E+01	3.171E+01	0.000E+00	NOT IDENT.
SB-126	-2.910E+00	1.751E+01	2.941E+01	0.000E+00	NOT IDENT.
SB-127	-5.126E+01	3.788E+01	5.527E+01	0.000E+00	NOT IDENT.
XE-127	1.664E+00	8.557E+00	1.415E+01	0.000E+00	NOT IDENT.
I-131	4.186E+00	9.313E+00	1.636E+01	0.000E+00	NOT IDENT.
TE-132	2.599E+00	1.432E+01	2.350E+01	0.000E+00	NOT IDENT.
BA-133	2.817E+00	9.664E+00	1.676E+01	0.000E+00	NOT IDENT.
I-133	-1.467E+01	1.314E+02	2.144E+02	0.000E+00	NOT IDENT.
CS-134	1.751E+00	1.013E+01	1.748E+01	0.000E+00	FAIL ABUN
CS-135	-1.133E+01	3.362E+01	5.669E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.372E+05	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-7.360E+00	1.652E+01	2.607E+01	0.000E+00	NOT IDENT.
CE-139	7.193E+00	6.348E+00	1.123E+01	0.000E+00	NOT IDENT.
BA-140	-1.973E+01	3.288E+01	4.976E+01	0.000E+00	NOT IDENT.
LA-140	-3.308E-02	7.235E+00	1.211E+01	0.000E+00	NOT IDENT.
CE-141	-4.004E+00	1.100E+01	1.784E+01	0.000E+00	NOT IDENT.
CE-143	1.317E+01	7.539E+01	1.310E+02	0.000E+00	NOT IDENT.
CE-144	-4.462E+01	4.860E+01	7.577E+01	0.000E+00	NOT IDENT.
PM-144	1.893E+00	6.776E+00	1.194E+01	0.000E+00	NOT IDENT.
PR-144	1.275E+02	4.563E+02	8.041E+02	0.000E+00	NOT IDENT.
PM-146	-1.321E+00	1.106E+01	1.819E+01	0.000E+00	NOT IDENT.
ND-147	-3.752E+01	6.512E+01	1.008E+02	0.000E+00	NOT IDENT.
PM-149	3.051E+01	5.703E+02	9.838E+02	0.000E+00	NOT IDENT.
EU-152	-4.438E+00	2.258E+01	3.783E+01	0.000E+00	FAIL ABUN
GD-153	-1.804E+00	1.819E+01	3.063E+01	0.000E+00	NOT IDENT.
EU-154	6.300E+00	1.085E+01	2.156E+01	0.000E+00	FAIL ABUN
EU-155	-8.592E+00	2.759E+01	4.571E+01	0.000E+00	FAIL ABUN
TB-160	-2.738E+01	3.195E+01	4.844E+01	0.000E+00	FAIL ABUN
HO-166M	-4.496E+00	1.359E+01	2.244E+01	0.000E+00	NOT IDENT.
TM-171	1.001E+04	9.306E+03	1.690E+04	0.000E+00	FAIL ABUN
HF-175	-3.754E+00	7.612E+00	1.247E+01	0.000E+00	FAIL ABUN
LU-176	1.608E+00	5.720E+00	9.982E+00	0.000E+00	FAIL ABUN
LU-177	-6.574E+01	7.394E+01	1.129E+02	0.000E+00	NOT IDENT.
LU-177M	2.587E+01	3.990E+01	7.047E+01	0.000E+00	FAIL ABUN
HF-181	-5.713E+00	8.831E+00	1.380E+01	0.000E+00	NOT IDENT.
W-181	1.251E+02	1.160E+02	2.111E+02	0.000E+00	NOT IDENT.
TA-182	1.365E+00	2.899E+01	5.001E+01	0.000E+00	NOT IDENT.
RE-183	-1.491E+01	2.234E+01	3.525E+01	0.000E+00	FAIL ABUN
RE-184	3.084E+00	5.366E+01	9.321E+01	0.000E+00	FAIL ABUN

OS-185	-6.791E-01	9.134E+00	1.561E+01	0.000E+00	FAIL ABUN
RE-188	-3.840E+01	3.458E+01	5.288E+01	0.000E+00	NOT IDENT.
W-188	-6.161E+02	1.394E+03	2.318E+03	0.000E+00	NOT IDENT.
IR-192	2.176E+00	7.218E+00	1.259E+01	0.000E+00	NOT IDENT.
AU-195	-1.779E+01	5.235E+01	8.669E+01	0.000E+00	NOT IDENT.
TL-200	-3.972E+01	6.258E+01	1.001E+02	0.000E+00	NOT IDENT.
TL-201	-4.927E+01	1.142E+02	1.829E+02	0.000E+00	NOT IDENT.
TL-202	6.897E-01	8.978E+00	1.512E+01	0.000E+00	NOT IDENT.
HG-203	5.980E+00	7.879E+00	1.419E+01	0.000E+00	NOT IDENT.
BI-207	1.502E+00	1.463E+01	2.456E+01	0.000E+00	NOT IDENT.
TL-207	-8.750E+01	1.413E+02	2.281E+02	0.000E+00	FAIL ABUN
TL-208	1.061E+00	8.730E+00	1.477E+01	0.000E+00	NOT IDENT.
PO-209	5.639E+02	2.229E+03	3.827E+03	0.000E+00	NOT IDENT.
BI-210	2.149E+02	2.442E+03	4.276E+03	0.000E+00	NOT IDENT.
PB-210	2.149E+02	2.442E+03	4.276E+03	0.000E+00	NOT IDENT.
PO-210	2.149E+02	2.442E+03	4.276E+03	0.000E+00	NOT IDENT.
BI-211	7.345E+00	4.892E+01	8.442E+01	0.000E+00	NOT IDENT.
PB-211	-5.265E+01	2.117E+02	3.443E+02	0.000E+00	NOT IDENT.
BI-212	4.276E+01	6.528E+01	1.182E+02	0.000E+00	NOT IDENT.
PB-212	1.272E+01	1.431E+01	2.480E+01	0.000E+00	FAIL ABUN
PO-212	1.272E+01	1.431E+01	2.480E+01	0.000E+00	FAIL ABUN
BI-214	6.546E+00	1.513E+01	2.624E+01	0.000E+00	NOT IDENT.
PB-214	5.998E-01	1.681E+01	2.878E+01	0.000E+00	FAIL ABUN
PO-214	5.998E-01	1.681E+01	2.878E+01	0.000E+00	FAIL ABUN
PO-215	-8.750E+01	1.413E+02	2.281E+02	0.000E+00	FAIL ABUN
PO-216	1.272E+01	1.431E+01	2.480E+01	0.000E+00	FAIL ABUN
PO-218	5.998E-01	1.681E+01	2.878E+01	0.000E+00	FAIL ABUN
RN-219	-6.873E+01	8.917E+01	1.385E+02	0.000E+00	NOT IDENT.
RN-220	-2.658E+03	5.613E+03	8.727E+03	0.000E+00	NOT IDENT.
RA-223	-8.750E+01	1.413E+02	2.281E+02	0.000E+00	FAIL ABUN
RA-224	-1.090E+02	1.578E+02	2.421E+02	0.000E+00	NOT IDENT.
RA-226	4.176E+01	1.702E+02	2.830E+02	0.000E+00	NOT IDENT.
AC-227	-7.366E+01	8.872E+01	1.445E+02	0.000E+00	NOT IDENT.
PA-227	0.000E+00	4.933E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-7.366E+01	8.899E+01	1.445E+02	0.000E+00	NOT IDENT.
AC-228	6.991E+00	3.765E+01	6.472E+01	0.000E+00	NOT IDENT.
RA-228	6.991E+00	3.765E+01	6.472E+01	0.000E+00	NOT IDENT.
TH-228	1.272E+01	1.431E+01	2.480E+01	0.000E+00	FAIL ABUN
TH-229	2.201E+01	1.163E+02	1.929E+02	0.000E+00	FAIL ABUN
TH-230	-1.291E+03	9.031E+03	6.349E+03	0.000E+00	NOT IDENT.
PA-231	-2.228E+01	3.767E+02	6.455E+02	0.000E+00	NOT IDENT.
TH-231	-1.175E+01	1.409E+02	2.142E+02	0.000E+00	NOT IDENT.
U-231	-9.361E+00	3.816E+01	6.371E+01	0.000E+00	NOT IDENT.
PA-233	4.287E+00	1.487E+01	2.595E+01	0.000E+00	FAIL ABUN
PA-234	5.087E+01	9.365E+01	1.633E+02	0.000E+00	NOT IDENT.
PA-234M	-5.528E+02	1.209E+03	1.910E+03	0.000E+00	NOT IDENT.
TH-234	-5.936E+02	5.342E+02	7.434E+02	0.000E+00	NOT IDENT.
U-234	7.432E+03	8.275E+04	6.879E+04	0.000E+00	NOT IDENT.
U-235	4.388E+01	4.678E+01	8.162E+01	0.000E+00	NOT IDENT.
NP-236	3.024E+00	1.826E+01	3.053E+01	0.000E+00	NOT IDENT.
NP-237	0.000E+00	1.193E+02	1.621E+02	0.000E+00	NOT IDENT.
U-238	-5.936E+02	5.342E+02	7.434E+02	0.000E+00	NOT IDENT.
NP-239	1.533E+01	4.660E+01	7.989E+01	0.000E+00	NOT IDENT.
AM-243	-1.037E+01	1.538E+01	2.538E+01	0.000E+00	FAIL ABUN
CM-243	2.464E+00	2.458E+01	4.180E+01	0.000E+00	NOT IDENT.
AM-246	-1.624E+01	3.739E+01	5.871E+01	0.000E+00	NOT IDENT.
CM-247	-4.647E+00	8.029E+00	1.279E+01	0.000E+00	NOT IDENT.
CF-249	-5.974E+00	9.830E+00	1.578E+01	0.000E+00	NOT IDENT.
CF-251	1.185E+01	2.961E+01	4.997E+01	0.000E+00	NOT IDENT.
ANH-511	-7.871E+00	8.836E+00	1.583E+01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 13:30:05.43

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201996559.CNF;1
Sample date       : 15-DEC-2009 00:00:00 Acquisition date : 18-DEC-2009 12:29:28
Sample ID         : G1201996559          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM04                Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:00.72  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 933232               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.39	643	287	0.81	118.82	114	10	1.79E-01	6.3	
2	0	88.00	487	208	0.89	176.04	171	9	1.35E-01	7.0	
3	0	121.76	119	215	1.04	243.57	241	10	3.30E-02	24.5	
4	0	511.80	44	92	1.53	1023.70	1016	12	1.21E-02	46.7	
5	0	661.64	984	58	1.45	1323.37	1317	14	2.73E-01	3.6	
6	0	1168.10	6	14	0.51	2336.19	2330	8	1.63E-03	117.9	
7	0	1173.25	891	30	1.82	2346.50	2340	16	2.47E-01	3.6	
8	0	1332.51	774	4	2.04	2664.95	2657	15	2.15E-01	3.6	

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 13:30:11.23

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201996559.CNF;1
Sample date       : 15-DEC-2009 00:00:00 Acquisition date : 18-DEC-2009 12:29:28
Sample ID         : G1201996559          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM04                Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:00.72  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 933232                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
CO-57	122.06	119	85.51*	2.261E+00	2.306E+01	2.326E+01	49.41
	136.48	------	10.60	2.325E+00	------ Line Not Found		------
CO-60	1173.22	891	100.00	6.049E-01	5.528E+02	5.535E+02	9.18
	1332.49	773	100.00*	5.480E-01	5.292E+02	5.299E+02	10.44
CD-109	88.03	485	3.72*	1.635E+00	2.990E+03	3.006E+03	16.02
SN-126	64.28	------	9.60	6.903E-01	------ Line Not Found		------
	86.94	485	8.90	1.635E+00	1.250E+03	1.250E+03	43.50
	87.57	485	37.00*	1.635E+00	3.006E+02	3.006E+02	16.02
BA-137M	661.65	977	89.98*	9.576E-01	4.257E+02	4.258E+02	8.76
CS-137	661.65	977	85.12*	9.576E-01	4.500E+02	4.501E+02	8.78
TH-232	59.00	643	0.19*	4.911E-01	2.589E+05	2.589E+05	1052.73
PU-237	59.54	643	3.28*	4.911E-01	1.500E+04	1.583E+04	14.47
AM-241	59.54	643	35.90*	4.911E-01	1.370E+03	1.370E+03	14.85

Flag: "*" = Keyline

Sample ID : G1201996559 Acquisition date : 18-DEC-2009 12:29:28

Total number of lines in spectrum	7	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	7	100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	270.90D	1.01	2.306E+01	2.326E+01	1.149E+01	49.41	
CO-60	5.27Y	1.00	5.292E+02	5.299E+02	0.553E+02	10.44	
CD-109	464.00D	1.01	2.990E+03	3.006E+03	0.481E+03	16.02	
SN-126	1.00E+05Y	1.00	3.006E+02	3.006E+02	0.481E+02	16.02	
BA-137M	30.17Y	1.00	4.257E+02	4.258E+02	0.373E+02	8.76	
CS-137	30.17Y	1.00	4.500E+02	4.501E+02	0.395E+02	8.78	
TH-232	1.41E+10Y	1.00	2.589E+05	2.589E+05	27.25E+05	1052.73	
PU-237	45.20D	1.06	1.500E+04	1.583E+04	0.229E+04	14.47	
AM-241	432.20Y	1.00	1.370E+03	1.370E+03	0.203E+03	14.85	
		Total Activity :	2.799E+05	2.808E+05			
		Grand Total Activity :	2.799E+05	2.808E+05			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1201996559 Acquisition date : 18-DEC-2009 12:29:28

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	1168.10	6	14	0.51	2336.19	2330	8	1.63E-03	****	6.07E-01	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 18-DEC-2009 13:30:18.23

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*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1201996559.CNF;1  *
* Acquisition date : 18-DEC-2009 12:29:28  Detector SN#     :               *
* Detector ID      : GAM04                 Sensitivity      : 5.00000       *
* Geometry         : 2LMB                  Energy tolerance: 1.50000        *
* Elapsed live time: 0 01:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 01:00:00.72         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 15-DEC-2009 00:00:00  Nuclide Library : LIQUID         *
* Sample ID        : G1201996559           Analyst initials: KXG3           *
* Batch Number     : 933232                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 26-MAY-2009 11:04:58.9MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-57	2.326E+01	1.149E+01	1.026E+01	6.527E-01	2.267
CO-60	5.299E+02	5.534E+01	9.299E+00	6.956E-01	56.986
CD-109	3.006E+03	4.814E+02	3.264E+02	2.487E+01	9.209
SN-126	3.006E+02	4.815E+01	3.293E+01	2.505E+00	9.129
BA-137M	4.258E+02	3.732E+01	1.419E+01	6.998E-01	30.015
CS-137	4.501E+02	3.952E+01	1.500E+01	7.441E-01	30.015
TH-232	2.589E+05	2.725E+06	2.245E+04	2.363E+05	11.533
PU-237	1.583E+04	2.290E+03	1.316E+03	9.230E+01	12.030
AM-241	1.370E+03	2.034E+02	1.139E+02	8.848E+00	12.030

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	2.078E+01		7.070E+01	1.183E+02	8.362E+00	0.176
NA-22	9.221E-01		4.279E+00	7.593E+00	5.174E-01	0.121
NA-24	-6.430E+01		1.685E+02	2.333E+02	1.801E+01	-0.276

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
AL-26	-3.531E+00		4.246E+00	3.865E+00	2.280E-01	-0.914
K-40	-8.940E+00		6.315E+01	1.105E+02	8.322E+00	-0.081
TI-44	-5.285E-01		9.641E+00	1.607E+01	1.177E+00	-0.033
SC-46	-1.016E+00		1.158E+01	1.892E+01	1.703E+00	-0.054
V-48	-3.689E+00		1.202E+01	1.898E+01	1.583E+00	-0.194
CR-51	-1.491E+00		6.493E+01	1.085E+02	7.287E+00	-0.014
MN-52	3.540E+00		7.990E+00	1.474E+01	1.077E+00	0.240
MN-54	-1.793E+00		9.590E+00	1.558E+01	1.234E+00	-0.115
CO-56	2.973E+00		8.668E+00	1.486E+01	1.211E+00	0.200
CO-58	-6.763E+00		9.489E+00	1.458E+01	1.092E+00	-0.464
FE-59	-1.727E+01		2.115E+01	3.091E+01	2.381E+00	-0.559
ZN-65	-1.272E+01		1.970E+01	2.905E+01	1.921E+00	-0.438
GE-68	3.528E+01		3.049E+02	5.014E+02	3.589E+01	0.070
AS-73	1.412E+02		4.689E+02	8.086E+02	6.387E+01	0.175
AS-74	-9.806E+00		1.350E+01	1.978E+01	1.092E+00	-0.496
SE-75	3.025E-01		9.646E+00	1.636E+01	9.569E-01	0.018
BR-77	-1.233E+01		8.191E+01	1.306E+02	7.829E+00	-0.094
SR-82	5.406E+01		7.083E+01	1.262E+02	8.632E+00	0.428
RB-83	-1.361E-01		1.449E+01	2.346E+01	1.407E+00	-0.006
RB-84	-1.632E+00		1.585E+01	2.586E+01	2.287E+00	-0.063
KR-85	-1.720E+03		1.953E+03	2.929E+03	1.765E+02	-0.587
SR-85	-7.807E+00		8.862E+00	1.329E+01	8.009E-01	-0.587
RB-86	7.002E+01		1.337E+02	2.297E+02	1.646E+01	0.305
Y-88	4.702E+00		4.759E+00	1.021E+01	5.891E-01	0.461
ZR-88	-9.442E-01		7.253E+00	1.186E+01	7.465E-01	-0.080
Y-91	-3.984E+02		2.771E+03	4.337E+03	2.609E+02	-0.092
NB-94	1.006E+00		7.460E+00	1.267E+01	7.071E-01	0.079
NB-95	-1.687E+00		8.525E+00	1.390E+01	9.244E-01	-0.121
NB-95M	-2.297E+01		2.749E+01	4.099E+01	3.024E+00	-0.560
ZR-95	4.664E+00		1.505E+01	2.588E+01	1.968E+00	0.180
NB-97	1.293E+02		3.020E+02	4.671E+02	2.322E+01	0.277
ZR-97	-5.850E+03		5.192E+03	7.607E+03	4.606E+02	-0.769
MO-99	-8.982E+01		1.396E+02	2.150E+02	2.999E+01	-0.418
TC-99M	-1.205E-02		4.964E-02	Half-Life too short		
RH-101	8.933E+00		8.140E+00	1.389E+01	7.434E-01	0.643
RH-102	1.893E+00		7.480E+00	1.247E+01	7.703E-01	0.152
RU-103	6.627E+00		8.488E+00	1.471E+01	1.880E+00	0.451
RH-106	-7.659E+01		8.589E+01	1.237E+02	1.423E+01	-0.619
RU-106	-7.659E+01		8.553E+01	1.237E+02	6.568E+00	-0.619
AG-108M	-6.630E+00		8.130E+00	1.234E+01	8.304E-01	-0.537
AG-110M	3.402E+00		9.640E+00	1.478E+01	7.989E-01	0.230
IN-111	-3.081E+00		1.477E+01	2.296E+01	1.301E+00	-0.134
IN-113M	1.986E+00		1.071E+01	1.794E+01	1.193E+00	0.111
SN-113	1.986E+00		1.071E+01	1.794E+01	1.193E+00	0.111
IN-114M	-1.577E+01		3.522E+01	5.471E+01	2.904E+00	-0.288
CD-115	-2.040E+01		7.188E+01	1.129E+02	6.730E+00	-0.181
SN-117M	4.555E+00		7.042E+00	1.190E+01	6.351E-01	0.383
SB-122	8.626E+00		2.410E+01	4.031E+01	2.317E+00	0.214

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
I-123	4.295E+02		5.443E+02	9.276E+02	4.942E+01	0.463
TE-123M	4.895E+00		6.203E+00	1.057E+01	5.721E-01	0.463
I-124	1.645E+01		2.048E+01	3.583E+01	1.959E+00	0.459
SB-124	4.332E+00		1.321E+01	2.337E+01	1.614E+00	0.185
SB-125	1.434E+01		2.263E+01	3.913E+01	2.545E+00	0.367
TE-125M	-1.139E+03		2.081E+03	3.292E+03	2.817E+02	-0.346
I-126	-1.828E+01		2.450E+01	3.171E+01	1.587E+00	-0.577
SB-126	-2.910E+00		1.787E+01	2.941E+01	1.727E+00	-0.099
SB-127	-5.126E+01		3.866E+01	5.527E+01	3.309E+00	-0.927
XE-127	1.664E+00		8.731E+00	1.415E+01	7.619E-01	0.118
I-131	4.186E+00		9.503E+00	1.636E+01	1.113E+00	0.256
TE-132	2.599E+00		1.462E+01	2.350E+01	2.994E+00	0.111
BA-133	2.817E+00		9.861E+00	1.676E+01	1.973E+00	0.168
I-133	-1.467E+01		1.340E+02	2.144E+02	1.417E+01	-0.068
CS-134	1.751E+00		1.034E+01	1.748E+01	1.270E+00	0.100
CS-135	-1.133E+01		3.431E+01	5.669E+01	4.346E+00	-0.200
I-135	-7.795E-02		7.002E-02	Half-Life too short		
CS-136	-7.360E+00		1.686E+01	2.607E+01	2.076E+00	-0.282
CE-139	7.193E+00		6.478E+00	1.123E+01	5.855E-01	0.640
BA-140	-1.973E+01		3.355E+01	4.976E+01	1.619E+01	-0.397
LA-140	-3.308E-02		7.382E+00	1.211E+01	8.277E-01	-0.003
CE-141	-4.004E+00		1.122E+01	1.784E+01	1.042E+00	-0.224
CE-143	1.317E+01		7.693E+01	1.310E+02	2.629E+01	0.101
CE-144	-4.462E+01		4.959E+01	7.577E+01	1.080E+01	-0.589
PM-144	1.893E+00		6.914E+00	1.194E+01	6.543E-01	0.159
PR-144	1.275E+02		4.656E+02	8.041E+02	4.406E+01	0.159
PM-146	-1.321E+00		1.129E+01	1.819E+01	1.623E+00	-0.073
ND-147	-3.752E+01		6.645E+01	1.008E+02	1.369E+01	-0.372
PM-149	3.051E+01		5.819E+02	9.838E+02	1.397E+02	0.031
EU-152	-4.438E+00		2.304E+01	3.783E+01	2.600E+00	-0.117
GD-153	-1.804E+00		1.856E+01	3.063E+01	2.095E+00	-0.059
EU-154	6.300E+00		1.107E+01	2.156E+01	2.154E+00	0.292
EU-155	-8.592E+00		2.816E+01	4.571E+01	3.042E+00	-0.188
TB-160	-2.738E+01		3.260E+01	4.844E+01	4.262E+00	-0.565
HO-166M	-4.496E+00		1.387E+01	2.244E+01	1.285E+00	-0.200
TM-171	1.001E+04		9.496E+03	1.690E+04	1.223E+03	0.592
HF-175	-3.754E+00		7.767E+00	1.247E+01	7.698E-01	-0.301
LU-176	1.608E+00		5.836E+00	9.982E+00	6.012E-01	0.161
LU-177	-6.574E+01		7.545E+01	1.129E+02	6.118E+00	-0.582
LU-177M	2.587E+01		4.071E+01	7.047E+01	4.432E+00	0.367
HF-181	-5.713E+00		9.011E+00	1.380E+01	8.490E-01	-0.414
W-181	1.251E+02		1.184E+02	2.111E+02	1.525E+01	0.592
TA-182	1.365E+00		2.958E+01	5.001E+01	3.100E+00	0.027
RE-183	-1.491E+01		2.280E+01	3.525E+01	1.857E+00	-0.423
RE-184	3.084E+00		5.475E+01	9.321E+01	5.327E+00	0.033
OS-185	-6.791E-01		9.321E+00	1.561E+01	7.937E-01	-0.044
RE-188	-3.840E+01		3.529E+01	5.288E+01	2.856E+00	-0.726
W-188	-6.161E+02		1.423E+03	2.318E+03	1.377E+02	-0.266

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
IR-192	2.176E+00		7.365E+00	1.259E+01	7.677E-01	0.173
AU-195	-1.779E+01		5.342E+01	8.669E+01	5.864E+00	-0.205
TL-200	-3.972E+01		6.385E+01	1.001E+02	6.253E+00	-0.397
TL-201	-4.927E+01		1.165E+02	1.829E+02	9.530E+00	-0.269
TL-202	6.897E-01		9.161E+00	1.512E+01	9.465E-01	0.046
HG-203	5.980E+00		8.040E+00	1.419E+01	8.842E-01	0.421
BI-207	1.502E+00		1.493E+01	2.456E+01	1.804E+00	0.061
TL-207	-8.750E+01		1.442E+02	2.281E+02	3.791E+01	-0.384
TL-208	1.061E+00		8.909E+00	1.477E+01	9.640E-01	0.072
PO-209	5.639E+02		2.274E+03	3.827E+03	3.501E+02	0.147
BI-210	2.149E+02		2.492E+03	4.276E+03	3.531E+02	0.050
PB-210	2.149E+02		2.492E+03	4.276E+03	3.531E+02	0.050
PO-210	2.149E+02		2.492E+03	4.276E+03	3.101E+02	0.050
BI-211	7.345E+00		4.992E+01	8.442E+01	5.736E+00	0.087
PB-211	-5.265E+01		2.160E+02	3.443E+02	2.148E+02	-0.153
BI-212	4.276E+01		6.661E+01	1.182E+02	9.283E+00	0.362
PB-212	1.272E+01		1.461E+01	2.480E+01	1.783E+00	0.513
PO-212	1.272E+01		1.461E+01	2.480E+01	1.783E+00	0.513
BI-214	6.546E+00		1.544E+01	2.624E+01	1.967E+00	0.249
PB-214	5.998E-01		1.715E+01	2.878E+01	2.466E+00	0.021
PO-214	5.998E-01		1.715E+01	2.878E+01	2.466E+00	0.021
PO-215	-8.750E+01		1.442E+02	2.281E+02	3.791E+01	-0.384
PO-216	1.272E+01		1.461E+01	2.480E+01	1.783E+00	0.513
PO-218	5.998E-01		1.715E+01	2.878E+01	2.466E+00	0.021
RN-219	-6.873E+01		9.099E+01	1.385E+02	1.915E+01	-0.496
RN-220	-2.658E+03		5.728E+03	8.727E+03	5.094E+02	-0.305
RA-223	-8.750E+01		1.442E+02	2.281E+02	3.791E+01	-0.384
RA-224	-1.090E+02		1.610E+02	2.421E+02	1.365E+01	-0.450
RA-226	4.176E+01		1.737E+02	2.830E+02	2.076E+02	0.148
AC-227	-7.366E+01		9.053E+01	1.445E+02	2.013E+01	-0.510
PA-227	1.000E+35		2.517E+35	Half-Life too short		
TH-227	-7.366E+01		9.081E+01	1.445E+02	2.438E+01	-0.510
AC-228	6.991E+00		3.841E+01	6.472E+01	7.500E+00	0.108
RA-228	6.991E+00		3.841E+01	6.472E+01	7.500E+00	0.108
TH-228	1.272E+01		1.461E+01	2.480E+01	1.783E+00	0.513
TH-229	2.201E+01		1.187E+02	1.929E+02	1.027E+01	0.114
TH-230	-1.291E+03		9.216E+03	6.349E+03	4.119E+04	-0.203
PA-231	-2.228E+01		3.844E+02	6.455E+02	8.923E+01	-0.035
TH-231	-1.175E+01		1.437E+02	2.142E+02	3.710E+01	-0.055
U-231	-9.361E+00		3.894E+01	6.371E+01	4.419E+00	-0.147
PA-233	4.287E+00		1.518E+01	2.595E+01	1.659E+00	0.165
PA-234	5.087E+01		9.556E+01	1.633E+02	3.073E+01	0.311
PA-234M	-5.528E+02		1.234E+03	1.910E+03	1.825E+02	-0.289
TH-234	-5.936E+02		5.451E+02	7.434E+02	1.290E+02	-0.799
U-234	7.432E+03		8.444E+04	6.879E+04	6.879E+05	0.108
U-235	4.388E+01		4.774E+01	8.162E+01	1.326E+01	0.538
NP-236	3.024E+00		1.863E+01	3.053E+01	1.619E+00	0.099
NP-237	3.854E+02		1.217E+02	1.621E+02	3.562E+01	2.378

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
U-238	-5.936E+02		5.451E+02	7.434E+02	1.290E+02	-0.799
NP-239	1.533E+01		4.755E+01	7.989E+01	5.069E+00	0.192
AM-243	-1.037E+01		1.569E+01	2.538E+01	1.845E+00	-0.409
CM-243	2.464E+00		2.509E+01	4.180E+01	2.743E+00	0.059
AM-246	-1.624E+01		3.816E+01	5.871E+01	4.190E+00	-0.277
CM-247	-4.647E+00		8.193E+00	1.279E+01	8.052E-01	-0.363
CF-249	-5.974E+00		1.003E+01	1.578E+01	9.920E-01	-0.379
CF-251	1.185E+01		3.021E+01	4.997E+01	2.619E+00	0.237
ANH-511	-7.871E+00		9.016E+00	1.583E+01	9.559E-01	-0.497

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1201996559           *
* Acquisition date : 18-DEC-2009 12:29:28 Detector SN#     :                *
* Detector ID      : GAM04                Sensitivity     : 5.000          *
* Geometry         : 2LMB                 Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:00.72     Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 15-DEC-2009 00:00:00 Nuclide Library : LIQUI          *
* Sample ID        : G1201996559          Analyst initials: KXG3           *
* Batch Number     : 933232               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 26-MAY-2009 11:04:58 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
CO-57	2.326E+01	1.126E+01	5.133E+00	5.747E+00
CO-60	5.299E+02	5.423E+01	4.652E+00	2.767E+01
CD-109	3.006E+03	4.718E+02	1.633E+02	2.407E+02
SN-126	3.006E+02	4.718E+01	1.647E+01	2.407E+01
BA-137M	4.258E+02	3.657E+01	7.097E+00	1.866E+01
CS-137	4.501E+02	3.873E+01	7.503E+00	1.976E+01
TH-232	2.589E+05	2.671E+06	1.123E+04	1.363E+06
PU-237	1.583E+04	2.244E+03	6.584E+02	1.145E+03
AM-241	1.370E+03	1.993E+02	5.698E+01	1.017E+02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU
BE-7	2.078E+01	6.928E+01	5.917E+01	3.535E+01 NOT IDENT.
NA-22	9.221E-01	4.194E+00	3.799E+00	2.140E+00 NOT IDENT.
NA-24	-6.430E+01	1.651E+02	1.167E+02	8.423E+01 NOT IDENT.
AL-26	-3.531E+00	4.161E+00	1.934E+00	2.123E+00 NOT IDENT.
K-40	-8.940E+00	6.188E+01	5.528E+01	3.157E+01 NOT IDENT.
TI-44	-5.285E-01	9.449E+00	8.041E+00	4.821E+00 NOT IDENT.
SC-46	-1.016E+00	1.135E+01	9.467E+00	5.791E+00 NOT IDENT.
V-48	-3.689E+00	1.178E+01	9.495E+00	6.012E+00 NOT IDENT.
CR-51	-1.491E+00	6.363E+01	5.428E+01	3.247E+01 NOT IDENT.
MN-52	3.540E+00	7.830E+00	7.376E+00	3.995E+00 FAIL ABUN
MN-54	-1.793E+00	9.398E+00	7.794E+00	4.795E+00 NOT IDENT.
CO-56	2.973E+00	8.495E+00	7.433E+00	4.334E+00 NOT IDENT.
CO-58	-6.763E+00	9.299E+00	7.294E+00	4.745E+00 NOT IDENT.
FE-59	-1.727E+01	2.073E+01	1.546E+01	1.057E+01 NOT IDENT.
ZN-65	-1.272E+01	1.931E+01	1.454E+01	9.851E+00 NOT IDENT.
GE-68	3.528E+01	2.988E+02	2.508E+02	1.525E+02 NOT IDENT.
AS-73	1.412E+02	4.595E+02	4.045E+02	2.344E+02 NOT IDENT.
AS-74	-9.806E+00	1.323E+01	9.896E+00	6.750E+00 NOT IDENT.

SE-75	3.025E-01	9.453E+00	8.184E+00	4.823E+00	FAIL ABUN
BR-77	-1.233E+01	8.028E+01	6.533E+01	4.096E+01	FAIL ABUN
SR-82	5.406E+01	6.941E+01	6.313E+01	3.542E+01	NOT IDENT.
RB-83	-1.361E-01	1.420E+01	1.174E+01	7.245E+00	NOT IDENT.
RB-84	-1.632E+00	1.554E+01	1.294E+01	7.927E+00	NOT IDENT.
KR-85	-1.720E+03	1.914E+03	1.465E+03	9.765E+02	NOT IDENT.
SR-85	-7.807E+00	8.685E+00	6.649E+00	4.431E+00	NOT IDENT.
RB-86	7.002E+01	1.310E+02	1.149E+02	6.683E+01	NOT IDENT.
Y-88	4.702E+00	4.664E+00	5.108E+00	2.379E+00	NOT IDENT.
ZR-88	-9.442E-01	7.108E+00	5.935E+00	3.627E+00	NOT IDENT.
Y-91	-3.984E+02	2.716E+03	2.170E+03	1.385E+03	NOT IDENT.
NB-94	1.006E+00	7.310E+00	6.340E+00	3.730E+00	NOT IDENT.
NB-95	-1.687E+00	8.354E+00	6.954E+00	4.262E+00	NOT IDENT.
NB-95M	-2.297E+01	2.694E+01	2.051E+01	1.375E+01	NOT IDENT.
ZR-95	4.664E+00	1.475E+01	1.295E+01	7.527E+00	NOT IDENT.
NB-97	1.293E+02	2.960E+02	2.337E+02	1.510E+02	NOT IDENT.
ZR-97	-5.850E+03	5.088E+03	3.806E+03	2.596E+03	NOT IDENT.
MO-99	-8.982E+01	1.368E+02	1.075E+02	6.978E+01	NOT IDENT.
TC-99M	-1.205E+04	9.730E+04	0.000E+00	4.964E+04	SHORT HLIF
RH-101	8.933E+00	7.977E+00	6.948E+00	4.070E+00	NOT IDENT.
RH-102	1.893E+00	7.331E+00	6.239E+00	3.740E+00	NOT IDENT.
RU-103	6.627E+00	8.319E+00	7.358E+00	4.244E+00	NOT IDENT.
RH-106	-7.659E+01	8.417E+01	6.191E+01	4.295E+01	NOT IDENT.
RU-106	-7.659E+01	8.382E+01	6.191E+01	4.277E+01	NOT IDENT.
AG-108M	-6.630E+00	7.967E+00	6.171E+00	4.065E+00	NOT IDENT.
AG-110M	3.402E+00	9.447E+00	7.395E+00	4.820E+00	NOT IDENT.
IN-111	-3.081E+00	1.447E+01	1.149E+01	7.384E+00	NOT IDENT.
IN-113M	1.986E+00	1.049E+01	8.976E+00	5.353E+00	NOT IDENT.
SN-113	1.986E+00	1.049E+01	8.976E+00	5.353E+00	NOT IDENT.
IN-114M	-1.577E+01	3.452E+01	2.737E+01	1.761E+01	NOT IDENT.
CD-115	-2.040E+01	7.044E+01	5.650E+01	3.594E+01	NOT IDENT.
SN-117M	4.555E+00	6.901E+00	5.955E+00	3.521E+00	NOT IDENT.
SB-122	8.626E+00	2.362E+01	2.017E+01	1.205E+01	NOT IDENT.
I-123	4.295E+02	5.335E+02	4.641E+02	2.722E+02	NOT IDENT.
TE-123M	4.895E+00	6.079E+00	5.289E+00	3.102E+00	NOT IDENT.
I-124	1.645E+01	2.007E+01	1.792E+01	1.024E+01	NOT IDENT.
SB-124	4.332E+00	1.294E+01	1.169E+01	6.603E+00	NOT IDENT.
SB-125	1.434E+01	2.218E+01	1.958E+01	1.132E+01	NOT IDENT.
TE-125M	-1.139E+03	2.039E+03	1.647E+03	1.040E+03	NOT IDENT.
I-126	-1.828E+01	2.401E+01	1.586E+01	1.225E+01	NOT IDENT.
SB-126	-2.910E+00	1.751E+01	1.471E+01	8.935E+00	NOT IDENT.
SB-127	-5.126E+01	3.788E+01	2.765E+01	1.933E+01	NOT IDENT.
XE-127	1.664E+00	8.557E+00	7.081E+00	4.366E+00	NOT IDENT.
I-131	4.186E+00	9.313E+00	8.183E+00	4.751E+00	NOT IDENT.
TE-132	2.599E+00	1.432E+01	1.176E+01	7.308E+00	NOT IDENT.
BA-133	2.817E+00	9.664E+00	8.385E+00	4.930E+00	NOT IDENT.
I-133	-1.467E+01	1.314E+02	1.073E+02	6.702E+01	NOT IDENT.
CS-134	1.751E+00	1.013E+01	8.746E+00	5.168E+00	FAIL ABUN
CS-135	-1.133E+01	3.362E+01	2.836E+01	1.715E+01	NOT IDENT.
I-135	-7.795E+04	1.372E+05	0.000E+00	7.002E+04	SHORT HLIF
CS-136	-7.360E+00	1.652E+01	1.304E+01	8.428E+00	NOT IDENT.
CE-139	7.193E+00	6.348E+00	5.620E+00	3.239E+00	NOT IDENT.
BA-140	-1.973E+01	3.288E+01	2.489E+01	1.677E+01	NOT IDENT.
LA-140	-3.308E-02	7.235E+00	6.057E+00	3.691E+00	NOT IDENT.
CE-141	-4.004E+00	1.100E+01	8.925E+00	5.610E+00	NOT IDENT.
CE-143	1.317E+01	7.539E+01	6.553E+01	3.847E+01	NOT IDENT.
CE-144	-4.462E+01	4.860E+01	3.791E+01	2.480E+01	NOT IDENT.
PM-144	1.893E+00	6.776E+00	5.973E+00	3.457E+00	NOT IDENT.
PR-144	1.275E+02	4.563E+02	4.023E+02	2.328E+02	NOT IDENT.
PM-146	-1.321E+00	1.106E+01	9.101E+00	5.644E+00	NOT IDENT.
ND-147	-3.752E+01	6.512E+01	5.044E+01	3.322E+01	NOT IDENT.
PM-149	3.051E+01	5.703E+02	4.922E+02	2.910E+02	NOT IDENT.
EU-152	-4.438E+00	2.258E+01	1.892E+01	1.152E+01	FAIL ABUN
GD-153	-1.804E+00	1.819E+01	1.532E+01	9.280E+00	NOT IDENT.
EU-154	6.300E+00	1.085E+01	1.078E+01	5.535E+00	FAIL ABUN
EU-155	-8.592E+00	2.759E+01	2.287E+01	1.408E+01	FAIL ABUN
TB-160	-2.738E+01	3.195E+01	2.423E+01	1.630E+01	FAIL ABUN
HO-166M	-4.496E+00	1.359E+01	1.122E+01	6.935E+00	NOT IDENT.
TM-171	1.001E+04	9.306E+03	8.457E+03	4.748E+03	FAIL ABUN
HF-175	-3.754E+00	7.612E+00	6.239E+00	3.884E+00	FAIL ABUN
LU-176	1.608E+00	5.720E+00	4.994E+00	2.918E+00	FAIL ABUN
LU-177	-6.574E+01	7.394E+01	5.649E+01	3.772E+01	NOT IDENT.
LU-177M	2.587E+01	3.990E+01	3.525E+01	2.036E+01	FAIL ABUN
HF-181	-5.713E+00	8.831E+00	6.902E+00	4.506E+00	NOT IDENT.
W-181	1.251E+02	1.160E+02	1.056E+02	5.919E+01	NOT IDENT.
TA-182	1.365E+00	2.899E+01	2.502E+01	1.479E+01	NOT IDENT.
RE-183	-1.491E+01	2.234E+01	1.764E+01	1.140E+01	FAIL ABUN
RE-184	3.084E+00	5.366E+01	4.663E+01	2.738E+01	FAIL ABUN

OS-185	-6.791E-01	9.134E+00	7.808E+00	4.660E+00	FAIL ABUN
RE-188	-3.840E+01	3.458E+01	2.646E+01	1.764E+01	NOT IDENT.
W-188	-6.161E+02	1.394E+03	1.160E+03	7.115E+02	NOT IDENT.
IR-192	2.176E+00	7.218E+00	6.301E+00	3.682E+00	NOT IDENT.
AU-195	-1.779E+01	5.235E+01	4.337E+01	2.671E+01	NOT IDENT.
TL-200	-3.972E+01	6.258E+01	5.010E+01	3.193E+01	NOT IDENT.
TL-201	-4.927E+01	1.142E+02	9.149E+01	5.824E+01	NOT IDENT.
TL-202	6.897E-01	8.978E+00	7.564E+00	4.580E+00	NOT IDENT.
HG-203	5.980E+00	7.879E+00	7.100E+00	4.020E+00	NOT IDENT.
BI-207	1.502E+00	1.463E+01	1.229E+01	7.465E+00	NOT IDENT.
TL-207	-8.750E+01	1.413E+02	1.141E+02	7.208E+01	FAIL ABUN
TL-208	1.061E+00	8.730E+00	7.389E+00	4.454E+00	NOT IDENT.
PO-209	5.639E+02	2.229E+03	1.914E+03	1.137E+03	NOT IDENT.
BI-210	2.149E+02	2.442E+03	2.139E+03	1.246E+03	NOT IDENT.
PB-210	2.149E+02	2.442E+03	2.139E+03	1.246E+03	NOT IDENT.
PO-210	2.149E+02	2.442E+03	2.139E+03	1.246E+03	NOT IDENT.
BI-211	7.345E+00	4.892E+01	4.224E+01	2.496E+01	NOT IDENT.
PB-211	-5.265E+01	2.117E+02	1.723E+02	1.080E+02	NOT IDENT.
BI-212	4.276E+01	6.528E+01	5.914E+01	3.331E+01	NOT IDENT.
PB-212	1.272E+01	1.431E+01	1.241E+01	7.303E+00	FAIL ABUN
PO-212	1.272E+01	1.431E+01	1.241E+01	7.303E+00	FAIL ABUN
BI-214	6.546E+00	1.513E+01	1.313E+01	7.721E+00	NOT IDENT.
PB-214	5.998E-01	1.681E+01	1.440E+01	8.576E+00	FAIL ABUN
PO-214	5.998E-01	1.681E+01	1.440E+01	8.576E+00	FAIL ABUN
PO-215	-8.750E+01	1.413E+02	1.141E+02	7.208E+01	FAIL ABUN
PO-216	1.272E+01	1.431E+01	1.241E+01	7.303E+00	FAIL ABUN
PO-218	5.998E-01	1.681E+01	1.440E+01	8.576E+00	FAIL ABUN
RN-219	-6.873E+01	8.917E+01	6.932E+01	4.549E+01	NOT IDENT.
RN-220	-2.658E+03	5.613E+03	4.366E+03	2.864E+03	NOT IDENT.
RA-223	-8.750E+01	1.413E+02	1.141E+02	7.208E+01	FAIL ABUN
RA-224	-1.090E+02	1.578E+02	1.211E+02	8.050E+01	NOT IDENT.
RA-226	4.176E+01	1.702E+02	1.416E+02	8.685E+01	NOT IDENT.
AC-227	-7.366E+01	8.872E+01	7.227E+01	4.527E+01	NOT IDENT.
PA-227	1.000E+41	4.933E+41	0.000E+00	0.000E+00	SHORT HLIF
TH-227	-7.366E+01	8.899E+01	7.227E+01	4.540E+01	NOT IDENT.
AC-228	6.991E+00	3.765E+01	3.238E+01	1.921E+01	NOT IDENT.
RA-228	6.991E+00	3.765E+01	3.238E+01	1.921E+01	NOT IDENT.
TH-228	1.272E+01	1.431E+01	1.241E+01	7.303E+00	FAIL ABUN
TH-229	2.201E+01	1.163E+02	9.650E+01	5.936E+01	FAIL ABUN
TH-230	-1.291E+03	9.031E+03	3.177E+03	4.608E+03	NOT IDENT.
PA-231	-2.228E+01	3.767E+02	3.230E+02	1.922E+02	NOT IDENT.
TH-231	-1.175E+01	1.409E+02	1.072E+02	7.187E+01	NOT IDENT.
U-231	-9.361E+00	3.816E+01	3.187E+01	1.947E+01	NOT IDENT.
PA-233	4.287E+00	1.487E+01	1.298E+01	7.588E+00	FAIL ABUN
PA-234	5.087E+01	9.365E+01	8.171E+01	4.778E+01	NOT IDENT.
PA-234M	-5.528E+02	1.209E+03	9.557E+02	6.169E+02	NOT IDENT.
TH-234	-5.936E+02	5.342E+02	3.719E+02	2.725E+02	NOT IDENT.
U-234	7.432E+03	8.275E+04	3.441E+04	4.222E+04	NOT IDENT.
U-235	4.388E+01	4.678E+01	4.083E+01	2.387E+01	NOT IDENT.
NP-236	3.024E+00	1.826E+01	1.527E+01	9.316E+00	NOT IDENT.
NP-237	3.854E+02	1.193E+02	8.109E+01	6.085E+01	NOT IDENT.
U-238	-5.936E+02	5.342E+02	3.719E+02	2.725E+02	NOT IDENT.
NP-239	1.533E+01	4.660E+01	3.997E+01	2.378E+01	NOT IDENT.
AM-243	-1.037E+01	1.538E+01	1.270E+01	7.847E+00	FAIL ABUN
CM-243	2.464E+00	2.458E+01	2.091E+01	1.254E+01	NOT IDENT.
AM-246	-1.624E+01	3.739E+01	2.937E+01	1.908E+01	NOT IDENT.
CM-247	-4.647E+00	8.029E+00	6.401E+00	4.097E+00	NOT IDENT.
CF-249	-5.974E+00	9.830E+00	7.895E+00	5.015E+00	NOT IDENT.
CF-251	1.185E+01	2.961E+01	2.500E+01	1.510E+01	NOT IDENT.
ANH-511	-7.871E+00	8.836E+00	7.918E+00	4.508E+00	NOT IDENT.

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*************************************************************************
*                          GEL Laboratories LLC                         *
*                             2040 SAVAGE ROAD                          *
*                           CHARLESTON ,SC 29417                        *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT              *
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ENERGY	MDA COUNTS
46.50	120.3392
46.50	120.3392
46.50	120.3392
48.70	135.7270
49.72	149.0516
51.35	142.8191
52.39	165.8048
52.97	163.4625
53.15	162.6739
53.20	162.6962
53.44	160.1914
54.07	168.4909
56.28	175.0191
56.28	175.0206
57.37	170.2448
57.53	170.3159
57.53	170.3169
57.60	174.3089
57.98	174.4814
57.98	174.4814
59.00	135.1824
59.32	135.2937
59.32	135.2937
59.40	135.3213
59.54	135.3695
59.54	135.3695
59.72	135.4318
60.01	135.5318
61.10	118.5844
61.14	118.5963
61.30	118.6441
63.00	141.9044
63.29	143.3453
63.29	143.3453
63.58	154.1724
64.28	140.7379
64.62	0.0000
65.12	109.4463
65.20	109.4674
65.20	109.4674
66.05	113.2871
66.72	113.4672
66.83	113.4973
66.91	112.6181
67.20	116.3013
67.20	116.3013
67.67	137.1895
67.75	137.2150
67.85	137.2475
68.90	151.1611
68.90	151.1611
69.30	134.9934
69.67	126.9491
70.82	109.0997
70.82	109.0997
70.83	109.1022
72.80	133.3336
72.80	133.3336
72.87	122.3937
72.87	122.3937
74.67	136.6387
74.81	136.6811
74.81	136.6811
74.81	136.6811
74.81	136.6811
74.81	136.6811
74.81	136.6811

74.81	136.6811
74.97	135.8112
74.97	135.8112
75.28	124.8846
75.70	124.9994
77.11	128.1477
77.11	128.1477
77.11	128.1477
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77.11	128.1477
77.11	128.1477
78.38	132.1947
79.62	139.0312
79.80	138.1566
79.80	138.1566
80.11	147.5251
80.18	142.9067
80.30	142.9424
80.30	142.9424
80.57	141.1664
81.00	135.7158
81.07	135.7351
81.07	135.7351
81.07	135.7351
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83.78	134.6257
83.78	134.6257
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84.21	143.1651
84.90	157.4214
85.43	154.7748
86.29	136.7193
86.50	136.7763
86.54	136.7874
86.59	136.8007
86.72	127.9019
86.79	127.9192
86.94	127.9579
87.30	128.0499
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87.30	128.0499
87.30	128.0499
87.30	128.0499
87.30	128.0499
87.57	128.1184
87.88	128.1966
88.03	128.2346
88.36	125.9595
88.47	125.9867
89.36	138.9684
89.95	136.2891
91.11	133.7495
92.29	116.3693
92.38	111.8249
92.38	111.8249
93.35	121.9388
94.00	125.9045
94.67	113.6464
94.67	113.6476
94.90	114.6521
94.90	114.6521
94.90	114.6521
95.87	119.6461
95.87	119.6461
96.73	116.9613
97.43	109.4326
98.44	117.3293
98.44	117.3293
98.88	116.4611
99.55	114.6760
99.55	114.6760
99.86	113.7759
100.00	113.8047
100.10	113.8264

103.18	112.5142
103.76	122.3394
105.00	136.2289
105.31	134.3557
108.00	124.2230
109.28	126.4555
110.05	0.0000
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111.00	131.7406
111.76	109.2673
112.95	101.5944
115.19	141.5715
115.19	141.5715
115.19	141.5715
116.30	136.8699
117.00	117.1669
117.00	117.1669
117.66	107.3524
121.11	125.9385
121.62	124.5399
121.78	127.0723
122.06	127.1285
122.32	127.1809
122.32	127.1809
122.32	127.1809
123.07	127.3307
127.23	121.0910
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135.34	121.5518
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136.48	115.6157
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142.65	123.8708
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144.24	104.4922
144.24	104.4922
144.24	104.4922
145.22	121.2121
145.44	125.3942
147.16	128.8109
152.43	100.4453
152.70	100.4824
153.22	101.6002
154.21	109.0760
154.21	109.0760
154.21	109.0760
155.03	137.5457
156.02	133.5216
158.56	108.6527
159.00	107.6601
159.00	107.6601
160.31	118.4178
161.27	130.2108
162.32	130.3872
162.64	130.4410
163.35	127.3767
163.89	131.7134
165.85	100.0978
167.43	126.9738
171.28	96.4948
171.86	118.0231
172.10	118.0578
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176.60	116.5540
181.06	118.2674
184.41	114.3813
185.71	120.0115
186.00	113.5035
186.21	115.7143
190.27	120.6493
192.34	108.8432
193.63	114.5086

197.04	122.6878
198.01	108.4376
198.60	116.2590
200.40	161.9806
201.83	127.7899
202.84	113.4706
205.31	111.5468
208.36	130.9430
208.81	136.6047
209.75	116.5684
209.75	116.5684
210.97	117.8430
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216.55	149.0237
218.09	120.9954
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223.80	117.1617
226.40	134.5817
227.00	135.8046
227.08	143.8046
227.20	143.8226
228.16	117.6834
228.18	117.6855
228.18	117.6855
231.56	123.8181
235.69	150.8051
236.00	150.8504
236.00	150.8504
238.63	107.3695
238.63	107.3695
238.63	107.3695
238.63	107.3695
239.00	102.7886
240.98	133.0729
241.98	129.7279
241.98	129.7279
241.98	129.7279
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245.39	104.5880
247.94	103.6785
248.90	108.4366
249.79	115.5302
252.40	111.4273
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252.85	114.1080
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256.20	117.1061
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260.90	84.8950
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268.24	97.0349
268.79	105.9898
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269.46	100.7061
269.46	100.7061
271.23	83.0126
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277.35	100.5139
277.60	102.3314
277.60	102.3314
278.00	95.1826
278.60	94.3343
279.20	89.8895
279.53	103.4028
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285.00	93.9548
285.90	98.5484
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286.10	100.3736
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288.45	0.0000
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293.70	70.0785
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295.21	90.2142
295.21	90.2142
295.96	106.6847
296.50	102.1699
297.23	88.5412
298.57	89.5527
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299.80	84.1555
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300.09	78.6868
300.09	78.6868
300.09	78.6868
300.12	78.6881
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303.76	96.3611
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304.40	86.3106
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319.41	88.2855
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323.87	80.2011
323.87	80.2011
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329.70	85.2486
330.00	86.2051
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334.20	102.4636
334.30	102.4702
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338.28	75.4346
338.28	75.4346
338.32	75.4370
338.32	75.4370
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340.57	88.7891
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344.27	82.4041
345.85	93.8805
350.59	82.7905
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351.92	80.0138
351.92	80.0138
351.92	80.0138
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356.01	67.8322
364.48	58.6349
366.43	75.0793
367.43	76.0961
367.94	73.2330
369.80	73.3293
374.96	64.8797
383.85	73.0751
387.95	85.9818
388.63	63.5381
391.69	79.3426
391.69	79.3426
392.90	84.3085
398.62	70.8552
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401.10	61.1145
401.81	67.0610

402.60	66.1085
404.84	67.1948
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413.65	62.6126
414.70	70.6122
415.30	71.6342
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423.70	61.0177
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427.89	60.1767
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439.56	68.6983
439.89	73.7652
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445.03	50.6836
445.03	50.6836
453.90	69.3022
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475.35	58.8334
476.78	55.7831
477.59	60.9770
477.96	62.0242
482.03	70.4591
484.57	56.0344
487.03	67.5440
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507.63	97.7638
510.53	62.1217
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511.00	67.4033
511.85	68.4882
511.85	68.4882
513.99	93.8862
513.99	93.8862
520.41	47.6367
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537.32	55.5468
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555.20	38.8158
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563.90	43.3215
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569.32	33.6669
569.50	28.2391
569.67	32.5864
573.80	59.8659
574.00	54.4296
574.64	45.7350
578.91	48.0149
579.30	50.2072
583.14	47.0221
585.48	43.7927
591.81	42.8312
592.07	42.8360
593.00	43.9551
595.88	51.7189
600.56	41.9104

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602.71	33.1219
602.71	33.1219
603.60	37.5548
604.41	40.8843
604.70	46.4156
609.31	36.5500
610.33	37.6762
612.46	51.0256
614.37	52.1822
618.01	40.0386
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621.84	67.9641
631.29	34.6924
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633.10	45.9223
634.78	61.6518
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636.97	37.0283
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646.12	47.7763
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657.90	49.8451
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661.65	49.0206
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666.33	48.5169
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677.61	47.5414
685.20	55.0371
692.80	42.3344
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696.49	34.1062
697.00	35.0359
697.49	36.8877
698.33	43.3580
698.50	37.8259
699.00	32.2972
702.63	41.5898
706.10	33.3211
706.58	31.4766
706.67	31.4774
709.31	48.1965
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713.82	39.9304
717.42	43.7114
720.50	47.4925
721.93	45.6576
722.20	46.5942
722.78	47.5386
722.78	47.5386
722.89	49.4041
722.95	49.4054
723.30	50.3455
724.18	48.4986
727.18	38.2874
733.00	47.7403
735.90	32.8022
739.58	43.1767
742.81	36.6549
744.21	29.1526
747.13	38.6027
751.79	37.7324
752.31	42.4578
753.82	49.0915
755.35	36.8415
756.15	40.6337
756.87	43.4810
763.13	36.9567
763.93	30.3336
765.79	43.6371
766.42	36.0564
766.84	37.9609
776.49	40.9644
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778.57	48.6256
778.89	48.6318
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785.46	42.0643
792.07	34.5050
795.84	37.4356
796.30	36.4822
798.80	43.2444
801.93	37.5232
805.60	49.1379
810.29	51.1561
810.76	56.9575
815.85	32.8869
817.79	39.6867
818.51	52.2848
819.60	48.4314
826.30	59.2352
828.27	45.6747
831.60	56.4339
831.96	59.3603
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856.80	61.8710
860.37	46.2174
867.32	50.2778
867.82	49.3005
871.10	45.4104
873.19	40.5045
874.81	38.5506
875.33	41.5242
876.40	44.5067
879.36	49.5044
880.27	45.5586
880.51	45.5631
881.50	52.5148
883.24	50.5642
884.67	51.5823
889.25	65.5762
896.60	54.7878
898.02	62.7893
899.00	58.8228
903.28	44.9319
911.07	50.0598
911.07	50.0598
919.63	53.2200
920.93	44.2020
925.00	49.2943
925.24	45.2736
926.50	54.3520
935.52	70.6733
937.48	55.5653
944.10	63.7906
946.00	53.6987
949.00	62.8810
962.29	49.9164
964.01	39.7522
966.15	49.9798
968.20	51.0352
969.11	49.0078
969.11	49.0078
977.42	39.9274
980.50	40.9932
983.50	48.2140
989.30	48.3047
996.32	44.2934
1001.03	48.4871
1001.68	50.5612
1004.76	36.1510
1021.30	43.6099
1024.50	43.6529
1034.80	47.9653
1036.00	44.8540
1037.82	38.6169
1038.57	43.8457
1038.76	0.0000

1045.16	44.9820
1046.59	46.0475
1048.07	51.3041
1050.47	30.3863
1050.47	30.3863
1062.04	53.6272
1063.62	44.1861
1076.63	33.7984
1077.35	34.8627
1078.86	44.3912
1085.78	31.7739
1093.90	39.2818
1099.22	52.1056
1112.02	37.3584
1112.84	39.5040
1115.52	38.4662
1120.29	29.9592
1120.51	31.0320
1121.28	35.3203
1124.00	0.0000
1129.67	34.3328
1131.51	0.0000
1147.95	29.1212
1167.94	21.6943
1173.22	23.2785
1175.09	23.5498
1177.93	27.1948
1189.05	22.9144
1204.90	19.7271
1205.75	19.7323
1213.00	23.0662
1221.42	19.2662
1230.97	10.1182
1235.34	9.2090
1236.41	7.3695
1238.25	8.2947
1246.25	7.3890
1260.41	0.0000
1271.85	8.3690
1274.45	2.7916
1274.54	4.6527
1291.56	14.0204
1298.22	10.2995
1312.09	8.4569
1325.50	11.3145
1325.50	11.3145
1332.49	8.5010
1333.61	4.8591
1360.21	8.5602
1362.66	8.5657
1365.15	0.9523
1368.21	3.8122
1368.53	3.8125
1376.25	4.7746
1384.27	6.6978
1394.10	4.7955
1395.20	4.7970
1407.95	6.7365
1434.06	4.8419
1436.60	3.8758
1457.56	0.0000
1460.81	7.7962
1489.15	11.7715
1509.49	5.9131
1596.49	7.0336
1620.62	4.0402
1678.03	0.0000
1691.02	6.1509
1691.02	6.1509
1706.46	0.0000
1750.46	2.0753
1764.49	3.1217
1770.23	12.5010
1771.40	10.4199
1791.20	0.0000
1808.65	5.2482
1836.01	1.0553

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1201996559

Total Uranium Activity	-1.7457E+03	ug/g
Total Uranium Counting Unc.	1.5893E+03	ug/g
Total Uranium Tpu	8.1088E-04	ug/g
Total Uranium Mda	1.1066E+03	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 933232                    SAMPLE ID  : G1201996559      *
*   ANALYST       : KXG3                      DETECTOR   : GAM04            *
*   SAMPLE DATE   : 15-DEC-2009 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE: 18-DEC-2009 12:29:28.99    SAMPLE ALQT:    2.000 LITER   *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 2.092E+03
        GROSS GAMMA ERROR   (pCi/LITER )  : 1.633E+02
        GROSS GAMMA MDA     (pCi/LITER )  : 2.004E+02
        GROSS GAMMA DLC     (pCi/LITER )  : 9.556E+01
```

Radiochemistry Batch Checklist, Rev 9

Batch# 932821 Product: Sr-90 Date: 12.27.09

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.	✓		DATA - BLANK CORRECTION REPORT
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: [signature]

Secondary Review Performed By: [signature]

LANL

1.7

Blank Correction Report

Batch ID 932821

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1201995516	DUP	Strontium-90	0.400 L	0.180	0.141	0.473	-.192	pCi/L	NO
1201995518	LCS	Strontium-90	1.00 L	22.5	1.92	0.725	-.0768	pCi/L	NO
1201995515	MB	Strontium-90	1.00 L	-0.0768	0.123	0.470	-.0768	pCi/L	NO
1201995517	MS	Strontium-90	0.200 L	105	9.24	2.70	-.384	pCi/L	NO
242427001	CAPA-10-6790	Strontium-90	0.500 L	0.0969	0.101	0.353	-.1536	pCi/L	NO
242427003	CAPA-10-6803	Strontium-90	0.500 L	-0.191	0.111	0.434	-.1536	pCi/L	NO
242428003	CAPA-10-6108	Strontium-90	0.500 L	-0.00852	0.110	0.393	-.1536	pCi/L	NO
242653002	CAPA-10-6813	Strontium-90	0.500 L	-0.0549	0.117	0.420	-.1536	pCi/L	NO
242667002	CAPA-10-6816	Strontium-90	0.500 L	-0.0515	0.119	0.420	-.1536	pCi/L	NO
242754001	CAPA-10-6797	Strontium-90	0.500 L	-0.0917	0.129	0.475	-.1536	pCi/L	NO
242754002	CAPA-10-6800	Strontium-90	0.500 L	0.0384	0.110	0.402	-.1536	pCi/L	NO
242754003	CAPA-10-6901	Strontium-90	0.500 L	0.115	0.130	0.446	-.1536	pCi/L	NO
242789002	CAPA-10-6758	Strontium-90	0.400 L	-0.17	0.111	0.443	-.192	pCi/L	NO

Strontium 90 Que Sheet

12/14/09

Batch #: 932821 Analyst: JXR1 First Client Due Date: 01/07/2010 Internal Due Date: 12/27/2009 Comments

Sr-90 Spike Code: 1067-C Expiration Date: 6-17-10 Vol: 0.1 Sr Sep. Date/time: 12-22-09 | 1054

Sr-90 LCS Code: 1067-C Expiration Date: 6-17-10 Vol: 0.1

Sr Carrier Code: 1194590 Exp Date: 3-19-10 Vol: 0.5 Sdt Wt: 8.93

Prep Date: 12-17-09 Initials: JLR Pipet ID: 17954 19 Balance #: 16750207 Analytical Scale #: 38110047 Witness: MS 12-17-09

Sample ID	Client Description	Type	RDL	Collection Date	Matrix	Client	Rad	Pos. #	Wet/Dry Aliquot (mL) or (g)	Det # 1 & 2		Initial Sr wt (g)	Final Sr wt (g)	Net Sr wt (mg)
242427001-1	CAPA-10-6790	SAMPLE	.5 pCi/L	DEC-04-09 12:00 PM	GROUND WATE	LANL010		1	500	C1	10A	0.0247	0.0323	7.6
242427003-1	CAPA-10-6803	SAMPLE	.5 pCi/L	DEC-04-09 12:00 PM	GROUND WATE	LANL010		2	500	C2	7A	0.0250	0.0321	7.1
242428003-1	CAPA-10-6108	SAMPLE	.5 pCi/L	DEC-03-09 12:00 PM	GROUND WATE	LANL010		3	500	C3	7D	0.0243	0.0322	7.9
242653002-1	CAPA-10-6813	SAMPLE	.5 pCi/L	DEC-07-09 12:00 PM	GROUND WATE	LANL010		4	500	C4	8C	0.0244	0.0318	7.4
242667002-1	CAPA-10-6816	SAMPLE	.5 pCi/L	DEC-09-09 12:00 PM	GROUND WATE	LANL010		5	500	G1	9A	0.0243	0.0317	7.4
242754001-1	CAPA-10-6797	SAMPLE	.5 pCi/L	DEC-09-09 12:00 PM	GROUND WATE	LANL010		6	500	G2	9C	0.0246	0.0311	6.5
242754002-1	CAPA-10-6800	SAMPLE	.5 pCi/L	DEC-09-09 12:00 PM	GROUND WATE	LANL010		7	500	G3	10C	0.0244	0.0318	7.4
242754003-1	CAPA-10-6901	SAMPLE	.5 pCi/L	DEC-09-09 12:00 PM	GROUND WATE	LANL010		8	500	G4	10C	0.0251	0.0321	7.0
242789002-1	CAPA-10-6758	SAMPLE	.5 pCi/L	DEC-10-09 12:00 PM	GROUND WATE	LANL010		9	400	H1	7C	0.0236	0.0312	7.6
1201995515-1	MB for batch 932821	MB	.5 pCi/L		GROUND WATE	QC ACCOUNT		10	~~500~~ 1000 *	H2	5C	0.0244	0.0318	7.4
1201995516-1	CAPA-10-6758(242789002DUP)	DUP	.5 pCi/L	DEC-10-09 12:00 PM	GROUND WATE	QC ACCOUNT		11	400	H3	10A	0.0252	0.0322	7.0
1201995517-1	CAPA-10-6758(242789002MS)	MS	.5 pCi/L	DEC-10-09 12:00 PM	GROUND WATE	QC ACCOUNT		12	~~500~~ 200	H4		0.0248	0.0319	7.1
1201995518-1	LCS for batch 932821	LCS	.5 pCi/L		GROUND WATE	QC ACCOUNT		13	~~500~~ 1000 *	3C		0.0244	0.0320	7.6

JR 12-16-09

weight

Solid Sample Dissolution by: LEACH or DIGESTION Data Reviewed By: Ryan Brantley

Circle One

Strontium-90 Liquid

Filename : SR90.XLS
File type : Excel
Version # : 1.2.9

Spike S/N : 1067-C
Spike Exp Date : 6/17/2010
Spike Activity (dpm/ml): 428.96
Spike Volume Added: 0.10

Batch : 932821
Analyst : JXR1
Prep Date : 12/17/2009

LCS S/N : 1067-C
LCS Exp Date : 6/17/2010
LCS Activity (dpm/ml): 428.96
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Sr-90 Abundance : 1
Method Uncertainty : 0.0784

Carrier S/N : 1194590
Carrier Exp Date : 3/19/2010
Carrier Volume Added: 0.50
Carrier Weight (mg/ml): 17.85
Carrier Weight StDev.: 0.06

Procedure Code : GFC90SRL
Parmname : Strontium-90
Required MDC : 0.5 pCi/L
Halflife of Sr-90 : 28.90 years
Halflife of Y-90 : 64.053 hours

Geometry: Tuffryn Filter

Sample Characteristics					Carrier Calculations				
Pos.	Sample ID	Sample Aliquot L	Sample Aliquot StDev. L	Sample Date/Time	Carrier Weight (mg) (Standard)	Net Weight (mg) (Sample)	Net Weight StDev. (mg)	Carrier Aliquot (mL)	Carrier Aliquot StDev. (mL)
1	242427001.1	0.5000	2.0256E-05	12/4/2009 12:00	17.85	7.60	0.039995	0.5	0.002564
2	242427003.1	0.5000	2.0256E-05	12/4/2009 12:00	17.85	7.10	0.037846	0.5	0.002564
3	242428003.1	0.5000	2.0256E-05	12/3/2009 12:00	17.85	7.90	0.041284	0.5	0.002564
4	242653002.1	0.5000	2.0256E-05	12/7/2009 12:00	17.85	7.40	0.039135	0.5	0.002564
5	242667002.1	0.5000	2.0256E-05	12/9/2009 12:00	17.85	7.40	0.039135	0.5	0.002564
6	242754001.1	0.5000	2.0256E-05	12/9/2009 12:00	17.85	6.50	0.035267	0.5	0.002564
7	242754002.1	0.5000	2.0256E-05	12/9/2009 12:00	17.85	7.40	0.039135	0.5	0.002564
8	242754003.1	0.5000	2.0256E-05	12/9/2009 12:00	17.85	7.00	0.037416	0.5	0.002564
9	242789002.1	0.4000	1.9669E-05	12/10/2009 12:00	17.85	7.60	0.039995	0.5	0.002564
10	1201995515.1	1.0000	2.0399E-05	12/17/2009 0:00	17.85	7.40	0.039135	0.5	0.002564
11	1201995516.1	0.4000	1.9669E-05	12/10/2009 12:00	17.85	7.00	0.037416	0.5	0.002564
12	1201995517.1	0.2000	1.6007E-05	12/10/2009 12:00	17.85	7.10	0.037846	0.5	0.002564
13	1201995518.1	1.0000	2.0399E-05	12/17/2009 0:00	17.85	7.60	0.039995	0.5	0.002564

Count Raw Data

Pos.	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Gross Beta CPM	Count Start Date/Time	Strontium Separation Date/Time	Yttrium Ingrowth	Sr-90 Decay	Calculated Sample Recovery %	Sample Recovery Error %
1	10A	80	6	34	0.418	12/27/2009 7:06	12/22/2009 10:54	0.718	0.999	85.15%	0.96%
2	7A	170	7	60	0.350	12/23/2009 12:59	12/22/2009 10:54	0.257	0.999	79.55%	0.97%
3	7D	180	17	86	0.473	12/23/2009 12:59	12/22/2009 10:54	0.258	0.999	88.52%	0.96%
4	8C	210	25	114	0.534	12/23/2009 13:00	12/22/2009 10:54	0.260	0.999	82.91%	0.97%
5	9A	250	19	161	0.635	12/23/2009 13:00	12/22/2009 10:54	0.263	0.999	82.91%	0.97%
6	9C	180	7	79	0.435	12/23/2009 13:00	12/22/2009 10:54	0.258	0.999	72.83%	0.98%
7	10C	80	5	37	0.456	12/27/2009 7:06	12/22/2009 10:54	0.718	0.999	82.91%	0.97%
8	10C	160	7	78	0.483	12/23/2009 13:01	12/22/2009 10:54	0.257	0.999	78.43%	0.97%
9	7C	170	6	44	0.257	12/23/2009 12:49	12/22/2009 10:54	0.256	0.999	85.15%	0.96%
10	5C	60	4	51	0.847	12/23/2009 12:54	12/22/2009 10:54	0.249	1.000	82.91%	0.97%
11	10A	180	5	75	0.414	12/23/2009 12:49	12/22/2009 10:54	0.257	0.999	78.43%	0.97%
12	H4	60	5	1168	19.465	12/22/2009 15:03	12/22/2009 10:54	0.049	0.999	79.55%	0.97%
13	3C	60	20	1215	20.231	12/22/2009 15:05	12/22/2009 10:54	0.049	1.000	85.15%	0.96%

Calibration Data

Pos.	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm) Sr-90	Detector Efficiency (cpm/dpm) Y-90	Detector Efficiency Error (cpm/dpm)	Alpha X-Talk	Weekly Bkg CPM	Weekly Bkg Count Time (min.)
1	PIC	1/1/2009	1/31/2010	0.4167	0.5489	0.00816	0.09100	0.344	500
2	PIC	1/1/2009	1/31/2010	0.4124	0.5546	0.00816	0.06145	0.444	500
3	PIC	1/1/2009	1/31/2010	0.4125	0.5551	0.00816	0.04688	0.478	500
4	PIC	1/1/2009	1/31/2010	0.4157	0.5610	0.00816	0.07713	0.562	500
5	PIC	1/1/2009	1/31/2010	0.4221	0.5525	0.00816	0.11657	0.662	500
6	PIC	1/1/2009	1/31/2010	0.4175	0.5437	0.00816	0.10812	0.476	500
7	PIC	1/1/2009	1/31/2010	0.4101	0.5468	0.00816	0.09921	0.428	500
8	PIC	1/1/2009	1/31/2010	0.4114	0.5468	0.00816	0.09906	0.426	500
9	PIC	1/1/2009	1/31/2010	0.4105	0.5557	0.00816	0.05077	0.328	500
10	PIC	1/1/2009	1/31/2010	0.4187	0.5588	0.00816	0.04305	0.926	500
11	PIC	1/1/2009	1/31/2010	0.4187	0.5489	0.00816	0.09067	0.344	500
12	LB4100	1/12/2009	1/31/2010	0.4736	0.5917	0.01752	0.02317	0.910	500
13	PIC	1/1/2009	1/31/2010	0.4134	0.5480	0.00535	0.05848	1.516	500

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

* - RPD changed to 0% due to activity below MDC for 1201995516.1

Results Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	0.2151	0.1518	0.5	0.3527	**0.0969**	1.0370	0.0742	0.0769	0.1005	0.1008		SAMPLE				
2	0.2815	0.1988	0.5	0.4336	**-0.1911**	0.5804	-0.0936	0.0543	0.1109	0.1109		SAMPLE				
3	0.2567	0.1812	0.5	0.3931	**-8.525E-03**	12.8784	-0.0046	0.0599	0.1098	0.1098		SAMPLE				
4	0.2781	0.1964	0.5	0.4204	**-0.0549**	2.1375	-0.0283	0.0605	0.1172	0.1172		SAMPLE				
5	0.2815	0.1987	0.5	0.4205	**-0.0515**	2.3145	-0.0269	0.0622	0.1192	0.1192		SAMPLE				
6	0.3101	0.2189	0.5	0.4748	**-0.0917**	1.4045	-0.0413	0.0580	0.1288	0.1288		SAMPLE				
7	0.2488	0.1756	0.5	0.4021	**0.0384**	2.6620	0.0283	0.0810	0.1098	0.1098		SAMPLE				
8	0.2884	0.2036	0.5	0.4463	**0.1149**	1.1286	0.0552	0.0623	0.1297	0.1300		SAMPLE				
9	0.2837	0.2003	0.5	0.4428	**-0.1699**	0.6562	-0.0710	0.0466	0.1115	0.1115		SAMPLE				
10	0.2984	0.2107	0.5	0.4700	**-0.0768**	1.6024	-0.0789	0.1264	0.1231	0.1231		MB				
11	0.3050	0.2153	0.5	0.4734	**0.1801**	0.7795	0.0701	0.0547	0.1404	0.1411	242789002.1	DUP	0.0%	0.6929		
12	1.7117	1.2085	0.5	2.6988	**104.5870**	0.0367	18.5547	0.5712	3.2195	9.2382	242789002.1	MS			96.6537	108.2%
13	0.4709	0.3324	0.5	0.7249	**22.4821**	0.0331	18.7145	0.5833	0.7007	1.9167		LCS			19.3225	116.4%

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
242427001	10A	80	6	34	12/27/2009 7:06	12/27/2009 8:26	PIC
242427003	7A	170	7	60	12/23/2009 12:59	12/23/2009 15:49	PIC
242428003	7D	180	17	86	12/23/2009 12:59	12/23/2009 15:59	PIC
242653002	8C	210	25	114	12/23/2009 13:00	12/23/2009 16:30	PIC
242667002	9A	250	19	161	12/23/2009 13:00	12/23/2009 17:10	PIC
242754001	9C	180	7	79	12/23/2009 13:00	12/23/2009 16:00	PIC
242754002	10C	80	5	37	12/27/2009 7:06	12/27/2009 8:26	PIC
242754003	10C	160	7	78	12/23/2009 13:01	12/23/2009 15:41	PIC
242789002	7C	170	6	44	12/23/2009 12:49	12/23/2009 15:39	PIC
1201995515	5C	60	4	51	12/23/2009 12:54	12/23/2009 13:54	PIC
1201995516	10A	180	5	75	12/23/2009 12:49	12/23/2009 15:49	PIC
1201995517	H4	60	5	1168	12/22/2009 15:03	12/22/2009 16:03	LB4100
1201995518	3C	60	20	1215	12/22/2009 15:05	12/22/2009 16:05	PIC

Radiochemistry Batch Checklist, Rev 9

Batch# 932822 Product: GAB Date: 12/23/09

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.	✓		
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.			N/A
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			N/A
Batch non-conformances second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: V. Calderon 12/23/09

Secondary Review Performed By: [illegible]

LANL
01/07

Blank Correction Report

Batch ID 932822

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1201995520	DUP	ALPHA	0.150 L	-0.534	0.294	2.29	-.02653333	pCi/L	YES
		BETA	0.150 L	0.414	0.591	2.12	2.44666667	pCi/L	YES
1201995523	LCS	ALPHA	1.00 L	13.0	1.51	0.288	-.00398	pCi/L	NO
		BETA	1.00 L	40.4	3.47	0.476	.367	pCi/L	NO
1201995519	MB	ALPHA	1.00 L	-0.00398	0.060	0.298	-.00398	pCi/L	NO
		BETA	1.00 L	0.367	0.137	0.403	.367	pCi/L	YES
1201995521	MS	ALPHA	0.050 L	306	35.2	7.21	-.0796	pCi/L	NO
		BETA	0.050 L	894	76.4	11.0	7.34	pCi/L	NO
1201995522	MSD	ALPHA	0.050 L	296	34.1	5.94	-.0796	pCi/L	NO
		BETA	0.050 L	913	78.1	7.94	7.34	pCi/L	NO
242427001	CAPA-10-6790	ALPHA	0.150 L	0.949	0.707	2.30	-.02653333	pCi/L	NO
		BETA	0.150 L	1.40	0.763	2.41	2.44666667	pCi/L	YES
242427003	CAPA-10-6803	ALPHA	0.150 L	0.976	0.854	2.89	-.02653333	pCi/L	NO
		BETA	0.150 L	0.840	0.692	2.33	2.44666667	pCi/L	YES
242428003	CAPA-10-6108	ALPHA	0.150 L	-0.325	0.700	2.66	-.02653333	pCi/L	YES
		BETA	0.150 L	2.07	0.812	2.38	2.44666667	pCi/L	YES
242653002	CAPA-10-6813	ALPHA	0.150 L	14.0	2.39	2.98	-.02653333	pCi/L	NO
		BETA	0.150 L	8.13	1.31	2.05	2.44666667	pCi/L	YES
242667002	CAPA-10-6816	ALPHA	0.150 L	0.547	0.800	2.88	-.02653333	pCi/L	NO
		BETA	0.150 L	1.02	0.700	2.32	2.44666667	pCi/L	YES
242754001	CAPA-10-6797	ALPHA	0.150 L	0.740	0.709	2.53	-.02653333	pCi/L	NO
		BETA	0.150 L	-0.575	0.471	2.08	2.44666667	pCi/L	YES
242754002	CAPA-10-6800	ALPHA	0.150 L	-0.198	0.515	2.52	-.02653333	pCi/L	YES
		BETA	0.150 L	1.79	0.813	2.48	2.44666667	pCi/L	YES
242754003	CAPA-10-6901	ALPHA	0.150 L	0.404	0.440	1.70	-.02653333	pCi/L	NO
		BETA	0.150 L	0.178	0.617	2.27	2.44666667	pCi/L	YES
242789002	CAPA-10-6758	ALPHA	0.150 L	0.985	0.764	2.63	-.02653333	pCi/L	NO
		BETA	0.150 L	4.87	1.42	4.12	2.44666667	pCi/L	YES

Gross Alpha Beta Que Sheet

12/14/2009 13:53:44

Batch #:932822 Analyst:DXF3 First Client DueDate 01/07/2010 Internal Due Date12/27/2009

Alpha Spike Isotope: Th-230 Spike Code: 1242-B Vol: 0.1 Balance #: 393763
Beta Spike Isotope: Sr-90 Spike Code: 1067-C Vol: 0.1 Pipette #: 4497063
Alpha LCS Isotope: Th-230 LCS Code: 1242-B Vol: 0.1 Prep Date: 12/21/09
Beta LCS Isotope: Sr-90 LCS Code: 1067-C Vol: 0.1 Initials: JRS

Analytical Scale #C31514
Witness: ME 12/18/09
by: SRS

10% HNO3: 1231701
Conc HNO3: 1229659.18
Conc HCl: –
Conc HF: –
Conc Boric: –

Sample ID	Client Description	Type	Hazard Code	RDL Alpha/Beta	Client	Matrix	Bkr#	Wet/Dry Aliquot (mL or g)	Carrier or Det#	Initial Wt (g)	Final Wt (g)	Net Wt (mg)
242427001-1	CAPA-10-6790	SAMPLE		3 pCi/L	LANL010	GROUND WATER	1	150	3C	7.5546	7.5756	21
242427003-1	CAPA-10-6803	SAMPLE		3 pCi/L	LANL010	GROUND WATER	2	150	4A	7.5516	7.5695	17.9
242428003-1	CAPA-10-6108	SAMPLE		3 pCi/L	LANL010	GROUND WATER	3	150	4D	7.6228	7.6402	17.4
242653002-1	CAPA-10-6813	SAMPLE		3 pCi/L	LANL010	GROUND WATER	4	150	5B	7.6039	7.6594	55.5
242667002-1	CAPA-10-6816	SAMPLE		3 pCi/L	LANL010	GROUND WATER	5	150	5D	7.5805	7.5949	14.4
242754001-1	CAPA-10-6797	SAMPLE		3 pCi/L	LANL010	GROUND WATER	6	150	7B	7.5535	7.5693	15.8
242754002-1	CAPA-10-6800	SAMPLE		3 pCi/L	LANL010	GROUND WATER	7	150	8A	7.5766	7.5916	15
242754003-1	CAPA-10-6901	SAMPLE		3 pCi/L	LANL010	GROUND WATER	8	150	8B	7.5666	7.5686	2
242789002-1	CAPA-10-6758	SAMPLE		3 pCi/L	LANL010	GROUND WATER	9	150	9A	7.5770	7.5965	19.5
1201995519-1	MB	MB		3 pCi/L	QC ACCOUNT	GROUND WATER	10	1000	9C	7.5291	7.5293	0.2
1201995520-1	DUP CAPA-10-6800(242754002)	DUP		3 pCi/L	QC ACCOUNT	GROUND WATER	11	150	9D	7.6382	7.6535	15.3
1201995521-1	MS CAPA-10-6800(242754002)	MS		3 pCi/L	QC ACCOUNT	GROUND WATER	12	50	11B	7.5268	7.5339	7.1
1201995522-1	MSD CAPA-10-6800(242754002)	MSD		3 pCi/L	QC ACCOUNT	GROUND WATER	13	50	11C	7.5937	7.5987	5
1201995523-1	LCS	LCS		3 pCi/L	QC ACCOUNT	GROUND WATER	14	1000	11D	7.5664	7.5673	0.9

Daily ✓ weights ✓

Have the planchets been flamed? (Yes) No

Data Reviewed By: V. Culpepper 12/23/09

209

Gross Alpha Liquid

Filename : ALPHA.XLS
File type : Excel
Version # : 1.2.6

Batch : 932822
Analyst : DXF3
Prep Date : 12/21/2009

Method Uncertainty : 0.0829
Geometry: 2 inch Planchett

Spike S/N : 1242-B
Spike Exp Date : 12/2/2010
Spike Activity (dpm/ml): 279.79
Spike Volume Added: 0.10

LCS S/N : 1242-B
LCS Exp Date : 12/2/2010
LCS Activity (dpm/ml): 279.79
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Procedure Code : GFCGANBL
Parmname : Alpha
Required MDC : 3 pCi/L

Sample Characteristics						Count Raw Data				
Pos.	Sample ID	Sample Aliquot L	Sample Residue Wt. (mg)	Sample Aliquot StDev. L	Sample Date/Time	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Count Start Date/Time
1	242427001.2	0.1500	21.0	1.4035E-05	12/4/2009 12:00	3C	90	14	155	12/21/2009 17:56
2	242427003.2	0.1500	17.9	1.4035E-05	12/4/2009 12:00	4A	130	40	200	12/21/2009 17:57
3	242428003.2	0.1500	17.4	1.4035E-05	12/3/2009 12:00	4D	130	27	176	12/21/2009 17:57
4	242653002.2	0.1500	55.5	1.4035E-05	12/7/2009 12:00	5B	90	77	261	12/21/2009 17:57
5	242667002.2	0.1500	14.4	1.4035E-05	12/9/2009 12:00	5D	90	21	160	12/21/2009 17:57
6	242754001.2	0.1500	15.8	1.4035E-05	12/9/2009 12:00	7B	60	8	40	12/21/2009 17:58
7	242754002.2	0.1500	15.0	1.4035E-05	12/9/2009 12:00	8A	60	4	62	12/21/2009 17:58
8	242754003.2	0.1500	2.0	1.4035E-05	12/9/2009 12:00	8B	60	4	76	12/21/2009 17:58
9	242789002.2	0.1500	19.5	1.4035E-05	12/10/2009 12:00	9A	60	8	65	12/21/2009 17:58
10	1201995519.2	1.0000	0.2	2.0399E-05	12/21/2009 0:00	9C	60	3	18	12/21/2009 17:56
11	1201995520.2	0.1500	15.3	1.4035E-05	12/9/2009 12:00	9D	60	1	92	12/21/2009 17:56
12	1201995521.2	0.0500	7.1	7.8337E-06	12/9/2009 12:00	11B	60	452	2783	12/21/2009 18:07
13	1201995522.2	0.0500	5.0	7.8337E-06	12/9/2009 12:00	11C	60	441	2856	12/21/2009 18:07
14	1201995523.2	1.0000	0.9	2.0399E-05	12/21/2009 0:00	11D	60	417	2603	12/21/2009 18:07

Calibration Data

Pos.	Counted on	Calibration Date	Calibration Due Date	Calibration Source Used	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Beta X-Talk	Weekly Bkg CPM	Weekly Bkg Count Time (min.)
1	PIC	7/31/2009	7/31/2010	Th230	0.1875	0.05526	0.00597	0.086	500
2	PIC	7/31/2009	7/31/2010	Th230	0.1890	0.04683	0.00409	0.240	500
3	PIC	7/31/2009	7/31/2010	Th230	0.1923	0.06392	0.01883	0.206	500
4	PIC	7/31/2009	7/31/2010	Th230	0.1584	0.06392	0.00406	0.108	500
5	PIC	7/31/2009	7/31/2010	Th230	0.2053	0.06392	0.00445	0.188	500
6	PIC	7/31/2009	7/31/2010	Th230	0.2080	0.06392	0.00616	0.078	500
7	PIC	7/31/2009	7/31/2010	Th230	0.2075	0.06392	0.00423	0.076	500
8	PIC	7/31/2009	7/31/2010	Th230	0.2353	0.06392	0.00081	0.034	500
9	PIC	7/31/2009	7/31/2010	Th230	0.1927	0.06392	0.00009	0.070	500
10	PIC	7/31/2009	7/31/2010	Th230	0.2302	0.06392	0.00012	0.052	500
11	PIC	7/31/2009	7/31/2010	Th230	0.2003	0.06392	0.00018	0.052	500
12	PIC	7/31/2009	7/31/2010	Th230	0.2192	0.06392	0.00009	0.078	500
13	PIC	7/31/2009	7/31/2010	Th230	0.2219	0.06392	0.00011	0.046	500
14	PIC	7/31/2009	7/31/2010	Th230	0.2367	0.06392	0.00007	0.052	500

Notes:
* - Reference date for Spike Activity (dpm/ml) is the batch Prep Date

* - RPD changed to 0% due to activity below MDC for 1201995520.1

Alpha Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	1.2530	0.8846	3	2.3030	**0.9492**	0.6292	0.0696	0.0436	0.6981	0.7069		SAMPLE				
2	1.7855	1.2606	3	2.8878	**0.9756**	0.7896	0.0677	0.0534	0.8478	0.8539		SAMPLE				
3	1.6259	1.1479	3	2.6563	**-0.3252**	26.4899	0.0017	0.0448	0.7001	0.7002		SAMPLE				
4	1.6624	1.1737	3	2.9794	**13.9510**	0.1466	0.7476	0.0986	1.8696	2.3868		SAMPLE				
5	1.6920	1.1945	3	2.8766	**0.5473**	1.2036	0.0453	0.0545	0.7969	0.7999		SAMPLE				
6	1.2837	0.9063	3	2.5344	**0.7396**	0.8836	0.0553	0.0488	0.7041	0.7091		SAMPLE				
7	1.2703	0.8968	3	2.5174	**-0.1983**	3.8084	-0.0093	0.0355	0.5144	0.5151		SAMPLE				
8	0.7492	0.5290	3	1.6961	**0.4039**	1.0531	0.0327	0.0343	0.4383	0.4405		SAMPLE				
9	1.3123	0.9265	3	2.6320	**0.9852**	0.7701	0.0633	0.0486	0.7573	0.7643		SAMPLE				
10	0.1420	0.1003	3	0.2984	**-3.983E-03**	15.3081	-0.0020	0.0306	0.0599	0.0600		MB				
11	1.0885	0.7685	3	2.2867	**-0.5339**	0.5567	-0.0353	0.0195	0.2930	0.2941	242754002.2	DUP	0.0%	0.2073		
12	3.6535	2.5794	3	7.2134	**306.1865**	0.0797	7.4553	0.3546	14.5698	35.2255	242754002.2	MS			252.0649	121.5%
13	2.7718	1.9569	3	5.9438	**296.3106**	0.0799	7.3040	0.3501	14.2145	34.1412	242754002.2	MSD	3.3%	0.0712	252.0649	117.6%
14	0.1370	0.0967	3	0.2878	**13.0122**	0.0808	6.8980	0.3405	0.6426	1.5067		LCS			12.6032	103.2%

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
242427001	3C	90	14	155	12/21/2009 17:56	12/21/2009 19:26	PIC
242427003	4A	130	40	200	12/21/2009 17:57	12/21/2009 20:07	PIC
242428003	4D	130	27	176	12/21/2009 17:57	12/21/2009 20:07	PIC
242653002	5B	90	77	261	12/21/2009 17:57	12/21/2009 19:27	PIC
242667002	5D	90	21	160	12/21/2009 17:57	12/21/2009 19:27	PIC
242754001	7B	60	8	40	12/21/2009 17:58	12/21/2009 18:58	PIC
242754002	8A	60	4	62	12/21/2009 17:58	12/21/2009 18:58	PIC
242754003	8B	60	4	76	12/21/2009 17:58	12/21/2009 18:58	PIC
242789002	9A	60	8	65	12/21/2009 17:58	12/21/2009 18:58	PIC
1201995519	9C	60	3	18	12/21/2009 17:56	12/21/2009 18:56	PIC
1201995520	9D	60	1	92	12/21/2009 17:56	12/21/2009 18:56	PIC
1201995521	11B	60	452	2783	12/21/2009 18:07	12/21/2009 19:07	PIC
1201995522	11C	60	441	2856	12/21/2009 18:07	12/21/2009 19:07	PIC
1201995523	11D	60	417	2603	12/21/2009 18:07	12/21/2009 19:07	PIC

Gross Alpha Beta Que Sheet

12/14/2009 14:17:12

Batch #:932822 Analyst:DXF3 First Client DueDate 01/07/2010 Internal Due Date12/27/2009

Alpha Spike Isotope: Th-230 Spike Code: 1242-B Vol: 0.1 Balance #: 393763
Beta Spike Isotope: Sr-90 Spike Code: 1067-C Vol: 0.1 Pipette #: 4497063
Alpha LCS Isotope: Th-230 LCS Code: 1242-B Vol: 0.1 Prep Date: 12/18/09
Beta LCS Isotope: Sr-90 LCS Code: 1067-C Vol: 0.1 Initials: DHF

Analytical Scale # C3154
Witness: MG 12/18/9

10% HNO3: 1231701
Conc HNO3: 1229659.18
Conc HCl: –
Conc HF: –
Conc Boric: –

Sample ID	Client Description	Type	Hazard Code	RDL Alpha/Beta	Client	Matrix	Bkr#	Wet/Dry Aliquot (ml or g)	Carrier or Det#	Initial Wt (g)	Final Wt (g)	Net Wt (mg)
242427001-1	CAPA-10-6790	SAMPLE		3 pCi/L	LANL010	GROUND WATER	1	150	7A	7.5546	7.6044	49.8
242427003-1	CAPA-10-6803	SAMPLE		3 pCi/L	LANL010	GROUND WATER	2	150	7D	7.5516	7.5939	42.3
242428003-1	CAPA-10-6108	SAMPLE		3 pCi/L	LANL010	GROUND WATER	3	150	9A	7.6228	7.6617	38.9
242653002-1	CAPA-10-6813	SAMPLE		3 pCi/L	LANL010	GROUND WATER	4	150	10A	7.6039	7.6860	82.1
242667002-1	CAPA-10-6816	SAMPLE		3 pCi/L	LANL010	GROUND WATER	5	150	11D	7.5805	7.6148	34.3
242754001-1	CAPA-10-6797	SAMPLE		3 pCi/L	LANL010	GROUND WATER	6	150	13B 7C	7.5535	7.5875	34
242754002-1	CAPA-10-6800	SAMPLE		3 pCi/L	LANL010	GROUND WATER	7	150	C1 7D	7.5766	7.6102	33.6
242754003-1	CAPA-10-6901	SAMPLE		3 pCi/L	LANL010	GROUND WATER	8	150	C2 9C	7.5666	7.5682	1.6
242789002-1	CAPA-10-6758	SAMPLE		3 pCi/L	LANL010	GROUND WATER	9	150	C3	7.5770	7.6169	39.9
1201995519-1	MB	MB		3 pCi/L	QC ACCOUNT	GROUND WATER	10	~~150~~ 100	D3	7.5291	7.5287	0
1201995520-1	DUP CAPA-10-6800(242754002)	DUP		3 pCi/L	QC ACCOUNT	GROUND WATER	11	150	~~E1~~ 10A	7.6382	7.6716	33.4
1201995521-1	MS CAPA-10-6800(242754002)	MS		3 pCi/L	QC ACCOUNT	GROUND WATER	12	50	G2	7.5268	7.5386	11.8
1201995522-1	MSD CAPA-10-6800(242754002)	MSD		3 pCi/L	QC ACCOUNT	GROUND WATER	13	50	13A	7.5937	7.6061	12.4
1201995523-1	LCS	LCS		3 pCi/L	QC ACCOUNT	GROUND WATER	14	~~150~~ 100	13C	7.5664	7.5666	0.2

12.2009 Daily ✓ weights ✓

Have the planchets been flamed? Yes / No

Data Reviewed By: V. Calpepper 12/23/09

2030

Gross Beta Liquid

Filename : BETA.XLS
File type : Excel
Version # : 1.2.6

Batch : 932822
Analyst : DXF3
Prep Date : 12/18/2009

Method Uncertainty : 0.0821
Geometry: 2 inch Planchett

Spike S/N : 1067-C
Spike Exp Date : 6/17/2010
Spike Activity (dpm/ml): 428.93
Spike Volume Added: 0.10

LCS S/N : 1067-C
LCS Exp Date : 6/17/2010
LCS Activity (dpm/ml): 428.93
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Procedure Code : GFCGANBL
Parmname : Beta
Required MDC : 3 pCi/L

Sample Characteristics						Count Raw Data				
Pos.	Sample ID	Sample Aliquot L	Sample Residue Wt. (mg)	Sample Aliquot StDev. L	Sample Date/Time	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Count Start Date/Time
1	242427001.1	0.1500	49.8	1.4035E-05	12/4/2009 12:00	7A	60	19	42	12/19/2009 16:50
2	242427003.1	0.1500	42.3	1.4035E-05	12/4/2009 12:00	7D	60	15	33	12/19/2009 16:50
3	242428003.1	0.1500	38.9	1.4035E-05	12/3/2009 12:00	9A	60	6	47	12/19/2009 16:50
4	242653002.1	0.1500	82.1	1.4035E-05	12/7/2009 12:00	10A	60	38	100	12/19/2009 16:50
5	242667002.1	0.1500	34.3	1.4035E-05	12/9/2009 12:00	11D	60	3	35	12/19/2009 18:31
6	242754001.1	0.1500	34	1.4035E-05	12/9/2009 12:00	7C	60	8	15	12/21/2009 6:42
7	242754002.1	0.1500	33.6	1.4035E-05	12/9/2009 12:00	7D	60	12	45	12/21/2009 6:42
8	242754003.1	0.1500	1.6	1.4035E-05	12/9/2009 12:00	9C	60	7	31	12/21/2009 6:42
9	242789002.1	0.1500	39.9	1.4035E-05	12/10/2009 12:00	C3	60	8	155	12/19/2009 18:50
10	1201995519.1	1.0000	0	2.0399E-05	12/18/2009 0:00	D3	60	5	81	12/19/2009 18:56
11	1201995520.1	0.1500	33.4	1.4035E-05	12/9/2009 12:00	10A	60	7	25	12/21/2009 6:42
12	1201995521.1	0.0500	11.8	7.8337E-06	12/9/2009 12:00	G2	60	330	2731	12/19/2009 18:40
13	1201995522.1	0.0500	12.4	7.8337E-06	12/9/2009 12:00	13A	60	414	2844	12/19/2009 19:26
14	1201995523.1	1.0000	0.2	2.0399E-05	12/18/2009 0:00	13C	60	473	2771	12/19/2009 19:26

Calibration Data

Pos.	Counted on	Calibration Date	Calibration Due Date	Calibration Source Used	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Alpha X-Talk	Weekly Bkg CPM	Weekly Bkg Count Time (min.)
1	PIC	7/31/2009	7/31/2010	Sr90	0.4480	0.00816	0.06204	0.472	500
2	PIC	7/31/2009	7/31/2010	Sr90	0.4364	0.00816	0.05547	0.414	500
3	PIC	7/31/2009	7/31/2010	Sr90	0.4482	0.00816	0.11960	0.462	500
4	PIC	7/31/2009	7/31/2010	Sr90	0.4613	0.00816	0.11383	0.346	500
5	PIC	7/31/2009	7/31/2010	Sr90	0.4447	0.00816	0.08846	0.428	500
6	PIC	7/31/2009	7/31/2010	Sr90	0.4428	0.00816	0.05102	0.328	500
7	PIC	7/31/2009	7/31/2010	Sr90	0.4367	0.00816	0.05533	0.478	500
8	PIC	7/31/2009	7/31/2010	Sr90	0.4765	0.00816	0.10603	0.476	500
9	LB4100	7/31/2009	7/31/2010	Sr90	0.4773	0.02111	0.02681	1.806	500
10	LB4100	7/31/2009	7/31/2010	Sr90	0.5360	0.07231	0.01947	0.912	500
11	PIC	7/31/2009	7/31/2010	Sr90	0.4449	0.00816	0.09711	0.344	500
12	LB4100	7/31/2009	7/31/2010	Sr90	0.4452	0.01093	0.02853	1.194	500
13	PIC	7/31/2009	7/31/2010	Sr90	0.4568	0.00816	0.06869	0.616	500
14	PIC	7/31/2009	7/31/2010	Sr90	0.4958	0.00816	0.07503	1.112	500

Notes:
* - Reference date for Spike Activity (dpm/ml) is the batch Prep Date

* - RPD changed to 0% due to activity below MDC for 1201995520.1

Beta Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	1.4660	1.0950	3	2.4051	**1.3966**	0.4926	0.2280	0.1123	0.7527	0.7632		SAMPLE				
2	1.4095	0.9951	3	2.3343	**0.8404**	0.7351	0.1360	0.1000	0.6879	0.6923		SAMPLE				
3	1.4497	1.0235	3	2.3820	**2.0728**	0.3680	0.3213	0.1182	0.7922	0.8118		SAMPLE				
4	1.2190	0.8606	3	2.0467	**8.1279**	0.1280	1.3207	0.1687	1.0984	1.3075		SAMPLE				
5	1.4065	0.9930	3	2.3237	**1.0192**	0.6622	0.1553	0.1029	0.6946	0.7000		SAMPLE				
6	1.2363	0.8729	3	2.0848	**-0.5751**	0.8904	-0.0780	0.0694	0.4709	0.4710		SAMPLE				
7	1.5136	1.0686	3	2.4812	**1.7945**	0.4265	0.2720	0.1160	0.7978	0.8126		SAMPLE				
8	1.3842	0.9773	3	2.2697	**0.1783**	2.4047	0.0407	0.0978	0.6163	0.6167		SAMPLE				
9	2.6916	1.9003	3	4.1151	**4.8681**	0.2787	0.7773	0.2160	1.3591	1.4210		SAMPLE				
10	0.2555	0.1804	3	0.4027	**0.3667**	0.3633	0.4380	0.1560	0.1311	0.1371		MB				
11	1.2601	0.8897	3	2.1168	**0.4140**	1.2023	0.0727	0.0874	0.5896	0.5910	242754002.1	DUP	0.0%	0.4918		
12	7.0389	4.9695	3	10.9509	**893.7177**	0.0225	44.3227	0.8724	17.6525	76.3536	242754002.1	MS			772.8489	115.6%
13	4.9279	3.4791	3	7.9444	**913.3889**	0.0207	46.7840	0.8895	17.5442	78.1253	242754002.1	MSD	2.2%	0.0637	772.8489	118.2%
14	0.3050	0.2153	3	0.4761	**40.4105**	0.0211	45.0713	0.8786	0.7982	3.4714		LCS			38.6424	104.6%

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
242427001	7A	60	19	42	12/19/2009 16:50	12/19/2009 17:50	PIC
242427003	7D	60	15	33	12/19/2009 16:50	12/19/2009 17:50	PIC
242428003	9A	60	6	47	12/19/2009 16:50	12/19/2009 17:50	PIC
242653002	10A	60	38	100	12/19/2009 16:50	12/19/2009 17:50	PIC
242667002	11D	60	3	35	12/19/2009 18:31	12/19/2009 19:31	PIC
242754001	7C	60	8	15	12/21/2009 6:42	12/21/2009 7:42	PIC
242754002	7D	60	12	45	12/21/2009 6:42	12/21/2009 7:42	PIC
242754003	9C	60	7	31	12/21/2009 6:42	12/21/2009 7:42	PIC
242789002	C3	60	8	155	12/19/2009 18:50	12/19/2009 19:50	LB4100
1201995519	D3	60	5	81	12/19/2009 18:56	12/19/2009 19:56	LB4100
1201995520	10A	60	7	25	12/21/2009 6:42	12/21/2009 7:42	PIC
1201995521	G2	60	330	2731	12/19/2009 18:40	12/19/2009 19:40	LB4100
1201995522	13A	60	414	2844	12/19/2009 19:26	12/19/2009 20:26	PIC
1201995523	13C	60	473	2771	12/19/2009 19:26	12/19/2009 20:26	PIC

Radiochemistry Batch Checklist, Rev 9

Batch# 932551 Product: Tritium Date: 12/18/09

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch non-conformances completed, if applicable.			NA
Batch non-conformances second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

revised 8/1/08

Primary Review Performed By: Lynsey Pace LANL 1/10/10

Secondary Review Performed By: Tayata Gf 12/18/09

Tritium Que Sheet

50 Orange

14-DEC-09

Batch #: 932551 **Analyst:** EXK2 **First Client Due Date** 10-JAN-10 **Internal Due Date:** 30-DEC-09

Spike Isotope: Hydrogen-3 **Spike Code:** 0134-K **Expiration Date:** 3/27/10 **Vol:** 0.1

LCS Isotope: Hydrogen-3 **LCS Code:** 0134-K **Expiration Date:** 3/27/10 **Vol:** 0.1

Prep Date: 12/17/09 **Initials:** EXK2 **Pipet ID:** 2970968 **Witness:** [illegible] 12/17/09

Sample ID	Client Samp ID	Type	Hazard Code	Min CRDL	Matrix	Client	Sample Date	Aliquot in vial (g/mL)	LSC Rack #	Dist Rig #	Vol added for Dist (mL)	Initial Sample Aliquot (g/mL)	Final Wt (g)	Dist Vol (mL)
242754003-1	CAPA-10-6901	SAMPLE		.2 pCi/mL	GROUND WAT	LANL010	09-DEC-09	10	22	32		50		13
1201994807-1	MB for batch 932551	MB		.2 pCi/mL	GROUND WAT	QC ACCOUNT		10	23	135		50		13
1201994808-1	CAPA-10-6901(242754003DUP)	DUP		.2 pCi/mL	GROUND WAT	QC ACCOUNT	09-DEC-09	10	24	141		50		13
1201994809-1	CAPA-10-6901(242754003MS)	MS		.2 pCi/mL	GROUND WAT	QC ACCOUNT	09-DEC-09	10	25	257		50		13
1201994810-1	LCS for batch 932551	LCS		.2 pCi/mL	GROUND WAT	QC ACCOUNT		10	35-2	292		50		13

Bkg Rack #: 21 | 35-1

dailies ✓

Comments:

Instrument Used (circle as appropriate): *LS6000 (Red) 7065155, LS6500 (Blue) 7067083, LS6500 (Gold) 7070506, LS6500 (Green) 7067404, Wallac (Yellow) 4040127, LS6000 (Brown) 7060655, Wallac (Pink) 2200082, Wallac (White) 4140299, Purple 7069123, Silver 7060656* ORANGE

Bkg prepared with dead water? Yes/No

Calibration Used : *Ultima Gold LLT (10 mL sample/13 mL LLT) poly vial; Ecoscint Ultra (10 mL sample/13 mL Econscint Ultra)*

Data Reviewed By: [illegible] 12/18/09

GEL Laboratories LLC, Radiochemistry Division

Tritium Liquid

Filename : H3DST.XLS
File type : Excel
Version # : 1.2.5

Batch : 932551
Analyst : EXK2
Prep Date : 12/17/2009

H-3 Abundance : 1
Method Uncertainty : 0.0983
Geometry: 10mL DW/13mL Ecoscint Ultra

Spike S/N : 0134-K
Spike Exp Date : 3/27/2010
Spike Activity (dpm/ml): 2489.58
Spike Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1.0 ml Stdev : +/- 0.005480 ml
Pipet, 5.0 ml Stdev : +/- 0.025729 ml

LCS S/N : 0134-K
LCS Exp Date : 3/27/2010
LCS Activity (dpm/ml): 2489.58
LCS Volume Added: 0.10

Procedure Code : LSCDSH3L
Parmname : Tritium
Required MDC : 200 pCi/L
Halflife of Tritium : 12.32 years

Sample Characteristics

Pos.	Sample ID	Total Sample Volume (L)	Sample Aliquot L	Sample Aliquot StDev. L	Distilled Sample Counted L	Sample Counted StDev. L	Rig number	Sample Date/Time
1	242754003.1	0.0500	0.0500	7.8337E-06	0.0100	2.5729E-05	32	12/9/2009 12:00
2	1201994807.1	0.0500	0.0500	7.8337E-06	0.0100	2.5729E-05	135	12/17/2009 0:00
3	1201994808.1	0.0500	0.0500	7.8337E-06	0.0100	2.5729E-05	141	12/9/2009 12:00
4	1201994809.1	0.0500	0.0500	7.8337E-06	0.0100	2.5729E-05	257	12/9/2009 12:00
5	1201994810.1	0.0500	0.0500	7.8337E-06	0.0100	2.5729E-05	292	12/17/2009 0:00

Count raw Data					Background				Calibration Data					Backgrounds	
Pos.	Rack Position #	Counting Time (min.)	Quench#	Gross cpm	cpm	Count Time (min.)	Count Start Date/Time	Sample Decay	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Rack Position #	Count Start Date/Time
1	22	50.0297	757.22	1.02	1.45	50	12/17/2009 21:35	0.999	LSCORANGE	7/23/2009	7/31/2010	0.2665	0.00792	21	12/17/2009 20:42
2	23	50.0297	761.33	1.12	1.45	50	12/17/2009 22:27	1.000	LSCORANGE	7/23/2009	7/31/2010	0.2732	0.00792	21	12/17/2009 20:42
3	24	50.0296	756.99	1.57	1.45	50	12/17/2009 23:20	0.999	LSCORANGE	7/23/2009	7/31/2010	0.2662	0.00792	21	12/17/2009 20:42
4	25	15.0297	758.74	14.98	1.45	50	12/18/2009 0:12	0.999	LSCORANGE	7/23/2009	7/31/2010	0.2690	0.00792	21	12/17/2009 20:42
5	35-2	15	110.9	14.2	3.27	15	12/18/2009 12:13	1.000	LSCBROWN	9/9/2009	9/30/2010	0.2361	0.00792	35-1	12/18/2009 11:57

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

* - RPD changed to 0% due to activity below MDC for 1201994808.1

Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	94.9268	67.0191	200	144.1854	**-72.7639**	0.5168	-0.4300	0.2222	37.5995	37.6010		SAMPLE				
2	92.4906	65.2991	200	140.4849	**-54.4089**	0.6869	-0.3300	0.2266	37.3688	37.3702		MB				
3	95.0628	67.1151	200	144.3919	**20.3353**	2.0474	0.1200	0.2457	41.6350	41.6834	242754003.1	DUP	0.0%	0.5871		
4	138.3630	97.6855	200	228.8356	**2268.3581**	0.0754	13.5300	1.0128	169.7928	280.9635	242754003.1	MS			2245.4614	101.0%
5	293.6289	207.3045	200	452.7797	**2086.0262**	0.0991	10.9300	1.0792	205.9683	291.2074		LCS			2242.8688	93.0%

REGISTRY

THU 17 DEC 2009 20:41

*** DIRECTORY PATH :S:\LSC\O\DA\932551A0 ***

PARAMETER GROUP: 8
ID: H-3 (1)

00A PROGRAM MODE 6 ->

ORDER	POS	ID	CTIME	COUNTS	CUCNTS	MCW	REP	STD	STMS	STIME
1	21	BKG	50:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
2	22	242754003	50:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
3	23	1201994807	50:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
4	24	1201994808	50:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
5	25	1201994809	15:00	1.0E04	NO LIM	1	1	Y	1/10	1:00
~~6~~	~~26~~	~~1201994810~~	~~15:00~~	~~1.0E04~~	~~NO LIM~~	~~1~~	~~1~~	~~Y~~	~~1/10~~	~~1:00~~ JP 12/18/09

NUMBER OF CYCLES 1
COINCIDENCE BIAS (L/H) L

MCA	INPUT	TRIGG.	INHIBIT	MEMORY SPLIT
1	LRSUM	DCOS	G	L*R
2	GSUM	G		L*R

WINDOW	CHANNELS	MCA	HALF
1	50- 175	1	2
2	5- 320	1	2
3	1- 1024	1	2
4	50- 320	1	1
5	50- 270	1	1
6	60- 220	1	1
7	1- 1024	2	1
8	1- 1024	2	2

SELECTED PRINTOUT FOR TERMINAL 1 (A)

SELECTED PRINTOUT FOR TERMINAL 2 (B)

1.	2.	3.	4.	5.	6.	7.
POS	ID	CTIME	SQP	CPM1	CPM2	CPM3

SEND SPECTRA 12
RESOLUTION OF SPECTRA 1024
LISTING Y
INSTRUMENT NUMBER 1

POS	ID	CTIME	SQP	CPM1	CPM2	CPM3
Q012101N.001 17 DEC 2009 21:33						
21	BKG	50:01.780	758.85	1.45	2.86	7.56
Q022201N.001 17 DEC 2009 22:26						
22	242754003	50:01.780	757.22	1.02	2.27	6.30
Q032301N.001 17 DEC 2009 23:18						
23	1201994807	50:01.780	761.33	1.12	2.57	7.11
Q042401N.001 18 DEC 2009 0:11						
24	1201994808	50:01.773	756.99	1.57	3.00	7.69
Q052501N.001 18 DEC 2009 0:28						

25	1201994809	15:01.780	758.74	14.98	18.72	24.38

~~Q062601N.001 18 DEC 2009 0:46~~

~~26~~	~~1201994810~~	~~15:01.780~~	~~756.93~~	~~17.50~~	~~19.68~~	~~24.04~~

LP 12/18/09

Instrument Type:	Quantulus
Data Capture Date:	THU 17 DEC 2009 20:41
FileName:	s:\lsc\files\orange\932551A0\SQ012101N.001.xls
File Info:	s:\lsc\files\orange\932551A0\U932551A0.xls
ID:	H-3 (1)
Comments:	ORANGE
Sample, Rack-Pos, Time:	1, BKG, 50.02967:
Quench:	758.85
Start, End, X-Axis	50-175

Channel Counts

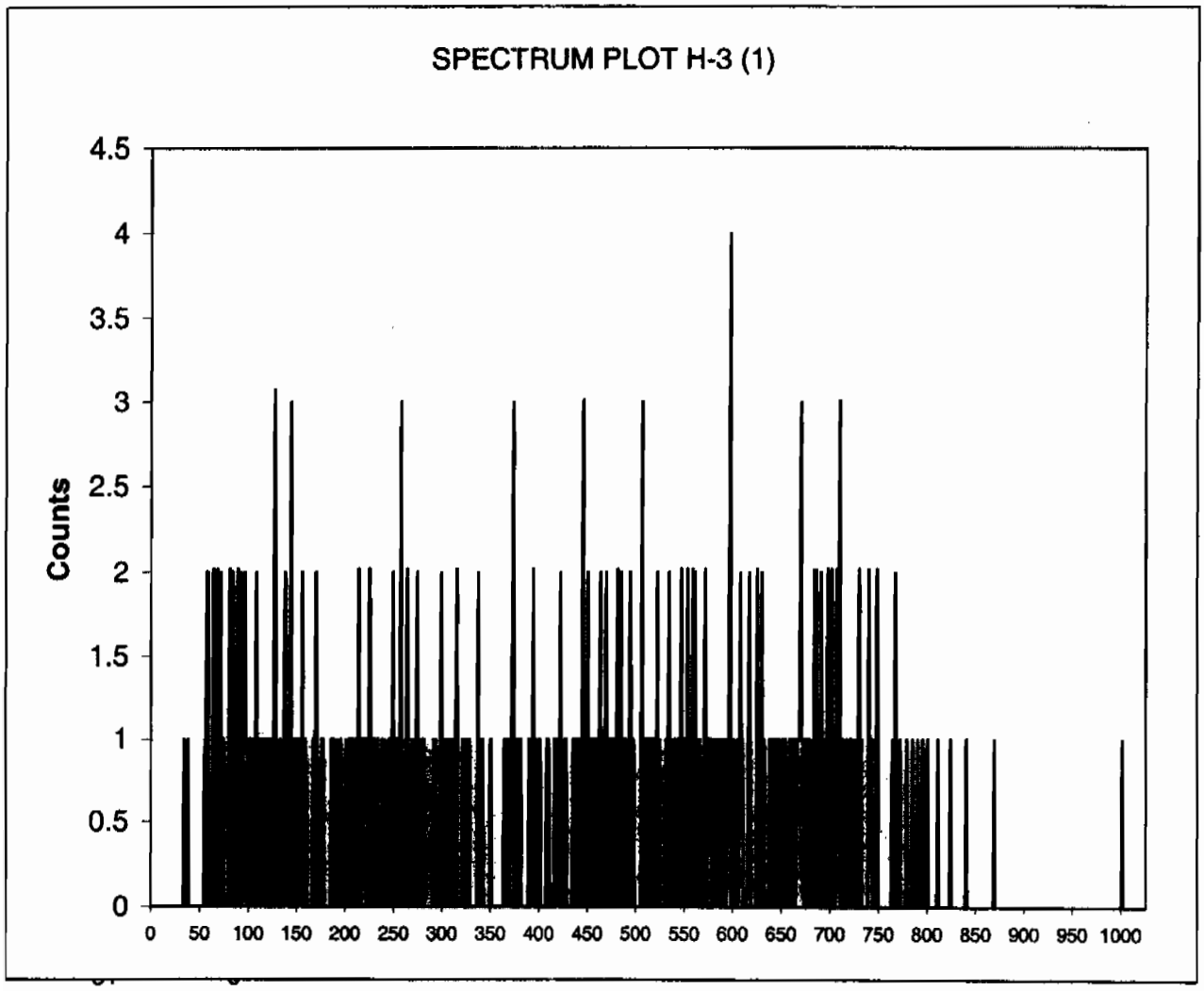

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33	0
34	1
35	0

Instrument Type:	Quantulus
Data Capture Date:	THU 17 DEC 2009 20:41
FileName:	s:\lsc\files\orange\932551A0\SQ022201N.001.xls
File Info:	s:\lsc\files\orange\932551A0\U932551A0.xls
ID:	H-3 (1)
Comments:	ORANGE
Sample, Rack-Pos, Time:	2, 242754003, 50.02967:
Quench:	757.22
Start, End, X-Axis	50-175

Channel Counts

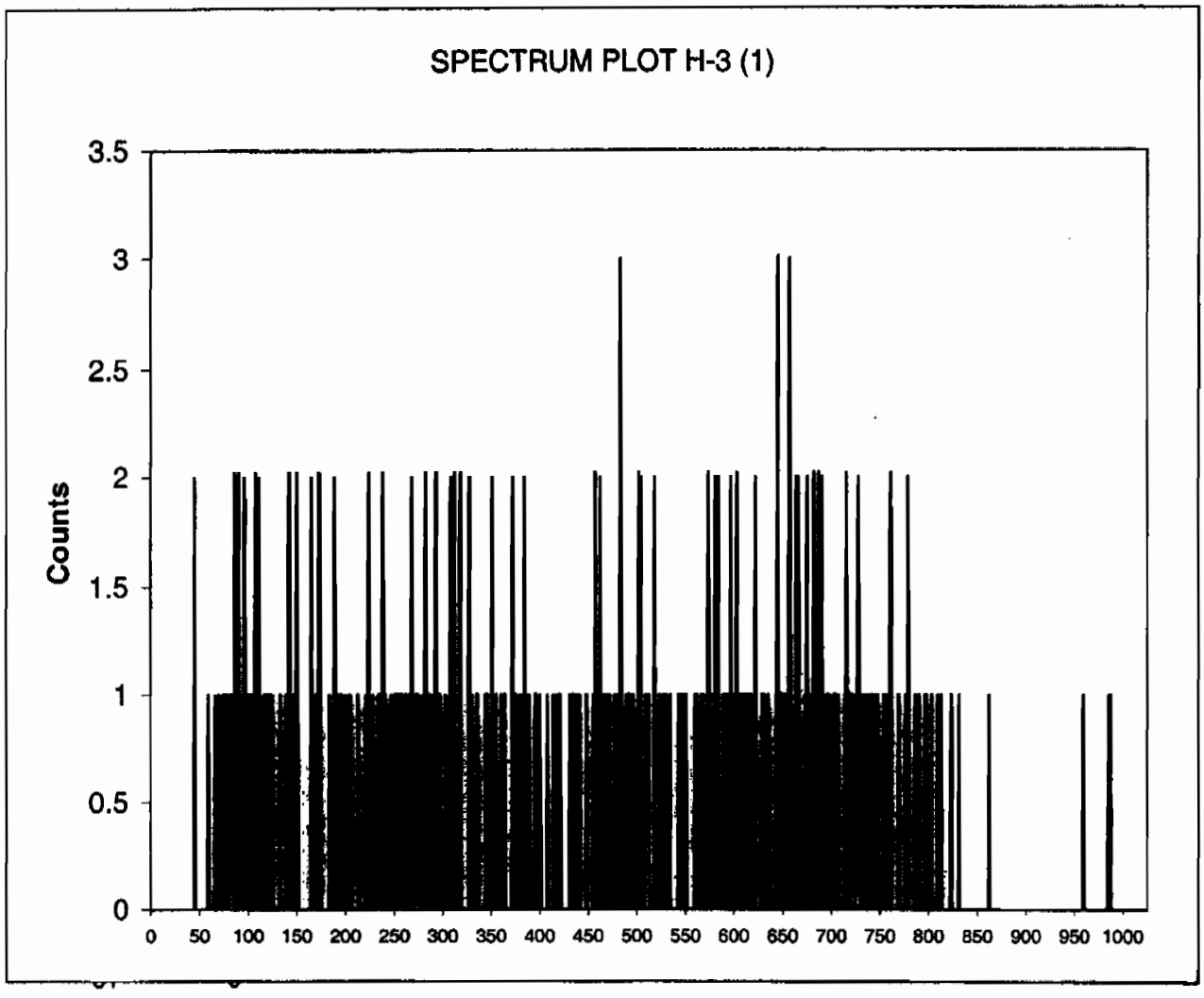

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33	0
34	0
35	0

Instrument Type:	Quantulus
Data Capture Date:	THU 17 DEC 2009 20:41
FileName:	s:\lsc\files\orange\932551A0\SQ032301N.001.xls
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ID:	H-3 (1)
Comments:	ORANGE
Sample, Rack-Pos, Time:	3, 1201994807, 50.02967:
Quench:	761.33
Start, End, X-Axis	50-175

Channel Counts

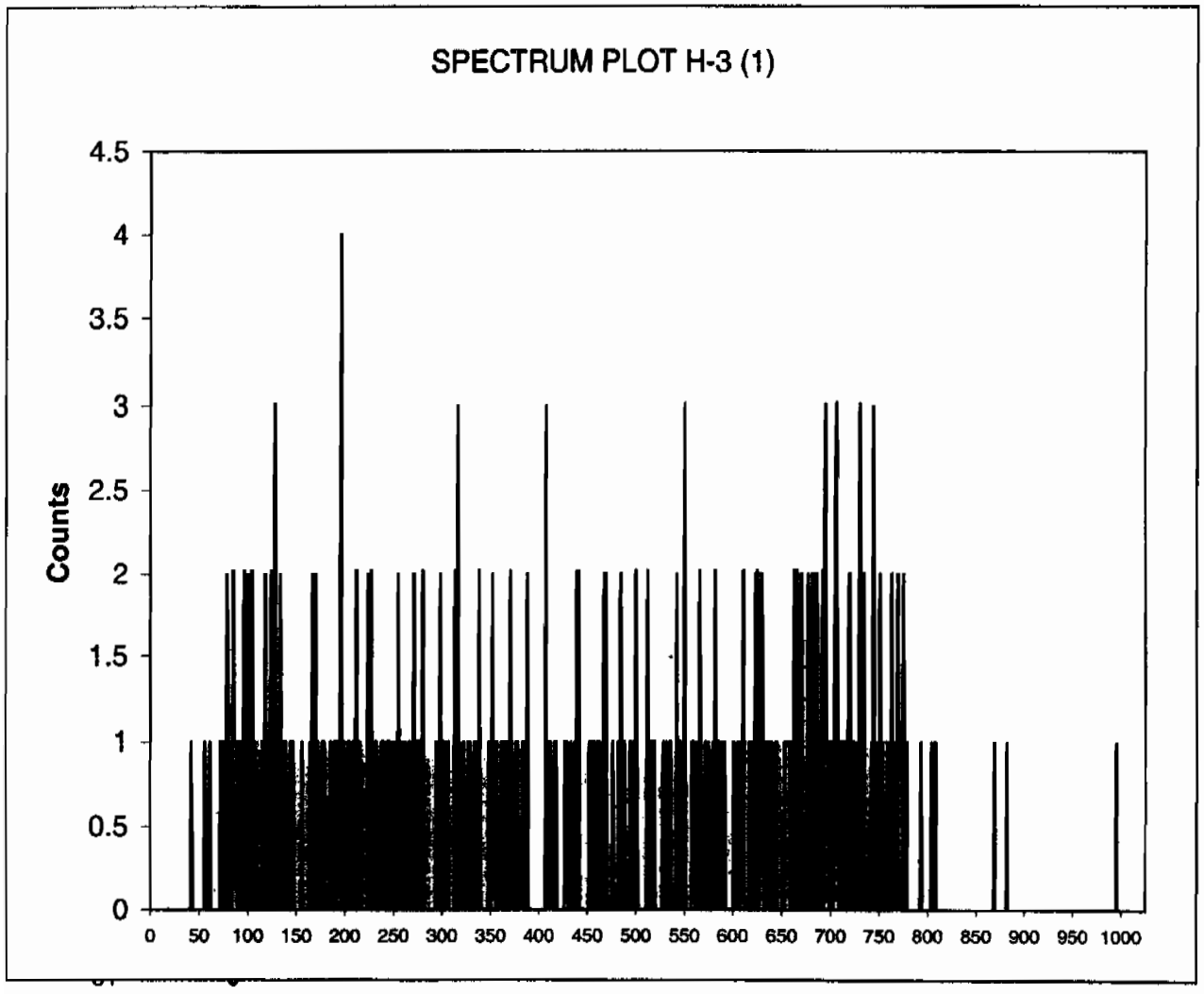

32	0
33	0
34	0
35	0

Instrument Type:	Quantulus
Data Capture Date:	THU 17 DEC 2009 20:41
FileName:	s:\lsc\files\orange\932551A0\SQ042401N.001.xls
File Info:	s:\lsc\files\orange\932551A0\U932551A0.xls
ID:	H-3 (1)
Comments:	ORANGE
Sample, Rack-Pos, Time:	4, 1201994808, 50.02955:
Quench:	756.99
Start, End, X-Axis	50-175

Channel Counts

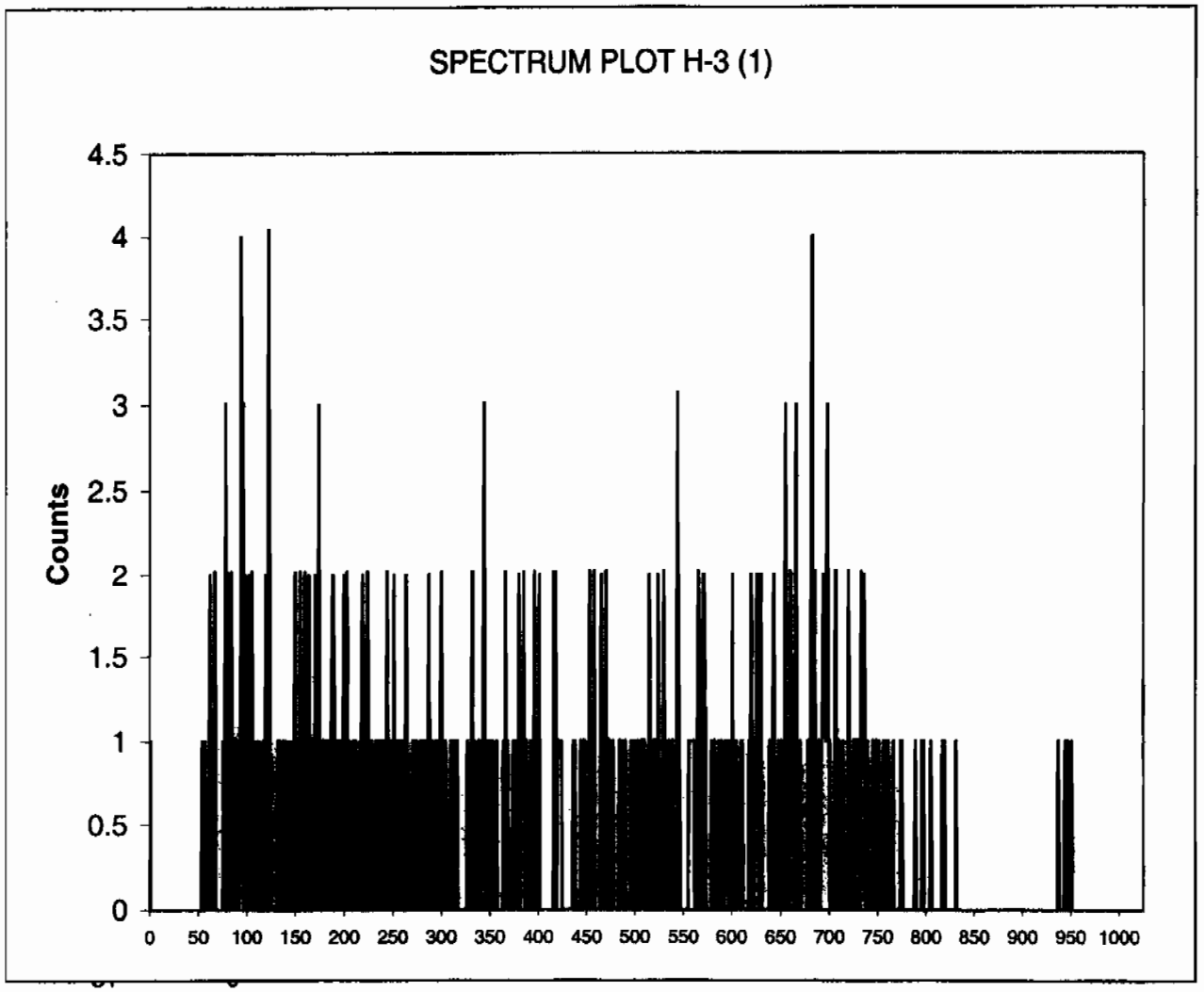

32	0
33	0
34	0
35	0

Instrument Type:	Quantulus
Data Capture Date:	THU 17 DEC 2009 20:41
FileName:	s:\lsc\files\orange\932551A0\SQ052501N.001.xls
File Info:	s:\lsc\files\orange\932551A0\U932551A0.xls

ID:	H-3 (1)
Comments:	ORANGE

Sample, Rack-Pos, Time:	5, 1201994809, 15.02967:
Quench:	758.74
Start, End, X-Axis	50-175

Channel Counts

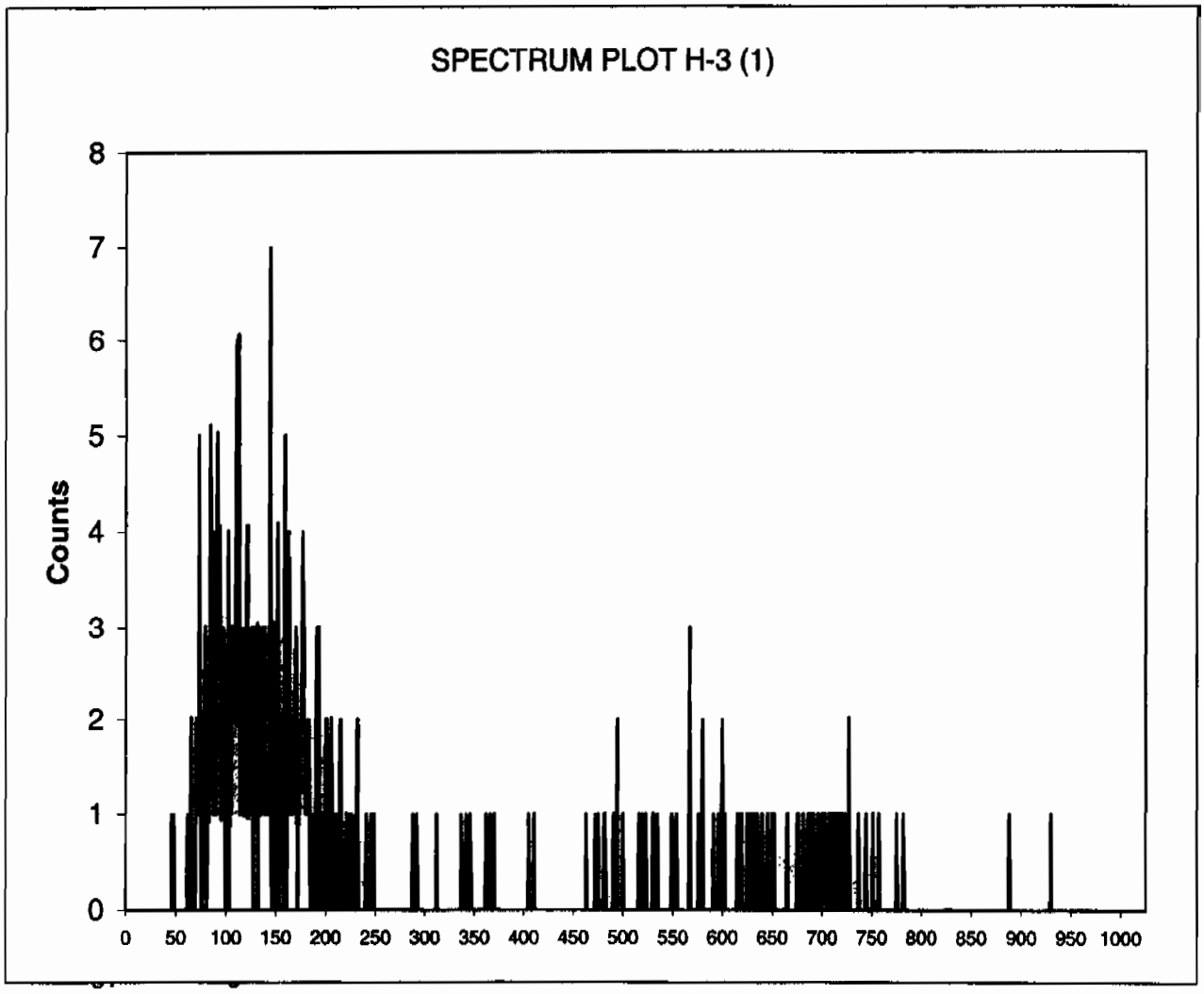

32	0
33	0
34	0
35	0

ID: TRITIUM 18 DEC 2009 12:01

USER: 6 COMMENT: BROWN

PRESET TIME : 15.00

DATA CALC :	CPM	H#	: LS	SAMPLE REPEATS:	1	PRINTER	: STD
COUNT BLANK :	NO	IC#	: NO	REPLICATES :	1	RS232	:EDIT
TWO PHASE :	NO	AQC	: NO	CYCLE REPEATS :	1	DISK	: OFF
SCINTILLATOR:	LIQUID	LUMEX	:YES	LOW SAMPLE REJ:	0		
LOW LEVEL :	NO	HALF LIFE CORRECTION DATE:				none	

CHAN: 0.0 - 240.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0

CHAN: 0.0 - 900.0 %ERROR: 2.00 FACTOR: 1.000000 BKG. SUB: 0

SAM NO	POS	TIME MIN	H#	WIND1 CPM	WIND1 %ERROR	LUMEX %	ELAPSED TIME
1	35-1	15.00	110.6	3.27	28.86	0.39	15.77
2	35-2	15.00	110.9	14.20	13.74	0.28	32.02

Sample Count Start Time:	18 Dec 2009 11:57:08		
Data Capture Date	18 Dec 2009 12:12:25		
User Filename	S06121835-1A.XLS		
	U06121835-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	1	35-1	15.00
H#, Total Counts:	110.6	545	
Win1: Tritium - Start, End, Counts:	0	240	49
Win2: - Start, End, Counts:	0	990	545

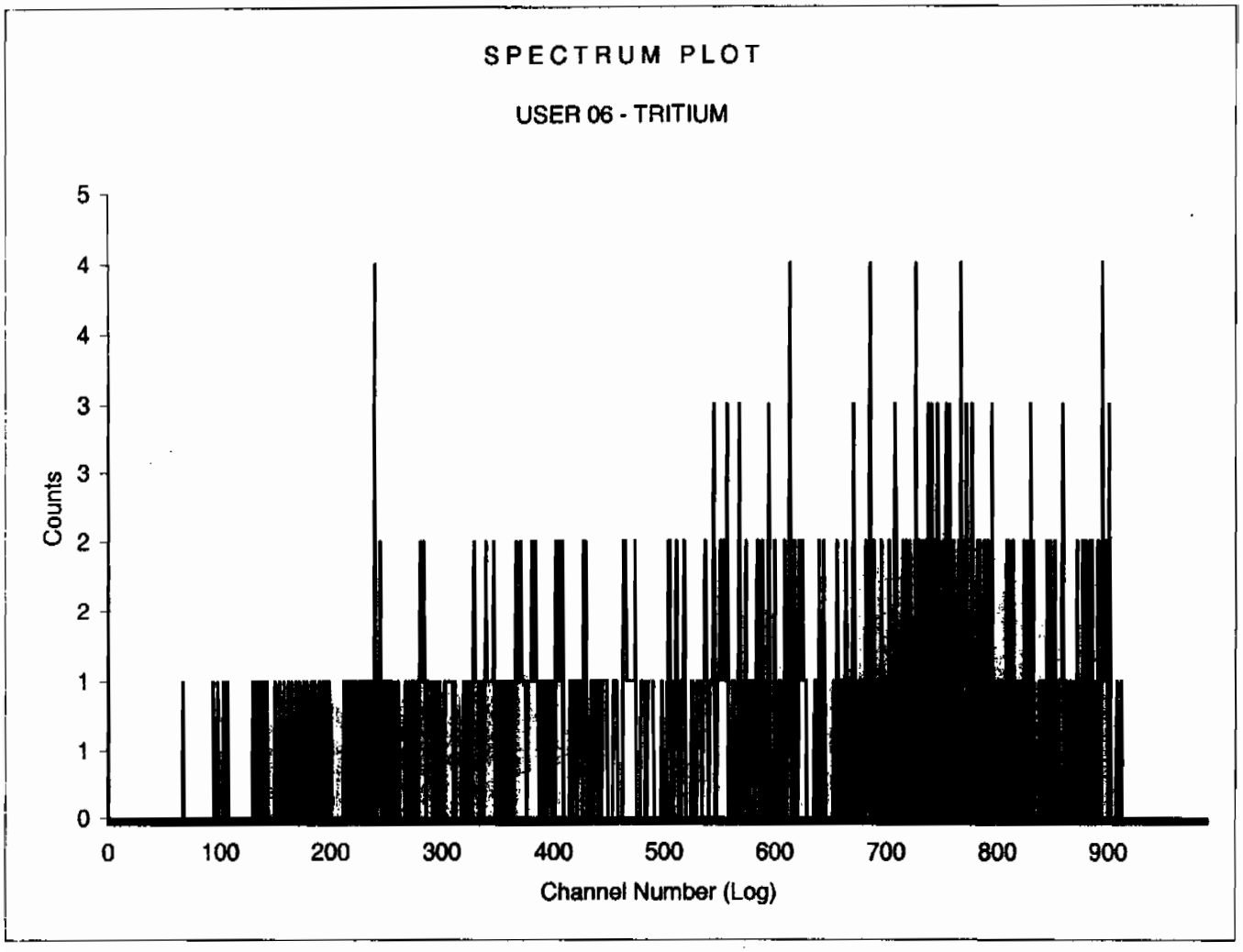

Sample Count Start Time:	18 Dec 2009 12:13:23		
Data Capture Date	18 Dec 2009 12:28:40		
User Filename	S06121835-2A.XLS		
	U06121835-1A.XLS		
Spectrum Type	Log Counts		
User Number	06		
User Id	TRITIUM		
User Comment	BROWN		
Isotope Name	14C		
Scintillator	LIQUID		
Sample, Rack-Pos, Time:	2	35-2	15.00
H#, Total Counts:	110.9	814	
Win1: Tritium - Start, End, Counts:	0	240	213
Win2: - Start, End, Counts:	0	990	814

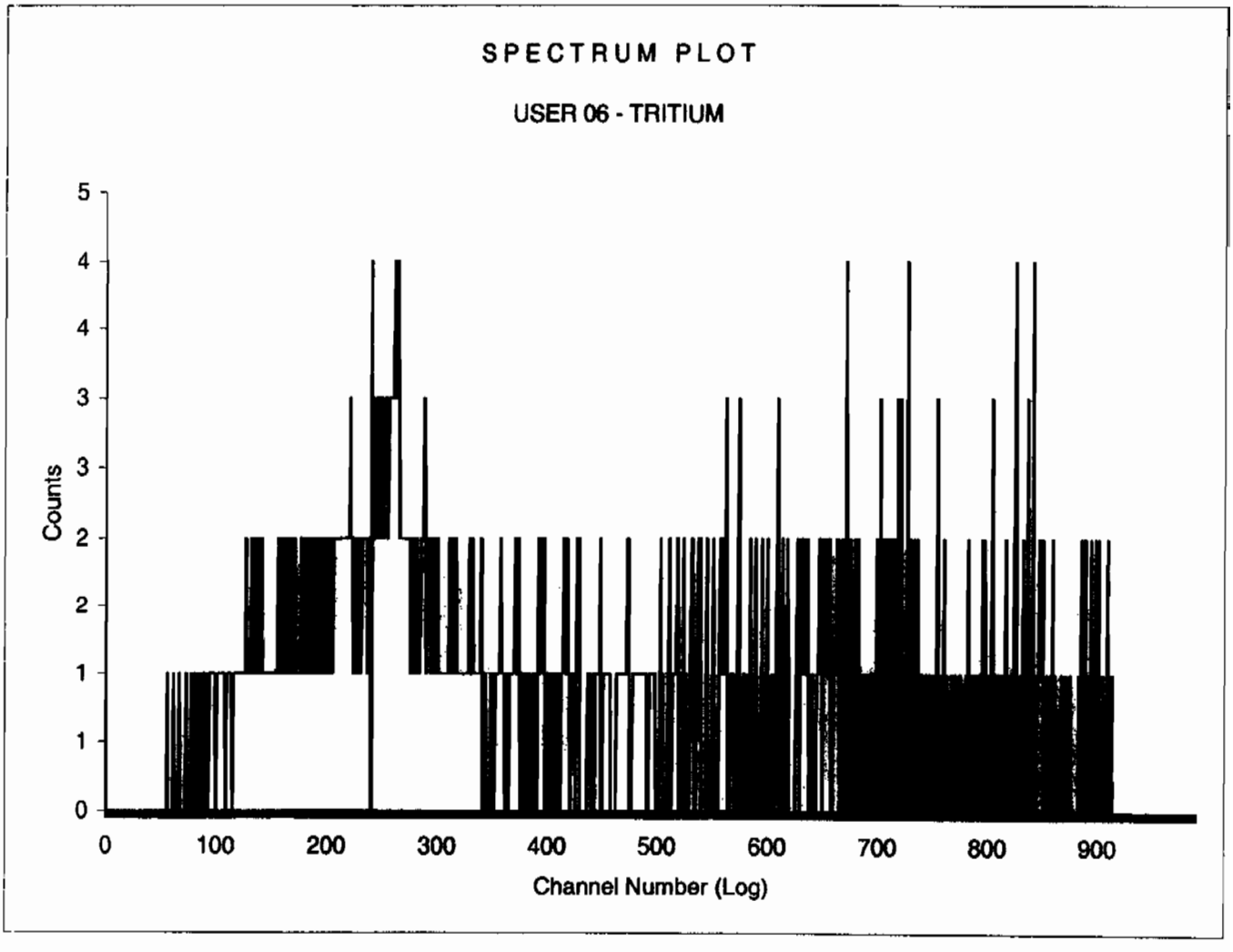

BACKGROUND AND EFFICIENCY DATA

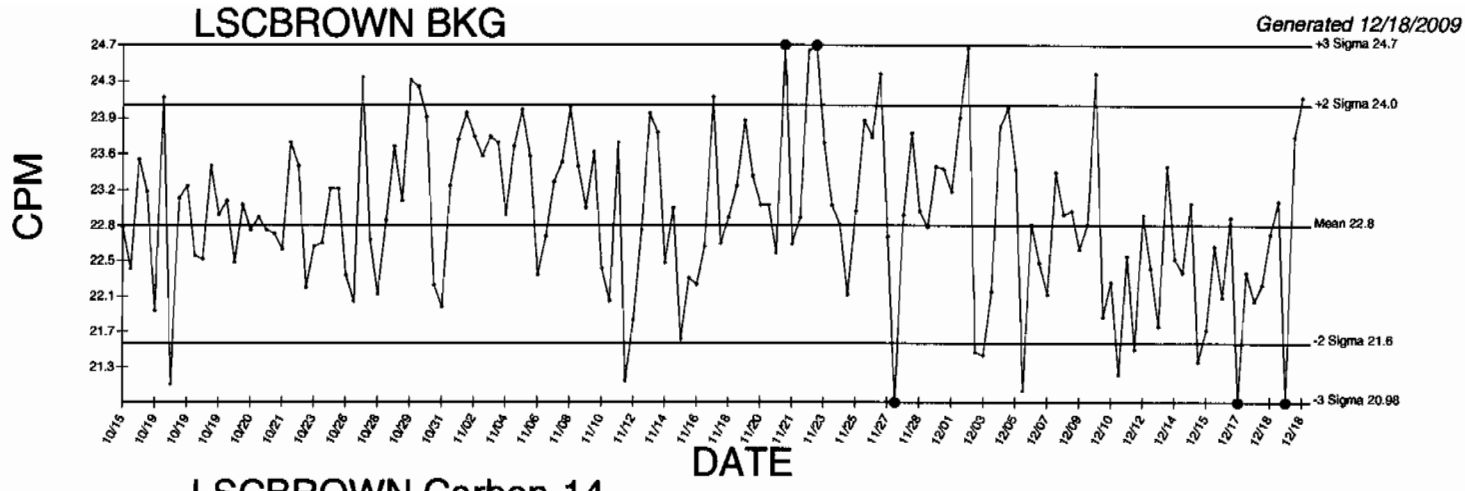

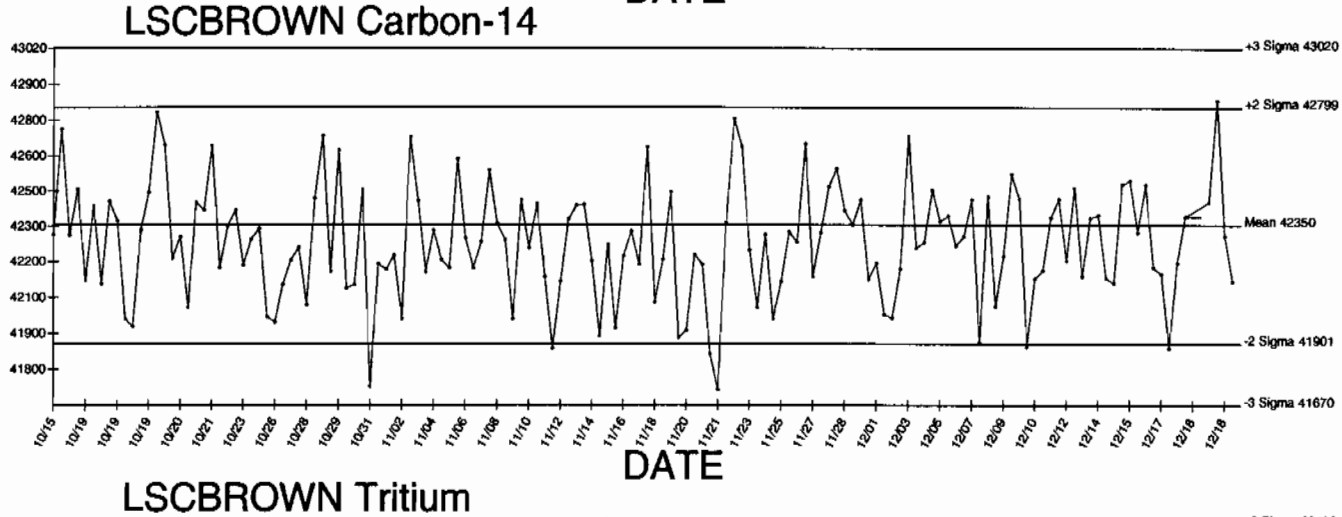

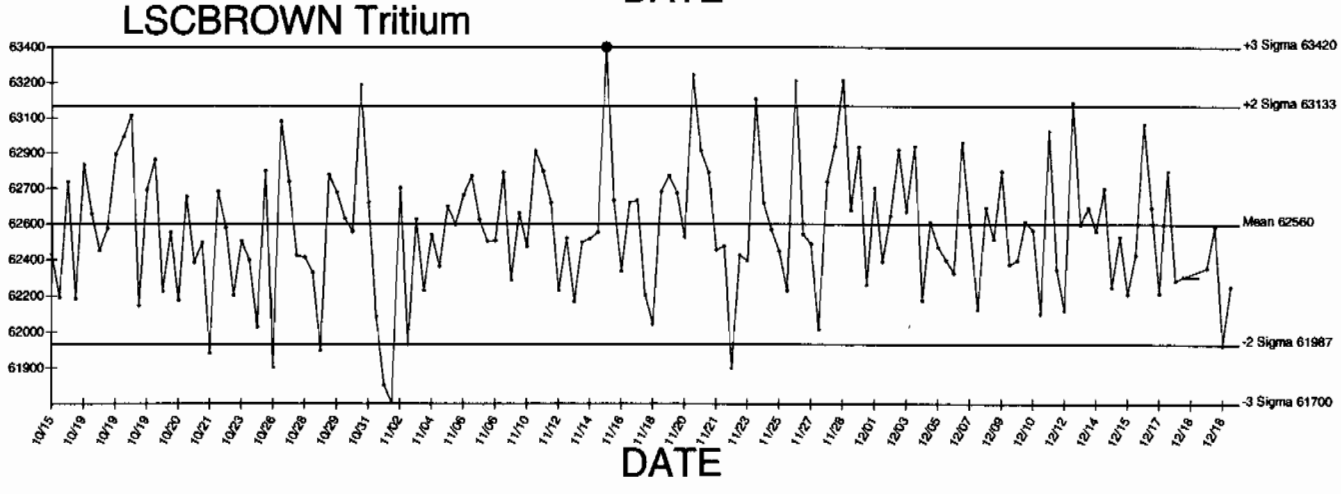

● Denotes Outlier

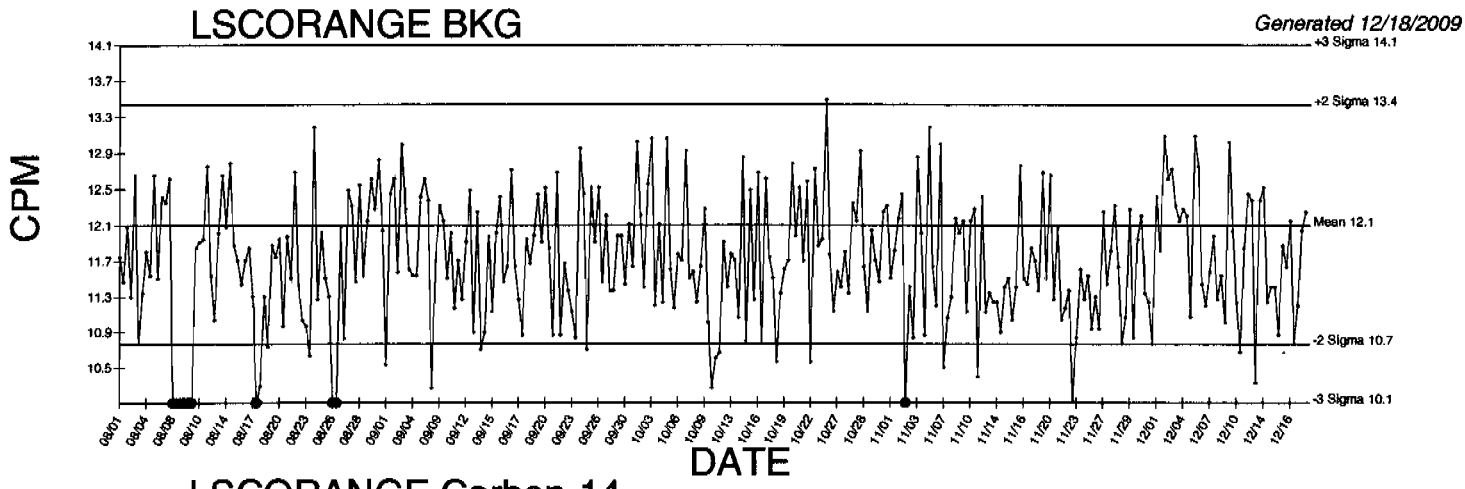

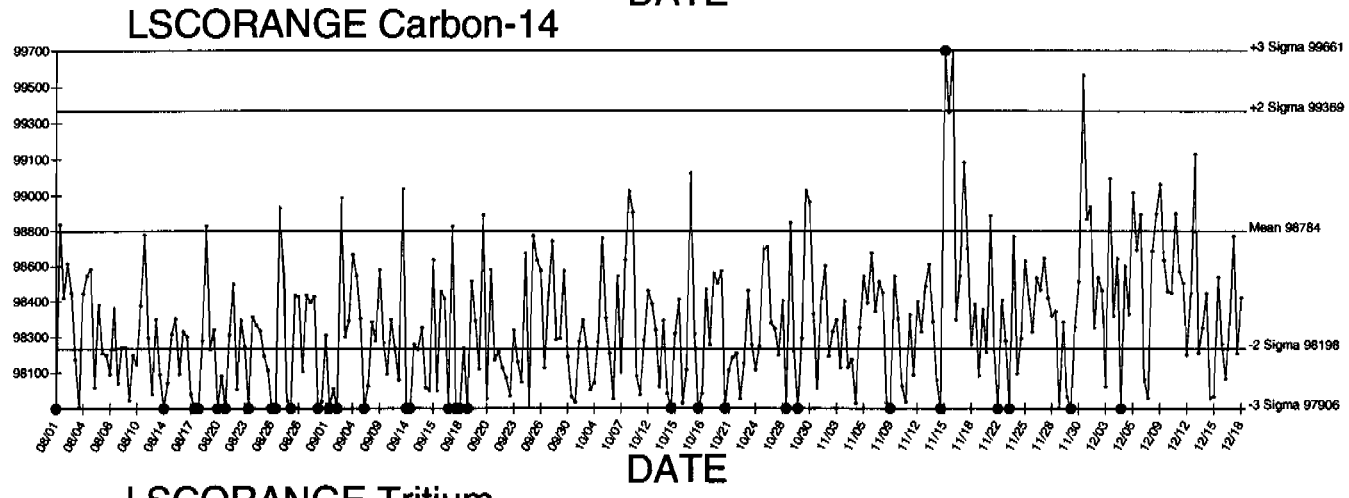

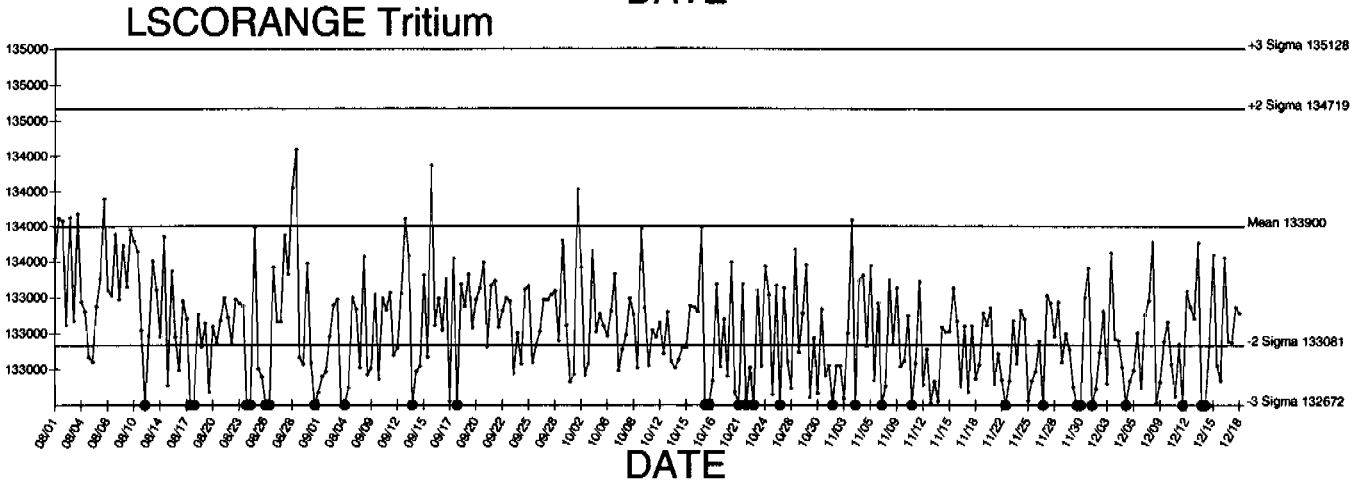

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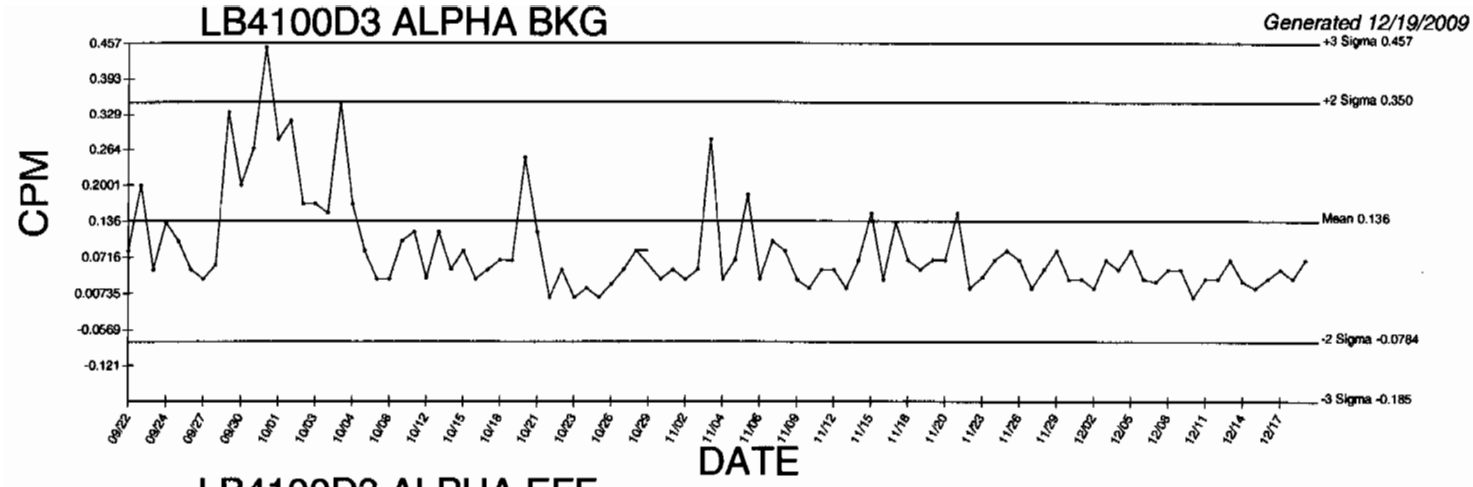
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DATE
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-2 Sigma -0.0784
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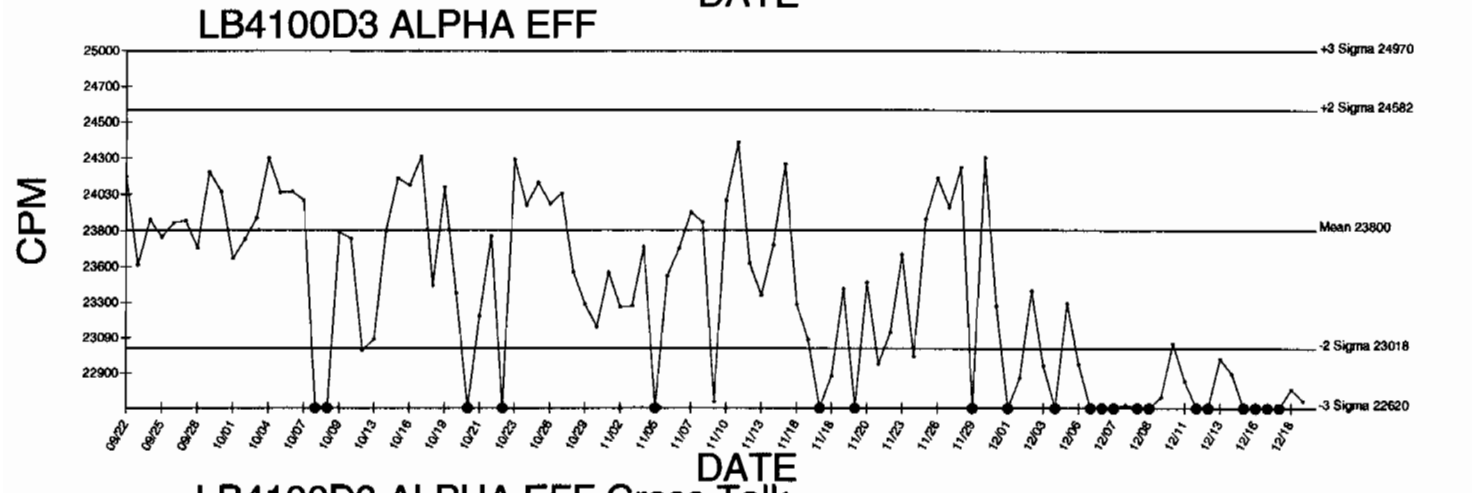
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CPM
DATE
+3 Sigma 24970
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Mean 23800
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-3 Sigma 22620

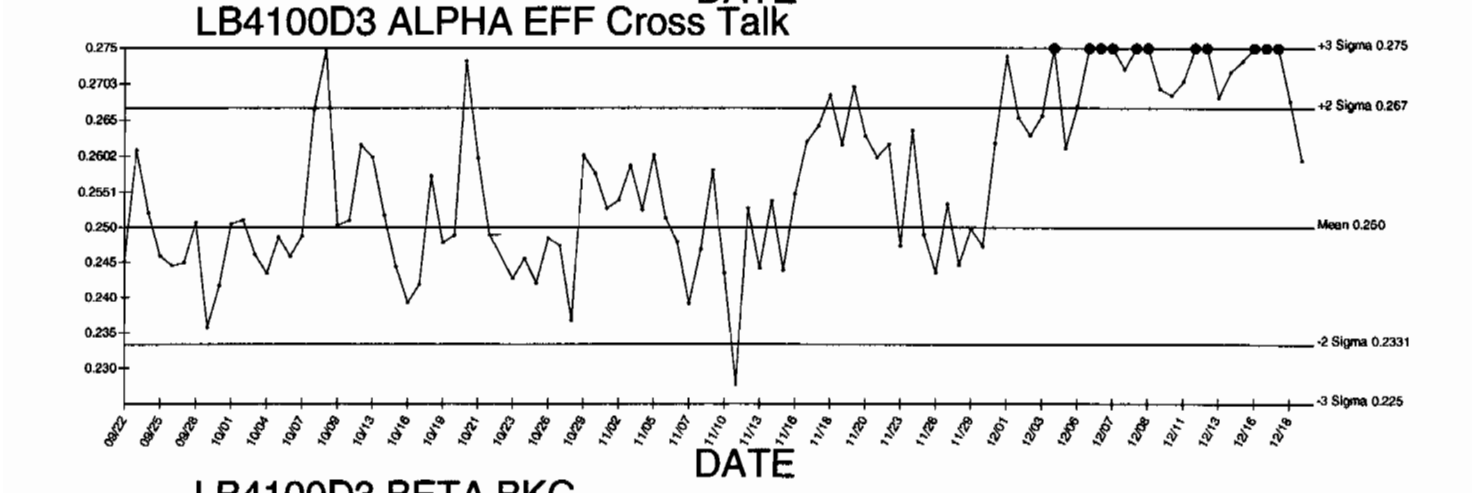
LB4100D3 ALPHA EFF Cross Talk
DATE
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Mean 0.250
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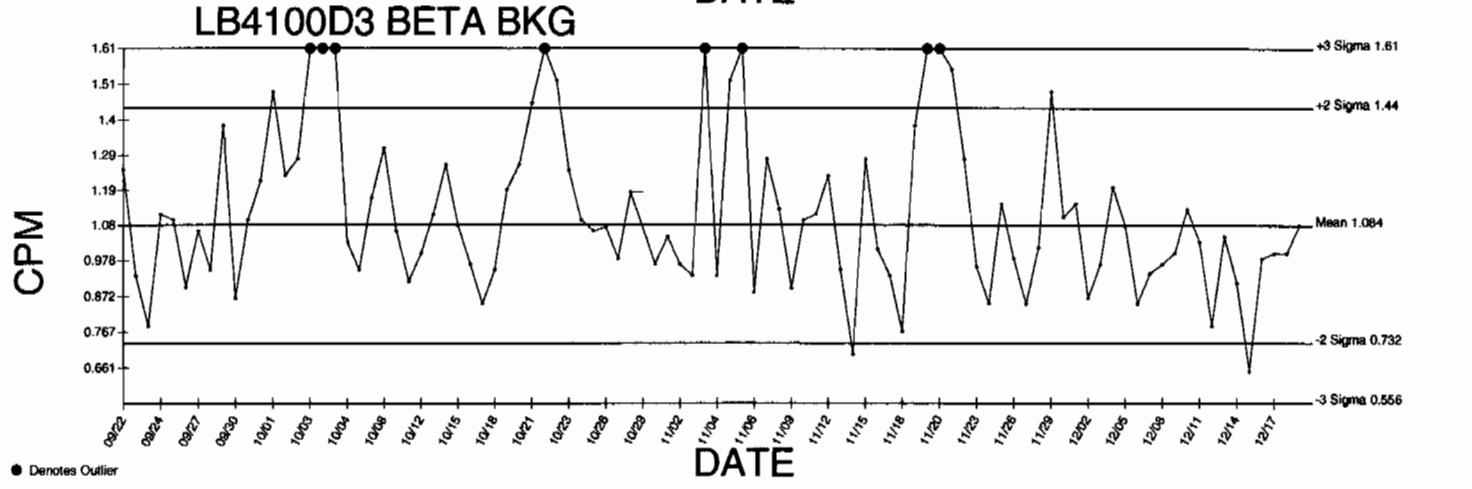
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CPM
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Mean 1.084
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● Denotes Outlier

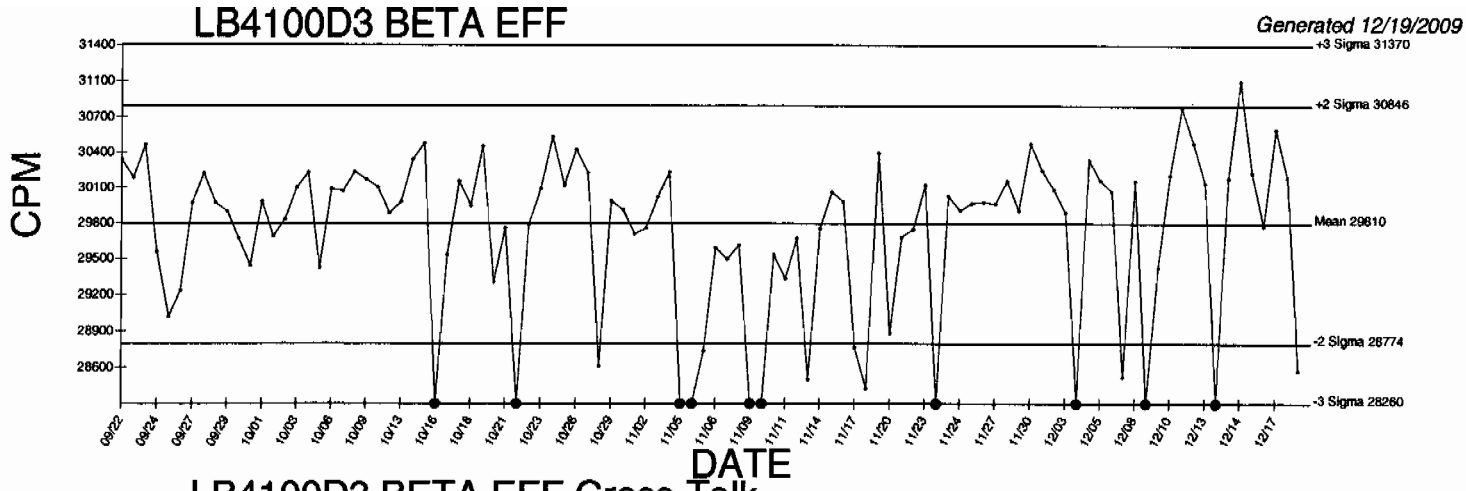

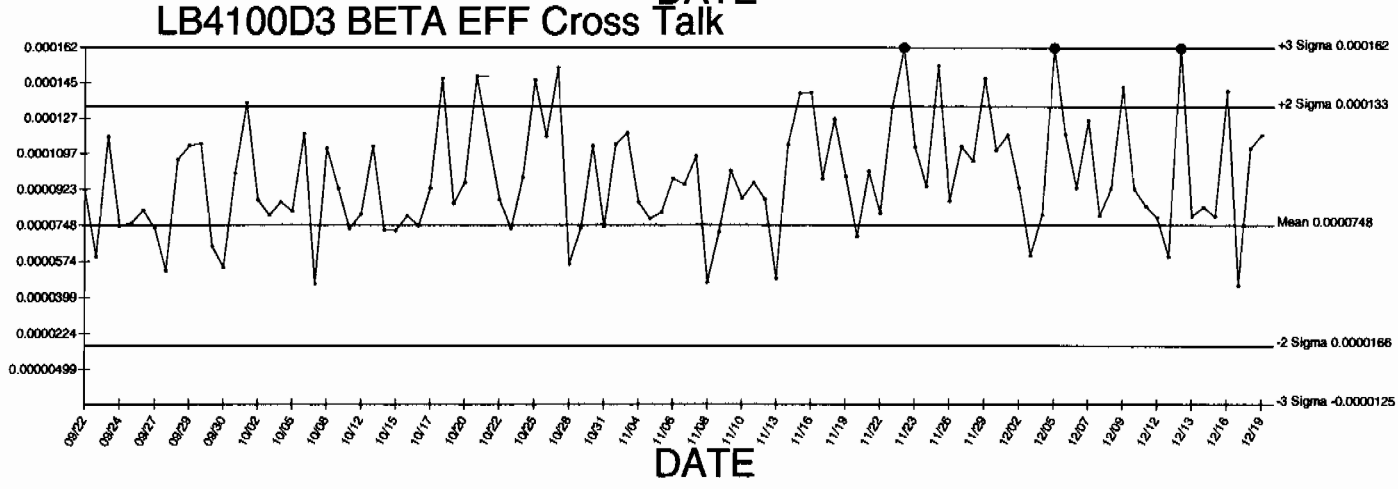

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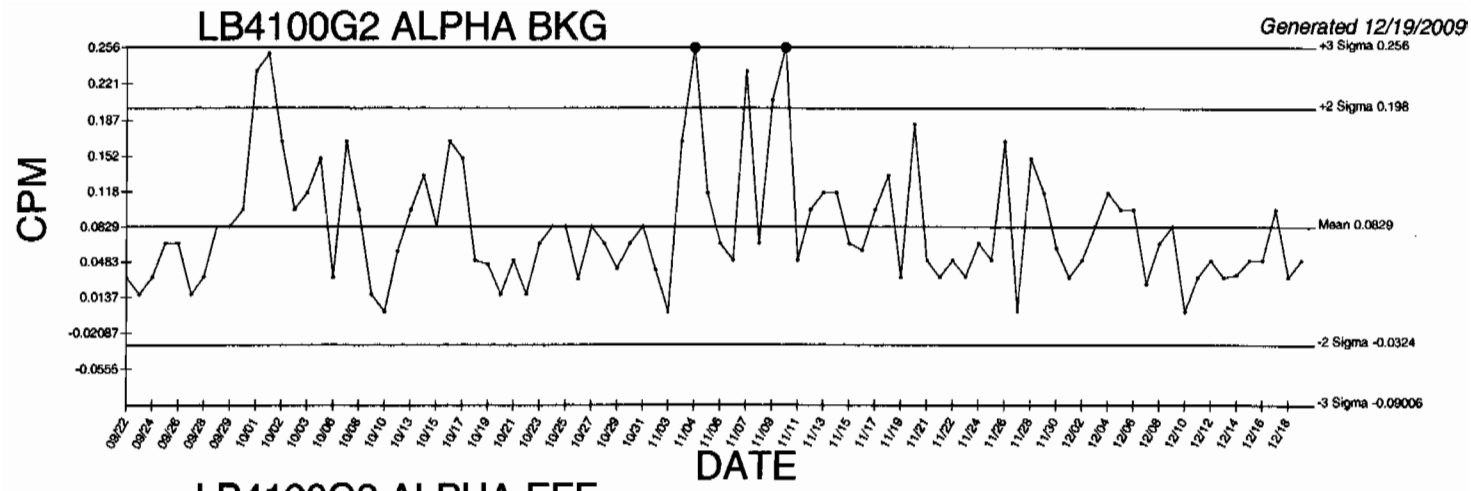

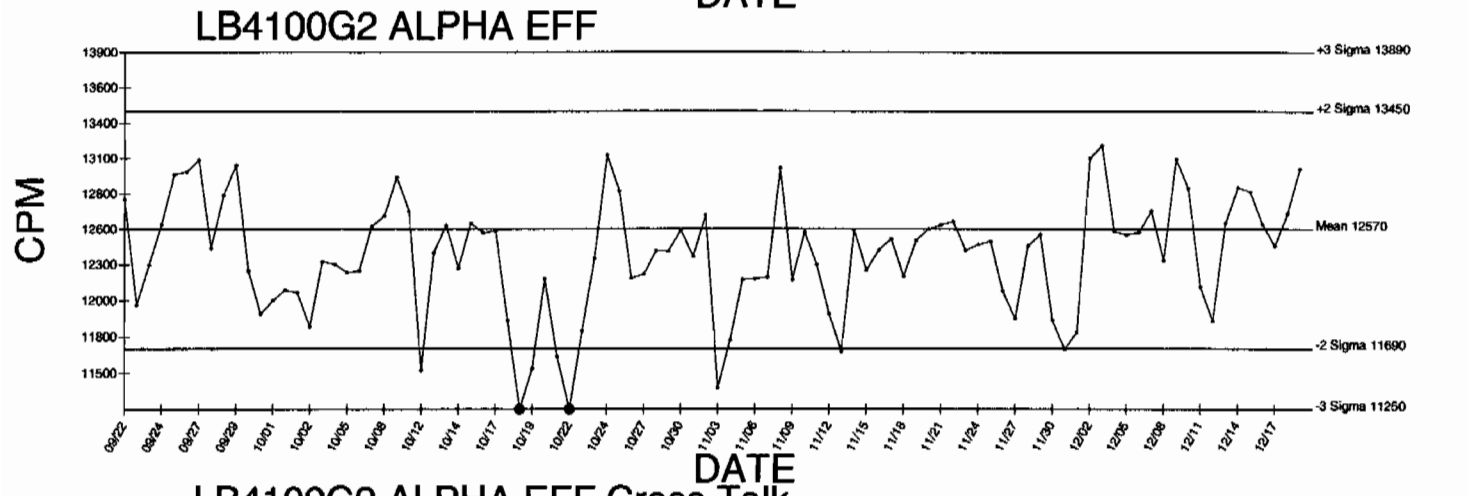

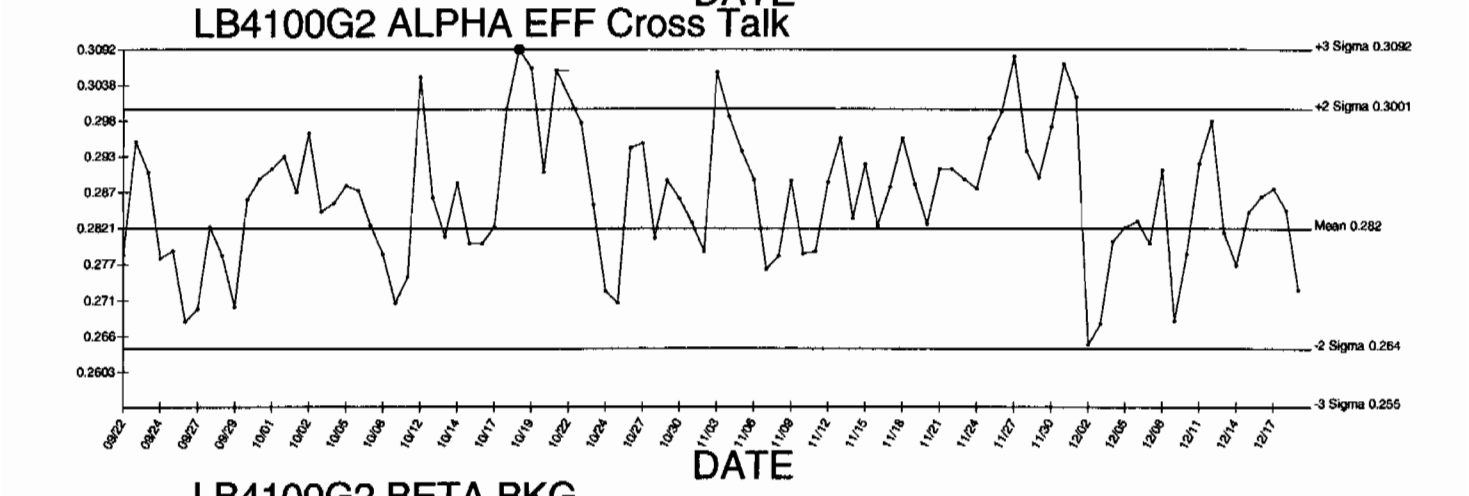

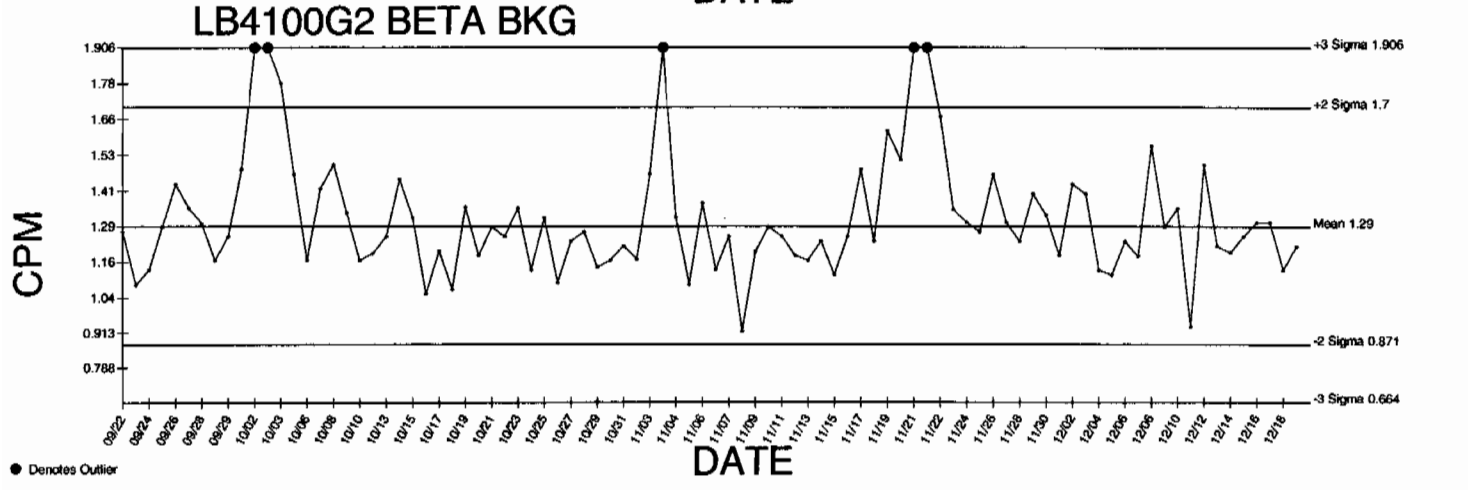

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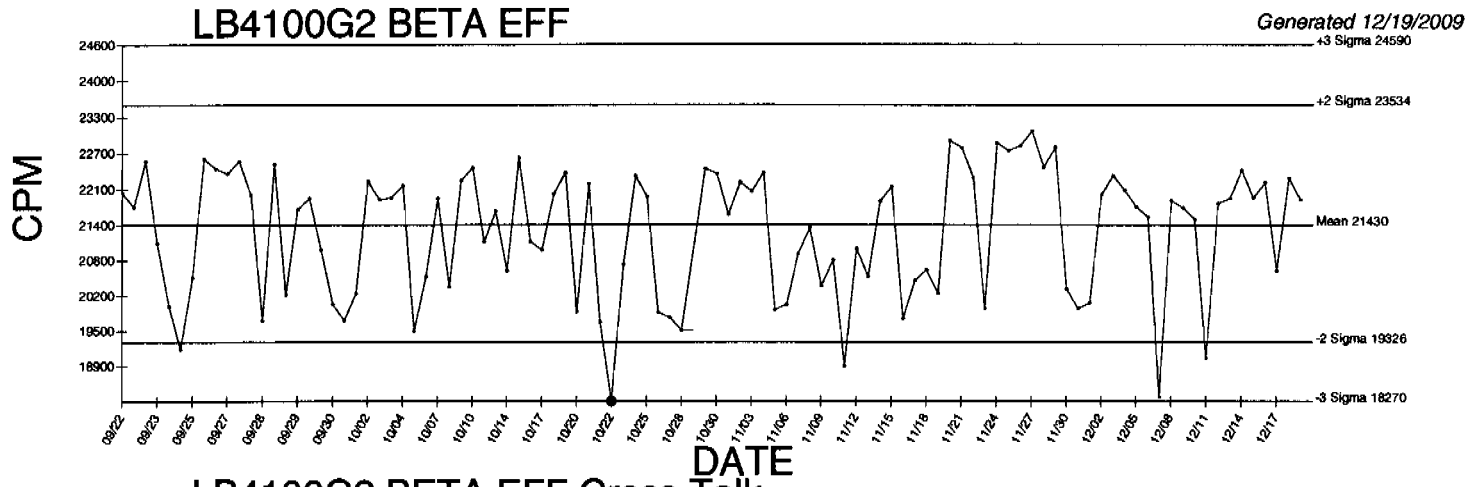

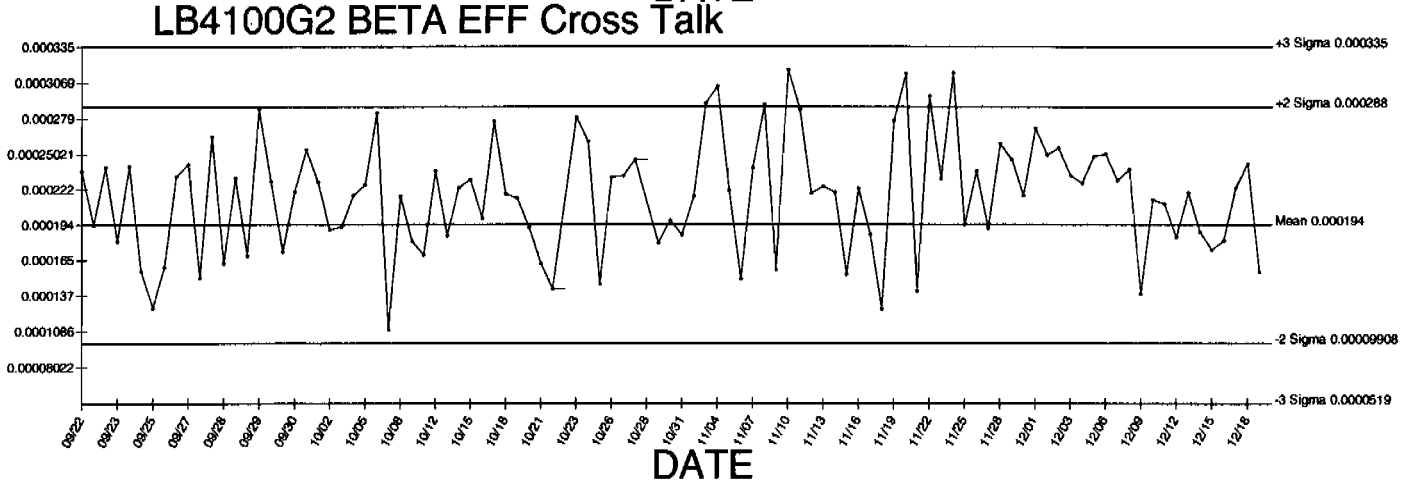

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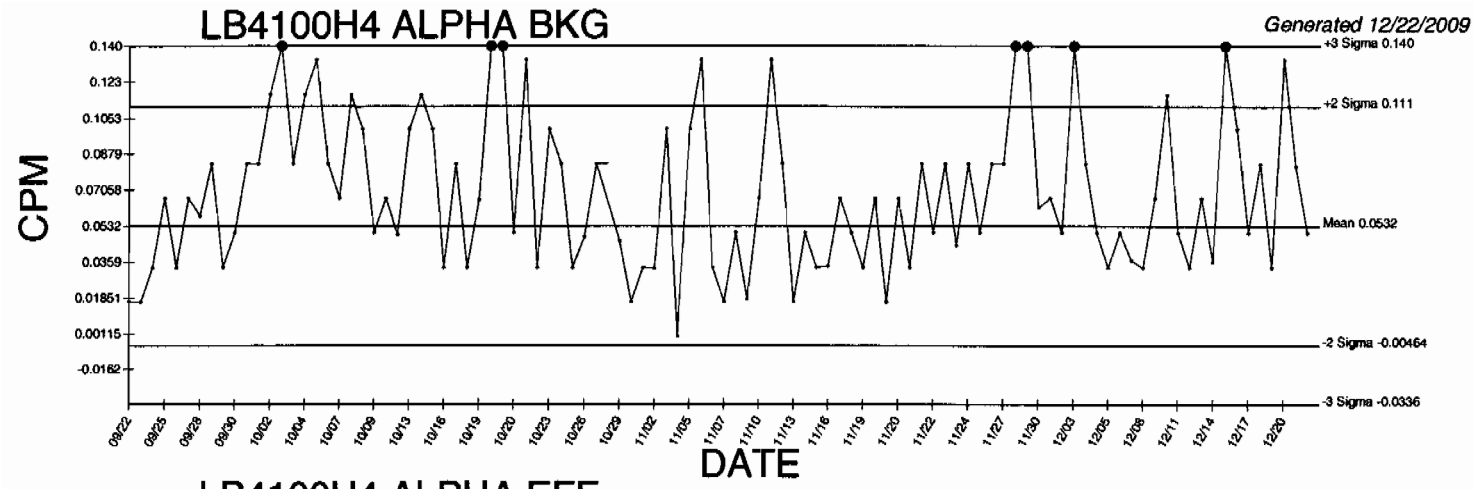

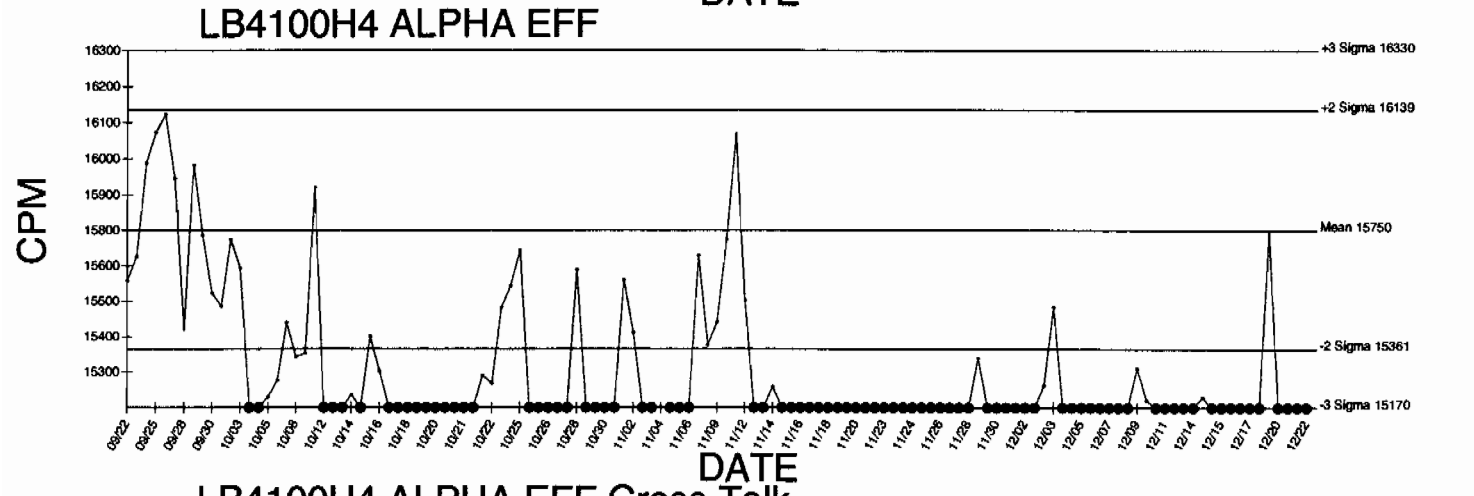

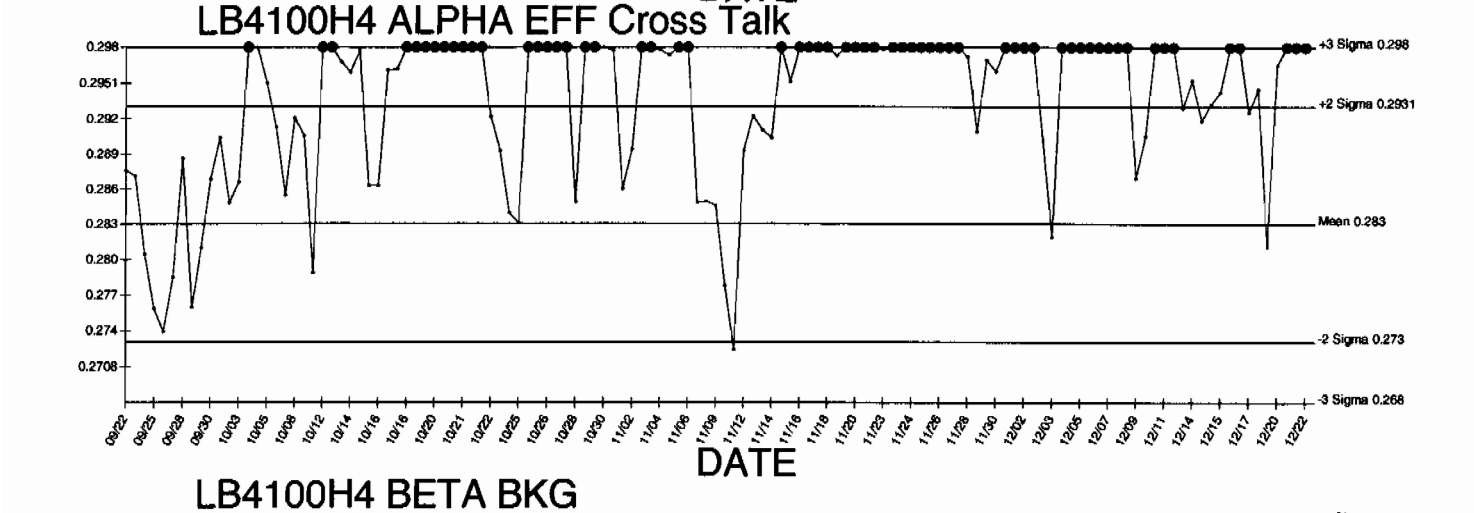

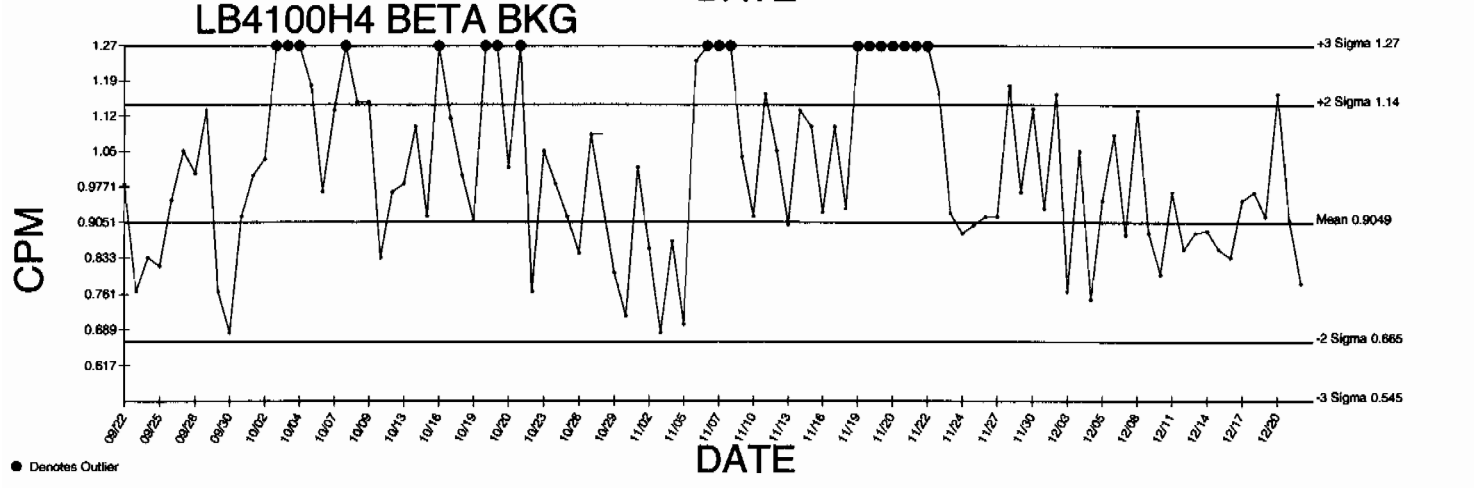

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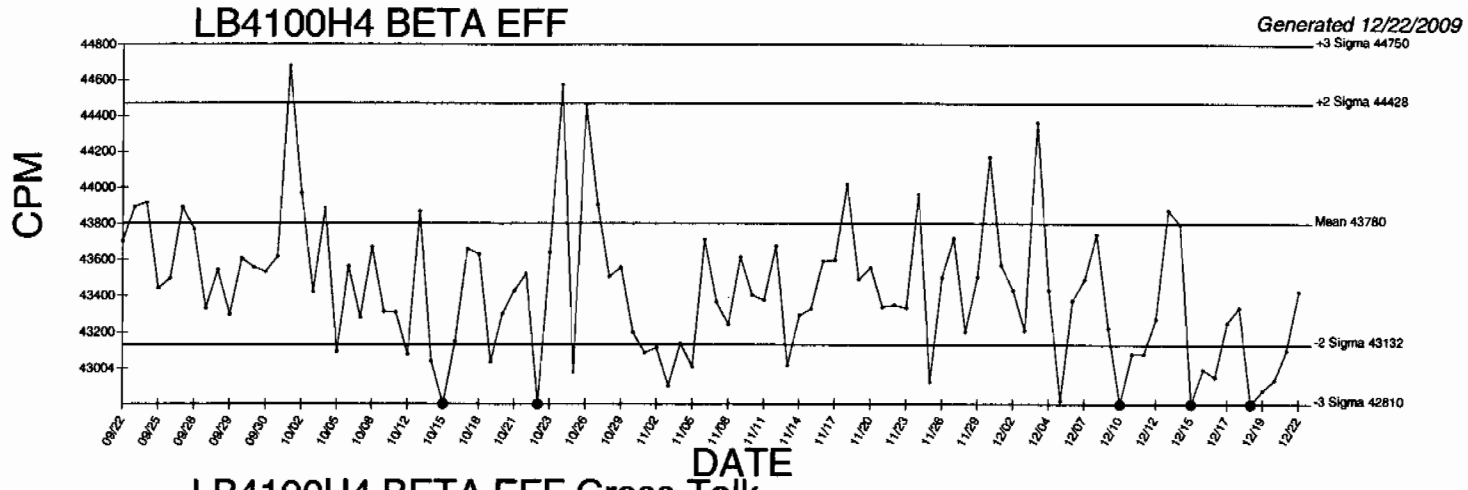

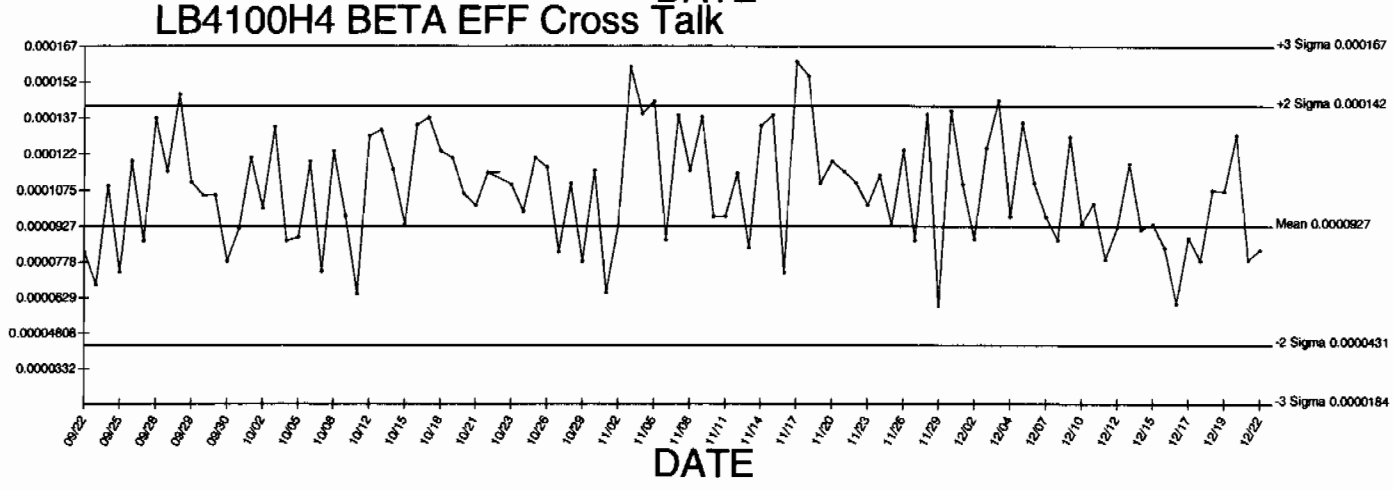

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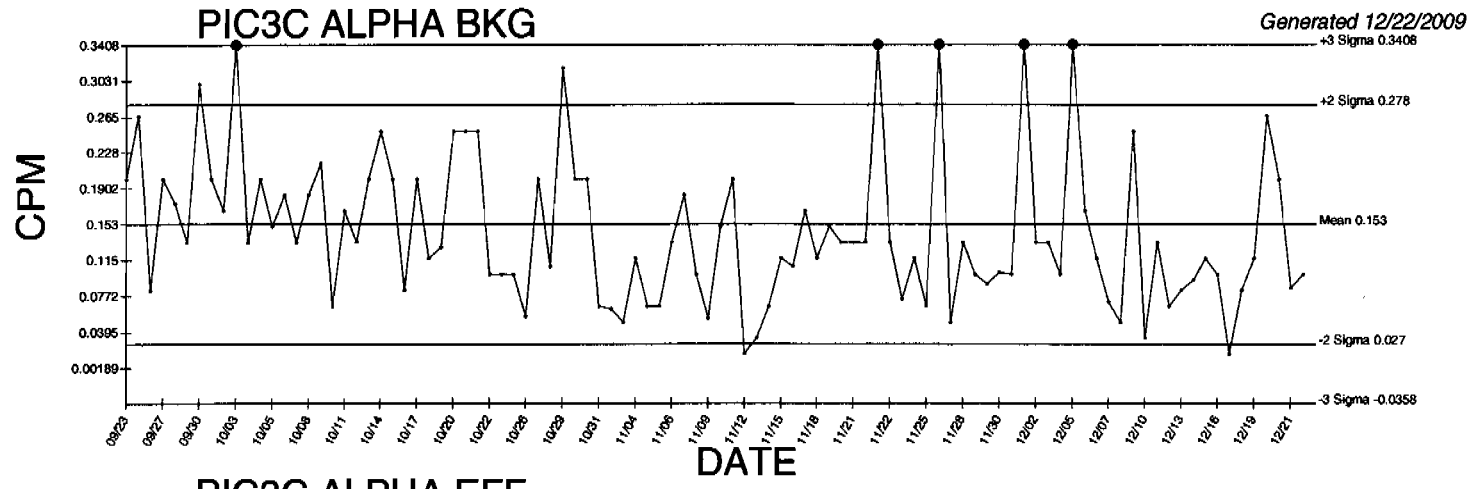

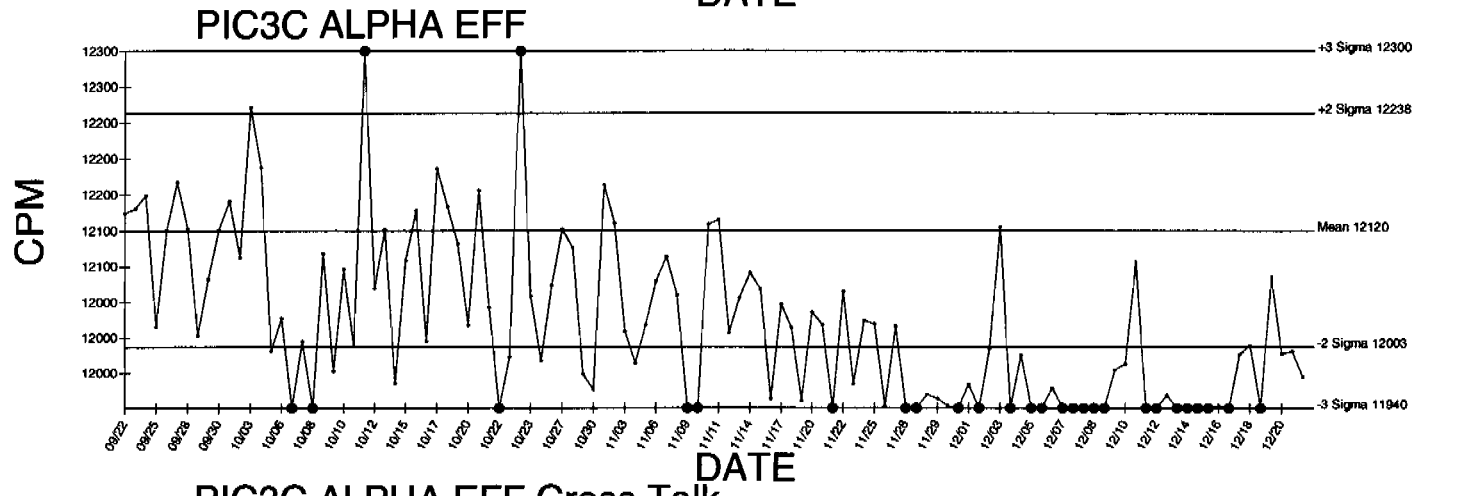

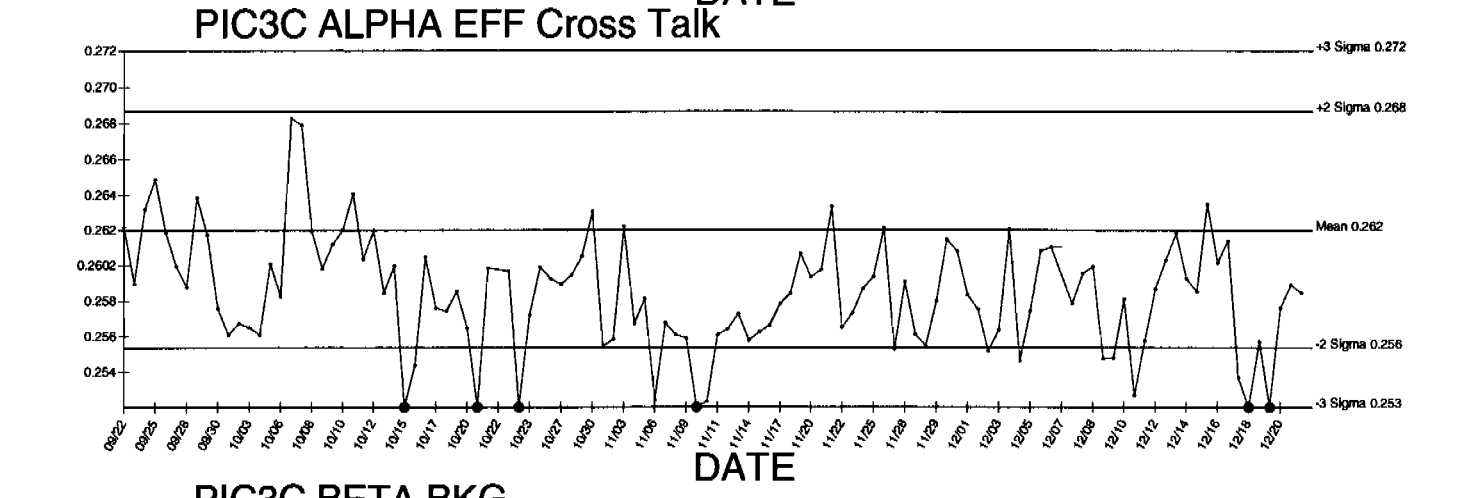

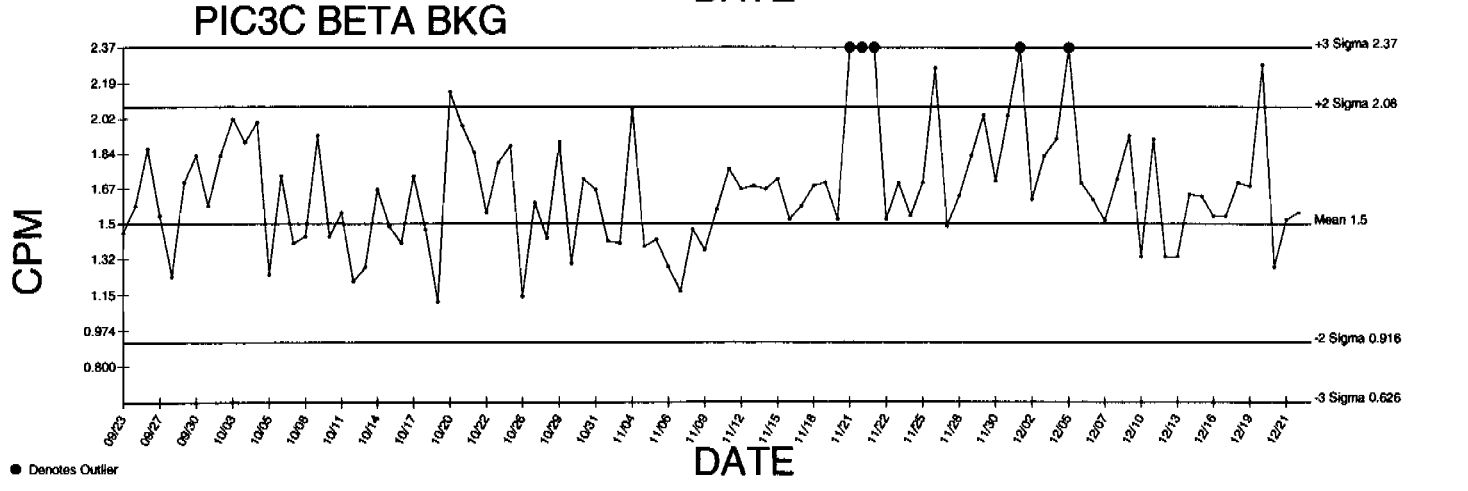

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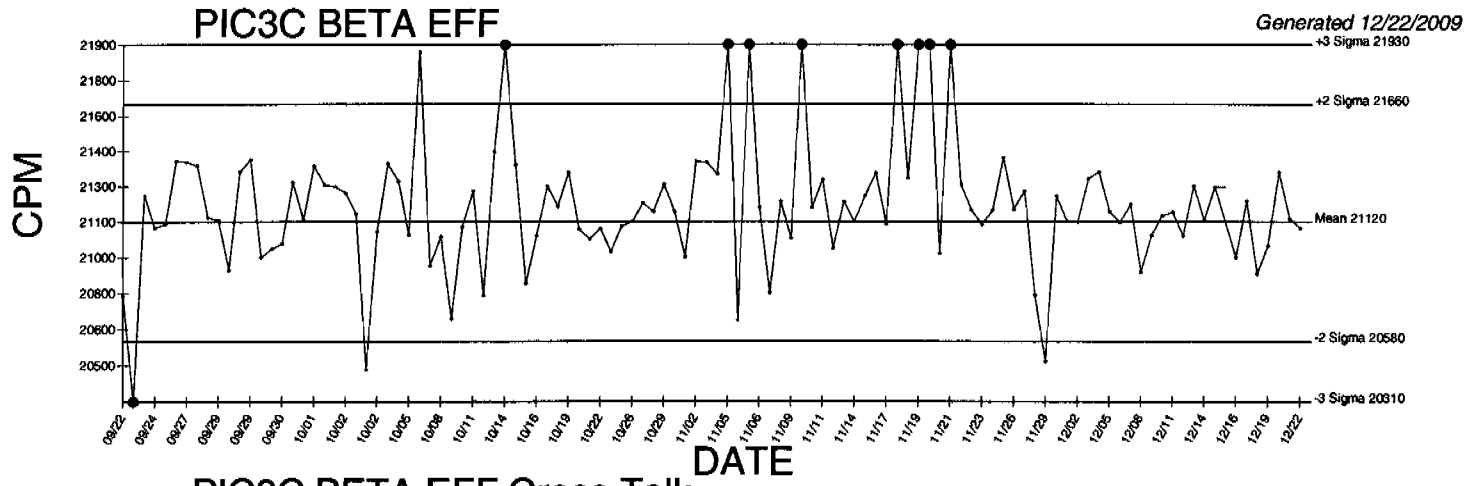

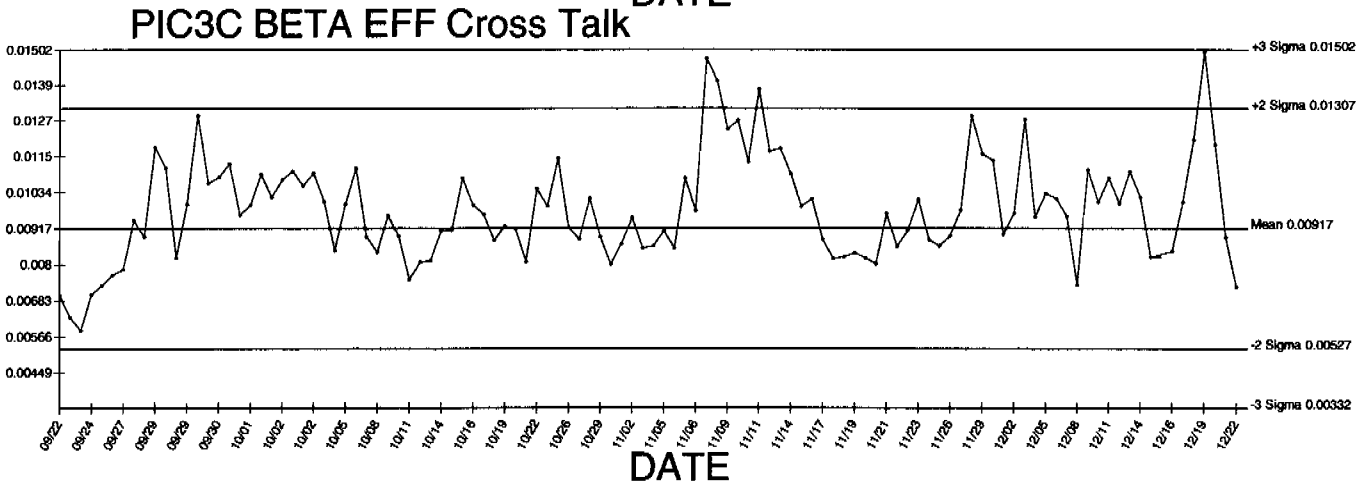

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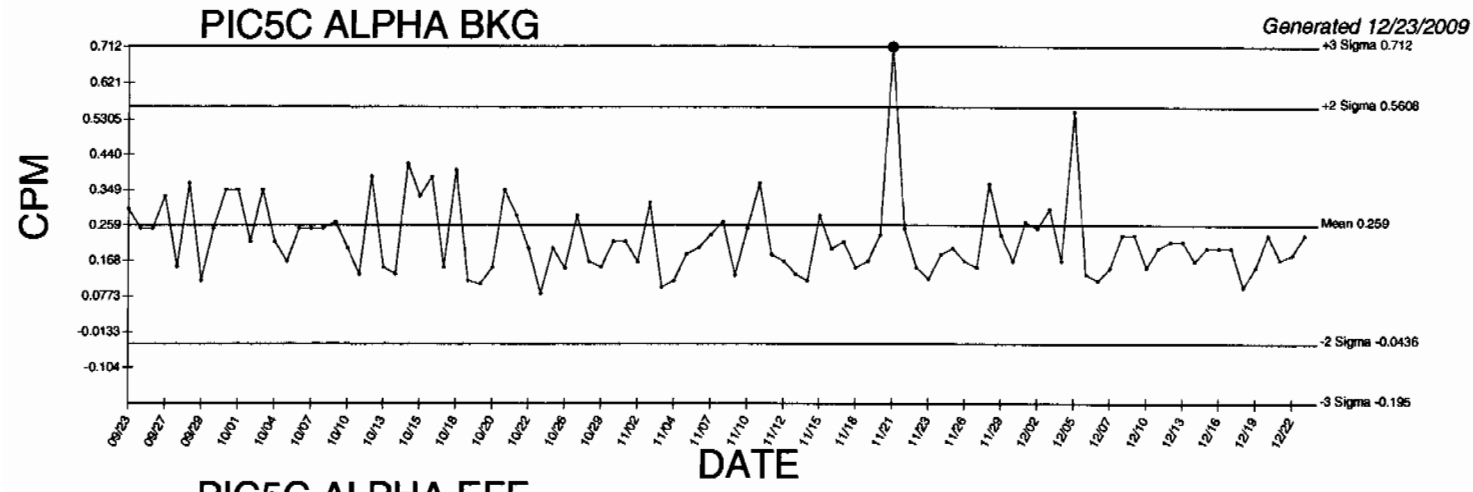
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Generated 12/23/2009
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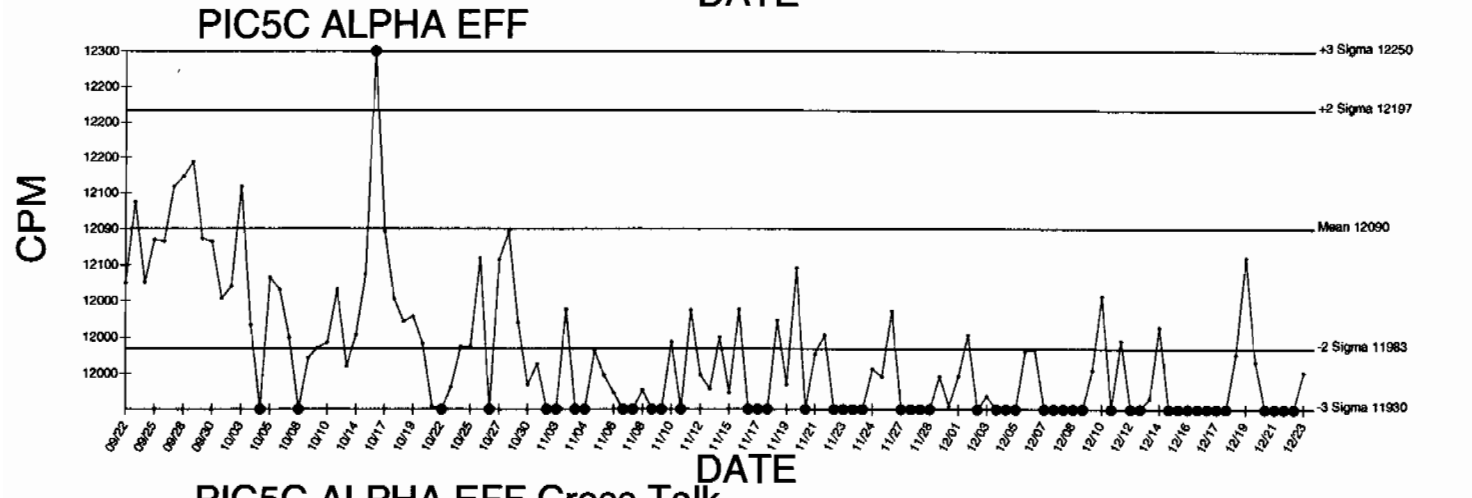
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DATE
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-3 Sigma 11930

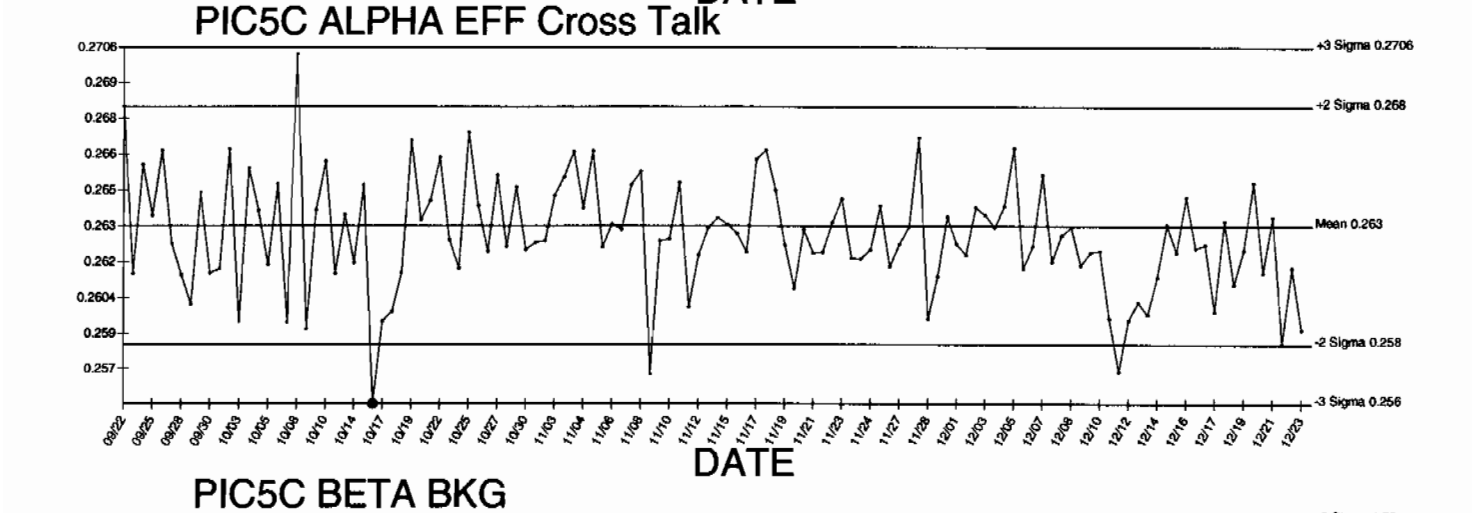
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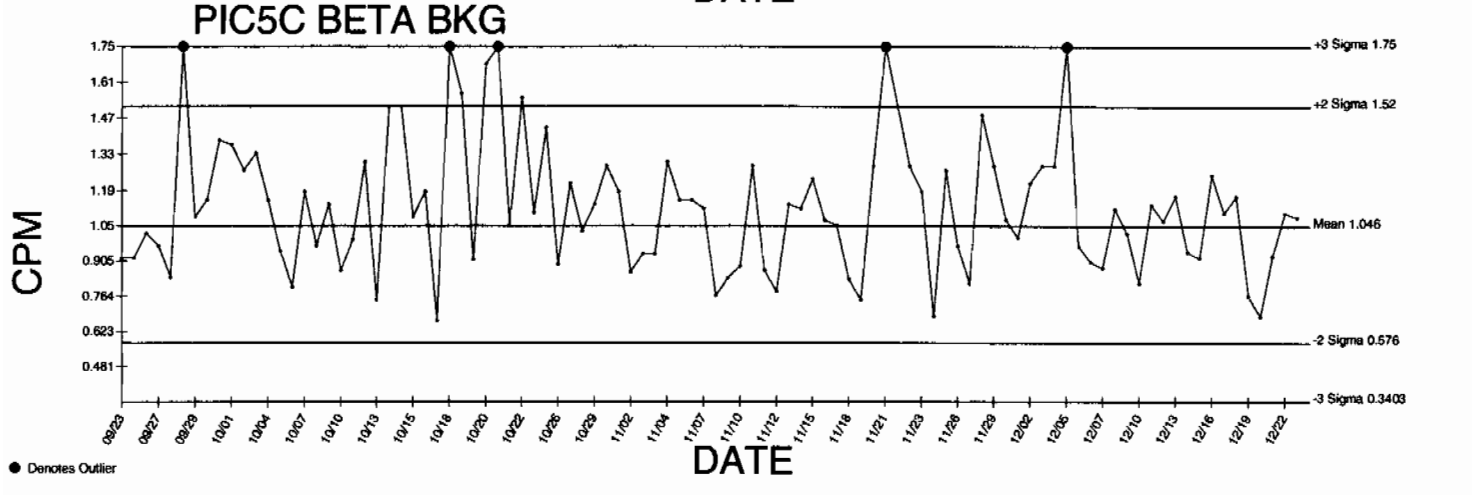
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● Denotes Outlier

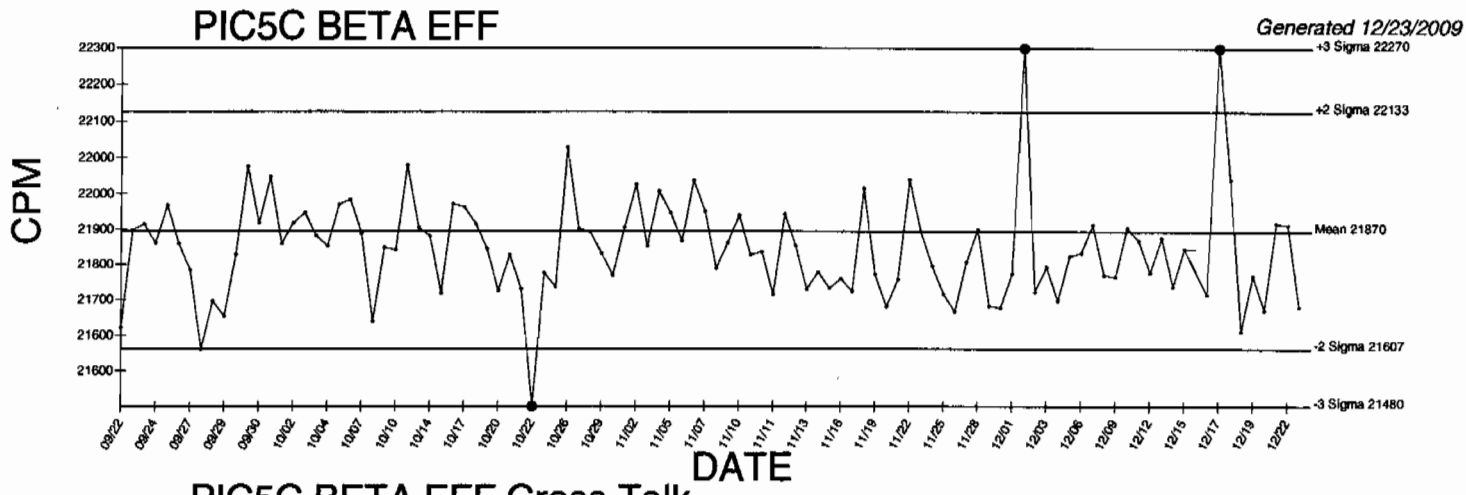

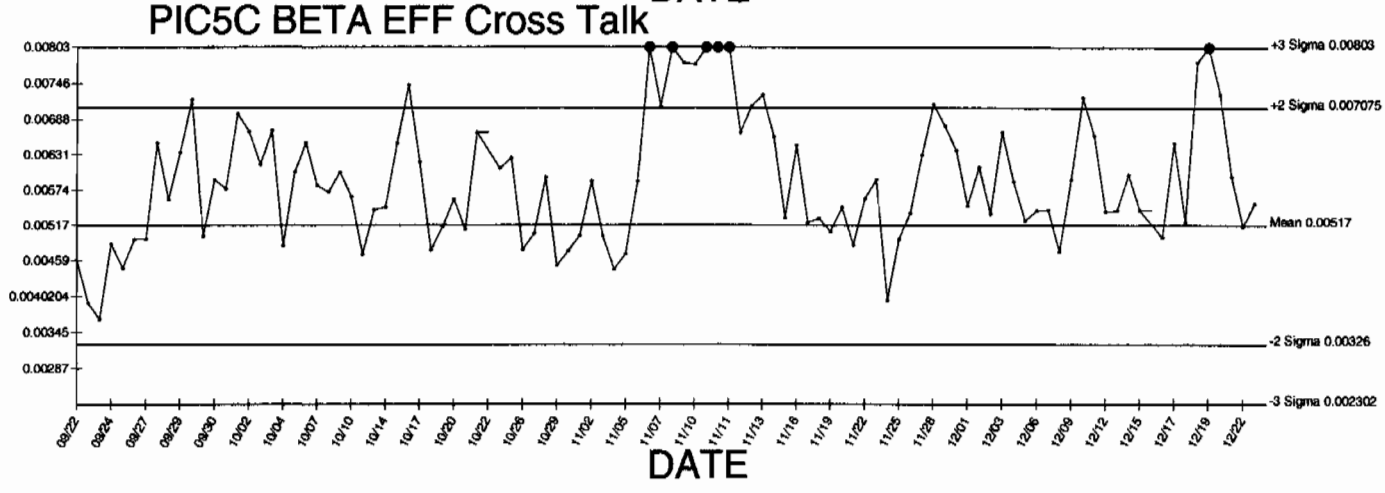

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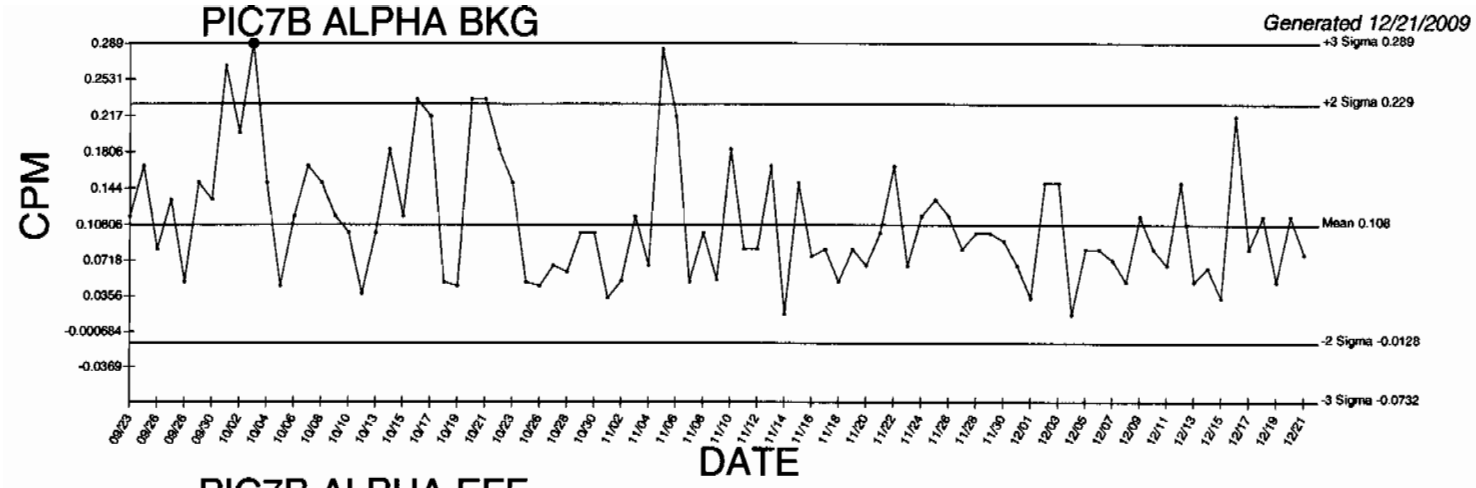
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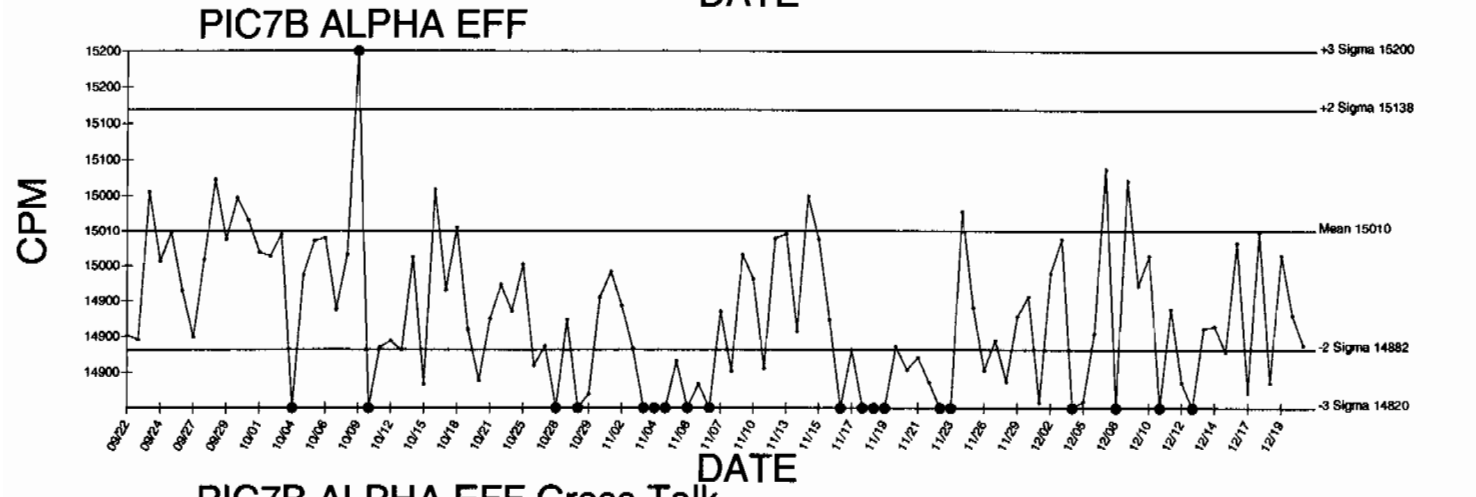
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CPM
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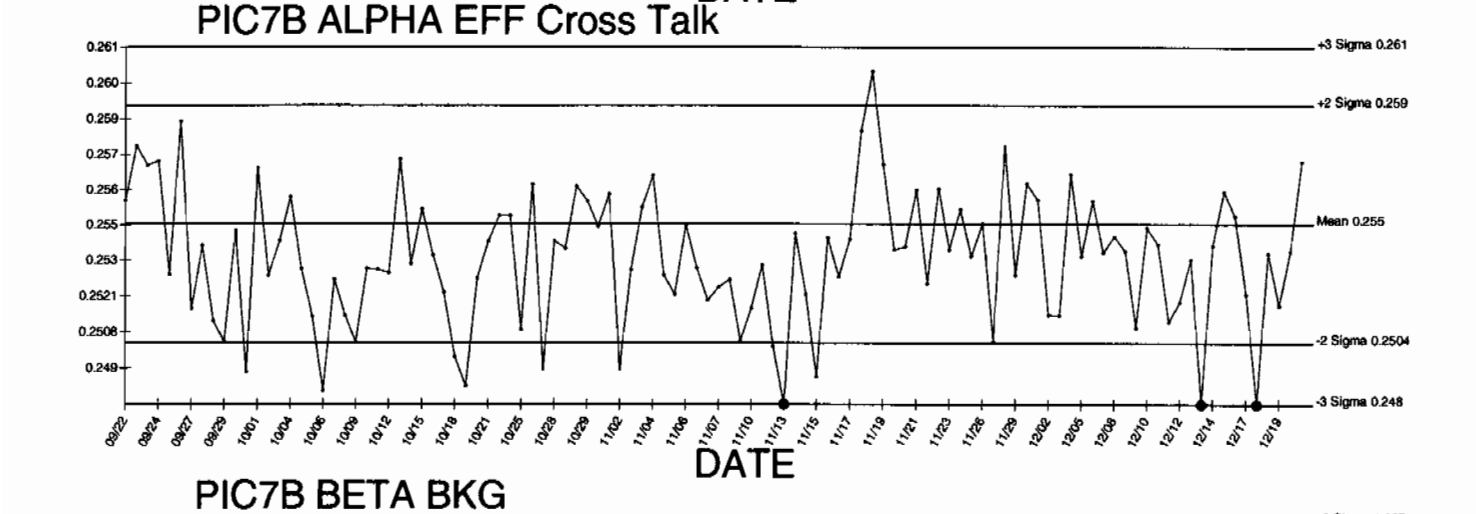
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Mean 0.255
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-3 Sigma 0.248

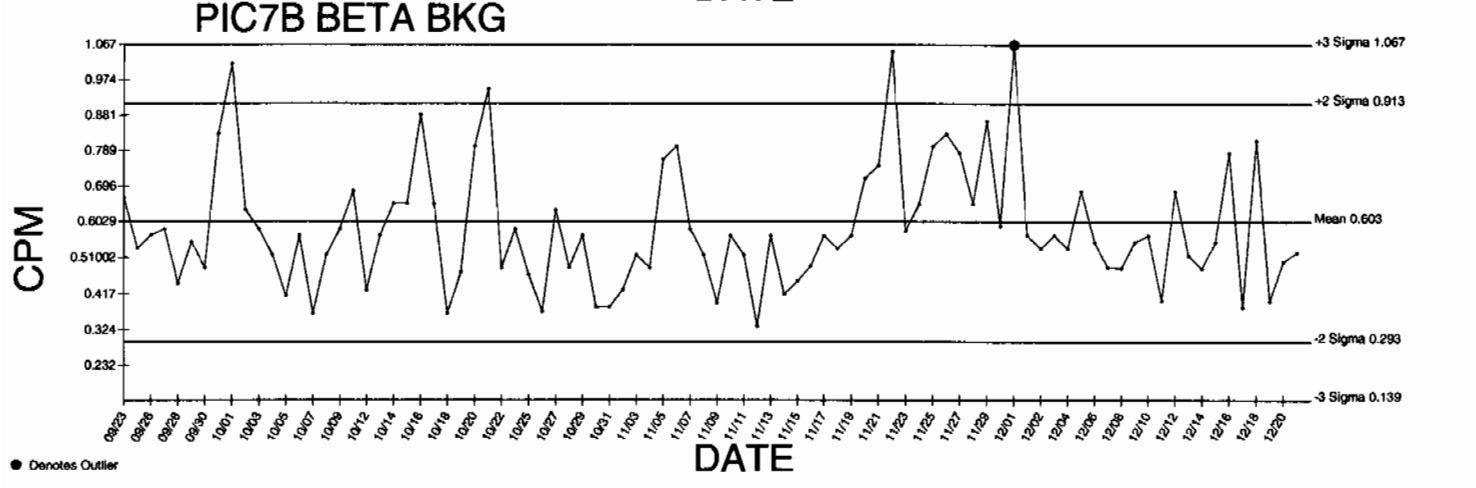
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CPM
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Mean 0.603
-2 Sigma 0.293
-3 Sigma 0.139
● Denotes Outlier

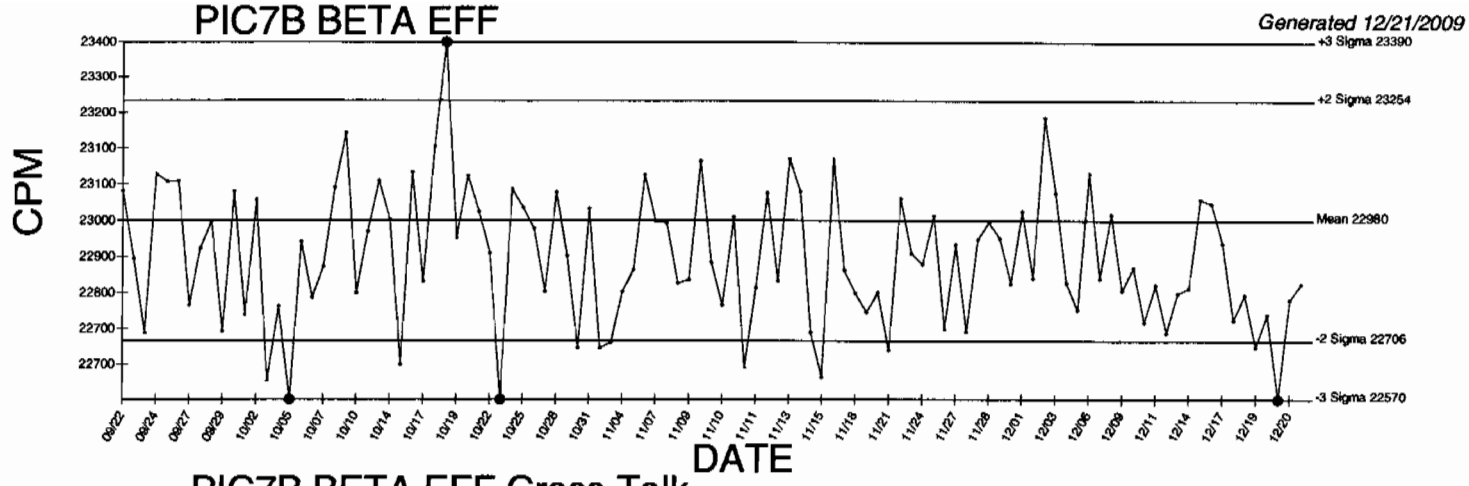

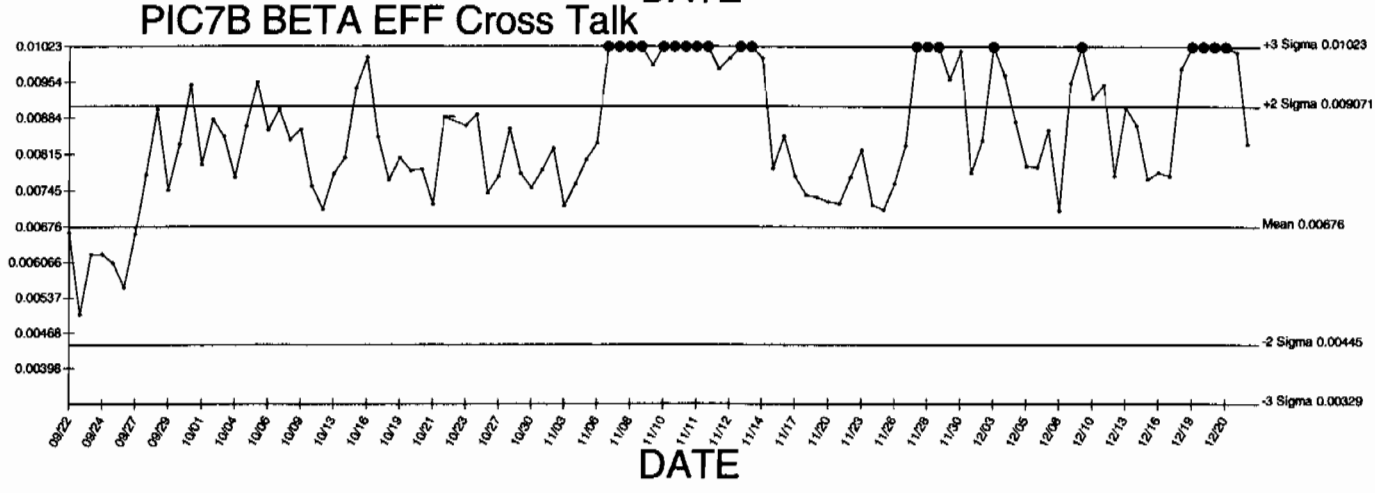

● Denotes Outlier

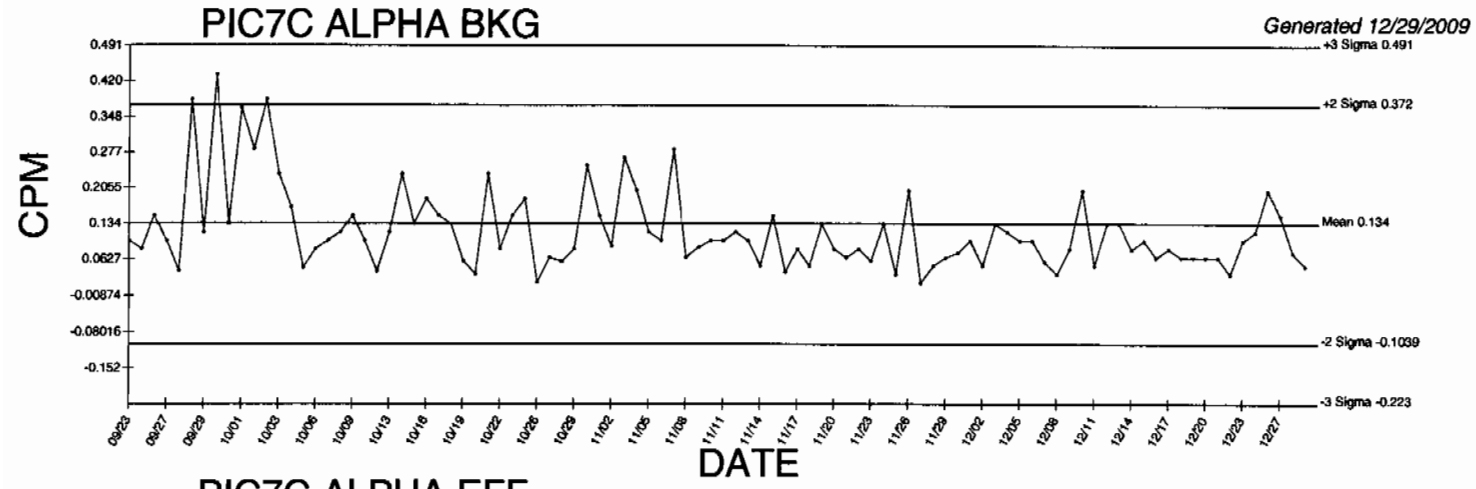
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Generated 12/29/2009
CPM
DATE
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Mean 0.134
-2 Sigma -0.1039
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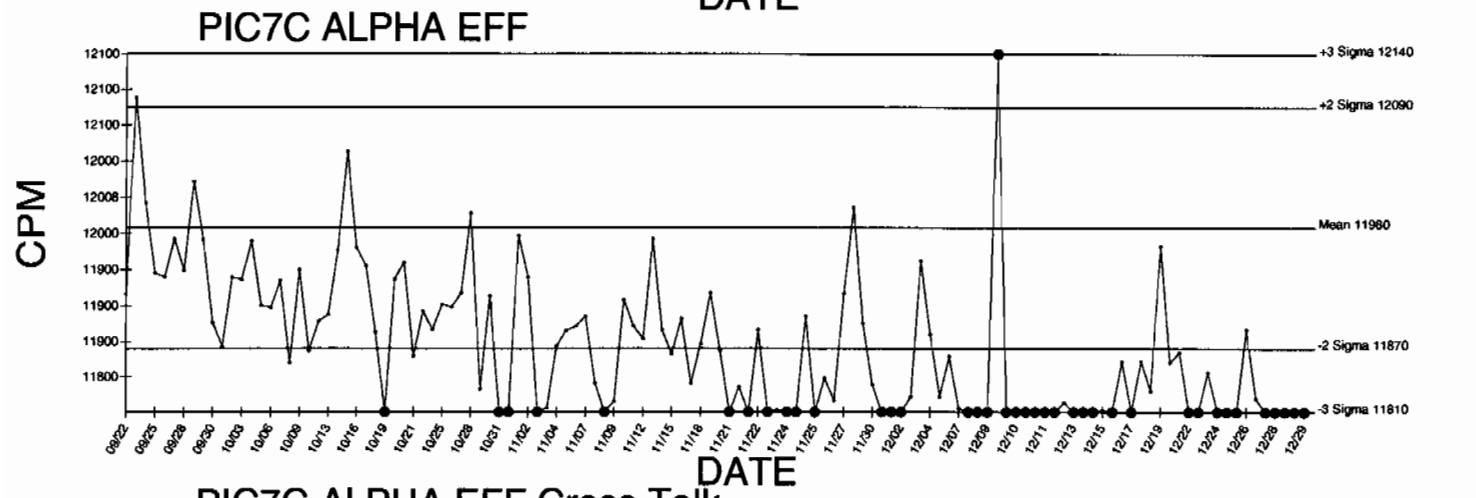
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CPM
DATE
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+2 Sigma 12090
Mean 11960
-2 Sigma 11870
-3 Sigma 11810

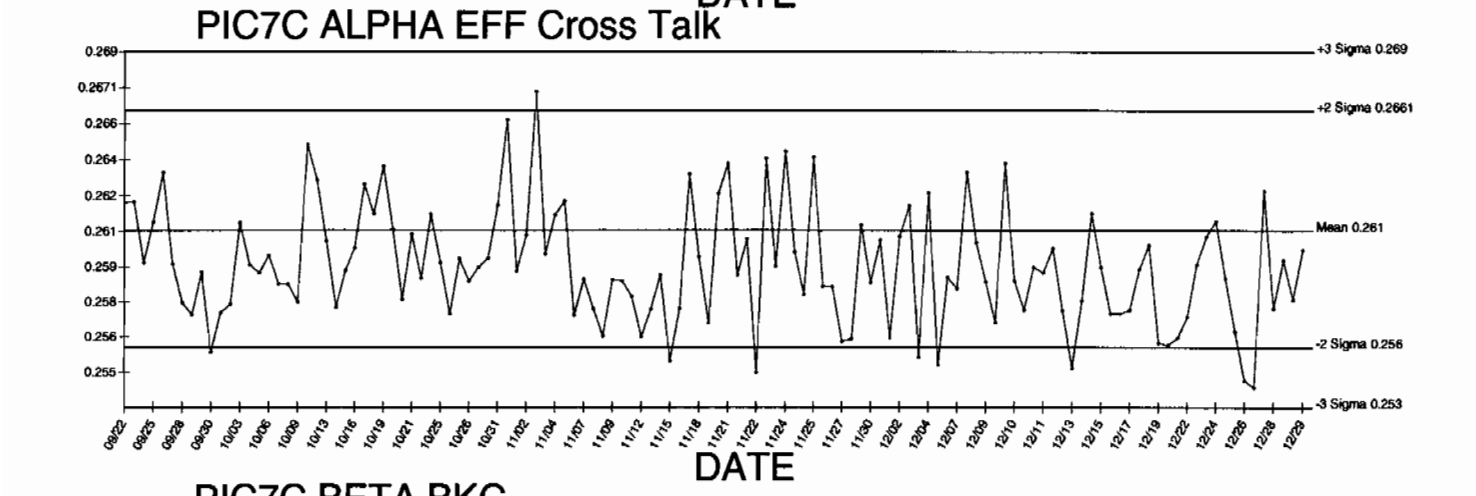
PIC7C ALPHA EFF Cross Talk
DATE
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+2 Sigma 0.2661
Mean 0.261
-2 Sigma 0.256
-3 Sigma 0.253

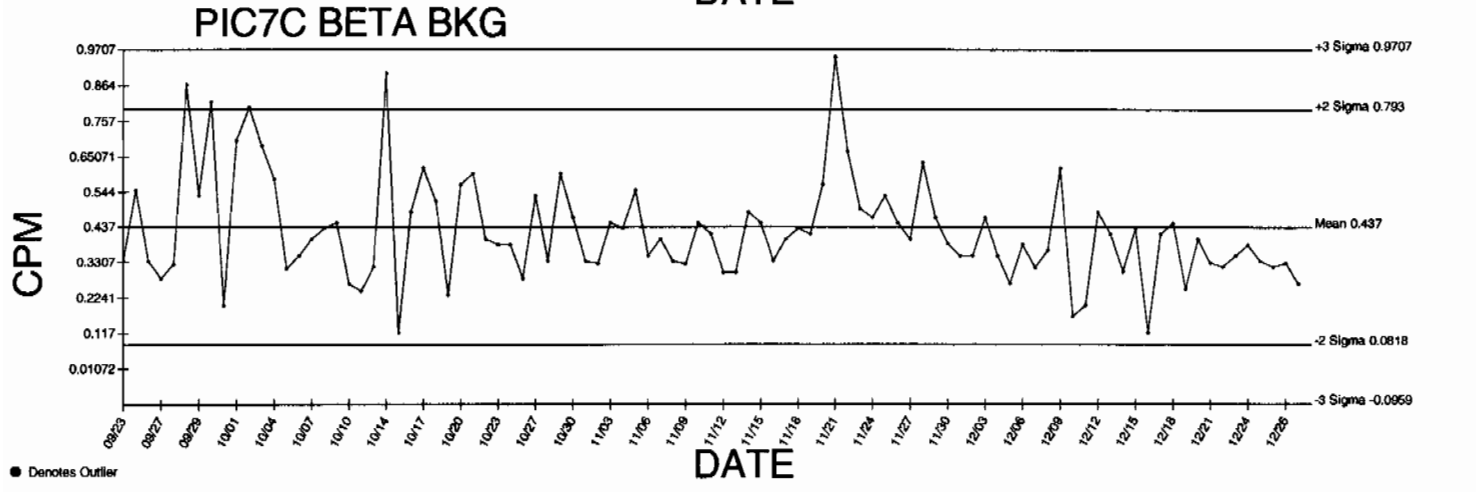
PIC7C BETA BKG
CPM
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+2 Sigma 0.793
Mean 0.437
-2 Sigma 0.0818
-3 Sigma -0.0959
● Denotes Outlier

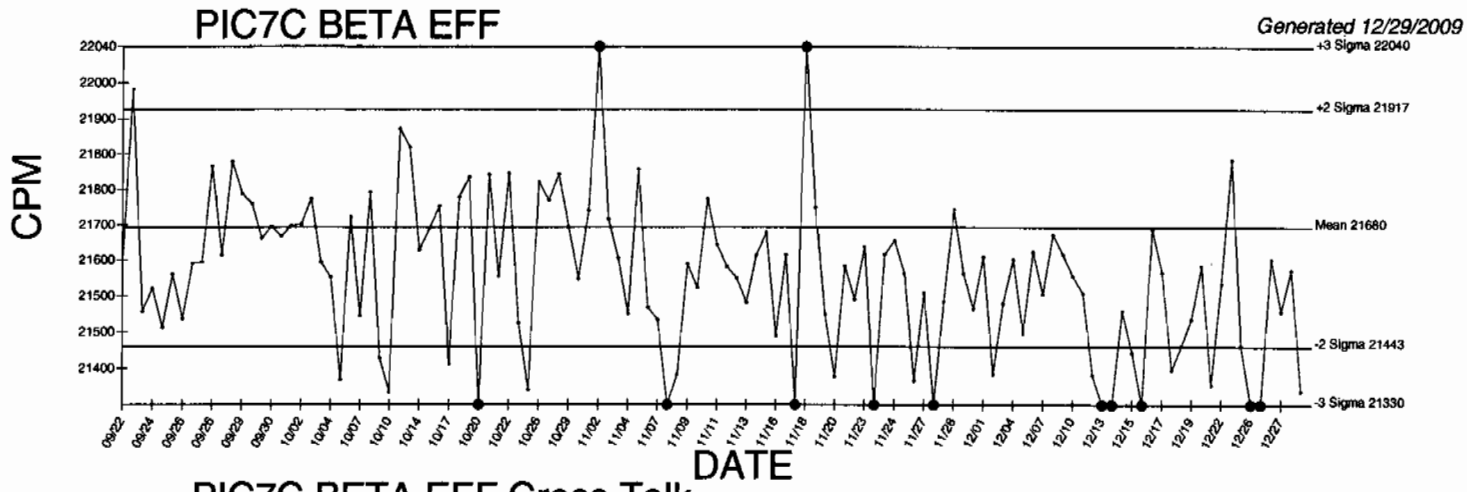

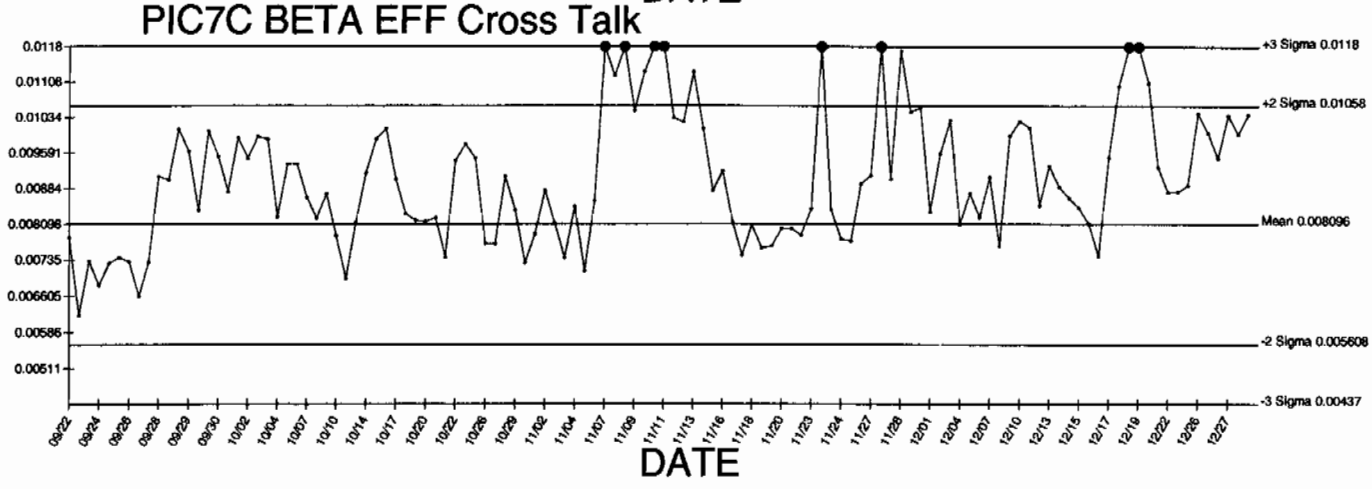

● Denotes Outlier

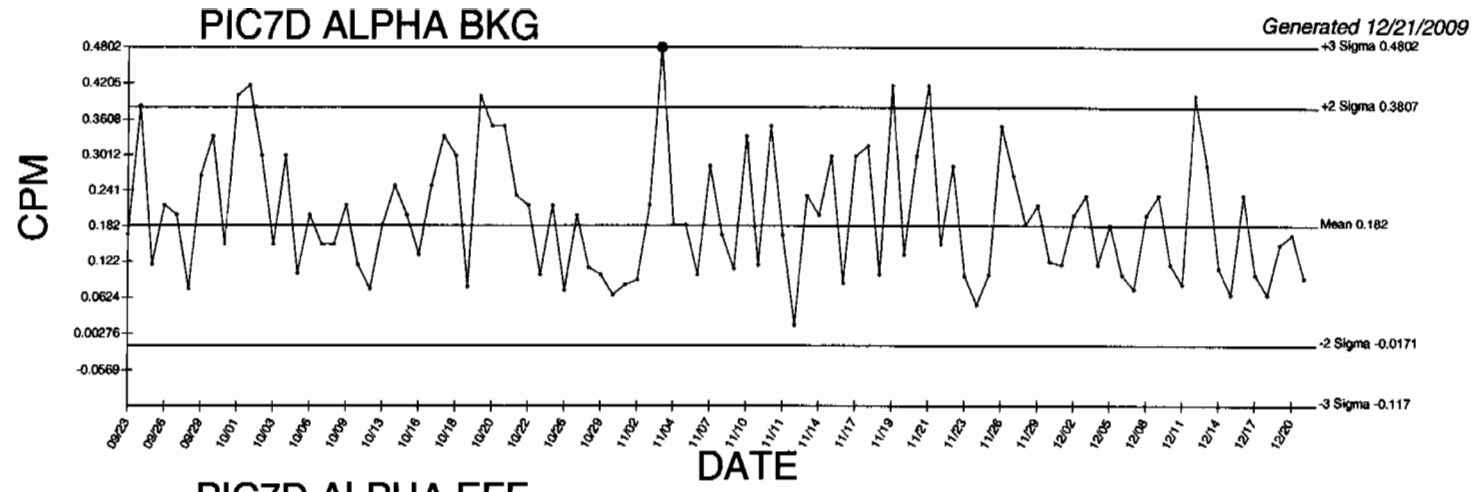

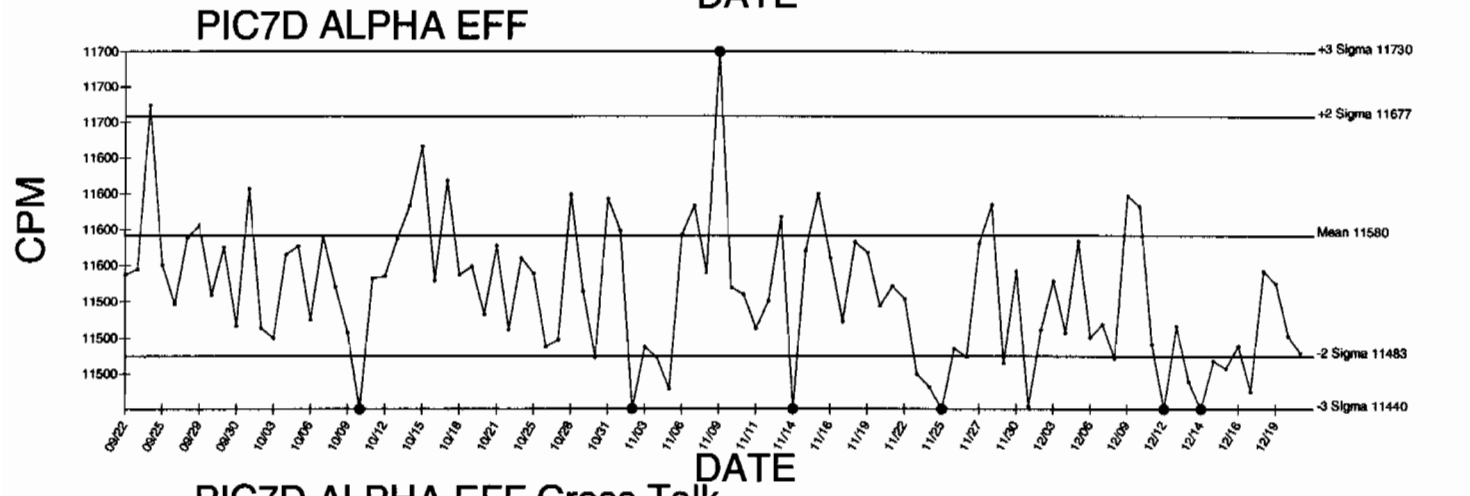

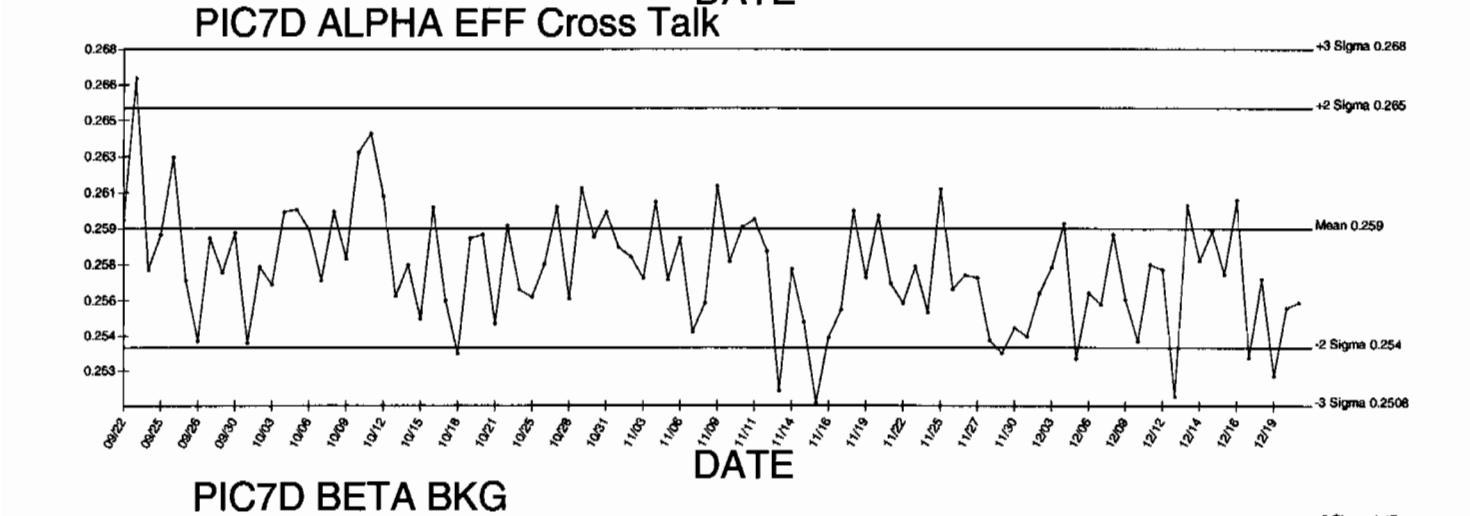

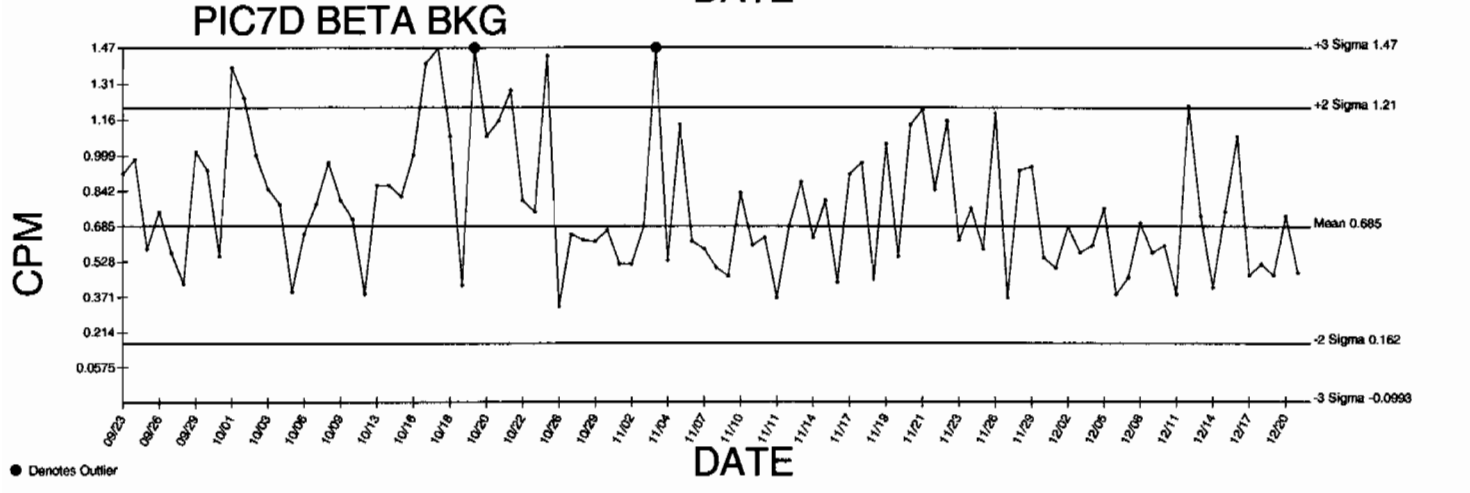

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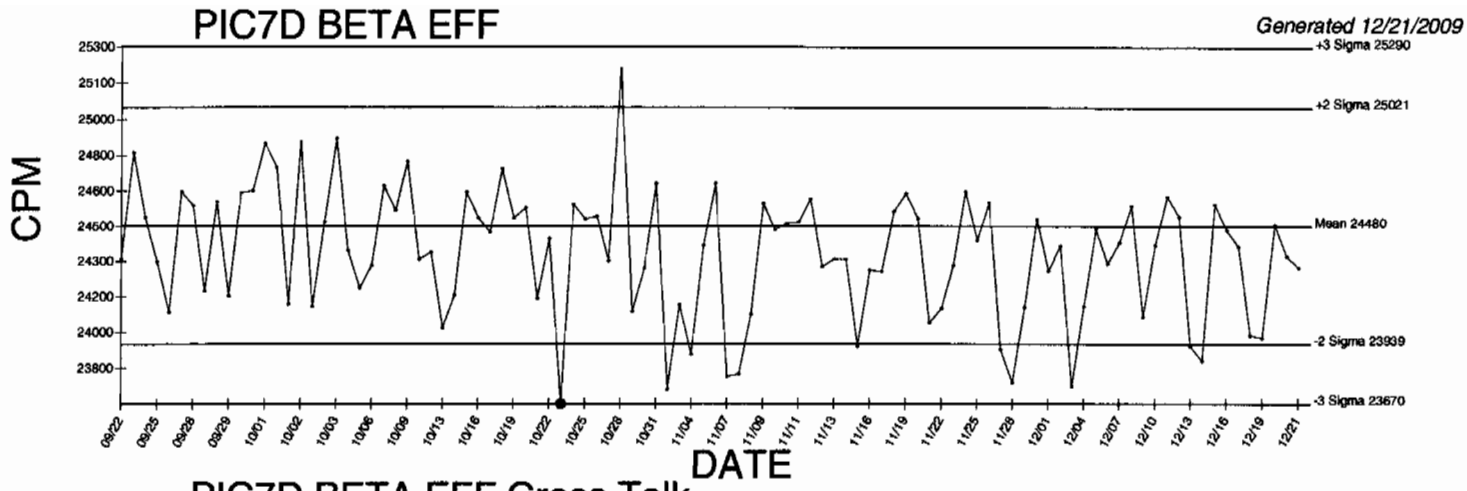

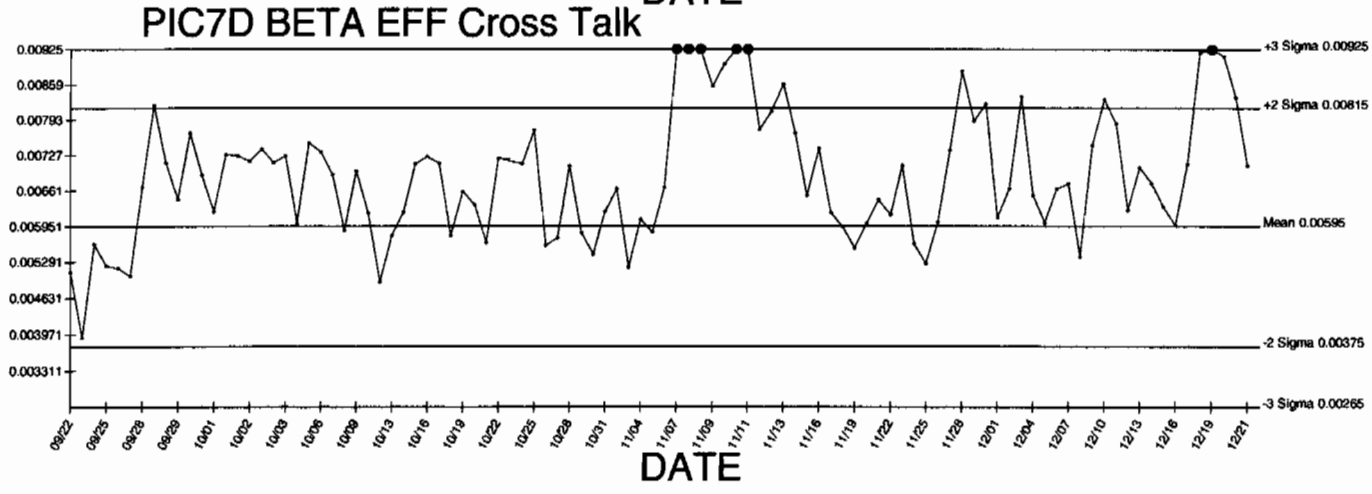

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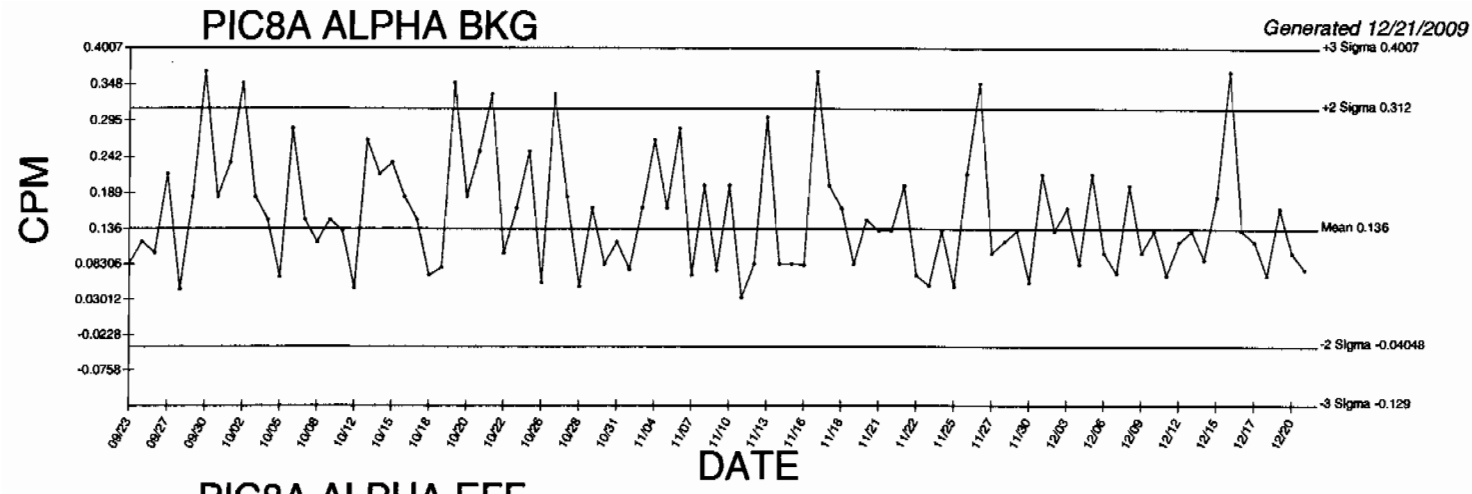
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Generated 12/21/2009
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-2 Sigma -0.04048
-3 Sigma -0.129

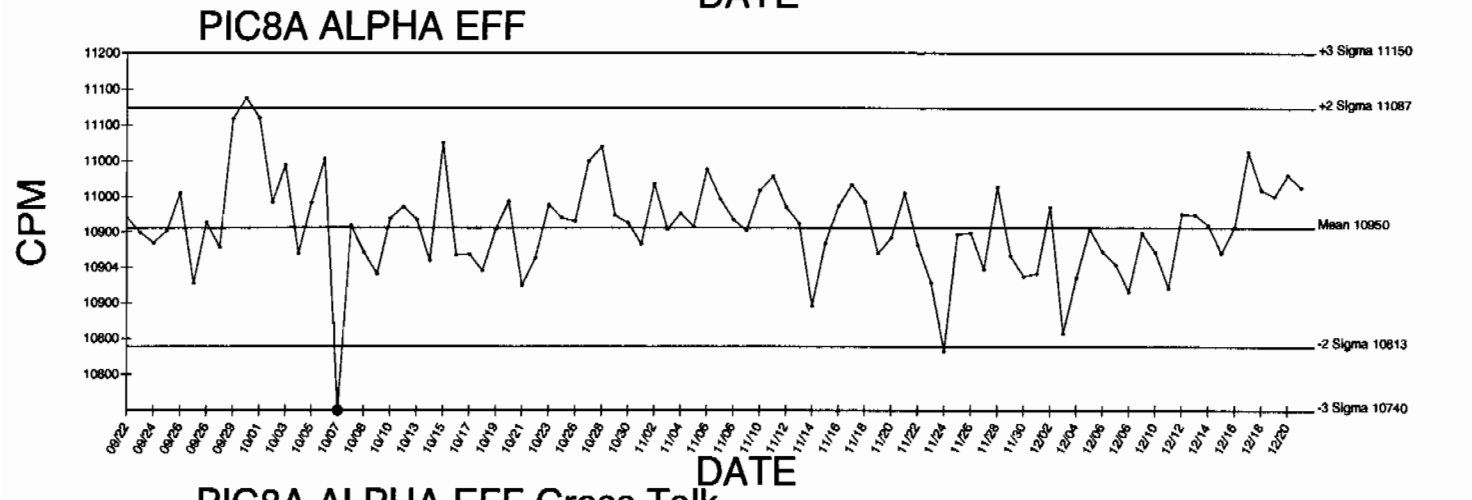
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CPM
DATE
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+2 Sigma 11087
Mean 10950
-2 Sigma 10813
-3 Sigma 10740

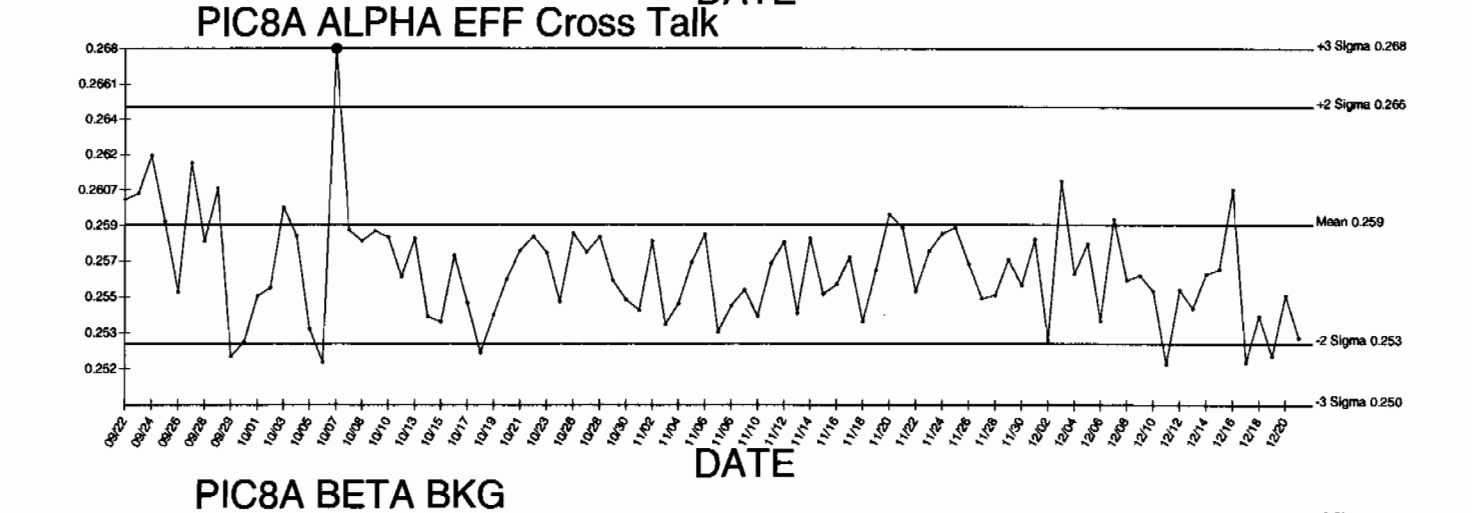
PIC8A ALPHA EFF Cross Talk
DATE
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+2 Sigma 0.266
Mean 0.259
-2 Sigma 0.253
-3 Sigma 0.250

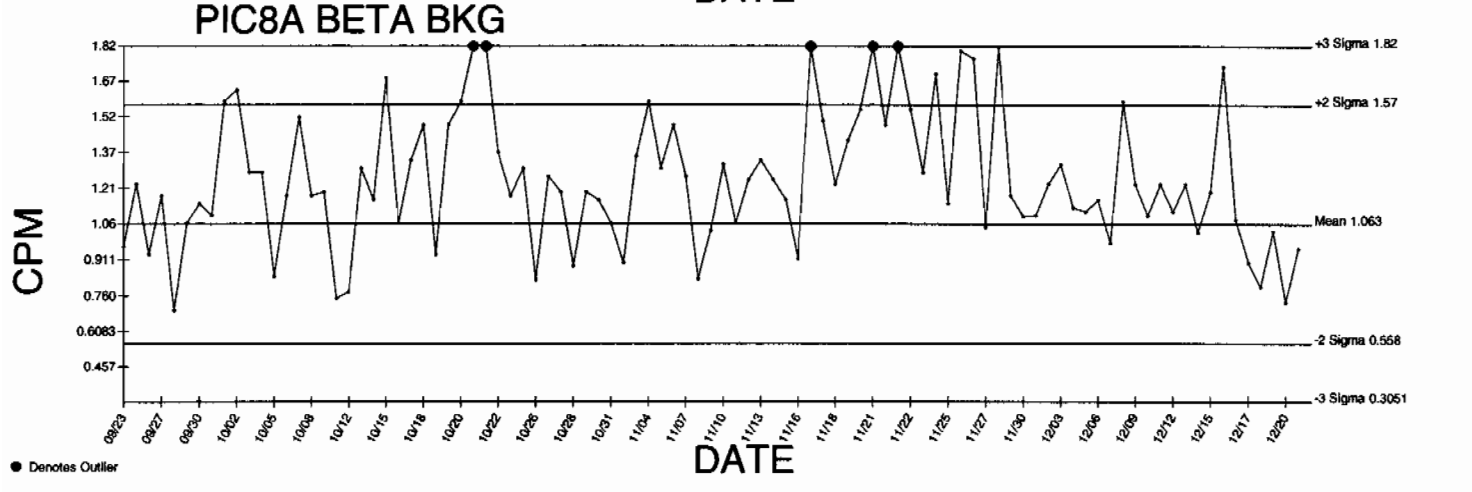
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DATE
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Mean 1.063
-2 Sigma 0.558
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● Denotes Outlier

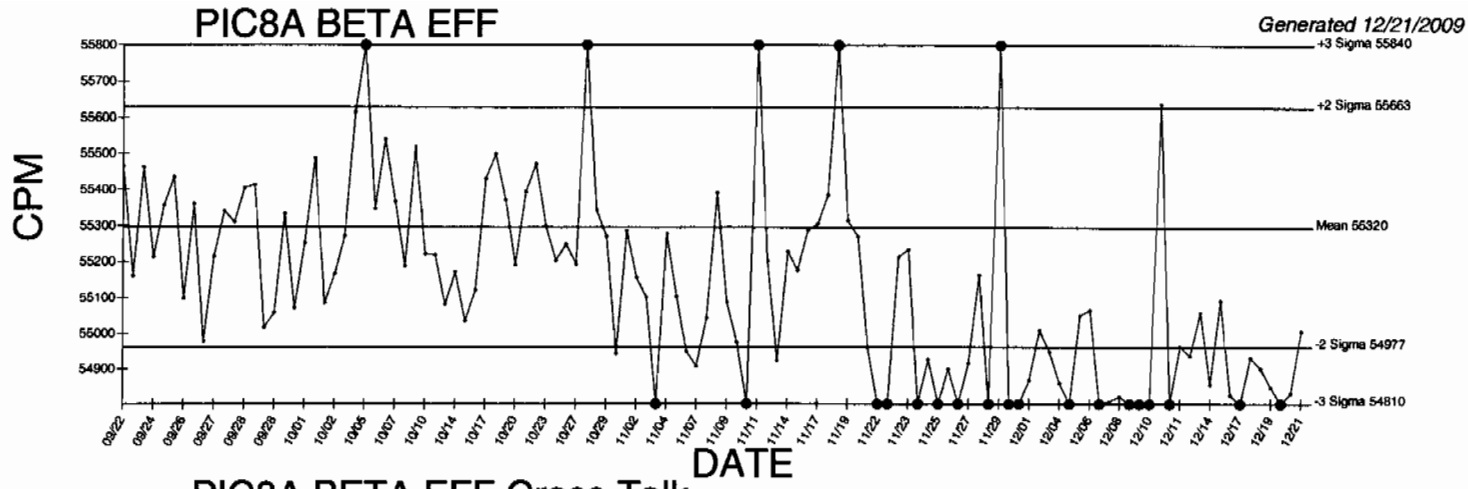

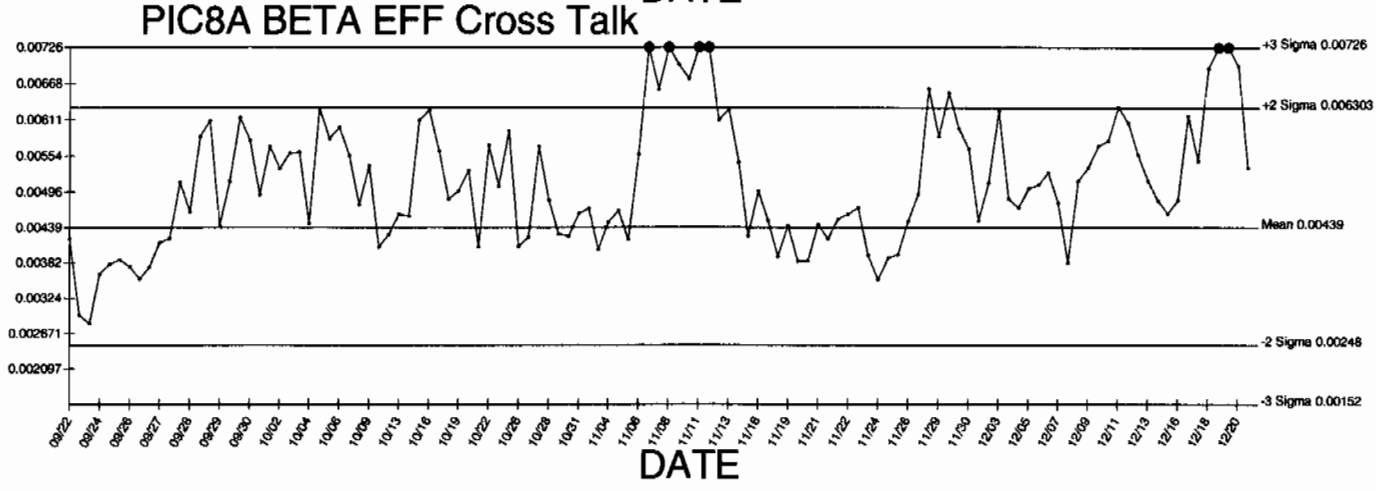

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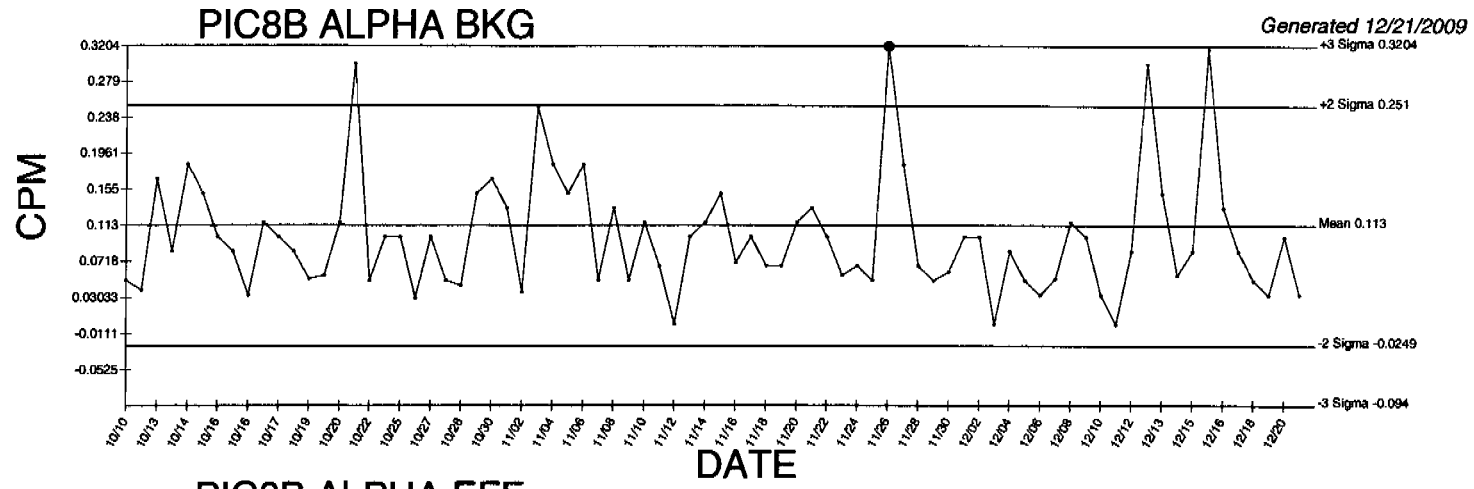

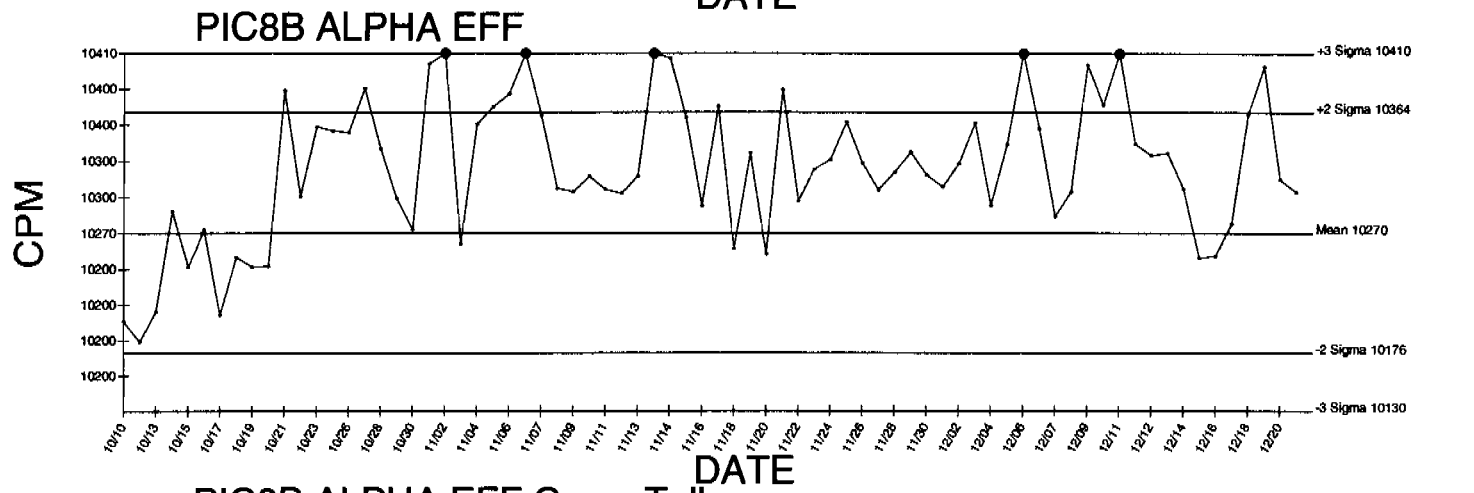

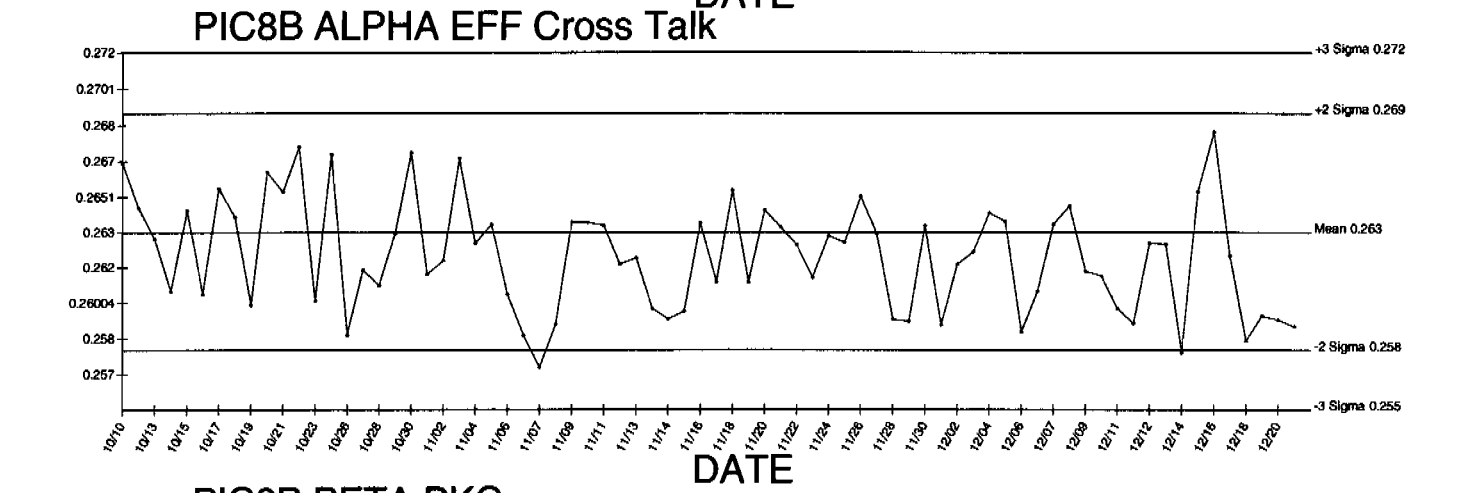

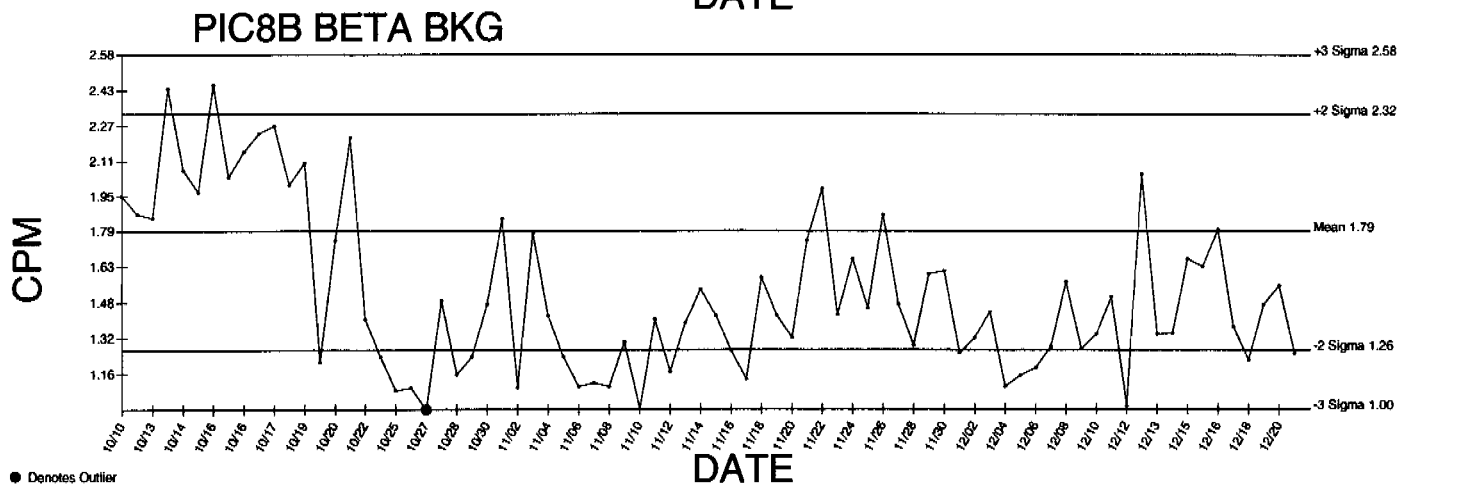

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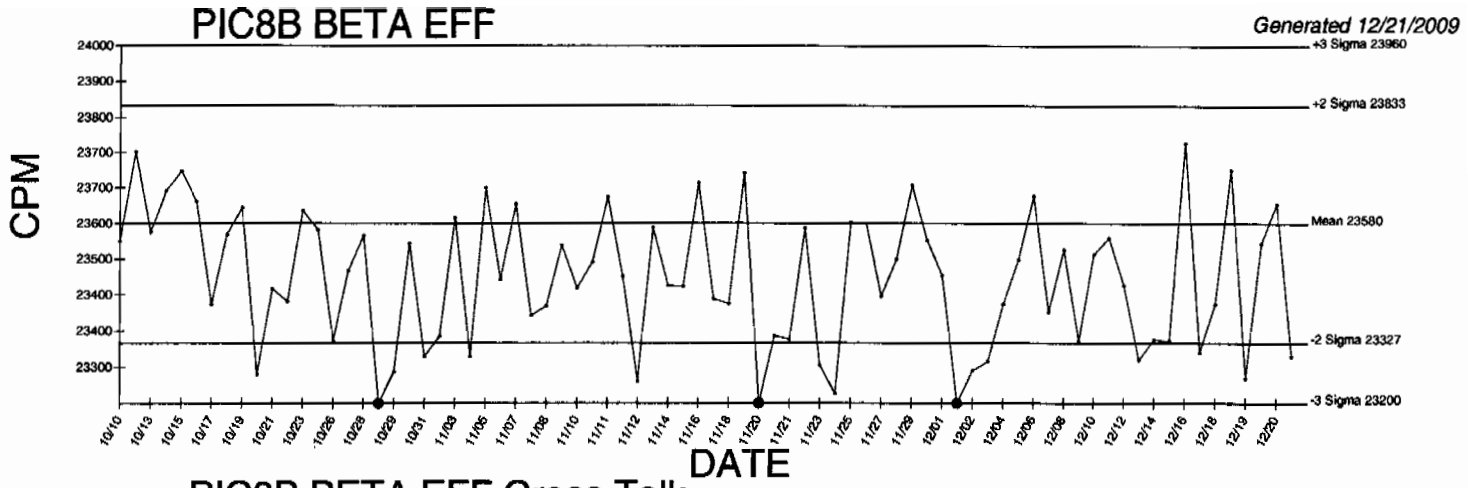

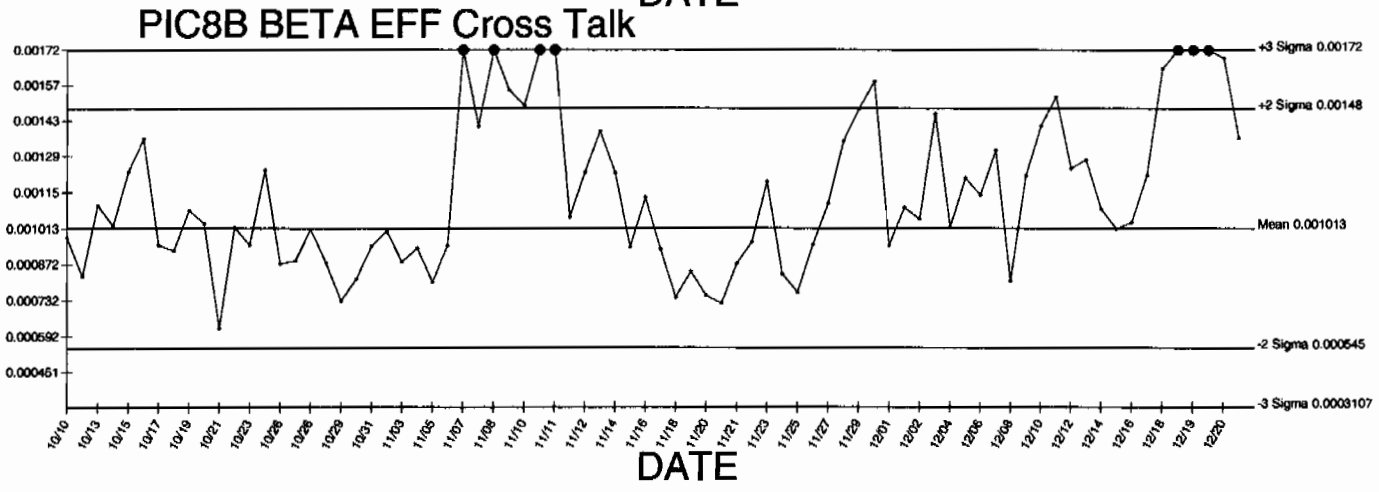

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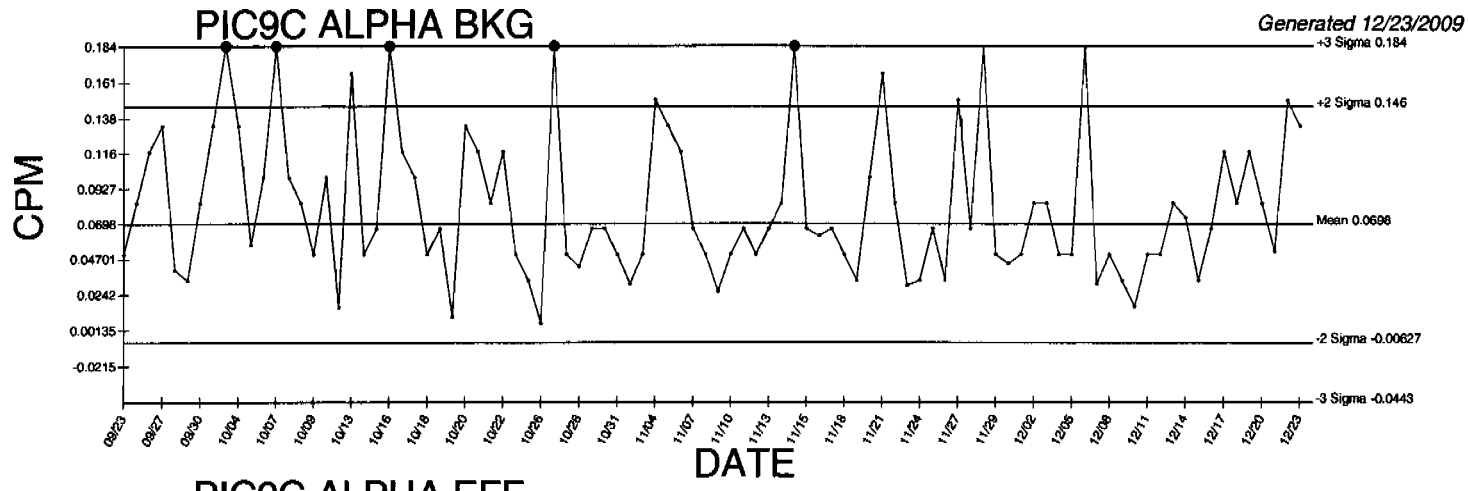

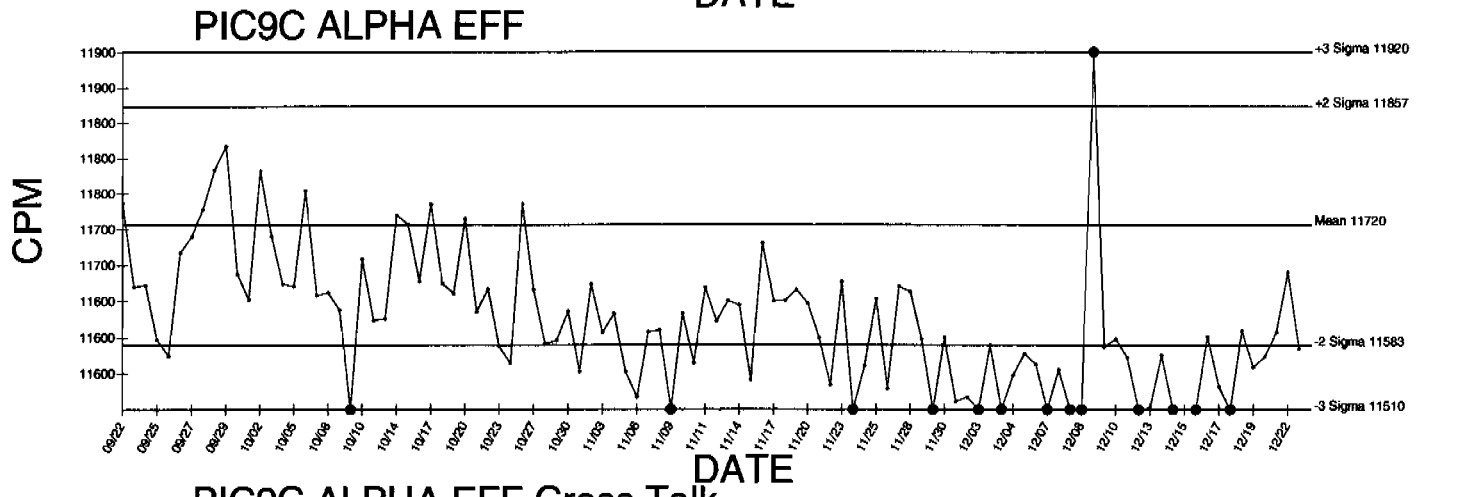

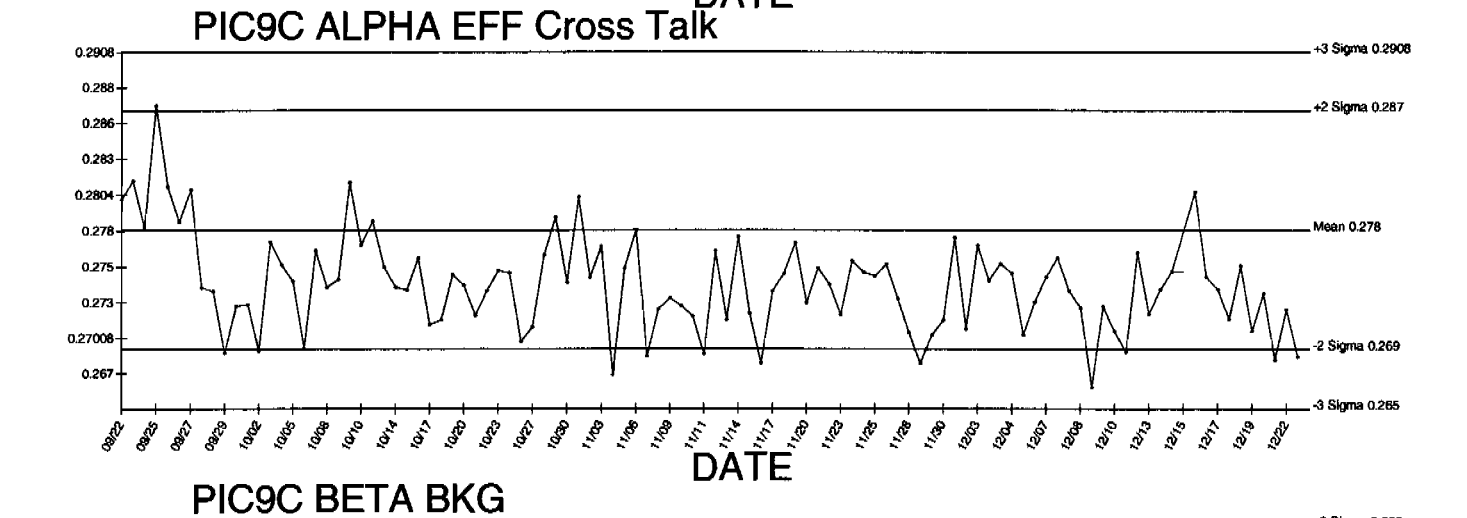

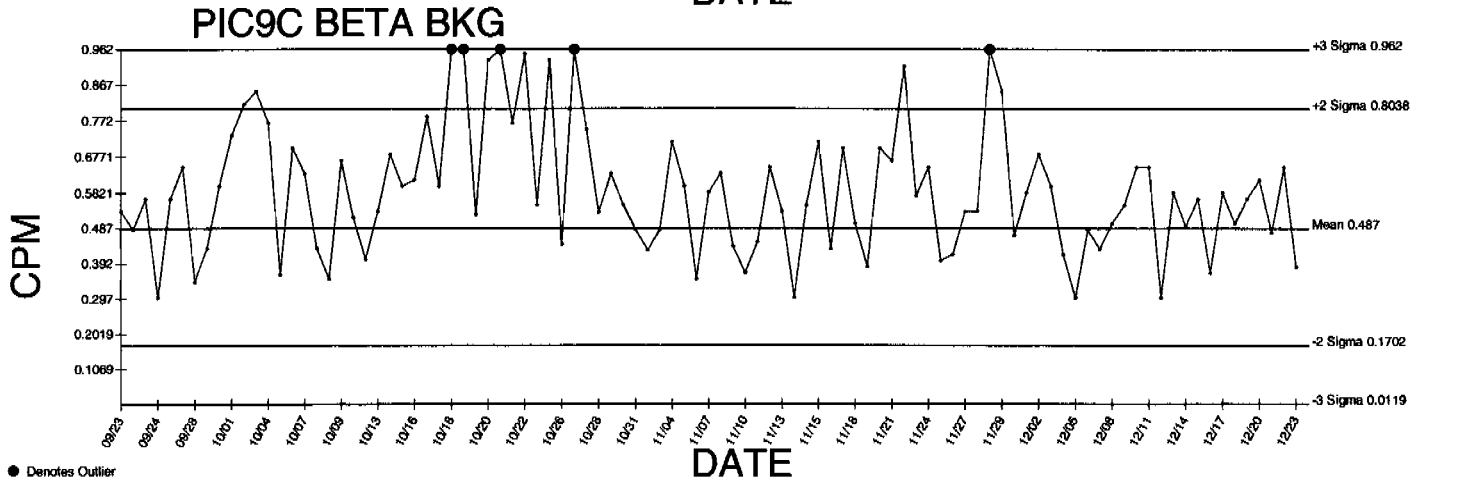

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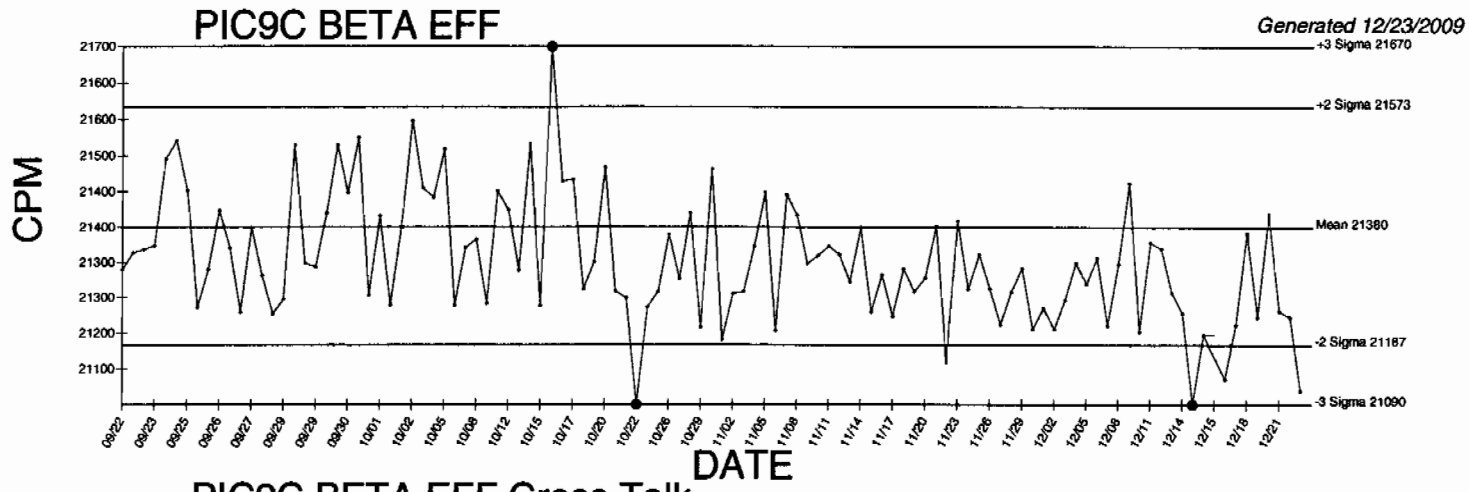

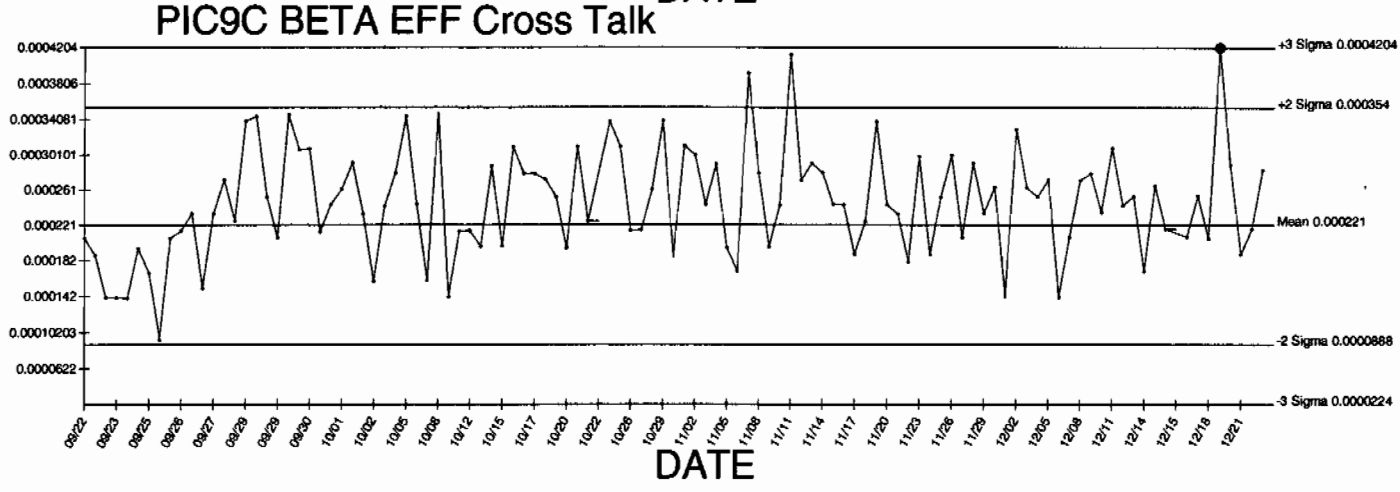

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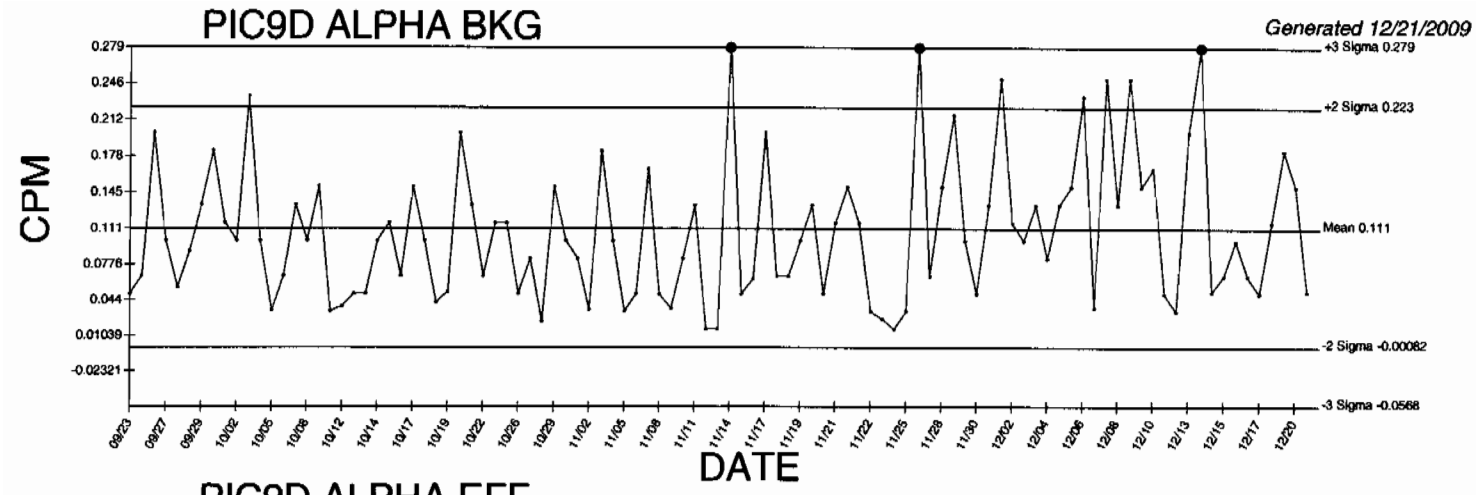
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Generated 12/21/2009
CPM
DATE
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-2 Sigma -0.00082
-3 Sigma -0.0568

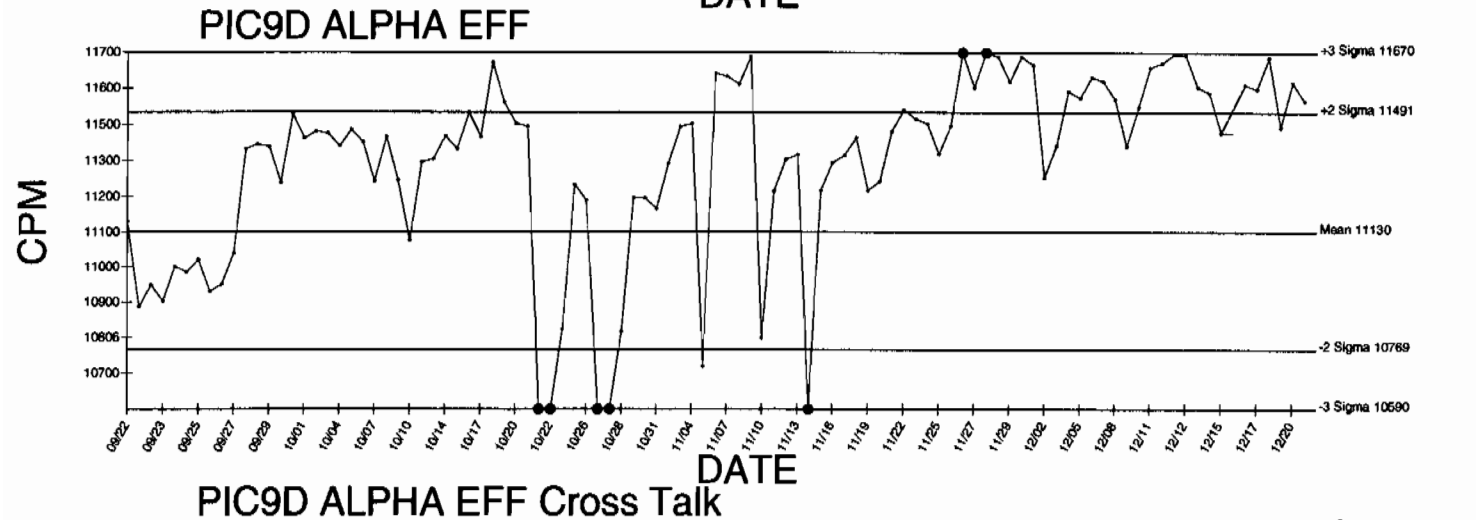
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CPM
DATE
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Mean 11130
-2 Sigma 10769
-3 Sigma 10590

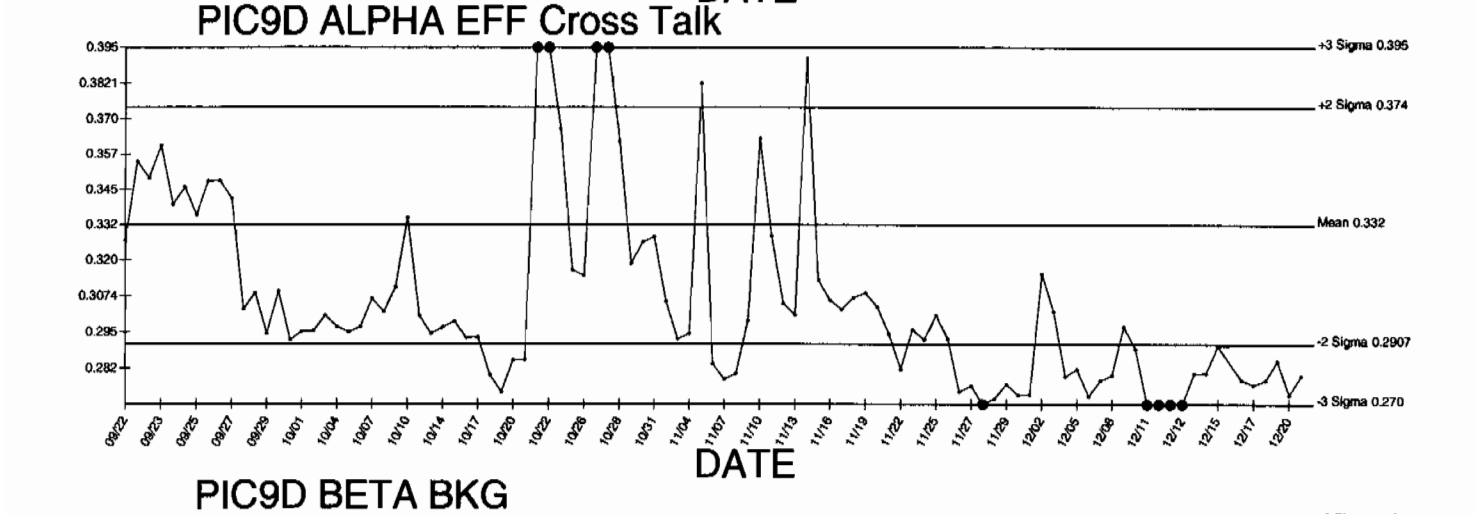
PIC9D ALPHA EFF Cross Talk
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+2 Sigma 0.374
Mean 0.332
-2 Sigma 0.2907
-3 Sigma 0.270

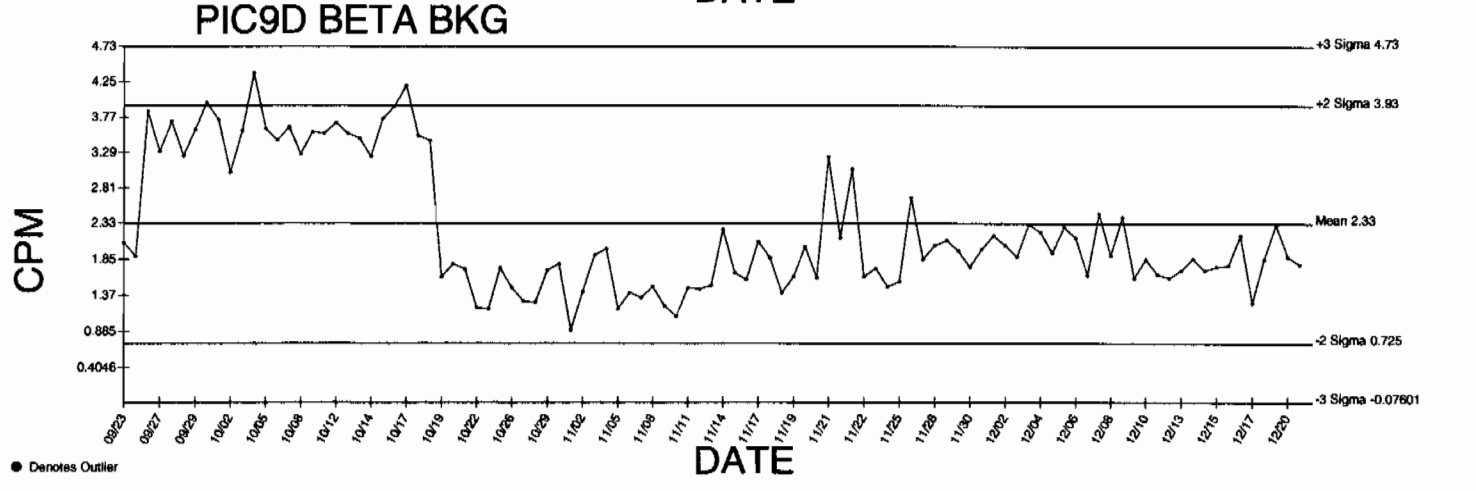
PIC9D BETA BKG
CPM
DATE
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Mean 2.33
-2 Sigma 0.725
-3 Sigma -0.07601
● Denotes Outlier

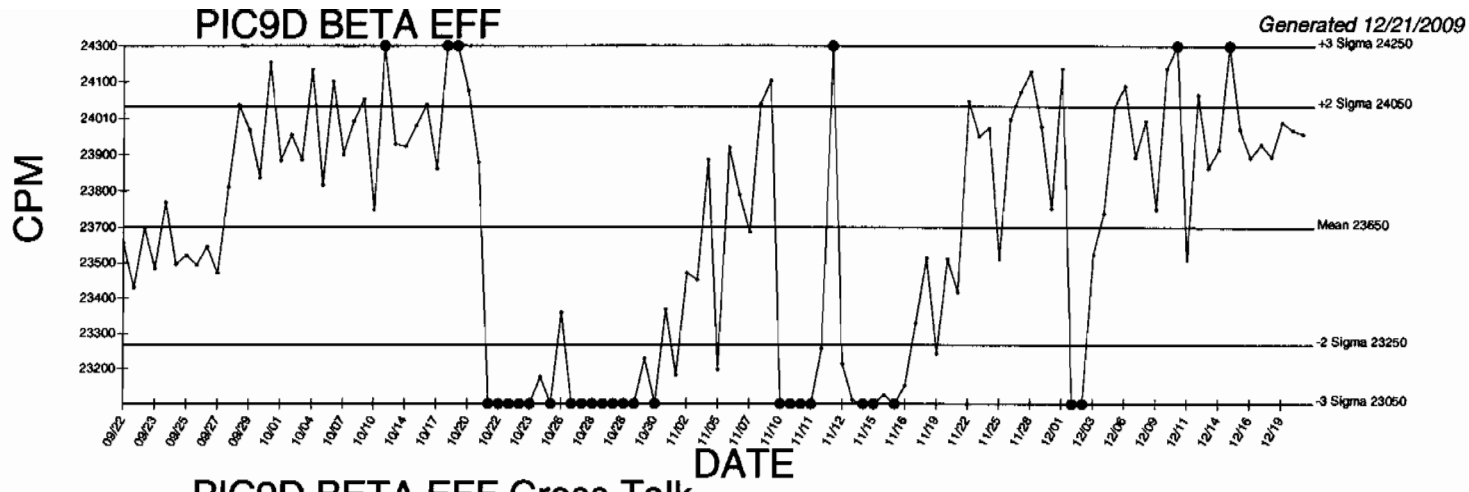

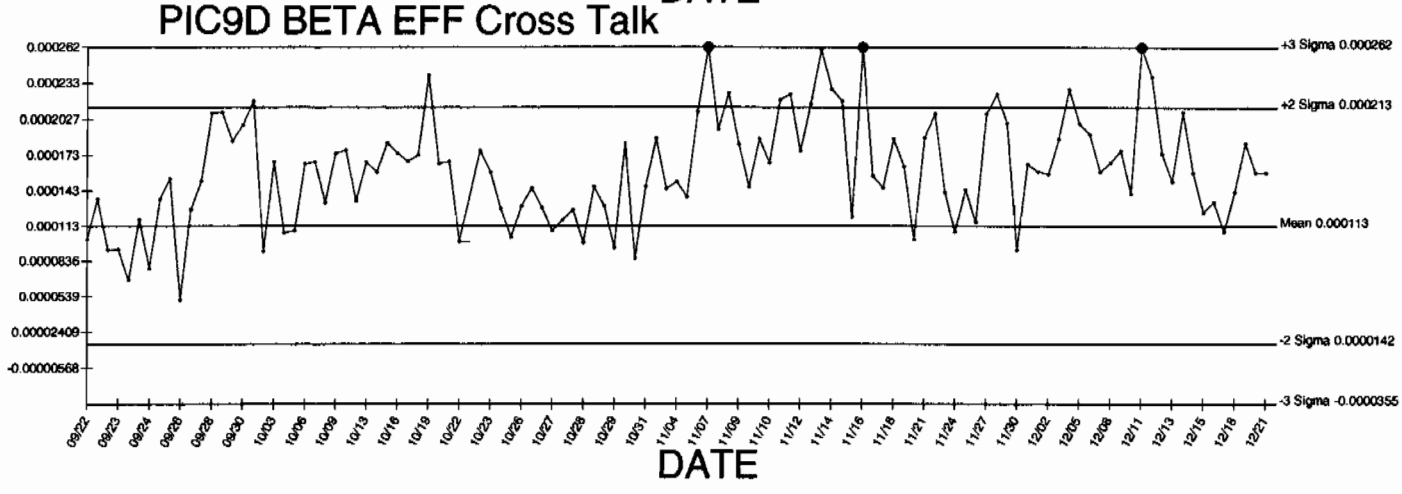

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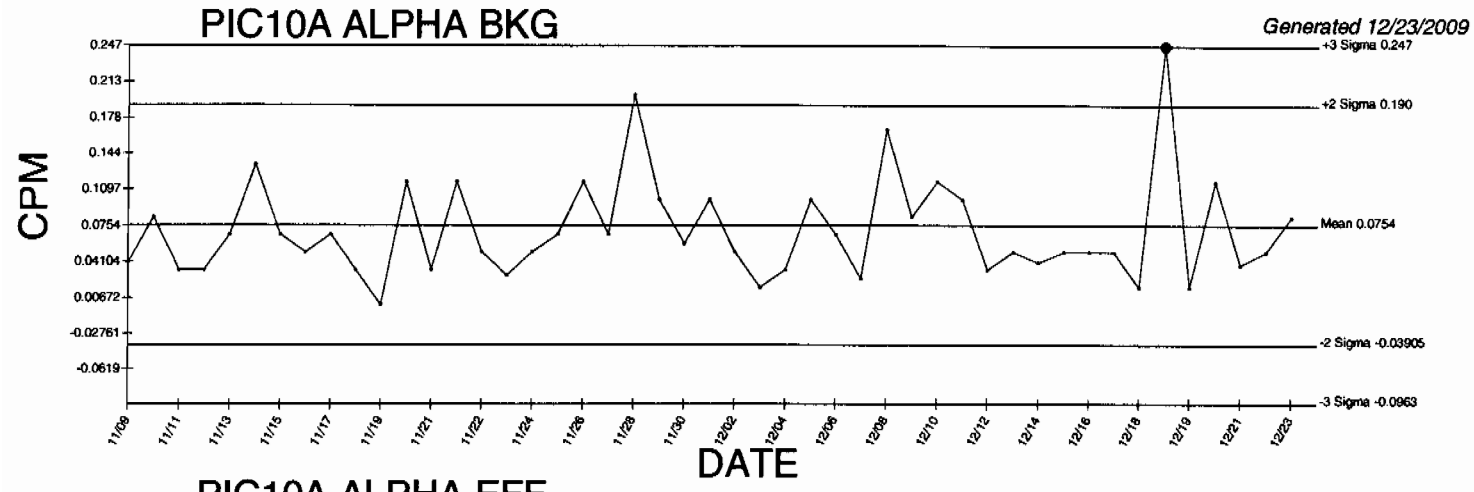
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Generated 12/23/2009
CPM
DATE
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Mean 0.0754
-2 Sigma -0.03905
-3 Sigma -0.0963

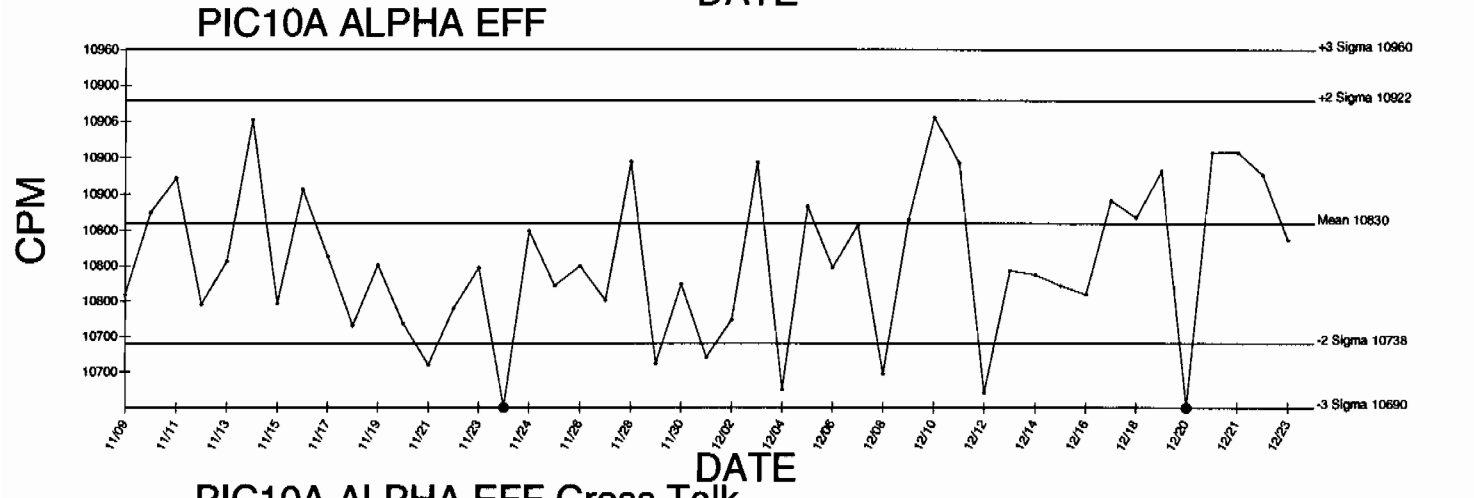
PIC10A ALPHA EFF
CPM
DATE
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+2 Sigma 10922
Mean 10830
-2 Sigma 10738
-3 Sigma 10690

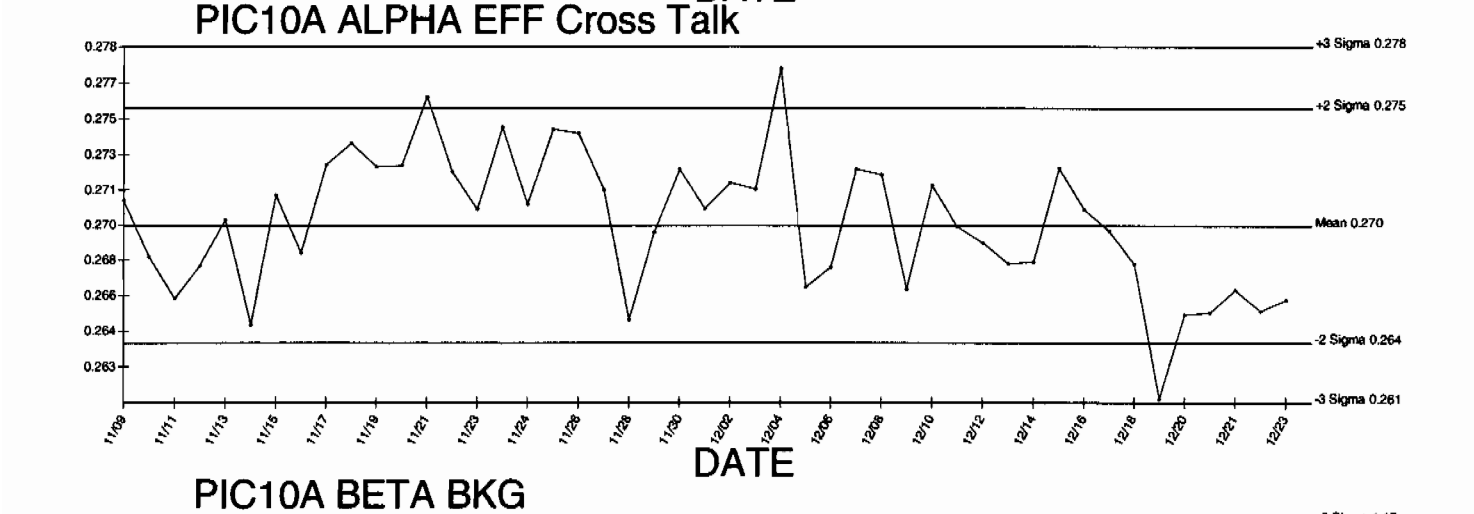
PIC10A ALPHA EFF Cross Talk
DATE
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+2 Sigma 0.275
Mean 0.270
-2 Sigma 0.264
-3 Sigma 0.261

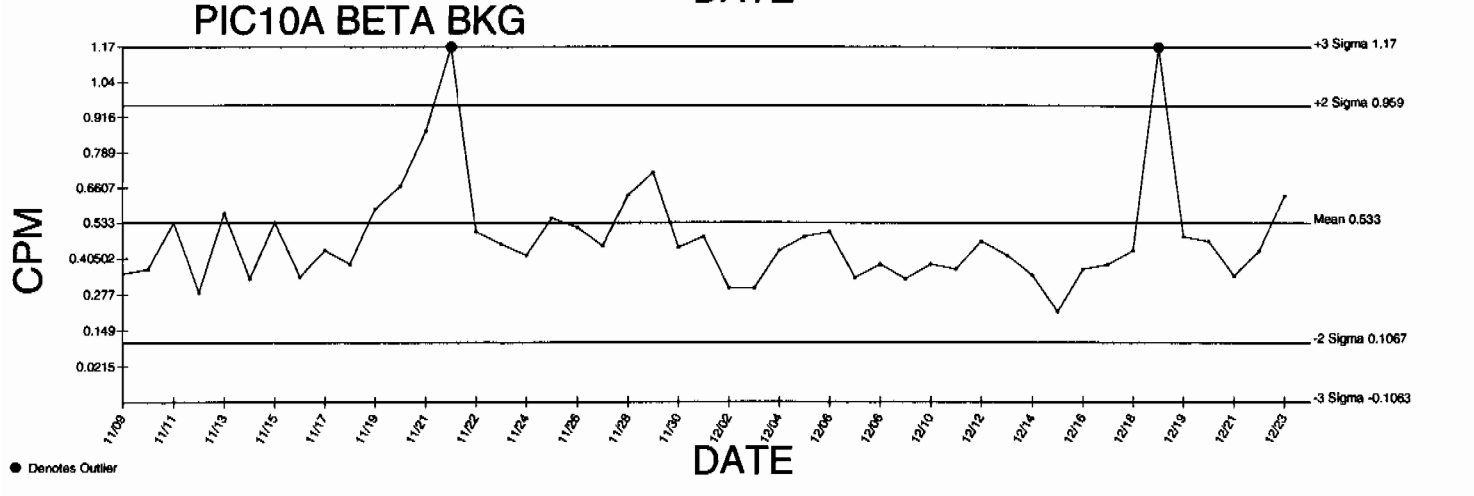
PIC10A BETA BKG
CPM
DATE
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Mean 0.533
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● Denotes Outlier

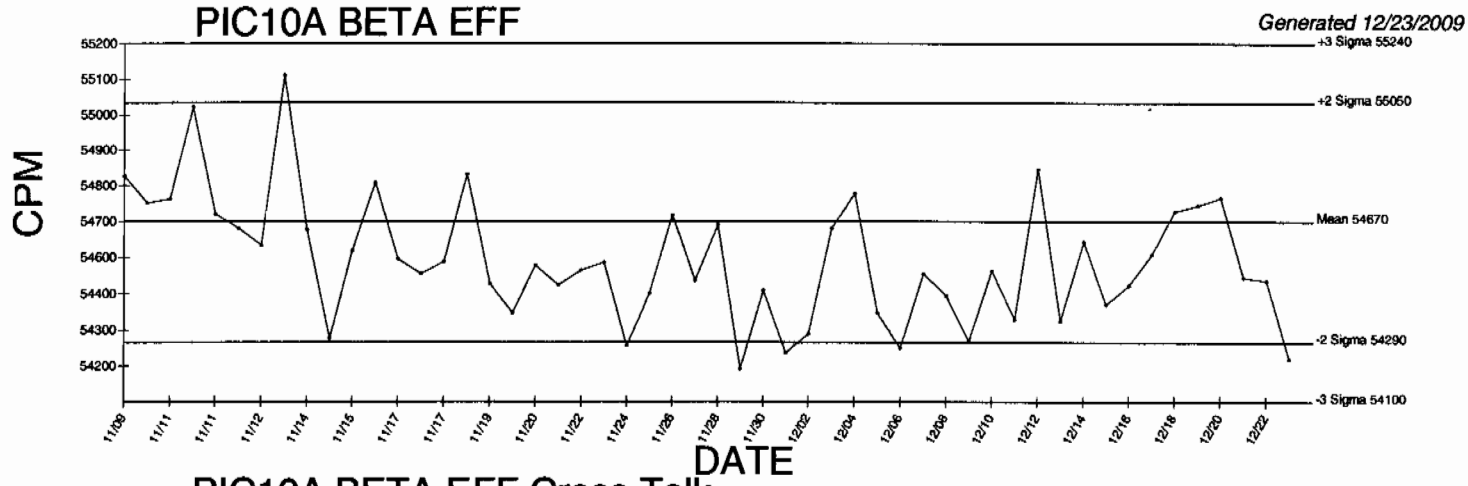

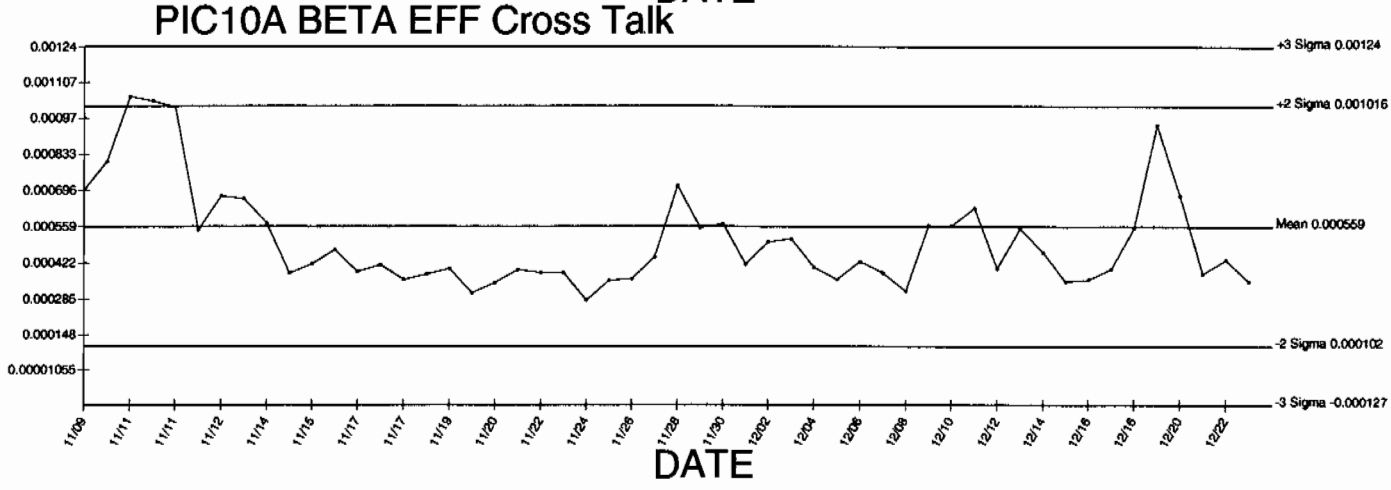

● Denotes Outlier

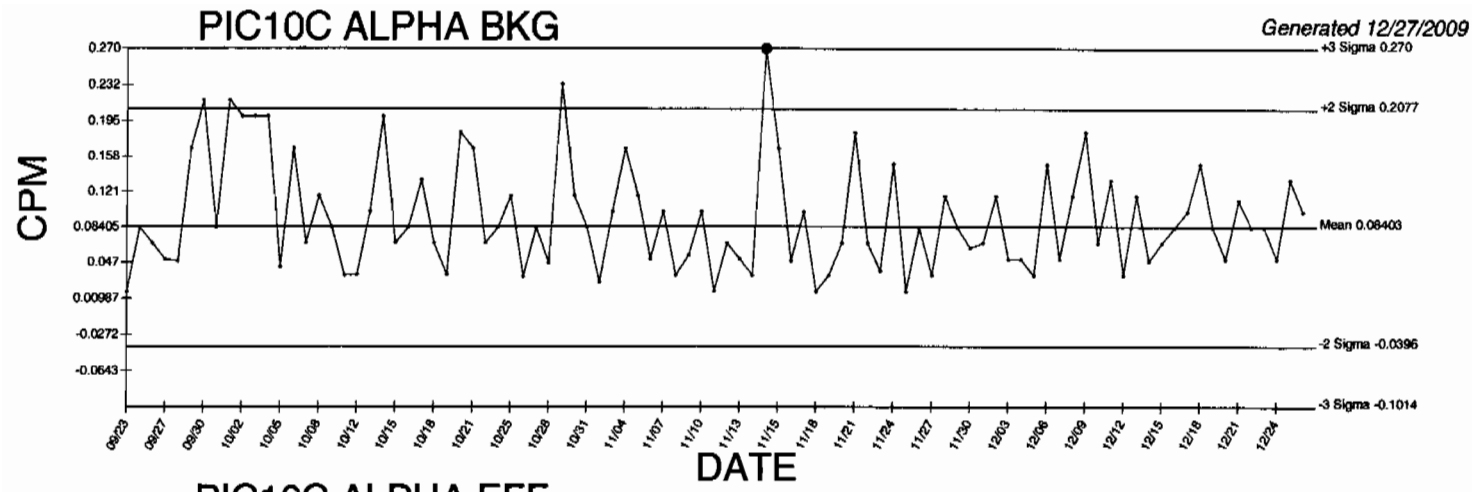
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Generated 12/27/2009
CPM
DATE
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Mean 0.08403
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-3 Sigma -0.1014

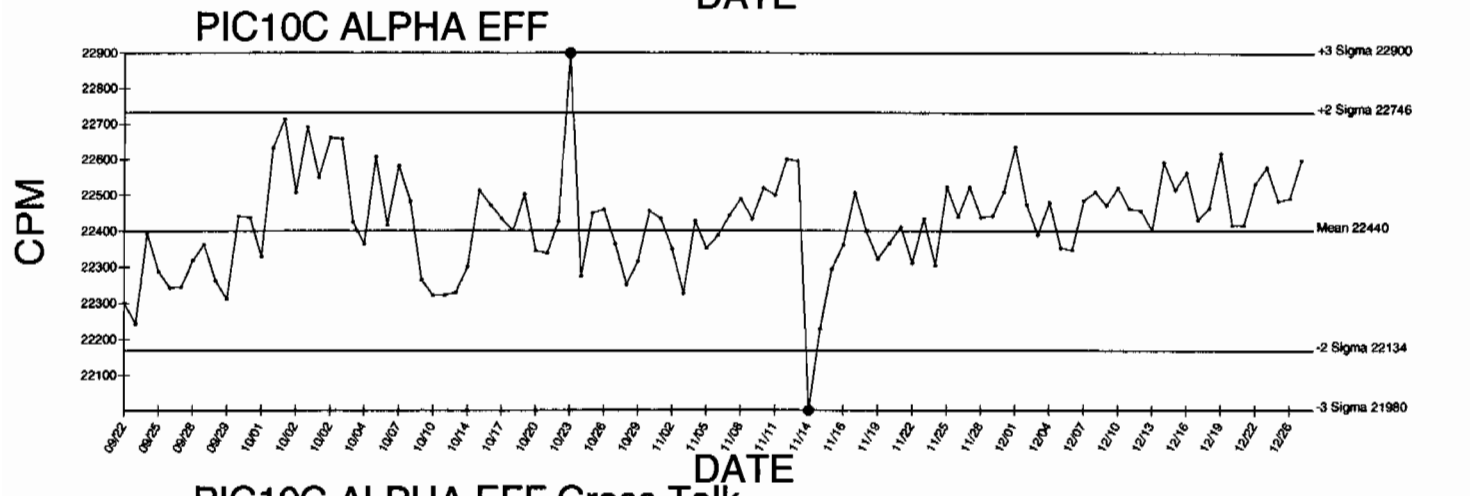
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CPM
DATE
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Mean 22440
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-3 Sigma 21980

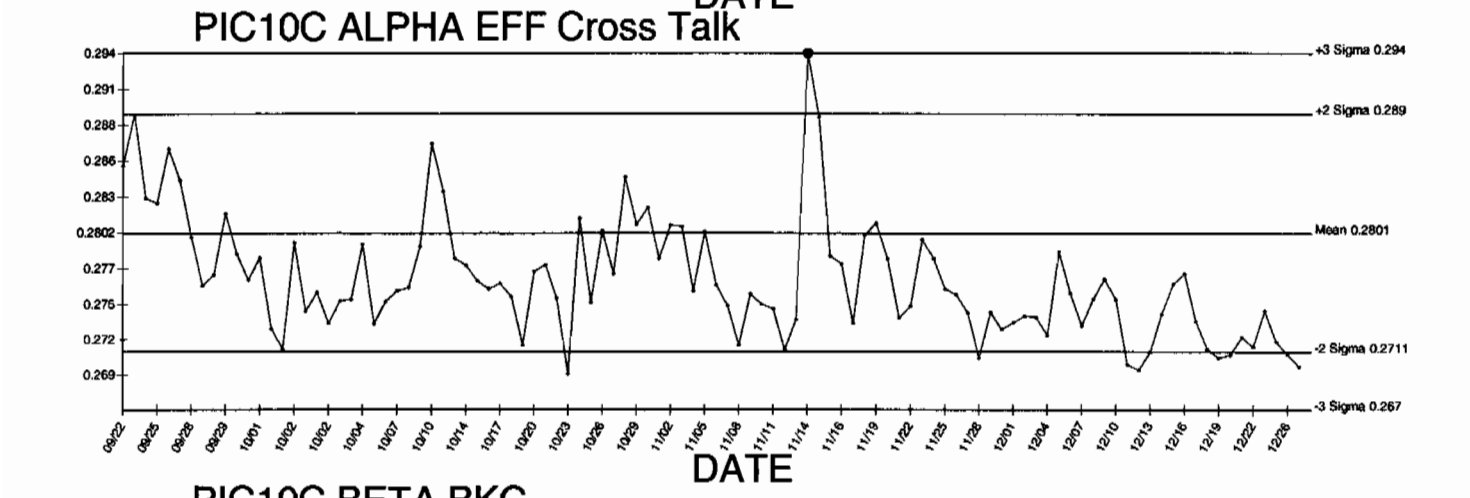
PIC10C ALPHA EFF Cross Talk
DATE
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+2 Sigma 0.289
Mean 0.2801
-2 Sigma 0.2711
-3 Sigma 0.267

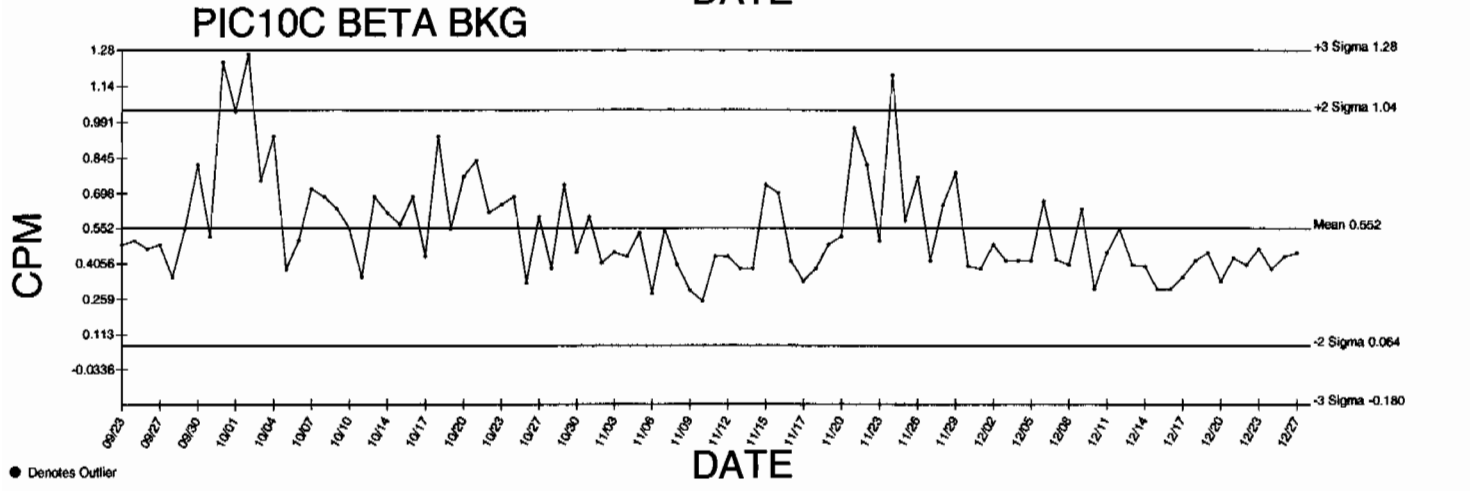
PIC10C BETA BKG
CPM
DATE
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Mean 0.552
-2 Sigma 0.064
-3 Sigma -0.180
● Denotes Outlier

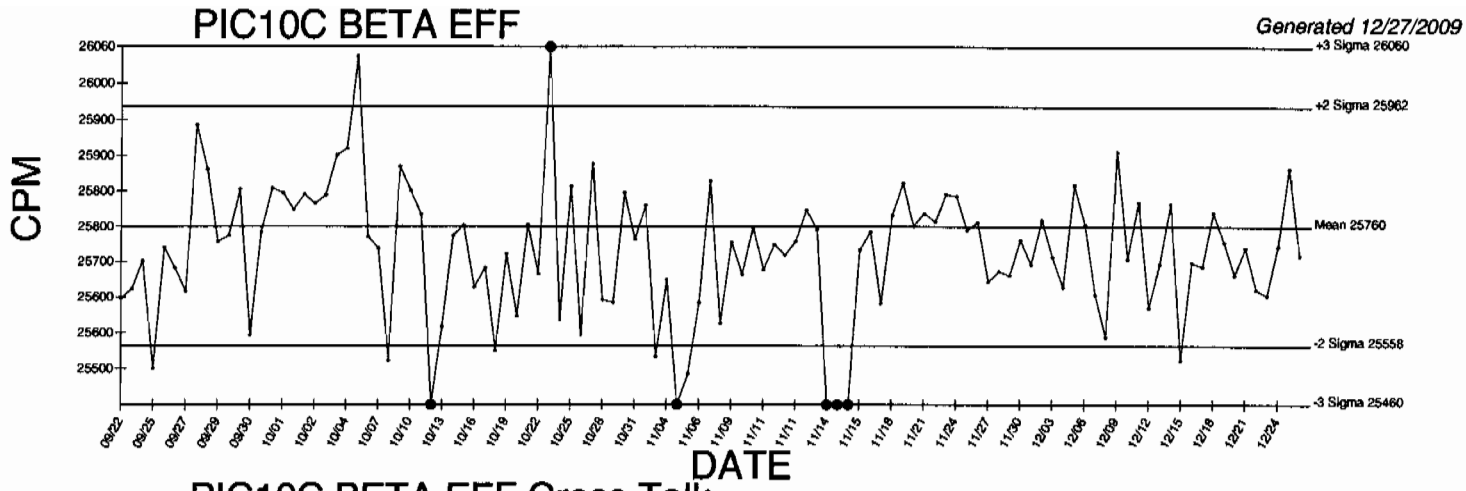

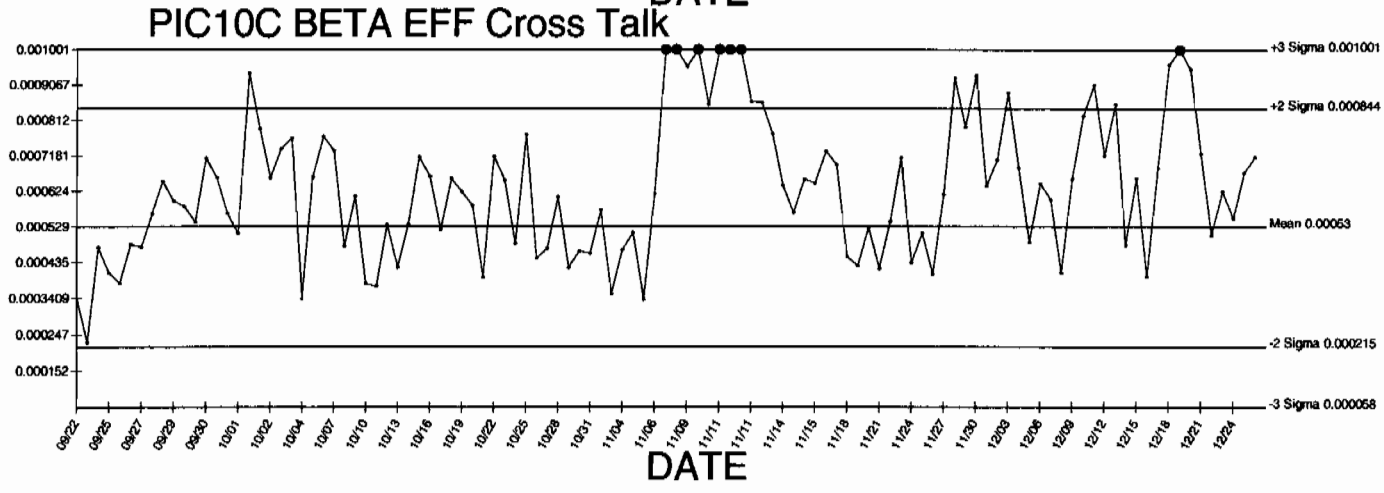

● Denotes Outlier

PIC11B ALPHA BKG

Generated 12/21/2009

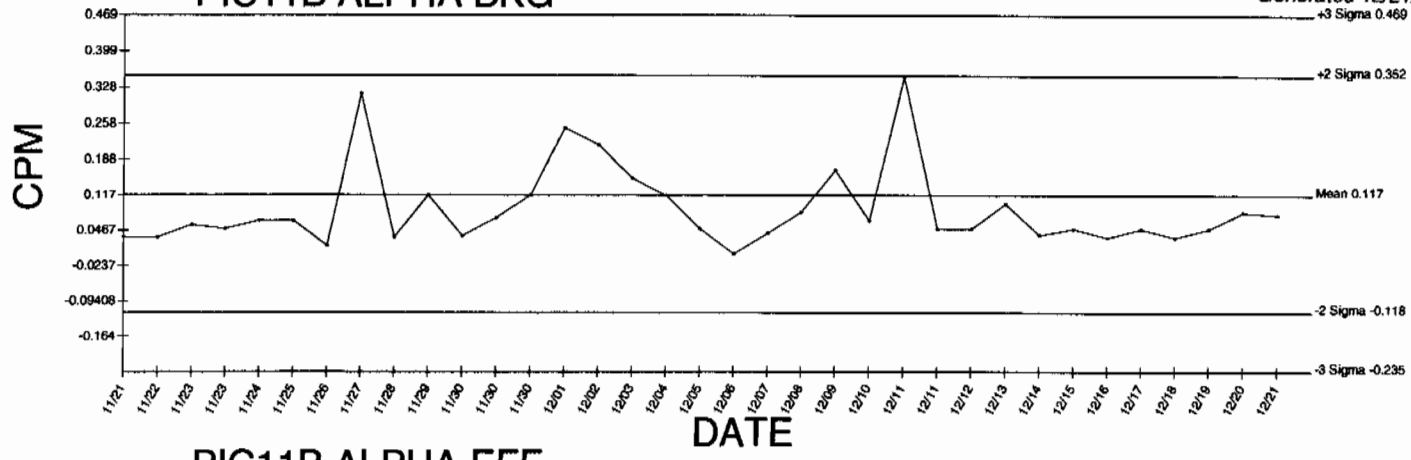

PIC11B ALPHA EFF

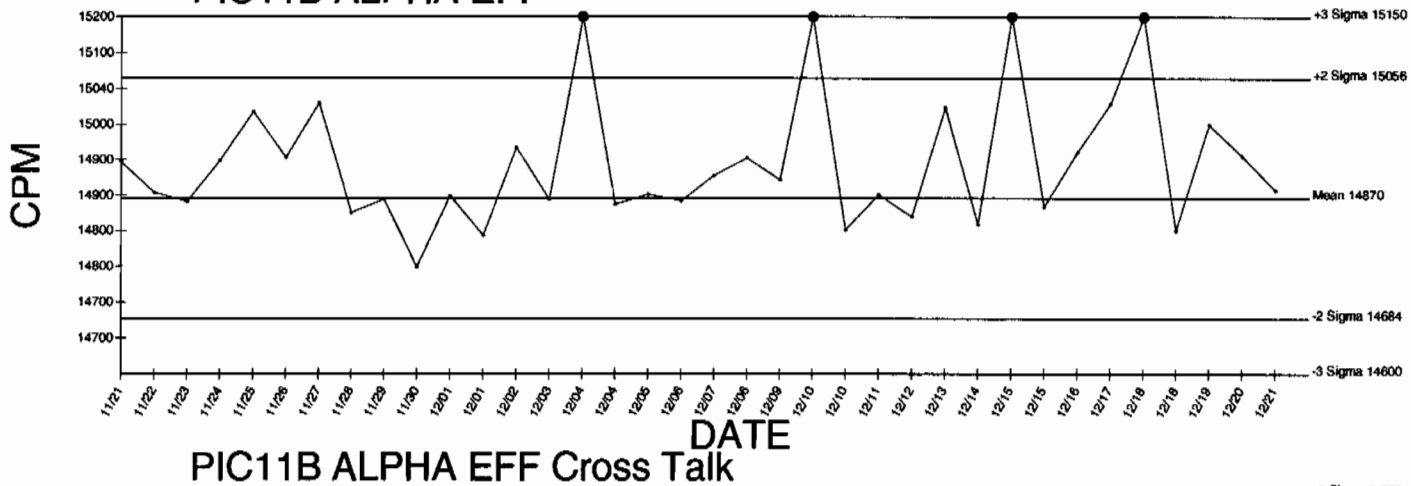

PIC11B ALPHA EFF Cross Talk

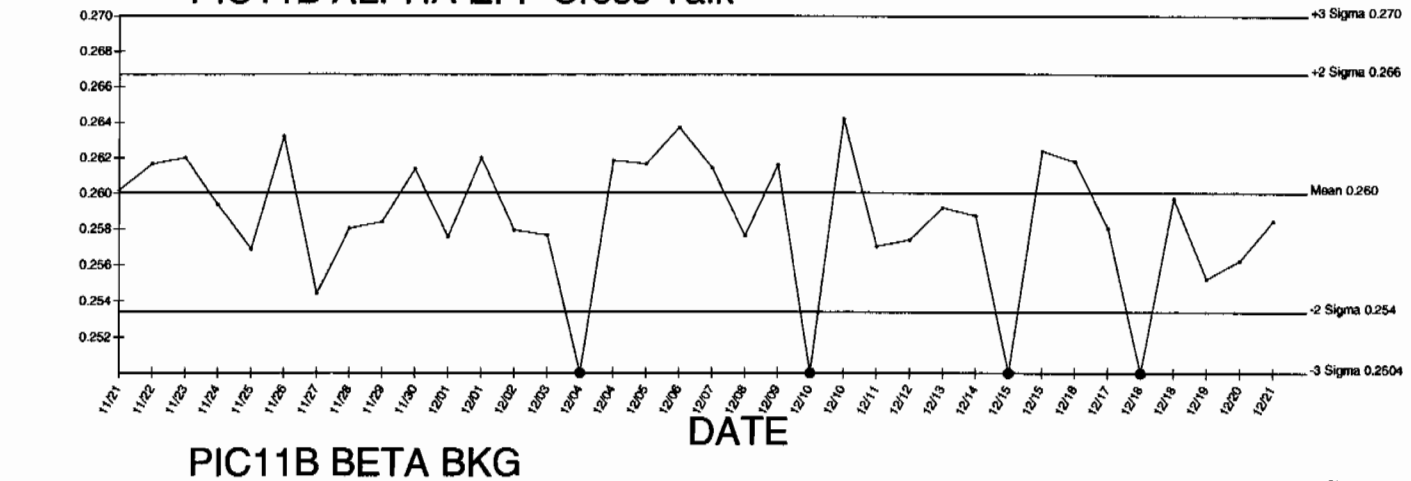

PIC11B BETA BKG

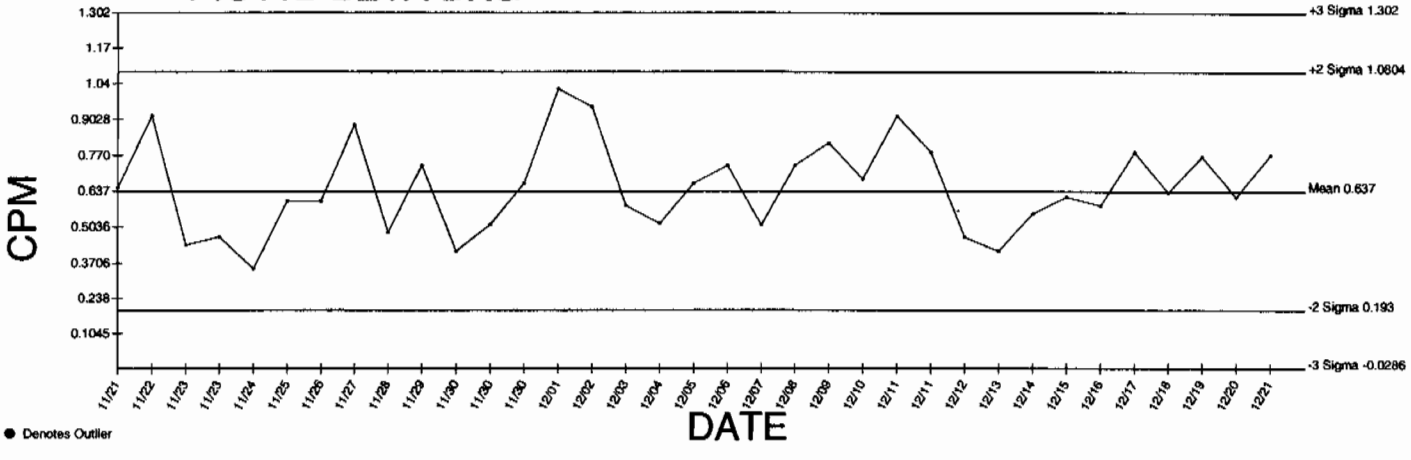

● Denotes Outlier

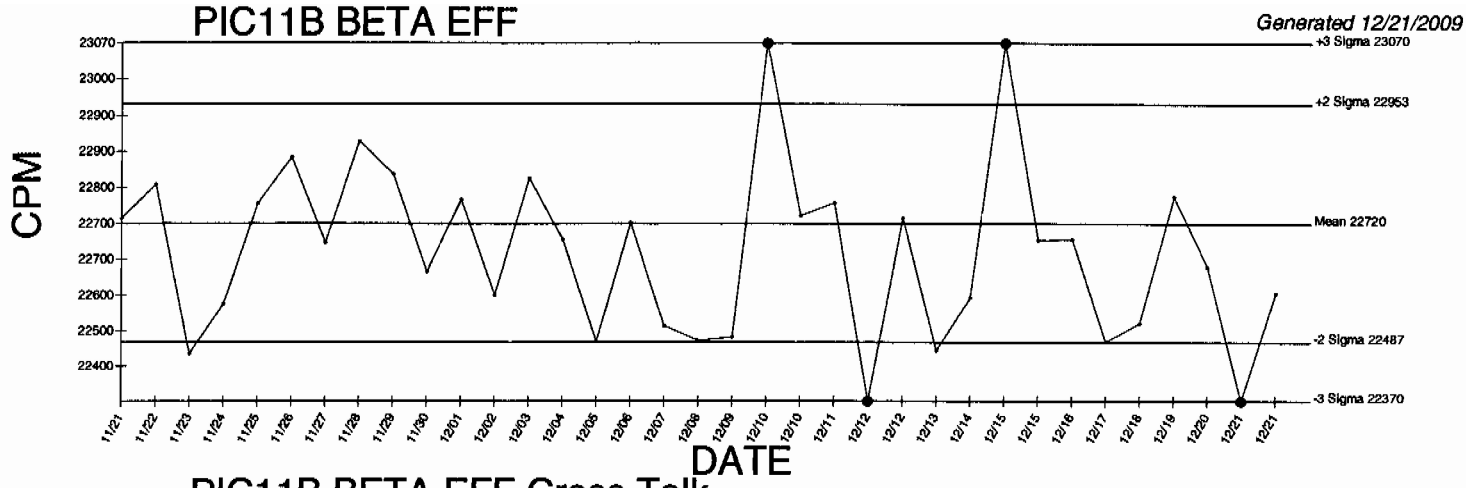

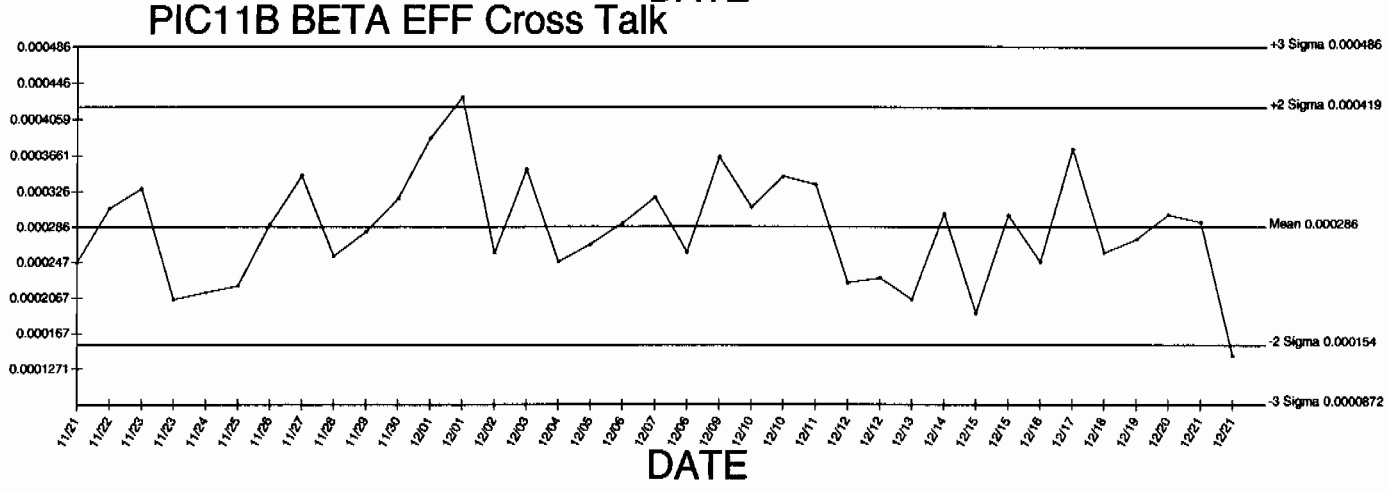

● Denotes Outlier

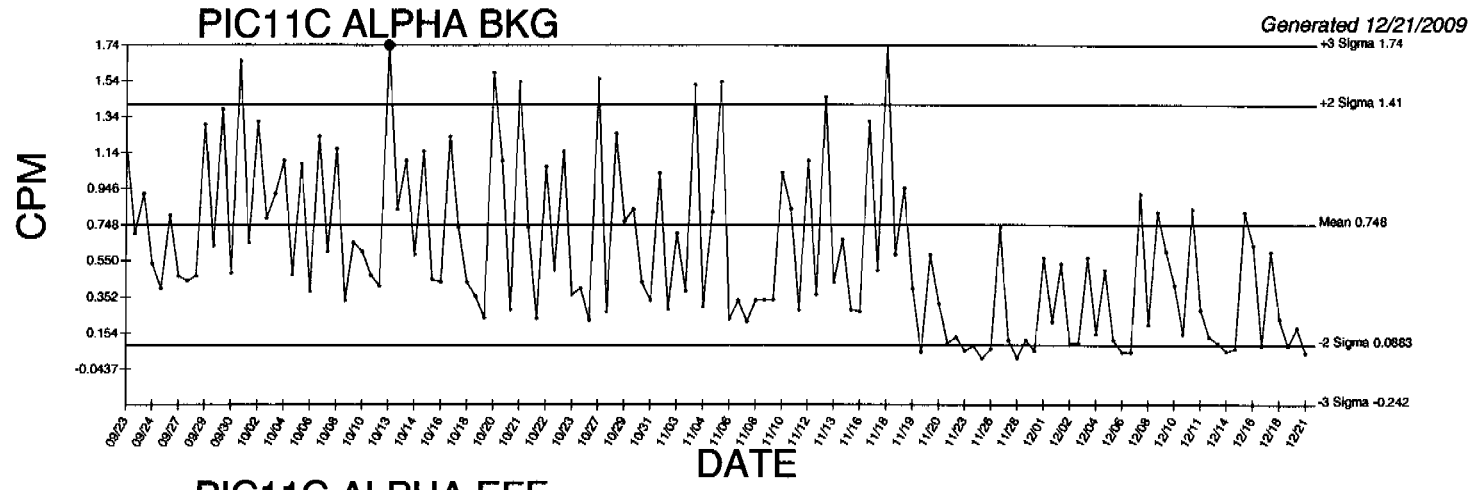

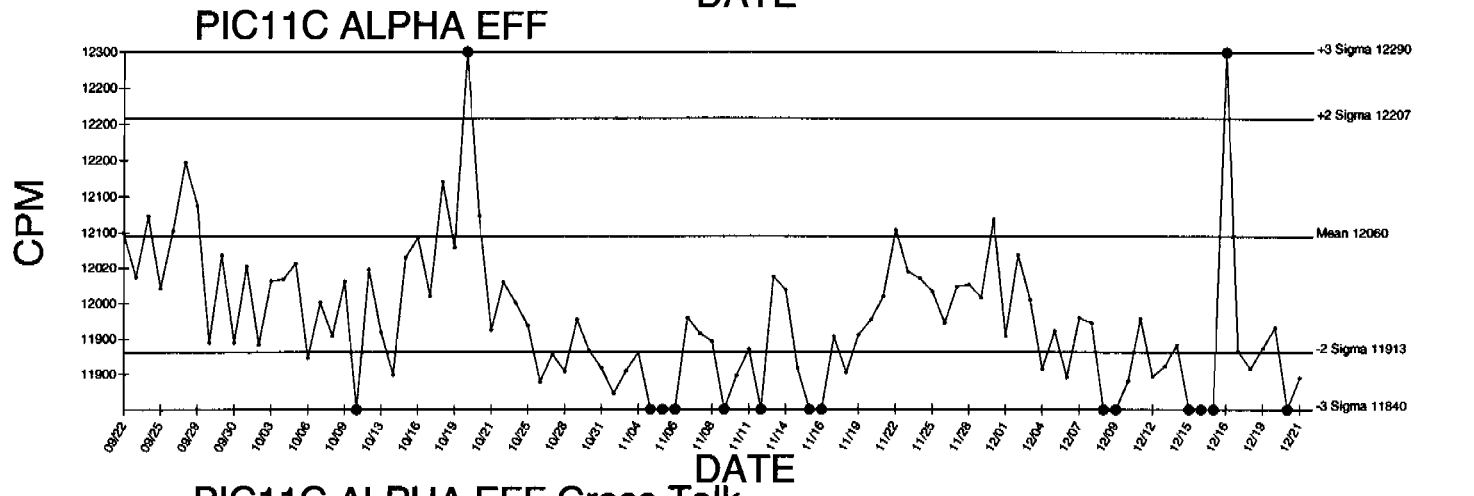

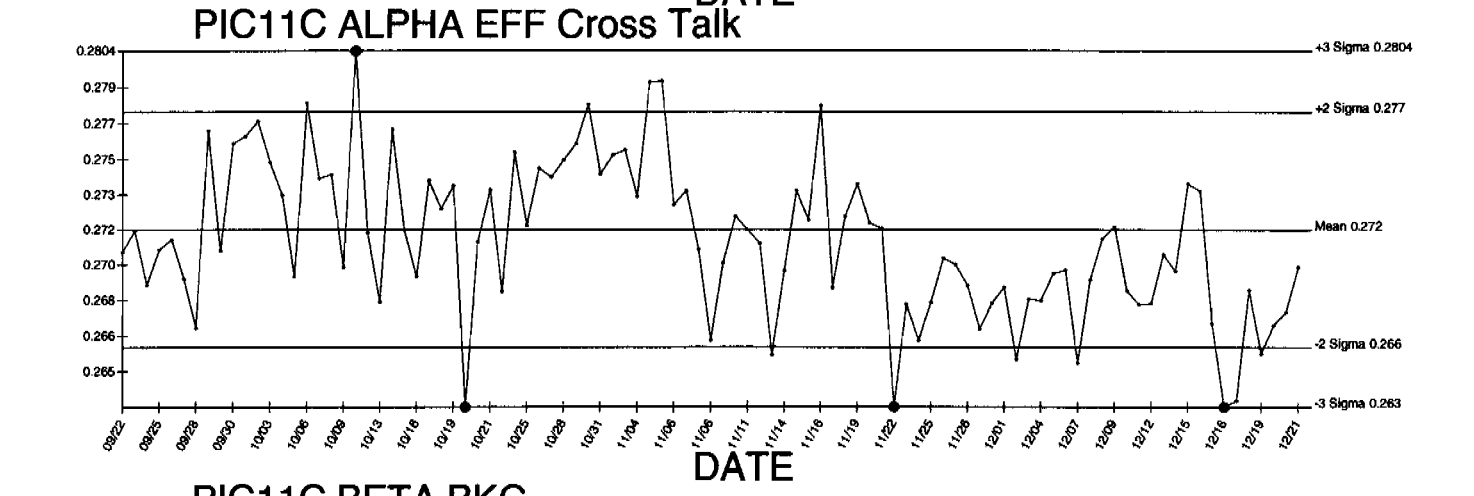

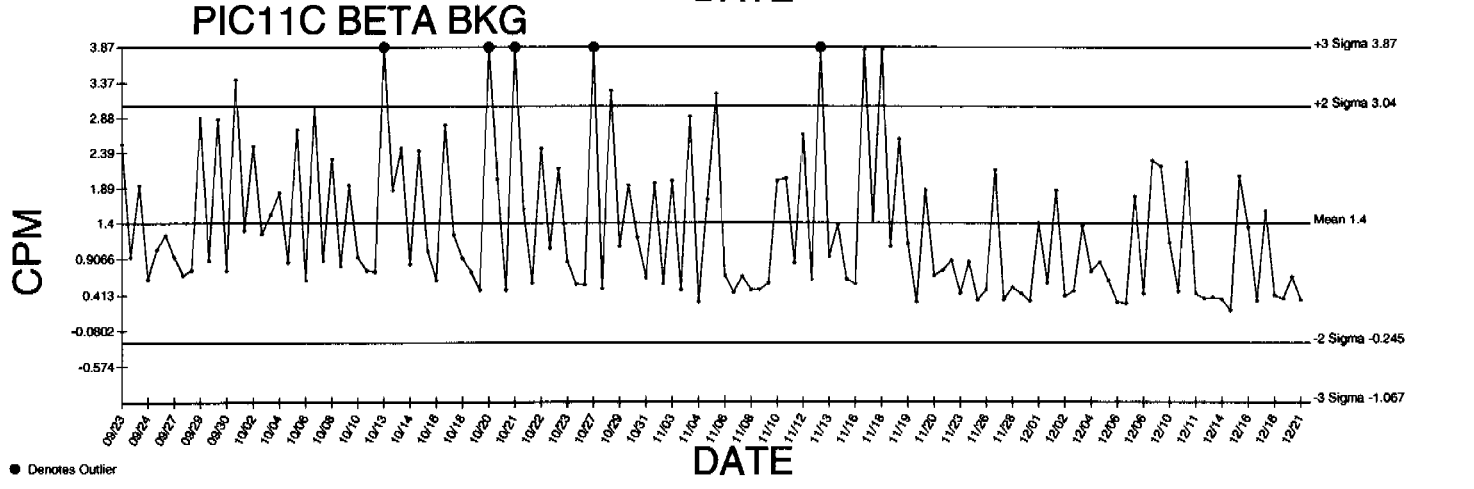

● Denotes Outlier

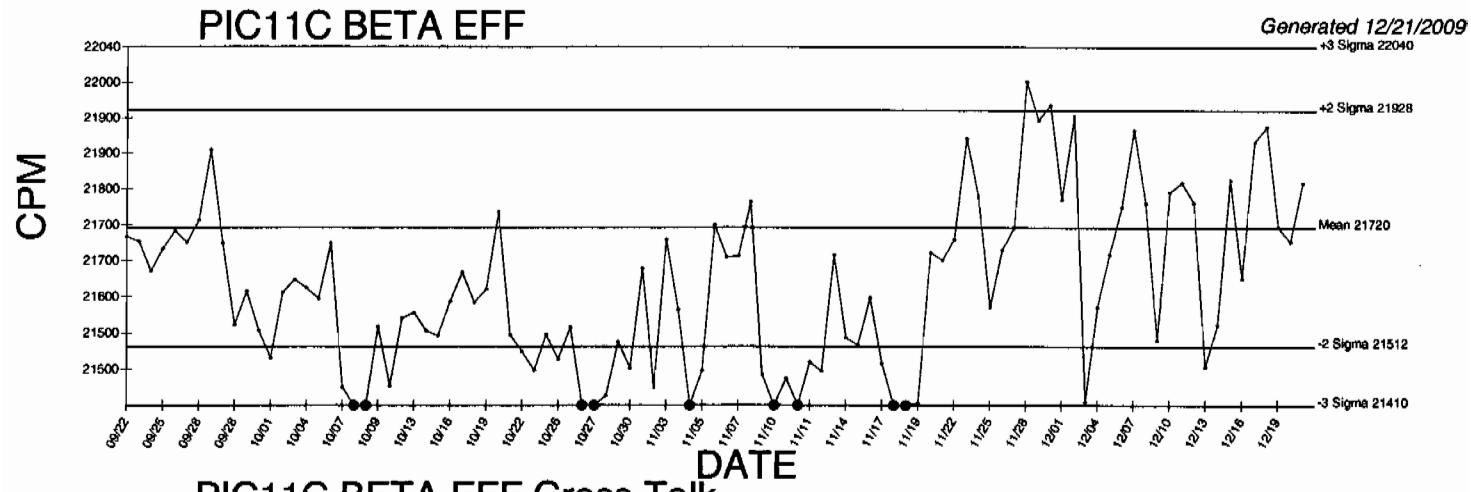

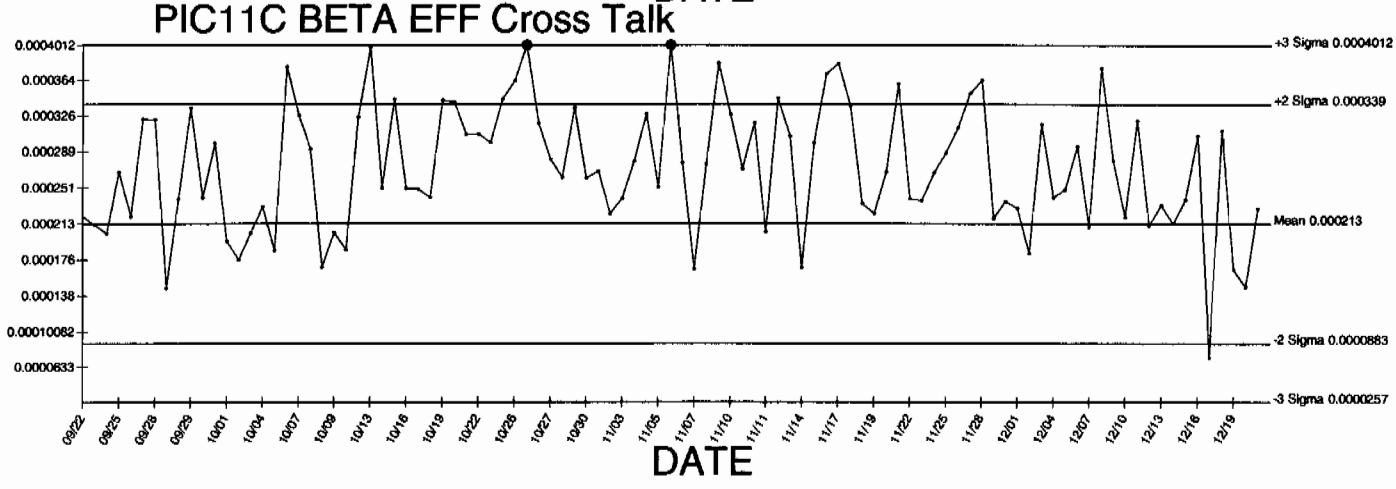

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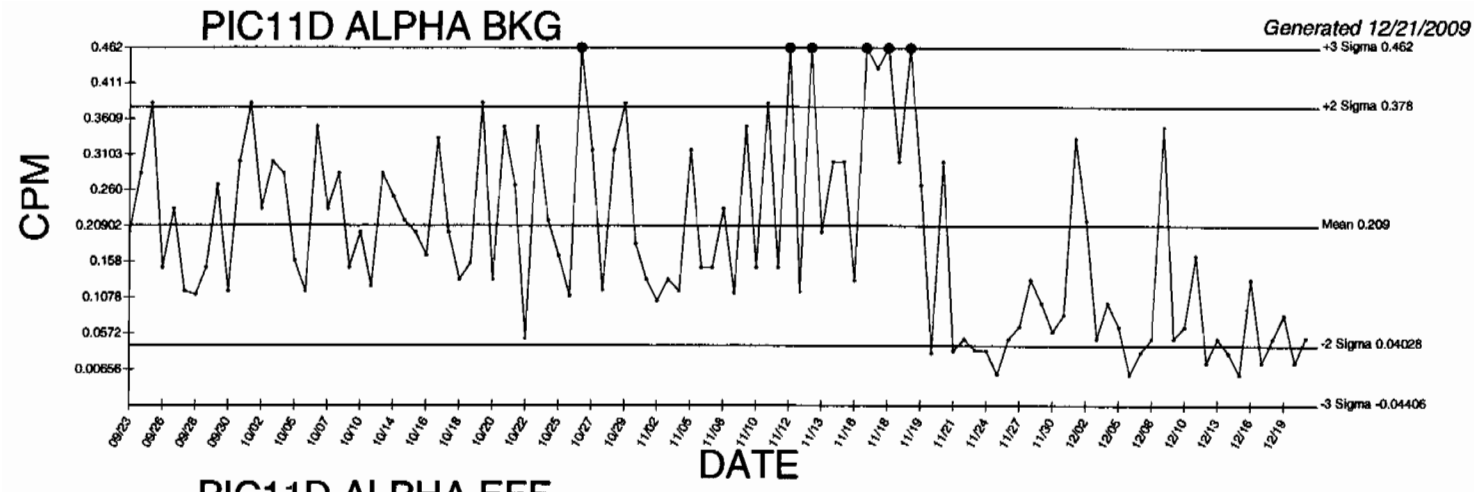

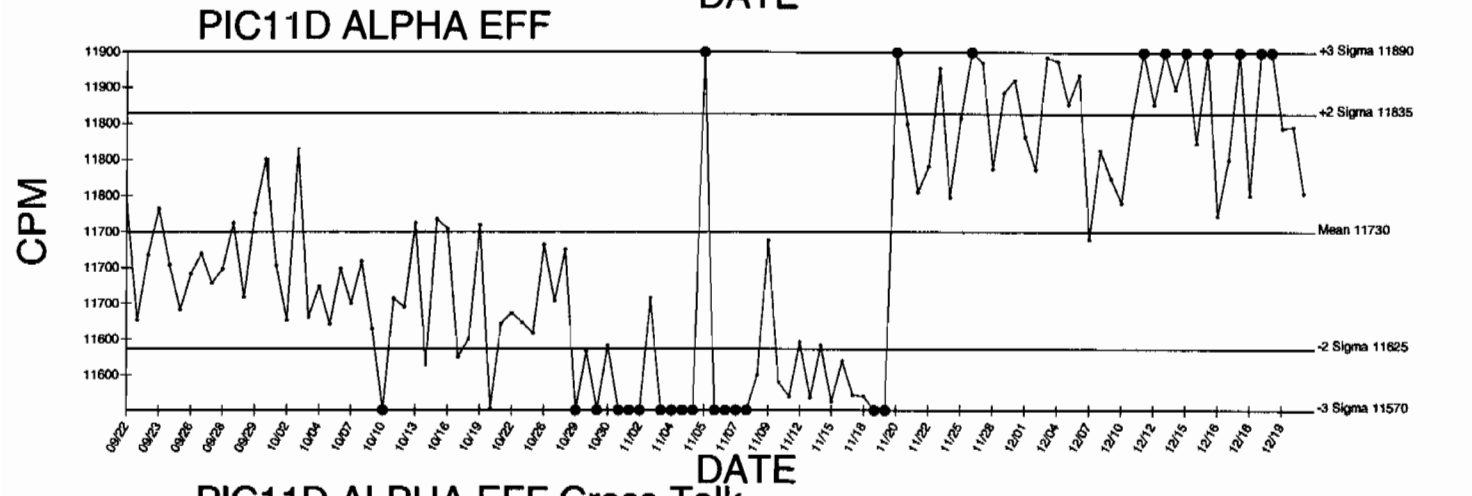

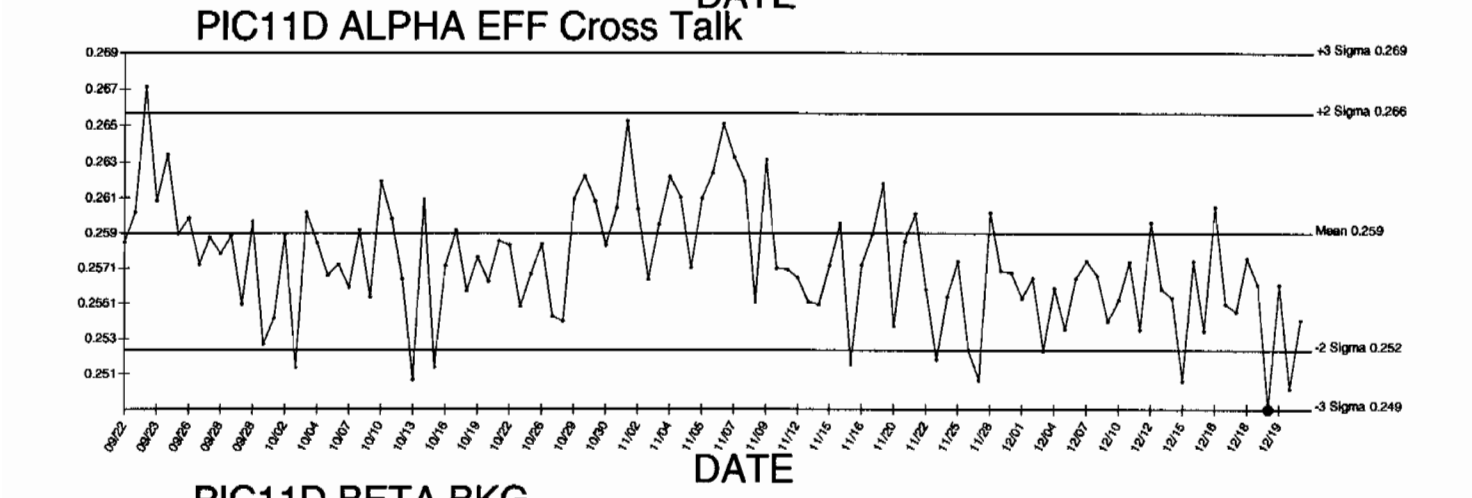

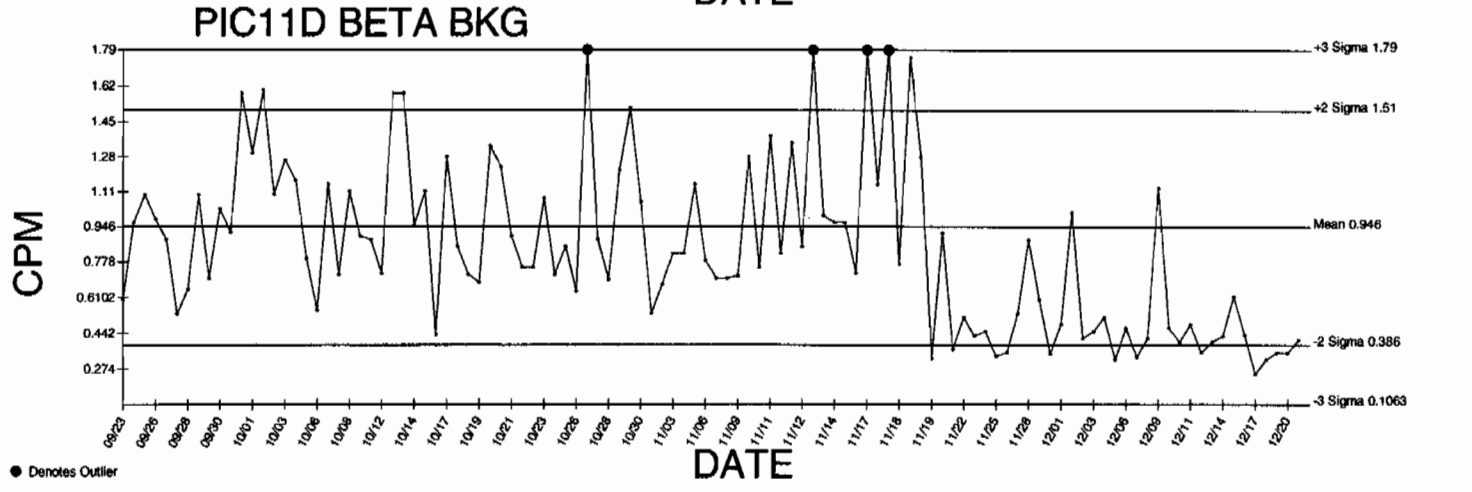

● Denotes Outlier

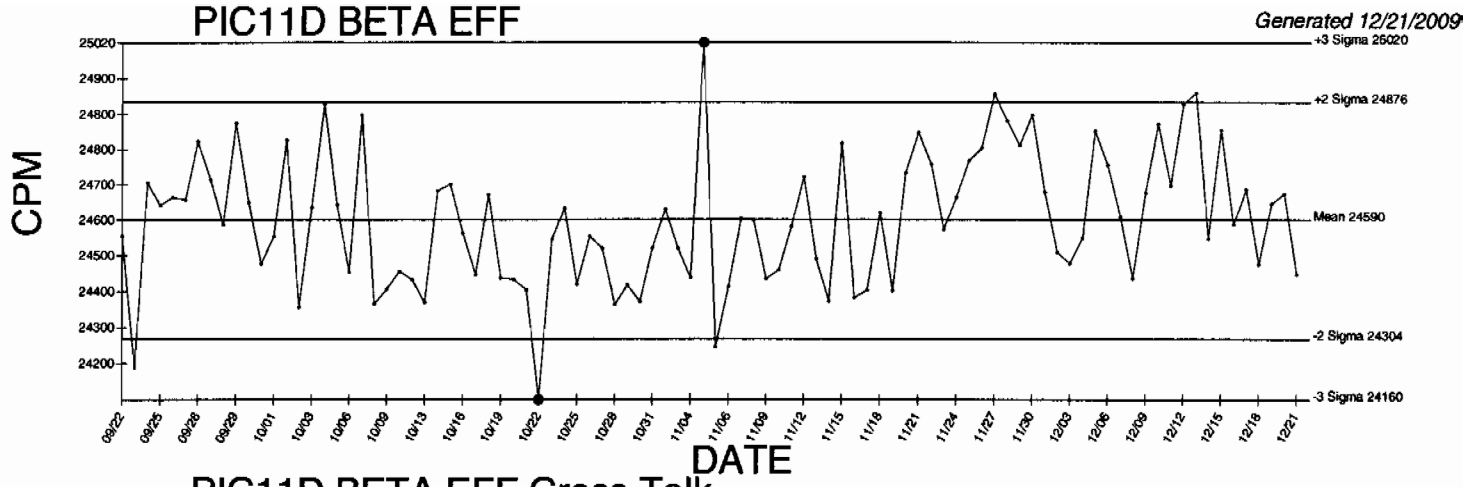

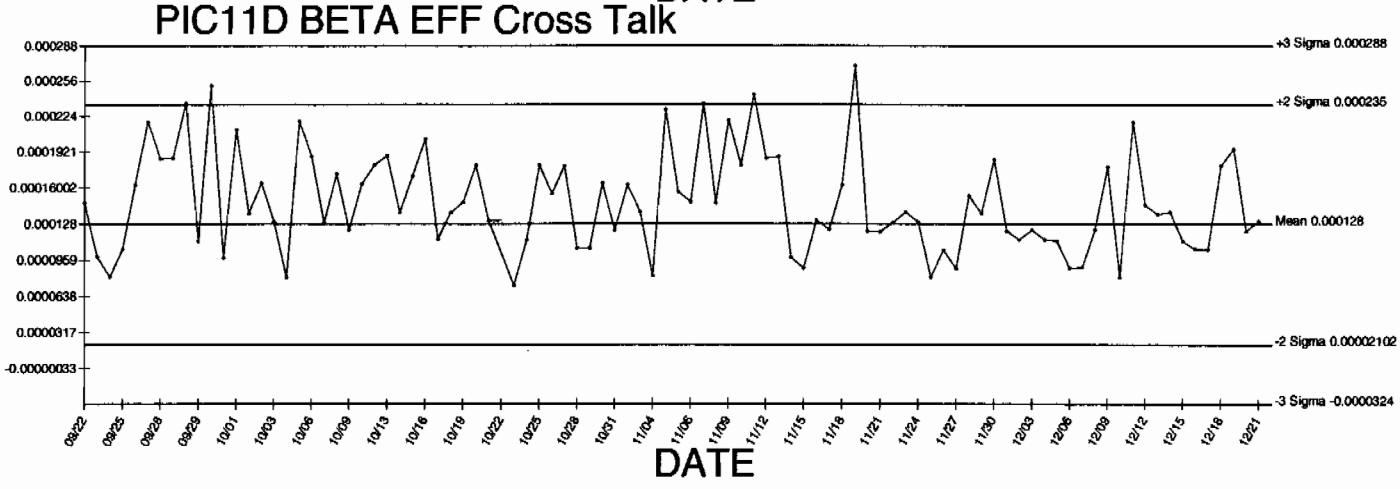

● Denotes Outlier

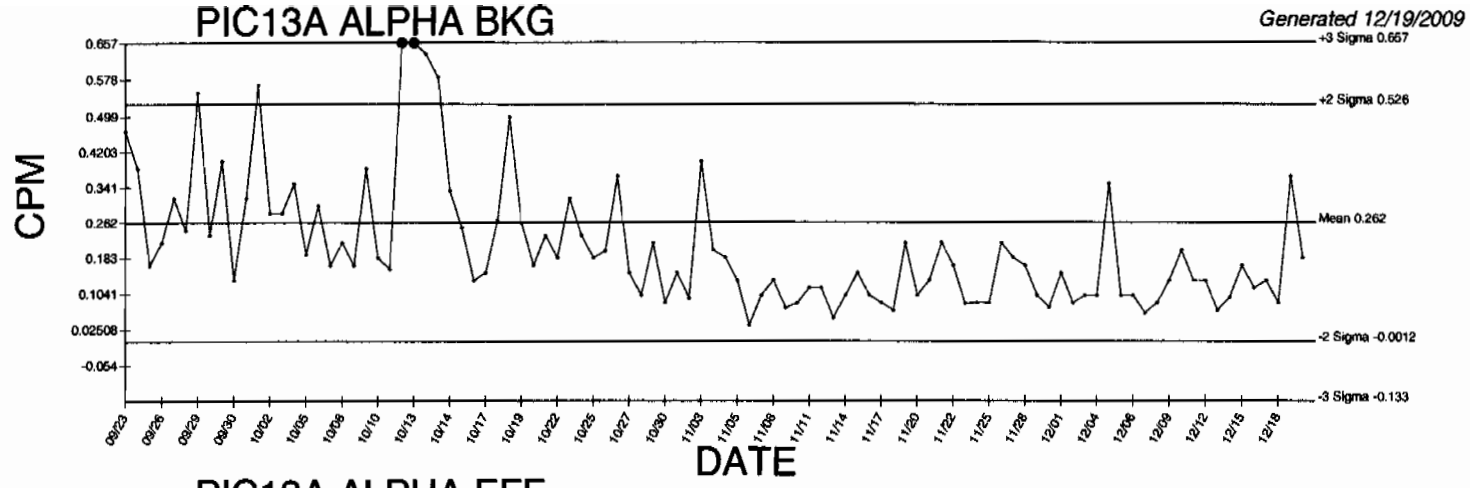
PIC13A ALPHA BKG
Generated 12/19/2009
CPM
DATE
+3 Sigma 0.657
+2 Sigma 0.526
Mean 0.262
-2 Sigma -0.0012
-3 Sigma -0.133

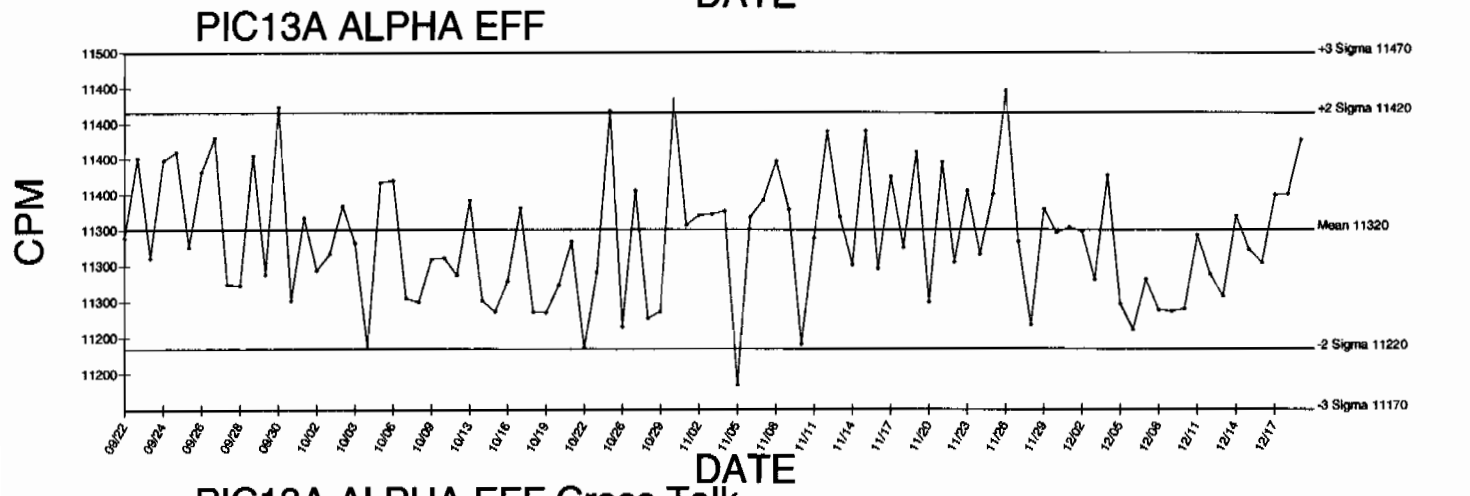
PIC13A ALPHA EFF
CPM
DATE
+3 Sigma 11470
+2 Sigma 11420
Mean 11320
-2 Sigma 11220
-3 Sigma 11170

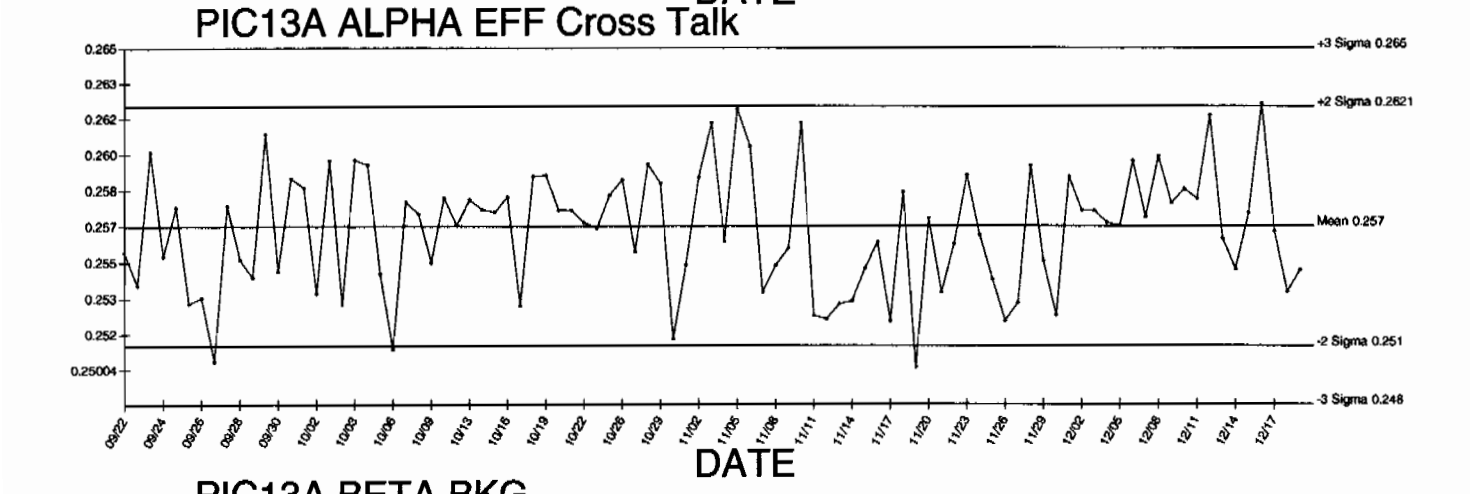
PIC13A ALPHA EFF Cross Talk
DATE
+3 Sigma 0.265
+2 Sigma 0.2621
Mean 0.257
-2 Sigma 0.251
-3 Sigma 0.248

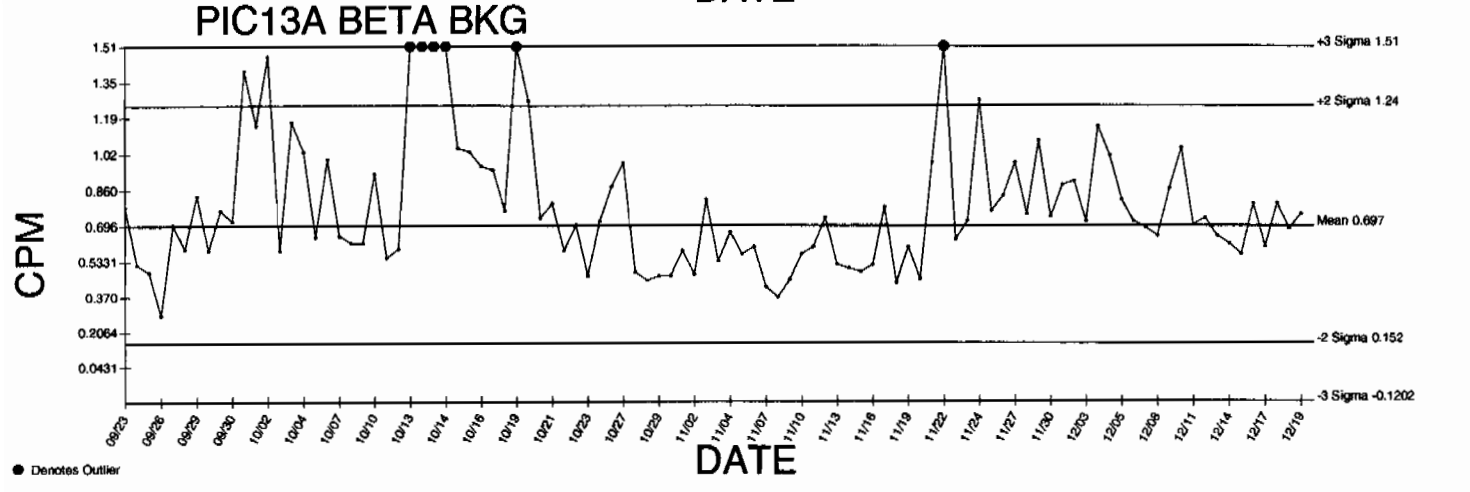
PIC13A BETA BKG
CPM
DATE
+3 Sigma 1.51
+2 Sigma 1.24
Mean 0.697
-2 Sigma 0.152
-3 Sigma -0.1202
● Denotes Outlier

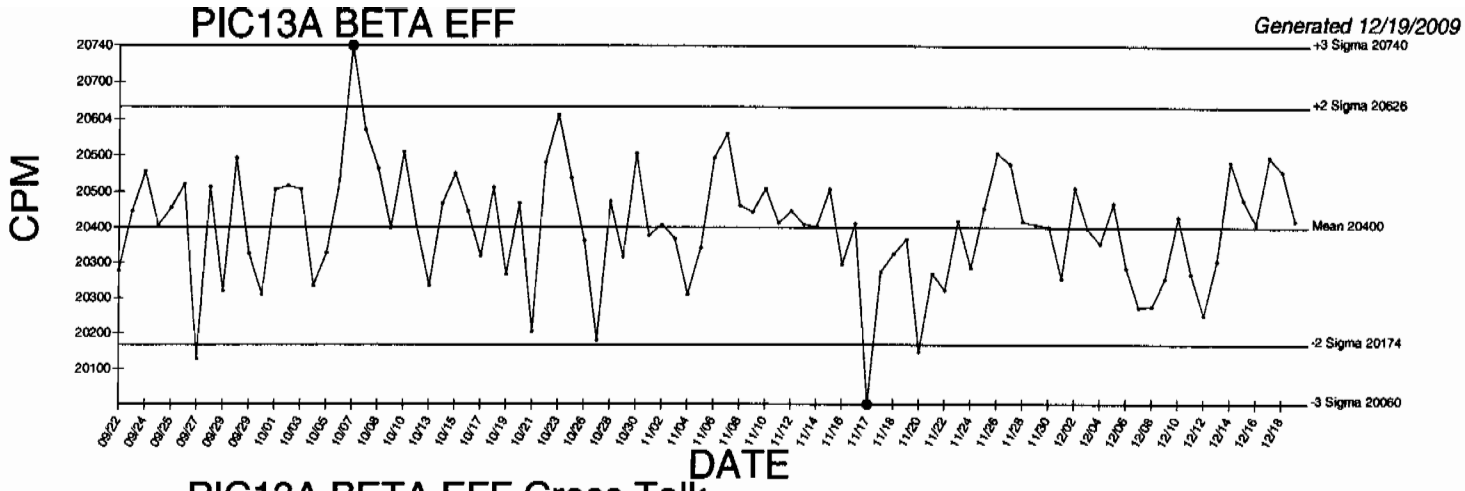

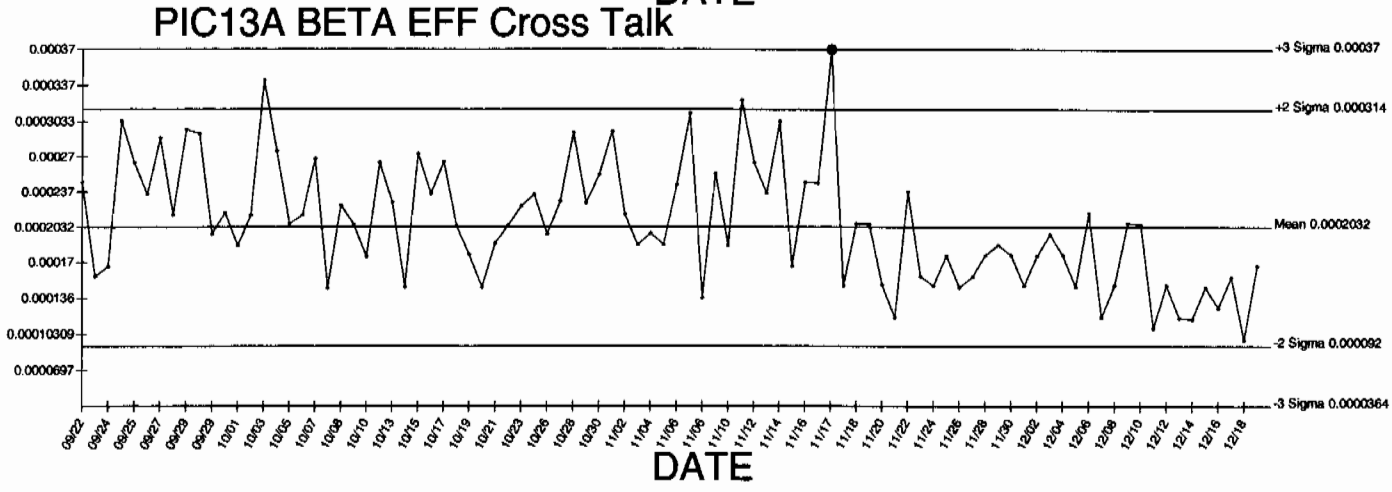

● Denotes Outlier

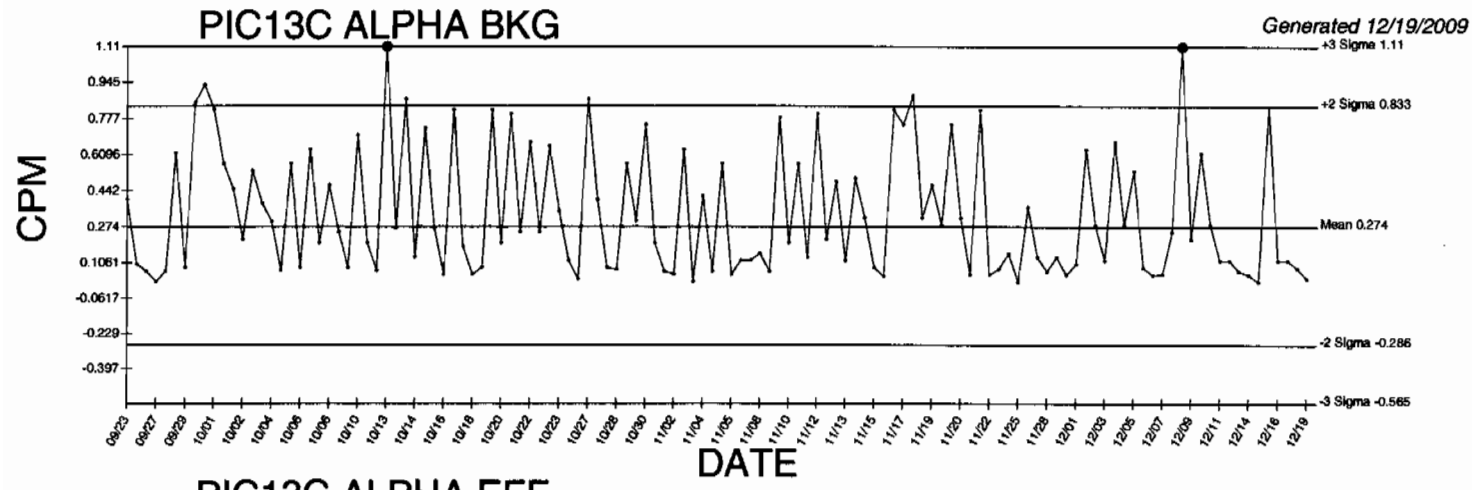

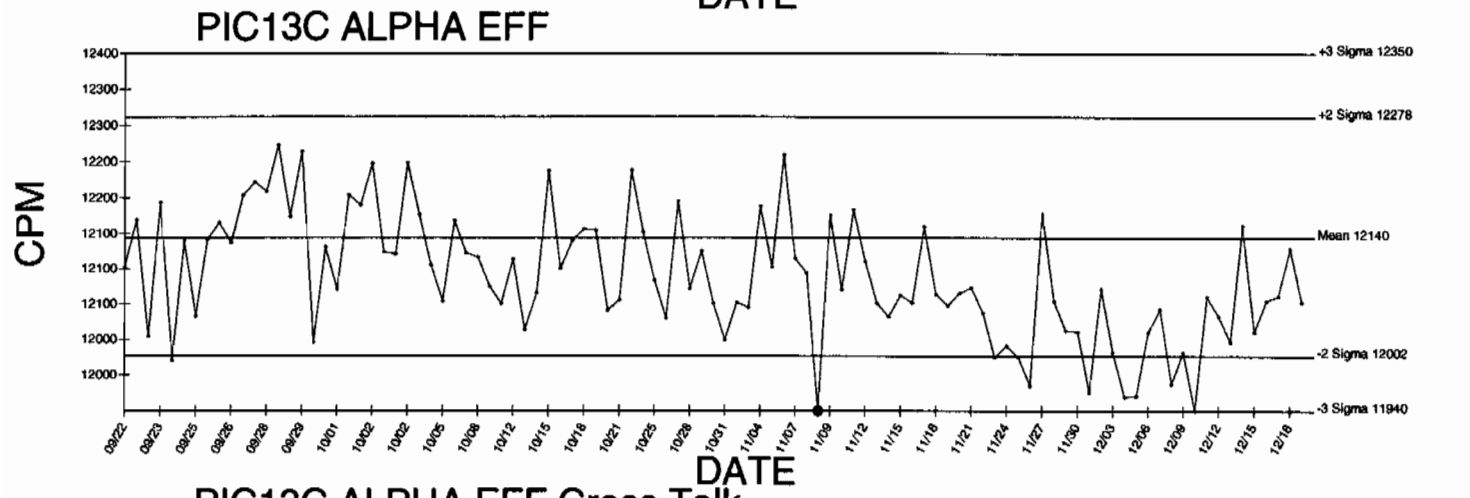

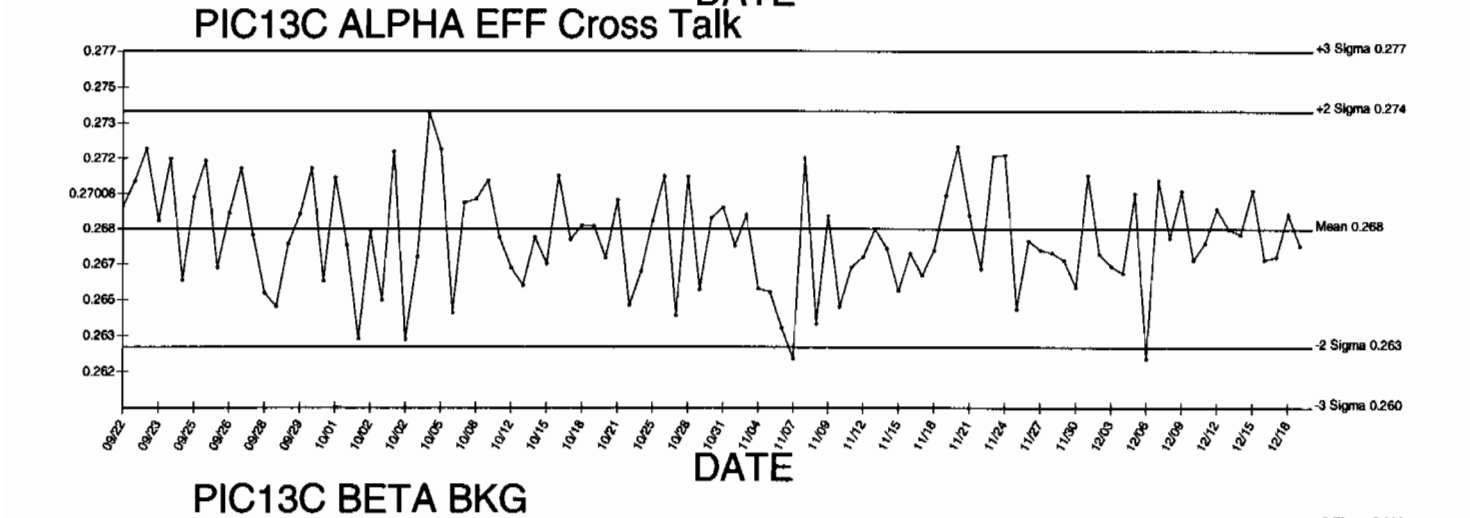

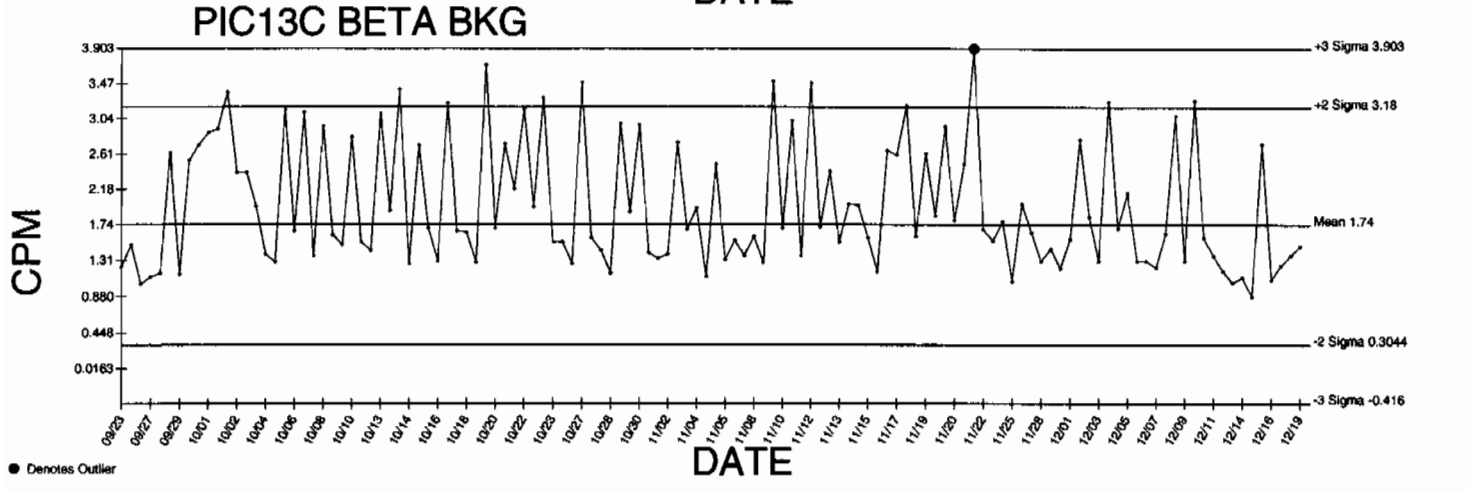

● Denotes Outlier

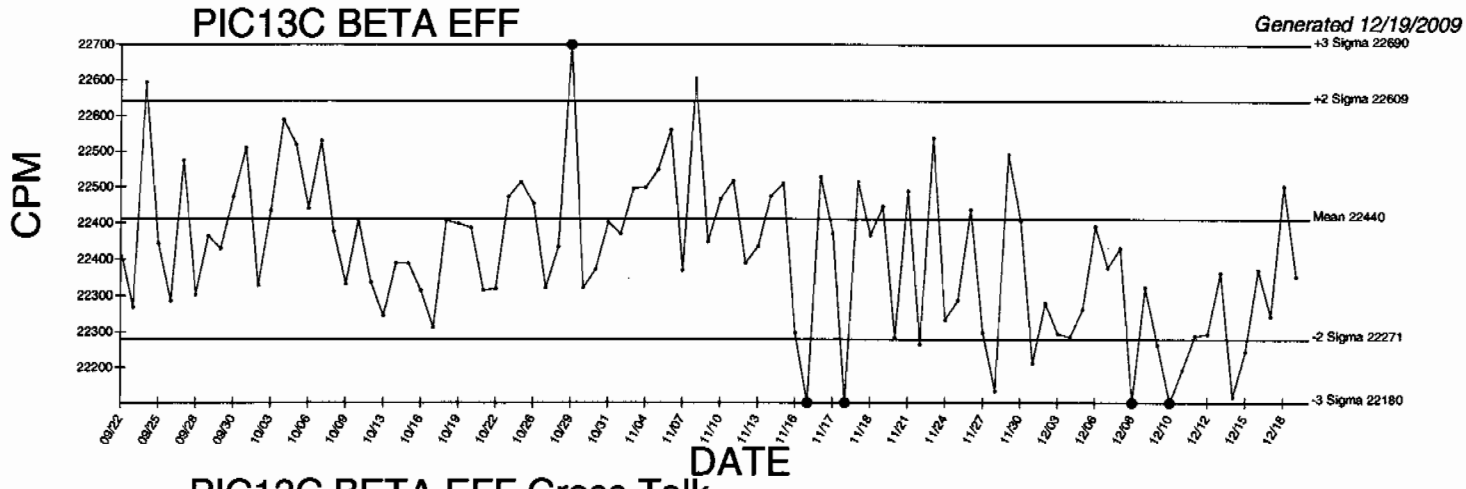

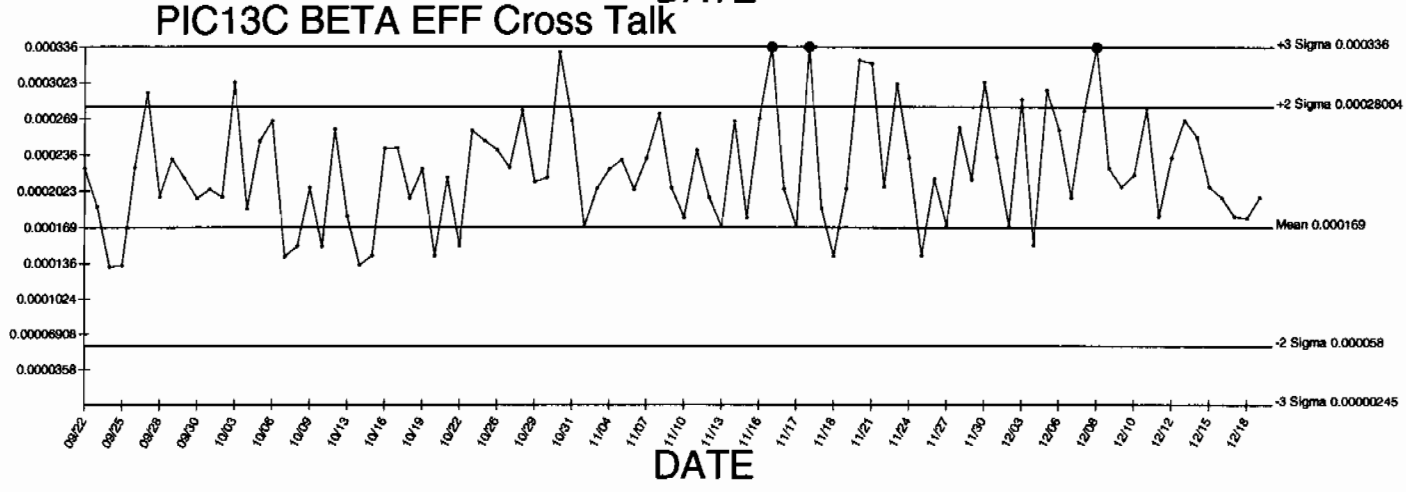

● Denotes Outlier

QA filename : DKA100:[ENV_ALPHA.QA.W]W065.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 12-JUN-2009 07:18:25 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.302750 through 0.322750

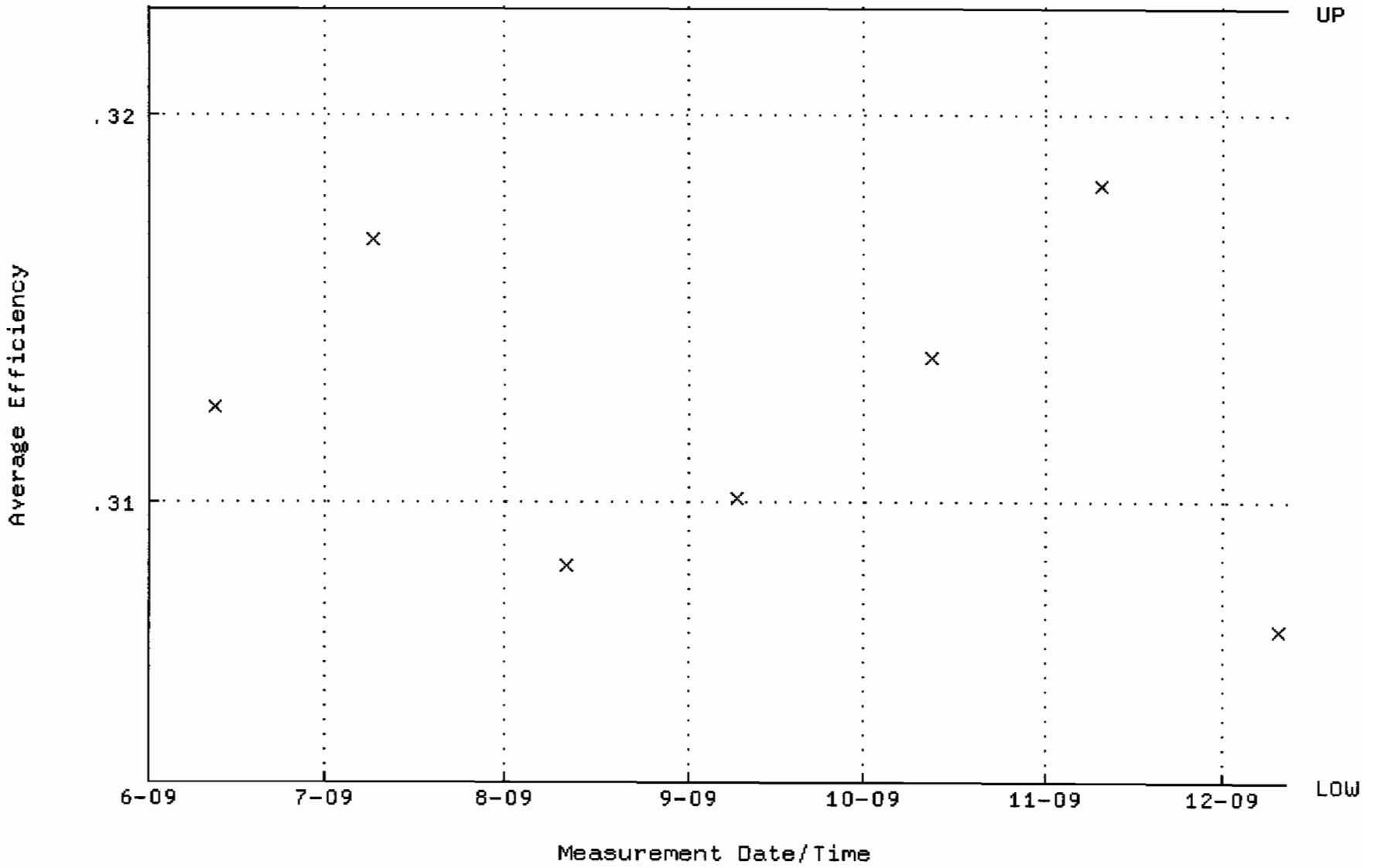

QA filename : DKA100:[ENV_ALPHA.QA.W]W065.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 12-JUN-2009 07:18:25 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 86.8638 through 96.0074

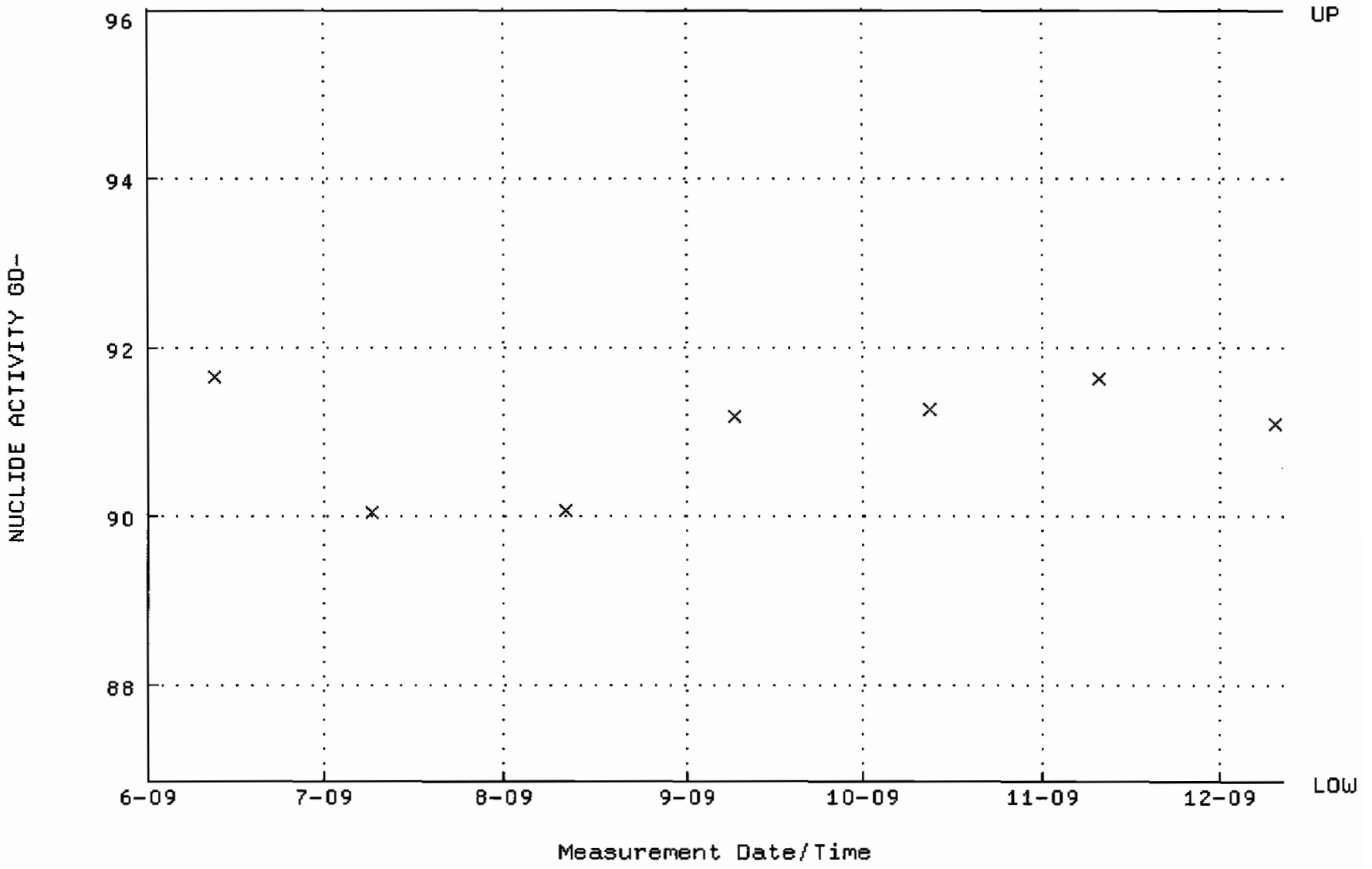

QA filename : DKA100:[ENV_ALPHA.QA.B]B065.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:33 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

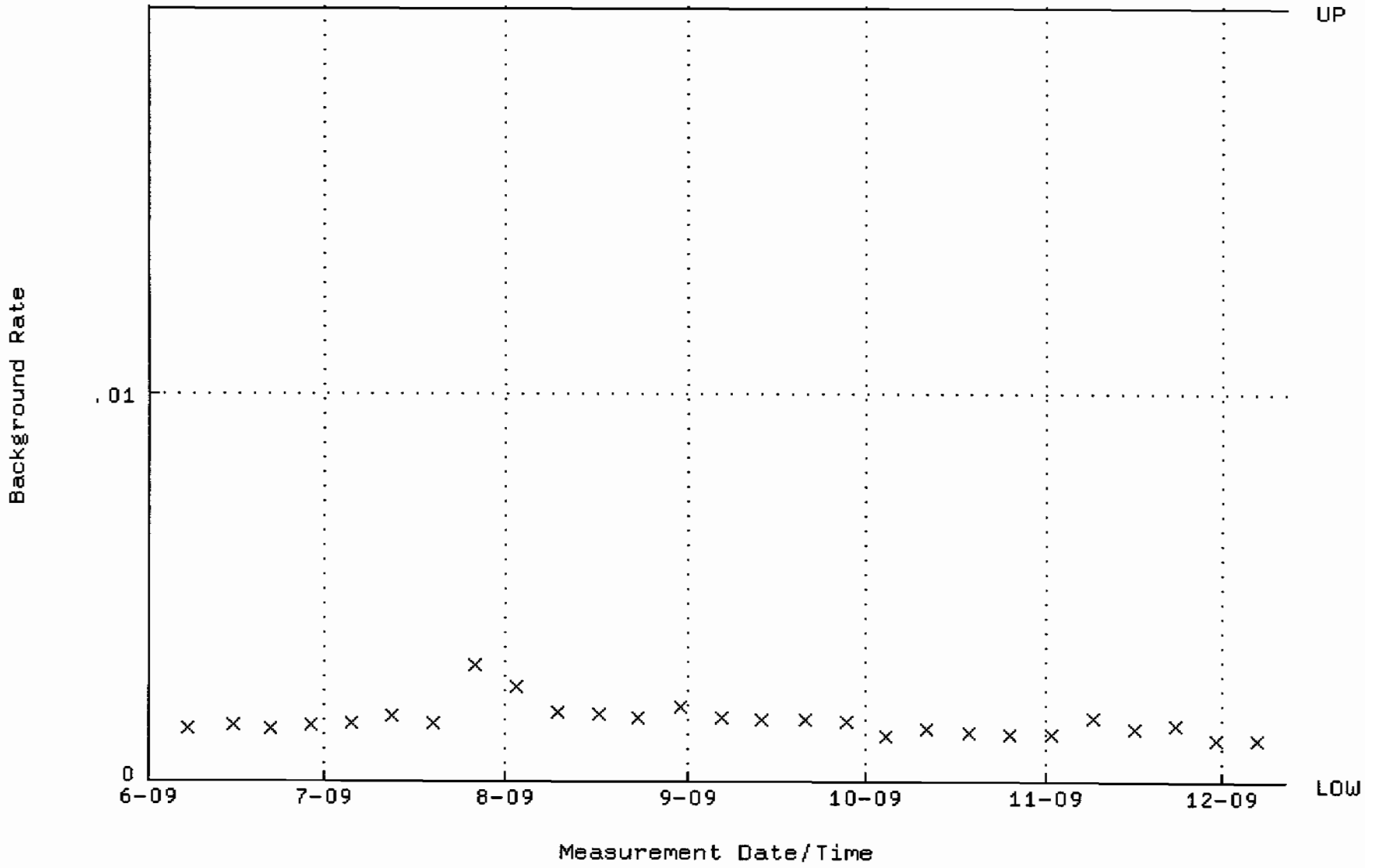

QA filename : DKA100:[ENV_ALPHA.QA.W]W067.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 12-JUN-2009 07:18:25 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.316597 through 0.336597

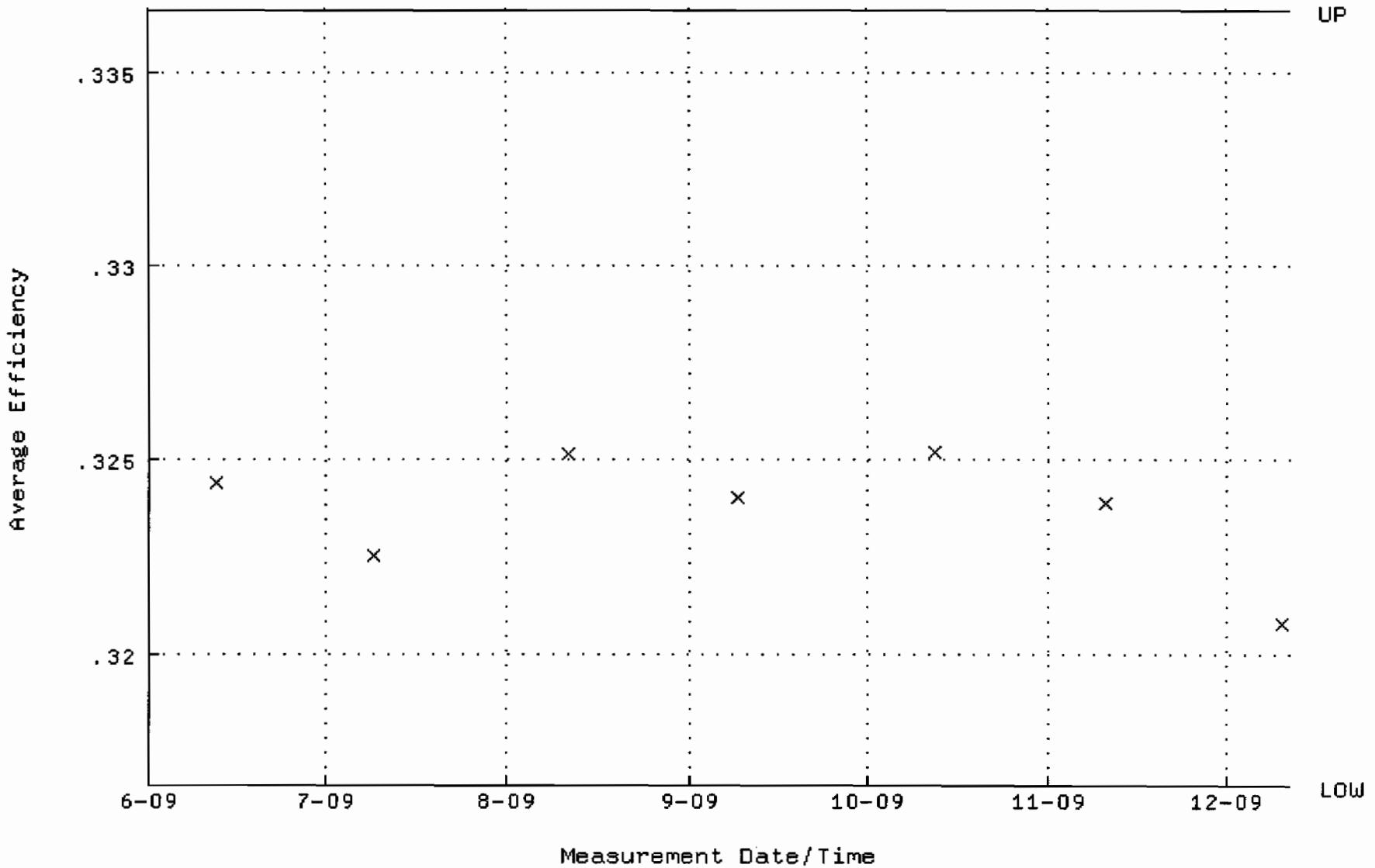

QA filename : DKA100:[ENV_ALPHA.QA.W]W067.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 12-JUN-2009 07:18:25 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 86.2683 through 95.3491

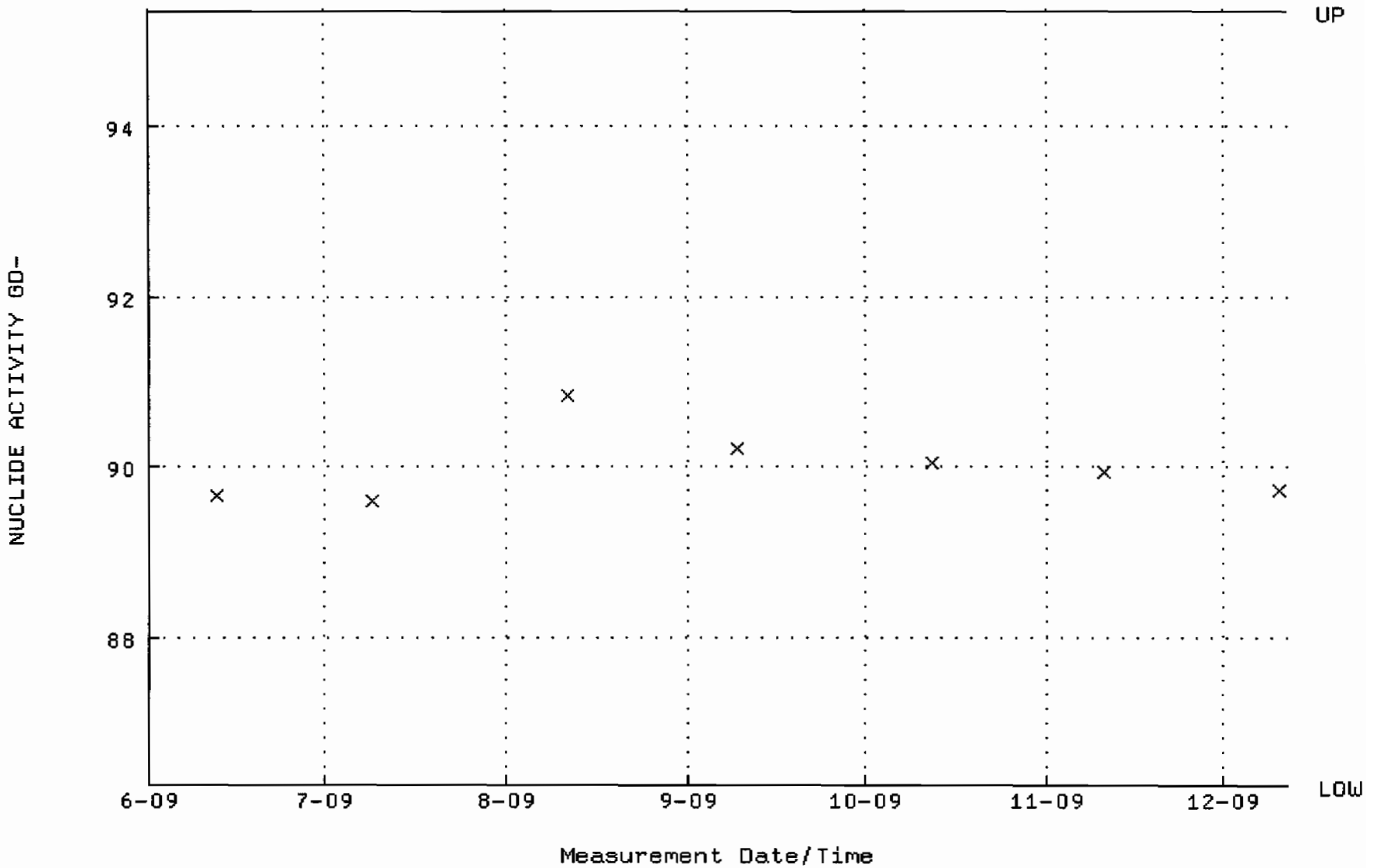

QA filename : DKA100:[ENV_ALPHA.QA.B]B067.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:33 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

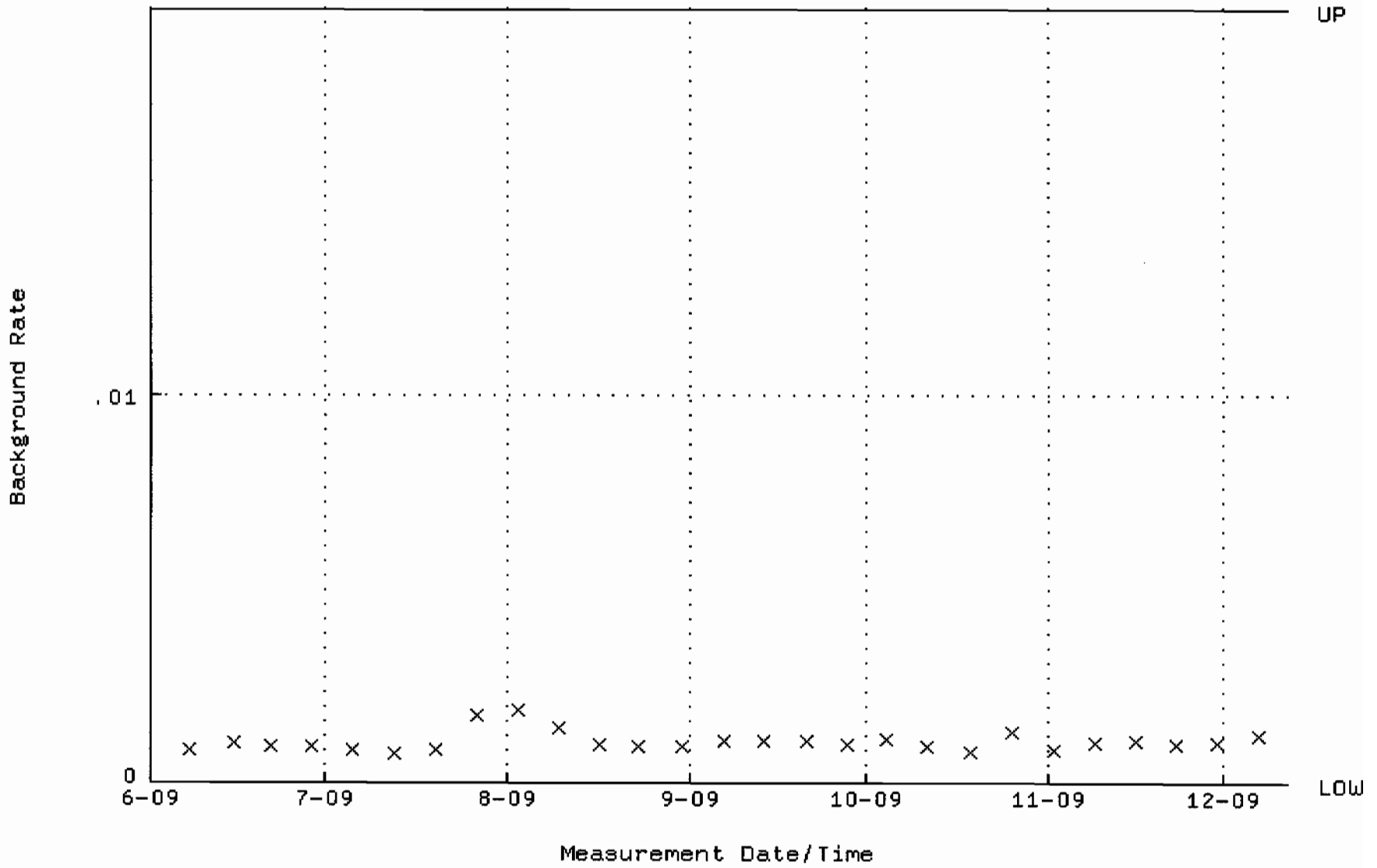

QA filename : DKA100:[ENV_ALPHA.QA.W]W069.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 12-JUN-2009 07:18:25 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.306636 through 0.326636

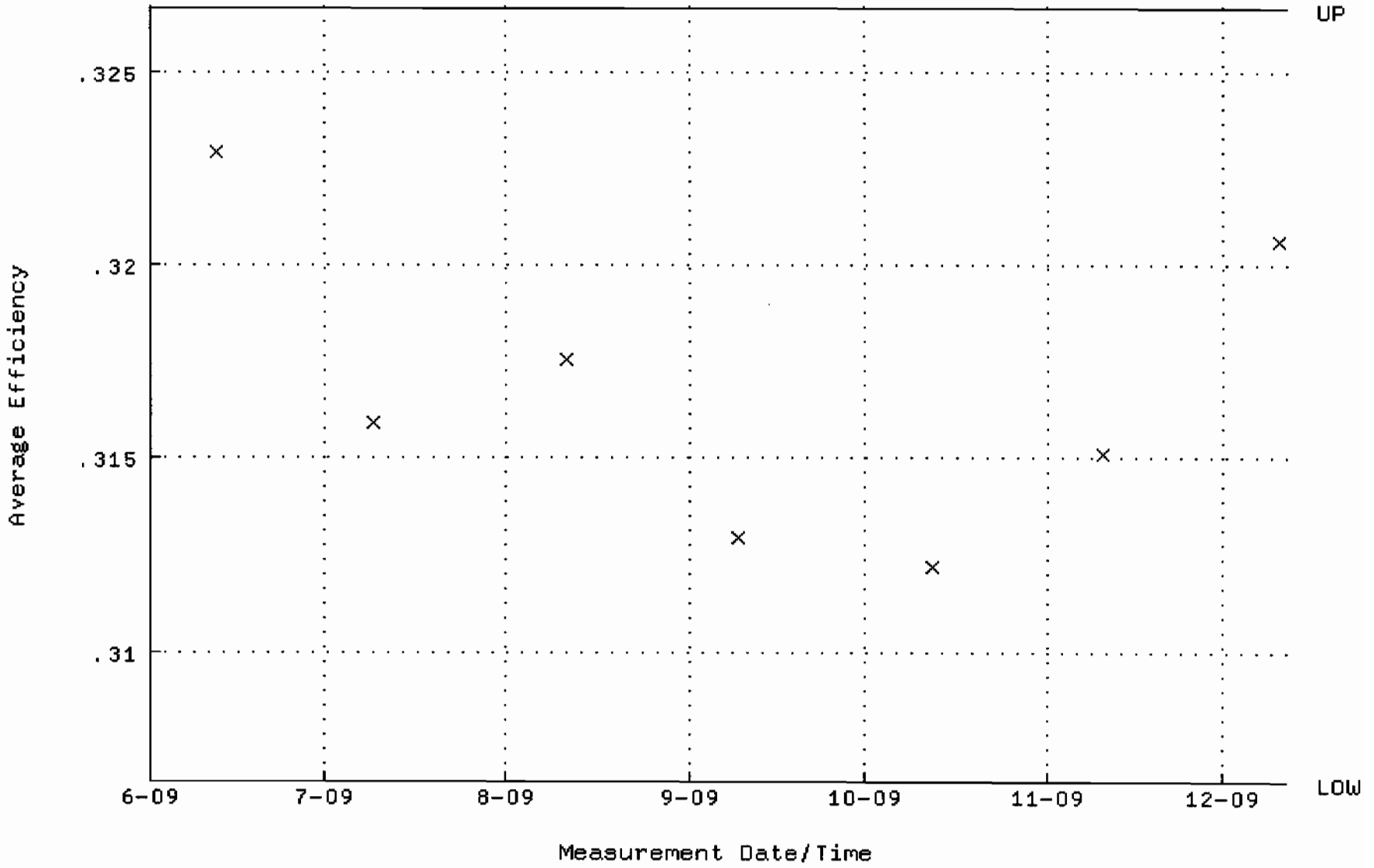

QA filename : DKA100:[ENV_ALPHA.QA.W]W069.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 12-JUN-2009 07:18:25 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 89.6479 through 99.0845

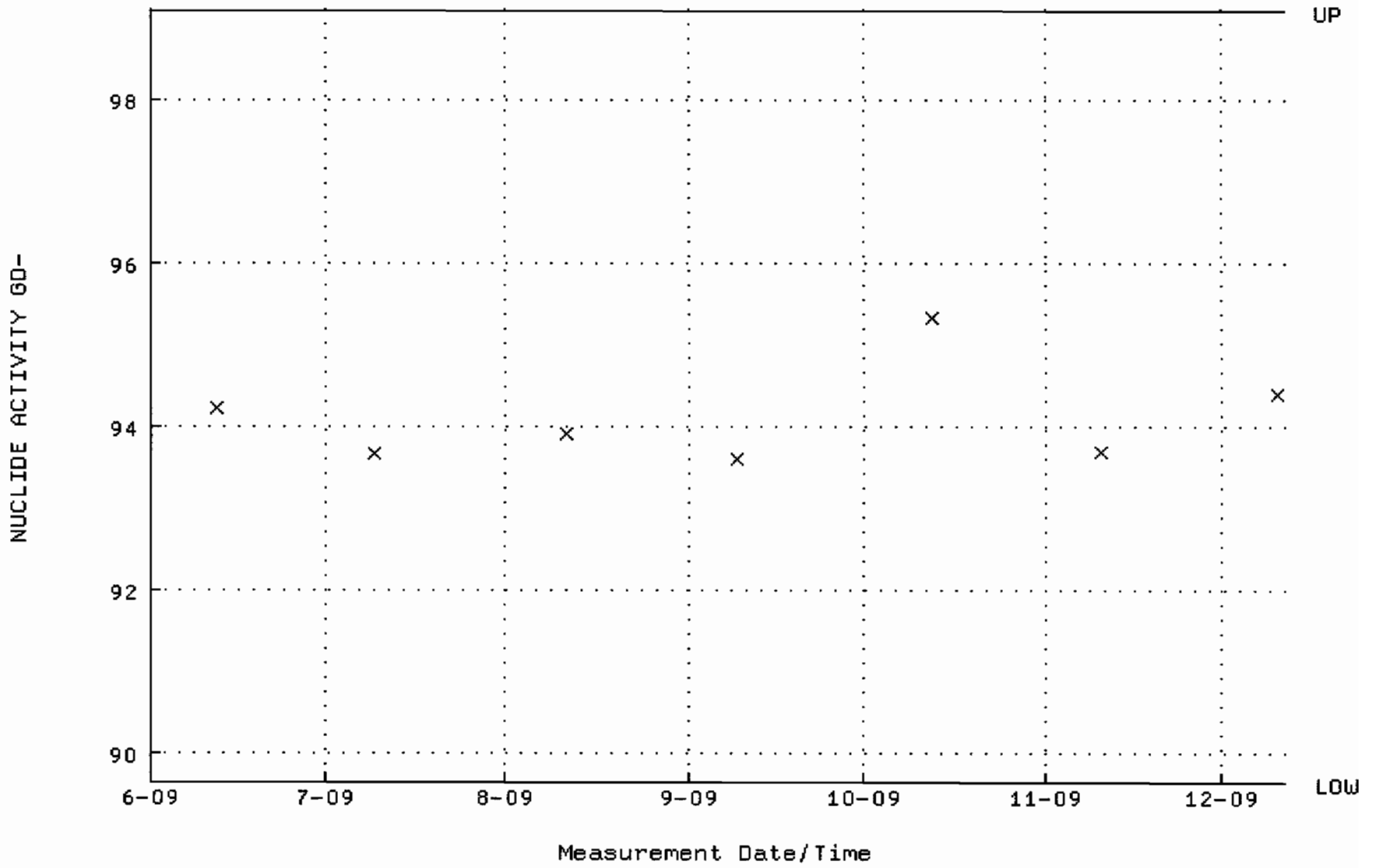

QA filename : DKA100:[ENV_ALPHA.QA.B]B069.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:33 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

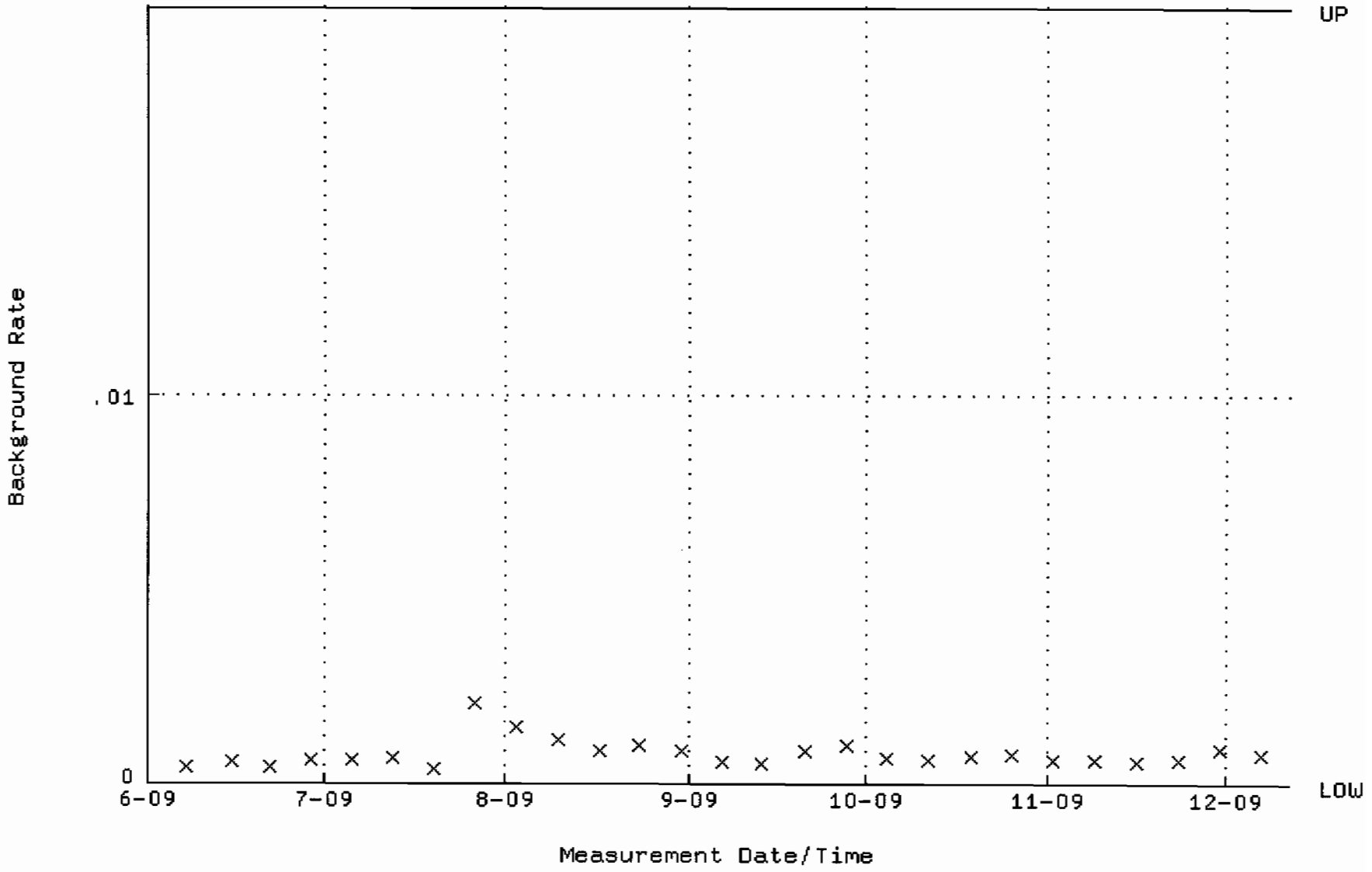

QA filename : DKA100:[ENV_ALPHA.QA.W]W071.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 12-JUN-2009 07:18:25 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.309161 through 0.329161

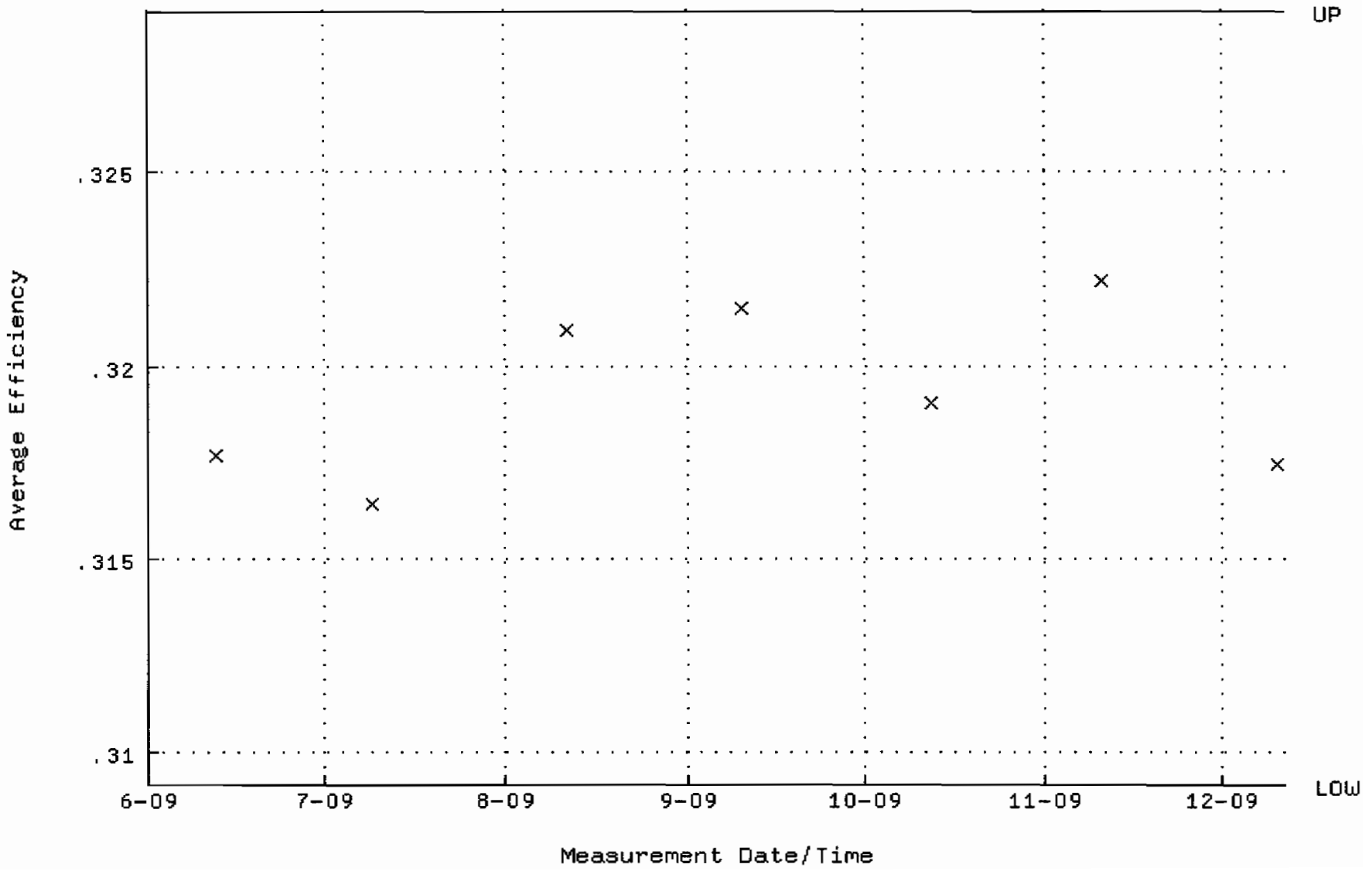

QA filename : DKA100:[ENV_ALPHA.QA.W]W071.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 12-JUN-2009 07:18:25 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 86.7769 through 95.9113

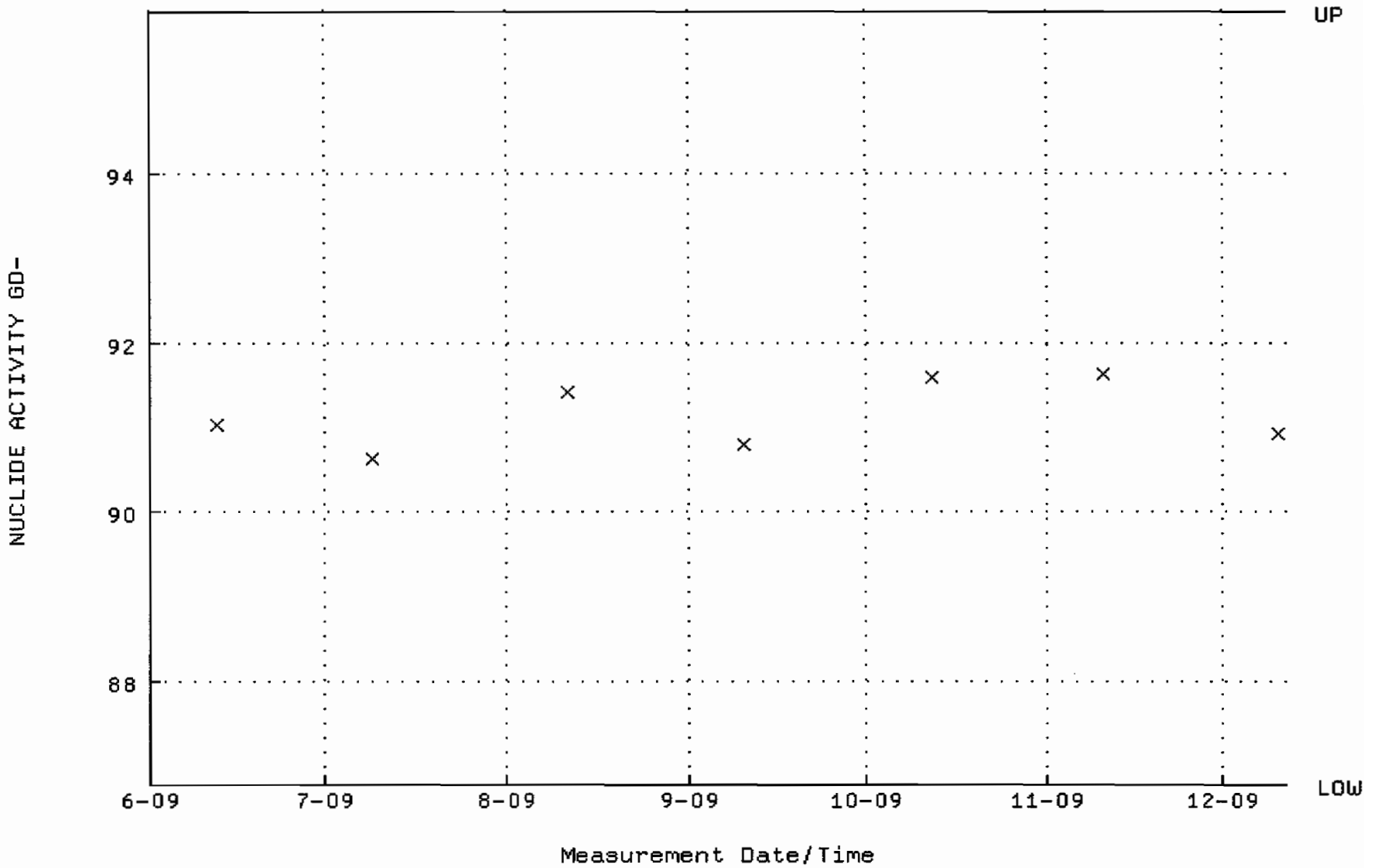

QA filename : DKA100:[ENV_ALPHA.QA.B]B071.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:36 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

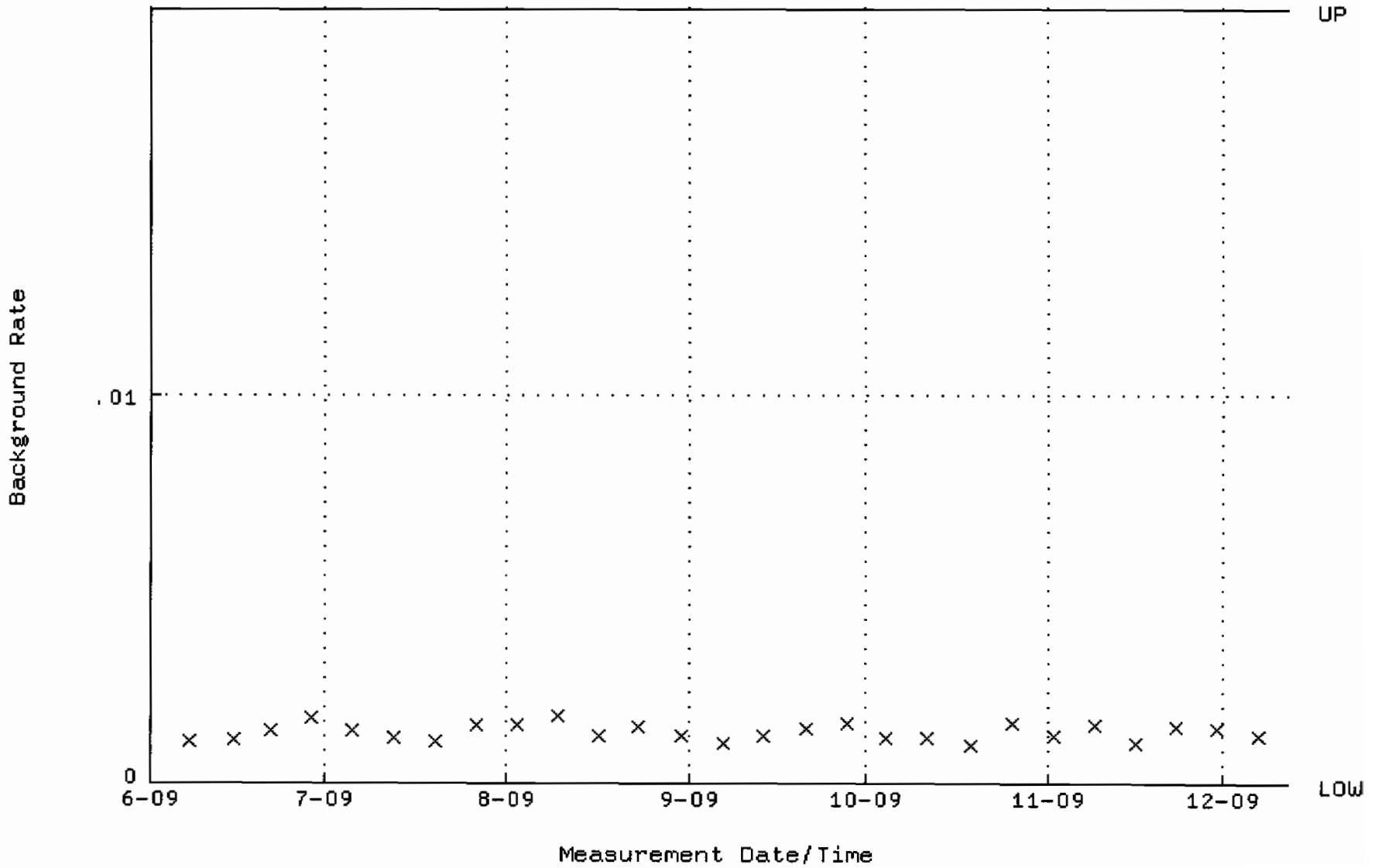

QA filename : DKA100:[ENV_ALPHA.QA.W]W072.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 12-JUN-2009 07:18:25 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.313761 through 0.333761

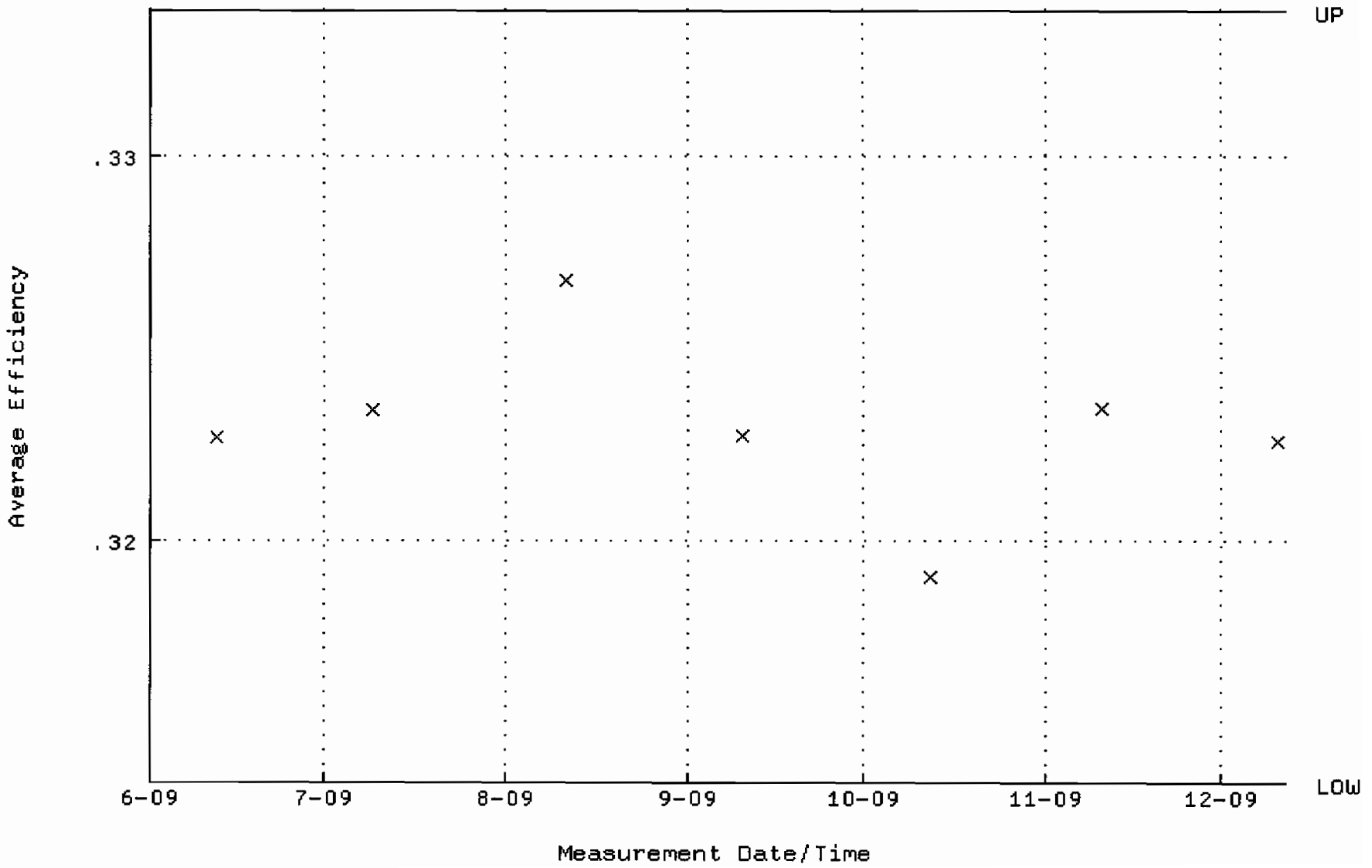

QA filename : DKA100:[ENV_ALPHA.QA.W]W072.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 12-JUN-2009 07:18:25 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 87.3348 through 96.5280

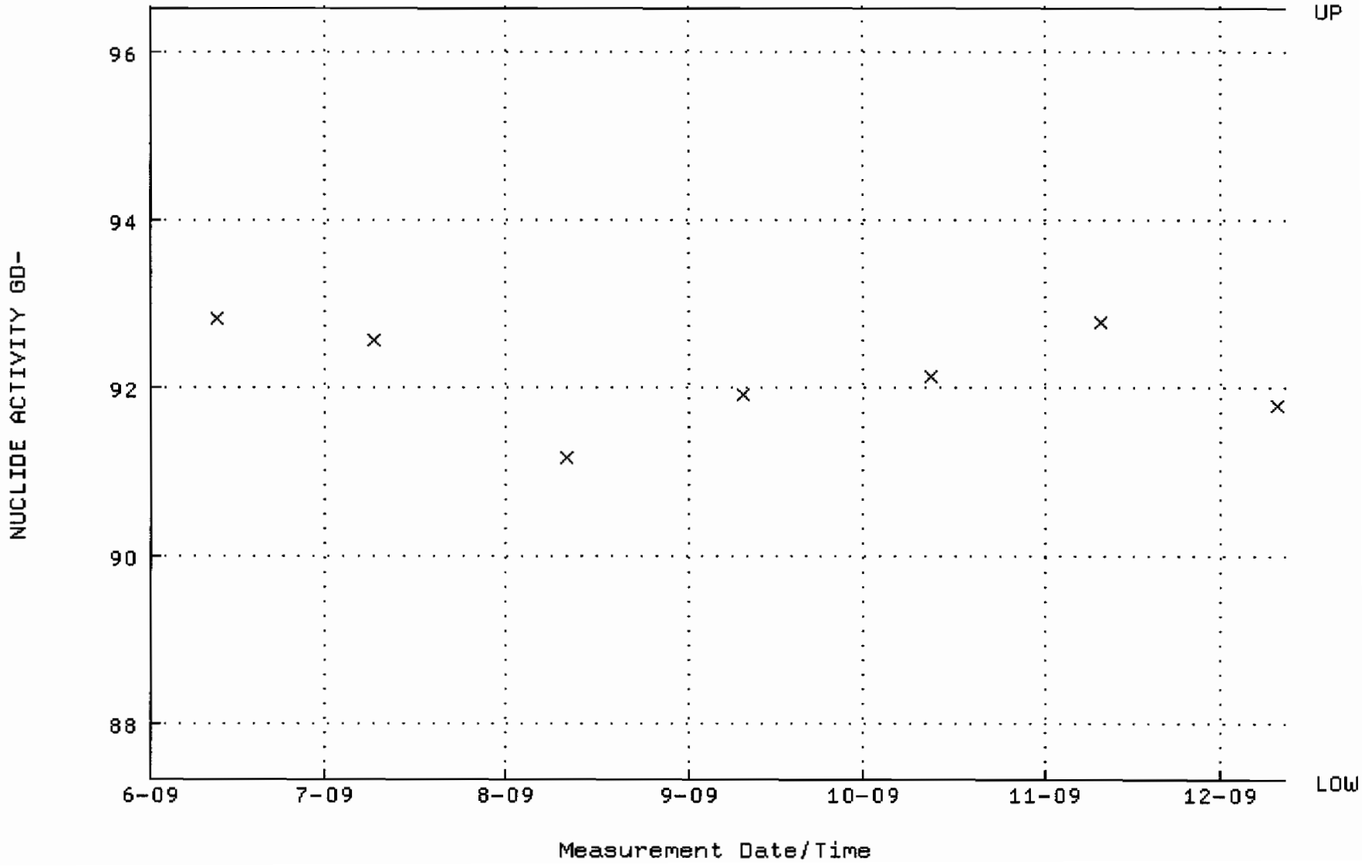

QA filename : DKA100:[ENV_ALPHA.QA.B]B072.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:36 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

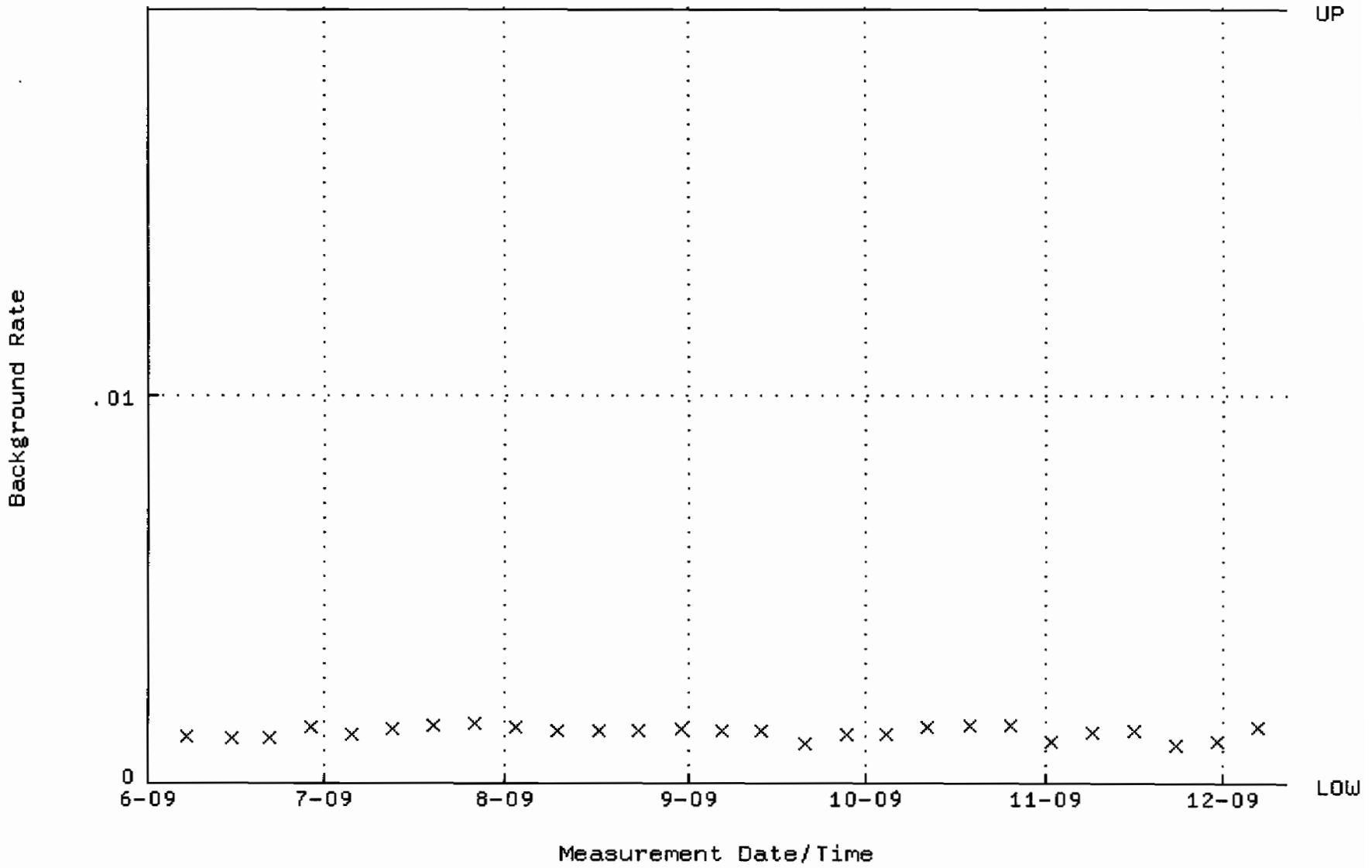

QA filename : DKA100:[ENV_ALPHA.QA.W]W074.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 12-JUN-2009 07:18:25 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.305830 through 0.325830

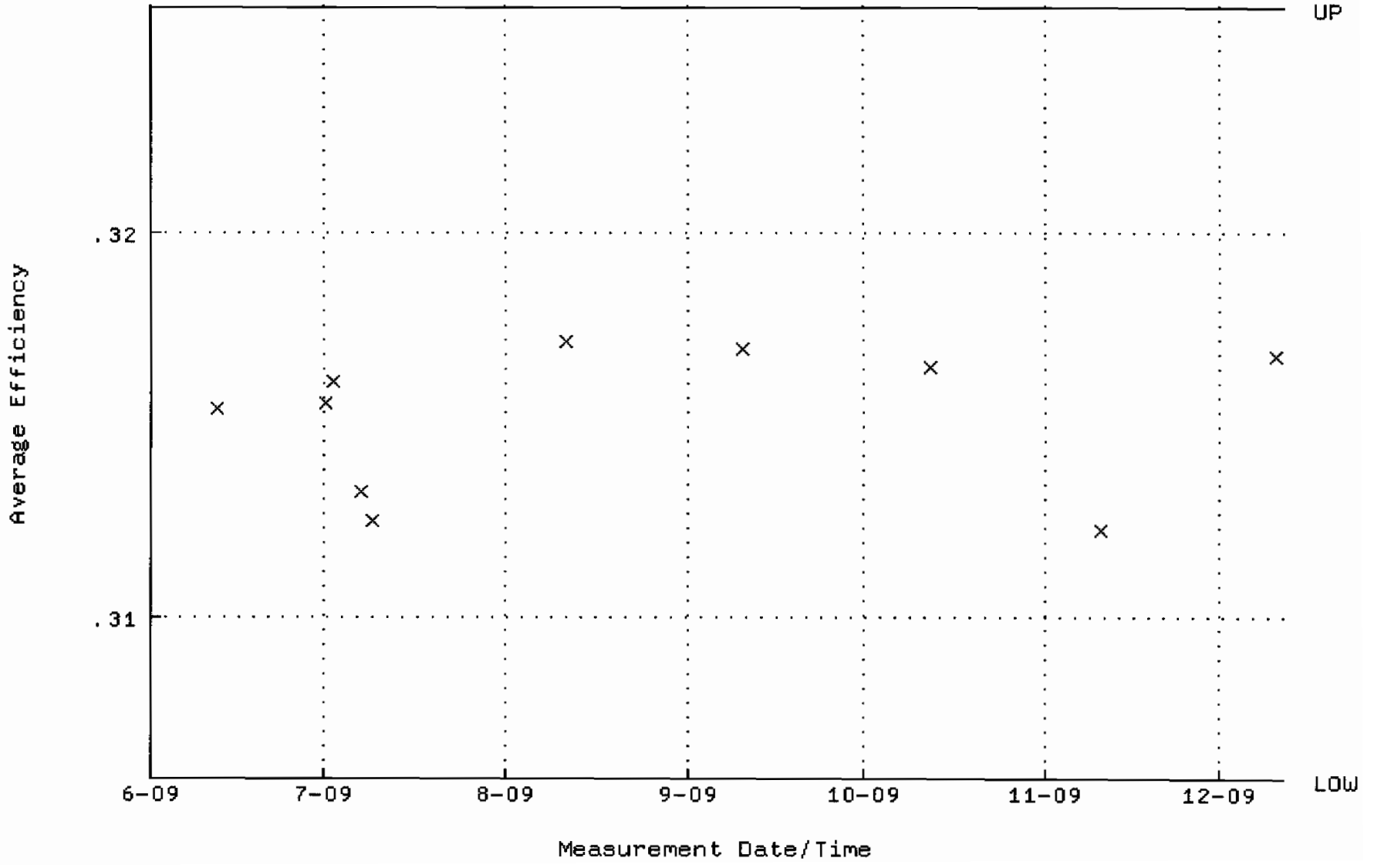

QA filename : DKA100:[ENV_ALPHA.QA.W]W074.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 12-JUN-2009 07:18:25 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 86.0289 through 95.0845

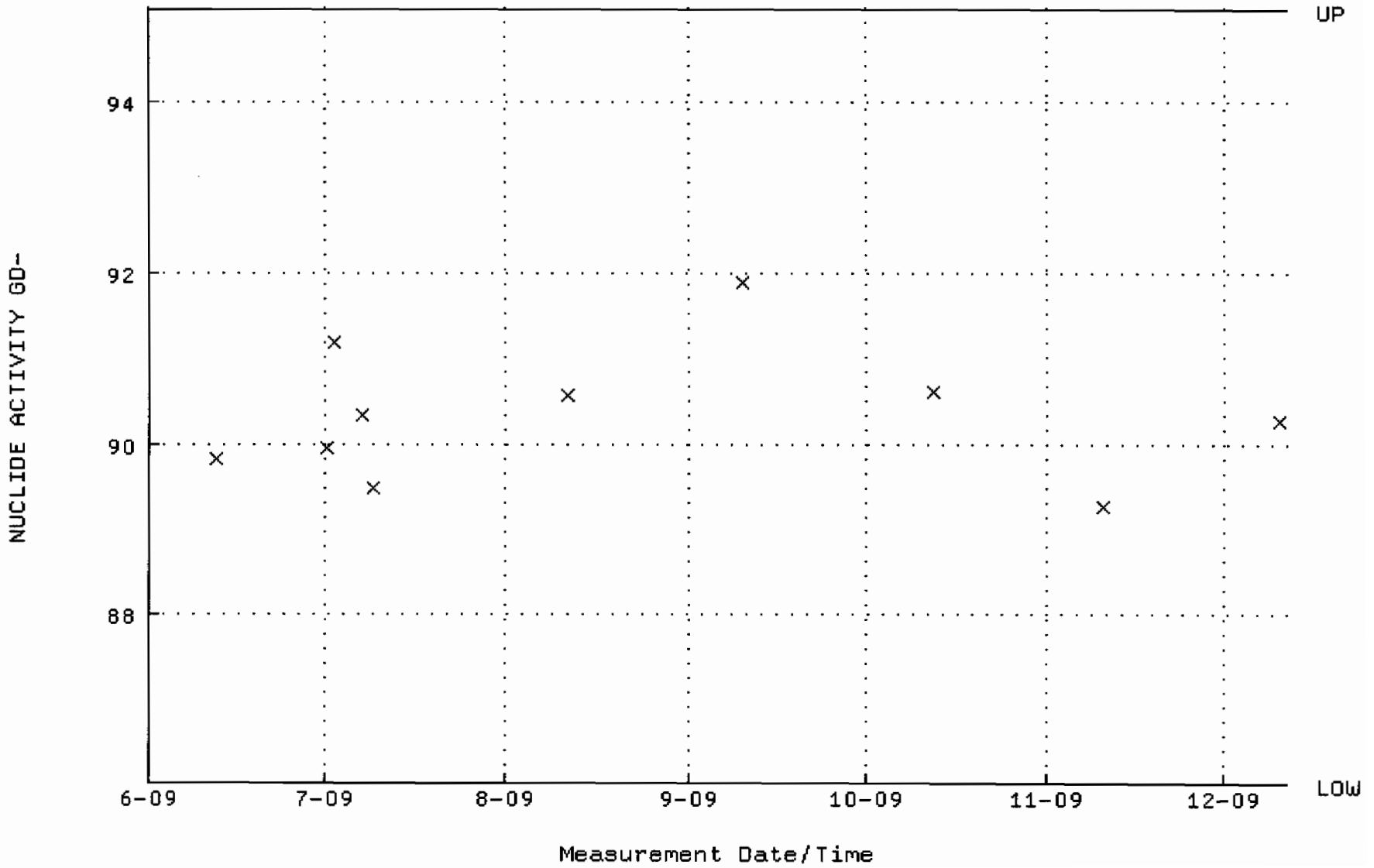

QA filename : DKA100:[ENV_ALPHA.QA.B]B074.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:36 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

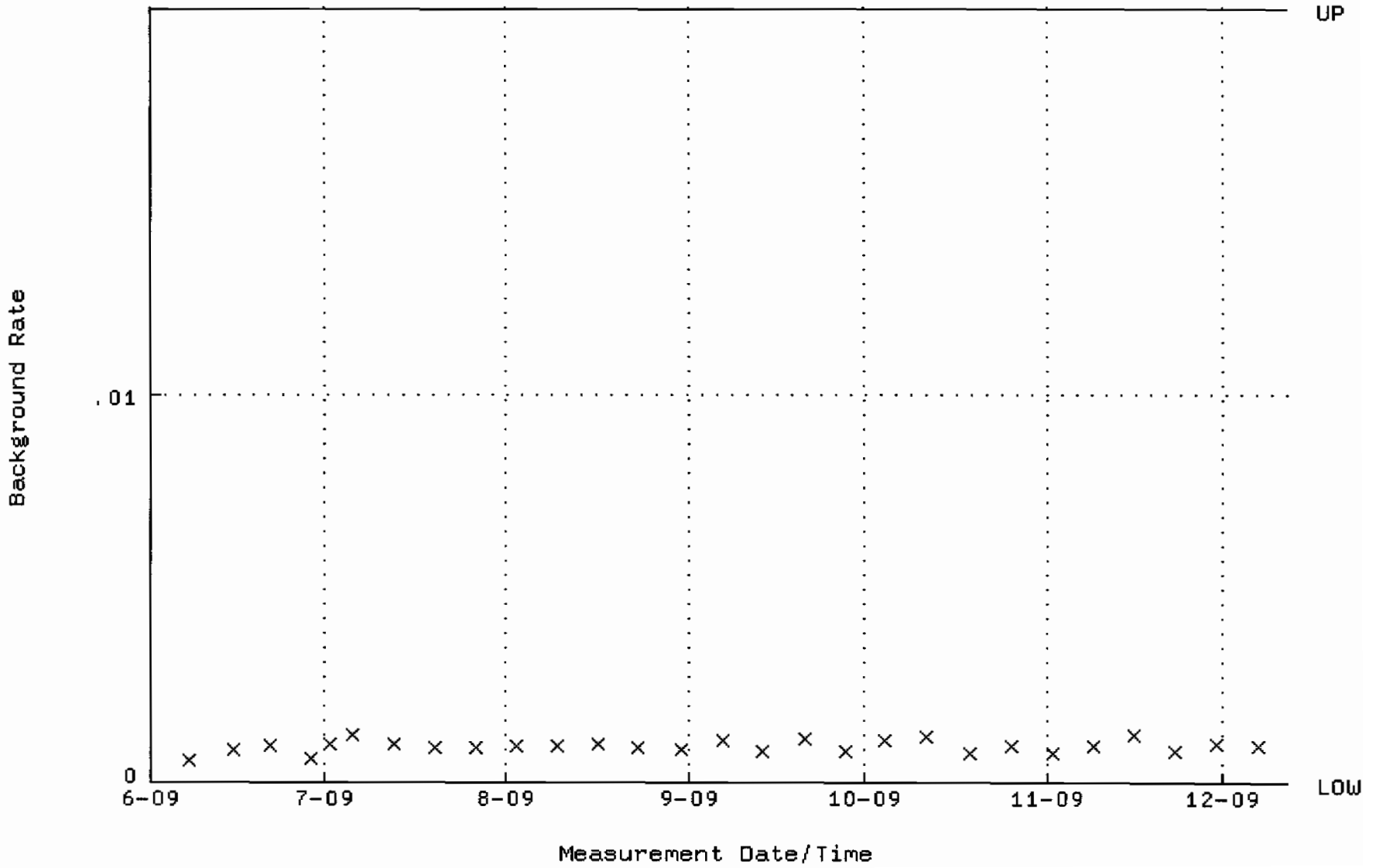

QA filename : DKA100:[ENV_ALPHA.QA.W]W076.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 12-JUN-2009 07:18:25 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.295613 through 0.315613

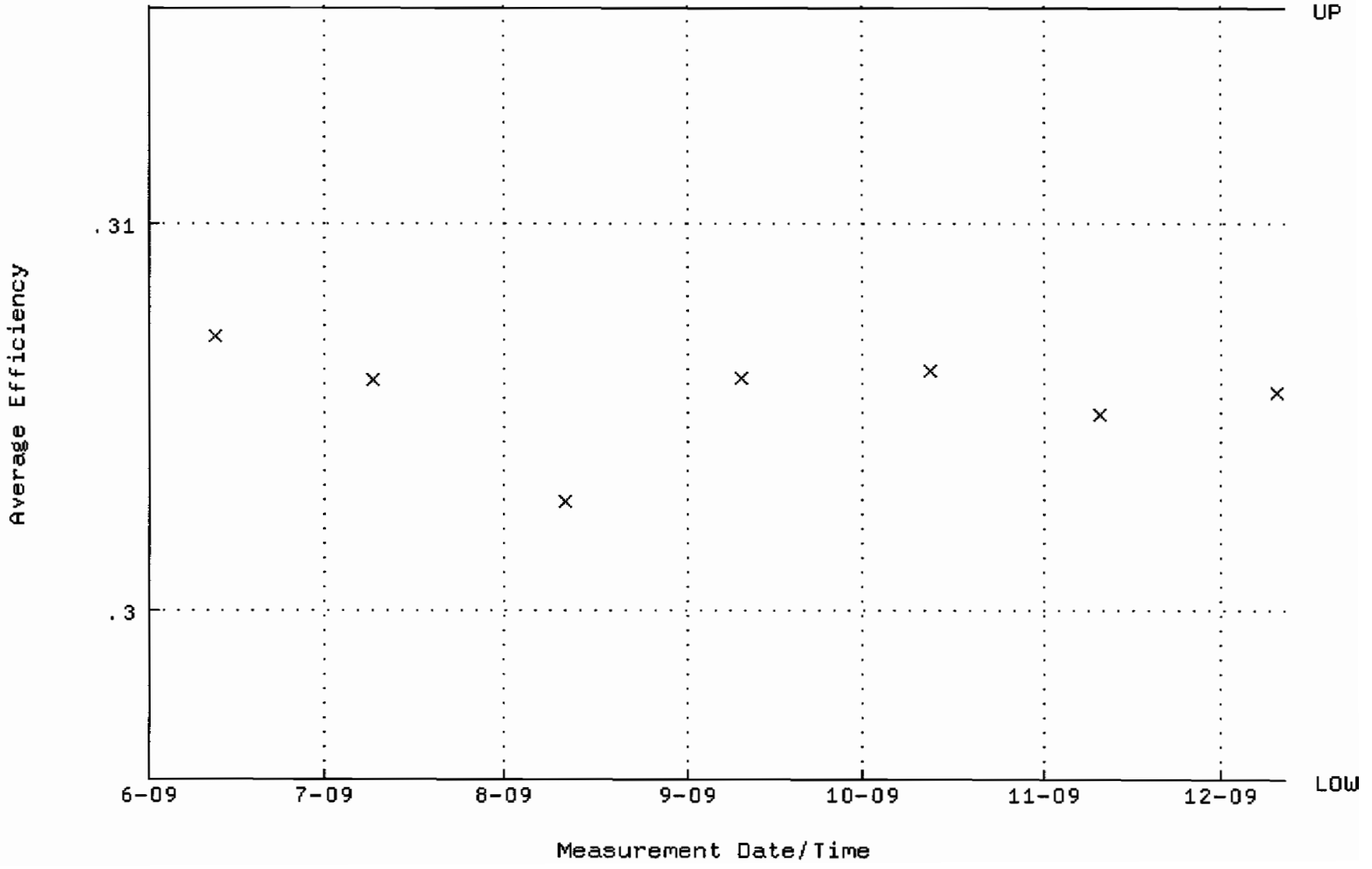

QA filename : DKA100:[ENV_ALPHA.QA.W]W076.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 12-JUN-2009 07:18:25 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 87.9031 through 97.1561

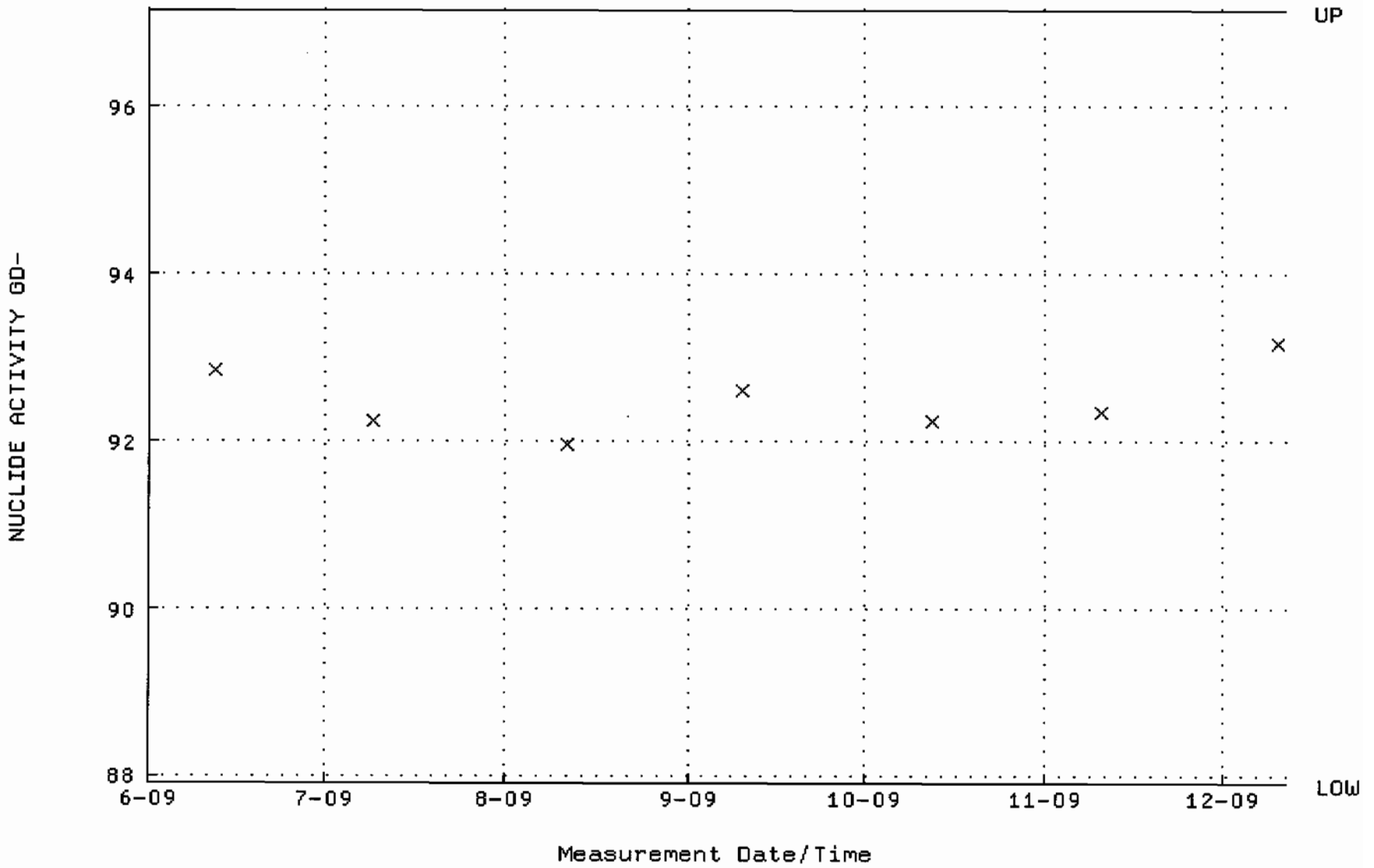

QA filename : DKA100:[ENV_ALPHA.QA.B]B076.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:36 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

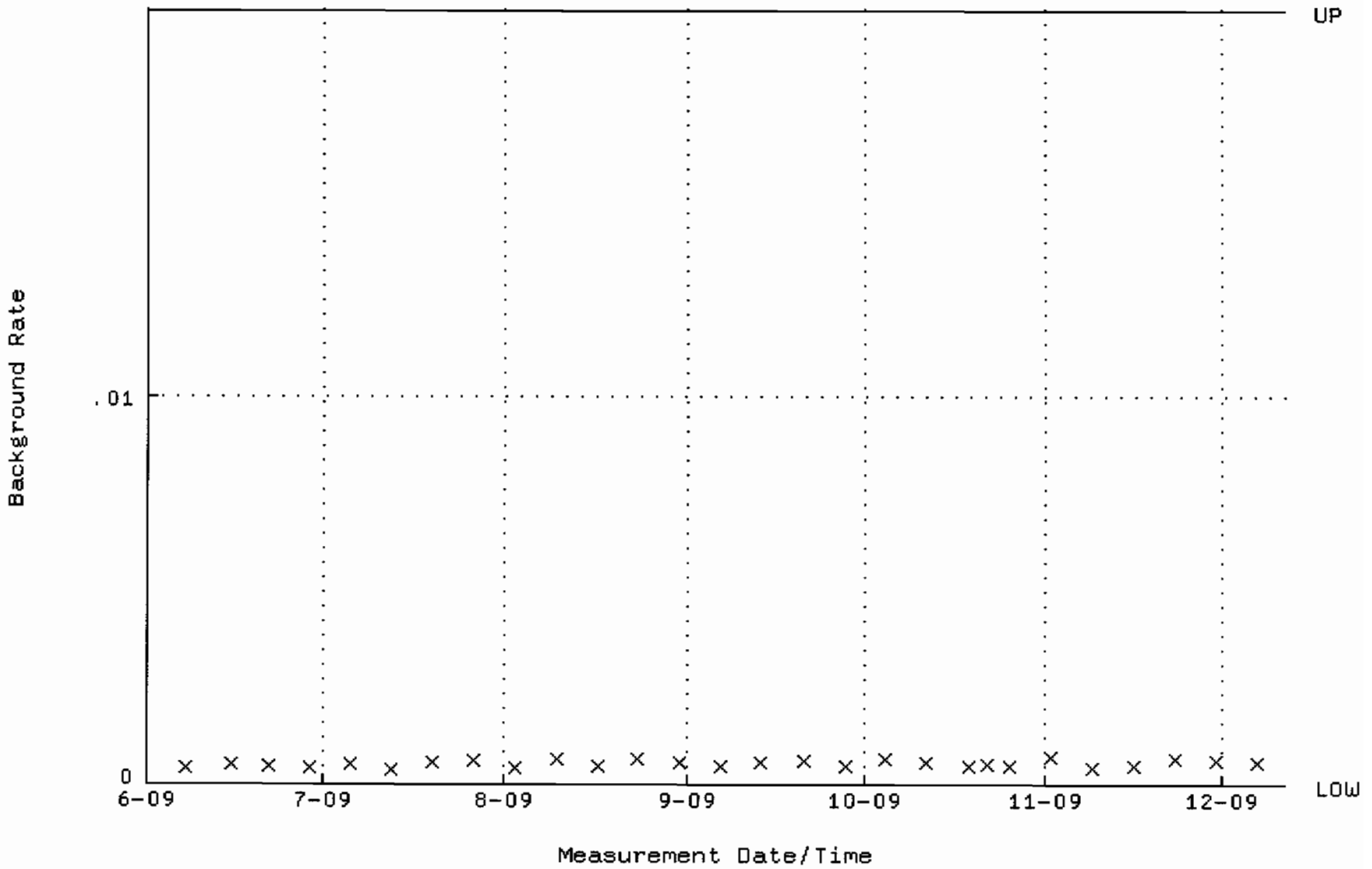

QA filename : DKA100:[ENV_ALPHA.QA.W]W087.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 12-JUN-2009 07:18:27 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.300530 through 0.320530

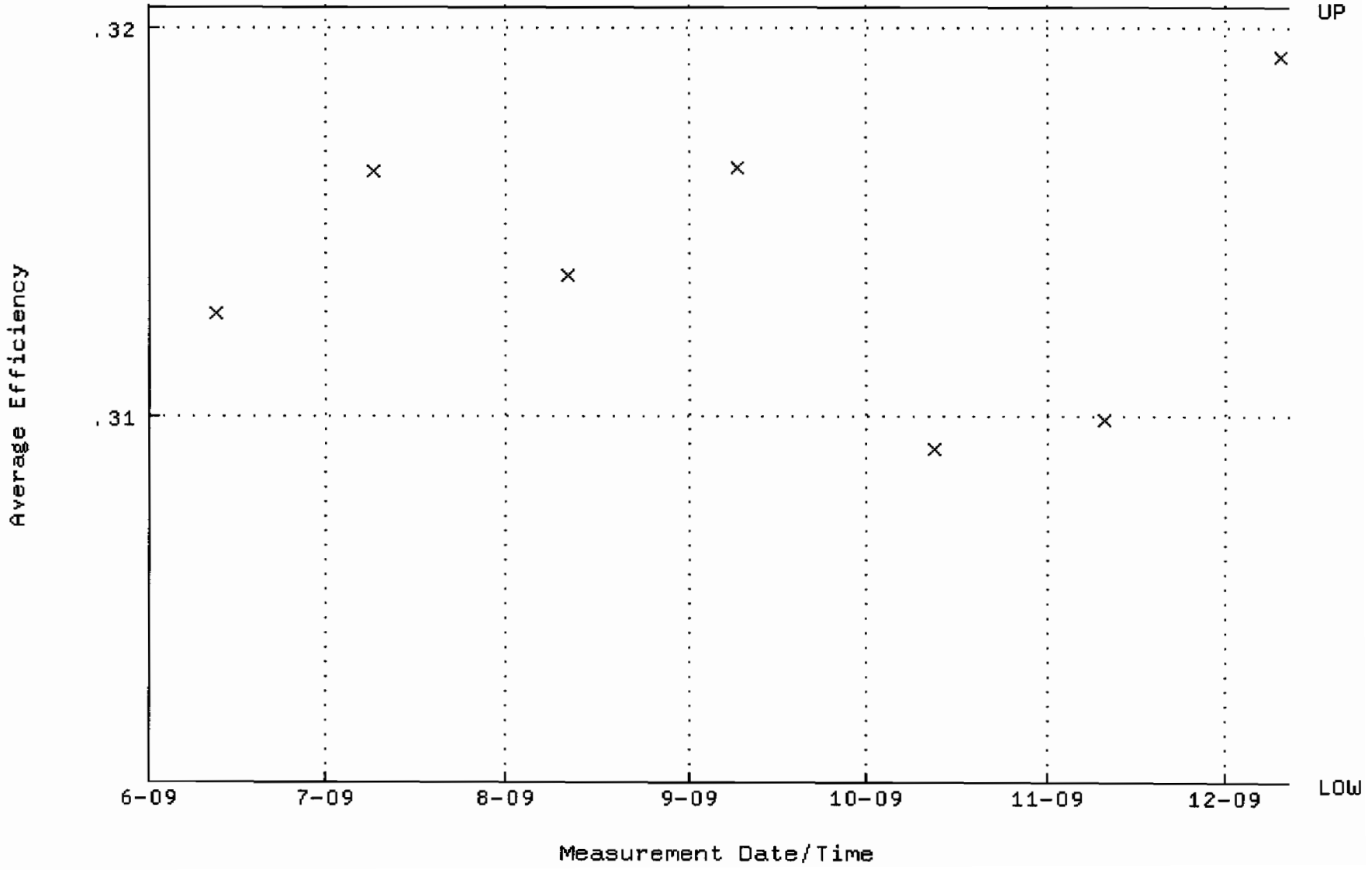

QA filename : DKA100:[ENV_ALPHA.QA.W]W087.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 12-JUN-2009 07:18:27 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 87.1845 through 96.3619

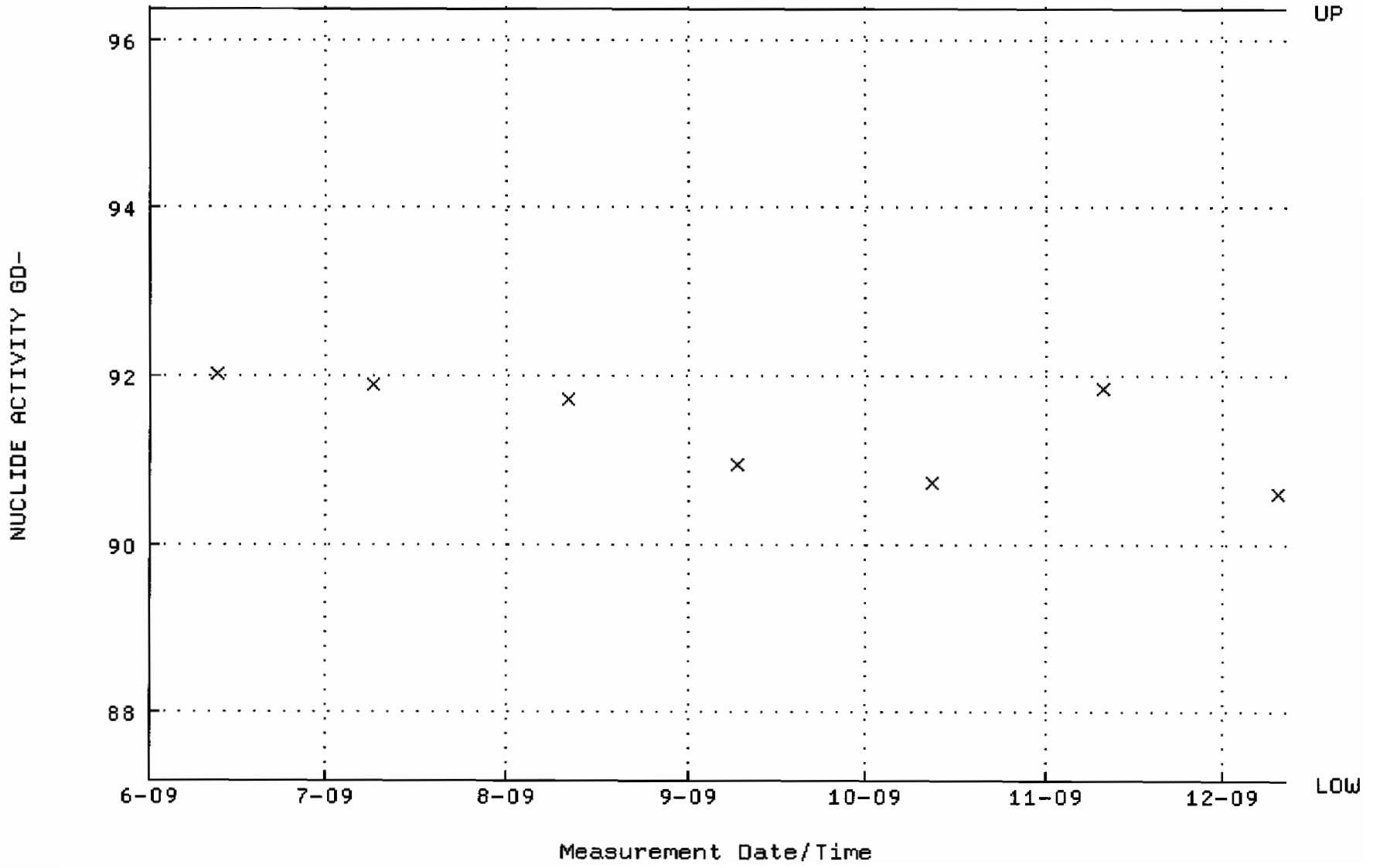

QA filename : DKA100:[ENV_ALPHA.QA.B]B087.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:40 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

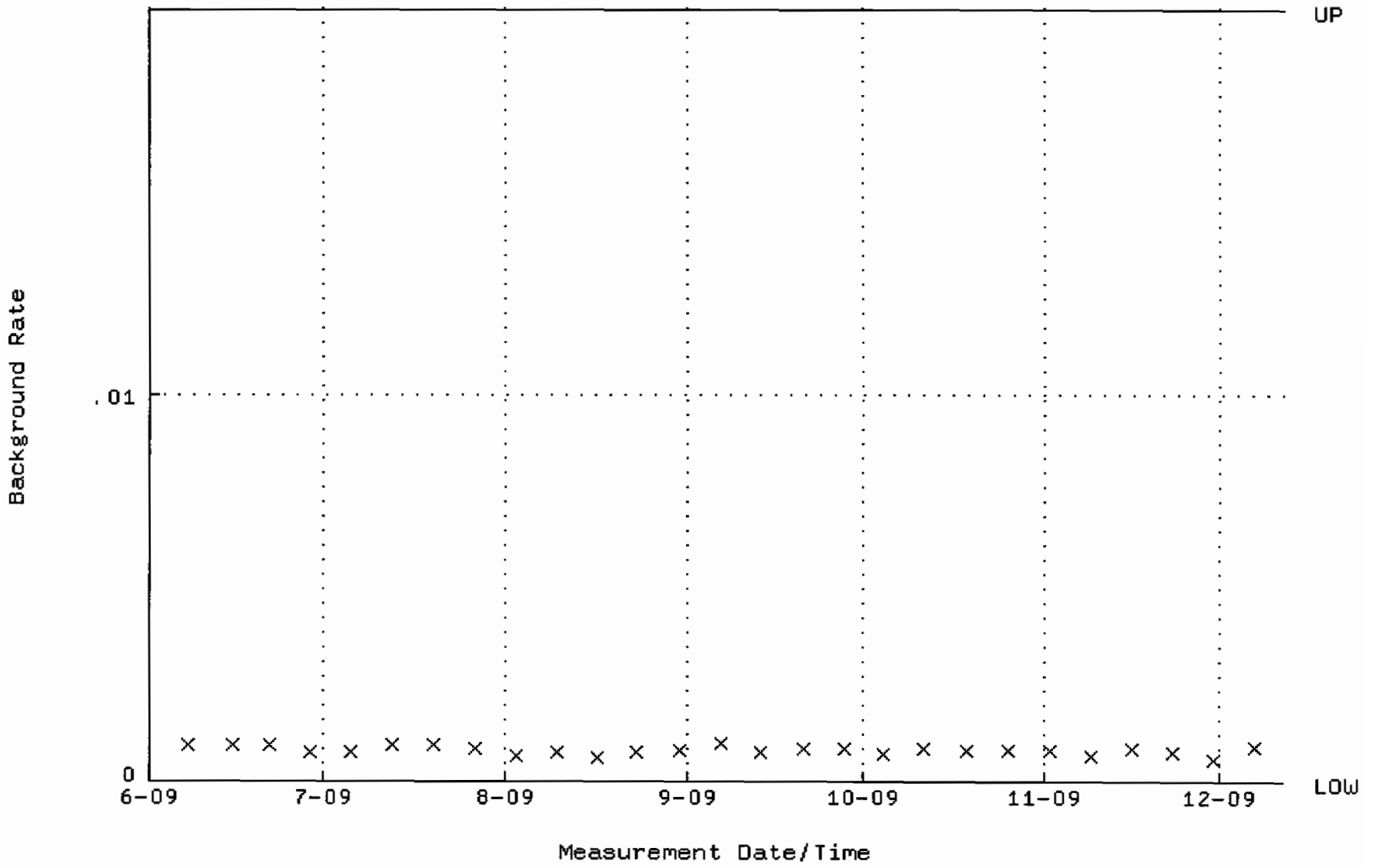

QA filename : DKA100:[ENV_ALPHA.QA.W]W089.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 12-JUN-2009 07:18:28 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.287888 through 0.307888

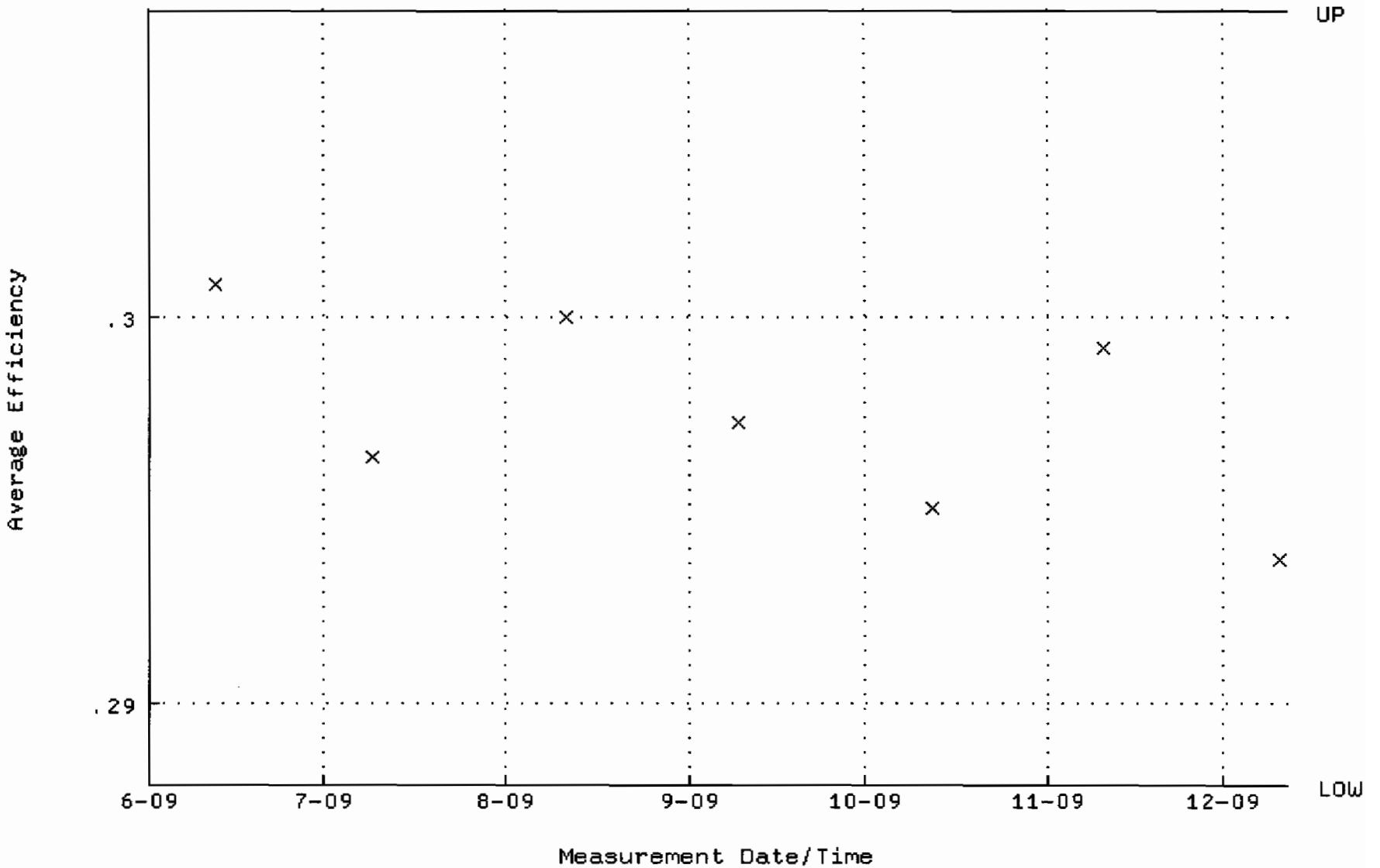

QA filename : DKA100:[ENV_ALPHA.QA.W]W089.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 12-JUN-2009 07:18:28 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 84.1413 through 92.9983

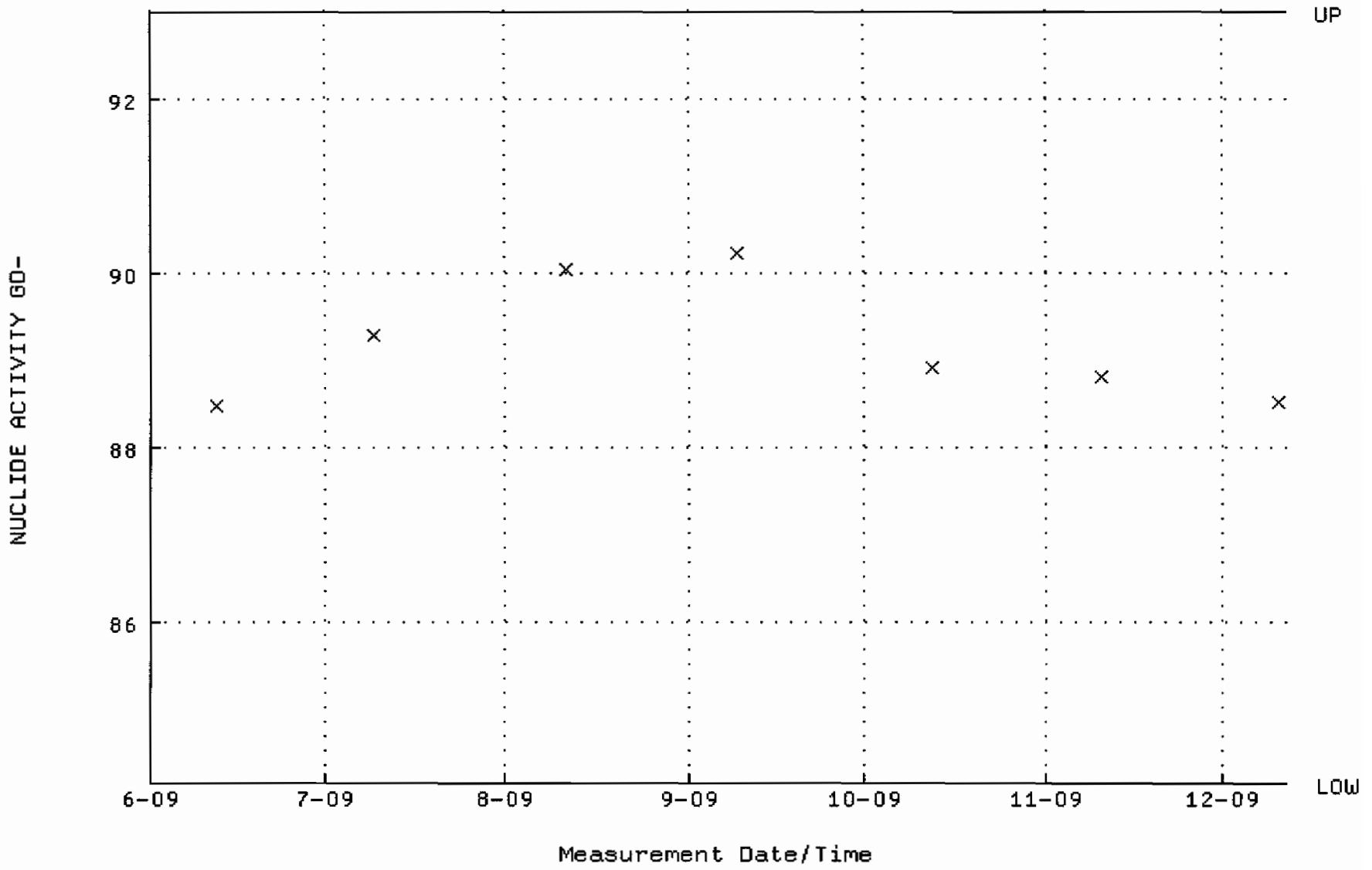

QA filename : DKA100:[ENV_ALPHA.QA.B]B089.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:41 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

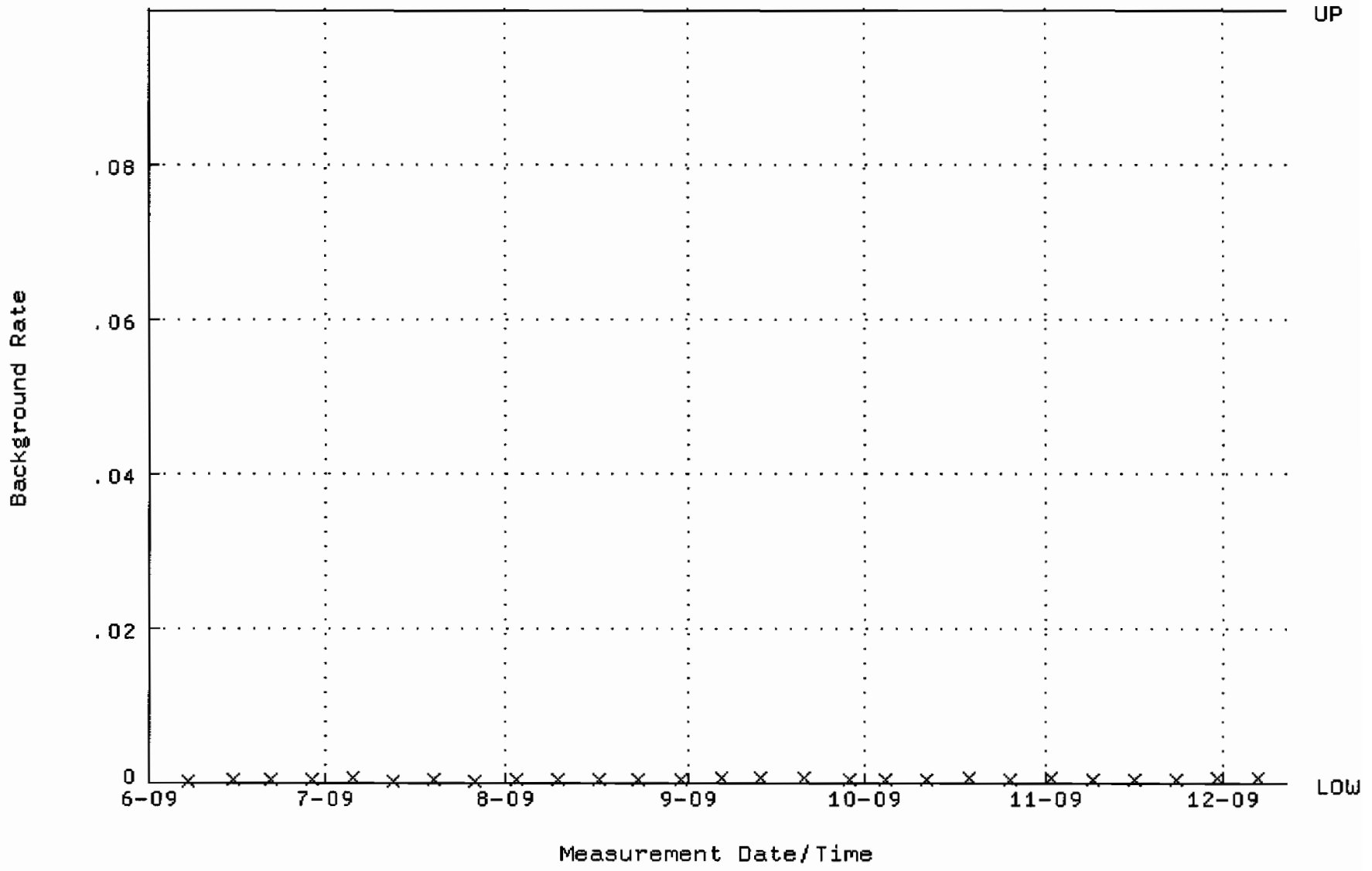

QA filename : DKA100:[ENV_ALPHA.QA.W]W096.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 12-JUN-2009 07:18:29 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.300551 through 0.320551

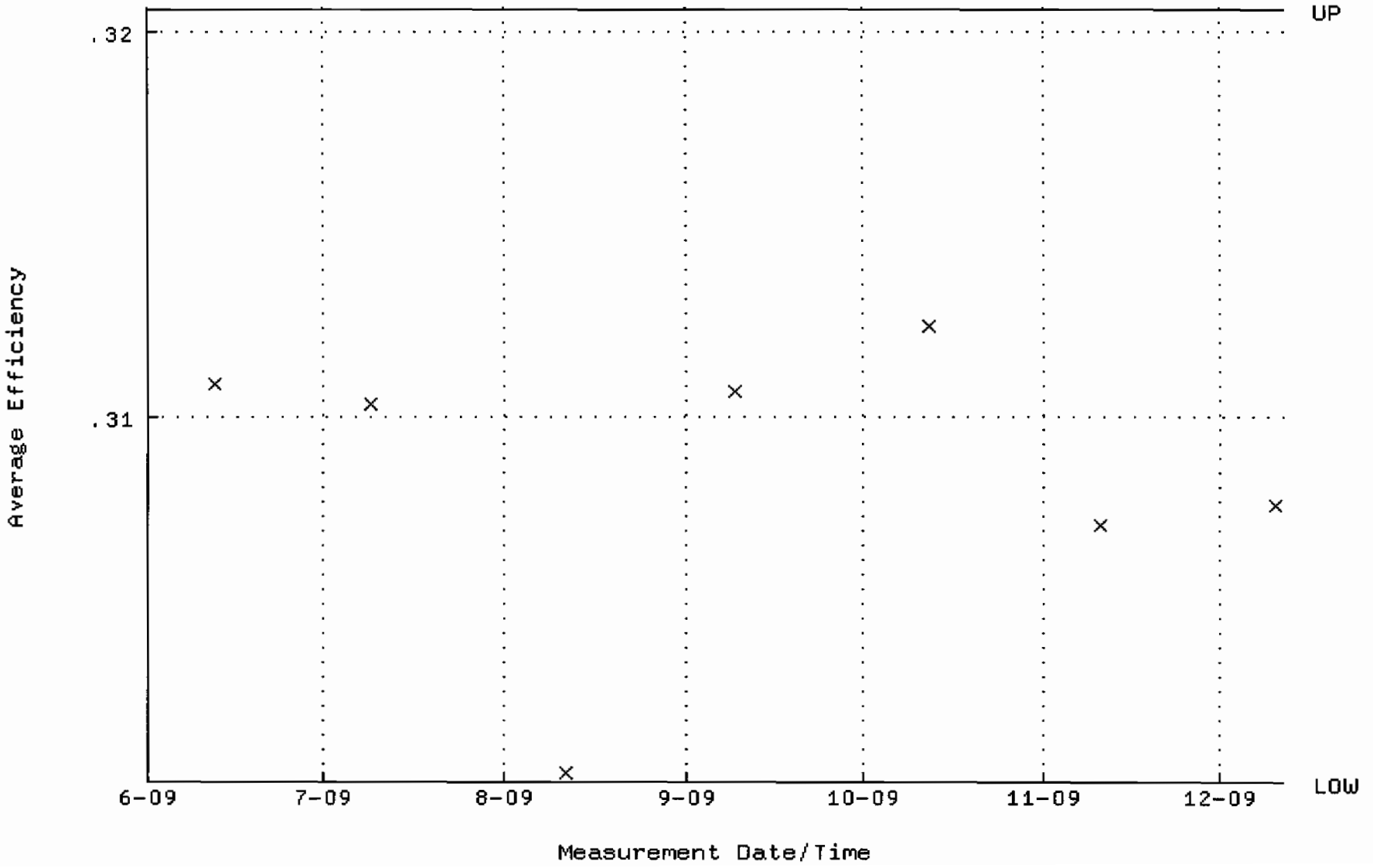

QA filename : DKA100:[ENV_ALPHA.QA.W]W096.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 12-JUN-2009 07:18:29 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 65.8889 through 72.8245

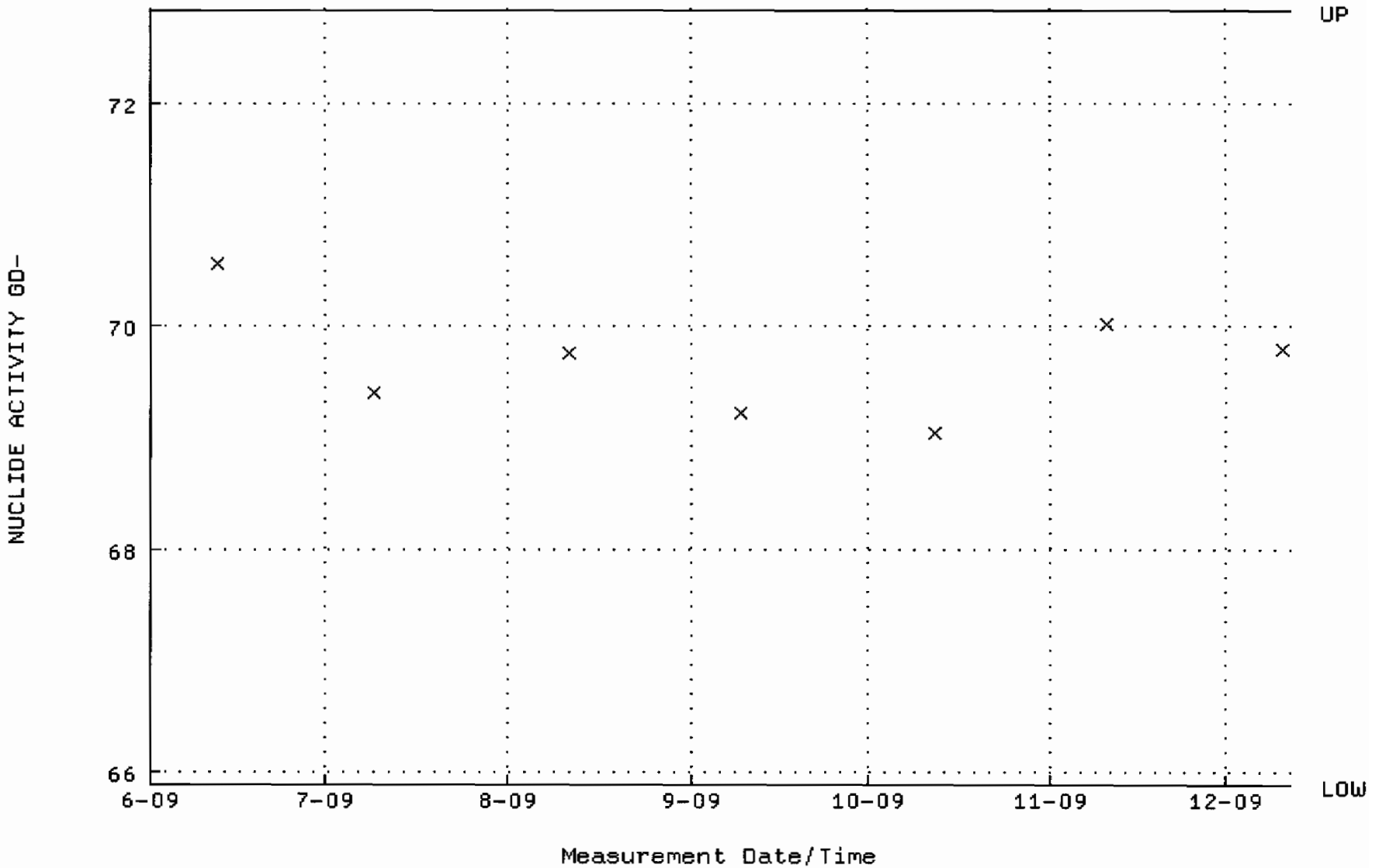

QA filename : DKA100:[ENV_ALPHA.QA.B]B096.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:42 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

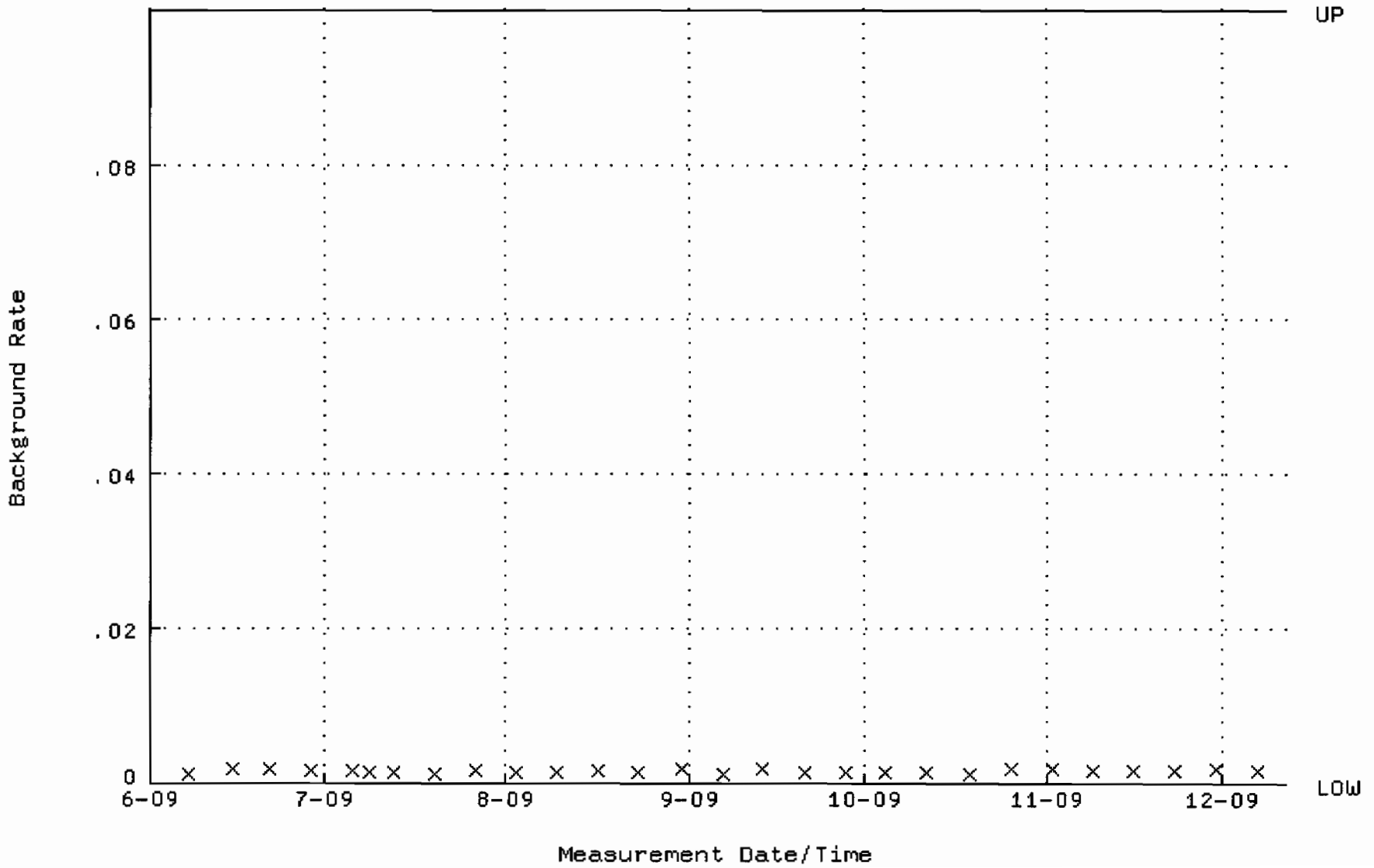

QA filename : DKA100:[ENV_ALPHA.QA.W]W097.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 12-JUN-2009 07:18:29 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.333275 through 0.353275

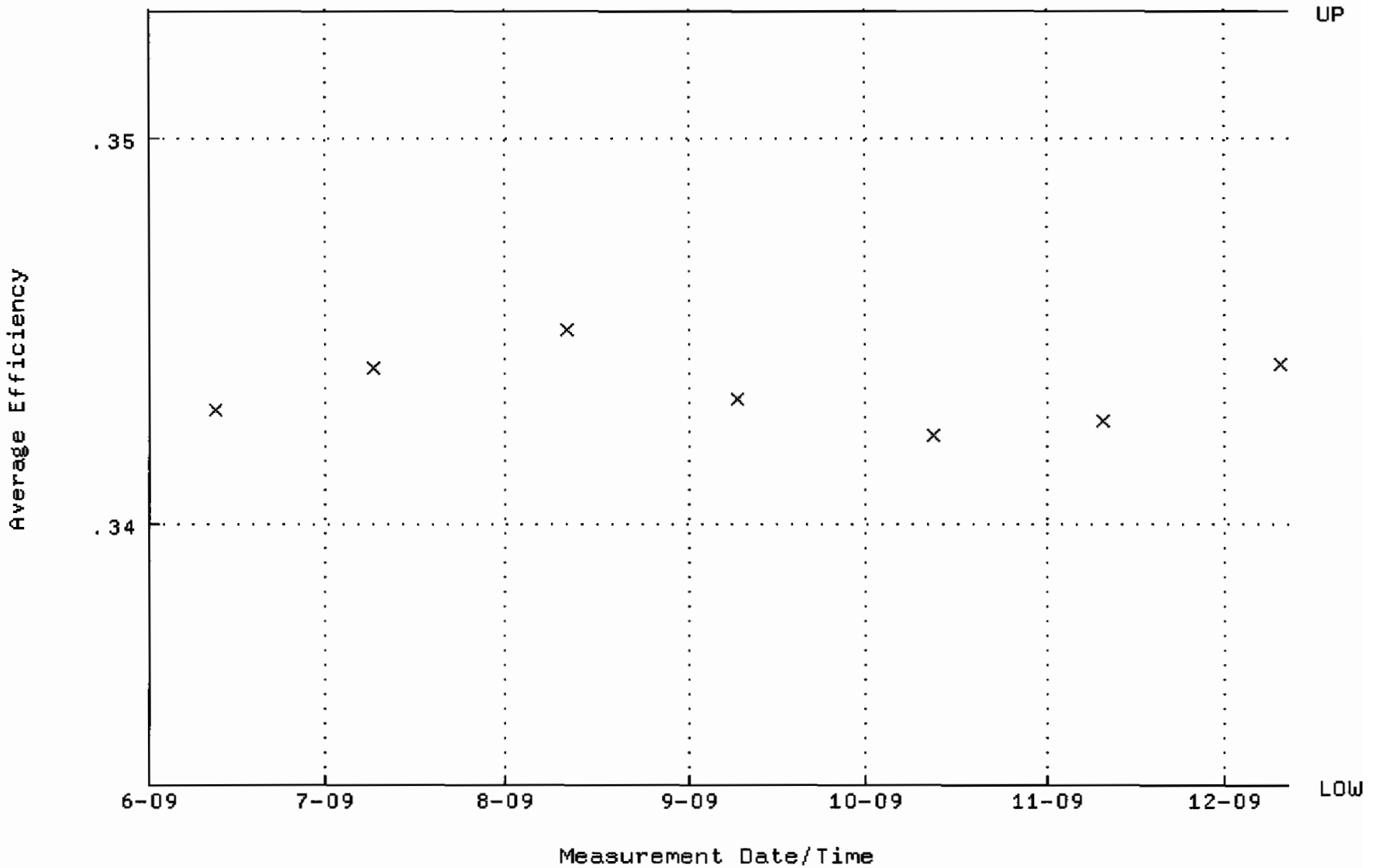

QA filename : DKA100:[ENV_ALPHA.QA.W]W097.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 12-JUN-2009 07:18:29 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 64.7068 through 71.5180

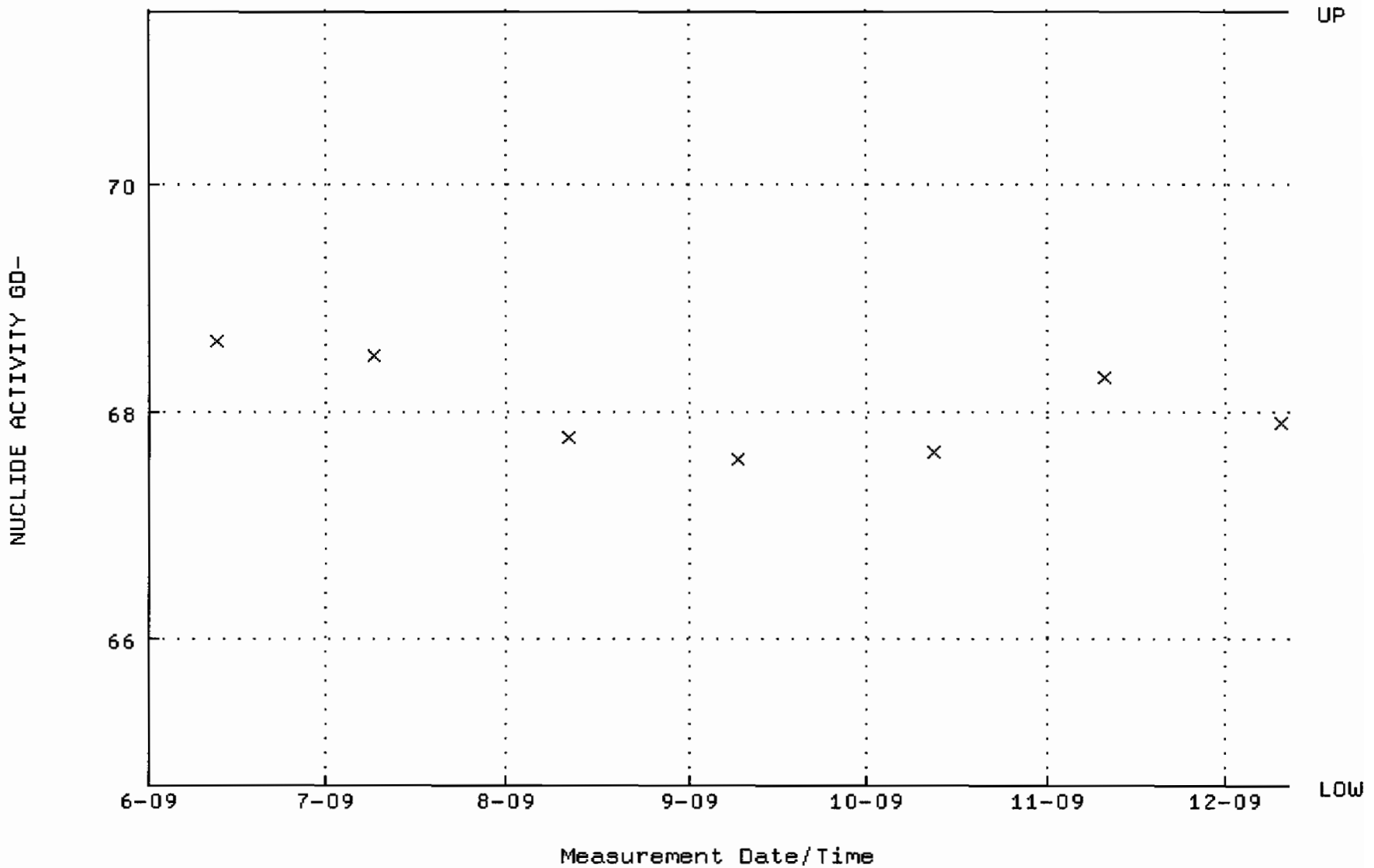

QA filename : DKA100:[ENV_ALPHA.QA.B]B097.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:42 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

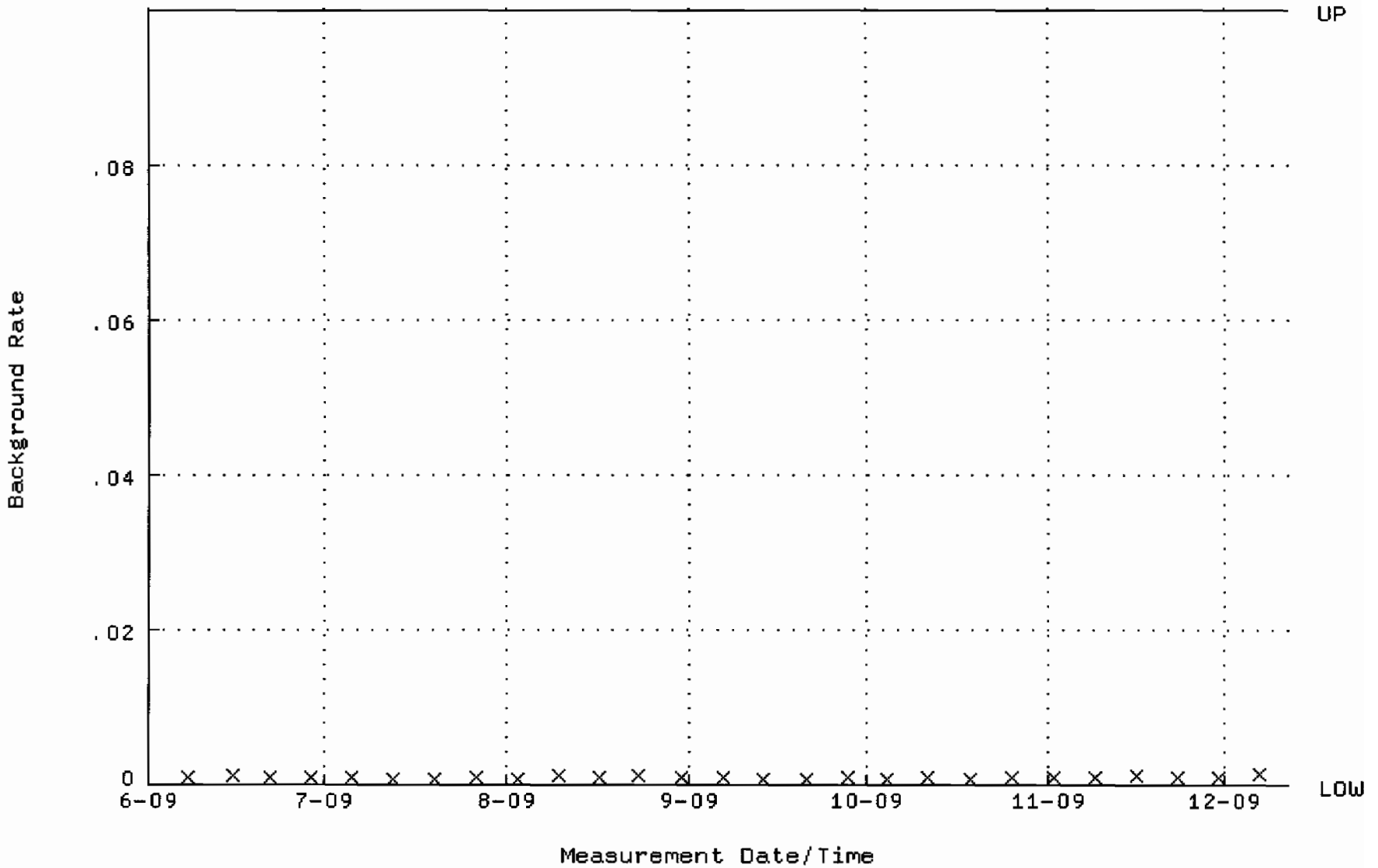

QA filename : DKA100:[ENV_ALPHA.QA.W]W100.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 12-JUN-2009 07:18:29 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.331433 through 0.351433

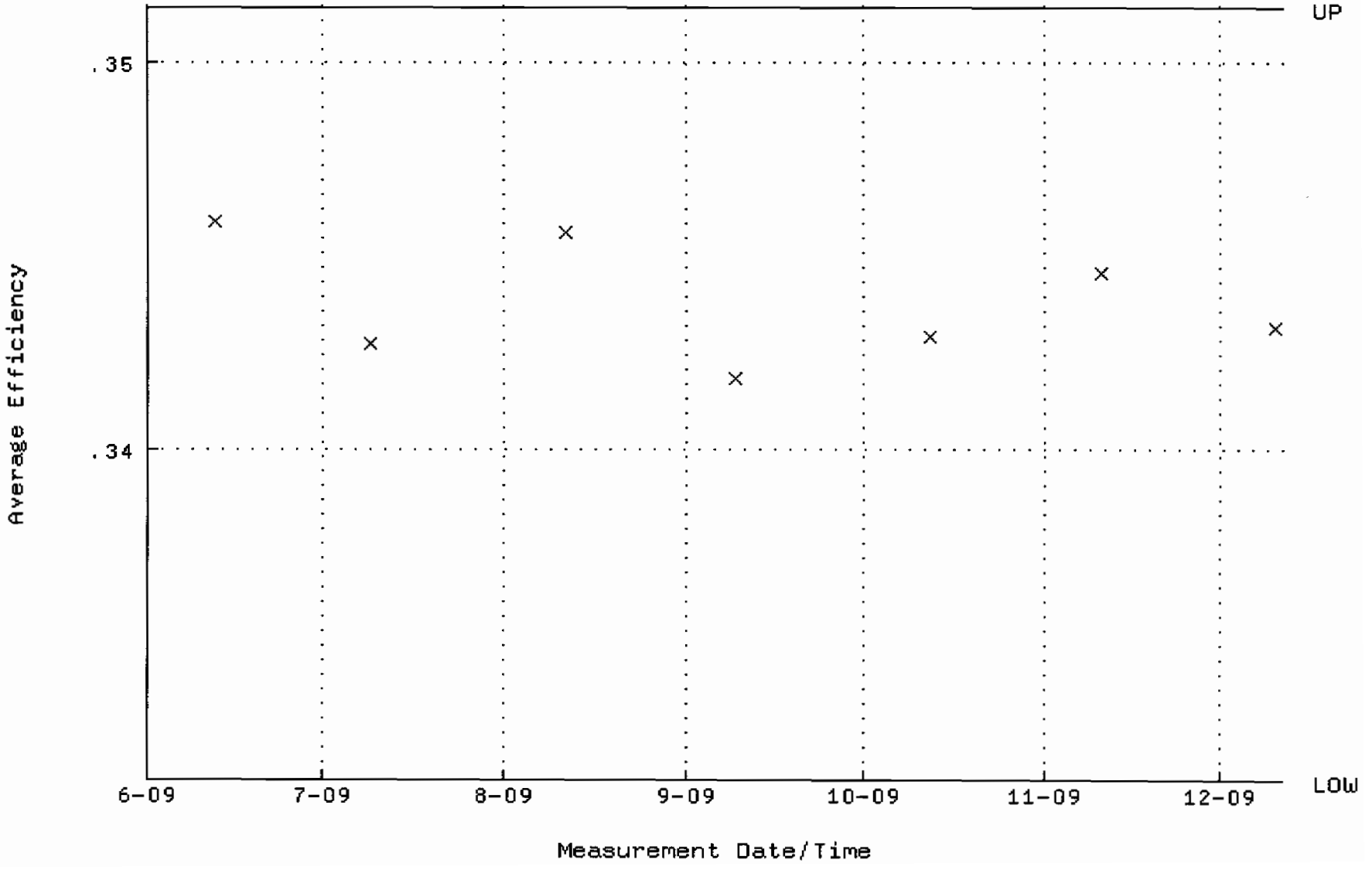

QA filename : DKA100:[ENV_ALPHA.QA.W]W100.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 12-JUN-2009 07:18:29 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 65.4550 through 72.3450

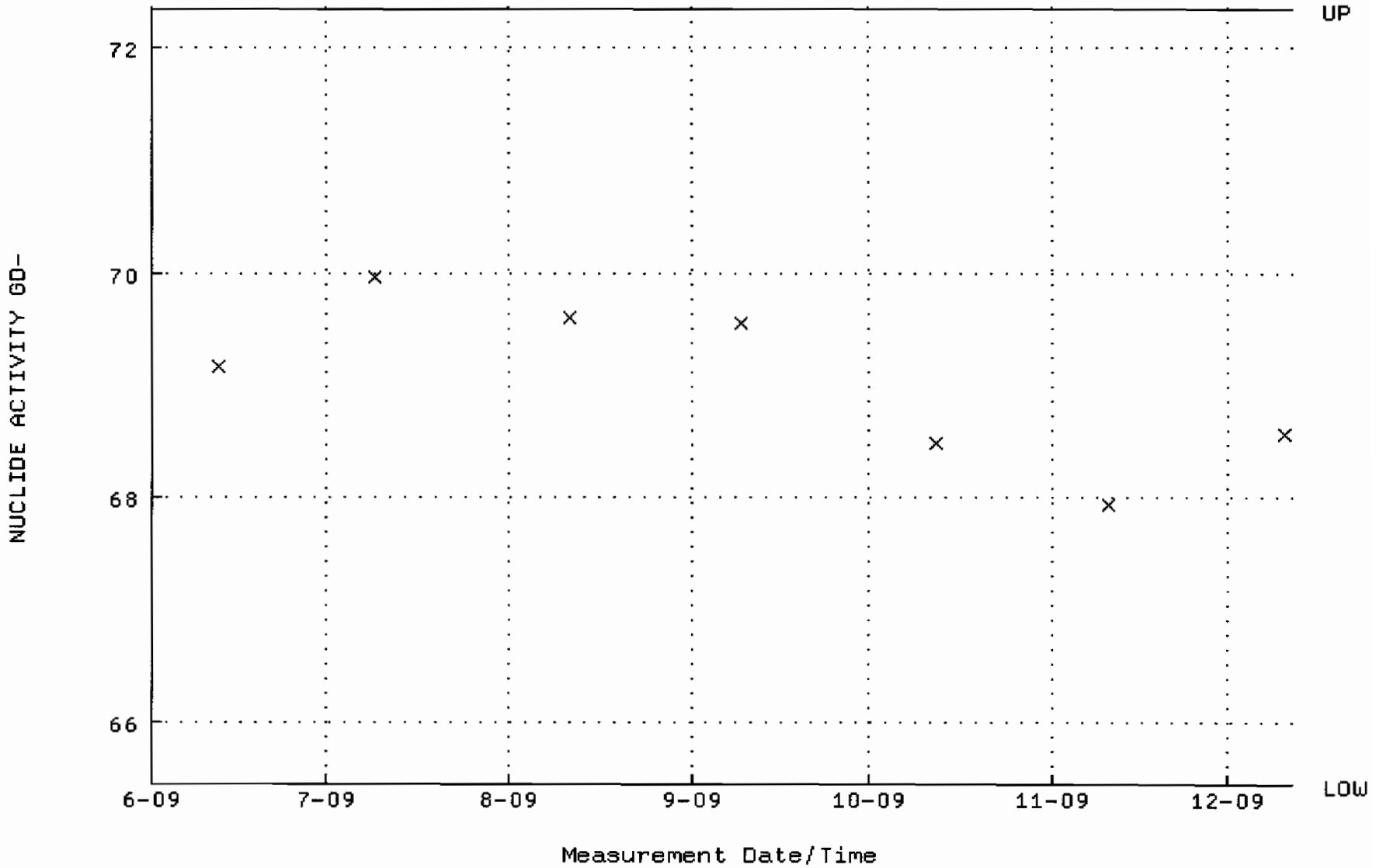

QA filename : DKA100:[ENV_ALPHA.QA.B]B100.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 16:45:42 through 11-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

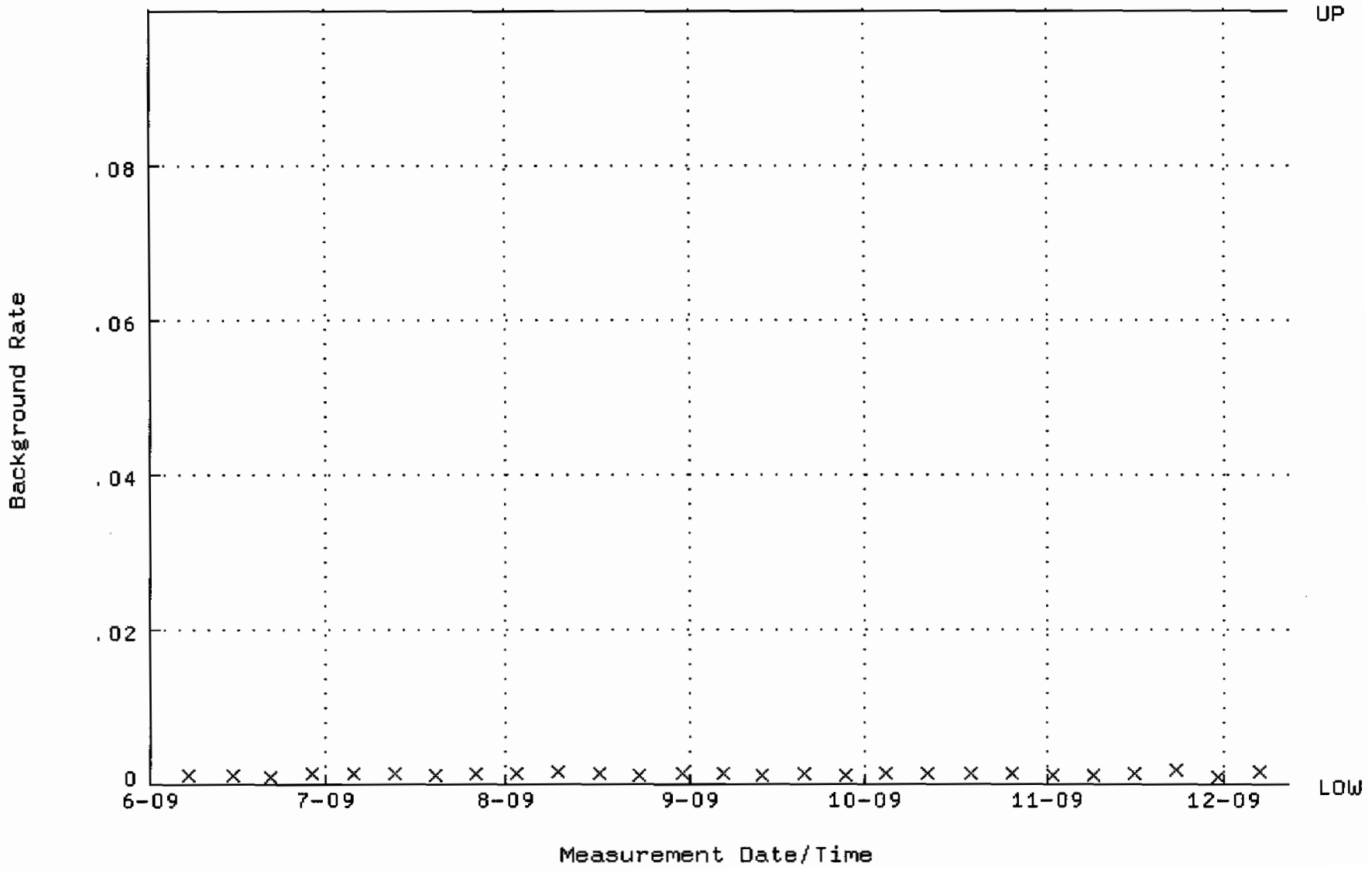

QA filename : DKA100:[ENV_ALPHA.QA.W]W113.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:34:17 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.242598 through 0.262598

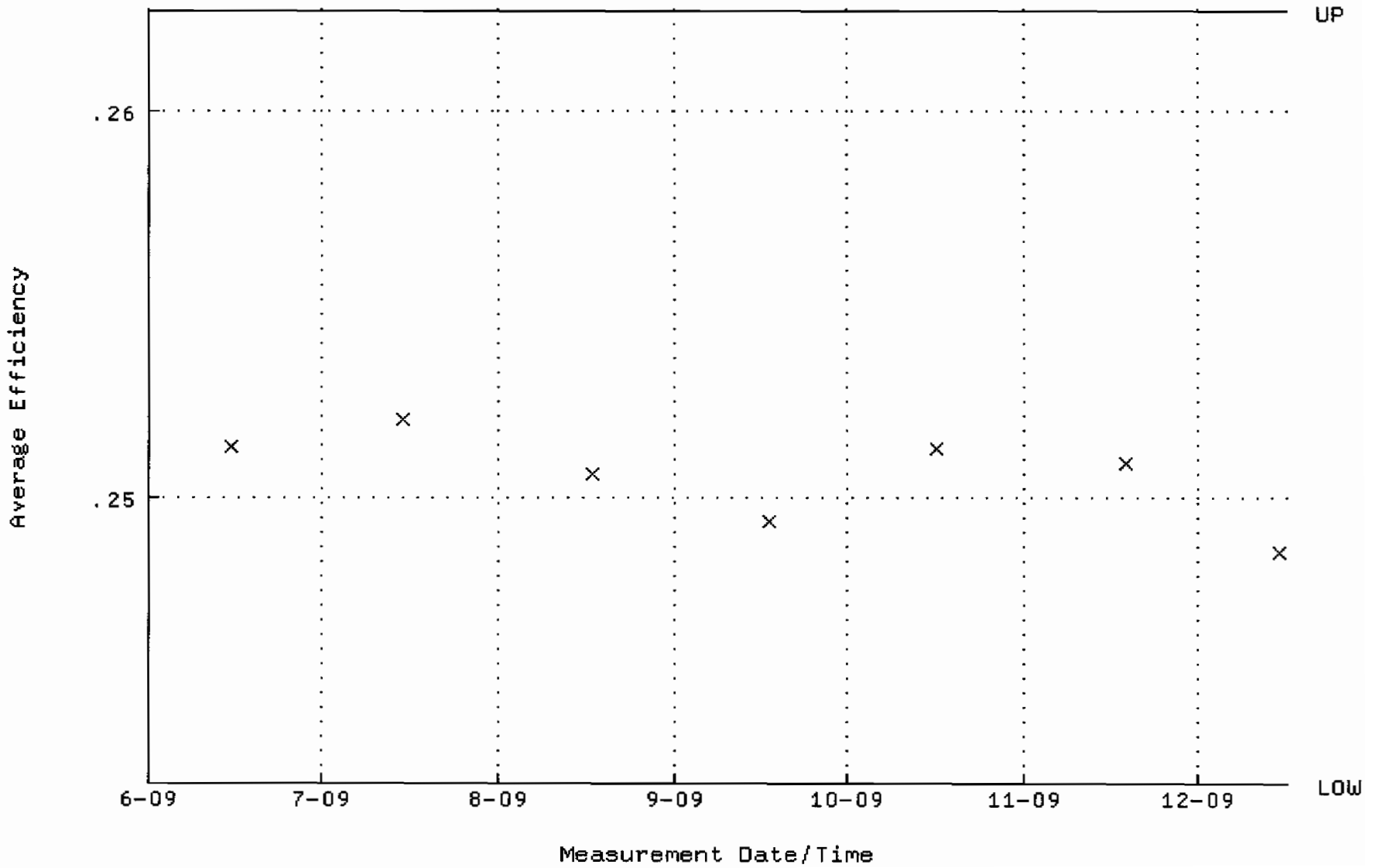

QA filename : DKA100:[ENV_ALPHA.QA.W]W113.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:34:17 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 87.5172 through 96.7296

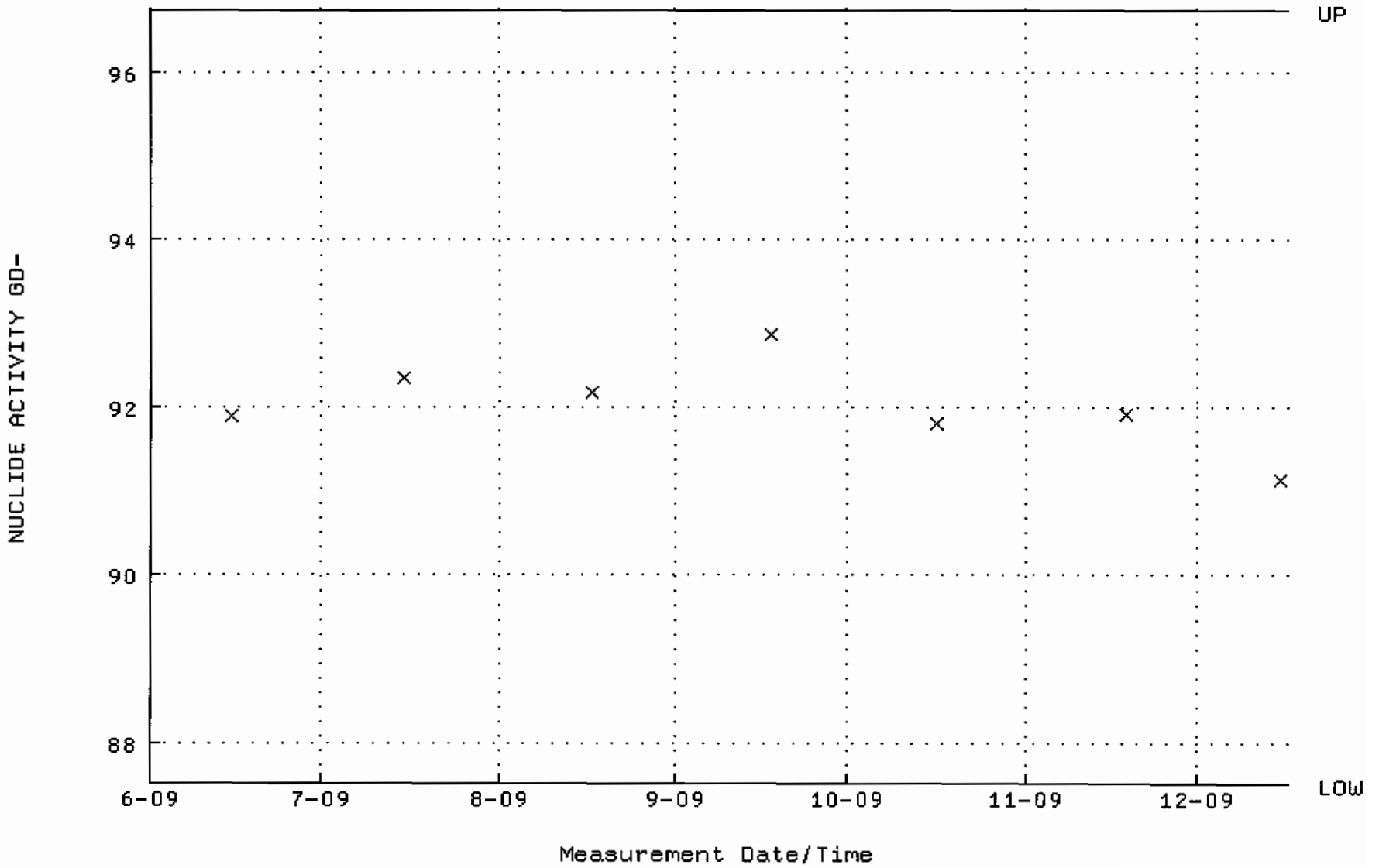

QA filename : DKA100:[ENV_ALPHA.QA.B]B113.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:08:39 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

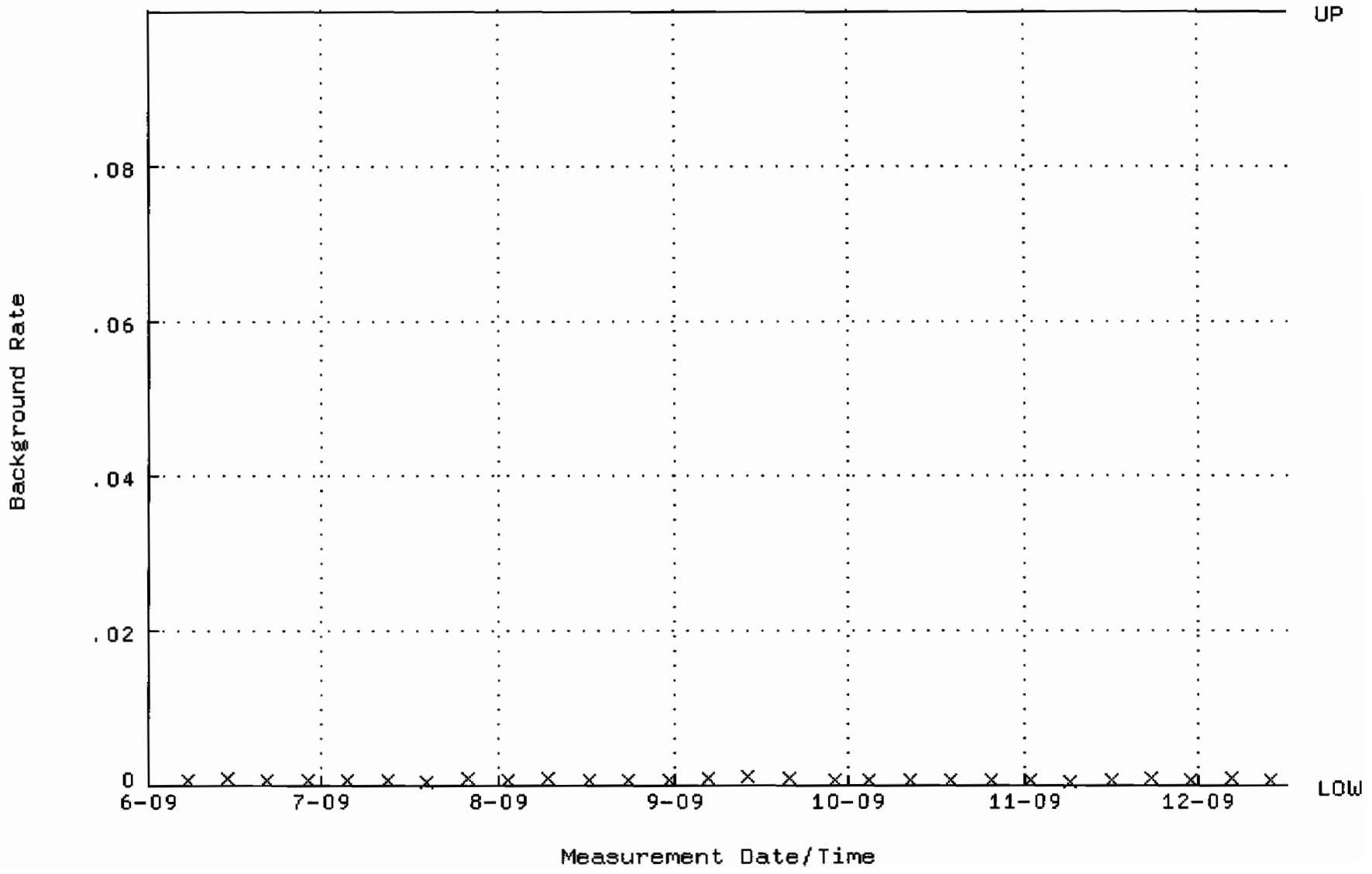

QA filename : DKA100:[ENV_ALPHA.QA.W]W114.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:34:22 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.245499 through 0.265499

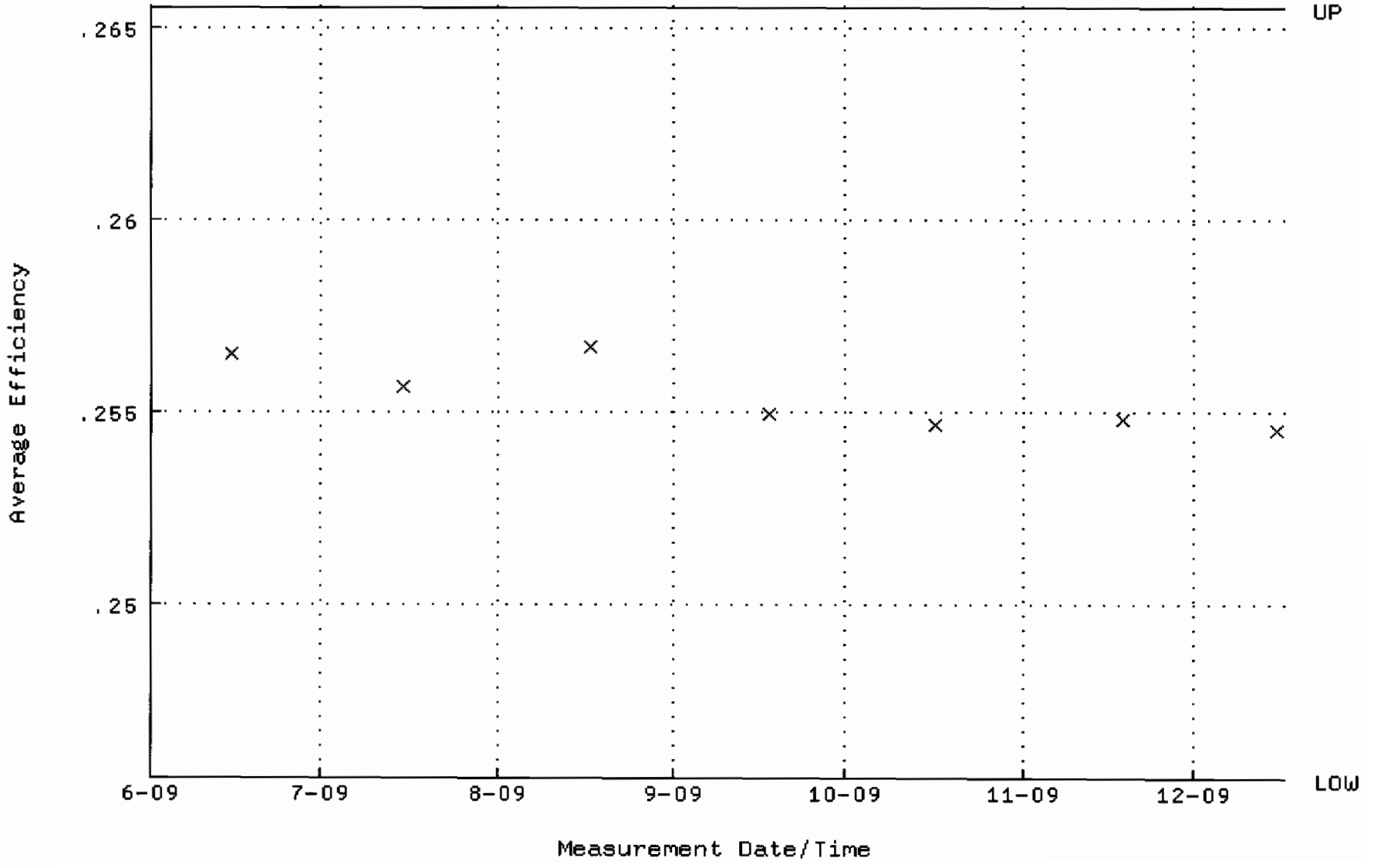

QA filename : DKA100:[ENV_ALPHA.QA.W]W114.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:34:22 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 87.8108 through 97.0540

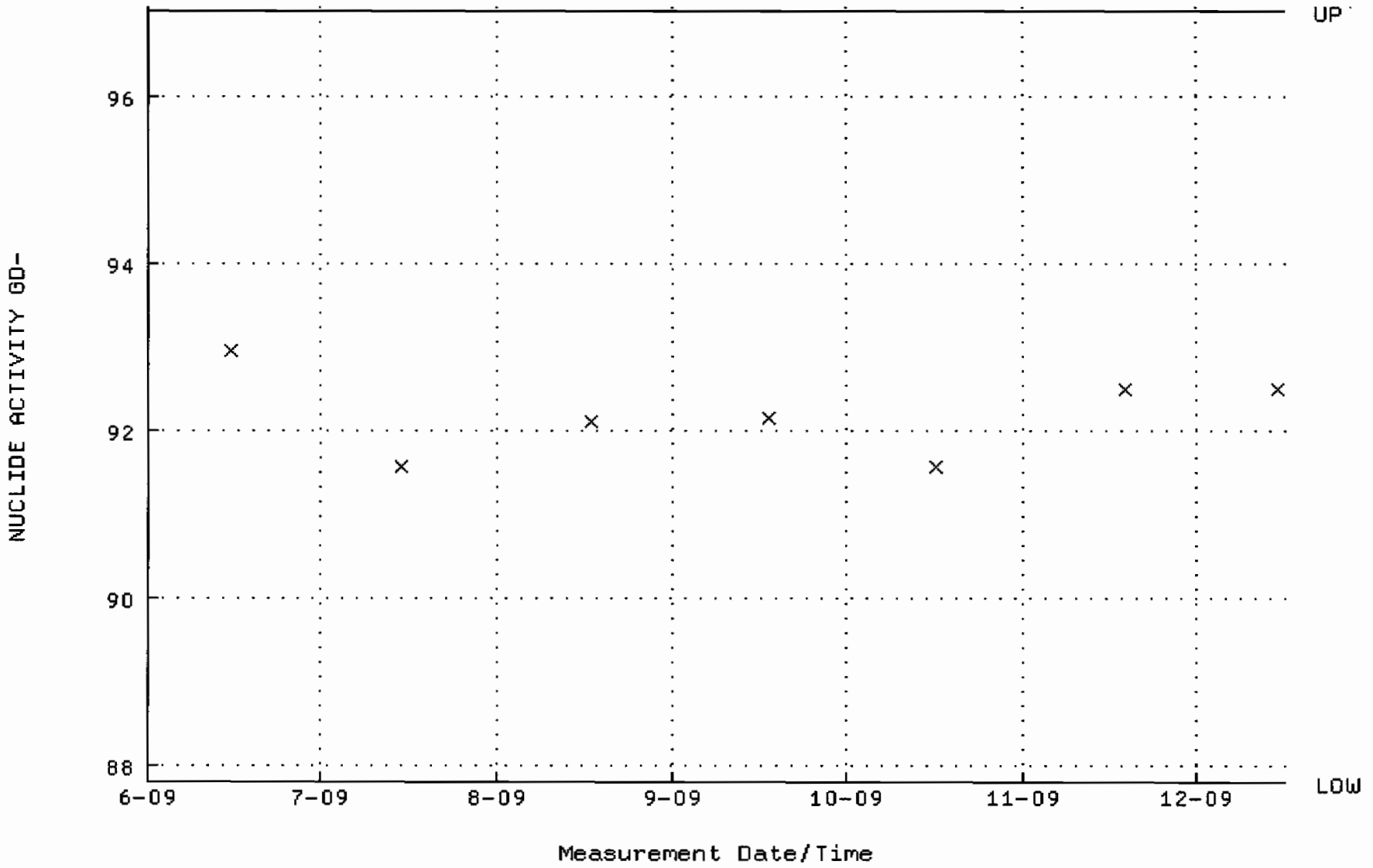

QA filename : DKA100:[ENV_ALPHA.QA.B]B114.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:08:44 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

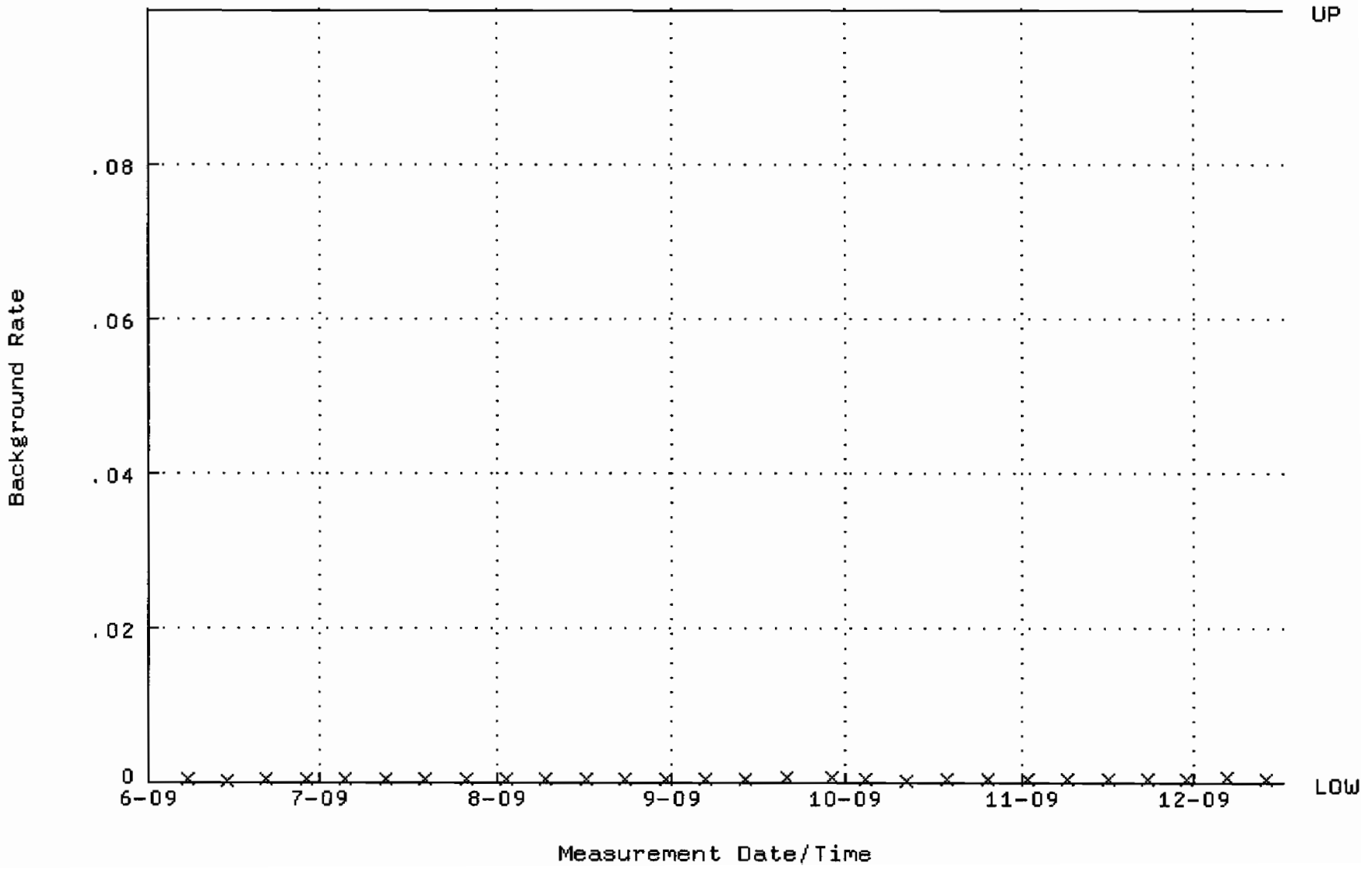

QA filename : DKA100:[ENV_ALPHA.QA.W]W115.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:34:29 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.248404 through 0.268404

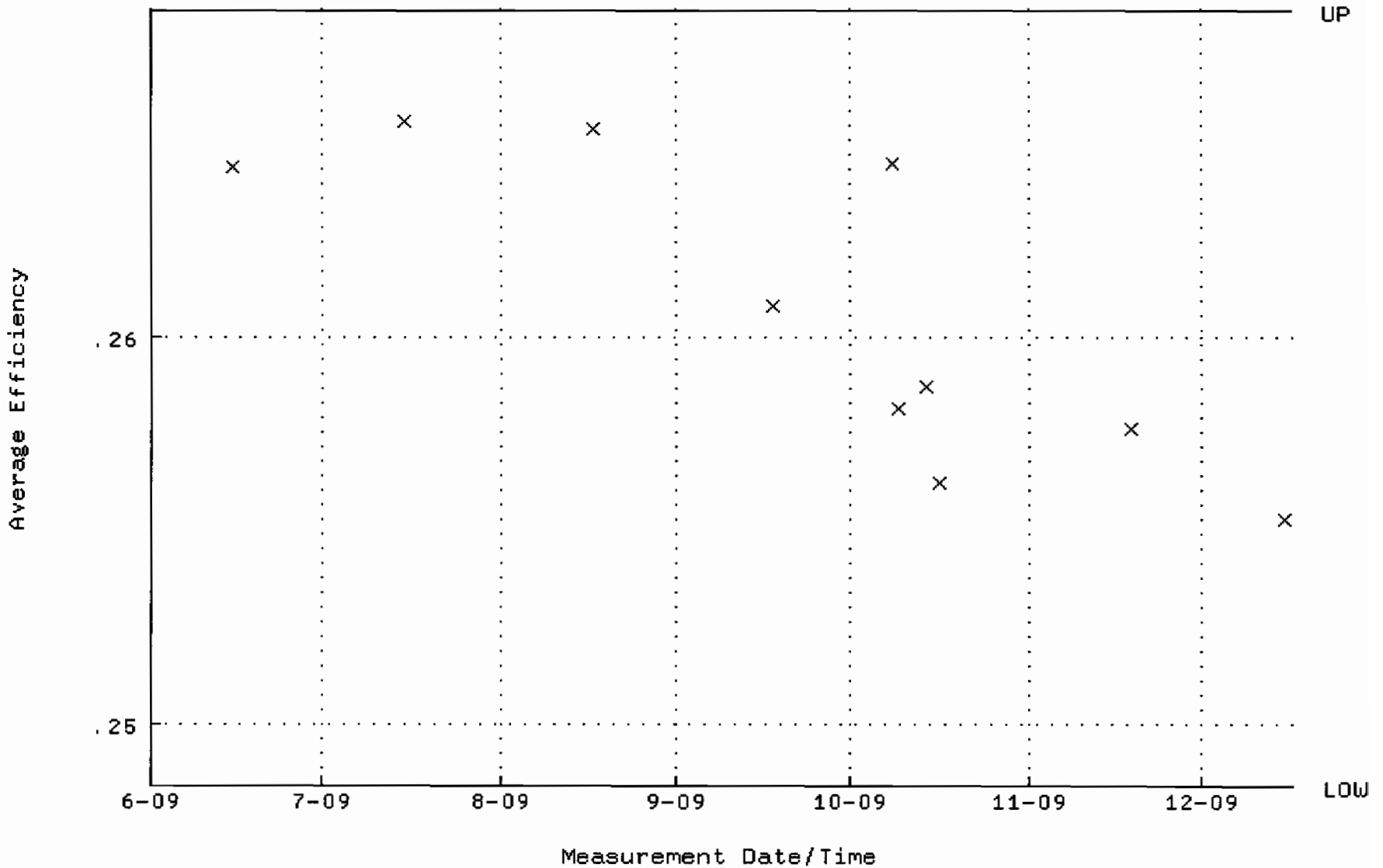

QA filename : DKA100:[ENV_ALPHA.QA.W]W115.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:34:29 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 85.5661 through 94.5731

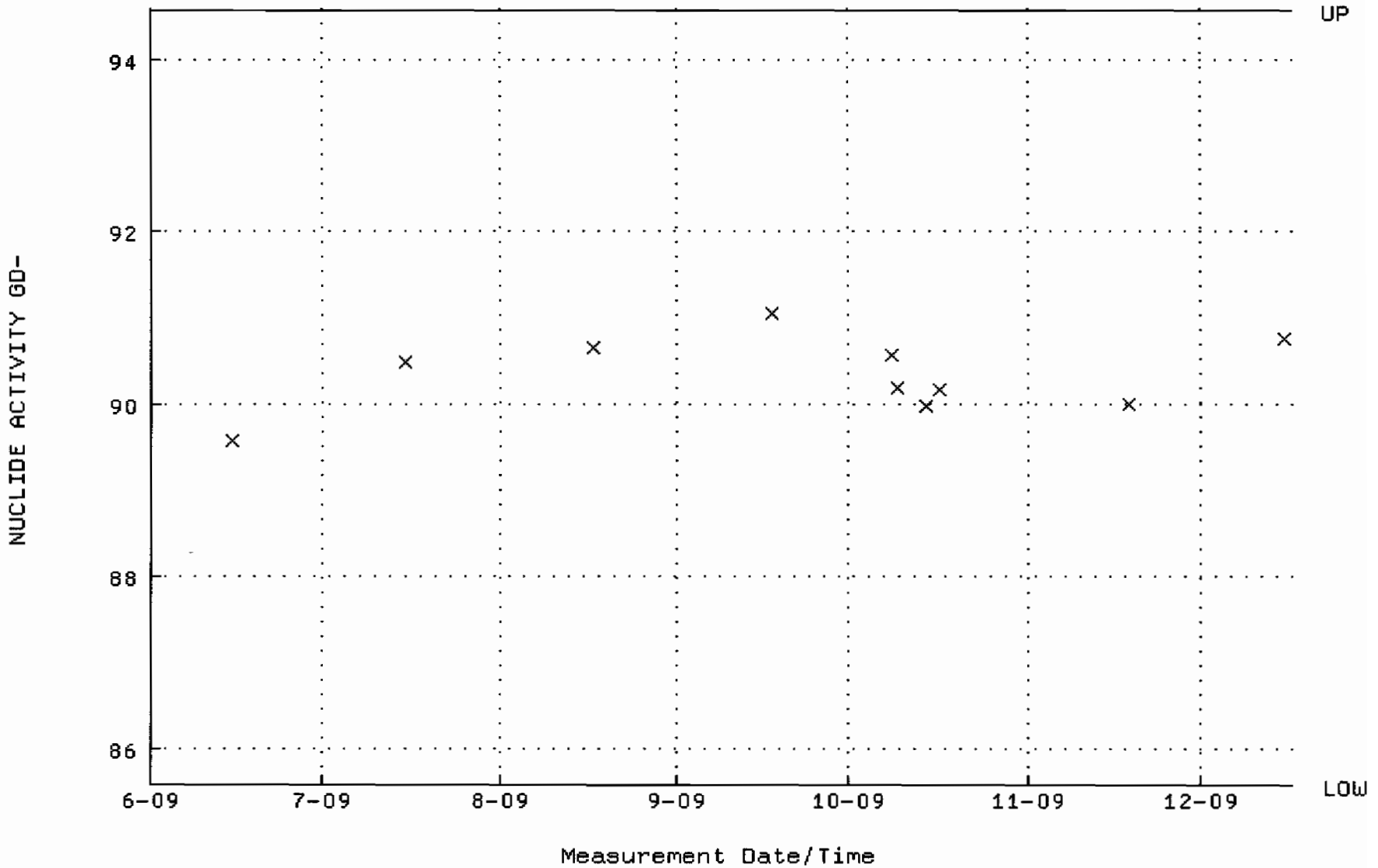

QA filename : DKA100:[ENV_ALPHA.QA.B]B115.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:08:48 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

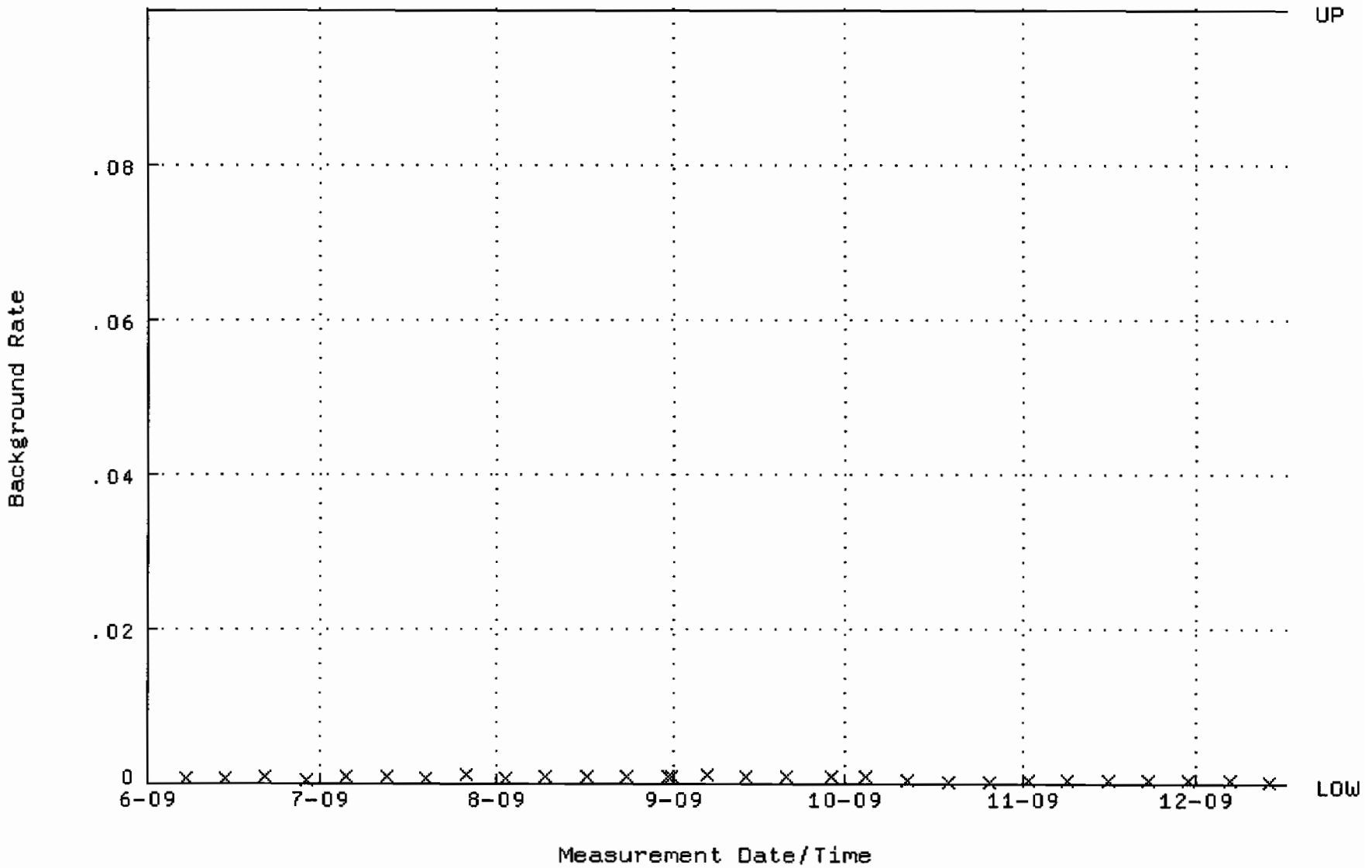

QA filename : DKA100:[ENV_ALPHA.QA.W]W117.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:34:39 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.242940 through 0.262940

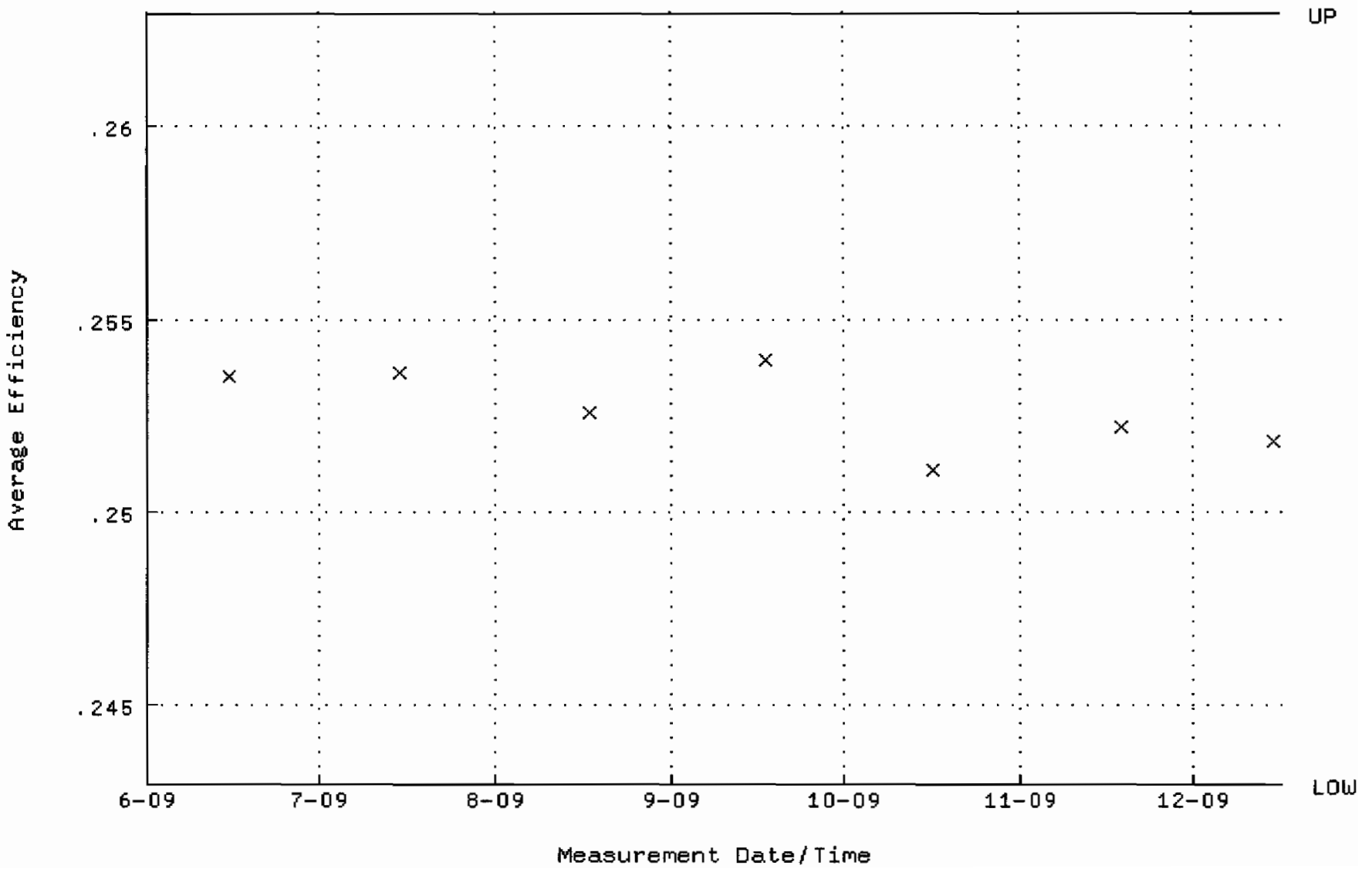

QA filename : DKA100:[ENV_ALPHA.QA.W]W117.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:34:39 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 85.8693 through 94.9081

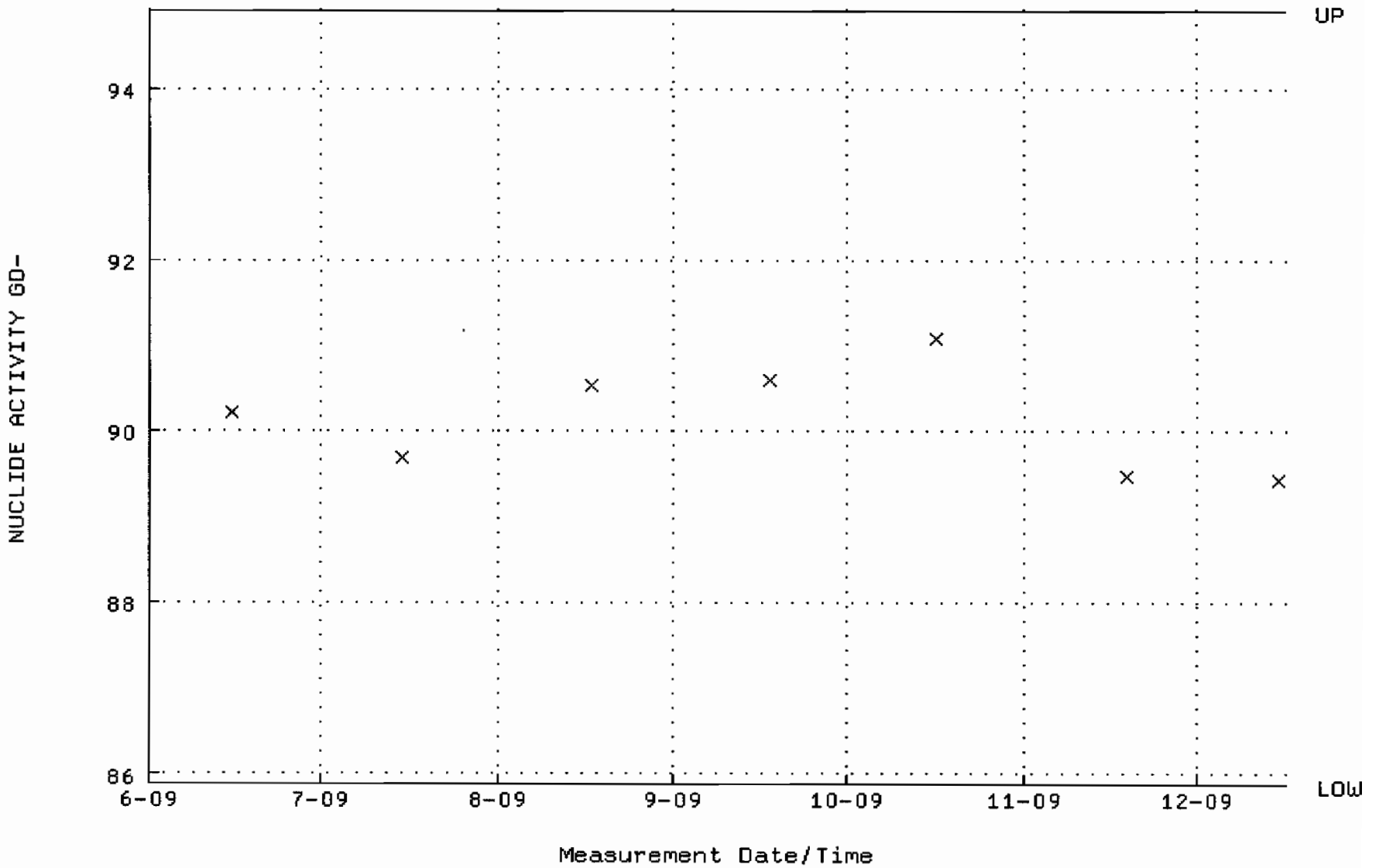

QA filename : DKA100:[ENV_ALPHA.QA.B]B117.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:08:57 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

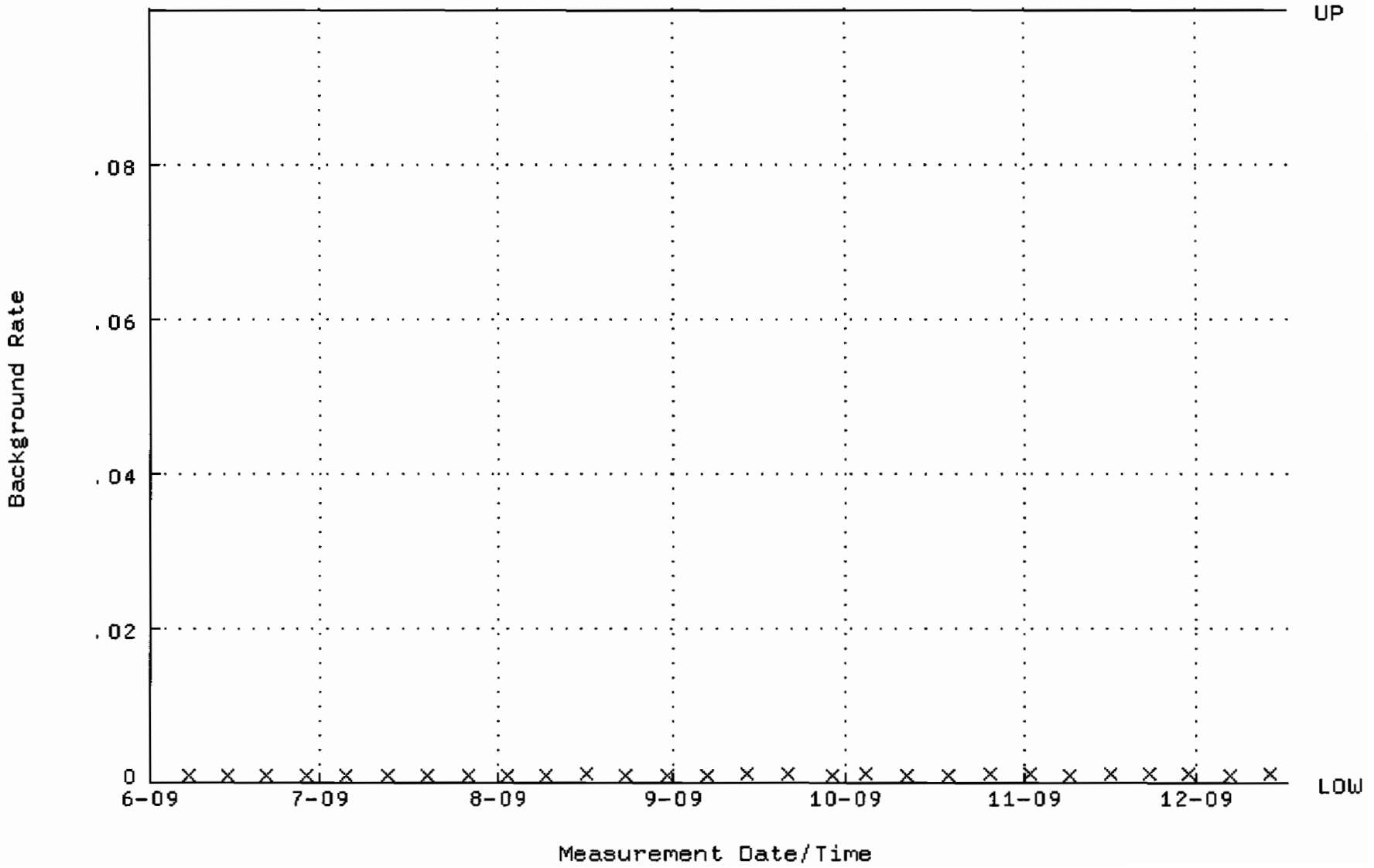

QA filename : DKA100:[ENV_ALPHA.QA.W]W118.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:34:45 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.250490 through 0.270490

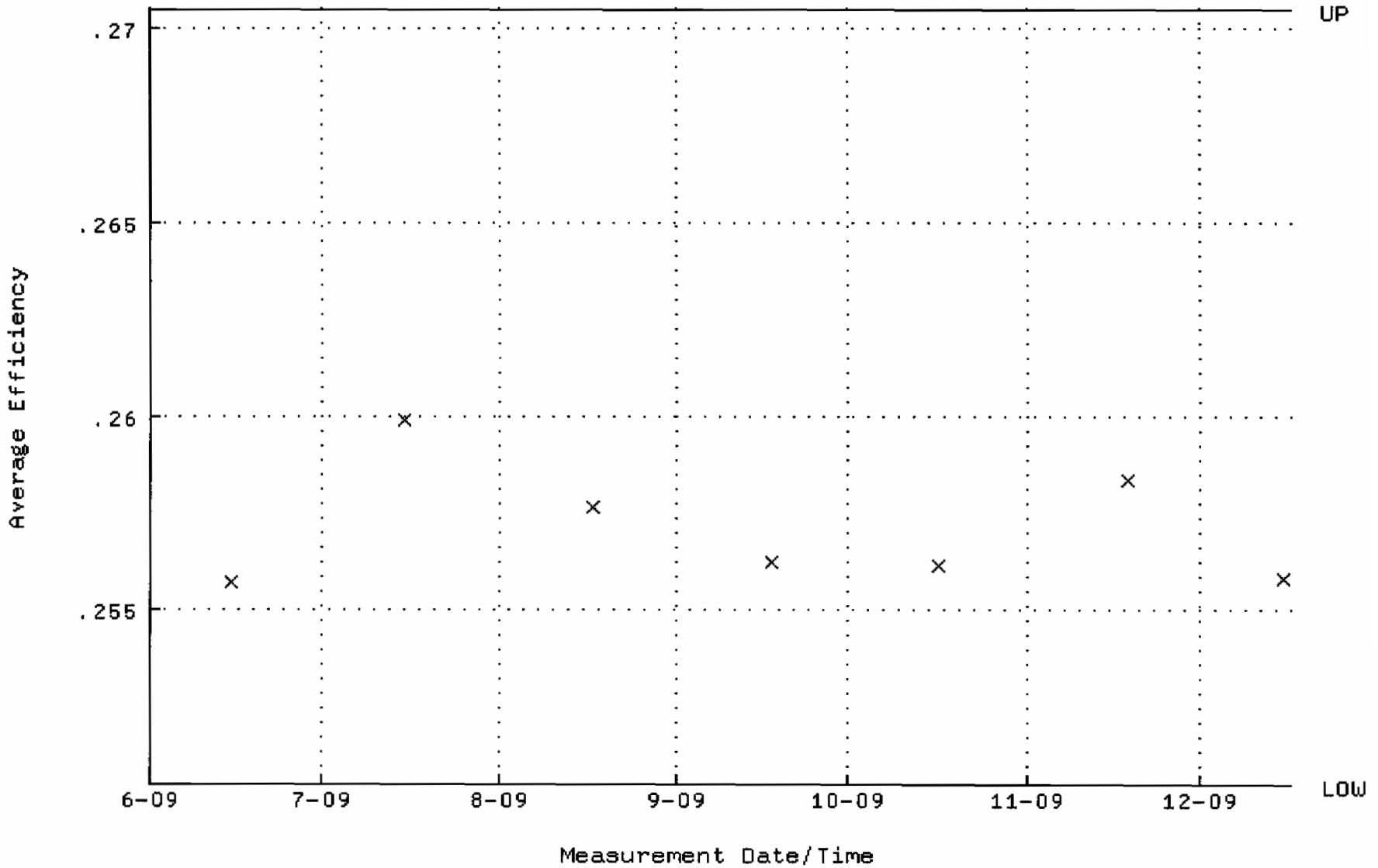

QA filename : DKA100:[ENV_ALPHA.QA.W]W118.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:34:45 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 87.2440 through 96.4276

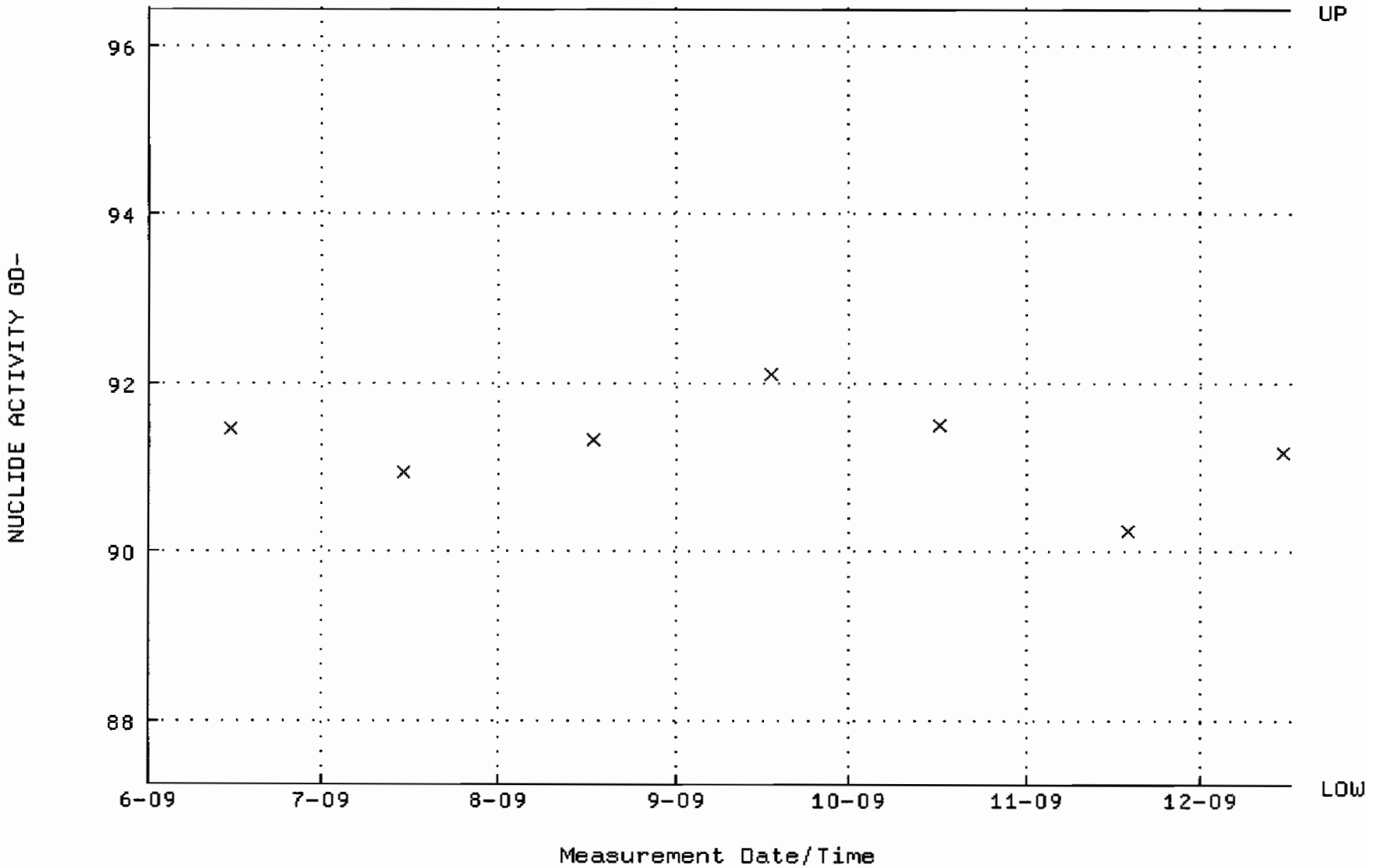

QA filename : DKA100:[ENV_ALPHA.QA.B]B118.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:09:01 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

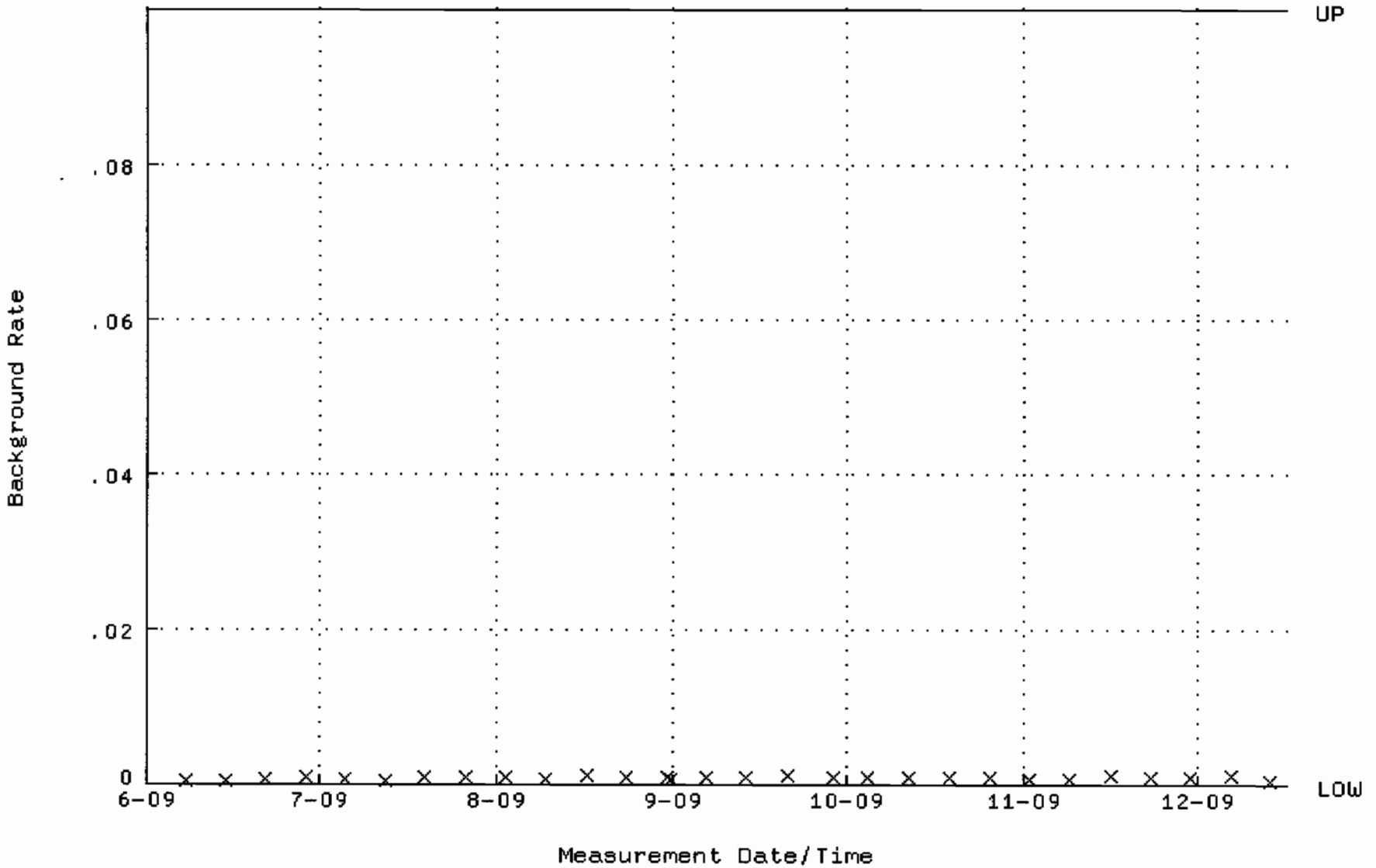

QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-JUN-2009 10:35:54 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.240573 through 0.260573

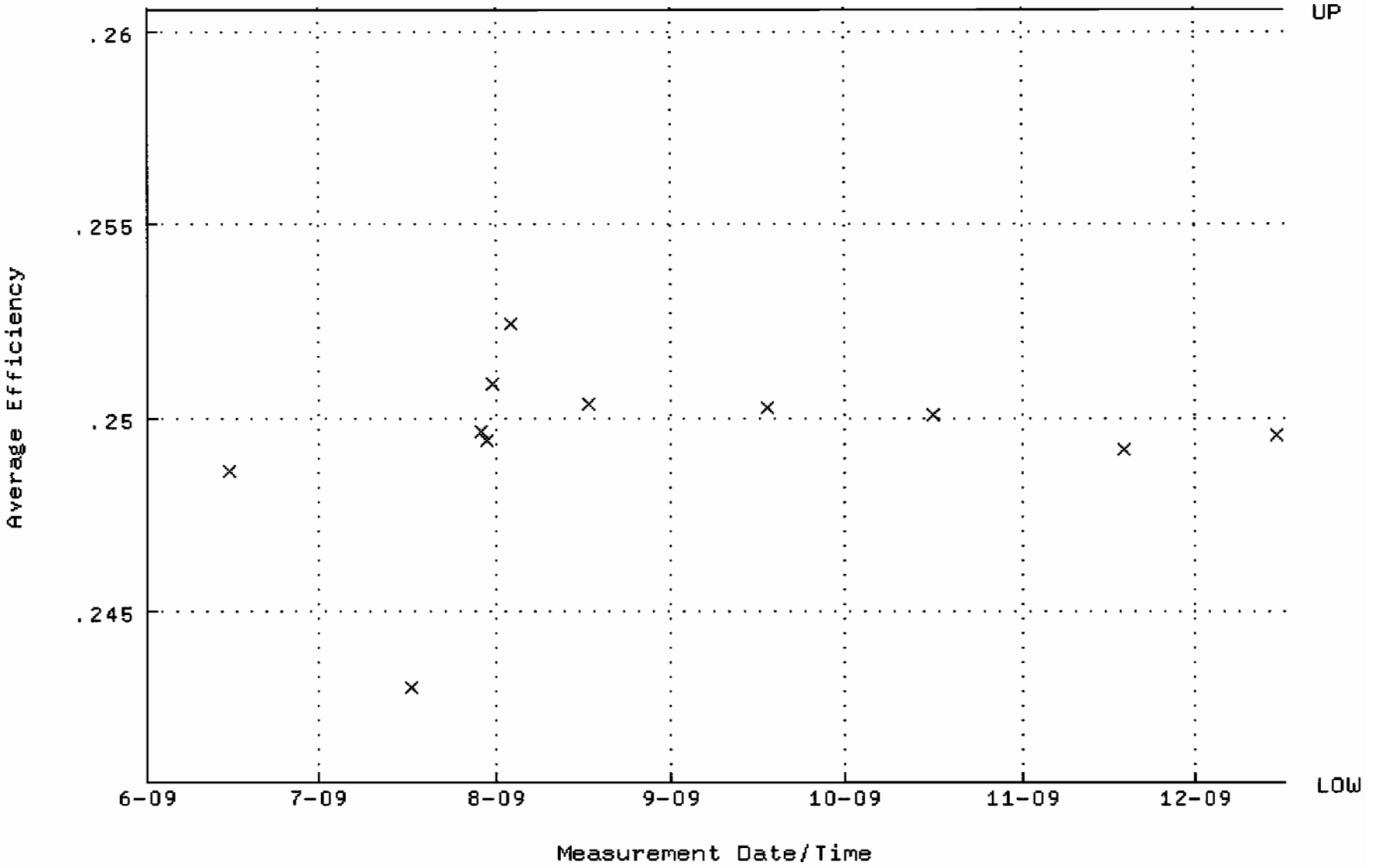

QA filename : DKA100:[ENV_ALPHA.QA.W]W132.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-JUN-2009 10:35:54 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 87.9674 through 97.2272

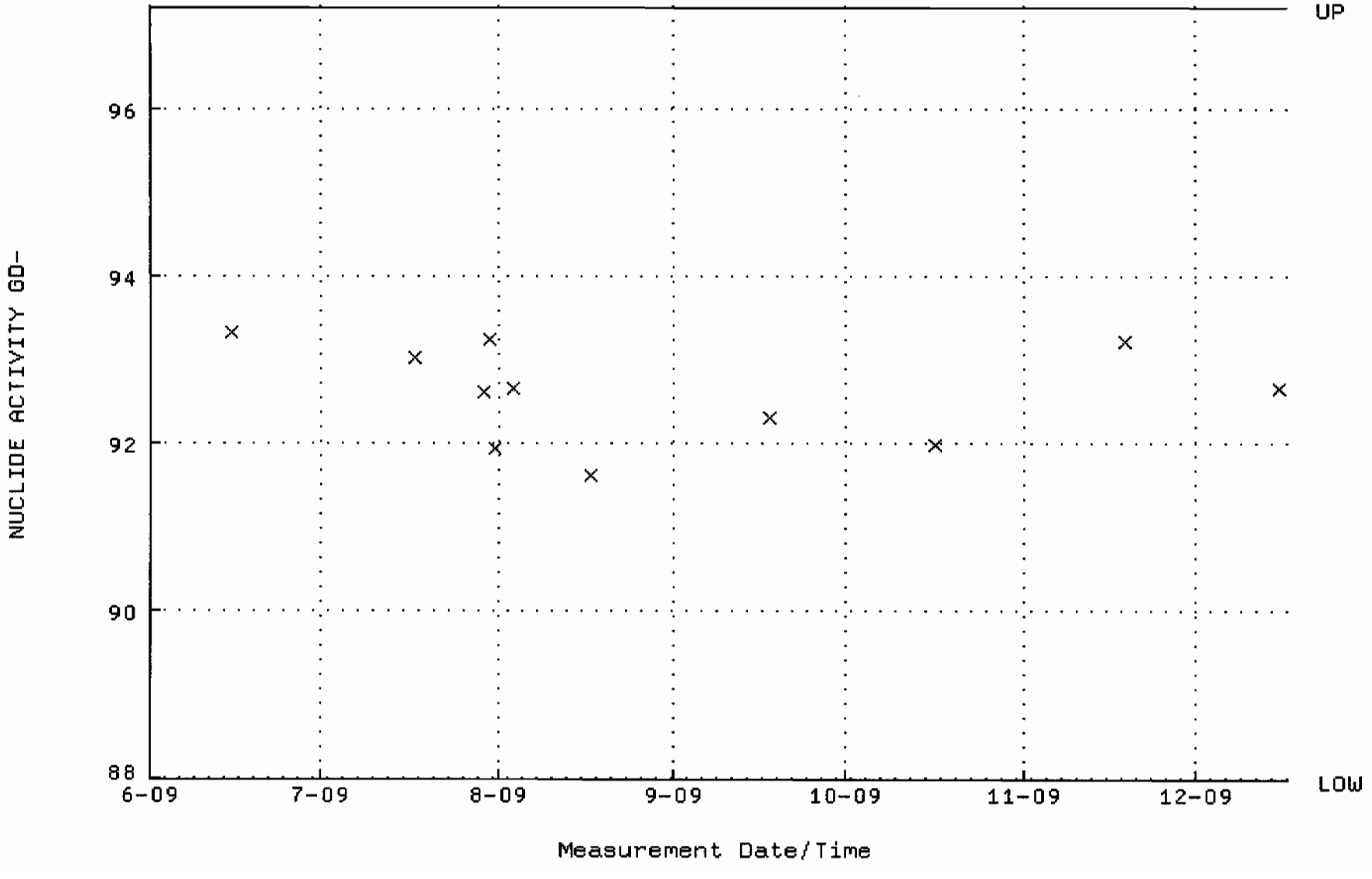

QA filename : DKA100:[ENV_ALPHA.QA.B]B132.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 7-JUN-2009 17:10:01 through 16-DEC-2009 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

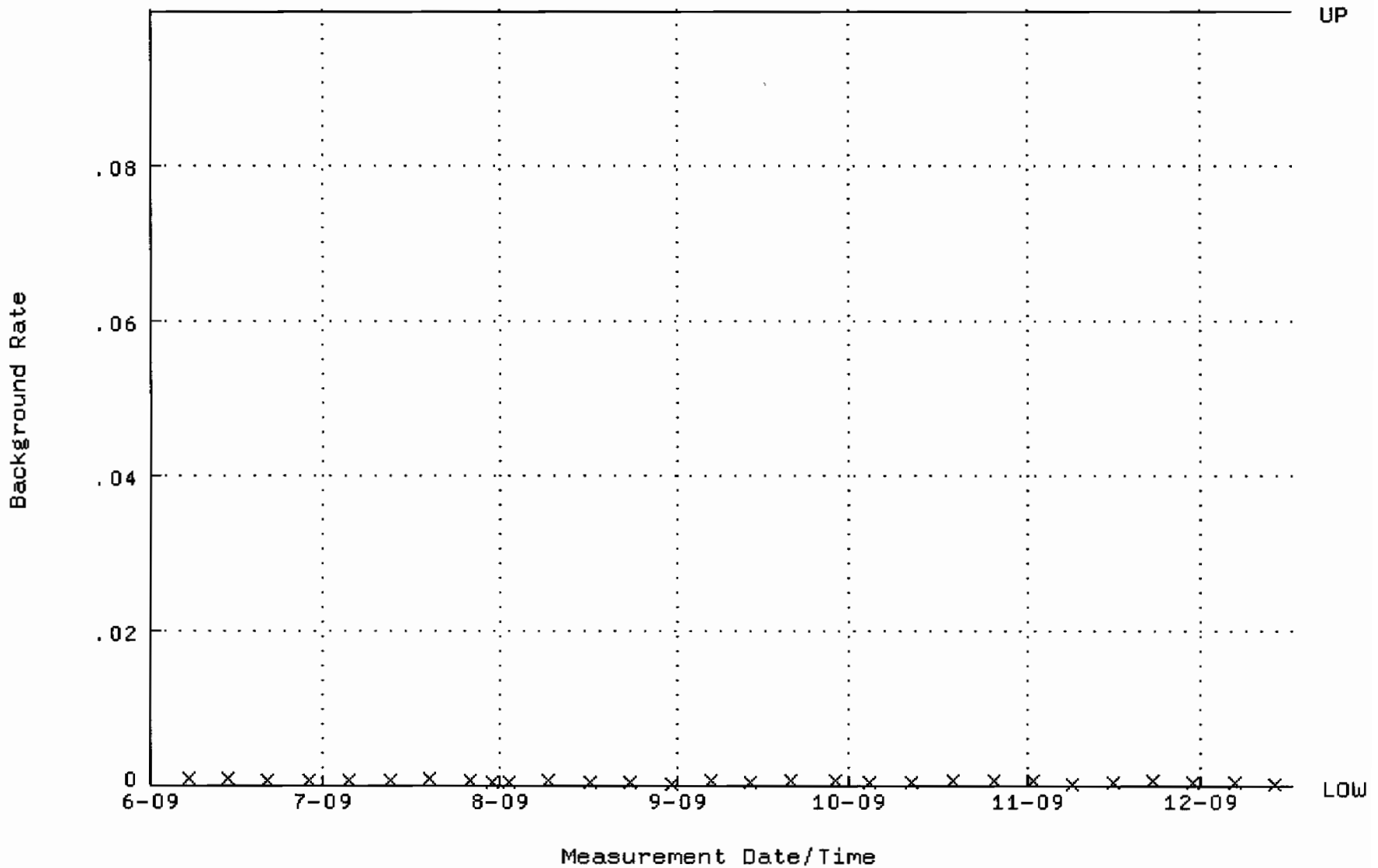

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM04_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-JUN-2009 04:53:26 through 1-DEC-2009 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

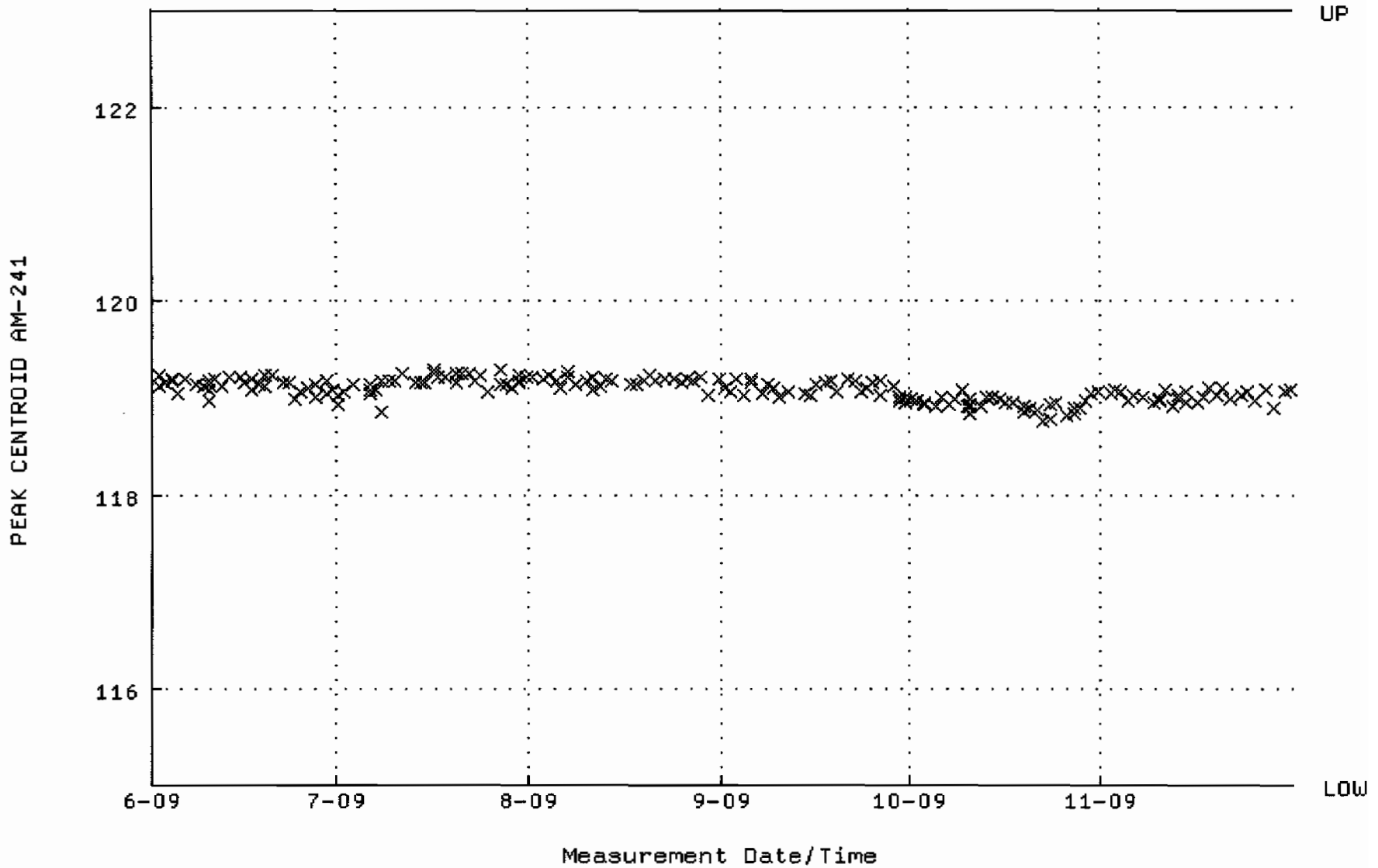

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM04.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 7-JUN-2009 15:32:52 through 1-DEC-2009 12:00:00
Lower/Upper Lmts: 1.22211 through 1.49369

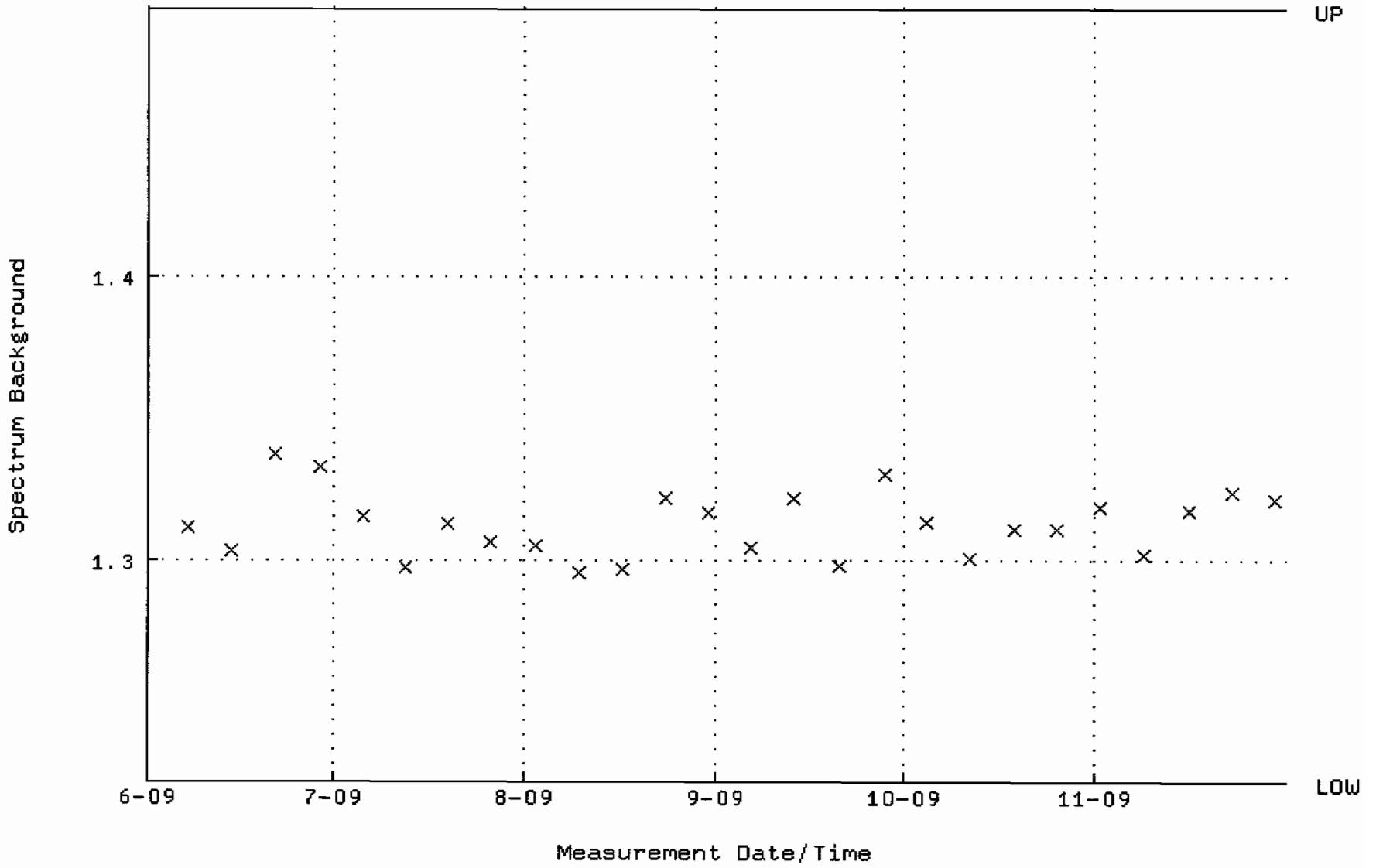

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM06_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-JUN-2009 05:14:22 through 1-DEC-2009 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

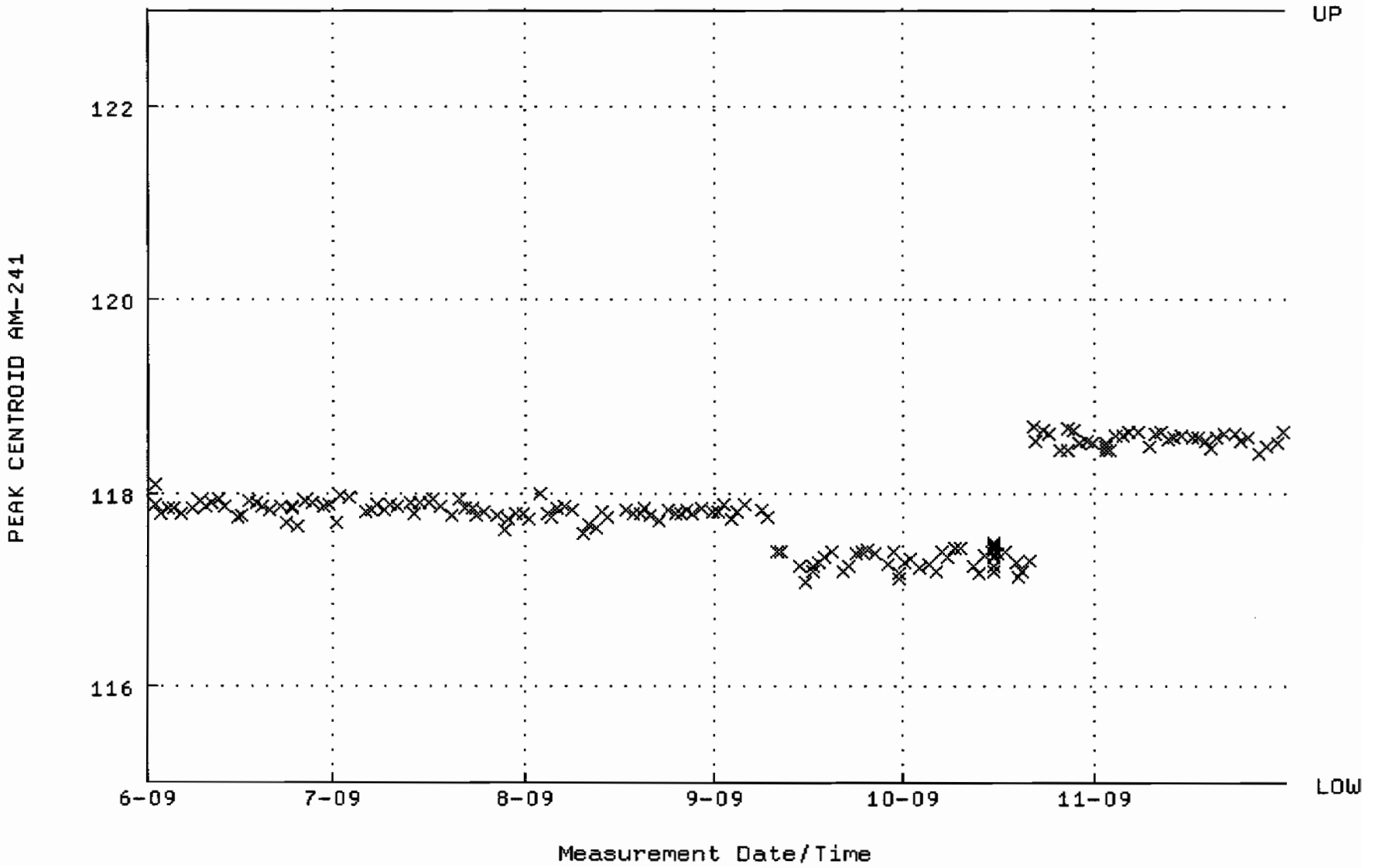

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM06.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 7-JUN-2009 15:33:53 through 1-DEC-2009 12:00:00
Lower/Upper Lmts: 1.48750 through 1.56670

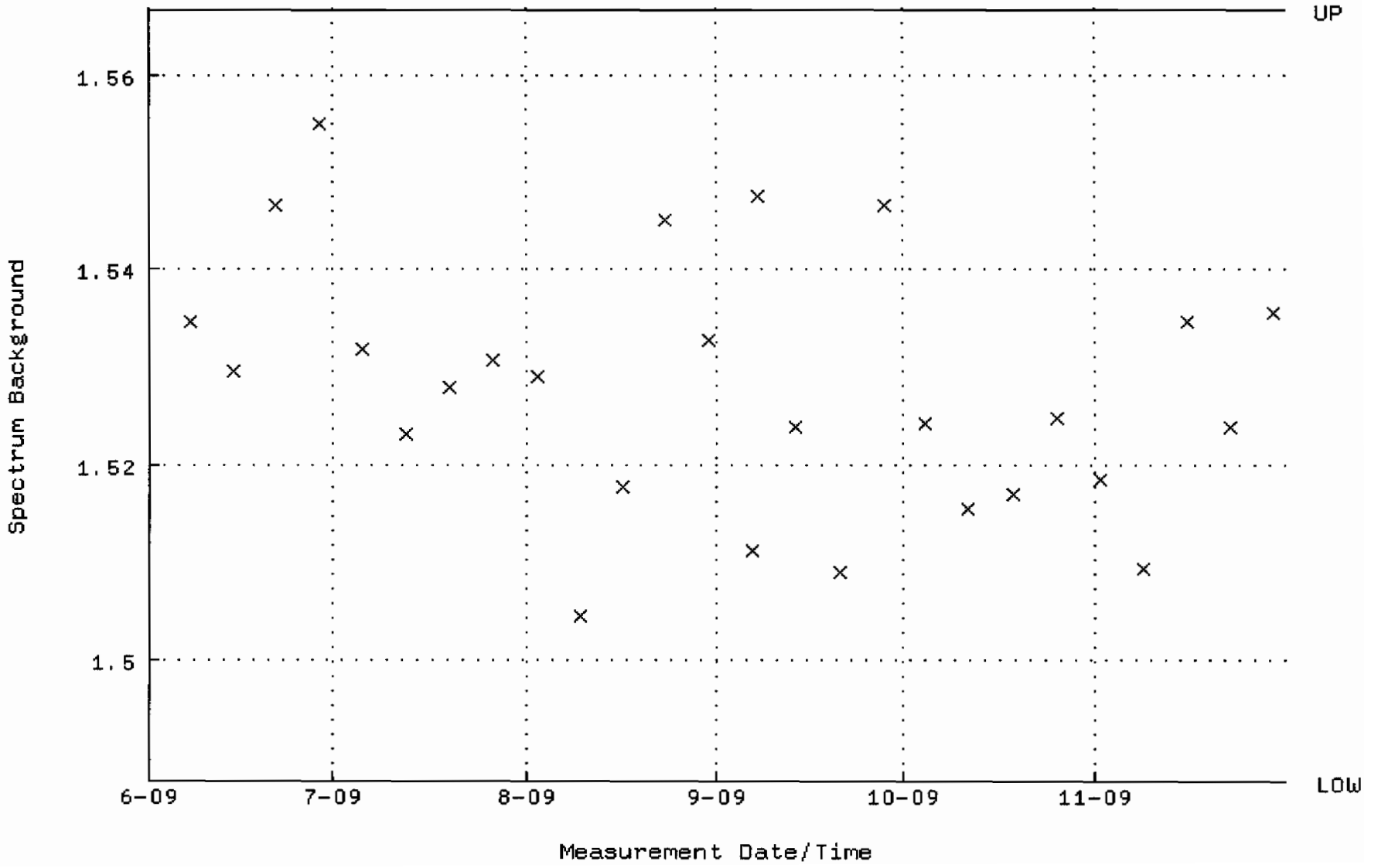

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM08_JAR.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-JUN-2009 04:53:45 through 1-DEC-2009 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

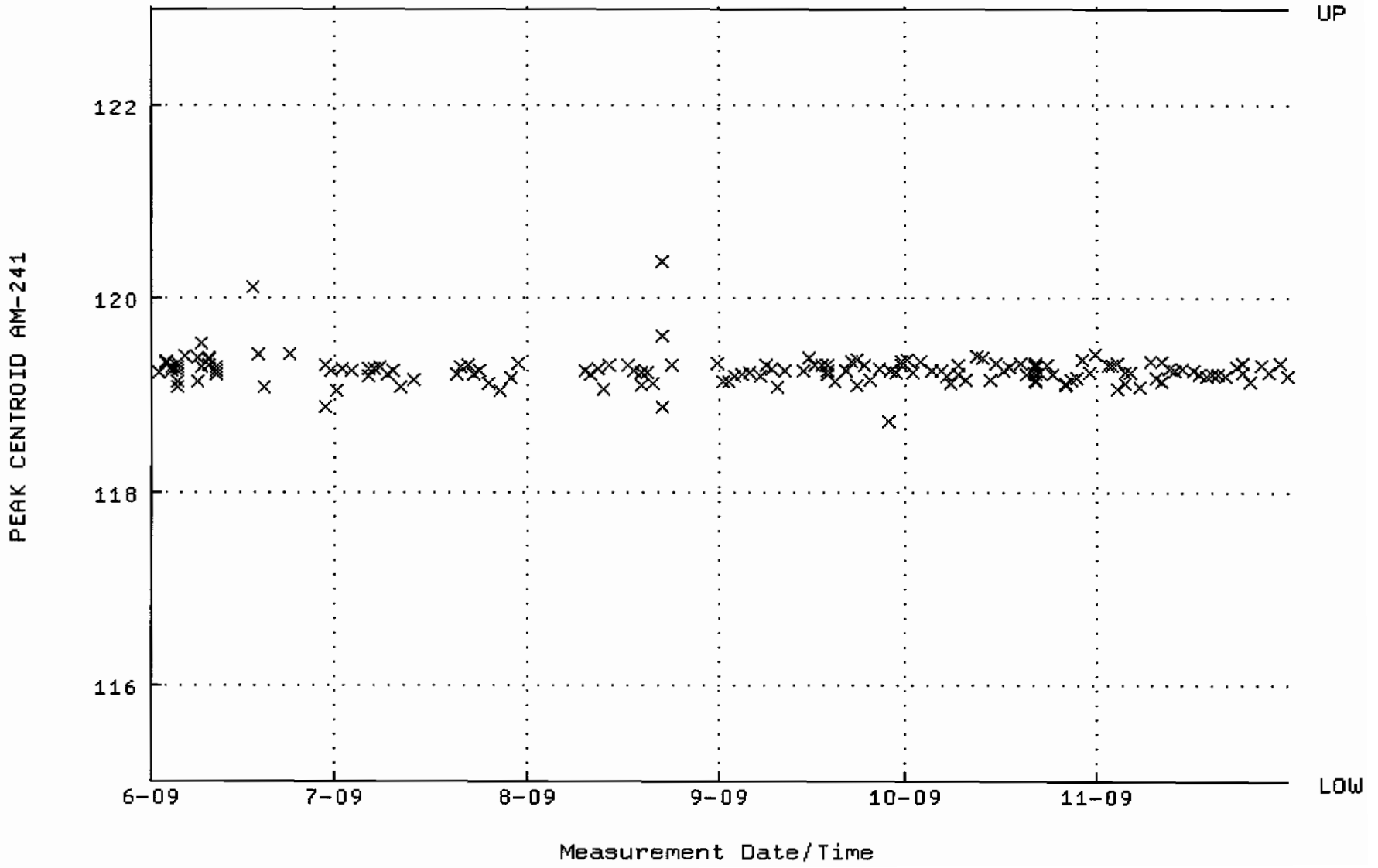

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM08.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 7-JUN-2009 15:34:26 through 1-DEC-2009 12:00:00
Lower/Upper Lmts: 1.31400 through 1.60600

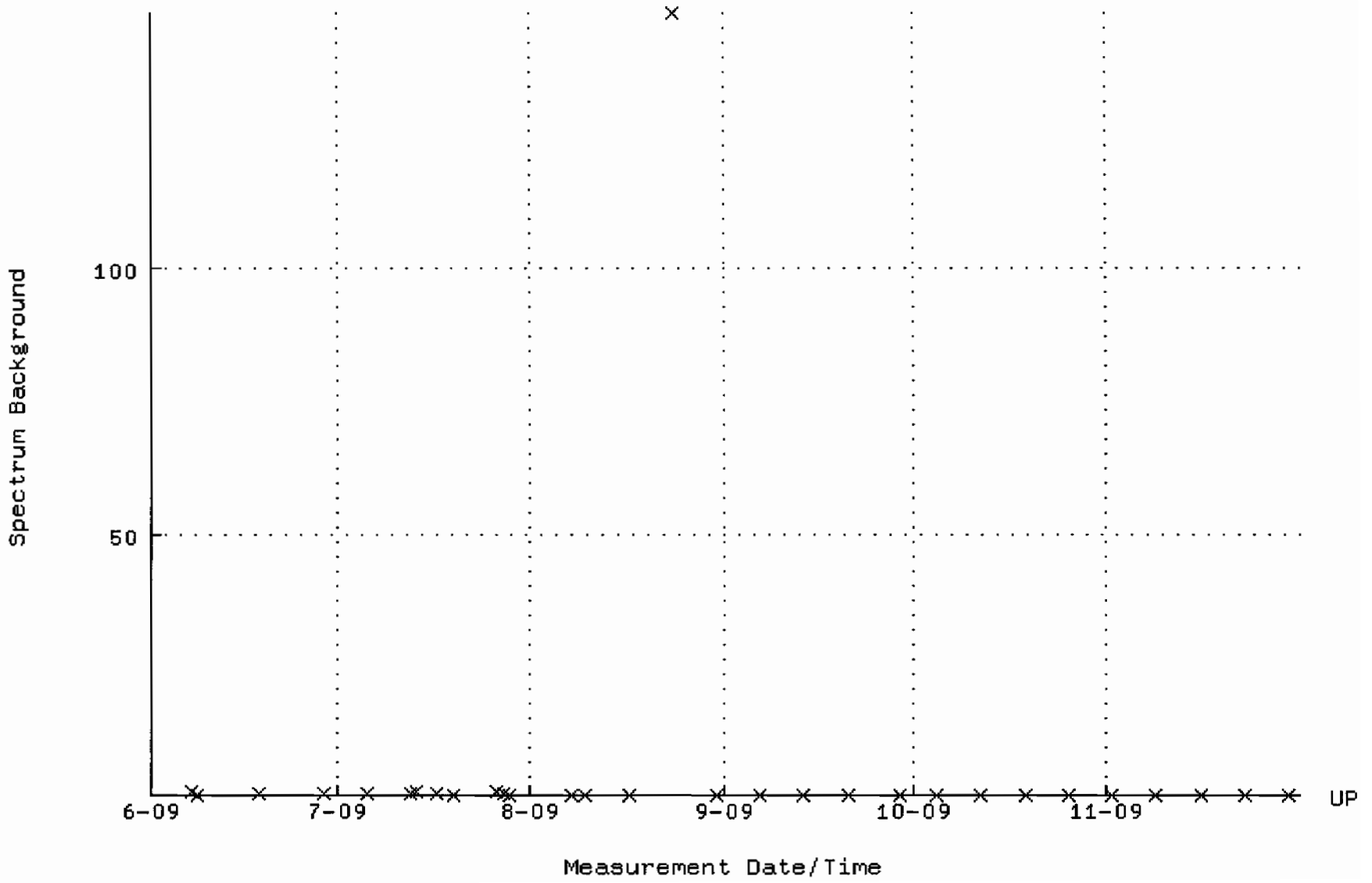

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM10_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-JUN-2009 11:56:58 through 1-DEC-2009 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

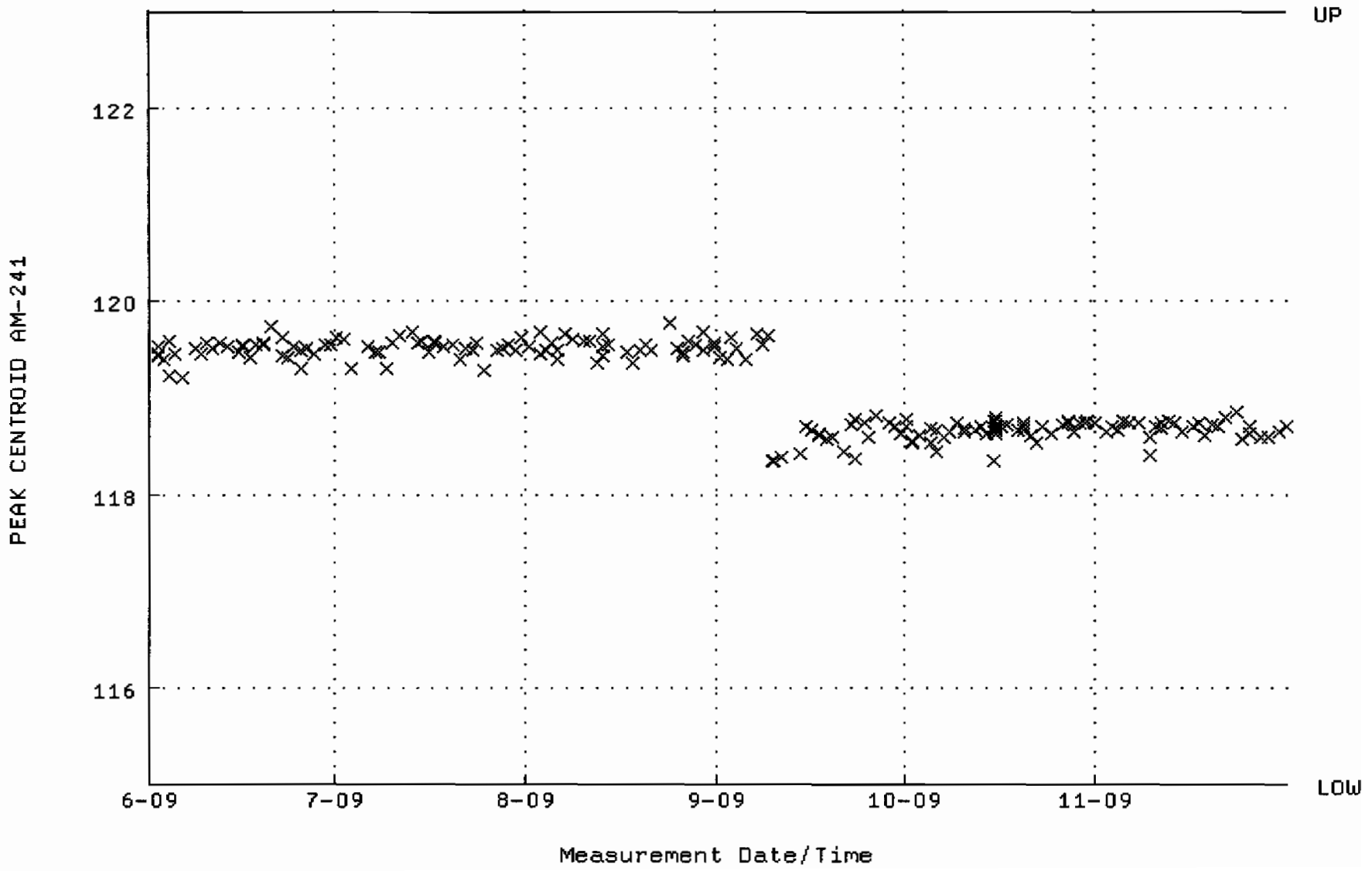

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM10.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 7-JUN-2009 15:42:14 through 1-DEC-2009 12:00:00
Lower/Upper Lmts: 1.36818 through 1.67222

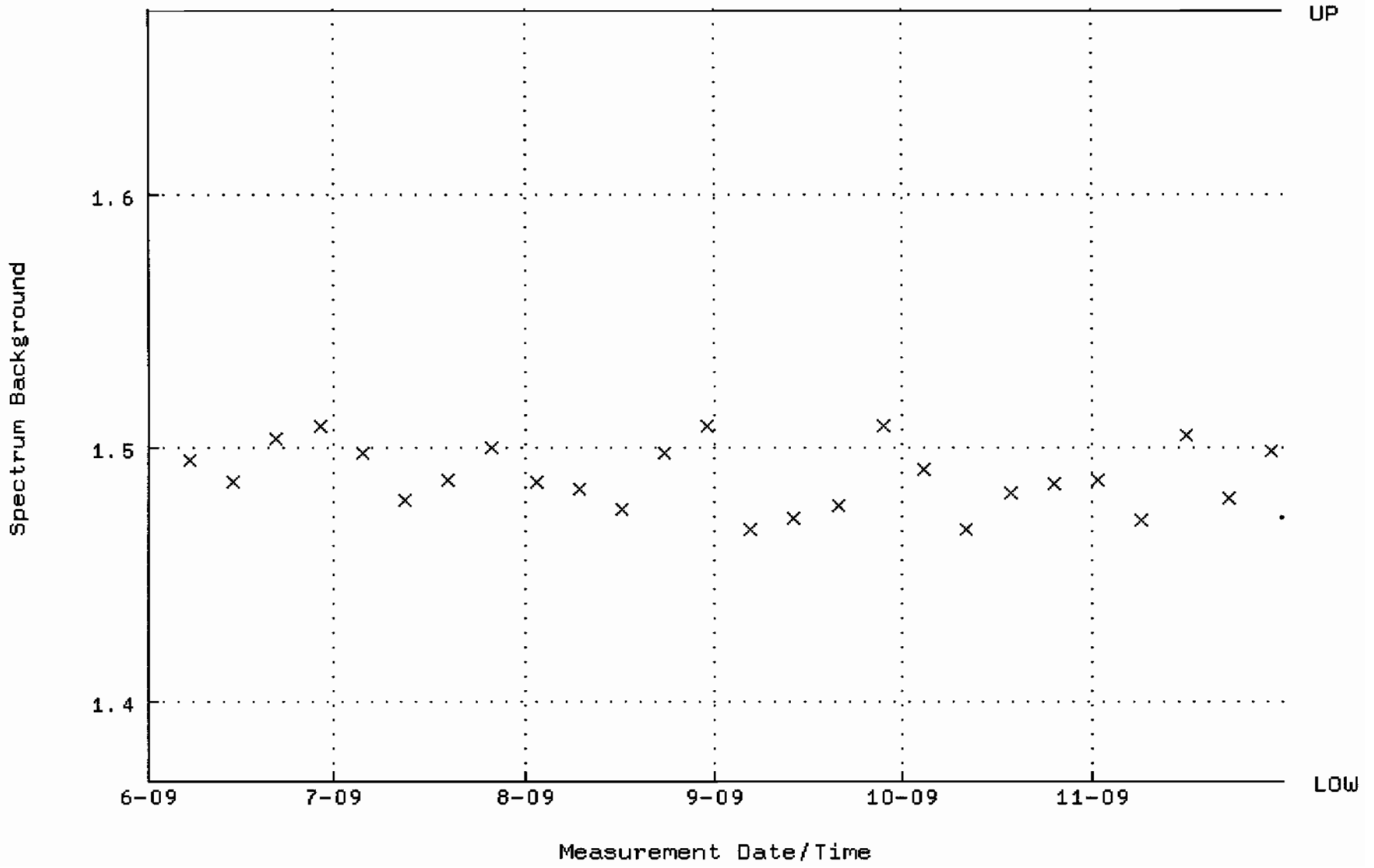

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM14_2LMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-JUN-2009 04:54:03 through 1-DEC-2009 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

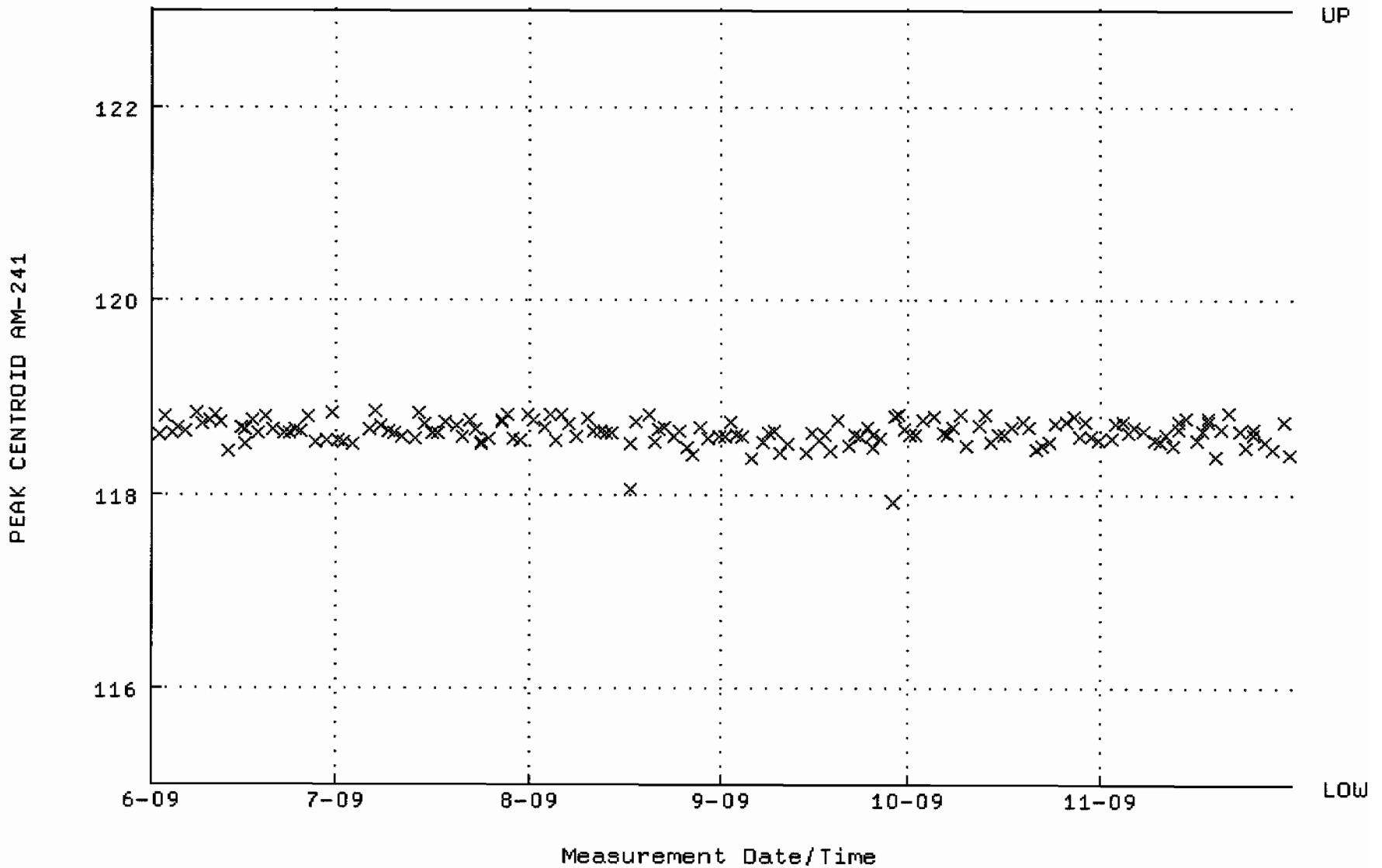

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM14.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 7-JUN-2009 15:40:30 through 1-DEC-2009 12:00:00
Lower/Upper Lmts: 1.34064 through 1.63856

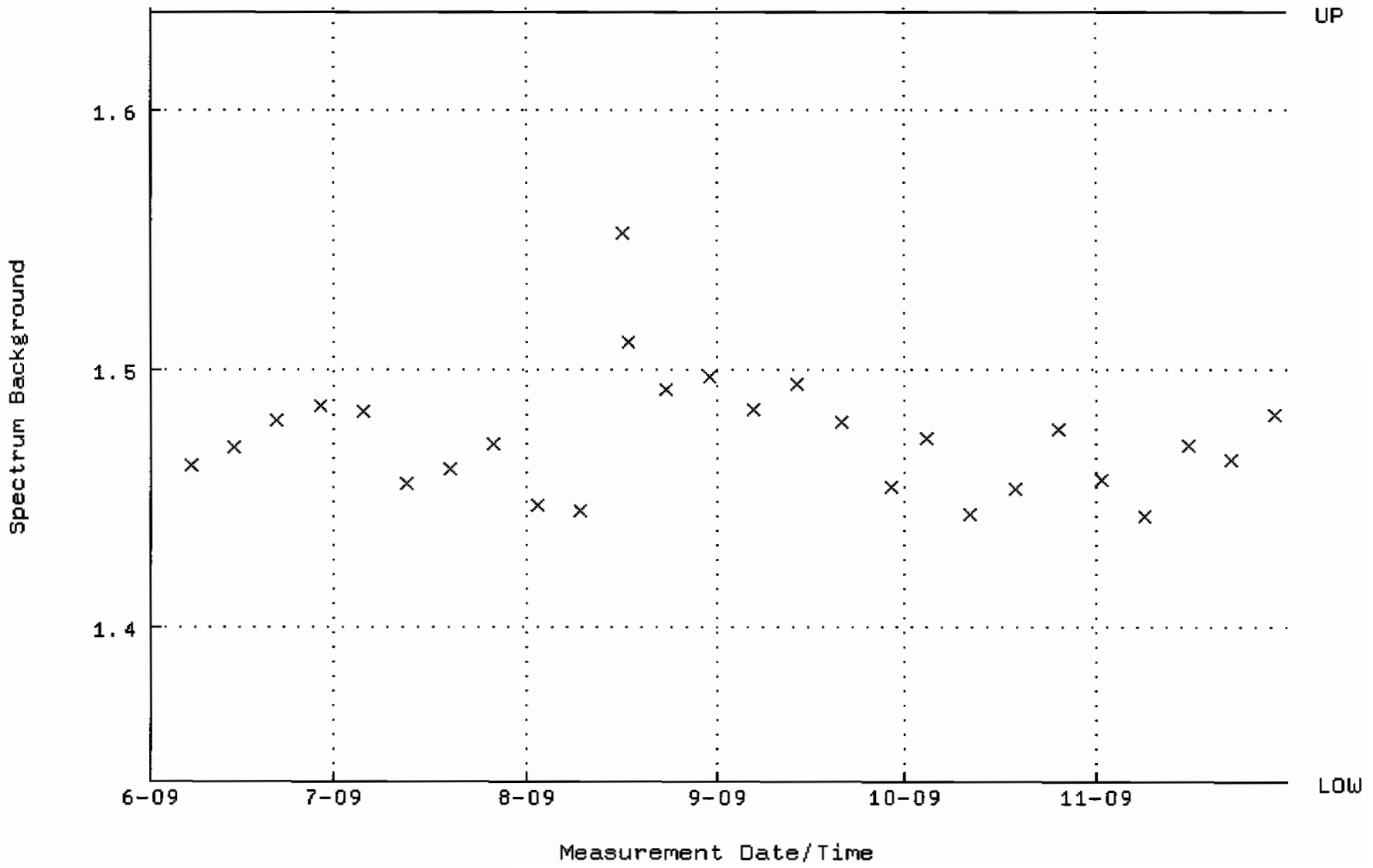

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM19_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-JUN-2009 05:40:19 through 1-DEC-2009 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

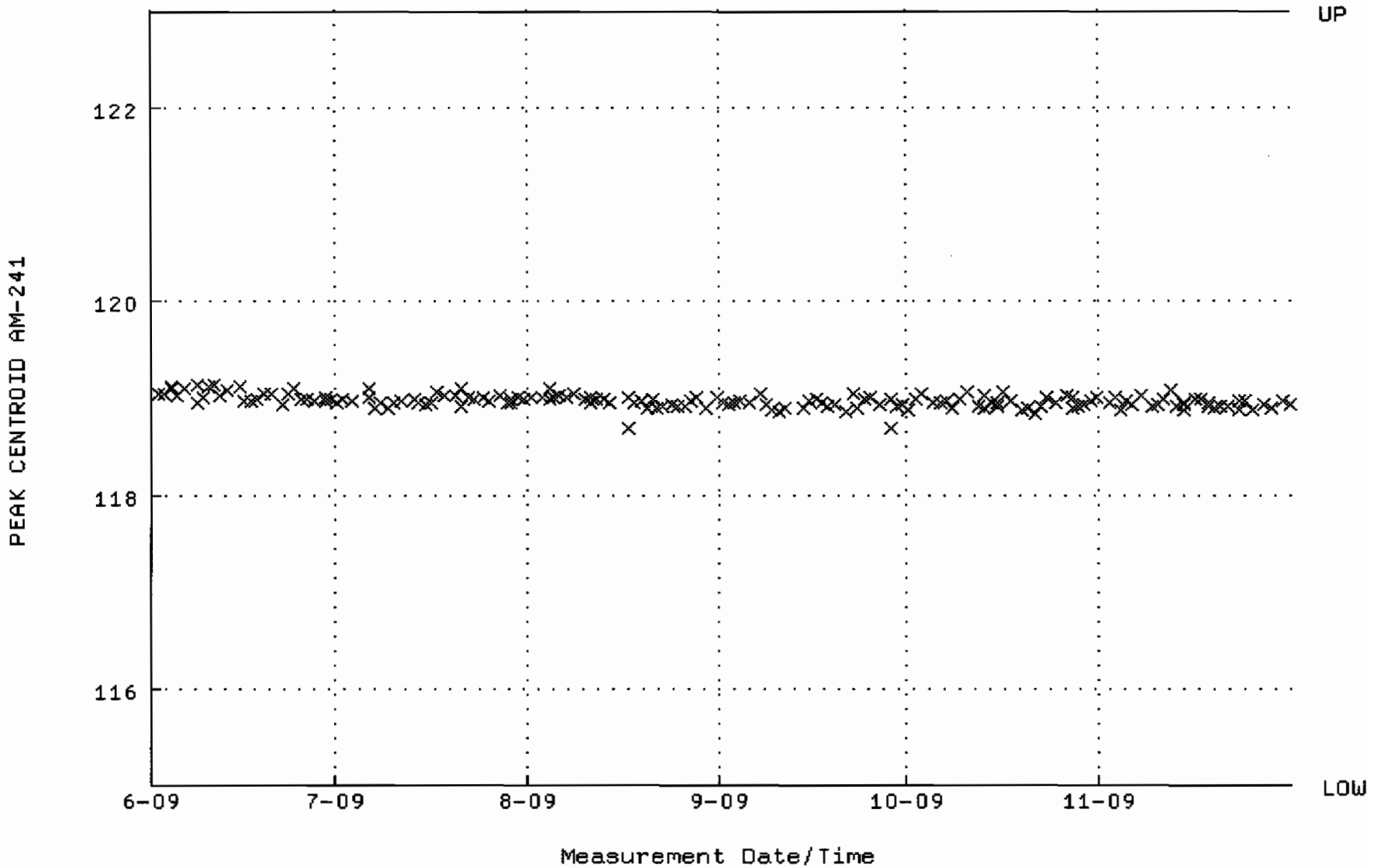

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM19.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 7-JUN-2009 15:44:41 through 1-DEC-2009 12:00:00
Lower/Upper Lmts: 1.28520 through 1.57080

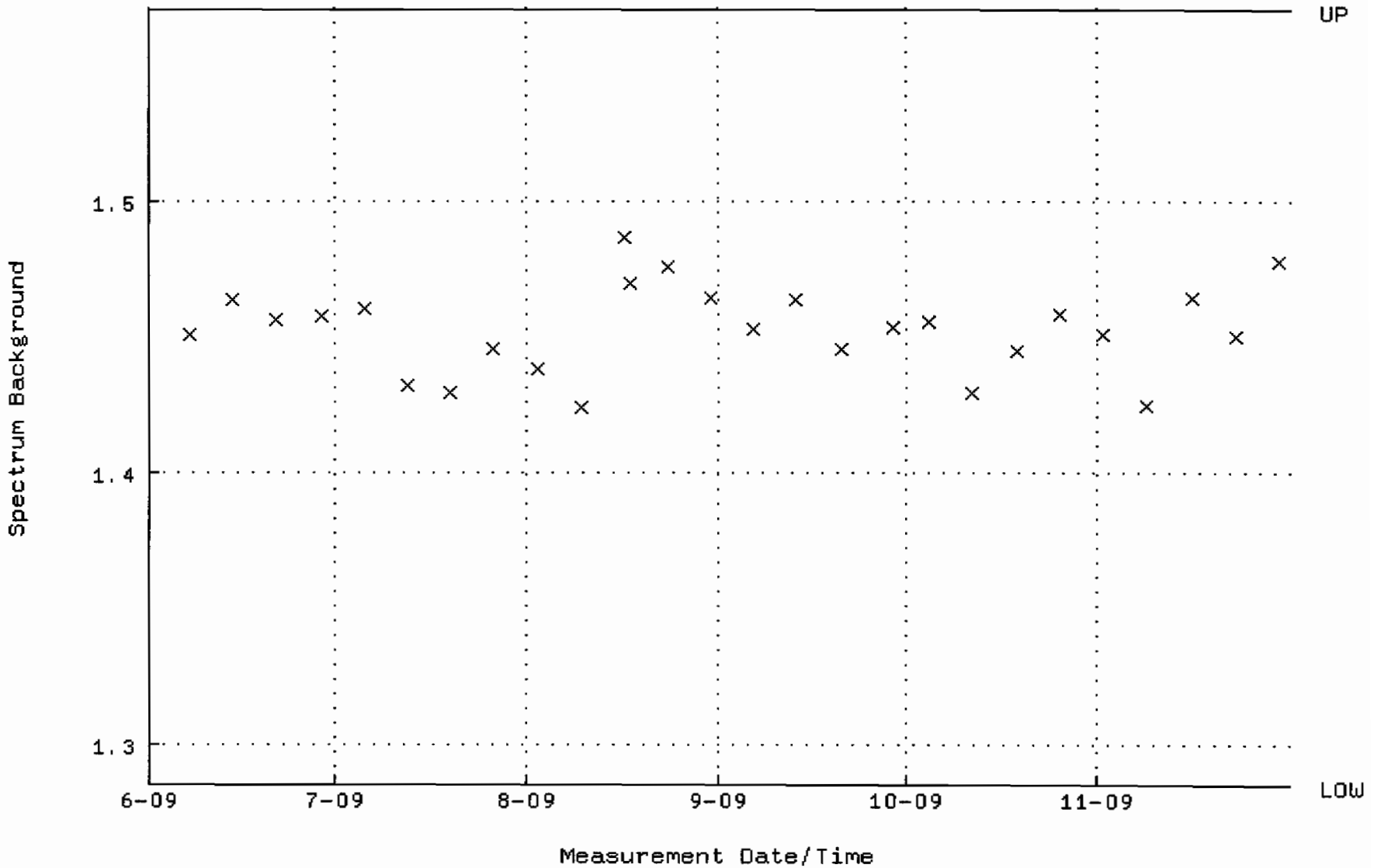

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM20_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-JUN-2009 05:15:18 through 1-DEC-2009 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

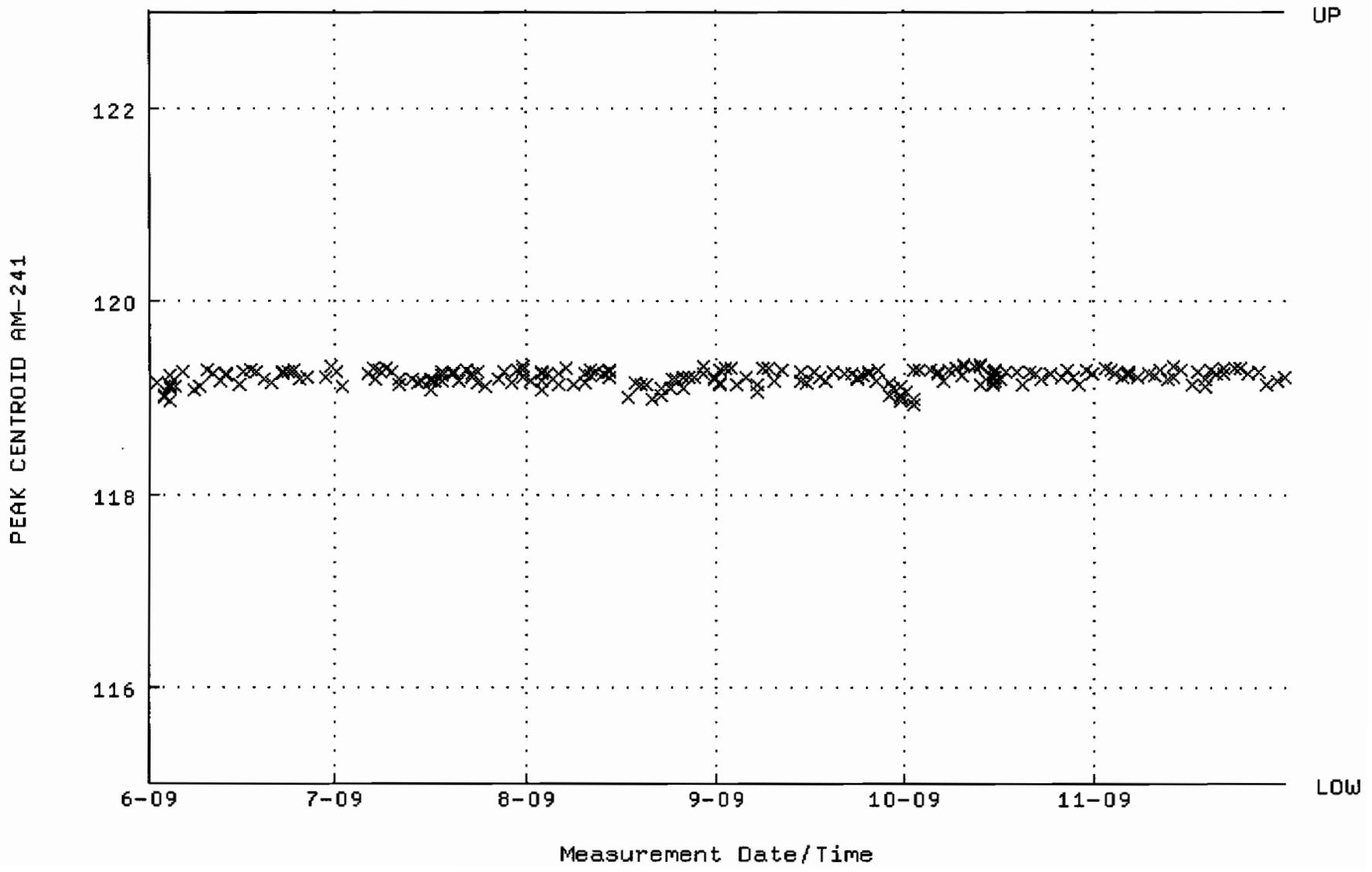

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM20.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 7-JUN-2009 15:44:58 through 1-DEC-2009 12:00:00
Lower/Upper Lmts: 1.33092 through 1.62668

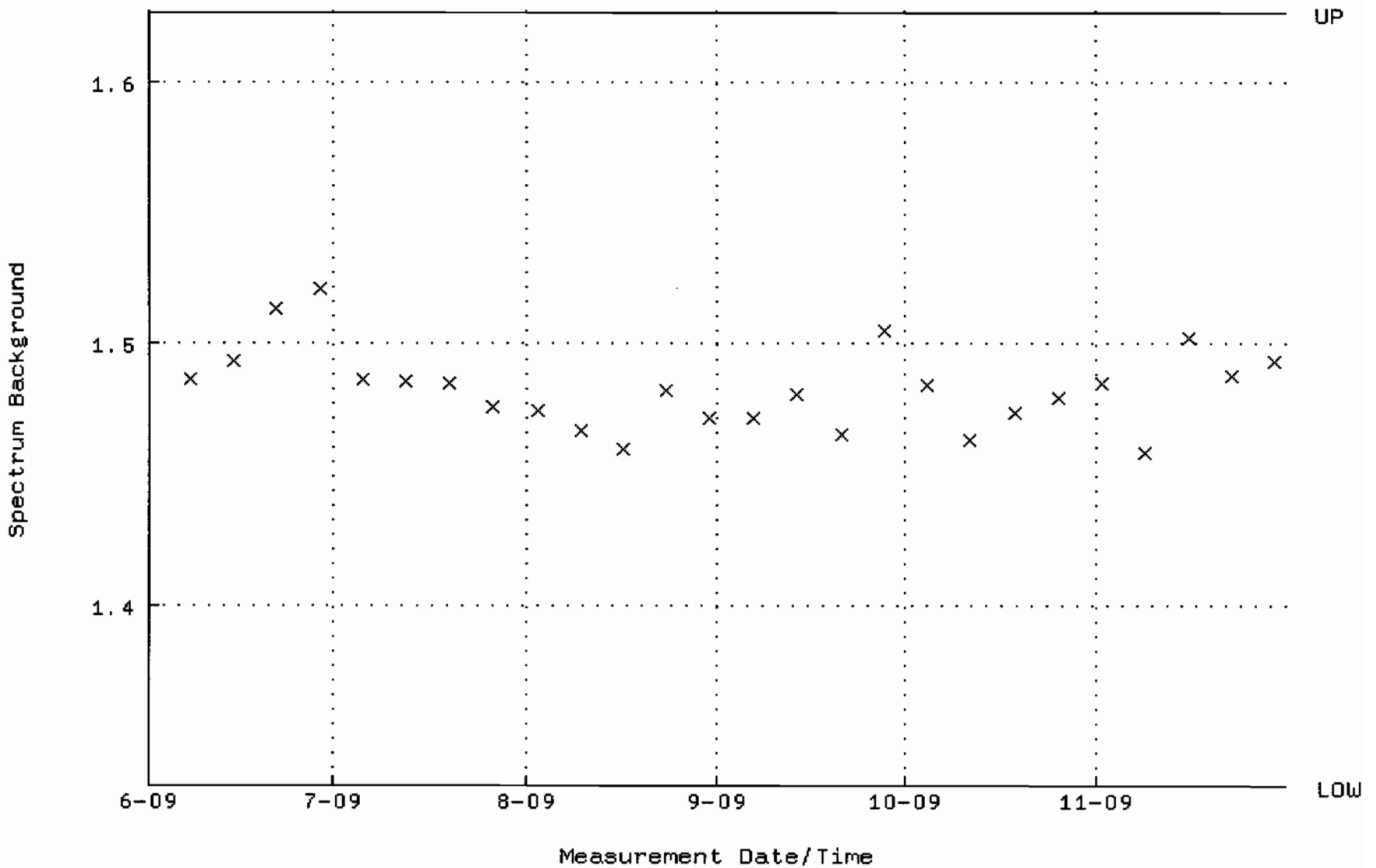

STANDARDS DATA

ANALYTICS
Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/30/06
RC-S-045-073-0

Service Laboratory
24937 Avenue Tibbitts, Valencia, California 91355
1380 Seaboard Industrial Blvd., Atlanta, Georgia 30318

ANALYTICS
An Isotope Products Laboratories Company

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ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- Ver. JAR-1
	Mixed Gamma N2	2510	pCi/L	- Ver. JAR-3
	Mixed Gamma N3	2413	pCi/L	- Ver. JAR-5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**	
Stdev =	64.065		**Rule 3 (Pass/Fail)**	
Certificate Value =	2485.68018	pCi/L		
Lower Limit =	2357.536524	pCi/L		
Upper Limit =	2613.796809	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	128.1301422			
10 % of Mean =	248.56666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2

Mean Value (Counting) =	886.90	**95.01**	**Pass**
Stdev =	28.651	**Rule 3 (Pass/Fail)**	

Certificate Value =	933.44144	pCi/L
Lower Limit =	829.597644	pCi/L
Upper Limit =	944.202356	pCi/L
Rule 1 (Pass/Fail)	**Pass**	
Two sigma =	57.30235597	
10 % of Mean =	88.69000000	
Rule 2 (Pass/Fail)	**Pass**	

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result	
	Mixed Gamma N1	1572	pCi/L - VER-JAR-5
	Mixed Gamma N2	1495	pCi/L - VER-JAR-2
	Mixed Gamma N3	1501	pCi/L - VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**
Stdev =	42.829	**Rule 3 (Pass/Fail)**	
Certificate Value =	1545.8378	pCi/L	
Lower Limit =	1437.008431	pCi/L	
Upper Limit =	1608.324902	pCi/L	
Rule 1 (Pass/Fail)	**Pass**		
Two sigma =	85.65823564		
10 % of Mean =	152.26666667		
Rule 2 (Pass/Fail)	**Pass**		

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0533

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 · U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

65338-278

Am-241 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Am-241
ACTIVITY (dps):	3.920 E4
HALF-LIFE:	4.322 E2 years
CALIBRATION DATE:	January 15, 2003 12:00 EST
TOTAL UNCERTAINTY*:	3.2%
SYSTEMATIC:	2.2%
RANDOM:	1.0%

*99% confidence level.

5.10649 grams 1M HCl solution.

Impurities: γ-impurities <0.1%
α-impurities <0.1%

P O NUMBER 3213 RD, Item 1

SOURCE PREPARED BY: MTaskaeva
M. Taskaeva, Radiochemist

Q A APPROVED: UM Mt 1-16-03

RC-S-035-048a

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0533
Prepared By:	Angela Johnson
Carrier Conc:	1 M HCL
Reference Date:	01/15/2003
Ampoule Mass (g):	5.10649 g
Uncertainty:	+/- 3.2 %
LogBook No:	RC S 035 048

A Solution Material Info	
Isotope:	Americium-241
Prepared By:	Angela Johnson
Prep Date:	02/05/2003
Verification Date:	09/29/2008
Expiration Date:	09/29/2009
Primary Code:	0533-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8225 g
Density(g/mL):	1.0139
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8225 g) * (39200 dps) * (60 dpm/dps) / (5.10649 g * 100 mL) = 22211.9695 dpm/mL
(4.8225 g) * (39200 dps) * (60 dpm/dps) / (1.0139 g/mL)/ (5.10649 g * 100 mL) = 21907.2185 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
02/20/2003	Angela Johnson	1.0151	100	0533-B	222.38 dpm/mL	03/01/2006	03/01/2007
02/20/2003	Angela Johnson	.6819	250	0533-C	59.754 dpm/mL	02/20/2004	02/20/2005
05/07/2003	Tim Chandler	.1245	100	0533-D	27.2745 dpm/mL	05/03/2004	05/03/2005
09/10/2004	Amanda Fehr	.6933	250	0533-E	60.753 dpm/mL	09/10/2005	09/10/2006
12/17/2004	Brenda Burke	.0093	100	0533-F	2.0374 dpm/mL	12/20/2004	12/20/2005
12/21/2004	Brenda Burke	.009273	100	0533-G	2.0315 dpm/mL	12/07/2005	12/07/2006
04/28/2005	Brenda Burke	.1347	100	0533-H	29.4598 dpm/mL	04/27/2006	04/27/2007
10/19/2005	Mary Aders	.6948	250	0533-I	60.7831 dpm/mL	10/18/2006	10/18/2007

05/08/2006	Julie Strock	.0711	100	0533-J	15.576 dpm/mL	05/10/2008	05/10/2009
05/11/2006	Brenda Burke	.00092601	100	0533-K	.20286 dpm/mL	08/02/2007	07/28/2007
11/15/2006	Tina Schoneman	.132	1000	0533-L	2.88586 dpm/mL	10/30/2008	10/30/2009
06/12/2007	Julie Strock	.000979	100	0533-M	.21448 dpm/mL	05/20/2009	05/20/2010
08/03/2007	Daniel Roy	.7042	250	0533-N	61.7083 dpm/ml	08/02/2008	08/02/2009
09/25/2008	Daniel Roy	1.4561	500	0533-O	63.7982 dpm/ml	09/10/2009	09/10/2010
09/29/2008	Tara Sides	.1004	100	0533-P	21.9948 dpm/mL	09/09/2009	09/09/2010
06/03/2009	Julie Strock	.0009751	100	0533-Q	.2136 dpm/mL	06/05/2009	06/03/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-241 Standard *0533-O*

M. Aders			
9/10/2009	**Isotope**	**Value**	**Uncertainty**
	0533-O #1	2.880	0.3960
	0533-O #2	2.820	0.3910
	0533-O #3	2.790	0.3840
Mean Value (Counting) =	2.830	0.9953264	
Stdev =	0.045825757		
Target =	2.84		
Lower Limit =	2.738348486		
Upper Limit =	2.921651514		
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**
Two sigma =	0.091651514		
10 % of Mean =	0.283		
Rule 2 (Pass/Fail)	**Pass**		

Rule 1 = The target value must lie within the average counting value concentration plus or minus two times the standard deviation of the three counting sources.
Rule 2 =The calculated value of two times the standard deviation of the concentration of the three counted sources must be less than 10% of the average concentration value.
Rule 3 = The determined mean value must be +/- 5% of the of the certificate value or within the uncertainty of the standards being verified.

The analyst prepared three standard verification sources for standard ***0533-O*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Am_243*** standard ***445-06-2-SS*** in a disposable centrifuge tube. 4 mL of 2M HCL was added and was diluted with 6 mL of DI water. 25 micrograms of neodymium carrier and two mL of 49% HF was added to precipitate neodymium (and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-241 were calculated by comparison to Am-243 certified values.

9/22/09

9/25/09

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Khan
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-~~004~~ 005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ **1. STANDARD WIPE TEST**

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **2. SOAK TEST**

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **3. SOAK TEST – BERYLLIUM WINDOW**

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **4. GAS SOURCE TEST (Radioactive Gas)**

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ **5. OTHER LEAK TEST**

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **6. LEAK TEST NOT APPLICABLE**

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	05/11/2009
Expiration Date:	05/11/2010
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Julie Strock	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/30/2008	09/29/2009
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-SS*

M. Aders	Isotope	Value	Uncertainty
5/15/2009	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590

Mean Value (Counting) =	1.340	101.99	**Pass**
Stdev =	0.043588989		**Rule 3 (Pass/Fail)**

Target =	1.314
Lower Limit =	1.252822021
Upper Limit =	1.427177979
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.087177979
10 % of Mean =	0.134
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-SS*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Mary Fridean 5/15/09
Rob Abrin 007509

0338

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 - U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

60513-278

Pu-239 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using an aliquot measured gravimetrically from a master radionuclide solution standard. The master radionuclide solution standard was calibrated by the Department Des Applications Et De La Metrologie Des Rayonnements Ionisants (DAMRI), Paris, France, as Number 24148.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Pu-239
ACTIVITY (dps):	3.674 E4
HALF-LIFE:	24131 years
CALIBRATION DATE:	October 30, 2000 12:00 EST
TOTAL UNCERTAINTY*:	5.0%

*99% confidence level.

5.45541 grams 3M HNO_3 solution.

Impurities detected (activity in dps/vial on Oct. 30, 2000):

Am-241 297.28
Pu-240 1208.8
Pu-241 2010.7
Pu-242 0.17

See reverse side for additional information.

P O NUMBER 2528RD, Item 1

PREPARED BY: M. Taskaeva
M. Taskaeva, Radiochemist

Q A APPROVED: RCWlw 11/13/00

RC-S-028-167

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0338
Prepared By:	Penet Melton
Carrier Conc:	3 M HNO3
Reference Date:	10/30/2000
Ampoule Mass (g):	5.45541 g
Uncertainty:	+/- 5 %
LogBook No:	RC S 027 167

A Solution Material Info	
Isotope:	Plutonium-239
Prepared By:	Penet Melton
Prep Date:	12/01/2000
Verification Date:	09/29/2008
Expiration Date:	09/29/2009
Primary Code:	0338-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.1674 g
Density(g/mL):	1.0121
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL | dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)

(5.1674 g) * (36740 dps) * (60 dpm/dps) / (5.45541 g * 100 mL) = 20880.2208 dpm/mL

(5.1674 g) * (36740 dps) * (60 dpm/dps) / (1.0121 g/mL)/ (5.45541 g * 100 mL) = 20630.6111 dpm/g

(5.1674 g) * (37948.8 dps) * (60 dpm/dps) / (5.45541 g * 100 mL) = 21567.2108 dpm/mL

(5.1674 g) * (37948.8 dps) * (60 dpm/dps) / (1.0121 g/mL)/ (5.45541 g * 100 mL) = 21309.3885 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
06/23/2009	Mary Aders	.591	250	0338-BB	50.3753 dpm/mL	06/23/2009	06/23/2010
10/29/2001	Tim Chandler	.3032	250	0338-E		10/16/2003	10/16/2004
12/30/2002	Tim Chandler	10.0252	100	0338-I		10/24/2003	10/24/2004
08/12/2003	Amanda Fehr	.2282	100	0338-K		08/12/2003	08/12/2004
12/09/2003	Amanda Fehr	.2409	100	0338-L		12/09/2003	12/09/2004

03/18/2004	Tim Chandler	10.0192	500	0338-M		03/18/2004	03/18/2005
04/26/2004	Amanda Fehr	.643	250	0338-N		04/26/2005	04/26/2006
05/26/2004	Eric Williamson	.355	250	0338-O	30.2619 dpm/mL	05/17/2007	05/17/2008
12/20/2004	Brenda Burke	.01957	100	0338-P	4.16992 dpm/mL	12/19/2006	12/19/2007
03/16/2005	Julie Strock	10.0395	100	0338-Q	2139.558 dpm/mL	06/12/2008	06/12/2009
07/19/2005	Amanda Fehr	.677	250	0338-R		07/10/2006	07/10/2007
05/11/2006	Brenda Burke	.0009935	100	0338-S	.21172 dpm/mL	07/30/2007	07/28/2007
01/04/2007	Julie Strock	.050286	250	0338-T	4.2887 dpm/mL	12/31/2007	12/31/2008
01/05/2007	Daniel Roy	.7285	250	0338-U		01/05/2008	01/05/2009
03/16/2005	Julie Strock	.010175	1000	0338-V	.216847 dpm/mL	04/23/2009	04/23/2010
05/15/2007	Eric Williamson	.253	250	0338-W	21.567 dpm/mL	05/21/2009	05/21/2010
07/31/2007	Julie Strock	.0010045	100	0338-X	.21379 dpm/mL	12/31/2007	12/31/2008
12/10/2008	Daniel Roy	.7715	250	0338-Y		12/10/2008	12/10/2009
09/29/2008	Julie Strock	.0504	250	0338-Z	4.29599 dpm/mL	09/30/2008	09/29/2009

Verification for Plutonium-239 Standard *0338-BB*

Analyst: M. Aders	**Serial #**	**Value**	**Uncertainty**
Date: 6/25/09	0338-BB #1	2.350	0.2960
	0338-BB #2	2.190	0.2210
	0338-BB #3	2.300	0.2920
Mean Value (Counting) =	2.280	103.80917	**Pass**
Stdev =	0.081853528		
Target =	2.196		
Lower Limit =	2.116292945		
Upper Limit =	2.443707055		
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**
Two sigma =	0.163707055		
10 % of Mean =	0.228		
Rule 2 (Pass/Fail)	**Pass**		

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements.
Rule 2 = The two sigma value used for the 95% cinfidence interval shall not exceed 10% of the mean value of the three measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three Pu-239 standard verification sources for standard ***0338-BB*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Pu-242*** standard ***1262-A*** and was diluted in a disposable centrifuge tube with 4 mL of 2 M HCl, and 6 mL of DI water, 50 micrograms of Nd carrier and 5 drops of hydrazine dihydrochloride were added to the centrifuge tube and swirled. After waiting ten minutes, two mL of 49% HF was added to precipitate Nd(and ***plutonium***) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for ***Pu-239*** were calculated by comparison to ***Pu-242*** certified values.

Mary L. Adams 6/26/09

Robert R 06 26 09

1374

National Institute of Standards & Technology
Certificate

Standard Reference Material 4334H
Plutonium-242 Radioactivity Standard

This Standard Reference Material (SRM) consists of radioactive plutonium-242 nitrate and nitric acid dissolved in 5 mL of distilled water. The solution is contained in a flame-sealed NIST borosilicate-glass ampoule. The SRM is intended for the calibration of alpha-particle counting instruments and for the monitoring of radiochemical procedures.

Radiological Hazard: The SRM ampoule contains plutonium-242 with a total activity of approximately 150 Bq. Plutonium-242 decays by alpha-particle emission. None of the alpha particles escape from the SRM ampoule. During the decay process, X-rays and gamma rays with energies from 10 keV to 160 keV are also emitted. Most of these photons escape from the SRM ampoule but their intensities are so small that they do not represent a radiation hazard. Approximate unshielded dose rates at several distances (as of the reference time) are given in note [a]*. The SRM should be used only by persons qualified to handle radioactive material.

Chemical Hazard: The SRM ampoule contains nitric acid (HNO_3) with a concentration of 3 moles per liter of water. The solution is corrosive and represents a health hazard if it comes in contact with eyes or skin. If the ampoule is to be opened to transfer the solution, the recommended procedure is given on page 2. The ampoule should be opened only by persons qualified to handle both radioactive material and strong acid solution.

Storage and Handling: The SRM should be stored and used at a temperature between 5 °C and 65 °C. The solution in an unopened ampoule should remain stable and homogeneous until at least January 2015. The ampoule (or any subsequent container) should always be clearly marked as containing radioactive material. If the ampoule is transported it should be packed, marked, labeled, and shipped in accordance with the applicable national, international, and carrier regulations. The solution in the ampoule is a dangerous good (hazardous material) both because of the radioactivity and because of the strong acid.

Preparation: This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

RECEIVED 4/12/04

Lisa R. Karam, Acting Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
January 2005

Robert L. Watters, Jr., Chief
Measurement Services Division

*Notes and references are on pages 5 to 7.

DC-SCST-C13

Recommended Procedure for Opening the SRM Ampoule

1) If the SRM solution is to be diluted, it is recommended that the diluting solution have a composition comparable to that of the SRM solution.

2) Wear eye protection, gloves, and protective clothing and work over a tray with absorbent paper in it. Work in a fume hood. In addition to the radioactive material, the solution contains strong acid and is corrosive.

3) Shake the ampoule to wet all of the inside surface of the ampoule. Return the ampoule to the upright position.

4) Check that all of the liquid has drained out of the neck of the ampoule. If necessary, gently tap the neck to speed the process.

5) Holding the ampoule upright, score the narrowest part of the neck with a scribe or diamond pencil.

6) Lightly wet the scored line. This reduces the crack propagation velocity and makes for a cleaner break.

7) Hold the ampoule upright with a paper towel, a wiper, or a support jig. Position the scored line away from you. Using a paper towel or wiper to avoid contamination, snap off the top of the ampoule by pressing the narrowest part of the neck away from you while pulling the tip of the ampoule towards you.

8) Transfer the solution from the ampoule using a pycnometer or a pipet with dispenser handle. NEVER PIPETTE BY MOUTH.

9) Seal any unused SRM solution in a flame-sealed glass ampoule, if possible, to minimize the evaporation loss.

See also reference [4]*.

*Notes and references are on pages 5 to 7.

PROPERTIES OF SRM 4334H

Certified values

Radionuclide	**Plutonium-242**
Reference time	**1200 EST, 07 June 1994 [b]***
Massic activity of the solution [c]	**26.31 $Bq \cdot g^{-1}$**
Relative expanded uncertainty (k=2)	**0.72% [d] [e]**
Solution density	**(1.105 ± 0.002) $g \cdot mL^{-1}$ at 20 °C [f]**

Uncertified values

Physical Properties:			
Source description	Liquid in flame-sealed NIST borosilicate-glass ampoule		
Ampoule specifications	Body outside diameter Wall thickness Barium content Lead-oxide content Other heavy elements	(16.5 ± 0.5) mm (0.60 ± 0.04) mm Less than 2.5% Less than 0.02% Trace quantities	
Solution mass	Approximately 5.5 g		
Chemical Properties:			
Solution composition	Chemical Formula	Concentration ($mol \cdot L^{-1}$)	Mass Fraction ($g \cdot g^{-1}$)
	H_2O HNO_3 $^{242}Pu^{+6}$	50 3.2 8×10^{-7}	0.81 0.19 2×10^{-7}
Radiological Properties:			
Alpha-particle-emitting impurities	None detected [g] [h]. See table on page 5.		
Beta-particle-emitting impurities	Plutonium-241: (0.092 ± 0.018) $Bq \cdot g^{-1}$ [f] [h]		
Photon-emitting impurities	None detected [i]		
Half lives used	Plutonium-242: (373 500 ± 1100) a [j] [5] Plutonium-241: (14.35 ± 0.10) a [j] [5] Americium-241: (432.2 ± 0.7) a [j] [5]		
Calibration method and measuring instrument(s)	Three 4πα liquid-scintillation counters, a calibrated germanium detector system, and a silicon surface-barrier detector		

*Notes and references are on pages 5 to 7.

EVALUATION OF THE UNCERTAINTY OF THE MASSIC ACTIVITY [d] [e]*

Input Quantity x_i, the source of uncertainty (and individual uncertainty components where appropriate)	Method Used To Evaluate $u(x_i)$, the standard uncertainty of x_i (A) denotes evaluation by statistical methods (B) denotes evaluation by other methods	Relative Uncertainty Of Input Quantity, $u(x_i)/x_i$, (%) [k]	Relative Sensitivity Factor, $\lvert\partial y/\partial x_i\rvert \cdot (x_i/y)$ [m]	Relative Uncertainty Of Output Quantity, $u_i(y)/y$, (%) [n]
Massic alpha-particle emission rate, corrected for background and decay	Standard deviation of the mean for 80 sets of $4\pi\alpha$ liquid-scintillation measurements (A)	0.05	1.0	0.05
Half life of Pu-242	Standard uncertainty of the half life (A)	0.32 [p]	0.00001 [q]	0.000003
Decay-scheme data	Standard uncertainty of the probability of decay by alpha-particle emission (A)	0.001	1.0	0.001
Extrapolation of alpha-particle-count-rate-versus-energy to zero energy	Estimated (B)	0.25	1.0	0.25
Gravimetric measurements	Estimated (B)	0.10	1.0	0.10
Live time [r]	Estimated (B)	0.10	1.0	0.10
Alpha-particle detection efficiency of scintillators	Estimated (B)	0.15	1.0	0.15
Alpha-particle-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Photon-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Relative Combined Standard Uncertainty of the Output Quantity, $u_c(y)/y$, (%)				0.36
Coverage Factor, k				x 2
Relative Expanded Uncertainty of the Output Quantity, U/y, (%)				0.72

*Notes and references are on pages 5 to 7.

RELATIVE ACTIVITIES OF RADIONUCLIDIC IMPURITIES AT THE REFERENCE TIME [b]

Radionuclide	Half Life (years) [j] [5]	Relative Activity As Determined By	
		LLNL	NIST
Plutonium-242	373 500 ± 1100	1.000 000	1.000 000
Plutonium-241	14.35 ± 0.10	- -	0.0035 ± 0.0004 [t]
Plutonium-240	6 564 ± 11	^{239}Pu + ^{240}Pu <0.000 001 [u]	^{239}Pu + ^{240}Pu 0.000 020 ± 0.000 021 [v]
Plutonium-239	24 110 ± 30		
Plutonium-238	87.7 ± 0.1	^{238}Pu + ^{241}Am <0.000 016 [u]	0.000 009 ± 0.000 016 [v]
Americium-241	432.2 ± 0.7		0.000 000 assumed [t]

NOTES

[a] The Sievert is the SI unit for dose equivalent. See reference [1]. One µSv is equal to 0.1 mrem.

Distance from Ampoule (cm):	1	30	100
Approximate Dose Rate (µSv/h):	<0.1	-	-

[b] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994.

[c] **Massic activity** is the preferred name for the quantity activity divided by the total mass of the sample. See reference [1].

[d] The reported value, y, of massic activity (activity per unit mass) at the reference time was not measured directly but was derived from measurements and calculations of other quantities. This can be expressed as $y = f(x_1, x_2, x_3, \ldots x_n)$, where f is a mathematical function derived from the assumed model of the measurement process. The value, x_i, used for each input quantity i has a **standard uncertainty**, $u(x_i)$, that generates a corresponding uncertainty in y, $u_i(y) \equiv |\partial y/\partial x_i| \cdot u(x_i)$, called a **component of combined standard uncertainty** of y. The **combined standard uncertainty** of y, $u_c(y)$, is the positive square root of the sum of the squares of the components of combined standard uncertainty. The combined standard uncertainty is multiplied by a **coverage factor** of $k = 2$ to obtain U, the **expanded uncertainty** of y.

Since it can be assumed that the possible estimated values of the massic activity are approximately normally distributed with approximate standard deviation $u_c(y)$, the unknown value of the massic activity is believed to lie in the interval $y \pm U$ with a level of confidence of approximately 95 percent.

For further information on the expression of uncertainties, see references [2] and [3].

[e] The value of each component of combined standard uncertainty, and hence the value of the expanded uncertainty itself, is a best estimate based upon all available information, but is only approximately known. That is to say, the "uncertainty of the uncertainty" is large and not well known. This is true for uncertainties evaluated by statistical methods (e.g., the relative standard deviation of the standard deviation of the mean for the massic response is approximately 50%) and for uncertainties evaluated by other methods (which could easily be over estimated or under estimated by substantial amounts). The unknown value of the expanded uncertainty is believed to lie in the interval $U/2$ to $2U$ (i.e., within a factor of 2 of the estimated value).

[f] The stated uncertainty is two times the standard uncertainty.

[g] Estimated limits of detection for alpha-particle-emitting impurities, expressed as massic alpha-particle emission rates (numbers of alpha particles per second per gram), are:
0.003 $s^{-1} \cdot g^{-1}$ for energies less than 3.1 MeV,
0.03 $s^{-1} \cdot g^{-1}$ for energies between 3.1 and 4.4 MeV, and
0.003 $s^{-1} \cdot g^{-1}$ for energies greater than 5.0 MeV.

[h] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994. Americium-241, the daughter of plutonium-241, was removed but has been growing in since that time.

[i] Estimated limits of detection for photon-emitting impurities, expressed as massic photon emission rates (numbers of photons per second per gram), are:
5×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 19 and 39 keV,
7×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 49 and 92 keV,
2×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 106 and 507 keV,
1×10^{-5} $s^{-1} \cdot g^{-1}$ for energies between 515 and 1456 keV, and
5×10^{-6} $s^{-1} \cdot g^{-1}$ for energies between 1465 and 2750 keV,
provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of plutonium-242, plutonium-241, or americium-241.

[j] The stated uncertainty is the standard uncertainty.

[k] Relative standard uncertainty of the input quantity x_i.

[m] The relative change in the output quantity y divided by the relative change in the input quantity x_i. If $|\partial y/\partial x_i| \cdot (x_i/y) = 1.0$, then a 1% change in x_i results in a 1% change in y. If $|\partial y/\partial x_i| \cdot (x_i/y) = 0.05$, then a 1% change in x_i results in a 0.05% change in y.

[n] Relative component of combined standard uncertainty of output quantity y, rounded to two significant figures or less. The relative component of combined standard uncertainty of y is given by $u_i(y)/y \equiv |\partial y/\partial x_i| \cdot u(x_i)/y = |\partial y/\partial x_i| \cdot (x_i/y) \cdot u(x_i)/x_i$. The numerical values of $u(x_i)/x_i$, $|\partial y/\partial x_i| \cdot (x_i/y)$, and $u_i(y)/y$, all dimensionless quantities, are listed in columns 3, 4, and 5, respectively. Thus, the value in column 5 is equal to the value in column 4 multiplied by the value in column 3. The input quantities are independent, or very nearly so. Hence the covariances are zero or negligible.

[p] The relative standard uncertainty of $\lambda \cdot t$ is determined by the relative standard uncertainty of λ (i.e., of the half life). The relative standard uncertainty of t is negligible.

[q] $|\partial y/\partial x_i| \cdot (x_i/y) = |\lambda \cdot t|$

[r] The live time is determined by counting the pulses from a gated crystal-controlled oscillator.

[s] The standard uncertainty for each undetected impurity that might reasonably be expected to be present is estimated to be equal to the estimated limit of detection for that impurity, i.e. $u(x_i)/x_i$ = 100%. $|\partial y/\partial x_i| \cdot (x_i/y)$ = {(response per Bq of impurity)/(response per Bq of Pu-242)}·{(Bq of impurity)/(Bq of Pu-242)}. Thus $u_i(y)/y$ is the relative change in y if the impurity were present with a massic activity equal to the estimated limit of detection.

[t] The stated uncertainty is the standard uncertainty. The plutonium-241 activity was calculated from a gamma-ray measurement of the americium-241 ingrowth as of 25 November 1998, assuming that americium-241 was completely removed at the time of chemical purification.

[u] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The value shown is an estimated upper limit based upon background and counting statistics. Measurements were made at the Lawrence Livermore National Laboratory (LLNL) in July of 1994.

[v] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The stated uncertainty is the standard uncertainty. Measurements were made at the National Institute of Standards and Technology (NIST) in June and July of 1999.

REFERENCES

[1] International Organization for Standardization (ISO), *ISO Standards Handbook - Quantities and Units*, 1993. Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B.N. Taylor and C.E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

[4] National Council on Radiation Protection and Measurements Report No. 58, *A Handbook of Radioactivity Measurements Procedures*, Second Edition, 1985. Available from the National Council on Radiation Protection and Measurements, 7910 Woodmont Avenue, Bethesda, MD 20814 U.S.A.

[5] Evaluated Nuclear Structure Data File (ENSDF), January 2005.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1374
Prepared By:	Mary Aders
Carrier Conc:	0.5M HNO3
Reference Date:	06/07/1994
Ampoule Mass (g):	5.5 g
Uncertainty:	+/- .72 %
LogBook No:	RC-S-051-093

A Solution Material Info	
Isotope:	Plutonium-242
Prepared By:	Ashley Drochter
Prep Date:	12/02/2009
Verification Date:	12/08/2009
Expiration Date:	12/08/2010
Primary Code:	1374-A
Dilution(mL):	250 mL
Mass of Parent(g):	5.3616 g
Density(g/mL):	1.0136
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3616 g) * (26.31 Bq/g) * (60 dpm/Bq) / (250 mL) = 33.8553 dpm/mL
(5.3616 g) * (26.31 Bq/g) * (60 dpm/Bq) / (1.0136 g/mL) / (250 mL) = 33.4010 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Pu-242 Standard 1374-*A*

A.Drochter	Isotope	Value	Uncertainty
12/8/2009	1374-A	1.610	0.2480
	1374-A	1.580	0.2510
	1374-A	1.530	0.2440

Mean Value (Counting) =	1.573	103.17	**Pass**
Stdev =	0.040414519		**Rule 3 (Pass/Fail)**

Target =	1.52
Lower Limit =	1.492504296
Upper Limit =	1.654162371
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.080829038
10 % of Mean =	0.157333333
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for standard 1374-A using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. Two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-242 were calculated by comparison to Pu-239 certified values.

not called
12/9/09
12/9/09

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404-352-8677
Fax 404-352-2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1067

74463-278

Sr-90 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Sr-90
ACTIVITY (Bq):	3.835 E4
HALF-LIFE:	28.79 years
CALIBRATION DATE:	February 7, 2007 12:00 EST
RELATIVE EXPANDED UNCERTAINTY (k=2):	1.7%

Impurities: γ-impurities <0.1%

5.01066 grams 0.1M HCl solution with 30 μg/g Sr carrier.

NOTE: This source also contains Y-90 in secular equilibrium with Sr-90. The Y-90 activity is equal to the Sr-90 activity. Since Sr-90 and Y-90 both decay 100% by beta emission, the total beta emission rate for the source is twice the certified Sr-90 activity. The half-life for Y-90 is 64.08 hours.

P O NUMBER 2739 RD, Item 1

RECEIVED 2/8/07

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 2-7-07

RC-S-045-108-A

Corporate Office
24937 Avenue Tibbitts Valencia, California 91355

Laboratory
1380 Seaboard Industrial Blvd. Atlanta, Georgia, 30318

Standard Traceability Log Rad

Source Material Info

Parent Code:	1067
Prepared By:	Daniel Roy
Carrier Conc:	0.1M HCl
Reference Date:	02/07/2007
Ampoule Mass (g):	5.01066 g
Uncertainty:	+/- 1.7 %
LogBook No:	RC-S-045-108

A Solution Material Info

Isotope:	Strontium-90
Prepared By:	Julie Strock
Prep Date:	10/12/2007
Verification Date:	06/17/2009
Expiration Date:	06/23/2010
Primary Code:	1067-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.9657 g
Density(g/mL):	0.9962
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (bq)) * (conversion dpm to bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)

(Mass of parent(g)) * (Parm Activity (bq)) * (conversion dpm to bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)

(4.9657 g) * (38350 bq) * (60 dpm/bq) / (5.01066 g * 100 mL) = 22803.5343 dpm/mL

(4.9657 g) * (38350 bq) * (60 dpm/bq) / (0.9962 g/mL)/ (5.01066 g * 100 mL) = 22889.8293 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/23/2008	Daniel Roy	20.0611	1000	1067-B	459.1952 dpm/ml	07/23/2008	07/23/2009
06/16/2009	Mary Aders	20.0693	1000	1067-C	459.3829 dpm/mL	06/17/2009	06/17/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Sr-90 Standard 1067-C

6/18/2009	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (mL)	Source DPM/mL
M. Aders	1067-C N1	922.6000	45.1300	877.4700	2.030242	1.0000	432.1997082
	1067-C N2	905.2700	45.1300	860.1400	2.030242	1.0000	423.66378
	1067-C N3	918.2700	45.1300	873.1400	2.030242	1.0000	430.0669575
						Average =	428.6434819
Mean Value (Counting) =	428.6434819		**98.7965109**	**% of known**	**Pass**		
Stdev =	4.442435123		0.01036394				
Certificate Value =	433.865	dpm/mL					
Lower Limit =	419.7586117	dpm/mL					
Upper Limit =	437.5283522	dpm/mL					
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**				
Two sigma =	8.884870247						
10 % of Mean =	42.86434819						
Rule 2 (Pass/Fail)	**Pass**						

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for Sr-90 source 1067-C by transferring 1 mL portions of the standard into glass liquid scintillation vials. Thirteen mL of Ecoscint Ultra liqiuid scintillation coctail was prepared in a similar fashion using 1 mL of DI water and 13 mL of Ecoscint Ultra liqiuid scintillation coctail. The standard verification vials and Background source were dark adapted for two hours and counted on LSC Green for Sr-90 source standard verification. The Sr-90 efficiency calibration which was used for verification calculations was performed on 6/17/09 using source 0133-A (Sr-90). Calibration data is recorded in this logbook under Sr-90 0133-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.
RAD SOP M-001

6/18/09
6/29/09

STANDARDIZATION OF STRONTIUM CARRIER

DATE: [redacted] EXP. DATE: [redacted]

LOT NUMBER [redacted]

STRONTIUM PRECIPITATES

	1	2	3	4
Weight of carrier added	[redacted]			
Aliquot (5.00 mL)				
Crucible + ppt.	[redacted]			
Crucible				
Wt. of ppt., g	0.0178	0.0179	0.0179	0.0178
mg Sr/mL	17.80	17.90	17.90	17.80
mg Sr/g	17.28	17.72	17.55	17.28

Must weigh carrier added

Jennifer L. Robb
9-24-09

Average	Std. Dev.	
17.85	± 0.06	0.00323446
17.46	± 0.22	0.0124023
mg Sr/ 0.5 mL		**8.93**
mg Sr/g		17.46

0.5% of Mean Value = 0.08925 Pass

A satisfactory standardization is obtained when results give a standard deviation of less than 0.5% of the mean value.

Eckert & Ziegler
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Fax 404·352·2837
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CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1242

78148-278

Th-230 5 mL Liquid in Flame Sealed Vial

Customer: General Engineerings Labs
P.O. No.: 7311RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	Th-230
Activity (Bq):	4.021 E4
Half-Life:	7.538 E4 years
Calibration Date:	August 25, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	2.0%

Comments:
Impurities: γ-impurities <0.1%, α-impurities <0.04%
5.07467 grams 0.5M HNO3 solution.

Source Prepared By: MITaskaeva
M. I. Taskaeva, Radiochemist

QA Approved: DM Montgomery
D. M. Montgomery, QA Manager

Date: 9-4-08

RECEIVED 9/17/08
RC-S-048-123

End of Certificate

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1242
Prepared By:	Daniel Roy
Carrier Conc:	0.5M HNO3
Reference Date:	08/25/2008
Ampoule Mass (g):	5.07467 g
Uncertainty:	+/- 2 %
LogBook No:	RC-S-048-123

A Solution Material Info	
Isotope:	Thorium-230
Prepared By:	Ashley Drochter
Prep Date:	11/10/2009
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1242-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8836 g
Density(g/mL):	1.0597
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8836 g) * (40210 Bq) * (60 dpm/Bq) / (5.07467 g * 100 mL) = 23217.6149 dpm/mL
(4.8836 g) * (40210 Bq) * (60 dpm/Bq) / (1.0597 g/mL)/ (5.07467 g * 100 mL) = 21908.6601 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/01/2009	Bethany Fiem	6.3855	500	1242-B	279.79548 dpm/mL	12/02/2009	12/02/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Th-230 Standard 1242-B

Analyst: B. Flem	Source ID	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (ml)	Source DPM/ml
Date: 12/1/09	1242-B #1	321.8000	39.8000	282.0000	1.069320	1.0000	263.719
	1242-B #2	325.2000	39.8000	285.4000	1.069320	1.0000	266.899
	1242-B #3	339.2000	39.8000	299.4000	1.069320	1.0000	279.991

Mean Value (Counting) =	270.2028704	96.5727649	**Pass**
Stdev =	8.62458049		**Rule 3 (Pass/Fail)**

Certificate Value =	279.792
Lower Limit =	252.9537094
Upper Limit =	287.4520313
Rule 1 Pass/Fail	**Pass**
Two sigma =	17.24916098
10 % of Mean =	27.02028704
Rule 2 (Pass/Fail)	**Pass**

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for **Th-230** source **1242-B** by transferring 1.0 mL portions of the standard to glass liquid scintillation vials. 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Background vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for one hour and counted on LSC Green for standard verification. The alpha efficiency calibration which was used for verification calculations was performed on 11/16/09 using NIST source 0905-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference: RAD SOP M - 001

12-10-09

12/2/09

Amersham International plc
Amersham Laboratories

0134

NAMAS
CALIBRATION
No. 0146

Certificate of calibration of standard tritium-labelled water

Description

Radionuclide: TRITIUM (HYDROGEN-3) — Product code: TRY·64

Chemical form: water — Batch: 111

Measurement

Reference time: 1200 GMT on 1 March 1996

Radioactive concentration of tritium: 488.0 kilobecquerels per gram of water

which is equivalent to: 13.19 microcuries per gram of water

or: 2.93×10^7 disintegrations per minute per gram of water

Method of Measurement
This reference material was calibrated by direct comparison with a standard of tritium-labelled water obtained from the National Institute of Standards and Technology, USA.

Accuracy

The OVERALL UNCERTAINTY of the result quoted above is estimated to be less than ±2.5%

This estimate of uncertainty was calculated in accordance with the recommendations of the International Commission on Radiation Units and Measurements (ICRU Report 12). The limits of uncertainty were taken as the arithmetic sum of the uncertainty due to random variations, calculated at the 99·7% confidence level, and the estimated systematic uncertainties.

Purity

No radioactive impurities were detected. (Impurities with total activity greater than 0.001% of the activity of the tritium would have been detected).

Physical Data

Half-life of tritium: 12·43 ± 0·11 years

Maximum beta energy of tritium: 18·6 keV

Remarks:

The S.I. unit of radioactivity is the becquerel.

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = $3{\cdot}7 \times 10^{10}$ becquerels exactly.

Useful conversion factors are:

1 microcurie (μCi) = $3{\cdot}7 \times 10^4$ Bq = 37 kilobecquerels (kBq)

1 kilobecquerel (kBq) = 27·027 nanocuries (nCi)

This product meets the quality assurance requirements of NRC Regulatory Guide 4.15 for achieving implicit NIST (NBS) traceability as defined in NCRP58 (1985).

Approved signatory

RC-5-024-061

W.F. Case

Amersham
The Health Science Group

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0134
Prepared By:	Angela Johnson
Carrier Conc:	DI WATER
Reference Date:	03/01/1996
Ampoule Mass (g):	5 g
Uncertainty:	+/- 2.5 %
LogBook No:	RC S 023 061

A Solution Material Info	
Isotope:	Tritium
Prepared By:	Angela Johnson
Prep Date:	02/21/2001
Verification Date:	09/10/2008
Expiration Date:	03/27/2010
Primary Code:	0134-A
Dilution(mL):	100 mL
Mass of Parent(g):	3.3659 g
Density(g/mL):	1.0004
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (100 mL) = 985535.5200 dpm/mL
(3.3659 g) * (488 kBq/g) * (60000 dpm/kBq) / (1.0004 g/mL) / (100 mL) = 985180.3116 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/20/2004	Amanda Fehr	5.86	1000	0134-H	5773.1566 dpm/mL	07/25/2006	07/25/2007
12/20/2005	Amanda Fehr	5.5451	1000	0134-I	5462.92 dpm/mL	12/20/2006	12/20/2007
07/11/2007	Daniel Roy	5.5863	1000	0134-J	5503.5128 dpm/ml	07/29/2008	07/29/2009
03/25/2009	Mary Aders	5.4917	1000	0134-K	5410.3147 dpm/ml	03/27/2009	03/27/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for H-3 Standard 0134-K

M. Aders	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Mass. Used (mL)	Source DPM/mL
4/9/2009	0134-K N1	1097.2000	54.0000	1043.2000	0.380548	1.0000	2741.3099
	0134-K N2	1073.2000	54.0000	1019.2000	0.380548	1.0000	2678.242955
	0134-K N3	1085.2000	54.0000	1031.2000	0.380548	1.0000	2709.776428
						Average =	2709.776428
Mean Value (Counting) =	2709.776428		**104.954429**	**Pass**			
Stdev =	31.53347278		0.01163693	**Rule 3 (Pass/Fail)**			

Certificate Value =	2581.86	dpm/mL
Lower Limit =	2646.709482	dpm/mL
Upper Limit =	2772.843373	dpm/mL
Rule 1 Pass/Fail	**Fail**	***exception taken due to full recovery of standard**
Two sigma =	63.06694556	dpm/mL
10 % of Mean =	270.9776428	dpm/mL
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for H-3 source 0134-K by transferring 0.1 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on Silver for H-3 source standard verification. The H-3 efficiency calibration which was used for verification calculations was performed on 4/9/09 using 0020-A (H-3). Calibration data is recorded in this logbook under H-3 0020. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference RAD SOP M-001

Mary L. Adams 4/9/09
Amanda L. Fehr 4/9/09

National Institute of Standards & Technology

Certificate

1163

Standard Reference Material 4321C
Natural Uranium Radioactivity Standard

This Standard Reference Material (SRM) consists of a solution of a standardized and certified quantity of radioactive uranium-238, uranium-235, and uranium-234 in a suitably stable and homogeneous matrix. It is intended primarily for the calibration of instruments that are used to measure radioactivity and for the monitoring of radiochemical procedures. The solution, whose composition is specified in Table 1, is contained in a flame-sealed, 5 mL, NIST, borosilicate-glass ampoule (see Note 1)*.

The certified massic activities for the uranium isotopes at a **Reference Time of 1200 EST, 1 August 1997**, are:

Uranium-238: (242.0 ± 1.5) Bq·g^{-1}

Uranium-235: (11.14 ± 0.07) Bq·g^{-1}

Uranium-234: (233.1 ± 2.2) Bq·g^{-1}

Additional physical, chemical, and radiological properties for the SRM, as well as details on the standardization method, are given in Table 1. Uncertainty intervals for certified quantities are expanded ($k=2$) uncertainties calculated according to the ISO and NIST Guidelines (see Note 2). Table 2 contains a specification of the components that comprise the uncertainty analyses.

The certification of this SRM, within the measurement uncertainties specified, is valid for at least five (5) years after receipt. The solution matrix, in an unopened ampoule, is believed to be indefinitely homogeneous and stable, within its half-life-dependent, useful lifetime. NIST will monitor this material and will report any substantive changes in certification to the purchaser. Should any of the certified values change, purchasers of this SRM will be notified of the change by NIST.

This SRM may represent a radiological hazard and a chemical hazard. Consult the Material Safety Data Sheet (MSDS), enclosed with the SRM shipment, for details (see Note 1).

This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, Dr. M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by Dr. L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

Lisa R. Karam, Deputy Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
November 1997
Text revised and expiration date extended February 2007

Robert L. Watters, Jr., Chief
Measurement Services Division

RECEIVED 1/3/08

*Notes and references are on page 4

RC-5-048-044

Table 1. Properties of SRM 4321C

Certified values

Radionuclides	**Natural Uranium (Mixture of ^{238}U, ^{235}U, and ^{234}U)**
Reference time	**1200 EST, 1 August 1997**
Massic activities of the solution	**^{238}U : 242.0 Bq•g^{-1}** **^{235}U : 11.14 Bq•g^{-1}** **^{234}U : 233.1 Bq•g^{-1}**
Relative expanded uncertainties ($k = 2$)	**^{238}U : 0.60% (see Note 2)*** **^{235}U : 0.60% (see Note 2)** **^{234}U : 0.96% (see Note 2)**

Uncertified information

Source description	Liquid in flame-sealed, 5 mL NIST borosilicate ampoule (see Note 1)
Solution composition	1.0 mol•L^{-1} HCl with 30 mg $UO_2(NO_3)_2$ per gram of solution
Solution density	(1.053 ± 0.001) g•mL^{-1} at 21.4 °C (see Note 3)
Solution mass	(5.258 ± 0.002) g (see Note 3)
Mass fraction of uranium	(0.01960 ± 0.00010) g•g^{-1} (see Note 3)
Photon-emitting impurities	None detected (see Note 4)
Half-lifes used [1]	^{238}U : (4.468 ± 0.003) x 10^9 a ‡ ^{235}U : (7.038 ± 0.005) x 10^8 a ‡ ^{234}U : (2.455 ± 0.006) x 10^5 a ‡
Calibration method (and instruments)	The certified massic activity for natural uranium was obtained by mass spectrometer, silicon surface-barrier detector, and 4πα/β liquid scintillation (LS) counting systems.

‡ See Note 5

*Notes and references are on page 4

Table 2. Uncertainty evaluation for the massic activity for SRM 4321C

	Uncertainty component	Assessment Type †	Relative standard uncertainty contribution on massic activity of Natural Uranium (%)
1	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{238}U	A	0.001
2	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{235}U	A	0.07
3	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{234}U	A	0.3
4	Half life of ^{238}U; standard uncertainty of the half-life	A	0.07
5	Half life of ^{235}U; standard uncertainty of the half-life	A	0.07
6	Half life of ^{234}U; standard uncertainty of the half-life	A	0.24
7	Uranium mass fraction in SRM 960; from SRM960 certificate	B	0.003
8	Quantitative dissolution	B	0.25
9	Gravimetric (mass) measurements	B	0.10
10	Limit for photon-emitting impurities	B	0.10
Relative combined standard uncertainty		^{238}U	**0.30**
		^{235}U	**0.30**
		^{234}U	**0.48**
Relative expanded uncertainty ($k = 2$)		^{238}U	**0.60**
		^{235}U	**0.60**
		^{234}U	**0.96**

† = (A) denotes evaluation by statistical methods; (B) denotes evaluation by other methods.

NOTES

Note 1. Refer to http://physics.nist.gov/Divisions/Div846/srm.html for the standardized ampoule dimensions and for assistance and instructions on how to properly open an ampoule. Information on additional storage and handling requirements is also included in the website.

Note 2. The uncertainties on certified values are expanded uncertainties, $U = ku_c$. The quantity u_c is the combined standard uncertainty calculated according to the ISO and NIST Guides (see references [2] and [3]). The combined standard uncertainty is multiplied by a coverage factor of $k = 2$ and was chosen to obtain an approximate 95 % level of confidence.

Note 3. The stated uncertainty is two times the standard uncertainty. See reference [3].

Note 4. The estimated lower limits of detection for photon-emitting impurities, expressed as massic photon emission rates are:

$1.4\ s^{-1} \cdot g^{-1}$ for 8 keV < E < 59 keV
$1.1\ s^{-1} \cdot g^{-1}$ for 67 keV < E < 88 keV
$0.5\ s^{-1} \cdot g^{-1}$ for 102 keV < E < 197 keV
$0.3\ s^{-1} \cdot g^{-1}$ for 205 keV < E < 762 keV
$0.2\ s^{-1} \cdot g^{-1}$ for 770 keV < E < 996 keV, and
$0.1\ s^{-1} \cdot g^{-1}$ for 1006 keV < E < 1900 keV

provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of ^{238}U, ^{235}U, ^{234}U, or their progeny.

Note 5. The stated uncertainty is the standard uncertainty. See reference [3].

REFERENCES

[1] Evaluated Nuclear Structure Data File (ENSDF), online database, National Nuclear Data Center, Brookhaven Laboratory (Upton, NY), August 2007. Refer to http://www.nndc.bnl.gov/ensdf/

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B. N. Taylor and C. E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1163
Prepared By:	Daniel Roy
Carrier Conc:	1M HCL
Reference Date:	08/01/1997
Ampoule Mass (g):	5.258 g
Uncertainty:	+/- .6 %
LogBook No:	RC-S-048-044

A Solution Material Info	
Isotope:	Uranium-238
Prepared By:	Daniel Roy
Prep Date:	02/23/2008
Verification Date:	10/21/2009
Expiration Date:	10/21/2010
Primary Code:	1163-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.118 g
Density(g/mL):	1.0327
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.118 g) * (242 Bq/g) * (60 dpm/Bq) / (100 mL) = 743.1336 dpm/mL
(5.118 g) * (242 Bq/g) * (60 dpm/Bq) / (1.0327 g/mL) / (100 mL) = 719.5817 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/23/2009	Julie Strock	.1	100	1163-090723-1		07/30/2008	07/30/2009
07/23/2009	Julie Strock	1	100	1163-090723-2		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.25	50	1163-090723-3		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.02	20	1163-090723-4		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.2	20	1163-090723-5		07/30/2008	07/30/2009
07/23/2009	Julie Strock	2	20	1163-090723-6		07/30/2008	07/30/2009
07/31/2009	James Schoneman	.1	100	1163-090731-1		08/07/2008	08/07/2009
07/31/2009	James Schoneman	1	100	1163-090731-2		08/07/2008	08/07/2009
07/31/2009	James Schoneman	.02	20	1163-090731-3		08/07/2008	08/07/2009
07/31/2009	James Schoneman	.2	20	1163-090731-4		08/07/2008	08/07/2009
07/31/2009	James Schoneman	2	20	1163-090731-5		08/07/2008	08/07/2009

08/05/2009	James Schoneman	.1	20	1163-090805-1	08/07/2008	08/07/2009
08/06/2009	James Schoneman	.02	20	1163-090806-1	08/07/2008	08/07/2009
08/06/2009	James Schoneman	.2	20	1163-090806-2	08/07/2008	08/07/2009
08/06/2009	James Schoneman	2	20	1163-090806-3	08/07/2008	08/07/2009
08/14/2009	James Schoneman	.1	100	1163-090814-1	08/21/2008	08/21/2009
08/14/2009	James Schoneman	1	100	1163-090814-2	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.02	20	1163-090814-3	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.2	20	1163-090814-4	08/21/2008	08/21/2009
08/14/2009	James Schoneman	2	20	1163-090814-5	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.01	20	1163-090814-6	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.05	25	13451163-090814-1	08/21/2008	08/21/2009
08/18/2009	James Schoneman	.1	20	1163-090818-1	08/21/2008	08/21/2009
08/18/2009	James Schoneman	2.5	25	1163-090818-2	08/21/2008	08/21/2009
08/21/2009	James Schoneman	.1	100	1163-090821-1	08/28/2008	08/28/2009
08/21/2009	James Schoneman	1	100	1163-090821-2	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.02	20	1163-090821-3	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.2	20	1163-090821-4	08/28/2008	08/28/2009
08/21/2009	James Schoneman	2	20	1163-090821-5	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.01	20	1163-090821-6	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.05	25	13451163-090821-1	08/28/2008	08/28/2009
08/28/2009	James Schoneman	.1	100	1163-090828-1	09/04/2008	09/04/2009

08/28/2009	James Schoneman	1	100	1163-090828-2		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.02	20	1163-090828-3		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.2	20	1163-090828-4		09/04/2008	09/04/2009
08/28/2009	James Schoneman	2	20	1163-090828-5		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.01	20	1163-090828-6		09/04/2008	09/04/2009
09/01/2009	James Schoneman	.01	20	1163-090901-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.01	20	1163-090902-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.01	20	1163-090902-2		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.05	25	11631345-090828-1		09/04/2008	09/04/2009
09/01/2009	James Schoneman	.05	25	11631345-090901-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.05	25	11631345-090902		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.05	25	11631345-090902-1		09/04/2008	09/04/2009
09/11/2009	James Schoneman	.1	100	1163-090911-1	999645.956 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	1	100	1163-090911-2	999.646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.02	20	1163-090911-3	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.2	20	1163-090911-4	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	2	20	1163-090911-5	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.01	20	1163-090911-6	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.02	20	1163-090916-1	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.2	20	1163-090916-2	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	2	20	1163-090916-3	9.99646 ug/L	09/18/2008	09/18/2009

09/16/2009	James Schoneman	.01	20	1163-090916-4	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.05	25	11631332-090916-1	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.05	25	11631345-090911-1	9.99646 ug/L	09/18/2008	09/18/2009
09/18/2009	James Schoneman	.1	20	1163-090918-1	999.646 ug/L	09/18/2008	09/18/2009
09/19/2009	James Schoneman	.1	100	1163-090919-1		09/26/2008	09/26/2009
09/19/2009	James Schoneman	1	100	1163-090919-2		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.02	20	1163-090919-3		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.2	20	1163-090919-4		09/26/2008	09/26/2009
09/19/2009	James Schoneman	2	20	1163-090919-5		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.01	20	1163-090919-6		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.05	25	11631332-090919-1		09/26/2008	09/26/2009
09/28/2009	James Schoneman	.1	100	1163-090928-1		10/05/2008	10/05/2009
09/28/2009	James Schoneman	1	100	1163-090928-2		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.02	20	1163-090928-3		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.2	20	1163-090928-4		10/05/2008	10/05/2009
09/28/2009	James Schoneman	2	20	1163-090928-5		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.01	20	1163-090928-6		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.05	25	11631332-090928-1		10/05/2008	10/05/2009
10/05/2009	James Schoneman	.1	100	1163-091005-1		10/12/2008	10/12/2009
10/05/2009	James Schoneman	1	100	1163-091005-2		10/12/2008	10/12/2009
10/05/2009	James Schoneman	.02	20	1163-091005-3		10/12/2008	10/12/2009

10/05/2009	James Schoneman	.2	20	1163-091005-4	10/12/2008	10/12/2009
10/05/2009	James Schoneman	2	20	1163-091005-5	10/12/2008	10/12/2009
10/05/2009	James Schoneman	.01	20	1163-091005-6	10/12/2008	10/12/2009
10/05/2009	James Schoneman	.05	25	11631332-091005	10/12/2008	10/12/2009
10/08/2009	James Schoneman	.1	20	1163-091008-1	10/12/2008	10/12/2009
10/09/2009	James Schoneman	.1	100	1163-091009-1	10/16/2008	10/16/2009
10/09/2009	James Schoneman	1	100	1163-091009-2	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.02	20	1163-091009-3	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.2	20	1163-091009-4	10/16/2008	10/16/2009
10/09/2009	James Schoneman	2	20	1163-091009-5	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.01	20	1163-091009-6	10/16/2008	10/16/2009
10/12/2009	James Schoneman	.01	20	1163-091012-1	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.05	25	11631332-091009-1	10/16/2008	10/16/2009
10/15/2009	James Schoneman	.1	100	1163-091015-1	10/22/2008	10/22/2009
10/15/2009	James Schoneman	1	100	1163-091015-2	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.02	20	1163-091015-3	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.2	20	1163-091015-4	10/22/2008	10/22/2009
10/15/2009	James Schoneman	2	20	1163-091015-5	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.01	20	1163-091015-6	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.05	25	11631332-091015	10/22/2008	10/22/2009
10/22/2009	James Schoneman	.1	100	1163-091022-1	10/29/2008	10/29/2009

10/22/2009	James Schoneman	1	100	1163-091022-2	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.2	20	1163-091022-4	10/29/2008	10/29/2009
10/22/2009	James Schoneman	2	20	1163-091022-5	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.01	20	1163-091022-6	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.05	25	11631332-091022-1	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.02	20	1163-091022-3	10/29/2008	10/29/2009
10/29/2009	James Schoneman	.1	100	1163-091029-1	11/05/2008	11/05/2009
10/29/2009	James Schoneman	1	100	1163-091029-2	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.02	20	1163-091029-3	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.2	20	1163-091029-4	11/05/2008	11/05/2009
10/29/2009	James Schoneman	2	20	1163-091029-5	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.01	20	1163-091029-6	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.05	25	11631332-091029	11/05/2008	11/05/2009
11/05/2009	James Schoneman	.1	100	1163-091105-1	11/12/2008	11/12/2009
11/05/2009	James Schoneman	1	100	1163-091105-2	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.02	20	1163-091105-3	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.2	20	1163-091105-4	11/12/2008	11/12/2009
11/05/2009	James Schoneman	2	20	1163-091105-5	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.01	20	1163-091105-6	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.05	25	11631332-091105-1	11/12/2008	11/12/2009
11/10/2009	James Schoneman	.1	20	1163-091110-1	11/12/2008	11/12/2009

11/12/2009	James Schoneman	.1	100	1163-091112-1	11/19/2008	11/19/2009
11/12/2009	James Schoneman	1	100	1163-091112-2	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.02	20	1163-091112-3	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.2	20	1163-091112-4	11/19/2008	11/19/2009
11/12/2009	James Schoneman	2	20	1163-091112-5	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.01	20	1163-091112-6	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.05	25	11631332-091112-1	11/19/2008	11/19/2009
11/18/2009	James Schoneman	.1	100	1163-091118-1	11/25/2008	11/25/2009
11/18/2009	James Schoneman	1	100	1163-091118-2	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.02	20	1163-091118-3	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.2	20	1163-091118-4	11/25/2008	11/25/2009
11/18/2009	James Schoneman	2	20	1163-091118-5	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.01	20	1163-091118-6	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.05	25	11631332-091118-1	11/25/2008	11/25/2009
11/30/2009	James Schoneman	.1	100	1163-091130-1	12/06/2008	12/06/2009
11/30/2009	James Schoneman	1	100	1163-091130-2	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.02	20	1163-091130-3	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.2	20	1163-091130-4	12/06/2008	12/06/2009
11/30/2009	James Schoneman	2	20	1163-091130-5	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.01	20	1163-091130-6	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.05	25	11631332-091130-1	12/06/2008	12/06/2009

12/07/2009	James Schoneman	.1	100	1163-091207-1		12/14/2008	12/14/2009
12/07/2009	James Schoneman	1	100	1163-091207-2		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.02	20	1163-091207-3		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.2	20	1163-091207-4		12/14/2008	12/14/2009
12/07/2009	James Schoneman	2	20	1163-091207-5		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.01	20	1163-091207-6		12/14/2008	12/14/2009
12/09/2009	James Schoneman	.01	20	1163-091209-1		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.02	20	1163-091210-2		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.2	20	1163-091210-3		12/14/2008	12/14/2009
12/10/2009	James Schoneman	2	20	1163-091210-4		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.05	25	11631332-091207-1		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.1	20	1163-091210-1		12/14/2008	12/14/2009
12/11/2009	James Schoneman	.1	100	1163-091211-1		12/18/2008	12/18/2009
12/11/2009	James Schoneman	1	100	1163-091211-2		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.02	20	1163-091211-3		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.2	20	1163-091211-4		12/18/2008	12/18/2009
12/11/2009	James Schoneman	2	20	1163-091211-5		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.01	20	1163-091211-6		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.05	25	11631333-091211-1		12/18/2008	12/18/2009
02/27/2008	Daniel Roy	8.0851	100	1163-B	58.1789 dpm/ml	03/01/2008	03/01/2009
02/27/2008	Daniel Roy	8.1015	100	1163-C	58.2969 dpm/ml	03/01/2008	03/01/2009

04/16/2008	Julie Strock	.5619	100	1163-D	4.0433 dpm/mL	04/16/2008	04/16/2009
07/10/2008	Daniel Roy	20.0175	250	1163-E	57.6169 dpm/ml	07/13/2008	07/13/2009
01/05/2009	Tina Schoneman	.519	100	1163-F	3.7346 dpm/mL	01/05/2009	01/05/2010
04/16/2009	Mary Aders	19.4278	250	1163-G	55.9196 dpm/ml	04/16/2009	04/16/2010
10/21/2009	Mary Aders	20.008	250	1163-H	57.5896 dpm/mL	10/21/2009	10/21/2010
08/01/1997	Julie Strock	7.379	250	1163-I	21.2392 dpm/mL	12/07/2009	12/02/2010
08/01/1997	Julie Strock	.106	375	1163-J	.2034 dpm/mL	12/07/2009	12/02/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Uranium-238 Standard *1163-G*

Analyst: M. Aders	**Serial #**	**Value**	**Uncertainty**
Date: 4/16/09	1163-G N1	2.480	0.398
	1163-G N2	2.460	0.397
	1163-G N3	2.670	0.424

Mean Value (Counting) =	2.537	**100.7053**	**Pass**
Stdev =	0.115902258		**Rule 3 (Pass/Fail)**

Target =	2.519
Lower Limit =	2.304862151
Upper Limit =	2.768471182
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.231804515
10 % of Mean =	0.253666667
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1163-G** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-232** standard **1283-B** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 48% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

Amanda L. Fehn 4/17/09

Amanda L. Fehn 4/17/09

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
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www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

End of Certificate

RECEIVED 12/15/08
RC-S'-OE

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/30/2008	12/30/2009
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/09/2009	12/30/2009
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Uranium-232 Standard *1283-E*

Analyst: M. Aders	**Serial #**	**Value**		**Uncertainty**	
Date: 1/14/09	1283-E N1	2.540	pCi/L	0.288	pCi/L
	1283-E N2	2.390	pCi/L	0.272	pCi/L
	1283-E N3	2.450	pCi/L	0.274	pCi/L
Mean Value (Counting) =	2.460	pCi/L		**103.20801**	**Pass**
Stdev =	0.075498344	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.384	pCi/L			
Lower Limit =	2.309003311	pCi/L			
Upper Limit =	2.610996689	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.150996689				
10 % of Mean =	0.246				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-E** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-E** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 48% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

Mary L. Aders 1/19/09
Amanda L. Fuhr 2/9/09

RUNLOGS

Instrument Run Log

Instrument Type: LSC **Batch ID: 932551**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
242754003	SAMPLE	EXK2	LSCORANGE	17-DEC-09 21:35	DONE	10mL DW/13mL Ecoscint Ultra	24-JUL-09 00:00
1201994807	MB	EXK2	LSCORANGE	17-DEC-09 22:27	DONE	10mL DW/13mL Ecoscint Ultra	24-JUL-09 00:00
1201994808	DUP	EXK2	LSCORANGE	17-DEC-09 23:20	DONE	10mL DW/13mL Ecoscint Ultra	24-JUL-09 00:00
1201994809	MS	EXK2	LSCORANGE	18-DEC-09 00:12	DONE	10mL DW/13mL Ecoscint Ultra	24-JUL-09 00:00
1201994810	LCS	EXK2	LSCBROWN	18-DEC-09 12:13	DONE	10mL DW/13mL Ecoscint Ultra	09-SEP-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 932635**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
242754001	SAMPLE	MXE1	1065	17-DEC-09 15:27	DONE		
1201995077	MB	MXE1	1067	17-DEC-09 15:27	DONE		
242754002	SAMPLE	MXE1	1069	17-DEC-09 15:27	DONE		
242754003	SAMPLE	MXE1	1076	17-DEC-09 15:27	DONE		
242789002	SAMPLE	MXE1	1085	17-DEC-09 15:27	DONE		
1201995078	DUP	MXE1	1087	17-DEC-09 15:27	DONE		
1201995079	LCS	MXE1	1089	17-DEC-09 15:27	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 932637**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
242754001	SAMPLE	MXE1	1071	19-DEC-09 10:00	DONE		
242754002	SAMPLE	MXE1	1072	19-DEC-09 10:00	DONE		
242754003	SAMPLE	MXE1	1074	19-DEC-09 10:00	DONE		
242789002	SAMPLE	MXE1	1076	19-DEC-09 10:00	DONE		
1201995084	MB	MXE1	1096	19-DEC-09 10:00	DONE		
1201995085	DUP	MXE1	1097	19-DEC-09 10:00	DONE		
1201995086	LCS	MXE1	1100	19-DEC-09 10:00	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 932638**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
242754001	SAMPLE	MXE1	1113	19-DEC-09 09:19	DONE		
242754002	SAMPLE	MXE1	1114	19-DEC-09 09:19	DONE		
242754003	SAMPLE	MXE1	1115	19-DEC-09 09:19	DONE		
242789002	SAMPLE	MXE1	1116	19-DEC-09 09:19	DONE		
1201995087	MB	MXE1	1117	19-DEC-09 09:19	DONE		
1201995088	DUP	MXE1	1118	19-DEC-09 09:20	DONE		
1201995089	LCS	MXE1	1132	19-DEC-09 09:20	DONE		

Instrument Run Log

Instrument Type: GFPC **Batch ID: 932821**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1201995517	MS	JXR1	LB4100H4	22-DEC-09 15:03	DONE	Tuffryn Filter	12-JAN-09 00:00
1201995518	LCS	JXR1	PIC3C	22-DEC-09 15:05	DONE	Tuffryn Filter	01-JAN-09 00:00
242789002	SAMPLE	JXR1	PIC7C	23-DEC-09 12:49	DONE	Tuffryn Filter	01-JAN-09 00:00
1201995516	DUP	JXR1	PIC10A	23-DEC-09 12:49	DONE	Tuffryn Filter	01-JAN-09 00:00
1201995515	MB	JXR1	PIC5C	23-DEC-09 12:54	DONE	Tuffryn Filter	01-JAN-09 00:00
242427003	SAMPLE	JXR1	PIC7A	23-DEC-09 12:59	DONE	Tuffryn Filter	01-JAN-09 00:00
242428003	SAMPLE	JXR1	PIC7D	23-DEC-09 12:59	DONE	Tuffryn Filter	01-JAN-09 00:00
242653002	SAMPLE	JXR1	PIC8C	23-DEC-09 13:00	DONE	Tuffryn Filter	01-JAN-09 00:00
242754001	SAMPLE	JXR1	PIC9C	23-DEC-09 13:00	DONE	Tuffryn Filter	01-JAN-09 00:00
242667002	SAMPLE	JXR1	PIC9A	23-DEC-09 13:00	DONE	Tuffryn Filter	01-JAN-09 00:00
242754003	SAMPLE	JXR1	PIC10C	23-DEC-09 13:01	DONE	Tuffryn Filter	01-JAN-09 00:00
242427001	SAMPLE	JXR1	PIC10A	27-DEC-09 07:06	DONE	Tuffryn Filter	01-JAN-09 00:00
242754002	SAMPLE	JXR1	PIC10C	27-DEC-09 07:06	DONE	Tuffryn Filter	01-JAN-09 00:00

Instrument Run Log

Instrument Type: GFPC **Batch ID: 932822**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
242427001	SAMPLE	DXF3	PIC7A	19-DEC-09 16:50	DONE	2 inch Planchett	31-JUL-09 00:00
242427003	SAMPLE	DXF3	PIC7D	19-DEC-09 16:50	DONE	2 inch Planchett	31-JUL-09 00:00
242428003	SAMPLE	DXF3	PIC9A	19-DEC-09 16:50	DONE	2 inch Planchett	31-JUL-09 00:00
242653002	SAMPLE	DXF3	PIC10A	19-DEC-09 16:50	DONE	2 inch Planchett	31-JUL-09 00:00
242667002	SAMPLE	DXF3	PIC11D	19-DEC-09 18:31	DONE	2 inch Planchett	31-JUL-09 00:00
1201995521	MS	DXF3	LB4100G2	19-DEC-09 18:40	DONE	2 inch Planchett	31-JUL-09 00:00
242789002	SAMPLE	DXF3	LB4100C3	19-DEC-09 18:50	DONE	2 inch Planchett	31-JUL-09 00:00
1201995519	MB	DXF3	LB4100D3	19-DEC-09 18:56	DONE	2 inch Planchett	31-JUL-09 00:00
1201995522	MSD	DXF3	PIC13A	19-DEC-09 19:26	DONE	2 inch Planchett	31-JUL-09 00:00
1201995523	LCS	DXF3	PIC13C	19-DEC-09 19:26	DONE	2 inch Planchett	31-JUL-09 00:00
242754001	SAMPLE	DXF3	PIC7C	21-DEC-09 06:42	DONE	2 inch Planchett	31-JUL-09 00:00
242754002	SAMPLE	DXF3	PIC7D	21-DEC-09 06:42	DONE	2 inch Planchett	31-JUL-09 00:00
242754003	SAMPLE	DXF3	PIC9C	21-DEC-09 06:42	DONE	2 inch Planchett	31-JUL-09 00:00
1201995520	DUP	DXF3	PIC10A	21-DEC-09 06:42	DONE	2 inch Planchett	31-JUL-09 00:00
1201995519	MB	DXF3	PIC9C	21-DEC-09 17:56	DONE	2 inch Planchett	31-JUL-09 00:00
1201995520	DUP	DXF3	PIC9D	21-DEC-09 17:56	DONE	2 inch Planchett	31-JUL-09 00:00
242427001	SAMPLE	DXF3	PIC3C	21-DEC-09 17:56	DONE	2 inch Planchett	31-JUL-09 00:00
242427003	SAMPLE	DXF3	PIC4A	21-DEC-09 17:57	DONE	2 inch Planchett	31-JUL-09 00:00
242428003	SAMPLE	DXF3	PIC4D	21-DEC-09 17:57	DONE	2 inch Planchett	31-JUL-09 00:00
242653002	SAMPLE	DXF3	PIC5B	21-DEC-09 17:57	DONE	2 inch Planchett	31-JUL-09 00:00
242667002	SAMPLE	DXF3	PIC5D	21-DEC-09 17:57	DONE	2 inch Planchett	31-JUL-09 00:00
242754001	SAMPLE	DXF3	PIC7B	21-DEC-09 17:58	DONE	2 inch Planchett	31-JUL-09 00:00
242754002	SAMPLE	DXF3	PIC8A	21-DEC-09 17:58	DONE	2 inch Planchett	31-JUL-09 00:00
242754003	SAMPLE	DXF3	PIC8B	21-DEC-09 17:58	DONE	2 inch Planchett	31-JUL-09 00:00
242789002	SAMPLE	DXF3	PIC9A	21-DEC-09 17:58	DONE	2 inch Planchett	31-JUL-09 00:00
1201995521	MS	DXF3	PIC11B	21-DEC-09 18:07	DONE	2 inch Planchett	31-JUL-09 00:00
1201995522	MSD	DXF3	PIC11C	21-DEC-09 18:07	DONE	2 inch Planchett	31-JUL-09 00:00
1201995523	LCS	DXF3	PIC11D	21-DEC-09 18:07	DONE	2 inch Planchett	31-JUL-09 00:00

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 933232**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
242789002	SAMPLE	KXG3	GAM10	17-DEC-09 23:04	DONE	2LMB	25-FEB-09 00:00
1201996557	MB	KXG3	GAM20	17-DEC-09 23:04	DONE	2LMB	06-JUL-09 00:00
242653002	SAMPLE	KXG3	GAM11	18-DEC-09 08:36	DONE	2LMB	18-NOV-09 00:00
242667002	SAMPLE	KXG3	GAM16	18-DEC-09 08:37	DONE	2LMB	16-NOV-09 00:00
242754001	SAMPLE	KXG3	GAM14	18-DEC-09 08:44	DONE	2LMB	09-MAR-09 00:00
242754002	SAMPLE	KXG3	GAM06	18-DEC-09 10:12	DONE	2LMB	04-FEB-09 00:00
242754003	SAMPLE	KXG3	GAM08	18-DEC-09 10:13	DONE	2LMB	02-FEB-09 00:00
1201996558	DUP	KXG3	GAM19	18-DEC-09 10:13	DONE	2LMB	11-MAR-09 00:00
1201996559	LCS	KXG3	GAM04	18-DEC-09 12:29	DONE	2LMB	26-MAY-09 00:00

Monday, February 22, 2010

REQUEST NUMBER: 10-2003

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Mike Franks

Severn Trent Laboraties, Inc., St. Louis

13715 Rider Trail N.

Earth City, MO 63045

These Samples are on:

LANL Request Number:10-2003

Per Agreement Number:126310021

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/22/2010

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8330	1	CAPA-10-13498	WG	2/22/2010	
		2	CAPA-10-13498	WG	2/22/2010	

Final Page of REQUEST NUMBER 10-2003

Monday, February 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2003

REQUEST NUMBER: 10-2003

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Mike Franks

Severn Trent Laboraties, Inc., St. Louis

13715 Rider Trail N.

Earth City, MO 63045

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-13498	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-13498	2	AMBER GLASS	WSP-HEXMOD	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		2/22/10	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2662 **EVENT NAME:** R-51 Characterization Sampling

SAMPLE ID: CAPA-10-13497 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		2/22/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0612	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-51		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
TOP DEPTH:		1024.84 ft bgs	SAMPLE USAGE:	INV	
BOTTOM DEPTH:		1045.59 ft bgs	SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	

SAMPLE DESC:

SAMPLE COMMENTS: Collect sample from lower screen.

See CAPA 1013498

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

samples filtered @ TA-59 stormwater lab

COLLECTED BY (PRINT) D. Woody **REVIEWED BY (PRINT)** H. Wershow

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Hal Wershow (Signature)	2/22/10 0915	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	2/22/10 0915
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2662 **EVENT NAME:** R-51 Characterization Sampling

SAMPLE ID: CAPA-10-13498 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		2/22/10	MEDIA:	WGR	Ok
TIME COLLECTED (HH:MM)		0612	SUB-MEDIA:	UA	
PRS ID:	C-00-011	Ok	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-51		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
TOP DEPTH:		1024.84 ftbgs	SAMPLE USAGE:	INV	
BOTTOM DEPTH:		1045.59 ftbgs	SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	
2		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	
2		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	

AK 02/19/10 AK 02/19/10 AK 02/19/10 AK 02/19/10

SAMPLE DESC:

SAMPLE COMMENTS: Collect sample from lower screen.

Samples collected directly from stainless steel tubing, no sample tree/spigot setup available

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2662 **EVENT NAME:** R-51 Characterization Sampling

FIELD SCREENING/MEASUREMENT RESULTS:

Time	pH	T°C	SC µS/cm	DO mg/L	ORP mV	Turb NTU	Q gpm	Notes
0640	9.52	20.51	134	1.10	-36.3	19.0	21.1	Turbid

COLLECTED BY (PRINT) D. Woody **REVIEWED BY (PRINT)** H. Wershow

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Hal Wershow (Signature) Hal	2/22/10 0915	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	2/22/10 0915
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2662 **EVENT NAME:** R-51 Characterization Sampling

SAMPLE ID: CAPA-10-13499 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		2/22/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0612	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	NA	
LOCATION ID:	R-51		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
TOP DEPTH:		1024.84 ft bgs	SAMPLE USAGE:	QC	
BOTTOM DEPTH:		1045.54 ft bgs	SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 of 2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	X	

SAMPLE DESC: QC Sample of CAPA-10-13498

SAMPLE COMMENTS: Collect sample from lower screen.

See CAPA 10 13498

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D. Woody **REVIEWED BY (PRINT)** H. Wershaw

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Hal Wershow	2/22/10	(Printed Name) Sherri Sherwood	2/22/10
(Signature) Hal	0915	(Signature) Sherri Sherwood	0915
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5117-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2003 VALIDATION DATE: 03/26/10 LAB CODE: STSL

CONTRACT LABORATORY NAME: TestAmerica Laboratories, Inc. - St. Louis

VALIDATOR: Kevin A. Lambert ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☒ HIGH EXPLOSIVES
- ☐ DIOXIN FURANS
- ☐ LCMSMS PERCHLORATES
- ☐ TPH-DRO
- ☐ METALS
- ☐ PCB CONGENERS
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ GENERAL CHEMISTRY
- ☐ RADIOCHEMISTRY
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN. Since MS/MSD analyses are not required for HE, no sample data were qualified.

Reviewed by: Allison Felix Level: 1 Date: 3/29/10

VALIDATOR'S SIGNATURE: Kevin A Lambert DATE: 03/26/10

HIGH EXPLOSIVE (HE) ANALYTICAL DATA VALIDATION CHECKLIST

5117-2

High Explosive (HE) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, H9	J-, H9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, H9a	J-, H9a
☐	☒	☐	3. The affected analytes are regarded as Rejected because the analytical holding time was exceeded.	R, H9b	R, H9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, H7	J, H7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multi-point calibration correlation coefficient is <0.995.	UJ, H7a	J, H7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method limits.	UJ, H7c	J, H7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, H7d	J, H7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, H7f	R, H7f
☐	☒	☐	9. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, H4	N/A
☐	☒	☐	10. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, H4a
☐	☐	☒	11. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, H4d	N/A
☐	☒	☐	12. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H4e	R, H4e

HIGH EXPLOSIVE (HE) ANALYTICAL DATA VALIDATION CHECKLIST	
5117-2 **High Explosive (HE) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, H0	J, H0
☐	☐	☒	14. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided (hexp – diode array detector).	N/A	J, H0a
☐	☒	☐	15. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H0b	R, H0b
☐	☒	☐	16. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, H3	J-, H3
☐	☒	☐	17. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, H3a	J-, H3a
☐	☒	☐	18. The surrogate %R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	N/A	J+, H3b
☐	☐	☒	19. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, H3c	J, H3c
☐	☒	☐	20. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H3d	R, H3d
☐	☒	☐	21. The LCS percent recover was <10%. Follow the external laboratory limits located within the associated data package.	R, H12	J-, H12
☐	☒	☐	22. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, H12a	J-, H12a

HIGH EXPLOSIVE (HE) ANALYTICAL DATA VALIDATION CHECKLIST

5117-2

High Explosive (HE) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, H12b
☐	☒	☐	24. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H12c	R, H12c
☐	☐	☒	25. The analyte was not confirmed on a second dissimilar column.	N/A	R, H8
☐	☐	☒	26. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H8a	R, H8a
☐	☒	☐	27. Duplicate, dilution, or reanalysis.	UJ, H88	J, H88
☐	☐	☒	28. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for cleanup or matrix interference.	UJ, R, H15	R, H15
☒	☐	☐	29. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, H19	J, R, H19

Los Alamos National Laboratory

Client Sample ID: CAPA-10-13498

HPLC

Lot-Sample #...: F0B230418-001 **Work Order #...:** LV0N61AC **Matrix.....:** WATER
Date Sampled...: 02/22/10 **Date Received..:** 02/23/10
Prep Date.....: 02/25/10 **Analysis Date..:** 03/01/10
Prep Batch #...: 0056259 **Analysis Time..:** 12:31
Dilution Factor: 1
Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
MNX	ND	0.50	ug/L
DNX	ND	0.50	ug/L
TNX	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	103	(60 - 113)

KAL
03/26/10

Monday, February 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2003

REQUEST NUMBER: 10-2003

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Mike Franks

Severn Trent Laboraties, Inc., St. Louis

13715 Rider Trail N.

Earth City, MO 63045

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-13498	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-13498	2	AMBER GLASS	WSP-HEXMOD	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
		2/22/10	1400			2.23.10	0910
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

Monday, February 22, 2010

REQUEST NUMBER: 10-2003

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Mike Franks
Severn Trent Laboraties, Inc., St. Louis
13715 Rider Trail N.
Earth City, MO 63045

These Samples are on:
LANL Request Number:10-2003
Per Agreement Number:126310021
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/22/2010
TURNAROUND/REPORT DUE: 3/24/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8330	1	CAPA-10-13498	WG	2/22/2010	
		2	CAPA-10-13498	WG	2/22/2010	

Final Page of REQUEST NUMBER 10-2003

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 10-2003

Los Alamos RAD

Lot #: F0B230418

Joylene Valdez or Keith Greene

Los Alamos National Laboratory
SMO TA-00 Bldg 1237
DP: 03U; MS: 707
Los Alamos, NM 87545

TESTAMERICA LABORATORIES, INC.

Michael C. Franks
Project Manager

March 3, 2010

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CLIENT CHAIN OF CUSTODY 3
HPLC 14

TOTAL # OF PAGES IN PACKAGE 101

Case Narrative
LOT NUMBER: **F0B230418**
LANL Request Number: **10-2003**

This report contains the analytical results for the sample received under chain of custody number 10-2003 by TestAmerica St. Louis on February 23, 2010. This sample is associated with your Los Alamos RAD project.

All applicable quality control procedures met method-specified acceptance criteria.

This report shall not be reproduced, except in full, without the written approval of the laboratory.

This report is incomplete without the case narrative. All chemical analysis results are based upon dry weight correction as required per the statement of work. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Sample Receiving

Samples were received at 2 °C. No problems were noted at the time of sample receipt.

Explosives Method 8330

In accordance with method 8330, samples are air dried under normal laboratory conditions for a period of time prior to extraction. Explosive results for soil samples, requesting results reported on a dry weight, will be adjusted for the % moisture result.

QC Batch: 0056259
The Method Blank shows no contamination above the reporting limit. Surrogate recovery is within laboratory stated limits.

The LCS is within stated limits.

The Batch QC Matrix Spike and Matrix Spike Duplicate were performed on F0A230417-001 (request 10-1998). The Matrix Spike and Matrix Spike Duplicate recoveries and RPD values are within stated limits. Surrogate is in control for both the MS and MSD.

I certify that this data is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the signature on the front page, has authorized release of the data contained in this hardcopy.

F0B230418

CLIENT ANALYSIS SUMMARY

Storage Loc: 2-41

Date Received: 2010-02-23

Analytical Due Date: 2010-03-16

Report Due Date: 2010-03-19

Project Manager: MCF Quote #: 75496 SDG: F0B230418

Project: 10-2003 Los Alamos RAD

PO#: 37954-001-06 Report to: Joylene Valdez or Keith

Client: 108561 Los Alamos National Laboratory

#SMPS in LOT: 1

Report Type: D Expanded Deliverable

EDD Code: 99

Sample Receiving: LOS ALAMOS CLIENT REQUIREMENTS Enter COC NUMBER in the COC Field; SDG = "Lot Number" Project Name = "Request number"

LOG QC AS DETAILED BELOW FOR EACH DEPT. EXCEPT RAD ********** METALS AND WETCHEMISTRY ********** Can batch multiple Lots together and report Client sp

Batch QC: Matrix Spike and Sample Duplicate Met Prep: GFAA Spike Level and Standard Spike Level Sb spike at 100 ppb

Pb - Spike Solids at 100 ppb, spike Waters at 20 - Perform analytical spike when matrix spike is swamped with indigenous analyte.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	I
1	CAPA-10-13498			2010-02-22 / 0	LV0N6	WATER

SAMPLE COMMENTS:

	XX	A0	SW846	8330	WATER, 8330, HEXPMOD (MNX/DNX/TNX)	20	EXTRACTION, SOLID PHASE	9Q	ORG FLAGS FOR INORG; STANDARD	PROT: O	WRK LOC	06
	XX	ZV		RAD SCREEN	WATER, RAD SCREEN	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
D	XX	A0	SW846	8330	WATER, 8330, HEXPMOD (MNX/DNX/TNX)	20	EXTRACTION, SOLID PHASE	9Q	ORG FLAGS FOR INORG; STANDARD	PROT: O	WRK LOC	06
S	XX	A0	SW846	8330	WATER, 8330, HEXPMOD (MNX/DNX/TNX)	20	EXTRACTION, SOLID PHASE	9Q	ORG FLAGS FOR INORG; STANDARD	PROT: O	WRK LOC	06

Monday, February 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2003

REQUEST NUMBER: 10-2003

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Mike Franks

Severn Trent Laboraties, Inc., St. Louis

13715 Rider Trail N.

Earth City, MO 63045

LAB REQUEST COMMENTS:

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-13498	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-13498	2	AMBER GLASS	WSP-HEXMOD	Ice	WG

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	2/22/10	1400	Printed Name / Signature	2.23.10	0910
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Printed Name / Signature			

Monday, February 22, 2010

REQUEST NUMBER: 10-2003

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Mike Franks
Severn Trent Laboraties, Inc., St. Louis
13715 Rider Trail N.
Earth City, MO 63045

These Samples are on:
LANL Request Number:10-2003
Per Agreement Number:126310021
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/22/2010
TURNAROUND/REPORT DUE: 3/24/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8330	1	CAPA-10-13498	WG	2/22/2010	
		2	CAPA-10-13498	WG	2/22/2010	

Final Page of REQUEST NUMBER 10-2003

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): F0B230417 [418]

CONDITION UPON RECEIPT FORM

Client: LANL

Quote No: 75496

COC/RFA No: 10-1998, [10-2003]

163

Initiated By: [illegible] Date: 2.23.10 Time: 0910

Shipping Information

Shipper: (FedEx) UPS DHL Courier Client Other: _____ Multiple Packages: Y (N)

Shipping # (s):*		Sample Temperature (s):**	
1. 7209 7850 1540	6.	1. 2	6.
2.	7.	2.	7.
3.	8.	3.	8.
4.	9.	4.	9.
5.	10.	5.	10.

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	(Y) N	Are there custody seals present on the cooler?	8.	(Y) N	Are there custody seals present on bottles?
2.	Y (N) N/A	Do custody seals on cooler appear to be tampered with?	9.	Y (N) N/A	Do custody seals on bottles appear to be tampered with?
3.	(Y) N	Were contents of cooler frisked after opening, but before unpacking?	10.	(Y) N N/A	Was sample received with proper pH[1]? (If not, make note below)
4.	(Y) N	Sample received with Chain of Custody?	11.	(Y) N	Sample received in proper containers?
5.	(Y) N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	Y N (N/A)	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6.	Y (N)	Was sample received broken?	13.	Y N (N/A)	Was Internal COC/Workshare received?
7.	(Y) N	Is sample volume sufficient for analysis?	14.	Y N (N/A)	Was pH taken by original TestAmerica lab?

[1] For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:

Corrective Action:

☐ Client Contact Name: _____ Informed by: _____

☐ Sample(s) processed "as is"

☐ Sample(s) on hold until: _____ If released, notify: _____

Project Management Review: Jaymak Patel Date: 2-26-10

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004, REVISED 10/21/08 \\Slsvr01\QA\FORMS\ST-LOUIS\ADMIN\Admin004 rev11.doc

METHODS SUMMARY

F0B230418

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Nitroaromatics and Nitramines by HPLC	SW846 8330	SW846 3535

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

F0B230418

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LV0N6	001	CAPA-10-13498	02/22/10	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

QC DATA ASSOCIATION SUMMARY

F0B230418

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	SW846 8330		0056259	0056168

Los Alamos National Laboratory

Client Sample ID: CAPA-10-13498

HPLC

Lot-Sample #...: F0B230418-001 **Work Order #...:** LV0N61AC **Matrix.....:** WATER
Date Sampled...: 02/22/10 **Date Received..:** 02/23/10
Prep Date.....: 02/25/10 **Analysis Date..:** 03/01/10
Prep Batch #...: 0056259 **Analysis Time..:** 12:31
Dilution Factor: 1
Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
MNX	ND	0.50	ug/L
DNX	ND	0.50	ug/L
TNX	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	103	(60 - 113)

METHOD BLANK REPORT

HPLC

Client Lot #...: F0B230418 **Work Order #...:** LV3231AA **Matrix.....:** WATER
MB Lot-Sample #: F0B250000-259
Prep Date.....: 02/25/10 **Analysis Time..:** 11:07
Analysis Date..: 03/01/10 **Prep Batch #...:** 0056259
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
MNX	ND	0.50	ug/L	SW846 8330
DNX	ND	0.50	ug/L	SW846 8330
TNX	ND	0.50	ug/L	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	91	(60 - 113)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: F0B230418 **Work Order #...:** LV3231AC **Matrix.....:** WATER
LCS Lot-Sample#: F0B250000-259
Prep Date.....: 02/25/10 **Analysis Date..:** 03/01/10
Prep Batch #...: 0056259 **Analysis Time..:** 11:21
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
TNX	**94**	**(38 - 120)**	**SW846 8330**
MNX	**96**	**(39 - 133)**	**SW846 8330**
DNX	**67**	**(39 - 124)**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	95	(70 - 106)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: F0B230418 **Work Order #...:** LV0NW1AD-MS **Matrix.....:** WATER
MS Lot-Sample #: F0B230417-001 LV0NW1AE-MSD
Date Sampled...: 02/21/10 **Date Received..:** 02/23/10
Prep Date.....: 02/25/10 **Analysis Date..:** 03/01/10
Prep Batch #...: 0056259 **Analysis Time..:** 12:03
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
MNX	**106**	**(27 - 150)**			**SW846 8330**
	99	**(27 - 150)**	**7.7**	**(0-20)**	**SW846 8330**
DNX	**92**	**(18 - 150)**			**SW846 8330**
	99	**(18 - 150)**	**7.1**	**(0-20)**	**SW846 8330**
TNX	**97**	**(25 - 139)**			**SW846 8330**
	105	**(25 - 139)**	**8.7**	**(0-30)**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	98	(60 - 113)
	80	(60 - 113)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

HPLC SAMPLE AND QC DATA

Form I (s)

Explosives

Los Alamos National Laboratory

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F0B230418

Matrix: (soil/water) WATER Lab Sample ID:F0B230417 001
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 503.8 / mL Date Received: 02/23/10
Work Order: LV0NW1AC Date Extracted:02/25/10
Dilution factor: 1 Date Analyzed: 03/01/10
Moisture %:NA
QC Batch: 0056259
Client Sample Id: INTRA-LAB QC

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.50	U
80251-29-2	DNX	0.50	U
13980-04-6	TNX	0.50	U

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	92	(60 - 113)

FORM I

Los Alamos National Laboratory

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F0B230418

Matrix: (soil/water) WATER Lab Sample ID:F0B230418 001
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 510.3 / mL Date Received: 02/23/10
Work Order: LV0N61AC Date Extracted:02/25/10
Dilution factor: 1 Date Analyzed: 03/01/10
Moisture %:NA
QC Batch: 0056259
Client Sample Id: CAPA-10-13498

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.50	U
80251-29-2	DNX	0.50	U
13980-04-6	TNX	0.50	U

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	103	(60 - 113)

FORM I

Los Alamos National Laboratory
METHOD BLANK COMPOUNDS

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F0B230418

Matrix: (soil/water) WATER Lab Sample ID:F0B250000 259
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 500 / mL Date Received: 02/23/10
Work Order: LV3231AA Date Extracted:02/25/10
Dilution factor: 1 Date Analyzed: 03/01/10
Moisture %:NA
QC Batch: 0056259
Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.50	U
80251-29-2	DNX	0.50	U
13980-04-6	TNX	0.50	U

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	91	(60 - 113)

FORM I

Los Alamos National Laboratory
CHECK SAMPLE COMPOUNDS

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F0B230418

Matrix: (soil/water) WATER Lab Sample ID:F0B250000 259
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 500 / mL Date Received: 02/23/10
Work Order: LV3231AC Date Extracted:02/25/10
Dilution factor: 1 Date Analyzed: 03/01/10
Moisture %:NA
QC Batch: 0056259
Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.703	
80251-29-2	DNX	0.492	
13980-04-6	TNX	0.688	

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	95	(70 - 106)

FORM I

Los Alamos National Laboratory
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F0B230418

Matrix: (soil/water) WATER Lab Sample ID:F0B230417 001
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 502.2 / mL Date Received: 02/23/10
Work Order: LV0NW1AE Date Extracted:02/25/10
Dilution factor: 1 Date Analyzed: 03/01/10
Moisture %:NA
QC Batch: 0056259
Client Sample Id: LAB MS/MSD

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.716	
80251-29-2	DNX	0.570	
13980-04-6	TNX	0.871	

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	80	(60 - 113)

FORM I

Los Alamos National Laboratory
MATRIX SPIKE COMPOUNDS

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F0B230418

Matrix: (soil/water) WATER Lab Sample ID:F0B230417 001
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 502.6 / mL Date Received: 02/23/10
Work Order: LV0NW1AD Date Extracted:02/25/10
Dilution factor: 1 Date Analyzed: 03/01/10
Moisture %:NA
QC Batch: 0056259
Client Sample Id: LAB MS/MSD

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.773	
80251-29-2	DNX	0.531	
13980-04-6	TNX	0.798	

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	98	(60 - 113)

FORM I

HPLC ADDITIONAL FORMS

SW846 8330 SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Los Alamos National Laboratory

Lab Code: TALSTL SDG No: F0B230418

Lot #: F0B230418

Extraction: XXI20A09Q

	CLIENT ID.	SRG01	TOT OUT
01	INTRA-LAB QC	92	00
02	CAPA-10-13498	103	00
03	METHOD BLK. LV3231AA	91	00
04	LCS LV3231AC	95	00
05	LAB MS/MSD D	80	00
06	LAB MS/MSD S	98	00

SURROGATES	QC LIMITS
SRG01 = 1,2-Dinitrobenzene	(60-113)

Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8330 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Los Alamos National Laboratory

Lab Code: TALSTL SDG No: F0B230418

Matrix Spike ID: LAB MS/MSD

Lot #: F0B230417 WO #: LV0NW1AD
BATCH: 0056259

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	MS CONCENT. (ug/L)	MS % REC	LIMITS REC	QUAL
MNX	0.726	ND	0.773	106	27- 150	
DNX	0.577	ND	0.531	92	18- 150	
TNX	0.825	ND	0.798	97	25- 139	

NOTES(S):

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 3 outside limits

COMMENTS:

FORM III

SW846 8330 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Los Alamos National Laboratory

Lab Code: TALSTL SDG No: F0B230418

Matrix Spike ID: LAB MS/MSD

Lot #: F0B230417 WO #: LV0NW1AE
BATCH: 0056259

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENT. (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	QUAL
MNX	0.726	0.716	99	7.7	20	27- 150	
DNX	0.577	0.570	99	7.1	20	18- 150	
TNX	0.826	0.871	105	8.7	30	25- 139	

NOTES(S):

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 3 outside limits
Spike Recovery: 0 out of 3 outside limits

COMMENTS:

FORM III

SW846 8330 CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Los Alamos National Laboratory

Lab Code: TALSTL SDG No: F0B230418

Lot #: F0B250000 WO #: LV3231AC
BATCH: 0056259

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
TNX	0.730	0.688	94	38- 120	
MNX	0.730	0.703	96	39- 133	
DNX	0.730	0.492	67	39- 124	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 3 outside limits

COMMENTS:

FORM III

BLANK WORKORDER NO.

LV3231AA

SW846 8330 METHOD BLANK SUMMARY

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALSTL

SDG Number:F0B230418

Lab File ID: NBLK3241

Lot Number: F0B230418

Date Analyzed: 03/01/10

Time Analyzed: 11:07

Matrix: WATER

Date Extracted:02/25/10

GC Column: C-18 ID: 4.60

Extraction Method: 3535

Instrument ID: LCN

Level:(low/med)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	INTRA-LAB QC	LV0NW1AC	NSMP3244	03/01/10	11:49
02	LAB MS/MSD	LV0NW1AD S	NSMP3245	03/01/10	12:03
03	LAB MS/MSD	LV0NW1AE D	NSMP3246	03/01/10	12:17
04	CAPA-10-13498	LV0N61AC	NSMP3247	03/01/10	12:31
05	CHECK SAMPLE	LV3231AC C	NLCS3242	03/01/10	11:21
06					
07					
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30					

COMMENTS:

FORM IV

HPLC STANDARDS DATA

INITIAL CALIBRATION DATA

CALIBRATION VERIFICATION DATA

Report Date : 02-Dec-2009 13:00

TestAmerica St. Louis

INITIAL CALIBRATION DATA

Start Cal Date : 25-NOV-2009 10:16
End Cal Date : 25-NOV-2009 11:26
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Last Edit : 01-Dec-2009 11:37 hanw
Curve Type : Average

Calibration File Names:
Level 3: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1314.D
Level 4: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1315.D
Level 5: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1316.D
Level 6: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1317.D
Level 7: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1318.D
Level 8: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1319.D

Compound	25.000 Level 3	50.000 Level 4	125.000 Level 5	250.000 Level 6	500.000 Level 7	1000.000 Level 8	RRF	% RSD
1 TNX	598	625	647	678	664	670	647	4.705
2 DNX	690	619	613	637	608	613	630	4.970
3 MNX	522	500	474	499	481	484	493	3.537
$ 4 1,2-Dinitrobenzene	535	519	510	520	510	512	518	1.844

Report Date : 02-Dec-2009 15:37

TestAmerica St. Louis

COMPOUND LISTING

Method file : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Quant Method : ESTD
Target Version : 4.14
Last Update : 01-Dec-2009 11:37
Number of Cpnds : 4
Data Type : LC DATA

Global Integrator : HP Genie

Chromat Events	Values
Initial:Thresh Units	5.000000
Initial:Peak Width	0.100000
Initial:Area Reject	20.000000
Initial:Solvent Slope	100000.000000
Initial:Split Solvent	2000.000000

	Compound	RT	RT Window	RF
	1 TNX	3.838	3.738-3.938	6.47e+002
	2 DNX	4.324	4.224-4.424	6.30e+002
	3 MNX	5.239	5.139-5.339	4.93e+002
$	4 1,2-Dinitrobenzene	8.707	8.607-8.807	5.18e+002

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1314.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1314.D
Lab Smp Id: 8330 ICAL-3 Client Smp ID: 8330 ICAL-3
Inj Date : 25-NOV-2009 10:16
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-3
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.860	3.837	0.023	12042	20.1213	18.61
2 DNX	4.360	4.324	0.036	9507	13.7700	15.09(M)
3 MNX	4.360	5.239	-0.879	9507	18.1975	19.26(M)
$ 4 1,2-Dinitrobenzene	8.833	8.706	0.127	13376	25.0000	25.84(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1314.D
Date : 25-NOV-2009 10:16
Client ID: 8330 ICAL-3
Sample Info: 8330 ICAL-3
Purge Volume: 500.0
Column phase: C18

Instrument: Lcn.i
Operator: WH
Column diameter: 4.60

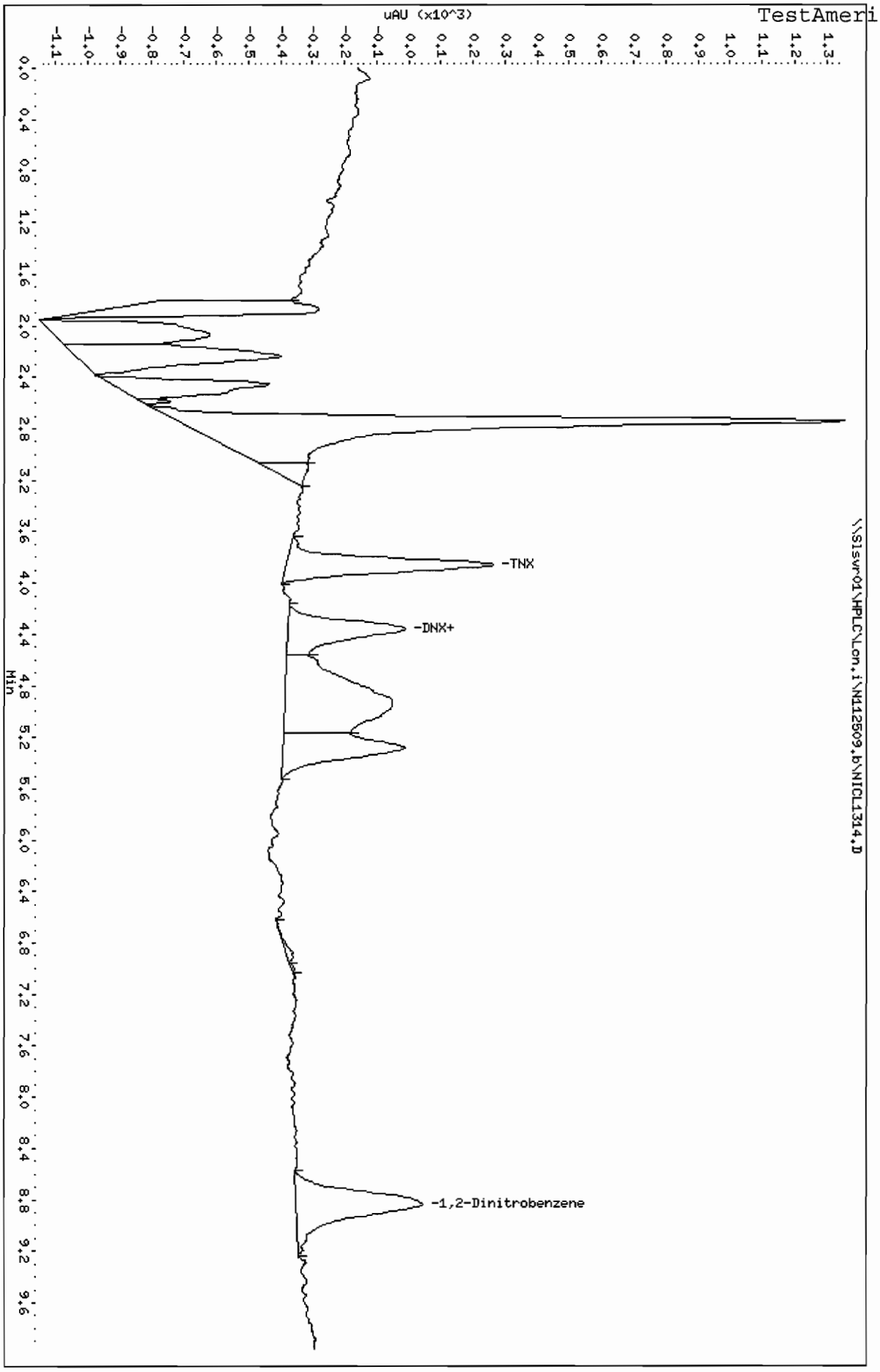

Data File Name: NICL1314.D
Inj. Date and Time: 25-NOV-2009 10:16
Instrument ID: Lcn.i
Client ID: 8330 ICAL-3
Compound Name: DNX
CAS #:

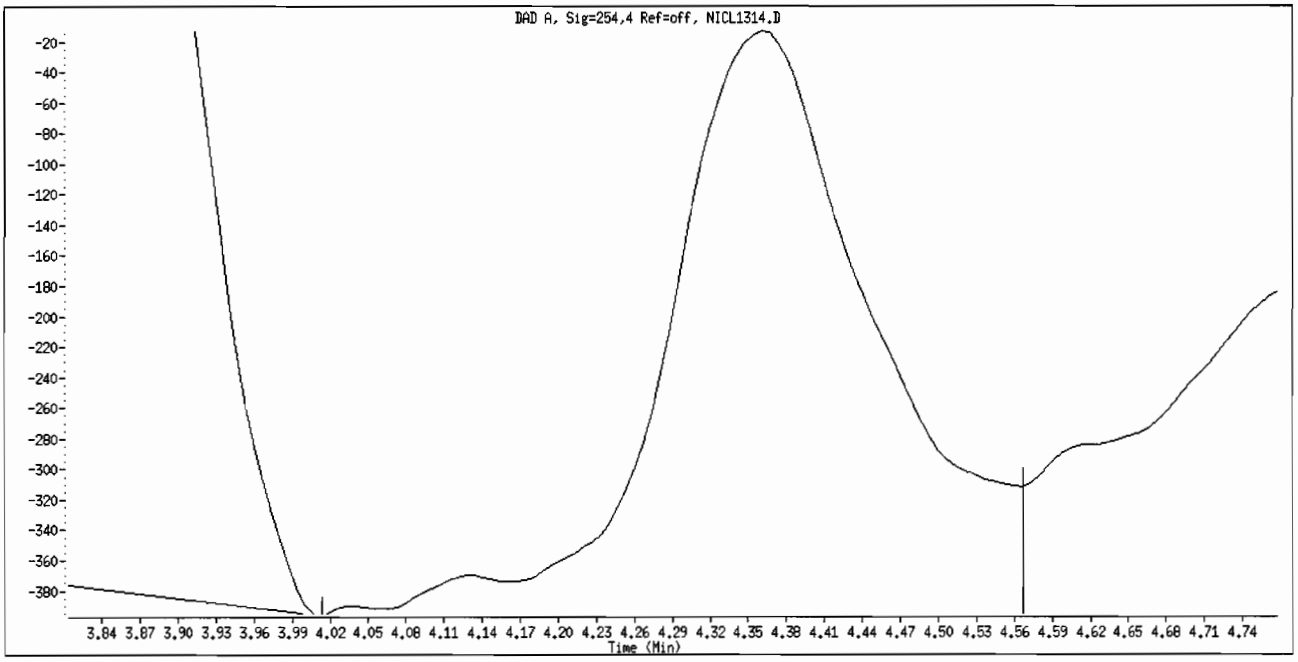

Original Integration

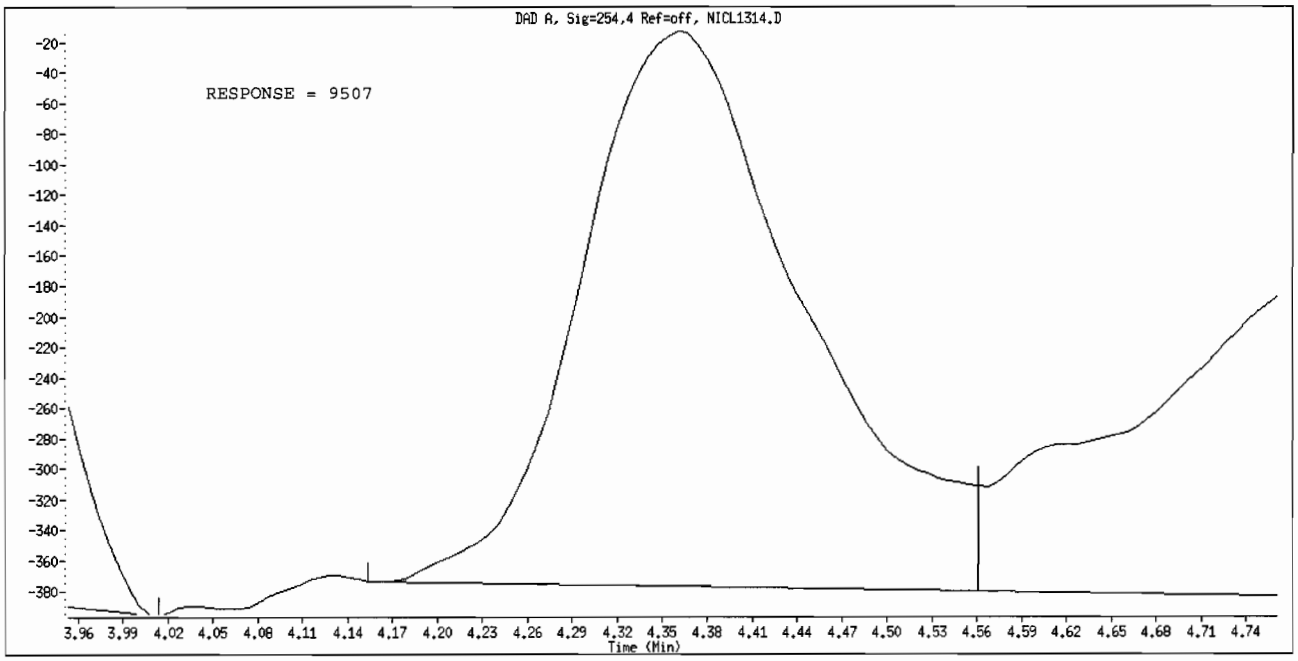

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1314.D
Inj. Date and Time: 25-NOV-2009 10:16
Instrument ID: Lcn.i
Client ID: 8330 ICAL-3
Compound Name: MNX
CAS #:

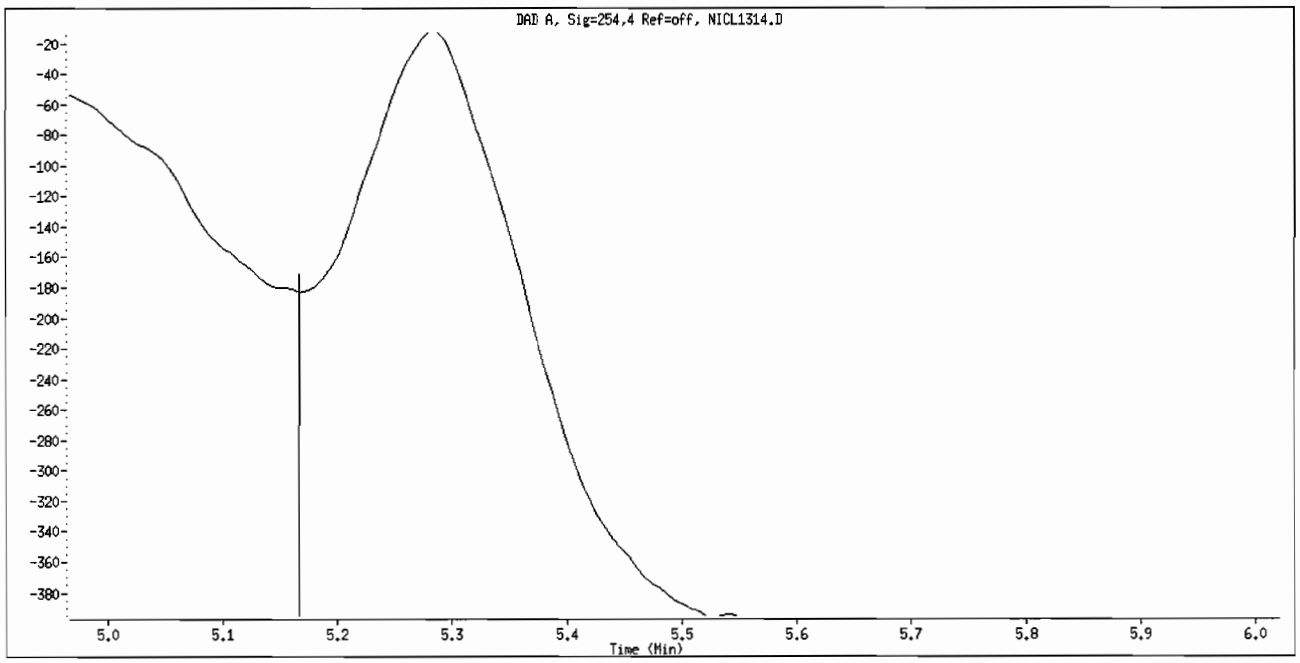

Original Integration

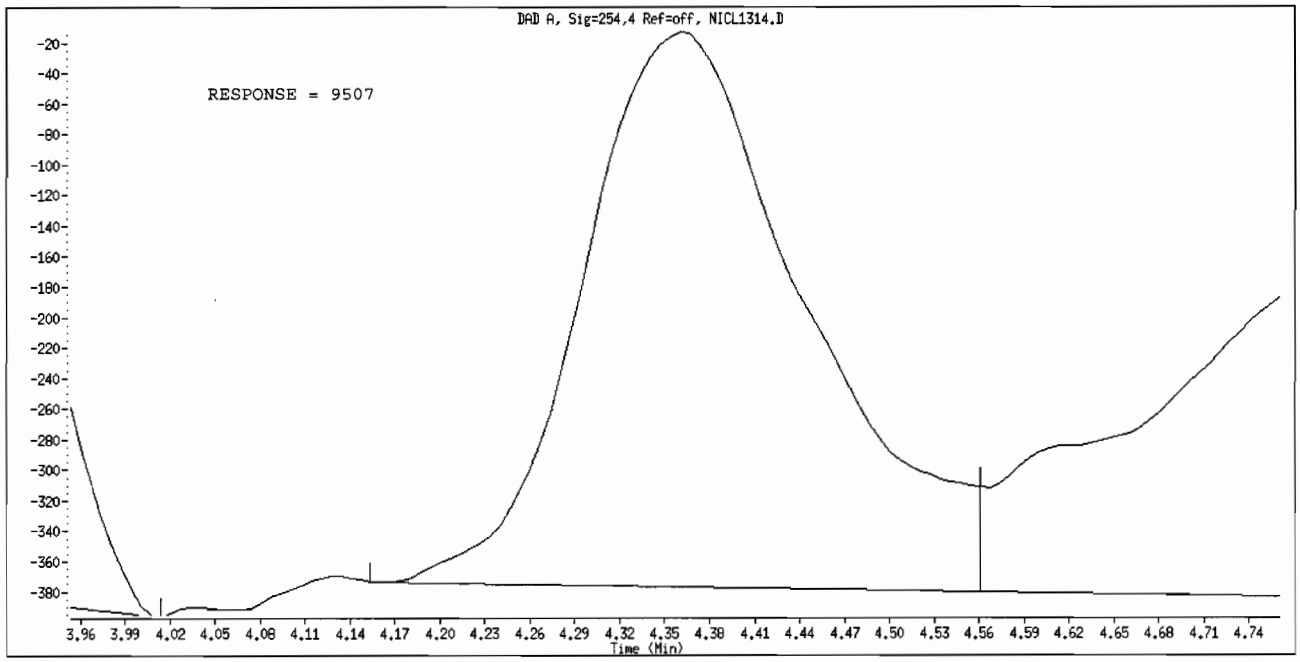

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1314.D
Inj. Date and Time: 25-NOV-2009 10:16
Instrument ID: Lcn.i
Client ID: 8330 ICAL-3
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

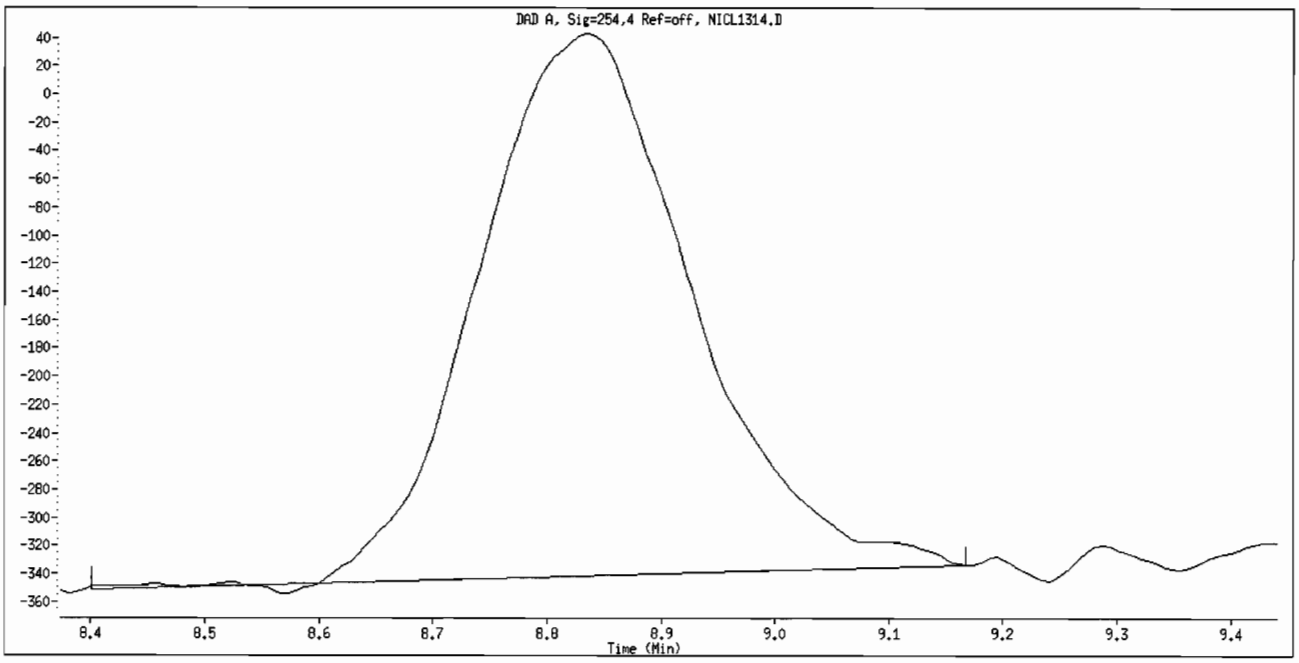

Original Integration

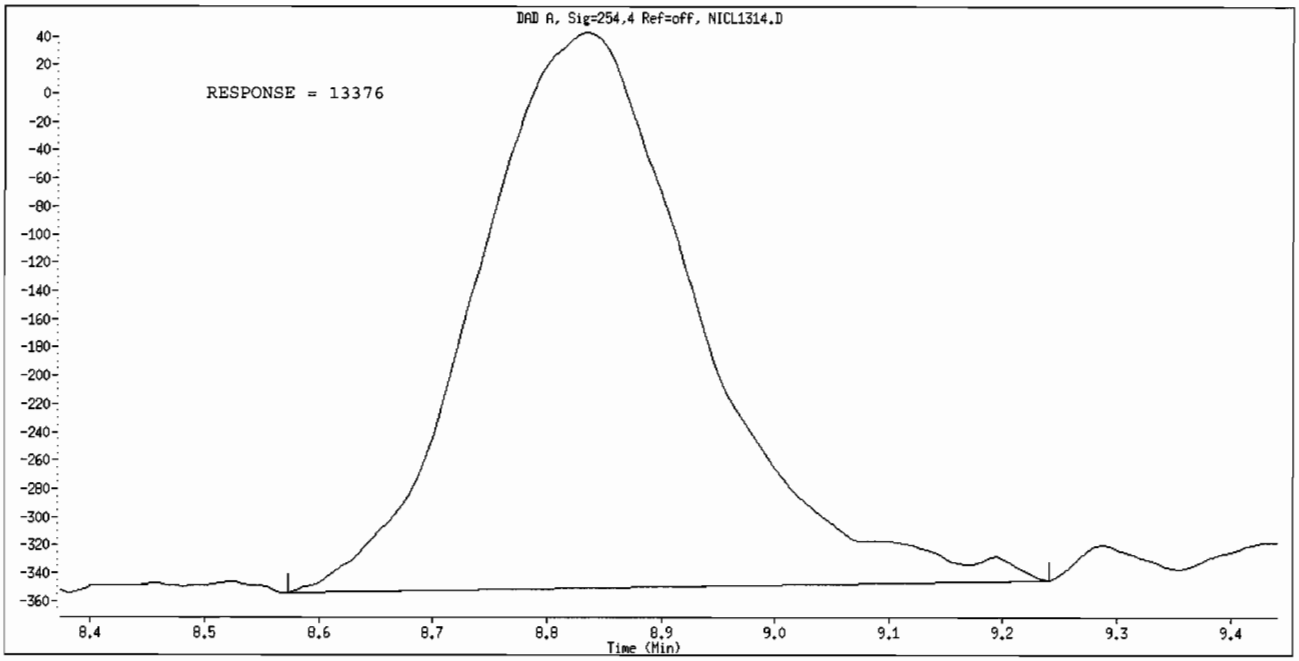

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1315.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1315.D
Lab Smp Id: 8330 ICAL-4 Client Smp ID: 8330 ICAL-4
Inj Date : 25-NOV-2009 10:30
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-4
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.832	3.837	-0.005	25142	40.2425	38.86(M)
2 DNX	4.319	4.324	-0.005	17047	27.5400	27.06(M)
3 MNX	5.232	5.239	-0.007	18212	36.3950	36.90(M)
$ 4 1,2-Dinitrobenzene	8.692	8.706	-0.014	25936	50.0000	50.09(M)

QC Flag Legend

M - Compound response manually integrated.

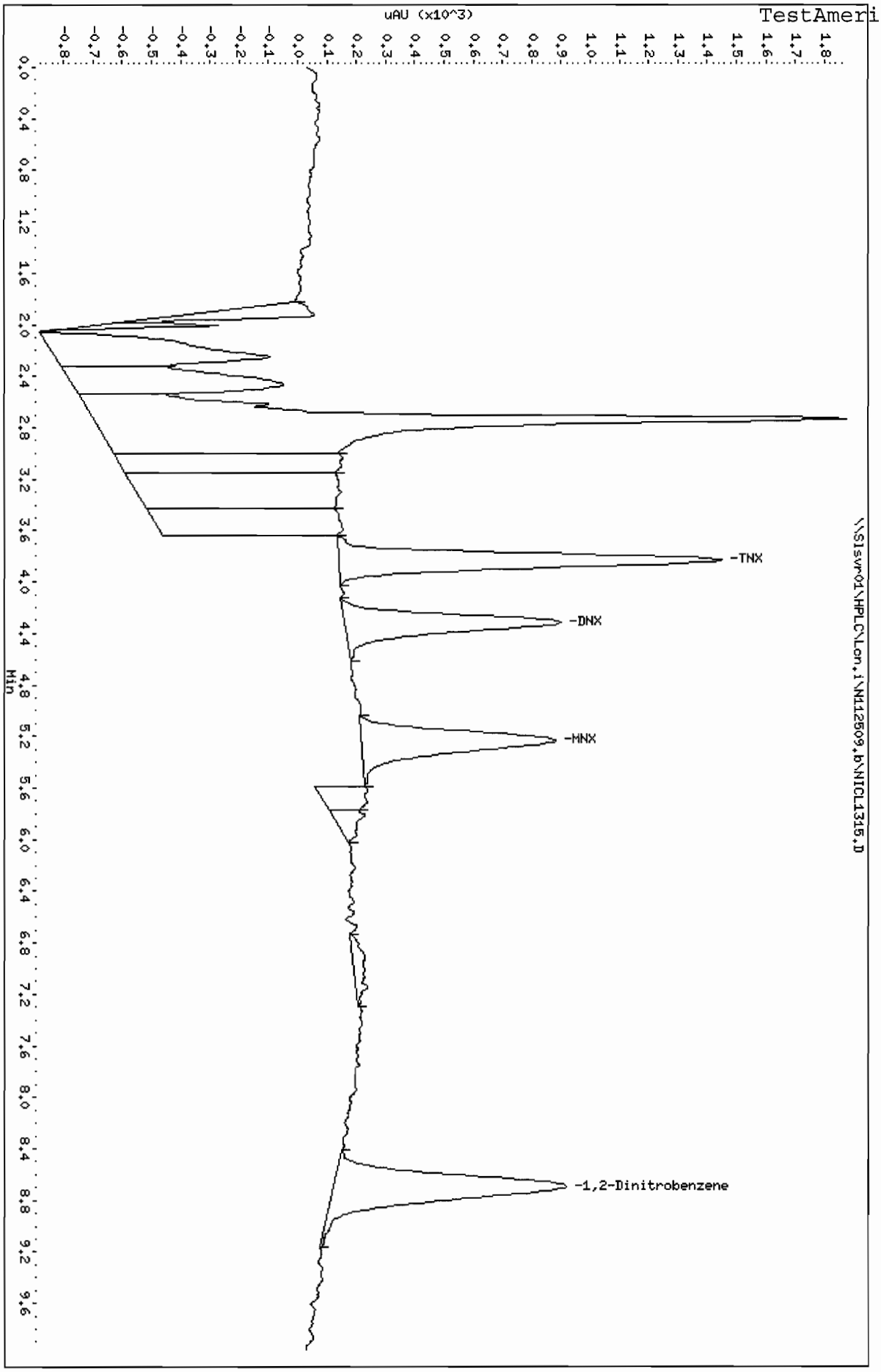
Data File: \\Slsvr01\HPLC\Lon,i\N112509,b\NICL1315.D
Date : 25-NOV-2009 10:30
Client ID: 8330 ICAL-4
Sample Info: 8330 ICAL-4
Purge Volume: 500.0
Column phase: C18
Instrument: Lon,i
Operator: WH
Column diameter: 4.60
\\Slsvr01\HPLC\Lon,i\N112509,b\NICL1315.D
uAU (x10^3)
Min
-TNX
-DNX
-MNX
-1,2-Dinitrobenzene

Data File Name: NICL1315.D
Inj. Date and Time: 25-NOV-2009 10:30
Instrument ID: Lcn.i
Client ID: 8330 ICAL-4
Compound Name: TNX
CAS #:

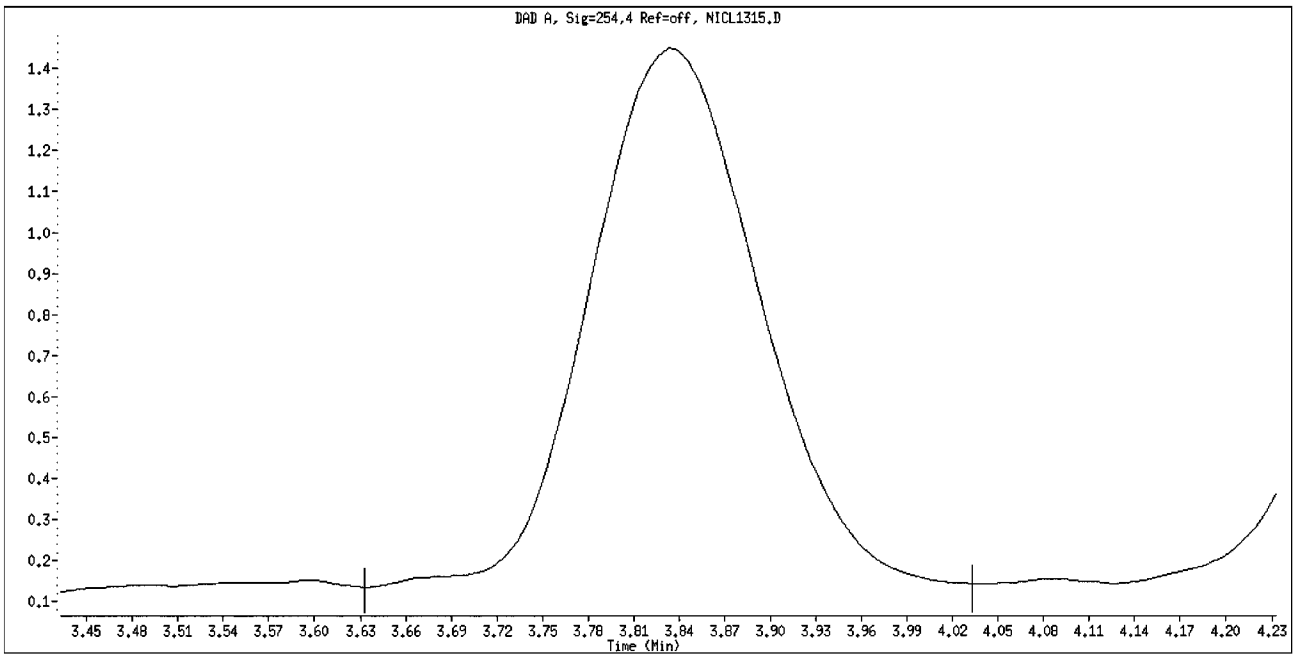

Original Integration

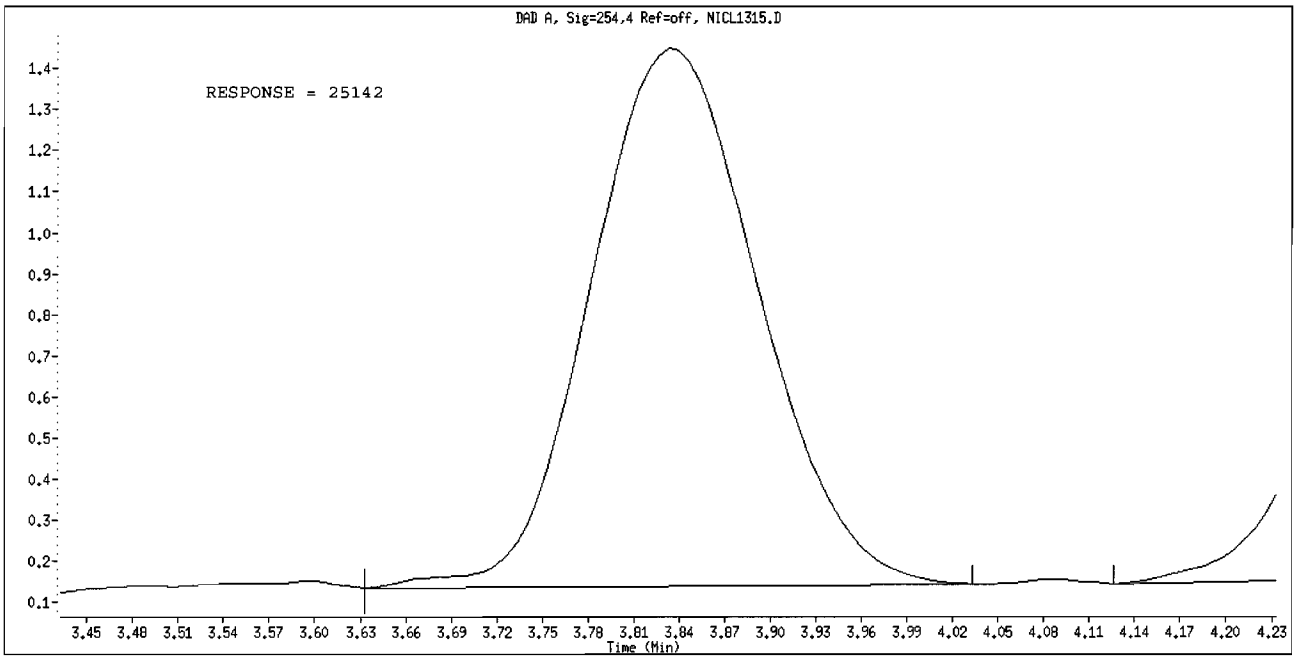

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1315.D
Inj. Date and Time: 25-NOV-2009 10:30
Instrument ID: Lcn.i
Client ID: 8330 ICAL-4
Compound Name: DNX
CAS #:

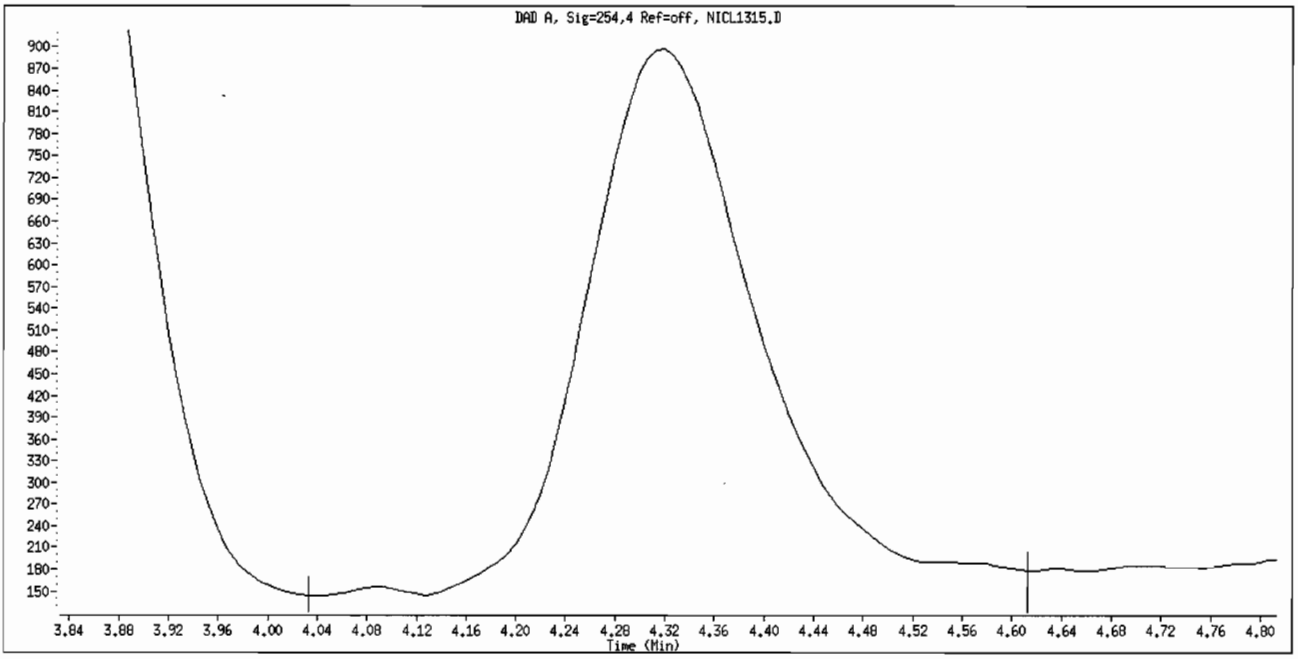

Original Integration

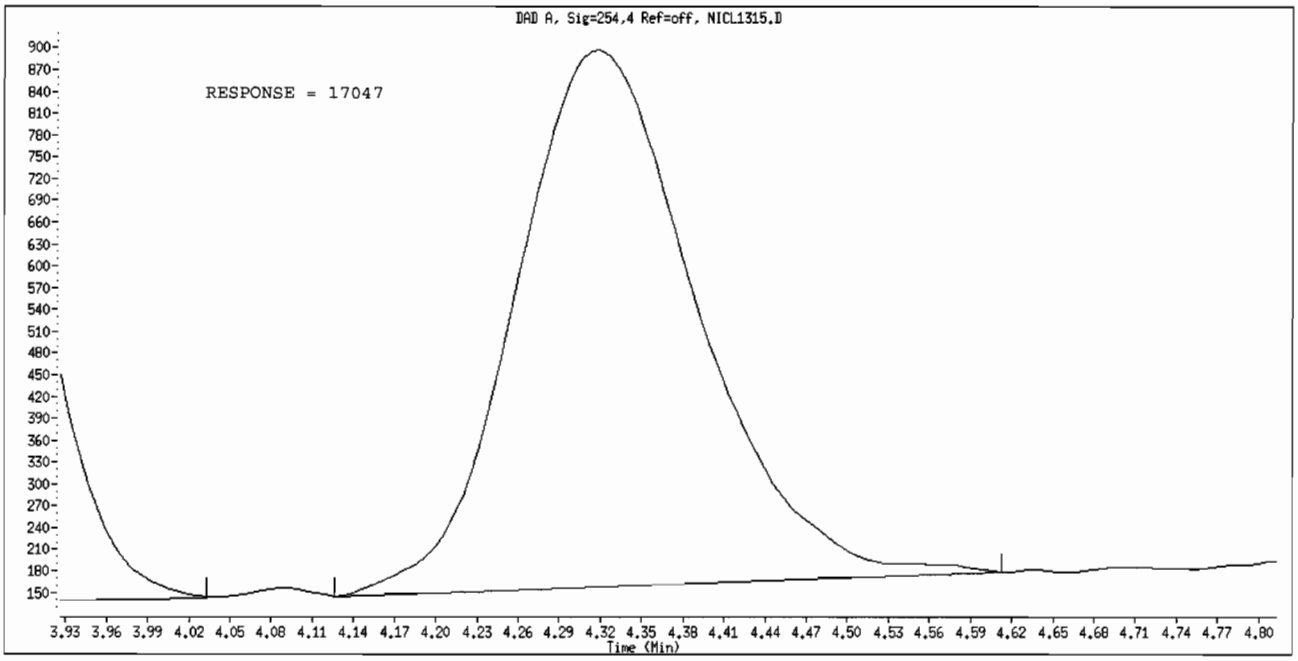

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1315.D
Inj. Date and Time: 25-NOV-2009 10:30
Instrument ID: Lcn.i
Client ID: 8330 ICAL-4
Compound Name: MNX
CAS #:

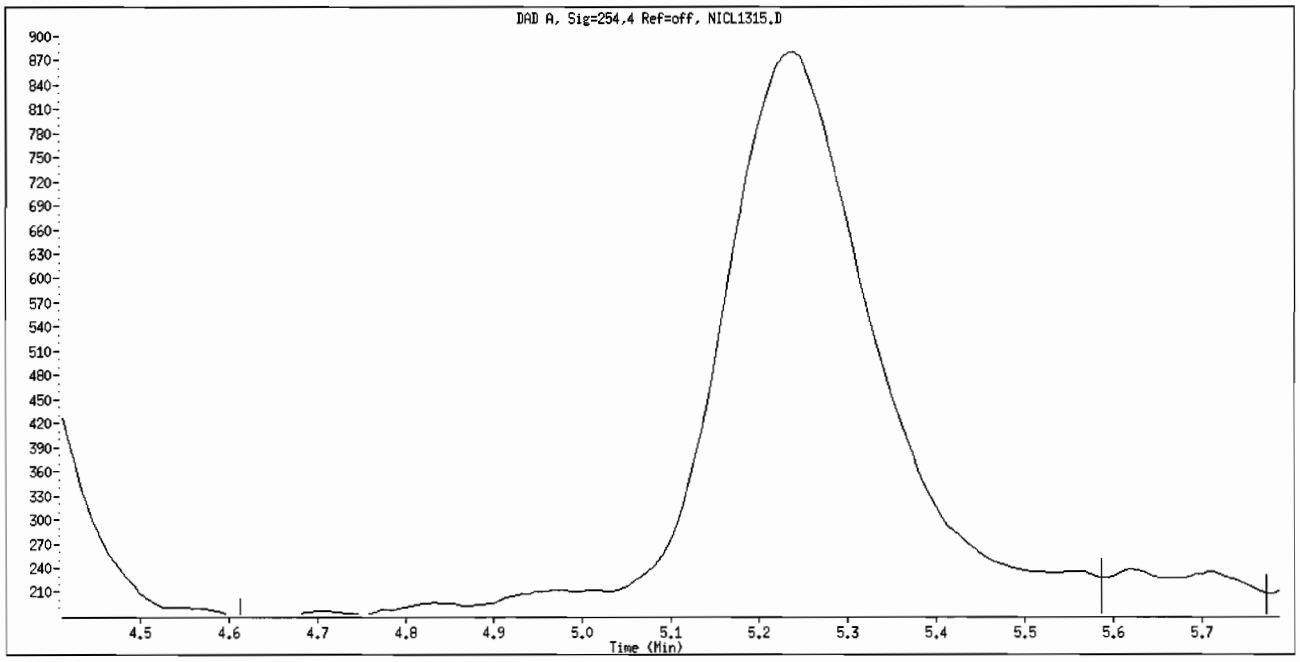

Original Integration

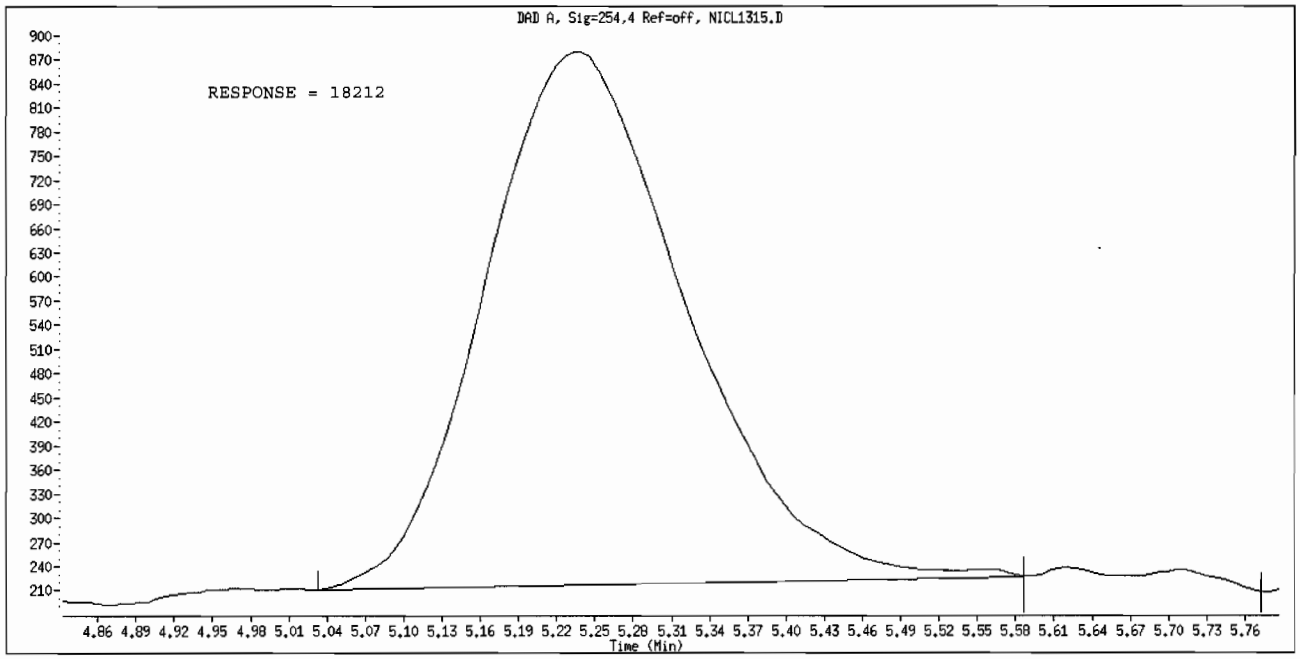

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1315.D
Inj. Date and Time: 25-NOV-2009 10:30
Instrument ID: Lcn.i
Client ID: 8330 ICAL-4
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

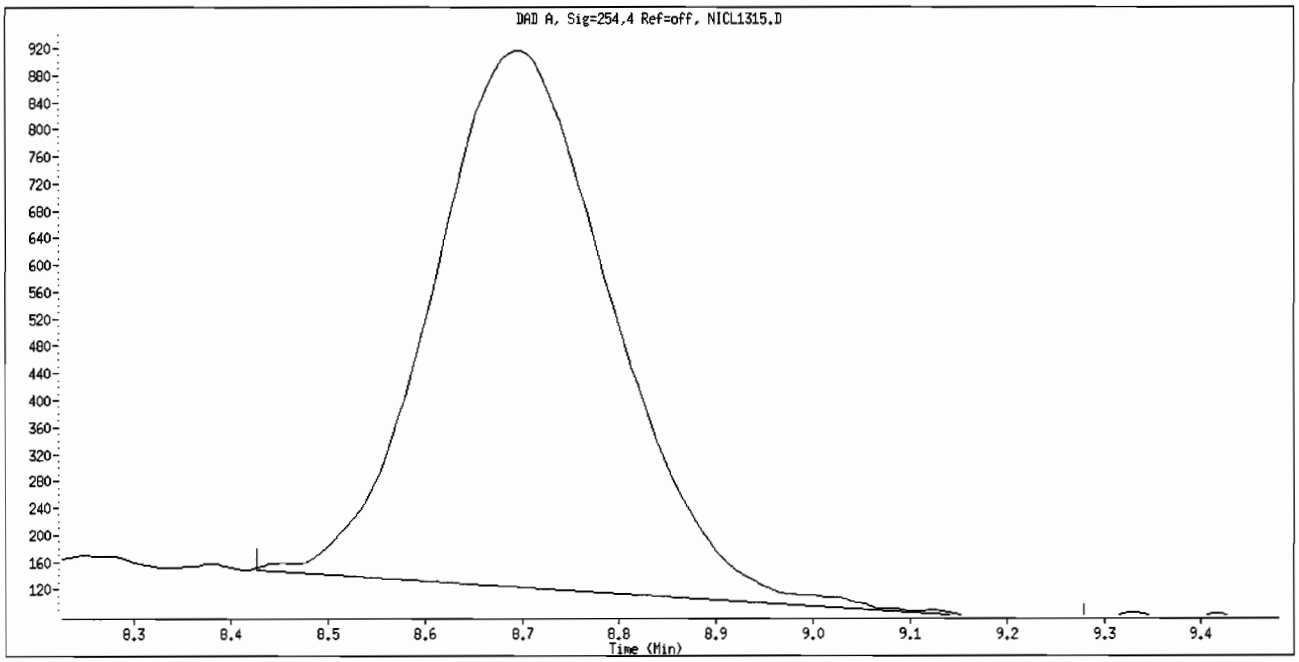

Original Integration

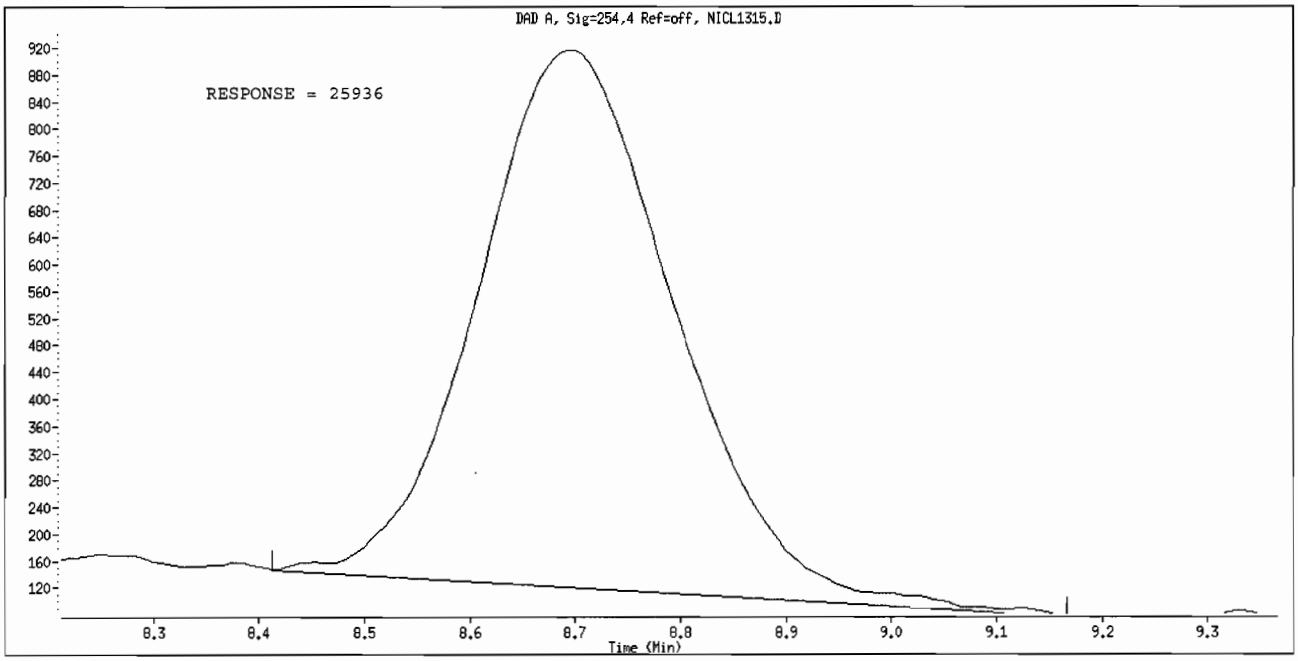

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1316.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1316.D
Lab Smp Id: 8330 ICAL-5 Client Smp ID: 8330 ICAL-5
Inj Date : 25-NOV-2009 10:44
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-5
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.828	3.837	-0.009	65101	100.606	100.6(M)
2 DNX	4.315	4.324	-0.009	42178	68.8500	66.95(M)
3 MNX	5.228	5.239	-0.011	43167	90.9875	87.47(M)
$ 4 1,2-Dinitrobenzene	8.688	8.706	-0.018	63701	125.000	123.0(M)

QC Flag Legend

M - Compound response manually integrated.

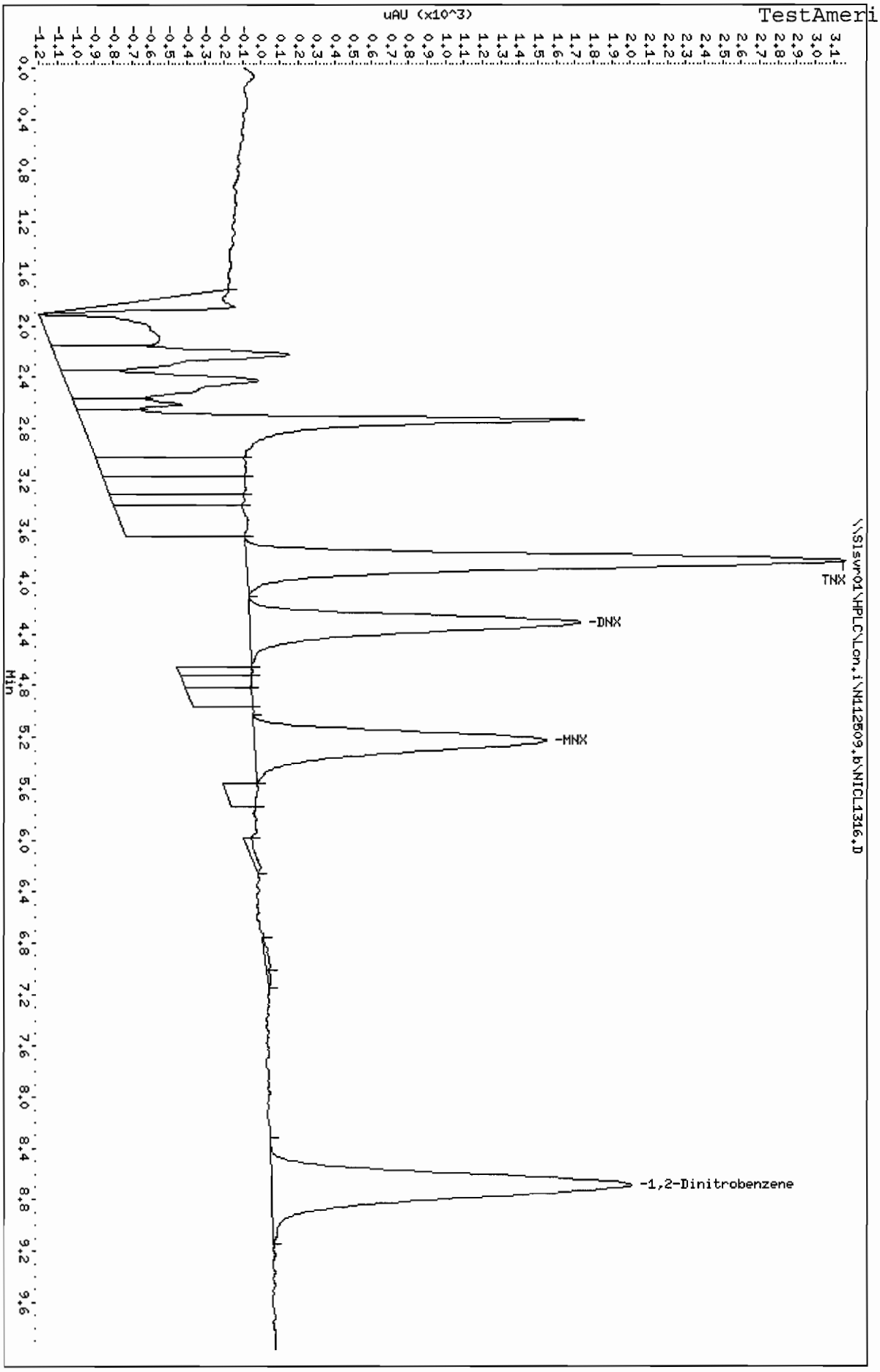
Data File: \\Slsvr01\HPLC\Lcn,i\N112509,b\NICL1316,D
Date : 25-NOV-2009 10:44
Client ID: 8330 ICAL-5
Sample Info: 8330 ICAL-5
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn,i
Operator: WH
Column diameter: 4.60
uAU (x10^3)
\\Slsvr01\HPLC\Lcn,i\N112509,b\NICL1316,D
TNX
-DNX
-MNX
-1,2-Dinitrobenzene
Min

Data File Name: NICL1316.D
Inj. Date and Time: 25-NOV-2009 10:44
Instrument ID: Lcn.i
Client ID: 8330 ICAL-5
Compound Name: TNX
CAS #:

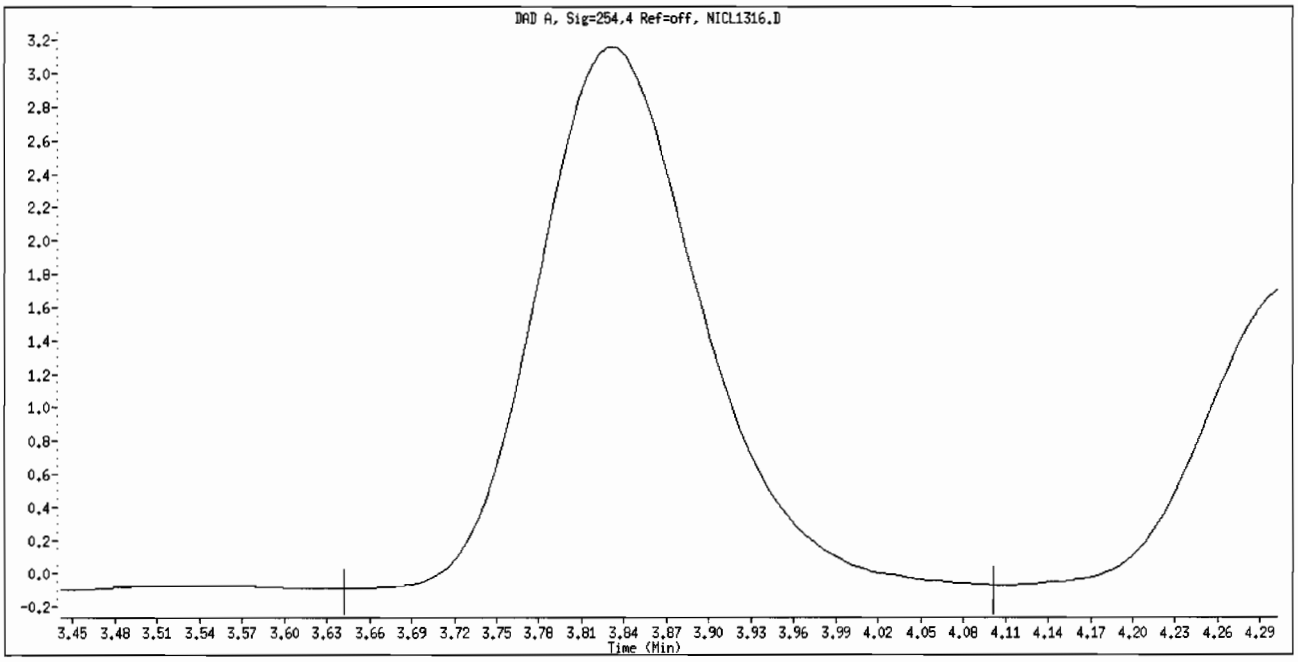

Original Integration

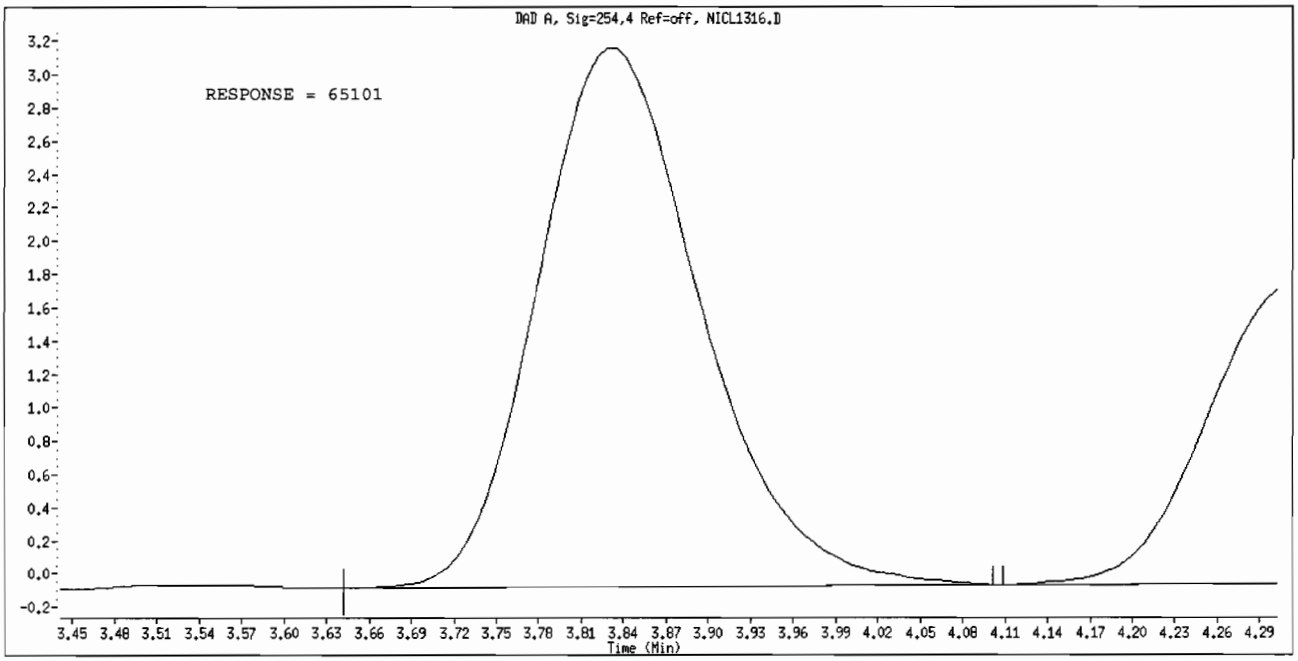

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1316.D
Inj. Date and Time: 25-NOV-2009 10:44
Instrument ID: Lcn.i
Client ID: 8330 ICAL-5
Compound Name: DNX
CAS #:

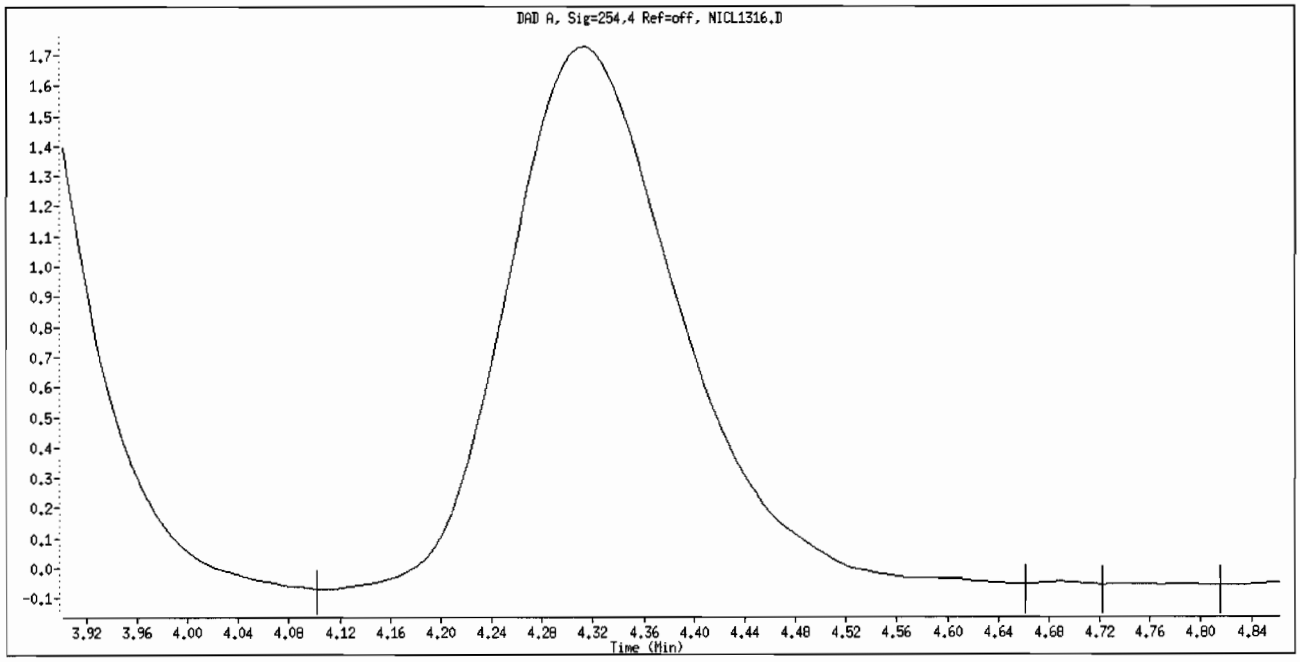

Original Integration

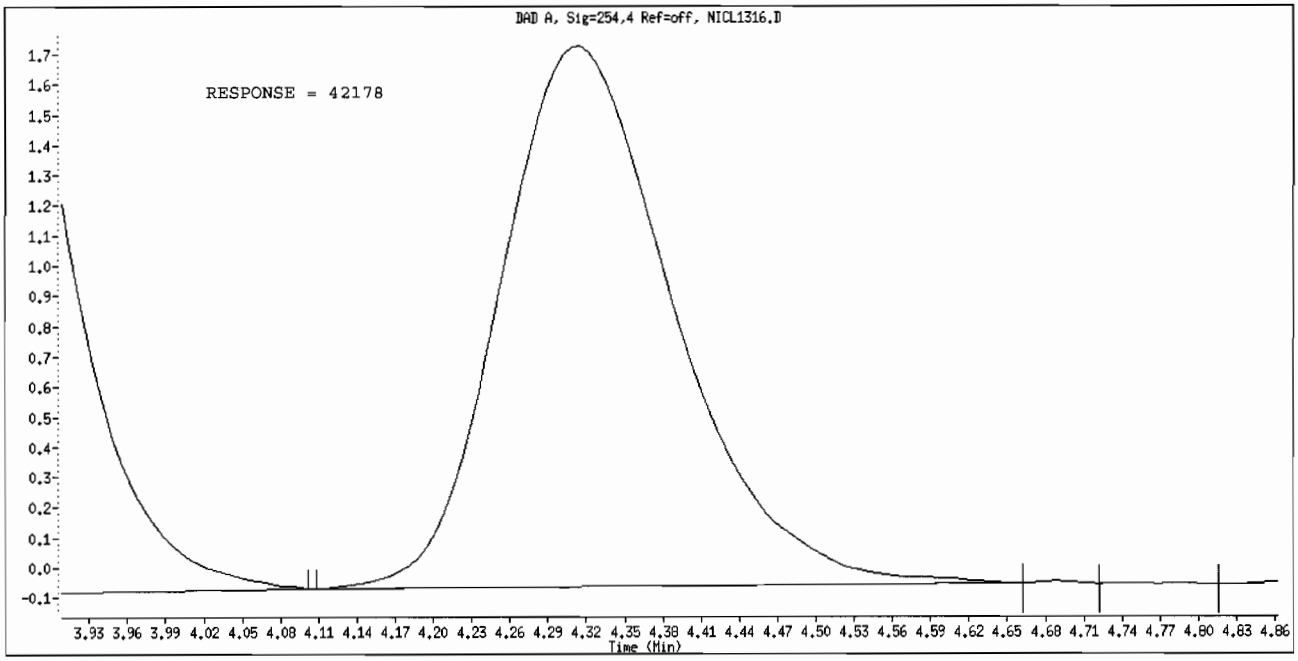

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1316.D
Inj. Date and Time: 25-NOV-2009 10:44
Instrument ID: Lcn.i
Client ID: 8330 ICAL-5
Compound Name: MNX
CAS #:

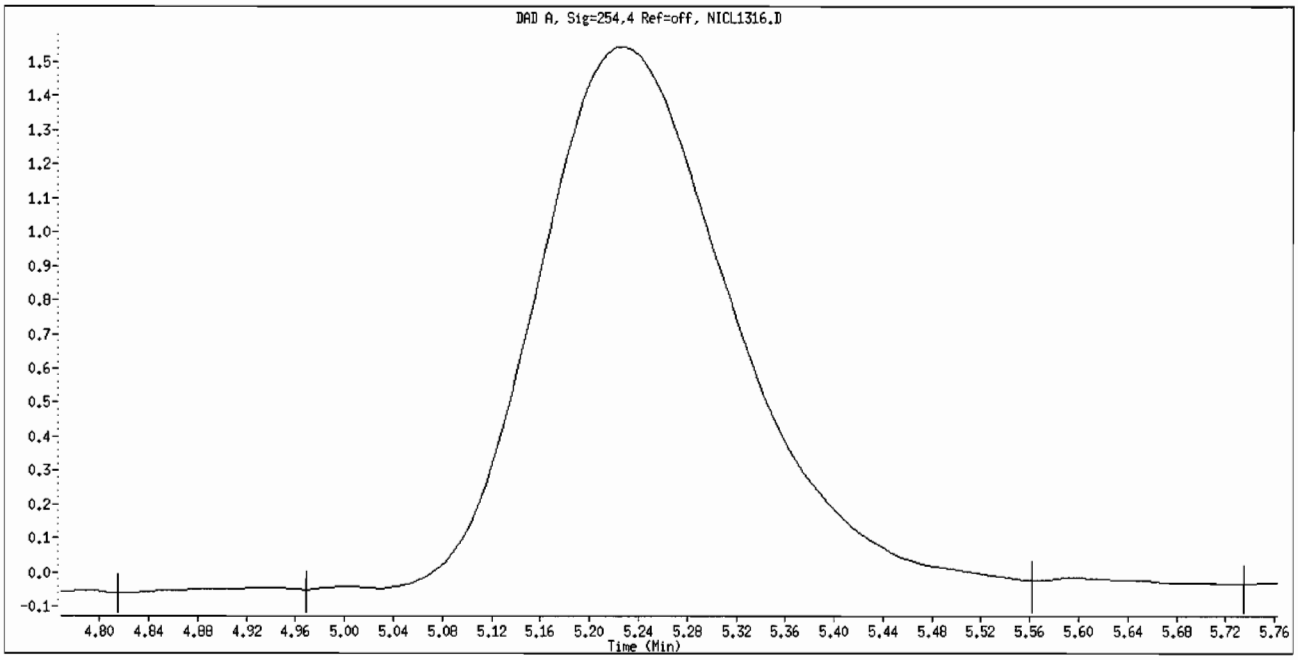

Original Integration

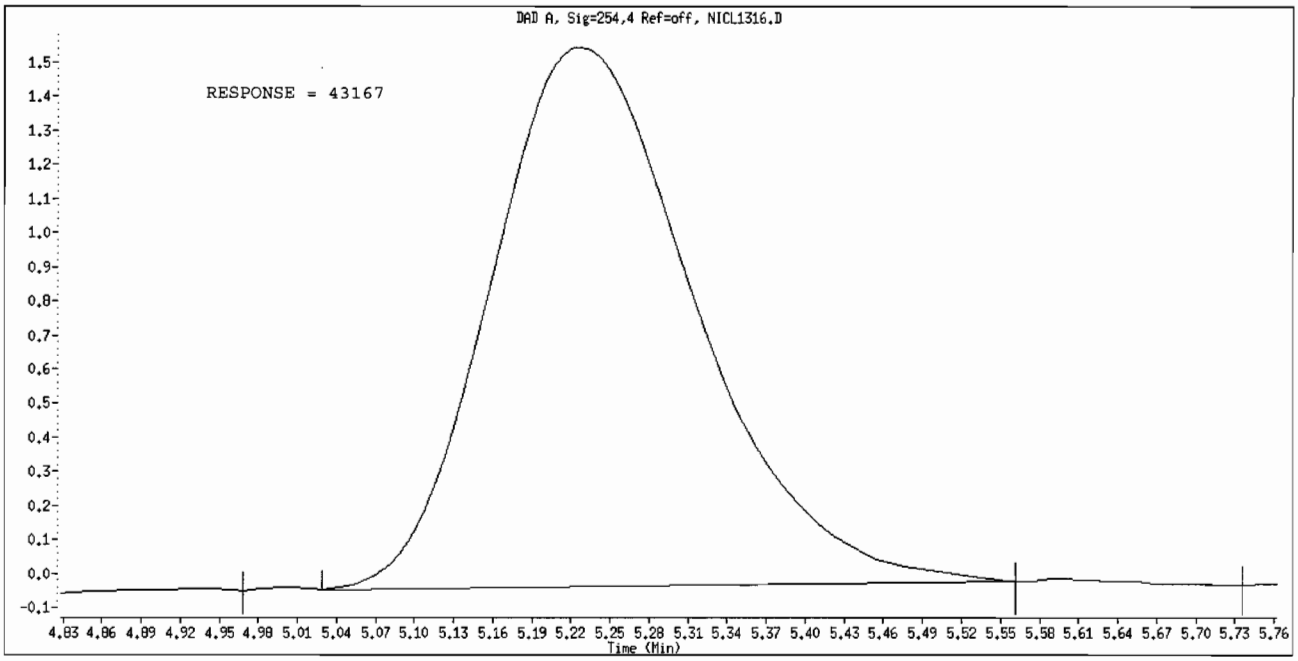

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1316.D
Inj. Date and Time: 25-NOV-2009 10:44
Instrument ID: Lcn.i
Client ID: 8330 ICAL-5
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

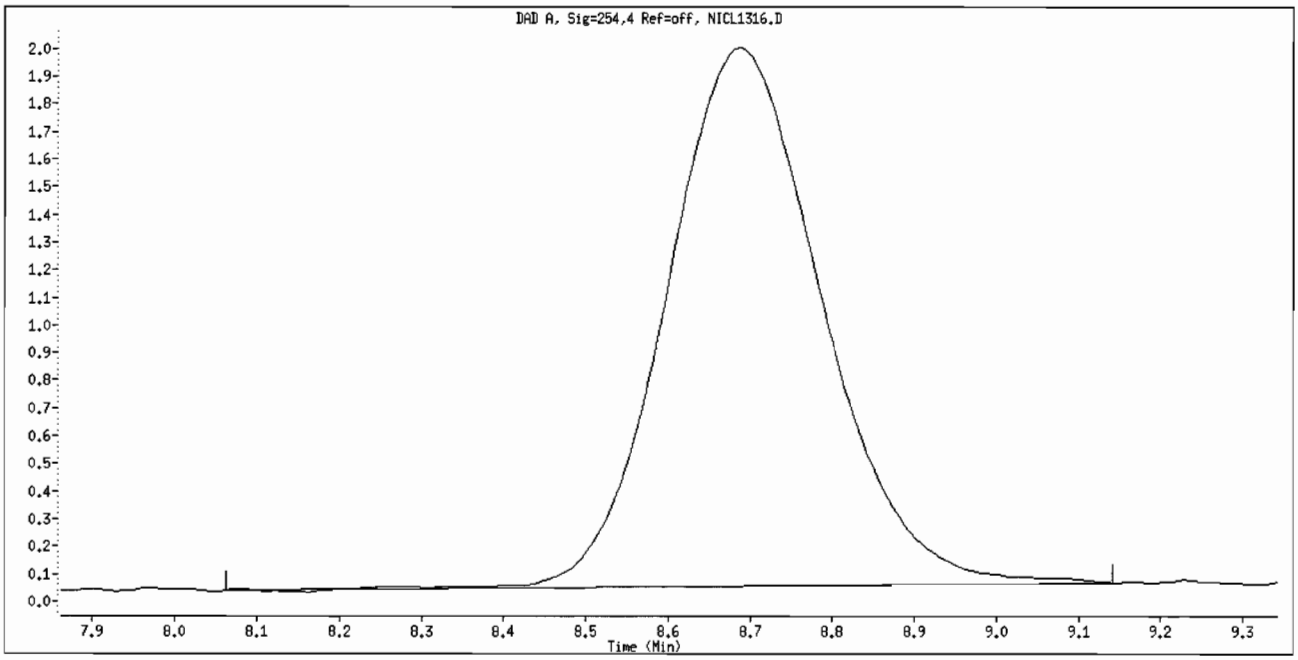

Original Integration

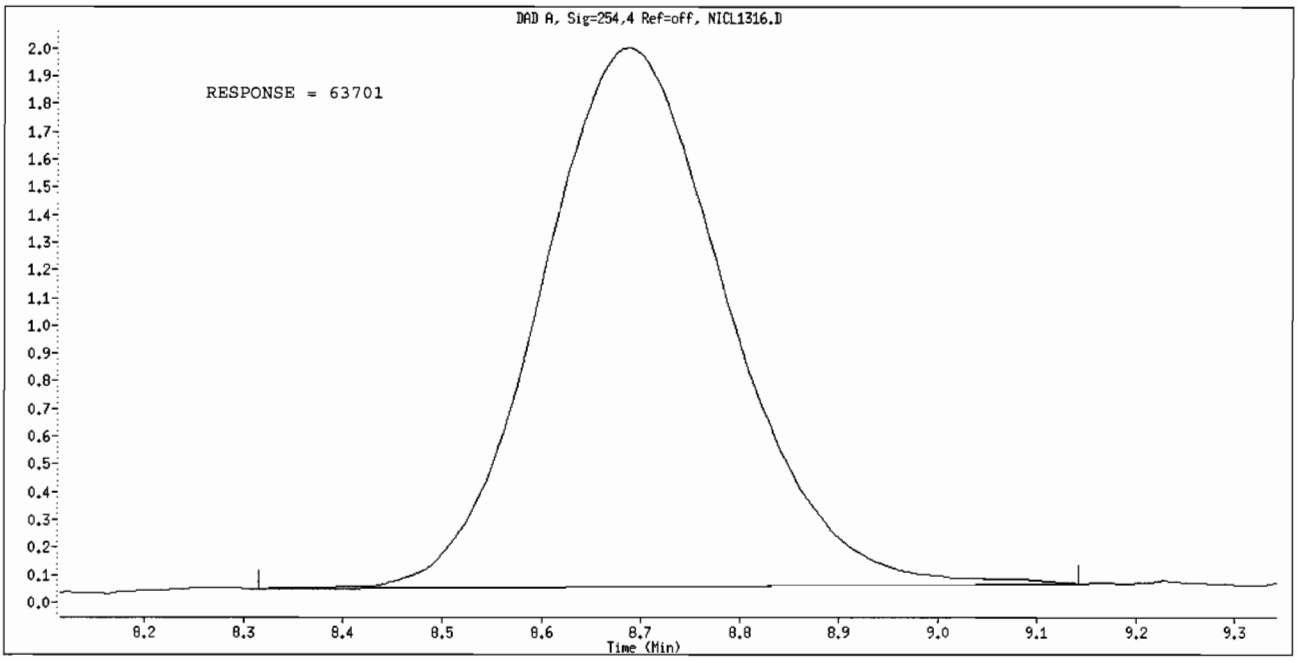

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1317.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1317.D
Lab Smp Id: 8330 ICAL-6 Client Smp ID: 8330 ICAL-6
Inj Date : 25-NOV-2009 10:58
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-6
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.833	3.837	-0.004	136444	201.213	210.9
2 DNX	4.315	4.324	-0.009	87699	137.700	139.2
3 MNX	5.232	5.239	-0.007	90745	181.975	183.9
$ 4 1,2-Dinitrobenzene	8.711	8.706	0.005	130071	250.000	251.2(M)

QC Flag Legend

M - Compound response manually integrated.

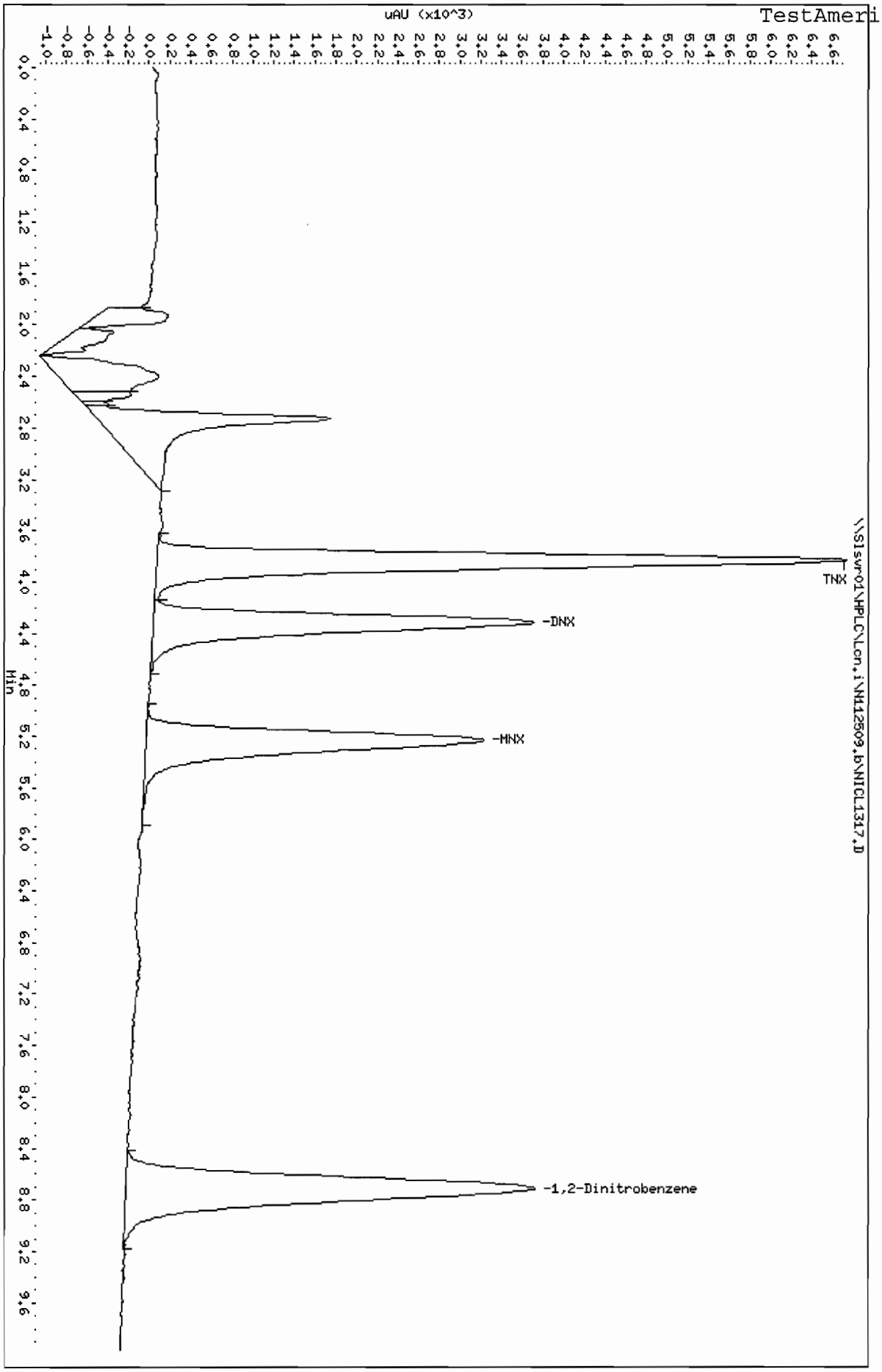
Data File: \\Slsvr01\HPLC\Lon,i\N112509,b\NICL1317,D
Date : 25-NOV-2009 10:58
Client ID: 8330 ICAL-6
Sample Info: 8330 ICAL-6
Purge Volume: 500.0
Column phase: C18
Instrument: Lon,i
Operator: WH
Column diameter: 4.60
uAU (x10^3)
\\Slsvr01\HPLC\Lon,i\N112509,b\NICL1317,D
TNX
-DNX
-MNX
-1,2-Dinitrobenzene
Min

Data File Name: NICL1317.D
Inj. Date and Time: 25-NOV-2009 10:58
Instrument ID: Lcn.i
Client ID: 8330 ICAL-6
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

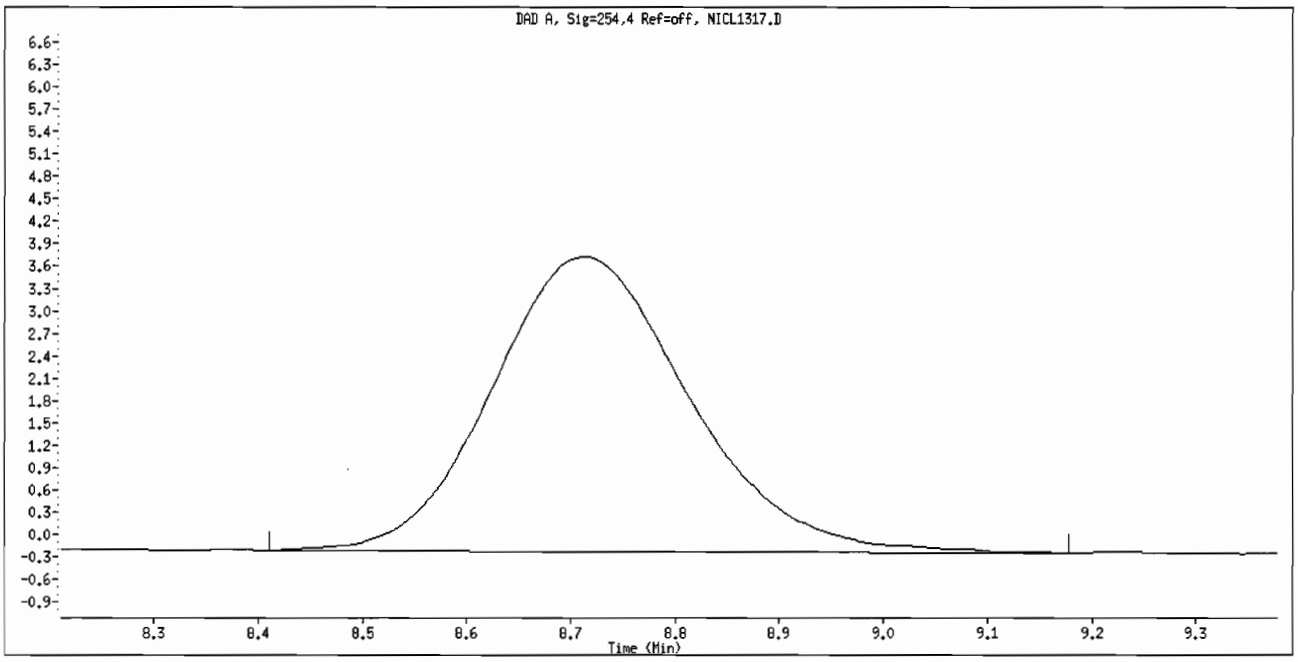

Original Integration

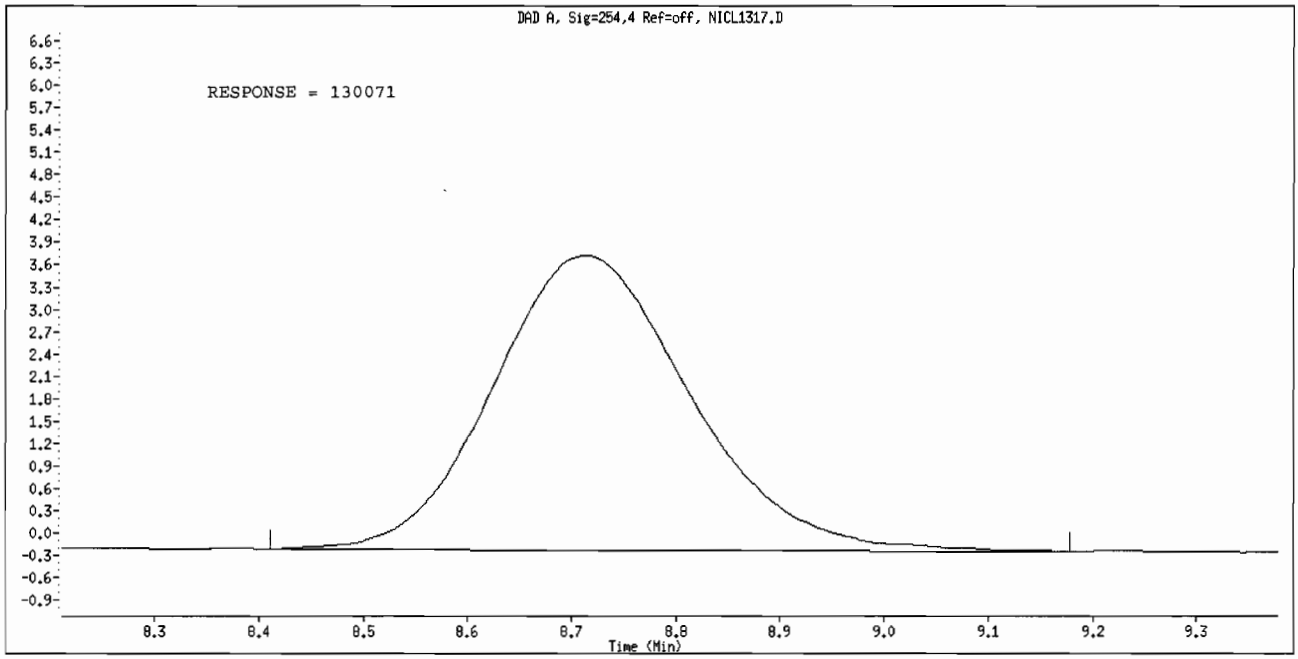

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1318.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1318.D
Lab Smp Id: 8330 ICAL-7 Client Smp ID: 8330 ICAL-7
Inj Date : 25-NOV-2009 11:12
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-7
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.831	3.837	-0.006	267028	402.425	412.7(M)
2 DNX	4.318	4.324	-0.006	167438	275.400	265.8(M)
3 MNX	5.231	5.239	-0.008	174954	363.950	354.5(M)
$ 4 1,2-Dinitrobenzene	8.704	8.706	-0.002	255155	500.000	492.8(M)

QC Flag Legend

M - Compound response manually integrated.

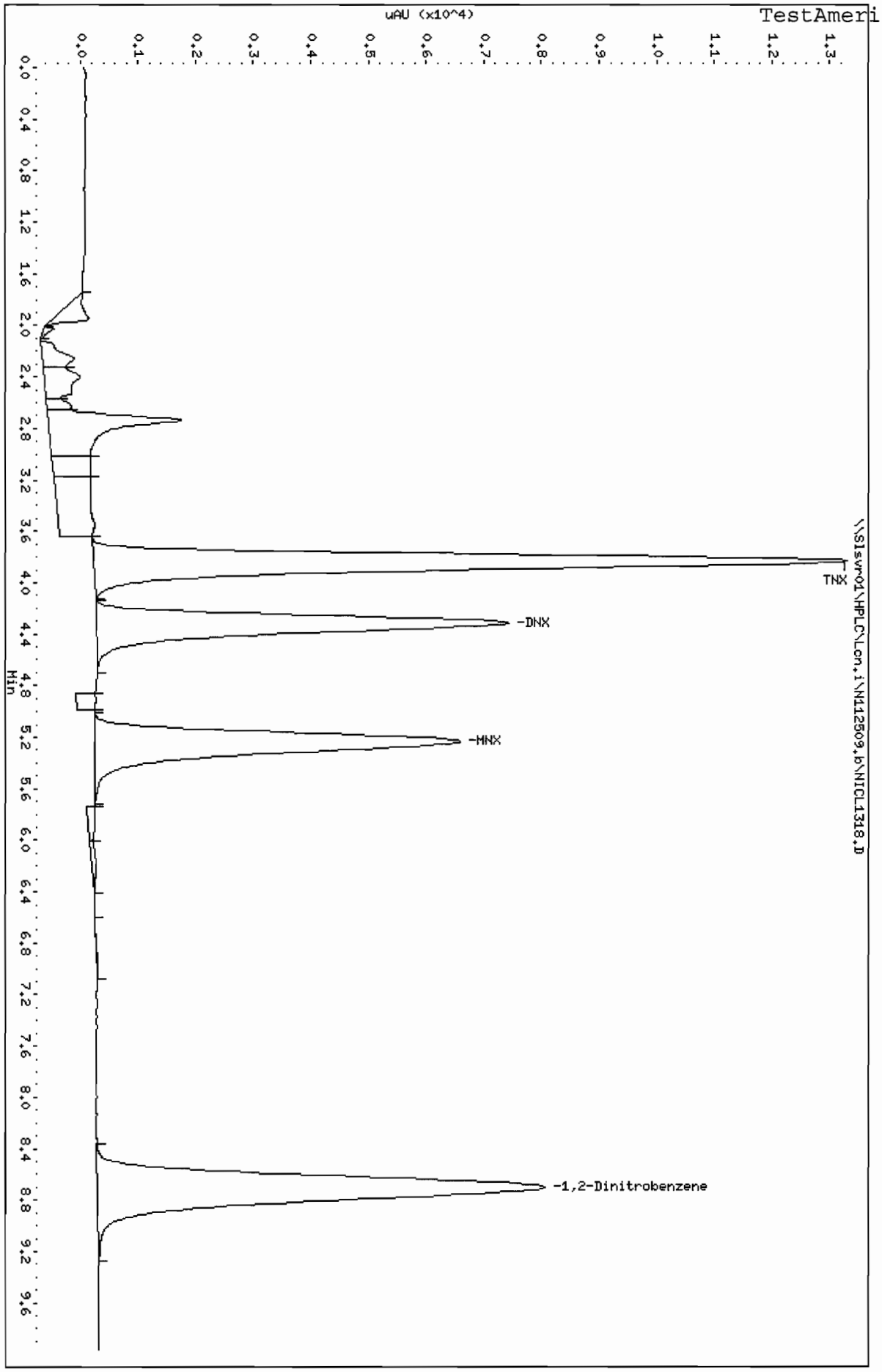
Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1318.D
Date : 25-NOV-2009 11:12
Client ID: 8330 ICAL-7
Sample Info: 8330 ICAL-7
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn.i
Operator: WH
Column diameter: 4.60
uAU (x10^4)
\\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1318.D
TNX
-DNX
-MNX
-1,2-Dinitrobenzene
Min

Data File Name: NICL1318.D
Inj. Date and Time: 25-NOV-2009 11:12
Instrument ID: Lcn.i
Client ID: 8330 ICAL-7
Compound Name: TNX
CAS #:

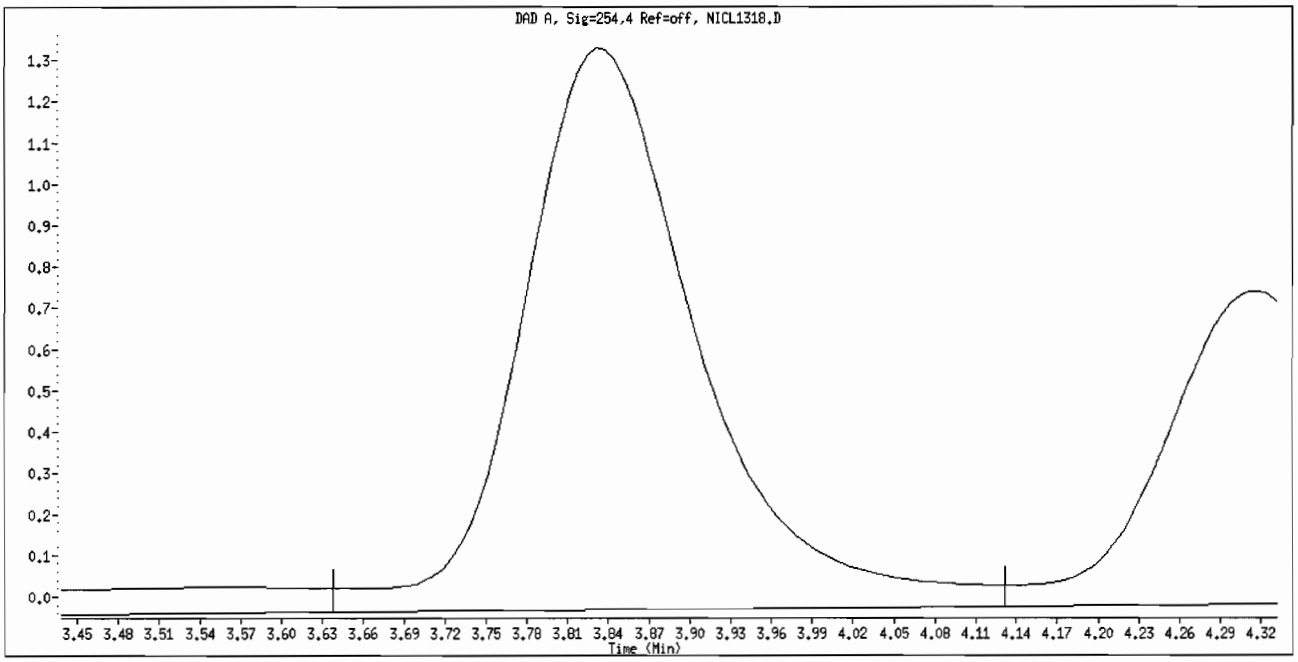

Original Integration

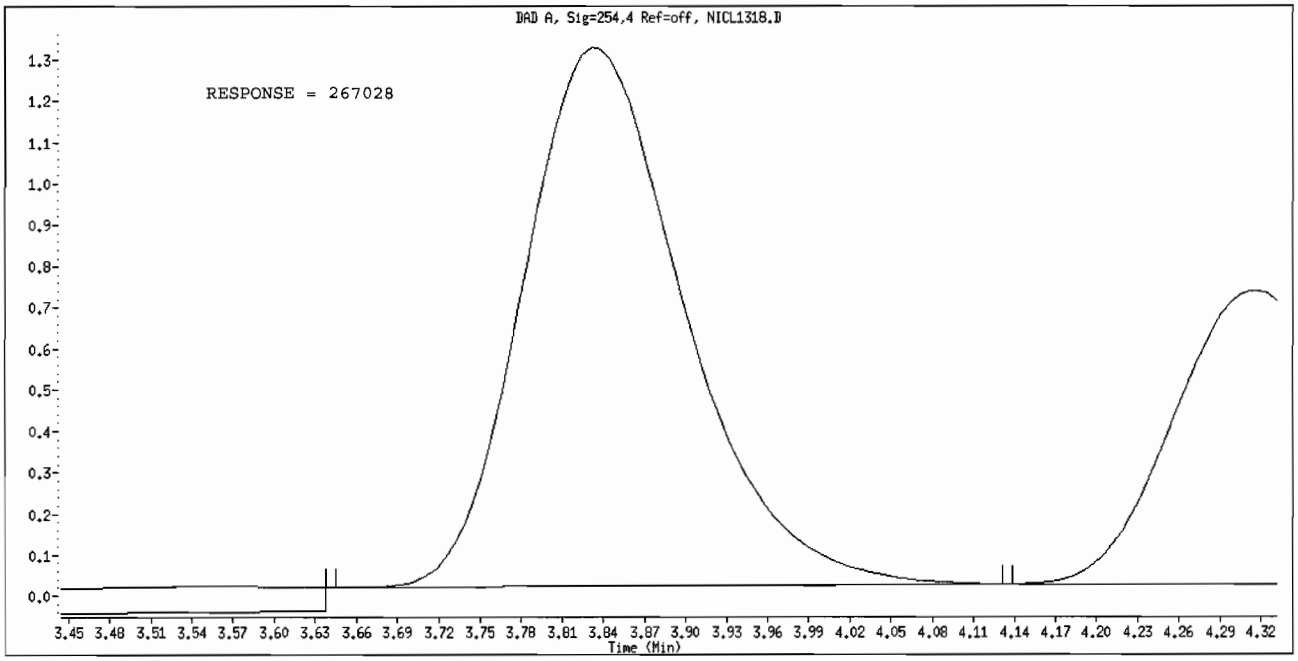

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1318.D
Inj. Date and Time: 25-NOV-2009 11:12
Instrument ID: Lcn.i
Client ID: 8330 ICAL-7
Compound Name: DNX
CAS #:

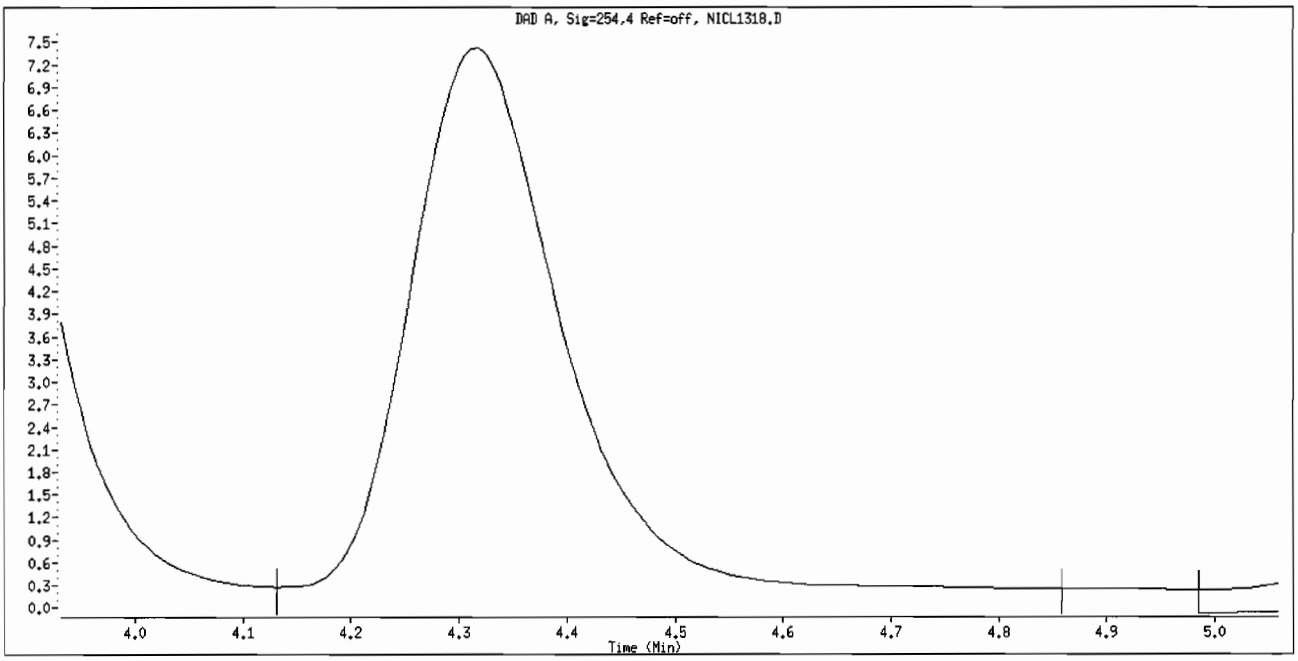

Original Integration

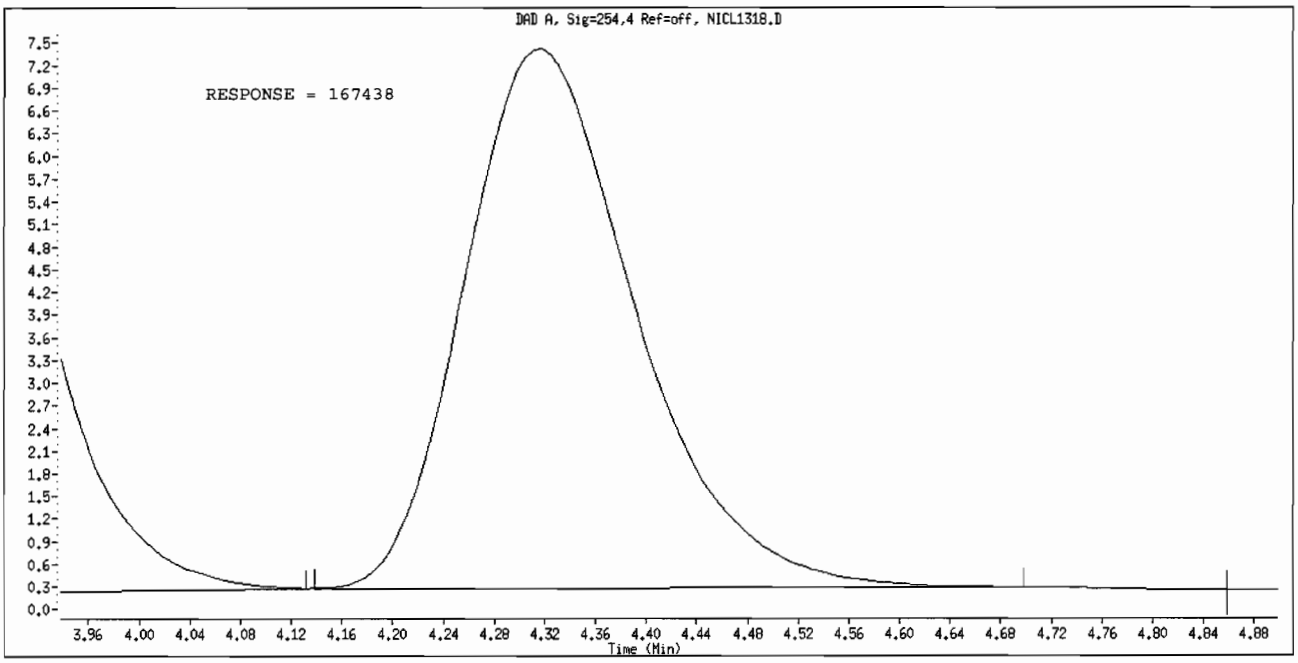

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1318.D
Inj. Date and Time: 25-NOV-2009 11:12
Instrument ID: Lcn.i
Client ID: 8330 ICAL-7
Compound Name: MNX
CAS #:

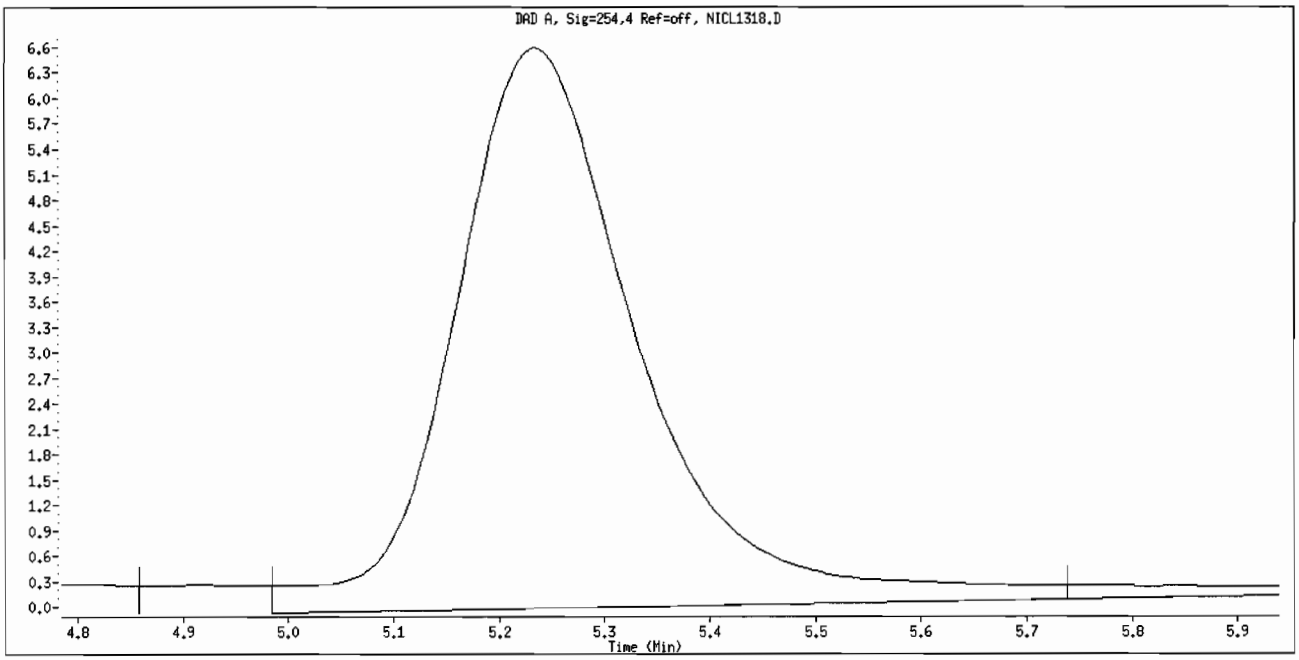

Original Integration

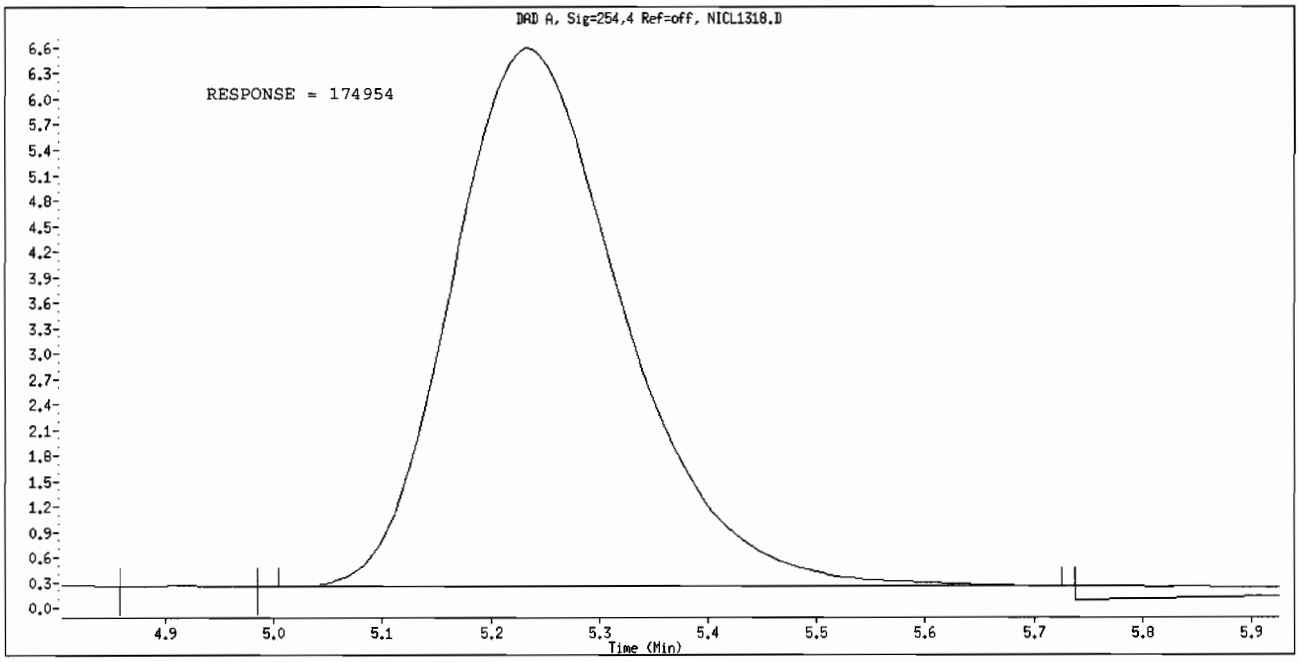

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1318.D
Inj. Date and Time: 25-NOV-2009 11:12
Instrument ID: Lcn.i
Client ID: 8330 ICAL-7
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

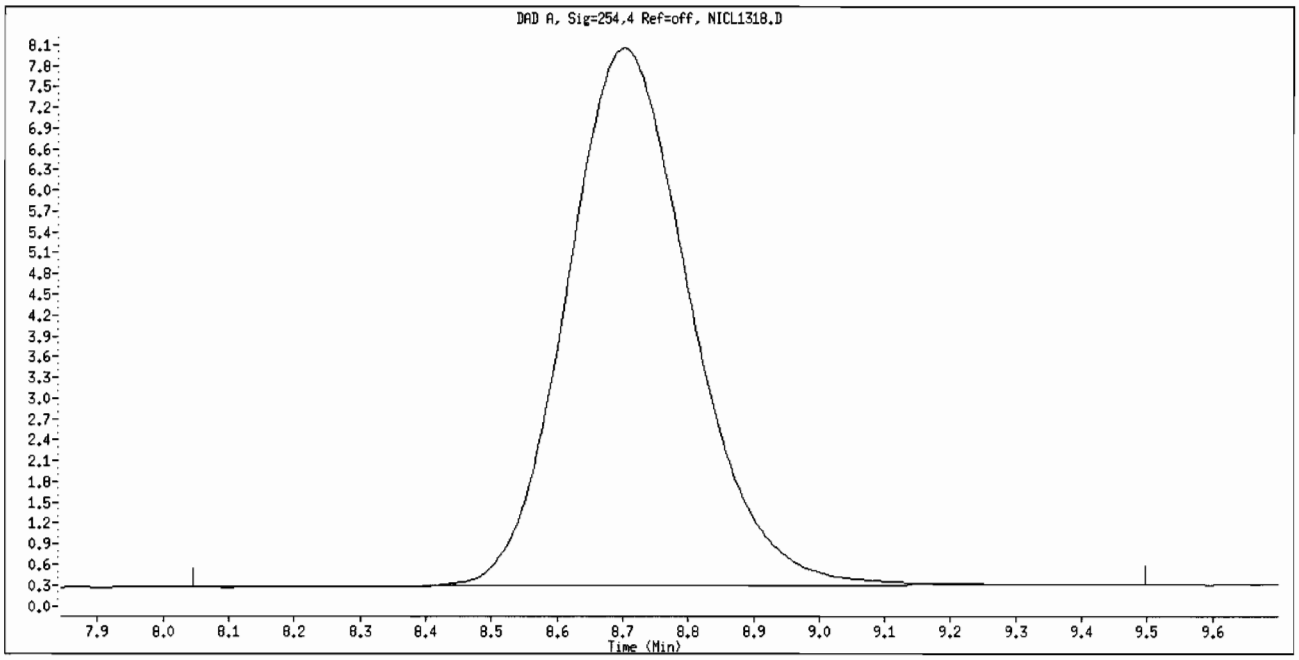

Original Integration

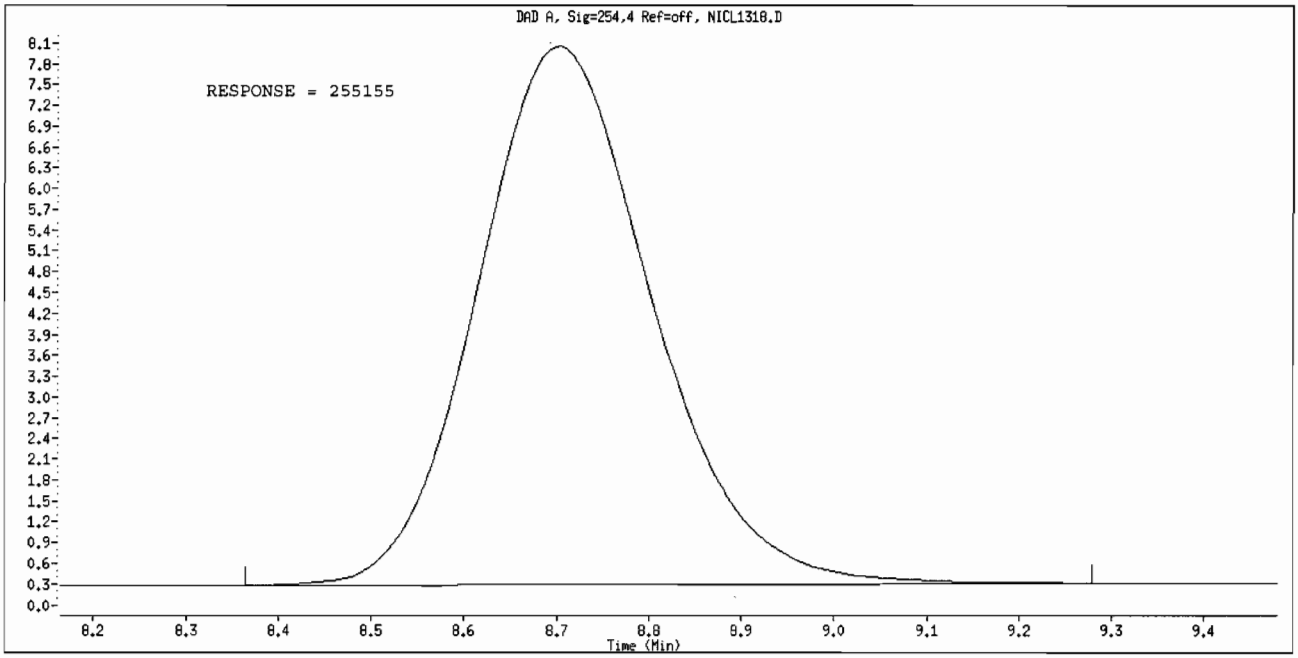

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1319.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1319.D
Lab Smp Id: 8330 ICAL-8 Client Smp ID: 8330 ICAL-8
Inj Date : 25-NOV-2009 11:26
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-8
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.838	3.837	0.001	539495	804.850	833.8(M)
2 DNX	4.318	4.324	-0.006	337552	550.800	535.8(M)
3 MNX	5.238	5.239	-0.001	352540	727.900	714.4(M)
$ 4 1,2-Dinitrobenzene	8.715	8.706	0.009	512457	1000.00	989.8(M)

QC Flag Legend

M - Compound response manually integrated.

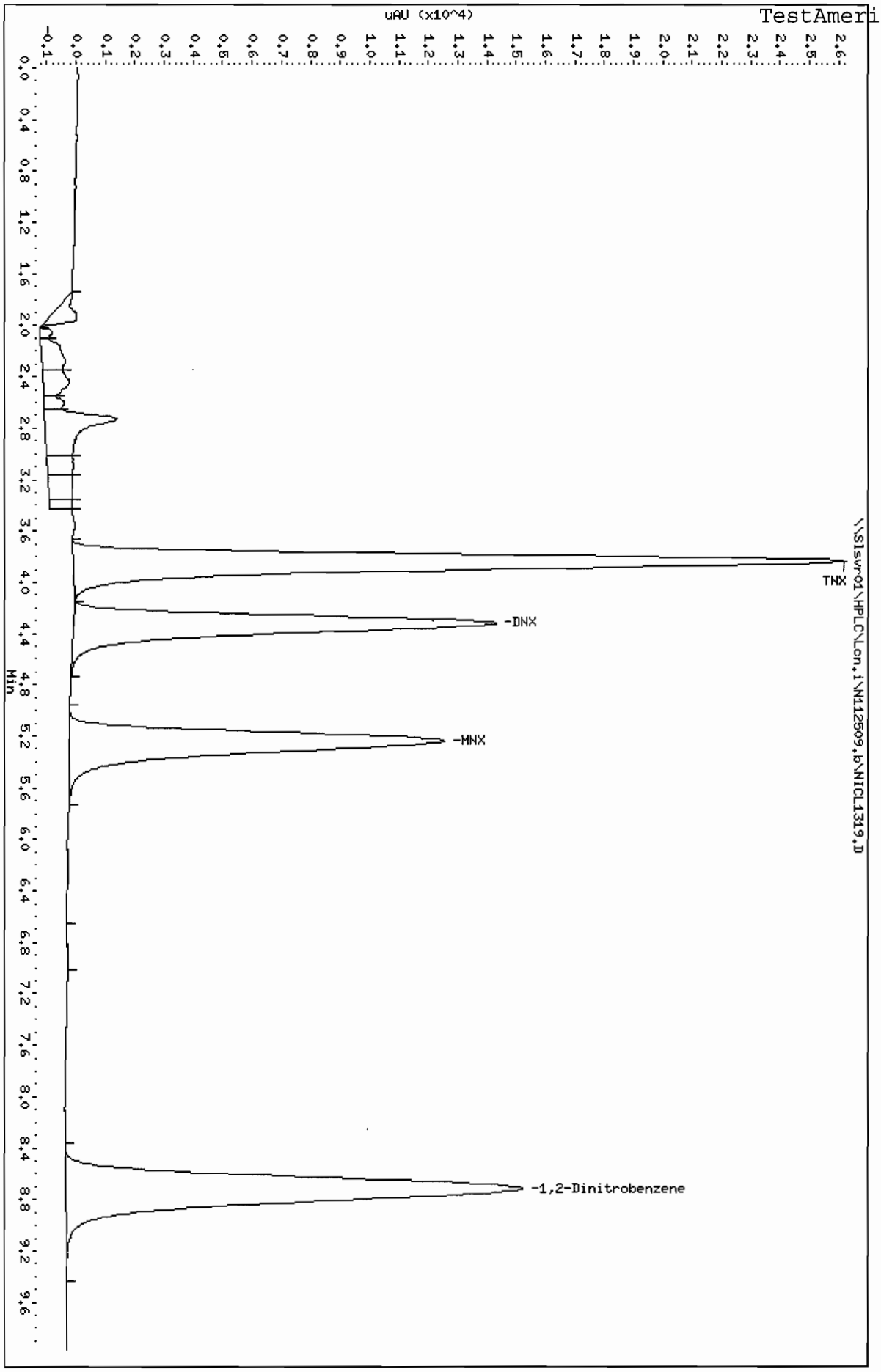
Data File: \\Slsvr01\HPLC\Lon,i\N112509,b\NICL1319,D
Date : 25-NOV-2009 11:26
Client ID: 8330 ICAL-8
Sample Info: 8330 ICAL-8
Purge Volume: 500.0
Column phase: C18
Instrument: Lon,i
Operator: WH
Column diameter: 4.60
\\Slsvr01\HPLC\Lon,i\N112509,b\NICL1319,D
uAU (x10^4)
Min
TNX
-DNX
-MNX
-1,2-Dinitrobenzene

Data File Name: NICL1319.D
Inj. Date and Time: 25-NOV-2009 11:26
Instrument ID: Lcn.i
Client ID: 8330 ICAL-8
Compound Name: TNX
CAS #:

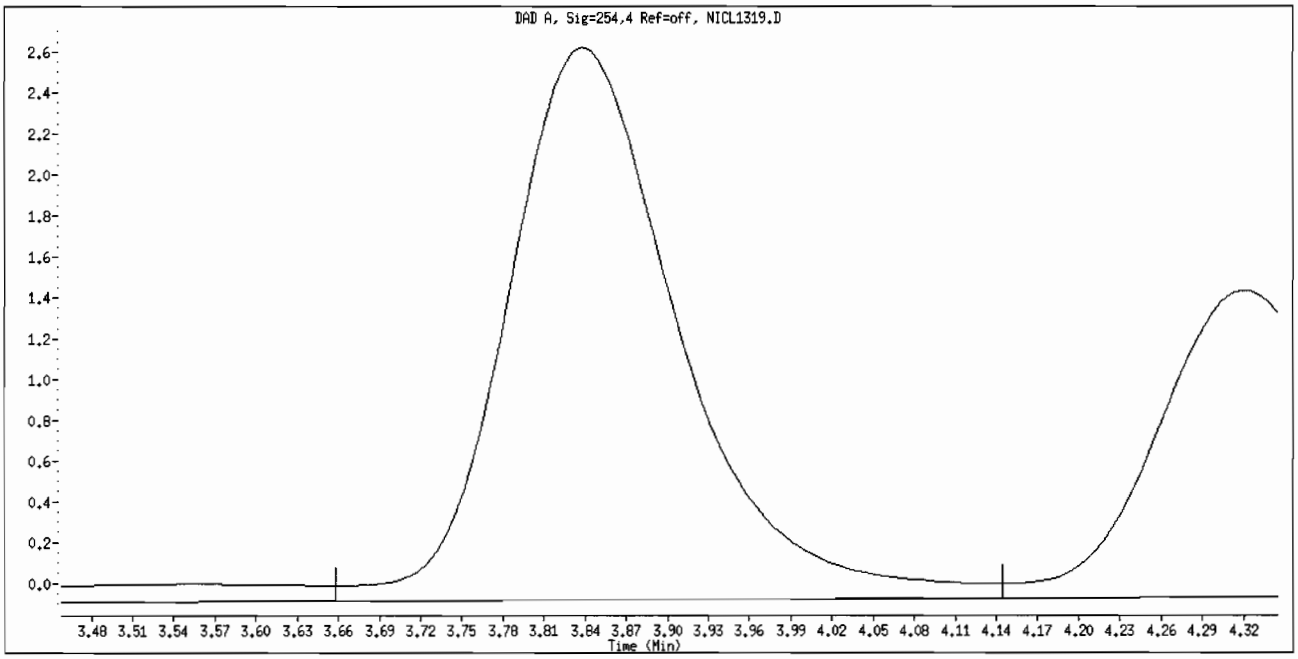

Original Integration

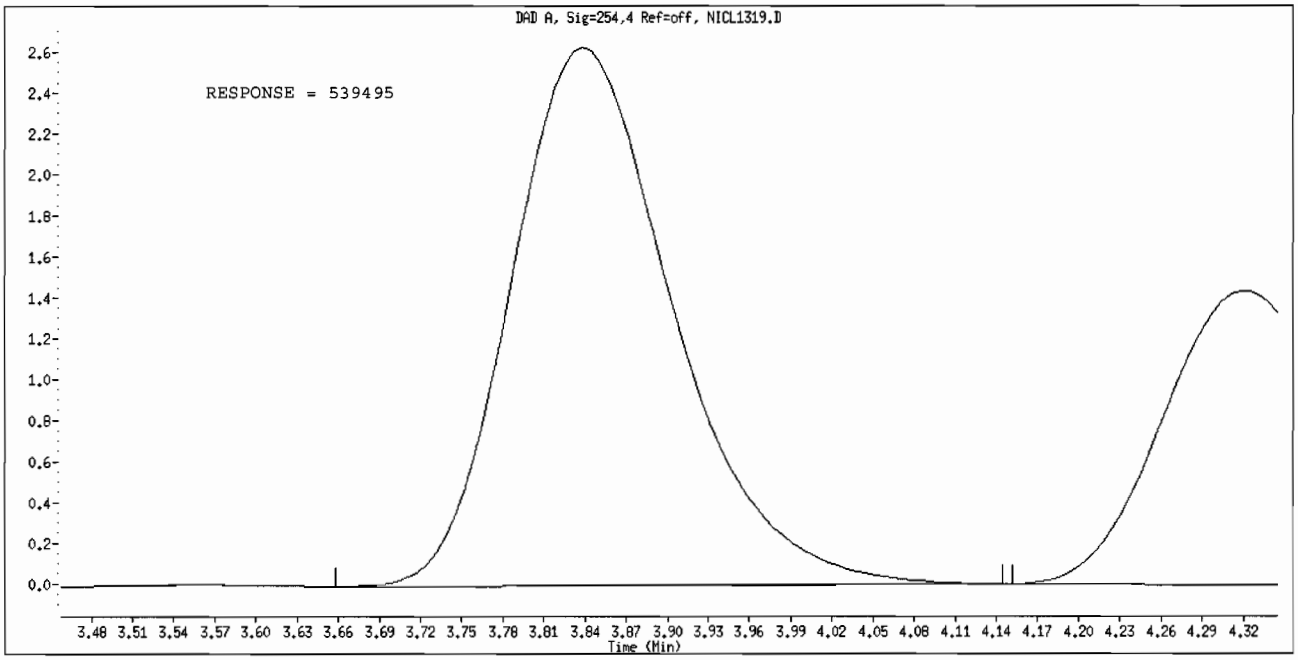

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1319.D
Inj. Date and Time: 25-NOV-2009 11:26
Instrument ID: Lcn.i
Client ID: 8330 ICAL-8
Compound Name: DNX
CAS #:

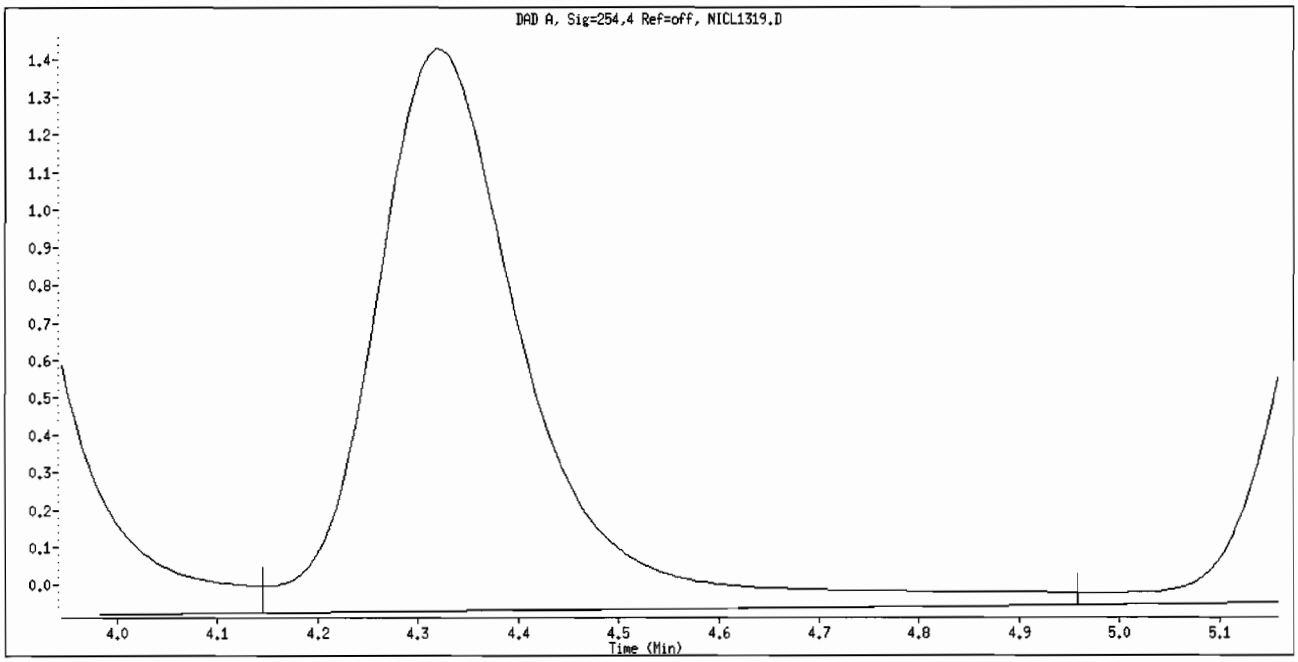

Original Integration

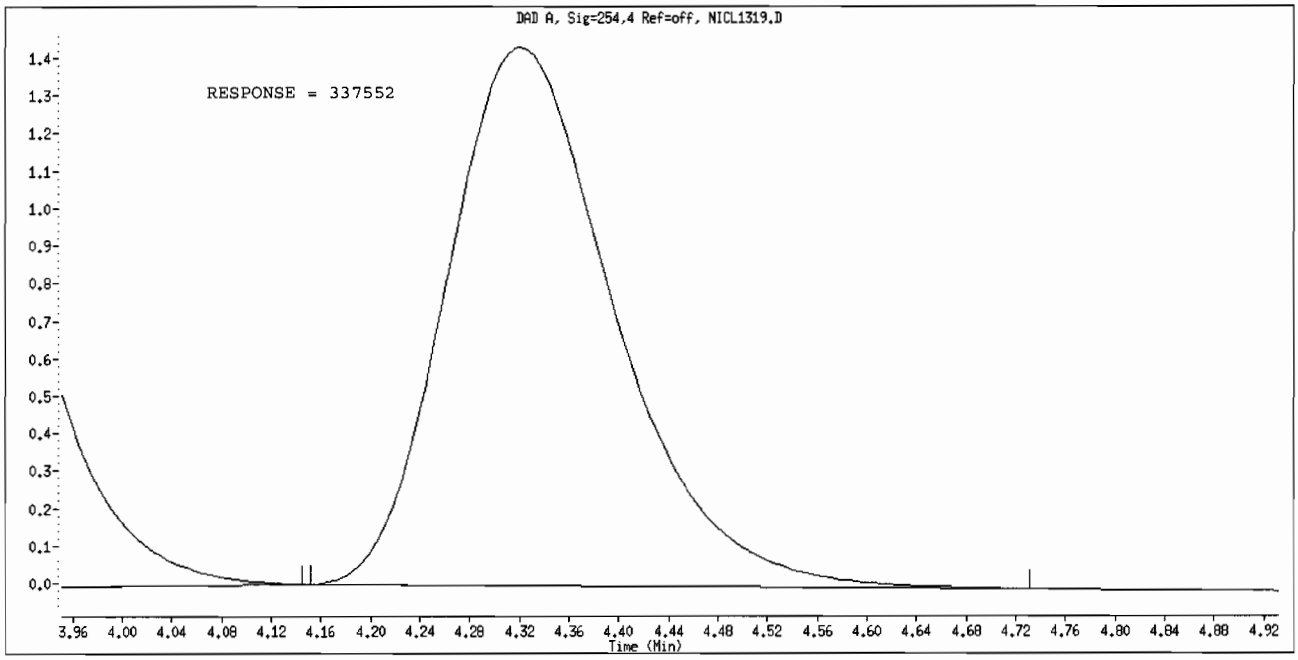

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1319.D
Inj. Date and Time: 25-NOV-2009 11:26
Instrument ID: Lcn.i
Client ID: 8330 ICAL-8
Compound Name: MNX
CAS #:

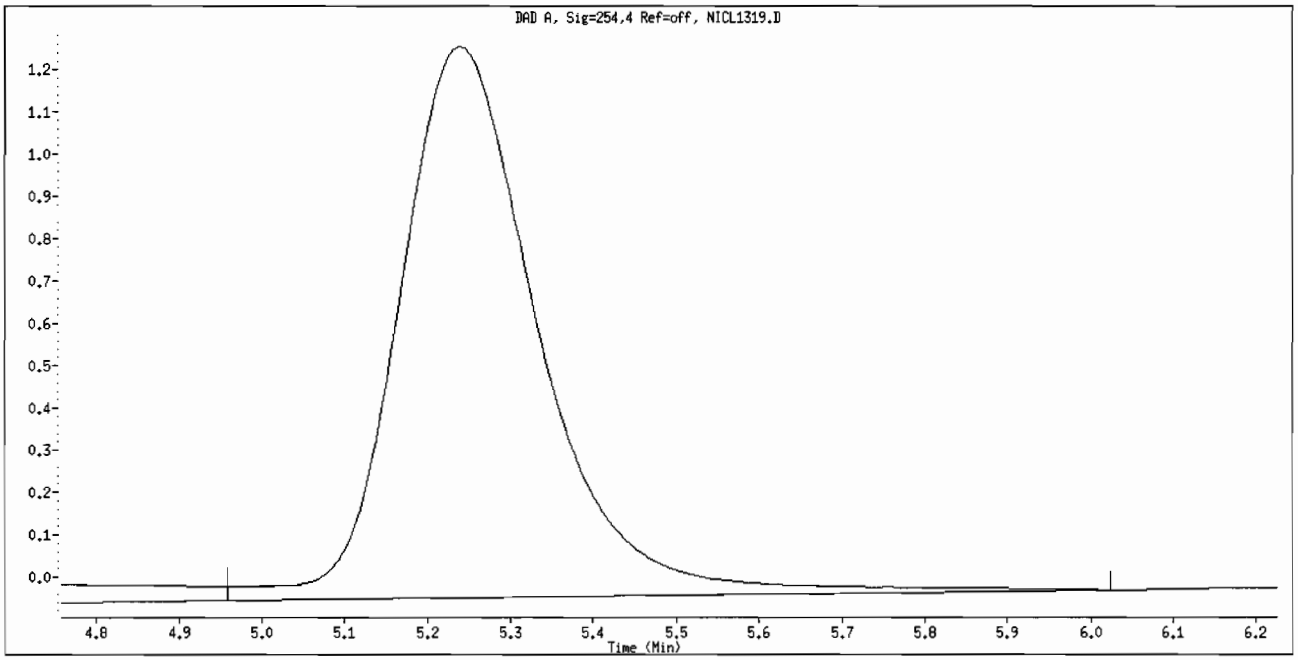

Original Integration

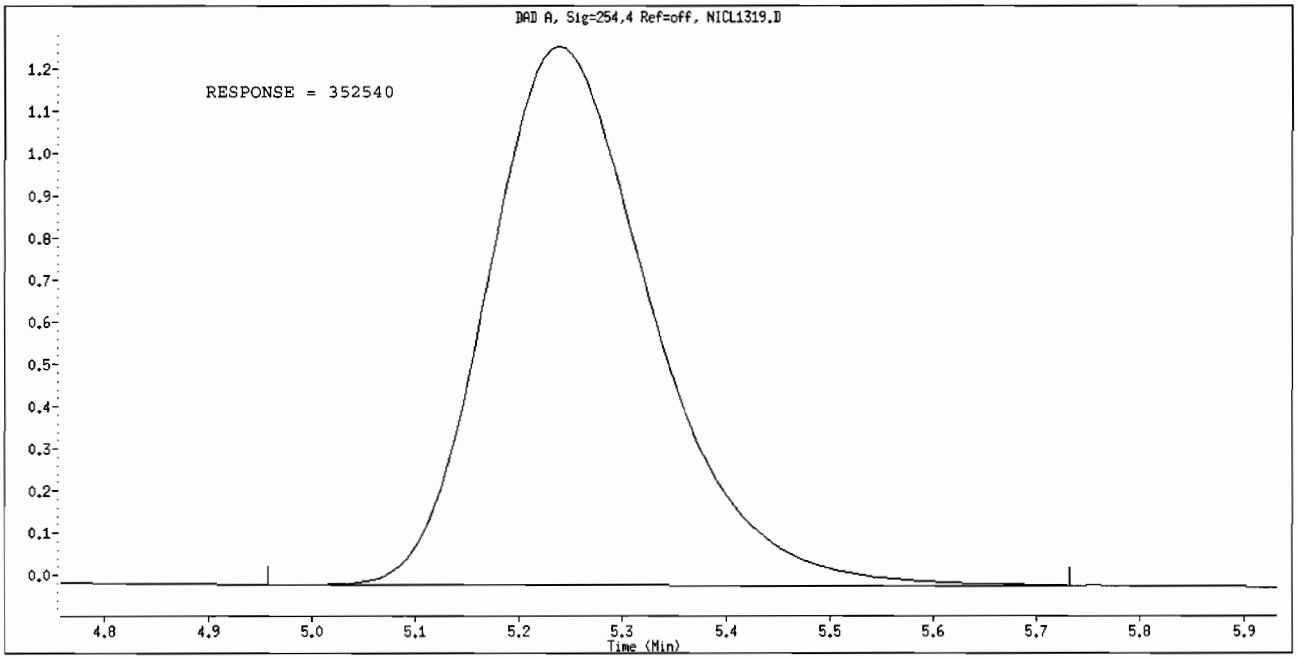

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1319.D
Inj. Date and Time: 25-NOV-2009 11:26
Instrument ID: Lcn.i
Client ID: 8330 ICAL-8
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

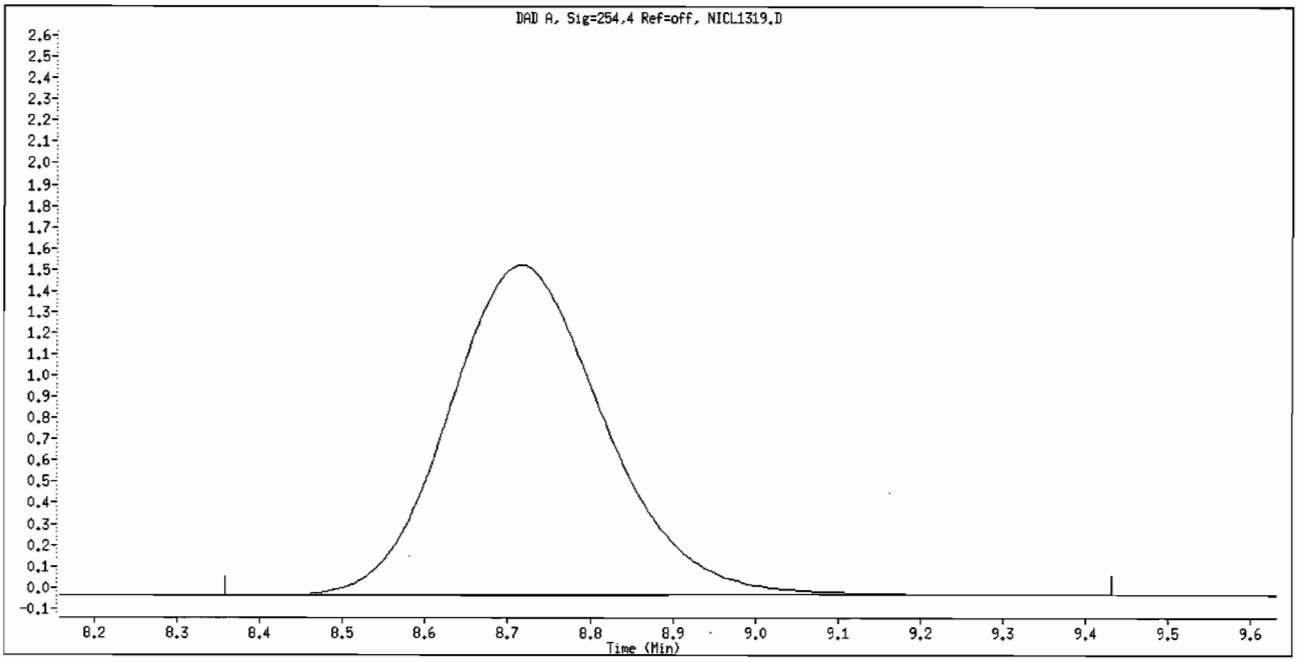

Original Integration

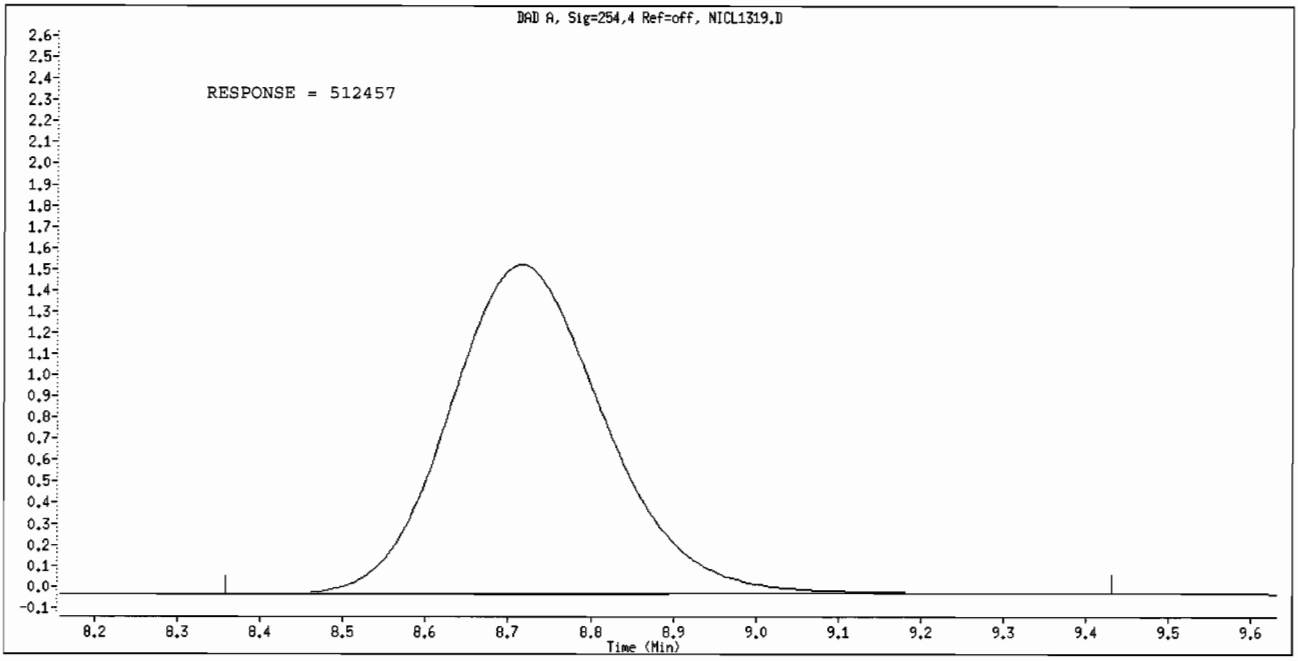

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICV1320.D
Report Date: 02-Dec-2009 16:06

TestAmerica St. Louis

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Lcn.i Injection Date: 25-NOV-2009 11:40
Lab File ID: NICV1320.D Init. Cal. Date(s): 25-NOV-2009 25-NOV-2009
Analysis Type: WATER Init. Cal. Times: 10:16 11:26
Lab Sample ID: XNX ICV Quant Type: ESTD
Method: \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m

COMPOUND	RRF / AMOUNT	RF125	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 TNX	647	687	0.010	-6.21077	20.00000	Averaged
2 DNX	630	652	0.010	-3.51780	20.00000	Averaged
3 MNX	493	518	0.010	-5.04045	20.00000	Averaged

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICV1320.D
Report Date: 02-Dec-2009 16:06

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICV1320.D
Lab Smp Id: XNX ICV Client Smp ID: XNX ICV
Inj Date : 25-NOV-2009 11:40
Operator : WH Inst ID: Lcn.i
Smp Info : XNX ICV
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:06 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.834	3.837	-0.003	69140	100.606	106.8
2 DNX	4.318	4.324	-0.006	44898	68.8500	71.27
3 MNX	5.239	5.239	0.000	47165	90.9875	95.57(M)

QC Flag Legend

M - Compound response manually integrated.

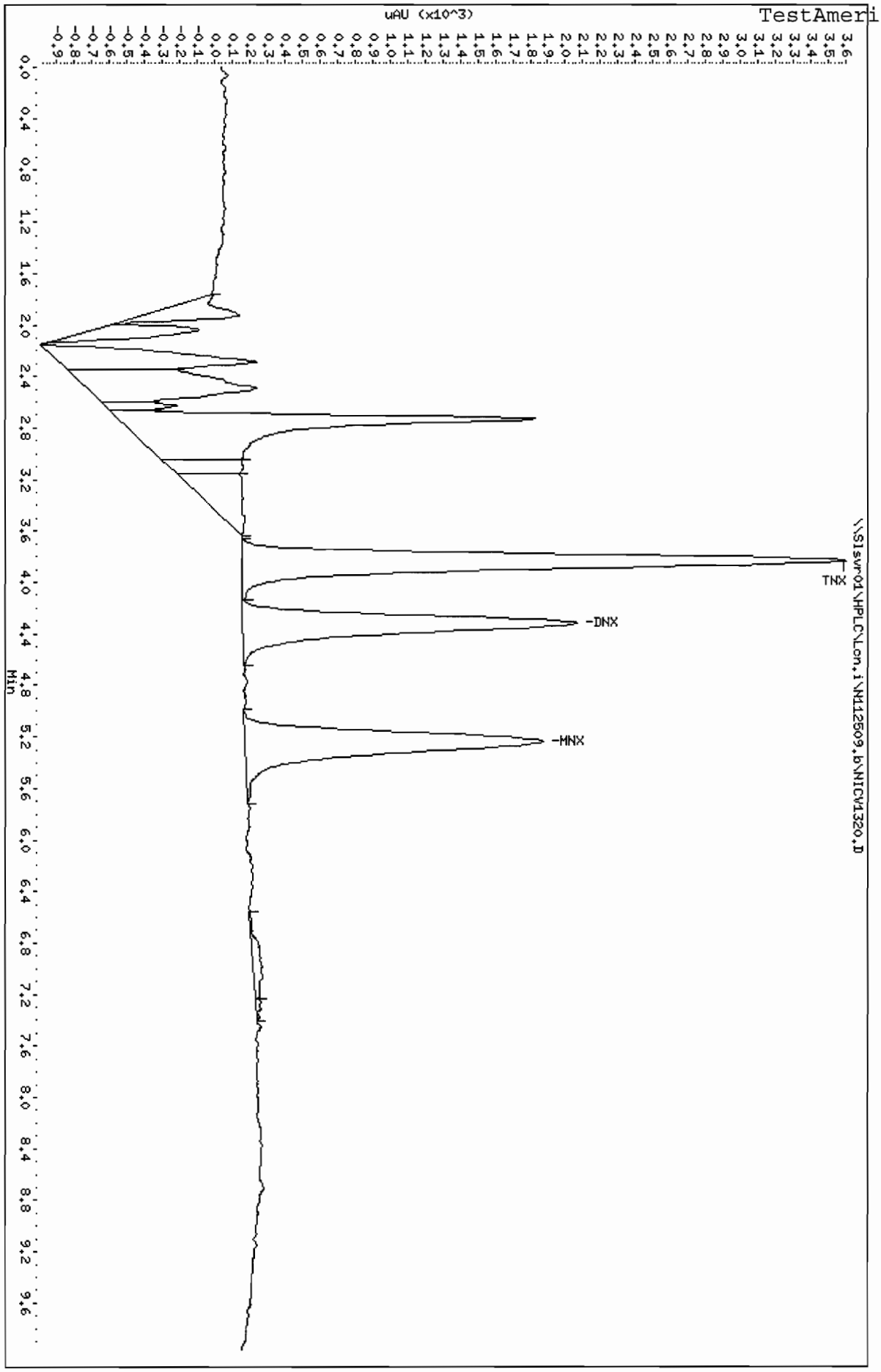
Data File: \\Slsvr01\HPLC\Lcn,i\N112509,b\NICV1320,D
Date : 25-NOV-2009 11:40
Client ID: XNX ICV
Sample Info: XNX ICV
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn,i
Operator: WH
Column diameter: 4.60
uAU (x10^3)
\\Slsvr01\HPLC\Lcn,i\N112509,b\NICV1320,D
TNX
-DNX
-MNX
Min

Data File Name: NICV1320.D
Inj. Date and Time: 25-NOV-2009 11:40
Instrument ID: Lcn.i
Client ID: XNX ICV
Compound Name: MNX
CAS #:

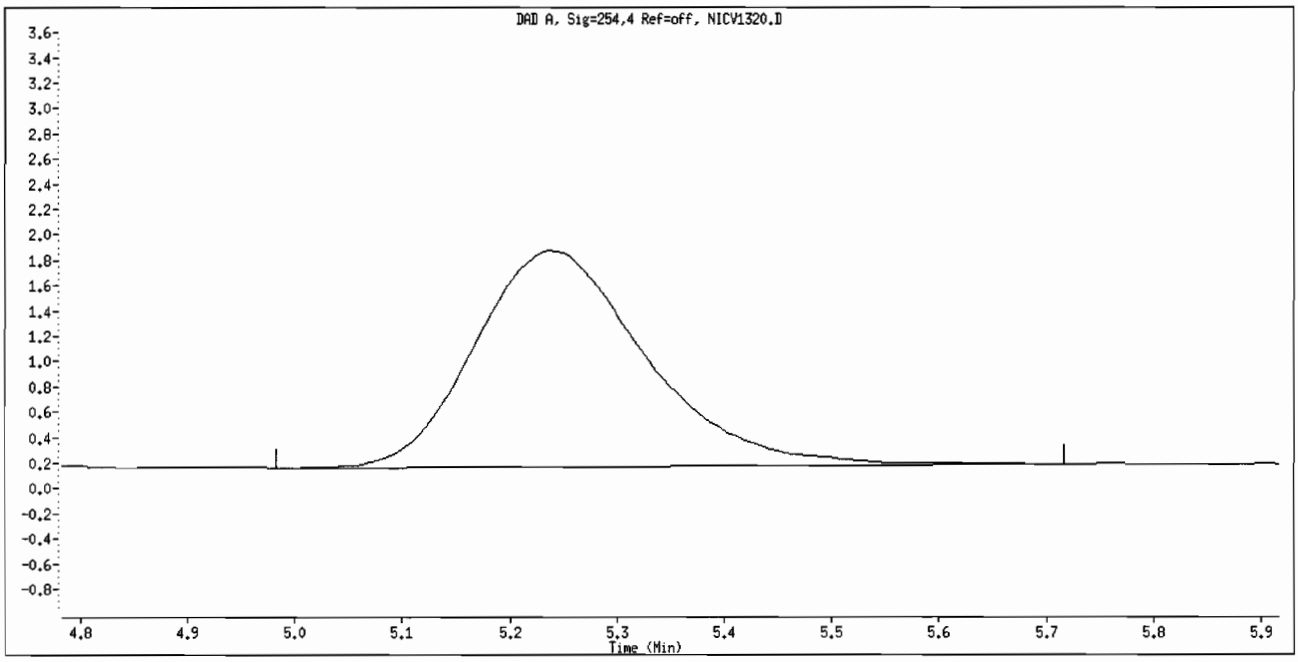

Original Integration

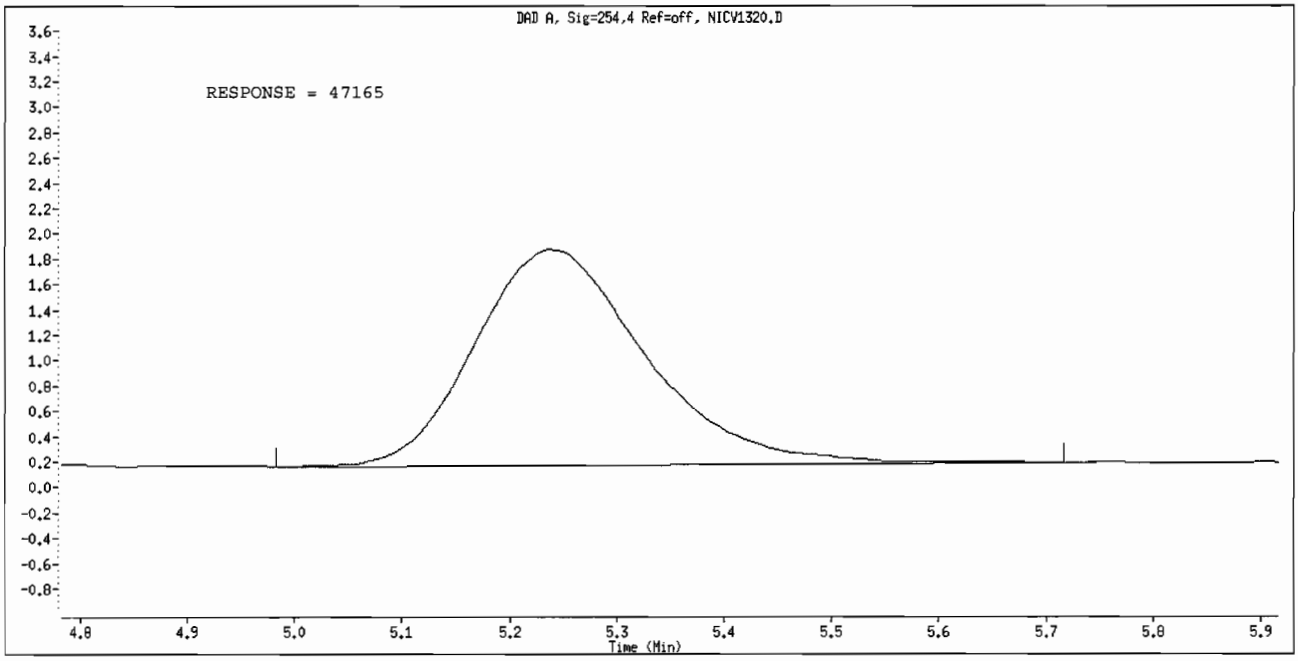

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NCAL3240.D
Report Date: 01-Mar-2010 13:52

TestAmerica St. Louis

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Lcn.i Injection Date: 01-MAR-2010 10:53
Lab File ID: NCAL3240.D Init. Cal. Date(s): 25-NOV-2009 25-NOV-2009
Analysis Type: WATER Init. Cal. Times: 10:16 11:26
Lab Sample ID: XNX CCAL Quant Type: ESTD
Method: \\slsvr01\HPLC\Lcn.i\N030110.b\C18XNX.m

COMPOUND	RRF / AMOUNT	RF125	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 TNX	647	698	0.010	-7.90823	20.00000	Averaged
2 DNX	630	705	0.010	-11.93102	20.00000	Averaged
3 MNX	493	516	0.010	-4.49259	20.00000	Averaged
$ 4 1,2-Dinitrobenzene	518	506	0.010	2.29161	20.00000	Averaged

Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NCAL3240.D
Report Date: 01-Mar-2010 13:52

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N030110.b\NCAL3240.D
Lab Smp Id: XNX CCAL Client Smp ID: XNX CCAL
Inj Date : 01-MAR-2010 10:53
Operator : AF Inst ID: Lcn.i
Smp Info : XNX CCAL
Misc Info :
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N030110.b\C18XNX.m
Meth Date : 01-Mar-2010 13:52 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.807	3.837	-0.030	70245	100.606	108.6(M)
2 DNX	4.287	4.324	-0.037	48547	68.8500	77.06(M)
3 MNX	5.204	5.239	-0.035	46919	90.9875	95.08
$ 4 1,2-Dinitrobenzene	8.670	8.706	-0.036	63234	125.000	122.1

QC Flag Legend

M - Compound response manually integrated.

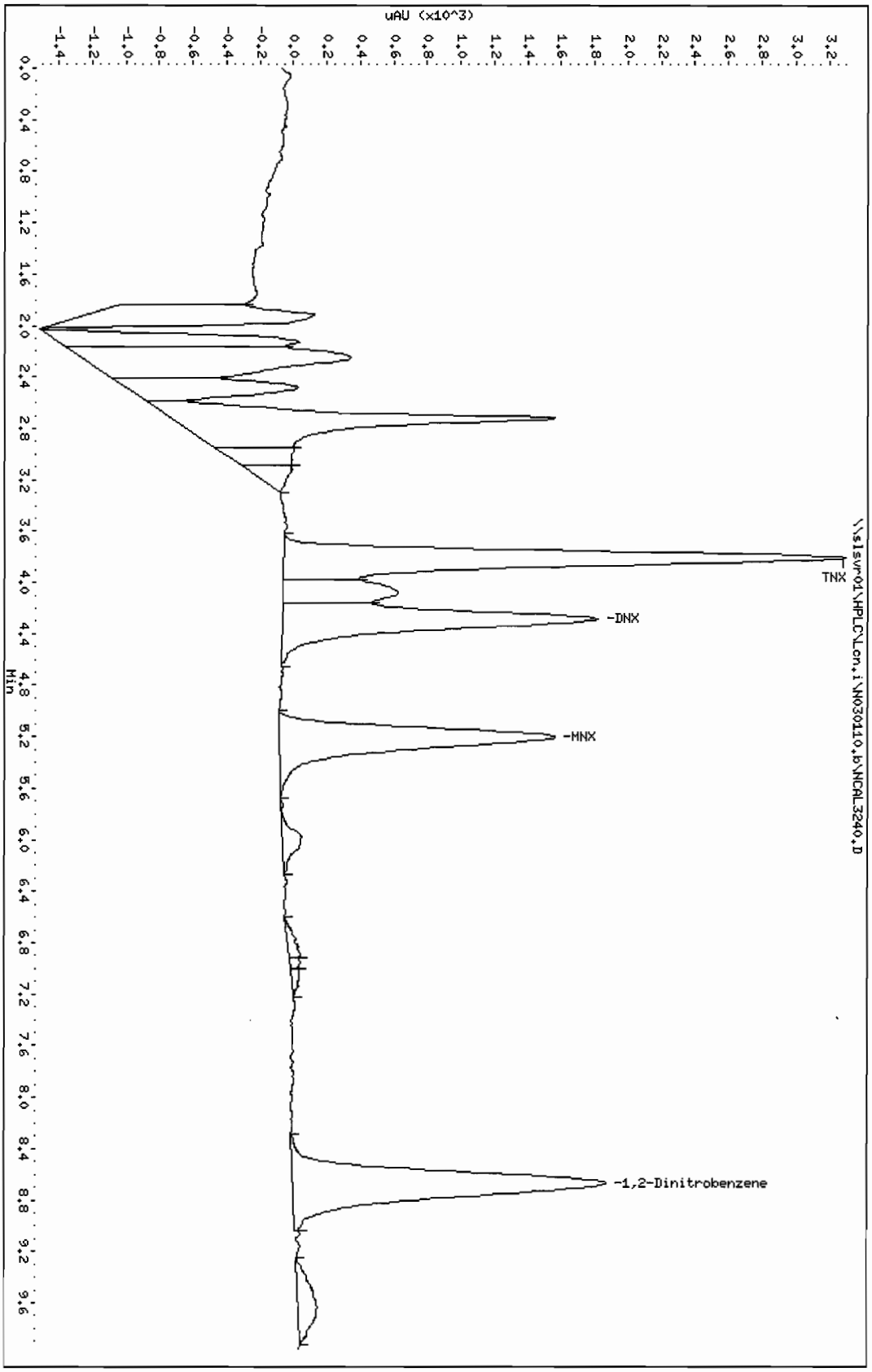
Data File: \\slsvr01\HPLC\Lcn,i\N030110,b\NCAL3240,D
Date : 01-MAR-2010 10:53
Client ID: XNX CCAL
Sample Info: XNX CCAL
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn,i
Operator: AF
Column diameter: 4.60
\\slsvr01\HPLC\Lcn,i\N030110,b\NCAL3240,D
uAU (x10^3)
TNX
-DNX
-MNX
-1,2-Dinitrobenzene
Min

Data File Name: NCAL3240.D
Inj. Date and Time: 01-MAR-2010 10:53
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: TNX
CAS #:

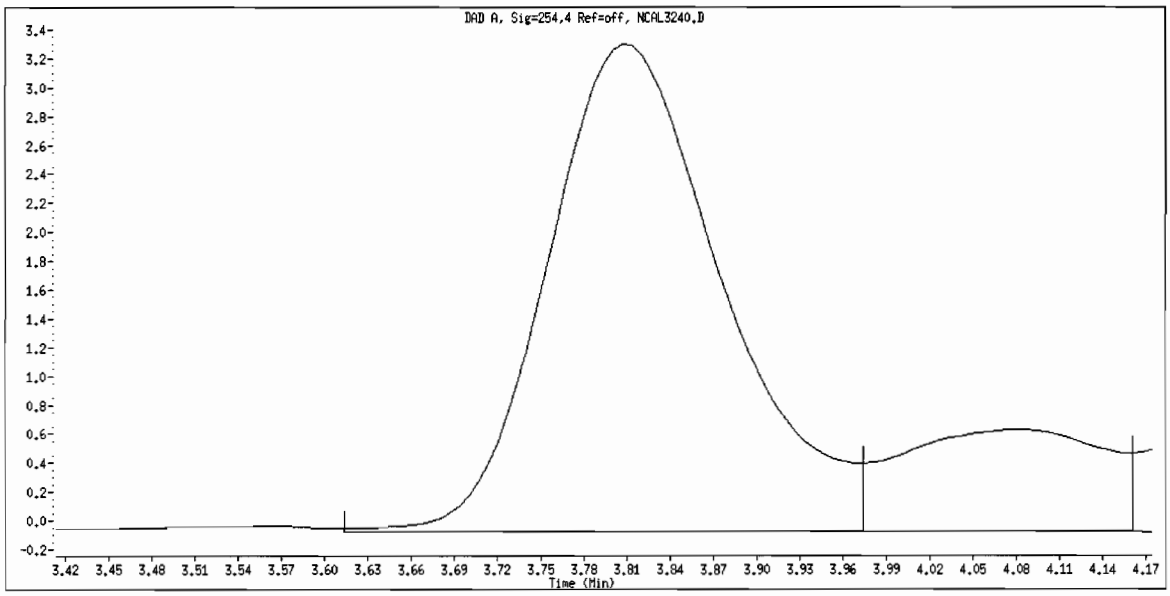

Original Integration

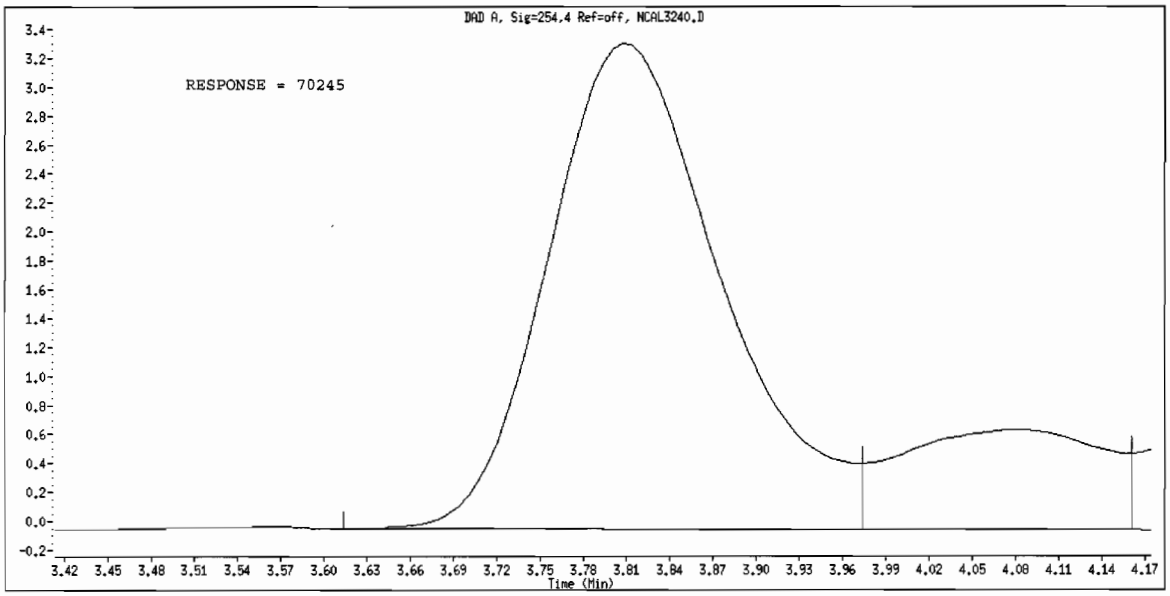

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NCAL3240.D
Inj. Date and Time: 01-MAR-2010 10:53
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: DNX
CAS #:

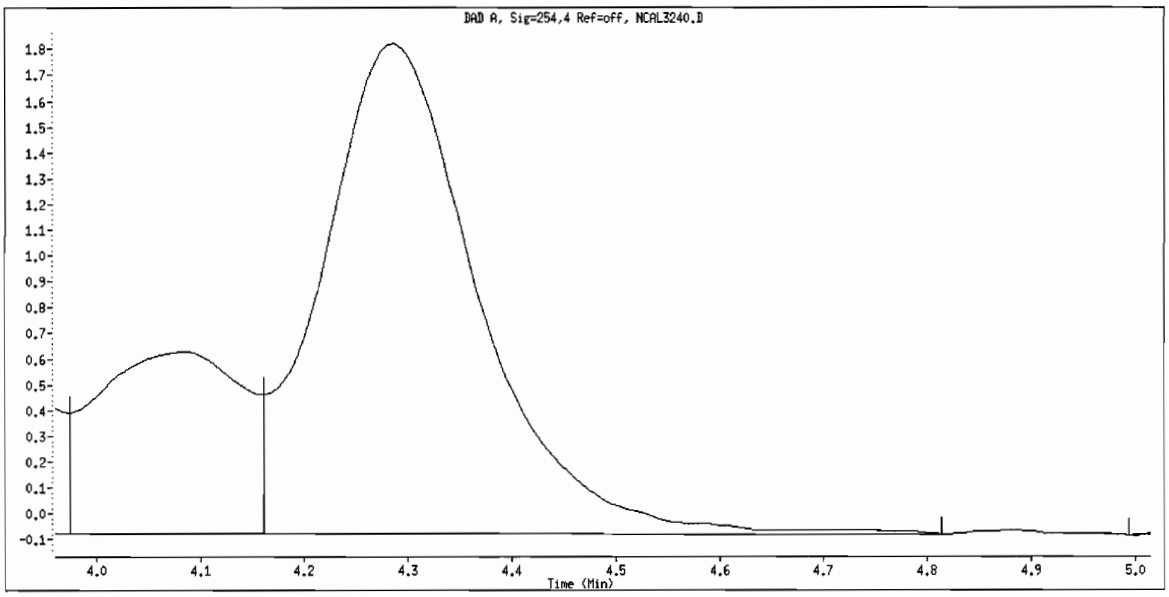

Original Integration

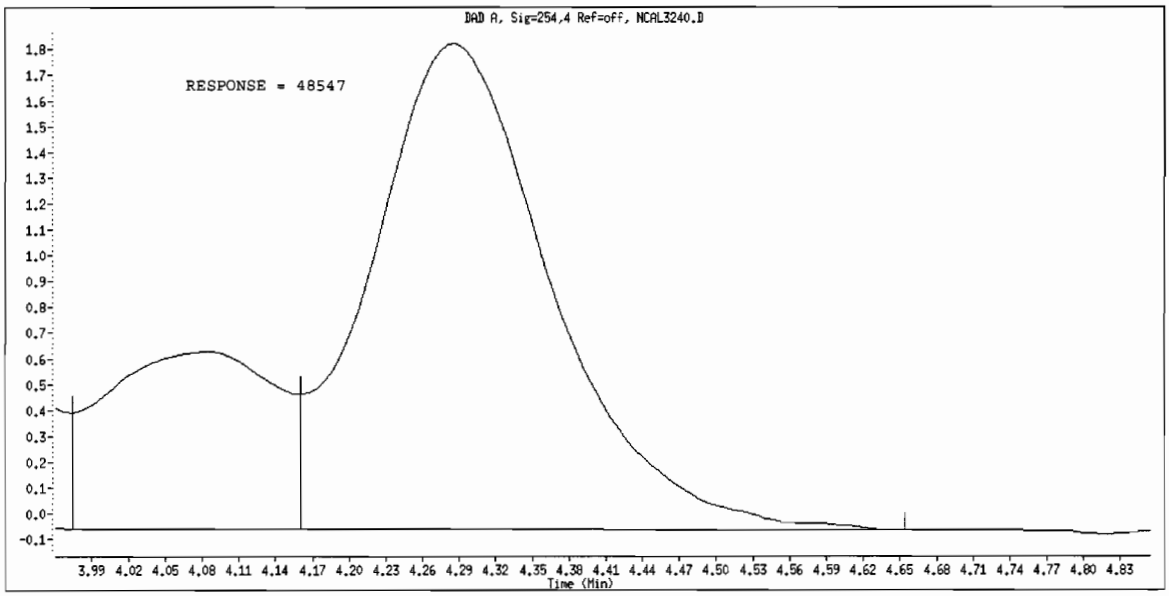

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NCAL3251.D
Report Date: 01-Mar-2010 14:14

TestAmerica St. Louis

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Lcn.i Injection Date: 01-MAR-2010 13:27
Lab File ID: NCAL3251.D Init. Cal. Date(s): 25-NOV-2009 25-NOV-2009
Analysis Type: WATER Init. Cal. Times: 10:16 11:26
Lab Sample ID: XNX CCAL Quant Type: ESTD
Method: \\slsvr01\HPLC\Lcn.i\N030110.b\C18XNX.m

COMPOUND	RRF / AMOUNT	RF125	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 TNX	647	700	0.010	-8.20779	20.00000	Averaged
2 DNX	630	697	0.010	-10.66062	20.00000	Averaged
3 MNX	493	546	0.010	-10.55248	20.00000	Averaged
$ 4 1,2-Dinitrobenzene	518	504	0.010	2.60683	20.00000	Averaged

Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NCAL3251.D
Report Date: 01-Mar-2010 14:14

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N030110.b\NCAL3251.D
Lab Smp Id: XNX CCAL Client Smp ID: XNX CCAL
Inj Date : 01-MAR-2010 13:27
Operator : AF Inst ID: Lcn.i
Smp Info : XNX CCAL
Misc Info :
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N030110.b\C18XNX.m
Meth Date : 01-Mar-2010 14:11 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.841	3.837	0.004	70440	100.606	108.9(M)
2 DNX	4.328	4.324	0.004	47996	68.8500	76.19(M)
3 MNX	5.254	5.239	0.015	49640	90.9875	100.6
$ 4 1,2-Dinitrobenzene	8.749	8.706	0.043	63030	125.000	121.7

QC Flag Legend

M - Compound response manually integrated.

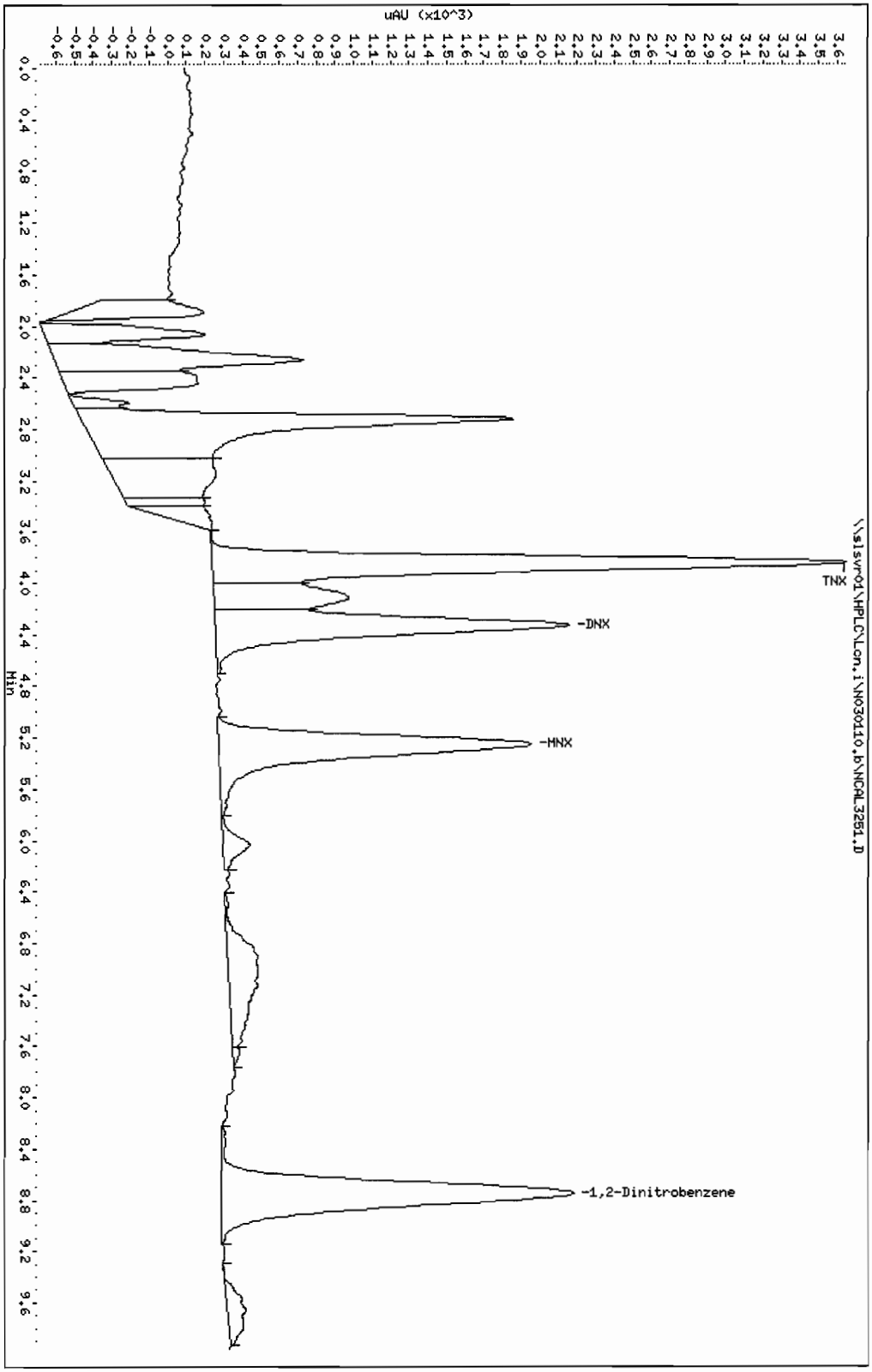
Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NCAL3251.D
Date : 01-MAR-2010 13:27
Client ID: XNX CCAL
Sample Info: XNX CCAL
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn.i
Operator: AF
Column diameter: 4.60
uAU (x10^3)
\\slsvr01\HPLC\Lcn.i\N030110.b\NCAL3251.D
TNX
-DNX
-MNX
-1,2-Dinitrobenzene
Min

Data File Name: NCAL3251.D
Inj. Date and Time: 01-MAR-2010 13:27
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: TNX
CAS #:

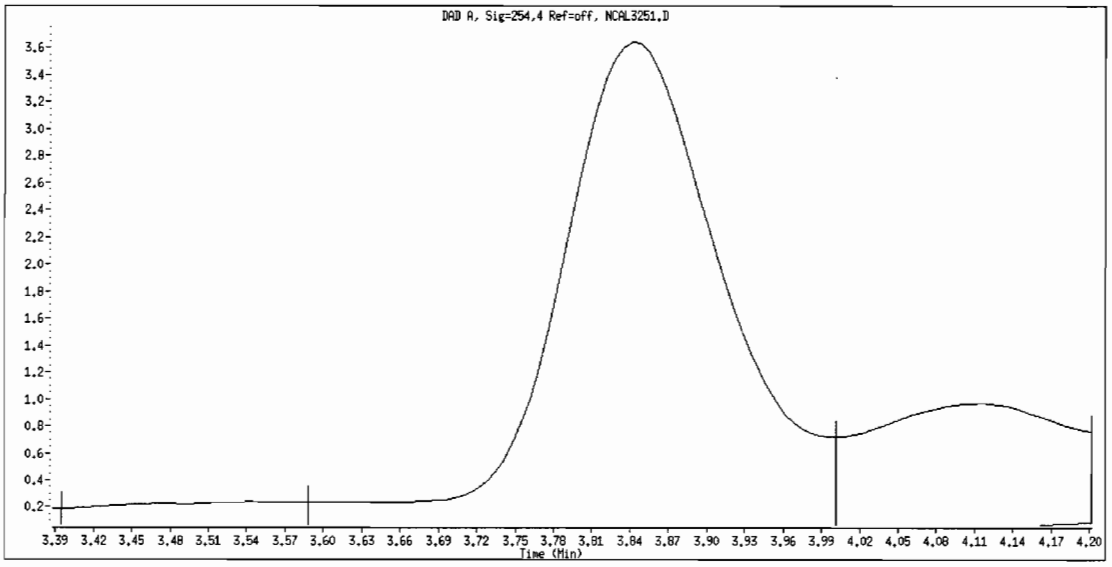

Original Integration

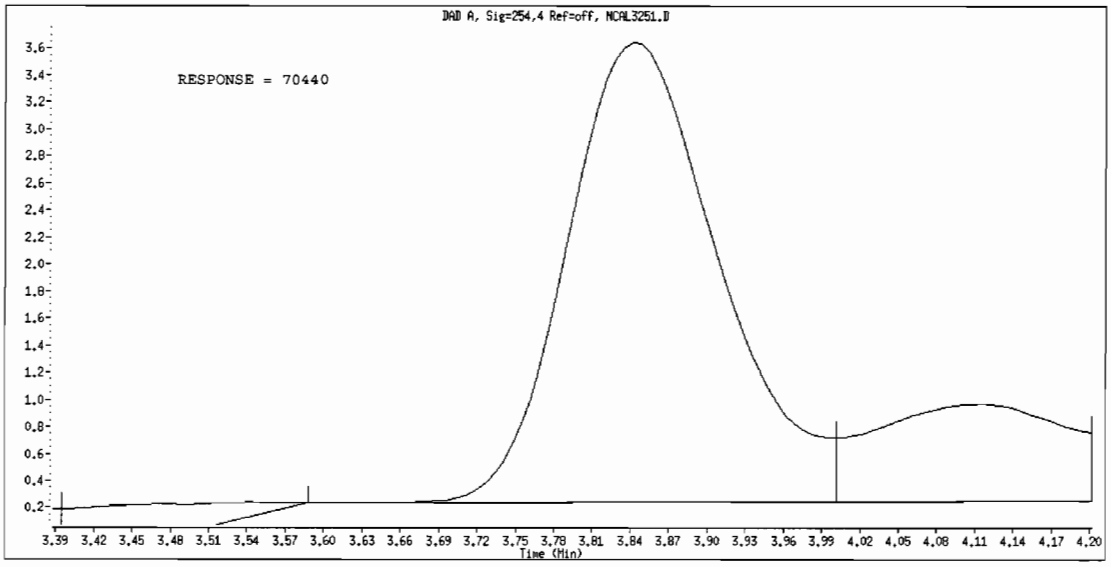

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NCAL3251.D
Inj. Date and Time: 01-MAR-2010 13:27
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: DNX
CAS #:

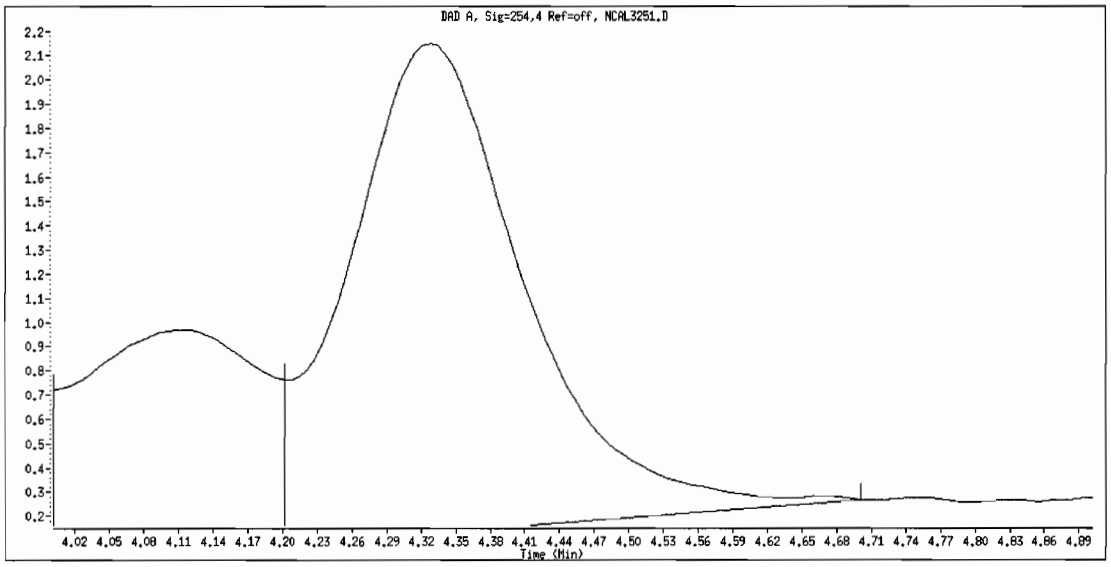

Original Integration

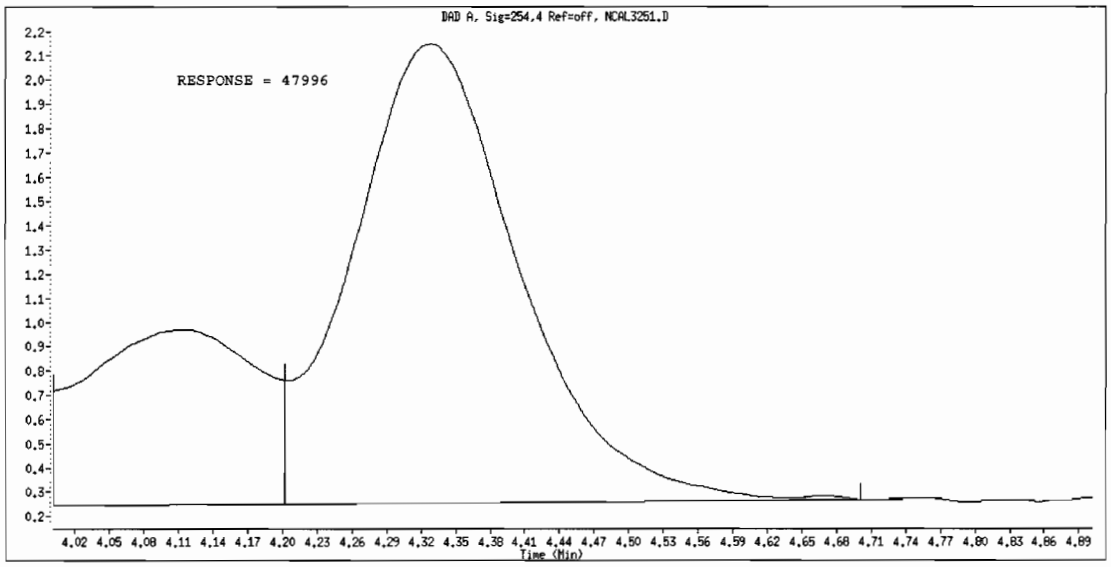

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

HPLC RAW SAMPLE DATA

Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NSMP3244.D
Report Date: 01-Mar-2010 13:42

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N030110.b\NSMP3244.D
Lab Smp Id: LV0NW1AC Client Smp ID: CAPA-10-13095
Inj Date : 01-MAR-2010 11:49
Operator : AF Inst ID: Lcn.i
Smp Info : LV0NW1AC
Misc Info : F0B230417-001
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N030110.b\C18XNX.m
Meth Date : 01-Mar-2010 12:31 flakera Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	503.800	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
$ 4 1,2-Dinitrobenzene	8.729	8.706	0.023	190841	368.606	3.658(M)

QC Flag Legend

M - Compound response manually integrated.

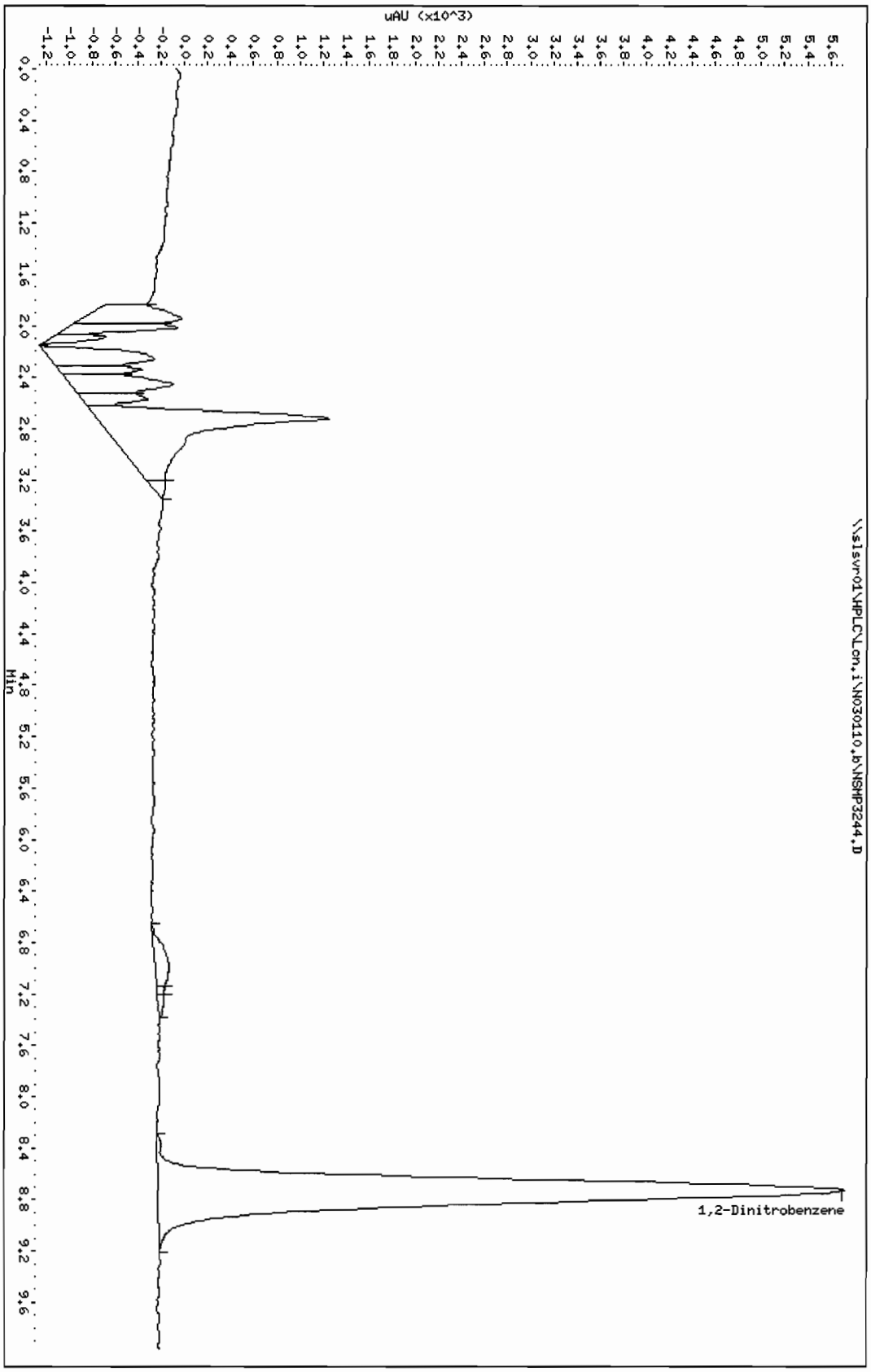
Data File: \\slsvr01\HPLC\Lcn,i\N030110,b\NSHP3244.D
Date : 01-MAR-2010 11:49
Client ID: CAPA-10-13095
Sample Info: LVONW1AC
Purge Volume: 503.8
Column phase: C18
Instrument: Lcn,i
Operator: AF
Column diameter: 4.60
\\slsvr01\HPLC\Lcn,i\N030110,b\NSHP3244.D
uAU (x10^3)
Min
1,2-Dinitrobenzene

Data File Name: NSMP3244.D
Inj. Date and Time: 01-MAR-2010 11:49
Instrument ID: Lcn.i
Client ID: CAPA-10-13095
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

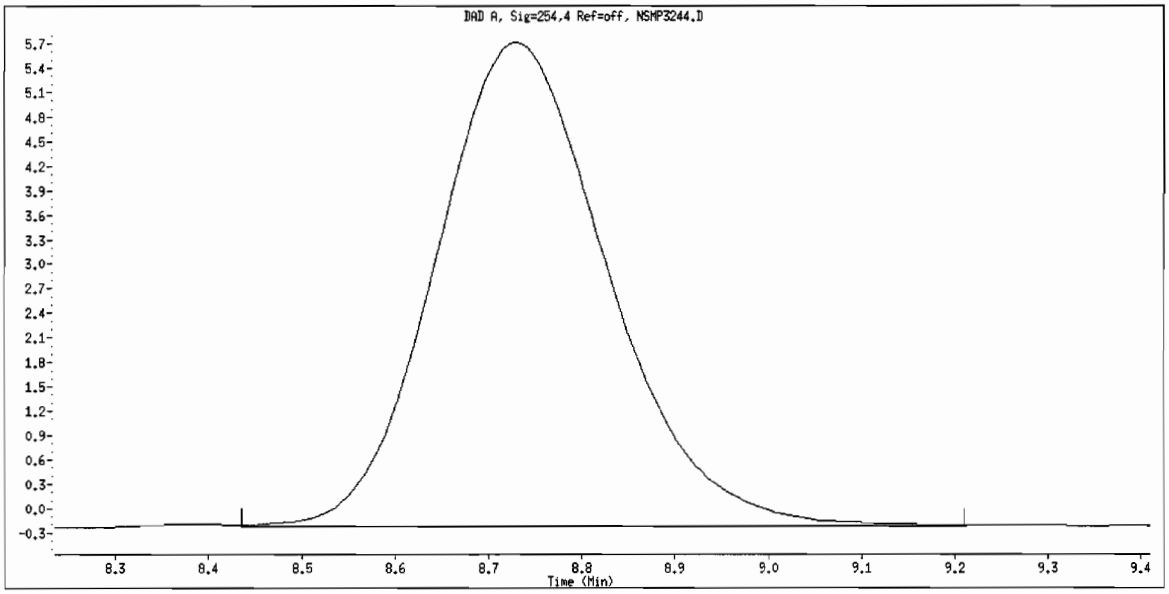

Original Integration

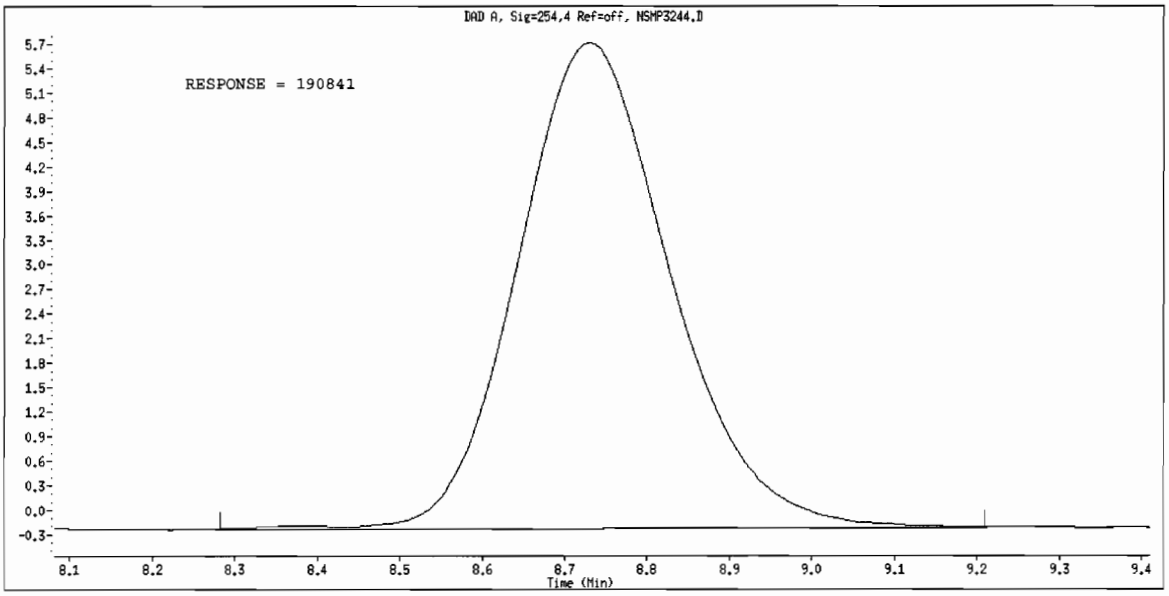

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NSMP3247.D
Report Date: 01-Mar-2010 13:42

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N030110.b\NSMP3247.D
Lab Smp Id: LV0N61AC Client Smp ID: CAPA-10-13498
Inj Date : 01-MAR-2010 12:31
Operator : AF Inst ID: Lcn.i
Smp Info : LV0N61AC
Misc Info : F0B230418-001
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N030110.b\C18XNX.m
Meth Date : 01-Mar-2010 12:31 flakera Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	510.300	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
$ 4 1,2-Dinitrobenzene	8.740	8.706	0.034	212352	410.155	4.019(M)

QC Flag Legend

M - Compound response manually integrated.

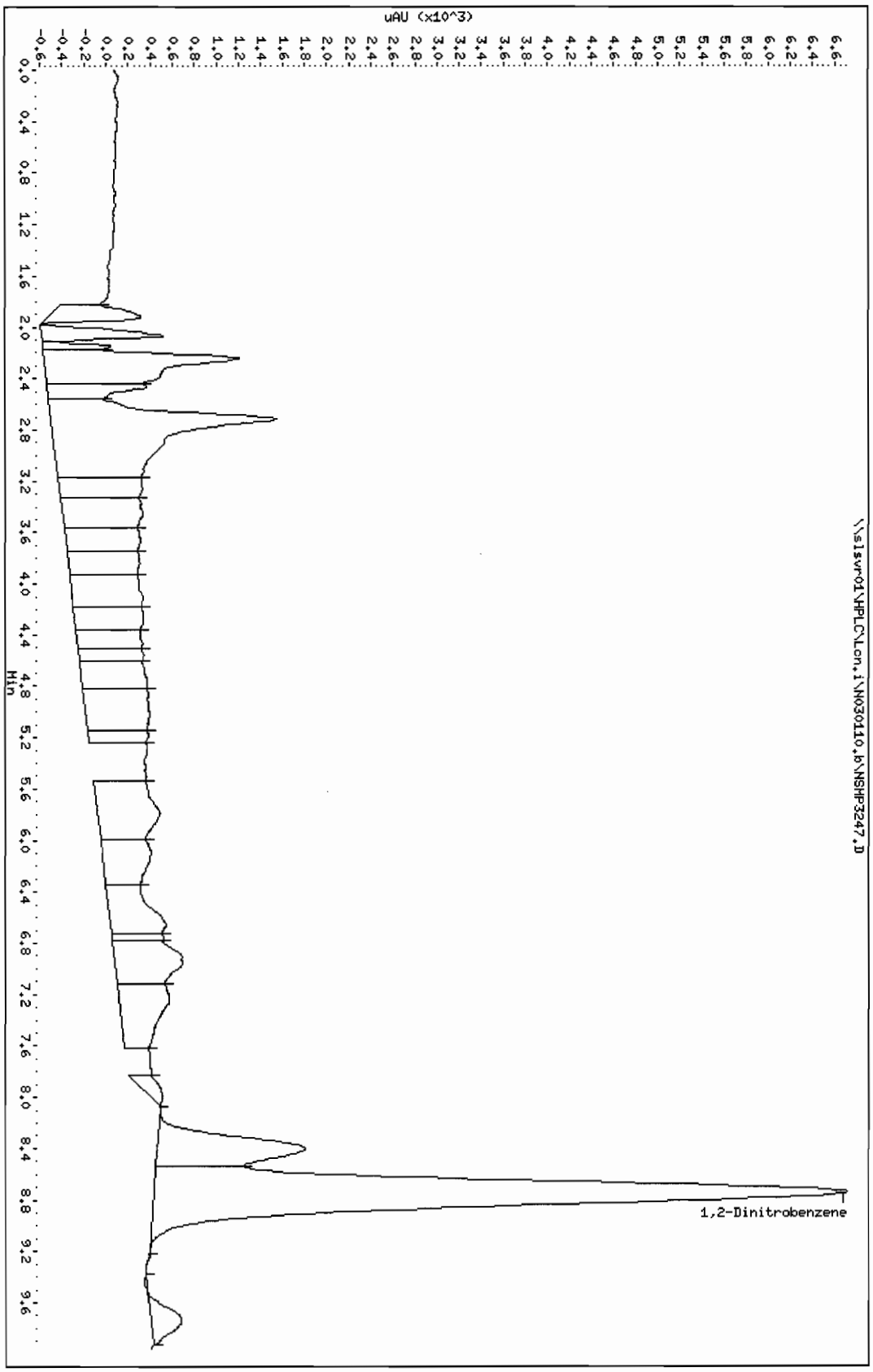
Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NSHP3247.D
Date : 01-MAR-2010 12:31
Client ID: CAPA-10-13498
Sample Info: LV0N61AC
Purge Volume: 510.3
Column phase: C18
Instrument: Lcn.i
Operator: AF
Column diameter: 4.60
\\slsvr01\HPLC\Lcn.i\N030110.b\NSHP3247.D
uAU (x10^3)
Min
1,2-Dinitrobenzene

Data File Name: NSMP3247.D
Inj. Date and Time: 01-MAR-2010 12:31
Instrument ID: Lcn.i
Client ID: CAPA-10-13498
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

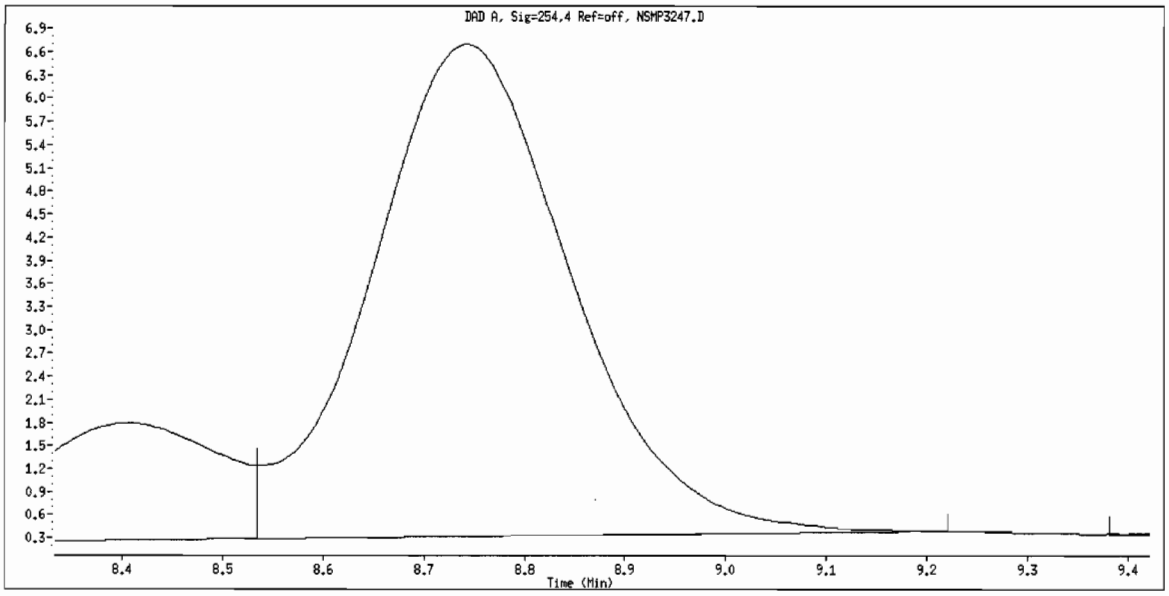

Original Integration

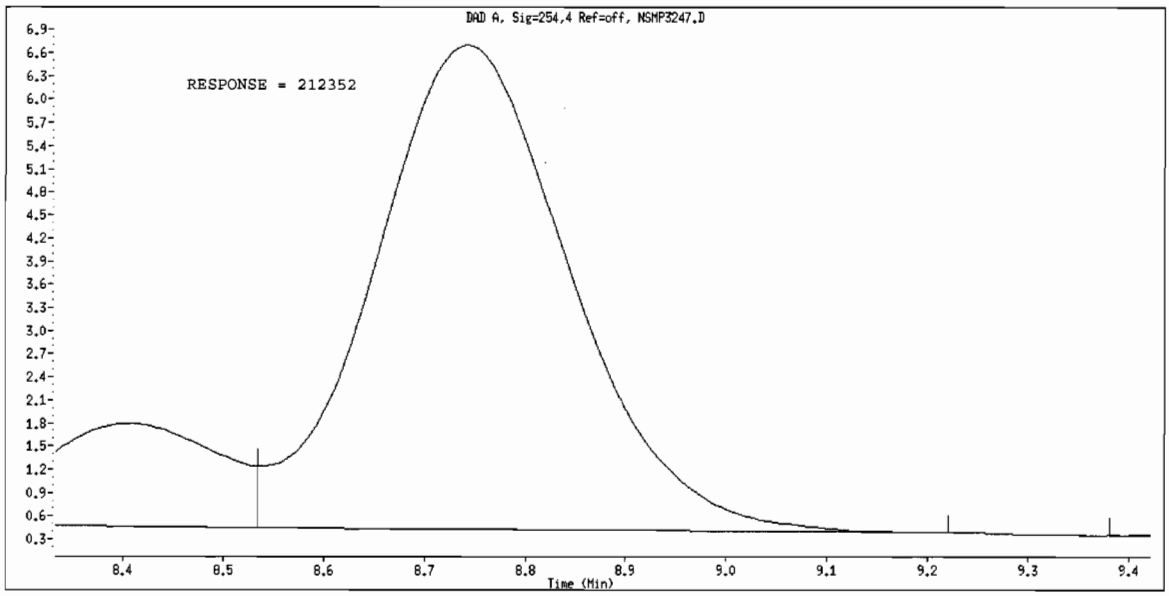

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

HPLC RAW QC DATA

Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NBLK3241.D
Report Date: 01-Mar-2010 13:47

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N030110.b\NBLK3241.D
Lab Smp Id: LV3231AA Client Smp ID: LAB BLANK
Inj Date : 01-MAR-2010 11:07
Operator : AF Inst ID: Lcn.i
Smp Info : LV3231AA
Misc Info : F0B250000-259B
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N030110.b\C18XNX.m
Meth Date : 01-Mar-2010 12:31 flakera Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
$ 4 1,2-Dinitrobenzene	8.700	8.706	-0.006	189253	365.539	3.655(M)

QC Flag Legend

M - Compound response manually integrated.

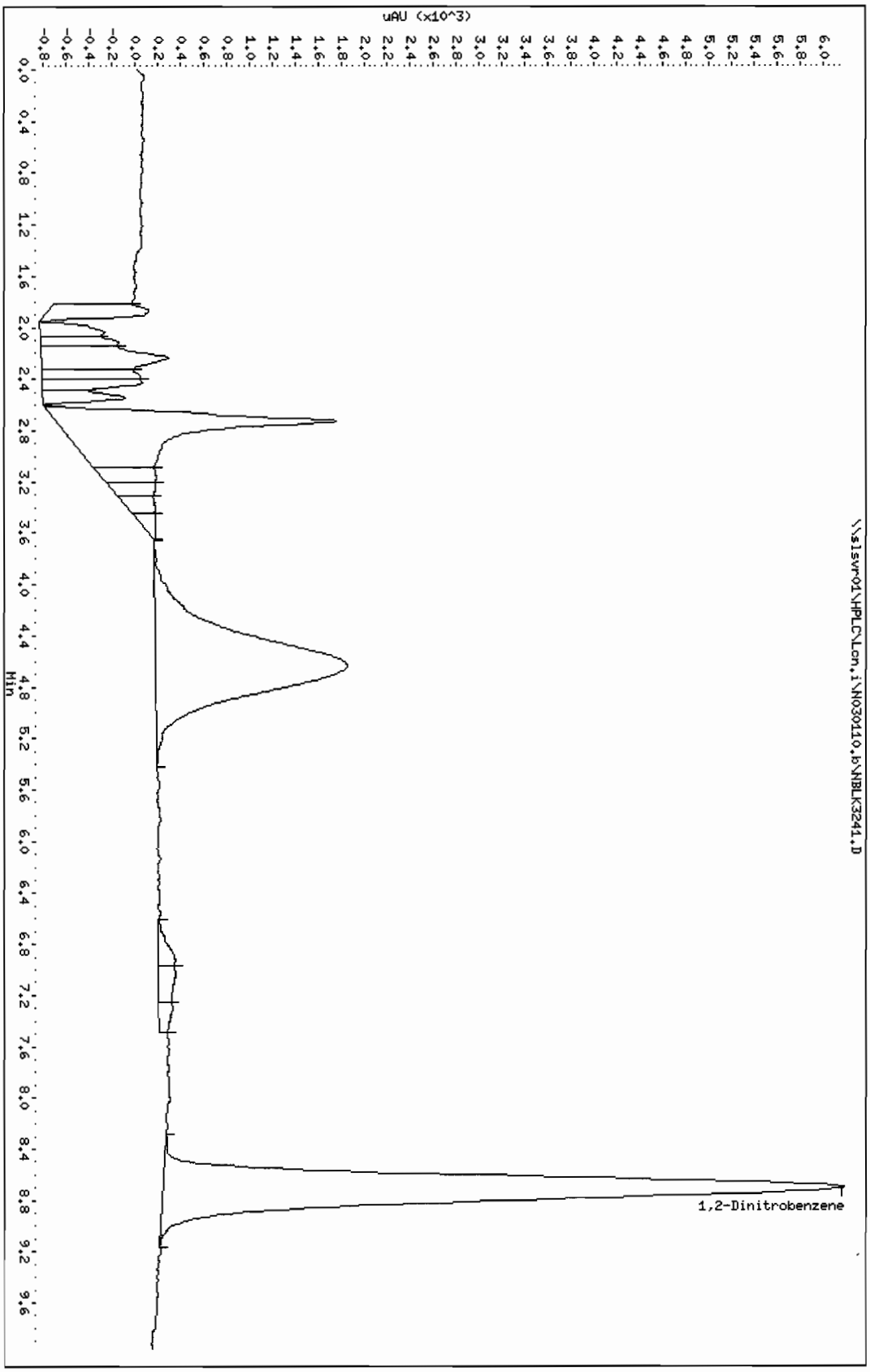
Data File: \\slsvr01\HPLC\Lcn,i\N030110.b\NBLK3241.D
Date : 01-MAR-2010 11:07
Client ID: LAB BLANK
Sample Info: LV3231AA
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn,i
Operator: AF
Column diameter: 4.60
\\slsvr01\HPLC\Lcn,i\N030110.b\NBLK3241.D
uAU (x10^3)
Min
1,2-Dinitrobenzene

Data File Name: NBLK3241.D
Inj. Date and Time: 01-MAR-2010 11:07
Instrument ID: Lcn.i
Client ID: LAB BLANK
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

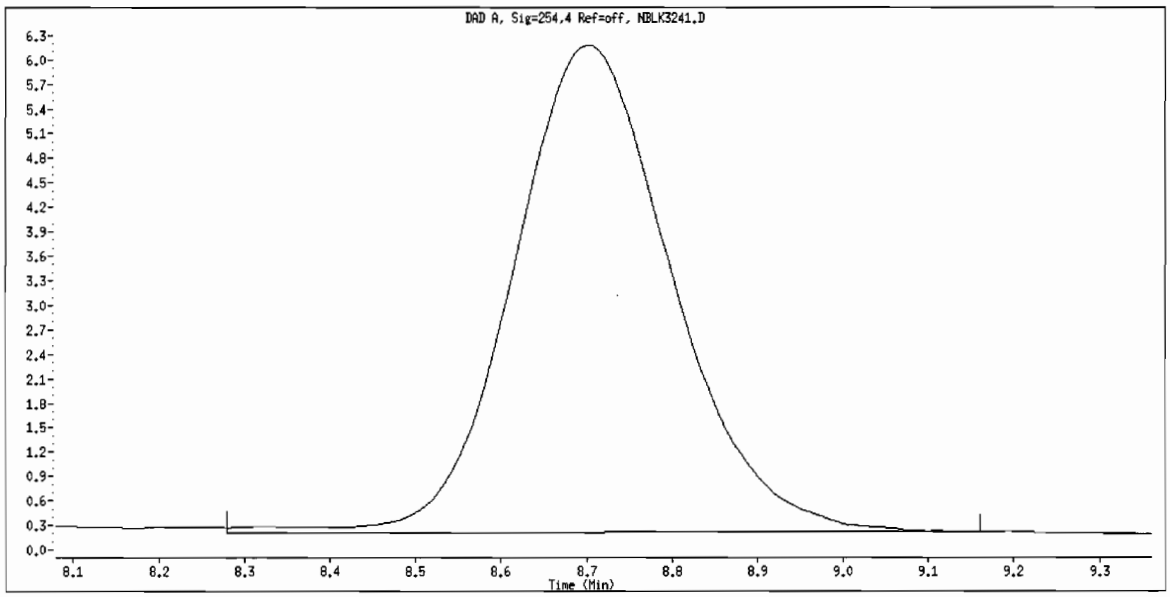

Original Integration

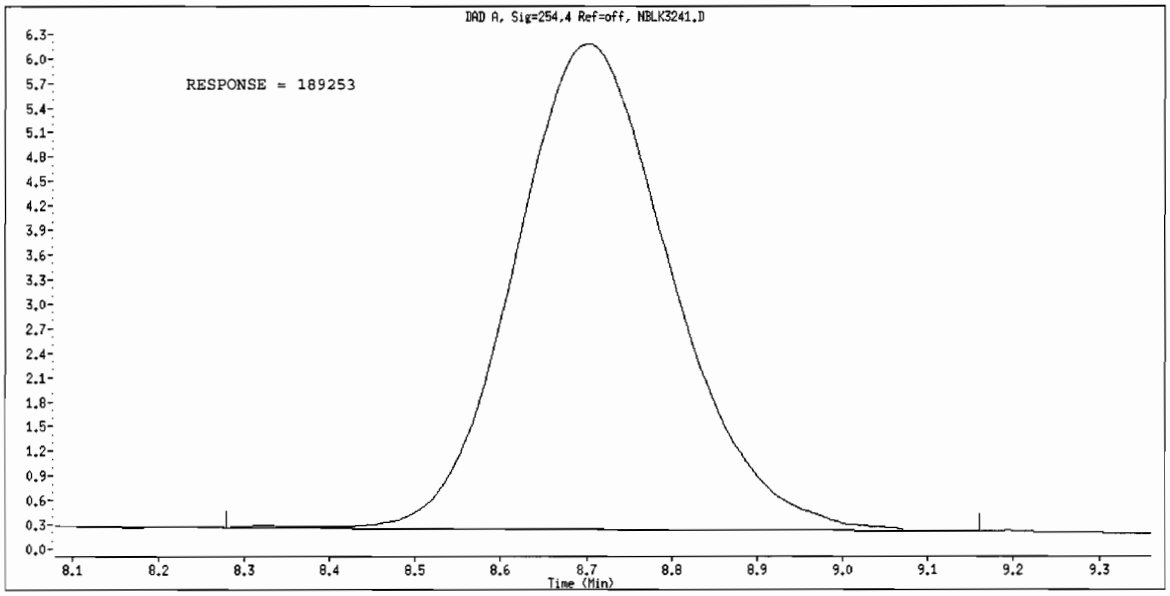

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NLCS3242.D
Report Date: 01-Mar-2010 13:41

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N030110.b\NLCS3242.D
Lab Smp Id: LV3231AC Client Smp ID: LAB CHECK
Inj Date : 01-MAR-2010 11:21
Operator : AF Inst ID: Lcn.i
Smp Info : LV3231AC
Misc Info : F0B250000-259C
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N030110.b\C18XNX.m
Meth Date : 01-Mar-2010 12:31 flakera Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 TNX	3.836	3.837	-0.001	44531	68.8219	0.6882
2 DNX	4.320	4.324	-0.004	30978	49.1751	0.4918
3 MNX	5.239	5.239	0.000	34679	70.2724	0.7027
$ 4 1,2-Dinitrobenzene	8.713	8.706	0.007	197005	380.512	3.805

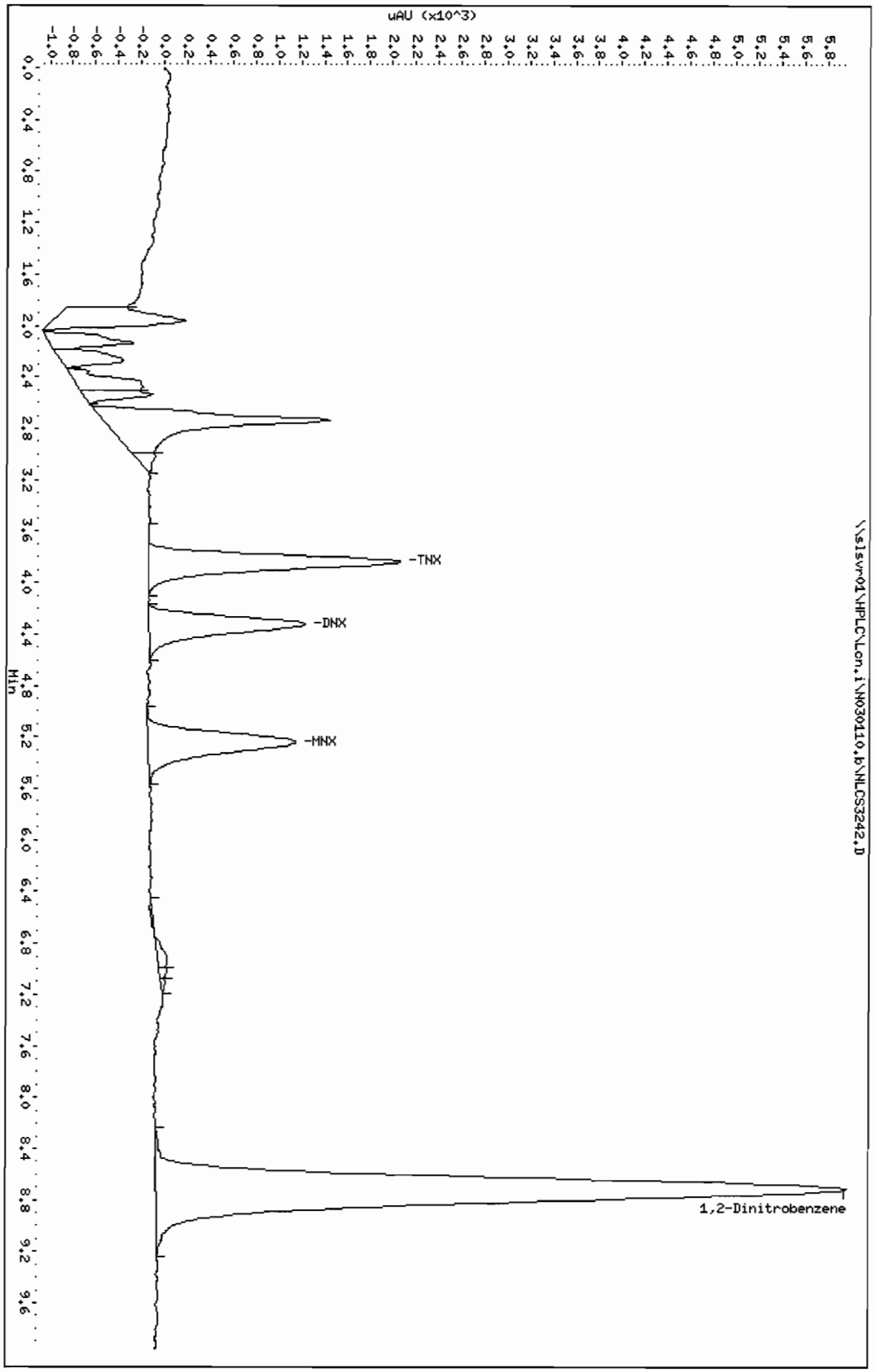
Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NLCS3242.D
Date : 01-MAR-2010 11:21
Client ID: LAB CHECK
Sample Info: LV32310C
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn.i
Operator: AF
Column diameter: 4.60
\\slsvr01\HPLC\Lcn.i\N030110.b\NLCS3242.D
uAU (x10^3)
-TNX
-DNX
-MNX
1,2-Dinitrobenzene
Min

Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NSMP3245.D
Report Date: 01-Mar-2010 13:42

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N030110.b\NSMP3245.D
Lab Smp Id: LV0NW1AD Client Smp ID: CAPA-10-13095S
Inj Date : 01-MAR-2010 12:03
Operator : AF Inst ID: Lcn.i
Smp Info : LV0NW1AD
Misc Info : F0B230417-001S
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N030110.b\C18XNX.m
Meth Date : 01-Mar-2010 12:31 flakera Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	502.600	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 TNX	3.845	3.837	0.008	51935	80.2646	0.7985(M)
2 DNX	4.325	4.324	0.001	33638	53.3977	0.5312(M)
3 MNX	5.252	5.239	0.013	38349	77.7092	0.7731(M)
$ 4 1,2-Dinitrobenzene	8.744	8.706	0.038	203635	393.318	3.913

QC Flag Legend

M - Compound response manually integrated.

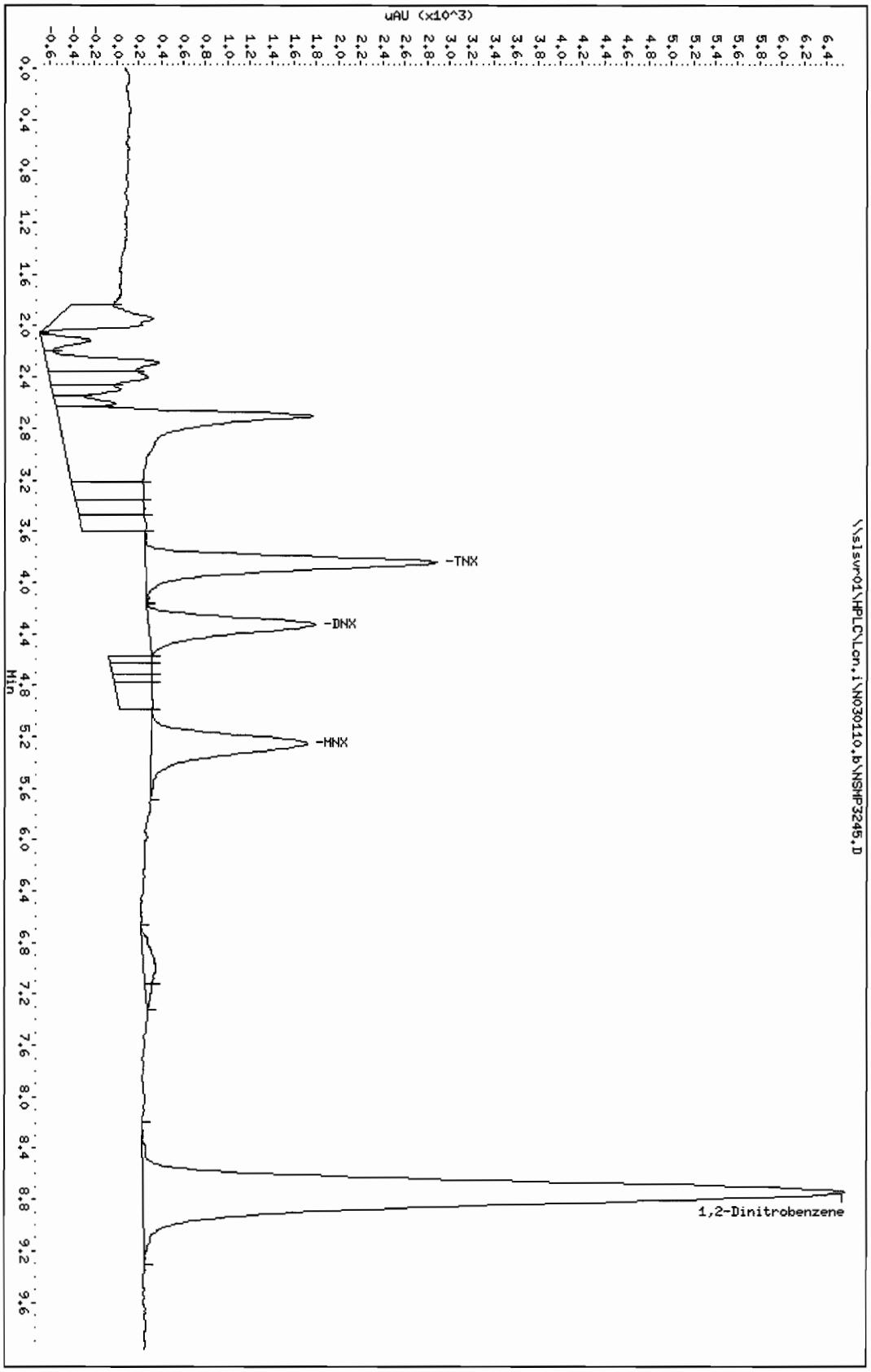
Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NSMP3245.D
Date : 01-MAR-2010 12:03
Client ID: CAPA-10-13095S
Sample Info: LVONWIAD
Purge Volume: 502.6
Column phase: C18
Instrument: Lcn.i
Operator: AF
Column diameter: 4.60
\\slsvr01\HPLC\Lcn.i\N030110.b\NSMP3245.D
uAU (x10^3)
Min
-TNX
-DNX
-MNX
1,2-Dinitrobenzene

Data File Name: NSMP3245.D
Inj. Date and Time: 01-MAR-2010 12:03
Instrument ID: Lcn.i
Client ID: CAPA-10-13095S
Compound Name: TNX
CAS #:

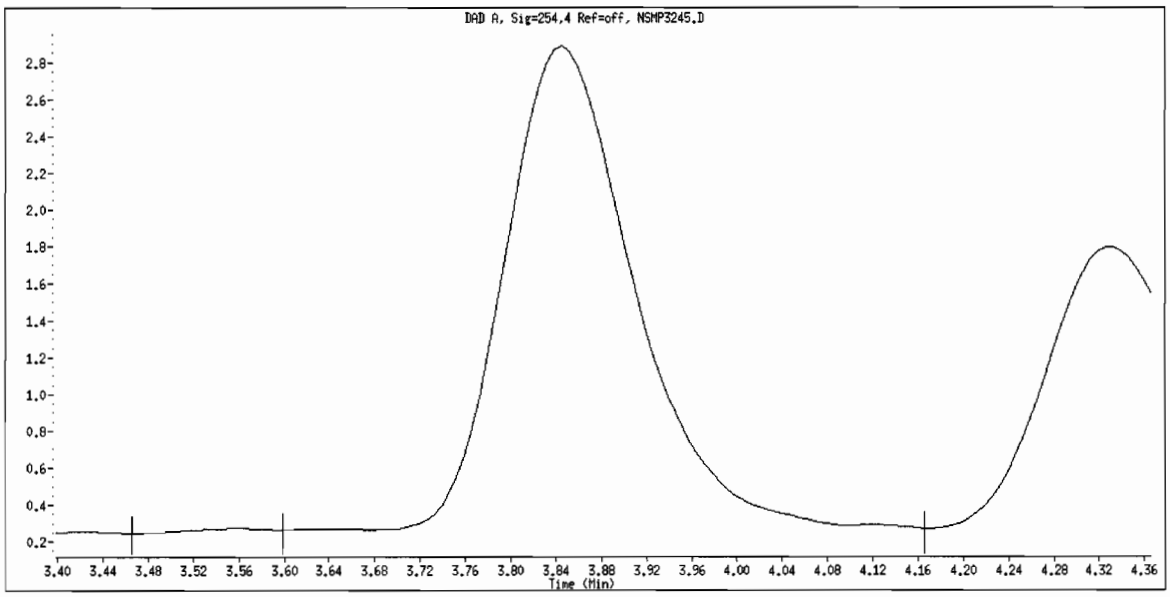

Original Integration

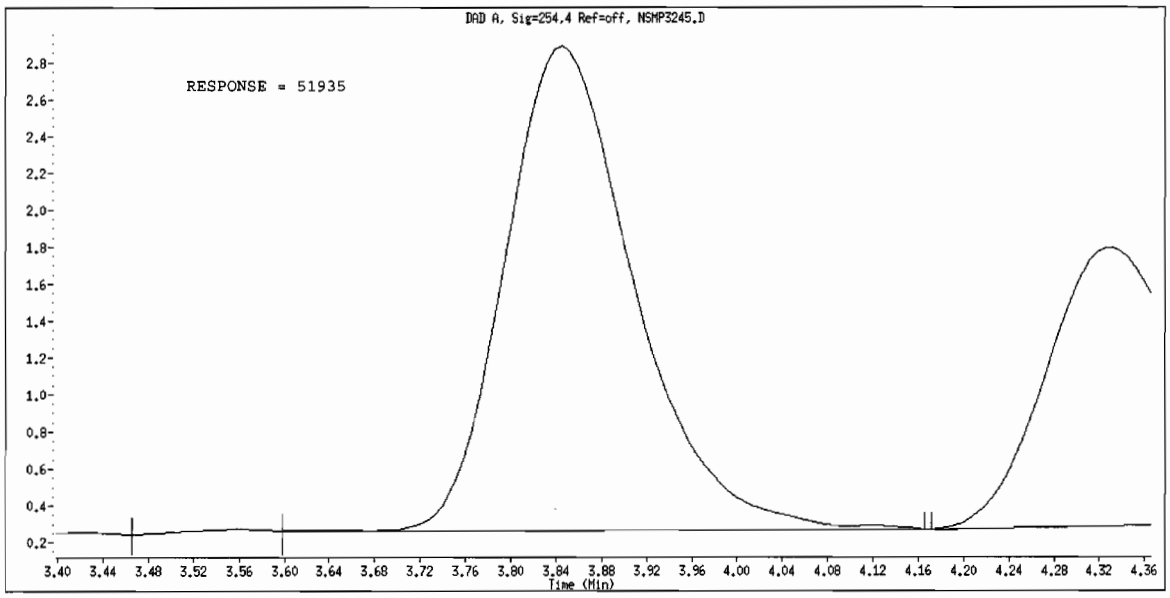

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NSMP3245.D
Inj. Date and Time: 01-MAR-2010 12:03
Instrument ID: Lcn.i
Client ID: CAPA-10-13095S
Compound Name: DNX
CAS #:

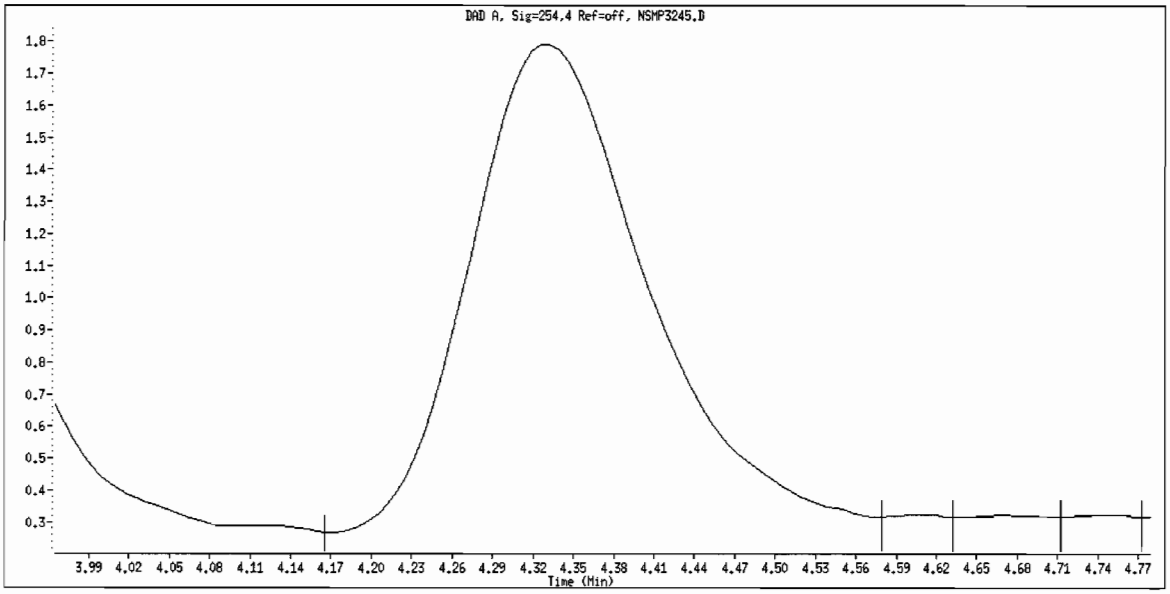

Original Integration

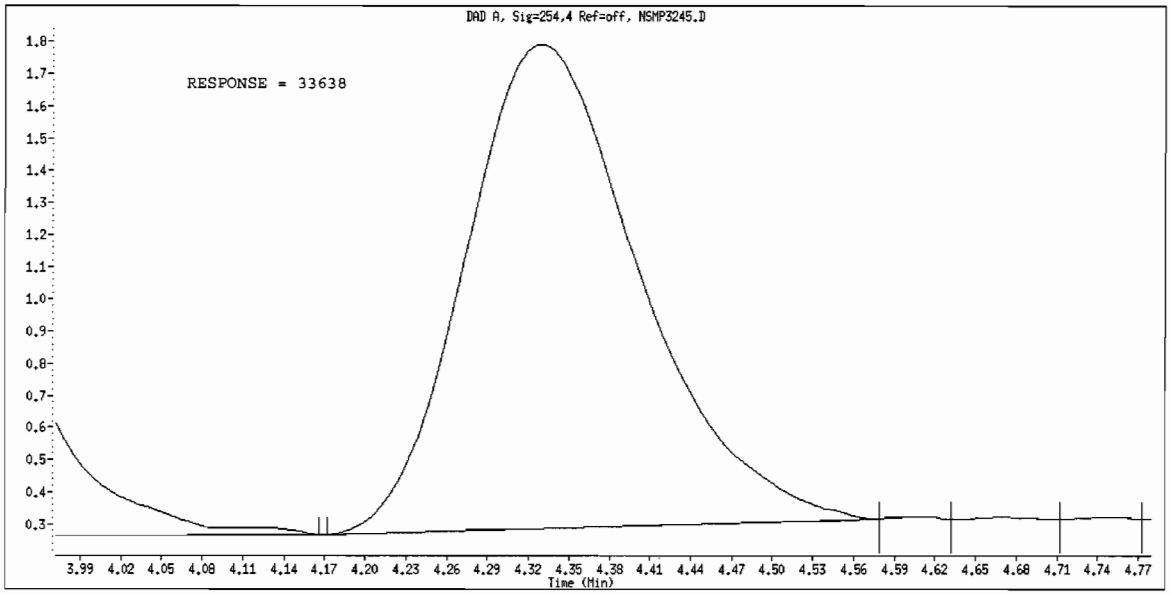

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NSMP3245.D
Inj. Date and Time: 01-MAR-2010 12:03
Instrument ID: Lcn.i
Client ID: CAPA-10-13095S
Compound Name: MNX
CAS #:

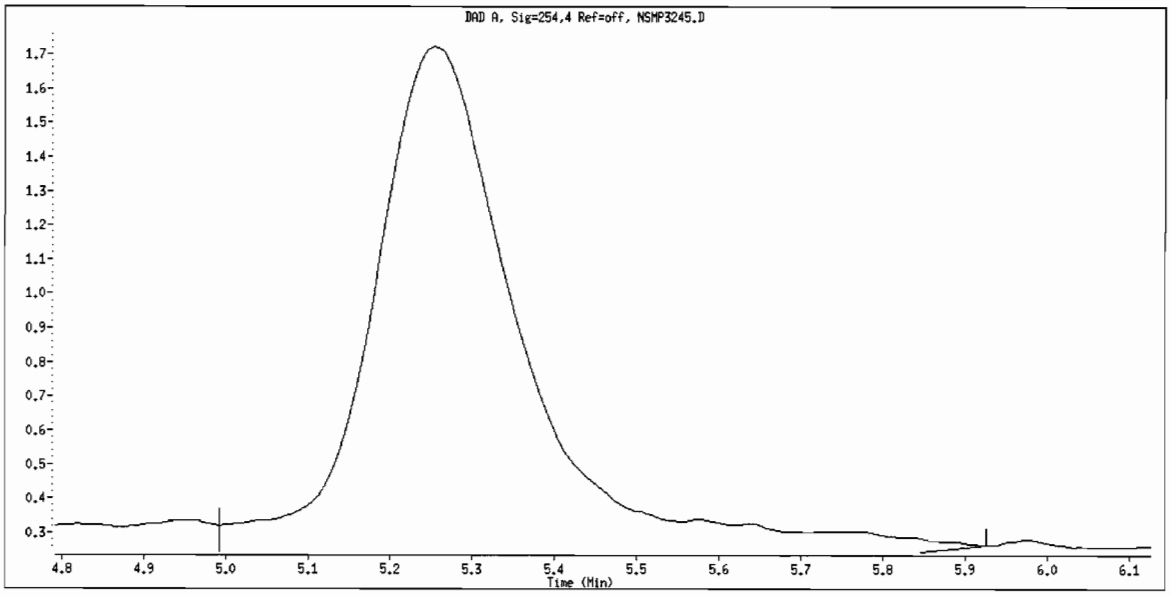

Original Integration

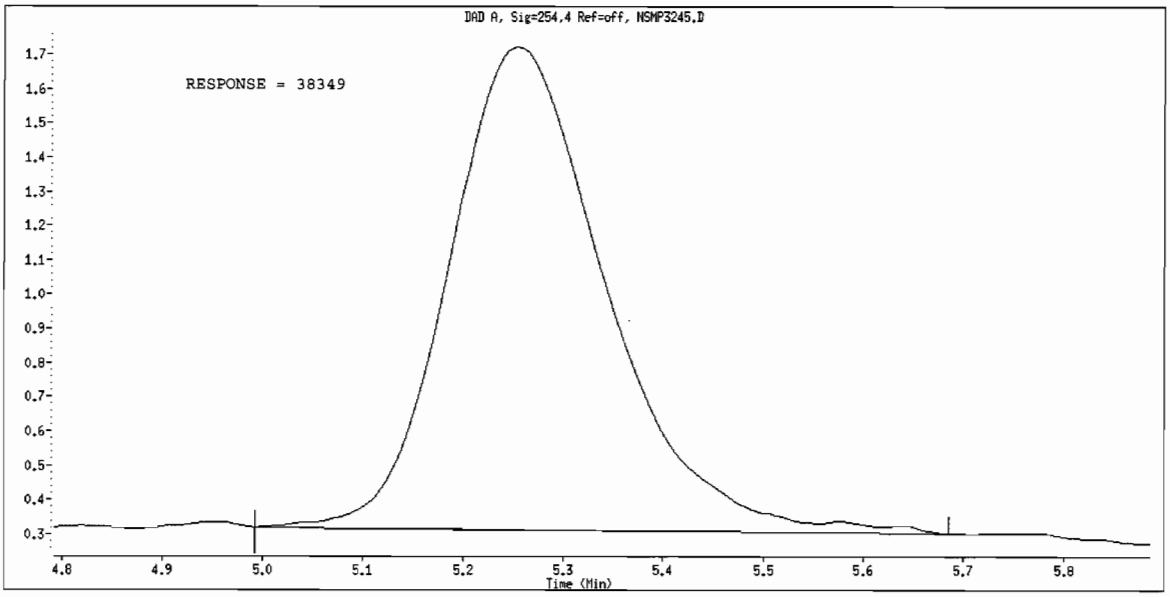

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NSMP3246.D
Report Date: 01-Mar-2010 13:42

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N030110.b\NSMP3246.D
Lab Smp Id: LV0NW1AE Client Smp ID: CAPA-10-13095D
Inj Date : 01-MAR-2010 12:17
Operator : AF Inst ID: Lcn.i
Smp Info : LV0NW1AE
Misc Info : F0B230417-001D
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N030110.b\C18XNX.m
Meth Date : 01-Mar-2010 12:31 flakera Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	502.200	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
1 TNX	3.852	3.837	0.015	56625	87.5130	0.8713(M)
2 DNX	4.339	4.324	0.015	36076	57.2678	0.5702(M)
3 MNX	5.262	5.239	0.023	35489	71.9138	0.7160
$ 4 1,2-Dinitrobenzene	8.755	8.706	0.049	165879	320.393	3.190

QC Flag Legend

M - Compound response manually integrated.

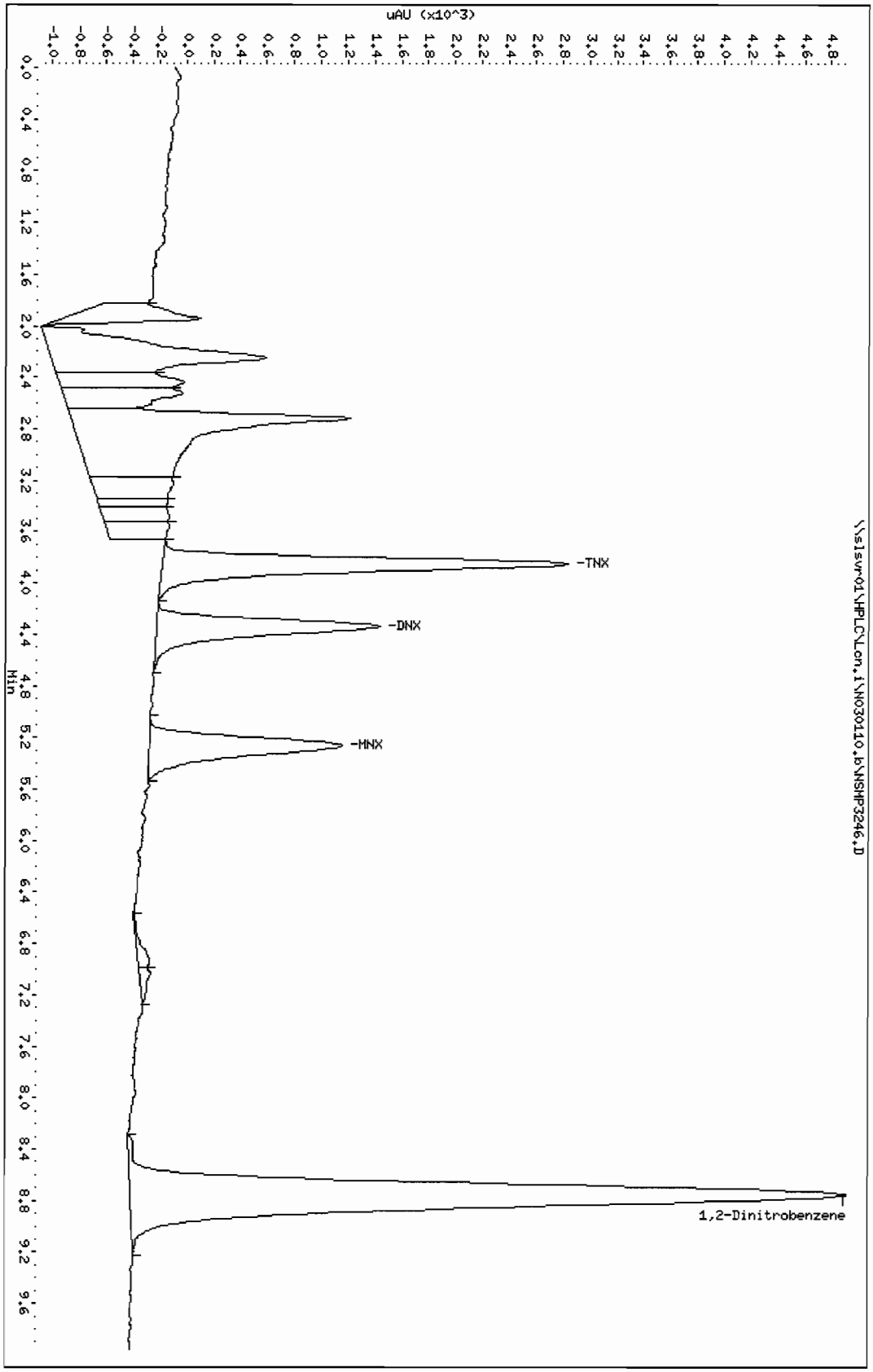
Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NSMP3246.D
Date : 01-MAR-2010 12:17
Client ID: CAPA-10-13095D
Sample Info: LVONWL0E
Purge Volume: 502.2
Column phase: C18
Instrument: Lcn.i
Operator: AF
Column diameter: 4.60
\\slsvr01\HPLC\Lcn.i\N030110.b\NSMP3246.D
uAU (x10^3)
-TNX
-DNX
-MNX
1,2-Dinitrobenzene
min

Data File Name: NSMP3246.D
Inj. Date and Time: 01-MAR-2010 12:17
Instrument ID: Lcn.i
Client ID: CAPA-10-13095D
Compound Name: TNX
CAS #:

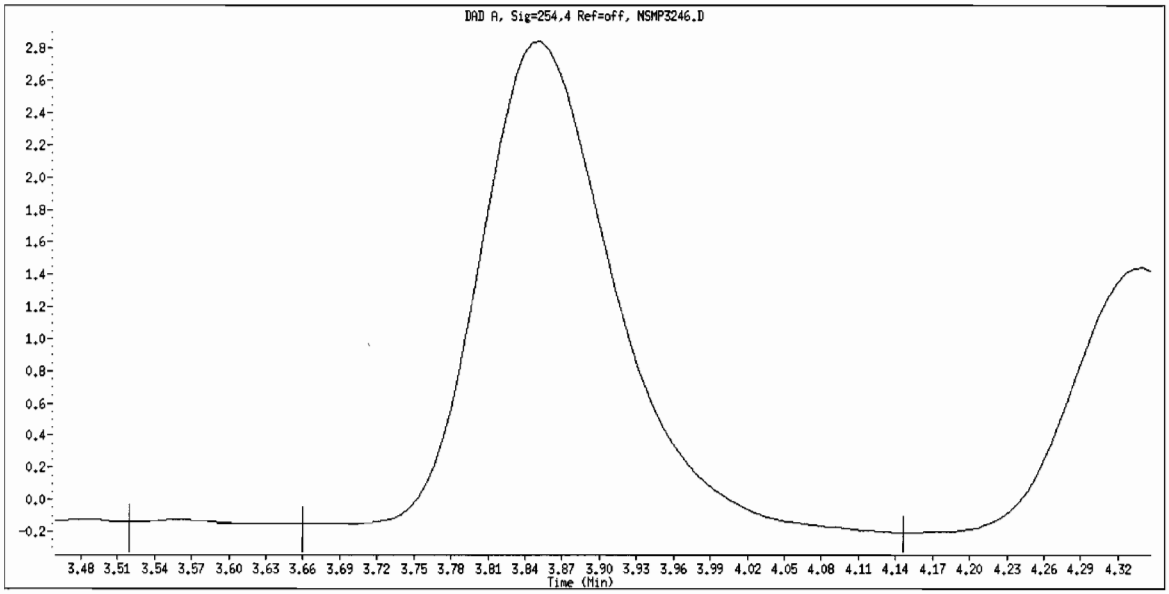

Original Integration

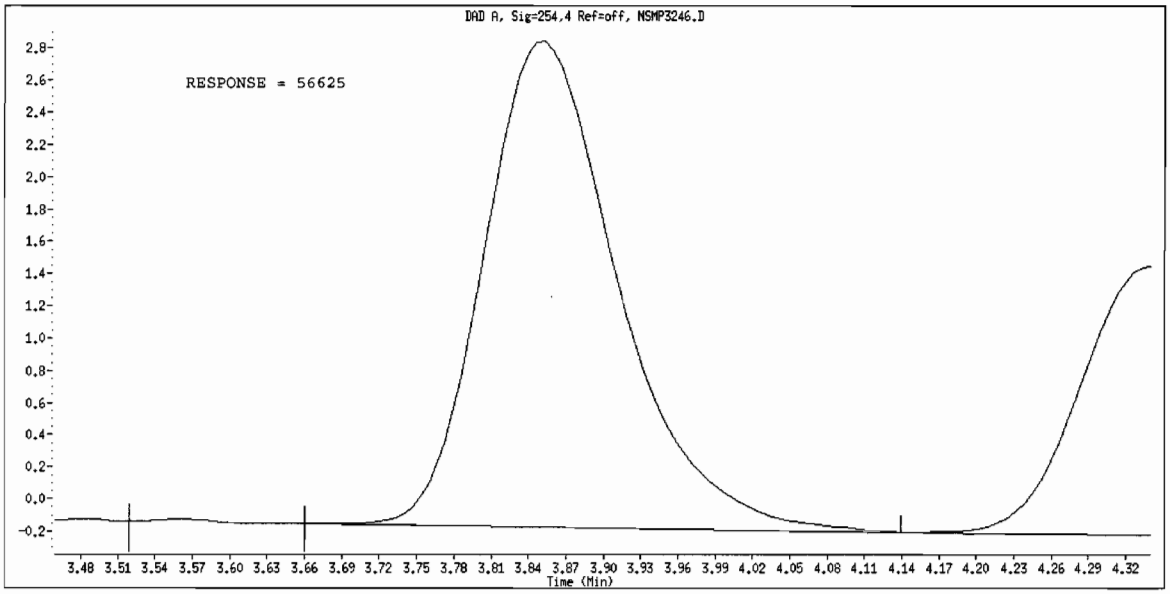

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NSMP3246.D
Inj. Date and Time: 01-MAR-2010 12:17
Instrument ID: Lcn.i
Client ID: CAPA-10-13095D
Compound Name: DNX
CAS #:

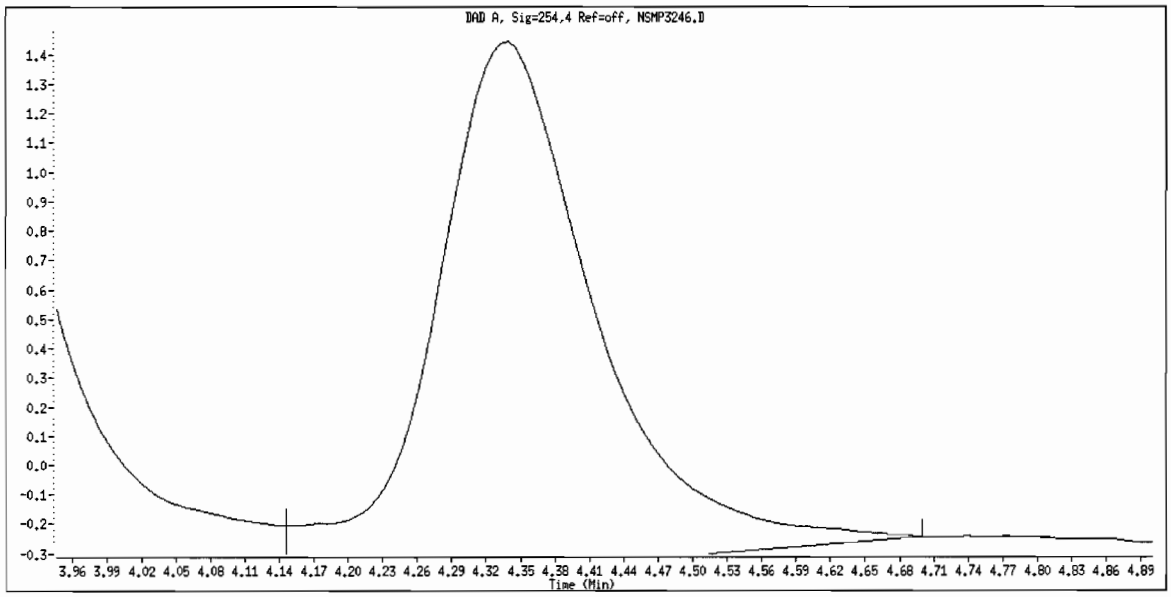

Original Integration

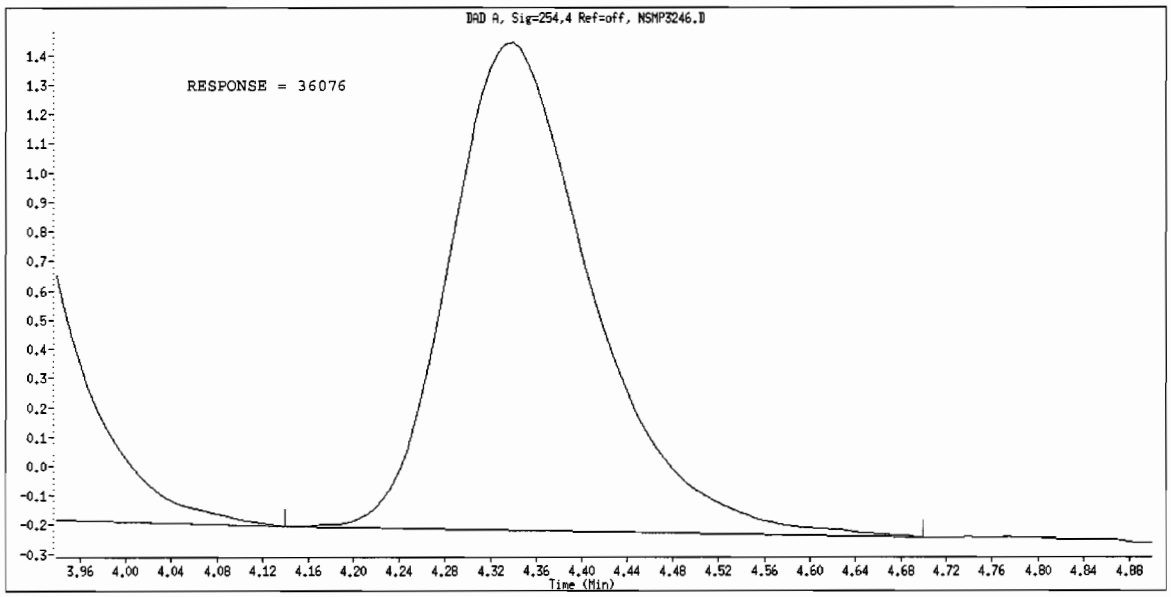

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

HPLC MISCELLANEOUS DATA

LOT # F0B230417

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Organic Prep Report for Batch # 0056259

TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045

N030110

Prep Method: SW-846 3535

Prep Description: EXTRACTION, SOLID PHASE

SOP Number: ST-OP-0008

Matrix: WATER

Extraction Date: 2/25/2010

			Initials: MFM				Initials: MFM		Initials:		Initials:	
							Concentration 1		Cleanup 1		Cleanup 2	
Lot Number	WorkOrder No	AnalDueDate	Wt/Vol	pH 1	pH 2	Extr Unit	Volume	Date	Method	Date	Method	Date
F0B130431 - 002	LVNDA2AC	03/05/2010	503.1 mL				2.5 mL	2/25/2010				
F0B230417 - 001	LV0NW1AC	03/16/2010	503.8 mL				2.5 mL	2/25/2010				
F0B230417 - 001D	LV0NW1AE	03/16/2010	502.2 mL				2.5 mL	2/25/2010				
F0B230417 - 001S	LV0NW1AD	03/16/2010	502.6 mL				2.5 mL	2/25/2010				
F0B230418 - 001	LV0N61AC	03/16/2010	510.3 mL				2.5 mL	2/25/2010				
F0B250000 - 259B	LV3231AA		500 mL				2.5 mL	2/25/2010				
F0B250000 - 259C	LV3231AC		500 mL				2.5 mL	2/25/2010				

Spike Information

Name	Standard ID	Exp Date	Vol Added
XNX Prep Spike	GC0048-10	3/1/2010	250 uL
8330 Surrogate	GC0094-10	3/15/2010	50 uL

Spiking verified by: MFM

Miscellaneous Information

Start: Stop:

Extr 1:

Extr 2:

Conc Method:

Conc Temp C:

Chemical Lot Information

Chemical	Lot Number
Acetonitrile	G50343
RDX Columns	P2953

Comments: F0B230417-001D cracked vial, vial replaced. Concentration should be correct.

Custody Information

Relinquished By: MFM **Review/Received By:** AF **Date of Transfer:** 2/25/10

QC Suffix: B=reagent blank, C=lab control sample, L=lab control sample duplicate, X=sample duplicate, S=matrix spike, D=matrix spike duplicate

PrepSheet Generator 1.26, updated 11/14/2008

LOT# F0C0 0418

Logbook No.: 3311 | Instrument ID No.: LCN

TestAmerica St. Louis
HPLC Runlog

#	Data File	Clock	Lab I.D.	Dil.	STD#	Date	Oper.	Matrix	Method
1	NLCS 1303	N112309	LNQGF1AC		GC0384-09	11/25/09	WH/AF	REV 5011L	8330
2	NCAL 1304		8330 CCAL						
3	NSBK 1305		Flush		—				
4	1306								
5	1307								
6	1308								
7	1309								
8	1310								
9	1311								
10	NSBK 1312	N112509							
11	NSBK 1313								
12	NICL 1314		XNX-ICAL-3		GC0387-09		WH/AF	W	XNX
13	1315		-4						
14	1316		-5						
15	1317		-6						
16	1318		-7						
17	1319		-8						
18	NICV 1320		XNX ICV		GC0382-09				
19	NCAL 1321		XNX CCAL		GC0387-09				
20	NBLK 1322		LPJT81AAB		—	12-2-09			
21	NLCS 1323		1ACC						
22	NSMP 1324		LN84N1AC						
23	1325		1AD						
24	1326		1AE						
25	1327		LN84R1AC						
26	1328		LPH6M1AC						
27	1329		LPH6P1AC						
28	NBLK 1330		LN8EJ1AA						
29	NSBK 1330		SBK		—				
30	NCAL 1331		XNX CCAL		GC0387-09				
31	NBLK 1332		LN8EJ1AA		—	11/27/09			
32	NLCS 1333		1AC						
33	NSMP 1334		LN0W61AC						
34	1335		1AF						
35	1336		1AG						

Review documented on next page.
QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Contol Sample Duplicate; S = Matrix Spike; D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard.

Form: SL-ORG-0008, Rev. 1/4/05 | 63
SOP References: STL-GC-0017 Rev 11

Logbook No.: 3311 | Instrument ID No.: LCN

TestAmerica St. Louis
HPLC Runlog

Batch #	Comments		#
9307388	F9K030000 - 388 C	OK	1
		OK	2
		—	3
			4
			5
			6
			7
			8
			9
		—	10
		OK	11
	XNX ICAL	OK	12
		OK	13
		OK	14
		OK	15
		OK	16
		OK	17
	XNX ICV	OK	18
		OK	19
9320111	F9K160000 - 111B AF ~~File # duplicated~~	OK	20
	- 111C File# duplicated	OK	21
	F9K110519 - 001	OK	22
	-001 S	OK	23
	-001 D	OK	24
	-002	OK	25
	F9K140506 - 001	OK	26
	-002	OK	27
9315181	F9K110000 - 181 B Not Needed	~~OK~~	28
		—	29
		OK	30
9315181	F9K116000 - 181 B	OK	31
	-181 C	OK	32
	F9K060412 - 001 MNX C	OK	33
	-001 S	OK	34
	-001 D	OK	35

Reviewed By: [signature] 12/1/09 [signature] 11/30/09

Form: SL-ORG-0008, Rev. 1/4/05 | 64
QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Contol Sample Duplicate; S = Matrix Spike; D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard.
SOP References: STL-GC-0017 Rev 11

TestAmerica St. Louis

Logbook No.: 3437 Instrument ID No.: LCN

TestAmerica St. Louis
HPLC Runlog

#	Data File	Clock	Lab I.D.	Dil.	STD#	Date	Oper.	Matrix	Method
1	NCND 3239	N030110	CONDITIONING			3-1-10	AF	W	8330 (XNX)
2	NCAL 3240		XNX CCAL	1:6x	GC0050-10				
3	NBLK 3241		LV3231AA						
4	NLCS 3242		⊥ 1AC						
5	NSMP 3243		LVNDA2AC						
6	NSMP 3244		LVEONWIAC						
7	NSMP 3245		LVONWIAD						
8	NSMP 3246		LVONWIAE						
9	NSMP 3247		LVON161AC						
10	NBLK 3248		LV45V1AA						
11	NLCS 3249		⊥ 1AC						
12	NSMP 3250		LV37Q1AC						
13	NCAL 3251		XNX CCAL	1:6x	GC0050-10				
14	NSMP 3252		LV37Q1AD						
15	NSMP 3253		LV37Q1AE						
16	NSMP 3254		LV37V1AC						
17	NSMP 3255		LV37W1AC						
18	NSMP 3256		LV371AC						
19	NSMP 3257		LV3731AC						
20	NCAL 3258		XNX CCAL	1:6x	GC0050-10				
21	NSBK 3259	⊥	FLUSH			⊥	⊥	⊥	⊥
22									
23									
24									
25									
26									
27									
28									
29			AF 3/1/10						
30									
31									
32									
33									
34									
35									

Review documented on next page. Form: SL-ORG-0009, Rev. 9/23/09 29
QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Contol Sample Duplicate; S = Matrix Spike; D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard. SOP References: STL-GC-0017, current revisions.

Logbook No.: 3437 Instrument ID No.: LCN

TestAmerica St. Louis
HPLC Runlog

Batch #	Comments	#
	—	1
	OK	2
0056259	FOB250000-259B OK	3
	⊥ -259C OK	4
	FOB130431-002 OK	5
	FOB230417-001 OK	6
	-001S OK	7
	⊥ -001D OK	8
	FOB230418-001 OK	9
0057178	FOB260000-178B OK	10
	⊥ -178C OK	11
	FOB250556-001 OK	12
	OK	13
0057178	FOB250556-001S OK	14
	⊥ -001D OK	15
	FOB250558-001	16
	⊥ -002	17
	FOB250559-001	18
	⊥ -002	19
		20
	—	21
		22
		23
		24
		25
		26
		27
		28
	AF 3/1/10	29
		30
		31
		32
		33
		34
		35

Reviewed By: [signature] 3/1/10 Form: SL-ORG-0009, Rev. 09/23/09 30
QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Contol Sample Duplicate; S = Matrix Spike; D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard. SOP References: STL-GC-0017, current revisions.

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2038

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Mike Franks

Severn Trent Laboraties, Inc., St. Louis

13715 Rider Trail N.

Earth City, MO 63045

These Samples are on:

LANL Request Number:10-2038

Per Agreement Number:126310021

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/24/2010

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8330	1	CAPA-10-12917	WG	2/23/2010	
		2	CAPA-10-12917	WG	2/23/2010	

Final Page of REQUEST NUMBER 10-2038

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2038

REQUEST NUMBER: 10-2038

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Mike Franks

Severn Trent Laboraties, Inc., St. Louis

13715 Rider Trail N.

Earth City, MO 63045

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12917	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-12917	2	AMBER GLASS	WSP-HEXMOD	Ice	WG

Relinquished By:		**Date**	**Time**	**Received By:**		**Date**	**Time**
Printed Name	Signature	2/24/10	1400	Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		**Date**	**Time**	**Remarks:**
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-12915 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/23/2010	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		15:06	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-40		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / (NA)		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / (NA)

BOREHOLE: YES / NO / (NA) **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of CAPA-10-12917

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) M Green, D Wooly **REVIEWED BY (PRINT)** M Green

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Wooly	02/23/10	(Printed Name) Sherri Sherwood	02/23/10
(Signature) D. Wooly	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-12916 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/23/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1506	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-40		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / (NA)

BOREHOLE: YES / NO / (NA) **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid		1H<2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		1H<2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice		

SAMPLE DESC:

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D Worly, M. Green **REVIEWED BY (PRINT)** M Green

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D Worly	02/23/10	(Printed Name) Sherri Sherwood	02/23/10
(Signature) D. Worly	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-12917 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/23/10	MEDIA:	WGR	ok
TIME COLLECTED (HH:MM)		1506	SUB-MEDIA:	UA	
PRS ID:	C-00-011	ok	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-40		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH <2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice		
3		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice		
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide		pH >12
1		WSP-GrossA/B	1 LITER POLY	None		
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice		
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid		pH <2
1		WSP-RAD	1 GAL POLY	Nitric Acid		pH <2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		pH <2
1		WSP-LL-H-3	1 LITER POLY	None		
3		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice		
3		WSP-8082-PCB	1 LITER AMBER GLASS	Ice		
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice		
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice		
1		Ra226+228	1 GAL POLY	Nitric Acid		pH <2

SAMPLE DESC:

SAMPLE COMMENTS: 4th full suite sample.
Collected 50' from Pajarito Rd.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH (STU)	T (°C)	SC ($\frac{\mu S}{cm}$)	DO ($\frac{mg}{L}$)	TVA (NTU)	ORP (mV)	Q (gpm)
7.31	15.48	105	6.77	1.83	63.6	2.1

COLLECTED BY (PRINT) D. Worly, M Green

REVIEWED BY (PRINT) M Green

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Worly	02/23/10	(Printed Name) Sherri Sherwood	02/23/10
(Signature) D. Worly	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-12918 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/23/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1506	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	~~GSP~~ NA DW 02/23/10	
LOCATION ID:	R-40		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / (NA)		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / (NA)

BOREHOLE: YES / NO / (NA) **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1-2	DW 02/23/10	WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	1 of 2

SAMPLE DESC: QC Sample of CAPA-10-12917

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) M. Green, J. Wooly **REVIEWED BY (PRINT)** M Green

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Wooly	02/23/10	(Printed Name) Sherri Sherwood	02/23/10
(Signature) J. Wooly	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5117-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2038 VALIDATION DATE: 04/09/10 LAB CODE: STSL

CONTRACT LABORATORY NAME: TestAmerica Laboratories, Inc. - St. Louis

VALIDATOR: Kevin A. Lambert ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☒ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD RPDs for MNX and DNX were not within the laboratory QC limit. However, MS/MSD analyses are not required for HE, no sample data were qualified.

Reviewed by: Allison Felix Level: 1 Date: 4/12/10

VALIDATOR'S SIGNATURE: Kevin A Lambert DATE: 04/09/10

HIGH EXPLOSIVE (HE) ANALYTICAL DATA VALIDATION CHECKLIST

5117-2

High Explosive (HE) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, H9	J-, H9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, H9a	J-, H9a
☐	☒	☐	3. The affected analytes are regarded as Rejected because the analytical holding time was exceeded.	R, H9b	R, H9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, H7	J, H7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multi-point calibration correlation coefficient is <0.995.	UJ, H7a	J, H7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method limits.	UJ, H7c	J, H7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, H7d	J, H7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, H7f	R, H7f
☐	☒	☐	9. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, H4	N/A
☐	☒	☐	10. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, H4a
☐	☐	☒	11. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, H4d	N/A
☐	☒	☐	12. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H4e	R, H4e

HIGH EXPLOSIVE (HE) ANALYTICAL DATA VALIDATION CHECKLIST

5117-2

High Explosive (HE) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, H0	J, H0
☐	☐	☒	14. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided (hexp – diode array detector).	N/A	J, H0a
☐	☒	☐	15. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H0b	R, H0b
☐	☒	☐	16. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, H3	J-, H3
☐	☒	☐	17. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, H3a	J-, H3a
☐	☒	☐	18. The surrogate %R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	N/A	J+, H3b
☐	☐	☒	19. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, H3c	J, H3c
☐	☒	☐	20. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H3d	R, H3d
☐	☒	☐	21. The LCS percent recover was <10%. Follow the external laboratory limits located within the associated data package.	R, H12	J-, H12
☐	☒	☐	22. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, H12a	J-, H12a

HIGH EXPLOSIVE (HE) ANALYTICAL DATA VALIDATION CHECKLIST

5117-2

High Explosive (HE) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, H12b
☐	☒	☐	24. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H12c	R, H12c
☐	☐	☒	25. The analyte was not confirmed on a second dissimilar column.	N/A	R, H8
☐	☐	☒	26. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, H8a	R, H8a
☐	☒	☐	27. Duplicate, dilution, or reanalysis.	UJ, H88	J, H88
☐	☐	☒	28. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for cleanup or matrix interference.	UJ, R, H15	R, H15
☒	☐	☐	29. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, H19	J, R, H19

Los Alamos National Laboratory

Client Sample ID: CAPA-10-12917

HPLC

Lot-Sample #...: F0B250556-001 **Work Order #...:** LV37Q1AC **Matrix.....:** WATER
Date Sampled...: 02/23/10 **Date Received..:** 02/25/10
Prep Date.....: 02/26/10 **Analysis Date..:** 03/01/10
Prep Batch #...: 0057178 **Analysis Time..:** 13:13
Dilution Factor: 1

Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
MNX	ND	0.50	ug/L
DNX	ND	0.50	ug/L
TNX	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	93	(60 - 113)

KAL
04/09/10

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2038

REQUEST NUMBER: 10-2038

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Mike Franks

Severn Trent Laboraties, Inc., St. Louis
13715 Rider Trail N.
Earth City, MO 63045

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12917 2x LG	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-12917	2	AMBER GLASS	WSP-HEXMOD	Ice	WG

Relinquished By:	Date	Time	Received By:	Date	Time
Printed Name / Signature	2/24/10	1400	Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		
Printed Name / Signature			Printed Name / Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Printed Name / Signature			

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2038

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Mike Franks
Severn Trent Laboraties, Inc., St. Louis
13715 Rider Trail N.
Earth City, MO 63045

These Samples are on:
LANL Request Number:10-2038
Per Agreement Number:126310021
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/24/2010
TURNAROUND/REPORT DUE: 3/26/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8330	1	CAPA-10-12917	WG	2/23/2010	
		2	CAPA-10-12917	WG	2/23/2010	

Final Page of REQUEST NUMBER 10-2038

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 10-2038

Los Alamos RAD

Lot #: F0B250556

Joylene Valdez or Keith Greene

Los Alamos National Laboratory
SMO TA-00 Bldg 1237
DP: 03U; MS: 707
Los Alamos, NM 87545

TESTAMERICA LABORATORIES, INC.

Michael C. Franks
Project Manager

March 19, 2010

13715 Rider Trail North Earth City, MO 63045 tel 314.298.8566 fax 314.298.8757 www.testamericainc.com

TABLE OF CONTENTS - LOT # F0B250556

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CLIENT CHAIN OF CUSTODY 3
HPLC 14

TOTAL # OF PAGES IN PACKAGE 108

Case Narrative
LOT NUMBER: **F0B250556**
LANL Request Number: **10-2038**

This report contains the analytical results for the sample received under chain of custody number 10-2038 by TestAmerica St. Louis on February 25, 2010. This sample is associated with your Los Alamos RAD project.

All applicable quality control procedures met method-specified acceptance criteria except as noted in the following case narrative.

This report shall not be reproduced, except in full, without the written approval of the laboratory.

This report is incomplete without the case narrative. All chemical analysis results are based upon dry weight correction as required per the statement of work. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances

Sample Receiving

Samples were received at 4 °C. No problems were noted at the time of sample receipt.

Explosives Method 8330

In accordance with method 8330, samples are air dried under normal laboratory conditions for a period of time prior to extraction. Explosive results for soil samples, requesting results reported on a dry weight, will be adjusted for the % moisture result.

QC Batch: 0057178
The Method Blank shows no contamination above the reporting limit. Surrogate recovery is within laboratory stated limits.

The LCS is within stated limits.

The Batch QC Matrix Spike and Matrix Spike Duplicate were performed on F0B250556-001 (this request). The MS/MSD RPD values are not within method acceptance criteria for DNX and MNX. MS/MSD recoveries are within QC limits demonstrating good extraction performance in the sample matrix. Surrogate is in control for both the MS and MSD.

I certify that this data is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the signature on the front page, has authorized release of the data contained in this hardcopy.

F0B250556

CLIENT ANALYSIS SUMMARY

Storage Loc: 2-72

Project Manager: MCF Quote #: 75496 SDG: F0B250556 ✓

Date Received: 2010-02-25 ✓

Project: 10-2038 ✓ Los Alamos RAD

Analytical Due Date: 2010-03-18 ✓

PO#: 37954-001-06 Report to: Joylene Valdez or Keith

Report Due Date: 2010-03-22 ✓

Report Type: D Expanded Deliverable

Client: 108581 Los Alamos National Laboratory

#SMPS in LOT: 1 EDD Code: 99

Sample Receiving: LOS ALAMOS CLIENT REQUIREMENTS Enter COC NUMBER in the COC Field; SDG = "Lot Number" Project Name = "Request number"

LOG QC AS DETAILED BELOW FOR EACH DEPT. EXCEPT RAD ********** METALS AND WETCHEMISTRY ********** Can batch multiple Lots together and report Client sp

Batch QC: Matrix Spike and Sample Duplicate Met Prep: GFAA Spike Level and Standard Spike Level Sb spike at 100 ppb

Pb - Spike Solids at 100 ppb, spike Waters at 20 - Perform analytical spike when matrix spike is swamped with indigenous analyte.

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	I
1	CAPA-10-12917 ✓			2010-02-23 / 0 ✓	LV37Q	WATER ✓

SAMPLE COMMENTS:

	XX	A0	SW846 8330	WATER, 8330, HEXPMOD (MNX/DNX/TNX) ✓	20	EXTRACTION, SOLID PHASE	9Q	ORG FLAGS FOR INORG; STANDARD	PROT: O	WRK LOC	06
	XX	ZV	RAD SCREEN	WATER, RAD SCREEN ✓	RA	IN-HOUSE RAD SCREEN	01	STANDARD TEST SET	PROT: A	WRK LOC	06
D	XX	A0	SW846 8330	WATER, 8330, HEXPMOD (MNX/DNX/TNX) ✓	20	EXTRACTION, SOLID PHASE	9Q	ORG FLAGS FOR INORG; STANDARD	PROT: O	WRK LOC	06
S	XX	A0	SW846 8330	WATER, 8330, HEXPMOD (MNX/DNX/TNX) ✓	20	EXTRACTION, SOLID PHASE	9Q	ORG FLAGS FOR INORG; STANDARD	PROT: O	WRK LOC	06

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2038

REQUEST NUMBER: 10-2038

LOS ALAMOS

NATIONAL LABORATORY

cvr 203

ATTN: Mike Franks

Severn Trent Laboraties, Inc., St. Louis

13715 Rider Trail N.

Earth City, MO 63045

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12917 2x LG	1	AMBER GLASS	WSP-HEXMOD	Ice	WG
CAPA-10-12917	2	AMBER GLASS	WSP-HEXMOD	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
Jeydell G		2/24/10	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2038

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Mike Franks
Severn Trent Laboraties, Inc., St. Louis
13715 Rider Trail N.
Earth City, MO 63045

These Samples are on:
LANL Request Number:10-2038
Per Agreement Number:126310021
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/24/2010
TURNAROUND/REPORT DUE: 3/26/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8330	1	CAPA-10-12917	WG	2/23/2010	
		2	CAPA-10-12917	WG	2/23/2010	

Final Page of REQUEST NUMBER 10-2038

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): F0B250552
558
559

CONDITION UPON RECEIPT FORM

Client: LANL
Quote No: 75496
COC/RFA No: Below

205

Initiated By: Date: 2-25-10 Time: 0940

Shipping Information

Shipper: FedEx UPS DHL Courier Client Other: _____ Multiple Packages: Y N

Shipping # (s):*

1. 7209 7850 2179
2.
3.
4.
5.
6.
7.
8.
9.
10.

Sample Temperature (s):**

1. 4
2.
3.
4.
5.
6.
7.
8.
9.
10.

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	Y N	Are there custody seals present on the cooler?	8.	Y N	Are there custody seals present on bottles?
2.	Y N N/A	Do custody seals on cooler appear to be tampered with?	9.	Y N N/A	Do custody seals on bottles appear to be tampered with?
3.	Y N	Were contents of cooler frisked after opening, but before unpacking?	10.	Y N N/A	Was sample received with proper pH[1]? (If not, make note below)
4.	Y N	Sample received with Chain of Custody?	11.	Y N	Sample received in proper containers?
5.	Y N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	Y N N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6.	Y N	Was sample received broken?	13.	Y N N/A	Was Internal COC/Workshare received?
7.	Y N	Is sample volume sufficient for analysis?	14.	Y N N/A	Was pH taken by original TestAmerica lab?

[1] For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes: 10-2038

Corrective Action:
- ☐ Client Contact Name: _____ Informed by: _____
- ☐ Sample(s) processed "as is"
- ☐ Sample(s) on hold until: _____ If released, notify: _____

Project Management Review: Jayna Pohl Date: 2-26-10

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004, REVISED 10/21/08 \\Slsvr01\QA\FORMS\ST-LOUIS\ADMIN\Admin004 rev11.doc

METHODS SUMMARY

F0B250556

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Nitroaromatics and Nitramines by HPLC	SW846 8330	SW846 3535

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

F0B250556

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LV37Q	001	CAPA-10-12917	02/23/10	

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

QC DATA ASSOCIATION SUMMARY

F0B250556

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	SW846 8330		0057178	0057112

Los Alamos National Laboratory

Client Sample ID: CAPA-10-12917

HPLC

Lot-Sample #...: F0B250556-001 **Work Order #...:** LV37Q1AC **Matrix.....:** WATER
Date Sampled...: 02/23/10 **Date Received..:** 02/25/10
Prep Date.....: 02/26/10 **Analysis Date..:** 03/01/10
Prep Batch #...: 0057178 **Analysis Time..:** 13:13
Dilution Factor: 1

Method.....: SW846 8330

PARAMETER	RESULT	REPORTING LIMIT	UNITS
MNX	ND	0.50	ug/L
DNX	ND	0.50	ug/L
TNX	ND	0.50	ug/L

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	93	(60 - 113)

METHOD BLANK REPORT

HPLC

Client Lot #...: F0B250556 **Work Order #...:** LV45V1AA **Matrix.....:** WATER
MB Lot-Sample #: F0B260000-178
Prep Date.....: 02/26/10 **Analysis Time..:** 12:45
Analysis Date..: 03/01/10 **Prep Batch #...:** 0057178
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
MNX	ND	0.50	ug/L	SW846 8330
DNX	ND	0.50	ug/L	SW846 8330
TNX	ND	0.50	ug/L	SW846 8330

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	87	(60 - 113)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: F0B250556 **Work Order #...:** LV45V1AC **Matrix.....:** WATER
LCS Lot-Sample#: F0B260000-178
Prep Date.....: 02/26/10 **Analysis Date..:** 03/01/10
Prep Batch #...: 0057178 **Analysis Time..:** 12:59
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
TNX	**89**	**(38 - 120)**	**SW846 8330**
MNX	**118**	**(39 - 133)**	**SW846 8330**
DNX	**92**	**(39 - 124)**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	96	(70 - 106)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: F0B250556 **Work Order #...:** LV37Q1AD-MS **Matrix.....:** WATER
MS Lot-Sample #: F0B250556-001 LV37Q1AE-MSD
Date Sampled...: 02/23/10 **Date Received..:** 02/25/10
Prep Date.....: 02/26/10 **Analysis Date..:** 03/01/10
Prep Batch #...: 0057178 **Analysis Time..:** 13:41
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
MNX	**123**	**(27 - 150)**			**SW846 8330**
	98 p	**(27 - 150)**	**23**	**(0-20)**	**SW846 8330**
DNX	**117**	**(18 - 150)**			**SW846 8330**
	91 p	**(18 - 150)**	**26**	**(0-20)**	**SW846 8330**
TNX	**85**	**(25 - 139)**			**SW846 8330**
	97	**(25 - 139)**	**13**	**(0-30)**	**SW846 8330**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dinitrobenzene	86	(60 - 113)
	83	(60 - 113)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

p Relative percent difference (RPD) is outside stated control limits.

HPLC SAMPLE AND QC DATA

Form I (s)

Explosives

Los Alamos National Laboratory

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F0B250556

Matrix: (soil/water) WATER Lab Sample ID:F0B250556 001
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 509.5 / mL Date Received: 02/25/10
Work Order: LV37Q1AC Date Extracted:02/26/10
Dilution factor: 1 Date Analyzed: 03/01/10
Moisture %:NA
QC Batch: 0057178

Client Sample Id: CAPA-10-12917

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.50	U
80251-29-2	DNX	0.50	U
13980-04-6	TNX	0.50	U

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	93	(60 - 113)

FORM I

Los Alamos National Laboratory
METHOD BLANK COMPOUNDS

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F0B250556

Matrix: (soil/water) WATER Lab Sample ID:F0B260000 178
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 500 / mL Date Received: 02/25/10
Work Order: LV45V1AA Date Extracted:02/26/10
Dilution factor: 1 Date Analyzed: 03/01/10
Moisture %:NA
QC Batch: 0057178
Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.50	U
80251-29-2	DNX	0.50	U
13980-04-6	TNX	0.50	U

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	87	(60 - 113)

FORM I

Los Alamos National Laboratory
CHECK SAMPLE COMPOUNDS

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F0B250556

Matrix: (soil/water) WATER Lab Sample ID:F0B260000 178
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 500 / mL Date Received: 02/25/10
Work Order: LV45V1AC Date Extracted:02/26/10
Dilution factor: 1 Date Analyzed: 03/01/10
Moisture %:NA
QC Batch: 0057178
Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.862	
80251-29-2	DNX	0.533	
13980-04-6	TNX	0.740	

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	96	(70 - 106)

FORM I

Los Alamos National Laboratory
MATRIX SPIKE DUPLICATE COMPOUNDS

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F0B250556

Matrix: (soil/water) WATER Lab Sample ID:F0B250556 001
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 513.6 / mL Date Received: 02/25/10
Work Order: LV37Q1AE Date Extracted:02/26/10
Dilution factor: 1 Date Analyzed: 03/01/10
Moisture %:NA
QC Batch: 0057178
Client Sample Id: CAPA-10-12917

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.698	p
80251-29-2	DNX	0.513	p
13980-04-6	TNX	0.785	

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	83	(60 - 113)

FORM I

Los Alamos National Laboratory
MATRIX SPIKE COMPOUNDS

Lab Name:TestAmerica Laboratories, Inc. SDG Number:F0B250556

Matrix: (soil/water) WATER Lab Sample ID:F0B250556 001
Method: SW846 8330
Nitroaromatics & Nitramines: Explosives (8330)

Sample WT/Vol: 510.1 / mL Date Received: 02/25/10
Work Order: LV37Q1AD Date Extracted:02/26/10
Dilution factor: 1 Date Analyzed: 03/01/10
Moisture %:NA
QC Batch: 0057178

Client Sample Id: CAPA-10-12917

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
5755-27-1	MNX	0.876	
80251-29-2	DNX	0.666	
13980-04-6	TNX	0.692	

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
1,2-Dinitrobenzene	86	(60 - 113)

FORM I

HPLC ADDITIONAL FORMS

SW846 8330 SURROGATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Los Alamos National Laboratory

Lab Code: TALSTL SDG No: F0B250556

Lot #: F0B250556

Extraction: XXI20A09Q

	CLIENT ID.	SRG01	TOT OUT
01	CAPA-10-12917	93	00
02	METHOD BLK. LV45V1AA	87	00
03	LCS LV45V1AC	96	00
04	CAPA-10-12917 D	83	00
05	CAPA-10-12917 S	86	00

SURROGATES	QC LIMITS
SRG01 = 1,2-Dinitrobenzene	(60-113)

Column to be used to flag recovery values
* Values outside of required QC Limits
D System monitoring Compound diluted out

FORM II

SW846 8330 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Los Alamos National Laboratory

Lab Code: TALSTL SDG No: F0B250556

Matrix Spike ID: CAPA-10-12917

Lot #: F0B250556 WO #: LV37Q1AD
BATCH: 0057178

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	MS CONCENT. (ug/L)	MS % REC	LIMITS REC	QUAL
MNX	0.715	ND	0.876	123	27- 150	
DNX	0.568	ND	0.666	117	18- 150	
TNX	0.813	ND	0.692	85	25- 139	

NOTES(S):

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 3 outside limits

COMMENTS:

FORM III

SW846 8330 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Los Alamos National Laboratory

Lab Code: TALSTL SDG No: F0B250556

Matrix Spike ID: CAPA-10-12917

Lot #: F0B250556 WO #: LV37Q1AE
BATCH: 0057178

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENT. (ug/L)	MSD % REC	% RPD	#	QC LIMITS RPD	QC LIMITS REC	QUAL
MNX	0.710	0.698	98	23	*	20	27- 150	p
DNX	0.564	0.513	91	26	*	20	18- 150	p
TNX	0.808	0.785	97	13		30	25- 139	

NOTES(S):

p Relative percent difference (RPD) is outside stated control limits.

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 2 out of 3 outside limits
Spike Recovery: 0 out of 3 outside limits

COMMENTS:

FORM III

SW846 8330 CHECK SAMPLE RECOVERY

Lab Name: TestAmerica Laboratories, Inc. Client: Los Alamos National Laboratory

Lab Code: TALSTL SDG No: F0B250556

Lot #: F0B260000 WO #: LV45V1AC
BATCH: 0057178

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
TNX	0.830	0.740	89	38- 120	
MNX	0.730	0.862	118	39- 133	
DNX	0.580	0.533	92	39- 124	

NOTES(S):

* Values outside of QC limits

Spike Recovery: 0 out of 3 outside limits

COMMENTS:

FORM III

BLANK WORKORDER NO.

LV45V1AA

SW846 8330 METHOD BLANK SUMMARY

Lab Name: TestAmerica Laboratories, Inc.

Lab Code: TALSTL

SDG Number:F0B250556

Lab File ID: NBLK3248

Lot Number: F0B250556

Date Analyzed: 03/01/10

Time Analyzed: 12:45

Matrix: WATER

Date Extracted:02/26/10

GC Column: C-18 ID: 4.60

Extraction Method: 3535

Instrument ID: LCN

Level:(low/med)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, LCS, LCSD, MS , MSD:

	CLIENT ID.	SAMPLE WORK ORDER #	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CAPA-10-12917	LV37Q1AC	NSMP3250	03/01/10	13:13
02	CAPA-10-12917	LV37Q1AD S	NSMP3252	03/01/10	13:41
03	CAPA-10-12917	LV37Q1AE D	NSMP3253	03/01/10	13:55
04	CHECK SAMPLE	LV45V1AC C	NLCS3249	03/01/10	12:59
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
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16					
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19					
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21					
22					
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24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IV

HPLC STANDARDS DATA

INITIAL CALIBRATION DATA

CALIBRATION VERIFICATION DATA

Report Date : 02-Dec-2009 13:00

TestAmerica St. Louis

INITIAL CALIBRATION DATA

Start Cal Date : 25-NOV-2009 10:16
End Cal Date : 25-NOV-2009 11:26
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Last Edit : 01-Dec-2009 11:37 hanw
Curve Type : Average

Calibration File Names:
Level 3: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1314.D
Level 4: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1315.D
Level 5: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1316.D
Level 6: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1317.D
Level 7: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1318.D
Level 8: \\slsvr01\HPLC\Lcn.i\N112509.b\NICL1319.D

Compound	25.000 Level 3	50.000 Level 4	125.000 Level 5	250.000 Level 6	500.000 Level 7	1000.000 Level 8	RRF	% RSD
1 TNX	598	625	647	678	664	670	647	4.705
2 DNX	690	619	613	637	608	613	630	4.970
3 MNX	522	500	474	499	481	484	493	3.537
$ 4 1,2-Dinitrobenzene	535	519	510	520	510	512	518	1.844

Report Date : 02-Dec-2009 15:37

TestAmerica St. Louis

COMPOUND LISTING

Method file : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Quant Method : ESTD
Last Update : 01-Dec-2009 11:37
Data Type : LC DATA
Target Version : 4.14
Number of Cpnds : 4

Global Integrator : HP Genie

Chromat Events	Values
Initial:Thresh Units	5.000000
Initial:Peak Width	0.100000
Initial:Area Reject	20.000000
Initial:Solvent Slope	100000.000000
Initial:Split Solvent	2000.000000

	Compound	RT	RT Window	RF
	1 TNX	3.838	3.738-3.938	6.47e+002
	2 DNX	4.324	4.224-4.424	6.30e+002
	3 MNX	5.239	5.139-5.339	4.93e+002
$	4 1,2-Dinitrobenzene	8.707	8.607-8.807	5.18e+002

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1314.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1314.D
Lab Smp Id: 8330 ICAL-3 Client Smp ID: 8330 ICAL-3
Inj Date : 25-NOV-2009 10:16
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-3
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.860	3.837	0.023	12042	20.1213	18.61
2 DNX	4.360	4.324	0.036	9507	13.7700	15.09(M)
3 MNX	4.360	5.239	-0.879	9507	18.1975	19.26(M)
$ 4 1,2-Dinitrobenzene	8.833	8.706	0.127	13376	25.0000	25.84(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: \\Slsvr01\HPLC\Lcn,i\N112509,b\NICL1314,D
Date : 25-NOV-2009 10:16
Client ID: 8330 ICAL-3
Sample Info: 8330 ICAL-3
Purge Volume: 500.0
Column phase: C18

Instrument: Lcn,i
Operator: WH
Column diameter: 4.60

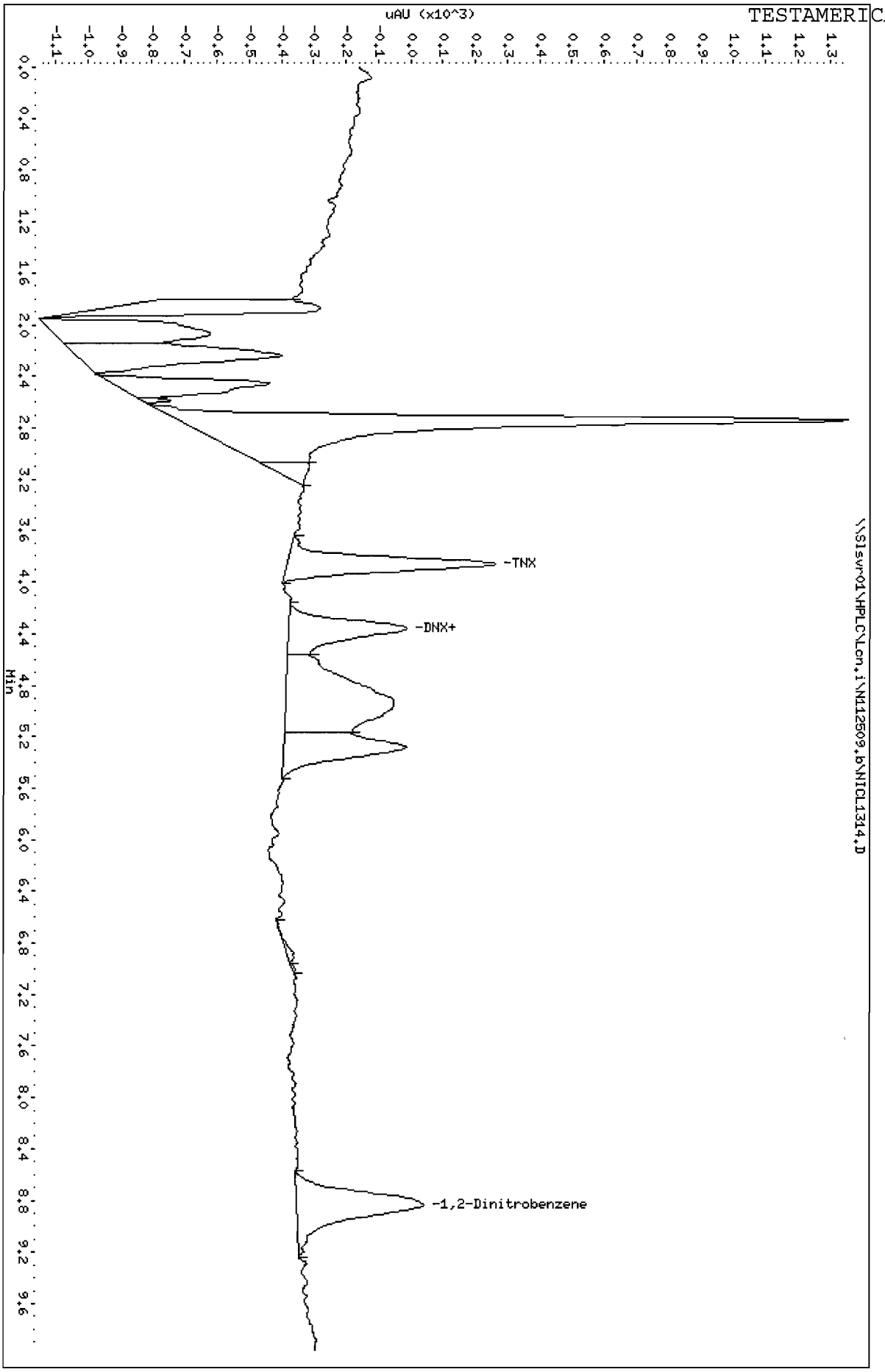

Data File Name: NICL1314.D
Inj. Date and Time: 25-NOV-2009 10:16
Instrument ID: Lcn.i
Client ID: 8330 ICAL-3
Compound Name: DNX
CAS #:

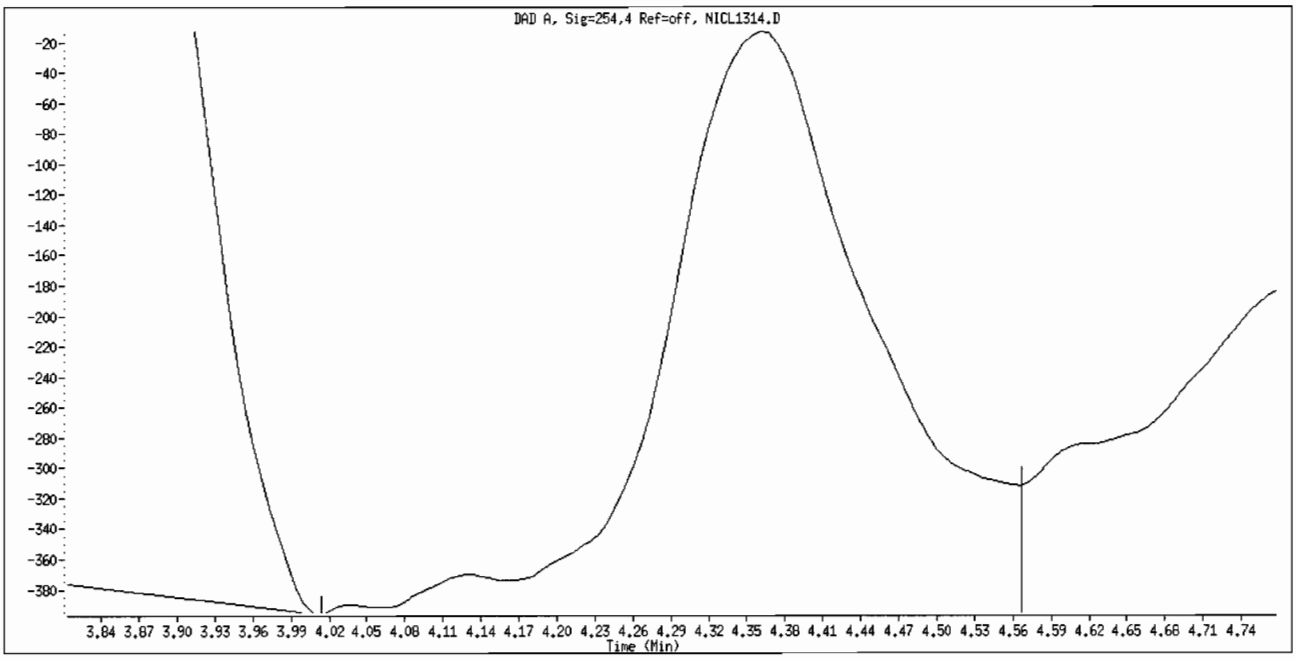

Original Integration

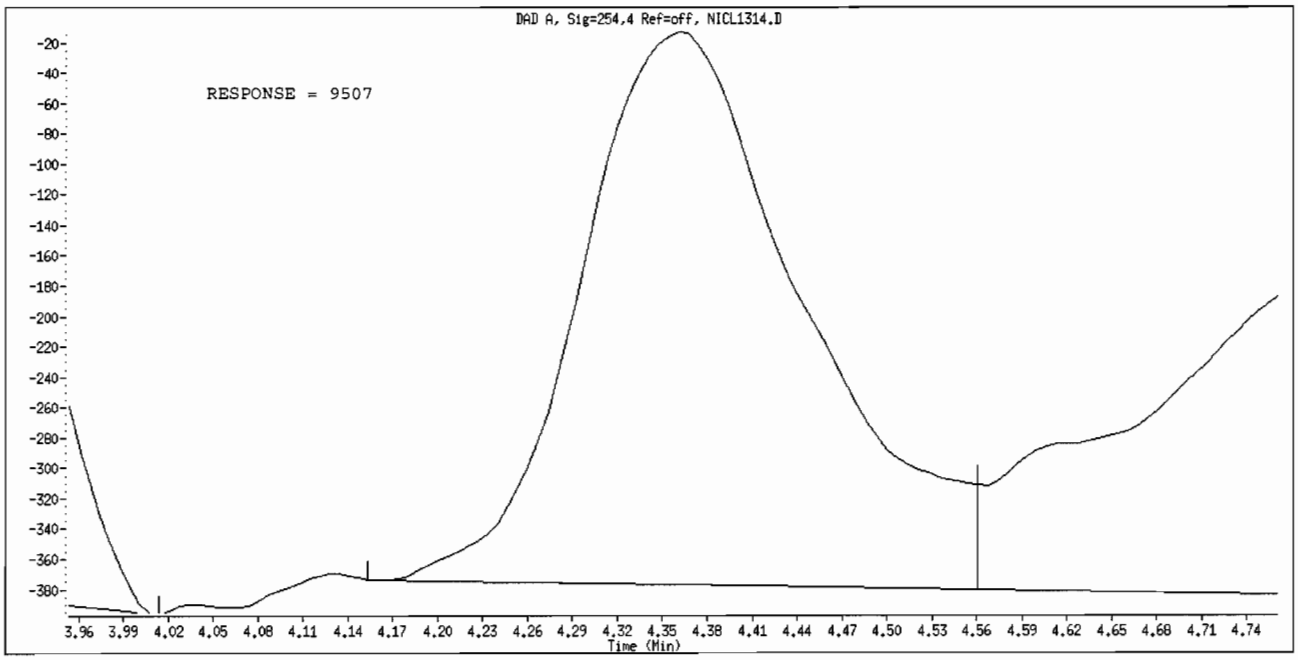

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1314.D
Inj. Date and Time: 25-NOV-2009 10:16
Instrument ID: Lcn.i
Client ID: 8330 ICAL-3
Compound Name: MNX
CAS #:

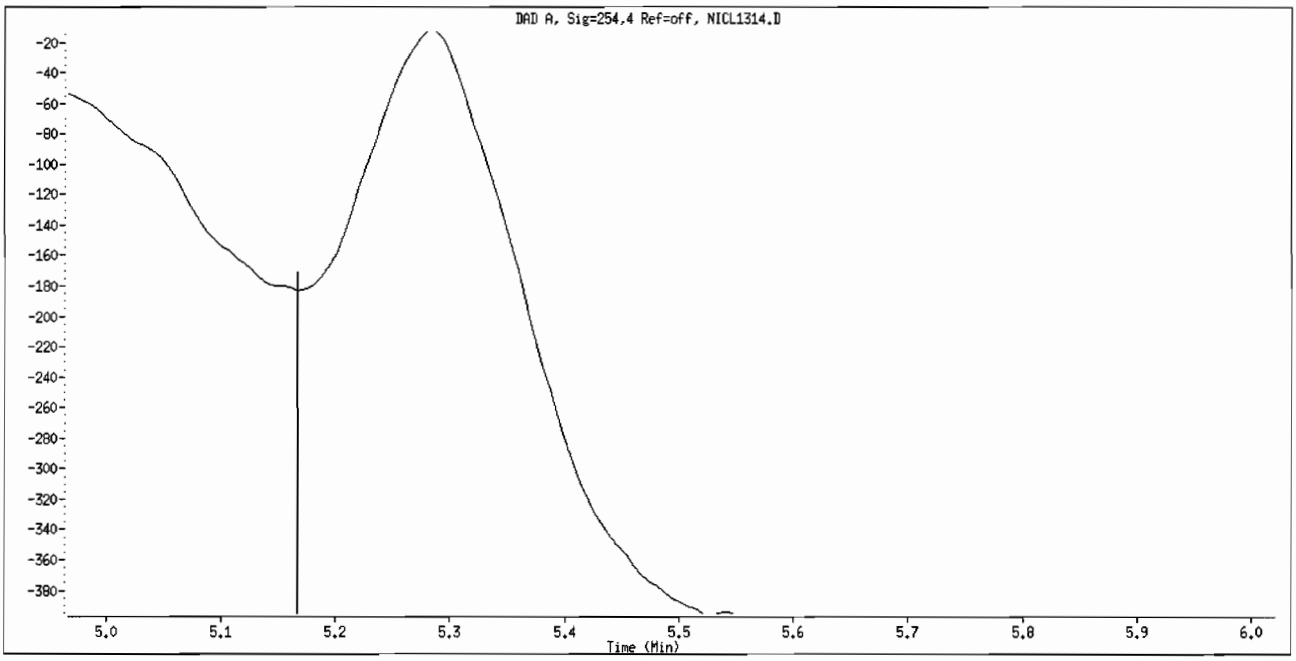

Original Integration

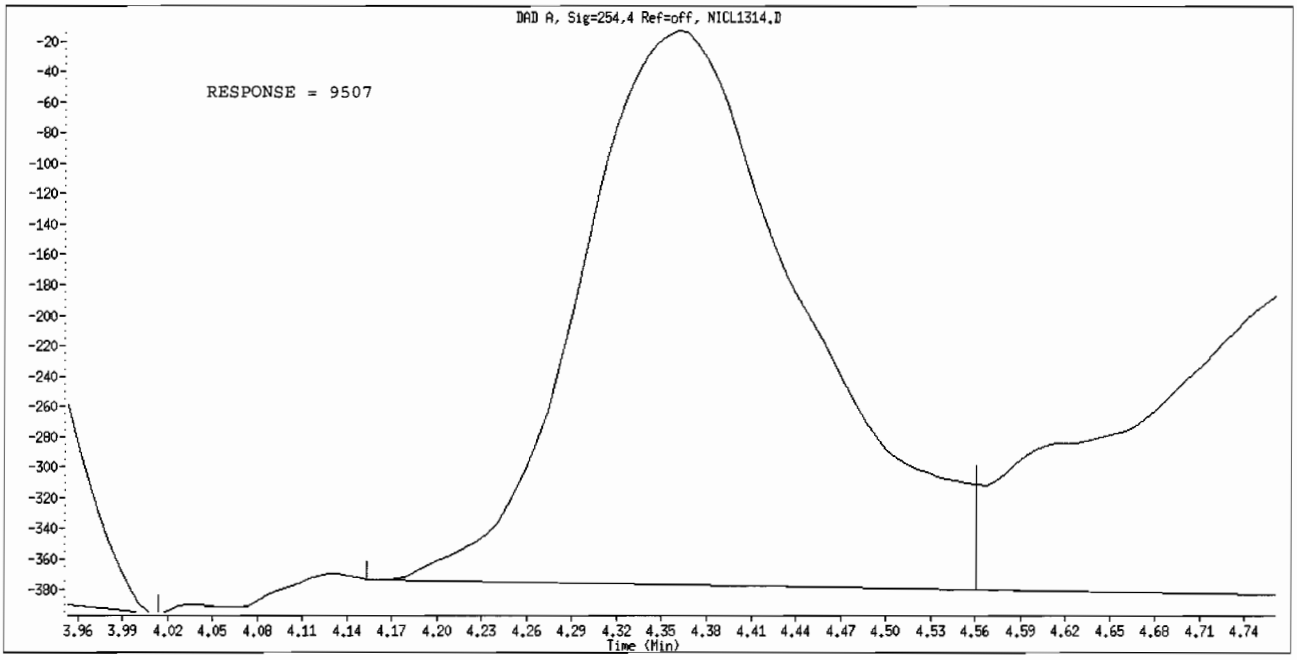

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1314.D
Inj. Date and Time: 25-NOV-2009 10:16
Instrument ID: Lcn.i
Client ID: 8330 ICAL-3
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

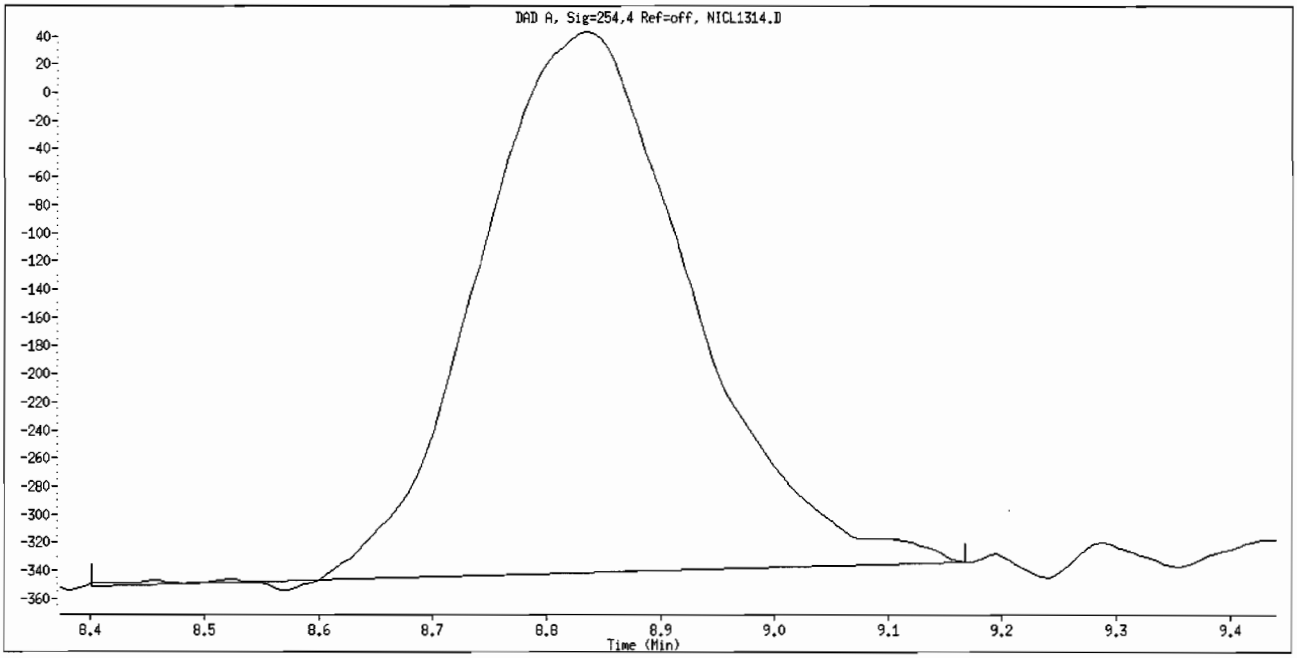

Original Integration

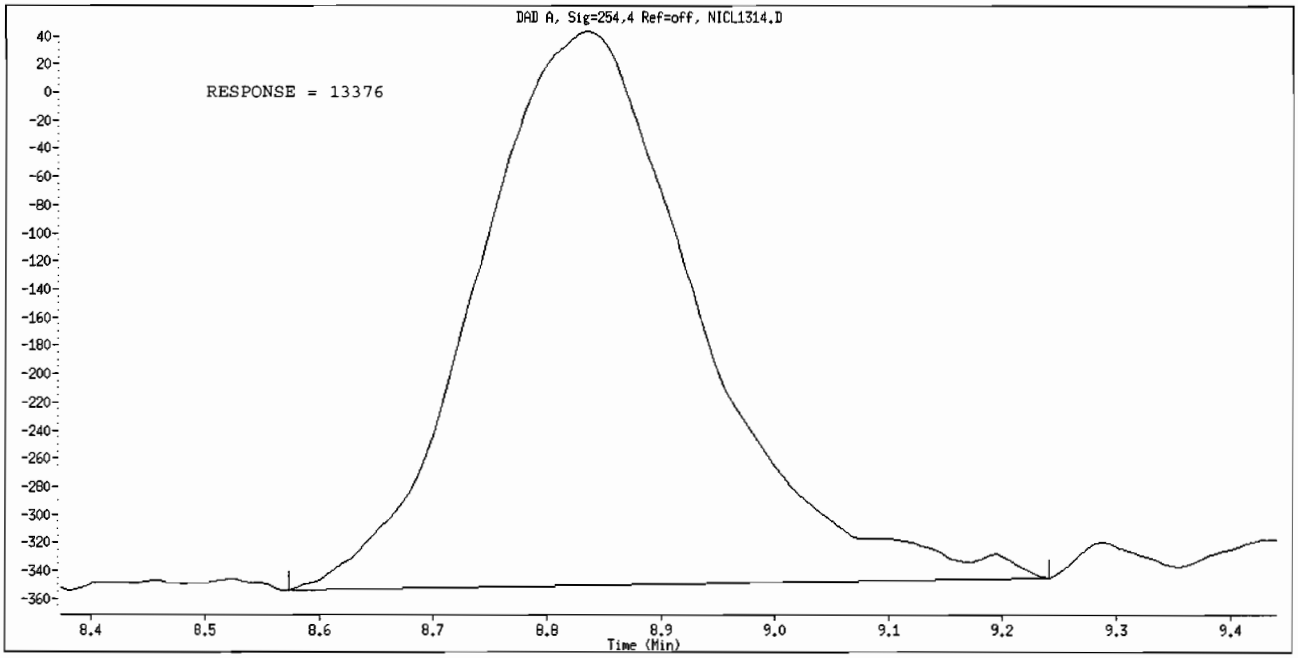

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1315.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1315.D
Lab Smp Id: 8330 ICAL-4 Client Smp ID: 8330 ICAL-4
Inj Date : 25-NOV-2009 10:30
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-4
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.832	3.837	-0.005	25142	40.2425	38.86(M)
2 DNX	4.319	4.324	-0.005	17047	27.5400	27.06(M)
3 MNX	5.232	5.239	-0.007	18212	36.3950	36.90(M)
$ 4 1,2-Dinitrobenzene	8.692	8.706	-0.014	25936	50.0000	50.09(M)

QC Flag Legend

M - Compound response manually integrated.

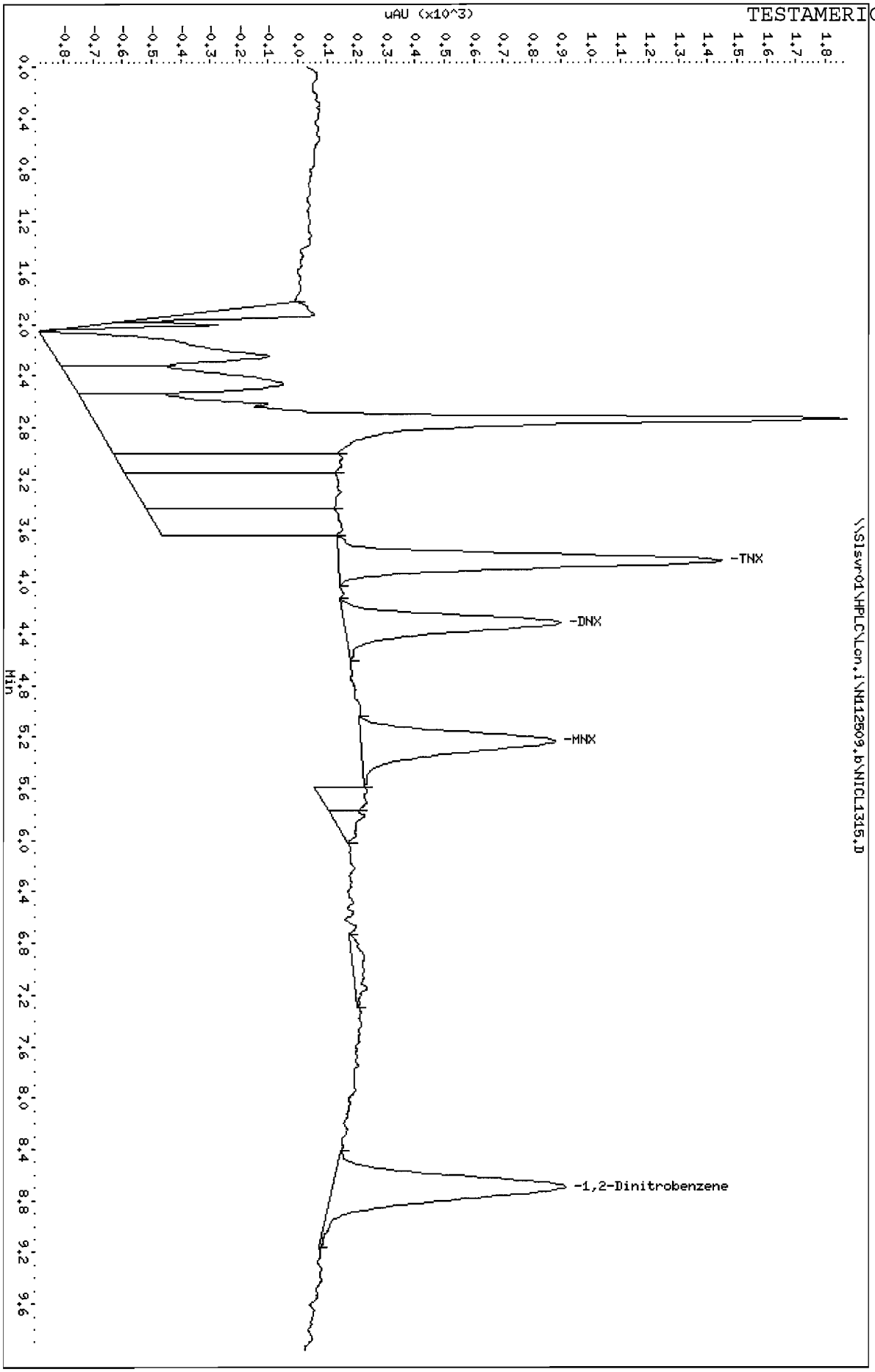
Data File: \\Slsvr01\HPLC\Lon,i\M112509,b\NICL1315,D
Date : 25-NOV-2009 10:30
Client ID: 8330 ICAL-4
Sample Info: 8330 ICAL-4
Purge Volume: 500.0
Column phase: C18
Instrument: Lon,i
Operator: WH
Column diameter: 4.60
\\Slsvr01\HPLC\Lon,i\M112509,b\NICL1315,D
uAU (x10^3)
-TNX
-DNX
-MNX
-1,2-Dinitrobenzene
Min

Data File Name: NICL1315.D
Inj. Date and Time: 25-NOV-2009 10:30
Instrument ID: Lcn.i
Client ID: 8330 ICAL-4
Compound Name: TNX
CAS #:

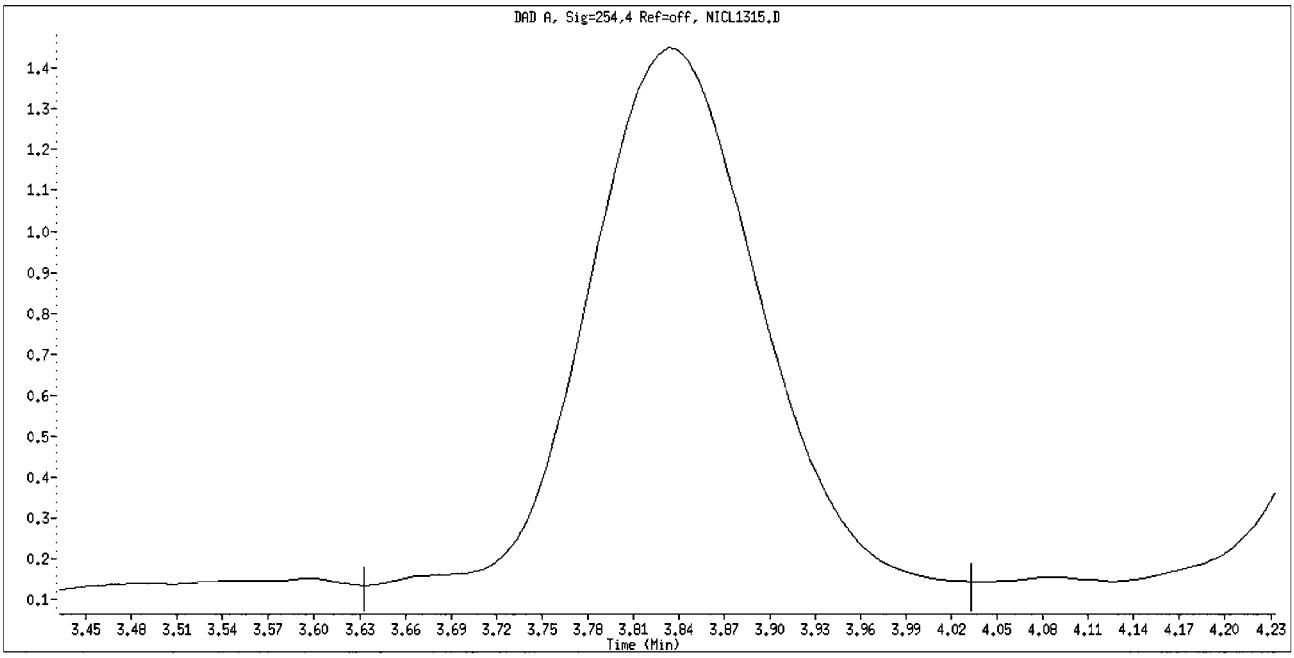

Original Integration

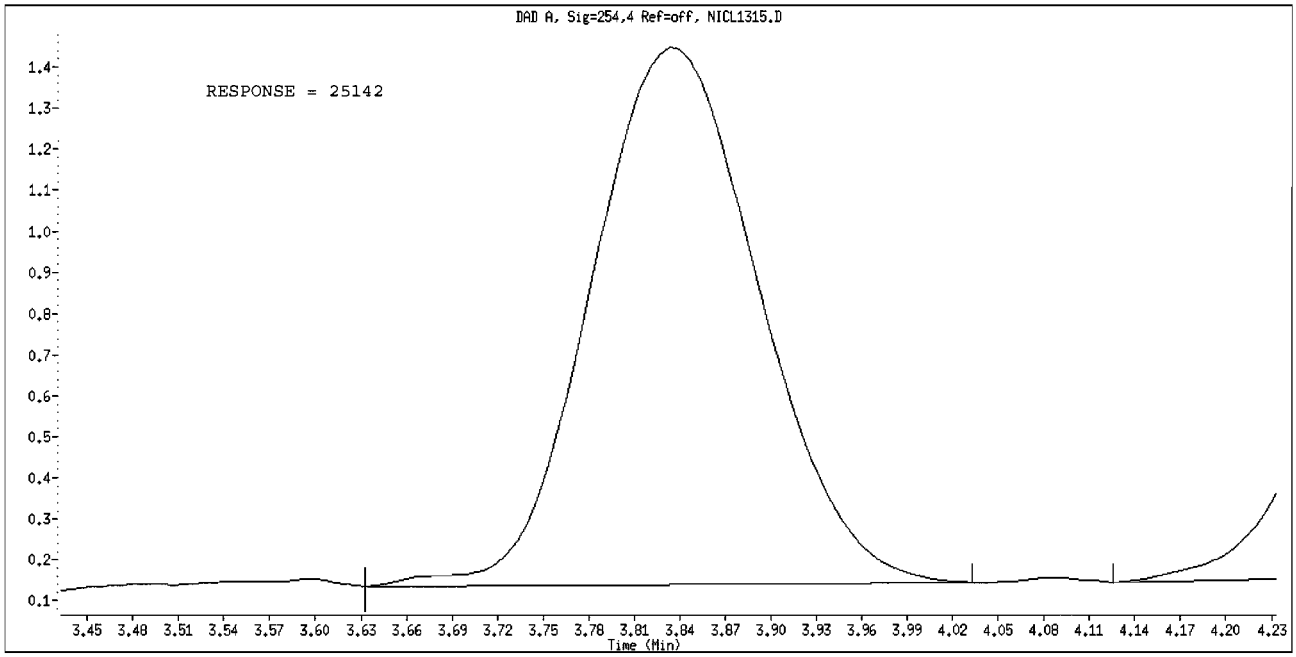

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1315.D
Inj. Date and Time: 25-NOV-2009 10:30
Instrument ID: Lcn.i
Client ID: 8330 ICAL-4
Compound Name: DNX
CAS #:

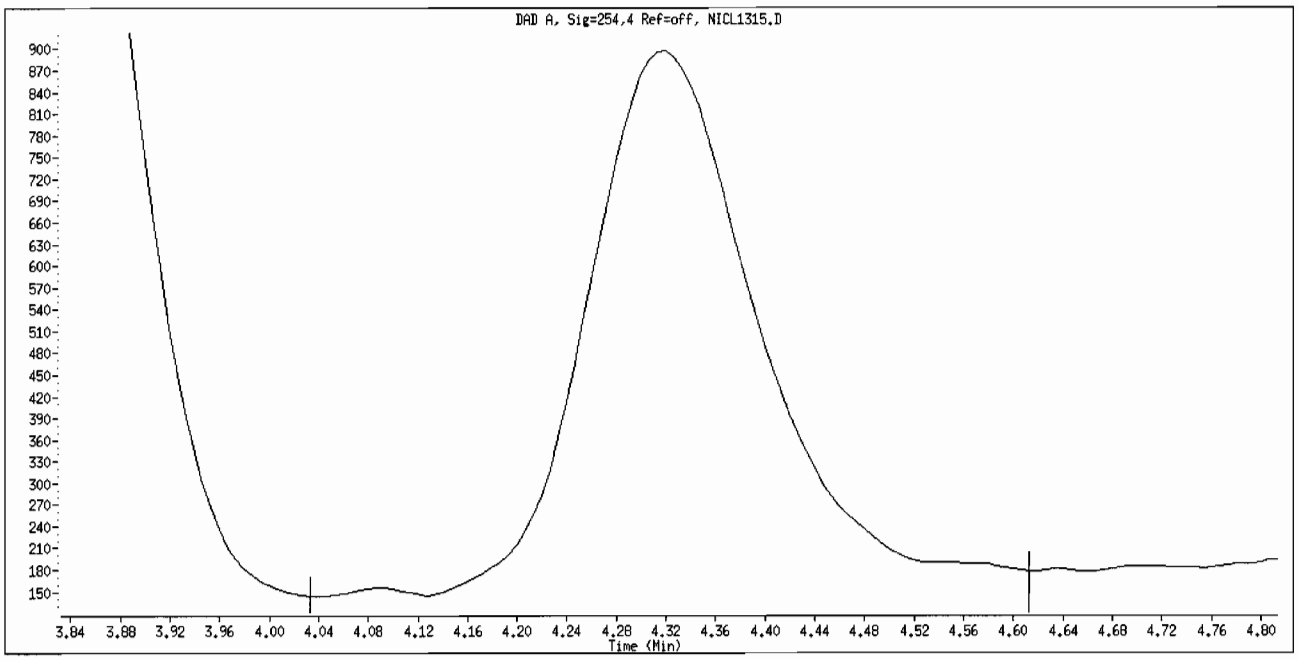

Original Integration

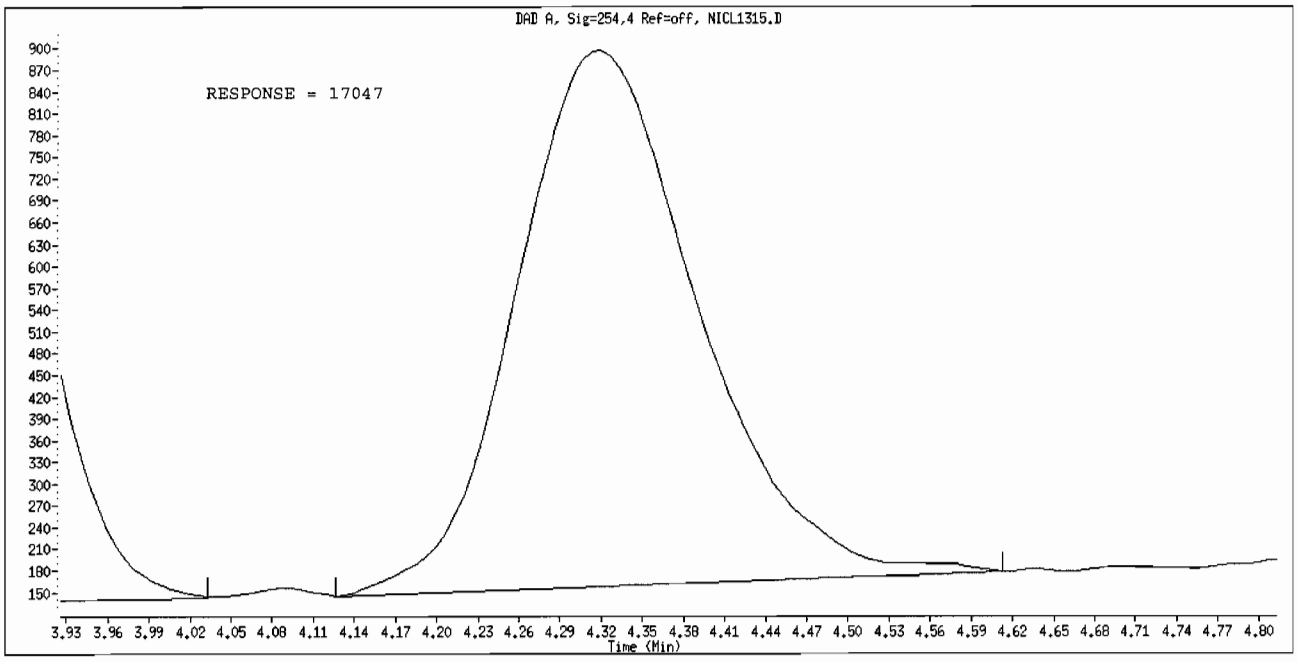

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1315.D
Inj. Date and Time: 25-NOV-2009 10:30
Instrument ID: Lcn.i
Client ID: 8330 ICAL-4
Compound Name: MNX
CAS #:

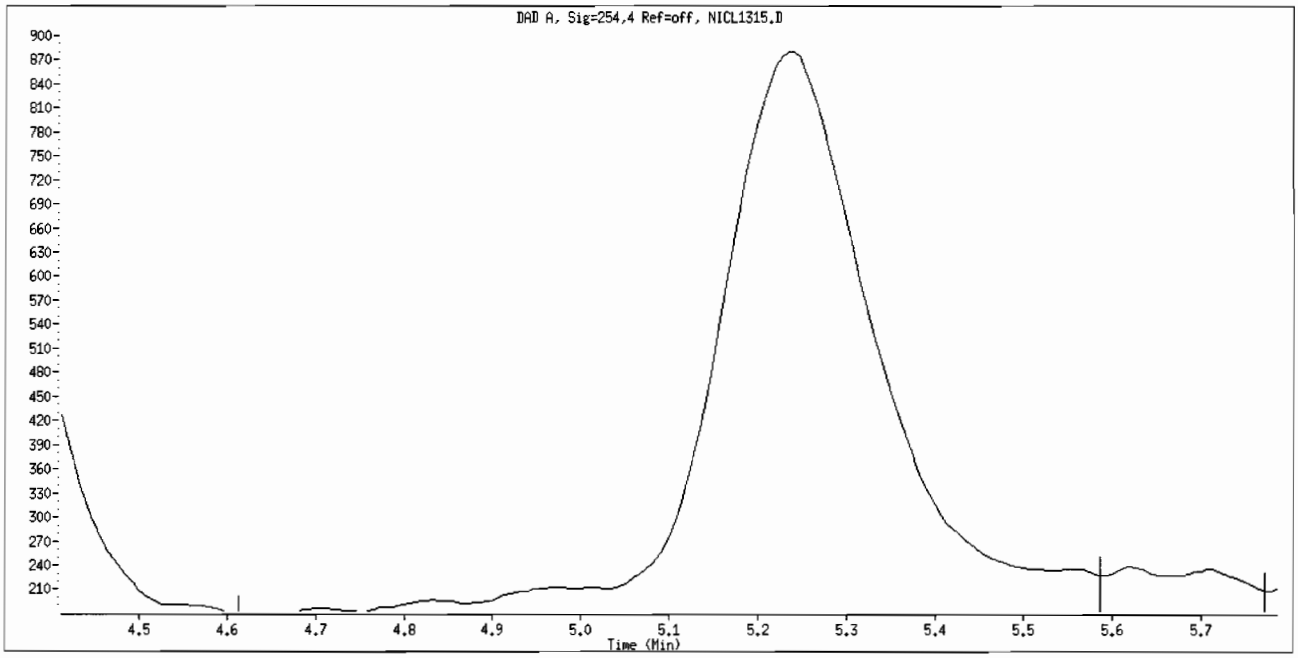

Original Integration

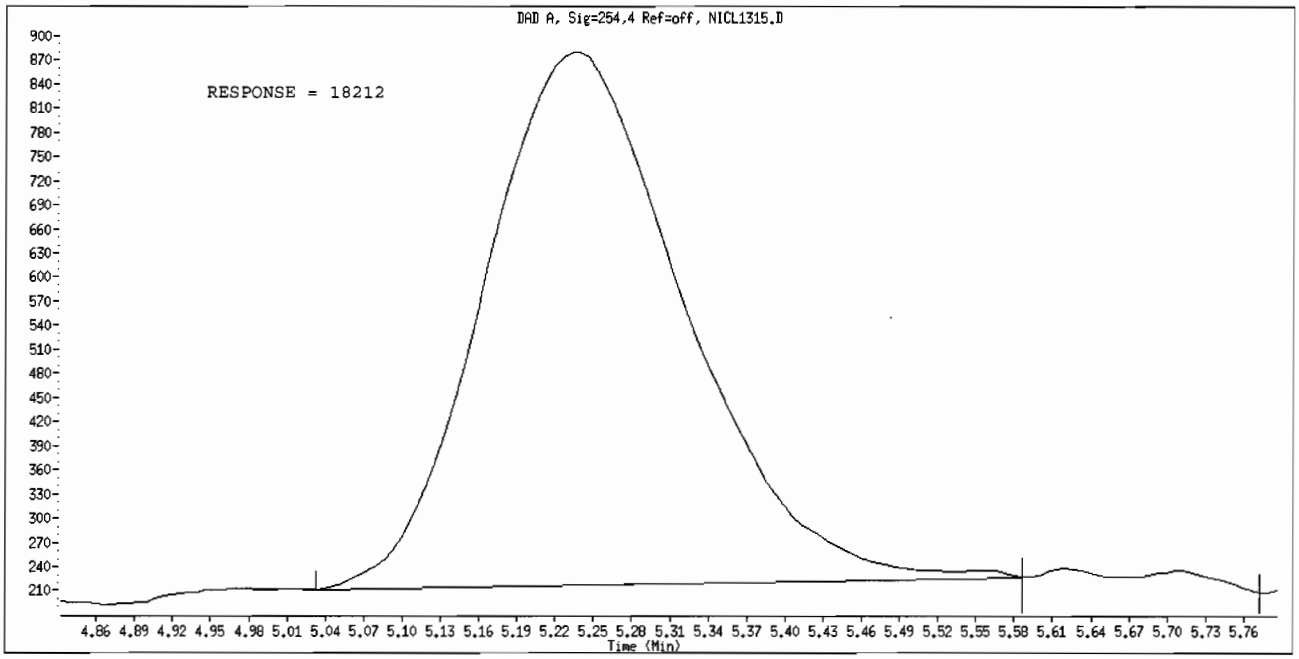

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1315.D
Inj. Date and Time: 25-NOV-2009 10:30
Instrument ID: Lcn.i
Client ID: 8330 ICAL-4
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

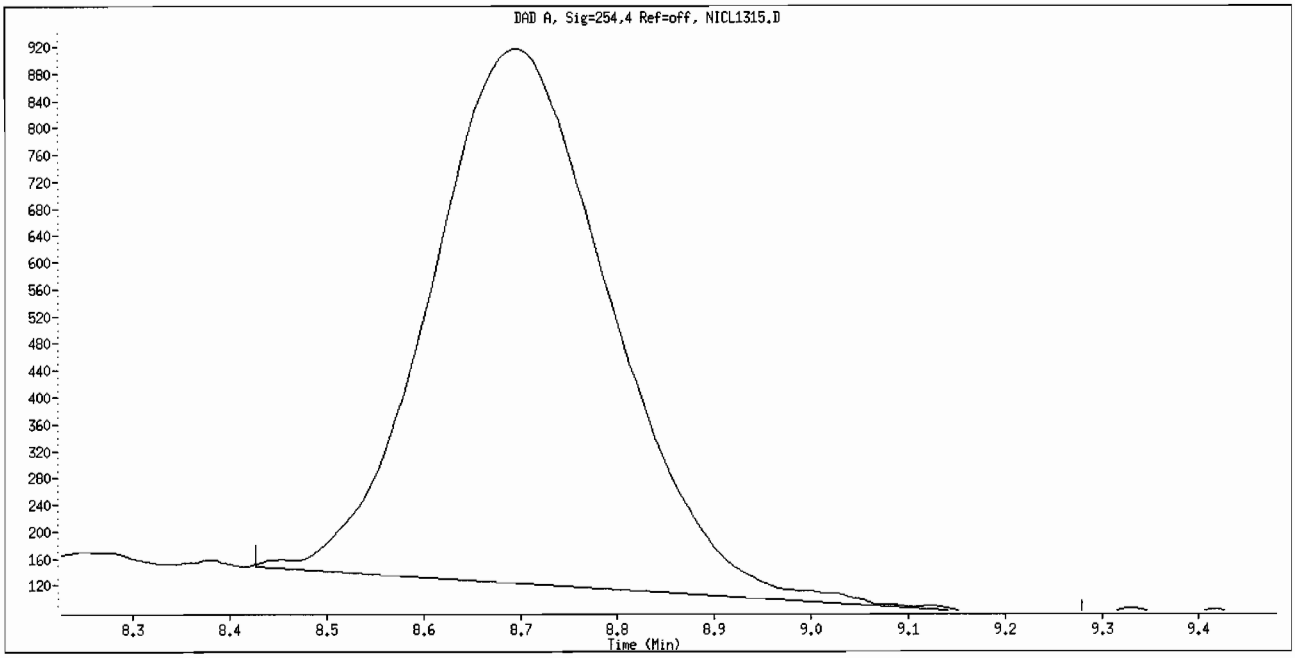

Original Integration

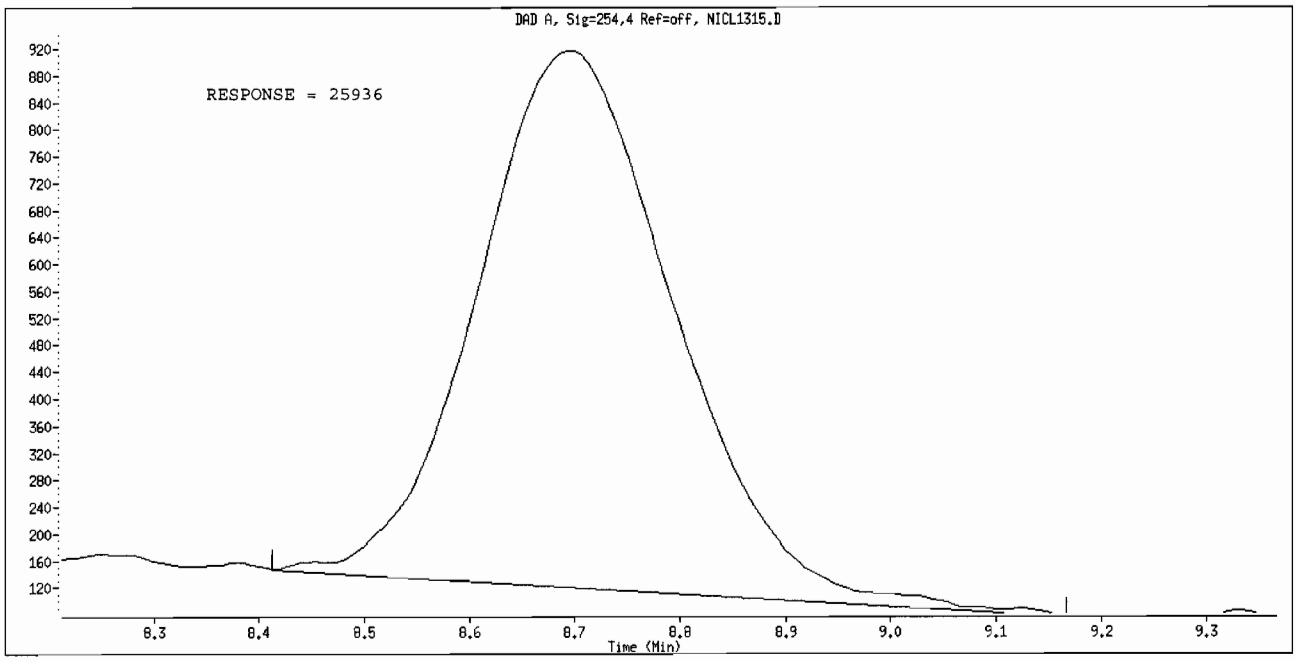

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1316.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1316.D
Lab Smp Id: 8330 ICAL-5 Client Smp ID: 8330 ICAL-5
Inj Date : 25-NOV-2009 10:44
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-5
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.828	3.837	-0.009	65101	100.606	100.6(M)
2 DNX	4.315	4.324	-0.009	42178	68.8500	66.95(M)
3 MNX	5.228	5.239	-0.011	43167	90.9875	87.47(M)
$ 4 1,2-Dinitrobenzene	8.688	8.706	-0.018	63701	125.000	123.0(M)

QC Flag Legend

M - Compound response manually integrated.

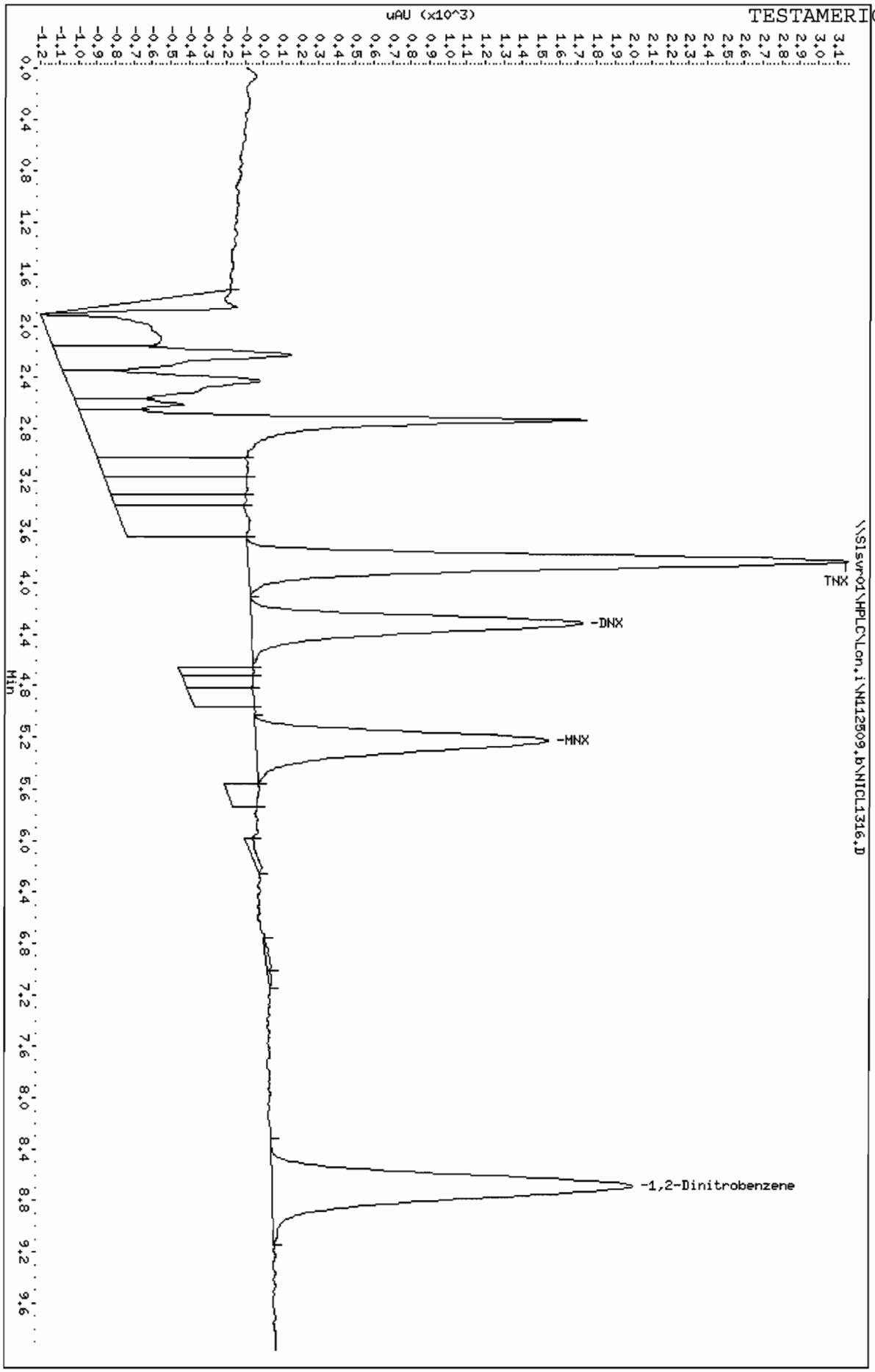
Data File: \\Slsvr01\HPLC\Lon,i\N112509,b\NICL1316.D
Date : 25-NOV-2009 10:44
Client ID: 8330 ICAL-5
Sample Info: 8330 ICAL-5
Purge Volume: 500.0
Column phase: C18
Instrument: Lon,i
Operator: WH
Column diameter: 4.60
uAU (x10^3)
Min
TNX
-DNX
-MNX
-1,2-Dinitrobenzene
\\Slsvr01\HPLC\Lon,i\N112509,b\NICL1316.D

Data File Name: NICL1316.D
Inj. Date and Time: 25-NOV-2009 10:44
Instrument ID: Lcn.i
Client ID: 8330 ICAL-5
Compound Name: TNX
CAS #:

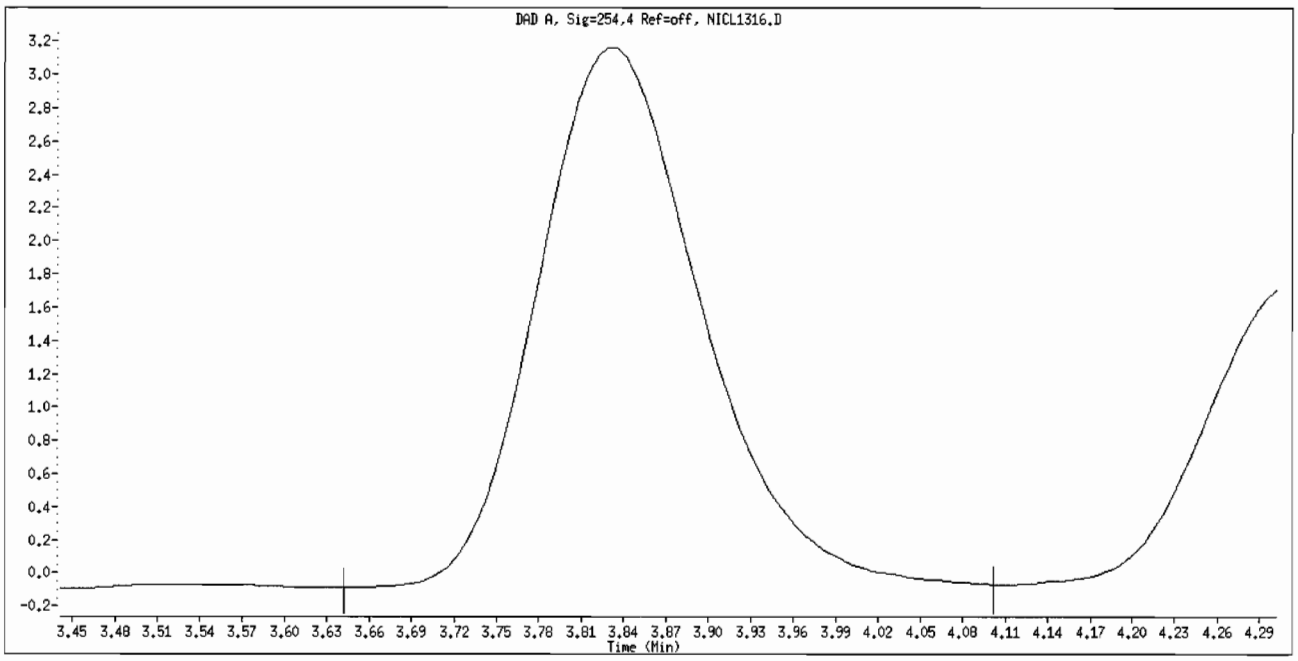

Original Integration

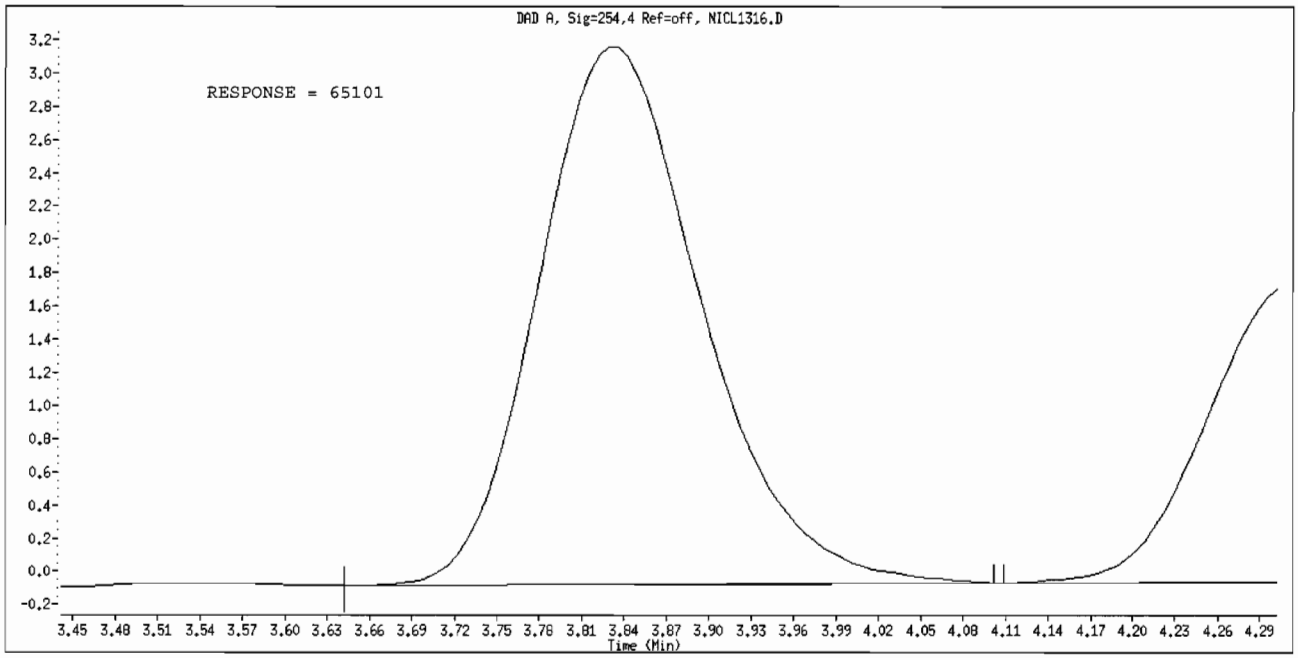

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1316.D
Inj. Date and Time: 25-NOV-2009 10:44
Instrument ID: Lcn.i
Client ID: 8330 ICAL-5
Compound Name: DNX
CAS #:

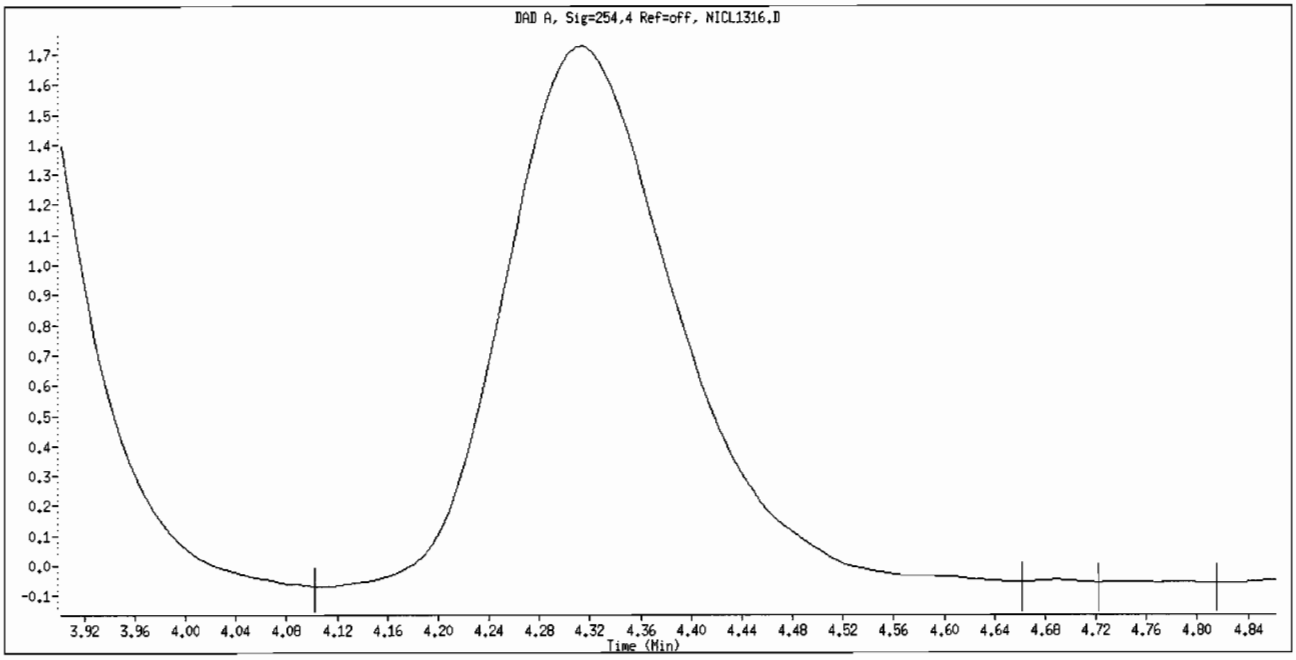

Original Integration

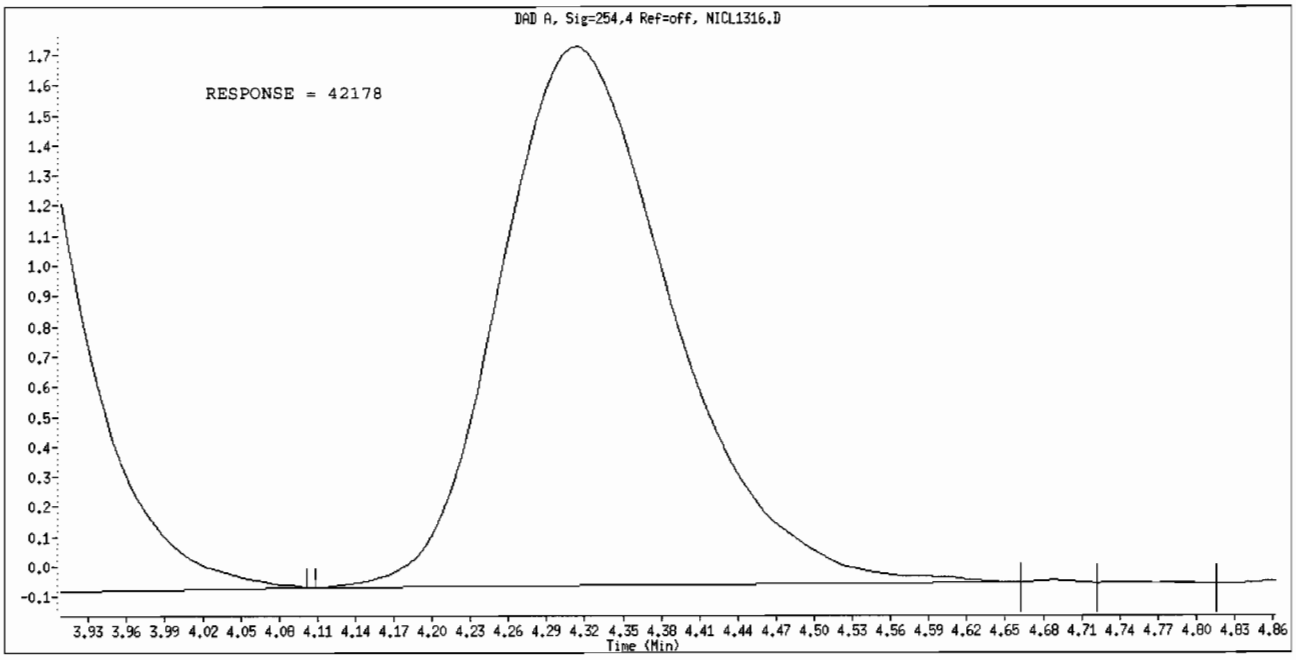

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1316.D
Inj. Date and Time: 25-NOV-2009 10:44
Instrument ID: Lcn.i
Client ID: 8330 ICAL-5
Compound Name: MNX
CAS #:

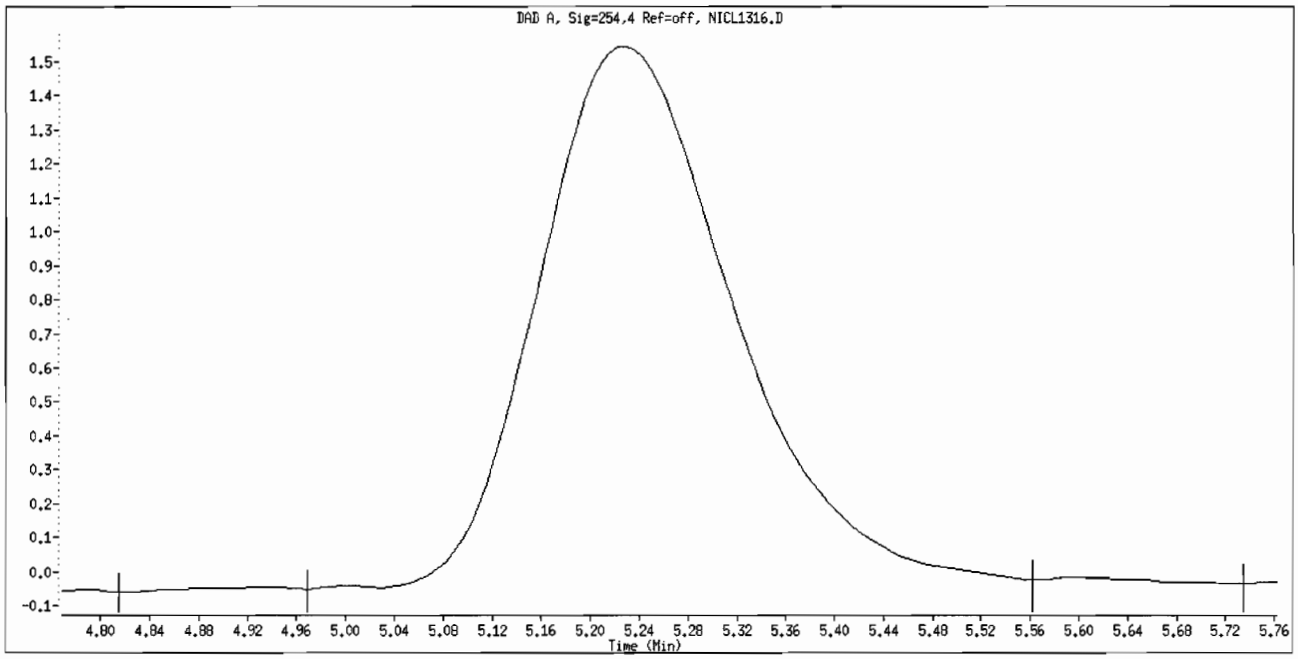

Original Integration

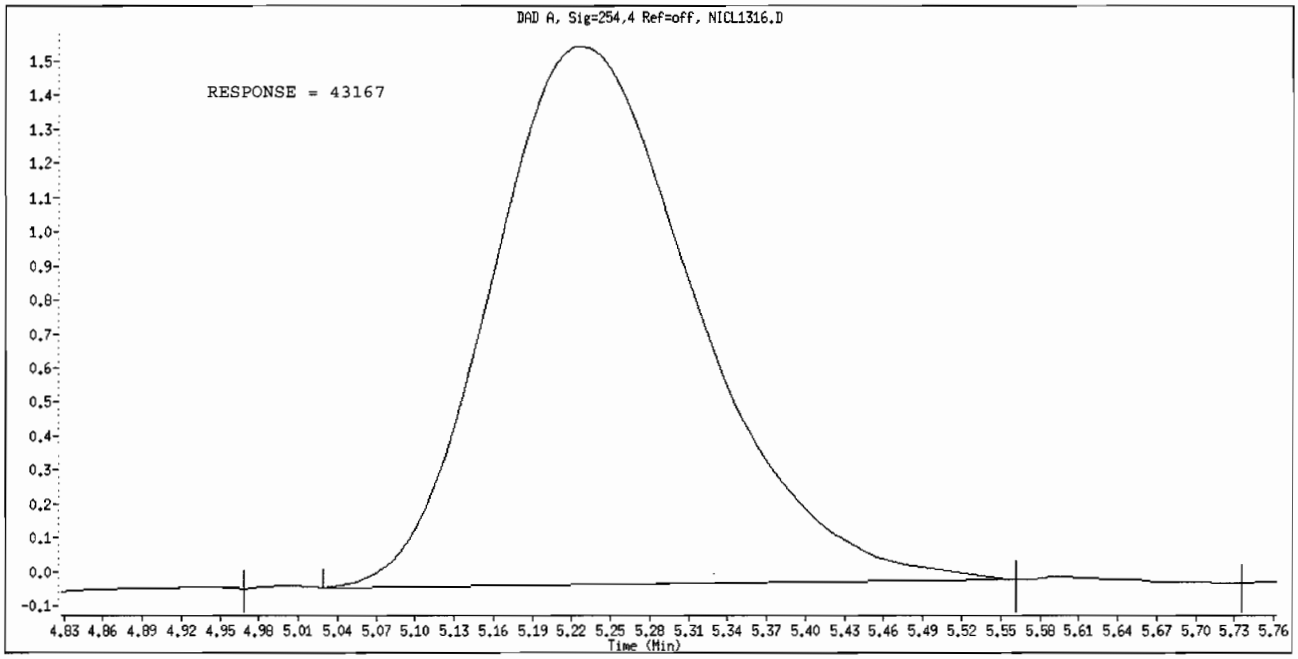

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1316.D
Inj. Date and Time: 25-NOV-2009 10:44
Instrument ID: Lcn.i
Client ID: 8330 ICAL-5
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

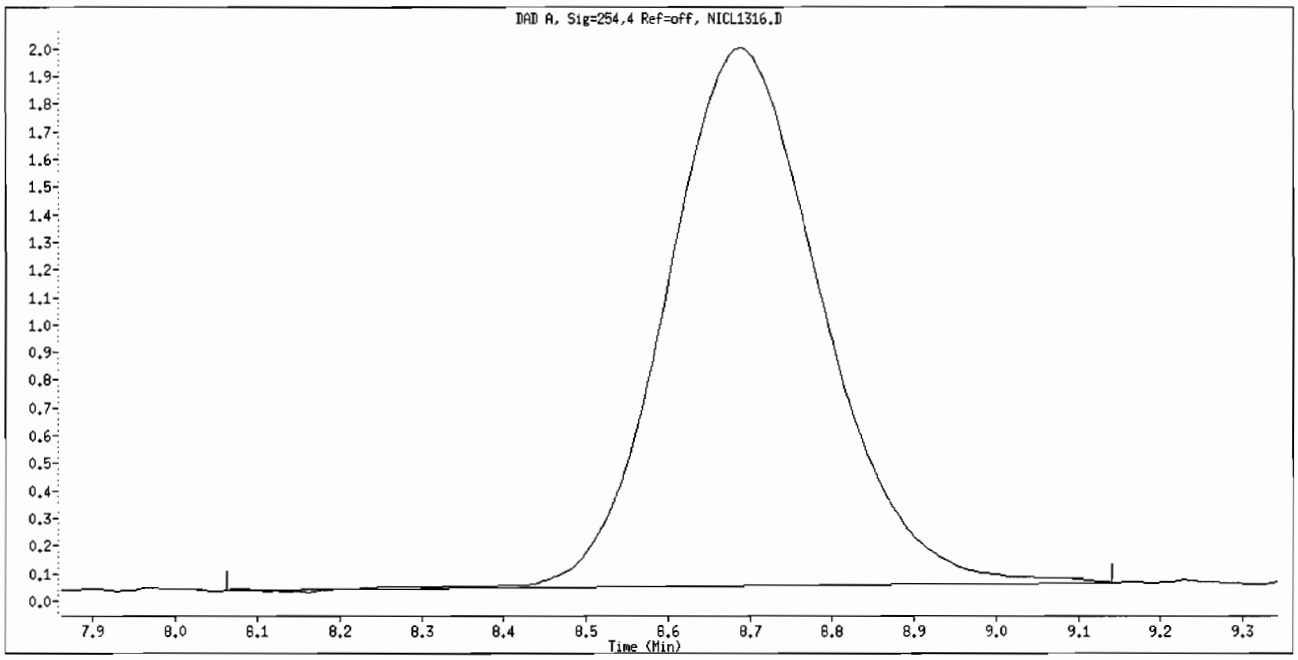

Original Integration

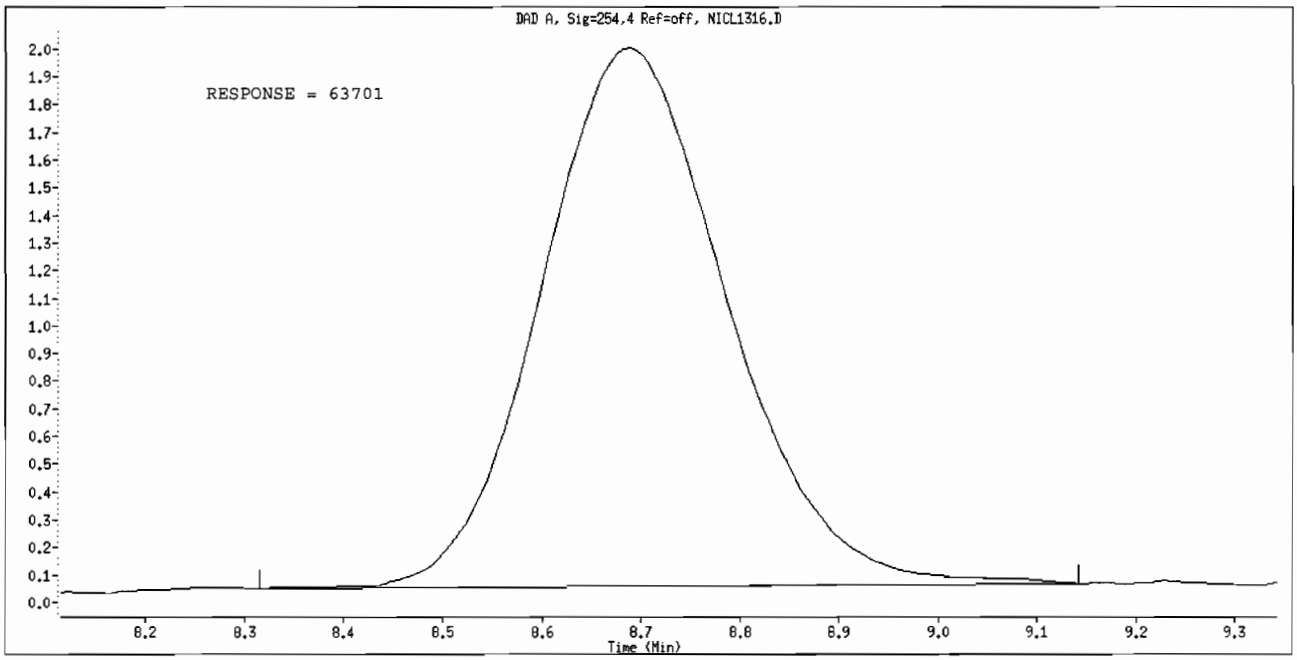

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1317.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1317.D
Lab Smp Id: 8330 ICAL-6 Client Smp ID: 8330 ICAL-6
Inj Date : 25-NOV-2009 10:58
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-6
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.833	3.837	-0.004	136444	201.213	210.9
2 DNX	4.315	4.324	-0.009	87699	137.700	139.2
3 MNX	5.232	5.239	-0.007	90745	181.975	183.9
$ 4 1,2-Dinitrobenzene	8.711	8.706	0.005	130071	250.000	251.2(M)

QC Flag Legend

M - Compound response manually integrated.

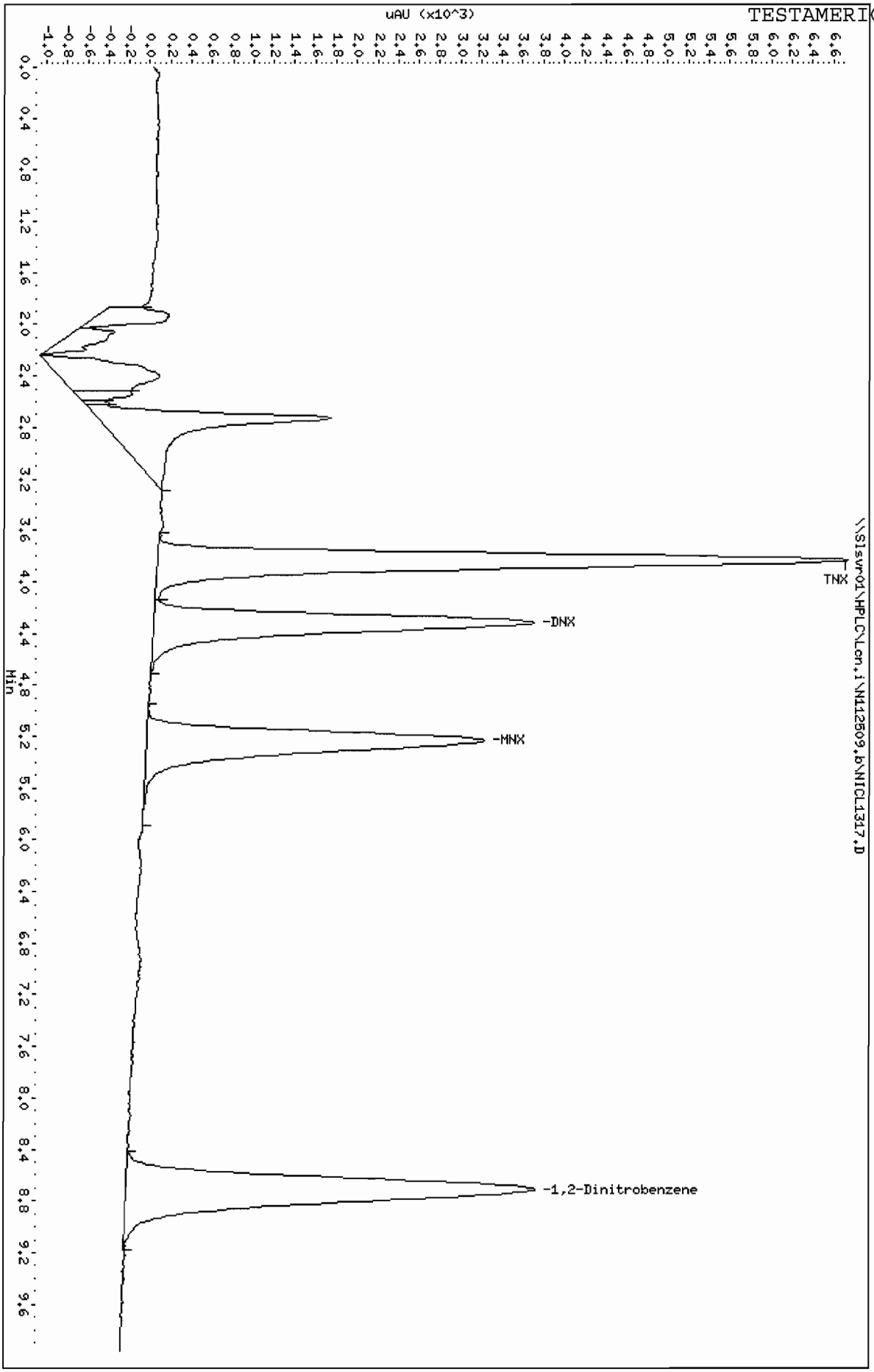
Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1317.D
Date : 25-NOV-2009 10:58
Client ID: 8330 ICAL-6
Sample Info: 8330 ICAL-6
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn.i
Operator: WH
Column diameter: 4.60
uAU (x10^3)
Min
TNX
-DNX
-MNX
-1,2-Dinitrobenzene
\\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1317.D

Data File Name: NICL1317.D
Inj. Date and Time: 25-NOV-2009 10:58
Instrument ID: Lcn.i
Client ID: 8330 ICAL-6
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

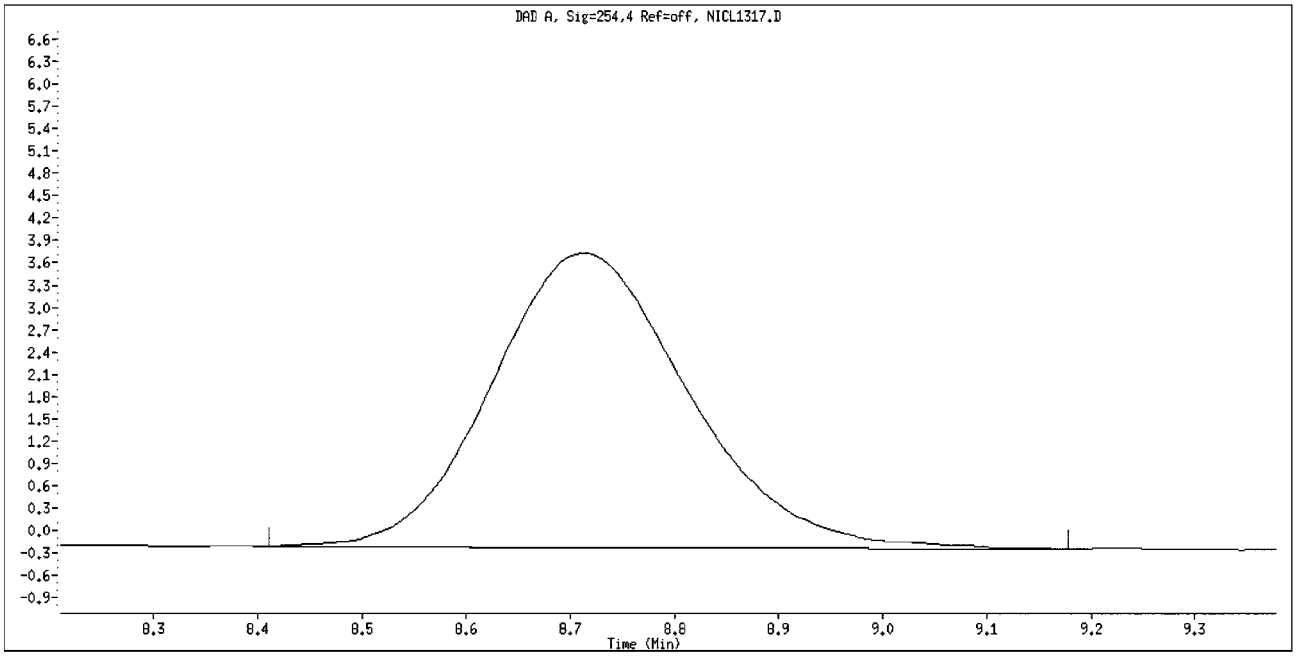

Original Integration

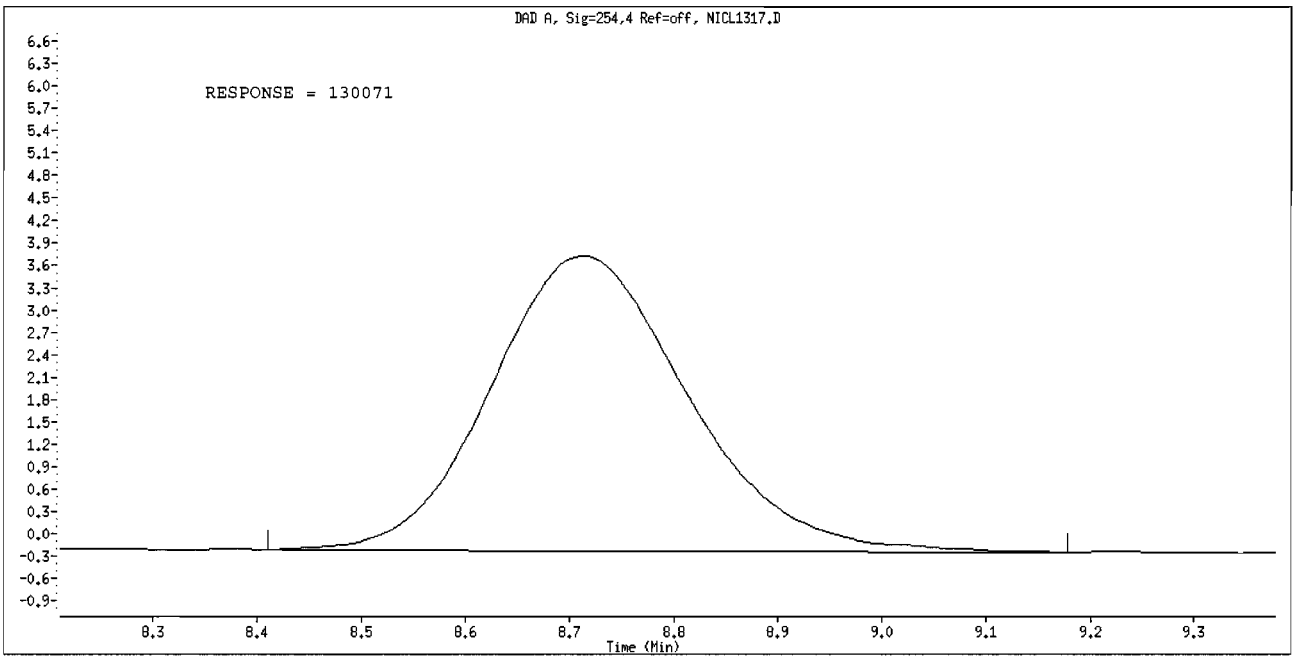

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1318.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1318.D
Lab Smp Id: 8330 ICAL-7 Client Smp ID: 8330 ICAL-7
Inj Date : 25-NOV-2009 11:12
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-7
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.831	3.837	-0.006	267028	402.425	412.7(M)
2 DNX	4.318	4.324	-0.006	167438	275.400	265.8(M)
3 MNX	5.231	5.239	-0.008	174954	363.950	354.5(M)
$ 4 1,2-Dinitrobenzene	8.704	8.706	-0.002	255155	500.000	492.8(M)

QC Flag Legend

M - Compound response manually integrated.

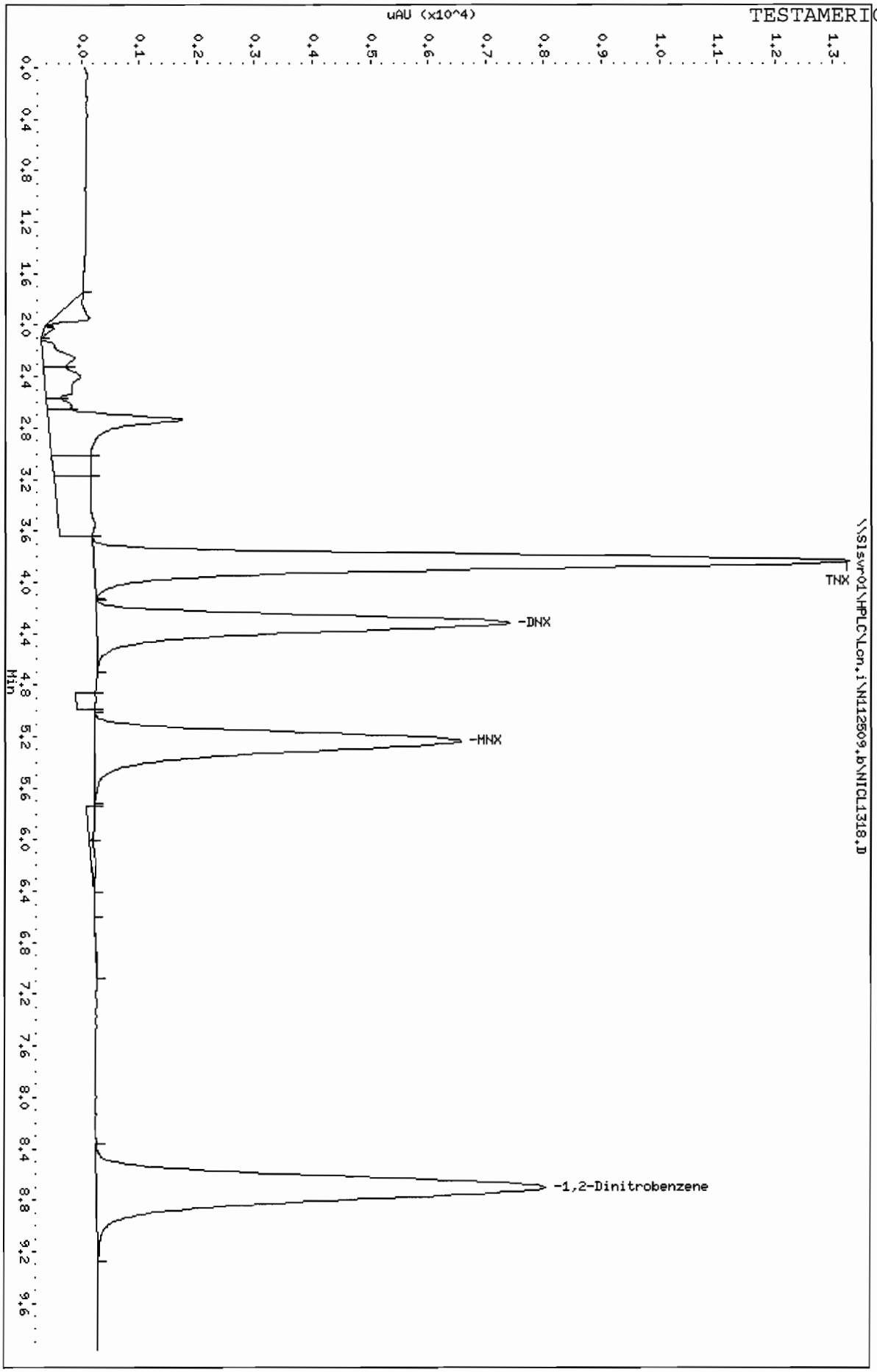
Data File: \\Slsvr01\HPLC\Lon.i\N112509.b\NICL1318.D
Date : 25-NOV-2009 11:12
Client ID: 8330 ICAL-7
Sample Info: 8330 ICAL-7
Purge Volume: 500.0
Column phase: C18
Instrument: Lon.i
Operator: WH
Column diameter: 4.60
uAU (x10^4)
\\Slsvr01\HPLC\Lon.i\N112509.b\NICL1318.D
TNX
-DNX
-MNX
-1,2-Dinitrobenzene
Min

Data File Name: NICL1318.D
Inj. Date and Time: 25-NOV-2009 11:12
Instrument ID: Lcn.i
Client ID: 8330 ICAL-7
Compound Name: TNX
CAS #:

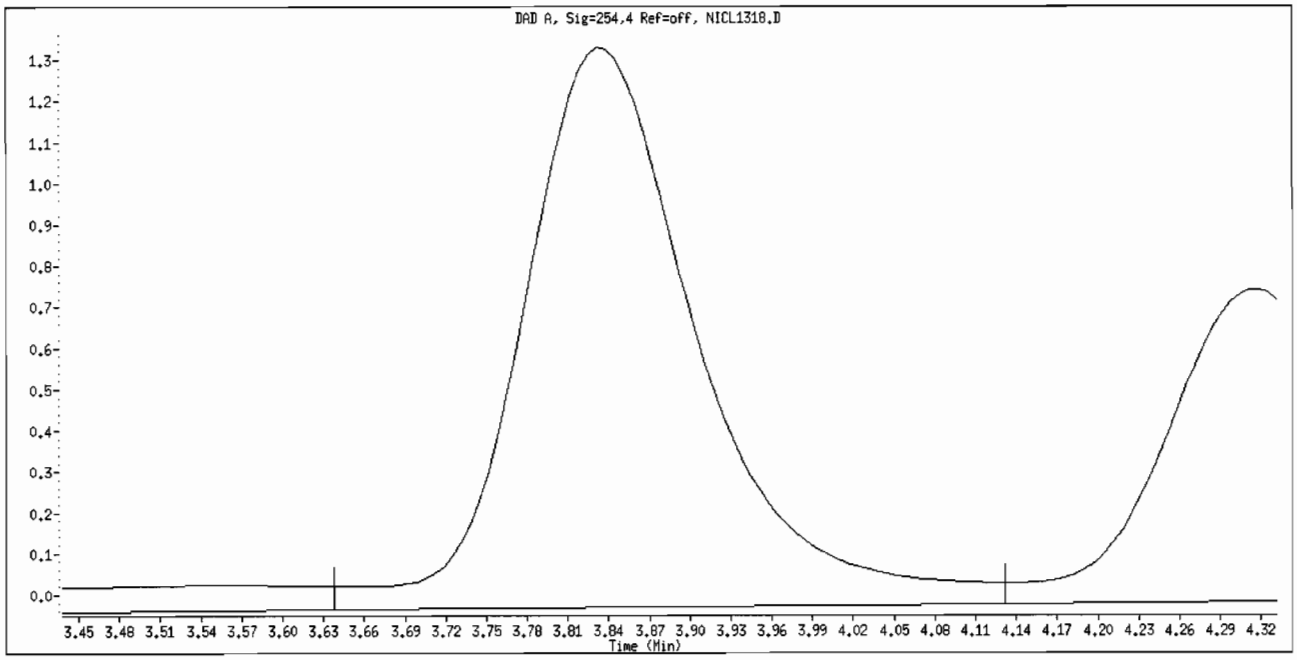

Original Integration

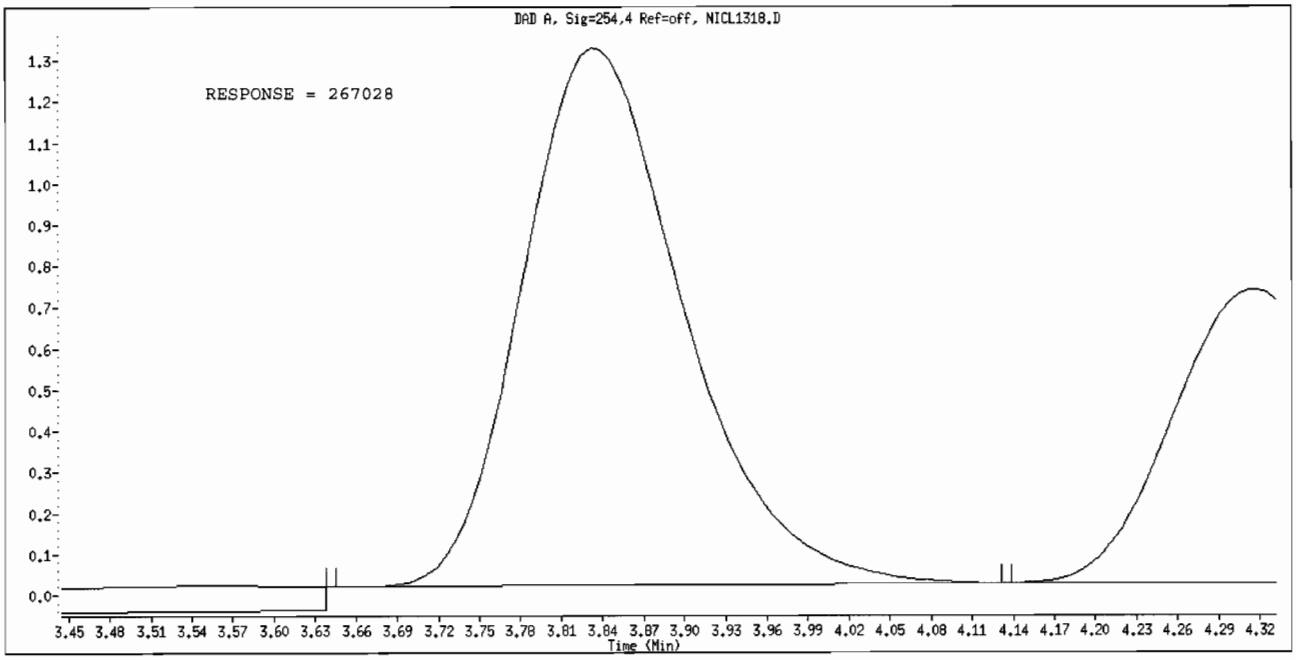

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1318.D
Inj. Date and Time: 25-NOV-2009 11:12
Instrument ID: Lcn.i
Client ID: 8330 ICAL-7
Compound Name: DNX
CAS #:

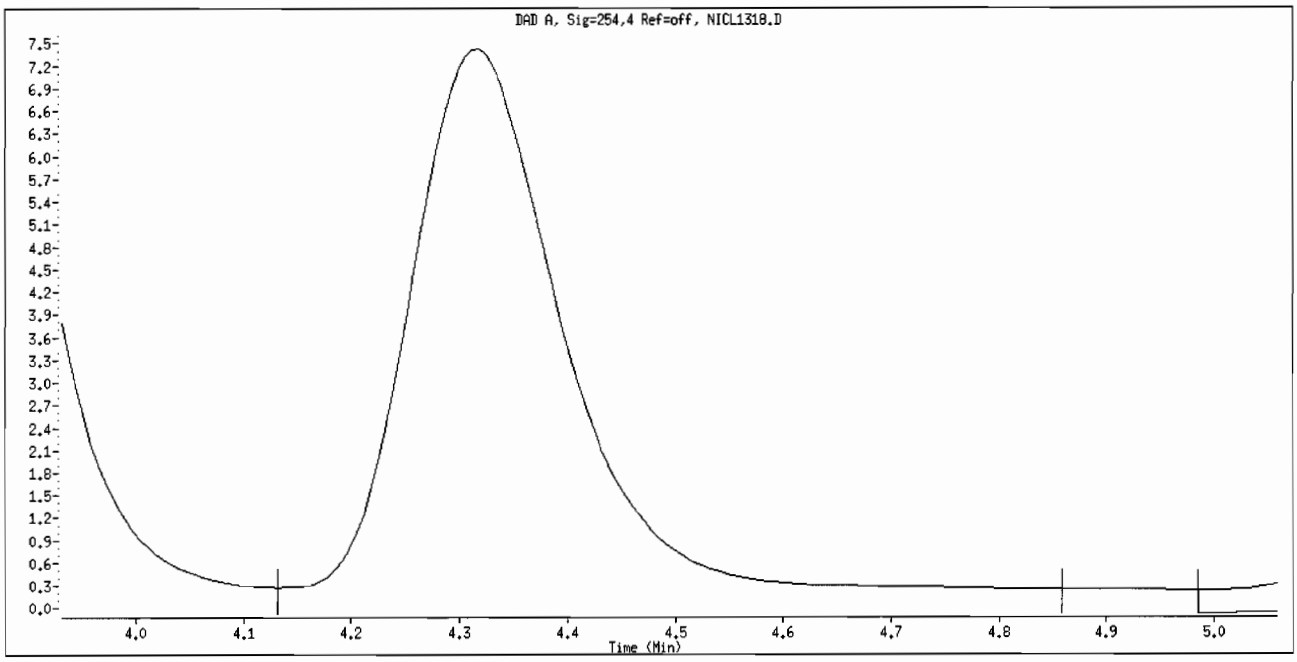

Original Integration

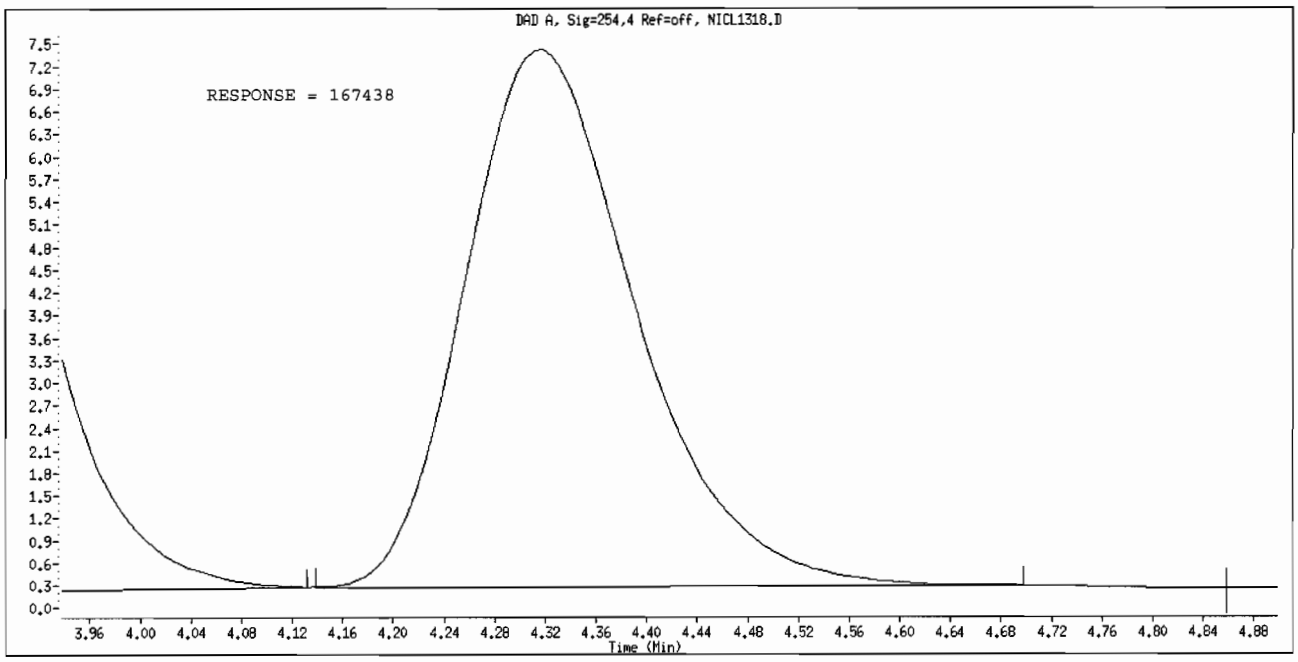

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1318.D
Inj. Date and Time: 25-NOV-2009 11:12
Instrument ID: Lcn.i
Client ID: 8330 ICAL-7
Compound Name: MNX
CAS #:

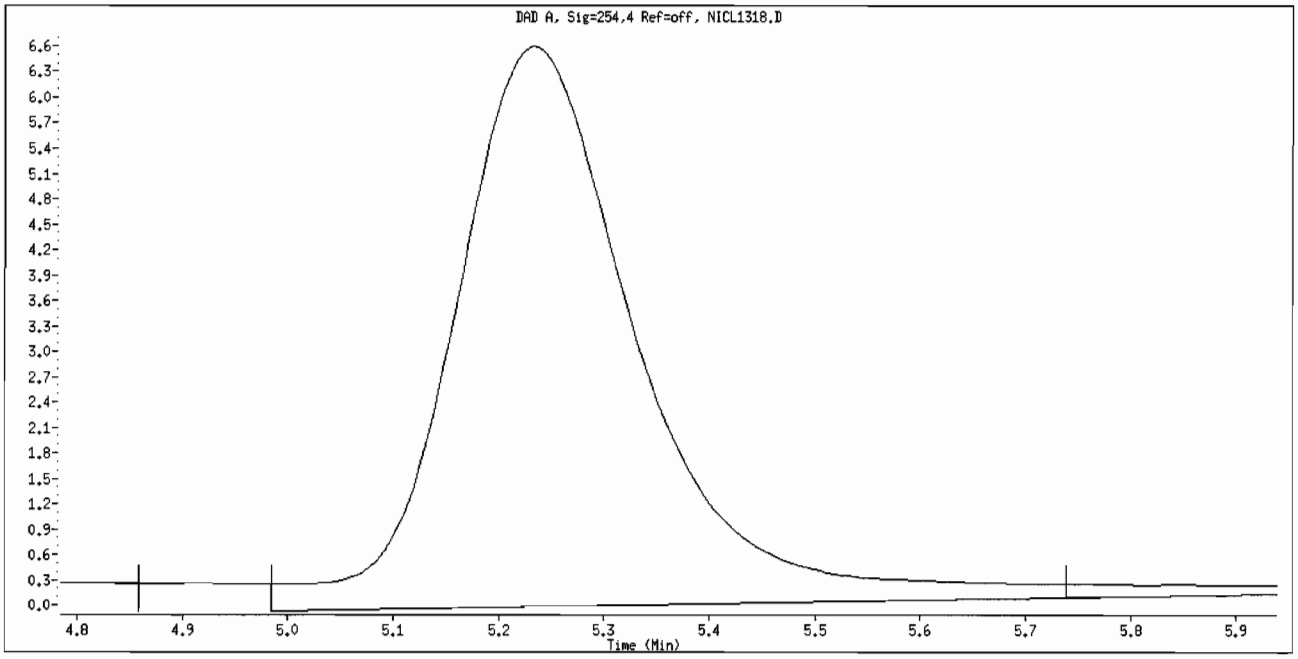

Original Integration

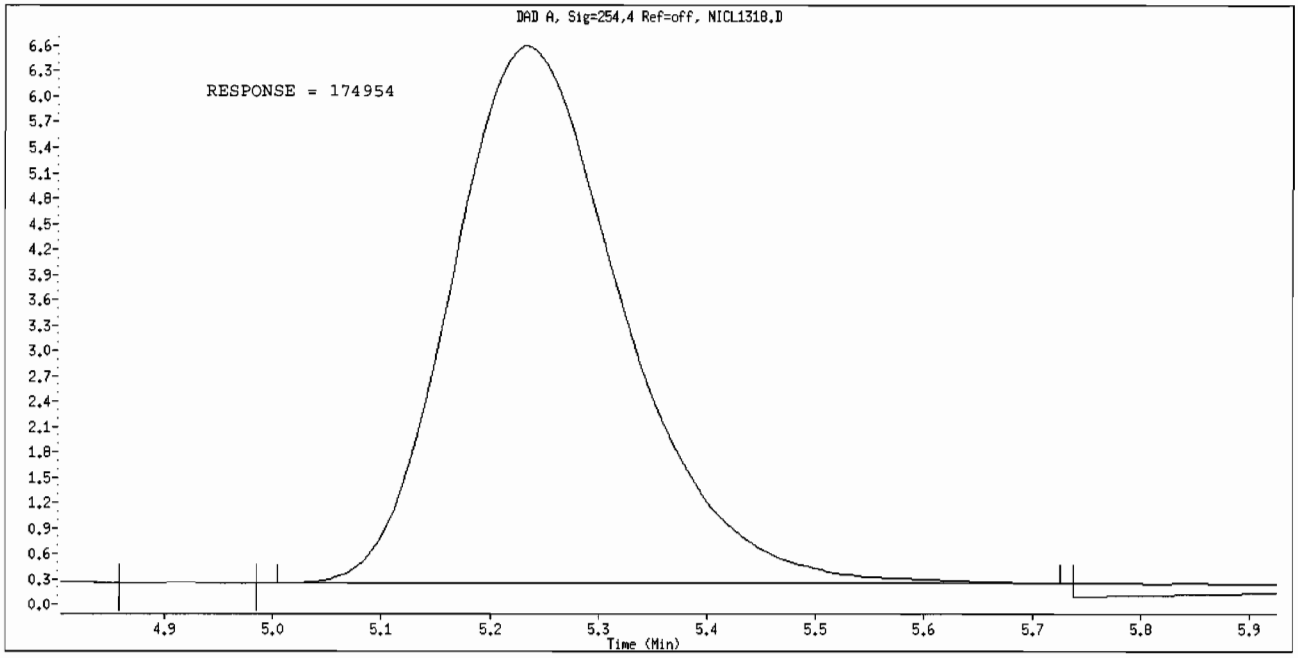

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1318.D
Inj. Date and Time: 25-NOV-2009 11:12
Instrument ID: Lcn.i
Client ID: 8330 ICAL-7
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

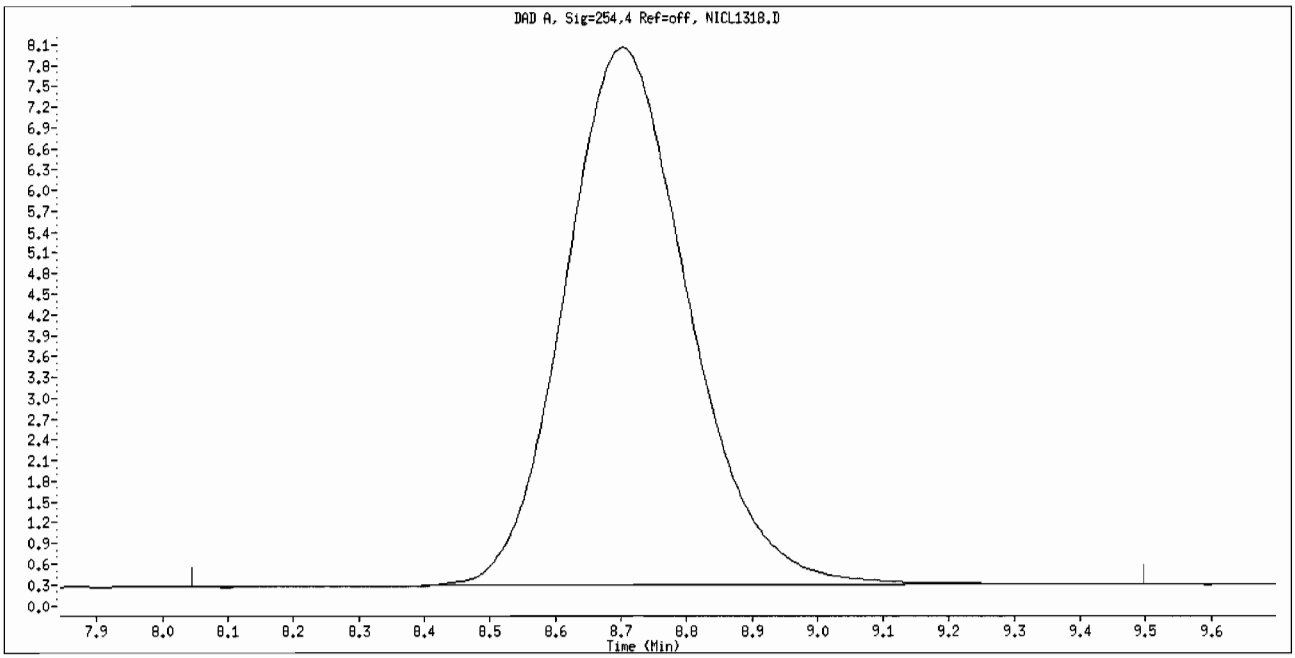

Original Integration

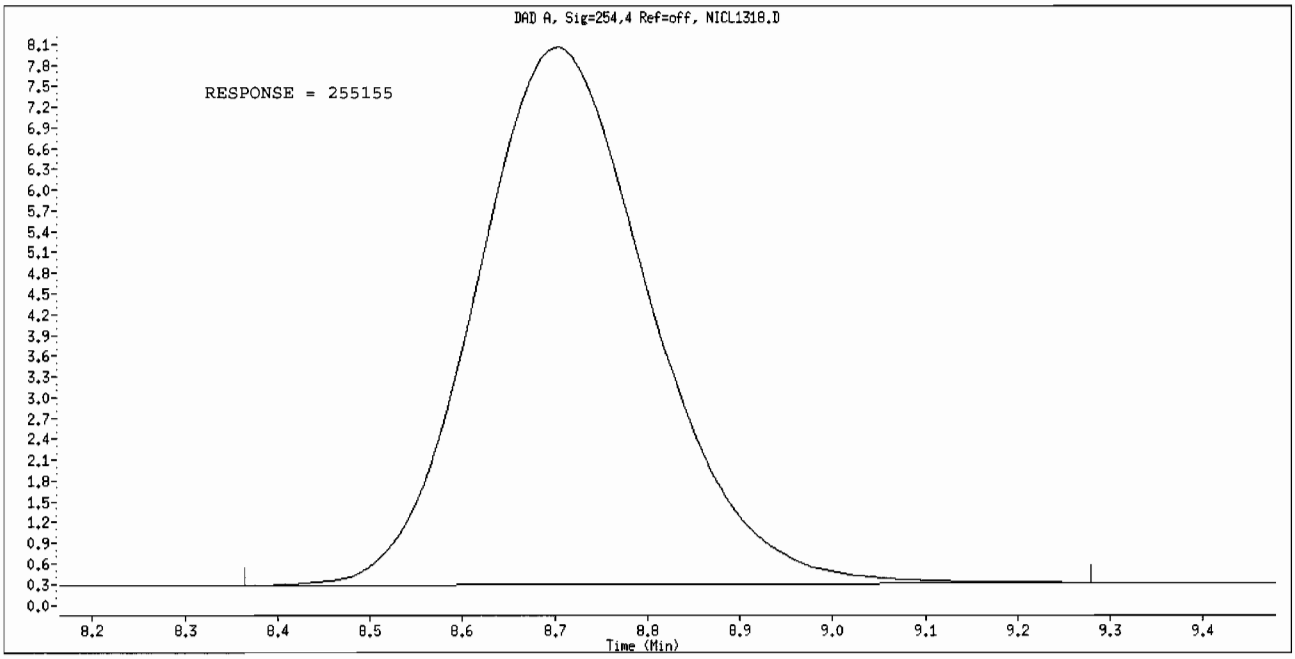

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1319.D
Report Date: 02-Dec-2009 16:05

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICL1319.D
Lab Smp Id: 8330 ICAL-8 Client Smp ID: 8330 ICAL-8
Inj Date : 25-NOV-2009 11:26
Operator : WH Inst ID: Lcn.i
Smp Info : 8330 ICAL-8
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:05 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.838	3.837	0.001	539495	804.850	833.8(M)
2 DNX	4.318	4.324	-0.006	337552	550.800	535.8(M)
3 MNX	5.238	5.239	-0.001	352540	727.900	714.4(M)
$ 4 1,2-Dinitrobenzene	8.715	8.706	0.009	512457	1000.00	989.8(M)

QC Flag Legend

M - Compound response manually integrated.

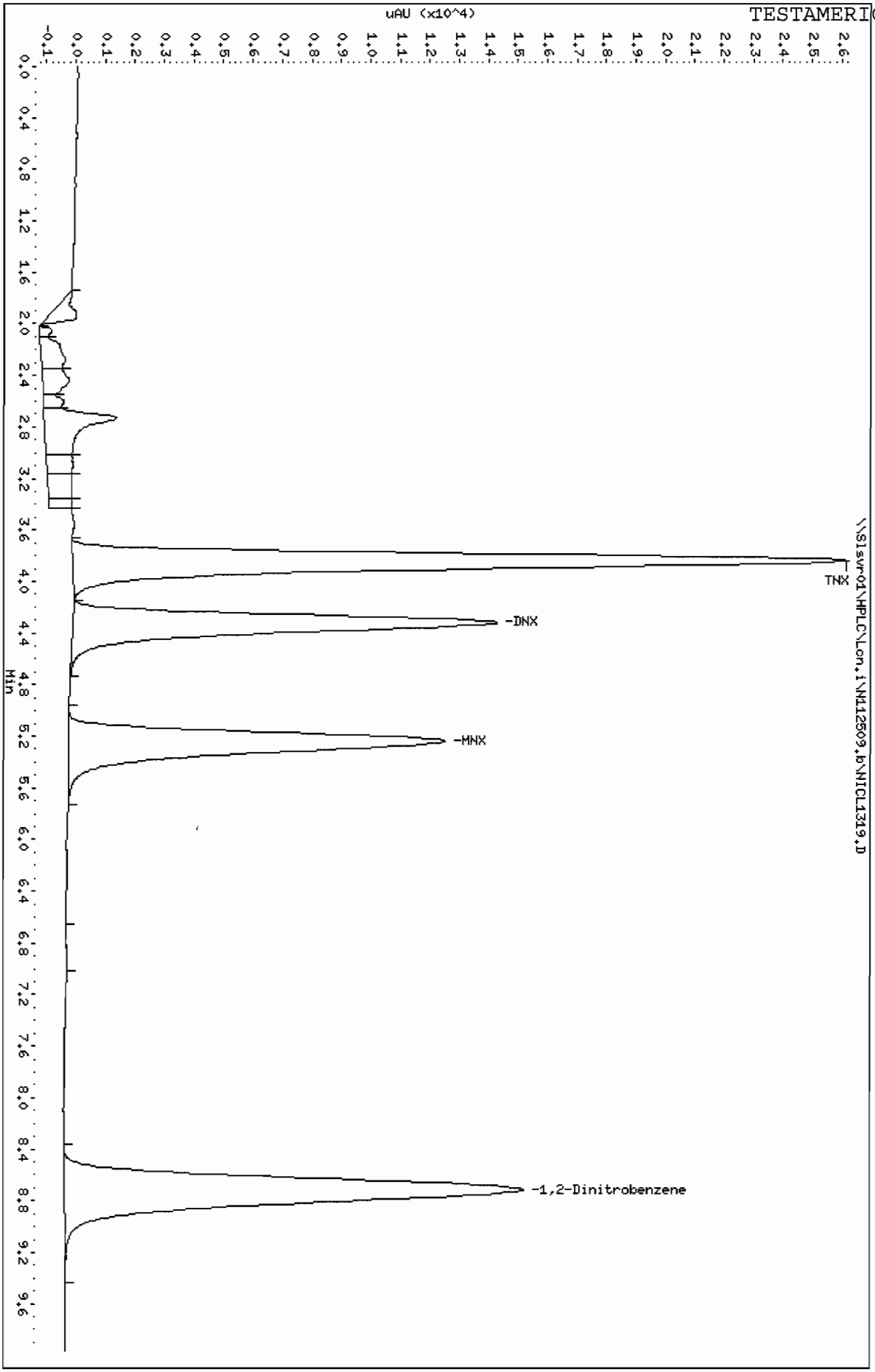
Data File: \\Slsvr01\HPLC\Lon,i\N112509,b\NICL1319,D
Date : 25-NOV-2009 11:26
Client ID: 8330 ICAL-8
Sample Info: 8330 ICAL-8
Purge Volume: 500.0
Column phase: C18
Instrument: Lon,i
Operator: WH
Column diameter: 4.60
uAU (x10^4)
\\Slsvr01\HPLC\Lon,i\N112509,b\NICL1319,D
TNX
-DNX
-MNX
-1,2-Dinitrobenzene
Min

Data File Name: NICL1319.D
Inj. Date and Time: 25-NOV-2009 11:26
Instrument ID: Lcn.i
Client ID: 8330 ICAL-8
Compound Name: TNX
CAS #:

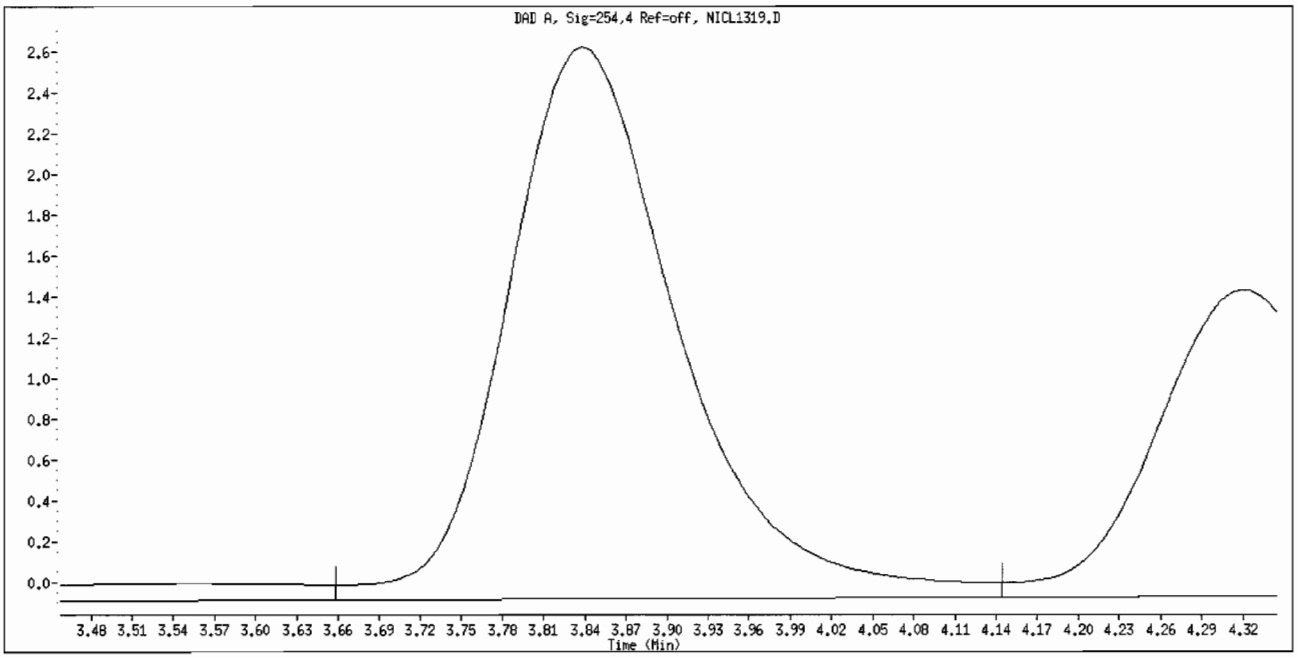

Original Integration

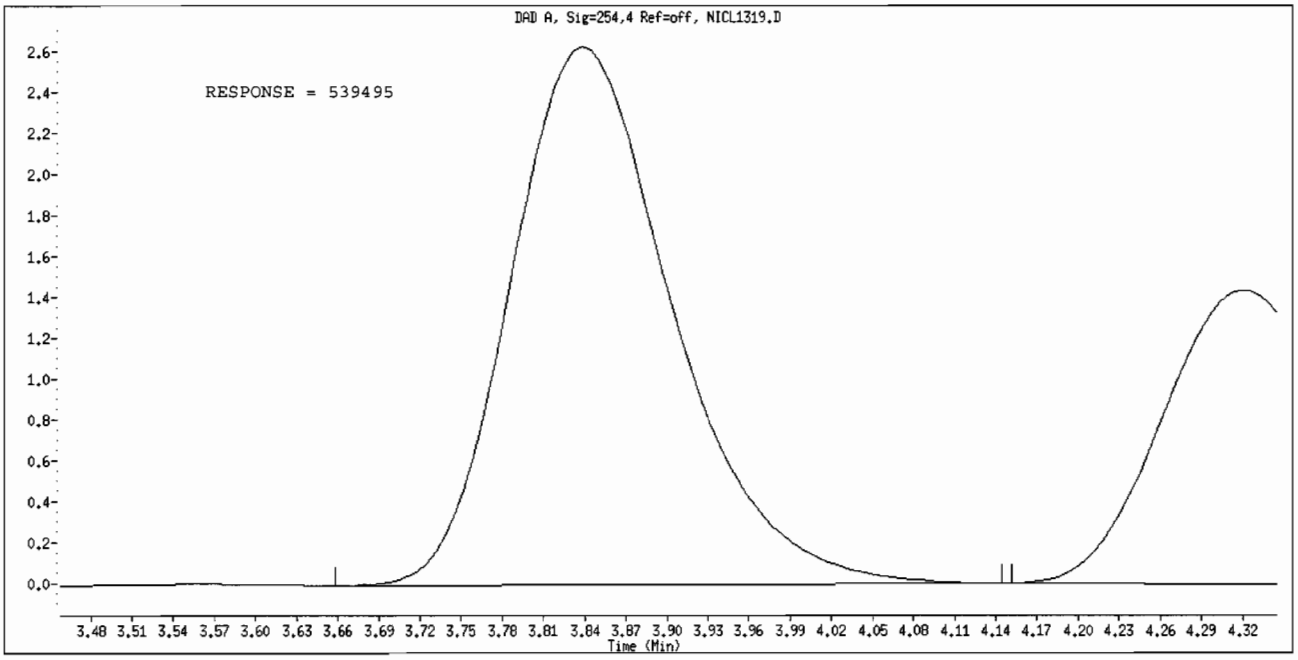

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1319.D
Inj. Date and Time: 25-NOV-2009 11:26
Instrument ID: Lcn.i
Client ID: 8330 ICAL-8
Compound Name: DNX
CAS #:

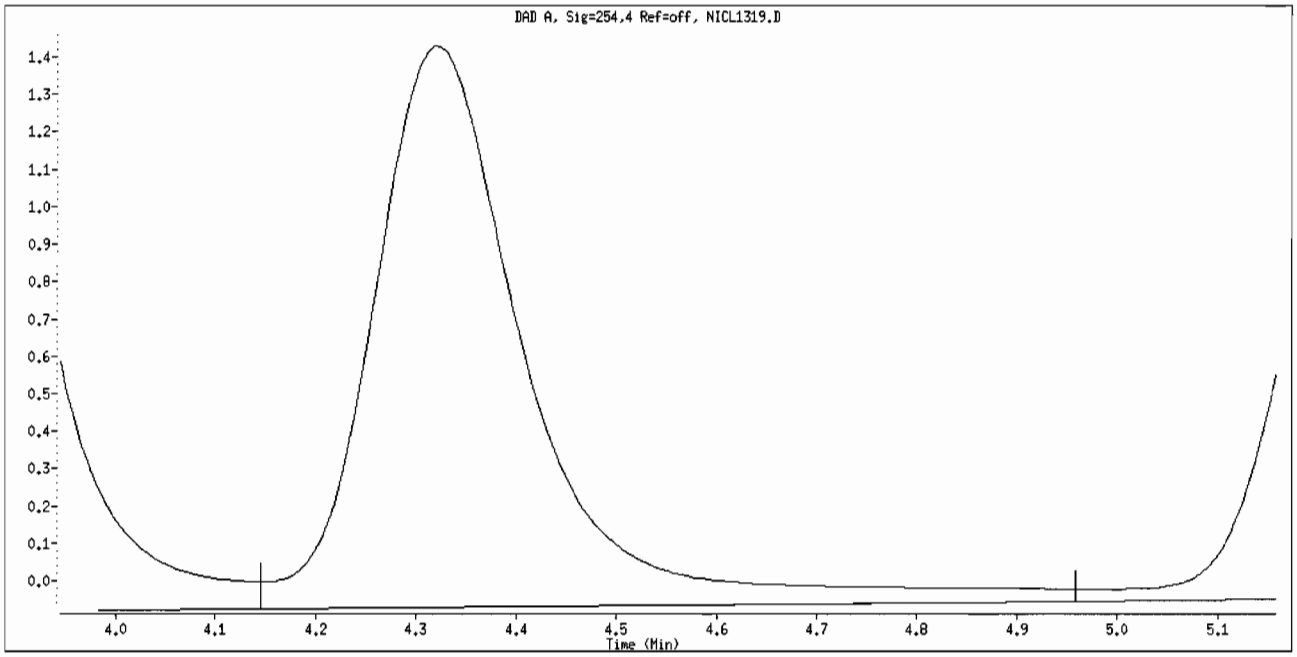

Original Integration

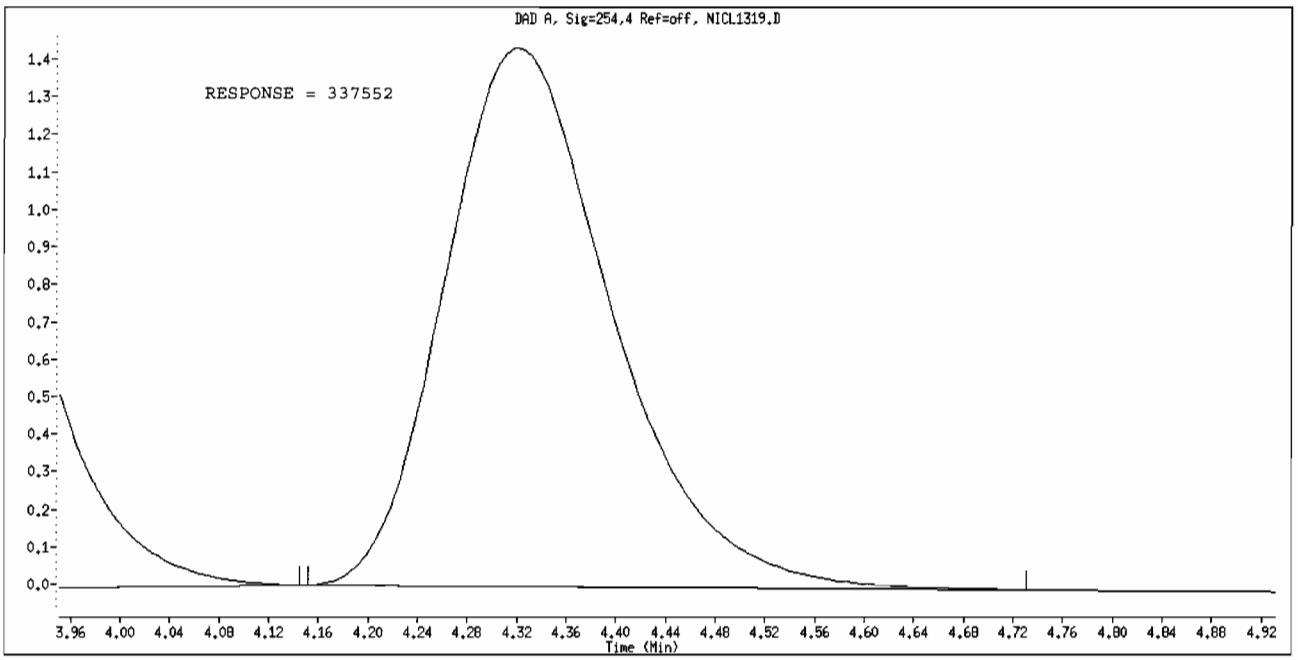

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1319.D
Inj. Date and Time: 25-NOV-2009 11:26
Instrument ID: Lcn.i
Client ID: 8330 ICAL-8
Compound Name: MNX
CAS #:

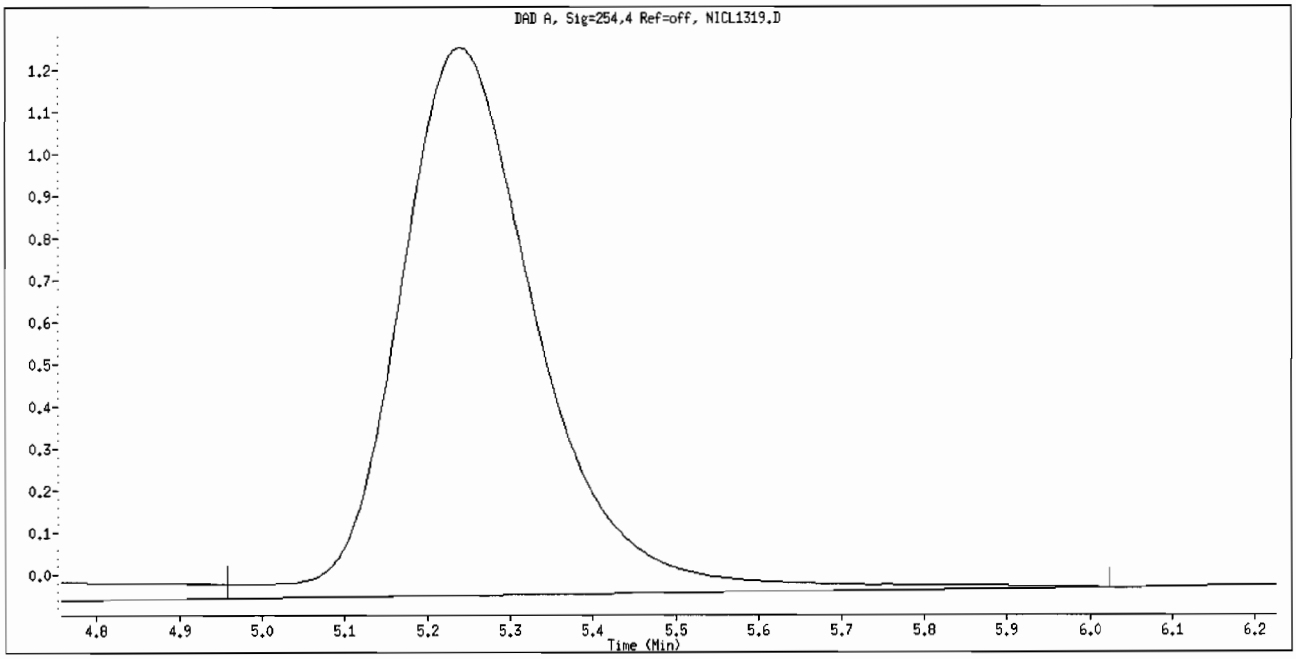

Original Integration

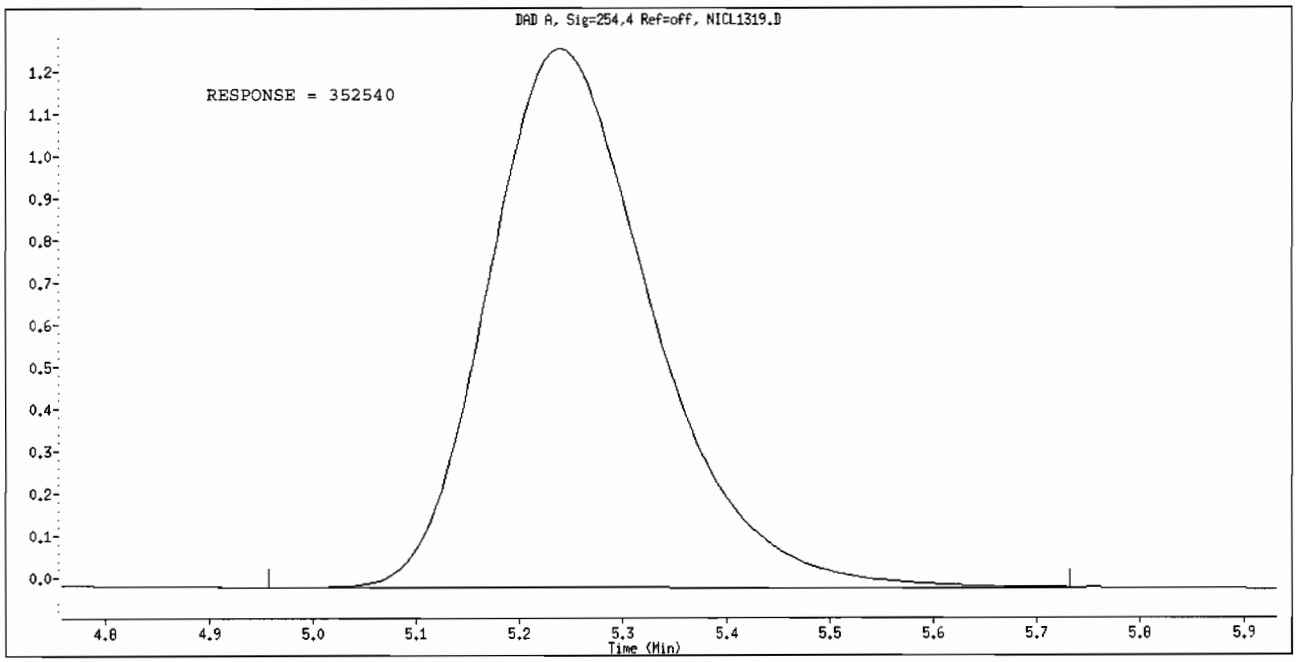

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File Name: NICL1319.D
Inj. Date and Time: 25-NOV-2009 11:26
Instrument ID: Lcn.i
Client ID: 8330 ICAL-8
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

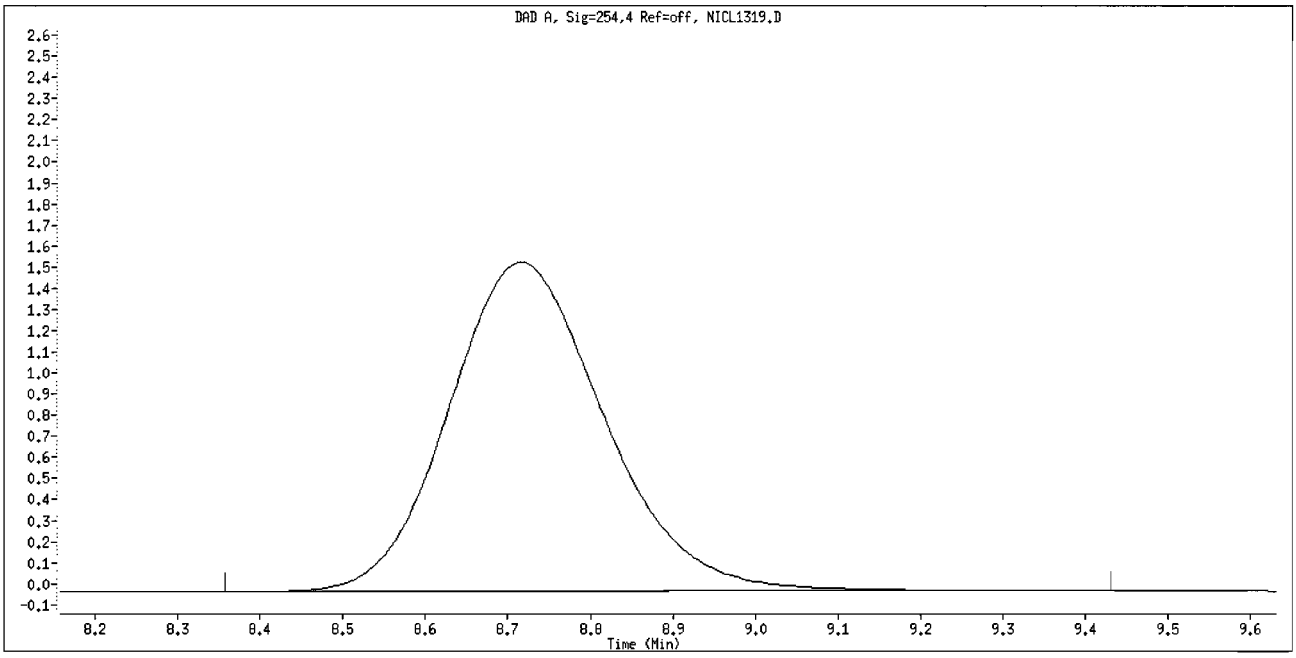

Original Integration

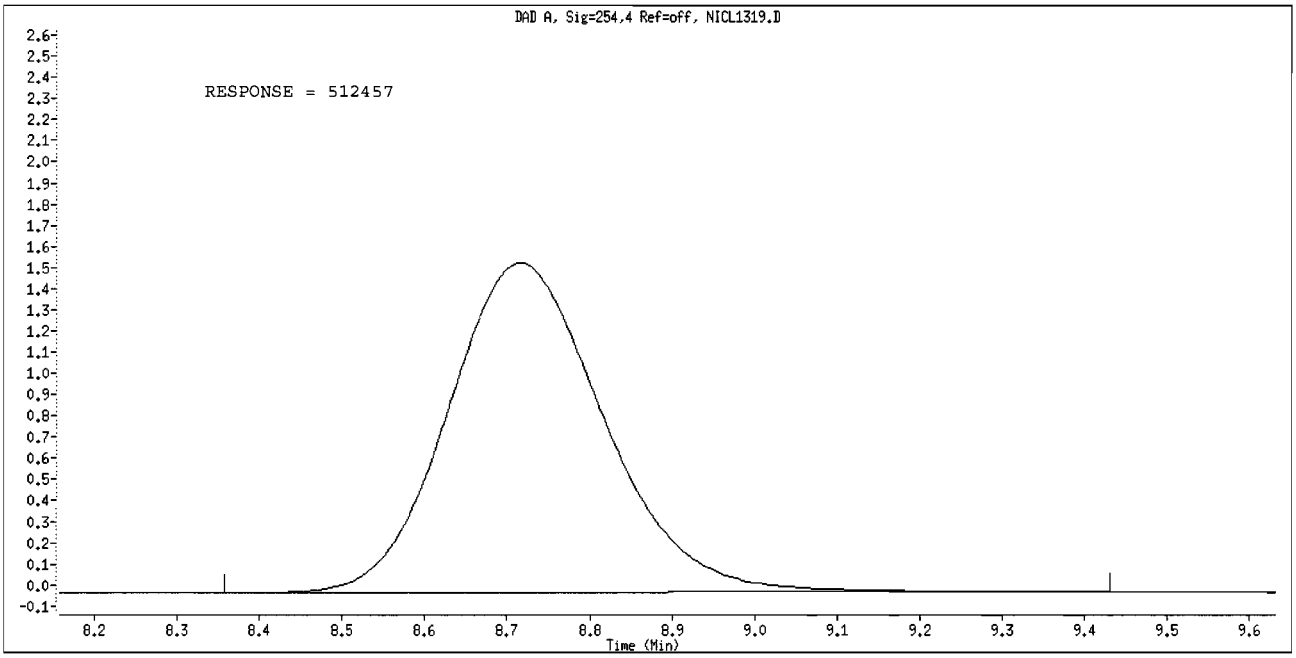

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Analyte not Identified by the Data System

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICV1320.D
Report Date: 02-Dec-2009 16:06

TestAmerica St. Louis

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Lcn.i Injection Date: 25-NOV-2009 11:40
Lab File ID: NICV1320.D Init. Cal. Date(s): 25-NOV-2009 25-NOV-2009
Analysis Type: WATER Init. Cal. Times: 10:16 11:26
Lab Sample ID: XNX ICV Quant Type: ESTD
Method: \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m

COMPOUND	RRF / AMOUNT	RF125	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 TNX	647	687	0.010	-6.21077	20.00000	Averaged
2 DNX	630	652	0.010	-3.51780	20.00000	Averaged
3 MNX	493	518	0.010	-5.04045	20.00000	Averaged

Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICV1320.D
Report Date: 02-Dec-2009 16:06

TestAmerica St. Louis

Data file : \\Slsvr01\HPLC\Lcn.i\N112509.b\NICV1320.D
Lab Smp Id: XNX ICV Client Smp ID: XNX ICV
Inj Date : 25-NOV-2009 11:40
Operator : WH Inst ID: Lcn.i
Smp Info : XNX ICV
Misc Info :
Comment :
Method : \\Slsvr01\HPLC\Lcn.i\N112509.b\C18XNX.m
Meth Date : 02-Dec-2009 16:06 hanw Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.10
Processing Host: SLGC02

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.834	3.837	-0.003	69140	100.606	106.8
2 DNX	4.318	4.324	-0.006	44898	68.8500	71.27
3 MNX	5.239	5.239	0.000	47165	90.9875	95.57(M)

QC Flag Legend

M - Compound response manually integrated.

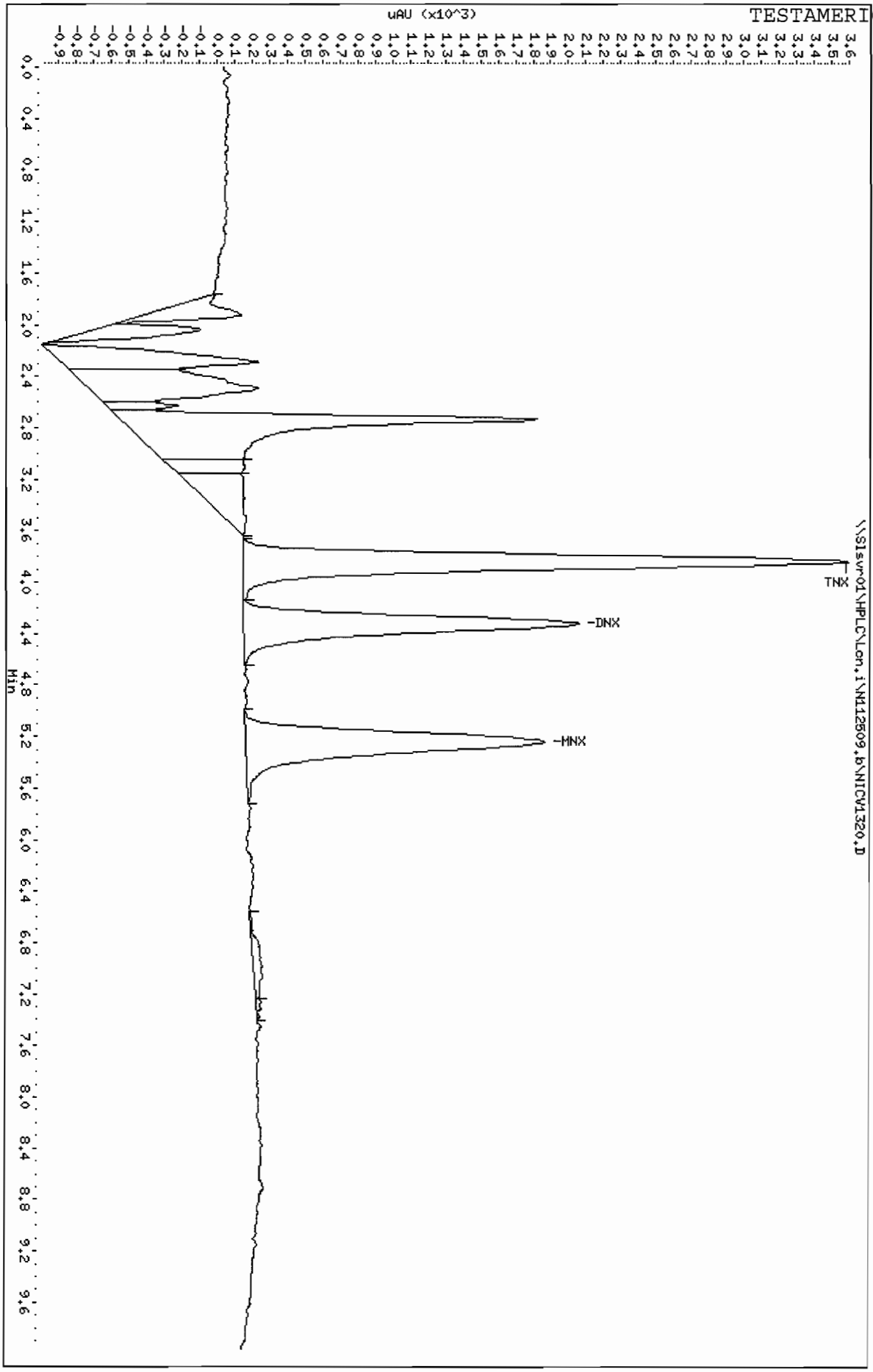
Data File: \\Slsvr01\HPLC\Lcn.i\N112509.b\NICV1320.D
Date : 25-NOV-2009 11:40
Client ID: XNX ICV
Sample Info: XNX ICV
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn.i
Operator: WH
Column diameter: 4.60
uAU (x10^3)
\\Slsvr01\HPLC\Lcn.i\N112509.b\NICV1320.D
TNX
-DNX
-MNX
Min

Data File Name: NICV1320.D
Inj. Date and Time: 25-NOV-2009 11:40
Instrument ID: Lcn.i
Client ID: XNX ICV
Compound Name: MNX
CAS #:

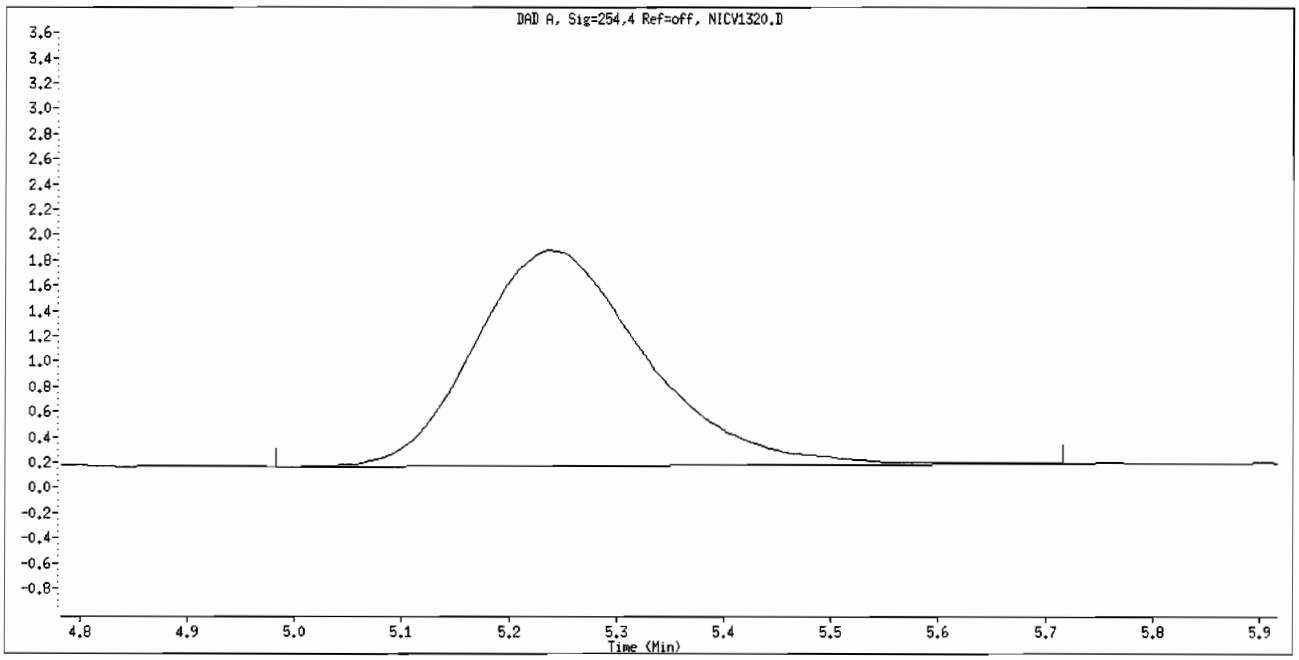

Original Integration

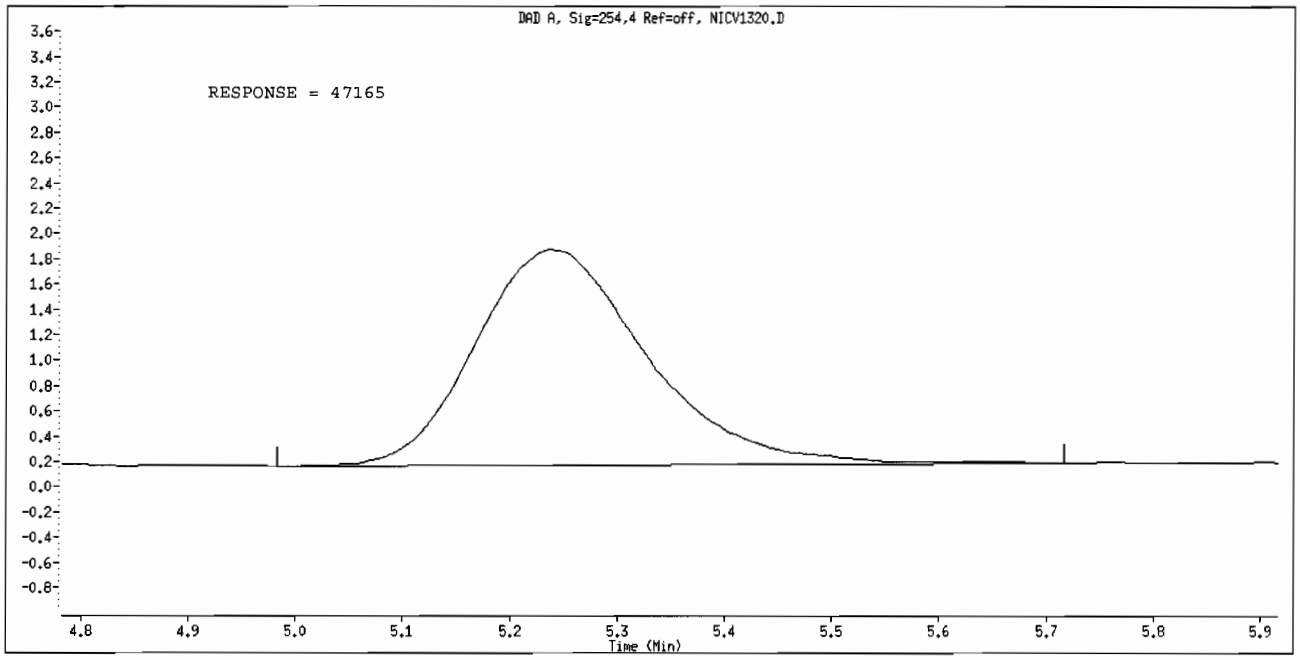

Manual Integration

Manually Integrated By: hanw
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NCAL3240.D
Report Date: 01-Mar-2010 13:52

TestAmerica St. Louis

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Lcn.i Injection Date: 01-MAR-2010 10:53
Lab File ID: NCAL3240.D Init. Cal. Date(s): 25-NOV-2009 25-NOV-2009
Analysis Type: WATER Init. Cal. Times: 10:16 11:26
Lab Sample ID: XNX CCAL Quant Type: ESTD
Method: \\slsvr01\HPLC\Lcn.i\N030110.b\C18XNX.m

COMPOUND	RRF / AMOUNT	RF125	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 TNX	647	698	0.010	-7.90823	20.00000	Averaged
2 DNX	630	705	0.010	-11.93102	20.00000	Averaged
3 MNX	493	516	0.010	-4.49259	20.00000	Averaged
$ 4 1,2-Dinitrobenzene	518	506	0.010	2.29161	20.00000	Averaged

Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NCAL3240.D
Report Date: 01-Mar-2010 13:52

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N030110.b\NCAL3240.D
Lab Smp Id: XNX CCAL Client Smp ID: XNX CCAL
Inj Date : 01-MAR-2010 10:53
Operator : AF Inst ID: Lcn.i
Smp Info : XNX CCAL
Misc Info :
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N030110.b\C18XNX.m
Meth Date : 01-Mar-2010 13:52 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.807	3.837	-0.030	70245	100.606	108.6(M)
2 DNX	4.287	4.324	-0.037	48547	68.8500	77.06(M)
3 MNX	5.204	5.239	-0.035	46919	90.9875	95.08
$ 4 1,2-Dinitrobenzene	8.670	8.706	-0.036	63234	125.000	122.1

QC Flag Legend

M - Compound response manually integrated.

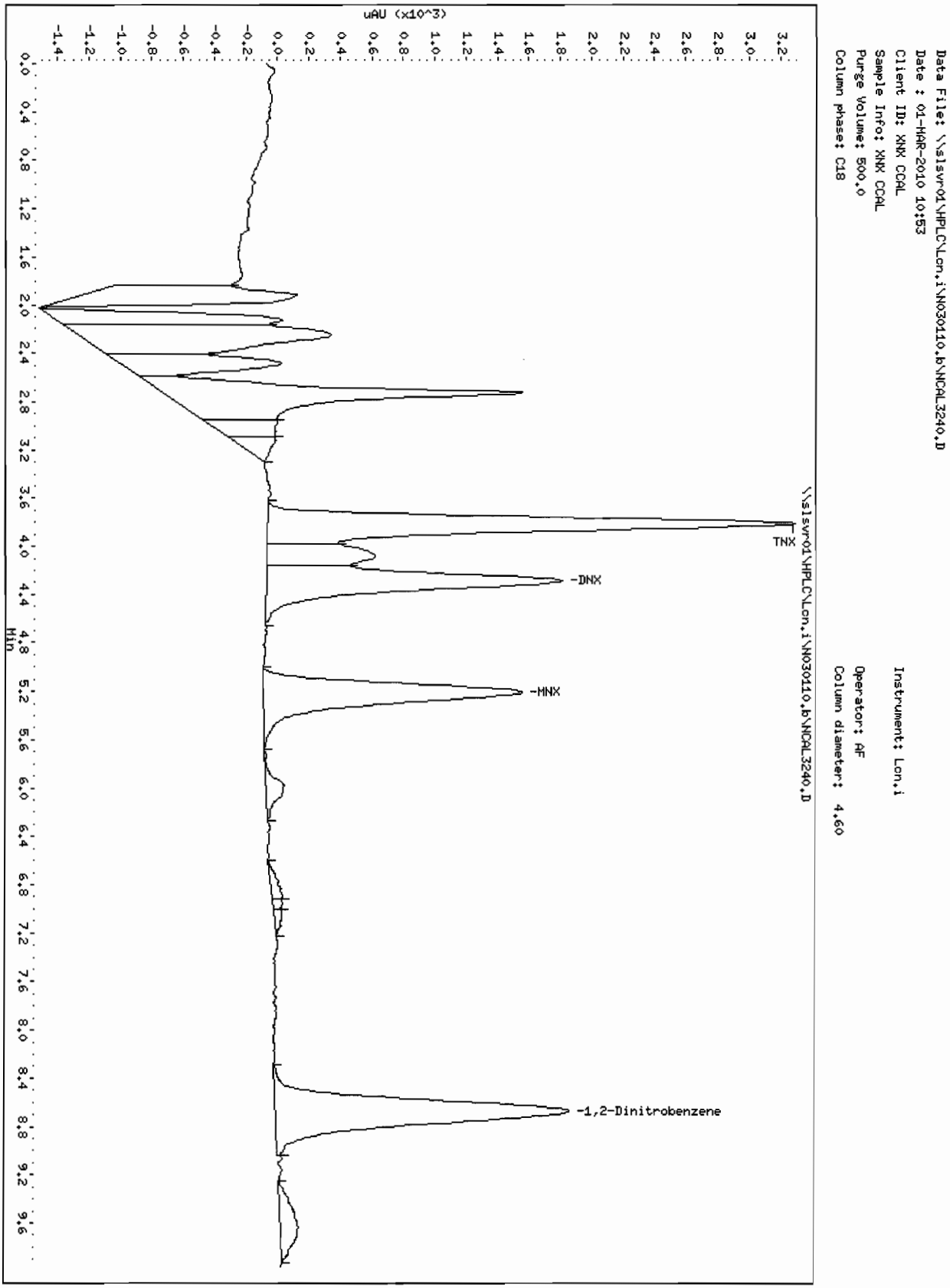
Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NCAL3240.D
Date : 01-MAR-2010 10:53
Client ID: XNX CCAL
Sample Info: XNX CCAL
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn.i
Operator: AF
Column diameter: 4.60
uAU (x10^3)
\\slsvr01\HPLC\Lcn.i\N030110.b\NCAL3240.D
TNX
-DNX
-MNX
-1,2-Dinitrobenzene
Min

Data File Name: NCAL3240.D
Inj. Date and Time: 01-MAR-2010 10:53
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: TNX
CAS #:

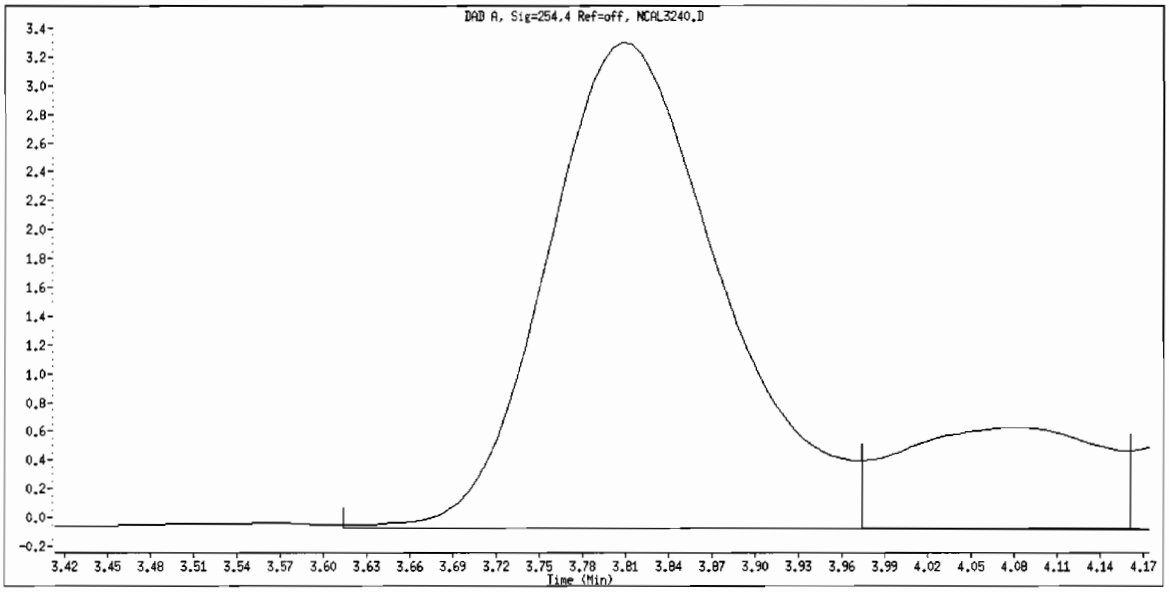

Original Integration

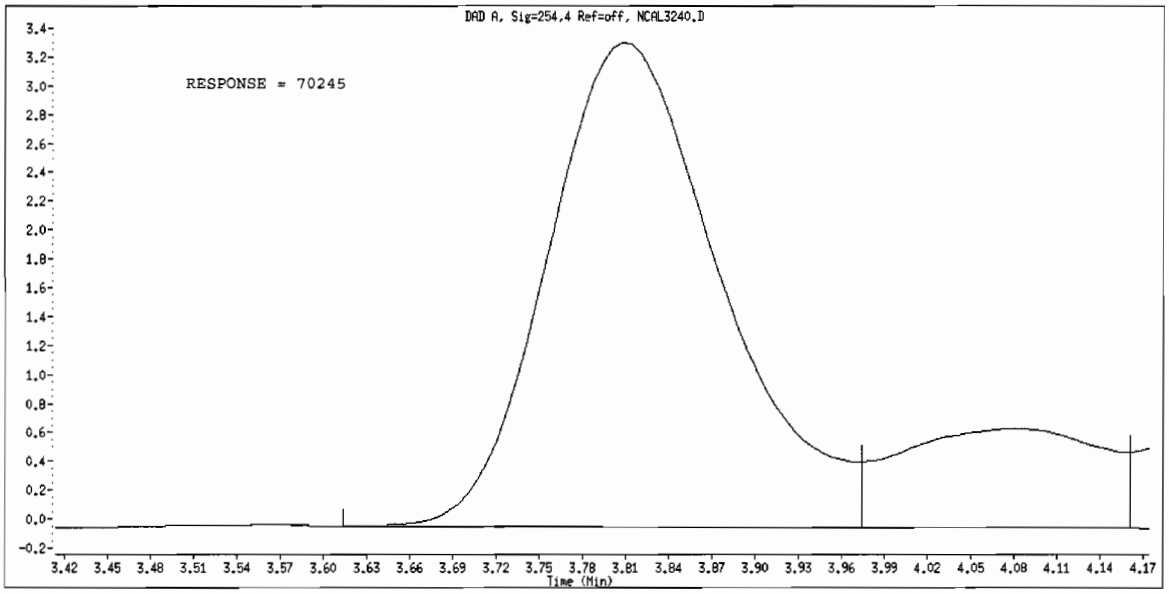

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NCAL3240.D
Inj. Date and Time: 01-MAR-2010 10:53
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: DNX
CAS #:

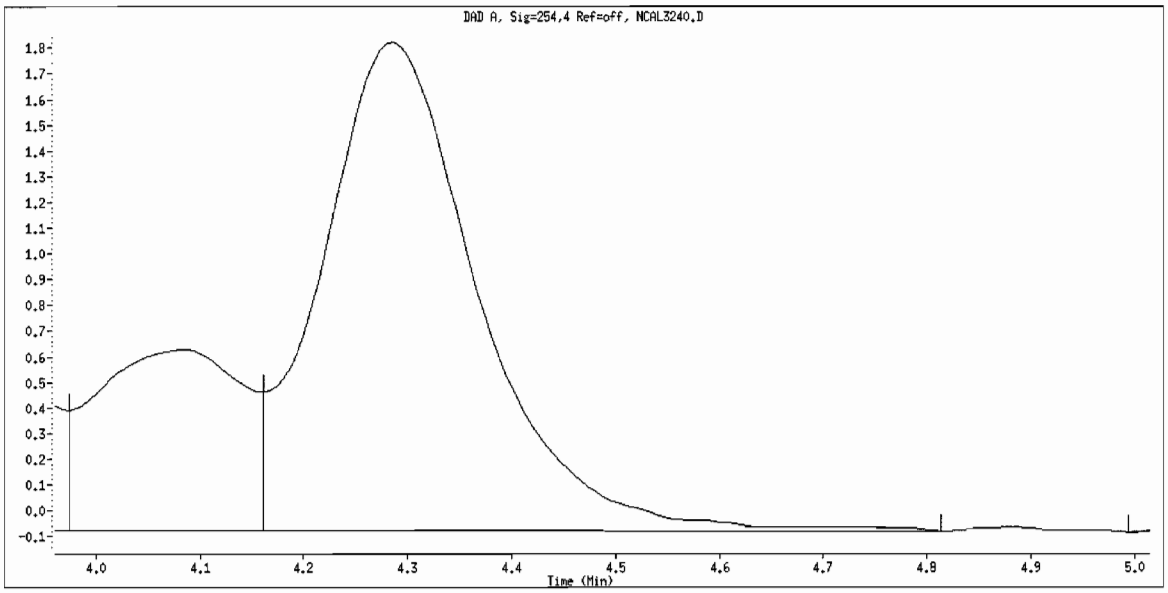

Original Integration

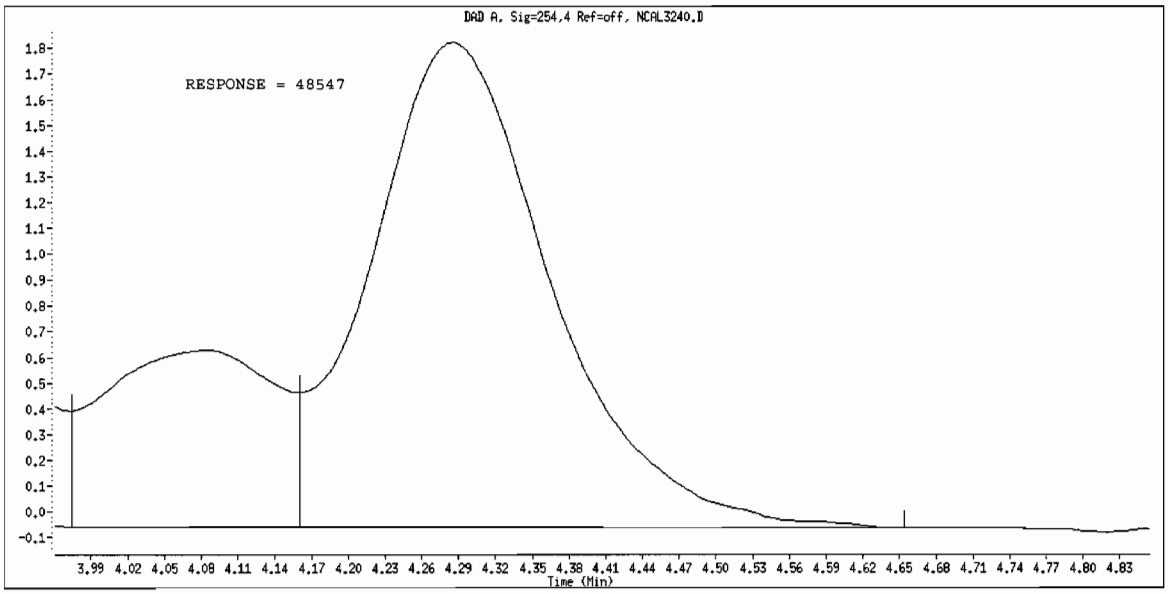

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NCAL3251.D
Report Date: 01-Mar-2010 14:14

TestAmerica St. Louis

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Lcn.i Injection Date: 01-MAR-2010 13:27
Lab File ID: NCAL3251.D Init. Cal. Date(s): 25-NOV-2009 25-NOV-2009
Analysis Type: WATER Init. Cal. Times: 10:16 11:26
Lab Sample ID: XNX CCAL Quant Type: ESTD
Method: \\slsvr01\HPLC\Lcn.i\N030110.b\C18XNX.m

COMPOUND	RRF / AMOUNT	RF125	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 TNX	647	700	0.010	-8.20779	20.00000	Averaged
2 DNX	630	697	0.010	-10.66062	20.00000	Averaged
3 MNX	493	546	0.010	-10.55248	20.00000	Averaged
$ 4 1,2-Dinitrobenzene	518	504	0.010	2.60683	20.00000	Averaged

Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NCAL3251.D
Report Date: 01-Mar-2010 14:14

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N030110.b\NCAL3251.D
Lab Smp Id: XNX CCAL Client Smp ID: XNX CCAL
Inj Date : 01-MAR-2010 13:27
Operator : AF Inst ID: Lcn.i
Smp Info : XNX CCAL
Misc Info :
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N030110.b\C18XNX.m
Meth Date : 01-Mar-2010 14:11 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.841	3.837	0.004	70440	100.606	108.9(M)
2 DNX	4.328	4.324	0.004	47996	68.8500	76.19(M)
3 MNX	5.254	5.239	0.015	49640	90.9875	100.6
$ 4 1,2-Dinitrobenzene	8.749	8.706	0.043	63030	125.000	121.7

QC Flag Legend

M - Compound response manually integrated.

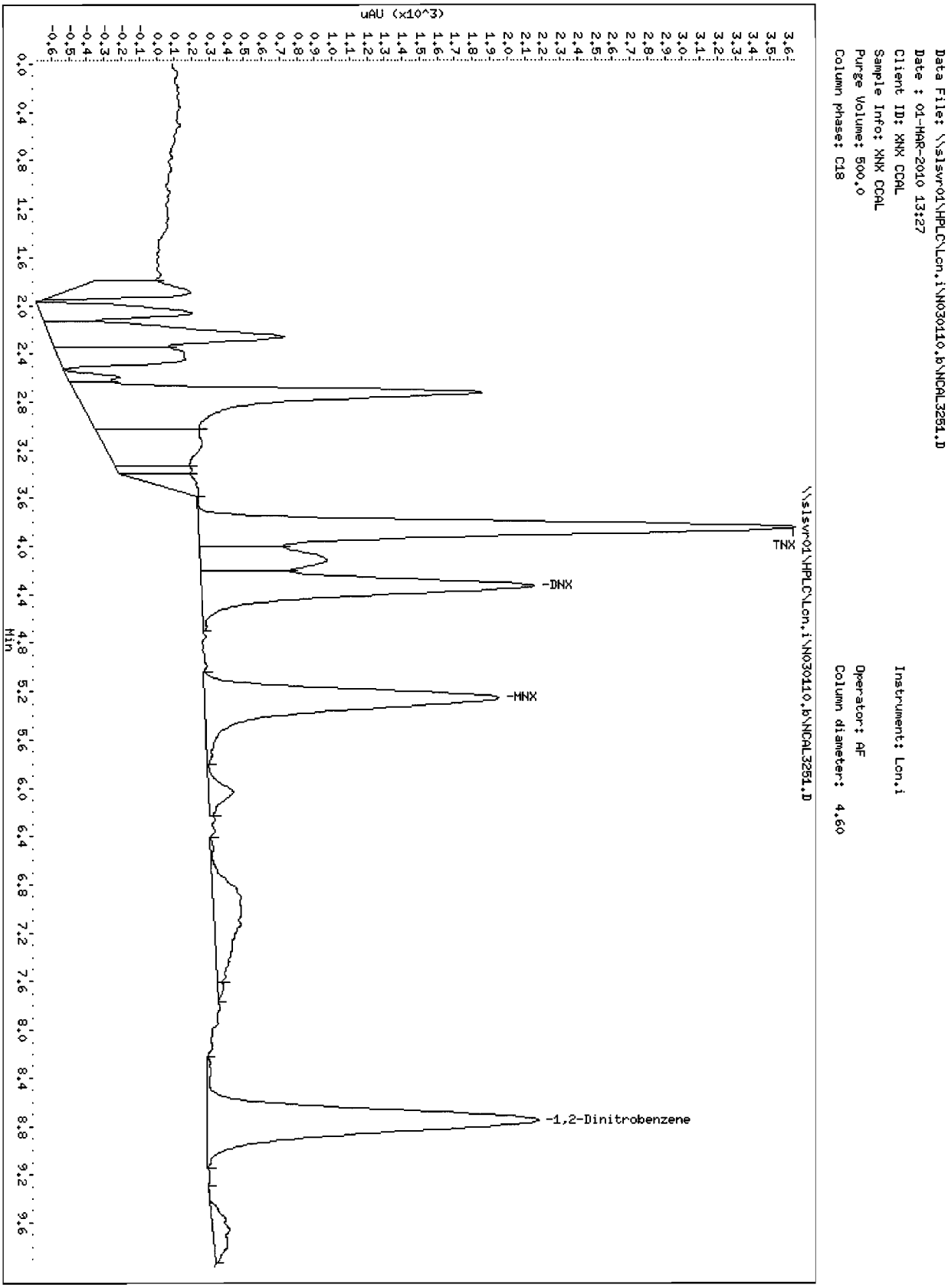
Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NCAL3251.D
Date : 01-MAR-2010 13:27
Client ID: XNX CCAL
Sample Info: XNX CCAL
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn.i
Operator: AF
Column diameter: 4.60
uAU (x10^3)
\\slsvr01\HPLC\Lcn.i\N030110.b\NCAL3251.D
TNX
-DNX
-MNX
-1,2-Dinitrobenzene
Min

Data File Name: NCAL3251.D
Inj. Date and Time: 01-MAR-2010 13:27
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: TNX
CAS #:

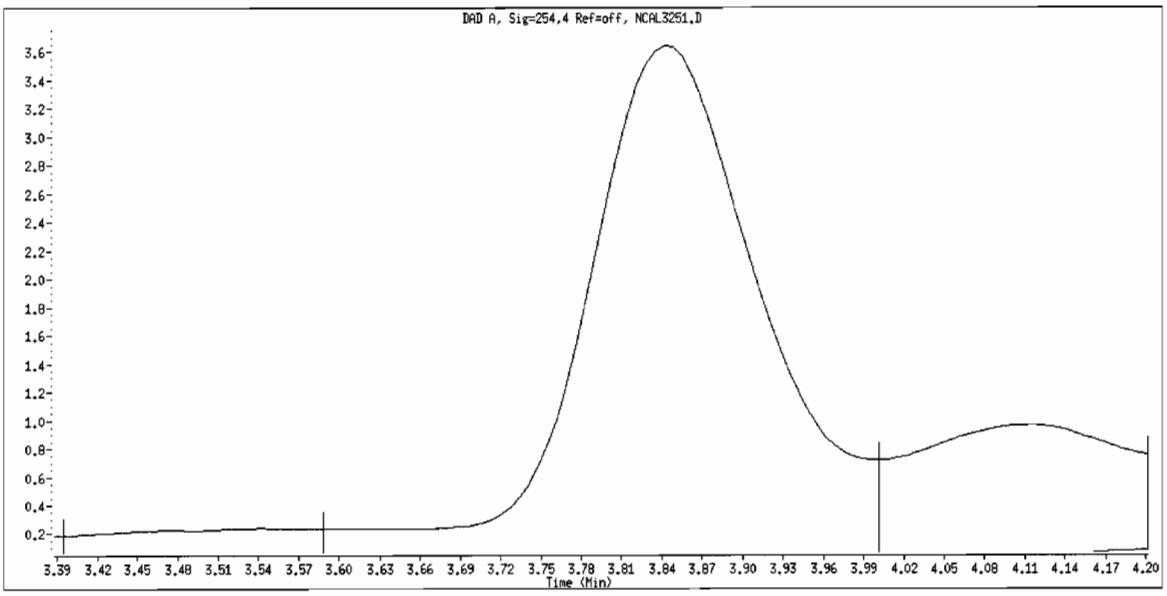

Original Integration

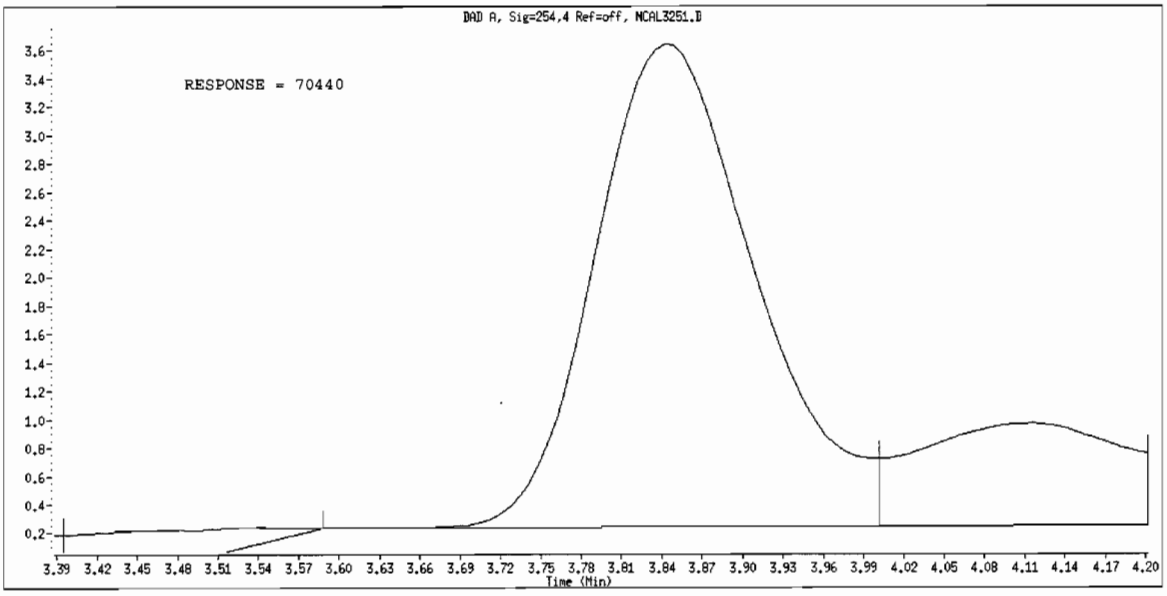

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NCAL3251.D
Inj. Date and Time: 01-MAR-2010 13:27
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: DNX
CAS #:

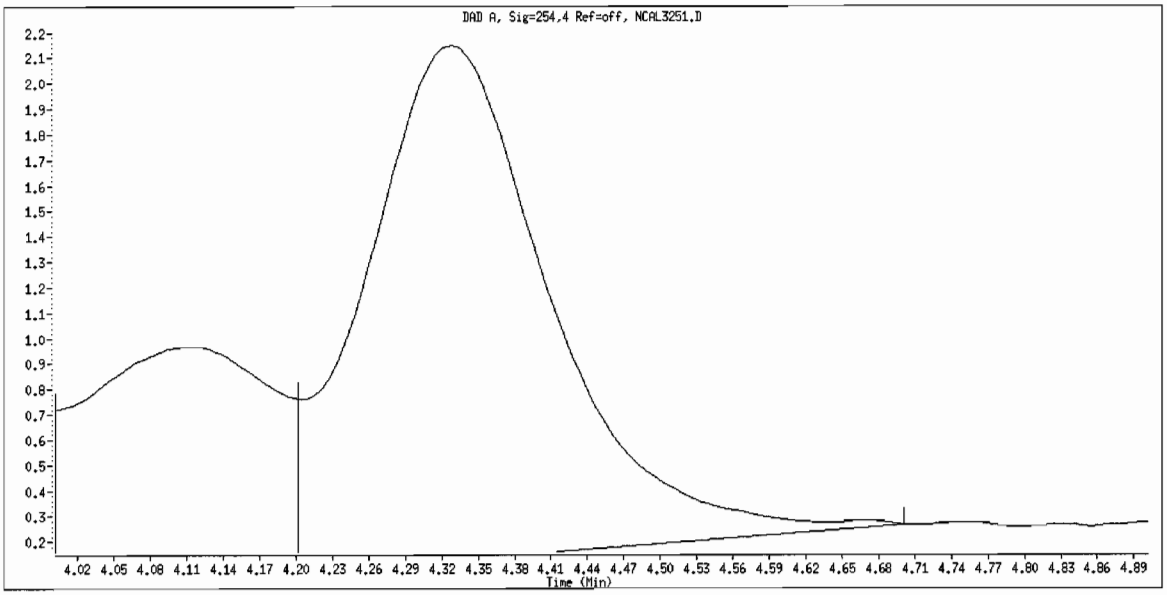

Original Integration

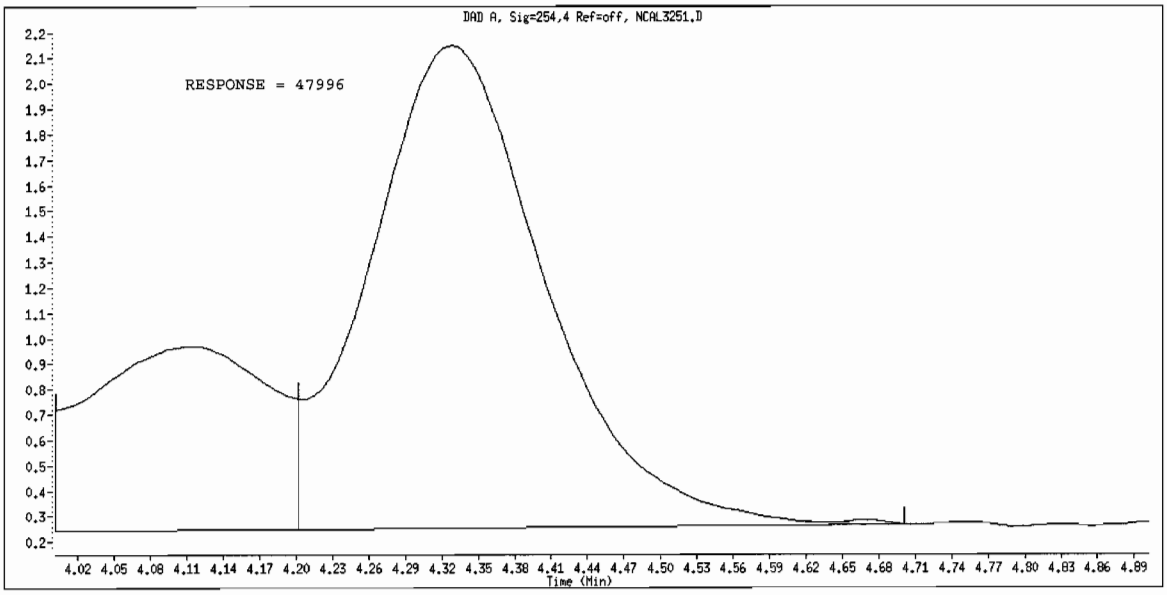

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NCAL3258.D
Report Date: 02-Mar-2010 08:00

TestAmerica St. Louis

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: Lcn.i Injection Date: 01-MAR-2010 15:06
Lab File ID: NCAL3258.D Init. Cal. Date(s): 25-NOV-2009 25-NOV-2009
Analysis Type: WATER Init. Cal. Times: 10:16 11:26
Lab Sample ID: XNX CCAL Quant Type: ESTD
Method: \\slsvr01\HPLC\Lcn.i\N030110.b\C18XNX.m

COMPOUND	RRF / AMOUNT	RF125	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
1 TNX	647	705	0.010	-8.91750	20.00000	Averaged
2 DNX	630	694	0.010	-10.08882	20.00000	Averaged
3 MNX	493	531	0.010	-7.51474	20.00000	Averaged
$ 4 1,2-Dinitrobenzene	518	509	0.010	1.62872	20.00000	Averaged

Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NCAL3258.D
Report Date: 02-Mar-2010 08:00

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N030110.b\NCAL3258.D
Lab Smp Id: XNX CCAL Client Smp ID: XNX CCAL
Inj Date : 01-MAR-2010 15:06
Operator : AF Inst ID: Lcn.i
Smp Info : XNX CCAL
Misc Info :
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N030110.b\C18XNX.m
Meth Date : 02-Mar-2010 08:00 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
1 TNX	3.837	3.837	0.000	70902	100.606	109.6(M)
2 DNX	4.323	4.324	-0.001	47748	68.8500	75.80
3 MNX	5.244	5.239	0.005	48276	90.9875	97.82(M)
$ 4 1,2-Dinitrobenzene	8.741	8.706	0.035	63663	125.000	123.0

QC Flag Legend

M - Compound response manually integrated.

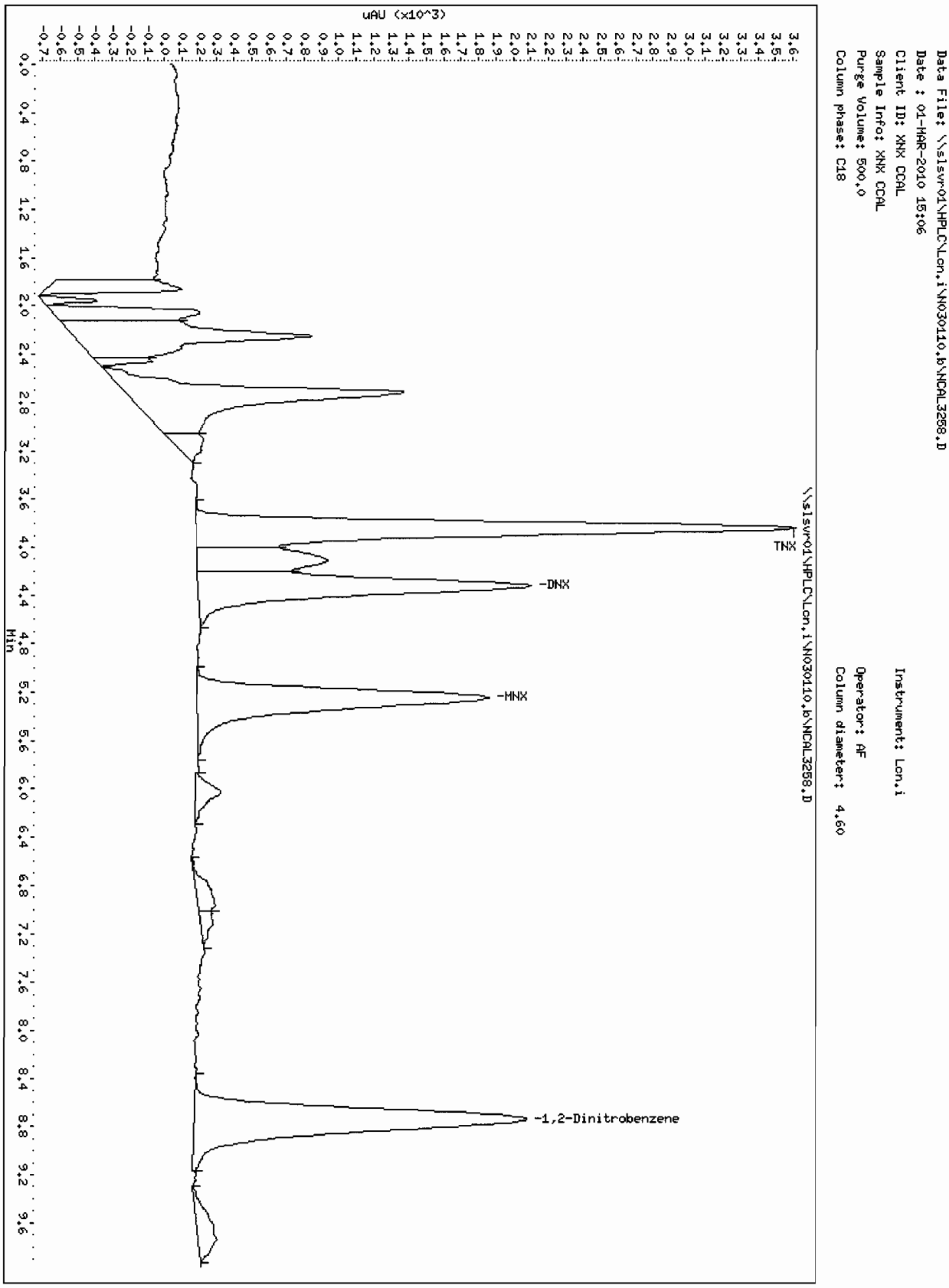
Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NCAL3258.D
Date : 01-MAR-2010 15:06
Client ID: XNX CCAL
Sample Info: XNX CCAL
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn.i
Operator: AF
Column diameter: 4.60
uAU (x10^3)
\\slsvr01\HPLC\Lcn.i\N030110.b\NCAL3258.D
TNX
-DNX
-HNX
-1,2-Dinitrobenzene
Min

Data File Name: NCAL3258.D
Inj. Date and Time: 01-MAR-2010 15:06
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: TNX
CAS #:

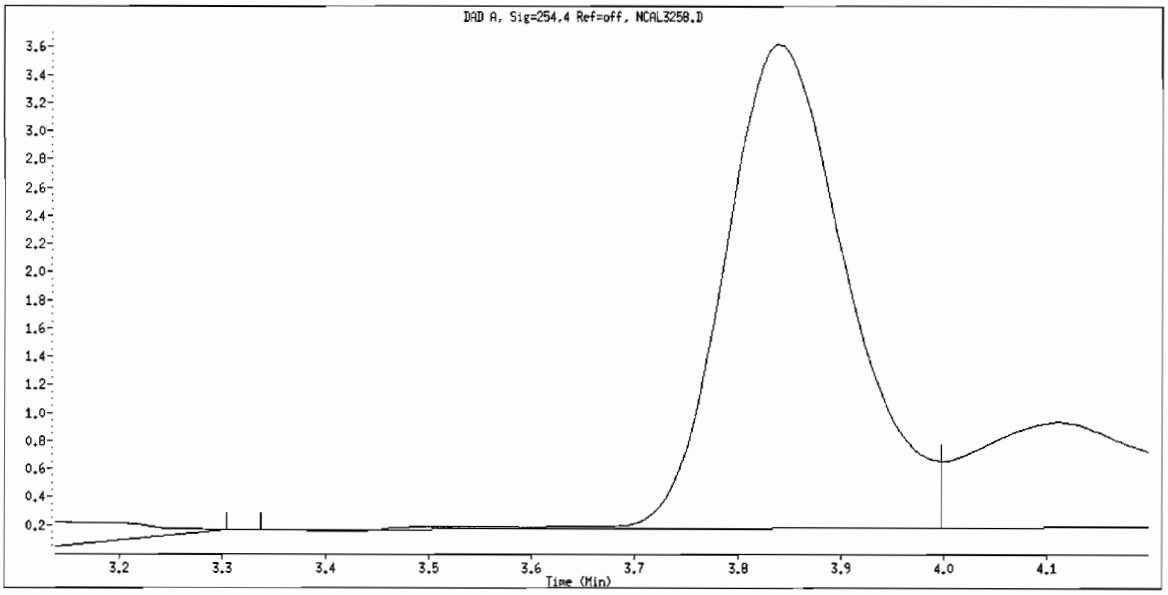

Original Integration

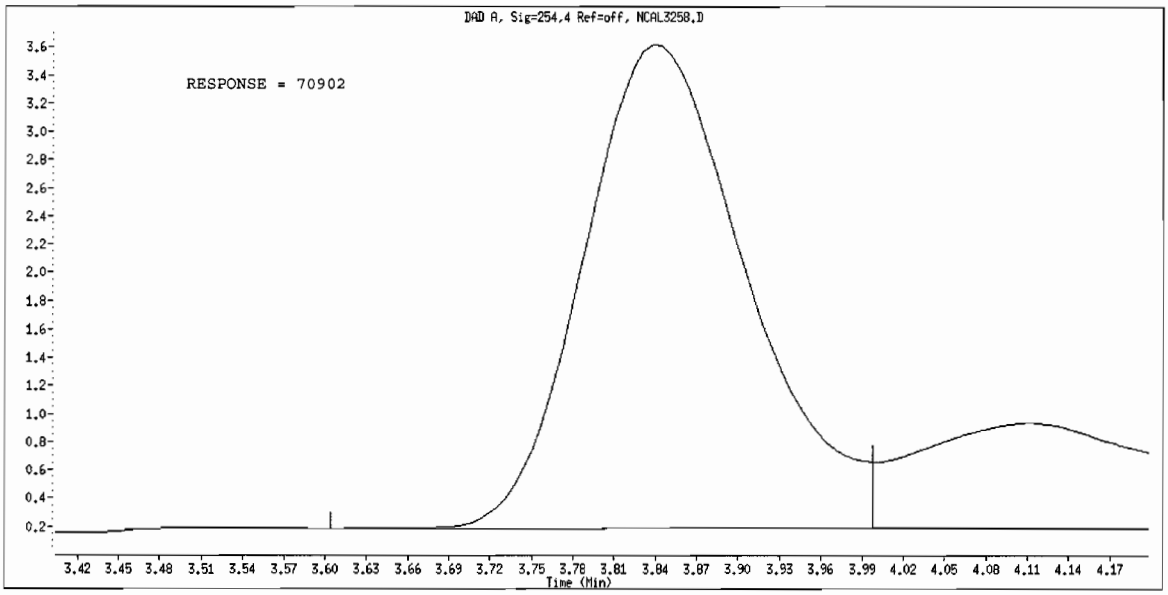

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NCAL3258.D
Inj. Date and Time: 01-MAR-2010 15:06
Instrument ID: Lcn.i
Client ID: XNX CCAL
Compound Name: MNX
CAS #:

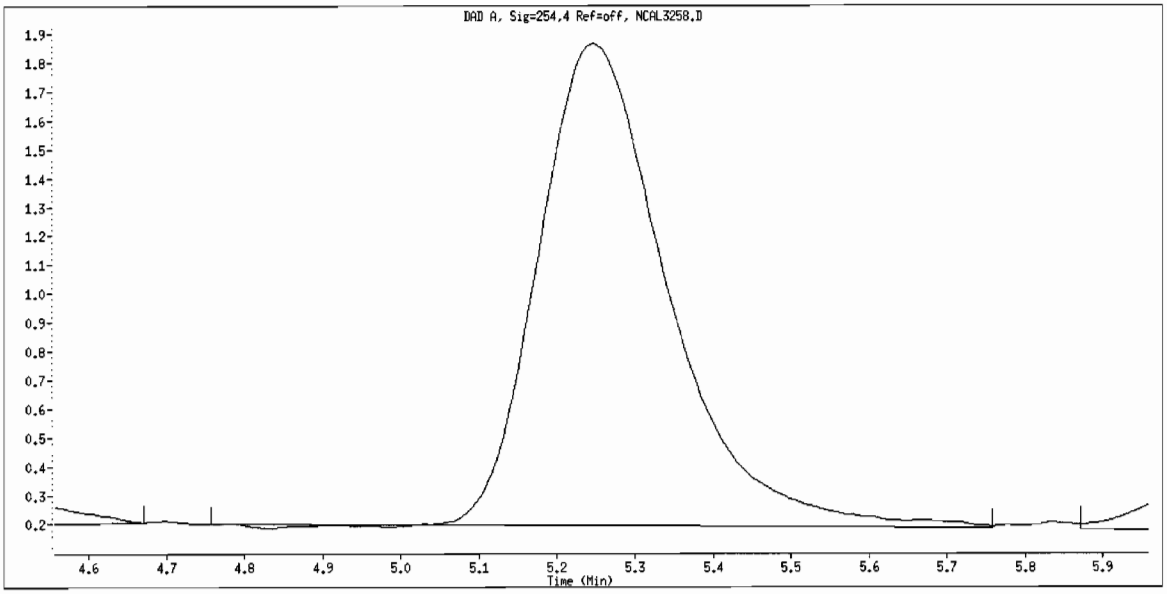

Original Integration

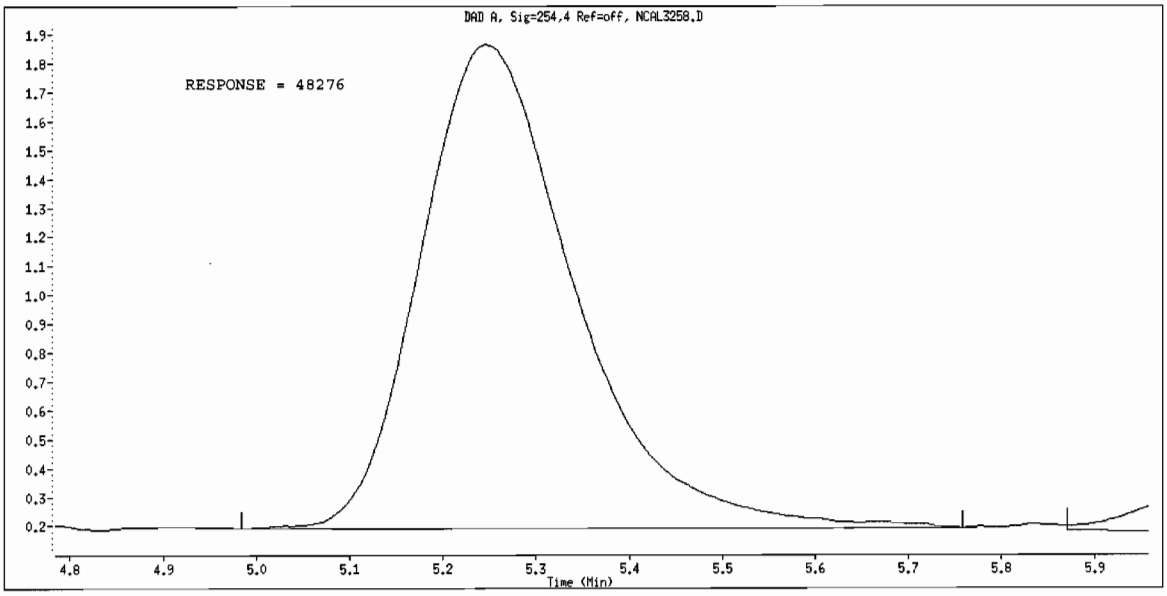

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

HPLC RAW SAMPLE DATA

Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NSMP3250.D
Report Date: 02-Mar-2010 08:01

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N030110.b\NSMP3250.D
Lab Smp Id: LV37Q1AC Client Smp ID: CAPA-10-12917
Inj Date : 01-MAR-2010 13:13
Operator : AF Inst ID: Lcn.i
Smp Info : LV37Q1AC
Misc Info : F0B250556-001
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N030110.b\C18XNX.m
Meth Date : 02-Mar-2010 08:00 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	509.500	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
$ 4 1,2-Dinitrobenzene	8.752	8.706	0.046	191895	370.642	3.637(M)

QC Flag Legend

M - Compound response manually integrated.

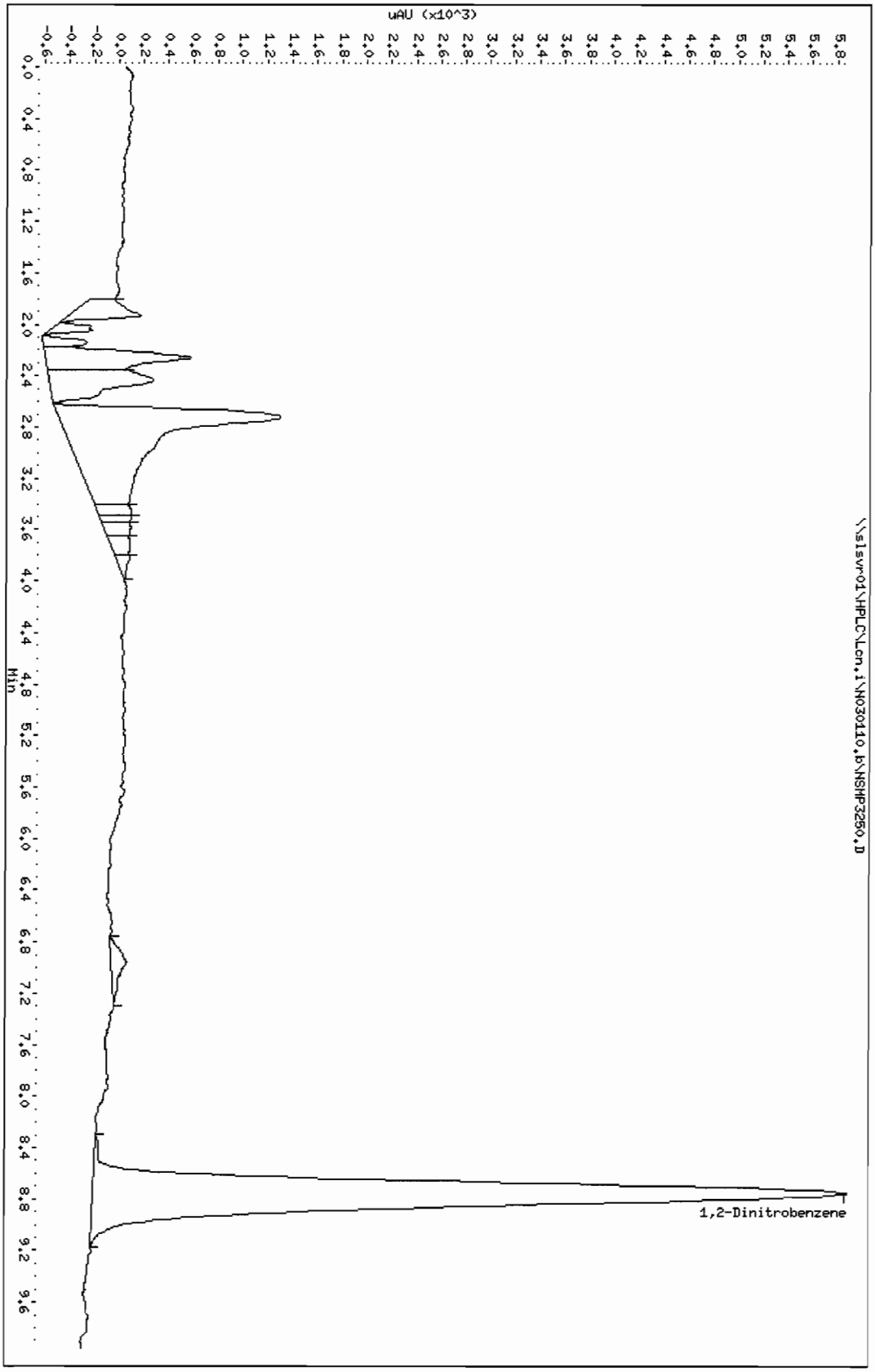
Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NSMP3250.D
Date : 01-MAR-2010 13:13
Client ID: CAPA-10-12917
Sample Info: LV37Q1AC
Purge Volume: 509.5
Column phase: C18
Instrument: Lcn.i
Operator: AF
Column diameter: 4.60
\\slsvr01\HPLC\Lcn.i\N030110.b\NSMP3250.D
uAU (x10^3)
Min
1,2-Dinitrobenzene

Data File Name: NSMP3250.D
Inj. Date and Time: 01-MAR-2010 13:13
Instrument ID: Lcn.i
Client ID: CAPA-10-12917
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

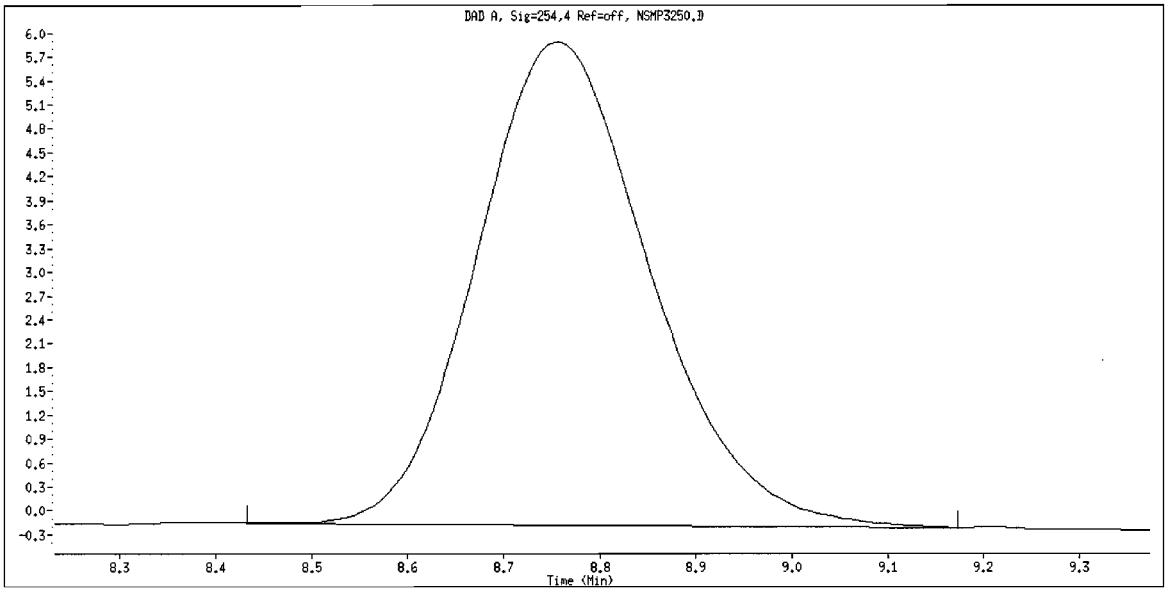

Original Integration

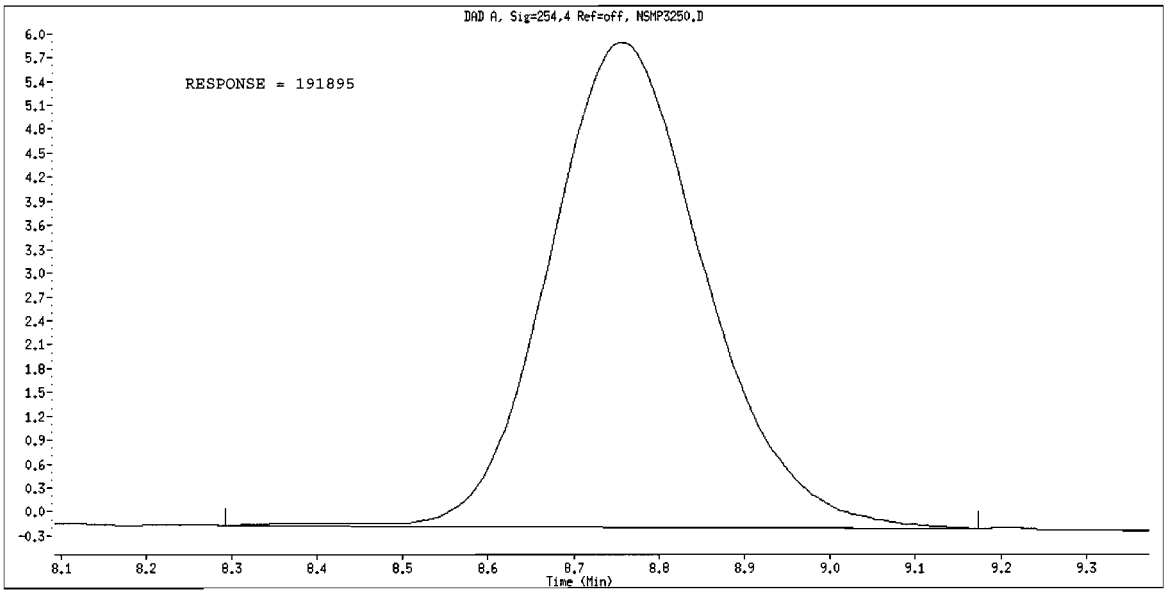

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

HPLC RAW QC DATA

Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NBLK3248.D
Report Date: 02-Mar-2010 08:00

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N030110.b\NBLK3248.D
Lab Smp Id: LV45V1AA Client Smp ID: LAB BLANK
Inj Date : 01-MAR-2010 12:45
Operator : AF Inst ID: Lcn.i
Smp Info : LV45V1AA
Misc Info : F0B260000-178B
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N030110.b\C18XNX.m
Meth Date : 02-Mar-2010 07:52 flakera Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
$ 4 1,2-Dinitrobenzene	8.743	8.706	0.037	179224	346.168	3.462(M)

QC Flag Legend

M - Compound response manually integrated.

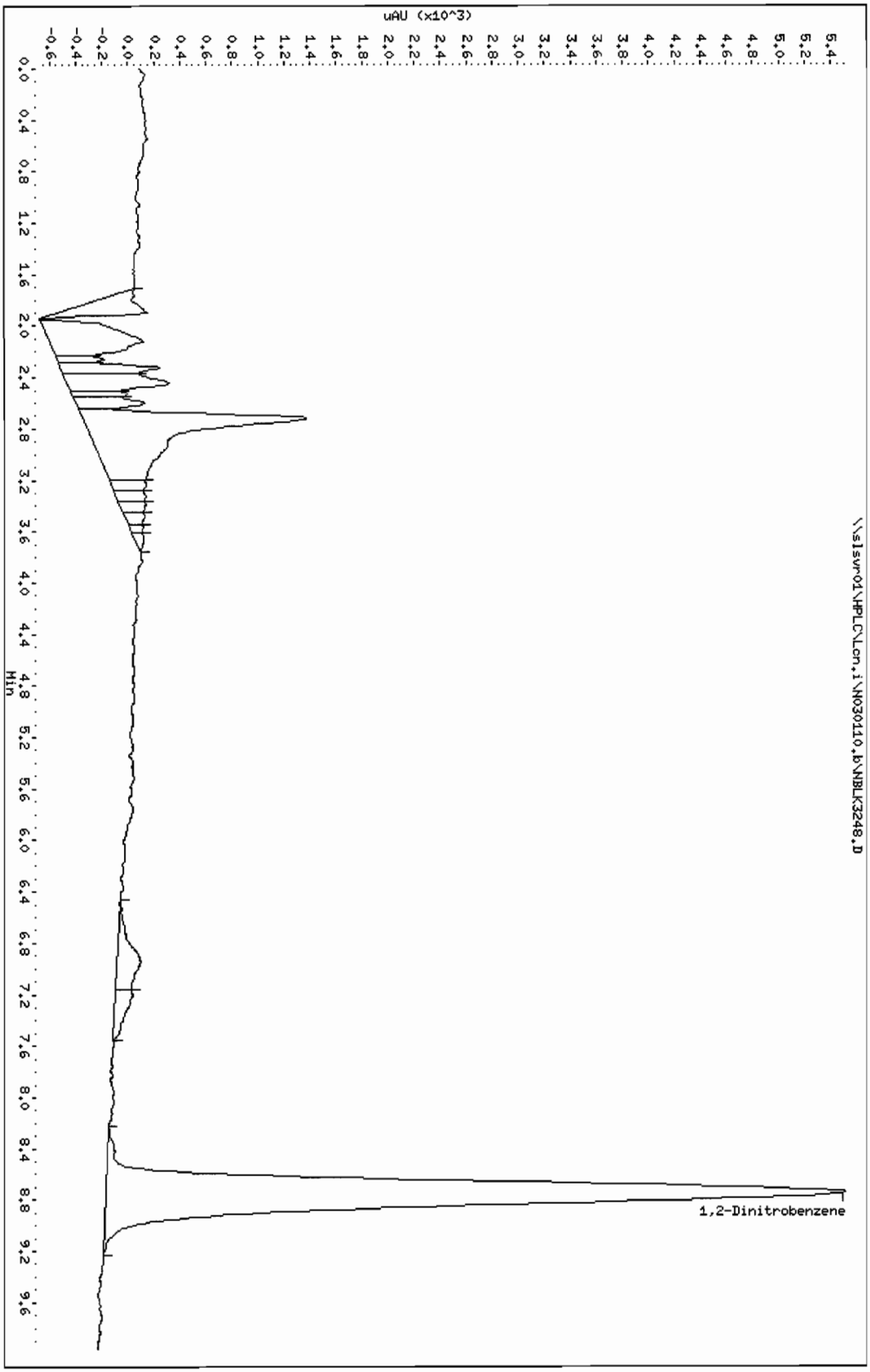
Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NBLK3248.D
Date : 01-MAR-2010 12:45
Client ID: LAB BLANK
Sample Info: LV4BV1AA
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn.i
Operator: AF
Column diameter: 4.60
\\slsvr01\HPLC\Lcn.i\N030110.b\NBLK3248.D
uAU (x10^3)
Min
1,2-Dinitrobenzene

Data File Name: NBLK3248.D
Inj. Date and Time: 01-MAR-2010 12:45
Instrument ID: Lcn.i
Client ID: LAB BLANK
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

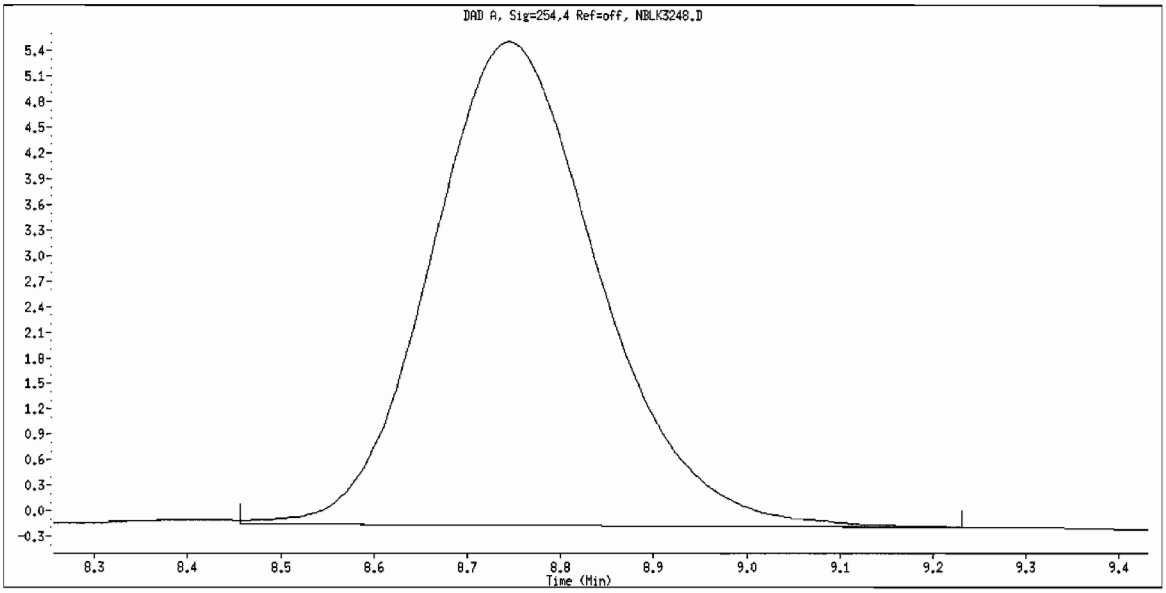

Original Integration

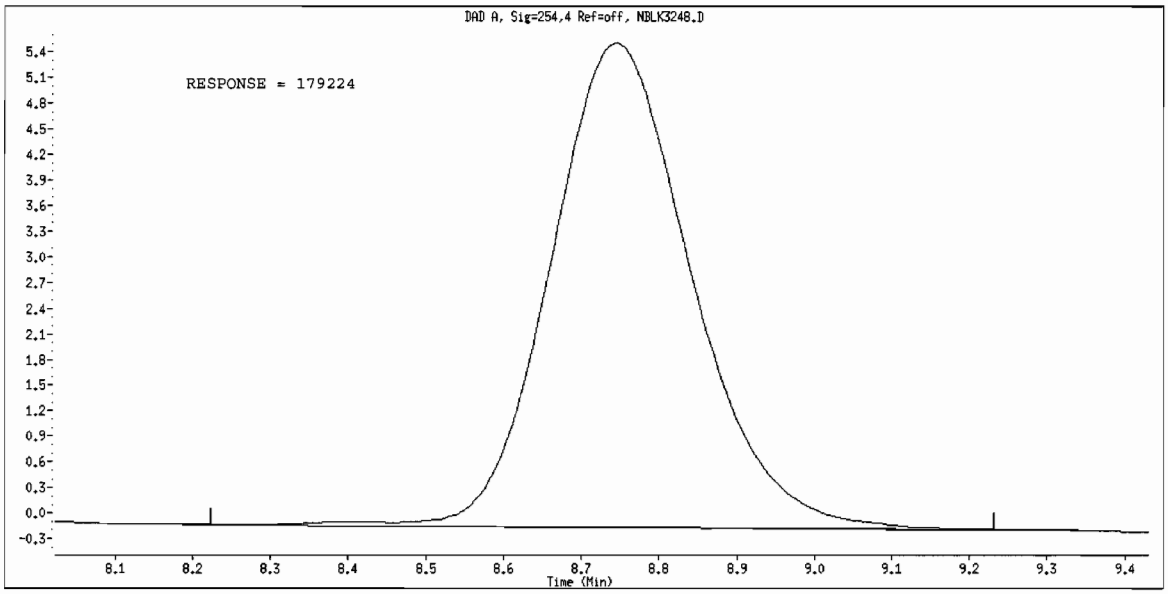

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NLCS3249.D
Report Date: 02-Mar-2010 08:01

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N030110.b\NLCS3249.D
Lab Smp Id: LV45V1AC Client Smp ID: LAB CHECK
Inj Date : 01-MAR-2010 12:59
Operator : AF Inst ID: Lcn.i
Smp Info : LV45V1AC
Misc Info : F0B260000-178C
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N030110.b\C18XNX.m
Meth Date : 02-Mar-2010 08:00 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	500.000	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 TNX	3.850	3.837	0.013	47864	73.9730	0.7397(M)
2 DNX	4.337	4.324	0.013	33555	53.2659	0.5326(M)
3 MNX	5.263	5.239	0.024	42529	86.1794	0.8618(M)
$ 4 1,2-Dinitrobenzene	8.757	8.706	0.051	199652	385.625	3.856(M)

QC Flag Legend

M - Compound response manually integrated.

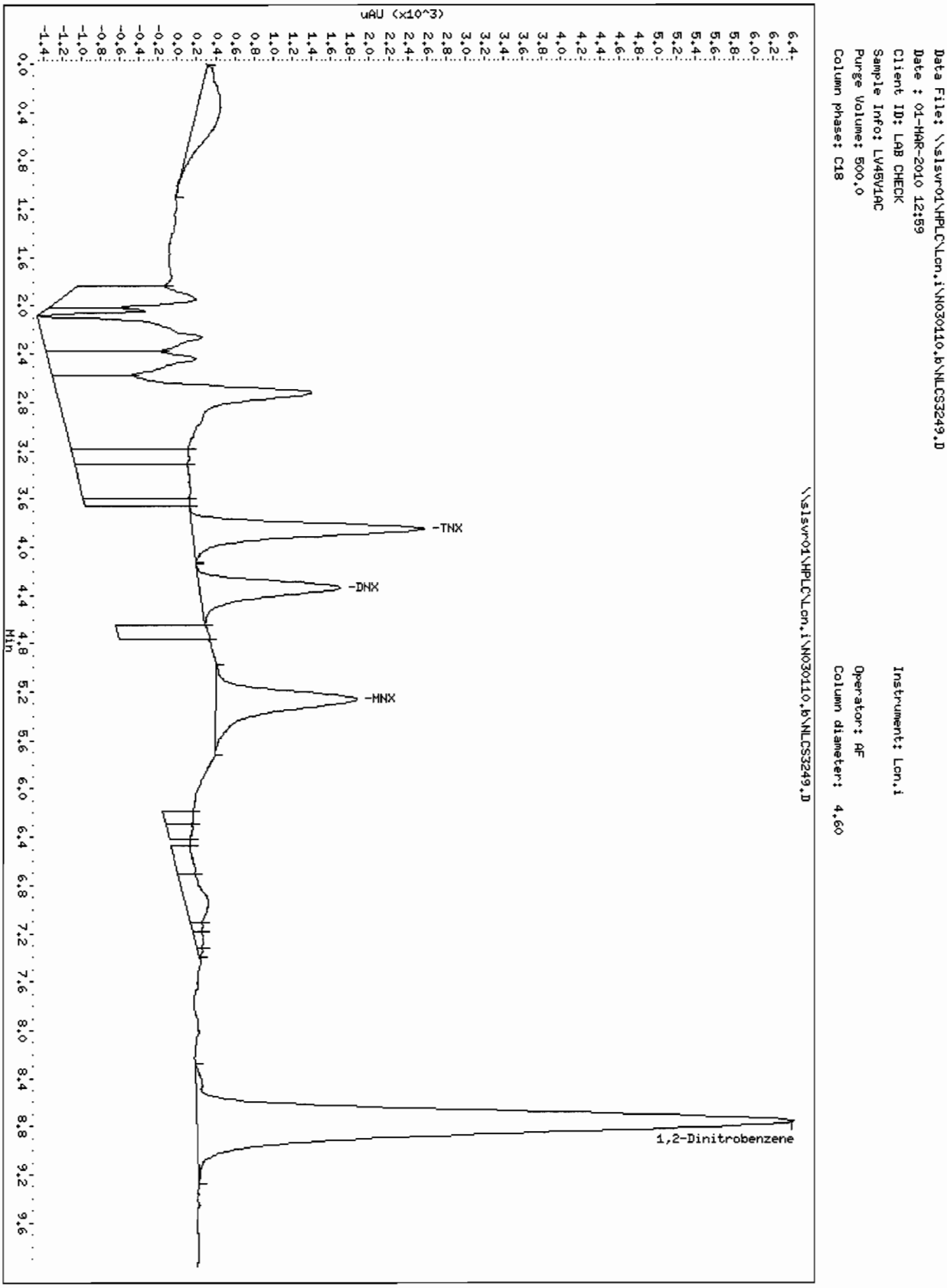
Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NLCS3249.D
Date : 01-MAR-2010 12:59
Client ID: LAB CHECK
Sample Info: LV45V1AC
Purge Volume: 500.0
Column phase: C18
Instrument: Lcn.i
Operator: AF
Column diameter: 4.60
\\slsvr01\HPLC\Lcn.i\N030110.b\NLCS3249.D
uAU (x10^3)
-TNX
-DNX
-MNX
1,2-Dinitrobenzene
Min

Data File Name: NLCS3249.D
Inj. Date and Time: 01-MAR-2010 12:59
Instrument ID: Lcn.i
Client ID: LAB CHECK
Compound Name: TNX
CAS #:

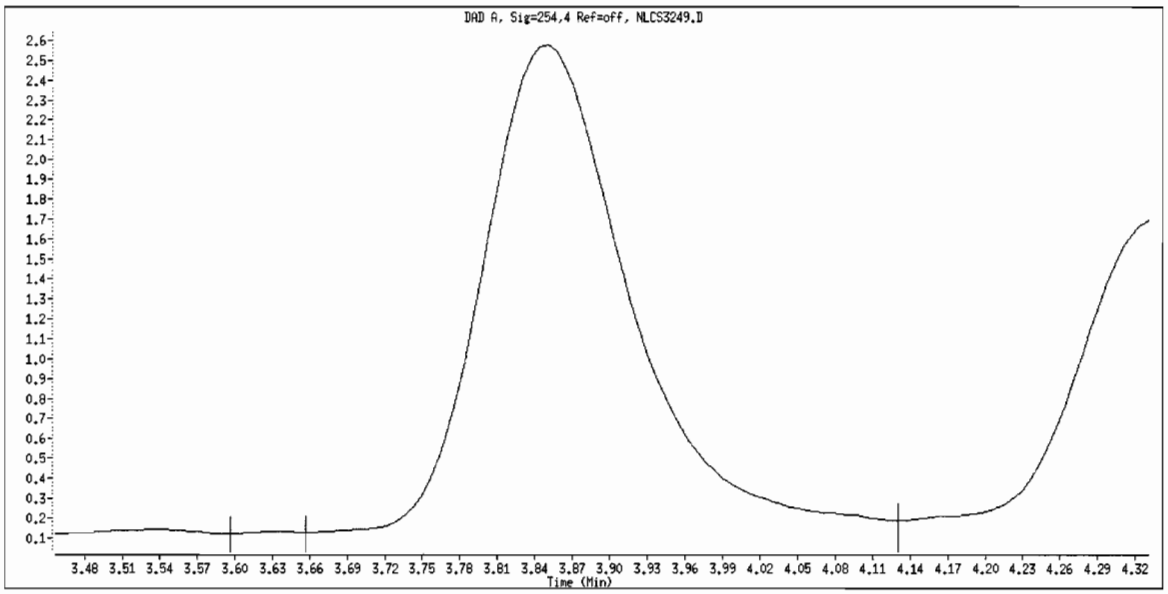

Original Integration

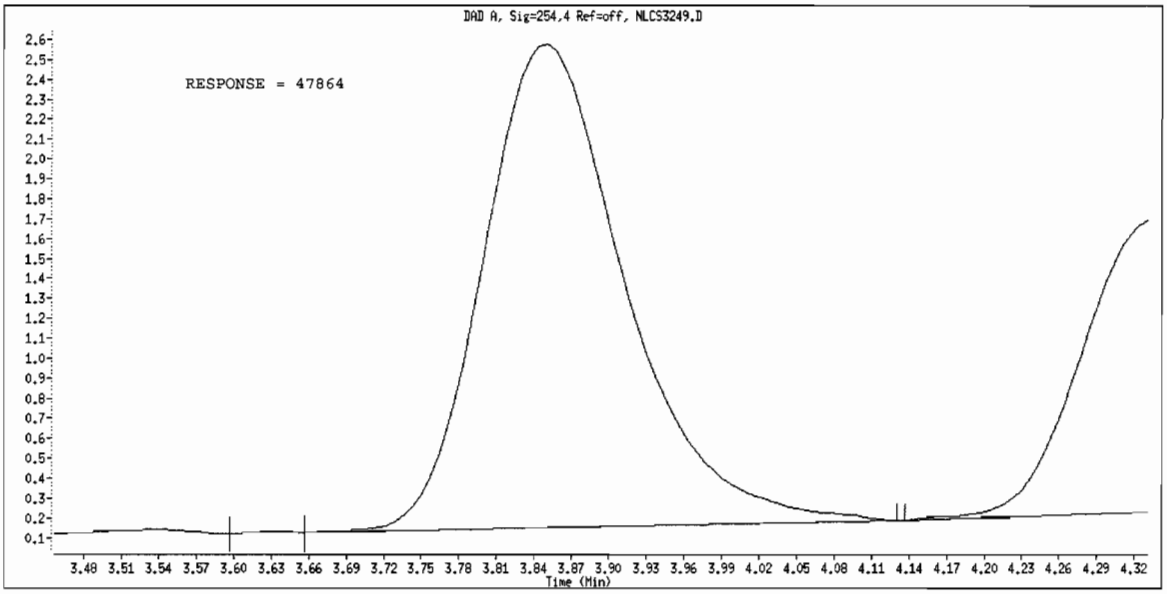

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NLCS3249.D
Inj. Date and Time: 01-MAR-2010 12:59
Instrument ID: Lcn.i
Client ID: LAB CHECK
Compound Name: DNX
CAS #:

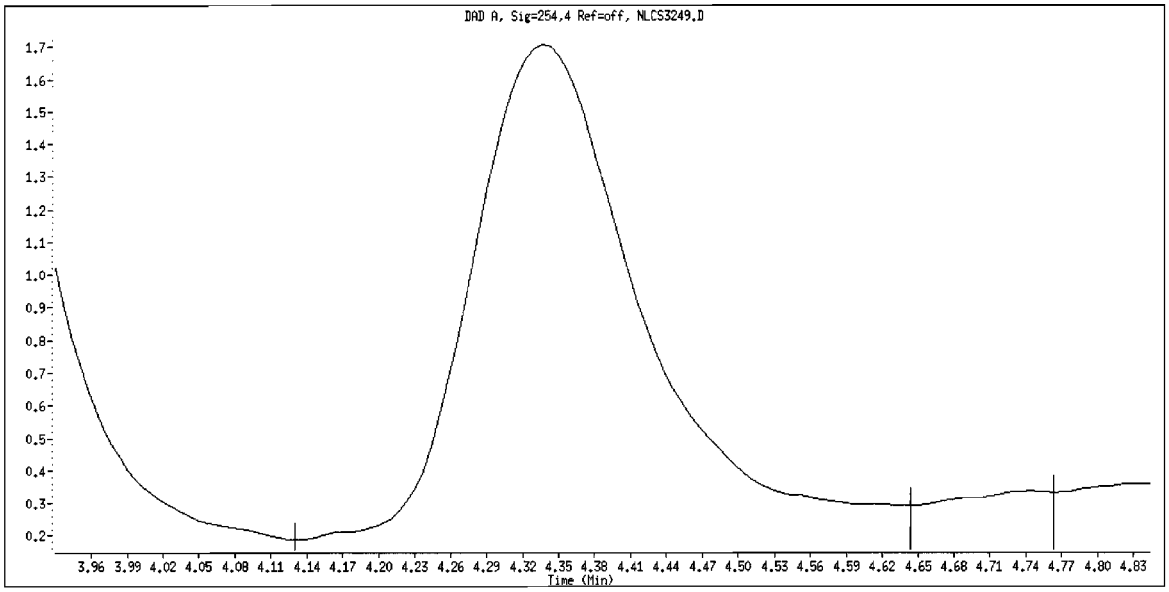

Original Integration

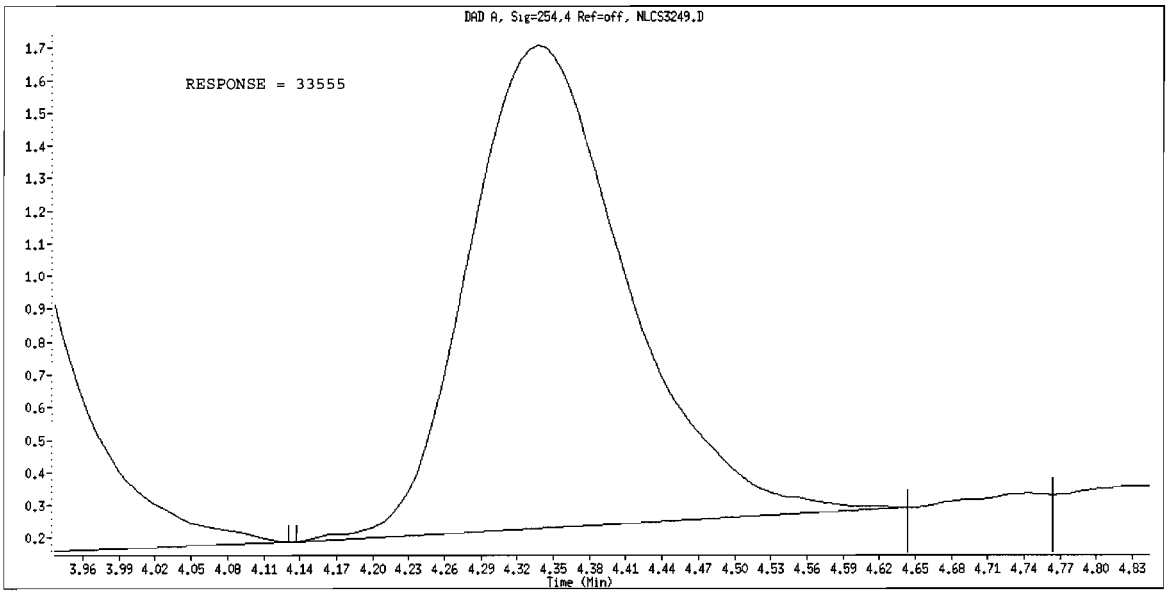

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NLCS3249.D
Inj. Date and Time: 01-MAR-2010 12:59
Instrument ID: Lcn.i
Client ID: LAB CHECK
Compound Name: MNX
CAS #:

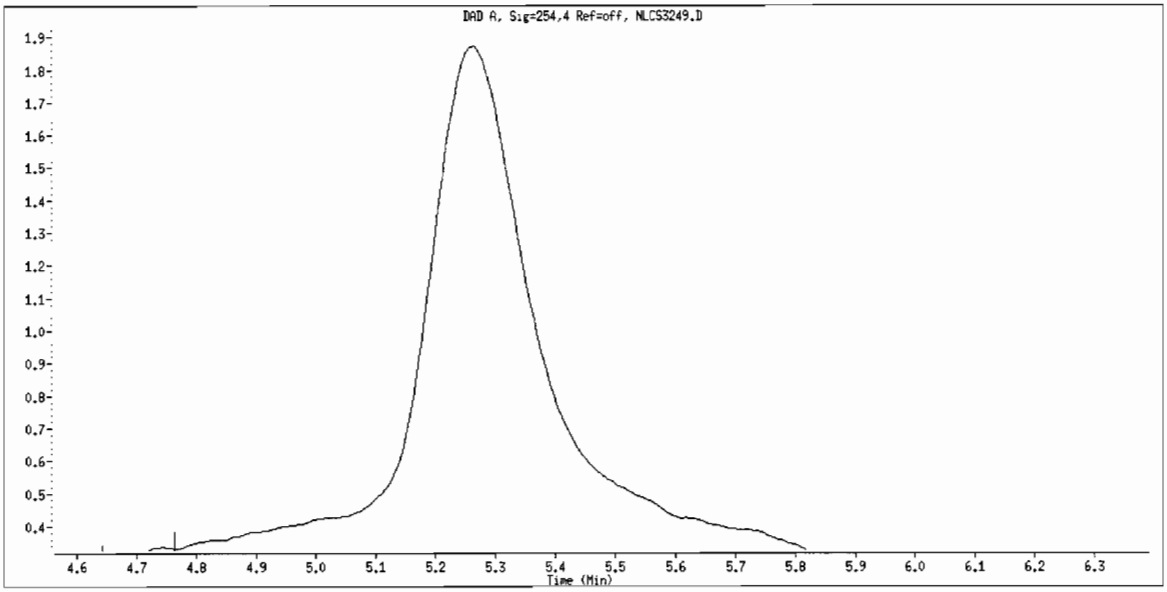

Original Integration

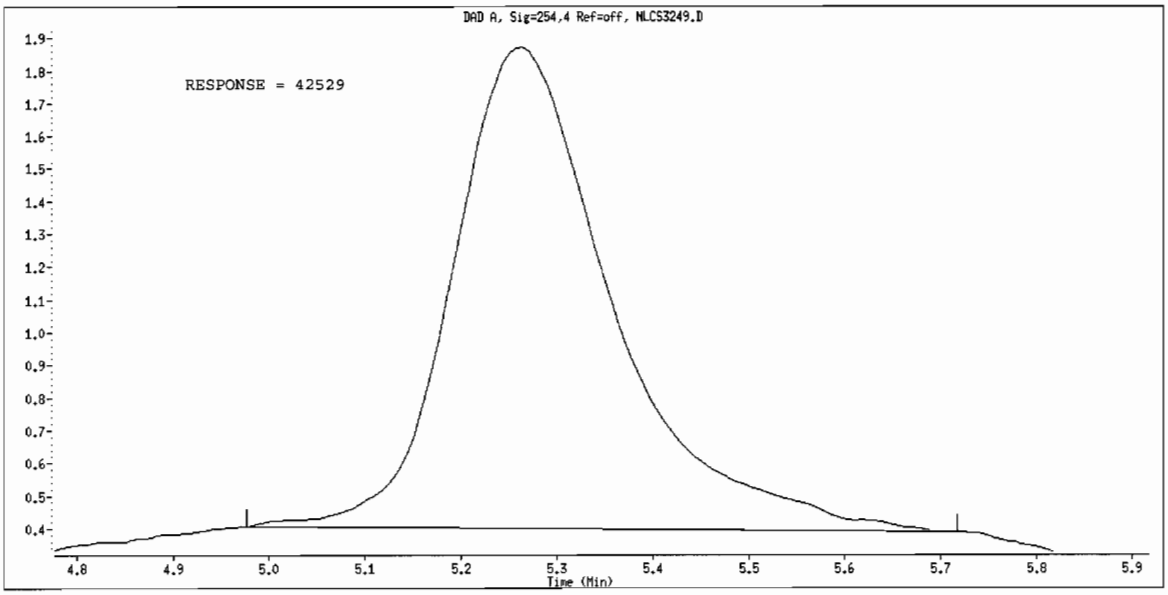

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NLCS3249.D
Inj. Date and Time: 01-MAR-2010 12:59
Instrument ID: Lcn.i
Client ID: LAB CHECK
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

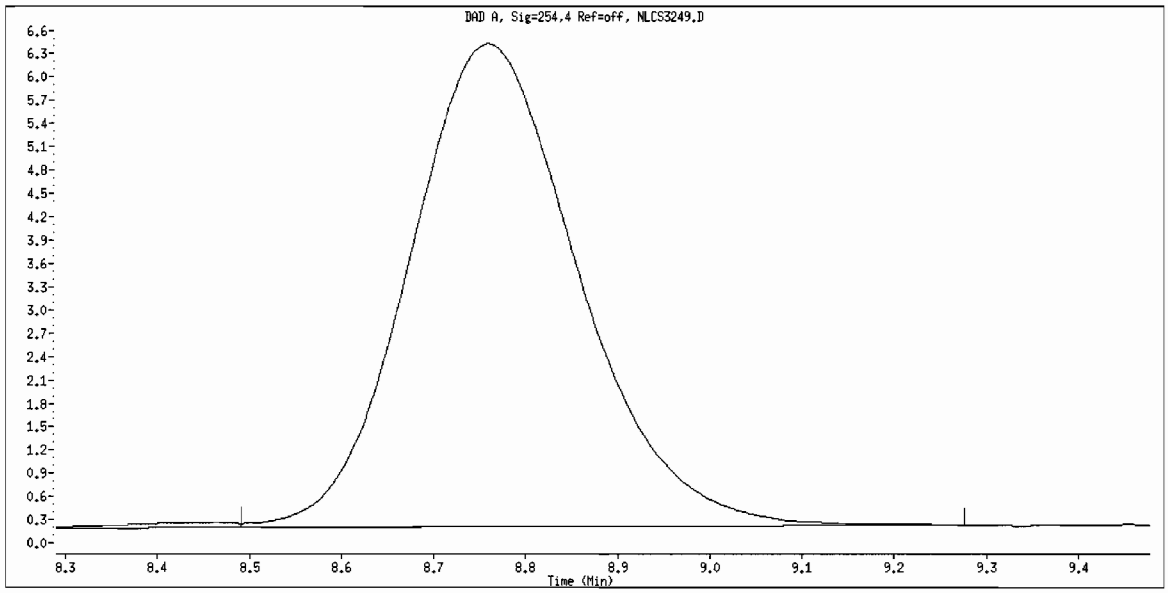

Original Integration

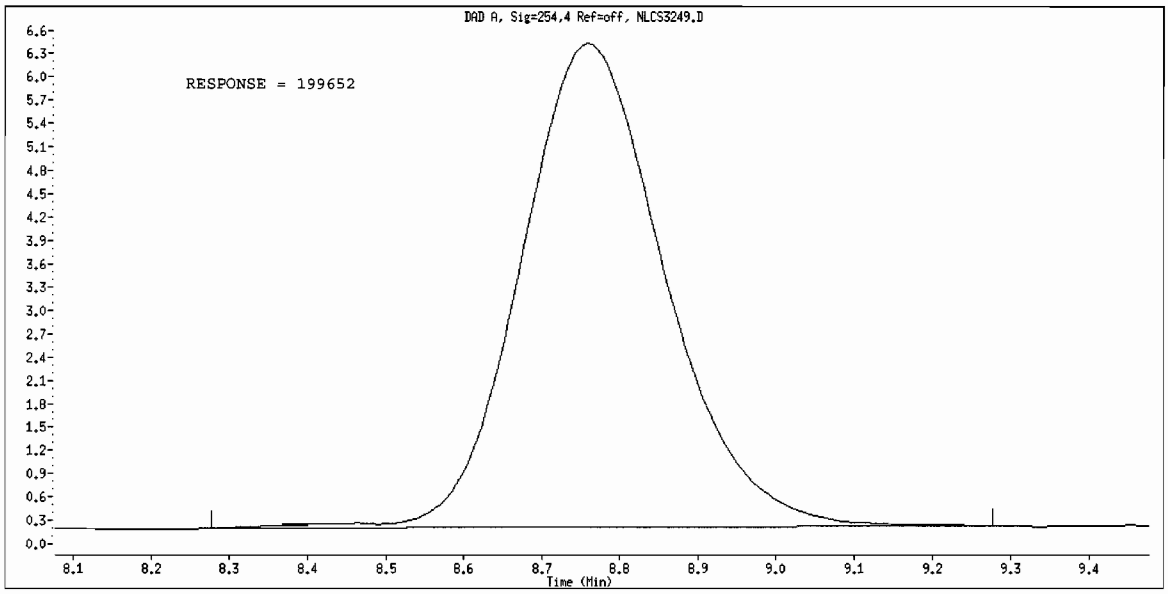

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NSMP3252.D
Report Date: 02-Mar-2010 08:01

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N030110.b\NSMP3252.D
Lab Smp Id: LV37Q1AD Client Smp ID: CAPA-10-12917S
Inj Date : 01-MAR-2010 13:41
Operator : AF Inst ID: Lcn.i
Smp Info : LV37Q1AD
Misc Info : F0B250556-001S
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N030110.b\C18XNX.m
Meth Date : 02-Mar-2010 08:00 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	510.100	Volume extracted
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
	1 TNX	3.850	3.837	0.013	45663	70.5714	0.6917(M)
	2 DNX	4.344	4.324	0.020	42787	67.9210	0.6658(M)
	3 MNX	5.257	5.239	0.018	44129	89.4216	0.8765(M)
$	4 1,2-Dinitrobenzene	8.764	8.706	0.058	177213	342.284	3.355(M)

QC Flag Legend

M - Compound response manually integrated.

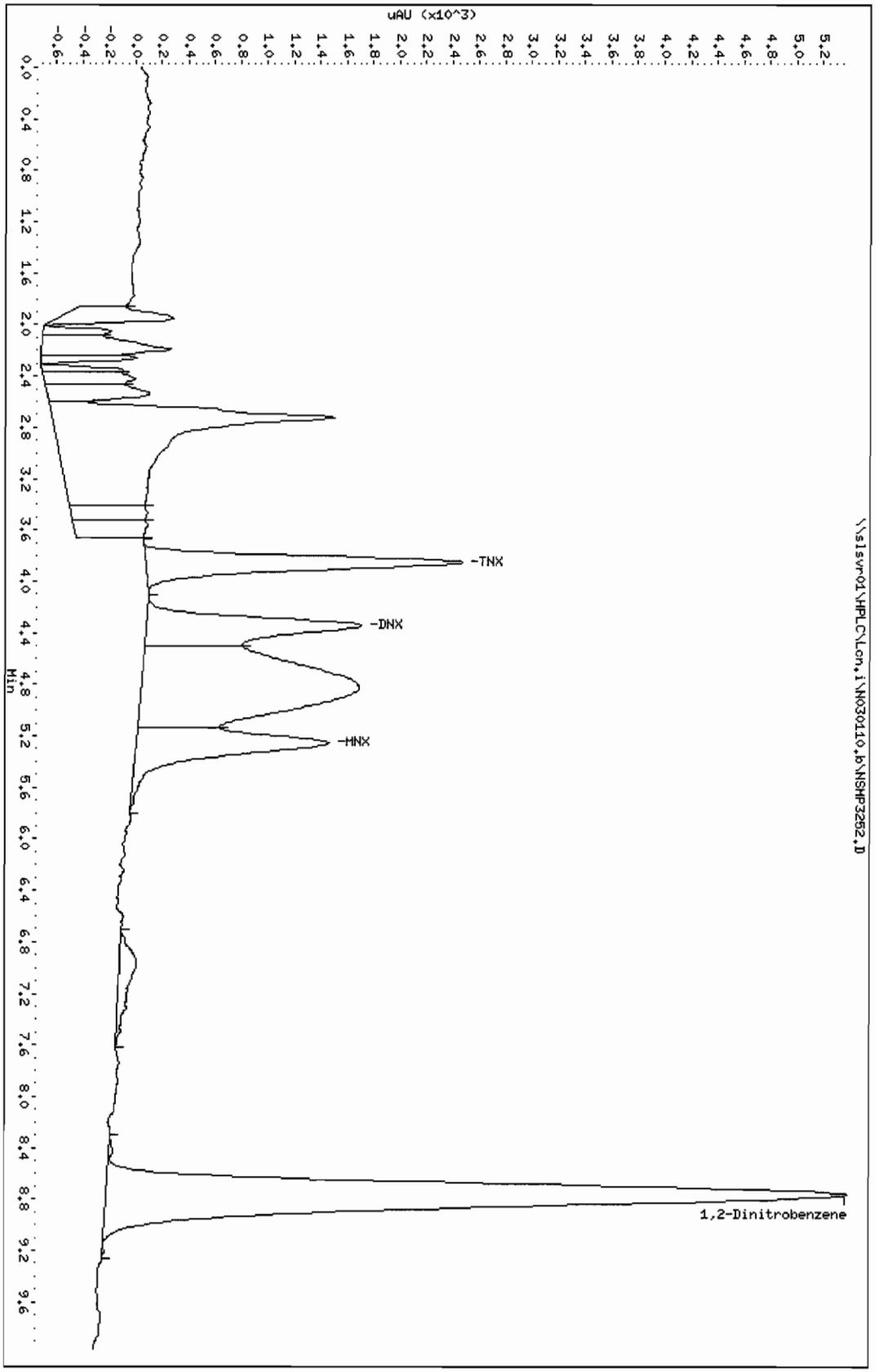
Data File: \\slsvr01\HPLC\Lcn,i\N030110,b\NSHP3262.D
Date : 01-MAR-2010 13:41
Client ID: CAPA-10-12917S
Sample Info: LV37Q1AD
Purge Volume: 510.1
Column phase: C18
Instrument: Lcn,i
Operator: AF
Column diameter: 4.60
\\slsvr01\HPLC\Lcn,i\N030110,b\NSHP3262.D
uAU (x10^3)
-TNX
-DNX
-HNX
1,2-Dinitrobenzene
Min

Data File Name: NSMP3252.D
Inj. Date and Time: 01-MAR-2010 13:41
Instrument ID: Lcn.i
Client ID: CAPA-10-12917S
Compound Name: TNX
CAS #:

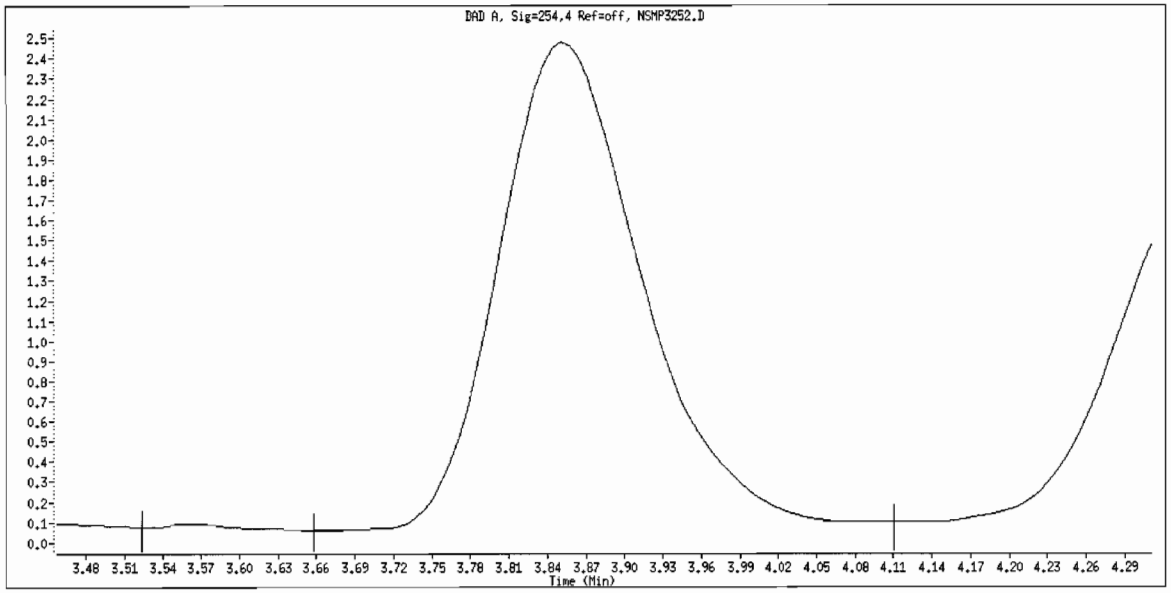

Original Integration

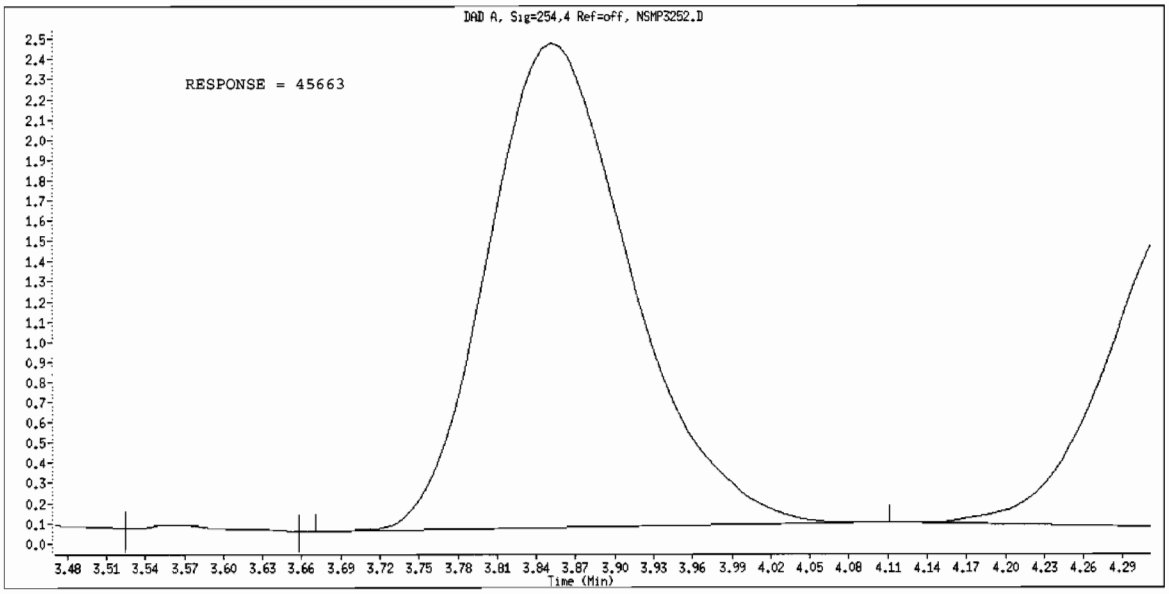

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NSMP3252.D
Inj. Date and Time: 01-MAR-2010 13:41
Instrument ID: Lcn.i
Client ID: CAPA-10-12917S
Compound Name: DNX
CAS #:

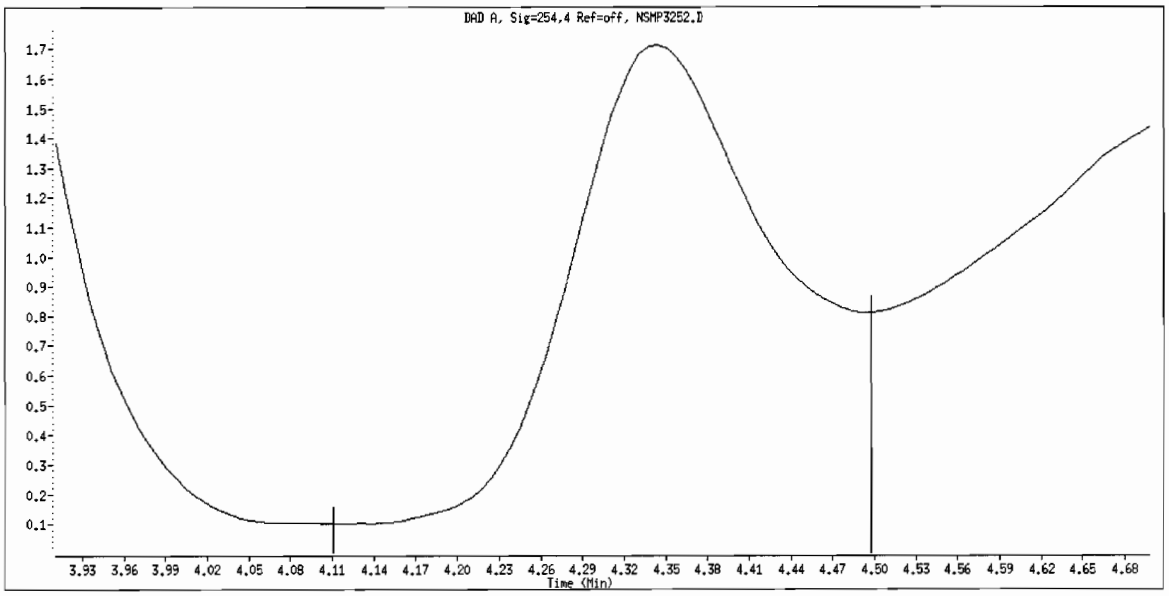

Original Integration

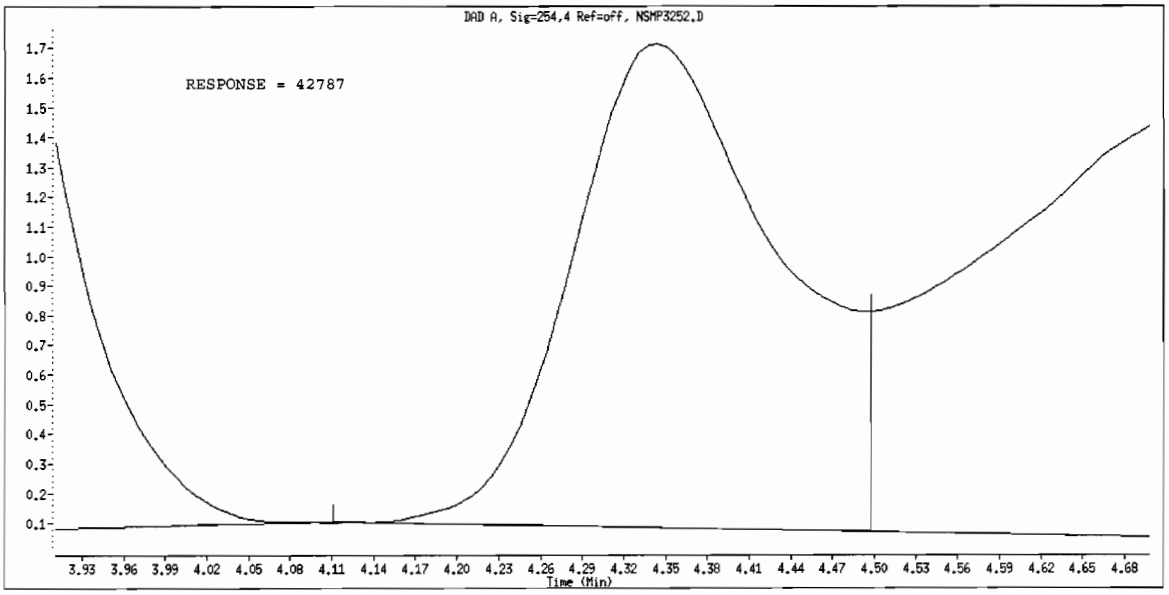

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NSMP3252.D
Inj. Date and Time: 01-MAR-2010 13:41
Instrument ID: Lcn.i
Client ID: CAPA-10-12917S
Compound Name: MNX
CAS #:

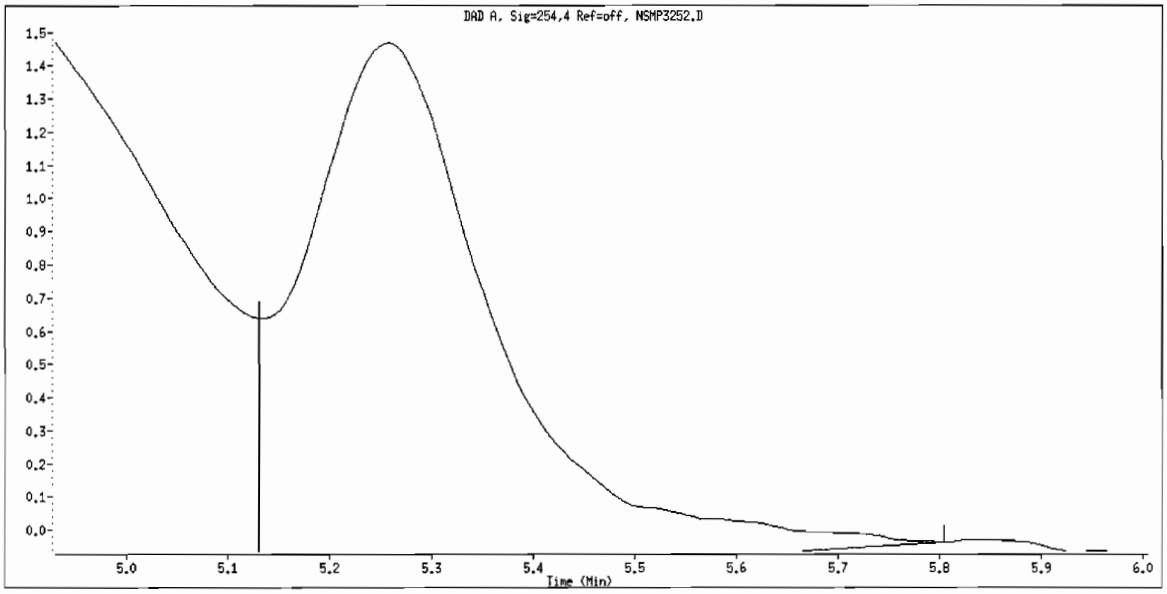

Original Integration

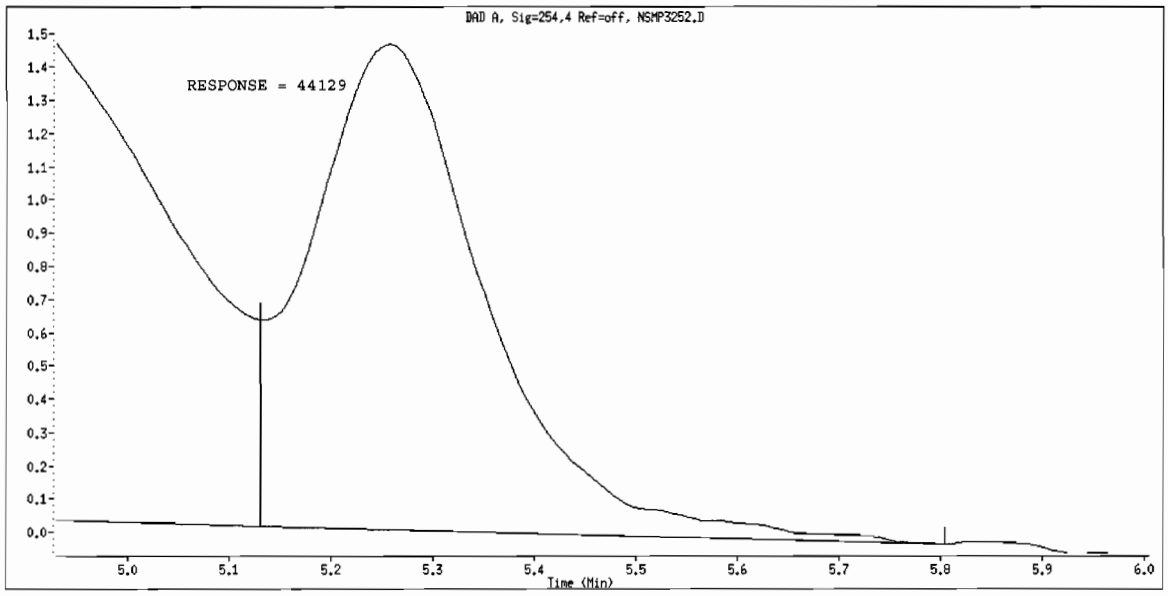

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NSMP3252.D
Inj. Date and Time: 01-MAR-2010 13:41
Instrument ID: Lcn.i
Client ID: CAPA-10-12917S
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

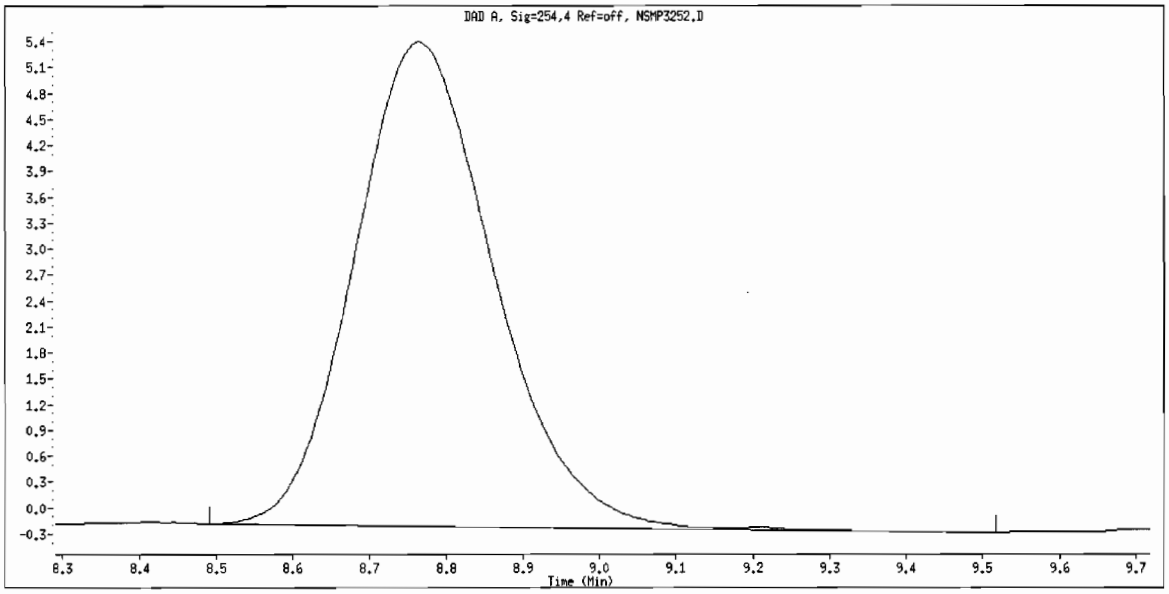

Original Integration

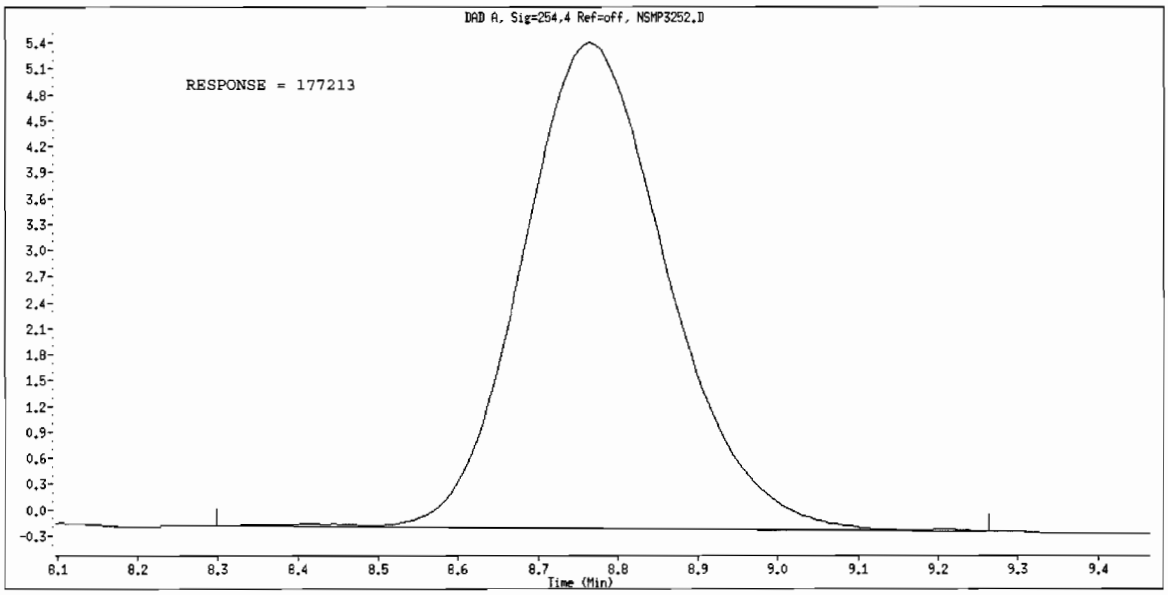

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NSMP3253.D
Report Date: 02-Mar-2010 08:01

TestAmerica St. Louis

Data file : \\slsvr01\HPLC\Lcn.i\N030110.b\NSMP3253.D
Lab Smp Id: LV37Q1AE Client Smp ID: CAPA-10-12917D
Inj Date : 01-MAR-2010 13:55
Operator : AF Inst ID: Lcn.i
Smp Info : LV37Q1AE
Misc Info : F0B250556-001D
Comment :
Method : \\slsvr01\HPLC\Lcn.i\N030110.b\C18XNX.m
Meth Date : 02-Mar-2010 08:00 Lcn.i Quant Type: ESTD
Cal Date : 25-NOV-2009 10:16 Cal File: NICL1314.D
Als bottle: 1 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP Genie Compound Sublist: xnxspe08.sub
Target Version: 4.14
Processing Host: SLGC09

Concentration Formula: Amt * DF * 2*Vt/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vt	2.500	Final Volume of Extract
Vo	513.600	Volume extracted
Cpnd Variable		Local Compound Variable

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
1 TNX	3.851	3.837	0.014	52204	80.6804	0.7854(M)
2 DNX	4.338	4.324	0.014	33206	52.7119	0.5132(M)
3 MNX	5.266	5.239	0.027	35359	71.6504	0.6975
$ 4 1,2-Dinitrobenzene	8.764	8.706	0.058	172337	332.866	3.240(M)

QC Flag Legend

M - Compound response manually integrated.

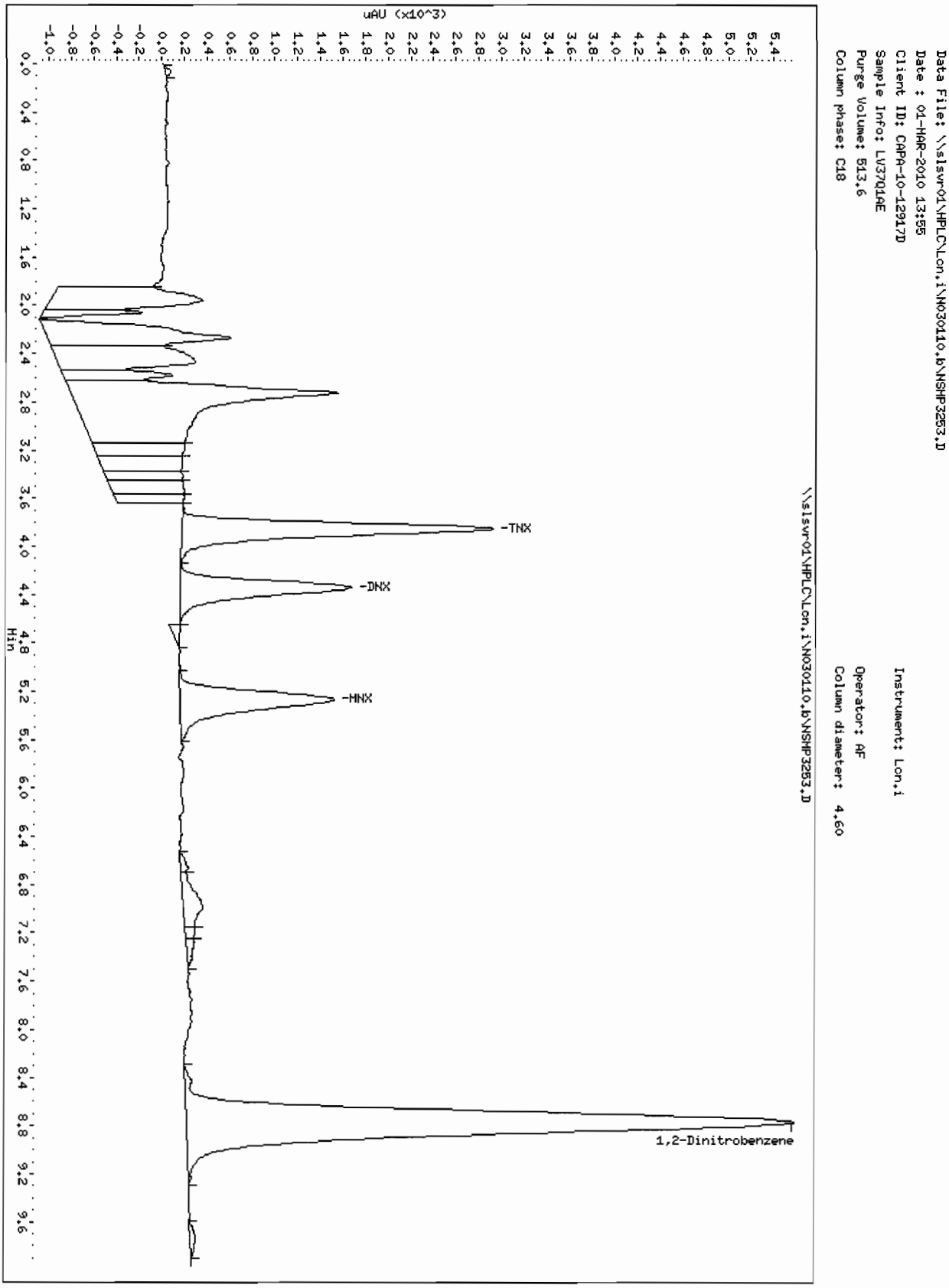
Data File: \\slsvr01\HPLC\Lcn.i\N030110.b\NSHP3253.D
Date : 01-MAR-2010 13:55
Client ID: CAPA-10-12917D
Sample Info: LV37Q1AE
Purge Volume: 513.6
Column phase: C18
Instrument: Lcn.i
Operator: AF
Column diameter: 4.60
\\slsvr01\HPLC\Lcn.i\N030110.b\NSHP3253.D
uAU (x10^3)
-TNX
-DNX
-MNX
1,2-Dinitrobenzene
Min

Data File Name: NSMP3253.D
Inj. Date and Time: 01-MAR-2010 13:55
Instrument ID: Lcn.i
Client ID: CAPA-10-12917D
Compound Name: TNX
CAS #:

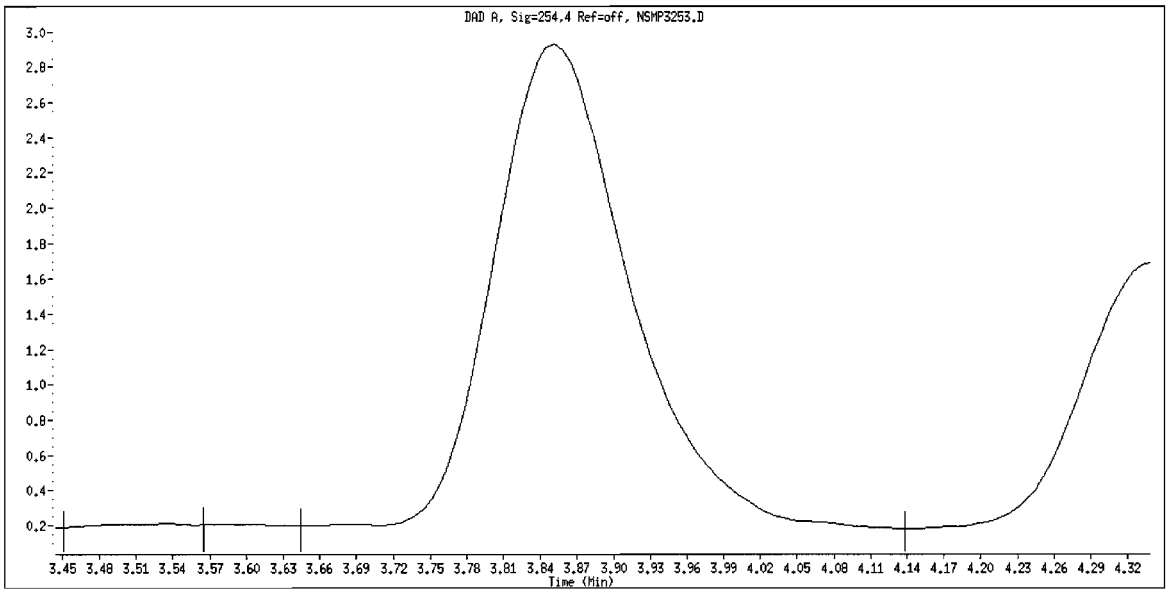

Original Integration

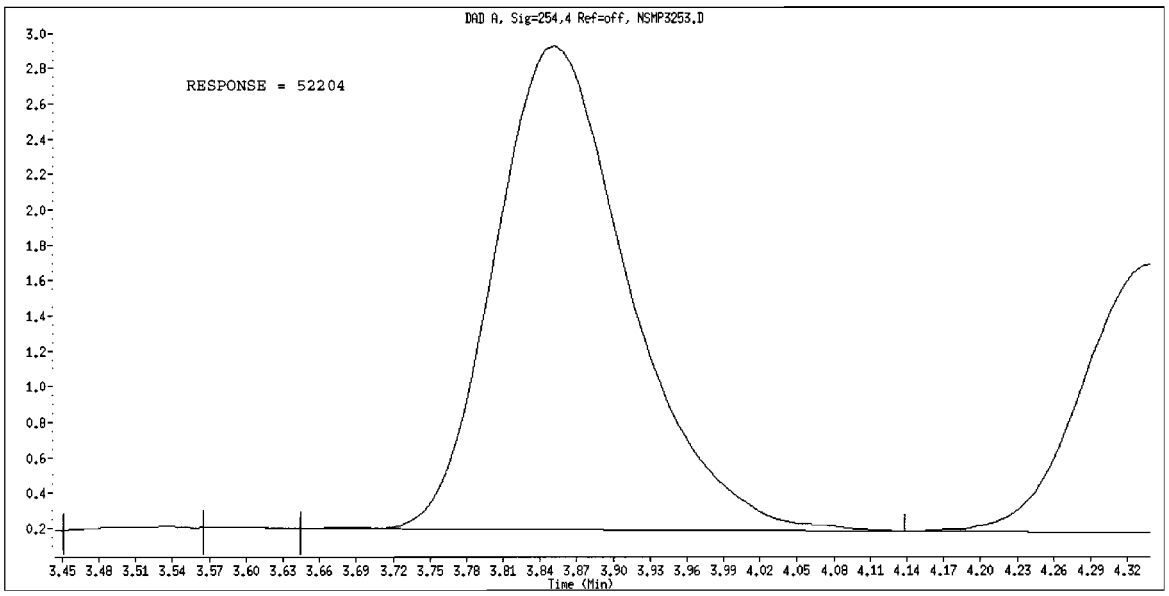

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NSMP3253.D
Inj. Date and Time: 01-MAR-2010 13:55
Instrument ID: Lcn.i
Client ID: CAPA-10-12917D
Compound Name: DNX
CAS #:

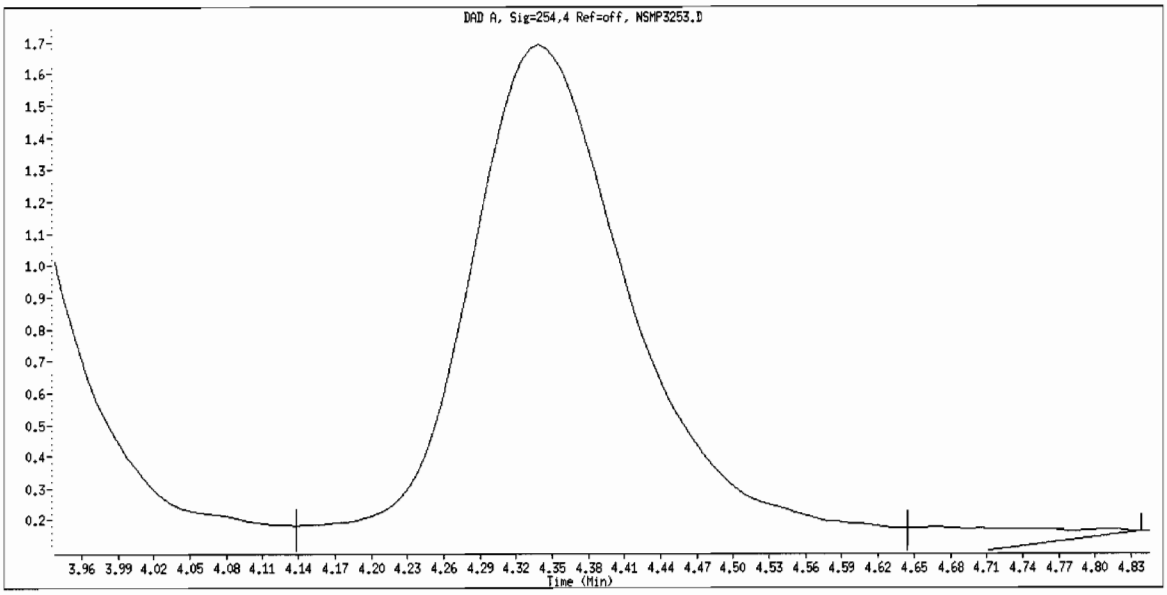

Original Integration

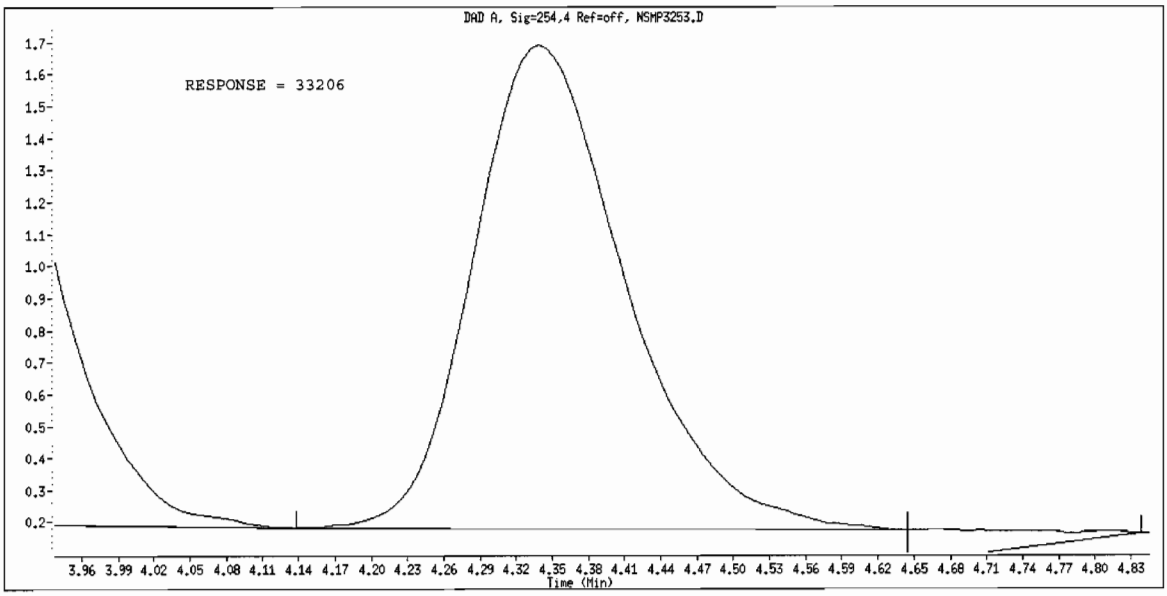

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

Data File Name: NSMP3253.D
Inj. Date and Time: 01-MAR-2010 13:55
Instrument ID: Lcn.i
Client ID: CAPA-10-12917D
Compound Name: 1,2-Dinitrobenzene
CAS #: 528-29-0

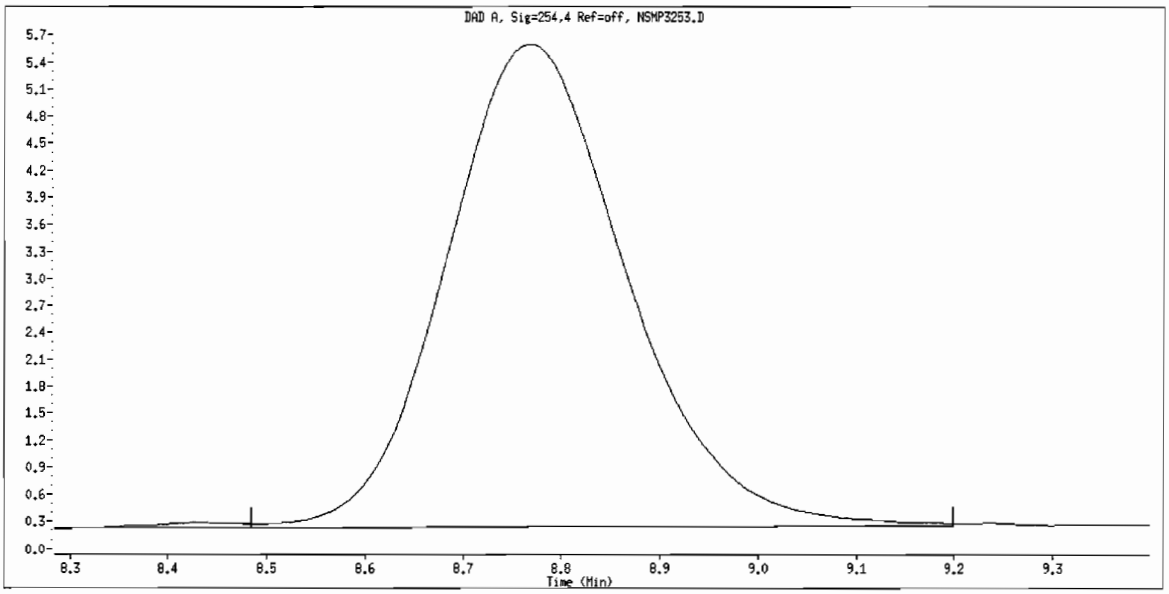

Original Integration

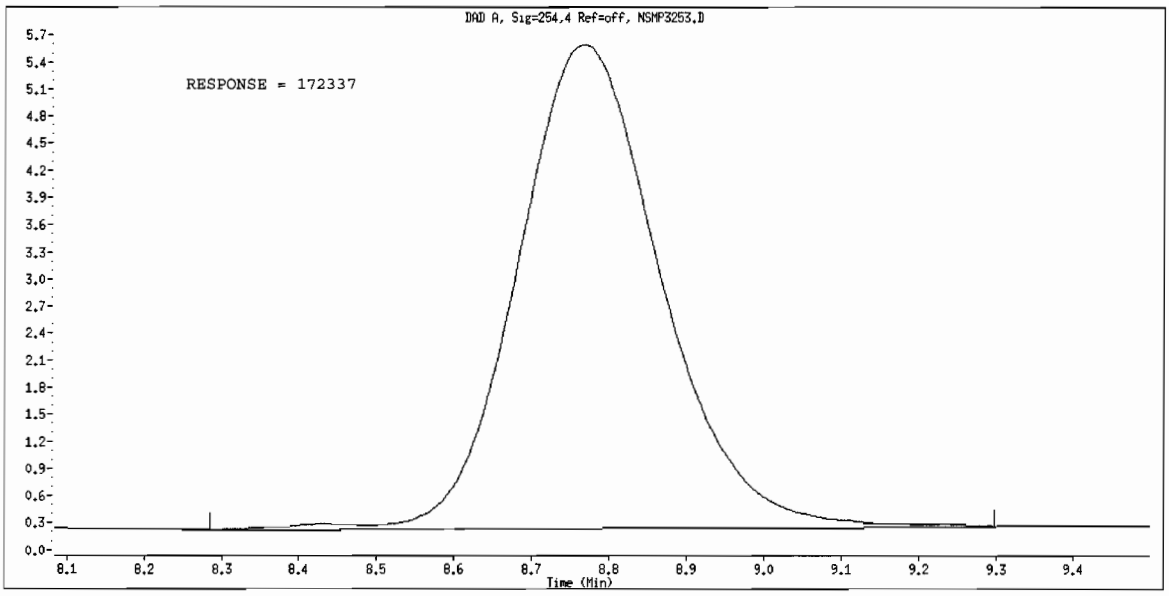

Manual Integration

Manually Integrated By: flakera
Manual Integration Reason: Baseline Event

HPLC MISCELLANEOUS DATA

LOT

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Organic Prep Report for Batch # 0057178

TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045

N030110

Prep Method: SW-846 3535

SOP Number: ST-OP-0008

Matrix: WATER

Prep Description: EXTRACTION, SOLID PHASE

Extraction Date: 2/26/2010

			Initials: MFM				Initials: MFM		Initials:		Initials:	
							Concentration 1		*Cleanup 1*		*Cleanup 2*	
Lot Number	**WorkOrder No**	**AnalDueDate**	**Wt/Vol**	**pH 1**	**pH 2**	**Extr Unit**	**Volume**	**Date**	**Method**	**Date**	**Method**	**Date**
F0B250556 - 001	LV37Q1AC	03/18/2010	509.5 mL				2.5 mL	2/26/2010				
F0B250556 - 001D	LV37Q1AE	03/18/2010	513.6 mL				2.5 mL	2/26/2010				
F0B250556 - 001S	LV37Q1AD	03/18/2010	510.1 mL				2.5 mL	2/26/2010				
F0B250558 - 001	LV37V1AC	03/18/2010	505.2 mL				2.5 mL	2/26/2010				
F0B250558 - 002	LV37W1AC	03/18/2010	508.3 mL				2.5 mL	2/26/2010				
F0B250559 - 001	LV3711AC	03/18/2010	500.7 mL				2.5 mL	2/26/2010				
F0B250559 - 002	LV3731AC	03/18/2010	503.3 mL				2.5 mL	2/26/2010				
F0B260000 - 178B	LV45V1AA		500 mL				2.5 mL	2/26/2010				
F0B260000 - 178C	LV45V1AC		500 mL				2.5 mL	2/26/2010				

Spike Information

Name	Standard ID	Exp Date	Vol Added
XNX Prep Spike	GC0048-10	3/1/2010	250 uL
8330 Surrogate	GC0094-10	3/15/2010	50 uL

Spiking verified by: AF

Miscellaneous Information

Start: **Stop:**

Extr 1:

Extr 2:

Conc Method:

Conc Temp C:

Chemical Lot Information

Chemical	Lot Number
Acetonitrile	G50343
RDX Columns	P2887

Comments:

Custody Information

Relinquished By: MFM **Review/Received By:** AF **Date of Transfer:** 2/26/10

QC Suffix: B=reagent blank, C=lab control sample, L=lab control sample duplicate, X=sample duplicate, S=matrix spike, D=matrix spike duplicate

PrepSheet Generator 1.26, updated 11/14/2008

B250556
106 OF 108
TESTAMERICA ST. LOUIS

LOT# F0929556

Logbook No.: 3311 | Instrument ID No.: LCN

TestAmerica St. Louis
HPLC Runlog

#	Data File	Clock	Lab I.D.	Dil.	STD#	Date	Oper.	Matrix	Method
1	NLCS 1303	N112309	LNQGF1AC		GC0384-09	11/25/09	WH/AF	~~NEW~~ 8011L	8330
2	NCAL 1304		8330 CCAL		↓				
3	NSBK 1305	↓	Flush		—		↓	↓	↓
4	1306								
5	1307								
6	1308								
7	1309								
8	1310								
9	1311								
10	NSBK 1312	N112509							
11	NSBK 1313								
12	NICL 1314		XNX-ICAL-3		GC0387-09		WH/AF	W	XNX
13	1315		-4						
14	1316		-5						
15	1317		-6						
16	1318		-7						
17	1319		-8						
18	NICV 1320		XNX ICV		GC0382-09				
19	NCAL 1321		XNX CCAL		GC0387-09				
20	NBLK 1322		LPJT8 1AAB			12-2-09			
21	NLCS 1323		1ACC						
22	NSMP 1324		LN84N1AC						
23	1325		1AD						
24	1326		1AE						
25	1327		LN84R1AC						
26	1328		LPH6M1AC						
27	1329		LPH6P1AC						
28	NBLK 1330		LN8EJ1AA						
29	NSBK 1330		SBK						
30	NCAL 1331		XNX CCAL		GC0387-09				
31	NBLK 1332		LN8EJ1AA			11/27/09			
32	NLCS 1333		1AC						
33	NSMP 1334		LN0W6 1AC						
34	1335		1AF						
35	1336	↓	1AG				↓	↓	↓

Review documented on next page.

Form: SL-ORG-0008, Rev. 1/4/05

QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Contol Sample Duplicate; S = Matrix Spike; D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard.

SOP References: STL-GC-0017 Rev 11

Logbook No.: 3311 | Instrument ID No.: LCN

TestAmerica St. Louis
HPLC Runlog

Batch #	Comments	#
9307388	F9K030000-388 C OK	1
	OK	2
	—	3
		4
		5
		6
		7
		8
		9
	—	10
	OK	11
	XNX ICAL OK	12
	OK	13
	OK	14
	OK	15
	OK	16
	OK	17
	XNX ICV OK	18
	OK	19
9320111	F9K160000-111B AF ~~File # duplicated~~ OK	20
	-111C File# duplicated OK	21
	F9K110519-001 OK	22
	-001S OK	23
	-001D OK	24
	-002 OK	25
	F9K140506-001 OK	26
	-002 OK	27
9315181	F9K110000-181B Not Needed ~~OK~~	28
	—	29
	OK	30
9315181	F9K110000-181B OK	31
	-181C OK	32
	F9K060412-001 MNX C OK	33
	-001S OK	34
	-001D OK	35

Reviewed By: [signature] 12/1/09 SC 12/7/09

Form: SL-ORG-0008, Rev. 1/4/05

QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Contol Sample Duplicate; S = Matrix Spike; D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard.

SOP References: STL-GC-0017 Rev 11

TESTAMERICA ST. LOUIS

LOT # FOB

Logbook No.: 3437 | Instrument ID No.: LCN

TestAmerica St. Louis
HPLC Runlog

#	Data File	Clock	Lab I.D.	Dil.	STD#	Date	Oper.	Matrix	Method
1	NCND 3239	N030110	CONDITIONING			3-1-10	AF	W	8330 (XNX)
2	NCAL 3240		XNX CCAL	16x	GC0050-10				
3	NBLK 3241		LV3231AA						
4	NLCS 3242		↓ 1AC						
5	NSMP 3243		LVNDA2AC						
6	NSMP 3244		LVONWIAC						
7	NSMP 3245		LVONWIAD						
8	NSMP 3246		LVONWIAE						
9	NSMP 3247		LVON61AC						
10	NBLK 3248		LV45VIAA						
11	NLCS 3249		↓ 1AC						
12	NSMP 3250		LV37Q1AC						
13	NCAL 3251		XNX CCAL	16x	GC0050-10				
14	NSMP 3252		LV37Q1AD						
15	NSMP 3253		LV37Q1AE						
16	NSMP 3254		LV37V1AC						
17	NSMP 3255		LV37W1AC						
18	NSMP 3256		LV37I1AC						
19	NSMP 3257		LV37J1AC						
20	NCAL 3258		XNX CCAL	16x	GC0050-10				
21	NSBK 3259		FLUSH						
22									
23									
24									
25									
26									
27									
28									
29			AF 3/1/10						
30									
31									
32									
33									
34									
35									

Review documented on next page.
Form: SL-ORG-0009, Rev. 9/23/09
QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Contol Sample Duplicate; S = Matrix Spike; D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard.
SOP References: STL-GC-0017, current revisions.

Logbook No.: 3437 | Instrument ID No.: LCN

TestAmerica St. Louis
HPLC Runlog

Batch #	Comments	#
	—	1
	OK	2
0056259	FOB250000-259B OK	3
	↓ -259C OK	4
	FOB130431-002 OK	5
	FOB230417-001 OK	6
	↓ -001S OK	7
	↓ -001D OK	8
	FOB230418-001 OK	9
0057178	FOB260000-178B OK	10
	↓ -178C OK	11
	FOB250556-001 OK	12
	OK	13
0057178	FOB250556-001S OK	14
	↓ -001D OK	15
	FOB250558-001 OK	16
	↓ -002 OK	17
	FOB250559-001 OK	18
	↓ -002 OK	19
	OK	20
	—	21
		22
		23
		24
		25
		26
		27
		28
	AF 3/1/10	29
		30
		31
		32
		33
		34
		35

Reviewed By: [signature] 3/1/10 [signature] 3/2/10
Form: SL-ORG-0009, Rev. 09/23/09
QC Types: BLK or B = Blank; LCS or C = Laboratory Control Sample; LCSD or L = Laboratory Contol Sample Duplicate; S = Matrix Spike; D = Matrix Spike Duplicate; SMP = Sample, Matrix Spike or Matrix Spike Duplicate, CAL = Calibration Standard or Continuing Calibration Standard.
SOP References: STL-GC-0017, current revisions.

TESTAMERICA ST. LOUIS

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2037

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Martha Maier
Alta Analytical Lab Incorporated
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

These Samples are on:
LANL Request Number:10-2037
Per Agreement Number:176450010
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/24/2010
TURNAROUND/REPORT DUE: 3/26/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8290	1	CAPA-10-12917	WG	2/23/2010	
		2	CAPA-10-12917	WG	2/23/2010	

Final Page of REQUEST NUMBER 10-2037

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2037

REQUEST NUMBER: 10-2037

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Martha Maier

Alta Analytical Lab Incorporated
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12917	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-12917	2	AMBER GLASS	WSP-8290-D/F	Ice	WG

Relinquished By:		**Date**	**Time**	**Received By:**		**Date**	**Time**
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		**Date**	**Time**	**Remarks:**
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-12915 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/23/2010	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		15:06	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-40		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH < 2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of CAPA-10-12917

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) M Green, D Wooly

REVIEWED BY (PRINT) M Green

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Wooly	02/23/10	(Printed Name) Sherri Sherwood	02/23/10
(Signature) D. Wooly	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-12916 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/23/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1506	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-40		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / (NA)

BOREHOLE: YES / NO / (NA) BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid		pH<2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		pH<2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice		

SAMPLE DESC:

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D Worly, M. Green **REVIEWED BY (PRINT)** M Green

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D Worly	02/23/10	(Printed Name) Sherri Sherwood	02/23/10
(Signature) D. Worly	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-12917 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/23/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1506	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-40		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH <2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice		
3		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice		
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide		pH >12
1		WSP-GrossA/B	1 LITER POLY	None		
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice		
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid		pH <2
1		WSP-RAD	1 GAL POLY	Nitric Acid		pH <2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		pH <2
1		WSP-LL-H-3	1 LITER POLY	None		
3		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice		
3		WSP-8082-PCB	1 LITER AMBER GLASS	Ice		
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice		
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice		
1		Ra226+228	1 GAL POLY	Nitric Acid		pH <2

SAMPLE DESC:

SAMPLE COMMENTS: 4th full suite sample.
Collected 50' from Pajarito Rd.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH (SU)	T (°C)	SC ($\frac{\mu S}{cm}$)	DO ($\frac{mg}{L}$)	Turb (NTU)	ORP (mV)	Q (gpm)
7.31	15.48	105	6.77	1.83	63.6	2.1

COLLECTED BY (PRINT) D. Worly, M Green

REVIEWED BY (PRINT) M Green

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Worly	02/23/10	(Printed Name) Sherri Sherwood	02/23/10
(Signature) D. Worly	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-12918 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/23/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1506	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	~~GSP~~ NA DW 02/23/10	
LOCATION ID:	R-40		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 ~~2~~	DW 02/23/10	WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	1H2 2

SAMPLE DESC: QC Sample of CAPA-10-12917

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) M. Green, J. Wooly **REVIEWED BY (PRINT)** M Green

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Wooly	02/23/10	(Printed Name) Sherri Sherwood	02/23/10
(Signature) J. Wooly	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5123-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2037 VALIDATION DATE: 04/06/10 LAB CODE: ALTC

CONTRACT LABORATORY NAME: Vista Analytical Laboratory

VALIDATOR: Maryann Jordan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☒ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☐ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. OCDD was detected in the MB. The result for OCDD in the sample was a detect ≤5X the blank concentration and, thus, was qualified U,DF4.
2. The beginning and ending CCVs were analyzed 14 hours apart. The sample was analyzed within the method required 12 hour period. Based on professional judgment, no sample results were qualified.
3. It should be noted that laboratory ion abundance limits were used for evaluation of the PeCDD compounds since the laboratory uses an alternate ion for these masses due to interferences.
4. MS/MSD analyses were not performed with the sample from this RN. No sample results were qualified.
5. Precision analysis was not performed with the sample from this RN. No sample results were qualified.

Reviewed by: Allison Felix Level: 1 Date: 4/7/10

DATA VALIDATION COVER SHEET

5123-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

VALIDATOR'S SIGNATURE: _____ DATE: 04/06/10

Form 5123-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

DIOXIN/FURAN ANALYTICAL DATA VALIDATION CHECKLIST

5123-2

Dioxin/Furan Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time and qualitative criteria for target compound identification were not met.	R, DF0	R, DF0
☐	☒	☐	2. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF0b	R, DF0b
☐	☒	☐	3. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF1d	R, DF1d
☒	☐	☐	4. The sample result is ≤5 times the concentration of the related analyte in the method blank.	N/A	U, DF4
☐	☒	☐	5. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, DF4a
☐	☐	☒	6. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	N/A	U, DF4d
☐	☒	☐	7. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF4e	R, DF4e
☐	☒	☐	8. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, DF7	J, DF7
☐	☒	☐	9. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria.	UJ, R, DF7a	J, DF7a
☐	☒	☐	10. The affected analytes were analyzed with an out of range ion abundance in the initial calibration and/or CCV.	R, DF7b	R, DF7b
☐	☒	☐	11. The ICV and/or CCV were recovered outside the method specific limits.	UJ, R, DF7c	J, R, DF7c
☐	☒	☐	12. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, DF7d	J, DF7d

DIOXIN/FURAN ANALYTICAL DATA VALIDATION CHECKLIST	
5123-2 Dioxin/Furan Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, DF7f	R, DF7f
☐	☒	☐	14. The affected analyte is considered rejected because the ion abundances did not meet specifications.	N/A	R, DF8
☐	☒	☐	15. The ion abundance documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF8a	R, DF8a
☐	☒	☐	16. If GC column performance was not evaluated at the required frequency or if method criteria were not met, qualify all associated detects as J and all associated non-detects as UJ.	UJ, DF8b	J, DF8b
☐	☐	☒	17. If 2, 3, 7, 8-TCDF was detected in a sample and the result was not confirmed on a second column with successful analysis of the GC column performance mix, qualify all associated detects as U.	N/A	U, DF8c
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, DF9	J-, DF9
☐	☒	☐	19. The holding time was >2 times the applicable holding time requirement.	R, DF9a	J-, DF9a
☐	☒	☐	20. The LCS percent recovery was <10%.	R, DF12	J-, DF12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, DF12a	J-, DF12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, DF12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF12c	R, DF12c

DIOXIN/FURAN ANALYTICAL DATA VALIDATION CHECKLIST

5123-2

Dioxin/Furan Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	24. The MS/MSD percent recovery was <10%.	R, DF12d	R, DF12d
☐	☐	☒	25. The MS/MSD percent recovery was >10% but <70%.	UJ, DF12e	J, DF12e
☐	☐	☒	26. The MS/MSD percent recovery was >70%	N/A	J+, DF12f
☐	☐	☒	27. The MS/MSD relative percent difference was >30%.	UJ, DF12g	J, DF12g
☐	☒	☐	28. The fortification sample percent recovery was <10%.	R, DF12h	J-, DF12h
☐	☒	☐	29. The fortification sample percent recovery was <40% but >10%	UJ, DF12i	J-, DF12i
☐	☒	☐	30. The fortification sample percent recovery was >135%.	N/A	J+, DF12j
☐	☒	☐	31. The fortification sample documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF12k	R, DF12k
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference.	R, DF15	UJ, DF15
☐	☐	☒	33. Sample clean-up was not performed. If run log notations, spectral data and/or internal standard or labeled compound recoveries indicate interferences and extract cleanup was not performed, qualify all associated detects as J and all non-detects as UJ.	RJ, DF15a	J, DF15a
☐	☐	☒	34. The instrument performance sample did not pass method acceptance criteria.	R, DF16	R, DF16
☐	☐	☒	35. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, DF16c	R, DF16c

DIOXIN/FURAN ANALYTICAL DATA VALIDATION CHECKLIST	
5123-2 **Dioxin/Furan Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	**36. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.**	**UJ, R, DF19**	**J, R, DR19**
☐	☒	☐	**37. Duplicate, dilution, or reanalysis.**	**UJ, DF88**	**J, DF88**

Sample ID: CAPA-10-12917 **EPA Method 8290**

Client Data		Sample Data		Laboratory Data			
Name:	Los Alamos National Laboratory	Matrix:	Aqueous	Lab Sample:	32458-001	Date Received:	25-Feb-10
Project:	10-2037	Sample Size:	0.905 L	QC Batch No.:	2836	Date Extracted:	27-Feb-10
Date Collected:	23-Feb-10			Date Analyzed DB-5:	2-Mar-10	Date Analyzed DB-225:	NA
Time Collected:	1506						

Analyte	Conc. (pg/L)		DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND		0.179		
1,2,3,7,8-PeCDD	ND		0.336		
1,2,3,4,7,8-HxCDD	ND		0.285		
1,2,3,6,7,8-HxCDD	ND		0.296		
1,2,3,7,8,9-HxCDD	ND		0.289		
1,2,3,4,6,7,8-HpCDD	0.540				J
OCDD	1.79	U,DF4			J,B
2,3,7,8-TCDF	ND		0.166		
1,2,3,7,8-PeCDF	ND		0.227		
2,3,4,7,8-PeCDF	ND		0.203		
1,2,3,4,7,8-HxCDF	ND		0.161		
1,2,3,6,7,8-HxCDF	ND		0.165		
2,3,4,6,7,8-HxCDF	ND		0.178		
1,2,3,7,8,9-HxCDF	ND		0.228		
1,2,3,4,6,7,8-HpCDF	0.395				J
1,2,3,4,7,8,9-HpCDF	ND		0.236		
OCDF	ND		0.307		

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	89.7	40 - 135	
	13C-1,2,3,7,8-PeCDD	71.2	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	88.3	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	88.4	40 - 135	
	13C-1,2,3,7,8,9-HxCDD	84.8	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	86.6	40 - 135	
	13C-OCDD	76.4	40 - 135	
	13C-2,3,7,8-TCDF	83.9	40 - 135	
	13C-1,2,3,7,8-PeCDF	68.9	40 - 135	
	13C-2,3,4,7,8-PeCDF	65.0	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	72.9	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	79.7	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	84.4	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	81.5	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	87.2	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	83.4	40 - 135	
	13C-OCDF	74.6	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	90.6	40 - 135	

Totals				
Total TCDD	ND		0.179	
Total PeCDD	ND		0.336	
Total HxCDD	ND		0.290	
Total HpCDD	0.540			1.44
Total TCDF	ND		0.166	
Total PeCDF	ND		0.215	
Total HxCDF	ND		0.183	
Total HpCDF	0.395			

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): 0.0111

a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Method detection limit.
d. Lower control limit - upper control limit.
e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: JMH

Approved By: Martha M. Maier 09-Mar-2010 14:25

MJ
04/06/10

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2037

32458
2.18

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Martha Maier
Alta Analytical Lab Incorporated
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

These Samples are on:
LANL Request Number:10-2037
Per Agreement Number:176450010
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/24/2010
TURNAROUND/REPORT DUE: 3/26/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8290	1	CAPA-10-12917	WG	2/23/2010	
		2	CAPA-10-12917	WG	2/23/2010	

Final Page of REQUEST NUMBER 10-2037

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2037

REQUEST NUMBER: 10-2037

32458

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Martha Maier

Alta Analytical Lab Incorporated

5070 Robert J. Mathews Parkway

El Dorado Hills, CA 95762

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12917	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-12917	2	AMBER GLASS	WSP-8290-D/F	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	2/24/10	[illegible]	B. Benedict	[illegible]	2/25/10	1425
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Vista
Analytical Laboratory

March 09, 2010

Vista Project I.D.: 32458

Mr. Keith Greene
Los Alamos National Laboratory
ER Sample Management Office
TA-3, Building 271, DP O1-U
Los Alamos, NM 87545

Dear Mr. Greene,

Enclosed are the results for the one aqueous sample received at Vista Analytical Laboratory on February 25, 2010 under your Project Name "10-2037". This sample was extracted and analyzed using EPA Method 8290 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

The following report consists of a Sample Inventory (Section I), Analytical Results (Section II) and the Appendix, which contains the chain-of-custody, a list of data qualifiers and abbreviations, Vista's current certifications, and copies of the raw data (if requested).

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com. Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier

Martha M. Maier
Laboratory Director

Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAC for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista Analytical Laboratory.

Vista

Section I: Sample Inventory Report

Date Received: **2/25/2010**

Vista Lab. ID	Client Sample ID
32458-001	CAPA-10-12917

SECTION II

Vista

Method Blank | **EPA Method 8290**

Matrix:	Aqueous	QC Batch No.:	2836	Lab Sample:	0-MB001
Sample Size:	1.00 L	Date Extracted:	27-Feb-10	Date Analyzed DB-5:	2-Mar-10
				Date Analyzed DB-225:	NA

Analyte	Conc. (pg/L)	DL [a]	EMPC [b]	Qualifiers
2,3,7,8-TCDD	ND	0.191		
1,2,3,7,8-PeCDD	ND	0.258		
1,2,3,4,7,8-HxCDD	ND	0.312		
1,2,3,6,7,8-HxCDD	ND	0.320		
1,2,3,7,8,9-HxCDD	ND	0.309		
1,2,3,4,6,7,8-HpCDD	ND	0.267		
OCDD	1.73			J
2,3,7,8-TCDF	ND	0.173		
1,2,3,7,8-PeCDF	ND	0.230		
2,3,4,7,8-PeCDF	ND	0.212		
1,2,3,4,7,8-HxCDF	ND	0.185		
1,2,3,6,7,8-HxCDF	ND	0.194		
2,3,4,6,7,8-HxCDF	ND	0.221		
1,2,3,7,8,9-HxCDF	ND	0.273		
1,2,3,4,6,7,8-HpCDF	ND	0.345		
1,2,3,4,7,8,9-HpCDF	ND	0.338		
OCDF	ND		0.639	

	Labeled Standard	%R	LCL-UCL [d]	Qualifiers
IS	13C-2,3,7,8-TCDD	78.5	40 - 135	
	13C-1,2,3,7,8-PeCDD	60.6	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	76.3	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	77.8	40 - 135	
	13C-1,2,3,7,8,9-HxCDD	74.4	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	76.3	40 - 135	
	13C-OCDD	65.4	40 - 135	
	13C-2,3,7,8-TCDF	79.4	40 - 135	
	13C-1,2,3,7,8-PeCDF	58.8	40 - 135	
	13C-2,3,4,7,8-PeCDF	55.2	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	66.2	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	71.0	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	72.6	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	72.8	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	75.9	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	73.1	40 - 135	
	13C-OCDF	65.8	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	84.1	40 - 135	

Totals			
Total TCDD	ND	0.191	
Total PeCDD	ND	0.258	
Total HxCDD	ND	0.314	
Total HpCDD	ND		0.938
Total TCDF	ND	0.173	
Total PeCDF	ND	0.221	
Total HxCDF	ND	0.218	
Total HpCDF	ND	0.342	

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): 0.00173

a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Method detection limit.
d. Lower control limit - upper control limit.
e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: JMH

Approved By: Martha M. Maier 09-Mar-2010 14:25

Vista

OPR Results **EPA Method 8290**

Matrix:	Aqueous	QC Batch No.:	2836	Lab Sample:	0-OPR001		
Sample Size:	1.00 L	Date Extracted:	27-Feb-10	Date Analyzed DB-5:	2-Mar-10	Date Analyzed DB-225:	NA

Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits		Labeled Standard	%R	LCL-UCL	Qualifier
2,3,7,8-TCDD	10.0	10.1	7 - 13	IS	13C-2,3,7,8-TCDD	72.0	40 - 135	
1,2,3,7,8-PeCDD	50.0	49.4	35 - 65		13C-1,2,3,7,8-PeCDD	55.6	40 - 135	
1,2,3,4,7,8-HxCDD	50.0	50.2	35 - 65		13C-1,2,3,4,7,8-HxCDD	71.4	40 - 135	
1,2,3,6,7,8-HxCDD	50.0	49.1	35 - 65		13C-1,2,3,6,7,8-HxCDD	72.3	40 - 135	
1,2,3,7,8,9-HxCDD	50.0	50.1	35 - 65		13C-1,2,3,7,8,9-HxCDD	69.8	40 - 135	
1,2,3,4,6,7,8-HpCDD	50.0	49.5	35 - 65		13C-1,2,3,4,6,7,8-HpCDD	70.0	40 - 135	
OCDD	100	97.5	70 - 130		13C-OCDD	62.5	40 - 135	
2,3,7,8-TCDF	10.0	10.4	7 - 13		13C-2,3,7,8-TCDF	73.3	40 - 135	
1,2,3,7,8-PeCDF	50.0	51.6	35 - 65		13C-1,2,3,7,8-PeCDF	54.0	40 - 135	
2,3,4,7,8-PeCDF	50.0	51.2	35 - 65		13C-2,3,4,7,8-PeCDF	51.1	40 - 135	
1,2,3,4,7,8-HxCDF	50.0	51.8	35 - 65		13C-1,2,3,4,7,8-HxCDF	63.8	40 - 135	
1,2,3,6,7,8-HxCDF	50.0	50.9	35 - 65		13C-1,2,3,6,7,8-HxCDF	68.4	40 - 135	
2,3,4,6,7,8-HxCDF	50.0	51.6	35 - 65		13C-2,3,4,6,7,8-HxCDF	68.4	40 - 135	
1,2,3,7,8,9-HxCDF	50.0	52.0	35 - 65		13C-1,2,3,7,8,9-HxCDF	70.2	40 - 135	
1,2,3,4,6,7,8-HpCDF	50.0	50.6	35 - 65		13C-1,2,3,4,6,7,8-HpCDF	67.9	40 - 135	
1,2,3,4,7,8,9-HpCDF	50.0	51.2	35 - 65		13C-1,2,3,4,7,8,9-HpCDF	70.2	40 - 135	
OCDF	100	99.3	70 - 130		13C-OCDF	62.9	40 - 135	
				CRS	37Cl-2,3,7,8-TCDD	84.6	40 - 135	

Analyst: JMH

Approved By: Martha M. Maier 09-Mar-2010 14:25

Vista

Sample ID: **CAPA-10-12917** **EPA Method 8290**

Client Data		Sample Data		Laboratory Data			
Name:	Los Alamos National Laboratory	Matrix:	Aqueous	Lab Sample:	32458-001	Date Received:	25-Feb-10
Project:	10-2037	Sample Size:	0.905 L	QC Batch No.:	2836	Date Extracted:	27-Feb-10
Date Collected:	23-Feb-10			Date Analyzed DB-5:	2-Mar-10	Date Analyzed DB-225:	NA
Time Collected:	1506						

Analyte	Conc. (pg/L)	DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND	0.179		
1,2,3,7,8-PeCDD	ND	0.336		
1,2,3,4,7,8-HxCDD	ND	0.285		
1,2,3,6,7,8-HxCDD	ND	0.296		
1,2,3,7,8,9-HxCDD	ND	0.289		
1,2,3,4,6,7,8-HpCDD	0.540			J
OCDD	1.79			J,B
2,3,7,8-TCDF	ND	0.166		
1,2,3,7,8-PeCDF	ND	0.227		
2,3,4,7,8-PeCDF	ND	0.203		
1,2,3,4,7,8-HxCDF	ND	0.161		
1,2,3,6,7,8-HxCDF	ND	0.165		
2,3,4,6,7,8-HxCDF	ND	0.178		
1,2,3,7,8,9-HxCDF	ND	0.228		
1,2,3,4,6,7,8-HpCDF	0.395			J
1,2,3,4,7,8,9-HpCDF	ND	0.236		
OCDF	ND	0.307		

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	89.7	40 - 135	
	13C-1,2,3,7,8-PeCDD	71.2	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	88.3	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	88.4	40 - 135	
	13C-1,2,3,7,8,9-HxCDD	84.8	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	86.6	40 - 135	
	13C-OCDD	76.4	40 - 135	
	13C-2,3,7,8-TCDF	83.9	40 - 135	
	13C-1,2,3,7,8-PeCDF	68.9	40 - 135	
	13C-2,3,4,7,8-PeCDF	65.0	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	72.9	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	79.7	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	84.4	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	81.5	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	87.2	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	83.4	40 - 135	
	13C-OCDF	74.6	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	90.6	40 - 135	

Totals			
Total TCDD	ND	0.179	
Total PeCDD	ND	0.336	
Total HxCDD	ND	0.290	
Total HpCDD	0.540		1.44
Total TCDF	ND	0.166	
Total PeCDF	ND	0.215	
Total HxCDF	ND	0.183	
Total HpCDF	0.395		

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): 0.0111

a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Method detection limit.
d. Lower control limit - upper control limit.
e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: JMH

Approved By: Martha M. Maier 09-Mar-2010 14:25

APPENDIX

DATA QUALIFIERS & ABBREVIATIONS

B	**This compound was also detected in the method blank.**
D	**Dilution**
E	**The amount detected is above the High Calibration Limit.**
P	**The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.**
H	**Recovery was outside laboratory acceptance limits.**
I	**Chemical Interference**
J	**The amount detected is below the Low Calibration Limit.**
*****	**See Cover Letter**
Conc.	**Concentration**
DL	**Sample-specific estimated detection limit**
MDL	**The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in the matrix tested.**
EMPC	**Estimated Maximum Possible Concentration**
NA	**Not applicable**
RL	**Reporting Limit – concentrations that correspond to low calibration point**
ND	**Not Detected**
TEQ	**Toxic Equivalency**

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
State of Alaska, DEC	CA413-2008
State of Arizona	AZ0639
State of Arkansas, DEQ	08-043-0
State of Arkansas, DOH	Reciprocity through CA
State of California – NELAP Primary AA	02102CA
State of Colorado	N/A
State of Connecticut	PH-0182
State of Florida, DEP	E87777
State of Indiana Department of Health	C-CA-02
Commonwealth of Kentucky	90063
State of Louisiana, Health and Hospitals	LA08000
State of Louisiana, DEQ	01977
State of Maine	2008024
State of Michigan	9932
State of Mississippi	Reciprocity through CA
Naval Facilities Engineering Service Center	NFESC413
State of Nevada	CA004132007A
State of New Jersey	CA003
State of New Mexico	Reciprocity through CA
State of New York, DOH	11411
State of North Carolina	06700
State of North Dakota, DOH	R-078
State of Oklahoma	D9919
State of Oregon	CA200001-006
State of Pennsylvania	68-00490
State of South Carolina	87002001
State of Tennessee	TN02996
State of Texas	T104704189-08-TX
U.S. Army Corps of Engineers	N/A
State of Utah	CA16400
Commonwealth of Virginia	00013
State of Washington	C1285
State of Wisconsin	998036160
State of Wyoming	8TMS-Q

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2037

LOS ALAMOS
NATIONAL LABORATORY

32458
2.10

ATTN: Martha Maier
Alta Analytical Lab Incorporated
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

These Samples are on:
LANL Request Number:10-2037
Per Agreement Number:176450010
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/24/2010
TURNAROUND/REPORT DUE: 3/26/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8290	1	CAPA-10-12917	WG	2/23/2010	
		2	CAPA-10-12917	WG	2/23/2010	

Final Page of REQUEST NUMBER 10-2037

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2037

REQUEST NUMBER: 10-2037

32458

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Martha Maier

Alta Analytical Lab Incorporated
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12917	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-12917	2	AMBER GLASS	WSP-8290-D/F	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	2/24/10	1400	B. Benedict	[illegible]	2/25/10	1425
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time**

Printed Name Signature

Remarks:

SAMPLE LOG-IN CHECKLIST

Vista Analytical Laboratory

Vista Project #: 32458 TAT 30

Samples Arrival:	Date/Time 2/25/10 0839		Initials: UBB		Location: WR-2 Shelf/Rack: N/A	
Logged In:	Date/Time 2/25/10 1425		Initials: UBB		Location: WR-2 Shelf/Rack: B3	
Delivered By:	FedEx	UPS	Cal	DHL	Hand Delivered	Other
Preservation:	Ice	Blue Ice	Dry Ice	None		
Temp °C 2.1°C	Time: 0842			Thermometer ID: IR-1		

		YES	NO	NA
Adequate Sample Volume Received?	A & B bottles	✓		
Holding Time Acceptable?		✓		
Shipping Container(s) Intact?		✓		
Shipping Custody Seals Intact?		✓		
Shipping Documentation Present?		✓		
Airbill	Trk # 7209 7850 2180	✓		
Sample Container Intact?		✓		
Sample Custody Seals Intact?		✓		
Chain of Custody / Sample Documentation Present?		✓		
COC Anomaly/Sample Acceptance Form completed?			✓	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?				✓

$Na_2S_2O_3$ Preservation Documented?		COC	Sample Container		None
Shipping Container	Vista	Client	Retain	Return	Dispose

Comments:

CAPA -10-12917 date 2/23/10 time 1506

Sample Login 3/2007 rmh

EXTRACTION INFORMATION

PROCESS SHEET

Project No.-AR: 32458-1 of 1

Prep Due: 3/8/2010 **Project Due:** 3/25/2010

Hold Due: 3/25/2010 **TAT:** 28

Client: Los Alamos National Laboratory(LOANM01F

Client Manager: Martha M. Maier

Method: EPA Method 8290 | PCDD/F

Split Type:

Matrix: Aqueous

2836

LabID	Recon	Client-ID	Description	Date Received	SLoc	Shelf
001	☐	CAPA-10-12917 "A Bottle"		2/25/2010	WR-2	B-3

Instructions:

Report Options

Report Level:

EDD Type:

Report Group: Dioxins NoMDL

TEQ Type: EPA(Default) : Min

Samples Reconciled By: 2/27/10

Vial Box ID: pleather

Date Requested 3/11/2010

Percent Solids

Vista Analytical Laboratory

Project: 32458-1

Sample ID	Chemist/Date FEB 2/27/10		Chemist/Date C/2/28/10	Chemist/Date FEB 2/27/10		
	Boat Wt.	Sample + Boat Wt.	Residue + Boat Wt.	pH before	pH* after	Cl⁻
001	1.31	12.16	1.32	6	N/A	0

Procedure:

- Tare the balance.
- Record Boat Weight.
- Add 2 - 10 g of sample.
- Record Wet Wt. + Boat Wt.
- Dry in oven overnight at 107°C.
- Tare the balance.
- Record Residue + Boat Wt.

Notes:

- *Methods 8280, 613, 1613, 8290, 1614 – pH <9*
- *Methods 1668/PCN – pH 2-3*
- *NCASI 551 – pH 1*

%Solids rmh 10/2009

Aqueous Sample Size Determination

Vista Analytical Laboratory

Project: 32458-1

	Chemist/Date	Chemist/Date	
	FEB 2/27/10	C/2/28/10	
Sample ID	**Container Weight (g)**		**Sample Wt (g)**
	Full	***Empty***	
001	1290.34	385.81	904.53

Procedure:

- Tare the balance.
- Record weight of bottle/cap and sample.
- If all of the sample is used, drain overnight.
- Tare the balance.
- Record weight of empty bottle/cap.
- Enter Sample Weight in HALs and on the Extraction Sheet*.

* *Record in 'Liters', rounded to 3 decimal places; assumes density of 1 g/mL*

Notes:

AqWt 3/2007 rmh

Project: 32458

Extraction Set: 2836

Chemist: F. Bishop 2/27/10

Method(s): EPA Method 8290 | PCDD/F (Tetra - Octa)

C	ALTA Sample ID	G Eqv	Sample Amt. (L)	IS/NS CHEM/ WIT DATE	CRS CHEM/WIT DATE	AP CHEM/Date	ABSG CHEM/Date	AA CHEM/Date	Florisil CHEM/Date	RS CHEM/WIT DATE
☐	0_2836_MB001	N/A	(1.000)	FEB MC 2/27/10	C/ N/A 2/28/10	N/A	C/ 2/28/10	C/ 2/28/10	C/ 3/2/10	C/ FEB 3/2/10
☐	0_2836_OPR001	↓	↓	↓	↓	↓	↓	↓	↓	↓
☐	32458_2836_001	↓	0.905	↓	↓	↓	↓	↓	↓	↓

IS Name (V18)	NS Name (V4)	CRS Name (V1)	RS Name (V8)
PCDD/F 081104A,1041	PCDD/F 090922A,1041	PCDD/F 100127A10,C	PCDD/F 100127B10,C
PCB	PCB	PCB	PCB
PAH	PAH	PAH	PAH

Cycle Time: 2/27 Start: 1640; 2/28 Stop: 0940

APP.: SEFUN SOX (SDS)

SOLV: TOL

Other: SPE

Final Volume(s): 20ml C18

Check Out: Chemist: FEB 2/27/10

Check-In: Chemist: Empty

Comments:

SAMPLE DATA

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 10:16:06 Pacific Standard Time
Printed: Wednesday, March 03, 2010 10:16:20 Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

	Name	Conc	RA	Flag	RF	wt/vol	RT	RRT	Area	RS	Amount	
1	2,3,7,8-TCDD			NO	1.04	1.000					0.191	
2	1,2,3,7,8-PeCDD			NO	0.935	1.000					0.258	
3	1,2,3,4,7,8-HxCDD			NO	0.907	1.000					0.312	
4	1,2,3,6,7,8-HxCDD			NO	0.995	1.000					0.320	
5	1,2,3,7,8,9-HxCDD			NO	0.930	1.000					0.309	
6	1,2,3,4,6,7,8-HpCDD			NO	1.00	1.000					0.267	
7	OCDD	8.01e2	0.81	NO	1.10	1.000	41.15	1.000	1.7299		0.456	~~1.7299~~
8	2,3,7,8-TCDF			NO	0.956	1.000					0.173	
9	1,2,3,7,8-PeCDF			NO	0.941	1.000					0.230	
10	2,3,4,7,8-PeCDF			NO	0.926	1.000					0.212	
11	1,2,3,4,7,8-HxCDF			NO	1.22	1.000					0.185	
12	1,2,3,6,7,8-HxCDF			NO	1.08	1.000					0.194	
13	2,3,4,6,7,8-HxCDF			NO	1.13	1.000					0.221	
14	1,2,3,7,8,9-HxCDF			NO	1.13	1.000					0.273	
15	1,2,3,4,6,7,8-HpCDF			NO	1.44	1.000					0.345	
16	1,2,3,4,7,8,9-HpCDF			NO	1.38	1.000					0.338	
17	OCDF	4.04e2	1.10	YES	1.01	1.000	41.38	1.000	~~0.70094~~	ND	0.369	0.63926
18	13C-2,3,7,8-TCDD	2.14e6	0.78	NO	1.10	1.000	26.01	1.022	1570.2	78.5	0.909	
19	13C-1,2,3,7,8-PeCDD	1.64e6	0.62	NO	1.09	1.000	30.55	1.200	1212.4	60.6	0.943	
20	13C-1,2,3,4,7,8-HxCDD	1.39e6	1.26	NO	1.01	1.000	33.90	1.014	1525.1	76.3	1.49	
21	13C-1,2,3,6,7,8-HxCDD	1.25e6	1.23	NO	0.889	1.000	34.01	1.017	1555.9	77.8	1.70	
22	13C-1,2,3,7,8,9-HxCDD	1.44e6	1.24	NO	1.07	1.000	34.31	1.026	1488.8	74.4	1.41	
23	13C-1,2,3,4,6,7,8-HpCDD	1.15e6	1.05	NO	0.837	1.000	37.81	1.131	1525.9	76.3	2.44	
24	13C-OCDD	1.68e6	0.88	NO	0.712	1.000	41.14	1.230	2615.9	65.4	1.09	
25	13C-2,3,7,8-TCDF	3.15e6	0.78	NO	1.05	1.000	25.25	0.992	1587.2	79.4	1.19	
26	13C-1,2,3,7,8-PeCDF	2.26e6	1.57	NO	1.02	1.000	29.37	1.153	1176.6	58.8	1.52	
27	13C-2,3,4,7,8-PeCDF	2.24e6	1.55	NO	1.08	1.000	30.27	1.189	1103.6	55.2	1.44	
28	13C-1,2,3,4,7,8-HxCDF	1.63e6	0.52	NO	1.37	1.000	33.02	0.988	1323.2	66.2	1.92	
29	13C-1,2,3,6,7,8-HxCDF	1.75e6	0.51	NO	1.37	1.000	33.14	0.991	1419.1	71.0	1.92	
30	13C-2,3,4,6,7,8-HxCDF	1.55e6	0.52	NO	1.18	1.000	33.74	1.009	1452.5	72.6	2.22	

3/5/10

3/5/10

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 10:16:06 Pacific Standard Time
Printed: Wednesday, March 03, 2010 10:16:20 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

	13C-1,2,3,7,8,9-HxCDF	1.38e6	0.51	NO	1.05	1.000	34.71	1.038	1456.1	72.8	2.49	
	13C-1,2,3,4,6,7,8-HpCDF	1.17e6	0.46	NO	0.858	1.000	36.57	1.094	1517.1	75.9	2.77	
	13C-1,2,3,4,7,8,9-HpCDF	1.05e6	0.45	NO	0.794	1.000	38.37	1.148	1461.3	73.1	2.99	
	13C-OCDF	2.25e6	0.88	NO	0.948	1.000	41.38	1.238	2630.0	65.8	0.951	
	37Cl-2,3,7,8-TCDD	5.54e5			0.665	1.000	26.03	1.022	673.15	84.1	0.281	
	13C-1,2,3,4-TCDD	2.48e6	0.79	NO	1.00	1.000	25.47	0.000	2000.0	100	1.00	
	13C-1,2,3,4-TCDF	3.76e6	0.78	NO	1.00	1.000	24.07	0.000	2000.0	100	1.25	
	13C-1,2,3,4,6,9-HxCDF	1.80e6	0.52	NO	1.00	1.000	33.43	0.000	2000.0	100	2.62	
	Total Tetra-Dioxins				1.04	1.000					0.0888	
	Total Penta-Dioxins				0.935	1.000					0.0920	
	Total Hexa-Dioxins				0.995	1.000					0.149	
	Total Hepta-Dioxins				1.00	1.000			~~0.00000~~		0.130	0.93772
	Total Tetra-Furans				0.956	1.000					0.0830	
	1st Func. Penta-Furans				0.941	1.000					0.0760	
	Total Penta-Furans				0.941	1.000					0.105	
	Total Hexa-Furans				1.13	1.000					0.124	
	Total Hepta-Furans				1.44	1.000					0.144	

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 10:16:06 Pacific Standard Time
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Method: C:\MassLynx\Default.pro\Methdb\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

Tetra-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	rIY	Resp	Conc	EMPC	DL

Penta-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	rIY	Resp	Conc	EMPC	DL

Hexa-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	rIY	Resp	Conc	EMPC	DL

Hepta-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	rIY	Resp	Conc	EMPC	DL
Total Hepta-Dioxins	36.98	7.075e3	5.518e3	3.198e2	2.651e2	1.21	YES	0.000e0	0.00000	0.93772	0.267

Tetra-Furans

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	rIY	Resp	Conc	EMPC	DL

Penta-Furans function 1

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	rIY	Resp	Conc	EMPC	DL

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 10:16:06 Pacific Standard Time
Printed: Wednesday, March 03, 2010 10:16:20 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

Penta-Furans

[illegible]	RT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]								

Hexa-Furans

[illegible]	RT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]								

Hepta-Furans

[illegible]	RT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]								

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

2,3,7,8-TCDD

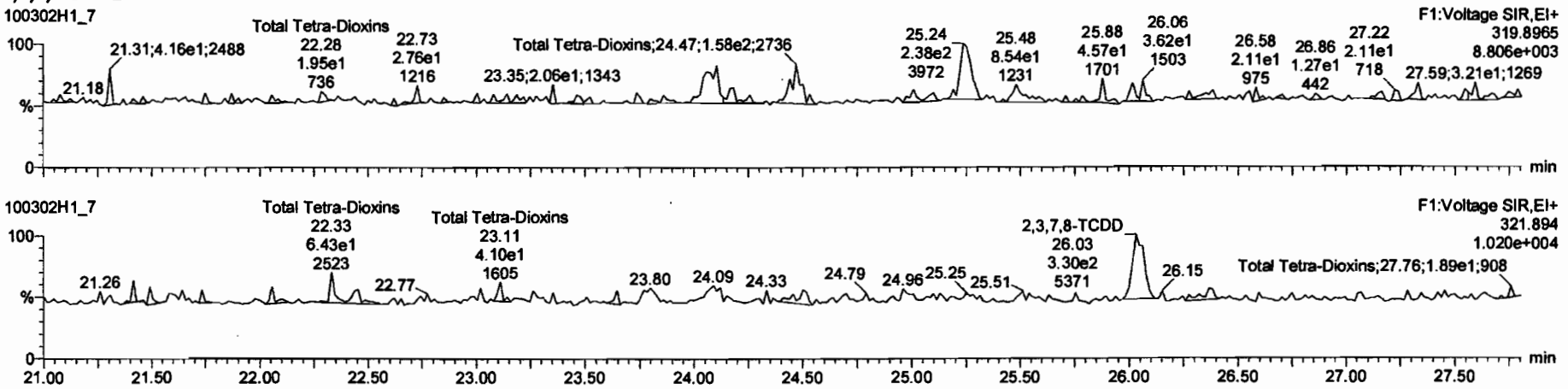

13C-2,3,7,8-TCDD

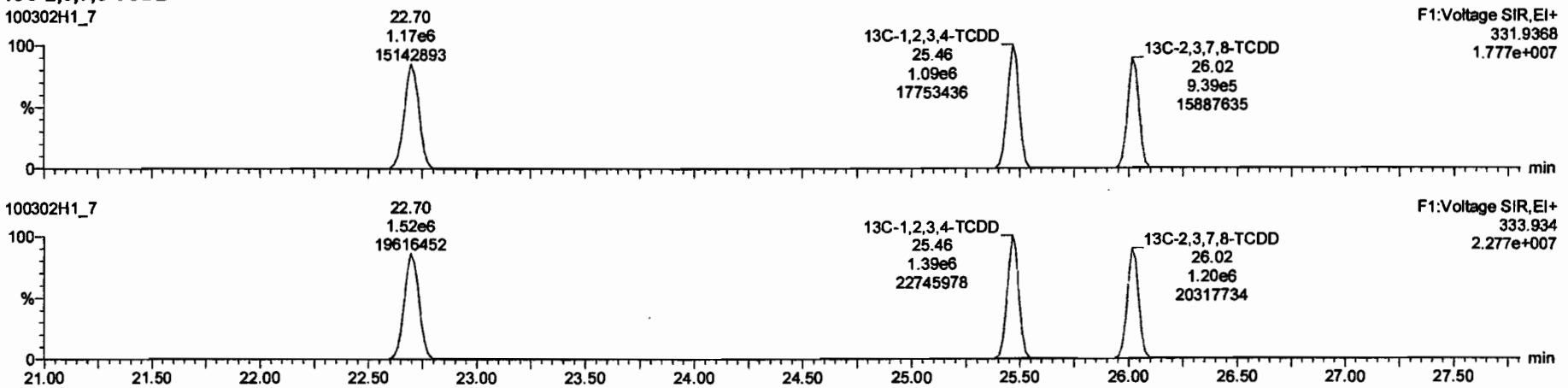

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

37Cl-2,3,7,8-TCDD

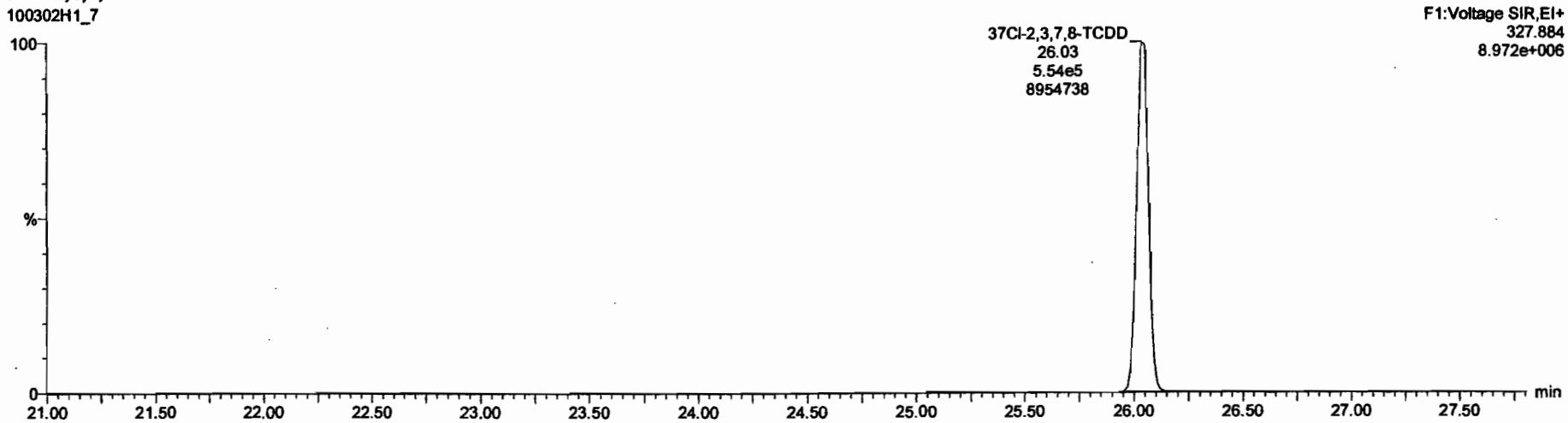

13C-1,2,3,4-TCDD

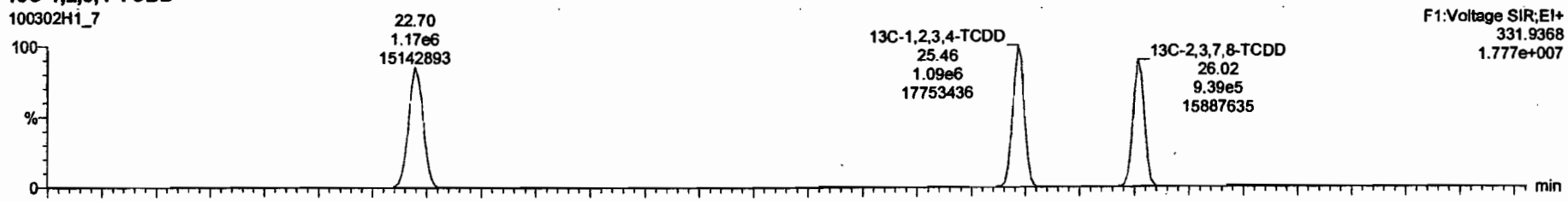

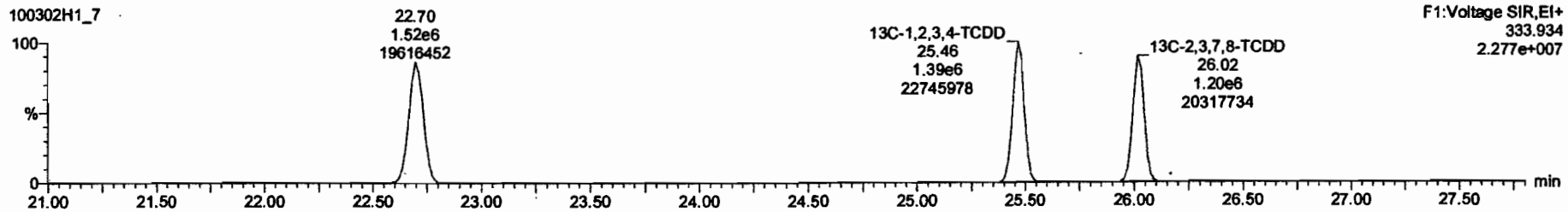

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

1,2,3,7,8-PeCDD

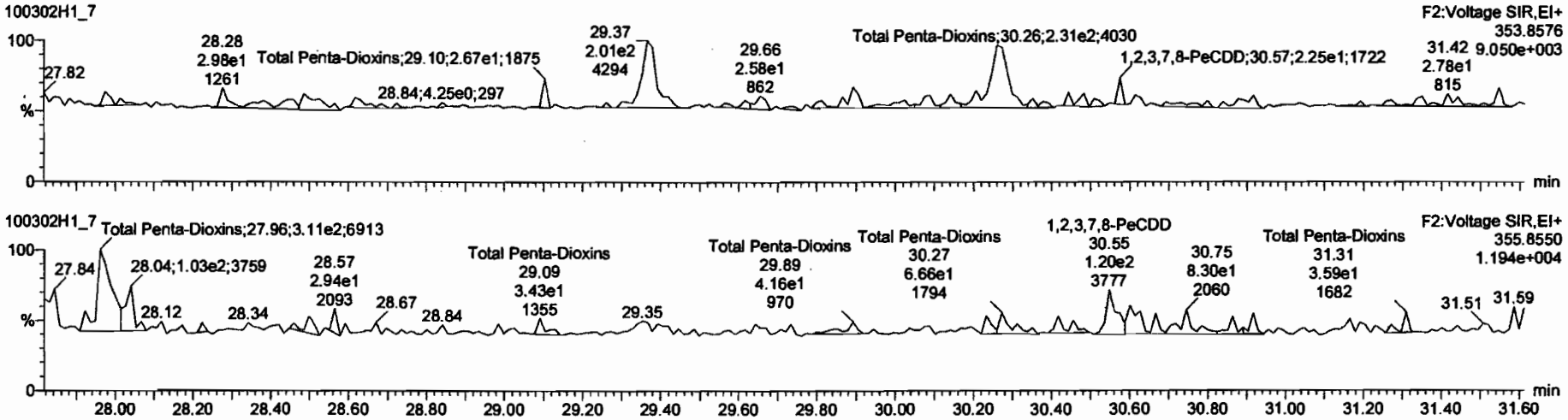

13C-1,2,3,7,8-PeCDD

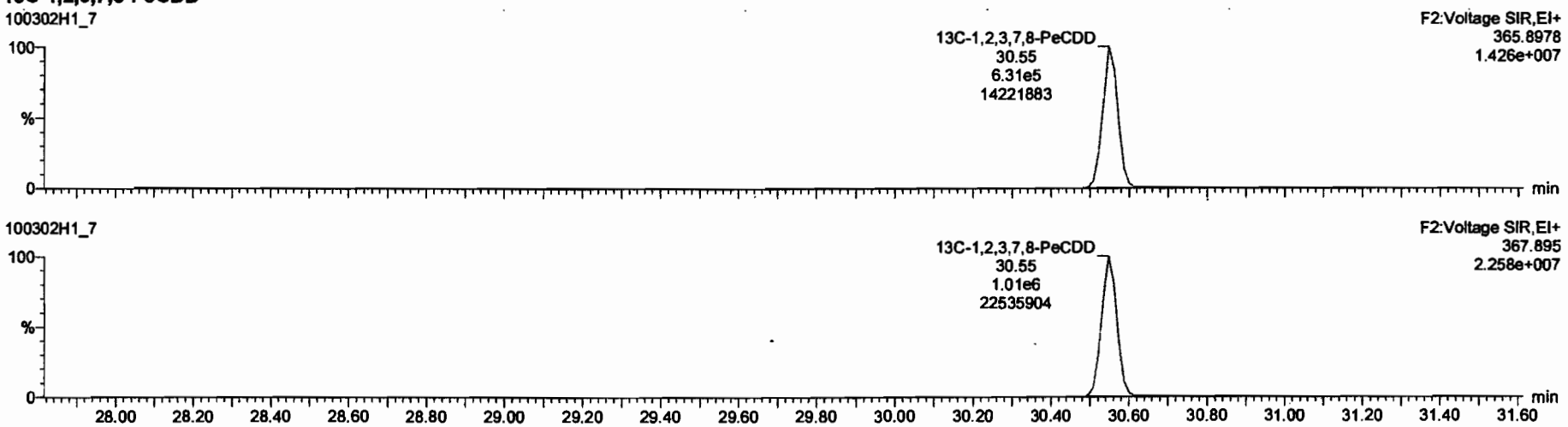

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

1,2,3,4,7,8-HxCDD

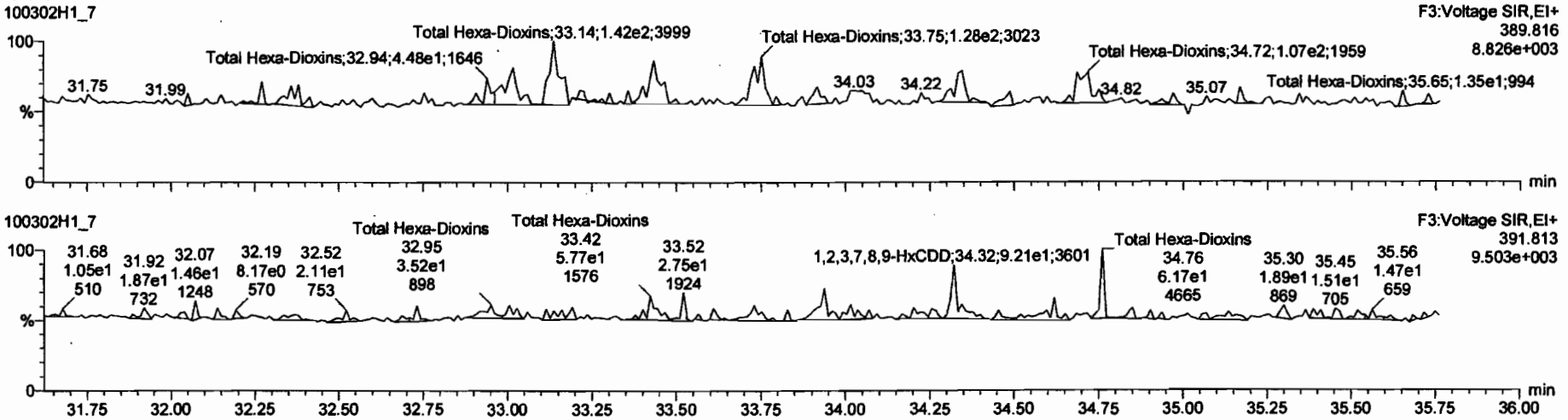

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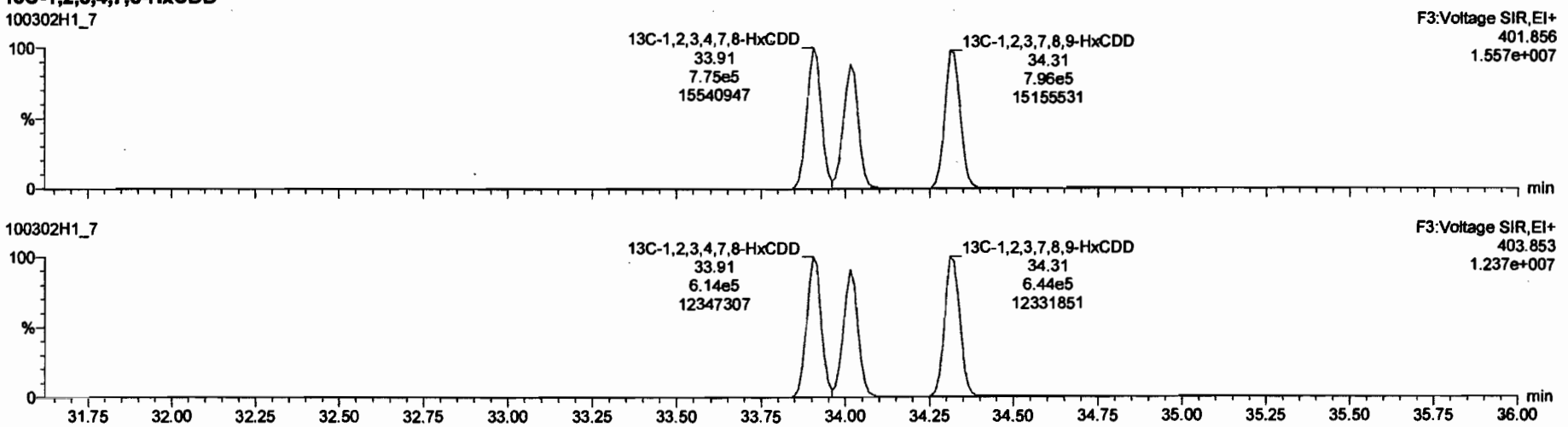

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qid

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

1,2,3,4,6,7,8-HpCDD

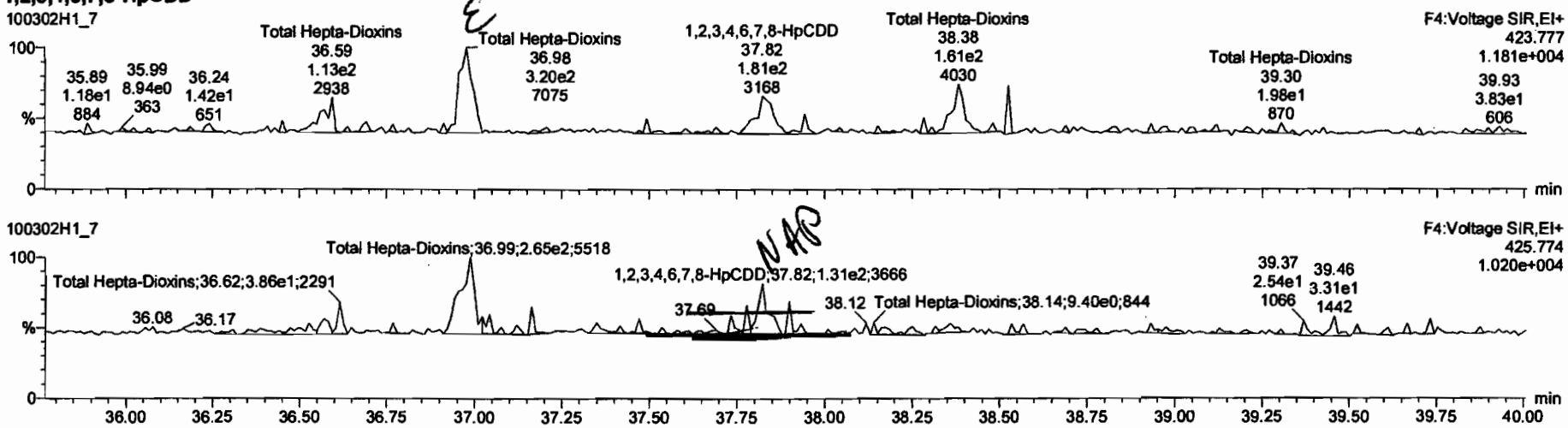

13C-1,2,3,4,6,7,8-HpCDD

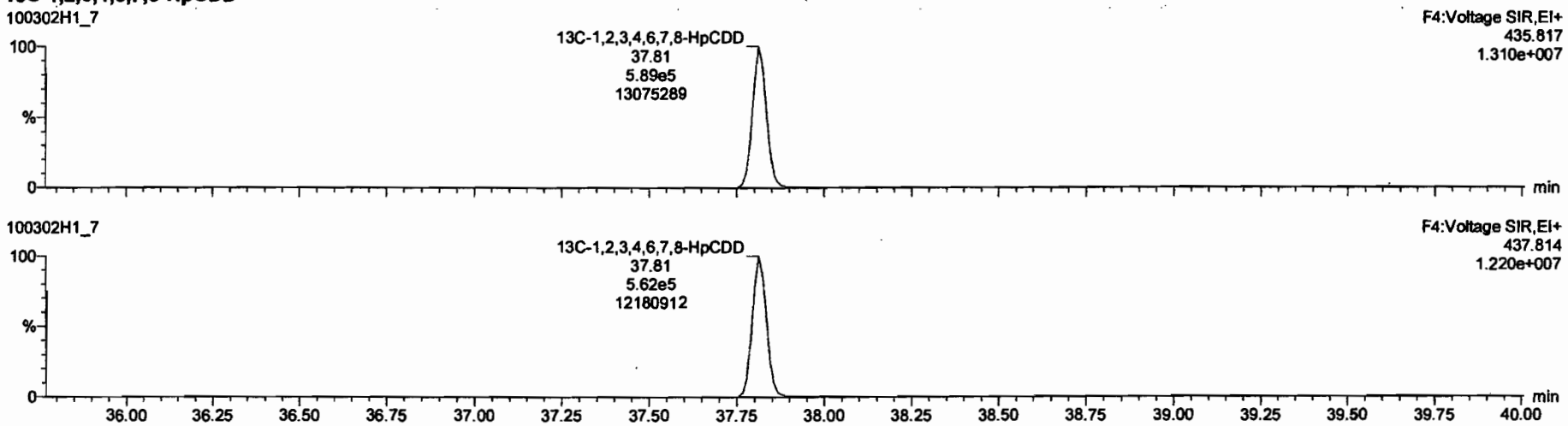

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

OCDD

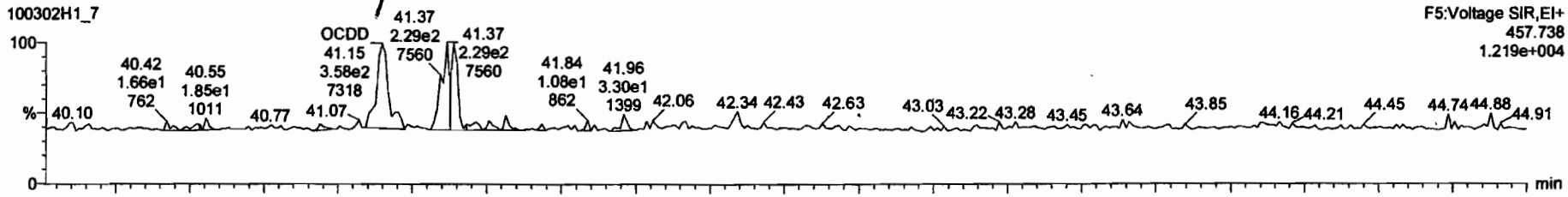

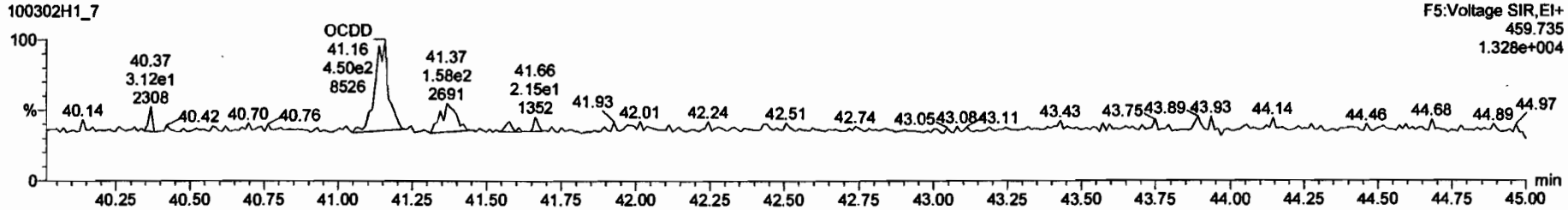

13C-OCDD

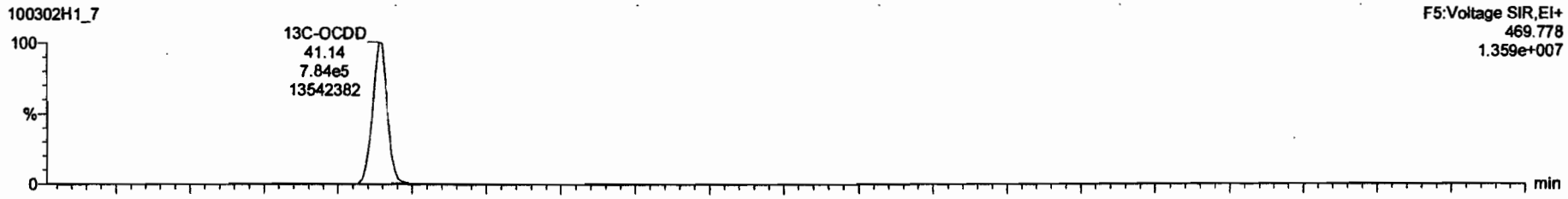

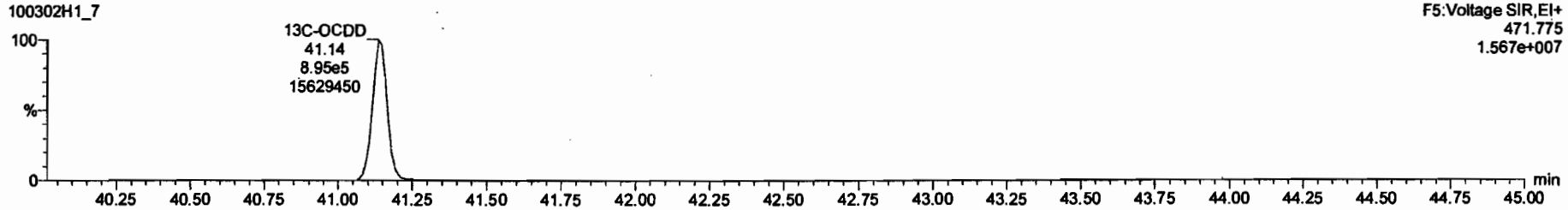

TargetLynx - 100302h1-7.qld * - [Chromatogram]

File Edit View Display Processing Window Help

100302H1_7 - 0_2836_MB001 - 0_2836_MB001

	Name	Resp	RA	QV	RRF	Conc	RT	RRT	Conc	Width	DL	Area
7												
8	2,3,7,8-TCDF	9.10e1	0.47	YES	0.96	1.000	25.31	1.002	0.0605		0.173	0.0447
9	1,2,3,7,8-PeCDF	1.78e2	1.85	YES	0.94	1.000	29.42	1.002	0.168		0.230	0.150
10	2,3,4,7,8-PeCDF	1.97e2	1.32	NO	0.93	1.000	30.30	1.001	0.190		0.212	0.190
11	1,2,3,4,7,8-HxCDF	1.27e2	9.33	YES	1.22	1.000	33.02	1.000	0.128		0.185	0.0277

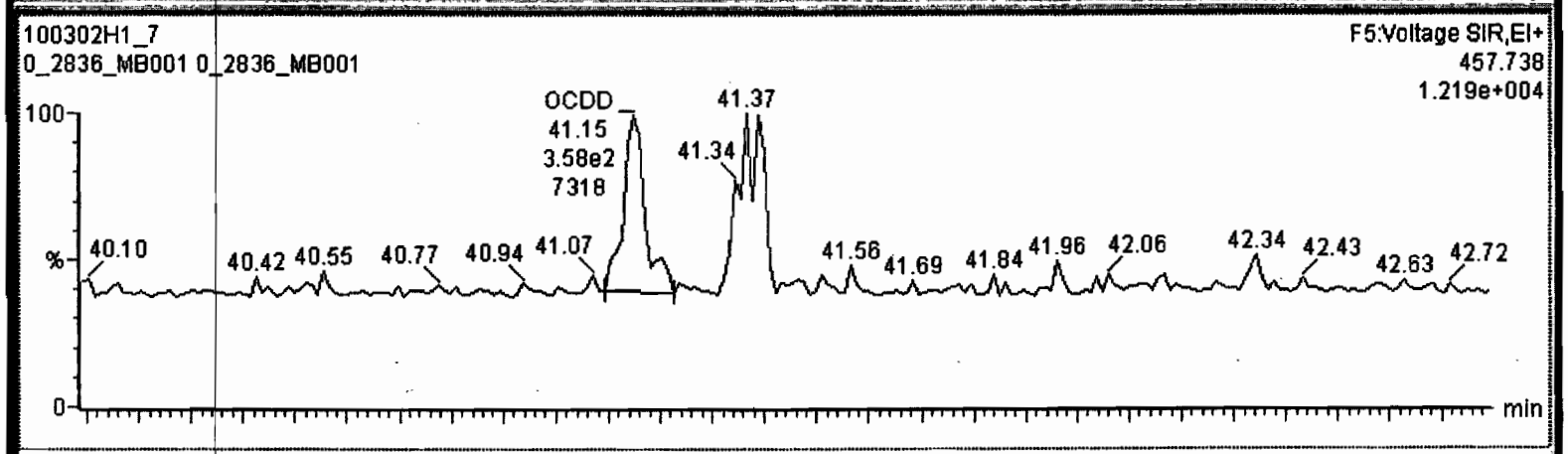

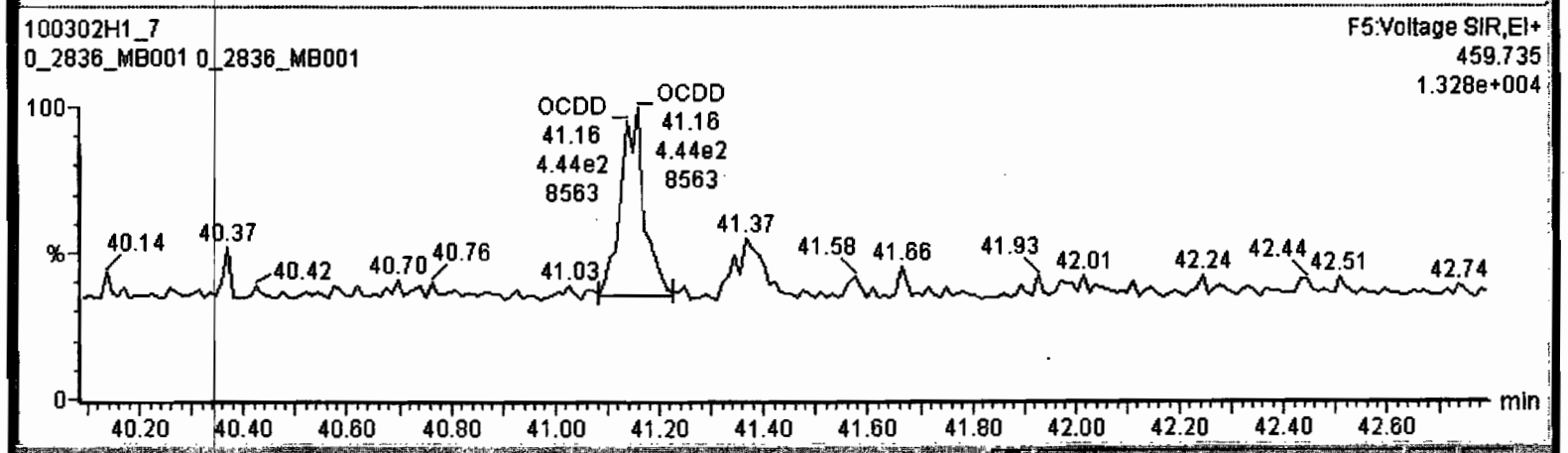

Ready

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

2,3,7,8-TCDF

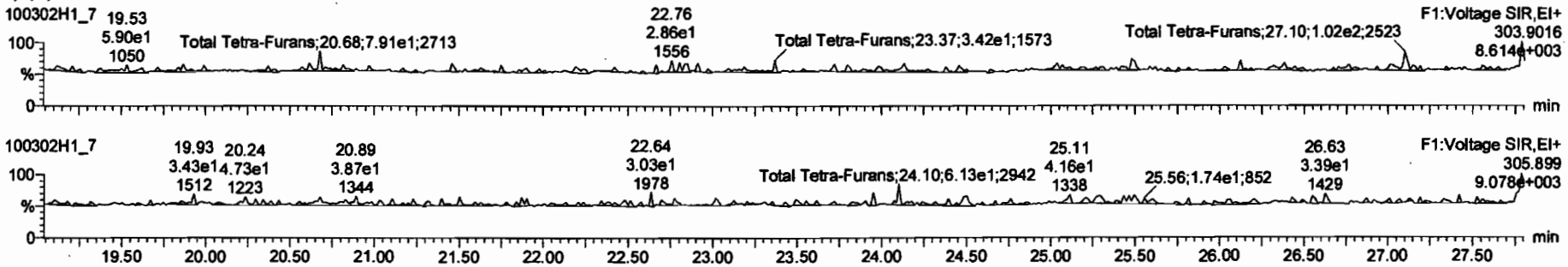

13C-2,3,7,8-TCDF

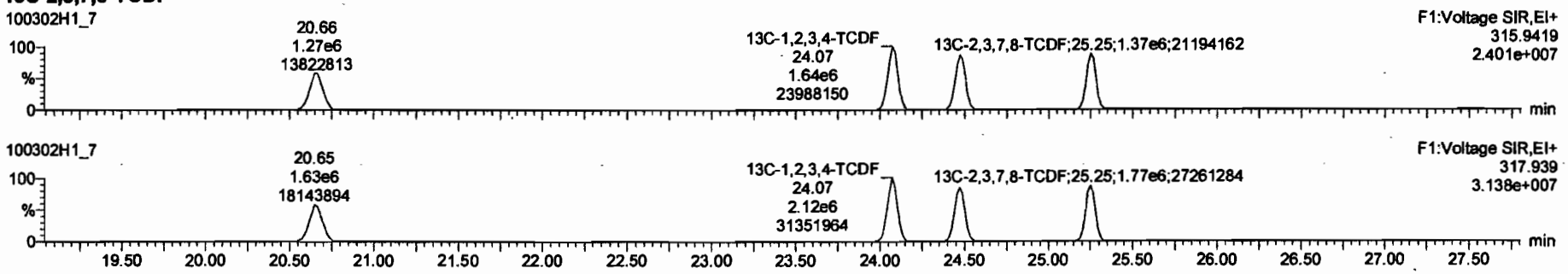

DPE1

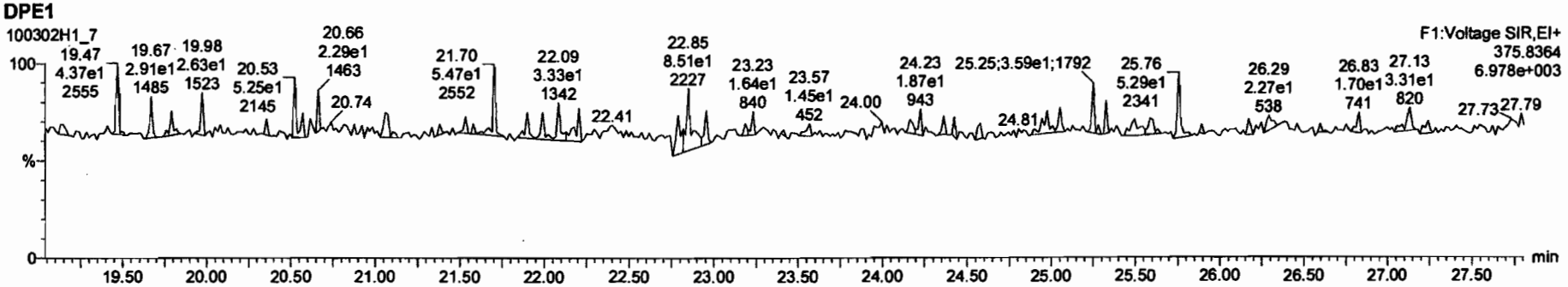

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

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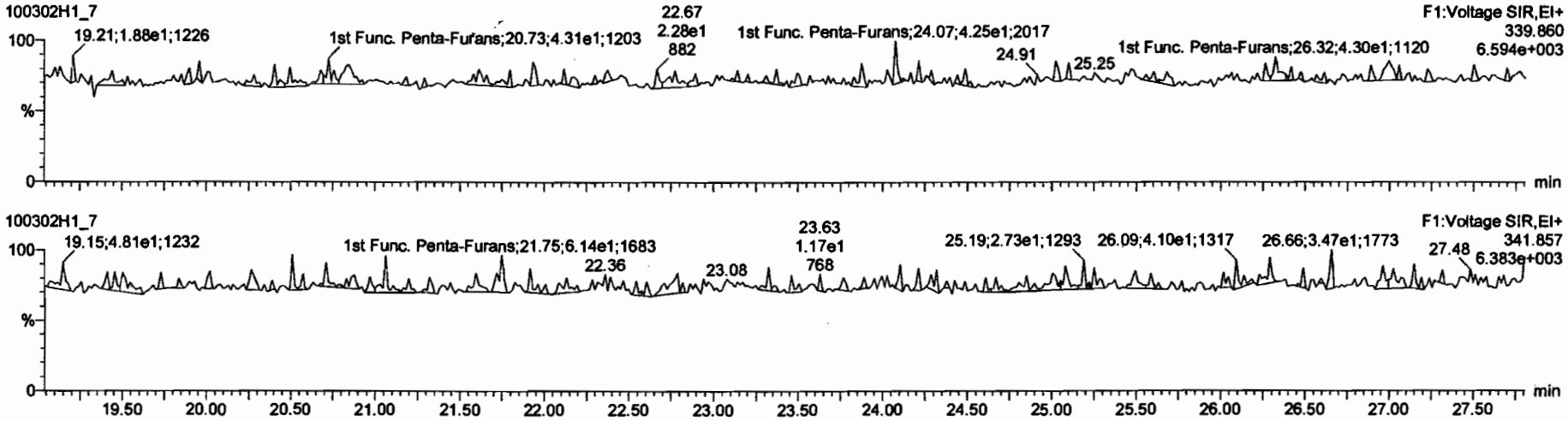

DPE6

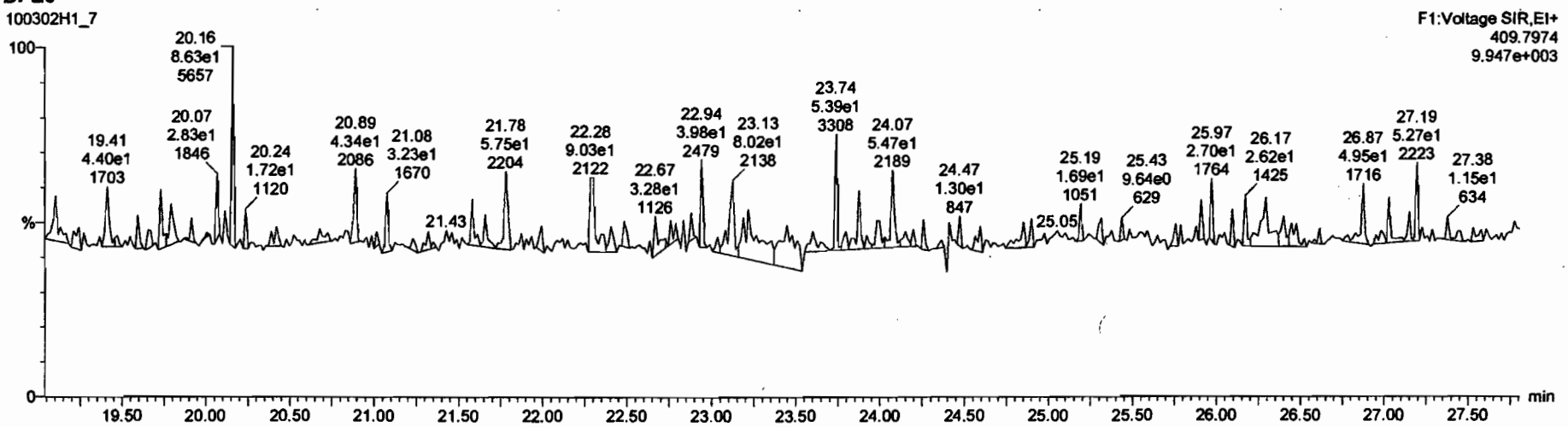

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

1,2,3,7,8-PeCDF

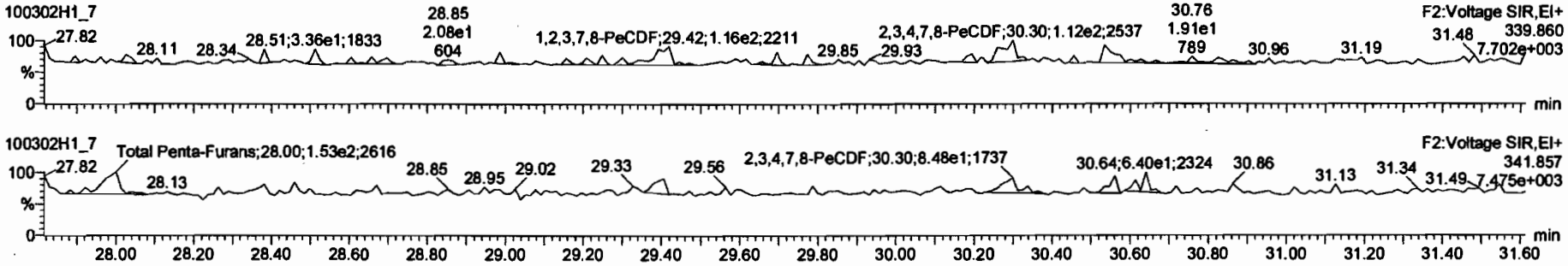

13C-1,2,3,7,8-PeCDF

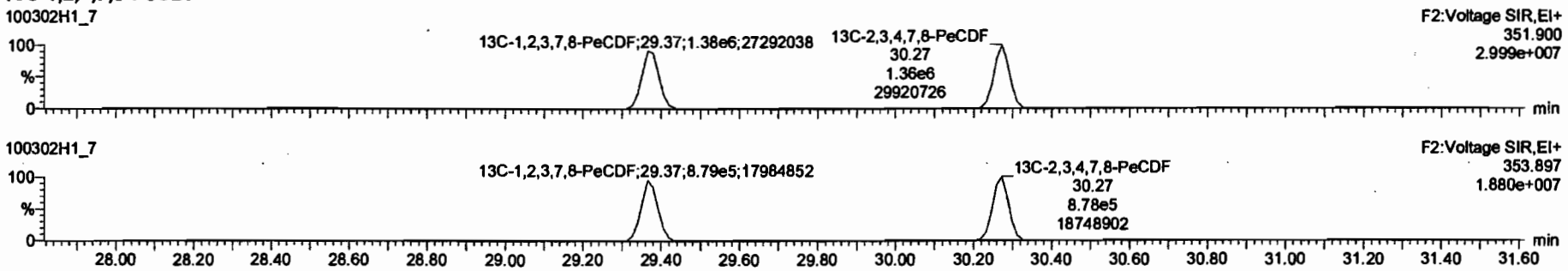

DPE2

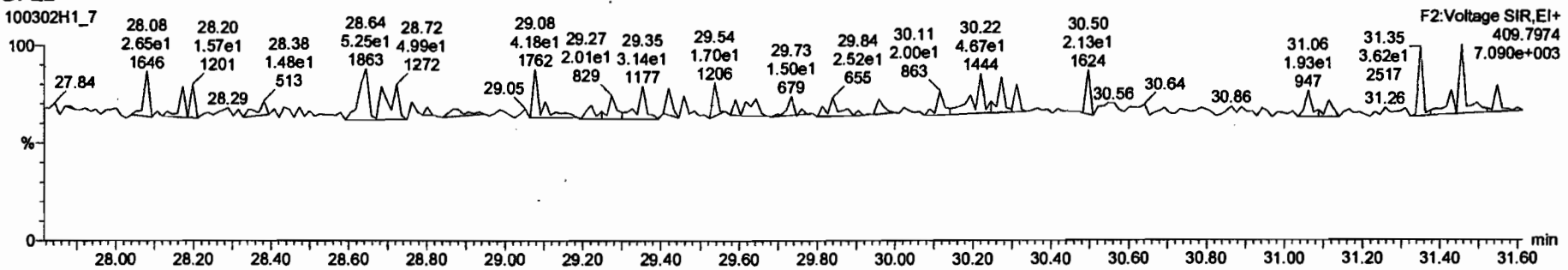

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

1,2,3,4,7,8-HxCDF

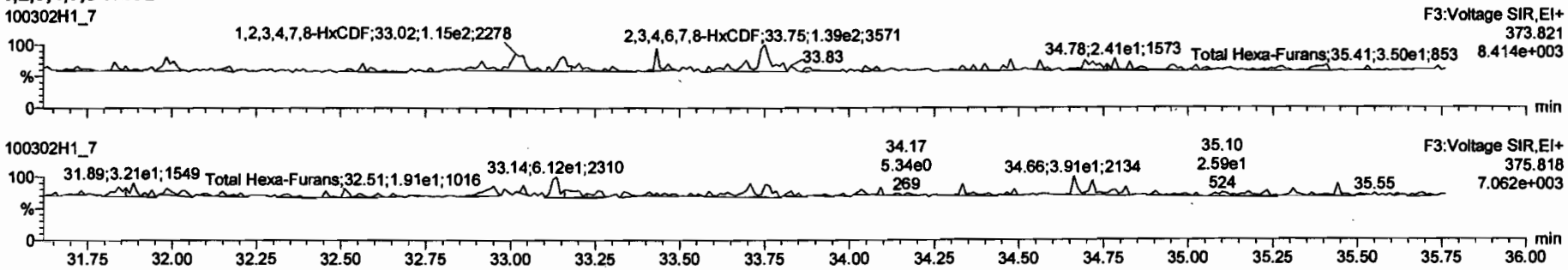

13C-1,2,3,4,7,8-HxCDF

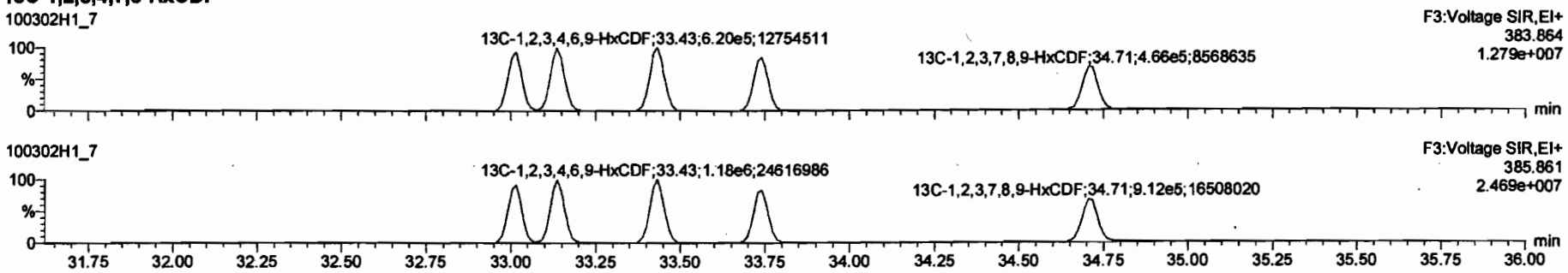

DPE3

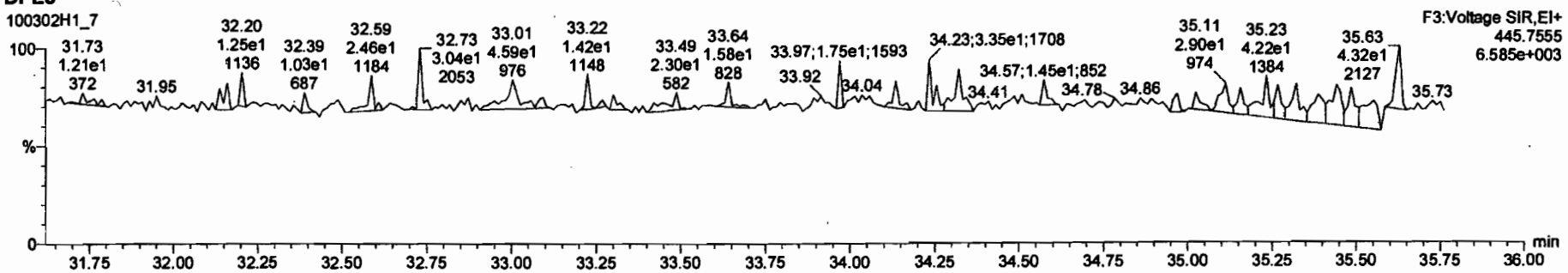

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

1,2,3,4,6,7,8-HpCDF

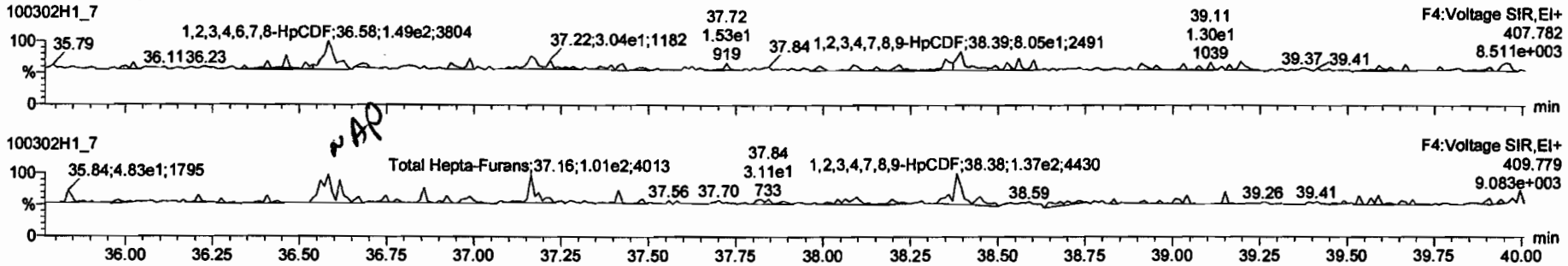

13C-1,2,3,4,6,7,8-HpCDF

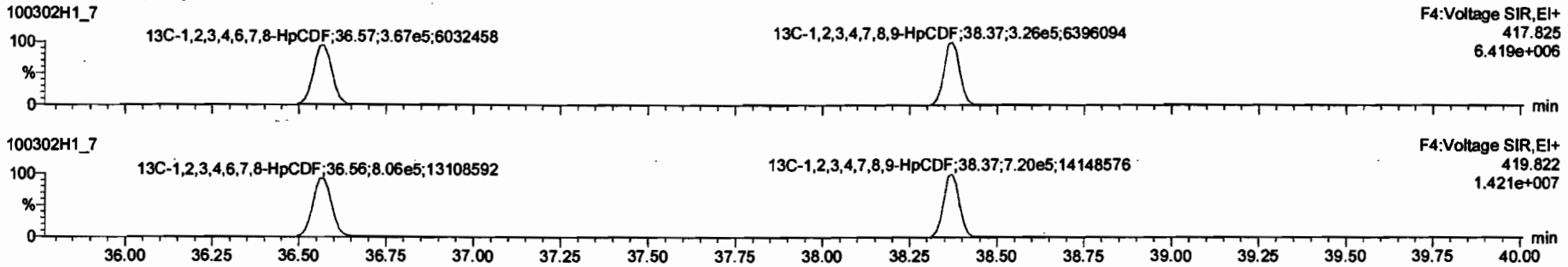

DPE4

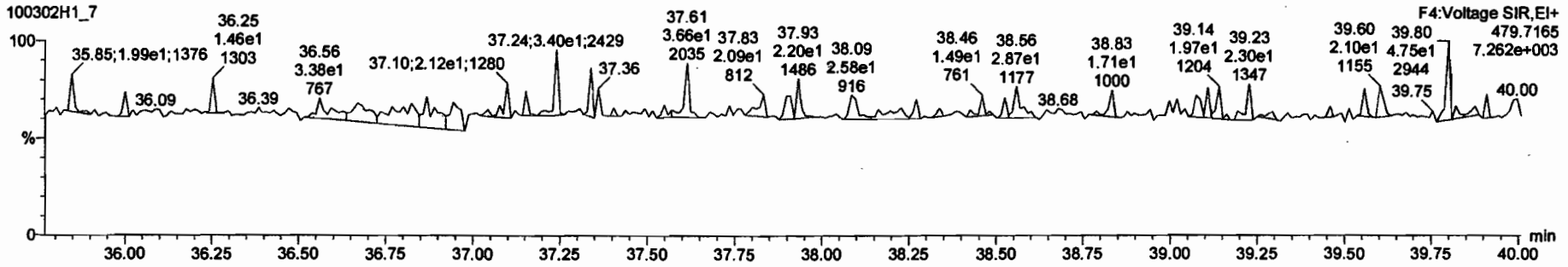

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

OCDF

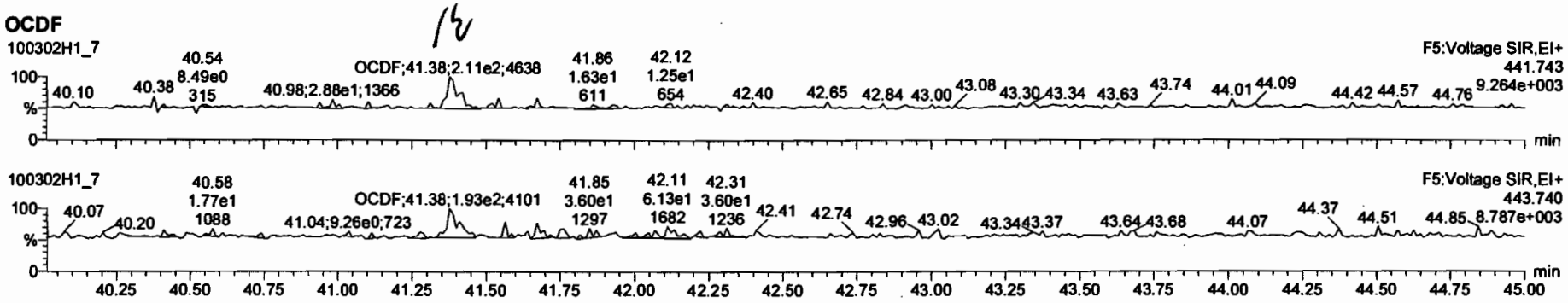

13C-OCDF

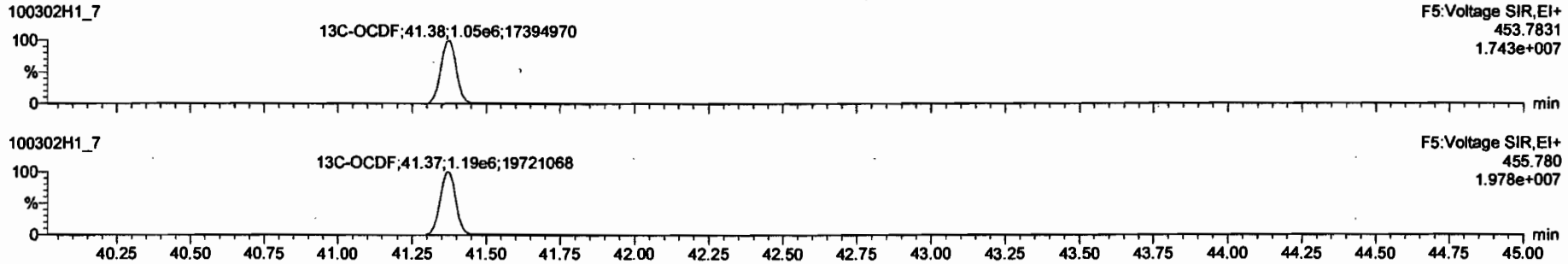

DPE5

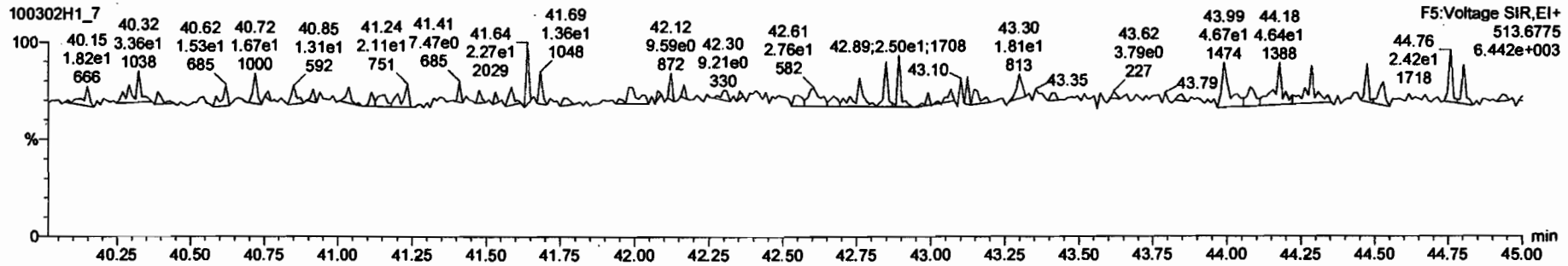

TargetLynx - 100302h1-7.qld * - [Chromatogram]

File Edit View Display Processing Window Help

100302H1_7 - 0_2836_MB001 - 0_2836_MB001

	Name	Resp	RA	S/N	RRF	Width	RT	RRT	Code	%Rec	DL	Flag
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18	13C-2,3,7,8-TCDD	2.14e6	0.78	NO	1.10	1.000	26.01	1.022	1570	78.5	0.909	
19	13C-1,2,3,7,8-PeCDD	1.64e6	0.62	NO	1.09	1.000	30.55	1.200	1210	60.6	0.943	
20	13C-1,2,3,4,7,8-HxCDD	1.39e6	1.26	NO	1.01	1.000	33.90	1.014	1530	76.3	1.49	
21	13C-1,2,3,6,7,8-HxCDD	1.25e6	1.23	NO	0.89	1.000	34.01	1.017	1560	77.8	1.70	

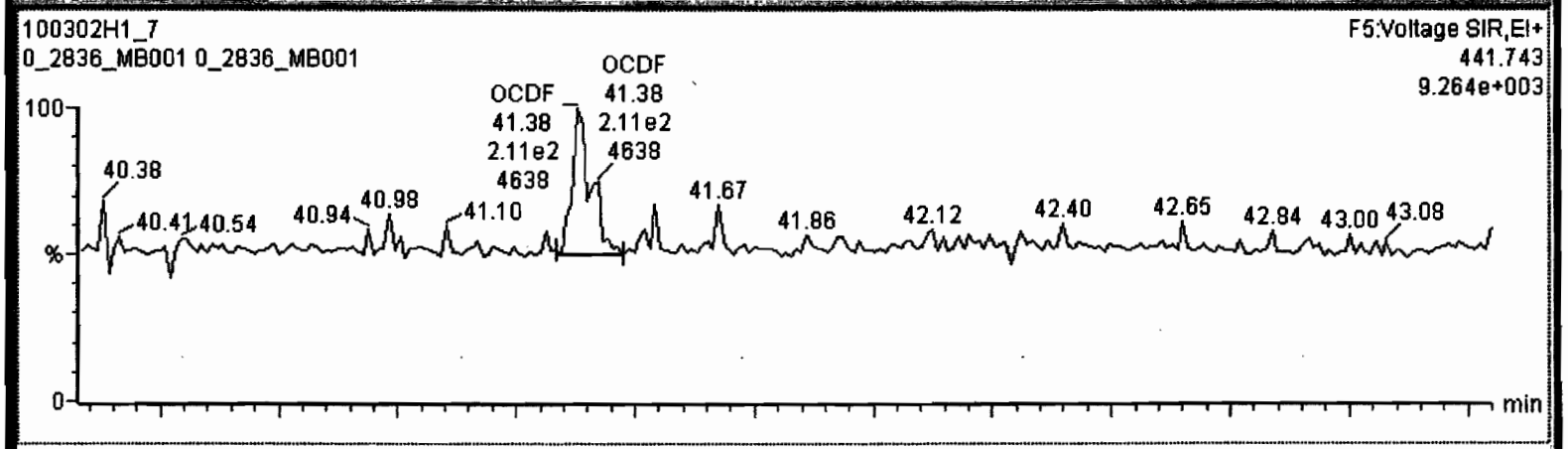

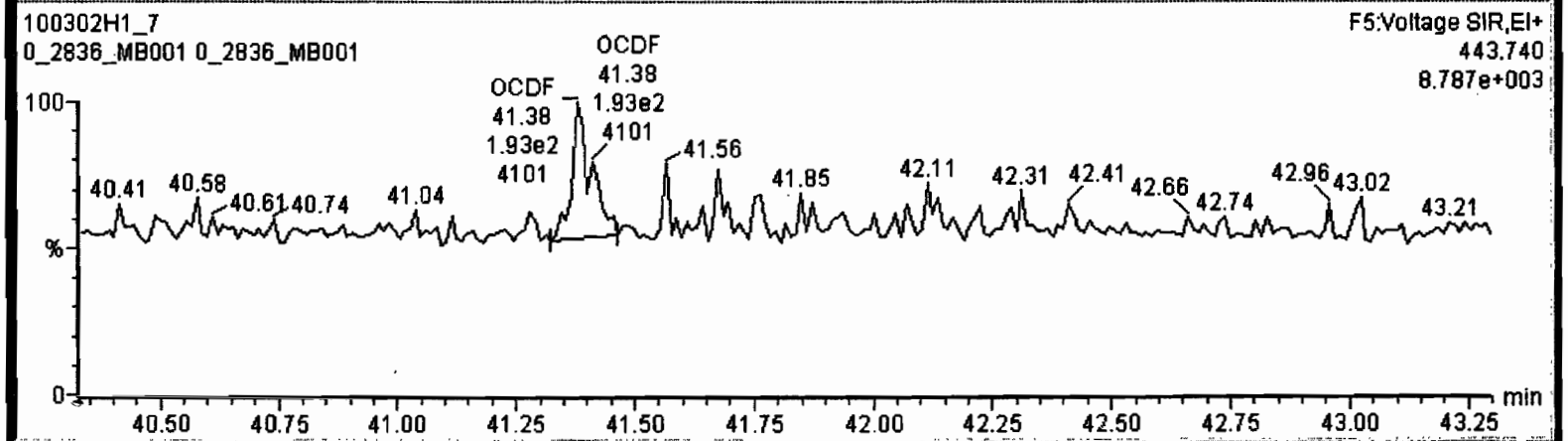

Ready 100302H1_7 NUM

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

PFK1

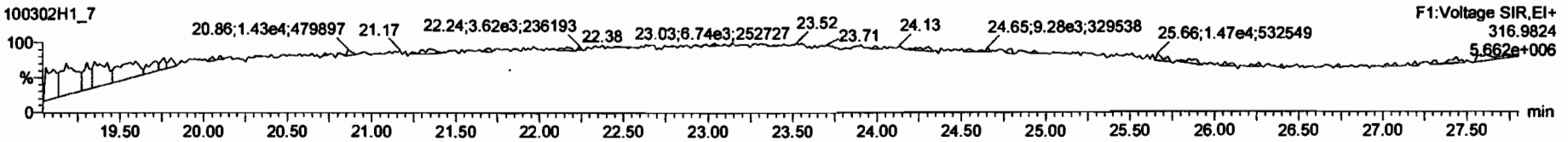

PFK2

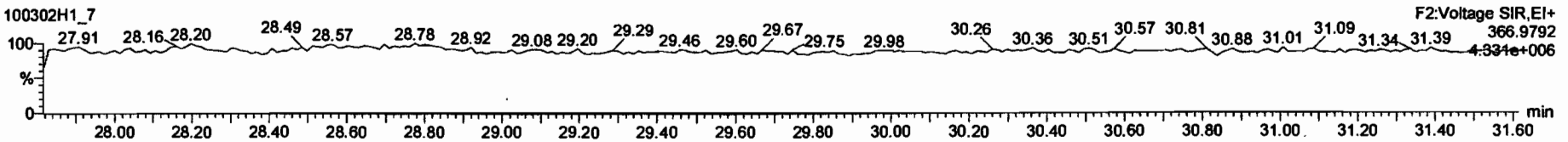

PFK3

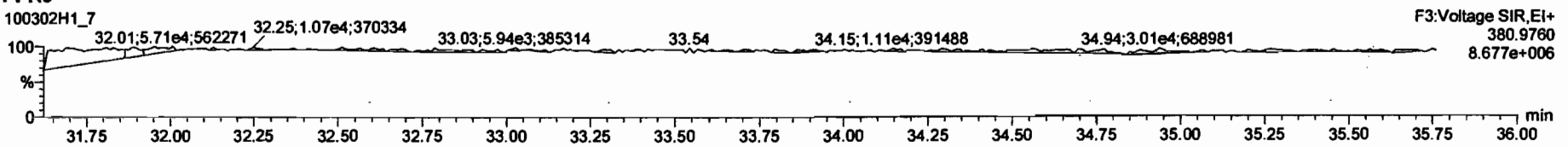

PFK4

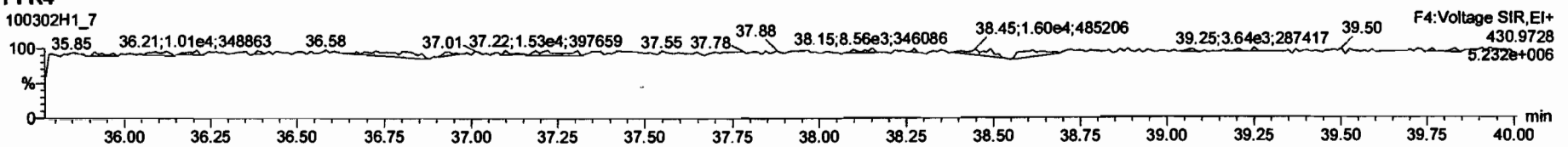

PFK5

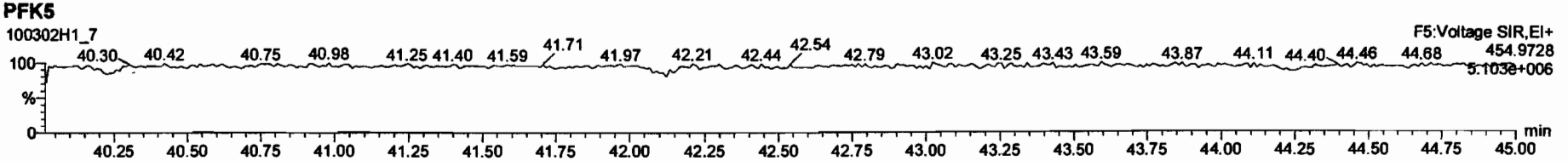

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-5.qld

Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:31:11 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

	Name	Area	RA	Int	S/N	RT	RRT	Conc	%Rec	Dil	Amt
1	2,3,7,8-TCDD	1.97e5	0.75	NO	1.04	1.000	26.03	1.001	10.108	101	0.0147	10.108
2	1,2,3,7,8-PeCDD	6.67e5	0.61	NO	0.935	1.000	30.56	1.001	49.366	98.7	0.0321	49.366
3	1,2,3,4,7,8-HxCDD	5.60e5	1.26	NO	0.907	1.000	33.92	1.001	50.203	100	0.0512	50.203
4	1,2,3,6,7,8-HxCDD	5.36e5	1.23	NO	0.995	1.000	34.02	1.000	49.126	98.3	0.0522	49.126
5	1,2,3,7,8,9-HxCDD	5.94e5	1.24	NO	0.930	1.000	34.32	1.009	50.082	100	0.0511	50.082
6	1,2,3,4,6,7,8-HpCDD	4.95e5	1.05	NO	1.00	1.000	37.82	1.001	49.504	99.0	0.0777	49.504
7	OCDD	8.15e5	0.88	NO	1.10	1.000	41.15	1.001	97.511	97.5	0.0720	97.511
8	2,3,7,8-TCDF	2.75e5	0.77	NO	0.956	1.000	25.25	1.001	10.379	104	0.0115	10.379
9	1,2,3,7,8-PeCDF	9.59e5	1.59	NO	0.941	1.000	29.38	1.000	51.568	103	0.0358	51.568
10	2,3,4,7,8-PeCDF	9.37e5	1.58	NO	0.926	1.000	30.27	1.000	51.211	102	0.0335	51.211
11	1,2,3,4,7,8-HxCDF	9.40e5	1.26	NO	1.22	1.000	33.02	1.001	51.759	104	0.0597	51.759
12	1,2,3,6,7,8-HxCDF	8.73e5	1.26	NO	1.08	1.000	33.14	1.000	50.921	102	0.0608	50.921
13	2,3,4,6,7,8-HxCDF	8.00e5	1.26	NO	1.13	1.000	33.74	1.000	51.615	103	0.0692	51.615
14	1,2,3,7,8,9-HxCDF	7.36e5	1.28	NO	1.13	1.000	34.72	1.001	51.959	104	0.0859	51.959
15	1,2,3,4,6,7,8-HpCDF	7.22e5	1.07	NO	1.44	1.000	36.57	1.000	50.576	101	0.102	50.576
16	1,2,3,4,7,8,9-HpCDF	6.69e5	1.06	NO	1.38	1.000	38.37	1.000	51.164	102	0.0885	51.164
17	OCDF	1.02e6	0.91	NO	1.01	1.000	41.38	1.000	99.296	99.3	0.0381	99.296
18	13C-2,3,7,8-TCDD	1.88e6	0.78	NO	1.10	1.000	26.02	1.022	72.018	72.0	0.0516	
19	13C-1,2,3,7,8-PeCDD	1.44e6	0.63	NO	1.09	1.000	30.54	1.200	55.613	55.6	0.0346	
20	13C-1,2,3,4,7,8-HxCDD	1.23e6	1.27	NO	1.01	1.000	33.89	1.014	71.441	71.4	0.0803	
21	13C-1,2,3,6,7,8-HxCDD	1.10e6	1.25	NO	0.889	1.000	34.00	1.017	72.328	72.3	0.0912	
22	13C-1,2,3,7,8,9-HxCDD	1.28e6	1.25	NO	1.07	1.000	34.31	1.027	69.806	69.8	0.0756	
23	13C-1,2,3,4,6,7,8-HpCDD	9.98e5	1.05	NO	0.837	1.000	37.80	1.131	70.027	70.0	0.140	
24	13C-OCDD	1.51e6	0.91	NO	0.712	1.000	41.13	1.230	124.96	62.5	0.0644	
25	13C-2,3,7,8-TCDF	2.77e6	0.79	NO	1.05	1.000	25.24	0.992	73.328	73.3	0.0493	
26	13C-1,2,3,7,8-PeCDF	1.98e6	1.56	NO	1.02	1.000	29.37	1.154	54.004	54.0	0.0621	
27	13C-2,3,4,7,8-PeCDF	1.98e6	1.55	NO	1.08	1.000	30.26	1.189	51.127	51.1	0.0588	
28	13C-1,2,3,4,7,8-HxCDF	1.48e6	0.52	NO	1.37	1.000	32.99	0.987	63.828	63.8	0.0820	
29	13C-1,2,3,6,7,8-HxCDF	1.59e6	0.52	NO	1.37	1.000	33.13	0.991	68.359	68.4	0.0820	
30	13C-2,3,4,6,7,8-HxCDF	1.38e6	0.52	NO	1.18	1.000	33.73	1.009	68.435	68.4	0.0948	

3/2/10

3/5/10

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-5.qld

Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
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Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

31	13C-1,2,3,7,8,9-HxCDF	1.26e6	0.53	NO	1.05	1.000	34.70	1.038	70.211	70.2	0.107
32	13C-1,2,3,4,6,7,8-HpCDF	9.92e5	0.45	NO	0.858	1.000	36.56	1.094	67.939	67.9	0.127
33	13C-1,2,3,4,7,8,9-HpCDF	9.48e5	0.45	NO	0.794	1.000	38.36	1.148	70.159	70.2	0.137
34	13C-OCDF	2.03e6	0.88	NO	0.948	1.000	41.37	1.238	125.75	62.9	0.0565
35	37Cl-2,3,7,8-TCDD	5.34e5			0.665	1.000	26.03	1.023	33.854	84.6	0.0198
36	13C-1,2,3,4-TCDD	2.37e6	0.81	NO	1.00	1.000	25.45	0.000	100.00	100	0.0567
37	13C-1,2,3,4-TCDF	3.59e6	0.78	NO	1.00	1.000	24.06	0.000	100.00	100	0.0519
38	13C-1,2,3,4,6,9-HxCDF	1.70e6	0.52	NO	1.00	1.000	33.42	0.000	100.00	100	0.112

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-5.qld

Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
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Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

2,3,7,8-TCDD

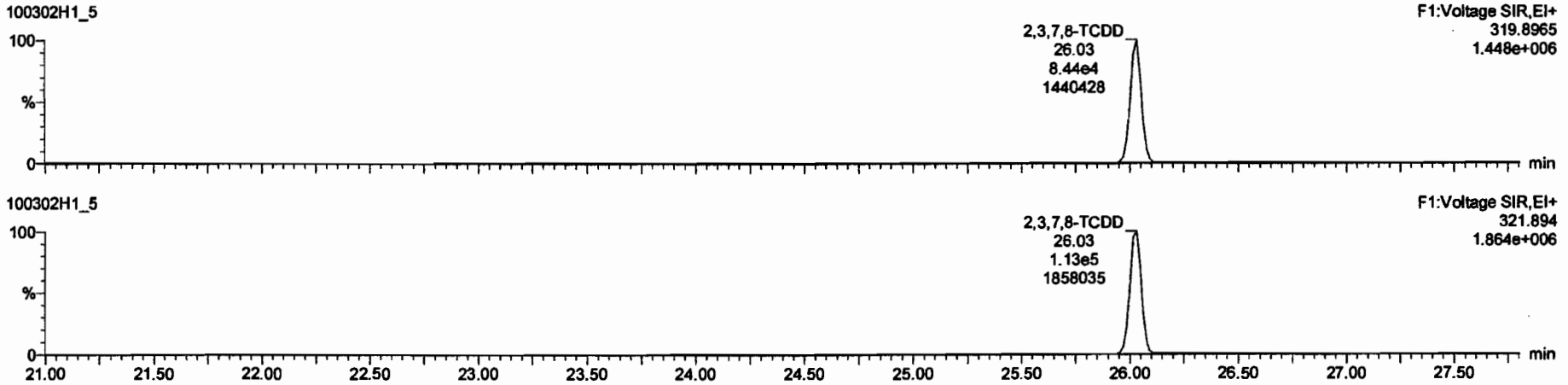

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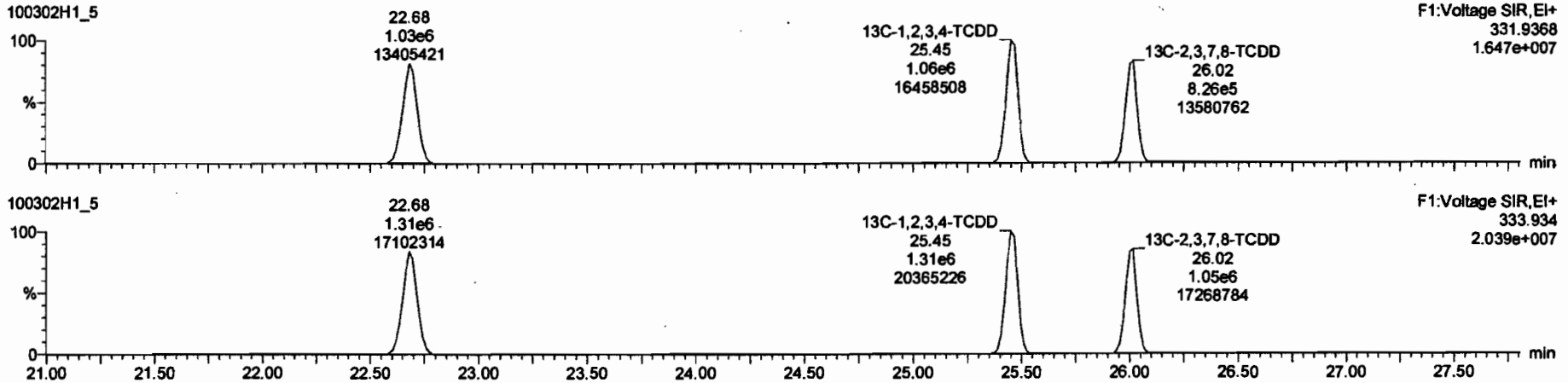

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-5.qld

Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

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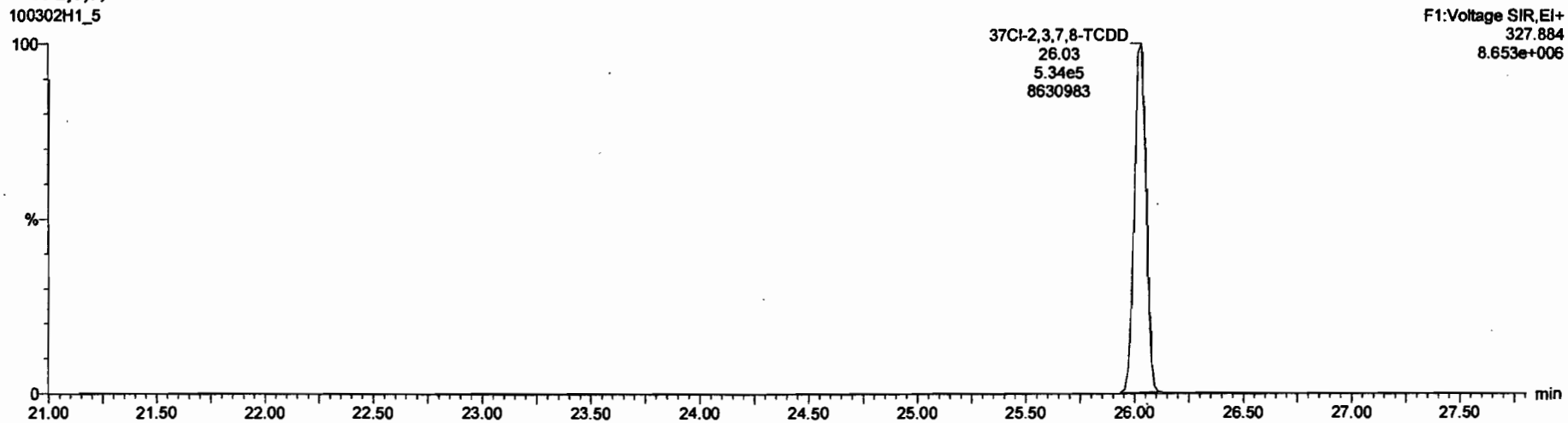

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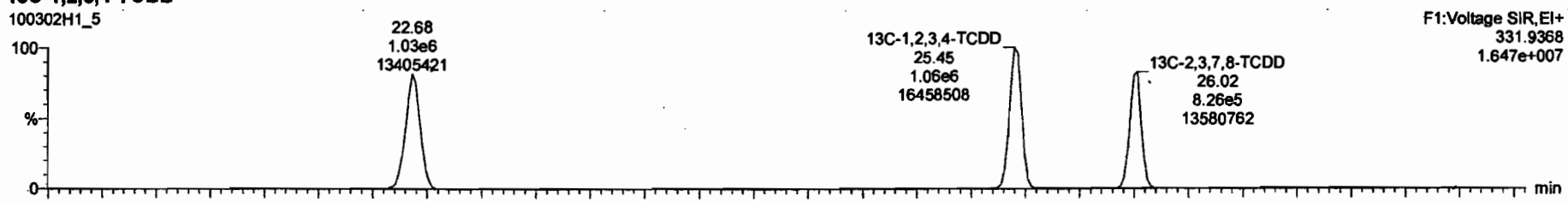

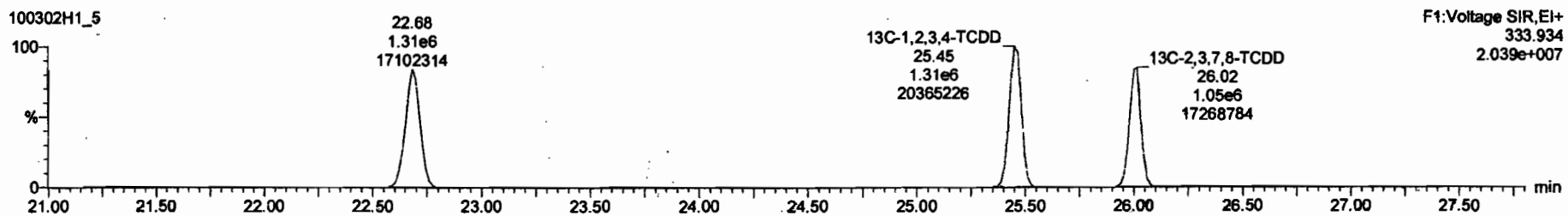

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Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

1,2,3,7,8-PeCDD

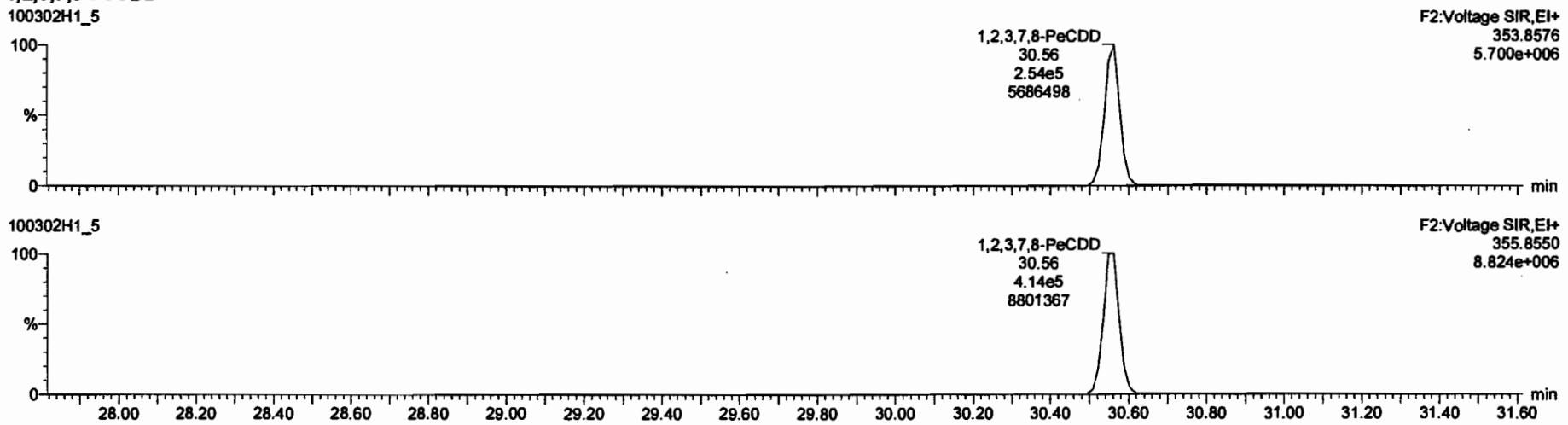

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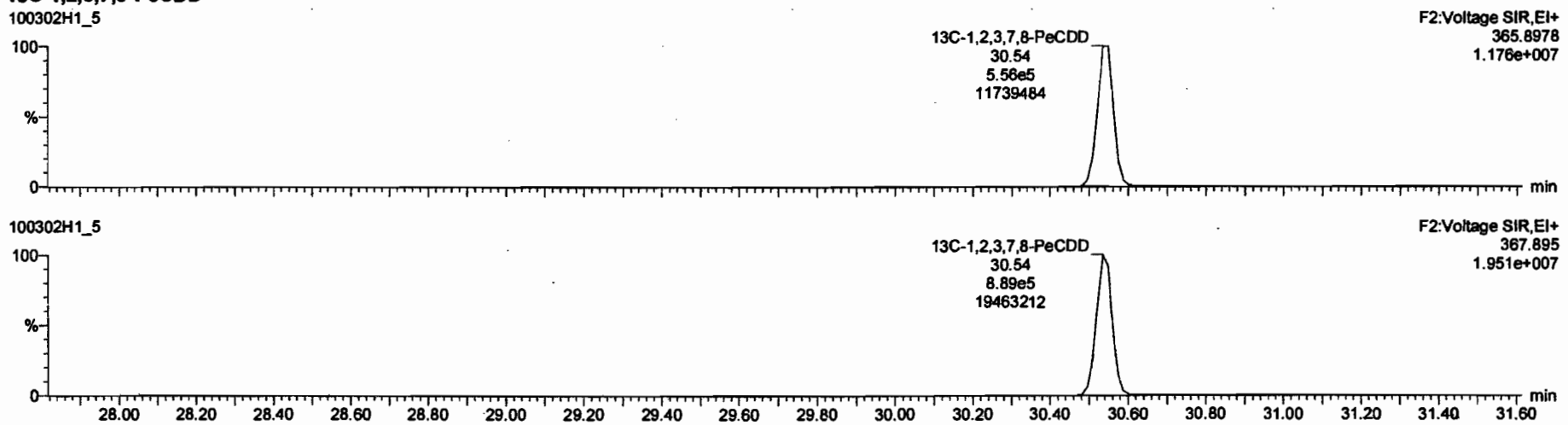

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Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

1,2,3,4,7,8-HxCDD

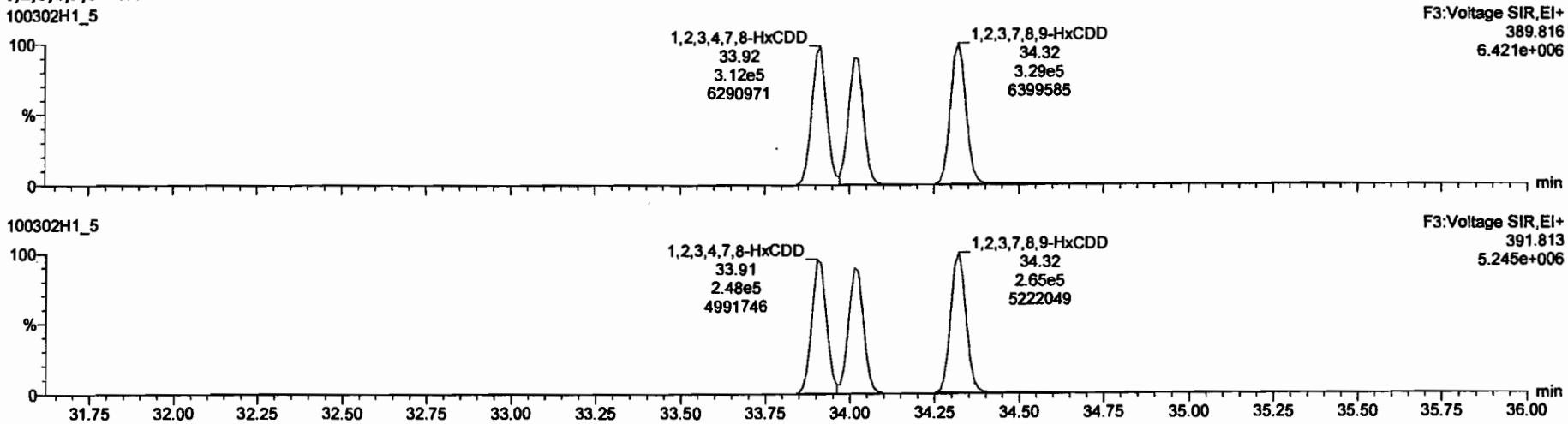

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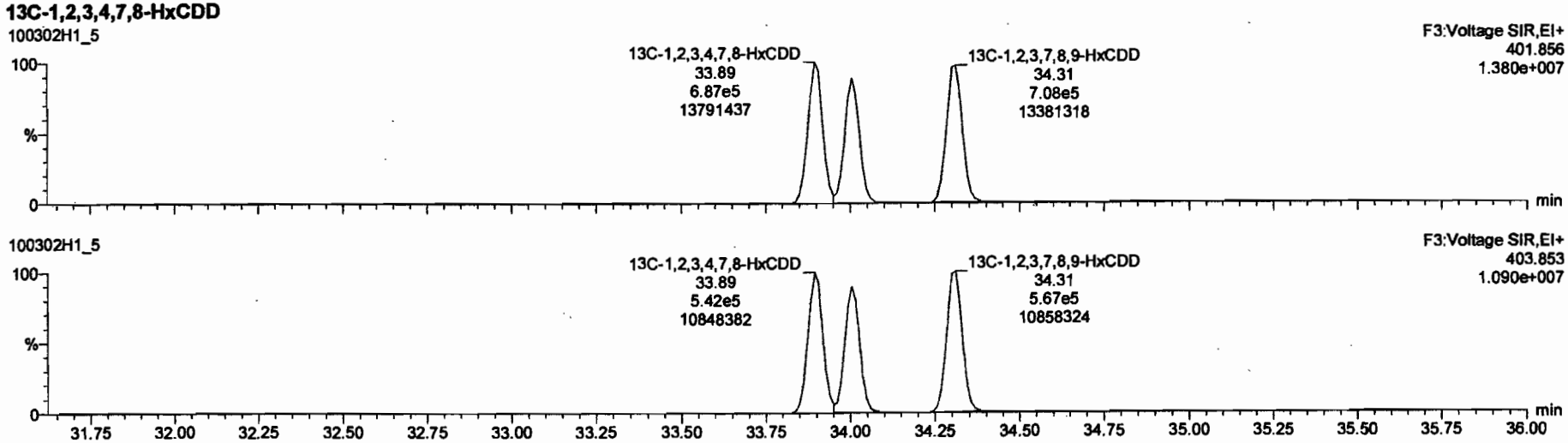

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Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

1,2,3,4,6,7,8-HpCDD

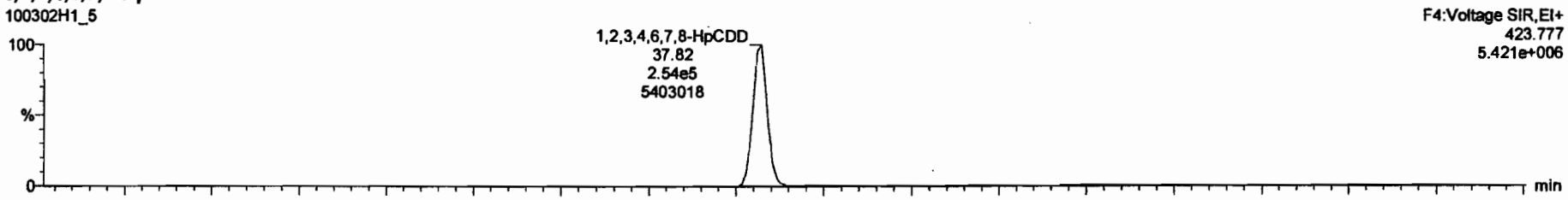

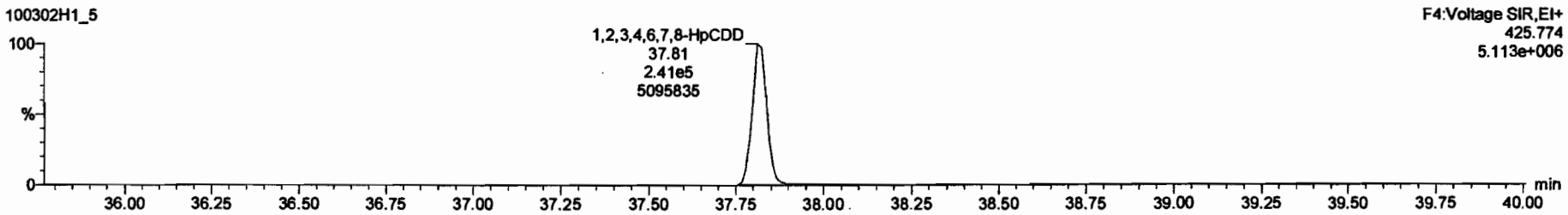

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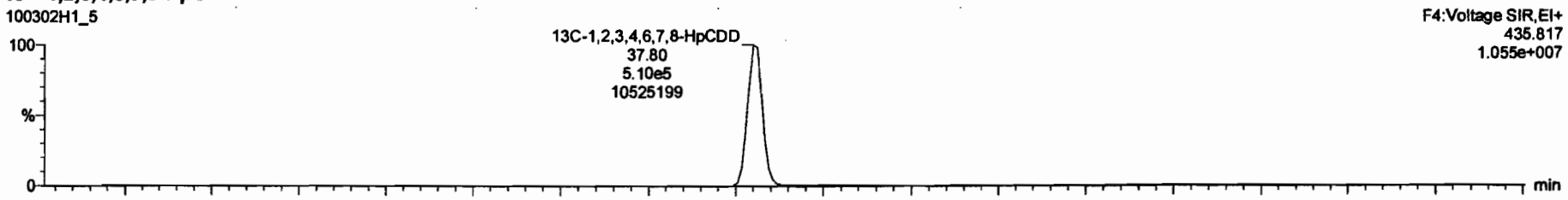

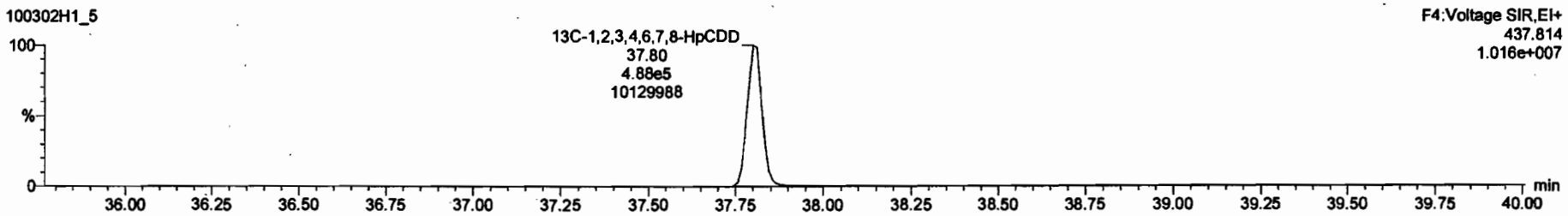

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Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
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OCDD

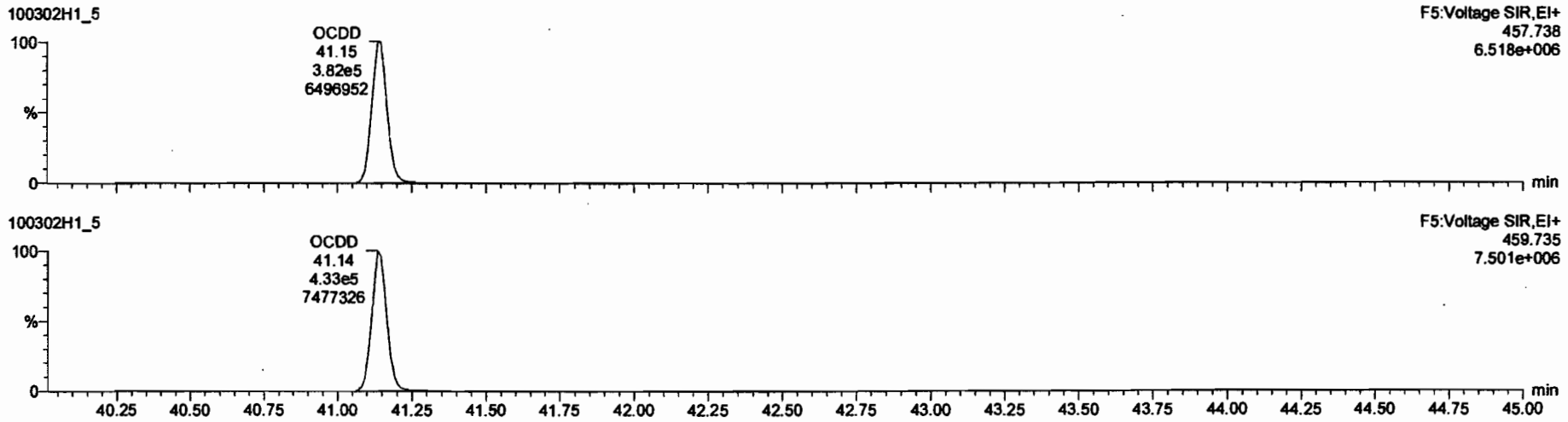

13C-OCDD

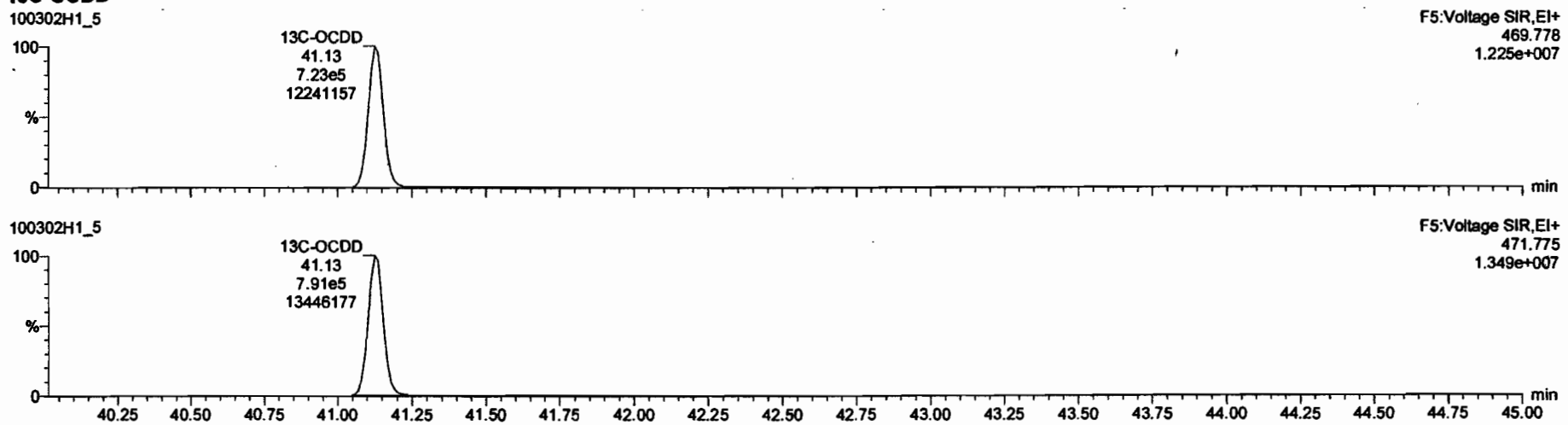

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Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

2,3,7,8-TCDF

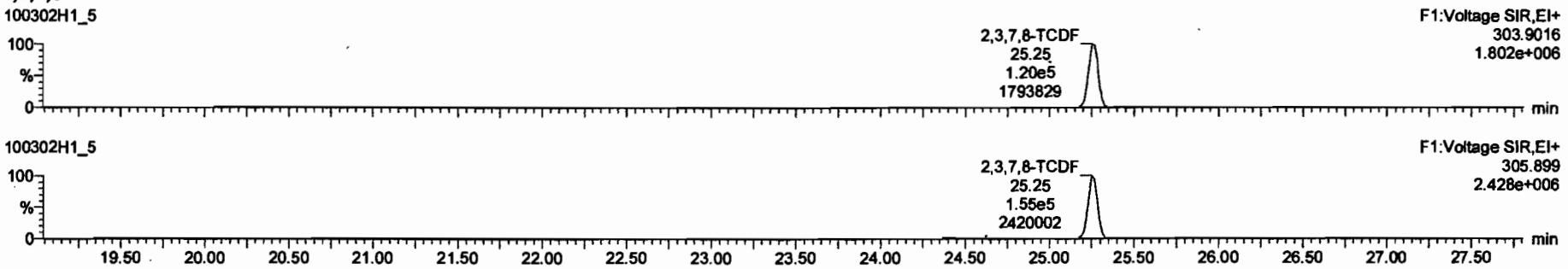

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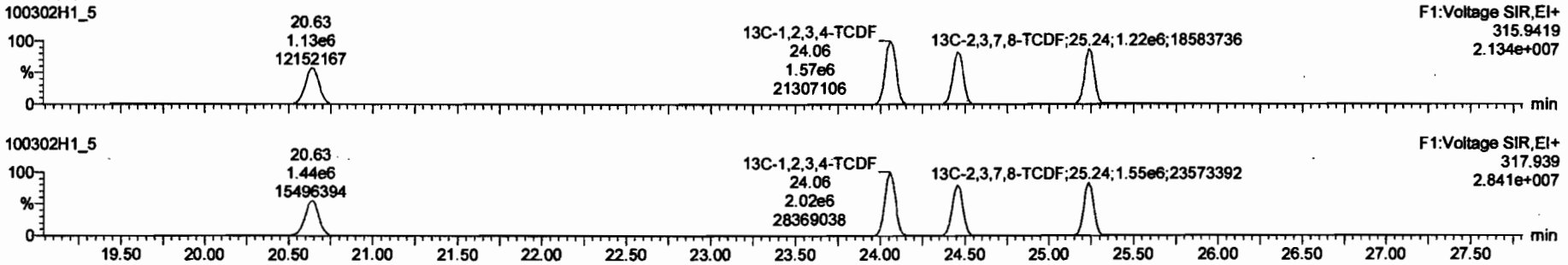

DPE1

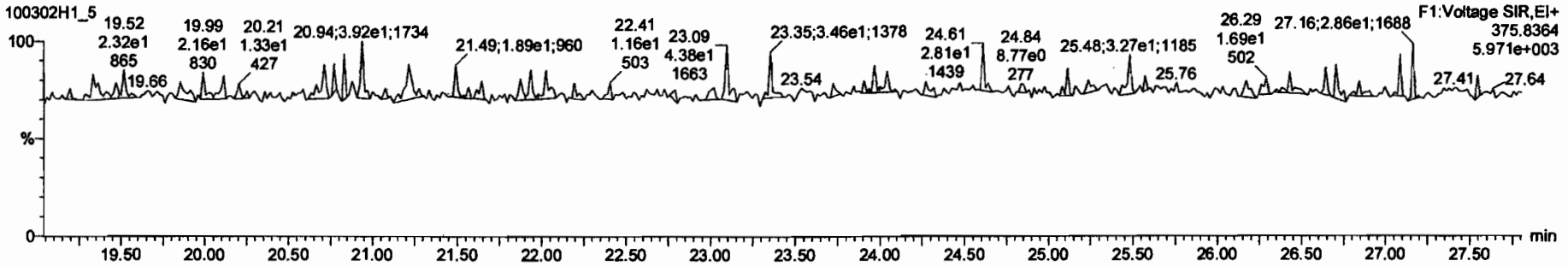

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Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

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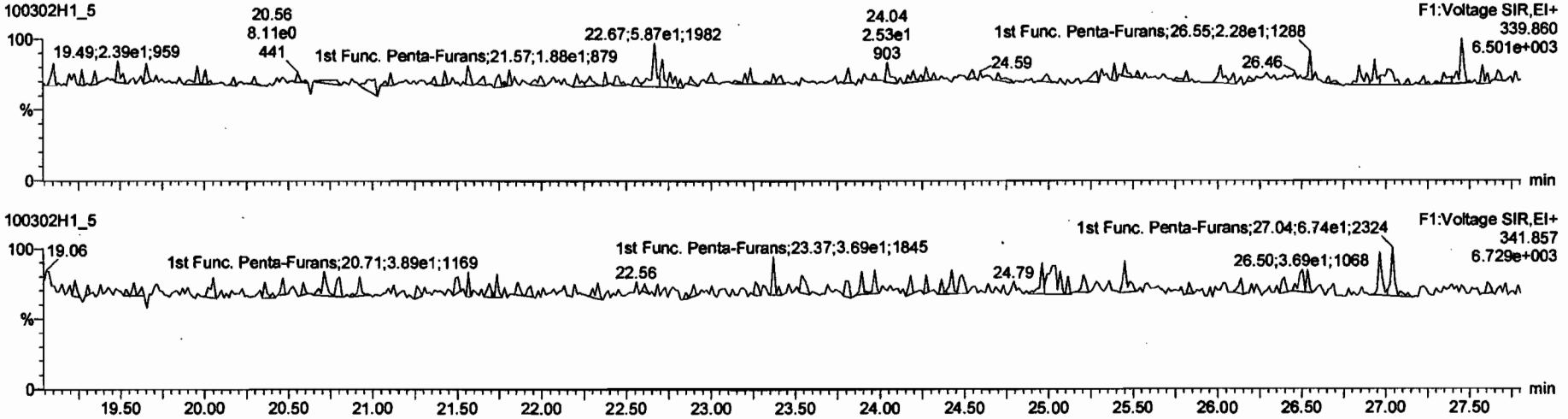

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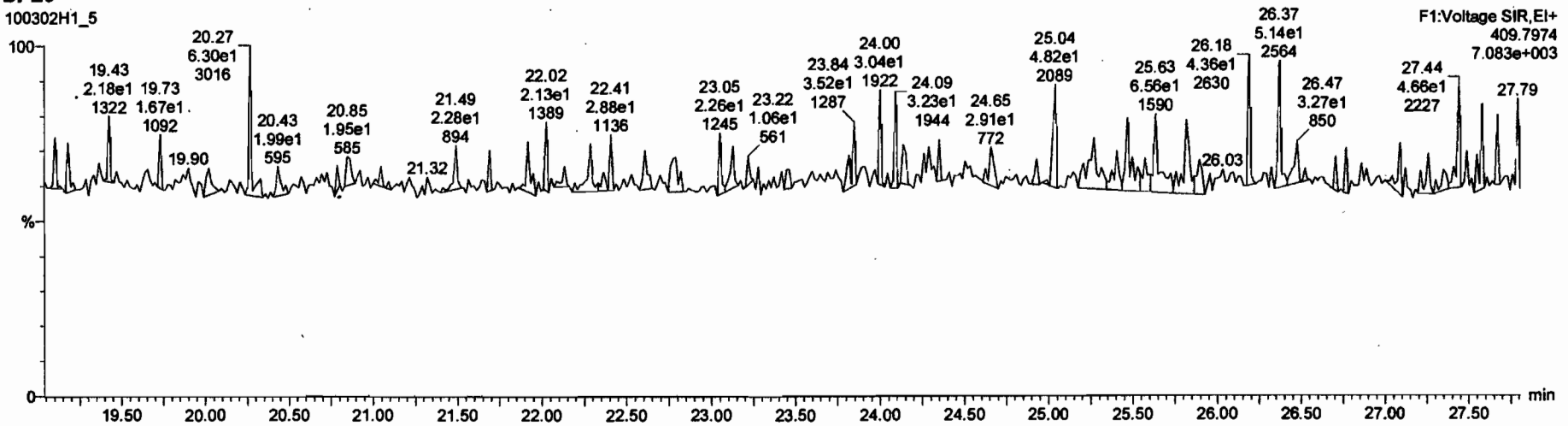

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Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

1,2,3,7,8-PeCDF

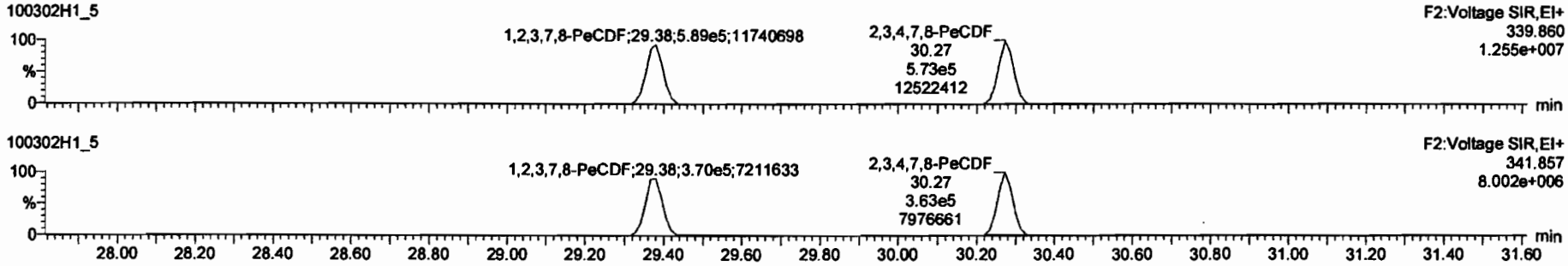

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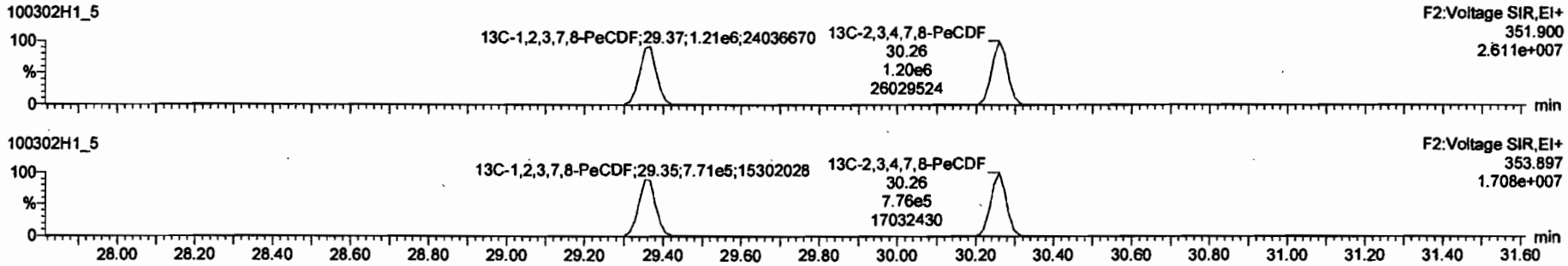

DPE2

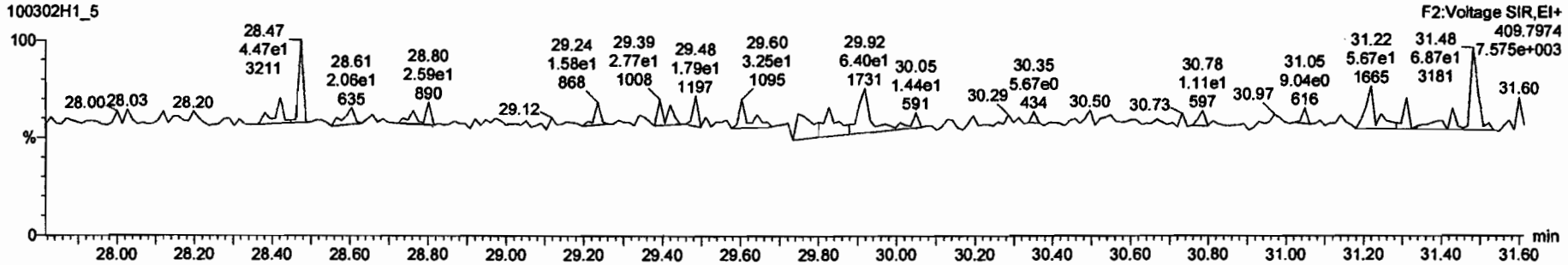

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Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

1,2,3,4,7,8-HxCDF

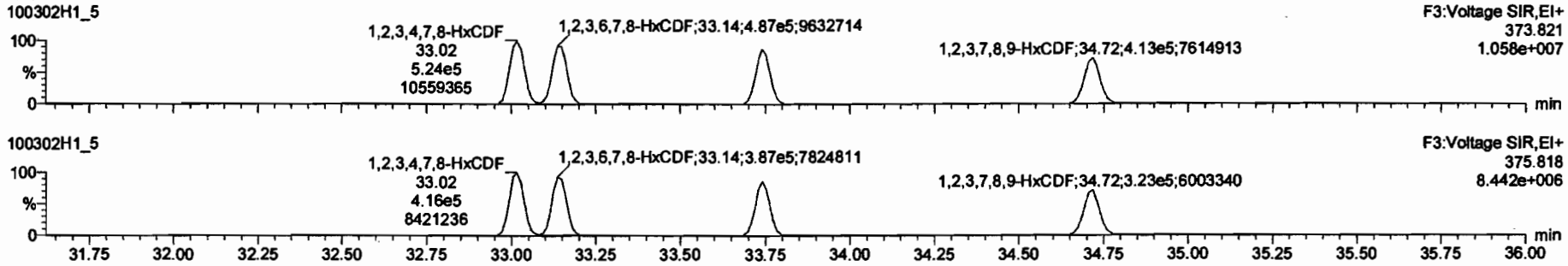

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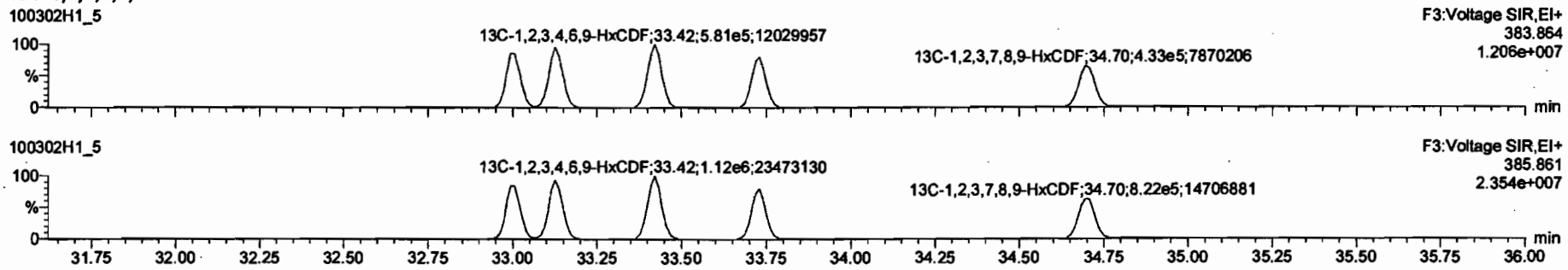

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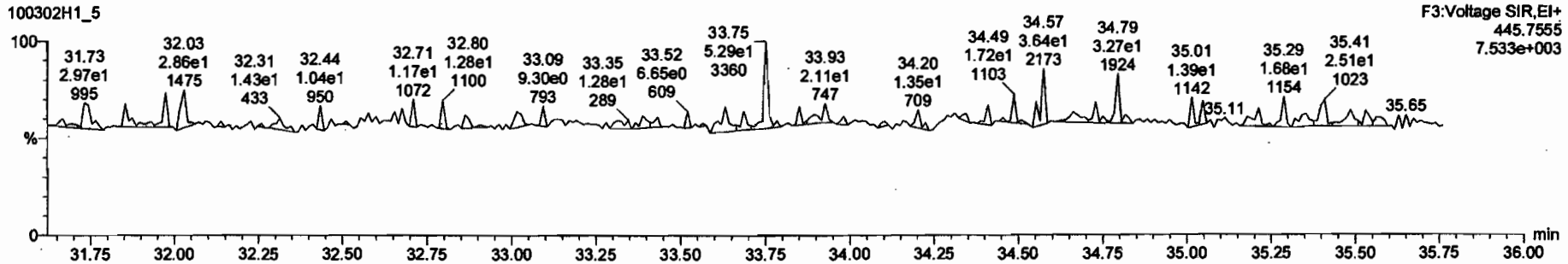

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Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

1,2,3,4,6,7,8-HpCDF

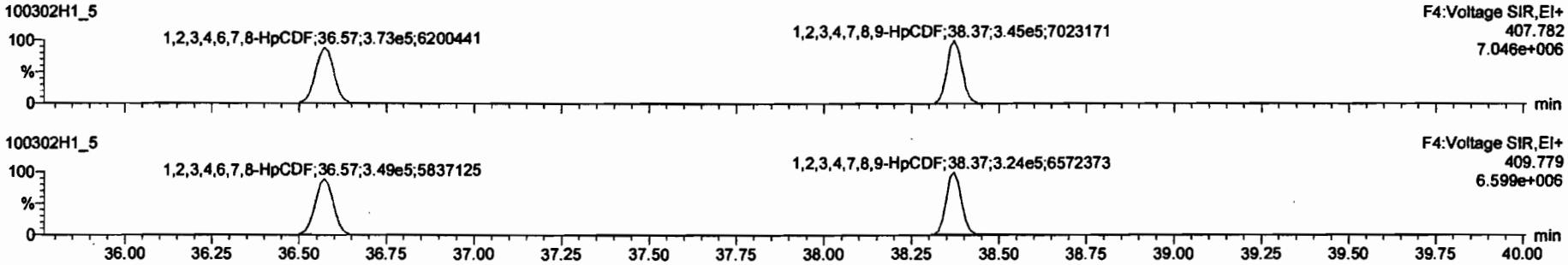

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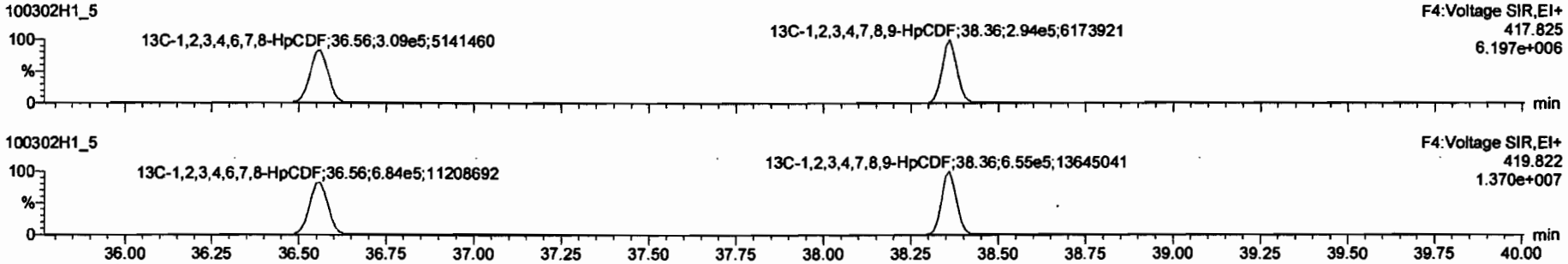

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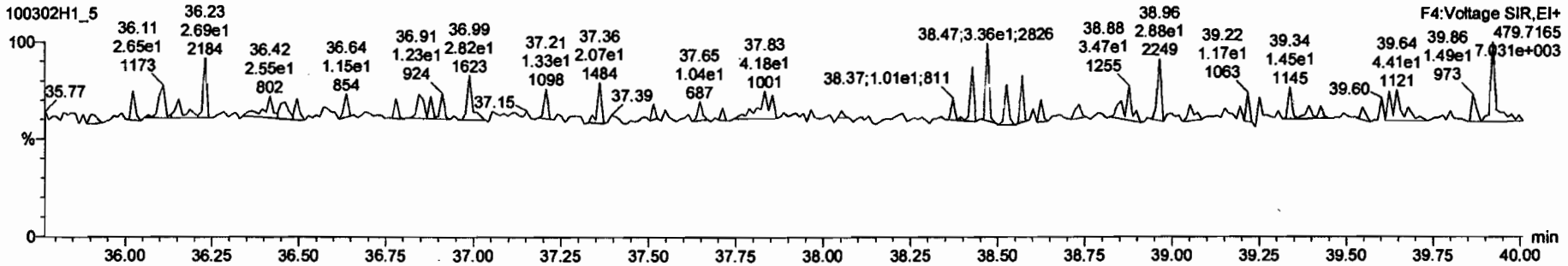

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Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

OCDF

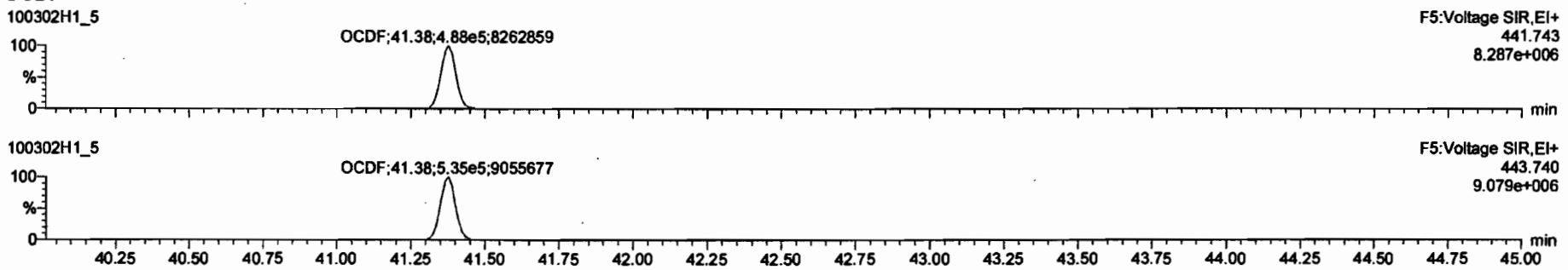

13C-OCDF

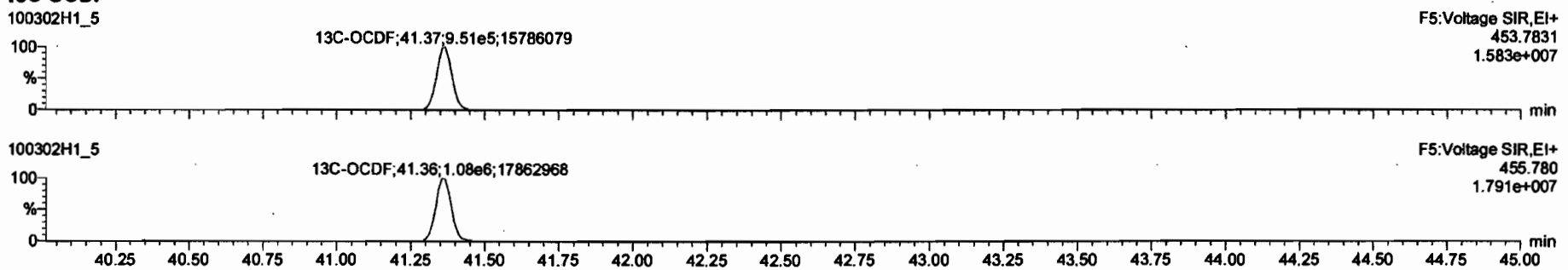

DPE5

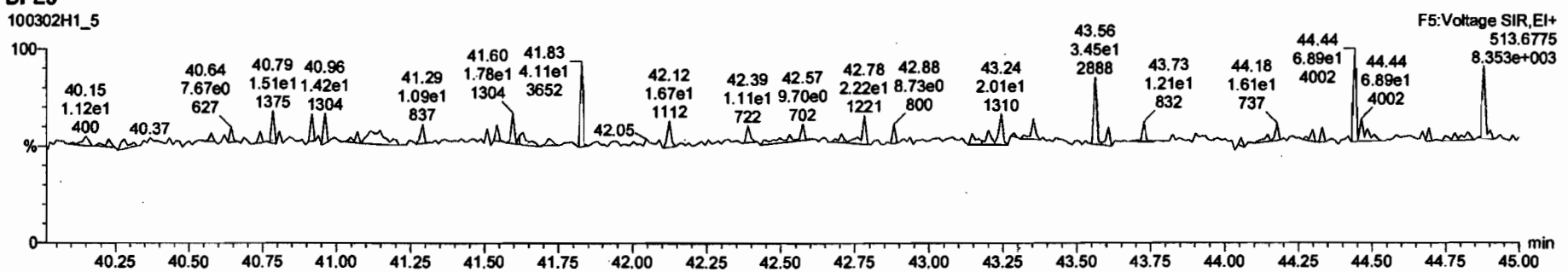

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-5.qld

Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

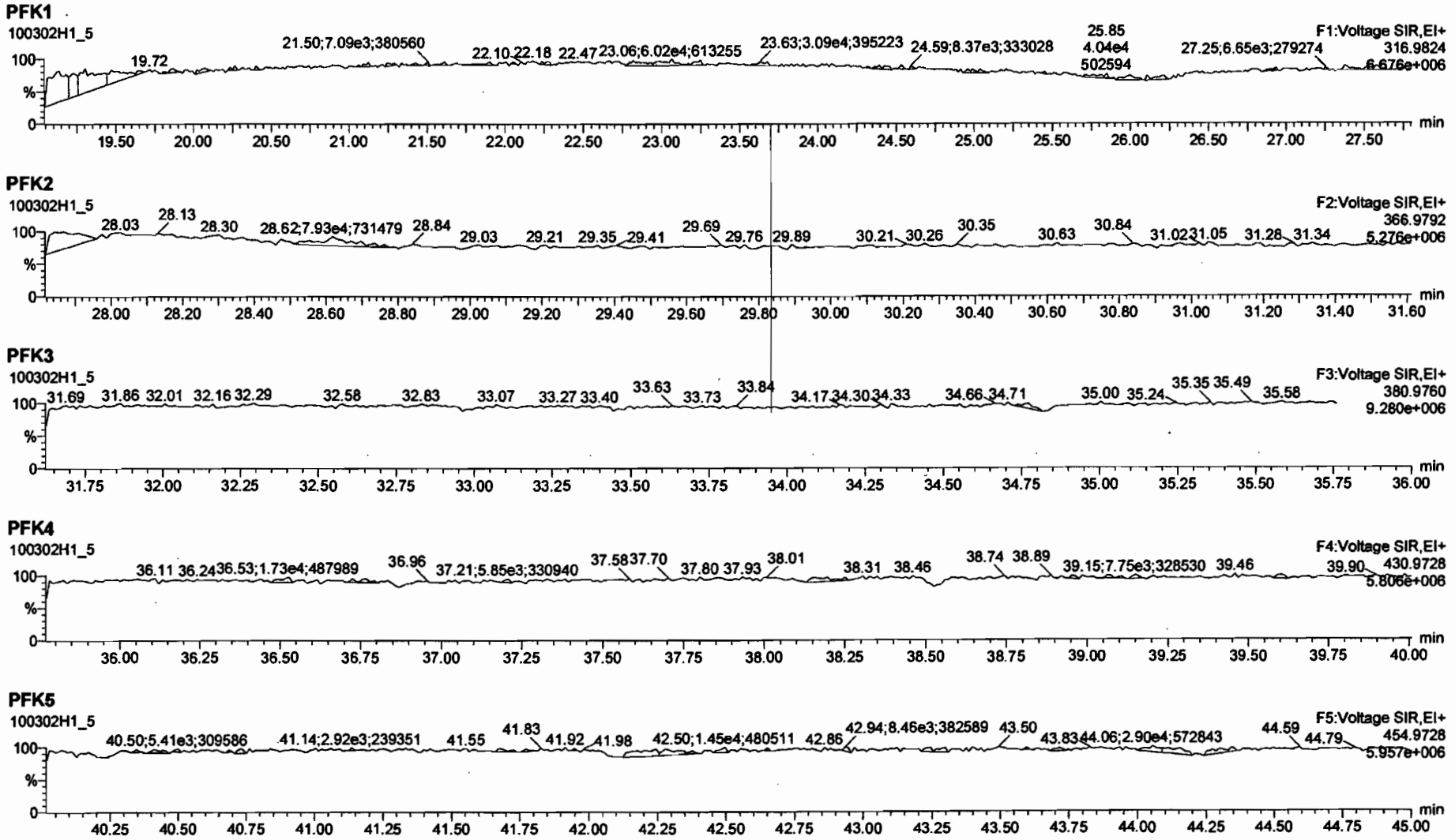

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-15.qld

Last Altered: Wednesday, March 03, 2010 2:06:10 PM Pacific Standard Time
Printed: Wednesday, March 03, 2010 2:06:30 PM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_15, Date: 02-Mar-2010, Time: 22:26:20, ID: 32458_2836_001 CAPA-10-12917 .905, Description: CAPA-10-12917

Name	Conc	RA	IW	RRF	RRFo	RT	RRT	Area	%RSD	Dil	Flag
2,3,7,8-TCDD			NO	1.04	0.905					0.179	
1,2,3,7,8-PeCDD			NO	0.935	0.905					0.336	
1,2,3,4,7,8-HxCDD			NO	0.907	0.905					0.285	
1,2,3,6,7,8-HxCDD			NO	0.995	0.905					0.296	
1,2,3,7,8,9-HxCDD			NO	0.930	0.905					0.289	
1,2,3,4,6,7,8-HpCDD	3.38e2	0.92	NO	1.00	0.905	37.81	1.000	0.54025		0.224	~~0.54025~~
OCDD	9.26e2	0.79	NO	1.10	0.905	41.14	1.000	1.7931		0.462	~~1.7931~~
2,3,7,8-TCDF			NO	0.956	0.905					0.166	
1,2,3,7,8-PeCDF			NO	0.941	0.905					0.227	
2,3,4,7,8-PeCDF			NO	0.926	0.905					0.203	
1,2,3,4,7,8-HxCDF			NO	1.22	0.905					0.161	
1,2,3,6,7,8-HxCDF			NO	1.08	0.905					0.165	
2,3,4,6,7,8-HxCDF			NO	1.13	0.905					0.178	
1,2,3,7,8,9-HxCDF			NO	1.13	0.905					0.228	
1,2,3,4,6,7,8-HpCDF	3.65e2	1.15	NO	1.44	0.905	36.58	1.001	0.39452		0.242	~~0.39452~~
1,2,3,4,7,8,9-HpCDF			NO	1.38	0.905					0.236	
OCDF			NO	1.01	0.905					0.307	
13C-2,3,7,8-TCDD	2.42e6	0.78	NO	1.10	0.905	26.00	1.022	1981.6	89.7	1.65	
13C-1,2,3,7,8-PeCDD	1.91e6	0.62	NO	1.09	0.905	30.53	1.200	1572.9	71.2	1.37	
13C-1,2,3,4,7,8-HxCDD	1.70e6	1.26	NO	1.01	0.905	33.90	1.014	1952.1	88.3	1.83	
13C-1,2,3,6,7,8-HxCDD	1.50e6	1.24	NO	0.889	0.905	34.00	1.017	1954.6	88.4	2.07	
13C-1,2,3,7,8,9-HxCDD	1.73e6	1.26	NO	1.07	0.905	34.31	1.027	1873.1	84.8	1.72	
13C-1,2,3,4,6,7,8-HpCDD	1.38e6	1.05	NO	0.837	0.905	37.80	1.131	1913.7	86.6	2.85	
13C-OCDD	2.07e6	0.88	NO	0.712	0.905	41.13	1.230	3376.8	76.4	1.03	
13C-2,3,7,8-TCDF	3.26e6	0.80	NO	1.05	0.905	25.24	0.992	1853.3	83.9	1.21	
13C-1,2,3,7,8-PeCDF	2.59e6	1.54	NO	1.02	0.905	29.37	1.154	1522.8	68.9	1.51	
13C-2,3,4,7,8-PeCDF	2.58e6	1.56	NO	1.08	0.905	30.26	1.189	1435.4	65.0	1.43	
13C-1,2,3,4,7,8-HxCDF	1.89e6	0.52	NO	1.37	0.905	33.01	0.988	1611.1	72.9	2.16	
13C-1,2,3,6,7,8-HxCDF	2.07e6	0.52	NO	1.37	0.905	33.13	0.991	1761.1	79.7	2.16	
13C-2,3,4,6,7,8-HxCDF	1.90e6	0.53	NO	1.18	0.905	33.73	1.009	1866.1	84.4	2.50	

3/3/10

3/5/10

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-15.qld

Last Altered: Wednesday, March 03, 2010 2:06:10 PM Pacific Standard Time
Printed: Wednesday, March 03, 2010 2:06:30 PM Pacific Standard Time

Name: 100302H1_15, Date: 02-Mar-2010, Time: 22:26:20, ID: 32458_2836_001 CAPA-10-12917 .905, Description: CAPA-10-12917

Name	[illegible]	[illegible]	RA	IM	RT	IMvol	RT	RA	Conc.	[illegible]	[illegible]	[illegible]
13C-1,2,3,7,8,9-HxCDF	1.63e6	0.53	NO	1.05	0.905	34.69	1.038	1801.8	81.5	2.81		
13C-1,2,3,4,6,7,8-HpCDF	1.42e6	0.45	NO	0.858	0.905	36.56	1.094	1926.4	87.2	3.96		
13C-1,2,3,4,7,8,9-HpCDF	1.26e6	0.46	NO	0.794	0.905	38.36	1.148	1842.1	83.4	4.28		
13C-OCDF	2.69e6	0.89	NO	0.948	0.905	41.37	1.238	3295.5	74.6	1.07		
37Cl-2,3,7,8-TCDD	5.92e5			0.665	0.905	26.03	1.023	800.94	90.6	0.482		
13C-1,2,3,4-TCDD	2.46e6	0.79	NO	1.00	0.905	25.45	0.000	2209.9	100	1.82		
13C-1,2,3,4-TCDF	3.69e6	0.78	NO	1.00	0.905	24.06	0.000	2209.9	100	1.28		
13C-1,2,3,4,6,9-HxCDF	1.90e6	0.52	NO	1.00	0.905	33.42	0.000	2209.9	100	2.95		
Total Tetra-Dioxins				1.04	0.905					0.0848		
Total Penta-Dioxins				0.935	0.905					0.112		
Total Hexa-Dioxins				0.995	0.905					0.145		
Total Hepta-Dioxins				1.00	0.905			0.54025		0.224	1.4410	
Total Tetra-Furans				0.956	0.905					0.0787		
1st Func. Penta-Furans				0.941	0.905					0.0752		
Total Penta-Furans				0.941	0.905					0.103		
Total Hexa-Furans				1.13	0.905					0.104		
Total Hepta-Furans				1.44	0.905			0.39452		0.235	~~0.39452~~	

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-15.qld

Last Altered: Wednesday, March 03, 2010 2:06:10 PM Pacific Standard Time
Printed: Wednesday, March 03, 2010 2:06:30 PM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_15, Date: 02-Mar-2010, Time: 22:26:20, ID: 32458_2836_001 CAPA-10-12917 .905, Description: CAPA-10-12917

Tetra-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IY	Resp	Conc	EMPC	DL

Penta-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IY	Resp	Conc	EMPC	DL

Hexa-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IY	Resp	Conc	EMPC	DL

Hepta-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IY	Resp	Conc	EMPC	DL
Total Hepta-Dioxins	36.96	6.381e3	8.602e3	2.869e2	3.612e2	0.79	YES	0.000e0	0.00000	0.90071	0.224
1,2,3,4,6,7,8-HpCDD	37.81	3.312e3	4.084e3	1.621e2	1.754e2	0.92	NO	3.375e2	0.54025	0.54025	0.224

Tetra-Furans

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IY	Resp	Conc	EMPC	DL

Penta-Furans function 1

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IY	Resp	Conc	EMPC	DL

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-15.qld

Last Altered: Wednesday, March 03, 2010 2:06:10 PM Pacific Standard Time
Printed: Wednesday, March 03, 2010 2:06:30 PM Pacific Standard Time

Name: 100302H1_15, Date: 02-Mar-2010, Time: 22:26:20, ID: 32458_2836_001 CAPA-10-12917 .905, Description: CAPA-10-12917

Penta-Furans

Peak	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IM	Resp	Conc	EMPC	ID

Hexa-Furans

Peak	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IM	Resp	Conc	EMPC	ID

Hepta-Furans

Peak	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IM	Resp	Conc	EMPC	ID
	1,2,3,4,6,7,8-HpCDF	36.58	4.301e3	3.468e3	1.949e2	1.702e2	1.15	NO	3.651e2	0.39452	0.39452	0.242

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-15.qld

Last Altered: Wednesday, March 03, 2010 08:24:07 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:24 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_15, Date: 02-Mar-2010, Time: 22:26:20, ID: 32458_2836_001 CAPA-10-12917 .905, Description: CAPA-10-12917

2,3,7,8-TCDD

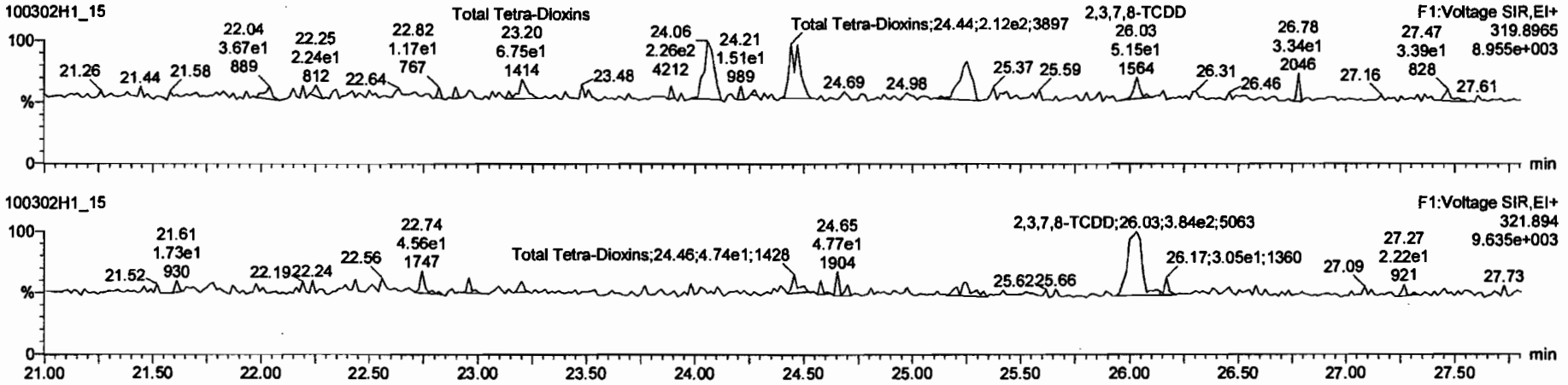

13C-2,3,7,8-TCDD

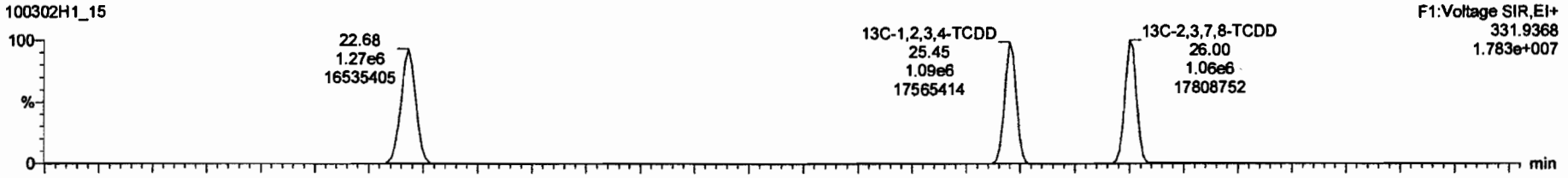

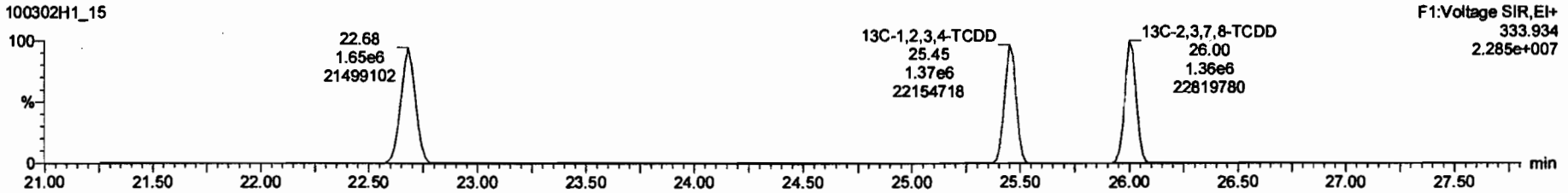

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-15.qld

Last Altered: Wednesday, March 03, 2010 08:24:07 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:24 Pacific Standard Time

Name: 100302H1_15, Date: 02-Mar-2010, Time: 22:26:20, ID: 32458_2836_001 CAPA-10-12917 .905, Description: CAPA-10-12917

37Cl-2,3,7,8-TCDD

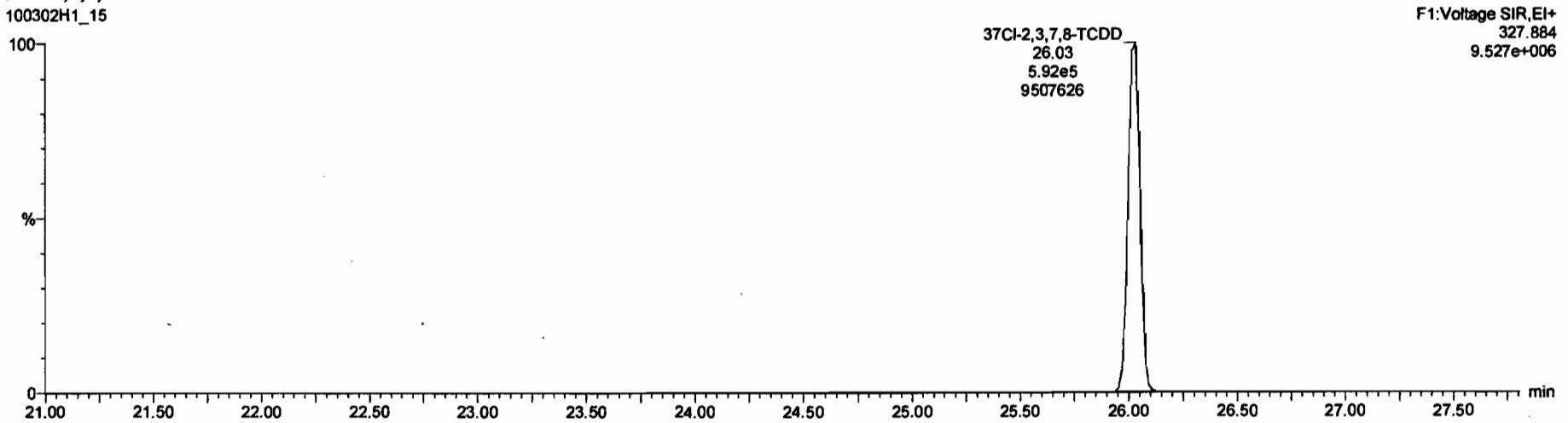

13C-1,2,3,4-TCDD

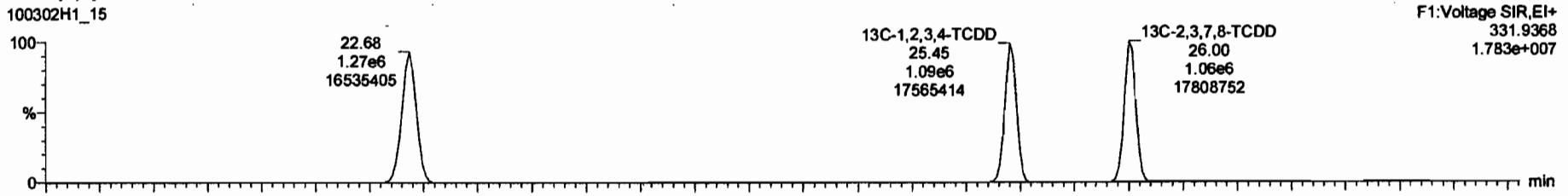

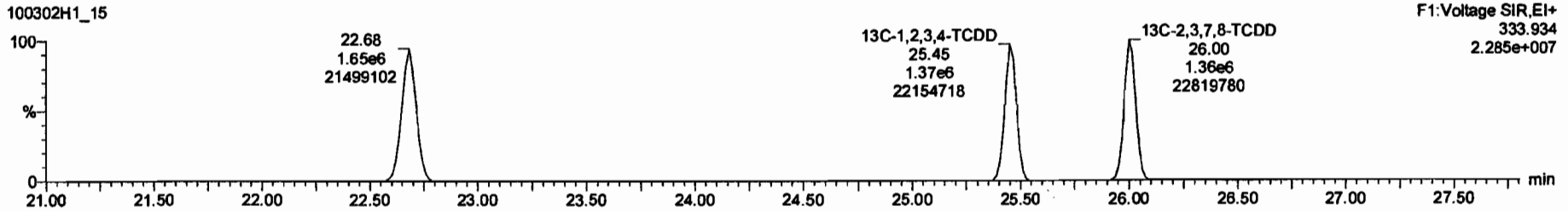

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-15.qld

Last Altered: Wednesday, March 03, 2010 08:24:07 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:24 Pacific Standard Time

Name: 100302H1_15, Date: 02-Mar-2010, Time: 22:26:20, ID: 32458_2836_001 CAPA-10-12917 .905, Description: CAPA-10-12917

1,2,3,7,8-PeCDD

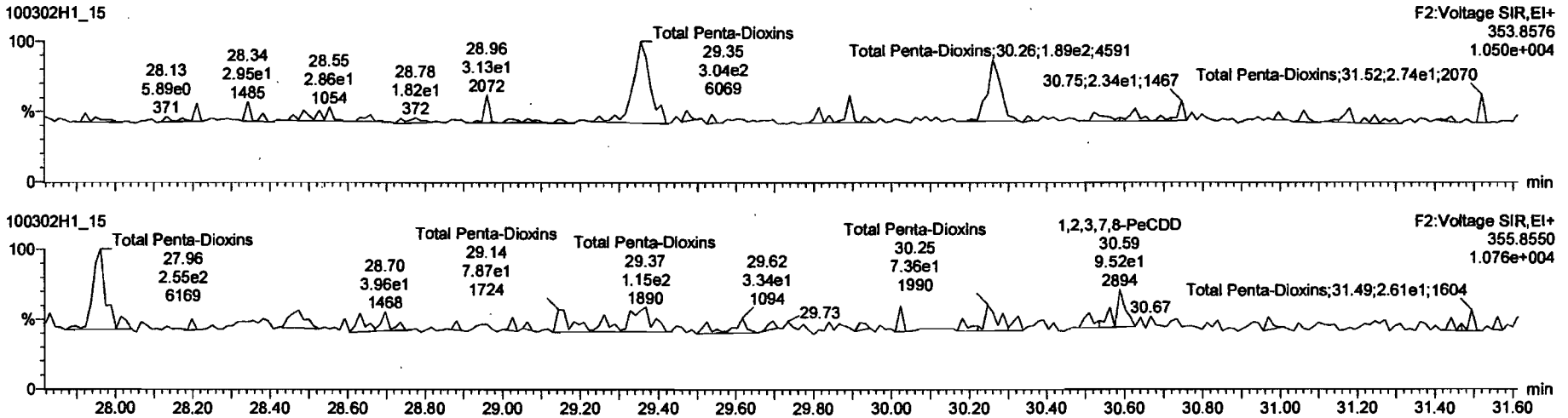

13C-1,2,3,7,8-PeCDD

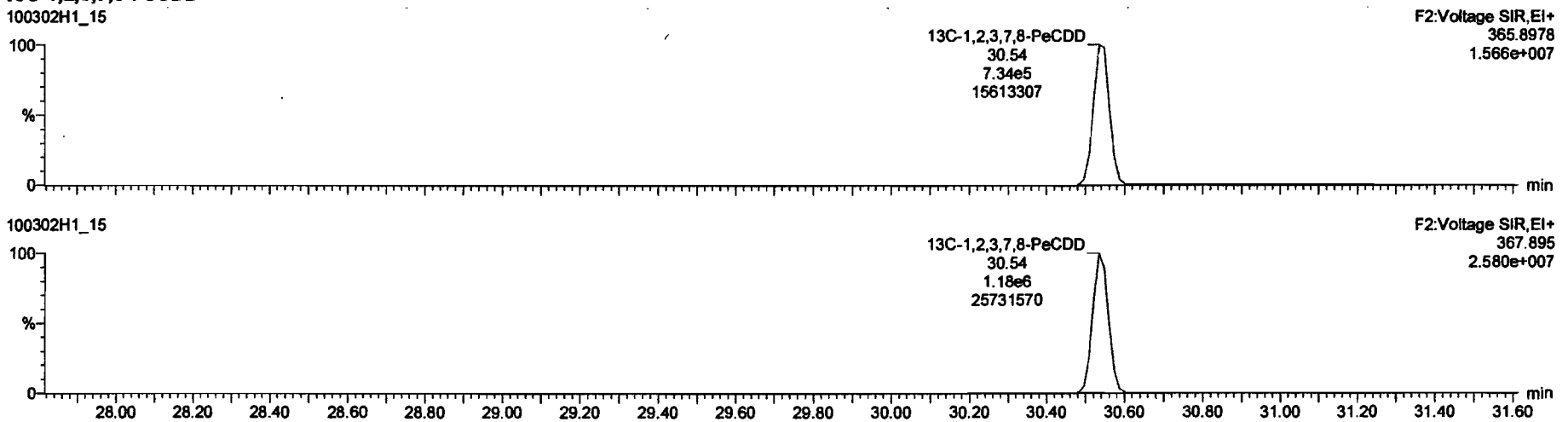

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-15.qld

Last Altered: Wednesday, March 03, 2010 08:24:07 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:24 Pacific Standard Time

Name: 100302H1_15, Date: 02-Mar-2010, Time: 22:26:20, ID: 32458_2836_001 CAPA-10-12917 .905, Description: CAPA-10-12917

1,2,3,4,7,8-HxCDD

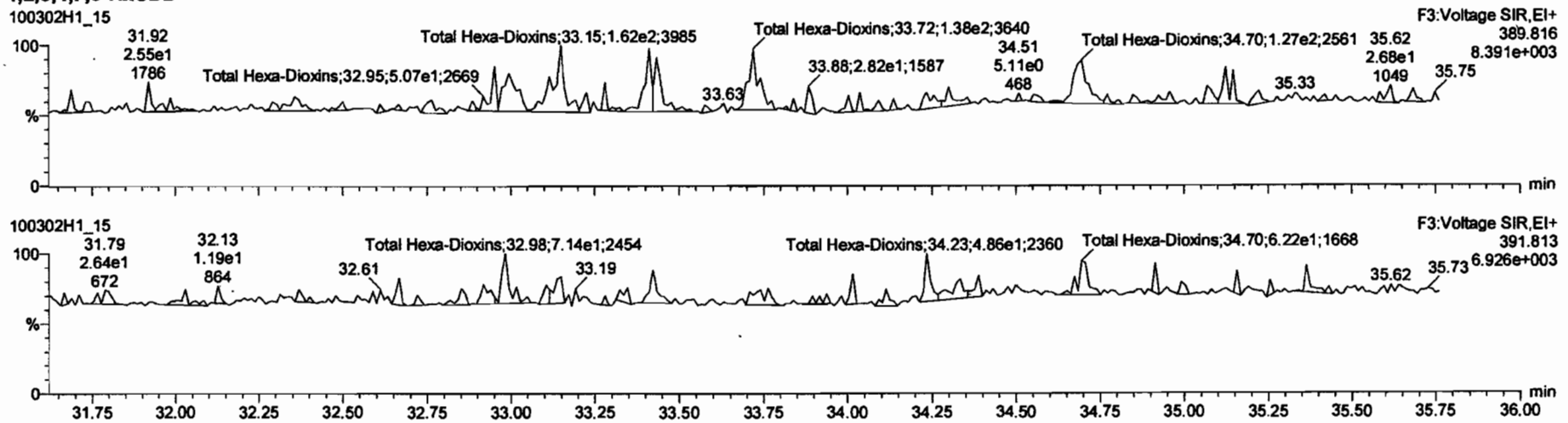

13C-1,2,3,4,7,8-HxCDD

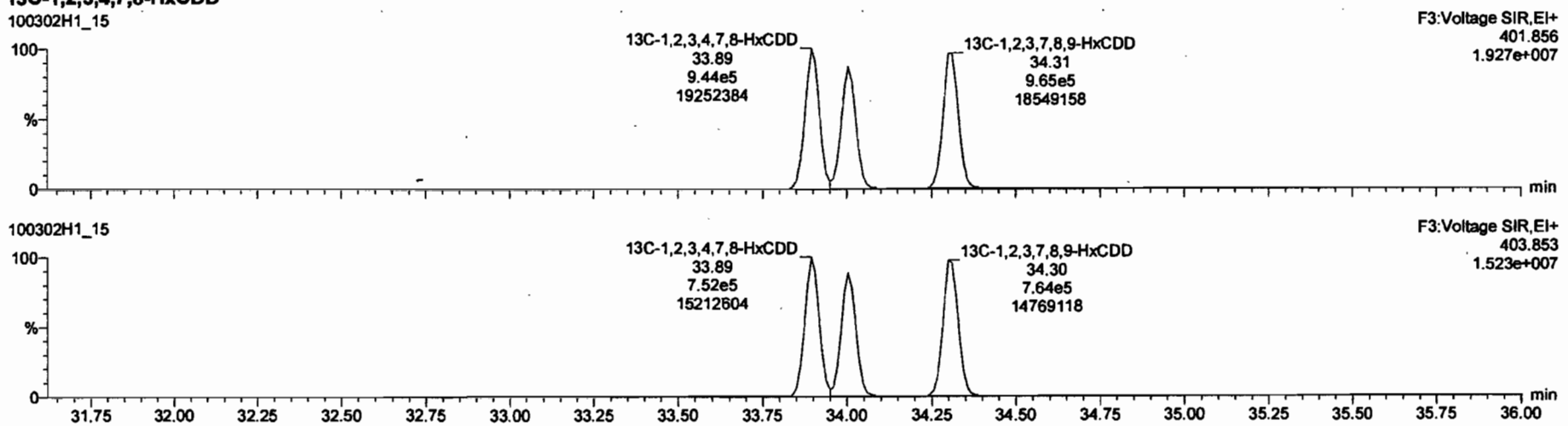

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-15.qld

Last Altered: Wednesday, March 03, 2010 08:24:07 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:24 Pacific Standard Time

Name: 100302H1_15, Date: 02-Mar-2010, Time: 22:26:20, ID: 32458_2836_001 CAPA-10-12917 .905, Description: CAPA-10-12917

1,2,3,4,6,7,8-HpCDD

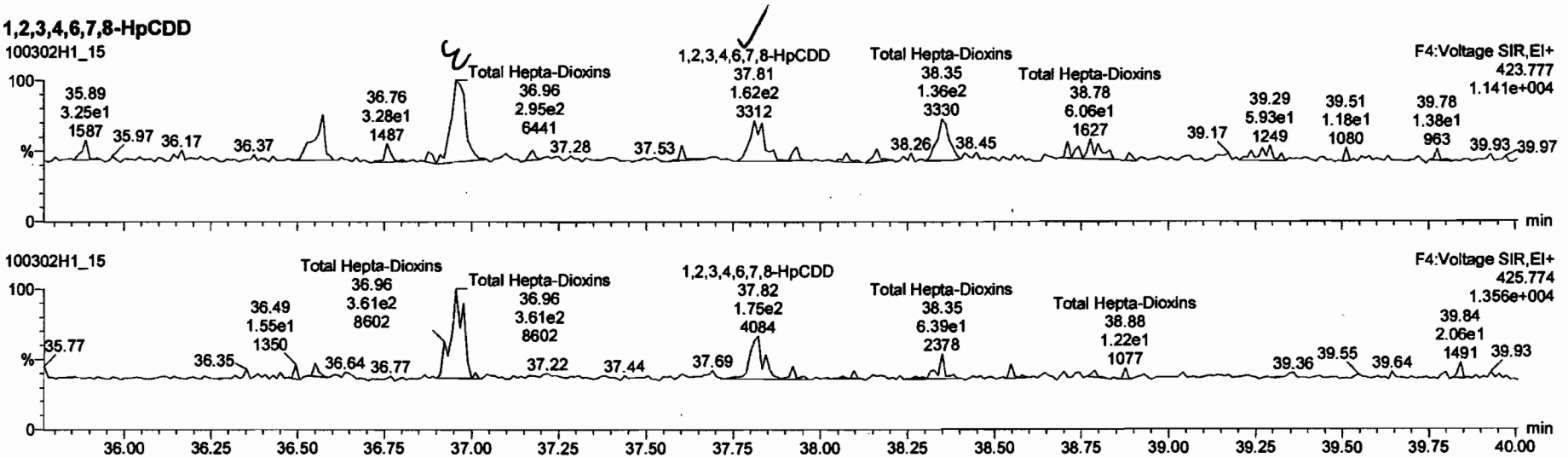

13C-1,2,3,4,6,7,8-HpCDD

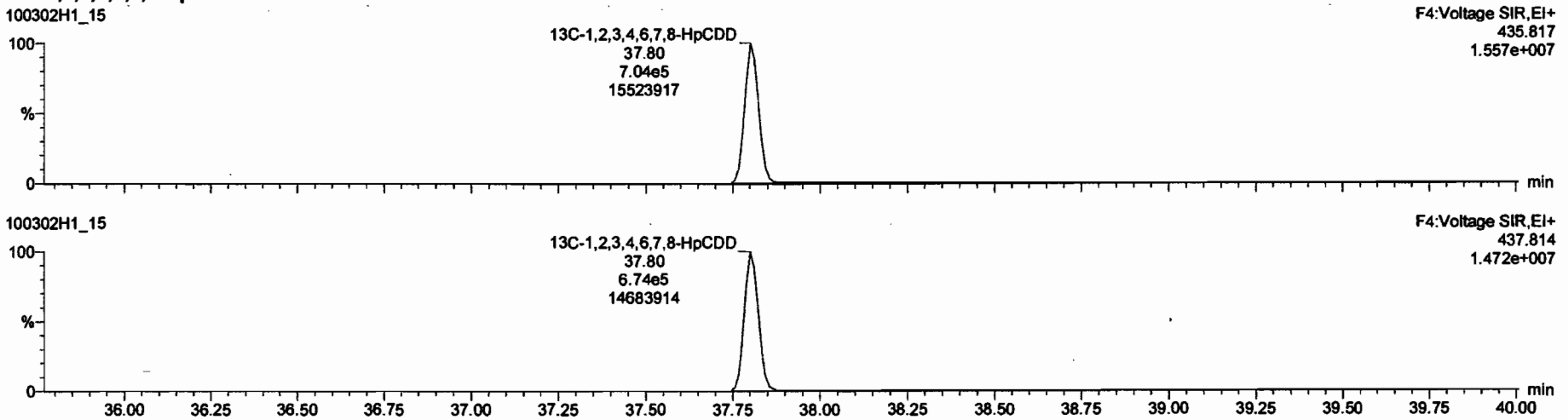

TargetLynx - 100302h1-15.qld * - [Chromatogram]

File Edit View Display Processing Window Help

100302H1_15 - 32458_2836_001 CAPA-10-12917 .905 - CAPA-10-12917

	Name	RTA	m1 Resp	m2 Resp	RA	pN	EMPC	Conc
1	Total Hepta-Dioxins	36.96	2.869e2	3.612e2	0.79	YES	0.90071	0.00000
2	1,2,3,4,6,7,8-HpCDD	37.81	1.621e2	1.754e2	0.92	NO	0.54025	0.54025

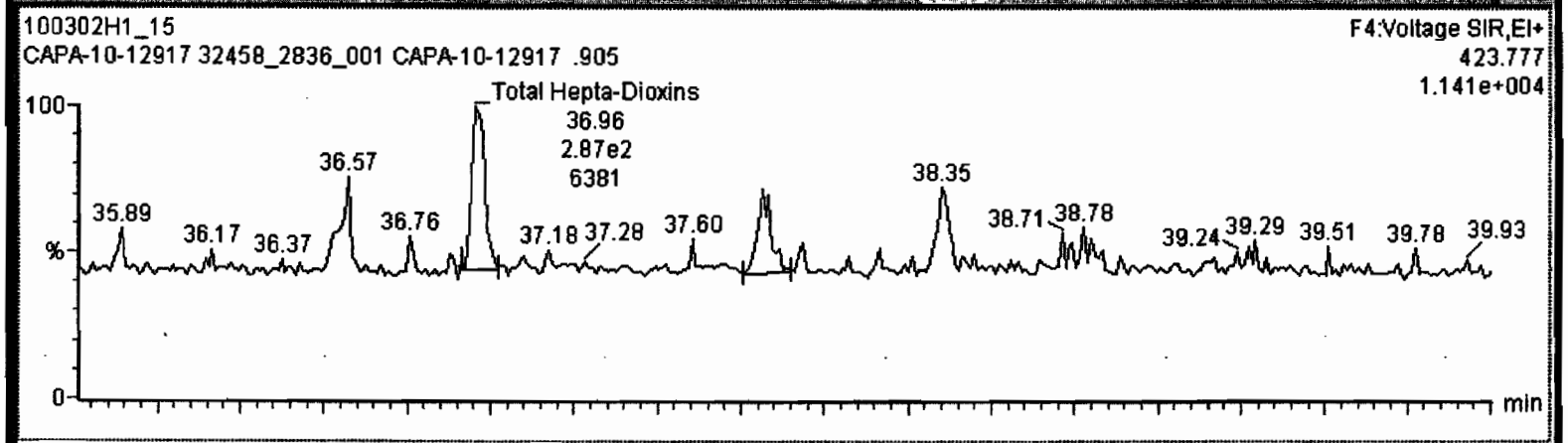

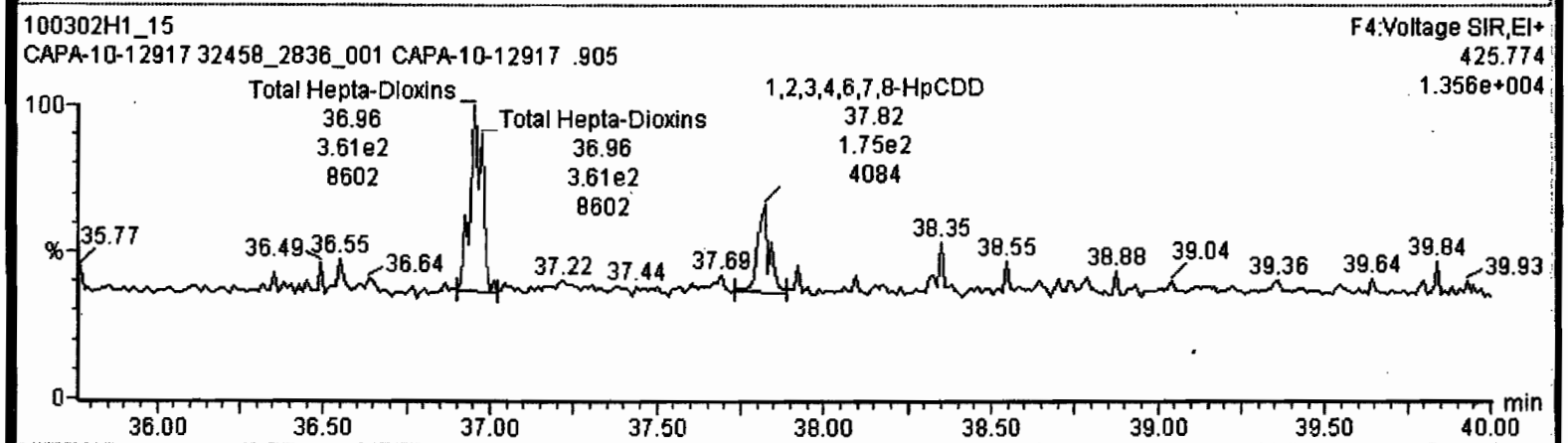

Ready 100302H1_15 NUM

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-15.qld

Last Altered: Wednesday, March 03, 2010 08:24:07 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:24 Pacific Standard Time

Name: 100302H1_15, Date: 02-Mar-2010, Time: 22:26:20, ID: 32458_2836_001 CAPA-10-12917 .905, Description: CAPA-10-12917

OCDD

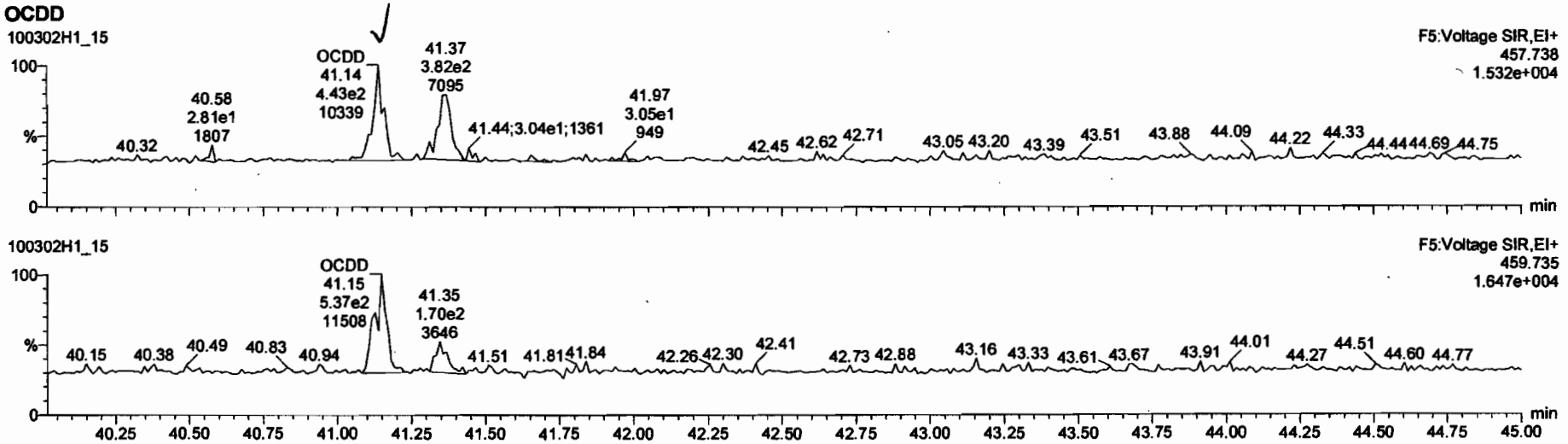

13C-OCDD

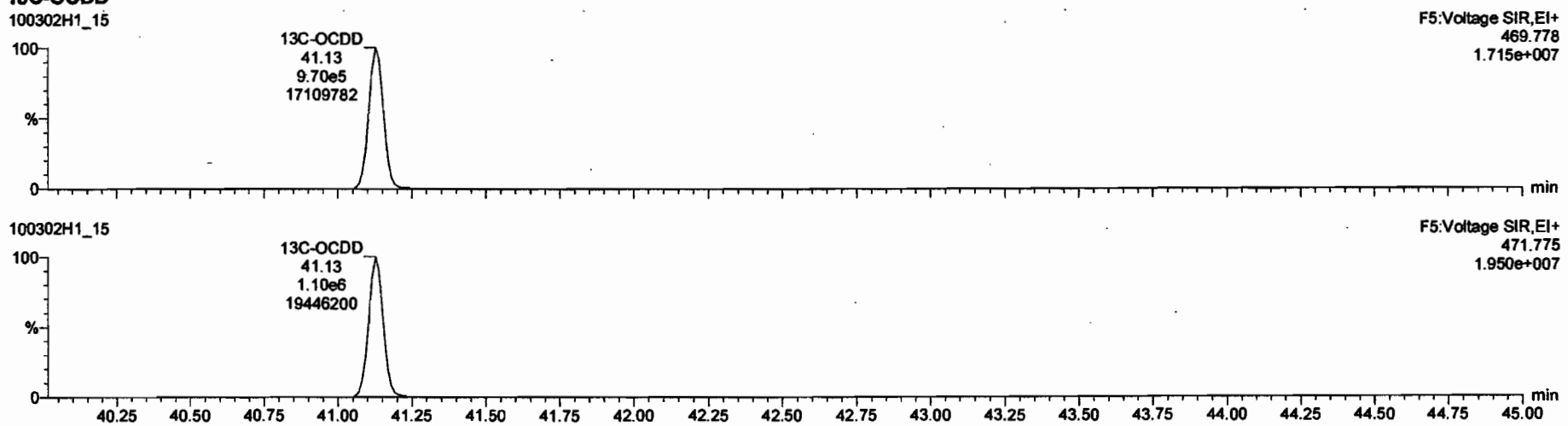

TargetLynx - 100302h1-15.qld * - [Chromatogram]

File Edit View Display Processing Window Help

100302H1_15 - 32458_2836_001 CAPA-10-12917 .905 - CAPA-10-12917

	Name	Resp	RA	Det	RRT	w/Wo	RT	RRF	Conc	Resp%	DL	EMPC
8	2,3,7,8-TCDF	4.75e1	1.11	YES	0.96	0.905	25.30	1.002	0.0337		0.166	0.0283
9	1,2,3,7,8-PeCDF			NO	0.94	0.905					0.227	
10	2,3,4,7,8-PeCDF	6.84e1	1.79	YES	0.93	0.905	30.26	1.000	0.0634		0.203	0.0579
11	1,2,3,4,7,8-HxCDF	1.19e2	1.67	YES	1.22	0.905	33.02	1.000	0.114		0.161	0.0956

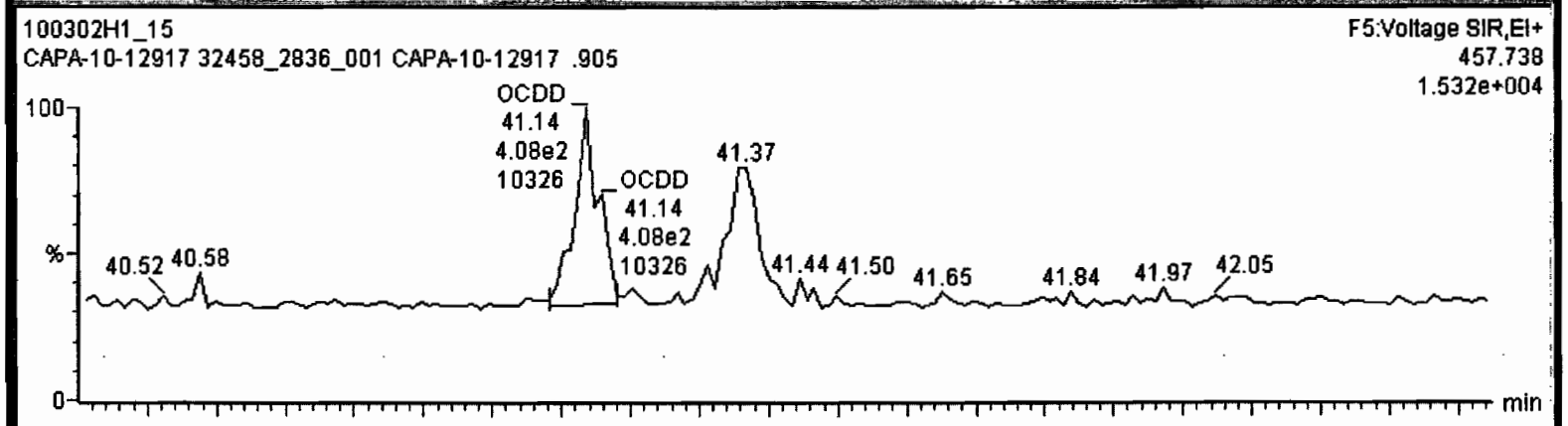

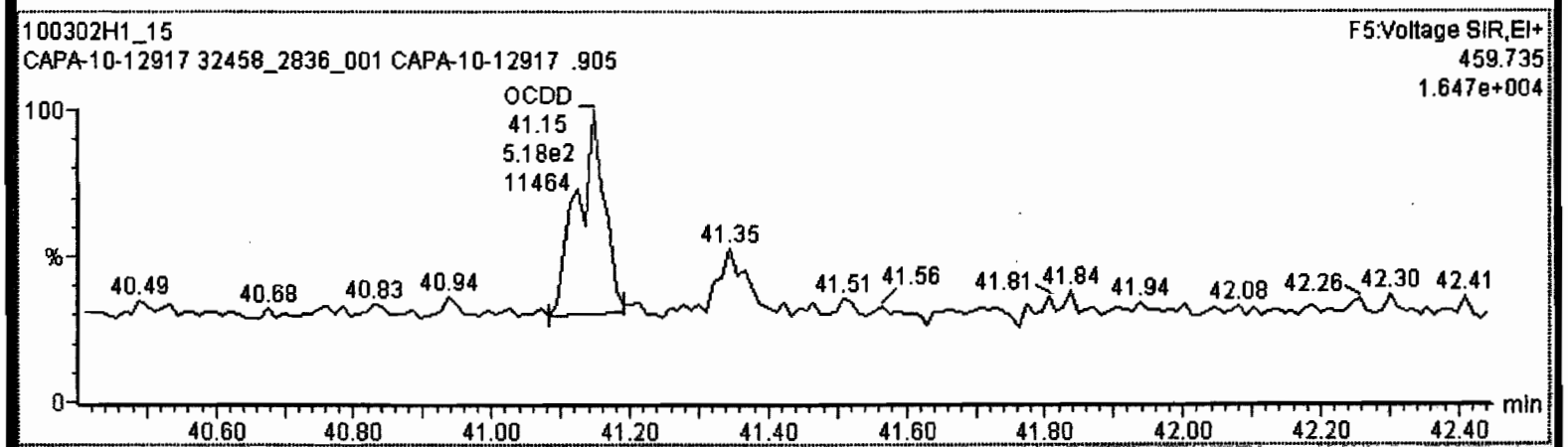

Ready 100302H1_15 RUN

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-15.qld

Last Altered: Wednesday, March 03, 2010 08:24:07 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:24 Pacific Standard Time

Name: 100302H1_15, Date: 02-Mar-2010, Time: 22:26:20, ID: 32458_2836_001 CAPA-10-12917 .905, Description: CAPA-10-12917

2,3,7,8-TCDF

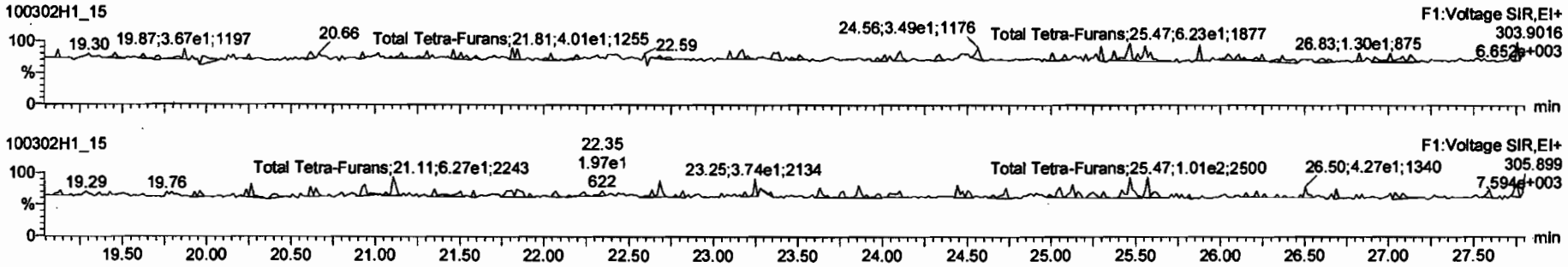

13C-2,3,7,8-TCDF

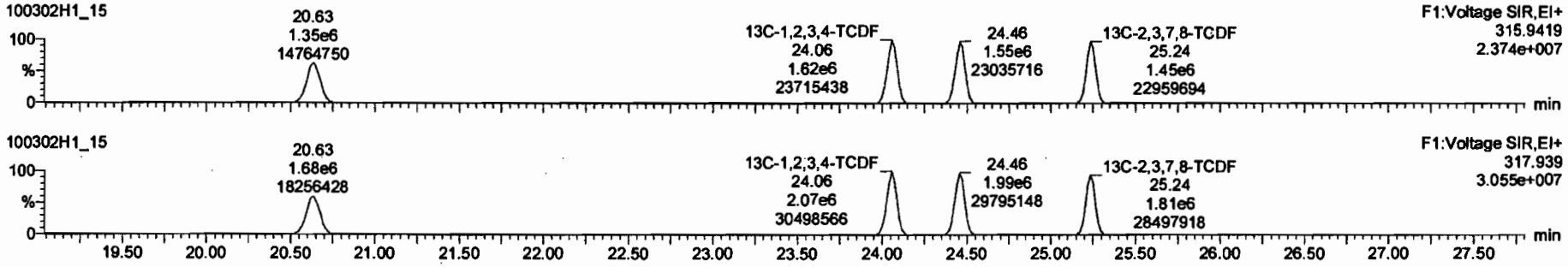

DPE1

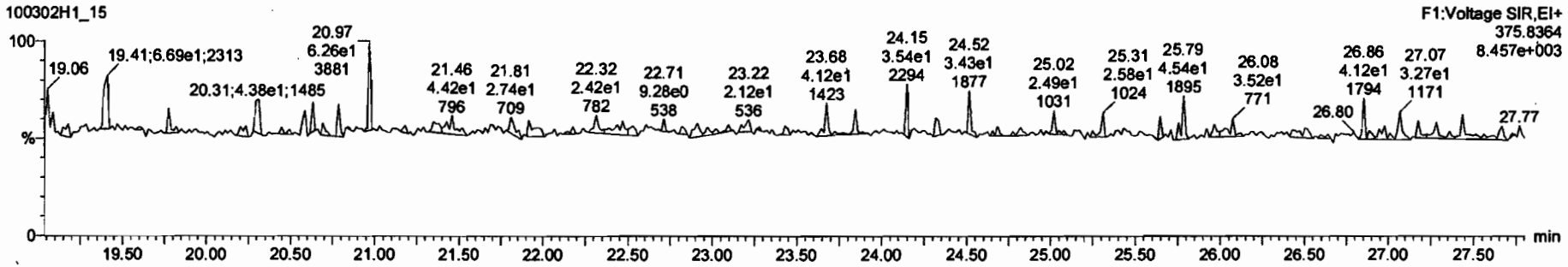

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Last Altered: Wednesday, March 03, 2010 08:24:07 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:24 Pacific Standard Time

Name: 100302H1_15, Date: 02-Mar-2010, Time: 22:26:20, ID: 32458_2836_001 CAPA-10-12917 .905, Description: CAPA-10-12917

1st Func. Penta-Furans

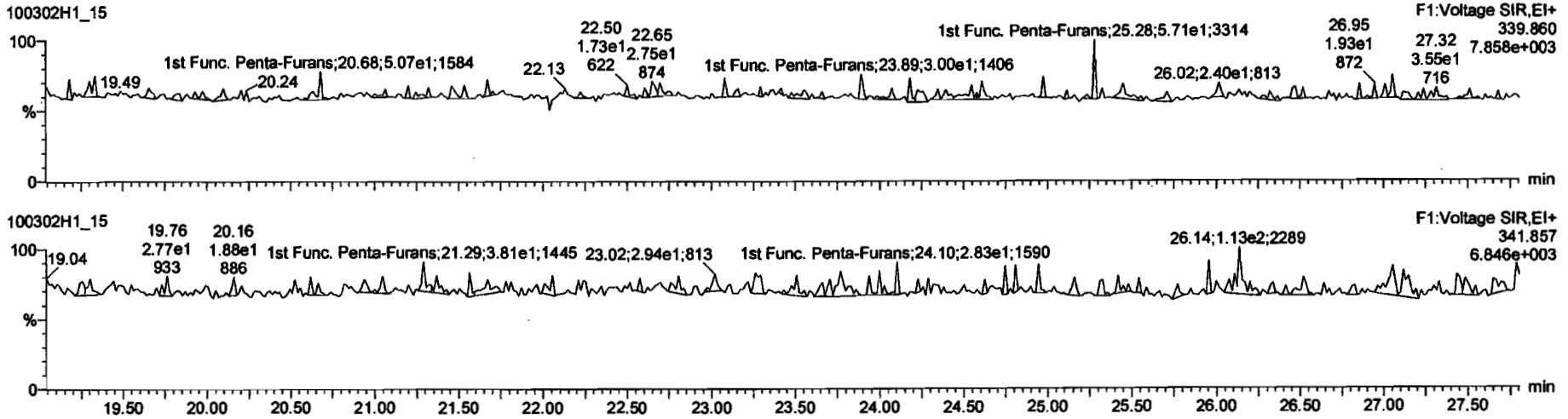

DPE6

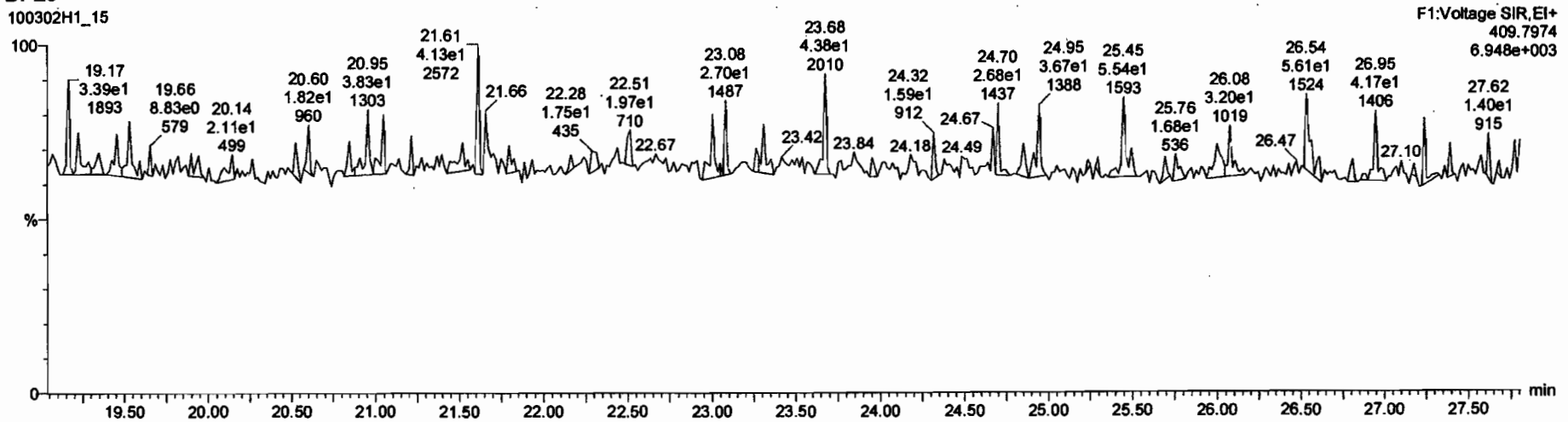

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-15.qld

Last Altered: Wednesday, March 03, 2010 08:24:07 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:24 Pacific Standard Time

Name: 100302H1_15, Date: 02-Mar-2010, Time: 22:26:20, ID: 32458_2836_001 CAPA-10-12917 .905, Description: CAPA-10-12917

1,2,3,7,8-PeCDF

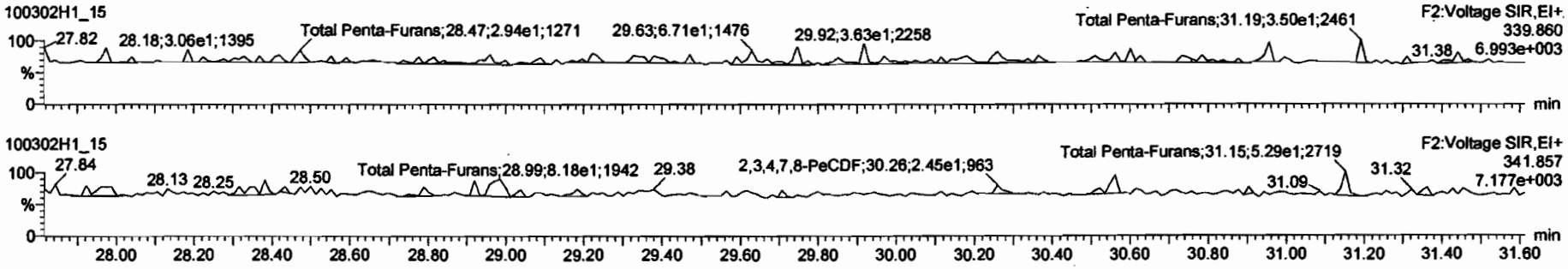

13C-1,2,3,7,8-PeCDF

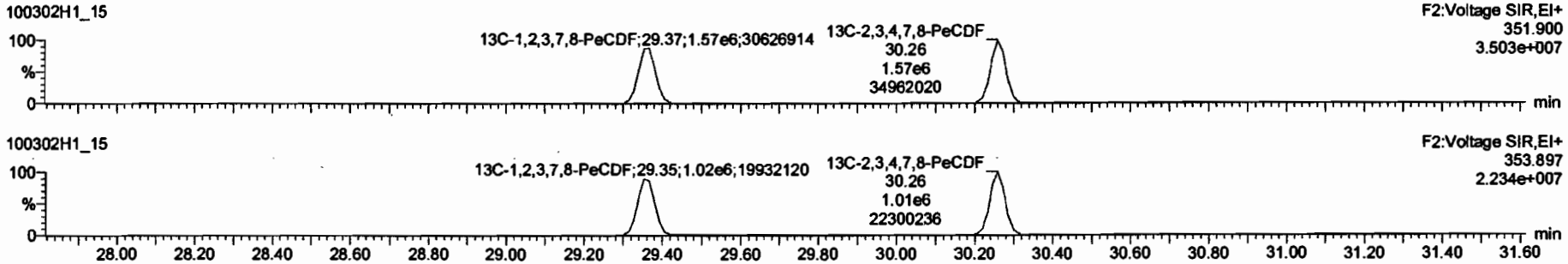

DPE2

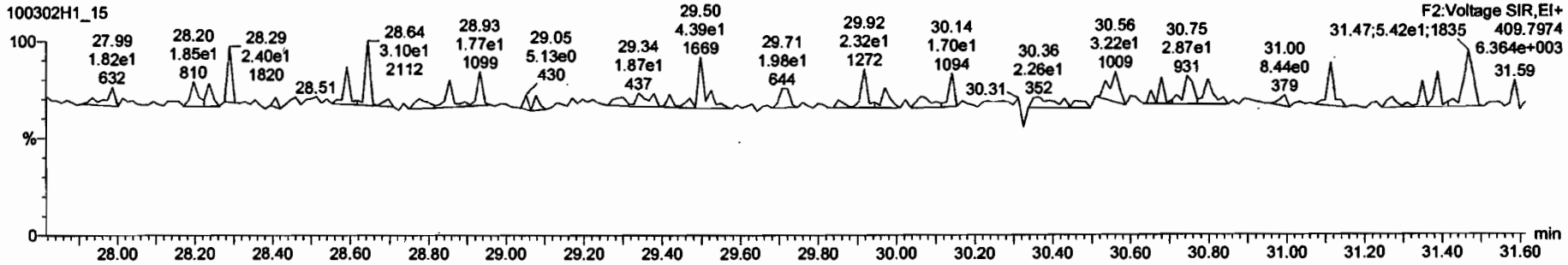

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-15.qld

Last Altered: Wednesday, March 03, 2010 08:24:07 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:24 Pacific Standard Time

Name: 100302H1_15, Date: 02-Mar-2010, Time: 22:26:20, ID: 32458_2836_001 CAPA-10-12917 .905, Description: CAPA-10-12917

1,2,3,4,7,8-HxCDF

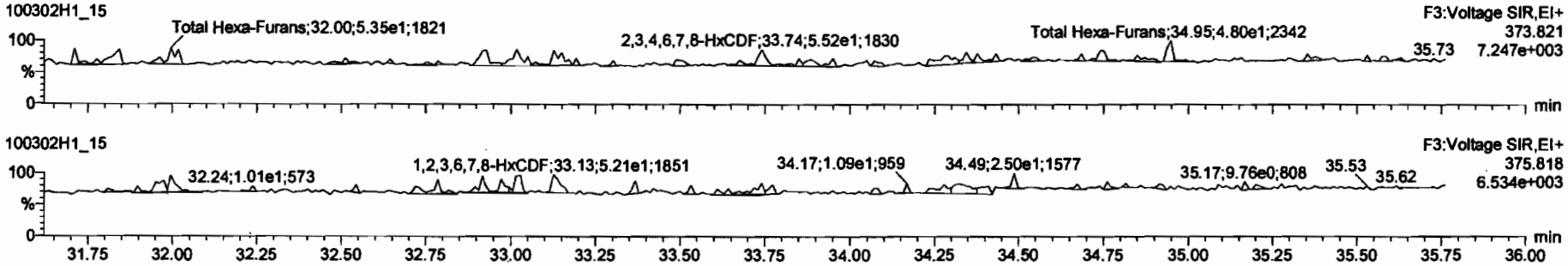

13C-1,2,3,4,7,8-HxCDF

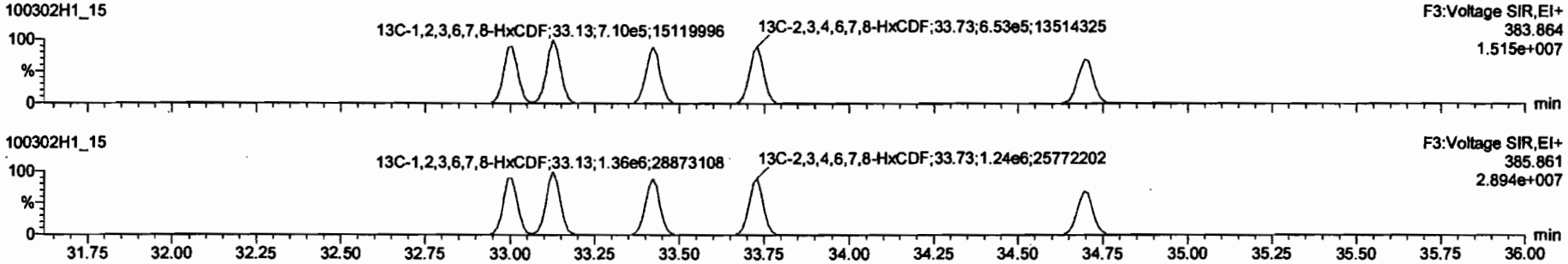

DPE3

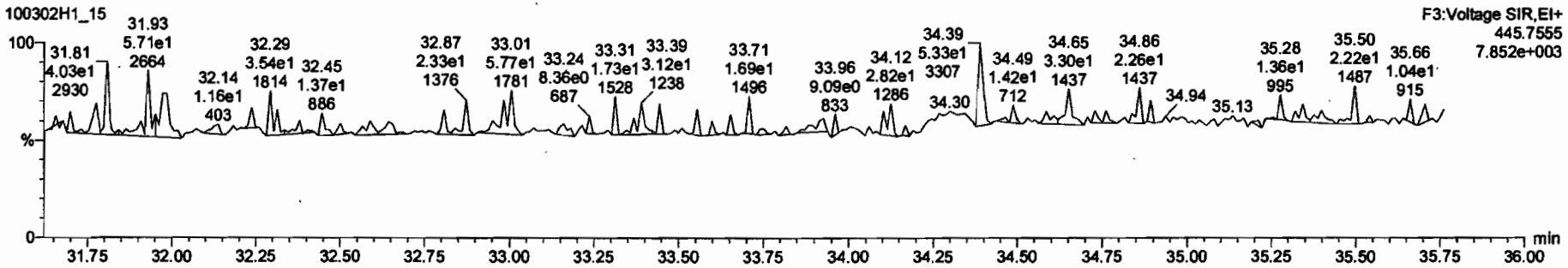

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-15.qld

Last Altered: Wednesday, March 03, 2010 08:24:07 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:24 Pacific Standard Time

Name: 100302H1_15, Date: 02-Mar-2010, Time: 22:26:20, ID: 32458_2836_001 CAPA-10-12917 .905, Description: CAPA-10-12917

1,2,3,4,6,7,8-HpCDF

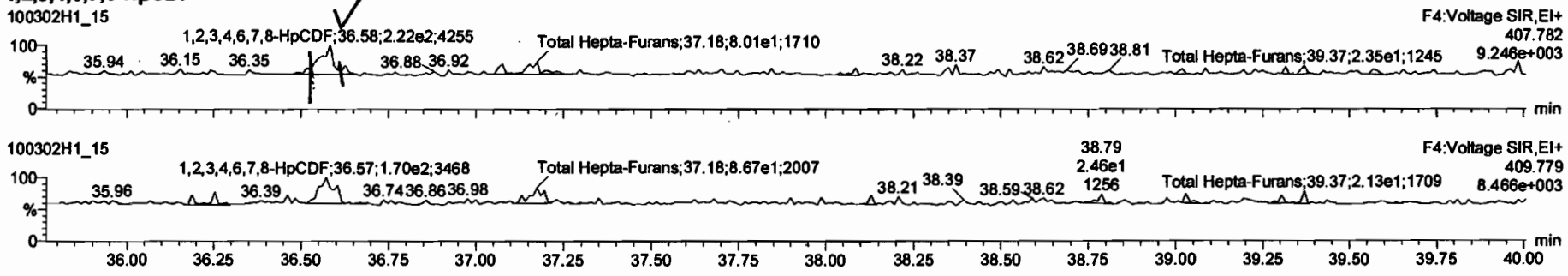

13C-1,2,3,4,6,7,8-HpCDF

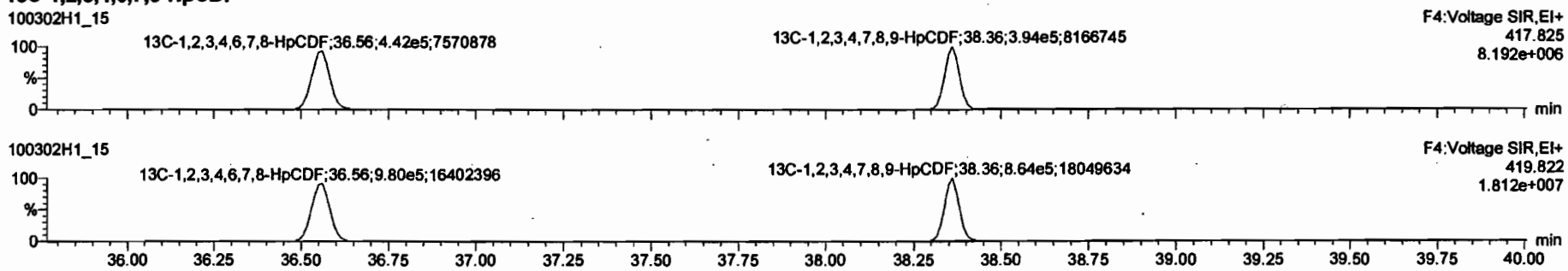

DPE4

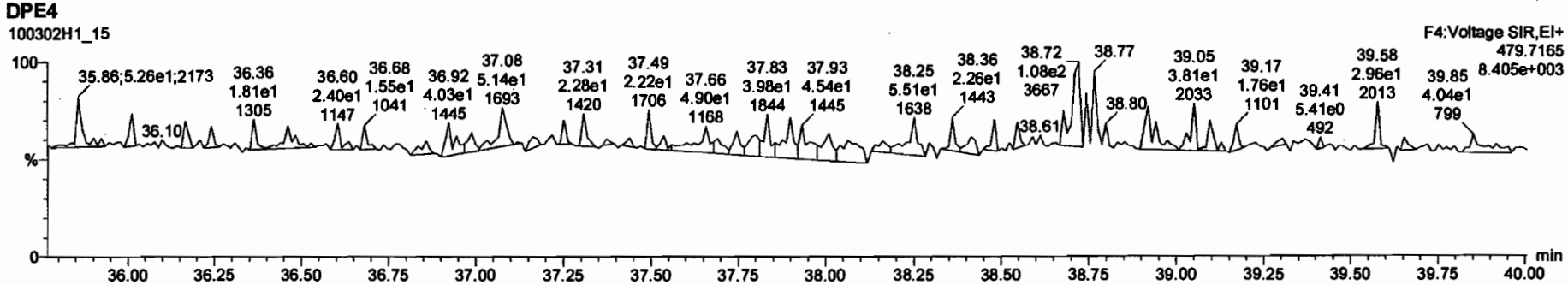

TargetLynx - 100302h1-15.qld * - [Chromatogram]

File Edit View Display Processing Window Help

100302H1_15 - 32458_2836_001 CAPA-10-12917 .905 - CAPA-10-12917

Name	RT	m/z Resp	m/z Resp	RA	QNV	EMPC	CONC
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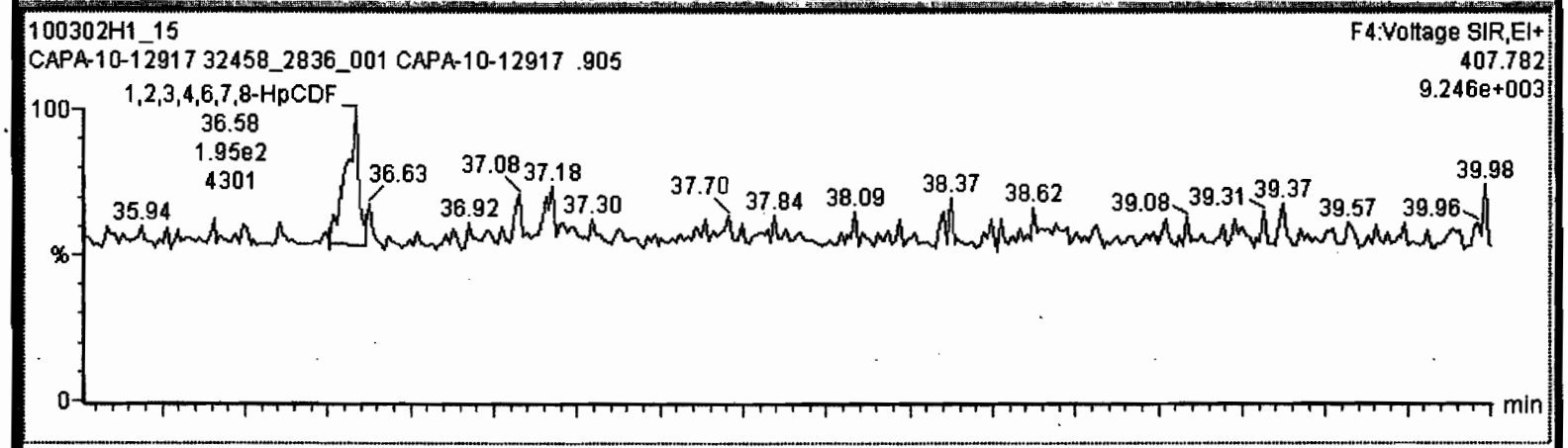

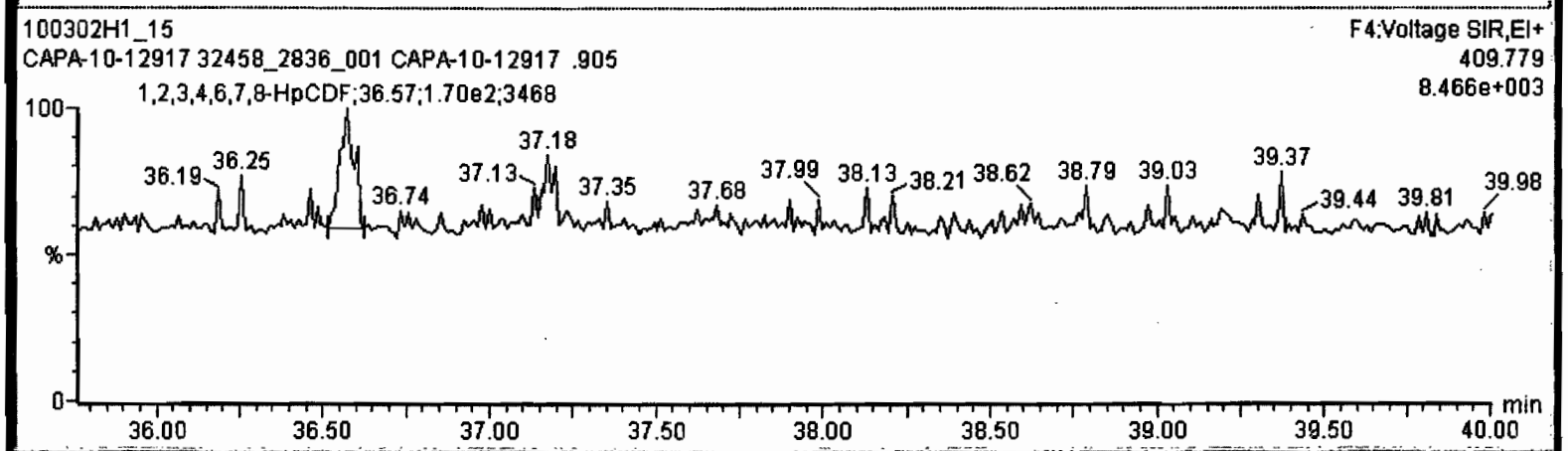

Ready 100302H1_15 NUM

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-15.qld

Last Altered: Wednesday, March 03, 2010 08:24:07 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:24 Pacific Standard Time

Name: 100302H1_15, Date: 02-Mar-2010, Time: 22:26:20, ID: 32458_2836_001 CAPA-10-12917 .905, Description: CAPA-10-12917

OCDF

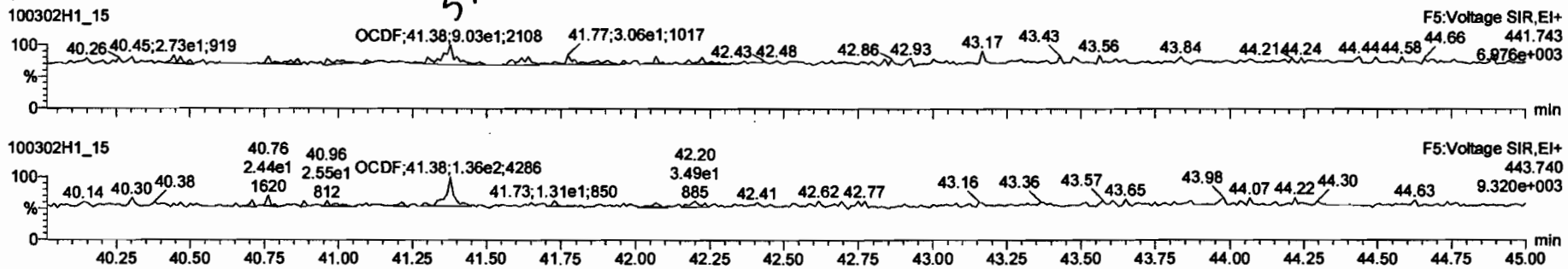

13C-OCDF

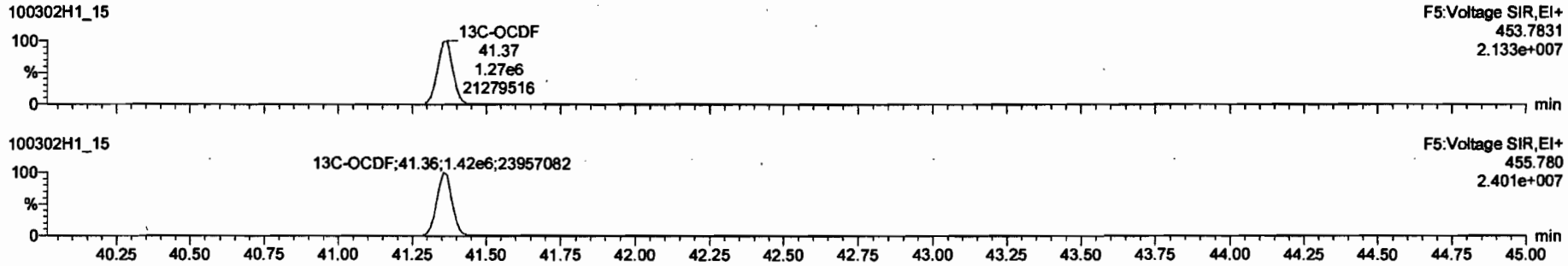

DPE5

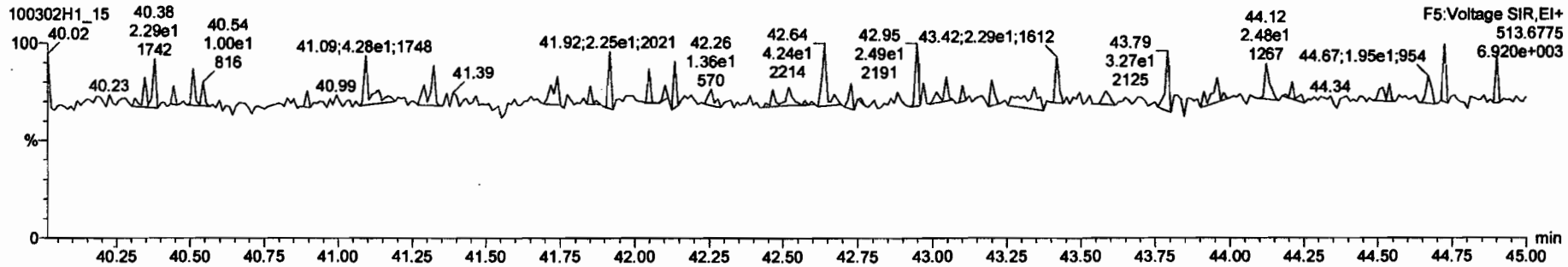

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-15.qld

Last Altered: Wednesday, March 03, 2010 08:24:07 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:24 Pacific Standard Time

Name: 100302H1_15, Date: 02-Mar-2010, Time: 22:26:20, ID: 32458_2836_001 CAPA-10-12917 .905, Description: CAPA-10-12917

PFK1

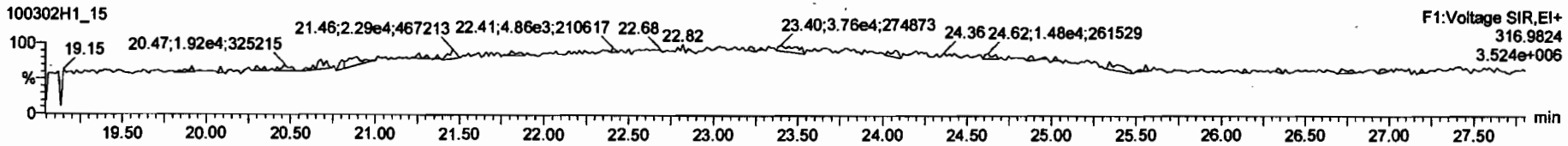

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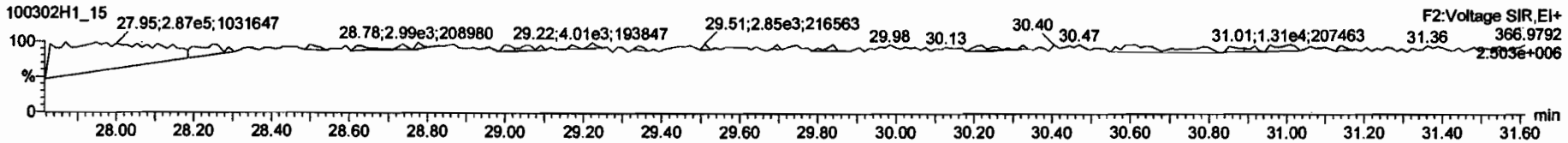

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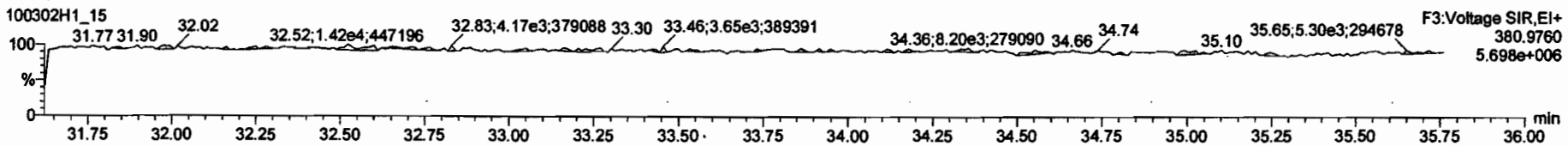

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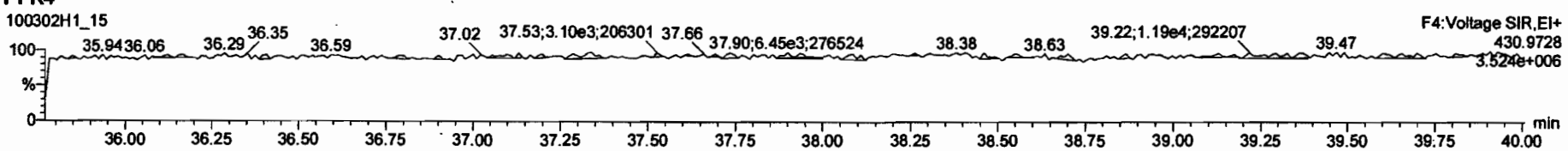

PFK5

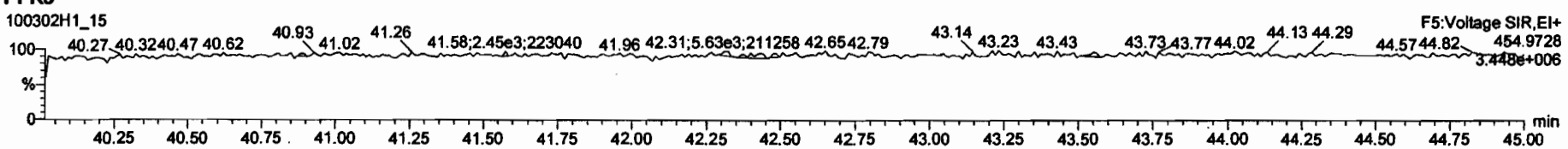

CALIBRATION DATA

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Vista Analytical Laboratory
CCAL ID: ST100302H1-1
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
GC Column ID: DB-5
VER Data file name: 100302H1_1
Analysis Date: 02-Mar-10
Analysis Time: 10:53:04

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	NO	9.98	7.8	12.9	Yes	8.00	12.0	Yes
						8.2	12.3 (4)				
1,2,3,7,8-PeCDD	M/M+2	0.61	0.54-0.72	NO	48.7	39.0	65.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	48.4	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	48.8	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDD	M+2/M+4	1.22	1.05-1.43	NO	48.5	41.0	61.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	NO	47.5	43.0	58.0	Yes	40.0	60.0	Yes
OCDD	M+2/M+4	0.88	0.76-1.02	NO	95.2	79.0	126.0	Yes	80.0	120.0	Yes
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	NO	10.3	8.4	12.0	Yes	8.00	12.0	Yes
						8.6	11.6 (4)				
1,2,3,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	NO	50.2	41.0	60.0	Yes	40.0	60.0	Yes
2,3,4,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	NO	49.4	41.0	60.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDF	M+2/M+4	1.28	1.05-1.43	NO	51.0	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	NO	50.5	44.0	57.0	Yes	40.0	60.0	Yes
2,3,4,6,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	NO	50.9	44.0	57.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDF	M+2/M+4	1.27	1.05-1.43	NO	49.8	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.05	0.88-1.20	NO	49.1	45.0	55.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.06	0.88-1.20	NO	50.3	43.0	58.0	Yes	40.0	60.0	Yes
OCDF	M+2/M+4	0.91	0.76-1.02	NO	96.3	63.0	159.0	Yes	80.0	120.0	Yes

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [illegible]
Date: 3/2/10

8290 only

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Vista Analytical Laboratory
CCAL ID: ST100302H1-1
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
GC Column ID: DB-5
VER Data file name: 100302H1_1
Analysis Date: 02-Mar-10
Analysis Time: 10:53:04

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
13C-2,3,7,8-TCDD	M+2/M+4	0.78	0.65-0.89	NO	102	82.0	121.0	Yes	70.0	130.0	Yes
						85.0	117.0 (5)				
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	NO	81.6	62.0	160.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	105	85.0	117.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	106	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	104	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.04	0.88-1.20	NO	106	72.0	138.0	Yes	70.0	130.0	Yes
13C-OCDD	M+2/M+4	0.90	0.76-1.02	NO	193	96.0	415.0	Yes	140.0	260.0	Yes
13C-2,3,7,8-TCDF	M/M+2	0.79	0.65-0.89	NO	98.7	71.0	140.0	Yes	70.0	130.0	Yes
						76.0	131.0 (5)				
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	NO	85.7	76.0	130.0	Yes	70.0	130.0	Yes
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	NO	76.8	77.0	130.0	No	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	89.8	76.0	131.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	97.0	70.0	143.0	Yes	70.0	130.0	Yes
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.53	0.43-0.59	NO	99.4	73.0	137.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.50	0.43-0.59	NO	105	74.0	135.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.45	0.37-0.51	NO	105	78.0	129.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	NO	104	77.0	129.0	Yes	70.0	130.0	Yes
13C-OCDF	M+2/M+4	0.88	0.76-1.02	NO	186	96.0	415.0	Yes	140.0	260.0	Yes
CLEANUP STANDARD (4)											
37Cl-2,3,7,8-TCDD					9.64	7.9	12.7	Yes	7.0	13.0	Yes
						8.3	12.1 (5)				

8290 only

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) No ion abundance ratio; report concentration found
(5) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [signature]
Date: 3/2/10

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Tuesday, March 02, 2010 12:37:07 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:37:52 Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

	Name	RT
1	1,3,6,8-TCDD (First)	22.73
2	1,2,8,9-TCDD (Last)	26.89
3	1,2,4,7,9-PeCDD (First)	28.49
4	1,2,3,8,9-PeCDD (Last)	30.92
5	12,4,6,7,9-HxCDD (First)	32.36
6	1,2,3,7,8,9-HxCDD (Last)	34.32
7	1,2,3,4,6,7,9-HpCDD (First)	36.96
8	1,2,3,4,6,7,8-HpCDD (Last)	37.82
9	1,3,6,8-TCDF (First)	20.69
10	1,2,8,9-TCDF (Last)	27.04
11	1,3,4,6,8-PeCDF (First)	26.98
12	1,2,3,8,9-PeCDF (Last)	31.17
13	1,2,3,4,6,8-HxCDF (First)	31.81
14	1,2,3,4,8,9-HxCDF (Last)	34.72
15	1,2,3,4,6,7,8-HpCDF (First)	36.57
16	1,2,3,4,7,8,9-HpCDF (Last)	38.37

3/2/10

FORM 6A

PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory

CCAL ID: ST100302H1-1

Initial Calibration Date: 01/29/2010

Instrument ID: VG10

GC Column ID: DB-5

VER Data file name: 100302H1_1

Analysis Date: 02-Mar-10

Analysis Time: 10:53:04

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999	1.002	Yes
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.000	0.999	1.002	Yes
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999	1.003	Yes
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999	1.002	Yes
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999	1.002	Yes
LABELED COMPOUNDS					
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.976	1.043	Yes
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.200	1.000	1.567	Yes
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.992	0.923	1.103	Yes
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.153	1.000	1.425	Yes
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.189	1.011	1.526	Yes
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.023	0.989	1.052	Yes

Analyst: _____

Date: 3/2/10

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
VER Data file name: 100302H1_1

CCAL ID: ST100302H1-1

GC Column ID: DB-5
Analysis Date: 02-Mar-10

Analysis Time: 10:53:04

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999	1.001	Yes
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998	1.004	Yes
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.009	0.998	1.004	No
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.001	0.999	1.001	Yes
OCDD	13C-OCDD	1.001	0.999	1.001	Yes
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.001	0.999	1.001	Yes
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	0.997	1.005	Yes
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.000	0.999	1.001	Yes
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999	1.001	Yes
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.000	0.999	1.001	Yes
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999	1.001	Yes
OCDF	13C-OCDF	1.000	0.999	1.001	Yes
LABELED COMPOUNDS					
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.014	1.002	1.026	Yes
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.017	1.007	1.029	Yes
13C-1,2,3,7,8,9-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.027	1.014	1.038	Yes
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,9-HxCDF	1.131	1.117	1.141	Yes
13C-OCDD	13C-1,2,3,4,6,9-HxCDF	1.230	1.085	1.365	Yes
13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.987	0.975	1.001	Yes
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.991	0.979	1.005	Yes
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.009	1.001	1.020	Yes
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.038	1.002	1.072	Yes
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.094	1.069	1.111	Yes
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.148	1.098	1.192	Yes
13C-OCDF	13C-1,2,3,4,6,9-HxCDF	1.238	1.091	1.371	Yes

Analyst: _____

Date: 3/2/10

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:49 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

	Name	Resp	RA	n/y	RRF	RRF	RT	RRT	Conc	%Rec	DL	EMPC
1	2,3,7,8-TCDD	1.98e5	0.78	NO	1.04	1.000	26.03	1.001	9.9778	99.8	0.0229	9.9778
2	1,2,3,7,8-PeCDD	6.94e5	0.61	NO	0.935	1.000	30.55	1.000	48.734	97.5	0.0566	48.734
3	1,2,3,4,7,8-HxCDD	6.47e5	1.24	NO	0.907	1.000	33.91	1.000	48.434	96.9	0.0704	48.434
4	1,2,3,6,7,8-HxCDD	6.40e5	1.24	NO	0.995	1.000	34.01	1.000	48.803	97.6	0.0708	48.803
5	1,2,3,7,8,9-HxCDD	7.05e5	1.22	NO	0.930	1.000	34.32	1.009	48.539	97.1	0.0696	48.539
6	1,2,3,4,6,7,8-HpCDD	5.86e5	1.05	NO	1.00	1.000	37.82	1.001	47.456	94.9	0.0855	47.456
7	OCDD	1.01e6	0.88	NO	1.10	1.000	41.15	1.001	95.223	95.2	0.0506	95.223
8	2,3,7,8-TCDF	2.63e5	0.77	NO	0.956	1.000	25.27	1.001	10.252	103	0.0175	10.252
9	1,2,3,7,8-PeCDF	1.06e6	1.56	NO	0.941	1.000	29.37	1.000	50.224	100	0.0437	50.224
10	2,3,4,7,8-PeCDF	9.74e5	1.55	NO	0.926	1.000	30.27	1.000	49.365	98.7	0.0440	49.365
11	1,2,3,4,7,8-HxCDF	1.07e6	1.28	NO	1.22	1.000	33.02	1.001	51.044	102	0.0678	51.044
12	1,2,3,6,7,8-HxCDF	1.00e6	1.26	NO	1.08	1.000	33.14	1.000	50.465	101	0.0694	50.465
13	2,3,4,6,7,8-HxCDF	9.37e5	1.26	NO	1.13	1.000	33.74	1.000	50.885	102	0.0798	50.885
14	1,2,3,7,8,9-HxCDF	8.63e5	1.27	NO	1.13	1.000	34.72	1.001	49.825	99.6	0.0901	49.825
15	1,2,3,4,6,7,8-HpCDF	8.83e5	1.05	NO	1.44	1.000	36.57	1.000	49.095	98.2	0.0901	49.095
16	1,2,3,4,7,8,9-HpCDF	7.95e5	1.06	NO	1.38	1.000	38.37	1.000	50.281	101	0.0850	50.281
17	OCDF	1.20e6	0.91	NO	1.01	1.000	41.38	1.000	96.275	96.3	0.0444	96.275
18	13C-2,3,7,8-TCDD	1.91e6	0.78	NO	1.10	1.000	26.00	1.022	101.96	102	0.0780	
19	13C-1,2,3,7,8-PeCDD	1.52e6	0.62	NO	1.09	1.000	30.54	1.200	81.621	81.6	0.0678	
20	13C-1,2,3,4,7,8-HxCDD	1.47e6	1.24	NO	1.01	1.000	33.89	1.014	104.59	105	0.104	
21	13C-1,2,3,6,7,8-HxCDD	1.32e6	1.24	NO	0.889	1.000	34.00	1.017	106.34	106	0.118	
22	13C-1,2,3,7,8,9-HxCDD	1.56e6	1.24	NO	1.07	1.000	34.31	1.027	104.44	104	0.0976	
23	13C-1,2,3,4,6,7,8-HpCDD	1.23e6	1.04	NO	0.837	1.000	37.80	1.131	105.66	106	0.173	
24	13C-OCDD	1.91e6	0.90	NO	0.712	1.000	41.13	1.230	193.05	96.5	0.0760	
25	13C-2,3,7,8-TCDF	2.68e6	0.79	NO	1.05	1.000	25.24	0.992	98.679	98.7	0.0598	
26	13C-1,2,3,7,8-PeCDF	2.25e6	1.56	NO	1.02	1.000	29.35	1.153	85.664	85.7	0.104	
27	13C-2,3,4,7,8-PeCDF	2.13e6	1.55	NO	1.08	1.000	30.26	1.189	76.803	76.8	0.0985	
28	13C-1,2,3,4,7,8-HxCDF	1.71e6	0.52	NO	1.37	1.000	32.99	0.987	89.836	89.8	0.104	
29	13C-1,2,3,6,7,8-HxCDF	1.85e6	0.52	NO	1.37	1.000	33.13	0.991	96.990	97.0	0.104	
30	13C-2,3,4,6,7,8-HxCDF	1.64e6	0.53	NO	1.18	1.000	33.73	1.009	99.435	99.4	0.120	

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Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:49 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

	31 13C-1,2,3,7,8,9-HxCDF	1.53e6	0.50	NO	1.05	1.000	34.70	1.038	104.92	105	0.135
	32 13C-1,2,3,4,6,7,8-HpCDF	1.25e6	0.45	NO	0.858	1.000	36.56	1.094	104.62	105	0.196
	33 13C-1,2,3,4,7,8,9-HpCDF	1.15e6	0.44	NO	0.794	1.000	38.36	1.148	103.71	104	0.211
	34 13C-OCDF	2.46e6	0.88	NO	0.948	1.000	41.37	1.238	186.23	93.1	0.0538
	35 37Cl-2,3,7,8-TCDD	1.09e5			0.665	1.000	26.03	1.023	9.6403	96.4	0.0528
	36 13C-1,2,3,4-TCDD	1.70e6	0.79	NO	1.00	1.000	25.45	0.000	100.00	100	0.0857
	37 13C-1,2,3,4-TCDF	2.58e6	0.77	NO	1.00	1.000	24.07	0.000	100.00	100	0.0629
	38 13C-1,2,3,4,6,9-HxCDF	1.39e6	0.52	NO	1.00	1.000	33.42	0.000	100.00	100	0.142

Quantify Compound Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, March 03, 2010 8:06:52 AM Pacific Standard Time
Printed: Wednesday, March 03, 2010 8:07:08 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Compound name: 1,3,6,8-TCDD (First)

	Name	ID	AcqDate	AcqTime
1	100302H1_1	ST100302H1-1 1613 CS3 100127F	02-Mar-10	10:53:04
2	100302H1_2	solvent blank	02-Mar-10	11:42:34
3	100302H1_3	solvent blank	02-Mar-10	12:32:05
4	100302H1_4	solvent blank	02-Mar-10	13:21:39
5	100302H1_5	0_2836_OPR001	02-Mar-10	14:11:13
6	100302H1_6	solvent blank	02-Mar-10	15:01:15
7	100302H1_7	0_2836_MB001	02-Mar-10	15:50:57
8	100302H1_8	32447_2836_001 CAMO-10-9357 .896	02-Mar-10	16:40:37
9	100302H1_9	32448_2836_001 CAMO-10-9370 .903	02-Mar-10	17:30:08
10	100302H1_10	32448_2836_002 CAMO-10-9373 .87	02-Mar-10	18:19:40
11	100302H1_11	32448_2836_003 CAMO-10-10133 .825	02-Mar-10	19:09:11
12	100302H1_12	32449_2836_001 CAPA-10-12691 .918	02-Mar-10	19:58:44
13	100302H1_13	32453_2836_001 CAWA-10-13090 .91	02-Mar-10	20:48:17
14	100302H1_14	32455_2836_001 CAPA-10-13498 .93	02-Mar-10	21:37:47
15	100302H1_15	32458_2836_001 CAPA-10-12917 .905	02-Mar-10	22:26:20
16	100302H1_16	solvent blank	02-Mar-10	23:15:51
17	100302H1_17	ST100302H1-2 1613 CS3 100127F	03-Mar-10	00:05:17

CALIBRATION STANDARDS REVIEW CHECKLIST

Vista Analytical Laboratory

Beg. Calibration ID: ST100302H1-1 End Calibration ID: ST100302H1-2

	Beg.	End
Ion abundance within QC limits?	✓	✓
Concentration within range?	✓*	✓*
First and last eluters present?	✓	✓
Retention Times within criteria?	✓	✓
Verification Std. named correctly? (ST-Year-Month-Day-VG ID)	✓	✓
Forms signed and dated?	✓	✓
Correct ICAL referenced?	✓	✓
Run Log:		
-Data file matches Conc Cal ID?	✓	✓
-Correct instrument listed?	✓	✓
-Samples within 12-hour clock?	(y)	n

	Beg.	End
Mass resolution > 10,000? ▪ Method 1614 > 5,000; CARB 429 > 8,000	✓	✓
TCDD/TCDF valleys < 25%?	✓	✓
Peaks integrated correctly?	✓	✓
Manual integrations included?	✓	✓
8280 CS1 Ending Standard		
-Ratios within limits		NA
-S/N > 2.5:1		
-CS1 within 12-hour clock		✓

Comments: *8290 only

Reviewed by: JS 3/3/10
Initials & Date

* *Ending standard criteria applicable to 8290 only.*

Vista Analytical Laboratory
El Dorado Hills, CA 95762

Calib.Stds.Review 12/2009 rmh

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed: Tuesday, March 02, 2010 10:50:33 Pacific Standard Time

M 292.9824 R 13298

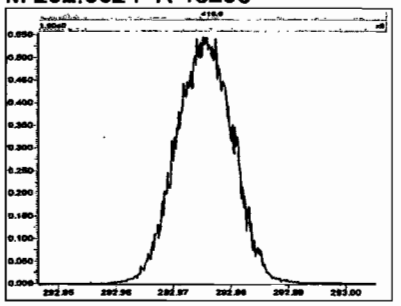

M 304.9824 R 13438

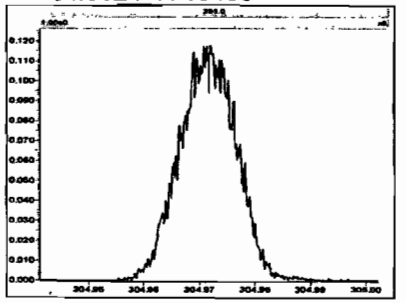

M 318.9792 R 14047

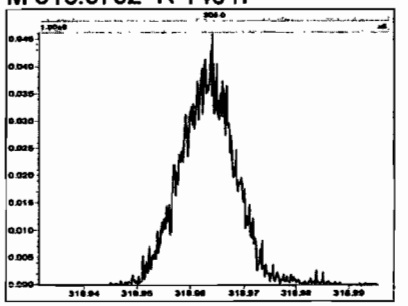

M 330.9792 R 13888

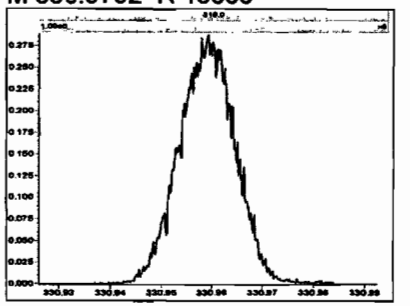

M 342.9792 R 13590

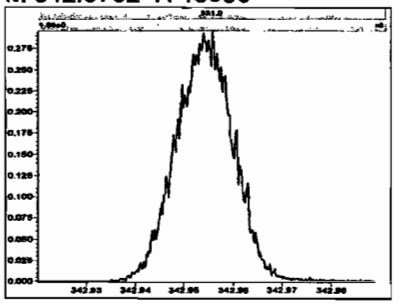

M 354.9792 R 12691

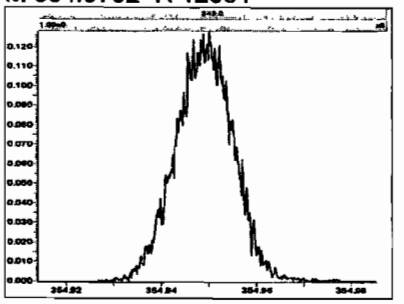

M 366.9792 R 12885

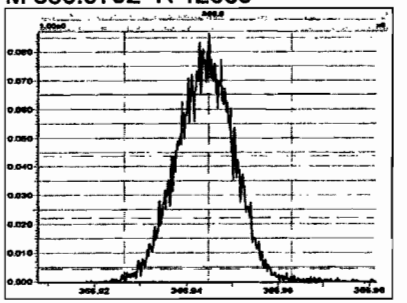

M 380.9760 R 12817

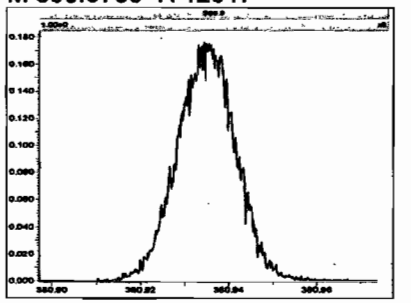

M 392.9760 R 12438

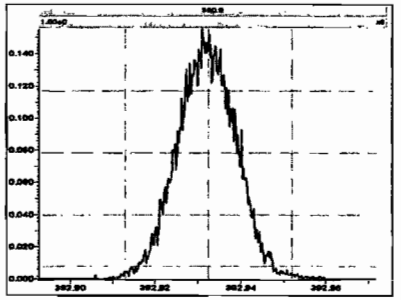

M 404.9760 R 12754

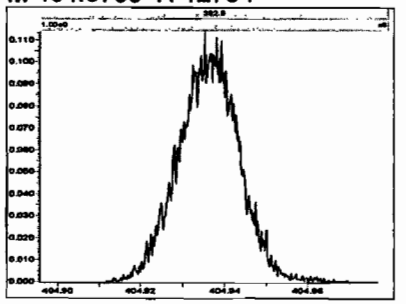

M 416.9760 R 12888

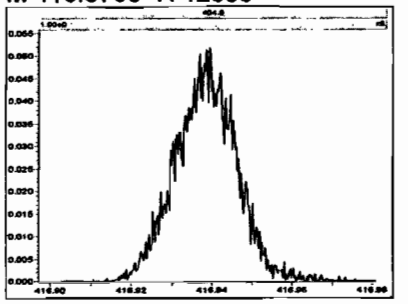

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed: Tuesday, March 02, 2010 10:51:18 Pacific Standard Time

M 330.9792 R 14205

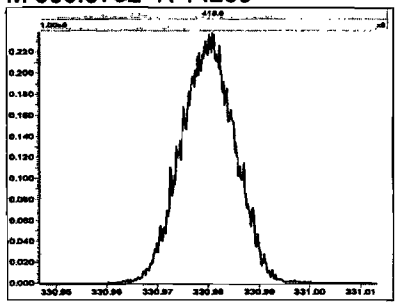

M 342.9792 R 13511

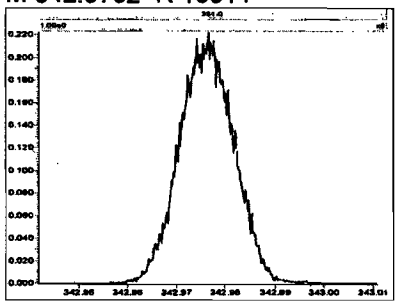

M 354.9792 R 13657

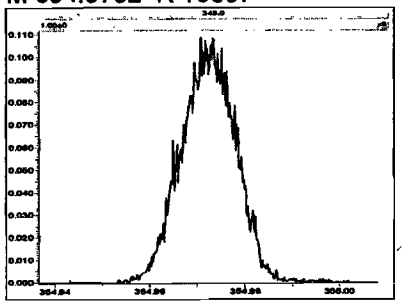

M 366.9792 R 13888

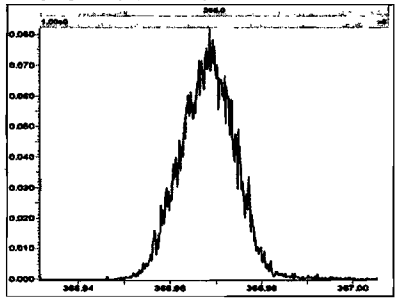

M 380.9760 R 13156

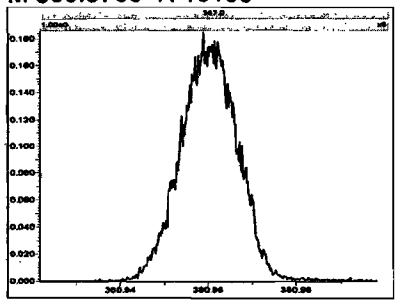

M 392.9760 R 13442

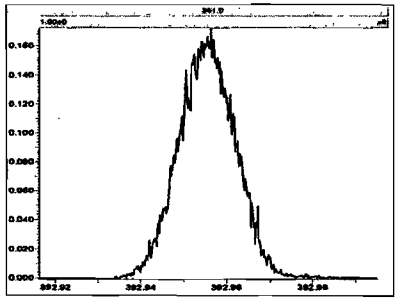

M 404.9760 R 13157

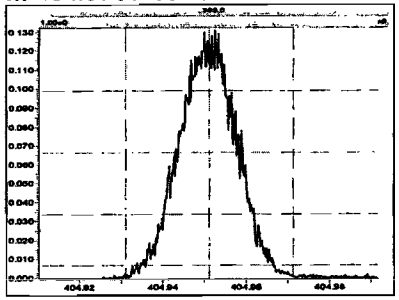

M 416.9760 R 13155

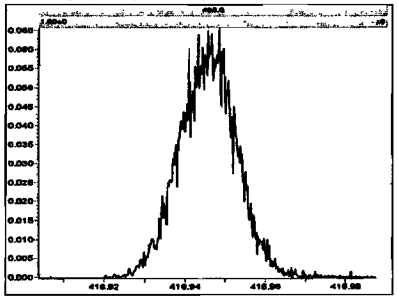

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed: Tuesday, March 02, 2010 10:51:48 Pacific Standard Time

M 366.9792 R 14536

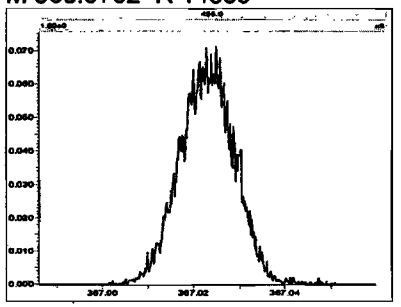

M 380.9760 R 14535

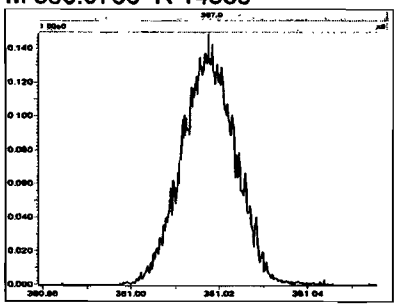

M 392.9760 R 13887

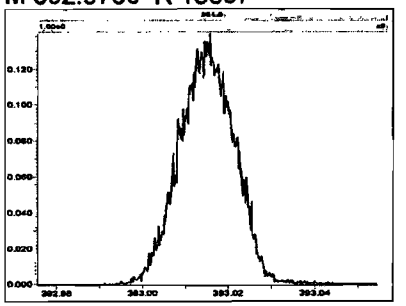

M 404.9760 R 13299

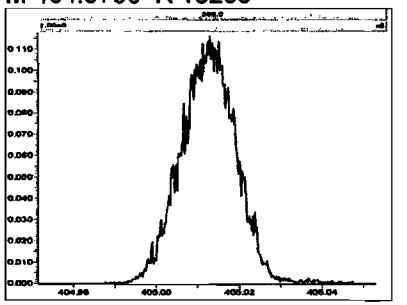

M 416.9760 R 13888

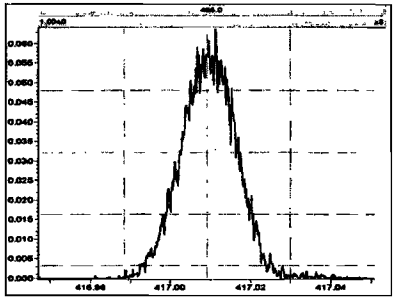

M 430.9728 R 12753

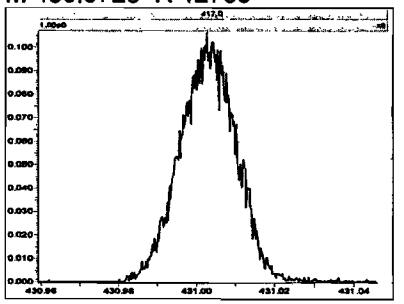

M 442.9728 R 13090

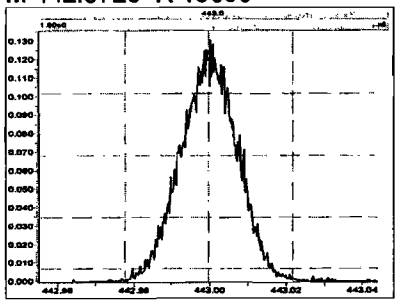

M 454.9728 R 13368

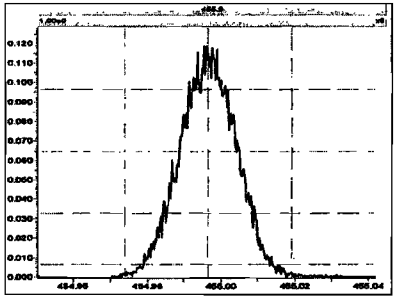

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed: Tuesday, March 02, 2010 10:52:15 Pacific Standard Time

M 404.9760 R 13366

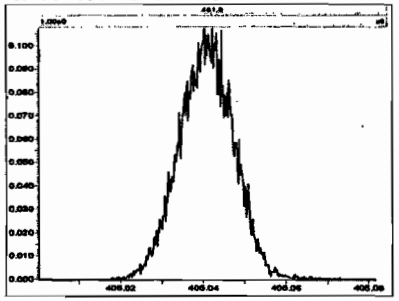

M 416.9760 R 13889

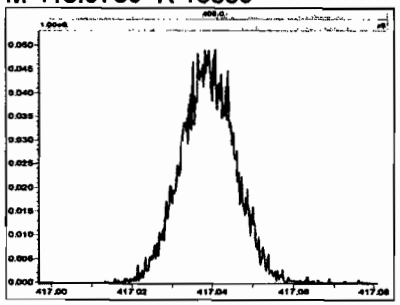

M 430.9728 R 13965

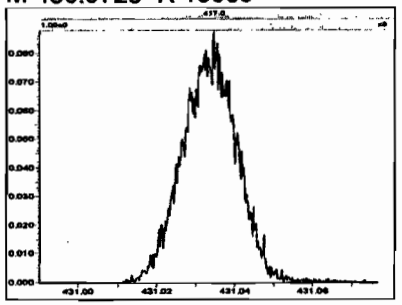

M 442.9728 R 13658

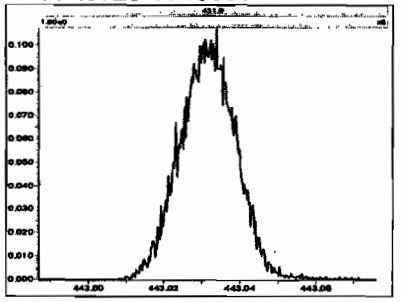

M 454.9728 R 13587

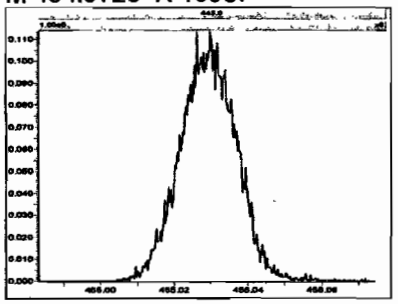

M 466.9728 R 13585

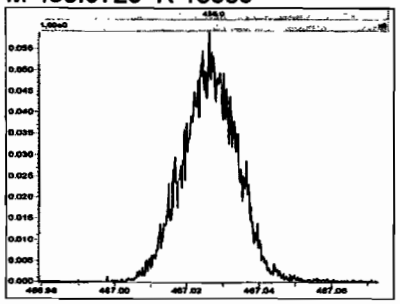

M 480.9696 R 13968

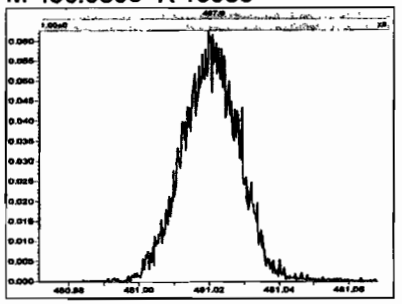

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed: Tuesday, March 02, 2010 10:52:39 Pacific Standard Time

M 430.9728 R 13437

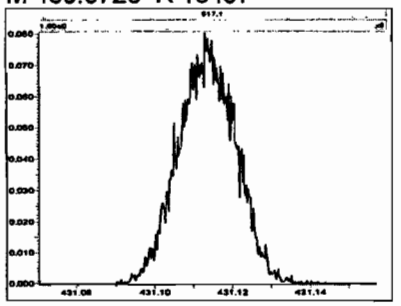

M 442.9728 R 12376

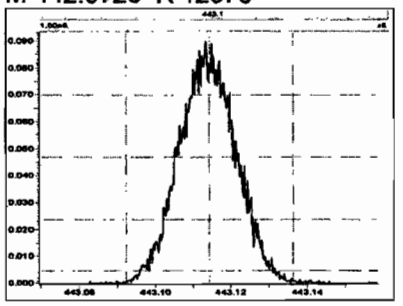

M 454.9728 R 13225

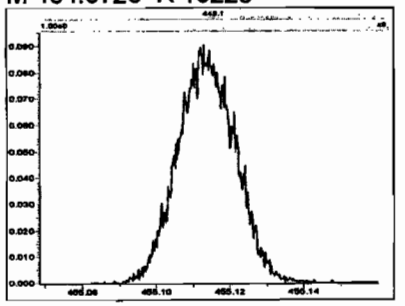

M 466.9728 R 13299

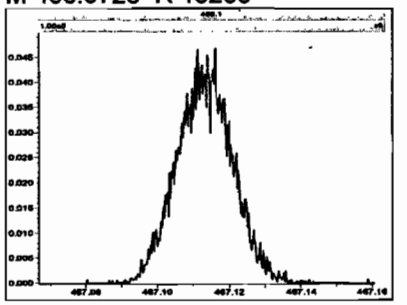

M 480.9696 R 12690

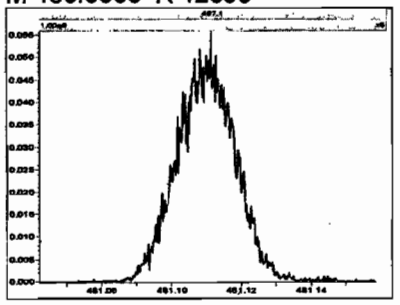

M 492.9696 R 12624

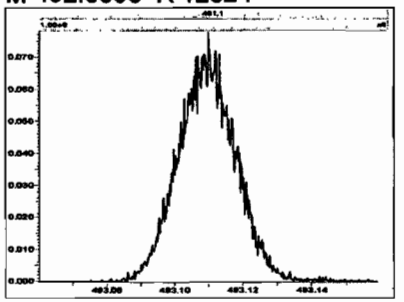

M 504.9696 R 12623

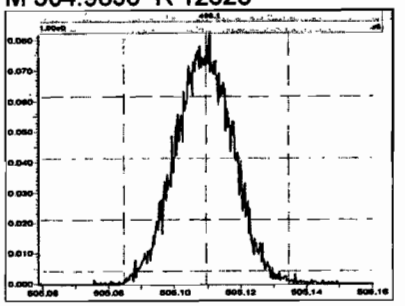

M 516.9697 R 12503

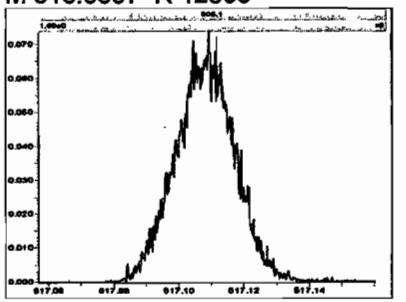

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Tuesday, March 02, 2010 12:37:07 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:37:52 Pacific Standard Time

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1,3,6,8-TCDD (First)

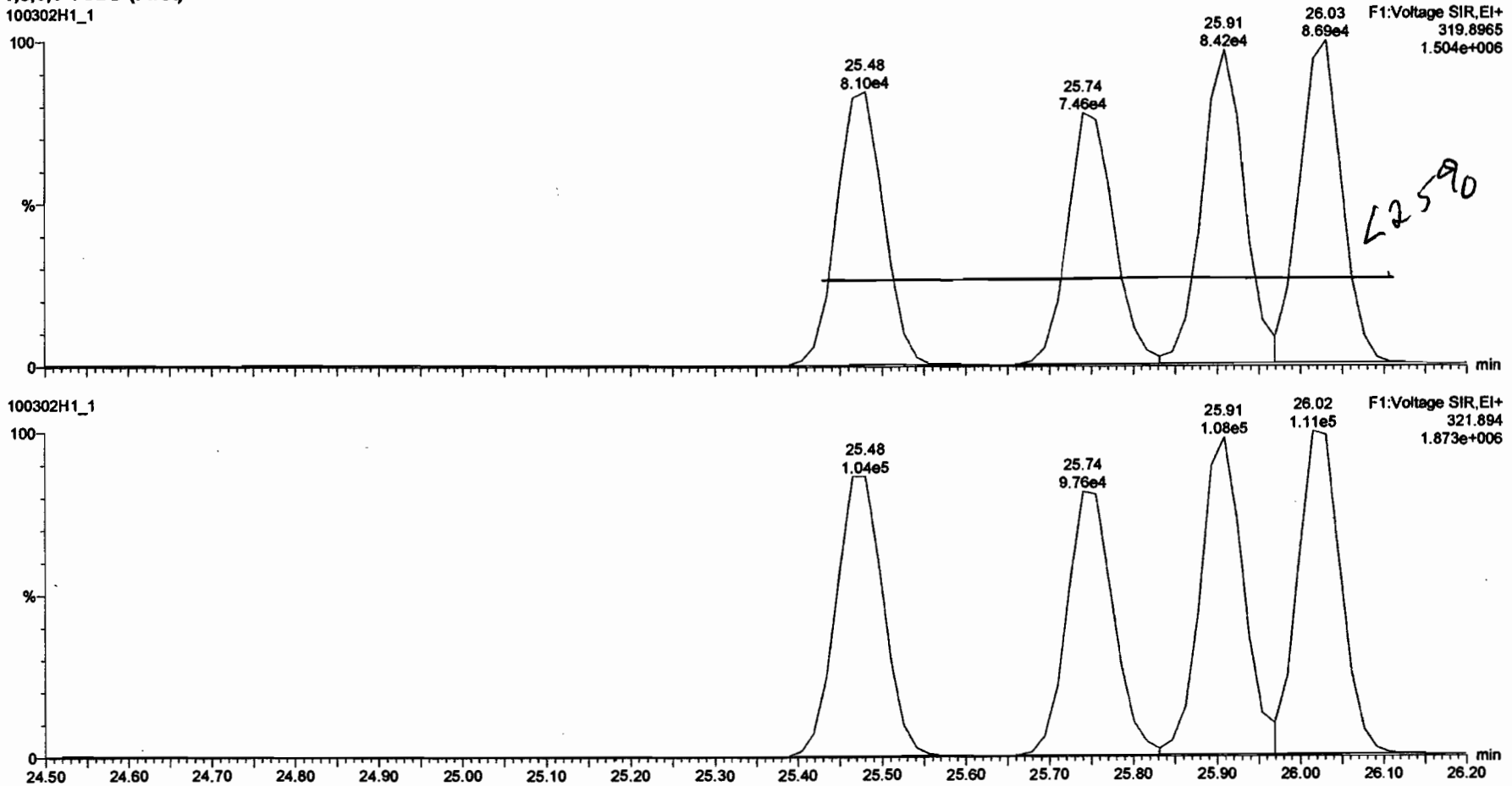

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
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2,3,7,8-TCDD

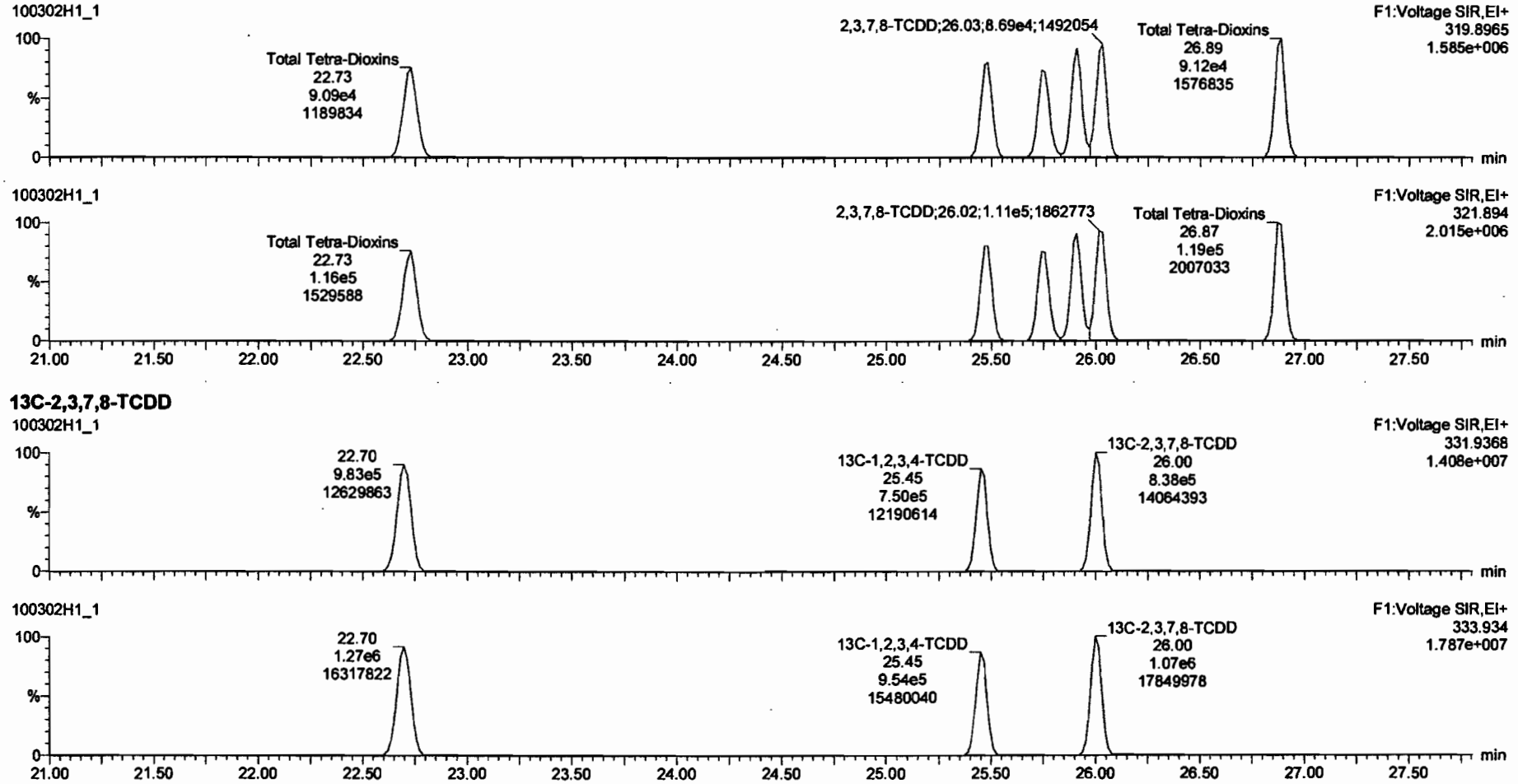

13C-2,3,7,8-TCDD

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

37Cl-2,3,7,8-TCDD

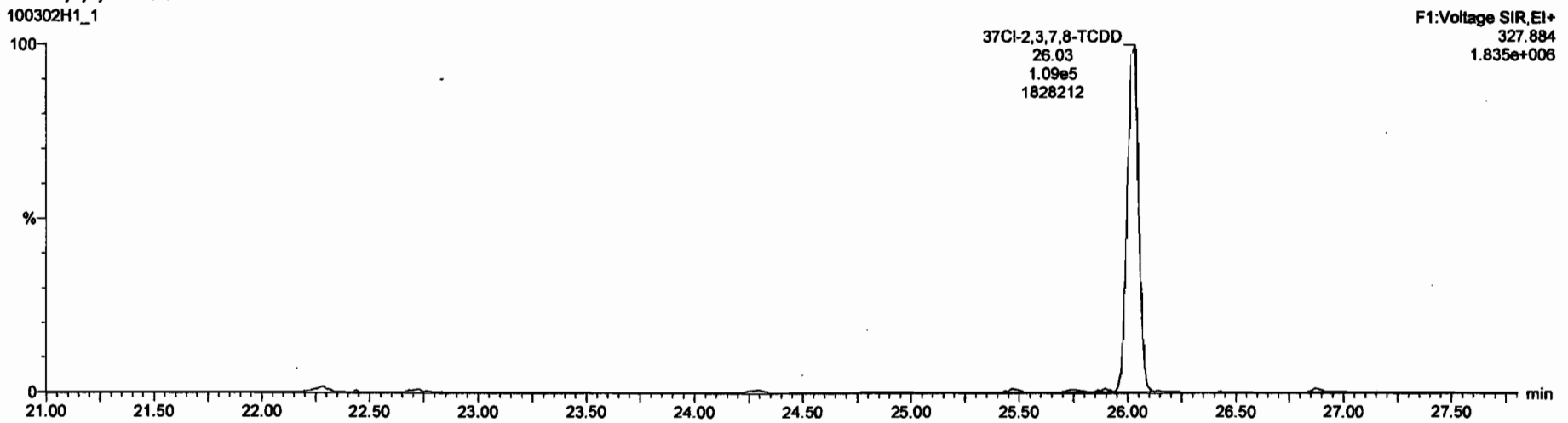

13C-1,2,3,4-TCDD

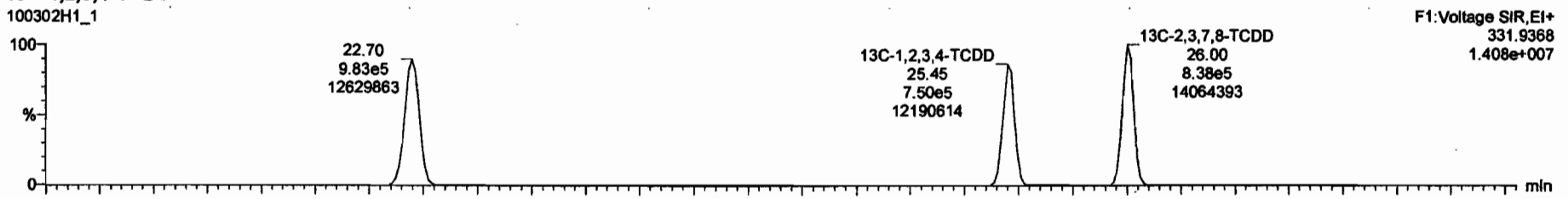

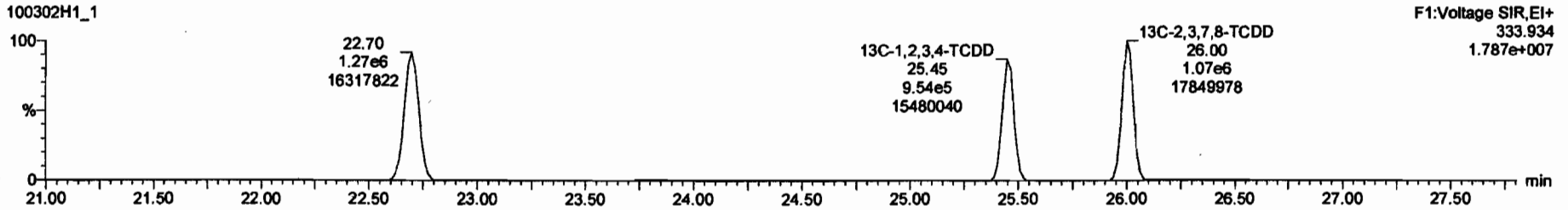

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Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,7,8-PeCDD

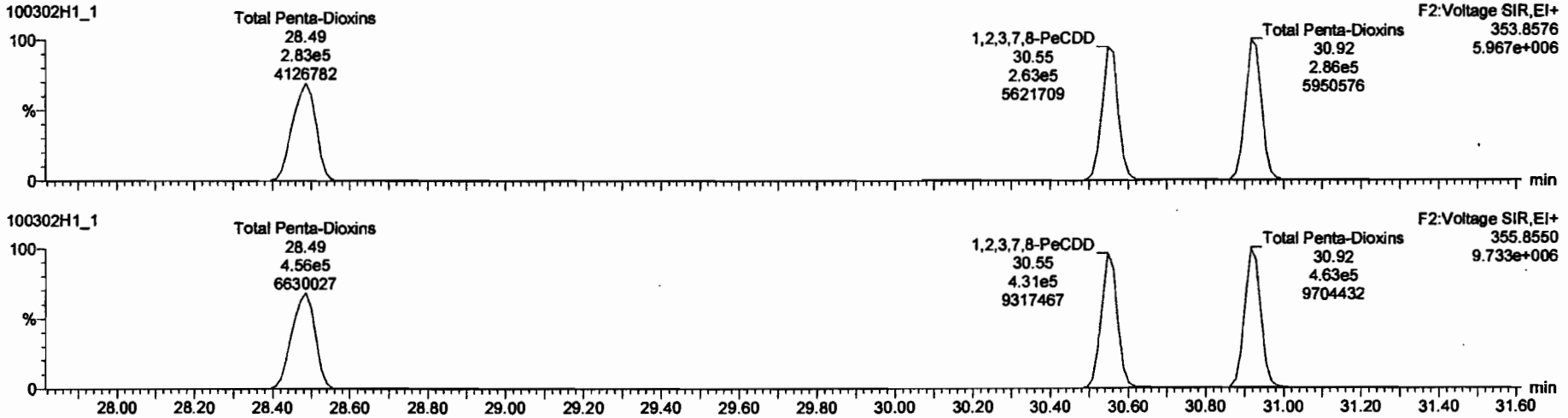

13C-1,2,3,7,8-PeCDD

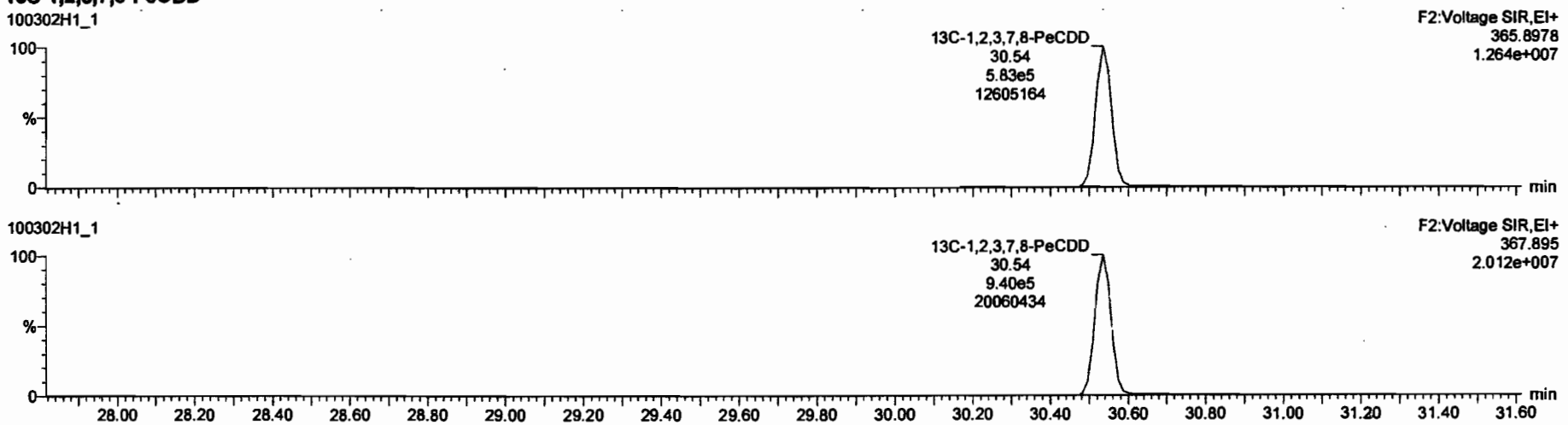

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1,2,3,4,7,8-HxCDD

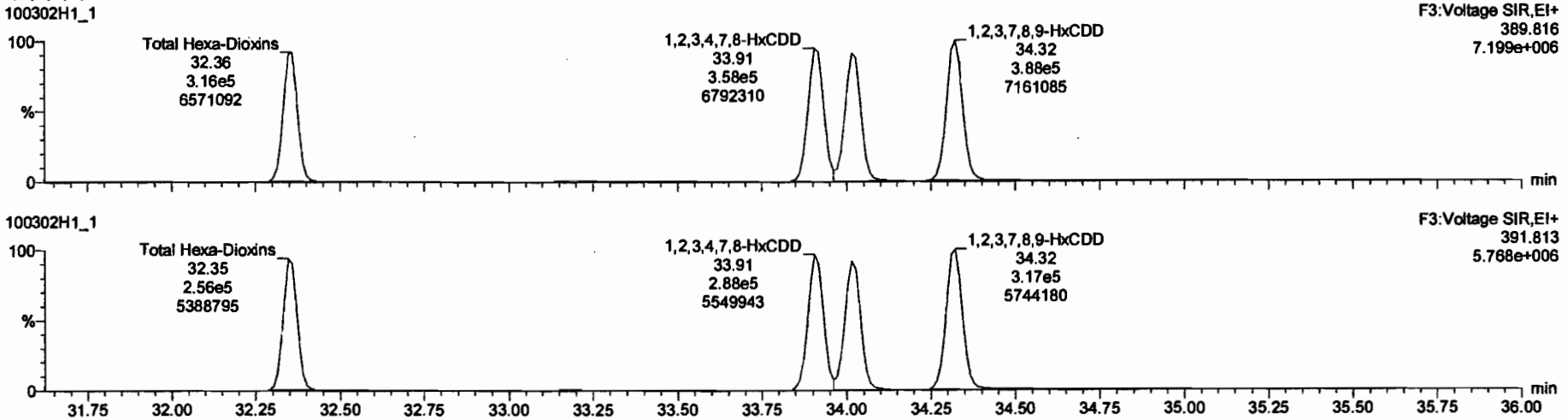

13C-1,2,3,4,7,8-HxCDD

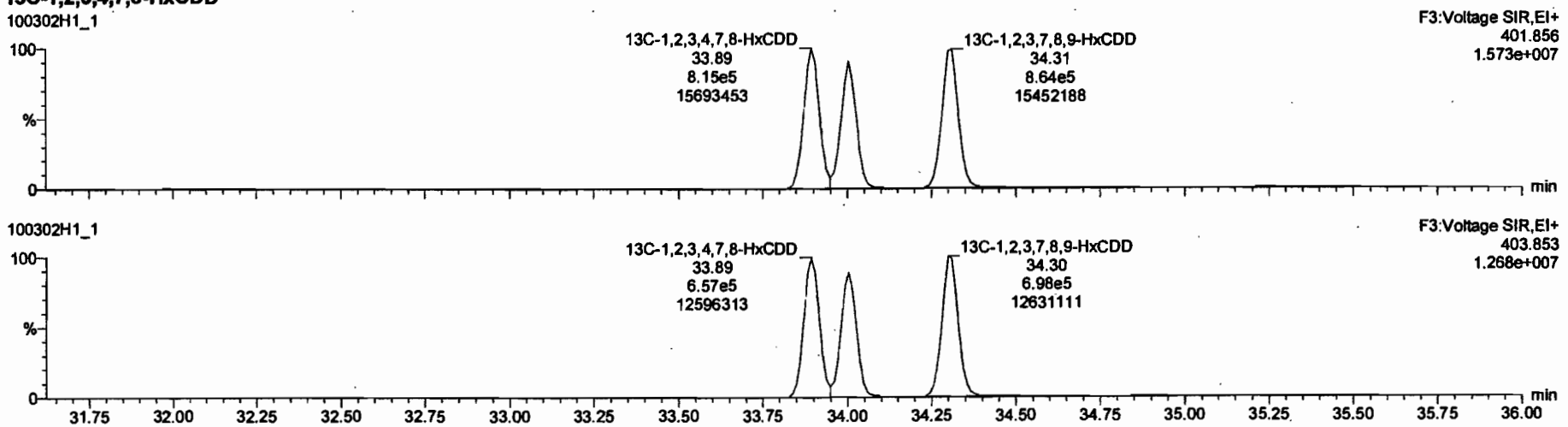

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Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,4,6,7,8-HpCDD

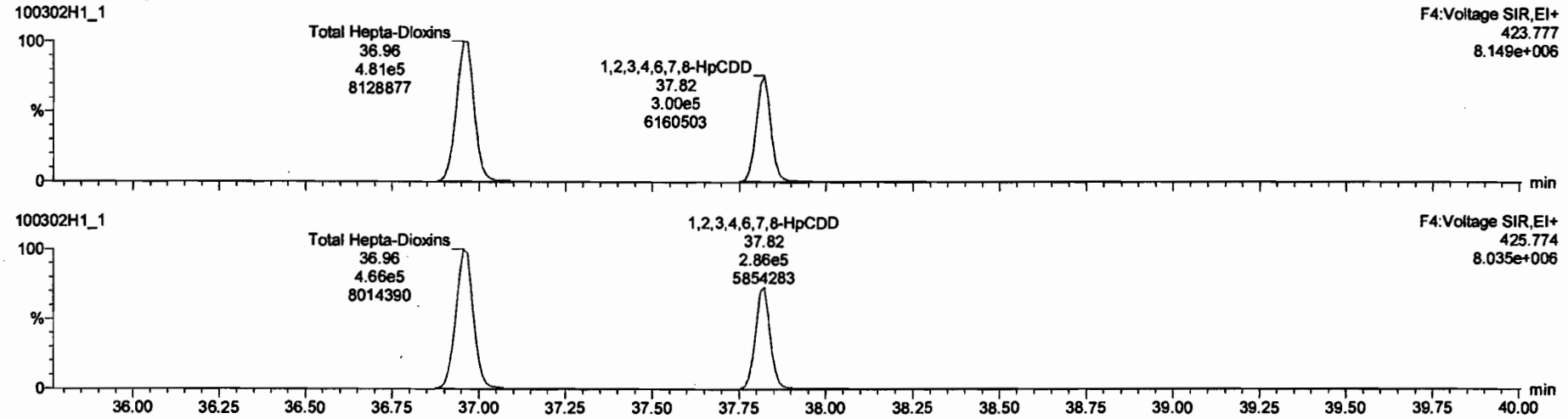

13C-1,2,3,4,6,7,8-HpCDD

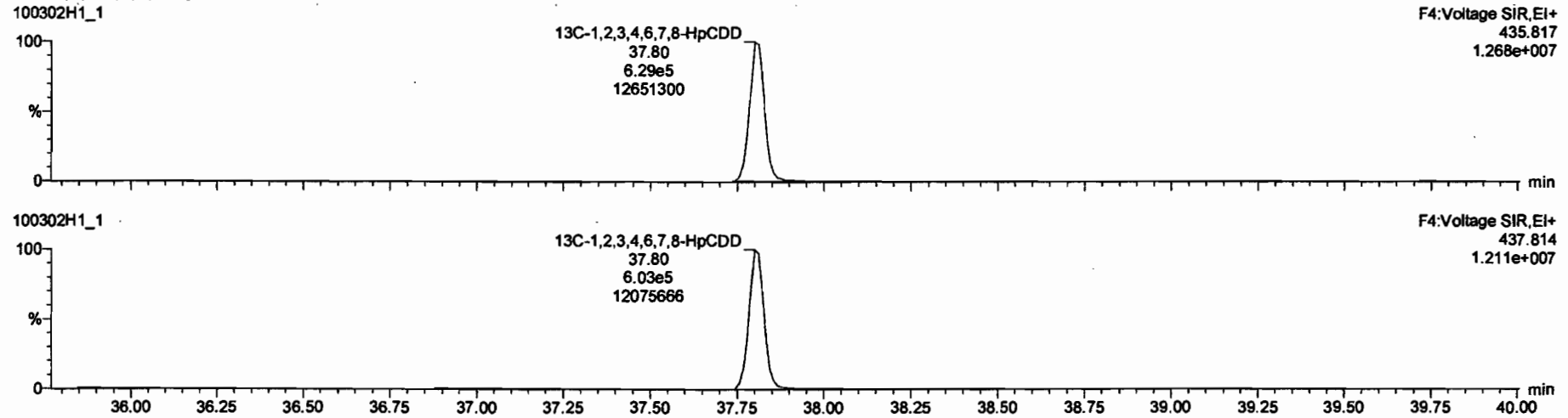

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Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
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Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

OCDD

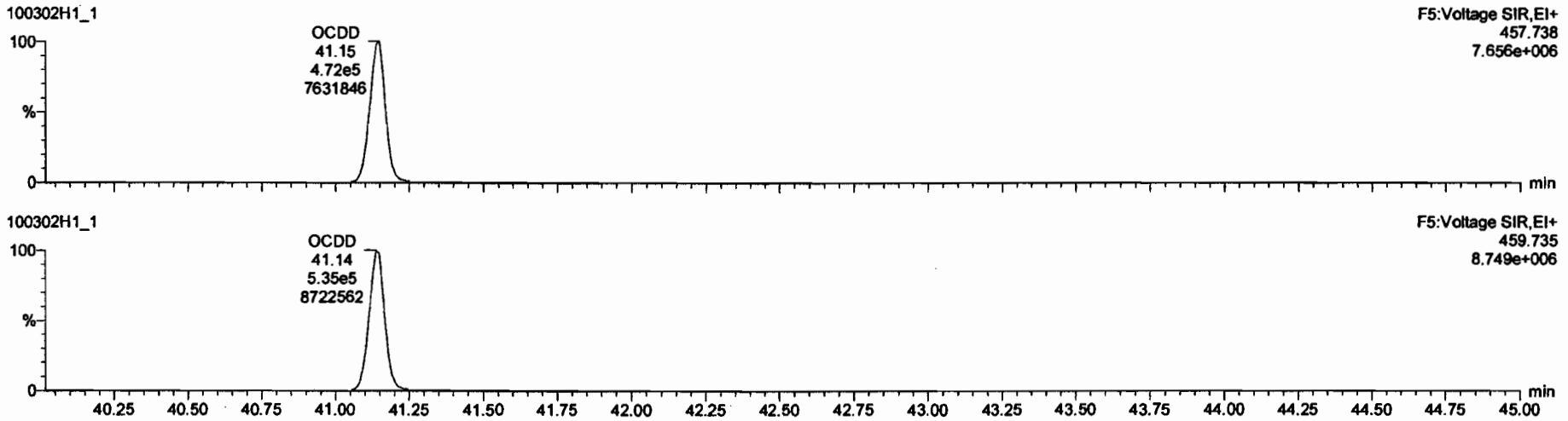

13C-OCDD

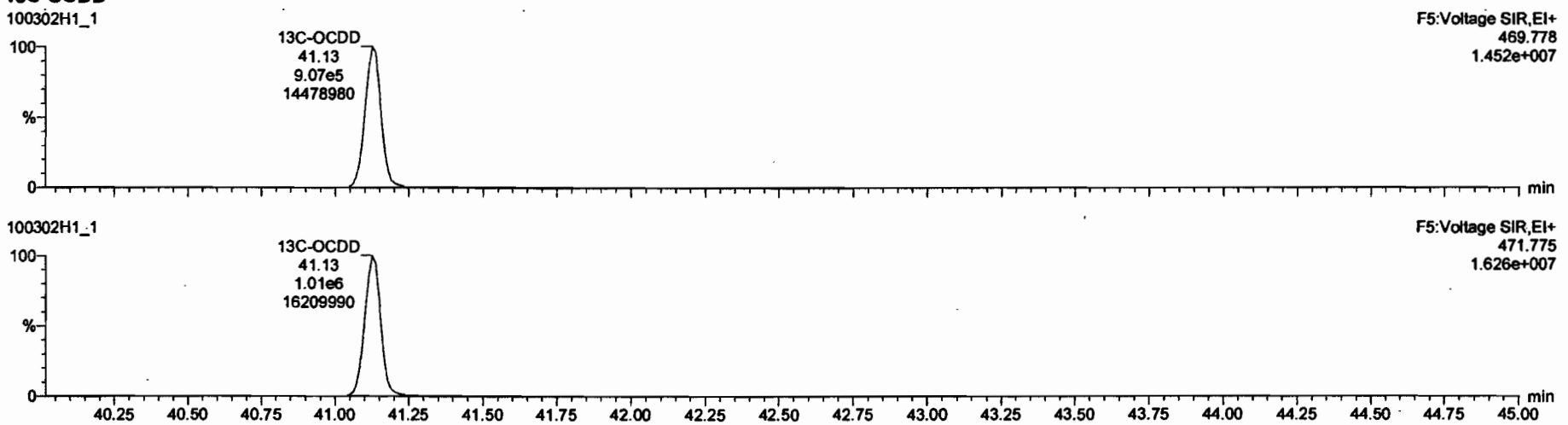

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

2,3,7,8-TCDF

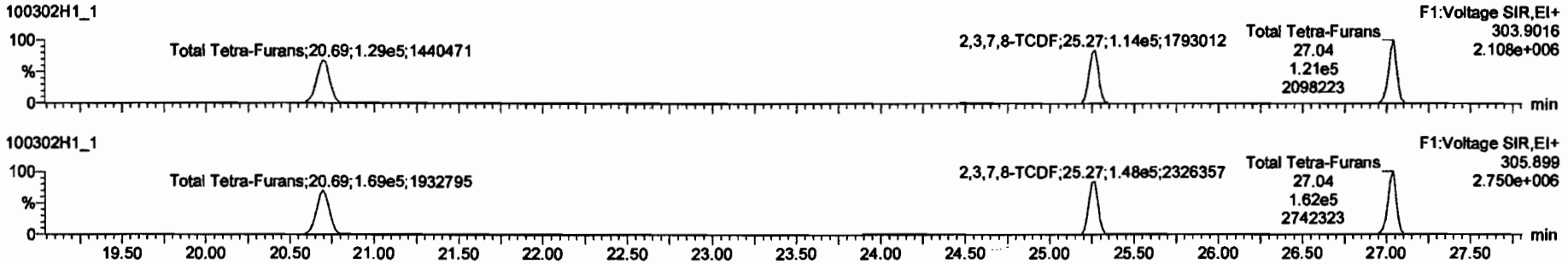

13C-2,3,7,8-TCDF

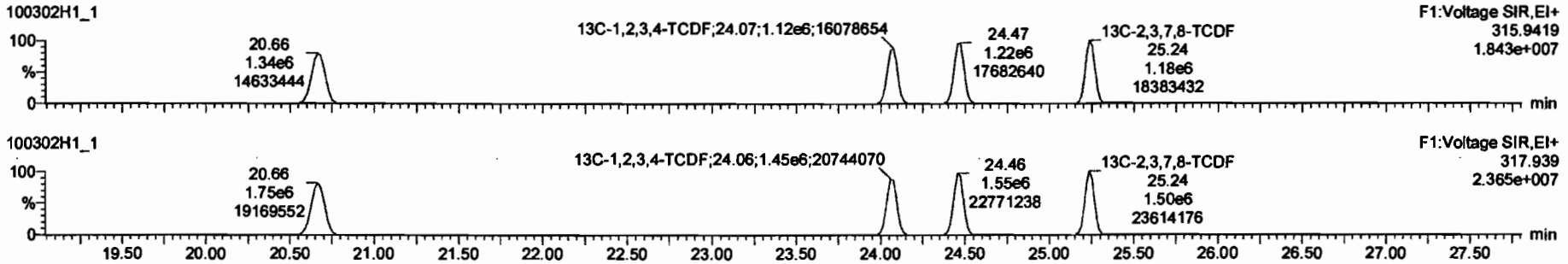

DPE1

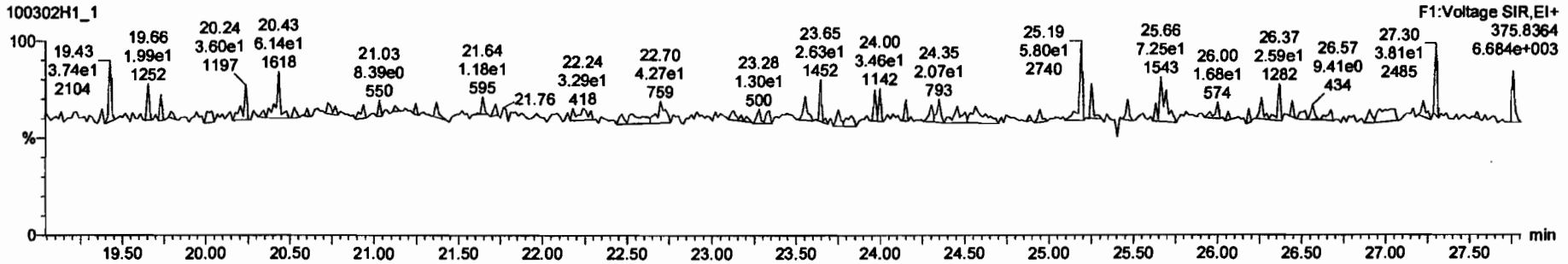

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Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

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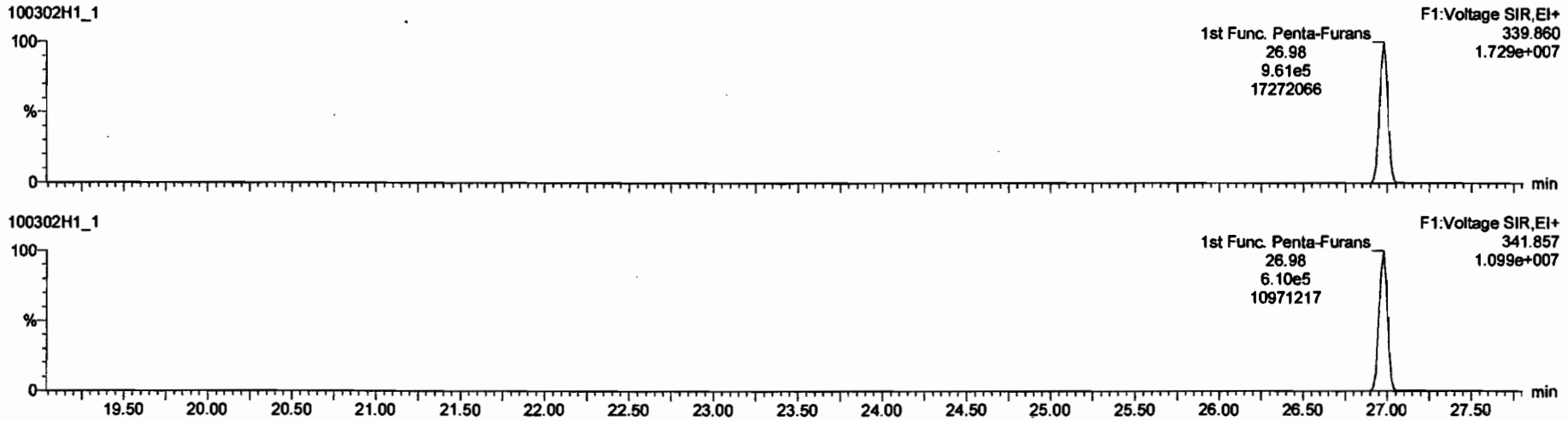

DPE6

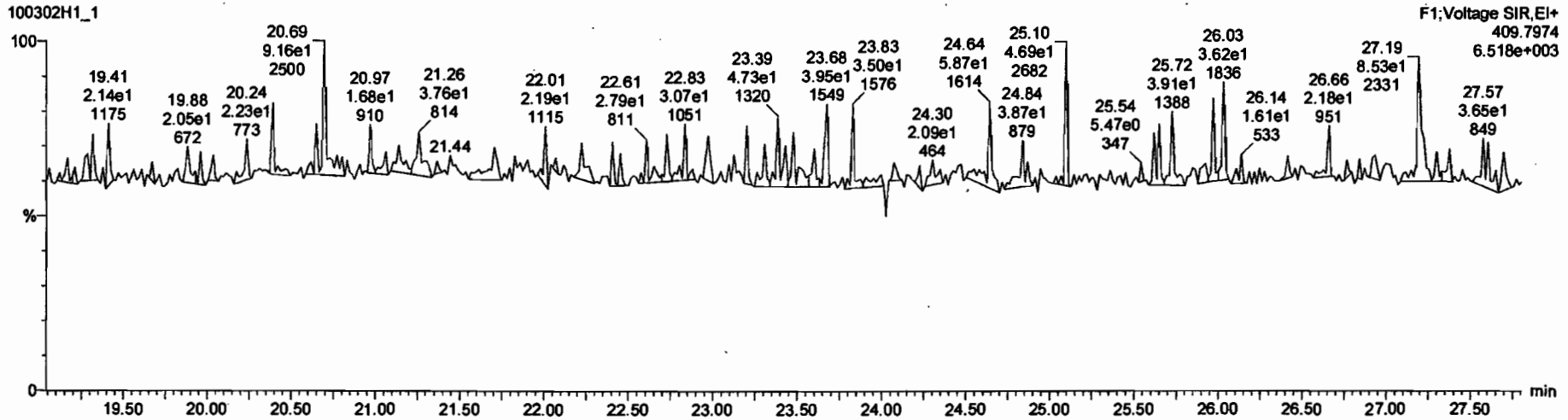

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,7,8-PeCDF

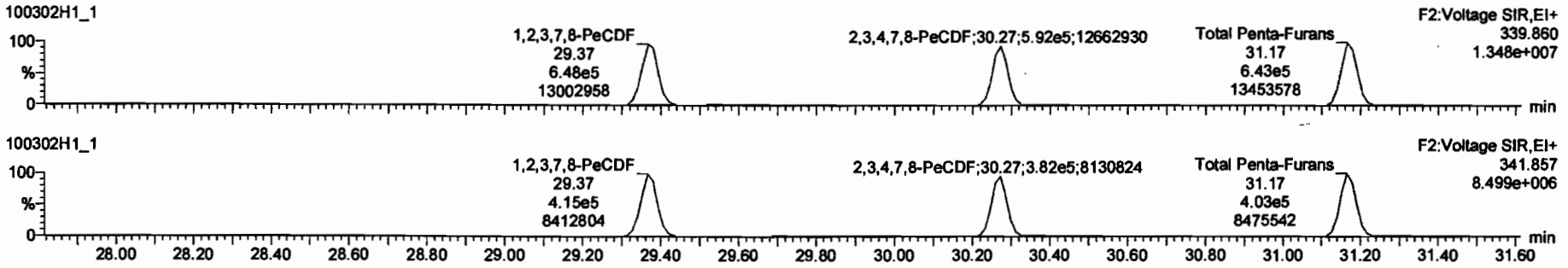

13C-1,2,3,7,8-PeCDF

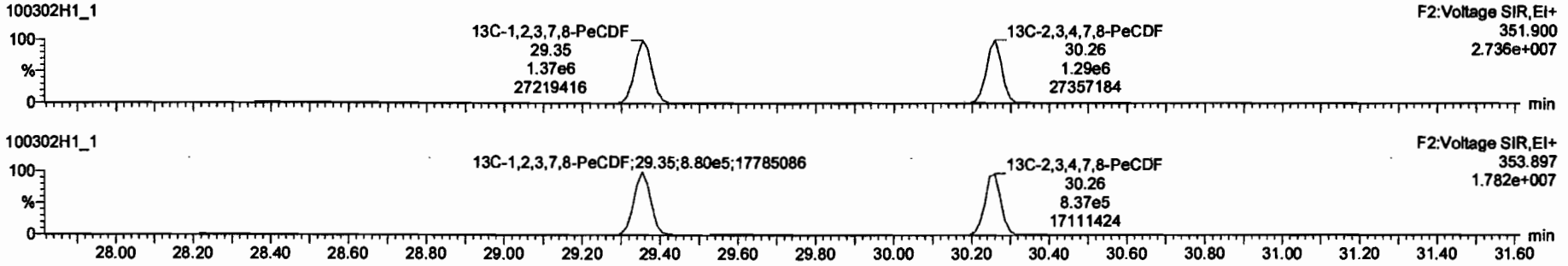

DPE2

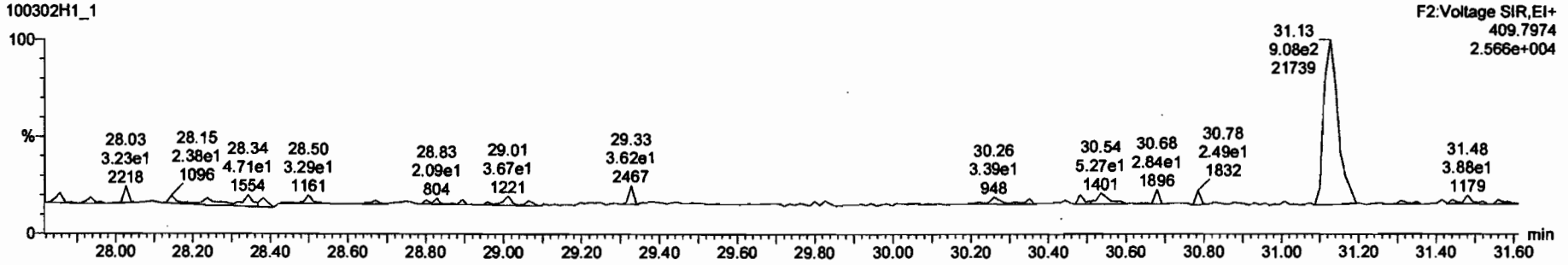

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Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,4,7,8-HxCDF

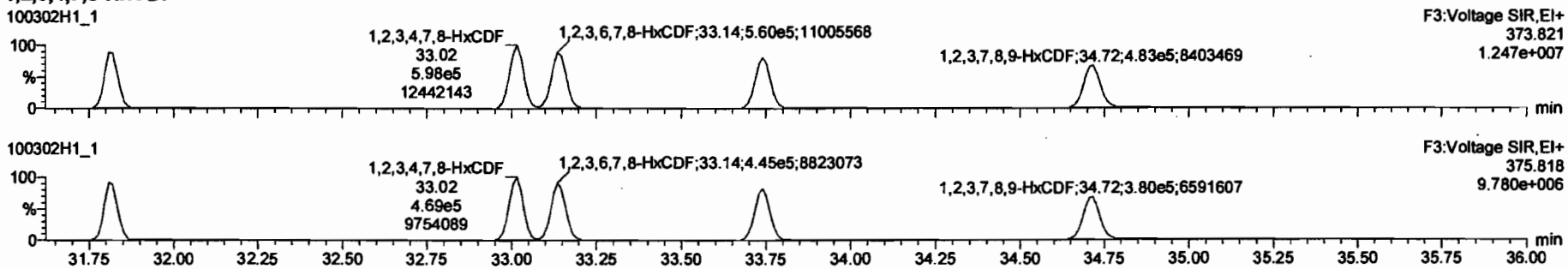

13C-1,2,3,4,7,8-HxCDF

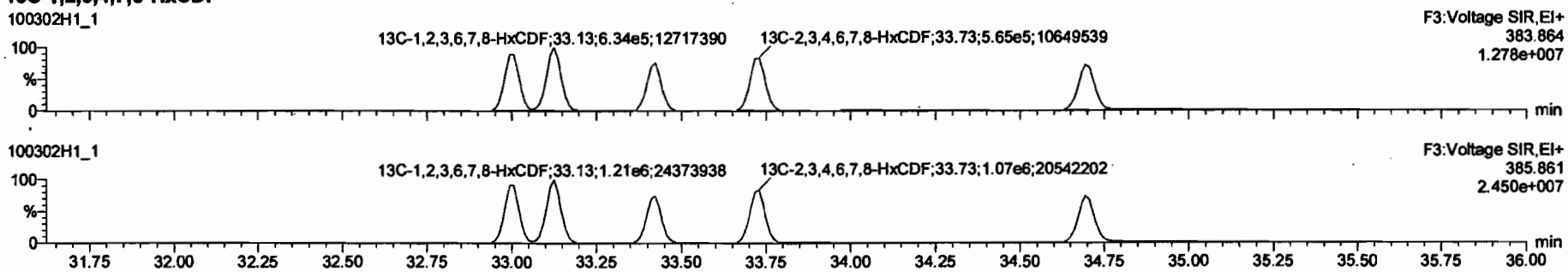

DPE3

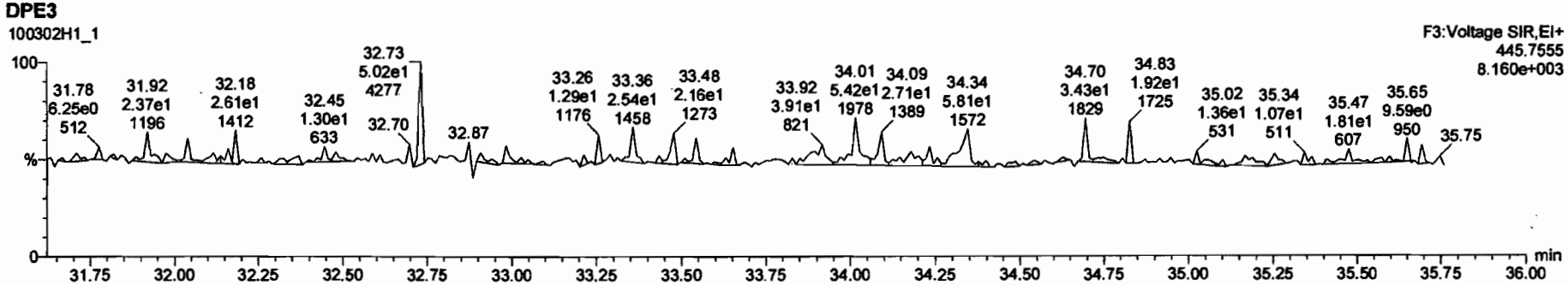

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,4,6,7,8-HpCDF

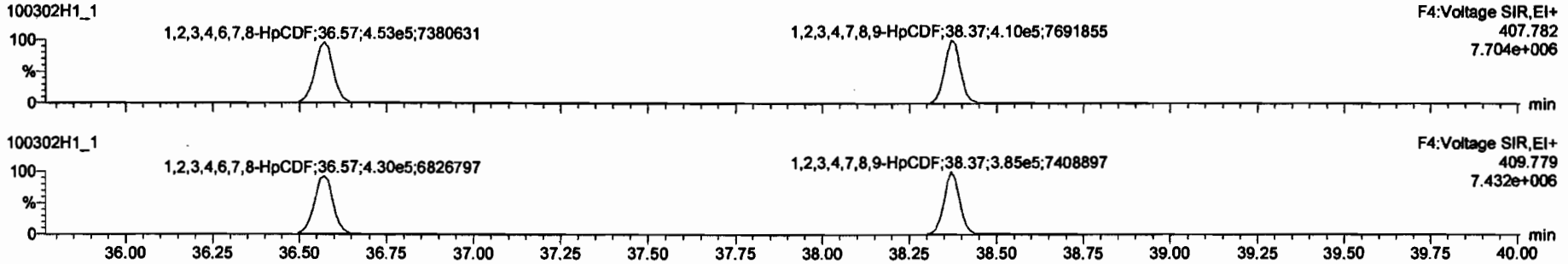

13C-1,2,3,4,6,7,8-HpCDF

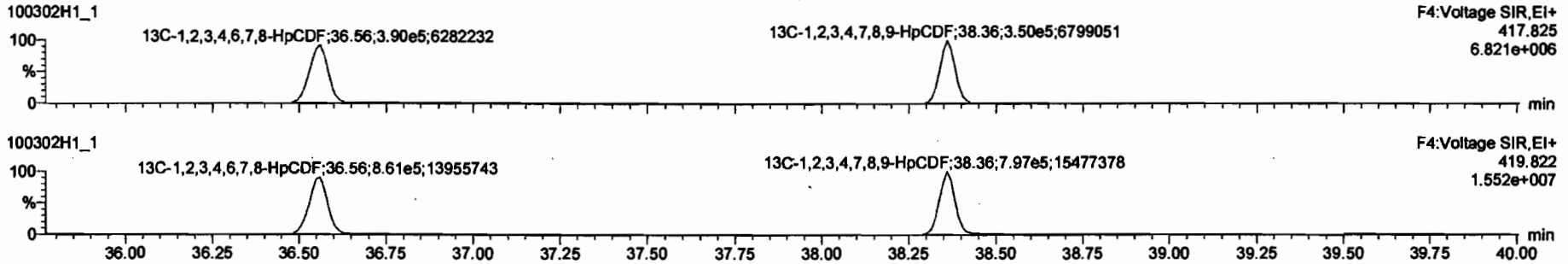

DPE4

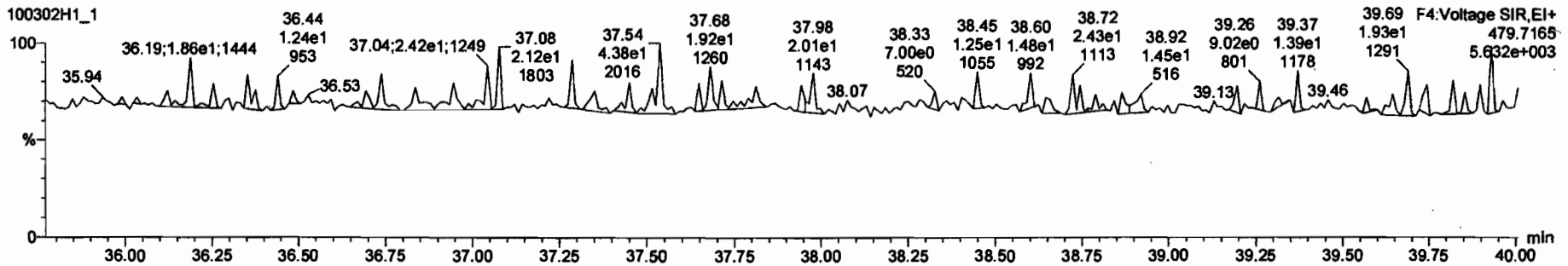

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

OCDF

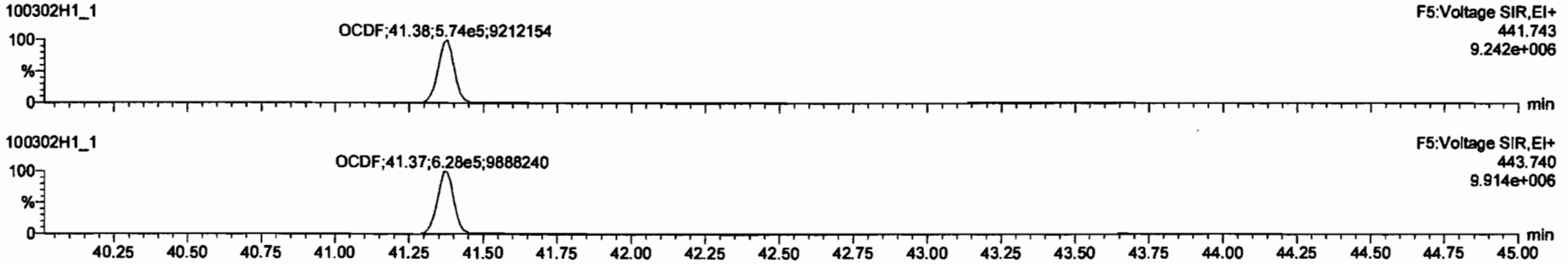

13C-OCDF

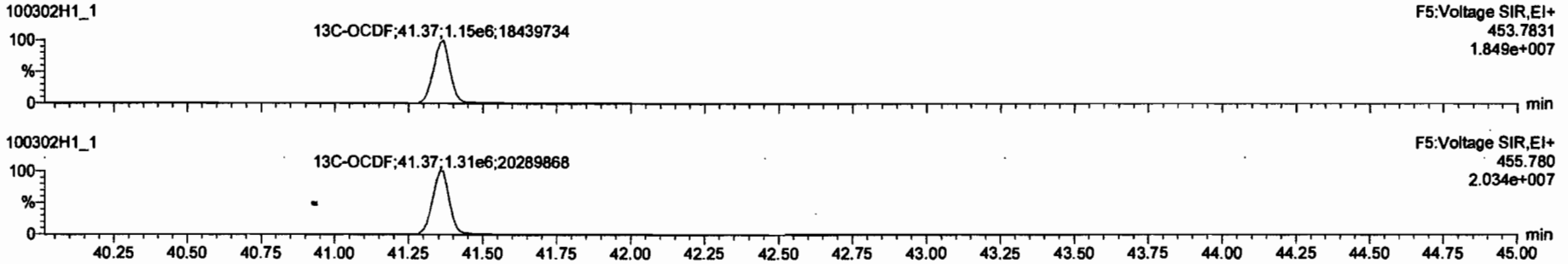

DPE5

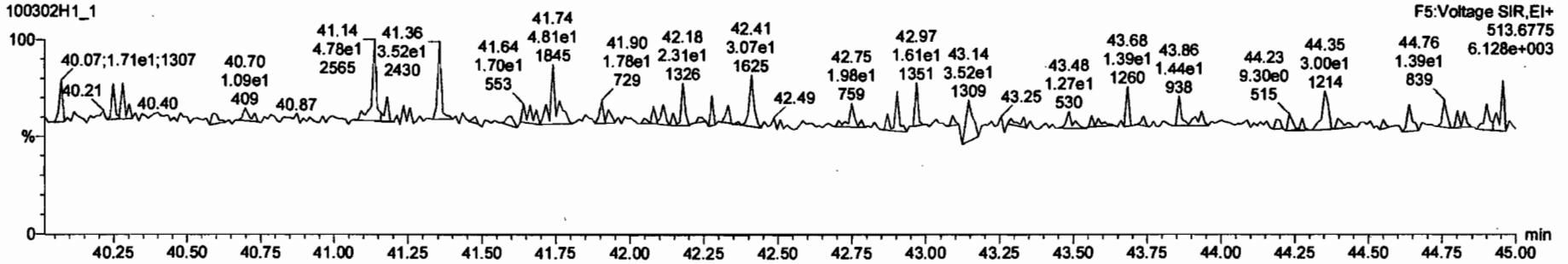

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

PFK1

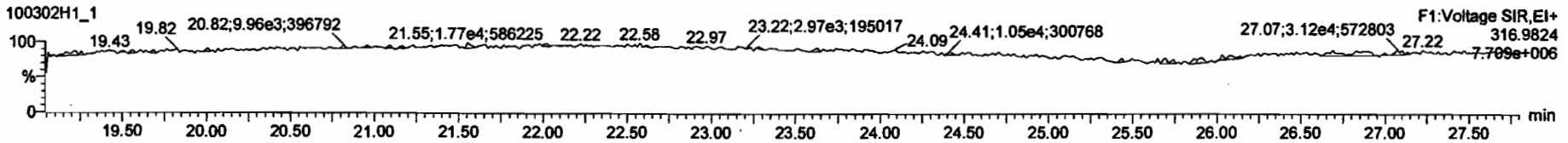

PFK2

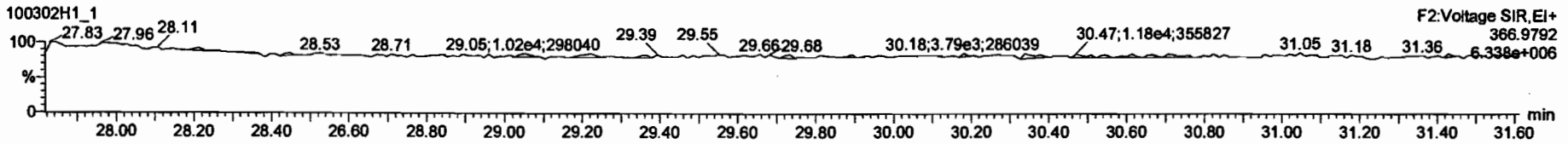

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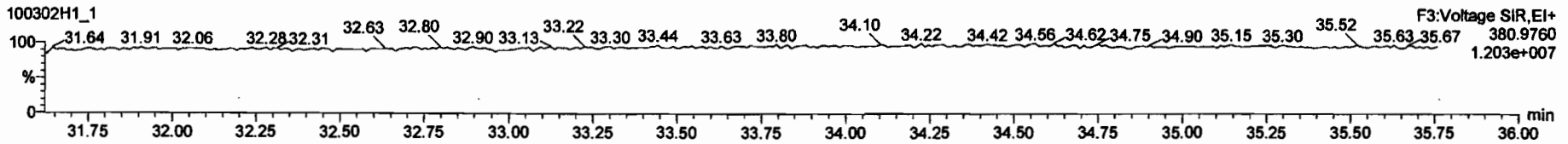

PFK4

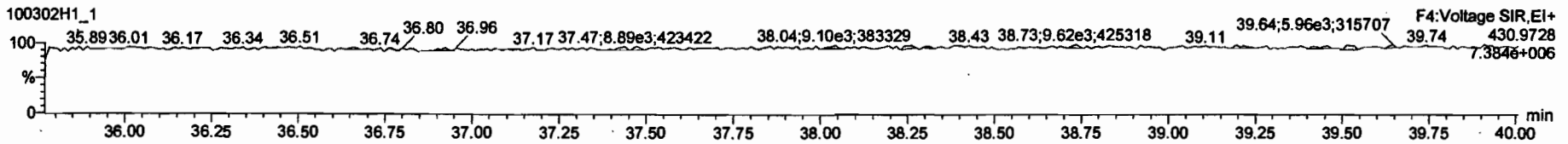

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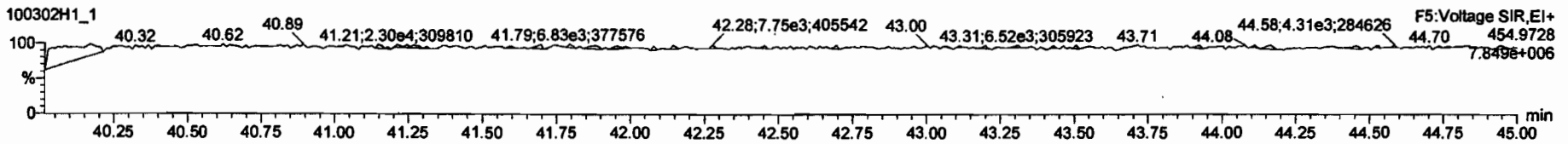

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Vista Analytical Laboratory
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
VER Data file name: 100302H1_17

CCAL ID: ST100302H1-2
GC Column ID: DB-5
Analysis Date: 03-Mar-10 Analysis Time: 00:05:17

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
2,3,7,8-TCDD	M/M+2	0.74	0.65-0.89	NO	9.48	7.8	12.9	Yes	8.00	12.0	Yes
						8.2	12.3 (4)				
1,2,3,7,8-PeCDD	M/M+2	0.61	0.54-0.72	NO	48.5	39.0	65.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	49.4	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	48.6	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	49.0	41.0	61.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.04	0.88-1.20	NO	47.8	43.0	58.0	Yes	40.0	60.0	Yes
OCDD	M+2/M+4	0.88	0.76-1.02	NO	95.5	79.0	126.0	Yes	80.0	120.0	Yes
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	NO	10.9	8.4	12.0	Yes	8.00	12.0	Yes
						8.6	11.6 (4)				
1,2,3,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78	NO	51.5	41.0	60.0	Yes	40.0	60.0	Yes
2,3,4,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	NO	50.3	41.0	60.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDF	M+2/M+4	1.28	1.05-1.43	NO	50.9	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	NO	50.4	44.0	57.0	Yes	40.0	60.0	Yes
2,3,4,6,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	NO	50.4	44.0	57.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDF	M+2/M+4	1.27	1.05-1.43	NO	50.6	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.06	0.88-1.20	NO	49.3	45.0	55.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.05	0.88-1.20	NO	50.2	43.0	58.0	Yes	40.0	60.0	Yes
OCDF	M+2/M+4	0.91	0.76-1.02	NO	96.7	63.0	159.0	Yes	80.0	120.0	Yes

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [signature]
Date: 3/3/10

8250 only

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Vista Analytical Laboratory
CCAL ID: ST100302H1-2
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
GC Column ID: DB-5
VER Data file name: 100302H1_17
Analysis Date: 03-Mar-10
Analysis Time: 00:05:17

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
13C-2,3,7,8-TCDD	M+2/M+4	0.78	0.65-0.89	NO	96.8	82.0	121.0	Yes	70.0	130.0	Yes
						85.0	117.0 (5)				
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	NO	78.2	62.0	160.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	101	85.0	117.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	102	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.23	1.05-1.43	NO	99.0	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	NO	99.8	72.0	138.0	Yes	70.0	130.0	Yes
13C-OCDD	M+2/M+4	0.89	0.76-1.02	NO	181	96.0	415.0	Yes	140.0	260.0	Yes
13C-2,3,7,8-TCDF	M/M+2	0.80	0.65-0.89	NO	89.2	71.0	140.0	Yes	70.0	130.0	Yes
						76.0	131.0 (5)				
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	NO	76.7	76.0	130.0	Yes	70.0	130.0	Yes
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	NO	71.0	77.0	130.0	No	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	85.4	76.0	131.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	93.7	70.0	143.0	Yes	70.0	130.0	Yes
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	95.4	73.0	137.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.52	0.43-0.59	NO	94.2	74.0	135.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.45	0.37-0.51	NO	97.2	78.0	129.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	NO	94.5	77.0	129.0	Yes	70.0	130.0	Yes
13C-OCDF	M+2/M+4	0.89	0.76-1.02	NO	173	96.0	415.0	Yes	140.0	260.0	Yes
CLEANUP STANDARD (4)											
37Cl-2,3,7,8-TCDD					9.23	7.9	12.7	Yes	7.0	13.0	Yes
						8.3	12.1 (5)				

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) No ion abundance ratio; report concentration found
(5) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [signature]
Date: 3/3/10

8250 only

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, March 03, 2010 08:06:13 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:06:37 Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

	Name	RT
1	1,3,6,8-TCDD (First)	22.71
2	1,2,8,9-TCDD (Last)	26.89
3	1,2,4,7,9-PeCDD (First)	28.49
4	1,2,3,8,9-PeCDD (Last)	30.92
5	12,4,6,7,9-HxCDD (First)	32.35
6	1,2,3,7,8,9-HxCDD (Last)	34.32
7	1,2,3,4,6,7,9-HpCDD (First)	36.96
8	1,2,3,4,6,7,8-HpCDD (Last)	37.81
9	1,3,6,8-TCDF (First)	20.68
10	1,2,8,9-TCDF (Last)	27.04
11	1,3,4,6,8-PeCDF (First)	26.98
12	1,2,3,8,9-PeCDF (Last)	31.17
13	1,2,3,4,6,8-HxCDF (First)	31.82
14	1,2,3,4,8,9-HxCDF (Last)	34.72
15	1,2,3,4,6,7,8-HpCDF (First)	36.57
16	1,2,3,4,7,8,9-HpCDF (Last)	38.37

J 3/3/10

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
VER Data file name: 100302H1_17

CCAL ID: ST100302H1-2
GC Column ID: DB-5
Analysis Date: 03-Mar-10
Analysis Time: 00:05:17

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999	1.002	Yes
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.000	0.999	1.002	Yes
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999	1.003	Yes
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999	1.002	Yes
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999	1.002	Yes
LABELED COMPOUNDS					
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.976	1.043	Yes
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.200	1.000	1.567	Yes
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.992	0.923	1.103	Yes
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.153	1.000	1.425	Yes
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.189	1.011	1.526	Yes
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.989	1.052	Yes

Analyst: [illegible]
Date: 3/3/10

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
VER Data file name: 100302H1_17

CCAL ID: ST100302H1-2

GC Column ID: DB-5
Analysis Date: 03-Mar-10

Analysis Time: 00:05:17

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999	1.001	Yes
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998	1.004	Yes
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.009	0.998	1.004	No
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999	1.001	Yes
OCDD	13C-OCDD	1.000	0.999	1.001	Yes
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.001	0.999	1.001	Yes
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	0.997	1.005	Yes
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.001	0.999	1.001	Yes
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999	1.001	Yes
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.001	0.999	1.001	Yes
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999	1.001	Yes
OCDF	13C-OCDF	1.000	0.999	1.001	Yes
LABELED COMPOUNDS					
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.014	1.002	1.026	Yes
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.017	1.007	1.029	Yes
13C-1,2,3,7,8,9-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.026	1.014	1.038	Yes
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,9-HxCDF	1.131	1.117	1.141	Yes
13C-OCDD	13C-1,2,3,4,6,9-HxCDF	1.230	1.085	1.365	Yes
13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.987	0.975	1.001	Yes
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.991	0.979	1.005	Yes
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.009	1.001	1.020	Yes
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.038	1.002	1.072	Yes
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.094	1.069	1.111	Yes
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.148	1.098	1.192	Yes
13C-OCDF	13C-1,2,3,4,6,9-HxCDF	1.237	1.091	1.371	Yes

Analyst: [signature]

Date: 3/3/10

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-17.qld

Last Altered: Wednesday, March 03, 2010 07:59:44 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:04:56 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

	Name	Area	RA	Inv	RF	Mod	RT	RRT	Conc	%Rec	DL	EMPC
1	2,3,7,8-TCDD	2.15e5	0.74	NO	1.04	1.000	26.02	1.001	9.4805	94.8	0.0170	9.4805
2	1,2,3,7,8-PeCDD	7.97e5	0.61	NO	0.935	1.000	30.55	1.000	48.522	97.0	0.0487	48.522
3	1,2,3,4,7,8-HxCDD	7.04e5	1.24	NO	0.907	1.000	33.91	1.000	49.359	98.7	0.0682	49.359
4	1,2,3,6,7,8-HxCDD	6.74e5	1.25	NO	0.995	1.000	34.02	1.000	48.570	97.1	0.0723	48.570
5	1,2,3,7,8,9-HxCDD	7.47e5	1.24	NO	0.930	1.000	34.32	1.009	48.953	97.9	0.0670	48.953
6	1,2,3,4,6,7,8-HpCDD	6.18e5	1.04	NO	1.00	1.000	37.81	1.000	47.815	95.6	0.0823	47.815
7	OCDD	1.05e6	0.88	NO	1.10	1.000	41.14	1.000	95.518	95.5	0.0389	95.518
8	2,3,7,8-TCDF	3.05e5	0.77	NO	0.956	1.000	25.25	1.001	10.902	109	0.0164	10.902
9	1,2,3,7,8-PeCDF	1.18e6	1.59	NO	0.941	1.000	29.37	1.000	51.501	103	0.0390	51.501
10	2,3,4,7,8-PeCDF	1.11e6	1.57	NO	0.926	1.000	30.27	1.000	50.262	101	0.0408	50.262
11	1,2,3,4,7,8-HxCDF	1.12e6	1.28	NO	1.22	1.000	33.02	1.001	50.871	102	0.0434	50.871
12	1,2,3,6,7,8-HxCDF	1.08e6	1.25	NO	1.08	1.000	33.14	1.000	50.444	101	0.0433	50.444
13	2,3,4,6,7,8-HxCDF	9.88e5	1.26	NO	1.13	1.000	33.74	1.001	50.417	101	0.0516	50.417
14	1,2,3,7,8,9-HxCDF	8.72e5	1.27	NO	1.13	1.000	34.72	1.001	50.623	101	0.0607	50.623
15	1,2,3,4,6,7,8-HpCDF	9.13e5	1.06	NO	1.44	1.000	36.57	1.001	49.287	98.6	0.0884	49.287
16	1,2,3,4,7,8,9-HpCDF	8.01e5	1.05	NO	1.38	1.000	38.37	1.000	50.197	100	0.0825	50.197
17	OCDF	1.25e6	0.91	NO	1.01	1.000	41.37	1.000	96.690	96.7	0.0326	96.690
18	13C-2,3,7,8-TCDD	2.18e6	0.78	NO	1.10	1.000	26.00	1.022	96.807	96.8	0.0546	
19	13C-1,2,3,7,8-PeCDD	1.76e6	0.62	NO	1.09	1.000	30.54	1.200	78.159	78.2	0.0383	
20	13C-1,2,3,4,7,8-HxCDD	1.57e6	1.25	NO	1.01	1.000	33.89	1.014	100.87	101	0.0932	
21	13C-1,2,3,6,7,8-HxCDD	1.39e6	1.25	NO	0.889	1.000	34.00	1.017	101.52	102	0.106	
22	13C-1,2,3,7,8,9-HxCDD	1.64e6	1.23	NO	1.07	1.000	34.30	1.026	99.007	99.0	0.0877	
23	13C-1,2,3,4,6,7,8-HpCDD	1.29e6	1.05	NO	0.837	1.000	37.80	1.131	99.805	99.8	0.179	
24	13C-OCDD	1.99e6	0.89	NO	0.712	1.000	41.13	1.230	181.36	90.7	0.0469	
25	13C-2,3,7,8-TCDF	2.92e6	0.80	NO	1.05	1.000	25.24	0.992	89.231	89.2	0.0666	
26	13C-1,2,3,7,8-PeCDF	2.43e6	1.57	NO	1.02	1.000	29.35	1.153	76.696	76.7	0.116	
27	13C-2,3,4,7,8-PeCDF	2.38e6	1.56	NO	1.08	1.000	30.26	1.189	71.002	71.0	0.110	
28	13C-1,2,3,4,7,8-HxCDF	1.80e6	0.52	NO	1.37	1.000	32.99	0.987	85.393	85.4	0.0957	
29	13C-1,2,3,6,7,8-HxCDF	1.98e6	0.52	NO	1.37	1.000	33.13	0.991	93.736	93.7	0.0957	
30	13C-2,3,4,6,7,8-HxCDF	1.74e6	0.52	NO	1.18	1.000	33.72	1.009	95.413	95.4	0.111	

J 3/3/10

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-17.qld

Last Altered: Wednesday, March 03, 2010 07:59:44 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:04:56 Pacific Standard Time

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

		RT	RT		RRF		RT	RRT			
31	13C-1,2,3,7,8,9-HxCDF	1.53e6	0.52	NO	1.05	1.000	34.70	1.038	94.150	94.2	0.124
32	13C-1,2,3,4,6,7,8-HpCDF	1.29e6	0.45	NO	0.858	1.000	36.55	1.094	97.227	97.2	0.170
33	13C-1,2,3,4,7,8,9-HpCDF	1.16e6	0.44	NO	0.794	1.000	38.36	1.148	94.473	94.5	0.184
34	13C-OCDF	2.54e6	0.89	NO	0.948	1.000	41.36	1.237	173.43	86.7	0.0469
35	37Cl-2,3,7,8-TCDD	1.26e5			0.665	1.000	26.02	1.022	9.2301	92.3	0.0226
36	13C-1,2,3,4-TCDD	2.05e6	0.79	NO	1.00	1.000	25.45	0.000	100.00	100	0.0601
37	13C-1,2,3,4-TCDF	3.11e6	0.78	NO	1.00	1.000	24.06	0.000	100.00	100	0.0702
38	13C-1,2,3,4,6,9-HxCDF	1.54e6	0.51	NO	1.00	1.000	33.42	0.000	100.00	100	0.131

Quantify Compound Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, March 03, 2010 8:06:52 AM Pacific Standard Time
Printed: Wednesday, March 03, 2010 8:07:08 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Compound name: 1,3,6,8-TCDD (First)

	Sample Name	ID	Acq Date	Acq Time
1	100302H1_1	ST100302H1-1 1613 CS3 100127F	02-Mar-10	10:53:04
2	100302H1_2	solvent blank	02-Mar-10	11:42:34
3	100302H1_3	solvent blank	02-Mar-10	12:32:05
4	100302H1_4	solvent blank	02-Mar-10	13:21:39
5	100302H1_5	0_2836_OPR001	02-Mar-10	14:11:13
6	100302H1_6	solvent blank	02-Mar-10	15:01:15
7	100302H1_7	0_2836_MB001	02-Mar-10	15:50:57
8	100302H1_8	32447_2836_001 CAMO-10-9357 .896	02-Mar-10	16:40:37
9	100302H1_9	32448_2836_001 CAMO-10-9370 .903	02-Mar-10	17:30:08
10	100302H1_10	32448_2836_002 CAMO-10-9373 .87	02-Mar-10	18:19:40
11	100302H1_11	32448_2836_003 CAMO-10-10133 .825	02-Mar-10	19:09:11
12	100302H1_12	32449_2836_001 CAPA-10-12691 .918	02-Mar-10	19:58:44
13	100302H1_13	32453_2836_001 CAWA-10-13090 .91	02-Mar-10	20:48:17
14	100302H1_14	32455_2836_001 CAPA-10-13498 .93	02-Mar-10	21:37:47
15	100302H1_15	32458_2836_001 CAPA-10-12917 .905	02-Mar-10	22:26:20
16	100302H1_16	solvent blank	02-Mar-10	23:15:51
17	100302H1_17	ST100302H1-2 1613 CS3 100127F	03-Mar-10	00:05:17

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, March 03, 2010 08:06:13 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:06:37 Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

1,3,6,8-TCDD (First)

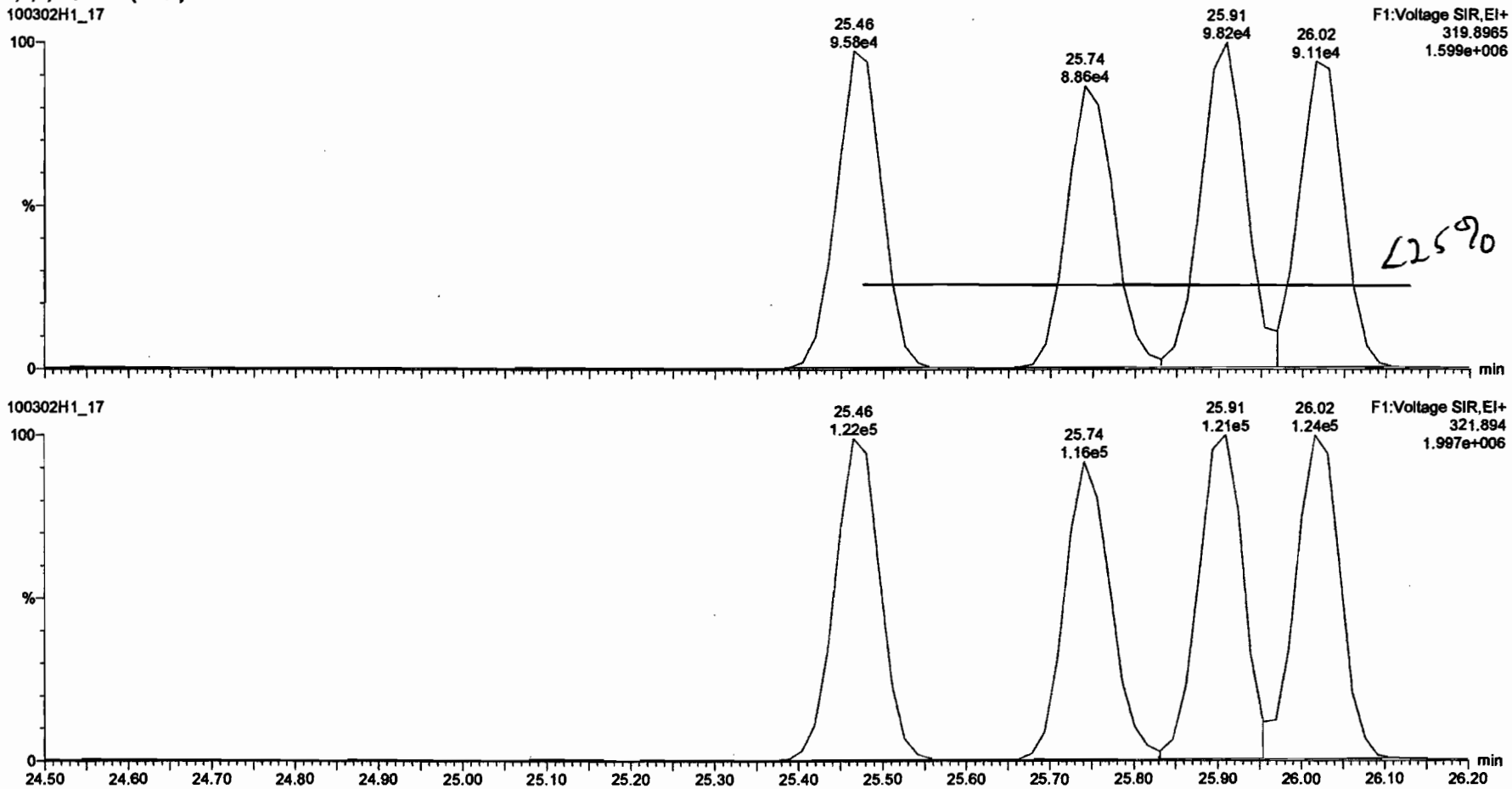

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-17.qld

Last Altered: Wednesday, March 03, 2010 07:59:44 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:05:05 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

2,3,7,8-TCDD

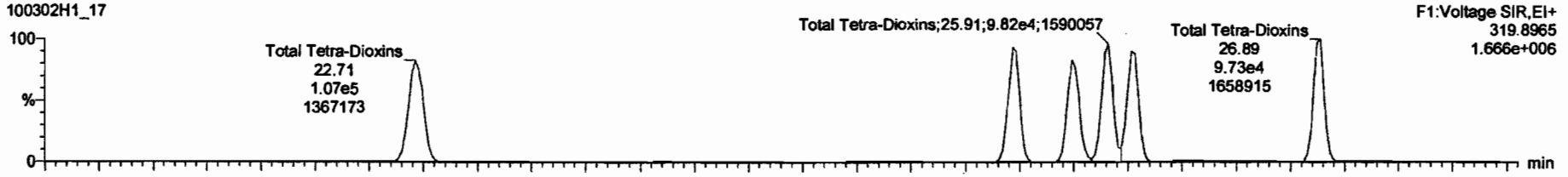

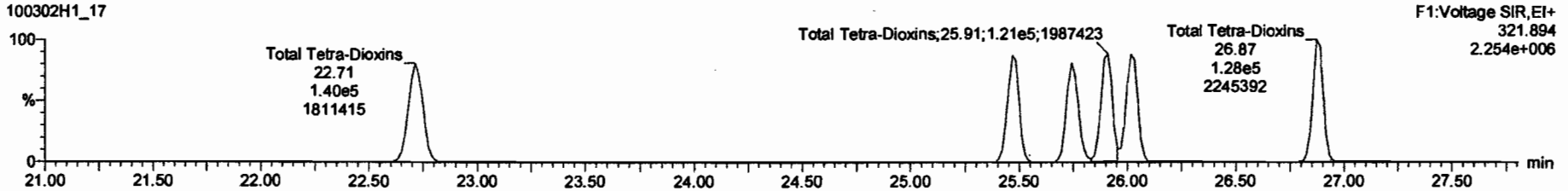

13C-2,3,7,8-TCDD

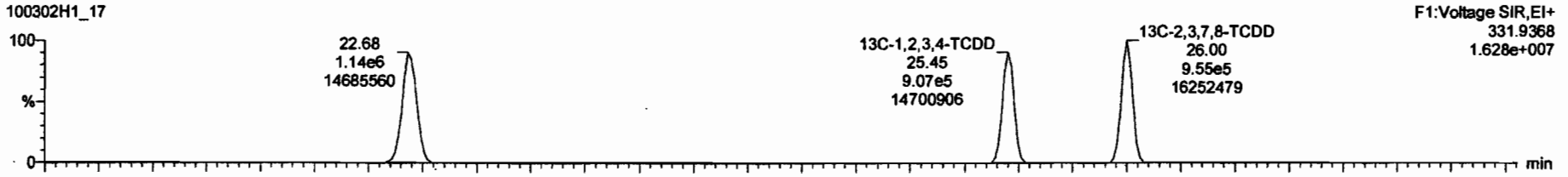

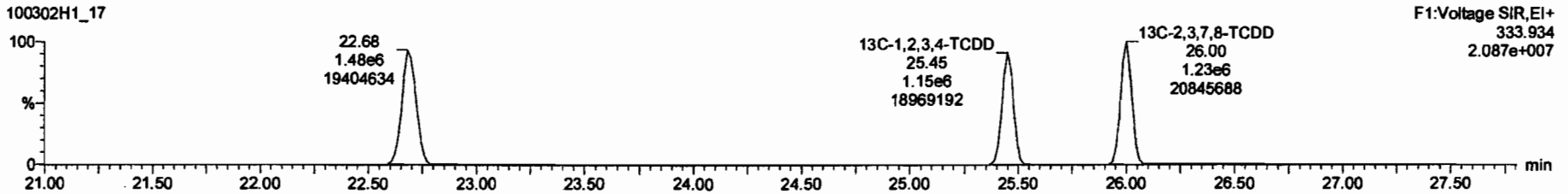

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-17.qld

Last Altered: Wednesday, March 03, 2010 07:59:44 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:05:05 Pacific Standard Time

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

37Cl-2,3,7,8-TCDD

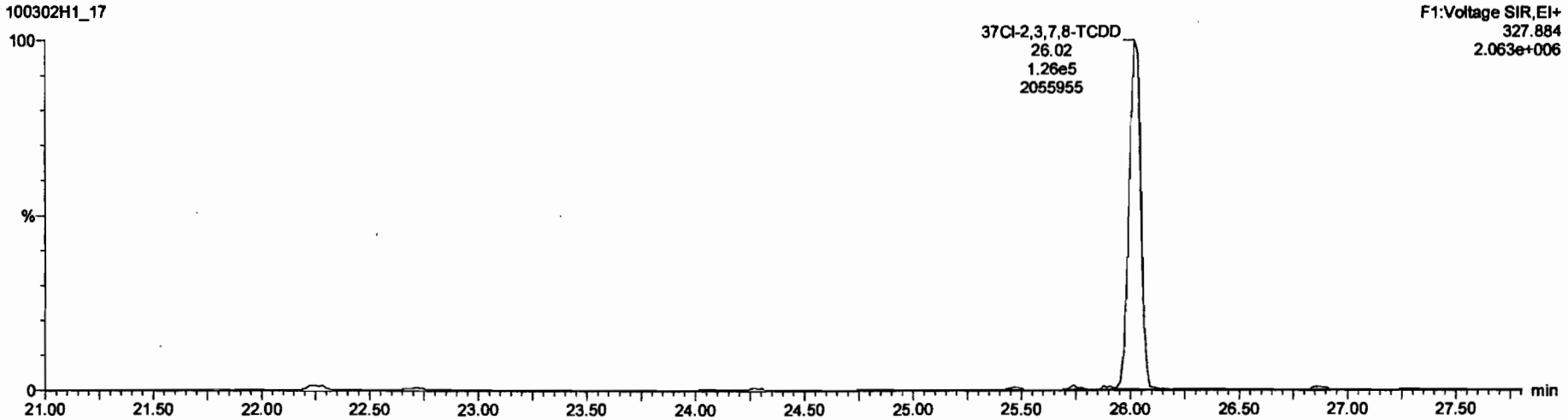

13C-1,2,3,4-TCDD

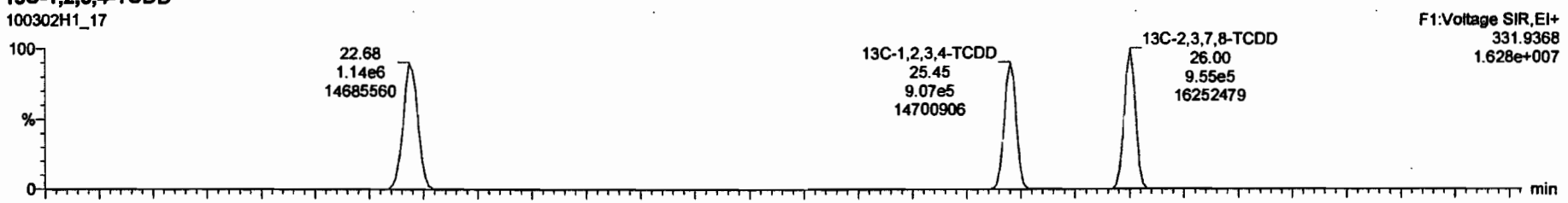

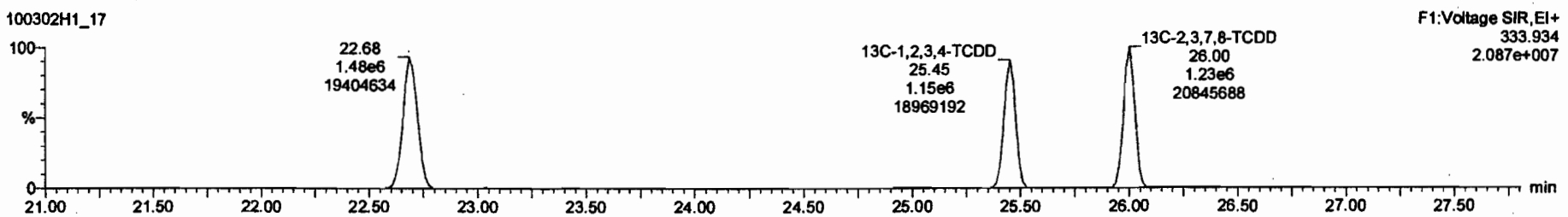

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-17.qld

Last Altered: Wednesday, March 03, 2010 07:59:44 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:05:05 Pacific Standard Time

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,7,8-PeCDD

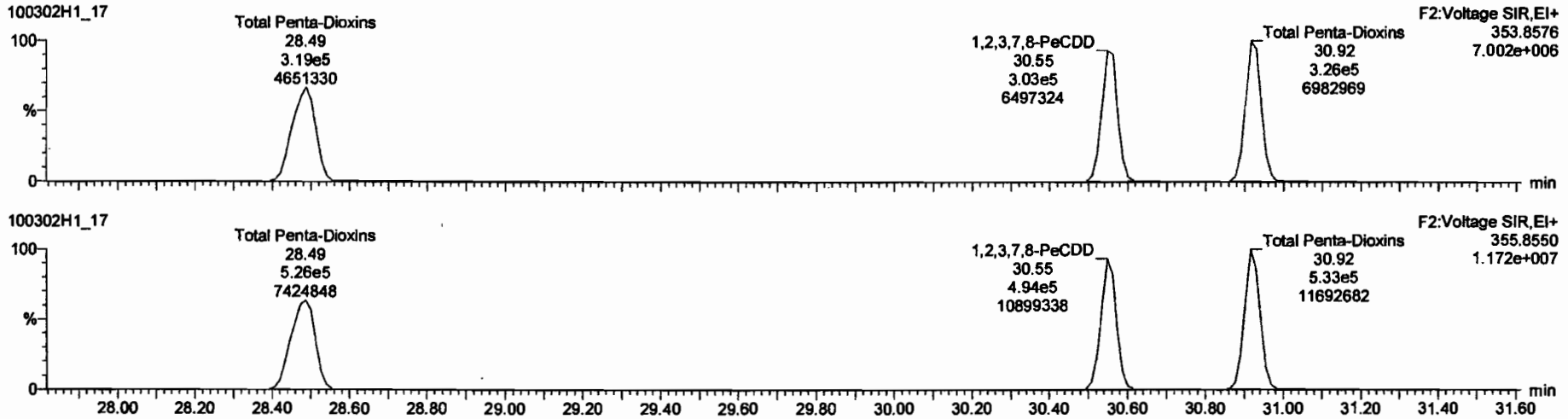

13C-1,2,3,7,8-PeCDD

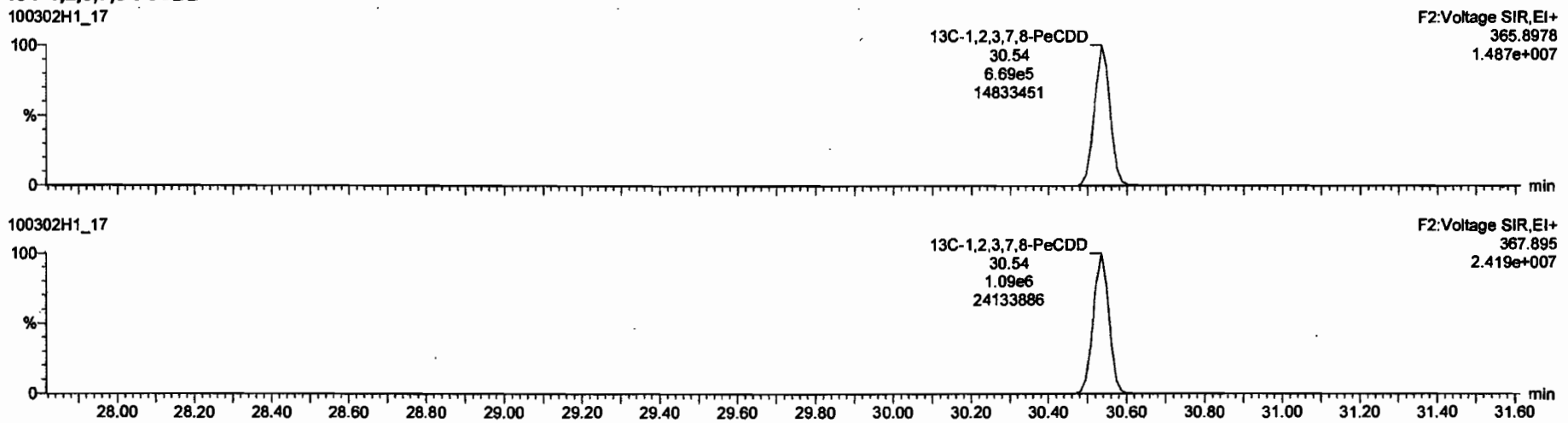

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-17.qld

Last Altered: Wednesday, March 03, 2010 07:59:44 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:05:05 Pacific Standard Time

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,4,7,8-HxCDD

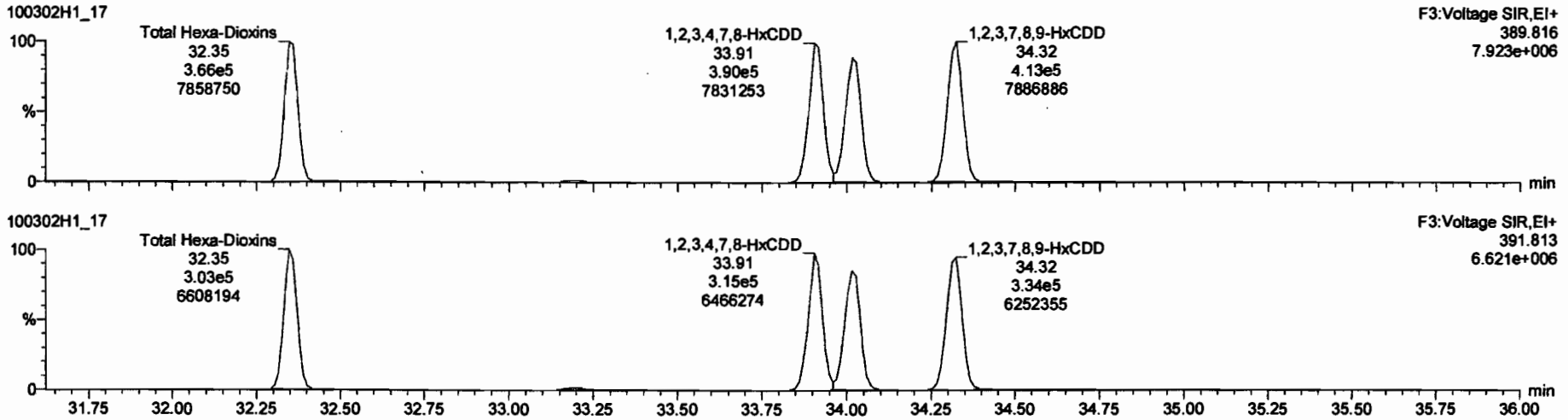

13C-1,2,3,4,7,8-HxCDD

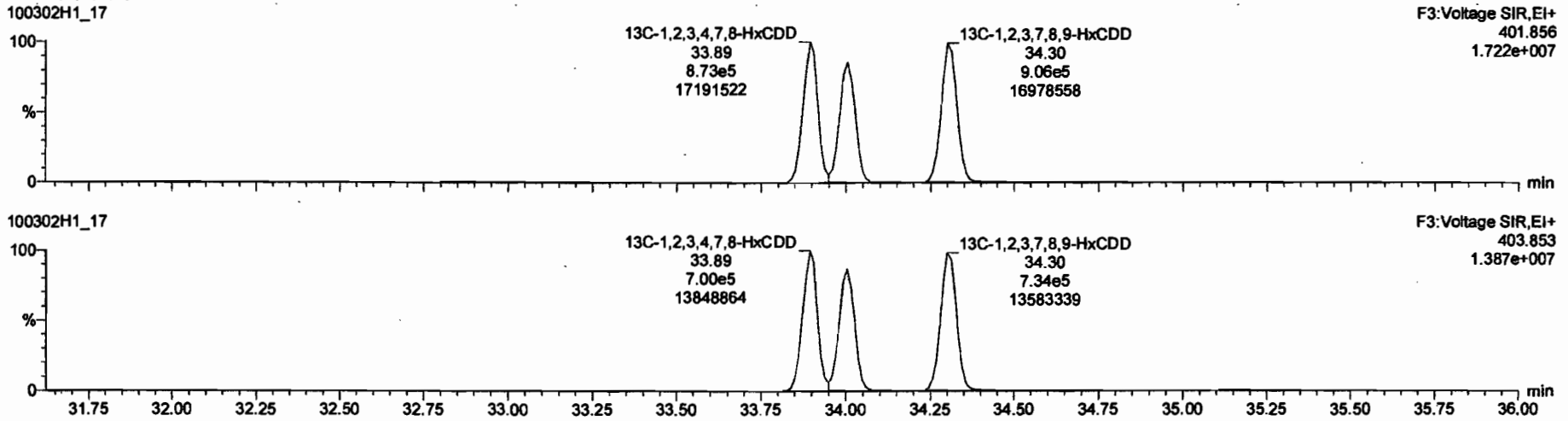

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-17.qld

Last Altered: Wednesday, March 03, 2010 07:59:44 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:05:05 Pacific Standard Time

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

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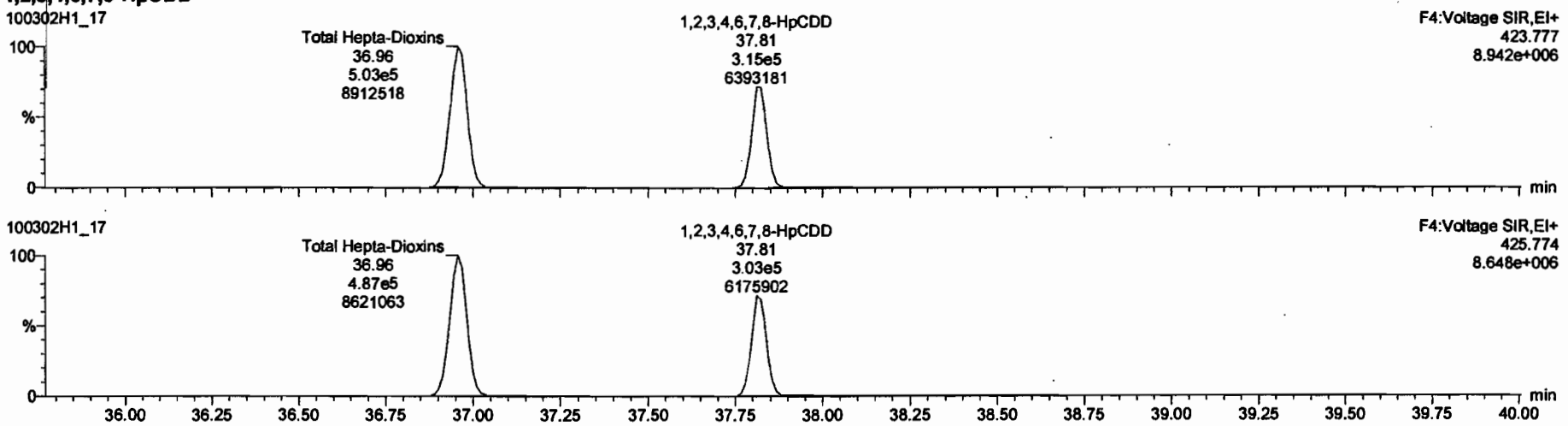

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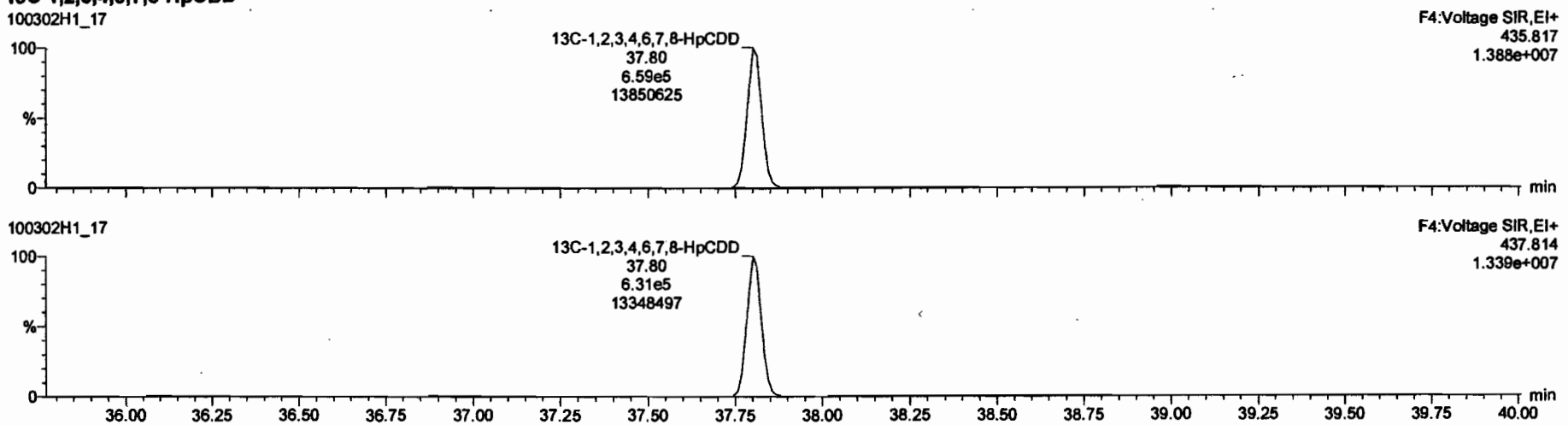

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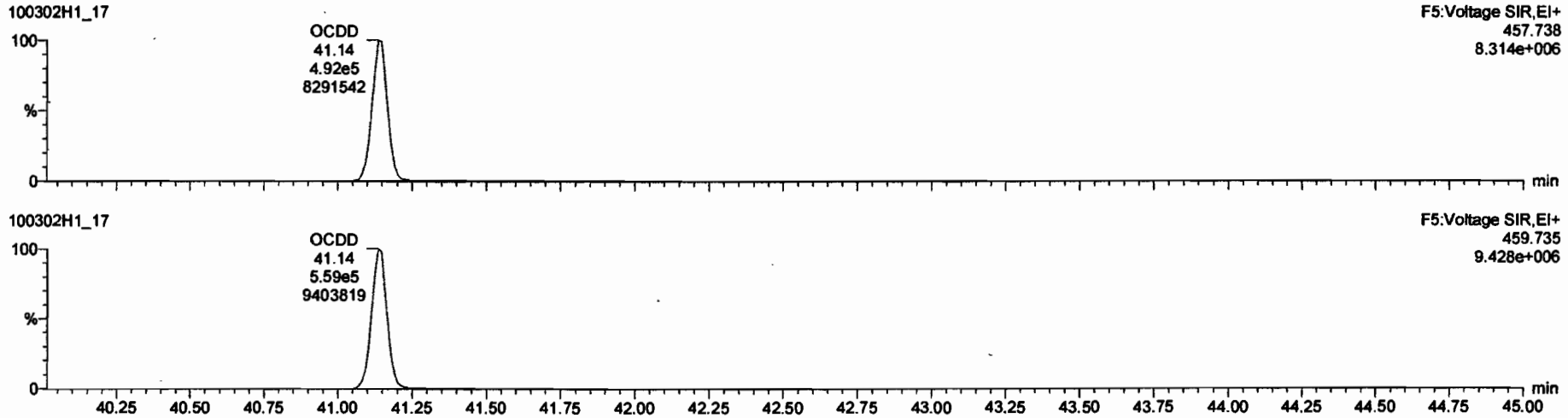

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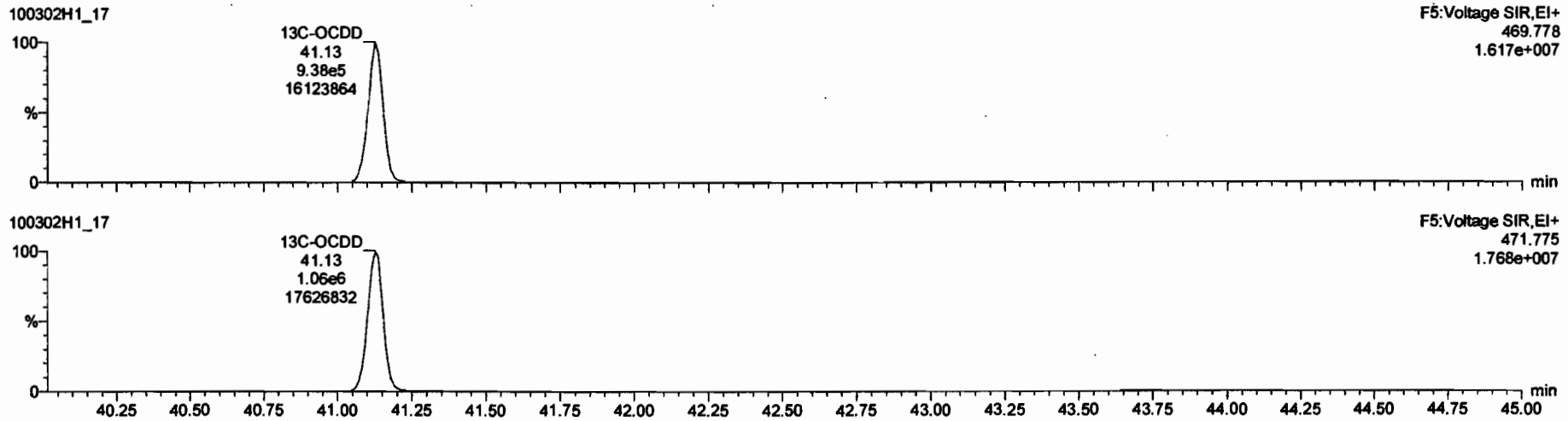

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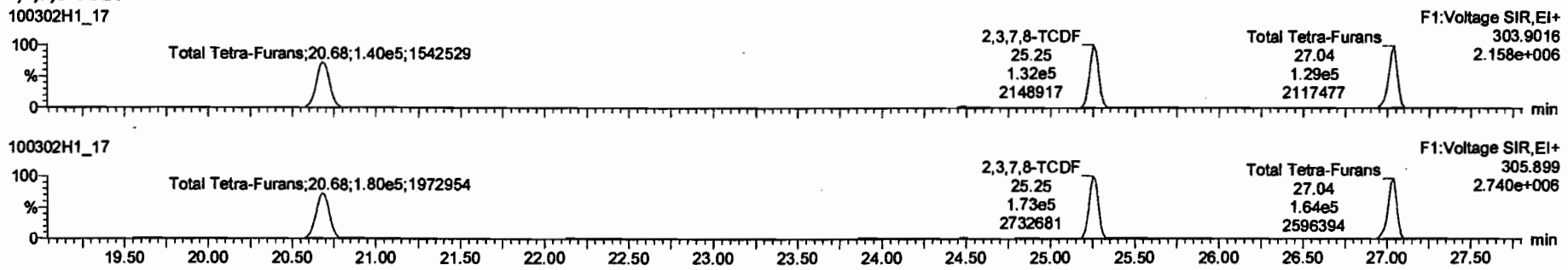

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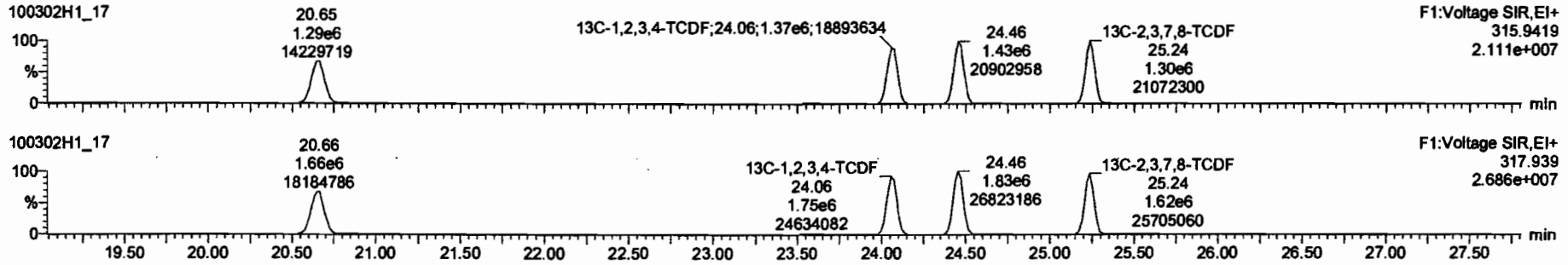

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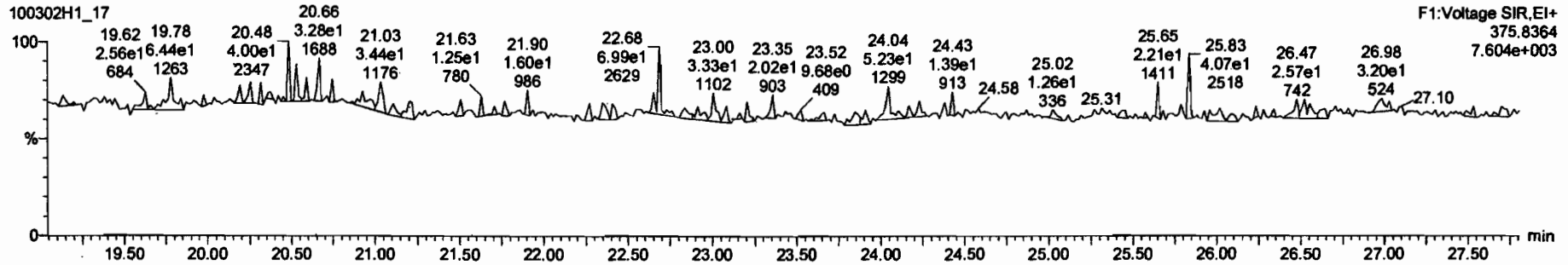

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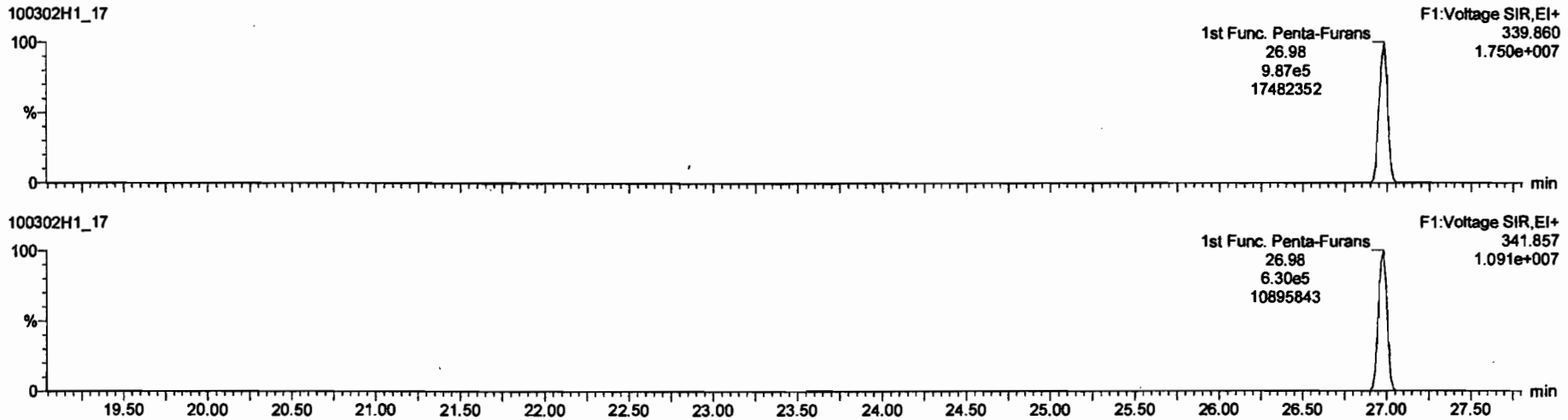

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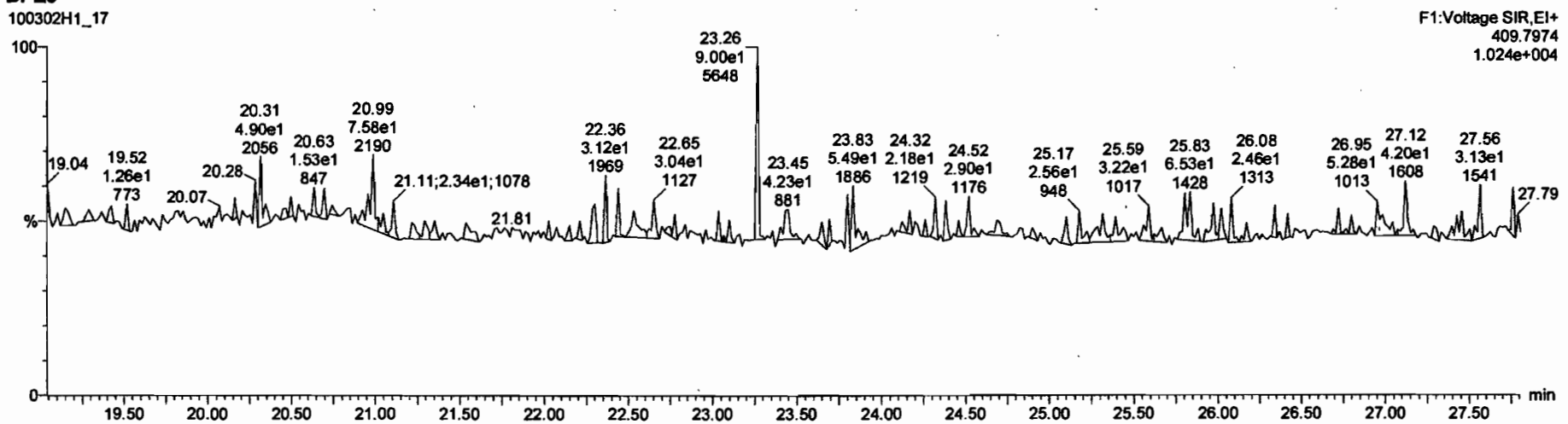

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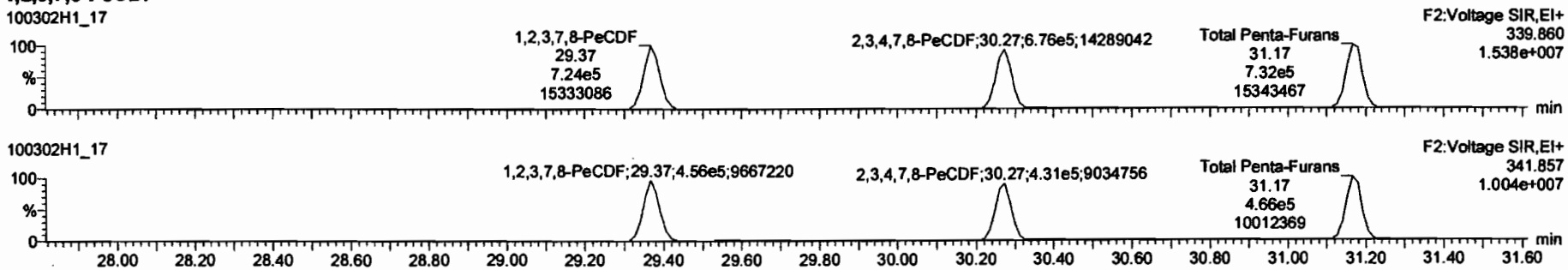

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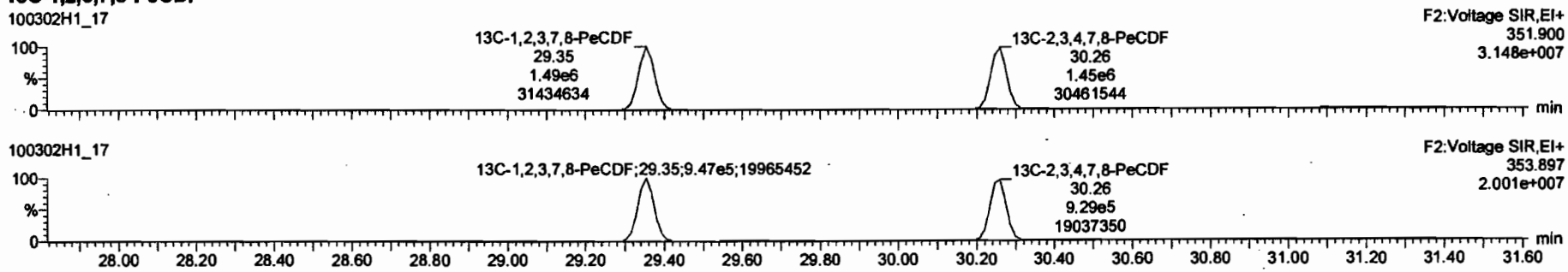

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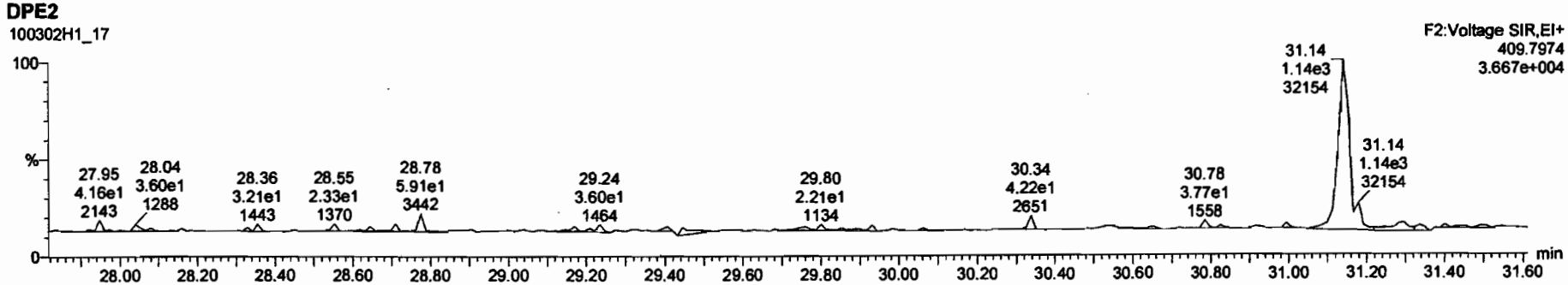

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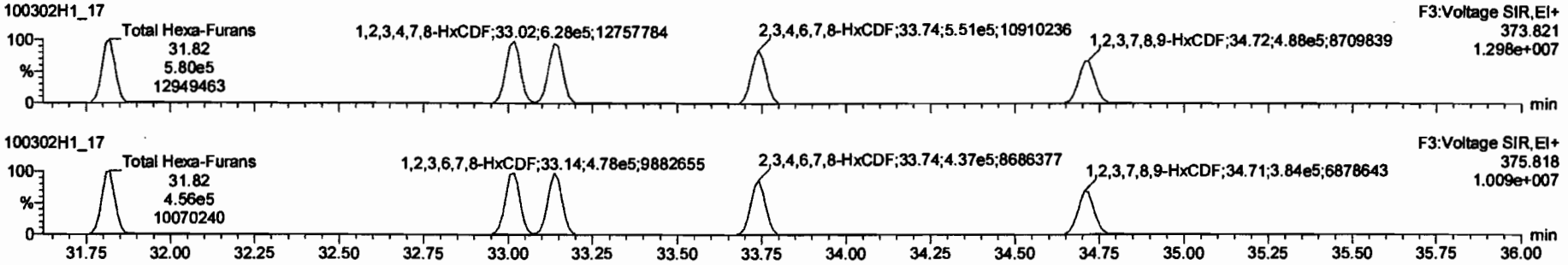

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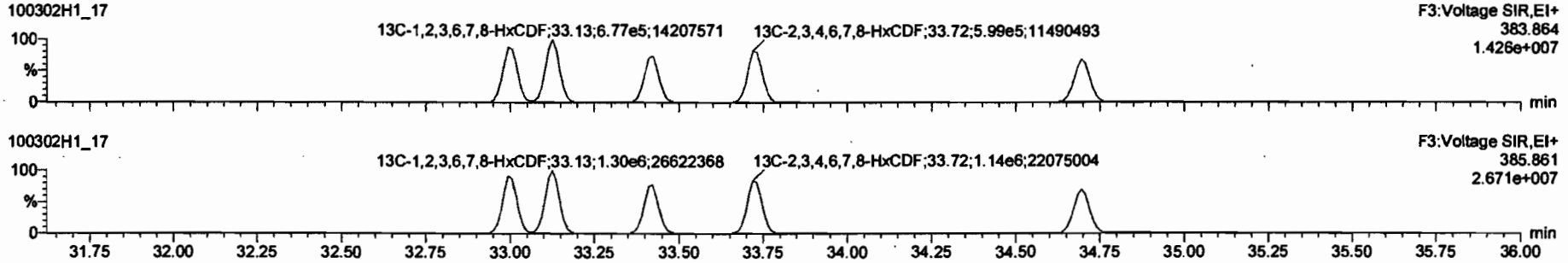

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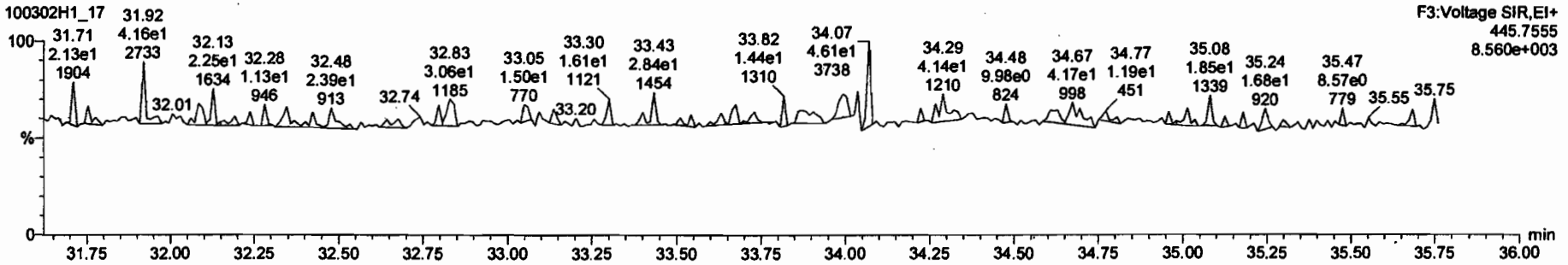

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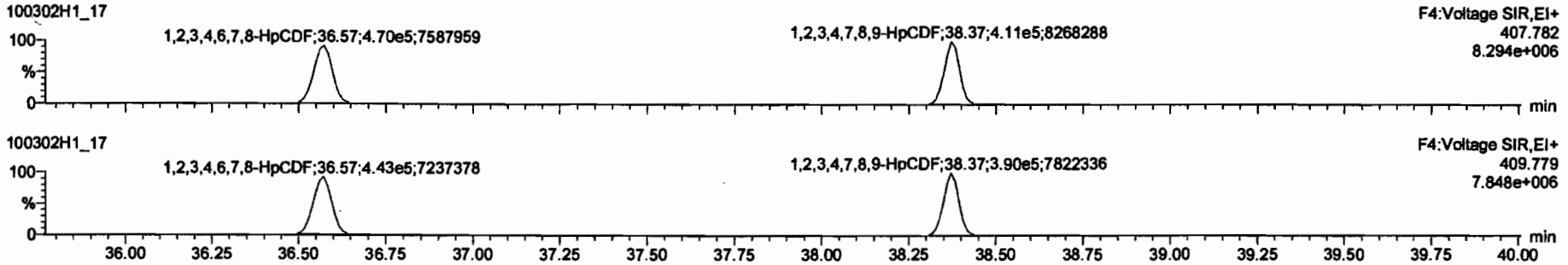

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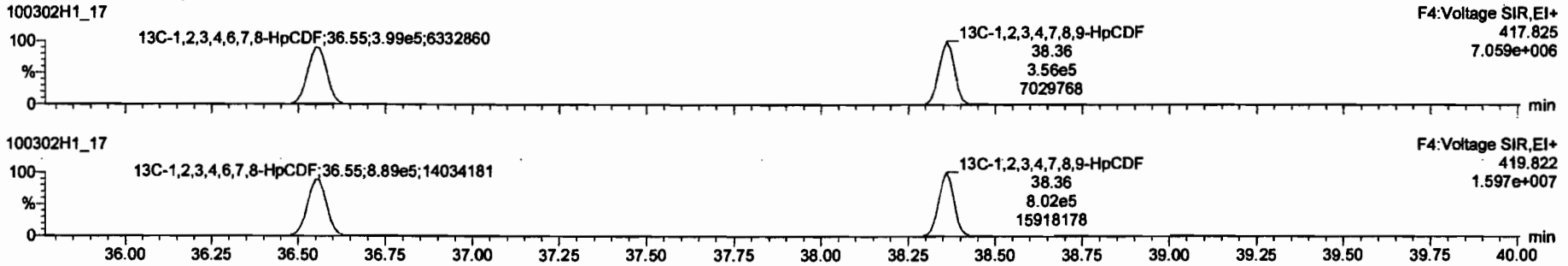

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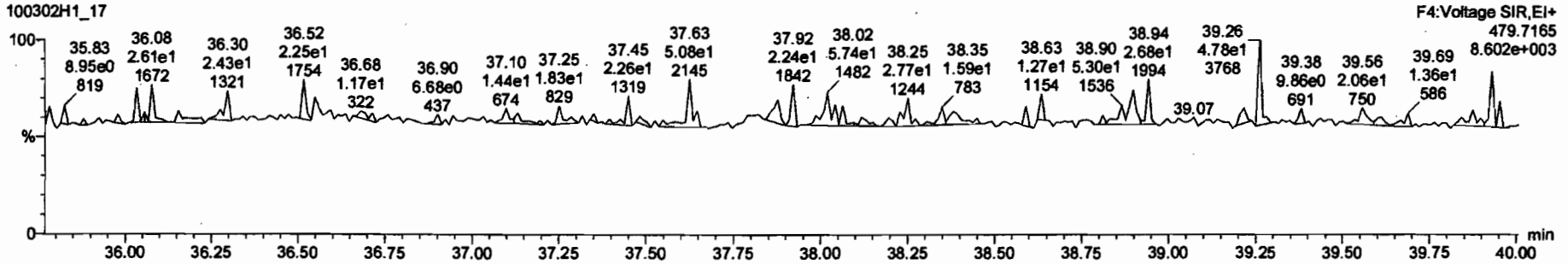

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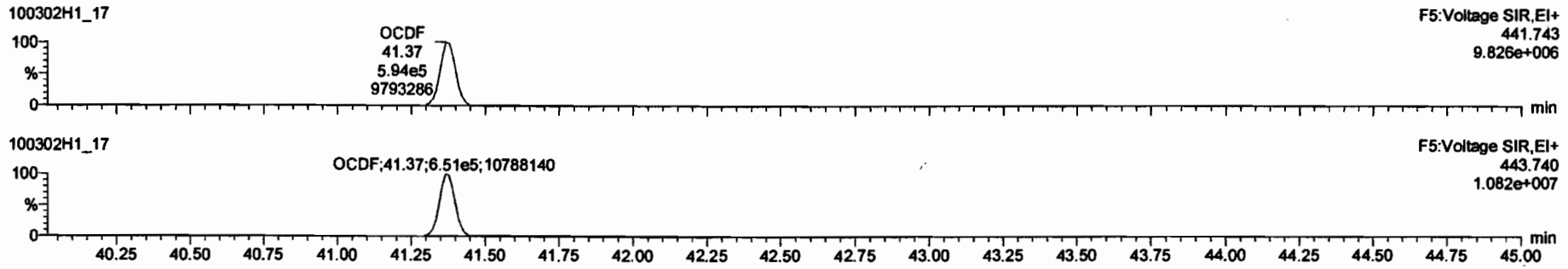

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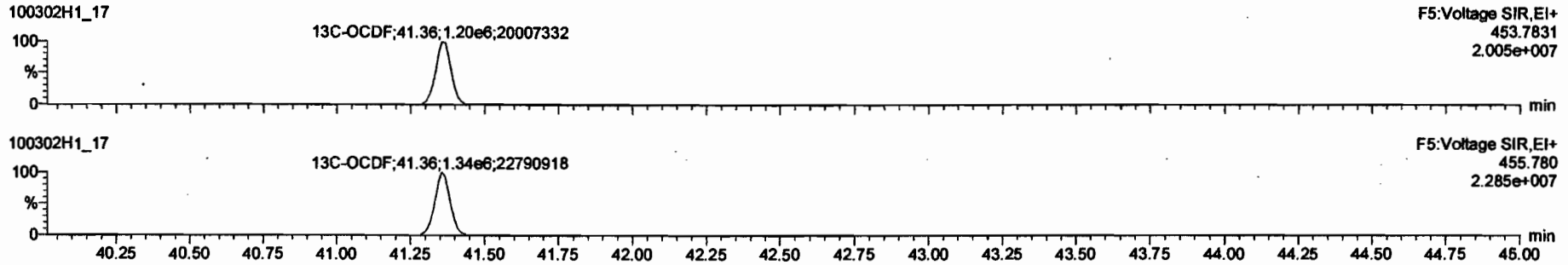

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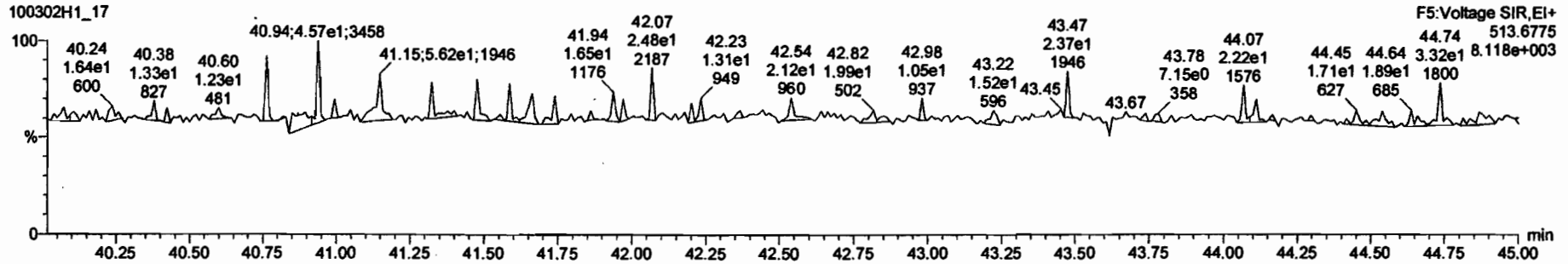

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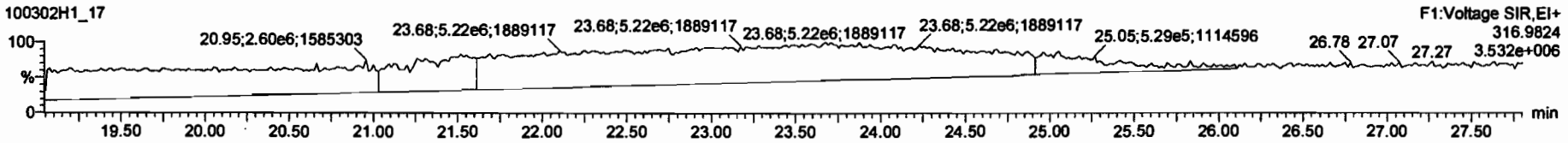

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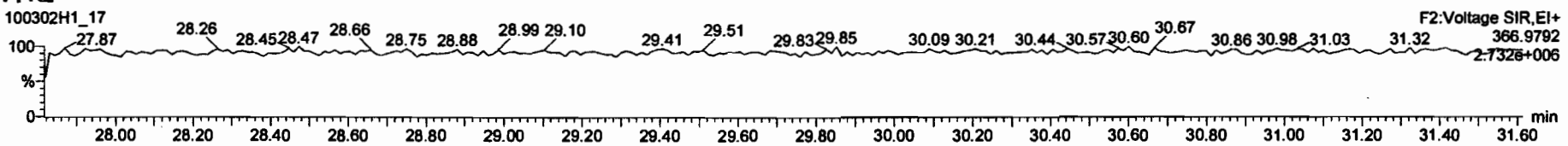

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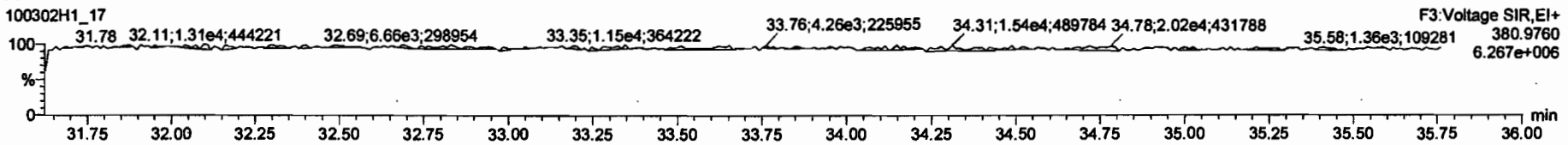

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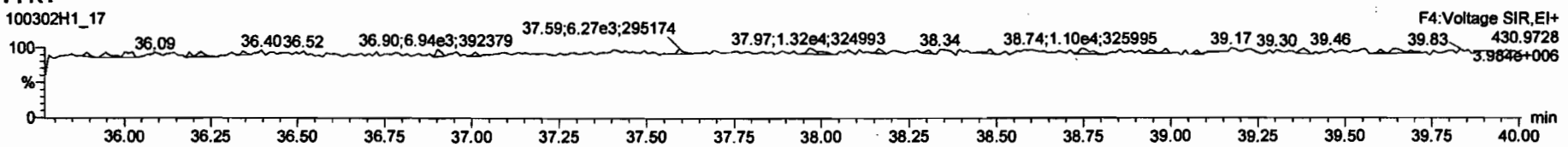

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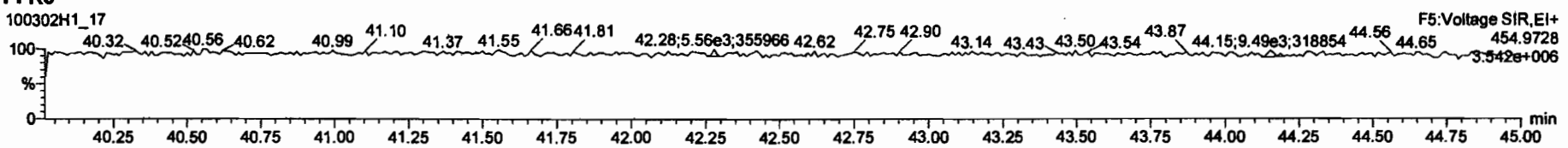

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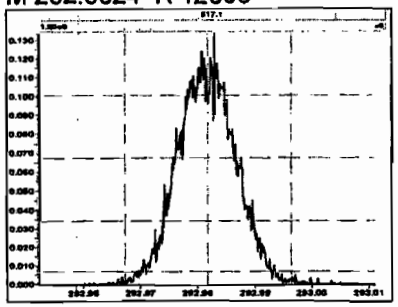

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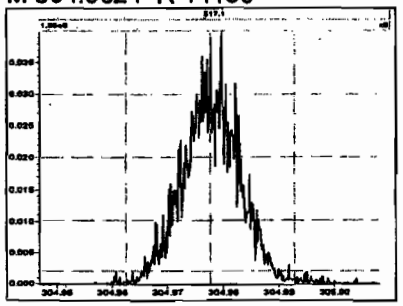

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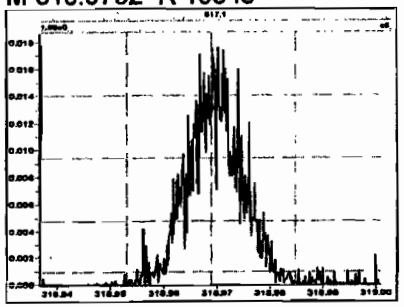

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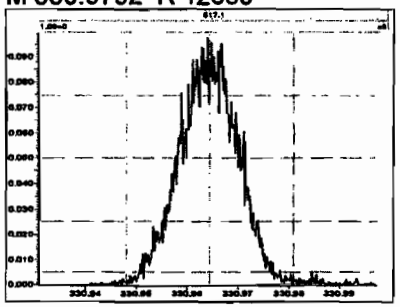

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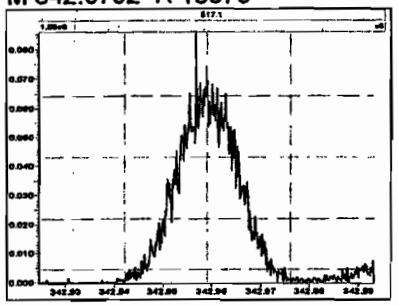

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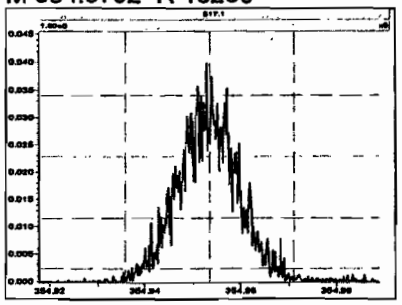

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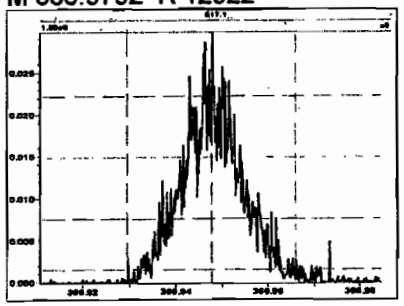

M 380.9760 R 12600

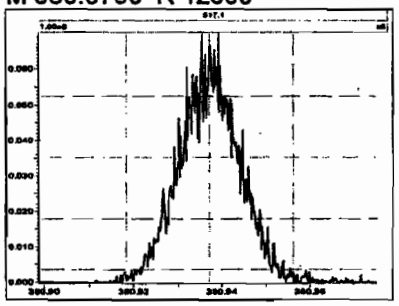

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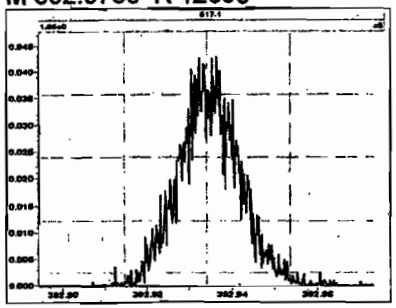

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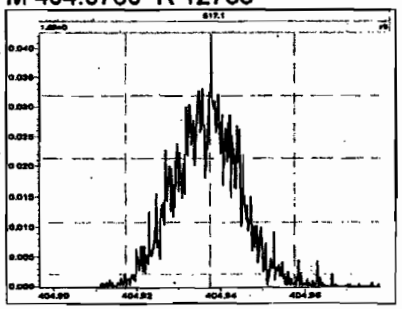

M 416.9760 R 15165

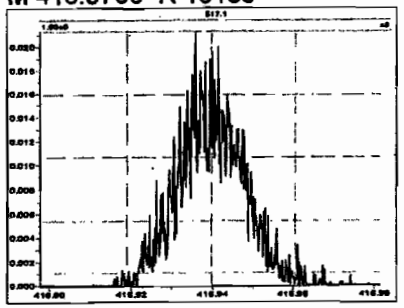

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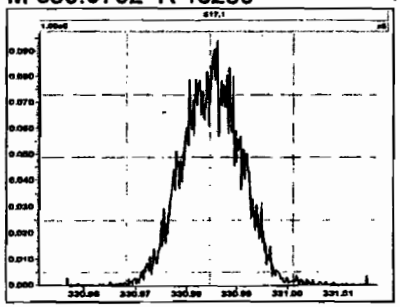

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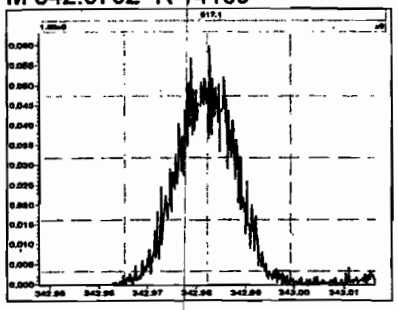

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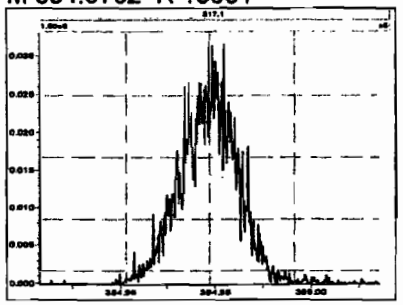

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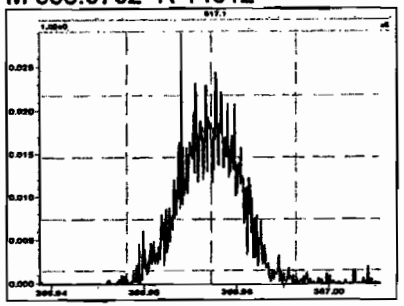

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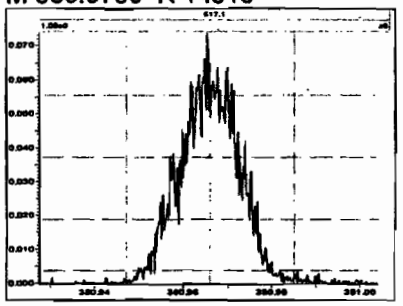

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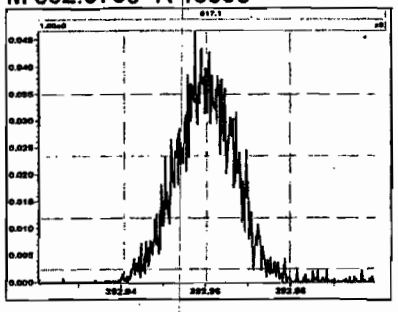

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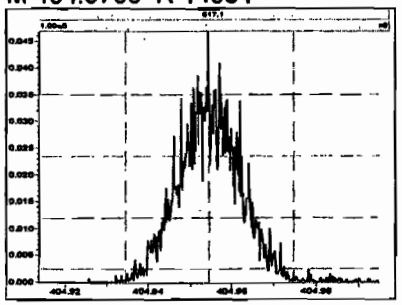

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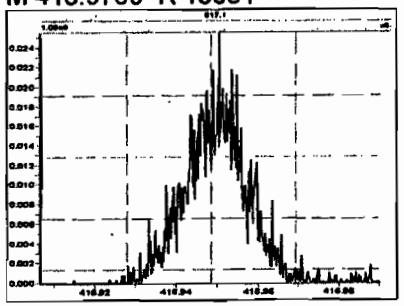

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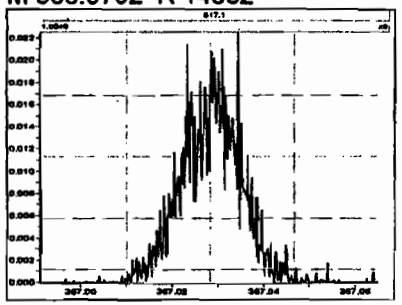

M 380.9760 R 12987

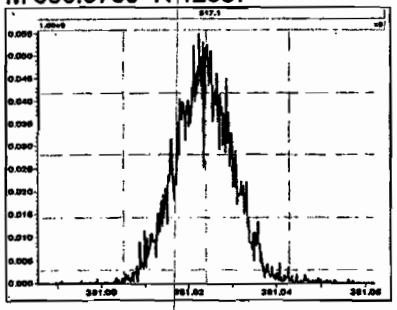

M 392.9760 R 13854

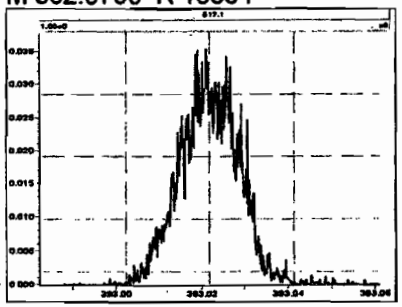

M 404.9760 R 14183

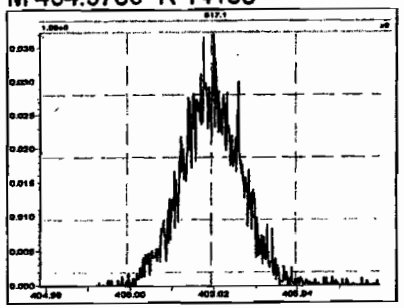

M 416.9760 R 16049

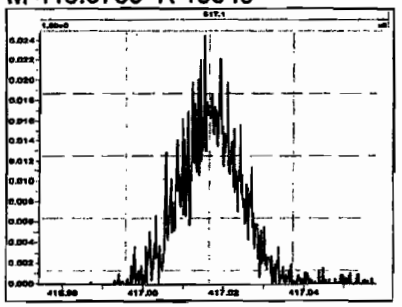

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M 430.9728 R 13229

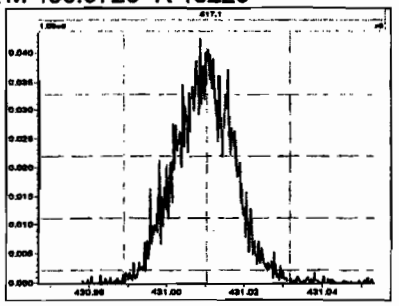

M 442.9728 R 13832

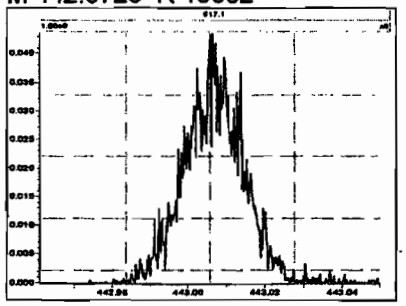

M 454.9728 R 13596

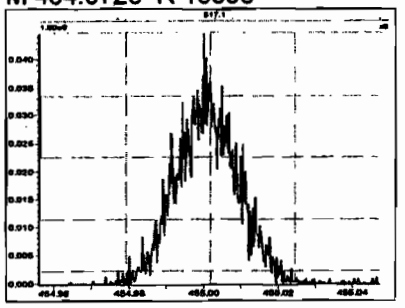

M 404.9760 R 14764

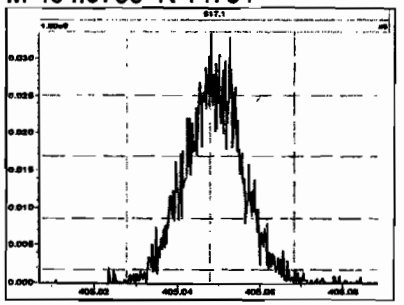

M 416.9760 R 14315

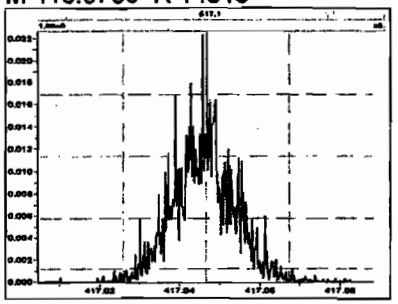

M 430.9728 R 13640

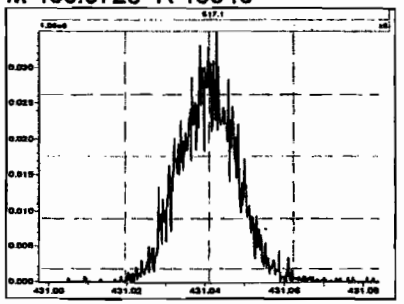

M 442.9728 R 14881

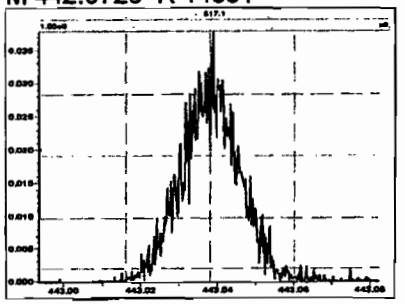

M 454.9728 R 14247

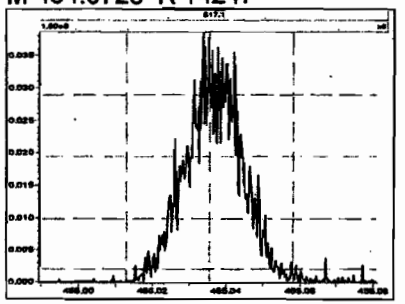

M 466.9728 R 14668

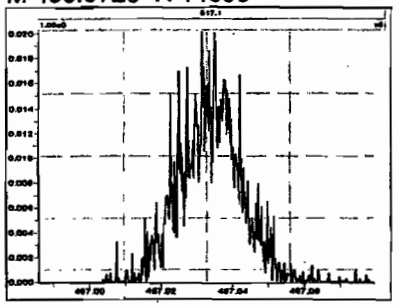

M 480.9696 R 13606

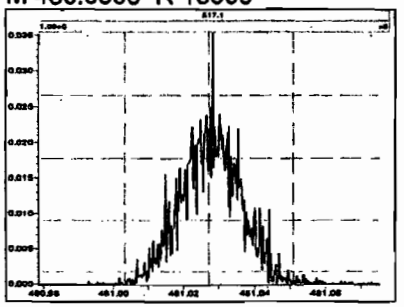

M 430.9728 R 13706

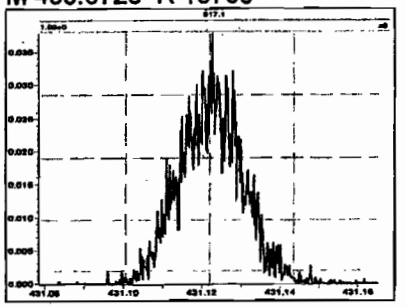

M 442.9728 R 13071

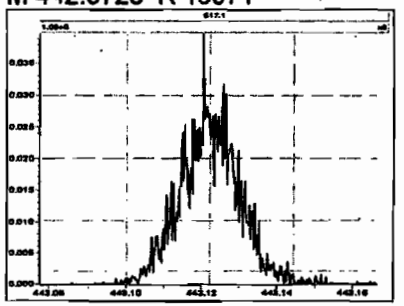

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M 454.9728 R 13446

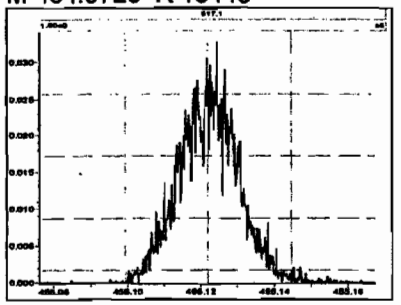

M 466.9728 R 13945

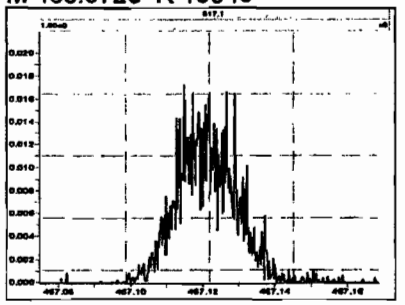

M 480.9696 R 14204

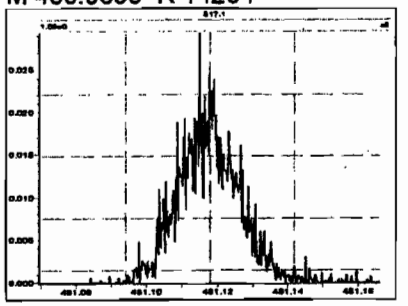

M 492.9696 R 13852

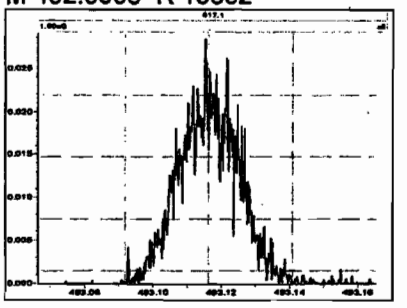

M 504.9696 R 12754

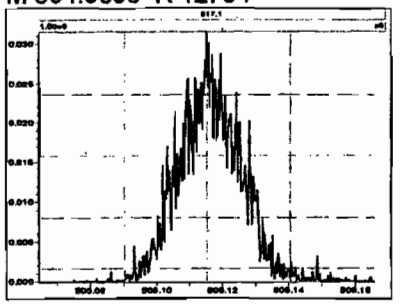

M 516.9697 R 13349

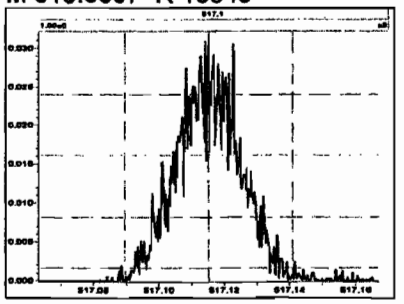

ICAL

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
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Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Compound name: 2,3,7,8-TCDD
Response Factor: 1.03775
RRF SD: 0.0438689, Relative SD: 4.22731
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std Conc	RA	IsV	RT	RRT	Resp	IS Resp	Conc	%Dev	RRF
1	100129H2_1	10.0	0.77	NO	25.98	1.001	1.10e5	1.11e6	9.62	-3.8	0.998
2	100129H2_3	0.250	0.88	NO	25.98	1.001	3.18e3	1.16e6	0.264	5.5	1.10
3	100129H2_4	0.500	0.74	NO	25.98	1.001	5.55e3	1.05e6	0.509	1.7	1.06
4	100129H2_5	2.00	0.80	NO	25.98	1.001	2.13e4	1.09e6	1.88	-6.1	0.974
5	100129H2_6	40.0	0.78	NO	25.97	1.001	4.69e5	1.11e6	40.7	1.6	1.05
6	100129H2_7	200	0.77	NO	25.97	1.001	2.48e6	1.18e6	202	1.1	1.05

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2/2/10

Compound name: 1,2,3,7,8-PeCDD
Response Factor: 0.935366
RRF SD: 0.0328605, Relative SD: 3.51311
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std Conc	RA	IsV	RT	RRT	Resp	IS Resp	Conc	%Dev	RRF
1	100129H2_1	50.0	0.61	NO	30.57	1.000	5.12e5	1.11e6	49.3	-1.5	0.922
2	100129H2_3	1.25	0.61	NO	30.57	1.000	1.31e4	1.10e6	1.28	2.1	0.955
3	100129H2_4	2.50	0.61	NO	30.57	1.000	2.51e4	1.04e6	2.57	3.0	0.963
4	100129H2_5	10.0	0.61	NO	30.57	1.000	9.60e4	1.10e6	9.35	-6.5	0.875
5	100129H2_6	200	0.62	NO	30.57	1.001	2.11e6	1.11e6	203	1.6	0.950
6	100129H2_7	1000	0.62	NO	30.56	1.000	1.15e7	1.21e6	1010	1.3	0.948

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Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
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Compound name: 1,2,3,4,7,8-HxCDD
Response Factor: 0.907043
RRF SD: 0.0305119, Relative SD: 3.36389
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.25	NO	33.95	1.000	4.35e5	9.70e5	49.4	-1.1	0.897
	100129H2_3	1.25	1.22	NO	33.95	1.000	1.03e4	8.97e5	1.27	1.4	0.920
	100129H2_4	2.50	1.16	NO	33.95	1.000	1.97e4	8.52e5	2.55	2.0	0.925
	100129H2_5	10.0	1.26	NO	33.95	1.001	7.35e4	8.65e5	9.36	-6.4	0.849
	100129H2_6	200	1.24	NO	33.94	1.000	1.68e6	9.03e5	205	2.5	0.930
	100129H2_7	1000	1.24	NO	33.94	1.000	9.76e6	1.06e6	1020	1.5	0.921

Compound name: 1,2,3,6,7,8-HxCDD
Response Factor: 0.995415
RRF SD: 0.0268992, Relative SD: 2.70231
Response type: Internal Std (Ref 21), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.24	NO	34.06	1.000	4.14e5	8.54e5	48.7	-2.6	0.970
	100129H2_3	1.25	1.32	NO	34.06	1.001	1.02e4	7.97e5	1.28	2.7	1.02
	100129H2_4	2.50	1.18	NO	34.06	1.001	1.88e4	7.53e5	2.51	0.5	1.00
	100129H2_5	10.0	1.22	NO	34.05	1.000	7.43e4	7.78e5	9.60	-4.0	0.956
	100129H2_6	200	1.25	NO	34.05	1.000	1.61e6	7.92e5	205	2.3	1.02
	100129H2_7	1000	1.25	NO	34.05	1.000	9.16e6	9.11e5	1010	1.0	1.01

Compound name: 1,2,3,7,8,9-HxCDD
Response Factor: 0.930343
RRF SD: 0.0275408, Relative SD: 2.96028
Response type: Internal Std (Ref 22), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.25	NO	34.35	1.000	4.72e5	1.03e6	49.3	-1.3	0.918
	100129H2_3	1.25	1.21	NO	34.35	1.000	1.14e4	9.53e5	1.28	2.7	0.956

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: 1,2,3,7,8,9-HxCDD

	100129H2_4	2.50	1.22	NO	34.36	1.000	2.15e4	8.99e5	2.56	2.6	0.954
	100129H2_5	10.0	1.27	NO	34.36	1.001	8.11e4	9.18e5	9.49	-5.1	0.883
	100129H2_6	200	1.25	NO	34.36	1.001	1.80e6	9.55e5	203	1.5	0.944
	100129H2_7	1000	1.24	NO	34.34	1.000	1.05e7	1.14e6	996	-0.4	0.926

Compound name: 1,2,3,4,6,7,8-HpCDD
Response Factor: 1.00215
RRF SD: 0.0343299, Relative SD: 3.42564
Response type: Internal Std (Ref 23), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.04	NO	37.89	1.000	3.99e5	8.21e5	48.4	-3.1	0.971
	100129H2_3	1.25	1.02	NO	37.89	1.000	9.76e3	7.53e5	1.29	3.5	1.04
	100129H2_4	2.50	1.11	NO	37.89	1.000	1.87e4	7.16e5	2.60	3.9	1.04
	100129H2_5	10.0	1.03	NO	37.88	1.000	6.72e4	7.03e5	9.54	-4.6	0.956
	100129H2_6	200	1.04	NO	37.88	1.000	1.45e6	7.20e5	200	0.2	1.00
	100129H2_7	1000	1.04	NO	37.88	1.000	8.88e6	8.85e5	1000	0.2	1.00

Compound name: OCDD
Response Factor: 1.10393
RRF SD: 0.0568185, Relative SD: 5.14694
Response type: Internal Std (Ref 24), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.88	NO	41.19	1.000	7.54e5	1.40e6	97.7	-2.3	1.08
	100129H2_3	2.50	0.82	NO	41.20	1.001	2.02e4	1.33e6	2.75	10.0	1.21
	100129H2_4	5.00	0.88	NO	41.19	1.001	3.24e4	1.18e6	4.97	-0.5	1.10
	100129H2_5	20.0	0.89	NO	41.18	1.000	1.18e5	1.12e6	19.0	-5.0	1.05
	100129H2_6	400	0.88	NO	41.18	1.000	2.63e6	1.20e6	396	-0.9	1.09
	100129H2_7	2000	0.88	NO	41.19	1.000	1.74e7	1.59e6	1980	-1.2	1.09

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: 2,3,7,8-TCDF
Response Factor: 0.956401
RRF SD: 0.0341554, Relative SD: 3.57124
Response type: Internal Std (Ref 25), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	10.0	0.77	NO	25.20	1.001	1.31e5	1.43e6	9.56	-4.4	0.914
	100129H2_3	0.250	0.72	NO	25.22	1.002	3.66e3	1.52e6	0.252	0.9	0.965
	100129H2_4	0.500	0.82	NO	25.20	1.001	6.82e3	1.40e6	0.510	2.0	0.976
	100129H2_5	2.00	0.79	NO	25.19	1.001	2.68e4	1.47e6	1.91	-4.6	0.913
	100129H2_6	40.0	0.77	NO	25.19	1.001	5.79e5	1.47e6	41.1	2.7	0.982
	100129H2_7	200	0.76	NO	25.19	1.001	3.05e6	1.54e6	207	3.4	0.988

Compound name: 1,2,3,7,8-PeCDF
Response Factor: 0.940869
RRF SD: 0.0353031, Relative SD: 3.75219
Response type: Internal Std (Ref 26), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.57	NO	29.37	1.000	6.41e5	1.39e6	49.1	-1.9	0.923
	100129H2_3	1.25	1.50	NO	29.37	1.000	1.71e4	1.50e6	1.21	-3.4	0.909
	100129H2_4	2.50	1.55	NO	29.38	1.000	3.21e4	1.29e6	2.65	6.0	0.997
	100129H2_5	10.0	1.60	NO	29.37	1.000	1.20e5	1.31e6	9.67	-3.3	0.910
	100129H2_6	200	1.55	NO	29.37	1.000	2.65e6	1.37e6	206	2.9	0.968
	100129H2_7	1000	1.55	NO	29.37	1.001	1.59e7	1.69e6	996	-0.4	0.937

Compound name: 2,3,4,7,8-PeCDF
Response Factor: 0.925817
RRF SD: 0.0235693, Relative SD: 2.54579
Response type: Internal Std (Ref 27), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.57	NO	30.29	1.000	6.79e5	1.47e6	49.8	-0.3	0.923
	100129H2_3	1.25	1.62	NO	30.29	1.000	1.67e4	1.48e6	1.22	-2.4	0.904

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: 2,3,4,7,8-PeCDF

	100129H2_4	2.50	1.63	NO	30.29	1.000	3.38e4	1.42e6	2.57	2.9	0.953
	100129H2_5	10.0	1.54	NO	30.29	1.000	1.32e5	1.47e6	9.65	-3.5	0.894
	100129H2_6	200	1.53	NO	30.29	1.000	2.84e6	1.50e6	204	2.2	0.946
	100129H2_7	1000	1.55	NO	30.27	1.000	1.57e7	1.68e6	1010	1.0	0.935

Compound name: 1,2,3,4,7,8-HxCDF
Response Factor: 1.22412
RRF SD: 0.0293526, Relative SD: 2.39786
Response type: Internal Std (Ref 28), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.25	NO	33.05	1.000	7.77e5	1.29e6	49.4	-1.2	1.21
	100129H2_3	1.25	1.27	NO	33.05	1.001	2.21e4	1.48e6	1.22	-2.4	1.19
	100129H2_4	2.50	1.22	NO	33.05	1.000	3.36e4	1.07e6	2.56	2.3	1.25
	100129H2_5	10.0	1.25	NO	33.05	1.000	1.30e5	1.09e6	9.73	-2.7	1.19
	100129H2_6	200	1.25	NO	33.05	1.001	2.87e6	1.15e6	204	2.1	1.25
	100129H2_7	1000	1.25	NO	33.04	1.000	1.79e7	1.43e6	1020	2.0	1.25

Compound name: 1,2,3,6,7,8-HxCDF
Response Factor: 1.07862
RRF SD: 0.0221276, Relative SD: 2.05147
Response type: Internal Std (Ref 29), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.26	NO	33.18	1.001	6.73e5	1.28e6	48.9	-2.3	1.05
	100129H2_3	1.25	1.21	NO	33.18	1.001	1.71e4	1.27e6	1.25	0.3	1.08
	100129H2_4	2.50	1.24	NO	33.18	1.000	3.13e4	1.14e6	2.54	1.6	1.10
	100129H2_5	10.0	1.24	NO	33.17	1.000	1.24e5	1.18e6	9.74	-2.6	1.05
	100129H2_6	200	1.26	NO	33.17	1.000	2.67e6	1.21e6	205	2.4	1.10
	100129H2_7	1000	1.26	NO	33.17	1.000	1.55e7	1.42e6	1010	0.7	1.09

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Compound name: 2,3,4,6,7,8-HxCDF
Response Factor: 1.12508
RRF SD: 0.0298329, Relative SD: 2.65161
Response type: Internal Std (Ref 30), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.25	NO	33.78	1.001	6.18e5	1.12e6	49.2	-1.7	1.11
	100129H2_3	1.25	1.24	NO	33.77	1.000	1.49e4	1.06e6	1.25	-0.1	1.12
	100129H2_4	2.50	1.28	NO	33.77	1.000	2.88e4	1.00e6	2.55	2.0	1.15
	100129H2_5	10.0	1.24	NO	33.77	1.000	1.11e5	1.03e6	9.56	-4.4	1.08
	100129H2_6	200	1.25	NO	33.77	1.000	2.42e6	1.05e6	205	2.4	1.15
	100129H2_7	1000	1.25	NO	33.77	1.000	1.40e7	1.23e6	1020	1.8	1.15

Compound name: 1,2,3,7,8,9-HxCDF
Response Factor: 1.12896
RRF SD: 0.0335341, Relative SD: 2.97035
Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.23	NO	34.75	1.000	5.61e5	1.01e6	49.1	-1.8	1.11
	100129H2_3	1.25	1.23	NO	34.75	1.000	1.32e4	9.57e5	1.22	-2.4	1.10
	100129H2_4	2.50	1.26	NO	34.75	1.000	2.56e4	8.74e5	2.59	3.8	1.17
	100129H2_5	10.0	1.29	NO	34.74	1.000	9.63e4	8.84e5	9.64	-3.6	1.09
	100129H2_6	200	1.26	NO	34.74	1.000	2.14e6	9.28e5	205	2.4	1.16
	100129H2_7	1000	1.25	NO	34.74	1.000	1.28e7	1.11e6	1020	1.6	1.15

Compound name: 1,2,3,4,6,7,8-HpCDF
Response Factor: 1.43855
RRF SD: 0.0764869, Relative SD: 5.31694
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.05	NO	36.59	1.000	5.82e5	8.38e5	48.3	-3.4	1.39
	100129H2_3	1.25	1.01	NO	36.60	1.001	1.49e4	7.68e5	1.35	7.7	1.55

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: 1,2,3,4,6,7,8-HpCDF

	100129H2_4	2.50	1.01	NO	36.60	1.001	2.70e4	7.25e5	2.59	3.6	1.49
	100129H2_5	10.0	1.06	NO	36.59	1.000	1.01e5	7.56e5	9.25	-7.5	1.33
	100129H2_6	200	1.05	NO	36.59	1.001	2.15e6	7.44e5	201	0.5	1.45
	100129H2_7	1000	1.05	NO	36.59	1.001	1.26e7	8.83e5	990	-1.0	1.42

Compound name: 1,2,3,4,7,8,9-HpCDF
Response Factor: 1.37871
RRF SD: 0.0397747, Relative SD: 2.88492
Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.06	NO	38.44	1.000	5.34e5	7.91e5	49.0	-2.0	1.35
	100129H2_3	1.25	1.00	NO	38.45	1.001	1.24e4	7.13e5	1.26	0.7	1.39
	100129H2_4	2.50	1.06	NO	38.44	1.000	2.38e4	6.61e5	2.61	4.4	1.44
	100129H2_5	10.0	1.04	NO	38.43	1.000	8.79e4	6.64e5	9.60	-4.0	1.32
	100129H2_6	200	1.05	NO	38.43	1.000	1.92e6	6.87e5	203	1.3	1.40
	100129H2_7	1000	1.05	NO	38.43	1.000	1.16e7	8.46e5	995	-0.5	1.37

Compound name: OCDF
Response Factor: 1.01488
RRF SD: 0.071672, Relative SD: 7.06212
Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.90	NO	41.42	1.000	8.89e5	1.83e6	95.9	-4.1	0.973
	100129H2_3	2.50	0.87	NO	41.42	1.000	2.66e4	1.85e6	2.84	13.4	1.15
	100129H2_4	5.00	0.89	NO	41.42	1.001	3.91e4	1.52e6	5.08	1.5	1.03
	100129H2_5	20.0	0.89	NO	41.41	1.000	1.40e5	1.47e6	18.8	-6.2	0.952
	100129H2_6	400	0.90	NO	41.41	1.000	3.18e6	1.59e6	393	-1.7	0.997
	100129H2_7	2000	0.91	NO	41.42	1.000	2.13e7	2.16e6	1940	-2.9	0.986

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: 13C-2,3,7,8-TCDD
Response Factor: 1.09945
RRF SD: 0.0353239, Relative SD: 3.21288
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	0.80	NO	25.97	1.022	1.11e6	9.95e5	101	1.0	1.11
100129H2_3	100	0.79	NO	25.97	1.022	1.16e6	1.07e6	99.3	-0.7	1.09
100129H2_4	100	0.81	NO	25.97	1.022	1.05e6	9.84e5	97.2	-2.8	1.07
100129H2_5	100	0.78	NO	25.95	1.022	1.09e6	1.02e6	97.3	-2.7	1.07
100129H2_6	100	0.78	NO	25.95	1.022	1.11e6	1.02e6	99.4	-0.6	1.09
100129H2_7	100	0.80	NO	25.95	1.022	1.18e6	1.02e6	106	5.9	1.16

Compound name: 13C-1,2,3,7,8-PeCDD
Response Factor: 1.09441
RRF SD: 0.0562219, Relative SD: 5.13717
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	0.62	NO	30.56	1.203	1.11e6	9.95e5	102	2.1	1.12
100129H2_3	100	0.64	NO	30.56	1.203	1.10e6	1.07e6	94.1	-5.9	1.03
100129H2_4	100	0.63	NO	30.56	1.203	1.04e6	9.84e5	96.8	-3.2	1.06
100129H2_5	100	0.64	NO	30.56	1.204	1.10e6	1.02e6	98.3	-1.7	1.08
100129H2_6	100	0.62	NO	30.55	1.203	1.11e6	1.02e6	99.7	-0.3	1.09
100129H2_7	100	0.62	NO	30.55	1.203	1.21e6	1.02e6	109	8.9	1.19

Compound name: 13C-1,2,3,4,7,8-HxCDD
Response Factor: 1.01044
RRF SD: 0.0969506, Relative SD: 9.59486
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	1.26	NO	33.94	1.014	9.70e5	9.64e5	99.6	-0.4	1.01
100129H2_3	100	1.26	NO	33.94	1.014	8.97e5	9.50e5	93.5	-6.5	0.945

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Compound name: 13C-1,2,3,4,7,8-HxCDD

100129H2_4	100	1.25	NO	33.94	1.014	8.52e5	9.14e5	92.2	-7.8	0.932
100129H2_5	100	1.26	NO	33.93	1.014	8.65e5	9.05e5	94.6	-5.4	0.956
100129H2_6	100	1.25	NO	33.93	1.014	9.03e5	8.76e5	102	2.0	1.03
100129H2_7	100	1.27	NO	33.93	1.014	1.06e6	8.89e5	118	18.0	1.19

Compound name: 13C-1,2,3,6,7,8-HxCDD
Response Factor: 0.889467
RRF SD: 0.0721499, Relative SD: 8.11159
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	1.23	NO	34.05	1.018	8.54e5	9.64e5	99.6	-0.4	0.886
100129H2_3	100	1.26	NO	34.04	1.017	7.97e5	9.50e5	94.4	-5.6	0.840
100129H2_4	100	1.27	NO	34.04	1.017	7.53e5	9.14e5	92.6	-7.4	0.824
100129H2_5	100	1.25	NO	34.04	1.017	7.78e5	9.05e5	96.6	-3.4	0.859
100129H2_6	100	1.26	NO	34.04	1.017	7.92e5	8.76e5	102	1.6	0.904
100129H2_7	100	1.28	NO	34.04	1.018	9.11e5	8.89e5	115	15.1	1.02

Compound name: 13C-1,2,3,7,8,9-HxCDD
Response Factor: 1.07336
RRF SD: 0.108723, Relative SD: 10.1293
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	1.25	NO	34.34	1.027	1.03e6	9.64e5	99.5	-0.5	1.07
100129H2_3	100	1.24	NO	34.34	1.027	9.53e5	9.50e5	93.5	-6.5	1.00
100129H2_4	100	1.25	NO	34.34	1.027	8.99e5	9.14e5	91.7	-8.3	0.984
100129H2_5	100	1.24	NO	34.33	1.026	9.18e5	9.05e5	94.5	-5.5	1.01
100129H2_6	100	1.23	NO	34.33	1.026	9.55e5	8.76e5	102	1.6	1.09
100129H2_7	100	1.24	NO	34.33	1.027	1.14e6	8.89e5	119	19.2	1.28

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Compound name: 13C-1,2,3,4,6,7,8-HpCDD
Response Factor: 0.837123
RRF SD: 0.0823436, Relative SD: 9.83651
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	1.05	NO	37.88	1.132	8.21e5	9.64e5	102	1.8	0.852
	100129H2_3	100	1.06	NO	37.88	1.132	7.53e5	9.50e5	94.7	-5.3	0.793
	100129H2_4	100	1.03	NO	37.88	1.132	7.16e5	9.14e5	93.6	-6.4	0.784
	100129H2_5	100	1.06	NO	37.87	1.132	7.03e5	9.05e5	92.8	-7.2	0.777
	100129H2_6	100	1.04	NO	37.87	1.132	7.20e5	8.76e5	98.2	-1.8	0.822
	100129H2_7	100	1.05	NO	37.87	1.132	8.85e5	8.89e5	119	18.9	0.995

Compound name: 13C-OCDD
Response Factor: 0.712032
RRF SD: 0.0975244, Relative SD: 13.6966
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	200	0.91	NO	41.18	1.231	1.40e6	9.64e5	204	1.9	0.725
	100129H2_3	200	0.90	NO	41.18	1.231	1.33e6	9.50e5	197	-1.7	0.700
	100129H2_4	200	0.89	NO	41.17	1.231	1.18e6	9.14e5	181	-9.3	0.646
	100129H2_5	200	0.90	NO	41.17	1.231	1.12e6	9.05e5	174	-12.9	0.620
	100129H2_6	200	0.91	NO	41.17	1.231	1.20e6	8.76e5	193	-3.7	0.686
	100129H2_7	200	0.89	NO	41.18	1.231	1.59e6	8.89e5	252	25.8	0.896

Compound name: 13C-2,3,7,8-TCDF
Response Factor: 1.05298
RRF SD: 0.0213546, Relative SD: 2.02801
Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.79	NO	25.19	0.992	1.43e6	1.35e6	101	1.1	1.06
	100129H2_3	100	0.79	NO	25.17	0.991	1.52e6	1.45e6	98.9	-1.1	1.04

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Compound name: 13C-2,3,7,8-TCDF

100129H2_4	100	0.79	NO	25.19	0.992	1.40e6	1.35e6	98.1	-1.9	1.03
100129H2_5	100	0.80	NO	25.17	0.992	1.47e6	1.41e6	98.7	-1.3	1.04
100129H2_6	100	0.78	NO	25.17	0.992	1.47e6	1.40e6	99.7	-0.3	1.05
100129H2_7	100	0.78	NO	25.17	0.992	1.54e6	1.41e6	104	3.6	1.09

Compound name: 13C-1,2,3,7,8-PeCDF
Response Factor: 1.01963
RRF SD: 0.0964477, Relative SD: 9.45911
Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	1.58	NO	29.35	1.155	1.39e6	1.35e6	101	1.1	1.03
100129H2_3	100	1.56	NO	29.35	1.155	1.50e6	1.45e6	101	1.4	1.03
100129H2_4	100	1.56	NO	29.37	1.156	1.29e6	1.35e6	93.3	-6.7	0.951
100129H2_5	100	1.59	NO	29.35	1.156	1.31e6	1.41e6	91.3	-8.7	0.931
100129H2_6	100	1.57	NO	29.35	1.156	1.37e6	1.40e6	95.5	-4.5	0.974
100129H2_7	100	1.57	NO	29.34	1.156	1.69e6	1.41e6	117	17.4	1.20

Compound name: 13C-2,3,4,7,8-PeCDF
Response Factor: 1.07622
RRF SD: 0.0621874, Relative SD: 5.77833
Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	1.57	NO	30.27	1.192	1.47e6	1.35e6	102	1.6	1.09
100129H2_3	100	1.56	NO	30.27	1.192	1.48e6	1.45e6	94.3	-5.7	1.01
100129H2_4	100	1.57	NO	30.27	1.192	1.42e6	1.35e6	97.3	-2.7	1.05
100129H2_5	100	1.58	NO	30.27	1.192	1.47e6	1.41e6	97.0	-3.0	1.04
100129H2_6	100	1.57	NO	30.27	1.192	1.50e6	1.40e6	99.2	-0.8	1.07
100129H2_7	100	1.57	NO	30.26	1.192	1.68e6	1.41e6	111	10.7	1.19

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Compound name: 13C-1,2,3,4,7,8-HxCDF
Response Factor: 1.36545
RRF SD: 0.181436, Relative SD: 13.2877
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.53	NO	33.04	0.988	1.29e6	9.64e5	97.7	-2.3	1.33
	100129H2_3	100	0.52	NO	33.03	0.987	1.48e6	9.50e5	114	14.1	1.56
	100129H2_4	100	0.52	NO	33.04	0.988	1.07e6	9.14e5	85.9	-14.1	1.17
	100129H2_5	100	0.52	NO	33.04	0.988	1.09e6	9.05e5	88.3	-11.7	1.21
	100129H2_6	100	0.52	NO	33.03	0.987	1.15e6	8.76e5	95.9	-4.1	1.31
	100129H2_7	100	0.52	NO	33.03	0.988	1.43e6	8.89e5	118	18.1	1.61

Compound name: 13C-1,2,3,6,7,8-HxCDF
Response Factor: 1.36637
RRF SD: 0.122392, Relative SD: 8.95746
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.52	NO	33.16	0.991	1.28e6	9.64e5	96.9	-3.1	1.32
	100129H2_3	100	0.52	NO	33.16	0.991	1.27e6	9.50e5	97.7	-2.3	1.33
	100129H2_4	100	0.53	NO	33.17	0.991	1.14e6	9.14e5	91.6	-8.4	1.25
	100129H2_5	100	0.52	NO	33.16	0.991	1.18e6	9.05e5	95.6	-4.4	1.31
	100129H2_6	100	0.52	NO	33.16	0.991	1.21e6	8.76e5	101	1.1	1.38
	100129H2_7	100	0.53	NO	33.16	0.991	1.42e6	8.89e5	117	17.2	1.60

Compound name: 13C-2,3,4,6,7,8-HxCDF
Response Factor: 1.18231
RRF SD: 0.102145, Relative SD: 8.63946
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.52	NO	33.76	1.009	1.12e6	9.64e5	98.0	-2.0	1.16
	100129H2_3	100	0.51	NO	33.76	1.009	1.06e6	9.50e5	94.7	-5.3	1.12

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Compound name: 13C-2,3,4,6,7,8-HxCDF

	100129H2_4	100	0.53	NO	33.76	1.009	1.00e6	9.14e5	92.9	-7.1	1.10
	100129H2_5	100	0.52	NO	33.76	1.009	1.03e6	9.05e5	96.4	-3.6	1.14
	100129H2_6	100	0.52	NO	33.76	1.009	1.05e6	8.76e5	101	1.5	1.20
	100129H2_7	100	0.52	NO	33.76	1.010	1.23e6	8.89e5	117	16.6	1.38

Compound name: 13C-1,2,3,7,8,9-HxCDF
Response Factor: 1.05009
RRF SD: 0.106244, Relative SD: 10.1176
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.51	NO	34.74	1.038	1.01e6	9.64e5	99.9	-0.1	1.05
	100129H2_3	100	0.52	NO	34.74	1.038	9.57e5	9.50e5	96.0	-4.0	1.01
	100129H2_4	100	0.52	NO	34.74	1.038	8.74e5	9.14e5	91.0	-9.0	0.956
	100129H2_5	100	0.52	NO	34.73	1.038	8.84e5	9.05e5	93.0	-7.0	0.977
	100129H2_6	100	0.53	NO	34.73	1.038	9.28e5	8.76e5	101	0.9	1.06
	100129H2_7	100	0.52	NO	34.73	1.038	1.11e6	8.89e5	119	19.1	1.25

Compound name: 13C-1,2,3,4,6,7,8-HpCDF
Response Factor: 0.858149
RRF SD: 0.0715157, Relative SD: 8.33371
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.44	NO	36.58	1.093	8.38e5	9.64e5	101	1.3	0.870
	100129H2_3	100	0.45	NO	36.58	1.093	7.68e5	9.50e5	94.2	-5.8	0.809
	100129H2_4	100	0.45	NO	36.58	1.093	7.25e5	9.14e5	92.4	-7.6	0.793
	100129H2_5	100	0.44	NO	36.58	1.093	7.56e5	9.05e5	97.3	-2.7	0.835
	100129H2_6	100	0.45	NO	36.57	1.093	7.44e5	8.76e5	99.0	-1.0	0.849
	100129H2_7	100	0.45	NO	36.57	1.094	8.83e5	8.89e5	116	15.7	0.993

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: 13C-1,2,3,4,7,8,9-HpCDF
Response Factor: 0.79411
RRF SD: 0.0852395, Relative SD: 10.734
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.44	NO	38.43	1.149	7.91e5	9.64e5	103	3.3	0.821
	100129H2_3	100	0.44	NO	38.43	1.149	7.13e5	9.50e5	94.5	-5.5	0.751
	100129H2_4	100	0.44	NO	38.43	1.149	6.61e5	9.14e5	91.0	-9.0	0.723
	100129H2_5	100	0.44	NO	38.42	1.148	6.64e5	9.05e5	92.4	-7.6	0.734
	100129H2_6	100	0.45	NO	38.42	1.148	6.87e5	8.76e5	98.9	-1.1	0.785
	100129H2_7	100	0.45	NO	38.42	1.149	8.46e5	8.89e5	120	19.9	0.952

Compound name: 13C-OCDF
Response Factor: 0.948096
RRF SD: 0.14562, Relative SD: 15.3592
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	200	0.90	NO	41.41	1.238	1.83e6	9.64e5	200	0.0	0.948
	100129H2_3	200	0.90	NO	41.41	1.238	1.85e6	9.50e5	205	2.5	0.972
	100129H2_4	200	0.90	NO	41.40	1.237	1.52e6	9.14e5	175	-12.4	0.831
	100129H2_5	200	0.91	NO	41.40	1.237	1.47e6	9.05e5	171	-14.3	0.812
	100129H2_6	200	0.90	NO	41.40	1.237	1.59e6	8.76e5	192	-4.0	0.910
	100129H2_7	200	0.90	NO	41.41	1.238	2.16e6	8.89e5	256	28.2	1.22

Compound name: 37Cl-2,3,7,8-TCDD
Response Factor: 0.664789
RRF SD: 0.0381685, Relative SD: 5.74144
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	10.0			25.98	1.023	6.27e4	9.95e5	9.49	-5.1	0.631
	100129H2_3	0.250			25.98	1.023	1.82e3	1.07e6	0.257	2.6	0.682

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: 37Cl-2,3,7,8-TCDD

	100129H2_4	0.500		25.98	1.023	3.04e3	9.84e5	0.465	-7.0	0.618
	100129H2_5	2.00		25.98	1.023	1.37e4	1.02e6	2.02	0.8	0.670
	100129H2_6	40.0		25.97	1.023	2.70e5	1.02e6	39.9	-0.3	0.663
	100129H2_7	200		25.97	1.023	1.47e6	1.02e6	218	9.0	0.725

Compound name: 13C-1,2,3,4-TCDD
Response Factor: 1
RRF SD: 9.93014e-017, Relative SD: 9.93014e-015
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.80	NO	25.40	0.000	9.95e5	9.95e5	100	0.0	1.00
	100129H2_3	100	0.79	NO	25.40	0.000	1.07e6	1.07e6	100	0.0	1.00
	100129H2_4	100	0.79	NO	25.40	0.000	9.84e5	9.84e5	100	0.0	1.00
	100129H2_5	100	0.80	NO	25.39	0.000	1.02e6	1.02e6	100	0.0	1.00
	100129H2_6	100	0.79	NO	25.39	0.000	1.02e6	1.02e6	100	0.0	1.00
	100129H2_7	100	0.79	NO	25.39	0.000	1.02e6	1.02e6	100	0.0	1.00

Compound name: 13C-1,2,3,4-TCDF
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.78	NO	23.98	0.000	1.35e6	1.35e6	100	0.0	1.00
	100129H2_3	100	0.78	NO	23.98	0.000	1.45e6	1.45e6	100	0.0	1.00
	100129H2_4	100	0.78	NO	23.98	0.000	1.35e6	1.35e6	100	0.0	1.00
	100129H2_5	100	0.78	NO	23.97	0.000	1.41e6	1.41e6	100	0.0	1.00
	100129H2_6	100	0.79	NO	23.97	0.000	1.40e6	1.40e6	100	0.0	1.00
	100129H2_7	100	0.78	NO	23.97	0.000	1.41e6	1.41e6	100	0.0	1.00

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: 13C-1,2,3,4,6,9-HxCDF
Response Factor: 1
RRF SD: 1.40433e-016, Relative SD: 1.40433e-014
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	0.52	NO	33.46	0.000	9.64e5	9.64e5	100	0.0	1.00
100129H2_3	100	0.52	NO	33.46	0.000	9.50e5	9.50e5	100	0.0	1.00
100129H2_4	100	0.50	NO	33.46	0.000	9.14e5	9.14e5	100	0.0	1.00
100129H2_5	100	0.51	NO	33.46	0.000	9.05e5	9.05e5	100	0.0	1.00
100129H2_6	100	0.52	NO	33.46	0.000	8.76e5	8.76e5	100	0.0	1.00
100129H2_7	100	0.52	NO	33.44	0.000	8.89e5	8.89e5	100	0.0	1.00

Compound name: Total Tetra-Dioxins
Response Factor: 1.03775
RRF SD: 0.0438689, Relative SD: 4.22731
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	10.0		1.11e6	55.5
100129H2_3	0.250		1.16e6	0.270
100129H2_4	0.500		1.05e6	0.512
100129H2_5	2.00		1.09e6	1.88
100129H2_6	40.0		1.11e6	40.8
100129H2_7	200		1.18e6	203

Compound name: Total Penta-Dioxins
Response Factor: 0.935366
RRF SD: 0.0328605, Relative SD: 3.51311
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	50.0		1.11e6	146
100129H2_3	1.25		1.10e6	1.29

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: Total Penta-Dioxins

100129H2_4	2.50	1.04e6	2.57
100129H2_5	10.0	1.10e6	9.35
100129H2_6	200	1.11e6	204
100129H2_7	1000	1.21e6	1010

Compound name: Total Hexa-Dioxins
Response Factor: 0.995415
RRF SD: 0.0268992, Relative SD: 2.70231
Response type: Internal Std (Ref 21), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	50.0	0.00e0	191
100129H2_3	1.25	0.00e0	3.84
100129H2_4	2.50	0.00e0	7.63
100129H2_5	10.0	0.00e0	28.5
100129H2_6	200	0.00e0	613
100129H2_7	1000	0.00e0	3020

Compound name: Total Hepta-Dioxins
Response Factor: 1.00215
RRF SD: 0.0343299, Relative SD: 3.42564
Response type: Internal Std (Ref 23), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	50.0	8.21e5	129
100129H2_3	1.25	7.53e5	1.32
100129H2_4	2.50	7.16e5	2.61
100129H2_5	10.0	7.03e5	9.58
100129H2_6	200	7.20e5	202
100129H2_7	1000	8.85e5	1010

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: Total Tetra-Furans
Response Factor: 0.956401
RRF SD: 0.0341554, Relative SD: 3.57124
Response type: Internal Std (Ref 25), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	10.0				1.43e6	31.2
	100129H2_3	0.250				1.52e6	0.264
	100129H2_4	0.500				1.40e6	0.510
	100129H2_5	2.00				1.47e6	1.91
	100129H2_6	40.0				1.47e6	41.7
	100129H2_7	200				1.54e6	210

Compound name: 1st Func. Penta-Furans
Response Factor: 0.940869
RRF SD: 0.0353031, Relative SD: 3.75219
Response type: Internal Std (Ref 26), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0				0.00e0	60.7
	100129H2_3	1.25				0.00e0	0.00956
	100129H2_4	2.50				0.00e0	0.0104
	100129H2_5	10.0				0.00e0	0.00898
	100129H2_6	200				0.00e0	0.0373
	100129H2_7	1000				0.00e0	0.0131

Compound name: Total Penta-Furans
Response Factor: 0.940869
RRF SD: 0.0353031, Relative SD: 3.75219
Response type: Internal Std (Ref 26), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0				0.00e0	162
	100129H2_3	1.25				0.00e0	2.43

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: Total Penta-Furans

	100129H2_4	2.50						0.00e0	5.22		
	100129H2_5	10.0						0.00e0	19.5		
	100129H2_6	200						0.00e0	415		
	100129H2_7	1000						0.00e0	2030		

Compound name: Total Hexa-Furans
Response Factor: 1.12508
RRF SD: 0.0298329, Relative SD: 2.65161
Response type: Internal Std (Ref 30), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0						0.00e0	245		
	100129H2_3	1.25						0.00e0	4.94		
	100129H2_4	2.50						0.00e0	10.2		
	100129H2_5	10.0						0.00e0	38.7		
	100129H2_6	200						0.00e0	819		
	100129H2_7	1000						0.00e0	4070		

Compound name: Total Hepta-Furans
Response Factor: 1.43855
RRF SD: 0.0764869, Relative SD: 5.31694
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0						0.00e0	97.3		
	100129H2_3	1.25						0.00e0	2.61		
	100129H2_4	2.50						0.00e0	5.21		
	100129H2_5	10.0						0.00e0	18.9		
	100129H2_6	200						0.00e0	404		
	100129H2_7	1000						0.00e0	1990		

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: PFK1
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00										
	100129H2_3	1.00										
	100129H2_4	1.00										
	100129H2_5	1.00										
	100129H2_6	1.00										
	100129H2_7	1.00										

Compound name: PFK2
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00										
	100129H2_3	1.00										
	100129H2_4	1.00										
	100129H2_5	1.00										
	100129H2_6	1.00										
	100129H2_7	1.00										

Compound name: PFK3
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00										
	100129H2_3	1.00										
	100129H2_4	1.00										
	100129H2_5	1.00										

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: PFK3

	100129H2_6	1.00
	100129H2_7	1.00

Compound name: PFK4
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00
	100129H2_3	1.00
	100129H2_4	1.00
	100129H2_5	1.00
	100129H2_6	1.00
	100129H2_7	1.00

Compound name: PFK5
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00
	100129H2_3	1.00
	100129H2_4	1.00
	100129H2_5	1.00
	100129H2_6	1.00
	100129H2_7	1.00

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: DPE1
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00
	100129H2_3	1.00
	100129H2_4	1.00
	100129H2_5	1.00
	100129H2_6	1.00
	100129H2_7	1.00

Compound name: DPE2
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00
	100129H2_3	1.00
	100129H2_4	1.00
	100129H2_5	1.00
	100129H2_6	1.00
	100129H2_7	1.00

Compound name: DPE3
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00
	100129H2_3	1.00
	100129H2_4	1.00
	100129H2_5	1.00

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: DPE3

	100129H2_6	1.00									
	100129H2_7	1.00									

Compound name: DPE4
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00									
	100129H2_3	1.00									
	100129H2_4	1.00									
	100129H2_5	1.00									
	100129H2_6	1.00									
	100129H2_7	1.00									

Compound name: DPE5
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00									
	100129H2_3	1.00									
	100129H2_4	1.00									
	100129H2_5	1.00									
	100129H2_6	1.00									
	100129H2_7	1.00									

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: DPE6
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00										
	100129H2_3	1.00										
	100129H2_4	1.00										
	100129H2_5	1.00										
	100129H2_6	1.00										
	100129H2_7	1.00										

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_3, Date: 30-Jan-2010, Time: 03:53:20, ID: ST100129H2-2 1613 CS0 100127C, Description: 1613 CS0 100127C

	Name	Area	RA	Flag	RRF	Wt/Vol	RT	RRT	Conc.	%Rec	[illegible]	[illegible]
1	2,3,7,8-TCDD	3.18e3	0.88	NO	1.04	1.000	25.98	1.001	0.26382	106	0.0185	0.26382
2	1,2,3,7,8-PeCDD	1.31e4	0.61	NO	0.935	1.000	30.57	1.000	1.2763	102	0.0191	1.2763
3	1,2,3,4,7,8-HxCDD	1.03e4	1.22	NO	0.907	1.000	33.95	1.000	1.2676	101	0.0409	1.2676
4	1,2,3,6,7,8-HxCDD	1.02e4	1.32	NO	0.995	1.000	34.06	1.001	1.2843	103	0.0433	1.2843
5	1,2,3,7,8,9-HxCDD	1.14e4	1.21	NO	0.930	1.000	34.35	1.000	1.2842	103	0.0388	1.2842
6	1,2,3,4,6,7,8-HpCDD	9.76e3	1.02	NO	1.00	1.000	37.89	1.000	1.2931	103	0.0367	1.2931
7	OCDD	2.02e4	0.82	NO	1.10	1.000	41.20	1.001	2.7492	110	0.0369	2.7492
8	2,3,7,8-TCDF	3.66e3	0.72	NO	0.956	1.000	25.22	1.002	0.25226	101	0.0196	0.25226
9	1,2,3,7,8-PeCDF	1.71e4	1.50	NO	0.941	1.000	29.37	1.000	1.2076	96.6	0.0275	1.2076
10	2,3,4,7,8-PeCDF	1.67e4	1.62	NO	0.926	1.000	30.29	1.000	1.2202	97.6	0.0283	1.2202
11	1,2,3,4,7,8-HxCDF	2.21e4	1.27	NO	1.22	1.000	33.05	1.001	1.2195	97.6	0.0237	1.2195
12	1,2,3,6,7,8-HxCDF	1.71e4	1.21	NO	1.08	1.000	33.18	1.001	1.2533	100	0.0329	1.2533
13	2,3,4,6,7,8-HxCDF	1.49e4	1.24	NO	1.13	1.000	33.77	1.000	1.2484	99.9	0.0370	1.2484
14	1,2,3,7,8,9-HxCDF	1.32e4	1.23	NO	1.13	1.000	34.75	1.000	1.2201	97.6	0.0513	1.2201
15	1,2,3,4,6,7,8-HpCDF	1.49e4	1.01	NO	1.44	1.000	36.60	1.001	1.3466	108	0.0517	1.3466
16	1,2,3,4,7,8,9-HpCDF	1.24e4	1.00	NO	1.38	1.000	38.45	1.001	1.2592	101	0.0502	1.2592
17	OCDF	2.66e4	0.87	NO	1.01	1.000	41.42	1.000	2.8354	113	0.0391	2.8354
18	13C-2,3,7,8-TCDD	1.16e6	0.79	NO	1.10	1.000	25.97	1.022	99.282	99.3	0.138	
19	13C-1,2,3,7,8-PeCDD	1.10e6	0.64	NO	1.09	1.000	30.56	1.203	94.078	94.1	0.143	
20	13C-1,2,3,4,7,8-HxCDD	8.97e5	1.26	NO	1.01	1.000	33.94	1.014	93.499	93.5	0.130	
21	13C-1,2,3,6,7,8-HxCDD	7.97e5	1.26	NO	0.889	1.000	34.04	1.017	94.391	94.4	0.148	
22	13C-1,2,3,7,8,9-HxCDD	9.53e5	1.24	NO	1.07	1.000	34.34	1.027	93.537	93.5	0.123	
23	13C-1,2,3,4,6,7,8-HpCDD	7.53e5	1.06	NO	0.837	1.000	37.88	1.132	94.701	94.7	0.295	
24	13C-OCDD	1.33e6	0.90	NO	0.712	1.000	41.18	1.231	196.56	98.3	0.119	
25	13C-2,3,7,8-TCDF	1.52e6	0.79	NO	1.05	1.000	25.17	0.991	98.898	98.9	0.165	
26	13C-1,2,3,7,8-PeCDF	1.50e6	1.56	NO	1.02	1.000	29.35	1.155	101.39	101	0.176	
27	13C-2,3,4,7,8-PeCDF	1.48e6	1.56	NO	1.08	1.000	30.27	1.192	94.281	94.3	0.167	
28	13C-1,2,3,4,7,8-HxCDF	1.48e6	0.52	NO	1.37	1.000	33.03	0.987	114.06	114	0.183	
29	13C-1,2,3,6,7,8-HxCDF	1.27e6	0.52	NO	1.37	1.000	33.16	0.991	97.681	97.7	0.183	
30	13C-2,3,4,6,7,8-HxCDF	1.06e6	0.51	NO	1.18	1.000	33.76	1.009	94.685	94.7	0.211	

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:00 Pacific Standard Time

Name: 100129H2_3, Date: 30-Jan-2010, Time: 03:53:20, ID: ST100129H2-2 1613 CS0 100127C, Description: 1613 CS0 100127C

			RA	Rly	RRF	Wt/vol	RT	RRT			
31	13C-1,2,3,7,8,9-HxCDF	9.57e5	0.52	NO	1.05	1.000	34.74	1.038	96.003	96.0	0.238
32	13C-1,2,3,4,6,7,8-HpCDF	7.68e5	0.45	NO	0.858	1.000	36.58	1.093	94.233	94.2	0.300
33	13C-1,2,3,4,7,8,9-HpCDF	7.13e5	0.44	NO	0.794	1.000	38.43	1.149	94.547	94.5	0.324
34	13C-OCDF	1.85e6	0.90	NO	0.948	1.000	41.41	1.238	204.97	102	0.102
35	37Cl-2,3,7,8-TCDD	1.82e3			0.665	1.000	25.98	1.023	0.25660	103	0.0244
36	13C-1,2,3,4-TCDD	1.07e6	0.79	NO	1.00	1.000	25.40	0.000	100.00	100	0.152
37	13C-1,2,3,4-TCDF	1.45e6	0.78	NO	1.00	1.000	23.98	0.000	100.00	100	0.173
38	13C-1,2,3,4,6,9-HxCDF	9.50e5	0.52	NO	1.00	1.000	33.46	0.000	100.00	100	0.250

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:05 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_4, Date: 30-Jan-2010, Time: 04:42:54, ID: ST100129H2-3 1613 CS1 100127D, Description: 1613 CS1 100127D

		Resp	RT	IT	RRF	RRF	RT	RRT	Conc	RT	D	
1	2,3,7,8-TCDD	5.55e3	0.74	NO	1.04	1.000	25.98	1.001	0.50858	102	0.0233	0.50858
2	1,2,3,7,8-PeCDD	2.51e4	0.61	NO	0.935	1.000	30.57	1.000	2.5738	103	0.0188	2.5738
3	1,2,3,4,7,8-HxCDD	1.97e4	1.16	NO	0.907	1.000	33.95	1.000	2.5505	102	0.0376	2.5505
4	1,2,3,6,7,8-HxCDD	1.88e4	1.18	NO	0.995	1.000	34.06	1.001	2.5131	101	0.0422	2.5131
5	1,2,3,7,8,9-HxCDD	2.15e4	1.22	NO	0.930	1.000	34.36	1.000	2.5647	103	0.0372	2.5647
6	1,2,3,4,6,7,8-HpCDD	1.87e4	1.11	NO	1.00	1.000	37.89	1.000	2.5983	104	0.0422	2.5983
7	OCDD	3.24e4	0.88	NO	1.10	1.000	41.19	1.001	4.9748	99.5	0.0391	4.9748
8	2,3,7,8-TCDF	6.82e3	0.82	NO	0.956	1.000	25.20	1.001	0.51002	102	0.0193	0.51002
9	1,2,3,7,8-PeCDF	3.21e4	1.55	NO	0.941	1.000	29.38	1.000	2.6502	106	0.0293	2.6502
10	2,3,4,7,8-PeCDF	3.38e4	1.63	NO	0.926	1.000	30.29	1.000	2.5731	103	0.0255	2.5731
11	1,2,3,4,7,8-HxCDF	3.36e4	1.22	NO	1.22	1.000	33.05	1.000	2.5586	102	0.0268	2.5586
12	1,2,3,6,7,8-HxCDF	3.13e4	1.24	NO	1.08	1.000	33.18	1.000	2.5402	102	0.0314	2.5402
13	2,3,4,6,7,8-HxCDF	2.88e4	1.28	NO	1.13	1.000	33.77	1.000	2.5492	102	0.0352	2.5492
14	1,2,3,7,8,9-HxCDF	2.56e4	1.26	NO	1.13	1.000	34.75	1.000	2.5950	104	0.0483	2.5950
15	1,2,3,4,6,7,8-HpCDF	2.70e4	1.01	NO	1.44	1.000	36.60	1.001	2.5902	104	0.0582	2.5902
16	1,2,3,4,7,8,9-HpCDF	2.38e4	1.06	NO	1.38	1.000	38.44	1.000	2.6106	104	0.0572	2.6106
17	OCDF	3.91e4	0.89	NO	1.01	1.000	41.42	1.001	5.0770	102	0.0413	5.0770
18	13C-2,3,7,8-TCDD	1.05e6	0.81	NO	1.10	1.000	25.97	1.022	97.187	97.2	0.151	
19	13C-1,2,3,7,8-PeCDD	1.04e6	0.63	NO	1.09	1.000	30.56	1.203	96.836	96.8	0.123	
20	13C-1,2,3,4,7,8-HxCDD	8.52e5	1.25	NO	1.01	1.000	33.94	1.014	92.221	92.2	0.131	
21	13C-1,2,3,6,7,8-HxCDD	7.53e5	1.27	NO	0.889	1.000	34.04	1.017	92.647	92.6	0.149	
22	13C-1,2,3,7,8,9-HxCDD	8.99e5	1.25	NO	1.07	1.000	34.34	1.027	91.653	91.7	0.123	
23	13C-1,2,3,4,6,7,8-HpCDD	7.16e5	1.03	NO	0.837	1.000	37.88	1.132	93.600	93.6	0.231	
24	13C-OCDD	1.18e6	0.89	NO	0.712	1.000	41.17	1.231	181.33	90.7	0.114	
25	13C-2,3,7,8-TCDF	1.40e6	0.79	NO	1.05	1.000	25.19	0.992	98.093	98.1	0.198	
26	13C-1,2,3,7,8-PeCDF	1.29e6	1.56	NO	1.02	1.000	29.37	1.156	93.273	93.3	0.245	
27	13C-2,3,4,7,8-PeCDF	1.42e6	1.57	NO	1.08	1.000	30.27	1.192	97.313	97.3	0.232	
28	13C-1,2,3,4,7,8-HxCDF	1.07e6	0.52	NO	1.37	1.000	33.04	0.988	85.920	85.9	0.173	
29	13C-1,2,3,6,7,8-HxCDF	1.14e6	0.53	NO	1.37	1.000	33.17	0.991	91.555	91.6	0.173	
30	13C-2,3,4,6,7,8-HxCDF	1.00e6	0.53	NO	1.18	1.000	33.76	1.009	92.886	92.9	0.199	

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:05 Pacific Standard Time

Name: 100129H2_4, Date: 30-Jan-2010, Time: 04:42:54, ID: ST100129H2-3 1613 CS1 100127D, Description: 1613 CS1 100127D

31	13C-1,2,3,7,8,9-HxCDF	8.74e5	0.52	NO	1.05	1.000	34.74	1.038	91.031	91.0	0.225
32	13C-1,2,3,4,6,7,8-HpCDF	7.25e5	0.45	NO	0.858	1.000	36.58	1.093	92.409	92.4	0.262
33	13C-1,2,3,4,7,8,9-HpCDF	6.61e5	0.44	NO	0.794	1.000	38.43	1.149	91.003	91.0	0.284
34	13C-OCDF	1.52e6	0.90	NO	0.948	1.000	41.40	1.237	175.19	87.6	0.106
35	37Cl-2,3,7,8-TCDD	3.04e3			0.665	1.000	25.98	1.023	0.46480	93.0	0.0344
36	13C-1,2,3,4-TCDD	9.84e5	0.79	NO	1.00	1.000	25.40	0.000	100.00	100	0.166
37	13C-1,2,3,4-TCDF	1.35e6	0.78	NO	1.00	1.000	23.98	0.000	100.00	100	0.208
38	13C-1,2,3,4,6,9-HxCDF	9.14e5	0.50	NO	1.00	1.000	33.46	0.000	100.00	100	0.236

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:12 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_5, Date: 30-Jan-2010, Time: 05:32:29, ID: ST100129H2-4 1613 CS2 100127E, Description: 1613 CS2 100127E

			RA		RF		RT	RRT				
1	2,3,7,8-TCDD	2.13e4	0.80	NO	1.04	1.000	25.98	1.001	1.8779	93.9	0.0224	1.8779
2	1,2,3,7,8-PeCDD	9.60e4	0.61	NO	0.935	1.000	30.57	1.000	9.3506	93.5	0.0239	9.3506
3	1,2,3,4,7,8-HxCDD	7.35e4	1.26	NO	0.907	1.000	33.95	1.001	9.3640	93.6	0.0464	9.3640
4	1,2,3,6,7,8-HxCDD	7.43e4	1.22	NO	0.995	1.000	34.05	1.000	9.6008	96.0	0.0459	9.6008
5	1,2,3,7,8,9-HxCDD	8.11e4	1.27	NO	0.930	1.000	34.36	1.001	9.4950	94.9	0.0438	9.4950
6	1,2,3,4,6,7,8-HpCDD	6.72e4	1.03	NO	1.00	1.000	37.88	1.000	9.5384	95.4	0.0547	9.5384
7	OCDD	1.18e5	0.89	NO	1.10	1.000	41.18	1.000	18.995	95.0	0.0418	18.995
8	2,3,7,8-TCDF	2.68e4	0.79	NO	0.956	1.000	25.19	1.001	1.9084	95.4	0.0196	1.9084
9	1,2,3,7,8-PeCDF	1.20e5	1.60	NO	0.941	1.000	29.37	1.000	9.6733	96.7	0.0551	9.6733
10	2,3,4,7,8-PeCDF	1.32e5	1.54	NO	0.926	1.000	30.29	1.000	9.6528	96.5	0.0473	9.6528
11	1,2,3,4,7,8-HxCDF	1.30e5	1.25	NO	1.22	1.000	33.05	1.000	9.7261	97.3	0.0425	9.7261
12	1,2,3,6,7,8-HxCDF	1.24e5	1.24	NO	1.08	1.000	33.17	1.000	9.7351	97.4	0.0465	9.7351
13	2,3,4,6,7,8-HxCDF	1.11e5	1.24	NO	1.13	1.000	33.77	1.000	9.5609	95.6	0.0503	9.5609
14	1,2,3,7,8,9-HxCDF	9.63e4	1.29	NO	1.13	1.000	34.74	1.000	9.6440	96.4	0.0695	9.6440
15	1,2,3,4,6,7,8-HpCDF	1.01e5	1.06	NO	1.44	1.000	36.59	1.000	9.2519	92.5	0.0626	9.2519
16	1,2,3,4,7,8,9-HpCDF	8.79e4	1.04	NO	1.38	1.000	38.43	1.000	9.6036	96.0	0.0638	9.6036
17	OCDF	1.40e5	0.89	NO	1.01	1.000	41.41	1.000	18.755	93.8	0.0439	18.755
18	13C-2,3,7,8-TCDD	1.09e6	0.78	NO	1.10	1.000	25.95	1.022	97.270	97.3	0.139	
19	13C-1,2,3,7,8-PeCDD	1.10e6	0.64	NO	1.09	1.000	30.56	1.204	98.325	98.3	0.103	
20	13C-1,2,3,4,7,8-HxCDD	8.65e5	1.26	NO	1.01	1.000	33.93	1.014	94.630	94.6	0.152	
21	13C-1,2,3,6,7,8-HxCDD	7.78e5	1.25	NO	0.889	1.000	34.04	1.017	96.606	96.6	0.173	
22	13C-1,2,3,7,8,9-HxCDD	9.18e5	1.24	NO	1.07	1.000	34.33	1.026	94.511	94.5	0.143	
23	13C-1,2,3,4,6,7,8-HpCDD	7.03e5	1.06	NO	0.837	1.000	37.87	1.132	92.826	92.8	0.233	
24	13C-OCDD	1.12e6	0.90	NO	0.712	1.000	41.17	1.231	174.23	87.1	0.106	
25	13C-2,3,7,8-TCDF	1.47e6	0.80	NO	1.05	1.000	25.17	0.992	98.662	98.7	0.169	
26	13C-1,2,3,7,8-PeCDF	1.31e6	1.59	NO	1.02	1.000	29.35	1.156	91.349	91.3	0.289	
27	13C-2,3,4,7,8-PeCDF	1.47e6	1.58	NO	1.08	1.000	30.27	1.192	96.957	97.0	0.274	
28	13C-1,2,3,4,7,8-HxCDF	1.09e6	0.52	NO	1.37	1.000	33.04	0.988	88.292	88.3	0.177	
29	13C-1,2,3,6,7,8-HxCDF	1.18e6	0.52	NO	1.37	1.000	33.16	0.991	95.614	95.6	0.177	
30	13C-2,3,4,6,7,8-HxCDF	1.03e6	0.52	NO	1.18	1.000	33.76	1.009	96.370	96.4	0.204	

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:12 Pacific Standard Time

Name: 100129H2_5, Date: 30-Jan-2010, Time: 05:32:29, ID: ST100129H2-4 1613 CS2 100127E, Description: 1613 CS2 100127E

			RA				RT				
31	13C-1,2,3,7,8,9-HxCDF	8.84e5	0.52	NO	1.05	1.000	34.73	1.038	93.027	93.0	0.230
32	13C-1,2,3,4,6,7,8-HpCDF	7.56e5	0.44	NO	0.858	1.000	36.58	1.093	97.336	97.3	0.278
33	13C-1,2,3,4,7,8,9-HpCDF	6.64e5	0.44	NO	0.794	1.000	38.42	1.148	92.376	92.4	0.301
34	13C-OCDF	1.47e6	0.91	NO	0.948	1.000	41.40	1.237	171.30	85.7	0.104
35	37Cl-2,3,7,8-TCDD	1.37e4			0.665	1.000	25.98	1.023	2.0166	101	0.0287
36	13C-1,2,3,4-TCDD	1.02e6	0.80	NO	1.00	1.000	25.39	0.000	100.00	100	0.152
37	13C-1,2,3,4-TCDF	1.41e6	0.78	NO	1.00	1.000	23.97	0.000	100.00	100	0.178
38	13C-1,2,3,4,6,9-HxCDF	9.05e5	0.51	NO	1.00	1.000	33.46	0.000	100.00	100	0.242

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:42:53 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_1, Date: 30-Jan-2010, Time: 02:14:11, ID: ST100129H2-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1	2,3,7,8-TCDD	1.10e5	0.77	NO	1.04	1.000	25.98	1.001	9.6157	96.2	0.0492	9.6157
2	1,2,3,7,8-PeCDD	5.12e5	0.61	NO	0.935	1.000	30.57	1.000	49.266	98.5	0.0848	49.266
3	1,2,3,4,7,8-HxCDD	4.35e5	1.25	NO	0.907	1.000	33.95	1.000	49.433	98.9	0.103	49.433
4	1,2,3,6,7,8-HxCDD	4.14e5	1.24	NO	0.995	1.000	34.06	1.000	48.716	97.4	0.108	48.716
5	1,2,3,7,8,9-HxCDD	4.72e5	1.25	NO	0.930	1.000	34.35	1.000	49.335	98.7	0.0952	49.335
6	1,2,3,4,6,7,8-HpCDD	3.99e5	1.04	NO	1.00	1.000	37.89	1.000	48.425	96.9	0.107	48.425
7	OCDD	7.54e5	0.88	NO	1.10	1.000	41.19	1.000	97.695	97.7	0.0523	97.695
8	2,3,7,8-TCDF	1.31e5	0.77	NO	0.956	1.000	25.20	1.001	9.5601	95.6	0.0398	9.5601
9	1,2,3,7,8-PeCDF	6.41e5	1.57	NO	0.941	1.000	29.37	1.000	49.054	98.1	0.0785	49.054
10	2,3,4,7,8-PeCDF	6.79e5	1.57	NO	0.926	1.000	30.29	1.000	49.832	99.7	0.0718	49.832
11	1,2,3,4,7,8-HxCDF	7.77e5	1.25	NO	1.22	1.000	33.05	1.000	49.381	98.8	0.0829	49.381
12	1,2,3,6,7,8-HxCDF	6.73e5	1.26	NO	1.08	1.000	33.18	1.001	48.860	97.7	0.105	48.860
13	2,3,4,6,7,8-HxCDF	6.18e5	1.25	NO	1.13	1.000	33.78	1.001	49.159	98.3	0.121	49.159
14	1,2,3,7,8,9-HxCDF	5.61e5	1.23	NO	1.13	1.000	34.75	1.000	49.107	98.2	0.154	49.107
15	1,2,3,4,6,7,8-HpCDF	5.82e5	1.05	NO	1.44	1.000	36.59	1.000	48.304	96.6	0.113	48.304
16	1,2,3,4,7,8,9-HpCDF	5.34e5	1.06	NO	1.38	1.000	38.44	1.000	49.003	98.0	0.106	49.003
17	OCDF	8.89e5	0.90	NO	1.01	1.000	41.42	1.000	95.868	95.9	0.0655	95.868
18	13C-2,3,7,8-TCDD	1.11e6	0.80	NO	1.10	1.000	25.97	1.022	101.02	101	0.138	
19	13C-1,2,3,7,8-PeCDD	1.11e6	0.62	NO	1.09	1.000	30.56	1.203	102.09	102	0.118	
20	13C-1,2,3,4,7,8-HxCDD	9.70e5	1.26	NO	1.01	1.000	33.94	1.014	99.633	99.6	0.173	
21	13C-1,2,3,6,7,8-HxCDD	8.54e5	1.23	NO	0.889	1.000	34.05	1.018	99.593	99.6	0.196	
22	13C-1,2,3,7,8,9-HxCDD	1.03e6	1.25	NO	1.07	1.000	34.34	1.027	99.501	99.5	0.163	
23	13C-1,2,3,4,6,7,8-HpCDD	8.21e5	1.05	NO	0.837	1.000	37.88	1.132	101.80	102	0.224	
24	13C-OCDD	1.40e6	0.91	NO	0.712	1.000	41.18	1.231	203.76	102	0.176	
25	13C-2,3,7,8-TCDF	1.43e6	0.79	NO	1.05	1.000	25.19	0.992	101.08	101	0.175	
26	13C-1,2,3,7,8-PeCDF	1.39e6	1.58	NO	1.02	1.000	29.35	1.155	101.05	101	0.254	
27	13C-2,3,4,7,8-PeCDF	1.47e6	1.57	NO	1.08	1.000	30.27	1.192	101.56	102	0.241	
28	13C-1,2,3,4,7,8-HxCDF	1.29e6	0.53	NO	1.37	1.000	33.04	0.988	97.715	97.7	0.189	
29	13C-1,2,3,6,7,8-HxCDF	1.28e6	0.52	NO	1.37	1.000	33.16	0.991	96.918	96.9	0.189	
30	13C-2,3,4,6,7,8-HxCDF	1.12e6	0.52	NO	1.18	1.000	33.76	1.009	98.002	98.0	0.218	

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:42:53 Pacific Standard Time

Name: 100129H2_1, Date: 30-Jan-2010, Time: 02:14:11, ID: ST100129H2-1 1613 CS3 100127F, Description: 1613 CS3 100127F

31	13C-1,2,3,7,8,9-HxCDF	1.01e6	0.51	NO	1.05	1.000	34.74	1.038	99.912	99.9	0.246
32	13C-1,2,3,4,6,7,8-HpCDF	8.38e5	0.44	NO	0.858	1.000	36.58	1.093	101.34	101	0.305
33	13C-1,2,3,4,7,8,9-HpCDF	7.91e5	0.44	NO	0.794	1.000	38.43	1.149	103.34	103	0.330
34	13C-OCDF	1.83e6	0.90	NO	0.948	1.000	41.41	1.238	200.04	100	0.0816
35	37Cl-2,3,7,8-TCDD	6.27e4			0.665	1.000	25.98	1.023	9.4867	94.9	0.0609
36	13C-1,2,3,4-TCDD	9.95e5	0.80	NO	1.00	1.000	25.40	0.000	100.00	100	0.151
37	13C-1,2,3,4-TCDF	1.35e6	0.78	NO	1.00	1.000	23.98	0.000	100.00	100	0.184
38	13C-1,2,3,4,6,9-HxCDF	9.64e5	0.52	NO	1.00	1.000	33.46	0.000	100.00	100	0.258

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:18 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

1	2,3,7,8-TCDD	4.69e5	0.78	NO	1.04	1.000	25.97	1.001	40.650	102	0.0338	40.650
2	1,2,3,7,8-PeCDD	2.11e6	0.62	NO	0.935	1.000	30.57	1.001	203.16	102	0.0768	203.16
3	1,2,3,4,7,8-HxCDD	1.68e6	1.24	NO	0.907	1.000	33.94	1.000	205.07	103	0.0917	205.07
4	1,2,3,6,7,8-HxCDD	1.61e6	1.25	NO	0.995	1.000	34.05	1.000	204.52	102	0.0978	204.52
5	1,2,3,7,8,9-HxCDD	1.80e6	1.25	NO	0.930	1.000	34.36	1.001	202.96	101	0.0896	202.96
6	1,2,3,4,6,7,8-HpCDD	1.45e6	1.04	NO	1.00	1.000	37.88	1.000	200.41	100	0.178	200.41
7	OCDD	2.63e6	0.88	NO	1.10	1.000	41.18	1.000	396.32	99.1	0.0605	396.32
8	2,3,7,8-TCDF	5.79e5	0.77	NO	0.956	1.000	25.19	1.001	41.085	103	0.0451	41.085
9	1,2,3,7,8-PeCDF	2.65e6	1.55	NO	0.941	1.000	29.37	1.000	205.80	103	0.0936	205.80
10	2,3,4,7,8-PeCDF	2.84e6	1.53	NO	0.926	1.000	30.29	1.000	204.45	102	0.0897	204.45
11	1,2,3,4,7,8-HxCDF	2.87e6	1.25	NO	1.22	1.000	33.05	1.001	204.14	102	0.120	204.14
12	1,2,3,6,7,8-HxCDF	2.67e6	1.26	NO	1.08	1.000	33.17	1.000	204.79	102	0.132	204.79
13	2,3,4,6,7,8-HxCDF	2.42e6	1.25	NO	1.13	1.000	33.77	1.000	204.84	102	0.152	204.84
14	1,2,3,7,8,9-HxCDF	2.14e6	1.26	NO	1.13	1.000	34.74	1.000	204.76	102	0.187	204.76
15	1,2,3,4,6,7,8-HpCDF	2.15e6	1.05	NO	1.44	1.000	36.59	1.001	201.03	101	0.174	201.03
16	1,2,3,4,7,8,9-HpCDF	1.92e6	1.05	NO	1.38	1.000	38.43	1.000	202.53	101	0.162	202.53
17	OCDF	3.18e6	0.90	NO	1.01	1.000	41.41	1.000	393.02	98.3	0.0847	393.02
18	13C-2,3,7,8-TCDD	1.11e6	0.78	NO	1.10	1.000	25.95	1.022	99.383	99.4	0.155	
19	13C-1,2,3,7,8-PeCDD	1.11e6	0.62	NO	1.09	1.000	30.55	1.203	99.746	99.7	0.128	
20	13C-1,2,3,4,7,8-HxCDD	9.03e5	1.25	NO	1.01	1.000	33.93	1.014	102.00	102	0.148	
21	13C-1,2,3,6,7,8-HxCDD	7.92e5	1.26	NO	0.889	1.000	34.04	1.017	101.63	102	0.168	
22	13C-1,2,3,7,8,9-HxCDD	9.55e5	1.23	NO	1.07	1.000	34.33	1.026	101.60	102	0.139	
23	13C-1,2,3,4,6,7,8-HpCDD	7.20e5	1.04	NO	0.837	1.000	37.87	1.132	98.182	98.2	0.195	
24	13C-OCDD	1.20e6	0.91	NO	0.712	1.000	41.17	1.231	192.57	96.3	0.130	
25	13C-2,3,7,8-TCDF	1.47e6	0.78	NO	1.05	1.000	25.17	0.992	99.704	99.7	0.170	
26	13C-1,2,3,7,8-PeCDF	1.37e6	1.57	NO	1.02	1.000	29.35	1.156	95.501	95.5	0.183	
27	13C-2,3,4,7,8-PeCDF	1.50e6	1.57	NO	1.08	1.000	30.27	1.192	99.183	99.2	0.173	
28	13C-1,2,3,4,7,8-HxCDF	1.15e6	0.52	NO	1.37	1.000	33.03	0.987	95.907	95.9	0.146	
29	13C-1,2,3,6,7,8-HxCDF	1.21e6	0.52	NO	1.37	1.000	33.16	0.991	101.07	101	0.146	
30	13C-2,3,4,6,7,8-HxCDF	1.05e6	0.52	NO	1.18	1.000	33.76	1.009	101.47	101	0.168	

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:18 Pacific Standard Time

Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

31	13C-1,2,3,7,8,9-HxCDF	9.28e5	0.53	NO	1.05	1.000	34.73	1.038	100.90	101	0.189
32	13C-1,2,3,4,6,7,8-HpCDF	7.44e5	0.45	NO	0.858	1.000	36.57	1.093	98.988	99.0	0.267
33	13C-1,2,3,4,7,8,9-HpCDF	6.87e5	0.45	NO	0.794	1.000	38.42	1.148	98.865	98.9	0.289
34	13C-OCDF	1.59e6	0.90	NO	0.948	1.000	41.40	1.237	192.01	96.0	0.101
35	37Cl-2,3,7,8-TCDD	2.70e5			0.665	1.000	25.97	1.023	39.878	99.7	0.0564
36	13C-1,2,3,4-TCDD	1.02e6	0.79	NO	1.00	1.000	25.39	0.000	100.00	100	0.171
37	13C-1,2,3,4-TCDF	1.40e6	0.79	NO	1.00	1.000	23.97	0.000	100.00	100	0.179
38	13C-1,2,3,4,6,9-HxCDF	8.76e5	0.52	NO	1.00	1.000	33.46	0.000	100.00	100	0.199

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:24 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_7, Date: 30-Jan-2010, Time: 07:11:38, ID: ST100129H2-6 1613 CS5 100127H, Description: 1613 CS5 100127H

1	2,3,7,8-TCDD	2.48e6	0.77	NO	1.04	1.000	25.97	1.001	202.16	101	0.0420	202.16
2	1,2,3,7,8-PeCDD	1.15e7	0.62	NO	0.935	1.000	30.56	1.000	1013.3	101	0.0698	1013.3
3	1,2,3,4,7,8-HxCDD	9.76e6	1.24	NO	0.907	1.000	33.94	1.000	1015.3	102	0.144	1015.3
4	1,2,3,6,7,8-HxCDD	9.16e6	1.25	NO	0.995	1.000	34.05	1.000	1010.3	101	0.157	1010.3
5	1,2,3,7,8,9-HxCDD	1.05e7	1.24	NO	0.930	1.000	34.34	1.000	995.79	99.6	0.135	995.79
6	1,2,3,4,6,7,8-HpCDD	8.88e6	1.04	NO	1.00	1.000	37.88	1.000	1001.8	100	0.269	1001.8
7	OCDD	1.74e7	0.88	NO	1.10	1.000	41.19	1.000	1975.7	98.8	0.111	1975.7
8	2,3,7,8-TCDF	3.05e6	0.76	NO	0.956	1.000	25.19	1.001	206.71	103	0.0552	206.71
9	1,2,3,7,8-PeCDF	1.59e7	1.55	NO	0.941	1.000	29.37	1.001	996.40	99.6	0.133	996.40
10	2,3,4,7,8-PeCDF	1.57e7	1.55	NO	0.926	1.000	30.27	1.000	1010.4	101	0.126	1010.4
11	1,2,3,4,7,8-HxCDF	1.79e7	1.25	NO	1.22	1.000	33.04	1.000	1020.0	102	0.120	1020.0
12	1,2,3,6,7,8-HxCDF	1.55e7	1.26	NO	1.08	1.000	33.17	1.000	1006.6	101	0.146	1006.6
13	2,3,4,6,7,8-HxCDF	1.40e7	1.25	NO	1.13	1.000	33.77	1.000	1018.1	102	0.167	1018.1
14	1,2,3,7,8,9-HxCDF	1.28e7	1.25	NO	1.13	1.000	34.74	1.000	1015.6	102	0.198	1015.6
15	1,2,3,4,6,7,8-HpCDF	1.26e7	1.05	NO	1.44	1.000	36.59	1.001	990.26	99.0	0.385	990.26
16	1,2,3,4,7,8,9-HpCDF	1.16e7	1.05	NO	1.38	1.000	38.43	1.000	995.32	99.5	0.327	995.32
17	OCDF	2.13e7	0.91	NO	1.01	1.000	41.42	1.000	1943.0	97.1	0.0953	1943.0
18	13C-2,3,7,8-TCDD	1.18e6	0.80	NO	1.10	1.000	25.95	1.022	105.86	106	0.106	
19	13C-1,2,3,7,8-PeCDD	1.21e6	0.62	NO	1.09	1.000	30.55	1.203	108.92	109	0.0721	
20	13C-1,2,3,4,7,8-HxCDD	1.06e6	1.27	NO	1.01	1.000	33.93	1.014	118.01	118	0.0946	
21	13C-1,2,3,6,7,8-HxCDD	9.11e5	1.28	NO	0.889	1.000	34.04	1.018	115.14	115	0.107	
22	13C-1,2,3,7,8,9-HxCDD	1.14e6	1.24	NO	1.07	1.000	34.33	1.027	119.20	119	0.0891	
23	13C-1,2,3,4,6,7,8-HpCDD	8.85e5	1.05	NO	0.837	1.000	37.87	1.132	118.89	119	0.211	
24	13C-OCDD	1.59e6	0.89	NO	0.712	1.000	41.18	1.231	251.56	126	0.0850	
25	13C-2,3,7,8-TCDF	1.54e6	0.78	NO	1.05	1.000	25.17	0.992	103.56	104	0.147	
26	13C-1,2,3,7,8-PeCDF	1.69e6	1.57	NO	1.02	1.000	29.34	1.156	117.44	117	0.193	
27	13C-2,3,4,7,8-PeCDF	1.68e6	1.57	NO	1.08	1.000	30.26	1.192	110.71	111	0.183	
28	13C-1,2,3,4,7,8-HxCDF	1.43e6	0.52	NO	1.37	1.000	33.03	0.988	118.11	118	0.156	
29	13C-1,2,3,6,7,8-HxCDF	1.42e6	0.53	NO	1.37	1.000	33.16	0.991	117.16	117	0.156	
30	13C-2,3,4,6,7,8-HxCDF	1.23e6	0.52	NO	1.18	1.000	33.76	1.010	116.58	117	0.180	

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:24 Pacific Standard Time

Name: 100129H2_7, Date: 30-Jan-2010, Time: 07:11:38, ID: ST100129H2-6 1613 CS5 100127H, Description: 1613 CS5 100127H

31	13C-1,2,3,7,8,9-HxCDF	1.11e6	0.52	NO	1.05	1.000	34.73	1.038	119.13	119	0.202
32	13C-1,2,3,4,6,7,8-HpCDF	8.83e5	0.45	NO	0.858	1.000	36.57	1.094	115.70	116	0.254
33	13C-1,2,3,4,7,8,9-HpCDF	8.46e5	0.45	NO	0.794	1.000	38.42	1.149	119.87	120	0.274
34	13C-OCDF	2.16e6	0.90	NO	0.948	1.000	41.41	1.238	256.49	128	0.0641
35	37Cl-2,3,7,8-TCDD	1.47e6			0.665	1.000	25.97	1.023	218.02	109	0.0648
36	13C-1,2,3,4-TCDD	1.02e6	0.79	NO	1.00	1.000	25.39	0.000	100.00	100	0.117
37	13C-1,2,3,4-TCDF	1.41e6	0.78	NO	1.00	1.000	23.97	0.000	100.00	100	0.155
38	13C-1,2,3,4,6,9-HxCDF	8.89e5	0.52	NO	1.00	1.000	33.44	0.000	100.00	100	0.213

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Vista Analytical Laboratory
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
VER Data file name: 100129H2_1

CCAL ID: ST100129H2-1

GC Column ID: DB-5
Analysis Date: 30-Jan-10
Analysis Time: 02:14:11

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
2,3,7,8-TCDD	M/M+2	0.77	0.65-0.89	NO	9.62	7.8	12.9	Yes	8.00	12.0	Yes
						8.2	12.3 (4)				
1,2,3,7,8-PeCDD	M/M+2	0.61	0.54-0.72	NO	49.3	39.0	65.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	49.4	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	48.7	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	49.3	41.0	61.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.04	0.88-1.20	NO	48.4	43.0	58.0	Yes	40.0	60.0	Yes
OCDD	M+2/M+4	0.88	0.76-1.02	NO	97.7	79.0	126.0	Yes	80.0	120.0	Yes
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	NO	9.56	8.4	12.0	Yes	8.00	12.0	Yes
						8.6	11.6 (4)				
1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	NO	49.1	41.0	60.0	Yes	40.0	60.0	Yes
2,3,4,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	NO	49.8	41.0	60.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	NO	49.4	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	NO	48.9	44.0	57.0	Yes	40.0	60.0	Yes
2,3,4,6,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	NO	49.2	44.0	57.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDF	M+2/M+4	1.23	1.05-1.43	NO	49.1	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.05	0.88-1.20	NO	48.3	45.0	55.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.06	0.88-1.20	NO	49.0	43.0	58.0	Yes	40.0	60.0	Yes
OCDF	M+2/M+4	0.90	0.76-1.02	NO	95.9	63.0	159.0	Yes	80.0	120.0	Yes

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [signature]
Date: 2/1/10

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Vista Analytical Laboratory
CCAL ID: ST100129H2-1

Initial Calibration Date: 01/29/2010
Instrument ID: VG10
GC Column ID: DB-5
VER Data file name: 100129H2_1
Analysis Date: 30-Jan-10
Analysis Time: 02:14:11

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
13C-2,3,7,8-TCDD	M+2/M+4	0.80	0.65-0.89	NO	101	82.0	121.0	Yes	70.0	130.0	Yes
						85.0	117.0 (5)				
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	NO	102	62.0	160.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	NO	99.6	85.0	117.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	NO	99.6	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	99.5	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	NO	102	72.0	138.0	Yes	70.0	130.0	Yes
13C-OCDD	M+2/M+4	0.91	0.76-1.02	NO	204	96.0	415.0	Yes	140.0	260.0	Yes
13C-2,3,7,8-TCDF	M/M+2	0.79	0.65-0.89	NO	101	71.0	140.0	Yes	70.0	130.0	Yes
						76.0	131.0 (5)				
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	NO	101	76.0	130.0	Yes	70.0	130.0	Yes
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	NO	102	77.0	130.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.53	0.43-0.59	NO	97.7	76.0	131.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	96.9	70.0	143.0	Yes	70.0	130.0	Yes
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	98.0	73.0	137.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.51	0.43-0.59	NO	99.9	74.0	135.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.44	0.37-0.51	NO	101	78.0	129.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	NO	103	77.0	129.0	Yes	70.0	130.0	Yes
13C-OCDF	M+2/M+4	0.90	0.76-1.02	NO	200	96.0	415.0	Yes	140.0	260.0	Yes
CLEANUP STANDARD (4)											
37Cl-2,3,7,8-TCDD					9.49	7.9	12.7	Yes	7.0	13.0	Yes
						8.3	12.1 (5)				

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) No ion abundance ratio; report concentration found
(5) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [signature]
Date: 2/1/10

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Monday, February 01, 2010 13:46:58 Pacific Standard Time
Printed: Monday, February 01, 2010 13:47:20 Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_1, Date: 30-Jan-2010, Time: 02:14:11, ID: ST100129H2-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1	1,3,6,8-TCDD (First)	22.61
2	1,2,8,9-TCDD (Last)	26.86
3	1,2,4,7,9-PeCDD (First)	28.49
4	1,2,3,8,9-PeCDD (Last)	30.96
5	12,4,6,7,9-HxCDD (First)	32.39
6	1,2,3,7,8,9-HxCDD (Last)	34.35
7	1,2,3,4,6,7,9-HpCDD (First)	37.00
8	1,2,3,4,6,7,8-HpCDD (Last)	37.89
9	1,3,6,8-TCDF (First)	20.53
10	1,2,8,9-TCDF (Last)	27.01
11	1,3,4,6,8-PeCDF (First)	26.95
12	1,2,3,8,9-PeCDF (Last)	31.20
13	1,2,3,4,6,8-HxCDF (First)	31.85
14	1,2,3,4,8,9-HxCDF (Last)	34.75
15	1,2,3,4,6,7,8-HpCDF (First)	36.59
16	1,2,3,4,7,8,9-HpCDF (Last)	38.44

2/1/10

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
VER Data file name: 100129H2_1

CCAL ID: ST100129H2-1

GC Column ID: DB-5
Analysis Date: 30-Jan-10

Analysis Time: 02:14:11

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999	1.002	Yes
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.000	0.999	1.002	Yes
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999	1.003	Yes
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999	1.002	Yes
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999	1.002	Yes
LABELED COMPOUNDS					
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.976	1.043	Yes
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.203	1.000	1.567	Yes
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.992	0.923	1.103	Yes
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.155	1.000	1.425	Yes
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.192	1.011	1.526	Yes
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.023	0.989	1.052	Yes

Analyst: _____

Date: 2/1/10

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
VER Data file name: 100129H2_1

CCAL ID: ST100129H2-1

GC Column ID: DB-5
Analysis Date: 30-Jan-10

Analysis Time: 02:14:11

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999	1.001	Yes
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998	1.004	Yes
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.000	0.998	1.004	Yes
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999	1.001	Yes
OCDD	13C-OCDD	1.000	0.999	1.001	Yes
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.000	0.999	1.001	Yes
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.001	0.997	1.005	Yes
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.001	0.999	1.001	Yes
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.000	0.999	1.001	Yes
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.000	0.999	1.001	Yes
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999	1.001	Yes
OCDF	13C-OCDF	1.000	0.999	1.001	Yes
LABELED COMPOUNDS					
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.014	1.002	1.026	Yes
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.018	1.007	1.029	Yes
13C-1,2,3,7,8,9-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.027	1.014	1.038	Yes
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,9-HxCDF	1.132	1.117	1.141	Yes
13C-OCDD	13C-1,2,3,4,6,9-HxCDF	1.231	1.085	1.365	Yes
13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.988	0.975	1.001	Yes
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.991	0.979	1.005	Yes
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.009	1.001	1.020	Yes
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.038	1.002	1.072	Yes
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.093	1.069	1.111	Yes
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.149	1.098	1.192	Yes
13C-OCDF	13C-1,2,3,4,6,9-HxCDF	1.238	1.091	1.371	Yes

Analyst: _____

Date: 2/1/10

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:49 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_1, Date: 30-Jan-2010, Time: 02:14:11, ID: ST100129H2-1 1613 CS3 100127F, Description: 1613 CS3 100127F

		Resp	RA	Flag	RRF	WWC	RT	RRT				
1	2,3,7,8-TCDD	1.10e5	0.77	NO	1.04	1.000	25.98	1.001	9.6157	96.2	0.0492	9.6157
2	1,2,3,7,8-PeCDD	5.12e5	0.61	NO	0.935	1.000	30.57	1.000	49.266	98.5	0.0848	49.266
3	1,2,3,4,7,8-HxCDD	4.35e5	1.25	NO	0.907	1.000	33.95	1.000	49.433	98.9	0.103	49.433
4	1,2,3,6,7,8-HxCDD	4.14e5	1.24	NO	0.995	1.000	34.06	1.000	48.716	97.4	0.108	48.716
5	1,2,3,7,8,9-HxCDD	4.72e5	1.25	NO	0.930	1.000	34.35	1.000	49.335	98.7	0.0952	49.335
6	1,2,3,4,6,7,8-HpCDD	3.99e5	1.04	NO	1.00	1.000	37.89	1.000	48.425	96.9	0.107	48.425
7	OCDD	7.54e5	0.88	NO	1.10	1.000	41.19	1.000	97.695	97.7	0.0523	97.695
8	2,3,7,8-TCDF	1.31e5	0.77	NO	0.956	1.000	25.20	1.001	9.5601	95.6	0.0398	9.5601
9	1,2,3,7,8-PeCDF	6.41e5	1.57	NO	0.941	1.000	29.37	1.000	49.054	98.1	0.0785	49.054
10	2,3,4,7,8-PeCDF	6.79e5	1.57	NO	0.926	1.000	30.29	1.000	49.832	99.7	0.0718	49.832
11	1,2,3,4,7,8-HxCDF	7.77e5	1.25	NO	1.22	1.000	33.05	1.000	49.381	98.8	0.0829	49.381
12	1,2,3,6,7,8-HxCDF	6.73e5	1.26	NO	1.08	1.000	33.18	1.001	48.860	97.7	0.105	48.860
13	2,3,4,6,7,8-HxCDF	6.18e5	1.25	NO	1.13	1.000	33.78	1.001	49.159	98.3	0.121	49.159
14	1,2,3,7,8,9-HxCDF	5.61e5	1.23	NO	1.13	1.000	34.75	1.000	49.107	98.2	0.154	49.107
15	1,2,3,4,6,7,8-HpCDF	5.82e5	1.05	NO	1.44	1.000	36.59	1.000	48.304	96.6	0.113	48.304
16	1,2,3,4,7,8,9-HpCDF	5.34e5	1.06	NO	1.38	1.000	38.44	1.000	49.003	98.0	0.106	49.003
17	OCDF	8.89e5	0.90	NO	1.01	1.000	41.42	1.000	95.868	95.9	0.0655	95.868
18	13C-2,3,7,8-TCDD	1.11e6	0.80	NO	1.10	1.000	25.97	1.022	101.02	101	0.138	
19	13C-1,2,3,7,8-PeCDD	1.11e6	0.62	NO	1.09	1.000	30.56	1.203	102.09	102	0.118	
20	13C-1,2,3,4,7,8-HxCDD	9.70e5	1.26	NO	1.01	1.000	33.94	1.014	99.633	99.6	0.173	
21	13C-1,2,3,6,7,8-HxCDD	8.54e5	1.23	NO	0.889	1.000	34.05	1.018	99.593	99.6	0.196	
22	13C-1,2,3,7,8,9-HxCDD	1.03e6	1.25	NO	1.07	1.000	34.34	1.027	99.501	99.5	0.163	
23	13C-1,2,3,4,6,7,8-HpCDD	8.21e5	1.05	NO	0.837	1.000	37.88	1.132	101.80	102	0.224	
24	13C-OCDD	1.40e6	0.91	NO	0.712	1.000	41.18	1.231	203.76	102	0.176	
25	13C-2,3,7,8-TCDF	1.43e6	0.79	NO	1.05	1.000	25.19	0.992	101.08	101	0.175	
26	13C-1,2,3,7,8-PeCDF	1.39e6	1.58	NO	1.02	1.000	29.35	1.155	101.05	101	0.254	
27	13C-2,3,4,7,8-PeCDF	1.47e6	1.57	NO	1.08	1.000	30.27	1.192	101.56	102	0.241	
28	13C-1,2,3,4,7,8-HxCDF	1.29e6	0.53	NO	1.37	1.000	33.04	0.988	97.715	97.7	0.189	
29	13C-1,2,3,6,7,8-HxCDF	1.28e6	0.52	NO	1.37	1.000	33.16	0.991	96.918	96.9	0.189	
30	13C-2,3,4,6,7,8-HxCDF	1.12e6	0.52	NO	1.18	1.000	33.76	1.009	98.002	98.0	0.218	

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Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:49 Pacific Standard Time

Name: 100129H2_1, Date: 30-Jan-2010, Time: 02:14:11, ID: ST100129H2-1 1613 CS3 100127F, Description: 1613 CS3 100127F

31	13C-1,2,3,7,8,9-HxCDF	1.01e6	0.51	NO	1.05	1.000	34.74	1.038	99.912	99.9	0.246
32	13C-1,2,3,4,6,7,8-HpCDF	8.38e5	0.44	NO	0.858	1.000	36.58	1.093	101.34	101	0.305
33	13C-1,2,3,4,7,8,9-HpCDF	7.91e5	0.44	NO	0.794	1.000	38.43	1.149	103.34	103	0.330
34	13C-OCDF	1.83e6	0.90	NO	0.948	1.000	41.41	1.238	200.04	100	0.0816
35	37Cl-2,3,7,8-TCDD	6.27e4			0.665	1.000	25.98	1.023	9.4867	94.9	0.0609
36	13C-1,2,3,4-TCDD	9.95e5	0.80	NO	1.00	1.000	25.40	0.000	100.00	100	0.151
37	13C-1,2,3,4-TCDF	1.35e6	0.78	NO	1.00	1.000	23.98	0.000	100.00	100	0.184
38	13C-1,2,3,4,6,9-HxCDF	9.64e5	0.52	NO	1.00	1.000	33.46	0.000	100.00	100	0.258

Quantify Compound Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Monday, February 01, 2010 1:29:29 PM Pacific Standard Time
Printed: Monday, February 01, 2010 1:29:50 PM Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Compound name: 2,3,7,8-TCDD

100129H2_1	ST100129H2-1 1613 CS3 100127F	30-Jan-10	02:14:11
100129H2_2	SOLVENT BLANK	30-Jan-10	03:03:45
100129H2_3	ST100129H2-2 1613 CS0 100127C	30-Jan-10	03:53:20
100129H2_4	ST100129H2-3 1613 CS1 100127D	30-Jan-10	04:42:54
100129H2_5	ST100129H2-4 1613 CS2 100127E	30-Jan-10	05:32:29
100129H2_6	ST100129H2-5 1613 CS4 100127G	30-Jan-10	06:22:04
100129H2_7	ST100129H2-6 1613 CS5 100127H	30-Jan-10	07:11:38
100129H2_8	SOLVENT BLANK	30-Jan-10	08:01:10
100129H2_9	SOLVENT BLANK	30-Jan-10	08:50:42
100129H2_10	ST100129H2-7 SSS 090219C	30-Jan-10	09:40:15

Printed: Saturday, January 30, 2010 02:14:09 Pacific Standard Time

M 292.9824 R 12448

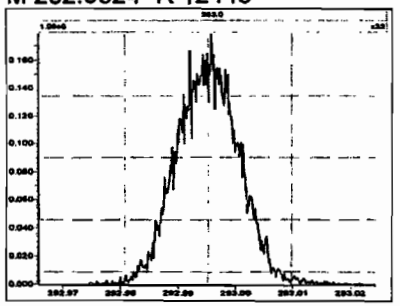

M 304.9824 R 12519

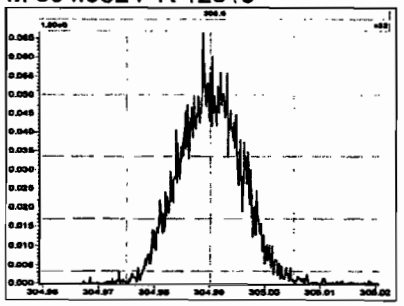

M 318.9792 R 13735

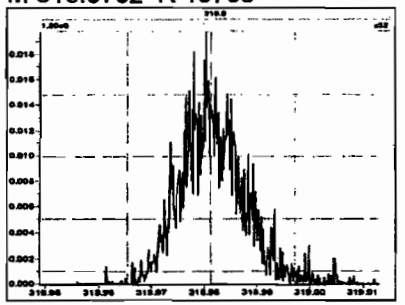

M 330.9792 R 12259

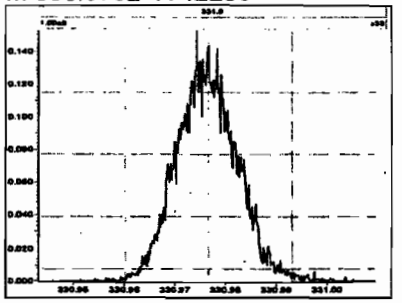

M 342.9792 R 12165

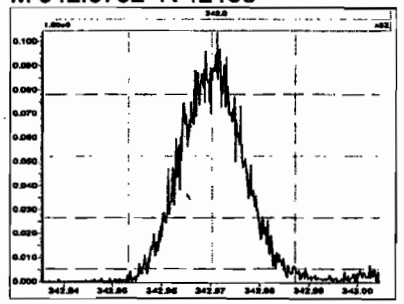

M 354.9792 R 13138

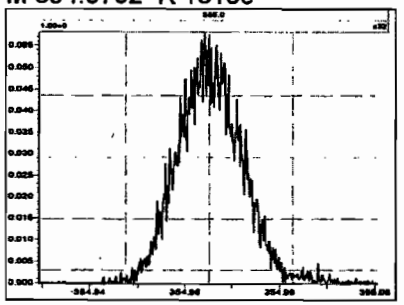

M 366.9792 R 12787

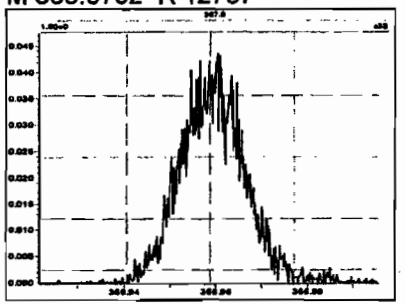

M 380.9760 R 11966

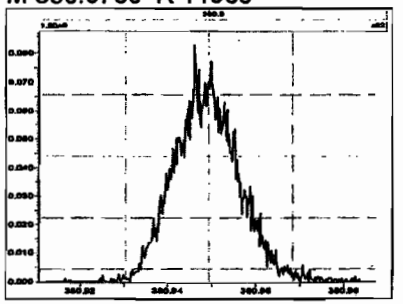

M 392.9760 R 12563

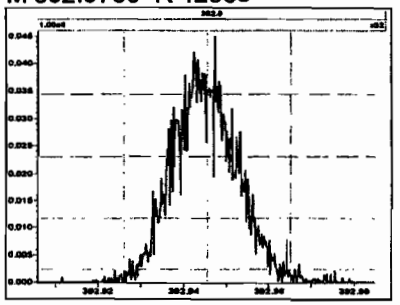

M 404.9760 R 12470

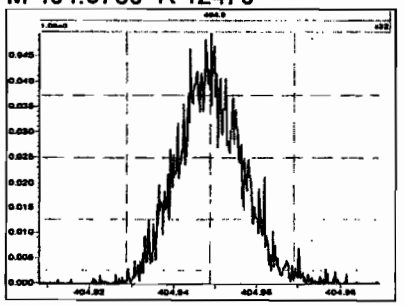

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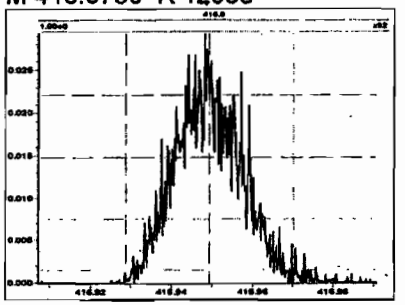

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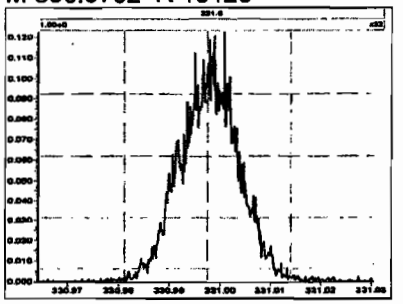

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M 342.9792 R 13006

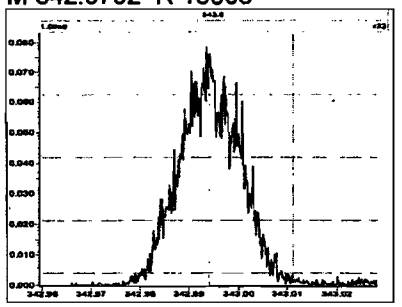

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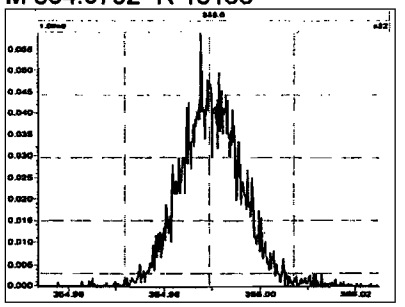

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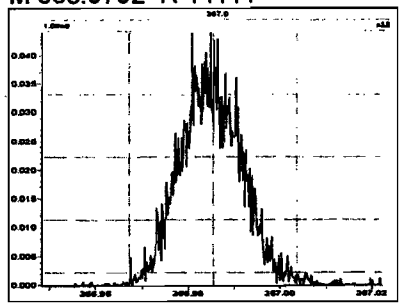

M 380.9760 R 12468

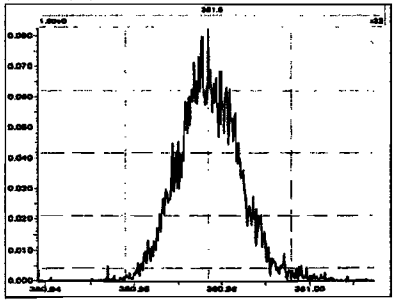

M 392.9760 R 13566

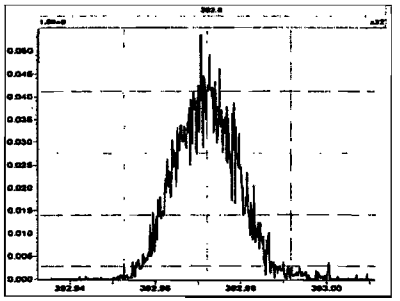

M 404.9760 R 12676

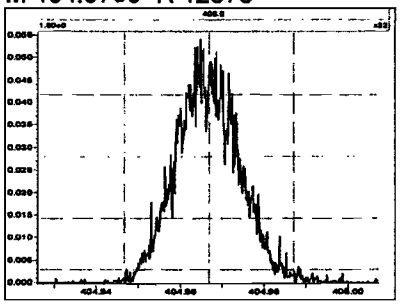

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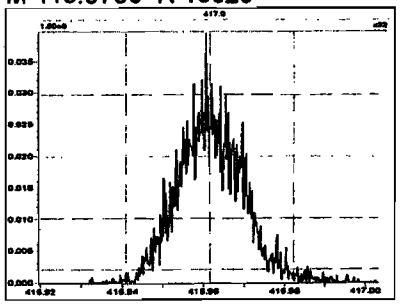

M 366.9792 R 13851

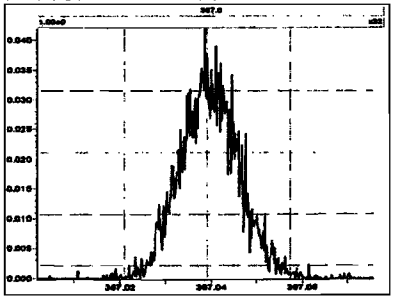

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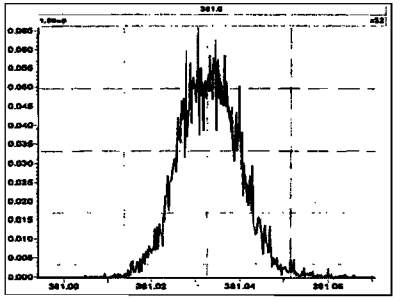

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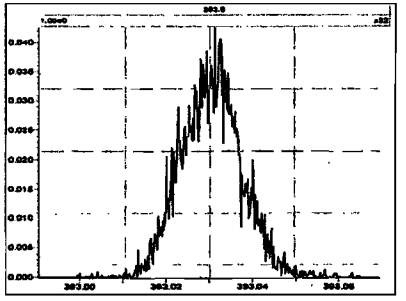

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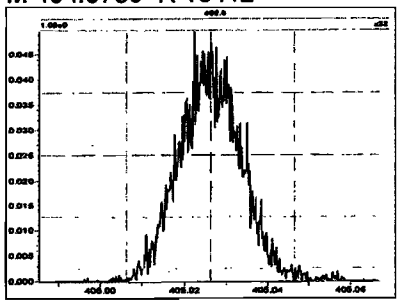

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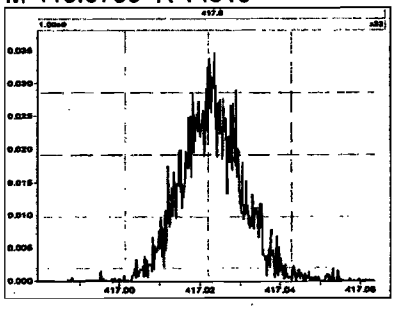

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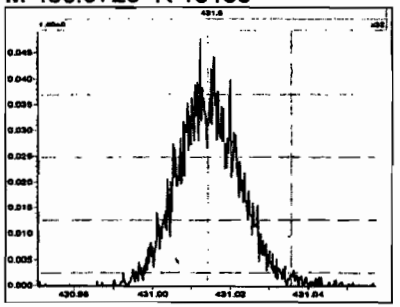

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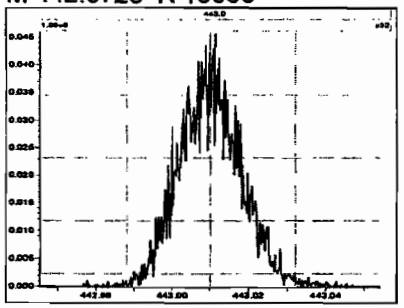

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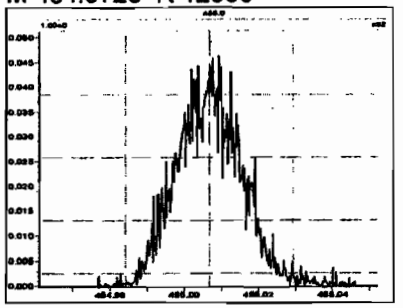

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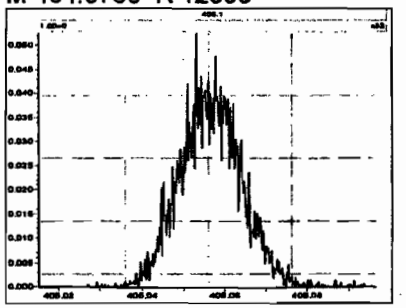

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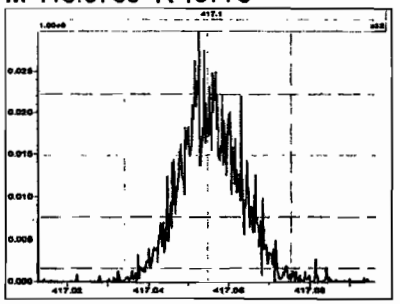

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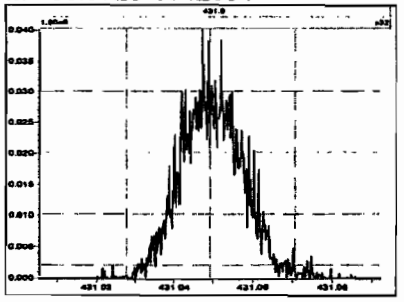

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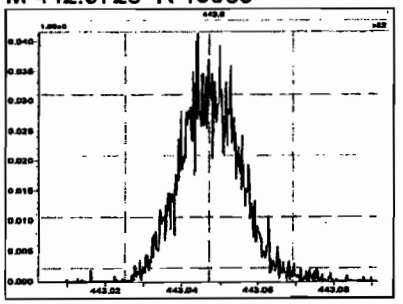

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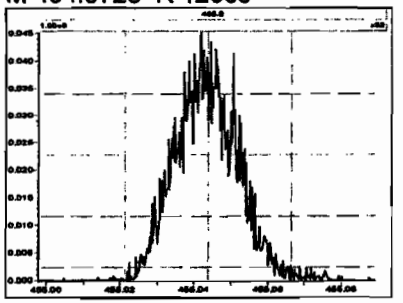

M 466.9728 R 12789

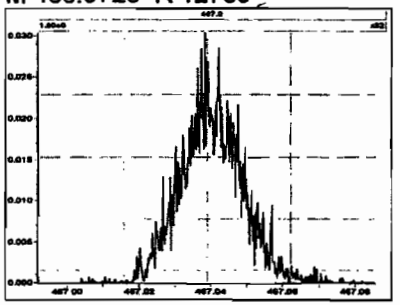

M 480.9696 R 14124

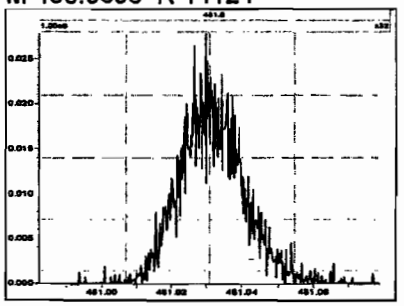

M 430.9728 R 12472

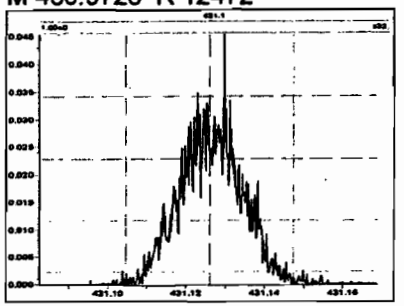

M 442.9728 R 13393

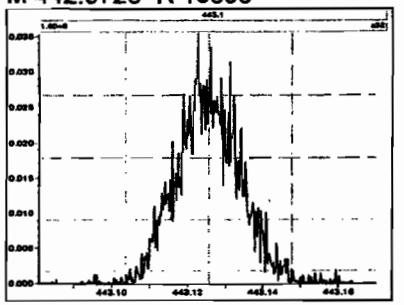

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M 454.9728 R 13177

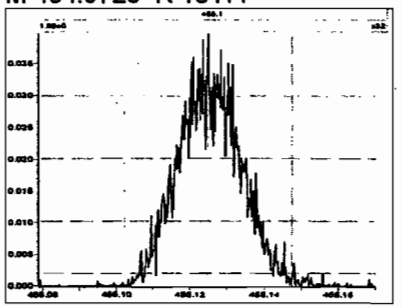

M 466.9728 R 13710

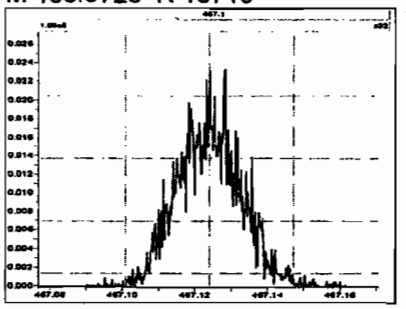

M 480.9696 R 14048

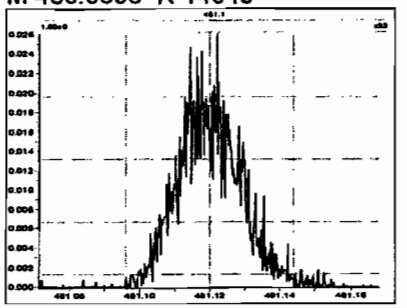

M 492.9696 R 13023

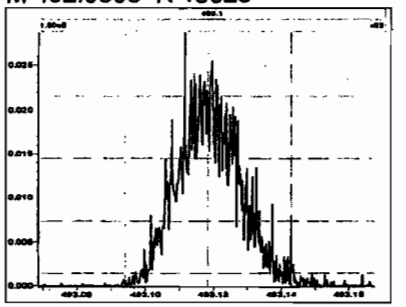

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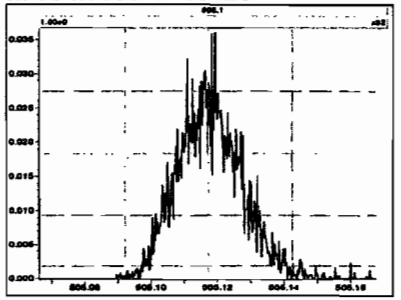

M 516.9697 R 13065

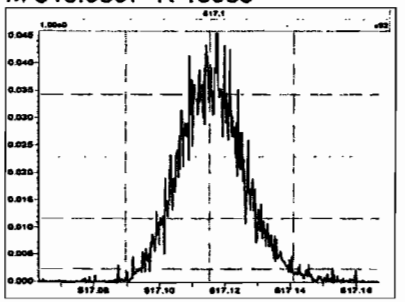

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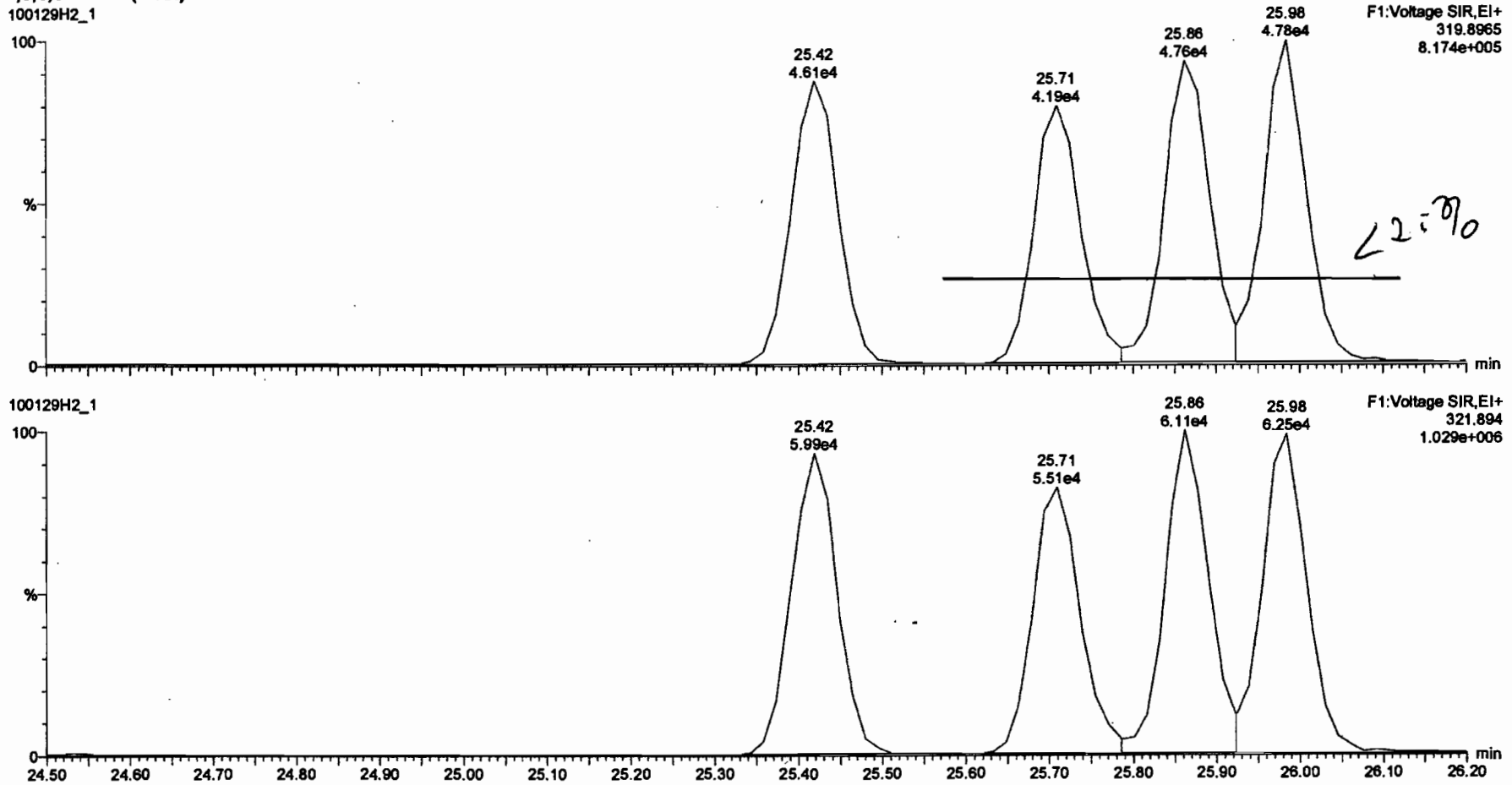

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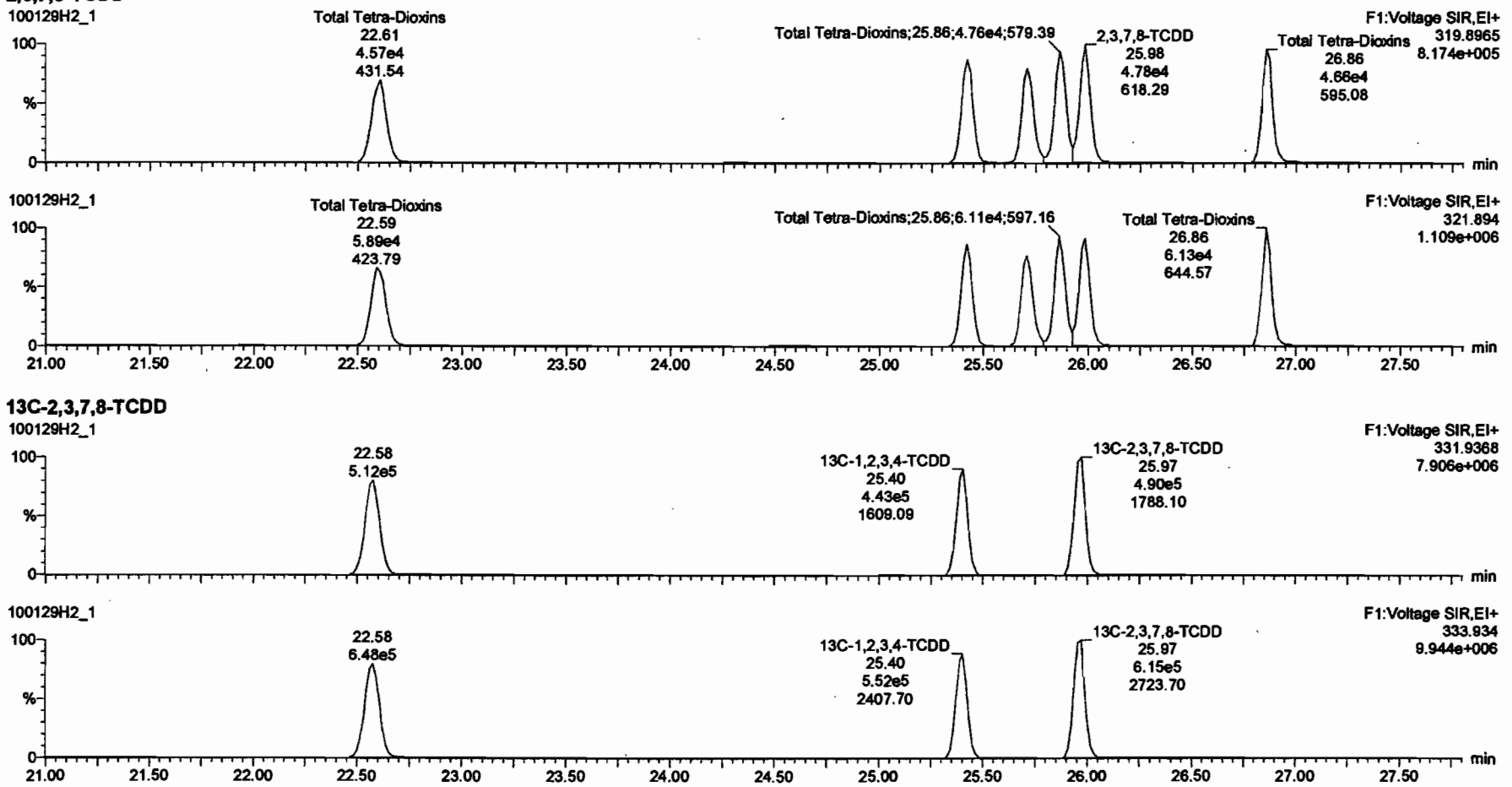

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37Cl-2,3,7,8-TCDD

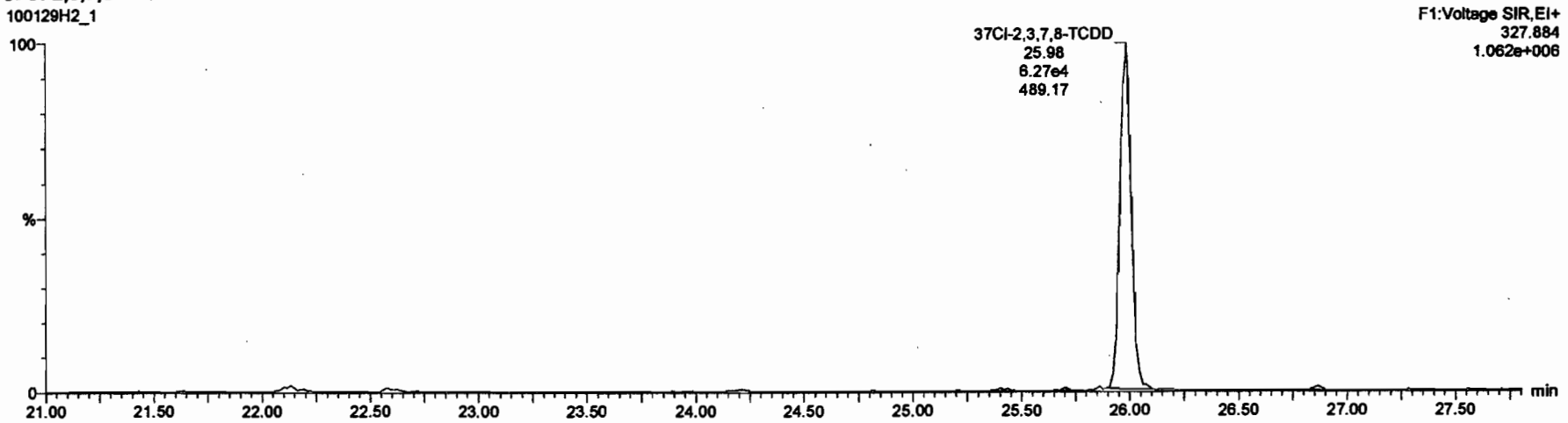

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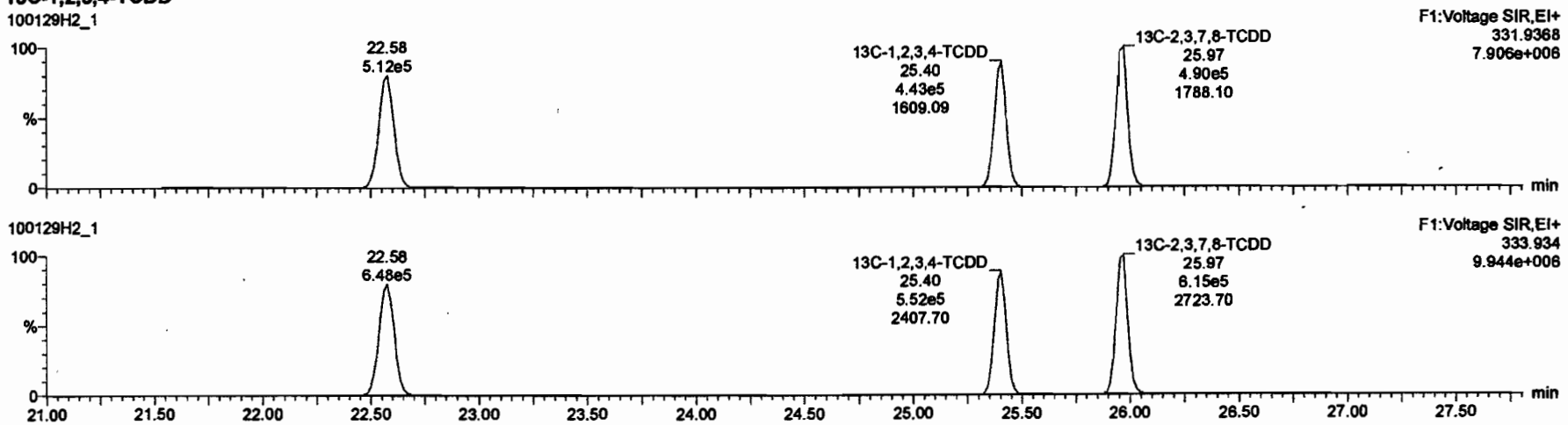

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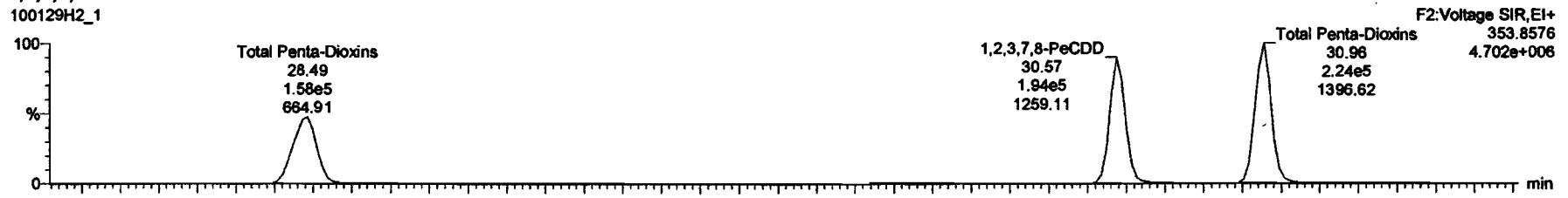

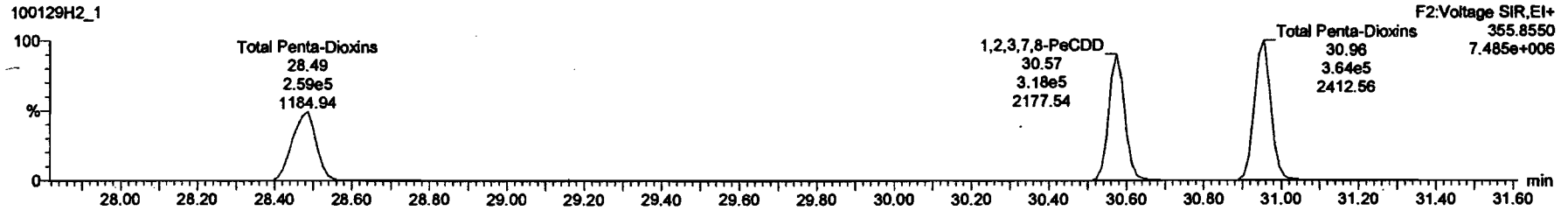

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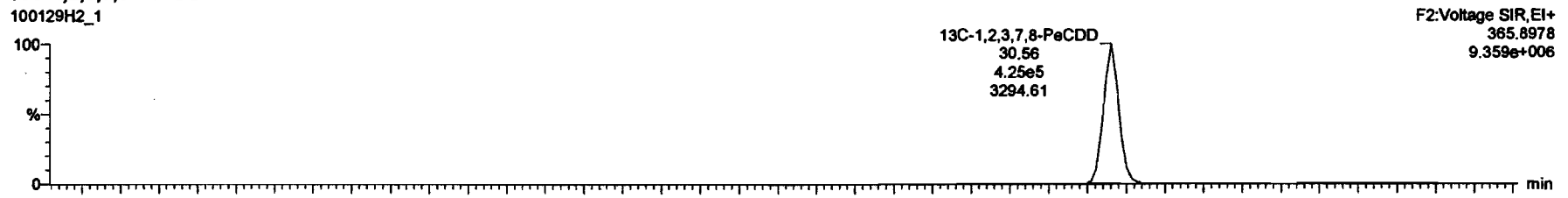

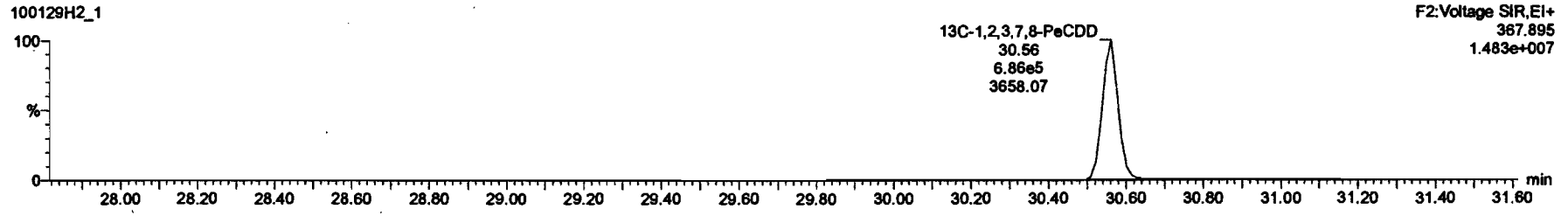

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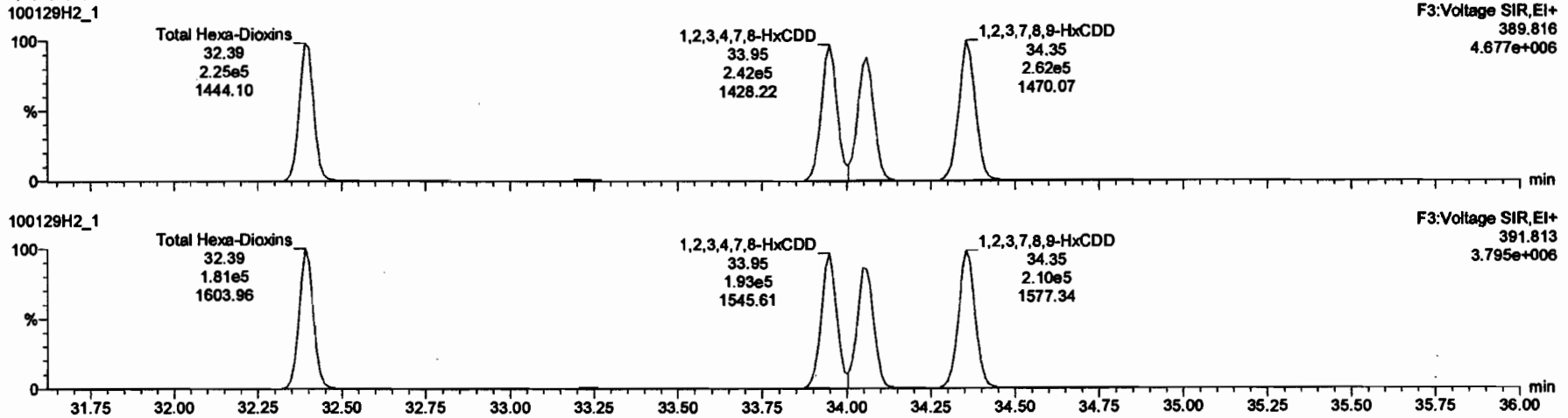

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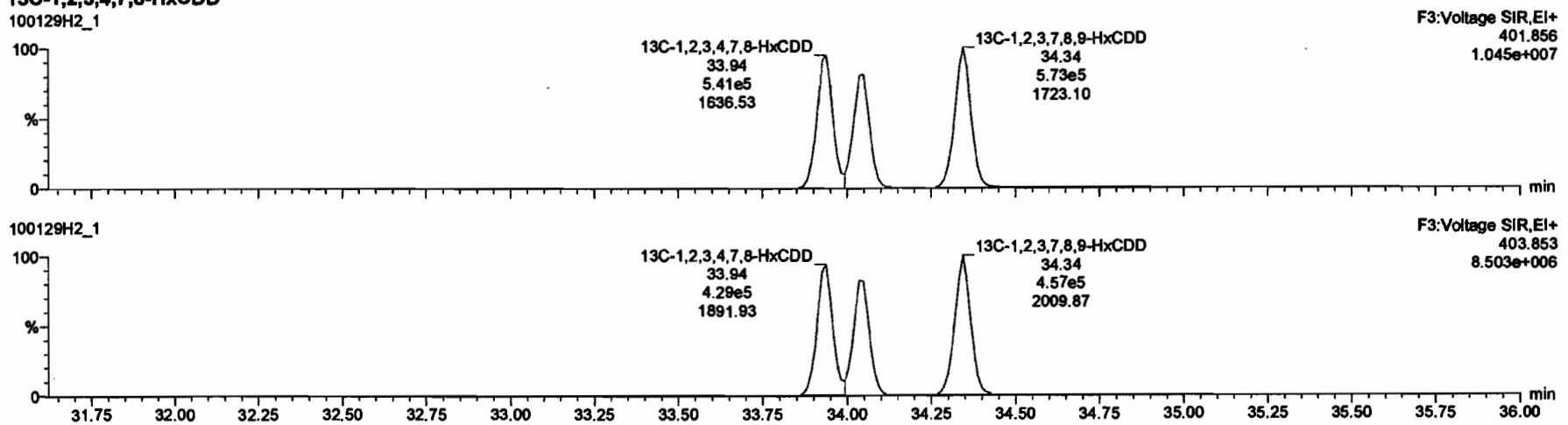

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Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

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1,2,3,4,6,7,8-HpCDD

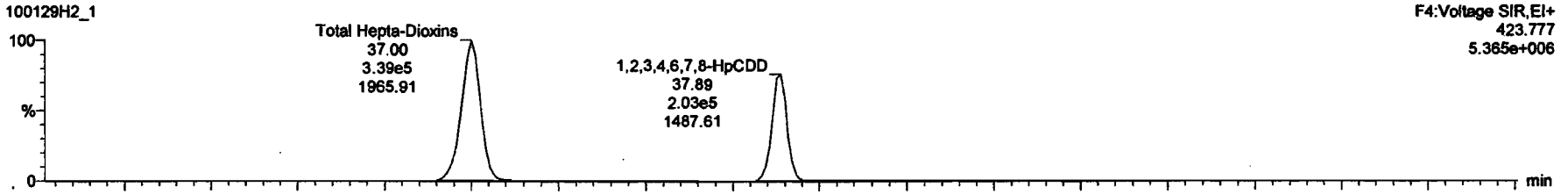

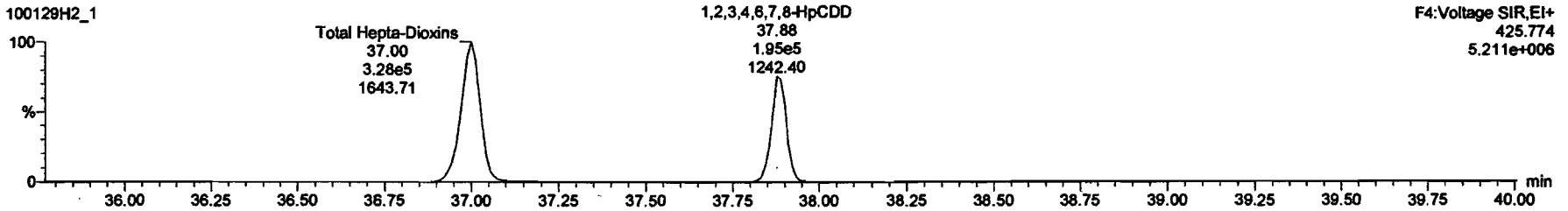

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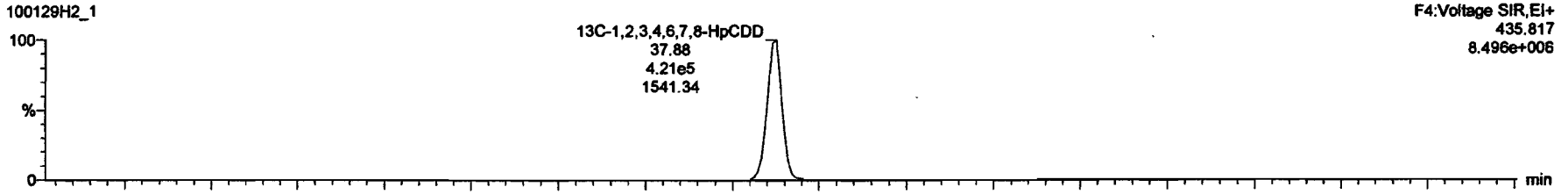

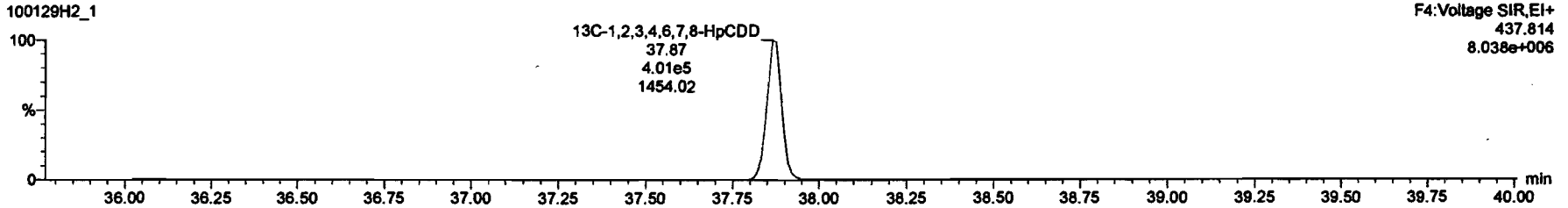

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Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

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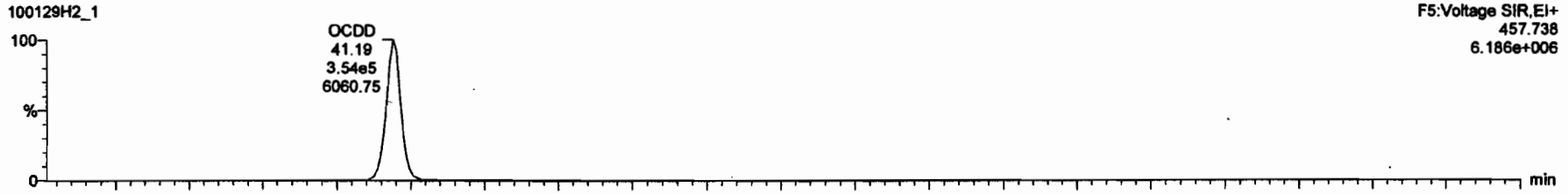

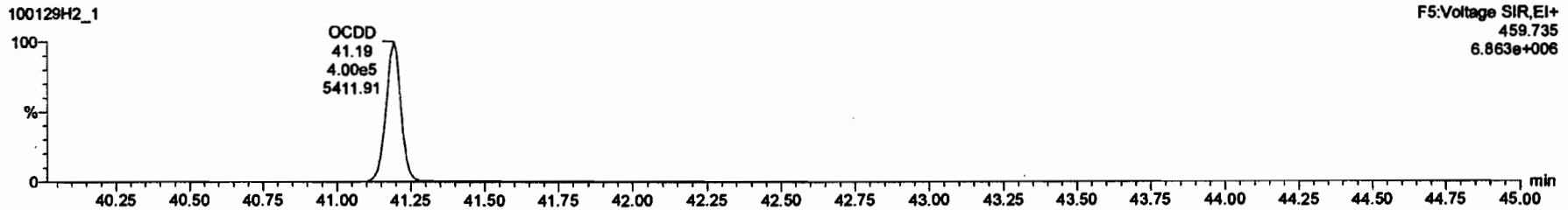

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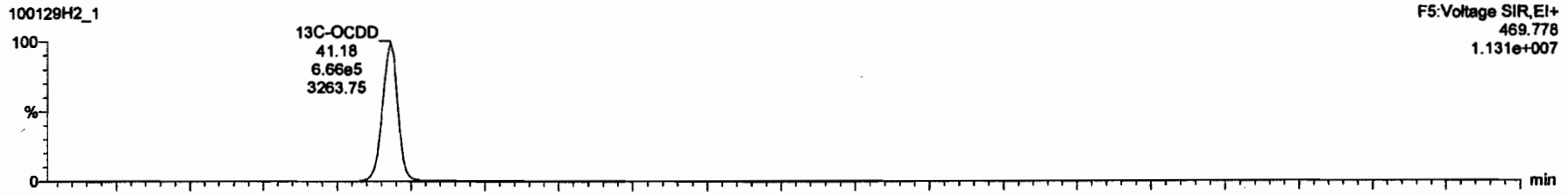

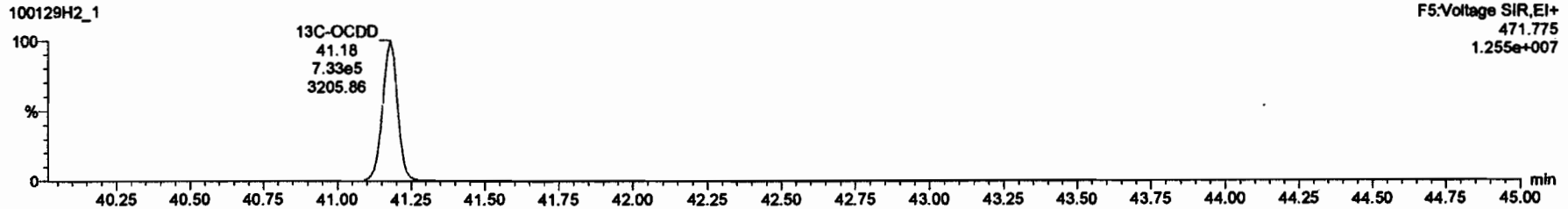

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Name: 100129H2_1, Date: 30-Jan-2010, Time: 02:14:11, ID: ST100129H2-1 1613 CS3 100127F, Description: 1613 CS3 100127F

2,3,7,8-TCDF

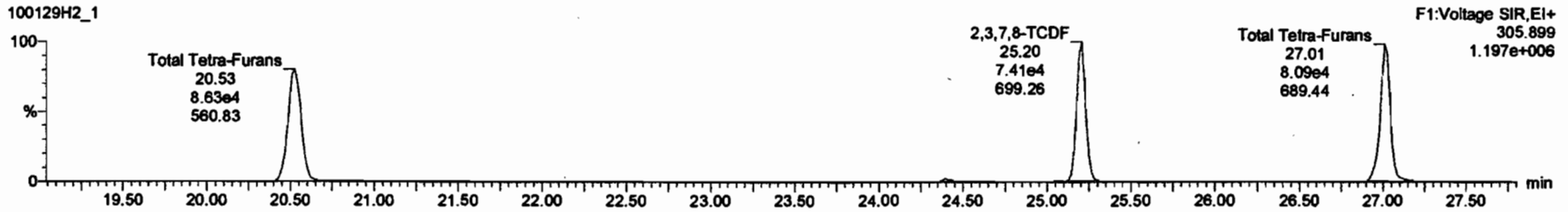

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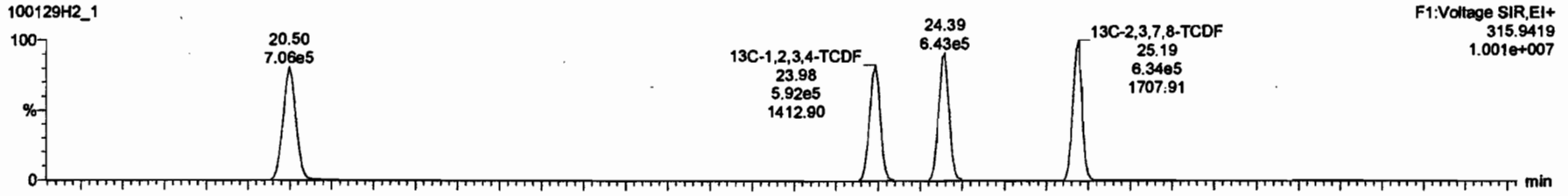

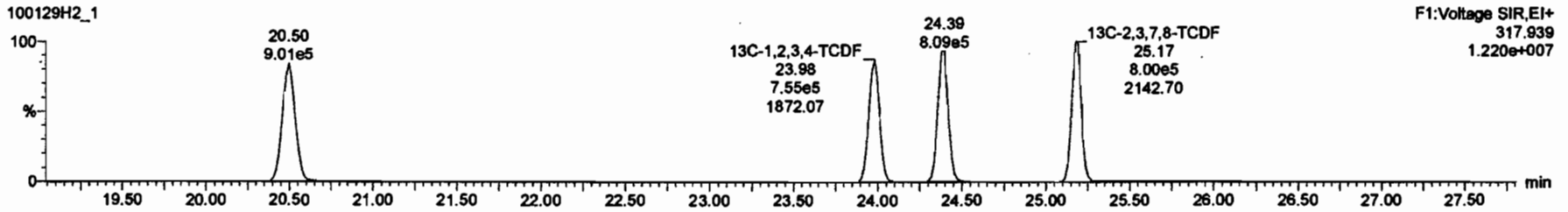

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Name: 100129H2_1, Date: 30-Jan-2010, Time: 02:14:11, ID: ST100129H2-1 1613 CS3 100127F, Description: 1613 CS3 100127F

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Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Name: 100129H2_1, Date: 30-Jan-2010, Time: 02:14:11, ID: ST100129H2-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,7,8-PeCDF

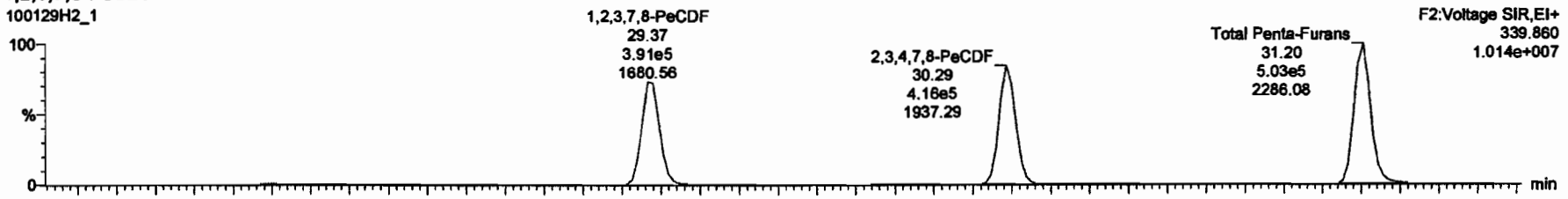

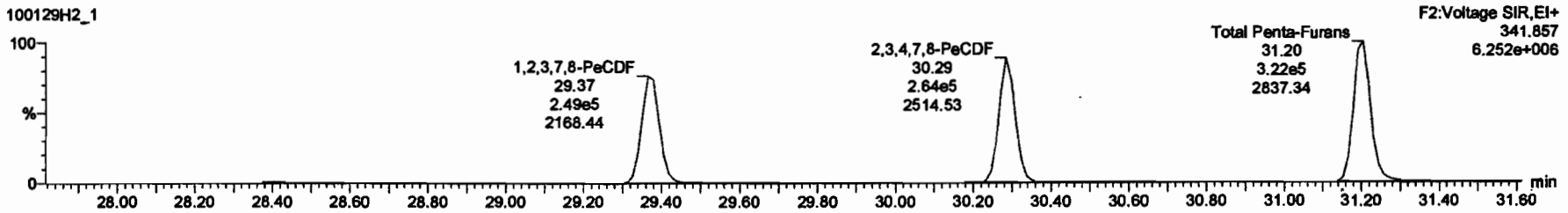

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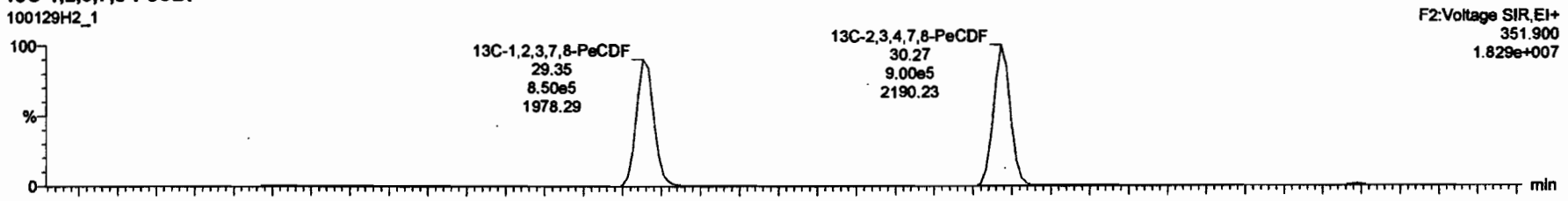

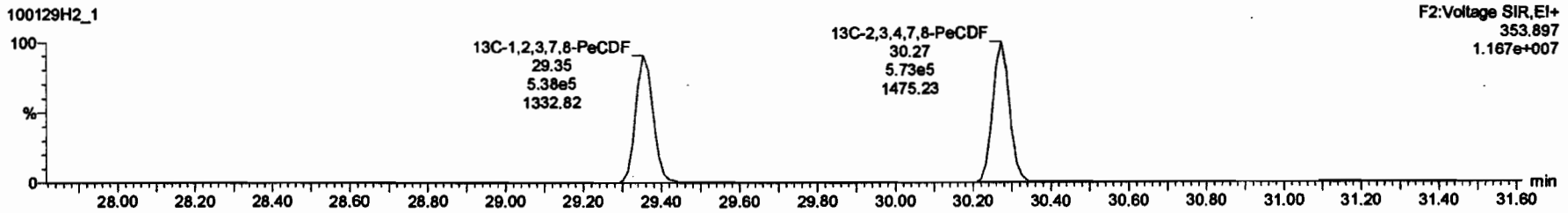

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1,2,3,4,7,8-HxCDF

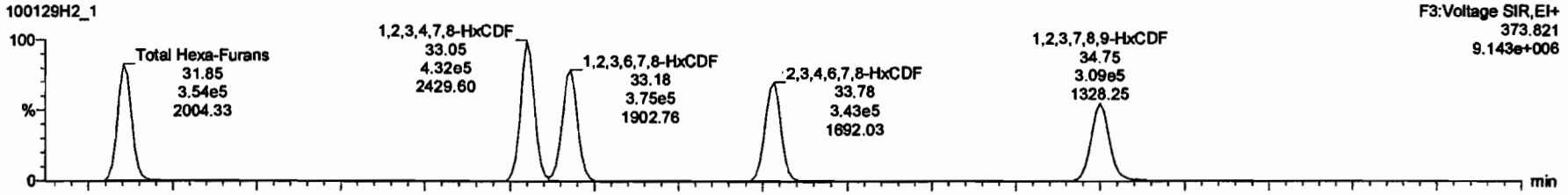

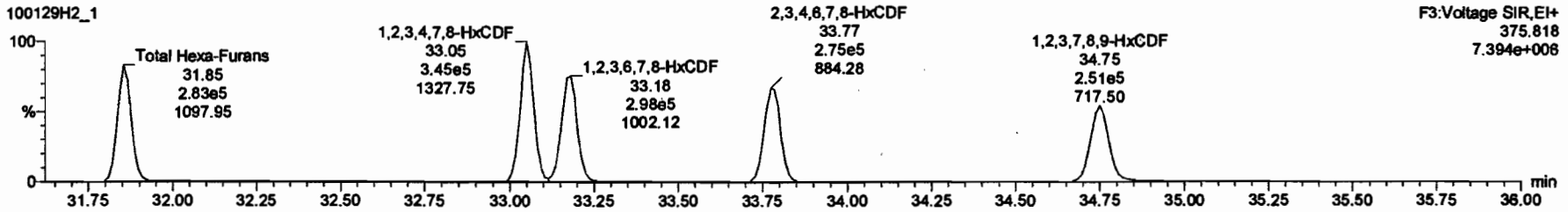

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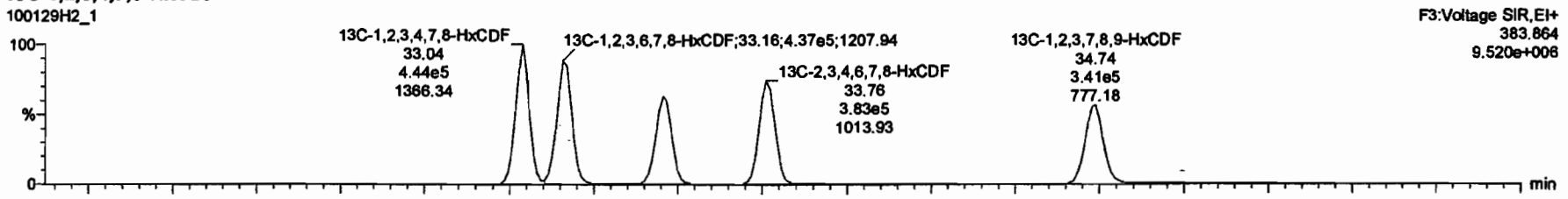

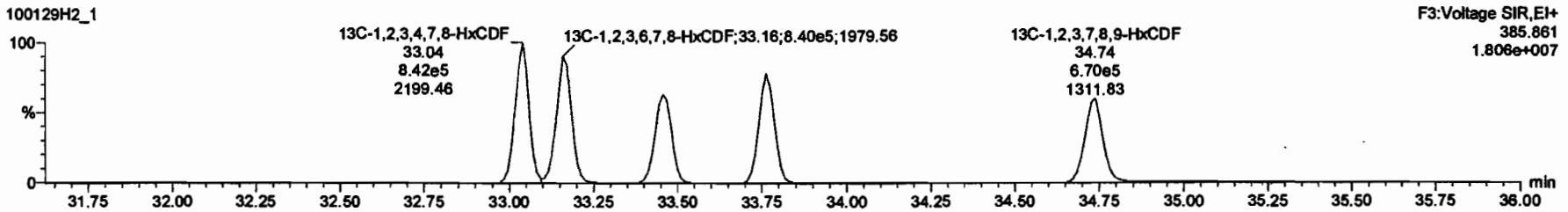

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1,2,3,4,6,7,8-HpCDF

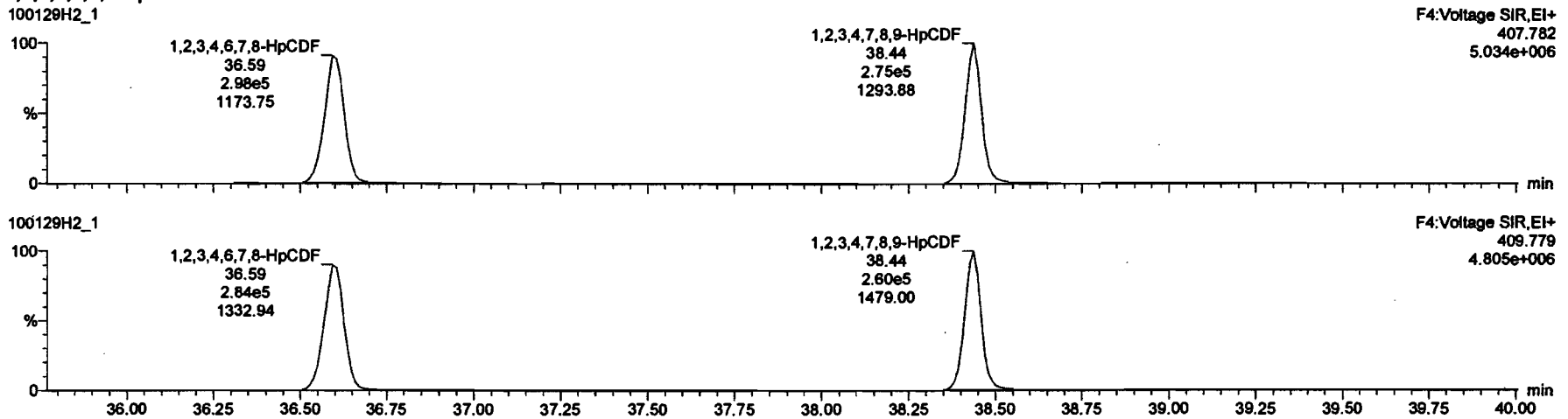

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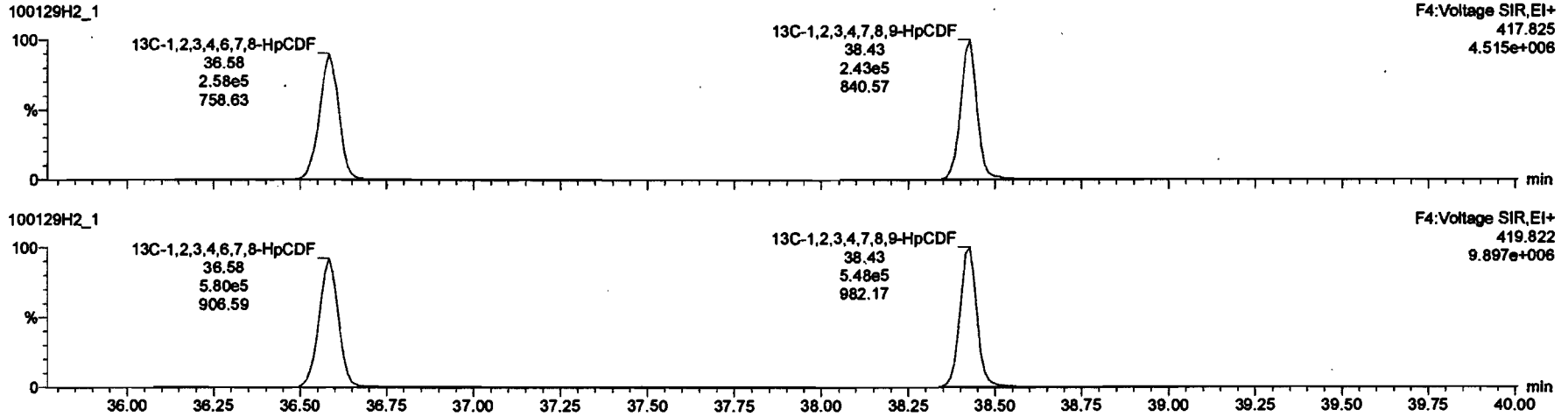

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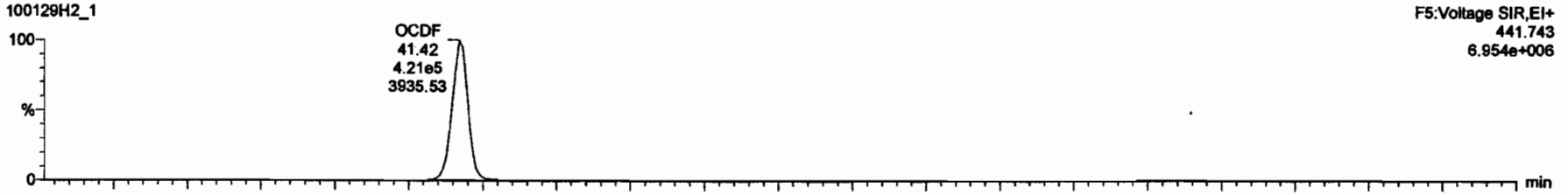

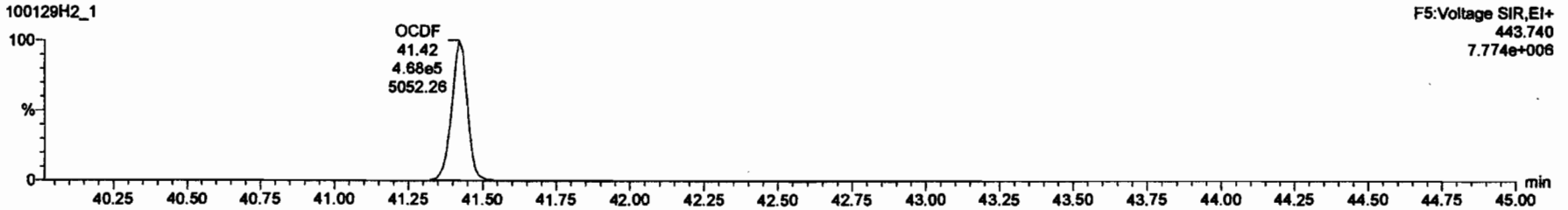

13C-OCDF

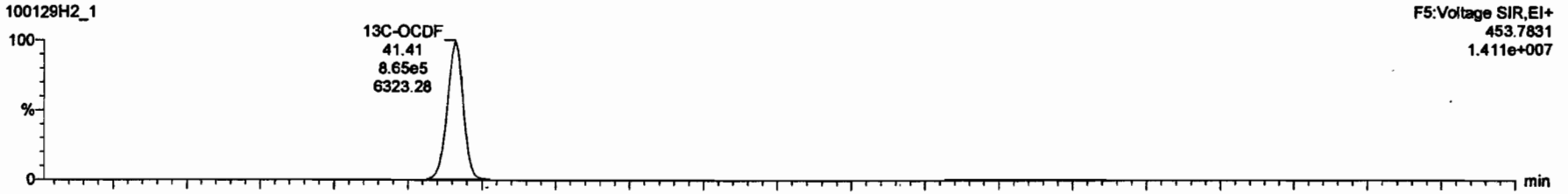

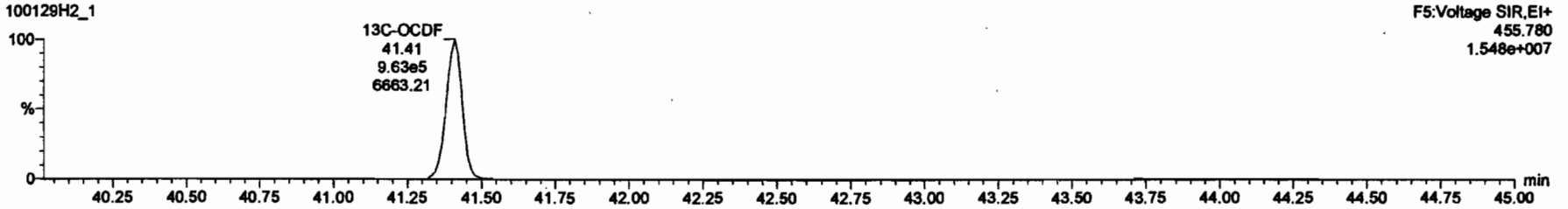

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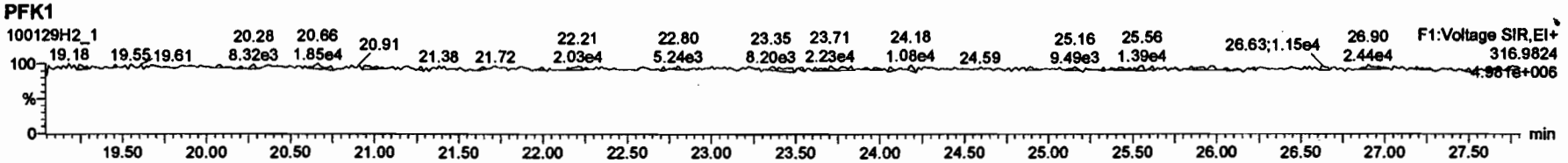

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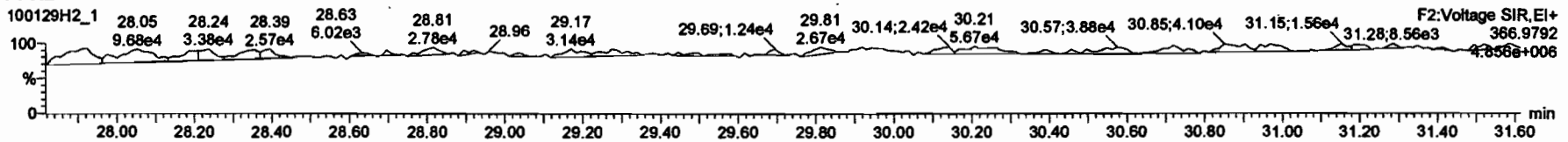

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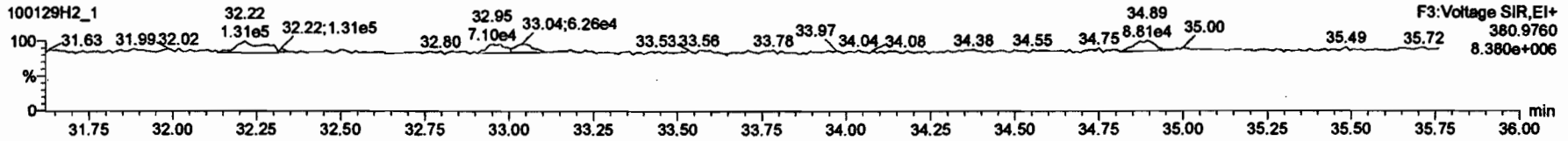

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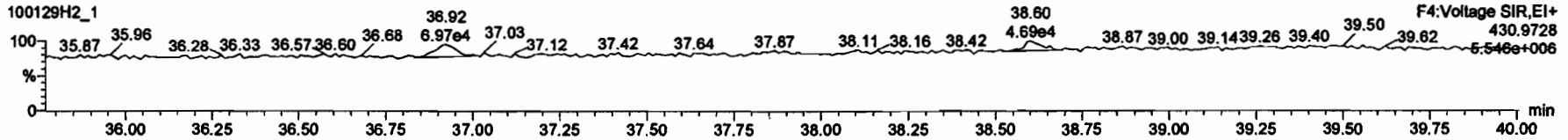

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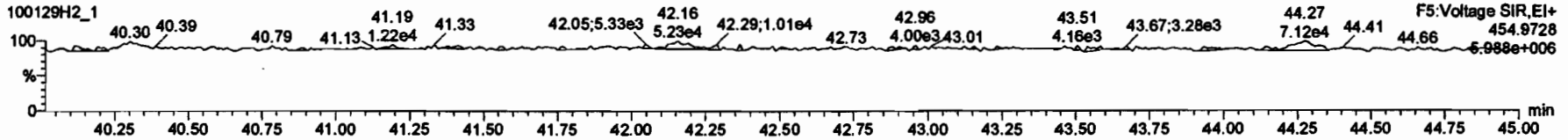

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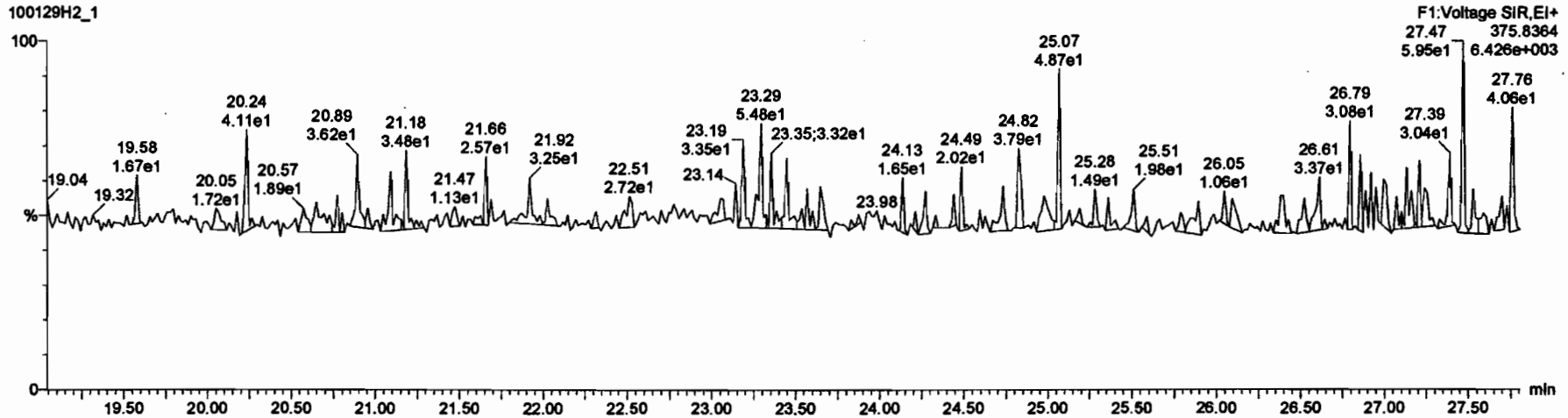

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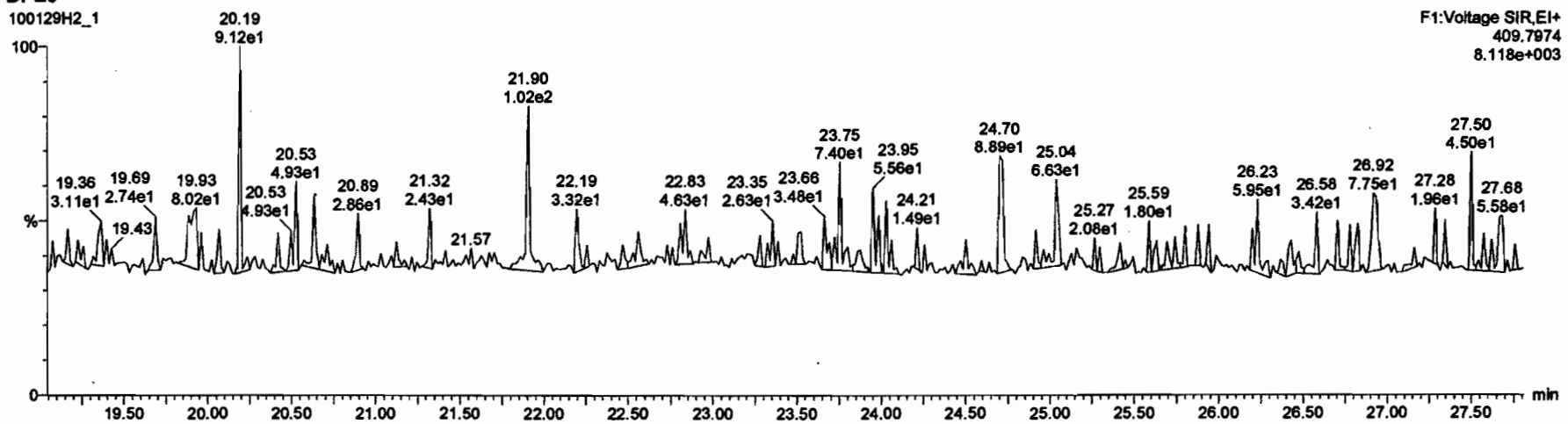

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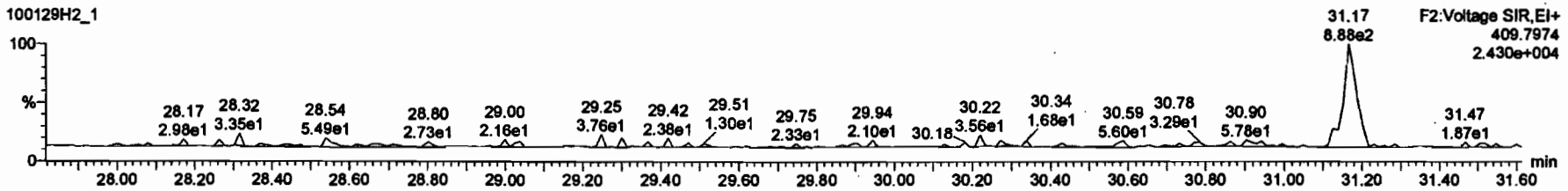

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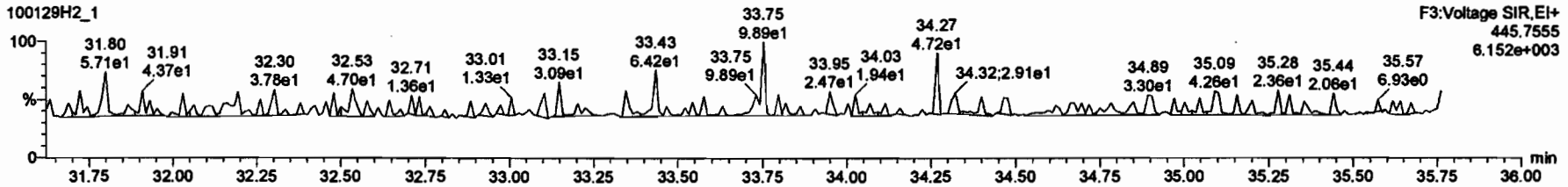

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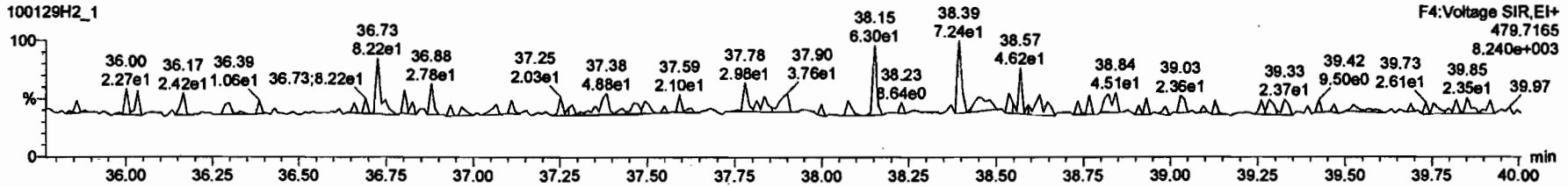

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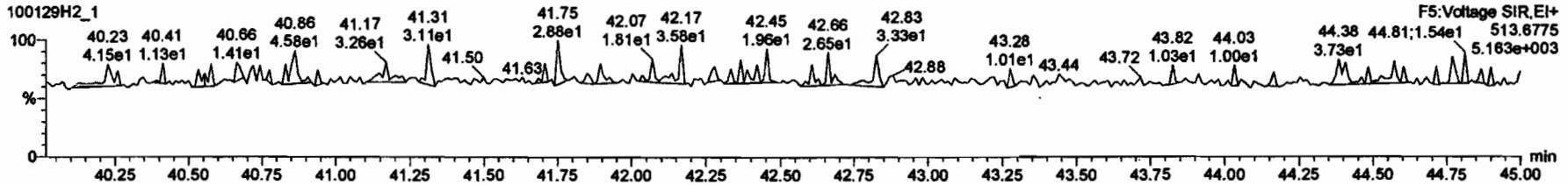

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Name: 100129H2_3, Date: 30-Jan-2010, Time: 03:53:20, ID: ST100129H2-2 1613 CS0 100127C, Description: 1613 CS0 100127C

2,3,7,8-TCDD

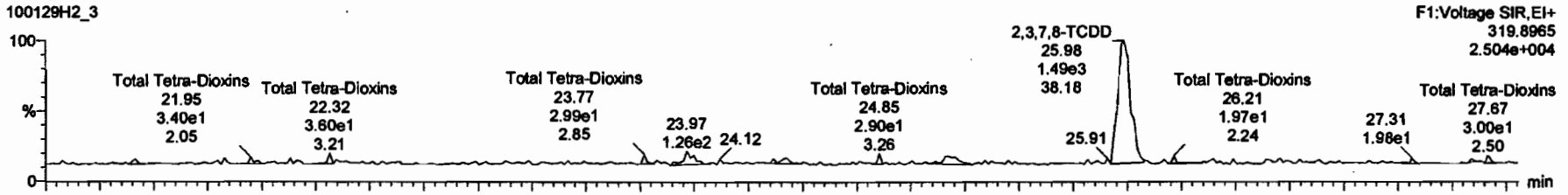

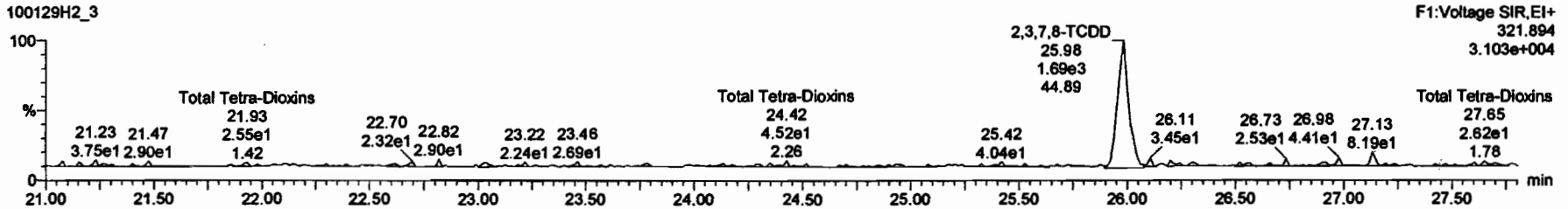

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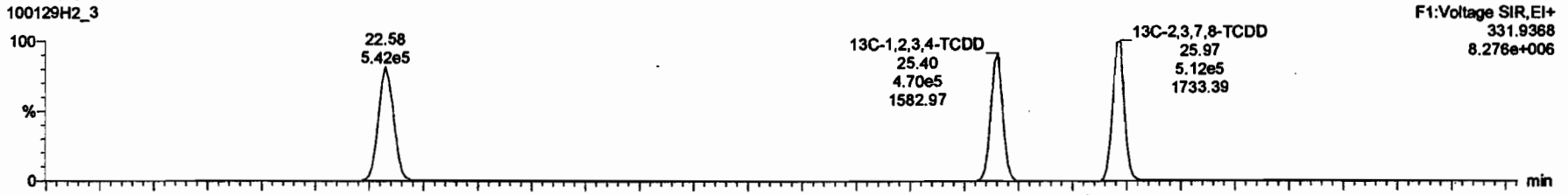

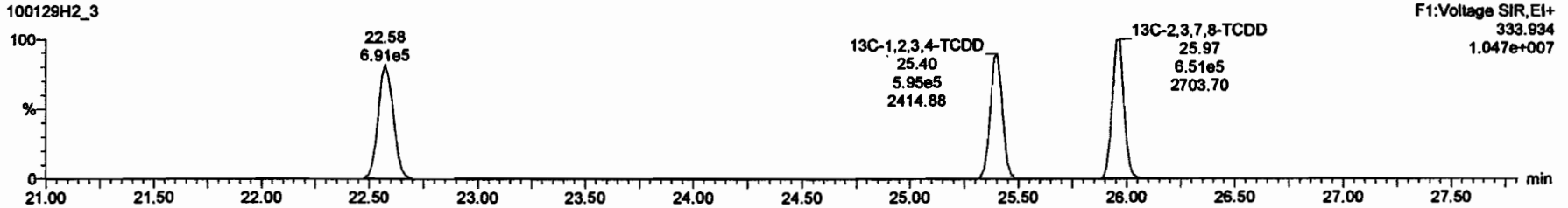

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37Cl-2,3,7,8-TCDD

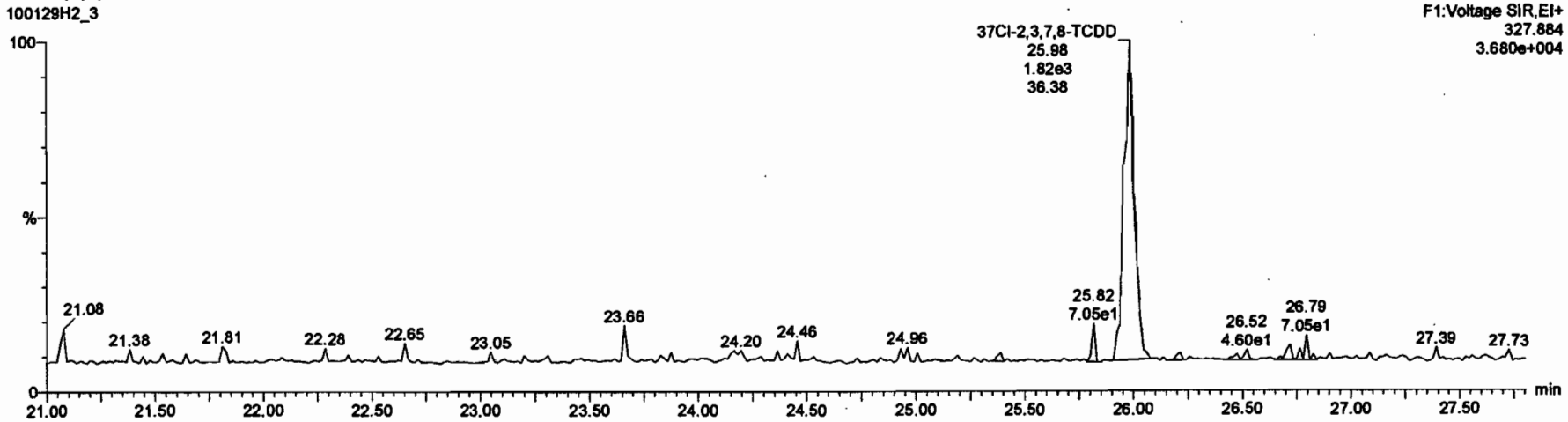

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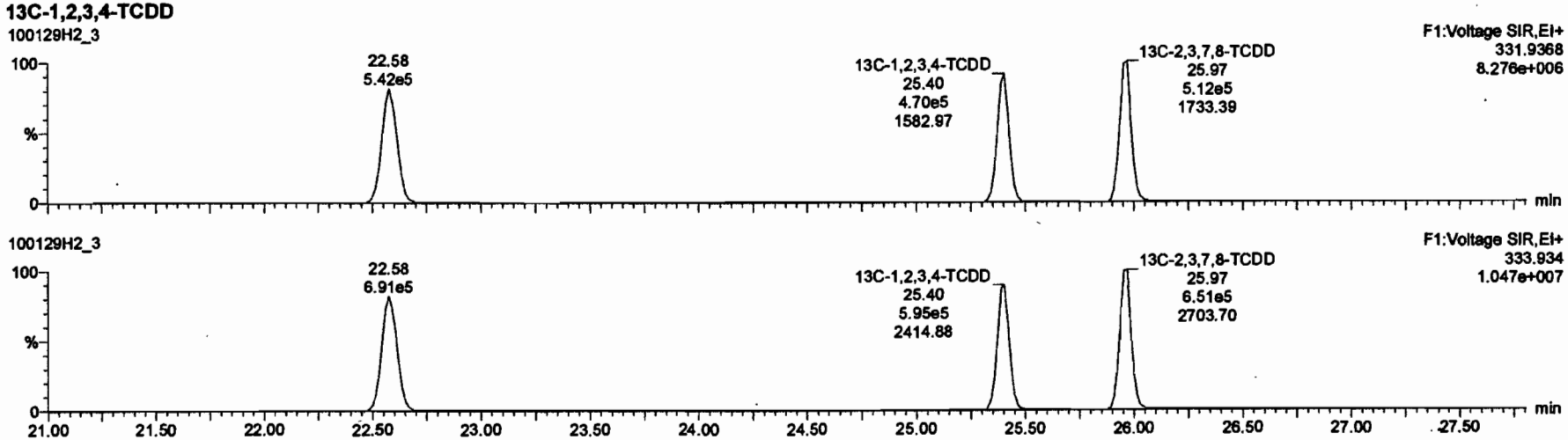

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Name: 100129H2_3, Date: 30-Jan-2010, Time: 03:53:20, ID: ST100129H2-2 1613 CS0 100127C, Description: 1613 CS0 100127C

1,2,3,7,8-PeCDD

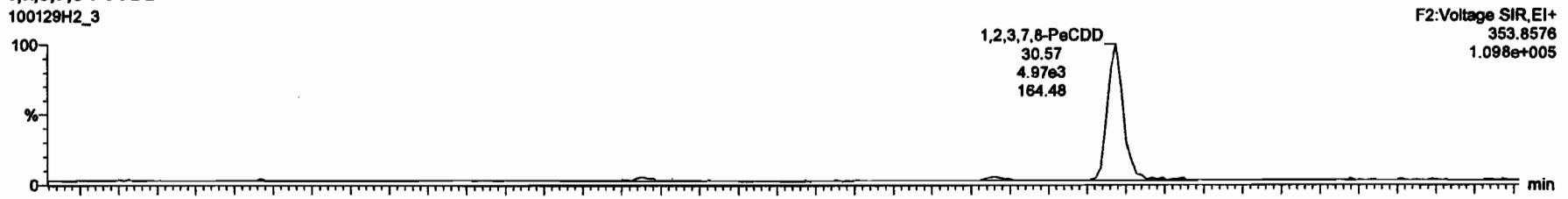

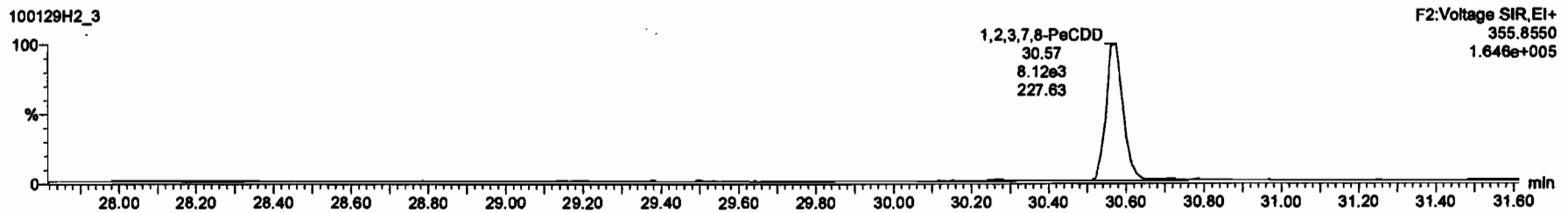

13C-1,2,3,7,8-PeCDD

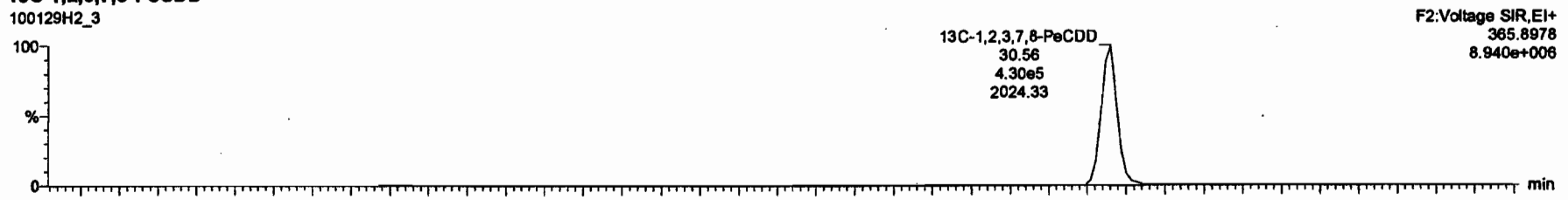

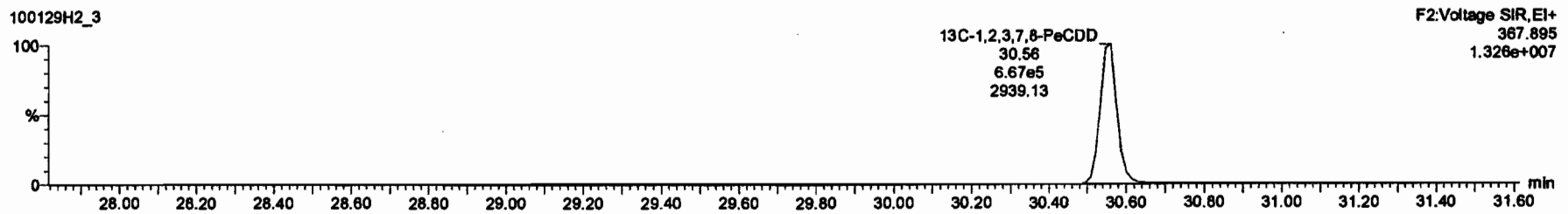

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1,2,3,4,7,8-HxCDD

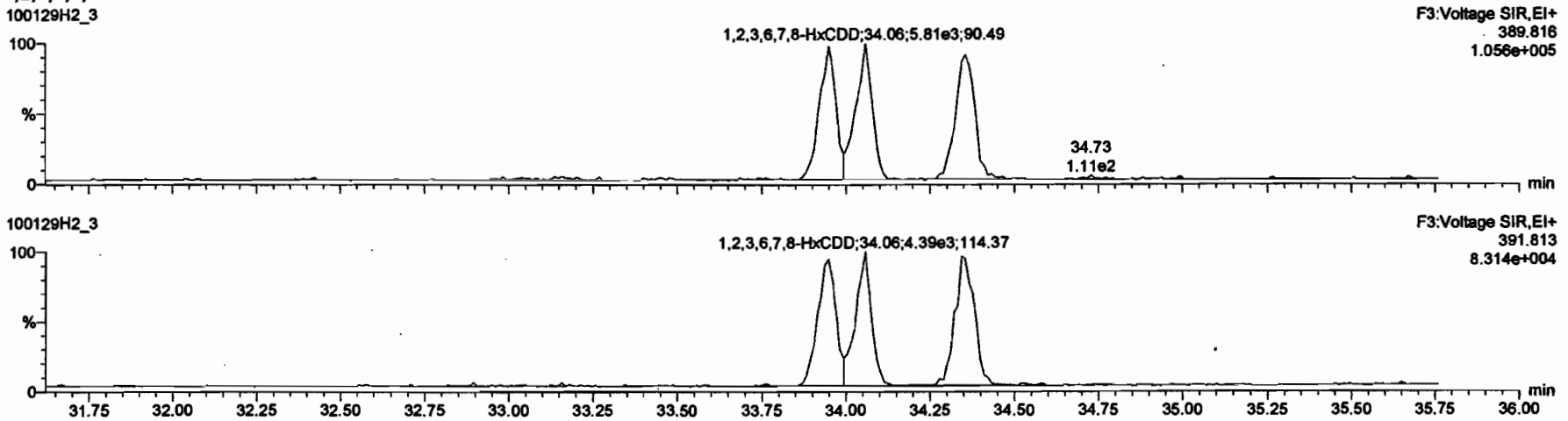

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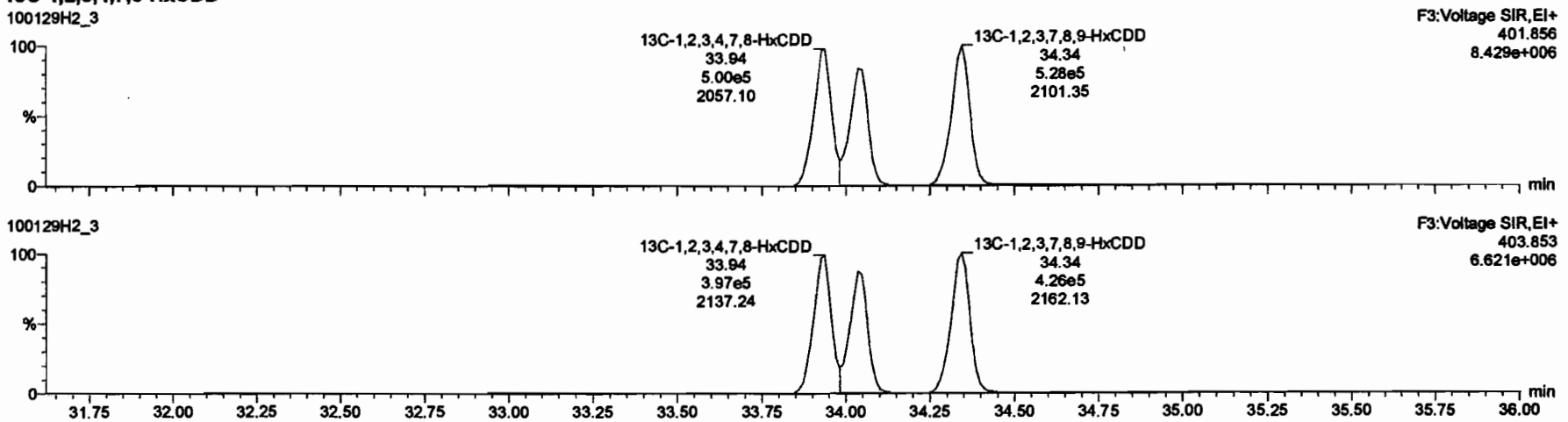

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1,2,3,4,6,7,8-HpCDD

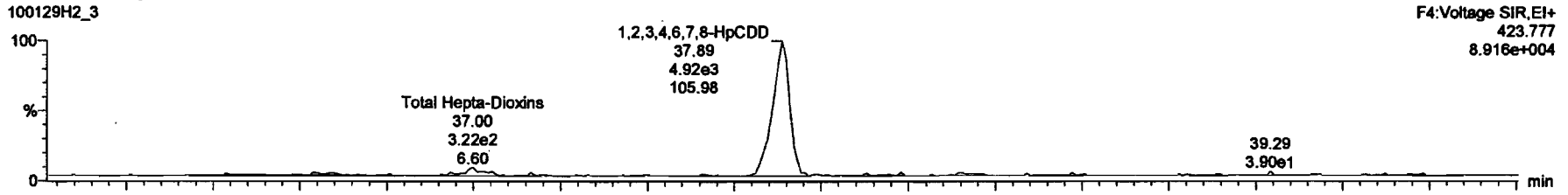

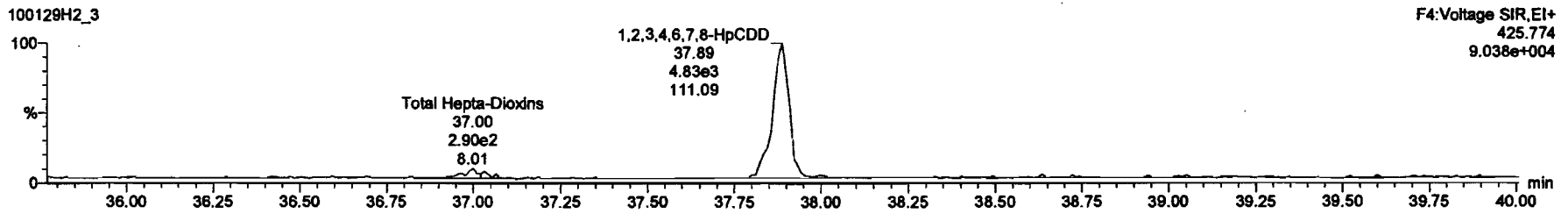

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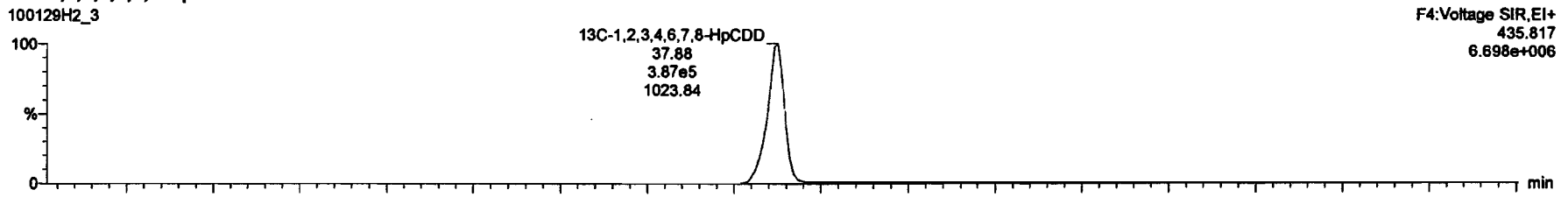

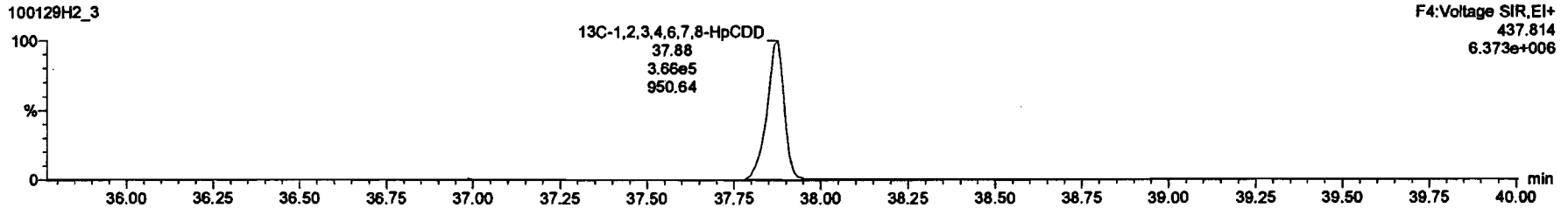

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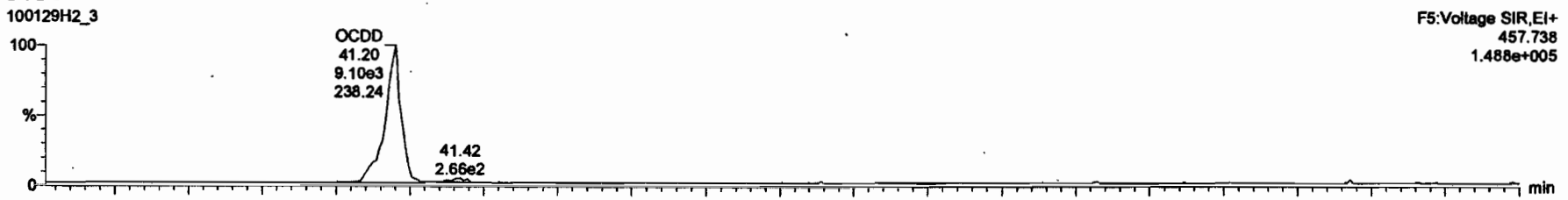

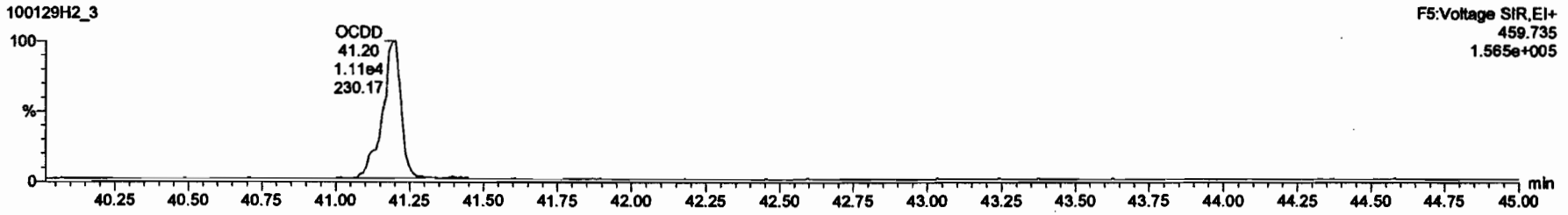

13C-OCDD

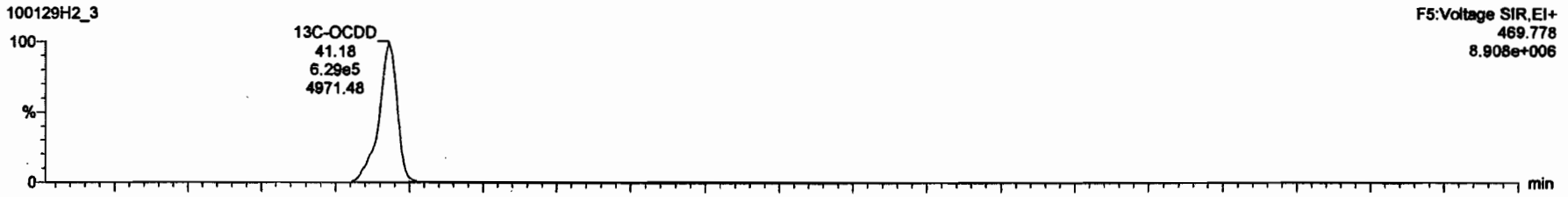

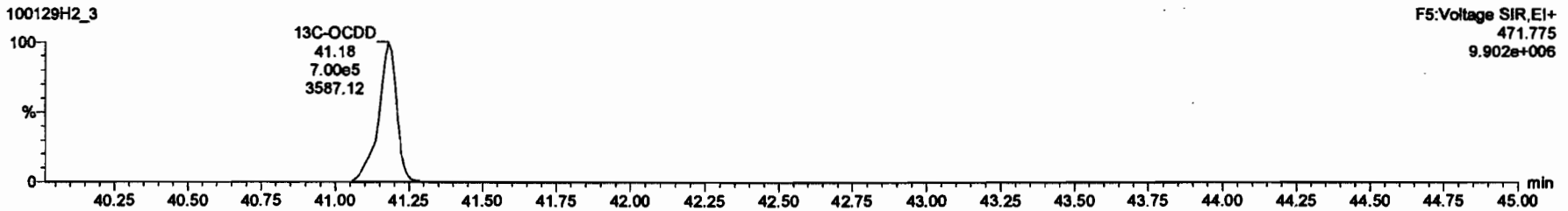

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Name: 100129H2_3, Date: 30-Jan-2010, Time: 03:53:20, ID: ST100129H2-2 1613 CS0 100127C, Description: 1613 CS0 100127C

2,3,7,8-TCDF

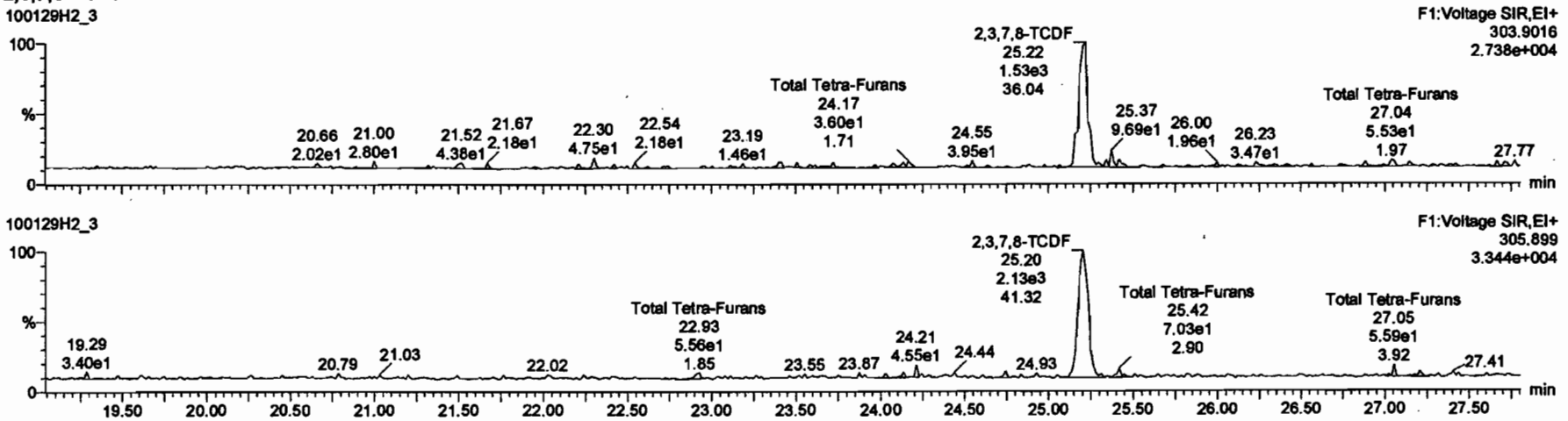

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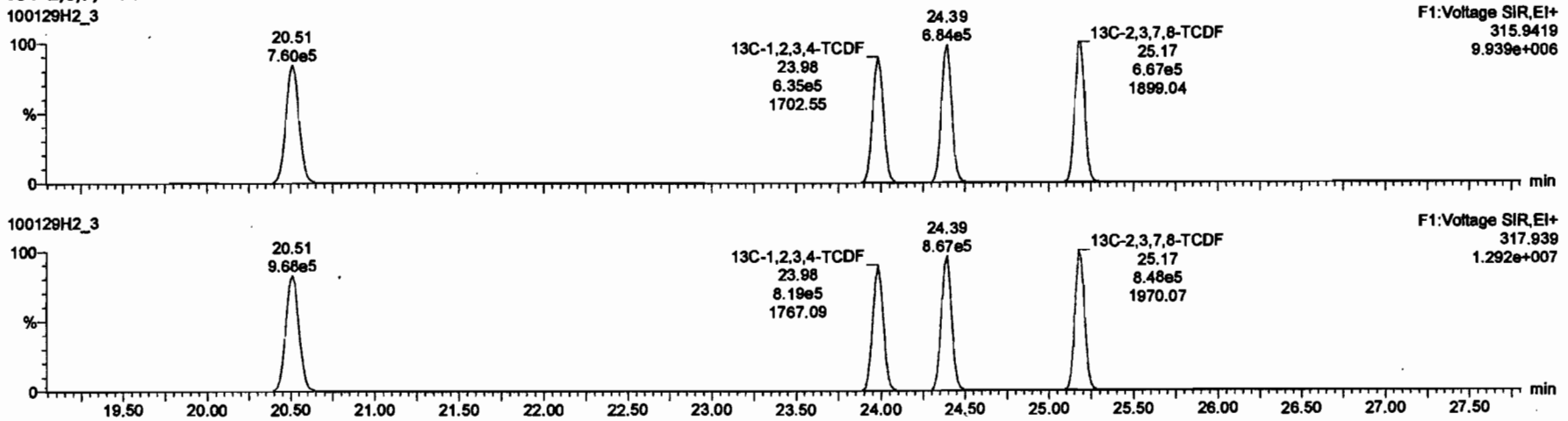

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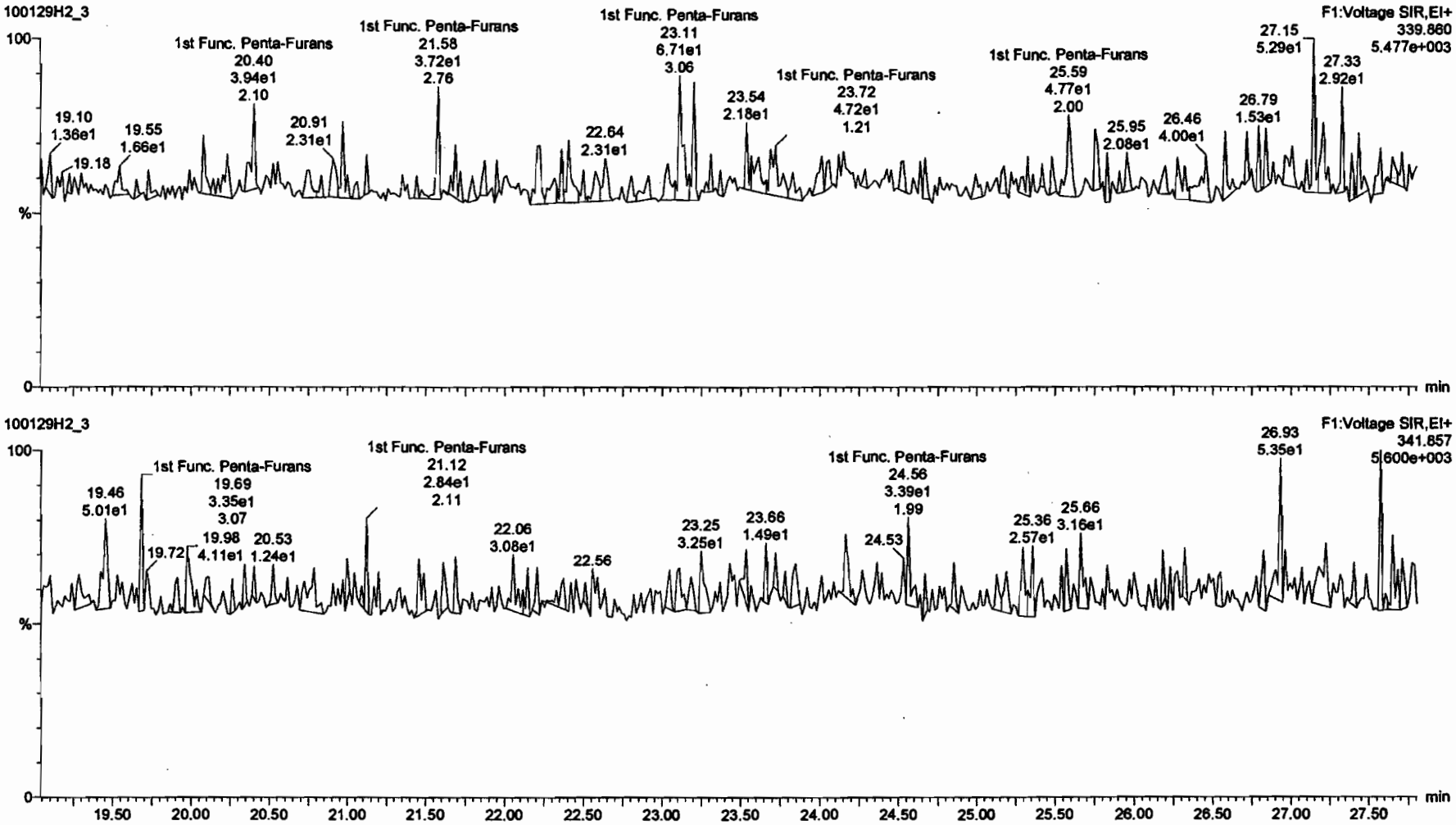

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1,2,3,7,8-PeCDF

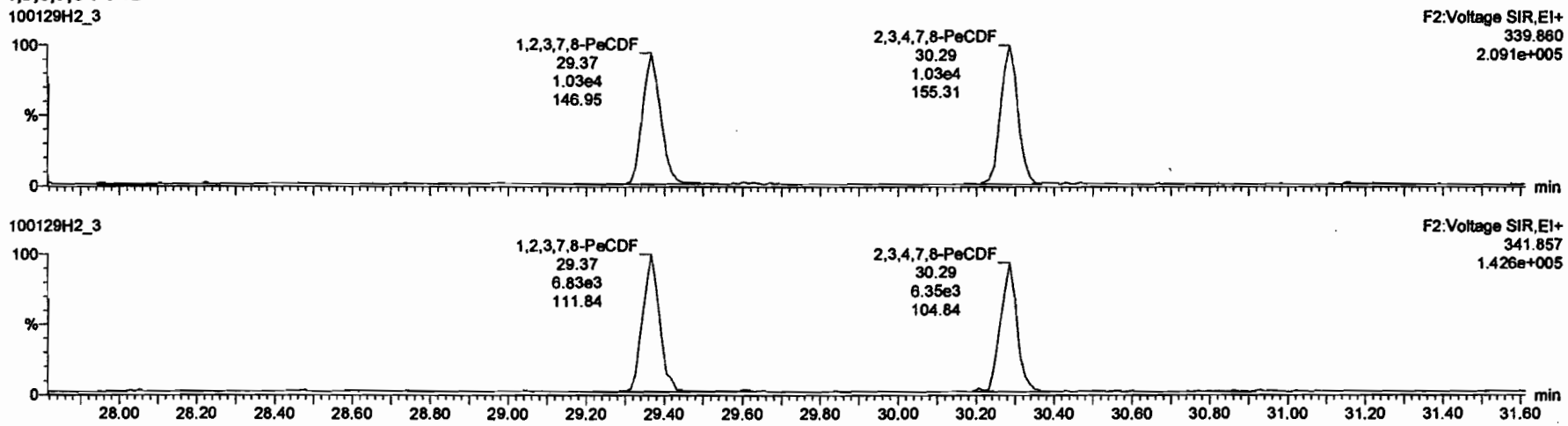

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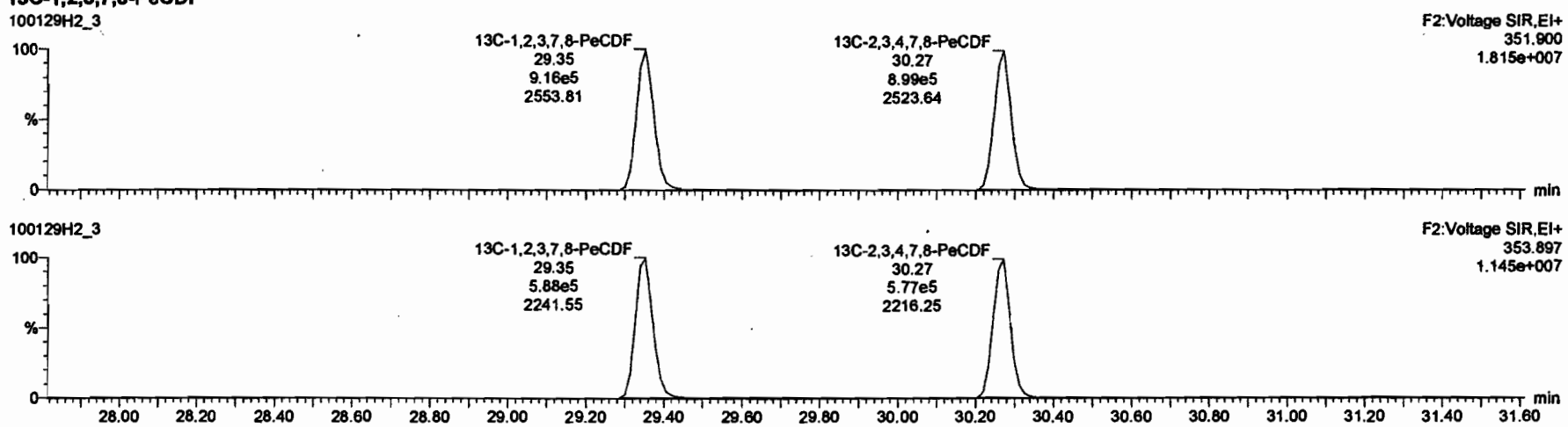

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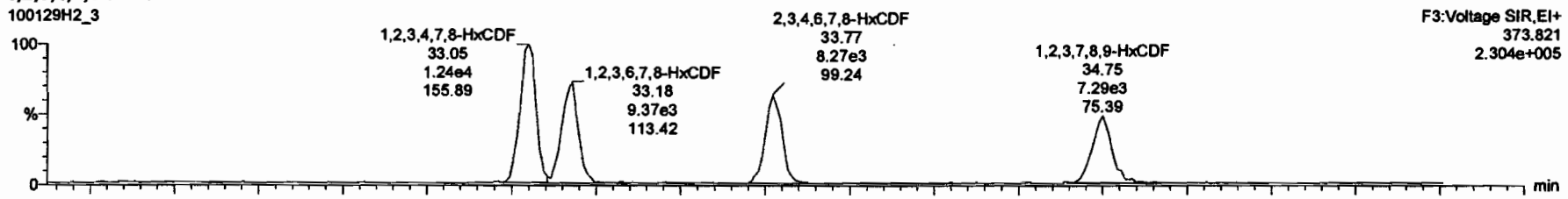

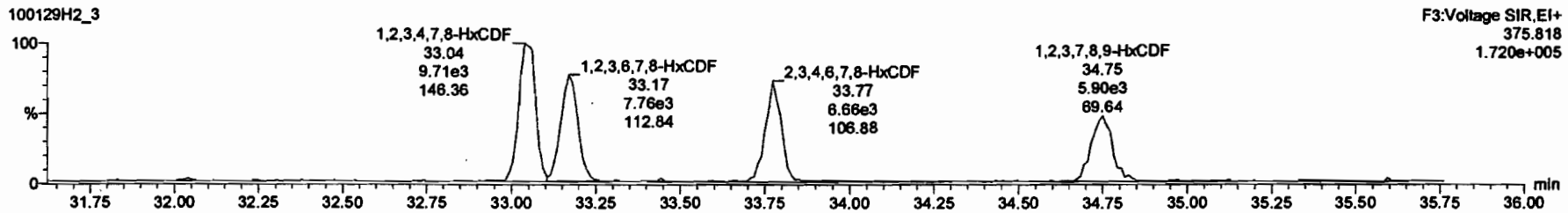

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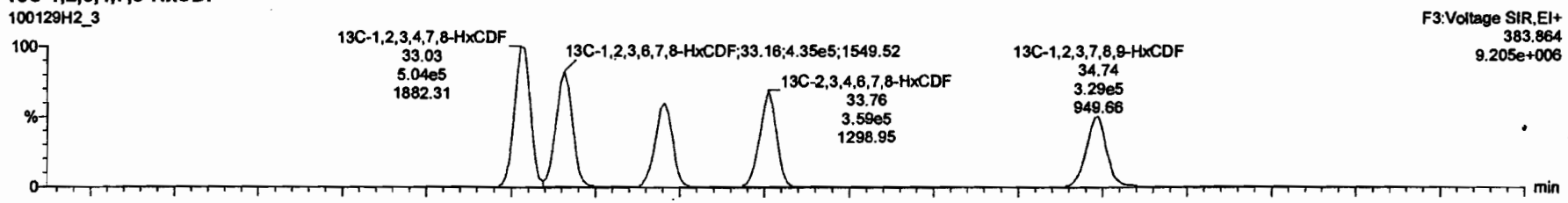

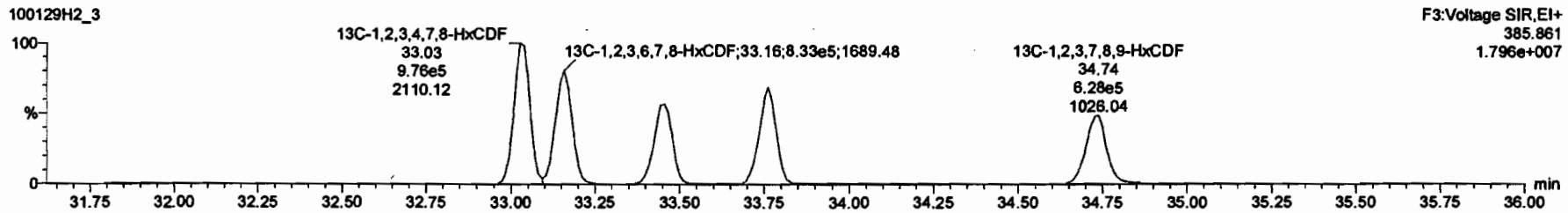

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1,2,3,4,6,7,8-HpCDF

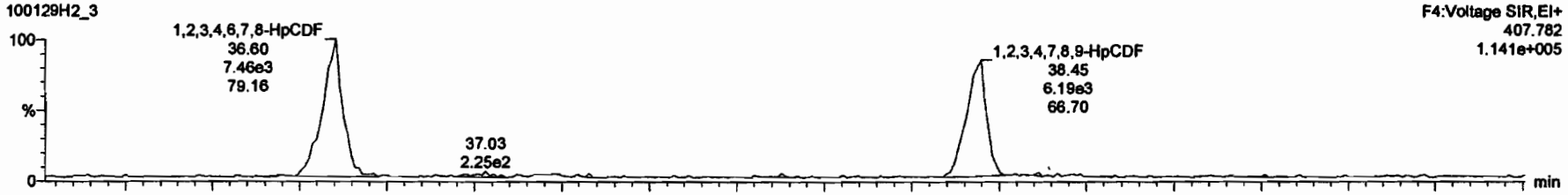

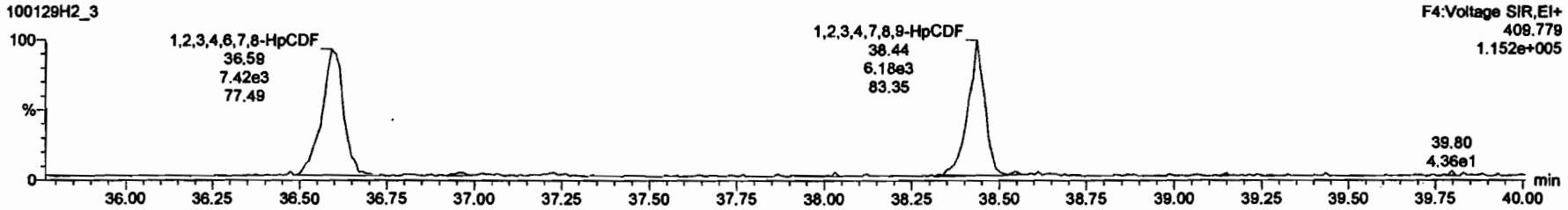

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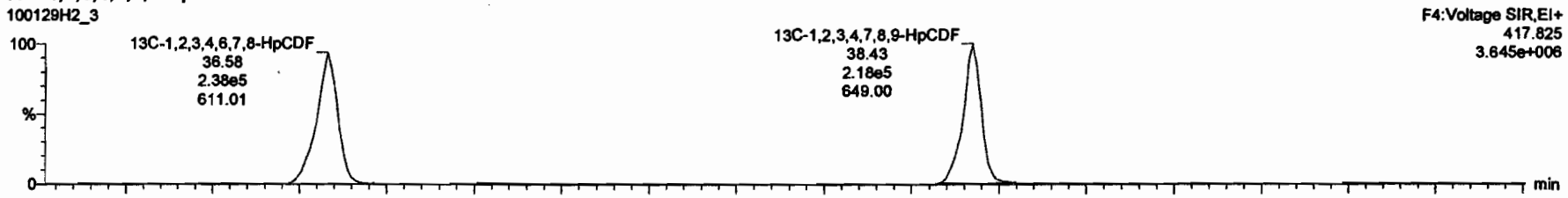

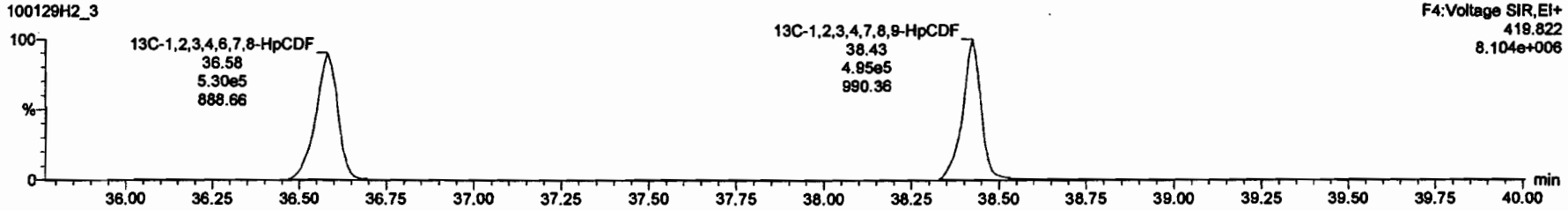

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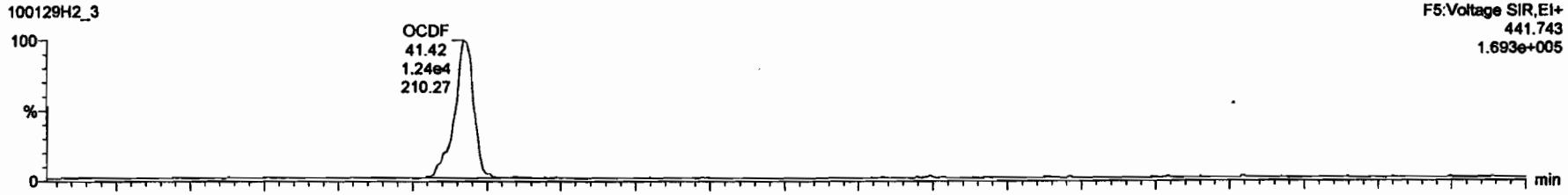

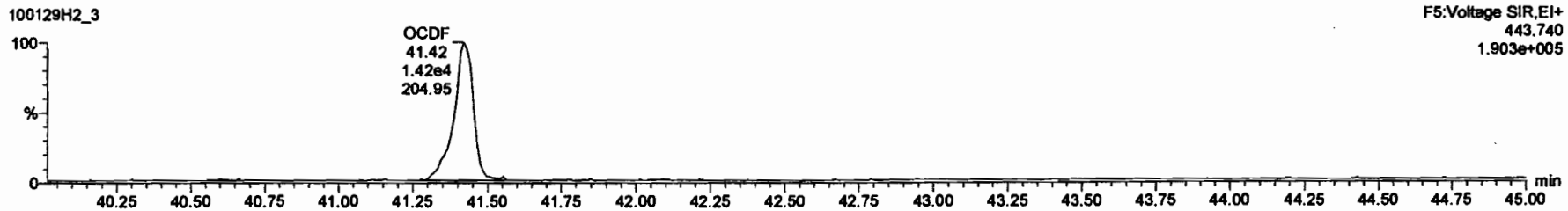

13C-OCDF

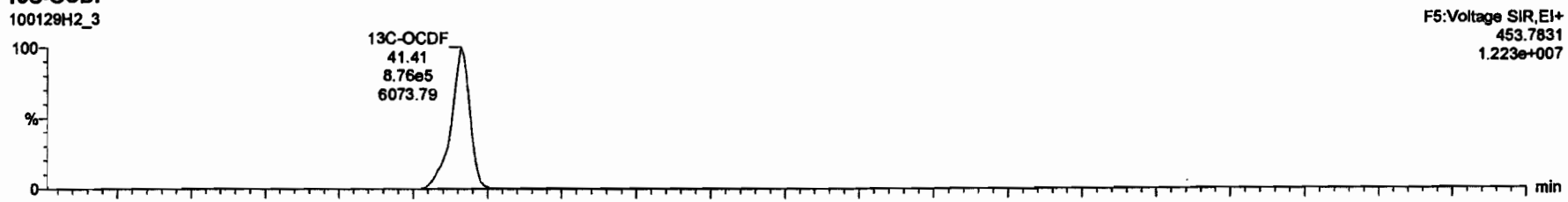

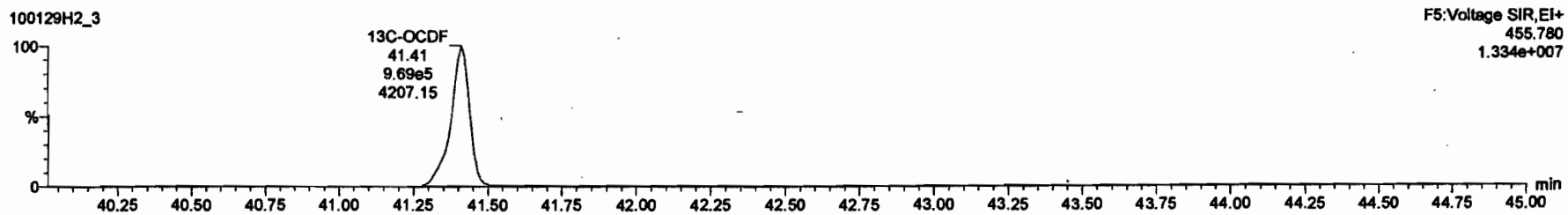

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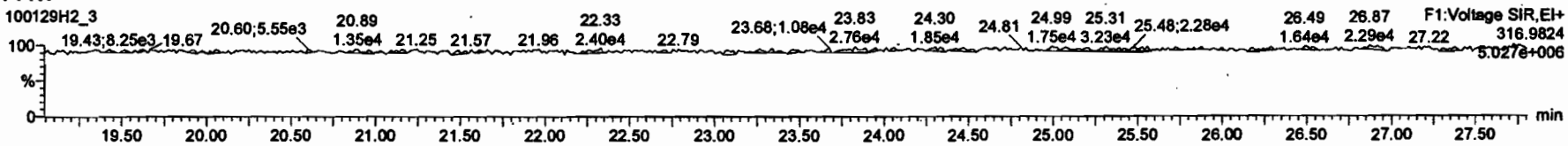

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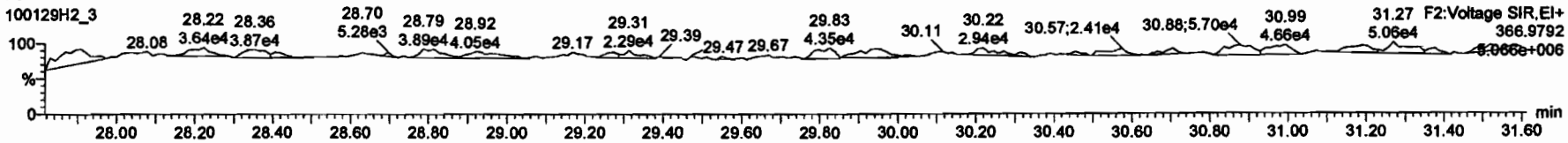

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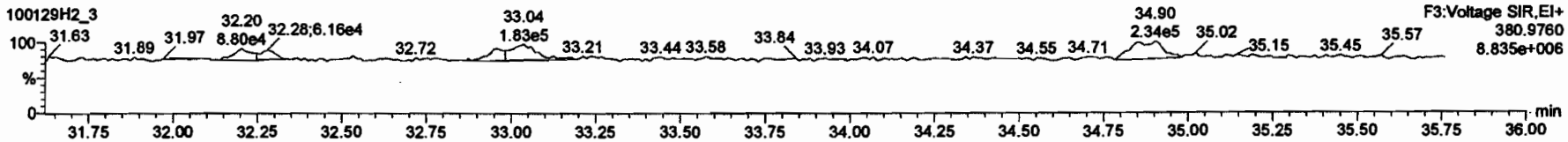

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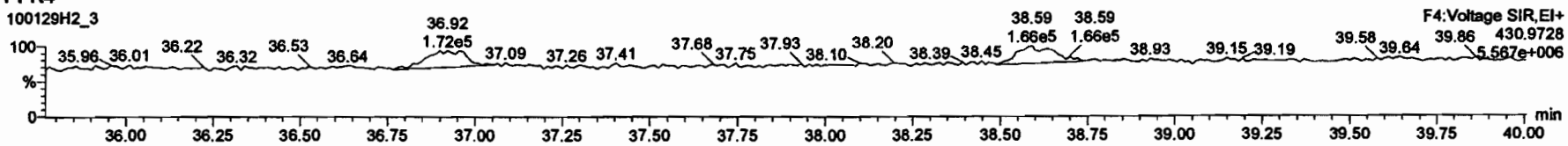

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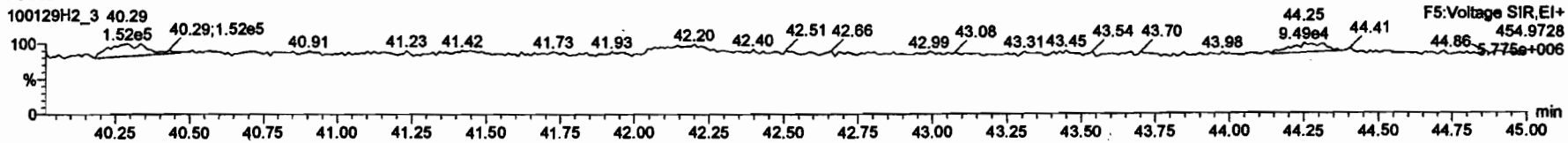

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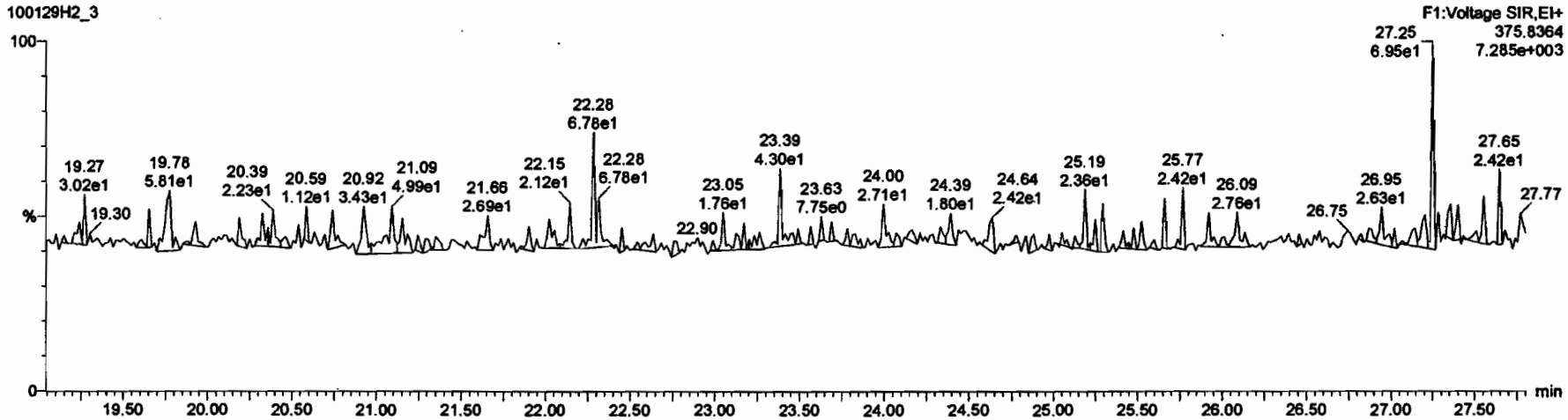

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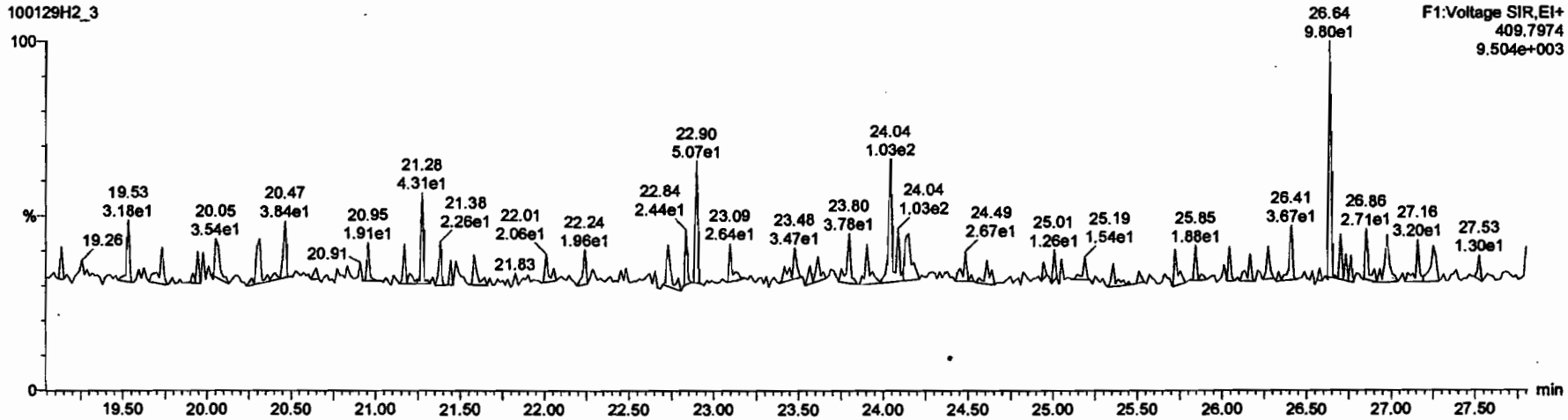

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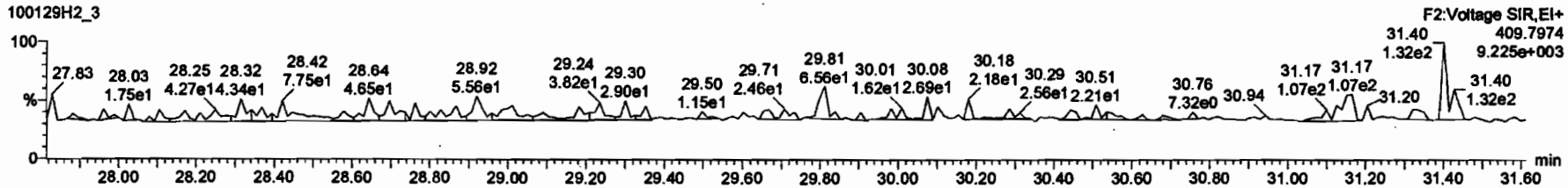

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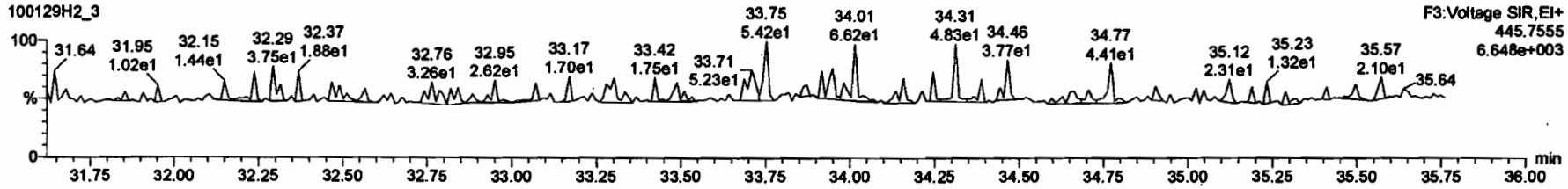

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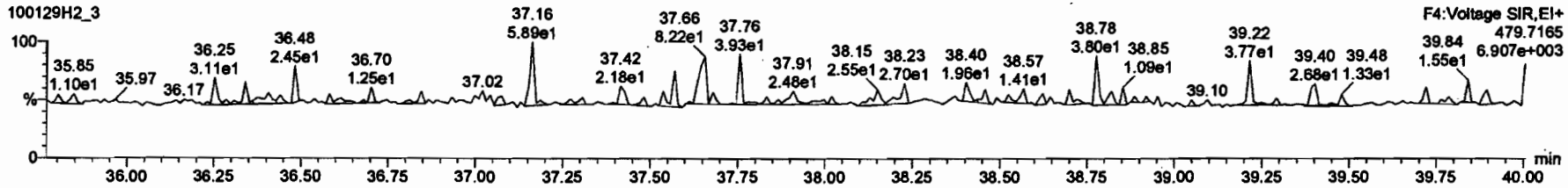

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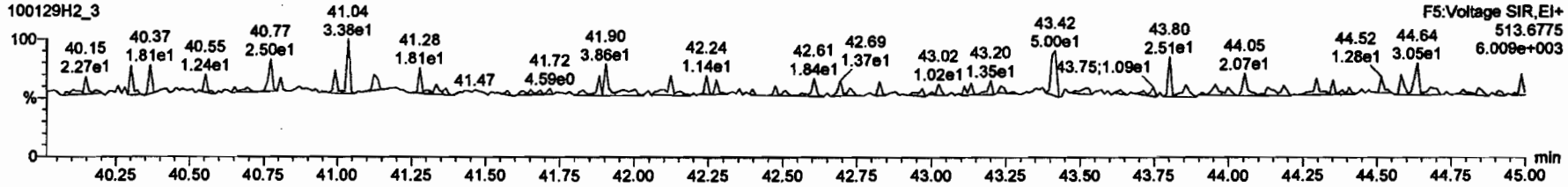

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Name: 100129H2_4, Date: 30-Jan-2010, Time: 04:42:54, ID: ST100129H2-3 1613 CS1 100127D, Description: 1613 CS1 100127D

2,3,7,8-TCDD

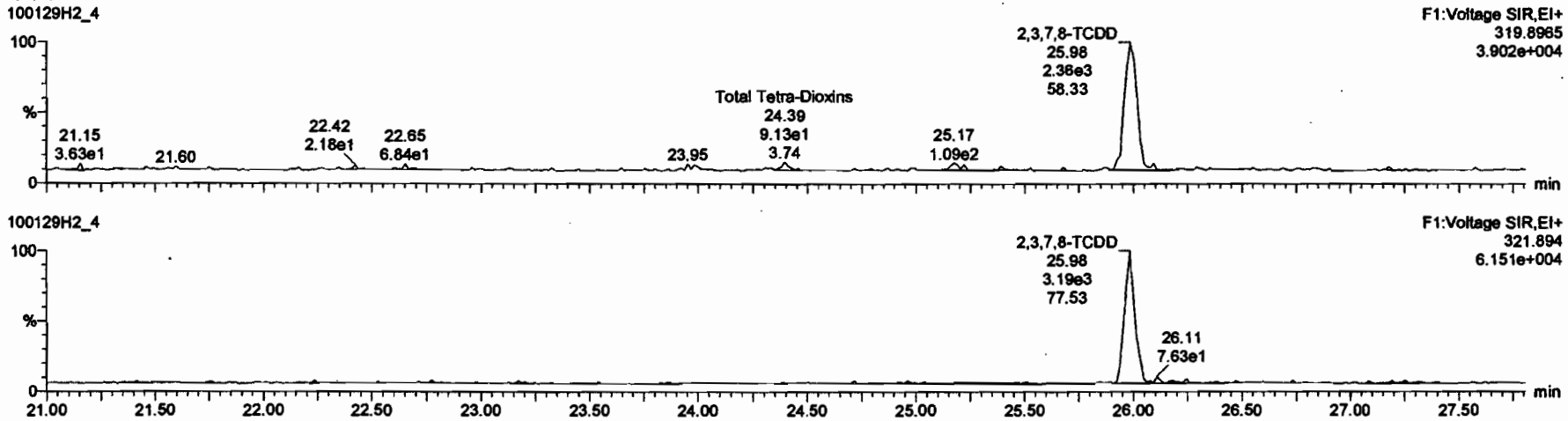

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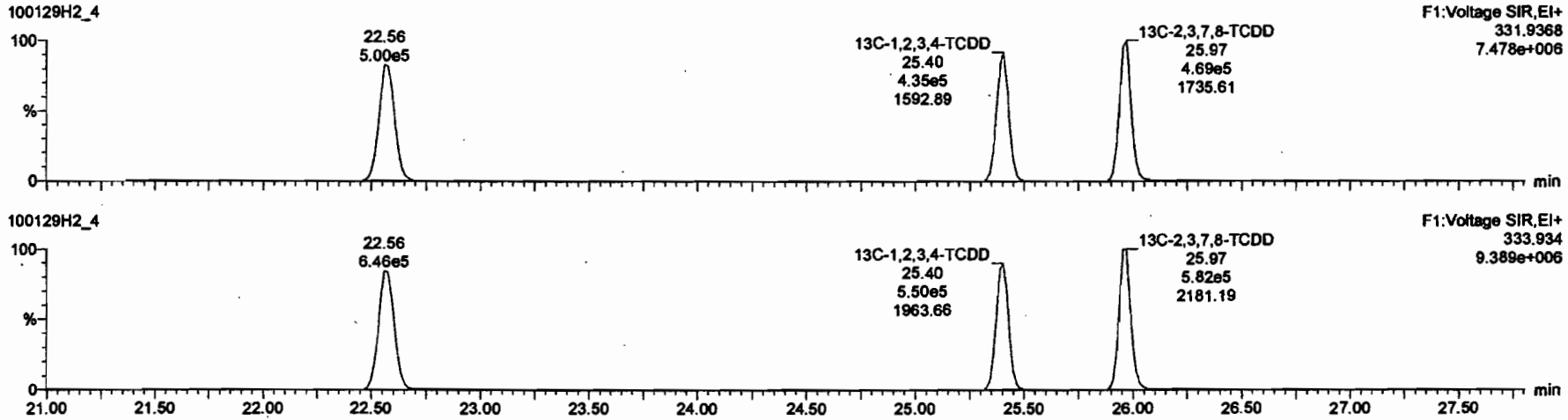

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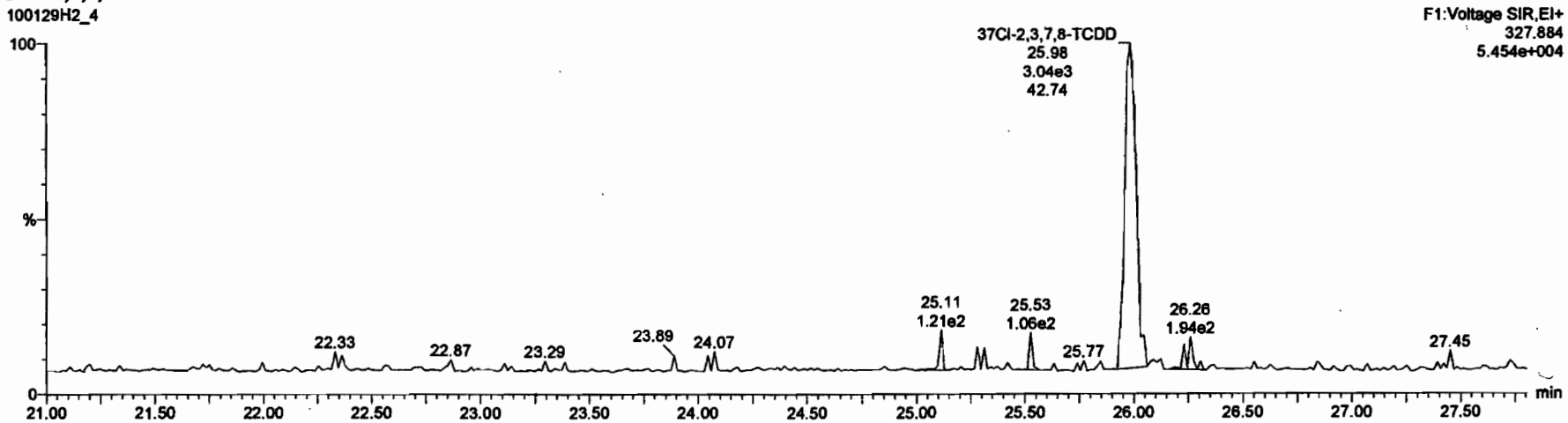

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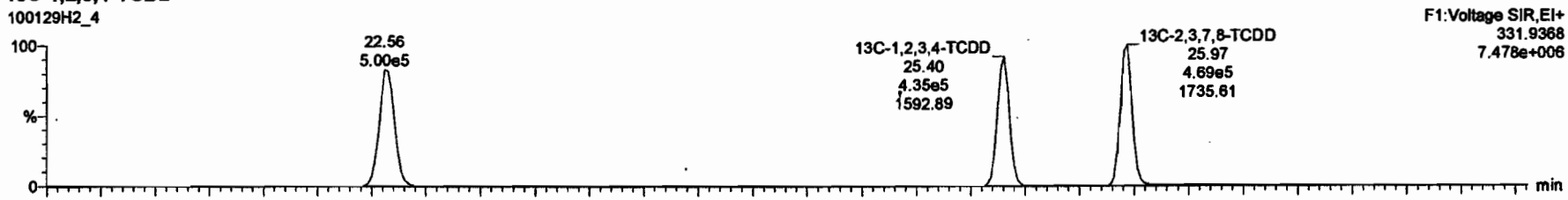

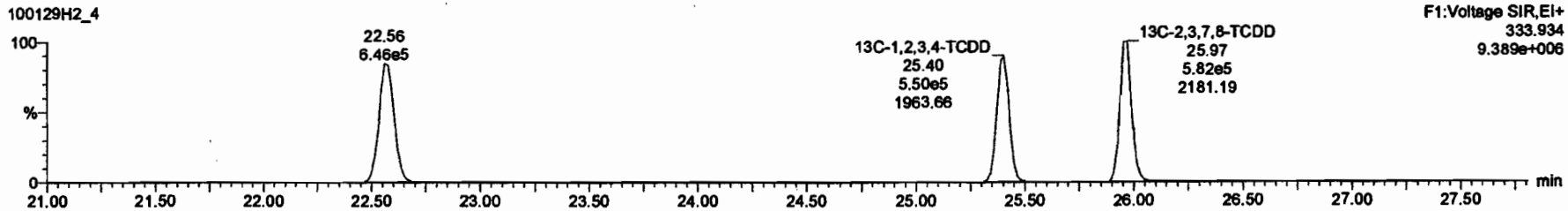

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1,2,3,7,8-PeCDD

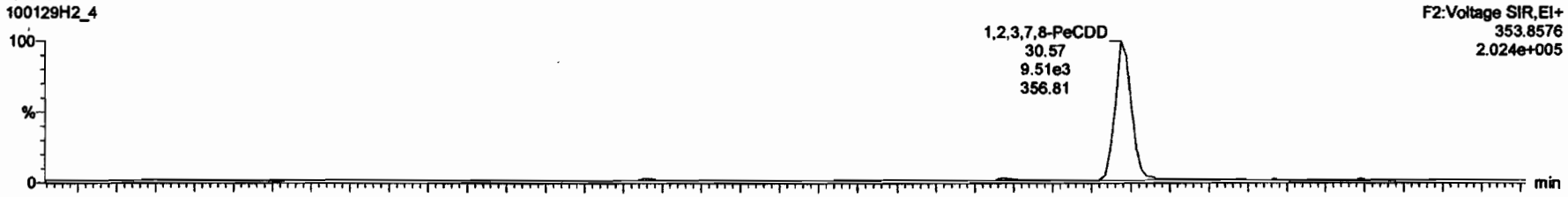

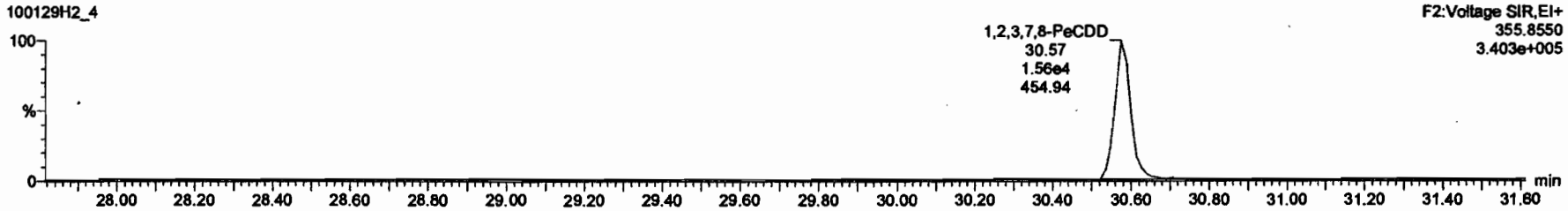

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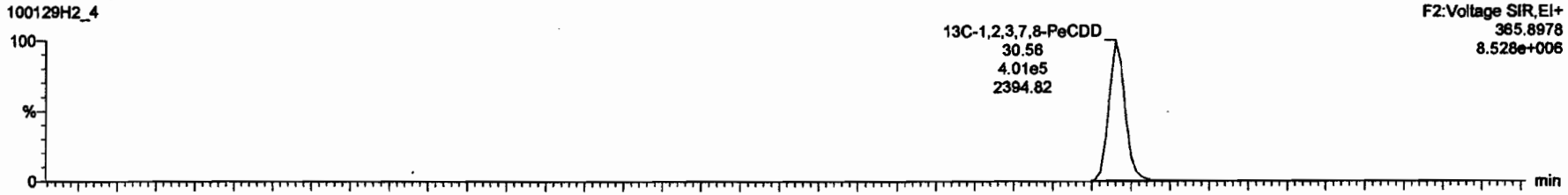

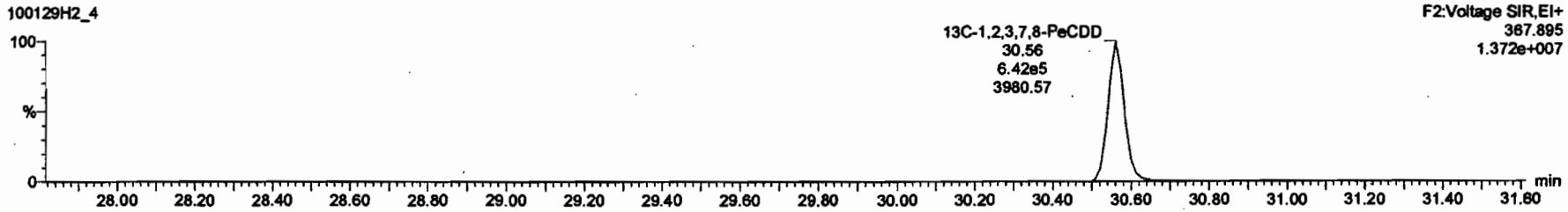

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1,2,3,4,7,8-HxCDD

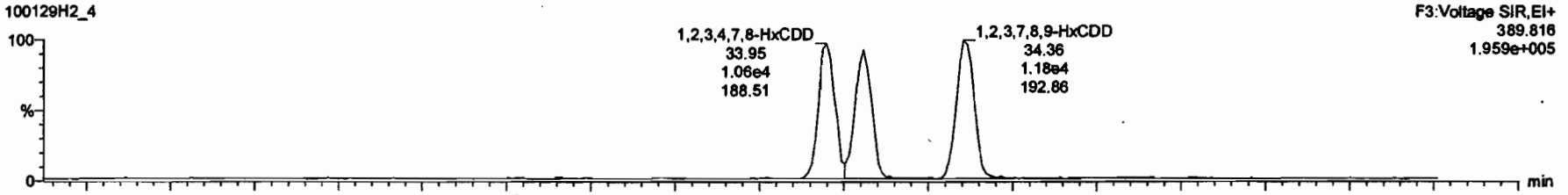

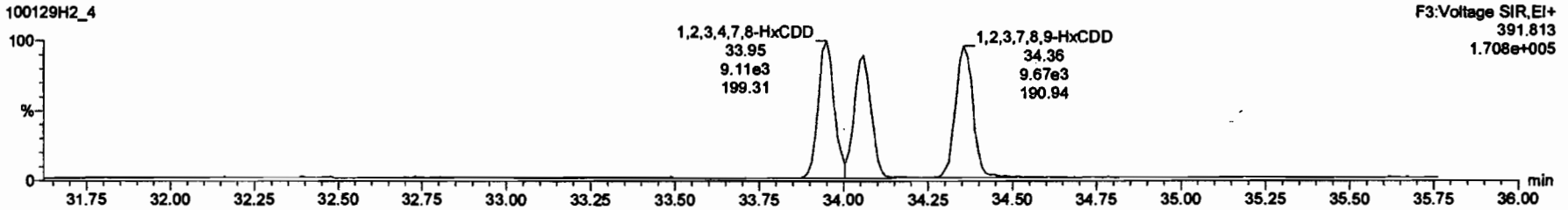

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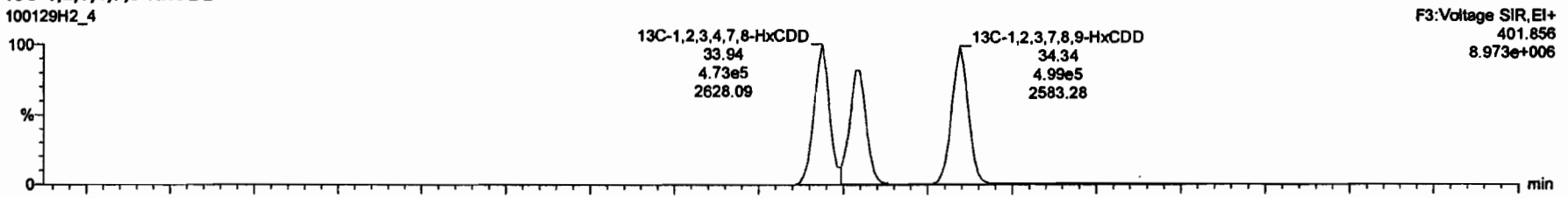

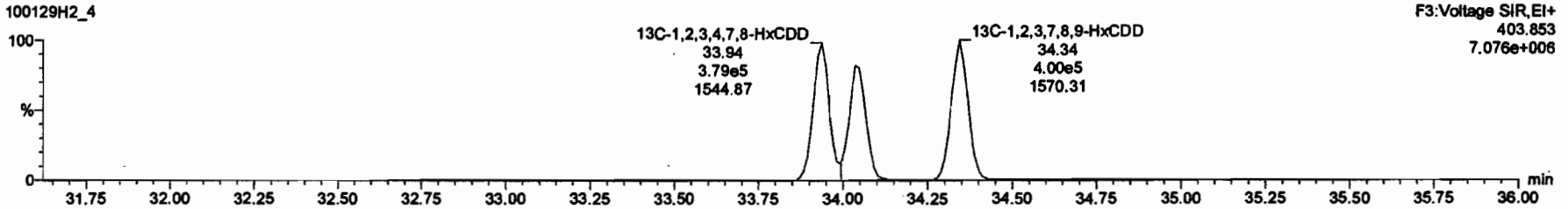

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1,2,3,4,6,7,8-HpCDD

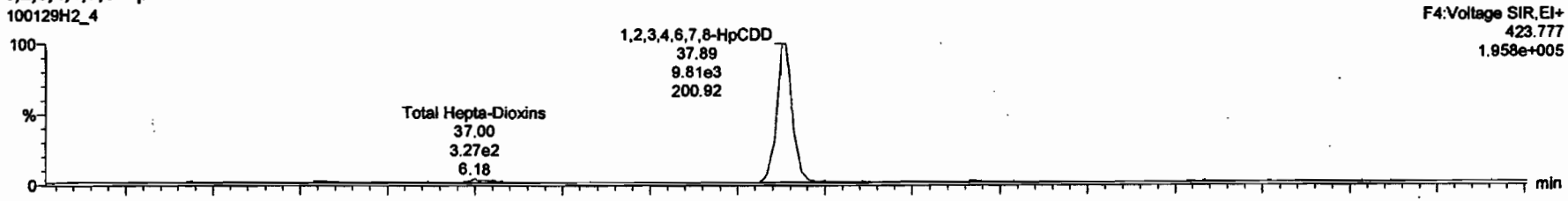

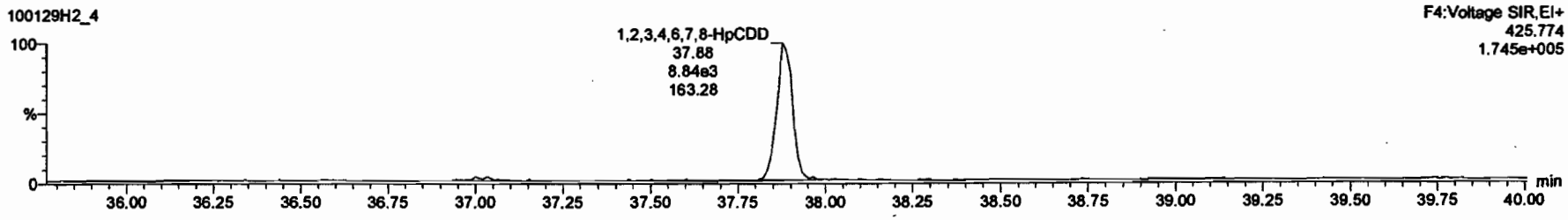

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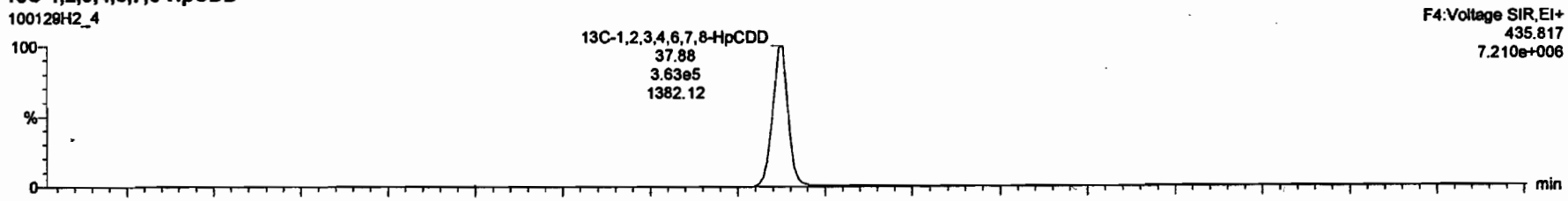

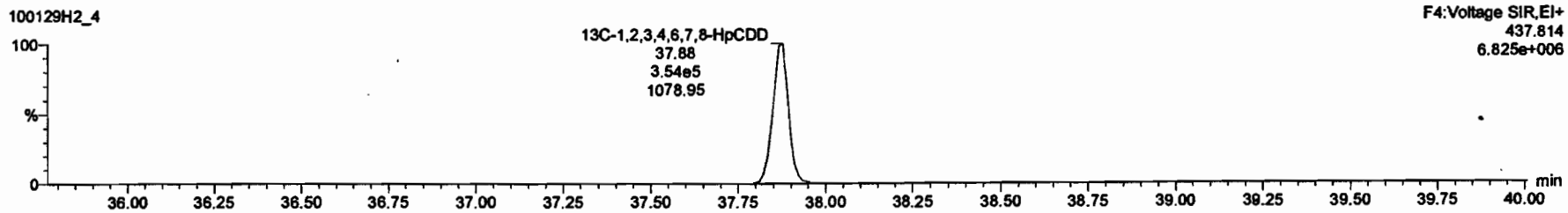

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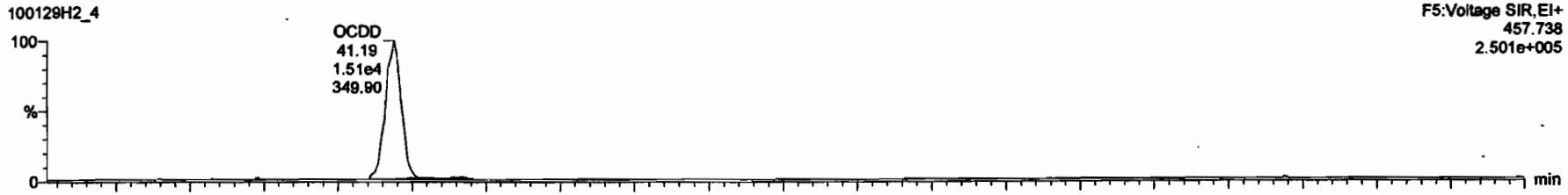

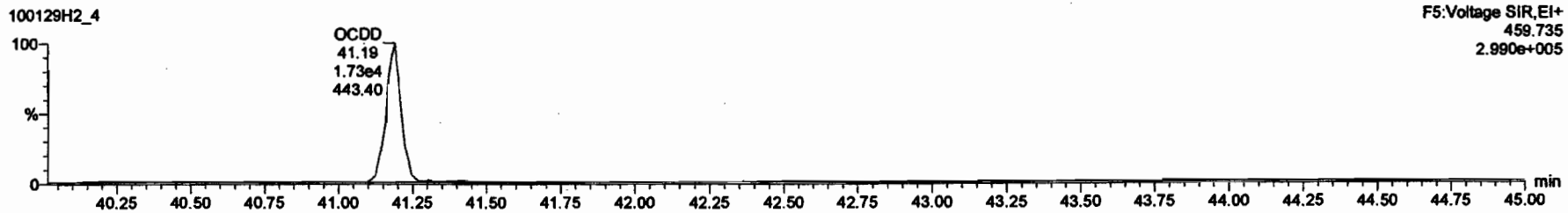

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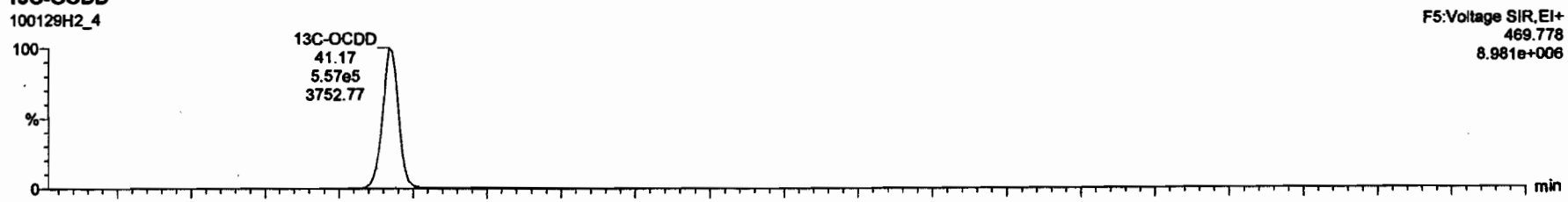

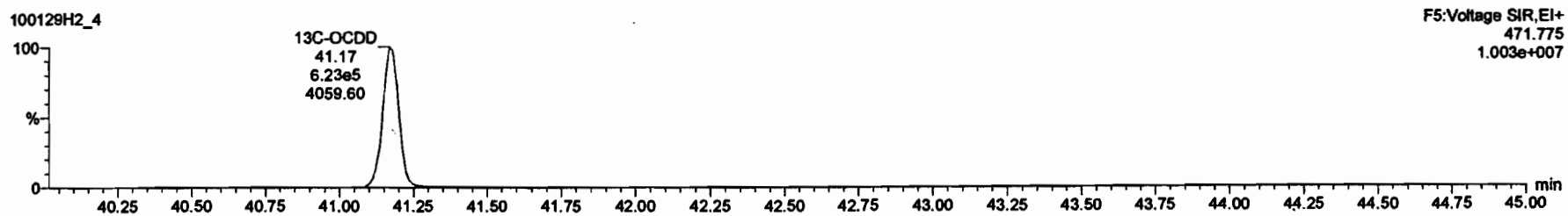

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2,3,7,8-TCDF

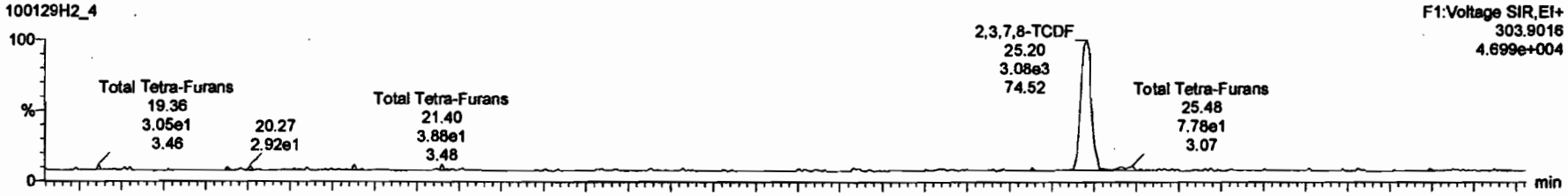

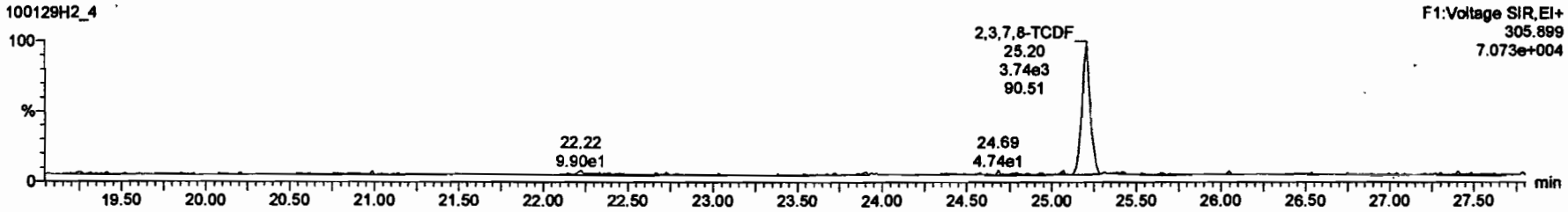

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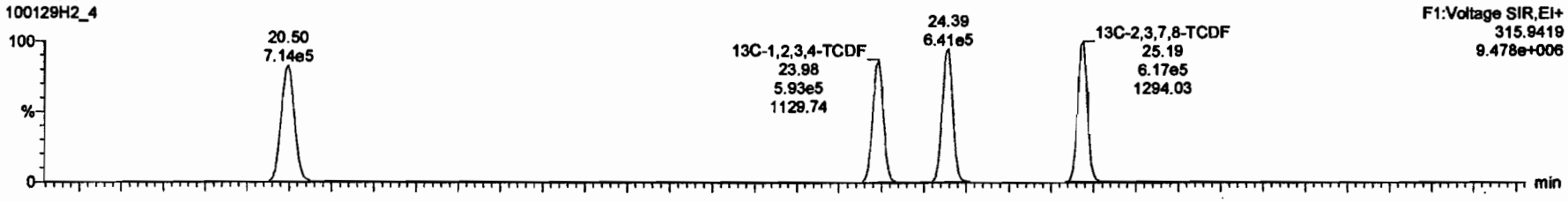

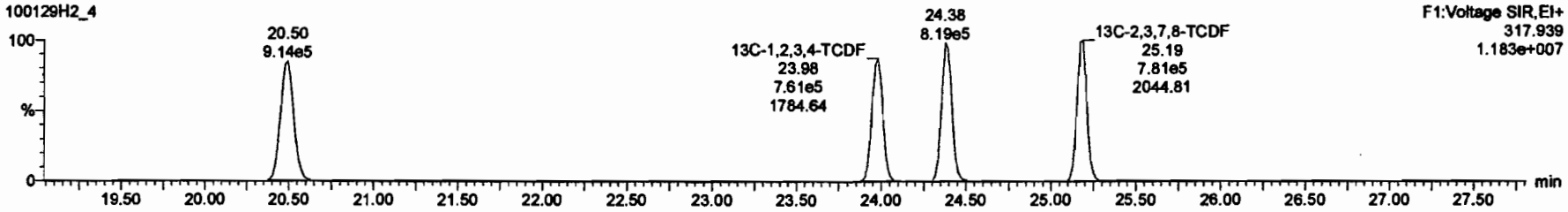

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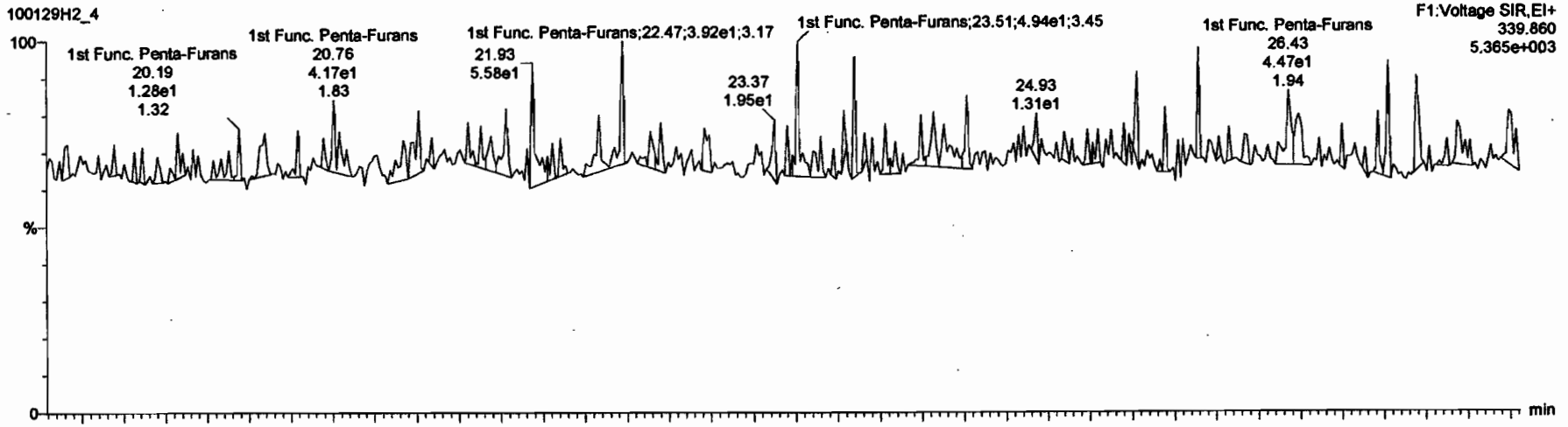

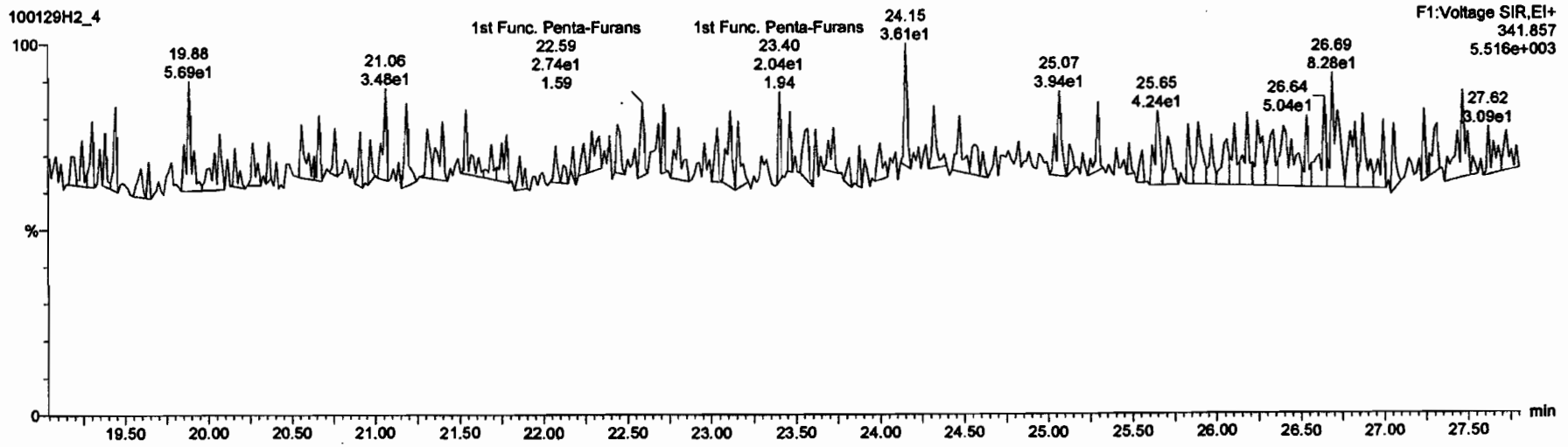

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1,2,3,7,8-PeCDF

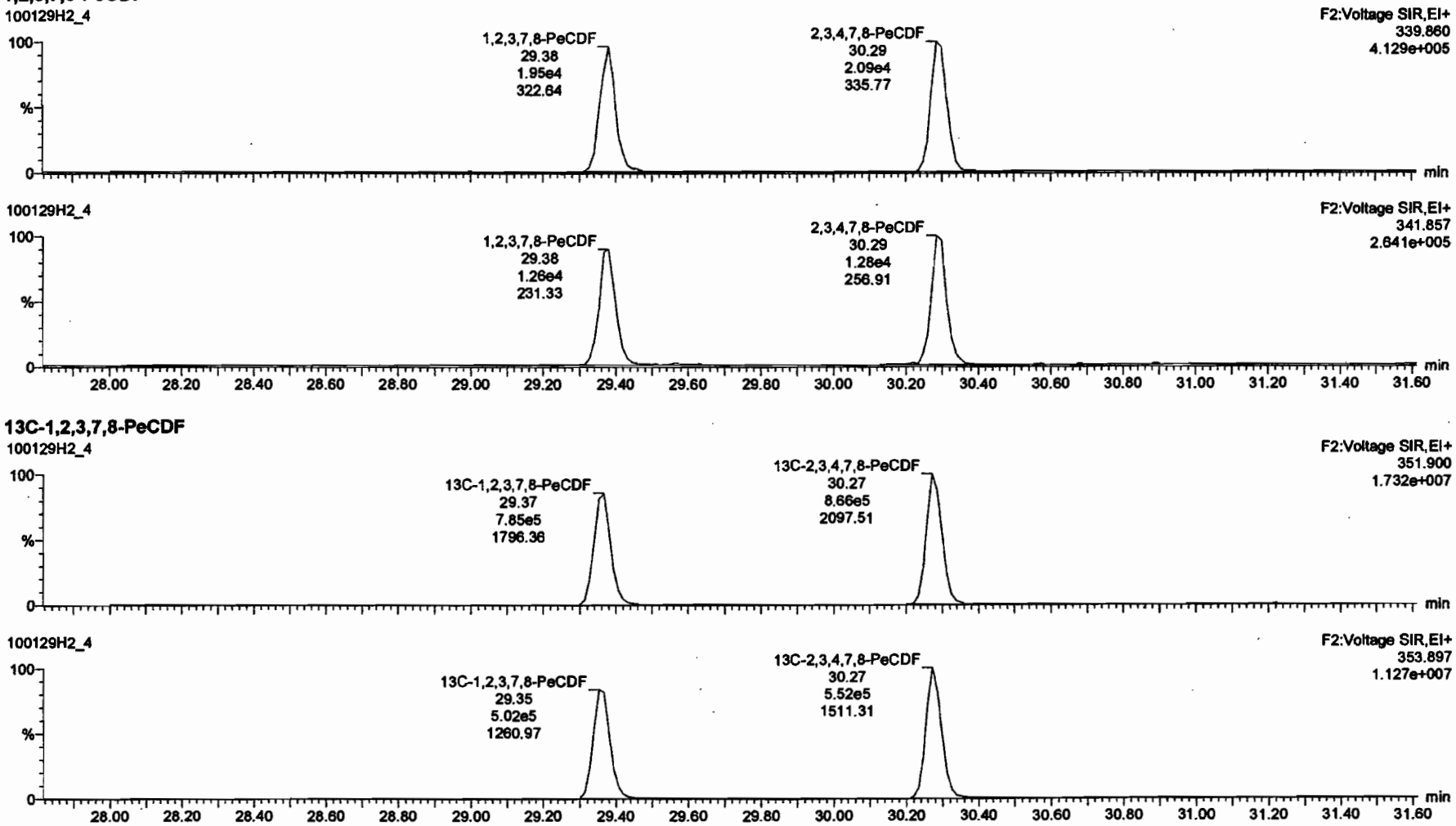

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1,2,3,4,7,8-HxCDF

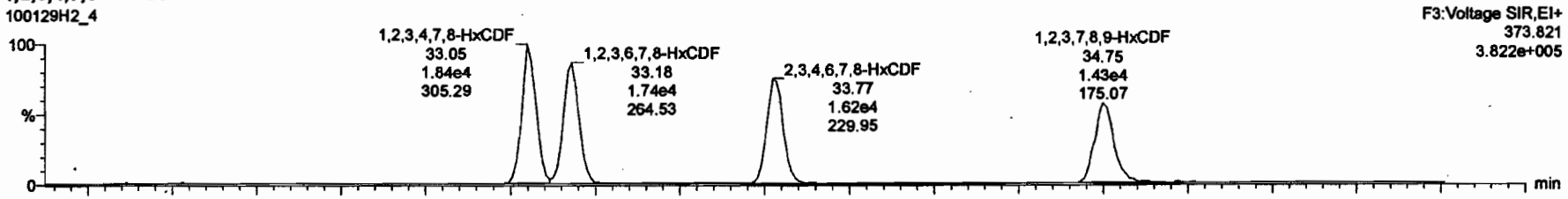

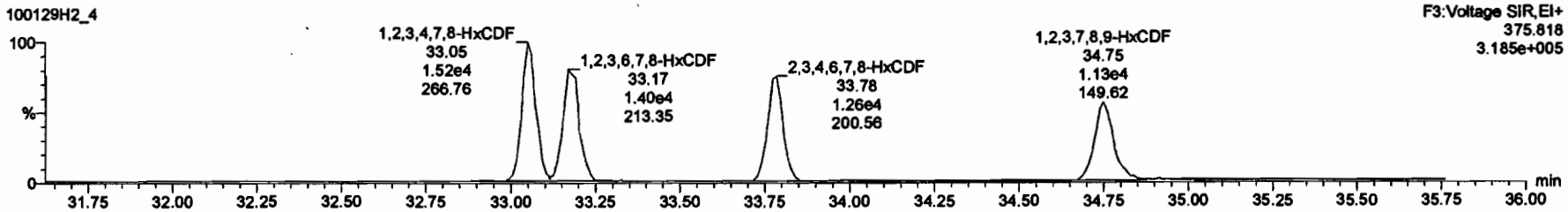

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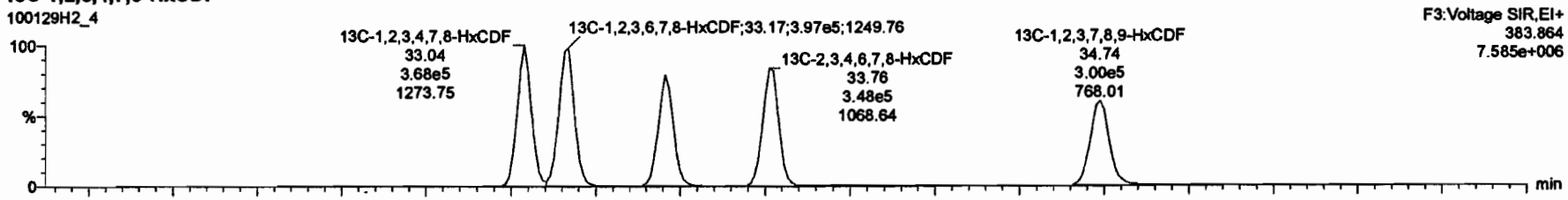

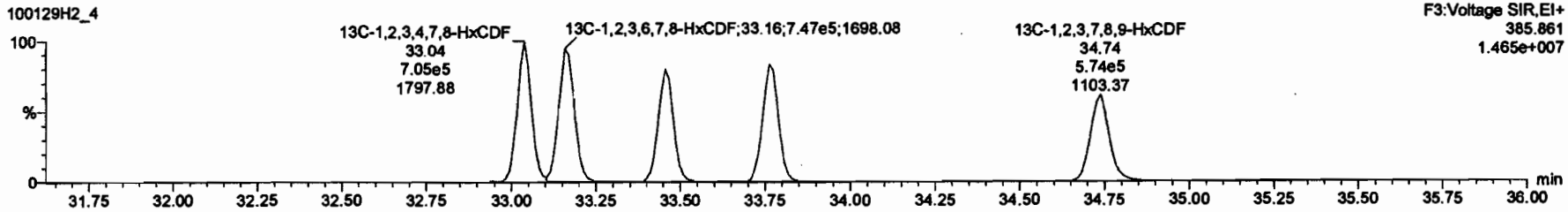

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1,2,3,4,6,7,8-HpCDF

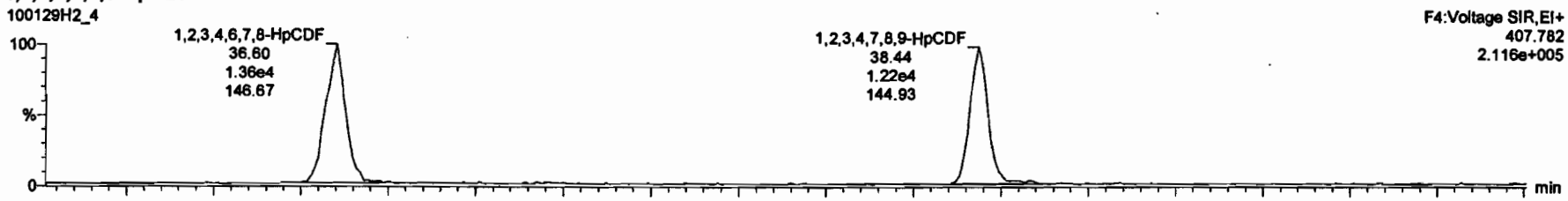

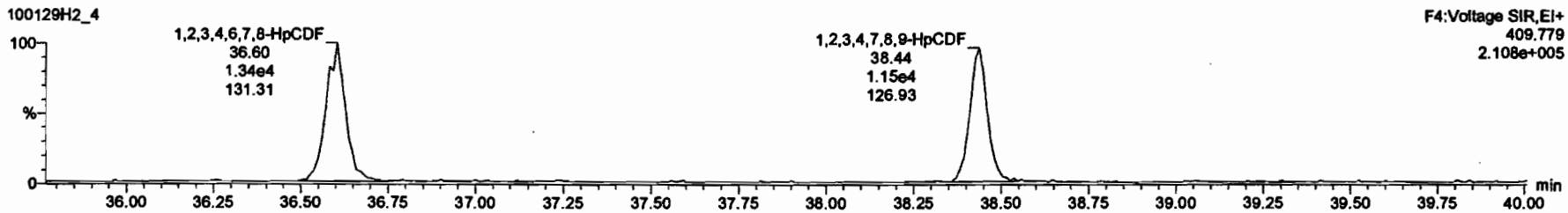

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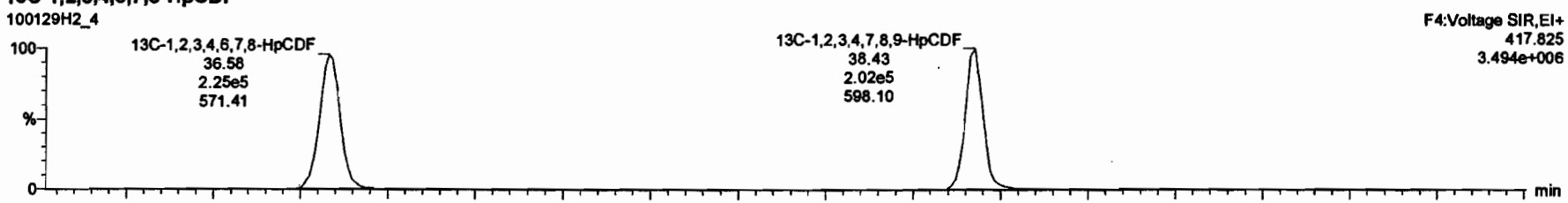

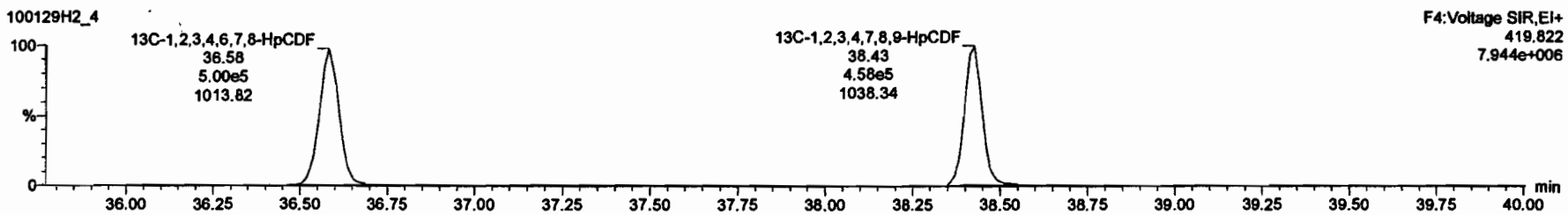

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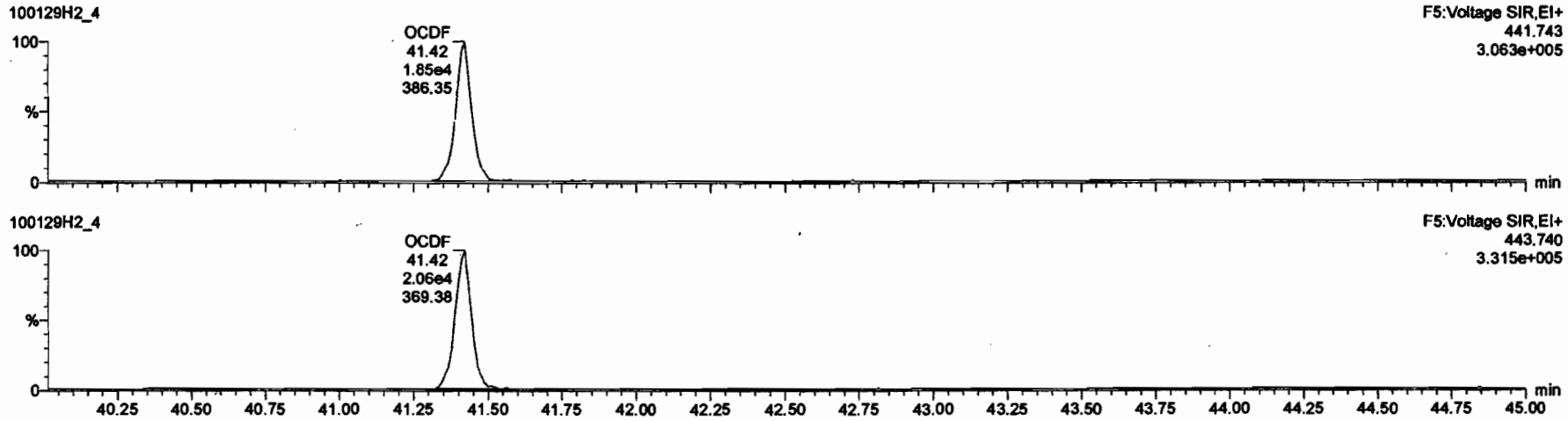

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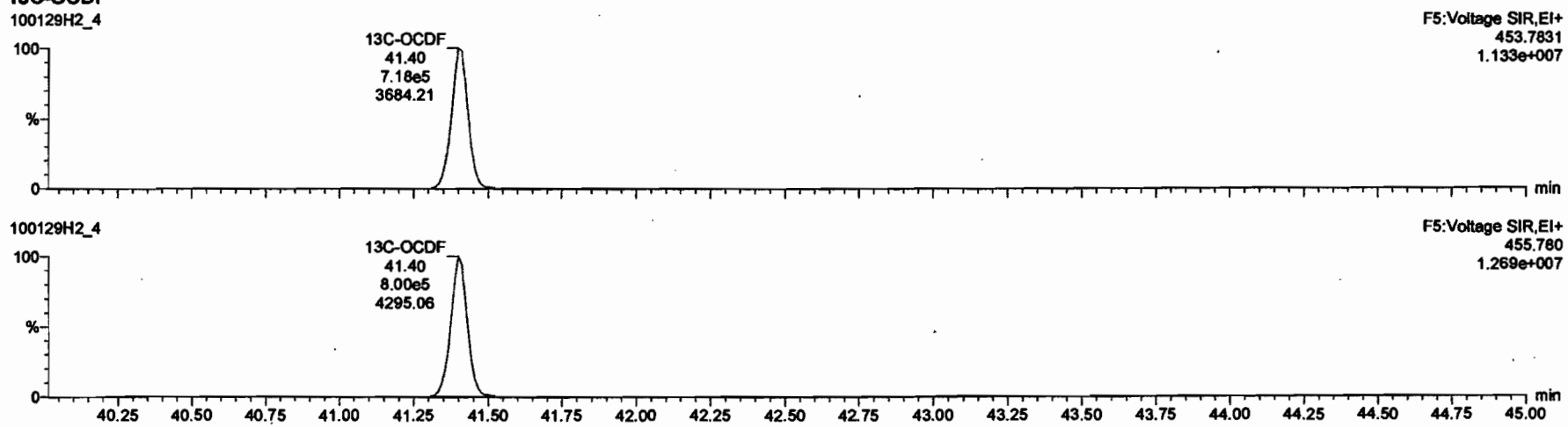

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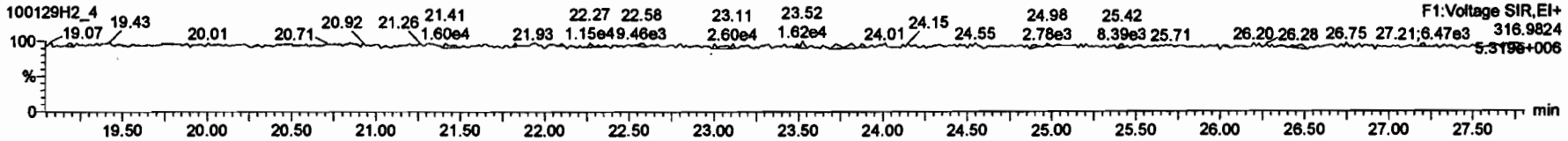

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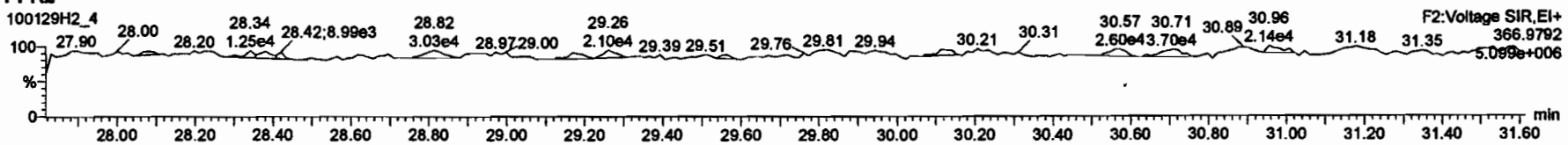

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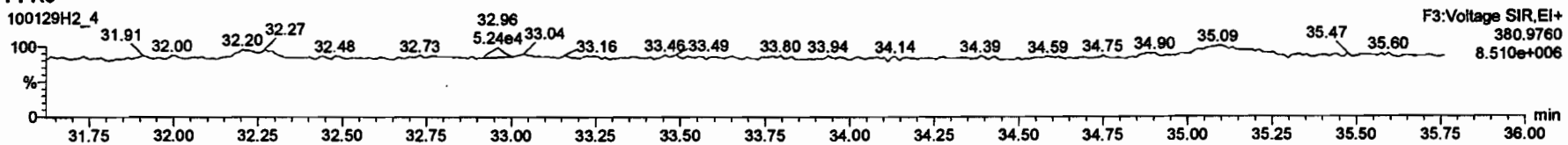

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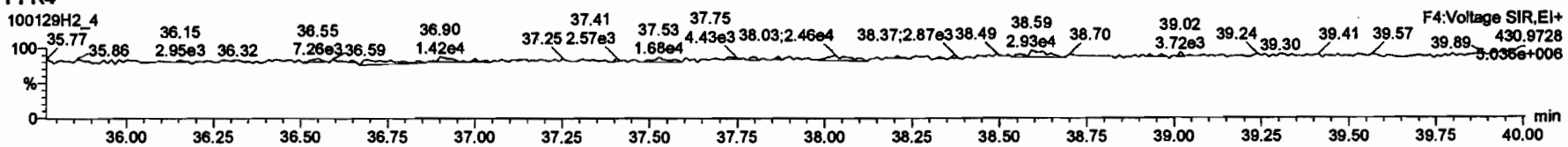

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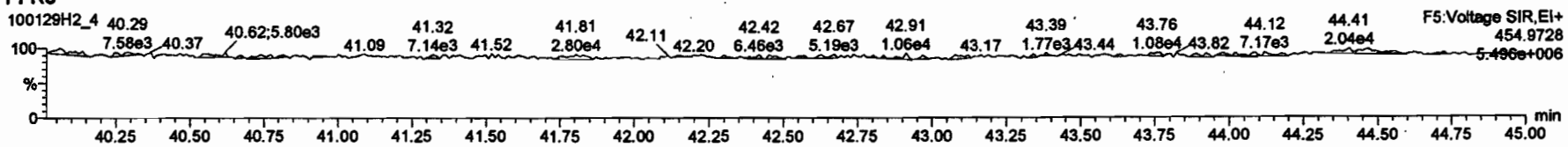

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Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
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Name: 100129H2_4, Date: 30-Jan-2010, Time: 04:42:54, ID: ST100129H2-3 1613 CS1 100127D, Description: 1613 CS1 100127D

DPE1

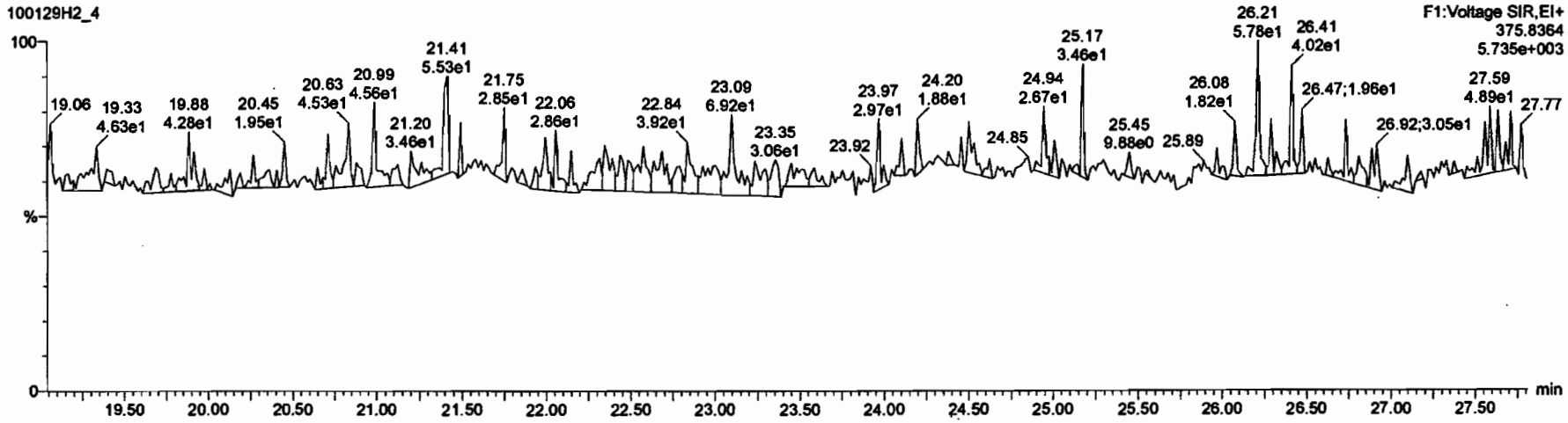

DPE6

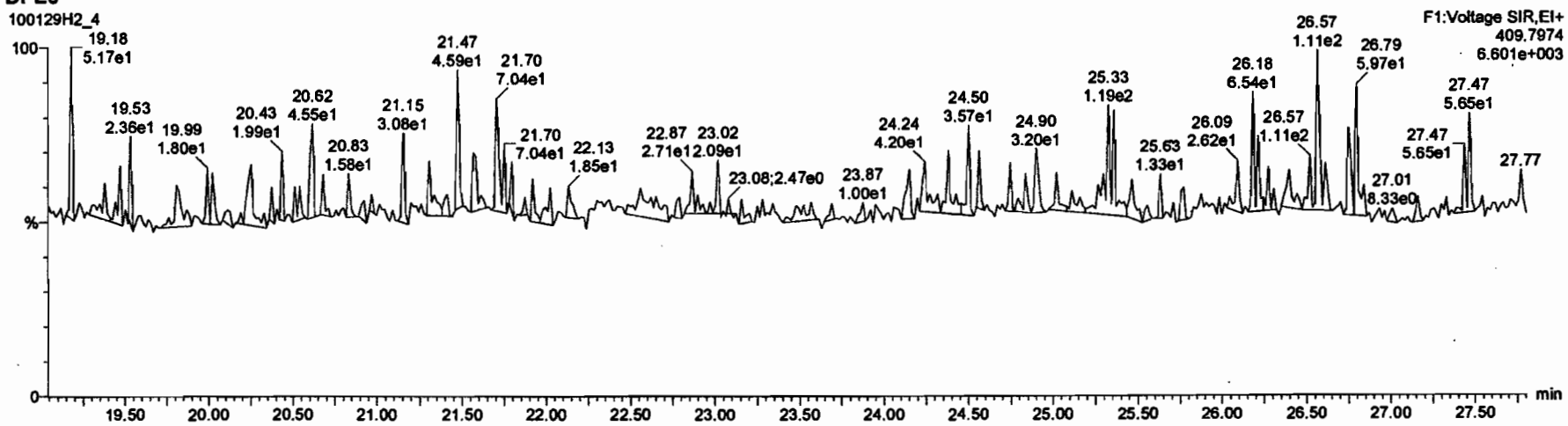

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

Name: 100129H2_4, Date: 30-Jan-2010, Time: 04:42:54, ID: ST100129H2-3 1613 CS1 100127D, Description: 1613 CS1 100127D

DPE2

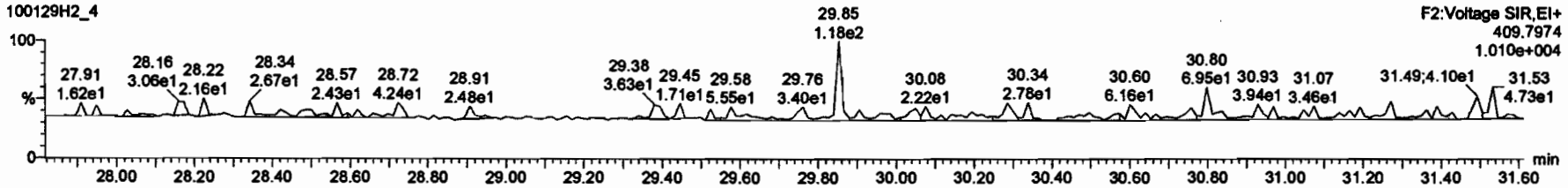

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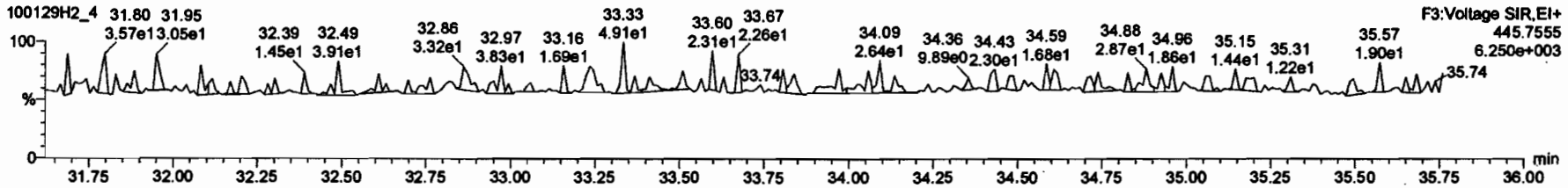

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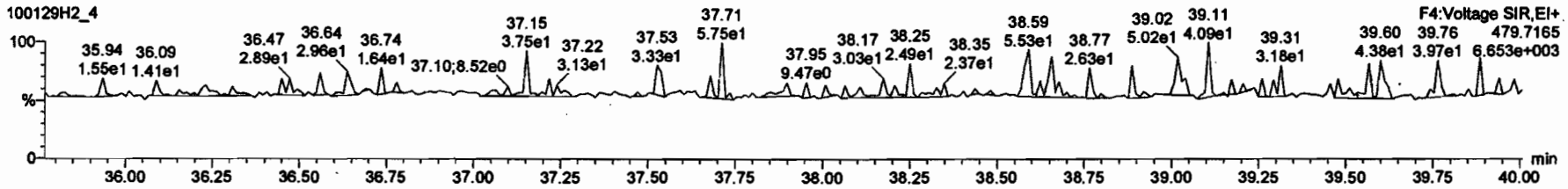

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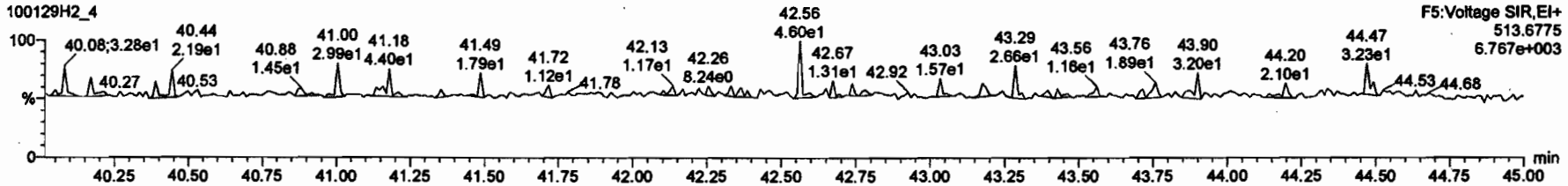

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Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

Name: 100129H2_5, Date: 30-Jan-2010, Time: 05:32:29, ID: ST100129H2-4 1613 CS2 100127E, Description: 1613 CS2 100127E

2,3,7,8-TCDD

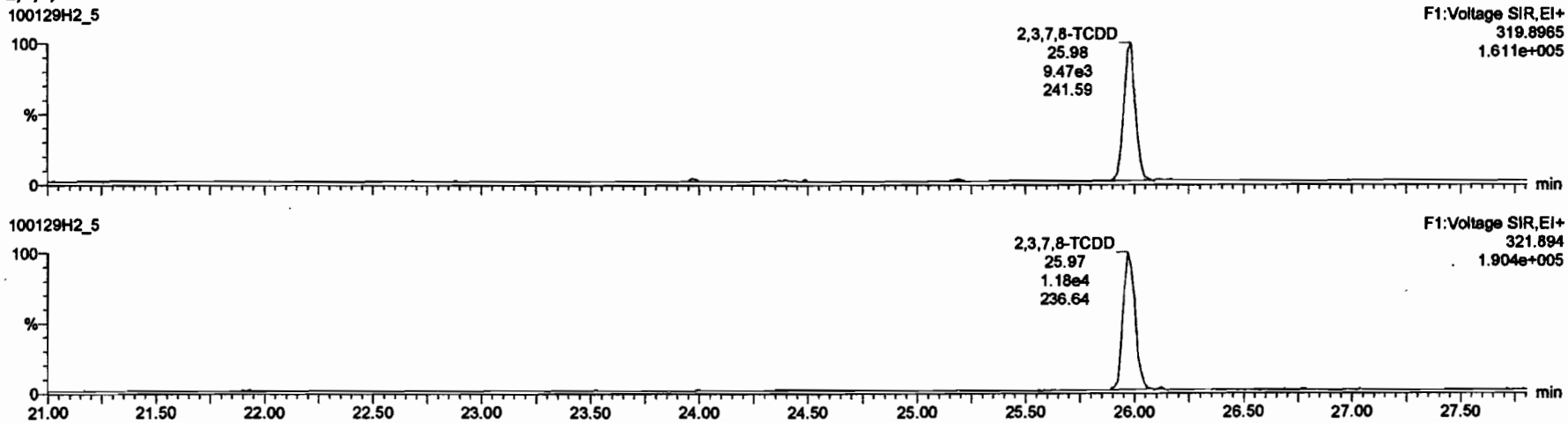

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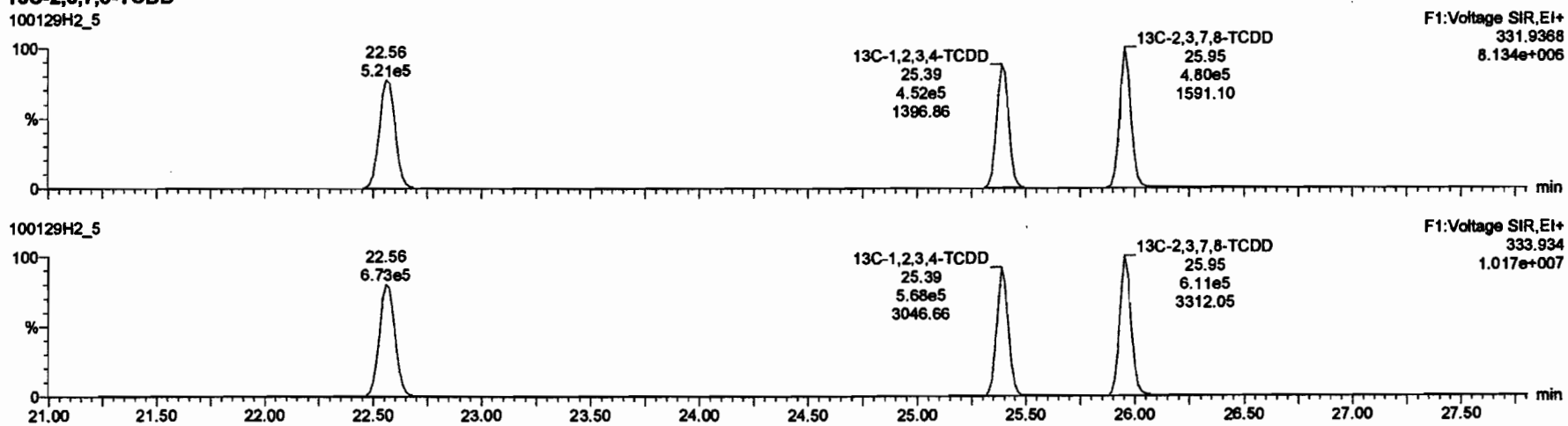

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37Cl-2,3,7,8-TCDD

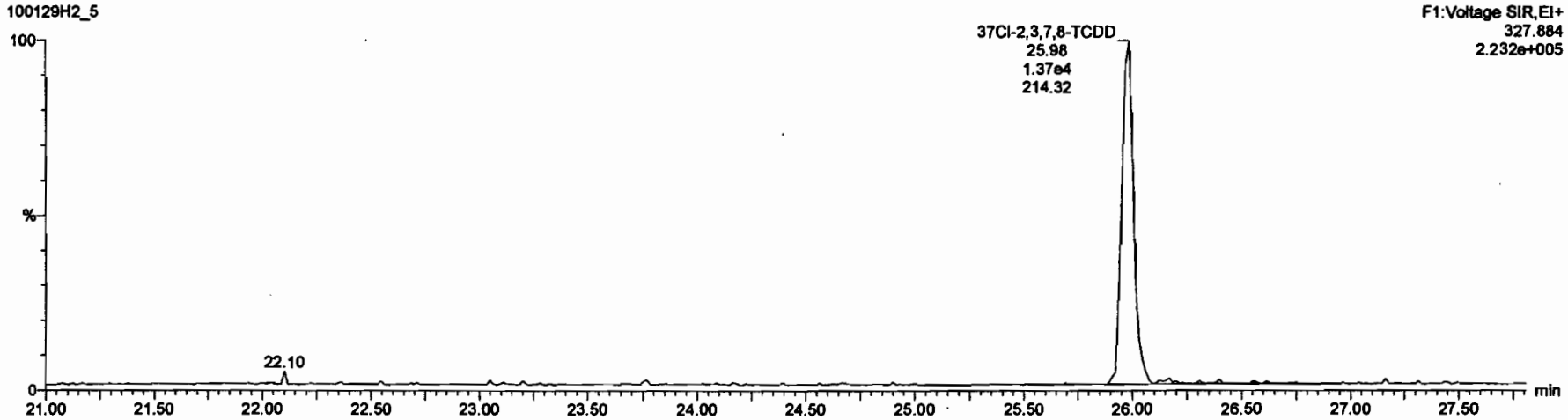

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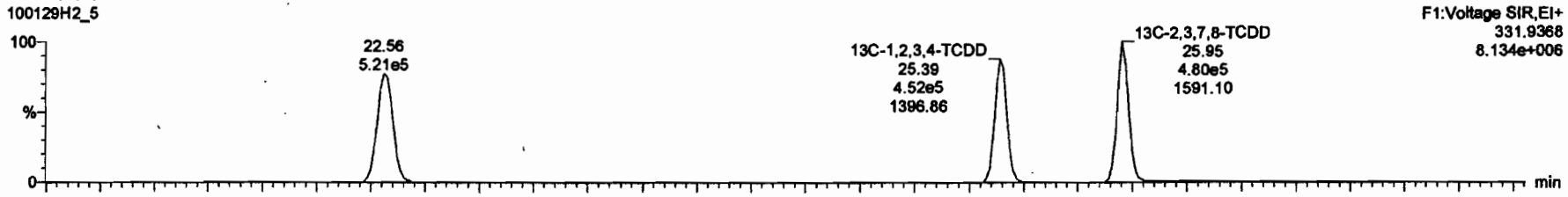

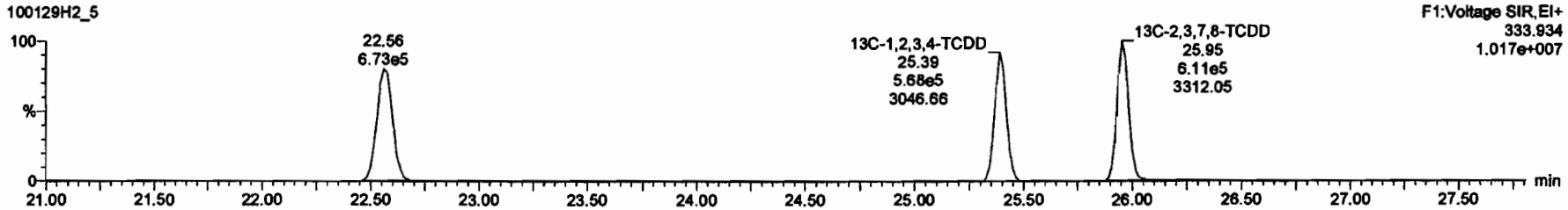

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Name: 100129H2_5, Date: 30-Jan-2010, Time: 05:32:29, ID: ST100129H2-4 1613 CS2 100127E, Description: 1613 CS2 100127E

1,2,3,7,8-PeCDD

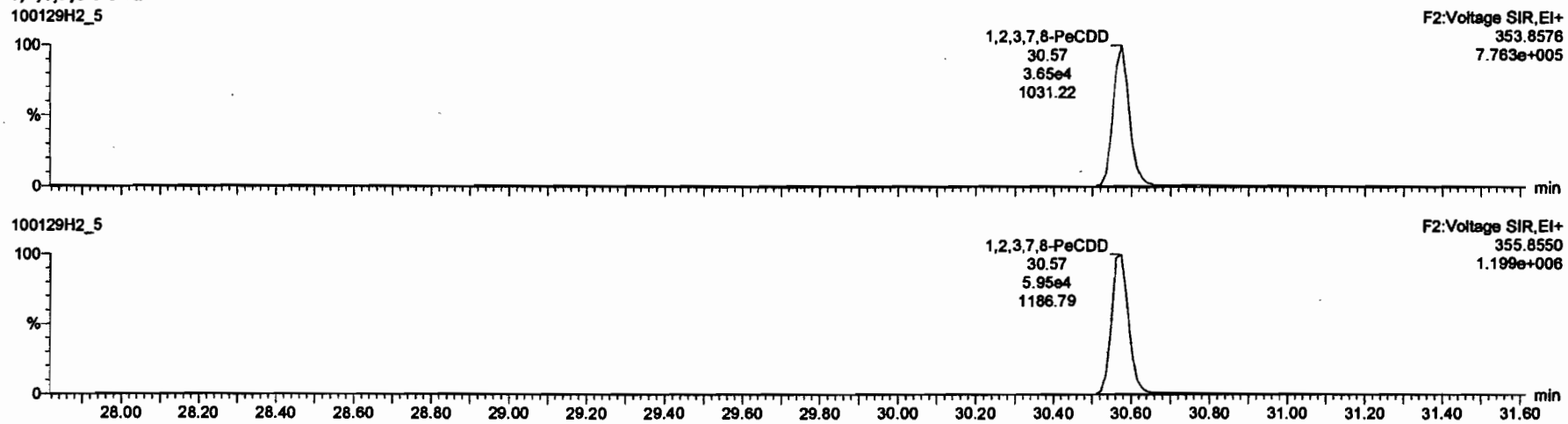

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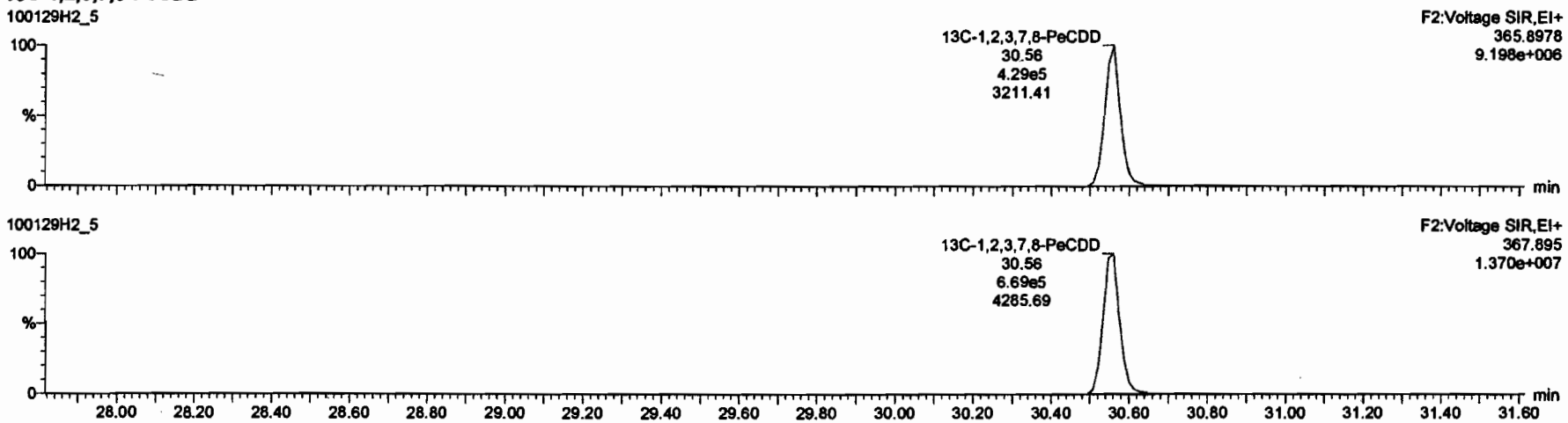

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Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

Name: 100129H2_5, Date: 30-Jan-2010, Time: 05:32:29, ID: ST100129H2-4 1613 CS2 100127E, Description: 1613 CS2 100127E

1,2,3,4,7,8-HxCDD

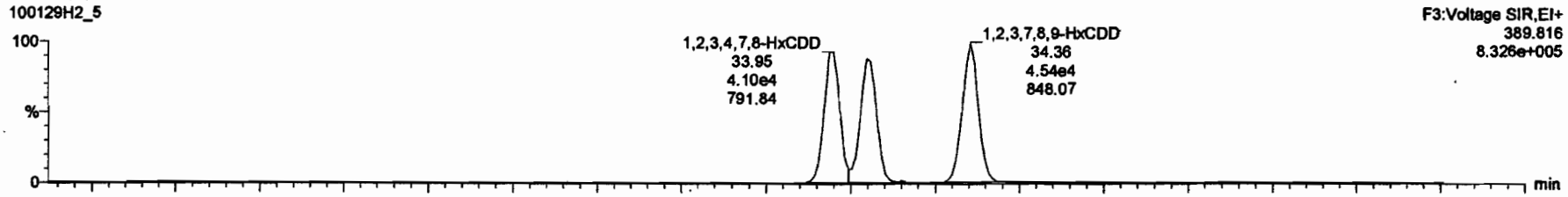

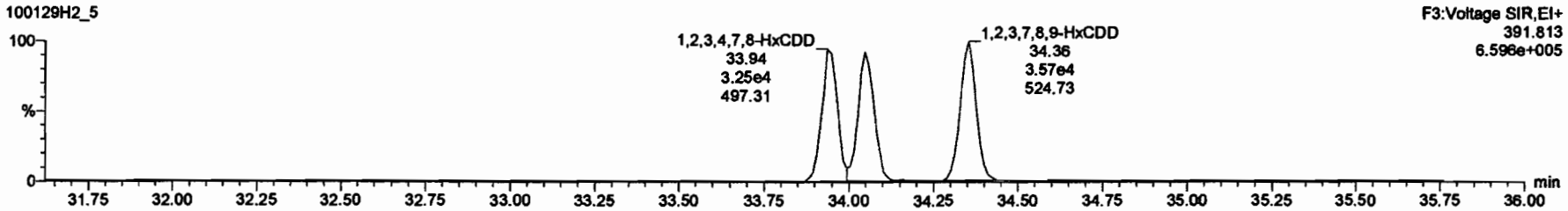

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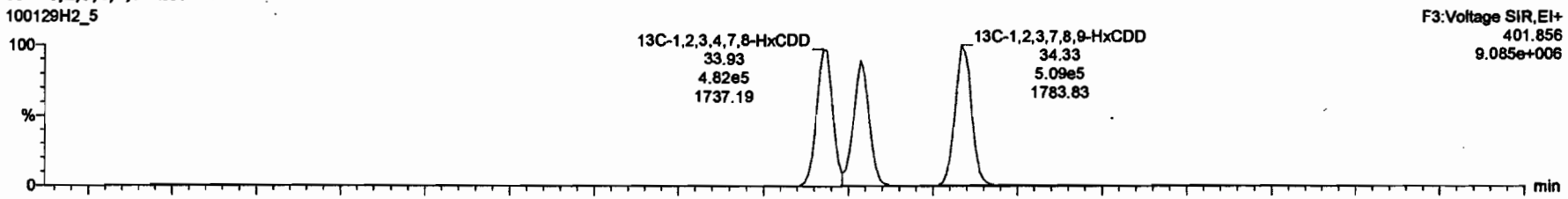

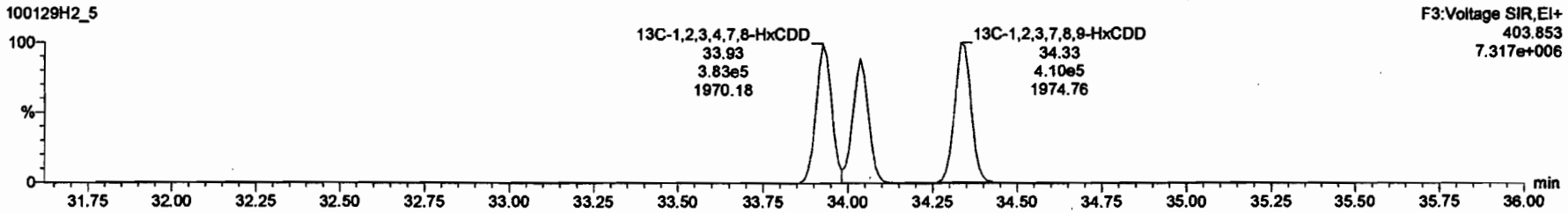

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Name: 100129H2_5, Date: 30-Jan-2010, Time: 05:32:29, ID: ST100129H2-4 1613 CS2 100127E, Description: 1613 CS2 100127E

1,2,3,4,6,7,8-HpCDD

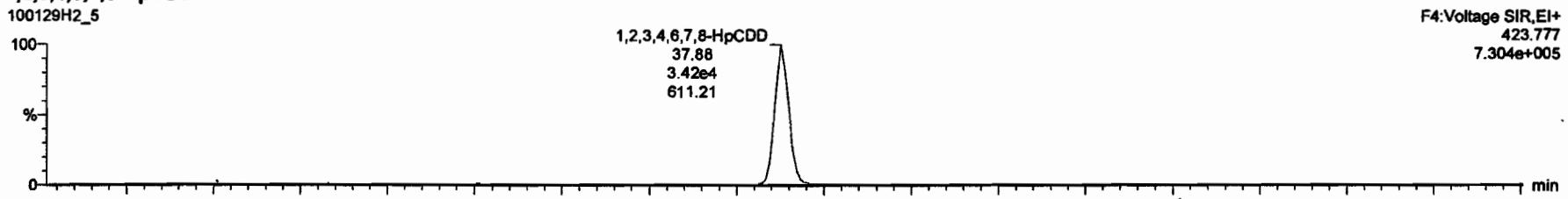

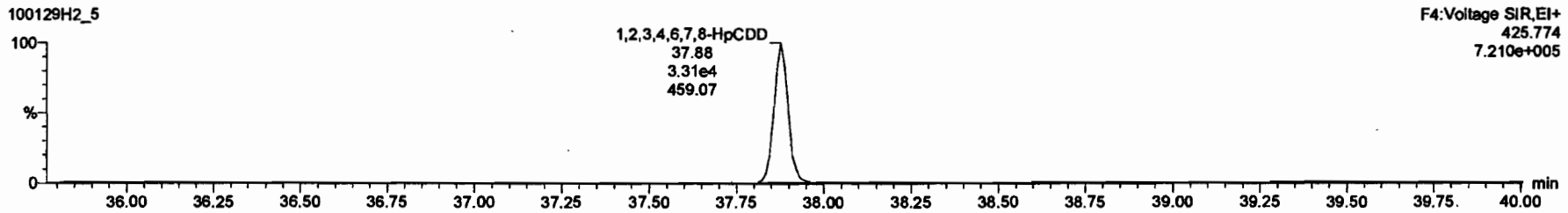

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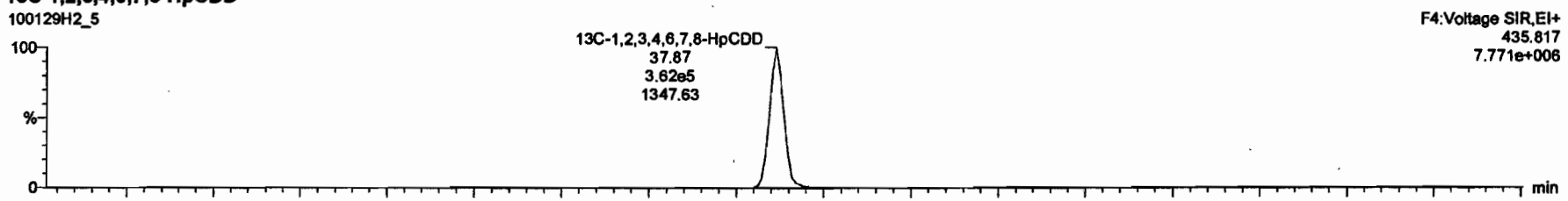

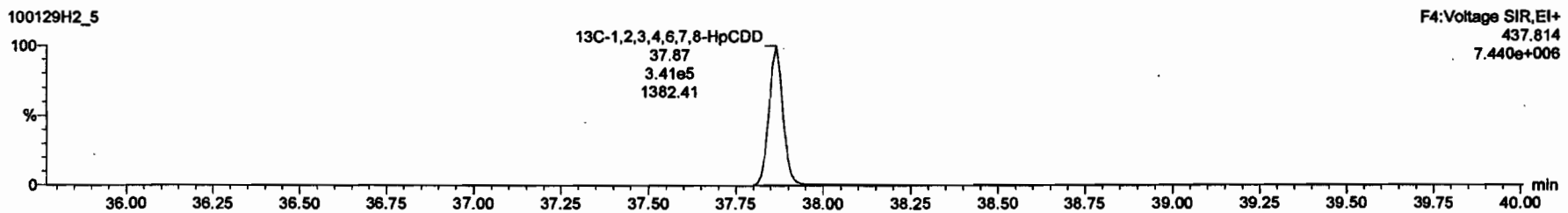

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Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
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Name: 100129H2_5, Date: 30-Jan-2010, Time: 05:32:29, ID: ST100129H2-4 1613 CS2 100127E, Description: 1613 CS2 100127E

OCDD

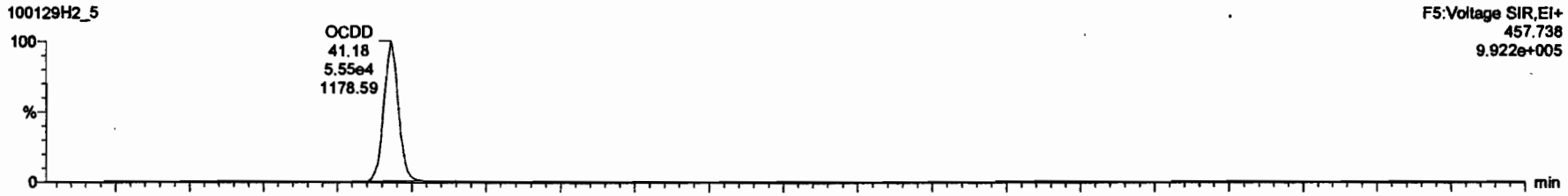

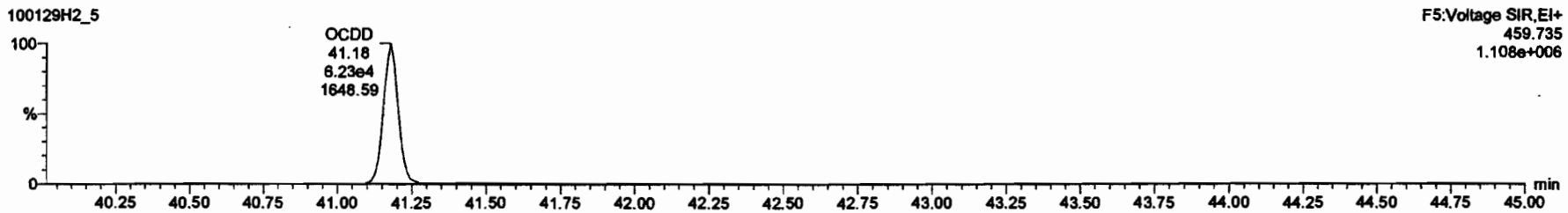

13C-OCDD

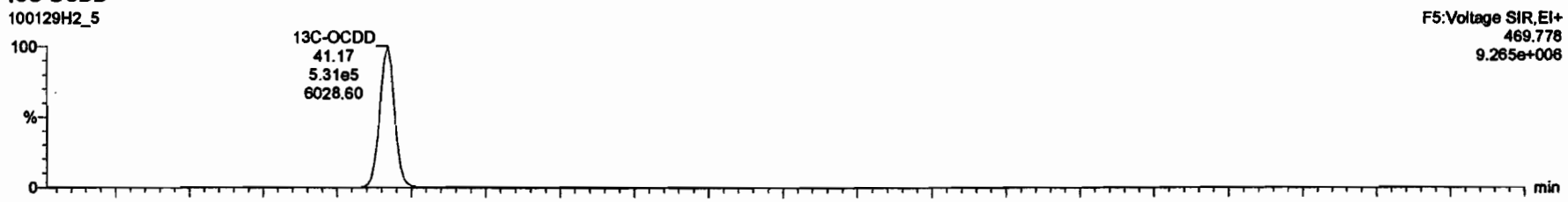

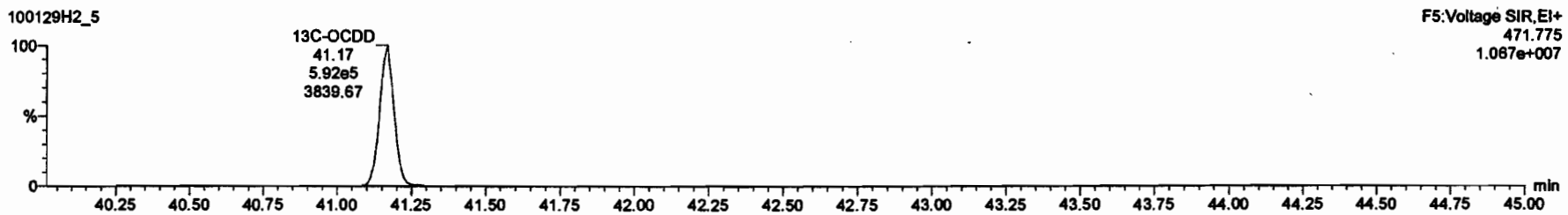

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Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
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Name: 100129H2_5, Date: 30-Jan-2010, Time: 05:32:29, ID: ST100129H2-4 1613 CS2 100127E, Description: 1613 CS2 100127E

2,3,7,8-TCDF

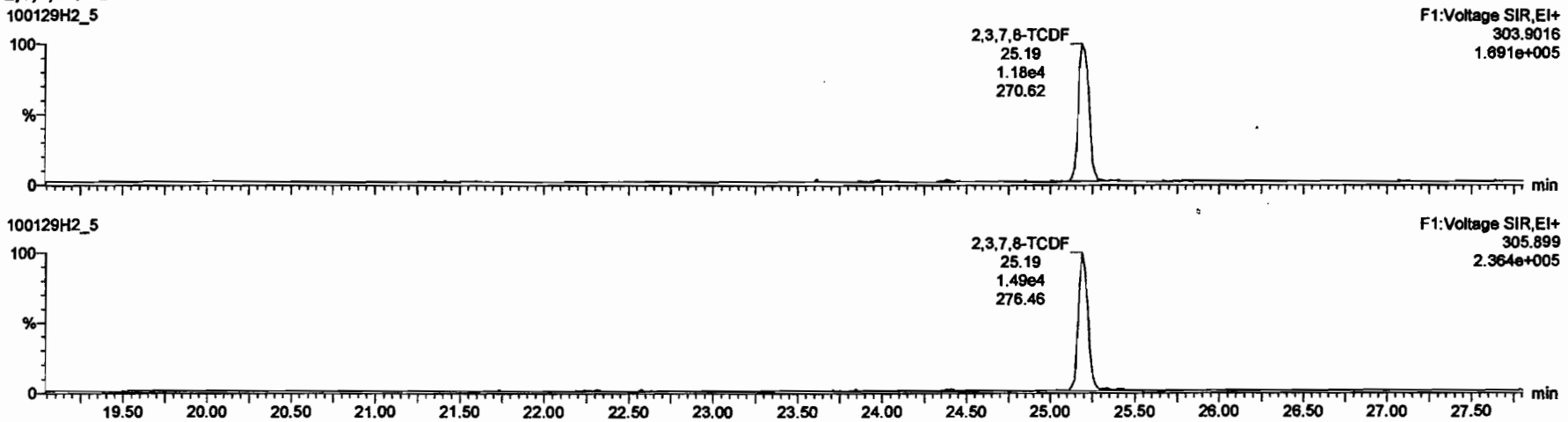

13C-2,3,7,8-TCDF

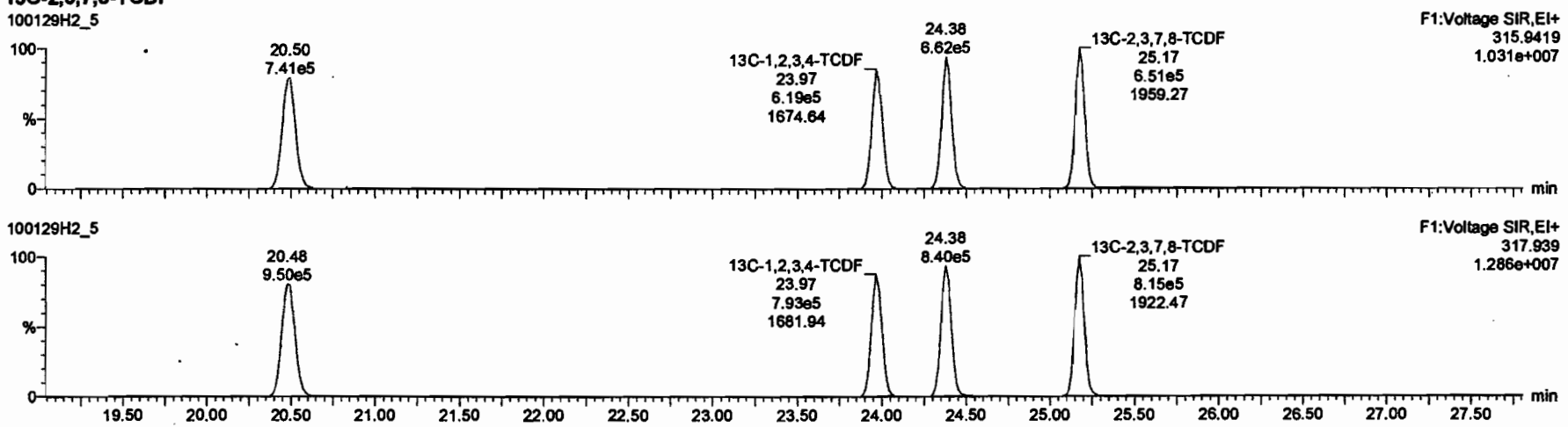

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Name: 100129H2_5, Date: 30-Jan-2010, Time: 05:32:29, ID: ST100129H2-4 1613 CS2 100127E, Description: 1613 CS2 100127E

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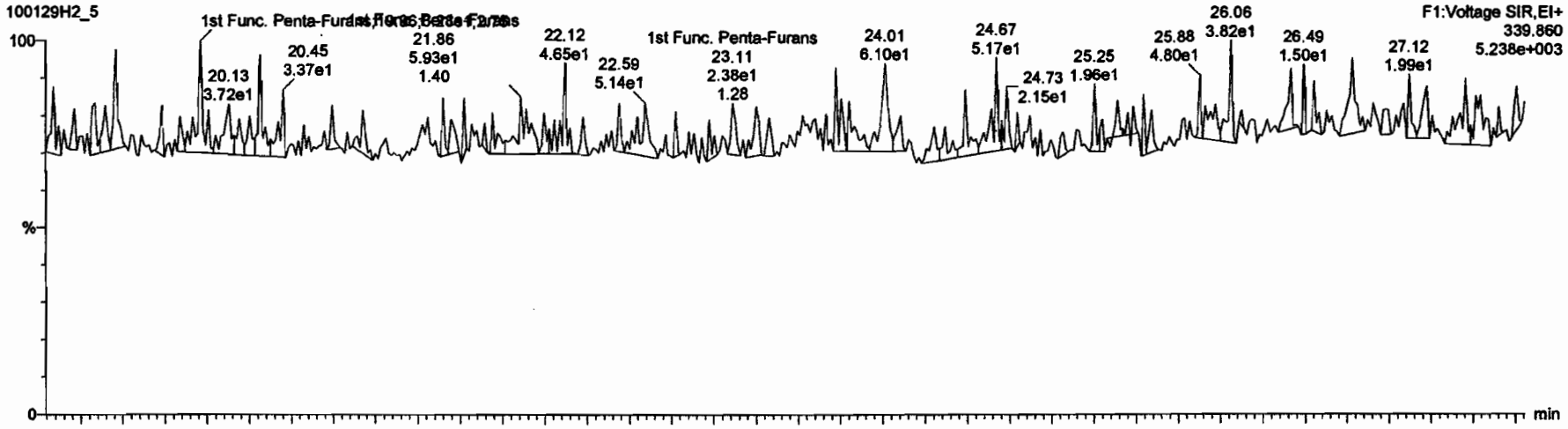

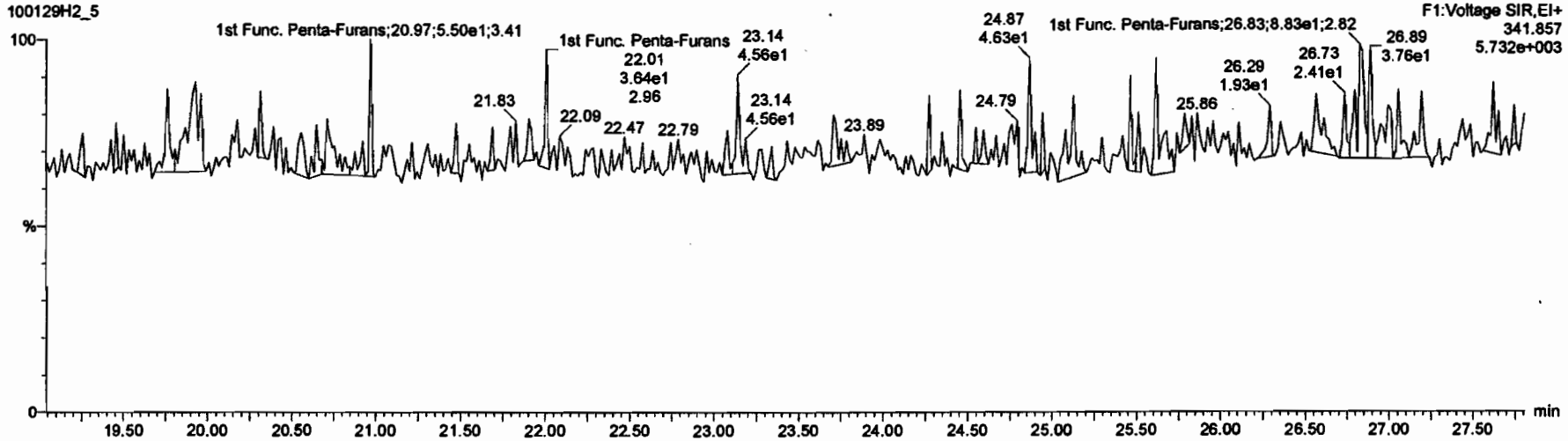

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Name: 100129H2_5, Date: 30-Jan-2010, Time: 05:32:29, ID: ST100129H2-4 1613 CS2 100127E, Description: 1613 CS2 100127E

1,2,3,7,8-PeCDF

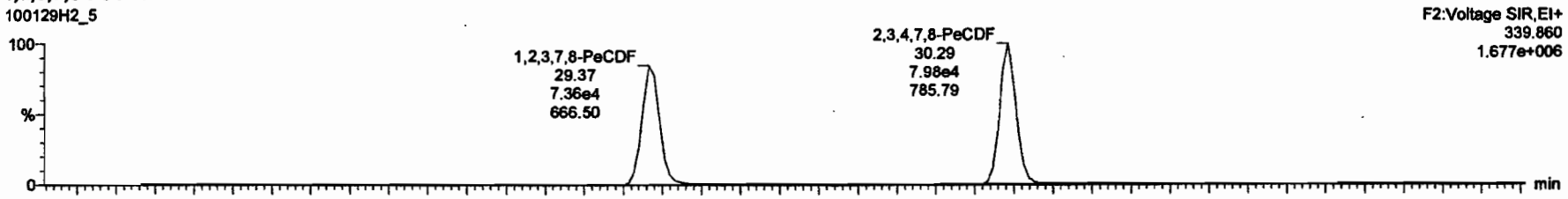

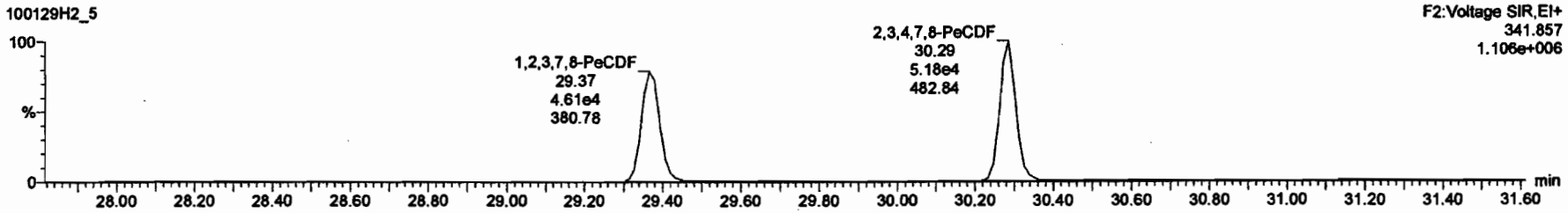

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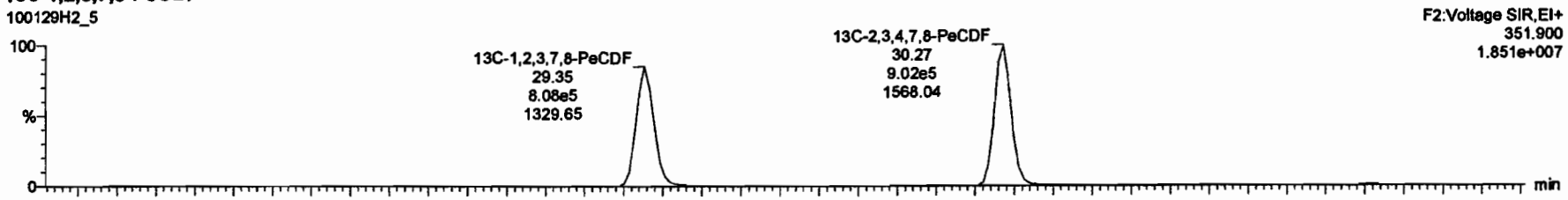

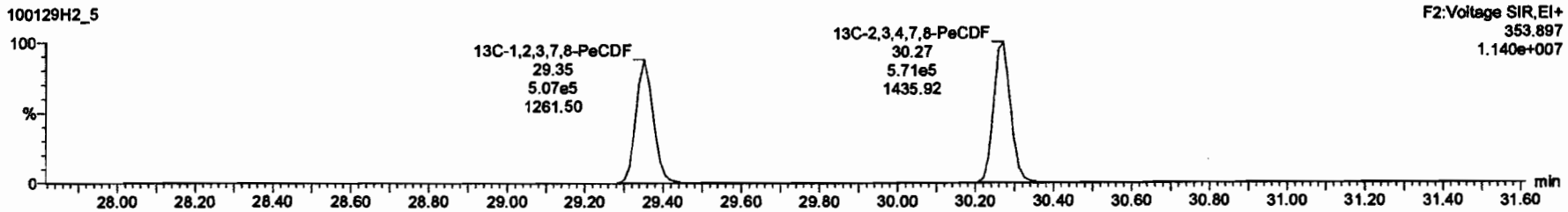

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Name: 100129H2_5, Date: 30-Jan-2010, Time: 05:32:29, ID: ST100129H2-4 1613 CS2 100127E, Description: 1613 CS2 100127E

1,2,3,4,7,8-HxCDF

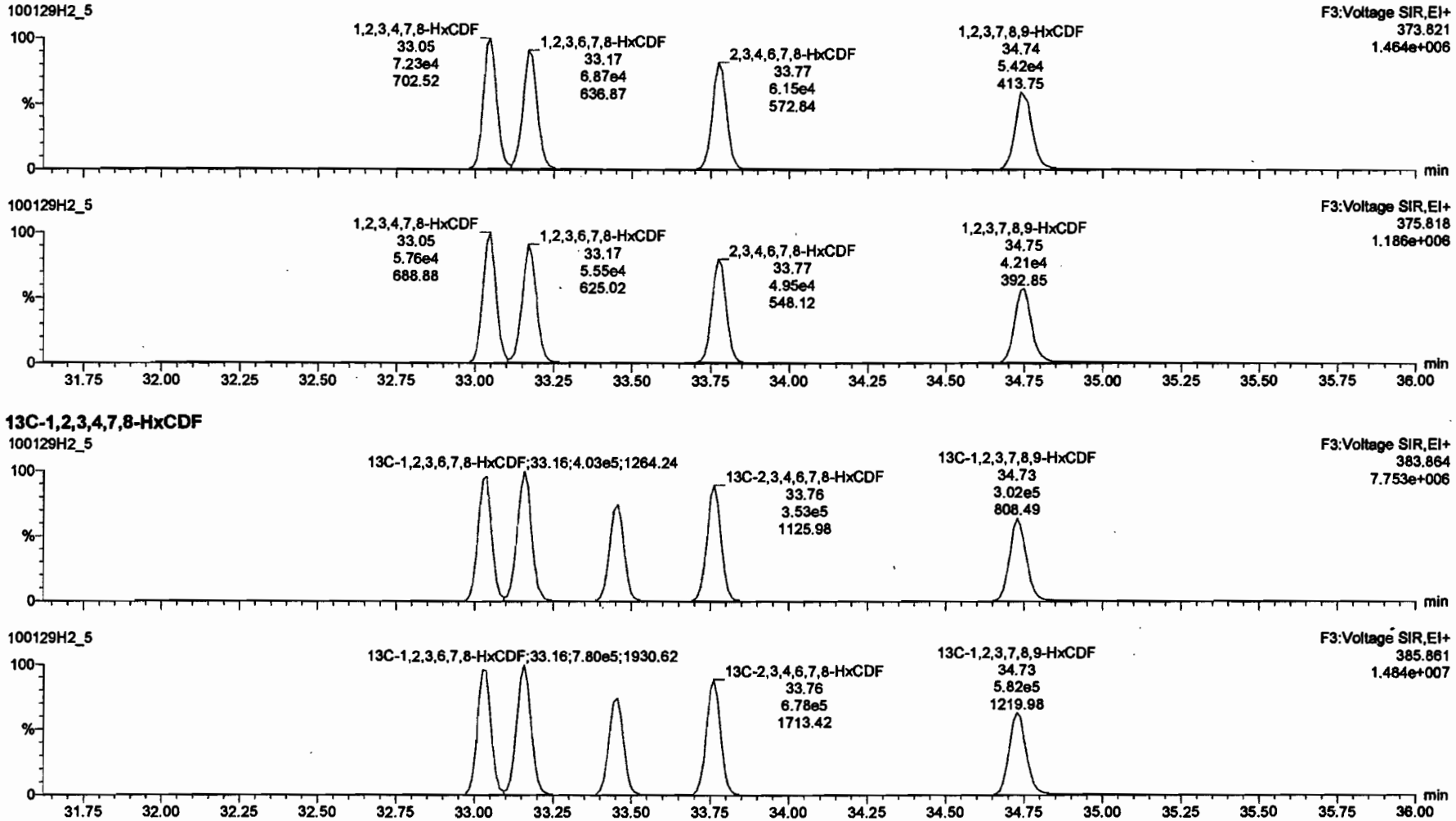

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Name: 100129H2_5, Date: 30-Jan-2010, Time: 05:32:29, ID: ST100129H2-4 1613 CS2 100127E, Description: 1613 CS2 100127E

1,2,3,4,6,7,8-HpCDF

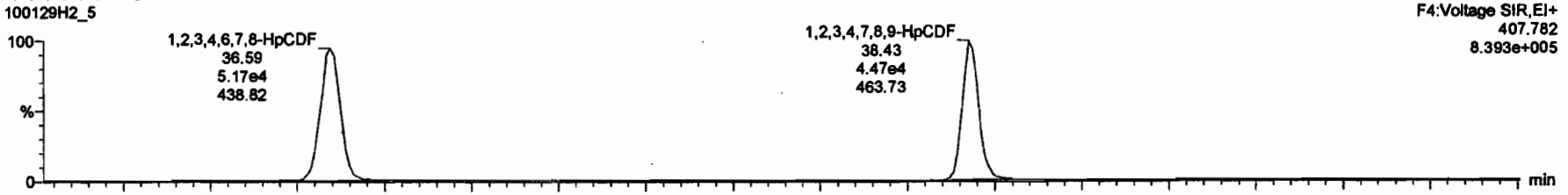

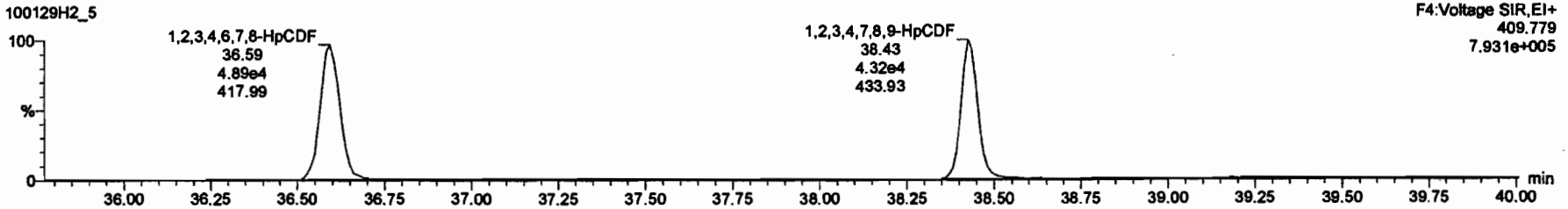

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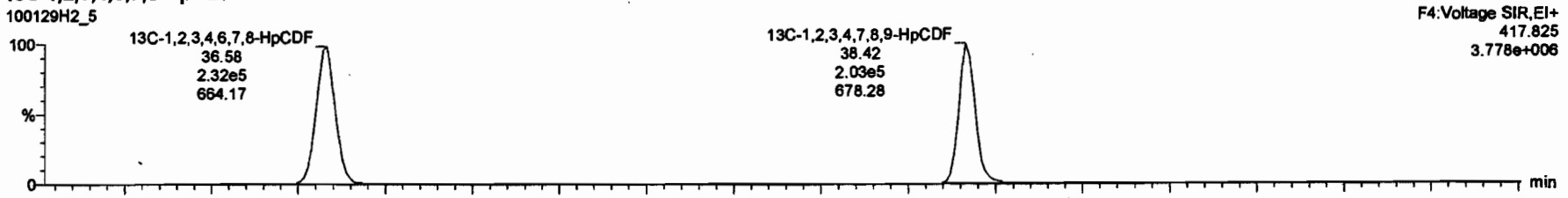

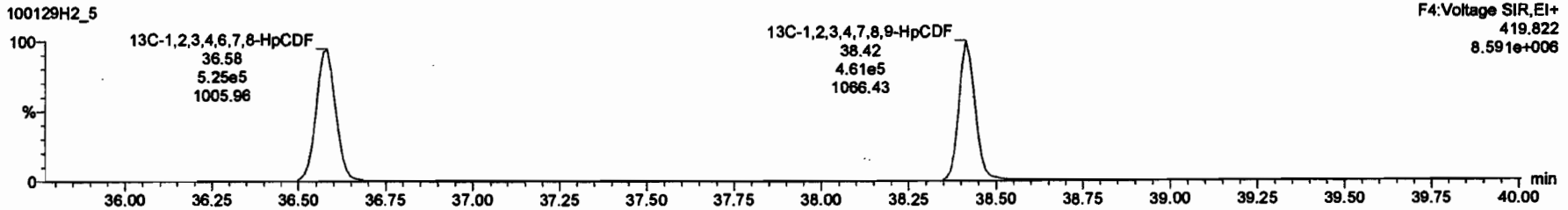

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OCDF

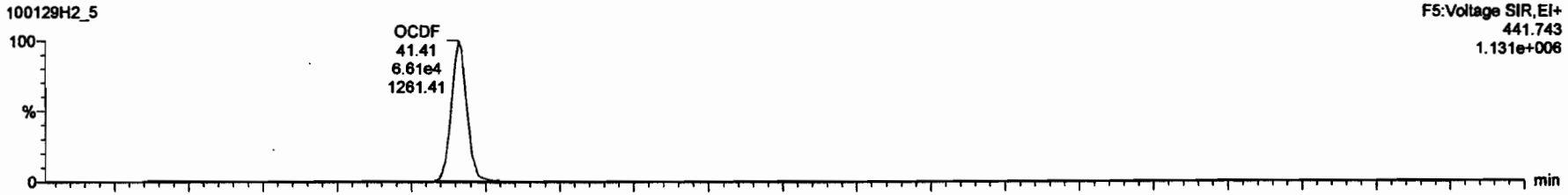

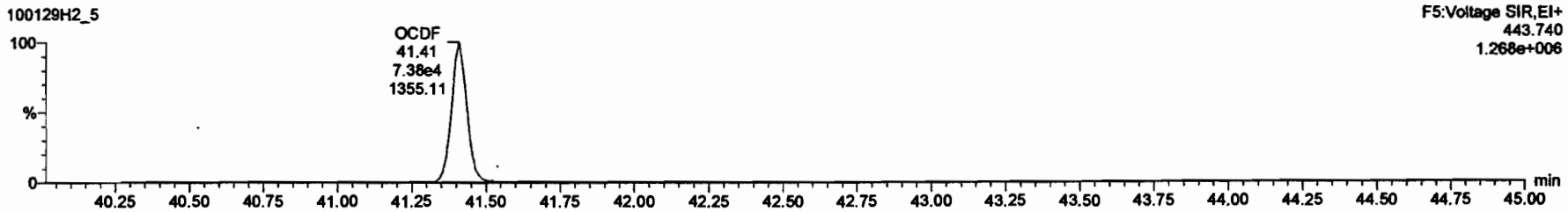

13C-OCDF

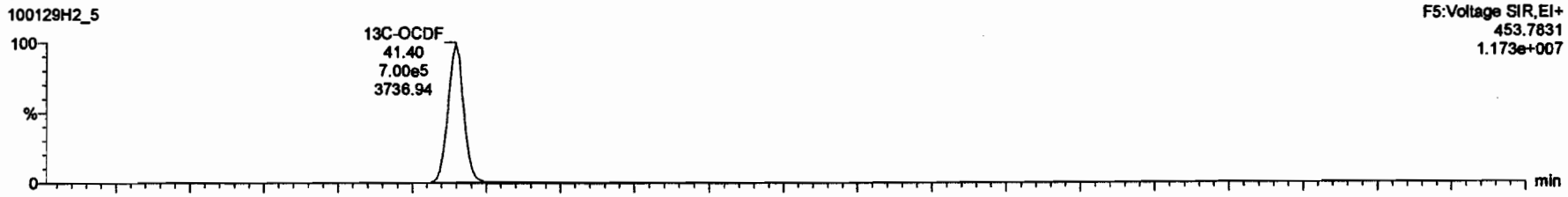

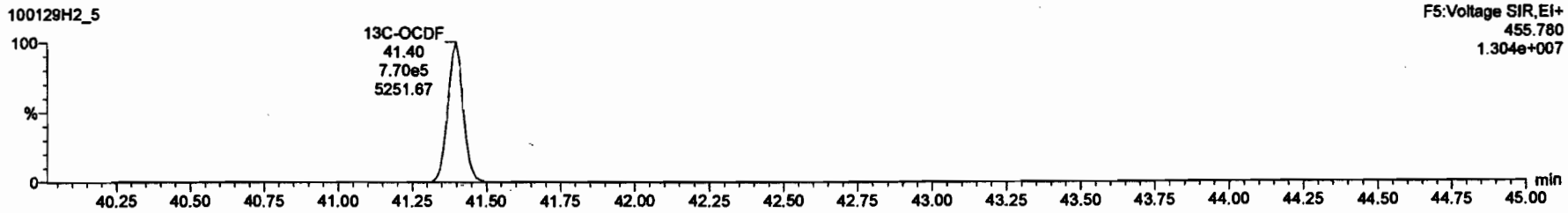

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Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
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Name: 100129H2_5, Date: 30-Jan-2010, Time: 05:32:29, ID: ST100129H2-4 1613 CS2 100127E, Description: 1613 CS2 100127E

PFK1

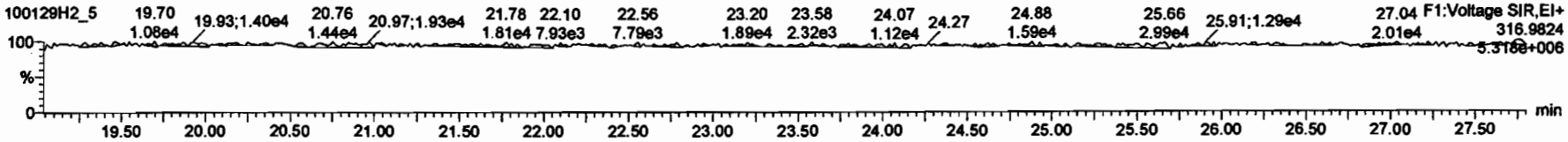

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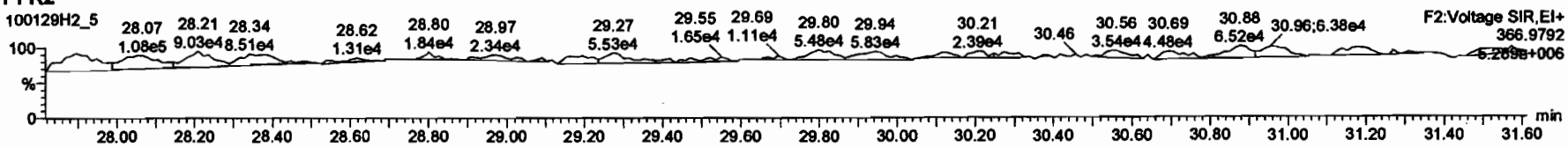

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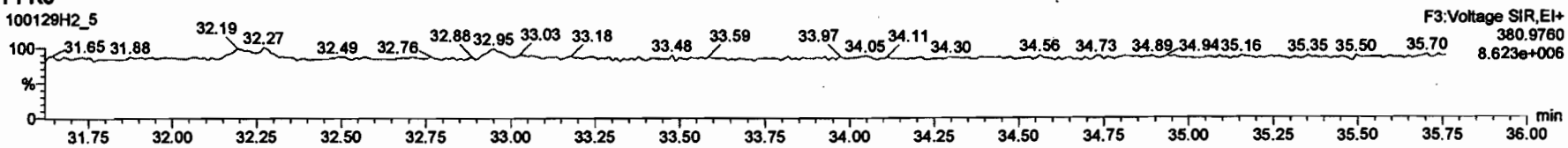

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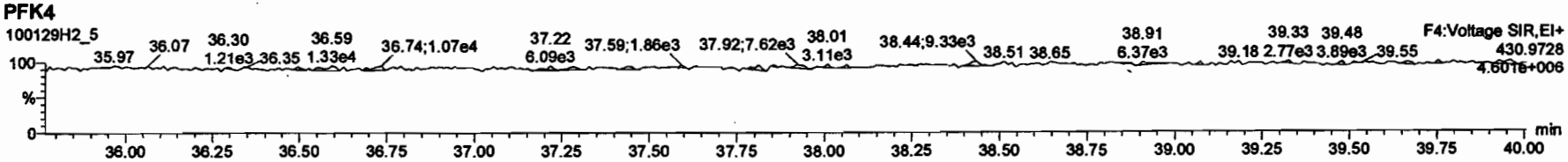

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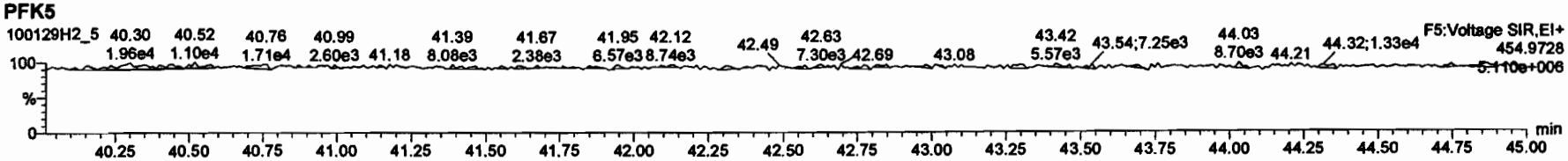

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Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

Name: 100129H2_5, Date: 30-Jan-2010, Time: 05:32:29, ID: ST100129H2-4 1613 CS2 100127E, Description: 1613 CS2 100127E

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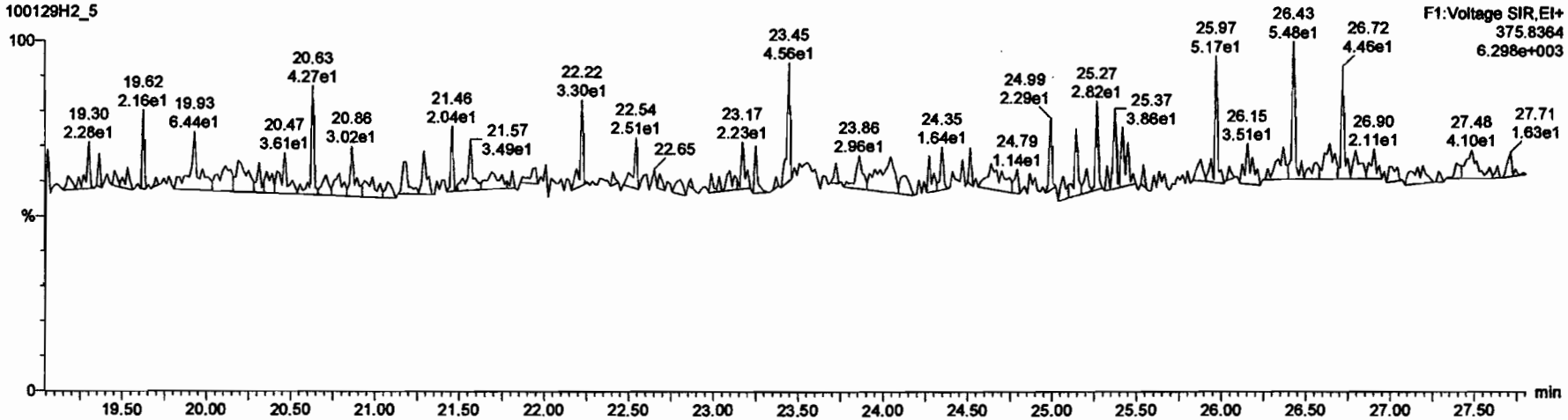

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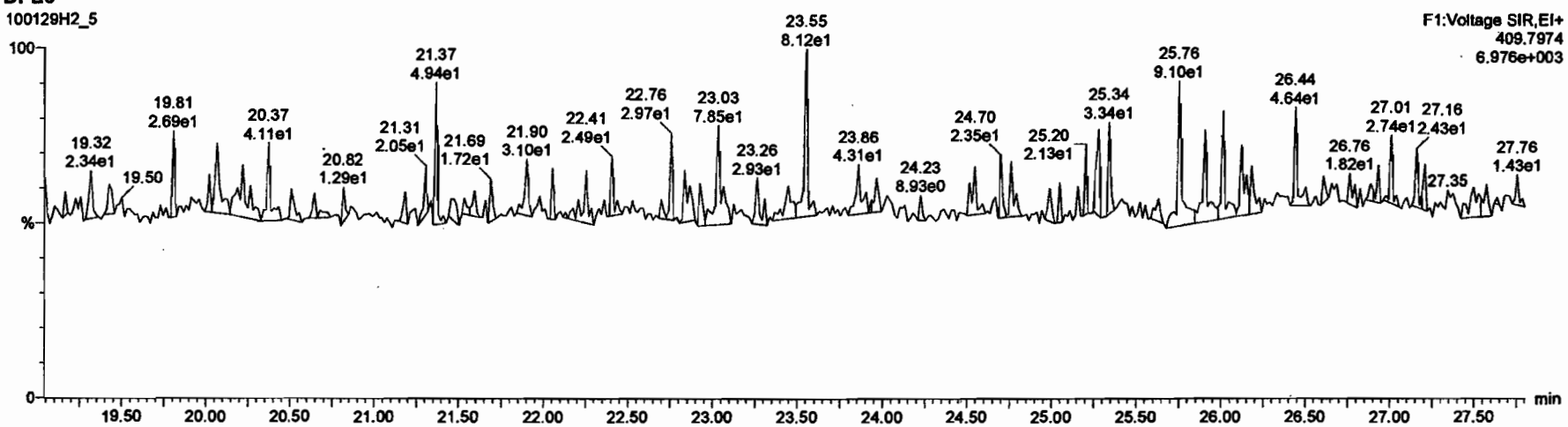

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Name: 100129H2_5, Date: 30-Jan-2010, Time: 05:32:29, ID: ST100129H2-4 1613 CS2 100127E, Description: 1613 CS2 100127E

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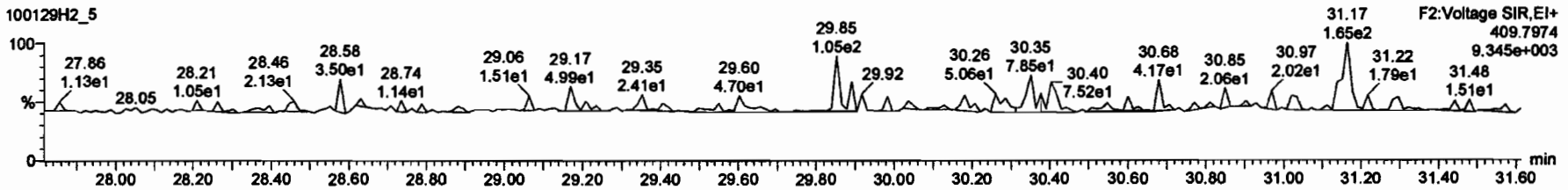

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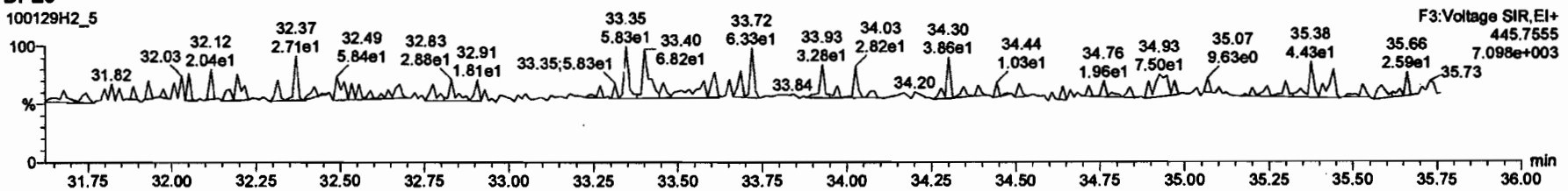

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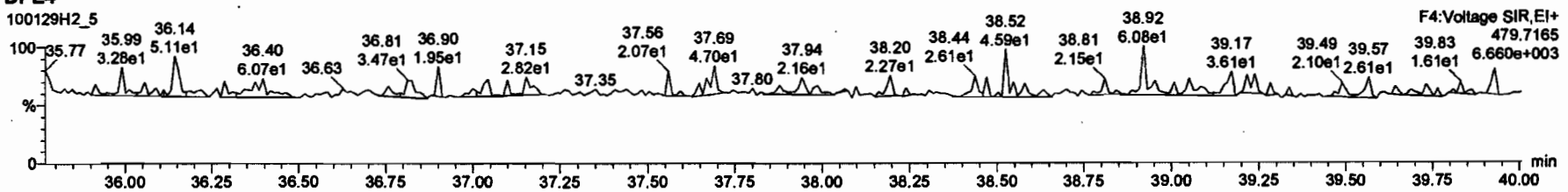

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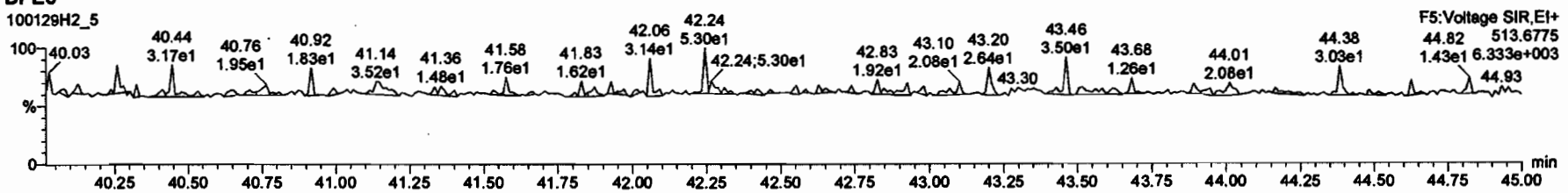

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Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

2,3,7,8-TCDD

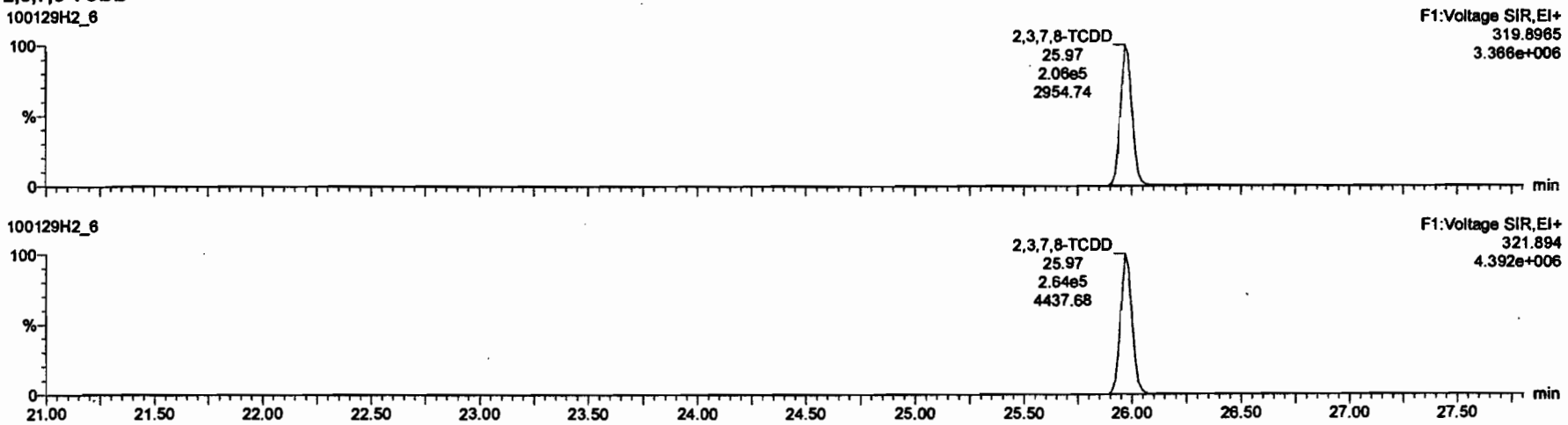

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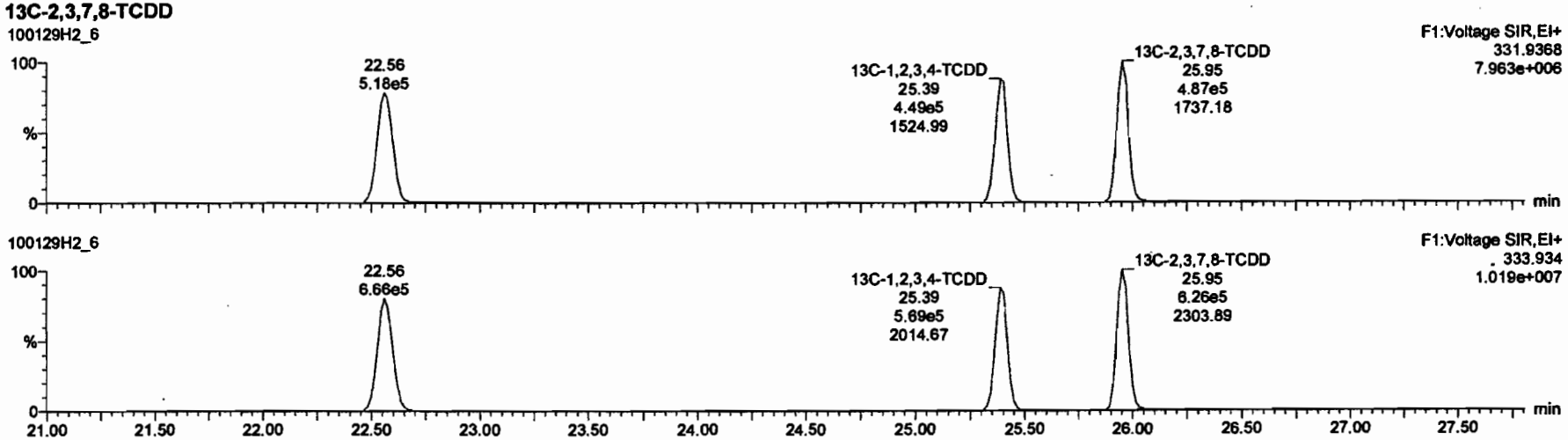

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Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

37Cl-2,3,7,8-TCDD

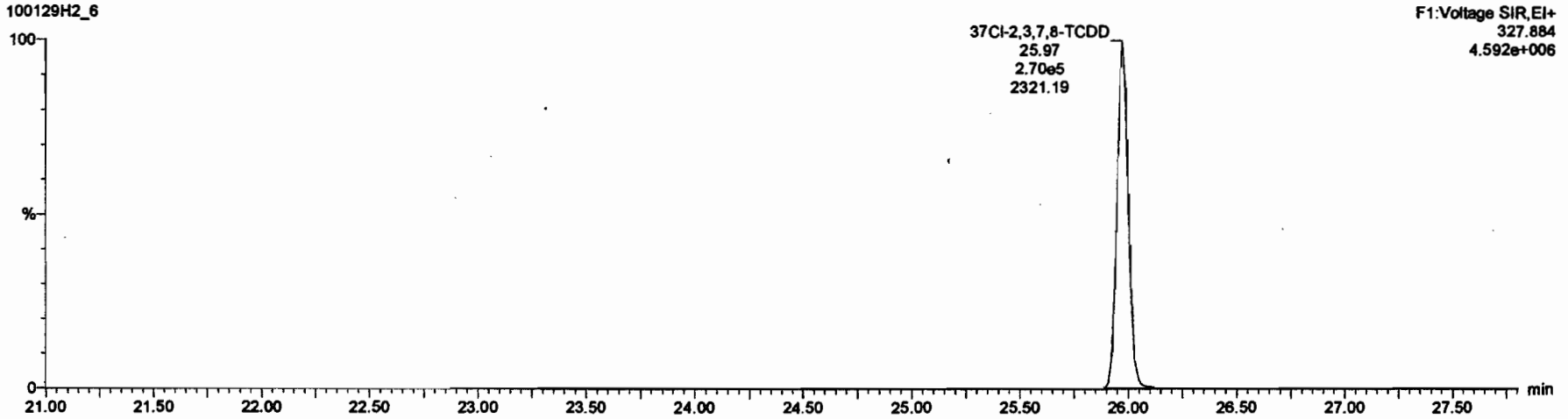

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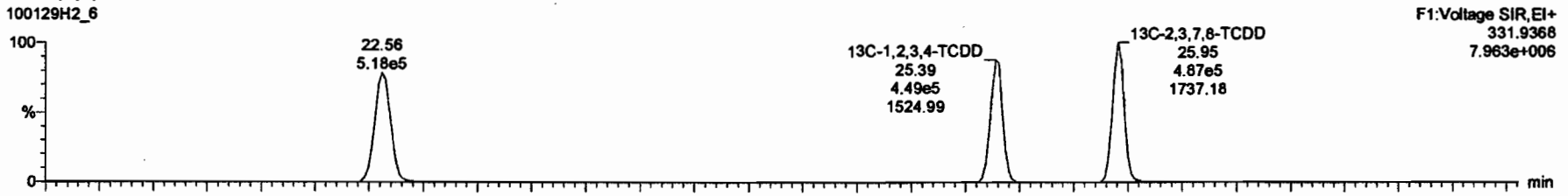

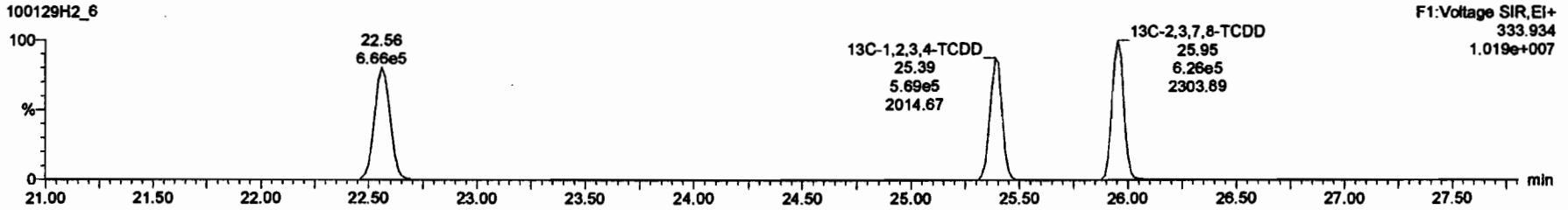

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Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

1,2,3,7,8-PeCDD

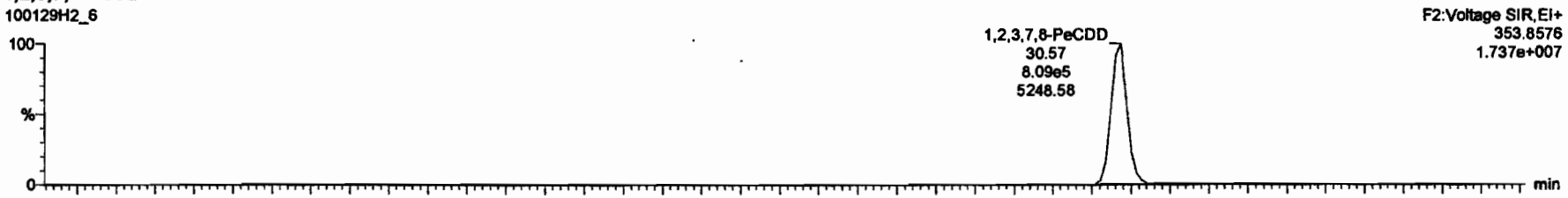

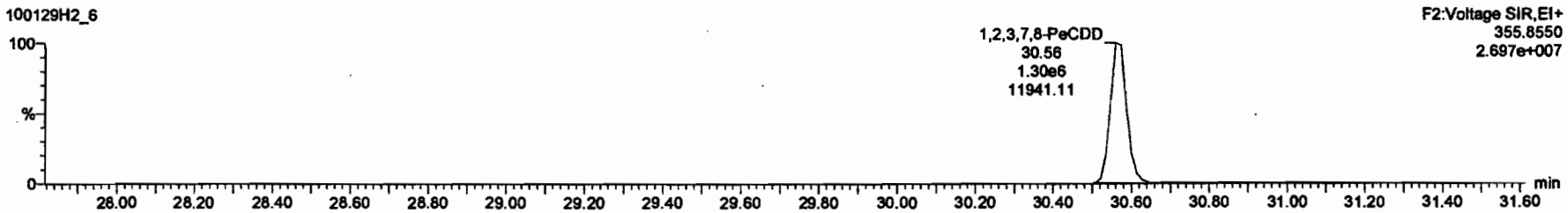

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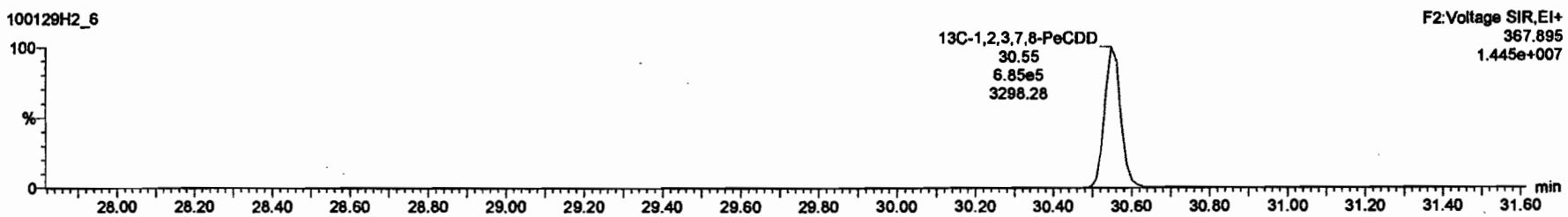

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Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

1,2,3,4,7,8-HxCDD

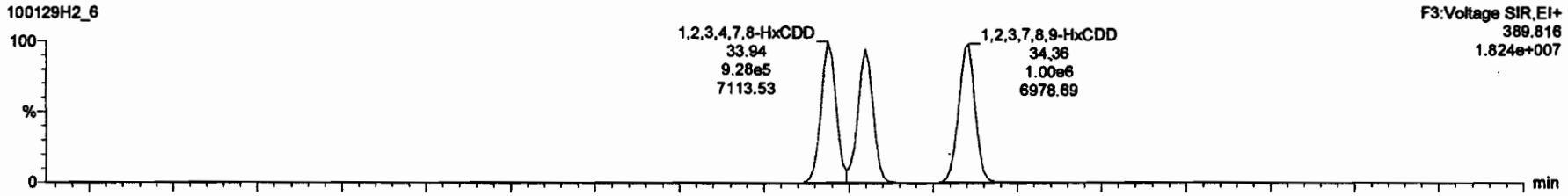

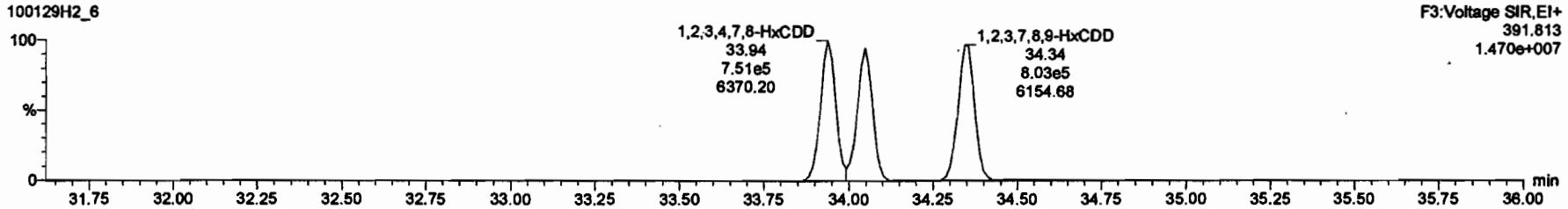

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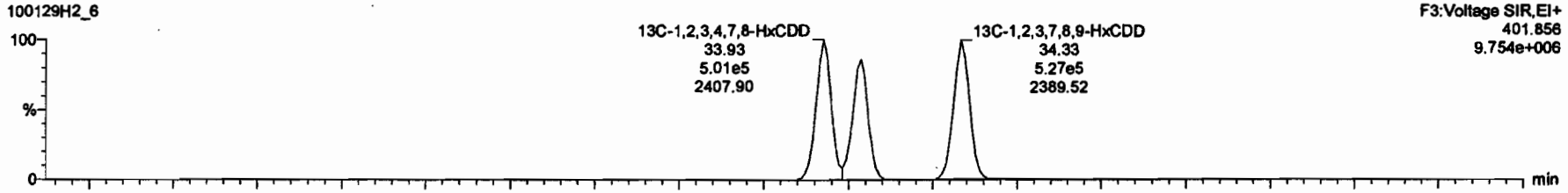

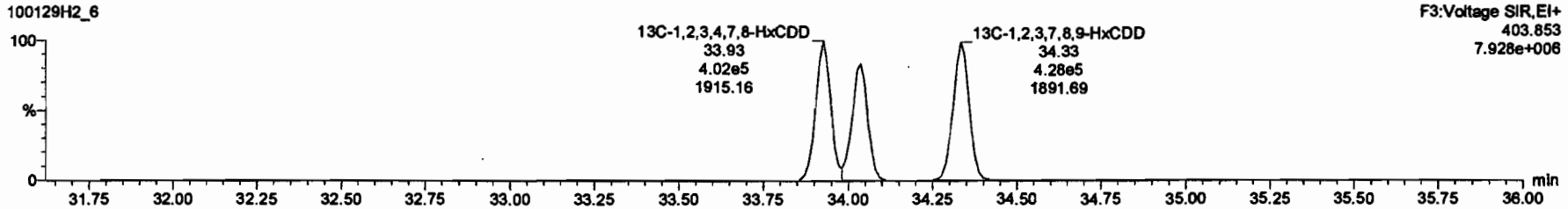

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Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

1,2,3,4,6,7,8-HpCDD

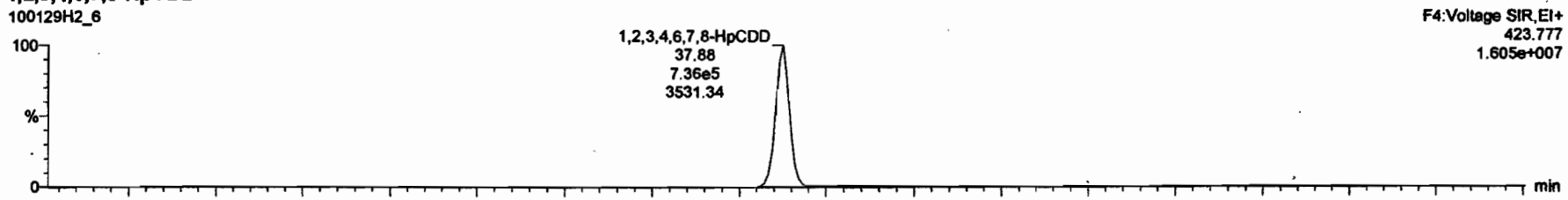

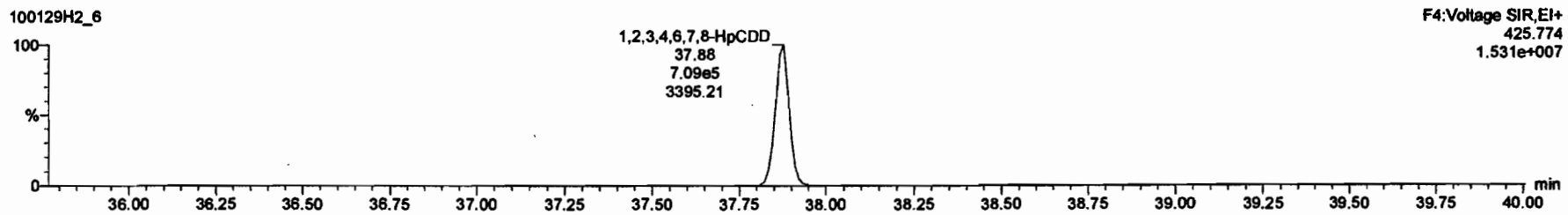

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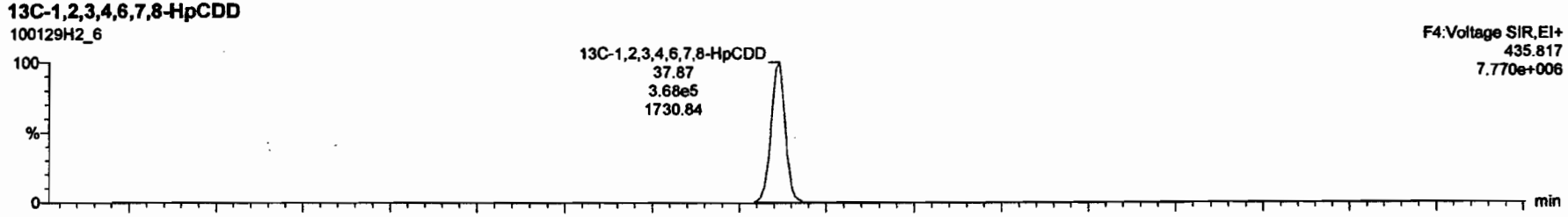

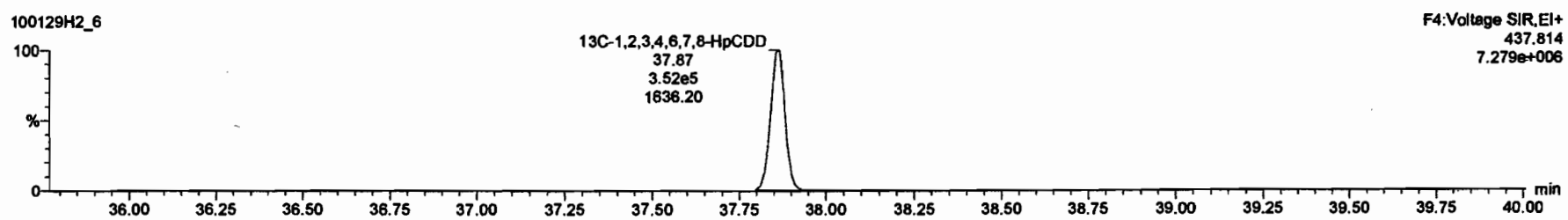

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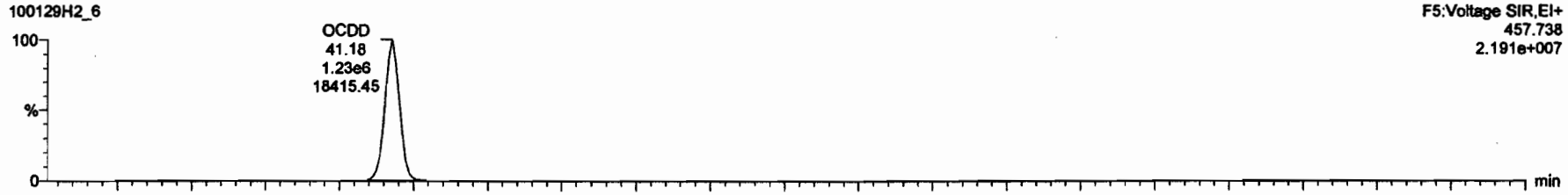

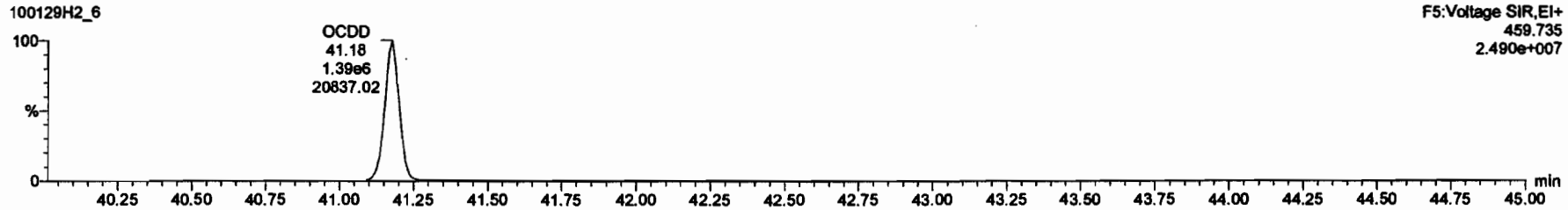

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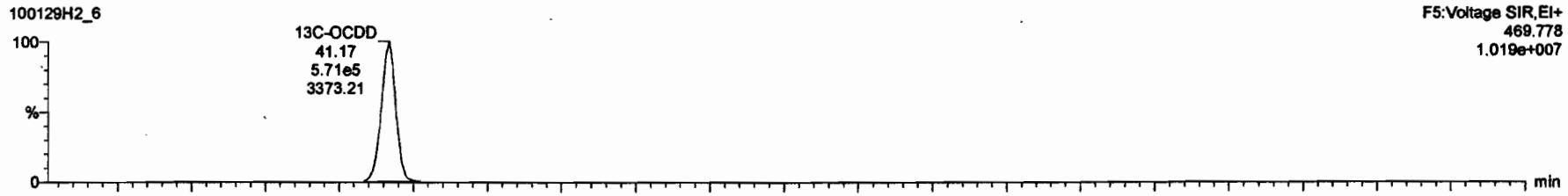

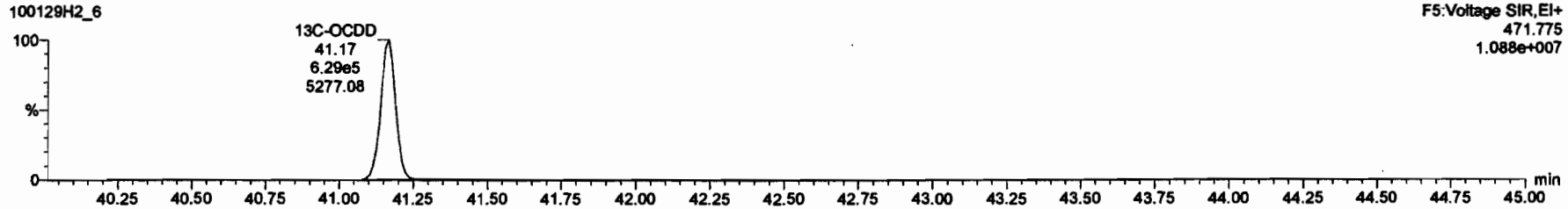

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Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

2,3,7,8-TCDF

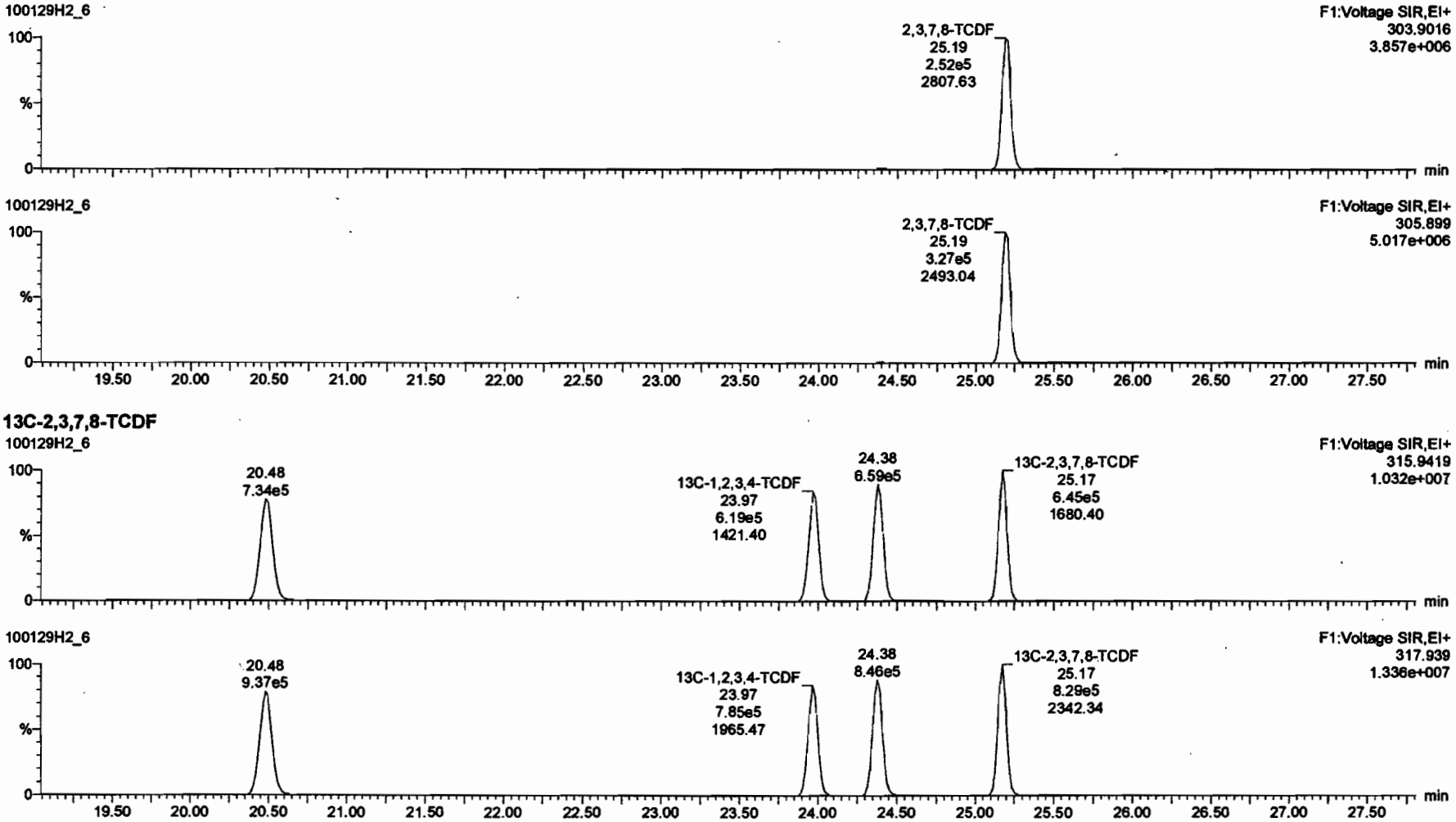

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Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

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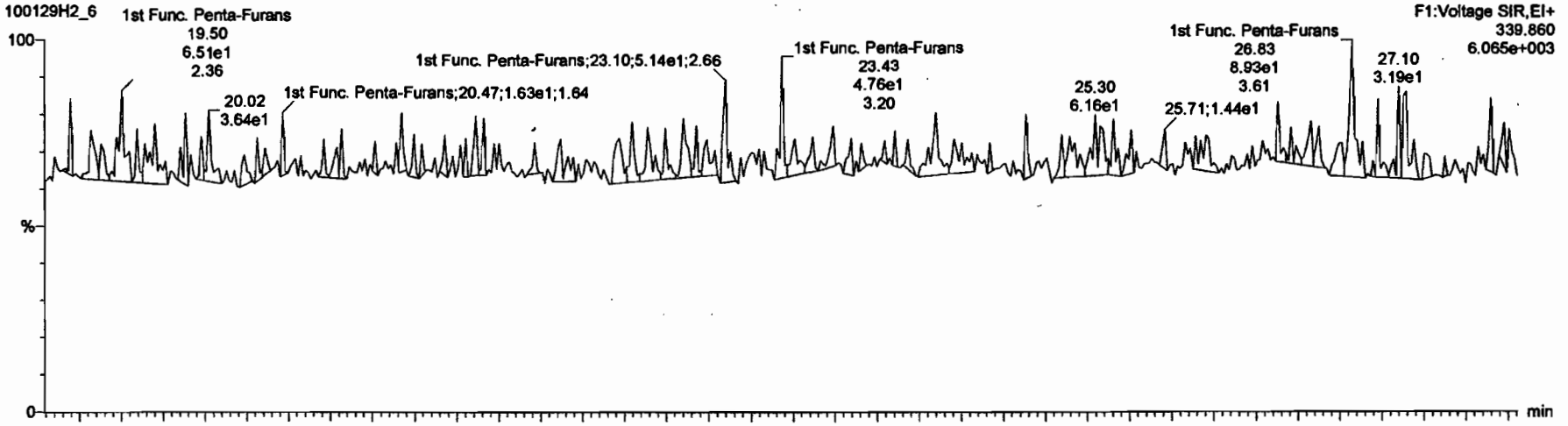

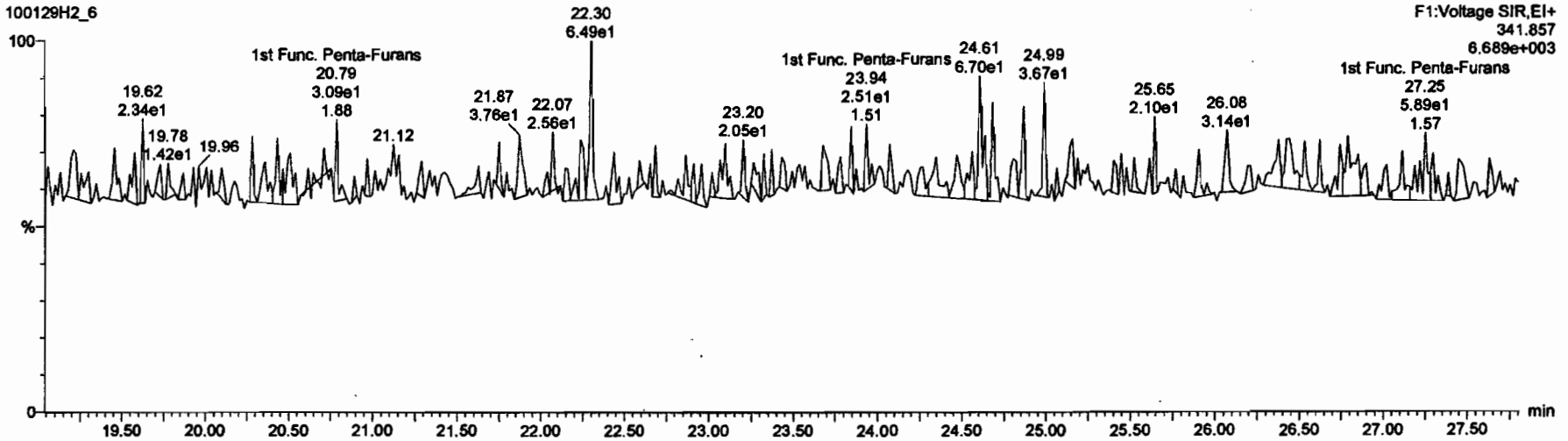

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Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

1,2,3,7,8-PeCDF

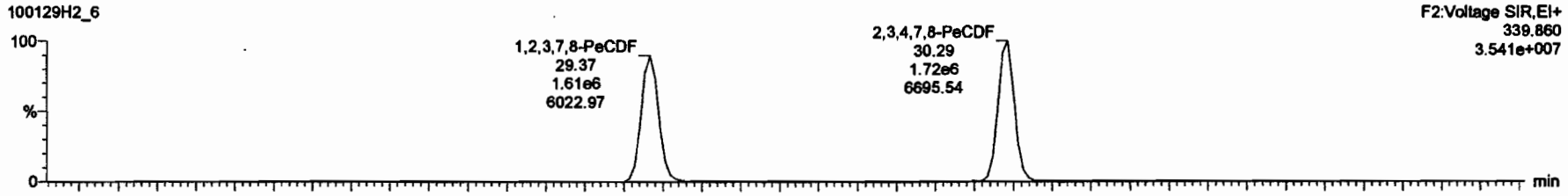

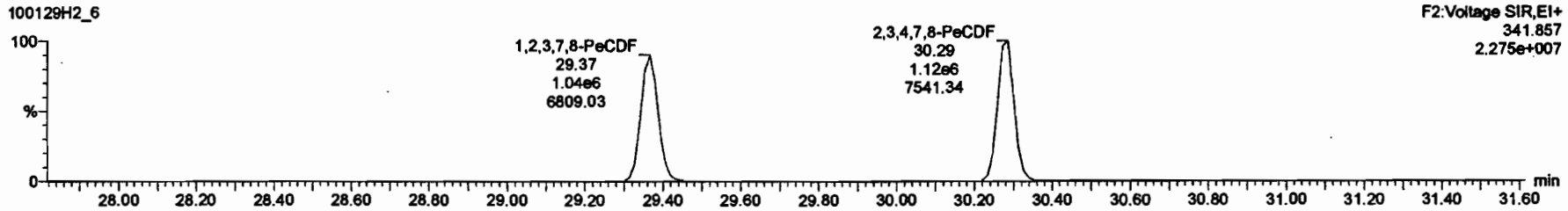

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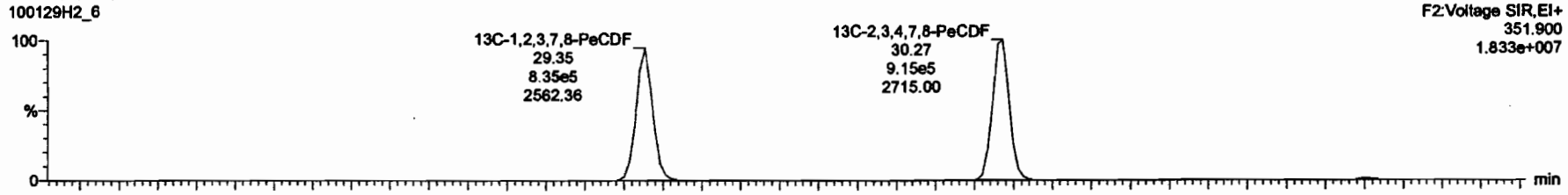

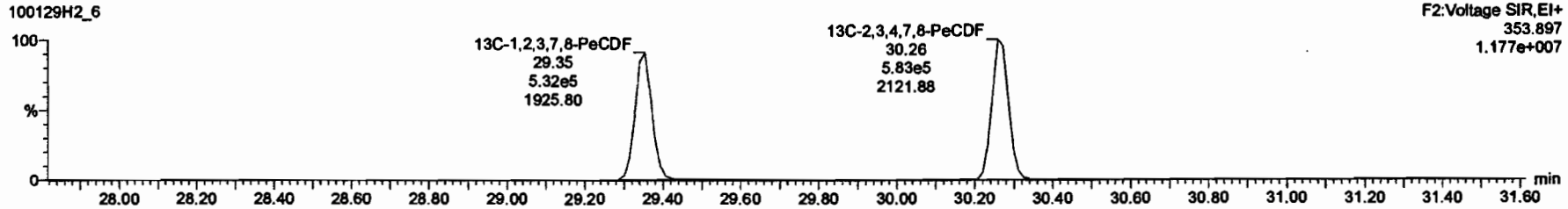

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Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

1,2,3,4,7,8-HxCDF

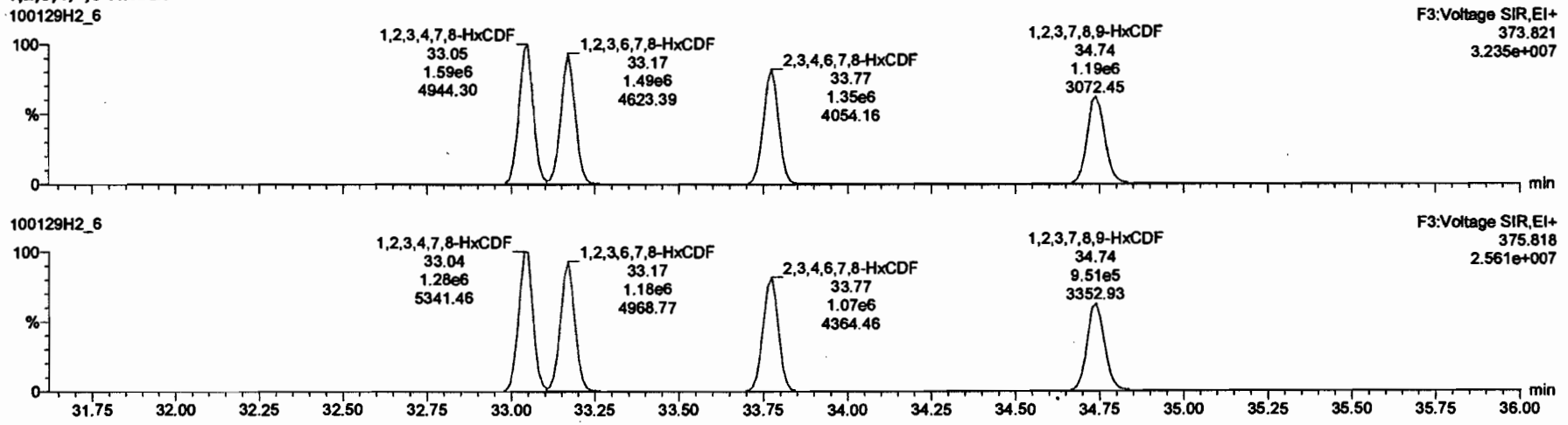

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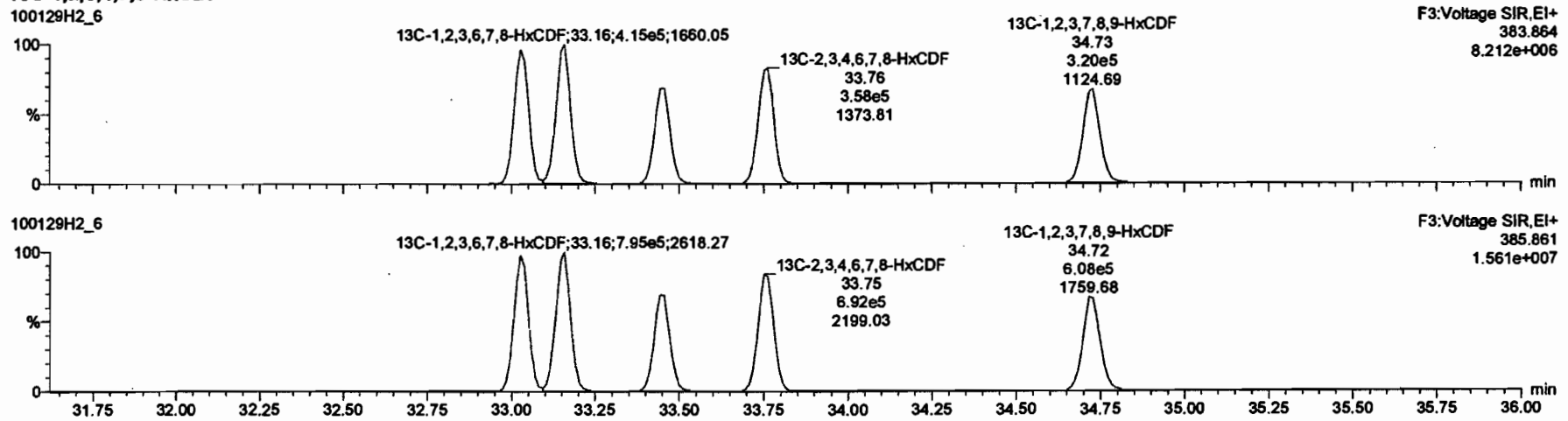

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Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

1,2,3,4,6,7,8-HpCDF

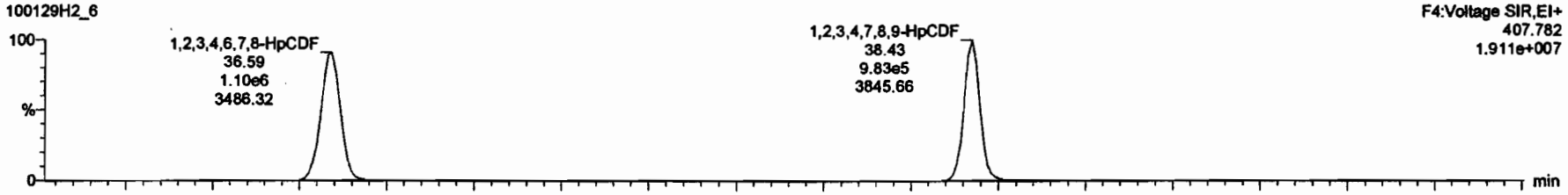

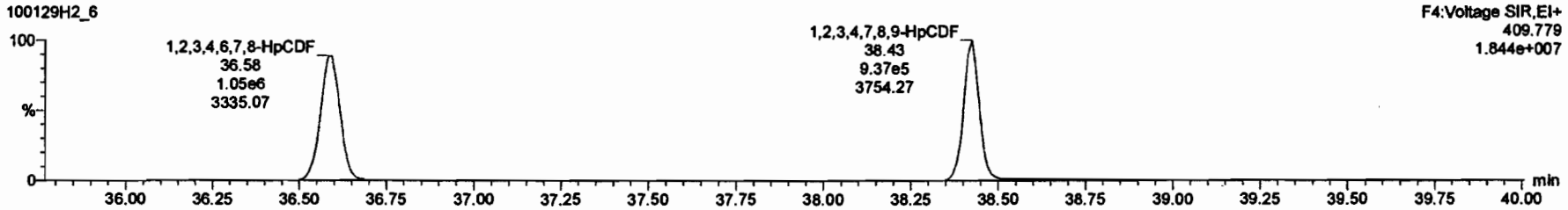

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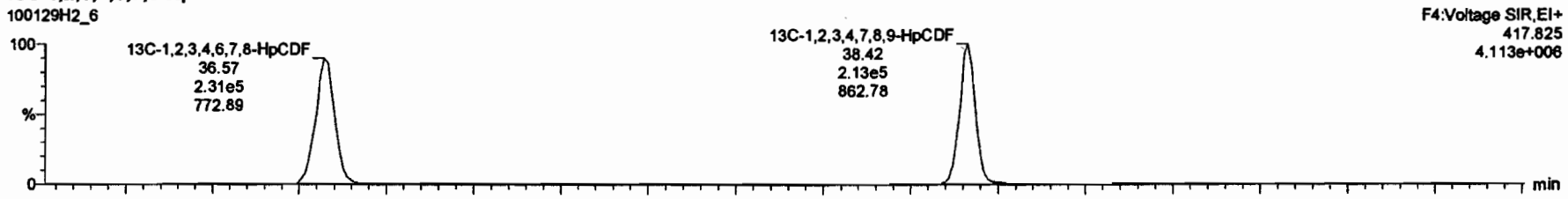

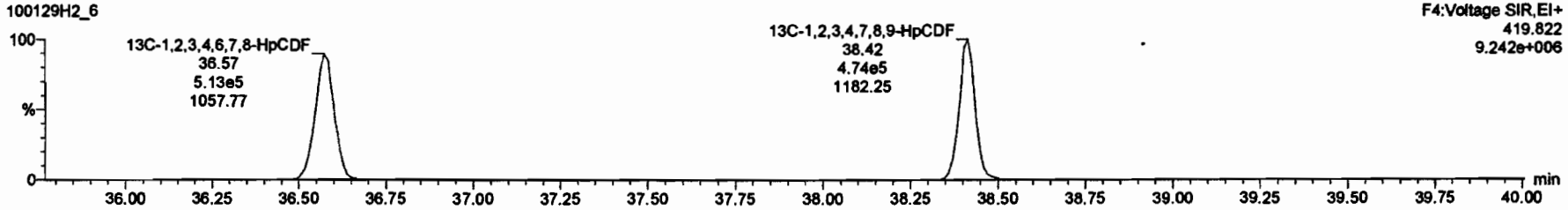

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Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

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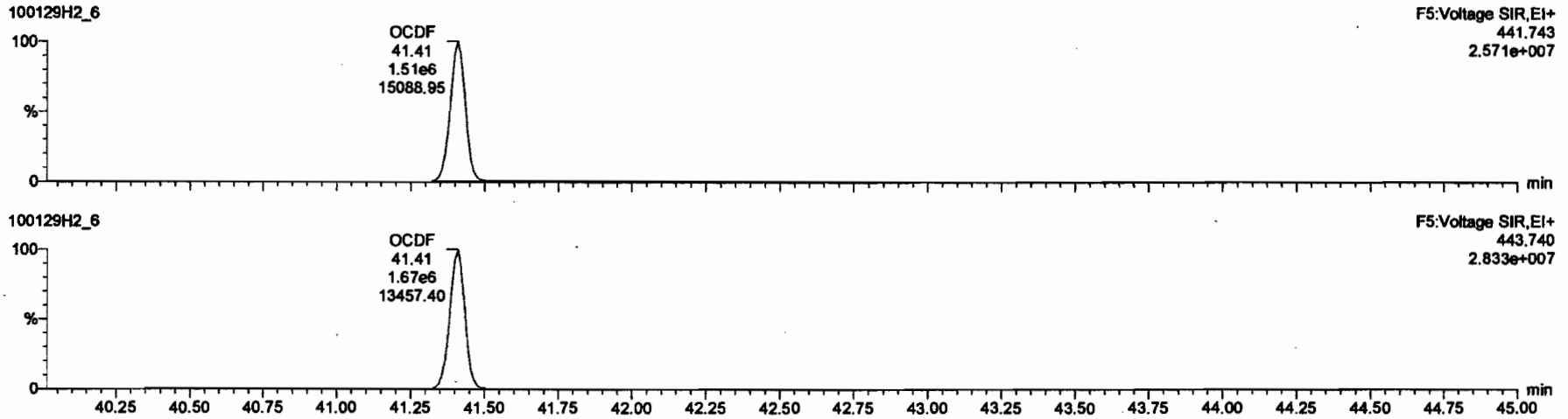

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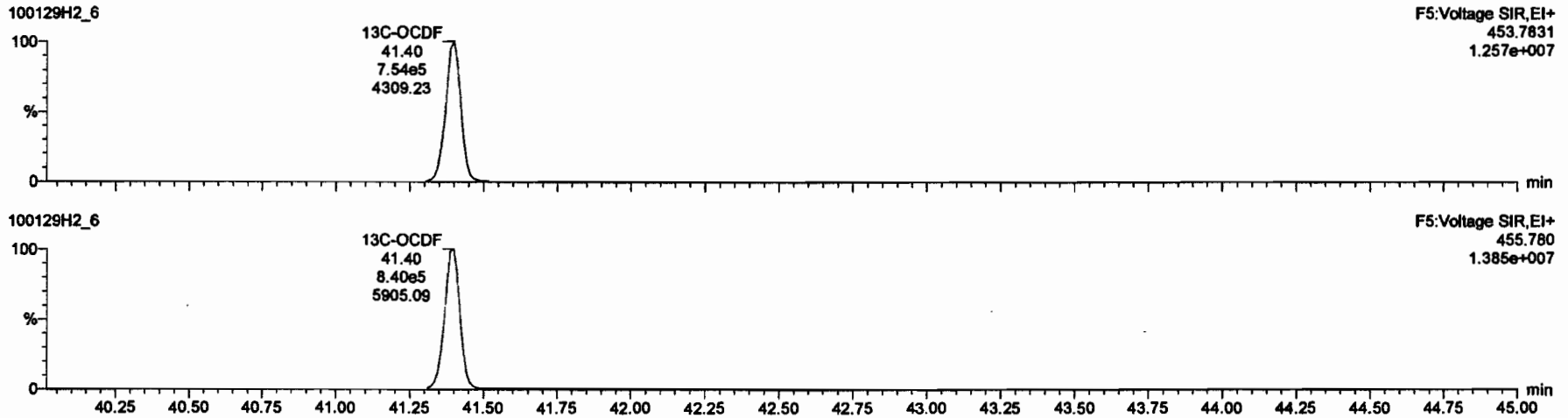

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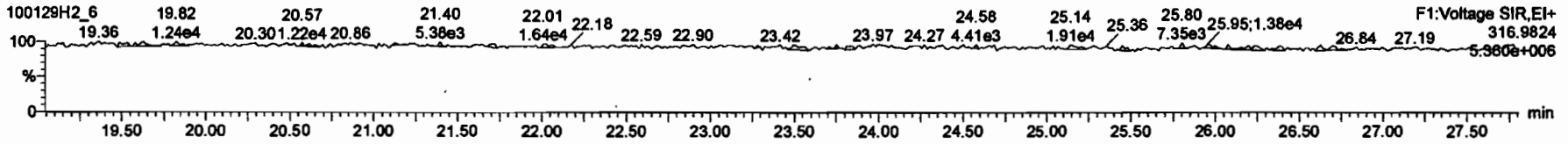

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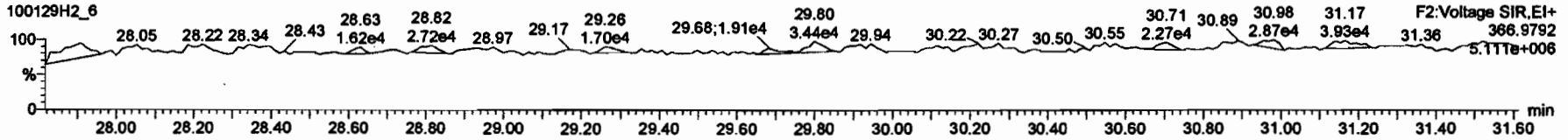

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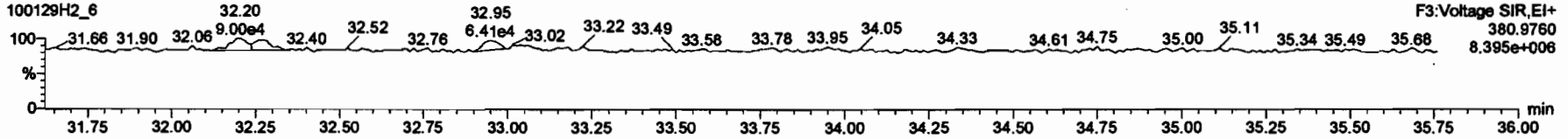

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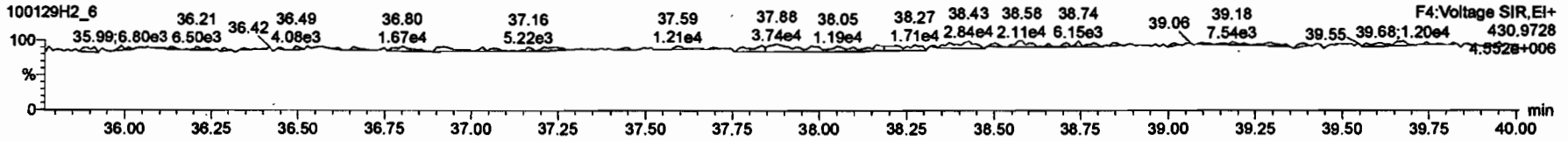

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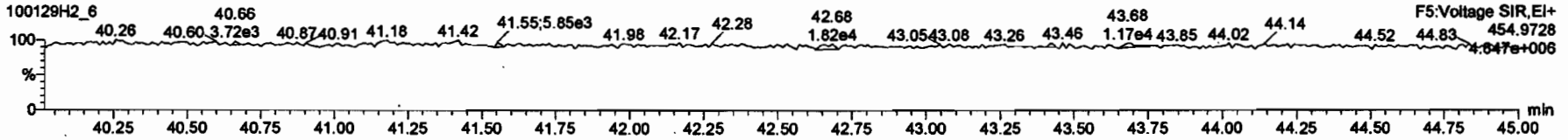

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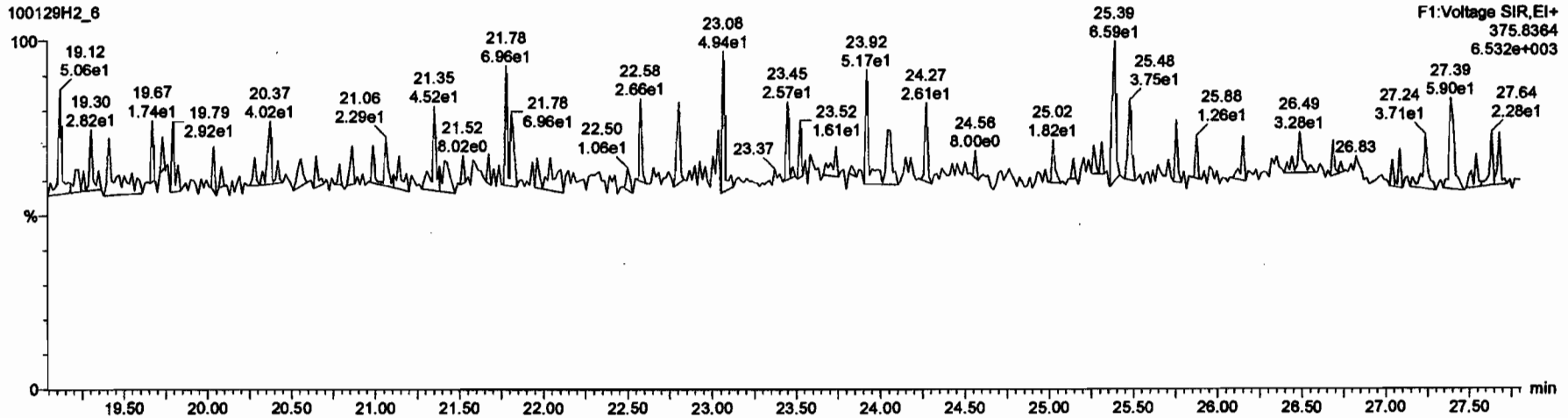

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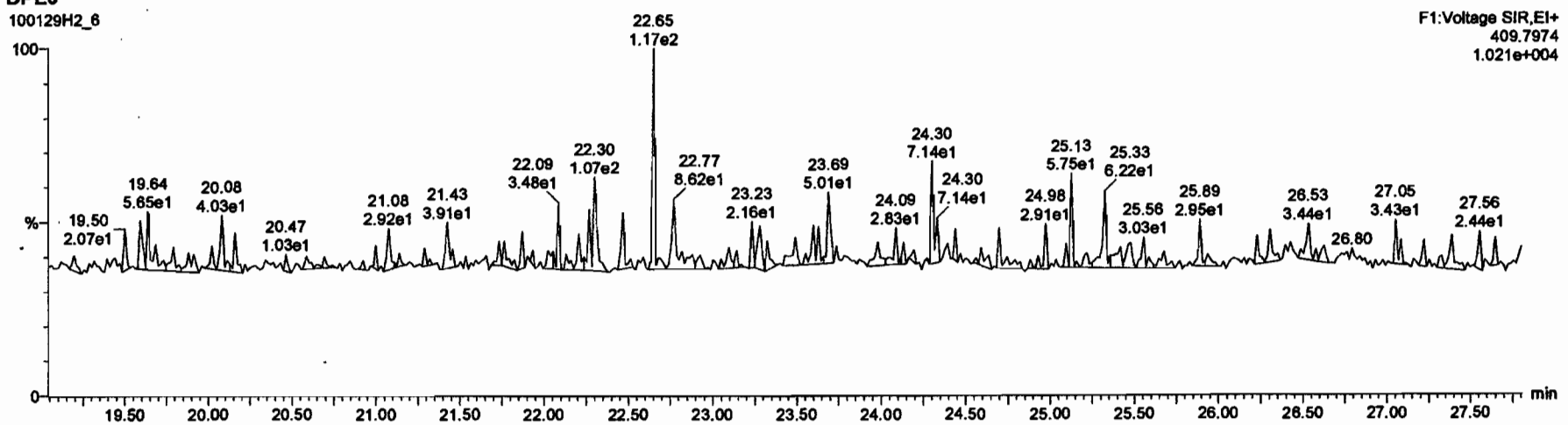

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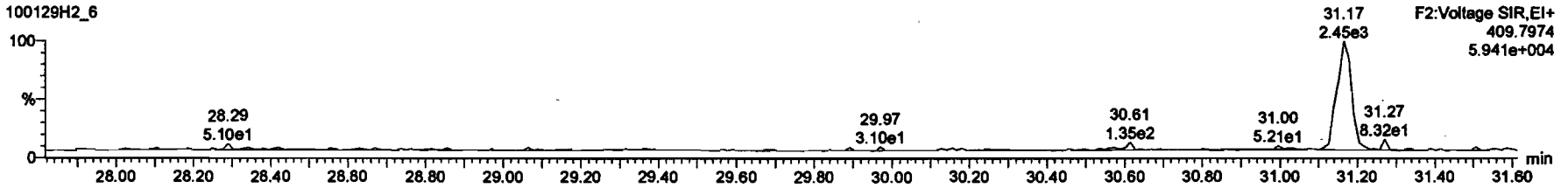

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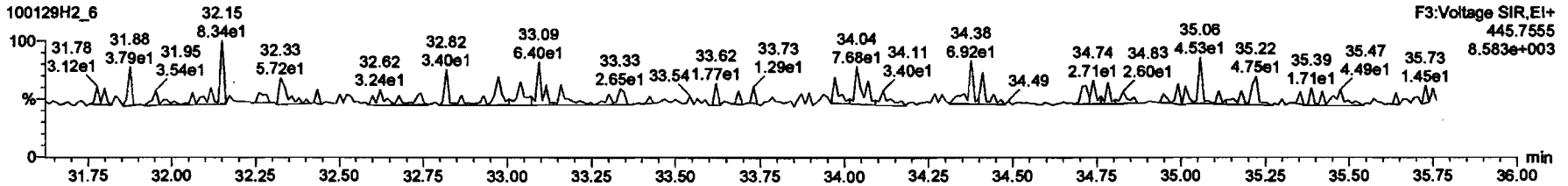

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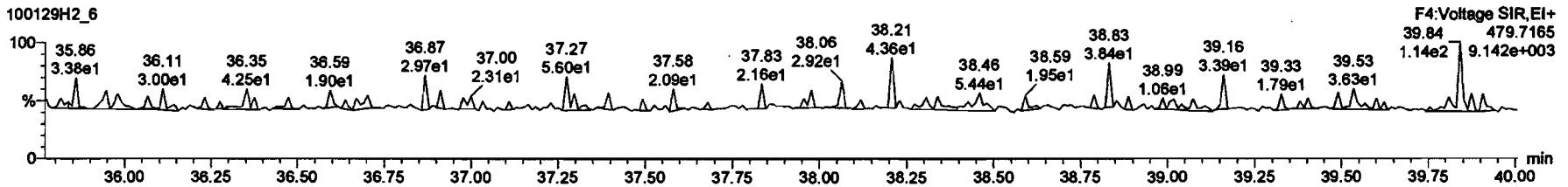

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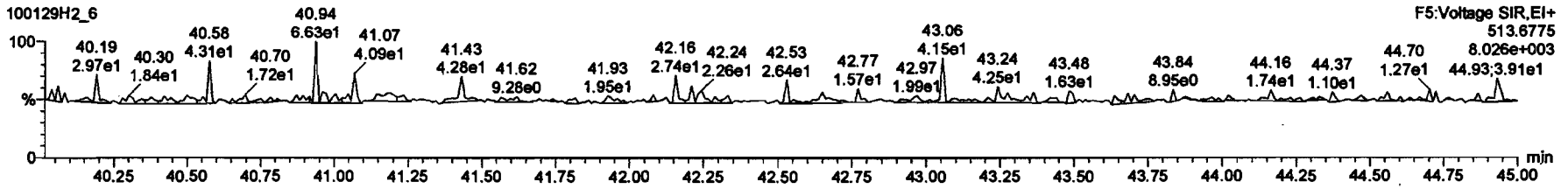

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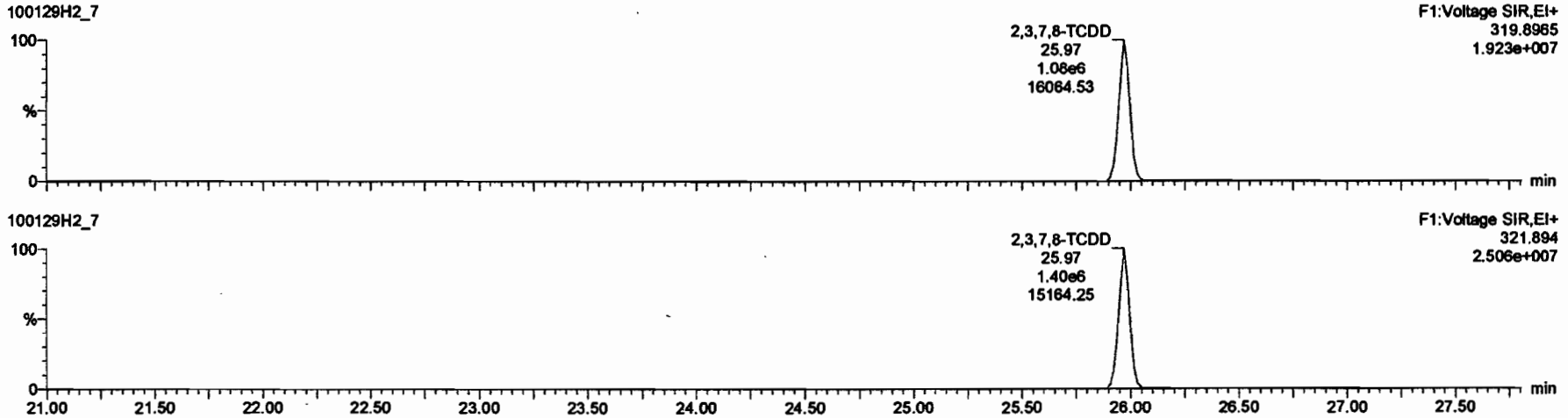

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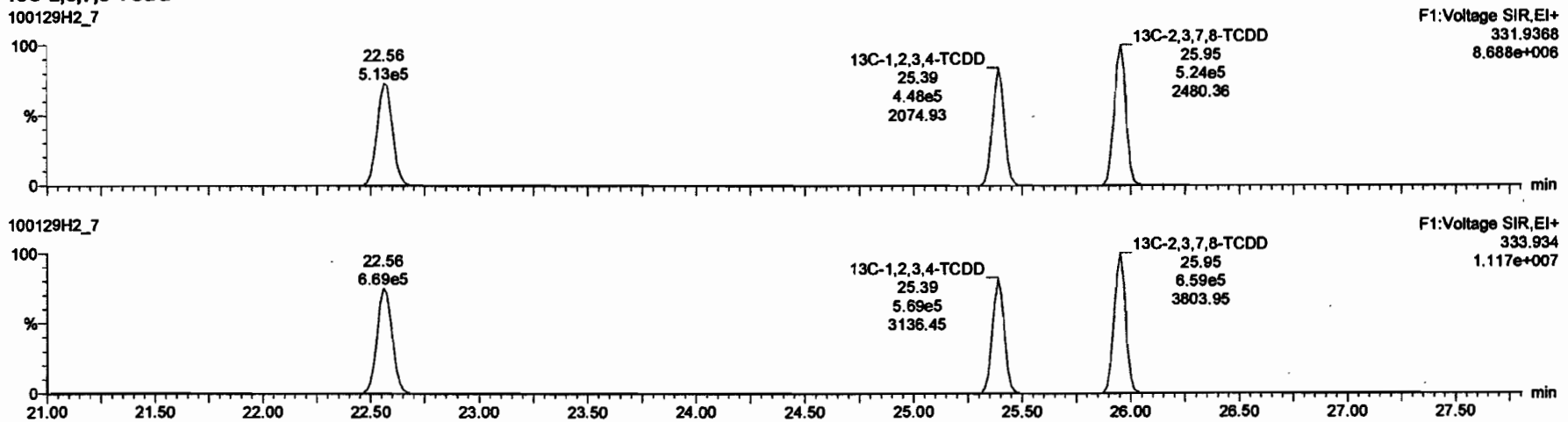

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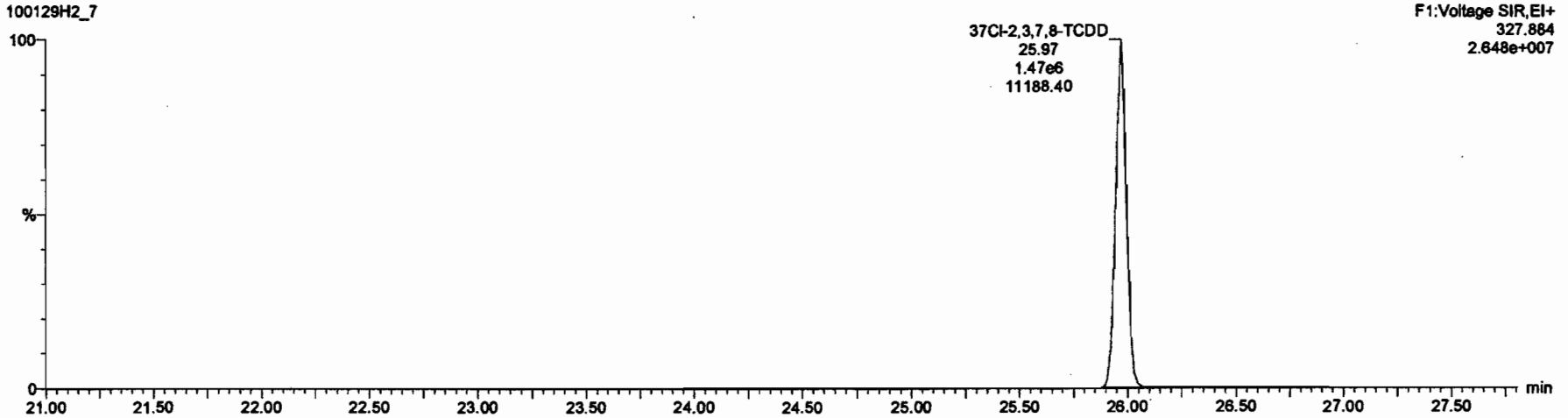

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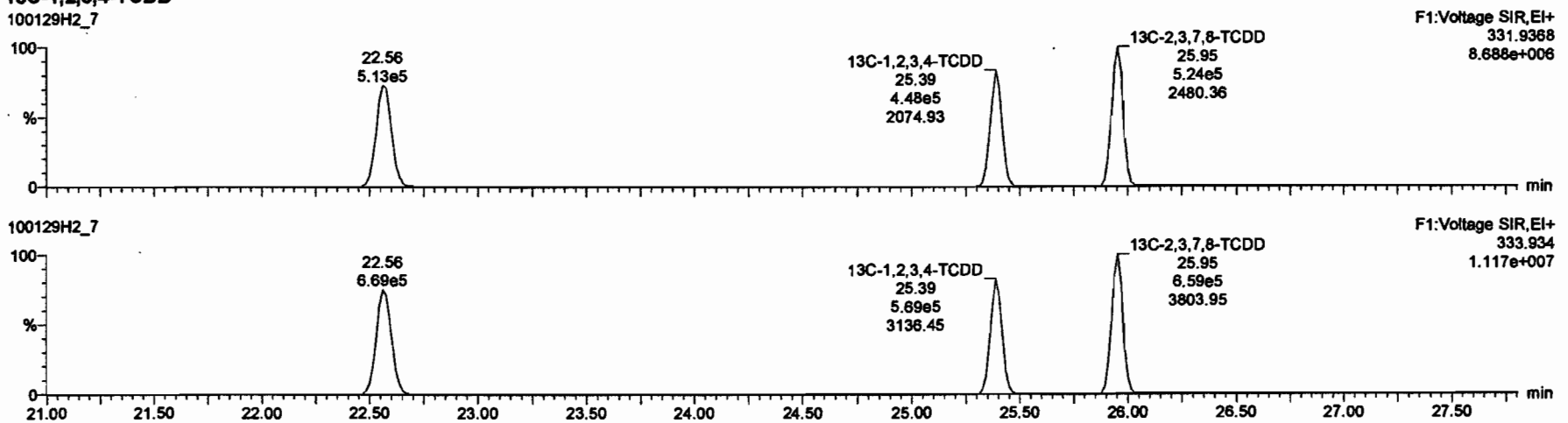

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1,2,3,7,8-PeCDD

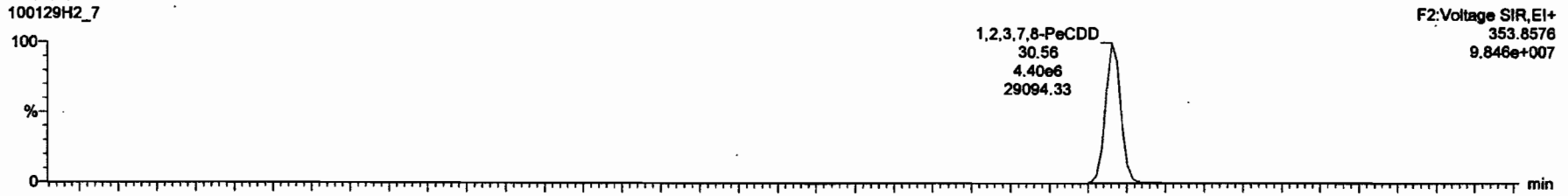

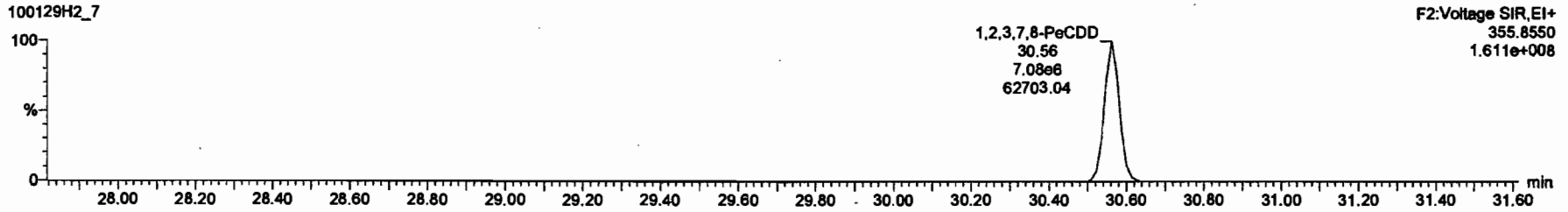

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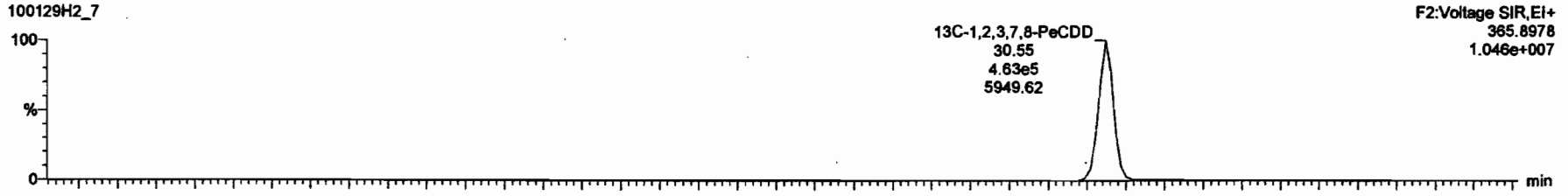

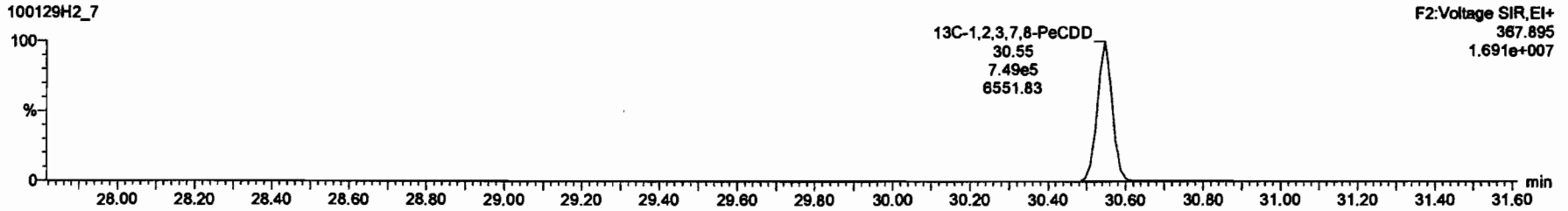

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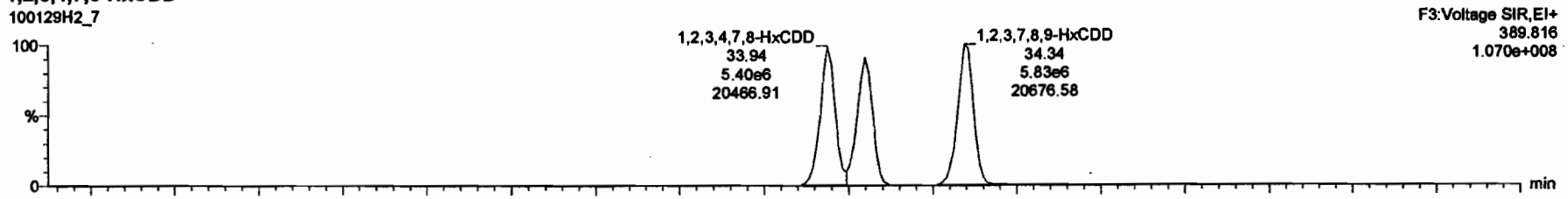

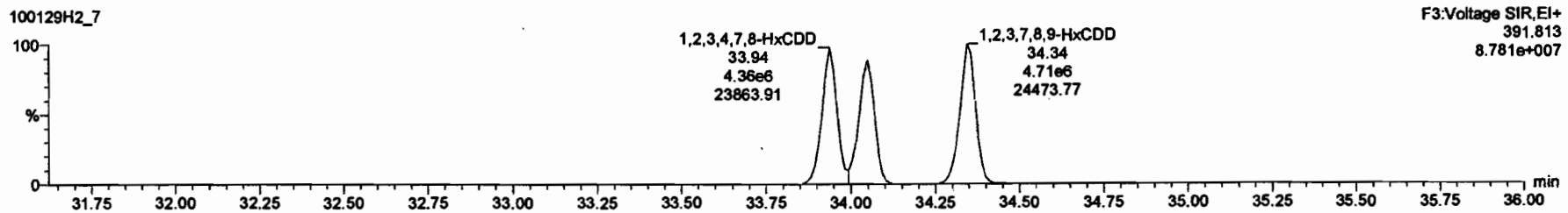

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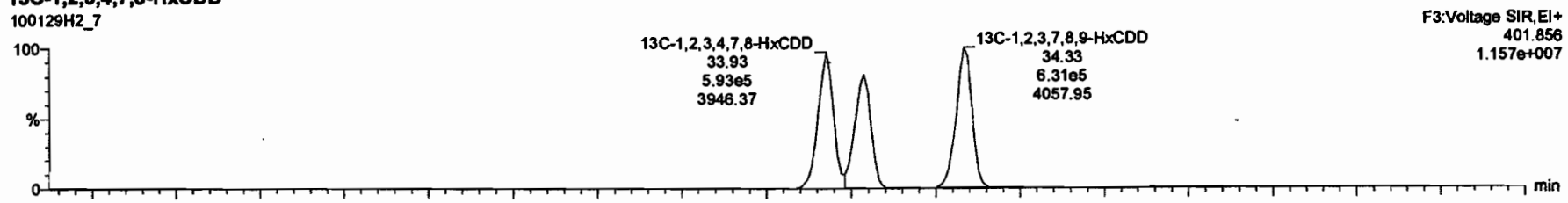

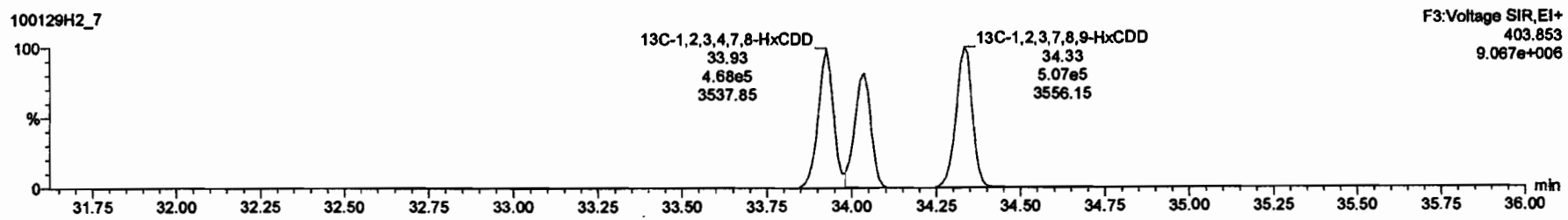

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1,2,3,4,6,7,8-HpCDD

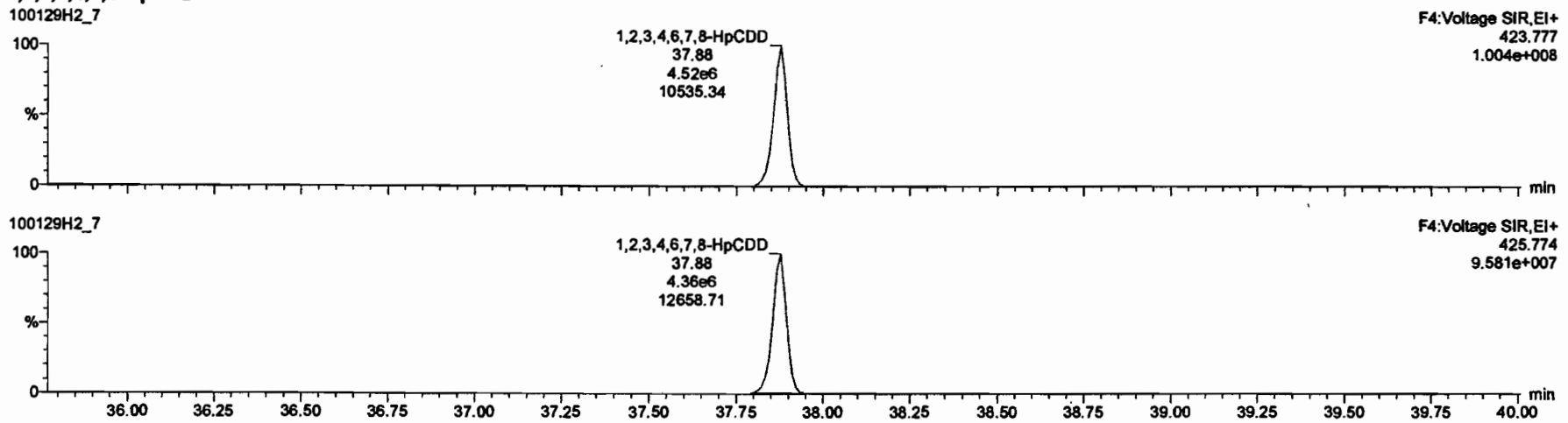

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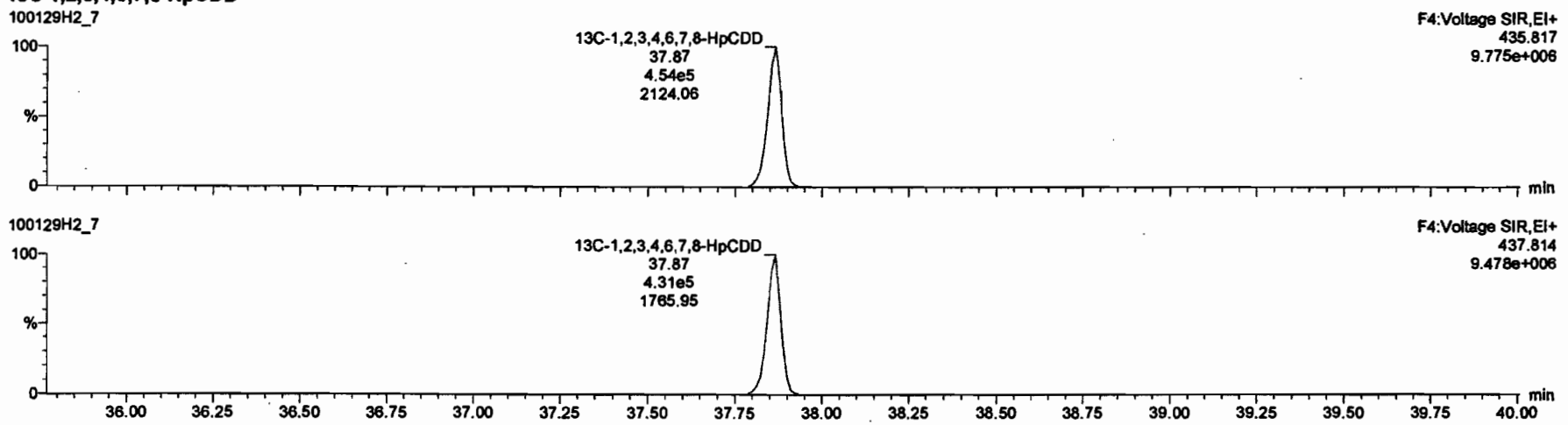

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OCDD

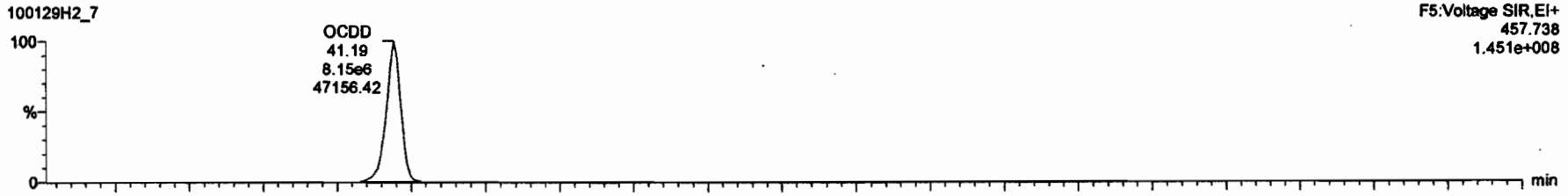

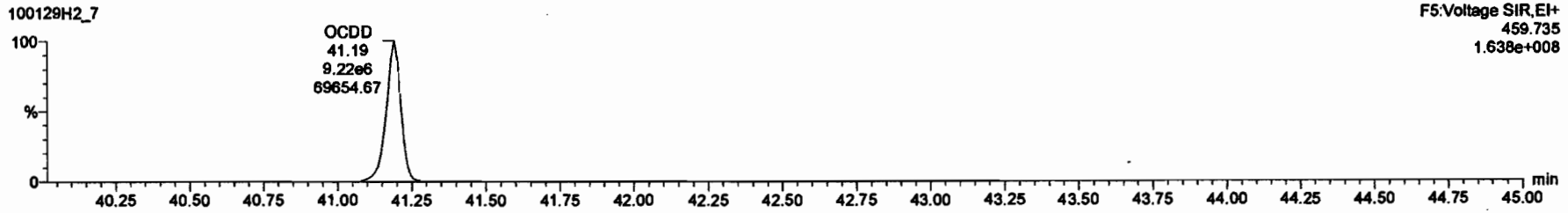

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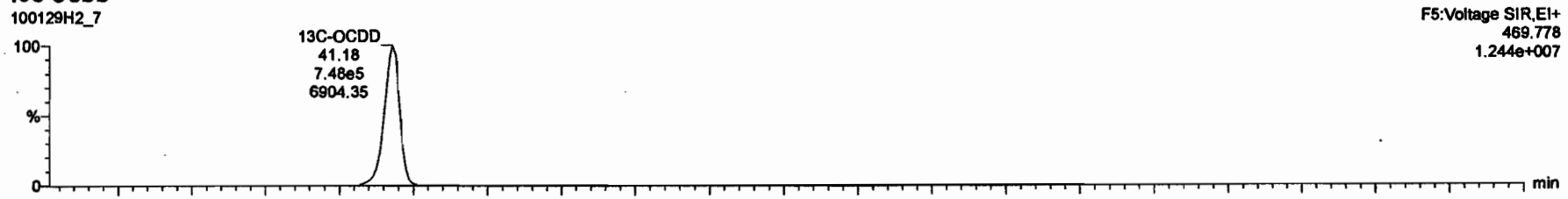

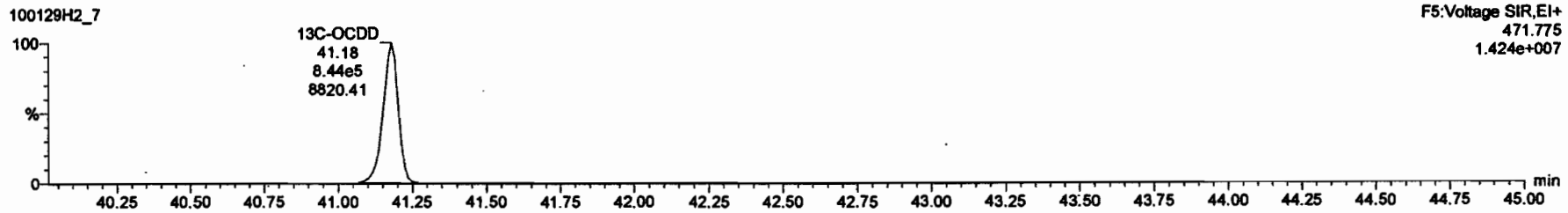

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2,3,7,8-TCDF

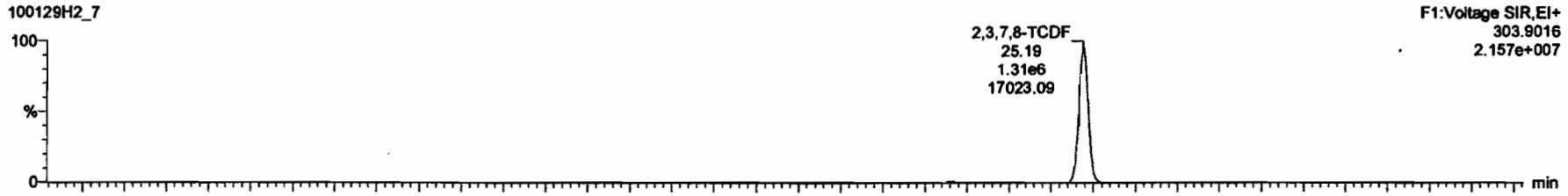

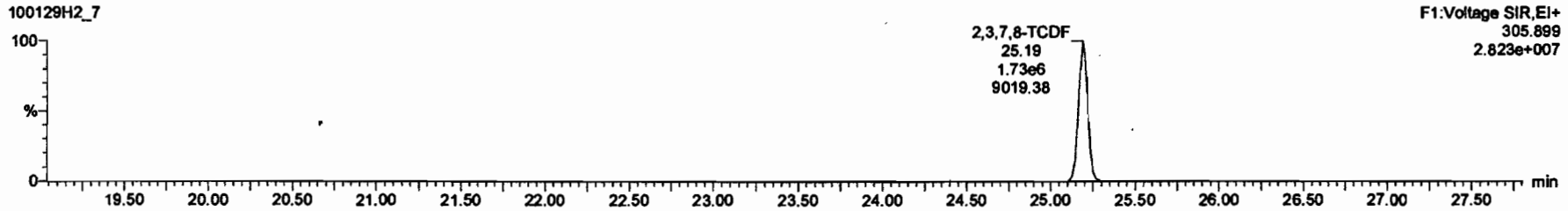

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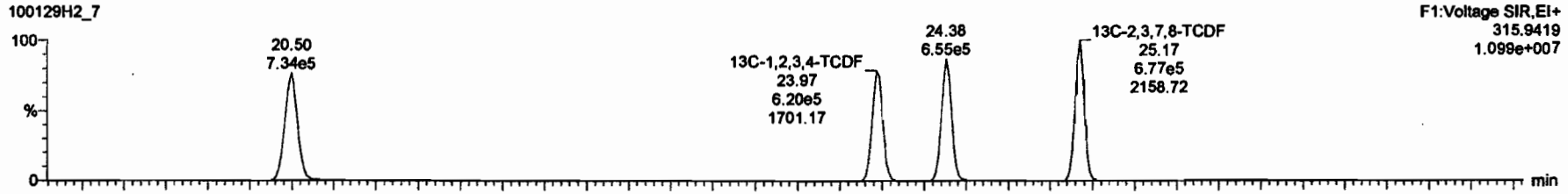

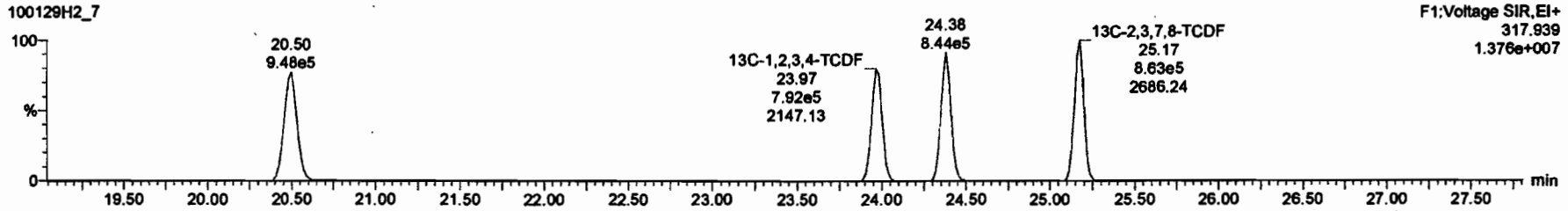

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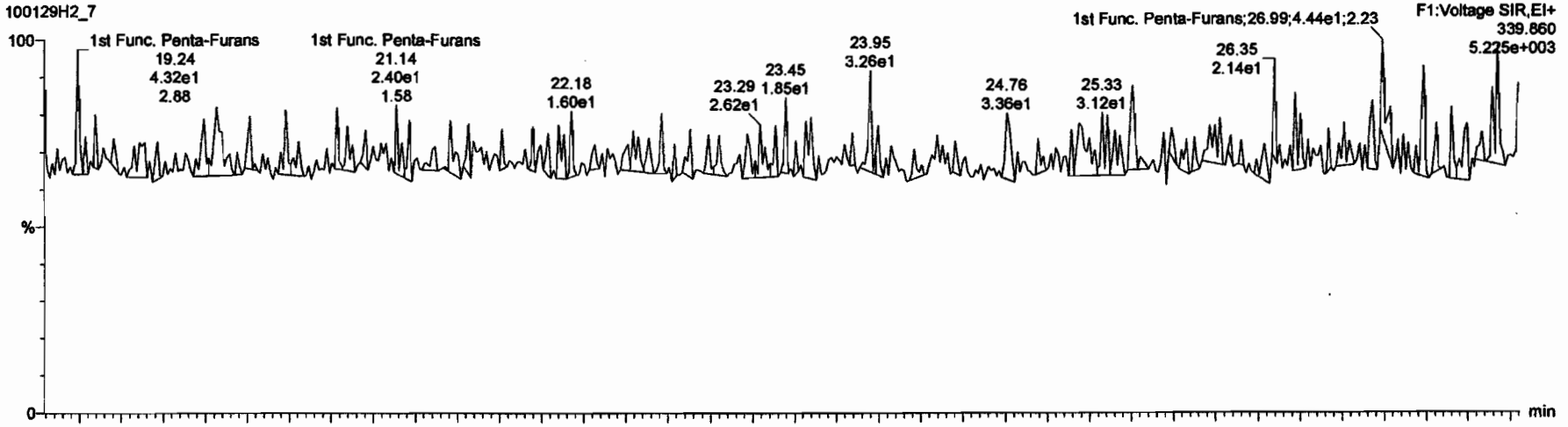

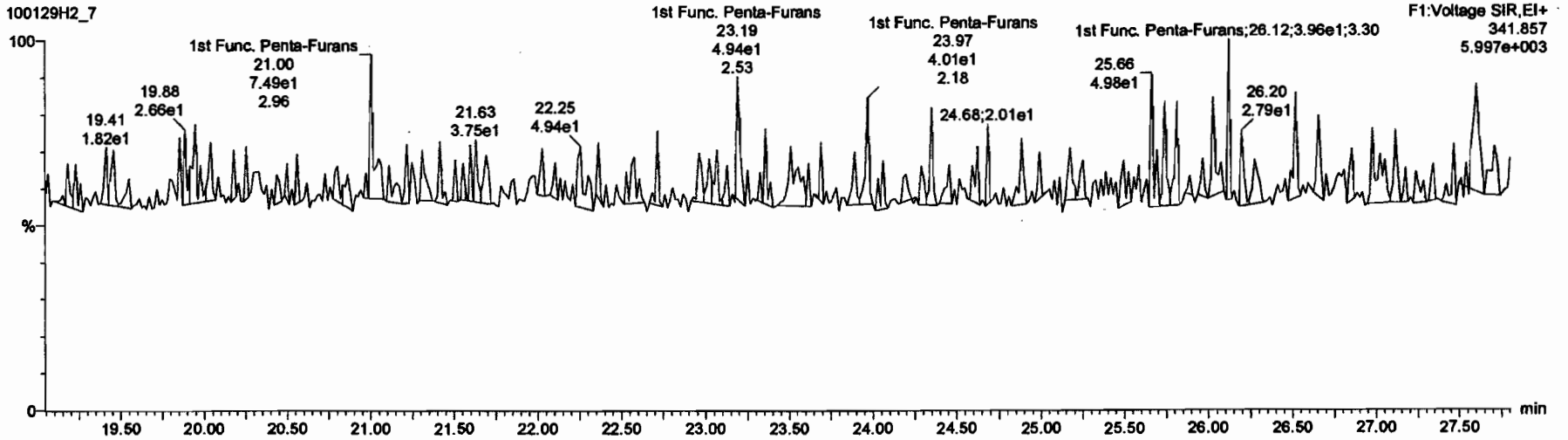

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1,2,3,7,8-PeCDF

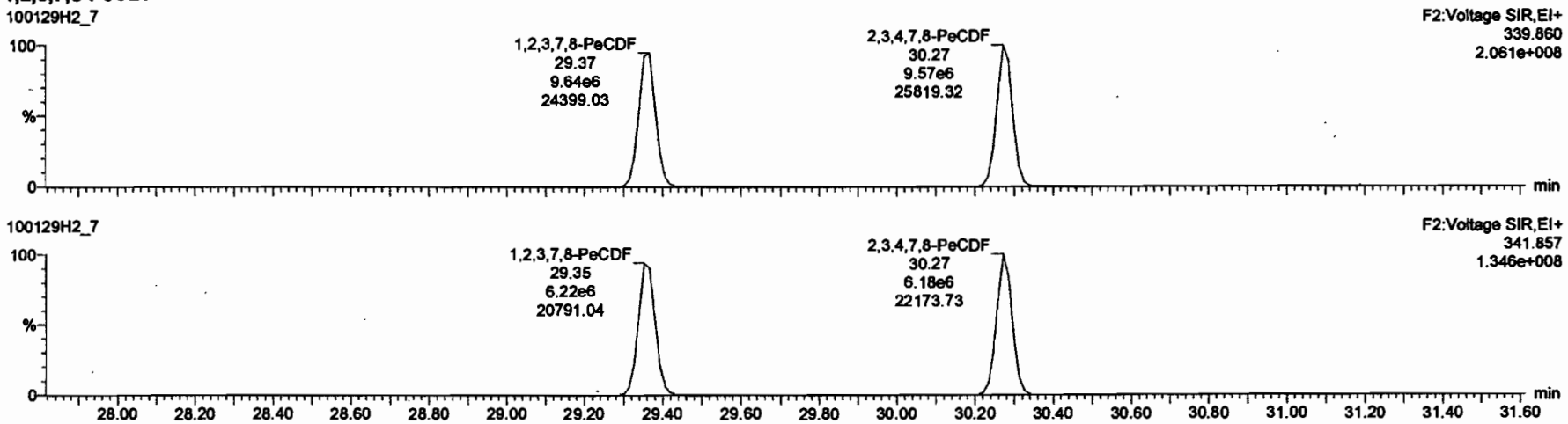

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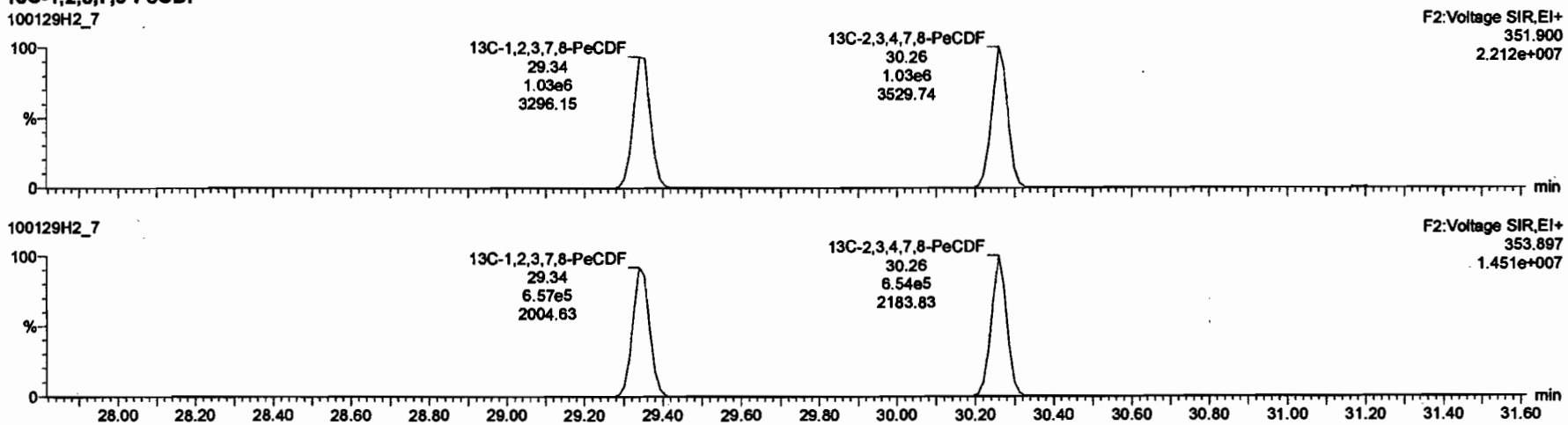

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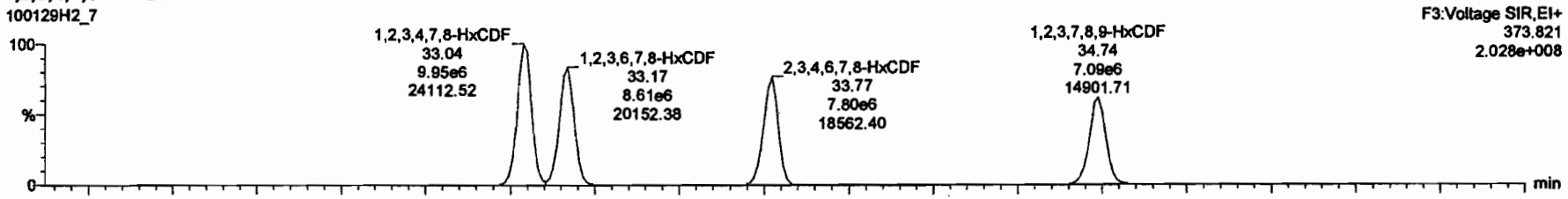

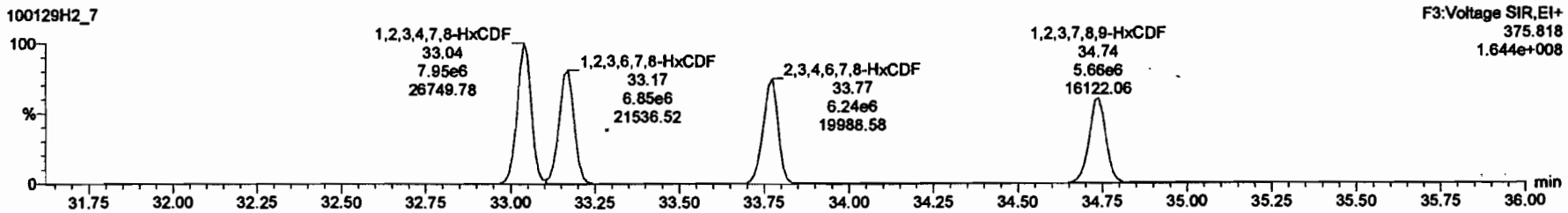

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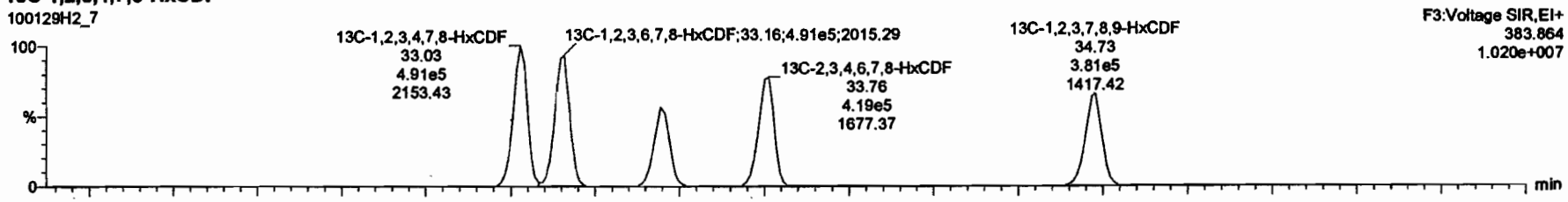

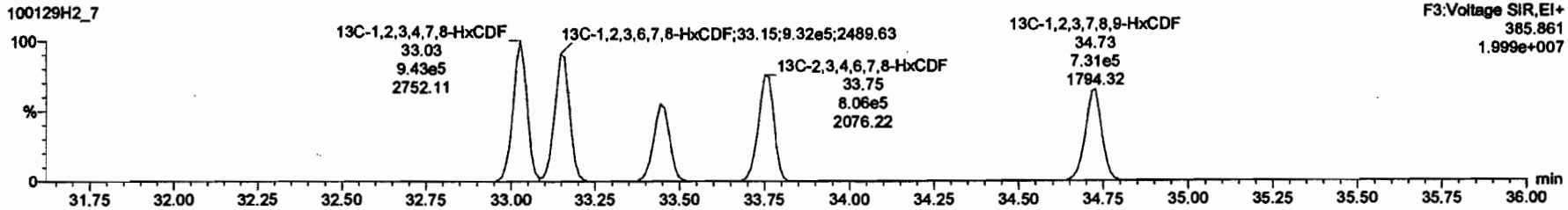

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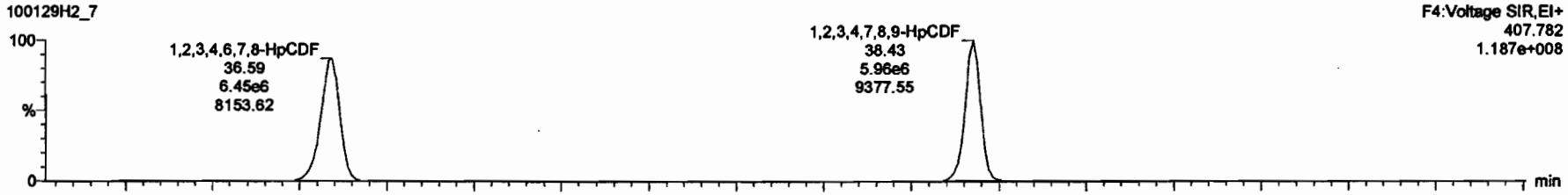

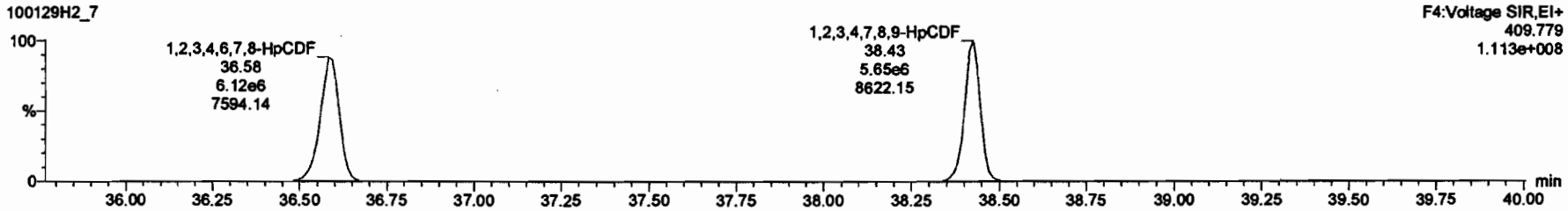

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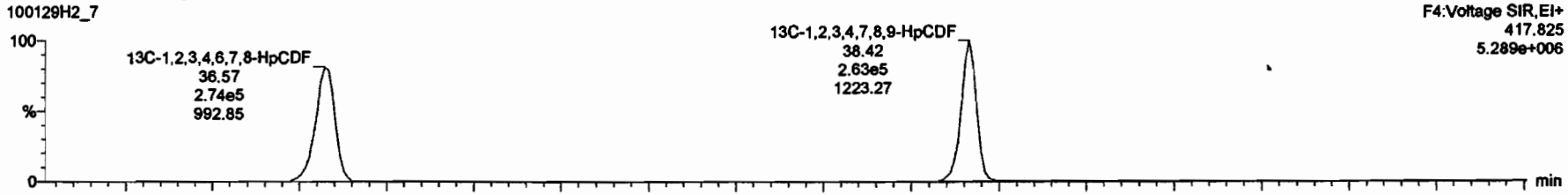

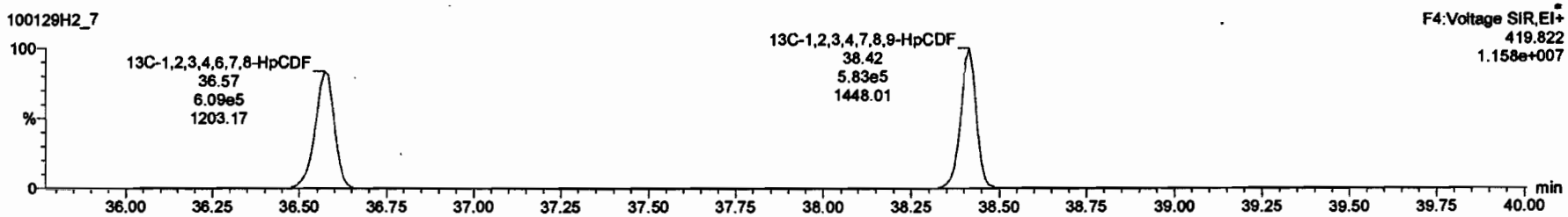

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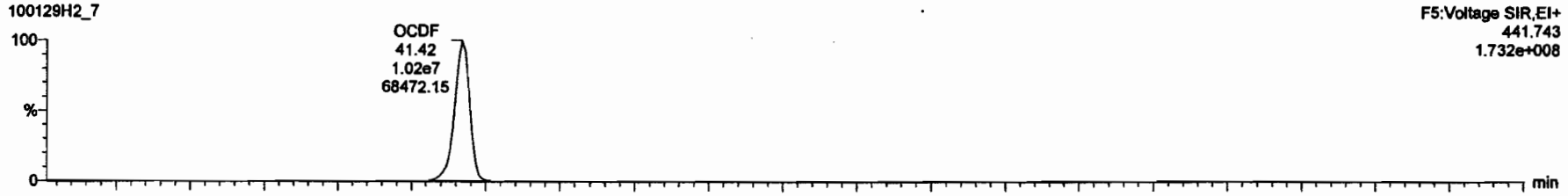

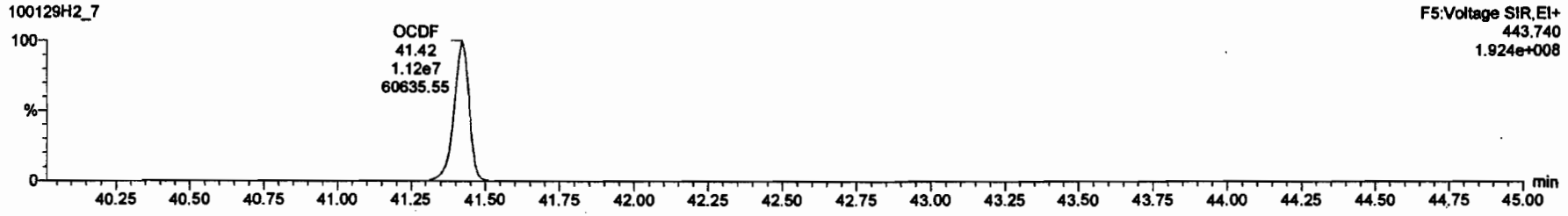

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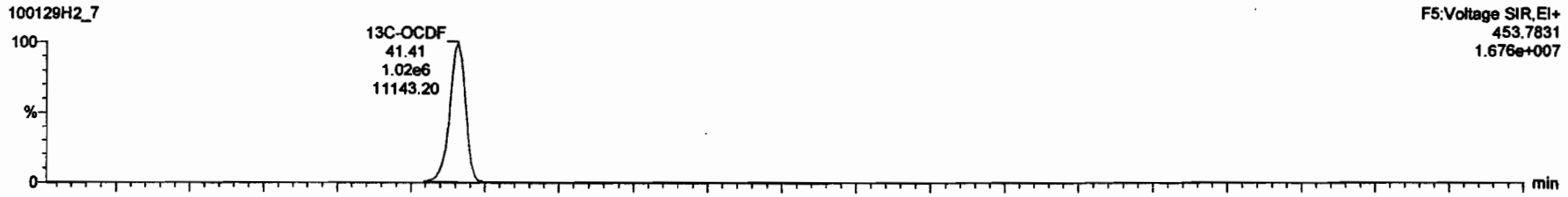

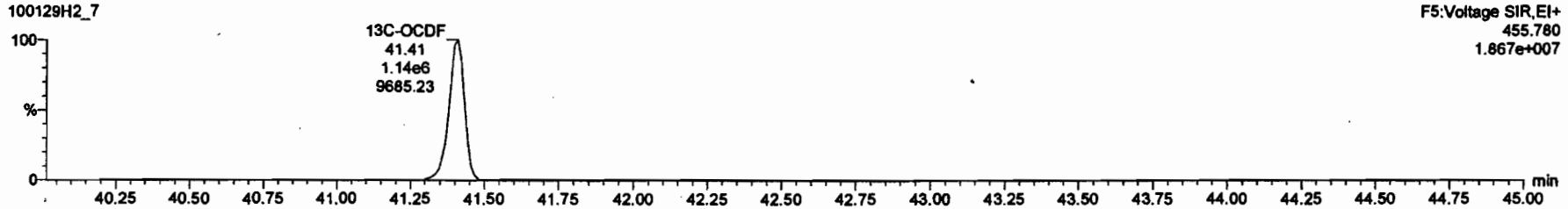

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Name: 100129H2_7, Date: 30-Jan-2010, Time: 07:11:38, ID: ST100129H2-6 1613 CS5 100127H, Description: 1613 CS5 100127H

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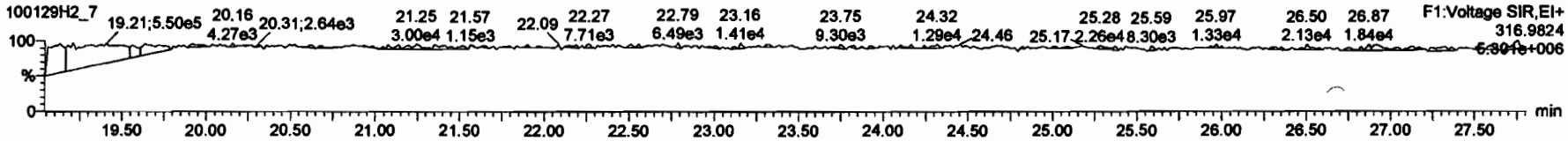

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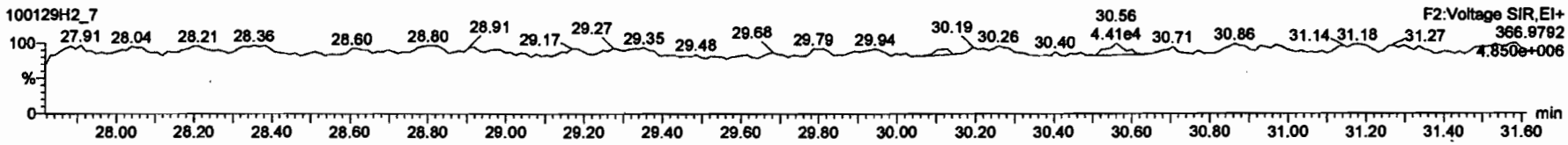

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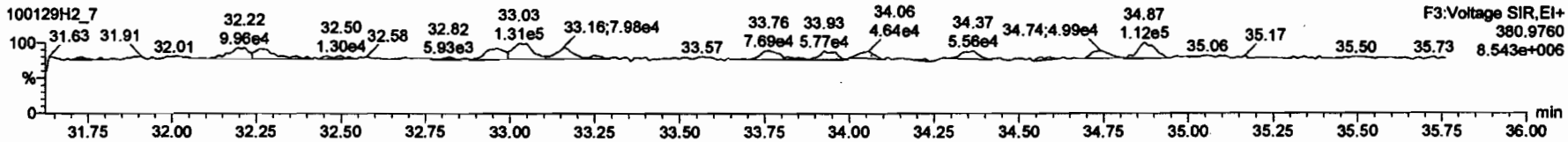

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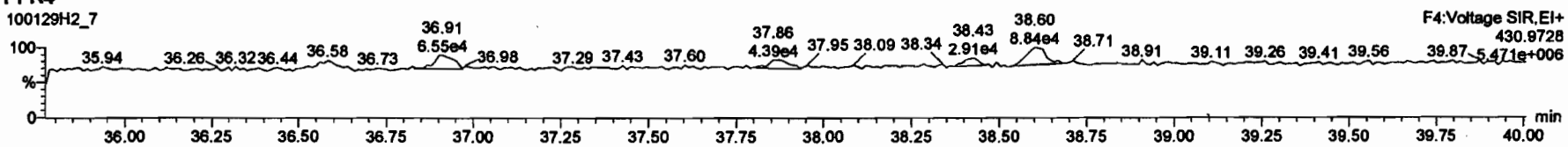

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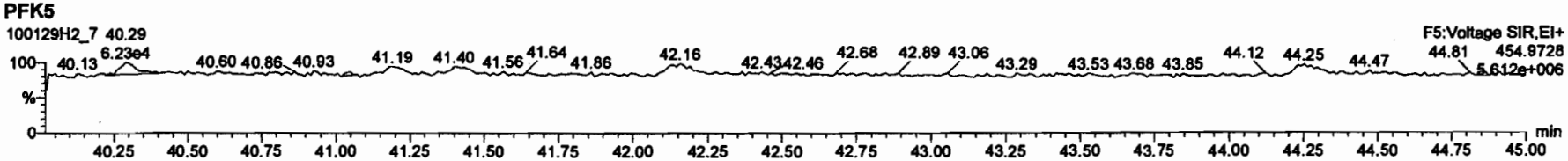

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Name: 100129H2_7, Date: 30-Jan-2010, Time: 07:11:38, ID: ST100129H2-6 1613 CS5 100127H, Description: 1613 CS5 100127H

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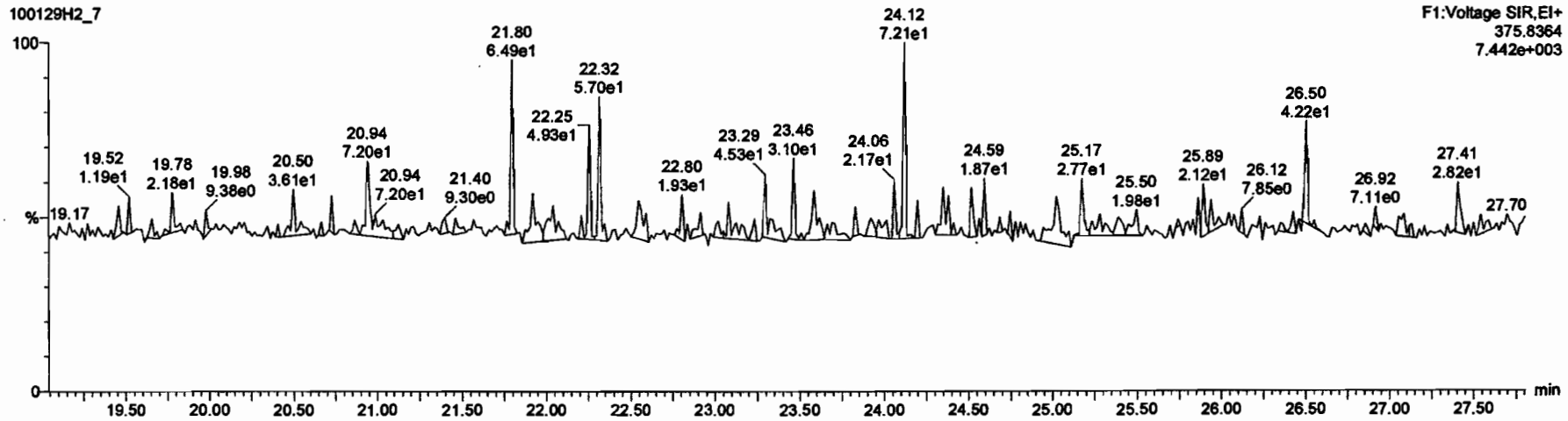

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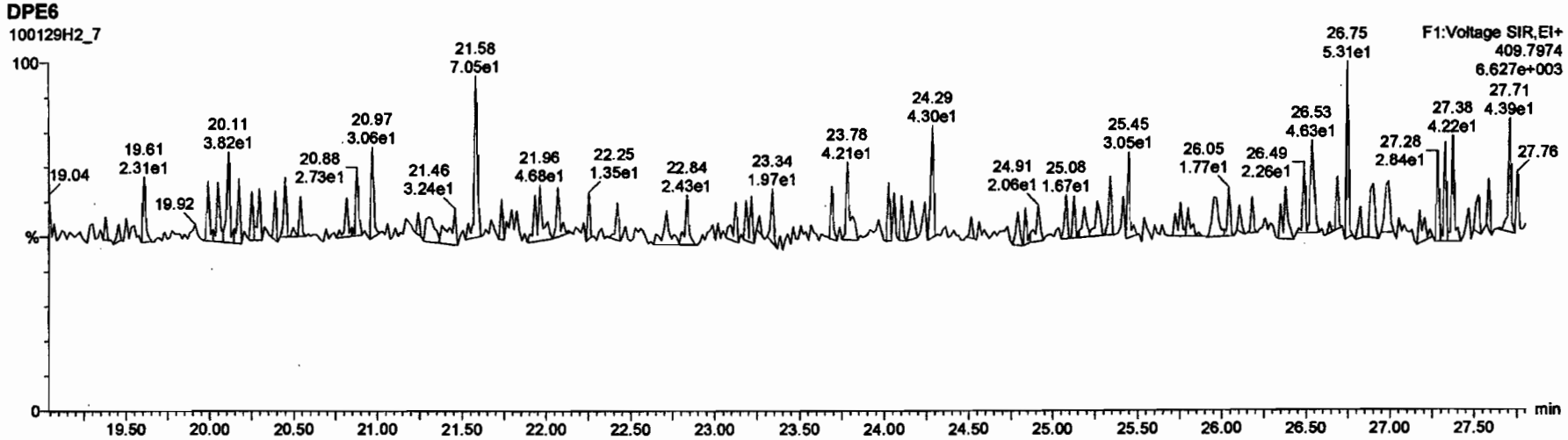

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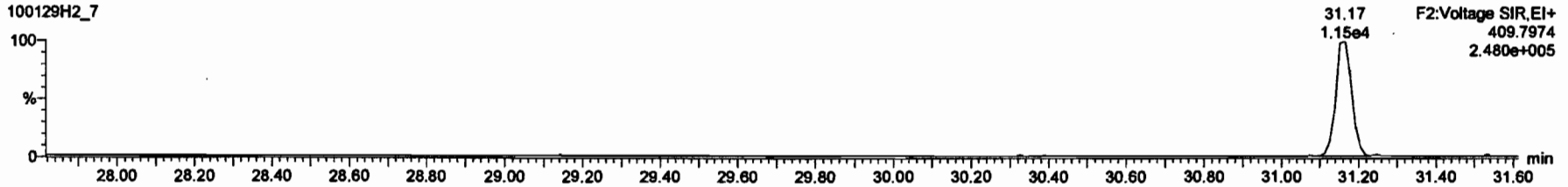

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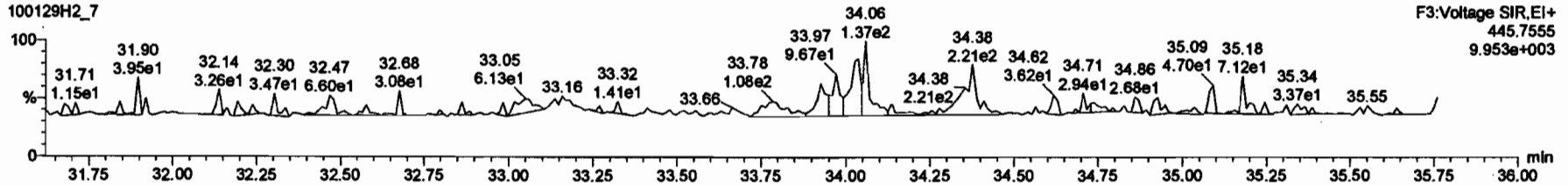

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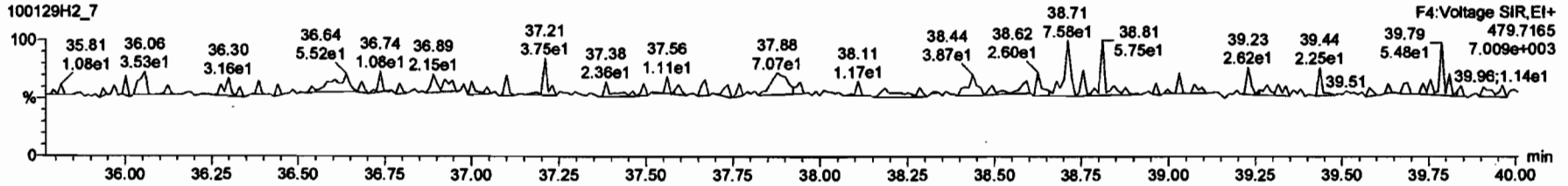

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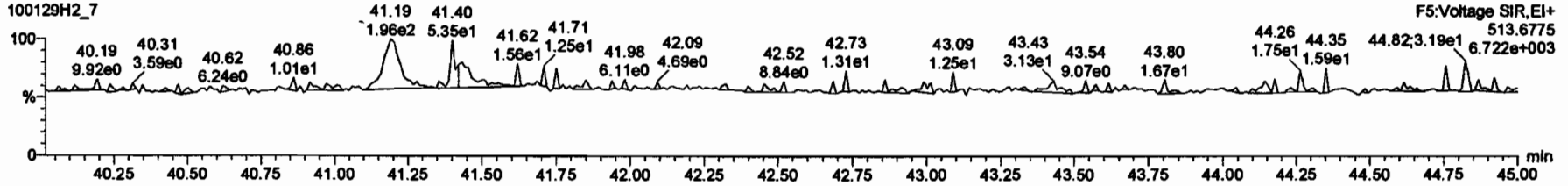

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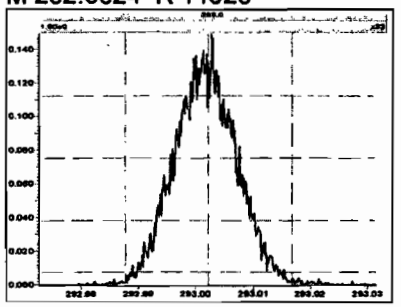

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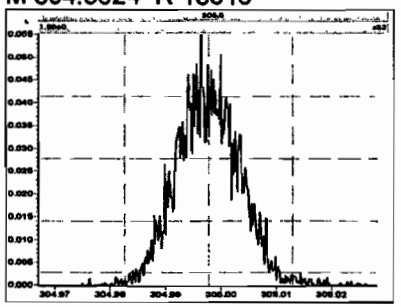

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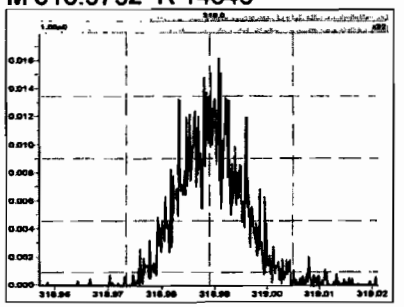

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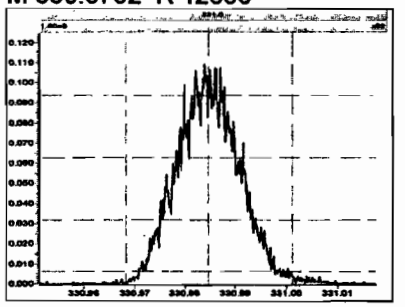

M 342.9792 R 12565

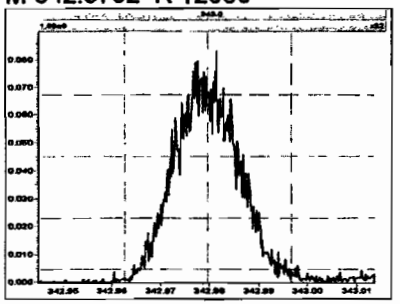

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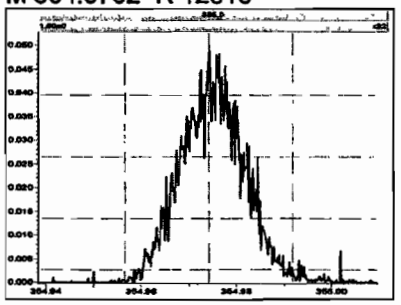

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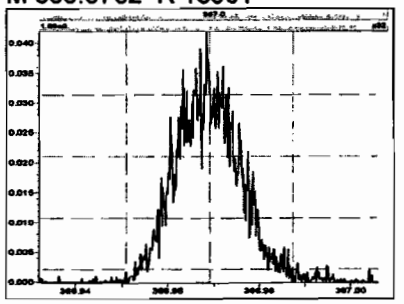

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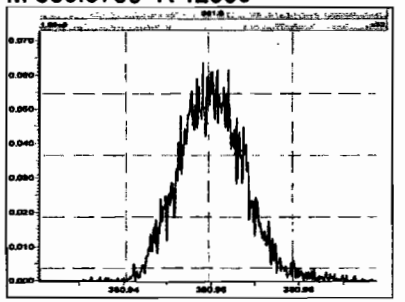

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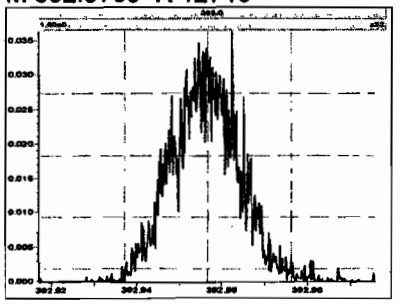

M 404.9760 R 12090

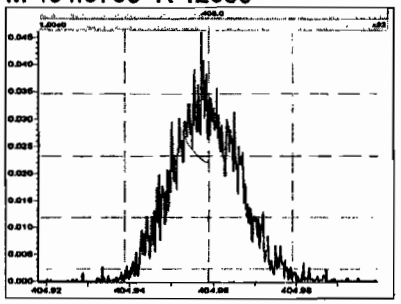

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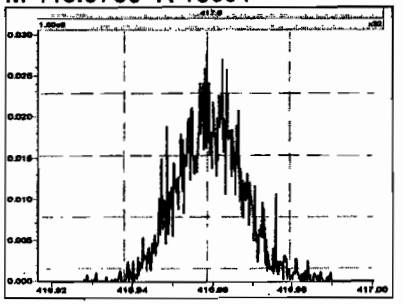

M 330.9792 R 12140

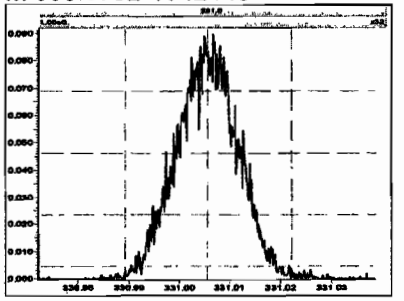

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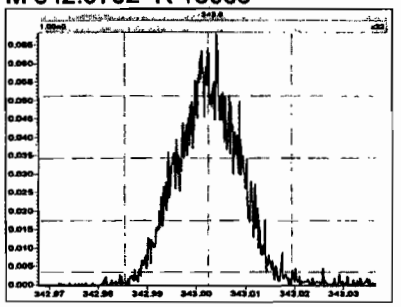

M 354.9792 R 13228

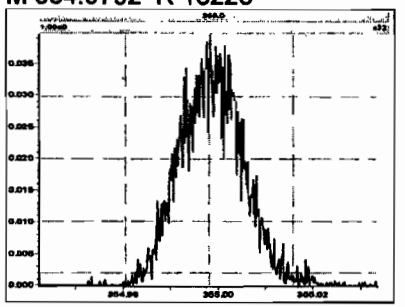

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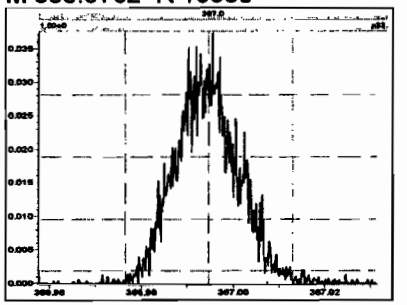

M 380.9760 R 12078

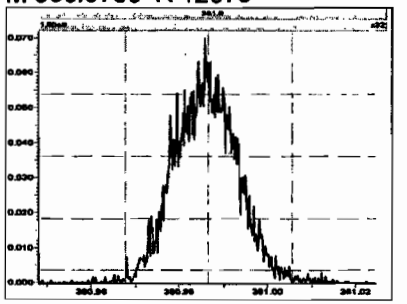

M 392.9760 R 13054

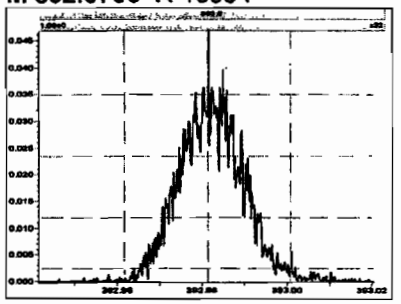

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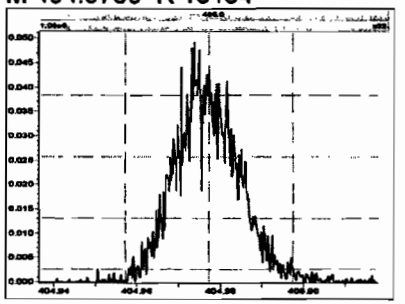

M 416.9760 R 14429

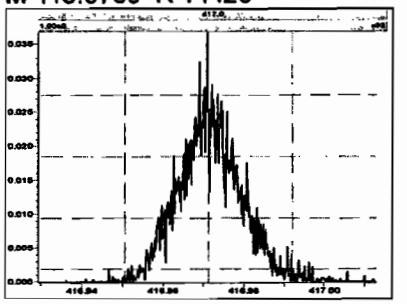

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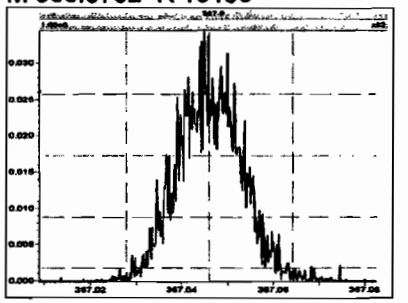

M 380.9760 R 12991

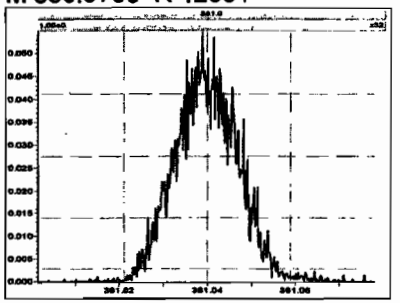

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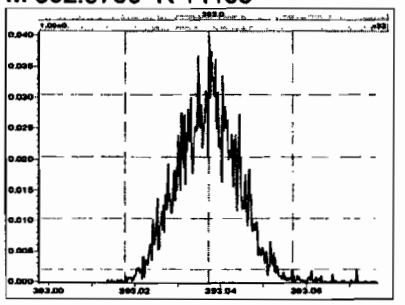

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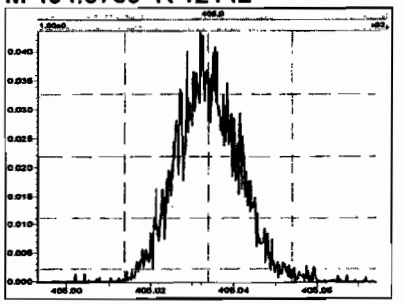

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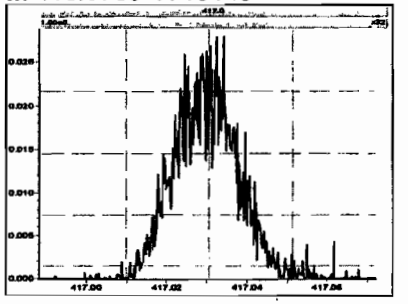

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M 430.9728 R 12452

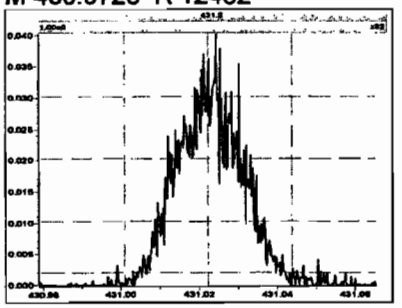

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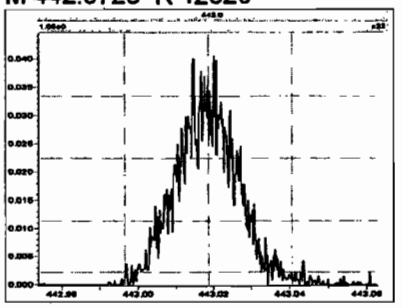

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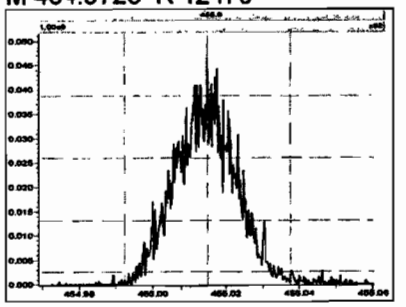

M 404.9760 R 13624

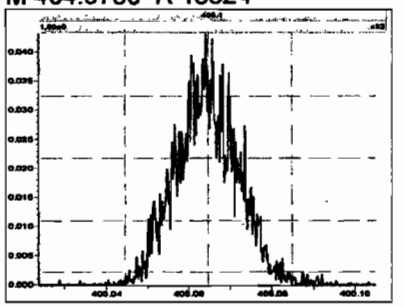

M 416.9760 R 13335

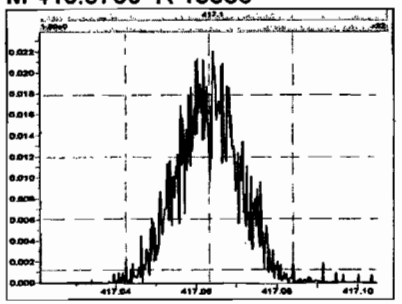

M 430.9728 R 12760

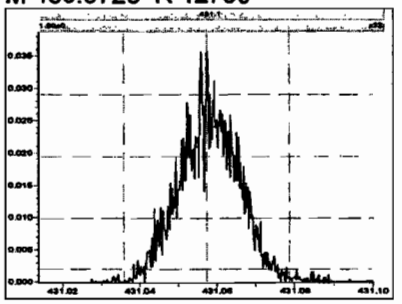

M 442.9728 R 12921

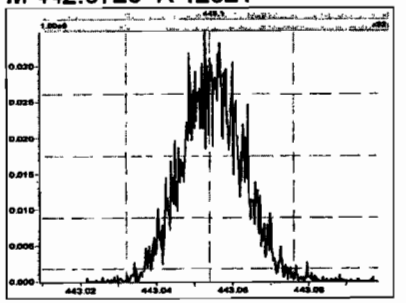

M 454.9728 R 12853

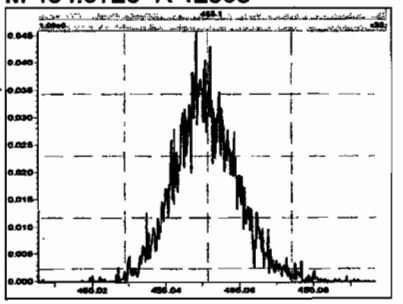

M 466.9728 R 13289

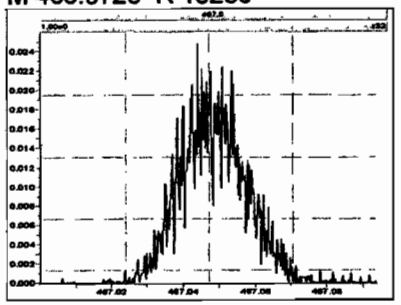

M 480.9696 R 13710

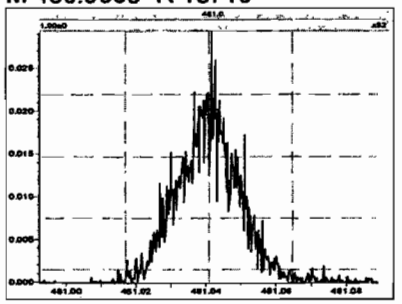

M 430.9728 R 13426

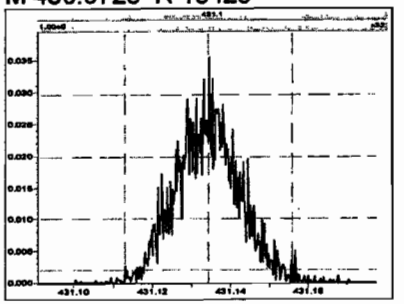

M 442.9728 R 12660

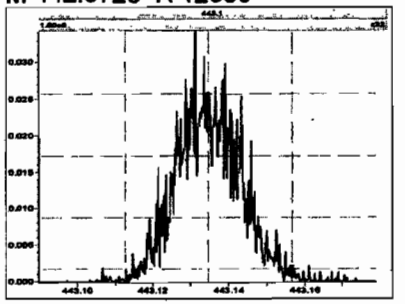

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M 454.9728 R 12135

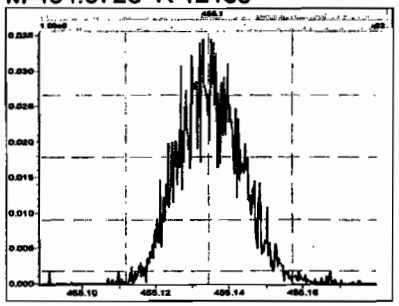

M 466.9728 R 13192

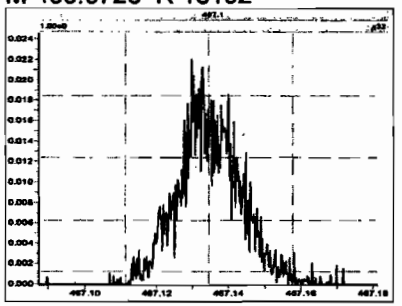

M 480.9696 R 13459

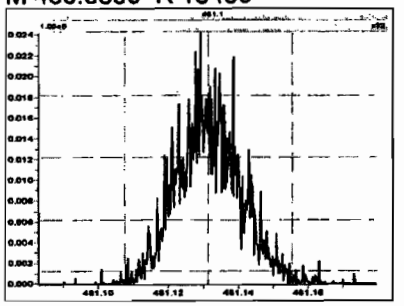

M 492.9696 R 14006

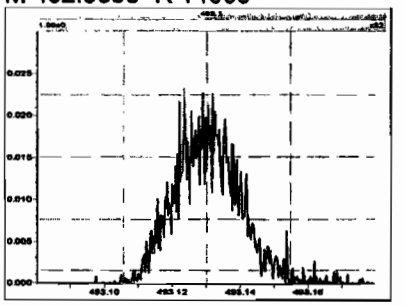

M 504.9696 R 12825

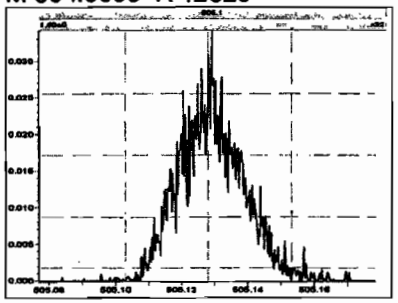

M 516.9697 R 11290

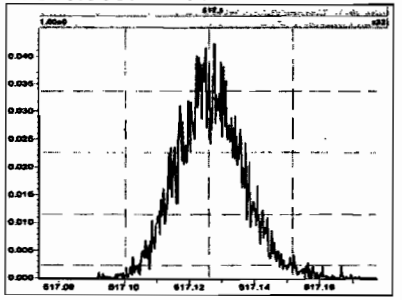

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-sss.qld

Last Altered: Monday, February 01, 2010 14:25:40 Pacific Standard Time
Printed: Monday, February 01, 2010 14:26:33 Pacific Standard Time

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Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

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1	2,3,7,8-TCDD	7.74e4	0.76	NO	1.04	1.000	25.98	1.001	8.5220	85.2	0.0319	8.5220
2	1,2,3,7,8-PeCDD	3.95e5	0.62	NO	0.935	1.000	30.57	1.001	51.810	104	0.0544	51.810
3	1,2,3,4,7,8-HxCDD	3.13e5	1.23	NO	0.907	1.000	33.95	1.001	52.960	106	0.0758	52.960
4	1,2,3,6,7,8-HxCDD	3.06e5	1.23	NO	0.995	1.000	34.05	1.000	44.937	89.9	0.0686	44.937
5	1,2,3,7,8,9-HxCDD	3.11e5	1.22	NO	0.930	1.000	34.36	1.000	49.513	99.0	0.0794	49.513
6	1,2,3,4,6,7,8-HpCDD	2.59e5	1.04	NO	1.00	1.000	37.88	1.000	50.208	100	0.107	50.208
7	OCDD	4.40e5	0.89	NO	1.10	1.000	41.18	1.000	88.747	88.7	0.0698	88.747
8	2,3,7,8-TCDF	1.08e5	0.75	NO	0.956	1.000	25.19	1.001	9.1772	91.8	0.0413	9.1772
9	1,2,3,7,8-PeCDF	4.92e5	1.57	NO	0.941	1.000	29.37	1.000	47.879	95.8	0.0962	47.879
10	2,3,4,7,8-PeCDF	5.37e5	1.56	NO	0.926	1.000	30.29	1.000	50.400	101	0.0897	50.400
11	1,2,3,4,7,8-HxCDF	5.09e5	1.27	NO	1.22	1.000	33.05	1.001	46.659	93.3	0.0837	46.659
12	1,2,3,6,7,8-HxCDF	4.89e5	1.26	NO	1.08	1.000	33.17	1.000	51.154	102	0.0974	51.154
13	2,3,4,6,7,8-HxCDF	4.56e5	1.26	NO	1.13	1.000	33.77	1.000	49.390	98.8	0.104	49.390
14	1,2,3,7,8,9-HxCDF	3.74e5	1.29	NO	1.13	1.000	34.74	1.000	48.195	96.4	0.148	48.195
15	1,2,3,4,6,7,8-HpCDF	4.20e5	1.09	NO	1.44	1.000	36.59	1.001	48.107	96.2	0.127	48.107
16	1,2,3,4,7,8,9-HpCDF	3.33e5	1.06	NO	1.38	1.000	38.43	1.000	49.183	98.4	0.132	49.183
17	OCDF	5.31e5	0.88	NO	1.01	1.000	41.41	1.000	91.700	91.7	0.0803	91.700
18	13C-2,3,7,8-TCDD	8.75e5	0.78	NO	1.10	1.000	25.95	1.022	103.09	103	0.180	
19	13C-1,2,3,7,8-PeCDD	8.16e5	0.62	NO	1.09	1.000	30.55	1.203	96.490	96.5	0.149	
20	13C-1,2,3,4,7,8-HxCDD	6.51e5	1.25	NO	1.01	1.000	33.93	1.014	82.714	82.7	0.143	
21	13C-1,2,3,6,7,8-HxCDD	6.84e5	1.24	NO	0.889	1.000	34.04	1.017	98.732	98.7	0.163	
22	13C-1,2,3,7,8,9-HxCDD	6.75e5	1.24	NO	1.07	1.000	34.34	1.027	80.742	80.7	0.135	
23	13C-1,2,3,4,6,7,8-HpCDD	5.15e5	1.07	NO	0.837	1.000	37.87	1.132	78.954	79.0	0.227	
24	13C-OCDD	8.98e5	0.89	NO	0.712	1.000	41.17	1.231	161.94	81.0	0.141	
25	13C-2,3,7,8-TCDF	1.23e6	0.79	NO	1.05	1.000	25.17	0.992	100.12	100	0.227	
26	13C-1,2,3,7,8-PeCDF	1.09e6	1.56	NO	1.02	1.000	29.35	1.156	91.755	91.8	0.238	
27	13C-2,3,4,7,8-PeCDF	1.15e6	1.56	NO	1.08	1.000	30.27	1.192	91.534	91.5	0.225	
28	13C-1,2,3,4,7,8-HxCDF	8.91e5	0.52	NO	1.37	1.000	33.03	0.987	83.799	83.8	0.205	
29	13C-1,2,3,6,7,8-HxCDF	8.86e5	0.52	NO	1.37	1.000	33.16	0.991	83.270	83.3	0.205	
30	13C-2,3,4,6,7,8-HxCDF	8.20e5	0.52	NO	1.18	1.000	33.76	1.009	89.093	89.1	0.237	

2/1/10

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-sss.qld

Last Altered: Monday, February 01, 2010 14:25:40 Pacific Standard Time
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Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

31	13C-1,2,3,7,8,9-HxCDF	6.87e5	0.53	NO	1.05	1.000	34.73	1.038	84.040	84.0	0.266
32	13C-1,2,3,4,6,7,8-HpCDF	6.07e5	0.45	NO	0.858	1.000	36.57	1.093	90.751	90.8	0.264
33	13C-1,2,3,4,7,8,9-HpCDF	4.91e5	0.46	NO	0.794	1.000	38.42	1.148	79.433	79.4	0.285
34	13C-OCDF	1.14e6	0.88	NO	0.948	1.000	41.40	1.237	154.51	77.3	0.101
35	37Cl-2,3,7,8-TCDD	8.76e4			0.665	1.000	25.97	1.023	17.069	171	0.0439
36	13C-1,2,3,4-TCDD	7.72e5	0.77	NO	1.00	1.000	25.39	0.000	100.00	100	0.198
37	13C-1,2,3,4-TCDF	1.17e6	0.79	NO	1.00	1.000	23.97	0.000	100.00	100	0.239
38	13C-1,2,3,4,6,9-HxCDF	7.79e5	0.53	NO	1.00	1.000	33.46	0.000	100.00	100	0.280

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-sss.qld

Last Altered: Monday, February 01, 2010 14:25:40 Pacific Standard Time
Printed: Monday, February 01, 2010 14:26:14 Pacific Standard Time

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Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

2,3,7,8-TCDD

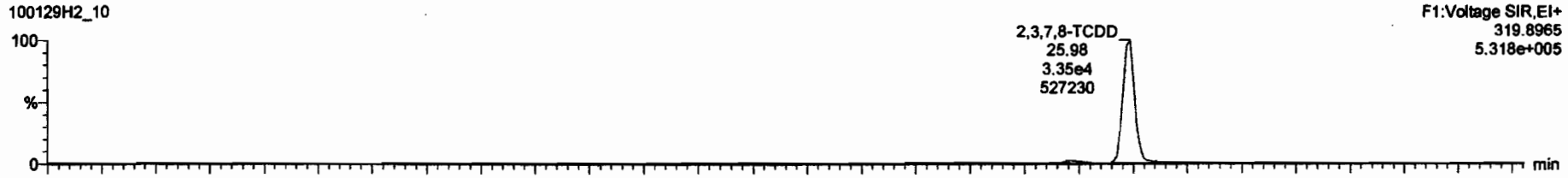

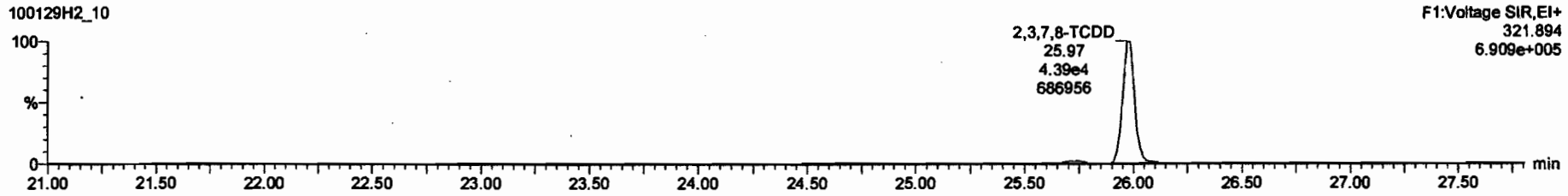

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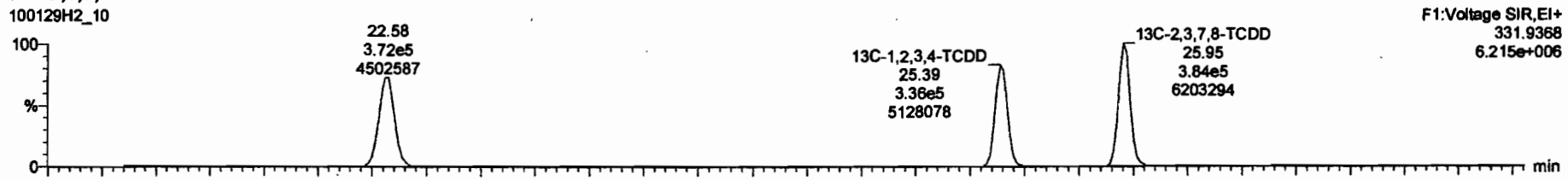

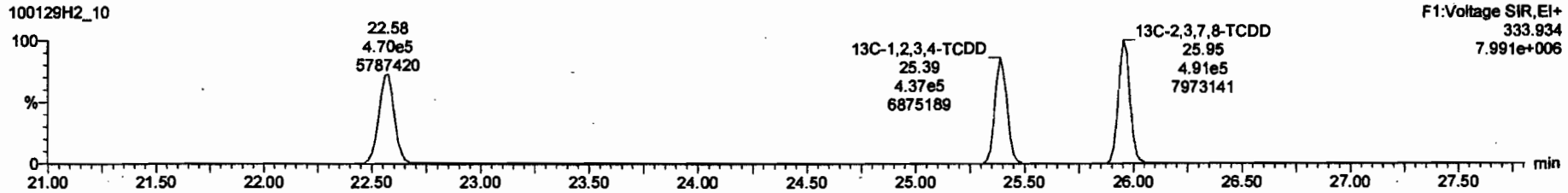

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Printed: Monday, February 01, 2010 14:26:14 Pacific Standard Time

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37Cl-2,3,7,8-TCDD

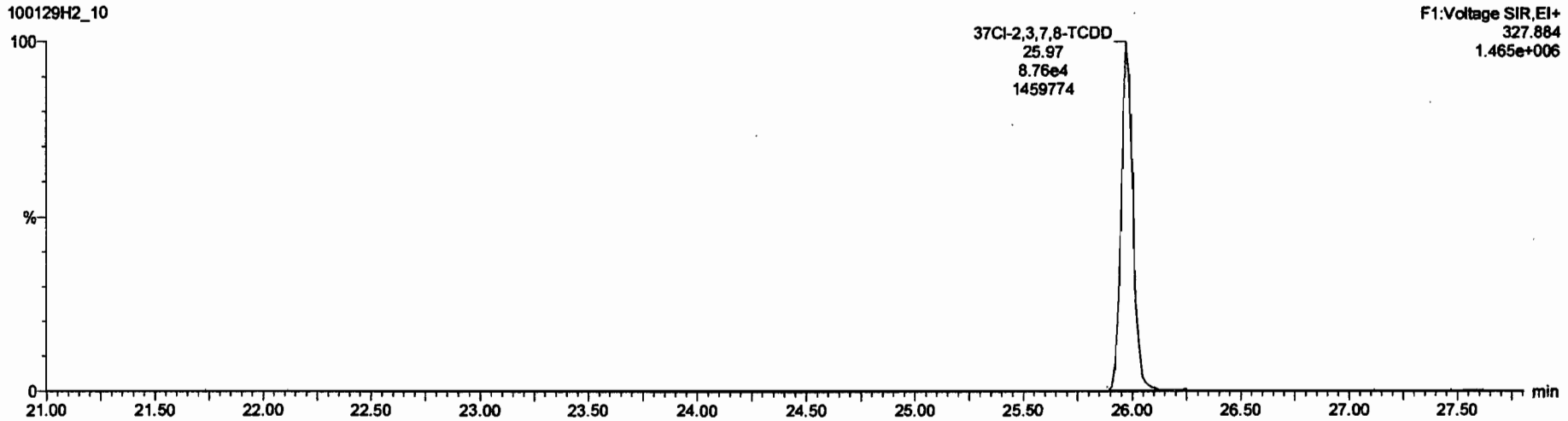

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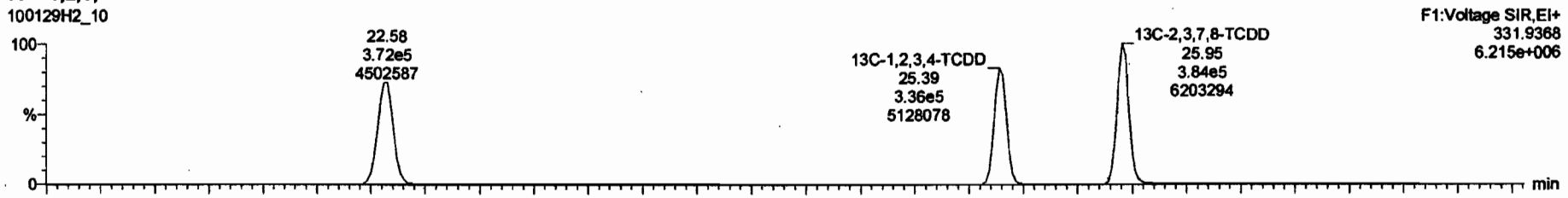

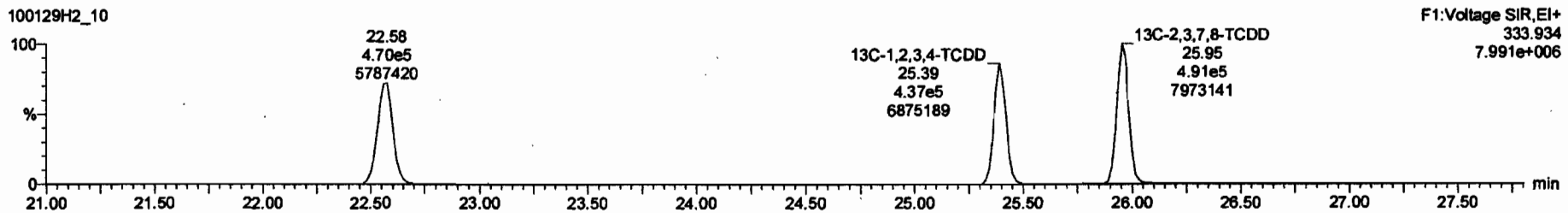

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1,2,3,7,8-PeCDD

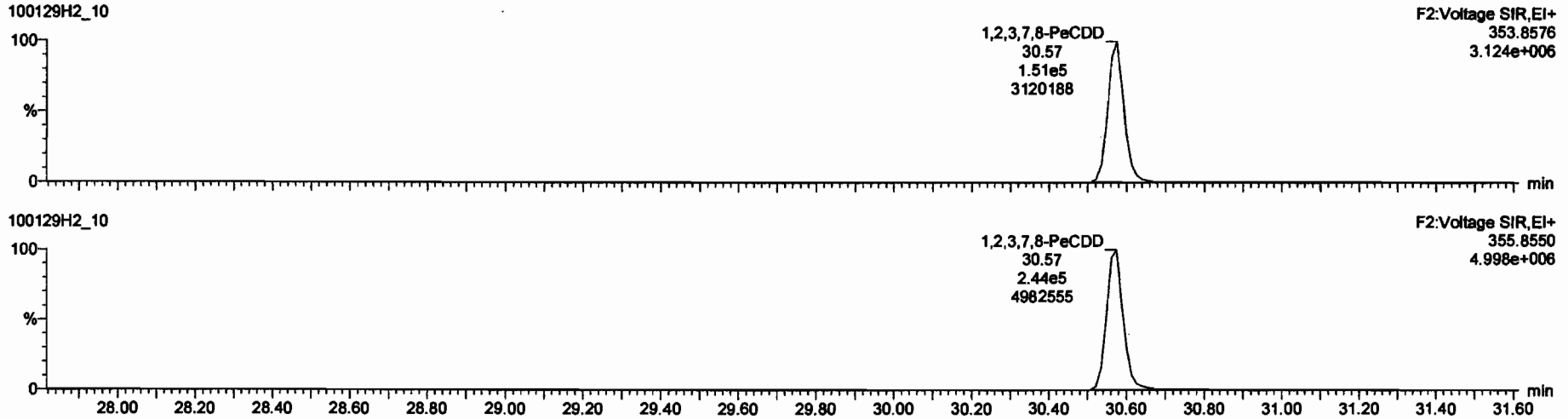

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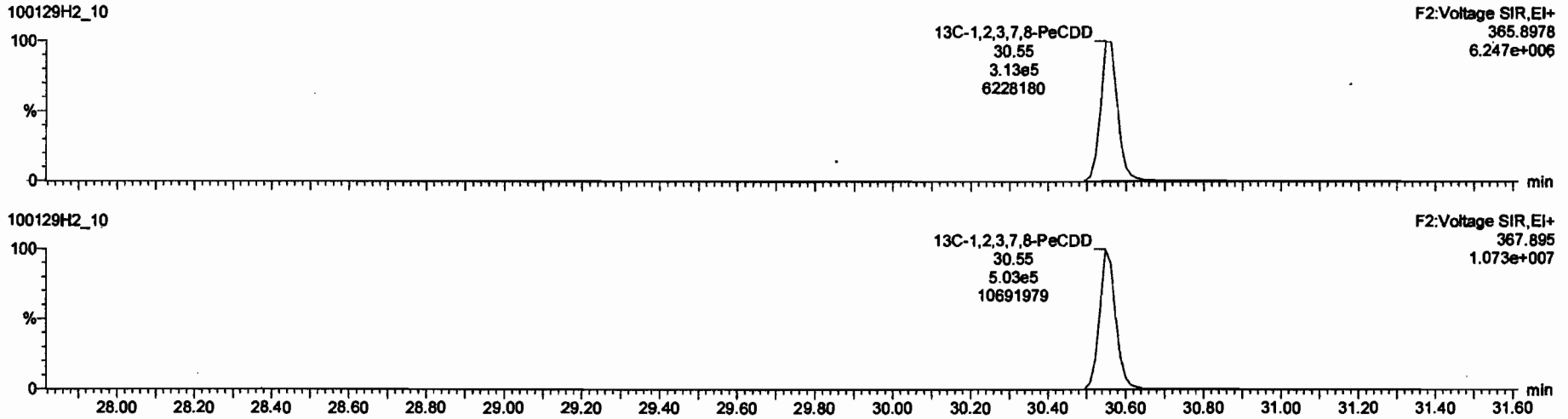

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Printed: Monday, February 01, 2010 14:26:14 Pacific Standard Time

Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

1,2,3,4,7,8-HxCDD

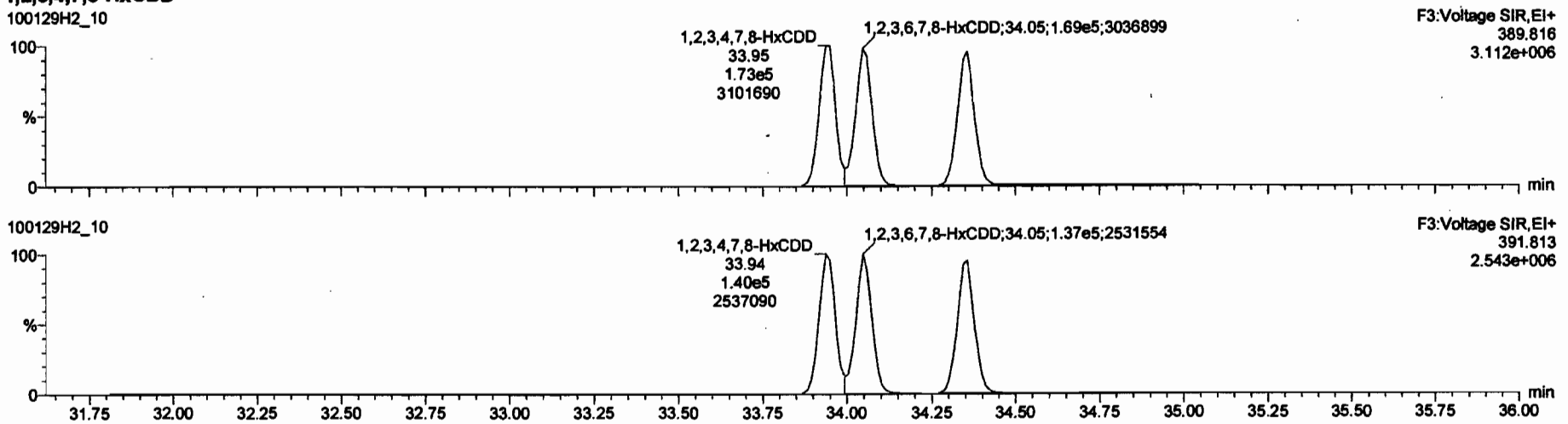

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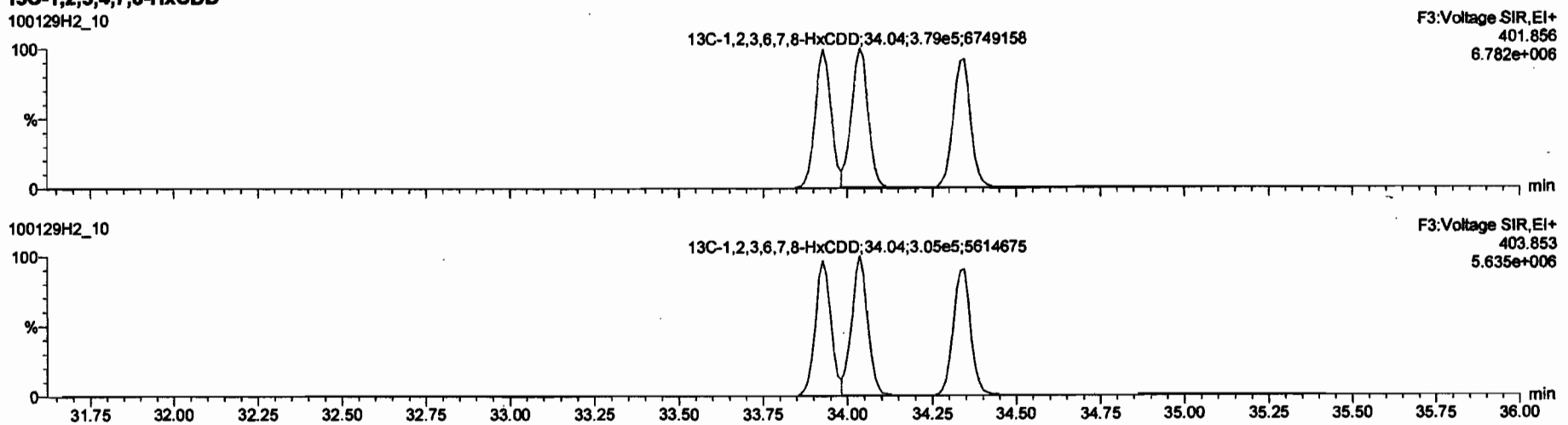

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Printed: Monday, February 01, 2010 14:26:14 Pacific Standard Time

Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

1,2,3,4,6,7,8-HpCDD

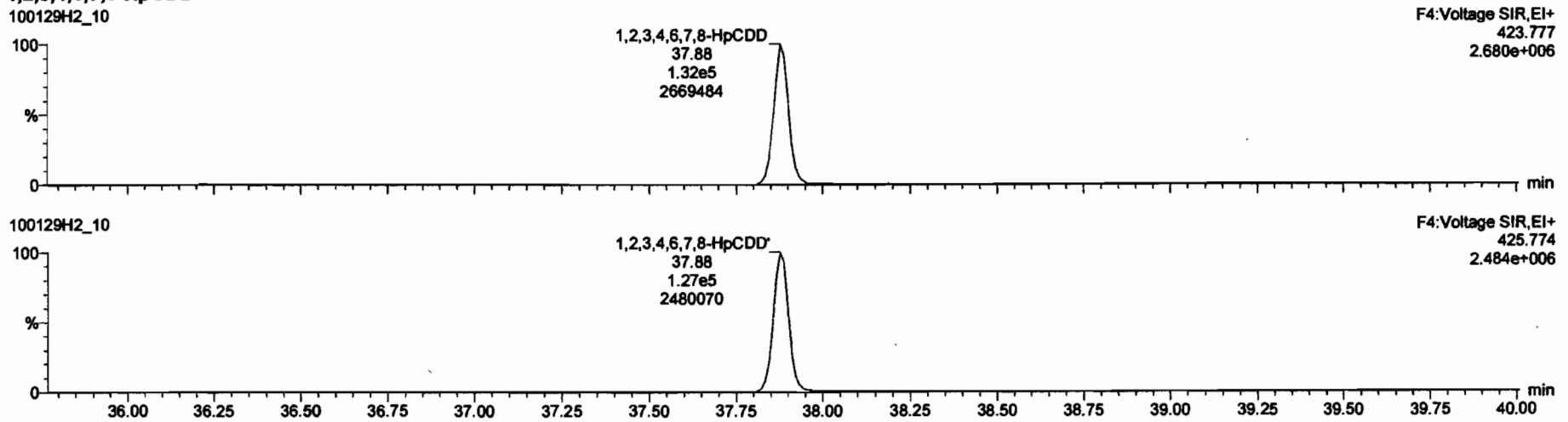

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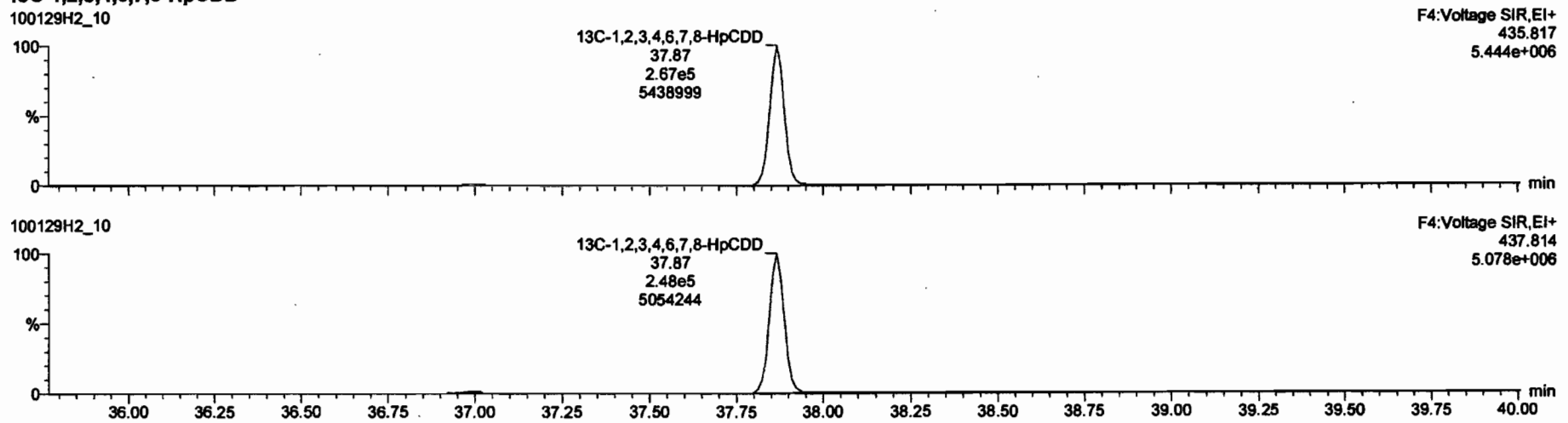

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Last Altered: Monday, February 01, 2010 14:25:40 Pacific Standard Time
Printed: Monday, February 01, 2010 14:26:14 Pacific Standard Time

Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

OCDD

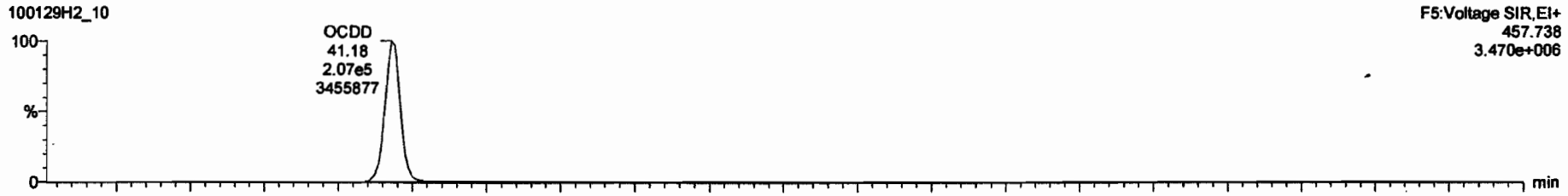

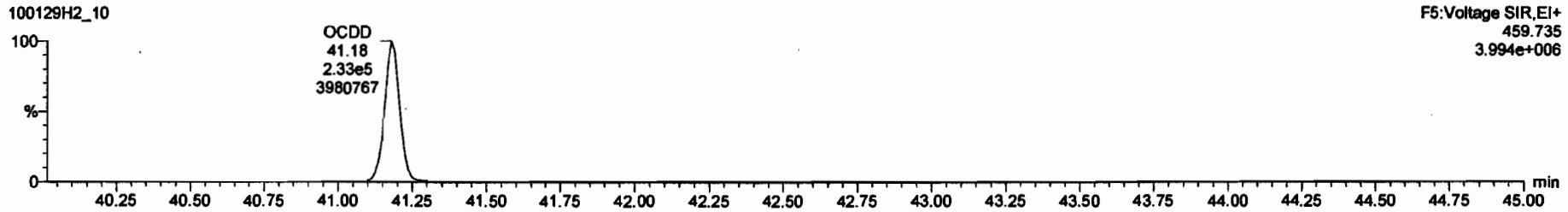

13C-OCDD

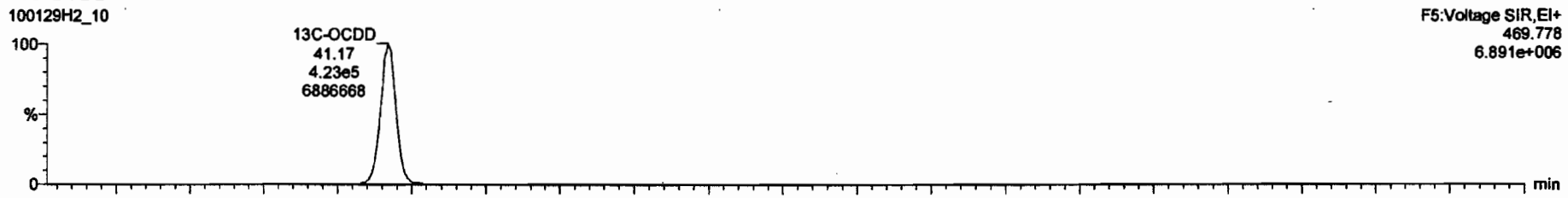

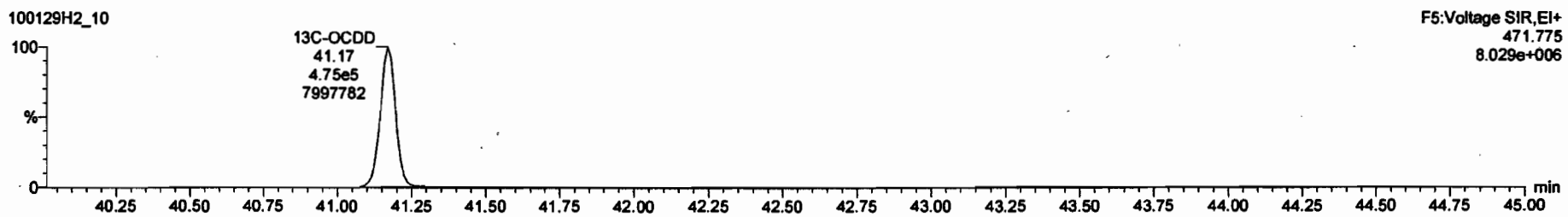

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-sss.qld

Last Altered: Monday, February 01, 2010 14:25:40 Pacific Standard Time
Printed: Monday, February 01, 2010 14:26:14 Pacific Standard Time

Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

2,3,7,8-TCDF

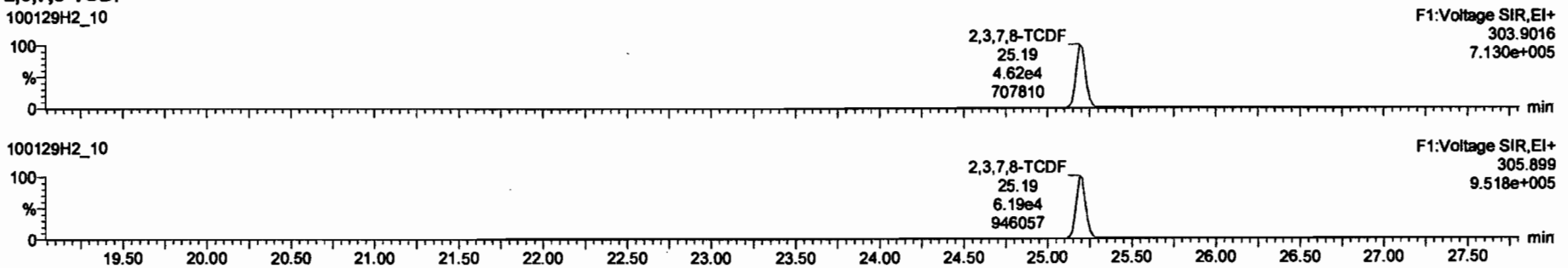

13C-2,3,7,8-TCDF

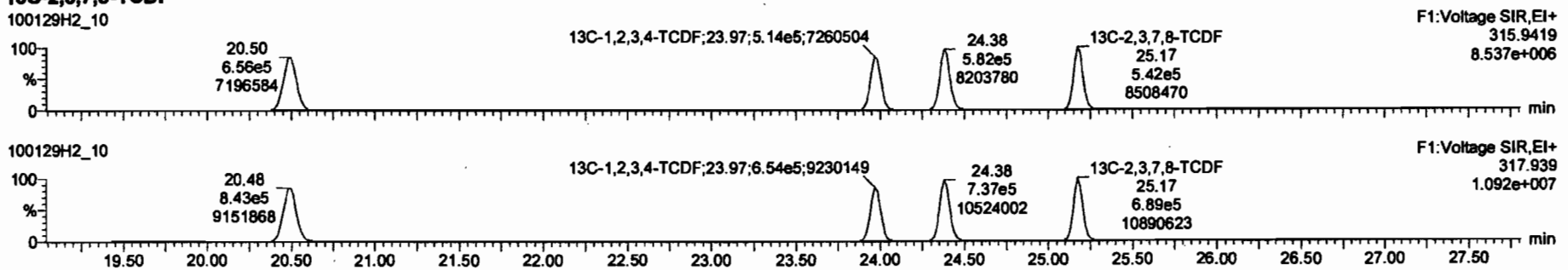

DPE1

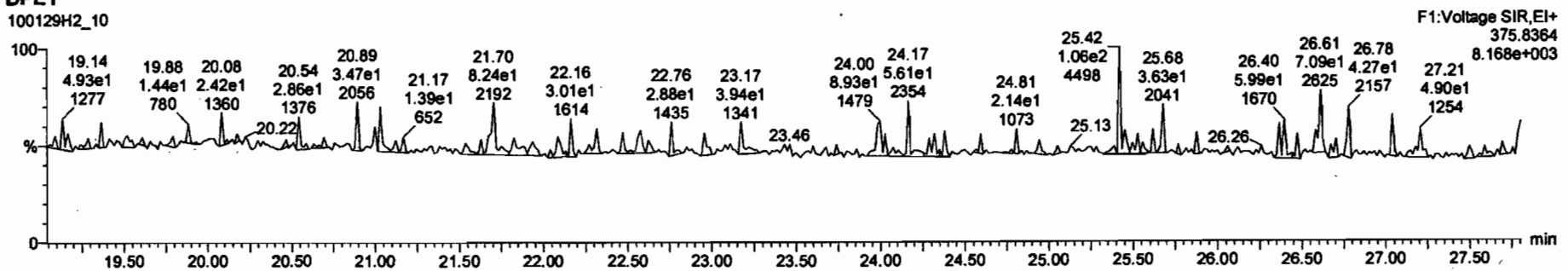

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Last Altered: Monday, February 01, 2010 14:25:40 Pacific Standard Time
Printed: Monday, February 01, 2010 14:26:14 Pacific Standard Time

Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

1st Func. Penta-Furans

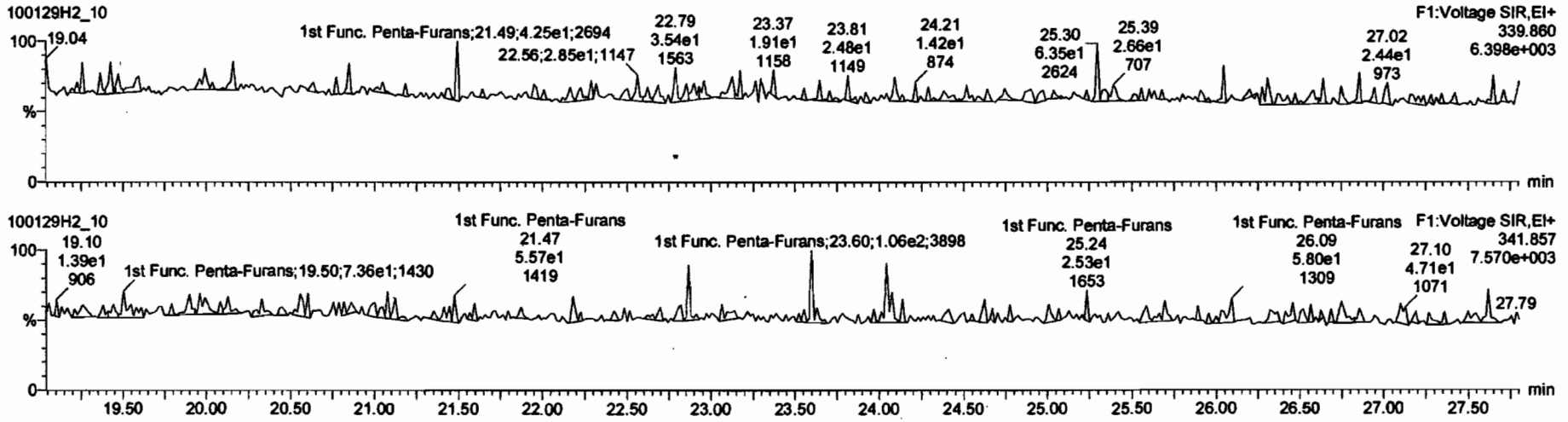

DPE6

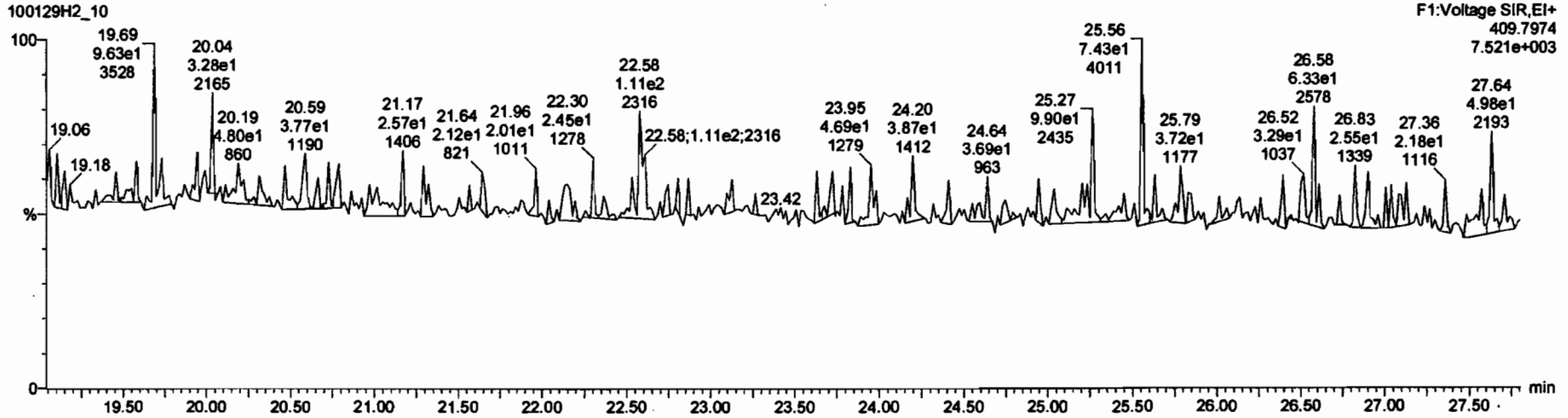

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-sss.qld

Last Altered: Monday, February 01, 2010 14:25:40 Pacific Standard Time
Printed: Monday, February 01, 2010 14:26:14 Pacific Standard Time

Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

1,2,3,7,8-PeCDF

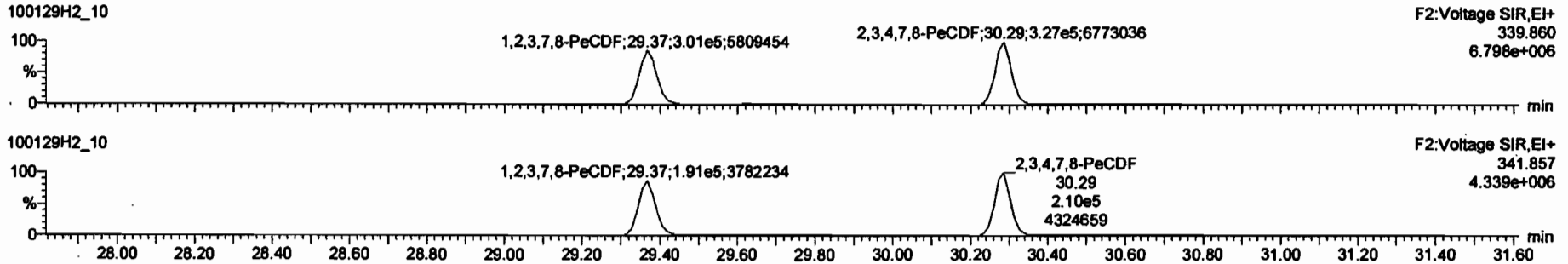

13C-1,2,3,7,8-PeCDF

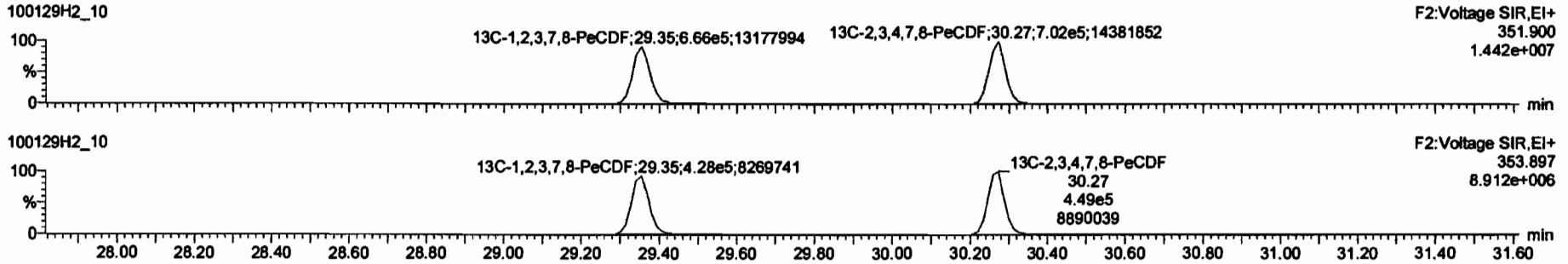

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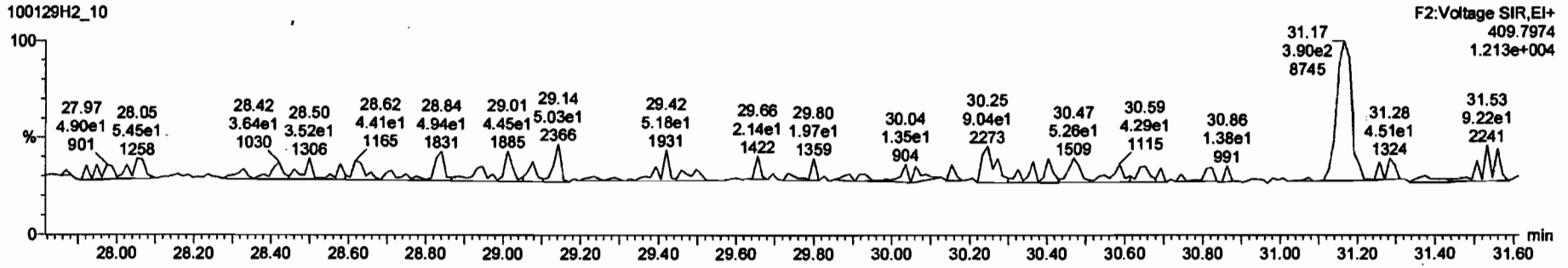

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-sss.qld

Last Altered: Monday, February 01, 2010 14:25:40 Pacific Standard Time
Printed: Monday, February 01, 2010 14:26:14 Pacific Standard Time

Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

1,2,3,4,7,8-HxCDF

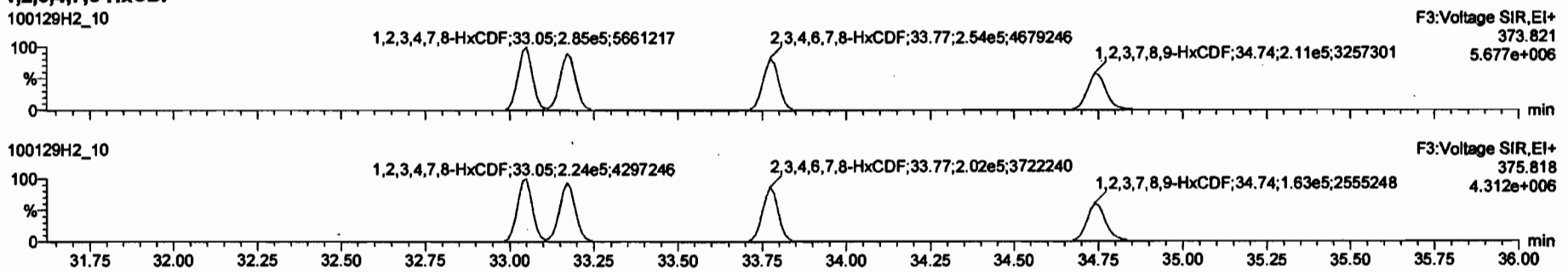

13C-1,2,3,4,7,8-HxCDF

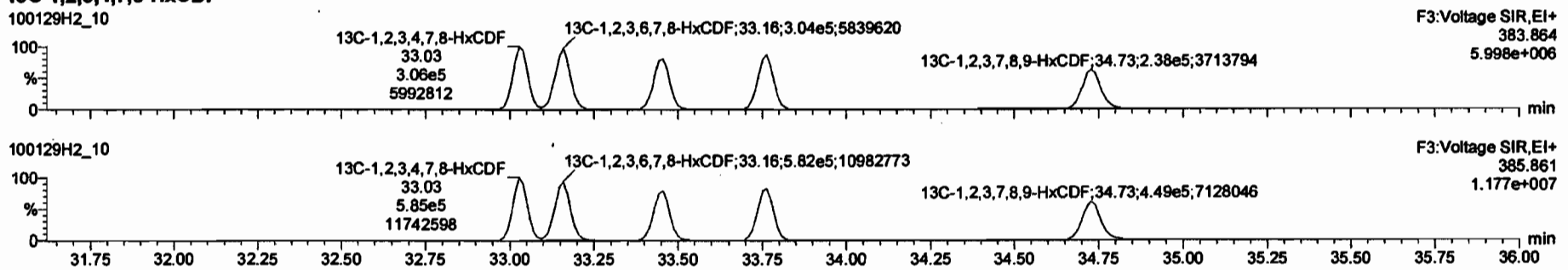

DPE3

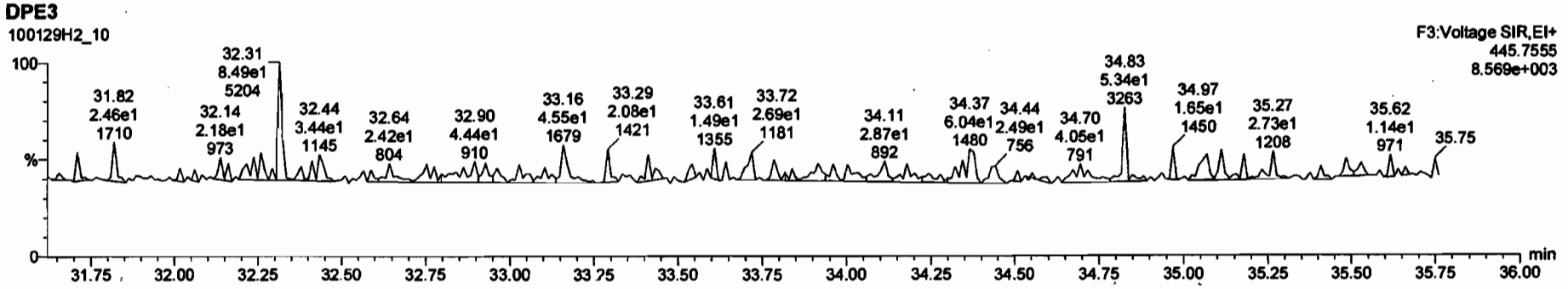

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-sss.qld

Last Altered: Monday, February 01, 2010 14:25:40 Pacific Standard Time
Printed: Monday, February 01, 2010 14:26:14 Pacific Standard Time

Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

1,2,3,4,6,7,8-HpCDF

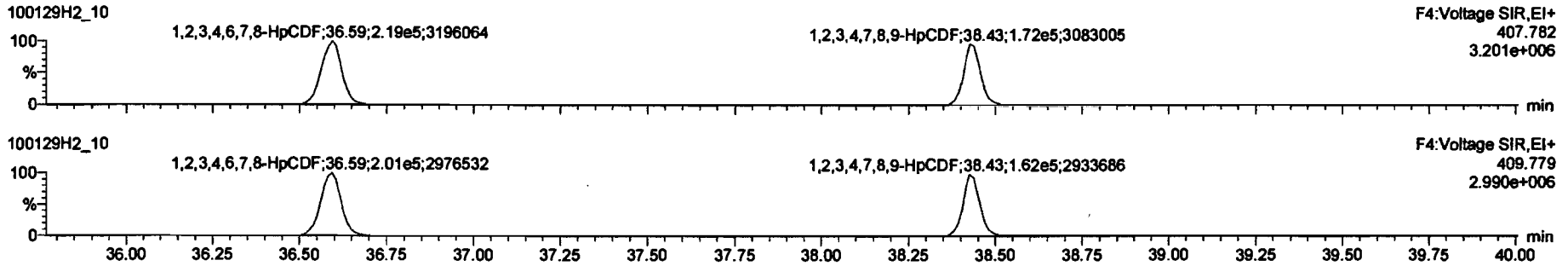

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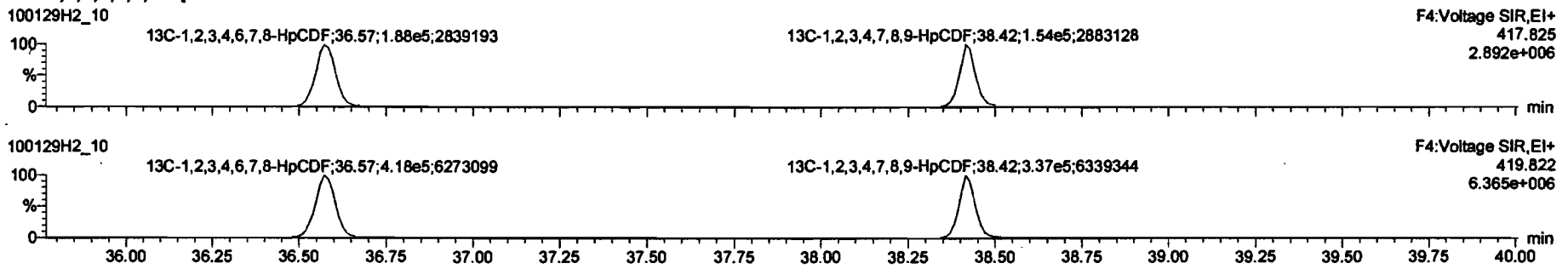

DPE4

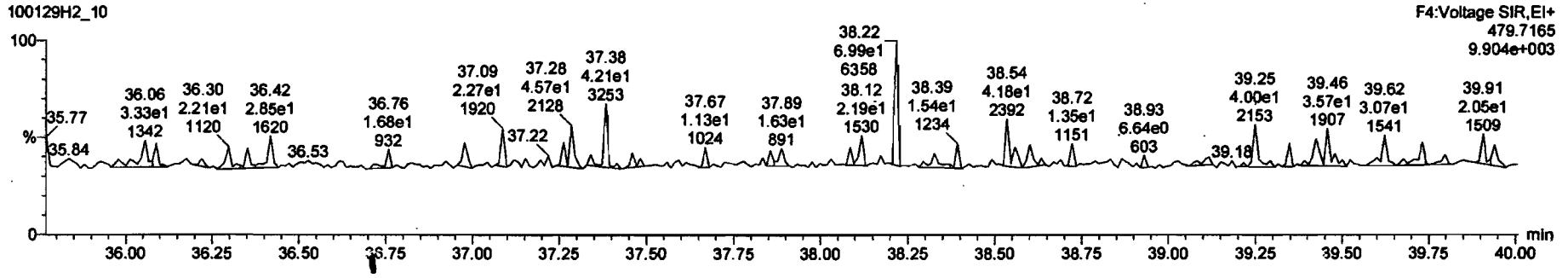

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-sss.qld

Last Altered: Monday, February 01, 2010 14:25:40 Pacific Standard Time
Printed: Monday, February 01, 2010 14:26:14 Pacific Standard Time

Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

OCDF

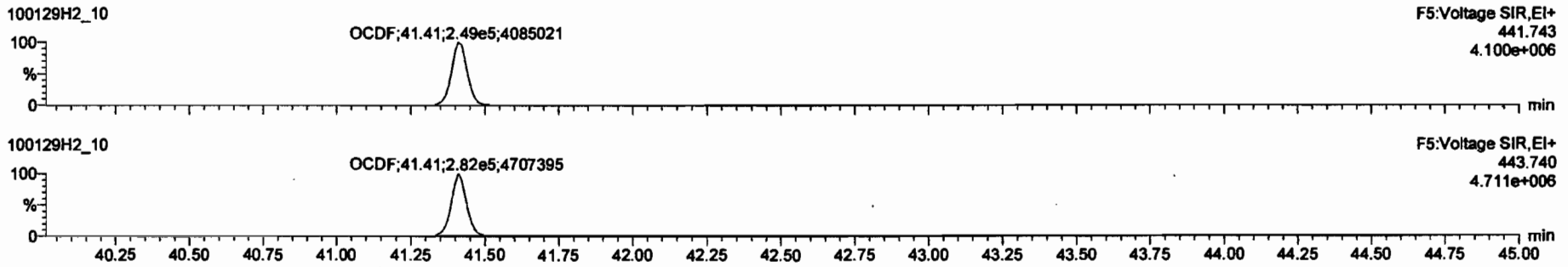

13C-OCDF

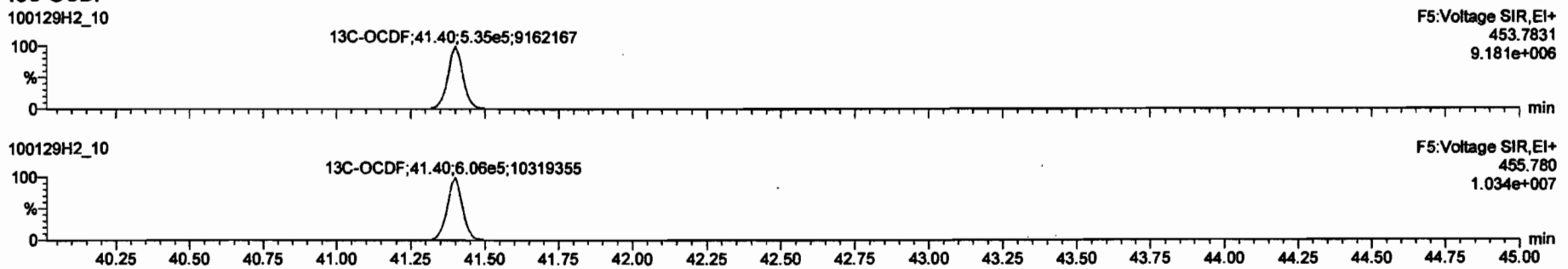

DPE5

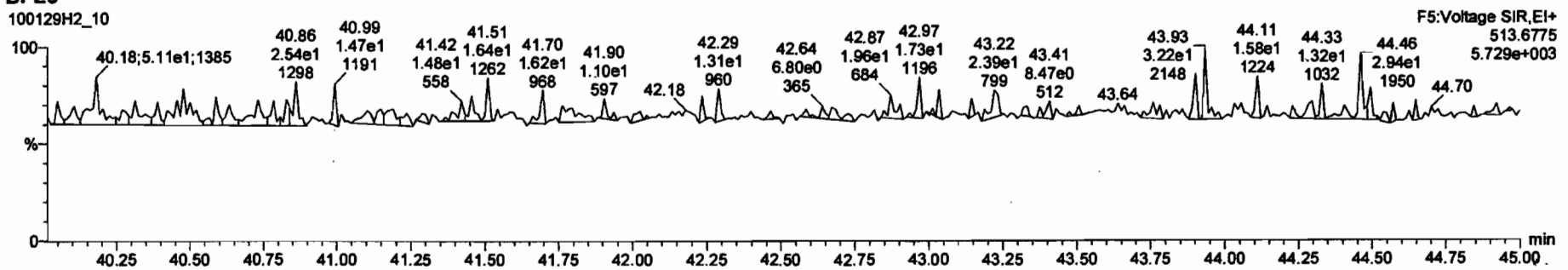

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Last Altered: Monday, February 01, 2010 14:25:40 Pacific Standard Time
Printed: Monday, February 01, 2010 14:26:14 Pacific Standard Time

Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

PFK1

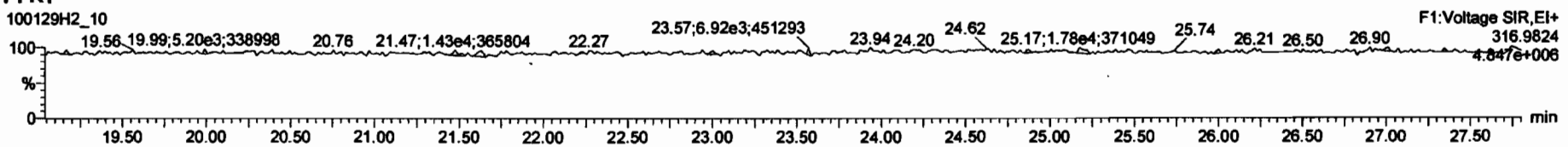

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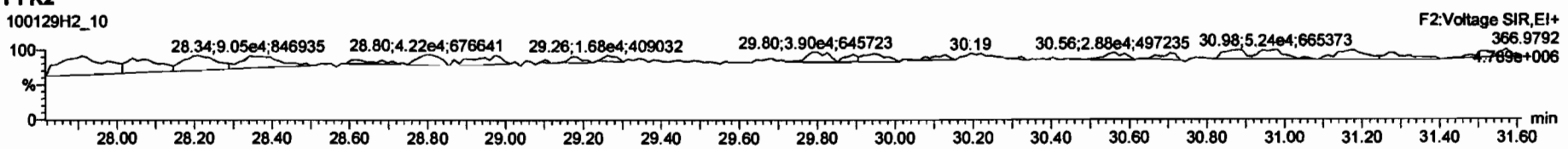

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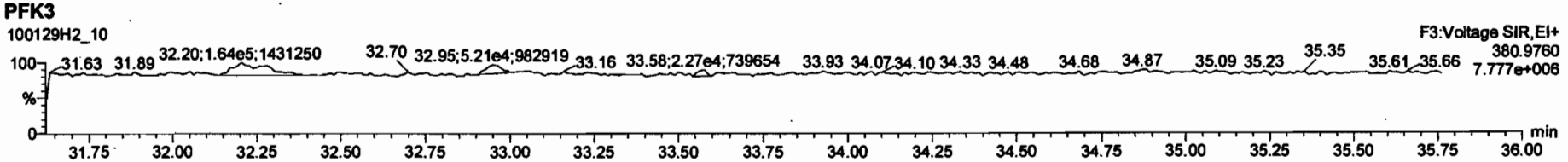

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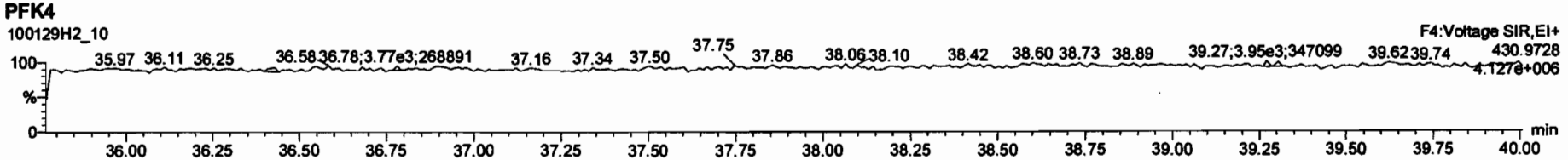

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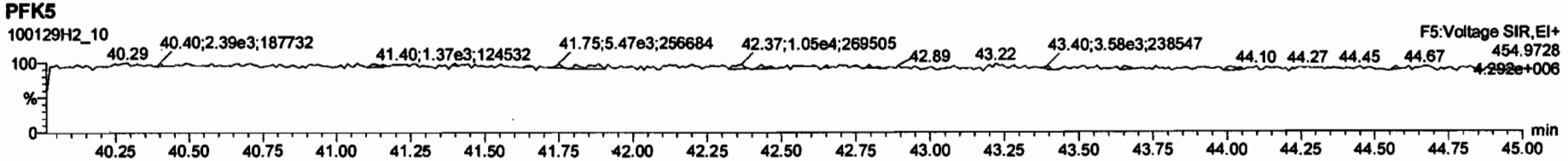

Monday, February 22, 2010

REQUEST NUMBER: 10-2006

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2006

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/22/2010

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-13497	WG	2/22/2010	
	EPA:150.1	1	CAPA-10-13497	WG	2/22/2010	
	EPA:160.1	1	CAPA-10-13497	WG	2/22/2010	
	EPA:245.2	1	CAPA-10-13497	WG	2/22/2010	
		1	CAPA-10-13498	WG	2/22/2010	
	EPA:300.0	1	CAPA-10-13497	WG	2/22/2010	
	EPA:310.1	1	CAPA-10-13497	WG	2/22/2010	
	EPA:335.3	1	CAPA-10-13498	WG	2/22/2010	
	EPA:350.1	1	CAPA-10-13497	WG	2/22/2010	

Monday, February 22, 2010

REQUEST NUMBER: 10-2006

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:353.2	1	CAPA-10-13497	WG	2/22/2010	
	EPA:365.4	1	CAPA-10-13497	WG	2/22/2010	
	EPA:900	1	CAPA-10-13498	WG	2/22/2010	
	EPA:901.1	1	CAPA-10-13498	WG	2/22/2010	
	EPA:905.0	1	CAPA-10-13498	WG	2/22/2010	
	HASL-300:AM-241	1	CAPA-10-13498	WG	2/22/2010	
	HASL-300:ISOPU	1	CAPA-10-13498	WG	2/22/2010	
	HASL-300:ISOU	1	CAPA-10-13498	WG	2/22/2010	
	SM:A2340B	1	CAPA-10-13497	WG	2/22/2010	
		1	CAPA-10-13498	WG	2/22/2010	
	SW-846:6010B	1	CAPA-10-13497	WG	2/22/2010	
		1	CAPA-10-13498	WG	2/22/2010	
	SW-846:6020	1	CAPA-10-13497	WG	2/22/2010	
		1	CAPA-10-13498	WG	2/22/2010	
	SW-846:6850	1	CAPA-10-13497	WG	2/22/2010	

Final Page of REQUEST NUMBER 10-2006

Monday, February 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2006

REQUEST NUMBER: 10-2006

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-13497	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-13497	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13497	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-13498	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-13498	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-13498	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13498	1	POLY	WSP-RAD	Nitric Acid	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		2/22/10	1500				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2662 **EVENT NAME:** R-51 Characterization Sampling

SAMPLE ID: CAPA-10-13497 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		2/22/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0612	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-51		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
TOP DEPTH:		1024.84 ftbgs	SAMPLE USAGE:	INV	
BOTTOM DEPTH:		1045.59 ftbgs	SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	

SAMPLE DESC:

SAMPLE COMMENTS: Collect sample from lower screen.

See CAPA 1013498

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

samples filtered @ TA-59 stormwater lab

COLLECTED BY (PRINT) D. Woody

REVIEWED BY (PRINT) H. Wershow

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Hal Wershow (Signature) [signature]	2/22/10 0915	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	2/22/10 0915
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2662 **EVENT NAME:** R-51 Characterization Sampling

SAMPLE ID: CAPA-10-13498 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		2/22/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0612	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-51		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
TOP DEPTH:		1024.84 ftbgs	SAMPLE USAGE:	INV	
BOTTOM DEPTH:		1045.59 ftbgs	SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	
2		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	
2		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	

AL 02/19/10 AL 02/19/10 AL 02/19/10 AL 02/19/10

SAMPLE DESC:

SAMPLE COMMENTS: Collect sample from lower screen.

Samples collected directly from stainless steel tubing, no sample tree/spigot setup available

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2662 **EVENT NAME:** R-51 Characterization Sampling

FIELD SCREENING/MEASUREMENT RESULTS:

Time	pH	T°C	SC µS/cm	DO mg/L	ORP mV	Turb NTU	Q gpm	Notes
0640	9.52	20.51	134	1.10	-36.3	19.0	21.1	Turbid

COLLECTED BY (PRINT) D. Woody **REVIEWED BY (PRINT)** H. Wershow

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Hal Wershow (Signature) Hal	2/22/10 0915	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	2/22/10 0915
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2662 **EVENT NAME:** R-51 Characterization Sampling

SAMPLE ID: CAPA-10-13499 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		2/22/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0612	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	NA	
LOCATION ID:	R-51		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
TOP DEPTH:		1029.84 ft bgs	SAMPLE USAGE:	QC	
BOTTOM DEPTH:		1045.59 ft bgs	SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
MG 1/18/10 1 2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	X	

SAMPLE DESC: QC Sample of CAPA-10-13498

SAMPLE COMMENTS: Collect sample from lower screen.

See CAPA 10 13498

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D. Woody **REVIEWED BY (PRINT)** H. Wershow

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Hal Wershow	2/22/10	(Printed Name) Sherri Sherwood	2/22/10
(Signature) Hal	0915	(Signature) Sherri Sherwood	0915
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-2006 VALIDATION DATE: 04/30/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☒ LCMSMS PERCHLORATES
☐ TPH-DRO	☐ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN and that the raw data for the parent sample was not included in the data package. No sample results were qualified.

Reviewed by: Allison Felix Level: 1 Date: 5/4/10

VALIDATOR'S SIGNATURE:	DATE: 04/30/10
Form 5121-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☒	☐	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☒	☐	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2 LC/MS/MS Perchlorate Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-13497

Date Received: 23-FEB-10

GEL Job No (SDG): 10-2006

GEL Sample ID: 247829001

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.301	ug/L		1	14-MAR-10 21:53	per0314047a
	Perchlorate Isotope Ratio			3.19			1	14-MAR-10 21:53	per0314047a
14797-73-0	Perchlorate-101	.05	.2	0.291	ug/L		1	14-MAR-10 21:53	per0314047a
	Perchlorate-O(18)			0.470	ug/L		1	14-MAR-10 21:53	per0314047a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

MLH 4/30/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-2006 VALIDATION DATE: 04/30/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☒ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In a bracketing CCB Tl was detected. The associated result for sample CAPA-10-13498 was a detect ≤5X the CCB and was qualified U,I4b. The associated result for sample -13497 was ND and was not qualified.
2. It should be noted that the QC analyses for CVAA were performed on a LANL sample from another RN. No sample results were qualified.
3. Some filtered sample results were slightly greater than corresponding unfiltered sample results. No sample data were qualified as a result.

Reviewed by: Allison Felix Level: 1 Date: 5/4/10

DATA VALIDATION COVER SHEET

5118-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

VALIDATOR'S SIGNATURE: _____ DATE: 04/30/10

Form 5118-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☐	☒	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☐	☒	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2006 **METHOD TYPE:** EPA

SAMPLE ID: 247829001 **CLIENT ID:** CAPA-10-13497

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 23-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	030210W3-5
7631-86-9	Silica	72.3	mg/L			P	0.053	1	OPTIMA3	032210-1
7429-90-5	Aluminum	283	ug/L		*	P	68	1	OPTIMA3	032210-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100415-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100415-3
7440-39-3	Barium	24.2	ug/L			P	1	1	OPTIMA3	032210-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	032210-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	032210-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100415-3
7440-70-2	Calcium	11000	ug/L			P	50	1	OPTIMA3	032210-1
7440-47-3	Chromium	3.25	ug/L	J		MS	2.5	1	ICPMS5	100415-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	032210-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	032210-1
7439-89-6	Iron	271	ug/L			P	30	1	OPTIMA3	032210-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100415-3
7439-95-4	Magnesium	3150	ug/L			P	85	1	OPTIMA3	032210-1
7439-96-5	Manganese	12.2	ug/L			P	2	1	OPTIMA3	032210-1
7439-98-7	Molybdenum	1.03	ug/L			MS	0.1	1	ICPMS5	100415-3
7440-02-0	Nickel	0.554	ug/L	J		MS	0.5	1	ICPMS5	100415-3
7440-09-7	Potassium	1740	ug/L			P	50	1	OPTIMA3	032210-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100415-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100415-3
7440-23-5	Sodium	14000	ug/L			P	100	1	OPTIMA3	032210-1
7440-24-6	Strontium	52.5	ug/L			P	1	1	OPTIMA3	032210-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100415-3
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	032410-2

MLH
4/30/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2006 **METHOD TYPE:** EPA

SAMPLE ID: 247829001 **CLIENT ID:** CAPA-10-13497

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 23-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	0.551	ug/L			MS	0.05	1	ICPMS5	100416-4
7440-62-2	Vanadium	6.53	ug/L			P	1	1	OPTIMA3	032210-1
7440-66-6	Zinc	3.93	ug/L	J		P	3.3	1	OPTIMA3	032410-2
	Hardness as CaCO3	40.4	mg/L				0.35	1	CALC001	

MLH
4/30/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2006 **METHOD TYPE:** EPA

SAMPLE ID: 247829002 **CLIENT ID:** CAPA-10-13498

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 23-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	030210W3-5
7429-90-5	Aluminum	424	ug/L		*	P	68	1	OPTIMA3	032210-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100415-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100415-3
7440-39-3	Barium	26.5	ug/L			P	1	1	OPTIMA3	032210-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	032210-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	032210-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100415-3
7440-70-2	Calcium	10600	ug/L			P	50	1	OPTIMA3	032210-1
7440-47-3	Chromium	3.52	ug/L	J		MS	2.5	1	ICPMS5	100415-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	032210-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	032210-1
7439-89-6	Iron	478	ug/L			P	30	1	OPTIMA3	032210-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100415-3
7439-95-4	Magnesium	2980	ug/L			P	85	1	OPTIMA3	032210-1
7439-96-5	Manganese	18.3	ug/L			P	2	1	OPTIMA3	032210-1
7439-98-7	Molybdenum	1.08	ug/L			MS	0.1	1	ICPMS5	100415-3
7440-02-0	Nickel	0.741	ug/L	J		MS	0.5	1	ICPMS5	100415-3
7440-09-7	Potassium	1680	ug/L			P	50	1	OPTIMA3	032210-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100415-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100415-3
7440-23-5	Sodium	12800	ug/L			P	100	1	OPTIMA3	032210-1
7440-24-6	Strontium	50	ug/L			P	1	1	OPTIMA3	032210-1
7440-28-0	Thallium U,I4b	0.365	ug/L	J		MS	0.3	1	ICPMS5	100415-3
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	032410-2
7440-61-1	Uranium	0.602	ug/L			MS	0.05	1	ICPMS5	100416-4

MLH
4/30/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2006 **METHOD TYPE:** EPA

SAMPLE ID: 247829002 **CLIENT ID:** CAPA-10-13498

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 23-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	5.97	ug/L			P	1	1	OPTIMA3	032210-1
7440-66-6	Zinc	4.33	ug/L	J		P	3.3	1	OPTIMA3	032410-2
	Hardness as CaCO3	38.7	mg/L				0.35	1	CALC001	

MLH
4/30/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-2006 VALIDATION DATE: 05/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☐ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☒ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. Ammonia as nitrogen and total phosphorus were detected in the MB. The associated sample results were ≤5X the MB concentration and were qualified U,I4.

   Total phosphorus was detected in an ICB/CCB. The associated sample result was ≤5X the ICB/CCB concentration and was qualified U,I4b.

2. The MS %R for ammonia as nitrogen was < the laboratory LAL but > 10%. The associated sample result was a qualified ND and was qualified UJ,I6a.

3. The duplicate RPD for total dissolved solids did not meet the laboratory acceptance limit and the sample and duplicate results were ≥5X the PQL. The associated sample result was a detect and was qualified J,I10b.

4. The analysis of pH was performed >2X past the method specified HT. The associated sample result was qualified J-,I9a, based on professional judgment.

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

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Los Alamos NATIONAL LABORATORY EST. 1943

5. It should be noted that the matrix QC analyses for all analyses except total cyanide were performed on LANL samples from other RNs. No sample results were qualified.

   Reviewed by: Allison Felix Level: 1 Date: 5/4/10

VALIDATOR'S SIGNATURE _____ DATE: 05/03/10

Form 5120-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☒	☐	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☒	☐	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 23, 2010

Client SDG: 10-2006

Client Sample ID:	CAPA-10-13497	Project:	ESHL01000
Sample ID:	247829001	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	22-FEB-10 12:00		
Receive Date:	23-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Conductivity Analysis											
EPA120.1 Specific Conductivity "As Received"											
Conductivity		142		1.00	1.00	umhos/cm	1	TXT1 03/03/10	1625	960274	1
Electrode Analysis											
EPA 150.1 pH "As Received"											
pH at Temp 15.0C	H	8.02	J-,I9a	0.010	0.100	SU	1	LXA1 02/25/10	1211	957681	2
Ion Chromatography											
EPA 300.0 Anions Liquid 28 day "As Received"											
Bromide	U	ND		0.066	0.200	mg/L	1	GXM 03/10/10 3	2140	963224	3
Chloride		2.80		0.066	0.200	mg/L	1				
Fluoride		0.196		0.033	0.100	mg/L	1				
Sulfate		4.44		0.100	0.400	mg/L	1	GXM 03/17/10 3	1810	963224	4
Nutrient Analysis											
EPA 350.1 Nitrogen, Ammonia L "As Received"											
Nitrogen, Ammonia	J	0.026	U,I4	0.016	0.050	mg/L	1	AXH3 02/25/10	1545	957556	5
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"											
Nitrogen, Nitrate/Nitrite		0.955		0.050	0.250	mg/L	5	AXH3 02/25/10	1457	957559	6
EPA 365.4 Phosphorus, Total in "As Received"											
Phosphorus, Total as P		0.064	U,I4	0.015	0.050	mg/L	1	AXH3 03/05/10	0859	958139	7
Solids Analysis											
EPA 160.1 Solids, Dissolved-F "As Received"											
Total Dissolved Solids		153	J,I10b	2.38	10.0	mg/L		SDS 02/26/10	1123	958112	8
Titration Analysis											
EPA 310.1 Total Alkalinity "As Received"											
Alkalinity, Total as CaCO3		59.5		0.725	1.00	mg/L		LXA1 02/24/10	1130	957056	9
Carbonate alkalinity (CaCO3)	U	ND		0.725	1.00	mg/L					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	SXJ1	02/25/10	1300	957555
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	SXJ1	03/02/10	1030	958136

The following Analytical Methods were performed

Method	Description	Analyst Comments

MLH
5/03/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 23, 2010

Client SDG: 10-2006

Client Sample ID:	CAPA-10-13498	Project:	ESHL01000
Sample ID:	247829002	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	22-FEB-10 12:00		
Receive Date:	23-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
EPA 335.4 Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/08/10	1147	957584	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	03/05/10	1300	957581

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

MLH
5/03/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-2006 VALIDATION DATE: 5/03/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☐ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☒ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the matrix QC analyses for gross alpha/beta and Sr-90 were performed on LANL samples from another RN. No sample results were qualified.

Reviewed by: Allison Felix Level: 1 Date: 5/4/10

VALIDATOR'S SIGNATURE:	DATE: 5/03/10
Form 5119-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☐	☒	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 Rad Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☒	☐	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☒	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: March 11, 2010

Client Sample ID:	CAPA-10-13498	Project:	ESHL01000
Sample ID:	247829002	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	22-FEB-10		
Receive Date:	23-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
Alphaspec Am241 Liquid "As Received"												
Americium-241	U	-0.00285	0.0296	+/-0.00232	0.050	pCi/L		HAKB	03/10/10	1856	957019	1
Alphaspec Pu, Liquid "As Received"												
Plutonium-238	U	0.00	0.0444	+/-0.00272	0.050	pCi/L		HAKB	03/09/10	0801	957023	3
Plutonium-239/240	U	0.00348	0.031	+/-0.00431	0.050	pCi/L						
Alphaspec U, Liquid "As Received"												
Uranium-234		0.392	0.0351	+/-0.0394	1.00	pCi/L		HAKB	03/05/10	1223	957025	4
Uranium-235/236	U	0.0171	0.0276	+/-0.00657	1.00	pCi/L						
Uranium-238		0.274	0.0248	+/-0.0304	0.500	pCi/L						
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Liquid "As Received"												
Americium-241	U	-25.6	18.3	+/-6.15	25.0	pCi/L		KXG3	03/04/10	2220	956976	5
Cesium-137	U	-0.115	3.44	+/-1.06	8.00	pCi/L						
Cobalt-60	U	0.137	3.67	+/-1.10	8.00	pCi/L						
Gross Gamma		32.8	26.3	+/-9.38	120	pCi/L						
Neptunium-237	U	0.230	26.8	+/-8.18	10.0	pCi/L						
Potassium-40	U	-10	42.9	+/-14.0	10.0	pCi/L						
Sodium-22	U	-0.983	3.74	+/-1.17	10.0	pCi/L						
Rad Gas Flow Proportional Counting												
GFPC, Gross A/B, liquid "As Received"												
Beta		3.47	2.44	+/-0.879	3.00	pCi/L		DXF3	03/05/10	0917	959739	6
Alpha	U	1.43	1.93	+/-0.719	3.00	pCi/L		DXF3	03/06/10	0355	959739	7
GFPC, Sr90, liquid "As Received"												
Strontium-90	U	0.0618	0.472	+/-0.132	0.500	pCi/L		JXR1	03/04/10	1515	959738	8

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified

MLH
5/03/10

Monday, February 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2006

REQUEST NUMBER: 10-2006

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS: 247829

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-13497	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-13497	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13497	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-13498	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-13498	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-13498	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13498	1	POLY	WSP-RAD	Nitric Acid	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	2/22/10		(FED Mercedes Simmons	Mercedes Simmons	2/23/10	0850
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Monday, February 22, 2010

REQUEST NUMBER: 10-2006

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2006
Per Agreement Number:126310011
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/22/2010
TURNAROUND/REPORT DUE: 3/24/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-13497	WG	2/22/2010	
	EPA:150.1	1	CAPA-10-13497	WG	2/22/2010	
	EPA:160.1	1	CAPA-10-13497	WG	2/22/2010	
	EPA:245.2	1	CAPA-10-13497	WG	2/22/2010	
		1	CAPA-10-13498	WG	2/22/2010	
	EPA:300.0	1	CAPA-10-13497	WG	2/22/2010	
	EPA:310.1	1	CAPA-10-13497	WG	2/22/2010	
	EPA:335.3	1	CAPA-10-13498	WG	2/22/2010	
	EPA:350.1	1	CAPA-10-13497	WG	2/22/2010	

Monday, February 22, 2010

REQUEST NUMBER: 10-2006

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:353.2	1	CAPA-10-13497	WG	2/22/2010	
	EPA:365.4	1	CAPA-10-13497	WG	2/22/2010	
	EPA:900	1	CAPA-10-13498	WG	2/22/2010	
	EPA:901.1	1	CAPA-10-13498	WG	2/22/2010	
	EPA:905.0	1	CAPA-10-13498	WG	2/22/2010	
	HASL-300:AM-241	1	CAPA-10-13498	WG	2/22/2010	
	HASL-300:ISOPU	1	CAPA-10-13498	WG	2/22/2010	
	HASL-300:ISOU	1	CAPA-10-13498	WG	2/22/2010	
	SM:A2340B	1	CAPA-10-13497	WG	2/22/2010	
		1	CAPA-10-13498	WG	2/22/2010	
	SW-846:6010B	1	CAPA-10-13497	WG	2/22/2010	
		1	CAPA-10-13498	WG	2/22/2010	
	SW-846:6020	1	CAPA-10-13497	WG	2/22/2010	
		1	CAPA-10-13498	WG	2/22/2010	
	SW-846:6850	1	CAPA-10-13497	WG	2/22/2010	

Final Page of REQUEST NUMBER 10-2006

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

March 02, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL-WQH Water Samples
Work Order: 247829
SDG: 10-2006

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 23, 2010, and analyzed for General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2006
Enclosures

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 247829
SDG # : 10-2006

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- Case Narrative..... 633
- Sample Data Summary.....657
- Quality Control Summary.....662
- Instrument QC Data Summary.....667
- Alkalinity.....675
- Ammonia Nitrogen..... 679
- Cyanide, Total.....692
- Ion Chromatography..... 703

Nitrate Nitrite by Cadmium Reduction.....772
Solids, Total Dissolved.....783
Specific Conductivity.....785
Total Phosphorus.....788
pH..... 800
Miscellaneous..... 803

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Sample Data Summary.....820
Quality Control Data.....825
Raw Data..... 832
Background and Efficiency Data.....986
Standards Data..... 1067
Runlogs..... 1125

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 247829
SDG # : 10-2006

March 02, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 23, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. The Gross A/B container was preserved prior to analysis. The containers for radiochemistry were received at 7,11,12C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
247829001	CAPA-10-13497
247829002	CAPA-10-13498

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 02 March 2010

State	Certification
Arizona	AZ0668
Arkansas	88–0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH–0169
Dept. of Navy	NFESC 413
EPA Region 5	WG–15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C–SC–01
Kansas – NELAP	E–10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M–SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68–00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235–07B–TX
U.S. Dept. of Agriculture	S–52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Monday, February 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2006

REQUEST NUMBER: 10-2006

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 247829

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
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CAPA-10-13497	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
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CAPA-10-13498	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-13498	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-13498	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13498	1	POLY	WSP-RAD	Nitric Acid	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		2/22/10		(FE Mercedes Simmons	Mercedes Simmons	2/23/10	0850
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Monday, February 22, 2010

REQUEST NUMBER: 10-2006

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2006

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/22/2010

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-13497	WG	2/22/2010	
	EPA:150.1	1	CAPA-10-13497	WG	2/22/2010	
	EPA:160.1	1	CAPA-10-13497	WG	2/22/2010	
	EPA:245.2	1	CAPA-10-13497	WG	2/22/2010	
		1	CAPA-10-13498	WG	2/22/2010	
	EPA:300.0	1	CAPA-10-13497	WG	2/22/2010	
	EPA:310.1	1	CAPA-10-13497	WG	2/22/2010	
	EPA:335.3	1	CAPA-10-13498	WG	2/22/2010	
	EPA:350.1	1	CAPA-10-13497	WG	2/22/2010	

Monday, February 22, 2010

REQUEST NUMBER: 10-2006

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:353.2	1	CAPA-10-13497	WG	2/22/2010	
	EPA:365.4	1	CAPA-10-13497	WG	2/22/2010	
	EPA:900	1	CAPA-10-13498	WG	2/22/2010	
	EPA:901.1	1	CAPA-10-13498	WG	2/22/2010	
	EPA:905.0	1	CAPA-10-13498	WG	2/22/2010	
	HASL-300:AM-241	1	CAPA-10-13498	WG	2/22/2010	
	HASL-300:ISOPU	1	CAPA-10-13498	WG	2/22/2010	
	HASL-300:ISOU	1	CAPA-10-13498	WG	2/22/2010	
	SM:A2340B	1	CAPA-10-13497	WG	2/22/2010	
		1	CAPA-10-13498	WG	2/22/2010	
	SW-846:6010B	1	CAPA-10-13497	WG	2/22/2010	
		1	CAPA-10-13498	WG	2/22/2010	
	SW-846:6020	1	CAPA-10-13497	WG	2/22/2010	
		1	CAPA-10-13498	WG	2/22/2010	
	SW-846:6850	1	CAPA-10-13497	WG	2/22/2010	

Final Page of REQUEST NUMBER 10-2006

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-2006**
Received By: Mercedes Simmons	**Date Received: 2/23/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **0, 2-4C** **7,11,12C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?			X	Sample ID's, containers affected and observed pH: **CAPA-10-13498 Gross A/B** If Preservation added, Lot#: **H51025**
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:

Fed Ex Tracking Numbers:

7209 7850 1530 0C **7209 7850 1584 3C**
7209 7850 1595 2C **7209 7850 1621 4C**
7209 7850 1632 2C **7209 7850 1600 7C**
7209 7850 1529 2C **7209 7850 1507 11C**
7209 7850 1610 2C **7209 7850 1492 12C**
7209 7850 1518 3C
7209 7850 1562 3C
7209 7850 1573 3C

PM review: Initials MS Date 2/24/10

Subject: Sample Receipt for 2/23/10
From: Dionne Francis <Dionne.Francis@gel.com>
Date: Wed, 24 Feb 2010 12:32:34 -0500
To: "Keith R. Greene" <kgreene@lanl.gov>, Joylene Valdez <joylenev@lanl.gov>, Valerie Davis <vsd@gel.com>

Good Morning Keith,

RN 10-1993: the Metals container for sample WST41-10-13490 was preserved prior to analysis.

RN 10-2001 and 2006: the Gross A/B containers were preserved prior to analysis.

RN 10-1983: the lab did not receive a NO3NO2 container for sample RE15-10-8330. Please advise.

RN 10-2007: the lab rec'd (1) 40ml vial 8260B container for sample GW29-10-1378 instead of (2) as indicated on the COC.

Thanks,
Dionne

--
Dionne Francis
Project Manager Assistant
GEL Laboratories, LLC
2040 Savage Road
Charleston, SC (USA) 29407
Direct: 843.769.7376 Ext. 4432
Main: 843.556.8171
Fax: 843.766.1178
E-mail: daf@gel.com
Web: www.gel.com

Let the Bible fill the memory, rule the heart, and guide the feet.

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 66.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER:

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

0°

FedEx Express

2 of 2
MPS# 0263 7209 7850 1530
Matr# 7209 7850 1529 0201

TUE - 23FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A05158YD0

2°

FedEx Express

2 of 2
MPS# 0263 7209 7850 1595
Matr# 7209 7850 1584 0201

TUE - 23FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

2°

Fed Ex

TUE - 23FEB
PRIORITY OVERNI

TRK# 0201 7209 7850 1632

294

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

2°

FedEx Express

1 of 2
TRK# 0201 7209 7850 1529
MM MASTER MM

TUE - 23FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

IGIN ID: SAFA (505) 665-996
YLENE VALDEZ
S ALAMOS NATL LAB
00 BLDG 1237 DPU 03

S ALAMOS, NM 87545
ITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

HARLESTON SC 29407
43) 556-0171
EF: 6B010AMR3A05529E00

2°

FedEx Express

1 of 2

TUE - 23FEB A1
PRIORITY OVERNIGHT

7209 7850 1610
MASTER NN

29407
SC-US
CHS

X CHSA

ORIGIN ID: SAFA (505) 665-996B
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-0171
REF: 6B010AMR1A015AGWM0

3°

FedEx Express

2 of 2

TUE - 23FEB A1
PRIORITY OVERNIGHT

TRK# 7209 7850 1518
Mstr# 7209 7850 1507 0201

29407
SC-US
CHS

XX CHSA

YLENE VALDEZ
S ALAMOS NATL LAB
00 BLDG 1237 DPU 03

S ALAMOS, NM 87545
ITED STATES US

ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

HARLESTON SC 29407
43) 556-0171
EF: 6B010AMR3A0223KY10

3°

FedEx Express

TUE - 23FEB A1
PRIORITY OVERNIGHT

TRK# 7209 7850 1562
0201

29407
SC-US
CHS

X CHSA

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-0171
REF: 6B010AMR3A0532VA00

3°

FedEx Express

TUE - 23FEB A1
PRIORITY OVERNIGHT

TRK# 7209 7850 1573
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XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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REF: 6B010AMR2A05158YD0

30

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1 of 2
TRK# 0201 7209 7850 1584
MASTER

TUE - 23FEB A1
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2450

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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40

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2 of 2
MPS# 0263 7209 7850 1621
TRK# 7209 7850 1610 0201

TUE - 23FEB A1
PRIORITY OVERNIGHT

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CHS

Part # 156149-434 NAT V3 08-09

ALAMOS NATL LAB
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ALAMOS, NM 87545
TED STATES US

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TUE - 23FEB A1
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PRIORITY OVERNIGHT

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29407
SC-US
CHS

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 68.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

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REF: 6B010AMR1A015AGWM0

11

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1 of 2
TRK# 0201 7209 7850 1507
MASTER

TUE - 23FEB A1
PRIORITY OVERNIGHT

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29407
SC-US
CHS

T V3 08-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 05

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AAREW0130DM00

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2 of 2
MPS# 0263 7209 7850 1492
MatrN 7209 7850 1481 0201

TUE - 23FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 09-09-

DATA REVIEW QUALIFIER FLAG DEFINITION SHEET

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-2006

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	959038
Prep Batch Number:	959037

Sample Analysis

Sample ID	Client ID
247829001	CAPA-10-13497
1202056709	Interference Check Sample (ICS)
1202056703	Method Blank (MB)
1202056704	Laboratory Control Sample (LCS)
1202056707	248044001(CAPA-10-12770) Matrix Spike (MS)
1202056708	248044001(CAPA-10-12770) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

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Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 248044001 (CAPA-10-12770) was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

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Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value. The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column: Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Pat Steely **Date:** 3/18/2010

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SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-13497

Date Received: 23-FEB-10

GEL Job No (SDG): 10-2006

GEL Sample ID: 247829001

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.301	ug/L		1	14-MAR-10 21:53	per0314047a
	Perchlorate Isotope Ratio			3.19			1	14-MAR-10 21:53	per0314047a
14797-73-0	Perchlorate-101	.05	.2	0.291	ug/L		1	14-MAR-10 21:53	per0314047a
	Perchlorate-O(18)			0.470	ug/L		1	14-MAR-10 21:53	per0314047a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2006

Extract Batch Code: 959037

Date Filtered: 06–MAR–10

Matrix: GROUND WATER

Sample ID: 1202056704

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.2	ug/L	99.9		85 – 115
Perchlorate Isotope Ratio		3.13				–
Perchlorate–101	0.200	.197	ug/L	98.5		85 – 115
Perchlorate–O(18)		.464	ug/L			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2006

Extract Batch Code: 959037

Date Filtered: 06–MAR–10

Matrix: GROUND WATER

Sample ID: 1202056709

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.205	ug/L	102		70 – 130
Perchlorate Isotope Ratio		2.88				
Perchlorate–101	0.200	.22	ug/L	110		70 – 130
Perchlorate–O(18)		.488	ug/L			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

ast Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
rinted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ame: per0314044a
ate: 14-Mar-2010
ime: 21:28:45
: 1202056709
ial: 2:1,C

LANL | 959038 | LZQ | IC5 | 1 | 03-15-14

erchlorate

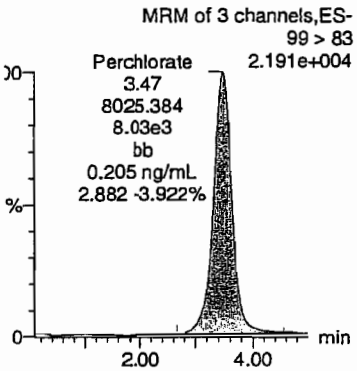

Perchlorate

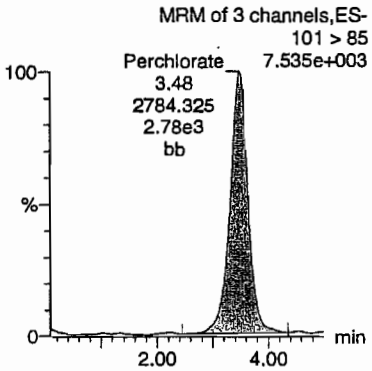

Perchlorate-101

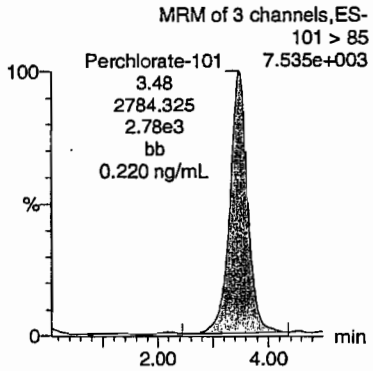

Perchlorate-O(18)

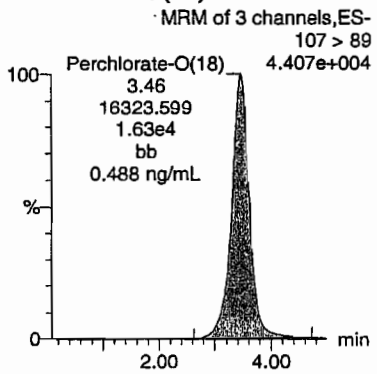

	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
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02056709	Perchlorate-101	101 > 85	3.48	2784.325	2784.325	bb			0.2196	109.80	9.80	474.575	
02056709	Perchlorate-O(18)	107 > 89	3.46	16323.599	16323.599	bb			0.4878	97.56	-2.44	3776.4...	

MM 3/16/10

$$\frac{8025.384}{2784.325} = 2.8823$$

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–2006

Extract Batch Code: 959037

Date Extracted: 06–MAR–10

GEL MS/PS ID: 1202056707

Client ID: CAPA–10–12770

GEL MSD/PSD ID: 1202056708

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec	#	MSD Conc	MSD Rec	#	RPD	#	RPD Limit	Recovery Limit
Perchlorate	0.200	0.302	ug/L	0.484	90.9		.496	97.2		2.58		30	75 – 125
Perchlorate Isotope Ratio	0	0.00		2.88			3.04			0			--
Perchlorate–101	0.200	0.310	ug/L	0.519	105		.504	97		2.99		30	75 – 125
Perchlorate–O(18)	0	0.505	ug/L	0.471			.476			1.08			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2006

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	14-MAR-10	per0314001a	IPB001
Perchlorate-101	0.00	0	NA	14-MAR-10	per0314001a	IPB001
Perchlorate	0.00	0	NA	14-MAR-10	per0314002a	IPB001
Perchlorate-101	0.00	0	NA	14-MAR-10	per0314002a	IPB001

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ıntify Sample Report MassLynx 4.0 SP4
· GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

t Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

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e: 14-Mar-2010
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03-15-10

chlorate

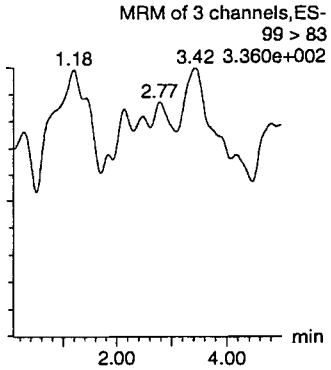

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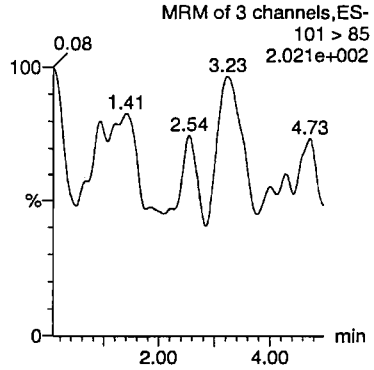

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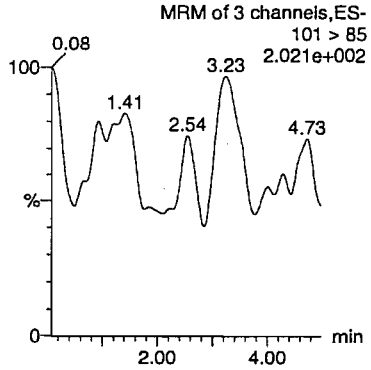

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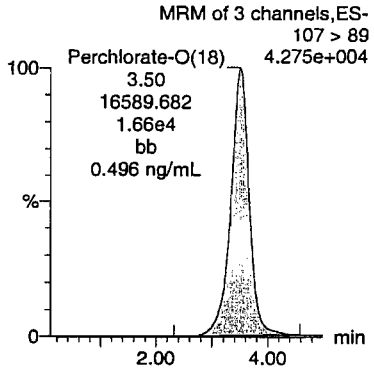

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
01	Perchlorate	99 > 83											0.00
01	Perchlorate-101	101 > 85											
01	Perchlorate-O(18)	107 > 89	3.50	16589.682	16589.682	bb			0.4958	99.15	-0.85	1780.0...	

MM 3/16/10

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ıntify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

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ted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

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03-15-10

chlorate

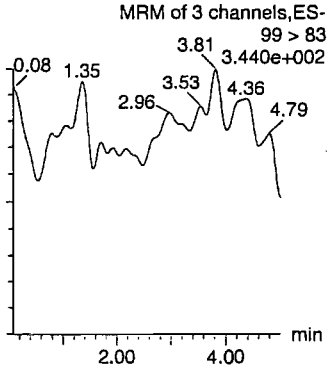

Perchlorate

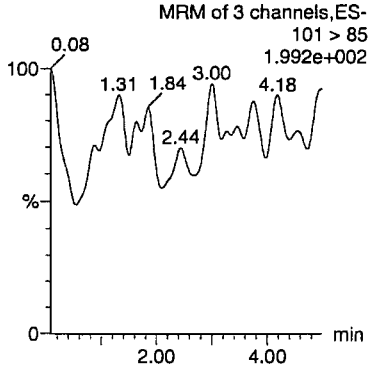

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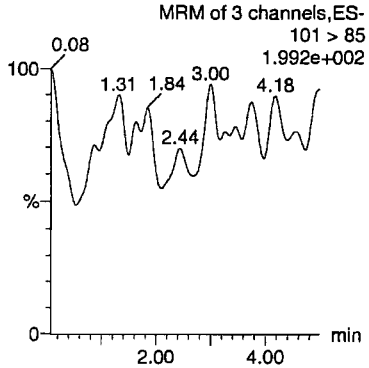

Perchlorate-O(18)

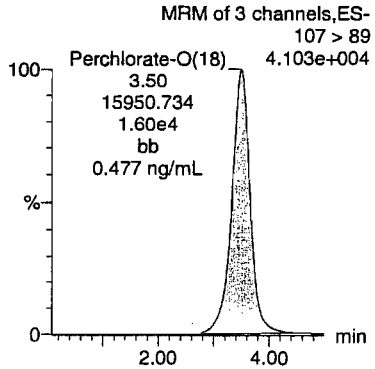

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
ı01	Perchlorate	99 > 83											0.00
ı01	Perchlorate-101	101 > 85											
ı01	Perchlorate-O(18)	107 > 89	3.50	15950.734	15950.734	bb			0.4767	95.34	-4.66	1555.8...	

MAT 3/16/10

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2006

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	14-MAR-10	per0314008a	IPB002
Perchlorate-101	0.00	0	NA	14-MAR-10	per0314008a	IPB002
Perchlorate	0.00	0	NA	14-MAR-10	per0314010a	IPB003
Perchlorate-101	0.00	0	NA	14-MAR-10	per0314010a	IPB003
Perchlorate	0.00	0	NA	14-MAR-10	per0314023a	IPB004
Perchlorate-101	0.00	0	NA	14-MAR-10	per0314023a	IPB004
Perchlorate	0.00	0	NA	14-MAR-10	per0314036a	IPB005
Perchlorate-101	0.00	0	NA	14-MAR-10	per0314036a	IPB005
Perchlorate	0.00	0	NA	14-MAR-10	per0314041a	IPB006
Perchlorate-101	0.00	0	NA	14-MAR-10	per0314041a	IPB006
Perchlorate	0.00	0	NA	14-MAR-10	per0314049a	IPB007
Perchlorate-101	0.00	0	NA	14-MAR-10	per0314049a	IPB007

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GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

: Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ıe: per0314008a
e: 14-Mar-2010
e: 16:37:25
PB002
: 1:1,A

CWW 03-15-10

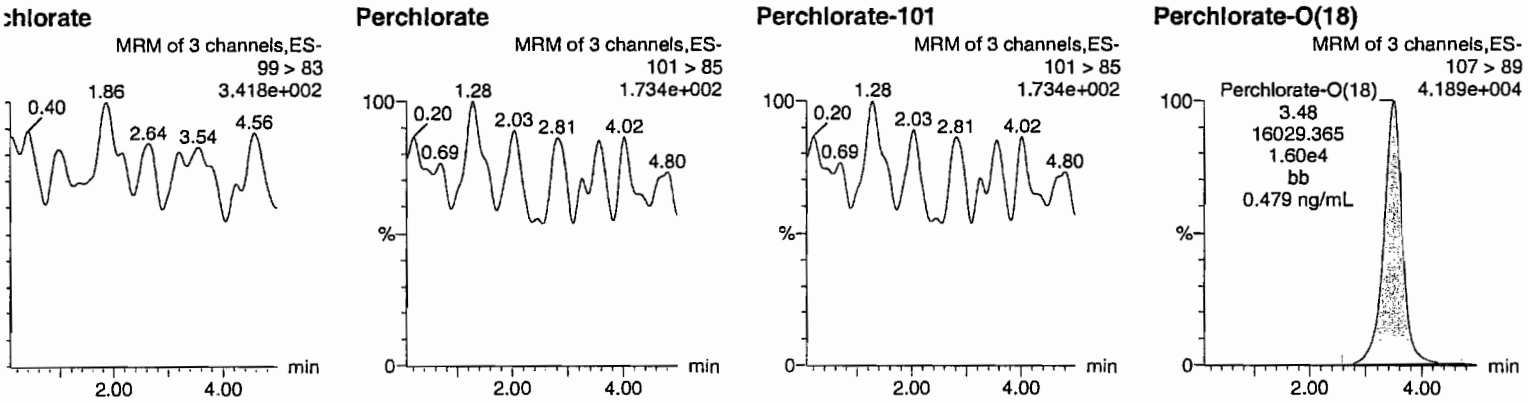

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev.	S/N	Ion Ratio
02	Perchlorate	99 > 83											0.00
02	Perchlorate-101	101 > 85											
02	Perchlorate-O(18)	107 > 89	3.48	16029.365	16029.365	bb			0.4790	95.81	-4.19	1104.5...	

MAT 3/16/10

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ıntify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

t Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ne: per0314010a
e: 14-Mar-2010
e: 16:53:41
IPB003
: 1:1,A

CWW 03-15-10

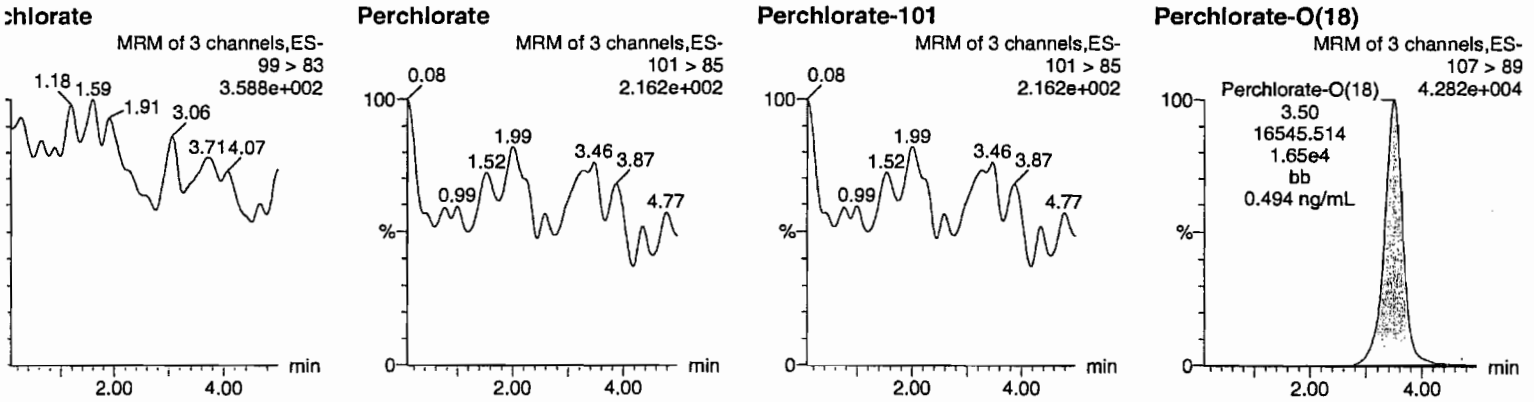

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
03	Perchlorate	99 > 83											0.00
03	Perchlorate-101	101 > 85											
03	Perchlorate-O(18)	107 > 89	3.50	16545.514	16545.514	bb			0.4945	98.89	-1.11	1258.9...	

MAT 3/16/10

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antify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

t Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ated: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ne: per0314023a
e: 14-Mar-2010
ie: 18:38:13
IPB004
: 1:1,A

ANW
03-15-10

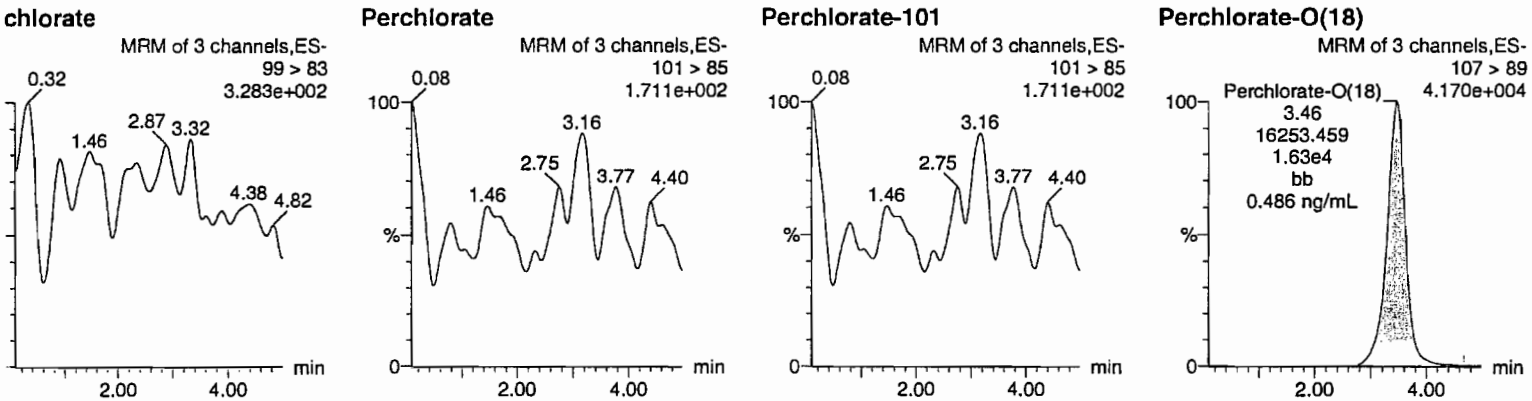

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
)04	Perchlorate	99 > 83											0.00
)04	Perchlorate-101	101 > 85											
)04	Perchlorate-O(18)	107 > 89	3.46	16253.459	16253.459	bb			0.4857	97.14	-2.86	1623.8...	

NOT
3/16/10

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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ıntify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

ı Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ne: per0314036a
e: 14-Mar-2010
e: 20:23:35
IPB005
: 1:1,A

3-2
03-15-10

chlorate

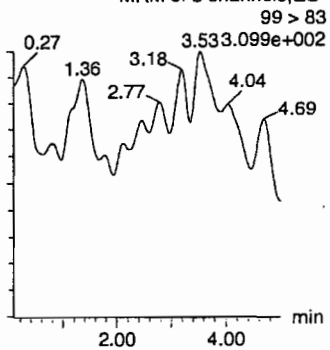

Perchlorate

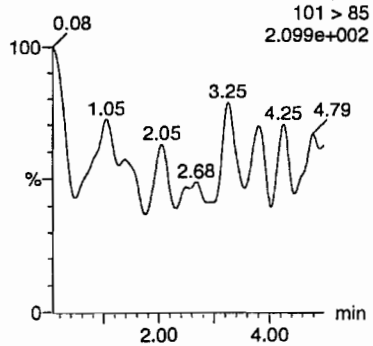

Perchlorate-101

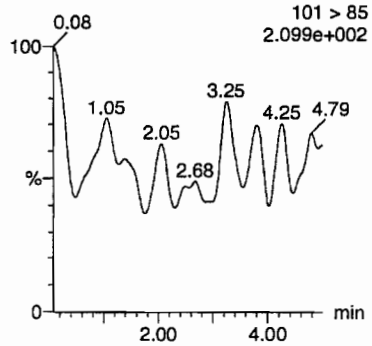

Perchlorate-O(18)

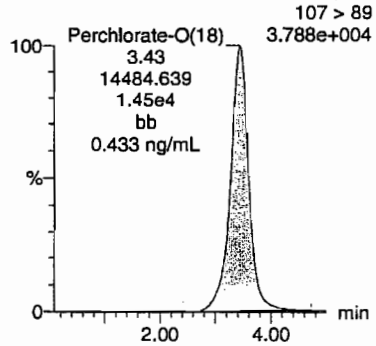

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
05	Perchlorate	99 > 83											0.00
05	Perchlorate-101	101 > 85											
05	Perchlorate-O(18)	107 > 89	3.43	14484.639	14484.639	bb			0.4329	86.57	-13.43	330.725	

MAP
3/16/10

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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antify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

t Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

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e: 14-Mar-2010
e: 21:04:20
IPB006
: 1:1,A

CWO
03-15-10

chlorate

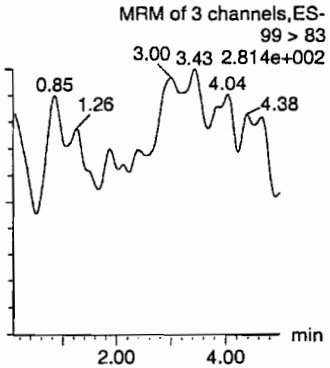

Perchlorate

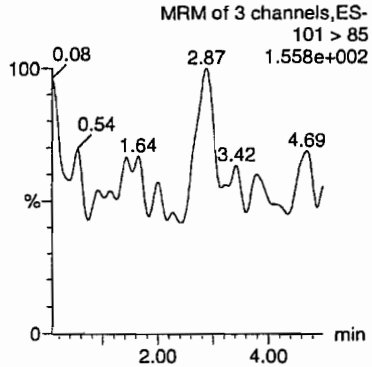

Perchlorate-101

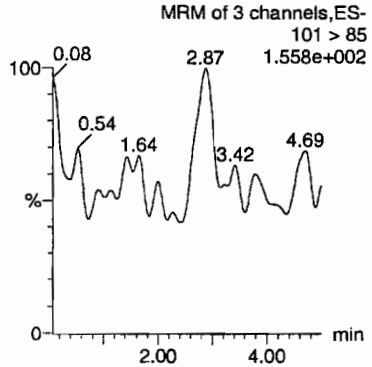

Perchlorate-O(18)

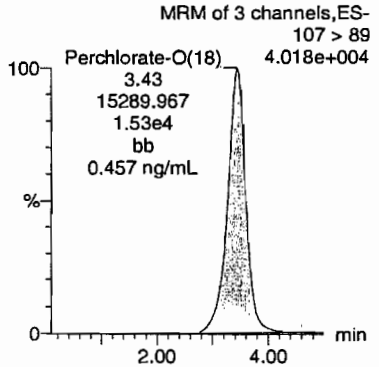

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
06	Perchlorate	99 > 83											0.00
06	Perchlorate-101	101 > 85											
06	Perchlorate-O(18)	107 > 89	3.43	15289.967	15289.967	bb			0.4569	91.39	-8.61	4719.0...	

MMP 3/16/10

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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antify Sample Report MassLynx 4.0 SP4
: GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

t Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

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e: 14-Mar-2010
e: 22:09:28
IPB007
: 1:1,A

03-15-10

chlorate

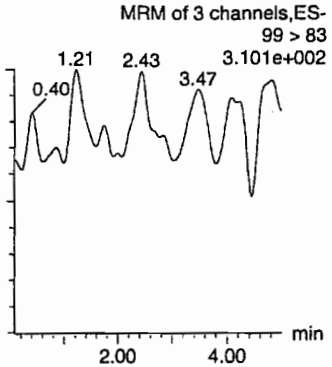

Perchlorate

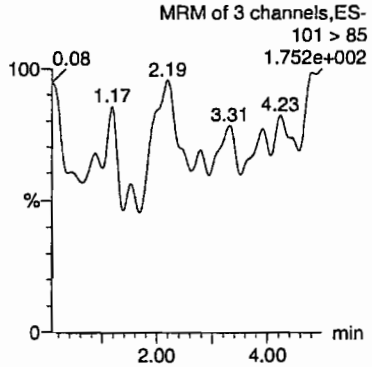

Perchlorate-101

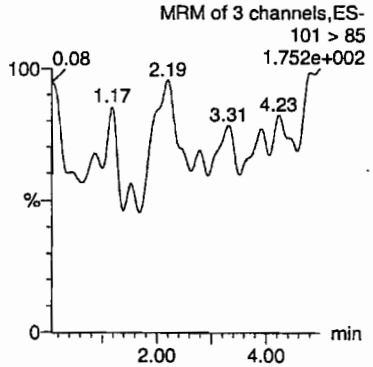

Perchlorate-O(18)

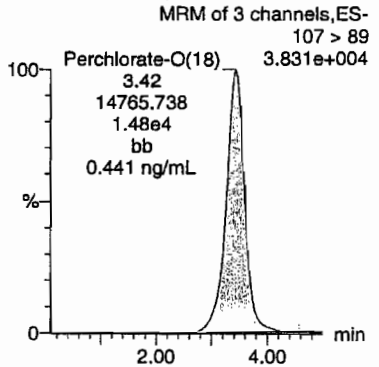

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
07	Perchlorate	99 > 83											0.00
07	Perchlorate-101	101 > 85											
07	Perchlorate-O(18)	107 > 89	3.42	14765.738	14765.738	bb			0.4413	88.25	-11.75	2275.0...	

MAT 3/16/10

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: **Tue Jan 08 12:19:12 2008**

PARTS HIGHLIGHTED BY CWW 01-09-08

Data file: STATMS1 - Uncalibrated

7 matches of 7 tested references

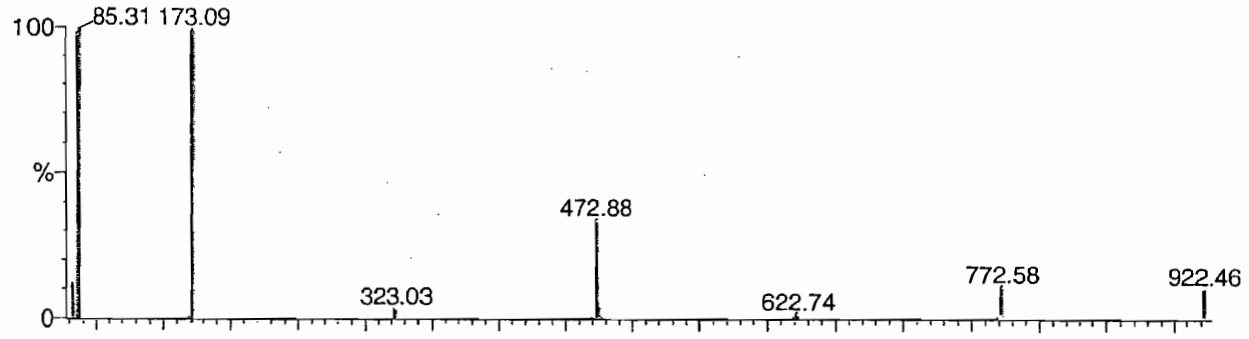

Reference file: Nairb

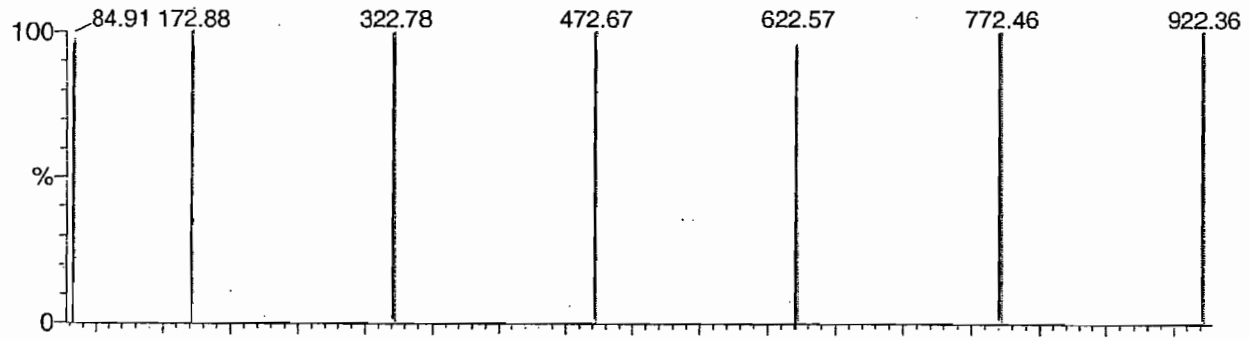

Mass difference (Raw - Ref mass)

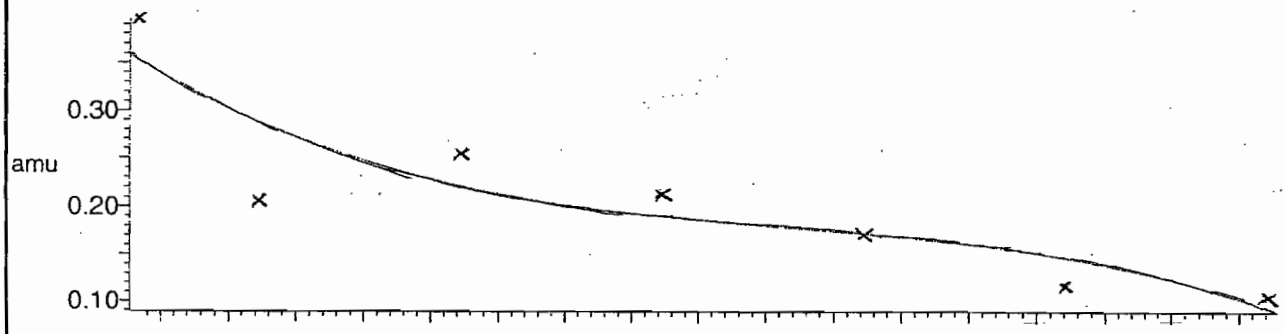

Residuals

Mean residual = 3.212012e-2 ± 0.024108

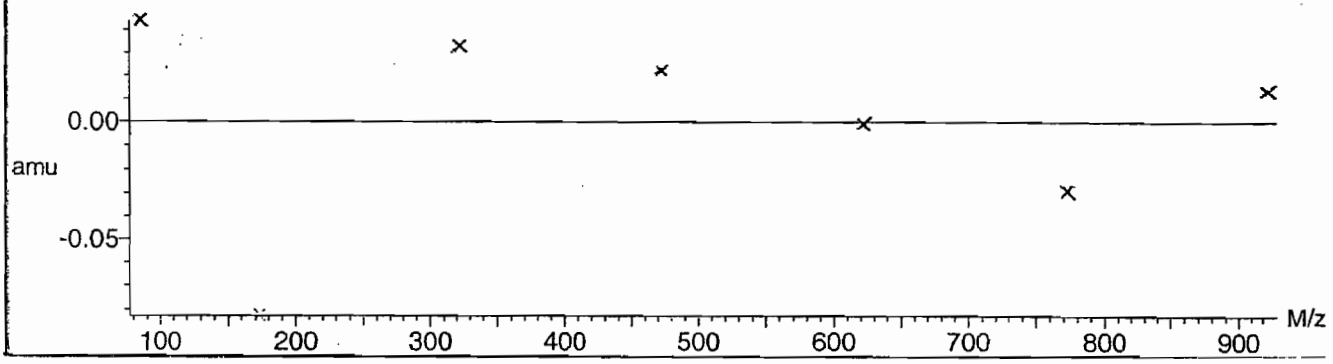

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Calibration Report - MS1 Scanning

Printed: **Tue Jan 08 12:20:09 2008**

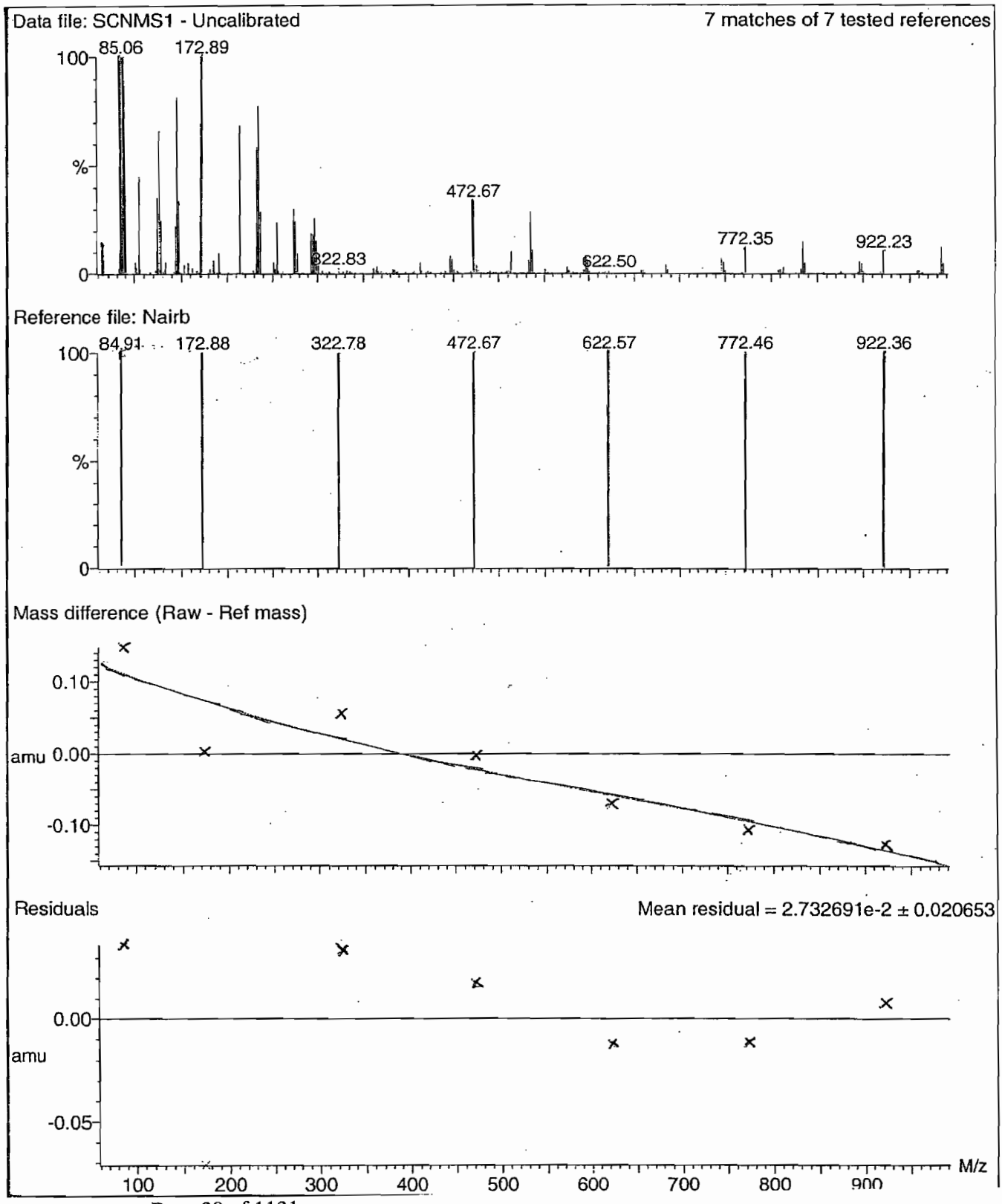

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Calibration Report - MS1 Scan Speed Compensation

Printed: **Tue Jan 08 12:21:04 2008**

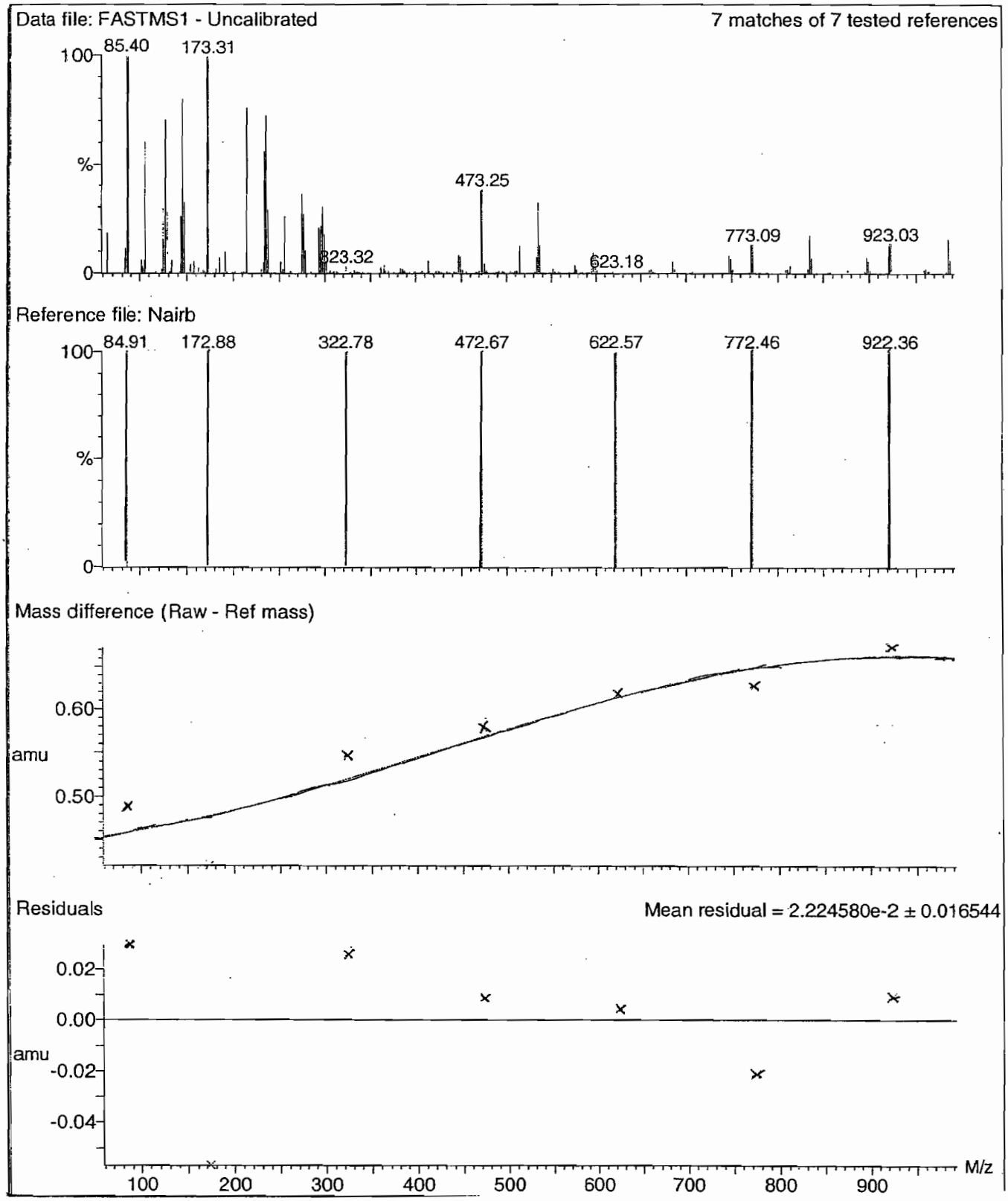

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Calibration Report - MS2 Scan Speed Compensation

Printed: **Tue Jan 08 12:23:51 2008**

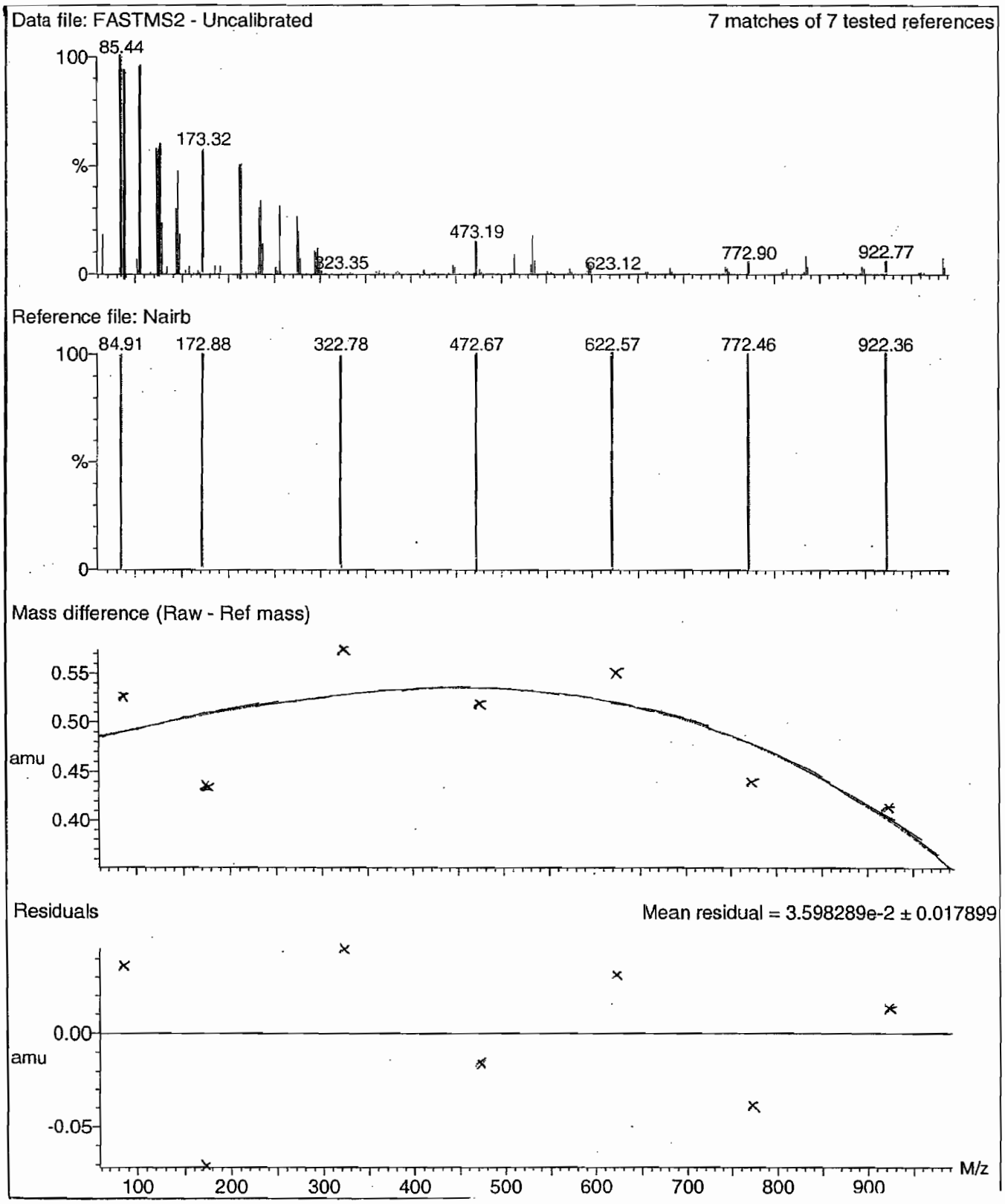

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Calibration Report - MS2 Scanning

Printed: **Tue Jan 08 12:22:56 2008**

Data file: SCNMS2 - Uncalibrated

7 matches of 7 tested references

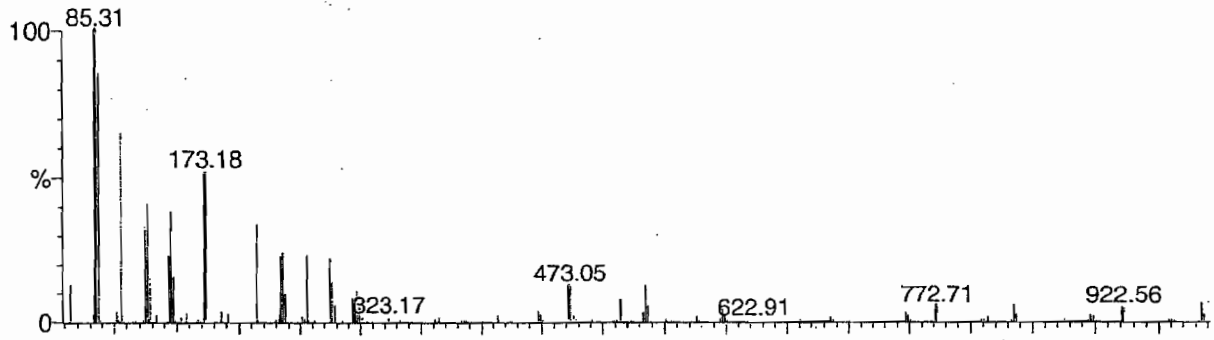

Reference file: Nairb

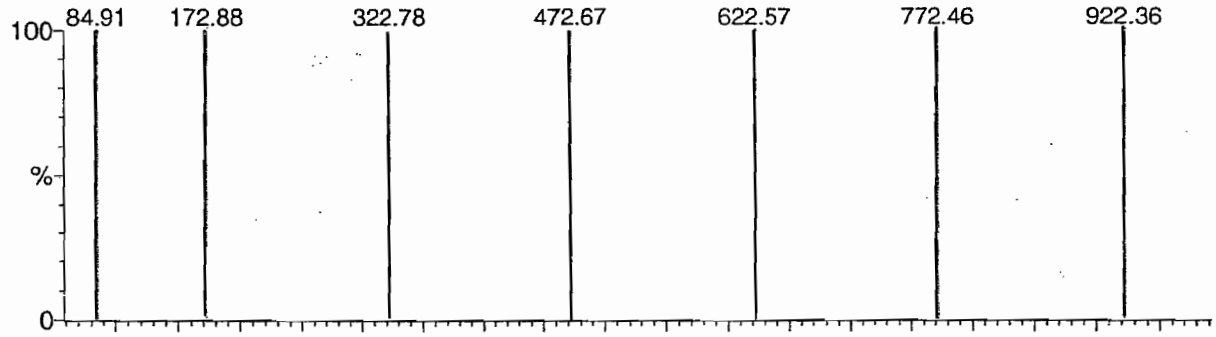

Mass difference (Raw - Ref mass)

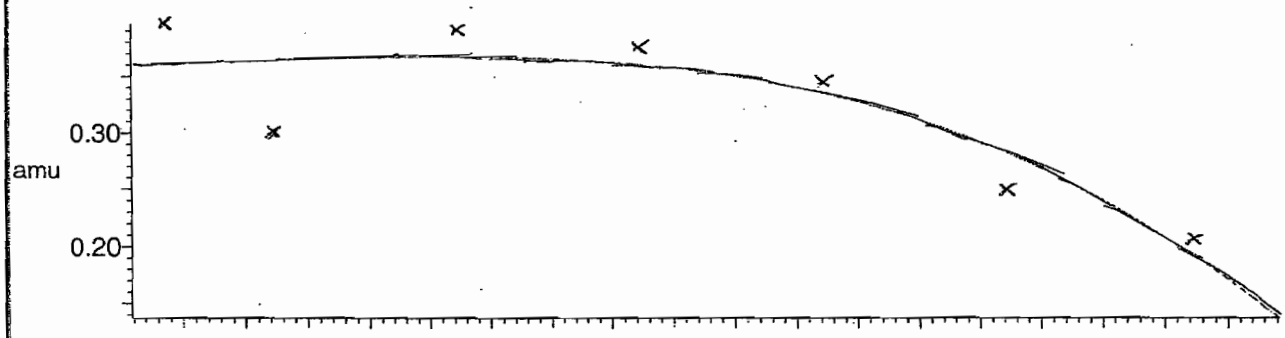

Residuals

Mean residual = 2.782494e-2 ± 0.017442

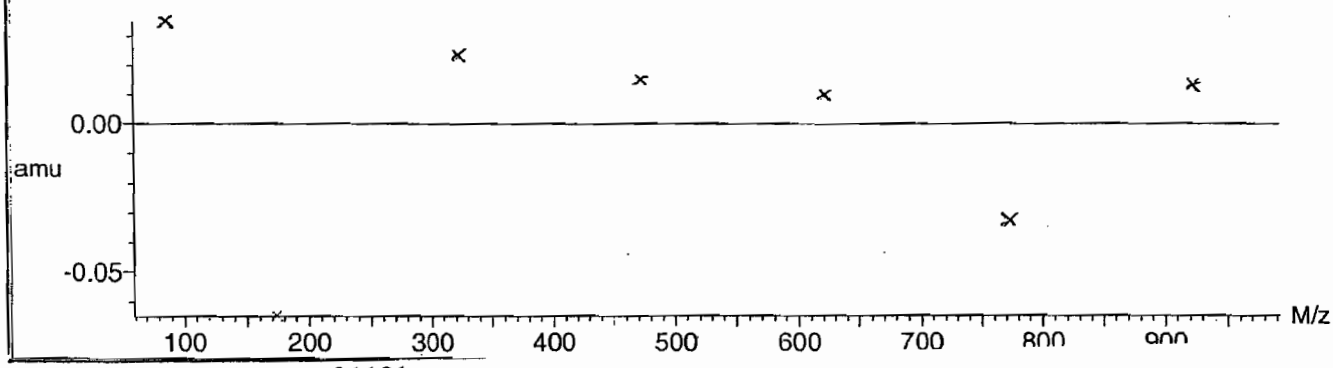

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: **Tue Jan 08 12:21:59 2008**

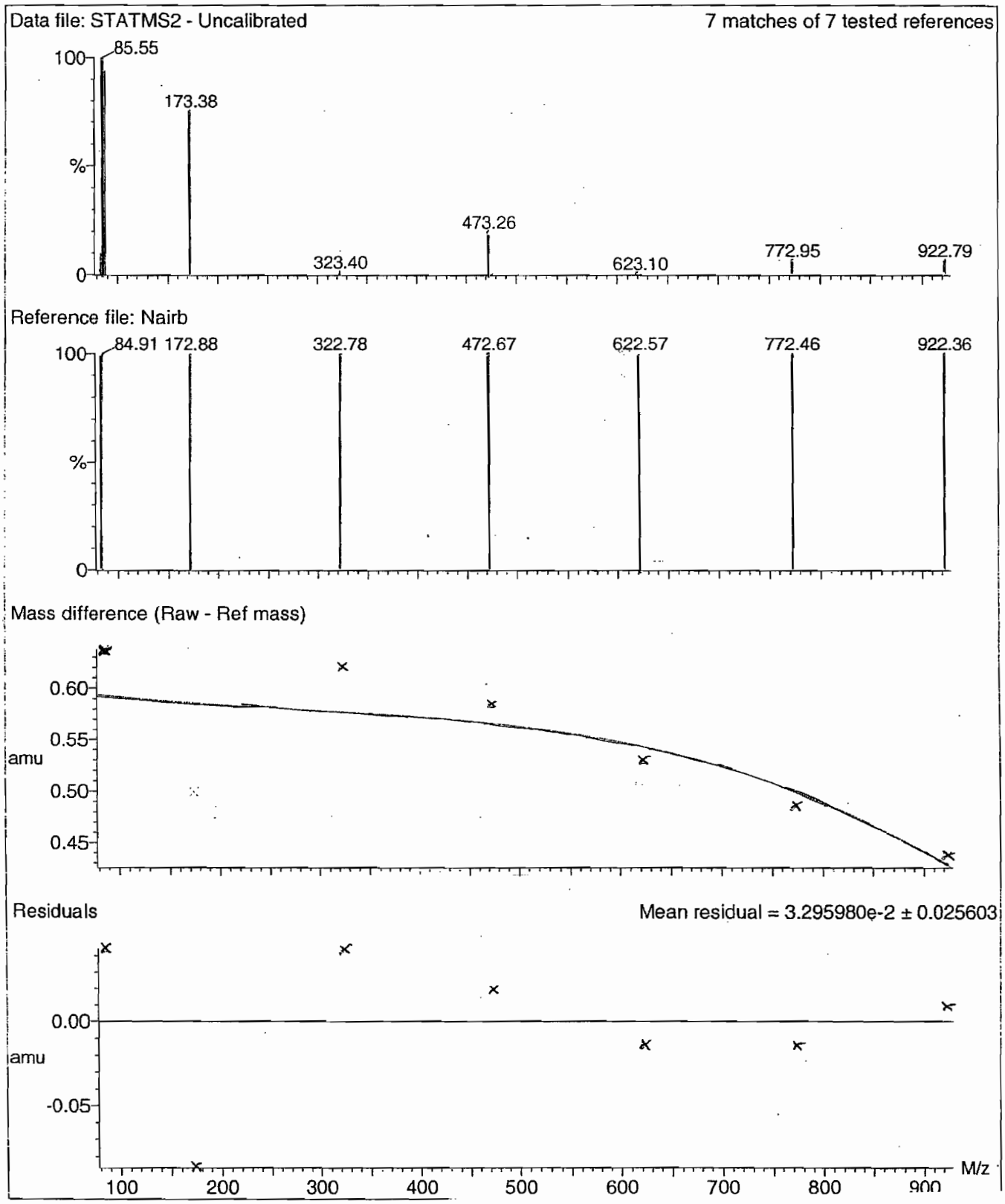

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Sunday, March 14, 2010 11:36:48 Eastern Standard Time

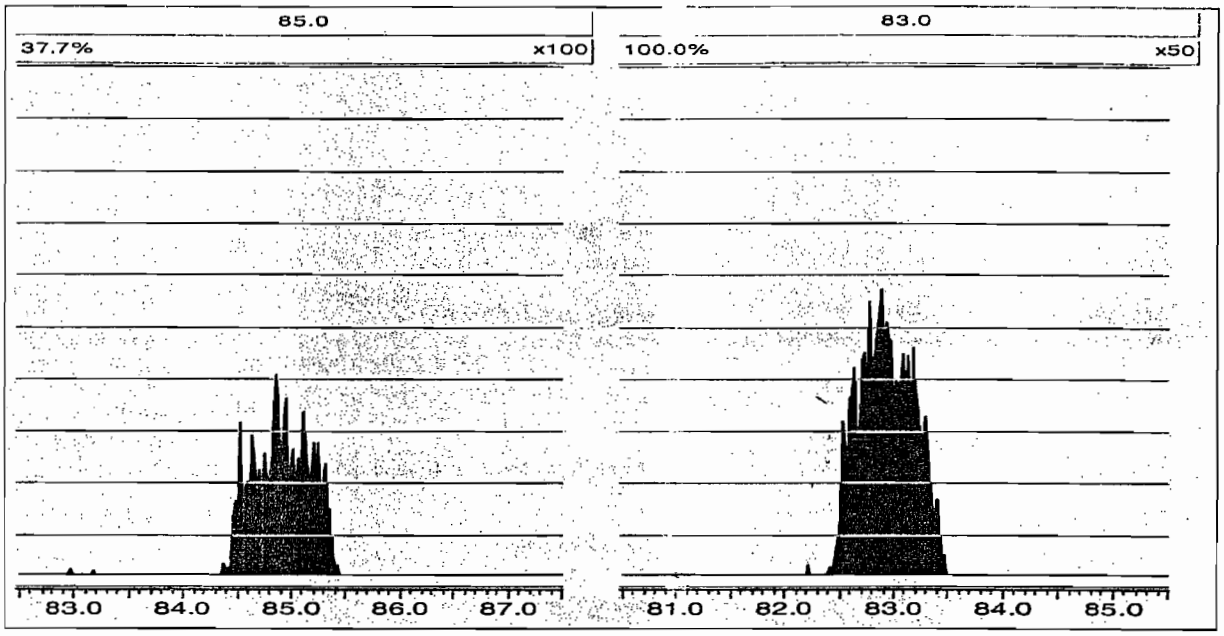

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2006

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0314006a**	**14–MAR–10**	**17326**				
Lower Area Limit			**8663**				
Upper Area Limit			**34652**				
1202056703	per0314042a	14–MAR–10 21:12	14003.5	3.43			
1202056704	per0314043a	14–MAR–10 21:20	15542.5	3.42	3.44547	1.007	
1202056709	per0314044a	14–MAR–10 21:28	16323.6	3.46	3.47045	1.003	
247829001	per0314047a	14–MAR–10 21:53	15717.7	3.42	3.4455	1.007	

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SAMPLE
DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-13497

Date Received: 23-FEB-10

GEL Job No (SDG): 10-2006

GEL Sample ID: 247829001

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.301	ug/L		1	14-MAR-10 21:53	per0314047a
	Perchlorate Isotope Ratio			3.19			1	14-MAR-10 21:53	per0314047a
14797-73-0	Perchlorate-101	.05	.2	0.291	ug/L		1	14-MAR-10 21:53	per0314047a
	Perchlorate-O(18)			0.470	ug/L		1	14-MAR-10 21:53	per0314047a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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ıantify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

.taset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

st Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
nted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ıme: per0314047a
ıte: 14-Mar-2010
ne: 21:53:03
: 247829001
ıl: 2:1,F

|LANL|959038|LZQ|1|

03-15-10

rchlorate **Perchlorate** **Perchlorate-101** **Perchlorate-O(18)**

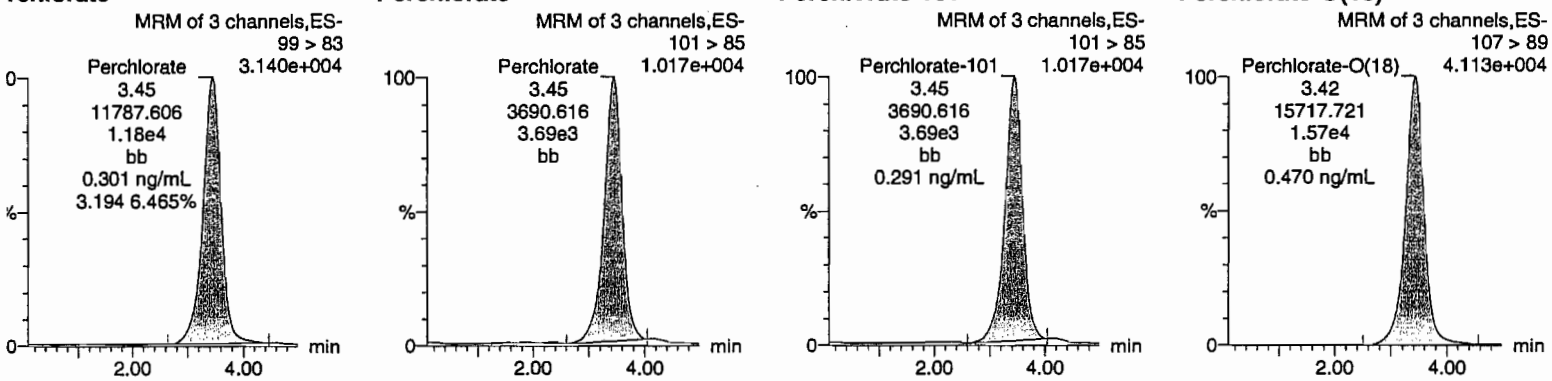

	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
7829001	Perchlorate	99 > 83	3.45	11787.606	11787.606	bb			0.3011			676.598	3.19
7829001	Perchlorate-101	101 > 85	3.45	3690.616	3690.616	bb			0.2911			211.672	
7829001	Perchlorate-O(18)	107 > 89	3.42	15717.721	15717.721	bb			0.4697	93.94	-6.06	2372.5...	

MM 3/16/10

$$\frac{11787.606}{39154.1} = 0.3011$$

:L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2006

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 14–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 39154.12

Response Type: External Standard

Curve Type: RF

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Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2006

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 14–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 12679.04

Response Type: External Standard

Curve Type: RF

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ıntify Calibration Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

: Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

hod: C:\MassLynx\Perchlorate.PRO\MethDB\per031410a.mdb 15 Mar 2010 08:54:46
bration: C:\MassLynx\Perchlorate.PRO\CurveDB\per031410a.cdb 15 Mar 2010 08:56:54

ıpound name: Perchlorate
ponse Factor: 39154.1
: SD: 1960.58, % Relative SD: 5.00734
ponse type: External Std, Area
/e type: RF

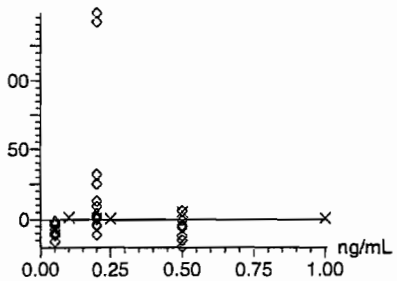

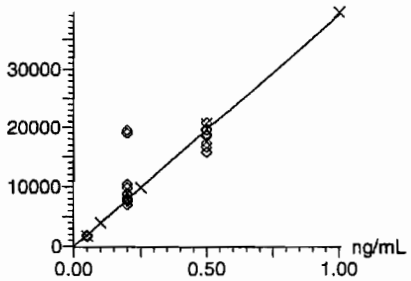

3/3
03-15-10

pound name: Perchlorate-101
ɔonse Factor: 12679
SD: 1159.92, % Relative SD: 9.14836
ɔonse type: External Std, Area
e type: RF

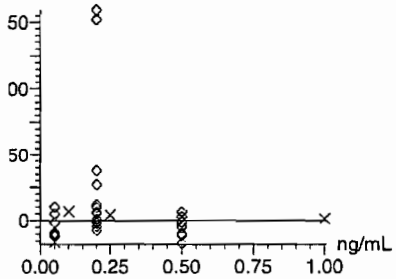

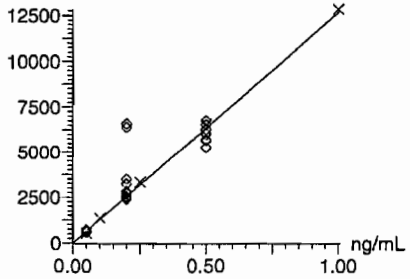

MAT
3/16/10

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ıntify Calibration Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

t Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

npound name: Perchlorate-O(18)
ponse Factor: 33462.4
SD: 678.465, % Relative SD: 2.02755
ponse type: External Std, Area
ve type: RF

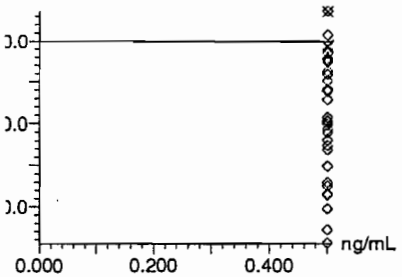

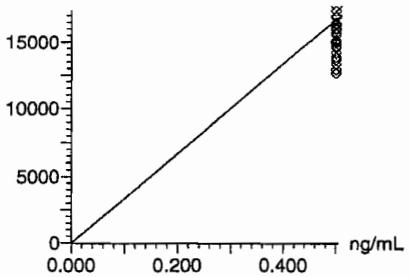

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Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2006

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.53	105.94	14–MAR–10 16:45	per0314009a
Perchlorate Isotope Ratio		3.07		14–MAR–10 16:45	per0314009a
Perchlorate–101	.5	.53	106.4	14–MAR–10 16:45	per0314009a

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antify Sample Report MassLynx 4.0 SP4
: GEL Group, LLC Analyst: Charlers W. Wilson

:aset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

:t Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
nted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ne: per0314009a
e: 14-Mar-2010
ie: 16:45:39
WCL100309-06ICV
l: 1:2,A

Pass
03-15-10

chlorate

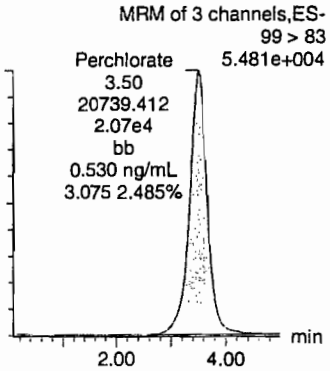

Perchlorate

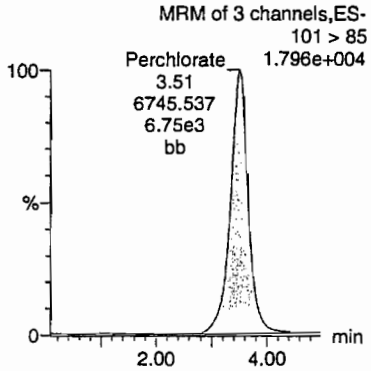

Perchlorate-101

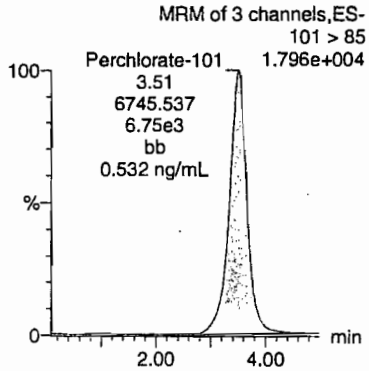

Perchlorate-O(18)

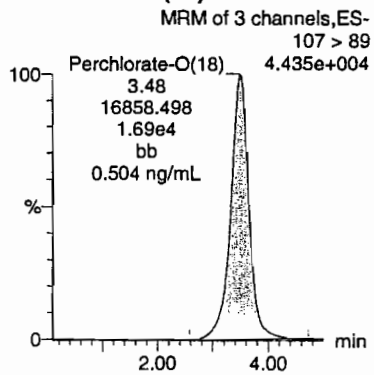

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
100309-06ICV	Perchlorate	99 > 83	3.50	20739.412	20739.412	bb			0.5297	105.94	5.94	4083.9...	3.07
100309-06ICV	Perchlorate-101	101 > 85	3.51	6745.537	6745.537	bb			0.5320	106.40	6.40	253.341	
100309-06ICV	Perchlorate-O(18)	107 > 89	3.48	16858.498	16858.498	bb			0.5038	100.76	0.76	7322.5...	

MM 3/16/10

$\frac{20739.412}{39154.1} = 0.5297$

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2006

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	99.52	14–MAR–10 18:30	per0314022a
Perchlorate Isotope Ratio		3.12		14–MAR–10 18:30	per0314022a
Perchlorate–101	.5	.49	98.56	14–MAR–10 18:30	per0314022a
Perchlorate	.5	.5	99.03	14–MAR–10 20:15	per0314035a
Perchlorate Isotope Ratio		2.97		14–MAR–10 20:15	per0314035a
Perchlorate–101	.5	.52	103.01	14–MAR–10 20:15	per0314035a
Perchlorate	.5	.5	99.09	14–MAR–10 22:01	per0314048a
Perchlorate Isotope Ratio		3.18		14–MAR–10 22:01	per0314048a
Perchlorate–101	.5	.48	96.26	14–MAR–10 22:01	per0314048a

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ıntify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

t Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ıted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ne: per0314022a
e: 14-Mar-2010
.e: 18:30:11
WCL100309-06CCV
: 1:2,A

Pass
03-15-10

chlorate

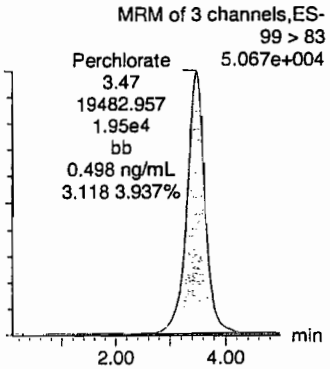

Perchlorate

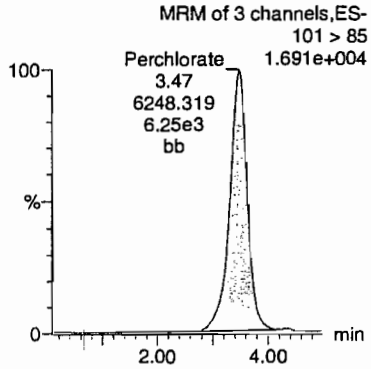

Perchlorate-101

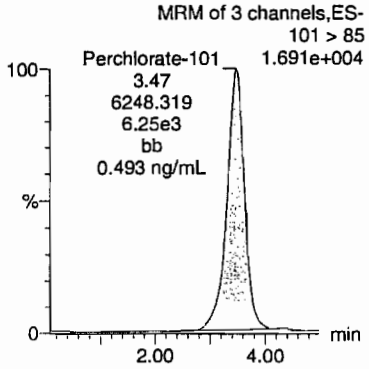

Perchlorate-O(18)

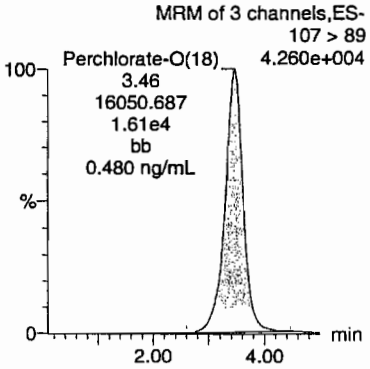

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
.100309-06CCV	Perchlorate	99 > 83	3.47	19482.957	19482.957	bb			0.4976	99.52	-0.48	1472.0...	3.12
.100309-06CCV	Perchlorate-101	101 > 85	3.47	6248.319	6248.319	bb			0.4928	98.56	-1.44	709.723	
.100309-06CCV	Perchlorate-O(18)	107 > 89	3.46	16050.687	16050.687	bb			0.4797	95.93	-4.07	2122.7...	

MOT 3/16/10

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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ıantify Sample Report **MassLynx 4.0 SP4**
ɜ GEL Group, LLC Analyst: Charlers W. Wilson

taset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

ɜt Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ıted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

me: per0314035a
te: 14-Mar-2010
ıe: 20:15:24
WCL100309-06CCV
l: 1:2,A

Pass
03-15-10

'chlorate

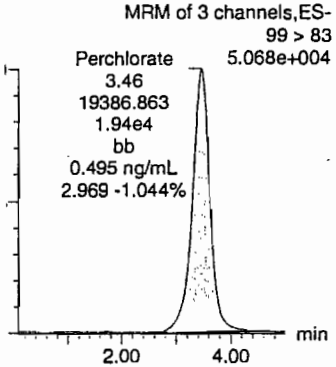

Perchlorate

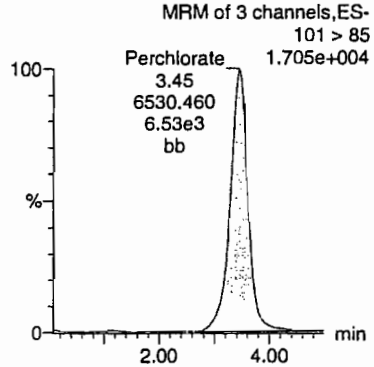

Perchlorate-101

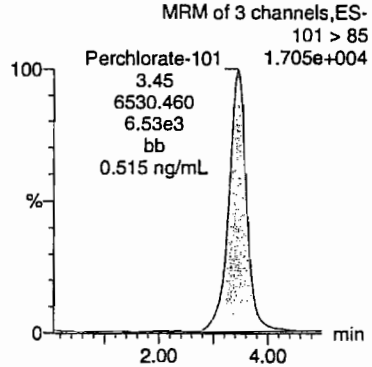

Perchlorate-O(18)

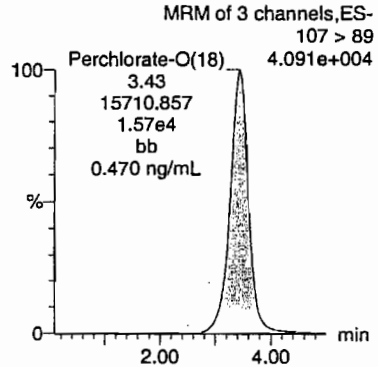

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
_100309-06CCV	Perchlorate	99 > 83	3.46	19386.863	19386.863	bb			0.4951	99.03	-0.97	5888.7...	2.97
_100309-06CCV	Perchlorate-101	101 > 85	3.45	6530.460	6530.460	bb			0.5151	103.01	3.01	2522.5...	
_100309-06CCV	Perchlorate-O(18)	107 > 89	3.43	15710.857	15710.857	bb			0.4695	93.90	-6.10	4011.6...	

MATT 3/16/10

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Sample Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Charlers W. Wilson

ıtaset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

ıst Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
inted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ıme: per0314048a
ıte: 14-Mar-2010
me: 22:01:03
: WCL100309-06CCV
al: 1:2,A

Per
03-15-10

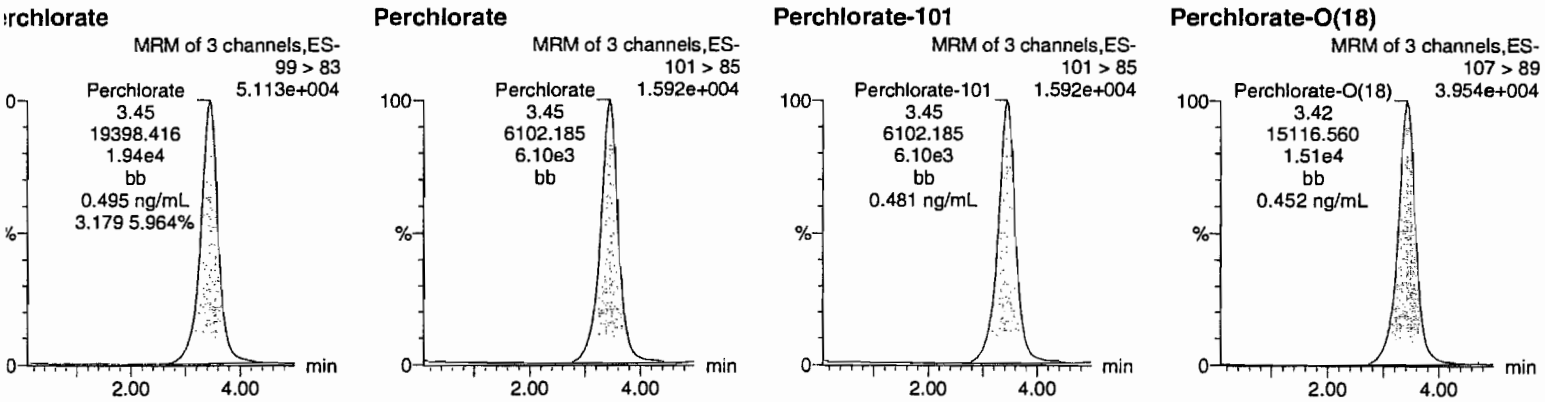

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100309-06CCV	Perchlorate	99 > 83	3.45	19398.416	19398.416	bb			0.4954	99.09	-0.91	1156.9...	3.18
CL100309-06CCV	Perchlorate-101	101 > 85	3.45	6102.185	6102.185	bb			0.4813	96.26	-3.74	549.321	
CL100309-06CCV	Perchlorate-O(18)	107 > 89	3.42	15116.560	15116.560	bb			0.4517	90.35	-9.65	2164.6...	

MMT
3/16/10

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2006

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	97.03	14–MAR–10 17:01	per0314011a
Perchlorate Isotope Ratio		2.72		14–MAR–10 17:01	per0314011a
Perchlorate–101	.05	.06	110.09	14–MAR–10 17:01	per0314011a
Perchlorate	.05	.05	98.74	14–MAR–10 18:46	per0314024a
Perchlorate Isotope Ratio		2.77		14–MAR–10 18:46	per0314024a
Perchlorate–101	.05	.06	110.06	14–MAR–10 18:46	per0314024a
Perchlorate	.05	.05	93.02	14–MAR–10 20:32	per0314037a
Perchlorate Isotope Ratio		2.73		14–MAR–10 20:32	per0314037a
Perchlorate–101	.05	.05	105.06	14–MAR–10 20:32	per0314037a
Perchlorate	.05	.05	98.54	14–MAR–10 22:17	per0314050a
Perchlorate Isotope Ratio		3.35		14–MAR–10 22:17	per0314050a

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2006

Lab Code: GEL

Reporting Units: ug/L

Perchlorate–101	.05	.05	90.8	14–MAR–10 22:17	per0314050a

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uantify Sample Report **MassLynx 4.0 SP4**
ıe GEL Group, LLC Analyst: Charlers W. Wilson

ıataset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

ıst Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
inted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

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ıte: 14-Mar-2010
me: 17:01:44
: WCL100309-07CRI
al: 1:2,B

Perch
03-15-10

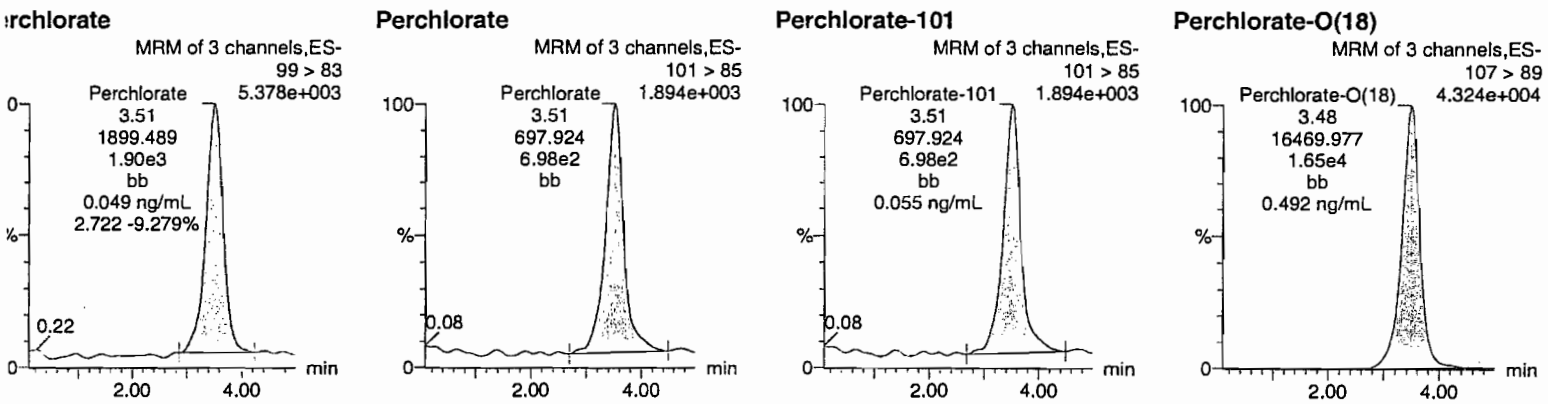

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100309-07CRI	Perchlorate	99 > 83	3.51	1899.489	1899.489	bb			0.0485	97.03	-2.97	100.911	2.72
CL100309-07CRI	Perchlorate-101	101 > 85	3.51	697.924	697.924	bb			0.0550	110.09	10.09	108.979	
CL100309-07CRI	Perchlorate-O(18)	107 > 89	3.48	16469.977	16469.977	bb			0.4922	98.44	-1.56	5729.9...	

MAH
3/16/10

$$\frac{1899.489}{3954.1} = 0.0485$$

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Sample Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Charlers W. Wilson

ıtaset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

.st Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
inted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ıme: per0314024a
ıte: 14-Mar-2010
:me: 18:46:16
: WCL100309-07CRI
al: 1:2,B

Pm
03-15-10

rchlorate

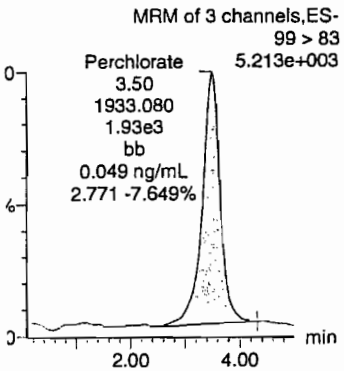

Perchlorate

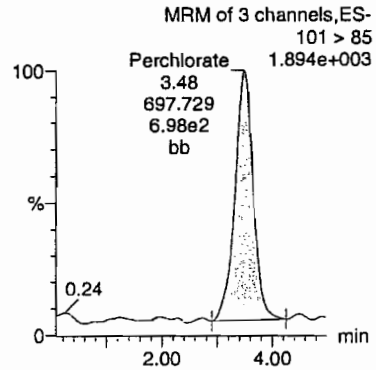

Perchlorate-101

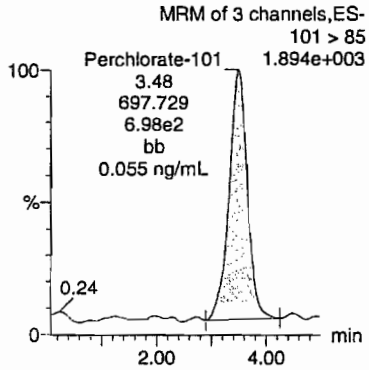

Perchlorate-O(18)

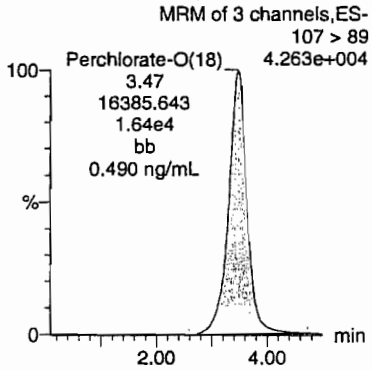

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100309-07CRI	Perchlorate	99 > 83	3.50	1933.080	1933.080	bb			0.0494	98.74	-1.26	118.141	2.77
CL100309-07CRI	Perchlorate-101	101 > 85	3.48	697.729	697.729	bb			0.0550	110.06	10.06	138.112	
CL100309-07CRI	Perchlorate-O(18)	107 > 89	3.47	16385.643	16385.643	bb			0.4897	97.93	-2.07	1621.0...	

MAT
3/16/10

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

ataset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

ast Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
rinted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ame: per0314037a
ate: 14-Mar-2010
me: 20:32:00
: WCL100309-07CRI
al: 1:2,B

Perp
03-15-10

erchlorate

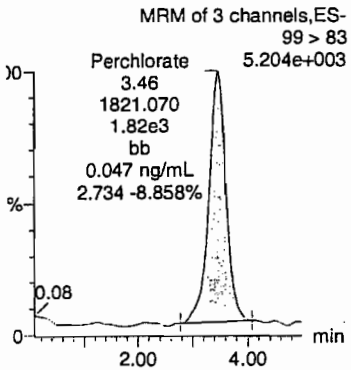

Perchlorate

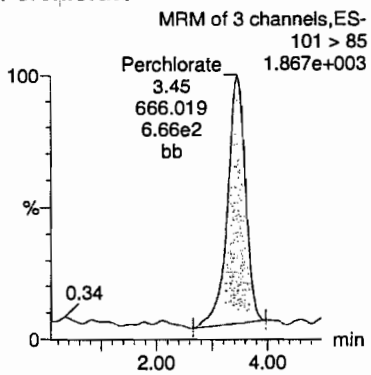

Perchlorate-101

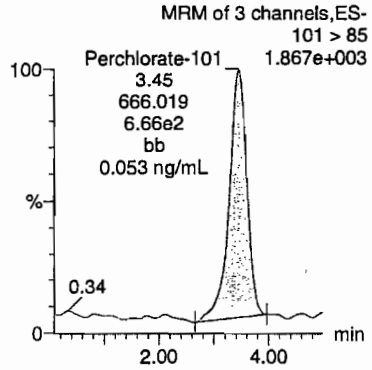

Perchlorate-O(18)

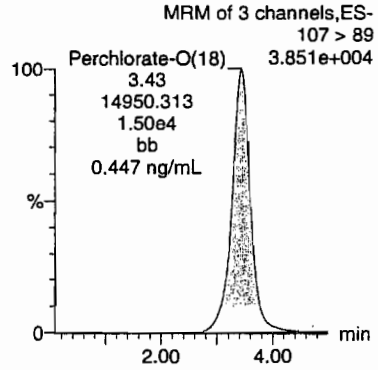

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100309-07CRI	Perchlorate	99 > 83	3.46	1821.070	1821.070	bb			0.0465	93.02	-6.98	81.504	2.73
CL100309-07CRI	Perchlorate-101	101 > 85	3.45	666.019	666.019	bb			0.0525	105.06	5.06	97.852	
CL100309-07CRI	Perchlorate-O(18)	107 > 89	3.43	14950.313	14950.313	bb			0.4468	89.36	-10.64	701.016	

MAT
3/16/10

:L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

Last Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
Printed: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

Name: per0314050a
Date: 14-Mar-2010
Time: 22:17:38
ID: WCL100309-07CRI
Vial: 1:2,B

Page 33 03-15-10

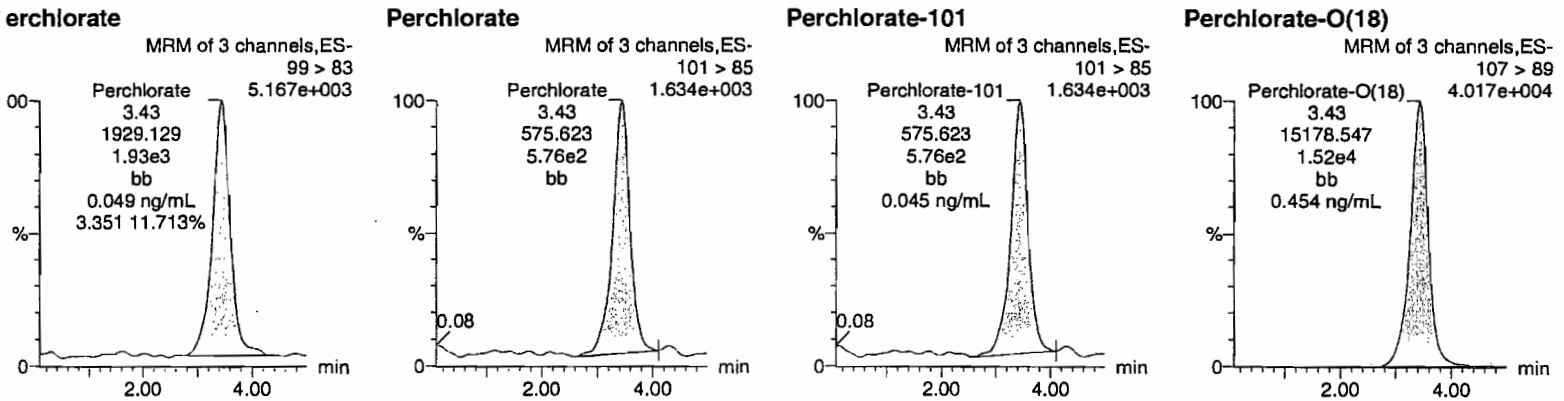

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100309-07CRI	Perchlorate	99 > 83	3.43	1929.129	1929.129	bb			0.0493	98.54	-1.46	139.995	3.35
CL100309-07CRI	Perchlorate-101	101 > 85	3.43	575.623	575.623	bb			0.0454	90.80	-9.20	79.878	
CL100309-07CRI	Perchlorate-O(18)	107 > 89	3.43	15178.547	15178.547	bb			0.4536	90.72	-9.28	3402.8...	

MJT 3/16/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
MB

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2006

GEL Sample ID: 1202056703

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	14-MAR-10 21:12	per0314042a
	Perchlorate Isotope Ratio						1	14-MAR-10 21:12	per0314042a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	14-MAR-10 21:12	per0314042a
	Perchlorate-O(18)			0.418	ug/L		1	14-MAR-10 21:12	per0314042a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

Last Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
Printed: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

Name: per0314042a
Date: 14-Mar-2010
Time: 21:12:22
ID: 1202056703
Vial: 2:1,A

LCMS | 959038 | LCQ | MB | 1 |

CWJ 03-15-10

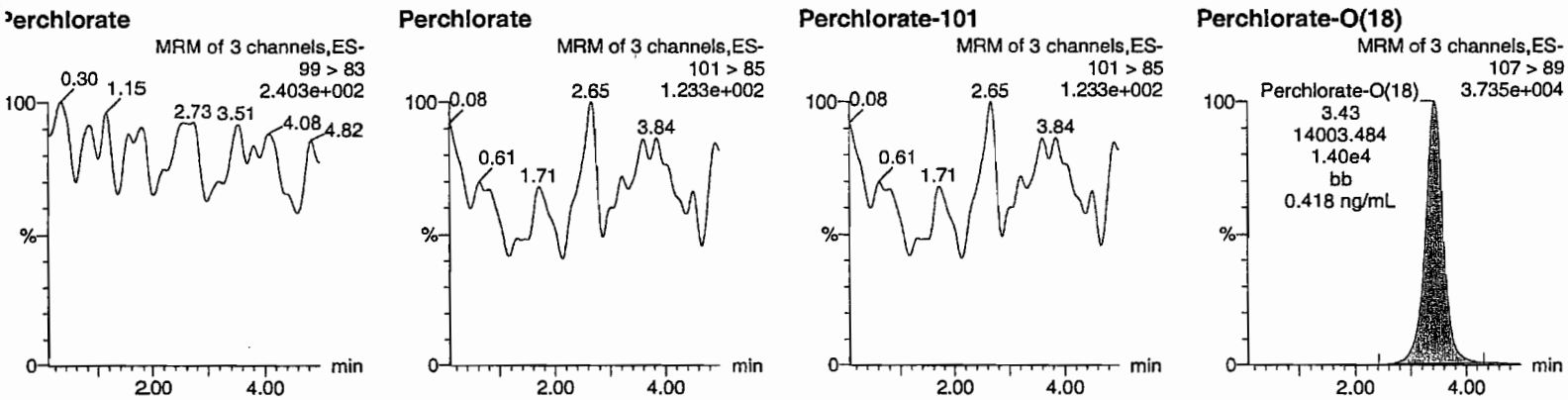

	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202056703	Perchlorate	99 > 83											0.00
202056703	Perchlorate-101	101 > 85											
202056703	Perchlorate-O(18)	107 > 89	3.43	14003.484	14003.484	bb			0.4185	83.70	-16.30	1297.1...	

MM 8/16/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
LCS

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2006

GEL Sample ID: 1202056704

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.200	ug/L	J	1	14-MAR-10 21:20	per0314043a
	Perchlorate Isotope Ratio			3.13			1	14-MAR-10 21:20	per0314043a
14797-73-0	Perchlorate-101	.05	.2	0.197	ug/L	J	1	14-MAR-10 21:20	per0314043a
	Perchlorate-O(18)			0.464	ug/L		1	14-MAR-10 21:20	per0314043a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

Last Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
Printed: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

Name: per0314043a
Date: 14-Mar-2010
Time: 21:20:36
ID: 1202056704
Vial: 2:1,B

|LANL| 959038 |LZQ |LCS |1|

ano 03-15-10

Perchlorate

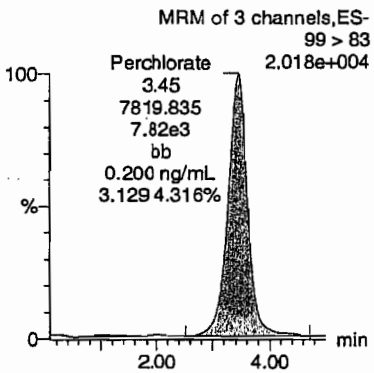

Perchlorate

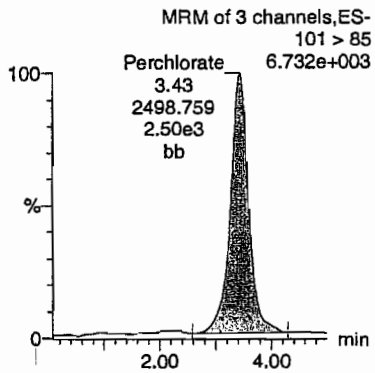

Perchlorate-101

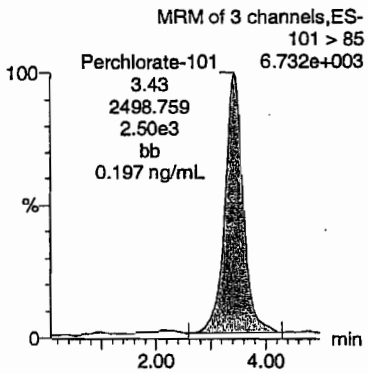

Perchlorate-O(18)

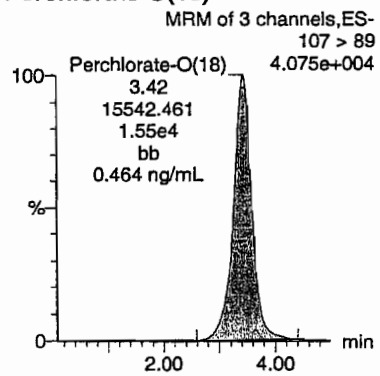

D	Name	Trace	RT	Area	Response	Flag	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202056704	Perchlorate	99 > 83	3.45	7819.835	7819.835	bb			0.1997	99.86	-0.14	519.894	3.13
1202056704	Perchlorate-101	101 > 85	3.43	2498.759	2498.759	bb			0.1971	98.54	-1.46	412.227	
1202056704	Perchlorate-O(18)	107 > 89	3.42	15542.461	15542.461	bb			0.4645	92.90	-7.10	1036.5...	

MATT 3/16/10

$$\frac{7819.835}{39154.1} = 0.1997$$

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MISCELLANEOUS DATA

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 959037 Verified by: _____

Analyst: Jareth Shirley

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202056703 MB	06-MAR-2010 16:48:00	10	10	1
1202056704 LCS	06-MAR-2010 16:48:00	10	10	1
247431002	06-MAR-2010 16:48:00	10	10	1
247817001	06-MAR-2010 16:48:00	10	10	1
247829001	06-MAR-2010 16:48:00	10	10	1
248023001	06-MAR-2010 16:48:00	10	10	1
248024002	06-MAR-2010 16:48:00	10	10	1
248024004	06-MAR-2010 16:48:00	10	10	1
248044001	06-MAR-2010 16:48:00	10	10	1
1202056707 MS (248044001)	06-MAR-2010 16:48:00	10	10	1
1202056708 MSD (248044001)	06-MAR-2010 16:48:00	10	10	1
248044003	06-MAR-2010 16:48:00	10	10	1
248044005	06-MAR-2010 16:48:00	10	10	1
248044006	06-MAR-2010 16:48:00	10	10	1
248164001	06-MAR-2010 16:48:00	10	10	1
248164003	06-MAR-2010 16:48:00	10	10	1
1202056709 ICS	06-MAR-2010 16:48:00	10	10	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202056709	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
LCS	1202056704	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
MS	1202056707	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
MSD	1202056708	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1262643	10	mL
RGNT	All	O2SI HPLC Grade Water	1271949	10	mL

Comments:

Desalting cartridges used: 100217-1-H & 100204-1-Ba

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS#2

Date: 03/14/10
Extr. Injection Volume: 20uL
Sequence Number: per031410a
Initial Calibration Date: 03/14/10

Method: EPA 6850-Modified
Int. Std.: UCL100210-01
Mobile Phase Lot#: 1278668, 1271949
Standard-Samp Reagent Lot#:: 1271949

Reviewed BY: [illegible]
Date: 3/16/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100309-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0314001a	IPB001	CWW	3/14/2010 15:41			1		USE	B
per0314002a	IPB001	CWW	3/14/2010 15:49			1		USE	B
per0314003a	WCLICAL-01	CWW	3/14/2010 15:57			1		USE	I
per0314004a	WCLICAL-02	CWW	3/14/2010 16:05			1		USE	I
per0314005a	WCLICAL-03	CWW	3/14/2010 16:13			1		USE	I
per0314006a	WCLICAL-04	CWW	3/14/2010 16:21			1		USE	I
per0314007a	WCLICAL-05	CWW	3/14/2010 16:29			1		USE	I
per0314008a	IPB002	CWW	3/14/2010 16:37			1		USE	B
per0314009a	WCLICV	CWW	3/14/2010 16:45			1		USE	C
per0314010a	IPB003	CWW	3/14/2010 16:53			1		USE	B
per0314011a	WCLCRI	CWW	3/14/2010 17:01			1		USE	C
per0314012a	1202054222	CWW	3/14/2010 17:09	957943	VARIOUS	1	LANL	USE	S
per0314013a	1202054223	CWW	3/14/2010 17:17	957943	VARIOUS	1	LANL	USE	S
per0314014a	1202054226	CWW	3/14/2010 17:25	957943	VARIOUS	1	LANL	USE	S
per0314015a	247539001	CWW	3/14/2010 17:33	957943	10-1960	1	LANL	USE	S
per0314016a	247539002	CWW	3/14/2010 17:41	957943	10-1960	1	LANL	USE	S
per0314017a	1202054224	CWW	3/14/2010 17:49	957943	10-1960	1	LANL	USE	S
per0314018a	1202054225	CWW	3/14/2010 17:58	957943	10-1960	1	LANL	USE	S
per0314019a	247539003	CWW	3/14/2010 18:06	957943	10-1960	1	LANL	USE	S
per0314020a	247539004	CWW	3/14/2010 18:14	957943	10-1960	1	LANL	USE	S
per0314021a	247539005	CWW	3/14/2010 18:22	957943	10-1960	1	LANL	USE	S
per0314022a	WCLCCV	CWW	3/14/2010 18:30			1		USE	C
per0314023a	IPB004	CWW	3/14/2010 18:38			1		USE	B
per0314024a	WCLCRI	CWW	3/14/2010 18:46			1		USE	C
per0314025a	247539006	CWW	3/14/2010 18:54	957943	10-1960	1	LANL	USE	S
per0314026a	247539007	CWW	3/14/2010 19:02	957943	10-1960	1	LANL	USE	S
per0314027a	247539008	CWW	3/14/2010 19:10	957943	10-1960	1	LANL	USE	S
per0314028a	247539009	CWW	3/14/2010 19:18	957943	10-1960	1	LANL	USE	S
per0314029a	247539010	CWW	3/14/2010 19:26	957943	10-1960	1	LANL	USE	S

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per0314030a	247539011	CWW	3/14/2010 19:34	957943	10-1960	1	LANL	USE	S
per0314031a	247790002	CWW	3/14/2010 19:42	957943	10-1981	1	LANL	USE	S
per0314032a	247790003	CWW	3/14/2010 19:51	957943	10-1981	1	LANL	USE	S
per0314033a	247794001	CWW	3/14/2010 19:59	957943	10-1983-1	1	LANL	USE	S
per0314034a	247794002	CWW	3/14/2010 20:07	957943	10-1983-1	1	LANL	USE	S
per0314035a	WCLCCV	CWW	3/14/2010 20:15			1		USE	C
per0314036a	IPB005	CWW	3/14/2010 20:23			1		USE	B
per0314037a	WCLCRI	CWW	3/14/2010 20:32			1		USE	C
per0314038a	247794003	CWW	3/14/2010 20:40	957943	10-1983-1	1	LANL	USE	S
per0314039a	247794004	CWW	3/14/2010 20:48	957943	10-1983-1	1	LANL	USE	S
per0314040a	247794005	CWW	3/14/2010 20:56	957943	10-1983-1	1	LANL	USE	S
per0314041a	IPB006	CWW	3/14/2010 21:04			1		USE	B
per0314042a	1202056703	CWW	3/14/2010 21:12	959038	VARIOUS	1	LANL	USE	S
per0314043a	1202056704	CWW	3/14/2010 21:20	959038	VARIOUS	1	LANL	USE	S
per0314044a	1202056709	CWW	3/14/2010 21:28	959038	VARIOUS	1	LANL	USE	S
per0314045a	247431002	CWW	3/14/2010 21:36	959038	10-1927	1	LANL	USE	S
per0314046a	247817001	CWW	3/14/2010 21:44	959038	10-2001	1	LANL	USE	S
per0314047a	247829001	CWW	3/14/2010 21:53	959038	10-2006	1	LANL	USE	S
per0314048a	WCLCCV	CWW	3/14/2010 22:01			1		USE	C
per0314049a	IPB007	CWW	3/14/2010 22:09			1		USE	B
per0314050a	WCLCRI	CWW	3/14/2010 22:17			1		USE	C
per0314051a	248023001	CWW	3/14/2010 22:25	959038	10-2040	1	LANL	USE	S
per0314052a	248024002	CWW	3/14/2010 22:34	959038	10-2046	1	LANL	USE	S
per0314053a	248024004	CWW	3/14/2010 22:42	959038	10-2046	1	LANL	USE	S
per0314054a	248044001	CWW	3/14/2010 22:50	959038	10-2058	1	LANL	USE	S
per0314055a	1202056707	CWW	3/14/2010 22:58	959038	10-2058	1	LANL	USE	S
per0314056a	1202056708	CWW	3/14/2010 23:06	959038	10-2058	1	LANL	USE	S
per0314057a	248044003	CWW	3/14/2010 23:14	959038	10-2058	1	LANL	USE	S
per0314058a	248044005	CWW	3/14/2010 23:22	959038	10-2058	1	LANL	USE	S
per0314059a	248044006	CWW	3/14/2010 23:30	959038	10-2058	1	LANL	USE	S
per0314060a	248164001	CWW	3/14/2010 23:38	959038	10-2111	1	LANL	USE	S
per0314061a	WCLCCV	CWW	3/14/2010 23:46			1		USE	C
per0314062a	IPB008	CWW	3/14/2010 23:54			1		USE	B
per0314063a	WCLCRI	CWW	3/15/2010 0:02			1		USE	C
per0314064a	248164003	CWW	3/15/2010 0:10	959038	10-2111	1	LANL	USE	S
per0314065a	IPB009	CWW	3/15/2010 0:19			1		USE	B
per0314066a	1202056594	CWW	3/15/2010 0:27	958963	VARIOUS	1	LANL	USE	S

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per0314067a	1202056595	CWW	3/15/2010 0:35	958963	VARIOUS	1	LANL	USE	S
per0314068a	1202056598	CWW	3/15/2010 0:43	958963	VARIOUS	1	LANL	USE	S
per0314069a	248041001	CWW	3/15/2010 0:51	958963	10-2069-1	1	LANL	USE	S
per0314070a	248041002	CWW	3/15/2010 0:59	958963	10-2069-1	1	LANL	USE	S
per0314071a	248041003	CWW	3/15/2010 1:07	958963	10-2069-1	1	LANL	USE	S
per0314072a	248041004	CWW	3/15/2010 1:15	958963	10-2069-1	1	LANL	USE	S
per0314073a	248041005	CWW	3/15/2010 1:24	958963	10-2069-1	1	LANL	USE	S
per0314074a	WCLCCV	CWW	3/15/2010 1:32			1		USE	C
per0314075a	IPB010	CWW	3/15/2010 1:40			1		USE	B
per0314076a	WCLCRI	CWW	3/15/2010 1:48			1		USE	C
per0314077a	248054001	CWW	3/15/2010 1:56	958963	10-2081-1	1	LANL	USE	S
per0314078a	248054002	CWW	3/15/2010 2:04	958963	10-2081-1	1	LANL	USE	S
per0314079a	248054003	CWW	3/15/2010 2:12	958963	10-2081-1	1	LANL	USE	S
per0314080a	248054004	CWW	3/15/2010 2:21	958963	10-2081-1	1	LANL	USE	S
per0314081a	248068001	CWW	3/15/2010 2:29	958963	10-2088	1	LANL	USE	S
per0314082a	248068002	CWW	3/15/2010 2:37	958963	10-2088	1	LANL	USE	S
per0314083a	248110001	CWW	3/15/2010 2:45	958963	10-2090-1	1	LANL	USE	S
per0314084a	1202056596	CWW	3/15/2010 2:53	958963	10-2090-1	1	LANL	USE	S
per0314085a	1202056597	CWW	3/15/2010 3:01	958963	10-2090-1	1	LANL	USE	S
per0314086a	248110002	CWW	3/15/2010 3:09	958963	10-2090-1	1	LANL	USE	S
per0314087a	WCLCCV	CWW	3/15/2010 3:17			1		USE	C
per0314088a	IPB011	CWW	3/15/2010 3:25			1		USE	B
per0314089a	WCLCRI	CWW	3/15/2010 3:34			1		USE	C
per0314090a	248110003	CWW	3/15/2010 3:42	958963	10-2090-1	1	LANL	USE	S
per0314091a	248110004	CWW	3/15/2010 3:50	958963	10-2090-1	1	LANL	USE	S
per0314092a	248110005	CWW	3/15/2010 3:58	958963	10-2090-1	1	LANL	USE	S
per0314093a	248110006	CWW	3/15/2010 4:06	958963	10-2090-1	1	LANL	USE	S
per0314094a	248110007	CWW	3/15/2010 4:14	958963	10-2090-1	1	LANL	USE	S
per0314095a	248110008	CWW	3/15/2010 4:22	958963	10-2090-1	1	LANL	USE	S
per0314096a	WCLCCV	CWW	3/15/2010 4:30			1		USE	C
per0314097a	IPB012	CWW	3/15/2010 4:39			1		USE	B
per0314098a	WCLCRI	CWW	3/15/2010 4:47			1		USE	C
per0314099a	1202056604	CWW	3/15/2010 4:55	958968	VARIOUS	1	LANL	DUSE_RA	S
per0314100a	1202056605	CWW	3/15/2010 5:03	958968	VARIOUS	1	LANL	DUSE_RA	S
per0314101a	1202056613	CWW	3/15/2010 5:11	958968	VARIOUS	1	LANL	DUSE_RA	S
per0314102a	248058001	CWW	3/15/2010 5:19	958968	10-2083	1	LANL	DUSE_RA	S
per0314103a	248058002	CWW	3/15/2010 5:27	958968	10-2083	1	LANL	DUSE_RA	S

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per0314104a	248058003	CWW	3/15/2010 5:35	958968	10-2083	1	LANL	DUSE_RA	S
per0314105a	248058004	CWW	3/15/2010 5:43	958968	10-2083	1	LANL	DUSE_RA	S
per0314106a	WCLCCV	CWW	3/15/2010 5:52			1		DUSE	C
per0314107a	IPB013	CWW	3/15/2010 6:00			1		DUSE	B
per0314108a	WCLCRI	CWW	3/15/2010 6:08			1		DUSE	C
per0314109a	248058005	CWW	3/15/2010 6:16	958968	10-2093	1	LANL	DUSE-RA	S
per0314110a	248058006	CWW	3/15/2010 6:24	958968	10-2093	1	LANL	DUSE-RA	S
per0314111a	248058007	CWW	3/15/2010 6:32	958968	10-2093	1	LANL	DUSE-RA	S
per0314112a	248058008	CWW	3/15/2010 6:40	958968	10-2093	1	LANL	DUSE-RA	S
per0314113a	248065001	CWW	3/15/2010 6:49	958968	10-2086	1	LANL	DUSE-RA	S
per0314114a	1202056606	CWW	3/15/2010 6:57	958968	10-2086	1	LANL	DUSE-RA	S
per0314115a	1202056607	CWW	3/15/2010 7:05	958968	10-2086	1	LANL	DUSE-RA	S
per0314116a	WCLCCV	CWW	3/15/2010 7:13			1		DUSE	C
per0314117a	IPB014	CWW	3/15/2010 7:21			1		DUSE	B
per0314118a	WCLCRI	CWW	3/15/2010 7:29			1		DUSE	C

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

Last Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
Printed: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

Name: per0314055a
Date: 14-Mar-2010
Time: 22:58:06
ID: 1202056707
Vial: 2:2,E

|LANL|954032|LCC|MS|1|

WJ 03-15-10

Perchlorate

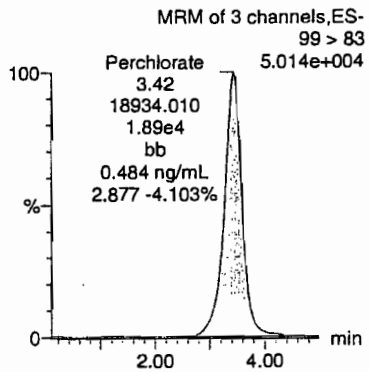

Perchlorate

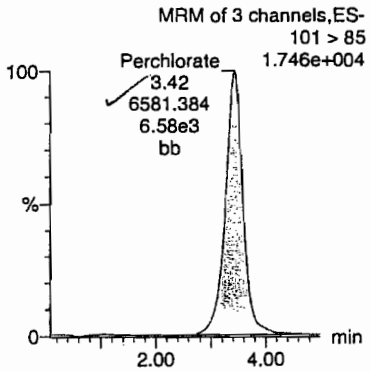

Perchlorate-101

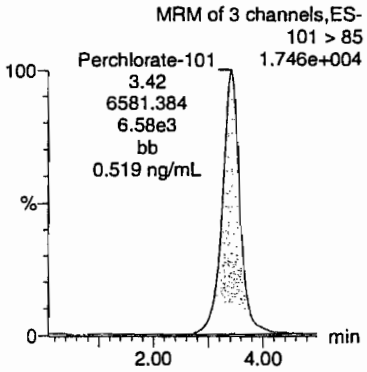

Perchlorate-O(18)

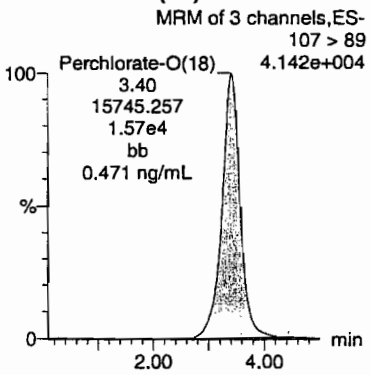

ID	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202056707	Perchlorate	99 > 83	3.42	18934.010	18934.010	bb			0.4836	241.79	141.79	2481.1...	2.88
1202056707	Perchlorate-101	101 > 85	3.42	6581.384	6581.384	bb			0.5191	259.54	159.54	2177.8...	
1202056707	Perchlorate-O(18)	107 > 89	3.40	15745.257	15745.257	bb			0.4705	94.11	-5.89	2191.4...	

MM 3/16/10

$$\frac{18934.010}{6581.384} = 2.8769$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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...ity Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

Last Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
Printed: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

Name: per0314056a
Date: 14-Mar-2010
Time: 23:06:07
ID: 1202056708
Vial: 2:2,F

|LANL|959038|LCQ|MJO|11|

GW 03-15-10

Perchlorate

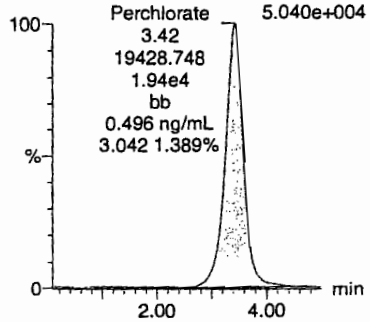

Perchlorate

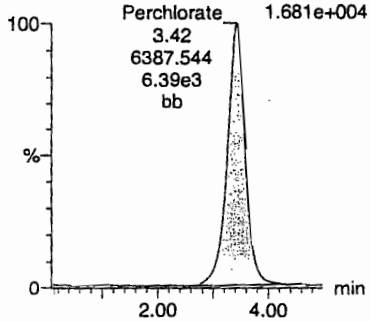

Perchlorate-101

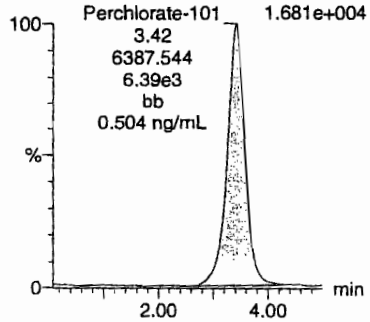

Perchlorate-O(18)

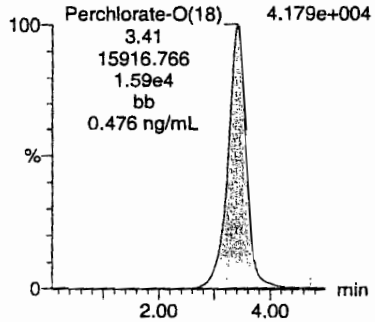

)	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202056708	Perchlorate	99 > 83	3.42	19428.748	19428.748	bb			0.4962	248.11	148.11	2325.4...	3.04
202056708	Perchlorate-101	101 > 85	3.42	6387.544	6387.544	bb			0.5038	251.89	151.89	1673.1...	
02056708	Perchlorate-O(18)	107 > 89	3.41	15916.766	15916.766	bb			0.4757	95.13	-4.87	3074.5...	

MAT 3/16/10

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2006

Sample Analysis

Sample ID	Client ID
247829001	CAPA-10-13497
247829002	CAPA-10-13498
1202053148	Method Blank (MB) **ICP**
1202053149	Laboratory Control Sample (LCS)
1202053152	247829001(CAPA-10-13497L) Serial Dilution (SD)
1202053150	247829001(CAPA-10-13497D) Sample Duplicate (DUP)
1202053151	247829001(CAPA-10-13497S) Matrix Spike (MS)
1202053155	Method Blank (MB) **ICP-MS**
1202053156	Laboratory Control Sample (LCS)
1202053159	247829001(CAPA-10-13497L) Serial Dilution (SD)
1202053157	247829001(CAPA-10-13497D) Sample Duplicate (DUP)
1202053158	247829001(CAPA-10-13497S) Matrix Spike (MS)
1202055833	Method Blank (MB) **CVAA**
1202055834	Laboratory Control Sample (LCS)
1202055837	247817001(CAPA-10-13094L) Serial Dilution (SD)
1202055835	247817001(CAPA-10-13094D) Sample Duplicate (DUP)
1202055836	247817001(CAPA-10-13094S) Matrix Spike (MS)

Method/Analysis Information

Analytical Batch:	957527, 957529, 958581 and 969065
Prep Batch :	957526, 957528 and 958580
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21, GL-MA-E-010 REV# 23 and GL-GC-E-107 REV# 5
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 DOE-AL, EPA 245.1/245.2 and SM 2340 B
Prep Method :	SW846 3005A and EPA 245.1/245.2 Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Hardness as CaCO3 is calculated from Calcium and Magnesium results.

The Metals analysis-ICP was performed on a P E 5300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria for all applicable analytes.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 247829001 (CAPA-10-13497)-ICP and ICP-MS and 247817001 (CAPA-10-13094)-CVAA.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The relative percent difference (RPD) obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the contract required detection limit (RL), a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements with the exception of aluminum as indicated by the "*" qualifier.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instruments. Dilutions were required for

this SDG in order to minimize tin suppression due to matrix interferences.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following DER was generated for this SDG: DER ID 809288. A copy is included in the Miscellaneous Data section of this package.

Additional Comments
Additional comments were not required for this SDG.
Total Hardness by Calculation is determined using the results of Total Calcium (Ca) and Total Magnesium (Mg) determined by ICP or ICP-MS.

Hardness = 2.497 (Ca) + 4.118 (Mg)

Please refer to the Total Ca and Total Mg data to validate results appearing on the Hardness Summary sheet. Both results are in the Inorganic/metals section of the package. There is no Batch QC for calculated results, and thus no QC Summary for the Hardness by Calculation Batch. The MDLs and PQLs are calculated using the higher of the two calculated values of Ca or Mg.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion

of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Nik-Cole A. Elmore **Date:** 4.20.10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2006 **METHOD TYPE:** EPA

SAMPLE ID: 247829001 **CLIENT ID:** CAPA-10-13497

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 23-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	030210W3-5
7631-86-9	Silica	72.3	mg/L			P	0.053	1	OPTIMA3	032210-1
7429-90-5	Aluminum	283	ug/L		*	P	68	1	OPTIMA3	032210-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100415-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100415-3
7440-39-3	Barium	24.2	ug/L			P	1	1	OPTIMA3	032210-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	032210-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	032210-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100415-3
7440-70-2	Calcium	11000	ug/L			P	50	1	OPTIMA3	032210-1
7440-47-3	Chromium	3.25	ug/L	J		MS	2.5	1	ICPMS5	100415-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	032210-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	032210-1
7439-89-6	Iron	271	ug/L			P	30	1	OPTIMA3	032210-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100415-3
7439-95-4	Magnesium	3150	ug/L			P	85	1	OPTIMA3	032210-1
7439-96-5	Manganese	12.2	ug/L			P	2	1	OPTIMA3	032210-1
7439-98-7	Molybdenum	1.03	ug/L			MS	0.1	1	ICPMS5	100415-3
7440-02-0	Nickel	0.554	ug/L	J		MS	0.5	1	ICPMS5	100415-3
7440-09-7	Potassium	1740	ug/L			P	50	1	OPTIMA3	032210-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100415-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100415-3
7440-23-5	Sodium	14000	ug/L			P	100	1	OPTIMA3	032210-1
7440-24-6	Strontium	52.5	ug/L			P	1	1	OPTIMA3	032210-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS5	100415-3
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	032410-2

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2006 **METHOD TYPE:** EPA

SAMPLE ID: 247829001 **CLIENT ID:** CAPA-10-13497

CONTRACT: ESHL01000

MATRIX: G **DATE RECEIVED** 23-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	0.551	ug/L			MS	0.05	1	ICPMS5	100416-4
7440-62-2	Vanadium	6.53	ug/L			P	1	1	OPTIMA3	032210-1
7440-66-6	Zinc	3.93	ug/L	J		P	3.3	1	OPTIMA3	032410-2
	Hardness as CaCO3	40.4	mg/L				0.35	1	CALC001	

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2006 **METHOD TYPE:** EPA

SAMPLE ID: 247829002 **CLIENT ID:** CAPA-10-13498

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 23-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	030210W3-5
7429-90-5	Aluminum	424	ug/L		*	P	68	1	OPTIMA3	032210-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS5	100415-3
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS5	100415-3
7440-39-3	Barium	26.5	ug/L			P	1	1	OPTIMA3	032210-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA3	032210-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA3	032210-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS5	100415-3
7440-70-2	Calcium	10600	ug/L			P	50	1	OPTIMA3	032210-1
7440-47-3	Chromium	3.52	ug/L	J		MS	2.5	1	ICPMS5	100415-3
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA3	032210-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA3	032210-1
7439-89-6	Iron	478	ug/L			P	30	1	OPTIMA3	032210-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS5	100415-3
7439-95-4	Magnesium	2980	ug/L			P	85	1	OPTIMA3	032210-1
7439-96-5	Manganese	18.3	ug/L			P	2	1	OPTIMA3	032210-1
7439-98-7	Molybdenum	1.08	ug/L			MS	0.1	1	ICPMS5	100415-3
7440-02-0	Nickel	0.741	ug/L	J		MS	0.5	1	ICPMS5	100415-3
7440-09-7	Potassium	1680	ug/L			P	50	1	OPTIMA3	032210-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS5	100415-3
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS5	100415-3
7440-23-5	Sodium	12800	ug/L			P	100	1	OPTIMA3	032210-1
7440-24-6	Strontium	50	ug/L			P	1	1	OPTIMA3	032210-1
7440-28-0	Thallium	0.365	ug/L	J		MS	0.3	1	ICPMS5	100415-3
7440-31-5	Tin	12.5	ug/L	U		P	12.5	5	OPTIMA3	032410-2
7440-61-1	Uranium	0.602	ug/L			MS	0.05	1	ICPMS5	100416-4

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2006 **METHOD TYPE:** EPA

SAMPLE ID: 247829002 **CLIENT ID:** CAPA-10-13498

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 23-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	5.97	ug/L			P	1	1	OPTIMA3	032210-1
7440-66-6	Zinc	4.33	ug/L	J		P	3.3	1	OPTIMA3	032410-2
	Hardness as CaCO3	38.7	mg/L				0.35	1	CALC001	

Quality Control Summary

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2006

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.2	ug/L	5	ug/L	104	90.0 – 110.0	AV	02-MAR-10 08:39	030210W3-5
	Aluminum	5010	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	22-MAR-10 07:34	032210-1
	Barium	519	ug/L	500	ug/L	103.9	90.0 – 110.0	P	22-MAR-10 07:34	032210-1
	Beryllium	269	ug/L	250	ug/L	107.4	90.0 – 110.0	P	22-MAR-10 07:34	032210-1
	Boron	527	ug/L	500	ug/L	105.4	90.0 – 110.0	P	22-MAR-10 07:34	032210-1
	Calcium	5010	ug/L	5000	ug/L	100.1	90.0 – 110.0	P	22-MAR-10 07:34	032210-1
	Cobalt	523	ug/L	500	ug/L	104.5	90.0 – 110.0	P	22-MAR-10 07:34	032210-1
	Copper	516	ug/L	500	ug/L	103.2	90.0 – 110.0	P	22-MAR-10 07:34	032210-1
	Iron	5170	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	22-MAR-10 07:34	032210-1
	Magnesium	5410	ug/L	5000	ug/L	108.2	90.0 – 110.0	P	22-MAR-10 07:34	032210-1
	Manganese	525	ug/L	500	ug/L	105	90.0 – 110.0	P	22-MAR-10 07:34	032210-1
	Potassium	2510	ug/L	2500	ug/L	100.5	90.0 – 110.0	P	22-MAR-10 07:34	032210-1
	Silica	10500	ug/L	10700	ug/L	97.9	90.0 – 110.0	P	22-MAR-10 07:34	032210-1
	Sodium	2540	ug/L	2500	ug/L	101.8	90.0 – 110.0	P	22-MAR-10 07:34	032210-1
	Strontium	533	ug/L	500	ug/L	106.6	90.0 – 110.0	P	22-MAR-10 07:34	032210-1
	Tin	543	ug/L	500	ug/L	108.7	90.0 – 110.0	P	22-MAR-10 07:34	032210-1
	Vanadium	529	ug/L	500	ug/L	105.8	90.0 – 110.0	P	22-MAR-10 07:34	032210-1
	Tin	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	24-MAR-10 06:23	032410-2
	Zinc	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	24-MAR-10 06:23	032410-2
	Antimony	54.5	ug/L	50	ug/L	108.9	90.0 – 110.0	MS	15-APR-10 22:21	100415-3
	Arsenic	50.6	ug/L	50	ug/L	101.3	90.0 – 110.0	MS	15-APR-10 22:21	100415-3
	Cadmium	50.8	ug/L	50	ug/L	101.5	90.0 – 110.0	MS	15-APR-10 22:21	100415-3
	Chromium	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	15-APR-10 22:21	100415-3
	Lead	52	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	15-APR-10 22:21	100415-3
	Molybdenum	50.1	ug/L	50	ug/L	100.1	90.0 – 110.0	MS	15-APR-10 22:21	100415-3
	Nickel	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	15-APR-10 22:21	100415-3
	Selenium	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	15-APR-10 22:21	100415-3
	Silver	51.4	ug/L	50	ug/L	102.8	90.0 – 110.0	MS	15-APR-10 22:21	100415-3
	Thallium	51.9	ug/L	50	ug/L	103.7	90.0 – 110.0	MS	15-APR-10 22:21	100415-3
	Uranium	51.4	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	17-APR-10 02:46	100416-4

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2006

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV01										
	Mercury	5.16	ug/L	5	ug/L	103.1	80.0 – 120.0	AV	02-MAR-10 08:45	030210W3-5
	Aluminum	4860	ug/L	5000	ug/L	97.3	90.0 – 110.0	P	22-MAR-10 08:22	032210-1
	Barium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	22-MAR-10 08:22	032210-1
	Beryllium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	22-MAR-10 08:22	032210-1
	Boron	530	ug/L	500	ug/L	106	90.0 – 110.0	P	22-MAR-10 08:22	032210-1
	Calcium	5010	ug/L	5000	ug/L	100.2	90.0 – 110.0	P	22-MAR-10 08:22	032210-1
	Cobalt	504	ug/L	500	ug/L	100.7	90.0 – 110.0	P	22-MAR-10 08:22	032210-1
	Copper	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	22-MAR-10 08:22	032210-1
	Iron	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	22-MAR-10 08:22	032210-1
	Magnesium	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	22-MAR-10 08:22	032210-1
	Manganese	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	22-MAR-10 08:22	032210-1
	Potassium	5290	ug/L	5000	ug/L	105.8	90.0 – 110.0	P	22-MAR-10 08:22	032210-1
	Silica	5320	ug/L	5350	ug/L	99.4	90.0 – 110.0	P	22-MAR-10 08:22	032210-1
	Sodium	10300	ug/L	10000	ug/L	103.4	90.0 – 110.0	P	22-MAR-10 08:22	032210-1
	Strontium	501	ug/L	500	ug/L	100.3	90.0 – 110.0	P	22-MAR-10 08:22	032210-1
	Tin	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	22-MAR-10 08:22	032210-1
	Vanadium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	22-MAR-10 08:22	032210-1
	Tin	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	24-MAR-10 07:11	032410-2
	Zinc	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	24-MAR-10 07:11	032410-2
	Antimony	51.9	ug/L	50	ug/L	103.8	90.0 – 110.0	MS	15-APR-10 22:44	100415-3
	Arsenic	49.9	ug/L	50	ug/L	99.8	90.0 – 110.0	MS	15-APR-10 22:44	100415-3
	Cadmium	48.5	ug/L	50	ug/L	97	90.0 – 110.0	MS	15-APR-10 22:44	100415-3
	Chromium	49.1	ug/L	50	ug/L	98.3	90.0 – 110.0	MS	15-APR-10 22:44	100415-3
	Lead	50.2	ug/L	50	ug/L	100.4	90.0 – 110.0	MS	15-APR-10 22:44	100415-3
	Molybdenum	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	15-APR-10 22:44	100415-3
	Nickel	49	ug/L	50	ug/L	98	90.0 – 110.0	MS	15-APR-10 22:44	100415-3
	Selenium	48.7	ug/L	50	ug/L	97.5	90.0 – 110.0	MS	15-APR-10 22:44	100415-3
	Silver	50	ug/L	50	ug/L	100	90.0 – 110.0	MS	15-APR-10 22:44	100415-3
	Thallium	49.7	ug/L	50	ug/L	99.4	90.0 – 110.0	MS	15-APR-10 22:44	100415-3
	Uranium	52.5	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	17-APR-10 02:54	100416-4

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2006

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV02										
	Mercury	5.13	ug/L	5	ug/L	102.6	80.0 – 120.0	AV	02–MAR–10 09:08	030210W3–5
	Aluminum	4850	ug/L	5000	ug/L	97	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Barium	502	ug/L	500	ug/L	100.3	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Beryllium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Boron	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Calcium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Cobalt	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Copper	496	ug/L	500	ug/L	99.1	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Iron	5160	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Magnesium	5210	ug/L	5000	ug/L	104.2	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Manganese	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Potassium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Silica	5320	ug/L	5350	ug/L	99.5	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Sodium	10200	ug/L	10000	ug/L	102.3	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Strontium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Tin	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Vanadium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	22–MAR–10 08:51	032210–1
	Tin	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	24–MAR–10 07:34	032410–2
	Zinc	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	24–MAR–10 07:34	032410–2
	Antimony	53.8	ug/L	50	ug/L	107.7	90.0 – 110.0	MS	15–APR–10 22:58	100415–3
	Arsenic	51.5	ug/L	50	ug/L	102.9	90.0 – 110.0	MS	15–APR–10 22:58	100415–3
	Cadmium	50.2	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	15–APR–10 22:58	100415–3
	Chromium	51.4	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	15–APR–10 22:58	100415–3
	Lead	52.7	ug/L	50	ug/L	105.4	90.0 – 110.0	MS	15–APR–10 22:58	100415–3
	Molybdenum	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	15–APR–10 22:58	100415–3
	Nickel	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	15–APR–10 22:58	100415–3
	Selenium	50.1	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	15–APR–10 22:58	100415–3
	Silver	51.4	ug/L	50	ug/L	102.7	90.0 – 110.0	MS	15–APR–10 22:58	100415–3
	Thallium	53	ug/L	50	ug/L	106	90.0 – 110.0	MS	15–APR–10 22:58	100415–3
	Uranium	53.5	ug/L	50	ug/L	107	90.0 – 110.0	MS	17–APR–10 03:09	100416–4

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2006

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV03										
	Mercury	5.06	ug/L	5	ug/L	101.1	80.0 – 120.0	AV	02–MAR–10 09:31	030210W3–5
	Aluminum	4880	ug/L	5000	ug/L	97.6	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Barium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Beryllium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Boron	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Calcium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Cobalt	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Copper	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Magnesium	5190	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Manganese	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Potassium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Silica	5370	ug/L	5350	ug/L	100.3	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Sodium	9980	ug/L	10000	ug/L	99.8	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Strontium	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Tin	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Vanadium	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	22–MAR–10 09:48	032210–1
	Tin	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	24–MAR–10 08:41	032410–2
	Zinc	483	ug/L	500	ug/L	96.6	90.0 – 110.0	P	24–MAR–10 08:41	032410–2
	Antimony	51.6	ug/L	50	ug/L	103.1	90.0 – 110.0	MS	15–APR–10 23:39	100415–3
	Arsenic	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	15–APR–10 23:39	100415–3
	Cadmium	48.6	ug/L	50	ug/L	97.2	90.0 – 110.0	MS	15–APR–10 23:39	100415–3
	Chromium	49	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	15–APR–10 23:39	100415–3
	Lead	50	ug/L	50	ug/L	100.1	90.0 – 110.0	MS	15–APR–10 23:39	100415–3
	Molybdenum	47.9	ug/L	50	ug/L	95.8	90.0 – 110.0	MS	15–APR–10 23:39	100415–3
	Nickel	48.8	ug/L	50	ug/L	97.6	90.0 – 110.0	MS	15–APR–10 23:39	100415–3
	Selenium	48.2	ug/L	50	ug/L	96.4	90.0 – 110.0	MS	15–APR–10 23:39	100415–3
	Silver	49.7	ug/L	50	ug/L	99.3	90.0 – 110.0	MS	15–APR–10 23:39	100415–3
	Thallium	50.1	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	15–APR–10 23:39	100415–3
	Uranium	53.4	ug/L	50	ug/L	106.8	90.0 – 110.0	MS	17–APR–10 03:28	100416–4

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2006

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV04										
	Mercury	5.02	ug/L	5	ug/L	100.3	80.0 – 120.0	AV	02-MAR-10 09:54	030210W3-5
	Aluminum	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	22-MAR-10 11:07	032210-1
	Barium	492	ug/L	500	ug/L	98.5	90.0 – 110.0	P	22-MAR-10 11:07	032210-1
	Beryllium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	22-MAR-10 11:07	032210-1
	Boron	486	ug/L	500	ug/L	97.3	90.0 – 110.0	P	22-MAR-10 11:07	032210-1
	Calcium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	22-MAR-10 11:07	032210-1
	Cobalt	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	22-MAR-10 11:07	032210-1
	Copper	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	22-MAR-10 11:07	032210-1
	Iron	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	22-MAR-10 11:07	032210-1
	Magnesium	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	22-MAR-10 11:07	032210-1
	Manganese	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	22-MAR-10 11:07	032210-1
	Potassium	5030	ug/L	5000	ug/L	100.5	90.0 – 110.0	P	22-MAR-10 11:07	032210-1
	Silica	5310	ug/L	5350	ug/L	99.3	90.0 – 110.0	P	22-MAR-10 11:07	032210-1
	Sodium	10000	ug/L	10000	ug/L	100	90.0 – 110.0	P	22-MAR-10 11:07	032210-1
	Strontium	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	22-MAR-10 11:07	032210-1
	Tin	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	22-MAR-10 11:07	032210-1
	Vanadium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	22-MAR-10 11:07	032210-1
	Tin	482	ug/L	500	ug/L	96.3	90.0 – 110.0	P	24-MAR-10 10:04	032410-2
	Zinc	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	24-MAR-10 10:04	032410-2
	Antimony	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	16-APR-10 00:16	100415-3
	Arsenic	49.2	ug/L	50	ug/L	98.4	90.0 – 110.0	MS	16-APR-10 00:16	100415-3
	Cadmium	48.6	ug/L	50	ug/L	97.2	90.0 – 110.0	MS	16-APR-10 00:16	100415-3
	Chromium	49.4	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	16-APR-10 00:16	100415-3
	Lead	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	16-APR-10 00:16	100415-3
	Molybdenum	48.2	ug/L	50	ug/L	96.3	90.0 – 110.0	MS	16-APR-10 00:16	100415-3
	Nickel	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	16-APR-10 00:16	100415-3
	Selenium	48.3	ug/L	50	ug/L	96.5	90.0 – 110.0	MS	16-APR-10 00:16	100415-3
	Silver	49.5	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	16-APR-10 00:16	100415-3
	Thallium	49.5	ug/L	50	ug/L	98.9	90.0 – 110.0	MS	16-APR-10 00:16	100415-3

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2006

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV05										
	Mercury	5	ug/L	5	ug/L	99.9	80.0 – 120.0	AV	02–MAR–10 10:17	030210W3–5
	Aluminum	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Barium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Beryllium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Boron	497	ug/L	500	ug/L	99.5	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Calcium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Cobalt	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Copper	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Iron	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Magnesium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Manganese	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Potassium	5040	ug/L	5000	ug/L	100.9	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Silica	5400	ug/L	5350	ug/L	100.9	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Sodium	9730	ug/L	10000	ug/L	97.3	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Strontium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Tin	500	ug/L	500	ug/L	100	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Vanadium	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	22–MAR–10 12:02	032210–1
	Tin	485	ug/L	500	ug/L	97	90.0 – 110.0	P	24–MAR–10 10:59	032410–2
	Zinc	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	24–MAR–10 10:59	032410–2
	Antimony	53.3	ug/L	50	ug/L	106.5	90.0 – 110.0	MS	16–APR–10 00:57	100415–3
	Arsenic	51.1	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	16–APR–10 00:57	100415–3
	Cadmium	49.8	ug/L	50	ug/L	99.5	90.0 – 110.0	MS	16–APR–10 00:57	100415–3
	Chromium	51.2	ug/L	50	ug/L	102.4	90.0 – 110.0	MS	16–APR–10 00:57	100415–3
	Lead	51.6	ug/L	50	ug/L	103.2	90.0 – 110.0	MS	16–APR–10 00:57	100415–3
	Molybdenum	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	16–APR–10 00:57	100415–3
	Nickel	50.9	ug/L	50	ug/L	101.8	90.0 – 110.0	MS	16–APR–10 00:57	100415–3
	Selenium	50.4	ug/L	50	ug/L	100.8	90.0 – 110.0	MS	16–APR–10 00:57	100415–3
	Silver	51	ug/L	50	ug/L	102.1	90.0 – 110.0	MS	16–APR–10 00:57	100415–3
	Thallium	51.7	ug/L	50	ug/L	103.4	90.0 – 110.0	MS	16–APR–10 00:57	100415–3

METALS
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Initial and Continuing Calibration Verification

SDG No: 10-2006

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV06										
	Aluminum	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	22-MAR-10 13:04	032210-1
	Barium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	22-MAR-10 13:04	032210-1
	Beryllium	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	22-MAR-10 13:04	032210-1
	Boron	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	22-MAR-10 13:04	032210-1
	Calcium	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	22-MAR-10 13:04	032210-1
	Cobalt	511	ug/L	500	ug/L	102.1	90.0 – 110.0	P	22-MAR-10 13:04	032210-1
	Copper	500	ug/L	500	ug/L	100	90.0 – 110.0	P	22-MAR-10 13:04	032210-1
	Iron	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	22-MAR-10 13:04	032210-1
	Magnesium	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	22-MAR-10 13:04	032210-1
	Manganese	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	22-MAR-10 13:04	032210-1
	Potassium	5100	ug/L	5000	ug/L	102.1	90.0 – 110.0	P	22-MAR-10 13:04	032210-1
	Silica	5350	ug/L	5350	ug/L	100.1	90.0 – 110.0	P	22-MAR-10 13:04	032210-1
	Sodium	9970	ug/L	10000	ug/L	99.7	90.0 – 110.0	P	22-MAR-10 13:04	032210-1
	Strontium	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	22-MAR-10 13:04	032210-1
	Tin	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	22-MAR-10 13:04	032210-1
	Vanadium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	22-MAR-10 13:04	032210-1
	Tin	485	ug/L	500	ug/L	97	90.0 – 110.0	P	24-MAR-10 12:10	032410-2
	Zinc	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	24-MAR-10 12:10	032410-2
	Antimony	51.3	ug/L	50	ug/L	102.5	90.0 – 110.0	MS	16-APR-10 01:48	100415-3
	Arsenic	48.5	ug/L	50	ug/L	97.1	90.0 – 110.0	MS	16-APR-10 01:48	100415-3
	Cadmium	47.3	ug/L	50	ug/L	94.6	90.0 – 110.0	MS	16-APR-10 01:48	100415-3
	Chromium	48.6	ug/L	50	ug/L	97.1	90.0 – 110.0	MS	16-APR-10 01:48	100415-3
	Lead	50.3	ug/L	50	ug/L	100.5	90.0 – 110.0	MS	16-APR-10 01:48	100415-3
	Molybdenum	48.1	ug/L	50	ug/L	96.1	90.0 – 110.0	MS	16-APR-10 01:48	100415-3
	Nickel	48.2	ug/L	50	ug/L	96.5	90.0 – 110.0	MS	16-APR-10 01:48	100415-3
	Selenium	48.7	ug/L	50	ug/L	97.5	90.0 – 110.0	MS	16-APR-10 01:48	100415-3
	Silver	49.3	ug/L	50	ug/L	98.6	90.0 – 110.0	MS	16-APR-10 01:48	100415-3
	Thallium	49.9	ug/L	50	ug/L	99.9	90.0 – 110.0	MS	16-APR-10 01:48	100415-3
CCV07										
	Aluminum	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	22-MAR-10 14:07	032210-1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–2006

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Beryllium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Boron	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Calcium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Cobalt	512	ug/L	500	ug/L	102.5	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Copper	500	ug/L	500	ug/L	100	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Iron	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Magnesium	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Potassium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Silica	5370	ug/L	5350	ug/L	100.4	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Sodium	10000	ug/L	10000	ug/L	100.1	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Strontium	495	ug/L	500	ug/L	99	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Tin	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Vanadium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	22–MAR–10 14:07	032210–1
	Tin	485	ug/L	500	ug/L	97	90.0 – 110.0	P	24–MAR–10 13:20	032410–2
	Zinc	485	ug/L	500	ug/L	97	90.0 – 110.0	P	24–MAR–10 13:20	032410–2
	Antimony	51.1	ug/L	50	ug/L	102.3	90.0 – 110.0	MS	16–APR–10 02:39	100415–3
	Arsenic	48.3	ug/L	50	ug/L	96.6	90.0 – 110.0	MS	16–APR–10 02:39	100415–3
	Cadmium	47.3	ug/L	50	ug/L	94.6	90.0 – 110.0	MS	16–APR–10 02:39	100415–3
	Chromium	48.6	ug/L	50	ug/L	97.2	90.0 – 110.0	MS	16–APR–10 02:39	100415–3
	Lead	50.1	ug/L	50	ug/L	100.3	90.0 – 110.0	MS	16–APR–10 02:39	100415–3
	Molybdenum	47.3	ug/L	50	ug/L	94.7	90.0 – 110.0	MS	16–APR–10 02:39	100415–3
	Nickel	48.5	ug/L	50	ug/L	96.9	90.0 – 110.0	MS	16–APR–10 02:39	100415–3
	Selenium	48.9	ug/L	50	ug/L	97.7	90.0 – 110.0	MS	16–APR–10 02:39	100415–3
	Silver	49	ug/L	50	ug/L	98.1	90.0 – 110.0	MS	16–APR–10 02:39	100415–3
	Thallium	48.1	ug/L	50	ug/L	96.2	90.0 – 110.0	MS	16–APR–10 02:39	100415–3
CCV08										
	Aluminum	4970	ug/L	5000	ug/L	99.5	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Barium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	22–MAR–10 15:03	032210–1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–2006

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Beryllium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Boron	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Calcium	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Cobalt	512	ug/L	500	ug/L	102.3	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Copper	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Iron	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Magnesium	5250	ug/L	5000	ug/L	105	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Manganese	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Potassium	5200	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Silica	5390	ug/L	5350	ug/L	100.8	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Sodium	9910	ug/L	10000	ug/L	99.2	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Strontium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Tin	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
	Vanadium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	22–MAR–10 15:03	032210–1
CCV09										
	Aluminum	4900	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Barium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Beryllium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Boron	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Calcium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Cobalt	517	ug/L	500	ug/L	103.3	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Copper	503	ug/L	500	ug/L	100.5	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Iron	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Magnesium	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Manganese	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Potassium	5160	ug/L	5000	ug/L	103.2	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Silica	5460	ug/L	5350	ug/L	102.1	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Sodium	9770	ug/L	10000	ug/L	97.7	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Strontium	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
	Tin	500	ug/L	500	ug/L	100	90.0 – 110.0	P	22–MAR–10 16:05	032210–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2006

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Vanadium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	22–MAR–10 16:05	032210–1
CCV10										
	Aluminum	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Barium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Beryllium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Boron	505	ug/L	500	ug/L	101	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Calcium	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Cobalt	517	ug/L	500	ug/L	103.4	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Copper	507	ug/L	500	ug/L	101.3	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Iron	5060	ug/L	5000	ug/L	101.1	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Magnesium	5160	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Manganese	505	ug/L	500	ug/L	101	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Potassium	5190	ug/L	5000	ug/L	103.8	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Silica	5460	ug/L	5350	ug/L	102	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Sodium	10100	ug/L	10000	ug/L	100.6	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Strontium	496	ug/L	500	ug/L	99.2	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Tin	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
	Vanadium	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	22–MAR–10 17:15	032210–1
CCV11										
	Aluminum	4920	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Barium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Beryllium	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Boron	505	ug/L	500	ug/L	101	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Calcium	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Cobalt	518	ug/L	500	ug/L	103.6	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Copper	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Iron	5200	ug/L	5000	ug/L	104	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Magnesium	5280	ug/L	5000	ug/L	105.6	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Manganese	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Potassium	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	22–MAR–10 18:39	032210–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2006

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Silica	5430	ug/L	5350	ug/L	101.5	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Sodium	10200	ug/L	10000	ug/L	101.6	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Strontium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Tin	500	ug/L	500	ug/L	100	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
	Vanadium	514	ug/L	500	ug/L	102.8	90.0 – 110.0	P	22–MAR–10 18:39	032210–1
CCV12										
	Aluminum	4910	ug/L	5000	ug/L	98.1	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Barium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Beryllium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Boron	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Calcium	5030	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Cobalt	509	ug/L	500	ug/L	101.9	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Copper	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Iron	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Magnesium	5220	ug/L	5000	ug/L	104.5	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Manganese	500	ug/L	500	ug/L	100	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Potassium	5130	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Silica	5420	ug/L	5350	ug/L	101.2	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Sodium	9830	ug/L	10000	ug/L	98.3	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Strontium	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Tin	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
	Vanadium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	22–MAR–10 19:43	032210–1
CCV13										
	Aluminum	4870	ug/L	5000	ug/L	97.4	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Barium	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Beryllium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Boron	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Calcium	4940	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Cobalt	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	22–MAR–10 20:46	032210–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2006

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Iron	4930	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Manganese	495	ug/L	500	ug/L	98.9	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Potassium	5090	ug/L	5000	ug/L	101.8	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Silica	5310	ug/L	5350	ug/L	99.3	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Sodium	9460	ug/L	10000	ug/L	94.6	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Strontium	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Tin	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	22–MAR–10 20:46	032210–1
CCV14										
	Aluminum	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Barium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Beryllium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Boron	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Calcium	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Cobalt	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Copper	499	ug/L	500	ug/L	99.7	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Iron	5020	ug/L	5000	ug/L	100.4	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Magnesium	5170	ug/L	5000	ug/L	103.5	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Manganese	500	ug/L	500	ug/L	100	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Potassium	5120	ug/L	5000	ug/L	102.5	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Silica	5350	ug/L	5350	ug/L	100.1	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Sodium	9610	ug/L	10000	ug/L	96.1	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Strontium	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Tin	490	ug/L	500	ug/L	98	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
	Vanadium	507	ug/L	500	ug/L	101.5	90.0 – 110.0	P	22–MAR–10 21:50	032210–1
CCV15										
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Barium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Beryllium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	22–MAR–10 22:54	032210–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2006

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Boron	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Calcium	4990	ug/L	5000	ug/L	99.7	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Cobalt	515	ug/L	500	ug/L	103.1	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Copper	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Iron	4940	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Magnesium	5140	ug/L	5000	ug/L	102.8	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Manganese	505	ug/L	500	ug/L	101.1	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Potassium	5150	ug/L	5000	ug/L	103	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Silica	5440	ug/L	5350	ug/L	101.6	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Sodium	9290	ug/L	10000	ug/L	92.9	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Strontium	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Tin	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
	Vanadium	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	22–MAR–10 22:54	032210–1
CCV16										
	Aluminum	4880	ug/L	5000	ug/L	97.7	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Beryllium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Boron	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Calcium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Cobalt	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Copper	497	ug/L	500	ug/L	99.3	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Iron	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Magnesium	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Manganese	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Potassium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Silica	5400	ug/L	5350	ug/L	100.9	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Sodium	9470	ug/L	10000	ug/L	94.8	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Strontium	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Tin	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	23–MAR–10 00:04	032210–1
	Vanadium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	23–MAR–10 00:04	032210–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2006

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV17										
	Aluminum	4880	ug/L	5000	ug/L	97.6	90.0 – 110.0	P	23-MAR-10 01:15	032210-1
	Barium	503	ug/L	500	ug/L	100.7	90.0 – 110.0	P	23-MAR-10 01:15	032210-1
	Beryllium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	23-MAR-10 01:15	032210-1
	Boron	500	ug/L	500	ug/L	100	90.0 – 110.0	P	23-MAR-10 01:15	032210-1
	Calcium	5040	ug/L	5000	ug/L	100.8	90.0 – 110.0	P	23-MAR-10 01:15	032210-1
	Cobalt	509	ug/L	500	ug/L	101.8	90.0 – 110.0	P	23-MAR-10 01:15	032210-1
	Copper	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	23-MAR-10 01:15	032210-1
	Iron	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	23-MAR-10 01:15	032210-1
	Magnesium	5210	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	23-MAR-10 01:15	032210-1
	Manganese	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	23-MAR-10 01:15	032210-1
	Potassium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	23-MAR-10 01:15	032210-1
	Silica	5410	ug/L	5350	ug/L	101.2	90.0 – 110.0	P	23-MAR-10 01:15	032210-1
	Sodium	9740	ug/L	10000	ug/L	97.4	90.0 – 110.0	P	23-MAR-10 01:15	032210-1
	Strontium	485	ug/L	500	ug/L	97	90.0 – 110.0	P	23-MAR-10 01:15	032210-1
	Tin	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	23-MAR-10 01:15	032210-1
	Vanadium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	23-MAR-10 01:15	032210-1
CCV18										
	Aluminum	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	23-MAR-10 02:25	032210-1
	Barium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	23-MAR-10 02:25	032210-1
	Beryllium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	23-MAR-10 02:25	032210-1
	Boron	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	23-MAR-10 02:25	032210-1
	Calcium	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	23-MAR-10 02:25	032210-1
	Cobalt	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	23-MAR-10 02:25	032210-1
	Copper	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	23-MAR-10 02:25	032210-1
	Iron	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	23-MAR-10 02:25	032210-1
	Magnesium	5220	ug/L	5000	ug/L	104.4	90.0 – 110.0	P	23-MAR-10 02:25	032210-1
	Manganese	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	23-MAR-10 02:25	032210-1
	Potassium	5130	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	23-MAR-10 02:25	032210-1
	Silica	5390	ug/L	5350	ug/L	100.7	90.0 – 110.0	P	23-MAR-10 02:25	032210-1
	Sodium	9140	ug/L	10000	ug/L	91.4	90.0 – 110.0	P	23-MAR-10 02:25	032210-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2006

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Strontium	474	ug/L	500	ug/L	94.7	90.0 – 110.0	P	23–MAR–10 02:25	032210–1
	Tin	495	ug/L	500	ug/L	99.1	90.0 – 110.0	P	23–MAR–10 02:25	032210–1
	Vanadium	510	ug/L	500	ug/L	102	90.0 – 110.0	P	23–MAR–10 02:25	032210–1
CCV19										
	Aluminum	5160	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Barium	529	ug/L	500	ug/L	105.8	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Beryllium	536	ug/L	500	ug/L	107.2	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Boron	521	ug/L	500	ug/L	104.2	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Calcium	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Cobalt	537	ug/L	500	ug/L	107.3	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Copper	523	ug/L	500	ug/L	104.6	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Iron	5210	ug/L	5000	ug/L	104.1	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Magnesium	5510	ug/L	5000	ug/L	110.2	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Manganese	530	ug/L	500	ug/L	105.9	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Potassium	5400	ug/L	5000	ug/L	108.1	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Silica	5620	ug/L	5350	ug/L	105.1	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Sodium	9730	ug/L	10000	ug/L	97.3	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Strontium	499	ug/L	500	ug/L	99.9	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Tin	523	ug/L	500	ug/L	104.5	90.0 – 110.0	P	23–MAR–10 03:43	032210–1
	Vanadium	534	ug/L	500	ug/L	106.9	90.0 – 110.0	P	23–MAR–10 03:43	032210–1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–2006

Contract: ESHL01000 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.24	ug/L	.2	ug/L	120	70.0 – 130.0	AV	02–MAR–10 08:43	030210W3–5
	Lead	2.37	ug/L	2	ug/L	118.4	70.0 – 130.0	MS	15–APR–10 22:30	100415–3
	Nickel	2.35	ug/L	2	ug/L	117.5	70.0 – 130.0	MS	15–APR–10 22:30	100415–3
	Silver	1.06	ug/L	1	ug/L	105.9	70.0 – 130.0	MS	15–APR–10 22:30	100415–3
	Thallium	1.22	ug/L	1	ug/L	121.8	70.0 – 130.0	MS	15–APR–10 22:30	100415–3
	Arsenic	6.51	ug/L	5	ug/L	130.3	70.0 – 130.0	MS	15–APR–10 22:30	100415–3
	Chromium	11.6	ug/L	10	ug/L	115.6	70.0 – 130.0	MS	15–APR–10 22:30	100415–3
	Molybdenum	.538	ug/L	.5	ug/L	107.6	70.0 – 130.0	MS	15–APR–10 22:30	100415–3
	Selenium	6.04	ug/L	5	ug/L	120.7	70.0 – 130.0	MS	15–APR–10 22:30	100415–3
	Cadmium	1.14	ug/L	1	ug/L	113.5	70.0 – 130.0	MS	15–APR–10 22:30	100415–3
	Antimony	3.2	ug/L	3	ug/L	106.5	70.0 – 130.0	MS	15–APR–10 22:30	100415–3
	Uranium	.21	ug/L	.2	ug/L	105	70.0 – 130.0	MS	17–APR–10 02:49	100416–4
PQL01										
	Silica	215	ug/L	213	ug/L	100.9	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Magnesium	390	ug/L	300	ug/L	130	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Potassium	127	ug/L	150	ug/L	84.9	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Barium	5.19	ug/L	5	ug/L	103.9	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Cobalt	5.37	ug/L	5	ug/L	107.4	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Strontium	4.73	ug/L	5	ug/L	94.5	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Tin	11.1	ug/L	10	ug/L	111.1	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Boron	56.6	ug/L	50	ug/L	113.1	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Calcium	208	ug/L	200	ug/L	104.2	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Vanadium	5.87	ug/L	5	ug/L	117.5	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Copper	10.2	ug/L	10	ug/L	101.5	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Beryllium	5.04	ug/L	5	ug/L	100.8	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Sodium	298	ug/L	300	ug/L	99.4	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Manganese	10.4	ug/L	10	ug/L	104.1	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Iron	123	ug/L	100	ug/L	123.1	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Aluminum	203	ug/L	200	ug/L	101.3	70.0 – 130.0	P	22–MAR–10 07:48	032210–1
	Zinc	9.8	ug/L	10	ug/L	98	70.0 – 130.0	P	24–MAR–10 06:38	032410–2

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–2006

Contract: ESHL01000 **Lab Code:** GEL

AA CRDL Standard Source:

ICP CRDL Standard Source

Instrument ID: HG3,ICPMS5,OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
	Tin	9.79	ug/L	10	ug/L	97.9	70.0 – 130.0	P	24–MAR–10 06:38	032410–2

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2006

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 08:41	030210W3–5
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 07:40	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 07:40	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 07:40	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 07:40	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 07:40	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 07:40	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 07:40	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 07:40	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 07:40	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 07:40	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 07:40	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 07:40	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 07:40	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 07:40	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 07:40	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 07:40	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	24–MAR–10 06:30	032410–2
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	24–MAR–10 06:30	032410–2
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	15–APR–10 22:26	100415–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	15–APR–10 22:26	100415–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	15–APR–10 22:26	100415–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	15–APR–10 22:26	100415–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	15–APR–10 22:26	100415–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	15–APR–10 22:26	100415–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	15–APR–10 22:26	100415–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	15–APR–10 22:26	100415–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	15–APR–10 22:26	100415–3
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	15–APR–10 22:26	100415–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	17–APR–10 02:47	100416–4

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2006

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 08:47	030210W3–5
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 08:29	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 08:29	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 08:29	032210–1
	Boron	25.48	+/–50	J	15.0	50.0	LIQ	P	22–MAR–10 08:29	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 08:29	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 08:29	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 08:29	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 08:29	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 08:29	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 08:29	032210–1
	Potassium	94.5	+/–150	J	50.0	150	LIQ	P	22–MAR–10 08:29	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 08:29	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 08:29	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 08:29	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 08:29	032210–1
	Vanadium	1.27	+/–5	J	1.0	5.0	LIQ	P	22–MAR–10 08:29	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	24–MAR–10 07:18	032410–2
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	24–MAR–10 07:18	032410–2
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	15–APR–10 22:49	100415–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	15–APR–10 22:49	100415–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	15–APR–10 22:49	100415–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	15–APR–10 22:49	100415–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	15–APR–10 22:49	100415–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	15–APR–10 22:49	100415–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	15–APR–10 22:49	100415–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	15–APR–10 22:49	100415–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	15–APR–10 22:49	100415–3
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	15–APR–10 22:49	100415–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	17–APR–10 02:56	100416–4

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2006

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB02										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 09:10	030210W3–5
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 08:58	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 08:58	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 08:58	032210–1
	Boron	15.69	+/–50	J	15.0	50.0	LIQ	P	22–MAR–10 08:58	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 08:58	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 08:58	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 08:58	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 08:58	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 08:58	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 08:58	032210–1
	Potassium	65.45	+/–150	J	50.0	150	LIQ	P	22–MAR–10 08:58	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 08:58	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 08:58	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 08:58	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 08:58	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 08:58	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	24–MAR–10 07:41	032410–2
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	24–MAR–10 07:41	032410–2
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	15–APR–10 23:03	100415–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	15–APR–10 23:03	100415–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	15–APR–10 23:03	100415–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	15–APR–10 23:03	100415–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	15–APR–10 23:03	100415–3
	Molybdenum	0.117	+/–.5	J	0.1	0.5	LIQ	MS	15–APR–10 23:03	100415–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	15–APR–10 23:03	100415–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	15–APR–10 23:03	100415–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	15–APR–10 23:03	100415–3
	Thallium	0.373	+/–1	J	0.3	1.0	LIQ	MS	15–APR–10 23:03	100415–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	17–APR–10 03:11	100416–4

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2006

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB03										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 09:33	030210W3–5
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 09:55	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 09:55	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 09:55	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 09:55	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 09:55	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 09:55	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 09:55	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 09:55	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 09:55	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 09:55	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 09:55	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 09:55	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 09:55	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 09:55	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 09:55	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 09:55	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	24–MAR–10 08:48	032410–2
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	24–MAR–10 08:48	032410–2
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	15–APR–10 23:44	100415–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	15–APR–10 23:44	100415–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	15–APR–10 23:44	100415–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	15–APR–10 23:44	100415–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	15–APR–10 23:44	100415–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	15–APR–10 23:44	100415–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	15–APR–10 23:44	100415–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	15–APR–10 23:44	100415–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	15–APR–10 23:44	100415–3
	Thallium	0.51	+/–1	J	0.3	1.0	LIQ	MS	15–APR–10 23:44	100415–3
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	17–APR–10 03:29	100416–4

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2006

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB04										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 09:56	030210W3–5
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 11:14	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 11:14	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 11:14	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 11:14	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 11:14	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 11:14	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 11:14	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 11:14	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 11:14	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 11:14	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 11:14	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 11:14	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 11:14	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 11:14	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 11:14	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 11:14	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	24–MAR–10 10:11	032410–2
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	24–MAR–10 10:11	032410–2
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	16–APR–10 00:21	100415–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	16–APR–10 00:21	100415–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	16–APR–10 00:21	100415–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	16–APR–10 00:21	100415–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	16–APR–10 00:21	100415–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	16–APR–10 00:21	100415–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	16–APR–10 00:21	100415–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	16–APR–10 00:21	100415–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	16–APR–10 00:21	100415–3
	Thallium	0.72	+/–1	J	0.3	1.0	LIQ	MS	16–APR–10 00:21	100415–3
CCB05										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 10:19	030210W3–5

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2006

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 12:09	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 12:09	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 12:09	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 12:09	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 12:09	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 12:09	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 12:09	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 12:09	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 12:09	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 12:09	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 12:09	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 12:09	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 12:09	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 12:09	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 12:09	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 12:09	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	24–MAR–10 11:06	032410–2
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	24–MAR–10 11:06	032410–2
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	16–APR–10 01:02	100415–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	16–APR–10 01:02	100415–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	16–APR–10 01:02	100415–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	16–APR–10 01:02	100415–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	16–APR–10 01:02	100415–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	16–APR–10 01:02	100415–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	16–APR–10 01:02	100415–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	16–APR–10 01:02	100415–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	16–APR–10 01:02	100415–3
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	16–APR–10 01:02	100415–3
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 13:11	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 13:11	032210–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2006

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 13:11	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 13:11	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 13:11	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 13:11	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 13:11	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 13:11	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 13:11	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 13:11	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 13:11	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 13:11	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 13:11	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 13:11	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 13:11	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 13:11	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	24–MAR–10 12:17	032410–2
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	24–MAR–10 12:17	032410–2
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	16–APR–10 01:53	100415–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	16–APR–10 01:53	100415–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	16–APR–10 01:53	100415–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	16–APR–10 01:53	100415–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	16–APR–10 01:53	100415–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	16–APR–10 01:53	100415–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	16–APR–10 01:53	100415–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	16–APR–10 01:53	100415–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	16–APR–10 01:53	100415–3
	Thallium	0.365	+/–1	J	0.3	1.0	LIQ	MS	16–APR–10 01:53	100415–3
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 14:14	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 14:14	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 14:14	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 14:14	032210–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2006

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 14:14	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 14:14	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 14:14	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 14:14	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 14:14	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 14:14	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 14:14	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 14:14	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 14:14	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 14:14	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 14:14	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 14:14	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	24–MAR–10 13:27	032410–2
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	24–MAR–10 13:27	032410–2
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	16–APR–10 02:43	100415–3
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	16–APR–10 02:43	100415–3
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	16–APR–10 02:43	100415–3
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	16–APR–10 02:43	100415–3
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	16–APR–10 02:43	100415–3
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	16–APR–10 02:43	100415–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	16–APR–10 02:43	100415–3
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	16–APR–10 02:43	100415–3
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	16–APR–10 02:43	100415–3
	Thallium	0.564	+/–1	J	0.3	1.0	LIQ	MS	16–APR–10 02:43	100415–3
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 15:10	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 15:10	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 15:10	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 15:10	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 15:10	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 15:10	032210–1

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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2006

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 15:10	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 15:10	032210–1
	Magnesium	95.25	+/–300	J	85.0	300	LIQ	P	22–MAR–10 15:10	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 15:10	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 15:10	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 15:10	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 15:10	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 15:10	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 15:10	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 15:10	032210–1
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 16:12	032210–I
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 16:12	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 16:12	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 16:12	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 16:12	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 16:12	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 16:12	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 16:12	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 16:12	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 16:12	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 16:12	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 16:12	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 16:12	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 16:12	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 16:12	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 16:12	032210–1
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 17:22	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 17:22	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 17:22	032210–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2006

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 17:22	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 17:22	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 17:22	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 17:22	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 17:22	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 17:22	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 17:22	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 17:22	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 17:22	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 17:22	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 17:22	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 17:22	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 17:22	032210–1
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 18:46	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 18:46	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 18:46	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 18:46	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 18:46	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 18:46	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 18:46	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 18:46	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 18:46	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 18:46	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 18:46	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 18:46	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 18:46	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 18:46	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 18:46	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 18:46	032210–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2006

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB12										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 19:50	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 19:50	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 19:50	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 19:50	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 19:50	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 19:50	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 19:50	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 19:50	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 19:50	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 19:50	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 19:50	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 19:50	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 19:50	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 19:50	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 19:50	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 19:50	032210–1
CCB13										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 20:53	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 20:53	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 20:53	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 20:53	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 20:53	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 20:53	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 20:53	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 20:53	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 20:53	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 20:53	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 20:53	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 20:53	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 20:53	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 20:53	032210–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2006

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 20:53	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 20:53	032210–1
CCB14										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 21:57	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 21:57	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 21:57	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 21:57	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 21:57	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 21:57	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 21:57	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 21:57	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 21:57	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 21:57	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 21:57	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 21:57	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 21:57	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 21:57	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 21:57	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 21:57	032210–1
CCB15										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	22–MAR–10 23:01	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 23:01	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 23:01	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	22–MAR–10 23:01	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	22–MAR–10 23:01	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 23:01	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	22–MAR–10 23:01	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	22–MAR–10 23:01	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	22–MAR–10 23:01	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	22–MAR–10 23:01	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	22–MAR–10 23:01	032210–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2006

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	22–MAR–10 23:01	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	22–MAR–10 23:01	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 23:01	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	22–MAR–10 23:01	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	22–MAR–10 23:01	032210–1
CCB16										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	23–MAR–10 00:12	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 00:12	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 00:12	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	23–MAR–10 00:12	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	23–MAR–10 00:12	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 00:12	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	23–MAR–10 00:12	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	23–MAR–10 00:12	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	23–MAR–10 00:12	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	23–MAR–10 00:12	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	23–MAR–10 00:12	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	23–MAR–10 00:12	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	23–MAR–10 00:12	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 00:12	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	23–MAR–10 00:12	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 00:12	032210–1
CCB17										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	23–MAR–10 01:22	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 01:22	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 01:22	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	23–MAR–10 01:22	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	23–MAR–10 01:22	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 01:22	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	23–MAR–10 01:22	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	23–MAR–10 01:22	032210–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2006

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	23–MAR–10 01:22	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	23–MAR–10 01:22	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	23–MAR–10 01:22	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	23–MAR–10 01:22	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	23–MAR–10 01:22	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 01:22	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	23–MAR–10 01:22	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 01:22	032210–1
CCB18										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	23–MAR–10 02:32	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 02:32	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 02:32	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	23–MAR–10 02:32	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	23–MAR–10 02:32	032210–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 02:32	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	23–MAR–10 02:32	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	23–MAR–10 02:32	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	23–MAR–10 02:32	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	23–MAR–10 02:32	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	23–MAR–10 02:32	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	23–MAR–10 02:32	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	23–MAR–10 02:32	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 02:32	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	23–MAR–10 02:32	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 02:32	032210–1
CCB19										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	23–MAR–10 03:50	032210–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 03:50	032210–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 03:50	032210–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	23–MAR–10 03:50	032210–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	23–MAR–10 03:50	032210–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2006

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 03:50	032210–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	23–MAR–10 03:50	032210–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	23–MAR–10 03:50	032210–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	23–MAR–10 03:50	032210–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	23–MAR–10 03:50	032210–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	23–MAR–10 03:50	032210–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	23–MAR–10 03:50	032210–1
	Sodium	100	+/–300	U	100	300	LIQ	P	23–MAR–10 03:50	032210–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 03:50	032210–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	23–MAR–10 03:50	032210–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	23–MAR–10 03:50	032210–1

METALS
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PREPARATION BLANK SUMMARY

SDG NO. 10–2006

Contract: ESHL01000

Matrix: GROUND WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202053148								
	Aluminum	68	ug/L	+/–200	U	P	68	200
	Barium	1	ug/L	+/–5	U	P	1	5
	Beryllium	1	ug/L	+/–5	U	P	1	5
	Calcium	50	ug/L	+/–200	U	P	50	200
	Iron	30	ug/L	+/–100	U	P	30	100
	Copper	3	ug/L	+/–10	U	P	3	10
	Cobalt	1	ug/L	+/–5	U	P	1	5
	Boron	15	ug/L	+/–50	U	P	15	50
	Magnesium	85	ug/L	+/–300	U	P	85	300
	Zinc	3.3	ug/L	+/–10	U	P	3.3	10
	Vanadium	1	ug/L	+/–5	U	P	1	5
	Tin	2.5	ug/L	+/–10	U	P	2.5	10
	Strontium	1	ug/L	+/–5	U	P	1	5
	Sodium	100	ug/L	+/–300	U	P	100	300
	Silica	0.053	mg/L	+/–0.213	U	P	0.053	0.213
	Potassium	50	ug/L	+/–150	U	P	50	150
	Manganese	2	ug/L	+/–10	U	P	2	10
1202053155								
	Molybdenum	0.1	ug/L	+/–0.5	U	MS	0.1	0.5
	Nickel	0.5	ug/L	+/–2	U	MS	0.5	2
	Selenium	1	ug/L	+/–5	U	MS	1	5
	Silver	0.2	ug/L	+/–1	U	MS	0.2	1
	Arsenic	1.5	ug/L	+/–5	U	MS	1.5	5
	Chromium	2.5	ug/L	+/–10	U	MS	2.5	10
	Lead	0.5	ug/L	+/–2	U	MS	0.5	2
	Cadmium	0.11	ug/L	+/–1	U	MS	0.11	1
	Antimony	0.5	ug/L	+/–3	U	MS	0.5	3
	Thallium	0.3	ug/L	+/–1	U	MS	0.3	1
	Uranium	0.05	ug/L	+/–0.2	U	MS	0.05	0.2
1202055833								
	Mercury	0.066	ug/L	+/–0.2	U	AV	0.066	0.2

METALS
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Interference Check Sample

SDG No: 10–2006

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	506000	ug/L	500000	ug/L	101	80.0 – 120.0	22–MAR–10 07:55	032210–1
	Barium	0.517	ug/L					22–MAR–10 07:55	032210–1
	Beryllium	–0.385	ug/L					22–MAR–10 07:55	032210–1
	Boron	–1.71	ug/L					22–MAR–10 07:55	032210–1
	Calcium	470000	ug/L	500000	ug/L	94	80.0 – 120.0	22–MAR–10 07:55	032210–1
	Cobalt	–1.17	ug/L					22–MAR–10 07:55	032210–1
	Copper	3.07	ug/L					22–MAR–10 07:55	032210–1
	Iron	185000	ug/L	200000	ug/L	92.6	80.0 – 120.0	22–MAR–10 07:55	032210–1
	Magnesium	487000	ug/L	500000	ug/L	97.4	80.0 – 120.0	22–MAR–10 07:55	032210–1
	Manganese	–1.99	ug/L					22–MAR–10 07:55	032210–1
	Potassium	–178.0	ug/L					22–MAR–10 07:55	032210–1
	Silica	–0.41	ug/L					22–MAR–10 07:55	032210–1
	Sodium	11.1	ug/L					22–MAR–10 07:55	032210–1
	Strontium	0.235	ug/L					22–MAR–10 07:55	032210–1
	Tin	–12.0	ug/L					22–MAR–10 07:55	032210–1
	Vanadium	–1.08	ug/L					22–MAR–10 07:55	032210–1
ICSAB01									
	Aluminum	522000	ug/L	500000	ug/L	104	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Barium	492	ug/L	500	ug/L	98.5	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Beryllium	247	ug/L	250	ug/L	98.6	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Boron	520	ug/L	500	ug/L	104	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Calcium	483000	ug/L	500000	ug/L	96.7	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Cobalt	444	ug/L	500	ug/L	88.8	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Copper	556	ug/L	500	ug/L	111	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Iron	188000	ug/L	200000	ug/L	94	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Magnesium	493000	ug/L	500000	ug/L	98.6	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Manganese	476	ug/L	500	ug/L	95.2	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Potassium	5410	ug/L	5000	ug/L	108	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Silica	11000	ug/L	10700	ug/L	103	80.0 – 120.0	22–MAR–10 08:01	032210–1

METALS
–4–
Interference Check Sample

SDG No: 10–2006

Contract: ESHL01000 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Sodium	5660	ug/L	5000	ug/L	113	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Strontium	518	ug/L	500	ug/L	104	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Tin	480	ug/L	500	ug/L	95.9	80.0 – 120.0	22–MAR–10 08:01	032210–1
	Vanadium	512	ug/L	500	ug/L	102	80.0 – 120.0	22–MAR–10 08:01	032210–1

METALS
–4–
Interference Check Sample

SDG No: 10–2006

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA3

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Tin	–6.45	ug/L					24–MAR–10 06:45	032410–2
	Zinc	0.176	ug/L					24–MAR–10 06:45	032410–2
ICSAB01									
	Tin	472	ug/L	500	ug/L	94.5	80.0 – 120.0	24–MAR–10 06:51	032410–2
	Zinc	480	ug/L	500	ug/L	96	80.0 – 120.0	24–MAR–10 06:51	032410–2

METALS
–4–
Interference Check Sample

SDG No: 10–2006

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.138	ug/L					15–APR–10 22:35	100415–3
	Arsenic	0.082	ug/L					15–APR–10 22:35	100415–3
	Cadmium	0.423	ug/L					15–APR–10 22:35	100415–3
	Chromium	2.36	ug/L					15–APR–10 22:35	100415–3
	Lead	0.201	ug/L					15–APR–10 22:35	100415–3
	Molybdenum	1960	ug/L	2000	ug/L	98.1	80.0 – 120.0	15–APR–10 22:35	100415–3
	Nickel	2.87	ug/L					15–APR–10 22:35	100415–3
	Selenium	–1.5	ug/L					15–APR–10 22:35	100415–3
	Silver	0.116	ug/L					15–APR–10 22:35	100415–3
	Thallium	–0.004	ug/L					15–APR–10 22:35	100415–3
ICSAB01									
	Antimony	20.3	ug/L	20	ug/L	102	80.0 – 120.0	15–APR–10 22:40	100415–3
	Arsenic	19.6	ug/L	20	ug/L	97.9	80.0 – 120.0	15–APR–10 22:40	100415–3
	Cadmium	18.8	ug/L	20.44	ug/L	92	80.0 – 120.0	15–APR–10 22:40	100415–3
	Chromium	21.6	ug/L	23.3	ug/L	92.8	80.0 – 120.0	15–APR–10 22:40	100415–3
	Lead	19.2	ug/L	20.19	ug/L	95.3	80.0 – 120.0	15–APR–10 22:40	100415–3
	Molybdenum	2020	ug/L	2000	ug/L	101	80.0 – 120.0	15–APR–10 22:40	100415–3
	Nickel	20.6	ug/L	23.31	ug/L	88.2	80.0 – 120.0	15–APR–10 22:40	100415–3
	Selenium	17.5	ug/L	20	ug/L	87.5	80.0 – 120.0	15–APR–10 22:40	100415–3
	Silver	18.8	ug/L	20	ug/L	94.2	80.0 – 120.0	15–APR–10 22:40	100415–3
	Thallium	18.4	ug/L	20	ug/L	92.1	80.0 – 120.0	15–APR–10 22:40	100415–3

METALS
–4–
Interference Check Sample

SDG No: 10–2006

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS5

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	–0.014	ug/L					17–APR–10 02:51	100416–4
ICSAB01									
	Uranium	22.7	ug/L	20	ug/L	114	80.0 – 120.0	17–APR–10 02:52	100416–4

METALS
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Matrix Spike Summary

SDG NO. 10–2006 **Client ID** CAPA–10–13497S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 247829001 **Spike ID:** 1202053151

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75–125	5110		283		5000	96.5		P
Barium	ug/L	75–125	520		24.2		500	99.1		P
Beryllium	ug/L	75–125	498		1	U	500	99.6		P
Boron	ug/L	75–125	499		15	U	500	96.9		P
Calcium	ug/L	75–125	15200		11000		5000	84.6		P
Cobalt	ug/L	75–125	487		1	U	500	97.2		P
Copper	ug/L	75–125	503		3	U	500	101		P
Iron	ug/L	75–125	5010		271		5000	94.7		P
Magnesium	ug/L	75–125	7930		3150		5000	95.6		P
Manganese	ug/L	75–125	499		12.2		500	97.3		P
Potassium	ug/L	75–125	6550		1740		5000	96.2		P
Silica	mg/L		82.7		72.3		10.7	97.4	N/A	P
Sodium	ug/L	75–125	17900		14000		5000	77.5		P
Strontium	ug/L	75–125	508		52.5		500	91.1		P
Tin	ug/L	75–125	458		12.5	U	500	91.5		P
Vanadium	ug/L	75–125	507		6.53		500	100		P
Zinc	ug/L	75–125	466		3.93	J	500	92.5		P

METALS
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Matrix Spike Summary

SDG NO. 10–2006 **Client ID** CAPA–10–13497S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 247829001 **Spike ID:** 1202053158

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75–125	191		0.5	U	200	95.6		MS
Arsenic	ug/L	75–125	74.4		1.5	U	80	93		MS
Cadmium	ug/L	75–125	9.83		0.11	U	10	98.3		MS
Chromium	ug/L	75–125	47.1		3.25	J	50	87.7		MS
Lead	ug/L	75–125	38.6		0.5	U	40	96.2		MS
Molybdenum	ug/L	75–125	47.2		1.03		50	92.3		MS
Nickel	ug/L	75–125	44.4		0.554	J	50	87.6		MS
Selenium	ug/L	75–125	18.6		1	U	20	92.8		MS
Silver	ug/L	75–125	48.3		0.2	U	50	96.6		MS
Thallium	ug/L	75–125	82.7		0.3	U	100	82.6		MS
Uranium	ug/L	75–125	52.2		0.551		50	103		MS

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2006 **Client ID** CAPA–10–13094S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 247817001 **Spike ID:** 1202055836

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75–125	2.16		0.066	U	2	106		AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2006

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAPA–10–13497D

Sample ID: 247829001 **Duplicate ID:** 1202053150 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	+/–200	283		530		60.7	*	P
Barium	ug/L	+/–5	24.2		24.2		.00413		P
Beryllium	ug/L		1	U	1	U			P
Boron	ug/L		15	U	15	U			P
Calcium	ug/L	+/–20%	11000		11100		1.04		P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L	+/–100	271		258		5.05		P
Magnesium	ug/L	+/–20%	3150		3160		.314		P
Manganese	ug/L	+/–10	12.2		12.4		1.2		P
Potassium	ug/L	+/–20%	1740		1770		1.62		P
Silica	mg/L	+/–20%	72.3		72.9		.835		P
Sodium	ug/L	+/–20%	14000		14100		.264		P
Strontium	ug/L	+/–20%	52.5		52.9		.781		P
Tin	ug/L		12.5	U	12.5	U			P
Vanadium	ug/L	+/–5	6.53		6.24		4.53		P
Zinc	ug/L	+/–10	3.93	J	6.43	J	48.2		P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2006

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAPA–10–13497D

Sample ID: 247829001 **Duplicate ID:** 1202053157 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		0.5	U	0.5	U			MS
Arsenic	ug/L		1.5	U	1.5	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Chromium	ug/L	+/–10	3.25	J	3.45	J	5.76		MS
Lead	ug/L		0.5	U	0.5	U			MS
Molybdenum	ug/L	+/–.5	1.03		1.08		4.82		MS
Nickel	ug/L	+/–2	0.554	J	0.518	J	6.72		MS
Selenium	ug/L		1	U	1	U			MS
Silver	ug/L		0.2	U	0.2	U			MS
Thallium	ug/L		0.3	U	0.3	U			MS
Uranium	ug/L	+/–.2	0.551		0.545		1.09		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2006

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAPA–10–13094D

Sample ID: 247817001 **Duplicate ID:** 1202055835 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-2006

Contract: ESHL01000

Aqueous LCS Source:OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202053149								
	Zinc	ug/L	500	464		92.8	80-120	P
	Vanadium	ug/L	500	494		98.9	80-120	P
	Aluminum	ug/L	5000	4760		95.1	80-120	P
	Barium	ug/L	500	492		98.3	80-120	P
	Beryllium	ug/L	500	492		98.4	80-120	P
	Boron	ug/L	500	478		95.6	80-120	P
	Calcium	ug/L	5000	4780		95.6	80-120	P
	Cobalt	ug/L	500	482		96.3	80-120	P
	Copper	ug/L	500	488		97.5	80-120	P
	Iron	ug/L	5000	4750		95	80-120	P
	Magnesium	ug/L	5000	4960		99.3	80-120	P
	Manganese	ug/L	500	486		97.2	80-120	P
	Potassium	ug/L	5000	4960		99.3	80-120	P
	Silica	mg/L	10.7	10.1		94.3	80-120	P
	Sodium	ug/L	5000	4670		93.4	80-120	P
	Strontium	ug/L	500	470		94	80-120	P
	Tin	ug/L	500	489		97.8	80-120	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2006

Contract: ESHL01000

Aqueous LCS Source:O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202053156								
	Antimony	ug/L	50	50.8		102	80–120	MS
	Arsenic	ug/L	50	47.1		94.3	80–120	MS
	Cadmium	ug/L	50	48.2		96.3	80–120	MS
	Chromium	ug/L	50	48.4		96.7	80–120	MS
	Lead	ug/L	50	49.2		98.3	80–120	MS
	Molybdenum	ug/L	50	48.3		96.6	80–120	MS
	Nickel	ug/L	50	48		95.9	80–120	MS
	Selenium	ug/L	50	47		94	80–120	MS
	Silver	ug/L	50	49.3		98.7	80–120	MS
	Thallium	ug/L	50	43.7		87.4	80–120	MS
	Uranium	ug/L	50	53.3		107	80–120	MS

METALS
-7-
Laboratory Control Sample Summary

SDG NO. 10-2006

Contract: ESHL01000

Aqueous LCS Source:GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202055834								
	Mercury	ug/L	2	2.18		109	85-115	AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2006 **Client ID** CAPA-10-13497L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 247829001 **Serial Dilution ID:** 1202053152

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	283		340	U	100			P
Barium	24.2		25.3		4.55			P
Beryllium	1	U	5	U				P
Boron	15	U	75	U				P
Calcium	11000		10800		2.27		10	P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	271		251	J	7.56			P
Magnesium	3150		3160		.317			P
Manganese	12.2		12.1	J	.82			P
Potassium	1740		1790		2.87			P
Silica	72300		73500		1.66		10	P
Sodium	14000		13300		5		10	P
Strontium	52.5		50		4.76		10	P
Tin	2.5	U	12.5	U				P
Vanadium	6.53		6.1	J	6.58			P
Zinc	3.93	J	16.5	U	100			P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2006 **Client ID** CAPA–10–13497L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 247829001 **Serial Dilution ID:** 1202053159

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	.5	U	2.5	U				MS
Arsenic	1.5	U	7.5	U				MS
Cadmium	.11	U	.55	U				MS
Chromium	3.25	J	12.5	U	100			MS
Lead	.5	U	2.5	U				MS
Molybdenum	1.03		1.02	J	.971			MS
Nickel	.554	J	2.5	U	100			MS
Selenium	1	U	5	U				MS
Silver	.2	U	1	U				MS
Thallium	.3	U	5.3					MS
Uranium	.551		.535	J	2.9			MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2006 **Client ID** CAPA-10-13094L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 247817001 **Serial Dilution ID:** 1202055837

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2006 **Method Type:** P

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	957526						
1202053148	MB for batch 957526	MB	G	01–MAR–10	50mL	50mL	
1202053149	LCS for batch 957526	LCS	G	01–MAR–10	50mL	50mL	
1202053151	CAPA–10–13497S	MS	G	01–MAR–10	50mL	50mL	
1202053150	CAPA–10–13497D	DUP	G	01–MAR–10	50mL	50mL	
247829001	CAPA–10–13497	SAMPLE	G	01–MAR–10	50mL	50mL	
247829002	CAPA–10–13498	SAMPLE	G	01–MAR–10	50mL	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2006 **Method Type:** MS

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	957528						
1202053155	MB for batch 957528	MB	G	02–MAR–10	50mL	50mL	
1202053156	LCS for batch 957528	LCS	G	02–MAR–10	50mL	50mL	
1202053158	CAPA–10–13497S	MS	G	02–MAR–10	50mL	50mL	
1202053157	CAPA–10–13497D	DUP	G	02–MAR–10	50mL	50mL	
247829001	CAPA–10–13497	SAMPLE	G	02–MAR–10	50mL	50mL	
247829002	CAPA–10–13498	SAMPLE	G	02–MAR–10	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2006 **Method Type:** AV

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	958580						
1202055833	MB for batch 958580	MB	G	01-MAR-10	20mL	20mL	
1202055834	LCS for batch 958580	LCS	G	01-MAR-10	20mL	20mL	
1202055836	CAPA-10-13094S	MS	G	01-MAR-10	20mL	20mL	
1202055835	CAPA-10-13094D	DUP	G	01-MAR-10	20mL	20mL	
247829001	CAPA-10-13497	SAMPLE	G	01-MAR-10	20mL	20mL	
247829002	CAPA-10-13498	SAMPLE	G	01-MAR-10	20mL	20mL	

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 15–APR–10 **End Date:** 16–APR–10

Client Sdg: 10–2006
Method MS
Data File: 100415–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	22:07:00		X	X				X		X					X				X	X		X		X			X				
S10	1	22:12:00		X	X				X		X					X				X	X		X		X			X				
S100	1	22:17:00		X	X				X		X					X				X	X		X		X			X				
ICV01	1	22:21:00		X	X				X		X					X				X	X		X		X			X				
ICB01	1	22:26:00		X	X				X		X					X				X	X		X		X			X				
CRDL01	1	22:30:00		X	X				X		X					X				X	X		X		X			X				
ICSA01	1	22:35:00		X	X				X		X					X				X	X		X		X			X				
ICSAB01	1	22:40:00		X	X				X		X					X				X	X		X		X			X				
CCV01	1	22:44:00		X	X				X		X					X				X	X		X		X			X				
CCB01	1	22:49:00		X	X				X		X					X				X	X		X		X			X				
LR01	1	22:53:00		X	X				X		X					X				X	X		X		X			X				
CCV02	1	22:58:00		X	X				X		X					X				X	X		X		X			X				
CCB02	1	23:03:00		X	X				X		X					X				X	X		X		X			X				
ZZZZZZ	1	23:07:00																														
ZZZZZZ	1	23:12:00																														
ZZZZZZ	1	23:16:00																														
ZZZZZZ	1	23:21:00																														
ZZZZZZ	1	23:25:00																														
ZZZZZZ	5	23:30:00																														
ZZZZZZ	1	23:35:00																														
CCV03	1	23:39:00		X	X				X		X					X				X	X		X		X			X				
CCB03	1	23:44:00		X	X				X		X					X				X	X		X		X			X				
ZZZZZZ	1	23:48:00																														
ZZZZZZ	1	23:53:00																														
ZZZZZZ	1	23:58:00																														
ZZZZZZ	1	00:02:00																														
ZZZZZZ	1	00:07:00																														
ZZZZZZ	5	00:11:00																														
CCV04	1	00:16:00		X	X				X		X					X				X	X		X		X			X				
CCB04	1	00:21:00		X	X				X		X					X				X	X		X		X			X				
ZZZZZZ	1	00:25:00																														
ZZZZZZ	1	00:30:00																														
ZZZZZZ	1	00:34:00																														
ZZZZZZ	1	00:39:00																														
ZZZZZZ	1	00:44:00																														
ZZZZZZ	5	00:48:00																														
ZZZZZZ	1	00:53:00																														
CCV05	1	00:57:00		X	X				X		X					X				X	X		X		X			X				
CCB05	1	01:02:00		X	X				X		X					X				X	X		X		X			X				
ZZZZZZ	1	01:07:00																														

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																													
ZZZZZZ	1	01:11:00																													
ZZZZZZ	1	01:16:00																													
ZZZZZZ	1	01:20:00																													
ZZZZZZ	1	01:25:00																													
ZZZZZZ	5	01:30:00																													
ZZZZZZ	1	01:34:00																													
ZZZZZZ	1	01:39:00																													
ZZZZZZ	1	01:43:00																													
CCV06	1	01:48:00		X	X				X		X					X				X	X		X		X			X				
CCB06	1	01:53:00		X	X				X		X					X				X	X		X		X			X				
1202053155	1	01:57:00		X	X				X		X					X				X	X		X		X			X				
1202053156	1	02:02:00		X	X				X		X					X				X	X		X		X			X				
ZZZZZZ	1	02:06:00																													
ZZZZZZ	1	02:11:00																													
247829001	1	02:16:00		X	X				X		X					X				X	X		X		X			X				
1202053157	1	02:20:00		X	X				X		X					X				X	X		X		X			X				
1202053158	1	02:25:00		X	X				X		X					X				X	X		X		X			X				
1202053159	5	02:29:00		X	X				X		X					X				X	X		X		X			X				
247829002	1	02:34:00		X	X				X		X					X				X	X		X		X			X				
CCV07	1	02:39:00		X	X				X		X					X				X	X		X		X			X				
CCB07	1	02:43:00		X	X				X		X					X				X	X		X		X			X				

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: ICPMS5
Start Date: 17–APR–10 **End Date:** 17–APR–10

Client Sdg: 10–2006
Method MS
Data File: 100416–4

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	02:41:00																												X		
S10	1	02:42:00																												X		
S100	1	02:44:00																												X		
ICV01	1	02:46:00																												X		
ICB01	1	02:47:00																												X		
CRDL01	1	02:49:00																												X		
ICSA01	1	02:51:00																												X		
ICSAB01	1	02:52:00																												X		
CCV01	1	02:54:00																												X		
CCB01	1	02:56:00																												X		
ZZZZZZ	1	02:57:00																														
ZZZZZZ	1	02:59:00																														
ZZZZZZ	1	03:01:00																														
ZZZZZZ	1	03:02:00																														
ZZZZZZ	1	03:04:00																														
ZZZZZZ	5	03:06:00																														
ZZZZZZ	1	03:07:00																														
CCV02	1	03:09:00																												X		
CCB02	1	03:11:00																												X		
1202053155	1	03:12:00																												X		
1202053156	1	03:14:00																												X		
ZZZZZZ	1	03:16:00																														
ZZZZZZ	1	03:17:00																														
247829001	1	03:19:00																												X		
1202053157	1	03:21:00																												X		
1202053158	1	03:23:00																												X		
1202053159	5	03:24:00																												X		
247829002	1	03:26:00																												X		
CCV03	1	03:28:00																												X		
CCB03	1	03:29:00																												X		

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 22–MAR–10 **End Date:** 23–MAR–10

Client Sdg: 10–2006
Method P
Data File: 032210–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	07:00:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
S0.1	1	07:08:00				X	X	X				X	X					X				X		X			X		X		X	
S0.5	1	07:14:00	X			X	X	X		X		X	X				X	X				X		X			X		X		X	
SCAL	1	07:21:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
S10	1	07:28:00	X							X					X		X									X						
ICV01	1	07:34:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ICB01	1	07:40:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
PQL01	1	07:48:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ICSA01	1	07:55:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ICSAB01	1	08:01:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
LR01	1	08:08:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
LR02	1	08:15:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCV01	1	08:22:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB01	1	08:29:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
LR03	1	08:44:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCV02	1	08:51:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB02	1	08:58:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	09:06:00																														
ZZZZZZ	1	09:13:00																														
ZZZZZZ	1	09:20:00																														
ZZZZZZ	1	09:27:00																														
ZZZZZZ	1	09:34:00																														
ZZZZZZ	5	09:41:00																														
CCV03	1	09:48:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB03	1	09:55:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	10:03:00																														
ZZZZZZ	1	10:10:00																														
ZZZZZZ	1	10:17:00																														
ZZZZZZ	1	10:24:00																														
ZZZZZZ	1	10:31:00																														
ZZZZZZ	1	10:38:00																														
ZZZZZZ	1	10:45:00																														
ZZZZZZ	1	10:53:00																														
ZZZZZZ	1	11:00:00																														
CCV04	1	11:07:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB04	1	11:14:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	20	11:21:00																														
ZZZZZZ	20	11:28:00																														
ZZZZZZ	20	11:35:00																														
ZZZZZZ	20	11:42:00																														

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																														
ZZZZZZ	100	11:49:00																														
ZZZZZZ	20	11:56:00																														
CCV05	1	12:02:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB05	1	12:09:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	12:22:00																														
ZZZZZZ	1	12:29:00																														
ZZZZZZ	1	12:36:00																														
ZZZZZZ	1	12:43:00																														
ZZZZZZ	1	12:50:00																														
ZZZZZZ	5	12:57:00																														
CCV06	1	13:04:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB06	1	13:11:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	13:18:00																														
ZZZZZZ	1	13:25:00																														
ZZZZZZ	1	13:32:00																														
ZZZZZZ	1	13:39:00																														
ZZZZZZ	1	13:46:00																														
ZZZZZZ	1	13:53:00																														
ZZZZZZ	1	14:00:00																														
CCV07	1	14:07:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB07	1	14:14:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	14:21:00																														
ZZZZZZ	1	14:28:00																														
ZZZZZZ	1	14:35:00																														
ZZZZZZ	1	14:42:00																														
ZZZZZZ	1	14:49:00																														
ZZZZZZ	5	14:56:00																														
CCV08	1	15:03:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB08	1	15:10:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	15:15:00																														
ZZZZZZ	1	15:23:00																														
ZZZZZZ	1	15:30:00																														
ZZZZZZ	1	15:37:00																														
ZZZZZZ	1	15:44:00																														
ZZZZZZ	1	15:51:00																														
ZZZZZZ	5	15:58:00																														
CCV09	1	16:05:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB09	1	16:12:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	16:19:00																														
ZZZZZZ	1	16:26:00																														

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
ZZZZZZ	1	16:33:00																														
ZZZZZZ	1	16:40:00																														
ZZZZZZ	1	16:47:00																														
ZZZZZZ	1	16:54:00																														
ZZZZZZ	1	17:01:00																														
ZZZZZZ	1	17:08:00																														
CCV10	1	17:15:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB10	1	17:22:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	17:30:00																														
ZZZZZZ	1	17:37:00																														
ZZZZZZ	1	17:44:00																														
ZZZZZZ	1	17:51:00																														
ZZZZZZ	1	17:57:00																														
ZZZZZZ	1	18:04:00																														
ZZZZZZ	1	18:11:00																														
ZZZZZZ	1	18:18:00																														
ZZZZZZ	5	18:25:00																														
ZZZZZZ	1	18:32:00																														
CCV11	1	18:39:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB11	1	18:46:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	18:54:00																														
ZZZZZZ	1	19:01:00																														
ZZZZZZ	1	19:08:00																														
ZZZZZZ	1	19:15:00																														
ZZZZZZ	1	19:22:00																														
ZZZZZZ	1	19:29:00																														
ZZZZZZ	5	19:36:00																														
CCV12	1	19:43:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB12	1	19:50:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	19:57:00																														
ZZZZZZ	1	20:04:00																														
ZZZZZZ	1	20:11:00																														
ZZZZZZ	1	20:18:00																														
ZZZZZZ	1	20:25:00																														
ZZZZZZ	1	20:32:00																														
ZZZZZZ	1	20:39:00																														
CCV13	1	20:46:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB13	1	20:53:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	21:01:00																														
ZZZZZZ	1	21:08:00																														

Metals
-14-
Analysis Run Log

Samp No.	D/F	Run Time																														
ZZZZZZ	1	21:15:00																														
ZZZZZZ	1	21:22:00																														
ZZZZZZ	1	21:29:00																														
ZZZZZZ	1	21:36:00																														
ZZZZZZ	1	21:43:00																														
CCV14	1	21:50:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB14	1	21:57:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	22:05:00																														
ZZZZZZ	1	22:12:00																														
ZZZZZZ	1	22:19:00																														
ZZZZZZ	1	22:26:00																														
ZZZZZZ	1	22:33:00																														
ZZZZZZ	1	22:40:00																														
ZZZZZZ	5	22:47:00																														
CCV15	1	22:54:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB15	1	23:01:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	23:08:00																														
ZZZZZZ	1	23:15:00																														
ZZZZZZ	1	23:22:00																														
ZZZZZZ	1	23:29:00																														
ZZZZZZ	1	23:36:00																														
ZZZZZZ	1	23:43:00																														
ZZZZZZ	1	23:50:00																														
ZZZZZZ	1	23:57:00																														
CCV16	1	00:04:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB16	1	00:12:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	00:19:00																														
ZZZZZZ	1	00:26:00																														
ZZZZZZ	1	00:33:00																														
ZZZZZZ	1	00:40:00																														
ZZZZZZ	1	00:47:00																														
ZZZZZZ	1	00:54:00																														
ZZZZZZ	5	01:01:00																														
ZZZZZZ	1	01:08:00																														
CCV17	1	01:15:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB17	1	01:22:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	01:28:00																														
ZZZZZZ	1	01:35:00																														
ZZZZZZ	1	01:42:00																														
ZZZZZZ	1	01:50:00																														

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
ZZZZZZ	1	01:57:00																														
ZZZZZZ	1	02:04:00																														
ZZZZZZ	1	02:11:00																														
ZZZZZZ	1	02:18:00																														
CCV18	1	02:25:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB18	1	02:32:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
1202053148	1	02:39:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
1202053149	1	02:46:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
ZZZZZZ	1	02:53:00																														
ZZZZZZ	1	03:00:00																														
247829001	1	03:07:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X				X	
1202053150	1	03:15:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X				X	
1202053151	1	03:22:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X				X	
1202053152	5	03:29:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X				X	
247829002	1	03:36:00	X			X	X	X		X		X	X		X		X	X				X				X	X				X	
CCV19	1	03:43:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	
CCB19	1	03:50:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	

Metals
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Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: OPTIMA3
Start Date: 24–MAR–10 **End Date:** 24–MAR–10

Client Sdg: 10–2006
Method P
Data File: 032410–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	05:49:00																											X			X
S0.1	1	05:57:00																											X			X
S0.5	1	06:03:00																											X			X
SCAL	1	06:10:00																											X			X
S10	1	06:17:00																														
ICV01	1	06:23:00																											X			X
ICB01	1	06:30:00																											X			X
PQL01	1	06:38:00																											X			X
ICSA01	1	06:45:00																											X			X
ICSAB01	1	06:51:00																											X			X
LR01	1	06:58:00																											X			X
LR02	1	07:05:00																											X			X
CCV01	1	07:11:00																											X			X
CCB01	1	07:18:00																											X			X
LR03	1	07:27:00																											X			X
CCV02	1	07:34:00																											X			X
CCB02	1	07:41:00																											X			X
ZZZZZZ	1	07:48:00																														
ZZZZZZ	1	07:56:00																														
ZZZZZZ	1	08:03:00																														
ZZZZZZ	1	08:10:00																														
ZZZZZZ	1	08:18:00																														
ZZZZZZ	1	08:26:00																														
ZZZZZZ	1	08:33:00																														
CCV03	1	08:41:00																											X			X
CCB03	1	08:48:00																											X			X
ZZZZZZ	1	09:08:00																														
ZZZZZZ	1	09:15:00																														
ZZZZZZ	1	09:22:00																														
ZZZZZZ	1	09:29:00																														
ZZZZZZ	1	09:36:00																														
ZZZZZZ	5	09:43:00																														
ZZZZZZ	10	09:50:00																														
ZZZZZZ	10	09:57:00																														
CCV04	1	10:04:00																											X			X
CCB04	1	10:11:00																											X			X
ZZZZZZ	20	10:18:00																														
ZZZZZZ	20	10:26:00																														
ZZZZZZ	20	10:33:00																														
ZZZZZZ	100	10:39:00																														

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																														
ZZZZZZ	1	10:46:00																														
ZZZZZZ	1	10:53:00																														
CCV05	1	10:59:00																									X			X		
CCB05	1	11:06:00																									X			X		
1202053148	1	11:13:00																												X		
1202053149	1	11:20:00																												X		
ZZZZZZ	1	11:27:00																														
ZZZZZZ	1	11:34:00																														
247829001	1	11:41:00																												X		
1202053150	1	11:48:00																												X		
1202053151	1	11:55:00																												X		
1202053152	5	12:03:00																												X		
CCV06	1	12:10:00																									X			X		
CCB06	1	12:17:00																									X			X		
247829002	1	12:24:00																												X		
ZZZZZZ	5	12:31:00																														
ZZZZZZ	5	12:38:00																														
247829001	5	12:45:00																									X					
1202053150	5	12:52:00																									X					
1202053151	5	12:59:00																									X					
1202053152	25	13:06:00																									X					
247829002	5	13:13:00																									X					
CCV07	1	13:20:00																									X			X		
CCB07	1	13:27:00																									X			X		

Metals
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Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: HG3
Start Date: 02–MAR–10 **End Date:** 02–MAR–10

Client Sdg: 10–2006
Method AV
Data File: 030210W3–5

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	08:28:00																	X													
S0.2	1	08:30:00																	X													
S0.5	1	08:31:00																	X													
S2.0	1	08:33:00																	X													
S5.0	1	08:35:00																	X													
S10.0	1	08:37:00																	X													
ICV01	1	08:39:00																	X													
ICB01	1	08:41:00																	X													
CRDL01	1	08:43:00																	X													
CCV01	1	08:45:00																	X													
CCB01	1	08:47:00																	X													
ZZZZZZ	1	08:49:00																														
ZZZZZZ	1	08:51:00																														
ZZZZZZ	1	08:53:00																														
ZZZZZZ	1	08:55:00																														
ZZZZZZ	1	08:57:00																														
ZZZZZZ	5	08:58:00																														
ZZZZZZ	1	09:00:00																														
ZZZZZZ	1	09:02:00																														
ZZZZZZ	1	09:04:00																														
ZZZZZZ	1	09:06:00																														
CCV02	1	09:08:00																	X													
CCB02	1	09:10:00																	X													
ZZZZZZ	1	09:12:00																														
ZZZZZZ	1	09:14:00																														
ZZZZZZ	1	09:16:00																														
ZZZZZZ	1	09:18:00																														
ZZZZZZ	1	09:20:00																														
ZZZZZZ	1	09:21:00																														
ZZZZZZ	1	09:23:00																														
ZZZZZZ	1	09:25:00																														
ZZZZZZ	5	09:27:00																														
ZZZZZZ	1	09:29:00																														
CCV03	1	09:31:00																	X													
CCB03	1	09:33:00																	X													
ZZZZZZ	1	09:35:00																														
ZZZZZZ	1	09:37:00																														
ZZZZZZ	1	09:39:00																														
ZZZZZZ	1	09:41:00																														
ZZZZZZ	1	09:43:00																														

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																														
ZZZZZZ	1	09:45:00																														
ZZZZZZ	1	09:47:00																														
ZZZZZZ	1	09:48:00																														
1202055833	1	09:50:00																X														
1202055834	1	09:52:00																X														
CCV04	1	09:54:00																X														
CCB04	1	09:56:00																X														
ZZZZZZ	1	09:58:00																														
1202055835	1	10:00:00																X														
1202055836	1	10:02:00																X														
1202055837	5	10:04:00																X														
ZZZZZZ	1	10:06:00																														
247829001	1	10:08:00																X														
247829002	1	10:10:00																X														
ZZZZZZ	1	10:12:00																														
ZZZZZZ	1	10:13:00																														
ZZZZZZ	1	10:15:00																														
CCV05	1	10:17:00																X														
CCB05	1	10:19:00																X														

Standards

METALS
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Instrument Detection Limits

SDG NO. 10-2006

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01-FEB-09
Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01-MAR-10

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		10.0	30
	Antimony		0.5	3
	Arsenic		1.5	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.11	1
	Calcium		20.0	200
	Chromium		2.5	10
	Cobalt		0.1	1
	Iron		10.0	100
	Lead		0.5	2
	Magnesium		5.0	15
	Manganese		1.0	5
	Molybdenum		0.1	.5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Strontium		2.0	10
	Thallium		0.3	1
	Tin		1.0	5
	Uranium		0.05	.2
	Vanadium		3.0	10
LIQUID	Copper		0.14	1
	Zinc		2.0	10

METALS
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Instrument Detection Limits

SDG NO. 10–2006

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
MERCURY				
LIQUID	Mercury		0.066	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2006

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	15.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Molybdenum	202.031	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silica		53.0	213
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Strontium	421.552	1.0	5
	Thallium	190.801	5.0	20
	Tin	189.927	2.5	10
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
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Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2006
Effective Dates: 01-FEB-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.02697	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.48147	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.21356	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	-0.05186	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.18741	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2006
Effective Dates: 01-FEB-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	2.85580	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.44491	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	-29.9151	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.57616
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.60374	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	198.62
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	4.37985	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.36147	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	2.23785	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.36818	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	1.35273

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2006
Effective Dates: 01-FEB-10

Parmname	Wavelength	Iron	Lead	Magnesium	Manganese	Molybdenum
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	48.4946
Antimony	206.836	-0.02515	0.00000	0.00000	0.00000	-20.5057
Arsenic	188.979	-0.23424	0.00000	0.00000	0.00000	2.41902
Barium	233.527	-0.03042	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.16240	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.10329	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	-0.01944	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.01444	0.00000	0.00000	0.00000	-2.33100
Copper	324.752	-0.05293	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.09554	0.00000	0.00000	0.00000	-2.48774
Magnesium	279.077	1.04597	0.00000	0.00000	0.00000	-10.4683
Manganese	257.61	-0.09877	0.00000	0.04089	0.00000	0.00000
Molybdenum	202.031	-0.07763	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.80543	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.39429	1.18725
Selenium	196.026	-3.27508	0.00000	0.00000	0.00000	-3.07287
Silica	251.611	0.00000	0.00000	0.00000	0.00000	27.2377
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	12.3082
Silver	328.068	-0.32385	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	-4.77918	0.00000
Tin	189.927	-0.01682	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.08168	0.00000	0.00000
Uranium	409.014	0.11400	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.14564	0.00000	-0.01931	0.00000	-14.1293
Zinc	213.857	0.09701	0.00000	0.00000	0.00000	0.00000

METALS
–11–
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10–2006
Effective Dates: 01–FEB–10

Parmname	Wavelength	Nickel	Phosphorous	Potassium	Selenium	Silica
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	–0.84443	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	–0.63547	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	6.37026	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2006
Effective Dates: 01-FEB-10

Parmname	Wavelength	Silicon	Silver	Strontium	Sulfur	Thallium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA3
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2006
Effective Dates: 01-FEB-10

Parmname	Wavelength	Tin	Titanium	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	-15.4932	3.30431	0.00000	-2.81282	0.00000
Arsenic	188.979	0.00000	-8.66313	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-2.20293	0.00000
Beryllium	313.107	0.00000	-2.27027	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	-0.19473	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.39645	-1.41250	0.00000
Cobalt	228.616	0.00000	2.09497	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.55360	0.00000	0.00000
Iron	238.204	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Nickel	231.604	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-9.37529	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silica	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.81635	-4.04400	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-8.29801	0.00000	1.88584	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.43915	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	1.05947	-1.91382	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–2006

Contract: ESHL01000 **Lab Code: GEL**

Instrument ID ICPMS5

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Boron	1000	200	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Molybdenum	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Strontium	1000	1000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Tin	1000	1000	ug/L	01–FEB–10
Uranium	1000	5000	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–2006

Contract: ESHL01000 **Lab Code: GEL**

Instrument ID OPTIMA3

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Boron	20	5000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Molybdenum	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silica	20	107000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Strontium	20	10000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Uranium	20	15000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10
Tin	20	10000	ug/L	01–FEB–10

Raw Data

Calculation Data Logbook

Report run on: April 20, 2010 12:31 PM

Batch Id: 969065 **Sop:** GL-GC-E-107
Employee: Octavia Doster
Instrument: No instrument-calculation method

Samp Id	Sample Type	Parmname	Run Date	Calcium mg/L	Magnesium mg/L	Result	Units
247817001	SAMPLE	Hardness as CaCO3	25-MAR-2010 07:30	10.7	3.02	39.3	mg/L
247817002	SAMPLE	Hardness as CaCO3	25-MAR-2010 07:30	10.5	3.06	38.7	mg/L
247829001	SAMPLE	Hardness as CaCO3	25-MAR-2010 07:30	11.0	3.15	40.4	mg/L
247829002	SAMPLE	Hardness as CaCO3	25-MAR-2010 07:30	10.6	2.98	38.7	mg/L

Calculation: **(2.497 * Calcium) + (4.118 * Magnesium)**

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3/22/2010 06:24:50 Hg ReAlign... Actual peak offset (nm): -0.008
Drift (nm): -0.000 Slit adjustment: -2

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Analysis Begun

Start Time: 3/22/2010 07:00:55 **Plasma On Time: 3/22/2010 06:16:18**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\032210.sif
Batch ID:
Results Data Set: 032210
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 3/19/2010 08:52:02**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 3/22/2010 07:00:56**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

	Net	Corrected	Calib.	Analysis

Repl#	Analyte	Intensity	Intensity	Conc.	Units	Time
1	Sc Radial	4595.5	4595.5	101	%	07:02:49
1	Y RADIAL	4960.0	4960.0	100.9	%	07:02:49
1	Al 396.153Radial†	-79.2	-78.5	[0.00]	ug/L	07:03:09
1	Ca 317.933Radial†	16.9	16.7	[0.00]	ug/L	07:03:09
1	Fe 238.204 Radial†	5.4	5.4	[0.00]	ug/L	07:03:09
1	K 766.490 Radial†	2414.8	2391.9	[0.00]	ug/L	07:02:49
1	Mg 279.077 IEC†	1.8	1.8	[0.00]	ug/L	07:03:09
1	Na 589.592 Radial†	-718.1	-711.3	[0.00]	ug/L	07:02:49
1	Sr 421.552†	58.2	57.7	[0.00]	ug/L	07:02:49
1	Sc 361.383	858218.7	858218.7	101.53	%	07:04:05
1	Y 371.029	723729.9	723729.9	101.51	%	07:04:05
1	Ag 328.068†	165.7	163.2	[0.00]	ug/L	07:04:05
1	As 188.979†	-24.1	-23.8	[0.00]	ug/L	07:04:25
1	B 249.677†	-443.8	-437.2	[0.00]	ug/L	07:04:25
1	Ba 233.527†	13.3	13.1	[0.00]	ug/L	07:04:25
1	Be 313.107†	-4433.5	-4366.8	[0.00]	ug/L	07:04:05
1	Cd 226.502†	-143.5	-141.3	[0.00]	ug/L	07:04:25
1	Co 228.616†	-46.8	-46.0	[0.00]	ug/L	07:04:25
1	Cr 267.716†	70.7	69.6	[0.00]	ug/L	07:04:25
1	Cu 324.752†	5530.0	5446.8	[0.00]	ug/L	07:04:05
1	Mn 257.610†	374.2	368.5	[0.00]	ug/L	07:04:25
1	Mo 202.031†	13.2	13.0	[0.00]	ug/L	07:04:25
1	Ni 231.604†	87.4	86.1	[0.00]	ug/L	07:04:25
1	P 214.914†	201.5	198.5	[0.00]	ug/L	07:04:25
1	Pb 220.353†	-43.7	-43.0	[0.00]	ug/L	07:04:25
1	S 181.975 Axial†	27.4	27.0	[0.00]	ug/L	07:04:25
1	Sb 206.836†	24.7	24.3	[0.00]	ug/L	07:04:25
1	Se 196.026†	-22.1	-21.7	[0.00]	ug/L	07:04:25
1	Si 251.611†	513.0	505.3	[0.00]	ug/L	07:04:25
1	Sn 189.927†	5.9	5.8	[0.00]	ug/L	07:04:25
1	Ti 334.940†	-979.8	-965.1	[0.00]	ug/L	07:04:05
1	Tl 190.801†	-25.4	-25.0	[0.00]	ug/L	07:04:25
1	U 409.014†	-1936.8	-1907.7	[0.00]	ug/L	07:04:05
1	V 292.402†	-1328.4	-1308.4	[0.00]	ug/L	07:04:05
1	Zn 213.857†	610.0	600.8	[0.00]	ug/L	07:04:25
1	SiO2†	535.7	527.6	[0.00]	ug/L	07:05:36
2	Sc Radial	4529.6	4529.6	99.5	%	07:03:14
2	Y RADIAL	4879.7	4879.7	99.24	%	07:03:14
2	Al 396.153Radial†	-61.7	-62.0	[0.00]	ug/L	07:03:34
2	Ca 317.933Radial†	21.7	21.8	[0.00]	ug/L	07:03:34
2	Fe 238.204 Radial†	7.3	7.3	[0.00]	ug/L	07:03:34
2	K 766.490 Radial†	2545.1	2557.6	[0.00]	ug/L	07:03:14
2	Mg 279.077 IEC†	-1.0	-1.0	[0.00]	ug/L	07:03:34
2	Na 589.592 Radial†	-645.9	-649.1	[0.00]	ug/L	07:03:14
2	Sr 421.552†	17.7	17.8	[0.00]	ug/L	07:03:14
2	Sc 361.383	833972.0	833972.0	98.659	%	07:04:31
2	Y 371.029	703797.5	703797.5	98.717	%	07:04:31
2	Ag 328.068†	133.7	135.5	[0.00]	ug/L	07:04:31
2	As 188.979†	-22.7	-23.0	[0.00]	ug/L	07:04:51
2	B 249.677†	-453.9	-460.1	[0.00]	ug/L	07:04:51
2	Ba 233.527†	3.7	3.7	[0.00]	ug/L	07:04:51
2	Be 313.107†	-4461.2	-4521.8	[0.00]	ug/L	07:04:31
2	Cd 226.502†	-150.1	-152.1	[0.00]	ug/L	07:04:51
2	Co 228.616†	-59.3	-60.1	[0.00]	ug/L	07:04:51
2	Cr 267.716†	65.6	66.5	[0.00]	ug/L	07:04:51
2	Cu 324.752†	5490.2	5564.8	[0.00]	ug/L	07:04:31
2	Mn 257.610†	401.9	407.3	[0.00]	ug/L	07:04:51
2	Mo 202.031†	18.6	18.8	[0.00]	ug/L	07:04:51
2	Ni 231.604†	62.9	63.8	[0.00]	ug/L	07:04:51
2	P 214.914†	196.9	199.6	[0.00]	ug/L	07:04:51
2	Pb 220.353†	-59.4	-60.2	[0.00]	ug/L	07:04:51
2	S 181.975 Axial†	33.8	34.3	[0.00]	ug/L	07:04:51
2	Sb 206.836†	26.6	27.0	[0.00]	ug/L	07:04:51
2	Se 196.026†	-20.7	-21.0	[0.00]	ug/L	07:04:51
2	Si 251.611†	513.8	520.8	[0.00]	ug/L	07:04:51
2	Sn 189.927†	3.8	3.9	[0.00]	ug/L	07:04:51
2	Ti 334.940†	-1088.0	-1102.8	[0.00]	ug/L	07:04:31
2	Tl 190.801†	-32.3	-32.7	[0.00]	ug/L	07:04:51
2	U 409.014†	-1905.2	-1931.0	[0.00]	ug/L	07:04:31
2	V 292.402†	-1399.8	-1418.9	[0.00]	ug/L	07:04:31

2	Zn 213.857†	599.9	608.1	[0.00]	ug/L	07:04:51
2	SiO2†	540.0	547.4	[0.00]	ug/L	07:05:56
3	Sc Radial	4530.8	4530.8	99.5	%	07:03:39
3	Y RADIAL	4911.1	4911.1	99.88	%	07:03:39
3	Al 396.153Radial†	-78.7	-79.0	[0.00]	ug/L	07:03:59
3	Ca 317.933Radial†	16.5	16.5	[0.00]	ug/L	07:03:59
3	Fe 238.204 Radial†	7.2	7.2	[0.00]	ug/L	07:03:59
3	K 766.490 Radial†	2569.8	2581.8	[0.00]	ug/L	07:03:39
3	Mg 279.077 IEC†	0.4	0.4	[0.00]	ug/L	07:03:59
3	Na 589.592 Radial†	-789.2	-792.9	[0.00]	ug/L	07:03:39
3	Sr 421.552†	36.7	36.9	[0.00]	ug/L	07:03:39
3	Sc 361.383	843726.4	843726.4	99.813	%	07:04:56
3	Y 371.029	711310.8	711310.8	99.771	%	07:04:56
3	Ag 328.068†	171.1	171.4	[0.00]	ug/L	07:04:56
3	As 188.979†	-19.4	-19.5	[0.00]	ug/L	07:05:16
3	B 249.677†	-444.2	-445.1	[0.00]	ug/L	07:05:16
3	Ba 233.527†	19.1	19.1	[0.00]	ug/L	07:05:16
3	Be 313.107†	-4475.0	-4483.4	[0.00]	ug/L	07:04:56
3	Cd 226.502†	-151.7	-152.0	[0.00]	ug/L	07:05:16
3	Co 228.616†	-54.6	-54.7	[0.00]	ug/L	07:05:16
3	Cr 267.716†	74.3	74.4	[0.00]	ug/L	07:05:16
3	Cu 324.752†	5556.0	5566.4	[0.00]	ug/L	07:04:56
3	Mn 257.610†	382.3	383.0	[0.00]	ug/L	07:05:16
3	Mo 202.031†	6.9	6.9	[0.00]	ug/L	07:05:16
3	Ni 231.604†	67.9	68.0	[0.00]	ug/L	07:05:16
3	P 214.914†	203.5	203.9	[0.00]	ug/L	07:05:16
3	Pb 220.353†	-43.4	-43.5	[0.00]	ug/L	07:05:16
3	S 181.975 Axial†	28.4	28.4	[0.00]	ug/L	07:05:16
3	Sb 206.836†	25.0	25.0	[0.00]	ug/L	07:05:16
3	Se 196.026†	-23.8	-23.8	[0.00]	ug/L	07:05:16
3	Si 251.611†	529.4	530.4	[0.00]	ug/L	07:05:16
3	Sn 189.927†	1.5	1.5	[0.00]	ug/L	07:05:16
3	Ti 334.940†	-1066.8	-1068.8	[0.00]	ug/L	07:04:56
3	Tl 190.801†	-29.5	-29.6	[0.00]	ug/L	07:05:16
3	U 409.014†	-1987.1	-1990.8	[0.00]	ug/L	07:04:56
3	V 292.402†	-1322.3	-1324.8	[0.00]	ug/L	07:04:56
3	Zn 213.857†	602.9	604.0	[0.00]	ug/L	07:05:16
3	SiO2†	533.0	534.0	[0.00]	ug/L	07:06:16

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	845305.7	12200.22	1.44%	100.00	%
Sc Radial	4552.0	37.71	0.83%	100	%
Y 371.029	712946.0	10066.31	1.41%	100.00	%
Y RADIAL	4916.9	40.49	0.82%	100.0	%
Ag 328.068†	156.7	18.82	12.01%	[0.00]	ug/L
Al 396.153Radial†	-73.2	9.67	13.22%	[0.00]	ug/L
As 188.979†	-22.1	2.29	10.39%	[0.00]	ug/L
B 249.677†	-447.4	11.64	2.60%	[0.00]	ug/L
Ba 233.527†	12.0	7.77	64.96%	[0.00]	ug/L
Be 313.107†	-4457.3	80.70	1.81%	[0.00]	ug/L
Ca 317.933Radial†	18.4	2.98	16.22%	[0.00]	ug/L
Cd 226.502†	-148.5	6.18	4.16%	[0.00]	ug/L
Co 228.616†	-53.6	7.09	13.23%	[0.00]	ug/L
Cr 267.716†	70.2	4.00	5.71%	[0.00]	ug/L
Cu 324.752†	5526.0	68.60	1.24%	[0.00]	ug/L
Fe 238.204 Radial†	6.6	1.08	16.34%	[0.00]	ug/L
K 766.490 Radial†	2510.5	103.35	4.12%	[0.00]	ug/L
Mg 279.077 IEC†	0.4	1.43	355.77%	[0.00]	ug/L
Mn 257.610†	386.3	19.61	5.08%	[0.00]	ug/L
Mo 202.031†	12.9	5.98	46.37%	[0.00]	ug/L
Na 589.592 Radial†	-717.8	72.11	10.05%	[0.00]	ug/L
Ni 231.604†	72.6	11.84	16.30%	[0.00]	ug/L
P 214.914†	200.7	2.85	1.42%	[0.00]	ug/L
Pb 220.353†	-48.9	9.81	20.05%	[0.00]	ug/L
S 181.975 Axial†	29.9	3.88	12.96%	[0.00]	ug/L
Sb 206.836†	25.4	1.38	5.43%	[0.00]	ug/L
Se 196.026†	-22.2	1.48	6.67%	[0.00]	ug/L
Si 251.611†	518.8	12.67	2.44%	[0.00]	ug/L

Sn 189.927†	3.7	2.17	58.48%	[0.00]	ug/L
Sr 421.552†	37.5	19.97	53.33%	[0.00]	ug/L
Ti 334.940†	-1045.5	71.74	6.86%	[0.00]	ug/L
Tl 190.801†	-29.1	3.88	13.34%	[0.00]	ug/L
U 409.014†	-1943.2	42.86	2.21%	[0.00]	ug/L
V 292.402†	-1350.7	59.60	4.41%	[0.00]	ug/L
Zn 213.857†	604.3	3.65	0.60%	[0.00]	ug/L
SiO2†	536.3	10.07	1.88%	[0.00]	ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 3/22/2010 07:08:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4583.1	4583.1	101	%	07:10:25
1	Y RADIAL	4932.9	4932.9	100.3	%	07:10:25
1	K 766.490 Radial†	7773.4	5210.2	[1000]	ug/L	07:10:20
1	Sr 421.552†	12841.7	12717.1	[100]	ug/L	07:10:25
1	Sc 361.383	851944.0	851944.0	100.79	%	07:10:52
1	Y 371.029	715790.9	715790.9	100.40	%	07:10:52
1	Ag 328.068†	20076.2	19763.1	[100]	ug/L	07:10:52
1	As 188.979†	154.6	175.5	[100]	ug/L	07:11:12
1	B 249.677†	3059.8	3483.4	[100]	ug/L	07:10:52
1	Ba 233.527†	10937.9	10840.7	[100]	ug/L	07:10:52
1	Be 313.107†	234804.5	237432.3	[100]	ug/L	07:10:52
1	Cd 226.502†	6655.0	6751.7	[100]	ug/L	07:11:12
1	Co 228.616†	3845.5	3869.1	[100]	ug/L	07:11:12
1	Cr 267.716†	7687.5	7557.4	[100]	ug/L	07:10:52
1	Cu 324.752†	36507.3	30696.8	[100]	ug/L	07:10:52
1	Mn 257.610†	78808.4	77808.1	[100]	ug/L	07:10:52
1	Mo 202.031†	1135.6	1113.9	[100]	ug/L	07:11:12
1	Ni 231.604†	3236.0	3138.2	[100]	ug/L	07:11:12
1	P 214.914†	855.0	647.6	[500]	ug/L	07:11:12
1	Pb 220.353†	601.5	645.7	[100]	ug/L	07:11:12
1	S 181.975 Axial†	147.0	116.0	[200]	ug/L	07:11:12
1	Sb 206.836†	267.1	239.6	[100]	ug/L	07:11:12
1	Se 196.026†	104.3	125.6	[100]	ug/L	07:11:12
1	Si 251.611†	13831.0	13204.4	[500]	ug/L	07:10:52
1	Sn 189.927†	436.2	429.1	[100]	ug/L	07:11:12
1	Ti 334.940†	58104.1	58696.9	[100]	ug/L	07:10:52
1	Tl 190.801†	231.8	259.1	[100]	ug/L	07:11:12
1	U 409.014†	1672.5	3602.7	[100]	ug/L	07:10:52
1	V 292.402†	11455.0	12716.4	[100]	ug/L	07:10:52
1	Zn 213.857†	9057.1	8382.2	[100]	ug/L	07:10:52
1	SiO2†	13566.3	12924.2	[1069.5]	ug/L	07:12:08
2	Sc Radial	4638.2	4638.2	102	%	07:10:35
2	Y RADIAL	4975.9	4975.9	101.2	%	07:10:35
2	K 766.490 Radial†	7814.6	5159.0	[1000]	ug/L	07:10:30
2	Sr 421.552†	13024.0	12744.6	[100]	ug/L	07:10:35
2	Sc 361.383	850300.0	850300.0	100.59	%	07:11:17
2	Y 371.029	714976.6	714976.6	100.28	%	07:11:17
2	Ag 328.068†	20183.1	19907.8	[100]	ug/L	07:11:17
2	As 188.979†	158.9	180.1	[100]	ug/L	07:11:37
2	B 249.677†	3045.7	3475.2	[100]	ug/L	07:11:17
2	Ba 233.527†	10945.8	10869.6	[100]	ug/L	07:11:17
2	Be 313.107†	234652.0	237731.1	[100]	ug/L	07:11:17
2	Cd 226.502†	6690.1	6799.3	[100]	ug/L	07:11:37
2	Co 228.616†	3865.5	3896.4	[100]	ug/L	07:11:37
2	Cr 267.716†	7678.1	7562.8	[100]	ug/L	07:11:17
2	Cu 324.752†	36427.7	30687.7	[100]	ug/L	07:11:17
2	Mn 257.610†	79000.1	78149.8	[100]	ug/L	07:11:17
2	Mo 202.031†	1134.5	1115.0	[100]	ug/L	07:11:37
2	Ni 231.604†	3259.4	3167.7	[100]	ug/L	07:11:37
2	P 214.914†	850.3	644.6	[500]	ug/L	07:11:37
2	Pb 220.353†	597.6	642.9	[100]	ug/L	07:11:37
2	S 181.975 Axial†	148.9	118.1	[200]	ug/L	07:11:37
2	Sb 206.836†	260.9	233.9	[100]	ug/L	07:11:37
2	Se 196.026†	104.2	125.8	[100]	ug/L	07:11:37
2	Si 251.611†	13893.7	13293.2	[500]	ug/L	07:11:17
2	Sn 189.927†	447.0	440.6	[100]	ug/L	07:11:37
2	Ti 334.940†	58117.9	58822.0	[100]	ug/L	07:11:17
2	Tl 190.801†	221.0	248.8	[100]	ug/L	07:11:37
2	U 409.014†	1821.7	3754.1	[100]	ug/L	07:11:17

2	V 292.402†	11368.6	12652.5	[100]	ug/L	07:11:17
2	Zn 213.857†	9069.4	8411.8	[100]	ug/L	07:11:17
2	SiO2†	13629.0	13012.6	[1069.5]	ug/L	07:12:13
3	Sc Radial	4555.9	4555.9	100	%	07:10:45
3	Y RADIAL	4886.6	4886.6	99.38	%	07:10:45
3	K 766.490 Radial†	7641.3	5124.4	[1000]	ug/L	07:10:40
3	Sr 421.552†	12778.1	12729.8	[100]	ug/L	07:10:45
3	Sc 361.383	829319.2	829319.2	98.109	%	07:11:43
3	Y 371.029	697614.6	697614.6	97.850	%	07:11:43
3	Ag 328.068†	19653.8	19875.9	[100]	ug/L	07:11:43
3	As 188.979†	154.5	179.6	[100]	ug/L	07:12:03
3	B 249.677†	2977.5	3482.3	[100]	ug/L	07:11:43
3	Ba 233.527†	10665.2	10858.8	[100]	ug/L	07:11:43
3	Be 313.107†	228434.5	237295.3	[100]	ug/L	07:11:43
3	Cd 226.502†	6667.5	6944.5	[100]	ug/L	07:12:03
3	Co 228.616†	3895.0	4023.7	[100]	ug/L	07:12:03
3	Cr 267.716†	7495.7	7570.0	[100]	ug/L	07:11:43
3	Cu 324.752†	35659.0	30820.4	[100]	ug/L	07:11:43
3	Mn 257.610†	76909.5	78005.8	[100]	ug/L	07:11:43
3	Mo 202.031†	1133.9	1142.8	[100]	ug/L	07:12:03
3	Ni 231.604†	3262.2	3252.4	[100]	ug/L	07:12:03
3	P 214.914†	869.5	685.6	[500]	ug/L	07:12:03
3	Pb 220.353†	613.2	673.9	[100]	ug/L	07:12:03
3	S 181.975 Axial†	144.0	116.9	[200]	ug/L	07:12:03
3	Sb 206.836†	261.1	240.7	[100]	ug/L	07:12:03
3	Se 196.026†	110.1	134.4	[100]	ug/L	07:12:03
3	Si 251.611†	13503.1	13244.5	[500]	ug/L	07:11:43
3	Sn 189.927†	445.1	450.0	[100]	ug/L	07:12:03
3	Ti 334.940†	56479.8	58614.1	[100]	ug/L	07:11:43
3	Tl 190.801†	222.2	255.6	[100]	ug/L	07:12:03
3	U 409.014†	1679.3	3654.8	[100]	ug/L	07:11:43
3	V 292.402†	11054.1	12617.9	[100]	ug/L	07:11:43
3	Zn 213.857†	8825.7	8391.5	[100]	ug/L	07:11:43
3	SiO2†	13798.4	13528.1	[1069.5]	ug/L	07:12:18

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	843854.4	12614.64	1.49%	99.828	%
Sc Radial	4592.4	41.92	0.91%	101	%
Y 371.029	709460.7	10267.06	1.45%	99.511	%
Y RADIAL	4931.8	44.64	0.91%	100.3	%
Ag 328.068†	19848.9	76.07	0.38%	[100]	ug/L
As 188.979†	178.4	2.49	1.40%	[100]	ug/L
B 249.677†	3480.3	4.46	0.13%	[100]	ug/L
Ba 233.527†	10856.4	14.57	0.13%	[100]	ug/L
Be 313.107†	237486.2	222.83	0.09%	[100]	ug/L
Cd 226.502†	6831.8	100.43	1.47%	[100]	ug/L
Co 228.616†	3929.7	82.52	2.10%	[100]	ug/L
Cr 267.716†	7563.4	6.32	0.08%	[100]	ug/L
Cu 324.752†	30735.0	74.12	0.24%	[100]	ug/L
K 766.490 Radial†	5164.5	43.17	0.84%	[1000]	ug/L
Mn 257.610†	77987.9	171.57	0.22%	[100]	ug/L
Mo 202.031†	1123.9	16.40	1.46%	[100]	ug/L
Ni 231.604†	3186.1	59.32	1.86%	[100]	ug/L
P 214.914†	659.3	22.85	3.47%	[500]	ug/L
Pb 220.353†	654.2	17.14	2.62%	[100]	ug/L
S 181.975 Axial†	117.0	1.08	0.92%	[200]	ug/L
Sb 206.836†	238.1	3.63	1.52%	[100]	ug/L
Se 196.026†	128.6	5.02	3.90%	[100]	ug/L
Si 251.611†	13247.4	44.49	0.34%	[500]	ug/L
Sn 189.927†	439.9	10.47	2.38%	[100]	ug/L
Sr 421.552†	12730.5	13.76	0.11%	[100]	ug/L
Ti 334.940†	58711.0	104.69	0.18%	[100]	ug/L
Tl 190.801†	254.5	5.26	2.07%	[100]	ug/L
U 409.014†	3670.5	76.95	2.10%	[100]	ug/L
V 292.402†	12662.3	50.00	0.39%	[100]	ug/L
Zn 213.857†	8395.2	15.14	0.18%	[100]	ug/L
SiO2†	13155.0	326.14	2.48%	[1069.5]	ug/L

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/22/2010 07:14:29**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4541.4	4541.4	99.8	%	07:16:22
1	Y RADIAL	4869.4	4869.4	99.03	%	07:16:22
1	Al 396.153Radial†	4886.4	4971.0	[5000]	ug/L	07:16:22
1	Ca 317.933Radial†	2676.4	2664.3	[5000]	ug/L	07:16:42
1	K 766.490 Radial†	28686.5	26243.0	[5000]	ug/L	07:16:22
1	Mg 279.077 IEC†	128.3	128.2	[5000]	ug/L	07:16:42
1	Sr 421.552†	63104.6	63214.4	[500]	ug/L	07:16:22
1	Sc 361.383	853249.6	853249.6	100.94	%	07:17:39
1	Y 371.029	710125.8	710125.8	99.604	%	07:17:39
1	Ag 328.068†	95511.6	94465.7	[500]	ug/L	07:17:44
1	As 188.979†	881.6	895.5	[500]	ug/L	07:18:04
1	B 249.677†	16967.5	17257.0	[500]	ug/L	07:17:44
1	Ba 233.527†	52263.8	51765.3	[500]	ug/L	07:17:44
1	Be 313.107†	1184596.8	1178025.4	[500]	ug/L	07:17:39
1	Cd 226.502†	33823.5	33657.0	[500]	ug/L	07:17:44
1	Co 228.616†	19155.5	19030.7	[500]	ug/L	07:17:44
1	Cr 267.716†	36671.9	36260.3	[500]	ug/L	07:17:44
1	Cu 324.752†	154365.2	147402.0	[500]	ug/L	07:17:44
1	Mn 257.610†	379724.3	375802.8	[500]	ug/L	07:17:39
1	Mo 202.031†	5549.3	5484.7	[500]	ug/L	07:18:04
1	Ni 231.604†	15694.2	15475.4	[500]	ug/L	07:17:44
1	P 214.914†	3506.2	3272.9	[2500]	ug/L	07:18:04
1	Pb 220.353†	3184.1	3203.3	[500]	ug/L	07:18:04
1	S 181.975 Axial†	583.5	548.2	[1000]	ug/L	07:18:04
1	Sb 206.836†	1207.2	1170.5	[500]	ug/L	07:18:04
1	Se 196.026†	585.6	602.3	[500]	ug/L	07:18:04
1	Si 251.611†	65963.8	64830.9	[2500]	ug/L	07:17:44
1	Sn 189.927†	2167.5	2143.6	[500]	ug/L	07:18:04
1	Ti 334.940†	276108.0	274582.9	[500]	ug/L	07:17:44
1	Tl 190.801†	1249.4	1266.9	[500]	ug/L	07:18:04
1	U 409.014†	15152.4	16954.5	[500]	ug/L	07:17:44
1	V 292.402†	60591.9	61378.5	[500]	ug/L	07:17:44
1	Zn 213.857†	41106.7	40119.7	[500]	ug/L	07:17:44
1	SiO2†	65961.7	64811.3	[5347.5]	ug/L	07:19:12
2	Sc Radial	4494.6	4494.6	98.7	%	07:16:47
2	Y RADIAL	4817.5	4817.5	97.98	%	07:16:47
2	Al 396.153Radial†	4853.0	4988.2	[5000]	ug/L	07:16:47
2	Ca 317.933Radial†	2651.9	2667.4	[5000]	ug/L	07:17:07
2	K 766.490 Radial†	28517.2	26370.8	[5000]	ug/L	07:16:47
2	Mg 279.077 IEC†	126.3	127.5	[5000]	ug/L	07:17:07
2	Sr 421.552†	62647.6	63409.9	[500]	ug/L	07:16:47
2	Sc 361.383	848336.1	848336.1	100.36	%	07:18:10
2	Y 371.029	704167.7	704167.7	98.769	%	07:18:10
2	Ag 328.068†	97043.1	96539.8	[500]	ug/L	07:18:15
2	As 188.979†	879.6	898.6	[500]	ug/L	07:18:35
2	B 249.677†	17289.1	17674.8	[500]	ug/L	07:18:15
2	Ba 233.527†	53042.9	52841.4	[500]	ug/L	07:18:15
2	Be 313.107†	1178156.6	1178405.3	[500]	ug/L	07:18:10
2	Cd 226.502†	34367.1	34392.8	[500]	ug/L	07:18:15
2	Co 228.616†	19445.5	19429.6	[500]	ug/L	07:18:15
2	Cr 267.716†	37138.5	36935.7	[500]	ug/L	07:18:15
2	Cu 324.752†	156880.9	150794.5	[500]	ug/L	07:18:15
2	Mn 257.610†	379152.1	377411.4	[500]	ug/L	07:18:10
2	Mo 202.031†	5553.9	5521.2	[500]	ug/L	07:18:35
2	Ni 231.604†	15943.3	15813.8	[500]	ug/L	07:18:15
2	P 214.914†	3533.4	3320.2	[2500]	ug/L	07:18:35
2	Pb 220.353†	3175.3	3212.9	[500]	ug/L	07:18:35
2	S 181.975 Axial†	579.7	547.7	[1000]	ug/L	07:18:35
2	Sb 206.836†	1191.9	1162.2	[500]	ug/L	07:18:35

2	Se 196.026†	574.2	594.3	[500]	ug/L	07:18:35
2	Si 251.611†	67157.3	66398.5	[2500]	ug/L	07:18:15
2	Sn 189.927†	2163.1	2151.7	[500]	ug/L	07:18:35
2	Ti 334.940†	280375.0	280419.0	[500]	ug/L	07:18:15
2	Tl 190.801†	1236.0	1260.7	[500]	ug/L	07:18:35
2	U 409.014†	15497.4	17385.3	[500]	ug/L	07:18:15
2	V 292.402†	61458.9	62590.1	[500]	ug/L	07:18:15
2	Zn 213.857†	41729.1	40975.7	[500]	ug/L	07:18:15
2	SiO2†	67524.7	66747.2	[5347.5]	ug/L	07:19:17
3	Sc Radial	4573.1	4573.1	100	%	07:17:12
3	Y RADIAL	4888.3	4888.3	99.42	%	07:17:12
3	Al 396.153Radial†	4927.1	4977.5	[5000]	ug/L	07:17:12
3	Ca 317.933Radial†	2676.4	2645.6	[5000]	ug/L	07:17:32
3	K 766.490 Radial†	28966.9	26322.5	[5000]	ug/L	07:17:12
3	Mg 279.077 IEC†	127.0	126.0	[5000]	ug/L	07:17:32
3	Sr 421.552†	63660.3	63328.5	[500]	ug/L	07:17:12
3	Sc 361.383	857933.3	857933.3	101.49	%	07:18:41
3	Y 371.029	712532.5	712532.5	99.942	%	07:18:41
3	Ag 328.068†	96199.2	94626.6	[500]	ug/L	07:18:46
3	As 188.979†	862.6	871.9	[500]	ug/L	07:19:06
3	B 249.677†	17149.4	17344.4	[500]	ug/L	07:18:46
3	Ba 233.527†	52633.4	51846.7	[500]	ug/L	07:18:46
3	Be 313.107†	1190675.9	1177608.1	[500]	ug/L	07:18:41
3	Cd 226.502†	34012.6	33660.5	[500]	ug/L	07:18:46
3	Co 228.616†	19255.8	19026.0	[500]	ug/L	07:18:46
3	Cr 267.716†	36899.3	36286.0	[500]	ug/L	07:18:46
3	Cu 324.752†	155186.9	147376.7	[500]	ug/L	07:18:46
3	Mn 257.610†	382342.5	376328.6	[500]	ug/L	07:18:41
3	Mo 202.031†	5470.4	5377.0	[500]	ug/L	07:19:06
3	Ni 231.604†	15755.8	15451.3	[500]	ug/L	07:18:46
3	P 214.914†	3473.4	3221.6	[2500]	ug/L	07:19:06
3	Pb 220.353†	3130.2	3133.1	[500]	ug/L	07:19:06
3	S 181.975 Axial†	570.0	531.7	[1000]	ug/L	07:19:06
3	Sb 206.836†	1177.4	1134.6	[500]	ug/L	07:19:06
3	Se 196.026†	576.9	590.6	[500]	ug/L	07:19:06
3	Si 251.611†	66472.8	64975.6	[2500]	ug/L	07:18:46
3	Sn 189.927†	2142.9	2107.6	[500]	ug/L	07:19:06
3	Ti 334.940†	277919.8	274874.7	[500]	ug/L	07:18:46
3	Tl 190.801†	1234.4	1245.3	[500]	ug/L	07:19:06
3	U 409.014†	15343.3	17060.6	[500]	ug/L	07:18:46
3	V 292.402†	61040.2	61492.5	[500]	ug/L	07:18:46
3	Zn 213.857†	41317.3	40104.9	[500]	ug/L	07:18:46
3	SiO2†	67977.7	66440.9	[5347.5]	ug/L	07:19:22

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	853173.0	4799.05	0.56%	100.93	%
Sc Radial	4536.4	39.50	0.87%	99.7	%
Y 371.029	708942.0	4306.26	0.61%	99.438	%
Y RADIAL	4858.4	36.66	0.75%	98.81	%
Ag 328.068†	95210.7	1153.83	1.21%	[500]	ug/L
Al 396.153Radial†	4978.9	8.67	0.17%	[5000]	ug/L
As 188.979†	888.7	14.57	1.64%	[500]	ug/L
B 249.677†	17425.4	220.35	1.26%	[500]	ug/L
Ba 233.527†	52151.2	599.18	1.15%	[500]	ug/L
Be 313.107†	1178012.9	398.78	0.03%	[500]	ug/L
Ca 317.933Radial†	2659.1	11.78	0.44%	[5000]	ug/L
Cd 226.502†	33903.4	423.83	1.25%	[500]	ug/L
Co 228.616†	19162.1	231.67	1.21%	[500]	ug/L
Cr 267.716†	36494.0	382.72	1.05%	[500]	ug/L
Cu 324.752†	148524.4	1966.00	1.32%	[500]	ug/L
K 766.490 Radial†	26312.1	64.56	0.25%	[5000]	ug/L
Mg 279.077 IEC†	127.2	1.09	0.85%	[5000]	ug/L
Mn 257.610†	376514.3	820.24	0.22%	[500]	ug/L
Mo 202.031†	5461.0	74.96	1.37%	[500]	ug/L
Ni 231.604†	15580.2	202.67	1.30%	[500]	ug/L
P 214.914†	3271.6	49.31	1.51%	[2500]	ug/L
Pb 220.353†	3183.1	43.59	1.37%	[500]	ug/L
S 181.975 Axial†	542.5	9.35	1.72%	[1000]	ug/L

Sb 206.836†	1155.8	18.81	1.63%	[500]	ug/L
Se 196.026†	595.7	6.00	1.01%	[500]	ug/L
Si 251.611†	65401.7	866.34	1.32%	[2500]	ug/L
Sn 189.927†	2134.3	23.47	1.10%	[500]	ug/L
Sr 421.552†	63317.6	98.24	0.16%	[500]	ug/L
Ti 334.940†	276625.5	3288.47	1.19%	[500]	ug/L
Tl 190.801†	1257.6	11.12	0.88%	[500]	ug/L
U 409.014†	17133.4	224.44	1.31%	[500]	ug/L
V 292.402†	61820.4	669.03	1.08%	[500]	ug/L
Zn 213.857†	40400.1	498.57	1.23%	[500]	ug/L
SiO2†	65999.8	1040.61	1.58%	[5347.5]	ug/L

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: SCAL **Date Collected: 3/22/2010 07:21:33**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4523.6	4523.6	99.4	%	07:23:26
1	Y RADIAL	4820.1	4820.1	98.03	%	07:23:26
1	Al 396.153Radial†	9767.9	9902.3	[10000]	ug/L	07:23:26
1	Ca 317.933Radial†	5350.4	5365.6	[10000]	ug/L	07:23:26
1	Fe 238.204 Radial†	896.6	895.6	[10000]	ug/L	07:23:46
1	K 766.490 Radial†	54599.7	52431.7	[10000]	ug/L	07:23:26
1	Mg 279.077 IEC†	249.9	251.0	[10000]	ug/L	07:23:46
1	Na 589.592 Radial†	28386.1	29281.9	[10000]	ug/L	07:23:26
1	Sr 421.552†	127051.3	127810.8	[1000]	ug/L	07:23:26
1	Sc 361.383	837928.6	837928.6	99.127	%	07:24:45
1	Y 371.029	694463.0	694463.0	97.408	%	07:24:45
1	Ag 328.068†	193314.1	194859.4	[1000]	ug/L	07:24:45
1	As 188.979†	1748.3	1785.7	[1000]	ug/L	07:25:05
1	B 249.677†	34727.7	35480.8	[1000]	ug/L	07:24:45
1	Ba 233.527†	104501.8	105409.9	[1000]	ug/L	07:24:45
1	Be 313.107†	2314265.1	2339097.2	[1000]	ug/L	07:24:45
1	Cd 226.502†	67444.5	68186.8	[1000]	ug/L	07:24:45
1	Co 228.616†	37759.6	38145.7	[1000]	ug/L	07:25:05
1	Cr 267.716†	73036.6	73609.4	[1000]	ug/L	07:24:45
1	Cu 324.752†	305972.3	303140.1	[1000]	ug/L	07:24:45
1	Mn 257.610†	745345.1	751520.9	[1000]	ug/L	07:24:45
1	Mo 202.031†	11167.3	11252.7	[1000]	ug/L	07:25:05
1	Ni 231.604†	30929.0	31128.7	[1000]	ug/L	07:25:05
1	P 214.914†	6806.1	6665.4	[5000]	ug/L	07:25:05
1	Pb 220.353†	6337.8	6442.5	[1000]	ug/L	07:25:05
1	S 181.975 Axial†	1135.2	1115.3	[2000]	ug/L	07:25:05
1	Sb 206.836†	2379.7	2375.2	[1000]	ug/L	07:25:05
1	Se 196.026†	1179.9	1212.4	[1000]	ug/L	07:25:05
1	Si 251.611†	130281.6	130909.7	[5000]	ug/L	07:24:45
1	Sn 189.927†	4352.0	4386.6	[1000]	ug/L	07:25:05
1	Ti 334.940†	574063.4	580163.0	[1000]	ug/L	07:24:45
1	Tl 190.801†	2502.7	2553.9	[1000]	ug/L	07:25:05
1	U 409.014†	31350.0	33569.2	[1000]	ug/L	07:24:45
1	V 292.402†	122520.0	124949.3	[1000]	ug/L	07:24:45
1	Zn 213.857†	81068.2	81177.7	[1000]	ug/L	07:24:45
1	SiO2†	131924.0	132549.1	[10695]	ug/L	07:26:05
2	Sc Radial	4500.9	4500.9	98.9	%	07:23:51
2	Y RADIAL	4813.1	4813.1	97.89	%	07:23:51
2	Al 396.153Radial†	9788.3	9972.7	[10000]	ug/L	07:23:51
2	Ca 317.933Radial†	5390.8	5433.7	[10000]	ug/L	07:23:51
2	Fe 238.204 Radial†	889.2	892.7	[10000]	ug/L	07:24:11
2	K 766.490 Radial†	54666.4	52776.9	[10000]	ug/L	07:23:51
2	Mg 279.077 IEC†	246.1	248.5	[10000]	ug/L	07:24:11
2	Na 589.592 Radial†	28247.3	29286.0	[10000]	ug/L	07:23:51
2	Sr 421.552†	126964.2	128369.0	[1000]	ug/L	07:23:51
2	Sc 361.383	848423.3	848423.3	100.37	%	07:25:13
2	Y 371.029	703613.6	703613.6	98.691	%	07:25:13
2	Ag 328.068†	195882.9	195006.4	[1000]	ug/L	07:25:13
2	As 188.979†	1759.6	1775.2	[1000]	ug/L	07:25:33
2	B 249.677†	35298.2	35616.0	[1000]	ug/L	07:25:13
2	Ba 233.527†	105922.4	105521.2	[1000]	ug/L	07:25:13
2	Be 313.107†	2346076.2	2341912.7	[1000]	ug/L	07:25:13
2	Cd 226.502†	68307.9	68205.4	[1000]	ug/L	07:25:13
2	Co 228.616†	37822.1	37736.7	[1000]	ug/L	07:25:33
2	Cr 267.716†	74186.3	73843.5	[1000]	ug/L	07:25:13
2	Cu 324.752†	309856.5	303191.9	[1000]	ug/L	07:25:13
2	Mn 257.610†	755549.1	752386.5	[1000]	ug/L	07:25:13
2	Mo 202.031†	11152.1	11098.2	[1000]	ug/L	07:25:33
2	Ni 231.604†	30898.8	30712.6	[1000]	ug/L	07:25:33

2	P 214.914†	6804.1	6578.5	[5000]	ug/L	07:25:33
2	Pb 220.353†	6330.1	6355.7	[1000]	ug/L	07:25:33
2	S 181.975 Axial†	1137.9	1103.8	[2000]	ug/L	07:25:33
2	Sb 206.836†	2381.5	2347.3	[1000]	ug/L	07:25:33
2	Se 196.026†	1171.2	1189.1	[1000]	ug/L	07:25:33
2	Si 251.611†	132142.9	131138.5	[5000]	ug/L	07:25:13
2	Sn 189.927†	4362.5	4342.7	[1000]	ug/L	07:25:33
2	Ti 334.940†	581607.0	580515.3	[1000]	ug/L	07:25:13
2	Tl 190.801†	2509.6	2529.5	[1000]	ug/L	07:25:33
2	U 409.014†	31742.0	33568.5	[1000]	ug/L	07:25:13
2	V 292.402†	124388.0	125281.6	[1000]	ug/L	07:25:13
2	Zn 213.857†	82314.1	81407.3	[1000]	ug/L	07:25:13
2	SiO2†	132339.6	131317.0	[10695]	ug/L	07:26:11
3	Sc Radial	4525.4	4525.4	99.4	%	07:24:16
3	Y RADIAL	4822.2	4822.2	98.07	%	07:24:16
3	Al 396.153Radial†	9803.5	9934.3	[10000]	ug/L	07:24:16
3	Ca 317.933Radial†	5346.5	5359.6	[10000]	ug/L	07:24:16
3	Fe 238.204 Radial†	899.1	897.8	[10000]	ug/L	07:24:36
3	K 766.490 Radial†	54626.1	52436.6	[10000]	ug/L	07:24:16
3	Mg 279.077 IEC†	250.6	251.7	[10000]	ug/L	07:24:36
3	Na 589.592 Radial†	27995.6	28877.9	[10000]	ug/L	07:24:16
3	Sr 421.552†	126776.3	127483.9	[1000]	ug/L	07:24:16
3	Sc 361.383	844361.3	844361.3	99.888	%	07:25:40
3	Y 371.029	700642.3	700642.3	98.274	%	07:25:40
3	Ag 328.068†	194694.5	194755.6	[1000]	ug/L	07:25:40
3	As 188.979†	1736.3	1760.4	[1000]	ug/L	07:26:00
3	B 249.677†	34955.6	35442.1	[1000]	ug/L	07:25:40
3	Ba 233.527†	105125.2	105230.8	[1000]	ug/L	07:25:40
3	Be 313.107†	2328001.6	2335062.8	[1000]	ug/L	07:25:40
3	Cd 226.502†	67767.9	67992.1	[1000]	ug/L	07:25:40
3	Co 228.616†	37677.5	37773.3	[1000]	ug/L	07:26:00
3	Cr 267.716†	73534.1	73546.2	[1000]	ug/L	07:25:40
3	Cu 324.752†	307820.0	302638.3	[1000]	ug/L	07:25:40
3	Mn 257.610†	750095.6	750548.3	[1000]	ug/L	07:25:40
3	Mo 202.031†	11126.4	11126.0	[1000]	ug/L	07:26:00
3	Ni 231.604†	30865.0	30826.9	[1000]	ug/L	07:26:00
3	P 214.914†	6780.5	6587.4	[5000]	ug/L	07:26:00
3	Pb 220.353†	6338.7	6394.7	[1000]	ug/L	07:26:00
3	S 181.975 Axial†	1132.8	1104.2	[2000]	ug/L	07:26:00
3	Sb 206.836†	2367.5	2344.7	[1000]	ug/L	07:26:00
3	Se 196.026†	1180.8	1204.3	[1000]	ug/L	07:26:00
3	Si 251.611†	131136.3	130764.1	[5000]	ug/L	07:25:40
3	Sn 189.927†	4337.9	4339.0	[1000]	ug/L	07:26:00
3	Ti 334.940†	578119.3	579811.5	[1000]	ug/L	07:25:40
3	Tl 190.801†	2500.3	2532.2	[1000]	ug/L	07:26:00
3	U 409.014†	31839.0	33817.8	[1000]	ug/L	07:25:40
3	V 292.402†	123654.5	125143.5	[1000]	ug/L	07:25:40
3	Zn 213.857†	81519.6	81006.5	[1000]	ug/L	07:25:40
3	SiO2†	131535.6	131146.4	[10695]	ug/L	07:26:16

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	843571.0	5291.79	0.63%	99.795	%
Sc Radial	4516.6	13.68	0.30%	99.2	%
Y 371.029	699573.0	4668.10	0.67%	98.124	%
Y RADIAL	4818.5	4.74	0.10%	98.00	%
Ag 328.068†	194873.8	126.03	0.06%	[1000]	ug/L
Al 396.153Radial†	9936.4	35.21	0.35%	[10000]	ug/L
As 188.979†	1773.8	12.75	0.72%	[1000]	ug/L
B 249.677†	35513.0	91.26	0.26%	[1000]	ug/L
Ba 233.527†	105387.3	146.49	0.14%	[1000]	ug/L
Be 313.107†	2338690.9	3442.96	0.15%	[1000]	ug/L
Ca 317.933Radial†	5386.3	41.18	0.76%	[10000]	ug/L
Cd 226.502†	68128.1	118.12	0.17%	[1000]	ug/L
Co 228.616†	37885.2	226.30	0.60%	[1000]	ug/L
Cr 267.716†	73666.4	156.65	0.21%	[1000]	ug/L
Cu 324.752†	302990.1	305.77	0.10%	[1000]	ug/L
Fe 238.204 Radial†	895.4	2.56	0.29%	[10000]	ug/L
K 766.490 Radial†	52548.4	197.92	0.38%	[10000]	ug/L

Mg 279.077 IEC†	250.4	1.66	0.66%	[10000]	ug/L
Mn 257.610†	751485.2	919.65	0.12%	[1000]	ug/L
Mo 202.031†	11159.0	82.39	0.74%	[1000]	ug/L
Na 589.592 Radial†	29148.6	234.44	0.80%	[10000]	ug/L
Ni 231.604†	30889.4	214.97	0.70%	[1000]	ug/L
P 214.914†	6610.4	47.81	0.72%	[5000]	ug/L
Pb 220.353†	6397.7	43.47	0.68%	[1000]	ug/L
S 181.975 Axial†	1107.8	6.53	0.59%	[2000]	ug/L
Sb 206.836†	2355.7	16.94	0.72%	[1000]	ug/L
Se 196.026†	1201.9	11.87	0.99%	[1000]	ug/L
Si 251.611†	130937.4	188.72	0.14%	[5000]	ug/L
Sn 189.927†	4356.1	26.48	0.61%	[1000]	ug/L
Sr 421.552†	127887.9	447.60	0.35%	[1000]	ug/L
Ti 334.940†	580163.3	351.94	0.06%	[1000]	ug/L
Tl 190.801†	2538.5	13.36	0.53%	[1000]	ug/L
U 409.014†	33651.8	143.73	0.43%	[1000]	ug/L
V 292.402†	125124.8	166.92	0.13%	[1000]	ug/L
Zn 213.857†	81197.2	201.13	0.25%	[1000]	ug/L
SiO2†	131670.8	765.36	0.58%	[10695]	ug/L

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S10 **Date Collected: 3/22/2010 07:28:26**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4386.9	4386.9	96.4	%	07:30:40
1	Y RADIAL	4680.0	4680.0	95.18	%	07:30:40
1	Al 396.153Radial†	49485.8	51421.7	[50000]	ug/L	07:30:20
1	Ca 317.933Radial†	25905.8	26862.6	[50000]	ug/L	07:30:20
1	Fe 238.204 Radial†	1681.3	1738.0	[20000]	ug/L	07:30:40
1	Mg 279.077 IEC†	1162.8	1206.1	[50000]	ug/L	07:30:40
1	Na 589.592 Radial†	55380.6	58183.1	[20000]	ug/L	07:30:20
1	Sc 361.383	830639.6	830639.6	98.265	%	07:31:37
1	Y 371.029	687317.0	687317.0	96.405	%	07:31:37
2	Sc Radial	4387.5	4387.5	96.4	%	07:31:05
2	Y RADIAL	4702.4	4702.4	95.64	%	07:31:05
2	Al 396.153Radial†	48037.9	49911.9	[50000]	ug/L	07:30:45
2	Ca 317.933Radial†	25301.2	26231.3	[50000]	ug/L	07:30:45
2	Fe 238.204 Radial†	1674.9	1731.0	[20000]	ug/L	07:31:05
2	Mg 279.077 IEC†	1161.0	1204.2	[50000]	ug/L	07:31:05
2	Na 589.592 Radial†	53607.9	56335.3	[20000]	ug/L	07:30:45
2	Sc 361.383	828236.8	828236.8	97.981	%	07:31:43
2	Y 371.029	684614.2	684614.2	96.026	%	07:31:43
3	Sc Radial	4440.2	4440.2	97.5	%	07:31:30
3	Y RADIAL	4734.4	4734.4	96.29	%	07:31:30
3	Al 396.153Radial†	49093.1	50402.3	[50000]	ug/L	07:31:10
3	Ca 317.933Radial†	25713.8	26342.8	[50000]	ug/L	07:31:10
3	Fe 238.204 Radial†	1686.5	1722.4	[20000]	ug/L	07:31:30
3	Mg 279.077 IEC†	1165.9	1194.9	[50000]	ug/L	07:31:30
3	Na 589.592 Radial†	54465.9	56555.0	[20000]	ug/L	07:31:10
3	Sc 361.383	828944.0	828944.0	98.064	%	07:31:48
3	Y 371.029	685463.2	685463.2	96.145	%	07:31:48

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	829273.5	1234.81	0.15%	98.103	%
Sc Radial	4404.9	30.61	0.69%	96.8	%
Y 371.029	685798.1	1382.16	0.20%	96.192	%
Y RADIAL	4705.6	27.31	0.58%	95.70	%
Al 396.153Radial†	50578.6	770.21	1.52%	[50000]	ug/L
Ca 317.933Radial†	26478.9	336.91	1.27%	[50000]	ug/L
Fe 238.204 Radial†	1730.4	7.82	0.45%	[20000]	ug/L
Mg 279.077 IEC†	1201.7	6.00	0.50%	[50000]	ug/L
Na 589.592 Radial†	57024.5	1009.39	1.77%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	194.0	0.00000	0.999956	
Al 396.153Radial	3	Lin Thru 0	0.0	1.011	0.00000	0.999993	
As 188.979	3	Lin Thru 0	0.0	1.775	0.00000	1.000000	
B 249.677	3	Lin Thru 0	0.0	35.38	0.00000	0.999971	
Ba 233.527	3	Lin Thru 0	0.0	105.2	0.00000	0.999987	
Be 313.107	3	Lin Thru 0	0.0	2342	0.00000	0.999995	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5299	0.00000	0.999995	
Cd 226.502	3	Lin Thru 0	0.0	68.07	0.00000	0.999998	
Co 228.616	3	Lin Thru 0	0.0	37.98	0.00000	0.999985	
Cr 267.716	3	Lin Thru 0	0.0	73.55	0.00000	0.999990	
Cu 324.752	3	Lin Thru 0	0.0	301.8	0.00000	0.999968	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0871	0.00000	0.999904	
K 766.490 Radial	3	Lin Thru 0	0.0	5.256	0.00000	0.999999	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0241	0.00000	0.999953
Mn 257.610	3	Lin Thru 0	0.0	752.0	0.00000	0.999994
Mo 202.031	3	Lin Thru 0	0.0	11.11	0.00000	0.999963
Na 589.592 Radia	2	Lin Thru 0	0.0	2.864	0.00000	0.999961
Ni 231.604	3	Lin Thru 0	0.0	30.95	0.00000	0.999990
P 214.914	3	Lin Thru 0	0.0	1.319	0.00000	0.999992
Pb 220.353	3	Lin Thru 0	0.0	6.393	0.00000	0.999996
S 181.975 Axial	3	Lin Thru 0	0.0	0.5519	0.00000	0.999952
Sb 206.836	3	Lin Thru 0	0.0	2.347	0.00000	0.999971
Se 196.026	3	Lin Thru 0	0.0	1.201	0.00000	0.999974
Si 251.611	3	Lin Thru 0	0.0	26.18	0.00000	0.999999
Sn 189.927	3	Lin Thru 0	0.0	4.339	0.00000	0.999967
Sr 421.552	3	Lin Thru 0	0.0	127.6	0.00000	0.999992
Ti 334.940	3	Lin Thru 0	0.0	574.9	0.00000	0.999824
Tl 190.801	3	Lin Thru 0	0.0	2.534	0.00000	0.999993
U 409.014	3	Lin Thru 0	0.0	33.80	0.00000	0.999944
V 292.402	3	Lin Thru 0	0.0	124.8	0.00000	0.999988
Zn 213.857	3	Lin Thru 0	0.0	81.14	0.00000	0.999993
SiO2	3	Lin Thru 0	0.0	12.32	0.00000	0.999999

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/22/2010 07:34:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4636.1	4636.1	102	%			07:35:52
1	Y RADIAL	4948.2	4948.2	100.6	%			07:35:52
1	Al 396.153Radial†	5096.3	5077.0	4996.5	ug/L	4996.5	ppb	07:35:52
1	Ca 317.933Radial†	2719.5	2651.8	5004.0	ug/L	5004.0	ppb	07:36:12
1	Fe 238.204 Radial†	463.8	448.8	5166.6	ug/L	5166.6	ppb	07:36:12
1	K 766.490 Radial†	15903.2	13104.2	2489.8	ug/L	2489.8	ppb	07:35:52
1	Mg 279.077 IEC†	134.4	131.6	5462.6	ug/L	5462.6	ppb	07:36:12
1	Na 589.592 Radial†	6744.0	7339.4	2562.7	ug/L	2562.7	ppb	07:35:52
1	Sr 421.552†	69268.5	67974.5	532.53	ug/L	532.53	ppb	07:35:52
1	Sc 361.383	853000.0	853000.0	100.91	%			07:37:10
1	Y 371.029	712184.7	712184.7	99.893	%			07:37:10
1	Ag 328.068†	51887.2	51262.5	267.43	ug/L	267.43	ppb	07:37:10
1	As 188.979†	842.1	856.5	486.98	ug/L	486.98	ppb	07:37:30
1	B 249.677†	18387.1	18668.7	525.39	ug/L	525.39	ppb	07:37:10
1	Ba 233.527†	54995.1	54487.1	519.26	ug/L	519.26	ppb	07:37:10
1	Be 313.107†	626907.9	625710.4	268.28	ug/L	268.28	ppb	07:37:10
1	Cd 226.502†	34645.6	34481.5	506.49	ug/L	506.49	ppb	07:37:10
1	Co 228.616†	19995.0	19868.2	523.24	ug/L	523.24	ppb	07:37:10
1	Cr 267.716†	36901.1	36498.1	497.33	ug/L	497.33	ppb	07:37:10
1	Cu 324.752†	163063.2	156066.3	517.03	ug/L	517.03	ppb	07:37:10
1	Mn 257.610†	398416.6	394436.5	524.79	ug/L	524.79	ppb	07:37:10
1	Mo 202.031†	6157.3	6088.9	548.39	ug/L	548.39	ppb	07:37:30
1	Ni 231.604†	16338.4	16118.4	520.46	ug/L	520.46	ppb	07:37:10
1	P 214.914†	3592.6	3359.6	2445.8	ug/L	2445.8	ppb	07:37:30
1	Pb 220.353†	3206.4	3226.4	506.23	ug/L	506.23	ppb	07:37:30
1	S 181.975 Axial†	1461.4	1418.4	2569.1	ug/L	2569.1	ppb	07:37:30
1	Sb 206.836†	1246.3	1209.6	535.10	ug/L	535.10	ppb	07:37:30
1	Se 196.026†	3117.2	3111.2	2609.6	ug/L	2609.6	ppb	07:37:30
1	Si 251.611†	129969.5	128278.3	4892.3	ug/L	4892.3	ppb	07:37:10
1	Sn 189.927†	2397.6	2372.2	547.31	ug/L	547.31	ppb	07:37:30
1	Ti 334.940†	294987.7	293372.4	510.14	ug/L	510.14	ppb	07:37:10
1	Tl 190.801†	1351.8	1368.7	543.60	ug/L	543.60	ppb	07:37:30
1	U 409.014†	15567.1	17369.8	512.23	ug/L	512.23	ppb	07:37:10
1	V 292.402†	64353.1	65123.3	529.00	ug/L	529.00	ppb	07:37:10
1	Zn 213.857†	43541.2	42544.1	519.54	ug/L	519.54	ppb	07:37:10
1	SiO2†	132281.6	130552.0	10584	ug/L	10584	ppb	07:38:28
2	Sc Radial	4601.9	4601.9	101	%			07:36:18
2	Y RADIAL	4920.4	4920.4	100.1	%			07:36:18
2	Al 396.153Radial†	5043.7	5062.2	4982.0	ug/L	4982.0	ppb	07:36:18
2	Ca 317.933Radial†	2694.6	2647.0	4994.9	ug/L	4994.9	ppb	07:36:38
2	Fe 238.204 Radial†	459.7	448.1	5158.5	ug/L	5158.5	ppb	07:36:38
2	K 766.490 Radial†	15952.1	13268.8	2521.2	ug/L	2521.2	ppb	07:36:18
2	Mg 279.077 IEC†	131.1	129.3	5368.7	ug/L	5368.7	ppb	07:36:38
2	Na 589.592 Radial†	6580.8	7227.3	2523.5	ug/L	2523.5	ppb	07:36:18
2	Sr 421.552†	68682.0	67900.3	531.95	ug/L	531.95	ppb	07:36:18
2	Sc 361.383	850343.8	850343.8	100.60	%			07:37:36
2	Y 371.029	709816.6	709816.6	99.561	%			07:37:36
2	Ag 328.068†	51703.7	51240.7	267.32	ug/L	267.32	ppb	07:37:36
2	As 188.979†	828.9	846.0	481.07	ug/L	481.07	ppb	07:37:56
2	B 249.677†	18450.4	18788.5	528.78	ug/L	528.78	ppb	07:37:36
2	Ba 233.527†	54861.9	54524.9	519.62	ug/L	519.62	ppb	07:37:36
2	Be 313.107†	625164.7	625918.1	268.37	ug/L	268.37	ppb	07:37:36
2	Cd 226.502†	34634.5	34577.8	507.90	ug/L	507.90	ppb	07:37:36
2	Co 228.616†	19935.0	19870.5	523.29	ug/L	523.29	ppb	07:37:36
2	Cr 267.716†	36839.3	36550.9	498.05	ug/L	498.05	ppb	07:37:36
2	Cu 324.752†	162151.3	155664.6	515.70	ug/L	515.70	ppb	07:37:36
2	Mn 257.610†	397810.9	395067.6	525.63	ug/L	525.63	ppb	07:37:36
2	Mo 202.031†	6102.3	6053.2	545.18	ug/L	545.18	ppb	07:37:56
2	Ni 231.604†	16312.5	16143.2	521.26	ug/L	521.26	ppb	07:37:36

2	P 214.914†	3562.0	3340.2	2431.4 ug/L	2431.4 ppb		07:37:56
2	Pb 220.353†	3191.8	3221.8	505.50 ug/L	505.50 ppb		07:37:56
2	S 181.975 Axial†	1429.0	1390.7	2519.0 ug/L	2519.0 ppb		07:37:56
2	Sb 206.836†	1247.8	1215.0	537.27 ug/L	537.27 ppb		07:37:56
2	Se 196.026†	3089.7	3093.5	2594.9 ug/L	2594.9 ppb		07:37:56
2	Si 251.611†	129465.4	128179.6	4888.5 ug/L	4888.5 ppb		07:37:36
2	Sn 189.927†	2378.4	2360.6	544.62 ug/L	544.62 ppb		07:37:56
2	Ti 334.940†	294024.9	293328.4	510.07 ug/L	510.07 ppb		07:37:36
2	Tl 190.801†	1353.3	1374.3	545.84 ug/L	545.84 ppb		07:37:56
2	U 409.014†	15295.1	17147.7	505.66 ug/L	505.66 ppb		07:37:36
2	V 292.402†	64046.6	65017.9	528.10 ug/L	528.10 ppb		07:37:36
2	Zn 213.857†	43469.3	42607.4	520.32 ug/L	520.32 ppb		07:37:36
2	SiO2†	130761.0	129450.0	10495 ug/L	10495 ppb		07:38:33
3	Sc Radial	4573.4	4573.4	100 %			07:36:43
3	Y RADIAL	4923.4	4923.4	100.1 %			07:36:43
3	Al 396.153Radial†	5072.8	5122.2	5041.7 ug/L	5041.7 ppb		07:36:43
3	Ca 317.933Radial†	2692.4	2661.4	5022.1 ug/L	5022.1 ppb		07:37:03
3	Fe 238.204 Radial†	460.1	451.4	5196.1 ug/L	5196.1 ppb		07:37:03
3	K 766.490 Radial†	15864.2	13279.6	2523.2 ug/L	2523.2 ppb		07:36:43
3	Mg 279.077 IEC†	131.1	130.1	5401.1 ug/L	5401.1 ppb		07:37:03
3	Na 589.592 Radial†	6609.1	7296.0	2547.5 ug/L	2547.5 ppb		07:36:43
3	Sr 421.552†	68535.7	68177.9	534.13 ug/L	534.13 ppb		07:36:43
3	Sc 361.383	864231.6	864231.6	102.24 %			07:38:02
3	Y 371.029	722475.9	722475.9	101.34 %			07:38:02
3	Ag 328.068†	52505.0	51198.5	267.11 ug/L	267.11 ppb		07:38:02
3	As 188.979†	843.0	846.7	481.44 ug/L	481.44 ppb		07:38:22
3	B 249.677†	18688.4	18726.6	527.03 ug/L	527.03 ppb		07:38:02
3	Ba 233.527†	55726.9	54494.6	519.33 ug/L	519.33 ppb		07:38:02
3	Be 313.107†	637246.6	627748.8	269.15 ug/L	269.15 ppb		07:38:02
3	Cd 226.502†	35139.8	34518.7	507.03 ug/L	507.03 ppb		07:38:02
3	Co 228.616†	20185.8	19797.4	521.35 ug/L	521.35 ppb		07:38:02
3	Cr 267.716†	37424.1	36534.4	497.83 ug/L	497.83 ppb		07:38:02
3	Cu 324.752†	164479.7	155351.7	514.66 ug/L	514.66 ppb		07:38:02
3	Mn 257.610†	403976.0	394743.0	525.20 ug/L	525.20 ppb		07:38:02
3	Mo 202.031†	6128.4	5981.3	538.71 ug/L	538.71 ppb		07:38:22
3	Ni 231.604†	16609.8	16173.4	522.24 ug/L	522.24 ppb		07:38:02
3	P 214.914†	3549.1	3270.7	2378.8 ug/L	2378.8 ppb		07:38:22
3	Pb 220.353†	3196.6	3175.5	498.25 ug/L	498.25 ppb		07:38:22
3	S 181.975 Axial†	1430.3	1369.1	2479.8 ug/L	2479.8 ppb		07:38:22
3	Sb 206.836†	1241.8	1189.1	526.03 ug/L	526.03 ppb		07:38:22
3	Se 196.026†	3090.8	3045.3	2554.8 ug/L	2554.8 ppb		07:38:22
3	Si 251.611†	131307.9	127913.6	4878.4 ug/L	4878.4 ppb		07:38:02
3	Sn 189.927†	2390.2	2334.1	538.53 ug/L	538.53 ppb		07:38:22
3	Ti 334.940†	298630.7	293136.5	509.74 ug/L	509.74 ppb		07:38:02
3	Tl 190.801†	1341.8	1341.5	532.90 ug/L	532.90 ppb		07:38:22
3	U 409.014†	15703.7	17302.9	510.25 ug/L	510.25 ppb		07:38:02
3	V 292.402†	65354.3	65273.8	530.06 ug/L	530.06 ppb		07:38:02
3	Zn 213.857†	44089.1	42519.2	519.22 ug/L	519.22 ppb		07:38:02
3	SiO2†	130839.3	127437.7	10331 ug/L	10331 ppb		07:38:38

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	855858.5	101.25	%	0.872				0.86%
Sc Radial	4603.8	101	%	0.7				0.68%
Y 371.029	714825.7	100.26	%	0.944				0.94%
Y RADIAL	4930.7	100.3	%	0.31				0.31%
Ag 328.068†	51233.9	267.29	ug/L	0.159	267.29	ppb	0.159	0.06%
QC value within limits for Ag 328.068 Recovery = 106.91%								
Al 396.153Radial†	5087.1	5006.7	ug/L	31.16	5006.7	ppb	31.16	0.62%
QC value within limits for Al 396.153Radial Recovery = 100.13%								
As 188.979†	849.7	483.16	ug/L	3.311	483.16	ppb	3.311	0.69%
QC value within limits for As 188.979 Recovery = 96.63%								
B 249.677†	18727.9	527.07	ug/L	1.694	527.07	ppb	1.694	0.32%
QC value within limits for B 249.677 Recovery = 105.41%								
Ba 233.527†	54502.2	519.40	ug/L	0.189	519.40	ppb	0.189	0.04%
QC value within limits for Ba 233.527 Recovery = 103.88%								
Be 313.107†	626459.1	268.60	ug/L	0.478	268.60	ppb	0.478	0.18%
QC value within limits for Be 313.107 Recovery = 107.44%								
Ca 317.933Radial†	2653.4	5007.0	ug/L	13.84	5007.0	ppb	13.84	0.28%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.14%
Cd 226.502†            34526.0      507.14 ug/L         0.714      507.14 ppb          0.714   0.14%
   QC value within limits for Cd 226.502  Recovery = 101.43%
Co 228.616†            19845.4      522.63 ug/L         1.105      522.63 ppb          1.105   0.21%
   QC value within limits for Co 228.616  Recovery = 104.53%
Cr 267.716†            36527.8      497.74 ug/L         0.368      497.74 ppb          0.368   0.07%
   QC value within limits for Cr 267.716  Recovery = 99.55%
Cu 324.752†           155694.2      515.80 ug/L         1.185      515.80 ppb          1.185   0.23%
   QC value within limits for Cu 324.752  Recovery = 103.16%
Fe 238.204 Radial†       449.4      5173.7 ug/L         19.81      5173.7 ppb          19.81   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.47%
K 766.490 Radial†      13217.5      2511.4 ug/L         18.71      2511.4 ppb          18.71   0.75%
   QC value within limits for K 766.490 Radial  Recovery = 100.46%
Mg 279.077 IEC†          130.3      5410.8 ug/L         47.68      5410.8 ppb          47.68   0.88%
   QC value within limits for Mg 279.077 IEC  Recovery = 108.22%
Mn 257.610†           394749.0      525.21 ug/L         0.421      525.21 ppb          0.421   0.08%
   QC value within limits for Mn 257.610  Recovery = 105.04%
Mo 202.031†             6041.1      544.09 ug/L         4.930      544.09 ppb          4.930   0.91%
   QC value within limits for Mo 202.031  Recovery = 108.82%
Na 589.592 Radial†      7287.5      2544.6 ug/L         19.74      2544.6 ppb          19.74   0.78%
   QC value within limits for Na 589.592 Radial  Recovery = 101.78%
Ni 231.604†            16145.0      521.32 ug/L         0.891      521.32 ppb          0.891   0.17%
   QC value within limits for Ni 231.604  Recovery = 104.26%
P 214.914†              3323.5      2418.7 ug/L         35.26      2418.7 ppb          35.26   1.46%
   QC value within limits for P 214.914  Recovery = 96.75%
Pb 220.353†             3207.9      503.32 ug/L         4.408      503.32 ppb          4.408   0.88%
   QC value within limits for Pb 220.353  Recovery = 100.66%
S 181.975 Axial†        1392.7      2522.6 ug/L         44.76      2522.6 ppb          44.76   1.77%
   QC value within limits for S 181.975 Axial  Recovery = 100.90%
Sb 206.836†             1204.6      532.80 ug/L         5.963      532.80 ppb          5.963   1.12%
   QC value within limits for Sb 206.836  Recovery = 106.56%
Se 196.026†             3083.3      2586.4 ug/L         28.39      2586.4 ppb          28.39   1.10%
   QC value within limits for Se 196.026  Recovery = 103.46%
Si 251.611†           128123.8      4886.4 ug/L          7.14      4886.4 ppb           7.14   0.15%
   QC value within limits for Si 251.611  Recovery = 97.73%
Sn 189.927†             2355.7      543.48 ug/L         4.499      543.48 ppb          4.499   0.83%
   QC value within limits for Sn 189.927  Recovery = 108.70%
Sr 421.552†            68017.5      532.87 ug/L         1.126      532.87 ppb          1.126   0.21%
   QC value within limits for Sr 421.552  Recovery = 106.57%
Ti 334.940†           293279.1      509.98 ug/L         0.215      509.98 ppb          0.215   0.04%
   QC value within limits for Ti 334.940  Recovery = 102.00%
Tl 190.801†             1361.5      540.78 ug/L         6.916      540.78 ppb          6.916   1.28%
   QC value within limits for Tl 190.801  Recovery = 108.16%
U 409.014†             17273.5      509.38 ug/L         3.372      509.38 ppb          3.372   0.66%
   QC value within limits for U 409.014  Recovery = 101.88%
V 292.402†             65138.3      529.05 ug/L         0.982      529.05 ppb          0.982   0.19%
   QC value within limits for V 292.402  Recovery = 105.81%
Zn 213.857†            42556.9      519.69 ug/L         0.565      519.69 ppb          0.565   0.11%
   QC value within limits for Zn 213.857  Recovery = 103.94%
SiO2†                 129146.6       10470 ug/L         128.1       10470 ppb          128.1   1.22%
   QC value within limits for SiO2  Recovery = 97.90%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 3/22/2010 07:40:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4615.1	4615.1	101	%			07:42:42
1	Y RADIAL	4953.8	4953.8	100.8	%			07:42:42
1	Al 396.153Radial†	-75.5	-1.3	-1.3073	ug/L	-1.3073	ppb	07:43:02
1	Ca 317.933Radial†	22.2	3.5	6.6558	ug/L	6.6558	ppb	07:43:02
1	Fe 238.204 Radial†	11.5	4.7	53.507	ug/L	53.507	ppb	07:43:02
1	K 766.490 Radial†	2436.2	-107.5	-20.453	ug/L	-20.453	ppb	07:42:42
1	Mg 279.077 IEC†	4.1	3.7	151.59	ug/L	151.59	ppb	07:43:02
1	Na 589.592 Radial†	-753.8	-25.7	-8.9798	ug/L	-8.9798	ppb	07:42:42
1	Sr 421.552†	34.9	-3.1	-0.0241	ug/L	-0.0241	ppb	07:42:42
1	Sc 361.383	845450.6	845450.6	100.02	%			07:43:59
1	Y 371.029	713368.7	713368.7	100.06	%			07:43:59
1	Ag 328.068†	173.3	16.6	0.1044	ug/L	0.1044	ppb	07:43:59
1	As 188.979†	-23.9	-1.8	-0.9924	ug/L	-0.9924	ppb	07:44:19
1	B 249.677†	-52.6	394.8	11.152	ug/L	11.152	ppb	07:44:19
1	Ba 233.527†	20.3	8.3	0.0813	ug/L	0.0813	ppb	07:44:19
1	Be 313.107†	-4325.6	132.5	0.0563	ug/L	0.0563	ppb	07:43:59
1	Cd 226.502†	-161.5	-13.0	-0.1970	ug/L	-0.1970	ppb	07:44:19
1	Co 228.616†	-56.3	-2.6	-0.0677	ug/L	-0.0677	ppb	07:44:19
1	Cr 267.716†	77.7	7.5	0.1092	ug/L	0.1092	ppb	07:44:19
1	Cu 324.752†	5490.7	-36.2	-0.1166	ug/L	-0.1166	ppb	07:43:59
1	Mn 257.610†	437.9	51.5	0.0676	ug/L	0.0676	ppb	07:44:19
1	Mo 202.031†	23.8	10.9	0.9815	ug/L	0.9815	ppb	07:44:19
1	Ni 231.604†	90.1	17.5	0.5643	ug/L	0.5643	ppb	07:44:19
1	P 214.914†	196.7	-4.0	-3.0302	ug/L	-3.0302	ppb	07:44:19
1	Pb 220.353†	-43.0	5.9	0.9164	ug/L	0.9164	ppb	07:44:19
1	S 181.975 Axial†	32.9	3.0	5.4652	ug/L	5.4652	ppb	07:44:19
1	Sb 206.836†	28.6	3.1	1.3910	ug/L	1.3910	ppb	07:44:19
1	Se 196.026†	-25.4	-3.2	-2.5011	ug/L	-2.5011	ppb	07:44:19
1	Si 251.611†	547.3	28.4	1.0736	ug/L	1.0736	ppb	07:44:19
1	Sn 189.927†	12.5	8.8	2.0148	ug/L	2.0148	ppb	07:44:19
1	Ti 334.940†	-1113.8	-68.1	-0.1295	ug/L	-0.1295	ppb	07:43:59
1	Tl 190.801†	-37.8	-8.7	-3.4446	ug/L	-3.4446	ppb	07:44:19
1	U 409.014†	-1980.2	-36.7	-1.0929	ug/L	-1.0929	ppb	07:43:59
1	V 292.402†	-1304.2	46.8	0.3815	ug/L	0.3815	ppb	07:43:59
1	Zn 213.857†	626.2	21.8	0.2566	ug/L	0.2566	ppb	07:44:19
1	SiO2†	575.1	38.7	3.1159	ug/L	3.1159	ppb	07:45:30
2	Sc Radial	4575.7	4575.7	101	%			07:43:07
2	Y RADIAL	4918.4	4918.4	100.0	%			07:43:07
2	Al 396.153Radial†	-78.8	-5.3	-5.1930	ug/L	-5.1930	ppb	07:43:27
2	Ca 317.933Radial†	18.8	0.3	0.6508	ug/L	0.6508	ppb	07:43:27
2	Fe 238.204 Radial†	8.2	1.5	17.559	ug/L	17.559	ppb	07:43:27
2	K 766.490 Radial†	2401.5	-121.4	-23.098	ug/L	-23.098	ppb	07:43:07
2	Mg 279.077 IEC†	-0.5	-0.9	-37.747	ug/L	-37.747	ppb	07:43:27
2	Na 589.592 Radial†	-728.9	-7.4	-2.5732	ug/L	-2.5732	ppb	07:43:07
2	Sr 421.552†	58.6	20.9	0.1634	ug/L	0.1634	ppb	07:43:07
2	Sc 361.383	850024.8	850024.8	100.56	%			07:44:24
2	Y 371.029	717782.7	717782.7	100.68	%			07:44:24
2	Ag 328.068†	161.5	4.0	0.0237	ug/L	0.0237	ppb	07:44:24
2	As 188.979†	-19.9	2.3	1.3175	ug/L	1.3175	ppb	07:44:44
2	B 249.677†	-18.8	428.8	12.116	ug/L	12.116	ppb	07:44:44
2	Ba 233.527†	17.9	5.8	0.0576	ug/L	0.0576	ppb	07:44:44
2	Be 313.107†	-4374.0	107.6	0.0461	ug/L	0.0461	ppb	07:44:24
2	Cd 226.502†	-143.5	5.8	0.0848	ug/L	0.0848	ppb	07:44:44
2	Co 228.616†	-43.7	10.1	0.2663	ug/L	0.2663	ppb	07:44:44
2	Cr 267.716†	61.0	-9.6	-0.1296	ug/L	-0.1296	ppb	07:44:44
2	Cu 324.752†	5548.1	-8.8	-0.0316	ug/L	-0.0316	ppb	07:44:24
2	Mn 257.610†	504.8	115.7	0.1572	ug/L	0.1572	ppb	07:44:44
2	Mo 202.031†	11.5	-1.5	-0.1311	ug/L	-0.1311	ppb	07:44:44
2	Ni 231.604†	83.9	10.8	0.3491	ug/L	0.3491	ppb	07:44:44

2	P 214.914†	183.5	-18.2	-13.800 ug/L	-13.800 ppb	07:44:44
2	Pb 220.353†	-51.8	-2.6	-0.4171 ug/L	-0.4171 ppb	07:44:44
2	S 181.975 Axial†	29.0	-1.1	-1.9182 ug/L	-1.9182 ppb	07:44:44
2	Sb 206.836†	27.7	2.1	0.8978 ug/L	0.8978 ppb	07:44:44
2	Se 196.026†	-12.3	10.0	8.3634 ug/L	8.3634 ppb	07:44:44
2	Si 251.611†	557.6	35.7	1.3637 ug/L	1.3637 ppb	07:44:44
2	Sn 189.927†	7.3	3.6	0.8263 ug/L	0.8263 ppb	07:44:44
2	Ti 334.940†	-1015.7	35.5	0.0621 ug/L	0.0621 ppb	07:44:24
2	Tl 190.801†	-31.8	-2.5	-0.9809 ug/L	-0.9809 ppb	07:44:44
2	U 409.014†	-1735.6	217.2	6.4251 ug/L	6.4251 ppb	07:44:24
2	V 292.402†	-1261.2	96.5	0.7802 ug/L	0.7802 ppb	07:44:24
2	Zn 213.857†	652.9	45.0	0.5492 ug/L	0.5492 ppb	07:44:44
2	SiO2†	581.6	42.0	3.4137 ug/L	3.4137 ppb	07:45:50
3	Sc Radial	4555.0	4555.0	100 %		07:43:32
3	Y RADIAL	4912.6	4912.6	99.91 %		07:43:32
3	Al 396.153Radial†	-67.7	5.5	5.4157 ug/L	5.4157 ppb	07:43:52
3	Ca 317.933Radial†	22.5	4.1	7.7487 ug/L	7.7487 ppb	07:43:52
3	Fe 238.204 Radial†	8.1	1.5	16.800 ug/L	16.800 ppb	07:43:52
3	K 766.490 Radial†	2409.5	-102.6	-19.512 ug/L	-19.512 ppb	07:43:32
3	Mg 279.077 IEC†	1.5	1.1	44.170 ug/L	44.170 ppb	07:43:52
3	Na 589.592 Radial†	-762.9	-44.6	-15.574 ug/L	-15.574 ppb	07:43:32
3	Sr 421.552†	57.6	20.2	0.1578 ug/L	0.1578 ppb	07:43:32
3	Sc 361.383	854137.6	854137.6	101.04 %		07:44:49
3	Y 371.029	721804.6	721804.6	101.24 %		07:44:49
3	Ag 328.068†	147.3	-10.9	-0.0507 ug/L	-0.0507 ppb	07:44:49
3	As 188.979†	-26.3	-3.9	-2.2209 ug/L	-2.2209 ppb	07:45:09
3	B 249.677†	-43.2	404.7	11.436 ug/L	11.436 ppb	07:45:09
3	Ba 233.527†	11.8	-0.3	-0.0009 ug/L	-0.0009 ppb	07:45:09
3	Be 313.107†	-4398.5	104.3	0.0449 ug/L	0.0449 ppb	07:44:49
3	Cd 226.502†	-146.3	3.7	0.0525 ug/L	0.0525 ppb	07:45:09
3	Co 228.616†	-40.4	13.6	0.3599 ug/L	0.3599 ppb	07:45:09
3	Cr 267.716†	59.3	-11.5	-0.1550 ug/L	-0.1550 ppb	07:45:09
3	Cu 324.752†	5659.8	75.3	0.2489 ug/L	0.2489 ppb	07:44:49
3	Mn 257.610†	538.7	146.8	0.1951 ug/L	0.1951 ppb	07:45:09
3	Mo 202.031†	20.4	7.3	0.6553 ug/L	0.6553 ppb	07:45:09
3	Ni 231.604†	73.6	0.2	0.0076 ug/L	0.0076 ppb	07:45:09
3	P 214.914†	191.8	-10.8	-8.2300 ug/L	-8.2300 ppb	07:45:09
3	Pb 220.353†	-39.7	9.7	1.5110 ug/L	1.5110 ppb	07:45:09
3	S 181.975 Axial†	21.8	-8.3	-15.058 ug/L	-15.058 ppb	07:45:09
3	Sb 206.836†	35.1	9.3	4.0012 ug/L	4.0012 ppb	07:45:09
3	Se 196.026†	-17.8	4.6	3.8690 ug/L	3.8690 ppb	07:45:09
3	Si 251.611†	570.6	45.9	1.7452 ug/L	1.7452 ppb	07:45:09
3	Sn 189.927†	12.0	8.2	1.8864 ug/L	1.8864 ppb	07:45:09
3	Ti 334.940†	-964.6	91.0	0.1545 ug/L	0.1545 ppb	07:44:49
3	Tl 190.801†	-30.9	-1.5	-0.5993 ug/L	-0.5993 ppb	07:45:09
3	U 409.014†	-1868.2	94.3	2.7883 ug/L	2.7883 ppb	07:44:49
3	V 292.402†	-1282.1	81.9	0.6686 ug/L	0.6686 ppb	07:44:49
3	Zn 213.857†	652.4	41.4	0.5068 ug/L	0.5068 ppb	07:45:09
3	SiO2†	567.6	25.4	2.0421 ug/L	2.0421 ppb	07:46:10

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	849871.0	100.54	%	0.514				0.51%
Sc Radial	4581.9	101	%	0.7				0.67%
Y 371.029	717652.0	100.66	%	0.592				0.59%
Y RADIAL	4928.3	100.2	%	0.45				0.45%
Ag 328.068†	3.2	0.0258	ug/L	0.07755	0.0258	ppb	0.07755	300.48%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.3	-0.3615	ug/L	5.36724	-0.3615	ppb	5.36724	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.1	-0.6320	ug/L	1.79653	-0.6320	ppb	1.79653	284.28%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	409.4	11.568	ug/L	0.4956	11.568	ppb	0.4956	4.28%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.6	0.0460	ug/L	0.04231	0.0460	ppb	0.04231	91.97%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	114.8	0.0491	ug/L	0.00626	0.0491	ppb	0.00626	12.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	2.7	5.0184	ug/L	3.82175	5.0184	ppb	3.82175	76.15%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -1.2     -0.0199 ug/L       0.15423     -0.0199 ppb        0.15423 773.55%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 7.0      0.1862 ug/L       0.22476      0.1862 ppb        0.22476 120.74%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -4.5     -0.0585 ug/L       0.14579     -0.0585 ppb        0.14579 249.32%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                10.1      0.0336 ug/L       0.19123      0.0336 ppb        0.19123 569.96%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.6     29.289 ug/L       20.9770     29.289 ppb        20.9770  71.62%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -110.5    -21.021 ug/L        1.8591    -21.021 ppb         1.8591   8.84%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.3     52.670 ug/L       94.9533     52.670 ppb        94.9533 180.28%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               104.7      0.1399 ug/L       0.06546      0.1399 ppb        0.06546  46.77%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.6      0.5019 ug/L       0.57199      0.5019 ppb        0.57199 113.96%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -25.9     -9.0422 ug/L       6.50042     -9.0422 ppb        6.50042  71.89%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 9.5      0.3070 ug/L       0.28075      0.3070 ppb        0.28075  91.45%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -11.0     -8.3535 ug/L       5.38609     -8.3535 ppb        5.38609  64.48%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 4.3      0.6701 ug/L       0.98735      0.6701 ppb        0.98735 147.35%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.1     -3.8370 ug/L      10.39536     -3.8370 ppb       10.39536 270.92%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 4.8      2.0967 ug/L       1.66769      2.0967 ppb        1.66769  79.54%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 3.8      3.2437 ug/L       5.45919      3.2437 ppb        5.45919 168.30%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                36.7      1.3942 ug/L       0.33686      1.3942 ppb        0.33686  24.16%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 6.8      1.5758 ug/L       0.65227      1.5758 ppb        0.65227  41.39%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                12.6      0.0990 ug/L       0.10670      0.0990 ppb        0.10670 107.74%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                19.5      0.0290 ug/L       0.14483      0.0290 ppb        0.14483 498.65%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -4.2     -1.6749 ug/L       1.54442     -1.6749 ppb        1.54442  92.21%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 91.6      2.7069 ug/L       3.75967      2.7069 ppb        3.75967 138.89%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 75.0      0.6101 ug/L       0.20568      0.6101 ppb        0.20568  33.71%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                36.0      0.4375 ug/L       0.15809      0.4375 ppb        0.15809  36.13%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      35.4      2.8572 ug/L       0.72148      2.8572 ppb        0.72148  25.25%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8 **Autosampler Location: 11**
Sample ID: PQL **Date Collected: 3/22/2010 07:48:21**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4647.0	4647.0	102	%			07:50:15
1	Y RADIAL	5007.9	5007.9	101.9	%			07:50:15
1	Al 396.153Radial†	133.8	204.2	201.56	ug/L	201.56	ppb	07:50:35
1	Ca 317.933Radial†	129.9	108.8	205.40	ug/L	205.40	ppb	07:50:35
1	Fe 238.204 Radial†	17.7	10.7	122.90	ug/L	122.90	ppb	07:50:35
1	K 766.490 Radial†	3224.0	647.6	123.03	ug/L	123.03	ppb	07:50:15
1	Mg 279.077 IEC†	9.6	9.0	374.20	ug/L	374.20	ppb	07:50:35
1	Na 589.592 Radial†	101.2	816.8	285.21	ug/L	285.21	ppb	07:50:15
1	Sr 421.552†	657.3	606.4	4.7494	ug/L	4.7494	ppb	07:50:15
1	Sc 361.383	854408.6	854408.6	101.08	%			07:51:31
1	Y 371.029	721763.1	721763.1	101.24	%			07:51:31
1	Ag 328.068†	1079.2	911.1	4.7063	ug/L	4.7063	ppb	07:51:31
1	As 188.979†	22.3	44.2	24.948	ug/L	24.948	ppb	07:51:51
1	B 249.677†	1613.6	2043.8	57.739	ug/L	57.739	ppb	07:51:31
1	Ba 233.527†	566.0	548.0	5.2247	ug/L	5.2247	ppb	07:51:51
1	Be 313.107†	7305.5	11685.0	5.0001	ug/L	5.0001	ppb	07:51:31
1	Cd 226.502†	189.4	335.9	4.9365	ug/L	4.9365	ppb	07:51:51
1	Co 228.616†	152.2	204.2	5.3868	ug/L	5.3868	ppb	07:51:51
1	Cr 267.716†	435.2	360.3	4.8975	ug/L	4.8975	ppb	07:51:51
1	Cu 324.752†	8654.8	3036.5	10.035	ug/L	10.035	ppb	07:51:31
1	Mn 257.610†	8280.5	7806.0	10.377	ug/L	10.377	ppb	07:51:31
1	Mo 202.031†	125.0	110.8	9.9831	ug/L	9.9831	ppb	07:51:51
1	Ni 231.604†	247.5	172.3	5.5626	ug/L	5.5626	ppb	07:51:51
1	P 214.914†	392.9	188.1	140.60	ug/L	140.60	ppb	07:51:51
1	Pb 220.353†	9.3	58.1	9.1332	ug/L	9.1332	ppb	07:51:51
1	S 181.975 Axial†	88.0	57.2	103.62	ug/L	103.62	ppb	07:51:51
1	Sb 206.836†	49.3	23.3	10.322	ug/L	10.322	ppb	07:51:51
1	Se 196.026†	22.9	44.8	37.776	ug/L	37.776	ppb	07:51:51
1	Si 251.611†	3106.9	2555.0	97.453	ug/L	97.453	ppb	07:51:51
1	Sn 189.927†	55.9	51.6	11.928	ug/L	11.928	ppb	07:51:51
1	Ti 334.940†	1930.5	2955.5	5.1114	ug/L	5.1114	ppb	07:51:31
1	Tl 190.801†	22.0	50.8	20.118	ug/L	20.118	ppb	07:51:51
1	U 409.014†	-25.8	1917.7	56.714	ug/L	56.714	ppb	07:51:31
1	V 292.402†	-686.2	671.8	5.6130	ug/L	5.6130	ppb	07:51:31
1	Zn 213.857†	1532.6	912.0	11.172	ug/L	11.172	ppb	07:51:51
1	SiO2†	3215.4	2644.8	214.45	ug/L	214.45	ppb	07:52:48
2	Sc Radial	4614.4	4614.4	101	%			07:50:40
2	Y RADIAL	4976.1	4976.1	101.2	%			07:50:40
2	Al 396.153Radial†	133.8	205.1	202.50	ug/L	202.50	ppb	07:51:00
2	Ca 317.933Radial†	128.2	108.1	203.94	ug/L	203.94	ppb	07:51:00
2	Fe 238.204 Radial†	18.2	11.3	130.28	ug/L	130.28	ppb	07:51:00
2	K 766.490 Radial†	3154.0	600.9	114.13	ug/L	114.13	ppb	07:50:40
2	Mg 279.077 IEC†	8.1	7.6	313.88	ug/L	313.88	ppb	07:51:00
2	Na 589.592 Radial†	176.8	892.1	311.50	ug/L	311.50	ppb	07:50:40
2	Sr 421.552†	641.0	594.9	4.6597	ug/L	4.6597	ppb	07:50:40
2	Sc 361.383	859116.4	859116.4	101.63	%			07:51:57
2	Y 371.029	725809.8	725809.8	101.80	%			07:51:57
2	Ag 328.068†	1202.8	1026.7	5.3060	ug/L	5.3060	ppb	07:51:57
2	As 188.979†	25.0	46.7	26.382	ug/L	26.382	ppb	07:52:17
2	B 249.677†	1560.1	1982.4	56.003	ug/L	56.003	ppb	07:51:57
2	Ba 233.527†	558.9	537.9	5.1305	ug/L	5.1305	ppb	07:52:17
2	Be 313.107†	7455.8	11793.3	5.0460	ug/L	5.0460	ppb	07:51:57
2	Cd 226.502†	187.3	332.7	4.8901	ug/L	4.8901	ppb	07:52:17
2	Co 228.616†	142.1	193.4	5.1025	ug/L	5.1025	ppb	07:52:17
2	Cr 267.716†	459.6	382.1	5.1937	ug/L	5.1937	ppb	07:52:17
2	Cu 324.752†	8787.9	3120.6	10.313	ug/L	10.313	ppb	07:51:57
2	Mn 257.610†	8334.3	7814.0	10.391	ug/L	10.391	ppb	07:51:57
2	Mo 202.031†	119.3	104.5	9.4156	ug/L	9.4156	ppb	07:52:17
2	Ni 231.604†	256.0	179.2	5.7876	ug/L	5.7876	ppb	07:52:17

2	P 214.914†	381.2	174.4	130.20	ug/L	130.20 ppb	07:52:17
2	Pb 220.353†	26.1	74.6	11.719	ug/L	11.719 ppb	07:52:17
2	S 181.975 Axial†	89.5	58.2	105.35	ug/L	105.35 ppb	07:52:17
2	Sb 206.836†	55.1	28.8	12.615	ug/L	12.615 ppb	07:52:17
2	Se 196.026†	21.7	43.6	36.751	ug/L	36.751 ppb	07:52:17
2	Si 251.611†	3103.9	2535.1	96.702	ug/L	96.702 ppb	07:52:17
2	Sn 189.927†	48.0	43.5	10.051	ug/L	10.051 ppb	07:52:17
2	Ti 334.940†	1845.0	2860.9	4.9508	ug/L	4.9508 ppb	07:51:57
2	Tl 190.801†	17.9	46.7	18.478	ug/L	18.478 ppb	07:52:17
2	U 409.014†	25.5	1968.2	58.209	ug/L	58.209 ppb	07:51:57
2	V 292.402†	-618.0	742.6	6.1728	ug/L	6.1728 ppb	07:51:57
2	Zn 213.857†	1538.5	909.5	11.139	ug/L	11.139 ppb	07:52:17
2	SiO2†	3203.2	2615.4	212.07	ug/L	212.07 ppb	07:52:53
3	Sc Radial	4490.2	4490.2	98.6	%		07:51:05
3	Y RADIAL	4879.3	4879.3	99.24	%		07:51:05
3	Al 396.153Radial†	131.3	206.2	203.57	ug/L	203.57 ppb	07:51:25
3	Ca 317.933Radial†	131.0	114.5	215.99	ug/L	215.99 ppb	07:51:25
3	Fe 238.204 Radial†	16.5	10.1	116.15	ug/L	116.15 ppb	07:51:25
3	K 766.490 Radial†	3228.7	762.7	144.92	ug/L	144.92 ppb	07:51:05
3	Mg 279.077 IEC†	11.9	11.6	482.22	ug/L	482.22 ppb	07:51:25
3	Na 589.592 Radial†	134.6	854.3	298.28	ug/L	298.28 ppb	07:51:05
3	Sr 421.552†	637.5	608.8	4.7685	ug/L	4.7685 ppb	07:51:05
3	Sc 361.383	853009.6	853009.6	100.91	%		07:52:22
3	Y 371.029	719565.2	719565.2	100.93	%		07:52:22
3	Ag 328.068†	1183.9	1016.5	5.2481	ug/L	5.2481 ppb	07:52:22
3	As 188.979†	32.3	54.1	30.554	ug/L	30.554 ppb	07:52:42
3	B 249.677†	1547.6	1981.1	55.966	ug/L	55.966 ppb	07:52:22
3	Ba 233.527†	565.3	548.2	5.2270	ug/L	5.2270 ppb	07:52:42
3	Be 313.107†	7466.1	11856.0	5.0729	ug/L	5.0729 ppb	07:52:22
3	Cd 226.502†	205.1	351.7	5.1699	ug/L	5.1699 ppb	07:52:42
3	Co 228.616†	160.6	212.8	5.6130	ug/L	5.6130 ppb	07:52:42
3	Cr 267.716†	446.7	372.5	5.0626	ug/L	5.0626 ppb	07:52:42
3	Cu 324.752†	8661.0	3056.8	10.101	ug/L	10.101 ppb	07:52:22
3	Mn 257.610†	8329.0	7867.5	10.454	ug/L	10.454 ppb	07:52:22
3	Mo 202.031†	121.9	107.9	9.7210	ug/L	9.7210 ppb	07:52:42
3	Ni 231.604†	262.1	187.2	6.0433	ug/L	6.0433 ppb	07:52:42
3	P 214.914†	402.1	197.8	147.99	ug/L	147.99 ppb	07:52:42
3	Pb 220.353†	20.2	68.9	10.833	ug/L	10.833 ppb	07:52:42
3	S 181.975 Axial†	87.6	56.9	103.15	ug/L	103.15 ppb	07:52:42
3	Sb 206.836†	50.9	25.0	11.034	ug/L	11.034 ppb	07:52:42
3	Se 196.026†	18.0	40.0	33.736	ug/L	33.736 ppb	07:52:42
3	Si 251.611†	3119.3	2572.3	98.117	ug/L	98.117 ppb	07:52:42
3	Sn 189.927†	53.3	49.1	11.353	ug/L	11.353 ppb	07:52:42
3	Ti 334.940†	1864.0	2892.7	4.9944	ug/L	4.9944 ppb	07:52:22
3	Tl 190.801†	24.0	52.9	20.934	ug/L	20.934 ppb	07:52:42
3	U 409.014†	-8.0	1935.3	57.236	ug/L	57.236 ppb	07:52:22
3	V 292.402†	-656.8	699.8	5.8376	ug/L	5.8376 ppb	07:52:22
3	Zn 213.857†	1555.9	937.6	11.486	ug/L	11.486 ppb	07:52:42
3	SiO2†	3257.0	2691.2	218.22	ug/L	218.22 ppb	07:52:58

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	855511.5	101.21	%	0.378				0.37%
Sc Radial	4583.9	101	%	1.8				1.81%
Y 371.029	722379.4	101.32	%	0.444				0.44%
Y RADIAL	4954.5	100.8	%	1.36				1.35%
Ag 328.068†	984.8	5.0868	ug/L	0.33077	5.0868	ppb	0.33077	6.50%
QC value within limits for Ag 328.068 Recovery = 101.74%								
Al 396.153Radial†	205.2	202.54	ug/L	1.008	202.54	ppb	1.008	0.50%
QC value within limits for Al 396.153Radial Recovery = 101.27%								
As 188.979†	48.3	27.295	ug/L	2.9125	27.295	ppb	2.9125	10.67%
QC value within limits for As 188.979 Recovery = 90.98%								
B 249.677†	2002.5	56.570	ug/L	1.0130	56.570	ppb	1.0130	1.79%
QC value within limits for B 249.677 Recovery = 113.14%								
Ba 233.527†	544.7	5.1941	ug/L	0.05504	5.1941	ppb	0.05504	1.06%
QC value within limits for Ba 233.527 Recovery = 103.88%								
Be 313.107†	11778.1	5.0396	ug/L	0.03680	5.0396	ppb	0.03680	0.73%
QC value within limits for Be 313.107 Recovery = 100.79%								
Ca 317.933Radial†	110.5	208.44	ug/L	6.576	208.44	ppb	6.576	3.15%

```
   QC value within limits for Ca 317.933Radial  Recovery = 104.22%
Cd 226.502†              340.1      4.9989 ug/L       0.14995      4.9989 ppb        0.14995   3.00%
   QC value within limits for Cd 226.502  Recovery = 99.98%
Co 228.616†              203.5      5.3675 ug/L       0.25582      5.3675 ppb        0.25582   4.77%
   QC value within limits for Co 228.616  Recovery = 107.35%
Cr 267.716†              371.6      5.0513 ug/L       0.14844      5.0513 ppb        0.14844   2.94%
   QC value within limits for Cr 267.716  Recovery = 101.03%
Cu 324.752†             3071.3      10.150 ug/L        0.1452      10.150 ppb         0.1452   1.43%
   QC value within limits for Cu 324.752  Recovery = 101.50%
Fe 238.204 Radial†        10.7      123.11 ug/L         7.069      123.11 ppb         7.069   5.74%
   QC value within limits for Fe 238.204 Radial  Recovery = 123.11%
K 766.490 Radial†        670.4      127.36 ug/L        15.846      127.36 ppb        15.846  12.44%
   QC value within limits for K 766.490 Radial  Recovery = 84.91%
Mg 279.077 IEC†            9.4      390.10 ug/L        85.287      390.10 ppb        85.287  21.86%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 130.03%
Mn 257.610†             7829.2      10.407 ug/L        0.0409      10.407 ppb        0.0409   0.39%
   QC value within limits for Mn 257.610  Recovery = 104.07%
Mo 202.031†              107.7      9.7066 ug/L       0.28399      9.7066 ppb       0.28399   2.93%
   QC value within limits for Mo 202.031  Recovery = 97.07%
Na 589.592 Radial†       854.4      298.33 ug/L        13.145      298.33 ppb        13.145   4.41%
   QC value within limits for Na 589.592 Radial  Recovery = 99.44%
Ni 231.604†              179.5      5.7979 ug/L       0.24055      5.7979 ppb       0.24055   4.15%
   QC value within limits for Ni 231.604  Recovery = 115.96%
P 214.914†               186.8      139.60 ug/L         8.937      139.60 ppb         8.937   6.40%
   QC value within limits for P 214.914  Recovery = 93.07%
Pb 220.353†               67.2      10.562 ug/L        1.3139      10.562 ppb        1.3139  12.44%
   QC value within limits for Pb 220.353  Recovery = 105.62%
S 181.975 Axial†          57.4      104.04 ug/L         1.161      104.04 ppb         1.161   1.12%
   QC value within limits for S 181.975 Axial  Recovery = 104.04%
Sb 206.836†               25.7      11.324 ug/L        1.1736      11.324 ppb        1.1736  10.36%
   QC value within limits for Sb 206.836  Recovery = 113.24%
Se 196.026†               42.8      36.088 ug/L        2.0999      36.088 ppb        2.0999   5.82%
   QC value within limits for Se 196.026  Recovery = 120.29%
Si 251.611†             2554.1      97.424 ug/L        0.7079      97.424 ppb        0.7079   0.73%
   QC value within limits for Si 251.611  Recovery = 97.42%
Sn 189.927†               48.1      11.110 ug/L        0.9616      11.110 ppb        0.9616   8.66%
   QC value within limits for Sn 189.927  Recovery = 111.10%
Sr 421.552†              603.4      4.7259 ug/L       0.05812      4.7259 ppb       0.05812   1.23%
   QC value within limits for Sr 421.552  Recovery = 94.52%
Ti 334.940†             2903.0      5.0188 ug/L       0.08304      5.0188 ppb       0.08304   1.65%
   QC value within limits for Ti 334.940  Recovery = 100.38%
Tl 190.801†               50.1      19.843 ug/L        1.2507      19.843 ppb        1.2507   6.30%
   QC value within limits for Tl 190.801  Recovery = 99.22%
U 409.014†              1940.4      57.386 ug/L        0.7586      57.386 ppb        0.7586   1.32%
   QC value within limits for U 409.014  Recovery = 114.77%
V 292.402†               704.8      5.8745 ug/L       0.28171      5.8745 ppb       0.28171   4.80%
   QC value within limits for V 292.402  Recovery = 117.49%
Zn 213.857†              919.7      11.265 ug/L        0.1915      11.265 ppb        0.1915   1.70%
   QC value within limits for Zn 213.857  Recovery = 112.65%
SiO2†                   2650.5      214.92 ug/L         3.101      214.92 ppb         3.101   1.44%
   QC value within limits for SiO2  Recovery = 100.90%
QC Failed.  Continue with analysis.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 3/22/2010 07:55:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4162.6	4162.6	91.4	%			07:57:22
1	Y RADIAL	4458.5	4458.5	90.68	%			07:57:22
1	Al 396.153Radial†	470749.0	514860.4	509390	ug/L	509390	ppb	07:57:02
1	Ca 317.933Radial†	228889.3	250283.3	472280	ug/L	472280	ppb	07:57:02
1	Fe 238.204 Radial†	14759.0	16133.0	185170	ug/L	185170	ppb	07:57:22
1	K 766.490 Radial†	2154.4	-154.5	-187.37	ug/L	-187.37	ppb	07:57:02
1	Mg 279.077 IEC†	10734.3	11738.0	487140	ug/L	487140	ppb	07:57:22
1	Na 589.592 Radial†	-641.3	16.4	5.7372	ug/L	5.7372	ppb	07:57:22
1	Sr 421.552†	462.6	468.4	0.1435	ug/L	0.1435	ppb	07:57:22
1	Sc 361.383	744053.2	744053.2	88.022	%			07:58:20
1	Y 371.029	613797.8	613797.8	86.093	%			07:58:20
1	Ag 328.068†	-8719.5	-10062.8	-0.9918	ug/L	-0.9918	ppb	07:58:20
1	As 188.979†	-63.1	-49.7	15.239	ug/L	15.239	ppb	07:58:40
1	B 249.677†	491.6	1005.9	-1.6400	ug/L	-1.6400	ppb	07:58:20
1	Ba 233.527†	-471.2	-547.3	0.4667	ug/L	0.4667	ppb	07:58:40
1	Be 313.107†	-4691.6	-872.7	-0.4250	ug/L	-0.4250	ppb	07:58:20
1	Cd 226.502†	1068.6	1362.5	0.9016	ug/L	0.9016	ppb	07:58:40
1	Co 228.616†	9.2	64.1	-0.9782	ug/L	-0.9782	ppb	07:58:40
1	Cr 267.716†	-1249.5	-1489.7	-0.6312	ug/L	-0.6312	ppb	07:58:40
1	Cu 324.752†	3042.8	-2069.1	2.9221	ug/L	2.9221	ppb	07:58:40
1	Mn 257.610†	78.3	-297.3	-2.0322	ug/L	-2.0322	ppb	07:58:20
1	Mo 202.031†	-180.1	-217.6	0.4163	ug/L	0.4163	ppb	07:58:40
1	Ni 231.604†	160.2	109.4	3.5326	ug/L	3.5326	ppb	07:58:40
1	P 214.914†	173.2	-3.9	-24.548	ug/L	-24.548	ppb	07:58:40
1	Pb 220.353†	-597.6	-630.0	-5.6374	ug/L	-5.6374	ppb	07:58:40
1	S 181.975 Axial†	26.4	0.1	-95.362	ug/L	-95.362	ppb	07:58:40
1	Sb 206.836†	60.0	42.7	0.7839	ug/L	0.7839	ppb	07:58:40
1	Se 196.026†	-706.2	-780.2	44.708	ug/L	44.708	ppb	07:58:40
1	Si 251.611†	463.2	7.4	0.5232	ug/L	0.5232	ppb	07:58:40
1	Sn 189.927†	-323.0	-370.7	-12.164	ug/L	-12.164	ppb	07:58:40
1	Ti 334.940†	-12603.6	-13273.2	0.4406	ug/L	0.4406	ppb	07:58:20
1	Tl 190.801†	-82.6	-64.7	-25.776	ug/L	-25.776	ppb	07:58:40
1	U 409.014†	-407.6	1480.1	22.727	ug/L	22.727	ppb	07:58:20
1	V 292.402†	593.4	2024.9	-1.4987	ug/L	-1.4987	ppb	07:58:40
1	Zn 213.857†	2557.8	2301.6	0.6416	ug/L	0.6416	ppb	07:58:40
1	SiO2†	534.5	70.8	6.2845	ug/L	6.2845	ppb	07:59:36
2	Sc Radial	4127.6	4127.6	90.7	%			07:57:48
2	Y RADIAL	4431.9	4431.9	90.13	%			07:57:48
2	Al 396.153Radial†	465468.1	513401.8	507950	ug/L	507950	ppb	07:57:28
2	Ca 317.933Radial†	226486.8	249756.3	471290	ug/L	471290	ppb	07:57:28
2	Fe 238.204 Radial†	14694.0	16198.2	185920	ug/L	185920	ppb	07:57:48
2	K 766.490 Radial†	2129.0	-162.5	-188.56	ug/L	-188.56	ppb	07:57:28
2	Mg 279.077 IEC†	10681.5	11779.4	488850	ug/L	488850	ppb	07:57:48
2	Na 589.592 Radial†	-605.4	50.2	17.515	ug/L	17.515	ppb	07:57:48
2	Sr 421.552†	473.3	484.6	0.2774	ug/L	0.2774	ppb	07:57:48
2	Sc 361.383	744334.2	744334.2	88.055	%			07:58:45
2	Y 371.029	613994.5	613994.5	86.121	%			07:58:45
2	Ag 328.068†	-8603.2	-9926.9	-0.0437	ug/L	-0.0437	ppb	07:58:45
2	As 188.979†	-56.2	-41.7	19.897	ug/L	19.897	ppb	07:59:05
2	B 249.677†	494.2	1008.7	-1.6826	ug/L	-1.6826	ppb	07:58:45
2	Ba 233.527†	-475.8	-552.3	0.4424	ug/L	0.4424	ppb	07:59:05
2	Be 313.107†	-4591.7	-757.3	-0.3773	ug/L	-0.3773	ppb	07:58:45
2	Cd 226.502†	1070.9	1364.6	0.8553	ug/L	0.8553	ppb	07:59:05
2	Co 228.616†	1.7	55.6	-1.2153	ug/L	-1.2153	ppb	07:59:05
2	Cr 267.716†	-1241.5	-1480.1	-0.4196	ug/L	-0.4196	ppb	07:59:05
2	Cu 324.752†	3126.8	-1975.0	3.2749	ug/L	3.2749	ppb	07:59:05
2	Mn 257.610†	121.2	-248.6	-1.9638	ug/L	-1.9638	ppb	07:58:45
2	Mo 202.031†	-196.2	-235.7	-1.1716	ug/L	-1.1716	ppb	07:59:05
2	Ni 231.604†	178.9	130.5	4.2168	ug/L	4.2168	ppb	07:59:05

2	P 214.914†	143.5	-37.7	-51.183	ug/L	-51.183 ppb	07:59:05
2	Pb 220.353†	-631.3	-668.1	-12.029	ug/L	-12.029 ppb	07:59:05
2	S 181.975 Axial†	36.6	11.6	-74.139	ug/L	-74.139 ppb	07:59:05
2	Sb 206.836†	59.0	41.6	0.3434	ug/L	0.3434 ppb	07:59:05
2	Se 196.026†	-707.5	-781.3	45.439	ug/L	45.439 ppb	07:59:05
2	Si 251.611†	479.0	25.1	1.2198	ug/L	1.2198 ppb	07:59:05
2	Sn 189.927†	-314.2	-360.5	-10.033	ug/L	-10.033 ppb	07:59:05
2	Ti 334.940†	-12954.9	-13666.7	-0.5166	ug/L	-0.5166 ppb	07:58:45
2	Tl 190.801†	-74.7	-55.8	-22.244	ug/L	-22.244 ppb	07:59:05
2	U 409.014†	-484.8	1392.6	20.055	ug/L	20.055 ppb	07:58:45
2	V 292.402†	622.2	2057.3	-1.3416	ug/L	-1.3416 ppb	07:59:05
2	Zn 213.857†	2591.7	2339.0	0.9857	ug/L	0.9857 ppb	07:59:05
2	SiO2†	437.1	-39.9	-2.6654	ug/L	-2.6654 ppb	07:59:41
3	Sc Radial	4140.8	4140.8	91.0	%		07:58:13
3	Y RADIAL	4422.8	4422.8	89.95	%		07:58:13
3	Al 396.153Radial†	460902.5	506750.6	501370	ug/L	501370 ppb	07:57:53
3	Ca 317.933Radial†	224967.0	247291.5	466640	ug/L	466640 ppb	07:57:53
3	Fe 238.204 Radial†	14614.7	16059.5	184330	ug/L	184330 ppb	07:58:13
3	K 766.490 Radial†	2270.2	-14.8	-158.89	ug/L	-158.89 ppb	07:57:53
3	Mg 279.077 IEC†	10630.2	11685.6	484960	ug/L	484960 ppb	07:58:13
3	Na 589.592 Radial†	-626.6	28.9	10.085	ug/L	10.085 ppb	07:58:13
3	Sr 421.552†	471.7	481.1	0.2851	ug/L	0.2851 ppb	07:58:13
3	Sc 361.383	738904.1	738904.1	87.413	%		07:59:10
3	Y 371.029	609891.2	609891.2	85.545	%		07:59:10
3	Ag 328.068†	-8644.4	-10045.9	-1.0828	ug/L	-1.0828 ppb	07:59:10
3	As 188.979†	-69.8	-57.8	10.478	ug/L	10.478 ppb	07:59:31
3	B 249.677†	478.8	995.2	-1.8066	ug/L	-1.8066 ppb	07:59:10
3	Ba 233.527†	-449.8	-526.5	0.6409	ug/L	0.6409 ppb	07:59:31
3	Be 313.107†	-4508.7	-700.7	-0.3512	ug/L	-0.3512 ppb	07:59:10
3	Cd 226.502†	1057.7	1358.5	0.9297	ug/L	0.9297 ppb	07:59:31
3	Co 228.616†	-2.4	50.8	-1.3159	ug/L	-1.3159 ppb	07:59:31
3	Cr 267.716†	-1270.5	-1523.7	-1.1799	ug/L	-1.1799 ppb	07:59:31
3	Cu 324.752†	3057.2	-2028.6	3.0130	ug/L	3.0130 ppb	07:59:31
3	Mn 257.610†	103.1	-268.3	-1.9879	ug/L	-1.9879 ppb	07:59:10
3	Mo 202.031†	-183.2	-222.5	-0.1586	ug/L	-0.1586 ppb	07:59:31
3	Ni 231.604†	162.3	113.1	3.6527	ug/L	3.6527 ppb	07:59:31
3	P 214.914†	124.8	-57.9	-66.803	ug/L	-66.803 ppb	07:59:31
3	Pb 220.353†	-609.8	-648.7	-10.297	ug/L	-10.297 ppb	07:59:31
3	S 181.975 Axial†	46.9	23.8	-50.911	ug/L	-50.911 ppb	07:59:31
3	Sb 206.836†	43.1	23.9	-7.0249	ug/L	-7.0249 ppb	07:59:31
3	Se 196.026†	-712.7	-793.2	28.860	ug/L	28.860 ppb	07:59:31
3	Si 251.611†	460.1	7.5	0.5327	ug/L	0.5327 ppb	07:59:31
3	Sn 189.927†	-323.0	-373.2	-13.698	ug/L	-13.698 ppb	07:59:31
3	Ti 334.940†	-12449.4	-13196.5	-0.0043	ug/L	-0.0043 ppb	07:59:10
3	Tl 190.801†	-86.6	-69.9	-27.824	ug/L	-27.824 ppb	07:59:31
3	U 409.014†	-474.7	1400.1	20.459	ug/L	20.459 ppb	07:59:10
3	V 292.402†	701.3	2152.9	-0.4027	ug/L	-0.4027 ppb	07:59:31
3	Zn 213.857†	2559.7	2323.9	1.0421	ug/L	1.0421 ppb	07:59:31
3	SiO2†	410.7	-66.5	-4.8502	ug/L	-4.8502 ppb	07:59:46

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	742430.5	87.830	%	0.3617				0.41%
Sc Radial	4143.6	91.0	%	0.39				0.43%
Y 371.029	612561.2	85.920	%	0.3246				0.38%
Y RADIAL	4437.7	90.25	%	0.378				0.42%
Ag 328.068†	-10011.8	-0.7061	ug/L	0.57543	-0.7061	ppb	0.57543	81.50%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	511670.9	506240	ug/L	4277.2	506240	ppb	4277.2	0.84%
QC value within limits for Al 396.153Radial Recovery = 101.25%								
As 188.979†	-49.7	15.205	ug/L	4.7097	15.205	ppb	4.7097	30.97%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	1003.3	-1.7097	ug/L	0.08655	-1.7097	ppb	0.08655	5.06%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-542.1	0.5167	ug/L	0.10827	0.5167	ppb	0.10827	20.96%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-776.9	-0.3845	ug/L	0.03741	-0.3845	ppb	0.03741	9.73%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	249110.4	470070	ug/L	3013.8	470070	ppb	3013.8	0.64%

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   QC value within limits for Ca 317.933Radial  Recovery = 94.01%
Cd 226.502†            1361.9      0.8955 ug/L       0.03756      0.8955 ppb        0.03756   4.19%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              56.8     -1.1698 ug/L       0.17341     -1.1698 ppb        0.17341  14.82%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†           -1497.8     -0.7436 ug/L       0.39245     -0.7436 ppb        0.39245  52.78%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -2024.2      3.0700 ug/L       0.18316      3.0700 ppb        0.18316   5.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    16130.3      185140 ug/L         796.4      185140 ppb          796.4   0.43%
   QC value within limits for Fe 238.204 Radial  Recovery = 92.57%
K 766.490 Radial†      -110.6     -178.27 ug/L        16.796     -178.27 ppb         16.796   9.42%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       11734.4      486980 ug/L        1951.8      486980 ppb         1951.8   0.40%
   QC value within limits for Mg 279.077 IEC  Recovery = 97.40%
Mn 257.610†            -271.4     -1.9946 ug/L       0.03471     -1.9946 ppb        0.03471   1.74%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -225.2     -0.3046 ug/L       0.80395     -0.3046 ppb        0.80395 263.89%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       31.8      11.113 ug/L        5.9560      11.113 ppb         5.9560  53.60%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             117.7      3.8007 ug/L       0.36534      3.8007 ppb        0.36534   9.61%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -33.2     -47.511 ug/L       21.3653     -47.511 ppb        21.3653  44.97%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -649.0     -9.3212 ug/L       3.30571     -9.3212 ppb        3.30571  35.46%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         11.8     -73.471 ug/L       22.2328     -73.471 ppb        22.2328  30.26%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              36.0     -1.9659 ug/L       4.38677     -1.9659 ppb        4.38677 223.15%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -784.9      39.669 ug/L        9.3682      39.669 ppb         9.3682  23.62%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              13.3      0.7586 ug/L       0.39942      0.7586 ppb        0.39942  52.65%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -368.2     -11.965 ug/L        1.8404     -11.965 ppb         1.8404  15.38%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             478.0      0.2353 ug/L       0.07960      0.2353 ppb        0.07960  33.83%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -13378.8     -0.0268 ug/L       0.47898     -0.0268 ppb        0.47898 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -63.5     -25.281 ug/L        2.8231     -25.281 ppb         2.8231  11.17%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             1424.3      21.081 ug/L        1.4405      21.081 ppb         1.4405   6.83%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             2078.4     -1.0810 ug/L       0.59264     -1.0810 ppb        0.59264  54.82%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2321.5      0.8898 ug/L       0.21681      0.8898 ppb        0.21681  24.37%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -11.9     -0.4104 ug/L       5.89997     -0.4104 ppb        5.89997 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 3/22/2010 08:01:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4095.5	4095.5	90.0	%			08:04:10
1	Y RADIAL	4399.6	4399.6	89.48	%			08:04:10
1	Al 396.153Radial†	478690.4	532113.3	526440	ug/L	526440	ppb	08:03:50
1	Ca 317.933Radial†	232462.9	258352.3	487510	ug/L	487510	ppb	08:03:50
1	Fe 238.204 Radial†	14747.2	16384.1	188070	ug/L	188070	ppb	08:04:10
1	K 766.490 Radial†	28793.3	29491.8	5445.4	ug/L	5445.4	ppb	08:03:50
1	Mg 279.077 IEC†	10694.1	11885.5	493260	ug/L	493260	ppb	08:04:10
1	Na 589.592 Radial†	14053.1	16337.1	5704.4	ug/L	5704.4	ppb	08:03:50
1	Sr 421.552†	60562.3	67274.5	523.45	ug/L	523.45	ppb	08:03:50
1	Sc 361.383	748853.0	748853.0	88.590	%			08:05:08
1	Y 371.029	617027.2	617027.2	86.546	%			08:05:08
1	Ag 328.068†	38471.5	43270.0	276.23	ug/L	276.23	ppb	08:05:08
1	As 188.979†	711.6	825.3	512.23	ug/L	512.23	ppb	08:05:29
1	B 249.677†	16946.0	19576.1	521.57	ug/L	521.57	ppb	08:05:08
1	Ba 233.527†	45242.4	51057.7	492.23	ug/L	492.23	ppb	08:05:08
1	Be 313.107†	505600.1	575179.0	246.65	ug/L	246.65	ppb	08:05:08
1	Cd 226.502†	28684.6	32527.7	458.85	ug/L	458.85	ppb	08:05:29
1	Co 228.616†	14902.5	16875.6	441.66	ug/L	441.66	ppb	08:05:29
1	Cr 267.716†	30454.0	34306.3	486.90	ug/L	486.90	ppb	08:05:08
1	Cu 324.752†	151524.0	165514.3	558.00	ug/L	558.00	ppb	08:05:08
1	Mn 257.610†	318727.3	359393.2	476.30	ug/L	476.30	ppb	08:05:08
1	Mo 202.031†	4574.9	5151.3	483.95	ug/L	483.95	ppb	08:05:29
1	Ni 231.604†	12389.5	13912.6	449.24	ug/L	449.24	ppb	08:05:29
1	P 214.914†	3058.7	3252.0	2339.5	ug/L	2339.5	ppb	08:05:29
1	Pb 220.353†	1998.8	2305.1	457.98	ug/L	457.98	ppb	08:05:29
1	S 181.975 Axial†	1302.8	1440.6	2511.8	ug/L	2511.8	ppb	08:05:29
1	Sb 206.836†	1164.6	1289.2	549.00	ug/L	549.00	ppb	08:05:29
1	Se 196.026†	1901.1	2168.1	2515.7	ug/L	2515.7	ppb	08:05:29
1	Si 251.611†	122062.6	137265.5	5236.5	ug/L	5236.5	ppb	08:05:08
1	Sn 189.927†	1567.9	1766.1	482.84	ug/L	482.84	ppb	08:05:29
1	Ti 334.940†	246917.0	279765.6	511.33	ug/L	511.33	ppb	08:05:08
1	Tl 190.801†	929.6	1078.4	428.98	ug/L	428.98	ppb	08:05:29
1	U 409.014†	14366.0	18159.6	514.81	ug/L	514.81	ppb	08:05:08
1	V 292.402†	56710.7	65365.7	512.62	ug/L	512.62	ppb	08:05:08
1	Zn 213.857†	38311.1	42641.3	493.78	ug/L	493.78	ppb	08:05:08
1	SiO2†	120509.9	135495.3	10988	ug/L	10988	ppb	08:06:26
2	Sc Radial	4115.2	4115.2	90.4	%			08:04:36
2	Y RADIAL	4416.9	4416.9	89.83	%			08:04:36
2	Al 396.153Radial†	468505.0	518306.7	512780	ug/L	512780	ppb	08:04:16
2	Ca 317.933Radial†	227675.1	251822.8	475190	ug/L	475190	ppb	08:04:16
2	Fe 238.204 Radial†	14854.6	16424.7	188530	ug/L	188530	ppb	08:04:36
2	K 766.490 Radial†	28322.1	28817.9	5321.4	ug/L	5321.4	ppb	08:04:16
2	Mg 279.077 IEC†	10778.8	11922.5	494800	ug/L	494800	ppb	08:04:36
2	Na 589.592 Radial†	13729.1	15904.1	5553.2	ug/L	5553.2	ppb	08:04:16
2	Sr 421.552†	59019.8	65246.9	507.65	ug/L	507.65	ppb	08:04:16
2	Sc 361.383	750801.9	750801.9	88.820	%			08:05:34
2	Y 371.029	619138.5	619138.5	86.842	%			08:05:34
2	Ag 328.068†	38446.4	43129.0	275.80	ug/L	275.80	ppb	08:05:34
2	As 188.979†	743.9	859.6	531.64	ug/L	531.64	ppb	08:05:55
2	B 249.677†	16817.6	19381.8	515.99	ug/L	515.99	ppb	08:05:34
2	Ba 233.527†	45300.6	50990.7	491.60	ug/L	491.60	ppb	08:05:34
2	Be 313.107†	506410.2	574609.6	246.41	ug/L	246.41	ppb	08:05:34
2	Cd 226.502†	28915.6	32703.7	461.39	ug/L	461.39	ppb	08:05:55
2	Co 228.616†	15044.4	16991.7	444.71	ug/L	444.71	ppb	08:05:55
2	Cr 267.716†	30362.7	34114.2	484.34	ug/L	484.34	ppb	08:05:34
2	Cu 324.752†	151200.5	164706.2	555.34	ug/L	555.34	ppb	08:05:34
2	Mn 257.610†	318829.8	358574.8	475.20	ug/L	475.20	ppb	08:05:34
2	Mo 202.031†	4614.1	5182.0	486.61	ug/L	486.61	ppb	08:05:55
2	Ni 231.604†	12496.4	13996.7	451.95	ug/L	451.95	ppb	08:05:55

2	P 214.914†	3077.5	3264.2	2345.4	ug/L	2345.4	ppb	08:05:55
2	Pb 220.353†	1991.4	2291.0	452.52	ug/L	452.52	ppb	08:05:55
2	S 181.975 Axial†	1325.7	1462.7	2554.2	ug/L	2554.2	ppb	08:05:55
2	Sb 206.836†	1157.5	1277.8	544.48	ug/L	544.48	ppb	08:05:55
2	Se 196.026†	1935.8	2201.7	2540.7	ug/L	2540.7	ppb	08:05:55
2	Si 251.611†	122090.0	136938.7	5224.0	ug/L	5224.0	ppb	08:05:34
2	Sn 189.927†	1550.8	1742.3	475.13	ug/L	475.13	ppb	08:05:55
2	Ti 334.940†	247482.0	279678.2	509.40	ug/L	509.40	ppb	08:05:34
2	Tl 190.801†	949.8	1098.5	436.87	ug/L	436.87	ppb	08:05:55
2	U 409.014†	14400.6	18156.4	514.67	ug/L	514.67	ppb	08:05:34
2	V 292.402†	56684.0	65169.5	511.05	ug/L	511.05	ppb	08:05:34
2	Zn 213.857†	38358.6	42582.6	492.97	ug/L	492.97	ppb	08:05:34
2	SiO2†	121728.7	136514.4	11070	ug/L	11070	ppb	08:06:31
3	Sc Radial	4116.4	4116.4	90.4	%			08:05:01
3	Y RADIAL	4412.0	4412.0	89.73	%			08:05:01
3	Al 396.153Radial†	481416.1	532434.2	526750	ug/L	526750	ppb	08:04:41
3	Ca 317.933Radial†	233610.7	258313.8	487440	ug/L	487440	ppb	08:04:41
3	Fe 238.204 Radial†	14752.4	16306.9	187180	ug/L	187180	ppb	08:05:01
3	K 766.490 Radial†	28996.7	29554.8	5457.4	ug/L	5457.4	ppb	08:04:41
3	Mg 279.077 IEC†	10700.4	11832.3	491060	ug/L	491060	ppb	08:05:01
3	Na 589.592 Radial†	14182.4	16400.9	5726.7	ug/L	5726.7	ppb	08:04:41
3	Sr 421.552†	60829.0	67228.7	523.09	ug/L	523.09	ppb	08:04:41
3	Sc 361.383	753182.4	753182.4	89.102	%			08:06:00
3	Y 371.029	619761.5	619761.5	86.930	%			08:06:00
3	Ag 328.068†	38478.0	43027.6	274.71	ug/L	274.71	ppb	08:06:00
3	As 188.979†	734.1	846.0	523.65	ug/L	523.65	ppb	08:06:21
3	B 249.677†	17020.9	19550.2	520.96	ug/L	520.96	ppb	08:06:00
3	Ba 233.527†	45591.5	51155.9	493.13	ug/L	493.13	ppb	08:06:00
3	Be 313.107†	508561.6	575222.2	246.67	ug/L	246.67	ppb	08:06:00
3	Cd 226.502†	29103.2	32811.4	463.11	ug/L	463.11	ppb	08:06:21
3	Co 228.616†	15144.0	17049.9	446.27	ug/L	446.27	ppb	08:06:21
3	Cr 267.716†	30577.6	34247.4	486.01	ug/L	486.01	ppb	08:06:00
3	Cu 324.752†	151828.0	164872.4	555.83	ug/L	555.83	ppb	08:06:00
3	Mn 257.610†	320908.7	359773.5	476.81	ug/L	476.81	ppb	08:06:00
3	Mo 202.031†	4644.2	5199.3	488.20	ug/L	488.20	ppb	08:06:21
3	Ni 231.604†	12588.8	14056.0	453.87	ug/L	453.87	ppb	08:06:21
3	P 214.914†	3107.9	3287.4	2367.5	ug/L	2367.5	ppb	08:06:21
3	Pb 220.353†	2005.8	2300.0	457.38	ug/L	457.38	ppb	08:06:21
3	S 181.975 Axial†	1340.4	1474.4	2572.9	ug/L	2572.9	ppb	08:06:21
3	Sb 206.836†	1191.9	1312.2	558.89	ug/L	558.89	ppb	08:06:21
3	Se 196.026†	1950.0	2210.6	2548.7	ug/L	2548.7	ppb	08:06:21
3	Si 251.611†	122809.6	137311.8	5238.2	ug/L	5238.2	ppb	08:06:00
3	Sn 189.927†	1568.5	1756.7	480.70	ug/L	480.70	ppb	08:06:21
3	Ti 334.940†	248682.4	280144.8	512.16	ug/L	512.16	ppb	08:06:00
3	Tl 190.801†	974.2	1122.5	446.34	ug/L	446.34	ppb	08:06:21
3	U 409.014†	14267.6	17955.9	508.89	ug/L	508.89	ppb	08:06:00
3	V 292.402†	57101.7	65436.6	513.32	ug/L	513.32	ppb	08:06:00
3	Zn 213.857†	38551.6	42662.7	494.15	ug/L	494.15	ppb	08:06:00
3	SiO2†	121702.3	136051.6	11033	ug/L	11033	ppb	08:06:36

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	750945.8	88.837	%	0.2565				0.29%
Sc Radial	4109.0	90.3	%	0.26				0.28%
Y 371.029	618642.4	86.773	%	0.2010				0.23%
Y RADIAL	4409.5	89.68	%	0.181				0.20%
Ag 328.068†	43142.2	275.58	ug/L	0.782	275.58	ppb	0.782	0.28%
QC value within limits for Ag 328.068 Recovery = 110.23%								
Al 396.153Radial†	527618.1	521990	ug/L	7979.8	521990	ppb	7979.8	1.53%
QC value within limits for Al 396.153Radial Recovery = 104.40%								
As 188.979†	843.6	522.50	ug/L	9.756	522.50	ppb	9.756	1.87%
QC value within limits for As 188.979 Recovery = 104.50%								
B 249.677†	19502.7	519.51	ug/L	3.061	519.51	ppb	3.061	0.59%
QC value within limits for B 249.677 Recovery = 103.90%								
Ba 233.527†	51068.1	492.32	ug/L	0.771	492.32	ppb	0.771	0.16%
QC value within limits for Ba 233.527 Recovery = 98.46%								
Be 313.107†	575003.6	246.58	ug/L	0.147	246.58	ppb	0.147	0.06%
QC value within limits for Be 313.107 Recovery = 98.63%								
Ca 317.933Radial†	256162.9	483380	ug/L	7092.7	483380	ppb	7092.7	1.47%

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   QC value within limits for Ca 317.933Radial  Recovery = 96.68%
Cd 226.502†            32680.9      461.12 ug/L         2.144      461.12 ppb          2.144   0.46%
   QC value within limits for Cd 226.502  Recovery = 92.22%
Co 228.616†            16972.4      444.21 ug/L         2.346      444.21 ppb          2.346   0.53%
   QC value within limits for Co 228.616  Recovery = 88.84%
Cr 267.716†            34222.6      485.75 ug/L         1.302      485.75 ppb          1.302   0.27%
   QC value within limits for Cr 267.716  Recovery = 97.15%
Cu 324.752†           165030.9      556.39 ug/L         1.413      556.39 ppb          1.413   0.25%
   QC value within limits for Cu 324.752  Recovery = 111.28%
Fe 238.204 Radial†     16371.9      187930 ug/L         686.7      187930 ppb          686.7   0.37%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.96%
K 766.490 Radial†      29288.2      5408.1 ug/L         75.32      5408.1 ppb          75.32   1.39%
   QC value within limits for K 766.490 Radial  Recovery = 108.16%
Mg 279.077 IEC†        11880.1      493040 ug/L        1881.2      493040 ppb         1881.2   0.38%
   QC value within limits for Mg 279.077 IEC  Recovery = 98.61%
Mn 257.610†           359247.2      476.10 ug/L         0.825      476.10 ppb          0.825   0.17%
   QC value within limits for Mn 257.610  Recovery = 95.22%
Mo 202.031†             5177.5      486.25 ug/L         2.148      486.25 ppb          2.148   0.44%
   QC value within limits for Mo 202.031  Recovery = 97.25%
Na 589.592 Radial†     16214.1      5661.4 ug/L         94.38      5661.4 ppb          94.38   1.67%
   QC value within limits for Na 589.592 Radial  Recovery = 113.23%
Ni 231.604†            13988.4      451.69 ug/L         2.326      451.69 ppb          2.326   0.51%
   QC value within limits for Ni 231.604  Recovery = 90.34%
P 214.914†              3267.8      2350.8 ug/L         14.78      2350.8 ppb          14.78   0.63%
   QC value within limits for P 214.914  Recovery = 94.03%
Pb 220.353†             2298.7      455.96 ug/L         2.997      455.96 ppb          2.997   0.66%
   QC value within limits for Pb 220.353  Recovery = 91.19%
S 181.975 Axial†        1459.2      2546.3 ug/L         31.32      2546.3 ppb          31.32   1.23%
   QC value within limits for S 181.975 Axial  Recovery = 101.85%
Sb 206.836†             1293.1      550.79 ug/L         7.368      550.79 ppb          7.368   1.34%
   QC value within limits for Sb 206.836  Recovery = 110.16%
Se 196.026†             2193.5      2535.0 ug/L         17.20      2535.0 ppb          17.20   0.68%
   QC value within limits for Se 196.026  Recovery = 101.40%
Si 251.611†           137172.0      5232.9 ug/L          7.77      5232.9 ppb           7.77   0.15%
   QC value within limits for Si 251.611  Recovery = 104.66%
Sn 189.927†             1755.0      479.56 ug/L         3.983      479.56 ppb          3.983   0.83%
   QC value within limits for Sn 189.927  Recovery = 95.91%
Sr 421.552†            66583.4      518.06 ug/L         9.017      518.06 ppb          9.017   1.74%
   QC value within limits for Sr 421.552  Recovery = 103.61%
Ti 334.940†           279862.8      510.96 ug/L         1.417      510.96 ppb          1.417   0.28%
   QC value within limits for Ti 334.940  Recovery = 102.19%
Tl 190.801†             1099.8      437.39 ug/L         8.695      437.39 ppb          8.695   1.99%
   QC value within limits for Tl 190.801  Recovery = 87.48%
U 409.014†             18090.6      512.79 ug/L         3.380      512.79 ppb          3.380   0.66%
   QC value within limits for U 409.014  Recovery = 102.56%
V 292.402†             65324.0      512.33 ug/L         1.164      512.33 ppb          1.164   0.23%
   QC value within limits for V 292.402  Recovery = 102.47%
Zn 213.857†            42628.8      493.63 ug/L         0.602      493.63 ppb          0.602   0.12%
   QC value within limits for Zn 213.857  Recovery = 98.73%
SiO2†                 136020.4       11030 ug/L          41.4       11030 ppb           41.4   0.38%
   QC value within limits for SiO2  Recovery = 103.13%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 15
Date Collected: 3/22/2010 08:08:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4032.5	4032.5	88.6	%			08:10:59
1	Y RADIAL	4330.3	4330.3	88.07	%			08:10:59
1	Al 396.153Radial†	455115.3	513813.8	508360	ug/L	508360	ppb	08:10:39
1	Ca 317.933Radial†	222639.0	251299.8	474200	ug/L	474200	ppb	08:10:39
1	Fe 238.204 Radial†	33157.4	37421.9	429520	ug/L	429520	ppb	08:10:59
1	K 766.490 Radial†	2624.1	451.7	-274.15	ug/L	-274.15	ppb	08:10:39
1	Mg 279.077 IEC†	10392.5	11730.8	486580	ug/L	486580	ppb	08:10:59
1	Na 589.592 Radial†	1310121.8	1479602.0	516630	ug/L	516630	ppb	08:10:39
1	Sr 421.552†	1409.1	1553.2	8.6282	ug/L	8.6282	ppb	08:10:59
1	Sc 361.383	724624.5	724624.5	85.723	%			08:11:57
1	Y 371.029	598410.6	598410.6	83.935	%			08:11:57
1	Ag 328.068†	-19981.1	-23465.4	-6.6067	ug/L	-6.6067	ppb	08:11:57
1	As 188.979†	-149.5	-152.3	14.724	ug/L	14.724	ppb	08:12:17
1	B 249.677†	1129.9	1765.5	-19.870	ug/L	-19.870	ppb	08:11:57
1	Ba 233.527†	-1333.8	-1567.9	-1.7800	ug/L	-1.7800	ppb	08:12:17
1	Be 313.107†	-10325.3	-7587.5	-3.2886	ug/L	-3.2886	ppb	08:11:57
1	Cd 226.502†	2703.4	3302.0	7.0477	ug/L	7.0477	ppb	08:12:17
1	Co 228.616†	222.4	313.0	1.9891	ug/L	1.9891	ppb	08:12:17
1	Cr 267.716†	-1104.2	-1358.3	21.174	ug/L	21.174	ppb	08:12:17
1	Cu 324.752†	803.5	-4588.7	-0.7058	ug/L	-0.7058	ppb	08:11:57
1	Mn 257.610†	-18761.2	-22272.1	-7.1075	ug/L	-7.1075	ppb	08:11:57
1	Mo 202.031†	-378.5	-454.5	-1.9140	ug/L	-1.9140	ppb	08:12:17
1	Ni 231.604†	222.5	187.0	6.0362	ug/L	6.0362	ppb	08:12:17
1	P 214.914†	476.3	355.0	52.001	ug/L	52.001	ppb	08:12:17
1	Pb 220.353†	-437.4	-461.3	-14.263	ug/L	-14.263	ppb	08:12:17
1	S 181.975 Axial†	58.9	38.8	-24.899	ug/L	-24.899	ppb	08:12:17
1	Sb 206.836†	40.9	22.3	-11.087	ug/L	-11.087	ppb	08:12:17
1	Se 196.026†	-1691.9	-1951.5	-228.83	ug/L	-228.83	ppb	08:12:17
1	Si 251.611†	-405.4	-991.7	-37.369	ug/L	-37.369	ppb	08:12:17
1	Sn 189.927†	-335.8	-395.4	-31.537	ug/L	-31.537	ppb	08:12:17
1	Ti 334.940†	-11615.1	-12503.9	-4.4559	ug/L	-4.4559	ppb	08:11:57
1	Tl 190.801†	-86.7	-72.1	-28.847	ug/L	-28.847	ppb	08:12:17
1	U 409.014†	429485.4	502956.3	14832	ug/L	14832	ppb	08:11:57
1	V 292.402†	1588.7	3203.9	0.4450	ug/L	0.4450	ppb	08:12:17
1	Zn 213.857†	4624.0	4789.8	-5.2650	ug/L	-5.2650	ppb	08:12:17
1	SiO2†	-497.1	-1116.2	-89.505	ug/L	-89.505	ppb	08:13:14
2	Sc Radial	4050.1	4050.1	89.0	%			08:11:25
2	Y RADIAL	4351.3	4351.3	88.50	%			08:11:25
2	Al 396.153Radial†	462295.7	519658.7	514140	ug/L	514140	ppb	08:11:05
2	Ca 317.933Radial†	224647.9	252469.0	476410	ug/L	476410	ppb	08:11:05
2	Fe 238.204 Radial†	33314.8	37436.7	429690	ug/L	429690	ppb	08:11:25
2	K 766.490 Radial†	2665.4	485.3	-269.69	ug/L	-269.69	ppb	08:11:05
2	Mg 279.077 IEC†	10454.0	11749.1	487340	ug/L	487340	ppb	08:11:25
2	Na 589.592 Radial†	1323598.2	1488342.4	519680	ug/L	519680	ppb	08:11:05
2	Sr 421.552†	1416.5	1554.6	8.6225	ug/L	8.6225	ppb	08:11:25
2	Sc 361.383	723369.3	723369.3	85.575	%			08:12:23
2	Y 371.029	597439.4	597439.4	83.799	%			08:12:23
2	Ag 328.068†	-19678.5	-23152.3	-4.9275	ug/L	-4.9275	ppb	08:12:23
2	As 188.979†	-134.8	-135.5	24.227	ug/L	24.227	ppb	08:12:43
2	B 249.677†	1257.4	1916.8	-15.617	ug/L	-15.617	ppb	08:12:23
2	Ba 233.527†	-1288.6	-1517.7	-1.2992	ug/L	-1.2992	ppb	08:12:43
2	Be 313.107†	-10307.5	-7587.6	-3.2894	ug/L	-3.2894	ppb	08:12:23
2	Cd 226.502†	2688.5	3290.2	6.8460	ug/L	6.8460	ppb	08:12:43
2	Co 228.616†	205.4	293.6	1.4754	ug/L	1.4754	ppb	08:12:43
2	Cr 267.716†	-1074.5	-1325.8	21.656	ug/L	21.656	ppb	08:12:43
2	Cu 324.752†	818.4	-4569.6	-0.6026	ug/L	-0.6026	ppb	08:12:23
2	Mn 257.610†	-18764.0	-22313.3	-7.1766	ug/L	-7.1766	ppb	08:12:23
2	Mo 202.031†	-382.1	-459.4	-2.3170	ug/L	-2.3170	ppb	08:12:43
2	Ni 231.604†	250.8	220.4	7.1171	ug/L	7.1171	ppb	08:12:43

2	P 214.914†	456.0	332.2	36.050	ug/L	36.050	ppb	08:12:43
2	Pb 220.353†	-429.2	-452.7	-11.624	ug/L	-11.624	ppb	08:12:43
2	S 181.975 Axial†	57.2	36.9	-29.417	ug/L	-29.417	ppb	08:12:43
2	Sb 206.836†	50.3	33.4	-6.5566	ug/L	-6.5566	ppb	08:12:43
2	Se 196.026†	-1682.8	-1944.3	-220.58	ug/L	-220.58	ppb	08:12:43
2	Si 251.611†	-401.0	-987.4	-37.199	ug/L	-37.199	ppb	08:12:43
2	Sn 189.927†	-338.2	-398.9	-31.962	ug/L	-31.962	ppb	08:12:43
2	Ti 334.940†	-11774.3	-12713.5	-4.5623	ug/L	-4.5623	ppb	08:12:23
2	Tl 190.801†	-80.4	-64.9	-26.008	ug/L	-26.008	ppb	08:12:43
2	U 409.014†	427120.2	501061.8	14776	ug/L	14776	ppb	08:12:23
2	V 292.402†	1507.5	3112.4	-0.4118	ug/L	-0.4118	ppb	08:12:43
2	Zn 213.857†	4574.9	4741.8	-5.8884	ug/L	-5.8884	ppb	08:12:43
2	SiO2†	-382.3	-983.1	-78.688	ug/L	-78.688	ppb	08:13:19
3	Sc Radial	4032.3	4032.3	88.6	%			08:11:50
3	Y RADIAL	4344.1	4344.1	88.35	%			08:11:50
3	Al 396.153Radial†	458746.3	517944.4	512440	ug/L	512440	ppb	08:11:30
3	Ca 317.933Radial†	223331.9	252097.4	475710	ug/L	475710	ppb	08:11:30
3	Fe 238.204 Radial†	33207.0	37480.2	430190	ug/L	430190	ppb	08:11:50
3	K 766.490 Radial†	2716.7	556.3	-255.65	ug/L	-255.65	ppb	08:11:30
3	Mg 279.077 IEC†	10405.3	11745.9	487210	ug/L	487210	ppb	08:11:50
3	Na 589.592 Radial†	1315942.7	1486264.3	518960	ug/L	518960	ppb	08:11:30
3	Sr 421.552†	1408.5	1552.6	8.6119	ug/L	8.6119	ppb	08:11:50
3	Sc 361.383	724887.8	724887.8	85.755	%			08:12:49
3	Y 371.029	598776.7	598776.7	83.986	%			08:12:49
3	Ag 328.068†	-19710.4	-23141.4	-4.7095	ug/L	-4.7095	ppb	08:12:49
3	As 188.979†	-143.7	-145.5	18.707	ug/L	18.707	ppb	08:13:09
3	B 249.677†	1239.1	1892.4	-16.387	ug/L	-16.387	ppb	08:12:49
3	Ba 233.527†	-1324.2	-1556.2	-1.6494	ug/L	-1.6494	ppb	08:13:09
3	Be 313.107†	-10269.8	-7518.5	-3.2601	ug/L	-3.2601	ppb	08:12:49
3	Cd 226.502†	2667.4	3259.0	6.3349	ug/L	6.3349	ppb	08:13:09
3	Co 228.616†	184.7	269.0	0.8166	ug/L	0.8166	ppb	08:13:09
3	Cr 267.716†	-1052.8	-1297.9	22.086	ug/L	22.086	ppb	08:13:09
3	Cu 324.752†	823.9	-4565.3	-0.5635	ug/L	-0.5635	ppb	08:12:49
3	Mn 257.610†	-18753.6	-22255.2	-7.0447	ug/L	-7.0447	ppb	08:12:49
3	Mo 202.031†	-396.5	-475.3	-3.7133	ug/L	-3.7133	ppb	08:13:09
3	Ni 231.604†	204.0	165.3	5.3359	ug/L	5.3359	ppb	08:13:09
3	P 214.914†	477.1	355.7	52.988	ug/L	52.988	ppb	08:13:09
3	Pb 220.353†	-434.0	-457.2	-12.791	ug/L	-12.791	ppb	08:13:09
3	S 181.975 Axial†	58.6	38.5	-26.354	ug/L	-26.354	ppb	08:13:09
3	Sb 206.836†	44.5	26.4	-9.5027	ug/L	-9.5027	ppb	08:13:09
3	Se 196.026†	-1685.8	-1943.6	-219.09	ug/L	-219.09	ppb	08:13:09
3	Si 251.611†	-353.7	-931.2	-35.038	ug/L	-35.038	ppb	08:13:09
3	Sn 189.927†	-339.7	-399.9	-32.341	ug/L	-32.341	ppb	08:13:09
3	Ti 334.940†	-11825.1	-12743.9	-4.7000	ug/L	-4.7000	ppb	08:12:49
3	Tl 190.801†	-80.6	-64.9	-26.021	ug/L	-26.021	ppb	08:13:09
3	U 409.014†	428112.1	501173.0	14779	ug/L	14779	ppb	08:12:49
3	V 292.402†	1516.8	3119.4	-0.4444	ug/L	-0.4444	ppb	08:13:09
3	Zn 213.857†	4606.6	4767.6	-5.6346	ug/L	-5.6346	ppb	08:13:09
3	SiO2†	-461.8	-1074.8	-86.095	ug/L	-86.095	ppb	08:13:24

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	724293.9	85.684	%	0.0960				0.11%
Sc Radial	4038.3	88.7	%	0.22				0.25%
Y 371.029	598208.9	83.907	%	0.0969				0.12%
Y RADIAL	4341.9	88.31	%	0.217				0.25%
Ag 328.068†	-23253.0	-5.4146	ug/L	1.03816	-5.4146	ppb	1.03816	19.17%
Al 396.153Radial†	517139.0	511650	ug/L	2972.6	511650	ppb	2972.6	0.58%
QC value within limits for Al 396.153Radial Recovery = 102.33%								
As 188.979†	-144.4	19.219	ug/L	4.7720	19.219	ppb	4.7720	24.83%
B 249.677†	1858.2	-17.292	ug/L	2.2659	-17.292	ppb	2.2659	13.10%
Ba 233.527†	-1547.3	-1.5762	ug/L	0.24862	-1.5762	ppb	0.24862	15.77%
Be 313.107†	-7564.6	-3.2793	ug/L	0.01672	-3.2793	ppb	0.01672	0.51%
Ca 317.933Radial†	251955.4	475440	ug/L	1127.3	475440	ppb	1127.3	0.24%
QC value within limits for Ca 317.933Radial Recovery = 95.09%								
Cd 226.502†	3283.7	6.7429	ug/L	0.36745	6.7429	ppb	0.36745	5.45%
Co 228.616†	291.9	1.4270	ug/L	0.58774	1.4270	ppb	0.58774	41.19%
Cr 267.716†	-1327.3	21.639	ug/L	0.4563	21.639	ppb	0.4563	2.11%
Cu 324.752†	-4574.6	-0.6240	ug/L	0.07349	-0.6240	ppb	0.07349	11.78%

Fe 238.204 Radial†	37446.3	429800	ug/L	347.9	429800	ppb	347.9	0.08%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 85.96%								
K 766.490 Radial†	497.8	-266.50	ug/L	9.659	-266.50	ppb	9.659	3.62%
Mg 279.077 IEC†	11741.9	487040	ug/L	406.8	487040	ppb	406.8	0.08%
QC value within limits for Mg 279.077 IEC Recovery = 97.41%								
Mn 257.610†	-22280.2	-7.1096	ug/L	0.06599	-7.1096	ppb	0.06599	0.93%
Mo 202.031†	-463.1	-2.6481	ug/L	0.94423	-2.6481	ppb	0.94423	35.66%
Na 589.592 Radial†	1484736.2	518420	ug/L	1594.4	518420	ppb	1594.4	0.31%
QC value within limits for Na 589.592 Radial Recovery = 103.68%								
Ni 231.604†	190.9	6.1631	ug/L	0.89739	6.1631	ppb	0.89739	14.56%
P 214.914†	347.6	47.013	ug/L	9.5069	47.013	ppb	9.5069	20.22%
Pb 220.353†	-457.1	-12.893	ug/L	1.3223	-12.893	ppb	1.3223	10.26%
S 181.975 Axial†	38.1	-26.890	ug/L	2.3064	-26.890	ppb	2.3064	8.58%
Sb 206.836†	27.4	-9.0488	ug/L	2.29916	-9.0488	ppb	2.29916	25.41%
Se 196.026†	-1946.5	-222.83	ug/L	5.248	-222.83	ppb	5.248	2.35%
Si 251.611†	-970.1	-36.535	ug/L	1.2997	-36.535	ppb	1.2997	3.56%
Sn 189.927†	-398.1	-31.946	ug/L	0.4023	-31.946	ppb	0.4023	1.26%
Sr 421.552†	1553.4	8.6209	ug/L	0.00823	8.6209	ppb	0.00823	0.10%
Ti 334.940†	-12653.8	-4.5727	ug/L	0.12240	-4.5727	ppb	0.12240	2.68%
Tl 190.801†	-67.3	-26.959	ug/L	1.6357	-26.959	ppb	1.6357	6.07%
U 409.014†	501730.4	14796	ug/L	31.5	14796	ppb	31.5	0.21%
QC value within limits for U 409.014 Recovery = 98.64%								
V 292.402†	3145.2	-0.1371	ug/L	0.50434	-0.1371	ppb	0.50434	367.94%
Zn 213.857†	4766.4	-5.5960	ug/L	0.31348	-5.5960	ppb	0.31348	5.60%
SiO2†	-1058.0	-84.763	ug/L	5.5300	-84.763	ppb	5.5300	6.52%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 3/22/2010 08:15:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4635.1	4635.1	102	%			08:17:32
1	Y RADIAL	4924.5	4924.5	100.2	%			08:17:32
1	Al 396.153Radial†	379.8	446.1	-24.373	ug/L	-24.373	ppb	08:17:32
1	Ca 317.933Radial†	30.4	11.5	21.773	ug/L	21.773	ppb	08:17:52
1	Fe 238.204 Radial†	-15.1	-21.5	33.458	ug/L	33.458	ppb	08:17:52
1	K 766.490 Radial†	1581932.8	1551055.1	295110	ug/L	295110	ppb	08:17:27
1	Mg 279.077 IEC†	-5.0	-5.3	-118.20	ug/L	-118.20	ppb	08:17:52
1	Na 589.592 Radial†	-154.4	566.2	197.69	ug/L	197.69	ppb	08:17:32
1	Sr 421.552†	1265429.5	1242700.2	9736.4	ug/L	9736.4	ppb	08:17:27
1	Sc 361.383	856560.6	856560.6	101.33	%			08:19:09
1	Y 371.029	704197.6	704197.6	98.773	%			08:19:09
1	Ag 328.068†	-6565.6	-6636.0	6.3088	ug/L	6.3088	ppb	08:19:15
1	As 188.979†	17482.6	17274.9	9795.9	ug/L	9795.9	ppb	08:19:15
1	B 249.677†	179738.0	177823.7	5000.0	ug/L	5000.0	ppb	08:19:09
1	Ba 233.527†	1497512.4	1477823.7	14070	ug/L	14070	ppb	08:19:09
1	Be 313.107†	6755010.6	6670709.7	2869.9	ug/L	2869.9	ppb	08:19:03
1	Cd 226.502†	666695.9	658084.2	9674.5	ug/L	9674.5	ppb	08:19:09
1	Co 228.616†	359846.8	355172.1	9348.7	ug/L	9348.7	ppb	08:19:15
1	Cr 267.716†	1794616.0	1770965.3	24093	ug/L	24093	ppb	08:19:09
1	Cu 324.752†	6143712.4	6057460.4	20068	ug/L	20068	ppb	08:19:03
1	Mn 257.610†	7087508.2	6993994.8	9300.3	ug/L	9300.3	ppb	08:19:03
1	Mo 202.031†	108161.6	106727.5	9604.2	ug/L	9604.2	ppb	08:19:15
1	Ni 231.604†	302674.4	298624.8	9642.7	ug/L	9642.7	ppb	08:19:15
1	P 214.914†	23847.8	23333.8	13793	ug/L	13793	ppb	08:19:15
1	Pb 220.353†	153716.2	151745.3	23750	ug/L	23750	ppb	08:19:15
1	S 181.975 Axial†	28513.4	28108.8	50932	ug/L	50932	ppb	08:19:15
1	Sb 206.836†	24581.9	24233.4	10680	ug/L	10680	ppb	08:19:15
1	Se 196.026†	11971.5	11836.4	9888.3	ug/L	9888.3	ppb	08:19:15
1	Si 251.611†	1249026.4	1232095.9	46936	ug/L	46936	ppb	08:19:09
1	Sn 189.927†	43695.9	43118.0	9937.1	ug/L	9937.1	ppb	08:19:15
1	Ti 334.940†	5675132.6	5601609.1	9735.3	ug/L	9735.3	ppb	08:19:03
1	Tl 190.801†	24366.4	24075.3	9566.5	ug/L	9566.5	ppb	08:19:15
1	U 409.014†	-635.5	1316.0	-14.921	ug/L	-14.921	ppb	08:19:15
1	V 292.402†	1269304.0	1253976.6	10161	ug/L	10161	ppb	08:19:09
1	Zn 213.857†	1151918.8	1136178.7	13914	ug/L	13914	ppb	08:19:09
1	SiO2†	1257411.5	1240353.2	100440	ug/L	100440	ppb	08:20:00
2	Sc Radial	4640.2	4640.2	102	%			08:18:03
2	Y RADIAL	4926.9	4926.9	100.2	%			08:18:03
2	Al 396.153Radial†	398.4	464.0	-8.9142	ug/L	-8.9142	ppb	08:18:03
2	Ca 317.933Radial†	38.6	19.5	36.850	ug/L	36.850	ppb	08:18:23
2	Fe 238.204 Radial†	-15.3	-21.7	32.216	ug/L	32.216	ppb	08:18:23
2	K 766.490 Radial†	1563355.8	1531124.2	291320	ug/L	291320	ppb	08:17:57
2	Mg 279.077 IEC†	-2.1	-2.5	-1.3356	ug/L	-1.3356	ppb	08:18:23
2	Na 589.592 Radial†	-152.5	568.1	198.37	ug/L	198.37	ppb	08:18:03
2	Sr 421.552†	1244722.1	1221021.1	9566.5	ug/L	9566.5	ppb	08:17:57
2	Sc 361.383	860084.3	860084.3	101.75	%			08:19:29
2	Y 371.029	708436.6	708436.6	99.367	%			08:19:29
2	Ag 328.068†	-6715.0	-6756.3	5.7365	ug/L	5.7365	ppb	08:19:34
2	As 188.979†	17688.7	17406.8	9870.3	ug/L	9870.3	ppb	08:19:34
2	B 249.677†	181294.7	178627.0	5022.6	ug/L	5022.6	ppb	08:19:29
2	Ba 233.527†	1500564.6	1474768.8	14041	ug/L	14041	ppb	08:19:29
2	Be 313.107†	6798878.2	6686512.3	2876.7	ug/L	2876.7	ppb	08:19:23
2	Cd 226.502†	669160.9	657811.4	9670.5	ug/L	9670.5	ppb	08:19:29
2	Co 228.616†	363020.8	356836.7	9392.6	ug/L	9392.6	ppb	08:19:34
2	Cr 267.716†	1801707.2	1770678.8	24090	ug/L	24090	ppb	08:19:29
2	Cu 324.752†	6182153.5	6070401.2	20111	ug/L	20111	ppb	08:19:23
2	Mn 257.610†	7130764.7	7007852.5	9318.7	ug/L	9318.7	ppb	08:19:23
2	Mo 202.031†	109134.1	107246.0	9650.8	ug/L	9650.8	ppb	08:19:34
2	Ni 231.604†	305514.5	300192.3	9693.3	ug/L	9693.3	ppb	08:19:34

2	P 214.914†	24110.7	23495.7	13908	ug/L	13908	ppb	08:19:34
2	Pb 220.353†	155086.2	152470.3	23864	ug/L	23864	ppb	08:19:34
2	S 181.975 Axial†	28763.3	28239.2	51169	ug/L	51169	ppb	08:19:34
2	Sb 206.836†	24916.6	24463.0	10779	ug/L	10779	ppb	08:19:34
2	Se 196.026†	12088.0	11902.5	9943.4	ug/L	9943.4	ppb	08:19:34
2	Si 251.611†	1256833.1	1234718.5	47036	ug/L	47036	ppb	08:19:29
2	Sn 189.927†	44120.6	43358.7	9992.6	ug/L	9992.6	ppb	08:19:34
2	Ti 334.940†	5713318.0	5616193.2	9760.6	ug/L	9760.6	ppb	08:19:23
2	Tl 190.801†	24558.6	24165.7	9602.3	ug/L	9602.3	ppb	08:19:34
2	U 409.014†	-738.3	1217.6	-17.824	ug/L	-17.824	ppb	08:19:34
2	V 292.402†	1275984.2	1255410.0	10173	ug/L	10173	ppb	08:19:29
2	Zn 213.857†	1156623.5	1136145.3	13913	ug/L	13913	ppb	08:19:29
2	SiO2†	1254702.6	1232607.0	99807	ug/L	99807	ppb	08:20:06
3	Sc Radial	4592.3	4592.3	101	%			08:18:33
3	Y RADIAL	4868.3	4868.3	99.01	%			08:18:33
3	Al 396.153Radial†	380.1	449.9	-22.990	ug/L	-22.990	ppb	08:18:33
3	Ca 317.933Radial†	36.2	17.5	33.052	ug/L	33.052	ppb	08:18:53
3	Fe 238.204 Radial†	-15.9	-22.4	24.489	ug/L	24.489	ppb	08:18:53
3	K 766.490 Radial†	1574721.4	1558399.6	296500	ug/L	296500	ppb	08:18:28
3	Mg 279.077 IEC†	-4.5	-4.9	-101.80	ug/L	-101.80	ppb	08:18:53
3	Na 589.592 Radial†	-133.0	585.9	204.59	ug/L	204.59	ppb	08:18:33
3	Sr 421.552†	1257025.3	1245963.0	9761.9	ug/L	9761.9	ppb	08:18:28
3	Sc 361.383	862892.5	862892.5	102.08	%			08:19:49
3	Y 371.029	709889.1	709889.1	99.571	%			08:19:49
3	Ag 328.068†	-6745.4	-6764.6	5.6729	ug/L	5.6729	ppb	08:19:54
3	As 188.979†	17795.5	17454.9	9897.5	ug/L	9897.5	ppb	08:19:54
3	B 249.677†	182013.0	178750.8	5026.0	ug/L	5026.0	ppb	08:19:49
3	Ba 233.527†	1505388.3	1474694.7	14041	ug/L	14041	ppb	08:19:49
3	Be 313.107†	6830963.9	6696198.1	2880.9	ug/L	2880.9	ppb	08:19:42
3	Cd 226.502†	671253.3	657720.9	9669.2	ug/L	9669.2	ppb	08:19:49
3	Co 228.616†	365294.4	357902.9	9420.6	ug/L	9420.6	ppb	08:19:54
3	Cr 267.716†	1807193.6	1770290.6	24084	ug/L	24084	ppb	08:19:49
3	Cu 324.752†	6229338.7	6096851.4	20199	ug/L	20199	ppb	08:19:42
3	Mn 257.610†	7161259.4	7014918.2	9328.1	ug/L	9328.1	ppb	08:19:42
3	Mo 202.031†	109517.4	107272.4	9653.2	ug/L	9653.2	ppb	08:19:54
3	Ni 231.604†	306985.0	300655.7	9708.3	ug/L	9708.3	ppb	08:19:54
3	P 214.914†	24300.0	23604.1	13972	ug/L	13972	ppb	08:19:54
3	Pb 220.353†	155850.3	152722.8	23903	ug/L	23903	ppb	08:19:54
3	S 181.975 Axial†	28985.8	28365.1	51397	ug/L	51397	ppb	08:19:54
3	Sb 206.836†	25014.1	24478.8	10786	ug/L	10786	ppb	08:19:54
3	Se 196.026†	12128.2	11903.1	9944.0	ug/L	9944.0	ppb	08:19:54
3	Si 251.611†	1263813.0	1237536.2	47143	ug/L	47143	ppb	08:19:49
3	Sn 189.927†	44349.5	43441.9	10012	ug/L	10012	ppb	08:19:54
3	Ti 334.940†	5741429.6	5625458.1	9776.8	ug/L	9776.8	ppb	08:19:42
3	Tl 190.801†	24619.9	24147.3	9595.0	ug/L	9595.0	ppb	08:19:54
3	U 409.014†	-681.2	1275.9	-16.086	ug/L	-16.086	ppb	08:19:54
3	V 292.402†	1279612.5	1254883.2	10169	ug/L	10169	ppb	08:19:49
3	Zn 213.857†	1160389.7	1136135.3	13913	ug/L	13913	ppb	08:19:49
3	SiO2†	1266697.7	1240344.6	100440	ug/L	100440	ppb	08:20:12

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	859845.8	101.72	%	0.375				0.37%
Sc Radial	4622.5	102	%	0.6				0.57%
Y 371.029	707507.8	99.237	%	0.4148				0.42%
Y RADIAL	4906.6	99.79	%	0.675				0.68%
Ag 328.068†	-6719.0	5.9061	ug/L	0.35022	5.9061	ppb	0.35022	5.93%
Al 396.153Radial†	453.4	-18.759	ug/L	8.5540	-18.759	ppb	8.5540	45.60%
As 188.979†	17378.9	9854.6	ug/L	52.61	9854.6	ppb	52.61	0.53%
QC value within limits for As 188.979 Recovery = 98.55%								
B 249.677†	178400.5	5016.2	ug/L	14.13	5016.2	ppb	14.13	0.28%
QC value within limits for B 249.677 Recovery = 100.32%								
Ba 233.527†	1475762.4	14051	ug/L	17.0	14051	ppb	17.0	0.12%
QC value within limits for Ba 233.527 Recovery = 93.67%								
Be 313.107†	6684473.4	2875.8	ug/L	5.54	2875.8	ppb	5.54	0.19%
QC value within limits for Be 313.107 Recovery = 95.86%								
Ca 317.933Radial†	16.2	30.558	ug/L	7.8414	30.558	ppb	7.8414	25.66%
Cd 226.502†	657872.2	9671.4	ug/L	2.76	9671.4	ppb	2.76	0.03%
QC value within limits for Cd 226.502 Recovery = 96.71%								

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Co 228.616†          356637.3      9387.3 ug/L        36.24      9387.3 ppb         36.24   0.39%
   QC value within limits for Co 228.616  Recovery = 93.87%
Cr 267.716†         1770644.9       24089 ug/L          4.6       24089 ppb           4.6   0.02%
   QC value within limits for Cr 267.716  Recovery = 96.36%
Cu 324.752†         6074904.4       20126 ug/L         66.5       20126 ppb          66.5   0.33%
   QC value within limits for Cu 324.752  Recovery = 100.63%
Fe 238.204 Radial†       -21.9      30.054 ug/L       4.8594      30.054 ppb        4.8594  16.17%
K 766.490 Radial†    1546859.6      294310 ug/L       2685.4      294310 ppb        2685.4   0.91%
   QC value within limits for K 766.490 Radial  Recovery = 98.10%
Mg 279.077 IEC†          -4.2     -73.781 ug/L      63.2733     -73.781 ppb       63.2733  85.76%
Mn 257.610†         7005588.5      9315.7 ug/L        14.15      9315.7 ppb         14.15   0.15%
   QC value within limits for Mn 257.610  Recovery = 93.16%
Mo 202.031†          107081.9      9636.1 ug/L        27.65      9636.1 ppb         27.65   0.29%
   QC value within limits for Mo 202.031  Recovery = 96.36%
Na 589.592 Radial†       573.4      200.22 ug/L        3.806      200.22 ppb         3.806   1.90%
Ni 231.604†          299824.2      9681.4 ug/L        34.37      9681.4 ppb         34.37   0.35%
   QC value within limits for Ni 231.604  Recovery = 96.81%
P 214.914†            23477.9       13891 ug/L         90.9       13891 ppb          90.9   0.65%
   QC value within limits for P 214.914  Recovery = 92.61%
Pb 220.353†          152312.8       23839 ug/L         79.4       23839 ppb          79.4   0.33%
   QC value within limits for Pb 220.353  Recovery = 95.36%
S 181.975 Axial†      28237.7       51166 ug/L        232.2       51166 ppb         232.2   0.45%
   QC value within limits for S 181.975 Axial  Recovery = 102.33%
Sb 206.836†           24391.8       10748 ug/L         59.7       10748 ppb          59.7   0.55%
   QC value within limits for Sb 206.836  Recovery = 107.48%
Se 196.026†           11880.7      9925.2 ug/L        32.00      9925.2 ppb         32.00   0.32%
   QC value within limits for Se 196.026  Recovery = 99.25%
Si 251.611†         1234783.5       47038 ug/L        103.6       47038 ppb         103.6   0.22%
   QC value within limits for Si 251.611  Recovery = 94.08%
Sn 189.927†           43306.2      9980.5 ug/L        38.77      9980.5 ppb         38.77   0.39%
   QC value within limits for Sn 189.927  Recovery = 99.80%
Sr 421.552†         1236561.4      9688.3 ug/L       106.22      9688.3 ppb        106.22   1.10%
   QC value within limits for Sr 421.552  Recovery = 96.88%
Ti 334.940†         5614420.1      9757.6 ug/L        20.92      9757.6 ppb         20.92   0.21%
   QC value within limits for Ti 334.940  Recovery = 97.58%
Tl 190.801†           24129.4      9587.9 ug/L        18.92      9587.9 ppb         18.92   0.20%
   QC value within limits for Tl 190.801  Recovery = 95.88%
U 409.014†             1269.8     -16.277 ug/L       1.4605     -16.277 ppb        1.4605   8.97%
V 292.402†          1254756.6       10168 ug/L          6.2       10168 ppb           6.2   0.06%
   QC value within limits for V 292.402  Recovery = 101.68%
Zn 213.857†         1136153.1       13913 ug/L          0.6       13913 ppb           0.6   0.00%
   QC value within limits for Zn 213.857  Recovery = 92.76%
SiO2†               1237768.3      100230 ug/L        363.2      100230 ppb         363.2   0.36%
   QC value within limits for SiO2  Recovery = 93.67%
All analyte(s) passed QC.
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Sequence No.: 13 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/22/2010 08:22:22**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4747.5	4747.5	104	%			08:24:15
1	Y RADIAL	5121.1	5121.1	104.2	%			08:24:15
1	Al 396.153Radial†	5108.7	4971.4	4894.9	ug/L	4894.9	ppb	08:24:15
1	Ca 317.933Radial†	2809.2	2675.1	5048.0	ug/L	5048.0	ppb	08:24:35
1	Fe 238.204 Radial†	475.9	449.6	5175.7	ug/L	5175.7	ppb	08:24:35
1	K 766.490 Radial†	31853.0	28030.5	5326.9	ug/L	5326.9	ppb	08:24:15
1	Mg 279.077 IEC†	131.3	125.5	5208.8	ug/L	5208.8	ppb	08:24:35
1	Na 589.592 Radial†	30292.1	29762.1	10392	ug/L	10392	ppb	08:24:15
1	Sr 421.552†	67044.4	64245.3	503.32	ug/L	503.32	ppb	08:24:15
1	Sc 361.383	891260.6	891260.6	105.44	%			08:25:32
1	Y 371.029	740418.8	740418.8	103.85	%			08:25:32
1	Ag 328.068†	100495.9	95157.5	493.57	ug/L	493.57	ppb	08:25:37
1	As 188.979†	939.2	912.9	518.62	ug/L	518.62	ppb	08:25:58
1	B 249.677†	19316.7	18768.1	528.26	ug/L	528.26	ppb	08:25:37
1	Ba 233.527†	54795.0	51957.7	495.16	ug/L	495.16	ppb	08:25:37
1	Be 313.107†	1230452.6	1171465.7	501.20	ug/L	501.20	ppb	08:25:32
1	Cd 226.502†	35337.2	33663.6	494.46	ug/L	494.46	ppb	08:25:37
1	Co 228.616†	20001.8	19024.1	500.93	ug/L	500.93	ppb	08:25:37
1	Cr 267.716†	38491.7	36436.8	496.46	ug/L	496.46	ppb	08:25:37
1	Cu 324.752†	163121.7	149184.9	494.23	ug/L	494.23	ppb	08:25:37
1	Mn 257.610†	393882.1	373186.6	496.54	ug/L	496.54	ppb	08:25:32
1	Mo 202.031†	5749.2	5439.8	489.98	ug/L	489.98	ppb	08:25:58
1	Ni 231.604†	16443.2	15522.8	501.23	ug/L	501.23	ppb	08:25:37
1	P 214.914†	3604.6	3218.1	2342.5	ug/L	2342.5	ppb	08:25:58
1	Pb 220.353†	3272.4	3152.5	494.52	ug/L	494.52	ppb	08:25:58
1	S 181.975 Axial†	601.4	540.5	978.36	ug/L	978.36	ppb	08:25:58
1	Sb 206.836†	1278.1	1186.7	523.25	ug/L	523.25	ppb	08:25:58
1	Se 196.026†	599.6	590.8	510.06	ug/L	510.06	ppb	08:25:58
1	Si 251.611†	69589.1	65482.1	2494.8	ug/L	2494.8	ppb	08:25:37
1	Sn 189.927†	2239.5	2120.3	489.25	ug/L	489.25	ppb	08:25:58
1	Ti 334.940†	290934.6	276979.1	481.65	ug/L	481.65	ppb	08:25:37
1	Tl 190.801†	1308.2	1269.9	504.38	ug/L	504.38	ppb	08:25:58
1	U 409.014†	16132.0	17243.4	508.49	ug/L	508.49	ppb	08:25:37
1	V 292.402†	63886.2	61942.8	502.72	ug/L	502.72	ppb	08:25:37
1	Zn 213.857†	43057.7	40233.3	491.21	ug/L	491.21	ppb	08:25:37
1	SiO2†	69958.1	65814.6	5329.9	ug/L	5329.9	ppb	08:27:05
2	Sc Radial	4753.2	4753.2	104	%			08:24:40
2	Y RADIAL	5078.2	5078.2	103.3	%			08:24:40
2	Al 396.153Radial†	5054.6	4913.8	4837.7	ug/L	4837.7	ppb	08:24:40
2	Ca 317.933Radial†	2794.3	2657.6	5014.8	ug/L	5014.8	ppb	08:25:00
2	Fe 238.204 Radial†	476.4	449.6	5175.4	ug/L	5175.4	ppb	08:25:00
2	K 766.490 Radial†	31647.5	27797.2	5282.5	ug/L	5282.5	ppb	08:24:40
2	Mg 279.077 IEC†	131.1	125.2	5197.2	ug/L	5197.2	ppb	08:25:00
2	Na 589.592 Radial†	30073.3	29517.8	10307	ug/L	10307	ppb	08:24:40
2	Sr 421.552†	66682.5	63821.9	500.00	ug/L	500.00	ppb	08:24:40
2	Sc 361.383	885860.8	885860.8	104.80	%			08:26:03
2	Y 371.029	737014.9	737014.9	103.38	%			08:26:03
2	Ag 328.068†	101305.2	96510.7	500.58	ug/L	500.58	ppb	08:26:09
2	As 188.979†	936.2	915.5	520.14	ug/L	520.14	ppb	08:26:29
2	B 249.677†	19412.0	18970.7	533.98	ug/L	533.98	ppb	08:26:09
2	Ba 233.527†	55136.8	52600.6	501.29	ug/L	501.29	ppb	08:26:09
2	Be 313.107†	1225146.4	1173516.0	502.09	ug/L	502.09	ppb	08:26:03
2	Cd 226.502†	35647.9	34164.4	501.82	ug/L	501.82	ppb	08:26:09
2	Co 228.616†	20121.6	19254.1	506.97	ug/L	506.97	ppb	08:26:09
2	Cr 267.716†	38832.4	36984.4	503.92	ug/L	503.92	ppb	08:26:09
2	Cu 324.752†	164723.5	151656.4	502.42	ug/L	502.42	ppb	08:26:09
2	Mn 257.610†	391205.3	372909.4	496.18	ug/L	496.18	ppb	08:26:03
2	Mo 202.031†	5740.2	5464.5	492.20	ug/L	492.20	ppb	08:26:29
2	Ni 231.604†	16611.5	15778.4	509.48	ug/L	509.48	ppb	08:26:09

2	P 214.914†	3624.8	3258.2	2371.3 ug/L	2371.3 ppb	08:26:29
2	Pb 220.353†	3277.5	3176.4	498.24 ug/L	498.24 ppb	08:26:29
2	S 181.975 Axial†	600.4	543.0	983.01 ug/L	983.01 ppb	08:26:29
2	Sb 206.836†	1265.2	1181.8	521.21 ug/L	521.21 ppb	08:26:29
2	Se 196.026†	603.7	598.3	516.22 ug/L	516.22 ppb	08:26:29
2	Si 251.611†	70087.0	66359.6	2528.2 ug/L	2528.2 ppb	08:26:09
2	Sn 189.927†	2230.7	2124.8	490.29 ug/L	490.29 ppb	08:26:29
2	Ti 334.940†	293333.7	280950.3	488.55 ug/L	488.55 ppb	08:26:09
2	Tl 190.801†	1297.4	1267.1	503.29 ug/L	503.29 ppb	08:26:29
2	U 409.014†	16059.0	17267.0	509.17 ug/L	509.17 ppb	08:26:09
2	V 292.402†	64510.0	62907.4	510.47 ug/L	510.47 ppb	08:26:09
2	Zn 213.857†	43461.7	40867.7	498.97 ug/L	498.97 ppb	08:26:09
2	SiO2†	69081.5	65382.6	5294.7 ug/L	5294.7 ppb	08:27:10
3	Sc Radial	4791.3	4791.3	105 %		08:25:05
3	Y RADIAL	5104.4	5104.4	103.8 %		08:25:05
3	Al 396.153Radial†	5113.8	4931.6	4855.7 ug/L	4855.7 ppb	08:25:05
3	Ca 317.933Radial†	2790.9	2633.1	4968.7 ug/L	4968.7 ppb	08:25:25
3	Fe 238.204 Radial†	473.6	443.3	5102.9 ug/L	5102.9 ppb	08:25:25
3	K 766.490 Radial†	31796.8	27698.4	5263.8 ug/L	5263.8 ppb	08:25:05
3	Mg 279.077 IEC†	132.0	125.0	5188.7 ug/L	5188.7 ppb	08:25:25
3	Na 589.592 Radial†	30347.6	29549.8	10318 ug/L	10318 ppb	08:25:05
3	Sr 421.552†	67277.0	63879.7	500.45 ug/L	500.45 ppb	08:25:05
3	Sc 361.383	890698.8	890698.8	105.37 %		08:26:34
3	Y 371.029	740624.5	740624.5	103.88 %		08:26:34
3	Ag 328.068†	100448.2	95172.4	493.64 ug/L	493.64 ppb	08:26:40
3	As 188.979†	925.8	900.7	511.77 ug/L	511.77 ppb	08:27:00
3	B 249.677†	19305.3	18768.9	528.29 ug/L	528.29 ppb	08:26:40
3	Ba 233.527†	55013.4	52197.7	497.44 ug/L	497.44 ppb	08:26:40
3	Be 313.107†	1229823.3	1171604.6	501.26 ug/L	501.26 ppb	08:26:34
3	Cd 226.502†	35518.8	33857.1	497.31 ug/L	497.31 ppb	08:26:40
3	Co 228.616†	20063.1	19094.2	502.76 ug/L	502.76 ppb	08:26:40
3	Cr 267.716†	38650.2	36610.3	498.82 ug/L	498.82 ppb	08:26:40
3	Cu 324.752†	162766.4	148945.2	493.44 ug/L	493.44 ppb	08:26:40
3	Mn 257.610†	393623.2	373176.5	496.52 ug/L	496.52 ppb	08:26:34
3	Mo 202.031†	5690.0	5387.1	485.23 ug/L	485.23 ppb	08:27:00
3	Ni 231.604†	16474.4	15562.2	502.50 ug/L	502.50 ppb	08:26:40
3	P 214.914†	3600.0	3215.8	2341.0 ug/L	2341.0 ppb	08:27:00
3	Pb 220.353†	3264.6	3147.1	493.66 ug/L	493.66 ppb	08:27:00
3	S 181.975 Axial†	594.1	533.9	966.53 ug/L	966.53 ppb	08:27:00
3	Sb 206.836†	1262.2	1172.5	517.04 ug/L	517.04 ppb	08:27:00
3	Se 196.026†	604.9	596.2	514.29 ug/L	514.29 ppb	08:27:00
3	Si 251.611†	69716.6	65644.8	2501.0 ug/L	2501.0 ppb	08:26:40
3	Sn 189.927†	2227.5	2110.3	486.93 ug/L	486.93 ppb	08:27:00
3	Ti 334.940†	291119.4	277328.5	482.25 ug/L	482.25 ppb	08:26:40
3	Tl 190.801†	1282.4	1246.1	495.01 ug/L	495.01 ppb	08:27:00
3	U 409.014†	15952.0	17082.2	503.73 ug/L	503.73 ppb	08:26:40
3	V 292.402†	64006.5	62095.2	503.87 ug/L	503.87 ppb	08:26:40
3	Zn 213.857†	43242.3	40434.2	493.69 ug/L	493.69 ppb	08:26:40
3	SiO2†	69936.9	65836.3	5331.8 ug/L	5331.8 ppb	08:27:15

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	889273.4	105.20	%	0.351				0.33%
Sc Radial	4764.0	105	%	0.5				0.50%
Y 371.029	739352.7	103.70	%	0.284				0.27%
Y RADIAL	5101.2	103.7	%	0.44				0.42%
Ag 328.068†	95613.5	495.93	ug/L	4.026	495.93	ppb	4.026	0.81%
QC value within limits for Ag 328.068 Recovery = 99.19%								
Al 396.153Radial†	4938.9	4862.8	ug/L	29.23	4862.8	ppb	29.23	0.60%
QC value within limits for Al 396.153Radial Recovery = 97.26%								
As 188.979†	909.7	516.85	ug/L	4.458	516.85	ppb	4.458	0.86%
QC value within limits for As 188.979 Recovery = 103.37%								
B 249.677†	18835.9	530.18	ug/L	3.289	530.18	ppb	3.289	0.62%
QC value within limits for B 249.677 Recovery = 106.04%								
Ba 233.527†	52252.0	497.96	ug/L	3.097	497.96	ppb	3.097	0.62%
QC value within limits for Ba 233.527 Recovery = 99.59%								
Be 313.107†	1172195.4	501.52	ug/L	0.498	501.52	ppb	0.498	0.10%
QC value within limits for Be 313.107 Recovery = 100.30%								
Ca 317.933Radial†	2655.3	5010.5	ug/L	39.81	5010.5	ppb	39.81	0.79%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.21%
Cd 226.502†            33895.0      497.86 ug/L         3.712      497.86 ppb          3.712   0.75%
   QC value within limits for Cd 226.502  Recovery = 99.57%
Co 228.616†            19124.1      503.55 ug/L         3.099      503.55 ppb          3.099   0.62%
   QC value within limits for Co 228.616  Recovery = 100.71%
Cr 267.716†            36677.2      499.73 ug/L         3.812      499.73 ppb          3.812   0.76%
   QC value within limits for Cr 267.716  Recovery = 99.95%
Cu 324.752†           149928.8      496.70 ug/L         4.973      496.70 ppb          4.973   1.00%
   QC value within limits for Cu 324.752  Recovery = 99.34%
Fe 238.204 Radial†       447.5      5151.3 ug/L        41.92      5151.3 ppb         41.92   0.81%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.03%
K 766.490 Radial†      27842.0      5291.1 ug/L        32.42      5291.1 ppb         32.42   0.61%
   QC value within limits for K 766.490 Radial  Recovery = 105.82%
Mg 279.077 IEC†          125.2      5198.2 ug/L        10.09      5198.2 ppb         10.09   0.19%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.96%
Mn 257.610†           373090.8      496.42 ug/L         0.207      496.42 ppb         0.207   0.04%
   QC value within limits for Mn 257.610  Recovery = 99.28%
Mo 202.031†             5430.5      489.14 ug/L         3.560      489.14 ppb         3.560   0.73%
   QC value within limits for Mo 202.031  Recovery = 97.83%
Na 589.592 Radial†     29609.9       10339 ug/L          46.4       10339 ppb          46.4   0.45%
   QC value within limits for Na 589.592 Radial  Recovery = 103.39%
Ni 231.604†            15621.1      504.40 ug/L         4.445      504.40 ppb         4.445   0.88%
   QC value within limits for Ni 231.604  Recovery = 100.88%
P 214.914†              3230.7      2351.6 ug/L        17.05      2351.6 ppb         17.05   0.73%
   QC value within limits for P 214.914  Recovery = 94.06%
Pb 220.353†             3158.7      495.47 ug/L         2.434      495.47 ppb         2.434   0.49%
   QC value within limits for Pb 220.353  Recovery = 99.09%
S 181.975 Axial†         539.1      975.97 ug/L         8.498      975.97 ppb         8.498   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 97.60%
Sb 206.836†             1180.3      520.50 ug/L         3.165      520.50 ppb         3.165   0.61%
   QC value within limits for Sb 206.836  Recovery = 104.10%
Se 196.026†              595.1      513.52 ug/L         3.151      513.52 ppb         3.151   0.61%
   QC value within limits for Se 196.026  Recovery = 102.70%
Si 251.611†            65828.8      2508.0 ug/L        17.80      2508.0 ppb         17.80   0.71%
   QC value within limits for Si 251.611  Recovery = 100.32%
Sn 189.927†             2118.5      488.82 ug/L         1.718      488.82 ppb         1.718   0.35%
   QC value within limits for Sn 189.927  Recovery = 97.76%
Sr 421.552†            63982.3      501.25 ug/L         1.799      501.25 ppb         1.799   0.36%
   QC value within limits for Sr 421.552  Recovery = 100.25%
Ti 334.940†           278419.3      484.15 ug/L         3.823      484.15 ppb         3.823   0.79%
   QC value within limits for Ti 334.940  Recovery = 96.83%
Tl 190.801†             1261.0      500.89 ug/L         5.124      500.89 ppb         5.124   1.02%
   QC value within limits for Tl 190.801  Recovery = 100.18%
U 409.014†             17197.5      507.13 ug/L         2.967      507.13 ppb         2.967   0.59%
   QC value within limits for U 409.014  Recovery = 101.43%
V 292.402†             62315.1      505.69 ug/L         4.181      505.69 ppb         4.181   0.83%
   QC value within limits for V 292.402  Recovery = 101.14%
Zn 213.857†            40511.7      494.62 ug/L         3.960      494.62 ppb         3.960   0.80%
   QC value within limits for Zn 213.857  Recovery = 98.92%
SiO2†                  65677.8      5318.8 ug/L        20.85      5318.8 ppb         20.85   0.39%
   QC value within limits for SiO2  Recovery = 99.46%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/22/2010 08:29:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4889.9	4889.9	107	%			08:31:20
1	Y RADIAL	5254.6	5254.6	106.9	%			08:31:20
1	Al 396.153Radial†	-79.7	-1.0	-1.0125	ug/L	-1.0125	ppb	08:31:40
1	Ca 317.933Radial†	26.3	6.1	11.498	ug/L	11.498	ppb	08:31:40
1	Fe 238.204 Radial†	7.3	0.1	1.3819	ug/L	1.3819	ppb	08:31:40
1	K 766.490 Radial†	3250.7	515.6	98.081	ug/L	98.081	ppb	08:31:20
1	Mg 279.077 IEC†	0.1	-0.3	-12.366	ug/L	-12.366	ppb	08:31:40
1	Na 589.592 Radial†	-586.3	172.0	60.044	ug/L	60.044	ppb	08:31:20
1	Sr 421.552†	35.8	-4.1	-0.0323	ug/L	-0.0323	ppb	08:31:20
1	Sc 361.383	900897.2	900897.2	106.58	%			08:32:37
1	Y 371.029	760094.2	760094.2	106.61	%			08:32:37
1	Ag 328.068†	170.2	3.0	0.0178	ug/L	0.0178	ppb	08:32:42
1	As 188.979†	-5.4	17.0	9.5962	ug/L	9.5962	ppb	08:33:02
1	B 249.677†	501.9	918.4	25.959	ug/L	25.959	ppb	08:33:02
1	Ba 233.527†	30.6	16.8	0.1622	ug/L	0.1622	ppb	08:33:02
1	Be 313.107†	-4300.5	422.2	0.1808	ug/L	0.1808	ppb	08:32:42
1	Cd 226.502†	-152.0	5.8	0.0860	ug/L	0.0860	ppb	08:33:02
1	Co 228.616†	-36.3	19.6	0.5149	ug/L	0.5149	ppb	08:33:02
1	Cr 267.716†	90.9	15.1	0.2061	ug/L	0.2061	ppb	08:33:02
1	Cu 324.752†	5757.5	-123.8	-0.4121	ug/L	-0.4121	ppb	08:32:42
1	Mn 257.610†	440.8	27.3	0.0369	ug/L	0.0369	ppb	08:33:02
1	Mo 202.031†	16.1	2.2	0.1993	ug/L	0.1993	ppb	08:33:02
1	Ni 231.604†	86.1	8.2	0.2634	ug/L	0.2634	ppb	08:33:02
1	P 214.914†	185.4	-26.7	-20.128	ug/L	-20.128	ppb	08:33:02
1	Pb 220.353†	-38.7	12.6	1.9684	ug/L	1.9684	ppb	08:33:02
1	S 181.975 Axial†	32.6	0.7	1.2593	ug/L	1.2593	ppb	08:33:02
1	Sb 206.836†	42.3	14.3	6.1083	ug/L	6.1083	ppb	08:33:02
1	Se 196.026†	-18.9	4.5	3.7231	ug/L	3.7231	ppb	08:33:02
1	Si 251.611†	652.8	93.7	3.5742	ug/L	3.5742	ppb	08:33:02
1	Sn 189.927†	10.0	5.7	1.3094	ug/L	1.3094	ppb	08:33:02
1	Ti 334.940†	-981.2	124.9	0.2183	ug/L	0.2183	ppb	08:32:42
1	Tl 190.801†	-25.7	5.0	1.9811	ug/L	1.9811	ppb	08:33:02
1	U 409.014†	-1943.0	120.0	3.5511	ug/L	3.5511	ppb	08:32:37
1	V 292.402†	-1280.2	149.5	1.2067	ug/L	1.2067	ppb	08:32:42
1	Zn 213.857†	710.3	62.2	0.7654	ug/L	0.7654	ppb	08:33:02
1	SiO2†	648.5	72.1	5.8498	ug/L	5.8498	ppb	08:34:23
2	Sc Radial	4914.6	4914.6	108	%			08:31:45
2	Y RADIAL	5282.1	5282.1	107.4	%			08:31:45
2	Al 396.153Radial†	-73.6	5.0	4.9510	ug/L	4.9510	ppb	08:32:05
2	Ca 317.933Radial†	24.9	4.7	8.9107	ug/L	8.9107	ppb	08:32:05
2	Fe 238.204 Radial†	8.4	1.1	13.134	ug/L	13.134	ppb	08:32:05
2	K 766.490 Radial†	3236.5	487.2	92.669	ug/L	92.669	ppb	08:31:45
2	Mg 279.077 IEC†	2.8	2.2	89.747	ug/L	89.747	ppb	08:32:05
2	Na 589.592 Radial†	-542.1	215.7	75.304	ug/L	75.304	ppb	08:31:45
2	Sr 421.552†	39.8	-0.6	-0.0049	ug/L	-0.0049	ppb	08:31:45
2	Sc 361.383	887340.0	887340.0	104.97	%			08:33:07
2	Y 371.029	747973.6	747973.6	104.91	%			08:33:07
2	Ag 328.068†	146.4	-17.2	-0.0843	ug/L	-0.0843	ppb	08:33:12
2	As 188.979†	-5.5	16.9	9.5029	ug/L	9.5029	ppb	08:33:32
2	B 249.677†	467.7	892.9	25.238	ug/L	25.238	ppb	08:33:32
2	Ba 233.527†	17.9	5.1	0.0516	ug/L	0.0516	ppb	08:33:32
2	Be 313.107†	-4256.2	402.7	0.1724	ug/L	0.1724	ppb	08:33:12
2	Cd 226.502†	-134.9	20.0	0.2930	ug/L	0.2930	ppb	08:33:32
2	Co 228.616†	-32.4	22.8	0.5978	ug/L	0.5978	ppb	08:33:32
2	Cr 267.716†	94.0	19.3	0.2639	ug/L	0.2639	ppb	08:33:32
2	Cu 324.752†	5729.1	-68.3	-0.2291	ug/L	-0.2291	ppb	08:33:12
2	Mn 257.610†	438.0	31.0	0.0388	ug/L	0.0388	ppb	08:33:32
2	Mo 202.031†	9.5	-3.8	-0.3433	ug/L	-0.3433	ppb	08:33:32
2	Ni 231.604†	75.5	-0.7	-0.0242	ug/L	-0.0242	ppb	08:33:32

2	P 214.914†	182.6	-26.7	-20.210 ug/L	-20.210 ppb	08:33:32
2	Pb 220.353†	-52.9	-1.4	-0.2275 ug/L	-0.2275 ppb	08:33:32
2	S 181.975 Axial†	35.8	4.2	7.5670 ug/L	7.5670 ppb	08:33:32
2	Sb 206.836†	37.2	10.0	4.2782 ug/L	4.2782 ppb	08:33:32
2	Se 196.026†	-15.8	7.1	5.9337 ug/L	5.9337 ppb	08:33:32
2	Si 251.611†	638.1	89.1	3.4065 ug/L	3.4065 ppb	08:33:32
2	Sn 189.927†	10.2	6.0	1.3841 ug/L	1.3841 ppb	08:33:32
2	Ti 334.940†	-986.8	105.5	0.1746 ug/L	0.1746 ppb	08:33:12
2	Tl 190.801†	-21.1	9.0	3.5410 ug/L	3.5410 ppb	08:33:32
2	U 409.014†	-1825.5	204.2	6.0389 ug/L	6.0389 ppb	08:33:07
2	V 292.402†	-1244.6	165.1	1.3283 ug/L	1.3283 ppb	08:33:12
2	Zn 213.857†	713.3	75.3	0.9259 ug/L	0.9259 ppb	08:33:32
2	SiO2†	646.3	79.3	6.4474 ug/L	6.4474 ppb	08:34:43
3	Sc Radial	4827.2	4827.2	106 %		08:32:10
3	Y RADIAL	5183.8	5183.8	105.4 %		08:32:10
3	Al 396.153Radial†	-61.9	14.8	14.570 ug/L	14.570 ppb	08:32:30
3	Ca 317.933Radial†	22.1	2.5	4.7350 ug/L	4.7350 ppb	08:32:30
3	Fe 238.204 Radial†	8.4	1.3	14.908 ug/L	14.908 ppb	08:32:30
3	K 766.490 Radial†	3179.3	487.6	92.740 ug/L	92.740 ppb	08:32:10
3	Mg 279.077 IEC†	1.5	1.0	40.899 ug/L	40.899 ppb	08:32:30
3	Na 589.592 Radial†	-533.1	215.1	75.093 ug/L	75.093 ppb	08:32:10
3	Sr 421.552†	36.8	-2.7	-0.0216 ug/L	-0.0216 ppb	08:32:10
3	Sc 361.383	883333.6	883333.6	104.50 %		08:33:37
3	Y 371.029	744262.8	744262.8	104.39 %		08:33:37
3	Ag 328.068†	232.2	65.5	0.3445 ug/L	0.3445 ppb	08:33:42
3	As 188.979†	-9.6	12.9	7.2768 ug/L	7.2768 ppb	08:34:02
3	B 249.677†	465.7	893.1	25.242 ug/L	25.242 ppb	08:34:02
3	Ba 233.527†	2.8	-9.3	-0.0848 ug/L	-0.0848 ppb	08:34:02
3	Be 313.107†	-4291.8	350.3	0.1501 ug/L	0.1501 ppb	08:33:42
3	Cd 226.502†	-138.9	15.6	0.2283 ug/L	0.2283 ppb	08:34:02
3	Co 228.616†	-44.2	11.3	0.2996 ug/L	0.2996 ppb	08:34:02
3	Cr 267.716†	82.1	8.3	0.1155 ug/L	0.1155 ppb	08:34:02
3	Cu 324.752†	5757.1	-16.8	-0.0567 ug/L	-0.0567 ppb	08:33:42
3	Mn 257.610†	414.5	10.4	0.0136 ug/L	0.0136 ppb	08:34:02
3	Mo 202.031†	23.6	9.7	0.8761 ug/L	0.8761 ppb	08:34:02
3	Ni 231.604†	98.4	21.5	0.6960 ug/L	0.6960 ppb	08:34:02
3	P 214.914†	189.1	-19.7	-14.923 ug/L	-14.923 ppb	08:34:02
3	Pb 220.353†	-54.1	-2.9	-0.4506 ug/L	-0.4506 ppb	08:34:02
3	S 181.975 Axial†	31.4	0.1	0.2563 ug/L	0.2563 ppb	08:34:02
3	Sb 206.836†	47.3	19.8	8.4591 ug/L	8.4591 ppb	08:34:02
3	Se 196.026†	-15.5	7.3	6.1613 ug/L	6.1613 ppb	08:34:02
3	Si 251.611†	630.4	84.4	3.2143 ug/L	3.2143 ppb	08:34:02
3	Sn 189.927†	5.5	1.5	0.3466 ug/L	0.3466 ppb	08:34:02
3	Ti 334.940†	-950.6	135.8	0.2320 ug/L	0.2320 ppb	08:33:42
3	Tl 190.801†	-26.3	4.0	1.5581 ug/L	1.5581 ppb	08:34:02
3	U 409.014†	-1910.5	114.9	3.3972 ug/L	3.3972 ppb	08:33:37
3	V 292.402†	-1249.2	155.3	1.2610 ug/L	1.2610 ppb	08:33:42
3	Zn 213.857†	718.0	82.8	1.0137 ug/L	1.0137 ppb	08:34:02
3	SiO2†	656.1	91.5	7.4072 ug/L	7.4072 ppb	08:35:03

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	890523.6	105.35	%	1.089				1.03%
Sc Radial	4877.3	107	%	1.0				0.92%
Y 371.029	750776.9	105.31	%	1.161				1.10%
Y RADIAL	5240.2	106.6	%	1.03				0.97%
Ag 328.068†	17.1	0.0927	ug/L	0.22401	0.0927	ppb	0.22401	241.68%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.2	6.1694	ug/L	7.86221	6.1694	ppb	7.86221	127.44%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	15.6	8.7920	ug/L	1.31303	8.7920	ppb	1.31303	14.93%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	901.5	25.479	ug/L	0.4154	25.479	ppb	0.4154	1.63%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.2	0.0430	ug/L	0.12373	0.0430	ppb	0.12373	287.74%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	391.8	0.1677	ug/L	0.01585	0.1677	ppb	0.01585	9.45%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.4	8.3813	ug/L	3.41248	8.3813	ppb	3.41248	40.72%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              13.8      0.2024 ug/L       0.10585      0.2024 ppb        0.10585  52.29%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              17.9      0.4708 ug/L       0.15393      0.4708 ppb        0.15393  32.70%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              14.3      0.1952 ug/L       0.07484      0.1952 ppb        0.07484  38.35%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -69.7     -0.2326 ug/L       0.17772     -0.2326 ppb        0.17772  76.39%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.9      9.8078 ug/L       7.35075      9.8078 ppb        7.35075  74.95%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       496.8      94.497 ug/L        3.1042      94.497 ppb         3.1042   3.29%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.9      39.427 ug/L       51.0726      39.427 ppb        51.0726 129.54%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              22.9      0.0298 ug/L       0.01403      0.0298 ppb        0.01403  47.08%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               2.7      0.2440 ug/L       0.61089      0.2440 ppb        0.61089 250.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      200.9      70.147 ug/L        8.7502      70.147 ppb         8.7502  12.47%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               9.7      0.3117 ug/L       0.36253      0.3117 ppb        0.36253 116.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -24.4     -18.420 ug/L        3.0286     -18.420 ppb         3.0286  16.44%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               2.7      0.4301 ug/L       1.33688      0.4301 ppb        1.33688 310.83%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          1.7      3.0275 ug/L       3.96317      3.0275 ppb        3.96317 130.90%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              14.7      6.2819 ug/L       2.09585      6.2819 ppb        2.09585  33.36%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               6.3      5.2727 ug/L       1.34682      5.2727 ppb        1.34682  25.54%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              89.1      3.3983 ug/L       0.18011      3.3983 ppb        0.18011   5.30%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               4.4      1.0134 ug/L       0.57865      1.0134 ppb        0.57865  57.10%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -2.5     -0.0196 ug/L       0.01382     -0.0196 ppb        0.01382  70.46%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             122.1      0.2083 ug/L       0.02996      0.2083 ppb        0.02996  14.38%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               6.0      2.3601 ug/L       1.04436      2.3601 ppb        1.04436  44.25%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              146.4      4.3291 ug/L       1.48277      4.3291 ppb        1.48277  34.25%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              156.6      1.2653 ug/L       0.06093      1.2653 ppb        0.06093   4.82%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              73.4      0.9017 ug/L       0.12594      0.9017 ppb        0.12594  13.97%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    81.0      6.5681 ug/L       0.78568      6.5681 ppb        0.78568  11.96%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 3/22/2010 08:44:40 **Plasma On Time: 3/22/2010 06:16:18**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\032210.sif
Batch ID:
Results Data Set: 032210
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 3/22/2010 07:06:18**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 37**
Sample ID: LR1 **Date Collected: 3/22/2010 08:44:41**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4603.0	4603.0	101	%			08:46:35
1	Y RADIAL	4938.6	4938.6	100.4	%			08:46:35
1	Al 396.153Radial†	-87.6	-13.5	-12.079	ug/L	-12.079	ppb	08:46:55

1	Ca 317.933Radial†	32.5	13.8	25.985 ug/L	25.985 ppb	08:46:55
1	Fe 238.204 Radial†	33791.1	33409.9	383470 ug/L	383470 ppb	08:46:35
1	K 766.490 Radial†	2399.0	-138.0	-26.226 ug/L	-26.226 ppb	08:46:35
1	Mg 279.077 IEC†	8.5	8.0	-68.321 ug/L	-68.321 ppb	08:46:55
1	Na 589.592 Radial†	-716.3	9.4	3.2783 ug/L	3.2783 ppb	08:46:35
1	Sr 421.552†	96.7	58.1	0.4553 ug/L	0.4553 ppb	08:46:35
1	Sc 361.383	848131.6	848131.6	100.33 %		08:47:52
1	Y 371.029	711754.5	711754.5	99.833 %		08:47:52
1	Ag 328.068†	-23026.1	-23106.0	-0.3413 ug/L	-0.3413 ppb	08:47:52
1	As 188.979†	-173.7	-151.0	4.8018 ug/L	4.8018 ppb	08:48:12
1	B 249.677†	1778.5	2220.1	0.4304 ug/L	0.4304 ppb	08:47:52
1	Ba 233.527†	-1623.2	-1629.8	-3.7095 ug/L	-3.7095 ppb	08:47:52
1	Be 313.107†	-4305.1	166.6	0.0711 ug/L	0.0711 ppb	08:47:52
1	Cd 226.502†	2608.1	2747.9	0.7757 ug/L	0.7757 ppb	08:47:52
1	Co 228.616†	635.6	687.1	12.488 ug/L	12.488 ppb	08:48:12
1	Cr 267.716†	-460.0	-528.6	33.490 ug/L	33.490 ppb	08:48:12
1	Cu 324.752†	-1495.7	-7016.7	-2.9831 ug/L	-2.9831 ppb	08:47:52
1	Mn 257.610†	-32278.7	-32557.5	-5.4330 ug/L	-5.4330 ppb	08:47:52
1	Mo 202.031†	-275.0	-287.0	3.9446 ug/L	3.9446 ppb	08:47:52
1	Ni 231.604†	212.7	139.3	4.4913 ug/L	4.4913 ppb	08:48:12
1	P 214.914†	606.3	403.7	1.6326 ug/L	1.6326 ppb	08:48:12
1	Pb 220.353†	195.2	243.4	-16.539 ug/L	-16.539 ppb	08:48:12
1	S 181.975 Axial†	39.4	9.4	16.976 ug/L	16.976 ppb	08:48:12
1	Sb 206.836†	12.4	-13.0	-10.305 ug/L	-10.305 ppb	08:48:12
1	Se 196.026†	-1614.3	-1586.8	-219.31 ug/L	-219.31 ppb	08:48:12
1	Si 251.611†	-425.9	-943.3	-35.709 ug/L	-35.709 ppb	08:47:52
1	Sn 189.927†	-24.2	-27.9	-28.435 ug/L	-28.435 ppb	08:48:12
1	Ti 334.940†	-1044.2	4.8	-0.0400 ug/L	-0.0400 ppb	08:47:52
1	Tl 190.801†	-33.7	-4.5	-2.1645 ug/L	-2.1645 ppb	08:48:12
1	U 409.014†	152.6	2095.2	18.293 ug/L	18.293 ppb	08:47:52
1	V 292.402†	5240.3	6573.6	-3.4320 ug/L	-3.4320 ppb	08:47:52
1	Zn 213.857†	3654.1	3037.6	-19.948 ug/L	-19.948 ppb	08:48:12
1	SiO2†	-411.3	-946.3	-76.120 ug/L	-76.120 ppb	08:49:09
2	Sc Radial	4678.8	4678.8	103 %		08:47:00
2	Y RADIAL	5042.0	5042.0	102.5 %		08:47:00
2	Al 396.153Radial†	-94.4	-18.7	-17.209 ug/L	-17.209 ppb	08:47:20
2	Ca 317.933Radial†	32.5	13.2	24.937 ug/L	24.937 ppb	08:47:20
2	Fe 238.204 Radial†	34292.1	33356.1	382860 ug/L	382860 ppb	08:47:00
2	K 766.490 Radial†	2439.1	-137.4	-26.111 ug/L	-26.111 ppb	08:47:00
2	Mg 279.077 IEC†	9.9	9.2	-17.979 ug/L	-17.979 ppb	08:47:20
2	Na 589.592 Radial†	-693.7	42.8	14.957 ug/L	14.957 ppb	08:47:00
2	Sr 421.552†	68.3	29.0	0.2273 ug/L	0.2273 ppb	08:47:00
2	Sc 361.383	854298.5	854298.5	101.06 %		08:48:18
2	Y 371.029	716738.7	716738.7	100.53 %		08:48:18
2	Ag 328.068†	-23171.3	-23084.1	-0.4218 ug/L	-0.4218 ppb	08:48:18
2	As 188.979†	-164.2	-140.4	10.626 ug/L	10.626 ppb	08:48:38
2	B 249.677†	1861.4	2289.2	2.4866 ug/L	2.4866 ppb	08:48:18
2	Ba 233.527†	-1649.7	-1644.3	-3.8663 ug/L	-3.8663 ppb	08:48:18
2	Be 313.107†	-4199.9	301.7	0.1286 ug/L	0.1286 ppb	08:48:18
2	Cd 226.502†	2646.0	2766.7	1.1146 ug/L	1.1146 ppb	08:48:18
2	Co 228.616†	630.5	677.4	12.240 ug/L	12.240 ppb	08:48:38
2	Cr 267.716†	-513.6	-578.3	32.747 ug/L	32.747 ppb	08:48:38
2	Cu 324.752†	-1572.0	-7081.5	-3.2316 ug/L	-3.2316 ppb	08:48:18
2	Mn 257.610†	-32656.7	-32699.2	-5.6846 ug/L	-5.6846 ppb	08:48:18
2	Mo 202.031†	-283.3	-293.2	3.3383 ug/L	3.3383 ppb	08:48:18
2	Ni 231.604†	150.1	75.9	2.4406 ug/L	2.4406 ppb	08:48:38
2	P 214.914†	615.4	408.3	5.6760 ug/L	5.6760 ppb	08:48:38
2	Pb 220.353†	165.3	212.5	-21.295 ug/L	-21.295 ppb	08:48:38
2	S 181.975 Axial†	31.9	1.7	2.9937 ug/L	2.9937 ppb	08:48:38
2	Sb 206.836†	23.5	-2.2	-5.6622 ug/L	-5.6622 ppb	08:48:38
2	Se 196.026†	-1626.5	-1587.2	-221.43 ug/L	-221.43 ppb	08:48:38
2	Si 251.611†	-328.2	-843.6	-31.891 ug/L	-31.891 ppb	08:48:18
2	Sn 189.927†	-17.7	-21.2	-26.870 ug/L	-26.870 ppb	08:48:38
2	Ti 334.940†	-1105.5	-48.4	-0.1374 ug/L	-0.1374 ppb	08:48:18
2	Tl 190.801†	-19.3	10.0	3.5520 ug/L	3.5520 ppb	08:48:38
2	U 409.014†	230.4	2171.2	20.611 ug/L	20.611 ppb	08:48:18
2	V 292.402†	5255.6	6551.0	-3.5253 ug/L	-3.5253 ppb	08:48:18
2	Zn 213.857†	3660.6	3017.7	-20.087 ug/L	-20.087 ppb	08:48:38
2	SiO2†	-437.0	-968.7	-77.926 ug/L	-77.926 ppb	08:49:14
3	Sc Radial	4590.7	4590.7	101 %		08:47:25
3	Y RADIAL	4963.0	4963.0	100.9 %		08:47:25

3	Al 396.153Radial†	-83.9	-10.0	-8.6588 ug/L	-8.6588 ppb	08:47:45
3	Ca 317.933Radial†	26.0	7.4	13.974 ug/L	13.974 ppb	08:47:45
3	Fe 238.204 Radial†	33980.1	33687.3	386660 ug/L	386660 ppb	08:47:25
3	K 766.490 Radial†	2487.6	-43.8	-8.2979 ug/L	-8.2979 ppb	08:47:25
3	Mg 279.077 IEC†	6.7	6.2	-145.86 ug/L	-145.86 ppb	08:47:45
3	Na 589.592 Radial†	-690.8	32.8	11.457 ug/L	11.457 ppb	08:47:25
3	Sr 421.552†	80.7	42.6	0.3337 ug/L	0.3337 ppb	08:47:25
3	Sc 361.383	852490.4	852490.4	100.85 %		08:48:44
3	Y 371.029	715235.2	715235.2	100.32 %		08:48:44
3	Ag 328.068†	-23113.8	-23075.7	0.8031 ug/L	0.8031 ppb	08:48:44
3	As 188.979†	-157.3	-133.9	15.192 ug/L	15.192 ppb	08:49:04
3	B 249.677†	1798.9	2231.1	0.2276 ug/L	0.2276 ppb	08:48:44
3	Ba 233.527†	-1800.4	-1797.2	-5.2024 ug/L	-5.2024 ppb	08:48:44
3	Be 313.107†	-4230.7	262.3	0.1115 ug/L	0.1115 ppb	08:48:44
3	Cd 226.502†	2630.6	2756.9	0.5784 ug/L	0.5784 ppb	08:48:44
3	Co 228.616†	623.9	672.3	12.049 ug/L	12.049 ppb	08:49:04
3	Cr 267.716†	-458.9	-525.2	33.874 ug/L	33.874 ppb	08:49:04
3	Cu 324.752†	-1559.7	-7072.5	-2.9991 ug/L	-2.9991 ppb	08:48:44
3	Mn 257.610†	-32386.9	-32500.2	-5.0394 ug/L	-5.0394 ppb	08:48:44
3	Mo 202.031†	-279.8	-290.3	3.8922 ug/L	3.8922 ppb	08:48:44
3	Ni 231.604†	155.9	82.0	2.6386 ug/L	2.6386 ppb	08:49:04
3	P 214.914†	601.9	396.2	-6.5173 ug/L	-6.5173 ppb	08:49:04
3	Pb 220.353†	158.9	206.5	-22.767 ug/L	-22.767 ppb	08:49:04
3	S 181.975 Axial†	39.0	8.8	15.883 ug/L	15.883 ppb	08:49:04
3	Sb 206.836†	8.3	-17.2	-12.078 ug/L	-12.078 ppb	08:49:04
3	Se 196.026†	-1612.8	-1577.0	-202.04 ug/L	-202.04 ppb	08:49:04
3	Si 251.611†	-432.0	-947.2	-35.853 ug/L	-35.853 ppb	08:48:44
3	Sn 189.927†	-16.3	-19.9	-26.780 ug/L	-26.780 ppb	08:49:04
3	Ti 334.940†	-1161.1	-105.8	-0.2277 ug/L	-0.2277 ppb	08:48:44
3	Tl 190.801†	-36.3	-6.9	-3.1046 ug/L	-3.1046 ppb	08:49:04
3	U 409.014†	136.6	2078.6	17.437 ug/L	17.437 ppb	08:48:44
3	V 292.402†	5360.4	6665.9	-3.1622 ug/L	-3.1622 ppb	08:48:44
3	Zn 213.857†	3667.6	3032.4	-20.476 ug/L	-20.476 ppb	08:49:04
3	SiO2†	-469.0	-1001.4	-80.585 ug/L	-80.585 ppb	08:49:19

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	851640.2	100.75	%	0.375				0.37%
Sc Radial	4624.2	102	%	1.0				1.03%
Y 371.029	714576.2	100.23	%	0.359				0.36%
Y RADIAL	4981.2	101.3	%	1.10				1.09%
Ag 328.068†	-23088.6	0.0133	ug/L	0.68515	0.0133	ppb	0.68515	>999.9%
Al 396.153Radial†	-14.1	-12.649	ug/L	4.3033	-12.649	ppb	4.3033	34.02%
As 188.979†	-141.8	10.206	ug/L	5.2077	10.206	ppb	5.2077	51.02%
B 249.677†	2246.8	1.0482	ug/L	1.24978	1.0482	ppb	1.24978	119.23%
Ba 233.527†	-1690.4	-4.2594	ug/L	0.82037	-4.2594	ppb	0.82037	19.26%
Be 313.107†	243.5	0.1038	ug/L	0.02951	0.1038	ppb	0.02951	28.44%
Ca 317.933Radial†	11.5	21.632	ug/L	6.6528	21.632	ppb	6.6528	30.75%
Cd 226.502†	2757.1	0.8229	ug/L	0.27120	0.8229	ppb	0.27120	32.96%
Co 228.616†	678.9	12.259	ug/L	0.2201	12.259	ppb	0.2201	1.80%
Cr 267.716†	-544.1	33.370	ug/L	0.5731	33.370	ppb	0.5731	1.72%
Cu 324.752†	-7056.9	-3.0713	ug/L	0.13907	-3.0713	ppb	0.13907	4.53%
Fe 238.204 Radial†	33484.4	384330	ug/L	2039.8	384330	ppb	2039.8	0.53%
K 766.490 Radial†	-106.4	-20.212	ug/L	10.3177	-20.212	ppb	10.3177	51.05%
Mg 279.077 IEC†	7.8	-77.387	ug/L	64.4216	-77.387	ppb	64.4216	83.25%
Mn 257.610†	-32585.6	-5.3857	ug/L	0.32518	-5.3857	ppb	0.32518	6.04%
Mo 202.031†	-290.2	3.7250	ug/L	0.33593	3.7250	ppb	0.33593	9.02%
Na 589.592 Radial†	28.3	9.8973	ug/L	5.99333	9.8973	ppb	5.99333	60.56%
Ni 231.604†	99.1	3.1902	ug/L	1.13117	3.1902	ppb	1.13117	35.46%
P 214.914†	402.7	0.2638	ug/L	6.21081	0.2638	ppb	6.21081	>999.9%
Pb 220.353†	220.8	-20.200	ug/L	3.2548	-20.200	ppb	3.2548	16.11%
S 181.975 Axial†	6.6	11.951	ug/L	7.7762	11.951	ppb	7.7762	65.07%
Sb 206.836†	-10.8	-9.3486	ug/L	3.31334	-9.3486	ppb	3.31334	35.44%
Se 196.026†	-1583.6	-214.26	ug/L	10.638	-214.26	ppb	10.638	4.96%
Si 251.611†	-911.4	-34.484	ug/L	2.2469	-34.484	ppb	2.2469	6.52%
Sn 189.927†	-23.0	-27.362	ug/L	0.9309	-27.362	ppb	0.9309	3.40%
Sr 421.552†	43.3	0.3388	ug/L	0.11408	0.3388	ppb	0.11408	33.68%
Ti 334.940†	-49.8	-0.1351	ug/L	0.09387	-0.1351	ppb	0.09387	69.51%
Tl 190.801†	-0.5	-0.5724	ug/L	3.60261	-0.5724	ppb	3.60261	629.42%

U 409.014†	2115.0	18.780	ug/L	1.6423	18.780	ppb	1.6423	8.75%
V 292.402†	6596.8	-3.3732	ug/L	0.18855	-3.3732	ppb	0.18855	5.59%
Zn 213.857†	3029.2	-20.170	ug/L	0.2737	-20.170	ppb	0.2737	1.36%
SiO2†	-972.1	-78.211	ug/L	2.2460	-78.211	ppb	2.2460	2.87%

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/22/2010 08:51:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4703.6	4703.6	103	%			08:53:24
1	Y RADIAL	5037.2	5037.2	102.4	%			08:53:24
1	Al 396.153Radial†	5018.4	4929.8	4853.7	ug/L	4853.7	ppb	08:53:24
1	Ca 317.933Radial†	2742.3	2635.6	4973.3	ug/L	4973.3	ppb	08:53:44
1	Fe 238.204 Radial†	468.9	447.1	5147.2	ug/L	5147.2	ppb	08:53:44
1	K 766.490 Radial†	29898.6	26424.7	5021.5	ug/L	5021.5	ppb	08:53:24
1	Mg 279.077 IEC†	133.4	128.7	5343.2	ug/L	5343.2	ppb	08:53:44
1	Na 589.592 Radial†	29443.2	29212.2	10200	ug/L	10200	ppb	08:53:24
1	Sr 421.552†	65496.6	63348.6	496.29	ug/L	496.29	ppb	08:53:24
1	Sc 361.383	874160.3	874160.3	103.41	%			08:54:41
1	Y 371.029	726896.7	726896.7	101.96	%			08:54:41
1	Ag 328.068†	99035.8	95610.2	495.91	ug/L	495.91	ppb	08:54:46
1	As 188.979†	901.2	893.5	507.72	ug/L	507.72	ppb	08:55:06
1	B 249.677†	18065.7	17916.8	504.19	ug/L	504.19	ppb	08:54:46
1	Ba 233.527†	54380.1	52573.1	501.01	ug/L	501.01	ppb	08:54:46
1	Be 313.107†	1215066.4	1179416.4	504.60	ug/L	504.60	ppb	08:54:41
1	Cd 226.502†	35163.3	34151.1	501.63	ug/L	501.63	ppb	08:54:46
1	Co 228.616†	19880.9	19278.3	507.61	ug/L	507.61	ppb	08:54:46
1	Cr 267.716†	38222.1	36890.3	502.63	ug/L	502.63	ppb	08:54:46
1	Cu 324.752†	159702.9	148905.4	493.30	ug/L	493.30	ppb	08:54:46
1	Mn 257.610†	388292.9	375089.7	499.07	ug/L	499.07	ppb	08:54:41
1	Mo 202.031†	5635.7	5436.8	489.70	ug/L	489.70	ppb	08:55:06
1	Ni 231.604†	16341.7	15729.7	507.91	ug/L	507.91	ppb	08:54:46
1	P 214.914†	3550.4	3232.5	2353.7	ug/L	2353.7	ppb	08:55:06
1	Pb 220.353†	3237.8	3179.8	498.78	ug/L	498.78	ppb	08:55:06
1	S 181.975 Axial†	580.7	531.7	962.46	ug/L	962.46	ppb	08:55:06
1	Sb 206.836†	1213.8	1148.3	506.85	ug/L	506.85	ppb	08:55:06
1	Se 196.026†	598.6	601.0	518.44	ug/L	518.44	ppb	08:55:06
1	Si 251.611†	68356.2	65581.1	2498.5	ug/L	2498.5	ppb	08:54:46
1	Sn 189.927†	2186.6	2110.7	487.02	ug/L	487.02	ppb	08:55:06
1	Ti 334.940†	286564.3	278150.8	483.67	ug/L	483.67	ppb	08:54:46
1	Tl 190.801†	1269.2	1256.4	499.06	ug/L	499.06	ppb	08:55:06
1	U 409.014†	15864.7	17284.2	509.69	ug/L	509.69	ppb	08:54:46
1	V 292.402†	63149.5	62415.8	506.51	ug/L	506.51	ppb	08:54:46
1	Zn 213.857†	42662.5	40650.0	496.31	ug/L	496.31	ppb	08:54:46
1	SiO2†	68438.7	65643.4	5316.0	ug/L	5316.0	ppb	08:56:14
2	Sc Radial	4579.0	4579.0	101	%			08:53:49
2	Y RADIAL	4892.1	4892.1	99.49	%			08:53:49
2	Al 396.153Radial†	4879.4	4923.8	4847.9	ug/L	4847.9	ppb	08:53:49
2	Ca 317.933Radial†	2740.1	2705.6	5105.5	ug/L	5105.5	ppb	08:54:09
2	Fe 238.204 Radial†	463.2	453.9	5224.4	ug/L	5224.4	ppb	08:54:09
2	K 766.490 Radial†	29243.3	26560.4	5047.2	ug/L	5047.2	ppb	08:53:49
2	Mg 279.077 IEC†	126.3	125.1	5195.2	ug/L	5195.2	ppb	08:54:09
2	Na 589.592 Radial†	28700.6	29249.1	10213	ug/L	10213	ppb	08:53:49
2	Sr 421.552†	63855.1	63441.1	497.01	ug/L	497.01	ppb	08:53:49
2	Sc 361.383	876457.9	876457.9	103.69	%			08:55:12
2	Y 371.029	730362.1	730362.1	102.44	%			08:55:12
2	Ag 328.068†	98626.2	94964.0	492.59	ug/L	492.59	ppb	08:55:17
2	As 188.979†	897.9	888.1	504.66	ug/L	504.66	ppb	08:55:37
2	B 249.677†	18117.2	17920.7	504.30	ug/L	504.30	ppb	08:55:17
2	Ba 233.527†	53984.4	52053.6	496.07	ug/L	496.07	ppb	08:55:17
2	Be 313.107†	1218887.0	1180021.1	504.85	ug/L	504.85	ppb	08:55:12
2	Cd 226.502†	34837.9	33748.1	495.70	ug/L	495.70	ppb	08:55:17
2	Co 228.616†	19685.4	19039.3	501.33	ug/L	501.33	ppb	08:55:17
2	Cr 267.716†	37922.3	36504.2	497.39	ug/L	497.39	ppb	08:55:17
2	Cu 324.752†	159110.8	147929.4	490.08	ug/L	490.08	ppb	08:55:17
2	Mn 257.610†	388340.0	374150.8	497.83	ug/L	497.83	ppb	08:55:12
2	Mo 202.031†	5630.8	5417.8	488.00	ug/L	488.00	ppb	08:55:37
2	Ni 231.604†	16196.3	15548.0	502.04	ug/L	502.04	ppb	08:55:17

2	P 214.914†	3553.1	3226.1	2349.4 ug/L	2349.4 ppb	08:55:37
2	Pb 220.353†	3223.7	3158.0	495.35 ug/L	495.35 ppb	08:55:37
2	S 181.975 Axial†	588.1	537.3	972.72 ug/L	972.72 ppb	08:55:37
2	Sb 206.836†	1206.2	1137.9	502.34 ug/L	502.34 ppb	08:55:37
2	Se 196.026†	593.9	594.9	513.58 ug/L	513.58 ppb	08:55:37
2	Si 251.611†	67921.6	64988.6	2475.9 ug/L	2475.9 ppb	08:55:17
2	Sn 189.927†	2187.6	2106.1	485.99 ug/L	485.99 ppb	08:55:37
2	Ti 334.940†	284832.2	275753.9	479.53 ug/L	479.53 ppb	08:55:17
2	Tl 190.801†	1264.2	1248.3	495.88 ug/L	495.88 ppb	08:55:37
2	U 409.014†	15735.6	17119.5	504.82 ug/L	504.82 ppb	08:55:17
2	V 292.402†	62632.9	61757.4	501.19 ug/L	501.19 ppb	08:55:17
2	Zn 213.857†	42299.1	40191.3	490.69 ug/L	490.69 ppb	08:55:17
2	SiO2†	68128.4	65170.5	5277.6 ug/L	5277.6 ppb	08:56:19
3	Sc Radial	4733.4	4733.4	104 %		08:54:14
3	Y RADIAL	5068.0	5068.0	103.1 %		08:54:14
3	Al 396.153Radial†	5040.5	4920.5	4844.3 ug/L	4844.3 ppb	08:54:14
3	Ca 317.933Radial†	2732.2	2609.1	4923.3 ug/L	4923.3 ppb	08:54:34
3	Fe 238.204 Radial†	467.5	442.9	5099.3 ug/L	5099.3 ppb	08:54:34
3	K 766.490 Radial†	30274.1	26603.3	5055.4 ug/L	5055.4 ppb	08:54:14
3	Mg 279.077 IEC†	128.0	122.7	5094.1 ug/L	5094.1 ppb	08:54:34
3	Na 589.592 Radial†	29848.1	29421.8	10273 ug/L	10273 ppb	08:54:14
3	Sr 421.552†	66167.3	63593.8	498.21 ug/L	498.21 ppb	08:54:14
3	Sc 361.383	869832.0	869832.0	102.90 %		08:55:43
3	Y 371.029	724240.6	724240.6	101.58 %		08:55:43
3	Ag 328.068†	100045.1	97067.5	503.43 ug/L	503.43 ppb	08:55:48
3	As 188.979†	898.8	895.5	508.91 ug/L	508.91 ppb	08:56:08
3	B 249.677†	18449.5	18376.7	517.18 ug/L	517.18 ppb	08:55:48
3	Ba 233.527†	54805.4	53248.1	507.45 ug/L	507.45 ppb	08:55:48
3	Be 313.107†	1208151.4	1178543.0	504.25 ug/L	504.25 ppb	08:55:43
3	Cd 226.502†	35369.2	34520.4	507.06 ug/L	507.06 ppb	08:55:48
3	Co 228.616†	20006.0	19495.6	513.33 ug/L	513.33 ppb	08:55:48
3	Cr 267.716†	38440.4	37286.3	508.02 ug/L	508.02 ppb	08:55:48
3	Cu 324.752†	161960.9	151868.1	503.12 ug/L	503.12 ppb	08:55:48
3	Mn 257.610†	385607.7	374348.6	498.09 ug/L	498.09 ppb	08:55:43
3	Mo 202.031†	5646.0	5473.9	493.04 ug/L	493.04 ppb	08:56:08
3	Ni 231.604†	16468.9	15932.0	514.44 ug/L	514.44 ppb	08:55:48
3	P 214.914†	3553.3	3252.4	2366.9 ug/L	2366.9 ppb	08:56:08
3	Pb 220.353†	3218.3	3176.4	498.25 ug/L	498.25 ppb	08:56:08
3	S 181.975 Axial†	586.0	539.6	976.81 ug/L	976.81 ppb	08:56:08
3	Sb 206.836†	1200.2	1140.9	503.88 ug/L	503.88 ppb	08:56:08
3	Se 196.026†	589.6	595.1	513.38 ug/L	513.38 ppb	08:56:08
3	Si 251.611†	69208.3	66738.1	2542.7 ug/L	2542.7 ppb	08:55:48
3	Sn 189.927†	2209.7	2143.6	494.61 ug/L	494.61 ppb	08:56:08
3	Ti 334.940†	289955.7	282825.4	491.81 ug/L	491.81 ppb	08:55:48
3	Tl 190.801†	1270.9	1264.1	502.13 ug/L	502.13 ppb	08:56:08
3	U 409.014†	15894.5	17389.5	512.80 ug/L	512.80 ppb	08:55:48
3	V 292.402†	63747.8	63301.0	513.64 ug/L	513.64 ppb	08:55:48
3	Zn 213.857†	43067.4	41248.8	503.64 ug/L	503.64 ppb	08:55:48
3	SiO2†	68797.9	66321.7	5371.0 ug/L	5371.0 ppb	08:56:24

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	873483.4	103.33	%	0.398				0.39%
Sc Radial	4672.0	103	%	1.8				1.75%
Y 371.029	727166.5	101.99	%	0.431				0.42%
Y RADIAL	4999.1	101.7	%	1.91				1.88%
Ag 328.068†	95880.6	497.31	ug/L	5.558	497.31	ppb	5.558	1.12%
QC value within limits for Ag 328.068 Recovery = 99.46%								
Al 396.153Radial†	4924.7	4848.6	ug/L	4.74	4848.6	ppb	4.74	0.10%
QC value within limits for Al 396.153Radial Recovery = 96.97%								
As 188.979†	892.4	507.10	ug/L	2.194	507.10	ppb	2.194	0.43%
QC value within limits for As 188.979 Recovery = 101.42%								
B 249.677†	18071.4	508.55	ug/L	7.468	508.55	ppb	7.468	1.47%
QC value within limits for B 249.677 Recovery = 101.71%								
Ba 233.527†	52624.9	501.51	ug/L	5.705	501.51	ppb	5.705	1.14%
QC value within limits for Ba 233.527 Recovery = 100.30%								
Be 313.107†	1179326.8	504.57	ug/L	0.303	504.57	ppb	0.303	0.06%
QC value within limits for Be 313.107 Recovery = 100.91%								
Ca 317.933Radial†	2650.1	5000.7	ug/L	94.12	5000.7	ppb	94.12	1.88%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.01%
Cd 226.502†            34139.9      501.46 ug/L         5.686      501.46 ppb          5.686   1.13%
   QC value within limits for Cd 226.502  Recovery = 100.29%
Co 228.616†            19271.1      507.42 ug/L         6.002      507.42 ppb          6.002   1.18%
   QC value within limits for Co 228.616  Recovery = 101.48%
Cr 267.716†            36893.6      502.68 ug/L         5.318      502.68 ppb          5.318   1.06%
   QC value within limits for Cr 267.716  Recovery = 100.54%
Cu 324.752†           149567.6      495.50 ug/L         6.790      495.50 ppb          6.790   1.37%
   QC value within limits for Cu 324.752  Recovery = 99.10%
Fe 238.204 Radial†       448.0      5157.0 ug/L         63.11      5157.0 ppb          63.11   1.22%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.14%
K 766.490 Radial†      26529.5      5041.4 ug/L         17.72      5041.4 ppb          17.72   0.35%
   QC value within limits for K 766.490 Radial  Recovery = 100.83%
Mg 279.077 IEC†          125.5      5210.8 ug/L        125.28      5210.8 ppb         125.28   2.40%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.22%
Mn 257.610†           374529.7      498.33 ug/L         0.652      498.33 ppb          0.652   0.13%
   QC value within limits for Mn 257.610  Recovery = 99.67%
Mo 202.031†             5442.8      490.25 ug/L         2.565      490.25 ppb          2.565   0.52%
   QC value within limits for Mo 202.031  Recovery = 98.05%
Na 589.592 Radial†     29294.4       10229 ug/L          39.1       10229 ppb           39.1   0.38%
   QC value within limits for Na 589.592 Radial  Recovery = 102.29%
Ni 231.604†            15736.5      508.13 ug/L         6.203      508.13 ppb          6.203   1.22%
   QC value within limits for Ni 231.604  Recovery = 101.63%
P 214.914†              3237.0      2356.7 ug/L          9.13      2356.7 ppb           9.13   0.39%
   QC value within limits for P 214.914  Recovery = 94.27%
Pb 220.353†             3171.4      497.46 ug/L         1.848      497.46 ppb          1.848   0.37%
   QC value within limits for Pb 220.353  Recovery = 99.49%
S 181.975 Axial†         536.2      970.66 ug/L         7.389      970.66 ppb          7.389   0.76%
   QC value within limits for S 181.975 Axial  Recovery = 97.07%
Sb 206.836†             1142.4      504.36 ug/L         2.290      504.36 ppb          2.290   0.45%
   QC value within limits for Sb 206.836  Recovery = 100.87%
Se 196.026†              597.0      515.13 ug/L         2.866      515.13 ppb          2.866   0.56%
   QC value within limits for Se 196.026  Recovery = 103.03%
Si 251.611†            65769.2      2505.7 ug/L         33.95      2505.7 ppb          33.95   1.35%
   QC value within limits for Si 251.611  Recovery = 100.23%
Sn 189.927†             2120.1      489.21 ug/L         4.708      489.21 ppb          4.708   0.96%
   QC value within limits for Sn 189.927  Recovery = 97.84%
Sr 421.552†            63461.1      497.17 ug/L         0.971      497.17 ppb          0.971   0.20%
   QC value within limits for Sr 421.552  Recovery = 99.43%
Ti 334.940†           278910.0      485.00 ug/L         6.247      485.00 ppb          6.247   1.29%
   QC value within limits for Ti 334.940  Recovery = 97.00%
Tl 190.801†             1256.3      499.02 ug/L         3.125      499.02 ppb          3.125   0.63%
   QC value within limits for Tl 190.801  Recovery = 99.80%
U 409.014†             17264.4      509.10 ug/L         4.022      509.10 ppb          4.022   0.79%
   QC value within limits for U 409.014  Recovery = 101.82%
V 292.402†             62491.4      507.11 ug/L         6.247      507.11 ppb          6.247   1.23%
   QC value within limits for V 292.402  Recovery = 101.42%
Zn 213.857†            40696.7      496.88 ug/L         6.496      496.88 ppb          6.496   1.31%
   QC value within limits for Zn 213.857  Recovery = 99.38%
SiO2†                  65711.9      5321.5 ug/L         46.91      5321.5 ppb          46.91   0.88%
   QC value within limits for SiO2  Recovery = 99.51%
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/22/2010 08:58:35
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4428.7	4428.7	97.3	%			09:00:48
1	Y RADIAL	5076.2	5076.2	103.2	%			09:00:27
1	Al 396.153Radial†	-77.1	-6.1	-6.0658	ug/L	-6.0658	ppb	09:00:48
1	Ca 317.933Radial†	29.1	11.5	21.693	ug/L	21.693	ppb	09:00:48
1	Fe 238.204 Radial†	8.7	2.3	26.248	ug/L	26.248	ppb	09:00:48
1	K 766.490 Radial†	2748.9	315.0	59.917	ug/L	59.917	ppb	09:00:27
1	Mg 279.077 IEC†	0.3	-0.1	-2.5761	ug/L	-2.5761	ppb	09:00:48
1	Na 589.592 Radial†	-688.2	10.4	3.6278	ug/L	3.6278	ppb	09:00:27
1	Sr 421.552†	49.4	13.3	0.1042	ug/L	0.1042	ppb	09:00:27
1	Sc 361.383	866849.0	866849.0	102.55	%			09:01:44
1	Y 371.029	732257.7	732257.7	102.71	%			09:01:44
1	Ag 328.068†	182.1	20.9	0.1155	ug/L	0.1155	ppb	09:01:44
1	As 188.979†	-17.9	4.7	2.6313	ug/L	2.6313	ppb	09:02:04
1	B 249.677†	111.6	556.3	15.719	ug/L	15.719	ppb	09:02:04
1	Ba 233.527†	18.3	5.9	0.0575	ug/L	0.0575	ppb	09:02:04
1	Be 313.107†	-4322.3	242.5	0.1036	ug/L	0.1036	ppb	09:01:44
1	Cd 226.502†	-161.0	-8.5	-0.1282	ug/L	-0.1282	ppb	09:02:04
1	Co 228.616†	-40.3	14.3	0.3779	ug/L	0.3779	ppb	09:02:04
1	Cr 267.716†	64.0	-7.8	-0.1029	ug/L	-0.1029	ppb	09:02:04
1	Cu 324.752†	5552.9	-111.1	-0.3672	ug/L	-0.3672	ppb	09:01:44
1	Mn 257.610†	418.7	22.0	0.0320	ug/L	0.0320	ppb	09:02:04
1	Mo 202.031†	16.6	3.3	0.3001	ug/L	0.3001	ppb	09:02:04
1	Ni 231.604†	73.5	-1.0	-0.0318	ug/L	-0.0318	ppb	09:02:04
1	P 214.914†	173.8	-31.2	-23.596	ug/L	-23.596	ppb	09:02:04
1	Pb 220.353†	-45.2	4.9	0.7585	ug/L	0.7585	ppb	09:02:04
1	S 181.975 Axial†	33.4	2.6	4.7732	ug/L	4.7732	ppb	09:02:04
1	Sb 206.836†	31.5	5.3	2.2823	ug/L	2.2823	ppb	09:02:04
1	Se 196.026†	-18.7	3.9	3.3276	ug/L	3.3276	ppb	09:02:04
1	Si 251.611†	568.0	35.1	1.3361	ug/L	1.3361	ppb	09:02:04
1	Sn 189.927†	13.5	9.4	2.1737	ug/L	2.1737	ppb	09:02:04
1	Ti 334.940†	-1037.4	33.9	0.0618	ug/L	0.0618	ppb	09:01:44
1	Tl 190.801†	-25.8	3.9	1.5374	ug/L	1.5374	ppb	09:02:04
1	U 409.014†	-1965.0	27.0	0.7972	ug/L	0.7972	ppb	09:01:44
1	V 292.402†	-1368.4	16.3	0.1327	ug/L	0.1327	ppb	09:01:44
1	Zn 213.857†	694.3	72.7	0.8933	ug/L	0.8933	ppb	09:02:04
1	SiO2†	569.8	19.3	1.5624	ug/L	1.5624	ppb	09:03:15
2	Sc Radial	4443.7	4443.7	97.6	%			09:01:13
2	Y RADIAL	4924.7	4924.7	100.2	%			09:00:53
2	Al 396.153Radial†	-81.1	-9.9	-9.7495	ug/L	-9.7495	ppb	09:01:13
2	Ca 317.933Radial†	26.3	8.6	16.205	ug/L	16.205	ppb	09:01:13
2	Fe 238.204 Radial†	9.7	3.3	38.379	ug/L	38.379	ppb	09:01:13
2	K 766.490 Radial†	2815.4	373.6	71.075	ug/L	71.075	ppb	09:00:53
2	Mg 279.077 IEC†	0.4	0.0	1.7465	ug/L	1.7465	ppb	09:01:13
2	Na 589.592 Radial†	-685.4	15.7	5.4826	ug/L	5.4826	ppb	09:00:53
2	Sr 421.552†	-13.3	-51.0	-0.4000	ug/L	-0.4000	ppb	09:00:53
2	Sc 361.383	853683.8	853683.8	100.99	%			09:02:10
2	Y 371.029	721975.1	721975.1	101.27	%			09:02:10
2	Ag 328.068†	186.7	28.2	0.1557	ug/L	0.1557	ppb	09:02:10
2	As 188.979†	-17.3	4.9	2.7861	ug/L	2.7861	ppb	09:02:30
2	B 249.677†	123.2	569.4	16.088	ug/L	16.088	ppb	09:02:30
2	Ba 233.527†	27.3	15.1	0.1452	ug/L	0.1452	ppb	09:02:30
2	Be 313.107†	-4262.2	236.9	0.1010	ug/L	0.1010	ppb	09:02:10
2	Cd 226.502†	-145.1	4.8	0.0667	ug/L	0.0667	ppb	09:02:30
2	Co 228.616†	-44.0	10.0	0.2632	ug/L	0.2632	ppb	09:02:30
2	Cr 267.716†	86.1	15.1	0.2079	ug/L	0.2079	ppb	09:02:30
2	Cu 324.752†	5616.1	34.9	0.1156	ug/L	0.1156	ppb	09:02:10
2	Mn 257.610†	422.6	32.2	0.0465	ug/L	0.0465	ppb	09:02:30
2	Mo 202.031†	8.7	-4.3	-0.3824	ug/L	-0.3824	ppb	09:02:30
2	Ni 231.604†	75.2	1.8	0.0584	ug/L	0.0584	ppb	09:02:30

2	P 214.914†	190.1	-12.4	-9.4654 ug/L	-9.4654 ppb	09:02:30
2	Pb 220.353†	-50.4	-1.0	-0.1619 ug/L	-0.1619 ppb	09:02:30
2	S 181.975 Axial†	31.9	1.7	3.0089 ug/L	3.0089 ppb	09:02:30
2	Sb 206.836†	33.8	8.0	3.4272 ug/L	3.4272 ppb	09:02:30
2	Se 196.026†	-18.9	3.5	3.0087 ug/L	3.0087 ppb	09:02:30
2	Si 251.611†	554.7	30.4	1.1673 ug/L	1.1673 ppb	09:02:30
2	Sn 189.927†	12.2	8.4	1.9265 ug/L	1.9265 ppb	09:02:30
2	Ti 334.940†	-1093.8	-37.5	-0.0650 ug/L	-0.0650 ppb	09:02:10
2	Tl 190.801†	-19.1	10.2	4.0159 ug/L	4.0159 ppb	09:02:30
2	U 409.014†	-1828.5	132.6	3.9180 ug/L	3.9180 ppb	09:02:10
2	V 292.402†	-1308.0	55.6	0.4416 ug/L	0.4416 ppb	09:02:10
2	Zn 213.857†	684.2	73.2	0.8958 ug/L	0.8958 ppb	09:02:30
2	SiO2†	576.4	34.4	2.8003 ug/L	2.8003 ppb	09:03:35
3	Sc Radial	4427.1	4427.1	97.3 %		09:01:38
3	Y RADIAL	5013.4	5013.4	102.0 %		09:01:18
3	Al 396.153Radial†	-73.7	-2.6	-2.5842 ug/L	-2.5842 ppb	09:01:38
3	Ca 317.933Radial†	26.7	9.1	17.098 ug/L	17.098 ppb	09:01:38
3	Fe 238.204 Radial†	7.9	1.5	17.411 ug/L	17.411 ppb	09:01:38
3	K 766.490 Radial†	2775.6	343.4	65.344 ug/L	65.344 ppb	09:01:18
3	Mg 279.077 IEC†	2.4	2.0	83.707 ug/L	83.707 ppb	09:01:38
3	Na 589.592 Radial†	-699.8	-1.8	-0.6143 ug/L	-0.6143 ppb	09:01:18
3	Sr 421.552†	33.3	-3.2	-0.0250 ug/L	-0.0250 ppb	09:01:18
3	Sc 361.383	864838.4	864838.4	102.31 %		09:02:35
3	Y 371.029	731262.7	731262.7	102.57 %		09:02:35
3	Ag 328.068†	198.3	37.1	0.1955 ug/L	0.1955 ppb	09:02:35
3	As 188.979†	-16.2	6.3	3.5395 ug/L	3.5395 ppb	09:02:55
3	B 249.677†	95.2	540.5	15.275 ug/L	15.275 ppb	09:02:55
3	Ba 233.527†	17.8	5.5	0.0539 ug/L	0.0539 ppb	09:02:55
3	Be 313.107†	-4292.5	261.8	0.1117 ug/L	0.1117 ppb	09:02:35
3	Cd 226.502†	-171.8	-19.4	-0.2861 ug/L	-0.2861 ppb	09:02:55
3	Co 228.616†	-45.5	9.2	0.2394 ug/L	0.2394 ppb	09:02:55
3	Cr 267.716†	90.4	18.1	0.2477 ug/L	0.2477 ppb	09:02:55
3	Cu 324.752†	5653.8	0.1	-0.0010 ug/L	-0.0010 ppb	09:02:35
3	Mn 257.610†	418.9	23.2	0.0291 ug/L	0.0291 ppb	09:02:55
3	Mo 202.031†	4.7	-8.4	-0.7507 ug/L	-0.7507 ppb	09:02:55
3	Ni 231.604†	78.2	3.8	0.1217 ug/L	0.1217 ppb	09:02:55
3	P 214.914†	180.1	-24.6	-18.661 ug/L	-18.661 ppb	09:02:55
3	Pb 220.353†	-60.7	-10.4	-1.6338 ug/L	-1.6338 ppb	09:02:55
3	S 181.975 Axial†	32.4	1.8	3.2802 ug/L	3.2802 ppb	09:02:55
3	Sb 206.836†	32.5	6.3	2.7013 ug/L	2.7013 ppb	09:02:55
3	Se 196.026†	-24.1	-1.4	-1.1215 ug/L	-1.1215 ppb	09:02:55
3	Si 251.611†	573.8	42.1	1.6154 ug/L	1.6154 ppb	09:02:55
3	Sn 189.927†	9.5	5.6	1.2918 ug/L	1.2918 ppb	09:02:55
3	Ti 334.940†	-1089.8	-19.7	-0.0406 ug/L	-0.0406 ppb	09:02:35
3	Tl 190.801†	-26.9	2.8	1.0897 ug/L	1.0897 ppb	09:02:55
3	U 409.014†	-1854.5	130.5	3.8588 ug/L	3.8588 ppb	09:02:35
3	V 292.402†	-1312.1	68.3	0.5425 ug/L	0.5425 ppb	09:02:35
3	Zn 213.857†	690.1	70.2	0.8618 ug/L	0.8618 ppb	09:02:55
3	SiO2†	590.7	41.0	3.3495 ug/L	3.3495 ppb	09:03:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	861790.4	101.95	%	0.839				0.82%
Sc Radial	4433.2	97.4	%	0.20				0.21%
Y 371.029	728498.5	102.18	%	0.795				0.78%
Y RADIAL	5004.8	101.8	%	1.55				1.52%
Ag 328.068†	28.7	0.1556	ug/L	0.03998	0.1556	ppb	0.03998	25.70%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.2	-6.1332	ug/L	3.58311	-6.1332	ppb	3.58311	58.42%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.3	2.9856	ug/L	0.48588	2.9856	ppb	0.48588	16.27%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	555.4	15.694	ug/L	0.4072	15.694	ppb	0.4072	2.59%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.8	0.0855	ug/L	0.05175	0.0855	ppb	0.05175	60.51%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	247.1	0.1054	ug/L	0.00556	0.1054	ppb	0.00556	5.27%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.7	18.332	ug/L	2.9448	18.332	ppb	2.9448	16.06%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -7.7     -0.1159 ug/L       0.17670     -0.1159 ppb        0.17670 152.52%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              11.2      0.2935 ug/L       0.07410      0.2935 ppb        0.07410  25.25%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               8.5      0.1176 ug/L       0.19200      0.1176 ppb        0.19200 163.32%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -25.4     -0.0842 ug/L       0.25192     -0.0842 ppb        0.25192 299.25%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        2.4      27.346 ug/L       10.5274      27.346 ppb        10.5274  38.50%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       344.0      65.445 ug/L        5.5795      65.445 ppb         5.5795   8.53%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           0.7      27.626 ug/L       48.6158      27.626 ppb        48.6158 175.98%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              25.8      0.0359 ug/L       0.00932      0.0359 ppb        0.00932  25.99%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              -3.1     -0.2777 ug/L       0.53319     -0.2777 ppb        0.53319 192.02%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        8.1      2.8320 ug/L       3.12537      2.8320 ppb        3.12537 110.36%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               1.5      0.0494 ug/L       0.07713      0.0494 ppb        0.07713 156.03%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -22.8     -17.241 ug/L        7.1716     -17.241 ppb         7.1716  41.60%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -2.2     -0.3457 ug/L       1.20671     -0.3457 ppb        1.20671 349.01%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          2.0      3.6874 ug/L       0.95006      3.6874 ppb        0.95006  25.76%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               6.5      2.8036 ug/L       0.57924      2.8036 ppb        0.57924  20.66%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.0      1.7383 ug/L       2.48176      1.7383 ppb        2.48176 142.77%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              35.9      1.3729 ug/L       0.22634      1.3729 ppb        0.22634  16.49%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               7.8      1.7973 ug/L       0.45492      1.7973 ppb        0.45492  25.31%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             -13.6     -0.1069 ug/L       0.26187     -0.1069 ppb        0.26187 244.93%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -7.8     -0.0146 ug/L       0.06731     -0.0146 ppb        0.06731 461.45%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.6      2.2143 ug/L       1.57621      2.2143 ppb        1.57621  71.18%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               96.7      2.8580 ug/L       1.78495      2.8580 ppb        1.78495  62.45%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               46.7      0.3723 ug/L       0.21350      0.3723 ppb        0.21350  57.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              72.0      0.8837 ug/L       0.01896      0.8837 ppb        0.01896   2.15%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    31.6      2.5707 ug/L       0.91542      2.5707 ppb        0.91542  35.61%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/22/2010 09:48:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4679.3	4679.3	103	%			09:50:11
1	Y RADIAL	5019.7	5019.7	102.1	%			09:50:11
1	Al 396.153Radial†	5003.9	4940.9	4864.4	ug/L	4864.4	ppb	09:50:11
1	Ca 317.933Radial†	2738.6	2645.8	4992.5	ug/L	4992.5	ppb	09:50:31
1	Fe 238.204 Radial†	455.8	436.7	5028.0	ug/L	5028.0	ppb	09:50:31
1	K 766.490 Radial†	29862.7	26539.7	5043.4	ug/L	5043.4	ppb	09:50:11
1	Mg 279.077 IEC†	129.9	126.0	5229.9	ug/L	5229.9	ppb	09:50:31
1	Na 589.592 Radial†	28692.7	28629.7	9996.6	ug/L	9996.6	ppb	09:50:11
1	Sr 421.552†	64969.6	63164.3	494.85	ug/L	494.85	ppb	09:50:11
1	Sc 361.383	878277.5	878277.5	103.90	%			09:51:28
1	Y 371.029	730043.0	730043.0	102.40	%			09:51:28
1	Ag 328.068†	99352.6	95466.1	495.13	ug/L	495.13	ppb	09:51:33
1	As 188.979†	895.8	884.2	502.45	ug/L	502.45	ppb	09:51:54
1	B 249.677†	17903.6	17678.9	497.48	ug/L	497.48	ppb	09:51:33
1	Ba 233.527†	54502.9	52444.9	499.79	ug/L	499.79	ppb	09:51:33
1	Be 313.107†	1220180.0	1178830.0	504.35	ug/L	504.35	ppb	09:51:28
1	Cd 226.502†	35255.9	34080.8	500.61	ug/L	500.61	ppb	09:51:33
1	Co 228.616†	19926.5	19232.1	506.41	ug/L	506.41	ppb	09:51:33
1	Cr 267.716†	38247.7	36741.6	500.60	ug/L	500.60	ppb	09:51:33
1	Cu 324.752†	160590.1	149035.3	493.73	ug/L	493.73	ppb	09:51:33
1	Mn 257.610†	390500.5	375454.3	499.54	ug/L	499.54	ppb	09:51:28
1	Mo 202.031†	5730.0	5501.9	495.56	ug/L	495.56	ppb	09:51:54
1	Ni 231.604†	16353.2	15666.6	505.87	ug/L	505.87	ppb	09:51:33
1	P 214.914†	3597.4	3261.7	2375.9	ug/L	2375.9	ppb	09:51:54
1	Pb 220.353†	3282.9	3208.6	503.31	ug/L	503.31	ppb	09:51:54
1	S 181.975 Axial†	599.0	546.6	989.50	ug/L	989.50	ppb	09:51:54
1	Sb 206.836†	1245.1	1172.9	517.56	ug/L	517.56	ppb	09:51:54
1	Se 196.026†	596.6	596.3	514.22	ug/L	514.22	ppb	09:51:54
1	Si 251.611†	68643.0	65547.3	2497.2	ug/L	2497.2	ppb	09:51:33
1	Sn 189.927†	2227.4	2140.1	493.82	ug/L	493.82	ppb	09:51:54
1	Ti 334.940†	287838.2	278077.9	483.56	ug/L	483.56	ppb	09:51:33
1	Tl 190.801†	1308.5	1288.5	511.72	ug/L	511.72	ppb	09:51:54
1	U 409.014†	15689.8	17044.0	502.60	ug/L	502.60	ppb	09:51:33
1	V 292.402†	63212.4	62190.0	504.78	ug/L	504.78	ppb	09:51:33
1	Zn 213.857†	42771.7	40561.6	495.25	ug/L	495.25	ppb	09:51:33
1	SiO2†	69412.0	66269.8	5366.7	ug/L	5366.7	ppb	09:53:01
2	Sc Radial	4787.8	4787.8	105	%			09:50:36
2	Y RADIAL	5121.0	5121.0	104.1	%			09:50:36
2	Al 396.153Radial†	5092.5	4914.9	4838.7	ug/L	4838.7	ppb	09:50:36
2	Ca 317.933Radial†	2767.0	2612.3	4929.5	ug/L	4929.5	ppb	09:50:56
2	Fe 238.204 Radial†	460.8	431.5	4967.7	ug/L	4967.7	ppb	09:50:56
2	K 766.490 Radial†	30314.1	26310.7	4999.9	ug/L	4999.9	ppb	09:50:36
2	Mg 279.077 IEC†	128.0	121.3	5035.2	ug/L	5035.2	ppb	09:50:56
2	Na 589.592 Radial†	29170.4	28451.5	9934.3	ug/L	9934.3	ppb	09:50:36
2	Sr 421.552†	65960.7	62674.6	491.01	ug/L	491.01	ppb	09:50:36
2	Sc 361.383	877567.1	877567.1	103.82	%			09:51:59
2	Y 371.029	729746.0	729746.0	102.36	%			09:51:59
2	Ag 328.068†	101015.4	97145.1	503.79	ug/L	503.79	ppb	09:52:05
2	As 188.979†	906.1	894.9	508.53	ug/L	508.53	ppb	09:52:25
2	B 249.677†	18255.9	18032.2	507.46	ug/L	507.46	ppb	09:52:05
2	Ba 233.527†	55290.0	53245.5	507.42	ug/L	507.42	ppb	09:52:05
2	Be 313.107†	1219445.7	1179073.3	504.47	ug/L	504.47	ppb	09:51:59
2	Cd 226.502†	35749.5	34583.7	508.01	ug/L	508.01	ppb	09:52:05
2	Co 228.616†	20202.5	19513.5	513.80	ug/L	513.80	ppb	09:52:05
2	Cr 267.716†	38831.9	37334.2	508.66	ug/L	508.66	ppb	09:52:05
2	Cu 324.752†	163683.7	152140.3	504.01	ug/L	504.01	ppb	09:52:05
2	Mn 257.610†	389542.6	374835.8	498.72	ug/L	498.72	ppb	09:51:59
2	Mo 202.031†	5713.1	5490.1	494.49	ug/L	494.49	ppb	09:52:25
2	Ni 231.604†	16583.8	15901.5	513.46	ug/L	513.46	ppb	09:52:05

2	P 214.914†	3617.5	3283.8	2390.7 ug/L	2390.7 ppb	09:52:25
2	Pb 220.353†	3273.6	3202.2	502.30 ug/L	502.30 ppb	09:52:25
2	S 181.975 Axial†	594.9	543.1	983.25 ug/L	983.25 ppb	09:52:25
2	Sb 206.836†	1235.7	1164.8	514.12 ug/L	514.12 ppb	09:52:25
2	Se 196.026†	599.2	599.4	516.55 ug/L	516.55 ppb	09:52:25
2	Si 251.611†	69804.0	66719.0	2541.9 ug/L	2541.9 ppb	09:52:05
2	Sn 189.927†	2238.1	2152.1	496.57 ug/L	496.57 ppb	09:52:25
2	Ti 334.940†	292497.1	282789.8	491.75 ug/L	491.75 ppb	09:52:05
2	Tl 190.801†	1287.4	1269.1	504.11 ug/L	504.11 ppb	09:52:25
2	U 409.014†	16109.5	17460.4	514.91 ug/L	514.91 ppb	09:52:05
2	V 292.402†	64291.2	63278.4	513.50 ug/L	513.50 ppb	09:52:05
2	Zn 213.857†	43455.5	41253.7	503.73 ug/L	503.73 ppb	09:52:05
2	SiO2†	69541.8	66448.9	5381.2 ug/L	5381.2 ppb	09:53:06
3	Sc Radial	4636.1	4636.1	102 %		09:51:01
3	Y RADIAL	4958.9	4958.9	100.9 %		09:51:01
3	Al 396.153Radial†	5024.3	5006.3	4929.4 ug/L	4929.4 ppb	09:51:01
3	Ca 317.933Radial†	2741.4	2673.3	5044.5 ug/L	5044.5 ppb	09:51:21
3	Fe 238.204 Radial†	460.6	445.6	5129.4 ug/L	5129.4 ppb	09:51:21
3	K 766.490 Radial†	29792.0	26741.2	5081.7 ug/L	5081.7 ppb	09:51:01
3	Mg 279.077 IEC†	130.9	128.1	5318.9 ug/L	5318.9 ppb	09:51:21
3	Na 589.592 Radial†	28469.4	28670.8	10011 ug/L	10011 ppb	09:51:01
3	Sr 421.552†	64627.0	63417.4	496.83 ug/L	496.83 ppb	09:51:01
3	Sc 361.383	886474.5	886474.5	104.87 %		09:52:30
3	Y 371.029	736938.9	736938.9	103.37 %		09:52:30
3	Ag 328.068†	98958.5	94206.0	488.64 ug/L	488.64 ppb	09:52:36
3	As 188.979†	912.6	892.3	506.98 ug/L	506.98 ppb	09:52:56
3	B 249.677†	17743.0	17366.5	488.66 ug/L	488.66 ppb	09:52:36
3	Ba 233.527†	54279.6	51746.9	493.14 ug/L	493.14 ppb	09:52:36
3	Be 313.107†	1229385.5	1176748.9	503.45 ug/L	503.45 ppb	09:52:30
3	Cd 226.502†	35079.7	33599.1	493.51 ug/L	493.51 ppb	09:52:36
3	Co 228.616†	19811.9	18945.5	498.87 ug/L	498.87 ppb	09:52:36
3	Cr 267.716†	38114.6	36274.3	494.25 ug/L	494.25 ppb	09:52:36
3	Cu 324.752†	159627.1	146687.9	485.96 ug/L	485.96 ppb	09:52:36
3	Mn 257.610†	393385.3	374729.8	498.59 ug/L	498.59 ppb	09:52:30
3	Mo 202.031†	5721.1	5442.5	490.22 ug/L	490.22 ppb	09:52:56
3	Ni 231.604†	16328.6	15497.7	500.42 ug/L	500.42 ppb	09:52:36
3	P 214.914†	3597.7	3229.9	2353.2 ug/L	2353.2 ppb	09:52:56
3	Pb 220.353†	3273.8	3170.7	497.37 ug/L	497.37 ppb	09:52:56
3	S 181.975 Axial†	596.8	539.2	976.03 ug/L	976.03 ppb	09:52:56
3	Sb 206.836†	1236.5	1153.7	509.15 ug/L	509.15 ppb	09:52:56
3	Se 196.026†	589.6	584.4	504.56 ug/L	504.56 ppb	09:52:56
3	Si 251.611†	68356.8	64663.4	2463.5 ug/L	2463.5 ppb	09:52:36
3	Sn 189.927†	2221.6	2114.7	487.96 ug/L	487.96 ppb	09:52:56
3	Ti 334.940†	285830.6	273601.8	475.77 ug/L	475.77 ppb	09:52:36
3	Tl 190.801†	1298.5	1267.3	503.34 ug/L	503.34 ppb	09:52:56
3	U 409.014†	15613.5	16831.6	496.32 ug/L	496.32 ppb	09:52:36
3	V 292.402†	62939.0	61366.8	498.10 ug/L	498.10 ppb	09:52:36
3	Zn 213.857†	42585.2	40003.2	488.40 ug/L	488.40 ppb	09:52:36
3	SiO2†	69925.3	66141.6	5356.4 ug/L	5356.4 ppb	09:53:11

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	880773.0	104.20	%	0.586				0.56%
Sc Radial	4701.1	103	%	1.7				1.66%
Y 371.029	732242.6	102.71	%	0.571				0.56%
Y RADIAL	5033.2	102.4	%	1.66				1.63%
Ag 328.068†	95605.8	495.86	ug/L	7.599	495.86	ppb	7.599	1.53%
QC value within limits for Ag 328.068 Recovery = 99.17%								
Al 396.153Radial†	4954.0	4877.5	ug/L	46.75	4877.5	ppb	46.75	0.96%
QC value within limits for Al 396.153Radial Recovery = 97.55%								
As 188.979†	890.5	505.98	ug/L	3.160	505.98	ppb	3.160	0.62%
QC value within limits for As 188.979 Recovery = 101.20%								
B 249.677†	17692.5	497.87	ug/L	9.407	497.87	ppb	9.407	1.89%
QC value within limits for B 249.677 Recovery = 99.57%								
Ba 233.527†	52479.1	500.12	ug/L	7.143	500.12	ppb	7.143	1.43%
QC value within limits for Ba 233.527 Recovery = 100.02%								
Be 313.107†	1178217.4	504.09	ug/L	0.562	504.09	ppb	0.562	0.11%
QC value within limits for Be 313.107 Recovery = 100.82%								
Ca 317.933Radial†	2643.8	4988.8	ug/L	57.59	4988.8	ppb	57.59	1.15%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.78%
Cd 226.502†            34087.9      500.71 ug/L         7.248      500.71 ppb          7.248   1.45%
   QC value within limits for Cd 226.502  Recovery = 100.14%
Co 228.616†            19230.3      506.36 ug/L         7.467      506.36 ppb          7.467   1.47%
   QC value within limits for Co 228.616  Recovery = 101.27%
Cr 267.716†            36783.4      501.17 ug/L         7.221      501.17 ppb          7.221   1.44%
   QC value within limits for Cr 267.716  Recovery = 100.23%
Cu 324.752†           149287.8      494.57 ug/L         9.051      494.57 ppb          9.051   1.83%
   QC value within limits for Cu 324.752  Recovery = 98.91%
Fe 238.204 Radial†       437.9      5041.7 ug/L        81.74      5041.7 ppb          81.74   1.62%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.83%
K 766.490 Radial†      26530.5      5041.7 ug/L        40.96      5041.7 ppb          40.96   0.81%
   QC value within limits for K 766.490 Radial  Recovery = 100.83%
Mg 279.077 IEC†          125.1      5194.7 ug/L       145.11      5194.7 ppb         145.11   2.79%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.89%
Mn 257.610†           375006.6      498.95 ug/L         0.518      498.95 ppb          0.518   0.10%
   QC value within limits for Mn 257.610  Recovery = 99.79%
Mo 202.031†             5478.2      493.42 ug/L         2.825      493.42 ppb          2.825   0.57%
   QC value within limits for Mo 202.031  Recovery = 98.68%
Na 589.592 Radial†     28584.0      9980.6 ug/L        40.71      9980.6 ppb          40.71   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 99.81%
Ni 231.604†            15688.6      506.58 ug/L         6.548      506.58 ppb          6.548   1.29%
   QC value within limits for Ni 231.604  Recovery = 101.32%
P 214.914†              3258.5      2373.2 ug/L        18.87      2373.2 ppb          18.87   0.80%
   QC value within limits for P 214.914  Recovery = 94.93%
Pb 220.353†             3193.8      500.99 ug/L         3.179      500.99 ppb          3.179   0.63%
   QC value within limits for Pb 220.353  Recovery = 100.20%
S 181.975 Axial†         543.0      982.93 ug/L         6.740      982.93 ppb          6.740   0.69%
   QC value within limits for S 181.975 Axial  Recovery = 98.29%
Sb 206.836†             1163.8      513.61 ug/L         4.229      513.61 ppb          4.229   0.82%
   QC value within limits for Sb 206.836  Recovery = 102.72%
Se 196.026†              593.4      511.78 ug/L         6.358      511.78 ppb          6.358   1.24%
   QC value within limits for Se 196.026  Recovery = 102.36%
Si 251.611†            65643.2      2500.9 ug/L        39.36      2500.9 ppb          39.36   1.57%
   QC value within limits for Si 251.611  Recovery = 100.03%
Sn 189.927†             2135.6      492.78 ug/L         4.397      492.78 ppb          4.397   0.89%
   QC value within limits for Sn 189.927  Recovery = 98.56%
Sr 421.552†            63085.4      494.23 ug/L         2.958      494.23 ppb          2.958   0.60%
   QC value within limits for Sr 421.552  Recovery = 98.85%
Ti 334.940†           278156.5      483.69 ug/L         7.989      483.69 ppb          7.989   1.65%
   QC value within limits for Ti 334.940  Recovery = 96.74%
Tl 190.801†             1275.0      506.39 ug/L         4.634      506.39 ppb          4.634   0.92%
   QC value within limits for Tl 190.801  Recovery = 101.28%
U 409.014†             17112.0      504.61 ug/L         9.458      504.61 ppb          9.458   1.87%
   QC value within limits for U 409.014  Recovery = 100.92%
V 292.402†             62278.4      505.46 ug/L         7.725      505.46 ppb          7.725   1.53%
   QC value within limits for V 292.402  Recovery = 101.09%
Zn 213.857†            40606.2      495.79 ug/L         7.678      495.79 ppb          7.678   1.55%
   QC value within limits for Zn 213.857  Recovery = 99.16%
SiO2†                  66286.8      5368.1 ug/L        12.48      5368.1 ppb          12.48   0.23%
   QC value within limits for SiO2  Recovery = 100.39%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/22/2010 09:55:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4469.0	4469.0	98.2	%			09:57:34
1	Y RADIAL	5093.3	5093.3	103.6	%			09:57:14
1	Al 396.153Radial†	-83.0	-11.4	-11.252	ug/L	-11.252	ppb	09:57:34
1	Ca 317.933Radial†	26.9	9.0	17.041	ug/L	17.041	ppb	09:57:34
1	Fe 238.204 Radial†	6.7	0.1	1.6154	ug/L	1.6154	ppb	09:57:34
1	K 766.490 Radial†	2570.9	108.2	20.597	ug/L	20.597	ppb	09:57:14
1	Mg 279.077 IEC†	3.0	2.6	108.50	ug/L	108.50	ppb	09:57:34
1	Na 589.592 Radial†	-759.7	-56.0	-19.569	ug/L	-19.569	ppb	09:57:14
1	Sr 421.552†	29.0	-8.0	-0.0625	ug/L	-0.0625	ppb	09:57:14
1	Sc 361.383	890347.7	890347.7	105.33	%			09:58:31
1	Y 371.029	749577.4	749577.4	105.14	%			09:58:31
1	Ag 328.068†	148.5	-15.7	-0.0805	ug/L	-0.0805	ppb	09:58:36
1	As 188.979†	-19.8	3.3	1.8469	ug/L	1.8469	ppb	09:58:56
1	B 249.677†	-152.5	302.7	8.5549	ug/L	8.5549	ppb	09:58:56
1	Ba 233.527†	24.6	11.4	0.1102	ug/L	0.1102	ppb	09:58:56
1	Be 313.107†	-4284.5	389.6	0.1666	ug/L	0.1666	ppb	09:58:36
1	Cd 226.502†	-177.2	-19.8	-0.2905	ug/L	-0.2905	ppb	09:58:56
1	Co 228.616†	-42.9	12.9	0.3381	ug/L	0.3381	ppb	09:58:56
1	Cr 267.716†	85.0	10.5	0.1431	ug/L	0.1431	ppb	09:58:56
1	Cu 324.752†	5665.3	-147.3	-0.4897	ug/L	-0.4897	ppb	09:58:36
1	Mn 257.610†	415.1	7.8	0.0061	ug/L	0.0061	ppb	09:58:56
1	Mo 202.031†	13.8	0.2	0.0172	ug/L	0.0172	ppb	09:58:56
1	Ni 231.604†	81.6	4.8	0.1562	ug/L	0.1562	ppb	09:58:56
1	P 214.914†	189.3	-20.9	-15.772	ug/L	-15.772	ppb	09:58:56
1	Pb 220.353†	-49.7	1.7	0.2662	ug/L	0.2662	ppb	09:58:56
1	S 181.975 Axial†	29.7	-1.7	-3.0949	ug/L	-3.0949	ppb	09:58:56
1	Sb 206.836†	24.0	-2.6	-1.0981	ug/L	-1.0981	ppb	09:58:56
1	Se 196.026†	-10.9	11.8	9.8506	ug/L	9.8506	ppb	09:58:56
1	Si 251.611†	547.6	1.1	0.0411	ug/L	0.0411	ppb	09:58:56
1	Sn 189.927†	9.9	5.7	1.3207	ug/L	1.3207	ppb	09:58:56
1	Ti 334.940†	-1025.7	71.7	0.1168	ug/L	0.1168	ppb	09:58:36
1	Tl 190.801†	-32.0	-1.3	-0.5028	ug/L	-0.5028	ppb	09:58:56
1	U 409.014†	-1940.1	101.2	2.9948	ug/L	2.9948	ppb	09:58:31
1	V 292.402†	-1331.8	86.3	0.6986	ug/L	0.6986	ppb	09:58:36
1	Zn 213.857†	673.3	34.9	0.4295	ug/L	0.4295	ppb	09:58:56
1	SiO2†	569.7	4.6	0.3713	ug/L	0.3713	ppb	10:00:17
2	Sc Radial	4471.6	4471.6	98.2	%			09:57:59
2	Y RADIAL	5070.1	5070.1	103.1	%			09:57:39
2	Al 396.153Radial†	-77.6	-5.8	-5.7529	ug/L	-5.7529	ppb	09:57:59
2	Ca 317.933Radial†	20.3	2.3	4.3762	ug/L	4.3762	ppb	09:57:59
2	Fe 238.204 Radial†	7.3	0.8	8.9063	ug/L	8.9063	ppb	09:57:59
2	K 766.490 Radial†	2622.3	159.0	30.264	ug/L	30.264	ppb	09:57:39
2	Mg 279.077 IEC†	2.3	1.9	80.863	ug/L	80.863	ppb	09:57:59
2	Na 589.592 Radial†	-744.7	-40.3	-14.066	ug/L	-14.066	ppb	09:57:39
2	Sr 421.552†	28.1	-8.8	-0.0690	ug/L	-0.0690	ppb	09:57:39
2	Sc 361.383	880144.5	880144.5	104.12	%			09:59:01
2	Y 371.029	740922.7	740922.7	103.92	%			09:59:01
2	Ag 328.068†	197.3	32.8	0.1719	ug/L	0.1719	ppb	09:59:06
2	As 188.979†	-18.3	4.5	2.5351	ug/L	2.5351	ppb	09:59:26
2	B 249.677†	-142.7	310.3	8.7697	ug/L	8.7697	ppb	09:59:26
2	Ba 233.527†	22.4	9.6	0.0930	ug/L	0.0930	ppb	09:59:26
2	Be 313.107†	-4294.1	333.3	0.1424	ug/L	0.1424	ppb	09:59:06
2	Cd 226.502†	-153.4	1.1	0.0167	ug/L	0.0167	ppb	09:59:26
2	Co 228.616†	-32.8	22.1	0.5800	ug/L	0.5800	ppb	09:59:26
2	Cr 267.716†	88.5	14.8	0.2015	ug/L	0.2015	ppb	09:59:26
2	Cu 324.752†	5648.2	-101.4	-0.3377	ug/L	-0.3377	ppb	09:59:06
2	Mn 257.610†	425.4	22.3	0.0272	ug/L	0.0272	ppb	09:59:26
2	Mo 202.031†	8.1	-5.1	-0.4565	ug/L	-0.4565	ppb	09:59:26
2	Ni 231.604†	80.5	4.7	0.1506	ug/L	0.1506	ppb	09:59:26

2	P 214.914†	178.8	-29.0	-21.891 ug/L	-21.891 ppb	09:59:26
2	Pb 220.353†	-56.3	-5.2	-0.8129 ug/L	-0.8129 ppb	09:59:26
2	S 181.975 Axial†	36.0	4.6	8.4029 ug/L	8.4029 ppb	09:59:26
2	Sb 206.836†	31.9	5.2	2.2162 ug/L	2.2162 ppb	09:59:26
2	Se 196.026†	-13.9	8.8	7.3900 ug/L	7.3900 ppb	09:59:26
2	Si 251.611†	573.8	32.3	1.2394 ug/L	1.2394 ppb	09:59:26
2	Sn 189.927†	4.2	0.3	0.0765 ug/L	0.0765 ppb	09:59:26
2	Ti 334.940†	-1054.2	33.1	0.0496 ug/L	0.0496 ppb	09:59:06
2	Tl 190.801†	-21.2	8.7	3.4281 ug/L	3.4281 ppb	09:59:26
2	U 409.014†	-1871.8	145.5	4.3030 ug/L	4.3030 ppb	09:59:01
2	V 292.402†	-1297.6	104.4	0.8383 ug/L	0.8383 ppb	09:59:06
2	Zn 213.857†	676.9	45.8	0.5625 ug/L	0.5625 ppb	09:59:26
2	SiO2†	568.5	9.7	0.7997 ug/L	0.7997 ppb	10:00:37
3	Sc Radial	4461.5	4461.5	98.0 %		09:58:24
3	Y RADIAL	5052.7	5052.7	102.8 %		09:58:04
3	Al 396.153Radial†	-69.3	2.4	2.4347 ug/L	2.4347 ppb	09:58:24
3	Ca 317.933Radial†	28.0	10.2	19.238 ug/L	19.238 ppb	09:58:24
3	Fe 238.204 Radial†	7.3	0.8	9.0876 ug/L	9.0876 ppb	09:58:24
3	K 766.490 Radial†	2686.4	230.4	43.846 ug/L	43.846 ppb	09:58:04
3	Mg 279.077 IEC†	-0.5	-1.0	-39.727 ug/L	-39.727 ppb	09:58:24
3	Na 589.592 Radial†	-741.5	-38.8	-13.549 ug/L	-13.549 ppb	09:58:04
3	Sr 421.552†	55.5	19.1	0.1499 ug/L	0.1499 ppb	09:58:04
3	Sc 361.383	892799.0	892799.0	105.62 %		09:59:31
3	Y 371.029	751095.2	751095.2	105.35 %		09:59:31
3	Ag 328.068†	213.2	45.2	0.2395 ug/L	0.2395 ppb	09:59:36
3	As 188.979†	-14.5	8.4	4.7221 ug/L	4.7221 ppb	09:59:56
3	B 249.677†	-146.8	308.5	8.7169 ug/L	8.7169 ppb	09:59:56
3	Ba 233.527†	10.5	-2.0	-0.0175 ug/L	-0.0175 ppb	09:59:56
3	Be 313.107†	-4303.7	382.6	0.1634 ug/L	0.1634 ppb	09:59:36
3	Cd 226.502†	-167.4	-10.0	-0.1483 ug/L	-0.1483 ppb	09:59:56
3	Co 228.616†	-43.8	12.1	0.3169 ug/L	0.3169 ppb	09:59:56
3	Cr 267.716†	63.3	-10.2	-0.1364 ug/L	-0.1364 ppb	09:59:56
3	Cu 324.752†	5670.7	-157.0	-0.5187 ug/L	-0.5187 ppb	09:59:36
3	Mn 257.610†	431.7	22.4	0.0323 ug/L	0.0323 ppb	09:59:56
3	Mo 202.031†	6.1	-7.1	-0.6421 ug/L	-0.6421 ppb	09:59:56
3	Ni 231.604†	77.2	0.4	0.0141 ug/L	0.0141 ppb	09:59:56
3	P 214.914†	178.7	-31.5	-23.769 ug/L	-23.769 ppb	09:59:56
3	Pb 220.353†	-46.9	4.5	0.6971 ug/L	0.6971 ppb	09:59:56
3	S 181.975 Axial†	31.3	-0.2	-0.3938 ug/L	-0.3938 ppb	09:59:56
3	Sb 206.836†	28.4	1.5	0.6517 ug/L	0.6517 ppb	09:59:56
3	Se 196.026†	-22.1	1.3	1.1006 ug/L	1.1006 ppb	09:59:56
3	Si 251.611†	561.6	12.9	0.5017 ug/L	0.5017 ppb	09:59:56
3	Sn 189.927†	12.7	8.3	1.9084 ug/L	1.9084 ppb	09:59:56
3	Ti 334.940†	-1098.1	5.9	0.0168 ug/L	0.0168 ppb	09:59:36
3	Tl 190.801†	-31.3	-0.5	-0.2004 ug/L	-0.2004 ppb	09:59:56
3	U 409.014†	-2111.5	-56.0	-1.6584 ug/L	-1.6584 ppb	09:59:31
3	V 292.402†	-1340.0	82.0	0.6426 ug/L	0.6426 ppb	09:59:36
3	Zn 213.857†	678.4	38.0	0.4672 ug/L	0.4672 ppb	09:59:56
3	SiO2†	574.8	7.8	0.6535 ug/L	0.6535 ppb	10:00:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	887763.7	105.02	%	0.794				0.76%
Sc Radial	4467.4	98.1	%	0.11				0.12%
Y 371.029	747198.4	104.80	%	0.770				0.73%
Y RADIAL	5072.1	103.2	%	0.41				0.40%
Ag 328.068†	20.8	0.1103	ug/L	0.16866	0.1103	ppb	0.16866	152.95%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.9	-4.8569	ug/L	6.88745	-4.8569	ppb	6.88745	141.81%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	5.4	3.0347	ug/L	1.50127	3.0347	ppb	1.50127	49.47%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	307.2	8.6805	ug/L	0.11194	8.6805	ppb	0.11194	1.29%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.3	0.0619	ug/L	0.06929	0.0619	ppb	0.06929	111.90%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	368.5	0.1575	ug/L	0.01313	0.1575	ppb	0.01313	8.34%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.2	13.552	ug/L	8.0220	13.552	ppb	8.0220	59.19%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -9.6     -0.1407 ug/L       0.15374     -0.1407 ppb        0.15374 109.29%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                15.7      0.4117 ug/L       0.14617      0.4117 ppb        0.14617  35.50%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 5.0      0.0694 ug/L       0.18058      0.0694 ppb        0.18058 260.22%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -135.2     -0.4487 ug/L       0.09720     -0.4487 ppb        0.09720  21.66%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.6      6.5364 ug/L       4.26273      6.5364 ppb        4.26273  65.22%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         165.9      31.569 ug/L       11.6798      31.569 ppb        11.6798  37.00%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.2      49.880 ug/L       78.8237      49.880 ppb        78.8237 158.03%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                17.5      0.0219 ug/L       0.01391      0.0219 ppb        0.01391  63.57%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -4.0     -0.3604 ug/L       0.33998     -0.3604 ppb        0.33998  94.32%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -45.0     -15.728 ug/L        3.3366     -15.728 ppb         3.3366  21.21%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 3.3      0.1070 ug/L       0.08046      0.1070 ppb        0.08046  75.22%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -27.1     -20.477 ug/L        4.1815     -20.477 ppb         4.1815  20.42%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.3      0.0502 ug/L       0.77784      0.0502 ppb        0.77784 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            0.9      1.6381 ug/L       6.01215      1.6381 ppb        6.01215 367.02%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.4      0.5900 ug/L       1.65802      0.5900 ppb        1.65802 281.04%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 7.3      6.1138 ug/L       4.51246      6.1138 ppb        4.51246  73.81%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                15.4      0.5940 ug/L       0.60448      0.5940 ppb        0.60448 101.76%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.8      1.1019 ug/L       0.93533      1.1019 ppb        0.93533  84.89%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 0.8      0.0061 ug/L       0.12452      0.0061 ppb        0.12452 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                36.9      0.0611 ug/L       0.05096      0.0611 ppb        0.05096  83.45%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 2.3      0.9083 ug/L       2.18742      0.9083 ppb        2.18742 240.83%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 63.6      1.8798 ug/L       3.13320      1.8798 ppb        3.13320 166.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 90.9      0.7265 ug/L       0.10076      0.7265 ppb        0.10076  13.87%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                39.6      0.4864 ug/L       0.06854      0.4864 ppb        0.06854  14.09%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                       7.4      0.6082 ug/L       0.21778      0.6082 ppb        0.21778  35.81%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 21
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/22/2010 11:07:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4709.3	4709.3	103	%			11:09:07
1	Y RADIAL	5049.0	5049.0	102.7	%			11:09:07
1	Al 396.153Radial†	5102.2	5004.9	4927.9	ug/L	4927.9	ppb	11:09:07
1	Ca 317.933Radial†	2768.0	2657.2	5014.0	ug/L	5014.0	ppb	11:09:27
1	Fe 238.204 Radial†	463.9	441.8	5086.0	ug/L	5086.0	ppb	11:09:27
1	K 766.490 Radial†	30297.2	26774.9	5088.1	ug/L	5088.1	ppb	11:09:07
1	Mg 279.077 IEC†	129.5	124.8	5181.1	ug/L	5181.1	ppb	11:09:27
1	Na 589.592 Radial†	29248.2	28989.2	10122	ug/L	10122	ppb	11:09:07
1	Sr 421.552†	66075.2	63831.0	500.07	ug/L	500.07	ppb	11:09:07
1	Sc 361.383	885694.5	885694.5	104.78	%			11:10:24
1	Y 371.029	735463.9	735463.9	103.16	%			11:10:24
1	Ag 328.068†	99195.2	94515.1	490.22	ug/L	490.22	ppb	11:10:30
1	As 188.979†	917.6	897.9	510.10	ug/L	510.10	ppb	11:10:50
1	B 249.677†	17689.2	17330.0	487.63	ug/L	487.63	ppb	11:10:30
1	Ba 233.527†	54348.7	51858.4	494.20	ug/L	494.20	ppb	11:10:30
1	Be 313.107†	1230740.0	1179074.0	504.44	ug/L	504.44	ppb	11:10:24
1	Cd 226.502†	35177.6	33721.9	495.32	ug/L	495.32	ppb	11:10:30
1	Co 228.616†	19834.3	18983.5	499.87	ug/L	499.87	ppb	11:10:30
1	Cr 267.716†	38149.0	36339.2	495.12	ug/L	495.12	ppb	11:10:30
1	Cu 324.752†	160675.2	147822.2	489.71	ug/L	489.71	ppb	11:10:30
1	Mn 257.610†	393566.0	375232.6	499.26	ug/L	499.26	ppb	11:10:24
1	Mo 202.031†	5741.0	5466.3	492.35	ug/L	492.35	ppb	11:10:50
1	Ni 231.604†	16334.0	15516.5	501.03	ug/L	501.03	ppb	11:10:30
1	P 214.914†	3635.4	3269.0	2382.1	ug/L	2382.1	ppb	11:10:50
1	Pb 220.353†	3306.0	3204.1	502.62	ug/L	502.62	ppb	11:10:50
1	S 181.975 Axial†	598.7	541.5	980.17	ug/L	980.17	ppb	11:10:50
1	Sb 206.836†	1234.3	1152.6	508.81	ug/L	508.81	ppb	11:10:50
1	Se 196.026†	598.5	593.4	511.97	ug/L	511.97	ppb	11:10:50
1	Si 251.611†	69003.6	65338.1	2489.2	ug/L	2489.2	ppb	11:10:30
1	Sn 189.927†	2244.8	2138.7	493.48	ug/L	493.48	ppb	11:10:50
1	Ti 334.940†	287143.2	275094.6	478.37	ug/L	478.37	ppb	11:10:30
1	Tl 190.801†	1295.7	1265.8	502.75	ug/L	502.75	ppb	11:10:50
1	U 409.014†	15992.0	17205.9	507.39	ug/L	507.39	ppb	11:10:30
1	V 292.402†	63114.4	61587.0	499.92	ug/L	499.92	ppb	11:10:30
1	Zn 213.857†	42782.8	40227.5	491.16	ug/L	491.16	ppb	11:10:30
1	SiO2†	69414.9	65713.1	5321.6	ug/L	5321.6	ppb	11:11:57
2	Sc Radial	4774.4	4774.4	105	%			11:09:32
2	Y RADIAL	5116.8	5116.8	104.1	%			11:09:32
2	Al 396.153Radial†	5095.6	4931.5	4855.9	ug/L	4855.9	ppb	11:09:32
2	Ca 317.933Radial†	2755.9	2609.2	4923.5	ug/L	4923.5	ppb	11:09:52
2	Fe 238.204 Radial†	458.2	430.2	4952.5	ug/L	4952.5	ppb	11:09:52
2	K 766.490 Radial†	30073.8	26162.5	4971.7	ug/L	4971.7	ppb	11:09:32
2	Mg 279.077 IEC†	128.7	122.3	5079.2	ug/L	5079.2	ppb	11:09:52
2	Na 589.592 Radial†	29089.1	28452.0	9934.5	ug/L	9934.5	ppb	11:09:32
2	Sr 421.552†	65608.5	62515.1	489.76	ug/L	489.76	ppb	11:09:32
2	Sc 361.383	912492.4	912492.4	107.95	%			11:10:56
2	Y 371.029	758012.3	758012.3	106.32	%			11:10:56
2	Ag 328.068†	99817.9	92311.6	478.79	ug/L	478.79	ppb	11:11:01
2	As 188.979†	909.7	864.8	491.37	ug/L	491.37	ppb	11:11:21
2	B 249.677†	17808.1	16944.4	476.78	ug/L	476.78	ppb	11:11:01
2	Ba 233.527†	54705.4	50665.5	482.83	ug/L	482.83	ppb	11:11:01
2	Be 313.107†	1229932.8	1143830.4	489.37	ug/L	489.37	ppb	11:10:56
2	Cd 226.502†	35424.6	32964.7	484.20	ug/L	484.20	ppb	11:11:01
2	Co 228.616†	19970.9	18554.0	488.56	ug/L	488.56	ppb	11:11:01
2	Cr 267.716†	38401.4	35503.7	483.74	ug/L	483.74	ppb	11:11:01
2	Cu 324.752†	161616.4	144190.6	477.68	ug/L	477.68	ppb	11:11:01
2	Mn 257.610†	392957.3	363637.6	483.83	ug/L	483.83	ppb	11:10:56
2	Mo 202.031†	5747.2	5311.2	478.38	ug/L	478.38	ppb	11:11:21
2	Ni 231.604†	16429.9	15147.5	489.11	ug/L	489.11	ppb	11:11:01

2	P 214.914†	3615.6	3148.7	2293.4 ug/L	2293.4 ppb	11:11:21
2	Pb 220.353†	3295.1	3101.4	486.52 ug/L	486.52 ppb	11:11:21
2	S 181.975 Axial†	588.5	515.2	932.70 ug/L	932.70 ppb	11:11:21
2	Sb 206.836†	1236.6	1120.1	494.49 ug/L	494.49 ppb	11:11:21
2	Se 196.026†	603.3	581.1	501.25 ug/L	501.25 ppb	11:11:21
2	Si 251.611†	69464.5	63831.0	2431.8 ug/L	2431.8 ppb	11:11:01
2	Sn 189.927†	2246.7	2077.6	479.39 ug/L	479.39 ppb	11:11:21
2	Ti 334.940†	288860.8	268637.6	467.15 ug/L	467.15 ppb	11:11:01
2	Tl 190.801†	1304.2	1237.3	491.42 ug/L	491.42 ppb	11:11:21
2	U 409.014†	15857.1	16632.7	490.48 ug/L	490.48 ppb	11:11:01
2	V 292.402†	63445.3	60124.5	488.00 ug/L	488.00 ppb	11:11:01
2	Zn 213.857†	42956.8	39189.6	478.48 ug/L	478.48 ppb	11:11:01
2	SiO2†	69708.8	64039.8	5186.1 ug/L	5186.1 ppb	11:12:02
3	Sc Radial	4744.0	4744.0	104 %		11:09:57
3	Y RADIAL	5038.3	5038.3	102.5 %		11:09:57
3	Al 396.153Radial†	5073.4	4941.3	4865.0 ug/L	4865.0 ppb	11:09:57
3	Ca 317.933Radial†	2748.2	2618.7	4941.4 ug/L	4941.4 ppb	11:10:17
3	Fe 238.204 Radial†	461.2	435.9	5018.8 ug/L	5018.8 ppb	11:10:17
3	K 766.490 Radial†	30145.2	26414.8	5019.7 ug/L	5019.7 ppb	11:09:57
3	Mg 279.077 IEC†	130.5	124.8	5181.6 ug/L	5181.6 ppb	11:10:17
3	Na 589.592 Radial†	28962.9	28508.6	9954.3 ug/L	9954.3 ppb	11:09:57
3	Sr 421.552†	65438.3	62752.7	491.62 ug/L	491.62 ppb	11:09:57
3	Sc 361.383	882407.3	882407.3	104.39 %		11:11:27
3	Y 371.029	733380.8	733380.8	102.87 %		11:11:27
3	Ag 328.068†	99774.1	95422.4	494.91 ug/L	494.91 ppb	11:11:32
3	As 188.979†	907.6	891.5	506.54 ug/L	506.54 ppb	11:11:52
3	B 249.677†	17892.8	17587.9	494.92 ug/L	494.92 ppb	11:11:32
3	Ba 233.527†	54771.8	52456.9	499.90 ug/L	499.90 ppb	11:11:32
3	Be 313.107†	1229575.7	1182334.5	505.85 ug/L	505.85 ppb	11:11:27
3	Cd 226.502†	35485.3	34141.8	501.50 ug/L	501.50 ppb	11:11:32
3	Co 228.616†	19968.6	19182.6	505.10 ug/L	505.10 ppb	11:11:32
3	Cr 267.716†	38445.1	36758.4	500.83 ug/L	500.83 ppb	11:11:32
3	Cu 324.752†	161208.7	148904.5	493.30 ug/L	493.30 ppb	11:11:32
3	Mn 257.610†	392898.4	375992.3	500.26 ug/L	500.26 ppb	11:11:27
3	Mo 202.031†	5698.3	5445.8	490.51 ug/L	490.51 ppb	11:11:52
3	Ni 231.604†	16500.7	15734.3	508.06 ug/L	508.06 ppb	11:11:32
3	P 214.914†	3597.2	3245.3	2363.5 ug/L	2363.5 ppb	11:11:52
3	Pb 220.353†	3250.0	3162.3	496.06 ug/L	496.06 ppb	11:11:52
3	S 181.975 Axial†	589.3	534.6	967.77 ug/L	967.77 ppb	11:11:52
3	Sb 206.836†	1227.3	1150.3	507.74 ug/L	507.74 ppb	11:11:52
3	Se 196.026†	602.3	599.2	516.55 ug/L	516.55 ppb	11:11:52
3	Si 251.611†	69437.3	65998.9	2514.5 ug/L	2514.5 ppb	11:11:32
3	Sn 189.927†	2218.7	2121.7	489.56 ug/L	489.56 ppb	11:11:52
3	Ti 334.940†	288829.0	277730.5	482.95 ug/L	482.95 ppb	11:11:32
3	Tl 190.801†	1291.9	1266.6	503.11 ug/L	503.11 ppb	11:11:52
3	U 409.014†	15675.6	16959.6	500.10 ug/L	500.10 ppb	11:11:32
3	V 292.402†	63640.0	62314.9	505.71 ug/L	505.71 ppb	11:11:32
3	Zn 213.857†	43094.0	40677.8	496.67 ug/L	496.67 ppb	11:11:32
3	SiO2†	70562.5	67059.3	5430.9 ug/L	5430.9 ppb	11:12:07

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	893531.4	105.71	%	1.952				1.85%
Sc Radial	4742.5	104	%	0.7				0.69%
Y 371.029	742285.7	104.12	%	1.916				1.84%
Y RADIAL	5068.0	103.1	%	0.87				0.84%
Ag 328.068†	94083.0	487.97	ug/L	8.290	487.97	ppb	8.290	1.70%
QC value within limits for Ag 328.068 Recovery = 97.59%								
Al 396.153Radial†	4959.2	4882.9	ug/L	39.20	4882.9	ppb	39.20	0.80%
QC value within limits for Al 396.153Radial Recovery = 97.66%								
As 188.979†	884.7	502.67	ug/L	9.951	502.67	ppb	9.951	1.98%
QC value within limits for As 188.979 Recovery = 100.53%								
B 249.677†	17287.4	486.44	ug/L	9.125	486.44	ppb	9.125	1.88%
QC value within limits for B 249.677 Recovery = 97.29%								
Ba 233.527†	51660.2	492.31	ug/L	8.690	492.31	ppb	8.690	1.77%
QC value within limits for Ba 233.527 Recovery = 98.46%								
Be 313.107†	1168412.9	499.89	ug/L	9.133	499.89	ppb	9.133	1.83%
QC value within limits for Be 313.107 Recovery = 99.98%								
Ca 317.933Radial†	2628.3	4959.6	ug/L	47.95	4959.6	ppb	47.95	0.97%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.19%
Cd 226.502†            33609.5      493.68 ug/L         8.767      493.68 ppb          8.767   1.78%
   QC value within limits for Cd 226.502  Recovery = 98.74%
Co 228.616†            18906.7      497.84 ug/L         8.456      497.84 ppb          8.456   1.70%
   QC value within limits for Co 228.616  Recovery = 99.57%
Cr 267.716†            36200.4      493.23 ug/L         8.700      493.23 ppb          8.700   1.76%
   QC value within limits for Cr 267.716  Recovery = 98.65%
Cu 324.752†           146972.4      486.90 ug/L         8.179      486.90 ppb          8.179   1.68%
   QC value within limits for Cu 324.752  Recovery = 97.38%
Fe 238.204 Radial†       436.0      5019.1 ug/L         66.74      5019.1 ppb          66.74   1.33%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.38%
K 766.490 Radial†      26450.8      5026.5 ug/L         58.49      5026.5 ppb          58.49   1.16%
   QC value within limits for K 766.490 Radial  Recovery = 100.53%
Mg 279.077 IEC†          124.0      5147.3 ug/L         58.98      5147.3 ppb          58.98   1.15%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.95%
Mn 257.610†           371620.8      494.45 ug/L         9.210      494.45 ppb          9.210   1.86%
   QC value within limits for Mn 257.610  Recovery = 98.89%
Mo 202.031†             5407.7      487.08 ug/L         7.589      487.08 ppb          7.589   1.56%
   QC value within limits for Mo 202.031  Recovery = 97.42%
Na 589.592 Radial†     28649.9       10004 ug/L         103.1       10004 ppb          103.1   1.03%
   QC value within limits for Na 589.592 Radial  Recovery = 100.04%
Ni 231.604†            15466.1      499.40 ug/L         9.578      499.40 ppb          9.578   1.92%
   QC value within limits for Ni 231.604  Recovery = 99.88%
P 214.914†              3221.0      2346.3 ug/L         46.80      2346.3 ppb          46.80   1.99%
   QC value within limits for P 214.914  Recovery = 93.85%
Pb 220.353†             3155.9      495.06 ug/L         8.096      495.06 ppb          8.096   1.64%
   QC value within limits for Pb 220.353  Recovery = 99.01%
S 181.975 Axial†         530.4      960.22 ug/L        24.621      960.22 ppb         24.621   2.56%
   QC value within limits for S 181.975 Axial  Recovery = 96.02%
Sb 206.836†             1141.0      503.68 ug/L         7.978      503.68 ppb          7.978   1.58%
   QC value within limits for Sb 206.836  Recovery = 100.74%
Se 196.026†              591.2      509.92 ug/L         7.856      509.92 ppb          7.856   1.54%
   QC value within limits for Se 196.026  Recovery = 101.98%
Si 251.611†            65056.0      2478.5 ug/L         42.35      2478.5 ppb          42.35   1.71%
   QC value within limits for Si 251.611  Recovery = 99.14%
Sn 189.927†             2112.6      487.48 ug/L         7.274      487.48 ppb          7.274   1.49%
   QC value within limits for Sn 189.927  Recovery = 97.50%
Sr 421.552†            63032.9      493.82 ug/L         5.494      493.82 ppb          5.494   1.11%
   QC value within limits for Sr 421.552  Recovery = 98.76%
Ti 334.940†           273820.9      476.16 ug/L         8.130      476.16 ppb          8.130   1.71%
   QC value within limits for Ti 334.940  Recovery = 95.23%
Tl 190.801†             1256.6      499.09 ug/L         6.647      499.09 ppb          6.647   1.33%
   QC value within limits for Tl 190.801  Recovery = 99.82%
U 409.014†             16932.7      499.32 ug/L         8.486      499.32 ppb          8.486   1.70%
   QC value within limits for U 409.014  Recovery = 99.86%
V 292.402†             61342.1      497.88 ug/L         9.027      497.88 ppb          9.027   1.81%
   QC value within limits for V 292.402  Recovery = 99.58%
Zn 213.857†            40031.6      488.77 ug/L         9.327      488.77 ppb          9.327   1.91%
   QC value within limits for Zn 213.857  Recovery = 97.75%
SiO2†                  65604.1      5312.9 ug/L        122.63      5312.9 ppb         122.63   2.31%
   QC value within limits for SiO2  Recovery = 99.35%
All analyte(s) passed QC.
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Sequence No.: 22
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/22/2010 11:14:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4836.3	4836.3	106	%			11:16:10
1	Y RADIAL	5214.1	5214.1	106.0	%			11:16:10
1	Al 396.153Radial†	-65.7	11.3	11.191	ug/L	11.191	ppb	11:16:30
1	Ca 317.933Radial†	26.4	6.5	12.209	ug/L	12.209	ppb	11:16:30
1	Fe 238.204 Radial†	7.4	0.4	4.1581	ug/L	4.1581	ppb	11:16:30
1	K 766.490 Radial†	2673.0	5.4	1.0221	ug/L	1.0221	ppb	11:16:10
1	Mg 279.077 IEC†	2.5	1.9	79.283	ug/L	79.283	ppb	11:16:30
1	Na 589.592 Radial†	-746.6	15.1	5.2603	ug/L	5.2603	ppb	11:16:10
1	Sr 421.552†	54.3	13.7	0.1070	ug/L	0.1070	ppb	11:16:10
1	Sc 361.383	872566.6	872566.6	103.22	%			11:17:27
1	Y 371.029	736483.3	736483.3	103.30	%			11:17:27
1	Ag 328.068†	323.6	156.8	0.8091	ug/L	0.8091	ppb	11:17:27
1	As 188.979†	-15.4	7.1	4.0306	ug/L	4.0306	ppb	11:17:47
1	B 249.677†	-280.9	175.3	4.9546	ug/L	4.9546	ppb	11:17:47
1	Ba 233.527†	16.8	4.3	0.0415	ug/L	0.0415	ppb	11:17:47
1	Be 313.107†	-4392.4	202.2	0.0863	ug/L	0.0863	ppb	11:17:27
1	Cd 226.502†	-158.4	-5.0	-0.0734	ug/L	-0.0734	ppb	11:17:47
1	Co 228.616†	-36.3	18.5	0.4856	ug/L	0.4856	ppb	11:17:47
1	Cr 267.716†	82.1	9.3	0.1271	ug/L	0.1271	ppb	11:17:47
1	Cu 324.752†	5686.1	-17.5	-0.0585	ug/L	-0.0585	ppb	11:17:27
1	Mn 257.610†	438.3	38.3	0.0481	ug/L	0.0481	ppb	11:17:47
1	Mo 202.031†	10.6	-2.6	-0.2371	ug/L	-0.2371	ppb	11:17:47
1	Ni 231.604†	85.6	10.3	0.3333	ug/L	0.3333	ppb	11:17:47
1	P 214.914†	180.1	-26.2	-19.814	ug/L	-19.814	ppb	11:17:47
1	Pb 220.353†	-43.6	6.6	1.0396	ug/L	1.0396	ppb	11:17:47
1	S 181.975 Axial†	36.6	5.5	9.9996	ug/L	9.9996	ppb	11:17:47
1	Sb 206.836†	41.8	15.0	6.4050	ug/L	6.4050	ppb	11:17:47
1	Se 196.026†	-27.2	-4.2	-3.4528	ug/L	-3.4528	ppb	11:17:47
1	Si 251.611†	680.2	140.2	5.3561	ug/L	5.3561	ppb	11:17:47
1	Sn 189.927†	5.9	2.0	0.4528	ug/L	0.4528	ppb	11:17:47
1	Ti 334.940†	-1080.5	-1.2	-0.0075	ug/L	-0.0075	ppb	11:17:27
1	Tl 190.801†	-30.4	-0.3	-0.1389	ug/L	-0.1389	ppb	11:17:47
1	U 409.014†	-1964.2	40.3	1.1911	ug/L	1.1911	ppb	11:17:27
1	V 292.402†	-1373.2	20.4	0.1631	ug/L	0.1631	ppb	11:17:27
1	Zn 213.857†	668.9	43.7	0.5356	ug/L	0.5356	ppb	11:17:47
1	SiO2†	667.9	110.7	8.9941	ug/L	8.9941	ppb	11:18:58
2	Sc Radial	4716.7	4716.7	104	%			11:16:35
2	Y RADIAL	5097.9	5097.9	103.7	%			11:16:35
2	Al 396.153Radial†	-78.5	-2.6	-2.5275	ug/L	-2.5275	ppb	11:16:55
2	Ca 317.933Radial†	20.0	0.9	1.7627	ug/L	1.7627	ppb	11:16:55
2	Fe 238.204 Radial†	9.4	2.4	28.012	ug/L	28.012	ppb	11:16:55
2	K 766.490 Radial†	2690.2	85.8	16.327	ug/L	16.327	ppb	11:16:35
2	Mg 279.077 IEC†	2.6	2.1	85.928	ug/L	85.928	ppb	11:16:55
2	Na 589.592 Radial†	-721.3	21.7	7.5597	ug/L	7.5597	ppb	11:16:35
2	Sr 421.552†	21.1	-17.1	-0.1341	ug/L	-0.1341	ppb	11:16:35
2	Sc 361.383	870461.9	870461.9	102.98	%			11:17:52
2	Y 371.029	735732.8	735732.8	103.20	%			11:17:52
2	Ag 328.068†	203.2	40.7	0.2198	ug/L	0.2198	ppb	11:17:52
2	As 188.979†	-24.7	-1.9	-1.0518	ug/L	-1.0518	ppb	11:18:12
2	B 249.677†	-285.9	169.8	4.7932	ug/L	4.7932	ppb	11:18:12
2	Ba 233.527†	10.4	-1.8	-0.0160	ug/L	-0.0160	ppb	11:18:12
2	Be 313.107†	-4319.1	263.0	0.1123	ug/L	0.1123	ppb	11:17:52
2	Cd 226.502†	-159.9	-6.8	-0.1034	ug/L	-0.1034	ppb	11:18:12
2	Co 228.616†	-28.6	25.8	0.6791	ug/L	0.6791	ppb	11:18:12
2	Cr 267.716†	86.7	14.0	0.1940	ug/L	0.1940	ppb	11:18:12
2	Cu 324.752†	5730.9	39.3	0.1321	ug/L	0.1321	ppb	11:17:52
2	Mn 257.610†	470.2	70.3	0.0928	ug/L	0.0928	ppb	11:18:12
2	Mo 202.031†	12.2	-1.0	-0.0890	ug/L	-0.0890	ppb	11:18:12
2	Ni 231.604†	90.5	15.3	0.4935	ug/L	0.4935	ppb	11:18:12

2	P 214.914†	175.6	-30.1	-22.837 ug/L	-22.837 ppb	11:18:12
2	Pb 220.353†	-53.6	-3.1	-0.4959 ug/L	-0.4959 ppb	11:18:12
2	S 181.975 Axial†	35.7	4.8	8.6247 ug/L	8.6247 ppb	11:18:12
2	Sb 206.836†	26.6	0.4	0.1939 ug/L	0.1939 ppb	11:18:12
2	Se 196.026†	-26.8	-3.9	-3.1627 ug/L	-3.1627 ppb	11:18:12
2	Si 251.611†	694.4	155.5	5.9407 ug/L	5.9407 ppb	11:18:12
2	Sn 189.927†	13.2	9.1	2.0974 ug/L	2.0974 ppb	11:18:12
2	Ti 334.940†	-1073.9	2.7	-0.0017 ug/L	-0.0017 ppb	11:17:52
2	Tl 190.801†	-32.8	-2.8	-1.1027 ug/L	-1.1027 ppb	11:18:12
2	U 409.014†	-2034.9	-33.0	-0.9787 ug/L	-0.9787 ppb	11:17:52
2	V 292.402†	-1368.4	21.8	0.1690 ug/L	0.1690 ppb	11:17:52
2	Zn 213.857†	656.5	33.2	0.4023 ug/L	0.4023 ppb	11:18:12
2	SiO2†	669.8	114.1	9.2633 ug/L	9.2633 ppb	11:19:18
3	Sc Radial	4673.5	4673.5	103 %		11:17:00
3	Y RADIAL	5040.4	5040.4	102.5 %		11:17:00
3	Al 396.153Radial†	-77.0	-1.8	-1.7942 ug/L	-1.7942 ppb	11:17:20
3	Ca 317.933Radial†	29.6	10.4	19.707 ug/L	19.707 ppb	11:17:20
3	Fe 238.204 Radial†	8.3	1.5	16.915 ug/L	16.915 ppb	11:17:20
3	K 766.490 Radial†	2649.2	69.9	13.290 ug/L	13.290 ppb	11:17:00
3	Mg 279.077 IEC†	0.4	-0.1	-2.4152 ug/L	-2.4152 ppb	11:17:20
3	Na 589.592 Radial†	-761.7	-24.2	-8.4436 ug/L	-8.4436 ppb	11:17:00
3	Sr 421.552†	39.4	0.9	0.0068 ug/L	0.0068 ppb	11:17:00
3	Sc 361.383	866043.6	866043.6	102.45 %		11:18:17
3	Y 371.029	730785.9	730785.9	102.50 %		11:18:17
3	Ag 328.068†	146.3	-13.9	-0.0660 ug/L	-0.0660 ppb	11:18:17
3	As 188.979†	-21.7	0.9	0.5327 ug/L	0.5327 ppb	11:18:37
3	B 249.677†	-297.0	157.6	4.4510 ug/L	4.4510 ppb	11:18:37
3	Ba 233.527†	15.4	3.1	0.0307 ug/L	0.0307 ppb	11:18:37
3	Be 313.107†	-4359.1	202.6	0.0866 ug/L	0.0866 ppb	11:18:17
3	Cd 226.502†	-166.6	-14.1	-0.2083 ug/L	-0.2083 ppb	11:18:37
3	Co 228.616†	-48.0	6.8	0.1782 ug/L	0.1782 ppb	11:18:37
3	Cr 267.716†	75.6	3.6	0.0507 ug/L	0.0507 ppb	11:18:37
3	Cu 324.752†	5639.7	-21.4	-0.0707 ug/L	-0.0707 ppb	11:18:17
3	Mn 257.610†	451.7	54.6	0.0744 ug/L	0.0744 ppb	11:18:37
3	Mo 202.031†	15.2	2.0	0.1786 ug/L	0.1786 ppb	11:18:37
3	Ni 231.604†	85.2	10.5	0.3400 ug/L	0.3400 ppb	11:18:37
3	P 214.914†	191.9	-13.4	-10.119 ug/L	-10.119 ppb	11:18:37
3	Pb 220.353†	-42.0	7.9	1.2383 ug/L	1.2383 ppb	11:18:37
3	S 181.975 Axial†	31.4	0.7	1.3196 ug/L	1.3196 ppb	11:18:37
3	Sb 206.836†	28.7	2.5	1.0991 ug/L	1.0991 ppb	11:18:37
3	Se 196.026†	-19.6	3.1	2.6150 ug/L	2.6150 ppb	11:18:37
3	Si 251.611†	650.6	116.2	4.4344 ug/L	4.4344 ppb	11:18:37
3	Sn 189.927†	8.2	4.3	0.9951 ug/L	0.9951 ppb	11:18:37
3	Ti 334.940†	-1033.8	36.5	0.0656 ug/L	0.0656 ppb	11:18:17
3	Tl 190.801†	-28.4	1.4	0.5608 ug/L	0.5608 ppb	11:18:37
3	U 409.014†	-1936.6	52.9	1.5632 ug/L	1.5632 ppb	11:18:17
3	V 292.402†	-1324.7	57.7	0.4649 ug/L	0.4649 ppb	11:18:17
3	Zn 213.857†	669.5	49.2	0.6019 ug/L	0.6019 ppb	11:18:37
3	SiO2†	686.4	133.6	10.843 ug/L	10.843 ppb	11:19:38

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	869690.7	102.88	%	0.394				0.38%
Sc Radial	4742.1	104	%	1.9				1.78%
Y 371.029	734334.0	103.00	%	0.434				0.42%
Y RADIAL	5117.5	104.1	%	1.80				1.73%
Ag 328.068†	61.2	0.3209	ug/L	0.44622	0.3209	ppb	0.44622	139.03%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.3	2.2897	ug/L	7.71736	2.2897	ppb	7.71736	337.04%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.1	1.1705	ug/L	2.60055	1.1705	ppb	2.60055	222.17%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	167.6	4.7329	ug/L	0.25712	4.7329	ppb	0.25712	5.43%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.9	0.0187	ug/L	0.03059	0.0187	ppb	0.03059	163.35%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	222.6	0.0951	ug/L	0.01492	0.0951	ppb	0.01492	15.69%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	5.9	11.226	ug/L	9.0122	11.226	ppb	9.0122	80.28%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -8.6     -0.1284 ug/L       0.07085     -0.1284 ppb        0.07085  55.19%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                17.0      0.4476 ug/L       0.25256      0.4476 ppb        0.25256  56.42%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 9.0      0.1239 ug/L       0.07170      0.1239 ppb        0.07170  57.85%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 0.1      0.0010 ug/L       0.11371      0.0010 ppb        0.11371 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.4     16.362 ug/L       11.9367     16.362 ppb        11.9367  72.95%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          53.7     10.213 ug/L        8.1030     10.213 ppb         8.1030  79.34%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.3     54.265 ug/L       49.1988     54.265 ppb        49.1988  90.66%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                54.4      0.0718 ug/L       0.02245      0.0718 ppb        0.02245  31.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -0.6     -0.0492 ug/L       0.21068     -0.0492 ppb        0.21068 428.58%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          4.2      1.4588 ug/L       8.65250      1.4588 ppb        8.65250 593.12%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                12.0      0.3889 ug/L       0.09064      0.3889 ppb        0.09064  23.31%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -23.2    -17.590 ug/L        6.6442    -17.590 ppb         6.6442  37.77%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.8      0.5940 ug/L       0.94910      0.5940 ppb        0.94910 159.79%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            3.7      6.6480 ug/L       4.66539      6.6480 ppb        4.66539  70.18%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 6.0      2.5660 ug/L       3.35531      2.5660 ppb        3.35531 130.76%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.7     -1.3335 ug/L       3.42258     -1.3335 ppb        3.42258 256.66%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               137.3      5.2437 ug/L       0.75941      5.2437 ppb        0.75941  14.48%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.1      1.1818 ug/L       0.83801      1.1818 ppb        0.83801  70.91%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -0.9     -0.0068 ug/L       0.12110     -0.0068 ppb        0.12110 >999.9%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                12.7      0.0188 ug/L       0.04065      0.0188 ppb        0.04065 216.29%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                -0.6     -0.2270 ug/L       0.83526     -0.2270 ppb        0.83526 368.01%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 20.1      0.5919 ug/L       1.37281      0.5919 ppb        1.37281 231.94%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 33.3      0.2657 ug/L       0.17258      0.2657 ppb        0.17258  64.96%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                42.0      0.5133 ug/L       0.10167      0.5133 ppb        0.10167  19.81%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     119.5      9.7002 ug/L       0.99906      9.7002 ppb        0.99906  10.30%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 29
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/22/2010 12:02:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4593.6	4593.6	101	%			12:04:41
1	Y RADIAL	4910.8	4910.8	99.88	%			12:04:41
1	Al 396.153Radial†	4959.1	4987.4	4910.0	ug/L	4910.0	ppb	12:04:41
1	Ca 317.933Radial†	2721.5	2678.5	5054.3	ug/L	5054.3	ppb	12:05:01
1	Fe 238.204 Radial†	453.3	442.6	5095.0	ug/L	5095.0	ppb	12:05:01
1	K 766.490 Radial†	29520.6	26742.9	5082.1	ug/L	5082.1	ppb	12:04:41
1	Mg 279.077 IEC†	128.1	126.5	5251.9	ug/L	5251.9	ppb	12:05:01
1	Na 589.592 Radial†	27614.2	28082.0	9805.3	ug/L	9805.3	ppb	12:04:41
1	Sr 421.552†	62969.3	62361.9	488.56	ug/L	488.56	ppb	12:04:41
1	Sc 361.383	867016.2	867016.2	102.57	%			12:05:58
1	Y 371.029	722074.3	722074.3	101.28	%			12:05:58
1	Ag 328.068†	99300.8	96657.5	501.31	ug/L	501.31	ppb	12:06:04
1	As 188.979†	905.5	904.9	514.12	ug/L	514.12	ppb	12:06:24
1	B 249.677†	17607.1	17613.7	495.62	ug/L	495.62	ppb	12:06:04
1	Ba 233.527†	54287.5	52916.1	504.28	ug/L	504.28	ppb	12:06:04
1	Be 313.107†	1201995.0	1176353.8	503.31	ug/L	503.31	ppb	12:05:58
1	Cd 226.502†	35058.3	34328.9	504.25	ug/L	504.25	ppb	12:06:04
1	Co 228.616†	19832.1	19389.1	510.55	ug/L	510.55	ppb	12:06:04
1	Cr 267.716†	38165.1	37139.2	506.02	ug/L	506.02	ppb	12:06:04
1	Cu 324.752†	160442.1	150898.5	499.91	ug/L	499.91	ppb	12:06:04
1	Mn 257.610†	381262.3	371329.1	494.06	ug/L	494.06	ppb	12:06:04
1	Mo 202.031†	5738.9	5582.3	502.79	ug/L	502.79	ppb	12:06:24
1	Ni 231.604†	16308.0	15827.0	511.05	ug/L	511.05	ppb	12:06:04
1	P 214.914†	3619.6	3328.3	2425.2	ug/L	2425.2	ppb	12:06:24
1	Pb 220.353†	3276.2	3243.1	508.72	ug/L	508.72	ppb	12:06:24
1	S 181.975 Axial†	595.4	550.6	996.82	ug/L	996.82	ppb	12:06:24
1	Sb 206.836†	1230.2	1173.9	518.27	ug/L	518.27	ppb	12:06:24
1	Se 196.026†	601.2	608.3	524.43	ug/L	524.43	ppb	12:06:24
1	Si 251.611†	68670.4	66432.0	2530.9	ug/L	2530.9	ppb	12:06:04
1	Sn 189.927†	2237.3	2177.6	502.45	ug/L	502.45	ppb	12:06:24
1	Ti 334.940†	287068.8	280926.0	488.51	ug/L	488.51	ppb	12:06:04
1	Tl 190.801†	1296.3	1292.9	513.46	ug/L	513.46	ppb	12:06:24
1	U 409.014†	15701.7	17251.7	508.73	ug/L	508.73	ppb	12:06:04
1	V 292.402†	63227.0	62994.4	511.32	ug/L	511.32	ppb	12:06:04
1	Zn 213.857†	42770.7	41095.4	501.78	ug/L	501.78	ppb	12:06:04
1	SiO2†	68377.9	66129.4	5355.1	ug/L	5355.1	ppb	12:07:31
2	Sc Radial	4671.6	4671.6	103	%			12:05:06
2	Y RADIAL	4968.5	4968.5	101.0	%			12:05:06
2	Al 396.153Radial†	4976.7	4922.4	4846.1	ug/L	4846.1	ppb	12:05:06
2	Ca 317.933Radial†	2727.3	2639.1	4980.0	ug/L	4980.0	ppb	12:05:26
2	Fe 238.204 Radial†	453.2	434.9	5007.5	ug/L	5007.5	ppb	12:05:26
2	K 766.490 Radial†	29627.2	26358.1	5009.0	ug/L	5009.0	ppb	12:05:06
2	Mg 279.077 IEC†	127.4	123.8	5138.4	ug/L	5138.4	ppb	12:05:26
2	Na 589.592 Radial†	27677.3	27686.3	9667.2	ug/L	9667.2	ppb	12:05:06
2	Sr 421.552†	63811.9	62140.4	486.82	ug/L	486.82	ppb	12:05:06
2	Sc 361.383	873973.1	873973.1	103.39	%			12:06:29
2	Y 371.029	726444.4	726444.4	101.89	%			12:06:29
2	Ag 328.068†	99558.9	96136.6	498.59	ug/L	498.59	ppb	12:06:34
2	As 188.979†	903.6	896.1	509.14	ug/L	509.14	ppb	12:06:54
2	B 249.677†	17764.3	17629.1	496.07	ug/L	496.07	ppb	12:06:34
2	Ba 233.527†	54634.6	52830.5	503.46	ug/L	503.46	ppb	12:06:34
2	Be 313.107†	1213062.3	1177729.7	503.89	ug/L	503.89	ppb	12:06:29
2	Cd 226.502†	35292.6	34283.4	503.59	ug/L	503.59	ppb	12:06:34
2	Co 228.616†	19955.2	19354.3	509.63	ug/L	509.63	ppb	12:06:34
2	Cr 267.716†	38272.8	36947.3	503.39	ug/L	503.39	ppb	12:06:34
2	Cu 324.752†	160971.2	150165.1	497.47	ug/L	497.47	ppb	12:06:34
2	Mn 257.610†	382599.5	369663.4	491.85	ug/L	491.85	ppb	12:06:34
2	Mo 202.031†	5710.4	5510.2	496.30	ug/L	496.30	ppb	12:06:54
2	Ni 231.604†	16390.5	15780.2	509.54	ug/L	509.54	ppb	12:06:34

2	P 214.914†	3627.5	3307.9	2410.2 ug/L	2410.2 ppb	12:06:54
2	Pb 220.353†	3280.8	3222.1	505.43 ug/L	505.43 ppb	12:06:54
2	S 181.975 Axial†	597.0	547.5	991.17 ug/L	991.17 ppb	12:06:54
2	Sb 206.836†	1235.9	1169.9	516.36 ug/L	516.36 ppb	12:06:54
2	Se 196.026†	592.3	595.0	513.05 ug/L	513.05 ppb	12:06:54
2	Si 251.611†	69000.7	66218.6	2522.8 ug/L	2522.8 ppb	12:06:34
2	Sn 189.927†	2238.4	2161.2	498.68 ug/L	498.68 ppb	12:06:54
2	Ti 334.940†	287694.3	279303.1	485.69 ug/L	485.69 ppb	12:06:34
2	Tl 190.801†	1294.1	1280.8	508.65 ug/L	508.65 ppb	12:06:54
2	U 409.014†	15938.6	17358.9	511.91 ug/L	511.91 ppb	12:06:34
2	V 292.402†	63335.4	62608.6	508.16 ug/L	508.16 ppb	12:06:34
2	Zn 213.857†	43034.8	41018.9	500.86 ug/L	500.86 ppb	12:06:34
2	SiO2†	69266.5	66458.1	5381.9 ug/L	5381.9 ppb	12:07:36
3	Sc Radial	4704.2	4704.2	103 %		12:05:31
3	Y RADIAL	5055.6	5055.6	102.8 %		12:05:31
3	Al 396.153Radial†	5064.2	4973.5	4896.5 ug/L	4896.5 ppb	12:05:31
3	Ca 317.933Radial†	2736.1	2629.2	4961.2 ug/L	4961.2 ppb	12:05:51
3	Fe 238.204 Radial†	450.9	429.6	4946.6 ug/L	4946.6 ppb	12:05:51
3	K 766.490 Radial†	29983.6	26503.0	5036.5 ug/L	5036.5 ppb	12:05:31
3	Mg 279.077 IEC†	128.5	123.9	5144.2 ug/L	5144.2 ppb	12:05:51
3	Na 589.592 Radial†	28035.1	27845.7	9722.8 ug/L	9722.8 ppb	12:05:31
3	Sr 421.552†	64515.8	62390.9	488.79 ug/L	488.79 ppb	12:05:31
3	Sc 361.383	870247.9	870247.9	102.95 %		12:07:00
3	Y 371.029	723434.4	723434.4	101.47 %		12:07:00
3	Ag 328.068†	99700.7	96686.5	501.42 ug/L	501.42 ppb	12:07:05
3	As 188.979†	912.2	908.1	515.93 ug/L	515.93 ppb	12:07:25
3	B 249.677†	17856.5	17792.1	500.68 ug/L	500.68 ppb	12:07:05
3	Ba 233.527†	54661.8	53083.1	505.87 ug/L	505.87 ppb	12:07:05
3	Be 313.107†	1211280.2	1181021.0	505.30 ug/L	505.30 ppb	12:07:00
3	Cd 226.502†	35323.2	34459.3	506.18 ug/L	506.18 ppb	12:07:05
3	Co 228.616†	19956.7	19438.4	511.84 ug/L	511.84 ppb	12:07:05
3	Cr 267.716†	38284.0	37116.5	505.69 ug/L	505.69 ppb	12:07:05
3	Cu 324.752†	161359.6	151208.9	500.92 ug/L	500.92 ppb	12:07:05
3	Mn 257.610†	383409.6	372034.4	494.99 ug/L	494.99 ppb	12:07:05
3	Mo 202.031†	5713.1	5536.5	498.66 ug/L	498.66 ppb	12:07:25
3	Ni 231.604†	16434.3	15890.7	513.11 ug/L	513.11 ppb	12:07:05
3	P 214.914†	3600.0	3296.2	2400.7 ug/L	2400.7 ppb	12:07:25
3	Pb 220.353†	3297.0	3251.4	510.03 ug/L	510.03 ppb	12:07:25
3	S 181.975 Axial†	601.5	554.4	1003.6 ug/L	1003.6 ppb	12:07:25
3	Sb 206.836†	1228.0	1167.3	515.32 ug/L	515.32 ppb	12:07:25
3	Se 196.026†	619.8	624.2	537.21 ug/L	537.21 ppb	12:07:25
3	Si 251.611†	69056.6	66558.5	2535.8 ug/L	2535.8 ppb	12:07:05
3	Sn 189.927†	2230.2	2162.6	498.99 ug/L	498.99 ppb	12:07:25
3	Ti 334.940†	288545.4	281321.0	489.19 ug/L	489.19 ppb	12:07:05
3	Tl 190.801†	1303.7	1295.4	514.45 ug/L	514.45 ppb	12:07:25
3	U 409.014†	15839.0	17328.2	511.01 ug/L	511.01 ppb	12:07:05
3	V 292.402†	63552.9	63082.1	511.99 ug/L	511.99 ppb	12:07:05
3	Zn 213.857†	42902.6	41068.6	501.46 ug/L	501.46 ppb	12:07:05
3	SiO2†	69931.4	67390.7	5457.6 ug/L	5457.6 ppb	12:07:41

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	870412.4	102.97	%	0.412				0.40%
Sc Radial	4656.5	102	%	1.2				1.22%
Y 371.029	723984.4	101.55	%	0.314				0.31%
Y RADIAL	4978.3	101.2	%	1.48				1.46%
Ag 328.068†	96493.5	500.44	ug/L	1.605	500.44	ppb	1.605	0.32%
QC value within limits for Ag 328.068 Recovery = 100.09%								
Al 396.153Radial†	4961.1	4884.2	ug/L	33.70	4884.2	ppb	33.70	0.69%
QC value within limits for Al 396.153Radial Recovery = 97.68%								
As 188.979†	903.0	513.06	ug/L	3.514	513.06	ppb	3.514	0.68%
QC value within limits for As 188.979 Recovery = 102.61%								
B 249.677†	17678.3	497.46	ug/L	2.802	497.46	ppb	2.802	0.56%
QC value within limits for B 249.677 Recovery = 99.49%								
Ba 233.527†	52943.3	504.54	ug/L	1.224	504.54	ppb	1.224	0.24%
QC value within limits for Ba 233.527 Recovery = 100.91%								
Be 313.107†	1178368.2	504.16	ug/L	1.026	504.16	ppb	1.026	0.20%
QC value within limits for Be 313.107 Recovery = 100.83%								
Ca 317.933Radial†	2648.9	4998.5	ug/L	49.25	4998.5	ppb	49.25	0.99%

```
   QC value within limits for Ca 317.933Radial  Recovery = 99.97%
Cd 226.502†            34357.2      504.67 ug/L         1.347      504.67 ppb          1.347   0.27%
   QC value within limits for Cd 226.502  Recovery = 100.93%
Co 228.616†            19393.9      510.67 ug/L         1.112      510.67 ppb          1.112   0.22%
   QC value within limits for Co 228.616  Recovery = 102.13%
Cr 267.716†            37067.7      505.04 ug/L         1.431      505.04 ppb          1.431   0.28%
   QC value within limits for Cr 267.716  Recovery = 101.01%
Cu 324.752†           150757.5      499.43 ug/L         1.775      499.43 ppb          1.775   0.36%
   QC value within limits for Cu 324.752  Recovery = 99.89%
Fe 238.204 Radial†       435.7      5016.4 ug/L        74.60      5016.4 ppb         74.60   1.49%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.33%
K 766.490 Radial†      26534.7      5042.6 ug/L        36.94      5042.6 ppb         36.94   0.73%
   QC value within limits for K 766.490 Radial  Recovery = 100.85%
Mg 279.077 IEC†          124.7      5178.2 ug/L        63.93      5178.2 ppb         63.93   1.23%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.56%
Mn 257.610†           371009.0      493.63 ug/L         1.617      493.63 ppb          1.617   0.33%
   QC value within limits for Mn 257.610  Recovery = 98.73%
Mo 202.031†             5543.0      499.25 ug/L         3.286      499.25 ppb          3.286   0.66%
   QC value within limits for Mo 202.031  Recovery = 99.85%
Na 589.592 Radial†     27871.4      9731.8 ug/L        69.51      9731.8 ppb         69.51   0.71%
   QC value within limits for Na 589.592 Radial  Recovery = 97.32%
Ni 231.604†            15832.6      511.23 ug/L         1.791      511.23 ppb          1.791   0.35%
   QC value within limits for Ni 231.604  Recovery = 102.25%
P 214.914†              3310.8      2412.0 ug/L        12.34      2412.0 ppb         12.34   0.51%
   QC value within limits for P 214.914  Recovery = 96.48%
Pb 220.353†             3238.9      508.06 ug/L         2.373      508.06 ppb          2.373   0.47%
   QC value within limits for Pb 220.353  Recovery = 101.61%
S 181.975 Axial†         550.9      997.21 ug/L         6.243      997.21 ppb          6.243   0.63%
   QC value within limits for S 181.975 Axial  Recovery = 99.72%
Sb 206.836†             1170.4      516.65 ug/L         1.498      516.65 ppb          1.498   0.29%
   QC value within limits for Sb 206.836  Recovery = 103.33%
Se 196.026†              609.2      524.90 ug/L        12.087      524.90 ppb         12.087   2.30%
   QC value within limits for Se 196.026  Recovery = 104.98%
Si 251.611†            66403.0      2529.8 ug/L         6.54      2529.8 ppb          6.54   0.26%
   QC value within limits for Si 251.611  Recovery = 101.19%
Sn 189.927†             2167.1      500.04 ug/L         2.095      500.04 ppb          2.095   0.42%
   QC value within limits for Sn 189.927  Recovery = 100.01%
Sr 421.552†            62297.7      488.06 ug/L         1.074      488.06 ppb          1.074   0.22%
   QC value within limits for Sr 421.552  Recovery = 97.61%
Ti 334.940†           280516.7      487.80 ug/L         1.859      487.80 ppb          1.859   0.38%
   QC value within limits for Ti 334.940  Recovery = 97.56%
Tl 190.801†             1289.7      512.19 ug/L         3.101      512.19 ppb          3.101   0.61%
   QC value within limits for Tl 190.801  Recovery = 102.44%
U 409.014†             17313.0      510.55 ug/L         1.643      510.55 ppb          1.643   0.32%
   QC value within limits for U 409.014  Recovery = 102.11%
V 292.402†             62895.0      510.49 ug/L         2.045      510.49 ppb          2.045   0.40%
   QC value within limits for V 292.402  Recovery = 102.10%
Zn 213.857†            41061.0      501.37 ug/L         0.465      501.37 ppb          0.465   0.09%
   QC value within limits for Zn 213.857  Recovery = 100.27%
SiO2†                  66659.4      5398.2 ug/L        53.16      5398.2 ppb         53.16   0.98%
   QC value within limits for SiO2  Recovery = 100.95%
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/22/2010 12:09:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4735.6	4735.6	104	%			12:11:44
1	Y RADIAL	5105.9	5105.9	103.8	%			12:11:44
1	Al 396.153Radial†	-82.3	-6.0	-5.9062	ug/L	-5.9062	ppb	12:12:04
1	Ca 317.933Radial†	25.9	6.5	12.283	ug/L	12.283	ppb	12:12:04
1	Fe 238.204 Radial†	8.2	1.2	14.260	ug/L	14.260	ppb	12:12:04
1	K 766.490 Radial†	2603.9	-7.5	-1.4251	ug/L	-1.4251	ppb	12:11:44
1	Mg 279.077 IEC†	2.0	1.5	62.490	ug/L	62.490	ppb	12:12:04
1	Na 589.592 Radial†	-755.0	-8.0	-2.7901	ug/L	-2.7901	ppb	12:11:44
1	Sr 421.552†	36.5	-2.4	-0.0188	ug/L	-0.0188	ppb	12:11:44
1	Sc 361.383	876712.5	876712.5	103.72	%			12:13:01
1	Y 371.029	740410.3	740410.3	103.85	%			12:13:01
1	Ag 328.068†	151.0	-11.1	-0.0543	ug/L	-0.0543	ppb	12:13:01
1	As 188.979†	-20.9	1.9	1.0975	ug/L	1.0975	ppb	12:13:21
1	B 249.677†	-288.7	169.1	4.7757	ug/L	4.7757	ppb	12:13:21
1	Ba 233.527†	13.0	0.6	0.0082	ug/L	0.0082	ppb	12:13:21
1	Be 313.107†	-4385.5	229.0	0.0981	ug/L	0.0981	ppb	12:13:01
1	Cd 226.502†	-160.0	-5.8	-0.0857	ug/L	-0.0857	ppb	12:13:21
1	Co 228.616†	-41.9	13.2	0.3483	ug/L	0.3483	ppb	12:13:21
1	Cr 267.716†	73.8	1.0	0.0140	ug/L	0.0140	ppb	12:13:21
1	Cu 324.752†	5687.1	-42.6	-0.1444	ug/L	-0.1444	ppb	12:13:01
1	Mn 257.610†	452.7	50.2	0.0655	ug/L	0.0655	ppb	12:13:21
1	Mo 202.031†	16.8	3.3	0.2978	ug/L	0.2978	ppb	12:13:21
1	Ni 231.604†	87.1	11.4	0.3668	ug/L	0.3668	ppb	12:13:21
1	P 214.914†	189.4	-18.1	-13.702	ug/L	-13.702	ppb	12:13:21
1	Pb 220.353†	-47.7	2.9	0.4534	ug/L	0.4534	ppb	12:13:21
1	S 181.975 Axial†	25.0	-5.8	-10.550	ug/L	-10.550	ppb	12:13:21
1	Sb 206.836†	30.6	4.1	1.7438	ug/L	1.7438	ppb	12:13:21
1	Se 196.026†	-20.5	2.4	2.0140	ug/L	2.0140	ppb	12:13:21
1	Si 251.611†	586.0	46.2	1.7615	ug/L	1.7615	ppb	12:13:21
1	Sn 189.927†	1.6	-2.1	-0.4881	ug/L	-0.4881	ppb	12:13:21
1	Ti 334.940†	-1003.4	78.1	0.1294	ug/L	0.1294	ppb	12:13:01
1	Tl 190.801†	-23.6	6.3	2.4857	ug/L	2.4857	ppb	12:13:21
1	U 409.014†	-1768.8	237.7	7.0319	ug/L	7.0319	ppb	12:13:01
1	V 292.402†	-1259.8	136.1	1.1065	ug/L	1.1065	ppb	12:13:01
1	Zn 213.857†	780.6	148.3	1.8235	ug/L	1.8235	ppb	12:13:21
1	SiO2†	578.2	21.2	1.7104	ug/L	1.7104	ppb	12:14:32
2	Sc Radial	4641.2	4641.2	102	%			12:12:09
2	Y RADIAL	5006.5	5006.5	101.8	%			12:12:09
2	Al 396.153Radial†	-69.4	5.1	5.1103	ug/L	5.1103	ppb	12:12:29
2	Ca 317.933Radial†	25.6	6.8	12.802	ug/L	12.802	ppb	12:12:29
2	Fe 238.204 Radial†	9.6	2.8	32.063	ug/L	32.063	ppb	12:12:29
2	K 766.490 Radial†	2448.5	-109.0	-20.734	ug/L	-20.734	ppb	12:12:09
2	Mg 279.077 IEC†	3.1	2.6	108.93	ug/L	108.93	ppb	12:12:29
2	Na 589.592 Radial†	-762.4	-30.0	-10.459	ug/L	-10.459	ppb	12:12:09
2	Sr 421.552†	45.5	7.2	0.0564	ug/L	0.0564	ppb	12:12:09
2	Sc 361.383	875622.3	875622.3	103.59	%			12:13:26
2	Y 371.029	739172.2	739172.2	103.68	%			12:13:26
2	Ag 328.068†	209.8	45.9	0.2456	ug/L	0.2456	ppb	12:13:26
2	As 188.979†	-19.7	3.1	1.7633	ug/L	1.7633	ppb	12:13:46
2	B 249.677†	-319.4	139.1	3.9258	ug/L	3.9258	ppb	12:13:46
2	Ba 233.527†	23.7	10.9	0.1057	ug/L	0.1057	ppb	12:13:46
2	Be 313.107†	-4346.1	261.8	0.1121	ug/L	0.1121	ppb	12:13:26
2	Cd 226.502†	-167.7	-13.4	-0.1988	ug/L	-0.1988	ppb	12:13:46
2	Co 228.616†	-43.5	11.6	0.3035	ug/L	0.3035	ppb	12:13:46
2	Cr 267.716†	78.2	5.3	0.0746	ug/L	0.0746	ppb	12:13:46
2	Cu 324.752†	5718.8	-5.2	-0.0175	ug/L	-0.0175	ppb	12:13:26
2	Mn 257.610†	437.4	36.0	0.0465	ug/L	0.0465	ppb	12:13:46
2	Mo 202.031†	9.0	-4.2	-0.3756	ug/L	-0.3756	ppb	12:13:46
2	Ni 231.604†	103.1	26.9	0.8700	ug/L	0.8700	ppb	12:13:46

2	P 214.914†	187.7	-19.4	-14.726 ug/L	-14.726 ppb	12:13:46
2	Pb 220.353†	-69.4	-18.1	-2.8319 ug/L	-2.8319 ppb	12:13:46
2	S 181.975 Axial†	29.6	-1.3	-2.4140 ug/L	-2.4140 ppb	12:13:46
2	Sb 206.836†	30.9	4.3	1.8726 ug/L	1.8726 ppb	12:13:46
2	Se 196.026†	-19.2	3.7	3.1351 ug/L	3.1351 ppb	12:13:46
2	Si 251.611†	585.8	46.7	1.7883 ug/L	1.7883 ppb	12:13:46
2	Sn 189.927†	12.1	7.9	1.8285 ug/L	1.8285 ppb	12:13:46
2	Ti 334.940†	-981.8	97.7	0.1613 ug/L	0.1613 ppb	12:13:26
2	Tl 190.801†	-30.1	0.1	0.0216 ug/L	0.0216 ppb	12:13:46
2	U 409.014†	-1894.2	114.5	3.3844 ug/L	3.3844 ppb	12:13:26
2	V 292.402†	-1332.8	64.0	0.5111 ug/L	0.5111 ppb	12:13:26
2	Zn 213.857†	776.7	145.6	1.7835 ug/L	1.7835 ppb	12:13:46
2	SiO2†	591.7	34.9	2.8417 ug/L	2.8417 ppb	12:14:52
3	Sc Radial	4745.3	4745.3	104 %		12:12:34
3	Y RADIAL	5114.6	5114.6	104.0 %		12:12:34
3	Al 396.153Radial†	-74.0	2.2	2.1553 ug/L	2.1553 ppb	12:12:54
3	Ca 317.933Radial†	29.6	10.0	18.860 ug/L	18.860 ppb	12:12:54
3	Fe 238.204 Radial†	7.1	0.2	1.7903 ug/L	1.7903 ppb	12:12:54
3	K 766.490 Radial†	2598.9	-17.4	-3.3145 ug/L	-3.3145 ppb	12:12:34
3	Mg 279.077 IEC†	2.3	1.8	73.763 ug/L	73.763 ppb	12:12:54
3	Na 589.592 Radial†	-753.7	-5.3	-1.8410 ug/L	-1.8410 ppb	12:12:34
3	Sr 421.552†	49.8	10.3	0.0807 ug/L	0.0807 ppb	12:12:34
3	Sc 361.383	867644.5	867644.5	102.64 %		12:13:51
3	Y 371.029	732213.8	732213.8	102.70 %		12:13:51
3	Ag 328.068†	230.9	68.3	0.3545 ug/L	0.3545 ppb	12:13:51
3	As 188.979†	-21.8	0.9	0.4911 ug/L	0.4911 ppb	12:14:11
3	B 249.677†	-284.8	169.9	4.8026 ug/L	4.8026 ppb	12:14:11
3	Ba 233.527†	20.6	8.1	0.0786 ug/L	0.0786 ppb	12:14:11
3	Be 313.107†	-4353.2	216.2	0.0920 ug/L	0.0920 ppb	12:13:51
3	Cd 226.502†	-171.9	-19.0	-0.2794 ug/L	-0.2794 ppb	12:14:11
3	Co 228.616†	-43.3	11.4	0.3007 ug/L	0.3007 ppb	12:14:11
3	Cr 267.716†	64.2	-7.6	-0.1030 ug/L	-0.1030 ppb	12:14:11
3	Cu 324.752†	5555.5	-113.5	-0.3763 ug/L	-0.3763 ppb	12:13:51
3	Mn 257.610†	431.9	34.5	0.0431 ug/L	0.0431 ppb	12:14:11
3	Mo 202.031†	9.3	-3.9	-0.3478 ug/L	-0.3478 ppb	12:14:11
3	Ni 231.604†	88.6	13.7	0.4431 ug/L	0.4431 ppb	12:14:11
3	P 214.914†	173.7	-31.5	-23.766 ug/L	-23.766 ppb	12:14:11
3	Pb 220.353†	-59.3	-8.9	-1.3927 ug/L	-1.3927 ppb	12:14:11
3	S 181.975 Axial†	29.4	-1.2	-2.1881 ug/L	-2.1881 ppb	12:14:11
3	Sb 206.836†	29.2	3.0	1.2689 ug/L	1.2689 ppb	12:14:11
3	Se 196.026†	-21.4	1.4	1.1343 ug/L	1.1343 ppb	12:14:11
3	Si 251.611†	565.0	31.6	1.2106 ug/L	1.2106 ppb	12:14:11
3	Sn 189.927†	6.4	2.5	0.5834 ug/L	0.5834 ppb	12:14:11
3	Ti 334.940†	-1160.8	-85.4	-0.1522 ug/L	-0.1522 ppb	12:13:51
3	Tl 190.801†	-21.9	7.7	3.0402 ug/L	3.0402 ppb	12:14:11
3	U 409.014†	-1977.4	16.6	0.4921 ug/L	0.4921 ppb	12:13:51
3	V 292.402†	-1305.7	78.6	0.6270 ug/L	0.6270 ppb	12:13:51
3	Zn 213.857†	765.8	141.8	1.7452 ug/L	1.7452 ppb	12:14:11
3	SiO2†	585.3	33.8	2.7572 ug/L	2.7572 ppb	12:15:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	873326.4	103.31	%	0.586				0.57%
Sc Radial	4707.3	103	%	1.3				1.22%
Y 371.029	737265.4	103.41	%	0.620				0.60%
Y RADIAL	5075.7	103.2	%	1.22				1.18%
Ag 328.068†	34.4	0.1819	ug/L	0.21166	0.1819	ppb	0.21166	116.35%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.5	0.4531	ug/L	5.70210	0.4531	ppb	5.70210	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.0	1.1173	ug/L	0.63633	1.1173	ppb	0.63633	56.95%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	159.4	4.5014	ug/L	0.49864	4.5014	ppb	0.49864	11.08%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.5	0.0642	ug/L	0.05031	0.0642	ppb	0.05031	78.40%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	235.6	0.1007	ug/L	0.01035	0.1007	ppb	0.01035	10.27%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.8	14.648	ug/L	3.6563	14.648	ppb	3.6563	24.96%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -12.8     -0.1880 ug/L       0.09731     -0.1880 ppb        0.09731  51.77%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               12.1      0.3175 ug/L       0.02673      0.3175 ppb        0.02673   8.42%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -0.5     -0.0048 ug/L       0.09028     -0.0048 ppb        0.09028 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -53.8     -0.1794 ug/L       0.18193     -0.1794 ppb        0.18193 101.41%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.4      16.038 ug/L      15.2146      16.038 ppb       15.2146  94.87%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -44.6     -8.4912 ug/L      10.64453     -8.4912 ppb      10.64453 125.36%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.0      81.726 ug/L      24.2200      81.726 ppb       24.2200  29.64%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               40.2      0.0517 ug/L       0.01210      0.0517 ppb        0.01210  23.40%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -1.6     -0.1418 ug/L       0.38101     -0.1418 ppb        0.38101 268.64%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -14.4     -5.0299 ug/L       4.72534     -5.0299 ppb        4.72534  93.94%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               17.3      0.5600 ug/L       0.27121      0.5600 ppb        0.27121  48.43%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -23.0     -17.398 ug/L        5.5387     -17.398 ppb         5.5387  31.83%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -8.0     -1.2571 ug/L       1.64687     -1.2571 ppb        1.64687 131.01%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.8     -5.0506 ug/L       4.76373     -5.0506 ppb        4.76373  94.32%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                3.8      1.6284 ug/L       0.31797      1.6284 ppb        0.31797  19.53%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.5      2.0945 ug/L       1.00283      2.0945 ppb        1.00283  47.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               41.5      1.5868 ug/L       0.32606      1.5868 ppb        0.32606  20.55%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.8      0.6413 ug/L       1.15942      0.6413 ppb        1.15942 180.81%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                5.0      0.0394 ug/L       0.05187      0.0394 ppb        0.05187 131.55%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               30.1      0.0461 ug/L       0.17252      0.0461 ppb        0.17252 373.95%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                4.7      1.8492 ug/L       1.60679      1.8492 ppb        1.60679  86.89%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               123.0      3.6361 ug/L       3.27716      3.6361 ppb        3.27716  90.13%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                92.9      0.7482 ug/L       0.31567      0.7482 ppb        0.31567  42.19%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              145.2      1.7841 ug/L       0.03916      1.7841 ppb        0.03916   2.19%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     30.0      2.4364 ug/L       0.63017      2.4364 ppb        0.63017  25.86%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/22/2010 13:04:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4688.6	4688.6	103	%			13:06:18
1	Y RADIAL	5000.5	5000.5	101.7	%			13:06:18
1	Al 396.153Radial†	5121.9	5045.8	4968.1	ug/L	4968.1	ppb	13:06:18
1	Ca 317.933Radial†	2735.2	2637.1	4976.2	ug/L	4976.2	ppb	13:06:38
1	Fe 238.204 Radial†	460.3	440.3	5068.9	ug/L	5068.9	ppb	13:06:38
1	K 766.490 Radial†	30309.2	26915.5	5114.9	ug/L	5114.9	ppb	13:06:18
1	Mg 279.077 IEC†	128.8	124.7	5176.3	ug/L	5176.3	ppb	13:06:38
1	Na 589.592 Radial†	28995.1	28867.9	10080	ug/L	10080	ppb	13:06:18
1	Sr 421.552†	66017.3	64056.0	501.83	ug/L	501.83	ppb	13:06:18
1	Sc 361.383	873826.2	873826.2	103.37	%			13:07:35
1	Y 371.029	727463.6	727463.6	102.04	%			13:07:35
1	Ag 328.068†	101479.7	98010.9	508.30	ug/L	508.30	ppb	13:07:41
1	As 188.979†	908.6	901.0	512.03	ug/L	512.03	ppb	13:08:01
1	B 249.677†	18294.4	18144.8	510.61	ug/L	510.61	ppb	13:07:41
1	Ba 233.527†	55613.2	53786.1	512.57	ug/L	512.57	ppb	13:07:41
1	Be 313.107†	1232239.5	1196478.2	511.92	ug/L	511.92	ppb	13:07:35
1	Cd 226.502†	35863.5	34841.4	511.79	ug/L	511.79	ppb	13:07:41
1	Co 228.616†	20303.2	19694.2	518.56	ug/L	518.56	ppb	13:07:41
1	Cr 267.716†	39028.0	37684.0	513.43	ug/L	513.43	ppb	13:07:41
1	Cu 324.752†	164740.0	153837.1	509.63	ug/L	509.63	ppb	13:07:41
1	Mn 257.610†	390104.9	376986.1	501.59	ug/L	501.59	ppb	13:07:41
1	Mo 202.031†	5733.4	5533.4	498.39	ug/L	498.39	ppb	13:08:01
1	Ni 231.604†	16702.0	16084.3	519.36	ug/L	519.36	ppb	13:07:41
1	P 214.914†	3625.8	3306.8	2406.9	ug/L	2406.9	ppb	13:08:01
1	Pb 220.353†	3301.6	3242.8	508.67	ug/L	508.67	ppb	13:08:01
1	S 181.975 Axial†	598.7	549.3	994.31	ug/L	994.31	ppb	13:08:01
1	Sb 206.836†	1231.3	1165.7	514.65	ug/L	514.65	ppb	13:08:01
1	Se 196.026†	604.4	606.8	523.13	ug/L	523.13	ppb	13:08:01
1	Si 251.611†	70359.6	67544.4	2573.4	ug/L	2573.4	ppb	13:07:41
1	Sn 189.927†	2247.2	2170.2	500.74	ug/L	500.74	ppb	13:08:01
1	Ti 334.940†	294305.3	285745.2	496.88	ug/L	496.88	ppb	13:07:41
1	Tl 190.801†	1296.1	1282.9	509.56	ug/L	509.56	ppb	13:08:01
1	U 409.014†	16264.2	17676.5	521.28	ug/L	521.28	ppb	13:07:41
1	V 292.402†	64608.3	63850.3	518.13	ug/L	518.13	ppb	13:07:41
1	Zn 213.857†	43701.6	41671.0	508.81	ug/L	508.81	ppb	13:07:41
1	SiO2†	68300.6	65535.0	5306.9	ug/L	5306.9	ppb	13:09:08
2	Sc Radial	4690.9	4690.9	103	%			13:06:43
2	Y RADIAL	4997.4	4997.4	101.6	%			13:06:43
2	Al 396.153Radial†	5061.5	4984.8	4907.8	ug/L	4907.8	ppb	13:06:43
2	Ca 317.933Radial†	2743.1	2643.5	4988.3	ug/L	4988.3	ppb	13:07:03
2	Fe 238.204 Radial†	452.7	432.7	4981.3	ug/L	4981.3	ppb	13:07:03
2	K 766.490 Radial†	30082.8	26681.5	5070.4	ug/L	5070.4	ppb	13:06:43
2	Mg 279.077 IEC†	127.8	123.7	5134.0	ug/L	5134.0	ppb	13:07:03
2	Na 589.592 Radial†	28508.1	28381.6	9910.0	ug/L	9910.0	ppb	13:06:43
2	Sr 421.552†	64814.6	62857.7	492.44	ug/L	492.44	ppb	13:06:43
2	Sc 361.383	874216.8	874216.8	103.42	%			13:08:06
2	Y 371.029	725956.6	725956.6	101.82	%			13:08:06
2	Ag 328.068†	99665.2	96212.5	498.97	ug/L	498.97	ppb	13:08:11
2	As 188.979†	902.3	894.6	508.29	ug/L	508.29	ppb	13:08:31
2	B 249.677†	17800.5	17659.3	496.93	ug/L	496.93	ppb	13:08:11
2	Ba 233.527†	54645.8	52826.6	503.42	ug/L	503.42	ppb	13:08:11
2	Be 313.107†	1220620.1	1184710.5	506.87	ug/L	506.87	ppb	13:08:06
2	Cd 226.502†	35285.4	34266.9	503.35	ug/L	503.35	ppb	13:08:11
2	Co 228.616†	19908.7	19303.9	508.30	ug/L	508.30	ppb	13:08:11
2	Cr 267.716†	38249.8	36914.7	502.95	ug/L	502.95	ppb	13:08:11
2	Cu 324.752†	161470.2	150604.2	498.92	ug/L	498.92	ppb	13:08:11
2	Mn 257.610†	382741.9	369698.0	491.89	ug/L	491.89	ppb	13:08:11
2	Mo 202.031†	5691.8	5490.7	494.54	ug/L	494.54	ppb	13:08:31
2	Ni 231.604†	16356.8	15743.3	508.35	ug/L	508.35	ppb	13:08:11

2	P 214.914†	3599.1	3279.4	2388.3 ug/L	2388.3 ppb	13:08:31
2	Pb 220.353†	3268.0	3208.9	503.37 ug/L	503.37 ppb	13:08:31
2	S 181.975 Axial†	586.7	537.4	972.83 ug/L	972.83 ppb	13:08:31
2	Sb 206.836†	1227.0	1160.9	512.47 ug/L	512.47 ppb	13:08:31
2	Se 196.026†	592.4	595.0	512.98 ug/L	512.98 ppb	13:08:31
2	Si 251.611†	69042.8	66240.6	2523.7 ug/L	2523.7 ppb	13:08:11
2	Sn 189.927†	2229.1	2151.7	496.49 ug/L	496.49 ppb	13:08:31
2	Ti 334.940†	288053.8	279573.1	486.16 ug/L	486.16 ppb	13:08:11
2	Tl 190.801†	1291.9	1278.2	507.66 ug/L	507.66 ppb	13:08:31
2	U 409.014†	15944.1	17360.0	511.95 ug/L	511.95 ppb	13:08:11
2	V 292.402†	63392.1	62646.4	508.44 ug/L	508.44 ppb	13:08:11
2	Zn 213.857†	42850.2	40828.8	498.53 ug/L	498.53 ppb	13:08:11
2	SiO2†	69258.5	66431.7	5379.8 ug/L	5379.8 ppb	13:09:13
3	Sc Radial	4500.5	4500.5	98.9 %		13:07:08
3	Y RADIAL	4800.5	4800.5	97.63 %		13:07:08
3	Al 396.153Radial†	4899.6	5028.8	4951.5 ug/L	4951.5 ppb	13:07:08
3	Ca 317.933Radial†	2746.3	2759.3	5206.8 ug/L	5206.8 ppb	13:07:28
3	Fe 238.204 Radial†	458.7	457.3	5263.6 ug/L	5263.6 ppb	13:07:28
3	K 766.490 Radial†	29139.1	26962.0	5123.7 ug/L	5123.7 ppb	13:07:08
3	Mg 279.077 IEC†	127.9	128.9	5351.7 ug/L	5351.7 ppb	13:07:28
3	Na 589.592 Radial†	27397.2	28428.3	9926.3 ug/L	9926.3 ppb	13:07:08
3	Sr 421.552†	62486.3	63163.6	494.84 ug/L	494.84 ppb	13:07:08
3	Sc 361.383	883793.6	883793.6	104.55 %		13:08:37
3	Y 371.029	734156.4	734156.4	102.98 %		13:08:37
3	Ag 328.068†	99675.6	95178.2	493.71 ug/L	493.71 ppb	13:08:42
3	As 188.979†	905.8	888.4	504.85 ug/L	504.85 ppb	13:09:02
3	B 249.677†	17875.3	17544.3	493.64 ug/L	493.64 ppb	13:08:42
3	Ba 233.527†	54545.7	52158.4	497.07 ug/L	497.07 ppb	13:08:42
3	Be 313.107†	1219384.9	1170739.9	500.89 ug/L	500.89 ppb	13:08:37
3	Cd 226.502†	35228.3	33842.7	497.08 ug/L	497.08 ppb	13:08:42
3	Co 228.616†	20004.1	19186.5	505.21 ug/L	505.21 ppb	13:08:42
3	Cr 267.716†	38280.7	36543.4	497.93 ug/L	497.93 ppb	13:08:42
3	Cu 324.752†	161078.9	148538.1	492.10 ug/L	492.10 ppb	13:08:42
3	Mn 257.610†	382570.6	365524.0	486.36 ug/L	486.36 ppb	13:08:42
3	Mo 202.031†	5716.8	5455.0	491.35 ug/L	491.35 ppb	13:09:02
3	Ni 231.604†	16381.1	15595.1	503.56 ug/L	503.56 ppb	13:08:42
3	P 214.914†	3601.1	3243.7	2362.3 ug/L	2362.3 ppb	13:09:02
3	Pb 220.353†	3283.6	3189.5	500.31 ug/L	500.31 ppb	13:09:02
3	S 181.975 Axial†	594.2	538.4	974.61 ug/L	974.61 ppb	13:09:02
3	Sb 206.836†	1235.6	1156.3	510.39 ug/L	510.39 ppb	13:09:02
3	Se 196.026†	599.4	595.5	514.22 ug/L	514.22 ppb	13:09:02
3	Si 251.611†	68996.8	65473.3	2494.4 ug/L	2494.4 ppb	13:08:42
3	Sn 189.927†	2238.5	2137.3	493.20 ug/L	493.20 ppb	13:09:02
3	Ti 334.940†	287938.1	276444.4	480.73 ug/L	480.73 ppb	13:08:42
3	Tl 190.801†	1295.7	1268.4	503.72 ug/L	503.72 ppb	13:09:02
3	U 409.014†	15838.7	17092.1	504.00 ug/L	504.00 ppb	13:08:42
3	V 292.402†	63304.4	61898.3	502.36 ug/L	502.36 ppb	13:08:42
3	Zn 213.857†	42841.8	40371.8	492.89 ug/L	492.89 ppb	13:08:42
3	SiO2†	69938.5	66356.4	5373.8 ug/L	5373.8 ppb	13:09:18

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	877278.9	103.78	%	0.668				0.64%
Sc Radial	4626.7	102	%	2.4				2.36%
Y 371.029	729192.2	102.28	%	0.612				0.60%
Y RADIAL	4932.8	100.3	%	2.33				2.32%
Ag 328.068†	96467.2	500.32	ug/L	7.390	500.32	ppb	7.390	1.48%
QC value within limits for Ag 328.068 Recovery = 100.06%								
Al 396.153Radial†	5019.8	4942.5	ug/L	31.12	4942.5	ppb	31.12	0.63%
QC value within limits for Al 396.153Radial Recovery = 98.85%								
As 188.979†	894.7	508.39	ug/L	3.592	508.39	ppb	3.592	0.71%
QC value within limits for As 188.979 Recovery = 101.68%								
B 249.677†	17782.8	500.40	ug/L	8.998	500.40	ppb	8.998	1.80%
QC value within limits for B 249.677 Recovery = 100.08%								
Ba 233.527†	52923.7	504.35	ug/L	7.793	504.35	ppb	7.793	1.55%
QC value within limits for Ba 233.527 Recovery = 100.87%								
Be 313.107†	1183976.2	506.56	ug/L	5.519	506.56	ppb	5.519	1.09%
QC value within limits for Be 313.107 Recovery = 101.31%								
Ca 317.933Radial†	2680.0	5057.1	ug/L	129.79	5057.1	ppb	129.79	2.57%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.14%
Cd 226.502†            34317.0      504.07 ug/L         7.380      504.07 ppb          7.380   1.46%
   QC value within limits for Cd 226.502  Recovery = 100.81%
Co 228.616†            19394.9      510.69 ug/L         6.989      510.69 ppb          6.989   1.37%
   QC value within limits for Co 228.616  Recovery = 102.14%
Cr 267.716†            37047.4      504.77 ug/L         7.910      504.77 ppb          7.910   1.57%
   QC value within limits for Cr 267.716  Recovery = 100.95%
Cu 324.752†           150993.1      500.22 ug/L         8.839      500.22 ppb          8.839   1.77%
   QC value within limits for Cu 324.752  Recovery = 100.04%
Fe 238.204 Radial†       443.4      5104.6 ug/L        144.48      5104.6 ppb         144.48   2.83%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.09%
K 766.490 Radial†      26853.0      5103.0 ug/L         28.56      5103.0 ppb          28.56   0.56%
   QC value within limits for K 766.490 Radial  Recovery = 102.06%
Mg 279.077 IEC†          125.8      5220.7 ug/L        115.46      5220.7 ppb         115.46   2.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.41%
Mn 257.610†           370736.0      493.28 ug/L         7.709      493.28 ppb          7.709   1.56%
   QC value within limits for Mn 257.610  Recovery = 98.66%
Mo 202.031†             5493.0      494.76 ug/L         3.523      494.76 ppb          3.523   0.71%
   QC value within limits for Mo 202.031  Recovery = 98.95%
Na 589.592 Radial†     28559.3      9972.0 ug/L         93.67      9972.0 ppb          93.67   0.94%
   QC value within limits for Na 589.592 Radial  Recovery = 99.72%
Ni 231.604†            15807.6      510.42 ug/L         8.100      510.42 ppb          8.100   1.59%
   QC value within limits for Ni 231.604  Recovery = 102.08%
P 214.914†              3276.6      2385.9 ug/L         22.40      2385.9 ppb          22.40   0.94%
   QC value within limits for P 214.914  Recovery = 95.44%
Pb 220.353†             3213.7      504.11 ug/L         4.231      504.11 ppb          4.231   0.84%
   QC value within limits for Pb 220.353  Recovery = 100.82%
S 181.975 Axial†         541.7      980.59 ug/L        11.920      980.59 ppb         11.920   1.22%
   QC value within limits for S 181.975 Axial  Recovery = 98.06%
Sb 206.836†             1161.0      512.50 ug/L         2.129      512.50 ppb          2.129   0.42%
   QC value within limits for Sb 206.836  Recovery = 102.50%
Se 196.026†              599.1      516.78 ug/L         5.539      516.78 ppb          5.539   1.07%
   QC value within limits for Se 196.026  Recovery = 103.36%
Si 251.611†            66419.4      2530.5 ug/L         39.94      2530.5 ppb          39.94   1.58%
   QC value within limits for Si 251.611  Recovery = 101.22%
Sn 189.927†             2153.1      496.81 ug/L         3.780      496.81 ppb          3.780   0.76%
   QC value within limits for Sn 189.927  Recovery = 99.36%
Sr 421.552†            63359.1      496.37 ug/L         4.878      496.37 ppb          4.878   0.98%
   QC value within limits for Sr 421.552  Recovery = 99.27%
Ti 334.940†           280587.6      487.93 ug/L         8.218      487.93 ppb          8.218   1.68%
   QC value within limits for Ti 334.940  Recovery = 97.59%
Tl 190.801†             1276.5      506.98 ug/L         2.982      506.98 ppb          2.982   0.59%
   QC value within limits for Tl 190.801  Recovery = 101.40%
U 409.014†             17376.2      512.41 ug/L         8.649      512.41 ppb          8.649   1.69%
   QC value within limits for U 409.014  Recovery = 102.48%
V 292.402†             62798.3      509.65 ug/L         7.954      509.65 ppb          7.954   1.56%
   QC value within limits for V 292.402  Recovery = 101.93%
Zn 213.857†            40957.2      500.08 ug/L         8.071      500.08 ppb          8.071   1.61%
   QC value within limits for Zn 213.857  Recovery = 100.02%
SiO2†                  66107.7      5353.5 ug/L         40.46      5353.5 ppb          40.46   0.76%
   QC value within limits for SiO2  Recovery = 100.11%
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/22/2010 13:11:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4731.0	4731.0	104	%			13:13:20
1	Y RADIAL	5093.6	5093.6	103.6	%			13:13:20
1	Al 396.153Radial†	-68.9	6.8	6.7857	ug/L	6.7857	ppb	13:13:40
1	Ca 317.933Radial†	28.0	8.6	16.142	ug/L	16.142	ppb	13:13:40
1	Fe 238.204 Radial†	9.5	2.5	28.611	ug/L	28.611	ppb	13:13:40
1	K 766.490 Radial†	2636.8	26.6	5.0602	ug/L	5.0602	ppb	13:13:20
1	Mg 279.077 IEC†	2.2	1.7	71.344	ug/L	71.344	ppb	13:13:40
1	Na 589.592 Radial†	-747.5	-1.4	-0.5019	ug/L	-0.5019	ppb	13:13:20
1	Sr 421.552†	32.7	-6.0	-0.0471	ug/L	-0.0471	ppb	13:13:20
1	Sc 361.383	871263.9	871263.9	103.07	%			13:14:37
1	Y 371.029	736095.4	736095.4	103.25	%			13:14:37
1	Ag 328.068†	217.0	53.9	0.2872	ug/L	0.2872	ppb	13:14:37
1	As 188.979†	-28.6	-5.7	-3.1892	ug/L	-3.1892	ppb	13:14:57
1	B 249.677†	-238.5	216.0	6.1010	ug/L	6.1010	ppb	13:14:57
1	Ba 233.527†	6.2	-6.0	-0.0543	ug/L	-0.0543	ppb	13:14:57
1	Be 313.107†	-4372.1	215.5	0.0919	ug/L	0.0919	ppb	13:14:37
1	Cd 226.502†	-161.7	-8.4	-0.1259	ug/L	-0.1259	ppb	13:14:57
1	Co 228.616†	-37.2	17.6	0.4612	ug/L	0.4612	ppb	13:14:57
1	Cr 267.716†	59.5	-12.4	-0.1659	ug/L	-0.1659	ppb	13:14:57
1	Cu 324.752†	5664.9	-29.9	-0.0989	ug/L	-0.0989	ppb	13:14:37
1	Mn 257.610†	425.0	26.0	0.0345	ug/L	0.0345	ppb	13:14:57
1	Mo 202.031†	8.8	-4.4	-0.3925	ug/L	-0.3925	ppb	13:14:57
1	Ni 231.604†	87.6	12.4	0.3988	ug/L	0.3988	ppb	13:14:57
1	P 214.914†	179.9	-26.1	-19.798	ug/L	-19.798	ppb	13:14:57
1	Pb 220.353†	-47.4	2.9	0.4463	ug/L	0.4463	ppb	13:14:57
1	S 181.975 Axial†	29.1	-1.6	-2.9797	ug/L	-2.9797	ppb	13:14:57
1	Sb 206.836†	29.2	2.8	1.2062	ug/L	1.2062	ppb	13:14:57
1	Se 196.026†	-18.3	4.4	3.7585	ug/L	3.7585	ppb	13:14:57
1	Si 251.611†	579.2	43.1	1.6522	ug/L	1.6522	ppb	13:14:57
1	Sn 189.927†	4.4	0.6	0.1347	ug/L	0.1347	ppb	13:14:57
1	Ti 334.940†	-1106.5	-28.0	-0.0533	ug/L	-0.0533	ppb	13:14:37
1	Tl 190.801†	-14.1	15.4	6.0833	ug/L	6.0833	ppb	13:14:57
1	U 409.014†	-1919.3	81.0	2.3942	ug/L	2.3942	ppb	13:14:37
1	V 292.402†	-1305.0	84.6	0.6738	ug/L	0.6738	ppb	13:14:37
1	Zn 213.857†	769.3	142.1	1.7442	ug/L	1.7442	ppb	13:14:57
1	SiO2†	559.7	6.7	0.5561	ug/L	0.5561	ppb	13:15:53
2	Sc Radial	4695.7	4695.7	103	%			13:13:45
2	Y RADIAL	5045.4	5045.4	102.6	%			13:13:45
2	Al 396.153Radial†	-81.6	-5.9	-5.8775	ug/L	-5.8775	ppb	13:14:05
2	Ca 317.933Radial†	26.8	7.6	14.340	ug/L	14.340	ppb	13:14:05
2	Fe 238.204 Radial†	9.8	2.8	32.585	ug/L	32.585	ppb	13:14:05
2	K 766.490 Radial†	2676.5	84.1	16.003	ug/L	16.003	ppb	13:13:45
2	Mg 279.077 IEC†	2.8	2.3	96.451	ug/L	96.451	ppb	13:14:05
2	Na 589.592 Radial†	-751.7	-10.9	-3.8099	ug/L	-3.8099	ppb	13:13:45
2	Sr 421.552†	39.3	0.6	0.0049	ug/L	0.0049	ppb	13:13:45
2	Sc 361.383	860152.4	860152.4	101.76	%			13:15:02
2	Y 371.029	726371.4	726371.4	101.88	%			13:15:02
2	Ag 328.068†	229.7	69.0	0.3653	ug/L	0.3653	ppb	13:15:02
2	As 188.979†	-24.9	-2.4	-1.3333	ug/L	-1.3333	ppb	13:15:22
2	B 249.677†	-243.0	208.7	5.8933	ug/L	5.8933	ppb	13:15:22
2	Ba 233.527†	15.5	3.3	0.0320	ug/L	0.0320	ppb	13:15:22
2	Be 313.107†	-4394.7	138.5	0.0593	ug/L	0.0593	ppb	13:15:02
2	Cd 226.502†	-160.8	-9.6	-0.1445	ug/L	-0.1445	ppb	13:15:22
2	Co 228.616†	-53.2	1.4	0.0361	ug/L	0.0361	ppb	13:15:22
2	Cr 267.716†	78.4	6.9	0.0971	ug/L	0.0971	ppb	13:15:22
2	Cu 324.752†	5719.9	95.1	0.3174	ug/L	0.3174	ppb	13:15:02
2	Mn 257.610†	438.0	44.2	0.0580	ug/L	0.0580	ppb	13:15:22
2	Mo 202.031†	18.3	5.1	0.4618	ug/L	0.4618	ppb	13:15:22
2	Ni 231.604†	74.8	0.9	0.0302	ug/L	0.0302	ppb	13:15:22

2	P 214.914†	184.8	-19.0	-14.533	ug/L	-14.533 ppb	13:15:22
2	Pb 220.353†	-39.6	10.0	1.5556	ug/L	1.5556 ppb	13:15:22
2	S 181.975 Axial†	28.7	-1.7	-3.1311	ug/L	-3.1311 ppb	13:15:22
2	Sb 206.836†	25.1	-0.8	-0.3531	ug/L	-0.3531 ppb	13:15:22
2	Se 196.026†	-16.3	6.2	5.2303	ug/L	5.2303 ppb	13:15:22
2	Si 251.611†	559.5	31.0	1.1785	ug/L	1.1785 ppb	13:15:22
2	Sn 189.927†	1.1	-2.7	-0.6164	ug/L	-0.6164 ppb	13:15:22
2	Ti 334.940†	-1015.4	47.7	0.0774	ug/L	0.0774 ppb	13:15:02
2	Tl 190.801†	-21.1	8.4	3.3144	ug/L	3.3144 ppb	13:15:22
2	U 409.014†	-2009.3	-31.5	-0.9356	ug/L	-0.9356 ppb	13:15:02
2	V 292.402†	-1406.3	-31.3	-0.2494	ug/L	-0.2494 ppb	13:15:02
2	Zn 213.857†	761.8	144.3	1.7733	ug/L	1.7733 ppb	13:15:22
2	SiO2†	545.1	-0.6	-0.0653	ug/L	-0.0653 ppb	13:15:58
3	Sc Radial	4722.5	4722.5	104	%		13:14:10
3	Y RADIAL	5077.0	5077.0	103.3	%		13:14:10
3	Al 396.153Radial†	-64.5	10.9	10.814	ug/L	10.814 ppb	13:14:30
3	Ca 317.933Radial†	28.4	9.0	17.067	ug/L	17.067 ppb	13:14:30
3	Fe 238.204 Radial†	6.0	-0.8	-9.4548	ug/L	-9.4548 ppb	13:14:30
3	K 766.490 Radial†	2532.2	-69.7	-13.257	ug/L	-13.257 ppb	13:14:10
3	Mg 279.077 IEC†	-2.5	-2.8	-117.46	ug/L	-117.46 ppb	13:14:30
3	Na 589.592 Radial†	-819.7	-72.4	-25.264	ug/L	-25.264 ppb	13:14:10
3	Sr 421.552†	39.3	0.4	0.0034	ug/L	0.0034 ppb	13:14:10
3	Sc 361.383	880003.0	880003.0	104.10	%		13:15:27
3	Y 371.029	742578.6	742578.6	104.16	%		13:15:27
3	Ag 328.068†	245.6	79.3	0.4100	ug/L	0.4100 ppb	13:15:27
3	As 188.979†	-22.7	0.3	0.1660	ug/L	0.1660 ppb	13:15:47
3	B 249.677†	-255.7	201.8	5.7065	ug/L	5.7065 ppb	13:15:47
3	Ba 233.527†	21.1	8.3	0.0817	ug/L	0.0817 ppb	13:15:47
3	Be 313.107†	-4416.4	215.1	0.0918	ug/L	0.0918 ppb	13:15:27
3	Cd 226.502†	-157.8	-3.1	-0.0445	ug/L	-0.0445 ppb	13:15:47
3	Co 228.616†	-47.4	8.1	0.2143	ug/L	0.2143 ppb	13:15:47
3	Cr 267.716†	64.4	-8.4	-0.1131	ug/L	-0.1131 ppb	13:15:47
3	Cu 324.752†	5731.7	-20.3	-0.0685	ug/L	-0.0685 ppb	13:15:27
3	Mn 257.610†	426.9	23.7	0.0354	ug/L	0.0354 ppb	13:15:47
3	Mo 202.031†	18.1	4.4	0.3990	ug/L	0.3990 ppb	13:15:47
3	Ni 231.604†	94.5	18.2	0.5865	ug/L	0.5865 ppb	13:15:47
3	P 214.914†	183.6	-24.3	-18.410	ug/L	-18.410 ppb	13:15:47
3	Pb 220.353†	-52.6	-1.6	-0.2458	ug/L	-0.2458 ppb	13:15:47
3	S 181.975 Axial†	28.5	-2.5	-4.5141	ug/L	-4.5141 ppb	13:15:47
3	Sb 206.836†	27.3	0.8	0.3601	ug/L	0.3601 ppb	13:15:47
3	Se 196.026†	-15.9	6.9	5.6931	ug/L	5.6931 ppb	13:15:47
3	Si 251.611†	552.6	12.0	0.4541	ug/L	0.4541 ppb	13:15:47
3	Sn 189.927†	9.7	5.6	1.2900	ug/L	1.2900 ppb	13:15:47
3	Ti 334.940†	-1090.0	-1.5	0.0087	ug/L	0.0087 ppb	13:15:27
3	Tl 190.801†	-20.3	9.6	3.7932	ug/L	3.7932 ppb	13:15:47
3	U 409.014†	-1977.8	43.4	1.2848	ug/L	1.2848 ppb	13:15:27
3	V 292.402†	-1223.0	175.9	1.4166	ug/L	1.4166 ppb	13:15:27
3	Zn 213.857†	755.8	121.7	1.4972	ug/L	1.4972 ppb	13:15:47
3	SiO2†	619.1	58.3	4.7234	ug/L	4.7234 ppb	13:16:03

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	870473.1	102.98	%	1.177				1.14%
Sc Radial	4716.4	104	%	0.4				0.39%
Y 371.029	735015.1	103.10	%	1.144				1.11%
Y RADIAL	5072.0	103.2	%	0.50				0.48%
Ag 328.068†	67.4	0.3542	ug/L	0.06216	0.3542	ppb	0.06216	17.55%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.0	3.9074	ug/L	8.71008	3.9074	ppb	8.71008	222.91%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.6	-1.4522	ug/L	1.68071	-1.4522	ppb	1.68071	115.74%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	208.9	5.9003	ug/L	0.19731	5.9003	ppb	0.19731	3.34%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.9	0.0198	ug/L	0.06882	0.0198	ppb	0.06882	347.86%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	189.7	0.0810	ug/L	0.01879	0.0810	ppb	0.01879	23.20%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8.4	15.850	ug/L	1.3867	15.850	ppb	1.3867	8.75%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -7.0     -0.1050 ug/L       0.05319     -0.1050 ppb        0.05319  50.68%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 9.0      0.2372 ug/L       0.21348      0.2372 ppb        0.21348  90.01%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                -4.6     -0.0606 ug/L       0.13915     -0.0606 ppb        0.13915 229.57%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                15.0      0.0500 ug/L       0.23203      0.0500 ppb        0.23203 463.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.5      17.247 ug/L       23.2096      17.247 ppb        23.2096 134.57%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          13.7      2.6023 ug/L      14.78409      2.6023 ppb       14.78409 568.12%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.4      16.780 ug/L      116.9279      16.780 ppb       116.9279 696.84%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                31.3      0.0426 ug/L       0.01330      0.0426 ppb        0.01330  31.20%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 1.7      0.1561 ug/L       0.47614      0.1561 ppb        0.47614 305.04%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -28.2     -9.8584 ug/L      13.44334     -9.8584 ppb       13.44334 136.36%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                10.5      0.3385 ug/L       0.28299      0.3385 ppb        0.28299  83.61%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -23.2     -17.580 ug/L        2.7288     -17.580 ppb         2.7288  15.52%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 3.7      0.5854 ug/L       0.90870      0.5854 ppb        0.90870 155.24%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -2.0     -3.5416 ug/L       0.84556     -3.5416 ppb        0.84556  23.87%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 0.9      0.4044 ug/L       0.78061      0.4044 ppb        0.78061 193.03%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 5.8      4.8940 ug/L       1.01021      4.8940 ppb        1.01021  20.64%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                28.7      1.0949 ug/L       0.60342      1.0949 ppb        0.60342  55.11%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.2      0.2694 ug/L       0.96032      0.2694 ppb        0.96032 356.44%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -1.6     -0.0129 ug/L       0.02959     -0.0129 ppb        0.02959 228.96%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 6.1      0.0109 ug/L       0.06537      0.0109 ppb        0.06537 598.49%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                11.1      4.3969 ug/L       1.47989      4.3969 ppb        1.47989  33.66%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 31.0      0.9145 ug/L       1.69550      0.9145 ppb        1.69550 185.41%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 76.4      0.6137 ug/L       0.83463      0.6137 ppb        0.83463 136.00%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               136.0      1.6716 ug/L       0.15168      1.6716 ppb        0.15168   9.07%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      21.5      1.7381 ug/L       2.60396      1.7381 ppb        2.60396 149.82%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 16
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/22/2010 14:07:31
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4726.5	4726.5	104	%			14:09:23
1	Y RADIAL	5052.9	5052.9	102.8	%			14:09:23
1	Al 396.153Radial†	5105.1	4989.7	4912.7	ug/L	4912.7	ppb	14:09:23
1	Ca 317.933Radial†	2755.6	2635.5	4973.2	ug/L	4973.2	ppb	14:09:43
1	Fe 238.204 Radial†	459.9	436.3	5023.2	ug/L	5023.2	ppb	14:09:43
1	K 766.490 Radial†	30467.5	26832.1	5099.0	ug/L	5099.0	ppb	14:09:23
1	Mg 279.077 IEC†	130.4	125.2	5198.9	ug/L	5198.9	ppb	14:09:43
1	Na 589.592 Radial†	29067.1	28711.6	10025	ug/L	10025	ppb	14:09:23
1	Sr 421.552†	65649.4	63187.9	495.03	ug/L	495.03	ppb	14:09:23
1	Sc 361.383	876357.8	876357.8	103.67	%			14:10:40
1	Y 371.029	726686.6	726686.6	101.93	%			14:10:40
1	Ag 328.068†	101572.7	97817.0	507.28	ug/L	507.28	ppb	14:10:46
1	As 188.979†	894.2	884.6	502.77	ug/L	502.77	ppb	14:11:06
1	B 249.677†	18223.2	18025.0	507.23	ug/L	507.23	ppb	14:10:46
1	Ba 233.527†	55769.6	53781.6	512.52	ug/L	512.52	ppb	14:10:46
1	Be 313.107†	1222621.0	1183757.1	506.48	ug/L	506.48	ppb	14:10:40
1	Cd 226.502†	36094.1	34963.6	513.59	ug/L	513.59	ppb	14:10:46
1	Co 228.616†	20423.0	19752.9	520.10	ug/L	520.10	ppb	14:10:46
1	Cr 267.716†	38980.6	37529.3	511.32	ug/L	511.32	ppb	14:10:46
1	Cu 324.752†	164763.0	153398.9	508.18	ug/L	508.18	ppb	14:10:46
1	Mn 257.610†	392768.8	378465.5	503.55	ug/L	503.55	ppb	14:10:40
1	Mo 202.031†	5712.9	5497.6	495.16	ug/L	495.16	ppb	14:11:06
1	Ni 231.604†	16742.9	16077.1	519.12	ug/L	519.12	ppb	14:10:46
1	P 214.914†	3623.2	3294.2	2397.6	ug/L	2397.6	ppb	14:11:06
1	Pb 220.353†	3282.9	3215.5	504.40	ug/L	504.40	ppb	14:11:06
1	S 181.975 Axial†	599.0	547.9	991.86	ug/L	991.86	ppb	14:11:06
1	Sb 206.836†	1233.0	1163.9	513.69	ug/L	513.69	ppb	14:11:06
1	Se 196.026†	607.9	608.5	524.39	ug/L	524.39	ppb	14:11:06
1	Si 251.611†	70816.5	67788.4	2582.8	ug/L	2582.8	ppb	14:10:46
1	Sn 189.927†	2221.3	2138.9	493.52	ug/L	493.52	ppb	14:11:06
1	Ti 334.940†	294594.0	285201.2	495.94	ug/L	495.94	ppb	14:10:46
1	Tl 190.801†	1300.2	1283.2	509.68	ug/L	509.68	ppb	14:11:06
1	U 409.014†	16232.3	17600.3	519.04	ug/L	519.04	ppb	14:10:46
1	V 292.402†	64539.5	63603.4	516.11	ug/L	516.11	ppb	14:10:46
1	Zn 213.857†	43838.5	41680.9	508.94	ug/L	508.94	ppb	14:10:46
1	SiO2†	70084.0	67064.4	5431.2	ug/L	5431.2	ppb	14:12:13
2	Sc Radial	4607.7	4607.7	101	%			14:09:48
2	Y RADIAL	4914.5	4914.5	99.95	%			14:09:48
2	Al 396.153Radial†	4945.1	4958.6	4882.0	ug/L	4882.0	ppb	14:09:48
2	Ca 317.933Radial†	2759.0	2707.3	5108.6	ug/L	5108.6	ppb	14:10:08
2	Fe 238.204 Radial†	463.1	450.9	5190.7	ug/L	5190.7	ppb	14:10:08
2	K 766.490 Radial†	29709.4	26840.1	5100.5	ug/L	5100.5	ppb	14:09:48
2	Mg 279.077 IEC†	127.8	125.8	5224.3	ug/L	5224.3	ppb	14:10:08
2	Na 589.592 Radial†	28174.8	28552.3	9969.5	ug/L	9969.5	ppb	14:09:48
2	Sr 421.552†	63825.7	63017.3	493.69	ug/L	493.69	ppb	14:09:48
2	Sc 361.383	880618.2	880618.2	104.18	%			14:11:11
2	Y 371.029	731931.5	731931.5	102.66	%			14:11:11
2	Ag 328.068†	100715.5	96520.2	500.63	ug/L	500.63	ppb	14:11:17
2	As 188.979†	903.9	889.7	505.64	ug/L	505.64	ppb	14:11:37
2	B 249.677†	18110.8	17832.0	501.77	ug/L	501.77	ppb	14:11:17
2	Ba 233.527†	55353.1	53121.5	506.24	ug/L	506.24	ppb	14:11:17
2	Be 313.107†	1229626.6	1184776.3	506.90	ug/L	506.90	ppb	14:11:11
2	Cd 226.502†	35868.3	34578.4	507.90	ug/L	507.90	ppb	14:11:17
2	Co 228.616†	20241.7	19483.6	513.01	ug/L	513.01	ppb	14:11:17
2	Cr 267.716†	38804.0	37177.8	506.55	ug/L	506.55	ppb	14:11:17
2	Cu 324.752†	163052.2	150987.9	500.21	ug/L	500.21	ppb	14:11:17
2	Mn 257.610†	393550.1	377382.6	502.12	ug/L	502.12	ppb	14:11:11
2	Mo 202.031†	5711.4	5469.4	492.65	ug/L	492.65	ppb	14:11:37
2	Ni 231.604†	16585.1	15847.4	511.71	ug/L	511.71	ppb	14:11:17

2	P 214.914†	3622.8	3276.9	2386.0 ug/L	2386.0 ppb	14:11:37
2	Pb 220.353†	3293.4	3210.3	503.55 ug/L	503.55 ppb	14:11:37
2	S 181.975 Axial†	602.1	548.0	992.13 ug/L	992.13 ppb	14:11:37
2	Sb 206.836†	1245.8	1170.4	516.40 ug/L	516.40 ppb	14:11:37
2	Se 196.026†	605.8	603.7	520.81 ug/L	520.81 ppb	14:11:37
2	Si 251.611†	70139.5	66808.1	2545.4 ug/L	2545.4 ppb	14:11:17
2	Sn 189.927†	2233.7	2140.4	493.89 ug/L	493.89 ppb	14:11:37
2	Ti 334.940†	292008.1	281344.2	489.25 ug/L	489.25 ppb	14:11:17
2	Tl 190.801†	1292.1	1269.4	504.20 ug/L	504.20 ppb	14:11:37
2	U 409.014†	15898.9	17204.6	507.32 ug/L	507.32 ppb	14:11:17
2	V 292.402†	64111.3	62891.2	510.34 ug/L	510.34 ppb	14:11:17
2	Zn 213.857†	43547.1	41196.6	503.01 ug/L	503.01 ppb	14:11:17
2	SiO2†	69867.0	66529.0	5387.8 ug/L	5387.8 ppb	14:12:18
3	Sc Radial	4609.5	4609.5	101 %		14:10:13
3	Y RADIAL	4951.8	4951.8	100.7 %		14:10:13
3	Al 396.153Radial†	5004.3	5015.1	4938.1 ug/L	4938.1 ppb	14:10:13
3	Ca 317.933Radial†	2784.9	2731.8	5154.9 ug/L	5154.9 ppb	14:10:33
3	Fe 238.204 Radial†	464.4	452.0	5202.7 ug/L	5202.7 ppb	14:10:33
3	K 766.490 Radial†	30010.0	27125.3	5154.8 ug/L	5154.8 ppb	14:10:13
3	Mg 279.077 IEC†	130.5	128.4	5332.0 ug/L	5332.0 ppb	14:10:33
3	Na 589.592 Radial†	28374.1	28738.1	10034 ug/L	10034 ppb	14:10:13
3	Sr 421.552†	64247.4	63408.9	496.76 ug/L	496.76 ppb	14:10:13
3	Sc 361.383	890690.8	890690.8	105.37 %		14:11:42
3	Y 371.029	739272.7	739272.7	103.69 %		14:11:42
3	Ag 328.068†	100383.1	95111.4	493.34 ug/L	493.34 ppb	14:11:48
3	As 188.979†	912.9	888.5	504.89 ug/L	504.89 ppb	14:12:08
3	B 249.677†	17998.0	17528.3	493.21 ug/L	493.21 ppb	14:11:48
3	Ba 233.527†	55111.6	52291.4	498.33 ug/L	498.33 ppb	14:11:48
3	Be 313.107†	1244048.9	1185115.8	507.03 ug/L	507.03 ppb	14:11:42
3	Cd 226.502†	35639.5	33971.9	498.99 ug/L	498.99 ppb	14:11:48
3	Co 228.616†	20116.9	19145.5	504.12 ug/L	504.12 ppb	14:11:48
3	Cr 267.716†	38563.1	36527.9	497.71 ug/L	497.71 ppb	14:11:48
3	Cu 324.752†	162285.5	148490.2	491.93 ug/L	491.93 ppb	14:11:48
3	Mn 257.610†	398723.2	378020.0	502.97 ug/L	502.97 ppb	14:11:42
3	Mo 202.031†	5739.0	5433.7	489.43 ug/L	489.43 ppb	14:12:08
3	Ni 231.604†	16501.8	15588.3	503.34 ug/L	503.34 ppb	14:11:48
3	P 214.914†	3646.3	3259.9	2374.7 ug/L	2374.7 ppb	14:12:08
3	Pb 220.353†	3317.4	3197.2	501.51 ug/L	501.51 ppb	14:12:08
3	S 181.975 Axial†	597.9	537.5	973.08 ug/L	973.08 ppb	14:12:08
3	Sb 206.836†	1241.9	1153.2	508.90 ug/L	508.90 ppb	14:12:08
3	Se 196.026†	611.9	602.9	520.20 ug/L	520.20 ppb	14:12:08
3	Si 251.611†	69762.5	65689.0	2502.7 ug/L	2502.7 ppb	14:11:48
3	Sn 189.927†	2228.9	2111.6	487.27 ug/L	487.27 ppb	14:12:08
3	Ti 334.940†	290588.7	276827.3	481.39 ug/L	481.39 ppb	14:11:48
3	Tl 190.801†	1285.0	1248.6	496.01 ug/L	496.01 ppb	14:12:08
3	U 409.014†	15986.9	17115.4	504.70 ug/L	504.70 ppb	14:11:48
3	V 292.402†	63806.2	61905.7	502.40 ug/L	502.40 ppb	14:11:48
3	Zn 213.857†	43276.9	40467.5	494.08 ug/L	494.08 ppb	14:11:48
3	SiO2†	69534.1	65454.7	5300.7 ug/L	5300.7 ppb	14:12:23

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	882555.6	104.41	%	0.871				0.83%
Sc Radial	4647.9	102	%	1.5				1.47%
Y 371.029	732630.3	102.76	%	0.887				0.86%
Y RADIAL	4973.0	101.1	%	1.46				1.44%
Ag 328.068†	96482.8	500.42	ug/L	6.970	500.42	ppb	6.970	1.39%
QC value within limits for Ag 328.068 Recovery = 100.08%								
Al 396.153Radial†	4987.8	4910.9	ug/L	28.09	4910.9	ppb	28.09	0.57%
QC value within limits for Al 396.153Radial Recovery = 98.22%								
As 188.979†	887.6	504.43	ug/L	1.489	504.43	ppb	1.489	0.30%
QC value within limits for As 188.979 Recovery = 100.89%								
B 249.677†	17795.1	500.73	ug/L	7.068	500.73	ppb	7.068	1.41%
QC value within limits for B 249.677 Recovery = 100.15%								
Ba 233.527†	53064.8	505.70	ug/L	7.111	505.70	ppb	7.111	1.41%
QC value within limits for Ba 233.527 Recovery = 101.14%								
Be 313.107†	1184549.7	506.81	ug/L	0.286	506.81	ppb	0.286	0.06%
QC value within limits for Be 313.107 Recovery = 101.36%								
Ca 317.933Radial†	2691.5	5078.9	ug/L	94.45	5078.9	ppb	94.45	1.86%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.58%
Cd 226.502†            34504.7      506.83 ug/L         7.360      506.83 ppb          7.360   1.45%
   QC value within limits for Cd 226.502  Recovery = 101.37%
Co 228.616†            19460.7      512.41 ug/L         8.007      512.41 ppb          8.007   1.56%
   QC value within limits for Co 228.616  Recovery = 102.48%
Cr 267.716†            37078.3      505.19 ug/L         6.906      505.19 ppb          6.906   1.37%
   QC value within limits for Cr 267.716  Recovery = 101.04%
Cu 324.752†           150959.0      500.11 ug/L         8.123      500.11 ppb          8.123   1.62%
   QC value within limits for Cu 324.752  Recovery = 100.02%
Fe 238.204 Radial†       446.4      5138.9 ug/L        100.34      5138.9 ppb         100.34   1.95%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.78%
K 766.490 Radial†      26932.5      5118.1 ug/L         31.75      5118.1 ppb          31.75   0.62%
   QC value within limits for K 766.490 Radial  Recovery = 102.36%
Mg 279.077 IEC†          126.5      5251.7 ug/L         70.68      5251.7 ppb          70.68   1.35%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.03%
Mn 257.610†           377956.0      502.88 ug/L         0.716      502.88 ppb          0.716   0.14%
   QC value within limits for Mn 257.610  Recovery = 100.58%
Mo 202.031†             5466.9      492.41 ug/L         2.875      492.41 ppb          2.875   0.58%
   QC value within limits for Mo 202.031  Recovery = 98.48%
Na 589.592 Radial†     28667.3       10010 ug/L          35.1       10010 ppb           35.1   0.35%
   QC value within limits for Na 589.592 Radial  Recovery = 100.10%
Ni 231.604†            15837.6      511.39 ug/L         7.896      511.39 ppb          7.896   1.54%
   QC value within limits for Ni 231.604  Recovery = 102.28%
P 214.914†              3277.0      2386.1 ug/L         11.47      2386.1 ppb          11.47   0.48%
   QC value within limits for P 214.914  Recovery = 95.44%
Pb 220.353†             3207.7      503.15 ug/L         1.483      503.15 ppb          1.483   0.29%
   QC value within limits for Pb 220.353  Recovery = 100.63%
S 181.975 Axial†         544.5      985.69 ug/L        10.918      985.69 ppb         10.918   1.11%
   QC value within limits for S 181.975 Axial  Recovery = 98.57%
Sb 206.836†             1162.5      513.00 ug/L         3.795      513.00 ppb          3.795   0.74%
   QC value within limits for Sb 206.836  Recovery = 102.60%
Se 196.026†              605.1      521.80 ug/L         2.261      521.80 ppb          2.261   0.43%
   QC value within limits for Se 196.026  Recovery = 104.36%
Si 251.611†            66761.8      2543.6 ug/L         40.08      2543.6 ppb          40.08   1.58%
   QC value within limits for Si 251.611  Recovery = 101.74%
Sn 189.927†             2130.3      491.56 ug/L         3.722      491.56 ppb          3.722   0.76%
   QC value within limits for Sn 189.927  Recovery = 98.31%
Sr 421.552†            63204.7      495.16 ug/L         1.538      495.16 ppb          1.538   0.31%
   QC value within limits for Sr 421.552  Recovery = 99.03%
Ti 334.940†           281124.3      488.86 ug/L         7.279      488.86 ppb          7.279   1.49%
   QC value within limits for Ti 334.940  Recovery = 97.77%
Tl 190.801†             1267.1      503.30 ug/L         6.878      503.30 ppb          6.878   1.37%
   QC value within limits for Tl 190.801  Recovery = 100.66%
U 409.014†             17306.8      510.35 ug/L         7.635      510.35 ppb          7.635   1.50%
   QC value within limits for U 409.014  Recovery = 102.07%
V 292.402†             62800.1      509.62 ug/L         6.884      509.62 ppb          6.884   1.35%
   QC value within limits for V 292.402  Recovery = 101.92%
Zn 213.857†            41115.0      502.01 ug/L         7.480      502.01 ppb          7.480   1.49%
   QC value within limits for Zn 213.857  Recovery = 100.40%
SiO2†                  66349.3      5373.2 ug/L         66.47      5373.2 ppb          66.47   1.24%
   QC value within limits for SiO2  Recovery = 100.48%
All analyte(s) passed QC.
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Sequence No.: 17
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/22/2010 14:14:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4462.0	4462.0	98.0	%			14:16:46
1	Y RADIAL	5335.8	5335.8	108.5	%			14:16:26
1	Al 396.153Radial†	-68.0	3.8	3.7826	ug/L	3.7826	ppb	14:16:46
1	Ca 317.933Radial†	26.4	8.6	16.169	ug/L	16.169	ppb	14:16:46
1	Fe 238.204 Radial†	8.5	2.0	23.020	ug/L	23.020	ppb	14:16:46
1	K 766.490 Radial†	2691.6	235.4	44.790	ug/L	44.790	ppb	14:16:26
1	Mg 279.077 IEC†	2.0	1.6	66.100	ug/L	66.100	ppb	14:16:46
1	Na 589.592 Radial†	-738.8	-35.9	-12.546	ug/L	-12.546	ppb	14:16:26
1	Sr 421.552†	14.2	-22.9	-0.1797	ug/L	-0.1797	ppb	14:16:26
1	Sc 361.383	873374.9	873374.9	103.32	%			14:17:43
1	Y 371.029	735996.5	735996.5	103.23	%			14:17:43
1	Ag 328.068†	246.4	81.8	0.4305	ug/L	0.4305	ppb	14:17:43
1	As 188.979†	-28.5	-5.5	-3.0702	ug/L	-3.0702	ppb	14:18:03
1	B 249.677†	-245.8	209.5	5.9184	ug/L	5.9184	ppb	14:18:03
1	Ba 233.527†	14.1	1.7	0.0176	ug/L	0.0176	ppb	14:18:03
1	Be 313.107†	-4442.4	157.8	0.0677	ug/L	0.0677	ppb	14:17:43
1	Cd 226.502†	-179.0	-24.7	-0.3661	ug/L	-0.3661	ppb	14:18:03
1	Co 228.616†	-42.2	12.8	0.3363	ug/L	0.3363	ppb	14:18:03
1	Cr 267.716†	67.1	-5.2	-0.0680	ug/L	-0.0680	ppb	14:18:03
1	Cu 324.752†	5690.3	-18.6	-0.0603	ug/L	-0.0603	ppb	14:17:43
1	Mn 257.610†	446.7	46.1	0.0609	ug/L	0.0609	ppb	14:18:03
1	Mo 202.031†	15.1	1.7	0.1535	ug/L	0.1535	ppb	14:18:03
1	Ni 231.604†	69.3	-5.6	-0.1807	ug/L	-0.1807	ppb	14:18:03
1	P 214.914†	192.0	-14.9	-11.282	ug/L	-11.282	ppb	14:18:03
1	Pb 220.353†	-39.1	11.0	1.7251	ug/L	1.7251	ppb	14:18:03
1	S 181.975 Axial†	33.0	2.0	3.6559	ug/L	3.6559	ppb	14:18:03
1	Sb 206.836†	30.4	4.0	1.6881	ug/L	1.6881	ppb	14:18:03
1	Se 196.026†	-16.4	6.3	5.3452	ug/L	5.3452	ppb	14:18:03
1	Si 251.611†	658.6	118.7	4.5297	ug/L	4.5297	ppb	14:18:03
1	Sn 189.927†	0.5	-3.3	-0.7475	ug/L	-0.7475	ppb	14:18:03
1	Ti 334.940†	-1001.5	76.2	0.1295	ug/L	0.1295	ppb	14:17:43
1	Tl 190.801†	-33.0	-2.8	-1.1153	ug/L	-1.1153	ppb	14:18:03
1	U 409.014†	-2014.4	-6.5	-0.1943	ug/L	-0.1943	ppb	14:17:43
1	V 292.402†	-1331.4	62.1	0.4971	ug/L	0.4971	ppb	14:17:43
1	Zn 213.857†	791.2	161.5	1.9882	ug/L	1.9882	ppb	14:18:03
1	SiO2†	654.3	96.9	7.8643	ug/L	7.8643	ppb	14:18:59
2	Sc Radial	4444.1	4444.1	97.6	%			14:17:11
2	Y RADIAL	4989.1	4989.1	101.5	%			14:16:51
2	Al 396.153Radial†	-81.9	-10.7	-10.577	ug/L	-10.577	ppb	14:17:11
2	Ca 317.933Radial†	29.4	11.7	22.148	ug/L	22.148	ppb	14:17:11
2	Fe 238.204 Radial†	9.3	2.9	33.488	ug/L	33.488	ppb	14:17:11
2	K 766.490 Radial†	2569.6	121.6	23.126	ug/L	23.126	ppb	14:16:51
2	Mg 279.077 IEC†	3.0	2.7	110.10	ug/L	110.10	ppb	14:17:11
2	Na 589.592 Radial†	-726.3	-26.2	-9.1316	ug/L	-9.1316	ppb	14:16:51
2	Sr 421.552†	29.3	-7.4	-0.0581	ug/L	-0.0581	ppb	14:16:51
2	Sc 361.383	863818.3	863818.3	102.19	%			14:18:08
2	Y 371.029	728445.3	728445.3	102.17	%			14:18:08
2	Ag 328.068†	110.5	-48.6	-0.2432	ug/L	-0.2432	ppb	14:18:08
2	As 188.979†	-20.1	2.5	1.3891	ug/L	1.3891	ppb	14:18:29
2	B 249.677†	-257.6	195.3	5.5156	ug/L	5.5156	ppb	14:18:29
2	Ba 233.527†	17.9	5.6	0.0541	ug/L	0.0541	ppb	14:18:29
2	Be 313.107†	-4353.7	197.0	0.0841	ug/L	0.0841	ppb	14:18:08
2	Cd 226.502†	-159.0	-7.1	-0.1063	ug/L	-0.1063	ppb	14:18:29
2	Co 228.616†	-47.9	6.7	0.1764	ug/L	0.1764	ppb	14:18:29
2	Cr 267.716†	79.2	7.3	0.1019	ug/L	0.1019	ppb	14:18:29
2	Cu 324.752†	5757.9	108.5	0.3588	ug/L	0.3588	ppb	14:18:08
2	Mn 257.610†	446.4	50.5	0.0660	ug/L	0.0660	ppb	14:18:29
2	Mo 202.031†	11.9	-1.2	-0.1078	ug/L	-0.1078	ppb	14:18:29
2	Ni 231.604†	93.6	18.9	0.6116	ug/L	0.6116	ppb	14:18:29

2	P 214.914†	197.4	-7.5	-5.7719 ug/L	-5.7719 ppb	14:18:29
2	Pb 220.353†	-53.7	-3.7	-0.5827 ug/L	-0.5827 ppb	14:18:29
2	S 181.975 Axial†	37.6	6.9	12.504 ug/L	12.504 ppb	14:18:29
2	Sb 206.836†	22.4	-3.5	-1.4753 ug/L	-1.4753 ppb	14:18:29
2	Se 196.026†	-25.8	-3.0	-2.4307 ug/L	-2.4307 ppb	14:18:29
2	Si 251.611†	643.8	111.1	4.2458 ug/L	4.2458 ppb	14:18:29
2	Sn 189.927†	12.0	8.0	1.8470 ug/L	1.8470 ppb	14:18:29
2	Ti 334.940†	-1061.7	6.6	0.0034 ug/L	0.0034 ppb	14:18:08
2	Tl 190.801†	-30.7	-0.9	-0.3623 ug/L	-0.3623 ppb	14:18:29
2	U 409.014†	-1832.5	149.9	4.4311 ug/L	4.4311 ppb	14:18:08
2	V 292.402†	-1359.8	20.0	0.1645 ug/L	0.1645 ppb	14:18:08
2	Zn 213.857†	771.9	151.1	1.8527 ug/L	1.8527 ppb	14:18:29
2	SiO2†	816.7	262.8	21.341 ug/L	21.341 ppb	14:19:04
3	Sc Radial	4459.3	4459.3	98.0 %		14:17:37
3	Y RADIAL	5029.7	5029.7	102.3 %		14:17:16
3	Al 396.153Radial†	-73.5	-1.9	-1.8746 ug/L	-1.8746 ppb	14:17:37
3	Ca 317.933Radial†	25.2	7.4	13.929 ug/L	13.929 ppb	14:17:37
3	Fe 238.204 Radial†	8.6	2.2	25.108 ug/L	25.108 ppb	14:17:37
3	K 766.490 Radial†	2721.3	267.5	50.893 ug/L	50.893 ppb	14:17:16
3	Mg 279.077 IEC†	2.1	1.7	71.923 ug/L	71.923 ppb	14:17:37
3	Na 589.592 Radial†	-746.1	-43.9	-15.315 ug/L	-15.315 ppb	14:17:16
3	Sr 421.552†	-0.9	-38.4	-0.3010 ug/L	-0.3010 ppb	14:17:16
3	Sc 361.383	869652.4	869652.4	102.88 %		14:18:34
3	Y 371.029	733738.6	733738.6	102.92 %		14:18:34
3	Ag 328.068†	216.0	53.3	0.2853 ug/L	0.2853 ppb	14:18:34
3	As 188.979†	-23.2	-0.4	-0.2397 ug/L	-0.2397 ppb	14:18:54
3	B 249.677†	-259.4	195.3	5.5174 ug/L	5.5174 ppb	14:18:54
3	Ba 233.527†	13.1	0.8	0.0092 ug/L	0.0092 ppb	14:18:54
3	Be 313.107†	-4354.9	224.3	0.0959 ug/L	0.0959 ppb	14:18:34
3	Cd 226.502†	-171.7	-18.4	-0.2737 ug/L	-0.2737 ppb	14:18:54
3	Co 228.616†	-52.0	3.1	0.0821 ug/L	0.0821 ppb	14:18:54
3	Cr 267.716†	87.4	14.8	0.2053 ug/L	0.2053 ppb	14:18:54
3	Cu 324.752†	5779.8	92.0	0.3070 ug/L	0.3070 ppb	14:18:34
3	Mn 257.610†	451.4	52.5	0.0693 ug/L	0.0693 ppb	14:18:54
3	Mo 202.031†	18.9	5.5	0.4928 ug/L	0.4928 ppb	14:18:54
3	Ni 231.604†	86.0	11.0	0.3549 ug/L	0.3549 ppb	14:18:54
3	P 214.914†	198.6	-7.6	-5.8742 ug/L	-5.8742 ppb	14:18:54
3	Pb 220.353†	-49.7	0.6	0.0840 ug/L	0.0840 ppb	14:18:54
3	S 181.975 Axial†	34.4	3.6	6.4810 ug/L	6.4810 ppb	14:18:54
3	Sb 206.836†	30.0	3.7	1.6135 ug/L	1.6135 ppb	14:18:54
3	Se 196.026†	-13.4	9.1	7.6930 ug/L	7.6930 ppb	14:18:54
3	Si 251.611†	640.7	104.0	3.9644 ug/L	3.9644 ppb	14:18:54
3	Sn 189.927†	6.0	2.1	0.4863 ug/L	0.4863 ppb	14:18:54
3	Ti 334.940†	-1037.0	37.6	0.0620 ug/L	0.0620 ppb	14:18:34
3	Tl 190.801†	-21.1	8.5	3.3730 ug/L	3.3730 ppb	14:18:54
3	U 409.014†	-2054.5	-53.8	-1.5945 ug/L	-1.5945 ppb	14:18:34
3	V 292.402†	-1327.5	60.3	0.4848 ug/L	0.4848 ppb	14:18:34
3	Zn 213.857†	756.2	130.7	1.6046 ug/L	1.6046 ppb	14:18:54
3	SiO2†	600.2	47.1	3.8102 ug/L	3.8102 ppb	14:19:09

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	868948.5	102.80	%	0.570				0.55%
Sc Radial	4455.1	97.9	%	0.21				0.22%
Y 371.029	732726.8	102.77	%	0.544				0.53%
Y RADIAL	5118.2	104.1	%	3.85				3.70%
Ag 328.068†	28.8	0.1575	ug/L	0.35457	0.1575	ppb	0.35457	225.09%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.9	-2.8897	ug/L	7.23353	-2.8897	ppb	7.23353	250.32%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.1	-0.6403	ug/L	2.25649	-0.6403	ppb	2.25649	352.41%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	200.1	5.6505	ug/L	0.23205	5.6505	ppb	0.23205	4.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.7	0.0270	ug/L	0.02390	0.0270	ppb	0.02390	88.67%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	193.0	0.0826	ug/L	0.01420	0.0826	ppb	0.01420	17.20%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.2	17.415	ug/L	4.2490	17.415	ppb	4.2490	24.40%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -16.8     -0.2487 ug/L       0.13168     -0.2487 ppb        0.13168  52.94%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                7.5      0.1983 ug/L       0.12847      0.1983 ppb        0.12847  64.80%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                5.6      0.0797 ug/L       0.13801      0.0797 ppb        0.13801 173.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               60.6      0.2018 ug/L       0.22846      0.2018 ppb        0.22846 113.20%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         2.4      27.205 ug/L        5.5404      27.205 ppb         5.5404  20.37%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        208.1      39.603 ug/L       14.5924      39.603 ppb        14.5924  36.85%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.0      82.709 ug/L       23.9023      82.709 ppb        23.9023  28.90%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               49.7       0.0654 ug/L       0.00425      0.0654 ppb        0.00425   6.50%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                2.0       0.1795 ug/L       0.30116      0.1795 ppb        0.30116 167.80%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -35.3     -12.331 ug/L        3.0974     -12.331 ppb         3.0974  25.12%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                8.1       0.2619 ug/L       0.40424      0.2619 ppb        0.40424 154.33%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -10.0      -7.6428 ug/L       3.15228     -7.6428 ppb        3.15228  41.25%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                2.6       0.4088 ug/L       1.18769      0.4088 ppb        1.18769 290.53%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           4.2       7.5470 ug/L       4.51947      7.5470 ppb        4.51947  59.88%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                1.4       0.6088 ug/L       1.80522      0.6088 ppb        1.80522 296.53%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                4.2       3.5358 ug/L       5.29882      3.5358 ppb        5.29882 149.86%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              111.3       4.2466 ug/L       0.28265      4.2466 ppb        0.28265   6.66%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.3       0.5286 ug/L       1.29778      0.5286 ppb        1.29778 245.52%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -22.9      -0.1796 ug/L       0.12146     -0.1796 ppb        0.12146  67.63%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               40.1       0.0650 ug/L       0.06310      0.0650 ppb        0.06310  97.13%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                1.6       0.6318 ug/L       2.40360      0.6318 ppb        2.40360 380.44%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                29.9       0.8808 ug/L       3.15334      0.8808 ppb        3.15334 358.01%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                47.5       0.3821 ug/L       0.18856      0.3821 ppb        0.18856  49.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              147.8       1.8152 ug/L       0.19452      1.8152 ppb        0.19452  10.72%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    135.6      11.005 ug/L        9.1777      11.005 ppb         9.1777  83.39%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 24 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/22/2010 15:03:19**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4639.1	4639.1	102	%			15:05:12
1	Y RADIAL	4962.4	4962.4	100.9	%			15:05:12
1	Al 396.153Radial†	5038.9	5017.5	4940.4	ug/L	4940.4	ppb	15:05:12
1	Ca 317.933Radial†	2759.2	2689.1	5074.2	ug/L	5074.2	ppb	15:05:32
1	Fe 238.204 Radial†	456.2	441.0	5077.3	ug/L	5077.3	ppb	15:05:32
1	K 766.490 Radial†	30238.5	27160.6	5161.6	ug/L	5161.6	ppb	15:05:12
1	Mg 279.077 IEC†	129.4	126.6	5256.4	ug/L	5256.4	ppb	15:05:32
1	Na 589.592 Radial†	28232.6	28420.6	9923.6	ug/L	9923.6	ppb	15:05:12
1	Sr 421.552†	64115.2	62874.6	492.58	ug/L	492.58	ppb	15:05:12
1	Sc 361.383	887961.0	887961.0	105.05	%			15:06:29
1	Y 371.029	736362.5	736362.5	103.28	%			15:06:29
1	Ag 328.068†	101183.4	96166.1	498.76	ug/L	498.76	ppb	15:06:34
1	As 188.979†	909.8	888.2	504.75	ug/L	504.75	ppb	15:06:54
1	B 249.677†	18309.1	17877.1	503.06	ug/L	503.06	ppb	15:06:34
1	Ba 233.527†	55709.4	53021.3	505.28	ug/L	505.28	ppb	15:06:34
1	Be 313.107†	1238587.5	1183546.3	506.38	ug/L	506.38	ppb	15:06:29
1	Cd 226.502†	36029.8	34447.5	505.99	ug/L	505.99	ppb	15:06:34
1	Co 228.616†	20434.4	19506.4	513.62	ug/L	513.62	ppb	15:06:34
1	Cr 267.716†	38824.7	36889.5	502.62	ug/L	502.62	ppb	15:06:34
1	Cu 324.752†	164289.7	150871.6	499.81	ug/L	499.81	ppb	15:06:34
1	Mn 257.610†	398340.6	378819.1	504.02	ug/L	504.02	ppb	15:06:29
1	Mo 202.031†	5749.4	5460.3	491.82	ug/L	491.82	ppb	15:06:54
1	Ni 231.604†	16692.0	15817.5	510.74	ug/L	510.74	ppb	15:06:34
1	P 214.914†	3669.2	3292.3	2397.8	ug/L	2397.8	ppb	15:06:54
1	Pb 220.353†	3311.7	3201.5	502.20	ug/L	502.20	ppb	15:06:54
1	S 181.975 Axial†	600.0	541.3	979.89	ug/L	979.89	ppb	15:06:54
1	Sb 206.836†	1242.9	1157.7	510.94	ug/L	510.94	ppb	15:06:54
1	Se 196.026†	607.4	600.4	517.76	ug/L	517.76	ppb	15:06:54
1	Si 251.611†	70977.7	67049.3	2554.6	ug/L	2554.6	ppb	15:06:34
1	Sn 189.927†	2237.8	2126.5	490.70	ug/L	490.70	ppb	15:06:54
1	Ti 334.940†	294094.2	281012.2	488.66	ug/L	488.66	ppb	15:06:34
1	Tl 190.801†	1313.8	1279.7	508.30	ug/L	508.30	ppb	15:06:54
1	U 409.014†	16165.4	17332.1	511.11	ug/L	511.11	ppb	15:06:34
1	V 292.402†	64329.7	62590.2	507.94	ug/L	507.94	ppb	15:06:34
1	Zn 213.857†	43718.5	41014.1	500.78	ug/L	500.78	ppb	15:06:34
1	SiO2†	71282.4	67321.8	5452.2	ug/L	5452.2	ppb	15:08:02
2	Sc Radial	4512.3	4512.3	99.1	%			15:05:37
2	Y RADIAL	4821.0	4821.0	98.05	%			15:05:37
2	Al 396.153Radial†	5000.7	5117.9	5039.8	ug/L	5039.8	ppb	15:05:37
2	Ca 317.933Radial†	2780.0	2786.1	5257.4	ug/L	5257.4	ppb	15:05:57
2	Fe 238.204 Radial†	460.3	457.7	5268.3	ug/L	5268.3	ppb	15:05:57
2	K 766.490 Radial†	30060.9	27814.9	5285.9	ug/L	5285.9	ppb	15:05:37
2	Mg 279.077 IEC†	126.5	127.2	5281.4	ug/L	5281.4	ppb	15:05:57
2	Na 589.592 Radial†	27870.4	28833.4	10068	ug/L	10068	ppb	15:05:37
2	Sr 421.552†	63864.0	64388.5	504.44	ug/L	504.44	ppb	15:05:37
2	Sc 361.383	888814.3	888814.3	105.15	%			15:07:00
2	Y 371.029	736695.6	736695.6	103.33	%			15:07:00
2	Ag 328.068†	99802.3	94760.2	491.55	ug/L	491.55	ppb	15:07:05
2	As 188.979†	910.3	887.8	504.49	ug/L	504.49	ppb	15:07:25
2	B 249.677†	18053.7	17617.4	495.71	ug/L	495.71	ppb	15:07:05
2	Ba 233.527†	54867.7	52169.9	497.17	ug/L	497.17	ppb	15:07:05
2	Be 313.107†	1232252.4	1176389.5	503.30	ug/L	503.30	ppb	15:07:00
2	Cd 226.502†	35601.8	34007.5	499.50	ug/L	499.50	ppb	15:07:05
2	Co 228.616†	20162.3	19229.0	506.32	ug/L	506.32	ppb	15:07:05
2	Cr 267.716†	38310.5	36365.0	495.50	ug/L	495.50	ppb	15:07:05
2	Cu 324.752†	161244.3	147825.2	489.74	ug/L	489.74	ppb	15:07:05
2	Mn 257.610†	396704.9	376899.4	501.49	ug/L	501.49	ppb	15:07:00
2	Mo 202.031†	5723.5	5430.4	489.14	ug/L	489.14	ppb	15:07:25
2	Ni 231.604†	16439.5	15562.1	502.50	ug/L	502.50	ppb	15:07:05

2	P 214.914†	3643.7	3264.7	2378.7 ug/L	2378.7 ppb	15:07:25
2	Pb 220.353†	3291.3	3179.1	498.70 ug/L	498.70 ppb	15:07:25
2	S 181.975 Axial†	599.5	540.3	978.02 ug/L	978.02 ppb	15:07:25
2	Sb 206.836†	1241.3	1155.1	509.78 ug/L	509.78 ppb	15:07:25
2	Se 196.026†	608.5	600.9	518.74 ug/L	518.74 ppb	15:07:25
2	Si 251.611†	69860.1	65921.5	2511.6 ug/L	2511.6 ppb	15:07:05
2	Sn 189.927†	2239.8	2126.5	490.71 ug/L	490.71 ppb	15:07:25
2	Ti 334.940†	289361.2	276242.1	480.40 ug/L	480.40 ppb	15:07:05
2	Tl 190.801†	1294.9	1260.6	500.72 ug/L	500.72 ppb	15:07:25
2	U 409.014†	15747.6	16919.9	498.91 ug/L	498.91 ppb	15:07:05
2	V 292.402†	63405.2	61652.2	500.35 ug/L	500.35 ppb	15:07:05
2	Zn 213.857†	43105.1	40390.8	493.14 ug/L	493.14 ppb	15:07:05
2	SiO2†	70270.3	66294.1	5368.8 ug/L	5368.8 ppb	15:08:07
3	Sc Radial	4608.2	4608.2	101 %		15:06:02
3	Y RADIAL	4922.0	4922.0	100.1 %		15:06:02
3	Al 396.153Radial†	5010.0	5022.0	4944.7 ug/L	4944.7 ppb	15:06:02
3	Ca 317.933Radial†	2747.5	2695.6	5086.7 ug/L	5086.7 ppb	15:06:22
3	Fe 238.204 Radial†	457.9	445.6	5130.4 ug/L	5130.4 ppb	15:06:22
3	K 766.490 Radial†	29928.1	27052.6	5141.1 ug/L	5141.1 ppb	15:06:02
3	Mg 279.077 IEC†	127.6	125.6	5216.0 ug/L	5216.0 ppb	15:06:22
3	Na 589.592 Radial†	27548.3	27930.0	9752.3 ug/L	9752.3 ppb	15:06:02
3	Sr 421.552†	63379.7	62569.1	490.18 ug/L	490.18 ppb	15:06:02
3	Sc 361.383	880780.4	880780.4	104.20 %		15:07:31
3	Y 371.029	730007.0	730007.0	102.39 %		15:07:31
3	Ag 328.068†	100657.6	96446.8	500.23 ug/L	500.23 ppb	15:07:36
3	As 188.979†	917.3	902.5	512.80 ug/L	512.80 ppb	15:07:56
3	B 249.677†	18216.1	17929.9	504.54 ug/L	504.54 ppb	15:07:36
3	Ba 233.527†	55434.1	53189.5	506.88 ug/L	506.88 ppb	15:07:36
3	Be 313.107†	1223205.7	1178396.8	504.18 ug/L	504.18 ppb	15:07:31
3	Cd 226.502†	35916.1	34618.0	508.49 ug/L	508.49 ppb	15:07:36
3	Co 228.616†	20329.1	19564.0	515.14 ug/L	515.14 ppb	15:07:36
3	Cr 267.716†	38700.1	37071.2	505.10 ug/L	505.10 ppb	15:07:36
3	Cu 324.752†	163080.3	150986.0	500.20 ug/L	500.20 ppb	15:07:36
3	Mn 257.610†	394312.5	378044.7	503.00 ug/L	503.00 ppb	15:07:31
3	Mo 202.031†	5737.5	5493.5	494.81 ug/L	494.81 ppb	15:07:56
3	Ni 231.604†	16612.4	15870.7	512.46 ug/L	512.46 ppb	15:07:36
3	P 214.914†	3637.3	3290.2	2396.1 ug/L	2396.1 ppb	15:07:56
3	Pb 220.353†	3294.2	3210.4	503.60 ug/L	503.60 ppb	15:07:56
3	S 181.975 Axial†	600.3	546.2	988.79 ug/L	988.79 ppb	15:07:56
3	Sb 206.836†	1252.0	1176.1	518.89 ug/L	518.89 ppb	15:07:56
3	Se 196.026†	603.3	601.2	518.60 ug/L	518.60 ppb	15:07:56
3	Si 251.611†	70447.9	67091.7	2556.2 ug/L	2556.2 ppb	15:07:36
3	Sn 189.927†	2235.7	2141.9	494.25 ug/L	494.25 ppb	15:07:56
3	Ti 334.940†	292344.3	281615.3	489.72 ug/L	489.72 ppb	15:07:36
3	Tl 190.801†	1307.3	1283.7	509.87 ug/L	509.87 ppb	15:07:56
3	U 409.014†	15964.5	17264.7	509.11 ug/L	509.11 ppb	15:07:36
3	V 292.402†	64039.7	62811.2	509.74 ug/L	509.74 ppb	15:07:36
3	Zn 213.857†	43386.8	41035.0	501.02 ug/L	501.02 ppb	15:07:36
3	SiO2†	69523.5	66187.0	5360.0 ug/L	5360.0 ppb	15:08:12

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	885851.9	104.80	%	0.522				0.50%
Sc Radial	4586.5	101	%	1.5				1.44%
Y 371.029	734355.1	103.00	%	0.529				0.51%
Y RADIAL	4901.8	99.69	%	1.481				1.49%
Ag 328.068†	95791.1	496.85	ug/L	4.646	496.85	ppb	4.646	0.94%
QC value within limits for Ag 328.068 Recovery = 99.37%								
Al 396.153Radial†	5052.5	4974.9	ug/L	56.22	4974.9	ppb	56.22	1.13%
QC value within limits for Al 396.153Radial Recovery = 99.50%								
As 188.979†	892.8	507.35	ug/L	4.721	507.35	ppb	4.721	0.93%
QC value within limits for As 188.979 Recovery = 101.47%								
B 249.677†	17808.1	501.10	ug/L	4.730	501.10	ppb	4.730	0.94%
QC value within limits for B 249.677 Recovery = 100.22%								
Ba 233.527†	52793.6	503.11	ug/L	5.204	503.11	ppb	5.204	1.03%
QC value within limits for Ba 233.527 Recovery = 100.62%								
Be 313.107†	1179444.2	504.62	ug/L	1.583	504.62	ppb	1.583	0.31%
QC value within limits for Be 313.107 Recovery = 100.92%								
Ca 317.933Radial†	2723.6	5139.4	ug/L	102.35	5139.4	ppb	102.35	1.99%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.79%
Cd 226.502†            34357.7      504.66 ug/L         4.641      504.66 ppb          4.641   0.92%
   QC value within limits for Cd 226.502  Recovery = 100.93%
Co 228.616†            19433.1      511.69 ug/L         4.713      511.69 ppb          4.713   0.92%
   QC value within limits for Co 228.616  Recovery = 102.34%
Cr 267.716†            36775.2      501.07 ug/L         4.981      501.07 ppb          4.981   0.99%
   QC value within limits for Cr 267.716  Recovery = 100.21%
Cu 324.752†           149894.3      496.58 ug/L         5.931      496.58 ppb          5.931   1.19%
   QC value within limits for Cu 324.752  Recovery = 99.32%
Fe 238.204 Radial†       448.1      5158.6 ug/L        98.58      5158.6 ppb         98.58   1.91%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.17%
K 766.490 Radial†      27342.7      5196.2 ug/L        78.40      5196.2 ppb         78.40   1.51%
   QC value within limits for K 766.490 Radial  Recovery = 103.92%
Mg 279.077 IEC†          126.5      5251.3 ug/L        32.99      5251.3 ppb         32.99   0.63%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.03%
Mn 257.610†           377921.0      502.84 ug/L         1.275      502.84 ppb          1.275   0.25%
   QC value within limits for Mn 257.610  Recovery = 100.57%
Mo 202.031†             5461.4      491.92 ug/L         2.835      491.92 ppb          2.835   0.58%
   QC value within limits for Mo 202.031  Recovery = 98.38%
Na 589.592 Radial†     28394.7      9914.5 ug/L       157.92      9914.5 ppb        157.92   1.59%
   QC value within limits for Na 589.592 Radial  Recovery = 99.15%
Ni 231.604†            15750.1      508.57 ug/L         5.327      508.57 ppb          5.327   1.05%
   QC value within limits for Ni 231.604  Recovery = 101.71%
P 214.914†              3282.4      2390.9 ug/L        10.56      2390.9 ppb         10.56   0.44%
   QC value within limits for P 214.914  Recovery = 95.64%
Pb 220.353†             3197.0      501.50 ug/L         2.524      501.50 ppb          2.524   0.50%
   QC value within limits for Pb 220.353  Recovery = 100.30%
S 181.975 Axial†         542.6      982.23 ug/L         5.753      982.23 ppb          5.753   0.59%
   QC value within limits for S 181.975 Axial  Recovery = 98.22%
Sb 206.836†             1163.0      513.20 ug/L         4.962      513.20 ppb          4.962   0.97%
   QC value within limits for Sb 206.836  Recovery = 102.64%
Se 196.026†              600.8      518.36 ug/L         0.531      518.36 ppb          0.531   0.10%
   QC value within limits for Se 196.026  Recovery = 103.67%
Si 251.611†            66687.5      2540.8 ug/L        25.32      2540.8 ppb         25.32   1.00%
   QC value within limits for Si 251.611  Recovery = 101.63%
Sn 189.927†             2131.7      491.88 ug/L         2.047      491.88 ppb          2.047   0.42%
   QC value within limits for Sn 189.927  Recovery = 98.38%
Sr 421.552†            63277.4      495.73 ug/L         7.633      495.73 ppb          7.633   1.54%
   QC value within limits for Sr 421.552  Recovery = 99.15%
Ti 334.940†           279623.2      486.26 ug/L         5.105      486.26 ppb          5.105   1.05%
   QC value within limits for Ti 334.940  Recovery = 97.25%
Tl 190.801†             1274.7      506.30 ug/L         4.898      506.30 ppb          4.898   0.97%
   QC value within limits for Tl 190.801  Recovery = 101.26%
U 409.014†             17172.2      506.38 ug/L         6.543      506.38 ppb          6.543   1.29%
   QC value within limits for U 409.014  Recovery = 101.28%
V 292.402†             62351.2      506.01 ug/L         4.983      506.01 ppb          4.983   0.98%
   QC value within limits for V 292.402  Recovery = 101.20%
Zn 213.857†            40813.3      498.31 ug/L         4.484      498.31 ppb          4.484   0.90%
   QC value within limits for Zn 213.857  Recovery = 99.66%
SiO2†                  66601.0      5393.7 ug/L        50.88      5393.7 ppb         50.88   0.94%
   QC value within limits for SiO2  Recovery = 100.86%
All analyte(s) passed QC.
```

Sequence No.: 25
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/22/2010 15:10:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4715.4	4715.4	104	%			15:12:14
1	Y RADIAL	5082.0	5082.0	103.4	%			15:12:14
1	Al 396.153Radial†	-80.1	-4.2	-4.1333	ug/L	-4.1333	ppb	15:12:34
1	Ca 317.933Radial†	31.4	11.9	22.464	ug/L	22.464	ppb	15:12:34
1	Fe 238.204 Radial†	9.1	2.1	24.261	ug/L	24.261	ppb	15:12:34
1	K 766.490 Radial†	2574.2	-25.5	-4.8713	ug/L	-4.8713	ppb	15:12:14
1	Mg 279.077 IEC†	3.9	3.4	141.51	ug/L	141.51	ppb	15:12:34
1	Na 589.592 Radial†	-667.8	73.1	25.528	ug/L	25.528	ppb	15:12:14
1	Sr 421.552†	39.3	0.5	0.0037	ug/L	0.0037	ppb	15:12:14
1	Sc 361.383	878603.2	878603.2	103.94	%			15:13:31
1	Y 371.029	739777.5	739777.5	103.76	%			15:13:31
1	Ag 328.068†	201.3	37.0	0.1981	ug/L	0.1981	ppb	15:13:31
1	As 188.979†	-16.2	6.5	3.6835	ug/L	3.6835	ppb	15:13:51
1	B 249.677†	-196.3	258.6	7.3042	ug/L	7.3042	ppb	15:13:51
1	Ba 233.527†	6.2	-6.0	-0.0543	ug/L	-0.0543	ppb	15:13:51
1	Be 313.107†	-4448.3	177.6	0.0760	ug/L	0.0760	ppb	15:13:31
1	Cd 226.502†	-181.7	-26.3	-0.3888	ug/L	-0.3888	ppb	15:13:51
1	Co 228.616†	-47.2	8.2	0.2158	ug/L	0.2158	ppb	15:13:51
1	Cr 267.716†	76.3	3.2	0.0456	ug/L	0.0456	ppb	15:13:51
1	Cu 324.752†	5706.5	-35.7	-0.1191	ug/L	-0.1191	ppb	15:13:31
1	Mn 257.610†	456.8	53.2	0.0673	ug/L	0.0673	ppb	15:13:51
1	Mo 202.031†	10.7	-2.6	-0.2292	ug/L	-0.2292	ppb	15:13:51
1	Ni 231.604†	81.0	5.4	0.1729	ug/L	0.1729	ppb	15:13:51
1	P 214.914†	190.9	-17.0	-12.890	ug/L	-12.890	ppb	15:13:51
1	Pb 220.353†	-36.2	14.1	2.2010	ug/L	2.2010	ppb	15:13:51
1	S 181.975 Axial†	27.7	-3.3	-5.9314	ug/L	-5.9314	ppb	15:13:51
1	Sb 206.836†	25.2	-1.2	-0.4913	ug/L	-0.4913	ppb	15:13:51
1	Se 196.026†	-20.1	2.8	2.3893	ug/L	2.3893	ppb	15:13:51
1	Si 251.611†	783.2	234.7	8.9665	ug/L	8.9665	ppb	15:13:51
1	Sn 189.927†	12.9	8.7	2.0068	ug/L	2.0068	ppb	15:13:51
1	Ti 334.940†	-1043.4	41.7	0.0624	ug/L	0.0624	ppb	15:13:31
1	Tl 190.801†	-29.4	0.8	0.3215	ug/L	0.3215	ppb	15:13:51
1	U 409.014†	-1895.4	119.5	3.5343	ug/L	3.5343	ppb	15:13:31
1	V 292.402†	-1306.9	93.3	0.7501	ug/L	0.7501	ppb	15:13:31
1	Zn 213.857†	762.6	129.4	1.5906	ug/L	1.5906	ppb	15:13:51
1	SiO2†	771.6	206.1	16.735	ug/L	16.735	ppb	15:15:02
2	Sc Radial	4700.5	4700.5	103	%			15:12:39
2	Y RADIAL	5090.6	5090.6	103.5	%			15:12:39
2	Al 396.153Radial†	-68.8	6.5	6.3894	ug/L	6.3894	ppb	15:12:59
2	Ca 317.933Radial†	27.4	8.2	15.456	ug/L	15.456	ppb	15:12:59
2	Fe 238.204 Radial†	7.7	0.9	9.8282	ug/L	9.8282	ppb	15:12:59
2	K 766.490 Radial†	2529.6	-60.8	-11.580	ug/L	-11.580	ppb	15:12:39
2	Mg 279.077 IEC†	3.1	2.6	108.99	ug/L	108.99	ppb	15:12:59
2	Na 589.592 Radial†	-658.3	80.2	28.013	ug/L	28.013	ppb	15:12:39
2	Sr 421.552†	24.6	-13.6	-0.1069	ug/L	-0.1069	ppb	15:12:39
2	Sc 361.383	875672.4	875672.4	103.59	%			15:13:57
2	Y 371.029	736180.7	736180.7	103.26	%			15:13:57
2	Ag 328.068†	190.3	27.1	0.1429	ug/L	0.1429	ppb	15:13:57
2	As 188.979†	-18.5	4.2	2.3751	ug/L	2.3751	ppb	15:14:17
2	B 249.677†	-192.7	261.4	7.3866	ug/L	7.3866	ppb	15:14:17
2	Ba 233.527†	-16.0	-27.4	-0.2580	ug/L	-0.2580	ppb	15:14:17
2	Be 313.107†	-4469.6	142.7	0.0611	ug/L	0.0611	ppb	15:13:57
2	Cd 226.502†	-161.8	-7.7	-0.1130	ug/L	-0.1130	ppb	15:14:17
2	Co 228.616†	-52.2	3.2	0.0852	ug/L	0.0852	ppb	15:14:17
2	Cr 267.716†	84.2	11.1	0.1513	ug/L	0.1513	ppb	15:14:17
2	Cu 324.752†	5677.4	-45.4	-0.1523	ug/L	-0.1523	ppb	15:13:57
2	Mn 257.610†	441.2	39.6	0.0492	ug/L	0.0492	ppb	15:14:17
2	Mo 202.031†	22.8	9.1	0.8210	ug/L	0.8210	ppb	15:14:17
2	Ni 231.604†	75.1	-0.1	-0.0033	ug/L	-0.0033	ppb	15:14:17

2	P 214.914†	195.2	-12.2	-9.1991	ug/L	-9.1991 ppb	15:14:17
2	Pb 220.353†	-35.7	14.4	2.2558	ug/L	2.2558 ppb	15:14:17
2	S 181.975 Axial†	39.7	8.4	15.213	ug/L	15.213 ppb	15:14:17
2	Sb 206.836†	33.3	6.7	2.8930	ug/L	2.8930 ppb	15:14:17
2	Se 196.026†	-18.2	4.7	3.9064	ug/L	3.9064 ppb	15:14:17
2	Si 251.611†	773.4	227.7	8.6868	ug/L	8.6868 ppb	15:14:17
2	Sn 189.927†	12.5	8.4	1.9308	ug/L	1.9308 ppb	15:14:17
2	Ti 334.940†	-1031.6	49.7	0.0777	ug/L	0.0777 ppb	15:13:57
2	Tl 190.801†	-26.4	3.6	1.4108	ug/L	1.4108 ppb	15:14:17
2	U 409.014†	-1869.5	138.5	4.0970	ug/L	4.0970 ppb	15:13:57
2	V 292.402†	-1271.5	123.3	1.0078	ug/L	1.0078 ppb	15:13:57
2	Zn 213.857†	780.0	148.7	1.8308	ug/L	1.8308 ppb	15:14:17
2	SiO2†	978.0	407.7	33.081	ug/L	33.081 ppb	15:15:22
3	Sc Radial	4689.4	4689.4	103	%		15:13:04
3	Y RADIAL	5076.5	5076.5	103.2	%		15:13:04
3	Al 396.153Radial†	-68.8	6.4	6.3074	ug/L	6.3074 ppb	15:13:24
3	Ca 317.933Radial†	29.6	10.4	19.633	ug/L	19.633 ppb	15:13:24
3	Fe 238.204 Radial†	6.5	-0.4	-4.0213	ug/L	-4.0213 ppb	15:13:24
3	K 766.490 Radial†	2535.3	-49.4	-9.4088	ug/L	-9.4088 ppb	15:13:04
3	Mg 279.077 IEC†	1.3	0.8	35.252	ug/L	35.252 ppb	15:13:24
3	Na 589.592 Radial†	-712.0	26.6	9.2793	ug/L	9.2793 ppb	15:13:04
3	Sr 421.552†	40.3	1.7	0.0130	ug/L	0.0130 ppb	15:13:04
3	Sc 361.383	872548.5	872548.5	103.22	%		15:14:22
3	Y 371.029	734415.6	734415.6	103.01	%		15:14:22
3	Ag 328.068†	170.4	8.4	0.0392	ug/L	0.0392 ppb	15:14:22
3	As 188.979†	-24.2	-1.3	-0.7467	ug/L	-0.7467 ppb	15:14:42
3	B 249.677†	-202.1	251.7	7.1137	ug/L	7.1137 ppb	15:14:42
3	Ba 233.527†	14.8	2.4	0.0235	ug/L	0.0235 ppb	15:14:42
3	Be 313.107†	-4419.1	176.2	0.0756	ug/L	0.0756 ppb	15:14:22
3	Cd 226.502†	-173.1	-19.3	-0.2814	ug/L	-0.2814 ppb	15:14:42
3	Co 228.616†	-35.4	19.3	0.5073	ug/L	0.5073 ppb	15:14:42
3	Cr 267.716†	92.8	19.8	0.2667	ug/L	0.2667 ppb	15:14:42
3	Cu 324.752†	5693.1	-10.7	-0.0386	ug/L	-0.0386 ppb	15:14:22
3	Mn 257.610†	452.1	51.7	0.0669	ug/L	0.0669 ppb	15:14:42
3	Mo 202.031†	12.9	-0.4	-0.0348	ug/L	-0.0348 ppb	15:14:42
3	Ni 231.604†	72.6	-2.3	-0.0745	ug/L	-0.0745 ppb	15:14:42
3	P 214.914†	191.3	-15.3	-11.585	ug/L	-11.585 ppb	15:14:42
3	Pb 220.353†	-45.8	4.6	0.7189	ug/L	0.7189 ppb	15:14:42
3	S 181.975 Axial†	32.9	2.0	3.5860	ug/L	3.5860 ppb	15:14:42
3	Sb 206.836†	32.3	5.8	2.4927	ug/L	2.4927 ppb	15:14:42
3	Se 196.026†	-19.6	3.1	2.6093	ug/L	2.6093 ppb	15:14:42
3	Si 251.611†	748.5	206.3	7.8782	ug/L	7.8782 ppb	15:14:42
3	Sn 189.927†	7.3	3.4	0.7838	ug/L	0.7838 ppb	15:14:42
3	Ti 334.940†	-993.9	82.6	0.1410	ug/L	0.1410 ppb	15:14:22
3	Tl 190.801†	-26.6	3.4	1.3256	ug/L	1.3256 ppb	15:14:42
3	U 409.014†	-1817.5	182.4	5.3978	ug/L	5.3978 ppb	15:14:22
3	V 292.402†	-1330.9	61.3	0.5020	ug/L	0.5020 ppb	15:14:22
3	Zn 213.857†	778.8	150.2	1.8521	ug/L	1.8521 ppb	15:14:42
3	SiO2†	780.1	219.4	17.810	ug/L	17.810 ppb	15:15:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	875608.0	103.58	%	0.358				0.35%
Sc Radial	4701.8	103	%	0.3				0.28%
Y 371.029	736791.3	103.34	%	0.383				0.37%
Y RADIAL	5083.0	103.4	%	0.14				0.14%
Ag 328.068†	24.1	0.1267	ug/L	0.08066	0.1267	ppb	0.08066	63.64%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.9	2.8545	ug/L	6.05173	2.8545	ppb	6.05173	212.01%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.1	1.7707	ug/L	2.27613	1.7707	ppb	2.27613	128.55%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	257.2	7.2682	ug/L	0.14000	7.2682	ppb	0.14000	1.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-10.3	-0.0963	ug/L	0.14538	-0.0963	ppb	0.14538	151.02%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	165.5	0.0709	ug/L	0.00846	0.0709	ppb	0.00846	11.94%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	10.2	19.184	ug/L	3.5260	19.184	ppb	3.5260	18.38%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -17.8     -0.2611 ug/L       0.13903     -0.2611 ppb        0.13903  53.26%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               10.2      0.2694 ug/L       0.21613      0.2694 ppb        0.21613  80.21%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               11.3      0.1545 ug/L       0.11057      0.1545 ppb        0.11057  71.56%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -30.6     -0.1033 ug/L       0.05846     -0.1033 ppb        0.05846  56.56%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.9      10.022 ug/L       14.1419      10.022 ppb        14.1419 141.10%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -45.2     -8.6202 ug/L       3.42332     -8.6202 ppb        3.42332  39.71%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.3      95.250 ug/L       54.4455      95.250 ppb        54.4455  57.16%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               48.2      0.0611 ug/L       0.01035      0.0611 ppb        0.01035  16.94%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                2.1      0.1857 ug/L       0.55871      0.1857 ppb        0.55871 300.91%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        60.0      20.940 ug/L       10.1748      20.940 ppb        10.1748  48.59%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                1.0      0.0317 ug/L       0.12737      0.0317 ppb        0.12737 401.78%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -14.8     -11.225 ug/L        1.8718     -11.225 ppb         1.8718  16.68%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               11.0      1.7252 ug/L       0.87196      1.7252 ppb        0.87196  50.54%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           2.4      4.2892 ug/L      10.58970      4.2892 ppb       10.58970 246.89%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                3.8      1.6315 ug/L       1.84923      1.6315 ppb        1.84923 113.35%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.5      2.9683 ug/L       0.81980      2.9683 ppb        0.81980  27.62%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              222.9      8.5105 ug/L       0.56517      8.5105 ppb        0.56517   6.64%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                6.8      1.5738 ug/L       0.68524      1.5738 ppb        0.68524  43.54%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -3.8     -0.0301 ug/L       0.06668     -0.0301 ppb        0.06668 221.83%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               58.0      0.0937 ug/L       0.04167      0.0937 ppb        0.04167  44.45%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                2.6      1.0193 ug/L       0.60581      1.0193 ppb        0.60581  59.43%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               146.8      4.3430 ug/L       0.95582      4.3430 ppb        0.95582  22.01%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                92.7      0.7533 ug/L       0.25291      0.7533 ppb        0.25291  33.57%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              142.8      1.7578 ug/L       0.14520      1.7578 ppb        0.14520   8.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    277.7      22.542 ug/L        9.1425      22.542 ppb         9.1425  40.56%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/22/2010 16:05:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4676.2	4676.2	103	%			16:07:09
1	Y RADIAL	4985.7	4985.7	101.4	%			16:07:09
1	Al 396.153Radial†	5006.2	4946.3	4869.7	ug/L	4869.7	ppb	16:07:09
1	Ca 317.933Radial†	2751.5	2660.0	5019.4	ug/L	5019.4	ppb	16:07:29
1	Fe 238.204 Radial†	455.4	436.7	5027.8	ug/L	5027.8	ppb	16:07:29
1	K 766.490 Radial†	30276.0	26961.2	5123.7	ug/L	5123.7	ppb	16:07:09
1	Mg 279.077 IEC†	131.9	128.0	5312.4	ug/L	5312.4	ppb	16:07:29
1	Na 589.592 Radial†	27939.6	27915.1	9747.1	ug/L	9747.1	ppb	16:07:09
1	Sr 421.552†	63567.5	61841.2	484.48	ug/L	484.48	ppb	16:07:09
1	Sc 361.383	881008.1	881008.1	104.22	%			16:08:26
1	Y 371.029	730432.5	730432.5	102.45	%			16:08:26
1	Ag 328.068†	101240.9	96981.5	502.96	ug/L	502.96	ppb	16:08:31
1	As 188.979†	923.6	908.2	516.05	ug/L	516.05	ppb	16:08:51
1	B 249.677†	18371.2	18074.1	508.62	ug/L	508.62	ppb	16:08:31
1	Ba 233.527†	55539.9	53277.2	507.72	ug/L	507.72	ppb	16:08:31
1	Be 313.107†	1232842.9	1187339.9	508.01	ug/L	508.01	ppb	16:08:26
1	Cd 226.502†	36001.2	34690.8	509.57	ug/L	509.57	ppb	16:08:31
1	Co 228.616†	20431.3	19657.0	517.58	ug/L	517.58	ppb	16:08:31
1	Cr 267.716†	38851.6	37206.9	506.93	ug/L	506.93	ppb	16:08:31
1	Cu 324.752†	164441.4	152251.5	504.38	ug/L	504.38	ppb	16:08:31
1	Mn 257.610†	396348.8	379900.6	505.45	ug/L	505.45	ppb	16:08:26
1	Mo 202.031†	5760.1	5513.8	496.62	ug/L	496.62	ppb	16:08:51
1	Ni 231.604†	16664.4	15916.5	513.94	ug/L	513.94	ppb	16:08:31
1	P 214.914†	3681.6	3331.7	2426.9	ug/L	2426.9	ppb	16:08:51
1	Pb 220.353†	3309.9	3224.7	505.83	ug/L	505.83	ppb	16:08:51
1	S 181.975 Axial†	616.7	561.8	1017.1	ug/L	1017.1	ppb	16:08:51
1	Sb 206.836†	1256.3	1179.9	520.61	ug/L	520.61	ppb	16:08:51
1	Se 196.026†	612.2	609.6	525.26	ug/L	525.26	ppb	16:08:51
1	Si 251.611†	70996.2	67600.3	2575.6	ug/L	2575.6	ppb	16:08:31
1	Sn 189.927†	2250.6	2155.7	497.41	ug/L	497.41	ppb	16:08:51
1	Ti 334.940†	294212.0	283334.7	492.69	ug/L	492.69	ppb	16:08:31
1	Tl 190.801†	1300.9	1277.3	507.36	ug/L	507.36	ppb	16:08:51
1	U 409.014†	16204.0	17490.5	515.80	ug/L	515.80	ppb	16:08:31
1	V 292.402†	64355.5	63098.2	512.09	ug/L	512.09	ppb	16:08:31
1	Zn 213.857†	43745.4	41368.3	505.13	ug/L	505.13	ppb	16:08:31
1	SiO2†	70886.6	67477.6	5464.7	ug/L	5464.7	ppb	16:09:59
2	Sc Radial	4705.6	4705.6	103	%			16:07:34
2	Y RADIAL	5013.0	5013.0	102.0	%			16:07:34
2	Al 396.153Radial†	5100.6	5007.3	4929.7	ug/L	4929.7	ppb	16:07:34
2	Ca 317.933Radial†	2738.4	2630.7	4964.0	ug/L	4964.0	ppb	16:07:54
2	Fe 238.204 Radial†	456.9	435.4	5012.7	ug/L	5012.7	ppb	16:07:54
2	K 766.490 Radial†	30805.0	27289.0	5186.1	ug/L	5186.1	ppb	16:07:34
2	Mg 279.077 IEC†	127.5	122.9	5103.5	ug/L	5103.5	ppb	16:07:54
2	Na 589.592 Radial†	28233.2	28029.4	9787.0	ug/L	9787.0	ppb	16:07:34
2	Sr 421.552†	64941.5	62784.3	491.87	ug/L	491.87	ppb	16:07:34
2	Sc 361.383	869912.4	869912.4	102.91	%			16:08:57
2	Y 371.029	720729.1	720729.1	101.09	%			16:08:57
2	Ag 328.068†	99526.2	96554.3	500.75	ug/L	500.75	ppb	16:09:02
2	As 188.979†	915.1	911.3	517.73	ug/L	517.73	ppb	16:09:22
2	B 249.677†	18034.2	17971.6	505.73	ug/L	505.73	ppb	16:09:02
2	Ba 233.527†	54726.0	53166.1	506.66	ug/L	506.66	ppb	16:09:02
2	Be 313.107†	1216192.2	1186247.8	507.53	ug/L	507.53	ppb	16:08:57
2	Cd 226.502†	35522.2	34665.8	509.21	ug/L	509.21	ppb	16:09:02
2	Co 228.616†	20075.0	19560.7	515.07	ug/L	515.07	ppb	16:09:02
2	Cr 267.716†	38313.8	37159.9	506.29	ug/L	506.29	ppb	16:09:02
2	Cu 324.752†	160943.9	150865.4	499.79	ug/L	499.79	ppb	16:09:02
2	Mn 257.610†	392066.3	380589.9	506.38	ug/L	506.38	ppb	16:08:57
2	Mo 202.031†	5761.6	5585.8	503.10	ug/L	503.10	ppb	16:09:22
2	Ni 231.604†	16402.9	15866.3	512.32	ug/L	512.32	ppb	16:09:02

2	P 214.914†	3673.4	3368.8	2456.0	ug/L	2456.0 ppb	16:09:22
2	Pb 220.353†	3304.0	3259.5	511.30	ug/L	511.30 ppb	16:09:22
2	S 181.975 Axial†	607.1	560.1	1013.9	ug/L	1013.9 ppb	16:09:22
2	Sb 206.836†	1257.3	1196.3	527.82	ug/L	527.82 ppb	16:09:22
2	Se 196.026†	618.0	622.7	536.20	ug/L	536.20 ppb	16:09:22
2	Si 251.611†	69616.0	67128.0	2557.5	ug/L	2557.5 ppb	16:09:02
2	Sn 189.927†	2256.1	2188.6	504.99	ug/L	504.99 ppb	16:09:22
2	Ti 334.940†	288824.8	281700.6	489.86	ug/L	489.86 ppb	16:09:02
2	Tl 190.801†	1290.6	1283.2	509.69	ug/L	509.69 ppb	16:09:22
2	U 409.014†	15714.7	17213.4	507.60	ug/L	507.60 ppb	16:09:02
2	V 292.402†	63325.9	62885.4	510.46	ug/L	510.46 ppb	16:09:02
2	Zn 213.857†	43013.2	41192.2	502.98	ug/L	502.98 ppb	16:09:02
2	SiO2†	70042.7	67525.1	5468.4	ug/L	5468.4 ppb	16:10:04
3	Sc Radial	4633.5	4633.5	102	%		16:07:59
3	Y RADIAL	4938.7	4938.7	100.4	%		16:07:59
3	Al 396.153Radial†	5001.6	4986.8	4909.6	ug/L	4909.6 ppb	16:07:59
3	Ca 317.933Radial†	2726.4	2660.1	5019.5	ug/L	5019.5 ppb	16:08:19
3	Fe 238.204 Radial†	456.3	441.6	5084.1	ug/L	5084.1 ppb	16:08:19
3	K 766.490 Radial†	30247.3	27205.0	5170.1	ug/L	5170.1 ppb	16:07:59
3	Mg 279.077 IEC†	128.8	126.2	5238.7	ug/L	5238.7 ppb	16:08:19
3	Na 589.592 Radial†	27770.8	28000.2	9776.8	ug/L	9776.8 ppb	16:07:59
3	Sr 421.552†	63882.6	62721.8	491.38	ug/L	491.38 ppb	16:07:59
3	Sc 361.383	880433.1	880433.1	104.16	%		16:09:28
3	Y 371.029	729300.9	729300.9	102.29	%		16:09:28
3	Ag 328.068†	101368.9	97167.8	503.94	ug/L	503.94 ppb	16:09:33
3	As 188.979†	913.9	899.6	511.18	ug/L	511.18 ppb	16:09:53
3	B 249.677†	18445.2	18156.7	510.95	ug/L	510.95 ppb	16:09:33
3	Ba 233.527†	55651.4	53419.1	509.07	ug/L	509.07 ppb	16:09:33
3	Be 313.107†	1235091.2	1190271.0	509.26	ug/L	509.26 ppb	16:09:28
3	Cd 226.502†	36085.4	34794.2	511.09	ug/L	511.09 ppb	16:09:33
3	Co 228.616†	20414.1	19653.2	517.49	ug/L	517.49 ppb	16:09:33
3	Cr 267.716†	38924.1	37300.9	508.22	ug/L	508.22 ppb	16:09:33
3	Cu 324.752†	164205.8	152128.3	503.98	ug/L	503.98 ppb	16:09:33
3	Mn 257.610†	397521.6	381275.0	507.29	ug/L	507.29 ppb	16:09:28
3	Mo 202.031†	5788.1	5544.2	499.37	ug/L	499.37 ppb	16:09:53
3	Ni 231.604†	16732.5	15992.3	516.39	ug/L	516.39 ppb	16:09:33
3	P 214.914†	3691.0	3343.1	2435.5	ug/L	2435.5 ppb	16:09:53
3	Pb 220.353†	3330.3	3246.3	509.21	ug/L	509.21 ppb	16:09:53
3	S 181.975 Axial†	616.7	562.2	1017.7	ug/L	1017.7 ppb	16:09:53
3	Sb 206.836†	1254.3	1178.8	520.18	ug/L	520.18 ppb	16:09:53
3	Se 196.026†	617.5	615.0	529.99	ug/L	529.99 ppb	16:09:53
3	Si 251.611†	71031.2	67678.4	2578.5	ug/L	2578.5 ppb	16:09:33
3	Sn 189.927†	2247.9	2154.5	497.14	ug/L	497.14 ppb	16:09:53
3	Ti 334.940†	294291.4	283595.3	493.15	ug/L	493.15 ppb	16:09:33
3	Tl 190.801†	1296.1	1273.5	505.86	ug/L	505.86 ppb	16:09:53
3	U 409.014†	16136.1	17435.4	514.16	ug/L	514.16 ppb	16:09:33
3	V 292.402†	64426.0	63206.2	512.98	ug/L	512.98 ppb	16:09:33
3	Zn 213.857†	43745.6	41395.9	505.45	ug/L	505.45 ppb	16:09:33
3	SiO2†	70709.7	67352.2	5454.4	ug/L	5454.4 ppb	16:10:09

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	877117.9	103.76	%	0.739				0.71%
Sc Radial	4671.8	103	%	0.8				0.78%
Y 371.029	726820.8	101.95	%	0.744				0.73%
Y RADIAL	4979.1	101.3	%	0.76				0.75%
Ag 328.068†	96901.2	502.55	ug/L	1.633	502.55	ppb	1.633	0.32%
QC value within limits for Ag 328.068 Recovery = 100.51%								
Al 396.153Radial†	4980.1	4903.0	ug/L	30.54	4903.0	ppb	30.54	0.62%
QC value within limits for Al 396.153Radial Recovery = 98.06%								
As 188.979†	906.4	514.99	ug/L	3.405	514.99	ppb	3.405	0.66%
QC value within limits for As 188.979 Recovery = 103.00%								
B 249.677†	18067.5	508.44	ug/L	2.613	508.44	ppb	2.613	0.51%
QC value within limits for B 249.677 Recovery = 101.69%								
Ba 233.527†	53287.4	507.81	ug/L	1.209	507.81	ppb	1.209	0.24%
QC value within limits for Ba 233.527 Recovery = 101.56%								
Be 313.107†	1187952.9	508.27	ug/L	0.891	508.27	ppb	0.891	0.18%
QC value within limits for Be 313.107 Recovery = 101.65%								
Ca 317.933Radial†	2650.2	5001.0	ug/L	31.99	5001.0	ppb	31.99	0.64%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.02%
Cd 226.502†            34716.9      509.96 ug/L         0.997      509.96 ppb          0.997   0.20%
   QC value within limits for Cd 226.502  Recovery = 101.99%
Co 228.616†            19623.6      516.71 ug/L         1.424      516.71 ppb          1.424   0.28%
   QC value within limits for Co 228.616  Recovery = 103.34%
Cr 267.716†            37222.6      507.15 ug/L         0.981      507.15 ppb          0.981   0.19%
   QC value within limits for Cr 267.716  Recovery = 101.43%
Cu 324.752†           151748.4      502.72 ug/L         2.540      502.72 ppb          2.540   0.51%
   QC value within limits for Cu 324.752  Recovery = 100.54%
Fe 238.204 Radial†       437.9      5041.5 ug/L        37.61      5041.5 ppb          37.61   0.75%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.83%
K 766.490 Radial†      27151.7      5159.9 ug/L        32.40      5159.9 ppb          32.40   0.63%
   QC value within limits for K 766.490 Radial  Recovery = 103.20%
Mg 279.077 IEC†          125.7      5218.2 ug/L       105.92      5218.2 ppb         105.92   2.03%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.36%
Mn 257.610†           380588.5      506.37 ug/L         0.918      506.37 ppb          0.918   0.18%
   QC value within limits for Mn 257.610  Recovery = 101.27%
Mo 202.031†             5547.9      499.70 ug/L         3.250      499.70 ppb          3.250   0.65%
   QC value within limits for Mo 202.031  Recovery = 99.94%
Na 589.592 Radial†     27981.6      9770.3 ug/L        20.74      9770.3 ppb          20.74   0.21%
   QC value within limits for Na 589.592 Radial  Recovery = 97.70%
Ni 231.604†            15925.0      514.21 ug/L         2.049      514.21 ppb          2.049   0.40%
   QC value within limits for Ni 231.604  Recovery = 102.84%
P 214.914†              3347.9      2439.4 ug/L        14.95      2439.4 ppb          14.95   0.61%
   QC value within limits for P 214.914  Recovery = 97.58%
Pb 220.353†             3243.5      508.78 ug/L         2.764      508.78 ppb          2.764   0.54%
   QC value within limits for Pb 220.353  Recovery = 101.76%
S 181.975 Axial†         561.3      1016.2 ug/L         2.05      1016.2 ppb           2.05   0.20%
   QC value within limits for S 181.975 Axial  Recovery = 101.62%
Sb 206.836†             1185.0      522.87 ug/L         4.294      522.87 ppb          4.294   0.82%
   QC value within limits for Sb 206.836  Recovery = 104.57%
Se 196.026†              615.8      530.49 ug/L         5.486      530.49 ppb          5.486   1.03%
   QC value within limits for Se 196.026  Recovery = 106.10%
Si 251.611†            67468.9      2570.5 ug/L        11.41      2570.5 ppb          11.41   0.44%
   QC value within limits for Si 251.611  Recovery = 102.82%
Sn 189.927†             2166.3      499.85 ug/L         4.455      499.85 ppb          4.455   0.89%
   QC value within limits for Sn 189.927  Recovery = 99.97%
Sr 421.552†            62449.1      489.24 ug/L         4.132      489.24 ppb          4.132   0.84%
   QC value within limits for Sr 421.552  Recovery = 97.85%
Ti 334.940†           282876.9      491.90 ug/L         1.781      491.90 ppb          1.781   0.36%
   QC value within limits for Ti 334.940  Recovery = 98.38%
Tl 190.801†             1278.0      507.64 ug/L         1.930      507.64 ppb          1.930   0.38%
   QC value within limits for Tl 190.801  Recovery = 101.53%
U 409.014†             17379.8      512.52 ug/L         4.337      512.52 ppb          4.337   0.85%
   QC value within limits for U 409.014  Recovery = 102.50%
V 292.402†             63063.3      511.84 ug/L         1.277      511.84 ppb          1.277   0.25%
   QC value within limits for V 292.402  Recovery = 102.37%
Zn 213.857†            41318.8      504.52 ug/L         1.343      504.52 ppb          1.343   0.27%
   QC value within limits for Zn 213.857  Recovery = 100.90%
SiO2†                  67451.6      5462.5 ug/L          7.22      5462.5 ppb           7.22   0.13%
   QC value within limits for SiO2  Recovery = 102.15%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/22/2010 16:12:20
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4705.1	4705.1	103	%			16:14:12
1	Y RADIAL	5050.3	5050.3	102.7	%			16:14:12
1	Al 396.153Radial†	-75.0	0.6	0.5605	ug/L	0.5605	ppb	16:14:32
1	Ca 317.933Radial†	28.9	9.6	18.064	ug/L	18.064	ppb	16:14:32
1	Fe 238.204 Radial†	5.8	-1.0	-11.671	ug/L	-11.671	ppb	16:14:32
1	K 766.490 Radial†	2718.1	119.2	22.657	ug/L	22.657	ppb	16:14:12
1	Mg 279.077 IEC†	2.3	1.9	77.200	ug/L	77.200	ppb	16:14:32
1	Na 589.592 Radial†	-628.5	109.8	38.324	ug/L	38.324	ppb	16:14:12
1	Sr 421.552†	23.9	-14.3	-0.1125	ug/L	-0.1125	ppb	16:14:12
1	Sc 361.383	878023.4	878023.4	103.87	%			16:15:29
1	Y 371.029	738704.7	738704.7	103.61	%			16:15:29
1	Ag 328.068†	37.3	-120.8	-0.6258	ug/L	-0.6258	ppb	16:15:29
1	As 188.979†	-27.3	-4.2	-2.3934	ug/L	-2.3934	ppb	16:15:49
1	B 249.677†	-116.3	335.5	9.4849	ug/L	9.4849	ppb	16:15:49
1	Ba 233.527†	10.5	-1.9	-0.0173	ug/L	-0.0173	ppb	16:15:49
1	Be 313.107†	-4417.6	204.4	0.0875	ug/L	0.0875	ppb	16:15:29
1	Cd 226.502†	-155.4	-1.1	-0.0147	ug/L	-0.0147	ppb	16:15:49
1	Co 228.616†	-47.8	7.6	0.2005	ug/L	0.2005	ppb	16:15:49
1	Cr 267.716†	70.5	-2.3	-0.0329	ug/L	-0.0329	ppb	16:15:49
1	Cu 324.752†	5754.3	13.8	0.0445	ug/L	0.0445	ppb	16:15:29
1	Mn 257.610†	439.1	36.4	0.0441	ug/L	0.0441	ppb	16:15:49
1	Mo 202.031†	13.0	-0.4	-0.0350	ug/L	-0.0350	ppb	16:15:49
1	Ni 231.604†	76.5	1.0	0.0332	ug/L	0.0332	ppb	16:15:49
1	P 214.914†	196.5	-11.5	-8.7294	ug/L	-8.7294	ppb	16:15:49
1	Pb 220.353†	-64.4	-13.1	-2.0409	ug/L	-2.0409	ppb	16:15:49
1	S 181.975 Axial†	31.5	0.5	0.8497	ug/L	0.8497	ppb	16:15:49
1	Sb 206.836†	39.6	12.7	5.3970	ug/L	5.3970	ppb	16:15:49
1	Se 196.026†	-18.2	4.7	3.8652	ug/L	3.8652	ppb	16:15:49
1	Si 251.611†	783.3	235.3	8.9851	ug/L	8.9851	ppb	16:15:49
1	Sn 189.927†	1.6	-2.2	-0.5016	ug/L	-0.5016	ppb	16:15:49
1	Ti 334.940†	-1029.8	54.1	0.0897	ug/L	0.0897	ppb	16:15:29
1	Tl 190.801†	-26.9	3.2	1.2506	ug/L	1.2506	ppb	16:15:49
1	U 409.014†	-1975.3	41.5	1.2278	ug/L	1.2278	ppb	16:15:29
1	V 292.402†	-1355.5	45.7	0.3708	ug/L	0.3708	ppb	16:15:29
1	Zn 213.857†	777.2	143.9	1.7750	ug/L	1.7750	ppb	16:15:49
1	SiO2†	813.4	246.7	20.030	ug/L	20.030	ppb	16:16:45
2	Sc Radial	4578.9	4578.9	101	%			16:14:37
2	Y RADIAL	4921.2	4921.2	100.1	%			16:14:37
2	Al 396.153Radial†	-77.1	-3.4	-3.3940	ug/L	-3.3940	ppb	16:14:57
2	Ca 317.933Radial†	31.7	13.1	24.763	ug/L	24.763	ppb	16:14:57
2	Fe 238.204 Radial†	10.0	3.3	37.824	ug/L	37.824	ppb	16:14:57
2	K 766.490 Radial†	2699.3	173.0	32.899	ug/L	32.899	ppb	16:14:37
2	Mg 279.077 IEC†	1.3	0.9	38.010	ug/L	38.010	ppb	16:14:57
2	Na 589.592 Radial†	-645.6	76.0	26.535	ug/L	26.535	ppb	16:14:37
2	Sr 421.552†	38.0	0.4	0.0026	ug/L	0.0026	ppb	16:14:37
2	Sc 361.383	877280.5	877280.5	103.78	%			16:15:54
2	Y 371.029	737108.0	737108.0	103.39	%			16:15:54
2	Ag 328.068†	212.2	47.8	0.2606	ug/L	0.2606	ppb	16:15:54
2	As 188.979†	-20.7	2.1	1.1987	ug/L	1.1987	ppb	16:16:15
2	B 249.677†	-136.9	315.5	8.9124	ug/L	8.9124	ppb	16:16:15
2	Ba 233.527†	14.7	2.2	0.0242	ug/L	0.0242	ppb	16:16:15
2	Be 313.107†	-4451.4	168.2	0.0722	ug/L	0.0722	ppb	16:15:54
2	Cd 226.502†	-180.8	-25.7	-0.3811	ug/L	-0.3811	ppb	16:16:15
2	Co 228.616†	-40.0	15.0	0.3941	ug/L	0.3941	ppb	16:16:15
2	Cr 267.716†	77.6	4.6	0.0672	ug/L	0.0672	ppb	16:16:15
2	Cu 324.752†	5770.4	34.0	0.1140	ug/L	0.1140	ppb	16:15:54
2	Mn 257.610†	451.1	48.3	0.0665	ug/L	0.0665	ppb	16:16:15
2	Mo 202.031†	10.6	-2.7	-0.2389	ug/L	-0.2389	ppb	16:16:15
2	Ni 231.604†	84.5	8.8	0.2843	ug/L	0.2843	ppb	16:16:15

2	P 214.914†	193.1	-14.6	-11.083	ug/L	-11.083 ppb	16:16:15
2	Pb 220.353†	-37.4	12.9	2.0040	ug/L	2.0040 ppb	16:16:15
2	S 181.975 Axial†	33.7	2.6	4.7379	ug/L	4.7379 ppb	16:16:15
2	Sb 206.836†	30.6	4.0	1.7275	ug/L	1.7275 ppb	16:16:15
2	Se 196.026†	-18.1	4.7	4.0108	ug/L	4.0108 ppb	16:16:15
2	Si 251.611†	783.7	236.3	9.0285	ug/L	9.0285 ppb	16:16:15
2	Sn 189.927†	9.0	4.9	1.1413	ug/L	1.1413 ppb	16:16:15
2	Ti 334.940†	-990.3	91.3	0.1584	ug/L	0.1584 ppb	16:15:54
2	Tl 190.801†	-27.8	2.3	0.9015	ug/L	0.9015 ppb	16:16:15
2	U 409.014†	-1970.4	44.6	1.3138	ug/L	1.3138 ppb	16:15:54
2	V 292.402†	-1269.6	127.4	1.0146	ug/L	1.0146 ppb	16:15:54
2	Zn 213.857†	803.0	169.4	2.0807	ug/L	2.0807 ppb	16:16:15
2	SiO2†	764.0	199.8	16.230	ug/L	16.230 ppb	16:16:50
3	Sc Radial	4639.4	4639.4	102	%		16:15:02
3	Y RADIAL	5001.2	5001.2	101.7	%		16:15:02
3	Al 396.153Radial†	-76.9	-2.3	-2.2269	ug/L	-2.2269 ppb	16:15:22
3	Ca 317.933Radial†	26.0	7.1	13.424	ug/L	13.424 ppb	16:15:22
3	Fe 238.204 Radial†	6.0	-0.7	-8.2050	ug/L	-8.2050 ppb	16:15:22
3	K 766.490 Radial†	2676.7	115.8	22.028	ug/L	22.028 ppb	16:15:02
3	Mg 279.077 IEC†	-0.3	-0.7	-30.383	ug/L	-30.383 ppb	16:15:22
3	Na 589.592 Radial†	-666.8	63.6	22.194	ug/L	22.194 ppb	16:15:02
3	Sr 421.552†	32.3	-5.7	-0.0451	ug/L	-0.0451 ppb	16:15:02
3	Sc 361.383	870822.0	870822.0	103.02	%		16:16:20
3	Y 371.029	732446.8	732446.8	102.74	%		16:16:20
3	Ag 328.068†	119.0	-41.2	-0.2193	ug/L	-0.2193 ppb	16:16:20
3	As 188.979†	-20.7	2.0	1.1456	ug/L	1.1456 ppb	16:16:40
3	B 249.677†	-150.1	301.8	8.5309	ug/L	8.5309 ppb	16:16:40
3	Ba 233.527†	-2.6	-14.5	-0.1381	ug/L	-0.1381 ppb	16:16:40
3	Be 313.107†	-4521.6	68.2	0.0293	ug/L	0.0293 ppb	16:16:20
3	Cd 226.502†	-154.7	-1.7	-0.0223	ug/L	-0.0223 ppb	16:16:40
3	Co 228.616†	-42.7	12.2	0.3188	ug/L	0.3188 ppb	16:16:40
3	Cr 267.716†	80.4	7.9	0.1041	ug/L	0.1041 ppb	16:16:40
3	Cu 324.752†	5655.9	-35.8	-0.1222	ug/L	-0.1222 ppb	16:16:20
3	Mn 257.610†	460.6	60.8	0.0813	ug/L	0.0813 ppb	16:16:40
3	Mo 202.031†	6.3	-6.8	-0.6084	ug/L	-0.6084 ppb	16:16:40
3	Ni 231.604†	79.0	4.0	0.1300	ug/L	0.1300 ppb	16:16:40
3	P 214.914†	191.0	-15.2	-11.505	ug/L	-11.505 ppb	16:16:40
3	Pb 220.353†	-66.2	-15.4	-2.4103	ug/L	-2.4103 ppb	16:16:40
3	S 181.975 Axial†	33.1	2.2	4.0525	ug/L	4.0525 ppb	16:16:40
3	Sb 206.836†	31.2	4.9	2.0610	ug/L	2.0610 ppb	16:16:40
3	Se 196.026†	-13.9	8.7	7.2262	ug/L	7.2262 ppb	16:16:40
3	Si 251.611†	771.3	229.8	8.7849	ug/L	8.7849 ppb	16:16:40
3	Sn 189.927†	4.7	0.9	0.2009	ug/L	0.2009 ppb	16:16:40
3	Ti 334.940†	-1034.2	41.7	0.0743	ug/L	0.0743 ppb	16:16:20
3	Tl 190.801†	-25.0	4.8	1.8940	ug/L	1.8940 ppb	16:16:40
3	U 409.014†	-1809.5	186.7	5.5233	ug/L	5.5233 ppb	16:16:20
3	V 292.402†	-1381.4	9.8	0.0809	ug/L	0.0809 ppb	16:16:20
3	Zn 213.857†	786.7	159.3	1.9642	ug/L	1.9642 ppb	16:16:40
3	SiO2†	804.6	244.7	19.879	ug/L	19.879 ppb	16:16:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	875375.3	103.56	%	0.469				0.45%
Sc Radial	4641.1	102	%	1.4				1.36%
Y 371.029	736086.5	103.25	%	0.456				0.44%
Y RADIAL	4990.9	101.5	%	1.33				1.31%
Ag 328.068†	-38.1	-0.1948	ug/L	0.44374	-0.1948	ppb	0.44374	227.73%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.7	-1.6868	ug/L	2.03185	-1.6868	ppb	2.03185	120.45%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.0	-0.0164	ug/L	2.05871	-0.0164	ppb	2.05871	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	317.6	8.9761	ug/L	0.48017	8.9761	ppb	0.48017	5.35%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-4.7	-0.0438	ug/L	0.08429	-0.0438	ppb	0.08429	192.66%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	146.9	0.0630	ug/L	0.03017	0.0630	ppb	0.03017	47.90%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.9	18.750	ug/L	5.7004	18.750	ppb	5.7004	30.40%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -9.5     -0.1394 ug/L       0.20939     -0.1394 ppb        0.20939 150.22%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                11.6      0.3045 ug/L       0.09761      0.3045 ppb        0.09761  32.06%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 3.4      0.0462 ug/L       0.07088      0.0462 ppb        0.07088 153.57%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                 4.0      0.0121 ug/L       0.12137      0.0121 ppb        0.12137 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.5      5.9827 ug/L      27.62967      5.9827 ppb       27.62967 461.83%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         136.0     25.862 ug/L        6.1029     25.862 ppb         6.1029  23.60%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.7     28.276 ug/L       54.4481     28.276 ppb        54.4481 192.56%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                48.5      0.0640 ug/L       0.01873      0.0640 ppb        0.01873  29.28%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -3.3     -0.2941 ug/L       0.29066     -0.2941 ppb        0.29066  98.82%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         83.1     29.017 ug/L        8.3467     29.017 ppb         8.3467  28.76%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 4.6      0.1492 ug/L       0.12662      0.1492 ppb        0.12662  84.89%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -13.8    -10.439 ug/L        1.4955    -10.439 ppb         1.4955  14.33%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -5.2     -0.8157 ug/L       2.44894     -0.8157 ppb        2.44894 300.22%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.8      3.2134 ug/L       2.07548      3.2134 ppb        2.07548  64.59%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 7.2      3.0618 ug/L       2.02917      3.0618 ppb        2.02917  66.27%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 6.0      5.0341 ug/L       1.89986      5.0341 ppb        1.89986  37.74%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               233.8      8.9328 ug/L       0.12994      8.9328 ppb        0.12994   1.45%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.2      0.2802 ug/L       0.82431      0.2802 ppb        0.82431 294.18%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -6.6     -0.0517 ug/L       0.05785     -0.0517 ppb        0.05785 111.96%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                62.4      0.1075 ug/L       0.04480      0.1075 ppb        0.04480  41.69%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.4      1.3487 ug/L       0.50344      1.3487 ppb        0.50344  37.33%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 90.9      2.6883 ug/L       2.45556      2.6883 ppb        2.45556  91.34%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 61.0      0.4888 ug/L       0.47791      0.4888 ppb        0.47791  97.78%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               157.6      1.9399 ug/L       0.15428      1.9399 ppb        0.15428   7.95%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     230.4     18.713 ug/L        2.1516     18.713 ppb         2.1516  11.50%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/22/2010 17:15:49
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4688.9	4688.9	103	%			17:17:41
1	Y RADIAL	5013.0	5013.0	102.0	%			17:17:41
1	Al 396.153Radial†	5088.5	5013.0	4935.4	ug/L	4935.4	ppb	17:17:41
1	Ca 317.933Radial†	2765.2	2666.1	5030.8	ug/L	5030.8	ppb	17:18:01
1	Fe 238.204 Radial†	462.2	442.1	5089.6	ug/L	5089.6	ppb	17:18:01
1	K 766.490 Radial†	30621.1	27216.2	5172.1	ug/L	5172.1	ppb	17:17:41
1	Mg 279.077 IEC†	128.0	123.9	5143.6	ug/L	5143.6	ppb	17:18:01
1	Na 589.592 Radial†	29015.2	28885.5	10086	ug/L	10086	ppb	17:17:41
1	Sr 421.552†	65319.4	63374.1	496.49	ug/L	496.49	ppb	17:17:41
1	Sc 361.383	872961.8	872961.8	103.27	%			17:18:58
1	Y 371.029	723976.8	723976.8	101.55	%			17:18:58
1	Ag 328.068†	102193.0	98798.8	512.38	ug/L	512.38	ppb	17:19:04
1	As 188.979†	918.5	911.5	517.98	ug/L	517.98	ppb	17:19:24
1	B 249.677†	18315.0	18182.2	511.65	ug/L	511.65	ppb	17:19:04
1	Ba 233.527†	55982.1	54196.6	516.48	ug/L	516.48	ppb	17:19:04
1	Be 313.107†	1221374.1	1187137.5	507.94	ug/L	507.94	ppb	17:18:58
1	Cd 226.502†	36140.3	35143.8	516.23	ug/L	516.23	ppb	17:19:04
1	Co 228.616†	20451.9	19857.6	522.86	ug/L	522.86	ppb	17:19:04
1	Cr 267.716†	39083.4	37775.0	514.67	ug/L	514.67	ppb	17:19:04
1	Cu 324.752†	166223.7	155431.6	514.92	ug/L	514.92	ppb	17:19:04
1	Mn 257.610†	392324.9	379509.4	504.95	ug/L	504.95	ppb	17:18:58
1	Mo 202.031†	5783.5	5587.4	503.25	ug/L	503.25	ppb	17:19:24
1	Ni 231.604†	16774.6	16170.6	522.14	ug/L	522.14	ppb	17:19:04
1	P 214.914†	3680.8	3363.5	2448.8	ug/L	2448.8	ppb	17:19:24
1	Pb 220.353†	3320.6	3264.3	512.05	ug/L	512.05	ppb	17:19:24
1	S 181.975 Axial†	605.3	556.2	1006.9	ug/L	1006.9	ppb	17:19:24
1	Sb 206.836†	1250.5	1185.5	523.18	ug/L	523.18	ppb	17:19:24
1	Se 196.026†	618.9	621.4	535.35	ug/L	535.35	ppb	17:19:24
1	Si 251.611†	71392.2	68611.7	2614.1	ug/L	2614.1	ppb	17:19:04
1	Sn 189.927†	2251.4	2176.4	502.18	ug/L	502.18	ppb	17:19:24
1	Ti 334.940†	296803.0	288445.6	501.59	ug/L	501.59	ppb	17:19:04
1	Tl 190.801†	1301.7	1289.6	512.23	ug/L	512.23	ppb	17:19:24
1	U 409.014†	16294.3	17721.2	522.60	ug/L	522.60	ppb	17:19:04
1	V 292.402†	64934.9	64228.4	521.22	ug/L	521.22	ppb	17:19:04
1	Zn 213.857†	43958.7	41961.8	512.37	ug/L	512.37	ppb	17:19:04
1	SiO2†	71064.8	68277.0	5529.4	ug/L	5529.4	ppb	17:20:31
2	Sc Radial	4663.2	4663.2	102	%			17:18:06
2	Y RADIAL	5015.7	5015.7	102.0	%			17:18:06
2	Al 396.153Radial†	5070.8	5023.1	4945.8	ug/L	4945.8	ppb	17:18:06
2	Ca 317.933Radial†	2756.2	2672.1	5042.2	ug/L	5042.2	ppb	17:18:26
2	Fe 238.204 Radial†	460.7	443.1	5100.8	ug/L	5100.8	ppb	17:18:26
2	K 766.490 Radial†	30644.3	27403.0	5207.6	ug/L	5207.6	ppb	17:18:06
2	Mg 279.077 IEC†	128.7	125.3	5200.2	ug/L	5200.2	ppb	17:18:26
2	Na 589.592 Radial†	28800.1	28830.9	10067	ug/L	10067	ppb	17:18:06
2	Sr 421.552†	64905.0	63319.4	496.06	ug/L	496.06	ppb	17:18:06
2	Sc 361.383	889476.9	889476.9	105.23	%			17:19:29
2	Y 371.029	736751.5	736751.5	103.34	%			17:19:29
2	Ag 328.068†	102395.4	97153.8	503.87	ug/L	503.87	ppb	17:19:35
2	As 188.979†	915.7	892.3	507.12	ug/L	507.12	ppb	17:19:55
2	B 249.677†	18390.8	17924.9	504.39	ug/L	504.39	ppb	17:19:35
2	Ba 233.527†	56375.1	53563.5	510.44	ug/L	510.44	ppb	17:19:35
2	Be 313.107†	1241711.3	1184505.5	506.80	ug/L	506.80	ppb	17:19:29
2	Cd 226.502†	36415.9	34756.0	510.53	ug/L	510.53	ppb	17:19:35
2	Co 228.616†	20628.1	19657.3	517.58	ug/L	517.58	ppb	17:19:35
2	Cr 267.716†	39332.1	37308.7	508.32	ug/L	508.32	ppb	17:19:35
2	Cu 324.752†	166560.2	152762.8	506.08	ug/L	506.08	ppb	17:19:35
2	Mn 257.610†	399385.9	379166.2	504.49	ug/L	504.49	ppb	17:19:29
2	Mo 202.031†	5776.7	5476.9	493.31	ug/L	493.31	ppb	17:19:55
2	Ni 231.604†	16844.6	15935.5	514.55	ug/L	514.55	ppb	17:19:35

2	P 214.914†	3677.9	3294.6	2398.3 ug/L	2398.3 ppb	17:19:55
2	Pb 220.353†	3313.4	3197.8	501.61 ug/L	501.61 ppb	17:19:55
2	S 181.975 Axial†	608.0	547.9	991.92 ug/L	991.92 ppb	17:19:55
2	Sb 206.836†	1258.4	1170.5	516.45 ug/L	516.45 ppb	17:19:55
2	Se 196.026†	607.4	599.4	517.00 ug/L	517.00 ppb	17:19:55
2	Si 251.611†	71856.8	67769.6	2582.1 ug/L	2582.1 ppb	17:19:35
2	Sn 189.927†	2253.4	2137.8	493.29 ug/L	493.29 ppb	17:19:55
2	Ti 334.940†	298097.0	284339.1	494.45 ug/L	494.45 ppb	17:19:35
2	Tl 190.801†	1309.1	1273.2	505.73 ug/L	505.73 ppb	17:19:55
2	U 409.014†	16460.3	17586.1	518.61 ug/L	518.61 ppb	17:19:35
2	V 292.402†	65185.1	63298.7	513.64 ug/L	513.64 ppb	17:19:35
2	Zn 213.857†	44208.8	41409.1	505.61 ug/L	505.61 ppb	17:19:35
2	SiO2†	71366.7	67286.3	5449.3 ug/L	5449.3 ppb	17:20:36
3	Sc Radial	4753.5	4753.5	104 %		17:18:31
3	Y RADIAL	5083.7	5083.7	103.4 %		17:18:31
3	Al 396.153Radial†	5133.8	4989.3	4912.6 ug/L	4912.6 ppb	17:18:31
3	Ca 317.933Radial†	2767.2	2631.6	4965.8 ug/L	4965.8 ppb	17:18:51
3	Fe 238.204 Radial†	458.3	432.3	4976.9 ug/L	4976.9 ppb	17:18:51
3	K 766.490 Radial†	31097.6	27269.0	5182.2 ug/L	5182.2 ppb	17:18:31
3	Mg 279.077 IEC†	130.0	124.0	5149.8 ug/L	5149.8 ppb	17:18:51
3	Na 589.592 Radial†	29204.2	28684.1	10016 ug/L	10016 ppb	17:18:31
3	Sr 421.552†	66030.9	63194.6	495.08 ug/L	495.08 ppb	17:18:31
3	Sc 361.383	890356.2	890356.2	105.33 %		17:20:00
3	Y 371.029	737859.6	737859.6	103.49 %		17:20:00
3	Ag 328.068†	101410.7	96122.8	498.50 ug/L	498.50 ppb	17:20:06
3	As 188.979†	906.9	883.1	501.85 ug/L	501.85 ppb	17:20:26
3	B 249.677†	18214.8	17740.6	499.22 ug/L	499.22 ppb	17:20:06
3	Ba 233.527†	55616.2	52790.1	503.07 ug/L	503.07 ppb	17:20:06
3	Be 313.107†	1242735.4	1184312.4	506.70 ug/L	506.70 ppb	17:20:00
3	Cd 226.502†	35923.9	34254.7	503.17 ug/L	503.17 ppb	17:20:06
3	Co 228.616†	20384.8	19407.0	511.00 ug/L	511.00 ppb	17:20:06
3	Cr 267.716†	38878.8	36841.4	501.95 ug/L	501.95 ppb	17:20:06
3	Cu 324.752†	164465.2	150617.5	498.97 ug/L	498.97 ppb	17:20:06
3	Mn 257.610†	400099.9	379469.2	504.88 ug/L	504.88 ppb	17:20:00
3	Mo 202.031†	5740.6	5437.2	489.73 ug/L	489.73 ppb	17:20:26
3	Ni 231.604†	16744.1	15824.2	510.96 ug/L	510.96 ppb	17:20:06
3	P 214.914†	3649.9	3264.5	2377.0 ug/L	2377.0 ppb	17:20:26
3	Pb 220.353†	3301.3	3183.2	499.34 ug/L	499.34 ppb	17:20:26
3	S 181.975 Axial†	608.2	547.5	991.11 ug/L	991.11 ppb	17:20:26
3	Sb 206.836†	1255.8	1166.8	514.75 ug/L	514.75 ppb	17:20:26
3	Se 196.026†	609.8	601.1	518.03 ug/L	518.03 ppb	17:20:26
3	Si 251.611†	70809.6	66707.9	2541.6 ug/L	2541.6 ppb	17:20:06
3	Sn 189.927†	2234.7	2117.9	488.70 ug/L	488.70 ppb	17:20:26
3	Ti 334.940†	294437.3	280584.8	487.92 ug/L	487.92 ppb	17:20:06
3	Tl 190.801†	1295.1	1258.7	500.00 ug/L	500.00 ppb	17:20:26
3	U 409.014†	16218.0	17340.5	511.38 ug/L	511.38 ppb	17:20:06
3	V 292.402†	64326.3	62422.2	506.58 ug/L	506.58 ppb	17:20:06
3	Zn 213.857†	43740.3	40922.8	499.67 ug/L	499.67 ppb	17:20:06
3	SiO2†	70672.0	66559.8	5390.4 ug/L	5390.4 ppb	17:20:41

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	884265.0	104.61	%	1.159				1.11%
Sc Radial	4701.9	103	%	1.0				0.99%
Y 371.029	732862.6	102.79	%	1.082				1.05%
Y RADIAL	5037.5	102.5	%	0.81				0.80%
Ag 328.068†	97358.4	504.92	ug/L	6.996	504.92	ppb	6.996	1.39%
QC value within limits for Ag 328.068 Recovery = 100.98%								
Al 396.153Radial†	5008.5	4931.3	ug/L	16.97	4931.3	ppb	16.97	0.34%
QC value within limits for Al 396.153Radial Recovery = 98.63%								
As 188.979†	895.6	508.99	ug/L	8.222	508.99	ppb	8.222	1.62%
QC value within limits for As 188.979 Recovery = 101.80%								
B 249.677†	17949.2	505.09	ug/L	6.245	505.09	ppb	6.245	1.24%
QC value within limits for B 249.677 Recovery = 101.02%								
Ba 233.527†	53516.8	510.00	ug/L	6.714	510.00	ppb	6.714	1.32%
QC value within limits for Ba 233.527 Recovery = 102.00%								
Be 313.107†	1185318.5	507.15	ug/L	0.688	507.15	ppb	0.688	0.14%
QC value within limits for Be 313.107 Recovery = 101.43%								
Ca 317.933Radial†	2656.6	5012.9	ug/L	41.24	5012.9	ppb	41.24	0.82%

```
   QC value within limits for Ca 317.933Radial  Recovery = 100.26%
Cd 226.502†            34718.1      509.98 ug/L         6.548      509.98 ppb          6.548   1.28%
   QC value within limits for Cd 226.502  Recovery = 102.00%
Co 228.616†            19640.6      517.15 ug/L         5.945      517.15 ppb          5.945   1.15%
   QC value within limits for Co 228.616  Recovery = 103.43%
Cr 267.716†            37308.4      508.31 ug/L         6.361      508.31 ppb          6.361   1.25%
   QC value within limits for Cr 267.716  Recovery = 101.66%
Cu 324.752†           152937.3      506.65 ug/L         7.990      506.65 ppb          7.990   1.58%
   QC value within limits for Cu 324.752  Recovery = 101.33%
Fe 238.204 Radial†       439.1      5055.8 ug/L        68.54      5055.8 ppb         68.54   1.36%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.12%
K 766.490 Radial†      27296.1      5187.3 ug/L        18.31      5187.3 ppb         18.31   0.35%
   QC value within limits for K 766.490 Radial  Recovery = 103.75%
Mg 279.077 IEC†          124.4      5164.5 ug/L        31.04      5164.5 ppb         31.04   0.60%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.29%
Mn 257.610†           379381.6      504.77 ug/L         0.248      504.77 ppb          0.248   0.05%
   QC value within limits for Mn 257.610  Recovery = 100.95%
Mo 202.031†             5500.5      495.43 ug/L         7.004      495.43 ppb          7.004   1.41%
   QC value within limits for Mo 202.031  Recovery = 99.09%
Na 589.592 Radial†     28800.2       10056 ug/L          36.4       10056 ppb           36.4   0.36%
   QC value within limits for Na 589.592 Radial  Recovery = 100.56%
Ni 231.604†            15976.8      515.89 ug/L         5.710      515.89 ppb          5.710   1.11%
   QC value within limits for Ni 231.604  Recovery = 103.18%
P 214.914†              3307.5      2408.0 ug/L        36.91      2408.0 ppb         36.91   1.53%
   QC value within limits for P 214.914  Recovery = 96.32%
Pb 220.353†             3215.1      504.33 ug/L         6.777      504.33 ppb          6.777   1.34%
   QC value within limits for Pb 220.353  Recovery = 100.87%
S 181.975 Axial†         550.5      996.65 ug/L         8.908      996.65 ppb          8.908   0.89%
   QC value within limits for S 181.975 Axial  Recovery = 99.66%
Sb 206.836†             1174.2      518.12 ug/L         4.459      518.12 ppb          4.459   0.86%
   QC value within limits for Sb 206.836  Recovery = 103.62%
Se 196.026†              607.3      523.46 ug/L        10.313      523.46 ppb         10.313   1.97%
   QC value within limits for Se 196.026  Recovery = 104.69%
Si 251.611†            67696.4      2579.3 ug/L        36.35      2579.3 ppb         36.35   1.41%
   QC value within limits for Si 251.611  Recovery = 103.17%
Sn 189.927†             2144.0      494.72 ug/L         6.856      494.72 ppb          6.856   1.39%
   QC value within limits for Sn 189.927  Recovery = 98.94%
Sr 421.552†            63296.1      495.88 ug/L         0.720      495.88 ppb          0.720   0.15%
   QC value within limits for Sr 421.552  Recovery = 99.18%
Ti 334.940†           284456.5      494.65 ug/L         6.839      494.65 ppb          6.839   1.38%
   QC value within limits for Ti 334.940  Recovery = 98.93%
Tl 190.801†             1273.8      505.99 ug/L         6.119      505.99 ppb          6.119   1.21%
   QC value within limits for Tl 190.801  Recovery = 101.20%
U 409.014†             17549.3      517.53 ug/L         5.689      517.53 ppb          5.689   1.10%
   QC value within limits for U 409.014  Recovery = 103.51%
V 292.402†             63316.4      513.81 ug/L         7.324      513.81 ppb          7.324   1.43%
   QC value within limits for V 292.402  Recovery = 102.76%
Zn 213.857†            41431.2      505.88 ug/L         6.352      505.88 ppb          6.352   1.26%
   QC value within limits for Zn 213.857  Recovery = 101.18%
SiO2†                  67374.4      5456.4 ug/L        69.79      5456.4 ppb         69.79   1.28%
   QC value within limits for SiO2  Recovery = 102.04%
All analyte(s) passed QC.
```

Sequence No.: 19
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/22/2010 17:22:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4954.0	4954.0	109	%			17:24:44
1	Y RADIAL	5314.0	5314.0	108.1	%			17:24:44
1	Al 396.153Radial†	-73.3	5.8	5.7225	ug/L	5.7225	ppb	17:25:05
1	Ca 317.933Radial†	32.7	11.6	21.965	ug/L	21.965	ppb	17:25:05
1	Fe 238.204 Radial†	8.8	1.4	16.148	ug/L	16.148	ppb	17:25:05
1	K 766.490 Radial†	2584.1	-136.0	-25.903	ug/L	-25.903	ppb	17:24:44
1	Mg 279.077 IEC†	0.9	0.4	17.035	ug/L	17.035	ppb	17:25:05
1	Na 589.592 Radial†	-672.4	99.9	34.892	ug/L	34.892	ppb	17:24:44
1	Sr 421.552†	6.3	-31.7	-0.2482	ug/L	-0.2482	ppb	17:24:44
1	Sc 361.383	834067.1	834067.1	98.670	%			17:26:01
1	Y 371.029	702417.4	702417.4	98.523	%			17:26:01
1	Ag 328.068†	229.0	75.4	0.3940	ug/L	0.3940	ppb	17:26:01
1	As 188.979†	-18.3	3.6	2.0201	ug/L	2.0201	ppb	17:26:21
1	B 249.677†	-308.0	135.3	3.8224	ug/L	3.8224	ppb	17:26:21
1	Ba 233.527†	3.4	-8.6	-0.0807	ug/L	-0.0807	ppb	17:26:21
1	Be 313.107†	-4339.6	59.2	0.0250	ug/L	0.0250	ppb	17:26:01
1	Cd 226.502†	-175.7	-29.5	-0.4357	ug/L	-0.4357	ppb	17:26:21
1	Co 228.616†	-46.5	6.5	0.1713	ug/L	0.1713	ppb	17:26:21
1	Cr 267.716†	95.2	26.3	0.3597	ug/L	0.3597	ppb	17:26:21
1	Cu 324.752†	5611.3	160.9	0.5341	ug/L	0.5341	ppb	17:26:01
1	Mn 257.610†	470.8	90.8	0.1217	ug/L	0.1217	ppb	17:26:21
1	Mo 202.031†	13.7	1.0	0.0915	ug/L	0.0915	ppb	17:26:21
1	Ni 231.604†	77.9	6.4	0.2059	ug/L	0.2059	ppb	17:26:21
1	P 214.914†	199.7	1.7	1.1855	ug/L	1.1855	ppb	17:26:21
1	Pb 220.353†	-58.2	-10.1	-1.5834	ug/L	-1.5834	ppb	17:26:21
1	S 181.975 Axial†	37.1	7.7	13.973	ug/L	13.973	ppb	17:26:21
1	Sb 206.836†	33.4	8.4	3.6025	ug/L	3.6025	ppb	17:26:21
1	Se 196.026†	-22.5	-0.6	-0.4467	ug/L	-0.4467	ppb	17:26:21
1	Si 251.611†	697.0	187.6	7.1633	ug/L	7.1633	ppb	17:26:21
1	Sn 189.927†	6.0	2.3	0.5398	ug/L	0.5398	ppb	17:26:21
1	Ti 334.940†	-1105.2	-74.6	-0.1280	ug/L	-0.1280	ppb	17:26:01
1	Tl 190.801†	-26.5	2.3	0.8984	ug/L	0.8984	ppb	17:26:21
1	U 409.014†	-1938.1	-21.1	-0.6262	ug/L	-0.6262	ppb	17:26:01
1	V 292.402†	-1326.0	6.8	0.0526	ug/L	0.0526	ppb	17:26:01
1	Zn 213.857†	786.8	193.1	2.3755	ug/L	2.3755	ppb	17:26:21
1	SiO2†	702.1	175.3	14.226	ug/L	14.226	ppb	17:27:32
2	Sc Radial	4824.1	4824.1	106	%			17:25:10
2	Y RADIAL	5202.5	5202.5	105.8	%			17:25:10
2	Al 396.153Radial†	-69.1	8.0	7.9342	ug/L	7.9342	ppb	17:25:30
2	Ca 317.933Radial†	30.9	10.8	20.337	ug/L	20.337	ppb	17:25:30
2	Fe 238.204 Radial†	7.5	0.4	4.9837	ug/L	4.9837	ppb	17:25:30
2	K 766.490 Radial†	2623.7	-34.7	-6.6249	ug/L	-6.6249	ppb	17:25:10
2	Mg 279.077 IEC†	-0.3	-0.7	-28.743	ug/L	-28.743	ppb	17:25:30
2	Na 589.592 Radial†	-673.0	82.7	28.886	ug/L	28.886	ppb	17:25:10
2	Sr 421.552†	37.8	-1.8	-0.0144	ug/L	-0.0144	ppb	17:25:10
2	Sc 361.383	869416.6	869416.6	102.85	%			17:26:27
2	Y 371.029	731546.7	731546.7	102.61	%			17:26:27
2	Ag 328.068†	151.8	-9.1	-0.0498	ug/L	-0.0498	ppb	17:26:27
2	As 188.979†	-21.4	1.3	0.7444	ug/L	0.7444	ppb	17:26:47
2	B 249.677†	-315.6	140.5	3.9714	ug/L	3.9714	ppb	17:26:47
2	Ba 233.527†	6.9	-5.3	-0.0496	ug/L	-0.0496	ppb	17:26:47
2	Be 313.107†	-4391.9	187.2	0.0802	ug/L	0.0802	ppb	17:26:27
2	Cd 226.502†	-169.7	-16.5	-0.2417	ug/L	-0.2417	ppb	17:26:47
2	Co 228.616†	-43.8	11.1	0.2899	ug/L	0.2899	ppb	17:26:47
2	Cr 267.716†	86.8	14.2	0.1920	ug/L	0.1920	ppb	17:26:47
2	Cu 324.752†	5601.0	-80.3	-0.2693	ug/L	-0.2693	ppb	17:26:27
2	Mn 257.610†	459.0	60.0	0.0814	ug/L	0.0814	ppb	17:26:47
2	Mo 202.031†	9.6	-3.6	-0.3232	ug/L	-0.3232	ppb	17:26:47
2	Ni 231.604†	78.9	4.1	0.1320	ug/L	0.1320	ppb	17:26:47

2	P 214.914†	190.7	-15.3	-11.535	ug/L	-11.535 ppb	17:26:47
2	Pb 220.353†	-48.6	1.7	0.2646	ug/L	0.2646 ppb	17:26:47
2	S 181.975 Axial†	32.3	1.5	2.7019	ug/L	2.7019 ppb	17:26:47
2	Sb 206.836†	28.2	1.9	0.8290	ug/L	0.8290 ppb	17:26:47
2	Se 196.026†	-15.2	7.4	6.1651	ug/L	6.1651 ppb	17:26:47
2	Si 251.611†	687.4	149.5	5.7135	ug/L	5.7135 ppb	17:26:47
2	Sn 189.927†	7.8	3.9	0.8914	ug/L	0.8914 ppb	17:26:47
2	Ti 334.940†	-992.0	81.1	0.1432	ug/L	0.1432 ppb	17:26:27
2	Tl 190.801†	-25.7	4.1	1.6323	ug/L	1.6323 ppb	17:26:47
2	U 409.014†	-1780.2	212.3	6.2805	ug/L	6.2805 ppb	17:26:27
2	V 292.402†	-1357.8	30.6	0.2507	ug/L	0.2507 ppb	17:26:27
2	Zn 213.857†	779.7	153.8	1.8944	ug/L	1.8944 ppb	17:26:47
2	SiO2†	687.4	132.0	10.722	ug/L	10.722 ppb	17:27:52
3	Sc Radial	4696.5	4696.5	103	%		17:25:35
3	Y RADIAL	5044.3	5044.3	102.6	%		17:25:35
3	Al 396.153Radial†	-69.3	6.0	5.9543	ug/L	5.9543 ppb	17:25:55
3	Ca 317.933Radial†	27.5	8.3	15.574	ug/L	15.574 ppb	17:25:55
3	Fe 238.204 Radial†	6.9	0.1	0.6458	ug/L	0.6458 ppb	17:25:55
3	K 766.490 Radial†	2613.6	22.7	4.3076	ug/L	4.3076 ppb	17:25:35
3	Mg 279.077 IEC†	1.0	0.5	21.648	ug/L	21.648 ppb	17:25:55
3	Na 589.592 Radial†	-687.8	51.1	17.852	ug/L	17.852 ppb	17:25:35
3	Sr 421.552†	20.6	-17.5	-0.1371	ug/L	-0.1371 ppb	17:25:35
3	Sc 361.383	886338.0	886338.0	104.85	%		17:26:52
3	Y 371.029	746079.3	746079.3	104.65	%		17:26:52
3	Ag 328.068†	234.3	66.8	0.3405	ug/L	0.3405 ppb	17:26:52
3	As 188.979†	-25.0	-1.7	-0.9793	ug/L	-0.9793 ppb	17:27:12
3	B 249.677†	-327.0	135.6	3.8332	ug/L	3.8332 ppb	17:27:12
3	Ba 233.527†	23.1	10.0	0.0954	ug/L	0.0954 ppb	17:27:12
3	Be 313.107†	-4455.4	208.2	0.0890	ug/L	0.0890 ppb	17:26:52
3	Cd 226.502†	-164.1	-8.0	-0.1170	ug/L	-0.1170 ppb	17:27:12
3	Co 228.616†	-58.8	-2.4	-0.0644	ug/L	-0.0644 ppb	17:27:12
3	Cr 267.716†	76.1	2.4	0.0304	ug/L	0.0304 ppb	17:27:12
3	Cu 324.752†	5733.6	-57.8	-0.1944	ug/L	-0.1944 ppb	17:26:52
3	Mn 257.610†	458.5	50.9	0.0669	ug/L	0.0669 ppb	17:27:12
3	Mo 202.031†	11.9	-1.5	-0.1369	ug/L	-0.1369 ppb	17:27:12
3	Ni 231.604†	78.6	2.4	0.0764	ug/L	0.0764 ppb	17:27:12
3	P 214.914†	193.9	-15.8	-11.914	ug/L	-11.914 ppb	17:27:12
3	Pb 220.353†	-66.9	-14.9	-2.3264	ug/L	-2.3264 ppb	17:27:12
3	S 181.975 Axial†	29.0	-2.3	-4.1236	ug/L	-4.1236 ppb	17:27:12
3	Sb 206.836†	28.8	2.0	0.8397	ug/L	0.8397 ppb	17:27:12
3	Se 196.026†	-22.7	0.5	0.4377	ug/L	0.4377 ppb	17:27:12
3	Si 251.611†	688.1	137.4	5.2485	ug/L	5.2485 ppb	17:27:12
3	Sn 189.927†	-2.4	-6.0	-1.3878	ug/L	-1.3878 ppb	17:27:12
3	Ti 334.940†	-1070.4	24.7	0.0411	ug/L	0.0411 ppb	17:26:52
3	Tl 190.801†	-36.3	-5.5	-2.1609	ug/L	-2.1609 ppb	17:27:12
3	U 409.014†	-1859.4	169.8	5.0241	ug/L	5.0241 ppb	17:26:52
3	V 292.402†	-1407.7	8.1	0.0731	ug/L	0.0731 ppb	17:26:52
3	Zn 213.857†	782.8	142.2	1.7528	ug/L	1.7528 ppb	17:27:12
3	SiO2†	696.7	128.1	10.407	ug/L	10.407 ppb	17:28:12

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	863273.9	102.13	%	3.155				3.09%
Sc Radial	4824.9	106	%	2.8				2.67%
Y 371.029	726681.1	101.93	%	3.119				3.06%
Y RADIAL	5186.9	105.5	%	2.76				2.61%
Ag 328.068†	44.4	0.2282	ug/L	0.24224	0.2282	ppb	0.24224	106.13%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.6	6.5370	ug/L	1.21556	6.5370	ppb	1.21556	18.59%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.1	0.5951	ug/L	1.50526	0.5951	ppb	1.50526	252.95%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	137.2	3.8757	ug/L	0.08306	3.8757	ppb	0.08306	2.14%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.3	-0.0116	ug/L	0.09403	-0.0116	ppb	0.09403	807.31%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	151.5	0.0647	ug/L	0.03469	0.0647	ppb	0.03469	53.60%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	10.2	19.292	ug/L	3.3212	19.292	ppb	3.3212	17.22%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -18.0     -0.2648 ug/L       0.16063     -0.2648 ppb        0.16063  60.66%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                5.0      0.1323 ug/L       0.18035      0.1323 ppb        0.18035 136.36%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               14.3      0.1940 ug/L       0.16467      0.1940 ppb        0.16467  84.87%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                7.6      0.0235 ug/L       0.44382      0.0235 ppb        0.44382 >999.9%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.6      7.2592 ug/L       7.99765      7.2592 ppb        7.99765 110.17%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -49.3     -9.4068 ug/L      15.29623     -9.4068 ppb       15.29623 162.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.1      3.3132 ug/L      27.85710      3.3132 ppb       27.85710 840.80%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               67.3      0.0900 ug/L       0.02837      0.0900 ppb        0.02837  31.52%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -1.4     -0.1229 ug/L       0.20769     -0.1229 ppb        0.20769 169.06%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        77.9      27.210 ug/L        8.6427      27.210 ppb         8.6427  31.76%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                4.3      0.1381 ug/L       0.06500      0.1381 ppb        0.06500  47.07%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -9.8     -7.4212 ug/L       7.45600     -7.4212 ppb        7.45600 100.47%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -7.8     -1.2151 ug/L       1.33422     -1.2151 ppb        1.33422 109.81%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           2.3      4.1837 ug/L       9.13871      4.1837 ppb        9.13871 218.44%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                4.1      1.7571 ug/L       1.59819      1.7571 ppb        1.59819  90.96%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.4      2.0521 ug/L       3.58935      2.0521 ppb        3.58935 174.91%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              158.2      6.0418 ug/L       0.99875      6.0418 ppb        0.99875  16.53%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                0.0      0.0145 ug/L       1.22707      0.0145 ppb        1.22707 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -17.0     -0.1332 ug/L       0.11692     -0.1332 ppb        0.11692  87.75%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               10.4      0.0188 ug/L       0.13699      0.0188 ppb        0.13699 729.43%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                0.3      0.1233 ug/L       2.01191      0.1233 ppb        2.01191 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               120.3      3.5595 ug/L       3.67893      3.5595 ppb        3.67893 103.36%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                15.2      0.1255 ug/L       0.10894      0.1255 ppb        0.10894  86.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              163.1      2.0076 ug/L       0.32645      2.0076 ppb        0.32645  16.26%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    145.1      11.785 ug/L        2.1200      11.785 ppb         2.1200  17.99%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/22/2010 18:39:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4696.9	4696.9	103	%			18:41:48
1	Y RADIAL	5024.3	5024.3	102.2	%			18:41:48
1	Al 396.153Radial†	5082.2	4998.6	4921.4	ug/L	4921.4	ppb	18:41:48
1	Ca 317.933Radial†	2800.5	2695.7	5086.8	ug/L	5086.8	ppb	18:42:08
1	Fe 238.204 Radial†	470.0	448.8	5167.1	ug/L	5167.1	ppb	18:42:08
1	K 766.490 Radial†	30654.8	27198.7	5168.7	ug/L	5168.7	ppb	18:41:48
1	Mg 279.077 IEC†	133.1	128.6	5337.1	ug/L	5337.1	ppb	18:42:08
1	Na 589.592 Radial†	29248.1	29063.7	10148	ug/L	10148	ppb	18:41:48
1	Sr 421.552†	65692.3	63628.5	498.48	ug/L	498.48	ppb	18:41:48
1	Sc 361.383	881325.9	881325.9	104.26	%			18:43:05
1	Y 371.029	731232.7	731232.7	102.56	%			18:43:05
1	Ag 328.068†	101752.2	97436.8	505.36	ug/L	505.36	ppb	18:43:11
1	As 188.979†	913.3	898.1	510.39	ug/L	510.39	ppb	18:43:31
1	B 249.677†	18268.7	17969.5	505.64	ug/L	505.64	ppb	18:43:11
1	Ba 233.527†	55833.1	53539.2	510.22	ug/L	510.22	ppb	18:43:11
1	Be 313.107†	1235608.0	1189565.4	508.96	ug/L	508.96	ppb	18:43:05
1	Cd 226.502†	36157.5	34828.2	511.58	ug/L	511.58	ppb	18:43:11
1	Co 228.616†	20482.5	19698.9	518.68	ug/L	518.68	ppb	18:43:11
1	Cr 267.716†	39064.0	37397.3	509.54	ug/L	509.54	ppb	18:43:11
1	Cu 324.752†	165288.5	153007.0	506.89	ug/L	506.89	ppb	18:43:11
1	Mn 257.610†	396412.0	379824.2	505.36	ug/L	505.36	ppb	18:43:05
1	Mo 202.031†	5765.8	5517.3	496.95	ug/L	496.95	ppb	18:43:31
1	Ni 231.604†	16790.1	16031.3	517.65	ug/L	517.65	ppb	18:43:11
1	P 214.914†	3669.8	3319.1	2416.7	ug/L	2416.7	ppb	18:43:31
1	Pb 220.353†	3315.1	3228.5	506.41	ug/L	506.41	ppb	18:43:31
1	S 181.975 Axial†	613.2	558.3	1010.6	ug/L	1010.6	ppb	18:43:31
1	Sb 206.836†	1247.3	1170.9	516.78	ug/L	516.78	ppb	18:43:31
1	Se 196.026†	603.7	601.2	518.67	ug/L	518.67	ppb	18:43:31
1	Si 251.611†	70798.9	67386.5	2567.4	ug/L	2567.4	ppb	18:43:11
1	Sn 189.927†	2256.2	2160.3	498.48	ug/L	498.48	ppb	18:43:31
1	Ti 334.940†	295630.0	284593.0	494.88	ug/L	494.88	ppb	18:43:11
1	Tl 190.801†	1291.4	1267.7	503.59	ug/L	503.59	ppb	18:43:31
1	U 409.014†	16165.5	17448.0	514.52	ug/L	514.52	ppb	18:43:11
1	V 292.402†	64873.1	63572.4	515.87	ug/L	515.87	ppb	18:43:11
1	Zn 213.857†	43869.6	41472.3	506.36	ug/L	506.36	ppb	18:43:11
1	SiO2†	70382.0	66969.1	5423.4	ug/L	5423.4	ppb	18:44:38
2	Sc Radial	4611.8	4611.8	101	%			18:42:13
2	Y RADIAL	4927.3	4927.3	100.2	%			18:42:13
2	Al 396.153Radial†	5015.0	5023.2	4945.5	ug/L	4945.5	ppb	18:42:13
2	Ca 317.933Radial†	2796.6	2742.0	5174.0	ug/L	5174.0	ppb	18:42:33
2	Fe 238.204 Radial†	470.3	457.5	5267.0	ug/L	5267.0	ppb	18:42:33
2	K 766.490 Radial†	30370.7	27466.5	5219.6	ug/L	5219.6	ppb	18:42:13
2	Mg 279.077 IEC†	127.5	125.4	5207.6	ug/L	5207.6	ppb	18:42:33
2	Na 589.592 Radial†	28879.4	29222.8	10204	ug/L	10204	ppb	18:42:13
2	Sr 421.552†	64679.0	63803.0	499.85	ug/L	499.85	ppb	18:42:13
2	Sc 361.383	876395.7	876395.7	103.68	%			18:43:36
2	Y 371.029	726801.3	726801.3	101.94	%			18:43:36
2	Ag 328.068†	100774.8	97043.1	503.35	ug/L	503.35	ppb	18:43:42
2	As 188.979†	919.6	909.0	516.54	ug/L	516.54	ppb	18:44:02
2	B 249.677†	18135.3	17939.3	504.78	ug/L	504.78	ppb	18:43:42
2	Ba 233.527†	55344.9	53369.6	508.60	ug/L	508.60	ppb	18:43:42
2	Be 313.107†	1228903.2	1189765.4	509.04	ug/L	509.04	ppb	18:43:36
2	Cd 226.502†	35798.1	34676.6	509.34	ug/L	509.34	ppb	18:43:42
2	Co 228.616†	20277.3	19611.6	516.40	ug/L	516.40	ppb	18:43:42
2	Cr 267.716†	38712.4	37268.9	507.80	ug/L	507.80	ppb	18:43:42
2	Cu 324.752†	163495.4	152169.4	504.12	ug/L	504.12	ppb	18:43:42
2	Mn 257.610†	394644.5	380258.2	505.96	ug/L	505.96	ppb	18:43:36
2	Mo 202.031†	5779.5	5561.6	500.95	ug/L	500.95	ppb	18:44:02
2	Ni 231.604†	16612.0	15950.0	515.02	ug/L	515.02	ppb	18:43:42

2	P 214.914†	3670.4	3339.5	2432.7 ug/L	2432.7 ppb	18:44:02
2	Pb 220.353†	3331.7	3262.4	511.73 ug/L	511.73 ppb	18:44:02
2	S 181.975 Axial†	604.1	552.8	1000.7 ug/L	1000.7 ppb	18:44:02
2	Sb 206.836†	1264.1	1193.9	526.67 ug/L	526.67 ppb	18:44:02
2	Se 196.026†	610.3	610.8	526.99 ug/L	526.99 ppb	18:44:02
2	Si 251.611†	70079.4	67074.5	2555.4 ug/L	2555.4 ppb	18:43:42
2	Sn 189.927†	2249.9	2166.4	499.88 ug/L	499.88 ppb	18:44:02
2	Ti 334.940†	292735.3	283396.1	492.83 ug/L	492.83 ppb	18:43:42
2	Tl 190.801†	1308.4	1291.1	512.80 ug/L	512.80 ppb	18:44:02
2	U 409.014†	16106.8	17478.5	515.41 ug/L	515.41 ppb	18:43:42
2	V 292.402†	64150.6	63225.5	513.13 ug/L	513.13 ppb	18:43:42
2	Zn 213.857†	43561.3	41411.7	505.62 ug/L	505.62 ppb	18:43:42
2	SiO2†	70270.6	67241.5	5445.4 ug/L	5445.4 ppb	18:44:43
3	Sc Radial	4668.8	4668.8	103 %		18:42:38
3	Y RADIAL	4981.1	4981.1	101.3 %		18:42:38
3	Al 396.153Radial†	5035.0	4982.3	4905.3 ug/L	4905.3 ppb	18:42:38
3	Ca 317.933Radial†	2783.3	2695.3	5086.1 ug/L	5086.1 ppb	18:42:58
3	Fe 238.204 Radial†	466.8	448.5	5162.9 ug/L	5162.9 ppb	18:42:58
3	K 766.490 Radial†	30380.4	27110.0	5151.8 ug/L	5151.8 ppb	18:42:38
3	Mg 279.077 IEC†	131.1	127.4	5290.6 ug/L	5290.6 ppb	18:42:58
3	Na 589.592 Radial†	28968.5	28961.7	10112 ug/L	10112 ppb	18:42:38
3	Sr 421.552†	65026.2	63362.2	496.40 ug/L	496.40 ppb	18:42:38
3	Sc 361.383	877361.8	877361.8	103.79 %		18:44:07
3	Y 371.029	727990.1	727990.1	102.11 %		18:44:07
3	Ag 328.068†	101151.1	97298.7	504.64 ug/L	504.64 ppb	18:44:13
3	As 188.979†	911.5	900.3	511.62 ug/L	511.62 ppb	18:44:33
3	B 249.677†	18120.9	17906.3	503.85 ug/L	503.85 ppb	18:44:13
3	Ba 233.527†	55585.0	53542.1	510.24 ug/L	510.24 ppb	18:44:13
3	Be 313.107†	1231149.9	1190624.8	509.41 ug/L	509.41 ppb	18:44:07
3	Cd 226.502†	35970.8	34805.0	511.24 ug/L	511.24 ppb	18:44:13
3	Co 228.616†	20418.8	19726.3	519.40 ug/L	519.40 ppb	18:44:13
3	Cr 267.716†	38855.3	37365.5	509.10 ug/L	509.10 ppb	18:44:13
3	Cu 324.752†	163917.6	152402.6	504.89 ug/L	504.89 ppb	18:44:13
3	Mn 257.610†	395988.5	381134.0	507.11 ug/L	507.11 ppb	18:44:07
3	Mo 202.031†	5731.0	5508.7	496.18 ug/L	496.18 ppb	18:44:33
3	Ni 231.604†	16648.7	15967.8	515.59 ug/L	515.59 ppb	18:44:13
3	P 214.914†	3636.1	3302.6	2404.6 ug/L	2404.6 ppb	18:44:33
3	Pb 220.353†	3293.3	3221.9	505.38 ug/L	505.38 ppb	18:44:33
3	S 181.975 Axial†	613.8	561.5	1016.5 ug/L	1016.5 ppb	18:44:33
3	Sb 206.836†	1251.9	1180.8	521.03 ug/L	521.03 ppb	18:44:33
3	Se 196.026†	604.6	604.7	521.59 ug/L	521.59 ppb	18:44:33
3	Si 251.611†	70379.6	67289.3	2563.7 ug/L	2563.7 ppb	18:44:13
3	Sn 189.927†	2261.8	2175.4	501.96 ug/L	501.96 ppb	18:44:33
3	Ti 334.940†	293494.9	283817.0	493.54 ug/L	493.54 ppb	18:44:13
3	Tl 190.801†	1297.6	1279.2	508.13 ug/L	508.13 ppb	18:44:33
3	U 409.014†	16155.5	17508.4	516.30 ug/L	516.30 ppb	18:44:13
3	V 292.402†	64246.9	63250.2	513.28 ug/L	513.28 ppb	18:44:13
3	Zn 213.857†	43669.6	41469.8	506.35 ug/L	506.35 ppb	18:44:13
3	SiO2†	70093.9	66996.5	5425.7 ug/L	5425.7 ppb	18:44:48

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	878361.1	103.91	%	0.309				0.30%
Sc Radial	4659.1	102	%	1.0				0.93%
Y 371.029	728674.7	102.21	%	0.322				0.31%
Y RADIAL	4977.6	101.2	%	0.99				0.98%
Ag 328.068†	97259.6	504.45	ug/L	1.019	504.45	ppb	1.019	0.20%
QC value within limits for Ag 328.068 Recovery = 100.89%								
Al 396.153Radial†	5001.3	4924.1	ug/L	20.25	4924.1	ppb	20.25	0.41%
QC value within limits for Al 396.153Radial Recovery = 98.48%								
As 188.979†	902.5	512.85	ug/L	3.258	512.85	ppb	3.258	0.64%
QC value within limits for As 188.979 Recovery = 102.57%								
B 249.677†	17938.4	504.76	ug/L	0.894	504.76	ppb	0.894	0.18%
QC value within limits for B 249.677 Recovery = 100.95%								
Ba 233.527†	53483.6	509.69	ug/L	0.939	509.69	ppb	0.939	0.18%
QC value within limits for Ba 233.527 Recovery = 101.94%								
Be 313.107†	1189985.2	509.14	ug/L	0.239	509.14	ppb	0.239	0.05%
QC value within limits for Be 313.107 Recovery = 101.83%								
Ca 317.933Radial†	2711.0	5115.6	ug/L	50.58	5115.6	ppb	50.58	0.99%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.31%
Cd 226.502†            34769.9      510.72 ug/L         1.206      510.72 ppb          1.206   0.24%
   QC value within limits for Cd 226.502  Recovery = 102.14%
Co 228.616†            19679.0      518.16 ug/L         1.571      518.16 ppb          1.571   0.30%
   QC value within limits for Co 228.616  Recovery = 103.63%
Cr 267.716†            37343.9      508.81 ug/L         0.904      508.81 ppb          0.904   0.18%
   QC value within limits for Cr 267.716  Recovery = 101.76%
Cu 324.752†           152526.3      505.30 ug/L         1.430      505.30 ppb          1.430   0.28%
   QC value within limits for Cu 324.752  Recovery = 101.06%
Fe 238.204 Radial†       451.6      5199.0 ug/L         58.93      5199.0 ppb          58.93   1.13%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.98%
K 766.490 Radial†      27258.4      5180.1 ug/L         35.28      5180.1 ppb          35.28   0.68%
   QC value within limits for K 766.490 Radial  Recovery = 103.60%
Mg 279.077 IEC†          127.1      5278.5 ug/L         65.60      5278.5 ppb          65.60   1.24%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.57%
Mn 257.610†           380405.5      506.14 ug/L         0.886      506.14 ppb          0.886   0.18%
   QC value within limits for Mn 257.610  Recovery = 101.23%
Mo 202.031†             5529.2      498.02 ug/L         2.560      498.02 ppb          2.560   0.51%
   QC value within limits for Mo 202.031  Recovery = 99.60%
Na 589.592 Radial†     29082.7       10155 ug/L          46.0       10155 ppb           46.0   0.45%
   QC value within limits for Na 589.592 Radial  Recovery = 101.55%
Ni 231.604†            15983.0      516.09 ug/L         1.380      516.09 ppb          1.380   0.27%
   QC value within limits for Ni 231.604  Recovery = 103.22%
P 214.914†              3320.4      2418.0 ug/L         14.07      2418.0 ppb          14.07   0.58%
   QC value within limits for P 214.914  Recovery = 96.72%
Pb 220.353†             3237.6      507.84 ug/L         3.407      507.84 ppb          3.407   0.67%
   QC value within limits for Pb 220.353  Recovery = 101.57%
S 181.975 Axial†         557.5      1009.3 ug/L          7.99      1009.3 ppb           7.99   0.79%
   QC value within limits for S 181.975 Axial  Recovery = 100.93%
Sb 206.836†             1181.8      521.49 ug/L         4.964      521.49 ppb          4.964   0.95%
   QC value within limits for Sb 206.836  Recovery = 104.30%
Se 196.026†              605.6      522.41 ug/L         4.219      522.41 ppb          4.219   0.81%
   QC value within limits for Se 196.026  Recovery = 104.48%
Si 251.611†            67250.1      2562.2 ug/L          6.13      2562.2 ppb           6.13   0.24%
   QC value within limits for Si 251.611  Recovery = 102.49%
Sn 189.927†             2167.4      500.11 ug/L         1.751      500.11 ppb          1.751   0.35%
   QC value within limits for Sn 189.927  Recovery = 100.02%
Sr 421.552†            63597.9      498.24 ug/L         1.739      498.24 ppb          1.739   0.35%
   QC value within limits for Sr 421.552  Recovery = 99.65%
Ti 334.940†           283935.4      493.75 ug/L         1.046      493.75 ppb          1.046   0.21%
   QC value within limits for Ti 334.940  Recovery = 98.75%
Tl 190.801†             1279.3      508.17 ug/L         4.605      508.17 ppb          4.605   0.91%
   QC value within limits for Tl 190.801  Recovery = 101.63%
U 409.014†             17478.3      515.41 ug/L         0.894      515.41 ppb          0.894   0.17%
   QC value within limits for U 409.014  Recovery = 103.08%
V 292.402†             63349.4      514.09 ug/L         1.538      514.09 ppb          1.538   0.30%
   QC value within limits for V 292.402  Recovery = 102.82%
Zn 213.857†            41451.2      506.11 ug/L         0.424      506.11 ppb          0.424   0.08%
   QC value within limits for Zn 213.857  Recovery = 101.22%
SiO2†                  67069.0      5431.5 ug/L         12.11      5431.5 ppb          12.11   0.22%
   QC value within limits for SiO2  Recovery = 101.57%
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/22/2010 18:46:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4709.5	4709.5	103	%			18:48:51
1	Y RADIAL	5062.5	5062.5	103.0	%			18:48:51
1	Al 396.153Radial†	-74.8	0.8	0.8131	ug/L	0.8131	ppb	18:49:11
1	Ca 317.933Radial†	31.9	12.5	23.583	ug/L	23.583	ppb	18:49:11
1	Fe 238.204 Radial†	6.0	-0.8	-9.6889	ug/L	-9.6889	ppb	18:49:11
1	K 766.490 Radial†	2715.2	113.9	21.663	ug/L	21.663	ppb	18:48:51
1	Mg 279.077 IEC†	1.3	0.8	34.828	ug/L	34.828	ppb	18:49:11
1	Na 589.592 Radial†	-695.1	45.9	16.033	ug/L	16.033	ppb	18:48:51
1	Sr 421.552†	9.5	-28.3	-0.2219	ug/L	-0.2219	ppb	18:48:51
1	Sc 361.383	868193.5	868193.5	102.71	%			18:50:08
1	Y 371.029	743488.4	743488.4	104.28	%			18:50:08
1	Ag 328.068†	162.9	2.0	0.0099	ug/L	0.0099	ppb	18:50:08
1	As 188.979†	-28.9	-6.1	-3.4115	ug/L	-3.4115	ppb	18:50:28
1	B 249.677†	-269.1	185.5	5.2433	ug/L	5.2433	ppb	18:50:28
1	Ba 233.527†	10.9	-1.3	-0.0110	ug/L	-0.0110	ppb	18:50:28
1	Be 313.107†	-4420.1	153.8	0.0659	ug/L	0.0659	ppb	18:50:08
1	Cd 226.502†	-160.3	-7.6	-0.1100	ug/L	-0.1100	ppb	18:50:28
1	Co 228.616†	-40.5	14.1	0.3724	ug/L	0.3724	ppb	18:50:28
1	Cr 267.716†	67.1	-4.8	-0.0658	ug/L	-0.0658	ppb	18:50:28
1	Cu 324.752†	5688.9	12.9	0.0422	ug/L	0.0422	ppb	18:50:08
1	Mn 257.610†	443.3	45.4	0.0579	ug/L	0.0579	ppb	18:50:28
1	Mo 202.031†	15.0	1.7	0.1535	ug/L	0.1535	ppb	18:50:28
1	Ni 231.604†	74.4	-0.2	-0.0070	ug/L	-0.0070	ppb	18:50:28
1	P 214.914†	205.6	-0.5	-0.3788	ug/L	-0.3788	ppb	18:50:28
1	Pb 220.353†	-60.5	-10.0	-1.5622	ug/L	-1.5622	ppb	18:50:28
1	S 181.975 Axial†	33.5	2.8	4.9861	ug/L	4.9861	ppb	18:50:28
1	Sb 206.836†	33.7	7.3	3.1563	ug/L	3.1563	ppb	18:50:28
1	Se 196.026†	-26.1	-3.2	-2.6980	ug/L	-2.6980	ppb	18:50:28
1	Si 251.611†	584.5	50.3	1.9194	ug/L	1.9194	ppb	18:50:28
1	Sn 189.927†	10.7	6.7	1.5400	ug/L	1.5400	ppb	18:50:28
1	Ti 334.940†	-1018.2	54.2	0.0946	ug/L	0.0946	ppb	18:50:08
1	Tl 190.801†	-26.3	3.5	1.3879	ug/L	1.3879	ppb	18:50:28
1	U 409.014†	-1987.5	8.1	0.2397	ug/L	0.2397	ppb	18:50:08
1	V 292.402†	-1281.9	102.6	0.8264	ug/L	0.8264	ppb	18:50:08
1	Zn 213.857†	800.9	175.5	2.1640	ug/L	2.1640	ppb	18:50:28
1	SiO2†	595.6	43.6	3.5319	ug/L	3.5319	ppb	18:51:39
2	Sc Radial	4681.6	4681.6	103	%			18:49:16
2	Y RADIAL	5032.1	5032.1	102.3	%			18:49:16
2	Al 396.153Radial†	-76.3	-1.1	-1.0332	ug/L	-1.0332	ppb	18:49:36
2	Ca 317.933Radial†	24.8	5.7	10.842	ug/L	10.842	ppb	18:49:36
2	Fe 238.204 Radial†	6.1	-0.7	-7.9403	ug/L	-7.9403	ppb	18:49:36
2	K 766.490 Radial†	2674.2	89.7	17.059	ug/L	17.059	ppb	18:49:16
2	Mg 279.077 IEC†	2.6	2.1	86.846	ug/L	86.846	ppb	18:49:36
2	Na 589.592 Radial†	-708.4	28.9	10.099	ug/L	10.099	ppb	18:49:16
2	Sr 421.552†	11.7	-26.1	-0.2044	ug/L	-0.2044	ppb	18:49:16
2	Sc 361.383	865597.0	865597.0	102.40	%			18:50:33
2	Y 371.029	738775.4	738775.4	103.62	%			18:50:33
2	Ag 328.068†	159.0	-1.4	-0.0121	ug/L	-0.0121	ppb	18:50:33
2	As 188.979†	-19.0	3.5	1.9988	ug/L	1.9988	ppb	18:50:53
2	B 249.677†	-251.3	202.0	5.7115	ug/L	5.7115	ppb	18:50:53
2	Ba 233.527†	4.0	-8.0	-0.0762	ug/L	-0.0762	ppb	18:50:53
2	Be 313.107†	-4475.4	86.9	0.0371	ug/L	0.0371	ppb	18:50:33
2	Cd 226.502†	-159.6	-7.4	-0.1065	ug/L	-0.1065	ppb	18:50:53
2	Co 228.616†	-45.5	9.2	0.2419	ug/L	0.2419	ppb	18:50:53
2	Cr 267.716†	71.3	-0.6	-0.0101	ug/L	-0.0101	ppb	18:50:53
2	Cu 324.752†	5687.9	28.5	0.0922	ug/L	0.0922	ppb	18:50:33
2	Mn 257.610†	444.6	47.8	0.0593	ug/L	0.0593	ppb	18:50:53
2	Mo 202.031†	8.8	-4.4	-0.3921	ug/L	-0.3921	ppb	18:50:53
2	Ni 231.604†	81.7	7.2	0.2309	ug/L	0.2309	ppb	18:50:53

2	P 214.914†	190.5	-14.6	-11.065 ug/L	-11.065 ppb	18:50:53
2	Pb 220.353†	-47.7	2.3	0.3628 ug/L	0.3628 ppb	18:50:53
2	S 181.975 Axial†	26.9	-3.7	-6.6625 ug/L	-6.6625 ppb	18:50:53
2	Sb 206.836†	36.0	9.7	4.1837 ug/L	4.1837 ppb	18:50:53
2	Se 196.026†	-18.6	4.0	3.3291 ug/L	3.3291 ppb	18:50:53
2	Si 251.611†	580.4	47.9	1.8360 ug/L	1.8360 ppb	18:50:53
2	Sn 189.927†	15.8	11.7	2.7072 ug/L	2.7072 ppb	18:50:53
2	Ti 334.940†	-1078.4	-7.6	-0.0204 ug/L	-0.0204 ppb	18:50:33
2	Tl 190.801†	-26.6	3.1	1.2250 ug/L	1.2250 ppb	18:50:53
2	U 409.014†	-1867.0	119.9	3.5488 ug/L	3.5488 ppb	18:50:33
2	V 292.402†	-1356.7	25.8	0.2104 ug/L	0.2104 ppb	18:50:33
2	Zn 213.857†	798.2	175.2	2.1585 ug/L	2.1585 ppb	18:50:53
2	SiO2†	586.8	36.7	2.9941 ug/L	2.9941 ppb	18:51:59
3	Sc Radial	4780.0	4780.0	105 %		18:49:41
3	Y RADIAL	5171.9	5171.9	105.2 %		18:49:41
3	Al 396.153Radial†	-80.6	-3.6	-3.5439 ug/L	-3.5439 ppb	18:50:01
3	Ca 317.933Radial†	29.2	9.4	17.807 ug/L	17.807 ppb	18:50:01
3	Fe 238.204 Radial†	7.1	0.1	1.5629 ug/L	1.5629 ppb	18:50:01
3	K 766.490 Radial†	2586.1	-47.7	-9.0857 ug/L	-9.0857 ppb	18:49:41
3	Mg 279.077 IEC†	2.9	2.3	96.944 ug/L	96.944 ppb	18:50:01
3	Na 589.592 Radial†	-704.0	47.4	16.539 ug/L	16.539 ppb	18:49:41
3	Sr 421.552†	-9.2	-46.2	-0.3621 ug/L	-0.3621 ppb	18:49:41
3	Sc 361.383	867565.2	867565.2	102.63 %		18:50:58
3	Y 371.029	741412.1	741412.1	103.99 %		18:50:58
3	Ag 328.068†	127.2	-32.7	-0.1676 ug/L	-0.1676 ppb	18:50:58
3	As 188.979†	-17.7	4.8	2.7164 ug/L	2.7164 ppb	18:51:18
3	B 249.677†	-278.8	175.8	4.9671 ug/L	4.9671 ppb	18:51:18
3	Ba 233.527†	-9.8	-21.5	-0.2037 ug/L	-0.2037 ppb	18:51:18
3	Be 313.107†	-4448.8	122.7	0.0525 ug/L	0.0525 ppb	18:50:58
3	Cd 226.502†	-168.5	-15.7	-0.2308 ug/L	-0.2308 ppb	18:51:18
3	Co 228.616†	-37.7	16.9	0.4449 ug/L	0.4449 ppb	18:51:18
3	Cr 267.716†	79.6	7.3	0.1003 ug/L	0.1003 ppb	18:51:18
3	Cu 324.752†	5772.0	97.9	0.3238 ug/L	0.3238 ppb	18:50:58
3	Mn 257.610†	458.0	59.9	0.0759 ug/L	0.0759 ppb	18:51:18
3	Mo 202.031†	20.1	6.7	0.6054 ug/L	0.6054 ppb	18:51:18
3	Ni 231.604†	82.9	8.2	0.2639 ug/L	0.2639 ppb	18:51:18
3	P 214.914†	189.4	-16.1	-12.278 ug/L	-12.278 ppb	18:51:18
3	Pb 220.353†	-68.7	-18.1	-2.8252 ug/L	-2.8252 ppb	18:51:18
3	S 181.975 Axial†	35.6	4.8	8.7091 ug/L	8.7091 ppb	18:51:18
3	Sb 206.836†	26.1	0.0	0.0321 ug/L	0.0321 ppb	18:51:18
3	Se 196.026†	-23.2	-0.5	-0.3853 ug/L	-0.3853 ppb	18:51:18
3	Si 251.611†	584.2	50.4	1.9182 ug/L	1.9182 ppb	18:51:18
3	Sn 189.927†	5.5	1.7	0.3868 ug/L	0.3868 ppb	18:51:18
3	Ti 334.940†	-1037.1	35.1	0.0549 ug/L	0.0549 ppb	18:50:58
3	Tl 190.801†	-25.4	4.3	1.7004 ug/L	1.7004 ppb	18:51:18
3	U 409.014†	-1956.5	36.8	1.0890 ug/L	1.0890 ppb	18:50:58
3	V 292.402†	-1331.5	53.3	0.4392 ug/L	0.4392 ppb	18:50:58
3	Zn 213.857†	798.1	173.3	2.1336 ug/L	2.1336 ppb	18:51:18
3	SiO2†	576.7	25.6	2.0588 ug/L	2.0588 ppb	18:52:19

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	867118.6	102.58	%	0.160				0.16%
Sc Radial	4723.7	104	%	1.1				1.07%
Y 371.029	741225.3	103.97	%	0.331				0.32%
Y RADIAL	5088.8	103.5	%	1.49				1.44%
Ag 328.068†	-10.7	-0.0566	ug/L	0.09676	-0.0566	ppb	0.09676	170.84%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.3	-1.2547	ug/L	2.18697	-1.2547	ppb	2.18697	174.31%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.8	0.4346	ug/L	3.35003	0.4346	ppb	3.35003	770.89%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	187.8	5.3073	ug/L	0.37629	5.3073	ppb	0.37629	7.09%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-10.3	-0.0969	ug/L	0.09798	-0.0969	ppb	0.09798	101.07%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	121.1	0.0518	ug/L	0.01441	0.0518	ppb	0.01441	27.82%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	9.2	17.411	ug/L	6.3796	17.411	ppb	6.3796	36.64%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -10.2     -0.1491 ug/L       0.07080     -0.1491 ppb        0.07080  47.49%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               13.4      0.3531 ug/L       0.10286      0.3531 ppb        0.10286  29.13%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                0.6      0.0081 ug/L       0.08454      0.0081 ppb        0.08454 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               46.5      0.1527 ug/L       0.15024      0.1527 ppb        0.15024  98.38%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.5     -5.3554 ug/L       6.05492     -5.3554 ppb        6.05492 113.06%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         52.0      9.8790 ug/L      16.58448      9.8790 ppb       16.58448 167.88%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.8      72.873 ug/L       33.3322      72.873 ppb        33.3322  45.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               51.0      0.0644 ug/L       0.00999      0.0644 ppb        0.00999  15.52%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.4      0.1223 ug/L       0.49952      0.1223 ppb        0.49952 408.49%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        40.7      14.224 ug/L        3.5809      14.224 ppb         3.5809  25.18%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                5.0      0.1626 ug/L       0.14783      0.1626 ppb        0.14783  90.92%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -10.4     -7.9072 ug/L       6.54791     -7.9072 ppb        6.54791  82.81%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -8.6     -1.3416 ug/L       1.60541     -1.3416 ppb        1.60541 119.67%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           1.3      2.3442 ug/L       8.01914      2.3442 ppb        8.01914 342.08%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                5.7      2.4574 ug/L       2.16229      2.4574 ppb        2.16229  87.99%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                0.1      0.0819 ug/L       3.04059      0.0819 ppb        3.04059 >999.9%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               49.6      1.8912 ug/L       0.04778      1.8912 ppb        0.04778   2.53%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                6.7      1.5447 ug/L       1.16025      1.5447 ppb        1.16025  75.11%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -33.5     -0.2628 ug/L       0.08645     -0.2628 ppb        0.08645  32.90%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               27.2      0.0430 ug/L       0.05841      0.0430 ppb        0.05841 135.75%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.6      1.4378 ug/L       0.24158      1.4378 ppb        0.24158  16.80%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                54.9      1.6258 ug/L       1.71860      1.6258 ppb        1.71860 105.71%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                60.6      0.4920 ug/L       0.31134      0.4920 ppb        0.31134  63.28%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              174.7      2.1520 ug/L       0.01617      2.1520 ppb        0.01617   0.75%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     35.3      2.8616 ug/L       0.74542      2.8616 ppb        0.74542  26.05%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 20 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 3/22/2010 19:43:16**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4671.3	4671.3	103	%			19:45:08
1	Y RADIAL	4987.9	4987.9	101.4	%			19:45:08
1	Al 396.153Radial†	4998.3	4943.8	4867.5	ug/L	4867.5	ppb	19:45:08
1	Ca 317.933Radial†	2736.4	2648.1	4997.0	ug/L	4997.0	ppb	19:45:28
1	Fe 238.204 Radial†	452.7	434.5	5001.8	ug/L	5001.8	ppb	19:45:28
1	K 766.490 Radial†	30122.4	26842.4	5101.1	ug/L	5101.1	ppb	19:45:08
1	Mg 279.077 IEC†	130.4	126.7	5258.8	ug/L	5258.8	ppb	19:45:28
1	Na 589.592 Radial†	28061.9	28062.8	9798.6	ug/L	9798.6	ppb	19:45:08
1	Sr 421.552†	63777.7	62110.9	486.59	ug/L	486.59	ppb	19:45:08
1	Sc 361.383	887021.8	887021.8	104.94	%			19:46:25
1	Y 371.029	736621.9	736621.9	103.32	%			19:46:25
1	Ag 328.068†	99847.5	94995.1	492.69	ug/L	492.69	ppb	19:46:31
1	As 188.979†	907.5	886.9	503.93	ug/L	503.93	ppb	19:46:51
1	B 249.677†	17998.8	17599.8	495.26	ug/L	495.26	ppb	19:46:31
1	Ba 233.527†	54936.8	52341.2	498.80	ug/L	498.80	ppb	19:46:31
1	Be 313.107†	1234127.9	1180544.9	505.08	ug/L	505.08	ppb	19:46:25
1	Cd 226.502†	35521.0	33999.0	499.41	ug/L	499.41	ppb	19:46:31
1	Co 228.616†	20056.0	19166.3	504.68	ug/L	504.68	ppb	19:46:31
1	Cr 267.716†	38363.8	36489.3	497.16	ug/L	497.16	ppb	19:46:31
1	Cu 324.752†	161463.2	148343.7	491.44	ug/L	491.44	ppb	19:46:31
1	Mn 257.610†	395085.5	376118.6	500.42	ug/L	500.42	ppb	19:46:25
1	Mo 202.031†	5729.2	5446.8	490.60	ug/L	490.60	ppb	19:46:51
1	Ni 231.604†	16505.9	15657.0	505.56	ug/L	505.56	ppb	19:46:31
1	P 214.914†	3639.6	3267.8	2380.9	ug/L	2380.9	ppb	19:46:51
1	Pb 220.353†	3305.8	3199.2	501.84	ug/L	501.84	ppb	19:46:51
1	S 181.975 Axial†	600.4	542.3	981.71	ug/L	981.71	ppb	19:46:51
1	Sb 206.836†	1244.4	1160.4	512.09	ug/L	512.09	ppb	19:46:51
1	Se 196.026†	609.7	603.2	519.82	ug/L	519.82	ppb	19:46:51
1	Si 251.611†	69907.7	66101.1	2518.4	ug/L	2518.4	ppb	19:46:31
1	Sn 189.927†	2236.0	2127.1	490.83	ug/L	490.83	ppb	19:46:51
1	Ti 334.940†	289519.7	276949.3	481.59	ug/L	481.59	ppb	19:46:31
1	Tl 190.801†	1295.2	1263.3	501.81	ug/L	501.81	ppb	19:46:51
1	U 409.014†	15822.5	17021.6	501.95	ug/L	501.95	ppb	19:46:31
1	V 292.402†	63559.1	61920.6	502.56	ug/L	502.56	ppb	19:46:31
1	Zn 213.857†	43113.8	40481.8	494.28	ug/L	494.28	ppb	19:46:31
1	SiO2†	70514.6	66662.0	5398.6	ug/L	5398.6	ppb	19:47:58
2	Sc Radial	4630.1	4630.1	102	%			19:45:33
2	Y RADIAL	4967.0	4967.0	101.0	%			19:45:33
2	Al 396.153Radial†	5002.5	4991.3	4914.4	ug/L	4914.4	ppb	19:45:33
2	Ca 317.933Radial†	2747.9	2683.3	5063.3	ug/L	5063.3	ppb	19:45:53
2	Fe 238.204 Radial†	460.2	445.8	5131.7	ug/L	5131.7	ppb	19:45:53
2	K 766.490 Radial†	30127.5	27109.1	5151.8	ug/L	5151.8	ppb	19:45:33
2	Mg 279.077 IEC†	128.6	126.0	5230.4	ug/L	5230.4	ppb	19:45:53
2	Na 589.592 Radial†	27859.7	28107.8	9814.3	ug/L	9814.3	ppb	19:45:33
2	Sr 421.552†	63528.5	62419.9	489.01	ug/L	489.01	ppb	19:45:33
2	Sc 361.383	884877.1	884877.1	104.68	%			19:46:56
2	Y 371.029	734598.9	734598.9	103.04	%			19:46:56
2	Ag 328.068†	101633.0	96931.3	502.73	ug/L	502.73	ppb	19:47:02
2	As 188.979†	915.1	896.3	509.34	ug/L	509.34	ppb	19:47:22
2	B 249.677†	18549.6	18167.5	511.25	ug/L	511.25	ppb	19:47:02
2	Ba 233.527†	55778.4	53272.0	507.67	ug/L	507.67	ppb	19:47:02
2	Be 313.107†	1230033.3	1179483.9	504.65	ug/L	504.65	ppb	19:46:56
2	Cd 226.502†	36062.7	34598.5	508.21	ug/L	508.21	ppb	19:47:02
2	Co 228.616†	20422.7	19563.0	515.10	ug/L	515.10	ppb	19:47:02
2	Cr 267.716†	39001.6	37187.3	506.68	ug/L	506.68	ppb	19:47:02
2	Cu 324.752†	165351.3	152430.9	504.98	ug/L	504.98	ppb	19:47:02
2	Mn 257.610†	393124.8	375158.1	499.16	ug/L	499.16	ppb	19:46:56
2	Mo 202.031†	5739.6	5470.0	492.70	ug/L	492.70	ppb	19:47:22
2	Ni 231.604†	16783.9	15960.7	515.37	ug/L	515.37	ppb	19:47:02

2	P 214.914†	3656.7	3292.6	2396.9 ug/L	2396.9 ppb	19:47:22
2	Pb 220.353†	3310.5	3211.4	503.73 ug/L	503.73 ppb	19:47:22
2	S 181.975 Axial†	607.4	550.3	996.28 ug/L	996.28 ppb	19:47:22
2	Sb 206.836†	1245.8	1164.6	513.97 ug/L	513.97 ppb	19:47:22
2	Se 196.026†	601.0	596.3	514.49 ug/L	514.49 ppb	19:47:22
2	Si 251.611†	71365.2	67655.0	2577.7 ug/L	2577.7 ppb	19:47:02
2	Sn 189.927†	2244.0	2139.9	493.78 ug/L	493.78 ppb	19:47:22
2	Ti 334.940†	294752.1	282616.4	491.45 ug/L	491.45 ppb	19:47:02
2	Tl 190.801†	1298.9	1269.9	504.43 ug/L	504.43 ppb	19:47:22
2	U 409.014†	16245.9	17462.5	514.96 ug/L	514.96 ppb	19:47:02
2	V 292.402†	64665.0	63123.9	512.22 ug/L	512.22 ppb	19:47:02
2	Zn 213.857†	43845.8	41280.7	504.02 ug/L	504.02 ppb	19:47:02
2	SiO2†	70772.4	67071.1	5431.8 ug/L	5431.8 ppb	19:48:03
3	Sc Radial	4671.0	4671.0	103 %		19:45:58
3	Y RADIAL	5008.2	5008.2	101.9 %		19:45:58
3	Al 396.153Radial†	5071.5	5015.5	4938.4 ug/L	4938.4 ppb	19:45:58
3	Ca 317.933Radial†	2760.8	2672.1	5042.3 ug/L	5042.3 ppb	19:46:18
3	Fe 238.204 Radial†	459.8	441.5	5082.6 ug/L	5082.6 ppb	19:46:18
3	K 766.490 Radial†	30269.8	26988.2	5128.8 ug/L	5128.8 ppb	19:45:58
3	Mg 279.077 IEC†	128.6	124.9	5185.6 ug/L	5185.6 ppb	19:46:18
3	Na 589.592 Radial†	28264.7	28262.4	9868.3 ug/L	9868.3 ppb	19:45:58
3	Sr 421.552†	64096.4	62426.2	489.06 ug/L	489.06 ppb	19:45:58
3	Sc 361.383	889042.5	889042.5	105.17 %		19:47:27
3	Y 371.029	737739.5	737739.5	103.48 %		19:47:27
3	Ag 328.068†	100539.5	95436.7	494.99 ug/L	494.99 ppb	19:47:33
3	As 188.979†	912.5	889.7	505.53 ug/L	505.53 ppb	19:47:53
3	B 249.677†	18187.2	17739.9	499.19 ug/L	499.19 ppb	19:47:33
3	Ba 233.527†	55243.0	52513.3	500.44 ug/L	500.44 ppb	19:47:33
3	Be 313.107†	1236436.5	1180066.8	504.88 ug/L	504.88 ppb	19:47:27
3	Cd 226.502†	35703.0	34095.0	500.81 ug/L	500.81 ppb	19:47:33
3	Co 228.616†	20237.2	19295.2	508.07 ug/L	508.07 ppb	19:47:33
3	Cr 267.716†	38644.9	36673.6	499.68 ug/L	499.68 ppb	19:47:33
3	Cu 324.752†	162451.8	148933.9	493.40 ug/L	493.40 ppb	19:47:33
3	Mn 257.610†	396490.4	376598.6	501.07 ug/L	501.07 ppb	19:47:27
3	Mo 202.031†	5752.5	5456.6	491.49 ug/L	491.49 ppb	19:47:53
3	Ni 231.604†	16607.1	15717.5	507.51 ug/L	507.51 ppb	19:47:33
3	P 214.914†	3662.6	3281.7	2391.0 ug/L	2391.0 ppb	19:47:53
3	Pb 220.353†	3294.5	3181.3	499.04 ug/L	499.04 ppb	19:47:53
3	S 181.975 Axial†	600.8	541.3	979.90 ug/L	979.90 ppb	19:47:53
3	Sb 206.836†	1237.8	1151.5	508.27 ug/L	508.27 ppb	19:47:53
3	Se 196.026†	608.8	601.1	518.32 ug/L	518.32 ppb	19:47:53
3	Si 251.611†	70411.1	66428.4	2530.9 ug/L	2530.9 ppb	19:47:33
3	Sn 189.927†	2238.1	2124.2	490.16 ug/L	490.16 ppb	19:47:53
3	Ti 334.940†	291411.2	278120.6	483.64 ug/L	483.64 ppb	19:47:33
3	Tl 190.801†	1313.0	1277.5	507.41 ug/L	507.41 ppb	19:47:53
3	U 409.014†	16112.6	17263.1	509.08 ug/L	509.08 ppb	19:47:33
3	V 292.402†	63885.6	62093.4	503.96 ug/L	503.96 ppb	19:47:33
3	Zn 213.857†	43435.4	40694.3	496.87 ug/L	496.87 ppb	19:47:33
3	SiO2†	70922.5	66897.1	5417.7 ug/L	5417.7 ppb	19:48:08

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	886980.5	104.93	%	0.246				0.23%
Sc Radial	4657.5	102	%	0.5				0.51%
Y 371.029	736320.1	103.28	%	0.223				0.22%
Y RADIAL	4987.7	101.4	%	0.42				0.41%
Ag 328.068†	95787.7	496.80	ug/L	5.264	496.80	ppb	5.264	1.06%
QC value within limits for Ag 328.068 Recovery = 99.36%								
Al 396.153Radial†	4983.5	4906.8	ug/L	36.05	4906.8	ppb	36.05	0.73%
QC value within limits for Al 396.153Radial Recovery = 98.14%								
As 188.979†	890.9	506.27	ug/L	2.778	506.27	ppb	2.778	0.55%
QC value within limits for As 188.979 Recovery = 101.25%								
B 249.677†	17835.7	501.90	ug/L	8.336	501.90	ppb	8.336	1.66%
QC value within limits for B 249.677 Recovery = 100.38%								
Ba 233.527†	52708.8	502.30	ug/L	4.721	502.30	ppb	4.721	0.94%
QC value within limits for Ba 233.527 Recovery = 100.46%								
Be 313.107†	1180031.9	504.87	ug/L	0.215	504.87	ppb	0.215	0.04%
QC value within limits for Be 313.107 Recovery = 100.97%								
Ca 317.933Radial†	2667.8	5034.2	ug/L	33.87	5034.2	ppb	33.87	0.67%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.68%
Cd 226.502†            34230.8      502.81 ug/L         4.729      502.81 ppb          4.729   0.94%
   QC value within limits for Cd 226.502  Recovery = 100.56%
Co 228.616†            19341.5      509.28 ug/L         5.318      509.28 ppb          5.318   1.04%
   QC value within limits for Co 228.616  Recovery = 101.86%
Cr 267.716†            36783.4      501.17 ug/L         4.929      501.17 ppb          4.929   0.98%
   QC value within limits for Cr 267.716  Recovery = 100.23%
Cu 324.752†           149902.8      496.61 ug/L         7.319      496.61 ppb          7.319   1.47%
   QC value within limits for Cu 324.752  Recovery = 99.32%
Fe 238.204 Radial†       440.6      5072.1 ug/L        65.59      5072.1 ppb          65.59   1.29%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.44%
K 766.490 Radial†      26979.9      5127.2 ug/L        25.39      5127.2 ppb          25.39   0.50%
   QC value within limits for K 766.490 Radial  Recovery = 102.54%
Mg 279.077 IEC†          125.9      5224.9 ug/L        36.87      5224.9 ppb          36.87   0.71%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.50%
Mn 257.610†           375958.4      500.22 ug/L         0.973      500.22 ppb          0.973   0.19%
   QC value within limits for Mn 257.610  Recovery = 100.04%
Mo 202.031†             5457.8      491.59 ug/L         1.054      491.59 ppb          1.054   0.21%
   QC value within limits for Mo 202.031  Recovery = 98.32%
Na 589.592 Radial†     28144.3      9827.1 ug/L        36.57      9827.1 ppb          36.57   0.37%
   QC value within limits for Na 589.592 Radial  Recovery = 98.27%
Ni 231.604†            15778.4      509.48 ug/L         5.189      509.48 ppb          5.189   1.02%
   QC value within limits for Ni 231.604  Recovery = 101.90%
P 214.914†              3280.7      2389.6 ug/L          8.11      2389.6 ppb           8.11   0.34%
   QC value within limits for P 214.914  Recovery = 95.59%
Pb 220.353†             3197.3      501.54 ug/L         2.360      501.54 ppb          2.360   0.47%
   QC value within limits for Pb 220.353  Recovery = 100.31%
S 181.975 Axial†         544.6      985.96 ug/L         8.978      985.96 ppb          8.978   0.91%
   QC value within limits for S 181.975 Axial  Recovery = 98.60%
Sb 206.836†             1158.9      511.44 ug/L         2.901      511.44 ppb          2.901   0.57%
   QC value within limits for Sb 206.836  Recovery = 102.29%
Se 196.026†              600.2      517.55 ug/L         2.747      517.55 ppb          2.747   0.53%
   QC value within limits for Se 196.026  Recovery = 103.51%
Si 251.611†            66728.2      2542.3 ug/L        31.27      2542.3 ppb          31.27   1.23%
   QC value within limits for Si 251.611  Recovery = 101.69%
Sn 189.927†             2130.4      491.59 ug/L         1.927      491.59 ppb          1.927   0.39%
   QC value within limits for Sn 189.927  Recovery = 98.32%
Sr 421.552†            62319.0      488.22 ug/L         1.412      488.22 ppb          1.412   0.29%
   QC value within limits for Sr 421.552  Recovery = 97.64%
Ti 334.940†           279228.8      485.56 ug/L         5.204      485.56 ppb          5.204   1.07%
   QC value within limits for Ti 334.940  Recovery = 97.11%
Tl 190.801†             1270.3      504.55 ug/L         2.800      504.55 ppb          2.800   0.56%
   QC value within limits for Tl 190.801  Recovery = 100.91%
U 409.014†             17249.1      508.66 ug/L         6.516      508.66 ppb          6.516   1.28%
   QC value within limits for U 409.014  Recovery = 101.73%
V 292.402†             62379.3      506.25 ug/L         5.221      506.25 ppb          5.221   1.03%
   QC value within limits for V 292.402  Recovery = 101.25%
Zn 213.857†            40818.9      498.39 ug/L         5.048      498.39 ppb          5.048   1.01%
   QC value within limits for Zn 213.857  Recovery = 99.68%
SiO2†                  66876.7      5416.1 ug/L        16.64      5416.1 ppb          16.64   0.31%
   QC value within limits for SiO2  Recovery = 101.28%
All analyte(s) passed QC.
```

Sequence No.: 21 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 3/22/2010 19:50:18**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4666.1	4666.1	103	%			19:52:10
1	Y RADIAL	5051.9	5051.9	102.7	%			19:52:10
1	Al 396.153Radial†	-75.2	-0.2	-0.1936	ug/L	-0.1936	ppb	19:52:30
1	Ca 317.933Radial†	23.4	4.5	8.4613	ug/L	8.4613	ppb	19:52:30
1	Fe 238.204 Radial†	10.2	3.3	38.411	ug/L	38.411	ppb	19:52:30
1	K 766.490 Radial†	2807.1	228.0	43.386	ug/L	43.386	ppb	19:52:10
1	Mg 279.077 IEC†	1.3	0.9	36.632	ug/L	36.632	ppb	19:52:30
1	Na 589.592 Radial†	-723.3	12.2	4.2433	ug/L	4.2433	ppb	19:52:10
1	Sr 421.552†	2.5	-35.0	-0.2742	ug/L	-0.2742	ppb	19:52:10
1	Sc 361.383	872499.4	872499.4	103.22	%			19:53:27
1	Y 371.029	735245.8	735245.8	103.13	%			19:53:27
1	Ag 328.068†	125.7	-34.9	-0.1689	ug/L	-0.1689	ppb	19:53:27
1	As 188.979†	-19.5	3.2	1.8304	ug/L	1.8304	ppb	19:53:47
1	B 249.677†	-151.4	300.8	8.4957	ug/L	8.4957	ppb	19:53:47
1	Ba 233.527†	6.7	-5.4	-0.0495	ug/L	-0.0495	ppb	19:53:47
1	Be 313.107†	-4366.2	227.3	0.0972	ug/L	0.0972	ppb	19:53:27
1	Cd 226.502†	-171.3	-17.5	-0.2598	ug/L	-0.2598	ppb	19:53:47
1	Co 228.616†	-40.7	14.1	0.3715	ug/L	0.3715	ppb	19:53:47
1	Cr 267.716†	70.2	-2.1	-0.0256	ug/L	-0.0256	ppb	19:53:47
1	Cu 324.752†	5687.2	-16.0	-0.0530	ug/L	-0.0530	ppb	19:53:27
1	Mn 257.610†	424.6	25.1	0.0357	ug/L	0.0357	ppb	19:53:47
1	Mo 202.031†	13.7	0.4	0.0394	ug/L	0.0394	ppb	19:53:47
1	Ni 231.604†	86.4	11.1	0.3596	ug/L	0.3596	ppb	19:53:47
1	P 214.914†	185.4	-21.1	-15.952	ug/L	-15.952	ppb	19:53:47
1	Pb 220.353†	-47.9	2.5	0.3914	ug/L	0.3914	ppb	19:53:47
1	S 181.975 Axial†	29.3	-1.6	-2.8228	ug/L	-2.8228	ppb	19:53:47
1	Sb 206.836†	31.8	5.4	2.3329	ug/L	2.3329	ppb	19:53:47
1	Se 196.026†	-20.5	2.3	2.0547	ug/L	2.0547	ppb	19:53:47
1	Si 251.611†	840.6	295.6	11.289	ug/L	11.289	ppb	19:53:47
1	Sn 189.927†	16.7	12.5	2.8718	ug/L	2.8718	ppb	19:53:47
1	Ti 334.940†	-1039.0	38.9	0.0643	ug/L	0.0643	ppb	19:53:27
1	Tl 190.801†	-29.5	0.5	0.1973	ug/L	0.1973	ppb	19:53:47
1	U 409.014†	-1886.4	115.6	3.4149	ug/L	3.4149	ppb	19:53:27
1	V 292.402†	-1332.2	60.1	0.4832	ug/L	0.4832	ppb	19:53:27
1	Zn 213.857†	2834.9	2142.3	26.394	ug/L	26.394	ppb	19:53:47
1	SiO2†	869.0	305.6	24.809	ug/L	24.809	ppb	19:54:43
2	Sc Radial	4704.2	4704.2	103	%			19:52:35
2	Y RADIAL	5075.7	5075.7	103.2	%			19:52:35
2	Al 396.153Radial†	-64.4	10.9	10.782	ug/L	10.782	ppb	19:52:55
2	Ca 317.933Radial†	18.8	-0.2	-0.2882	ug/L	-0.2882	ppb	19:52:55
2	Fe 238.204 Radial†	6.7	-0.1	-1.5455	ug/L	-1.5455	ppb	19:52:55
2	K 766.490 Radial†	2578.1	-15.8	-3.0078	ug/L	-3.0078	ppb	19:52:35
2	Mg 279.077 IEC†	1.8	1.3	54.851	ug/L	54.851	ppb	19:52:55
2	Na 589.592 Radial†	-711.4	29.4	10.249	ug/L	10.249	ppb	19:52:35
2	Sr 421.552†	11.3	-26.5	-0.2079	ug/L	-0.2079	ppb	19:52:35
2	Sc 361.383	872027.4	872027.4	103.16	%			19:53:52
2	Y 371.029	735228.3	735228.3	103.13	%			19:53:52
2	Ag 328.068†	172.8	10.8	0.0577	ug/L	0.0577	ppb	19:53:52
2	As 188.979†	-21.4	1.3	0.7364	ug/L	0.7364	ppb	19:54:12
2	B 249.677†	-163.0	289.4	8.1807	ug/L	8.1807	ppb	19:54:12
2	Ba 233.527†	14.1	1.7	0.0175	ug/L	0.0175	ppb	19:54:12
2	Be 313.107†	-4395.2	196.8	0.0840	ug/L	0.0840	ppb	19:53:52
2	Cd 226.502†	-154.7	-1.5	-0.0216	ug/L	-0.0216	ppb	19:54:12
2	Co 228.616†	-53.7	1.5	0.0404	ug/L	0.0404	ppb	19:54:12
2	Cr 267.716†	81.6	9.0	0.1225	ug/L	0.1225	ppb	19:54:12
2	Cu 324.752†	5653.4	-45.8	-0.1518	ug/L	-0.1518	ppb	19:53:52
2	Mn 257.610†	435.6	36.0	0.0455	ug/L	0.0455	ppb	19:54:12
2	Mo 202.031†	12.3	-1.0	-0.0928	ug/L	-0.0928	ppb	19:54:12
2	Ni 231.604†	97.3	21.7	0.7005	ug/L	0.7005	ppb	19:54:12

2	P 214.914†	179.1	-27.0	-20.436 ug/L	-20.436 ppb	19:54:12
2	Pb 220.353†	-58.9	-8.2	-1.2744 ug/L	-1.2744 ppb	19:54:12
2	S 181.975 Axial†	31.0	0.2	0.3371 ug/L	0.3371 ppb	19:54:12
2	Sb 206.836†	23.8	-2.4	-1.0054 ug/L	-1.0054 ppb	19:54:12
2	Se 196.026†	-21.5	1.3	1.1111 ug/L	1.1111 ppb	19:54:12
2	Si 251.611†	824.6	280.5	10.714 ug/L	10.714 ppb	19:54:12
2	Sn 189.927†	7.0	3.1	0.7102 ug/L	0.7102 ppb	19:54:12
2	Ti 334.940†	-1069.0	9.3	0.0118 ug/L	0.0118 ppb	19:53:52
2	Tl 190.801†	-24.5	5.3	2.1102 ug/L	2.1102 ppb	19:54:12
2	U 409.014†	-2013.9	-9.0	-0.2658 ug/L	-0.2658 ppb	19:53:52
2	V 292.402†	-1327.2	64.1	0.5132 ug/L	0.5132 ppb	19:53:52
2	Zn 213.857†	2839.0	2147.7	26.465 ug/L	26.465 ppb	19:54:12
2	SiO2†	781.3	221.0	17.947 ug/L	17.947 ppb	19:54:48
3	Sc Radial	4706.6	4706.6	103 %		19:53:00
3	Y RADIAL	5026.8	5026.8	102.2 %		19:53:00
3	Al 396.153Radial†	-63.7	11.5	11.418 ug/L	11.418 ppb	19:53:20
3	Ca 317.933Radial†	12.3	-6.5	-12.230 ug/L	-12.230 ppb	19:53:20
3	Fe 238.204 Radial†	5.1	-1.7	-19.850 ug/L	-19.850 ppb	19:53:20
3	K 766.490 Radial†	2613.0	16.7	3.1824 ug/L	3.1824 ppb	19:53:00
3	Mg 279.077 IEC†	1.2	0.8	32.346 ug/L	32.346 ppb	19:53:20
3	Na 589.592 Radial†	-704.3	36.6	12.784 ug/L	12.784 ppb	19:53:00
3	Sr 421.552†	33.6	-5.0	-0.0390 ug/L	-0.0390 ppb	19:53:00
3	Sc 361.383	863145.8	863145.8	102.11 %		19:54:17
3	Y 371.029	726805.7	726805.7	101.94 %		19:54:17
3	Ag 328.068†	141.5	-18.1	-0.1017 ug/L	-0.1017 ppb	19:54:17
3	As 188.979†	-16.2	6.2	3.5082 ug/L	3.5082 ppb	19:54:37
3	B 249.677†	-159.6	291.1	8.2327 ug/L	8.2327 ppb	19:54:37
3	Ba 233.527†	-1.3	-13.2	-0.1258 ug/L	-0.1258 ppb	19:54:37
3	Be 313.107†	-4360.1	187.4	0.0801 ug/L	0.0801 ppb	19:54:17
3	Cd 226.502†	-164.8	-13.0	-0.1874 ug/L	-0.1874 ppb	19:54:37
3	Co 228.616†	-51.2	3.4	0.0903 ug/L	0.0903 ppb	19:54:37
3	Cr 267.716†	79.3	7.5	0.0988 ug/L	0.0988 ppb	19:54:37
3	Cu 324.752†	5610.6	-31.4	-0.1073 ug/L	-0.1073 ppb	19:54:17
3	Mn 257.610†	442.6	47.1	0.0594 ug/L	0.0594 ppb	19:54:37
3	Mo 202.031†	13.1	-0.0	-0.0049 ug/L	-0.0049 ppb	19:54:37
3	Ni 231.604†	82.0	7.7	0.2482 ug/L	0.2482 ppb	19:54:37
3	P 214.914†	196.4	-8.3	-6.2517 ug/L	-6.2517 ppb	19:54:37
3	Pb 220.353†	-68.1	-17.8	-2.7749 ug/L	-2.7749 ppb	19:54:37
3	S 181.975 Axial†	32.2	1.6	2.9153 ug/L	2.9153 ppb	19:54:37
3	Sb 206.836†	24.5	-1.4	-0.5838 ug/L	-0.5838 ppb	19:54:37
3	Se 196.026†	-18.3	4.3	3.5067 ug/L	3.5067 ppb	19:54:37
3	Si 251.611†	827.4	291.4	11.130 ug/L	11.130 ppb	19:54:37
3	Sn 189.927†	12.4	8.4	1.9339 ug/L	1.9339 ppb	19:54:37
3	Ti 334.940†	-1049.3	17.9	0.0250 ug/L	0.0250 ppb	19:54:17
3	Tl 190.801†	-26.2	3.4	1.3543 ug/L	1.3543 ppb	19:54:37
3	U 409.014†	-1837.0	144.1	4.2660 ug/L	4.2660 ppb	19:54:17
3	V 292.402†	-1353.1	25.6	0.2166 ug/L	0.2166 ppb	19:54:17
3	Zn 213.857†	2810.7	2148.3	26.478 ug/L	26.478 ppb	19:54:37
3	SiO2†	827.7	274.2	22.262 ug/L	22.262 ppb	19:54:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	869224.2	102.83	%	0.623				0.61%
Sc Radial	4692.3	103	%	0.5				0.48%
Y 371.029	732426.6	102.73	%	0.683				0.66%
Y RADIAL	5051.5	102.7	%	0.50				0.48%
Ag 328.068†	-14.0	-0.0710	ug/L	0.11641	-0.0710	ppb	0.11641	164.05%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.4	7.3354	ug/L	6.52809	7.3354	ppb	6.52809	88.99%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.6	2.0250	ug/L	1.39611	2.0250	ppb	1.39611	68.94%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	293.8	8.3030	ug/L	0.16887	8.3030	ppb	0.16887	2.03%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.6	-0.0526	ug/L	0.07171	-0.0526	ppb	0.07171	136.30%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	203.8	0.0871	ug/L	0.00896	0.0871	ppb	0.00896	10.28%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.7	-1.3523	ug/L	10.38658	-1.3523	ppb	10.38658	768.06%

```
   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -10.6     -0.1563 ug/L       0.12210     -0.1563 ppb        0.12210  78.13%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                6.4      0.1674 ug/L       0.17848      0.1674 ppb        0.17848 106.62%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                4.8      0.0652 ug/L       0.07958      0.0652 ppb        0.07958 122.01%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -31.1     -0.1040 ug/L       0.04947     -0.1040 ppb        0.04947  47.56%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.5      5.6722 ug/L      29.79356      5.6722 ppb       29.79356 525.26%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         76.3     14.520 ug/L       25.1893      14.520 ppb        25.1893 173.48%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.0     41.276 ug/L       11.9497      41.276 ppb        11.9497  28.95%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               36.1      0.0469 ug/L       0.01191      0.0469 ppb        0.01191  25.42%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -0.2     -0.0194 ug/L       0.06731     -0.0194 ppb        0.06731 346.49%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        26.0      9.0922 ug/L       4.38640      9.0922 ppb        4.38640  48.24%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               13.5      0.4361 ug/L       0.23565      0.4361 ppb        0.23565  54.04%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -18.8     -14.213 ug/L        7.2504     -14.213 ppb         7.2504  51.01%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -7.8     -1.2193 ug/L       1.58384     -1.2193 ppb        1.58384 129.90%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.1      0.1432 ug/L       2.87398      0.1432 ppb        2.87398 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                0.5      0.2479 ug/L       1.81791      0.2479 ppb        1.81791 733.37%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                2.6      2.2242 ug/L       1.20677      2.2242 ppb        1.20677  54.26%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              289.2     11.045 ug/L        0.2972      11.045 ppb         0.2972   2.69%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                8.0      1.8387 ug/L       1.08394      1.8387 ppb        1.08394  58.95%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -22.2     -0.1737 ug/L       0.12128     -0.1737 ppb        0.12128  69.81%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               22.1      0.0337 ug/L       0.02733      0.0337 ppb        0.02733  81.08%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.1      1.2206 ug/L       0.96346      1.2206 ppb        0.96346  78.93%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                83.6      2.4717 ug/L       2.40860      2.4717 ppb        2.40860  97.45%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                49.9      0.4043 ug/L       0.16326      0.4043 ppb        0.16326  40.38%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             2146.1     26.446 ug/L        0.0451      26.446 ppb         0.0451   0.17%
   QC value greater than the upper limit for Zn 213.857  Recovery = Not calculated
SiO2†                    266.9     21.673 ug/L        3.4684      21.673 ppb         3.4684  16.00%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 29
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/22/2010 20:46:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4933.0	4933.0	108	%			20:48:28
1	Y RADIAL	5255.9	5255.9	106.9	%			20:48:28
1	Al 396.153Radial†	5078.1	4759.1	4684.6	ug/L	4684.6	ppb	20:48:28
1	Ca 317.933Radial†	2638.0	2415.9	4558.7	ug/L	4558.7	ppb	20:48:48
1	Fe 238.204 Radial†	434.2	394.0	4538.0	ug/L	4538.0	ppb	20:48:48
1	K 766.490 Radial†	30463.3	25600.1	4865.1	ug/L	4865.1	ppb	20:48:28
1	Mg 279.077 IEC†	124.1	114.1	4736.5	ug/L	4736.5	ppb	20:48:48
1	Na 589.592 Radial†	27667.0	26248.0	9165.0	ug/L	9165.0	ppb	20:48:28
1	Sr 421.552†	64156.2	59163.8	463.51	ug/L	463.51	ppb	20:48:28
1	Sc 361.383	878924.3	878924.3	103.98	%			20:49:45
1	Y 371.029	728583.4	728583.4	102.19	%			20:49:45
1	Ag 328.068†	101107.0	97083.0	503.34	ug/L	503.34	ppb	20:49:50
1	As 188.979†	909.1	896.4	509.27	ug/L	509.27	ppb	20:50:10
1	B 249.677†	18003.2	17762.0	499.89	ug/L	499.89	ppb	20:49:50
1	Ba 233.527†	55512.9	53377.6	508.66	ug/L	508.66	ppb	20:49:50
1	Be 313.107†	1226022.0	1183584.2	506.40	ug/L	506.40	ppb	20:49:45
1	Cd 226.502†	35862.6	34639.4	508.87	ug/L	508.87	ppb	20:49:50
1	Co 228.616†	20273.2	19551.4	514.81	ug/L	514.81	ppb	20:49:50
1	Cr 267.716†	38732.6	37180.9	506.53	ug/L	506.53	ppb	20:49:50
1	Cu 324.752†	163594.2	151810.8	502.90	ug/L	502.90	ppb	20:49:50
1	Mn 257.610†	393796.1	378347.2	503.36	ug/L	503.36	ppb	20:49:45
1	Mo 202.031†	5719.3	5487.7	494.23	ug/L	494.23	ppb	20:50:10
1	Ni 231.604†	16622.4	15914.0	513.86	ug/L	513.86	ppb	20:49:50
1	P 214.914†	3633.5	3293.9	2398.8	ug/L	2398.8	ppb	20:50:10
1	Pb 220.353†	3283.1	3206.4	502.99	ug/L	502.99	ppb	20:50:10
1	S 181.975 Axial†	598.9	546.1	988.61	ug/L	988.61	ppb	20:50:10
1	Sb 206.836†	1242.1	1169.2	515.95	ug/L	515.95	ppb	20:50:10
1	Se 196.026†	612.2	610.9	524.90	ug/L	524.90	ppb	20:50:10
1	Si 251.611†	70316.3	67107.9	2556.8	ug/L	2556.8	ppb	20:49:50
1	Sn 189.927†	2232.0	2142.9	494.42	ug/L	494.42	ppb	20:50:10
1	Ti 334.940†	292742.7	282590.9	491.38	ug/L	491.38	ppb	20:49:50
1	Tl 190.801†	1293.4	1273.0	505.65	ug/L	505.65	ppb	20:50:10
1	U 409.014†	16045.1	17374.5	512.42	ug/L	512.42	ppb	20:49:50
1	V 292.402†	64176.4	63072.4	511.90	ug/L	511.90	ppb	20:49:50
1	Zn 213.857†	43553.2	41283.0	504.15	ug/L	504.15	ppb	20:49:50
1	SiO2†	69811.4	66604.7	5393.9	ug/L	5393.9	ppb	20:51:18
2	Sc Radial	4419.8	4419.8	97.1	%			20:48:53
2	Y RADIAL	4735.9	4735.9	96.32	%			20:48:53
2	Al 396.153Radial†	4856.6	5075.0	4998.2	ug/L	4998.2	ppb	20:48:53
2	Ca 317.933Radial†	2730.3	2793.6	5271.5	ug/L	5271.5	ppb	20:49:13
2	Fe 238.204 Radial†	447.9	454.6	5232.7	ug/L	5232.7	ppb	20:49:13
2	K 766.490 Radial†	29352.6	27720.0	5268.1	ug/L	5268.1	ppb	20:48:53
2	Mg 279.077 IEC†	129.3	132.7	5510.4	ug/L	5510.4	ppb	20:49:13
2	Na 589.592 Radial†	26115.1	27613.9	9641.9	ug/L	9641.9	ppb	20:48:53
2	Sr 421.552†	60619.3	62394.8	488.82	ug/L	488.82	ppb	20:48:53
2	Sc 361.383	927943.3	927943.3	109.78	%			20:50:16
2	Y 371.029	770786.3	770786.3	108.11	%			20:50:16
2	Ag 328.068†	101248.4	92075.1	477.64	ug/L	477.64	ppb	20:50:21
2	As 188.979†	913.3	854.0	485.38	ug/L	485.38	ppb	20:50:41
2	B 249.677†	18124.2	16957.6	477.11	ug/L	477.11	ppb	20:50:21
2	Ba 233.527†	55268.1	50334.3	479.69	ug/L	479.69	ppb	20:50:21
2	Be 313.107†	1239220.1	1133319.2	484.88	ug/L	484.88	ppb	20:50:16
2	Cd 226.502†	35710.8	32679.1	479.97	ug/L	479.97	ppb	20:50:21
2	Co 228.616†	20247.9	18498.4	487.08	ug/L	487.08	ppb	20:50:21
2	Cr 267.716†	38655.7	35143.1	478.86	ug/L	478.86	ppb	20:50:21
2	Cu 324.752†	163985.1	143855.5	476.59	ug/L	476.59	ppb	20:50:21
2	Mn 257.610†	396164.8	360498.2	479.67	ug/L	479.67	ppb	20:50:16
2	Mo 202.031†	5761.0	5235.1	471.56	ug/L	471.56	ppb	20:50:41
2	Ni 231.604†	16605.4	15054.0	486.09	ug/L	486.09	ppb	20:50:21

2	P 214.914†	3656.0	3129.8	2278.9 ug/L	2278.9 ppb	20:50:41
2	Pb 220.353†	3307.8	3062.1	480.36 ug/L	480.36 ppb	20:50:41
2	S 181.975 Axial†	610.5	526.3	952.62 ug/L	952.62 ppb	20:50:41
2	Sb 206.836†	1250.4	1113.6	491.38 ug/L	491.38 ppb	20:50:41
2	Se 196.026†	608.6	576.6	498.31 ug/L	498.31 ppb	20:50:41
2	Si 251.611†	70353.0	63568.9	2421.9 ug/L	2421.9 ppb	20:50:21
2	Sn 189.927†	2237.9	2034.8	469.59 ug/L	469.59 ppb	20:50:41
2	Ti 334.940†	292420.7	267424.8	465.05 ug/L	465.05 ppb	20:50:21
2	Tl 190.801†	1309.8	1222.2	485.46 ug/L	485.46 ppb	20:50:41
2	U 409.014†	16010.8	16528.2	487.36 ug/L	487.36 ppb	20:50:21
2	V 292.402†	64071.5	59716.3	484.60 ug/L	484.60 ppb	20:50:21
2	Zn 213.857†	43444.1	38970.9	475.77 ug/L	475.77 ppb	20:50:21
2	SiO2†	70318.9	63520.4	5144.1 ug/L	5144.1 ppb	20:51:23
3	Sc Radial	4675.6	4675.6	103 %		20:49:18
3	Y RADIAL	4985.6	4985.6	101.4 %		20:49:18
3	Al 396.153Radial†	5058.0	4997.5	4920.4 ug/L	4920.4 ppb	20:49:18
3	Ca 317.933Radial†	2730.4	2639.9	4981.4 ug/L	4981.4 ppb	20:49:38
3	Fe 238.204 Radial†	453.3	434.7	5004.2 ug/L	5004.2 ppb	20:49:38
3	K 766.490 Radial†	30327.9	27016.0	5134.2 ug/L	5134.2 ppb	20:49:18
3	Mg 279.077 IEC†	126.2	122.5	5085.3 ug/L	5085.3 ppb	20:49:38
3	Na 589.592 Radial†	27380.8	27374.9	9558.4 ug/L	9558.4 ppb	20:49:18
3	Sr 421.552†	63558.5	61841.3	484.48 ug/L	484.48 ppb	20:49:18
3	Sc 361.383	888669.8	888669.8	105.13 %		20:50:47
3	Y 371.029	737647.8	737647.8	103.46 %		20:50:47
3	Ag 328.068†	101375.9	96272.4	499.29 ug/L	499.29 ppb	20:50:52
3	As 188.979†	913.4	891.0	506.27 ug/L	506.27 ppb	20:51:12
3	B 249.677†	18263.2	17819.4	501.44 ug/L	501.44 ppb	20:50:52
3	Ba 233.527†	55686.3	52957.0	504.67 ug/L	504.67 ppb	20:50:52
3	Be 313.107†	1238411.2	1182438.3	505.90 ug/L	505.90 ppb	20:50:47
3	Cd 226.502†	36163.2	34547.1	507.46 ug/L	507.46 ppb	20:50:52
3	Co 228.616†	20394.8	19453.2	512.22 ug/L	512.22 ppb	20:50:52
3	Cr 267.716†	39003.8	37030.4	504.52 ug/L	504.52 ppb	20:50:52
3	Cu 324.752†	164112.5	150578.3	498.84 ug/L	498.84 ppb	20:50:52
3	Mn 257.610†	395964.8	376256.7	500.62 ug/L	500.62 ppb	20:50:47
3	Mo 202.031†	5786.3	5491.0	494.57 ug/L	494.57 ppb	20:51:12
3	Ni 231.604†	16752.2	15862.2	512.19 ug/L	512.19 ppb	20:50:52
3	P 214.914†	3689.6	3308.9	2410.7 ug/L	2410.7 ppb	20:51:12
3	Pb 220.353†	3328.7	3215.2	504.35 ug/L	504.35 ppb	20:51:12
3	S 181.975 Axial†	607.7	548.2	992.33 ug/L	992.33 ppb	20:51:12
3	Sb 206.836†	1259.5	1172.6	517.40 ug/L	517.40 ppb	20:51:12
3	Se 196.026†	611.3	603.6	520.24 ug/L	520.24 ppb	20:51:12
3	Si 251.611†	70534.0	66573.3	2536.4 ug/L	2536.4 ppb	20:50:52
3	Sn 189.927†	2255.7	2141.9	494.24 ug/L	494.24 ppb	20:51:12
3	Ti 334.940†	293751.7	280463.2	487.71 ug/L	487.71 ppb	20:50:52
3	Tl 190.801†	1311.8	1276.9	507.15 ug/L	507.15 ppb	20:51:12
3	U 409.014†	16326.0	17472.5	515.27 ug/L	515.27 ppb	20:50:52
3	V 292.402†	64507.4	62710.4	508.96 ug/L	508.96 ppb	20:50:52
3	Zn 213.857†	43924.8	41177.1	502.79 ug/L	502.79 ppb	20:50:52
3	SiO2†	70567.2	66587.4	5392.5 ug/L	5392.5 ppb	20:51:28

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	898512.5	106.29	%	3.070				2.89%
Sc Radial	4676.1	103	%	5.6				5.49%
Y 371.029	745672.5	104.59	%	3.116				2.98%
Y RADIAL	4992.5	101.5	%	5.29				5.21%
Ag 328.068†	95143.5	493.42	ug/L	13.814	493.42	ppb	13.814	2.80%
QC value within limits for Ag 328.068 Recovery = 98.68%								
Al 396.153Radial†	4943.9	4867.7	ug/L	163.34	4867.7	ppb	163.34	3.36%
QC value within limits for Al 396.153Radial Recovery = 97.35%								
As 188.979†	880.5	500.31	ug/L	13.013	500.31	ppb	13.013	2.60%
QC value within limits for As 188.979 Recovery = 100.06%								
B 249.677†	17513.0	492.81	ug/L	13.619	492.81	ppb	13.619	2.76%
QC value within limits for B 249.677 Recovery = 98.56%								
Ba 233.527†	52222.9	497.67	ug/L	15.700	497.67	ppb	15.700	3.15%
QC value within limits for Ba 233.527 Recovery = 99.53%								
Be 313.107†	1166447.2	499.06	ug/L	12.283	499.06	ppb	12.283	2.46%
QC value within limits for Be 313.107 Recovery = 99.81%								
Ca 317.933Radial†	2616.4	4937.2	ug/L	358.46	4937.2	ppb	358.46	7.26%

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   QC value within limits for Ca 317.933Radial  Recovery = 98.74%
Cd 226.502†            33955.2      498.77 ug/L        16.292      498.77 ppb         16.292   3.27%
   QC value within limits for Cd 226.502  Recovery = 99.75%
Co 228.616†            19167.7      504.70 ug/L        15.320      504.70 ppb         15.320   3.04%
   QC value within limits for Co 228.616  Recovery = 100.94%
Cr 267.716†            36451.5      496.64 ug/L        15.425      496.64 ppb         15.425   3.11%
   QC value within limits for Cr 267.716  Recovery = 99.33%
Cu 324.752†           148748.2      492.77 ug/L        14.161      492.77 ppb         14.161   2.87%
   QC value within limits for Cu 324.752  Recovery = 98.55%
Fe 238.204 Radial†       427.8      4925.0 ug/L        354.03      4925.0 ppb         354.03   7.19%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.50%
K 766.490 Radial†      26778.7      5089.1 ug/L        205.24      5089.1 ppb         205.24   4.03%
   QC value within limits for K 766.490 Radial  Recovery = 101.78%
Mg 279.077 IEC†          123.1      5110.7 ug/L        387.62      5110.7 ppb         387.62   7.58%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.21%
Mn 257.610†           371700.7      494.55 ug/L        12.962      494.55 ppb         12.962   2.62%
   QC value within limits for Mn 257.610  Recovery = 98.91%
Mo 202.031†             5404.6      486.79 ug/L        13.188      486.79 ppb         13.188   2.71%
   QC value within limits for Mo 202.031  Recovery = 97.36%
Na 589.592 Radial†     27078.9      9455.1 ug/L        254.70      9455.1 ppb         254.70   2.69%
   QC value within limits for Na 589.592 Radial  Recovery = 94.55%
Ni 231.604†            15610.0      504.04 ug/L        15.572      504.04 ppb         15.572   3.09%
   QC value within limits for Ni 231.604  Recovery = 100.81%
P 214.914†              3244.2      2362.8 ug/L         72.86      2362.8 ppb          72.86   3.08%
   QC value within limits for P 214.914  Recovery = 94.51%
Pb 220.353†             3161.2      495.90 ug/L        13.478      495.90 ppb         13.478   2.72%
   QC value within limits for Pb 220.353  Recovery = 99.18%
S 181.975 Axial†         540.2      977.85 ug/L        21.932      977.85 ppb         21.932   2.24%
   QC value within limits for S 181.975 Axial  Recovery = 97.78%
Sb 206.836†             1151.8      508.24 ug/L        14.623      508.24 ppb         14.623   2.88%
   QC value within limits for Sb 206.836  Recovery = 101.65%
Se 196.026†              597.0      514.48 ug/L        14.198      514.48 ppb         14.198   2.76%
   QC value within limits for Se 196.026  Recovery = 102.90%
Si 251.611†            65750.0      2505.0 ug/L         72.70      2505.0 ppb          72.70   2.90%
   QC value within limits for Si 251.611  Recovery = 100.20%
Sn 189.927†             2106.6      486.08 ug/L        14.280      486.08 ppb         14.280   2.94%
   QC value within limits for Sn 189.927  Recovery = 97.22%
Sr 421.552†            61133.3      478.93 ug/L        13.536      478.93 ppb         13.536   2.83%
   QC value within limits for Sr 421.552  Recovery = 95.79%
Ti 334.940†           276826.3      481.38 ug/L        14.259      481.38 ppb         14.259   2.96%
   QC value within limits for Ti 334.940  Recovery = 96.28%
Tl 190.801†             1257.4      499.42 ug/L        12.117      499.42 ppb         12.117   2.43%
   QC value within limits for Tl 190.801  Recovery = 99.88%
U 409.014†             17125.1      505.02 ug/L        15.357      505.02 ppb         15.357   3.04%
   QC value within limits for U 409.014  Recovery = 101.00%
V 292.402†             61833.0      501.82 ug/L        14.984      501.82 ppb         14.984   2.99%
   QC value within limits for V 292.402  Recovery = 100.36%
Zn 213.857†            40477.0      494.24 ug/L        16.011      494.24 ppb         16.011   3.24%
   QC value within limits for Zn 213.857  Recovery = 98.85%
SiO2†                  65570.8      5310.2 ug/L        143.81      5310.2 ppb         143.81   2.71%
   QC value within limits for SiO2  Recovery = 99.30%
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/22/2010 20:53:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4900.3	4900.3	108	%			20:55:29
1	Y RADIAL	5274.7	5274.7	107.3	%			20:55:29
1	Al 396.153Radial†	-71.9	6.4	6.3023	ug/L	6.3023	ppb	20:55:49
1	Ca 317.933Radial†	21.5	1.6	3.0313	ug/L	3.0313	ppb	20:55:49
1	Fe 238.204 Radial†	8.3	1.1	12.316	ug/L	12.316	ppb	20:55:49
1	K 766.490 Radial†	2607.0	-88.7	-16.886	ug/L	-16.886	ppb	20:55:29
1	Mg 279.077 IEC†	2.0	1.5	60.890	ug/L	60.890	ppb	20:55:49
1	Na 589.592 Radial†	-758.6	13.1	4.5615	ug/L	4.5615	ppb	20:55:29
1	Sr 421.552†	33.2	-6.6	-0.0518	ug/L	-0.0518	ppb	20:55:29
1	Sc 361.383	870403.6	870403.6	102.97	%			20:56:46
1	Y 371.029	733619.0	733619.0	102.90	%			20:56:46
1	Ag 328.068†	122.4	-37.8	-0.1914	ug/L	-0.1914	ppb	20:56:46
1	As 188.979†	-23.7	-1.0	-0.5498	ug/L	-0.5498	ppb	20:57:06
1	B 249.677†	-291.2	164.6	4.6517	ug/L	4.6517	ppb	20:57:06
1	Ba 233.527†	2.5	-9.6	-0.0905	ug/L	-0.0905	ppb	20:57:06
1	Be 313.107†	-4344.8	237.9	0.1017	ug/L	0.1017	ppb	20:56:46
1	Cd 226.502†	-177.4	-23.8	-0.3502	ug/L	-0.3502	ppb	20:57:06
1	Co 228.616†	-55.7	-0.4	-0.0103	ug/L	-0.0103	ppb	20:57:06
1	Cr 267.716†	69.6	-2.6	-0.0337	ug/L	-0.0337	ppb	20:57:06
1	Cu 324.752†	5577.9	-108.9	-0.3604	ug/L	-0.3604	ppb	20:56:46
1	Mn 257.610†	414.7	16.5	0.0207	ug/L	0.0207	ppb	20:57:06
1	Mo 202.031†	22.3	8.7	0.7872	ug/L	0.7872	ppb	20:57:06
1	Ni 231.604†	93.7	18.4	0.5941	ug/L	0.5941	ppb	20:57:06
1	P 214.914†	188.8	-17.3	-13.059	ug/L	-13.059	ppb	20:57:06
1	Pb 220.353†	-48.2	2.1	0.3361	ug/L	0.3361	ppb	20:57:06
1	S 181.975 Axial†	28.5	-2.2	-4.0428	ug/L	-4.0428	ppb	20:57:06
1	Sb 206.836†	36.0	9.5	4.0903	ug/L	4.0903	ppb	20:57:06
1	Se 196.026†	-17.1	5.6	4.6639	ug/L	4.6639	ppb	20:57:06
1	Si 251.611†	604.0	67.7	2.5774	ug/L	2.5774	ppb	20:57:06
1	Sn 189.927†	14.2	10.1	2.3185	ug/L	2.3185	ppb	20:57:06
1	Ti 334.940†	-1023.2	51.8	0.0855	ug/L	0.0855	ppb	20:56:46
1	Tl 190.801†	-22.0	7.8	3.0618	ug/L	3.0618	ppb	20:57:06
1	U 409.014†	-1990.1	10.4	0.3069	ug/L	0.3069	ppb	20:56:46
1	V 292.402†	-1393.1	-2.3	-0.0071	ug/L	-0.0071	ppb	20:56:46
1	Zn 213.857†	2813.8	2128.3	26.225	ug/L	26.225	ppb	20:57:06
1	SiO2†	601.2	47.6	3.8395	ug/L	3.8395	ppb	20:58:17
2	Sc Radial	4820.6	4820.6	106	%			20:55:54
2	Y RADIAL	5189.4	5189.4	105.5	%			20:55:54
2	Al 396.153Radial†	-85.3	-7.4	-7.3152	ug/L	-7.3152	ppb	20:56:14
2	Ca 317.933Radial†	16.5	-2.8	-5.2816	ug/L	-5.2816	ppb	20:56:14
2	Fe 238.204 Radial†	9.3	2.1	24.276	ug/L	24.276	ppb	20:56:14
2	K 766.490 Radial†	2633.4	-23.8	-4.5258	ug/L	-4.5258	ppb	20:55:54
2	Mg 279.077 IEC†	3.0	2.4	100.02	ug/L	100.02	ppb	20:56:14
2	Na 589.592 Radial†	-747.5	11.9	4.1484	ug/L	4.1484	ppb	20:55:54
2	Sr 421.552†	48.1	8.0	0.0626	ug/L	0.0626	ppb	20:55:54
2	Sc 361.383	873545.5	873545.5	103.34	%			20:57:11
2	Y 371.029	736291.5	736291.5	103.27	%			20:57:11
2	Ag 328.068†	165.8	3.8	0.0242	ug/L	0.0242	ppb	20:57:11
2	As 188.979†	-24.3	-1.5	-0.8285	ug/L	-0.8285	ppb	20:57:31
2	B 249.677†	-300.8	156.4	4.4150	ug/L	4.4150	ppb	20:57:31
2	Ba 233.527†	18.1	5.6	0.0538	ug/L	0.0538	ppb	20:57:31
2	Be 313.107†	-4364.4	234.0	0.0998	ug/L	0.0998	ppb	20:57:11
2	Cd 226.502†	-156.7	-3.2	-0.0485	ug/L	-0.0485	ppb	20:57:31
2	Co 228.616†	-31.5	23.2	0.6098	ug/L	0.6098	ppb	20:57:31
2	Cr 267.716†	62.6	-9.6	-0.1298	ug/L	-0.1298	ppb	20:57:31
2	Cu 324.752†	5598.7	-108.3	-0.3595	ug/L	-0.3595	ppb	20:57:11
2	Mn 257.610†	411.1	11.5	0.0136	ug/L	0.0136	ppb	20:57:31
2	Mo 202.031†	14.8	1.4	0.1255	ug/L	0.1255	ppb	20:57:31
2	Ni 231.604†	95.1	19.5	0.6282	ug/L	0.6282	ppb	20:57:31

2	P 214.914†	188.0	-18.8	-14.160	ug/L	-14.160	ppb	20:57:31
2	Pb 220.353†	-44.9	5.5	0.8540	ug/L	0.8540	ppb	20:57:31
2	S 181.975 Axial†	32.8	1.8	3.3264	ug/L	3.3264	ppb	20:57:31
2	Sb 206.836†	26.7	0.4	0.1716	ug/L	0.1716	ppb	20:57:31
2	Se 196.026†	-22.4	0.5	0.4742	ug/L	0.4742	ppb	20:57:31
2	Si 251.611†	613.7	75.1	2.8658	ug/L	2.8658	ppb	20:57:31
2	Sn 189.927†	7.4	3.4	0.7855	ug/L	0.7855	ppb	20:57:31
2	Ti 334.940†	-1109.5	-28.1	-0.0592	ug/L	-0.0592	ppb	20:57:11
2	Tl 190.801†	-20.7	9.0	3.5668	ug/L	3.5668	ppb	20:57:31
2	U 409.014†	-1891.1	113.2	3.3476	ug/L	3.3476	ppb	20:57:11
2	V 292.402†	-1397.6	-1.7	-0.0068	ug/L	-0.0068	ppb	20:57:11
2	Zn 213.857†	2797.8	2103.0	25.911	ug/L	25.911	ppb	20:57:31
2	SiO2†	619.8	63.5	5.1493	ug/L	5.1493	ppb	20:58:37
3	Sc Radial	4762.7	4762.7	105	%			20:56:19
3	Y RADIAL	5129.6	5129.6	104.3	%			20:56:19
3	Al 396.153Radial†	-72.6	3.8	3.7588	ug/L	3.7588	ppb	20:56:39
3	Ca 317.933Radial†	17.2	-1.9	-3.6255	ug/L	-3.6255	ppb	20:56:39
3	Fe 238.204 Radial†	10.1	3.0	34.930	ug/L	34.930	ppb	20:56:39
3	K 766.490 Radial†	2612.2	-13.8	-2.6381	ug/L	-2.6381	ppb	20:56:19
3	Mg 279.077 IEC†	0.7	0.2	9.1443	ug/L	9.1443	ppb	20:56:39
3	Na 589.592 Radial†	-684.5	63.6	22.203	ug/L	22.203	ppb	20:56:19
3	Sr 421.552†	49.1	9.5	0.0746	ug/L	0.0746	ppb	20:56:19
3	Sc 361.383	881945.0	881945.0	104.33	%			20:57:37
3	Y 371.029	743725.1	743725.1	104.32	%			20:57:37
3	Ag 328.068†	168.8	5.1	0.0337	ug/L	0.0337	ppb	20:57:37
3	As 188.979†	-21.5	1.5	0.8406	ug/L	0.8406	ppb	20:57:57
3	B 249.677†	-289.8	169.7	4.7907	ug/L	4.7907	ppb	20:57:57
3	Ba 233.527†	19.6	6.8	0.0675	ug/L	0.0675	ppb	20:57:57
3	Be 313.107†	-4383.3	256.2	0.1094	ug/L	0.1094	ppb	20:57:37
3	Cd 226.502†	-173.0	-17.3	-0.2557	ug/L	-0.2557	ppb	20:57:57
3	Co 228.616†	-39.8	15.4	0.4045	ug/L	0.4045	ppb	20:57:57
3	Cr 267.716†	78.2	4.8	0.0667	ug/L	0.0667	ppb	20:57:57
3	Cu 324.752†	5715.8	-47.7	-0.1609	ug/L	-0.1609	ppb	20:57:37
3	Mn 257.610†	435.3	30.9	0.0442	ug/L	0.0442	ppb	20:57:57
3	Mo 202.031†	9.0	-4.3	-0.3841	ug/L	-0.3841	ppb	20:57:57
3	Ni 231.604†	93.9	17.4	0.5615	ug/L	0.5615	ppb	20:57:57
3	P 214.914†	187.3	-21.1	-15.987	ug/L	-15.987	ppb	20:57:57
3	Pb 220.353†	-52.3	-1.2	-0.1986	ug/L	-0.1986	ppb	20:57:57
3	S 181.975 Axial†	29.6	-1.5	-2.7956	ug/L	-2.7956	ppb	20:57:57
3	Sb 206.836†	29.5	2.8	1.2016	ug/L	1.2016	ppb	20:57:57
3	Se 196.026†	-25.4	-2.2	-1.6915	ug/L	-1.6915	ppb	20:57:57
3	Si 251.611†	613.6	69.3	2.6498	ug/L	2.6498	ppb	20:57:57
3	Sn 189.927†	9.4	5.3	1.2131	ug/L	1.2131	ppb	20:57:57
3	Ti 334.940†	-1088.7	2.0	-0.0015	ug/L	-0.0015	ppb	20:57:37
3	Tl 190.801†	-35.2	-4.6	-1.8181	ug/L	-1.8181	ppb	20:57:57
3	U 409.014†	-1726.4	288.5	8.5309	ug/L	8.5309	ppb	20:57:37
3	V 292.402†	-1299.4	105.3	0.8495	ug/L	0.8495	ppb	20:57:37
3	Zn 213.857†	2836.5	2114.3	26.049	ug/L	26.049	ppb	20:57:57
3	SiO2†	608.1	46.5	3.7835	ug/L	3.7835	ppb	20:58:57

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	875298.1	103.55	%	0.706				0.68%
Sc Radial	4827.9	106	%	1.5				1.43%
Y 371.029	737878.5	103.50	%	0.735				0.71%
Y RADIAL	5197.9	105.7	%	1.48				1.40%
Ag 328.068†	-9.6	-0.0445	ug/L	0.12735	-0.0445	ppb	0.12735	286.15%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.9	0.9153	ug/L	7.24037	0.9153	ppb	7.24037	791.03%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.3	-0.1792	ug/L	0.89417	-0.1792	ppb	0.89417	498.89%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	163.6	4.6192	ug/L	0.18995	4.6192	ppb	0.18995	4.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	0.9	0.0103	ug/L	0.08755	0.0103	ppb	0.08755	851.18%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	242.7	0.1036	ug/L	0.00506	0.1036	ppb	0.00506	4.88%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-1.0	-1.9586	ug/L	4.39999	-1.9586	ppb	4.39999	224.65%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -14.8     -0.2181 ug/L       0.15431     -0.2181 ppb        0.15431  70.74%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               12.7      0.3347 ug/L       0.31587      0.3347 ppb        0.31587  94.38%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -2.5     -0.0323 ug/L       0.09827     -0.0323 ppb        0.09827 304.22%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -88.3     -0.2936 ug/L       0.11491     -0.2936 ppb        0.11491  39.14%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         2.1      23.841 ug/L       11.3133      23.841 ppb        11.3133  47.45%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -42.1     -8.0168 ug/L       7.73910     -8.0168 ppb        7.73910  96.54%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.4      56.684 ug/L       45.5822      56.684 ppb        45.5822  80.41%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               19.6      0.0261 ug/L       0.01604      0.0261 ppb        0.01604  61.36%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.9      0.1762 ug/L       0.58732      0.1762 ppb        0.58732 333.34%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        29.5      10.304 ug/L       10.3067      10.304 ppb        10.3067 100.02%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               18.4      0.5946 ug/L       0.03331      0.5946 ppb        0.03331   5.60%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -19.1     -14.402 ug/L        1.4793     -14.402 ppb         1.4793  10.27%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                2.1      0.3305 ug/L       0.52633      0.3305 ppb        0.52633 159.25%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -0.6     -1.1707 ug/L       3.94416     -1.1707 ppb        3.94416 336.92%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                4.2      1.8212 ug/L       2.03151      1.8212 ppb        2.03151 111.55%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                1.3      1.1489 ug/L       3.23098      1.1489 ppb        3.23098 281.23%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               70.7      2.6977 ug/L       0.15006      2.6977 ppb        0.15006   5.56%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                6.3      1.4390 ug/L       0.79105      1.4390 ppb        0.79105  54.97%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                3.6      0.0284 ug/L       0.06978      0.0284 ppb        0.06978 245.32%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                8.6      0.0083 ug/L       0.07280      0.0083 ppb        0.07280 879.32%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                4.1      1.6035 ug/L       2.97391      1.6035 ppb        2.97391 185.46%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               137.4      4.0618 ug/L       4.15823      4.0618 ppb        4.15823 102.37%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                33.8      0.2786 ug/L       0.49447      0.2786 ppb        0.49447 177.51%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             2115.2      26.062 ug/L        0.1572      26.062 ppb         0.1572   0.60%
   QC value greater than the upper limit for Zn 213.857  Recovery = Not calculated
SiO2†                     52.5      4.2574 ug/L       0.77288      4.2574 ppb        0.77288  18.15%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 38
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/22/2010 21:50:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4596.3	4596.3	101	%			21:52:19
1	Y RADIAL	4956.4	4956.4	100.8	%			21:52:19
1	Al 396.153Radial†	4948.2	4973.7	4897.0	ug/L	4897.0	ppb	21:52:19
1	Ca 317.933Radial†	2738.9	2694.1	5083.7	ug/L	5083.7	ppb	21:52:39
1	Fe 238.204 Radial†	454.2	443.2	5101.8	ug/L	5101.8	ppb	21:52:39
1	K 766.490 Radial†	29947.9	27148.8	5159.4	ug/L	5159.4	ppb	21:52:19
1	Mg 279.077 IEC†	123.3	121.7	5052.4	ug/L	5052.4	ppb	21:52:39
1	Na 589.592 Radial†	27100.4	27556.9	9622.0	ug/L	9622.0	ppb	21:52:19
1	Sr 421.552†	62601.0	61960.1	485.41	ug/L	485.41	ppb	21:52:19
1	Sc 361.383	883925.5	883925.5	104.57	%			21:53:36
1	Y 371.029	734384.9	734384.9	103.01	%			21:53:36
1	Ag 328.068†	101606.5	97010.5	503.12	ug/L	503.12	ppb	21:53:42
1	As 188.979†	909.0	891.4	506.57	ug/L	506.57	ppb	21:54:02
1	B 249.677†	18140.3	17795.2	500.74	ug/L	500.74	ppb	21:53:42
1	Ba 233.527†	55403.7	52971.1	504.81	ug/L	504.81	ppb	21:53:42
1	Be 313.107†	1235456.1	1185934.9	507.40	ug/L	507.40	ppb	21:53:36
1	Cd 226.502†	35785.3	34370.3	504.86	ug/L	504.86	ppb	21:53:42
1	Co 228.616†	20248.7	19417.6	511.27	ug/L	511.27	ppb	21:53:42
1	Cr 267.716†	38834.8	37067.9	505.04	ug/L	505.04	ppb	21:53:42
1	Cu 324.752†	165057.0	152319.4	504.61	ug/L	504.61	ppb	21:53:42
1	Mn 257.610†	394588.6	376962.2	501.56	ug/L	501.56	ppb	21:53:36
1	Mo 202.031†	5717.1	5454.4	491.28	ug/L	491.28	ppb	21:54:02
1	Ni 231.604†	16619.9	15821.1	510.86	ug/L	510.86	ppb	21:53:42
1	P 214.914†	3633.1	3273.7	2382.7	ug/L	2382.7	ppb	21:54:02
1	Pb 220.353†	3273.5	3179.4	498.73	ug/L	498.73	ppb	21:54:02
1	S 181.975 Axial†	596.5	540.5	978.51	ug/L	978.51	ppb	21:54:02
1	Sb 206.836†	1223.5	1144.6	505.31	ug/L	505.31	ppb	21:54:02
1	Se 196.026†	600.6	596.5	514.56	ug/L	514.56	ppb	21:54:02
1	Si 251.611†	70453.2	66856.2	2547.2	ug/L	2547.2	ppb	21:53:42
1	Sn 189.927†	2212.5	2112.2	487.38	ug/L	487.38	ppb	21:54:02
1	Ti 334.940†	293809.2	282017.9	490.43	ug/L	490.43	ppb	21:53:42
1	Tl 190.801†	1297.1	1269.5	504.28	ug/L	504.28	ppb	21:54:02
1	U 409.014†	16359.1	17587.5	518.66	ug/L	518.66	ppb	21:53:42
1	V 292.402†	64389.0	62926.4	510.63	ug/L	510.63	ppb	21:53:42
1	Zn 213.857†	43711.5	41197.4	503.03	ug/L	503.03	ppb	21:53:42
1	SiO2†	69201.4	65641.5	5315.8	ug/L	5315.8	ppb	21:55:09
2	Sc Radial	4736.7	4736.7	104	%			21:52:44
2	Y RADIAL	5077.9	5077.9	103.3	%			21:52:44
2	Al 396.153Radial†	5062.4	4938.2	4861.8	ug/L	4861.8	ppb	21:52:44
2	Ca 317.933Radial†	2742.2	2616.9	4938.0	ug/L	4938.0	ppb	21:53:04
2	Fe 238.204 Radial†	453.2	428.9	4937.5	ug/L	4937.5	ppb	21:53:04
2	K 766.490 Radial†	30408.8	26712.5	5076.5	ug/L	5076.5	ppb	21:52:44
2	Mg 279.077 IEC†	133.3	127.7	5300.0	ug/L	5300.0	ppb	21:53:04
2	Na 589.592 Radial†	27757.6	27392.9	9564.7	ug/L	9564.7	ppb	21:52:44
2	Sr 421.552†	63903.0	61373.5	480.82	ug/L	480.82	ppb	21:52:44
2	Sc 361.383	882795.8	882795.8	104.44	%			21:54:08
2	Y 371.029	733366.4	733366.4	102.86	%			21:54:08
2	Ag 328.068†	100490.2	96065.9	498.20	ug/L	498.20	ppb	21:54:13
2	As 188.979†	912.6	895.9	509.04	ug/L	509.04	ppb	21:54:33
2	B 249.677†	17960.0	17644.7	496.52	ug/L	496.52	ppb	21:54:13
2	Ba 233.527†	55101.0	52749.0	502.68	ug/L	502.68	ppb	21:54:13
2	Be 313.107†	1225334.8	1177755.3	503.90	ug/L	503.90	ppb	21:54:08
2	Cd 226.502†	35648.8	34283.4	503.59	ug/L	503.59	ppb	21:54:13
2	Co 228.616†	20146.6	19344.7	509.37	ug/L	509.37	ppb	21:54:13
2	Cr 267.716†	38596.1	36886.9	502.56	ug/L	502.56	ppb	21:54:13
2	Cu 324.752†	162297.9	149879.5	496.52	ug/L	496.52	ppb	21:54:13
2	Mn 257.610†	391578.3	374562.7	498.35	ug/L	498.35	ppb	21:54:08
2	Mo 202.031†	5738.6	5482.0	493.76	ug/L	493.76	ppb	21:54:33
2	Ni 231.604†	16563.7	15787.7	509.78	ug/L	509.78	ppb	21:54:13

2	P 214.914†	3646.3	3290.8	2397.5 ug/L	2397.5 ppb	21:54:33
2	Pb 220.353†	3302.8	3211.4	503.76 ug/L	503.76 ppb	21:54:33
2	S 181.975 Axial†	603.8	548.3	992.51 ug/L	992.51 ppb	21:54:33
2	Sb 206.836†	1237.4	1159.4	511.78 ug/L	511.78 ppb	21:54:33
2	Se 196.026†	606.6	603.0	519.54 ug/L	519.54 ppb	21:54:33
2	Si 251.611†	69728.6	66248.6	2524.0 ug/L	2524.0 ppb	21:54:13
2	Sn 189.927†	2244.7	2145.6	495.08 ug/L	495.08 ppb	21:54:33
2	Ti 334.940†	290979.2	279667.6	486.30 ug/L	486.30 ppb	21:54:13
2	Tl 190.801†	1307.2	1280.7	508.68 ug/L	508.68 ppb	21:54:33
2	U 409.014†	16013.8	17276.9	509.50 ug/L	509.50 ppb	21:54:13
2	V 292.402†	63815.4	62456.0	506.91 ug/L	506.91 ppb	21:54:13
2	Zn 213.857†	43314.0	40870.2	499.04 ug/L	499.04 ppb	21:54:13
2	SiO2†	70050.4	66539.2	5388.6 ug/L	5388.6 ppb	21:55:14
3	Sc Radial	4645.6	4645.6	102 %		21:53:09
3	Y RADIAL	4973.2	4973.2	101.1 %		21:53:09
3	Al 396.153Radial†	5022.6	4994.6	4917.8 ug/L	4917.8 ppb	21:53:09
3	Ca 317.933Radial†	2737.3	2663.7	5026.5 ug/L	5026.5 ppb	21:53:29
3	Fe 238.204 Radial†	451.2	435.5	5014.0 ug/L	5014.0 ppb	21:53:29
3	K 766.490 Radial†	30120.6	27003.2	5131.7 ug/L	5131.7 ppb	21:53:09
3	Mg 279.077 IEC†	127.5	124.5	5170.1 ug/L	5170.1 ppb	21:53:29
3	Na 589.592 Radial†	27468.7	27633.0	9648.6 ug/L	9648.6 ppb	21:53:09
3	Sr 421.552†	63103.5	61794.6	484.11 ug/L	484.11 ppb	21:53:09
3	Sc 361.383	889543.8	889543.8	105.23 %		21:54:39
3	Y 371.029	738506.3	738506.3	103.59 %		21:54:39
3	Ag 328.068†	100850.5	95678.4	496.22 ug/L	496.22 ppb	21:54:44
3	As 188.979†	908.4	885.3	503.09 ug/L	503.09 ppb	21:55:04
3	B 249.677†	17954.1	17508.7	492.67 ug/L	492.67 ppb	21:54:44
3	Ba 233.527†	55333.8	52570.0	500.98 ug/L	500.98 ppb	21:54:44
3	Be 313.107†	1232974.7	1176114.6	503.19 ug/L	503.19 ppb	21:54:39
3	Cd 226.502†	35773.5	34142.9	501.52 ug/L	501.52 ppb	21:54:44
3	Co 228.616†	20256.7	19303.0	508.26 ug/L	508.26 ppb	21:54:44
3	Cr 267.716†	38725.0	36729.0	500.42 ug/L	500.42 ppb	21:54:44
3	Cu 324.752†	162977.5	149346.5	494.76 ug/L	494.76 ppb	21:54:44
3	Mn 257.610†	395302.1	375257.0	499.28 ug/L	499.28 ppb	21:54:39
3	Mo 202.031†	5735.8	5437.7	489.77 ug/L	489.77 ppb	21:55:04
3	Ni 231.604†	16616.6	15717.7	507.52 ug/L	507.52 ppb	21:54:44
3	P 214.914†	3643.5	3261.6	2375.6 ug/L	2375.6 ppb	21:55:04
3	Pb 220.353†	3288.5	3173.8	497.87 ug/L	497.87 ppb	21:55:04
3	S 181.975 Axial†	606.5	546.5	989.25 ug/L	989.25 ppb	21:55:04
3	Sb 206.836†	1250.3	1162.7	512.97 ug/L	512.97 ppb	21:55:04
3	Se 196.026†	595.8	588.3	507.49 ug/L	507.49 ppb	21:55:04
3	Si 251.611†	70005.8	66005.5	2514.8 ug/L	2514.8 ppb	21:54:44
3	Sn 189.927†	2224.9	2110.6	487.01 ug/L	487.01 ppb	21:55:04
3	Ti 334.940†	292092.5	278611.9	484.49 ug/L	484.49 ppb	21:54:44
3	Tl 190.801†	1297.3	1261.9	501.23 ug/L	501.23 ppb	21:55:04
3	U 409.014†	16065.8	17210.0	507.51 ug/L	507.51 ppb	21:54:44
3	V 292.402†	64052.0	62217.3	504.93 ug/L	504.93 ppb	21:54:44
3	Zn 213.857†	43500.9	40733.2	497.36 ug/L	497.36 ppb	21:54:44
3	SiO2†	70187.7	66160.8	5358.0 ug/L	5358.0 ppb	21:55:19

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	885421.7	104.75	%	0.428				0.41%
Sc Radial	4659.5	102	%	1.6				1.53%
Y 371.029	735419.2	103.15	%	0.382				0.37%
Y RADIAL	5002.5	101.7	%	1.34				1.32%
Ag 328.068†	96251.6	499.18	ug/L	3.556	499.18	ppb	3.556	0.71%
QC value within limits for Ag 328.068 Recovery = 99.84%								
Al 396.153Radial†	4968.8	4892.2	ug/L	28.32	4892.2	ppb	28.32	0.58%
QC value within limits for Al 396.153Radial Recovery = 97.84%								
As 188.979†	890.9	506.23	ug/L	2.989	506.23	ppb	2.989	0.59%
QC value within limits for As 188.979 Recovery = 101.25%								
B 249.677†	17649.5	496.64	ug/L	4.039	496.64	ppb	4.039	0.81%
QC value within limits for B 249.677 Recovery = 99.33%								
Ba 233.527†	52763.4	502.82	ug/L	1.918	502.82	ppb	1.918	0.38%
QC value within limits for Ba 233.527 Recovery = 100.56%								
Be 313.107†	1179935.0	504.83	ug/L	2.253	504.83	ppb	2.253	0.45%
QC value within limits for Be 313.107 Recovery = 100.97%								
Ca 317.933Radial†	2658.2	5016.1	ug/L	73.43	5016.1	ppb	73.43	1.46%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.32%
Cd 226.502†            34265.5      503.32 ug/L         1.684      503.32 ppb          1.684   0.33%
   QC value within limits for Cd 226.502  Recovery = 100.66%
Co 228.616†            19355.1      509.63 ug/L         1.521      509.63 ppb          1.521   0.30%
   QC value within limits for Co 228.616  Recovery = 101.93%
Cr 267.716†            36894.6      502.68 ug/L         2.312      502.68 ppb          2.312   0.46%
   QC value within limits for Cr 267.716  Recovery = 100.54%
Cu 324.752†           150515.1      498.63 ug/L         5.252      498.63 ppb          5.252   1.05%
   QC value within limits for Cu 324.752  Recovery = 99.73%
Fe 238.204 Radial†       435.8      5017.8 ug/L        82.19      5017.8 ppb          82.19   1.64%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.36%
K 766.490 Radial†      26954.9      5122.6 ug/L        42.23      5122.6 ppb          42.23   0.82%
   QC value within limits for K 766.490 Radial  Recovery = 102.45%
Mg 279.077 IEC†          124.6      5174.2 ug/L       123.83      5174.2 ppb         123.83   2.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.48%
Mn 257.610†           375594.0      499.73 ug/L         1.655      499.73 ppb          1.655   0.33%
   QC value within limits for Mn 257.610  Recovery = 99.95%
Mo 202.031†             5458.0      491.61 ug/L         2.012      491.61 ppb          2.012   0.41%
   QC value within limits for Mo 202.031  Recovery = 98.32%
Na 589.592 Radial†     27527.6      9611.8 ug/L        42.86      9611.8 ppb          42.86   0.45%
   QC value within limits for Na 589.592 Radial  Recovery = 96.12%
Ni 231.604†            15775.5      509.39 ug/L         1.705      509.39 ppb          1.705   0.33%
   QC value within limits for Ni 231.604  Recovery = 101.88%
P 214.914†              3275.4      2385.2 ug/L        11.17      2385.2 ppb          11.17   0.47%
   QC value within limits for P 214.914  Recovery = 95.41%
Pb 220.353†             3188.2      500.12 ug/L         3.182      500.12 ppb          3.182   0.64%
   QC value within limits for Pb 220.353  Recovery = 100.02%
S 181.975 Axial†         545.1      986.76 ug/L         7.328      986.76 ppb          7.328   0.74%
   QC value within limits for S 181.975 Axial  Recovery = 98.68%
Sb 206.836†             1155.6      510.02 ug/L         4.125      510.02 ppb          4.125   0.81%
   QC value within limits for Sb 206.836  Recovery = 102.00%
Se 196.026†              596.0      513.86 ug/L         6.058      513.86 ppb          6.058   1.18%
   QC value within limits for Se 196.026  Recovery = 102.77%
Si 251.611†            66370.1      2528.7 ug/L        16.73      2528.7 ppb          16.73   0.66%
   QC value within limits for Si 251.611  Recovery = 101.15%
Sn 189.927†             2122.8      489.83 ug/L         4.556      489.83 ppb          4.556   0.93%
   QC value within limits for Sn 189.927  Recovery = 97.97%
Sr 421.552†            61709.4      483.45 ug/L         2.369      483.45 ppb          2.369   0.49%
   QC value within limits for Sr 421.552  Recovery = 96.69%
Ti 334.940†           280099.1      487.08 ug/L         3.042      487.08 ppb          3.042   0.62%
   QC value within limits for Ti 334.940  Recovery = 97.42%
Tl 190.801†             1270.7      504.73 ug/L         3.746      504.73 ppb          3.746   0.74%
   QC value within limits for Tl 190.801  Recovery = 100.95%
U 409.014†             17358.1      511.89 ug/L         5.948      511.89 ppb          5.948   1.16%
   QC value within limits for U 409.014  Recovery = 102.38%
V 292.402†             62533.2      507.49 ug/L         2.894      507.49 ppb          2.894   0.57%
   QC value within limits for V 292.402  Recovery = 101.50%
Zn 213.857†            40933.6      499.81 ug/L         2.914      499.81 ppb          2.914   0.58%
   QC value within limits for Zn 213.857  Recovery = 99.96%
SiO2†                  66113.8      5354.1 ug/L        36.56      5354.1 ppb          36.56   0.68%
   QC value within limits for SiO2  Recovery = 100.12%
All analyte(s) passed QC.
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Sequence No.: 39
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/22/2010 21:57:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4452.8	4452.8	97.8	%			21:59:41
1	Y RADIAL	5105.1	5105.1	103.8	%			21:59:21
1	Al 396.153Radial†	-75.5	-4.0	-3.9111	ug/L	-3.9111	ppb	21:59:41
1	Ca 317.933Radial†	20.4	2.5	4.6887	ug/L	4.6887	ppb	21:59:41
1	Fe 238.204 Radial†	9.6	3.2	36.626	ug/L	36.626	ppb	21:59:41
1	K 766.490 Radial†	2589.1	136.4	25.954	ug/L	25.954	ppb	21:59:21
1	Mg 279.077 IEC†	4.6	4.3	178.80	ug/L	178.80	ppb	21:59:41
1	Na 589.592 Radial†	-727.9	-26.3	-9.1922	ug/L	-9.1922	ppb	21:59:21
1	Sr 421.552†	32.9	-3.8	-0.0297	ug/L	-0.0297	ppb	21:59:21
1	Sc 361.383	873130.1	873130.1	103.29	%			22:00:38
1	Y 371.029	737515.5	737515.5	103.45	%			22:00:38
1	Ag 328.068†	160.6	-1.2	0.0058	ug/L	0.0058	ppb	22:00:38
1	As 188.979†	-21.7	1.1	0.6013	ug/L	0.6013	ppb	22:00:58
1	B 249.677†	-325.9	132.0	3.7228	ug/L	3.7228	ppb	22:00:58
1	Ba 233.527†	-2.7	-14.6	-0.1364	ug/L	-0.1364	ppb	22:00:58
1	Be 313.107†	-4329.6	265.7	0.1135	ug/L	0.1135	ppb	22:00:38
1	Cd 226.502†	-178.8	-24.6	-0.3647	ug/L	-0.3647	ppb	22:00:58
1	Co 228.616†	-36.7	18.1	0.4742	ug/L	0.4742	ppb	22:00:58
1	Cr 267.716†	75.4	2.8	0.0426	ug/L	0.0426	ppb	22:00:58
1	Cu 324.752†	5564.1	-139.2	-0.4600	ug/L	-0.4600	ppb	22:00:38
1	Mn 257.610†	418.2	18.6	0.0210	ug/L	0.0210	ppb	22:00:58
1	Mo 202.031†	9.5	-3.7	-0.3318	ug/L	-0.3318	ppb	22:00:58
1	Ni 231.604†	94.6	19.0	0.6124	ug/L	0.6124	ppb	22:00:58
1	P 214.914†	199.7	-7.3	-5.4723	ug/L	-5.4723	ppb	22:00:58
1	Pb 220.353†	-51.8	-1.3	-0.2059	ug/L	-0.2059	ppb	22:00:58
1	S 181.975 Axial†	28.8	-2.0	-3.6447	ug/L	-3.6447	ppb	22:00:58
1	Sb 206.836†	33.5	7.0	3.0147	ug/L	3.0147	ppb	22:00:58
1	Se 196.026†	-7.5	14.9	12.496	ug/L	12.496	ppb	22:00:58
1	Si 251.611†	595.1	57.4	2.1946	ug/L	2.1946	ppb	22:00:58
1	Sn 189.927†	10.8	6.7	1.5451	ug/L	1.5451	ppb	22:00:58
1	Ti 334.940†	-1074.2	5.6	-0.0049	ug/L	-0.0049	ppb	22:00:38
1	Tl 190.801†	-31.3	-1.3	-0.4978	ug/L	-0.4978	ppb	22:00:58
1	U 409.014†	-1964.7	41.1	1.2122	ug/L	1.2122	ppb	22:00:38
1	V 292.402†	-1341.8	51.6	0.4093	ug/L	0.4093	ppb	22:00:38
1	Zn 213.857†	2823.5	2129.2	26.233	ug/L	26.233	ppb	22:00:58
1	SiO2†	607.8	52.1	4.2390	ug/L	4.2390	ppb	22:02:09
2	Sc Radial	4468.7	4468.7	98.2	%			22:00:06
2	Y RADIAL	4993.4	4993.4	101.6	%			21:59:46
2	Al 396.153Radial†	-80.9	-9.2	-9.1167	ug/L	-9.1167	ppb	22:00:06
2	Ca 317.933Radial†	15.6	-2.5	-4.7618	ug/L	-4.7618	ppb	22:00:06
2	Fe 238.204 Radial†	7.4	0.9	10.740	ug/L	10.740	ppb	22:00:06
2	K 766.490 Radial†	2644.8	183.7	34.961	ug/L	34.961	ppb	21:59:46
2	Mg 279.077 IEC†	1.6	1.2	51.319	ug/L	51.319	ppb	22:00:06
2	Na 589.592 Radial†	-751.8	-48.0	-16.769	ug/L	-16.769	ppb	21:59:46
2	Sr 421.552†	24.8	-12.2	-0.0958	ug/L	-0.0958	ppb	21:59:46
2	Sc 361.383	875140.8	875140.8	103.53	%			22:01:03
2	Y 371.029	737357.5	737357.5	103.42	%			22:01:03
2	Ag 328.068†	159.1	-3.0	-0.0139	ug/L	-0.0139	ppb	22:01:03
2	As 188.979†	-16.0	6.6	3.7343	ug/L	3.7343	ppb	22:01:23
2	B 249.677†	-306.4	151.5	4.2802	ug/L	4.2802	ppb	22:01:23
2	Ba 233.527†	18.7	6.1	0.0595	ug/L	0.0595	ppb	22:01:23
2	Be 313.107†	-4432.3	176.2	0.0752	ug/L	0.0752	ppb	22:01:03
2	Cd 226.502†	-167.2	-13.1	-0.1922	ug/L	-0.1922	ppb	22:01:23
2	Co 228.616†	-55.5	0.0	0.0008	ug/L	0.0008	ppb	22:01:23
2	Cr 267.716†	76.0	3.2	0.0441	ug/L	0.0441	ppb	22:01:23
2	Cu 324.752†	5553.8	-161.5	-0.5369	ug/L	-0.5369	ppb	22:01:03
2	Mn 257.610†	439.9	38.6	0.0503	ug/L	0.0503	ppb	22:01:23
2	Mo 202.031†	17.7	4.1	0.3742	ug/L	0.3742	ppb	22:01:23
2	Ni 231.604†	76.4	1.2	0.0390	ug/L	0.0390	ppb	22:01:23

2	P 214.914†	207.3	-0.4	-0.2304	ug/L	-0.2304 ppb	22:01:23
2	Pb 220.353†	-40.0	10.3	1.6080	ug/L	1.6080 ppb	22:01:23
2	S 181.975 Axial†	39.3	8.0	14.534	ug/L	14.534 ppb	22:01:23
2	Sb 206.836†	24.6	-1.7	-0.6864	ug/L	-0.6864 ppb	22:01:23
2	Se 196.026†	-25.9	-2.8	-2.3335	ug/L	-2.3335 ppb	22:01:23
2	Si 251.611†	584.9	46.1	1.7570	ug/L	1.7570 ppb	22:01:23
2	Sn 189.927†	9.1	5.0	1.1588	ug/L	1.1588 ppb	22:01:23
2	Ti 334.940†	-1074.8	7.4	0.0062	ug/L	0.0062 ppb	22:01:03
2	Tl 190.801†	-29.9	0.2	0.0933	ug/L	0.0933 ppb	22:01:23
2	U 409.014†	-1865.3	141.4	4.1838	ug/L	4.1838 ppb	22:01:03
2	V 292.402†	-1348.1	48.6	0.4019	ug/L	0.4019 ppb	22:01:03
2	Zn 213.857†	2796.4	2096.7	25.840	ug/L	25.840 ppb	22:01:23
2	SiO2†	600.9	44.1	3.5666	ug/L	3.5666 ppb	22:02:29
3	Sc Radial	4496.2	4496.2	98.8	%		22:00:31
3	Y RADIAL	5039.8	5039.8	102.5	%		22:00:11
3	Al 396.153Radial†	-71.4	0.9	0.8612	ug/L	0.8612 ppb	22:00:31
3	Ca 317.933Radial†	23.4	5.4	10.098	ug/L	10.098 ppb	22:00:31
3	Fe 238.204 Radial†	5.4	-1.2	-13.688	ug/L	-13.688 ppb	22:00:31
3	K 766.490 Radial†	2707.8	230.9	43.945	ug/L	43.945 ppb	22:00:11
3	Mg 279.077 IEC†	0.8	0.4	18.382	ug/L	18.382 ppb	22:00:31
3	Na 589.592 Radial†	-748.3	-39.8	-13.906	ug/L	-13.906 ppb	22:00:11
3	Sr 421.552†	32.5	-4.6	-0.0357	ug/L	-0.0357 ppb	22:00:11
3	Sc 361.383	877109.6	877109.6	103.76	%		22:01:28
3	Y 371.029	738624.8	738624.8	103.60	%		22:01:28
3	Ag 328.068†	102.4	-58.0	-0.3028	ug/L	-0.3028 ppb	22:01:28
3	As 188.979†	-20.2	2.7	1.4922	ug/L	1.4922 ppb	22:01:49
3	B 249.677†	-321.6	137.5	3.8873	ug/L	3.8873 ppb	22:01:49
3	Ba 233.527†	14.8	2.3	0.0221	ug/L	0.0221 ppb	22:01:49
3	Be 313.107†	-4457.5	161.5	0.0691	ug/L	0.0691 ppb	22:01:28
3	Cd 226.502†	-175.9	-21.0	-0.3069	ug/L	-0.3069 ppb	22:01:49
3	Co 228.616†	-46.9	8.4	0.2233	ug/L	0.2233 ppb	22:01:49
3	Cr 267.716†	69.1	-3.6	-0.0497	ug/L	-0.0497 ppb	22:01:49
3	Cu 324.752†	5640.6	-89.9	-0.2991	ug/L	-0.2991 ppb	22:01:28
3	Mn 257.610†	418.5	17.0	0.0205	ug/L	0.0205 ppb	22:01:49
3	Mo 202.031†	18.3	4.8	0.4284	ug/L	0.4284 ppb	22:01:49
3	Ni 231.604†	84.1	8.4	0.2728	ug/L	0.2728 ppb	22:01:49
3	P 214.914†	185.8	-21.6	-16.313	ug/L	-16.313 ppb	22:01:49
3	Pb 220.353†	-56.3	-5.4	-0.8411	ug/L	-0.8411 ppb	22:01:49
3	S 181.975 Axial†	26.1	-4.8	-8.6324	ug/L	-8.6324 ppb	22:01:49
3	Sb 206.836†	22.5	-3.7	-1.5475	ug/L	-1.5475 ppb	22:01:49
3	Se 196.026†	-23.9	-0.9	-0.7697	ug/L	-0.7697 ppb	22:01:49
3	Si 251.611†	599.2	58.6	2.2338	ug/L	2.2338 ppb	22:01:49
3	Sn 189.927†	11.7	7.6	1.7519	ug/L	1.7519 ppb	22:01:49
3	Ti 334.940†	-1044.2	39.2	0.0676	ug/L	0.0676 ppb	22:01:28
3	Tl 190.801†	-32.6	-2.3	-0.9118	ug/L	-0.9118 ppb	22:01:49
3	U 409.014†	-1979.6	35.3	1.0475	ug/L	1.0475 ppb	22:01:28
3	V 292.402†	-1358.3	41.7	0.3442	ug/L	0.3442 ppb	22:01:28
3	Zn 213.857†	2801.0	2095.2	25.822	ug/L	25.822 ppb	22:01:49
3	SiO2†	584.4	26.9	2.1697	ug/L	2.1697 ppb	22:02:49

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	875126.8	103.53	%	0.235				0.23%
Sc Radial	4472.5	98.3	%	0.48				0.49%
Y 371.029	737832.6	103.49	%	0.097				0.09%
Y RADIAL	5046.1	102.6	%	1.14				1.11%
Ag 328.068†	-20.7	-0.1036	ug/L	0.17278	-0.1036	ppb	0.17278	166.74%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-4.1	-4.0555	ug/L	4.99054	-4.0555	ppb	4.99054	123.05%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.4	1.9426	ug/L	1.61438	1.9426	ppb	1.61438	83.10%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	140.3	3.9634	ug/L	0.28637	3.9634	ppb	0.28637	7.23%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-2.0	-0.0182	ug/L	0.10401	-0.0182	ppb	0.10401	569.92%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	201.1	0.0859	ug/L	0.02404	0.0859	ppb	0.02404	27.97%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.8	3.3418	ug/L	7.52112	3.3418	ppb	7.52112	225.06%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -19.6     -0.2879 ug/L       0.08782     -0.2879 ppb        0.08782  30.50%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                8.8      0.2328 ug/L       0.23682      0.2328 ppb        0.23682 101.74%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                0.8      0.0123 ug/L       0.05375      0.0123 ppb        0.05375 435.98%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -130.2     -0.4320 ug/L       0.12135     -0.4320 ppb        0.12135  28.09%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.0      11.226 ug/L       25.1601      11.226 ppb        25.1601 224.12%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        183.7      34.953 ug/L        8.9951      34.953 ppb         8.9951  25.73%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.0      82.834 ug/L       84.7267      82.834 ppb        84.7267 102.28%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               24.7      0.0306 ug/L       0.01705      0.0306 ppb        0.01705  55.71%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.7      0.1569 ug/L       0.42411      0.1569 ppb        0.42411 270.23%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -38.1     -13.289 ug/L        3.8260     -13.289 ppb         3.8260  28.79%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                9.5      0.3081 ug/L       0.28833      0.3081 ppb        0.28833  93.59%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -9.8     -7.3385 ug/L       8.20198     -7.3385 ppb        8.20198 111.77%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                1.2      0.1870 ug/L       1.27095      0.1870 ppb        1.27095 679.77%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.4      0.7523 ug/L      12.19308      0.7523 ppb       12.19308 >999.9%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                0.5      0.2602 ug/L       2.42395      0.2602 ppb        2.42395 931.40%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.7      3.1309 ug/L       8.14802      3.1309 ppb        8.14802 260.24%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               54.0      2.0618 ug/L       0.26468      2.0618 ppb        0.26468  12.84%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                6.4      1.4853 ug/L       0.30101      1.4853 ppb        0.30101  20.27%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -6.9     -0.0537 ug/L       0.03656     -0.0537 ppb        0.03656  68.02%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               17.4      0.0230 ug/L       0.03907      0.0230 ppb        0.03907 169.95%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               -1.1     -0.4388 ug/L       0.50515     -0.4388 ppb        0.50515 115.13%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                72.6      2.1478 ug/L       1.76513      2.1478 ppb        1.76513  82.18%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                47.3      0.3851 ug/L       0.03562      0.3851 ppb        0.03562   9.25%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             2107.0      25.965 ug/L        0.2320      25.965 ppb         0.2320   0.89%
   QC value greater than the upper limit for Zn 213.857  Recovery = Not calculated
SiO2†                     41.0      3.3251 ug/L       1.05559      3.3251 ppb        1.05559  31.75%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 47
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/22/2010 22:54:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4630.2	4630.2	102	%			22:55:58
1	Y RADIAL	4962.9	4962.9	100.9	%			22:55:58
1	Al 396.153Radial†	5007.0	4995.5	4918.5	ug/L	4918.5	ppb	22:55:58
1	Ca 317.933Radial†	2737.7	2673.1	5044.1	ug/L	5044.1	ppb	22:56:18
1	Fe 238.204 Radial†	447.5	433.3	4988.2	ug/L	4988.2	ppb	22:56:18
1	K 766.490 Radial†	30166.9	27146.7	5159.2	ug/L	5159.2	ppb	22:55:58
1	Mg 279.077 IEC†	127.6	125.0	5191.2	ug/L	5191.2	ppb	22:56:18
1	Na 589.592 Radial†	26341.4	26614.0	9292.8	ug/L	9292.8	ppb	22:55:58
1	Sr 421.552†	62076.8	60990.4	477.81	ug/L	477.81	ppb	22:55:58
1	Sc 361.383	887441.5	887441.5	104.98	%			22:57:16
1	Y 371.029	737461.3	737461.3	103.44	%			22:57:16
1	Ag 328.068†	100689.6	95752.1	496.60	ug/L	496.60	ppb	22:57:21
1	As 188.979†	927.1	905.2	514.28	ug/L	514.28	ppb	22:57:41
1	B 249.677†	18176.6	17761.0	499.80	ug/L	499.80	ppb	22:57:21
1	Ba 233.527†	55347.2	52707.3	502.29	ug/L	502.29	ppb	22:57:21
1	Be 313.107†	1238740.3	1184382.1	506.73	ug/L	506.73	ppb	22:57:16
1	Cd 226.502†	35790.6	34239.7	502.95	ug/L	502.95	ppb	22:57:21
1	Co 228.616†	20258.8	19350.5	509.53	ug/L	509.53	ppb	22:57:21
1	Cr 267.716†	38849.7	36934.9	503.23	ug/L	503.23	ppb	22:57:21
1	Cu 324.752†	162994.4	149729.4	496.03	ug/L	496.03	ppb	22:57:21
1	Mn 257.610†	395271.0	376117.2	500.42	ug/L	500.42	ppb	22:57:16
1	Mo 202.031†	5778.1	5490.8	494.56	ug/L	494.56	ppb	22:57:41
1	Ni 231.604†	16656.9	15793.4	509.97	ug/L	509.97	ppb	22:57:21
1	P 214.914†	3670.6	3295.7	2401.2	ug/L	2401.2	ppb	22:57:41
1	Pb 220.353†	3317.3	3208.7	503.34	ug/L	503.34	ppb	22:57:41
1	S 181.975 Axial†	607.9	549.2	994.18	ug/L	994.18	ppb	22:57:41
1	Sb 206.836†	1259.3	1174.0	518.06	ug/L	518.06	ppb	22:57:41
1	Se 196.026†	611.6	604.8	521.15	ug/L	521.15	ppb	22:57:41
1	Si 251.611†	70268.5	66413.4	2530.3	ug/L	2530.3	ppb	22:57:21
1	Sn 189.927†	2261.6	2150.5	496.22	ug/L	496.22	ppb	22:57:41
1	Ti 334.940†	291956.6	279140.0	485.41	ug/L	485.41	ppb	22:57:21
1	Tl 190.801†	1309.4	1276.3	506.93	ug/L	506.93	ppb	22:57:41
1	U 409.014†	15888.6	17077.4	503.59	ug/L	503.59	ppb	22:57:21
1	V 292.402†	64341.7	62637.4	508.36	ug/L	508.36	ppb	22:57:21
1	Zn 213.857†	43517.4	40846.9	498.74	ug/L	498.74	ppb	22:57:21
1	SiO2†	70186.4	66317.6	5370.6	ug/L	5370.6	ppb	22:58:48
2	Sc Radial	4717.2	4717.2	104	%			22:56:23
2	Y RADIAL	5042.8	5042.8	102.6	%			22:56:23
2	Al 396.153Radial†	5094.5	4989.2	4911.6	ug/L	4911.6	ppb	22:56:23
2	Ca 317.933Radial†	2694.4	2581.7	4871.6	ug/L	4871.6	ppb	22:56:43
2	Fe 238.204 Radial†	442.7	420.6	4842.9	ug/L	4842.9	ppb	22:56:43
2	K 766.490 Radial†	30420.0	26844.0	5101.6	ug/L	5101.6	ppb	22:56:23
2	Mg 279.077 IEC†	126.2	121.4	5038.5	ug/L	5038.5	ppb	22:56:43
2	Na 589.592 Radial†	26806.5	26585.3	9282.7	ug/L	9282.7	ppb	22:56:23
2	Sr 421.552†	63071.4	60824.7	476.52	ug/L	476.52	ppb	22:56:23
2	Sc 361.383	861942.7	861942.7	101.97	%			22:57:47
2	Y 371.029	715813.5	715813.5	100.40	%			22:57:47
2	Ag 328.068†	100853.5	98750.2	512.06	ug/L	512.06	ppb	22:57:52
2	As 188.979†	916.7	921.1	523.30	ug/L	523.30	ppb	22:58:12
2	B 249.677†	18164.4	18261.2	513.92	ug/L	513.92	ppb	22:57:52
2	Ba 233.527†	55370.7	54290.0	517.36	ug/L	517.36	ppb	22:57:52
2	Be 313.107†	1233244.0	1213897.5	519.36	ug/L	519.36	ppb	22:57:47
2	Cd 226.502†	35781.4	35239.3	517.66	ug/L	517.66	ppb	22:57:52
2	Co 228.616†	20265.3	19927.7	524.73	ug/L	524.73	ppb	22:57:52
2	Cr 267.716†	38709.1	37891.7	516.23	ug/L	516.23	ppb	22:57:52
2	Cu 324.752†	163066.4	154392.9	511.46	ug/L	511.46	ppb	22:57:52
2	Mn 257.610†	394407.8	386408.7	514.10	ug/L	514.10	ppb	22:57:47
2	Mo 202.031†	5764.8	5640.6	508.02	ug/L	508.02	ppb	22:58:12
2	Ni 231.604†	16640.0	16246.2	524.59	ug/L	524.59	ppb	22:57:52

2	P 214.914†	3676.2	3404.6	2480.9 ug/L	2480.9 ppb	22:58:12
2	Pb 220.353†	3331.5	3316.1	520.19 ug/L	520.19 ppb	22:58:12
2	S 181.975 Axial†	609.9	568.2	1028.7 ug/L	1028.7 ppb	22:58:12
2	Sb 206.836†	1257.4	1207.6	532.85 ug/L	532.85 ppb	22:58:12
2	Se 196.026†	612.0	622.3	535.38 ug/L	535.38 ppb	22:58:12
2	Si 251.611†	70254.9	68380.0	2605.2 ug/L	2605.2 ppb	22:57:52
2	Sn 189.927†	2253.8	2206.6	509.13 ug/L	509.13 ppb	22:58:12
2	Ti 334.940†	291880.2	287291.9	499.57 ug/L	499.57 ppb	22:57:52
2	Tl 190.801†	1301.0	1305.0	518.35 ug/L	518.35 ppb	22:58:12
2	U 409.014†	15949.5	17584.8	518.59 ug/L	518.59 ppb	22:57:52
2	V 292.402†	64193.6	64305.2	521.93 ug/L	521.93 ppb	22:57:52
2	Zn 213.857†	43543.0	42098.2	514.07 ug/L	514.07 ppb	22:57:52
2	SiO2†	70287.8	68394.8	5538.8 ug/L	5538.8 ppb	22:58:53
3	Sc Radial	4586.5	4586.5	101 %		22:56:48
3	Y RADIAL	4979.3	4979.3	101.3 %		22:56:48
3	Al 396.153Radial†	4972.0	5007.8	4930.8 ug/L	4930.8 ppb	22:56:48
3	Ca 317.933Radial†	2710.0	2671.2	5040.6 ug/L	5040.6 ppb	22:57:08
3	Fe 238.204 Radial†	442.1	432.1	4975.1 ug/L	4975.1 ppb	22:57:08
3	K 766.490 Radial†	30036.7	27300.2	5188.4 ug/L	5188.4 ppb	22:56:48
3	Mg 279.077 IEC†	126.5	125.1	5193.9 ug/L	5193.9 ppb	22:57:08
3	Na 589.592 Radial†	26091.0	26612.4	9292.2 ug/L	9292.2 ppb	22:56:48
3	Sr 421.552†	61685.7	61184.1	479.33 ug/L	479.33 ppb	22:56:48
3	Sc 361.383	884903.5	884903.5	104.68 %		22:58:18
3	Y 371.029	734458.9	734458.9	103.02 %		22:58:18
3	Ag 328.068†	101149.1	96466.2	500.28 ug/L	500.28 ppb	22:58:23
3	As 188.979†	908.7	890.1	505.80 ug/L	505.80 ppb	22:58:43
3	B 249.677†	18286.4	17915.5	504.17 ug/L	504.17 ppb	22:58:23
3	Ba 233.527†	55382.7	52892.5	504.05 ug/L	504.05 ppb	22:58:23
3	Be 313.107†	1234166.4	1183397.1	506.31 ug/L	506.31 ppb	22:58:18
3	Cd 226.502†	35980.2	34518.6	507.05 ug/L	507.05 ppb	22:58:23
3	Co 228.616†	20290.8	19436.4	511.77 ug/L	511.77 ppb	22:58:23
3	Cr 267.716†	38977.0	37162.7	506.32 ug/L	506.32 ppb	22:58:23
3	Cu 324.752†	163725.0	150872.6	499.81 ug/L	499.81 ppb	22:58:23
3	Mn 257.610†	394807.1	376753.9	501.27 ug/L	501.27 ppb	22:58:18
3	Mo 202.031†	5727.8	5458.6	491.65 ug/L	491.65 ppb	22:58:43
3	Ni 231.604†	16687.3	15867.9	512.37 ug/L	512.37 ppb	22:58:23
3	P 214.914†	3641.6	3278.0	2387.0 ug/L	2387.0 ppb	22:58:43
3	Pb 220.353†	3294.3	3195.8	501.32 ug/L	501.32 ppb	22:58:43
3	S 181.975 Axial†	607.3	550.2	996.02 ug/L	996.02 ppb	22:58:43
3	Sb 206.836†	1252.4	1170.9	516.59 ug/L	516.59 ppb	22:58:43
3	Se 196.026†	608.3	603.3	519.85 ug/L	519.85 ppb	22:58:43
3	Si 251.611†	70533.2	66858.2	2547.3 ug/L	2547.3 ppb	22:58:23
3	Sn 189.927†	2233.2	2129.6	491.40 ug/L	491.40 ppb	22:58:43
3	Ti 334.940†	293163.6	281090.6	488.80 ug/L	488.80 ppb	22:58:23
3	Tl 190.801†	1293.9	1265.1	502.54 ug/L	502.54 ppb	22:58:43
3	U 409.014†	16041.1	17266.5	509.17 ug/L	509.17 ppb	22:58:23
3	V 292.402†	64387.9	62857.3	510.09 ug/L	510.09 ppb	22:58:23
3	Zn 213.857†	43650.1	41092.5	501.75 ug/L	501.75 ppb	22:58:23
3	SiO2†	70342.8	66658.7	5398.4 ug/L	5398.4 ppb	22:58:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	878095.9	103.88	%	1.662				1.60%
Sc Radial	4644.7	102	%	1.5				1.43%
Y 371.029	729244.6	102.29	%	1.645				1.61%
Y RADIAL	4995.0	101.6	%	0.86				0.84%
Ag 328.068†	96989.5	502.98	ug/L	8.071	502.98	ppb	8.071	1.60%
QC value within limits for Ag 328.068 Recovery = 100.60%								
Al 396.153Radial†	4997.5	4920.3	ug/L	9.71	4920.3	ppb	9.71	0.20%
QC value within limits for Al 396.153Radial Recovery = 98.41%								
As 188.979†	905.5	514.46	ug/L	8.752	514.46	ppb	8.752	1.70%
QC value within limits for As 188.979 Recovery = 102.89%								
B 249.677†	17979.2	505.96	ug/L	7.229	505.96	ppb	7.229	1.43%
QC value within limits for B 249.677 Recovery = 101.19%								
Ba 233.527†	53296.6	507.90	ug/L	8.239	507.90	ppb	8.239	1.62%
QC value within limits for Ba 233.527 Recovery = 101.58%								
Be 313.107†	1193892.2	510.80	ug/L	7.415	510.80	ppb	7.415	1.45%
QC value within limits for Be 313.107 Recovery = 102.16%								
Ca 317.933Radial†	2642.0	4985.4	ug/L	98.59	4985.4	ppb	98.59	1.98%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.71%
Cd 226.502†            34665.9      509.22 ug/L         7.593      509.22 ppb          7.593   1.49%
   QC value within limits for Cd 226.502  Recovery = 101.84%
Co 228.616†            19571.6      515.34 ug/L         8.205      515.34 ppb          8.205   1.59%
   QC value within limits for Co 228.616  Recovery = 103.07%
Cr 267.716†            37329.8      508.59 ug/L         6.795      508.59 ppb          6.795   1.34%
   QC value within limits for Cr 267.716  Recovery = 101.72%
Cu 324.752†           151665.0      502.44 ug/L         8.044      502.44 ppb          8.044   1.60%
   QC value within limits for Cu 324.752  Recovery = 100.49%
Fe 238.204 Radial†       428.7      4935.4 ug/L         80.39      4935.4 ppb          80.39   1.63%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.71%
K 766.490 Radial†      27097.0      5149.7 ug/L         44.15      5149.7 ppb          44.15   0.86%
   QC value within limits for K 766.490 Radial  Recovery = 102.99%
Mg 279.077 IEC†          123.8      5141.2 ug/L         88.96      5141.2 ppb          88.96   1.73%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.82%
Mn 257.610†           379759.9      505.26 ug/L         7.664      505.26 ppb          7.664   1.52%
   QC value within limits for Mn 257.610  Recovery = 101.05%
Mo 202.031†             5530.0      498.08 ug/L         8.734      498.08 ppb          8.734   1.75%
   QC value within limits for Mo 202.031  Recovery = 99.62%
Na 589.592 Radial†     26603.9      9289.2 ug/L          5.64      9289.2 ppb           5.64   0.06%
   QC value within limits for Na 589.592 Radial  Recovery = 92.89%
Ni 231.604†            15969.2      515.64 ug/L         7.840      515.64 ppb          7.840   1.52%
   QC value within limits for Ni 231.604  Recovery = 103.13%
P 214.914†              3326.1      2423.1 ug/L         50.62      2423.1 ppb          50.62   2.09%
   QC value within limits for P 214.914  Recovery = 96.92%
Pb 220.353†             3240.2      508.28 ug/L        10.358      508.28 ppb         10.358   2.04%
   QC value within limits for Pb 220.353  Recovery = 101.66%
S 181.975 Axial†         555.9      1006.3 ug/L         19.42      1006.3 ppb          19.42   1.93%
   QC value within limits for S 181.975 Axial  Recovery = 100.63%
Sb 206.836†             1184.2      522.50 ug/L         8.993      522.50 ppb          8.993   1.72%
   QC value within limits for Sb 206.836  Recovery = 104.50%
Se 196.026†              610.1      525.46 ug/L         8.618      525.46 ppb          8.618   1.64%
   QC value within limits for Se 196.026  Recovery = 105.09%
Si 251.611†            67217.2      2560.9 ug/L         39.29      2560.9 ppb          39.29   1.53%
   QC value within limits for Si 251.611  Recovery = 102.44%
Sn 189.927†             2162.2      498.92 ug/L         9.163      498.92 ppb          9.163   1.84%
   QC value within limits for Sn 189.927  Recovery = 99.78%
Sr 421.552†            60999.7      477.89 ug/L         1.409      477.89 ppb          1.409   0.29%
   QC value within limits for Sr 421.552  Recovery = 95.58%
Ti 334.940†           282507.5      491.26 ug/L         7.393      491.26 ppb          7.393   1.50%
   QC value within limits for Ti 334.940  Recovery = 98.25%
Tl 190.801†             1282.2      509.27 ug/L         8.163      509.27 ppb          8.163   1.60%
   QC value within limits for Tl 190.801  Recovery = 101.85%
U 409.014†             17309.6      510.45 ug/L         7.581      510.45 ppb          7.581   1.49%
   QC value within limits for U 409.014  Recovery = 102.09%
V 292.402†             63266.7      513.46 ug/L         7.390      513.46 ppb          7.390   1.44%
   QC value within limits for V 292.402  Recovery = 102.69%
Zn 213.857†            41345.9      504.86 ug/L         8.123      504.86 ppb          8.123   1.61%
   QC value within limits for Zn 213.857  Recovery = 100.97%
SiO2†                  67123.7      5435.9 ug/L         90.21      5435.9 ppb          90.21   1.66%
   QC value within limits for SiO2  Recovery = 101.65%
All analyte(s) passed QC.
```

Sequence No.: 48
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/22/2010 23:01:08
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4783.4	4783.4	105	%			23:03:00
1	Y RADIAL	5154.2	5154.2	104.8	%			23:03:00
1	Al 396.153Radial†	-78.7	-1.7	-1.6671	ug/L	-1.6671	ppb	23:03:20
1	Ca 317.933Radial†	22.2	2.8	5.2284	ug/L	5.2284	ppb	23:03:20
1	Fe 238.204 Radial†	6.1	-0.8	-9.7376	ug/L	-9.7376	ppb	23:03:20
1	K 766.490 Radial†	2760.3	116.3	22.128	ug/L	22.128	ppb	23:03:00
1	Mg 279.077 IEC†	0.1	-0.3	-12.585	ug/L	-12.585	ppb	23:03:20
1	Na 589.592 Radial†	-701.4	50.3	17.563	ug/L	17.563	ppb	23:03:00
1	Sr 421.552†	28.1	-10.7	-0.0837	ug/L	-0.0837	ppb	23:03:00
1	Sc 361.383	874336.8	874336.8	103.43	%			23:04:17
1	Y 371.029	737760.2	737760.2	103.48	%			23:04:17
1	Ag 328.068†	264.8	99.3	0.5083	ug/L	0.5083	ppb	23:04:17
1	As 188.979†	-21.4	1.4	0.7906	ug/L	0.7906	ppb	23:04:37
1	B 249.677†	-171.4	281.7	7.9636	ug/L	7.9636	ppb	23:04:37
1	Ba 233.527†	7.3	-4.9	-0.0460	ug/L	-0.0460	ppb	23:04:37
1	Be 313.107†	-4352.9	249.0	0.1064	ug/L	0.1064	ppb	23:04:17
1	Cd 226.502†	-163.5	-9.6	-0.1394	ug/L	-0.1394	ppb	23:04:37
1	Co 228.616†	-47.1	8.0	0.2113	ug/L	0.2113	ppb	23:04:37
1	Cr 267.716†	73.8	1.1	0.0141	ug/L	0.0141	ppb	23:04:37
1	Cu 324.752†	5602.4	-109.6	-0.3644	ug/L	-0.3644	ppb	23:04:17
1	Mn 257.610†	442.2	41.2	0.0543	ug/L	0.0543	ppb	23:04:37
1	Mo 202.031†	12.3	-1.0	-0.0911	ug/L	-0.0911	ppb	23:04:37
1	Ni 231.604†	88.7	13.1	0.4246	ug/L	0.4246	ppb	23:04:37
1	P 214.914†	189.0	-18.0	-13.512	ug/L	-13.512	ppb	23:04:37
1	Pb 220.353†	-44.9	5.5	0.8553	ug/L	0.8553	ppb	23:04:37
1	S 181.975 Axial†	30.2	-0.7	-1.2374	ug/L	-1.2374	ppb	23:04:37
1	Sb 206.836†	21.5	-4.6	-1.9535	ug/L	-1.9535	ppb	23:04:37
1	Se 196.026†	-19.9	2.9	2.3799	ug/L	2.3799	ppb	23:04:37
1	Si 251.611†	747.2	203.5	7.7737	ug/L	7.7737	ppb	23:04:37
1	Sn 189.927†	10.8	6.7	1.5484	ug/L	1.5484	ppb	23:04:37
1	Ti 334.940†	-1058.1	22.6	0.0403	ug/L	0.0403	ppb	23:04:17
1	Tl 190.801†	-17.8	11.9	4.7046	ug/L	4.7046	ppb	23:04:37
1	U 409.014†	-1955.2	52.9	1.5654	ug/L	1.5654	ppb	23:04:17
1	V 292.402†	-1372.4	23.9	0.1943	ug/L	0.1943	ppb	23:04:17
1	Zn 213.857†	2807.9	2110.4	26.008	ug/L	26.008	ppb	23:04:37
1	SiO2†	739.2	178.3	14.475	ug/L	14.475	ppb	23:05:48
2	Sc Radial	4622.3	4622.3	102	%			23:03:25
2	Y RADIAL	4994.2	4994.2	101.6	%			23:03:25
2	Al 396.153Radial†	-73.9	0.4	0.4123	ug/L	0.4123	ppb	23:03:45
2	Ca 317.933Radial†	15.7	-2.9	-5.5277	ug/L	-5.5277	ppb	23:03:45
2	Fe 238.204 Radial†	8.4	1.6	18.905	ug/L	18.905	ppb	23:03:45
2	K 766.490 Radial†	2664.0	113.0	21.493	ug/L	21.493	ppb	23:03:25
2	Mg 279.077 IEC†	2.3	1.9	77.243	ug/L	77.243	ppb	23:03:45
2	Na 589.592 Radial†	-708.3	20.2	7.0681	ug/L	7.0681	ppb	23:03:25
2	Sr 421.552†	30.0	-8.0	-0.0623	ug/L	-0.0623	ppb	23:03:25
2	Sc 361.383	876156.5	876156.5	103.65	%			23:04:42
2	Y 371.029	738472.6	738472.6	103.58	%			23:04:42
2	Ag 328.068†	203.7	39.9	0.2141	ug/L	0.2141	ppb	23:04:42
2	As 188.979†	-14.1	8.5	4.8011	ug/L	4.8011	ppb	23:05:02
2	B 249.677†	-178.2	275.5	7.7837	ug/L	7.7837	ppb	23:05:02
2	Ba 233.527†	11.4	-1.0	-0.0081	ug/L	-0.0081	ppb	23:05:02
2	Be 313.107†	-4317.7	291.6	0.1248	ug/L	0.1248	ppb	23:04:42
2	Cd 226.502†	-159.0	-4.9	-0.0744	ug/L	-0.0744	ppb	23:05:02
2	Co 228.616†	-35.0	19.9	0.5225	ug/L	0.5225	ppb	23:05:02
2	Cr 267.716†	71.2	-1.5	-0.0177	ug/L	-0.0177	ppb	23:05:02
2	Cu 324.752†	5641.7	-83.0	-0.2726	ug/L	-0.2726	ppb	23:04:42
2	Mn 257.610†	424.8	23.6	0.0301	ug/L	0.0301	ppb	23:05:02
2	Mo 202.031†	14.6	1.2	0.1096	ug/L	0.1096	ppb	23:05:02
2	Ni 231.604†	94.7	18.7	0.6045	ug/L	0.6045	ppb	23:05:02

2	P 214.914†	190.5	-16.9	-12.771 ug/L	-12.771 ppb	23:05:02
2	Pb 220.353†	-48.4	2.2	0.3446 ug/L	0.3446 ppb	23:05:02
2	S 181.975 Axial†	31.0	0.0	0.0367 ug/L	0.0367 ppb	23:05:02
2	Sb 206.836†	36.0	9.3	3.9885 ug/L	3.9885 ppb	23:05:02
2	Se 196.026†	-17.2	5.6	4.7340 ug/L	4.7340 ppb	23:05:02
2	Si 251.611†	742.8	197.8	7.5530 ug/L	7.5530 ppb	23:05:02
2	Sn 189.927†	8.0	4.0	0.9155 ug/L	0.9155 ppb	23:05:02
2	Ti 334.940†	-995.1	85.5	0.1426 ug/L	0.1426 ppb	23:04:42
2	Tl 190.801†	-29.8	0.4	0.1479 ug/L	0.1479 ppb	23:05:02
2	U 409.014†	-2094.8	-77.8	-2.3052 ug/L	-2.3052 ppb	23:04:42
2	V 292.402†	-1376.9	22.3	0.1745 ug/L	0.1745 ppb	23:04:42
2	Zn 213.857†	2823.0	2119.3	26.113 ug/L	26.113 ppb	23:05:02
2	SiO2†	733.2	171.0	13.880 ug/L	13.880 ppb	23:06:08
3	Sc Radial	4693.8	4693.8	103 %		23:03:50
3	Y RADIAL	5070.7	5070.7	103.1 %		23:03:50
3	Al 396.153Radial†	-72.4	3.0	2.9433 ug/L	2.9433 ppb	23:04:10
3	Ca 317.933Radial†	19.9	0.9	1.6768 ug/L	1.6768 ppb	23:04:10
3	Fe 238.204 Radial†	8.2	1.3	15.005 ug/L	15.005 ppb	23:04:10
3	K 766.490 Radial†	2637.7	47.6	9.0572 ug/L	9.0572 ppb	23:03:50
3	Mg 279.077 IEC†	3.2	2.7	111.61 ug/L	111.61 ppb	23:04:10
3	Na 589.592 Radial†	-764.7	-23.8	-8.3147 ug/L	-8.3147 ppb	23:03:50
3	Sr 421.552†	27.5	-10.8	-0.0846 ug/L	-0.0846 ppb	23:03:50
3	Sc 361.383	882362.5	882362.5	104.38 %		23:05:07
3	Y 371.029	744213.6	744213.6	104.39 %		23:05:07
3	Ag 328.068†	182.6	18.3	0.0987 ug/L	0.0987 ppb	23:05:07
3	As 188.979†	-29.7	-6.4	-3.5759 ug/L	-3.5759 ppb	23:05:27
3	B 249.677†	-194.5	261.1	7.3775 ug/L	7.3775 ppb	23:05:27
3	Ba 233.527†	6.7	-5.5	-0.0507 ug/L	-0.0507 ppb	23:05:27
3	Be 313.107†	-4419.8	223.1	0.0955 ug/L	0.0955 ppb	23:05:07
3	Cd 226.502†	-174.7	-18.9	-0.2779 ug/L	-0.2779 ppb	23:05:27
3	Co 228.616†	-42.8	12.6	0.3326 ug/L	0.3326 ppb	23:05:27
3	Cr 267.716†	71.7	-1.5	-0.0188 ug/L	-0.0188 ppb	23:05:27
3	Cu 324.752†	5638.4	-124.4	-0.4129 ug/L	-0.4129 ppb	23:05:07
3	Mn 257.610†	433.8	29.3	0.0359 ug/L	0.0359 ppb	23:05:27
3	Mo 202.031†	16.9	3.2	0.2931 ug/L	0.2931 ppb	23:05:27
3	Ni 231.604†	82.9	6.8	0.2194 ug/L	0.2194 ppb	23:05:27
3	P 214.914†	192.8	-16.0	-12.017 ug/L	-12.017 ppb	23:05:27
3	Pb 220.353†	-43.1	7.6	1.1911 ug/L	1.1911 ppb	23:05:27
3	S 181.975 Axial†	28.1	-3.0	-5.4812 ug/L	-5.4812 ppb	23:05:27
3	Sb 206.836†	20.6	-5.7	-2.4264 ug/L	-2.4264 ppb	23:05:27
3	Se 196.026†	-19.2	3.8	3.1808 ug/L	3.1808 ppb	23:05:27
3	Si 251.611†	730.4	180.9	6.9036 ug/L	6.9036 ppb	23:05:27
3	Sn 189.927†	7.4	3.3	0.7695 ug/L	0.7695 ppb	23:05:27
3	Ti 334.940†	-1022.4	66.0	0.1048 ug/L	0.1048 ppb	23:05:07
3	Tl 190.801†	-28.3	2.0	0.7944 ug/L	0.7944 ppb	23:05:27
3	U 409.014†	-1934.1	90.3	2.6689 ug/L	2.6689 ppb	23:05:07
3	V 292.402†	-1343.5	63.6	0.5184 ug/L	0.5184 ppb	23:05:07
3	Zn 213.857†	2817.4	2094.8	25.814 ug/L	25.814 ppb	23:05:27
3	SiO2†	733.6	166.4	13.503 ug/L	13.503 ppb	23:06:28

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	877618.6	103.82	%	0.498				0.48%
Sc Radial	4699.8	103	%	1.8				1.72%
Y 371.029	740148.8	103.82	%	0.496				0.48%
Y RADIAL	5073.0	103.2	%	1.63				1.58%
Ag 328.068†	52.5	0.2737	ug/L	0.21118	0.2737	ppb	0.21118	77.16%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.6	0.5628	ug/L	2.30890	0.5628	ppb	2.30890	410.23%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.2	0.6719	ug/L	4.18974	0.6719	ppb	4.18974	623.54%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	272.8	7.7082	ug/L	0.30023	7.7082	ppb	0.30023	3.89%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.8	-0.0350	ug/L	0.02337	-0.0350	ppb	0.02337	66.84%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	254.6	0.1089	ug/L	0.01482	0.1089	ppb	0.01482	13.61%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	0.2	0.4591	ug/L	5.48048	0.4591	ppb	5.48048	>999.9%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -11.1     -0.1639 ug/L       0.10395     -0.1639 ppb        0.10395  63.43%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               13.5      0.3555 ug/L       0.15685      0.3555 ppb        0.15685  44.12%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -0.6     -0.0075 ug/L       0.01868     -0.0075 ppb        0.01868 250.44%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -105.7     -0.3500 ug/L       0.07125     -0.3500 ppb        0.07125  20.36%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.7      8.0574 ug/L      15.53384      8.0574 ppb       15.53384 192.79%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         92.3      17.559 ug/L        7.3700      17.559 ppb         7.3700  41.97%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.4      58.756 ug/L       64.1283      58.756 ppb        64.1283 109.14%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               31.4      0.0401 ug/L       0.01266      0.0401 ppb        0.01266  31.57%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.1      0.1039 ug/L       0.19213      0.1039 ppb        0.19213 184.98%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        15.6      5.4389 ug/L      13.01569      5.4389 ppb       13.01569 239.31%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               12.9      0.4162 ug/L       0.19268      0.4162 ppb        0.19268  46.30%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -16.9     -12.767 ug/L        0.7472     -12.767 ppb         0.7472   5.85%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                5.1      0.7970 ug/L       0.42626      0.7970 ppb        0.42626  53.48%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -1.2     -2.2273 ug/L       2.88910     -2.2273 ppb        2.88910 129.71%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -0.4     -0.1305 ug/L       3.57493     -0.1305 ppb        3.57493 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                4.1      3.4316 ug/L       1.19692      3.4316 ppb        1.19692  34.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              194.1      7.4101 ug/L       0.45232      7.4101 ppb        0.45232   6.10%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                4.7      1.0778 ug/L       0.41405      1.0778 ppb        0.41405  38.42%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -9.8     -0.0769 ug/L       0.01262     -0.0769 ppb        0.01262  16.42%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               58.0      0.0959 ug/L       0.05174      0.0959 ppb        0.05174  53.95%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                4.8      1.8823 ug/L       2.46547      1.8823 ppb        2.46547 130.98%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                21.8      0.6430 ug/L       2.61220      0.6430 ppb        2.61220 406.24%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                36.6      0.2957 ug/L       0.19308      0.2957 ppb        0.19308  65.29%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             2108.2      25.978 ug/L        0.1517      25.978 ppb         0.1517   0.58%
   QC value greater than the upper limit for Zn 213.857  Recovery = Not calculated
SiO2†                    171.9      13.953 ug/L        0.4900      13.953 ppb         0.4900   3.51%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 57
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/23/2010 00:04:59
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4771.0	4771.0	105	%			00:06:51
1	Y RADIAL	5111.9	5111.9	104.0	%			00:06:51
1	Al 396.153Radial†	5109.2	4947.8	4871.5	ug/L	4871.5	ppb	00:06:51
1	Ca 317.933Radial†	2734.8	2590.9	4889.1	ug/L	4889.1	ppb	00:07:11
1	Fe 238.204 Radial†	451.2	423.9	4880.2	ug/L	4880.2	ppb	00:07:11
1	K 766.490 Radial†	30678.0	26759.2	5085.4	ug/L	5085.4	ppb	00:06:51
1	Mg 279.077 IEC†	126.1	120.0	4980.3	ug/L	4980.3	ppb	00:07:11
1	Na 589.592 Radial†	27828.6	27268.8	9521.4	ug/L	9521.4	ppb	00:06:51
1	Sr 421.552†	64303.4	61313.9	480.35	ug/L	480.35	ppb	00:06:51
1	Sc 361.383	890646.7	890646.7	105.36	%			00:08:08
1	Y 371.029	740433.0	740433.0	103.86	%			00:08:08
1	Ag 328.068†	100896.9	95603.7	495.80	ug/L	495.80	ppb	00:08:14
1	As 188.979†	919.4	894.7	508.32	ug/L	508.32	ppb	00:08:34
1	B 249.677†	17914.9	17450.3	491.05	ug/L	491.05	ppb	00:08:14
1	Ba 233.527†	55247.0	52422.5	499.57	ug/L	499.57	ppb	00:08:14
1	Be 313.107†	1240753.6	1182046.7	505.72	ug/L	505.72	ppb	00:08:08
1	Cd 226.502†	35773.4	34100.7	500.91	ug/L	500.91	ppb	00:08:14
1	Co 228.616†	20201.4	19226.6	506.26	ug/L	506.26	ppb	00:08:14
1	Cr 267.716†	38669.6	36630.9	499.08	ug/L	499.08	ppb	00:08:14
1	Cu 324.752†	162673.2	148865.8	493.16	ug/L	493.16	ppb	00:08:14
1	Mn 257.610†	396338.5	375775.4	499.97	ug/L	499.97	ppb	00:08:08
1	Mo 202.031†	5740.0	5434.9	489.51	ug/L	489.51	ppb	00:08:34
1	Ni 231.604†	16590.4	15673.2	506.08	ug/L	506.08	ppb	00:08:14
1	P 214.914†	3639.0	3253.1	2369.5	ug/L	2369.5	ppb	00:08:34
1	Pb 220.353†	3295.9	3177.0	498.38	ug/L	498.38	ppb	00:08:34
1	S 181.975 Axial†	601.6	541.1	979.58	ug/L	979.58	ppb	00:08:34
1	Sb 206.836†	1236.7	1148.3	506.87	ug/L	506.87	ppb	00:08:34
1	Se 196.026†	604.1	595.5	513.06	ug/L	513.06	ppb	00:08:34
1	Si 251.611†	70038.9	65954.5	2512.8	ug/L	2512.8	ppb	00:08:14
1	Sn 189.927†	2233.4	2116.0	488.25	ug/L	488.25	ppb	00:08:34
1	Ti 334.940†	291651.0	277849.2	483.17	ug/L	483.17	ppb	00:08:14
1	Tl 190.801†	1294.6	1257.8	499.62	ug/L	499.62	ppb	00:08:34
1	U 409.014†	15829.4	16966.7	500.33	ug/L	500.33	ppb	00:08:14
1	V 292.402†	64148.9	62233.9	505.06	ug/L	505.06	ppb	00:08:14
1	Zn 213.857†	43573.5	40750.9	497.61	ug/L	497.61	ppb	00:08:14
1	SiO2†	70755.6	66617.2	5395.0	ug/L	5395.0	ppb	00:09:41
2	Sc Radial	4571.3	4571.3	100	%			00:07:16
2	Y RADIAL	4914.5	4914.5	99.95	%			00:07:16
2	Al 396.153Radial†	4916.3	4968.8	4891.8	ug/L	4891.8	ppb	00:07:16
2	Ca 317.933Radial†	2744.5	2714.5	5122.3	ug/L	5122.3	ppb	00:07:36
2	Fe 238.204 Radial†	455.0	446.4	5139.6	ug/L	5139.6	ppb	00:07:36
2	K 766.490 Radial†	29607.0	26971.8	5125.8	ug/L	5125.8	ppb	00:07:16
2	Mg 279.077 IEC†	127.0	126.0	5232.0	ug/L	5232.0	ppb	00:07:36
2	Na 589.592 Radial†	26433.2	27039.6	9441.4	ug/L	9441.4	ppb	00:07:16
2	Sr 421.552†	61676.0	61378.7	480.86	ug/L	480.86	ppb	00:07:16
2	Sc 361.383	871439.8	871439.8	103.09	%			00:08:39
2	Y 371.029	724785.7	724785.7	101.66	%			00:08:39
2	Ag 328.068†	101739.0	98531.2	511.00	ug/L	511.00	ppb	00:08:45
2	As 188.979†	894.9	890.1	505.90	ug/L	505.90	ppb	00:09:05
2	B 249.677†	18085.8	17990.8	506.25	ug/L	506.25	ppb	00:08:45
2	Ba 233.527†	55482.5	53806.6	512.77	ug/L	512.77	ppb	00:08:45
2	Be 313.107†	1213731.8	1181789.8	505.65	ug/L	505.65	ppb	00:08:39
2	Cd 226.502†	35915.2	34986.6	513.91	ug/L	513.91	ppb	00:08:45
2	Co 228.616†	20272.3	19718.0	519.18	ug/L	519.18	ppb	00:08:45
2	Cr 267.716†	38891.6	37655.1	513.04	ug/L	513.04	ppb	00:08:45
2	Cu 324.752†	164925.2	154453.2	511.68	ug/L	511.68	ppb	00:08:45
2	Mn 257.610†	388053.1	376029.3	500.32	ug/L	500.32	ppb	00:08:39
2	Mo 202.031†	5714.4	5530.1	498.10	ug/L	498.10	ppb	00:09:05
2	Ni 231.604†	16610.9	16040.2	517.93	ug/L	517.93	ppb	00:08:45

2	P 214.914†	3622.7	3313.4	2411.4 ug/L	2411.4 ppb	00:09:05
2	Pb 220.353†	3269.8	3220.6	505.18 ug/L	505.18 ppb	00:09:05
2	S 181.975 Axial†	597.5	549.7	995.06 ug/L	995.06 ppb	00:09:05
2	Sb 206.836†	1235.0	1172.5	517.48 ug/L	517.48 ppb	00:09:05
2	Se 196.026†	599.6	603.8	520.80 ug/L	520.80 ppb	00:09:05
2	Si 251.611†	70722.4	68082.7	2594.0 ug/L	2594.0 ppb	00:08:45
2	Sn 189.927†	2227.2	2156.7	497.65 ug/L	497.65 ppb	00:09:05
2	Ti 334.940†	294276.3	286496.6	498.21 ug/L	498.21 ppb	00:08:45
2	Tl 190.801†	1282.5	1273.1	505.70 ug/L	505.70 ppb	00:09:05
2	U 409.014†	16179.6	17637.6	520.12 ug/L	520.12 ppb	00:08:45
2	V 292.402†	64493.0	63909.6	518.59 ug/L	518.59 ppb	00:08:45
2	Zn 213.857†	43731.9	41816.1	510.60 ug/L	510.60 ppb	00:08:45
2	SiO2†	70547.6	67895.5	5498.6 ug/L	5498.6 ppb	00:09:46
3	Sc Radial	4697.6	4697.6	103 %		00:07:41
3	Y RADIAL	5023.5	5023.5	102.2 %		00:07:41
3	Al 396.153Radial†	5044.6	4961.5	4885.0 ug/L	4885.0 ppb	00:07:41
3	Ca 317.933Radial†	2733.2	2630.1	4963.0 ug/L	4963.0 ppb	00:08:01
3	Fe 238.204 Radial†	450.9	430.3	4953.3 ug/L	4953.3 ppb	00:08:01
3	K 766.490 Radial†	30385.2	26933.1	5118.5 ug/L	5118.5 ppb	00:07:41
3	Mg 279.077 IEC†	129.5	125.1	5192.0 ug/L	5192.0 ppb	00:08:01
3	Na 589.592 Radial†	27224.5	27098.6	9462.0 ug/L	9462.0 ppb	00:07:41
3	Sr 421.552†	63289.4	61290.7	480.17 ug/L	480.17 ppb	00:07:41
3	Sc 361.383	895028.8	895028.8	105.88 %		00:09:11
3	Y 371.029	744506.9	744506.9	104.43 %		00:09:11
3	Ag 328.068†	99255.8	93585.0	485.38 ug/L	485.38 ppb	00:09:16
3	As 188.979†	914.6	885.9	503.30 ug/L	503.30 ppb	00:09:36
3	B 249.677†	17660.7	17127.0	481.93 ug/L	481.93 ppb	00:09:16
3	Ba 233.527†	54479.8	51441.2	490.23 ug/L	490.23 ppb	00:09:16
3	Be 313.107†	1242603.4	1178028.3	503.99 ug/L	503.99 ppb	00:09:11
3	Cd 226.502†	35062.3	33262.9	488.59 ug/L	488.59 ppb	00:09:16
3	Co 228.616†	19842.8	18794.1	494.89 ug/L	494.89 ppb	00:09:16
3	Cr 267.716†	38097.5	35910.8	489.28 ug/L	489.28 ppb	00:09:16
3	Cu 324.752†	160840.5	146379.1	484.93 ug/L	484.93 ppb	00:09:16
3	Mn 257.610†	396091.3	373700.3	497.21 ug/L	497.21 ppb	00:09:11
3	Mo 202.031†	5776.7	5442.8	490.23 ug/L	490.23 ppb	00:09:36
3	Ni 231.604†	16287.3	15309.8	494.35 ug/L	494.35 ppb	00:09:16
3	P 214.914†	3672.7	3268.0	2382.4 ug/L	2382.4 ppb	00:09:36
3	Pb 220.353†	3301.6	3167.1	496.83 ug/L	496.83 ppb	00:09:36
3	S 181.975 Axial†	603.3	539.9	977.29 ug/L	977.29 ppb	00:09:36
3	Sb 206.836†	1253.3	1158.2	511.10 ug/L	511.10 ppb	00:09:36
3	Se 196.026†	612.2	600.4	517.38 ug/L	517.38 ppb	00:09:36
3	Si 251.611†	69002.8	64650.5	2463.0 ug/L	2463.0 ppb	00:09:16
3	Sn 189.927†	2246.4	2117.9	488.69 ug/L	488.69 ppb	00:09:36
3	Ti 334.940†	287561.4	272631.6	474.09 ug/L	474.09 ppb	00:09:16
3	Tl 190.801†	1310.1	1266.4	503.01 ug/L	503.01 ppb	00:09:36
3	U 409.014†	15933.3	16991.3	501.07 ug/L	501.07 ppb	00:09:16
3	V 292.402†	63234.7	61072.4	495.78 ug/L	495.78 ppb	00:09:16
3	Zn 213.857†	42760.6	39780.8	485.73 ug/L	485.73 ppb	00:09:16
3	SiO2†	69796.2	65382.4	5294.8 ug/L	5294.8 ppb	00:09:51

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	885705.1	104.78	%	1.484				1.42%
Sc Radial	4679.9	103	%	2.2				2.16%
Y 371.029	736575.2	103.31	%	1.460				1.41%
Y RADIAL	5016.6	102.0	%	2.01				1.97%
Ag 328.068†	95906.7	497.39	ug/L	12.887	497.39	ppb	12.887	2.59%
QC value within limits for Ag 328.068 Recovery = 99.48%								
Al 396.153Radial†	4959.3	4882.8	ug/L	10.34	4882.8	ppb	10.34	0.21%
QC value within limits for Al 396.153Radial Recovery = 97.66%								
As 188.979†	890.2	505.84	ug/L	2.513	505.84	ppb	2.513	0.50%
QC value within limits for As 188.979 Recovery = 101.17%								
B 249.677†	17522.7	493.07	ug/L	12.286	493.07	ppb	12.286	2.49%
QC value within limits for B 249.677 Recovery = 98.61%								
Ba 233.527†	52556.8	500.86	ug/L	11.325	500.86	ppb	11.325	2.26%
QC value within limits for Ba 233.527 Recovery = 100.17%								
Be 313.107†	1180621.6	505.12	ug/L	0.981	505.12	ppb	0.981	0.19%
QC value within limits for Be 313.107 Recovery = 101.02%								
Ca 317.933Radial†	2645.2	4991.4	ug/L	119.20	4991.4	ppb	119.20	2.39%

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   QC value within limits for Ca 317.933Radial  Recovery = 99.83%
Cd 226.502†            34116.7      501.14 ug/L        12.664      501.14 ppb         12.664   2.53%
   QC value within limits for Cd 226.502  Recovery = 100.23%
Co 228.616†            19246.2      506.78 ug/L        12.153      506.78 ppb         12.153   2.40%
   QC value within limits for Co 228.616  Recovery = 101.36%
Cr 267.716†            36732.3      500.47 ug/L        11.941      500.47 ppb         11.941   2.39%
   QC value within limits for Cr 267.716  Recovery = 100.09%
Cu 324.752†           149899.4      496.59 ug/L        13.699      496.59 ppb         13.699   2.76%
   QC value within limits for Cu 324.752  Recovery = 99.32%
Fe 238.204 Radial†       433.5      4991.0 ug/L        133.76      4991.0 ppb         133.76   2.68%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.82%
K 766.490 Radial†      26888.0      5109.9 ug/L         21.53      5109.9 ppb          21.53   0.42%
   QC value within limits for K 766.490 Radial  Recovery = 102.20%
Mg 279.077 IEC†          123.7      5134.8 ug/L        135.25      5134.8 ppb         135.25   2.63%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.70%
Mn 257.610†           375168.3      499.16 ug/L         1.705      499.16 ppb          1.705   0.34%
   QC value within limits for Mn 257.610  Recovery = 99.83%
Mo 202.031†             5469.3      492.61 ug/L         4.765      492.61 ppb          4.765   0.97%
   QC value within limits for Mo 202.031  Recovery = 98.52%
Na 589.592 Radial†     27135.7      9474.9 ug/L         41.54      9474.9 ppb          41.54   0.44%
   QC value within limits for Na 589.592 Radial  Recovery = 94.75%
Ni 231.604†            15674.4      506.12 ug/L        11.791      506.12 ppb         11.791   2.33%
   QC value within limits for Ni 231.604  Recovery = 101.22%
P 214.914†              3278.2      2387.8 ug/L         21.48      2387.8 ppb          21.48   0.90%
   QC value within limits for P 214.914  Recovery = 95.51%
Pb 220.353†             3188.2      500.13 ug/L         4.443      500.13 ppb          4.443   0.89%
   QC value within limits for Pb 220.353  Recovery = 100.03%
S 181.975 Axial†         543.5      983.97 ug/L         9.667      983.97 ppb          9.667   0.98%
   QC value within limits for S 181.975 Axial  Recovery = 98.40%
Sb 206.836†             1159.7      511.82 ug/L         5.340      511.82 ppb          5.340   1.04%
   QC value within limits for Sb 206.836  Recovery = 102.36%
Se 196.026†              599.9      517.08 ug/L         3.881      517.08 ppb          3.881   0.75%
   QC value within limits for Se 196.026  Recovery = 103.42%
Si 251.611†            66229.2      2523.3 ug/L         66.11      2523.3 ppb          66.11   2.62%
   QC value within limits for Si 251.611  Recovery = 100.93%
Sn 189.927†             2130.2      491.53 ug/L         5.303      491.53 ppb          5.303   1.08%
   QC value within limits for Sn 189.927  Recovery = 98.31%
Sr 421.552†            61327.8      480.46 ug/L         0.357      480.46 ppb          0.357   0.07%
   QC value within limits for Sr 421.552  Recovery = 96.09%
Ti 334.940†           278992.4      485.15 ug/L        12.182      485.15 ppb         12.182   2.51%
   QC value within limits for Ti 334.940  Recovery = 97.03%
Tl 190.801†             1265.8      502.78 ug/L         3.048      502.78 ppb          3.048   0.61%
   QC value within limits for Tl 190.801  Recovery = 100.56%
U 409.014†             17198.5      507.18 ug/L        11.217      507.18 ppb         11.217   2.21%
   QC value within limits for U 409.014  Recovery = 101.44%
V 292.402†             62405.3      506.48 ug/L        11.472      506.48 ppb         11.472   2.27%
   QC value within limits for V 292.402  Recovery = 101.30%
Zn 213.857†            40782.6      497.98 ug/L        12.439      497.98 ppb         12.439   2.50%
   QC value within limits for Zn 213.857  Recovery = 99.60%
SiO2†                  66631.7      5396.1 ug/L        101.91      5396.1 ppb         101.91   1.89%
   QC value within limits for SiO2  Recovery = 100.91%
All analyte(s) passed QC.
```

Sequence No.: 58
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/23/2010 00:12:01
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4773.1	4773.1	105	%			00:13:53
1	Y RADIAL	5136.0	5136.0	104.5	%			00:13:53
1	Al 396.153Radial†	-76.1	0.6	0.5173	ug/L	0.5173	ppb	00:14:13
1	Ca 317.933Radial†	21.6	2.3	4.2474	ug/L	4.2474	ppb	00:14:13
1	Fe 238.204 Radial†	5.9	-1.0	-11.325	ug/L	-11.325	ppb	00:14:13
1	K 766.490 Radial†	2666.3	32.4	6.1476	ug/L	6.1476	ppb	00:13:53
1	Mg 279.077 IEC†	2.2	1.7	69.861	ug/L	69.861	ppb	00:14:13
1	Na 589.592 Radial†	-697.2	52.9	18.467	ug/L	18.467	ppb	00:13:53
1	Sr 421.552†	32.8	-6.1	-0.0482	ug/L	-0.0482	ppb	00:13:53
1	Sc 361.383	872356.6	872356.6	103.20	%			00:15:10
1	Y 371.029	735534.1	735534.1	103.17	%			00:15:10
1	Ag 328.068†	187.4	24.9	0.1227	ug/L	0.1227	ppb	00:15:10
1	As 188.979†	-23.2	-0.4	-0.2515	ug/L	-0.2515	ppb	00:15:30
1	B 249.677†	-318.1	139.2	3.9349	ug/L	3.9349	ppb	00:15:30
1	Ba 233.527†	19.8	7.2	0.0686	ug/L	0.0686	ppb	00:15:30
1	Be 313.107†	-4276.5	313.5	0.1338	ug/L	0.1338	ppb	00:15:10
1	Cd 226.502†	-159.5	-6.1	-0.0867	ug/L	-0.0867	ppb	00:15:30
1	Co 228.616†	-41.5	13.4	0.3543	ug/L	0.3543	ppb	00:15:30
1	Cr 267.716†	94.2	21.1	0.2845	ug/L	0.2845	ppb	00:15:30
1	Cu 324.752†	5642.6	-58.4	-0.1962	ug/L	-0.1962	ppb	00:15:10
1	Mn 257.610†	445.2	45.1	0.0560	ug/L	0.0560	ppb	00:15:30
1	Mo 202.031†	20.4	6.9	0.6190	ug/L	0.6190	ppb	00:15:30
1	Ni 231.604†	96.5	20.8	0.6734	ug/L	0.6734	ppb	00:15:30
1	P 214.914†	191.5	-15.1	-11.351	ug/L	-11.351	ppb	00:15:30
1	Pb 220.353†	-52.9	-2.3	-0.3609	ug/L	-0.3609	ppb	00:15:30
1	S 181.975 Axial†	32.7	1.8	3.2319	ug/L	3.2319	ppb	00:15:30
1	Sb 206.836†	31.0	4.6	1.9747	ug/L	1.9747	ppb	00:15:30
1	Se 196.026†	-3.4	18.9	15.689	ug/L	15.689	ppb	00:15:30
1	Si 251.611†	662.6	123.2	4.6987	ug/L	4.6987	ppb	00:15:30
1	Sn 189.927†	8.9	4.9	1.1278	ug/L	1.1278	ppb	00:15:30
1	Ti 334.940†	-1083.9	-4.8	-0.0152	ug/L	-0.0152	ppb	00:15:10
1	Tl 190.801†	-31.7	-1.6	-0.6438	ug/L	-0.6438	ppb	00:15:30
1	U 409.014†	-1875.5	125.8	3.7232	ug/L	3.7232	ppb	00:15:10
1	V 292.402†	-1368.9	24.3	0.2131	ug/L	0.2131	ppb	00:15:10
1	Zn 213.857†	2811.3	2119.8	26.123	ug/L	26.123	ppb	00:15:30
1	SiO2†	665.0	108.0	8.7525	ug/L	8.7525	ppb	00:16:41
2	Sc Radial	4715.7	4715.7	104	%			00:14:18
2	Y RADIAL	5105.2	5105.2	103.8	%			00:14:18
2	Al 396.153Radial†	-81.5	-5.5	-5.4043	ug/L	-5.4043	ppb	00:14:38
2	Ca 317.933Radial†	18.2	-0.8	-1.5111	ug/L	-1.5111	ppb	00:14:38
2	Fe 238.204 Radial†	8.3	1.4	15.591	ug/L	15.591	ppb	00:14:38
2	K 766.490 Radial†	2763.3	156.9	29.845	ug/L	29.845	ppb	00:14:18
2	Mg 279.077 IEC†	1.3	0.9	36.417	ug/L	36.417	ppb	00:14:38
2	Na 589.592 Radial†	-721.1	21.7	7.5668	ug/L	7.5668	ppb	00:14:18
2	Sr 421.552†	55.4	16.0	0.1255	ug/L	0.1255	ppb	00:14:18
2	Sc 361.383	873912.8	873912.8	103.38	%			00:15:35
2	Y 371.029	737558.4	737558.4	103.45	%			00:15:35
2	Ag 328.068†	170.3	8.0	0.0470	ug/L	0.0470	ppb	00:15:35
2	As 188.979†	-26.3	-3.3	-1.8709	ug/L	-1.8709	ppb	00:15:55
2	B 249.677†	-333.1	125.3	3.5381	ug/L	3.5381	ppb	00:15:55
2	Ba 233.527†	10.2	-2.1	-0.0181	ug/L	-0.0181	ppb	00:15:55
2	Be 313.107†	-4332.4	266.7	0.1142	ug/L	0.1142	ppb	00:15:35
2	Cd 226.502†	-178.5	-24.2	-0.3558	ug/L	-0.3558	ppb	00:15:55
2	Co 228.616†	-47.5	7.7	0.2013	ug/L	0.2013	ppb	00:15:55
2	Cr 267.716†	62.4	-9.8	-0.1314	ug/L	-0.1314	ppb	00:15:55
2	Cu 324.752†	5638.7	-71.8	-0.2381	ug/L	-0.2381	ppb	00:15:35
2	Mn 257.610†	417.7	17.7	0.0236	ug/L	0.0236	ppb	00:15:55
2	Mo 202.031†	8.8	-4.4	-0.3943	ug/L	-0.3943	ppb	00:15:55
2	Ni 231.604†	99.5	23.6	0.7618	ug/L	0.7618	ppb	00:15:55

2	P 214.914†	188.9	-17.9	-13.543 ug/L	-13.543 ppb	00:15:55
2	Pb 220.353†	-51.3	-0.7	-0.1156 ug/L	-0.1156 ppb	00:15:55
2	S 181.975 Axial†	30.8	-0.1	-0.1609 ug/L	-0.1609 ppb	00:15:55
2	Sb 206.836†	27.3	1.0	0.4191 ug/L	0.4191 ppb	00:15:55
2	Se 196.026†	-28.6	-5.5	-4.5427 ug/L	-4.5427 ppb	00:15:55
2	Si 251.611†	681.2	140.1	5.3560 ug/L	5.3560 ppb	00:15:55
2	Sn 189.927†	5.6	1.7	0.3839 ug/L	0.3839 ppb	00:15:55
2	Ti 334.940†	-991.5	86.5	0.1467 ug/L	0.1467 ppb	00:15:35
2	Tl 190.801†	-16.1	13.5	5.3452 ug/L	5.3452 ppb	00:15:55
2	U 409.014†	-1954.7	52.4	1.5493 ug/L	1.5493 ppb	00:15:35
2	V 292.402†	-1327.1	67.0	0.5326 ug/L	0.5326 ppb	00:15:35
2	Zn 213.857†	2814.0	2117.6	26.091 ug/L	26.091 ppb	00:15:55
2	SiO2†	691.2	132.2	10.746 ug/L	10.746 ppb	00:17:01
3	Sc Radial	4728.0	4728.0	104 %		00:14:43
3	Y RADIAL	5091.9	5091.9	103.6 %		00:14:43
3	Al 396.153Radial†	-72.7	3.2	3.1632 ug/L	3.1632 ppb	00:15:03
3	Ca 317.933Radial†	16.5	-2.5	-4.6328 ug/L	-4.6328 ppb	00:15:03
3	Fe 238.204 Radial†	5.1	-1.7	-19.353 ug/L	-19.353 ppb	00:15:03
3	K 766.490 Radial†	2653.3	44.1	8.3870 ug/L	8.3870 ppb	00:14:43
3	Mg 279.077 IEC†	4.0	3.4	142.29 ug/L	142.29 ppb	00:15:03
3	Na 589.592 Radial†	-725.0	19.7	6.8801 ug/L	6.8801 ppb	00:14:43
3	Sr 421.552†	47.6	8.3	0.0653 ug/L	0.0653 ppb	00:14:43
3	Sc 361.383	873247.0	873247.0	103.31 %		00:16:00
3	Y 371.029	737883.3	737883.3	103.50 %		00:16:00
3	Ag 328.068†	214.1	50.6	0.2530 ug/L	0.2530 ppb	00:16:00
3	As 188.979†	-21.6	1.2	0.6715 ug/L	0.6715 ppb	00:16:20
3	B 249.677†	-341.0	117.4	3.3208 ug/L	3.3208 ppb	00:16:20
3	Ba 233.527†	5.4	-6.7	-0.0632 ug/L	-0.0632 ppb	00:16:20
3	Be 313.107†	-4233.1	359.7	0.1536 ug/L	0.1536 ppb	00:16:00
3	Cd 226.502†	-183.5	-29.2	-0.4254 ug/L	-0.4254 ppb	00:16:20
3	Co 228.616†	-46.9	8.3	0.2164 ug/L	0.2164 ppb	00:16:20
3	Cr 267.716†	61.2	-11.0	-0.1523 ug/L	-0.1523 ppb	00:16:20
3	Cu 324.752†	5605.4	-99.9	-0.3347 ug/L	-0.3347 ppb	00:16:00
3	Mn 257.610†	434.8	34.6	0.0383 ug/L	0.0383 ppb	00:16:20
3	Mo 202.031†	8.0	-5.2	-0.4679 ug/L	-0.4679 ppb	00:16:20
3	Ni 231.604†	100.1	24.3	0.7843 ug/L	0.7843 ppb	00:16:20
3	P 214.914†	192.2	-14.6	-10.964 ug/L	-10.964 ppb	00:16:20
3	Pb 220.353†	-61.8	-10.9	-1.7070 ug/L	-1.7070 ppb	00:16:20
3	S 181.975 Axial†	31.6	0.7	1.3000 ug/L	1.3000 ppb	00:16:20
3	Sb 206.836†	28.2	1.9	0.7974 ug/L	0.7974 ppb	00:16:20
3	Se 196.026†	-20.7	2.1	1.7085 ug/L	1.7085 ppb	00:16:20
3	Si 251.611†	664.8	124.7	4.7693 ug/L	4.7693 ppb	00:16:20
3	Sn 189.927†	3.5	-0.3	-0.0729 ug/L	-0.0729 ppb	00:16:20
3	Ti 334.940†	-1052.3	27.0	0.0327 ug/L	0.0327 ppb	00:16:00
3	Tl 190.801†	-32.5	-2.4	-0.9517 ug/L	-0.9517 ppb	00:16:20
3	U 409.014†	-1844.1	158.0	4.6788 ug/L	4.6788 ppb	00:16:00
3	V 292.402†	-1330.1	63.2	0.5138 ug/L	0.5138 ppb	00:16:00
3	Zn 213.857†	2796.4	2102.7	25.912 ug/L	25.912 ppb	00:16:20
3	SiO2†	659.5	102.0	8.2957 ug/L	8.2957 ppb	00:17:21

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	873172.1	103.30	%	0.092				0.09%
Sc Radial	4739.0	104	%	0.7				0.64%
Y 371.029	736991.9	103.37	%	0.179				0.17%
Y RADIAL	5111.0	103.9	%	0.46				0.44%
Ag 328.068†	27.8	0.1409	ug/L	0.10421	0.1409	ppb	0.10421	73.94%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.6	-0.5746	ug/L	4.38687	-0.5746	ppb	4.38687	763.43%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.9	-0.4836	ug/L	1.28696	-0.4836	ppb	1.28696	266.11%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	127.3	3.5979	ug/L	0.31141	3.5979	ppb	0.31141	8.66%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.5	-0.0043	ug/L	0.06701	-0.0043	ppb	0.06701	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	313.3	0.1339	ug/L	0.01972	0.1339	ppb	0.01972	14.73%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.3	-0.6321	ug/L	4.50486	-0.6321	ppb	4.50486	712.64%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -19.8     -0.2893 ug/L       0.17888     -0.2893 ppb        0.17888  61.83%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                9.8      0.2573 ug/L       0.08434      0.2573 ppb        0.08434  32.77%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                0.1      0.0003 ug/L       0.24637      0.0003 ppb        0.24637 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -76.7     -0.2563 ug/L       0.07105     -0.2563 ppb        0.07105  27.72%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.4     -5.0291 ug/L      18.30289     -5.0291 ppb       18.30289 363.94%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         77.8      14.793 ug/L       13.0832      14.793 ppb        13.0832  88.44%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.0      82.855 ug/L       54.1179      82.855 ppb        54.1179  65.32%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               32.5      0.0393 ug/L       0.01619      0.0393 ppb        0.01619  41.21%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -0.9     -0.0811 ug/L       0.60736     -0.0811 ppb        0.60736 749.29%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        31.4      10.971 ug/L        6.5005      10.971 ppb         6.5005  59.25%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               22.9      0.7398 ug/L       0.05865      0.7398 ppb        0.05865   7.93%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -15.8     -11.953 ug/L        1.3910     -11.953 ppb         1.3910  11.64%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -4.7     -0.7278 ug/L       0.85678     -0.7278 ppb        0.85678 117.72%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           0.8      1.4570 ug/L       1.70187      1.4570 ppb        1.70187 116.81%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                2.5      1.0637 ug/L       0.81128      1.0637 ppb        0.81128  76.27%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                5.2      4.2849 ug/L      10.35887      4.2849 ppb       10.35887 241.76%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              129.4      4.9413 ug/L       0.36085      4.9413 ppb        0.36085   7.30%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.1      0.4796 ug/L       0.60606      0.4796 ppb        0.60606 126.37%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                6.1      0.0476 ug/L       0.08821      0.0476 ppb        0.08821 185.46%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               36.2      0.0547 ug/L       0.08317      0.0547 ppb        0.08317 152.00%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.2      1.2499 ug/L       3.54999      1.2499 ppb        3.54999 284.02%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               112.1      3.3171 ug/L       1.60379      3.3171 ppb        1.60379  48.35%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                51.5      0.4198 ug/L       0.17930      0.4198 ppb        0.17930  42.71%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             2113.3      26.042 ug/L        0.1135      26.042 ppb         0.1135   0.44%
   QC value greater than the upper limit for Zn 213.857  Recovery = Not calculated
SiO2†                    114.1      9.2649 ug/L       1.30326      9.2649 ppb        1.30326  14.07%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 67
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/23/2010 01:15:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4690.0	4690.0	103	%			01:17:04
1	Y RADIAL	5027.7	5027.7	102.3	%			01:17:04
1	Al 396.153Radial†	4973.9	4900.7	4824.7	ug/L	4824.7	ppb	01:17:04
1	Ca 317.933Radial†	2766.2	2666.4	5031.5	ug/L	5031.5	ppb	01:17:24
1	Fe 238.204 Radial†	456.2	436.2	5021.6	ug/L	5021.6	ppb	01:17:24
1	K 766.490 Radial†	30140.6	26743.1	5082.2	ug/L	5082.2	ppb	01:17:04
1	Mg 279.077 IEC†	129.9	125.6	5216.2	ug/L	5216.2	ppb	01:17:24
1	Na 589.592 Radial†	28037.6	27930.1	9752.3	ug/L	9752.3	ppb	01:17:04
1	Sr 421.552†	63387.9	61484.8	481.69	ug/L	481.69	ppb	01:17:04
1	Sc 361.383	882943.0	882943.0	104.45	%			01:18:22
1	Y 371.029	733750.0	733750.0	102.92	%			01:18:22
1	Ag 328.068†	100952.5	96492.6	500.44	ug/L	500.44	ppb	01:18:27
1	As 188.979†	914.0	897.1	509.73	ug/L	509.73	ppb	01:18:47
1	B 249.677†	18085.3	17761.8	499.82	ug/L	499.82	ppb	01:18:27
1	Ba 233.527†	55468.0	53091.6	505.95	ug/L	505.95	ppb	01:18:27
1	Be 313.107†	1242466.3	1193960.9	510.82	ug/L	510.82	ppb	01:18:22
1	Cd 226.502†	35934.1	34550.8	507.52	ug/L	507.52	ppb	01:18:27
1	Co 228.616†	20149.3	19344.0	509.35	ug/L	509.35	ppb	01:18:27
1	Cr 267.716†	38845.0	37119.0	505.74	ug/L	505.74	ppb	01:18:27
1	Cu 324.752†	163114.5	150635.4	499.03	ug/L	499.03	ppb	01:18:27
1	Mn 257.610†	388593.8	371642.8	494.48	ug/L	494.48	ppb	01:18:27
1	Mo 202.031†	5755.4	5497.2	495.13	ug/L	495.13	ppb	01:18:47
1	Ni 231.604†	16671.0	15887.7	513.01	ug/L	513.01	ppb	01:18:27
1	P 214.914†	3654.1	3297.7	2402.1	ug/L	2402.1	ppb	01:18:47
1	Pb 220.353†	3304.0	3212.1	503.85	ug/L	503.85	ppb	01:18:47
1	S 181.975 Axial†	603.6	548.0	992.06	ug/L	992.06	ppb	01:18:47
1	Sb 206.836†	1243.6	1165.1	514.26	ug/L	514.26	ppb	01:18:47
1	Se 196.026†	609.3	605.5	521.79	ug/L	521.79	ppb	01:18:47
1	Si 251.611†	70261.8	66747.9	2543.0	ug/L	2543.0	ppb	01:18:27
1	Sn 189.927†	2244.7	2145.3	495.03	ug/L	495.03	ppb	01:18:47
1	Ti 334.940†	292342.7	280926.6	488.51	ug/L	488.51	ppb	01:18:27
1	Tl 190.801†	1306.0	1279.4	508.14	ug/L	508.14	ppb	01:18:47
1	U 409.014†	15913.2	17178.1	506.55	ug/L	506.55	ppb	01:18:27
1	V 292.402†	64267.6	62878.7	510.30	ug/L	510.30	ppb	01:18:27
1	Zn 213.857†	43651.0	41186.0	502.90	ug/L	502.90	ppb	01:18:27
1	SiO2†	70126.5	66600.9	5393.6	ug/L	5393.6	ppb	01:19:54
2	Sc Radial	4643.9	4643.9	102	%			01:17:29
2	Y RADIAL	4967.1	4967.1	101.0	%			01:17:29
2	Al 396.153Radial†	4986.3	4960.7	4884.2	ug/L	4884.2	ppb	01:17:29
2	Ca 317.933Radial†	2750.2	2677.4	5052.2	ug/L	5052.2	ppb	01:17:50
2	Fe 238.204 Radial†	461.4	445.6	5129.7	ug/L	5129.7	ppb	01:17:50
2	K 766.490 Radial†	29987.7	26883.8	5109.0	ug/L	5109.0	ppb	01:17:29
2	Mg 279.077 IEC†	130.0	127.1	5275.4	ug/L	5275.4	ppb	01:17:50
2	Na 589.592 Radial†	27454.2	27628.6	9647.0	ug/L	9647.0	ppb	01:17:29
2	Sr 421.552†	62965.8	61682.1	483.23	ug/L	483.23	ppb	01:17:29
2	Sc 361.383	888541.3	888541.3	105.11	%			01:18:52
2	Y 371.029	738092.3	738092.3	103.53	%			01:18:52
2	Ag 328.068†	101494.1	96398.8	499.98	ug/L	499.98	ppb	01:18:58
2	As 188.979†	917.1	894.5	508.33	ug/L	508.33	ppb	01:19:18
2	B 249.677†	18331.4	17886.9	503.33	ug/L	503.33	ppb	01:18:58
2	Ba 233.527†	55644.5	52924.9	504.37	ug/L	504.37	ppb	01:18:58
2	Be 313.107†	1243720.4	1187659.5	508.13	ug/L	508.13	ppb	01:18:52
2	Cd 226.502†	36022.5	34418.1	505.56	ug/L	505.56	ppb	01:18:58
2	Co 228.616†	20332.9	19397.2	510.74	ug/L	510.74	ppb	01:18:58
2	Cr 267.716†	38886.0	36923.7	503.09	ug/L	503.09	ppb	01:18:58
2	Cu 324.752†	164353.6	150830.3	499.68	ug/L	499.68	ppb	01:18:58
2	Mn 257.610†	389814.5	370460.2	492.91	ug/L	492.91	ppb	01:18:58
2	Mo 202.031†	5757.8	5464.7	492.22	ug/L	492.22	ppb	01:19:18
2	Ni 231.604†	16745.8	15858.4	512.06	ug/L	512.06	ppb	01:18:58

2	P 214.914†	3666.6	3287.5	2394.2 ug/L	2394.2 ppb	01:19:18
2	Pb 220.353†	3319.5	3206.9	503.03 ug/L	503.03 ppb	01:19:18
2	S 181.975 Axial†	603.8	544.5	985.68 ug/L	985.68 ppb	01:19:18
2	Sb 206.836†	1249.8	1163.5	513.49 ug/L	513.49 ppb	01:19:18
2	Se 196.026†	606.8	599.4	517.09 ug/L	517.09 ppb	01:19:18
2	Si 251.611†	70719.5	66759.5	2543.5 ug/L	2543.5 ppb	01:18:58
2	Sn 189.927†	2253.7	2140.3	493.86 ug/L	493.86 ppb	01:19:18
2	Ti 334.940†	293824.3	280572.6	487.90 ug/L	487.90 ppb	01:18:58
2	Tl 190.801†	1298.8	1264.7	502.31 ug/L	502.31 ppb	01:19:18
2	U 409.014†	16021.5	17185.1	506.76 ug/L	506.76 ppb	01:18:58
2	V 292.402†	64596.7	62804.2	509.64 ug/L	509.64 ppb	01:18:58
2	Zn 213.857†	43882.3	41142.7	502.35 ug/L	502.35 ppb	01:18:58
2	SiO2†	71211.9	67210.5	5443.1 ug/L	5443.1 ppb	01:19:59
3	Sc Radial	4697.7	4697.7	103 %		01:17:55
3	Y RADIAL	5000.1	5000.1	101.7 %		01:17:55
3	Al 396.153Radial†	5091.8	5007.0	4929.9 ug/L	4929.9 ppb	01:17:55
3	Ca 317.933Radial†	2771.6	2667.3	5033.1 ug/L	5033.1 ppb	01:18:15
3	Fe 238.204 Radial†	461.9	440.9	5075.7 ug/L	5075.7 ppb	01:18:15
3	K 766.490 Radial†	30638.1	27177.2	5164.8 ug/L	5164.8 ppb	01:17:55
3	Mg 279.077 IEC†	128.3	123.9	5145.5 ug/L	5145.5 ppb	01:18:15
3	Na 589.592 Radial†	28298.5	28138.4	9825.0 ug/L	9825.0 ppb	01:17:55
3	Sr 421.552†	64491.3	62453.4	489.28 ug/L	489.28 ppb	01:17:55
3	Sc 361.383	888256.1	888256.1	105.08 %		01:19:23
3	Y 371.029	739102.6	739102.6	103.67 %		01:19:23
3	Ag 328.068†	100679.3	95654.4	496.11 ug/L	496.11 ppb	01:19:28
3	As 188.979†	920.5	898.1	510.25 ug/L	510.25 ppb	01:19:48
3	B 249.677†	18083.4	17656.5	496.84 ug/L	496.84 ppb	01:19:28
3	Ba 233.527†	55158.9	52479.8	500.12 ug/L	500.12 ppb	01:19:28
3	Be 313.107†	1249179.9	1193234.9	510.50 ug/L	510.50 ppb	01:19:23
3	Cd 226.502†	35646.3	34071.2	500.46 ug/L	500.46 ppb	01:19:28
3	Co 228.616†	20148.3	19227.6	506.29 ug/L	506.29 ppb	01:19:28
3	Cr 267.716†	38642.9	36704.2	500.09 ug/L	500.09 ppb	01:19:28
3	Cu 324.752†	162863.4	149462.4	495.15 ug/L	495.15 ppb	01:19:28
3	Mn 257.610†	386322.0	367255.7	488.65 ug/L	488.65 ppb	01:19:28
3	Mo 202.031†	5768.0	5476.2	493.25 ug/L	493.25 ppb	01:19:48
3	Ni 231.604†	16506.7	15635.9	504.88 ug/L	504.88 ppb	01:19:28
3	P 214.914†	3647.3	3270.2	2382.0 ug/L	2382.0 ppb	01:19:48
3	Pb 220.353†	3295.1	3184.6	499.57 ug/L	499.57 ppb	01:19:48
3	S 181.975 Axial†	609.1	549.7	995.18 ug/L	995.18 ppb	01:19:48
3	Sb 206.836†	1254.2	1168.1	515.45 ug/L	515.45 ppb	01:19:48
3	Se 196.026†	608.7	601.4	518.62 ug/L	518.62 ppb	01:19:48
3	Si 251.611†	69975.3	66072.9	2517.3 ug/L	2517.3 ppb	01:19:28
3	Sn 189.927†	2253.8	2141.1	494.05 ug/L	494.05 ppb	01:19:48
3	Ti 334.940†	291085.7	278056.2	483.53 ug/L	483.53 ppb	01:19:28
3	Tl 190.801†	1314.9	1280.4	508.49 ug/L	508.49 ppb	01:19:48
3	U 409.014†	15924.3	17097.5	504.18 ug/L	504.18 ppb	01:19:28
3	V 292.402†	63950.0	62208.5	504.89 ug/L	504.89 ppb	01:19:28
3	Zn 213.857†	43397.9	40695.2	496.90 ug/L	496.90 ppb	01:19:28
3	SiO2†	70616.9	66666.0	5398.9 ug/L	5398.9 ppb	01:20:04

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	886580.1	104.88	%	0.373				0.36%
Sc Radial	4677.2	103	%	0.6				0.62%
Y 371.029	736981.6	103.37	%	0.399				0.39%
Y RADIAL	4998.3	101.7	%	0.62				0.61%
Ag 328.068†	96181.9	498.85	ug/L	2.376	498.85	ppb	2.376	0.48%
QC value within limits for Ag 328.068 Recovery = 99.77%								
Al 396.153Radial†	4956.2	4879.6	ug/L	52.77	4879.6	ppb	52.77	1.08%
QC value within limits for Al 396.153Radial Recovery = 97.59%								
As 188.979†	896.6	509.44	ug/L	0.995	509.44	ppb	0.995	0.20%
QC value within limits for As 188.979 Recovery = 101.89%								
B 249.677†	17768.4	500.00	ug/L	3.249	500.00	ppb	3.249	0.65%
QC value within limits for B 249.677 Recovery = 100.00%								
Ba 233.527†	52832.1	503.48	ug/L	3.012	503.48	ppb	3.012	0.60%
QC value within limits for Ba 233.527 Recovery = 100.70%								
Be 313.107†	1191618.4	509.82	ug/L	1.470	509.82	ppb	1.470	0.29%
QC value within limits for Be 313.107 Recovery = 101.96%								
Ca 317.933Radial†	2670.4	5038.9	ug/L	11.51	5038.9	ppb	11.51	0.23%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.78%
Cd 226.502†            34346.7      504.51 ug/L         3.643      504.51 ppb          3.643   0.72%
   QC value within limits for Cd 226.502  Recovery = 100.90%
Co 228.616†            19322.9      508.79 ug/L         2.277      508.79 ppb          2.277   0.45%
   QC value within limits for Co 228.616  Recovery = 101.76%
Cr 267.716†            36915.6      502.97 ug/L         2.823      502.97 ppb          2.823   0.56%
   QC value within limits for Cr 267.716  Recovery = 100.59%
Cu 324.752†           150309.3      497.95 ug/L         2.451      497.95 ppb          2.451   0.49%
   QC value within limits for Cu 324.752  Recovery = 99.59%
Fe 238.204 Radial†       440.9      5075.7 ug/L         54.05      5075.7 ppb          54.05   1.06%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.51%
K 766.490 Radial†      26934.7      5118.7 ug/L         42.13      5118.7 ppb          42.13   0.82%
   QC value within limits for K 766.490 Radial  Recovery = 102.37%
Mg 279.077 IEC†          125.6      5212.4 ug/L         65.01      5212.4 ppb          65.01   1.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.25%
Mn 257.610†           369786.3      492.01 ug/L         3.015      492.01 ppb          3.015   0.61%
   QC value within limits for Mn 257.610  Recovery = 98.40%
Mo 202.031†             5479.4      493.53 ug/L         1.478      493.53 ppb          1.478   0.30%
   QC value within limits for Mo 202.031  Recovery = 98.71%
Na 589.592 Radial†     27899.0      9741.5 ug/L         89.51      9741.5 ppb          89.51   0.92%
   QC value within limits for Na 589.592 Radial  Recovery = 97.41%
Ni 231.604†            15794.0      509.99 ug/L         4.447      509.99 ppb          4.447   0.87%
   QC value within limits for Ni 231.604  Recovery = 102.00%
P 214.914†              3285.1      2392.8 ug/L         10.10      2392.8 ppb          10.10   0.42%
   QC value within limits for P 214.914  Recovery = 95.71%
Pb 220.353†             3201.2      502.15 ug/L         2.273      502.15 ppb          2.273   0.45%
   QC value within limits for Pb 220.353  Recovery = 100.43%
S 181.975 Axial†         547.4      990.97 ug/L         4.839      990.97 ppb          4.839   0.49%
   QC value within limits for S 181.975 Axial  Recovery = 99.10%
Sb 206.836†             1165.6      514.40 ug/L         0.988      514.40 ppb          0.988   0.19%
   QC value within limits for Sb 206.836  Recovery = 102.88%
Se 196.026†              602.1      519.17 ug/L         2.395      519.17 ppb          2.395   0.46%
   QC value within limits for Se 196.026  Recovery = 103.83%
Si 251.611†            66526.8      2534.6 ug/L         15.01      2534.6 ppb          15.01   0.59%
   QC value within limits for Si 251.611  Recovery = 101.38%
Sn 189.927†             2142.3      494.31 ug/L         0.623      494.31 ppb          0.623   0.13%
   QC value within limits for Sn 189.927  Recovery = 98.86%
Sr 421.552†            61873.4      484.73 ug/L         4.010      484.73 ppb          4.010   0.83%
   QC value within limits for Sr 421.552  Recovery = 96.95%
Ti 334.940†           279851.8      486.65 ug/L         2.717      486.65 ppb          2.717   0.56%
   QC value within limits for Ti 334.940  Recovery = 97.33%
Tl 190.801†             1274.8      506.32 ug/L         3.470      506.32 ppb          3.470   0.69%
   QC value within limits for Tl 190.801  Recovery = 101.26%
U 409.014†             17153.6      505.83 ug/L         1.434      505.83 ppb          1.434   0.28%
   QC value within limits for U 409.014  Recovery = 101.17%
V 292.402†             62630.5      508.28 ug/L         2.949      508.28 ppb          2.949   0.58%
   QC value within limits for V 292.402  Recovery = 101.66%
Zn 213.857†            41008.0      500.71 ug/L         3.318      500.71 ppb          3.318   0.66%
   QC value within limits for Zn 213.857  Recovery = 100.14%
SiO2†                  66825.8      5411.9 ug/L         27.21      5411.9 ppb          27.21   0.50%
   QC value within limits for SiO2  Recovery = 101.20%
All analyte(s) passed QC.
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Sequence No.: 68
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/23/2010 01:22:15
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4668.5	4668.5	103	%			01:24:07
1	Y RADIAL	5050.8	5050.8	102.7	%			01:24:07
1	Al 396.153Radial†	-79.3	-4.1	-4.0959	ug/L	-4.0959	ppb	01:24:27
1	Ca 317.933Radial†	21.8	2.9	5.4654	ug/L	5.4654	ppb	01:24:27
1	Fe 238.204 Radial†	6.8	0.0	0.0511	ug/L	0.0511	ppb	01:24:27
1	K 766.490 Radial†	2781.3	201.4	38.318	ug/L	38.318	ppb	01:24:07
1	Mg 279.077 IEC†	2.7	2.2	92.000	ug/L	92.000	ppb	01:24:27
1	Na 589.592 Radial†	-757.1	-20.4	-7.1404	ug/L	-7.1404	ppb	01:24:07
1	Sr 421.552†	22.5	-15.6	-0.1219	ug/L	-0.1219	ppb	01:24:07
1	Sc 361.383	873996.5	873996.5	103.39	%			01:25:24
1	Y 371.029	737954.0	737954.0	103.51	%			01:25:24
1	Ag 328.068†	199.0	35.8	0.1875	ug/L	0.1875	ppb	01:25:24
1	As 188.979†	-28.7	-5.7	-3.2117	ug/L	-3.2117	ppb	01:25:44
1	B 249.677†	-223.5	231.3	6.5368	ug/L	6.5368	ppb	01:25:44
1	Ba 233.527†	8.7	-3.6	-0.0315	ug/L	-0.0315	ppb	01:25:44
1	Be 313.107†	-4383.7	217.5	0.0930	ug/L	0.0930	ppb	01:25:24
1	Cd 226.502†	-163.7	-9.9	-0.1444	ug/L	-0.1444	ppb	01:25:44
1	Co 228.616†	-40.0	15.0	0.3942	ug/L	0.3942	ppb	01:25:44
1	Cr 267.716†	78.3	5.5	0.0758	ug/L	0.0758	ppb	01:25:44
1	Cu 324.752†	5598.0	-111.8	-0.3713	ug/L	-0.3713	ppb	01:25:24
1	Mn 257.610†	427.8	27.5	0.0328	ug/L	0.0328	ppb	01:25:44
1	Mo 202.031†	16.7	3.3	0.2956	ug/L	0.2956	ppb	01:25:44
1	Ni 231.604†	108.1	32.0	1.0326	ug/L	1.0326	ppb	01:25:44
1	P 214.914†	190.8	-16.1	-12.118	ug/L	-12.118	ppb	01:25:44
1	Pb 220.353†	-48.8	1.7	0.2640	ug/L	0.2640	ppb	01:25:44
1	S 181.975 Axial†	30.8	-0.1	-0.1388	ug/L	-0.1388	ppb	01:25:44
1	Sb 206.836†	32.1	5.6	2.4275	ug/L	2.4275	ppb	01:25:44
1	Se 196.026†	-7.0	15.4	12.866	ug/L	12.866	ppb	01:25:44
1	Si 251.611†	684.7	143.4	5.4731	ug/L	5.4731	ppb	01:25:44
1	Sn 189.927†	14.8	10.6	2.4341	ug/L	2.4341	ppb	01:25:44
1	Ti 334.940†	-1050.4	29.6	0.0440	ug/L	0.0440	ppb	01:25:24
1	Tl 190.801†	-28.5	1.5	0.6008	ug/L	0.6008	ppb	01:25:44
1	U 409.014†	-1957.8	49.7	1.4690	ug/L	1.4690	ppb	01:25:24
1	V 292.402†	-1259.5	132.6	1.0705	ug/L	1.0705	ppb	01:25:24
1	Zn 213.857†	2832.3	2135.0	26.307	ug/L	26.307	ppb	01:25:44
1	SiO2†	666.1	107.9	8.7496	ug/L	8.7496	ppb	01:26:40
2	Sc Radial	4601.9	4601.9	101	%			01:24:32
2	Y RADIAL	4987.1	4987.1	101.4	%			01:24:32
2	Al 396.153Radial†	-75.3	-1.3	-1.2911	ug/L	-1.2911	ppb	01:24:52
2	Ca 317.933Radial†	20.6	2.0	3.8492	ug/L	3.8492	ppb	01:24:52
2	Fe 238.204 Radial†	7.0	0.3	3.4752	ug/L	3.4752	ppb	01:24:52
2	K 766.490 Radial†	2749.7	209.5	39.861	ug/L	39.861	ppb	01:24:32
2	Mg 279.077 IEC†	0.7	0.3	13.314	ug/L	13.314	ppb	01:24:52
2	Na 589.592 Radial†	-769.0	-42.9	-14.968	ug/L	-14.968	ppb	01:24:32
2	Sr 421.552†	24.7	-13.0	-0.1017	ug/L	-0.1017	ppb	01:24:32
2	Sc 361.383	878435.2	878435.2	103.92	%			01:25:49
2	Y 371.029	742335.4	742335.4	104.12	%			01:25:49
2	Ag 328.068†	234.7	69.2	0.3582	ug/L	0.3582	ppb	01:25:49
2	As 188.979†	-20.8	2.1	1.1890	ug/L	1.1890	ppb	01:26:09
2	B 249.677†	-221.0	234.8	6.6353	ug/L	6.6353	ppb	01:26:09
2	Ba 233.527†	-1.1	-13.0	-0.1219	ug/L	-0.1219	ppb	01:26:09
2	Be 313.107†	-4280.0	338.7	0.1452	ug/L	0.1452	ppb	01:25:49
2	Cd 226.502†	-167.4	-12.6	-0.1843	ug/L	-0.1843	ppb	01:26:09
2	Co 228.616†	-42.4	12.8	0.3354	ug/L	0.3354	ppb	01:26:09
2	Cr 267.716†	57.5	-14.8	-0.2016	ug/L	-0.2016	ppb	01:26:09
2	Cu 324.752†	5585.4	-151.3	-0.5027	ug/L	-0.5027	ppb	01:25:49
2	Mn 257.610†	455.5	52.0	0.0690	ug/L	0.0690	ppb	01:26:09
2	Mo 202.031†	10.8	-2.5	-0.2250	ug/L	-0.2250	ppb	01:26:09
2	Ni 231.604†	100.8	24.3	0.7864	ug/L	0.7864	ppb	01:26:09

2	P 214.914†	181.1	-26.4	-19.876	ug/L	-19.876 ppb	01:26:09
2	Pb 220.353†	-55.7	-4.7	-0.7300	ug/L	-0.7300 ppb	01:26:09
2	S 181.975 Axial†	23.9	-6.9	-12.467	ug/L	-12.467 ppb	01:26:09
2	Sb 206.836†	30.2	3.6	1.5381	ug/L	1.5381 ppb	01:26:09
2	Se 196.026†	-21.0	2.0	1.6377	ug/L	1.6377 ppb	01:26:09
2	Si 251.611†	686.9	142.1	5.4314	ug/L	5.4314 ppb	01:26:09
2	Sn 189.927†	9.6	5.5	1.2668	ug/L	1.2668 ppb	01:26:09
2	Ti 334.940†	-936.6	144.3	0.2491	ug/L	0.2491 ppb	01:25:49
2	Tl 190.801†	-26.1	4.0	1.5701	ug/L	1.5701 ppb	01:26:09
2	U 409.014†	-1913.2	102.1	3.0223	ug/L	3.0223 ppb	01:25:49
2	V 292.402†	-1303.6	96.3	0.7732	ug/L	0.7732 ppb	01:25:49
2	Zn 213.857†	2807.9	2097.7	25.848	ug/L	25.848 ppb	01:26:09
2	SiO2†	643.9	83.3	6.7671	ug/L	6.7671 ppb	01:26:45
3	Sc Radial	4613.2	4613.2	101	%		01:24:57
3	Y RADIAL	4975.7	4975.7	101.2	%		01:24:57
3	Al 396.153Radial†	-75.9	-1.7	-1.6380	ug/L	-1.6380 ppb	01:25:17
3	Ca 317.933Radial†	17.8	-0.8	-1.5149	ug/L	-1.5149 ppb	01:25:17
3	Fe 238.204 Radial†	6.9	0.2	1.8378	ug/L	1.8378 ppb	01:25:17
3	K 766.490 Radial†	2727.0	180.4	34.327	ug/L	34.327 ppb	01:24:57
3	Mg 279.077 IEC†	1.8	1.4	56.247	ug/L	56.247 ppb	01:25:17
3	Na 589.592 Radial†	-781.4	-53.3	-18.610	ug/L	-18.610 ppb	01:24:57
3	Sr 421.552†	18.9	-18.8	-0.1475	ug/L	-0.1475 ppb	01:24:57
3	Sc 361.383	879871.5	879871.5	104.09	%		01:26:14
3	Y 371.029	744146.8	744146.8	104.38	%		01:26:14
3	Ag 328.068†	214.6	49.5	0.2549	ug/L	0.2549 ppb	01:26:14
3	As 188.979†	-17.5	5.3	2.9732	ug/L	2.9732 ppb	01:26:34
3	B 249.677†	-234.4	222.2	6.2815	ug/L	6.2815 ppb	01:26:34
3	Ba 233.527†	12.5	0.0	0.0006	ug/L	0.0006 ppb	01:26:34
3	Be 313.107†	-4179.9	441.7	0.1886	ug/L	0.1886 ppb	01:26:14
3	Cd 226.502†	-174.4	-19.1	-0.2803	ug/L	-0.2803 ppb	01:26:34
3	Co 228.616†	-45.3	10.1	0.2639	ug/L	0.2639 ppb	01:26:34
3	Cr 267.716†	73.0	-0.0	-0.0003	ug/L	-0.0003 ppb	01:26:34
3	Cu 324.752†	5610.3	-136.1	-0.4515	ug/L	-0.4515 ppb	01:26:14
3	Mn 257.610†	417.9	15.2	0.0181	ug/L	0.0181 ppb	01:26:34
3	Mo 202.031†	2.7	-10.3	-0.9257	ug/L	-0.9257 ppb	01:26:34
3	Ni 231.604†	95.9	19.5	0.6300	ug/L	0.6300 ppb	01:26:34
3	P 214.914†	176.0	-31.6	-23.882	ug/L	-23.882 ppb	01:26:34
3	Pb 220.353†	-65.0	-13.6	-2.1283	ug/L	-2.1283 ppb	01:26:34
3	S 181.975 Axial†	36.4	5.1	9.2564	ug/L	9.2564 ppb	01:26:34
3	Sb 206.836†	24.3	-2.1	-0.9354	ug/L	-0.9354 ppb	01:26:34
3	Se 196.026†	-17.7	5.1	4.2913	ug/L	4.2913 ppb	01:26:34
3	Si 251.611†	658.4	113.7	4.3554	ug/L	4.3554 ppb	01:26:34
3	Sn 189.927†	1.6	-2.2	-0.5129	ug/L	-0.5129 ppb	01:26:34
3	Ti 334.940†	-1066.7	20.7	0.0308	ug/L	0.0308 ppb	01:26:14
3	Tl 190.801†	-25.1	5.0	1.9826	ug/L	1.9826 ppb	01:26:34
3	U 409.014†	-1984.6	36.5	1.0808	ug/L	1.0808 ppb	01:26:14
3	V 292.402†	-1395.6	9.9	0.0689	ug/L	0.0689 ppb	01:26:14
3	Zn 213.857†	2820.3	2105.2	25.942	ug/L	25.942 ppb	01:26:34
3	SiO2†	631.9	70.7	5.7688	ug/L	5.7688 ppb	01:26:50

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	877434.4	103.80	%	0.362				0.35%
Sc Radial	4627.9	102	%	0.8				0.77%
Y 371.029	741478.7	104.00	%	0.447				0.43%
Y RADIAL	5004.6	101.8	%	0.82				0.81%
Ag 328.068†	51.5	0.2669	ug/L	0.08601	0.2669	ppb	0.08601	32.23%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-2.4	-2.3417	ug/L	1.52910	-2.3417	ppb	1.52910	65.30%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.6	0.3168	ug/L	3.18333	0.3168	ppb	3.18333	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	229.4	6.4845	ug/L	0.18263	6.4845	ppb	0.18263	2.82%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-5.5	-0.0509	ug/L	0.06356	-0.0509	ppb	0.06356	124.83%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	332.6	0.1423	ug/L	0.04790	0.1423	ppb	0.04790	33.67%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	1.4	2.5999	ug/L	3.65403	2.5999	ppb	3.65403	140.55%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -13.9     -0.2030 ug/L       0.06982     -0.2030 ppb        0.06982  34.39%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               12.6      0.3311 ug/L       0.06523      0.3311 ppb        0.06523  19.70%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               -3.1     -0.0420 ug/L       0.14330     -0.0420 ppb        0.14330 340.85%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -133.1     -0.4418 ug/L       0.06624     -0.4418 ppb        0.06624  14.99%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.2      1.7880 ug/L       1.71263      1.7880 ppb        1.71263  95.78%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        197.1     37.502 ug/L        2.8557     37.502 ppb         2.8557   7.61%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.3     53.854 ug/L       39.3977     53.854 ppb        39.3977  73.16%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               31.6      0.0400 ug/L       0.02618      0.0400 ppb        0.02618  65.47%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               -3.2     -0.2850 ug/L       0.61287     -0.2850 ppb        0.61287 215.02%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -38.9     -13.573 ug/L        5.8608     -13.573 ppb         5.8608  43.18%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               25.3      0.8163 ug/L       0.20294      0.8163 ppb        0.20294  24.86%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -24.7     -18.626 ug/L        5.9811     -18.626 ppb         5.9811  32.11%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -5.5     -0.8648 ug/L       1.20184     -0.8648 ppb        1.20184 138.98%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -0.6     -1.1164 ug/L      10.89460     -1.1164 ppb       10.89460 975.85%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                2.3      1.0101 ug/L       1.74252      1.0101 ppb        1.74252 172.51%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                7.5      6.2651 ug/L       5.86888      6.2651 ppb        5.86888  93.68%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              133.1      5.0866 ug/L       0.63362      5.0866 ppb        0.63362  12.46%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                4.6      1.0627 ug/L       1.48405      1.0627 ppb        1.48405 139.65%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -15.8     -0.1237 ug/L       0.02295     -0.1237 ppb        0.02295  18.55%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               64.9      0.1080 ug/L       0.12240      0.1080 ppb        0.12240 113.36%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.5      1.3845 ug/L       0.70933      1.3845 ppb        0.70933  51.23%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                62.8      1.8574 ug/L       1.02733      1.8574 ppb        1.02733  55.31%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                79.6      0.6376 ug/L       0.51440      0.6376 ppb        0.51440  80.68%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             2112.7     26.032 ug/L        0.2426     26.032 ppb         0.2426   0.93%
   QC value greater than the upper limit for Zn 213.857  Recovery = Not calculated
SiO2†                     87.3      7.0952 ug/L       1.51728      7.0952 ppb        1.51728  21.38%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 77
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/23/2010 02:25:36
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4588.9	4588.9	101	%			02:27:28
1	Y RADIAL	4950.4	4950.4	100.7	%			02:27:28
1	Al 396.153Radial†	5022.7	5055.5	4977.8	ug/L	4977.8	ppb	02:27:28
1	Ca 317.933Radial†	2727.7	2687.4	5071.0	ug/L	5071.0	ppb	02:27:48
1	Fe 238.204 Radial†	447.8	437.6	5037.9	ug/L	5037.9	ppb	02:27:48
1	K 766.490 Radial†	30097.2	27344.8	5196.9	ug/L	5196.9	ppb	02:27:28
1	Mg 279.077 IEC†	129.4	128.0	5312.1	ug/L	5312.1	ppb	02:27:48
1	Na 589.592 Radial†	26092.5	26600.6	9288.1	ug/L	9288.1	ppb	02:27:28
1	Sr 421.552†	61794.1	61260.0	479.93	ug/L	479.93	ppb	02:27:28
1	Sc 361.383	886561.9	886561.9	104.88	%			02:28:45
1	Y 371.029	736905.9	736905.9	103.36	%			02:28:45
1	Ag 328.068†	99963.5	95155.0	493.52	ug/L	493.52	ppb	02:28:50
1	As 188.979†	917.0	896.4	509.31	ug/L	509.31	ppb	02:29:10
1	B 249.677†	17773.6	17394.0	489.43	ug/L	489.43	ppb	02:28:50
1	Ba 233.527†	54914.3	52346.9	498.86	ug/L	498.86	ppb	02:28:50
1	Be 313.107†	1239813.8	1186576.3	507.65	ug/L	507.65	ppb	02:28:45
1	Cd 226.502†	35546.7	34041.0	500.02	ug/L	500.02	ppb	02:28:50
1	Co 228.616†	20041.7	19162.6	504.59	ug/L	504.59	ppb	02:28:50
1	Cr 267.716†	38490.0	36628.7	499.06	ug/L	499.06	ppb	02:28:50
1	Cu 324.752†	161595.8	148549.9	492.12	ug/L	492.12	ppb	02:28:50
1	Mn 257.610†	384875.8	366579.3	487.74	ug/L	487.74	ppb	02:28:50
1	Mo 202.031†	5787.6	5505.4	495.87	ug/L	495.87	ppb	02:29:10
1	Ni 231.604†	16494.8	15654.6	505.48	ug/L	505.48	ppb	02:28:50
1	P 214.914†	3671.7	3300.2	2405.4	ug/L	2405.4	ppb	02:29:10
1	Pb 220.353†	3296.4	3191.9	500.73	ug/L	500.73	ppb	02:29:10
1	S 181.975 Axial†	610.3	552.0	999.28	ug/L	999.28	ppb	02:29:10
1	Sb 206.836†	1245.7	1162.2	513.05	ug/L	513.05	ppb	02:29:10
1	Se 196.026†	623.9	617.0	531.52	ug/L	531.52	ppb	02:29:10
1	Si 251.611†	69511.0	65757.5	2505.2	ug/L	2505.2	ppb	02:28:50
1	Sn 189.927†	2260.3	2151.4	496.42	ug/L	496.42	ppb	02:29:10
1	Ti 334.940†	289502.1	277075.6	481.82	ug/L	481.82	ppb	02:28:50
1	Tl 190.801†	1313.7	1281.6	508.96	ug/L	508.96	ppb	02:29:10
1	U 409.014†	15876.9	17081.3	503.70	ug/L	503.70	ppb	02:28:50
1	V 292.402†	63686.4	62073.5	503.86	ug/L	503.86	ppb	02:28:50
1	Zn 213.857†	43221.6	40606.0	495.80	ug/L	495.80	ppb	02:28:50
1	SiO2†	70334.8	66525.4	5387.4	ug/L	5387.4	ppb	02:30:17
2	Sc Radial	4671.7	4671.7	103	%			02:27:53
2	Y RADIAL	5038.8	5038.8	102.5	%			02:27:53
2	Al 396.153Radial†	4968.3	4914.2	4837.8	ug/L	4837.8	ppb	02:27:53
2	Ca 317.933Radial†	2725.3	2637.1	4976.2	ug/L	4976.2	ppb	02:28:13
2	Fe 238.204 Radial†	443.6	425.6	4900.9	ug/L	4900.9	ppb	02:28:13
2	K 766.490 Radial†	29804.0	26529.8	5041.9	ug/L	5041.9	ppb	02:27:53
2	Mg 279.077 IEC†	127.7	124.1	5151.0	ug/L	5151.0	ppb	02:28:13
2	Na 589.592 Radial†	25604.9	25666.5	8961.9	ug/L	8961.9	ppb	02:27:53
2	Sr 421.552†	60983.6	59383.3	465.22	ug/L	465.22	ppb	02:27:53
2	Sc 361.383	883938.9	883938.9	104.57	%			02:29:16
2	Y 371.029	735255.9	735255.9	103.13	%			02:29:16
2	Ag 328.068†	102400.2	97768.0	506.99	ug/L	506.99	ppb	02:29:21
2	As 188.979†	923.2	905.0	514.20	ug/L	514.20	ppb	02:29:41
2	B 249.677†	18300.6	17948.2	505.08	ug/L	505.08	ppb	02:29:21
2	Ba 233.527†	56097.0	53633.3	511.11	ug/L	511.11	ppb	02:29:21
2	Be 313.107†	1236249.6	1186675.8	507.73	ug/L	507.73	ppb	02:29:16
2	Cd 226.502†	36291.9	34854.2	511.99	ug/L	511.99	ppb	02:29:21
2	Co 228.616†	20516.5	19673.4	518.01	ug/L	518.01	ppb	02:29:21
2	Cr 267.716†	39357.3	37566.9	511.82	ug/L	511.82	ppb	02:29:21
2	Cu 324.752†	165637.5	152872.2	506.43	ug/L	506.43	ppb	02:29:21
2	Mn 257.610†	393247.7	375674.3	499.83	ug/L	499.83	ppb	02:29:21
2	Mo 202.031†	5794.2	5528.1	497.90	ug/L	497.90	ppb	02:29:41
2	Ni 231.604†	16834.4	16026.0	517.48	ug/L	517.48	ppb	02:29:21

2	P 214.914†	3656.1	3295.7	2399.2 ug/L	2399.2 ppb	02:29:41
2	Pb 220.353†	3309.5	3213.7	504.13 ug/L	504.13 ppb	02:29:41
2	S 181.975 Axial†	605.2	548.8	993.58 ug/L	993.58 ppb	02:29:41
2	Sb 206.836†	1247.6	1167.7	515.42 ug/L	515.42 ppb	02:29:41
2	Se 196.026†	618.6	613.8	528.38 ug/L	528.38 ppb	02:29:41
2	Si 251.611†	71105.9	67479.3	2570.9 ug/L	2570.9 ppb	02:29:21
2	Sn 189.927†	2256.2	2153.8	496.98 ug/L	496.98 ppb	02:29:41
2	Ti 334.940†	296682.7	284761.5	495.17 ug/L	495.17 ppb	02:29:21
2	Tl 190.801†	1310.4	1282.2	509.27 ug/L	509.27 ppb	02:29:41
2	U 409.014†	16519.0	17740.2	523.19 ug/L	523.19 ppb	02:29:21
2	V 292.402†	65258.9	63757.4	517.41 ug/L	517.41 ppb	02:29:21
2	Zn 213.857†	44239.5	41701.7	509.23 ug/L	509.23 ppb	02:29:21
2	SiO2†	71214.2	67565.4	5471.8 ug/L	5471.8 ppb	02:30:22
3	Sc Radial	4672.9	4672.9	103 %		02:28:18
3	Y RADIAL	4990.3	4990.3	101.5 %		02:28:18
3	Al 396.153Radial†	5076.0	5017.8	4940.7 ug/L	4940.7 ppb	02:28:18
3	Ca 317.933Radial†	2734.4	2645.3	4991.7 ug/L	4991.7 ppb	02:28:38
3	Fe 238.204 Radial†	450.5	432.2	4975.9 ug/L	4975.9 ppb	02:28:38
3	K 766.490 Radial†	30451.9	27153.5	5160.5 ug/L	5160.5 ppb	02:28:18
3	Mg 279.077 IEC†	128.9	125.2	5197.1 ug/L	5197.1 ppb	02:28:38
3	Na 589.592 Radial†	26190.1	26230.2	9158.8 ug/L	9158.8 ppb	02:28:18
3	Sr 421.552†	62384.9	60733.3	475.80 ug/L	475.80 ppb	02:28:18
3	Sc 361.383	893602.3	893602.3	105.71 %		02:29:46
3	Y 371.029	743922.9	743922.9	104.34 %		02:29:46
3	Ag 328.068†	101868.5	96206.1	498.94 ug/L	498.94 ppb	02:29:52
3	As 188.979†	915.7	888.3	504.78 ug/L	504.78 ppb	02:30:12
3	B 249.677†	18188.0	17652.4	496.74 ug/L	496.74 ppb	02:29:52
3	Ba 233.527†	55720.8	52697.3	502.19 ug/L	502.19 ppb	02:29:52
3	Be 313.107†	1251062.5	1187903.5	508.23 ug/L	508.23 ppb	02:29:46
3	Cd 226.502†	35997.8	34200.7	502.38 ug/L	502.38 ppb	02:29:52
3	Co 228.616†	20358.9	19312.2	508.50 ug/L	508.50 ppb	02:29:52
3	Cr 267.716†	39116.3	36932.0	503.18 ug/L	503.18 ppb	02:29:52
3	Cu 324.752†	164973.4	150531.0	498.68 ug/L	498.68 ppb	02:29:52
3	Mn 257.610†	390835.2	369325.4	491.39 ug/L	491.39 ppb	02:29:52
3	Mo 202.031†	5777.1	5451.9	491.05 ug/L	491.05 ppb	02:30:12
3	Ni 231.604†	16716.2	15740.1	508.24 ug/L	508.24 ppb	02:29:52
3	P 214.914†	3660.5	3262.0	2375.1 ug/L	2375.1 ppb	02:30:12
3	Pb 220.353†	3323.9	3193.2	500.91 ug/L	500.91 ppb	02:30:12
3	S 181.975 Axial†	598.0	535.8	969.97 ug/L	969.97 ppb	02:30:12
3	Sb 206.836†	1256.2	1162.9	513.15 ug/L	513.15 ppb	02:30:12
3	Se 196.026†	610.7	599.9	517.04 ug/L	517.04 ppb	02:30:12
3	Si 251.611†	70685.2	66346.1	2527.7 ug/L	2527.7 ppb	02:29:52
3	Sn 189.927†	2260.6	2134.7	492.57 ug/L	492.57 ppb	02:30:12
3	Ti 334.940†	294954.1	280058.3	487.00 ug/L	487.00 ppb	02:29:52
3	Tl 190.801†	1311.7	1269.9	504.36 ug/L	504.36 ppb	02:30:12
3	U 409.014†	16221.2	17287.7	509.81 ug/L	509.81 ppb	02:29:52
3	V 292.402†	64777.1	62626.8	508.24 ug/L	508.24 ppb	02:29:52
3	Zn 213.857†	43961.8	40981.5	500.41 ug/L	500.41 ppb	02:29:52
3	SiO2†	69764.9	65458.0	5300.9 ug/L	5300.9 ppb	02:30:27

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	888034.4	105.05	%	0.591				0.56%
Sc Radial	4644.5	102	%	1.1				1.04%
Y 371.029	738694.9	103.61	%	0.646				0.62%
Y RADIAL	4993.2	101.6	%	0.90				0.89%
Ag 328.068†	96376.4	499.82	ug/L	6.776	499.82	ppb	6.776	1.36%
QC value within limits for Ag 328.068 Recovery = 99.96%								
Al 396.153Radial†	4995.8	4918.8	ug/L	72.50	4918.8	ppb	72.50	1.47%
QC value within limits for Al 396.153Radial Recovery = 98.38%								
As 188.979†	896.6	509.43	ug/L	4.711	509.43	ppb	4.711	0.92%
QC value within limits for As 188.979 Recovery = 101.89%								
B 249.677†	17664.9	497.08	ug/L	7.831	497.08	ppb	7.831	1.58%
QC value within limits for B 249.677 Recovery = 99.42%								
Ba 233.527†	52892.5	504.05	ug/L	6.335	504.05	ppb	6.335	1.26%
QC value within limits for Ba 233.527 Recovery = 100.81%								
Be 313.107†	1187051.9	507.87	ug/L	0.315	507.87	ppb	0.315	0.06%
QC value within limits for Be 313.107 Recovery = 101.57%								
Ca 317.933Radial†	2656.6	5013.0	ug/L	50.89	5013.0	ppb	50.89	1.02%

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   QC value within limits for Ca 317.933Radial  Recovery = 100.26%
Cd 226.502†            34365.3      504.80 ug/L         6.343      504.80 ppb          6.343   1.26%
   QC value within limits for Cd 226.502  Recovery = 100.96%
Co 228.616†            19382.7      510.37 ug/L         6.904      510.37 ppb          6.904   1.35%
   QC value within limits for Co 228.616  Recovery = 102.07%
Cr 267.716†            37042.5      504.69 ug/L         6.509      504.69 ppb          6.509   1.29%
   QC value within limits for Cr 267.716  Recovery = 100.94%
Cu 324.752†           150651.0      499.08 ug/L         7.159      499.08 ppb          7.159   1.43%
   QC value within limits for Cu 324.752  Recovery = 99.82%
Fe 238.204 Radial†       431.8      4971.6 ug/L         68.61      4971.6 ppb          68.61   1.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 99.43%
K 766.490 Radial†      27009.4      5133.1 ug/L         81.02      5133.1 ppb          81.02   1.58%
   QC value within limits for K 766.490 Radial  Recovery = 102.66%
Mg 279.077 IEC†          125.7      5220.0 ug/L         82.97      5220.0 ppb          82.97   1.59%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.40%
Mn 257.610†           370526.3      492.99 ug/L         6.199      492.99 ppb          6.199   1.26%
   QC value within limits for Mn 257.610  Recovery = 98.60%
Mo 202.031†             5495.1      494.94 ug/L         3.516      494.94 ppb          3.516   0.71%
   QC value within limits for Mo 202.031  Recovery = 98.99%
Na 589.592 Radial†     26165.8      9136.3 ug/L        164.24      9136.3 ppb         164.24   1.80%
   QC value within limits for Na 589.592 Radial  Recovery = 91.36%
Ni 231.604†            15806.9      510.40 ug/L         6.280      510.40 ppb          6.280   1.23%
   QC value within limits for Ni 231.604  Recovery = 102.08%
P 214.914†              3285.9      2393.2 ug/L         15.99      2393.2 ppb          15.99   0.67%
   QC value within limits for P 214.914  Recovery = 95.73%
Pb 220.353†             3199.6      501.92 ug/L         1.913      501.92 ppb          1.913   0.38%
   QC value within limits for Pb 220.353  Recovery = 100.38%
S 181.975 Axial†         545.6      987.61 ug/L        15.541      987.61 ppb         15.541   1.57%
   QC value within limits for S 181.975 Axial  Recovery = 98.76%
Sb 206.836†             1164.3      513.87 ug/L         1.340      513.87 ppb          1.340   0.26%
   QC value within limits for Sb 206.836  Recovery = 102.77%
Se 196.026†              610.2      525.65 ug/L         7.616      525.65 ppb          7.616   1.45%
   QC value within limits for Se 196.026  Recovery = 105.13%
Si 251.611†            66527.6      2534.6 ug/L         33.40      2534.6 ppb          33.40   1.32%
   QC value within limits for Si 251.611  Recovery = 101.39%
Sn 189.927†             2146.6      495.33 ug/L         2.404      495.33 ppb          2.404   0.49%
   QC value within limits for Sn 189.927  Recovery = 99.07%
Sr 421.552†            60458.9      473.65 ug/L         7.583      473.65 ppb          7.583   1.60%
   QC value within limits for Sr 421.552  Recovery = 94.73%
Ti 334.940†           280631.8      488.00 ug/L         6.734      488.00 ppb          6.734   1.38%
   QC value within limits for Ti 334.940  Recovery = 97.60%
Tl 190.801†             1277.9      507.53 ug/L         2.747      507.53 ppb          2.747   0.54%
   QC value within limits for Tl 190.801  Recovery = 101.51%
U 409.014†             17369.7      512.23 ug/L         9.965      512.23 ppb          9.965   1.95%
   QC value within limits for U 409.014  Recovery = 102.45%
V 292.402†             62819.2      509.84 ug/L         6.917      509.84 ppb          6.917   1.36%
   QC value within limits for V 292.402  Recovery = 101.97%
Zn 213.857†            41096.4      501.82 ug/L         6.823      501.82 ppb          6.823   1.36%
   QC value within limits for Zn 213.857  Recovery = 100.36%
SiO2†                  66516.3      5386.7 ug/L         85.46      5386.7 ppb          85.46   1.59%
   QC value within limits for SiO2  Recovery = 100.73%
All analyte(s) passed QC.
```

Sequence No.: 78
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/23/2010 02:32:38
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4453.9	4453.9	97.8	%			02:34:50
1	Y RADIAL	4998.7	4998.7	101.7	%			02:34:30
1	Al 396.153Radial†	-75.1	-3.6	-3.5222	ug/L	-3.5222	ppb	02:34:50
1	Ca 317.933Radial†	24.6	6.8	12.745	ug/L	12.745	ppb	02:34:50
1	Fe 238.204 Radial†	8.8	2.4	27.455	ug/L	27.455	ppb	02:34:50
1	K 766.490 Radial†	2554.2	100.0	19.030	ug/L	19.030	ppb	02:34:30
1	Mg 279.077 IEC†	2.3	1.9	80.003	ug/L	80.003	ppb	02:34:50
1	Na 589.592 Radial†	-760.8	-59.8	-20.877	ug/L	-20.877	ppb	02:34:30
1	Sr 421.552†	55.8	19.6	0.1534	ug/L	0.1534	ppb	02:34:30
1	Sc 361.383	898280.3	898280.3	106.27	%			02:35:46
1	Y 371.029	756198.7	756198.7	106.07	%			02:35:46
1	Ag 328.068†	202.2	33.6	0.1820	ug/L	0.1820	ppb	02:35:51
1	As 188.979†	-20.3	3.0	1.6742	ug/L	1.6742	ppb	02:36:12
1	B 249.677†	-305.2	160.3	4.5246	ug/L	4.5246	ppb	02:36:12
1	Ba 233.527†	13.6	0.8	0.0096	ug/L	0.0096	ppb	02:36:12
1	Be 313.107†	-4321.4	390.8	0.1673	ug/L	0.1673	ppb	02:35:51
1	Cd 226.502†	-166.5	-8.2	-0.1225	ug/L	-0.1225	ppb	02:36:12
1	Co 228.616†	-42.8	13.4	0.3512	ug/L	0.3512	ppb	02:36:12
1	Cr 267.716†	68.0	-6.2	-0.0811	ug/L	-0.0811	ppb	02:36:12
1	Cu 324.752†	5636.7	-221.7	-0.7340	ug/L	-0.7340	ppb	02:35:51
1	Mn 257.610†	435.9	23.9	0.0312	ug/L	0.0312	ppb	02:36:12
1	Mo 202.031†	14.5	0.7	0.0654	ug/L	0.0654	ppb	02:36:12
1	Ni 231.604†	95.5	17.2	0.5564	ug/L	0.5564	ppb	02:36:12
1	P 214.914†	184.6	-26.9	-20.267	ug/L	-20.267	ppb	02:36:12
1	Pb 220.353†	-47.0	4.7	0.7344	ug/L	0.7344	ppb	02:36:12
1	S 181.975 Axial†	27.4	-4.1	-7.4949	ug/L	-7.4949	ppb	02:36:12
1	Sb 206.836†	30.7	3.5	1.5114	ug/L	1.5114	ppb	02:36:12
1	Se 196.026†	-22.1	1.4	1.2208	ug/L	1.2208	ppb	02:36:12
1	Si 251.611†	636.0	79.6	3.0410	ug/L	3.0410	ppb	02:36:12
1	Sn 189.927†	12.1	7.6	1.7582	ug/L	1.7582	ppb	02:36:12
1	Ti 334.940†	-994.6	109.6	0.1853	ug/L	0.1853	ppb	02:35:51
1	Tl 190.801†	-31.1	-0.2	-0.0856	ug/L	-0.0856	ppb	02:36:12
1	U 409.014†	-2013.2	48.6	1.4364	ug/L	1.4364	ppb	02:35:46
1	V 292.402†	-1377.2	54.7	0.4395	ug/L	0.4395	ppb	02:35:51
1	Zn 213.857†	2820.0	2049.4	25.250	ug/L	25.250	ppb	02:36:12
1	SiO2†	639.5	65.4	5.3115	ug/L	5.3115	ppb	02:37:17
2	Sc Radial	4423.3	4423.3	97.2	%			02:35:15
2	Y RADIAL	4943.7	4943.7	100.5	%			02:34:55
2	Al 396.153Radial†	-64.4	6.9	6.8029	ug/L	6.8029	ppb	02:35:15
2	Ca 317.933Radial†	22.3	4.6	8.6149	ug/L	8.6149	ppb	02:35:15
2	Fe 238.204 Radial†	7.2	0.8	8.7753	ug/L	8.7753	ppb	02:35:15
2	K 766.490 Radial†	2732.3	301.4	57.356	ug/L	57.356	ppb	02:34:55
2	Mg 279.077 IEC†	-1.3	-1.7	-71.801	ug/L	-71.801	ppb	02:35:15
2	Na 589.592 Radial†	-821.5	-127.7	-44.572	ug/L	-44.572	ppb	02:34:55
2	Sr 421.552†	38.6	2.2	0.0175	ug/L	0.0175	ppb	02:34:55
2	Sc 361.383	896044.1	896044.1	106.00	%			02:36:17
2	Y 371.029	754280.9	754280.9	105.80	%			02:36:17
2	Ag 328.068†	232.1	62.3	0.3305	ug/L	0.3305	ppb	02:36:22
2	As 188.979†	-26.4	-2.9	-1.6067	ug/L	-1.6067	ppb	02:36:42
2	B 249.677†	-326.0	139.9	3.9524	ug/L	3.9524	ppb	02:36:42
2	Ba 233.527†	9.3	-3.2	-0.0275	ug/L	-0.0275	ppb	02:36:42
2	Be 313.107†	-4345.2	358.2	0.1533	ug/L	0.1533	ppb	02:36:22
2	Cd 226.502†	-180.0	-21.3	-0.3146	ug/L	-0.3146	ppb	02:36:42
2	Co 228.616†	-35.3	20.3	0.5349	ug/L	0.5349	ppb	02:36:42
2	Cr 267.716†	84.8	9.8	0.1373	ug/L	0.1373	ppb	02:36:42
2	Cu 324.752†	5735.2	-115.6	-0.3806	ug/L	-0.3806	ppb	02:36:22
2	Mn 257.610†	432.9	22.1	0.0332	ug/L	0.0332	ppb	02:36:42
2	Mo 202.031†	17.3	3.4	0.3072	ug/L	0.3072	ppb	02:36:42
2	Ni 231.604†	88.3	10.7	0.3441	ug/L	0.3441	ppb	02:36:42

2	P 214.914†	192.0	-19.5	-14.698	ug/L	-14.698 ppb	02:36:42
2	Pb 220.353†	-58.7	-6.5	-1.0110	ug/L	-1.0110 ppb	02:36:42
2	S 181.975 Axial†	28.5	-3.0	-5.3926	ug/L	-5.3926 ppb	02:36:42
2	Sb 206.836†	28.9	1.8	0.7909	ug/L	0.7909 ppb	02:36:42
2	Se 196.026†	-21.3	2.0	1.7351	ug/L	1.7351 ppb	02:36:42
2	Si 251.611†	652.4	96.6	3.6873	ug/L	3.6873 ppb	02:36:42
2	Sn 189.927†	9.2	4.9	1.1352	ug/L	1.1352 ppb	02:36:42
2	Ti 334.940†	-995.8	106.1	0.1930	ug/L	0.1930 ppb	02:36:22
2	Tl 190.801†	-20.9	9.4	3.7071	ug/L	3.7071 ppb	02:36:42
2	U 409.014†	-2176.0	-109.6	-3.2446	ug/L	-3.2446 ppb	02:36:17
2	V 292.402†	-1291.0	132.8	1.0590	ug/L	1.0590 ppb	02:36:22
2	Zn 213.857†	2802.3	2039.3	25.130	ug/L	25.130 ppb	02:36:42
2	SiO2†	629.3	57.3	4.6462	ug/L	4.6462 ppb	02:37:23
3	Sc Radial	4446.3	4446.3	97.7	%		02:35:40
3	Y RADIAL	5099.2	5099.2	103.7	%		02:35:20
3	Al 396.153Radial†	-74.2	-2.8	-2.7903	ug/L	-2.7903 ppb	02:35:40
3	Ca 317.933Radial†	16.8	-1.1	-2.1379	ug/L	-2.1379 ppb	02:35:40
3	Fe 238.204 Radial†	6.9	0.4	4.6576	ug/L	4.6576 ppb	02:35:40
3	K 766.490 Radial†	2703.8	257.7	49.031	ug/L	49.031 ppb	02:35:20
3	Mg 279.077 IEC†	0.1	-0.3	-13.633	ug/L	-13.633 ppb	02:35:40
3	Na 589.592 Radial†	-740.8	-40.6	-14.192	ug/L	-14.192 ppb	02:35:20
3	Sr 421.552†	28.9	-7.9	-0.0618	ug/L	-0.0618 ppb	02:35:20
3	Sc 361.383	901972.3	901972.3	106.70	%		02:36:47
3	Y 371.029	758877.7	758877.7	106.44	%		02:36:47
3	Ag 328.068†	234.6	63.2	0.3294	ug/L	0.3294 ppb	02:36:52
3	As 188.979†	-13.3	9.7	5.4467	ug/L	5.4467 ppb	02:37:12
3	B 249.677†	-366.9	103.6	2.9257	ug/L	2.9257 ppb	02:37:12
3	Ba 233.527†	5.7	-6.7	-0.0601	ug/L	-0.0601 ppb	02:37:12
3	Be 313.107†	-4300.0	427.5	0.1830	ug/L	0.1830 ppb	02:36:52
3	Cd 226.502†	-167.4	-8.4	-0.1226	ug/L	-0.1226 ppb	02:37:12
3	Co 228.616†	-37.2	18.8	0.4930	ug/L	0.4930 ppb	02:37:12
3	Cr 267.716†	73.5	-1.3	-0.0162	ug/L	-0.0162 ppb	02:37:12
3	Cu 324.752†	5618.4	-260.6	-0.8651	ug/L	-0.8651 ppb	02:36:52
3	Mn 257.610†	437.7	23.9	0.0328	ug/L	0.0328 ppb	02:37:12
3	Mo 202.031†	12.8	-0.9	-0.0827	ug/L	-0.0827 ppb	02:37:12
3	Ni 231.604†	98.5	19.7	0.6368	ug/L	0.6368 ppb	02:37:12
3	P 214.914†	191.3	-21.4	-15.987	ug/L	-15.987 ppb	02:37:12
3	Pb 220.353†	-66.1	-13.1	-2.0433	ug/L	-2.0433 ppb	02:37:12
3	S 181.975 Axial†	32.0	0.0	0.0872	ug/L	0.0872 ppb	02:37:12
3	Sb 206.836†	20.5	-6.2	-2.5980	ug/L	-2.5980 ppb	02:37:12
3	Se 196.026†	-16.5	6.7	5.6251	ug/L	5.6251 ppb	02:37:12
3	Si 251.611†	636.2	77.4	2.9561	ug/L	2.9561 ppb	02:37:12
3	Sn 189.927†	18.6	13.7	3.1637	ug/L	3.1637 ppb	02:37:12
3	Ti 334.940†	-984.6	122.8	0.2127	ug/L	0.2127 ppb	02:36:52
3	Tl 190.801†	-32.4	-1.3	-0.5151	ug/L	-0.5151 ppb	02:37:12
3	U 409.014†	-1933.9	130.8	3.8682	ug/L	3.8682 ppb	02:36:47
3	V 292.402†	-1258.8	171.0	1.3746	ug/L	1.3746 ppb	02:36:52
3	Zn 213.857†	2837.0	2054.4	25.316	ug/L	25.316 ppb	02:37:12
3	SiO2†	640.4	63.8	5.1804	ug/L	5.1804 ppb	02:37:28

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	898765.6	106.32	%	0.354				0.33%
Sc Radial	4441.2	97.6	%	0.35				0.36%
Y 371.029	756452.4	106.10	%	0.324				0.31%
Y RADIAL	5013.9	102.0	%	1.60				1.57%
Ag 328.068†	53.0	0.2807	ug/L	0.08541	0.2807	ppb	0.08541	30.43%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.2	0.1634	ug/L	5.76159	0.1634	ppb	5.76159	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.3	1.8381	ug/L	3.52954	1.8381	ppb	3.52954	192.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	134.6	3.8009	ug/L	0.81014	3.8009	ppb	0.81014	21.31%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.0	-0.0260	ug/L	0.03491	-0.0260	ppb	0.03491	134.32%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	392.2	0.1679	ug/L	0.01482	0.1679	ppb	0.01482	8.83%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	3.4	6.4072	ug/L	7.68297	6.4072	ppb	7.68297	119.91%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -12.6     -0.1866 ug/L       0.11088     -0.1866 ppb        0.11088  59.44%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               17.5      0.4597 ug/L       0.09630      0.4597 ppb        0.09630  20.95%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                0.8      0.0134 ug/L       0.11216      0.0134 ppb        0.11216 840.06%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             -199.3     -0.6599 ug/L       0.25058     -0.6599 ppb        0.25058  37.97%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         1.2      13.629 ug/L       12.1494      13.629 ppb        12.1494  89.14%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        219.7      41.806 ug/L       20.1589      41.806 ppb        20.1589  48.22%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -0.0     -1.8105 ug/L      76.58952     -1.8105 ppb       76.58952 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               23.3      0.0324 ug/L       0.00105      0.0324 ppb        0.00105   3.23%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                1.1      0.0966 ug/L       0.19678      0.0966 ppb        0.19678 203.66%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -76.0     -26.547 ug/L       15.9637     -26.547 ppb        15.9637  60.13%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               15.9      0.5124 ug/L       0.15123      0.5124 ppb        0.15123  29.51%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -22.6     -16.984 ug/L        2.9151     -16.984 ppb         2.9151  17.16%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -4.9     -0.7733 ug/L       1.40404     -0.7733 ppb        1.40404 181.56%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -2.4     -4.2668 ug/L       3.91440     -4.2668 ppb        3.91440  91.74%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -0.3     -0.0986 ug/L       2.19433     -0.0986 ppb        2.19433 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.4      2.8604 ug/L       2.40813      2.8604 ppb        2.40813  84.19%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               84.6      3.2281 ug/L       0.39989      3.2281 ppb        0.39989  12.39%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                8.8      2.0190 ug/L       1.03908      2.0190 ppb        1.03908  51.46%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                4.7      0.0364 ug/L       0.10882      0.0364 ppb        0.10882 299.06%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              112.8      0.1970 ug/L       0.01417      0.1970 ppb        0.01417   7.19%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                2.6      1.0355 ug/L       2.32366      1.0355 ppb        2.32366 224.41%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                23.3      0.6867 ug/L       3.61518      0.6867 ppb        3.61518 526.47%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               119.5      0.9577 ug/L       0.47571      0.9577 ppb        0.47571  49.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             2047.7      25.232 ug/L        0.0941      25.232 ppb         0.0941   0.37%
   QC value greater than the upper limit for Zn 213.857  Recovery = Not calculated
SiO2†                     62.2      5.0460 ug/L       0.35243      5.0460 ppb        0.35243   6.98%
   QC value within limits for SiO2  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 79
Sample ID: 1202053148|957527|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 99
Date Collected: 3/23/2010 02:39:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053148|957527|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4716.7	4716.7	104	%			02:41:31
1	Y RADIAL	5103.2	5103.2	103.8	%			02:41:31
1	Al 396.153Radial†	-78.4	-2.5	-2.4907	ug/L	-2.4907	ppb	02:41:51
1	Ca 317.933Radial†	22.8	3.6	6.8556	ug/L	6.8556	ppb	02:41:51
1	Fe 238.204 Radial†	8.7	1.7	19.906	ug/L	19.906	ppb	02:41:51
1	K 766.490 Radial†	2642.5	39.8	7.5707	ug/L	7.5707	ppb	02:41:31
1	Mg 279.077 IEC†	2.9	2.4	99.583	ug/L	99.583	ppb	02:41:51
1	Na 589.592 Radial†	-791.7	-46.3	-16.184	ug/L	-16.184	ppb	02:41:31
1	Sr 421.552†	33.5	-5.1	-0.0401	ug/L	-0.0401	ppb	02:41:31
1	Sc 361.383	882005.9	882005.9	104.34	%			02:42:48
1	Y 371.029	742022.6	742022.6	104.08	%			02:42:48
1	Ag 328.068†	224.0	58.0	0.2999	ug/L	0.2999	ppb	02:42:53
1	As 188.979†	-26.8	-3.6	-2.0186	ug/L	-2.0186	ppb	02:43:13
1	B 249.677†	-366.3	96.4	2.7197	ug/L	2.7197	ppb	02:43:13
1	Ba 233.527†	22.1	9.3	0.0894	ug/L	0.0894	ppb	02:43:13
1	Be 313.107†	-4416.8	224.3	0.0960	ug/L	0.0960	ppb	02:42:53
1	Cd 226.502†	-170.3	-14.7	-0.2168	ug/L	-0.2168	ppb	02:43:13
1	Co 228.616†	-44.5	10.9	0.2872	ug/L	0.2872	ppb	02:43:13
1	Cr 267.716†	80.0	6.5	0.0878	ug/L	0.0878	ppb	02:43:13
1	Cu 324.752†	5653.7	-107.6	-0.3595	ug/L	-0.3595	ppb	02:42:53
1	Mn 257.610†	527.5	119.2	0.1565	ug/L	0.1565	ppb	02:43:13
1	Mo 202.031†	15.1	1.6	0.1424	ug/L	0.1424	ppb	02:43:13
1	Ni 231.604†	74.0	-1.7	-0.0559	ug/L	-0.0559	ppb	02:43:13
1	P 214.914†	185.7	-22.6	-17.103	ug/L	-17.103	ppb	02:43:13
1	Pb 220.353†	-54.8	-3.6	-0.5720	ug/L	-0.5720	ppb	02:43:13
1	S 181.975 Axial†	19.8	-10.9	-19.769	ug/L	-19.769	ppb	02:43:13
1	Sb 206.836†	26.0	-0.5	-0.2196	ug/L	-0.2196	ppb	02:43:13
1	Se 196.026†	-25.4	-2.2	-1.7749	ug/L	-1.7749	ppb	02:43:13
1	Si 251.611†	856.1	301.6	11.517	ug/L	11.517	ppb	02:43:13
1	Sn 189.927†	6.5	2.5	0.5760	ug/L	0.5760	ppb	02:43:13
1	Ti 334.940†	-1013.6	74.1	0.1183	ug/L	0.1183	ppb	02:42:53
1	Tl 190.801†	-28.8	1.5	0.5768	ug/L	0.5768	ppb	02:43:13
1	U 409.014†	-1763.7	252.8	7.4784	ug/L	7.4784	ppb	02:42:48
1	V 292.402†	-1367.8	39.8	0.3342	ug/L	0.3342	ppb	02:42:53
1	Zn 213.857†	633.4	2.7	0.0312	ug/L	0.0312	ppb	02:43:13
1	SiO2†	883.1	310.0	25.166	ug/L	25.166	ppb	02:44:19
2	Sc Radial	4670.8	4670.8	103	%			02:41:56
2	Y RADIAL	5030.3	5030.3	102.3	%			02:41:56
2	Al 396.153Radial†	-70.1	4.8	4.7461	ug/L	4.7461	ppb	02:42:16
2	Ca 317.933Radial†	25.9	6.9	12.964	ug/L	12.964	ppb	02:42:16
2	Fe 238.204 Radial†	5.7	-1.0	-11.958	ug/L	-11.958	ppb	02:42:16
2	K 766.490 Radial†	2716.6	137.0	26.075	ug/L	26.075	ppb	02:41:56
2	Mg 279.077 IEC†	2.0	1.6	65.250	ug/L	65.250	ppb	02:42:16
2	Na 589.592 Radial†	-794.4	-56.5	-19.713	ug/L	-19.713	ppb	02:41:56
2	Sr 421.552†	33.6	-4.7	-0.0369	ug/L	-0.0369	ppb	02:41:56
2	Sc 361.383	891278.3	891278.3	105.44	%			02:43:18
2	Y 371.029	749807.8	749807.8	105.17	%			02:43:18
2	Ag 328.068†	78.2	-82.5	-0.4290	ug/L	-0.4290	ppb	02:43:23
2	As 188.979†	-27.3	-3.8	-2.1416	ug/L	-2.1416	ppb	02:43:43
2	B 249.677†	-346.8	118.5	3.3509	ug/L	3.3509	ppb	02:43:43
2	Ba 233.527†	-3.2	-15.0	-0.1426	ug/L	-0.1426	ppb	02:43:43
2	Be 313.107†	-4460.3	227.1	0.0977	ug/L	0.0977	ppb	02:43:23
2	Cd 226.502†	-172.3	-14.9	-0.2178	ug/L	-0.2178	ppb	02:43:43
2	Co 228.616†	-49.1	7.0	0.1854	ug/L	0.1854	ppb	02:43:43
2	Cr 267.716†	91.0	16.1	0.2179	ug/L	0.2179	ppb	02:43:43
2	Cu 324.752†	5631.0	-185.4	-0.6154	ug/L	-0.6154	ppb	02:43:23
2	Mn 257.610†	493.6	81.9	0.1050	ug/L	0.1050	ppb	02:43:43
2	Mo 202.031†	19.2	5.3	0.4784	ug/L	0.4784	ppb	02:43:43
2	Ni 231.604†	83.2	6.3	0.2034	ug/L	0.2034	ppb	02:43:43

2	P 214.914†	188.4	-21.9	-16.494 ug/L	-16.494 ppb	02:43:43
2	Pb 220.353†	-55.3	-3.6	-0.5526 ug/L	-0.5526 ppb	02:43:43
2	S 181.975 Axial†	33.5	1.8	3.3437 ug/L	3.3437 ppb	02:43:43
2	Sb 206.836†	31.8	4.7	2.0142 ug/L	2.0142 ppb	02:43:43
2	Se 196.026†	-10.5	12.2	10.170 ug/L	10.170 ppb	02:43:43
2	Si 251.611†	857.0	294.0	11.222 ug/L	11.222 ppb	02:43:43
2	Sn 189.927†	7.8	3.7	0.8578 ug/L	0.8578 ppb	02:43:43
2	Ti 334.940†	-891.4	200.1	0.3441 ug/L	0.3441 ppb	02:43:23
2	Tl 190.801†	-30.0	0.7	0.2588 ug/L	0.2588 ppb	02:43:43
2	U 409.014†	-2018.6	28.7	0.8487 ug/L	0.8487 ppb	02:43:18
2	V 292.402†	-1398.3	24.5	0.2072 ug/L	0.2072 ppb	02:43:23
2	Zn 213.857†	632.0	-4.9	-0.0591 ug/L	-0.0591 ppb	02:43:43
2	SiO2†	850.0	269.9	21.895 ug/L	21.895 ppb	02:44:24
3	Sc Radial	4622.3	4622.3	102 %		02:42:21
3	Y RADIAL	5003.5	5003.5	101.8 %		02:42:21
3	Al 396.153Radial†	-68.3	5.9	5.8298 ug/L	5.8298 ppb	02:42:41
3	Ca 317.933Radial†	23.4	4.6	8.7679 ug/L	8.7679 ppb	02:42:41
3	Fe 238.204 Radial†	6.4	-0.3	-3.7897 ug/L	-3.7897 ppb	02:42:41
3	K 766.490 Radial†	2677.1	126.0	23.972 ug/L	23.972 ppb	02:42:21
3	Mg 279.077 IEC†	1.8	1.4	57.309 ug/L	57.309 ppb	02:42:41
3	Na 589.592 Radial†	-757.8	-28.5	-9.9621 ug/L	-9.9621 ppb	02:42:21
3	Sr 421.552†	65.0	26.6	0.2083 ug/L	0.2083 ppb	02:42:21
3	Sc 361.383	895417.1	895417.1	105.93 %		02:43:48
3	Y 371.029	752830.5	752830.5	105.59 %		02:43:48
3	Ag 328.068†	163.4	-2.4	-0.0092 ug/L	-0.0092 ppb	02:43:53
3	As 188.979†	-26.3	-2.8	-1.5557 ug/L	-1.5557 ppb	02:44:14
3	B 249.677†	-378.4	90.3	2.5511 ug/L	2.5511 ppb	02:44:14
3	Ba 233.527†	4.4	-7.8	-0.0741 ug/L	-0.0741 ppb	02:44:14
3	Be 313.107†	-4410.8	293.4	0.1255 ug/L	0.1255 ppb	02:43:53
3	Cd 226.502†	-173.0	-14.9	-0.2192 ug/L	-0.2192 ppb	02:44:14
3	Co 228.616†	-46.3	9.9	0.2592 ug/L	0.2592 ppb	02:44:14
3	Cr 267.716†	67.0	-6.9	-0.0926 ug/L	-0.0926 ppb	02:44:14
3	Cu 324.752†	5639.5	-202.2	-0.6676 ug/L	-0.6676 ppb	02:43:53
3	Mn 257.610†	506.2	91.6	0.1191 ug/L	0.1191 ppb	02:44:14
3	Mo 202.031†	13.0	-0.7	-0.0597 ug/L	-0.0597 ppb	02:44:14
3	Ni 231.604†	71.3	-5.3	-0.1705 ug/L	-0.1705 ppb	02:44:14
3	P 214.914†	201.7	-10.3	-7.6510 ug/L	-7.6510 ppb	02:44:14
3	Pb 220.353†	-57.1	-5.0	-0.7837 ug/L	-0.7837 ppb	02:44:14
3	S 181.975 Axial†	31.5	-0.2	-0.3070 ug/L	-0.3070 ppb	02:44:14
3	Sb 206.836†	24.9	-2.0	-0.8353 ug/L	-0.8353 ppb	02:44:14
3	Se 196.026†	-15.7	7.4	6.1399 ug/L	6.1399 ppb	02:44:14
3	Si 251.611†	840.0	274.1	10.471 ug/L	10.471 ppb	02:44:14
3	Sn 189.927†	6.5	2.4	0.5601 ug/L	0.5601 ppb	02:44:14
3	Ti 334.940†	-1031.5	71.8	0.1232 ug/L	0.1232 ppb	02:43:53
3	Tl 190.801†	-19.6	10.6	4.1725 ug/L	4.1725 ppb	02:44:14
3	U 409.014†	-2209.4	-142.6	-4.2188 ug/L	-4.2188 ppb	02:43:48
3	V 292.402†	-1397.7	31.2	0.2424 ug/L	0.2424 ppb	02:43:53
3	Zn 213.857†	638.2	-1.8	-0.0196 ug/L	-0.0196 ppb	02:44:14
3	SiO2†	873.2	288.0	23.382 ug/L	23.382 ppb	02:44:29

Mean Data: 1202053148|957527|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	889567.1	105.24	%	0.812				0.77%
Sc Radial	4669.9	103	%	1.0				1.01%
Y 371.029	748220.3	104.95	%	0.782				0.75%
Y RADIAL	5045.7	102.6	%	1.05				1.02%
Ag 328.068†	-9.0	-0.0461	ug/L	0.36586	-0.0461	ppb	0.36586	794.05%
Al 396.153Radial†	2.7	2.6950	ug/L	4.52359	2.6950	ppb	4.52359	167.85%
As 188.979†	-3.4	-1.9053	ug/L	0.30893	-1.9053	ppb	0.30893	16.21%
B 249.677†	101.7	2.8739	ug/L	0.42164	2.8739	ppb	0.42164	14.67%
Ba 233.527†	-4.5	-0.0425	ug/L	0.11921	-0.0425	ppb	0.11921	280.74%
Be 313.107†	248.2	0.1064	ug/L	0.01655	0.1064	ppb	0.01655	15.55%
Ca 317.933Radial†	5.0	9.5292	ug/L	3.12453	9.5292	ppb	3.12453	32.79%
Cd 226.502†	-14.8	-0.2179	ug/L	0.00118	-0.2179	ppb	0.00118	0.54%
Co 228.616†	9.3	0.2439	ug/L	0.05260	0.2439	ppb	0.05260	21.56%
Cr 267.716†	5.2	0.0710	ug/L	0.15596	0.0710	ppb	0.15596	219.60%
Cu 324.752†	-165.0	-0.5475	ug/L	0.16490	-0.5475	ppb	0.16490	30.12%
Fe 238.204 Radial†	0.1	1.3860	ug/L	16.55048	1.3860	ppb	16.55048	>999.9%
K 766.490 Radial†	100.9	19.206	ug/L	10.1311	19.206	ppb	10.1311	52.75%

Mg 279.077 IEC†	1.8	74.047	ug/L	22.4681	74.047	ppb	22.4681 30.34%
Mn 257.610†	97.6	0.1269	ug/L	0.02658	0.1269	ppb	0.02658 20.96%
Mo 202.031†	2.1	0.1870	ug/L	0.27183	0.1870	ppb	0.27183 145.34%
Na 589.592 Radial†	-43.8	-15.286	ug/L	4.9369	-15.286	ppb	4.9369 32.30%
Ni 231.604†	-0.2	-0.0077	ug/L	0.19160	-0.0077	ppb	0.19160 >999.9%
P 214.914†	-18.3	-13.749	ug/L	5.2902	-13.749	ppb	5.2902 38.48%
Pb 220.353†	-4.1	-0.6361	ug/L	0.12823	-0.6361	ppb	0.12823 20.16%
S 181.975 Axial†	-3.1	-5.5775	ug/L	12.42517	-5.5775	ppb	12.42517 222.77%
Sb 206.836†	0.7	0.3198	ug/L	1.49939	0.3198	ppb	1.49939 468.88%
Se 196.026†	5.8	4.8450	ug/L	6.07685	4.8450	ppb	6.07685 125.43%
Si 251.611†	289.9	11.070	ug/L	0.5397	11.070	ppb	0.5397 4.88%
Sn 189.927†	2.9	0.6646	ug/L	0.16745	0.6646	ppb	0.16745 25.19%
Sr 421.552†	5.6	0.0438	ug/L	0.14252	0.0438	ppb	0.14252 325.53%
Ti 334.940†	115.3	0.1952	ug/L	0.12898	0.1952	ppb	0.12898 66.07%
Tl 190.801†	4.2	1.6693	ug/L	2.17362	1.6693	ppb	2.17362 130.21%
U 409.014†	46.3	1.3694	ug/L	5.86595	1.3694	ppb	5.86595 428.36%
V 292.402†	31.8	0.2612	ug/L	0.06558	0.2612	ppb	0.06558 25.10%
Zn 213.857†	-1.3	-0.0158	ug/L	0.04524	-0.0158	ppb	0.04524 285.99%
SiO2†	289.3	23.481	ug/L	1.6375	23.481	ppb	1.6375 6.97%

Sequence No.: 80
Sample ID: 1202053149|957527|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 100
Date Collected: 3/23/2010 02:46:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053149|957527|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4801.4	4801.4	105	%			02:48:34
1	Y RADIAL	5177.8	5177.8	105.3	%			02:48:34
1	Al 396.153Radial†	4890.6	4709.8	4636.5	ug/L	4636.5	ppb	02:48:34
1	Ca 317.933Radial†	2685.0	2527.2	4768.8	ug/L	4768.8	ppb	02:48:54
1	Fe 238.204 Radial†	438.1	408.7	4705.2	ug/L	4705.2	ppb	02:48:54
1	K 766.490 Radial†	29596.5	25548.6	4857.1	ug/L	4857.1	ppb	02:48:34
1	Mg 279.077 IEC†	125.0	118.1	4901.8	ug/L	4901.8	ppb	02:48:54
1	Na 589.592 Radial†	13033.8	13074.5	4565.2	ug/L	4565.2	ppb	02:48:34
1	Sr 421.552†	61682.4	58440.8	457.84	ug/L	457.84	ppb	02:48:34
1	Sc 361.383	899501.8	899501.8	106.41	%			02:49:52
1	Y 371.029	747963.2	747963.2	104.91	%			02:49:52
1	Ag 328.068†	97777.3	91729.4	475.73	ug/L	475.73	ppb	02:49:57
1	As 188.979†	903.7	871.4	495.11	ug/L	495.11	ppb	02:50:17
1	B 249.677†	17604.7	16991.4	478.17	ug/L	478.17	ppb	02:49:57
1	Ba 233.527†	54993.5	51668.1	492.37	ug/L	492.37	ppb	02:49:57
1	Be 313.107†	1224329.5	1155019.5	494.17	ug/L	494.17	ppb	02:49:52
1	Cd 226.502†	34719.9	32776.4	481.47	ug/L	481.47	ppb	02:49:57
1	Co 228.616†	19424.8	18308.1	482.07	ug/L	482.07	ppb	02:49:57
1	Cr 267.716†	38029.4	35667.9	485.95	ug/L	485.95	ppb	02:49:57
1	Cu 324.752†	162913.2	147571.5	488.86	ug/L	488.86	ppb	02:49:57
1	Mn 257.610†	390956.8	367014.9	488.30	ug/L	488.30	ppb	02:49:52
1	Mo 202.031†	5671.2	5316.6	478.85	ug/L	478.85	ppb	02:50:17
1	Ni 231.604†	16387.1	15327.1	494.92	ug/L	494.92	ppb	02:49:57
1	P 214.914†	960.1	701.5	436.58	ug/L	436.58	ppb	02:50:17
1	Pb 220.353†	3222.2	3076.9	482.67	ug/L	482.67	ppb	02:50:17
1	S 181.975 Axial†	2918.6	2712.9	4914.8	ug/L	4914.8	ppb	02:50:17
1	Sb 206.836†	1279.9	1177.4	519.03	ug/L	519.03	ppb	02:50:17
1	Se 196.026†	586.3	573.1	493.81	ug/L	493.81	ppb	02:50:17
1	Si 251.611†	132726.3	124210.5	4737.8	ug/L	4737.8	ppb	02:49:57
1	Sn 189.927†	2261.1	2121.2	489.43	ug/L	489.43	ppb	02:50:17
1	Ti 334.940†	290591.7	274128.7	476.69	ug/L	476.69	ppb	02:49:57
1	Tl 190.801†	1270.1	1222.6	485.76	ug/L	485.76	ppb	02:50:17
1	U 409.014†	16369.7	17326.6	511.03	ug/L	511.03	ppb	02:49:57
1	V 292.402†	63533.9	61056.6	495.54	ug/L	495.54	ppb	02:49:57
1	Zn 213.857†	42405.5	39246.2	479.17	ug/L	479.17	ppb	02:49:57
1	SiO2†	133391.3	124818.0	10120	ug/L	10120	ppb	02:51:24
2	Sc Radial	4809.7	4809.7	106	%			02:48:59
2	Y RADIAL	5150.7	5150.7	104.8	%			02:48:59
2	Al 396.153Radial†	5048.9	4851.6	4776.8	ug/L	4776.8	ppb	02:48:59
2	Ca 317.933Radial†	2688.2	2525.8	4766.2	ug/L	4766.2	ppb	02:49:19
2	Fe 238.204 Radial†	445.9	415.4	4782.3	ug/L	4782.3	ppb	02:49:19
2	K 766.490 Radial†	30423.5	26283.0	4996.7	ug/L	4996.7	ppb	02:48:59
2	Mg 279.077 IEC†	128.2	120.9	5021.3	ug/L	5021.3	ppb	02:49:19
2	Na 589.592 Radial†	13457.8	13454.5	4697.9	ug/L	4697.9	ppb	02:48:59
2	Sr 421.552†	63816.7	60360.0	472.88	ug/L	472.88	ppb	02:48:59
2	Sc 361.383	895649.9	895649.9	105.96	%			02:50:23
2	Y 371.029	744957.6	744957.6	104.49	%			02:50:23
2	Ag 328.068†	97101.3	91486.6	474.50	ug/L	474.50	ppb	02:50:28
2	As 188.979†	897.9	869.6	494.09	ug/L	494.09	ppb	02:50:48
2	B 249.677†	17550.8	17011.7	478.73	ug/L	478.73	ppb	02:50:28
2	Ba 233.527†	54758.2	51668.3	492.38	ug/L	492.38	ppb	02:50:28
2	Be 313.107†	1211784.9	1148128.2	491.23	ug/L	491.23	ppb	02:50:23
2	Cd 226.502†	34443.9	32656.2	479.70	ug/L	479.70	ppb	02:50:28
2	Co 228.616†	19359.5	18324.9	482.52	ug/L	482.52	ppb	02:50:28
2	Cr 267.716†	37684.7	35496.3	483.63	ug/L	483.63	ppb	02:50:28
2	Cu 324.752†	161766.5	147147.7	487.46	ug/L	487.46	ppb	02:50:28
2	Mn 257.610†	386809.7	364681.0	485.20	ug/L	485.20	ppb	02:50:23
2	Mo 202.031†	5645.1	5314.9	478.70	ug/L	478.70	ppb	02:50:48
2	Ni 231.604†	16310.7	15321.3	494.73	ug/L	494.73	ppb	02:50:28

2	P 214.914†	966.8	711.8	444.64 ug/L	444.64 ppb	02:50:48
2	Pb 220.353†	3213.9	3082.1	483.50 ug/L	483.50 ppb	02:50:48
2	S 181.975 Axial†	2907.4	2714.1	4916.9 ug/L	4916.9 ppb	02:50:48
2	Sb 206.836†	1291.6	1193.5	525.95 ug/L	525.95 ppb	02:50:48
2	Se 196.026†	582.4	571.8	493.00 ug/L	493.00 ppb	02:50:48
2	Si 251.611†	131784.8	123858.4	4724.3 ug/L	4724.3 ppb	02:50:28
2	Sn 189.927†	2262.5	2131.6	491.83 ug/L	491.83 ppb	02:50:48
2	Ti 334.940†	288287.8	273128.8	474.94 ug/L	474.94 ppb	02:50:28
2	Tl 190.801†	1268.8	1226.6	487.28 ug/L	487.28 ppb	02:50:48
2	U 409.014†	16158.6	17193.5	507.09 ug/L	507.09 ppb	02:50:28
2	V 292.402†	63158.6	60959.1	494.74 ug/L	494.74 ppb	02:50:28
2	Zn 213.857†	42161.3	39187.1	478.43 ug/L	478.43 ppb	02:50:28
2	SiO2†	132294.2	124321.6	10080 ug/L	10080 ppb	02:51:29
3	Sc Radial	4767.3	4767.3	105 %		02:49:24
3	Y RADIAL	5128.9	5128.9	104.3 %		02:49:24
3	Al 396.153Radial†	5090.6	4933.8	4858.4 ug/L	4858.4 ppb	02:49:24
3	Ca 317.933Radial†	2686.8	2547.1	4806.3 ug/L	4806.3 ppb	02:49:45
3	Fe 238.204 Radial†	439.8	413.3	4757.8 ug/L	4757.8 ppb	02:49:45
3	K 766.490 Radial†	30372.7	26490.3	5036.1 ug/L	5036.1 ppb	02:49:24
3	Mg 279.077 IEC†	125.7	119.6	4965.9 ug/L	4965.9 ppb	02:49:45
3	Na 589.592 Radial†	13496.2	13604.3	4750.2 ug/L	4750.2 ppb	02:49:24
3	Sr 421.552†	64105.9	61172.7	479.24 ug/L	479.24 ppb	02:49:24
3	Sc 361.383	906002.2	906002.2	107.18 %		02:50:54
3	Y 371.029	753199.4	753199.4	105.65 %		02:50:54
3	Ag 328.068†	97977.6	91257.0	473.30 ug/L	473.30 ppb	02:50:59
3	As 188.979†	895.4	857.5	487.27 ug/L	487.27 ppb	02:51:19
3	B 249.677†	17717.0	16977.6	477.78 ug/L	477.78 ppb	02:50:59
3	Ba 233.527†	55162.3	51454.8	490.34 ug/L	490.34 ppb	02:50:59
3	Be 313.107†	1224400.8	1146830.9	490.67 ug/L	490.67 ppb	02:50:54
3	Cd 226.502†	34783.2	32601.4	478.89 ug/L	478.89 ppb	02:50:59
3	Co 228.616†	19502.2	18249.3	480.52 ug/L	480.52 ppb	02:50:59
3	Cr 267.716†	38061.6	35441.5	482.87 ug/L	482.87 ppb	02:50:59
3	Cu 324.752†	163239.1	146777.1	486.23 ug/L	486.23 ppb	02:50:59
3	Mn 257.610†	390708.9	364147.6	484.49 ug/L	484.49 ppb	02:50:54
3	Mo 202.031†	5674.8	5281.7	475.71 ug/L	475.71 ppb	02:51:19
3	Ni 231.604†	16445.6	15271.3	493.11 ug/L	493.11 ppb	02:50:59
3	P 214.914†	974.7	708.7	442.52 ug/L	442.52 ppb	02:51:19
3	Pb 220.353†	3222.1	3055.1	479.29 ug/L	479.29 ppb	02:51:19
3	S 181.975 Axial†	2918.6	2693.1	4879.0 ug/L	4879.0 ppb	02:51:19
3	Sb 206.836†	1283.0	1171.6	516.45 ug/L	516.45 ppb	02:51:19
3	Se 196.026†	582.3	565.4	487.65 ug/L	487.65 ppb	02:51:19
3	Si 251.611†	133161.4	123721.5	4719.1 ug/L	4719.1 ppb	02:50:59
3	Sn 189.927†	2258.6	2103.6	485.38 ug/L	485.38 ppb	02:51:19
3	Ti 334.940†	290776.9	272342.2	473.58 ug/L	473.58 ppb	02:50:59
3	Tl 190.801†	1282.0	1225.2	486.75 ug/L	486.75 ppb	02:51:19
3	U 409.014†	16517.1	17353.7	511.83 ug/L	511.83 ppb	02:50:59
3	V 292.402†	63638.3	60725.6	492.84 ug/L	492.84 ppb	02:50:59
3	Zn 213.857†	42497.4	39046.1	476.71 ug/L	476.71 ppb	02:50:59
3	SiO2†	134020.6	124505.7	10095 ug/L	10095 ppb	02:51:35

Mean Data: 1202053149|957527|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	900384.6	106.52	%	0.619				0.58%
Sc Radial	4792.8	105	%	0.5				0.47%
Y 371.029	748706.7	105.02	%	0.585				0.56%
Y RADIAL	5152.5	104.8	%	0.50				0.48%
Ag 328.068†	91491.0	474.51	ug/L	1.215	474.51	ppb	1.215	0.26%
Al 396.153Radial†	4831.7	4757.2	ug/L	112.22	4757.2	ppb	112.22	2.36%
As 188.979†	866.1	492.16	ug/L	4.264	492.16	ppb	4.264	0.87%
B 249.677†	16993.6	478.23	ug/L	0.480	478.23	ppb	0.480	0.10%
Ba 233.527†	51597.1	491.70	ug/L	1.174	491.70	ppb	1.174	0.24%
Be 313.107†	1149992.9	492.02	ug/L	1.882	492.02	ppb	1.882	0.38%
Ca 317.933Radial†	2533.4	4780.4	ug/L	22.43	4780.4	ppb	22.43	0.47%
Cd 226.502†	32678.0	480.02	ug/L	1.319	480.02	ppb	1.319	0.27%
Co 228.616†	18294.1	481.70	ug/L	1.047	481.70	ppb	1.047	0.22%
Cr 267.716†	35535.3	484.15	ug/L	1.604	484.15	ppb	1.604	0.33%
Cu 324.752†	147165.4	487.52	ug/L	1.316	487.52	ppb	1.316	0.27%
Fe 238.204 Radial†	412.4	4748.4	ug/L	39.39	4748.4	ppb	39.39	0.83%
K 766.490 Radial†	26107.3	4963.3	ug/L	94.10	4963.3	ppb	94.10	1.90%

Mg 279.077 IEC†	119.5	4963.0	ug/L	59.81	4963.0	ppb	59.81	1.21%
Mn 257.610†	365281.1	486.00	ug/L	2.026	486.00	ppb	2.026	0.42%
Mo 202.031†	5304.4	477.76	ug/L	1.770	477.76	ppb	1.770	0.37%
Na 589.592 Radial†	13377.8	4671.1	ug/L	95.37	4671.1	ppb	95.37	2.04%
Ni 231.604†	15306.6	494.25	ug/L	0.991	494.25	ppb	0.991	0.20%
P 214.914†	707.4	441.25	ug/L	4.177	441.25	ppb	4.177	0.95%
Pb 220.353†	3071.4	481.82	ug/L	2.228	481.82	ppb	2.228	0.46%
S 181.975 Axial†	2706.7	4903.6	ug/L	21.32	4903.6	ppb	21.32	0.43%
Sb 206.836†	1180.8	520.47	ug/L	4.912	520.47	ppb	4.912	0.94%
Se 196.026†	570.1	491.48	ug/L	3.350	491.48	ppb	3.350	0.68%
Si 251.611†	123930.2	4727.1	ug/L	9.62	4727.1	ppb	9.62	0.20%
Sn 189.927†	2118.8	488.88	ug/L	3.260	488.88	ppb	3.260	0.67%
Sr 421.552†	59991.2	469.99	ug/L	10.991	469.99	ppb	10.991	2.34%
Ti 334.940†	273199.9	475.07	ug/L	1.558	475.07	ppb	1.558	0.33%
Tl 190.801†	1224.8	486.59	ug/L	0.772	486.59	ppb	0.772	0.16%
U 409.014†	17291.3	509.98	ug/L	2.539	509.98	ppb	2.539	0.50%
V 292.402†	60913.8	494.37	ug/L	1.385	494.37	ppb	1.385	0.28%
Zn 213.857†	39159.8	478.10	ug/L	1.262	478.10	ppb	1.262	0.26%
SiO2†	124548.4	10099	ug/L	20.4	10099	ppb	20.4	0.20%

Sequence No.: 83
Sample ID: 247829001|957527|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 3/23/2010 03:07:58
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 247829001|957527|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4725.6	4725.6	104	%			03:09:51
1	Y RADIAL	5045.1	5045.1	102.6	%			03:09:51
1	Al 396.153Radial†	218.9	284.0	281.00	ug/L	281.00	ppb	03:10:11
1	Ca 317.933Radial†	6056.6	5815.7	10974	ug/L	10974	ppb	03:09:51
1	Fe 238.204 Radial†	30.8	23.1	264.78	ug/L	264.78	ppb	03:10:11
1	K 766.490 Radial†	12196.8	9238.2	1748.6	ug/L	1748.6	ppb	03:09:51
1	Mg 279.077 IEC†	74.4	71.3	2958.6	ug/L	2958.6	ppb	03:10:11
1	Na 589.592 Radial†	41119.8	40326.7	14081	ug/L	14081	ppb	03:09:51
1	Sr 421.552†	7014.1	6718.9	52.560	ug/L	52.560	ppb	03:09:51
1	Sc 361.383	880050.9	880050.9	104.11	%			03:11:08
1	Y 371.029	732881.5	732881.5	102.80	%			03:11:08
1	Ag 328.068†	99.9	-60.7	-0.3532	ug/L	-0.3532	ppb	03:11:13
1	As 188.979†	-27.4	-4.2	-2.2675	ug/L	-2.2675	ppb	03:11:33
1	B 249.677†	74.5	519.0	14.624	ug/L	14.624	ppb	03:11:33
1	Ba 233.527†	2678.7	2561.0	24.367	ug/L	24.367	ppb	03:11:33
1	Be 313.107†	-4386.3	244.2	0.1131	ug/L	0.1131	ppb	03:11:13
1	Cd 226.502†	-155.9	-1.3	-0.0459	ug/L	-0.0459	ppb	03:11:33
1	Co 228.616†	-20.9	33.5	0.8820	ug/L	0.8820	ppb	03:11:33
1	Cr 267.716†	294.8	213.0	2.9338	ug/L	2.9338	ppb	03:11:33
1	Cu 324.752†	5729.6	-22.6	-0.0610	ug/L	-0.0610	ppb	03:11:13
1	Mn 257.610†	10032.0	9249.6	12.205	ug/L	12.205	ppb	03:11:13
1	Mo 202.031†	18.0	4.4	0.5485	ug/L	0.5485	ppb	03:11:33
1	Ni 231.604†	73.1	-2.4	-0.0784	ug/L	-0.0784	ppb	03:11:33
1	P 214.914†	224.5	15.0	11.023	ug/L	11.023	ppb	03:11:33
1	Pb 220.353†	-52.6	-1.6	-0.0679	ug/L	-0.0679	ppb	03:11:33
1	S 181.975 Axial†	928.8	862.2	1562.3	ug/L	1562.3	ppb	03:11:33
1	Sb 206.836†	25.2	-1.2	-0.8589	ug/L	-0.8589	ppb	03:11:33
1	Se 196.026†	-13.9	8.8	8.2050	ug/L	8.2050	ppb	03:11:33
1	Si 251.611†	921936.6	885018.8	33799	ug/L	33799	ppb	03:11:08
1	Sn 189.927†	-95.9	-95.8	-20.144	ug/L	-20.144	ppb	03:11:33
1	Ti 334.940†	1241.4	2237.9	5.1220	ug/L	5.1220	ppb	03:11:13
1	Tl 190.801†	-30.2	0.1	0.1275	ug/L	0.1275	ppb	03:11:33
1	U 409.014†	-2017.4	5.5	0.1247	ug/L	0.1247	ppb	03:11:08
1	V 292.402†	-532.7	839.0	6.7401	ug/L	6.7401	ppb	03:11:13
1	Zn 213.857†	845.0	207.4	2.5167	ug/L	2.5167	ppb	03:11:33
1	SiO2†	930680.6	893400.1	72531	ug/L	72531	ppb	03:12:40
2	Sc Radial	4675.0	4675.0	103	%			03:10:16
2	Y RADIAL	4999.8	4999.8	101.7	%			03:10:16
2	Al 396.153Radial†	220.0	287.4	284.32	ug/L	284.32	ppb	03:10:36
2	Ca 317.933Radial†	5995.9	5819.7	10982	ug/L	10982	ppb	03:10:16
2	Fe 238.204 Radial†	32.7	25.2	289.40	ug/L	289.40	ppb	03:10:36
2	K 766.490 Radial†	12045.7	9218.3	1744.8	ug/L	1744.8	ppb	03:10:16
2	Mg 279.077 IEC†	79.4	76.9	3193.7	ug/L	3193.7	ppb	03:10:36
2	Na 589.592 Radial†	40427.3	40081.2	13995	ug/L	13995	ppb	03:10:16
2	Sr 421.552†	6916.8	6697.4	52.391	ug/L	52.391	ppb	03:10:16
2	Sc 361.383	883716.6	883716.6	104.54	%			03:11:38
2	Y 371.029	734570.1	734570.1	103.03	%			03:11:38
2	Ag 328.068†	84.7	-75.7	-0.4275	ug/L	-0.4275	ppb	03:11:44
2	As 188.979†	-27.9	-4.6	-2.4759	ug/L	-2.4759	ppb	03:12:04
2	B 249.677†	36.1	481.9	13.575	ug/L	13.575	ppb	03:12:04
2	Ba 233.527†	2669.4	2541.4	24.182	ug/L	24.182	ppb	03:12:04
2	Be 313.107†	-4379.9	267.8	0.1233	ug/L	0.1233	ppb	03:11:44
2	Cd 226.502†	-142.9	11.8	0.1438	ug/L	0.1438	ppb	03:12:04
2	Co 228.616†	-33.5	21.6	0.5657	ug/L	0.5657	ppb	03:12:04
2	Cr 267.716†	299.8	216.6	2.9832	ug/L	2.9832	ppb	03:12:04
2	Cu 324.752†	5735.9	-39.4	-0.1177	ug/L	-0.1177	ppb	03:11:44
2	Mn 257.610†	10178.7	9350.0	12.331	ug/L	12.331	ppb	03:11:44
2	Mo 202.031†	12.1	-1.3	0.0321	ug/L	0.0321	ppb	03:12:04
2	Ni 231.604†	53.7	-21.3	-0.6876	ug/L	-0.6876	ppb	03:12:04

2	P 214.914†	239.7	28.7	21.380	ug/L	21.380 ppb	03:12:04
2	Pb 220.353†	-60.7	-9.1	-1.2550	ug/L	-1.2550 ppb	03:12:04
2	S 181.975 Axial†	921.6	851.7	1543.2	ug/L	1543.2 ppb	03:12:04
2	Sb 206.836†	34.1	7.2	2.7095	ug/L	2.7095 ppb	03:12:04
2	Se 196.026†	-16.0	6.9	6.6412	ug/L	6.6412 ppb	03:12:04
2	Si 251.611†	925387.1	884646.2	33785	ug/L	33785 ppb	03:11:38
2	Sn 189.927†	-97.1	-96.6	-20.332	ug/L	-20.332 ppb	03:12:04
2	Ti 334.940†	1280.1	2270.0	5.1576	ug/L	5.1576 ppb	03:11:44
2	Tl 190.801†	-34.8	-4.2	-1.5774	ug/L	-1.5774 ppb	03:12:04
2	U 409.014†	-1865.5	158.8	4.6580	ug/L	4.6580 ppb	03:11:38
2	V 292.402†	-568.3	807.1	6.4863	ug/L	6.4863 ppb	03:11:44
2	Zn 213.857†	838.3	197.5	2.3956	ug/L	2.3956 ppb	03:12:04
2	SiO2†	929138.1	888216.6	72110	ug/L	72110 ppb	03:12:46
3	Sc Radial	4712.6	4712.6	104	%		03:10:41
3	Y RADIAL	5037.1	5037.1	102.4	%		03:10:41
3	Al 396.153Radial†	221.8	287.4	284.32	ug/L	284.32 ppb	03:11:01
3	Ca 317.933Radial†	6048.1	5823.6	10989	ug/L	10989 ppb	03:10:41
3	Fe 238.204 Radial†	30.2	22.5	258.53	ug/L	258.53 ppb	03:11:01
3	K 766.490 Radial†	12066.6	9144.8	1730.9	ug/L	1730.9 ppb	03:10:41
3	Mg 279.077 IEC†	82.7	79.5	3299.8	ug/L	3299.8 ppb	03:11:01
3	Na 589.592 Radial†	40692.8	40023.4	13975	ug/L	13975 ppb	03:10:41
3	Sr 421.552†	7007.6	6731.2	52.656	ug/L	52.656 ppb	03:10:41
3	Sc 361.383	888320.4	888320.4	105.09	%		03:12:09
3	Y 371.029	739031.2	739031.2	103.66	%		03:12:09
3	Ag 328.068†	187.8	22.0	0.0689	ug/L	0.0689 ppb	03:12:14
3	As 188.979†	-18.3	4.6	2.7100	ug/L	2.7100 ppb	03:12:34
3	B 249.677†	60.4	504.9	14.227	ug/L	14.227 ppb	03:12:34
3	Ba 233.527†	2669.2	2528.0	24.053	ug/L	24.053 ppb	03:12:34
3	Be 313.107†	-4385.9	283.8	0.1303	ug/L	0.1303 ppb	03:12:14
3	Cd 226.502†	-153.2	2.7	0.0122	ug/L	0.0122 ppb	03:12:34
3	Co 228.616†	-22.6	32.1	0.8444	ug/L	0.8444 ppb	03:12:34
3	Cr 267.716†	294.1	209.7	2.8873	ug/L	2.8873 ppb	03:12:34
3	Cu 324.752†	5818.0	10.2	0.0471	ug/L	0.0471 ppb	03:12:14
3	Mn 257.610†	10106.4	9230.7	12.165	ug/L	12.165 ppb	03:12:14
3	Mo 202.031†	17.7	3.9	0.5053	ug/L	0.5053 ppb	03:12:34
3	Ni 231.604†	52.7	-22.4	-0.7254	ug/L	-0.7254 ppb	03:12:34
3	P 214.914†	225.6	14.0	10.252	ug/L	10.252 ppb	03:12:34
3	Pb 220.353†	-59.8	-8.0	-1.0777	ug/L	-1.0777 ppb	03:12:34
3	S 181.975 Axial†	926.8	852.0	1543.8	ug/L	1543.8 ppb	03:12:34
3	Sb 206.836†	27.6	0.8	0.0308	ug/L	0.0308 ppb	03:12:34
3	Se 196.026†	-27.6	-4.1	-2.5693	ug/L	-2.5693 ppb	03:12:34
3	Si 251.611†	929200.5	883687.4	33748	ug/L	33748 ppb	03:12:09
3	Sn 189.927†	-93.3	-92.5	-19.385	ug/L	-19.385 ppb	03:12:34
3	Ti 334.940†	1326.4	2307.8	5.2173	ug/L	5.2173 ppb	03:12:14
3	Tl 190.801†	-25.6	4.7	1.9279	ug/L	1.9279 ppb	03:12:34
3	U 409.014†	-2013.4	27.2	0.7694	ug/L	0.7694 ppb	03:12:09
3	V 292.402†	-589.1	790.2	6.3566	ug/L	6.3566 ppb	03:12:14
3	Zn 213.857†	849.7	204.3	2.4833	ug/L	2.4833 ppb	03:12:34
3	SiO2†	935923.4	890067.3	72261	ug/L	72261 ppb	03:12:52

Mean Data: 247829001|957527|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	884029.3	104.58	%	0.490				0.47%
Sc Radial	4704.4	103	%	0.6				0.56%
Y 371.029	735494.3	103.16	%	0.446				0.43%
Y RADIAL	5027.3	102.2	%	0.49				0.48%
Ag 328.068†	-38.1	-0.2373	ug/L	0.26772	-0.2373	ppb	0.26772	112.84%
Al 396.153Radial†	286.3	283.21	ug/L	1.913	283.21	ppb	1.913	0.68%
As 188.979†	-1.4	-0.6778	ug/L	2.93577	-0.6778	ppb	2.93577	433.14%
B 249.677†	501.9	14.142	ug/L	0.5297	14.142	ppb	0.5297	3.75%
Ba 233.527†	2543.5	24.201	ug/L	0.1580	24.201	ppb	0.1580	0.65%
Be 313.107†	265.3	0.1222	ug/L	0.00863	0.1222	ppb	0.00863	7.06%
Ca 317.933Radial†	5819.7	10982	ug/L	7.4	10982	ppb	7.4	0.07%
Cd 226.502†	4.4	0.0367	ug/L	0.09715	0.0367	ppb	0.09715	264.70%
Co 228.616†	29.1	0.7640	ug/L	0.17276	0.7640	ppb	0.17276	22.61%
Cr 267.716†	213.1	2.9348	ug/L	0.04799	2.9348	ppb	0.04799	1.64%
Cu 324.752†	-17.2	-0.0439	ug/L	0.08377	-0.0439	ppb	0.08377	191.01%
Fe 238.204 Radial†	23.6	270.90	ug/L	16.319	270.90	ppb	16.319	6.02%
K 766.490 Radial†	9200.4	1741.4	ug/L	9.35	1741.4	ppb	9.35	0.54%

Mg 279.077 IEC†	75.9	3150.7	ug/L	174.62	3150.7	ppb	174.62	5.54%
Mn 257.610†	9276.8	12.234	ug/L	0.0867	12.234	ppb	0.0867	0.71%
Mo 202.031†	2.3	0.3620	ug/L	0.28649	0.3620	ppb	0.28649	79.15%
Na 589.592 Radial†	40143.8	14017	ug/L	56.2	14017	ppb	56.2	0.40%
Ni 231.604†	-15.4	-0.4971	ug/L	0.36314	-0.4971	ppb	0.36314	73.05%
P 214.914†	19.2	14.218	ug/L	6.2142	14.218	ppb	6.2142	43.71%
Pb 220.353†	-6.2	-0.8002	ug/L	0.64035	-0.8002	ppb	0.64035	80.02%
S 181.975 Axial†	855.3	1549.8	ug/L	10.86	1549.8	ppb	10.86	0.70%
Sb 206.836†	2.3	0.6271	ug/L	1.85743	0.6271	ppb	1.85743	296.19%
Se 196.026†	3.9	4.0923	ug/L	5.82188	4.0923	ppb	5.82188	142.26%
Si 251.611†	884450.8	33778	ug/L	26.2	33778	ppb	26.2	0.08%
Sn 189.927†	-95.0	-19.954	ug/L	0.5015	-19.954	ppb	0.5015	2.51%
Sr 421.552†	6715.8	52.536	ug/L	0.1343	52.536	ppb	0.1343	0.26%
Ti 334.940†	2271.9	5.1656	ug/L	0.04817	5.1656	ppb	0.04817	0.93%
Tl 190.801†	0.2	0.1593	ug/L	1.75290	0.1593	ppb	1.75290	>999.9%
U 409.014†	63.8	1.8507	ug/L	2.45243	1.8507	ppb	2.45243	132.51%
V 292.402†	812.1	6.5277	ug/L	0.19509	6.5277	ppb	0.19509	2.99%
Zn 213.857†	203.1	2.4652	ug/L	0.06257	2.4652	ppb	0.06257	2.54%
SiO2†	890561.3	72301	ug/L	213.3	72301	ppb	213.3	0.29%

Sequence No.: 84
Sample ID: 1202053150|957527|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 3/23/2010 03:15:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053150|957527|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4719.8	4719.8	104	%			03:16:58
1	Y RADIAL	5040.5	5040.5	102.5	%			03:16:58
1	Al 396.153Radial†	469.2	525.7	520.09	ug/L	520.09	ppb	03:16:58
1	Ca 317.933Radial†	6080.4	5845.8	11031	ug/L	11031	ppb	03:16:58
1	Fe 238.204 Radial†	30.2	22.5	258.35	ug/L	258.35	ppb	03:17:18
1	K 766.490 Radial†	12192.3	9248.4	1750.5	ug/L	1750.5	ppb	03:16:58
1	Mg 279.077 IEC†	78.3	75.1	3118.6	ug/L	3118.6	ppb	03:17:18
1	Na 589.592 Radial†	41142.1	40397.3	14105	ug/L	14105	ppb	03:16:58
1	Sr 421.552†	7058.4	6770.0	52.960	ug/L	52.960	ppb	03:16:58
1	Sc 361.383	892361.9	892361.9	105.57	%			03:18:14
1	Y 371.029	741550.6	741550.6	104.01	%			03:18:14
1	Ag 328.068†	228.3	59.5	0.2584	ug/L	0.2584	ppb	03:18:20
1	As 188.979†	-22.2	1.0	0.6687	ug/L	0.6687	ppb	03:18:40
1	B 249.677†	59.1	503.4	14.186	ug/L	14.186	ppb	03:18:40
1	Ba 233.527†	2672.7	2519.8	23.974	ug/L	23.974	ppb	03:18:40
1	Be 313.107†	-4428.4	262.5	0.1210	ug/L	0.1210	ppb	03:18:20
1	Cd 226.502†	-162.0	-5.0	-0.0995	ug/L	-0.0995	ppb	03:18:40
1	Co 228.616†	-24.6	30.4	0.7980	ug/L	0.7980	ppb	03:18:40
1	Cr 267.716†	306.2	219.9	3.0238	ug/L	3.0238	ppb	03:18:40
1	Cu 324.752†	5679.4	-146.1	-0.4723	ug/L	-0.4723	ppb	03:18:20
1	Mn 257.610†	10277.7	9349.4	12.330	ug/L	12.330	ppb	03:18:20
1	Mo 202.031†	17.0	3.2	0.4397	ug/L	0.4397	ppb	03:18:40
1	Ni 231.604†	65.0	-11.0	-0.3570	ug/L	-0.3570	ppb	03:18:40
1	P 214.914†	240.1	26.8	20.135	ug/L	20.135	ppb	03:18:40
1	Pb 220.353†	-53.5	-1.8	-0.0471	ug/L	-0.0471	ppb	03:18:40
1	S 181.975 Axial†	932.5	853.5	1546.4	ug/L	1546.4	ppb	03:18:40
1	Sb 206.836†	28.0	1.0	0.0908	ug/L	0.0908	ppb	03:18:40
1	Se 196.026†	-24.9	-1.5	-0.3082	ug/L	-0.3082	ppb	03:18:40
1	Si 251.611†	942123.0	891924.0	34063	ug/L	34063	ppb	03:18:14
1	Sn 189.927†	-97.4	-96.0	-20.176	ug/L	-20.176	ppb	03:18:40
1	Ti 334.940†	1283.6	2261.5	5.1562	ug/L	5.1562	ppb	03:18:20
1	Tl 190.801†	-38.1	-7.0	-2.6848	ug/L	-2.6848	ppb	03:18:40
1	U 409.014†	-1935.6	109.6	3.2081	ug/L	3.2081	ppb	03:18:14
1	V 292.402†	-633.7	750.4	6.0382	ug/L	6.0382	ppb	03:18:20
1	Zn 213.857†	940.8	286.9	3.4999	ug/L	3.4999	ppb	03:18:40
1	SiO2†	941878.9	891675.3	72391	ug/L	72391	ppb	03:19:47
2	Sc Radial	4652.9	4652.9	102	%			03:17:23
2	Y RADIAL	4974.0	4974.0	101.2	%			03:17:23
2	Al 396.153Radial†	476.8	539.6	533.82	ug/L	533.82	ppb	03:17:23
2	Ca 317.933Radial†	6030.8	5881.6	11099	ug/L	11099	ppb	03:17:23
2	Fe 238.204 Radial†	28.8	21.5	247.32	ug/L	247.32	ppb	03:17:43
2	K 766.490 Radial†	12172.6	9398.1	1779.0	ug/L	1779.0	ppb	03:17:23
2	Mg 279.077 IEC†	79.6	77.5	3217.8	ug/L	3217.8	ppb	03:17:43
2	Na 589.592 Radial†	40223.4	40068.4	13991	ug/L	13991	ppb	03:17:23
2	Sr 421.552†	6919.5	6731.9	52.661	ug/L	52.661	ppb	03:17:23
2	Sc 361.383	878068.6	878068.6	103.88	%			03:18:45
2	Y 371.029	730152.9	730152.9	102.41	%			03:18:45
2	Ag 328.068†	221.5	56.6	0.2442	ug/L	0.2442	ppb	03:18:50
2	As 188.979†	-19.0	3.8	2.2364	ug/L	2.2364	ppb	03:19:10
2	B 249.677†	67.1	512.1	14.432	ug/L	14.432	ppb	03:19:10
2	Ba 233.527†	2686.5	2574.3	24.493	ug/L	24.493	ppb	03:19:10
2	Be 313.107†	-4428.2	194.3	0.0918	ug/L	0.0918	ppb	03:18:50
2	Cd 226.502†	-152.7	1.5	-0.0042	ug/L	-0.0042	ppb	03:19:10
2	Co 228.616†	-11.5	42.6	1.1211	ug/L	1.1211	ppb	03:19:10
2	Cr 267.716†	293.9	212.7	2.9283	ug/L	2.9283	ppb	03:19:10
2	Cu 324.752†	5653.1	-83.8	-0.2640	ug/L	-0.2640	ppb	03:18:50
2	Mn 257.610†	10209.2	9442.0	12.448	ug/L	12.448	ppb	03:18:50
2	Mo 202.031†	21.4	7.7	0.8448	ug/L	0.8448	ppb	03:19:10
2	Ni 231.604†	52.0	-22.6	-0.7303	ug/L	-0.7303	ppb	03:19:10

2	P 214.914†	236.2	26.7	20.002	ug/L	20.002 ppb	03:19:10
2	Pb 220.353†	-40.3	10.1	1.8195	ug/L	1.8195 ppb	03:19:10
2	S 181.975 Axial†	936.0	871.2	1578.5	ug/L	1578.5 ppb	03:19:10
2	Sb 206.836†	26.9	0.5	-0.1582	ug/L	-0.1582 ppb	03:19:10
2	Se 196.026†	-9.9	12.7	11.446	ug/L	11.446 ppb	03:19:10
2	Si 251.611†	924953.6	889922.4	33986	ug/L	33986 ppb	03:18:45
2	Sn 189.927†	-99.4	-99.4	-20.959	ug/L	-20.959 ppb	03:19:10
2	Ti 334.940†	1248.9	2247.9	5.1353	ug/L	5.1353 ppb	03:18:50
2	Tl 190.801†	-39.0	-8.5	-3.2715	ug/L	-3.2715 ppb	03:19:10
2	U 409.014†	-2052.0	-32.2	-0.9882	ug/L	-0.9882 ppb	03:18:45
2	V 292.402†	-564.5	807.2	6.4950	ug/L	6.4950 ppb	03:18:50
2	Zn 213.857†	944.2	304.6	3.7225	ug/L	3.7225 ppb	03:19:10
2	SiO2†	936566.2	901084.2	73155	ug/L	73155 ppb	03:19:53
3	Sc Radial	4637.6	4637.6	102	%		03:17:48
3	Y RADIAL	4971.9	4971.9	101.1	%		03:17:48
3	Al 396.153Radial†	477.3	541.6	535.82	ug/L	535.82 ppb	03:17:48
3	Ca 317.933Radial†	6044.2	5914.2	11160	ug/L	11160 ppb	03:17:48
3	Fe 238.204 Radial†	30.5	23.3	266.98	ug/L	266.98 ppb	03:18:08
3	K 766.490 Radial†	12138.6	9404.0	1780.1	ug/L	1780.1 ppb	03:17:48
3	Mg 279.077 IEC†	77.6	75.8	3145.3	ug/L	3145.3 ppb	03:18:08
3	Na 589.592 Radial†	40310.8	40284.2	14066	ug/L	14066 ppb	03:17:48
3	Sr 421.552†	6970.1	6803.9	53.224	ug/L	53.224 ppb	03:17:48
3	Sc 361.383	883073.0	883073.0	104.47	%		03:19:15
3	Y 371.029	733856.3	733856.3	102.93	%		03:19:15
3	Ag 328.068†	206.2	40.7	0.1672	ug/L	0.1672 ppb	03:19:20
3	As 188.979†	-20.1	2.8	1.6776	ug/L	1.6776 ppb	03:19:40
3	B 249.677†	25.8	472.1	13.300	ug/L	13.300 ppb	03:19:40
3	Ba 233.527†	2662.8	2537.0	24.138	ug/L	24.138 ppb	03:19:40
3	Be 313.107†	-4402.2	243.5	0.1129	ug/L	0.1129 ppb	03:19:20
3	Cd 226.502†	-151.9	3.0	0.0162	ug/L	0.0162 ppb	03:19:40
3	Co 228.616†	-19.8	34.6	0.9131	ug/L	0.9131 ppb	03:19:40
3	Cr 267.716†	288.7	206.2	2.8413	ug/L	2.8413 ppb	03:19:40
3	Cu 324.752†	5612.7	-153.4	-0.4928	ug/L	-0.4928 ppb	03:19:20
3	Mn 257.610†	10199.1	9376.6	12.366	ug/L	12.366 ppb	03:19:20
3	Mo 202.031†	28.6	14.4	1.4533	ug/L	1.4533 ppb	03:19:40
3	Ni 231.604†	61.2	-14.0	-0.4527	ug/L	-0.4527 ppb	03:19:40
3	P 214.914†	229.1	18.7	13.978	ug/L	13.978 ppb	03:19:40
3	Pb 220.353†	-63.2	-11.6	-1.5800	ug/L	-1.5800 ppb	03:19:40
3	S 181.975 Axial†	932.4	862.6	1562.9	ug/L	1562.9 ppb	03:19:40
3	Sb 206.836†	24.6	-1.9	-1.1243	ug/L	-1.1243 ppb	03:19:40
3	Se 196.026†	-22.4	0.7	1.5657	ug/L	1.5657 ppb	03:19:40
3	Si 251.611†	928472.1	888244.4	33922	ug/L	33922 ppb	03:19:15
3	Sn 189.927†	-93.5	-93.2	-19.506	ug/L	-19.506 ppb	03:19:40
3	Ti 334.940†	1274.6	2265.7	5.1809	ug/L	5.1809 ppb	03:19:20
3	Tl 190.801†	-31.5	-1.1	-0.3457	ug/L	-0.3457 ppb	03:19:40
3	U 409.014†	-2103.7	-70.5	-2.1233	ug/L	-2.1233 ppb	03:19:15
3	V 292.402†	-608.8	767.9	6.1820	ug/L	6.1820 ppb	03:19:20
3	Zn 213.857†	950.8	305.8	3.7327	ug/L	3.7327 ppb	03:19:40
3	SiO2†	942141.6	901311.8	73174	ug/L	73174 ppb	03:19:58

Mean Data: 1202053150|957527|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	884501.1	104.64	%	0.858				0.82%
Sc Radial	4670.1	103	%	1.0				0.94%
Y 371.029	735186.6	103.12	%	0.816				0.79%
Y RADIAL	4995.5	101.6	%	0.79				0.78%
Ag 328.068†	52.3	0.2233	ug/L	0.04906	0.2233	ppb	0.04906	21.97%
Al 396.153Radial†	535.6	529.91	ug/L	8.563	529.91	ppb	8.563	1.62%
As 188.979†	2.5	1.5276	ug/L	0.79454	1.5276	ppb	0.79454	52.01%
B 249.677†	495.9	13.972	ug/L	0.5955	13.972	ppb	0.5955	4.26%
Ba 233.527†	2543.7	24.202	ug/L	0.2653	24.202	ppb	0.2653	1.10%
Be 313.107†	233.4	0.1086	ug/L	0.01504	0.1086	ppb	0.01504	13.86%
Ca 317.933Radial†	5880.6	11097	ug/L	64.5	11097	ppb	64.5	0.58%
Cd 226.502†	-0.2	-0.0291	ug/L	0.06175	-0.0291	ppb	0.06175	211.96%
Co 228.616†	35.9	0.9441	ug/L	0.16377	0.9441	ppb	0.16377	17.35%
Cr 267.716†	212.9	2.9311	ug/L	0.09126	2.9311	ppb	0.09126	3.11%
Cu 324.752†	-127.8	-0.4097	ug/L	0.12661	-0.4097	ppb	0.12661	30.90%
Fe 238.204 Radial†	22.4	257.55	ug/L	9.858	257.55	ppb	9.858	3.83%
K 766.490 Radial†	9350.2	1769.9	ug/L	16.77	1769.9	ppb	16.77	0.95%

Mg 279.077 IEC†	76.1	3160.6	ug/L	51.35	3160.6	ppb	51.35	1.62%
Mn 257.610†	9389.3	12.382	ug/L	0.0605	12.382	ppb	0.0605	0.49%
Mo 202.031†	8.5	0.9126	ug/L	0.51016	0.9126	ppb	0.51016	55.90%
Na 589.592 Radial†	40250.0	14054	ug/L	58.3	14054	ppb	58.3	0.42%
Ni 231.604†	-15.9	-0.5134	ug/L	0.19391	-0.5134	ppb	0.19391	37.77%
P 214.914†	24.1	18.038	ug/L	3.5167	18.038	ppb	3.5167	19.50%
Pb 220.353†	-1.1	0.0641	ug/L	1.70246	0.0641	ppb	1.70246	>999.9%
S 181.975 Axial†	862.4	1562.6	ug/L	16.09	1562.6	ppb	16.09	1.03%
Sb 206.836†	-0.1	-0.3972	ug/L	0.64187	-0.3972	ppb	0.64187	161.58%
Se 196.026†	4.0	4.2346	ug/L	6.31539	4.2346	ppb	6.31539	149.14%
Si 251.611†	890030.3	33991	ug/L	70.4	33991	ppb	70.4	0.21%
Sn 189.927†	-96.2	-20.214	ug/L	0.7276	-20.214	ppb	0.7276	3.60%
Sr 421.552†	6768.6	52.948	ug/L	0.2820	52.948	ppb	0.2820	0.53%
Ti 334.940†	2258.3	5.1574	ug/L	0.02286	5.1574	ppb	0.02286	0.44%
Tl 190.801†	-5.5	-2.1007	ug/L	1.54788	-2.1007	ppb	1.54788	73.69%
U 409.014†	2.3	0.0322	ug/L	2.80834	0.0322	ppb	2.80834	>999.9%
V 292.402†	775.2	6.2384	ug/L	0.23356	6.2384	ppb	0.23356	3.74%
Zn 213.857†	299.1	3.6517	ug/L	0.13155	3.6517	ppb	0.13155	3.60%
SiO2†	898023.7	72907	ug/L	446.4	72907	ppb	446.4	0.61%

Sequence No.: 85
Sample ID: 1202053151|957527|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 3/23/2010 03:22:10
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053151|957527|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4576.6	4576.6	101	%			03:24:04
1	Y RADIAL	4892.1	4892.1	99.49	%			03:24:04
1	Al 396.153Radial†	5320.5	5365.0	5284.8	ug/L	5284.8	ppb	03:24:04
1	Ca 317.933Radial†	8425.7	8362.1	15779	ug/L	15779	ppb	03:24:04
1	Fe 238.204 Radial†	467.3	458.1	5273.3	ug/L	5273.3	ppb	03:24:24
1	K 766.490 Radial†	38393.6	35676.8	6775.0	ug/L	6775.0	ppb	03:24:04
1	Mg 279.077 IEC†	200.9	199.4	8277.2	ug/L	8277.2	ppb	03:24:24
1	Na 589.592 Radial†	52676.9	53111.5	18545	ug/L	18545	ppb	03:24:04
1	Sr 421.552†	67567.0	67166.4	526.12	ug/L	526.12	ppb	03:24:04
1	Sc 361.383	880862.2	880862.2	104.21	%			03:25:21
1	Y 371.029	728775.7	728775.7	102.22	%			03:25:21
1	Ag 328.068†	98101.8	93985.2	487.45	ug/L	487.45	ppb	03:25:26
1	As 188.979†	886.8	873.1	496.37	ug/L	496.37	ppb	03:25:46
1	B 249.677†	18270.1	17980.0	505.99	ug/L	505.99	ppb	03:25:26
1	Ba 233.527†	57646.3	55307.4	527.03	ug/L	527.03	ppb	03:25:26
1	Be 313.107†	1208386.7	1164066.9	498.07	ug/L	498.07	ppb	03:25:21
1	Cd 226.502†	34713.0	33460.3	491.46	ug/L	491.46	ppb	03:25:26
1	Co 228.616†	19515.8	18781.7	494.51	ug/L	494.51	ppb	03:25:26
1	Cr 267.716†	38187.0	36575.3	498.37	ug/L	498.37	ppb	03:25:26
1	Cu 324.752†	166679.5	154425.4	511.59	ug/L	511.59	ppb	03:25:26
1	Mn 257.610†	391793.4	375592.1	499.63	ug/L	499.63	ppb	03:25:21
1	Mo 202.031†	5559.8	5322.5	479.56	ug/L	479.56	ppb	03:25:46
1	Ni 231.604†	16186.5	15460.5	499.22	ug/L	499.22	ppb	03:25:26
1	P 214.914†	988.0	747.4	466.45	ug/L	466.45	ppb	03:25:46
1	Pb 220.353†	3122.7	3045.6	477.97	ug/L	477.97	ppb	03:25:46
1	S 181.975 Axial†	3754.3	3572.9	6473.0	ug/L	6473.0	ppb	03:25:46
1	Sb 206.836†	1277.9	1200.9	528.85	ug/L	528.85	ppb	03:25:46
1	Se 196.026†	570.4	569.6	492.72	ug/L	492.72	ppb	03:25:46
1	Si 251.611†	1056428.2	1013266.1	38691	ug/L	38691	ppb	03:25:21
1	Sn 189.927†	2160.8	2069.9	479.53	ug/L	479.53	ppb	03:25:46
1	Ti 334.940†	294606.5	283760.1	494.63	ug/L	494.63	ppb	03:25:26
1	Tl 190.801†	1251.6	1230.2	488.83	ug/L	488.83	ppb	03:25:46
1	U 409.014†	16393.7	17675.1	521.25	ug/L	521.25	ppb	03:25:26
1	V 292.402†	64644.3	63385.6	514.18	ug/L	514.18	ppb	03:25:26
1	Zn 213.857†	42684.0	40356.8	492.71	ug/L	492.71	ppb	03:25:26
1	SiO2†	1060757.8	1017403.4	82586	ug/L	82586	ppb	03:26:55
2	Sc Radial	5062.0	5062.0	111	%			03:24:29
2	Y RADIAL	5400.8	5400.8	109.8	%			03:24:29
2	Al 396.153Radial†	5327.2	4863.7	4788.6	ug/L	4788.6	ppb	03:24:29
2	Ca 317.933Radial†	8417.2	7550.9	14248	ug/L	14248	ppb	03:24:29
2	Fe 238.204 Radial†	460.6	407.6	4692.7	ug/L	4692.7	ppb	03:24:49
2	K 766.490 Radial†	38727.8	32315.8	6136.7	ug/L	6136.7	ppb	03:24:29
2	Mg 279.077 IEC†	200.6	180.0	7471.9	ug/L	7471.9	ppb	03:24:49
2	Na 589.592 Radial†	52727.1	48132.9	16806	ug/L	16806	ppb	03:24:29
2	Sr 421.552†	67569.0	60724.4	475.66	ug/L	475.66	ppb	03:24:29
2	Sc 361.383	880830.0	880830.0	104.20	%			03:25:52
2	Y 371.029	729039.4	729039.4	102.26	%			03:25:52
2	Ag 328.068†	95721.8	91704.6	475.50	ug/L	475.50	ppb	03:25:57
2	As 188.979†	887.7	874.0	496.61	ug/L	496.61	ppb	03:26:17
2	B 249.677†	17839.2	17567.2	494.45	ug/L	494.45	ppb	03:25:57
2	Ba 233.527†	56412.2	54125.1	515.75	ug/L	515.75	ppb	03:25:57
2	Be 313.107†	1206064.5	1161880.7	497.11	ug/L	497.11	ppb	03:25:52
2	Cd 226.502†	33881.4	32663.4	479.81	ug/L	479.81	ppb	03:25:57
2	Co 228.616†	19038.7	18324.5	482.51	ug/L	482.51	ppb	03:25:57
2	Cr 267.716†	37306.5	35731.7	486.83	ug/L	486.83	ppb	03:25:57
2	Cu 324.752†	162721.5	150632.9	499.01	ug/L	499.01	ppb	03:25:57
2	Mn 257.610†	390947.6	374794.2	498.54	ug/L	498.54	ppb	03:25:52
2	Mo 202.031†	5588.2	5350.0	481.97	ug/L	481.97	ppb	03:26:17
2	Ni 231.604†	15823.3	15112.6	487.98	ug/L	487.98	ppb	03:25:57

2	P 214.914†	989.1	748.6	470.18	ug/L	470.18 ppb	03:26:17
2	Pb 220.353†	3132.7	3055.3	479.45	ug/L	479.45 ppb	03:26:17
2	S 181.975 Axial†	3764.2	3582.5	6490.5	ug/L	6490.5 ppb	03:26:17
2	Sb 206.836†	1261.2	1184.9	522.16	ug/L	522.16 ppb	03:26:17
2	Se 196.026†	571.4	570.5	491.67	ug/L	491.67 ppb	03:26:17
2	Si 251.611†	1054652.1	1011598.7	38627	ug/L	38627 ppb	03:25:52
2	Sn 189.927†	2174.1	2082.7	482.24	ug/L	482.24 ppb	03:26:17
2	Ti 334.940†	287481.1	276932.4	482.63	ug/L	482.63 ppb	03:25:57
2	Tl 190.801†	1240.7	1219.7	484.69	ug/L	484.69 ppb	03:26:17
2	U 409.014†	15797.5	17103.6	504.43	ug/L	504.43 ppb	03:25:57
2	V 292.402†	63105.9	61911.5	502.46	ug/L	502.46 ppb	03:25:57
2	Zn 213.857†	41712.6	39426.0	481.41	ug/L	481.41 ppb	03:25:57
2	SiO2†	1069735.3	1026056.0	83288	ug/L	83288 ppb	03:27:01
3	Sc Radial	4752.2	4752.2	104	%		03:24:54
3	Y RADIAL	5066.4	5066.4	103.0	%		03:24:54
3	Al 396.153Radial†	5483.6	5325.8	5245.8	ug/L	5245.8 ppb	03:24:54
3	Ca 317.933Radial†	8653.8	8270.9	15607	ug/L	15607 ppb	03:24:54
3	Fe 238.204 Radial†	465.8	439.5	5059.0	ug/L	5059.0 ppb	03:25:14
3	K 766.490 Radial†	39666.4	35484.9	6738.7	ug/L	6738.7 ppb	03:24:54
3	Mg 279.077 IEC†	202.6	193.7	8040.8	ug/L	8040.8 ppb	03:25:14
3	Na 589.592 Radial†	54033.5	52475.0	18323	ug/L	18323 ppb	03:24:54
3	Sr 421.552†	69556.2	66588.5	521.59	ug/L	521.59 ppb	03:24:54
3	Sc 361.383	881861.9	881861.9	104.32	%		03:26:23
3	Y 371.029	731388.9	731388.9	102.59	%		03:26:23
3	Ag 328.068†	96069.4	91930.3	476.76	ug/L	476.76 ppb	03:26:28
3	As 188.979†	897.7	882.6	501.56	ug/L	501.56 ppb	03:26:48
3	B 249.677†	17909.9	17614.9	495.73	ug/L	495.73 ppb	03:26:28
3	Ba 233.527†	56622.7	54263.5	517.07	ug/L	517.07 ppb	03:26:28
3	Be 313.107†	1210881.0	1165143.2	498.51	ug/L	498.51 ppb	03:26:23
3	Cd 226.502†	33950.4	32691.5	480.18	ug/L	480.18 ppb	03:26:28
3	Co 228.616†	19118.9	18380.0	483.97	ug/L	483.97 ppb	03:26:28
3	Cr 267.716†	37554.3	35927.3	489.53	ug/L	489.53 ppb	03:26:28
3	Cu 324.752†	163065.2	150779.6	499.51	ug/L	499.51 ppb	03:26:28
3	Mn 257.610†	390981.1	374387.3	498.01	ug/L	498.01 ppb	03:26:23
3	Mo 202.031†	5616.7	5370.9	483.90	ug/L	483.90 ppb	03:26:48
3	Ni 231.604†	15871.9	15141.4	488.91	ug/L	488.91 ppb	03:26:28
3	P 214.914†	1005.1	762.8	480.69	ug/L	480.69 ppb	03:26:48
3	Pb 220.353†	3142.1	3060.7	480.37	ug/L	480.37 ppb	03:26:48
3	S 181.975 Axial†	3771.5	3585.2	6495.4	ug/L	6495.4 ppb	03:26:48
3	Sb 206.836†	1262.8	1185.0	522.26	ug/L	522.26 ppb	03:26:48
3	Se 196.026†	577.8	576.1	497.50	ug/L	497.50 ppb	03:26:48
3	Si 251.611†	1054049.0	1009836.2	38560	ug/L	38560 ppb	03:26:23
3	Sn 189.927†	2188.3	2093.8	485.04	ug/L	485.04 ppb	03:26:48
3	Ti 334.940†	288229.0	277326.5	483.45	ug/L	483.45 ppb	03:26:28
3	Tl 190.801†	1232.6	1210.6	481.07	ug/L	481.07 ppb	03:26:48
3	U 409.014†	15812.1	17099.8	504.27	ug/L	504.27 ppb	03:26:28
3	V 292.402†	63280.4	62008.0	503.22	ug/L	503.22 ppb	03:26:28
3	Zn 213.857†	41804.8	39467.5	481.86	ug/L	481.86 ppb	03:26:28
3	SiO2†	1058633.9	1014213.6	82326	ug/L	82326 ppb	03:27:07

Mean Data: 1202053151|957527|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	881184.7	104.24	%	0.069				0.07%
Sc Radial	4796.9	105	%	5.4				5.12%
Y 371.029	729734.7	102.35	%	0.202				0.20%
Y RADIAL	5119.8	104.1	%	5.26				5.05%
Ag 328.068†	92540.0	479.91	ug/L	6.564	479.91	ppb	6.564	1.37%
Al 396.153Radial†	5184.8	5106.4	ug/L	275.88	5106.4	ppb	275.88	5.40%
As 188.979†	876.6	498.18	ug/L	2.930	498.18	ppb	2.930	0.59%
B 249.677†	17720.7	498.72	ug/L	6.325	498.72	ppb	6.325	1.27%
Ba 233.527†	54565.3	519.95	ug/L	6.166	519.95	ppb	6.166	1.19%
Be 313.107†	1163696.9	497.90	ug/L	0.714	497.90	ppb	0.714	0.14%
Ca 317.933Radial†	8061.3	15212	ug/L	838.5	15212	ppb	838.5	5.51%
Cd 226.502†	32938.4	483.82	ug/L	6.625	483.82	ppb	6.625	1.37%
Co 228.616†	18495.4	486.99	ug/L	6.546	486.99	ppb	6.546	1.34%
Cr 267.716†	36078.1	491.58	ug/L	6.037	491.58	ppb	6.037	1.23%
Cu 324.752†	151946.0	503.37	ug/L	7.125	503.37	ppb	7.125	1.42%
Fe 238.204 Radial†	435.1	5008.3	ug/L	293.61	5008.3	ppb	293.61	5.86%
K 766.490 Radial†	34492.5	6550.1	ug/L	358.50	6550.1	ppb	358.50	5.47%

Mg 279.077 IEC†	191.0	7929.9	ug/L	413.93	7929.9	ppb	413.93	5.22%
Mn 257.610†	374924.5	498.73	ug/L	0.823	498.73	ppb	0.823	0.16%
Mo 202.031†	5347.8	481.81	ug/L	2.174	481.81	ppb	2.174	0.45%
Na 589.592 Radial†	51239.8	17891	ug/L	946.0	17891	ppb	946.0	5.29%
Ni 231.604†	15238.1	492.04	ug/L	6.234	492.04	ppb	6.234	1.27%
P 214.914†	752.9	472.44	ug/L	7.386	472.44	ppb	7.386	1.56%
Pb 220.353†	3053.9	479.26	ug/L	1.212	479.26	ppb	1.212	0.25%
S 181.975 Axial†	3580.2	6486.3	ug/L	11.75	6486.3	ppb	11.75	0.18%
Sb 206.836†	1190.3	524.43	ug/L	3.834	524.43	ppb	3.834	0.73%
Se 196.026†	572.0	493.96	ug/L	3.107	493.96	ppb	3.107	0.63%
Si 251.611†	1011567.0	38626	ug/L	65.5	38626	ppb	65.5	0.17%
Sn 189.927†	2082.1	482.27	ug/L	2.751	482.27	ppb	2.751	0.57%
Sr 421.552†	64826.4	507.79	ug/L	27.919	507.79	ppb	27.919	5.50%
Ti 334.940†	279339.7	486.90	ug/L	6.707	486.90	ppb	6.707	1.38%
Tl 190.801†	1220.2	484.86	ug/L	3.883	484.86	ppb	3.883	0.80%
U 409.014†	17292.8	509.98	ug/L	9.757	509.98	ppb	9.757	1.91%
V 292.402†	62435.0	506.62	ug/L	6.559	506.62	ppb	6.559	1.29%
Zn 213.857†	39750.1	485.33	ug/L	6.396	485.33	ppb	6.396	1.32%
SiO2†	1019224.3	82733	ug/L	497.5	82733	ppb	497.5	0.60%

Sequence No.: 86
Sample ID: 1202053152|957527|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 106
Date Collected: 3/23/2010 03:29:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053152|957527|5

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4684.4	4684.4	103	%			03:31:12
1	Y RADIAL	5082.3	5082.3	103.4	%			03:31:12
1	Al 396.153Radial†	-11.9	61.6	60.990	ug/L	60.990	ppb	03:31:32
1	Ca 317.933Radial†	1202.3	1149.9	2169.9	ug/L	2169.9	ppb	03:31:32
1	Fe 238.204 Radial†	9.9	3.0	34.379	ug/L	34.379	ppb	03:31:32
1	K 766.490 Radial†	4458.3	1821.9	344.89	ug/L	344.89	ppb	03:31:12
1	Mg 279.077 IEC†	14.6	13.7	570.66	ug/L	570.66	ppb	03:31:32
1	Na 589.592 Radial†	7092.5	7609.8	2657.1	ug/L	2657.1	ppb	03:31:12
1	Sr 421.552†	1360.0	1284.1	10.045	ug/L	10.045	ppb	03:31:12
1	Sc 361.383	861968.3	861968.3	101.97	%			03:32:29
1	Y 371.029	735535.9	735535.9	103.17	%			03:32:29
1	Ag 328.068†	271.9	110.0	0.5523	ug/L	0.5523	ppb	03:32:29
1	As 188.979†	-21.3	1.2	0.6796	ug/L	0.6796	ppb	03:32:49
1	B 249.677†	-222.8	228.9	6.4634	ug/L	6.4634	ppb	03:32:49
1	Ba 233.527†	558.5	535.7	5.0964	ug/L	5.0964	ppb	03:32:49
1	Be 313.107†	-4304.4	236.2	0.1025	ug/L	0.1025	ppb	03:32:29
1	Cd 226.502†	-170.4	-18.7	-0.2775	ug/L	-0.2775	ppb	03:32:49
1	Co 228.616†	-29.3	24.9	0.6529	ug/L	0.6529	ppb	03:32:49
1	Cr 267.716†	112.3	39.9	0.5482	ug/L	0.5482	ppb	03:32:49
1	Cu 324.752†	5570.4	-63.3	-0.2082	ug/L	-0.2082	ppb	03:32:29
1	Mn 257.610†	2250.3	1820.5	2.4009	ug/L	2.4009	ppb	03:32:49
1	Mo 202.031†	4.9	-8.1	-0.7026	ug/L	-0.7026	ppb	03:32:49
1	Ni 231.604†	75.8	1.7	0.0561	ug/L	0.0561	ppb	03:32:49
1	P 214.914†	203.3	-1.3	-1.0284	ug/L	-1.0284	ppb	03:32:49
1	Pb 220.353†	-48.2	1.7	0.3004	ug/L	0.3004	ppb	03:32:49
1	S 181.975 Axial†	201.8	168.0	304.33	ug/L	304.33	ppb	03:32:49
1	Sb 206.836†	24.2	-1.7	-0.8351	ug/L	-0.8351	ppb	03:32:49
1	Se 196.026†	-22.5	0.1	0.1823	ug/L	0.1823	ppb	03:32:49
1	Si 251.611†	182810.8	178758.1	6826.8	ug/L	6826.8	ppb	03:32:29
1	Sn 189.927†	-18.7	-22.1	-4.7010	ug/L	-4.7010	ppb	03:32:49
1	Ti 334.940†	-633.0	424.7	0.9828	ug/L	0.9828	ppb	03:32:29
1	Tl 190.801†	-21.3	8.2	3.2475	ug/L	3.2475	ppb	03:32:49
1	U 409.014†	-1958.3	22.7	0.6669	ug/L	0.6669	ppb	03:32:29
1	V 292.402†	-1224.2	150.2	1.1989	ug/L	1.1989	ppb	03:32:29
1	Zn 213.857†	700.1	82.3	1.0086	ug/L	1.0086	ppb	03:32:49
1	SiO2†	185051.7	180938.2	14690	ug/L	14690	ppb	03:33:45
2	Sc Radial	4720.2	4720.2	104	%			03:31:37
2	Y RADIAL	5079.5	5079.5	103.3	%			03:31:37
2	Al 396.153Radial†	-19.8	54.1	53.528	ug/L	53.528	ppb	03:31:57
2	Ca 317.933Radial†	1178.8	1118.5	2110.5	ug/L	2110.5	ppb	03:31:57
2	Fe 238.204 Radial†	11.7	4.7	53.481	ug/L	53.481	ppb	03:31:57
2	K 766.490 Radial†	4578.2	1904.5	360.65	ug/L	360.65	ppb	03:31:37
2	Mg 279.077 IEC†	15.7	14.7	611.79	ug/L	611.79	ppb	03:31:57
2	Na 589.592 Radial†	7007.8	7475.8	2610.3	ug/L	2610.3	ppb	03:31:37
2	Sr 421.552†	1359.6	1273.7	9.9637	ug/L	9.9637	ppb	03:31:37
2	Sc 361.383	856904.6	856904.6	101.37	%			03:32:54
2	Y 371.029	732893.6	732893.6	102.80	%			03:32:54
2	Ag 328.068†	74.0	-83.7	-0.4453	ug/L	-0.4453	ppb	03:32:54
2	As 188.979†	-28.8	-6.4	-3.5628	ug/L	-3.5628	ppb	03:33:14
2	B 249.677†	-242.1	208.6	5.8885	ug/L	5.8885	ppb	03:33:14
2	Ba 233.527†	548.2	528.8	5.0299	ug/L	5.0299	ppb	03:33:14
2	Be 313.107†	-4299.4	216.2	0.0940	ug/L	0.0940	ppb	03:32:54
2	Cd 226.502†	-172.3	-21.5	-0.3202	ug/L	-0.3202	ppb	03:33:14
2	Co 228.616†	-46.9	7.3	0.1929	ug/L	0.1929	ppb	03:33:14
2	Cr 267.716†	120.3	48.5	0.6639	ug/L	0.6639	ppb	03:33:14
2	Cu 324.752†	5561.0	-40.2	-0.1333	ug/L	-0.1333	ppb	03:32:54
2	Mn 257.610†	2260.5	1843.6	2.4318	ug/L	2.4318	ppb	03:33:14
2	Mo 202.031†	17.5	4.4	0.4209	ug/L	0.4209	ppb	03:33:14
2	Ni 231.604†	84.1	10.3	0.3334	ug/L	0.3334	ppb	03:33:14

2	P 214.914†	208.7	5.2	3.9151	ug/L	3.9151 ppb	03:33:14
2	Pb 220.353†	-50.6	-1.0	-0.1242	ug/L	-0.1242 ppb	03:33:14
2	S 181.975 Axial†	214.5	181.7	329.23	ug/L	329.23 ppb	03:33:14
2	Sb 206.836†	23.3	-2.5	-1.1622	ug/L	-1.1622 ppb	03:33:14
2	Se 196.026†	-8.2	14.0	11.863	ug/L	11.863 ppb	03:33:14
2	Si 251.611†	181290.8	178318.0	6810.0	ug/L	6810.0 ppb	03:32:54
2	Sn 189.927†	-24.7	-28.1	-6.0956	ug/L	-6.0956 ppb	03:33:14
2	Ti 334.940†	-618.2	435.7	0.9885	ug/L	0.9885 ppb	03:32:54
2	Tl 190.801†	-28.3	1.2	0.4754	ug/L	0.4754 ppb	03:33:14
2	U 409.014†	-1794.6	172.9	5.1075	ug/L	5.1075 ppb	03:32:54
2	V 292.402†	-1295.1	73.1	0.6039	ug/L	0.6039 ppb	03:32:54
2	Zn 213.857†	692.3	78.7	0.9594	ug/L	0.9594 ppb	03:33:14
2	SiO2†	183595.1	180573.7	14660	ug/L	14660 ppb	03:33:50
3	Sc Radial	4607.2	4607.2	101	%		03:32:02
3	Y RADIAL	4960.4	4960.4	100.9	%		03:32:02
3	Al 396.153Radial†	-13.2	60.1	59.489	ug/L	59.489 ppb	03:32:22
3	Ca 317.933Radial†	1188.0	1155.4	2180.2	ug/L	2180.2 ppb	03:32:22
3	Fe 238.204 Radial†	12.2	5.4	62.475	ug/L	62.475 ppb	03:32:22
3	K 766.490 Radial†	4505.9	1941.5	367.61	ug/L	367.61 ppb	03:32:02
3	Mg 279.077 IEC†	17.8	17.2	712.89	ug/L	712.89 ppb	03:32:22
3	Na 589.592 Radial†	7178.4	7810.1	2727.0	ug/L	2727.0 ppb	03:32:02
3	Sr 421.552†	1340.4	1286.9	10.067	ug/L	10.067 ppb	03:32:02
3	Sc 361.383	856658.7	856658.7	101.34	%		03:33:19
3	Y 371.029	732693.6	732693.6	102.77	%		03:33:19
3	Ag 328.068†	228.2	68.4	0.3466	ug/L	0.3466 ppb	03:33:19
3	As 188.979†	-16.0	6.3	3.5867	ug/L	3.5867 ppb	03:33:39
3	B 249.677†	-237.9	212.7	6.0015	ug/L	6.0015 ppb	03:33:39
3	Ba 233.527†	549.1	529.8	5.0426	ug/L	5.0426 ppb	03:33:39
3	Be 313.107†	-4310.0	204.5	0.0889	ug/L	0.0889 ppb	03:33:19
3	Cd 226.502†	-175.2	-24.4	-0.3636	ug/L	-0.3636 ppb	03:33:39
3	Co 228.616†	-37.3	16.8	0.4418	ug/L	0.4418 ppb	03:33:39
3	Cr 267.716†	118.0	46.3	0.6366	ug/L	0.6366 ppb	03:33:39
3	Cu 324.752†	5651.9	51.0	0.1700	ug/L	0.1700 ppb	03:33:19
3	Mn 257.610†	2256.0	1839.8	2.4235	ug/L	2.4235 ppb	03:33:39
3	Mo 202.031†	11.4	-1.6	-0.1171	ug/L	-0.1171 ppb	03:33:39
3	Ni 231.604†	90.7	16.9	0.5467	ug/L	0.5467 ppb	03:33:39
3	P 214.914†	202.1	-1.3	-1.0877	ug/L	-1.0877 ppb	03:33:39
3	Pb 220.353†	-55.8	-6.2	-0.9364	ug/L	-0.9364 ppb	03:33:39
3	S 181.975 Axial†	213.9	181.2	328.27	ug/L	328.27 ppb	03:33:39
3	Sb 206.836†	23.8	-1.9	-0.9066	ug/L	-0.9066 ppb	03:33:39
3	Se 196.026†	-18.5	3.9	3.4692	ug/L	3.4692 ppb	03:33:39
3	Si 251.611†	181607.2	178681.6	6823.9	ug/L	6823.9 ppb	03:33:19
3	Sn 189.927†	-21.0	-24.5	-5.2552	ug/L	-5.2552 ppb	03:33:39
3	Ti 334.940†	-647.1	407.0	0.9401	ug/L	0.9401 ppb	03:33:19
3	Tl 190.801†	-24.0	5.4	2.1335	ug/L	2.1335 ppb	03:33:39
3	U 409.014†	-1829.6	137.8	4.0679	ug/L	4.0679 ppb	03:33:19
3	V 292.402†	-1133.5	232.2	1.8693	ug/L	1.8693 ppb	03:33:19
3	Zn 213.857†	705.3	91.7	1.1169	ug/L	1.1169 ppb	03:33:39
3	SiO2†	184407.3	181427.1	14729	ug/L	14729 ppb	03:33:55

Mean Data: 1202053152|957527|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	858510.5	101.56	%	0.355				0.35%
Sc Radial	4670.6	103	%	1.3				1.24%
Y 371.029	733707.7	102.91	%	0.223				0.22%
Y RADIAL	5040.7	102.5	%	1.42				1.38%
Ag 328.068†	31.6	0.1512	ug/L	0.52670	0.1512	ppb	0.52670	348.34%
Al 396.153Radial†	58.6	58.003	ug/L	3.9468	58.003	ppb	3.9468	6.80%
As 188.979†	0.4	0.2345	ug/L	3.59547	0.2345	ppb	3.59547	>999.9%
B 249.677†	216.8	6.1178	ug/L	0.30461	6.1178	ppb	0.30461	4.98%
Ba 233.527†	531.5	5.0563	ug/L	0.03528	5.0563	ppb	0.03528	0.70%
Be 313.107†	218.9	0.0951	ug/L	0.00688	0.0951	ppb	0.00688	7.23%
Ca 317.933Radial†	1141.2	2153.5	ug/L	37.59	2153.5	ppb	37.59	1.75%
Cd 226.502†	-21.5	-0.3204	ug/L	0.04300	-0.3204	ppb	0.04300	13.42%
Co 228.616†	16.3	0.4292	ug/L	0.23024	0.4292	ppb	0.23024	53.64%
Cr 267.716†	44.9	0.6162	ug/L	0.06048	0.6162	ppb	0.06048	9.81%
Cu 324.752†	-17.5	-0.0572	ug/L	0.20025	-0.0572	ppb	0.20025	350.21%
Fe 238.204 Radial†	4.4	50.112	ug/L	14.3478	50.112	ppb	14.3478	28.63%
K 766.490 Radial†	1889.3	357.72	ug/L	11.644	357.72	ppb	11.644	3.26%

Mg 279.077 IEC†	15.2	631.78	ug/L	73.192	631.78	ppb	73.192	11.58%
Mn 257.610†	1834.7	2.4188	ug/L	0.01602	2.4188	ppb	0.01602	0.66%
Mo 202.031†	-1.8	-0.1329	ug/L	0.56192	-0.1329	ppb	0.56192	422.77%
Na 589.592 Radial†	7631.9	2664.8	ug/L	58.75	2664.8	ppb	58.75	2.20%
Ni 231.604†	9.7	0.3121	ug/L	0.24601	0.3121	ppb	0.24601	78.84%
P 214.914†	0.9	0.5996	ug/L	2.87138	0.5996	ppb	2.87138	478.85%
Pb 220.353†	-1.8	-0.2534	ug/L	0.62845	-0.2534	ppb	0.62845	247.97%
S 181.975 Axial†	176.9	320.61	ug/L	14.105	320.61	ppb	14.105	4.40%
Sb 206.836†	-2.1	-0.9679	ug/L	0.17196	-0.9679	ppb	0.17196	17.77%
Se 196.026†	6.0	5.1715	ug/L	6.02351	5.1715	ppb	6.02351	116.47%
Si 251.611†	178585.9	6820.3	ug/L	8.99	6820.3	ppb	8.99	0.13%
Sn 189.927†	-24.9	-5.3506	ug/L	0.70214	-5.3506	ppb	0.70214	13.12%
Sr 421.552†	1281.6	10.025	ug/L	0.0541	10.025	ppb	0.0541	0.54%
Ti 334.940†	422.5	0.9705	ug/L	0.02644	0.9705	ppb	0.02644	2.72%
Tl 190.801†	4.9	1.9521	ug/L	1.39495	1.9521	ppb	1.39495	71.46%
U 409.014†	111.1	3.2808	ug/L	2.32261	3.2808	ppb	2.32261	70.79%
V 292.402†	151.8	1.2240	ug/L	0.63308	1.2240	ppb	0.63308	51.72%
Zn 213.857†	84.2	1.0283	ug/L	0.08057	1.0283	ppb	0.08057	7.84%
SiO2†	180979.7	14693	ug/L	34.8	14693	ppb	34.8	0.24%

Sequence No.: 87
Sample ID: 247829002|957527|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 107
Date Collected: 3/23/2010 03:36:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 247829002|957527|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4757.0	4757.0	105	%			03:38:00
1	Y RADIAL	5109.3	5109.3	103.9	%			03:38:00
1	Al 396.153Radial†	370.8	428.0	423.43	ug/L	423.43	ppb	03:38:20
1	Ca 317.933Radial†	6015.8	5738.2	10828	ug/L	10828	ppb	03:38:00
1	Fe 238.204 Radial†	52.5	43.6	500.85	ug/L	500.85	ppb	03:38:20
1	K 766.490 Radial†	12042.0	9012.6	1706.1	ug/L	1706.1	ppb	03:38:00
1	Mg 279.077 IEC†	76.7	73.0	3030.6	ug/L	3030.6	ppb	03:38:20
1	Na 589.592 Radial†	38281.5	37349.5	13041	ug/L	13041	ppb	03:38:00
1	Sr 421.552†	6867.8	6534.4	51.115	ug/L	51.115	ppb	03:38:00
1	Sc 361.383	851378.6	851378.6	100.72	%			03:39:17
1	Y 371.029	707391.8	707391.8	99.221	%			03:39:17
1	Ag 328.068†	163.7	5.8	0.0637	ug/L	0.0637	ppb	03:39:22
1	As 188.979†	-28.1	-5.8	-3.0779	ug/L	-3.0779	ppb	03:39:42
1	B 249.677†	69.9	516.8	14.528	ug/L	14.528	ppb	03:39:42
1	Ba 233.527†	2884.7	2852.2	27.141	ug/L	27.141	ppb	03:39:42
1	Be 313.107†	-4332.5	155.7	0.0814	ug/L	0.0814	ppb	03:39:22
1	Cd 226.502†	-140.6	8.9	0.0777	ug/L	0.0777	ppb	03:39:42
1	Co 228.616†	-49.4	4.6	0.1139	ug/L	0.1139	ppb	03:39:42
1	Cr 267.716†	300.8	228.4	3.1683	ug/L	3.1683	ppb	03:39:42
1	Cu 324.752†	5853.2	285.4	0.9733	ug/L	0.9733	ppb	03:39:22
1	Mn 257.610†	14531.3	14041.4	18.597	ug/L	18.597	ppb	03:39:22
1	Mo 202.031†	23.7	10.7	1.1272	ug/L	1.1272	ppb	03:39:42
1	Ni 231.604†	58.6	-14.4	-0.4649	ug/L	-0.4649	ppb	03:39:42
1	P 214.914†	261.0	58.5	43.625	ug/L	43.625	ppb	03:39:42
1	Pb 220.353†	-47.7	1.5	0.4110	ug/L	0.4110	ppb	03:39:42
1	S 181.975 Axial†	918.9	882.4	1598.9	ug/L	1598.9	ppb	03:39:42
1	Sb 206.836†	18.1	-7.4	-3.5029	ug/L	-3.5029	ppb	03:39:42
1	Se 196.026†	-15.9	6.4	6.8735	ug/L	6.8735	ppb	03:39:42
1	Si 251.611†	936824.9	929623.7	35503	ug/L	35503	ppb	03:39:17
1	Sn 189.927†	-89.2	-92.3	-19.366	ug/L	-19.366	ppb	03:39:42
1	Ti 334.940†	2744.2	3770.2	7.7628	ug/L	7.7628	ppb	03:39:22
1	Tl 190.801†	-35.0	-5.6	-2.0809	ug/L	-2.0809	ppb	03:39:42
1	U 409.014†	-2029.5	-71.8	-2.1894	ug/L	-2.1894	ppb	03:39:17
1	V 292.402†	-610.1	745.0	5.9544	ug/L	5.9544	ppb	03:39:22
1	Zn 213.857†	944.5	333.5	4.0369	ug/L	4.0369	ppb	03:39:42
1	SiO2†	928048.4	920892.3	74763	ug/L	74763	ppb	03:40:49
2	Sc Radial	4731.7	4731.7	104	%			03:38:26
2	Y RADIAL	5030.1	5030.1	102.3	%			03:38:26
2	Al 396.153Radial†	386.3	444.8	440.06	ug/L	440.06	ppb	03:38:46
2	Ca 317.933Radial†	5948.5	5704.3	10764	ug/L	10764	ppb	03:38:26
2	Fe 238.204 Radial†	50.1	41.6	477.23	ug/L	477.23	ppb	03:38:46
2	K 766.490 Radial†	12029.3	9062.0	1715.6	ug/L	1715.6	ppb	03:38:26
2	Mg 279.077 IEC†	78.1	74.7	3102.8	ug/L	3102.8	ppb	03:38:46
2	Na 589.592 Radial†	37713.9	36999.5	12919	ug/L	12919	ppb	03:38:26
2	Sr 421.552†	6785.2	6490.1	50.768	ug/L	50.768	ppb	03:38:26
2	Sc 361.383	889301.1	889301.1	105.20	%			03:39:48
2	Y 371.029	740003.0	740003.0	103.80	%			03:39:48
2	Ag 328.068†	152.0	-12.2	-0.0394	ug/L	-0.0394	ppb	03:39:53
2	As 188.979†	-17.8	5.2	3.0680	ug/L	3.0680	ppb	03:40:13
2	B 249.677†	74.7	518.4	14.578	ug/L	14.578	ppb	03:40:13
2	Ba 233.527†	2912.5	2756.4	26.230	ug/L	26.230	ppb	03:40:13
2	Be 313.107†	-4281.2	387.9	0.1800	ug/L	0.1800	ppb	03:39:53
2	Cd 226.502†	-143.7	11.9	0.1262	ug/L	0.1262	ppb	03:40:13
2	Co 228.616†	-66.5	-9.6	-0.2600	ug/L	-0.2600	ppb	03:40:13
2	Cr 267.716†	326.0	239.7	3.3177	ug/L	3.3177	ppb	03:40:13
2	Cu 324.752†	5743.5	-66.6	-0.1967	ug/L	-0.1967	ppb	03:39:53
2	Mn 257.610†	14507.2	13403.2	17.743	ug/L	17.743	ppb	03:39:53
2	Mo 202.031†	22.5	8.4	0.9248	ug/L	0.9248	ppb	03:40:13
2	Ni 231.604†	68.0	-8.0	-0.2584	ug/L	-0.2584	ppb	03:40:13

2	P 214.914†	249.0	36.1	26.915 ug/L	26.915 ppb	03:40:13
2	Pb 220.353†	-40.1	10.8	1.8639 ug/L	1.8639 ppb	03:40:13
2	S 181.975 Axial†	931.0	855.1	1549.3 ug/L	1549.3 ppb	03:40:13
2	Sb 206.836†	24.2	-2.5	-1.3626 ug/L	-1.3626 ppb	03:40:13
2	Se 196.026†	-21.8	1.4	2.7161 ug/L	2.7161 ppb	03:40:13
2	Si 251.611†	932254.1	885614.9	33822 ug/L	33822 ppb	03:39:48
2	Sn 189.927†	-86.0	-85.4	-17.804 ug/L	-17.804 ppb	03:40:13
2	Ti 334.940†	2738.0	3648.1	7.5338 ug/L	7.5338 ppb	03:39:53
2	Tl 190.801†	-31.7	-1.0	-0.2691 ug/L	-0.2691 ppb	03:40:13
2	U 409.014†	-1961.5	78.7	2.2680 ug/L	2.2680 ppb	03:39:48
2	V 292.402†	-631.9	750.0	6.0055 ug/L	6.0055 ppb	03:39:53
2	Zn 213.857†	938.6	287.9	3.4782 ug/L	3.4782 ppb	03:40:13
2	SiO2†	928458.3	881989.3	71605 ug/L	71605 ppb	03:40:55
3	Sc Radial	4974.6	4974.6	109 %		03:38:51
3	Y RADIAL	5295.0	5295.0	107.7 %		03:38:51
3	Al 396.153Radial†	370.4	412.1	407.76 ug/L	407.76 ppb	03:39:11
3	Ca 317.933Radial†	5934.5	5412.0	10212 ug/L	10212 ppb	03:38:51
3	Fe 238.204 Radial†	50.7	39.8	456.82 ug/L	456.82 ppb	03:39:11
3	K 766.490 Radial†	12003.9	8473.7	1604.1 ug/L	1604.1 ppb	03:38:51
3	Mg 279.077 IEC†	74.0	67.3	2794.3 ug/L	2794.3 ppb	03:39:11
3	Na 589.592 Radial†	37736.7	35248.8	12308 ug/L	12308 ppb	03:38:51
3	Sr 421.552†	6766.3	6154.1	48.140 ug/L	48.140 ppb	03:38:51
3	Sc 361.383	889717.2	889717.2	105.25 %		03:40:18
3	Y 371.029	740269.5	740269.5	103.83 %		03:40:18
3	Ag 328.068†	126.4	-36.6	-0.1635 ug/L	-0.1635 ppb	03:40:23
3	As 188.979†	-17.7	5.3	3.1329 ug/L	3.1329 ppb	03:40:43
3	B 249.677†	76.4	520.0	14.624 ug/L	14.624 ppb	03:40:43
3	Ba 233.527†	2905.6	2748.6	26.155 ug/L	26.155 ppb	03:40:43
3	Be 313.107†	-4287.7	383.7	0.1785 ug/L	0.1785 ppb	03:40:23
3	Cd 226.502†	-153.4	2.7	-0.0075 ug/L	-0.0075 ppb	03:40:43
3	Co 228.616†	-50.7	5.4	0.1338 ug/L	0.1338 ppb	03:40:43
3	Cr 267.716†	311.2	225.5	3.1217 ug/L	3.1217 ppb	03:40:43
3	Cu 324.752†	5894.8	74.6	0.2702 ug/L	0.2702 ppb	03:40:23
3	Mn 257.610†	15039.6	13902.6	18.418 ug/L	18.418 ppb	03:40:23
3	Mo 202.031†	16.1	2.4	0.3690 ug/L	0.3690 ppb	03:40:43
3	Ni 231.604†	51.9	-23.3	-0.7539 ug/L	-0.7539 ppb	03:40:43
3	P 214.914†	251.9	38.7	28.796 ug/L	28.796 ppb	03:40:43
3	Pb 220.353†	-44.2	6.9	1.2547 ug/L	1.2547 ppb	03:40:43
3	S 181.975 Axial†	932.3	855.9	1550.8 ug/L	1550.8 ppb	03:40:43
3	Sb 206.836†	30.0	3.0	0.9596 ug/L	0.9596 ppb	03:40:43
3	Se 196.026†	-17.4	5.7	6.1686 ug/L	6.1686 ppb	03:40:43
3	Si 251.611†	933972.9	886833.5	33869 ug/L	33869 ppb	03:40:18
3	Sn 189.927†	-88.8	-88.1	-18.512 ug/L	-18.512 ppb	03:40:43
3	Ti 334.940†	2829.0	3733.3	7.6336 ug/L	7.6336 ppb	03:40:23
3	Tl 190.801†	-33.3	-2.5	-0.8684 ug/L	-0.8684 ppb	03:40:43
3	U 409.014†	-1976.1	65.7	1.8851 ug/L	1.8851 ppb	03:40:18
3	V 292.402†	-637.2	745.3	5.9564 ug/L	5.9564 ppb	03:40:23
3	Zn 213.857†	951.6	299.8	3.6315 ug/L	3.6315 ppb	03:40:43
3	SiO2†	929777.5	882830.0	71673 ug/L	71673 ppb	03:41:01

Mean Data: 247829002|957527|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	876799.0	103.73	%	2.604				2.51%
Sc Radial	4821.1	106	%	2.9				2.77%
Y 371.029	729221.4	102.28	%	2.652				2.59%
Y RADIAL	5144.8	104.6	%	2.77				2.64%
Ag 328.068†	-14.3	-0.0464	ug/L	0.11375	-0.0464	ppb	0.11375	244.97%
Al 396.153Radial†	428.3	423.75	ug/L	16.156	423.75	ppb	16.156	3.81%
As 188.979†	1.6	1.0410	ug/L	3.56724	1.0410	ppb	3.56724	342.67%
B 249.677†	518.4	14.577	ug/L	0.0482	14.577	ppb	0.0482	0.33%
Ba 233.527†	2785.7	26.509	ug/L	0.5487	26.509	ppb	0.5487	2.07%
Be 313.107†	309.1	0.1466	ug/L	0.05653	0.1466	ppb	0.05653	38.55%
Ca 317.933Radial†	5618.1	10601	ug/L	338.4	10601	ppb	338.4	3.19%
Cd 226.502†	7.8	0.0655	ug/L	0.06767	0.0655	ppb	0.06767	103.35%
Co 228.616†	0.1	-0.0041	ug/L	0.22187	-0.0041	ppb	0.22187	>999.9%
Cr 267.716†	231.2	3.2025	ug/L	0.10240	3.2025	ppb	0.10240	3.20%
Cu 324.752†	97.8	0.3489	ug/L	0.58897	0.3489	ppb	0.58897	168.79%
Fe 238.204 Radial†	41.7	478.30	ug/L	22.034	478.30	ppb	22.034	4.61%
K 766.490 Radial†	8849.4	1675.3	ug/L	61.83	1675.3	ppb	61.83	3.69%

Mg 279.077 IEC†	71.7	2975.9	ug/L	161.34	2975.9	ppb	161.34	5.42%
Mn 257.610†	13782.4	18.253	ug/L	0.4502	18.253	ppb	0.4502	2.47%
Mo 202.031†	7.2	0.8070	ug/L	0.39257	0.8070	ppb	0.39257	48.65%
Na 589.592 Radial†	36532.6	12756	ug/L	393.0	12756	ppb	393.0	3.08%
Ni 231.604†	-15.2	-0.4924	ug/L	0.24888	-0.4924	ppb	0.24888	50.54%
P 214.914†	44.4	33.112	ug/L	9.1527	33.112	ppb	9.1527	27.64%
Pb 220.353†	6.4	1.1765	ug/L	0.72957	1.1765	ppb	0.72957	62.01%
S 181.975 Axial†	864.5	1566.3	ug/L	28.22	1566.3	ppb	28.22	1.80%
Sb 206.836†	-2.3	-1.3019	ug/L	2.23187	-1.3019	ppb	2.23187	171.43%
Se 196.026†	4.5	5.2527	ug/L	2.22488	5.2527	ppb	2.22488	42.36%
Si 251.611†	900690.7	34398	ug/L	957.2	34398	ppb	957.2	2.78%
Sn 189.927†	-88.6	-18.561	ug/L	0.7821	-18.561	ppb	0.7821	4.21%
Sr 421.552†	6392.9	50.008	ug/L	1.6267	50.008	ppb	1.6267	3.25%
Ti 334.940†	3717.2	7.6434	ug/L	0.11478	7.6434	ppb	0.11478	1.50%
Tl 190.801†	-3.0	-1.0728	ug/L	0.92304	-1.0728	ppb	0.92304	86.04%
U 409.014†	24.2	0.6546	ug/L	2.47035	0.6546	ppb	2.47035	377.40%
V 292.402†	746.8	5.9721	ug/L	0.02894	5.9721	ppb	0.02894	0.48%
Zn 213.857†	307.1	3.7155	ug/L	0.28865	3.7155	ppb	0.28865	7.77%
SiO2†	895237.2	72680	ug/L	1804.1	72680	ppb	1804.1	2.48%

Sequence No.: 88
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/23/2010 03:43:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4731.6	4731.6	104	%			03:45:05
1	Y RADIAL	5066.2	5066.2	103.0	%			03:45:05
1	Al 396.153Radial†	5156.5	5034.0	4954.9	ug/L	4954.9	ppb	03:45:05
1	Ca 317.933Radial†	2777.5	2653.7	5007.5	ug/L	5007.5	ppb	03:45:25
1	Fe 238.204 Radial†	455.2	431.3	4966.8	ug/L	4966.8	ppb	03:45:25
1	K 766.490 Radial†	30883.0	27200.5	5169.3	ug/L	5169.3	ppb	03:45:05
1	Mg 279.077 IEC†	132.2	126.8	5264.0	ug/L	5264.0	ppb	03:45:25
1	Na 589.592 Radial†	27126.1	26814.3	9362.7	ug/L	9362.7	ppb	03:45:05
1	Sr 421.552†	63795.0	61336.4	480.52	ug/L	480.52	ppb	03:45:05
1	Sc 361.383	856750.5	856750.5	101.35	%			03:46:22
1	Y 371.029	711871.3	711871.3	99.849	%			03:46:22
1	Ag 328.068†	103710.4	102168.3	529.78	ug/L	529.78	ppb	03:46:27
1	As 188.979†	946.6	956.1	543.14	ug/L	543.14	ppb	03:46:47
1	B 249.677†	18479.6	18680.2	525.69	ug/L	525.69	ppb	03:46:27
1	Ba 233.527†	57042.6	56268.6	536.22	ug/L	536.22	ppb	03:46:27
1	Be 313.107†	1289157.3	1276393.6	546.08	ug/L	546.08	ppb	03:46:22
1	Cd 226.502†	36861.5	36517.6	536.44	ug/L	536.44	ppb	03:46:27
1	Co 228.616†	20898.3	20672.7	544.35	ug/L	544.35	ppb	03:46:27
1	Cr 267.716†	40043.7	39438.6	537.30	ug/L	537.30	ppb	03:46:27
1	Cu 324.752†	167725.4	159958.8	529.90	ug/L	529.90	ppb	03:46:27
1	Mn 257.610†	411486.7	405603.6	539.63	ug/L	539.63	ppb	03:46:22
1	Mo 202.031†	5959.6	5867.1	528.41	ug/L	528.41	ppb	03:46:47
1	Ni 231.604†	17130.5	16829.1	543.41	ug/L	543.41	ppb	03:46:27
1	P 214.914†	3776.2	3525.1	2568.7	ug/L	2568.7	ppb	03:46:47
1	Pb 220.353†	3424.9	3428.1	537.74	ug/L	537.74	ppb	03:46:47
1	S 181.975 Axial†	628.8	590.5	1069.1	ug/L	1069.1	ppb	03:46:47
1	Sb 206.836†	1297.7	1254.9	553.76	ug/L	553.76	ppb	03:46:47
1	Se 196.026†	621.5	635.4	546.69	ug/L	546.69	ppb	03:46:47
1	Si 251.611†	72156.6	70673.9	2692.6	ug/L	2692.6	ppb	03:46:27
1	Sn 189.927†	2335.5	2300.5	530.80	ug/L	530.80	ppb	03:46:47
1	Ti 334.940†	301197.2	298219.2	518.56	ug/L	518.56	ppb	03:46:27
1	Tl 190.801†	1356.9	1367.9	543.32	ug/L	543.32	ppb	03:46:47
1	U 409.014†	16423.5	18147.3	535.17	ug/L	535.17	ppb	03:46:27
1	V 292.402†	66299.8	66764.9	541.92	ug/L	541.92	ppb	03:46:27
1	Zn 213.857†	44786.2	43583.7	532.22	ug/L	532.22	ppb	03:46:27
1	SiO2†	71730.2	70235.7	5687.7	ug/L	5687.7	ppb	03:47:55
2	Sc Radial	4336.7	4336.7	95.3	%			03:45:30
2	Y RADIAL	4654.1	4654.1	94.65	%			03:45:30
2	Al 396.153Radial†	5189.7	5520.6	5436.5	ug/L	5436.5	ppb	03:45:30
2	Ca 317.933Radial†	2812.1	2933.3	5535.2	ug/L	5535.2	ppb	03:45:50
2	Fe 238.204 Radial†	456.6	472.7	5441.5	ug/L	5441.5	ppb	03:45:50
2	K 766.490 Radial†	31043.5	30074.4	5715.7	ug/L	5715.7	ppb	03:45:30
2	Mg 279.077 IEC†	135.2	141.5	5875.8	ug/L	5875.8	ppb	03:45:50
2	Na 589.592 Radial†	27226.1	29295.6	10229	ug/L	10229	ppb	03:45:30
2	Sr 421.552†	64071.6	67215.4	526.58	ug/L	526.58	ppb	03:45:30
2	Sc 361.383	865690.7	865690.7	102.41	%			03:46:53
2	Y 371.029	718846.9	718846.9	100.83	%			03:46:53
2	Ag 328.068†	105203.5	102569.5	531.99	ug/L	531.99	ppb	03:46:58
2	As 188.979†	952.6	952.2	541.10	ug/L	541.10	ppb	03:47:18
2	B 249.677†	18908.1	18910.3	532.12	ug/L	532.12	ppb	03:46:58
2	Ba 233.527†	57733.3	56361.9	537.12	ug/L	537.12	ppb	03:46:58
2	Be 313.107†	1276063.4	1250472.5	535.02	ug/L	535.02	ppb	03:46:53
2	Cd 226.502†	37267.7	36538.6	536.70	ug/L	536.70	ppb	03:46:58
2	Co 228.616†	21101.7	20658.5	543.95	ug/L	543.95	ppb	03:46:58
2	Cr 267.716†	40463.9	39440.9	537.38	ug/L	537.38	ppb	03:46:58
2	Cu 324.752†	170782.9	161235.3	534.15	ug/L	534.15	ppb	03:46:58
2	Mn 257.610†	406929.3	396960.7	528.16	ug/L	528.16	ppb	03:46:53
2	Mo 202.031†	5968.4	5814.9	523.76	ug/L	523.76	ppb	03:47:18
2	Ni 231.604†	17335.6	16854.8	544.24	ug/L	544.24	ppb	03:46:58

2	P 214.914†	3765.7	3476.4	2530.7 ug/L	2530.7 ppb	03:47:18
2	Pb 220.353†	3420.0	3388.4	531.56 ug/L	531.56 ppb	03:47:18
2	S 181.975 Axial†	622.7	578.1	1046.6 ug/L	1046.6 ppb	03:47:18
2	Sb 206.836†	1298.6	1242.5	548.28 ug/L	548.28 ppb	03:47:18
2	Se 196.026†	630.8	638.1	550.44 ug/L	550.44 ppb	03:47:18
2	Si 251.611†	73239.7	70996.2	2704.9 ug/L	2704.9 ppb	03:46:58
2	Sn 189.927†	2335.2	2276.5	525.31 ug/L	525.31 ppb	03:47:18
2	Ti 334.940†	305018.3	298881.4	519.73 ug/L	519.73 ppb	03:46:58
2	Tl 190.801†	1339.9	1337.4	531.25 ug/L	531.25 ppb	03:47:18
2	U 409.014†	16763.1	18311.5	539.97 ug/L	539.97 ppb	03:46:58
2	V 292.402†	67195.9	66964.3	543.40 ug/L	543.40 ppb	03:46:58
2	Zn 213.857†	45434.0	43759.8	534.31 ug/L	534.31 ppb	03:46:58
2	SiO2†	72026.8	69794.4	5652.0 ug/L	5652.0 ppb	03:48:00
3	Sc Radial	4554.2	4554.2	100 %		03:45:55
3	Y RADIAL	4877.7	4877.7	99.20 %		03:45:55
3	Al 396.153Radial†	5107.4	5178.1	5098.4 ug/L	5098.4 ppb	03:45:55
3	Ca 317.933Radial†	2791.5	2771.8	5230.3 ug/L	5230.3 ppb	03:46:15
3	Fe 238.204 Radial†	459.2	452.3	5207.2 ug/L	5207.2 ppb	03:46:15
3	K 766.490 Radial†	30534.2	28008.7	5323.0 ug/L	5323.0 ppb	03:45:55
3	Mg 279.077 IEC†	130.4	130.0	5396.1 ug/L	5396.1 ppb	03:46:15
3	Na 589.592 Radial†	26752.1	27456.6	9587.0 ug/L	9587.0 ppb	03:45:55
3	Sr 421.552†	62732.9	62664.5	490.93 ug/L	490.93 ppb	03:45:55
3	Sc 361.383	889634.4	889634.4	105.24 %		03:47:24
3	Y 371.029	738503.3	738503.3	103.58 %		03:47:24
3	Ag 328.068†	102954.9	97668.2	506.57 ug/L	506.57 ppb	03:47:29
3	As 188.979†	959.9	934.2	530.70 ug/L	530.70 ppb	03:47:49
3	B 249.677†	18401.5	17932.0	504.57 ug/L	504.57 ppb	03:47:29
3	Ba 233.527†	56771.8	53931.1	513.95 ug/L	513.95 ppb	03:47:29
3	Be 313.107†	1291773.0	1231863.9	527.02 ug/L	527.02 ppb	03:47:24
3	Cd 226.502†	36807.6	35122.1	515.90 ug/L	515.90 ppb	03:47:29
3	Co 228.616†	20791.3	19808.9	521.61 ug/L	521.61 ppb	03:47:29
3	Cr 267.716†	39745.5	37694.9	513.59 ug/L	513.59 ppb	03:47:29
3	Cu 324.752†	166080.1	152278.7	504.48 ug/L	504.48 ppb	03:47:29
3	Mn 257.610†	412368.4	391434.6	520.81 ug/L	520.81 ppb	03:47:24
3	Mo 202.031†	5961.0	5651.1	508.99 ug/L	508.99 ppb	03:47:49
3	Ni 231.604†	16998.5	16078.9	519.18 ug/L	519.18 ppb	03:47:29
3	P 214.914†	3774.1	3385.4	2467.5 ug/L	2467.5 ppb	03:47:49
3	Pb 220.353†	3411.9	3290.8	516.22 ug/L	516.22 ppb	03:47:49
3	S 181.975 Axial†	628.9	567.7	1027.7 ug/L	1027.7 ppb	03:47:49
3	Sb 206.836†	1315.2	1224.2	539.95 ug/L	539.95 ppb	03:47:49
3	Se 196.026†	616.5	607.9	524.51 ug/L	524.51 ppb	03:47:49
3	Si 251.611†	71846.3	67747.6	2581.0 ug/L	2581.0 ppb	03:47:29
3	Sn 189.927†	2337.9	2217.7	511.73 ug/L	511.73 ppb	03:47:49
3	Ti 334.940†	298360.1	284538.9	494.80 ug/L	494.80 ppb	03:47:29
3	Tl 190.801†	1347.6	1309.6	520.16 ug/L	520.16 ppb	03:47:49
3	U 409.014†	16316.0	17446.2	514.45 ug/L	514.45 ppb	03:47:29
3	V 292.402†	65668.3	63746.8	517.43 ug/L	517.43 ppb	03:47:29
3	Zn 213.857†	44582.1	41756.3	509.85 ug/L	509.85 ppb	03:47:29
3	SiO2†	72480.0	68332.2	5533.7 ug/L	5533.7 ppb	03:48:05

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	870691.8	103.00	%	2.011				1.95%
Sc Radial	4540.8	99.8	%	4.35				4.36%
Y 371.029	723073.8	101.42	%	1.937				1.91%
Y RADIAL	4866.0	98.96	%	4.197				4.24%
Ag 328.068†	100802.0	522.78	ug/L	14.078	522.78	ppb	14.078	2.69%
QC value within limits for Ag 328.068 Recovery = 104.56%								
Al 396.153Radial†	5244.2	5163.3	ug/L	247.30	5163.3	ppb	247.30	4.79%
QC value within limits for Al 396.153Radial Recovery = 103.27%								
As 188.979†	947.5	538.31	ug/L	6.673	538.31	ppb	6.673	1.24%
QC value within limits for As 188.979 Recovery = 107.66%								
B 249.677†	18507.5	520.79	ug/L	14.415	520.79	ppb	14.415	2.77%
QC value within limits for B 249.677 Recovery = 104.16%								
Ba 233.527†	55520.5	529.10	ug/L	13.125	529.10	ppb	13.125	2.48%
QC value within limits for Ba 233.527 Recovery = 105.82%								
Be 313.107†	1252910.0	536.04	ug/L	9.573	536.04	ppb	9.573	1.79%
QC value within limits for Be 313.107 Recovery = 107.21%								
Ca 317.933Radial†	2786.3	5257.7	ug/L	264.89	5257.7	ppb	264.89	5.04%

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   QC value within limits for Ca 317.933Radial  Recovery = 105.15%
Cd 226.502†            36059.4      529.68 ug/L        11.939      529.68 ppb         11.939   2.25%
   QC value within limits for Cd 226.502  Recovery = 105.94%
Co 228.616†            20380.0      536.63 ug/L        13.017      536.63 ppb         13.017   2.43%
   QC value within limits for Co 228.616  Recovery = 107.33%
Cr 267.716†            38858.1      529.43 ug/L        13.712      529.43 ppb         13.712   2.59%
   QC value within limits for Cr 267.716  Recovery = 105.89%
Cu 324.752†           157824.3      522.84 ug/L        16.045      522.84 ppb         16.045   3.07%
   QC value within limits for Cu 324.752  Recovery = 104.57%
Fe 238.204 Radial†       452.1      5205.2 ug/L        237.34      5205.2 ppb         237.34   4.56%
   QC value within limits for Fe 238.204 Radial  Recovery = 104.10%
K 766.490 Radial†      28427.9      5402.7 ug/L        281.75      5402.7 ppb         281.75   5.21%
   QC value within limits for K 766.490 Radial  Recovery = 108.05%
Mg 279.077 IEC†          132.8      5512.0 ug/L        321.91      5512.0 ppb         321.91   5.84%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 110.24%
Mn 257.610†           397999.6      529.53 ug/L         9.486      529.53 ppb          9.486   1.79%
   QC value within limits for Mn 257.610  Recovery = 105.91%
Mo 202.031†             5777.7      520.39 ug/L        10.139      520.39 ppb         10.139   1.95%
   QC value within limits for Mo 202.031  Recovery = 104.08%
Na 589.592 Radial†     27855.5      9726.3 ug/L        449.68      9726.3 ppb         449.68   4.62%
   QC value within limits for Na 589.592 Radial  Recovery = 97.26%
Ni 231.604†            16587.6      535.61 ug/L        14.232      535.61 ppb         14.232   2.66%
   QC value within limits for Ni 231.604  Recovery = 107.12%
P 214.914†              3462.3      2522.3 ug/L         51.12      2522.3 ppb          51.12   2.03%
   QC value within limits for P 214.914  Recovery = 100.89%
Pb 220.353†             3369.1      528.51 ug/L        11.077      528.51 ppb         11.077   2.10%
   QC value within limits for Pb 220.353  Recovery = 105.70%
S 181.975 Axial†         578.8      1047.8 ug/L         20.72      1047.8 ppb          20.72   1.98%
   QC value within limits for S 181.975 Axial  Recovery = 104.78%
Sb 206.836†             1240.6      547.33 ug/L         6.955      547.33 ppb          6.955   1.27%
   QC value within limits for Sb 206.836  Recovery = 109.47%
Se 196.026†              627.1      540.55 ug/L        14.012      540.55 ppb         14.012   2.59%
   QC value within limits for Se 196.026  Recovery = 108.11%
Si 251.611†            69805.9      2659.5 ug/L         68.24      2659.5 ppb          68.24   2.57%
   QC value within limits for Si 251.611  Recovery = 106.38%
Sn 189.927†             2264.9      522.61 ug/L         9.813      522.61 ppb          9.813   1.88%
   QC value within limits for Sn 189.927  Recovery = 104.52%
Sr 421.552†            63738.8      499.35 ug/L        24.155      499.35 ppb         24.155   4.84%
   QC value within limits for Sr 421.552  Recovery = 99.87%
Ti 334.940†           293879.9      511.03 ug/L        14.068      511.03 ppb         14.068   2.75%
   QC value within limits for Ti 334.940  Recovery = 102.21%
Tl 190.801†             1338.3      531.58 ug/L        11.579      531.58 ppb         11.579   2.18%
   QC value within limits for Tl 190.801  Recovery = 106.32%
U 409.014†             17968.3      529.86 ug/L        13.564      529.86 ppb         13.564   2.56%
   QC value within limits for U 409.014  Recovery = 105.97%
V 292.402†             65825.3      534.25 ug/L        14.585      534.25 ppb         14.585   2.73%
   QC value within limits for V 292.402  Recovery = 106.85%
Zn 213.857†            43033.3      525.46 ug/L        13.558      525.46 ppb         13.558   2.58%
   QC value within limits for Zn 213.857  Recovery = 105.09%
SiO2†                  69454.1      5624.5 ug/L         80.61      5624.5 ppb          80.61   1.43%
   QC value within limits for SiO2  Recovery = 105.18%
QC Failed.  Continue with analysis.
```

Sequence No.: 89 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/23/2010 03:50:15**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4842.1	4842.1	106	%			03:52:08
1	Y RADIAL	5236.7	5236.7	106.5	%			03:52:08
1	Al 396.153Radial†	-76.7	1.1	1.0820	ug/L	1.0820	ppb	03:52:28
1	Ca 317.933Radial†	31.1	10.9	20.576	ug/L	20.576	ppb	03:52:28
1	Fe 238.204 Radial†	8.5	1.3	15.468	ug/L	15.468	ppb	03:52:28
1	K 766.490 Radial†	2670.2	-0.2	-0.0523	ug/L	-0.0523	ppb	03:52:08
1	Mg 279.077 IEC†	1.7	1.2	51.149	ug/L	51.149	ppb	03:52:28
1	Na 589.592 Radial†	-765.1	-1.5	-0.5302	ug/L	-0.5302	ppb	03:52:08
1	Sr 421.552†	24.7	-14.3	-0.1118	ug/L	-0.1118	ppb	03:52:08
1	Sc 361.383	867087.4	867087.4	102.58	%			03:53:25
1	Y 371.029	731785.5	731785.5	102.64	%			03:53:25
1	Ag 328.068†	142.5	-17.8	-0.0856	ug/L	-0.0856	ppb	03:53:25
1	As 188.979†	-20.2	2.3	1.3252	ug/L	1.3252	ppb	03:53:45
1	B 249.677†	-251.7	202.0	5.7082	ug/L	5.7082	ppb	03:53:45
1	Ba 233.527†	13.4	1.1	0.0122	ug/L	0.0122	ppb	03:53:45
1	Be 313.107†	-4351.8	214.8	0.0916	ug/L	0.0916	ppb	03:53:25
1	Cd 226.502†	-156.3	-3.9	-0.0587	ug/L	-0.0587	ppb	03:53:45
1	Co 228.616†	-46.7	8.1	0.2125	ug/L	0.2125	ppb	03:53:45
1	Cr 267.716†	79.1	6.9	0.0958	ug/L	0.0958	ppb	03:53:45
1	Cu 324.752†	5639.1	-28.6	-0.0940	ug/L	-0.0940	ppb	03:53:25
1	Mn 257.610†	421.7	24.8	0.0324	ug/L	0.0324	ppb	03:53:45
1	Mo 202.031†	12.1	-1.1	-0.0958	ug/L	-0.0958	ppb	03:53:45
1	Ni 231.604†	84.6	9.8	0.3172	ug/L	0.3172	ppb	03:53:45
1	P 214.914†	193.8	-11.7	-8.8793	ug/L	-8.8793	ppb	03:53:45
1	Pb 220.353†	-58.3	-7.9	-1.2405	ug/L	-1.2405	ppb	03:53:45
1	S 181.975 Axial†	31.7	1.0	1.8511	ug/L	1.8511	ppb	03:53:45
1	Sb 206.836†	31.3	5.1	2.1749	ug/L	2.1749	ppb	03:53:45
1	Se 196.026†	-16.2	6.4	5.3446	ug/L	5.3446	ppb	03:53:45
1	Si 251.611†	627.0	92.4	3.5297	ug/L	3.5297	ppb	03:53:45
1	Sn 189.927†	7.4	3.5	0.8070	ug/L	0.8070	ppb	03:53:45
1	Ti 334.940†	-1100.6	-27.4	-0.0493	ug/L	-0.0493	ppb	03:53:25
1	Tl 190.801†	-25.9	3.8	1.5164	ug/L	1.5164	ppb	03:53:45
1	U 409.014†	-1978.3	14.6	0.4287	ug/L	0.4287	ppb	03:53:25
1	V 292.402†	-1330.0	54.1	0.4317	ug/L	0.4317	ppb	03:53:25
1	Zn 213.857†	815.8	191.0	2.3499	ug/L	2.3499	ppb	03:53:45
1	SiO2†	610.8	59.1	4.8037	ug/L	4.8037	ppb	03:54:56
2	Sc Radial	4686.8	4686.8	103	%			03:52:33
2	Y RADIAL	5048.1	5048.1	102.7	%			03:52:33
2	Al 396.153Radial†	-74.9	0.4	0.4209	ug/L	0.4209	ppb	03:52:53
2	Ca 317.933Radial†	27.2	8.1	15.285	ug/L	15.285	ppb	03:52:53
2	Fe 238.204 Radial†	6.0	-0.8	-9.3087	ug/L	-9.3087	ppb	03:52:53
2	K 766.490 Radial†	2656.3	69.4	13.208	ug/L	13.208	ppb	03:52:33
2	Mg 279.077 IEC†	0.8	0.4	17.015	ug/L	17.015	ppb	03:52:53
2	Na 589.592 Radial†	-734.1	4.8	1.6734	ug/L	1.6734	ppb	03:52:33
2	Sr 421.552†	11.1	-26.7	-0.2094	ug/L	-0.2094	ppb	03:52:33
2	Sc 361.383	872598.8	872598.8	103.23	%			03:53:50
2	Y 371.029	737159.1	737159.1	103.40	%			03:53:50
2	Ag 328.068†	231.7	67.7	0.3457	ug/L	0.3457	ppb	03:53:50
2	As 188.979†	-16.9	5.7	3.2177	ug/L	3.2177	ppb	03:54:11
2	B 249.677†	-299.3	157.5	4.4527	ug/L	4.4527	ppb	03:54:11
2	Ba 233.527†	12.2	-0.1	-0.0007	ug/L	-0.0007	ppb	03:54:11
2	Be 313.107†	-4289.4	302.1	0.1292	ug/L	0.1292	ppb	03:53:50
2	Cd 226.502†	-166.4	-12.8	-0.1857	ug/L	-0.1857	ppb	03:54:11
2	Co 228.616†	-49.5	5.7	0.1490	ug/L	0.1490	ppb	03:54:11
2	Cr 267.716†	88.5	15.5	0.2096	ug/L	0.2096	ppb	03:54:11
2	Cu 324.752†	5646.4	-56.2	-0.1880	ug/L	-0.1880	ppb	03:53:50
2	Mn 257.610†	427.6	27.9	0.0355	ug/L	0.0355	ppb	03:54:11
2	Mo 202.031†	9.7	-3.5	-0.3138	ug/L	-0.3138	ppb	03:54:11
2	Ni 231.604†	86.6	11.3	0.3638	ug/L	0.3638	ppb	03:54:11

2	P 214.914†	180.7	-25.7	-19.388 ug/L	-19.388 ppb	03:54:11
2	Pb 220.353†	-56.5	-5.9	-0.9180 ug/L	-0.9180 ppb	03:54:11
2	S 181.975 Axial†	31.0	0.1	0.1615 ug/L	0.1615 ppb	03:54:11
2	Sb 206.836†	32.6	6.2	2.6418 ug/L	2.6418 ppb	03:54:11
2	Se 196.026†	-21.1	1.8	1.4434 ug/L	1.4434 ppb	03:54:11
2	Si 251.611†	627.2	88.8	3.3942 ug/L	3.3942 ppb	03:54:11
2	Sn 189.927†	8.6	4.6	1.0644 ug/L	1.0644 ppb	03:54:11
2	Ti 334.940†	-1012.5	64.7	0.1121 ug/L	0.1121 ppb	03:53:50
2	Tl 190.801†	-27.3	2.7	1.0632 ug/L	1.0632 ppb	03:54:11
2	U 409.014†	-1926.3	77.1	2.2831 ug/L	2.2831 ppb	03:53:50
2	V 292.402†	-1345.8	47.0	0.3781 ug/L	0.3781 ppb	03:53:50
2	Zn 213.857†	816.9	187.1	2.3046 ug/L	2.3046 ppb	03:54:11
2	SiO2†	625.7	69.7	5.6706 ug/L	5.6706 ppb	03:55:16
3	Sc Radial	4698.7	4698.7	103 %		03:52:58
3	Y RADIAL	5080.1	5080.1	103.3 %		03:52:58
3	Al 396.153Radial†	-73.1	2.4	2.3156 ug/L	2.3156 ppb	03:53:19
3	Ca 317.933Radial†	33.1	13.7	25.784 ug/L	25.784 ppb	03:53:19
3	Fe 238.204 Radial†	6.5	-0.3	-3.5556 ug/L	-3.5556 ppb	03:53:19
3	K 766.490 Radial†	2634.3	41.6	7.8977 ug/L	7.8977 ppb	03:52:58
3	Mg 279.077 IEC†	2.2	1.7	72.376 ug/L	72.376 ppb	03:53:19
3	Na 589.592 Radial†	-737.3	3.5	1.2330 ug/L	1.2330 ppb	03:52:58
3	Sr 421.552†	18.7	-19.3	-0.1516 ug/L	-0.1516 ppb	03:52:58
3	Sc 361.383	869956.6	869956.6	102.92 %		03:54:16
3	Y 371.029	734046.0	734046.0	102.96 %		03:54:16
3	Ag 328.068†	162.6	1.3	0.0055 ug/L	0.0055 ppb	03:54:16
3	As 188.979†	-21.2	1.5	0.8538 ug/L	0.8538 ppb	03:54:36
3	B 249.677†	-294.0	161.8	4.5729 ug/L	4.5729 ppb	03:54:36
3	Ba 233.527†	9.3	-2.9	-0.0266 ug/L	-0.0266 ppb	03:54:36
3	Be 313.107†	-4286.0	292.8	0.1251 ug/L	0.1251 ppb	03:54:16
3	Cd 226.502†	-156.5	-3.6	-0.0513 ug/L	-0.0513 ppb	03:54:36
3	Co 228.616†	-41.4	13.4	0.3534 ug/L	0.3534 ppb	03:54:36
3	Cr 267.716†	75.1	2.8	0.0374 ug/L	0.0374 ppb	03:54:36
3	Cu 324.752†	5660.7	-25.7	-0.0863 ug/L	-0.0863 ppb	03:54:16
3	Mn 257.610†	417.6	19.4	0.0225 ug/L	0.0225 ppb	03:54:36
3	Mo 202.031†	17.7	4.3	0.3867 ug/L	0.3867 ppb	03:54:36
3	Ni 231.604†	84.6	9.6	0.3101 ug/L	0.3101 ppb	03:54:36
3	P 214.914†	182.5	-23.3	-17.636 ug/L	-17.636 ppb	03:54:36
3	Pb 220.353†	-56.6	-6.1	-0.9564 ug/L	-0.9564 ppb	03:54:36
3	S 181.975 Axial†	29.1	-1.6	-2.9473 ug/L	-2.9473 ppb	03:54:36
3	Sb 206.836†	39.5	12.9	5.5204 ug/L	5.5204 ppb	03:54:36
3	Se 196.026†	-13.0	9.6	7.9512 ug/L	7.9512 ppb	03:54:36
3	Si 251.611†	602.8	66.9	2.5496 ug/L	2.5496 ppb	03:54:36
3	Sn 189.927†	9.0	5.0	1.1563 ug/L	1.1563 ppb	03:54:36
3	Ti 334.940†	-1050.7	24.6	0.0394 ug/L	0.0394 ppb	03:54:16
3	Tl 190.801†	-25.5	4.3	1.6834 ug/L	1.6834 ppb	03:54:36
3	U 409.014†	-1931.2	66.7	1.9744 ug/L	1.9744 ppb	03:54:16
3	V 292.402†	-1325.5	62.8	0.5138 ug/L	0.5138 ppb	03:54:16
3	Zn 213.857†	816.0	188.6	2.3228 ug/L	2.3228 ppb	03:54:36
3	SiO2†	639.3	84.9	6.8787 ug/L	6.8787 ppb	03:55:36

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	869880.9	102.91	%	0.326				0.32%
Sc Radial	4742.5	104	%	1.9				1.82%
Y 371.029	734330.2	103.00	%	0.378				0.37%
Y RADIAL	5121.6	104.2	%	2.05				1.97%
Ag 328.068†	17.1	0.0885	ug/L	0.22733	0.0885	ppb	0.22733	256.75%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.3	1.2728	ug/L	0.96167	1.2728	ppb	0.96167	75.55%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.2	1.7989	ug/L	1.25113	1.7989	ppb	1.25113	69.55%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	173.8	4.9113	ug/L	0.69280	4.9113	ppb	0.69280	14.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-0.6	-0.0050	ug/L	0.01977	-0.0050	ppb	0.01977	391.83%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	269.9	0.1153	ug/L	0.02062	0.1153	ppb	0.02062	17.89%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	10.9	20.548	ug/L	5.2495	20.548	ppb	5.2495	25.55%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -6.7     -0.0986 ug/L       0.07558     -0.0986 ppb        0.07558  76.68%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 9.1      0.2383 ug/L       0.10462      0.2383 ppb        0.10462  43.90%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 8.4      0.1143 ug/L       0.08757      0.1143 ppb        0.08757  76.62%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -36.8     -0.1228 ug/L       0.05663     -0.1228 ppb        0.05663  46.12%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          0.1      0.8680 ug/L      12.96728      0.8680 ppb       12.96728 >999.9%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          36.9      7.0178 ug/L       6.67371      7.0178 ppb        6.67371  95.10%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.1      46.847 ug/L       27.9300      46.847 ppb        27.9300  59.62%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                24.1      0.0302 ug/L       0.00679      0.0302 ppb        0.00679  22.50%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                -0.1     -0.0076 ug/L       0.35847     -0.0076 ppb        0.35847 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†          2.3      0.7921 ug/L       1.16607      0.7921 ppb        1.16607 147.22%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                10.2      0.3304 ug/L       0.02917      0.3304 ppb        0.02917   8.83%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -20.2     -15.301 ug/L        5.6299     -15.301 ppb         5.6299  36.79%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -6.6     -1.0383 ug/L       0.17615     -1.0383 ppb        0.17615  16.97%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -0.2     -0.3116 ug/L       2.43392     -0.3116 ppb        2.43392 781.14%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 8.0      3.4457 ug/L       1.81186      3.4457 ppb        1.81186  52.58%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 5.9      4.9130 ug/L       3.27526      4.9130 ppb        3.27526  66.66%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                82.7      3.1578 ug/L       0.53110      3.1578 ppb        0.53110  16.82%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 4.4      1.0092 ug/L       0.18108      1.0092 ppb        0.18108  17.94%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -20.1     -0.1576 ug/L       0.04904     -0.1576 ppb        0.04904  31.12%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                20.6      0.0341 ug/L       0.08082      0.0341 ppb        0.08082 237.03%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 3.6      1.4210 ug/L       0.32092      1.4210 ppb        0.32092  22.58%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 52.8      1.5621 ug/L       0.99360      1.5621 ppb        0.99360  63.61%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 54.6      0.4412 ug/L       0.06831      0.4412 ppb        0.06831  15.48%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               188.9      2.3258 ug/L       0.02282      2.3258 ppb        0.02282   0.98%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      71.2      5.7844 ug/L       1.04220      5.7844 ppb        1.04220  18.02%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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3/24/2010 05:37:20 Hg ReAlign... Actual peak offset (nm): -0.009
Drift (nm): 0.000 Slit adjustment: -2

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Analysis Begun

Start Time: 3/24/2010 05:49:58 **Plasma On Time: 3/22/2010 06:16:18**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\032410.sif
Batch ID:
Results Data Set: 032410
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 3/23/2010 16:41:09**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 3/24/2010 05:49:59**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

	Net	Corrected	Calib.	Analysis

Repl#	Analyte	Intensity	Intensity	Conc.	Units	Time
1	Sc Radial	4252.5	4252.5	100	%	05:52:12
1	Y RADIAL	4790.6	4790.6	99.93	%	05:51:52
1	Al 396.153Radial†	-69.7	-69.7	[0.00]	ug/L	05:52:12
1	Ca 317.933Radial†	15.2	15.2	[0.00]	ug/L	05:52:12
1	Fe 238.204 Radial†	4.5	4.5	[0.00]	ug/L	05:52:12
1	K 766.490 Radial†	2710.0	2709.1	[0.00]	ug/L	05:51:52
1	Mg 279.077 IEC†	-1.6	-1.6	[0.00]	ug/L	05:52:12
1	Na 589.592 Radial†	-892.5	-892.1	[0.00]	ug/L	05:51:52
1	Sr 421.552†	40.2	40.2	[0.00]	ug/L	05:51:52
1	Sc 361.383	882708.2	882708.2	100.16	%	05:53:09
1	Y 371.029	749970.0	749970.0	100.16	%	05:53:09
1	Ag 328.068†	268.0	267.6	[0.00]	ug/L	05:53:14
1	As 188.979†	-19.3	-19.2	[0.00]	ug/L	05:53:34
1	B 249.677†	-359.6	-359.1	[0.00]	ug/L	05:53:34
1	Ba 233.527†	12.4	12.4	[0.00]	ug/L	05:53:34
1	Be 313.107†	-4280.2	-4273.6	[0.00]	ug/L	05:53:14
1	Cd 226.502†	-175.8	-175.6	[0.00]	ug/L	05:53:34
1	Co 228.616†	-52.5	-52.4	[0.00]	ug/L	05:53:34
1	Cr 267.716†	64.8	64.7	[0.00]	ug/L	05:53:34
1	Cu 324.752†	6340.0	6330.2	[0.00]	ug/L	05:53:14
1	Mn 257.610†	456.6	455.9	[0.00]	ug/L	05:53:34
1	Mo 202.031†	20.8	20.7	[0.00]	ug/L	05:53:34
1	Ni 231.604†	90.0	89.9	[0.00]	ug/L	05:53:34
1	P 214.914†	181.3	181.0	[0.00]	ug/L	05:53:34
1	Pb 220.353†	-46.8	-46.7	[0.00]	ug/L	05:53:34
1	S 181.975 Axial†	14.5	14.5	[0.00]	ug/L	05:53:34
1	Sb 206.836†	28.1	28.1	[0.00]	ug/L	05:53:34
1	Se 196.026†	-18.3	-18.3	[0.00]	ug/L	05:53:34
1	Si 251.611†	559.7	558.8	[0.00]	ug/L	05:53:34
1	Sn 189.927†	8.3	8.3	[0.00]	ug/L	05:53:34
1	Ti 334.940†	-1077.1	-1075.5	[0.00]	ug/L	05:53:14
1	Tl 190.801†	-30.6	-30.5	[0.00]	ug/L	05:53:34
1	U 409.014†	-1863.7	-1860.9	[0.00]	ug/L	05:53:09
1	V 292.402†	-1374.7	-1372.6	[0.00]	ug/L	05:53:14
1	Zn 213.857†	625.9	625.0	[0.00]	ug/L	05:53:34
1	SiO2†	594.9	594.0	[0.00]	ug/L	05:54:55
2	Sc Radial	4261.3	4261.3	100	%	05:52:37
2	Y RADIAL	4813.3	4813.3	100.4	%	05:52:17
2	Al 396.153Radial†	-79.7	-79.5	[0.00]	ug/L	05:52:37
2	Ca 317.933Radial†	22.5	22.4	[0.00]	ug/L	05:52:37
2	Fe 238.204 Radial†	7.9	7.9	[0.00]	ug/L	05:52:37
2	K 766.490 Radial†	2701.4	2694.8	[0.00]	ug/L	05:52:17
2	Mg 279.077 IEC†	1.4	1.4	[0.00]	ug/L	05:52:37
2	Na 589.592 Radial†	-856.8	-854.7	[0.00]	ug/L	05:52:17
2	Sr 421.552†	37.1	37.0	[0.00]	ug/L	05:52:17
2	Sc 361.383	873963.5	873963.5	99.163	%	05:53:39
2	Y 371.029	743300.5	743300.5	99.268	%	05:53:39
2	Ag 328.068†	275.0	277.3	[0.00]	ug/L	05:53:44
2	As 188.979†	-19.9	-20.1	[0.00]	ug/L	05:54:04
2	B 249.677†	-393.8	-397.1	[0.00]	ug/L	05:54:04
2	Ba 233.527†	19.5	19.7	[0.00]	ug/L	05:54:04
2	Be 313.107†	-4262.4	-4298.4	[0.00]	ug/L	05:53:44
2	Cd 226.502†	-177.6	-179.1	[0.00]	ug/L	05:54:04
2	Co 228.616†	-45.0	-45.4	[0.00]	ug/L	05:54:04
2	Cr 267.716†	68.2	68.8	[0.00]	ug/L	05:54:04
2	Cu 324.752†	6283.5	6336.6	[0.00]	ug/L	05:53:44
2	Mn 257.610†	480.9	485.0	[0.00]	ug/L	05:54:04
2	Mo 202.031†	11.1	11.2	[0.00]	ug/L	05:54:04
2	Ni 231.604†	104.3	105.2	[0.00]	ug/L	05:54:04
2	P 214.914†	179.6	181.1	[0.00]	ug/L	05:54:04
2	Pb 220.353†	-49.6	-50.1	[0.00]	ug/L	05:54:04
2	S 181.975 Axial†	30.5	30.8	[0.00]	ug/L	05:54:04
2	Sb 206.836†	28.2	28.4	[0.00]	ug/L	05:54:04
2	Se 196.026†	-14.1	-14.2	[0.00]	ug/L	05:54:04
2	Si 251.611†	578.0	582.9	[0.00]	ug/L	05:54:04
2	Sn 189.927†	10.6	10.7	[0.00]	ug/L	05:54:04
2	Ti 334.940†	-1091.1	-1100.3	[0.00]	ug/L	05:53:44
2	Tl 190.801†	-27.3	-27.5	[0.00]	ug/L	05:54:04
2	U 409.014†	-1891.0	-1906.9	[0.00]	ug/L	05:53:39
2	V 292.402†	-1370.7	-1382.3	[0.00]	ug/L	05:53:44

2	Zn 213.857†	629.1	634.4	[0.00]	ug/L	05:54:04
2	SiO2†	594.5	599.5	[0.00]	ug/L	05:55:15
3	Sc Radial	4239.1	4239.1	99.7	%	05:53:02
3	Y RADIAL	4777.9	4777.9	99.66	%	05:52:42
3	Al 396.153Radial†	-75.5	-75.7	[0.00]	ug/L	05:53:02
3	Ca 317.933Radial†	13.7	13.8	[0.00]	ug/L	05:53:02
3	Fe 238.204 Radial†	6.0	6.0	[0.00]	ug/L	05:53:02
3	K 766.490 Radial†	2711.5	2719.1	[0.00]	ug/L	05:52:42
3	Mg 279.077 IEC†	2.1	2.1	[0.00]	ug/L	05:53:02
3	Na 589.592 Radial†	-861.2	-863.6	[0.00]	ug/L	05:52:42
3	Sr 421.552†	-17.3	-17.4	[0.00]	ug/L	05:52:42
3	Sc 361.383	887349.2	887349.2	100.68	%	05:54:09
3	Y 371.029	753075.0	753075.0	100.57	%	05:54:09
3	Ag 328.068†	235.3	233.7	[0.00]	ug/L	05:54:14
3	As 188.979†	-22.7	-22.5	[0.00]	ug/L	05:54:34
3	B 249.677†	-411.0	-408.3	[0.00]	ug/L	05:54:34
3	Ba 233.527†	-1.8	-1.8	[0.00]	ug/L	05:54:34
3	Be 313.107†	-4305.5	-4276.3	[0.00]	ug/L	05:54:14
3	Cd 226.502†	-162.0	-160.9	[0.00]	ug/L	05:54:34
3	Co 228.616†	-42.7	-42.4	[0.00]	ug/L	05:54:34
3	Cr 267.716†	71.4	70.9	[0.00]	ug/L	05:54:34
3	Cu 324.752†	6360.5	6317.4	[0.00]	ug/L	05:54:14
3	Mn 257.610†	451.3	448.2	[0.00]	ug/L	05:54:34
3	Mo 202.031†	9.7	9.7	[0.00]	ug/L	05:54:34
3	Ni 231.604†	92.1	91.5	[0.00]	ug/L	05:54:34
3	P 214.914†	173.9	172.8	[0.00]	ug/L	05:54:34
3	Pb 220.353†	-53.8	-53.4	[0.00]	ug/L	05:54:34
3	S 181.975 Axial†	24.6	24.4	[0.00]	ug/L	05:54:34
3	Sb 206.836†	26.2	26.0	[0.00]	ug/L	05:54:34
3	Se 196.026†	-17.7	-17.6	[0.00]	ug/L	05:54:34
3	Si 251.611†	568.8	565.0	[0.00]	ug/L	05:54:34
3	Sn 189.927†	1.8	1.8	[0.00]	ug/L	05:54:34
3	Ti 334.940†	-986.8	-980.1	[0.00]	ug/L	05:54:14
3	Tl 190.801†	-43.5	-43.2	[0.00]	ug/L	05:54:34
3	U 409.014†	-1910.3	-1897.4	[0.00]	ug/L	05:54:09
3	V 292.402†	-1373.2	-1363.9	[0.00]	ug/L	05:54:14
3	Zn 213.857†	619.3	615.1	[0.00]	ug/L	05:54:34
3	SiO2†	592.7	588.6	[0.00]	ug/L	05:55:35

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	881340.3	6796.86	0.77%	100.00	%
Sc Radial	4251.0	11.17	0.26%	100	%
Y 371.029	748781.8	4994.41	0.67%	100.00	%
Y RADIAL	4793.9	17.95	0.37%	100.0	%
Ag 328.068†	259.5	22.91	8.83%	[0.00]	ug/L
Al 396.153Radial†	-75.0	4.92	6.56%	[0.00]	ug/L
As 188.979†	-20.6	1.71	8.31%	[0.00]	ug/L
B 249.677†	-388.1	25.80	6.65%	[0.00]	ug/L
Ba 233.527†	10.1	10.92	108.44%	[0.00]	ug/L
Be 313.107†	-4282.8	13.58	0.32%	[0.00]	ug/L
Ca 317.933Radial†	17.1	4.65	27.14%	[0.00]	ug/L
Cd 226.502†	-171.9	9.64	5.61%	[0.00]	ug/L
Co 228.616†	-46.7	5.13	10.98%	[0.00]	ug/L
Cr 267.716†	68.2	3.16	4.63%	[0.00]	ug/L
Cu 324.752†	6328.0	9.75	0.15%	[0.00]	ug/L
Fe 238.204 Radial†	6.2	1.70	27.67%	[0.00]	ug/L
K 766.490 Radial†	2707.6	12.20	0.45%	[0.00]	ug/L
Mg 279.077 IEC†	0.6	1.95	308.99%	[0.00]	ug/L
Mn 257.610†	463.0	19.39	4.19%	[0.00]	ug/L
Mo 202.031†	13.9	6.00	43.32%	[0.00]	ug/L
Na 589.592 Radial†	-870.2	19.55	2.25%	[0.00]	ug/L
Ni 231.604†	95.5	8.39	8.79%	[0.00]	ug/L
P 214.914†	178.3	4.79	2.69%	[0.00]	ug/L
Pb 220.353†	-50.1	3.34	6.67%	[0.00]	ug/L
S 181.975 Axial†	23.2	8.19	35.25%	[0.00]	ug/L
Sb 206.836†	27.5	1.29	4.70%	[0.00]	ug/L
Se 196.026†	-16.7	2.20	13.18%	[0.00]	ug/L
Si 251.611†	568.9	12.48	2.19%	[0.00]	ug/L

Sn 189.927†	6.9	4.60	66.54%	[0.00]	ug/L
Sr 421.552†	19.9	32.34	162.19%	[0.00]	ug/L
Ti 334.940†	-1052.0	63.44	6.03%	[0.00]	ug/L
Tl 190.801†	-33.8	8.31	24.62%	[0.00]	ug/L
U 409.014†	-1888.4	24.32	1.29%	[0.00]	ug/L
V 292.402†	-1372.9	9.18	0.67%	[0.00]	ug/L
Zn 213.857†	624.8	9.62	1.54%	[0.00]	ug/L
SiO2†	594.1	5.45	0.92%	[0.00]	ug/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 3/24/2010 05:57:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4427.0	4427.0	104	%	05:59:43
1	Y RADIAL	4817.8	4817.8	100.5	%	05:59:43
1	K 766.490 Radial†	8099.1	5069.3	[1000]	ug/L	05:59:38
1	Sr 421.552†	12389.1	11876.4	[100]	ug/L	05:59:43
1	Sc 361.383	854710.3	854710.3	96.978	%	06:00:10
1	Y 371.029	727166.5	727166.5	97.113	%	06:00:10
1	Ag 328.068†	20772.6	21160.3	[100]	ug/L	06:00:10
1	As 188.979†	165.3	191.1	[100]	ug/L	06:00:30
1	B 249.677†	3241.1	3730.3	[100]	ug/L	06:00:10
1	Ba 233.527†	11243.1	11583.3	[100]	ug/L	06:00:10
1	Be 313.107†	249135.5	261180.5	[100]	ug/L	06:00:10
1	Cd 226.502†	7019.4	7410.0	[100]	ug/L	06:00:30
1	Co 228.616†	4006.4	4177.9	[100]	ug/L	06:00:30
1	Cr 267.716†	7990.7	8171.5	[100]	ug/L	06:00:10
1	Cu 324.752†	38050.4	32907.9	[100]	ug/L	06:00:10
1	Mn 257.610†	81074.5	83137.5	[100]	ug/L	06:00:10
1	Mo 202.031†	1205.7	1229.4	[100]	ug/L	06:00:30
1	Ni 231.604†	3449.9	3461.9	[100]	ug/L	06:00:30
1	P 214.914†	884.2	733.5	[500]	ug/L	06:00:30
1	Pb 220.353†	628.8	698.4	[100]	ug/L	06:00:30
1	S 181.975 Axial†	145.5	126.8	[200]	ug/L	06:00:30
1	Sb 206.836†	271.0	251.9	[100]	ug/L	06:00:30
1	Se 196.026†	105.0	125.0	[100]	ug/L	06:00:30
1	Si 251.611†	14333.7	14211.4	[500]	ug/L	06:00:10
1	Sn 189.927†	461.4	468.9	[100]	ug/L	06:00:30
1	Ti 334.940†	59296.5	62196.0	[100]	ug/L	06:00:10
1	Tl 190.801†	253.2	294.8	[100]	ug/L	06:00:30
1	U 409.014†	1505.4	3440.7	[100]	ug/L	06:00:10
1	V 292.402†	11827.7	13569.2	[100]	ug/L	06:00:10
1	Zn 213.857†	9639.5	9315.0	[100]	ug/L	06:00:10
1	SiO2†	14535.4	14394.2	[1069.5]	ug/L	06:01:27
2	Sc Radial	4444.9	4444.9	105	%	05:59:53
2	Y RADIAL	4843.5	4843.5	101.0	%	05:59:53
2	K 766.490 Radial†	7986.0	4930.0	[1000]	ug/L	05:59:48
2	Sr 421.552†	12425.8	11863.8	[100]	ug/L	05:59:53
2	Sc 361.383	858671.2	858671.2	97.428	%	06:00:36
2	Y 371.029	730837.4	730837.4	97.604	%	06:00:36
2	Ag 328.068†	20921.3	21214.1	[100]	ug/L	06:00:36
2	As 188.979†	166.1	191.1	[100]	ug/L	06:00:56
2	B 249.677†	3271.3	3745.8	[100]	ug/L	06:00:36
2	Ba 233.527†	11280.7	11568.4	[100]	ug/L	06:00:36
2	Be 313.107†	251357.0	262275.6	[100]	ug/L	06:00:36
2	Cd 226.502†	7001.6	7358.4	[100]	ug/L	06:00:56
2	Co 228.616†	4018.2	4171.1	[100]	ug/L	06:00:56
2	Cr 267.716†	8109.0	8254.9	[100]	ug/L	06:00:36
2	Cu 324.752†	38338.3	33022.4	[100]	ug/L	06:00:36
2	Mn 257.610†	81483.9	83172.1	[100]	ug/L	06:00:36
2	Mo 202.031†	1204.3	1222.2	[100]	ug/L	06:00:56
2	Ni 231.604†	3429.7	3424.7	[100]	ug/L	06:00:56
2	P 214.914†	893.9	739.2	[500]	ug/L	06:00:56
2	Pb 220.353†	641.2	708.2	[100]	ug/L	06:00:56
2	S 181.975 Axial†	147.5	128.1	[200]	ug/L	06:00:56
2	Sb 206.836†	269.3	248.9	[100]	ug/L	06:00:56
2	Se 196.026†	107.8	127.3	[100]	ug/L	06:00:56
2	Si 251.611†	14350.2	14160.2	[500]	ug/L	06:00:36
2	Sn 189.927†	458.7	463.9	[100]	ug/L	06:00:56
2	Ti 334.940†	59850.6	62482.7	[100]	ug/L	06:00:36
2	Tl 190.801†	241.9	282.1	[100]	ug/L	06:00:56
2	U 409.014†	1665.7	3598.0	[100]	ug/L	06:00:36

2	V 292.402†	11975.6	13664.7	[100]	ug/L	06:00:36
2	Zn 213.857†	9762.1	9395.0	[100]	ug/L	06:00:36
2	SiO2†	14293.8	14077.2	[1069.5]	ug/L	06:01:32
3	Sc Radial	4465.1	4465.1	105	%	06:00:03
3	Y RADIAL	4864.2	4864.2	101.5	%	06:00:03
3	K 766.490 Radial†	8070.8	4976.2	[1000]	ug/L	05:59:58
3	Sr 421.552†	12480.3	11861.9	[100]	ug/L	06:00:03
3	Sc 361.383	860963.9	860963.9	97.688	%	06:01:01
3	Y 371.029	733282.7	733282.7	97.930	%	06:01:01
3	Ag 328.068†	21081.6	21321.0	[100]	ug/L	06:01:01
3	As 188.979†	170.5	195.2	[100]	ug/L	06:01:21
3	B 249.677†	3284.0	3749.9	[100]	ug/L	06:01:01
3	Ba 233.527†	11288.3	11545.4	[100]	ug/L	06:01:01
3	Be 313.107†	251515.3	261750.7	[100]	ug/L	06:01:01
3	Cd 226.502†	7009.2	7346.9	[100]	ug/L	06:01:21
3	Co 228.616†	4010.9	4152.6	[100]	ug/L	06:01:21
3	Cr 267.716†	8102.0	8225.6	[100]	ug/L	06:01:01
3	Cu 324.752†	38451.6	33033.6	[100]	ug/L	06:01:01
3	Mn 257.610†	81738.0	83209.5	[100]	ug/L	06:01:01
3	Mo 202.031†	1193.3	1207.7	[100]	ug/L	06:01:21
3	Ni 231.604†	3405.6	3390.6	[100]	ug/L	06:01:21
3	P 214.914†	880.0	722.5	[500]	ug/L	06:01:21
3	Pb 220.353†	634.6	699.7	[100]	ug/L	06:01:21
3	S 181.975 Axial†	155.5	135.9	[200]	ug/L	06:01:21
3	Sb 206.836†	272.0	251.0	[100]	ug/L	06:01:21
3	Se 196.026†	112.7	132.0	[100]	ug/L	06:01:21
3	Si 251.611†	14432.4	14205.1	[500]	ug/L	06:01:01
3	Sn 189.927†	465.9	470.0	[100]	ug/L	06:01:21
3	Ti 334.940†	60103.9	62578.3	[100]	ug/L	06:01:01
3	Tl 190.801†	238.4	277.8	[100]	ug/L	06:01:21
3	U 409.014†	1752.6	3682.5	[100]	ug/L	06:01:01
3	V 292.402†	11933.6	13589.0	[100]	ug/L	06:01:01
3	Zn 213.857†	9723.0	9328.3	[100]	ug/L	06:01:01
3	SiO2†	14339.9	14085.3	[1069.5]	ug/L	06:01:37

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	858115.1	3163.70	0.37%	97.365	%
Sc Radial	4445.7	19.04	0.43%	105	%
Y 371.029	730428.9	3078.50	0.42%	97.549	%
Y RADIAL	4841.8	23.25	0.48%	101.0	%
Ag 328.068†	21231.8	81.81	0.39%	[100]	ug/L
As 188.979†	192.5	2.36	1.23%	[100]	ug/L
B 249.677†	3742.0	10.34	0.28%	[100]	ug/L
Ba 233.527†	11565.7	19.09	0.17%	[100]	ug/L
Be 313.107†	261735.6	547.71	0.21%	[100]	ug/L
Cd 226.502†	7371.7	33.59	0.46%	[100]	ug/L
Co 228.616†	4167.2	13.11	0.31%	[100]	ug/L
Cr 267.716†	8217.3	42.29	0.51%	[100]	ug/L
Cu 324.752†	32988.0	69.57	0.21%	[100]	ug/L
K 766.490 Radial†	4991.8	70.95	1.42%	[1000]	ug/L
Mn 257.610†	83173.0	35.99	0.04%	[100]	ug/L
Mo 202.031†	1219.8	11.06	0.91%	[100]	ug/L
Ni 231.604†	3425.7	35.61	1.04%	[100]	ug/L
P 214.914†	731.7	8.48	1.16%	[500]	ug/L
Pb 220.353†	702.1	5.30	0.76%	[100]	ug/L
S 181.975 Axial†	130.3	4.91	3.77%	[200]	ug/L
Sb 206.836†	250.6	1.52	0.60%	[100]	ug/L
Se 196.026†	128.1	3.59	2.80%	[100]	ug/L
Si 251.611†	14192.2	27.95	0.20%	[500]	ug/L
Sn 189.927†	467.6	3.25	0.70%	[100]	ug/L
Sr 421.552†	11867.4	7.88	0.07%	[100]	ug/L
Ti 334.940†	62419.0	198.94	0.32%	[100]	ug/L
Tl 190.801†	284.9	8.85	3.11%	[100]	ug/L
U 409.014†	3573.7	122.71	3.43%	[100]	ug/L
V 292.402†	13607.6	50.44	0.37%	[100]	ug/L
Zn 213.857†	9346.1	42.85	0.46%	[100]	ug/L
SiO2†	14185.6	180.78	1.27%	[1069.5]	ug/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 3/24/2010 06:03:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4390.5	4390.5	103	%	06:05:39
1	Y RADIAL	4755.9	4755.9	99.21	%	06:05:39
1	Al 396.153Radial†	4966.4	4883.5	[5000]	ug/L	06:05:39
1	Ca 317.933Radial†	2674.2	2572.1	[5000]	ug/L	06:05:59
1	K 766.490 Radial†	29121.7	25488.8	[5000]	ug/L	06:05:39
1	Mg 279.077 IEC†	126.5	121.8	[5000]	ug/L	06:05:59
1	Sr 421.552†	61660.6	59681.6	[500]	ug/L	06:05:39
1	Sc 361.383	875200.8	875200.8	99.303	%	06:06:57
1	Y 371.029	734669.4	734669.4	98.115	%	06:06:57
1	Ag 328.068†	103753.6	104221.9	[500]	ug/L	06:07:02
1	As 188.979†	941.9	969.2	[500]	ug/L	06:07:22
1	B 249.677†	18217.6	18733.5	[500]	ug/L	06:07:02
1	Ba 233.527†	55215.1	55592.4	[500]	ug/L	06:07:02
1	Be 313.107†	1264540.3	1277693.8	[500]	ug/L	06:06:57
1	Cd 226.502†	36186.1	36611.8	[500]	ug/L	06:07:02
1	Co 228.616†	20174.4	20362.7	[500]	ug/L	06:07:02
1	Cr 267.716†	39460.7	39669.4	[500]	ug/L	06:07:02
1	Cu 324.752†	165014.9	159844.4	[500]	ug/L	06:07:02
1	Mn 257.610†	394767.2	397073.5	[500]	ug/L	06:06:57
1	Mo 202.031†	5883.2	5910.6	[500]	ug/L	06:07:22
1	Ni 231.604†	16835.0	16857.6	[500]	ug/L	06:07:02
1	P 214.914†	3670.7	3518.2	[2500]	ug/L	06:07:22
1	Pb 220.353†	3335.7	3409.2	[500]	ug/L	06:07:22
1	S 181.975 Axial†	625.4	606.6	[1000]	ug/L	06:07:22
1	Sb 206.836†	1245.4	1226.6	[500]	ug/L	06:07:22
1	Se 196.026†	623.1	644.1	[500]	ug/L	06:07:22
1	Si 251.611†	70254.5	70178.5	[2500]	ug/L	06:07:02
1	Sn 189.927†	2300.4	2309.7	[500]	ug/L	06:07:22
1	Ti 334.940†	297637.6	300777.5	[500]	ug/L	06:07:02
1	Tl 190.801†	1304.4	1347.3	[500]	ug/L	06:07:22
1	U 409.014†	16045.3	18046.2	[500]	ug/L	06:07:02
1	V 292.402†	65159.5	66989.5	[500]	ug/L	06:07:02
1	Zn 213.857†	44420.5	44107.3	[500]	ug/L	06:07:02
1	SiO2†	70323.4	70222.7	[5347.5]	ug/L	06:08:29
2	Sc Radial	4348.5	4348.5	102	%	06:06:04
2	Y RADIAL	4717.9	4717.9	98.41	%	06:06:04
2	Al 396.153Radial†	4963.5	4927.1	[5000]	ug/L	06:06:04
2	Ca 317.933Radial†	2687.6	2610.2	[5000]	ug/L	06:06:24
2	K 766.490 Radial†	29115.4	25754.9	[5000]	ug/L	06:06:04
2	Mg 279.077 IEC†	125.9	122.4	[5000]	ug/L	06:06:24
2	Sr 421.552†	61328.1	59933.1	[500]	ug/L	06:06:04
2	Sc 361.383	884215.6	884215.6	100.33	%	06:07:28
2	Y 371.029	741878.0	741878.0	99.078	%	06:07:28
2	Ag 328.068†	104388.7	103789.8	[500]	ug/L	06:07:33
2	As 188.979†	937.5	955.1	[500]	ug/L	06:07:53
2	B 249.677†	18432.2	18760.4	[500]	ug/L	06:07:33
2	Ba 233.527†	55838.9	55647.3	[500]	ug/L	06:07:33
2	Be 313.107†	1280217.3	1280337.1	[500]	ug/L	06:07:28
2	Cd 226.502†	36508.1	36561.2	[500]	ug/L	06:07:33
2	Co 228.616†	20366.7	20347.2	[500]	ug/L	06:07:33
2	Cr 267.716†	39996.6	39798.4	[500]	ug/L	06:07:33
2	Cu 324.752†	166528.5	159659.0	[500]	ug/L	06:07:33
2	Mn 257.610†	399460.9	397698.9	[500]	ug/L	06:07:28
2	Mo 202.031†	5928.7	5895.5	[500]	ug/L	06:07:53
2	Ni 231.604†	17007.5	16856.7	[500]	ug/L	06:07:33
2	P 214.914†	3690.5	3500.2	[2500]	ug/L	06:07:53
2	Pb 220.353†	3336.1	3375.3	[500]	ug/L	06:07:53
2	S 181.975 Axial†	619.2	593.9	[1000]	ug/L	06:07:53
2	Sb 206.836†	1267.5	1235.9	[500]	ug/L	06:07:53

2	Se 196.026†	637.6	652.2	[500]	ug/L	06:07:53
2	Si 251.611†	70952.9	70153.2	[2500]	ug/L	06:07:33
2	Sn 189.927†	2316.0	2301.5	[500]	ug/L	06:07:53
2	Ti 334.940†	300414.6	300489.7	[500]	ug/L	06:07:33
2	Tl 190.801†	1306.7	1336.2	[500]	ug/L	06:07:53
2	U 409.014†	16201.8	18037.5	[500]	ug/L	06:07:33
2	V 292.402†	65938.4	67096.9	[500]	ug/L	06:07:33
2	Zn 213.857†	44793.8	44023.3	[500]	ug/L	06:07:33
2	SiO2†	69881.7	69060.4	[5347.5]	ug/L	06:08:34
3	Sc Radial	4366.5	4366.5	103	%	06:06:29
3	Y RADIAL	4738.2	4738.2	98.84	%	06:06:29
3	Al 396.153Radial†	4967.9	4911.5	[5000]	ug/L	06:06:29
3	Ca 317.933Radial†	2684.0	2595.9	[5000]	ug/L	06:06:49
3	K 766.490 Radial†	29169.7	25690.6	[5000]	ug/L	06:06:29
3	Mg 279.077 IEC†	130.0	125.9	[5000]	ug/L	06:06:49
3	Sr 421.552†	61513.1	59866.3	[500]	ug/L	06:06:29
3	Sc 361.383	873178.9	873178.9	99.074	%	06:07:59
3	Y 371.029	731862.7	731862.7	97.740	%	06:07:59
3	Ag 328.068†	104277.4	104992.5	[500]	ug/L	06:08:04
3	As 188.979†	951.6	981.1	[500]	ug/L	06:08:24
3	B 249.677†	18371.2	18931.1	[500]	ug/L	06:08:04
3	Ba 233.527†	55636.7	56146.7	[500]	ug/L	06:08:04
3	Be 313.107†	1262299.5	1278380.7	[500]	ug/L	06:07:59
3	Cd 226.502†	36354.6	36866.3	[500]	ug/L	06:08:04
3	Co 228.616†	20344.8	20581.7	[500]	ug/L	06:08:04
3	Cr 267.716†	39729.3	40032.5	[500]	ug/L	06:08:04
3	Cu 324.752†	166120.8	161345.5	[500]	ug/L	06:08:04
3	Mn 257.610†	395269.0	398500.5	[500]	ug/L	06:07:59
3	Mo 202.031†	5962.7	6004.6	[500]	ug/L	06:08:24
3	Ni 231.604†	16913.9	16976.5	[500]	ug/L	06:08:04
3	P 214.914†	3727.2	3583.8	[2500]	ug/L	06:08:24
3	Pb 220.353†	3358.9	3440.4	[500]	ug/L	06:08:24
3	S 181.975 Axial†	625.2	607.8	[1000]	ug/L	06:08:24
3	Sb 206.836†	1266.8	1251.2	[500]	ug/L	06:08:24
3	Se 196.026†	631.6	654.2	[500]	ug/L	06:08:24
3	Si 251.611†	70763.2	70855.7	[2500]	ug/L	06:08:04
3	Sn 189.927†	2327.6	2342.4	[500]	ug/L	06:08:24
3	Ti 334.940†	299322.6	303172.3	[500]	ug/L	06:08:04
3	Tl 190.801†	1325.5	1371.7	[500]	ug/L	06:08:24
3	U 409.014†	16183.4	18223.1	[500]	ug/L	06:08:04
3	V 292.402†	65536.5	67522.0	[500]	ug/L	06:08:04
3	Zn 213.857†	44634.9	44427.3	[500]	ug/L	06:08:04
3	SiO2†	70312.9	70376.1	[5347.5]	ug/L	06:08:39

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	877531.7	5875.98	0.67%	99.568	%
Sc Radial	4368.5	21.07	0.48%	103	%
Y 371.029	736136.7	5166.39	0.70%	98.311	%
Y RADIAL	4737.3	19.03	0.40%	98.82	%
Ag 328.068†	104334.7	609.26	0.58%	[500]	ug/L
Al 396.153Radial†	4907.4	22.09	0.45%	[5000]	ug/L
As 188.979†	968.5	13.03	1.34%	[500]	ug/L
B 249.677†	18808.3	107.13	0.57%	[500]	ug/L
Ba 233.527†	55795.5	305.43	0.55%	[500]	ug/L
Be 313.107†	1278803.9	1371.51	0.11%	[500]	ug/L
Ca 317.933Radial†	2592.7	19.25	0.74%	[5000]	ug/L
Cd 226.502†	36679.8	163.49	0.45%	[500]	ug/L
Co 228.616†	20430.5	131.14	0.64%	[500]	ug/L
Cr 267.716†	39833.4	184.07	0.46%	[500]	ug/L
Cu 324.752†	160282.9	924.85	0.58%	[500]	ug/L
K 766.490 Radial†	25644.8	138.85	0.54%	[5000]	ug/L
Mg 279.077 IEC†	123.4	2.21	1.79%	[5000]	ug/L
Mn 257.610†	397757.6	715.31	0.18%	[500]	ug/L
Mo 202.031†	5936.9	59.12	1.00%	[500]	ug/L
Ni 231.604†	16897.0	68.90	0.41%	[500]	ug/L
P 214.914†	3534.0	43.99	1.24%	[2500]	ug/L
Pb 220.353†	3408.3	32.56	0.96%	[500]	ug/L
S 181.975 Axial†	602.8	7.70	1.28%	[1000]	ug/L

Sb 206.836†	1237.9	12.41	1.00%	[500]	ug/L
Se 196.026†	650.2	5.32	0.82%	[500]	ug/L
Si 251.611†	70395.8	398.48	0.57%	[2500]	ug/L
Sn 189.927†	2317.9	21.66	0.93%	[500]	ug/L
Sr 421.552†	59827.0	130.26	0.22%	[500]	ug/L
Ti 334.940†	301479.8	1472.75	0.49%	[500]	ug/L
Tl 190.801†	1351.7	18.14	1.34%	[500]	ug/L
U 409.014†	18102.2	104.72	0.58%	[500]	ug/L
V 292.402†	67202.8	281.61	0.42%	[500]	ug/L
Zn 213.857†	44186.0	213.14	0.48%	[500]	ug/L
SiO2†	69886.4	719.42	1.03%	[5347.5]	ug/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 3/24/2010 06:10:50
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4221.6	4221.6	99.3	%	06:13:03
1	Y RADIAL	4705.3	4705.3	98.15	%	06:12:43
1	Al 396.153Radial†	9957.3	10101.6	[10000]	ug/L	06:12:43
1	Ca 317.933Radial†	5386.5	5406.9	[10000]	ug/L	06:12:43
1	Fe 238.204 Radial†	872.3	872.2	[10000]	ug/L	06:13:03
1	K 766.490 Radial†	55465.5	53144.2	[10000]	ug/L	06:12:43
1	Mg 279.077 IEC†	255.9	257.1	[10000]	ug/L	06:13:03
1	Na 589.592 Radial†	25529.6	26577.6	[10000]	ug/L	06:12:43
1	Sr 421.552†	121450.1	122276.1	[1000]	ug/L	06:12:43
1	Sc 361.383	840405.9	840405.9	95.355	%	06:14:06
1	Y 371.029	705183.0	705183.0	94.177	%	06:14:06
1	Ag 328.068†	203738.2	213402.3	[1000]	ug/L	06:14:06
1	As 188.979†	1923.2	2037.5	[1000]	ug/L	06:14:26
1	B 249.677†	37471.0	39684.3	[1000]	ug/L	06:14:06
1	Ba 233.527†	109746.6	115082.1	[1000]	ug/L	06:14:06
1	Be 313.107†	2558770.0	2687684.8	[1000]	ug/L	06:14:01
1	Cd 226.502†	72512.2	76215.9	[1000]	ug/L	06:14:06
1	Co 228.616†	39418.5	41385.2	[1000]	ug/L	06:14:26
1	Cr 267.716†	78641.5	82403.8	[1000]	ug/L	06:14:06
1	Cu 324.752†	322599.2	331984.2	[1000]	ug/L	06:14:06
1	Mn 257.610†	794261.0	832484.7	[1000]	ug/L	06:14:01
1	Mo 202.031†	11781.3	12341.2	[1000]	ug/L	06:14:26
1	Ni 231.604†	32900.5	34407.5	[1000]	ug/L	06:14:26
1	P 214.914†	7354.5	7534.4	[5000]	ug/L	06:14:26
1	Pb 220.353†	6757.6	7136.8	[1000]	ug/L	06:14:26
1	S 181.975 Axial†	1234.1	1270.9	[2000]	ug/L	06:14:26
1	Sb 206.836†	2544.9	2641.3	[1000]	ug/L	06:14:26
1	Se 196.026†	1281.3	1360.4	[1000]	ug/L	06:14:26
1	Si 251.611†	138956.5	145155.9	[5000]	ug/L	06:14:06
1	Sn 189.927†	4661.0	4881.1	[1000]	ug/L	06:14:26
1	Ti 334.940†	590614.4	620433.9	[1000]	ug/L	06:14:06
1	Tl 190.801†	2641.9	2804.3	[1000]	ug/L	06:14:26
1	U 409.014†	33294.7	36804.9	[1000]	ug/L	06:14:06
1	V 292.402†	131405.9	139179.4	[1000]	ug/L	06:14:06
1	Zn 213.857†	87196.7	90819.1	[1000]	ug/L	06:14:06
1	SiO2†	138548.4	144702.7	[10695]	ug/L	06:15:35
2	Sc Radial	4205.2	4205.2	98.9	%	06:13:28
2	Y RADIAL	4667.4	4667.4	97.36	%	06:13:08
2	Al 396.153Radial†	9932.8	10115.9	[10000]	ug/L	06:13:08
2	Ca 317.933Radial†	5383.9	5425.3	[10000]	ug/L	06:13:08
2	Fe 238.204 Radial†	878.0	881.3	[10000]	ug/L	06:13:28
2	K 766.490 Radial†	55299.5	53193.6	[10000]	ug/L	06:13:08
2	Mg 279.077 IEC†	254.6	256.7	[10000]	ug/L	06:13:28
2	Na 589.592 Radial†	25366.0	26512.2	[10000]	ug/L	06:13:08
2	Sr 421.552†	120603.1	121895.6	[1000]	ug/L	06:13:08
2	Sc 361.383	844396.2	844396.2	95.808	%	06:14:38
2	Y 371.029	708873.8	708873.8	94.670	%	06:14:38
2	Ag 328.068†	204685.7	213381.7	[1000]	ug/L	06:14:38
2	As 188.979†	1915.5	2019.9	[1000]	ug/L	06:14:58
2	B 249.677†	37737.8	39777.0	[1000]	ug/L	06:14:38
2	Ba 233.527†	110382.4	115201.8	[1000]	ug/L	06:14:38
2	Be 313.107†	2528636.3	2643552.2	[1000]	ug/L	06:14:32
2	Cd 226.502†	73047.7	76415.5	[1000]	ug/L	06:14:38
2	Co 228.616†	39261.1	41025.6	[1000]	ug/L	06:14:58
2	Cr 267.716†	79073.0	82464.4	[1000]	ug/L	06:14:38
2	Cu 324.752†	323859.5	331701.0	[1000]	ug/L	06:14:38
2	Mn 257.610†	785108.3	818995.4	[1000]	ug/L	06:14:32
2	Mo 202.031†	11742.2	12242.1	[1000]	ug/L	06:14:58
2	Ni 231.604†	32797.7	34137.2	[1000]	ug/L	06:14:58

2	P 214.914†	7332.8	7475.4	[5000]	ug/L	06:14:58
2	Pb 220.353†	6765.7	7111.8	[1000]	ug/L	06:14:58
2	S 181.975 Axial†	1227.0	1257.4	[2000]	ug/L	06:14:58
2	Sb 206.836†	2529.2	2612.4	[1000]	ug/L	06:14:58
2	Se 196.026†	1285.3	1358.2	[1000]	ug/L	06:14:58
2	Si 251.611†	139805.2	145353.1	[5000]	ug/L	06:14:38
2	Sn 189.927†	4637.0	4833.0	[1000]	ug/L	06:14:58
2	Ti 334.940†	592943.2	619937.7	[1000]	ug/L	06:14:38
2	Tl 190.801†	2640.1	2789.3	[1000]	ug/L	06:14:58
2	U 409.014†	33634.4	36994.3	[1000]	ug/L	06:14:38
2	V 292.402†	132229.4	139387.6	[1000]	ug/L	06:14:38
2	Zn 213.857†	87738.7	90952.6	[1000]	ug/L	06:14:38
2	SiO2†	139609.8	145124.0	[10695]	ug/L	06:15:40
3	Sc Radial	4194.8	4194.8	98.7	%	06:13:53
3	Y RADIAL	4650.5	4650.5	97.01	%	06:13:33
3	Al 396.153Radial†	9946.2	10154.4	[10000]	ug/L	06:13:33
3	Ca 317.933Radial†	5385.6	5440.6	[10000]	ug/L	06:13:33
3	Fe 238.204 Radial†	873.3	878.8	[10000]	ug/L	06:13:53
3	K 766.490 Radial†	55419.3	53453.8	[10000]	ug/L	06:13:33
3	Mg 279.077 IEC†	257.0	259.8	[10000]	ug/L	06:13:53
3	Na 589.592 Radial†	25369.1	26579.1	[10000]	ug/L	06:13:33
3	Sr 421.552†	120779.7	122377.3	[1000]	ug/L	06:13:33
3	Sc 361.383	838025.0	838025.0	95.085	%	06:15:09
3	Y 371.029	702846.6	702846.6	93.865	%	06:15:09
3	Ag 328.068†	203014.4	213248.2	[1000]	ug/L	06:15:09
3	As 188.979†	1911.9	2031.4	[1000]	ug/L	06:15:29
3	B 249.677†	37309.8	39626.3	[1000]	ug/L	06:15:09
3	Ba 233.527†	109493.3	115142.6	[1000]	ug/L	06:15:09
3	Be 313.107†	2527493.1	2662415.3	[1000]	ug/L	06:15:04
3	Cd 226.502†	72369.4	76281.8	[1000]	ug/L	06:15:09
3	Co 228.616†	39298.6	41376.5	[1000]	ug/L	06:15:29
3	Cr 267.716†	78321.4	82301.5	[1000]	ug/L	06:15:09
3	Cu 324.752†	320862.6	331119.1	[1000]	ug/L	06:15:09
3	Mn 257.610†	786273.4	826450.8	[1000]	ug/L	06:15:04
3	Mo 202.031†	11748.5	12341.9	[1000]	ug/L	06:15:29
3	Ni 231.604†	32844.8	34446.9	[1000]	ug/L	06:15:29
3	P 214.914†	7312.9	7512.6	[5000]	ug/L	06:15:29
3	Pb 220.353†	6731.2	7129.2	[1000]	ug/L	06:15:29
3	S 181.975 Axial†	1232.0	1272.4	[2000]	ug/L	06:15:29
3	Sb 206.836†	2541.6	2645.4	[1000]	ug/L	06:15:29
3	Se 196.026†	1280.6	1363.5	[1000]	ug/L	06:15:29
3	Si 251.611†	138342.9	144924.6	[5000]	ug/L	06:15:09
3	Sn 189.927†	4647.1	4880.4	[1000]	ug/L	06:15:29
3	Ti 334.940†	588222.6	619678.3	[1000]	ug/L	06:15:09
3	Tl 190.801†	2646.9	2817.5	[1000]	ug/L	06:15:29
3	U 409.014†	33451.0	37068.4	[1000]	ug/L	06:15:09
3	V 292.402†	130776.3	138908.7	[1000]	ug/L	06:15:09
3	Zn 213.857†	86716.2	90573.5	[1000]	ug/L	06:15:09
3	SiO2†	137935.1	144470.5	[10695]	ug/L	06:15:45

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	840942.4	3219.30	0.38%	95.416	%
Sc Radial	4207.2	13.50	0.32%	99.0	%
Y 371.029	705634.5	3038.86	0.43%	94.238	%
Y RADIAL	4674.4	28.06	0.60%	97.51	%
Ag 328.068†	213344.1	83.65	0.04%	[1000]	ug/L
Al 396.153Radial†	10124.0	27.29	0.27%	[10000]	ug/L
As 188.979†	2029.6	8.92	0.44%	[1000]	ug/L
B 249.677†	39695.9	76.00	0.19%	[1000]	ug/L
Ba 233.527†	115142.2	59.84	0.05%	[1000]	ug/L
Be 313.107†	2664550.8	22143.68	0.83%	[1000]	ug/L
Ca 317.933Radial†	5424.3	16.88	0.31%	[10000]	ug/L
Cd 226.502†	76304.4	101.69	0.13%	[1000]	ug/L
Co 228.616†	41262.4	205.14	0.50%	[1000]	ug/L
Cr 267.716†	82389.9	82.37	0.10%	[1000]	ug/L
Cu 324.752†	331601.4	441.07	0.13%	[1000]	ug/L
Fe 238.204 Radial†	877.5	4.72	0.54%	[10000]	ug/L
K 766.490 Radial†	53263.9	166.32	0.31%	[10000]	ug/L

Mg 279.077 IEC†	257.8	1.71	0.66%	[10000]	ug/L
Mn 257.610†	825977.0	6757.15	0.82%	[1000]	ug/L
Mo 202.031†	12308.4	57.45	0.47%	[1000]	ug/L
Na 589.592 Radial†	26556.3	38.19	0.14%	[10000]	ug/L
Ni 231.604†	34330.5	168.59	0.49%	[1000]	ug/L
P 214.914†	7507.4	29.84	0.40%	[5000]	ug/L
Pb 220.353†	7125.9	12.84	0.18%	[1000]	ug/L
S 181.975 Axial†	1266.9	8.25	0.65%	[2000]	ug/L
Sb 206.836†	2633.0	18.01	0.68%	[1000]	ug/L
Se 196.026†	1360.7	2.67	0.20%	[1000]	ug/L
Si 251.611†	145144.6	214.45	0.15%	[5000]	ug/L
Sn 189.927†	4864.8	27.56	0.57%	[1000]	ug/L
Sr 421.552†	122183.0	254.03	0.21%	[1000]	ug/L
Ti 334.940†	620016.6	383.97	0.06%	[1000]	ug/L
Tl 190.801†	2803.7	14.08	0.50%	[1000]	ug/L
U 409.014†	36955.9	135.92	0.37%	[1000]	ug/L
V 292.402†	139158.6	240.12	0.17%	[1000]	ug/L
Zn 213.857†	90781.7	192.30	0.21%	[1000]	ug/L
SiO2†	144765.7	331.25	0.23%	[10695]	ug/L

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S10 **Date Collected: 3/24/2010 06:17:57**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc Radial	4306.8	4306.8	101	%	06:20:10
1	Y RADIAL	4635.5	4635.5	96.70	%	06:20:10
1	Al 396.153Radial†	48193.7	47644.5	[50000]	ug/L	06:19:50
1	Ca 317.933Radial†	25010.9	24669.9	[50000]	ug/L	06:19:50
1	Fe 238.204 Radial†	1656.8	1629.2	[20000]	ug/L	06:20:10
1	Mg 279.077 IEC†	1189.3	1173.2	[50000]	ug/L	06:20:10
1	Na 589.592 Radial†	49072.3	49307.0	[20000]	ug/L	06:19:50
1	Sc 361.383	855898.1	855898.1	97.113	%	06:21:07
1	Y 371.029	713024.3	713024.3	95.225	%	06:21:07
2	Sc Radial	4267.3	4267.3	100	%	06:20:35
2	Y RADIAL	4612.4	4612.4	96.21	%	06:20:35
2	Al 396.153Radial†	49256.1	49142.6	[50000]	ug/L	06:20:15
2	Ca 317.933Radial†	25571.8	25456.9	[50000]	ug/L	06:20:15
2	Fe 238.204 Radial†	1651.2	1638.7	[20000]	ug/L	06:20:35
2	Mg 279.077 IEC†	1173.4	1168.3	[50000]	ug/L	06:20:35
2	Na 589.592 Radial†	50416.0	51093.2	[20000]	ug/L	06:20:15
2	Sc 361.383	849333.2	849333.2	96.368	%	06:21:13
2	Y 371.029	706809.7	706809.7	94.395	%	06:21:13
3	Sc Radial	4284.8	4284.8	101	%	06:21:00
3	Y RADIAL	4616.0	4616.0	96.29	%	06:21:00
3	Al 396.153Radial†	49388.0	49072.6	[50000]	ug/L	06:20:40
3	Ca 317.933Radial†	25527.2	25308.3	[50000]	ug/L	06:20:40
3	Fe 238.204 Radial†	1643.5	1624.3	[20000]	ug/L	06:21:00
3	Mg 279.077 IEC†	1178.4	1168.5	[50000]	ug/L	06:21:00
3	Na 589.592 Radial†	49886.6	50362.4	[20000]	ug/L	06:20:40
3	Sc 361.383	841621.0	841621.0	95.493	%	06:21:18
3	Y 371.029	701201.8	701201.8	93.646	%	06:21:18

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	848950.8	7146.21	0.84%	96.325	%
Sc Radial	4286.3	19.76	0.46%	101	%
Y 371.029	707011.9	5913.86	0.84%	94.422	%
Y RADIAL	4621.3	12.45	0.27%	96.40	%
Al 396.153Radial†	48619.9	845.46	1.74%	[50000]	ug/L
Ca 317.933Radial†	25145.0	418.13	1.66%	[50000]	ug/L
Fe 238.204 Radial†	1630.7	7.32	0.45%	[20000]	ug/L
Mg 279.077 IEC†	1170.0	2.81	0.24%	[50000]	ug/L
Na 589.592 Radial†	50254.2	898.03	1.79%	[20000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	212.4	0.00000	0.999962	
Al 396.153Radial	3	Lin Thru 0	0.0	0.9740	0.00000	0.999969	
As 188.979	3	Lin Thru 0	0.0	2.010	0.00000	0.999824	
B 249.677	3	Lin Thru 0	0.0	39.27	0.00000	0.999769	
Ba 233.527	3	Lin Thru 0	0.0	114.4	0.00000	0.999923	
Be 313.107	3	Lin Thru 0	0.0	2643	0.00000	0.999870	
Ca 317.933Radial	3	Lin Thru 0	0.0	0.5046	0.00000	0.999884	
Cd 226.502	3	Lin Thru 0	0.0	75.70	0.00000	0.999877	
Co 228.616	3	Lin Thru 0	0.0	41.19	0.00000	0.999992	
Cr 267.716	3	Lin Thru 0	0.0	81.85	0.00000	0.999912	
Cu 324.752	3	Lin Thru 0	0.0	329.4	0.00000	0.999911	
Fe 238.204 Radia	2	Lin Thru 0	0.0	0.0828	0.00000	0.999550	
K 766.490 Radial	3	Lin Thru 0	0.0	5.285	0.00000	0.999877	

Mg 279.077 IEC	3	Lin Thru 0	0.0	0.0235	0.00000	0.999799
Mn 257.610	3	Lin Thru 0	0.0	820.0	0.00000	0.999890
Mo 202.031	3	Lin Thru 0	0.0	12.22	0.00000	0.999900
Na 589.592 Radia	2	Lin Thru 0	0.0	2.541	0.00000	0.999747
Ni 231.604	3	Lin Thru 0	0.0	34.22	0.00000	0.999980
P 214.914	3	Lin Thru 0	0.0	1.484	0.00000	0.999721
Pb 220.353	3	Lin Thru 0	0.0	7.064	0.00000	0.999848
S 181.975 Axial	3	Lin Thru 0	0.0	0.6275	0.00000	0.999804
Sb 206.836	3	Lin Thru 0	0.0	2.601	0.00000	0.999705
Se 196.026	3	Lin Thru 0	0.0	1.348	0.00000	0.999831
Si 251.611	3	Lin Thru 0	0.0	28.85	0.00000	0.999927
Sn 189.927	3	Lin Thru 0	0.0	4.818	0.00000	0.999817
Sr 421.552	3	Lin Thru 0	0.0	121.7	0.00000	0.999963
Ti 334.940	3	Lin Thru 0	0.0	616.7	0.00000	0.999939
Tl 190.801	3	Lin Thru 0	0.0	2.784	0.00000	0.999895
U 409.014	3	Lin Thru 0	0.0	36.80	0.00000	0.999964
V 292.402	3	Lin Thru 0	0.0	138.2	0.00000	0.999905
Zn 213.857	3	Lin Thru 0	0.0	90.32	0.00000	0.999939
SiO2	3	Lin Thru 0	0.0	13.44	0.00000	0.999904

Sequence No.: 6
Sample ID: ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/24/2010 06:23:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4429.4	4429.4	104	%			06:25:22
1	Y RADIAL	4777.9	4777.9	99.66	%			06:25:22
1	Al 396.153Radial†	5044.7	4916.4	5022.7	ug/L	5022.7	ppb	06:25:22
1	Ca 317.933Radial†	2681.4	2556.3	5066.4	ug/L	5066.4	ppb	06:25:43
1	Fe 238.204 Radial†	446.6	422.4	5117.9	ug/L	5117.9	ppb	06:25:43
1	K 766.490 Radial†	15846.5	12500.4	2362.0	ug/L	2362.0	ppb	06:25:22
1	Mg 279.077 IEC†	129.4	123.5	5255.2	ug/L	5255.2	ppb	06:25:43
1	Na 589.592 Radial†	5749.9	6388.4	2513.8	ug/L	2513.8	ppb	06:25:22
1	Sr 421.552†	64569.1	61947.9	509.18	ug/L	509.18	ppb	06:25:22
1	Sc 361.383	880378.5	880378.5	99.891	%			06:26:40
1	Y 371.029	740116.0	740116.0	98.843	%			06:26:40
1	Ag 328.068†	52961.0	52759.4	251.50	ug/L	251.50	ppb	06:26:40
1	As 188.979†	882.8	904.4	454.06	ug/L	454.06	ppb	06:27:00
1	B 249.677†	19263.4	19672.5	498.77	ug/L	498.77	ppb	06:26:40
1	Ba 233.527†	56784.9	56836.9	497.89	ug/L	497.89	ppb	06:26:40
1	Be 313.107†	658648.3	663650.6	252.21	ug/L	252.21	ppb	06:26:40
1	Cd 226.502†	35617.9	35828.7	473.18	ug/L	473.18	ppb	06:27:00
1	Co 228.616†	20366.0	20435.0	496.29	ug/L	496.29	ppb	06:27:00
1	Cr 267.716†	38864.5	38838.8	475.57	ug/L	475.57	ppb	06:26:40
1	Cu 324.752†	169347.9	163204.8	495.47	ug/L	495.47	ppb	06:26:40
1	Mn 257.610†	408515.4	408498.6	498.47	ug/L	498.47	ppb	06:26:40
1	Mo 202.031†	6295.6	6288.6	515.02	ug/L	515.02	ppb	06:27:00
1	Ni 231.604†	16792.9	16715.7	488.13	ug/L	488.13	ppb	06:27:00
1	P 214.914†	3734.9	3560.7	2303.3	ug/L	2303.3	ppb	06:27:00
1	Pb 220.353†	3344.4	3398.2	482.53	ug/L	482.53	ppb	06:27:00
1	S 181.975 Axial†	1499.2	1477.5	2353.7	ug/L	2353.7	ppb	06:27:00
1	Sb 206.836†	1268.5	1242.4	496.17	ug/L	496.17	ppb	06:27:00
1	Se 196.026†	3299.3	3319.6	2480.3	ug/L	2480.3	ppb	06:27:00
1	Si 251.611†	138675.6	138258.2	4785.8	ug/L	4785.8	ppb	06:26:40
1	Sn 189.927†	2473.9	2469.6	513.21	ug/L	513.21	ppb	06:27:00
1	Ti 334.940†	300592.5	301972.9	489.55	ug/L	489.55	ppb	06:26:40
1	Tl 190.801†	1393.2	1428.5	516.42	ug/L	516.42	ppb	06:27:00
1	U 409.014†	15893.8	17799.6	482.08	ug/L	482.08	ppb	06:26:40
1	V 292.402†	66732.6	68178.5	500.22	ug/L	500.22	ppb	06:26:40
1	Zn 213.857†	45139.7	44564.2	488.83	ug/L	488.83	ppb	06:26:40
1	SiO2†	138833.8	138391.4	10282	ug/L	10282	ppb	06:27:58
2	Sc Radial	4450.1	4450.1	105	%			06:25:48
2	Y RADIAL	4835.9	4835.9	100.9	%			06:25:48
2	Al 396.153Radial†	5112.0	4958.2	5065.6	ug/L	5065.6	ppb	06:25:48
2	Ca 317.933Radial†	2686.3	2549.0	5052.1	ug/L	5052.1	ppb	06:26:08
2	Fe 238.204 Radial†	449.2	422.9	5123.8	ug/L	5123.8	ppb	06:26:08
2	K 766.490 Radial†	15917.5	12497.7	2361.5	ug/L	2361.5	ppb	06:25:48
2	Mg 279.077 IEC†	131.0	124.5	5298.9	ug/L	5298.9	ppb	06:26:08
2	Na 589.592 Radial†	5733.9	6347.5	2497.8	ug/L	2497.8	ppb	06:25:48
2	Sr 421.552†	65128.7	62194.9	511.21	ug/L	511.21	ppb	06:25:48
2	Sc 361.383	883744.1	883744.1	100.27	%			06:27:06
2	Y 371.029	743058.7	743058.7	99.236	%			06:27:06
2	Ag 328.068†	52889.0	52485.6	250.21	ug/L	250.21	ppb	06:27:06
2	As 188.979†	886.0	904.2	453.93	ug/L	453.93	ppb	06:27:26
2	B 249.677†	19303.3	19638.9	497.91	ug/L	497.91	ppb	06:27:06
2	Ba 233.527†	56715.8	56551.5	495.39	ug/L	495.39	ppb	06:27:06
2	Be 313.107†	657866.3	660359.6	250.96	ug/L	250.96	ppb	06:27:06
2	Cd 226.502†	35658.2	35733.0	471.91	ug/L	471.91	ppb	06:27:26
2	Co 228.616†	20420.3	20411.5	495.72	ug/L	495.72	ppb	06:27:26
2	Cr 267.716†	38858.0	38684.1	473.68	ug/L	473.68	ppb	06:27:06
2	Cu 324.752†	169613.8	162824.4	494.32	ug/L	494.32	ppb	06:27:06
2	Mn 257.610†	408219.4	406646.0	496.21	ug/L	496.21	ppb	06:27:06
2	Mo 202.031†	6325.9	6294.8	515.53	ug/L	515.53	ppb	06:27:26
2	Ni 231.604†	16830.1	16688.8	487.34	ug/L	487.34	ppb	06:27:26

2	P 214.914†	3734.8	3546.4	2293.9 ug/L	2293.9 ppb	06:27:26
2	Pb 220.353†	3357.3	3398.3	482.55 ug/L	482.55 ppb	06:27:26
2	S 181.975 Axial†	1503.6	1476.3	2351.6 ug/L	2351.6 ppb	06:27:26
2	Sb 206.836†	1276.8	1245.8	497.43 ug/L	497.43 ppb	06:27:26
2	Se 196.026†	3328.4	3336.0	2492.5 ug/L	2492.5 ppb	06:27:26
2	Si 251.611†	138749.0	137802.7	4770.0 ug/L	4770.0 ppb	06:27:06
2	Sn 189.927†	2463.0	2449.4	509.00 ug/L	509.00 ppb	06:27:26
2	Ti 334.940†	300645.5	300879.7	487.78 ug/L	487.78 ppb	06:27:06
2	Tl 190.801†	1395.1	1425.1	515.17 ug/L	515.17 ppb	06:27:26
2	U 409.014†	15621.3	17467.2	473.05 ug/L	473.05 ppb	06:27:06
2	V 292.402†	66675.0	67866.6	497.96 ug/L	497.96 ppb	06:27:06
2	Zn 213.857†	45254.9	44506.9	488.20 ug/L	488.20 ppb	06:27:06
2	SiO2†	137303.7	136336.2	10129 ug/L	10129 ppb	06:28:03
3	Sc Radial	4425.8	4425.8	104 %		06:26:13
3	Y RADIAL	4799.4	4799.4	100.1 %		06:26:13
3	Al 396.153Radial†	5037.3	4913.3	5019.4 ug/L	5019.4 ppb	06:26:13
3	Ca 317.933Radial†	2666.5	2544.0	5042.2 ug/L	5042.2 ppb	06:26:33
3	Fe 238.204 Radial†	444.5	420.8	5097.7 ug/L	5097.7 ppb	06:26:33
3	K 766.490 Radial†	15885.0	12549.9	2371.4 ug/L	2371.4 ppb	06:26:13
3	Mg 279.077 IEC†	129.9	124.1	5281.6 ug/L	5281.6 ppb	06:26:33
3	Na 589.592 Radial†	5691.0	6336.3	2493.4 ug/L	2493.4 ppb	06:26:13
3	Sr 421.552†	64382.7	61819.6	508.12 ug/L	508.12 ppb	06:26:13
3	Sc 361.383	881056.5	881056.5	99.968 %		06:27:32
3	Y 371.029	742170.4	742170.4	99.117 %		06:27:32
3	Ag 328.068†	52671.0	52428.5	249.93 ug/L	249.93 ppb	06:27:32
3	As 188.979†	884.0	904.9	454.30 ug/L	454.30 ppb	06:27:52
3	B 249.677†	19075.2	19469.5	493.61 ug/L	493.61 ppb	06:27:32
3	Ba 233.527†	56519.9	56528.1	495.18 ug/L	495.18 ppb	06:27:32
3	Be 313.107†	656076.7	660570.8	251.04 ug/L	251.04 ppb	06:27:32
3	Cd 226.502†	35525.2	35708.5	471.59 ug/L	471.59 ppb	06:27:52
3	Co 228.616†	20307.7	20361.0	494.50 ug/L	494.50 ppb	06:27:52
3	Cr 267.716†	38804.5	38748.9	474.47 ug/L	474.47 ppb	06:27:32
3	Cu 324.752†	168278.9	162005.1	491.83 ug/L	491.83 ppb	06:27:32
3	Mn 257.610†	405730.9	405398.5	494.69 ug/L	494.69 ppb	06:27:32
3	Mo 202.031†	6301.8	6290.0	515.13 ug/L	515.13 ppb	06:27:52
3	Ni 231.604†	16757.7	16667.6	486.72 ug/L	486.72 ppb	06:27:52
3	P 214.914†	3721.4	3544.3	2293.0 ug/L	2293.0 ppb	06:27:52
3	Pb 220.353†	3349.6	3400.8	482.90 ug/L	482.90 ppb	06:27:52
3	S 181.975 Axial†	1495.3	1472.5	2345.7 ug/L	2345.7 ppb	06:27:52
3	Sb 206.836†	1262.7	1235.6	493.53 ug/L	493.53 ppb	06:27:52
3	Se 196.026†	3315.6	3333.4	2490.4 ug/L	2490.4 ppb	06:27:52
3	Si 251.611†	137757.8	137233.3	4750.3 ug/L	4750.3 ppb	06:27:32
3	Sn 189.927†	2467.9	2461.8	511.57 ug/L	511.57 ppb	06:27:52
3	Ti 334.940†	298878.8	300027.1	486.40 ug/L	486.40 ppb	06:27:32
3	Tl 190.801†	1389.9	1424.1	514.80 ug/L	514.80 ppb	06:27:52
3	U 409.014†	15708.8	17602.3	476.72 ug/L	476.72 ppb	06:27:32
3	V 292.402†	66417.0	67811.3	497.57 ug/L	497.57 ppb	06:27:32
3	Zn 213.857†	44936.6	44326.3	486.21 ug/L	486.21 ppb	06:27:32
3	SiO2†	138022.1	137472.5	10214 ug/L	10214 ppb	06:28:08

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	881726.4	100.04	%	0.202				0.20%
Sc Radial	4435.1	104	%	0.3				0.30%
Y 371.029	741781.7	99.065	%	0.2016				0.20%
Y RADIAL	4804.4	100.2	%	0.61				0.61%
Ag 328.068†	52557.8	250.54	ug/L	0.837	250.54	ppb	0.837	0.33%
QC value within limits for Ag 328.068 Recovery = 100.22%								
Al 396.153Radial†	4929.3	5035.9	ug/L	25.76	5035.9	ppb	25.76	0.51%
QC value within limits for Al 396.153Radial Recovery = 100.72%								
As 188.979†	904.5	454.10	ug/L	0.185	454.10	ppb	0.185	0.04%
QC value within limits for As 188.979 Recovery = 90.82%								
B 249.677†	19593.6	496.76	ug/L	2.767	496.76	ppb	2.767	0.56%
QC value within limits for B 249.677 Recovery = 99.35%								
Ba 233.527†	56638.8	496.15	ug/L	1.506	496.15	ppb	1.506	0.30%
QC value within limits for Ba 233.527 Recovery = 99.23%								
Be 313.107†	661527.0	251.41	ug/L	0.700	251.41	ppb	0.700	0.28%
QC value within limits for Be 313.107 Recovery = 100.56%								
Ca 317.933Radial†	2549.8	5053.5	ug/L	12.19	5053.5	ppb	12.19	0.24%

```
   QC value within limits for Ca 317.933Radial  Recovery = 101.07%
Cd 226.502†            35756.7      472.23 ug/L         0.839      472.23 ppb          0.839   0.18%
   QC value within limits for Cd 226.502  Recovery = 94.45%
Co 228.616†            20402.5      495.50 ug/L         0.915      495.50 ppb          0.915   0.18%
   QC value within limits for Co 228.616  Recovery = 99.10%
Cr 267.716†            38757.3      474.57 ug/L         0.949      474.57 ppb          0.949   0.20%
   QC value within limits for Cr 267.716  Recovery = 94.91%
Cu 324.752†           162678.1      493.87 ug/L         1.861      493.87 ppb          1.861   0.38%
   QC value within limits for Cu 324.752  Recovery = 98.77%
Fe 238.204 Radial†       422.0      5113.1 ug/L         13.68      5113.1 ppb          13.68   0.27%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.26%
K 766.490 Radial†      12516.0      2364.9 ug/L          5.57      2364.9 ppb           5.57   0.24%
   QC value within limits for K 766.490 Radial  Recovery = 94.60%
Mg 279.077 IEC†          124.1      5278.6 ug/L         22.01      5278.6 ppb          22.01   0.42%
   QC value within limits for Mg 279.077 IEC  Recovery = 105.57%
Mn 257.610†           406847.7      496.46 ug/L         1.904      496.46 ppb          1.904   0.38%
   QC value within limits for Mn 257.610  Recovery = 99.29%
Mo 202.031†             6291.2      515.23 ug/L         0.268      515.23 ppb          0.268   0.05%
   QC value within limits for Mo 202.031  Recovery = 103.05%
Na 589.592 Radial†      6357.4      2501.6 ug/L         10.78      2501.6 ppb          10.78   0.43%
   QC value within limits for Na 589.592 Radial  Recovery = 100.07%
Ni 231.604†            16690.7      487.40 ug/L         0.705      487.40 ppb          0.705   0.14%
   QC value within limits for Ni 231.604  Recovery = 97.48%
P 214.914†              3550.4      2296.7 ug/L          5.74      2296.7 ppb           5.74   0.25%
   QC value within limits for P 214.914  Recovery = 91.87%
Pb 220.353†             3399.1      482.66 ug/L         0.210      482.66 ppb          0.210   0.04%
   QC value within limits for Pb 220.353  Recovery = 96.53%
S 181.975 Axial†        1475.5      2350.3 ug/L          4.16      2350.3 ppb           4.16   0.18%
   QC value within limits for S 181.975 Axial  Recovery = 94.01%
Sb 206.836†             1241.2      495.71 ug/L         1.992      495.71 ppb          1.992   0.40%
   QC value within limits for Sb 206.836  Recovery = 99.14%
Se 196.026†             3329.7      2487.7 ug/L          6.55      2487.7 ppb           6.55   0.26%
   QC value within limits for Se 196.026  Recovery = 99.51%
Si 251.611†           137764.7      4768.7 ug/L         17.80      4768.7 ppb          17.80   0.37%
   QC value within limits for Si 251.611  Recovery = 95.37%
Sn 189.927†             2460.3      511.26 ug/L         2.123      511.26 ppb          2.123   0.42%
   QC value within limits for Sn 189.927  Recovery = 102.25%
Sr 421.552†            61987.5      509.50 ug/L         1.568      509.50 ppb          1.568   0.31%
   QC value within limits for Sr 421.552  Recovery = 101.90%
Ti 334.940†           300959.9      487.91 ug/L         1.583      487.91 ppb          1.583   0.32%
   QC value within limits for Ti 334.940  Recovery = 97.58%
Tl 190.801†             1425.9      515.46 ug/L         0.846      515.46 ppb          0.846   0.16%
   QC value within limits for Tl 190.801  Recovery = 103.09%
U 409.014†             17623.0      477.28 ug/L         4.541      477.28 ppb          4.541   0.95%
   QC value within limits for U 409.014  Recovery = 95.46%
V 292.402†             67952.1      498.58 ug/L         1.435      498.58 ppb          1.435   0.29%
   QC value within limits for V 292.402  Recovery = 99.72%
Zn 213.857†            44465.8      487.75 ug/L         1.366      487.75 ppb          1.366   0.28%
   QC value within limits for Zn 213.857  Recovery = 97.55%
SiO2†                 137400.0       10208 ug/L          76.6       10208 ppb           76.6   0.75%
   QC value within limits for SiO2  Recovery = 95.45%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 3/24/2010 06:30:19
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4399.2	4399.2	103	%			06:32:12
1	Y RADIAL	4795.7	4795.7	100.0	%			06:32:12
1	Al 396.153Radial†	-80.6	-2.9	-2.9760	ug/L	-2.9760	ppb	06:32:32
1	Ca 317.933Radial†	15.6	-2.1	-4.1204	ug/L	-4.1204	ppb	06:32:32
1	Fe 238.204 Radial†	7.3	0.9	10.653	ug/L	10.653	ppb	06:32:32
1	K 766.490 Radial†	2701.6	-97.0	-18.354	ug/L	-18.354	ppb	06:32:12
1	Mg 279.077 IEC†	1.1	0.4	16.410	ug/L	16.410	ppb	06:32:32
1	Na 589.592 Radial†	-935.2	-33.5	-13.195	ug/L	-13.195	ppb	06:32:12
1	Sr 421.552†	-7.2	-26.9	-0.2209	ug/L	-0.2209	ppb	06:32:12
1	Sc 361.383	891953.3	891953.3	101.20	%			06:33:29
1	Y 371.029	756472.5	756472.5	101.03	%			06:33:29
1	Ag 328.068†	228.4	-33.8	-0.1558	ug/L	-0.1558	ppb	06:33:34
1	As 188.979†	-17.7	3.2	1.5757	ug/L	1.5757	ppb	06:33:54
1	B 249.677†	-183.5	206.8	5.2650	ug/L	5.2650	ppb	06:33:54
1	Ba 233.527†	23.9	13.5	0.1177	ug/L	0.1177	ppb	06:33:54
1	Be 313.107†	-4271.4	62.2	0.0234	ug/L	0.0234	ppb	06:33:34
1	Cd 226.502†	-168.7	5.1	0.0662	ug/L	0.0662	ppb	06:33:54
1	Co 228.616†	-52.0	-4.6	-0.1129	ug/L	-0.1129	ppb	06:33:54
1	Cr 267.716†	75.6	6.5	0.0811	ug/L	0.0811	ppb	06:33:54
1	Cu 324.752†	6325.6	-77.7	-0.2345	ug/L	-0.2345	ppb	06:33:34
1	Mn 257.610†	421.2	-46.9	-0.0568	ug/L	-0.0568	ppb	06:33:54
1	Mo 202.031†	14.0	-0.1	-0.0046	ug/L	-0.0046	ppb	06:33:54
1	Ni 231.604†	78.5	-18.0	-0.5245	ug/L	-0.5245	ppb	06:33:54
1	P 214.914†	163.3	-16.9	-11.369	ug/L	-11.369	ppb	06:33:54
1	Pb 220.353†	-52.6	-1.9	-0.2741	ug/L	-0.2741	ppb	06:33:54
1	S 181.975 Axial†	28.0	4.4	7.0472	ug/L	7.0472	ppb	06:33:54
1	Sb 206.836†	16.9	-10.8	-4.1569	ug/L	-4.1569	ppb	06:33:54
1	Se 196.026†	-8.5	8.3	6.2003	ug/L	6.2003	ppb	06:33:54
1	Si 251.611†	551.2	-24.2	-0.8392	ug/L	-0.8392	ppb	06:33:54
1	Sn 189.927†	7.2	0.2	0.0353	ug/L	0.0353	ppb	06:33:54
1	Ti 334.940†	-1107.5	-42.3	-0.0700	ug/L	-0.0700	ppb	06:33:34
1	Tl 190.801†	-18.3	15.7	5.6390	ug/L	5.6390	ppb	06:33:54
1	U 409.014†	-1962.7	-51.0	-1.3870	ug/L	-1.3870	ppb	06:33:29
1	V 292.402†	-1431.5	-41.5	-0.3042	ug/L	-0.3042	ppb	06:33:34
1	Zn 213.857†	618.6	-13.6	-0.1487	ug/L	-0.1487	ppb	06:33:54
1	SiO2†	580.1	-20.9	-1.5547	ug/L	-1.5547	ppb	06:35:15
2	Sc Radial	4524.2	4524.2	106	%			06:32:37
2	Y RADIAL	4948.6	4948.6	103.2	%			06:32:37
2	Al 396.153Radial†	-70.3	8.9	9.1535	ug/L	9.1535	ppb	06:32:57
2	Ca 317.933Radial†	17.3	-0.9	-1.7351	ug/L	-1.7351	ppb	06:32:57
2	Fe 238.204 Radial†	6.3	-0.3	-3.3621	ug/L	-3.3621	ppb	06:32:57
2	K 766.490 Radial†	2680.5	-189.0	-35.776	ug/L	-35.776	ppb	06:32:37
2	Mg 279.077 IEC†	3.5	2.7	112.87	ug/L	112.87	ppb	06:32:57
2	Na 589.592 Radial†	-888.1	35.7	14.056	ug/L	14.056	ppb	06:32:37
2	Sr 421.552†	39.6	17.3	0.1421	ug/L	0.1421	ppb	06:32:37
2	Sc 361.383	890720.2	890720.2	101.06	%			06:33:59
2	Y 371.029	754834.9	754834.9	100.81	%			06:33:59
2	Ag 328.068†	240.5	-21.5	-0.0984	ug/L	-0.0984	ppb	06:34:04
2	As 188.979†	-26.1	-5.2	-2.6048	ug/L	-2.6048	ppb	06:34:24
2	B 249.677†	-155.1	234.7	5.9769	ug/L	5.9769	ppb	06:34:24
2	Ba 233.527†	16.1	5.9	0.0513	ug/L	0.0513	ppb	06:34:24
2	Be 313.107†	-4284.9	43.0	0.0161	ug/L	0.0161	ppb	06:34:04
2	Cd 226.502†	-173.7	0.0	-0.0006	ug/L	-0.0006	ppb	06:34:24
2	Co 228.616†	-41.4	5.8	0.1418	ug/L	0.1418	ppb	06:34:24
2	Cr 267.716†	81.8	12.8	0.1581	ug/L	0.1581	ppb	06:34:24
2	Cu 324.752†	6353.1	-41.9	-0.1245	ug/L	-0.1245	ppb	06:34:04
2	Mn 257.610†	418.1	-49.3	-0.0651	ug/L	-0.0651	ppb	06:34:24
2	Mo 202.031†	21.9	7.9	0.6423	ug/L	0.6423	ppb	06:34:24
2	Ni 231.604†	87.8	-8.7	-0.2530	ug/L	-0.2530	ppb	06:34:24

2	P 214.914†	181.7	1.5	1.0082 ug/L	1.0082 ppb	06:34:24
2	Pb 220.353†	-59.5	-8.8	-1.2407 ug/L	-1.2407 ppb	06:34:24
2	S 181.975 Axial†	26.4	2.9	4.5787 ug/L	4.5787 ppb	06:34:24
2	Sb 206.836†	30.4	2.5	0.9625 ug/L	0.9625 ppb	06:34:24
2	Se 196.026†	-13.4	3.5	2.5580 ug/L	2.5580 ppb	06:34:24
2	Si 251.611†	530.2	-44.3	-1.5440 ug/L	-1.5440 ppb	06:34:24
2	Sn 189.927†	2.6	-4.3	-0.8993 ug/L	-0.8993 ppb	06:34:24
2	Ti 334.940†	-1116.0	-52.3	-0.0920 ug/L	-0.0920 ppb	06:34:04
2	Tl 190.801†	-23.2	10.8	3.8724 ug/L	3.8724 ppb	06:34:24
2	U 409.014†	-2096.4	-185.9	-5.0531 ug/L	-5.0531 ppb	06:33:59
2	V 292.402†	-1393.6	-6.0	-0.0410 ug/L	-0.0410 ppb	06:34:04
2	Zn 213.857†	595.9	-35.2	-0.3878 ug/L	-0.3878 ppb	06:34:24
2	SiO2†	579.2	-21.0	-1.5769 ug/L	-1.5769 ppb	06:35:35
3	Sc Radial	4418.3	4418.3	104 %		06:33:02
3	Y RADIAL	4825.1	4825.1	100.7 %		06:33:02
3	Al 396.153Radial†	-76.8	1.1	1.1474 ug/L	1.1474 ppb	06:33:22
3	Ca 317.933Radial†	19.6	1.7	3.4072 ug/L	3.4072 ppb	06:33:22
3	Fe 238.204 Radial†	7.2	0.8	9.1338 ug/L	9.1338 ppb	06:33:22
3	K 766.490 Radial†	2788.5	-24.7	-4.6662 ug/L	-4.6662 ppb	06:33:02
3	Mg 279.077 IEC†	4.1	3.3	140.85 ug/L	140.85 ppb	06:33:22
3	Na 589.592 Radial†	-948.8	-42.7	-16.793 ug/L	-16.793 ppb	06:33:02
3	Sr 421.552†	1.6	-18.4	-0.1515 ug/L	-0.1515 ppb	06:33:02
3	Sc 361.383	880687.6	880687.6	99.926 %		06:34:29
3	Y 371.029	747622.5	747622.5	99.845 %		06:34:29
3	Ag 328.068†	176.5	-82.9	-0.3883 ug/L	-0.3883 ppb	06:34:34
3	As 188.979†	-22.0	-1.4	-0.7034 ug/L	-0.7034 ppb	06:34:54
3	B 249.677†	-184.1	203.9	5.1894 ug/L	5.1894 ppb	06:34:54
3	Ba 233.527†	25.1	15.0	0.1307 ug/L	0.1307 ppb	06:34:54
3	Be 313.107†	-4268.0	11.6	0.0044 ug/L	0.0044 ppb	06:34:34
3	Cd 226.502†	-176.2	-4.4	-0.0597 ug/L	-0.0597 ppb	06:34:54
3	Co 228.616†	-26.5	20.2	0.4911 ug/L	0.4911 ppb	06:34:54
3	Cr 267.716†	78.3	10.2	0.1253 ug/L	0.1253 ppb	06:34:54
3	Cu 324.752†	6305.2	-18.2	-0.0541 ug/L	-0.0541 ppb	06:34:34
3	Mn 257.610†	448.4	-14.3	-0.0224 ug/L	-0.0224 ppb	06:34:54
3	Mo 202.031†	12.6	-1.3	-0.1055 ug/L	-0.1055 ppb	06:34:54
3	Ni 231.604†	100.8	5.3	0.1554 ug/L	0.1554 ppb	06:34:54
3	P 214.914†	165.0	-13.1	-8.8506 ug/L	-8.8506 ppb	06:34:54
3	Pb 220.353†	-71.7	-21.7	-3.0735 ug/L	-3.0735 ppb	06:34:54
3	S 181.975 Axial†	29.9	6.7	10.694 ug/L	10.694 ppb	06:34:54
3	Sb 206.836†	28.4	0.9	0.3564 ug/L	0.3564 ppb	06:34:54
3	Se 196.026†	-14.5	2.2	1.6696 ug/L	1.6696 ppb	06:34:54
3	Si 251.611†	554.6	-13.9	-0.4800 ug/L	-0.4800 ppb	06:34:54
3	Sn 189.927†	9.1	2.2	0.4473 ug/L	0.4473 ppb	06:34:54
3	Ti 334.940†	-1057.7	-6.5	-0.0211 ug/L	-0.0211 ppb	06:34:34
3	Tl 190.801†	-18.5	15.3	5.4817 ug/L	5.4817 ppb	06:34:54
3	U 409.014†	-1926.6	-39.6	-1.0784 ug/L	-1.0784 ppb	06:34:29
3	V 292.402†	-1423.9	-52.0	-0.3784 ug/L	-0.3784 ppb	06:34:34
3	Zn 213.857†	605.2	-19.2	-0.2144 ug/L	-0.2144 ppb	06:34:54
3	SiO2†	572.9	-20.8	-1.5418 ug/L	-1.5418 ppb	06:35:55

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	887787.0	100.73	%	0.701				0.70%
Sc Radial	4447.2	105	%	1.6				1.51%
Y 371.029	752976.6	100.56	%	0.629				0.63%
Y RADIAL	4856.5	101.3	%	1.69				1.67%
Ag 328.068†	-46.1	-0.2142	ug/L	0.15350	-0.2142	ppb	0.15350	71.68%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.4	2.4417	ug/L	6.16748	2.4417	ppb	6.16748	252.59%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.2	-0.5775	ug/L	2.09307	-0.5775	ppb	2.09307	362.43%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	215.1	5.4771	ug/L	0.43451	5.4771	ppb	0.43451	7.93%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.5	0.0999	ug/L	0.04259	0.0999	ppb	0.04259	42.63%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	38.9	0.0146	ug/L	0.00960	0.0146	ppb	0.00960	65.72%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-0.4	-0.8161	ug/L	3.84704	-0.8161	ppb	3.84704	471.39%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                0.2      0.0020 ug/L       0.06298      0.0020 ppb        0.06298 >999.9%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                7.1      0.1733 ug/L       0.30323      0.1733 ppb        0.30323 174.95%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                9.8      0.1215 ug/L       0.03865      0.1215 ppb        0.03865  31.81%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -45.9     -0.1377 ug/L       0.09089     -0.1377 ppb        0.09089  66.02%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         0.5      5.4749 ug/L       7.69072      5.4749 ppb        7.69072 140.47%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -103.6     -19.599 ug/L       15.5921     -19.599 ppb        15.5921  79.56%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            2.1      90.045 ug/L       65.2865      90.045 ppb        65.2865  72.50%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -36.8     -0.0481 ug/L       0.02265     -0.0481 ppb        0.02265  47.12%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                2.2      0.1774 ug/L       0.40578      0.1774 ppb        0.40578 228.74%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -13.5     -5.3105 ug/L      16.86801     -5.3105 ppb       16.86801 317.63%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -7.1     -0.2074 ug/L       0.34223     -0.2074 ppb        0.34223 165.04%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -9.5     -6.4036 ug/L       6.54114     -6.4036 ppb        6.54114 102.15%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -10.8     -1.5294 ug/L       1.42183     -1.5294 ppb        1.42183  92.96%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           4.7      7.4398 ug/L       3.07630      7.4398 ppb        3.07630  41.35%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -2.5     -0.9460 ug/L       2.79715     -0.9460 ppb        2.79715 295.68%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                4.7      3.4760 ug/L       2.40081      3.4760 ppb        2.40081  69.07%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              -27.5     -0.9544 ug/L       0.54131     -0.9544 ppb        0.54131  56.72%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.7     -0.1389 ug/L       0.69000     -0.1389 ppb        0.69000 496.70%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -9.3     -0.0767 ug/L       0.19269     -0.0767 ppb        0.19269 251.09%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -33.7     -0.0610 ug/L       0.03630     -0.0610 ppb        0.03630  59.47%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               13.9      4.9977 ug/L       0.97770      4.9977 ppb        0.97770  19.56%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -92.2     -2.5062 ug/L       2.21110     -2.5062 ppb        2.21110  88.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -33.1     -0.2412 ug/L       0.17730     -0.2412 ppb        0.17730  73.50%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              -22.7     -0.2503 ug/L       0.12351     -0.2503 ppb        0.12351  49.35%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -20.9     -1.5578 ug/L       0.01777     -1.5578 ppb        0.01777   1.14%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8 **Autosampler Location: 11**
Sample ID: PQL **Date Collected: 3/24/2010 06:38:06**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4425.5	4425.5	104	%			06:40:00
1	Y RADIAL	4839.1	4839.1	100.9	%			06:40:00
1	Al 396.153Radial†	134.4	204.0	209.03	ug/L	209.03	ppb	06:40:20
1	Ca 317.933Radial†	123.3	101.3	200.74	ug/L	200.74	ppb	06:40:20
1	Fe 238.204 Radial†	14.2	7.5	90.193	ug/L	90.193	ppb	06:40:20
1	K 766.490 Radial†	3465.3	621.0	117.30	ug/L	117.30	ppb	06:40:00
1	Mg 279.077 IEC†	10.1	9.1	385.71	ug/L	385.71	ppb	06:40:20
1	Na 589.592 Radial†	-83.0	790.4	311.03	ug/L	311.03	ppb	06:40:00
1	Sr 421.552†	619.1	574.7	4.7227	ug/L	4.7227	ppb	06:40:00
1	Sc 361.383	882587.8	882587.8	100.14	%			06:41:17
1	Y 371.029	749365.7	749365.7	100.08	%			06:41:17
1	Ag 328.068†	1256.8	995.5	4.6958	ug/L	4.6958	ppb	06:41:22
1	As 188.979†	33.0	53.6	26.711	ug/L	26.711	ppb	06:41:42
1	B 249.677†	1666.1	2051.9	52.228	ug/L	52.228	ppb	06:41:22
1	Ba 233.527†	584.6	573.7	5.0256	ug/L	5.0256	ppb	06:41:42
1	Be 313.107†	8461.8	12732.6	4.8285	ug/L	4.8285	ppb	06:41:22
1	Cd 226.502†	190.8	362.4	4.7898	ug/L	4.7898	ppb	06:41:42
1	Co 228.616†	154.1	200.6	4.8805	ug/L	4.8805	ppb	06:41:42
1	Cr 267.716†	483.3	414.5	5.0634	ug/L	5.0634	ppb	06:41:42
1	Cu 324.752†	9522.5	3181.0	9.6383	ug/L	9.6383	ppb	06:41:22
1	Mn 257.610†	8717.0	8241.7	10.044	ug/L	10.044	ppb	06:41:22
1	Mo 202.031†	129.0	114.9	9.4134	ug/L	9.4134	ppb	06:41:42
1	Ni 231.604†	265.0	169.1	4.9390	ug/L	4.9390	ppb	06:41:42
1	P 214.914†	380.0	201.2	133.74	ug/L	133.74	ppb	06:41:42
1	Pb 220.353†	28.7	78.7	11.195	ug/L	11.195	ppb	06:41:42
1	S 181.975 Axial†	91.9	68.5	109.19	ug/L	109.19	ppb	06:41:42
1	Sb 206.836†	48.6	21.0	8.4179	ug/L	8.4179	ppb	06:41:42
1	Se 196.026†	25.4	42.1	31.584	ug/L	31.584	ppb	06:41:42
1	Si 251.611†	3273.7	2700.2	93.474	ug/L	93.474	ppb	06:41:42
1	Sn 189.927†	55.3	48.3	10.049	ug/L	10.049	ppb	06:41:42
1	Ti 334.940†	1918.4	2967.7	4.7875	ug/L	4.7875	ppb	06:41:22
1	Tl 190.801†	29.5	63.2	22.752	ug/L	22.752	ppb	06:41:42
1	U 409.014†	-335.0	1553.9	42.207	ug/L	42.207	ppb	06:41:17
1	V 292.402†	-747.5	626.5	4.7349	ug/L	4.7349	ppb	06:41:22
1	Zn 213.857†	1522.9	895.9	9.8609	ug/L	9.8609	ppb	06:41:42
1	SiO2†	3408.3	2809.4	208.76	ug/L	208.76	ppb	06:42:48
2	Sc Radial	4478.6	4478.6	105	%			06:40:25
2	Y RADIAL	4917.3	4917.3	102.6	%			06:40:25
2	Al 396.153Radial†	131.1	199.4	204.33	ug/L	204.33	ppb	06:40:45
2	Ca 317.933Radial†	127.8	104.2	206.53	ug/L	206.53	ppb	06:40:45
2	Fe 238.204 Radial†	16.6	9.6	116.35	ug/L	116.35	ppb	06:40:45
2	K 766.490 Radial†	3468.2	584.3	110.35	ug/L	110.35	ppb	06:40:25
2	Mg 279.077 IEC†	8.8	7.7	329.34	ug/L	329.34	ppb	06:40:45
2	Na 589.592 Radial†	-17.2	853.8	335.99	ug/L	335.99	ppb	06:40:25
2	Sr 421.552†	639.9	587.4	4.8270	ug/L	4.8270	ppb	06:40:25
2	Sc 361.383	879876.2	879876.2	99.834	%			06:41:47
2	Y 371.029	746272.2	746272.2	99.665	%			06:41:47
2	Ag 328.068†	1299.7	1042.4	4.9180	ug/L	4.9180	ppb	06:41:52
2	As 188.979†	33.4	54.1	26.955	ug/L	26.955	ppb	06:42:12
2	B 249.677†	1652.5	2043.4	52.009	ug/L	52.009	ppb	06:41:52
2	Ba 233.527†	560.3	551.1	4.8292	ug/L	4.8292	ppb	06:42:12
2	Be 313.107†	8324.2	12620.8	4.7865	ug/L	4.7865	ppb	06:41:52
2	Cd 226.502†	186.8	359.0	4.7427	ug/L	4.7427	ppb	06:42:12
2	Co 228.616†	148.0	195.0	4.7426	ug/L	4.7426	ppb	06:42:12
2	Cr 267.716†	478.0	410.7	5.0162	ug/L	5.0162	ppb	06:42:12
2	Cu 324.752†	9661.3	3349.3	10.147	ug/L	10.147	ppb	06:41:52
2	Mn 257.610†	8647.8	8199.1	9.9972	ug/L	9.9972	ppb	06:41:52
2	Mo 202.031†	118.6	104.9	8.5962	ug/L	8.5962	ppb	06:42:12
2	Ni 231.604†	261.5	166.5	4.8609	ug/L	4.8609	ppb	06:42:12

2	P 214.914†	383.4	205.8	136.71 ug/L	136.71 ppb	06:42:12
2	Pb 220.353†	24.0	74.1	10.543 ug/L	10.543 ppb	06:42:12
2	S 181.975 Axial†	84.9	61.8	98.414 ug/L	98.414 ppb	06:42:12
2	Sb 206.836†	42.0	14.5	5.9211 ug/L	5.9211 ppb	06:42:12
2	Se 196.026†	31.6	48.3	36.255 ug/L	36.255 ppb	06:42:12
2	Si 251.611†	3271.4	2708.0	93.755 ug/L	93.755 ppb	06:42:12
2	Sn 189.927†	57.7	50.8	10.582 ug/L	10.582 ppb	06:42:12
2	Ti 334.940†	2009.4	3064.7	4.9469 ug/L	4.9469 ppb	06:41:52
2	Tl 190.801†	30.3	64.1	23.083 ug/L	23.083 ppb	06:42:12
2	U 409.014†	-56.0	1832.3	49.769 ug/L	49.769 ppb	06:41:47
2	V 292.402†	-750.8	620.9	4.6918 ug/L	4.6918 ppb	06:41:52
2	Zn 213.857†	1517.5	895.2	9.8486 ug/L	9.8486 ppb	06:42:12
2	SiO2†	3347.3	2758.8	205.02 ug/L	205.02 ppb	06:42:53
3	Sc Radial	4395.9	4395.9	103 %		06:40:50
3	Y RADIAL	4799.9	4799.9	100.1 %		06:40:50
3	Al 396.153Radial†	130.5	201.1	206.09 ug/L	206.09 ppb	06:41:10
3	Ca 317.933Radial†	132.1	110.6	219.26 ug/L	219.26 ppb	06:41:10
3	Fe 238.204 Radial†	18.5	11.7	141.68 ug/L	141.68 ppb	06:41:10
3	K 766.490 Radial†	3453.2	631.7	119.34 ug/L	119.34 ppb	06:40:50
3	Mg 279.077 IEC†	6.9	6.0	256.18 ug/L	256.18 ppb	06:41:10
3	Na 589.592 Radial†	-142.7	732.1	288.09 ug/L	288.09 ppb	06:40:50
3	Sr 421.552†	621.0	580.6	4.7710 ug/L	4.7710 ppb	06:40:50
3	Sc 361.383	881396.5	881396.5	100.01 %		06:42:17
3	Y 371.029	748215.4	748215.4	99.924 %		06:42:17
3	Ag 328.068†	1269.6	1010.0	4.7752 ug/L	4.7752 ppb	06:42:22
3	As 188.979†	24.9	45.6	22.718 ug/L	22.718 ppb	06:42:42
3	B 249.677†	1679.4	2067.4	52.616 ug/L	52.616 ppb	06:42:22
3	Ba 233.527†	572.8	562.7	4.9321 ug/L	4.9321 ppb	06:42:42
3	Be 313.107†	8356.9	12639.2	4.7933 ug/L	4.7933 ppb	06:42:22
3	Cd 226.502†	198.4	370.3	4.8895 ug/L	4.8895 ppb	06:42:42
3	Co 228.616†	156.6	203.3	4.9449 ug/L	4.9449 ppb	06:42:42
3	Cr 267.716†	458.7	390.5	4.7741 ug/L	4.7741 ppb	06:42:42
3	Cu 324.752†	9587.2	3258.6	9.8729 ug/L	9.8729 ppb	06:42:22
3	Mn 257.610†	8702.7	8239.1	10.051 ug/L	10.051 ppb	06:42:22
3	Mo 202.031†	117.5	103.7	8.4960 ug/L	8.4960 ppb	06:42:42
3	Ni 231.604†	250.3	154.8	4.5191 ug/L	4.5191 ppb	06:42:42
3	P 214.914†	391.6	213.3	141.80 ug/L	141.80 ppb	06:42:42
3	Pb 220.353†	14.2	64.2	9.1333 ug/L	9.1333 ppb	06:42:42
3	S 181.975 Axial†	83.0	59.7	95.159 ug/L	95.159 ppb	06:42:42
3	Sb 206.836†	46.9	19.4	7.7475 ug/L	7.7475 ppb	06:42:42
3	Se 196.026†	23.8	40.5	30.527 ug/L	30.527 ppb	06:42:42
3	Si 251.611†	3267.3	2698.2	93.419 ug/L	93.419 ppb	06:42:42
3	Sn 189.927†	48.9	42.0	8.7401 ug/L	8.7401 ppb	06:42:42
3	Ti 334.940†	1948.7	3000.5	4.8511 ug/L	4.8511 ppb	06:42:22
3	Tl 190.801†	32.4	66.2	23.829 ug/L	23.829 ppb	06:42:42
3	U 409.014†	-94.6	1793.8	48.722 ug/L	48.722 ppb	06:42:17
3	V 292.402†	-708.4	664.6	4.9997 ug/L	4.9997 ppb	06:42:22
3	Zn 213.857†	1506.3	881.3	9.6941 ug/L	9.6941 ppb	06:42:42
3	SiO2†	3393.1	2798.9	208.00 ug/L	208.00 ppb	06:42:58

Mean Data: PQL

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	881286.8	99.994	%	0.1542				0.15%
Sc Radial	4433.3	104	%	1.0				0.95%
Y 371.029	747951.1	99.889	%	0.2088				0.21%
Y RADIAL	4852.1	101.2	%	1.25				1.23%
Ag 328.068†	1015.9	4.7963	ug/L	0.11264	4.7963	ppb	0.11264	2.35%
QC value within limits for Ag 328.068 Recovery = 95.93%								
Al 396.153Radial†	201.5	206.49	ug/L	2.375	206.49	ppb	2.375	1.15%
QC value within limits for Al 396.153Radial Recovery = 103.24%								
As 188.979†	51.1	25.461	ug/L	2.3788	25.461	ppb	2.3788	9.34%
QC value within limits for As 188.979 Recovery = 84.87%								
B 249.677†	2054.2	52.284	ug/L	0.3075	52.284	ppb	0.3075	0.59%
QC value within limits for B 249.677 Recovery = 104.57%								
Ba 233.527†	562.5	4.9290	ug/L	0.09823	4.9290	ppb	0.09823	1.99%
QC value within limits for Ba 233.527 Recovery = 98.58%								
Be 313.107†	12664.2	4.8028	ug/L	0.02254	4.8028	ppb	0.02254	0.47%
QC value within limits for Be 313.107 Recovery = 96.06%								
Ca 317.933Radial†	105.4	208.84	ug/L	9.479	208.84	ppb	9.479	4.54%

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   QC value within limits for Ca 317.933Radial  Recovery = 104.42%
Cd 226.502†              363.9      4.8073 ug/L       0.07493      4.8073 ppb        0.07493   1.56%
   QC value within limits for Cd 226.502  Recovery = 96.15%
Co 228.616†              199.6      4.8560 ug/L       0.10335      4.8560 ppb        0.10335   2.13%
   QC value within limits for Co 228.616  Recovery = 97.12%
Cr 267.716†              405.2      4.9512 ug/L       0.15523      4.9512 ppb        0.15523   3.14%
   QC value within limits for Cr 267.716  Recovery = 99.02%
Cu 324.752†             3263.0      9.8860 ug/L       0.25438      9.8860 ppb        0.25438   2.57%
   QC value within limits for Cu 324.752  Recovery = 98.86%
Fe 238.204 Radial†         9.6      116.07 ug/L        25.743      116.07 ppb         25.743  22.18%
   QC value within limits for Fe 238.204 Radial  Recovery = 116.07%
K 766.490 Radial†        612.3      115.66 ug/L         4.717      115.66 ppb          4.717   4.08%
   QC value within limits for K 766.490 Radial  Recovery = 77.11%
Mg 279.077 IEC†            7.6      323.74 ug/L        64.944      323.74 ppb         64.944  20.06%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.91%
Mn 257.610†             8226.7      10.031 ug/L        0.0294      10.031 ppb         0.0294   0.29%
   QC value within limits for Mn 257.610  Recovery = 100.31%
Mo 202.031†              107.8      8.8352 ug/L       0.50320      8.8352 ppb        0.50320   5.70%
   QC value within limits for Mo 202.031  Recovery = 88.35%
Na 589.592 Radial†       792.1      311.70 ug/L        23.959      311.70 ppb         23.959   7.69%
   QC value within limits for Na 589.592 Radial  Recovery = 103.90%
Ni 231.604†              163.4      4.7730 ug/L       0.22333      4.7730 ppb        0.22333   4.68%
   QC value within limits for Ni 231.604  Recovery = 95.46%
P 214.914†               206.7      137.42 ug/L         4.077      137.42 ppb          4.077   2.97%
   QC value within limits for P 214.914  Recovery = 91.61%
Pb 220.353†               72.3      10.290 ug/L        1.0537      10.290 ppb         1.0537  10.24%
   QC value within limits for Pb 220.353  Recovery = 102.90%
S 181.975 Axial†          63.4      100.92 ug/L         7.342      100.92 ppb          7.342   7.28%
   QC value within limits for S 181.975 Axial  Recovery = 100.92%
Sb 206.836†               18.3      7.3622 ug/L       1.29224      7.3622 ppb        1.29224  17.55%
   QC value within limits for Sb 206.836  Recovery = 73.62%
Se 196.026†               43.6      32.788 ug/L        3.0481      32.788 ppb         3.0481   9.30%
   QC value within limits for Se 196.026  Recovery = 109.29%
Si 251.611†             2702.1      93.549 ug/L        0.1800      93.549 ppb         0.1800   0.19%
   QC value within limits for Si 251.611  Recovery = 93.55%
Sn 189.927†               47.0      9.7903 ug/L       0.94780      9.7903 ppb        0.94780   9.68%
   QC value within limits for Sn 189.927  Recovery = 97.90%
Sr 421.552†              580.9      4.7735 ug/L       0.05220      4.7735 ppb        0.05220   1.09%
   QC value within limits for Sr 421.552  Recovery = 95.47%
Ti 334.940†             3011.0      4.8618 ug/L       0.08024      4.8618 ppb        0.08024   1.65%
   QC value within limits for Ti 334.940  Recovery = 97.24%
Tl 190.801†               64.5      23.221 ug/L        0.5515      23.221 ppb         0.5515   2.37%
   QC value within limits for Tl 190.801  Recovery = 116.11%
U 409.014†              1726.6      46.899 ug/L        4.0973      46.899 ppb         4.0973   8.74%
   QC value within limits for U 409.014  Recovery = 93.80%
V 292.402†               637.3      4.8088 ug/L       0.16677      4.8088 ppb        0.16677   3.47%
   QC value within limits for V 292.402  Recovery = 96.18%
Zn 213.857†              890.8      9.8012 ug/L       0.09293      9.8012 ppb        0.09293   0.95%
   QC value within limits for Zn 213.857  Recovery = 98.01%
SiO2†                   2789.0      207.26 ug/L         1.978      207.26 ppb          1.978   0.95%
   QC value within limits for SiO2  Recovery = 97.31%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: ICSA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 3/24/2010 06:45:25
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3966.7	3966.7	93.3	%			06:47:24
1	Y RADIAL	4280.5	4280.5	89.29	%			06:47:24
1	Al 396.153Radial†	476980.5	511245.1	524890	ug/L	524890	ppb	06:47:19
1	Ca 317.933Radial†	230431.1	246931.2	489400	ug/L	489400	ppb	06:47:19
1	Fe 238.204 Radial†	14715.3	15764.0	190430	ug/L	190430	ppb	06:47:24
1	K 766.490 Radial†	2439.8	-92.9	-181.28	ug/L	-181.28	ppb	06:47:24
1	Mg 279.077 IEC†	10955.9	11740.6	499330	ug/L	499330	ppb	06:47:24
1	Na 589.592 Radial†	-747.6	69.0	27.132	ug/L	27.132	ppb	06:47:24
1	Sr 421.552†	425.9	436.5	-0.0663	ug/L	-0.0663	ppb	06:47:24
1	Sc 361.383	754518.0	754518.0	85.610	%			06:47:51
1	Y 371.029	626659.8	626659.8	83.691	%			06:47:51
1	Ag 328.068†	-9123.0	-10916.0	0.8725	ug/L	0.8725	ppb	06:47:51
1	As 188.979†	-63.5	-53.6	17.792	ug/L	17.792	ppb	06:48:11
1	B 249.677†	246.5	676.0	-13.713	ug/L	-13.713	ppb	06:47:51
1	Ba 233.527†	-532.3	-631.8	0.3019	ug/L	0.3019	ppb	06:48:11
1	Be 313.107†	-4479.1	-949.2	-0.4152	ug/L	-0.4152	ppb	06:47:51
1	Cd 226.502†	1107.6	1465.6	-0.3015	ug/L	-0.3015	ppb	06:48:11
1	Co 228.616†	5.2	52.8	-1.4570	ug/L	-1.4570	ppb	06:48:11
1	Cr 267.716†	-1287.7	-1572.3	0.9712	ug/L	0.9712	ppb	06:48:11
1	Cu 324.752†	3154.0	-2643.9	2.0354	ug/L	2.0354	ppb	06:48:11
1	Mn 257.610†	-1436.2	-2140.6	-4.2264	ug/L	-4.2264	ppb	06:47:51
1	Mo 202.031†	-193.2	-239.5	1.0094	ug/L	1.0094	ppb	06:48:11
1	Ni 231.604†	184.2	119.6	3.4951	ug/L	3.4951	ppb	06:48:11
1	P 214.914†	186.4	39.5	4.9273	ug/L	4.9273	ppb	06:48:11
1	Pb 220.353†	-706.4	-775.1	-13.892	ug/L	-13.892	ppb	06:48:11
1	S 181.975 Axial†	45.4	29.8	-50.838	ug/L	-50.838	ppb	06:48:11
1	Sb 206.836†	63.5	46.7	0.1423	ug/L	0.1423	ppb	06:48:11
1	Se 196.026†	-845.5	-971.0	-5.6337	ug/L	-5.6337	ppb	06:48:11
1	Si 251.611†	362.4	-145.5	-4.8027	ug/L	-4.8027	ppb	06:48:11
1	Sn 189.927†	-326.2	-387.9	-4.5004	ug/L	-4.5004	ppb	06:48:11
1	Ti 334.940†	-13925.6	-15214.3	0.1618	ug/L	0.1618	ppb	06:47:51
1	Tl 190.801†	-66.8	-44.3	-16.162	ug/L	-16.162	ppb	06:48:11
1	U 409.014†	-599.2	1188.4	10.630	ug/L	10.630	ppb	06:47:51
1	V 292.402†	359.1	1792.4	-5.2992	ug/L	-5.2992	ppb	06:48:11
1	Zn 213.857†	2709.3	2539.9	-0.3906	ug/L	-0.3906	ppb	06:48:11
1	SiO2†	461.6	-54.8	-3.5462	ug/L	-3.5462	ppb	06:49:08
2	Sc Radial	3981.8	3981.8	93.7	%			06:47:34
2	Y RADIAL	4290.3	4290.3	89.49	%			06:47:34
2	Al 396.153Radial†	472790.5	504828.3	518300	ug/L	518300	ppb	06:47:29
2	Ca 317.933Radial†	228361.3	243782.5	483160	ug/L	483160	ppb	06:47:29
2	Fe 238.204 Radial†	14708.6	15696.8	189620	ug/L	189620	ppb	06:47:34
2	K 766.490 Radial†	2472.4	-68.1	-174.50	ug/L	-174.50	ppb	06:47:34
2	Mg 279.077 IEC†	10986.0	11728.1	498800	ug/L	498800	ppb	06:47:34
2	Na 589.592 Radial†	-737.2	83.1	32.720	ug/L	32.720	ppb	06:47:34
2	Sr 421.552†	447.3	457.6	0.1536	ug/L	0.1536	ppb	06:47:34
2	Sc 361.383	750601.9	750601.9	85.166	%			06:48:17
2	Y 371.029	623632.4	623632.4	83.286	%			06:48:17
2	Ag 328.068†	-8954.0	-10773.1	1.3794	ug/L	1.3794	ppb	06:48:17
2	As 188.979†	-71.0	-62.8	13.022	ug/L	13.022	ppb	06:48:37
2	B 249.677†	234.5	663.5	-13.901	ug/L	-13.901	ppb	06:48:17
2	Ba 233.527†	-505.4	-603.4	0.5251	ug/L	0.5251	ppb	06:48:37
2	Be 313.107†	-4494.3	-994.4	-0.4333	ug/L	-0.4333	ppb	06:48:17
2	Cd 226.502†	1139.3	1509.6	0.3639	ug/L	0.3639	ppb	06:48:37
2	Co 228.616†	12.5	61.4	-1.2351	ug/L	-1.2351	ppb	06:48:37
2	Cr 267.716†	-1334.6	-1635.2	0.1167	ug/L	0.1167	ppb	06:48:37
2	Cu 324.752†	3126.0	-2657.6	1.9510	ug/L	1.9510	ppb	06:48:37
2	Mn 257.610†	-1209.0	-1882.7	-3.9704	ug/L	-3.9704	ppb	06:48:17
2	Mo 202.031†	-196.2	-244.2	0.4833	ug/L	0.4833	ppb	06:48:37
2	Ni 231.604†	202.7	142.5	4.1634	ug/L	4.1634	ppb	06:48:37

2	P 214.914†	146.6	-6.1	-26.833 ug/L	-26.833 ppb	06:48:37
2	Pb 220.353†	-687.7	-757.5	-12.823 ug/L	-12.823 ppb	06:48:37
2	S 181.975 Axial†	26.4	7.8	-84.734 ug/L	-84.734 ppb	06:48:37
2	Sb 206.836†	58.8	41.6	-1.7358 ug/L	-1.7358 ppb	06:48:37
2	Se 196.026†	-879.7	-1016.3	-43.669 ug/L	-43.669 ppb	06:48:37
2	Si 251.611†	413.4	-83.5	-2.6494 ug/L	-2.6494 ppb	06:48:37
2	Sn 189.927†	-348.2	-415.8	-11.356 ug/L	-11.356 ppb	06:48:37
2	Ti 334.940†	-14095.4	-15498.5	-1.0926 ug/L	-1.0926 ppb	06:48:17
2	Tl 190.801†	-60.3	-37.0	-13.547 ug/L	-13.547 ppb	06:48:37
2	U 409.014†	-593.7	1191.3	10.801 ug/L	10.801 ppb	06:48:17
2	V 292.402†	368.8	1806.0	-5.0980 ug/L	-5.0980 ppb	06:48:37
2	Zn 213.857†	2732.0	2583.0	0.2040 ug/L	0.2040 ppb	06:48:37
2	SiO2†	407.9	-115.1	-8.0196 ug/L	-8.0196 ppb	06:49:13
3	Sc Radial	4011.6	4011.6	94.4 %		06:47:45
3	Y RADIAL	4348.3	4348.3	90.70 %		06:47:45
3	Al 396.153Radial†	475234.6	503665.7	517110 ug/L	517110 ppb	06:47:40
3	Ca 317.933Radial†	230160.6	243876.6	483350 ug/L	483350 ppb	06:47:40
3	Fe 238.204 Radial†	14807.5	15684.9	189480 ug/L	189480 ppb	06:47:45
3	K 766.490 Radial†	2513.8	-43.9	-169.98 ug/L	-169.98 ppb	06:47:45
3	Mg 279.077 IEC†	11042.5	11700.8	497640 ug/L	497640 ppb	06:47:45
3	Na 589.592 Radial†	-754.4	70.8	27.849 ug/L	27.849 ppb	06:47:45
3	Sr 421.552†	430.3	436.0	-0.0249 ug/L	-0.0249 ppb	06:47:45
3	Sc 361.383	745954.4	745954.4	84.639 %		06:48:42
3	Y 371.029	619521.6	619521.6	82.737 %		06:48:42
3	Ag 328.068†	-9011.6	-10906.7	0.7031 ug/L	0.7031 ppb	06:48:42
3	As 188.979†	-60.8	-51.2	18.777 ug/L	18.777 ppb	06:49:02
3	B 249.677†	269.5	706.5	-12.779 ug/L	-12.779 ppb	06:48:42
3	Ba 233.527†	-553.4	-663.9	-0.0078 ug/L	-0.0078 ppb	06:49:02
3	Be 313.107†	-4538.0	-1078.8	-0.4633 ug/L	-0.4633 ppb	06:48:42
3	Cd 226.502†	1097.9	1469.0	-0.1570 ug/L	-0.1570 ppb	06:49:02
3	Co 228.616†	-5.2	40.5	-1.7420 ug/L	-1.7420 ppb	06:49:02
3	Cr 267.716†	-1301.8	-1606.2	0.4554 ug/L	0.4554 ppb	06:49:02
3	Cu 324.752†	3155.3	-2600.1	2.1177 ug/L	2.1177 ppb	06:49:02
3	Mn 257.610†	-1367.2	-2078.3	-4.1756 ug/L	-4.1756 ppb	06:48:42
3	Mo 202.031†	-192.9	-241.8	0.6752 ug/L	0.6752 ppb	06:49:02
3	Ni 231.604†	203.5	144.9	4.2338 ug/L	4.2338 ppb	06:49:02
3	P 214.914†	167.3	19.4	-9.7609 ug/L	-9.7609 ppb	06:49:02
3	Pb 220.353†	-657.8	-727.1	-8.7657 ug/L	-8.7657 ppb	06:49:02
3	S 181.975 Axial†	40.9	25.1	-56.958 ug/L	-56.958 ppb	06:49:02
3	Sb 206.836†	32.5	10.8	-13.393 ug/L	-13.393 ppb	06:49:02
3	Se 196.026†	-849.0	-986.4	-22.303 ug/L	-22.303 ppb	06:49:02
3	Si 251.611†	428.7	-62.3	-1.9174 ug/L	-1.9174 ppb	06:49:02
3	Sn 189.927†	-314.2	-378.1	-3.4898 ug/L	-3.4898 ppb	06:49:02
3	Ti 334.940†	-13551.2	-14958.7	-0.0973 ug/L	-0.0973 ppb	06:48:42
3	Tl 190.801†	-59.4	-36.4	-13.324 ug/L	-13.324 ppb	06:49:02
3	U 409.014†	-581.8	1201.0	11.082 ug/L	11.082 ppb	06:48:42
3	V 292.402†	364.5	1803.6	-5.1142 ug/L	-5.1142 ppb	06:49:02
3	Zn 213.857†	2752.4	2627.1	0.7135 ug/L	0.7135 ppb	06:49:02
3	SiO2†	423.1	-94.1	-6.4657 ug/L	-6.4657 ppb	06:49:18

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	750358.1	85.138	%	0.4864				0.57%
Sc Radial	3986.7	93.8	%	0.54				0.57%
Y 371.029	623271.3	83.238	%	0.4785				0.57%
Y RADIAL	4306.4	89.83	%	0.764				0.85%
Ag 328.068†	-10865.3	0.9850	ug/L	0.35194	0.9850	ppb	0.35194	35.73%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	506579.7	520100	ug/L	4190.9	520100	ppb	4190.9	0.81%
QC value within limits for Al 396.153Radial Recovery = 104.02%								
As 188.979†	-55.8	16.530	ug/L	3.0775	16.530	ppb	3.0775	18.62%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	682.0	-13.464	ug/L	0.6008	-13.464	ppb	0.6008	4.46%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-633.1	0.2731	ug/L	0.26764	0.2731	ppb	0.26764	98.01%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-1007.5	-0.4372	ug/L	0.02429	-0.4372	ppb	0.02429	5.55%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	244863.4	485310	ug/L	3550.3	485310	ppb	3550.3	0.73%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.06%
Cd 226.502†            1481.4     -0.0315 ug/L       0.35001     -0.0315 ppb        0.35001 >999.9%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†              51.6     -1.4781 ug/L       0.25413     -1.4781 ppb        0.25413  17.19%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†           -1604.6      0.5144 ug/L       0.43028      0.5144 ppb        0.43028  83.64%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†           -2633.8      2.0347 ug/L       0.08336      2.0347 ppb        0.08336   4.10%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†    15715.2      189850 ug/L         515.0      189850 ppb          515.0   0.27%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.92%
K 766.490 Radial†        -68.3     -175.25 ug/L         5.689     -175.25 ppb          5.689   3.25%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†       11723.1      498590 ug/L         865.7      498590 ppb          865.7   0.17%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.72%
Mn 257.610†           -2033.9     -4.1241 ug/L       0.13559     -4.1241 ppb        0.13559   3.29%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†            -241.8      0.7226 ug/L       0.26621      0.7226 ppb        0.26621  36.84%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       74.3      29.234 ug/L        3.0402      29.234 ppb         3.0402  10.40%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             135.7      3.9641 ug/L       0.40770      3.9641 ppb        0.40770  10.28%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               17.6     -10.556 ug/L       15.8952     -10.556 ppb        15.8952 150.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†            -753.2     -11.827 ug/L        2.7043     -11.827 ppb         2.7043  22.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         20.9     -64.177 ug/L       18.0643     -64.177 ppb        18.0643  28.15%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              33.0     -4.9956 ug/L       7.33290     -4.9956 ppb        7.33290 146.79%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†            -991.2     -23.868 ug/L       19.0658     -23.868 ppb        19.0658  79.88%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†             -97.1     -3.1232 ug/L       1.49989     -3.1232 ppb        1.49989  48.02%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†            -393.9     -6.4486 ug/L       4.27956     -6.4486 ppb        4.27956  66.36%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             443.4      0.0208 ug/L       0.11687      0.0208 ppb        0.11687 561.67%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†          -15223.8     -0.3427 ug/L       0.66219     -0.3427 ppb        0.66219 193.23%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†             -39.3     -14.345 ug/L        1.5783     -14.345 ppb         1.5783  11.00%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†             1193.6      10.838 ug/L        0.2283      10.838 ppb         0.2283   2.11%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             1800.7     -5.1705 ug/L       0.11179     -5.1705 ppb        0.11179   2.16%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†            2583.3      0.1756 ug/L       0.55260      0.1756 ppb        0.55260 314.62%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                   -88.0     -6.0105 ug/L       2.27118     -6.0105 ppb        2.27118  37.79%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 14
Date Collected: 3/24/2010 06:51:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	3979.6	3979.6	93.6	%			06:53:42
1	Y RADIAL	4340.2	4340.2	90.53	%			06:53:42
1	Al 396.153Radial†	485010.5	518158.7	531960	ug/L	531960	ppb	06:53:22
1	Ca 317.933Radial†	231944.7	247744.1	491020	ug/L	491020	ppb	06:53:22
1	Fe 238.204 Radial†	14519.9	15503.9	187310	ug/L	187310	ppb	06:53:42
1	K 766.490 Radial†	29202.0	28485.6	5223.2	ug/L	5223.2	ppb	06:53:22
1	Mg 279.077 IEC†	10927.4	11671.9	496420	ug/L	496420	ppb	06:53:42
1	Na 589.592 Radial†	12453.2	14172.6	5576.9	ug/L	5576.9	ppb	06:53:42
1	Sr 421.552†	57137.6	61013.9	497.87	ug/L	497.87	ppb	06:53:22
1	Sc 361.383	758836.3	758836.3	86.100	%			06:54:40
1	Y 371.029	628869.3	628869.3	83.986	%			06:54:40
1	Ag 328.068†	39800.1	45965.8	269.28	ug/L	269.28	ppb	06:54:40
1	As 188.979†	793.3	942.0	515.51	ug/L	515.51	ppb	06:55:00
1	B 249.677†	17452.6	20658.2	494.44	ug/L	494.44	ppb	06:54:40
1	Ba 233.527†	46787.0	54330.1	481.55	ug/L	481.55	ppb	06:54:40
1	Be 313.107†	537692.2	628778.1	239.00	ug/L	239.00	ppb	06:54:40
1	Cd 226.502†	30442.9	35529.3	450.38	ug/L	450.38	ppb	06:55:00
1	Co 228.616†	15668.9	18245.2	440.37	ug/L	440.37	ppb	06:55:00
1	Cr 267.716†	31997.4	37094.8	473.57	ug/L	473.57	ppb	06:54:40
1	Cu 324.752†	157493.1	176590.2	545.73	ug/L	545.73	ppb	06:54:40
1	Mn 257.610†	330638.5	383552.6	465.95	ug/L	465.95	ppb	06:54:40
1	Mo 202.031†	4802.3	5563.7	475.63	ug/L	475.63	ppb	06:55:00
1	Ni 231.604†	13180.6	15212.9	444.25	ug/L	444.25	ppb	06:55:00
1	P 214.914†	3278.5	3629.5	2325.2	ug/L	2325.2	ppb	06:55:00
1	Pb 220.353†	2042.3	2422.0	441.64	ug/L	441.64	ppb	06:55:00
1	S 181.975 Axial†	1398.7	1601.3	2452.1	ug/L	2452.1	ppb	06:55:00
1	Sb 206.836†	1200.6	1366.8	524.86	ug/L	524.86	ppb	06:55:00
1	Se 196.026†	2002.3	2342.2	2446.7	ug/L	2446.7	ppb	06:55:00
1	Si 251.611†	127376.4	147370.8	5102.4	ug/L	5102.4	ppb	06:54:40
1	Sn 189.927†	1667.9	1930.2	477.11	ug/L	477.11	ppb	06:55:00
1	Ti 334.940†	254214.3	296305.8	505.41	ug/L	505.41	ppb	06:54:40
1	Tl 190.801†	997.7	1192.5	431.65	ug/L	431.65	ppb	06:55:00
1	U 409.014†	14482.0	18708.3	486.05	ug/L	486.05	ppb	06:54:40
1	V 292.402†	59043.9	69948.6	495.22	ug/L	495.22	ppb	06:54:40
1	Zn 213.857†	40367.7	46259.7	480.56	ug/L	480.56	ppb	06:54:40
1	SiO2†	127080.7	147002.1	10924	ug/L	10924	ppb	06:55:58
2	Sc Radial	3991.4	3991.4	93.9	%			06:54:08
2	Y RADIAL	4326.1	4326.1	90.24	%			06:54:08
2	Al 396.153Radial†	475492.2	506494.2	519990	ug/L	519990	ppb	06:53:47
2	Ca 317.933Radial†	227957.5	242767.2	481150	ug/L	481150	ppb	06:53:47
2	Fe 238.204 Radial†	14531.5	15470.5	186900	ug/L	186900	ppb	06:54:08
2	K 766.490 Radial†	28825.6	27992.8	5133.2	ug/L	5133.2	ppb	06:53:47
2	Mg 279.077 IEC†	10950.3	11661.9	495990	ug/L	495990	ppb	06:54:08
2	Na 589.592 Radial†	12540.6	14226.4	5598.1	ug/L	5598.1	ppb	06:54:08
2	Sr 421.552†	55934.0	59552.1	485.93	ug/L	485.93	ppb	06:53:47
2	Sc 361.383	761966.1	761966.1	86.455	%			06:55:06
2	Y 371.029	632054.1	632054.1	84.411	%			06:55:06
2	Ag 328.068†	40080.1	46099.8	269.92	ug/L	269.92	ppb	06:55:06
2	As 188.979†	771.1	912.6	500.77	ug/L	500.77	ppb	06:55:26
2	B 249.677†	17565.7	20705.7	495.73	ug/L	495.73	ppb	06:55:06
2	Ba 233.527†	46982.5	54333.0	481.56	ug/L	481.56	ppb	06:55:06
2	Be 313.107†	540002.6	628885.5	239.04	ug/L	239.04	ppb	06:55:06
2	Cd 226.502†	30235.6	35144.3	445.33	ug/L	445.33	ppb	06:55:26
2	Co 228.616†	15548.7	18031.3	435.18	ug/L	435.18	ppb	06:55:26
2	Cr 267.716†	31924.6	36857.9	470.64	ug/L	470.64	ppb	06:55:06
2	Cu 324.752†	158381.6	176866.5	546.55	ug/L	546.55	ppb	06:55:06
2	Mn 257.610†	331112.2	382523.2	464.67	ug/L	464.67	ppb	06:55:06
2	Mo 202.031†	4805.4	5544.4	473.90	ug/L	473.90	ppb	06:55:26
2	Ni 231.604†	13115.9	15075.2	440.23	ug/L	440.23	ppb	06:55:26

2	P 214.914†	3274.5	3609.2	2308.6 ug/L	2308.6 ppb	06:55:26
2	Pb 220.353†	2075.2	2450.3	442.90 ug/L	442.90 ppb	06:55:26
2	S 181.975 Axial†	1403.1	1599.6	2451.7 ug/L	2451.7 ppb	06:55:26
2	Sb 206.836†	1200.5	1361.0	522.77 ug/L	522.77 ppb	06:55:26
2	Se 196.026†	1991.0	2319.6	2425.0 ug/L	2425.0 ppb	06:55:26
2	Si 251.611†	127770.4	147218.8	5097.1 ug/L	5097.1 ppb	06:55:06
2	Sn 189.927†	1638.0	1887.7	466.56 ug/L	466.56 ppb	06:55:26
2	Ti 334.940†	254885.1	295868.9	503.41 ug/L	503.41 ppb	06:55:06
2	Tl 190.801†	1009.8	1201.8	434.98 ug/L	434.98 ppb	06:55:26
2	U 409.014†	14432.2	18581.6	482.66 ug/L	482.66 ppb	06:55:06
2	V 292.402†	59146.4	69785.5	494.06 ug/L	494.06 ppb	06:55:06
2	Zn 213.857†	40412.1	46118.5	479.08 ug/L	479.08 ppb	06:55:06
2	SiO2†	127265.3	146609.4	10895 ug/L	10895 ppb	06:56:03
3	Sc Radial	3923.5	3923.5	92.3 %		06:54:33
3	Y RADIAL	4257.1	4257.1	88.80 %		06:54:33
3	Al 396.153Radial†	476995.2	516888.6	530660 ug/L	530660 ppb	06:54:13
3	Ca 317.933Radial†	228368.1	247414.6	490360 ug/L	490360 ppb	06:54:13
3	Fe 238.204 Radial†	14331.1	15521.3	187520 ug/L	187520 ppb	06:54:33
3	K 766.490 Radial†	28791.9	28487.8	5223.8 ug/L	5223.8 ppb	06:54:13
3	Mg 279.077 IEC†	10805.6	11707.0	497910 ug/L	497910 ppb	06:54:33
3	Na 589.592 Radial†	12287.0	14182.9	5581.0 ug/L	5581.0 ppb	06:54:33
3	Sr 421.552†	56081.5	60743.1	495.65 ug/L	495.65 ppb	06:54:13
3	Sc 361.383	760359.0	760359.0	86.273 %		06:55:32
3	Y 371.029	630318.1	630318.1	84.179 %		06:55:32
3	Ag 328.068†	39744.0	45808.2	268.61 ug/L	268.61 ppb	06:55:32
3	As 188.979†	807.5	956.6	522.81 ug/L	522.81 ppb	06:55:52
3	B 249.677†	17490.5	20661.6	494.49 ug/L	494.49 ppb	06:55:32
3	Ba 233.527†	46838.5	54281.0	481.13 ug/L	481.13 ppb	06:55:32
3	Be 313.107†	538901.9	628929.8	239.05 ug/L	239.05 ppb	06:55:32
3	Cd 226.502†	30437.7	35452.6	449.35 ug/L	449.35 ppb	06:55:52
3	Co 228.616†	15696.0	18240.1	440.25 ug/L	440.25 ppb	06:55:52
3	Cr 267.716†	32022.8	37049.9	473.04 ug/L	473.04 ppb	06:55:32
3	Cu 324.752†	157921.6	176720.6	546.14 ug/L	546.14 ppb	06:55:32
3	Mn 257.610†	330534.9	382663.5	464.83 ug/L	464.83 ppb	06:55:32
3	Mo 202.031†	4812.3	5564.1	475.67 ug/L	475.67 ppb	06:55:52
3	Ni 231.604†	13219.6	15227.5	444.68 ug/L	444.68 ppb	06:55:52
3	P 214.914†	3269.2	3611.1	2312.2 ug/L	2312.2 ppb	06:55:52
3	Pb 220.353†	2063.8	2442.2	444.16 ug/L	444.16 ppb	06:55:52
3	S 181.975 Axial†	1396.6	1595.5	2443.1 ug/L	2443.1 ppb	06:55:52
3	Sb 206.836†	1199.7	1363.0	523.38 ug/L	523.38 ppb	06:55:52
3	Se 196.026†	2014.7	2352.0	2454.1 ug/L	2454.1 ppb	06:55:52
3	Si 251.611†	127438.0	147145.8	5094.6 ug/L	5094.6 ppb	06:55:32
3	Sn 189.927†	1655.9	1912.4	473.30 ug/L	473.30 ppb	06:55:52
3	Ti 334.940†	254113.9	295598.1	504.05 ug/L	504.05 ppb	06:55:32
3	Tl 190.801†	998.2	1190.8	431.01 ug/L	431.01 ppb	06:55:52
3	U 409.014†	14528.7	18728.8	486.59 ug/L	486.59 ppb	06:55:32
3	V 292.402†	59090.9	69865.9	494.62 ug/L	494.62 ppb	06:55:32
3	Zn 213.857†	40421.5	46228.2	480.18 ug/L	480.18 ppb	06:55:32
3	SiO2†	126757.1	146331.4	10875 ug/L	10875 ppb	06:56:08

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	760387.1	86.276	%	0.1776				0.21%
Sc Radial	3964.8	93.3	%	0.85				0.92%
Y 371.029	630413.8	84.192	%	0.2129				0.25%
Y RADIAL	4307.8	89.86	%	0.928				1.03%
Ag 328.068†	45957.9	269.27	ug/L	0.655	269.27	ppb	0.655	0.24%
QC value within limits for Ag 328.068 Recovery = 107.71%								
Al 396.153Radial†	513847.2	527540	ug/L	6570.1	527540	ppb	6570.1	1.25%
QC value within limits for Al 396.153Radial Recovery = 105.51%								
As 188.979†	937.1	513.03	ug/L	11.228	513.03	ppb	11.228	2.19%
QC value within limits for As 188.979 Recovery = 102.61%								
B 249.677†	20675.2	494.89	ug/L	0.730	494.89	ppb	0.730	0.15%
QC value within limits for B 249.677 Recovery = 98.98%								
Ba 233.527†	54314.7	481.42	ug/L	0.248	481.42	ppb	0.248	0.05%
QC value within limits for Ba 233.527 Recovery = 96.28%								
Be 313.107†	628864.4	239.03	ug/L	0.028	239.03	ppb	0.028	0.01%
QC value within limits for Be 313.107 Recovery = 95.61%								
Ca 317.933Radial†	245975.3	487510	ug/L	5516.1	487510	ppb	5516.1	1.13%

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   QC value within limits for Ca 317.933Radial  Recovery = 97.50%
Cd 226.502†            35375.4      448.35 ug/L         2.666      448.35 ppb          2.666   0.59%
   QC value within limits for Cd 226.502  Recovery = 89.67%
Co 228.616†            18172.2      438.60 ug/L         2.960      438.60 ppb          2.960   0.67%
   QC value within limits for Co 228.616  Recovery = 87.72%
Cr 267.716†            37000.8      472.42 ug/L         1.566      472.42 ppb          1.566   0.33%
   QC value within limits for Cr 267.716  Recovery = 94.48%
Cu 324.752†           176725.8      546.14 ug/L         0.410      546.14 ppb          0.410   0.08%
   QC value within limits for Cu 324.752  Recovery = 109.23%
Fe 238.204 Radial†     15498.6      187240 ug/L         311.8      187240 ppb          311.8   0.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 93.62%
K 766.490 Radial†      28322.1      5193.4 ug/L         52.12      5193.4 ppb          52.12   1.00%
   QC value within limits for K 766.490 Radial  Recovery = 103.87%
Mg 279.077 IEC†        11680.3      496780 ug/L        1007.5      496780 ppb         1007.5   0.20%
   QC value within limits for Mg 279.077 IEC  Recovery = 99.36%
Mn 257.610†           382913.1      465.15 ug/L         0.698      465.15 ppb          0.698   0.15%
   QC value within limits for Mn 257.610  Recovery = 93.03%
Mo 202.031†             5557.4      475.06 ug/L         1.010      475.06 ppb          1.010   0.21%
   QC value within limits for Mo 202.031  Recovery = 95.01%
Na 589.592 Radial†     14193.9      5585.3 ug/L         11.23      5585.3 ppb          11.23   0.20%
   QC value within limits for Na 589.592 Radial  Recovery = 111.71%
Ni 231.604†            15171.9      443.05 ug/L         2.454      443.05 ppb          2.454   0.55%
   QC value within limits for Ni 231.604  Recovery = 88.61%
P 214.914†              3616.6      2315.3 ug/L          8.74      2315.3 ppb           8.74   0.38%
   QC value within limits for P 214.914  Recovery = 92.61%
Pb 220.353†             2438.2      442.90 ug/L         1.264      442.90 ppb          1.264   0.29%
   QC value within limits for Pb 220.353  Recovery = 88.58%
S 181.975 Axial†        1598.8      2449.0 ug/L          5.06      2449.0 ppb           5.06   0.21%
   QC value within limits for S 181.975 Axial  Recovery = 97.96%
Sb 206.836†             1363.6      523.67 ug/L         1.077      523.67 ppb          1.077   0.21%
   QC value within limits for Sb 206.836  Recovery = 104.73%
Se 196.026†             2337.9      2441.9 ug/L         15.17      2441.9 ppb          15.17   0.62%
   QC value within limits for Se 196.026  Recovery = 97.68%
Si 251.611†           147245.1      5098.0 ug/L          3.98      5098.0 ppb           3.98   0.08%
   QC value within limits for Si 251.611  Recovery = 101.96%
Sn 189.927†             1910.1      472.32 ug/L         5.346      472.32 ppb          5.346   1.13%
   QC value within limits for Sn 189.927  Recovery = 94.46%
Sr 421.552†            60436.4      493.15 ug/L         6.352      493.15 ppb          6.352   1.29%
   QC value within limits for Sr 421.552  Recovery = 98.63%
Ti 334.940†           295924.3      504.29 ug/L         1.018      504.29 ppb          1.018   0.20%
   QC value within limits for Ti 334.940  Recovery = 100.86%
Tl 190.801†             1195.0      432.55 ug/L         2.134      432.55 ppb          2.134   0.49%
   QC value within limits for Tl 190.801  Recovery = 86.51%
U 409.014†             18672.9      485.10 ug/L         2.129      485.10 ppb          2.129   0.44%
   QC value within limits for U 409.014  Recovery = 97.02%
V 292.402†             69866.7      494.63 ug/L         0.579      494.63 ppb          0.579   0.12%
   QC value within limits for V 292.402  Recovery = 98.93%
Zn 213.857†            46202.1      479.94 ug/L         0.767      479.94 ppb          0.767   0.16%
   QC value within limits for Zn 213.857  Recovery = 95.99%
SiO2†                 146647.6       10898 ug/L          25.1       10898 ppb           25.1   0.23%
   QC value within limits for SiO2  Recovery = 101.90%
All analyte(s) passed QC.
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Sequence No.: 11 **Autosampler Location: 15**
Sample ID: LR1 **Date Collected: 3/24/2010 06:58:18**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	3891.1	3891.1	91.5	%			07:00:31
1	Y RADIAL	4245.0	4245.0	88.55	%			07:00:31
1	Al 396.153Radial†	461424.8	504170.5	517630	ug/L	517630	ppb	07:00:11
1	Ca 317.933Radial†	222676.8	243251.9	482110	ug/L	482110	ppb	07:00:11
1	Fe 238.204 Radial†	32992.4	36037.3	435340	ug/L	435340	ppb	07:00:31
1	K 766.490 Radial†	2870.1	427.8	-287.02	ug/L	-287.02	ppb	07:00:11
1	Mg 279.077 IEC†	10593.2	11572.2	491910	ug/L	491910	ppb	07:00:31
1	Na 589.592 Radial†	1232225.9	1347047.6	530060	ug/L	530060	ppb	07:00:11
1	Sr 421.552†	1384.2	1492.3	8.6667	ug/L	8.6667	ppb	07:00:31
1	Sc 361.383	737751.3	737751.3	83.708	%			07:01:29
1	Y 371.029	613456.2	613456.2	81.927	%			07:01:29
1	Ag 328.068†	-20837.0	-25152.1	-1.9809	ug/L	-1.9809	ppb	07:01:29
1	As 188.979†	-147.5	-155.6	24.472	ug/L	24.472	ppb	07:01:49
1	B 249.677†	945.9	1518.1	-32.054	ug/L	-32.054	ppb	07:01:29
1	Ba 233.527†	-1436.8	-1726.5	-1.8032	ug/L	-1.8032	ppb	07:01:49
1	Be 313.107†	-10364.7	-8099.2	-3.1175	ug/L	-3.1175	ppb	07:01:29
1	Cd 226.502†	2825.0	3546.7	4.6826	ug/L	4.6826	ppb	07:01:49
1	Co 228.616†	190.2	274.0	0.3146	ug/L	0.3146	ppb	07:01:49
1	Cr 267.716†	-1166.7	-1461.9	22.598	ug/L	22.598	ppb	07:01:49
1	Cu 324.752†	793.0	-5380.7	-1.2339	ug/L	-1.2339	ppb	07:01:29
1	Mn 257.610†	-22782.3	-27679.5	-10.891	ug/L	-10.891	ppb	07:01:29
1	Mo 202.031†	-423.2	-519.4	-2.9672	ug/L	-2.9672	ppb	07:01:49
1	Ni 231.604†	276.9	235.2	6.8696	ug/L	6.8696	ppb	07:01:49
1	P 214.914†	485.3	401.4	51.393	ug/L	51.393	ppb	07:01:49
1	Pb 220.353†	-509.9	-559.1	-19.922	ug/L	-19.922	ppb	07:01:49
1	S 181.975 Axial†	60.6	49.2	-18.649	ug/L	-18.649	ppb	07:01:49
1	Sb 206.836†	44.8	26.0	-10.904	ug/L	-10.904	ppb	07:01:49
1	Se 196.026†	-2003.6	-2376.8	-346.75	ug/L	-346.75	ppb	07:01:49
1	Si 251.611†	-493.6	-1158.6	-39.633	ug/L	-39.633	ppb	07:01:49
1	Sn 189.927†	-349.2	-424.1	-27.359	ug/L	-27.359	ppb	07:01:49
1	Ti 334.940†	-12944.3	-14411.7	-5.2157	ug/L	-5.2157	ppb	07:01:29
1	Tl 190.801†	-69.2	-48.9	-17.966	ug/L	-17.966	ppb	07:01:49
1	U 409.014†	440295.4	527878.8	14296	ug/L	14296	ppb	07:01:29
1	V 292.402†	827.0	2360.9	-9.9256	ug/L	-9.9256	ppb	07:01:49
1	Zn 213.857†	4837.4	5154.1	-8.1094	ug/L	-8.1094	ppb	07:01:49
1	SiO2†	-599.8	-1310.6	-96.353	ug/L	-96.353	ppb	07:02:46
2	Sc Radial	3922.5	3922.5	92.3	%			07:00:57
2	Y RADIAL	4254.6	4254.6	88.75	%			07:00:57
2	Al 396.153Radial†	462492.6	501298.5	514680	ug/L	514680	ppb	07:00:37
2	Ca 317.933Radial†	222293.7	240892.4	477440	ug/L	477440	ppb	07:00:37
2	Fe 238.204 Radial†	33130.3	35898.6	433670	ug/L	433670	ppb	07:00:57
2	K 766.490 Radial†	2835.2	364.9	-295.79	ug/L	-295.79	ppb	07:00:37
2	Mg 279.077 IEC†	10645.7	11536.6	490400	ug/L	490400	ppb	07:00:57
2	Na 589.592 Radial†	1232742.4	1336847.4	526050	ug/L	526050	ppb	07:00:37
2	Sr 421.552†	1382.7	1478.6	8.5891	ug/L	8.5891	ppb	07:00:57
2	Sc 361.383	741065.9	741065.9	84.084	%			07:01:55
2	Y 371.029	616358.5	616358.5	82.315	%			07:01:55
2	Ag 328.068†	-20963.4	-25191.0	-2.6161	ug/L	-2.6161	ppb	07:01:55
2	As 188.979†	-160.8	-170.6	16.608	ug/L	16.608	ppb	07:02:15
2	B 249.677†	1039.1	1623.9	-29.086	ug/L	-29.086	ppb	07:01:55
2	Ba 233.527†	-1396.6	-1671.0	-1.3696	ug/L	-1.3696	ppb	07:02:15
2	Be 313.107†	-10482.6	-8184.0	-3.1507	ug/L	-3.1507	ppb	07:01:55
2	Cd 226.502†	2823.9	3530.3	4.6371	ug/L	4.6371	ppb	07:02:15
2	Co 228.616†	172.2	251.5	-0.2024	ug/L	-0.2024	ppb	07:02:15
2	Cr 267.716†	-1151.5	-1437.6	22.719	ug/L	22.719	ppb	07:02:15
2	Cu 324.752†	819.3	-5353.7	-1.2391	ug/L	-1.2391	ppb	07:01:55
2	Mn 257.610†	-23316.5	-28193.1	-11.620	ug/L	-11.620	ppb	07:01:55
2	Mo 202.031†	-412.7	-504.7	-1.9486	ug/L	-1.9486	ppb	07:02:15
2	Ni 231.604†	246.3	197.4	5.7630	ug/L	5.7630	ppb	07:02:15

2	P 214.914†	497.1	412.9	59.768	ug/L	59.768 ppb	07:02:15
2	Pb 220.353†	-501.2	-546.0	-18.540	ug/L	-18.540 ppb	07:02:15
2	S 181.975 Axial†	52.0	38.6	-34.956	ug/L	-34.956 ppb	07:02:15
2	Sb 206.836†	20.9	-2.7	-21.781	ug/L	-21.781 ppb	07:02:15
2	Se 196.026†	-2029.6	-2397.1	-367.52	ug/L	-367.52 ppb	07:02:15
2	Si 251.611†	-470.6	-1128.6	-38.610	ug/L	-38.610 ppb	07:02:15
2	Sn 189.927†	-336.7	-407.4	-24.629	ug/L	-24.629 ppb	07:02:15
2	Ti 334.940†	-13265.0	-14723.9	-6.2246	ug/L	-6.2246 ppb	07:01:55
2	Tl 190.801†	-103.3	-89.1	-32.420	ug/L	-32.420 ppb	07:02:15
2	U 409.014†	442196.7	527787.3	14294	ug/L	14294 ppb	07:01:55
2	V 292.402†	836.1	2367.3	-9.6519	ug/L	-9.6519 ppb	07:02:15
2	Zn 213.857†	4843.0	5134.9	-8.0638	ug/L	-8.0638 ppb	07:02:15
2	SiO2†	-602.4	-1310.4	-96.371	ug/L	-96.371 ppb	07:02:51
3	Sc Radial	3902.1	3902.1	91.8	%		07:01:22
3	Y RADIAL	4257.0	4257.0	88.80	%		07:01:22
3	Al 396.153Radial†	462631.7	504067.3	517520	ug/L	517520 ppb	07:01:02
3	Ca 317.933Radial†	222252.0	242104.9	479840	ug/L	479840 ppb	07:01:02
3	Fe 238.204 Radial†	33098.7	36051.7	435520	ug/L	435520 ppb	07:01:22
3	K 766.490 Radial†	2911.1	463.7	-279.05	ug/L	-279.05 ppb	07:01:02
3	Mg 279.077 IEC†	10648.9	11600.3	493110	ug/L	493110 ppb	07:01:22
3	Na 589.592 Radial†	1233196.0	1344317.5	528990	ug/L	528990 ppb	07:01:02
3	Sr 421.552†	1366.3	1468.5	8.4881	ug/L	8.4881 ppb	07:01:22
3	Sc 361.383	736902.7	736902.7	83.612	%		07:02:21
3	Y 371.029	612494.5	612494.5	81.799	%		07:02:21
3	Ag 328.068†	-20799.8	-25136.2	-1.8076	ug/L	-1.8076 ppb	07:02:21
3	As 188.979†	-145.9	-153.9	25.369	ug/L	25.369 ppb	07:02:41
3	B 249.677†	885.7	1447.4	-33.883	ug/L	-33.883 ppb	07:02:21
3	Ba 233.527†	-1457.3	-1753.0	-2.0295	ug/L	-2.0295 ppb	07:02:41
3	Be 313.107†	-10420.4	-8180.1	-3.1496	ug/L	-3.1496 ppb	07:02:21
3	Cd 226.502†	2814.3	3537.8	4.5435	ug/L	4.5435 ppb	07:02:41
3	Co 228.616†	191.0	275.2	0.3474	ug/L	0.3474 ppb	07:02:41
3	Cr 267.716†	-1176.3	-1475.0	22.463	ug/L	22.463 ppb	07:02:41
3	Cu 324.752†	710.5	-5478.3	-1.5121	ug/L	-1.5121 ppb	07:02:21
3	Mn 257.610†	-23175.3	-28180.9	-11.534	ug/L	-11.534 ppb	07:02:21
3	Mo 202.031†	-402.8	-495.7	-1.0398	ug/L	-1.0398 ppb	07:02:41
3	Ni 231.604†	256.6	211.4	6.1730	ug/L	6.1730 ppb	07:02:41
3	P 214.914†	491.6	409.6	56.798	ug/L	56.798 ppb	07:02:41
3	Pb 220.353†	-492.7	-539.2	-17.170	ug/L	-17.170 ppb	07:02:41
3	S 181.975 Axial†	46.9	32.8	-44.708	ug/L	-44.708 ppb	07:02:41
3	Sb 206.836†	51.5	34.1	-7.8067	ug/L	-7.8067 ppb	07:02:41
3	Se 196.026†	-2009.9	-2387.1	-353.92	ug/L	-353.92 ppb	07:02:41
3	Si 251.611†	-480.8	-1143.9	-39.151	ug/L	-39.151 ppb	07:02:41
3	Sn 189.927†	-357.7	-434.7	-29.991	ug/L	-29.991 ppb	07:02:41
3	Ti 334.940†	-13281.3	-14832.5	-6.2936	ug/L	-6.2936 ppb	07:02:21
3	Tl 190.801†	-92.9	-77.3	-28.197	ug/L	-28.197 ppb	07:02:41
3	U 409.014†	439293.9	527286.7	14280	ug/L	14280 ppb	07:02:21
3	V 292.402†	849.9	2389.5	-9.7236	ug/L	-9.7236 ppb	07:02:41
3	Zn 213.857†	4826.0	5147.1	-8.2077	ug/L	-8.2077 ppb	07:02:41
3	SiO2†	-492.2	-1182.7	-86.887	ug/L	-86.887 ppb	07:02:56

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	738573.3	83.801	%	0.2496				0.30%
Sc Radial	3905.2	91.9	%	0.37				0.41%
Y 371.029	614103.1	82.014	%	0.2686				0.33%
Y RADIAL	4252.2	88.70	%	0.133				0.15%
Ag 328.068†	-25159.8	-2.1349	ug/L	0.42563	-2.1349	ppb	0.42563	19.94%
Al 396.153Radial†	503178.8	516610	ug/L	1672.7	516610	ppb	1672.7	0.32%
QC value within limits for Al 396.153Radial Recovery = 103.32%								
As 188.979†	-160.0	22.150	ug/L	4.8200	22.150	ppb	4.8200	21.76%
B 249.677†	1529.8	-31.674	ug/L	2.4212	-31.674	ppb	2.4212	7.64%
Ba 233.527†	-1716.9	-1.7341	ug/L	0.33530	-1.7341	ppb	0.33530	19.34%
Be 313.107†	-8154.4	-3.1393	ug/L	0.01888	-3.1393	ppb	0.01888	0.60%
Ca 317.933Radial†	242083.1	479800	ug/L	2338.6	479800	ppb	2338.6	0.49%
QC value within limits for Ca 317.933Radial Recovery = 95.96%								
Cd 226.502†	3538.3	4.6211	ug/L	0.07092	4.6211	ppb	0.07092	1.53%
Co 228.616†	266.9	0.1532	ug/L	0.30840	0.1532	ppb	0.30840	201.30%
Cr 267.716†	-1458.2	22.594	ug/L	0.1280	22.594	ppb	0.1280	0.57%
Cu 324.752†	-5404.2	-1.3284	ug/L	0.15911	-1.3284	ppb	0.15911	11.98%

Fe 238.204 Radial†	35995.9	434840	ug/L	1020.8	434840	ppb	1020.8	0.23%
QC value less than the lower limit for Fe 238.204 Radial Recovery = 86.97%								
K 766.490 Radial†	418.8	-287.29	ug/L	8.371	-287.29	ppb	8.371	2.91%
Mg 279.077 IEC†	11569.7	491810	ug/L	1356.9	491810	ppb	1356.9	0.28%
QC value within limits for Mg 279.077 IEC Recovery = 98.36%								
Mn 257.610†	-28017.8	-11.348	ug/L	0.3987	-11.348	ppb	0.3987	3.51%
Mo 202.031†	-506.6	-1.9852	ug/L	0.96423	-1.9852	ppb	0.96423	48.57%
Na 589.592 Radial†	1342737.5	528370	ug/L	2077.9	528370	ppb	2077.9	0.39%
QC value within limits for Na 589.592 Radial Recovery = 105.67%								
Ni 231.604†	214.7	6.2685	ug/L	0.55949	6.2685	ppb	0.55949	8.93%
P 214.914†	408.0	55.986	ug/L	4.2462	55.986	ppb	4.2462	7.58%
Pb 220.353†	-548.1	-18.544	ug/L	1.3759	-18.544	ppb	1.3759	7.42%
S 181.975 Axial†	40.2	-32.771	ug/L	13.1660	-32.771	ppb	13.1660	40.18%
Sb 206.836†	19.1	-13.497	ug/L	7.3394	-13.497	ppb	7.3394	54.38%
Se 196.026†	-2387.0	-356.07	ug/L	10.552	-356.07	ppb	10.552	2.96%
Si 251.611†	-1143.7	-39.132	ug/L	0.5120	-39.132	ppb	0.5120	1.31%
Sn 189.927†	-422.0	-27.326	ug/L	2.6808	-27.326	ppb	2.6808	9.81%
Sr 421.552†	1479.8	8.5813	ug/L	0.08957	8.5813	ppb	0.08957	1.04%
Ti 334.940†	-14656.1	-5.9113	ug/L	0.60338	-5.9113	ppb	0.60338	10.21%
Tl 190.801†	-71.8	-26.194	ug/L	7.4322	-26.194	ppb	7.4322	28.37%
U 409.014†	527650.9	14290	ug/L	8.7	14290	ppb	8.7	0.06%
QC value within limits for U 409.014 Recovery = 95.27%								
V 292.402†	2372.5	-9.7670	ug/L	0.14192	-9.7670	ppb	0.14192	1.45%
Zn 213.857†	5145.4	-8.1270	ug/L	0.07350	-8.1270	ppb	0.07350	0.90%
SiO2†	-1267.9	-93.204	ug/L	5.4707	-93.204	ppb	5.4707	5.87%

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: LR2
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 16
Date Collected: 3/24/2010 07:05:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4401.8	4401.8	104	%			07:07:04
1	Y RADIAL	4745.7	4745.7	98.99	%			07:07:04
1	Al 396.153Radial†	382.2	444.0	11.427	ug/L	11.427	ppb	07:07:04
1	Ca 317.933Radial†	30.6	12.5	24.710	ug/L	24.710	ppb	07:07:24
1	Fe 238.204 Radial†	-14.1	-19.8	42.247	ug/L	42.247	ppb	07:07:24
1	K 766.490 Radial†	1548644.4	1492862.4	282480	ug/L	282480	ppb	07:06:59
1	Mg 279.077 IEC†	-5.7	-6.1	-164.45	ug/L	-164.45	ppb	07:07:24
1	Na 589.592 Radial†	-345.6	536.4	211.07	ug/L	211.07	ppb	07:07:04
1	Sr 421.552†	1182756.6	1142201.8	9389.0	ug/L	9389.0	ppb	07:06:59
1	Sc 361.383	846869.9	846869.9	96.089	%			07:08:41
1	Y 371.029	702359.0	702359.0	93.800	%			07:08:41
1	Ag 328.068†	-5913.2	-6413.4	9.3045	ug/L	9.3045	ppb	07:08:47
1	As 188.979†	17873.9	18622.0	9324.7	ug/L	9324.7	ppb	07:08:47
1	B 249.677†	183920.4	191794.7	4857.8	ug/L	4857.8	ppb	07:08:41
1	Ba 233.527†	1510953.3	1572444.0	13762	ug/L	13762	ppb	07:08:41
1	Be 313.107†	6996573.0	7285639.4	2778.6	ug/L	2778.6	ppb	07:08:35
1	Cd 226.502†	679627.6	707462.5	9351.8	ug/L	9351.8	ppb	07:08:41
1	Co 228.616†	372200.1	387396.7	9403.3	ug/L	9403.3	ppb	07:08:41
1	Cr 267.716†	1841479.6	1916365.7	23428	ug/L	23428	ppb	07:08:41
1	Cu 324.752†	6273097.4	6522105.1	19800	ug/L	19800	ppb	07:08:35
1	Mn 257.610†	7204053.6	7496819.4	9142.7	ug/L	9142.7	ppb	07:08:35
1	Mo 202.031†	107636.8	112004.1	9164.7	ug/L	9164.7	ppb	07:08:47
1	Ni 231.604†	316443.5	329228.3	9614.3	ug/L	9614.3	ppb	07:08:41
1	P 214.914†	23254.8	24023.0	12347	ug/L	12347	ppb	07:08:47
1	Pb 220.353†	159717.3	166268.4	23550	ug/L	23550	ppb	07:08:41
1	S 181.975 Axial†	28902.8	30056.0	47897	ug/L	47897	ppb	07:08:47
1	Sb 206.836†	24594.4	25568.0	10170	ug/L	10170	ppb	07:08:47
1	Se 196.026†	12264.7	12780.6	9508.1	ug/L	9508.1	ppb	07:08:47
1	Si 251.611†	1283193.4	1334854.7	46154	ug/L	46154	ppb	07:08:41
1	Sn 189.927†	44062.9	45849.5	9516.6	ug/L	9516.6	ppb	07:08:47
1	Ti 334.940†	5738193.3	5972808.7	9677.2	ug/L	9677.2	ppb	07:08:35
1	Tl 190.801†	24464.6	25494.2	9221.2	ug/L	9221.2	ppb	07:08:47
1	U 409.014†	-927.7	922.9	-27.289	ug/L	-27.289	ppb	07:08:41
1	V 292.402†	1298725.8	1352961.2	9901.2	ug/L	9901.2	ppb	07:08:41
1	Zn 213.857†	1176461.2	1223722.2	13460	ug/L	13460	ppb	07:08:41
1	SiO2†	1284106.2	1335779.5	99131	ug/L	99131	ppb	07:09:33
2	Sc Radial	4317.6	4317.6	102	%			07:07:34
2	Y RADIAL	4680.4	4680.4	97.63	%			07:07:34
2	Al 396.153Radial†	397.9	466.7	28.235	ug/L	28.235	ppb	07:07:34
2	Ca 317.933Radial†	28.7	11.1	22.052	ug/L	22.052	ppb	07:07:54
2	Fe 238.204 Radial†	-14.7	-20.6	31.867	ug/L	31.867	ppb	07:07:54
2	K 766.490 Radial†	1552656.2	1525999.9	288750	ug/L	288750	ppb	07:07:29
2	Mg 279.077 IEC†	-3.2	-3.8	-63.237	ug/L	-63.237	ppb	07:07:54
2	Na 589.592 Radial†	-434.3	442.6	174.15	ug/L	174.15	ppb	07:07:34
2	Sr 421.552†	1184136.6	1165852.1	9583.4	ug/L	9583.4	ppb	07:07:29
2	Sc 361.383	848752.9	848752.9	96.303	%			07:09:01
2	Y 371.029	705588.4	705588.4	94.232	%			07:09:01
2	Ag 328.068†	-6017.5	-6508.0	8.9468	ug/L	8.9468	ppb	07:09:07
2	As 188.979†	18281.7	19004.2	9513.6	ug/L	9513.6	ppb	07:09:07
2	B 249.677†	184384.8	191852.2	4859.2	ug/L	4859.2	ppb	07:09:01
2	Ba 233.527†	1512618.2	1570684.2	13746	ug/L	13746	ppb	07:09:01
2	Be 313.107†	6986807.6	7259344.8	2768.4	ug/L	2768.4	ppb	07:08:55
2	Cd 226.502†	682957.6	709351.2	9376.8	ug/L	9376.8	ppb	07:09:01
2	Co 228.616†	372862.9	387225.5	9399.6	ug/L	9399.6	ppb	07:09:01
2	Cr 267.716†	1849092.5	1920019.1	23472	ug/L	23472	ppb	07:09:01
2	Cu 324.752†	6218399.4	6450823.2	19584	ug/L	19584	ppb	07:08:55
2	Mn 257.610†	7148431.8	7422428.7	9052.0	ug/L	9052.0	ppb	07:08:55
2	Mo 202.031†	109446.7	113635.0	9298.1	ug/L	9298.1	ppb	07:09:07
2	Ni 231.604†	317420.6	329512.2	9622.6	ug/L	9622.6	ppb	07:09:01

2	P 214.914†	23736.0	24469.1	12693	ug/L	12693 ppb	07:09:07
2	Pb 220.353†	159975.6	166167.8	23536	ug/L	23536 ppb	07:09:01
2	S 181.975 Axial†	29549.3	30660.6	48860	ug/L	48860 ppb	07:09:07
2	Sb 206.836†	24941.5	25871.6	10292	ug/L	10292 ppb	07:09:07
2	Se 196.026†	12560.0	13058.9	9715.0	ug/L	9715.0 ppb	07:09:07
2	Si 251.611†	1283559.1	1332271.7	46063	ug/L	46063 ppb	07:09:01
2	Sn 189.927†	44912.9	46630.4	9678.7	ug/L	9678.7 ppb	07:09:07
2	Ti 334.940†	5691287.2	5910852.9	9576.7	ug/L	9576.7 ppb	07:08:55
2	Tl 190.801†	24852.2	25840.2	9344.2	ug/L	9344.2 ppb	07:09:07
2	U 409.014†	-1008.5	841.1	-29.610	ug/L	-29.610 ppb	07:09:01
2	V 292.402†	1304554.1	1356014.6	9925.3	ug/L	9925.3 ppb	07:09:01
2	Zn 213.857†	1180103.4	1224788.0	13472	ug/L	13472 ppb	07:09:01
2	SiO2†	1284362.2	1333080.5	98927	ug/L	98927 ppb	07:09:39
3	Sc Radial	4297.0	4297.0	101	%		07:08:05
3	Y RADIAL	4643.3	4643.3	96.86	%		07:08:05
3	Al 396.153Radial†	381.6	452.4	2.4936	ug/L	2.4936 ppb	07:08:05
3	Ca 317.933Radial†	28.2	10.8	21.387	ug/L	21.387 ppb	07:08:25
3	Fe 238.204 Radial†	-15.2	-21.2	26.256	ug/L	26.256 ppb	07:08:25
3	K 766.490 Radial†	1565095.5	1545624.8	292460	ug/L	292460 ppb	07:08:00
3	Mg 279.077 IEC†	-1.3	-1.9	19.081	ug/L	19.081 ppb	07:08:25
3	Na 589.592 Radial†	-478.9	396.4	155.97	ug/L	155.97 ppb	07:08:05
3	Sr 421.552†	1193226.6	1180426.5	9703.2	ug/L	9703.2 ppb	07:08:00
3	Sc 361.383	827571.2	827571.2	93.899	%		07:09:22
3	Y 371.029	685991.5	685991.5	91.614	%		07:09:22
3	Ag 328.068†	-6207.3	-6870.1	7.2408	ug/L	7.2408 ppb	07:09:27
3	As 188.979†	18288.3	19497.2	9760.4	ug/L	9760.4 ppb	07:09:27
3	B 249.677†	179630.1	191689.2	4855.0	ug/L	4855.0 ppb	07:09:22
3	Ba 233.527†	1485150.6	1581634.0	13842	ug/L	13842 ppb	07:09:22
3	Be 313.107†	6964923.2	7421731.8	2830.4	ug/L	2830.4 ppb	07:09:15
3	Cd 226.502†	667879.6	711445.1	9404.4	ug/L	9404.4 ppb	07:09:22
3	Co 228.616†	365242.2	389019.5	9443.2	ug/L	9443.2 ppb	07:09:22
3	Cr 267.716†	1807296.0	1924651.7	23529	ug/L	23529 ppb	07:09:22
3	Cu 324.752†	6197220.8	6593539.3	20017	ug/L	20017 ppb	07:09:15
3	Mn 257.610†	7166465.5	7631622.9	9307.1	ug/L	9307.1 ppb	07:09:15
3	Mo 202.031†	109344.5	116434.9	9527.2	ug/L	9527.2 ppb	07:09:27
3	Ni 231.604†	310276.1	330339.9	9646.7	ug/L	9646.7 ppb	07:09:22
3	P 214.914†	23870.4	25243.0	13131	ug/L	13131 ppb	07:09:27
3	Pb 220.353†	156727.2	166960.1	23649	ug/L	23649 ppb	07:09:22
3	S 181.975 Axial†	29583.0	31481.9	50169	ug/L	50169 ppb	07:09:27
3	Sb 206.836†	25054.4	26654.8	10601	ug/L	10601 ppb	07:09:27
3	Se 196.026†	12591.2	13426.0	9987.9	ug/L	9987.9 ppb	07:09:27
3	Si 251.611†	1255210.6	1336195.4	46196	ug/L	46196 ppb	07:09:22
3	Sn 189.927†	45018.4	47936.4	9949.7	ug/L	9949.7 ppb	07:09:27
3	Ti 334.940†	5692295.0	6063187.5	9823.7	ug/L	9823.7 ppb	07:09:15
3	Tl 190.801†	24878.1	26528.2	9594.4	ug/L	9594.4 ppb	07:09:27
3	U 409.014†	-981.1	843.5	-29.670	ug/L	-29.670 ppb	07:09:22
3	V 292.402†	1272018.1	1356036.8	9928.4	ug/L	9928.4 ppb	07:09:22
3	Zn 213.857†	1157860.8	1232464.7	13556	ug/L	13556 ppb	07:09:22
3	SiO2†	1282171.2	1364882.6	101290	ug/L	101290 ppb	07:09:45

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	841064.7	95.430	%	1.3302				1.39%
Sc Radial	4338.8	102	%	1.3				1.28%
Y 371.029	697979.6	93.215	%	1.4032				1.51%
Y RADIAL	4689.8	97.83	%	1.081				1.10%
Ag 328.068†	-6597.2	8.4974	ug/L	1.10281	8.4974	ppb	1.10281	12.98%
Al 396.153Radial†	454.4	14.052	ug/L	13.0699	14.052	ppb	13.0699	93.01%
As 188.979†	19041.1	9532.9	ug/L	218.49	9532.9	ppb	218.49	2.29%
QC value within limits for As 188.979 Recovery = 95.33%								
B 249.677†	191778.7	4857.3	ug/L	2.17	4857.3	ppb	2.17	0.04%
QC value within limits for B 249.677 Recovery = 97.15%								
Ba 233.527†	1574920.7	13783	ug/L	51.4	13783	ppb	51.4	0.37%
QC value within limits for Ba 233.527 Recovery = 91.89%								
Be 313.107†	7322238.6	2792.5	ug/L	33.25	2792.5	ppb	33.25	1.19%
QC value within limits for Be 313.107 Recovery = 93.08%								
Ca 317.933Radial†	11.5	22.717	ug/L	1.7583	22.717	ppb	1.7583	7.74%
Cd 226.502†	709419.6	9377.7	ug/L	26.33	9377.7	ppb	26.33	0.28%
QC value within limits for Cd 226.502 Recovery = 93.78%								

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Co 228.616†          387880.6      9415.4 ug/L        24.18      9415.4 ppb         24.18   0.26%
   QC value within limits for Co 228.616  Recovery = 94.15%
Cr 267.716†         1920345.5       23476 ug/L         50.8       23476 ppb          50.8   0.22%
   QC value within limits for Cr 267.716  Recovery = 93.90%
Cu 324.752†         6522155.9       19800 ug/L        216.6       19800 ppb         216.6   1.09%
   QC value within limits for Cu 324.752  Recovery = 99.00%
Fe 238.204 Radial†      -20.6      33.457 ug/L       8.1136      33.457 ppb        8.1136  24.25%
K 766.490 Radial†   1521495.7      287900 ug/L       5046.2      287900 ppb        5046.2   1.75%
   QC value within limits for K 766.490 Radial  Recovery = 95.97%
Mg 279.077 IEC†          -3.9     -69.534 ug/L      91.9257     -69.534 ppb       91.9257 132.20%
Mn 257.610†         7516957.0      9167.2 ug/L       129.32      9167.2 ppb        129.32   1.41%
   QC value within limits for Mn 257.610  Recovery = 91.67%
Mo 202.031†          114024.7      9330.0 ug/L       183.37      9330.0 ppb        183.37   1.97%
   QC value within limits for Mo 202.031  Recovery = 93.30%
Na 589.592 Radial†      458.4      180.40 ug/L       28.076      180.40 ppb        28.076  15.56%
Ni 231.604†          329693.5      9627.9 ug/L        16.86      9627.9 ppb         16.86   0.18%
   QC value within limits for Ni 231.604  Recovery = 96.28%
P 214.914†            24578.4       12724 ug/L        392.5       12724 ppb         392.5   3.09%
   QC value less than the lower limit for P 214.914  Recovery = 84.82%
Pb 220.353†          166465.4       23578 ug/L         61.4       23578 ppb          61.4   0.26%
   QC value within limits for Pb 220.353  Recovery = 94.31%
S 181.975 Axial†      30732.8       48975 ug/L       1140.5       48975 ppb        1140.5   2.33%
   QC value within limits for S 181.975 Axial  Recovery = 97.95%
Sb 206.836†           26031.4       10354 ug/L        222.4       10354 ppb         222.4   2.15%
   QC value within limits for Sb 206.836  Recovery = 103.54%
Se 196.026†           13088.5      9737.0 ug/L       240.66      9737.0 ppb        240.66   2.47%
   QC value within limits for Se 196.026  Recovery = 97.37%
Si 251.611†         1334440.6       46138 ug/L         68.1       46138 ppb          68.1   0.15%
   QC value within limits for Si 251.611  Recovery = 92.28%
Sn 189.927†           46805.5      9715.0 ug/L       218.85      9715.0 ppb        218.85   2.25%
   QC value within limits for Sn 189.927  Recovery = 97.15%
Sr 421.552†         1162826.8      9558.5 ug/L       158.57      9558.5 ppb        158.57   1.66%
   QC value within limits for Sr 421.552  Recovery = 95.59%
Ti 334.940†         5982283.0      9692.5 ug/L       124.21      9692.5 ppb        124.21   1.28%
   QC value within limits for Ti 334.940  Recovery = 96.93%
Tl 190.801†           25954.2      9386.6 ug/L       190.17      9386.6 ppb        190.17   2.03%
   QC value within limits for Tl 190.801  Recovery = 93.87%
U 409.014†              869.2     -28.856 ug/L       1.3576     -28.856 ppb        1.3576   4.70%
V 292.402†          1355004.2      9918.3 ug/L        14.88      9918.3 ppb         14.88   0.15%
   QC value within limits for V 292.402  Recovery = 99.18%
Zn 213.857†         1226991.6       13496 ug/L         52.5       13496 ppb          52.5   0.39%
   QC value less than the lower limit for Zn 213.857  Recovery = 89.97%
SiO2†               1344580.8       99781 ug/L       1307.4       99781 ppb        1307.4   1.31%
   QC value within limits for SiO2  Recovery = 93.25%
QC Failed.  Continue with analysis.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/24/2010 07:11:55
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4380.1	4380.1	103	%			07:13:47
1	Y RADIAL	4731.1	4731.1	98.69	%			07:13:47
1	Al 396.153Radial†	4978.7	4906.9	5014.5	ug/L	5014.5	ppb	07:13:47
1	Ca 317.933Radial†	2673.9	2578.0	5109.5	ug/L	5109.5	ppb	07:14:07
1	Fe 238.204 Radial†	435.2	416.2	5043.0	ug/L	5043.0	ppb	07:14:07
1	K 766.490 Radial†	30829.8	27213.4	5143.2	ug/L	5143.2	ppb	07:13:47
1	Mg 279.077 IEC†	129.2	124.8	5308.3	ug/L	5308.3	ppb	07:14:07
1	Na 589.592 Radial†	25233.8	25360.2	9979.2	ug/L	9979.2	ppb	07:13:47
1	Sr 421.552†	60556.4	58751.5	482.90	ug/L	482.90	ppb	07:13:47
1	Sc 361.383	881070.3	881070.3	99.969	%			07:15:05
1	Y 371.029	736706.6	736706.6	98.387	%			07:15:05
1	Ag 328.068†	103848.7	103621.0	490.88	ug/L	490.88	ppb	07:15:10
1	As 188.979†	958.6	979.5	491.44	ug/L	491.44	ppb	07:15:30
1	B 249.677†	19455.9	19850.0	503.31	ug/L	503.31	ppb	07:15:10
1	Ba 233.527†	55389.1	55396.0	485.27	ug/L	485.27	ppb	07:15:10
1	Be 313.107†	1268890.9	1273562.4	482.97	ug/L	482.97	ppb	07:15:05
1	Cd 226.502†	36315.5	36498.5	482.04	ug/L	482.04	ppb	07:15:10
1	Co 228.616†	20263.6	20316.5	493.34	ug/L	493.34	ppb	07:15:10
1	Cr 267.716†	39632.3	39576.3	484.56	ug/L	484.56	ppb	07:15:10
1	Cu 324.752†	165615.6	159338.3	483.72	ug/L	483.72	ppb	07:15:10
1	Mn 257.610†	399123.5	398782.8	486.61	ug/L	486.61	ppb	07:15:05
1	Mo 202.031†	5912.9	5900.9	483.29	ug/L	483.29	ppb	07:15:30
1	Ni 231.604†	16888.7	16798.3	490.54	ug/L	490.54	ppb	07:15:10
1	P 214.914†	3697.4	3520.2	2278.1	ug/L	2278.1	ppb	07:15:30
1	Pb 220.353†	3324.5	3375.5	479.26	ug/L	479.26	ppb	07:15:30
1	S 181.975 Axial†	620.2	597.1	950.60	ug/L	950.60	ppb	07:15:30
1	Sb 206.836†	1277.1	1250.0	497.94	ug/L	497.94	ppb	07:15:30
1	Se 196.026†	625.5	642.4	494.06	ug/L	494.06	ppb	07:15:30
1	Si 251.611†	70677.7	70130.5	2424.8	ug/L	2424.8	ppb	07:15:10
1	Sn 189.927†	2323.5	2317.3	481.61	ug/L	481.61	ppb	07:15:30
1	Ti 334.940†	298143.1	299286.5	485.20	ug/L	485.20	ppb	07:15:10
1	Tl 190.801†	1320.2	1354.4	489.74	ug/L	489.74	ppb	07:15:30
1	U 409.014†	15883.4	17776.7	481.44	ug/L	481.44	ppb	07:15:10
1	V 292.402†	65342.8	66735.7	489.35	ug/L	489.35	ppb	07:15:10
1	Zn 213.857†	44569.5	43958.4	482.14	ug/L	482.14	ppb	07:15:10
1	SiO2†	70144.9	69572.4	5163.0	ug/L	5163.0	ppb	07:16:37
2	Sc Radial	4424.8	4424.8	104	%			07:14:12
2	Y RADIAL	4804.9	4804.9	100.2	%			07:14:12
2	Al 396.153Radial†	5050.7	4927.3	5035.1	ug/L	5035.1	ppb	07:14:12
2	Ca 317.933Radial†	2657.7	2536.2	5026.5	ug/L	5026.5	ppb	07:14:32
2	Fe 238.204 Radial†	433.6	410.4	4973.0	ug/L	4973.0	ppb	07:14:32
2	K 766.490 Radial†	31136.6	27206.1	5141.9	ug/L	5141.9	ppb	07:14:12
2	Mg 279.077 IEC†	128.8	123.2	5239.8	ug/L	5239.8	ppb	07:14:32
2	Na 589.592 Radial†	25337.7	25212.7	9921.2	ug/L	9921.2	ppb	07:14:12
2	Sr 421.552†	61167.3	58745.1	482.85	ug/L	482.85	ppb	07:14:12
2	Sc 361.383	867652.5	867652.5	98.447	%			07:15:36
2	Y 371.029	727685.0	727685.0	97.183	%			07:15:36
2	Ag 328.068†	103482.6	104855.6	496.69	ug/L	496.69	ppb	07:15:41
2	As 188.979†	961.8	997.6	500.46	ug/L	500.46	ppb	07:16:01
2	B 249.677†	19432.7	20127.4	510.37	ug/L	510.37	ppb	07:15:41
2	Ba 233.527†	55226.5	56087.7	491.33	ug/L	491.33	ppb	07:15:41
2	Be 313.107†	1250696.4	1274709.7	483.42	ug/L	483.42	ppb	07:15:36
2	Cd 226.502†	36234.0	36977.5	488.38	ug/L	488.38	ppb	07:15:41
2	Co 228.616†	20156.5	20521.3	498.31	ug/L	498.31	ppb	07:15:41
2	Cr 267.716†	39645.6	40202.9	492.21	ug/L	492.21	ppb	07:15:41
2	Cu 324.752†	164784.5	161056.0	488.93	ug/L	488.93	ppb	07:15:41
2	Mn 257.610†	392104.9	397827.6	485.44	ug/L	485.44	ppb	07:15:36
2	Mo 202.031†	5899.7	5978.9	489.66	ug/L	489.66	ppb	07:16:01
2	Ni 231.604†	16837.9	17008.0	496.67	ug/L	496.67	ppb	07:15:41

2	P 214.914†	3684.5	3564.3	2306.9 ug/L	2306.9 ppb	07:16:01
2	Pb 220.353†	3345.0	3447.8	489.52 ug/L	489.52 ppb	07:16:01
2	S 181.975 Axial†	632.7	619.4	986.18 ug/L	986.18 ppb	07:16:01
2	Sb 206.836†	1279.9	1272.6	506.87 ug/L	506.87 ppb	07:16:01
2	Se 196.026†	623.5	650.0	499.56 ug/L	499.56 ppb	07:16:01
2	Si 251.611†	70483.2	71026.2	2455.8 ug/L	2455.8 ppb	07:15:41
2	Sn 189.927†	2320.2	2349.9	488.35 ug/L	488.35 ppb	07:16:01
2	Ti 334.940†	297130.2	302869.6	490.99 ug/L	490.99 ppb	07:15:41
2	Tl 190.801†	1327.0	1381.7	499.55 ug/L	499.55 ppb	07:16:01
2	U 409.014†	15969.1	18109.4	490.48 ug/L	490.48 ppb	07:15:41
2	V 292.402†	65245.8	67648.0	496.06 ug/L	496.06 ppb	07:15:41
2	Zn 213.857†	44344.8	44419.5	487.21 ug/L	487.21 ppb	07:15:41
2	SiO2†	70663.7	71184.4	5282.7 ug/L	5282.7 ppb	07:16:42
3	Sc Radial	4329.2	4329.2	102 %		07:14:37
3	Y RADIAL	4698.8	4698.8	98.01 %		07:14:37
3	Al 396.153Radial†	4946.4	4932.0	5039.7 ug/L	5039.7 ppb	07:14:37
3	Ca 317.933Radial†	2675.5	2610.1	5173.0 ug/L	5173.0 ppb	07:14:57
3	Fe 238.204 Radial†	435.0	420.9	5100.1 ug/L	5100.1 ppb	07:14:57
3	K 766.490 Radial†	30548.9	27289.2	5157.6 ug/L	5157.6 ppb	07:14:37
3	Mg 279.077 IEC†	129.1	126.2	5368.6 ug/L	5368.6 ppb	07:14:57
3	Na 589.592 Radial†	24879.7	25300.2	9955.6 ug/L	9955.6 ppb	07:14:37
3	Sr 421.552†	59813.8	58713.0	482.59 ug/L	482.59 ppb	07:14:37
3	Sc 361.383	866736.4	866736.4	98.343 %		07:16:07
3	Y 371.029	726339.8	726339.8	97.003 %		07:16:07
3	Ag 328.068†	103314.8	104796.1	496.45 ug/L	496.45 ppb	07:16:12
3	As 188.979†	960.3	997.1	500.23 ug/L	500.23 ppb	07:16:32
3	B 249.677†	19413.2	20128.5	510.38 ug/L	510.38 ppb	07:16:12
3	Ba 233.527†	55283.9	56205.3	492.36 ug/L	492.36 ppb	07:16:12
3	Be 313.107†	1255072.7	1280502.6	485.61 ug/L	485.61 ppb	07:16:07
3	Cd 226.502†	36239.8	37022.2	488.96 ug/L	488.96 ppb	07:16:12
3	Co 228.616†	20163.1	20549.6	499.01 ug/L	499.01 ppb	07:16:12
3	Cr 267.716†	39660.1	40260.2	492.93 ug/L	492.93 ppb	07:16:12
3	Cu 324.752†	164955.9	161407.2	490.00 ug/L	490.00 ppb	07:16:12
3	Mn 257.610†	393182.9	399344.8	487.30 ug/L	487.30 ppb	07:16:07
3	Mo 202.031†	5928.6	6014.7	492.60 ug/L	492.60 ppb	07:16:32
3	Ni 231.604†	16876.0	17064.8	498.33 ug/L	498.33 ppb	07:16:12
3	P 214.914†	3703.8	3587.9	2322.6 ug/L	2322.6 ppb	07:16:32
3	Pb 220.353†	3340.2	3446.5	489.33 ug/L	489.33 ppb	07:16:32
3	S 181.975 Axial†	628.1	615.4	979.75 ug/L	979.75 ppb	07:16:32
3	Sb 206.836†	1282.9	1277.0	508.72 ug/L	508.72 ppb	07:16:32
3	Se 196.026†	633.8	661.2	508.23 ug/L	508.23 ppb	07:16:32
3	Si 251.611†	70477.7	71096.3	2458.2 ug/L	2458.2 ppb	07:16:12
3	Sn 189.927†	2344.3	2376.9	493.97 ug/L	493.97 ppb	07:16:32
3	Ti 334.940†	297285.3	303346.3	491.77 ug/L	491.77 ppb	07:16:12
3	Tl 190.801†	1332.9	1389.1	502.24 ug/L	502.24 ppb	07:16:32
3	U 409.014†	15992.4	18150.2	491.57 ug/L	491.57 ppb	07:16:12
3	V 292.402†	65218.1	67689.9	496.39 ug/L	496.39 ppb	07:16:12
3	Zn 213.857†	44488.5	44613.3	489.32 ug/L	489.32 ppb	07:16:12
3	SiO2†	70357.9	70949.4	5265.2 ug/L	5265.2 ppb	07:16:47

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	871819.8	98.920	%	0.9105				0.92%
Sc Radial	4378.0	103	%	1.1				1.09%
Y 371.029	730243.8	97.524	%	0.7528				0.77%
Y RADIAL	4744.9	98.98	%	1.135				1.15%
Ag 328.068†	104424.2	494.68	ug/L	3.287	494.68	ppb	3.287	0.66%
QC value within limits for Ag 328.068 Recovery = 98.94%								
Al 396.153Radial†	4922.1	5029.8	ug/L	13.45	5029.8	ppb	13.45	0.27%
QC value within limits for Al 396.153Radial Recovery = 100.60%								
As 188.979†	991.4	497.37	ug/L	5.141	497.37	ppb	5.141	1.03%
QC value within limits for As 188.979 Recovery = 99.47%								
B 249.677†	20035.3	508.02	ug/L	4.079	508.02	ppb	4.079	0.80%
QC value within limits for B 249.677 Recovery = 101.60%								
Ba 233.527†	55896.3	489.65	ug/L	3.830	489.65	ppb	3.830	0.78%
QC value within limits for Ba 233.527 Recovery = 97.93%								
Be 313.107†	1276258.2	484.00	ug/L	1.413	484.00	ppb	1.413	0.29%
QC value within limits for Be 313.107 Recovery = 96.80%								
Ca 317.933Radial†	2574.7	5103.0	ug/L	73.45	5103.0	ppb	73.45	1.44%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.06%
Cd 226.502†            36832.7      486.46 ug/L         3.839      486.46 ppb          3.839   0.79%
   QC value within limits for Cd 226.502  Recovery = 97.29%
Co 228.616†            20462.5      496.89 ug/L         3.091      496.89 ppb          3.091   0.62%
   QC value within limits for Co 228.616  Recovery = 99.38%
Cr 267.716†            40013.1      489.90 ug/L         4.639      489.90 ppb          4.639   0.95%
   QC value within limits for Cr 267.716  Recovery = 97.98%
Cu 324.752†           160600.5      487.55 ug/L         3.358      487.55 ppb          3.358   0.69%
   QC value within limits for Cu 324.752  Recovery = 97.51%
Fe 238.204 Radial†       415.9      5038.7 ug/L        63.67      5038.7 ppb          63.67   1.26%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.77%
K 766.490 Radial†      27236.2      5147.6 ug/L         8.68      5147.6 ppb           8.68   0.17%
   QC value within limits for K 766.490 Radial  Recovery = 102.95%
Mg 279.077 IEC†          124.7      5305.6 ug/L        64.43      5305.6 ppb          64.43   1.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.11%
Mn 257.610†           398651.7      486.45 ug/L         0.939      486.45 ppb          0.939   0.19%
   QC value within limits for Mn 257.610  Recovery = 97.29%
Mo 202.031†             5964.8      488.52 ug/L         4.763      488.52 ppb          4.763   0.97%
   QC value within limits for Mo 202.031  Recovery = 97.70%
Na 589.592 Radial†     25291.0      9952.0 ug/L        29.18      9952.0 ppb          29.18   0.29%
   QC value within limits for Na 589.592 Radial  Recovery = 99.52%
Ni 231.604†            16957.1      495.18 ug/L         4.099      495.18 ppb          4.099   0.83%
   QC value within limits for Ni 231.604  Recovery = 99.04%
P 214.914†              3557.5      2302.5 ug/L        22.54      2302.5 ppb          22.54   0.98%
   QC value within limits for P 214.914  Recovery = 92.10%
Pb 220.353†             3423.3      486.04 ug/L         5.869      486.04 ppb          5.869   1.21%
   QC value within limits for Pb 220.353  Recovery = 97.21%
S 181.975 Axial†         610.6      972.18 ug/L        18.961      972.18 ppb         18.961   1.95%
   QC value within limits for S 181.975 Axial  Recovery = 97.22%
Sb 206.836†             1266.5      504.51 ug/L         5.767      504.51 ppb          5.767   1.14%
   QC value within limits for Sb 206.836  Recovery = 100.90%
Se 196.026†              651.2      500.62 ug/L         7.140      500.62 ppb          7.140   1.43%
   QC value within limits for Se 196.026  Recovery = 100.12%
Si 251.611†            70751.0      2446.3 ug/L        18.61      2446.3 ppb          18.61   0.76%
   QC value within limits for Si 251.611  Recovery = 97.85%
Sn 189.927†             2348.0      487.98 ug/L         6.188      487.98 ppb          6.188   1.27%
   QC value within limits for Sn 189.927  Recovery = 97.60%
Sr 421.552†            58736.5      482.78 ug/L         0.170      482.78 ppb          0.170   0.04%
   QC value within limits for Sr 421.552  Recovery = 96.56%
Ti 334.940†           301834.1      489.32 ug/L         3.595      489.32 ppb          3.595   0.73%
   QC value within limits for Ti 334.940  Recovery = 97.86%
Tl 190.801†             1375.1      497.18 ug/L         6.582      497.18 ppb          6.582   1.32%
   QC value within limits for Tl 190.801  Recovery = 99.44%
U 409.014†             18012.1      487.83 ug/L         5.558      487.83 ppb          5.558   1.14%
   QC value within limits for U 409.014  Recovery = 97.57%
V 292.402†             67357.9      493.93 ug/L         3.972      493.93 ppb          3.972   0.80%
   QC value within limits for V 292.402  Recovery = 98.79%
Zn 213.857†            44330.4      486.22 ug/L         3.692      486.22 ppb          3.692   0.76%
   QC value within limits for Zn 213.857  Recovery = 97.24%
SiO2†                  70568.7      5236.9 ug/L        64.67      5236.9 ppb          64.67   1.23%
   QC value within limits for SiO2  Recovery = 97.93%
All analyte(s) passed QC.
```

Sequence No.: 14
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/24/2010 07:18:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4493.3	4493.3	106	%			07:20:50
1	Y RADIAL	4882.0	4882.0	101.8	%			07:20:50
1	Al 396.153Radial†	-62.1	16.2	16.566	ug/L	16.566	ppb	07:21:10
1	Ca 317.933Radial†	23.5	5.1	10.074	ug/L	10.074	ppb	07:21:10
1	Fe 238.204 Radial†	8.9	2.3	27.842	ug/L	27.842	ppb	07:21:10
1	K 766.490 Radial†	3487.7	592.0	111.98	ug/L	111.98	ppb	07:20:50
1	Mg 279.077 IEC†	2.8	2.0	84.785	ug/L	84.785	ppb	07:21:10
1	Na 589.592 Radial†	-674.1	232.4	91.462	ug/L	91.462	ppb	07:20:50
1	Sr 421.552†	39.1	17.1	0.1404	ug/L	0.1404	ppb	07:20:50
1	Sc 361.383	859652.6	859652.6	97.539	%			07:22:07
1	Y 371.029	734120.2	734120.2	98.042	%			07:22:07
1	Ag 328.068†	277.4	24.8	0.1284	ug/L	0.1284	ppb	07:22:07
1	As 188.979†	-9.7	10.7	5.3166	ug/L	5.3166	ppb	07:22:27
1	B 249.677†	432.6	831.7	21.176	ug/L	21.176	ppb	07:22:27
1	Ba 233.527†	14.4	4.7	0.0424	ug/L	0.0424	ppb	07:22:27
1	Be 313.107†	-4098.3	81.0	0.0308	ug/L	0.0308	ppb	07:22:07
1	Cd 226.502†	-144.9	23.3	0.3043	ug/L	0.3043	ppb	07:22:27
1	Co 228.616†	-36.5	9.3	0.2272	ug/L	0.2272	ppb	07:22:27
1	Cr 267.716†	172.4	108.6	1.3310	ug/L	1.3310	ppb	07:22:27
1	Cu 324.752†	6310.8	142.0	0.4344	ug/L	0.4344	ppb	07:22:07
1	Mn 257.610†	462.6	11.3	0.0130	ug/L	0.0130	ppb	07:22:27
1	Mo 202.031†	22.1	8.8	0.7224	ug/L	0.7224	ppb	07:22:27
1	Ni 231.604†	104.5	11.6	0.3388	ug/L	0.3388	ppb	07:22:27
1	P 214.914†	191.3	17.8	11.901	ug/L	11.901	ppb	07:22:27
1	Pb 220.353†	-55.4	-6.8	-0.9599	ug/L	-0.9599	ppb	07:22:27
1	S 181.975 Axial†	39.2	17.0	27.016	ug/L	27.016	ppb	07:22:27
1	Sb 206.836†	43.0	16.6	6.4170	ug/L	6.4170	ppb	07:22:27
1	Se 196.026†	-16.7	-0.4	-0.2235	ug/L	-0.2235	ppb	07:22:27
1	Si 251.611†	654.1	101.7	3.5166	ug/L	3.5166	ppb	07:22:27
1	Sn 189.927†	14.4	7.8	1.6281	ug/L	1.6281	ppb	07:22:27
1	Ti 334.940†	-978.8	48.5	0.0740	ug/L	0.0740	ppb	07:22:07
1	Tl 190.801†	-16.8	16.5	5.9317	ug/L	5.9317	ppb	07:22:27
1	U 409.014†	-1957.9	-118.9	-3.2376	ug/L	-3.2376	ppb	07:22:07
1	V 292.402†	-1324.4	15.2	0.1107	ug/L	0.1107	ppb	07:22:07
1	Zn 213.857†	685.6	78.1	0.8577	ug/L	0.8577	ppb	07:22:27
1	SiO2†	685.9	109.1	8.0991	ug/L	8.0991	ppb	07:23:23
2	Sc Radial	4296.5	4296.5	101	%			07:21:15
2	Y RADIAL	4724.3	4724.3	98.55	%			07:21:15
2	Al 396.153Radial†	-70.6	5.1	5.2397	ug/L	5.2397	ppb	07:21:35
2	Ca 317.933Radial†	22.3	4.9	9.7128	ug/L	9.7128	ppb	07:21:35
2	Fe 238.204 Radial†	9.1	2.8	34.345	ug/L	34.345	ppb	07:21:35
2	K 766.490 Radial†	3414.9	671.1	126.97	ug/L	126.97	ppb	07:21:15
2	Mg 279.077 IEC†	-2.9	-3.5	-147.46	ug/L	-147.46	ppb	07:21:35
2	Na 589.592 Radial†	-752.2	125.9	49.557	ug/L	49.557	ppb	07:21:15
2	Sr 421.552†	15.8	-4.3	-0.0355	ug/L	-0.0355	ppb	07:21:15
2	Sc 361.383	863375.2	863375.2	97.962	%			07:22:32
2	Y 371.029	737454.5	737454.5	98.487	%			07:22:32
2	Ag 328.068†	181.3	-74.5	-0.3387	ug/L	-0.3387	ppb	07:22:32
2	As 188.979†	-8.1	12.4	6.1578	ug/L	6.1578	ppb	07:22:52
2	B 249.677†	438.0	835.2	21.266	ug/L	21.266	ppb	07:22:52
2	Ba 233.527†	4.3	-5.6	-0.0481	ug/L	-0.0481	ppb	07:22:52
2	Be 313.107†	-4152.1	44.3	0.0167	ug/L	0.0167	ppb	07:22:32
2	Cd 226.502†	-145.7	23.1	0.3020	ug/L	0.3020	ppb	07:22:52
2	Co 228.616†	-43.4	2.4	0.0581	ug/L	0.0581	ppb	07:22:52
2	Cr 267.716†	173.3	108.8	1.3332	ug/L	1.3332	ppb	07:22:52
2	Cu 324.752†	6319.9	123.4	0.3771	ug/L	0.3771	ppb	07:22:32
2	Mn 257.610†	472.6	19.4	0.0331	ug/L	0.0331	ppb	07:22:52
2	Mo 202.031†	16.9	3.4	0.2830	ug/L	0.2830	ppb	07:22:52
2	Ni 231.604†	91.0	-2.6	-0.0773	ug/L	-0.0773	ppb	07:22:52

2	P 214.914†	184.5	10.0	6.6680	ug/L	6.6680 ppb	07:22:52
2	Pb 220.353†	-56.5	-7.6	-1.0783	ug/L	-1.0783 ppb	07:22:52
2	S 181.975 Axial†	26.2	3.5	5.5519	ug/L	5.5519 ppb	07:22:52
2	Sb 206.836†	26.7	-0.3	-0.0739	ug/L	-0.0739 ppb	07:22:52
2	Se 196.026†	-12.6	3.8	2.9107	ug/L	2.9107 ppb	07:22:52
2	Si 251.611†	667.8	112.8	3.9071	ug/L	3.9071 ppb	07:22:52
2	Sn 189.927†	15.2	8.6	1.7838	ug/L	1.7838 ppb	07:22:52
2	Ti 334.940†	-1041.1	-10.8	-0.0041	ug/L	-0.0041 ppb	07:22:32
2	Tl 190.801†	-15.6	17.8	6.3936	ug/L	6.3936 ppb	07:22:52
2	U 409.014†	-1891.2	-42.2	-1.1525	ug/L	-1.1525 ppb	07:22:32
2	V 292.402†	-1331.4	13.9	0.0938	ug/L	0.0938 ppb	07:22:32
2	Zn 213.857†	677.4	66.6	0.7326	ug/L	0.7326 ppb	07:22:52
2	SiO2†	671.3	91.2	6.7810	ug/L	6.7810 ppb	07:23:28
3	Sc Radial	4387.3	4387.3	103	%		07:21:40
3	Y RADIAL	4765.8	4765.8	99.41	%		07:21:40
3	Al 396.153Radial†	-78.8	-1.4	-1.4692	ug/L	-1.4692 ppb	07:22:00
3	Ca 317.933Radial†	22.5	4.7	9.2536	ug/L	9.2536 ppb	07:22:00
3	Fe 238.204 Radial†	6.4	0.1	0.7903	ug/L	0.7903 ppb	07:22:00
3	K 766.490 Radial†	3435.3	620.9	117.47	ug/L	117.47 ppb	07:21:40
3	Mg 279.077 IEC†	2.2	1.5	63.686	ug/L	63.686 ppb	07:22:00
3	Na 589.592 Radial†	-717.3	175.1	68.902	ug/L	68.902 ppb	07:21:40
3	Sr 421.552†	-5.7	-25.4	-0.2090	ug/L	-0.2090 ppb	07:21:40
3	Sc 361.383	857608.2	857608.2	97.307	%		07:22:57
3	Y 371.029	731558.3	731558.3	97.700	%		07:22:57
3	Ag 328.068†	288.0	36.4	0.1769	ug/L	0.1769 ppb	07:22:57
3	As 188.979†	-9.3	11.1	5.4995	ug/L	5.4995 ppb	07:23:17
3	B 249.677†	404.4	803.7	20.468	ug/L	20.468 ppb	07:23:17
3	Ba 233.527†	16.2	6.6	0.0579	ug/L	0.0579 ppb	07:23:17
3	Be 313.107†	-4214.3	-48.2	-0.0183	ug/L	-0.0183 ppb	07:22:57
3	Cd 226.502†	-159.7	7.8	0.1014	ug/L	0.1014 ppb	07:23:17
3	Co 228.616†	-29.4	16.5	0.4006	ug/L	0.4006 ppb	07:23:17
3	Cr 267.716†	184.2	121.1	1.4824	ug/L	1.4824 ppb	07:23:17
3	Cu 324.752†	6396.0	244.9	0.7469	ug/L	0.7469 ppb	07:22:57
3	Mn 257.610†	455.7	5.3	0.0039	ug/L	0.0039 ppb	07:23:17
3	Mo 202.031†	19.7	6.3	0.5192	ug/L	0.5192 ppb	07:23:17
3	Ni 231.604†	95.4	2.6	0.0744	ug/L	0.0744 ppb	07:23:17
3	P 214.914†	183.7	10.5	6.9563	ug/L	6.9563 ppb	07:23:17
3	Pb 220.353†	-40.0	9.0	1.2677	ug/L	1.2677 ppb	07:23:17
3	S 181.975 Axial†	33.4	11.1	17.621	ug/L	17.621 ppb	07:23:17
3	Sb 206.836†	31.7	5.0	1.9801	ug/L	1.9801 ppb	07:23:17
3	Se 196.026†	-15.4	0.9	0.6406	ug/L	0.6406 ppb	07:23:17
3	Si 251.611†	647.6	96.7	3.3441	ug/L	3.3441 ppb	07:23:17
3	Sn 189.927†	15.6	9.2	1.9026	ug/L	1.9026 ppb	07:23:17
3	Ti 334.940†	-1049.5	-26.5	-0.0449	ug/L	-0.0449 ppb	07:22:57
3	Tl 190.801†	-22.3	10.8	3.8792	ug/L	3.8792 ppb	07:23:17
3	U 409.014†	-2049.1	-217.4	-5.9119	ug/L	-5.9119 ppb	07:22:57
3	V 292.402†	-1317.8	18.6	0.1316	ug/L	0.1316 ppb	07:22:57
3	Zn 213.857†	696.1	90.6	1.0013	ug/L	1.0013 ppb	07:23:17
3	SiO2†	664.4	88.7	6.5853	ug/L	6.5853 ppb	07:23:33

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	860212.0	97.603	%	0.3318				0.34%
Sc Radial	4392.4	103	%	2.3				2.24%
Y 371.029	734377.6	98.076	%	0.3948				0.40%
Y RADIAL	4790.7	99.93	%	1.706				1.71%
Ag 328.068†	-4.4	-0.0111	ug/L	0.28472	-0.0111	ppb	0.28472	>999.9%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	6.6	6.7787	ug/L	9.11542	6.7787	ppb	9.11542	134.47%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	11.4	5.6580	ug/L	0.44242	5.6580	ppb	0.44242	7.82%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	823.5	20.970	ug/L	0.4368	20.970	ppb	0.4368	2.08%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1.9	0.0174	ug/L	0.05722	0.0174	ppb	0.05722	329.00%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	25.7	0.0097	ug/L	0.02531	0.0097	ppb	0.02531	259.70%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.9	9.6802	ug/L	0.41136	9.6802	ppb	0.41136	4.25%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                18.1      0.2359 ug/L       0.11649      0.2359 ppb        0.11649  49.39%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 9.4      0.2286 ug/L       0.17123      0.2286 ppb        0.17123  74.89%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               112.8      1.3822 ug/L       0.08682      1.3822 ppb        0.08682   6.28%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               170.1      0.5195 ug/L       0.19906      0.5195 ppb        0.19906  38.32%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          1.7      20.992 ug/L       17.7951      20.992 ppb        17.7951  84.77%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         628.0      118.81 ug/L         7.586      118.81 ppb          7.586   6.39%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             0.0      0.3370 ug/L     128.43005      0.3370 ppb      128.43005 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                12.0      0.0167 ug/L       0.01492      0.0167 ppb        0.01492  89.52%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 6.2      0.5082 ug/L       0.21993      0.5082 ppb        0.21993  43.28%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        177.8      69.973 ug/L       20.9731      69.973 ppb        20.9731  29.97%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 3.8      0.1120 ug/L       0.21059      0.1120 ppb        0.21059 188.04%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 12.8      8.5083 ug/L       2.94133      8.5083 ppb        2.94133  34.57%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -1.8     -0.2568 ug/L       1.32162     -0.2568 ppb        1.32162 514.55%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           10.5      16.730 ug/L       10.7598      16.730 ppb        10.7598  64.32%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 7.1      2.7744 ug/L       3.31755      2.7744 ppb        3.31755 119.58%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.4      1.1092 ug/L       1.61879      1.1092 ppb        1.61879 145.94%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               103.7      3.5893 ug/L       0.28847      3.5893 ppb        0.28847   8.04%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 8.5      1.7715 ug/L       0.13770      1.7715 ppb        0.13770   7.77%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                -4.2     -0.0347 ug/L       0.17469     -0.0347 ppb        0.17469 503.71%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 3.7      0.0083 ug/L       0.06043      0.0083 ppb        0.06043 727.62%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                15.0      5.4015 ug/L       1.33843      5.4015 ppb        1.33843  24.78%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -126.2     -3.4340 ug/L       2.38574     -3.4340 ppb        2.38574  69.47%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 15.9      0.1120 ug/L       0.01892      0.1120 ppb        0.01892  16.89%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                78.4      0.8639 ug/L       0.13444      0.8639 ppb        0.13444  15.56%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      96.4      7.1551 ug/L       0.82333      7.1551 ppb        0.82333  11.51%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 3/24/2010 07:27:35 **Plasma On Time: 3/22/2010 06:16:18**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\032410.sif
Batch ID:
Results Data Set: 032410
Results Library: C:\pe\Optima3\Results\Results.mdb

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Method Loaded
Method Name: General Eng.2AX **Method Last Saved: 3/24/2010 05:55:37**
IEC File: 011110.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc Radial	No
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc Radial	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc Radial	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

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Sequence No.: 1 **Autosampler Location: 37**
Sample ID: LR1 **Date Collected: 3/24/2010 07:27:36**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: LR1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4369.3	4369.3	103	%			07:29:29
1	Y RADIAL	4768.4	4768.4	99.47	%			07:29:29
1	Al 396.153Radial†	-105.0	-27.2	-26.803	ug/L	-26.803	ppb	07:29:49

1	Ca 317.933Radial†	17.2	-0.3	-0.6930 ug/L	-0.6930 ppb	07:29:49
1	Fe 238.204 Radial†	32827.3	31931.8	385750 ug/L	385750 ppb	07:29:29
1	K 766.490 Radial†	2683.5	-96.9	-18.301 ug/L	-18.301 ppb	07:29:29
1	Mg 279.077 IEC†	12.4	11.4	81.474 ug/L	81.474 ppb	07:29:49
1	Na 589.592 Radial†	-786.9	104.6	41.145 ug/L	41.145 ppb	07:29:29
1	Sr 421.552†	77.0	55.0	0.4523 ug/L	0.4523 ppb	07:29:29
1	Sc 361.383	857219.2	857219.2	97.263 %		07:30:47
1	Y 371.029	724094.7	724094.7	96.703 %		07:30:47
1	Ag 328.068†	-24584.6	-25536.0	-0.7813 ug/L	-0.7813 ppb	07:30:47
1	As 188.979†	-177.9	-162.3	9.6927 ug/L	9.6927 ppb	07:31:07
1	B 249.677†	1638.5	2072.8	-9.9026 ug/L	-9.9026 ppb	07:30:47
1	Ba 233.527†	-1695.4	-1753.2	-3.4787 ug/L	-3.4787 ppb	07:30:47
1	Be 313.107†	-4103.4	63.9	0.0239 ug/L	0.0239 ppb	07:30:47
1	Cd 226.502†	2732.7	2981.5	-0.4469 ug/L	-0.4469 ppb	07:30:47
1	Co 228.616†	623.0	687.3	11.056 ug/L	11.056 ppb	07:31:07
1	Cr 267.716†	-562.7	-646.7	33.013 ug/L	33.013 ppb	07:30:47
1	Cu 324.752†	-1960.9	-8344.1	-4.9440 ug/L	-4.9440 ppb	07:30:47
1	Mn 257.610†	-35839.4	-37310.9	-7.4232 ug/L	-7.4232 ppb	07:30:47
1	Mo 202.031†	-272.6	-294.2	5.8762 ug/L	5.8762 ppb	07:30:47
1	Ni 231.604†	194.0	104.0	3.0273 ug/L	3.0273 ppb	07:31:07
1	P 214.914†	631.1	470.6	11.409 ug/L	11.409 ppb	07:31:07
1	Pb 220.353†	152.4	206.8	-25.670 ug/L	-25.670 ppb	07:31:07
1	S 181.975 Axial†	43.1	21.1	33.590 ug/L	33.590 ppb	07:31:07
1	Sb 206.836†	19.8	-7.2	-7.5224 ug/L	-7.5224 ppb	07:31:07
1	Se 196.026†	-1812.1	-1846.4	-260.70 ug/L	-260.70 ppb	07:31:07
1	Si 251.611†	-401.7	-981.9	-33.736 ug/L	-33.736 ppb	07:30:47
1	Sn 189.927†	-25.4	-33.0	-28.995 ug/L	-28.995 ppb	07:31:07
1	Ti 334.940†	-1104.2	-83.3	-0.1960 ug/L	-0.1960 ppb	07:30:47
1	Tl 190.801†	-26.7	6.3	1.8801 ug/L	1.8801 ppb	07:31:07
1	U 409.014†	120.9	2012.7	10.740 ug/L	10.740 ppb	07:30:47
1	V 292.402†	5052.3	6567.4	-8.8803 ug/L	-8.8803 ppb	07:30:47
1	Zn 213.857†	3848.1	3331.5	-20.829 ug/L	-20.829 ppb	07:31:07
1	SiO2†	-506.3	-1114.6	-82.268 ug/L	-82.268 ppb	07:32:04
2	Sc Radial	4311.0	4311.0	101 %		07:29:54
2	Y RADIAL	4680.5	4680.5	97.63 %		07:29:54
2	Al 396.153Radial†	-98.0	-21.7	-21.076 ug/L	-21.076 ppb	07:30:14
2	Ca 317.933Radial†	15.4	-1.9	-3.8573 ug/L	-3.8573 ppb	07:30:14
2	Fe 238.204 Radial†	32624.5	32164.1	388560 ug/L	388560 ppb	07:29:54
2	K 766.490 Radial†	2777.8	31.5	5.9930 ug/L	5.9930 ppb	07:29:54
2	Mg 279.077 IEC†	9.5	8.7	-35.373 ug/L	-35.373 ppb	07:30:14
2	Na 589.592 Radial†	-806.5	74.9	29.474 ug/L	29.474 ppb	07:29:54
2	Sr 421.552†	75.4	54.4	0.4471 ug/L	0.4471 ppb	07:29:54
2	Sc 361.383	851868.9	851868.9	96.656 %		07:31:13
2	Y 371.029	720377.7	720377.7	96.207 %		07:31:13
2	Ag 328.068†	-24426.2	-25530.8	0.1127 ug/L	0.1127 ppb	07:31:13
2	As 188.979†	-162.0	-147.0	17.970 ug/L	17.970 ppb	07:31:33
2	B 249.677†	1573.5	2016.1	-11.802 ug/L	-11.802 ppb	07:31:13
2	Ba 233.527†	-1756.0	-1826.8	-4.0358 ug/L	-4.0358 ppb	07:31:13
2	Be 313.107†	-4171.7	-33.2	-0.0131 ug/L	-0.0131 ppb	07:31:13
2	Cd 226.502†	2756.4	3023.6	-0.1800 ug/L	-0.1800 ppb	07:31:13
2	Co 228.616†	635.3	704.0	11.418 ug/L	11.418 ppb	07:31:33
2	Cr 267.716†	-517.8	-603.9	33.834 ug/L	33.834 ppb	07:31:13
2	Cu 324.752†	-2212.1	-8616.7	-5.6223 ug/L	-5.6223 ppb	07:31:13
2	Mn 257.610†	-35589.3	-37283.6	-7.1081 ug/L	-7.1081 ppb	07:31:13
2	Mo 202.031†	-281.8	-305.4	5.1724 ug/L	5.1724 ppb	07:31:13
2	Ni 231.604†	199.5	110.9	3.2315 ug/L	3.2315 ppb	07:31:33
2	P 214.914†	637.5	481.3	16.541 ug/L	16.541 ppb	07:31:33
2	Pb 220.353†	137.0	191.8	-28.180 ug/L	-28.180 ppb	07:31:33
2	S 181.975 Axial†	36.7	14.7	23.424 ug/L	23.424 ppb	07:31:33
2	Sb 206.836†	17.6	-9.3	-8.3933 ug/L	-8.3933 ppb	07:31:33
2	Se 196.026†	-1811.3	-1857.2	-260.66 ug/L	-260.66 ppb	07:31:33
2	Si 251.611†	-540.3	-1127.9	-38.786 ug/L	-38.786 ppb	07:31:13
2	Sn 189.927†	-23.7	-31.4	-28.827 ug/L	-28.827 ppb	07:31:33
2	Ti 334.940†	-1143.2	-130.8	-0.2639 ug/L	-0.2639 ppb	07:31:13
2	Tl 190.801†	-20.7	12.4	4.0549 ug/L	4.0549 ppb	07:31:33
2	U 409.014†	85.9	1977.2	9.4543 ug/L	9.4543 ppb	07:31:13
2	V 292.402†	5049.7	6597.4	-9.0893 ug/L	-9.0893 ppb	07:31:13
2	Zn 213.857†	3892.9	3402.8	-20.460 ug/L	-20.460 ppb	07:31:33
2	SiO2†	-492.7	-1103.8	-81.442 ug/L	-81.442 ppb	07:32:09
3	Sc Radial	4300.1	4300.1	101 %		07:30:19
3	Y RADIAL	4685.0	4685.0	97.73 %		07:30:19

3	Al 396.153Radial†	-95.0	-18.9	-18.401	ug/L	-18.401 ppb	07:30:40
3	Ca 317.933Radial†	19.3	2.0	3.9722	ug/L	3.9722 ppb	07:30:40
3	Fe 238.204 Radial†	32460.2	32082.9	387570	ug/L	387570 ppb	07:30:19
3	K 766.490 Radial†	2690.9	-47.5	-8.9733	ug/L	-8.9733 ppb	07:30:19
3	Mg 279.077 IEC†	9.0	8.3	-54.547	ug/L	-54.547 ppb	07:30:40
3	Na 589.592 Radial†	-765.5	113.4	44.636	ug/L	44.636 ppb	07:30:19
3	Sr 421.552†	32.8	12.5	0.1030	ug/L	0.1030 ppb	07:30:19
3	Sc 361.383	859342.7	859342.7	97.504	%		07:31:39
3	Y 371.029	726894.2	726894.2	97.077	%		07:31:39
3	Ag 328.068†	-24636.8	-25527.0	-0.1712	ug/L	-0.1712 ppb	07:31:39
3	As 188.979†	-166.5	-150.2	16.137	ug/L	16.137 ppb	07:31:59
3	B 249.677†	1580.7	2009.3	-11.815	ug/L	-11.815 ppb	07:31:39
3	Ba 233.527†	-1828.1	-1884.9	-4.5732	ug/L	-4.5732 ppb	07:31:39
3	Be 313.107†	-4175.7	0.1	-0.0003	ug/L	-0.0003 ppb	07:31:39
3	Cd 226.502†	2786.0	3029.2	-0.0061	ug/L	-0.0061 ppb	07:31:39
3	Co 228.616†	625.3	688.0	11.055	ug/L	11.055 ppb	07:31:59
3	Cr 267.716†	-460.6	-540.6	34.504	ug/L	34.504 ppb	07:31:39
3	Cu 324.752†	-2171.0	-8554.6	-5.4848	ug/L	-5.4848 ppb	07:31:39
3	Mn 257.610†	-35967.5	-37351.2	-7.2866	ug/L	-7.2866 ppb	07:31:39
3	Mo 202.031†	-235.0	-254.9	9.2325	ug/L	9.2325 ppb	07:31:39
3	Ni 231.604†	159.6	68.2	1.9834	ug/L	1.9834 ppb	07:31:59
3	P 214.914†	653.2	491.6	24.228	ug/L	24.228 ppb	07:31:59
3	Pb 220.353†	150.4	204.3	-26.262	ug/L	-26.262 ppb	07:31:59
3	S 181.975 Axial†	34.5	12.1	19.297	ug/L	19.297 ppb	07:31:59
3	Sb 206.836†	6.4	-20.9	-12.769	ug/L	-12.769 ppb	07:31:59
3	Se 196.026†	-1829.0	-1859.1	-264.87	ug/L	-264.87 ppb	07:31:59
3	Si 251.611†	-493.7	-1075.2	-37.012	ug/L	-37.012 ppb	07:31:39
3	Sn 189.927†	-29.0	-36.6	-29.848	ug/L	-29.848 ppb	07:31:59
3	Ti 334.940†	-1132.7	-109.7	-0.2264	ug/L	-0.2264 ppb	07:31:39
3	Tl 190.801†	-32.0	1.0	-0.0317	ug/L	-0.0317 ppb	07:31:59
3	U 409.014†	21.7	1910.7	7.7549	ug/L	7.7549 ppb	07:31:39
3	V 292.402†	5113.4	6617.2	-8.7489	ug/L	-8.7489 ppb	07:31:39
3	Zn 213.857†	3893.4	3368.2	-20.688	ug/L	-20.688 ppb	07:31:59
3	SiO2†	-560.6	-1169.0	-86.403	ug/L	-86.403 ppb	07:32:14

Mean Data: LR1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	856143.6	97.141	%	0.4370				0.45%
Sc Radial	4326.8	102	%	0.9				0.86%
Y 371.029	723788.9	96.662	%	0.4366				0.45%
Y RADIAL	4711.3	98.28	%	1.032				1.05%
Ag 328.068†	-25531.2	-0.2799	ug/L	0.45684	-0.2799	ppb	0.45684	163.19%
Al 396.153Radial†	-22.6	-22.093	ug/L	4.2922	-22.093	ppb	4.2922	19.43%
As 188.979†	-153.1	14.600	ug/L	4.3477	14.600	ppb	4.3477	29.78%
B 249.677†	2032.7	-11.173	ug/L	1.1003	-11.173	ppb	1.1003	9.85%
Ba 233.527†	-1821.6	-4.0292	ug/L	0.54732	-4.0292	ppb	0.54732	13.58%
Be 313.107†	10.3	0.0035	ug/L	0.01876	0.0035	ppb	0.01876	537.47%
Ca 317.933Radial†	-0.1	-0.1927	ug/L	3.93862	-0.1927	ppb	3.93862	>999.9%
Cd 226.502†	3011.4	-0.2110	ug/L	0.22200	-0.2110	ppb	0.22200	105.21%
Co 228.616†	693.1	11.176	ug/L	0.2093	11.176	ppb	0.2093	1.87%
Cr 267.716†	-597.1	33.784	ug/L	0.7471	33.784	ppb	0.7471	2.21%
Cu 324.752†	-8505.1	-5.3504	ug/L	0.35857	-5.3504	ppb	0.35857	6.70%
Fe 238.204 Radial†	32059.6	387290	ug/L	1424.2	387290	ppb	1424.2	0.37%
K 766.490 Radial†	-37.7	-7.0939	ug/L	12.25577	-7.0939	ppb	12.25577	172.76%
Mg 279.077 IEC†	9.5	-2.8154	ug/L	73.62336	-2.8154	ppb	73.62336	>999.9%
Mn 257.610†	-37315.2	-7.2726	ug/L	0.15800	-7.2726	ppb	0.15800	2.17%
Mo 202.031†	-284.8	6.7604	ug/L	2.16966	6.7604	ppb	2.16966	32.09%
Na 589.592 Radial†	97.6	38.418	ug/L	7.9405	38.418	ppb	7.9405	20.67%
Ni 231.604†	94.4	2.7474	ug/L	0.66949	2.7474	ppb	0.66949	24.37%
P 214.914†	481.1	17.393	ug/L	6.4522	17.393	ppb	6.4522	37.10%
Pb 220.353†	201.0	-26.704	ug/L	1.3122	-26.704	ppb	1.3122	4.91%
S 181.975 Axial†	16.0	25.437	ug/L	7.3559	25.437	ppb	7.3559	28.92%
Sb 206.836†	-12.5	-9.5616	ug/L	2.81173	-9.5616	ppb	2.81173	29.41%
Se 196.026†	-1854.3	-262.08	ug/L	2.416	-262.08	ppb	2.416	0.92%
Si 251.611†	-1061.7	-36.511	ug/L	2.5621	-36.511	ppb	2.5621	7.02%
Sn 189.927†	-33.7	-29.223	ug/L	0.5473	-29.223	ppb	0.5473	1.87%
Sr 421.552†	40.6	0.3341	ug/L	0.20018	0.3341	ppb	0.20018	59.91%
Ti 334.940†	-107.9	-0.2288	ug/L	0.03398	-0.2288	ppb	0.03398	14.85%
Tl 190.801†	6.5	1.9677	ug/L	2.04472	1.9677	ppb	2.04472	103.91%

U 409.014†	1966.9	9.3163	ug/L	1.49713	9.3163	ppb	1.49713	16.07%
V 292.402†	6594.0	-8.9062	ug/L	0.17171	-8.9062	ppb	0.17171	1.93%
Zn 213.857†	3367.5	-20.659	ug/L	0.1860	-20.659	ppb	0.1860	0.90%
SiO2†	-1129.1	-83.371	ug/L	2.6582	-83.371	ppb	2.6582	3.19%

Sequence No.: 2
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/24/2010 07:34:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4311.8	4311.8	101	%			07:36:18
1	Y RADIAL	4684.5	4684.5	97.72	%			07:36:18
1	Al 396.153Radial†	4934.7	4940.0	5048.6	ug/L	5048.6	ppb	07:36:18
1	Ca 317.933Radial†	2683.8	2628.8	5210.1	ug/L	5210.1	ppb	07:36:38
1	Fe 238.204 Radial†	435.1	422.8	5121.8	ug/L	5121.8	ppb	07:36:38
1	K 766.490 Radial†	29265.5	26144.8	4941.0	ug/L	4941.0	ppb	07:36:18
1	Mg 279.077 IEC†	126.5	124.1	5278.6	ug/L	5278.6	ppb	07:36:38
1	Na 589.592 Radial†	24572.8	25096.2	9875.4	ug/L	9875.4	ppb	07:36:18
1	Sr 421.552†	59479.5	58620.2	481.82	ug/L	481.82	ppb	07:36:18
1	Sc 361.383	883208.7	883208.7	100.21	%			07:37:35
1	Y 371.029	740415.0	740415.0	98.883	%			07:37:35
1	Ag 328.068†	103389.5	102911.3	487.55	ug/L	487.55	ppb	07:37:40
1	As 188.979†	928.4	947.1	475.31	ug/L	475.31	ppb	07:38:00
1	B 249.677†	18755.1	19103.6	484.30	ug/L	484.30	ppb	07:37:40
1	Ba 233.527†	55227.5	55100.6	482.69	ug/L	482.69	ppb	07:37:40
1	Be 313.107†	1271564.8	1273157.6	482.81	ug/L	482.81	ppb	07:37:35
1	Cd 226.502†	36173.4	36268.7	478.99	ug/L	478.99	ppb	07:37:40
1	Co 228.616†	20186.0	20190.1	490.27	ug/L	490.27	ppb	07:37:40
1	Cr 267.716†	39603.0	39451.0	483.03	ug/L	483.03	ppb	07:37:40
1	Cu 324.752†	164613.6	157937.3	479.47	ug/L	479.47	ppb	07:37:40
1	Mn 257.610†	388739.8	387454.3	472.81	ug/L	472.81	ppb	07:37:40
1	Mo 202.031†	5886.5	5860.2	479.97	ug/L	479.97	ppb	07:38:00
1	Ni 231.604†	16848.7	16717.6	488.19	ug/L	488.19	ppb	07:37:40
1	P 214.914†	3669.4	3483.3	2254.0	ug/L	2254.0	ppb	07:38:00
1	Pb 220.353†	3330.0	3373.1	478.90	ug/L	478.90	ppb	07:38:00
1	S 181.975 Axial†	620.9	596.4	949.44	ug/L	949.44	ppb	07:38:00
1	Sb 206.836†	1252.3	1222.2	487.13	ug/L	487.13	ppb	07:38:00
1	Se 196.026†	635.8	651.2	500.81	ug/L	500.81	ppb	07:38:00
1	Si 251.611†	70175.1	69457.8	2401.6	ug/L	2401.6	ppb	07:37:40
1	Sn 189.927†	2315.3	2303.5	478.76	ug/L	478.76	ppb	07:38:00
1	Ti 334.940†	297079.5	297503.0	482.32	ug/L	482.32	ppb	07:37:40
1	Tl 190.801†	1306.7	1337.7	483.68	ug/L	483.68	ppb	07:38:00
1	U 409.014†	15956.9	17811.6	482.39	ug/L	482.39	ppb	07:37:40
1	V 292.402†	65202.2	66437.2	487.13	ug/L	487.13	ppb	07:37:40
1	Zn 213.857†	44380.4	43661.7	478.86	ug/L	478.86	ppb	07:37:40
1	SiO2†	69730.6	68989.1	5119.7	ug/L	5119.7	ppb	07:39:07
2	Sc Radial	4394.8	4394.8	103	%			07:36:43
2	Y RADIAL	4747.1	4747.1	99.02	%			07:36:43
2	Al 396.153Radial†	4978.7	4890.7	4997.3	ug/L	4997.3	ppb	07:36:43
2	Ca 317.933Radial†	2668.4	2563.9	5081.5	ug/L	5081.5	ppb	07:37:03
2	Fe 238.204 Radial†	438.9	418.4	5069.5	ug/L	5069.5	ppb	07:37:03
2	K 766.490 Radial†	29747.4	26066.0	4926.2	ug/L	4926.2	ppb	07:36:43
2	Mg 279.077 IEC†	131.8	126.9	5398.2	ug/L	5398.2	ppb	07:37:03
2	Na 589.592 Radial†	24973.4	25026.1	9847.8	ug/L	9847.8	ppb	07:36:43
2	Sr 421.552†	60499.6	58499.3	480.83	ug/L	480.83	ppb	07:36:43
2	Sc 361.383	864114.4	864114.4	98.045	%			07:38:06
2	Y 371.029	725166.1	725166.1	96.846	%			07:38:06
2	Ag 328.068†	103378.6	105179.9	498.26	ug/L	498.26	ppb	07:38:11
2	As 188.979†	947.2	986.7	495.06	ug/L	495.06	ppb	07:38:31
2	B 249.677†	18785.1	19547.7	495.58	ug/L	495.58	ppb	07:38:11
2	Ba 233.527†	55216.4	56307.1	493.25	ug/L	493.25	ppb	07:38:11
2	Be 313.107†	1247488.7	1276639.7	484.15	ug/L	484.15	ppb	07:38:06
2	Cd 226.502†	36208.4	37102.1	490.01	ug/L	490.01	ppb	07:38:11
2	Co 228.616†	20194.1	20643.4	501.28	ug/L	501.28	ppb	07:38:11
2	Cr 267.716†	39566.5	40287.1	493.25	ug/L	493.25	ppb	07:38:11
2	Cu 324.752†	164628.6	161582.4	490.53	ug/L	490.53	ppb	07:38:11
2	Mn 257.610†	389289.0	396586.4	483.93	ug/L	483.93	ppb	07:38:11
2	Mo 202.031†	5917.0	6021.1	493.13	ug/L	493.13	ppb	07:38:31
2	Ni 231.604†	16869.2	17110.0	499.65	ug/L	499.65	ppb	07:38:11

2	P 214.914†	3713.8	3609.6	2337.1 ug/L	2337.1 ppb	07:38:31
2	Pb 220.353†	3354.6	3471.5	492.87 ug/L	492.87 ppb	07:38:31
2	S 181.975 Axial†	615.8	604.9	962.96 ug/L	962.96 ppb	07:38:31
2	Sb 206.836†	1260.4	1258.0	501.42 ug/L	501.42 ppb	07:38:31
2	Se 196.026†	629.5	658.7	506.25 ug/L	506.25 ppb	07:38:31
2	Si 251.611†	70174.3	71004.3	2455.0 ug/L	2455.0 ppb	07:38:11
2	Sn 189.927†	2335.1	2374.7	493.52 ug/L	493.52 ppb	07:38:31
2	Ti 334.940†	297075.9	304050.0	492.90 ug/L	492.90 ppb	07:38:11
2	Tl 190.801†	1317.7	1377.7	498.11 ug/L	498.11 ppb	07:38:31
2	U 409.014†	15957.2	18163.7	491.94 ug/L	491.94 ppb	07:38:11
2	V 292.402†	65258.8	67932.7	498.16 ug/L	498.16 ppb	07:38:11
2	Zn 213.857†	44398.5	44658.7	489.82 ug/L	489.82 ppb	07:38:11
2	SiO2†	70328.1	71136.0	5279.0 ug/L	5279.0 ppb	07:39:12
3	Sc Radial	4343.8	4343.8	102 %		07:37:08
3	Y RADIAL	4685.3	4685.3	97.73 %		07:37:08
3	Al 396.153Radial†	4924.3	4894.0	5001.0 ug/L	5001.0 ppb	07:37:08
3	Ca 317.933Radial†	2696.4	2621.7	5196.0 ug/L	5196.0 ppb	07:37:28
3	Fe 238.204 Radial†	442.1	426.5	5166.5 ug/L	5166.5 ppb	07:37:28
3	K 766.490 Radial†	29084.6	25755.2	4867.3 ug/L	4867.3 ppb	07:37:08
3	Mg 279.077 IEC†	132.9	129.4	5504.5 ug/L	5504.5 ppb	07:37:28
3	Na 589.592 Radial†	24575.3	24920.1	9806.1 ug/L	9806.1 ppb	07:37:08
3	Sr 421.552†	59588.0	58294.2	479.14 ug/L	479.14 ppb	07:37:08
3	Sc 361.383	877405.8	877405.8	99.554 %		07:38:37
3	Y 371.029	734733.7	734733.7	98.124 %		07:38:37
3	Ag 328.068†	103211.4	103414.7	489.94 ug/L	489.94 ppb	07:38:42
3	As 188.979†	945.8	970.7	487.09 ug/L	487.09 ppb	07:39:02
3	B 249.677†	18706.5	19178.5	486.19 ug/L	486.19 ppb	07:38:42
3	Ba 233.527†	55064.2	55301.1	484.45 ug/L	484.45 ppb	07:38:42
3	Be 313.107†	1263616.8	1273565.9	482.97 ug/L	482.97 ppb	07:38:37
3	Cd 226.502†	36123.5	36457.4	481.48 ug/L	481.48 ppb	07:38:42
3	Co 228.616†	20142.2	20279.3	492.44 ug/L	492.44 ppb	07:38:42
3	Cr 267.716†	39492.0	39601.0	484.87 ug/L	484.87 ppb	07:38:42
3	Cu 324.752†	164552.5	158962.4	482.59 ug/L	482.59 ppb	07:38:42
3	Mn 257.610†	388175.4	389453.1	475.24 ug/L	475.24 ppb	07:38:42
3	Mo 202.031†	5921.8	5934.5	486.05 ug/L	486.05 ppb	07:39:02
3	Ni 231.604†	16804.5	16784.4	490.14 ug/L	490.14 ppb	07:38:42
3	P 214.914†	3722.5	3560.9	2305.7 ug/L	2305.7 ppb	07:39:02
3	Pb 220.353†	3365.2	3430.3	487.00 ug/L	487.00 ppb	07:39:02
3	S 181.975 Axial†	625.7	605.2	963.55 ug/L	963.55 ppb	07:39:02
3	Sb 206.836†	1272.5	1250.7	498.34 ug/L	498.34 ppb	07:39:02
3	Se 196.026†	628.4	647.9	498.52 ug/L	498.52 ppb	07:39:02
3	Si 251.611†	70123.3	69868.9	2415.7 ug/L	2415.7 ppb	07:38:42
3	Sn 189.927†	2334.6	2338.2	485.95 ug/L	485.95 ppb	07:39:02
3	Ti 334.940†	296905.4	299288.8	485.19 ug/L	485.19 ppb	07:38:42
3	Tl 190.801†	1325.5	1365.2	493.59 ug/L	493.59 ppb	07:39:02
3	U 409.014†	16069.1	18029.6	488.30 ug/L	488.30 ppb	07:38:42
3	V 292.402†	65076.3	66741.0	489.42 ug/L	489.42 ppb	07:38:42
3	Zn 213.857†	44351.2	43925.3	481.76 ug/L	481.76 ppb	07:38:42
3	SiO2†	70949.4	70673.5	5244.8 ug/L	5244.8 ppb	07:39:17

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	874909.7	99.270	%	1.1107				1.12%
Sc Radial	4350.2	102	%	1.0				0.96%
Y 371.029	733438.3	97.951	%	1.0292				1.05%
Y RADIAL	4705.6	98.16	%	0.749				0.76%
Ag 328.068†	103835.3	491.92	ug/L	5.618	491.92	ppb	5.618	1.14%
QC value within limits for Ag 328.068 Recovery = 98.38%								
Al 396.153Radial†	4908.2	5015.6	ug/L	28.59	5015.6	ppb	28.59	0.57%
QC value within limits for Al 396.153Radial Recovery = 100.31%								
As 188.979†	968.2	485.82	ug/L	9.940	485.82	ppb	9.940	2.05%
QC value within limits for As 188.979 Recovery = 97.16%								
B 249.677†	19276.6	488.69	ug/L	6.045	488.69	ppb	6.045	1.24%
QC value within limits for B 249.677 Recovery = 97.74%								
Ba 233.527†	55569.6	486.80	ug/L	5.660	486.80	ppb	5.660	1.16%
QC value within limits for Ba 233.527 Recovery = 97.36%								
Be 313.107†	1274454.4	483.31	ug/L	0.733	483.31	ppb	0.733	0.15%
QC value within limits for Be 313.107 Recovery = 96.66%								
Ca 317.933Radial†	2604.8	5162.5	ug/L	70.51	5162.5	ppb	70.51	1.37%

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   QC value within limits for Ca 317.933Radial  Recovery = 103.25%
Cd 226.502†            36609.4      483.50 ug/L         5.781      483.50 ppb          5.781   1.20%
   QC value within limits for Cd 226.502  Recovery = 96.70%
Co 228.616†            20370.9      494.66 ug/L         5.835      494.66 ppb          5.835   1.18%
   QC value within limits for Co 228.616  Recovery = 98.93%
Cr 267.716†            39779.7      487.05 ug/L         5.449      487.05 ppb          5.449   1.12%
   QC value within limits for Cr 267.716  Recovery = 97.41%
Cu 324.752†           159494.0      484.20 ug/L         5.702      484.20 ppb          5.702   1.18%
   QC value within limits for Cu 324.752  Recovery = 96.84%
Fe 238.204 Radial†       422.5      5119.3 ug/L         48.56      5119.3 ppb          48.56   0.95%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.39%
K 766.490 Radial†      25988.7      4911.5 ug/L         38.97      4911.5 ppb          38.97   0.79%
   QC value within limits for K 766.490 Radial  Recovery = 98.23%
Mg 279.077 IEC†          126.8      5393.8 ug/L        113.01      5393.8 ppb         113.01   2.10%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.88%
Mn 257.610†           391164.6      477.33 ug/L         5.850      477.33 ppb          5.850   1.23%
   QC value within limits for Mn 257.610  Recovery = 95.47%
Mo 202.031†             5938.6      486.38 ug/L         6.588      486.38 ppb          6.588   1.35%
   QC value within limits for Mo 202.031  Recovery = 97.28%
Na 589.592 Radial†     25014.1      9843.1 ug/L         34.88      9843.1 ppb          34.88   0.35%
   QC value within limits for Na 589.592 Radial  Recovery = 98.43%
Ni 231.604†            16870.6      492.66 ug/L         6.132      492.66 ppb          6.132   1.24%
   QC value within limits for Ni 231.604  Recovery = 98.53%
P 214.914†              3551.3      2299.0 ug/L         41.95      2299.0 ppb          41.95   1.82%
   QC value within limits for P 214.914  Recovery = 91.96%
Pb 220.353†             3425.0      486.26 ug/L         7.010      486.26 ppb          7.010   1.44%
   QC value within limits for Pb 220.353  Recovery = 97.25%
S 181.975 Axial†         602.2      958.65 ug/L         7.978      958.65 ppb          7.978   0.83%
   QC value within limits for S 181.975 Axial  Recovery = 95.87%
Sb 206.836†             1243.6      495.63 ug/L         7.521      495.63 ppb          7.521   1.52%
   QC value within limits for Sb 206.836  Recovery = 99.13%
Se 196.026†              652.6      501.86 ug/L         3.973      501.86 ppb          3.973   0.79%
   QC value within limits for Se 196.026  Recovery = 100.37%
Si 251.611†            70110.3      2424.1 ug/L         27.69      2424.1 ppb          27.69   1.14%
   QC value within limits for Si 251.611  Recovery = 96.96%
Sn 189.927†             2338.8      486.07 ug/L         7.381      486.07 ppb          7.381   1.52%
   QC value within limits for Sn 189.927  Recovery = 97.21%
Sr 421.552†            58471.2      480.60 ug/L         1.354      480.60 ppb          1.354   0.28%
   QC value within limits for Sr 421.552  Recovery = 96.12%
Ti 334.940†           300280.6      486.80 ug/L         5.472      486.80 ppb          5.472   1.12%
   QC value within limits for Ti 334.940  Recovery = 97.36%
Tl 190.801†             1360.2      491.79 ug/L         7.377      491.79 ppb          7.377   1.50%
   QC value within limits for Tl 190.801  Recovery = 98.36%
U 409.014†             18001.6      487.54 ug/L         4.821      487.54 ppb          4.821   0.99%
   QC value within limits for U 409.014  Recovery = 97.51%
V 292.402†             67037.0      491.57 ug/L         5.816      491.57 ppb          5.816   1.18%
   QC value within limits for V 292.402  Recovery = 98.31%
Zn 213.857†            44081.9      483.48 ug/L         5.678      483.48 ppb          5.678   1.17%
   QC value within limits for Zn 213.857  Recovery = 96.70%
SiO2†                  70266.2      5214.5 ug/L         83.90      5214.5 ppb          83.90   1.61%
   QC value within limits for SiO2  Recovery = 97.51%
All analyte(s) passed QC.
```

Sequence No.: 3
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/24/2010 07:41:28
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4456.5	4456.5	105	%			07:43:21
1	Y RADIAL	4879.5	4879.5	101.8	%			07:43:21
1	Al 396.153Radial†	-71.3	7.0	7.1233	ug/L	7.1233	ppb	07:43:41
1	Ca 317.933Radial†	21.6	3.5	6.9157	ug/L	6.9157	ppb	07:43:41
1	Fe 238.204 Radial†	7.6	1.0	12.687	ug/L	12.687	ppb	07:43:41
1	K 766.490 Radial†	2900.2	58.8	11.112	ug/L	11.112	ppb	07:43:21
1	Mg 279.077 IEC†	0.8	0.2	6.6368	ug/L	6.6368	ppb	07:43:41
1	Na 589.592 Radial†	-853.6	55.9	22.014	ug/L	22.014	ppb	07:43:21
1	Sr 421.552†	27.2	6.0	0.0493	ug/L	0.0493	ppb	07:43:21
1	Sc 361.383	861286.3	861286.3	97.725	%			07:44:37
1	Y 371.029	734859.8	734859.8	98.141	%			07:44:37
1	Ag 328.068†	247.9	-5.8	-0.0202	ug/L	-0.0202	ppb	07:44:37
1	As 188.979†	-14.8	5.5	2.7342	ug/L	2.7342	ppb	07:44:57
1	B 249.677†	167.4	559.4	14.243	ug/L	14.243	ppb	07:44:57
1	Ba 233.527†	22.9	13.4	0.1164	ug/L	0.1164	ppb	07:44:57
1	Be 313.107†	-4203.2	-18.3	-0.0067	ug/L	-0.0067	ppb	07:44:37
1	Cd 226.502†	-162.1	6.0	0.0772	ug/L	0.0772	ppb	07:44:57
1	Co 228.616†	-28.1	18.0	0.4365	ug/L	0.4365	ppb	07:44:57
1	Cr 267.716†	122.0	56.7	0.6955	ug/L	0.6955	ppb	07:44:57
1	Cu 324.752†	6292.9	111.4	0.3423	ug/L	0.3423	ppb	07:44:37
1	Mn 257.610†	447.3	-5.3	-0.0055	ug/L	-0.0055	ppb	07:44:57
1	Mo 202.031†	17.1	3.7	0.2998	ug/L	0.2998	ppb	07:44:57
1	Ni 231.604†	99.6	6.4	0.1870	ug/L	0.1870	ppb	07:44:57
1	P 214.914†	169.5	-4.8	-3.3350	ug/L	-3.3350	ppb	07:44:57
1	Pb 220.353†	-58.3	-9.6	-1.3563	ug/L	-1.3563	ppb	07:44:57
1	S 181.975 Axial†	32.0	9.5	15.114	ug/L	15.114	ppb	07:44:57
1	Sb 206.836†	28.2	1.3	0.5034	ug/L	0.5034	ppb	07:44:57
1	Se 196.026†	-22.1	-5.9	-4.3235	ug/L	-4.3235	ppb	07:44:57
1	Si 251.611†	617.3	62.8	2.1719	ug/L	2.1719	ppb	07:44:57
1	Sn 189.927†	8.8	2.1	0.4405	ug/L	0.4405	ppb	07:44:57
1	Ti 334.940†	-981.8	47.3	0.0795	ug/L	0.0795	ppb	07:44:37
1	Tl 190.801†	-31.6	1.4	0.5064	ug/L	0.5064	ppb	07:44:57
1	U 409.014†	-2065.3	-225.0	-6.1179	ug/L	-6.1179	ppb	07:44:37
1	V 292.402†	-1399.9	-59.6	-0.4405	ug/L	-0.4405	ppb	07:44:37
1	Zn 213.857†	669.3	60.0	0.6609	ug/L	0.6609	ppb	07:44:57
1	SiO2†	638.3	59.1	4.3861	ug/L	4.3861	ppb	07:46:08
2	Sc Radial	4492.0	4492.0	106	%			07:43:46
2	Y RADIAL	4887.1	4887.1	101.9	%			07:43:46
2	Al 396.153Radial†	-75.2	3.8	3.8327	ug/L	3.8327	ppb	07:44:06
2	Ca 317.933Radial†	25.6	7.1	14.170	ug/L	14.170	ppb	07:44:06
2	Fe 238.204 Radial†	5.9	-0.6	-7.0688	ug/L	-7.0688	ppb	07:44:06
2	K 766.490 Radial†	2892.6	29.8	5.6234	ug/L	5.6234	ppb	07:43:46
2	Mg 279.077 IEC†	4.5	3.6	153.02	ug/L	153.02	ppb	07:44:06
2	Na 589.592 Radial†	-859.9	56.4	22.186	ug/L	22.186	ppb	07:43:46
2	Sr 421.552†	21.9	0.8	0.0067	ug/L	0.0067	ppb	07:43:46
2	Sc 361.383	872043.1	872043.1	98.945	%			07:45:03
2	Y 371.029	744833.8	744833.8	99.473	%			07:45:03
2	Ag 328.068†	183.9	-73.6	-0.3471	ug/L	-0.3471	ppb	07:45:03
2	As 188.979†	-22.3	-1.9	-0.9474	ug/L	-0.9474	ppb	07:45:23
2	B 249.677†	155.1	544.9	13.877	ug/L	13.877	ppb	07:45:23
2	Ba 233.527†	10.5	0.6	0.0051	ug/L	0.0051	ppb	07:45:23
2	Be 313.107†	-4226.7	11.0	0.0043	ug/L	0.0043	ppb	07:45:03
2	Cd 226.502†	-161.4	8.8	0.1161	ug/L	0.1161	ppb	07:45:23
2	Co 228.616†	-39.7	6.6	0.1606	ug/L	0.1606	ppb	07:45:23
2	Cr 267.716†	106.4	39.4	0.4818	ug/L	0.4818	ppb	07:45:23
2	Cu 324.752†	6405.2	145.4	0.4424	ug/L	0.4424	ppb	07:45:03
2	Mn 257.610†	462.7	4.6	-0.0013	ug/L	-0.0013	ppb	07:45:23
2	Mo 202.031†	20.8	7.1	0.5845	ug/L	0.5845	ppb	07:45:23
2	Ni 231.604†	95.4	0.9	0.0266	ug/L	0.0266	ppb	07:45:23

2	P 214.914†	184.2	7.9	5.2448	ug/L	5.2448	ppb	07:45:23
2	Pb 220.353†	-51.7	-2.2	-0.3101	ug/L	-0.3101	ppb	07:45:23
2	S 181.975 Axial†	30.1	7.2	11.400	ug/L	11.400	ppb	07:45:23
2	Sb 206.836†	29.0	1.7	0.6897	ug/L	0.6897	ppb	07:45:23
2	Se 196.026†	-19.3	-2.9	-2.1412	ug/L	-2.1412	ppb	07:45:23
2	Si 251.611†	605.7	43.3	1.4934	ug/L	1.4934	ppb	07:45:23
2	Sn 189.927†	8.4	1.6	0.3254	ug/L	0.3254	ppb	07:45:23
2	Ti 334.940†	-1004.1	37.2	0.0505	ug/L	0.0505	ppb	07:45:03
2	Tl 190.801†	-23.3	10.2	3.6571	ug/L	3.6571	ppb	07:45:23
2	U 409.014†	-1947.6	-80.0	-2.1732	ug/L	-2.1732	ppb	07:45:03
2	V 292.402†	-1353.6	4.9	0.0436	ug/L	0.0436	ppb	07:45:03
2	Zn 213.857†	683.0	65.4	0.7246	ug/L	0.7246	ppb	07:45:23
2	SiO2†	629.5	42.2	3.1232	ug/L	3.1232	ppb	07:46:28
3	Sc Radial	4451.8	4451.8	105	%			07:44:11
3	Y RADIAL	4866.3	4866.3	101.5	%			07:44:11
3	Al 396.153Radial†	-67.5	10.5	10.771	ug/L	10.771	ppb	07:44:31
3	Ca 317.933Radial†	20.6	2.6	5.1204	ug/L	5.1204	ppb	07:44:31
3	Fe 238.204 Radial†	5.5	-0.9	-11.123	ug/L	-11.123	ppb	07:44:31
3	K 766.490 Radial†	2842.9	7.1	1.3178	ug/L	1.3178	ppb	07:44:11
3	Mg 279.077 IEC†	0.7	0.1	3.2123	ug/L	3.2123	ppb	07:44:31
3	Na 589.592 Radial†	-802.4	103.9	40.885	ug/L	40.885	ppb	07:44:11
3	Sr 421.552†	2.0	-18.0	-0.1480	ug/L	-0.1480	ppb	07:44:11
3	Sc 361.383	868863.8	868863.8	98.584	%			07:45:28
3	Y 371.029	741387.0	741387.0	99.012	%			07:45:28
3	Ag 328.068†	182.3	-74.6	-0.3582	ug/L	-0.3582	ppb	07:45:28
3	As 188.979†	-16.8	3.6	1.7980	ug/L	1.7980	ppb	07:45:48
3	B 249.677†	141.7	531.9	13.548	ug/L	13.548	ppb	07:45:48
3	Ba 233.527†	24.3	14.6	0.1270	ug/L	0.1270	ppb	07:45:48
3	Be 313.107†	-4280.3	-59.0	-0.0225	ug/L	-0.0225	ppb	07:45:28
3	Cd 226.502†	-156.1	13.5	0.1808	ug/L	0.1808	ppb	07:45:48
3	Co 228.616†	-46.8	-0.8	-0.0187	ug/L	-0.0187	ppb	07:45:48
3	Cr 267.716†	114.9	48.4	0.5884	ug/L	0.5884	ppb	07:45:48
3	Cu 324.752†	6376.3	139.8	0.4216	ug/L	0.4216	ppb	07:45:28
3	Mn 257.610†	463.0	6.6	0.0068	ug/L	0.0068	ppb	07:45:48
3	Mo 202.031†	15.9	2.3	0.1864	ug/L	0.1864	ppb	07:45:48
3	Ni 231.604†	95.4	1.2	0.0355	ug/L	0.0355	ppb	07:45:48
3	P 214.914†	174.9	-0.9	-0.6908	ug/L	-0.6908	ppb	07:45:48
3	Pb 220.353†	-63.8	-14.6	-2.0650	ug/L	-2.0650	ppb	07:45:48
3	S 181.975 Axial†	29.4	6.5	10.421	ug/L	10.421	ppb	07:45:48
3	Sb 206.836†	33.4	6.4	2.4766	ug/L	2.4766	ppb	07:45:48
3	Se 196.026†	-18.4	-2.0	-1.5051	ug/L	-1.5051	ppb	07:45:48
3	Si 251.611†	585.9	25.4	0.8775	ug/L	0.8775	ppb	07:45:48
3	Sn 189.927†	10.3	3.6	0.7461	ug/L	0.7461	ppb	07:45:48
3	Ti 334.940†	-1082.4	-45.9	-0.0761	ug/L	-0.0761	ppb	07:45:28
3	Tl 190.801†	-27.8	5.6	2.0074	ug/L	2.0074	ppb	07:45:48
3	U 409.014†	-1711.8	152.0	4.1299	ug/L	4.1299	ppb	07:45:28
3	V 292.402†	-1361.5	-8.1	-0.0462	ug/L	-0.0462	ppb	07:45:28
3	Zn 213.857†	672.6	57.5	0.6373	ug/L	0.6373	ppb	07:45:48
3	SiO2†	608.1	22.8	1.6878	ug/L	1.6878	ppb	07:46:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	867397.8	98.418	%	0.6270				0.64%
Sc Radial	4466.7	105	%	0.5				0.49%
Y 371.029	740360.2	98.875	%	0.6765				0.68%
Y RADIAL	4877.7	101.7	%	0.22				0.22%
Ag 328.068†	-51.3	-0.2418	ug/L	0.19199	-0.2418	ppb	0.19199	79.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	7.1	7.2422	ug/L	3.47052	7.2422	ppb	3.47052	47.92%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.4	1.1949	ug/L	1.91349	1.1949	ppb	1.91349	160.13%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	545.4	13.889	ug/L	0.3477	13.889	ppb	0.3477	2.50%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.5	0.0828	ug/L	0.06754	0.0828	ppb	0.06754	81.57%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-22.1	-0.0083	ug/L	0.01345	-0.0083	ppb	0.01345	161.85%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.4	8.7353	ug/L	4.79123	8.7353	ppb	4.79123	54.85%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                9.4      0.1247 ug/L       0.05234      0.1247 ppb        0.05234  41.99%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                7.9      0.1928 ug/L       0.22933      0.1928 ppb        0.22933 118.94%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               48.2      0.5886 ug/L       0.10685      0.5886 ppb        0.10685  18.15%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              132.2      0.4021 ug/L       0.05283      0.4021 ppb        0.05283  13.14%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        -0.2     -1.8350 ug/L      12.73828     -1.8350 ppb       12.73828 694.20%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         31.9      6.0179 ug/L       4.90921      6.0179 ppb        4.90921  81.58%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            1.3      54.291 ug/L       85.5225      54.291 ppb        85.5225 157.53%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                2.0      0.0000 ug/L       0.00627      0.0000 ppb        0.00627 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.4      0.3569 ug/L       0.20511      0.3569 ppb        0.20511  57.47%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        72.1      28.362 ug/L       10.8455      28.362 ppb        10.8455  38.24%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                2.8      0.0831 ug/L       0.09013      0.0831 ppb        0.09013 108.51%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 0.7      0.4063 ug/L       4.39384      0.4063 ppb        4.39384 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -8.8     -1.2438 ug/L       0.88286     -1.2438 ppb        0.88286  70.98%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           7.7      12.312 ug/L        2.4759      12.312 ppb         2.4759  20.11%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                3.1      1.2232 ug/L       1.08947      1.2232 ppb        1.08947  89.07%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -3.6     -2.6566 ug/L       1.47820     -2.6566 ppb        1.47820  55.64%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               43.8      1.5142 ug/L       0.64743      1.5142 ppb        0.64743  42.76%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                2.4      0.5040 ug/L       0.21742      0.5040 ppb        0.21742  43.14%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -3.7     -0.0307 ug/L       0.10380     -0.0307 ppb        0.10380 338.56%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               12.9      0.0180 ug/L       0.08275      0.0180 ppb        0.08275 460.28%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                5.7      2.0570 ug/L       1.57594      2.0570 ppb        1.57594  76.61%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -51.0     -1.3871 ug/L       5.16892     -1.3871 ppb        5.16892 372.65%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -20.9     -0.1477 ug/L       0.25752     -0.1477 ppb        0.25752 174.33%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               61.0      0.6743 ug/L       0.04514      0.6743 ppb        0.04514   6.69%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     41.3      3.0657 ug/L       1.35009      3.0657 ppb        1.35009  44.04%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/24/2010 08:41:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4505.8	4505.8	106	%			08:42:59
1	Y RADIAL	4872.5	4872.5	101.6	%			08:42:59
1	Al 396.153Radial†	5045.7	4835.3	4940.7	ug/L	4940.7	ppb	08:42:59
1	Ca 317.933Radial†	2725.4	2554.1	5062.1	ug/L	5062.1	ppb	08:43:19
1	Fe 238.204 Radial†	455.5	423.6	5131.7	ug/L	5131.7	ppb	08:43:19
1	K 766.490 Radial†	29758.1	25367.3	4793.7	ug/L	4793.7	ppb	08:42:59
1	Mg 279.077 IEC†	135.1	126.8	5395.5	ug/L	5395.5	ppb	08:43:19
1	Na 589.592 Radial†	27461.2	26778.1	10537	ug/L	10537	ppb	08:42:59
1	Sr 421.552†	63634.2	60014.9	493.29	ug/L	493.29	ppb	08:42:59
1	Sc 361.383	880155.5	880155.5	99.866	%			08:44:16
1	Y 371.029	739746.3	739746.3	98.793	%			08:44:16
1	Ag 328.068†	104589.2	104470.5	494.93	ug/L	494.93	ppb	08:44:21
1	As 188.979†	936.4	958.3	480.94	ug/L	480.94	ppb	08:44:41
1	B 249.677†	18513.0	18926.0	479.76	ug/L	479.76	ppb	08:44:21
1	Ba 233.527†	55891.0	55956.1	490.18	ug/L	490.18	ppb	08:44:21
1	Be 313.107†	1268794.1	1274784.7	483.44	ug/L	483.44	ppb	08:44:16
1	Cd 226.502†	36589.4	36810.6	486.15	ug/L	486.15	ppb	08:44:21
1	Co 228.616†	20373.1	20447.3	496.51	ug/L	496.51	ppb	08:44:21
1	Cr 267.716†	40140.8	40126.7	491.30	ug/L	491.30	ppb	08:44:21
1	Cu 324.752†	166024.1	159919.6	485.49	ug/L	485.49	ppb	08:44:21
1	Mn 257.610†	395275.3	395344.3	482.42	ug/L	482.42	ppb	08:44:16
1	Mo 202.031†	5950.1	5944.3	486.85	ug/L	486.85	ppb	08:44:41
1	Ni 231.604†	17051.7	16979.1	495.83	ug/L	495.83	ppb	08:44:21
1	P 214.914†	3696.1	3522.8	2279.4	ug/L	2279.4	ppb	08:44:41
1	Pb 220.353†	3342.9	3397.5	482.35	ug/L	482.35	ppb	08:44:41
1	S 181.975 Axial†	624.1	601.7	957.99	ug/L	957.99	ppb	08:44:41
1	Sb 206.836†	1254.5	1228.6	489.84	ug/L	489.84	ppb	08:44:41
1	Se 196.026†	632.2	649.8	499.77	ug/L	499.77	ppb	08:44:41
1	Si 251.611†	70845.2	70371.7	2433.1	ug/L	2433.1	ppb	08:44:21
1	Sn 189.927†	2326.4	2322.6	482.68	ug/L	482.68	ppb	08:44:41
1	Ti 334.940†	300160.1	301616.2	488.95	ug/L	488.95	ppb	08:44:21
1	Tl 190.801†	1323.2	1358.8	491.29	ug/L	491.29	ppb	08:44:41
1	U 409.014†	16155.7	18065.8	489.28	ug/L	489.28	ppb	08:44:21
1	V 292.402†	66235.0	67697.1	496.35	ug/L	496.35	ppb	08:44:21
1	Zn 213.857†	44877.4	44313.0	486.01	ug/L	486.01	ppb	08:44:21
1	SiO2†	69960.5	69460.6	5154.6	ug/L	5154.6	ppb	08:45:49
2	Sc Radial	4414.3	4414.3	104	%			08:43:24
2	Y RADIAL	4772.7	4772.7	99.56	%			08:43:24
2	Al 396.153Radial†	4956.5	4848.0	4953.9	ug/L	4953.9	ppb	08:43:24
2	Ca 317.933Radial†	2735.5	2617.1	5187.0	ug/L	5187.0	ppb	08:43:44
2	Fe 238.204 Radial†	456.0	433.0	5245.0	ug/L	5245.0	ppb	08:43:44
2	K 766.490 Radial†	29306.6	25514.6	4821.5	ug/L	4821.5	ppb	08:43:24
2	Mg 279.077 IEC†	130.1	124.7	5304.9	ug/L	5304.9	ppb	08:43:44
2	Na 589.592 Radial†	27038.6	26908.3	10588	ug/L	10588	ppb	08:43:24
2	Sr 421.552†	62294.6	59969.7	492.92	ug/L	492.92	ppb	08:43:24
2	Sc 361.383	882555.7	882555.7	100.14	%			08:44:47
2	Y 371.029	742065.7	742065.7	99.103	%			08:44:47
2	Ag 328.068†	104097.8	103694.9	491.30	ug/L	491.30	ppb	08:44:52
2	As 188.979†	938.3	957.6	480.60	ug/L	480.60	ppb	08:45:12
2	B 249.677†	18492.4	18855.0	477.94	ug/L	477.94	ppb	08:44:52
2	Ba 233.527†	55482.4	55396.0	485.28	ug/L	485.28	ppb	08:44:52
2	Be 313.107†	1273208.2	1275737.6	483.79	ug/L	483.79	ppb	08:44:47
2	Cd 226.502†	36349.9	36471.7	481.66	ug/L	481.66	ppb	08:44:52
2	Co 228.616†	20246.3	20265.2	492.09	ug/L	492.09	ppb	08:44:52
2	Cr 267.716†	39921.5	39798.4	487.29	ug/L	487.29	ppb	08:44:52
2	Cu 324.752†	165535.1	158979.1	482.64	ug/L	482.64	ppb	08:44:52
2	Mn 257.610†	396317.7	395308.9	482.40	ug/L	482.40	ppb	08:44:47
2	Mo 202.031†	5941.4	5919.4	484.82	ug/L	484.82	ppb	08:45:12
2	Ni 231.604†	16943.9	16825.1	491.33	ug/L	491.33	ppb	08:44:52

2	P 214.914†	3695.1	3511.7	2272.5 ug/L	2272.5 ppb	08:45:12
2	Pb 220.353†	3341.3	3386.8	480.82 ug/L	480.82 ppb	08:45:12
2	S 181.975 Axial†	618.2	594.1	945.88 ug/L	945.88 ppb	08:45:12
2	Sb 206.836†	1254.0	1224.8	488.27 ug/L	488.27 ppb	08:45:12
2	Se 196.026†	625.5	641.3	493.80 ug/L	493.80 ppb	08:45:12
2	Si 251.611†	70433.8	69767.9	2412.2 ug/L	2412.2 ppb	08:44:52
2	Sn 189.927†	2322.2	2312.1	480.51 ug/L	480.51 ppb	08:45:12
2	Ti 334.940†	298293.7	298934.9	484.63 ug/L	484.63 ppb	08:44:52
2	Tl 190.801†	1322.4	1354.3	489.69 ug/L	489.69 ppb	08:45:12
2	U 409.014†	16063.2	17929.4	485.57 ug/L	485.57 ppb	08:44:52
2	V 292.402†	65779.5	67061.8	491.71 ug/L	491.71 ppb	08:44:52
2	Zn 213.857†	44546.6	43860.4	481.02 ug/L	481.02 ppb	08:44:52
2	SiO2†	70145.5	69454.8	5154.2 ug/L	5154.2 ppb	08:45:54
3	Sc Radial	4449.6	4449.6	105 %		08:43:49
3	Y RADIAL	4814.9	4814.9	100.4 %		08:43:49
3	Al 396.153Radial†	5001.2	4852.9	4959.1 ug/L	4959.1 ppb	08:43:49
3	Ca 317.933Radial†	2733.8	2594.6	5142.4 ug/L	5142.4 ppb	08:44:09
3	Fe 238.204 Radial†	455.1	428.6	5192.1 ug/L	5192.1 ppb	08:44:09
3	K 766.490 Radial†	29553.0	25526.1	4823.7 ug/L	4823.7 ppb	08:43:49
3	Mg 279.077 IEC†	135.4	128.7	5475.1 ug/L	5475.1 ppb	08:44:09
3	Na 589.592 Radial†	27091.8	26752.5	10527 ug/L	10527 ppb	08:43:49
3	Sr 421.552†	62899.4	60071.6	493.75 ug/L	493.75 ppb	08:43:49
3	Sc 361.383	891537.9	891537.9	101.16 %		08:45:18
3	Y 371.029	748539.8	748539.8	99.968 %		08:45:18
3	Ag 328.068†	105232.3	103769.1	491.63 ug/L	491.63 ppb	08:45:23
3	As 188.979†	939.7	949.6	476.59 ug/L	476.59 ppb	08:45:43
3	B 249.677†	18749.0	18922.6	479.67 ug/L	479.67 ppb	08:45:23
3	Ba 233.527†	56031.0	55380.0	485.14 ug/L	485.14 ppb	08:45:23
3	Be 313.107†	1284467.3	1274058.0	483.16 ug/L	483.16 ppb	08:45:18
3	Cd 226.502†	36720.3	36472.1	481.67 ug/L	481.67 ppb	08:45:23
3	Co 228.616†	20449.1	20262.0	492.01 ug/L	492.01 ppb	08:45:23
3	Cr 267.716†	40298.6	39769.5	486.94 ug/L	486.94 ppb	08:45:23
3	Cu 324.752†	167409.1	159166.2	483.21 ug/L	483.21 ppb	08:45:23
3	Mn 257.610†	400904.0	395855.3	483.05 ug/L	483.05 ppb	08:45:18
3	Mo 202.031†	5956.4	5874.4	481.14 ug/L	481.14 ppb	08:45:43
3	Ni 231.604†	17069.3	16778.6	489.97 ug/L	489.97 ppb	08:45:23
3	P 214.914†	3702.7	3482.0	2252.4 ug/L	2252.4 ppb	08:45:43
3	Pb 220.353†	3342.3	3354.1	476.20 ug/L	476.20 ppb	08:45:43
3	S 181.975 Axial†	628.6	598.2	952.33 ug/L	952.33 ppb	08:45:43
3	Sb 206.836†	1264.3	1222.3	487.23 ug/L	487.23 ppb	08:45:43
3	Se 196.026†	627.1	636.6	490.20 ug/L	490.20 ppb	08:45:43
3	Si 251.611†	71259.5	69875.5	2416.0 ug/L	2416.0 ppb	08:45:23
3	Sn 189.927†	2343.5	2309.8	480.04 ug/L	480.04 ppb	08:45:43
3	Ti 334.940†	301550.1	299152.9	484.97 ug/L	484.97 ppb	08:45:23
3	Tl 190.801†	1323.9	1342.5	485.46 ug/L	485.46 ppb	08:45:43
3	U 409.014†	16197.7	17900.9	484.80 ug/L	484.80 ppb	08:45:23
3	V 292.402†	66484.7	67097.2	491.92 ug/L	491.92 ppb	08:45:23
3	Zn 213.857†	45129.4	43988.4	482.45 ug/L	482.45 ppb	08:45:23
3	SiO2†	70571.3	69170.1	5133.1 ug/L	5133.1 ppb	08:45:59

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	884749.7	100.39	%	0.681				0.68%
Sc Radial	4456.6	105	%	1.1				1.04%
Y 371.029	743450.6	99.288	%	0.6086				0.61%
Y RADIAL	4820.0	100.5	%	1.05				1.04%
Ag 328.068†	103978.2	492.62	ug/L	2.008	492.62	ppb	2.008	0.41%
QC value within limits for Ag 328.068 Recovery = 98.52%								
Al 396.153Radial†	4845.4	4951.2	ug/L	9.46	4951.2	ppb	9.46	0.19%
QC value within limits for Al 396.153Radial Recovery = 99.02%								
As 188.979†	955.2	479.38	ug/L	2.414	479.38	ppb	2.414	0.50%
QC value within limits for As 188.979 Recovery = 95.88%								
B 249.677†	18901.2	479.12	ug/L	1.024	479.12	ppb	1.024	0.21%
QC value within limits for B 249.677 Recovery = 95.82%								
Ba 233.527†	55577.4	486.87	ug/L	2.871	486.87	ppb	2.871	0.59%
QC value within limits for Ba 233.527 Recovery = 97.37%								
Be 313.107†	1274860.1	483.47	ug/L	0.318	483.47	ppb	0.318	0.07%
QC value within limits for Be 313.107 Recovery = 96.69%								
Ca 317.933Radial†	2588.6	5130.5	ug/L	63.29	5130.5	ppb	63.29	1.23%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.61%
Cd 226.502†            36584.8      483.16 ug/L         2.590      483.16 ppb          2.590   0.54%
   QC value within limits for Cd 226.502  Recovery = 96.63%
Co 228.616†            20324.8      493.54 ug/L         2.577      493.54 ppb          2.577   0.52%
   QC value within limits for Co 228.616  Recovery = 98.71%
Cr 267.716†            39898.2      488.51 ug/L         2.422      488.51 ppb          2.422   0.50%
   QC value within limits for Cr 267.716  Recovery = 97.70%
Cu 324.752†           159355.0      483.78 ug/L         1.507      483.78 ppb          1.507   0.31%
   QC value within limits for Cu 324.752  Recovery = 96.76%
Fe 238.204 Radial†       428.4      5189.6 ug/L         56.73      5189.6 ppb          56.73   1.09%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.79%
K 766.490 Radial†      25469.3      4813.0 ug/L         16.74      4813.0 ppb          16.74   0.35%
   QC value within limits for K 766.490 Radial  Recovery = 96.26%
Mg 279.077 IEC†          126.7      5391.8 ug/L         85.14      5391.8 ppb          85.14   1.58%
   QC value within limits for Mg 279.077 IEC  Recovery = 107.84%
Mn 257.610†           395502.8      482.62 ug/L         0.370      482.62 ppb          0.370   0.08%
   QC value within limits for Mn 257.610  Recovery = 96.52%
Mo 202.031†             5912.7      484.27 ug/L         2.895      484.27 ppb          2.895   0.60%
   QC value within limits for Mo 202.031  Recovery = 96.85%
Na 589.592 Radial†     26813.0       10551 ug/L          32.9       10551 ppb           32.9   0.31%
   QC value within limits for Na 589.592 Radial  Recovery = 105.51%
Ni 231.604†            16860.9      492.37 ug/L         3.066      492.37 ppb          3.066   0.62%
   QC value within limits for Ni 231.604  Recovery = 98.47%
P 214.914†              3505.5      2268.1 ug/L         14.06      2268.1 ppb          14.06   0.62%
   QC value within limits for P 214.914  Recovery = 90.72%
Pb 220.353†             3379.5      479.79 ug/L         3.203      479.79 ppb          3.203   0.67%
   QC value within limits for Pb 220.353  Recovery = 95.96%
S 181.975 Axial†         598.0      952.06 ug/L         6.060      952.06 ppb          6.060   0.64%
   QC value within limits for S 181.975 Axial  Recovery = 95.21%
Sb 206.836†             1225.2      488.45 ug/L         1.313      488.45 ppb          1.313   0.27%
   QC value within limits for Sb 206.836  Recovery = 97.69%
Se 196.026†              642.6      494.59 ug/L         4.831      494.59 ppb          4.831   0.98%
   QC value within limits for Se 196.026  Recovery = 98.92%
Si 251.611†            70005.0      2420.5 ug/L         11.14      2420.5 ppb          11.14   0.46%
   QC value within limits for Si 251.611  Recovery = 96.82%
Sn 189.927†             2314.8      481.08 ug/L         1.409      481.08 ppb          1.409   0.29%
   QC value within limits for Sn 189.927  Recovery = 96.22%
Sr 421.552†            60018.7      493.32 ug/L         0.420      493.32 ppb          0.420   0.09%
   QC value within limits for Sr 421.552  Recovery = 98.66%
Ti 334.940†           299901.3      486.18 ug/L         2.404      486.18 ppb          2.404   0.49%
   QC value within limits for Ti 334.940  Recovery = 97.24%
Tl 190.801†             1351.9      488.81 ug/L         3.014      488.81 ppb          3.014   0.62%
   QC value within limits for Tl 190.801  Recovery = 97.76%
U 409.014†             17965.4      486.55 ug/L         2.396      486.55 ppb          2.396   0.49%
   QC value within limits for U 409.014  Recovery = 97.31%
V 292.402†             67285.4      493.33 ug/L         2.622      493.33 ppb          2.622   0.53%
   QC value within limits for V 292.402  Recovery = 98.67%
Zn 213.857†            44053.9      483.16 ug/L         2.572      483.16 ppb          2.572   0.53%
   QC value within limits for Zn 213.857  Recovery = 96.63%
SiO2†                  69361.8      5147.3 ug/L         12.28      5147.3 ppb          12.28   0.24%
   QC value within limits for SiO2  Recovery = 96.26%
All analyte(s) passed QC.
```

Sequence No.: 12
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/24/2010 08:48:09
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc Radial	4486.6	4486.6	106	%			08:50:01
1	Y RADIAL	4906.6	4906.6	102.4	%			08:50:01
1	Al 396.153Radial†	-75.2	3.7	3.7844	ug/L	3.7844	ppb	08:50:21
1	Ca 317.933Radial†	20.8	2.6	5.1673	ug/L	5.1673	ppb	08:50:21
1	Fe 238.204 Radial†	8.9	2.3	27.455	ug/L	27.455	ppb	08:50:21
1	K 766.490 Radial†	2728.4	-122.5	-23.180	ug/L	-23.180	ppb	08:50:01
1	Mg 279.077 IEC†	2.9	2.1	91.194	ug/L	91.194	ppb	08:50:21
1	Na 589.592 Radial†	-946.2	-26.4	-10.387	ug/L	-10.387	ppb	08:50:01
1	Sr 421.552†	16.7	-4.1	-0.0339	ug/L	-0.0339	ppb	08:50:01
1	Sc 361.383	879966.0	879966.0	99.844	%			08:51:18
1	Y 371.029	749600.6	749600.6	100.11	%			08:51:18
1	Ag 328.068†	290.2	31.1	0.1533	ug/L	0.1533	ppb	08:51:23
1	As 188.979†	-18.3	2.3	1.1259	ug/L	1.1259	ppb	08:51:43
1	B 249.677†	-154.1	233.8	5.9487	ug/L	5.9487	ppb	08:51:43
1	Ba 233.527†	27.2	17.1	0.1501	ug/L	0.1501	ppb	08:51:43
1	Be 313.107†	-4176.5	99.7	0.0378	ug/L	0.0378	ppb	08:51:23
1	Cd 226.502†	-162.5	9.1	0.1169	ug/L	0.1169	ppb	08:51:43
1	Co 228.616†	-35.7	11.0	0.2665	ug/L	0.2665	ppb	08:51:43
1	Cr 267.716†	119.8	51.8	0.6350	ug/L	0.6350	ppb	08:51:43
1	Cu 324.752†	6309.3	-8.9	-0.0260	ug/L	-0.0260	ppb	08:51:23
1	Mn 257.610†	467.5	5.2	0.0053	ug/L	0.0053	ppb	08:51:43
1	Mo 202.031†	14.8	1.0	0.0826	ug/L	0.0826	ppb	08:51:43
1	Ni 231.604†	86.1	-9.3	-0.2720	ug/L	-0.2720	ppb	08:51:43
1	P 214.914†	177.6	-0.4	-0.3179	ug/L	-0.3179	ppb	08:51:43
1	Pb 220.353†	-59.0	-9.1	-1.2861	ug/L	-1.2861	ppb	08:51:43
1	S 181.975 Axial†	23.5	0.3	0.4983	ug/L	0.4983	ppb	08:51:43
1	Sb 206.836†	10.6	-16.9	-6.5114	ug/L	-6.5114	ppb	08:51:43
1	Se 196.026†	-17.6	-0.9	-0.5837	ug/L	-0.5837	ppb	08:51:43
1	Si 251.611†	596.8	28.9	1.0002	ug/L	1.0002	ppb	08:51:43
1	Sn 189.927†	4.6	-2.3	-0.4846	ug/L	-0.4846	ppb	08:51:43
1	Ti 334.940†	-1029.3	21.1	0.0269	ug/L	0.0269	ppb	08:51:23
1	Tl 190.801†	-24.0	9.8	3.5041	ug/L	3.5041	ppb	08:51:43
1	U 409.014†	-1856.6	28.9	0.7818	ug/L	0.7818	ppb	08:51:18
1	V 292.402†	-1405.5	-34.8	-0.2517	ug/L	-0.2517	ppb	08:51:23
1	Zn 213.857†	697.0	73.2	0.8084	ug/L	0.8084	ppb	08:51:43
1	SiO2†	609.3	16.2	1.2062	ug/L	1.2062	ppb	08:53:04
2	Sc Radial	4503.8	4503.8	106	%			08:50:26
2	Y RADIAL	4886.2	4886.2	101.9	%			08:50:26
2	Al 396.153Radial†	-69.6	9.2	9.4448	ug/L	9.4448	ppb	08:50:46
2	Ca 317.933Radial†	24.3	5.8	11.522	ug/L	11.522	ppb	08:50:46
2	Fe 238.204 Radial†	9.7	3.0	36.234	ug/L	36.234	ppb	08:50:46
2	K 766.490 Radial†	2759.8	-102.8	-19.449	ug/L	-19.449	ppb	08:50:26
2	Mg 279.077 IEC†	1.6	0.8	35.466	ug/L	35.466	ppb	08:50:46
2	Na 589.592 Radial†	-948.3	-24.9	-9.7935	ug/L	-9.7935	ppb	08:50:26
2	Sr 421.552†	4.0	-16.1	-0.1327	ug/L	-0.1327	ppb	08:50:26
2	Sc 361.383	890478.6	890478.6	101.04	%			08:51:48
2	Y 371.029	758636.8	758636.8	101.32	%			08:51:48
2	Ag 328.068†	224.8	-37.0	-0.1601	ug/L	-0.1601	ppb	08:51:53
2	As 188.979†	-23.7	-2.8	-1.3983	ug/L	-1.3983	ppb	08:52:13
2	B 249.677†	-173.4	216.5	5.5084	ug/L	5.5084	ppb	08:52:13
2	Ba 233.527†	21.1	10.8	0.0948	ug/L	0.0948	ppb	08:52:13
2	Be 313.107†	-4273.0	53.7	0.0201	ug/L	0.0201	ppb	08:51:53
2	Cd 226.502†	-166.0	7.5	0.0948	ug/L	0.0948	ppb	08:52:13
2	Co 228.616†	-37.9	9.2	0.2239	ug/L	0.2239	ppb	08:52:13
2	Cr 267.716†	106.8	37.6	0.4645	ug/L	0.4645	ppb	08:52:13
2	Cu 324.752†	6372.1	-21.3	-0.0599	ug/L	-0.0599	ppb	08:51:53
2	Mn 257.610†	447.2	-20.4	-0.0227	ug/L	-0.0227	ppb	08:52:13
2	Mo 202.031†	19.4	5.4	0.4414	ug/L	0.4414	ppb	08:52:13
2	Ni 231.604†	97.7	1.2	0.0355	ug/L	0.0355	ppb	08:52:13

2	P 214.914†	158.4	-21.6	-14.549 ug/L	-14.549 ppb	08:52:13
2	Pb 220.353†	-51.5	-0.9	-0.1351 ug/L	-0.1351 ppb	08:52:13
2	S 181.975 Axial†	33.4	9.9	15.714 ug/L	15.714 ppb	08:52:13
2	Sb 206.836†	24.3	-3.5	-1.3226 ug/L	-1.3226 ppb	08:52:13
2	Se 196.026†	-17.2	-0.4	-0.1694 ug/L	-0.1694 ppb	08:52:13
2	Si 251.611†	604.7	29.6	1.0221 ug/L	1.0221 ppb	08:52:13
2	Sn 189.927†	9.4	2.4	0.4972 ug/L	0.4972 ppb	08:52:13
2	Ti 334.940†	-1105.7	-42.3	-0.0679 ug/L	-0.0679 ppb	08:51:53
2	Tl 190.801†	-32.5	1.5	0.5541 ug/L	0.5541 ppb	08:52:13
2	U 409.014†	-2104.1	-194.1	-5.2807 ug/L	-5.2807 ppb	08:51:48
2	V 292.402†	-1428.0	-40.4	-0.3010 ug/L	-0.3010 ppb	08:51:53
2	Zn 213.857†	710.0	77.9	0.8572 ug/L	0.8572 ppb	08:52:13
2	SiO2†	593.8	-6.4	-0.4866 ug/L	-0.4866 ppb	08:53:24
3	Sc Radial	4500.4	4500.4	106 %		08:50:51
3	Y RADIAL	4905.8	4905.8	102.3 %		08:50:51
3	Al 396.153Radial†	-75.1	4.0	4.0895 ug/L	4.0895 ppb	08:51:11
3	Ca 317.933Radial†	24.3	5.8	11.585 ug/L	11.585 ppb	08:51:11
3	Fe 238.204 Radial†	7.6	1.1	12.701 ug/L	12.701 ppb	08:51:11
3	K 766.490 Radial†	2627.3	-226.0	-42.761 ug/L	-42.761 ppb	08:50:51
3	Mg 279.077 IEC†	-1.8	-2.3	-99.192 ug/L	-99.192 ppb	08:51:11
3	Na 589.592 Radial†	-941.1	-18.8	-7.3785 ug/L	-7.3785 ppb	08:50:51
3	Sr 421.552†	28.7	7.2	0.0588 ug/L	0.0588 ppb	08:50:51
3	Sc 361.383	893640.8	893640.8	101.40 %		08:52:18
3	Y 371.029	760451.9	760451.9	101.56 %		08:52:18
3	Ag 328.068†	283.4	20.0	0.0984 ug/L	0.0984 ppb	08:52:23
3	As 188.979†	-26.8	-5.8	-2.8816 ug/L	-2.8816 ppb	08:52:43
3	B 249.677†	-170.7	219.8	5.5934 ug/L	5.5934 ppb	08:52:43
3	Ba 233.527†	28.0	17.6	0.1538 ug/L	0.1538 ppb	08:52:43
3	Be 313.107†	-4176.8	163.4	0.0616 ug/L	0.0616 ppb	08:52:23
3	Cd 226.502†	-173.3	1.0	0.0118 ug/L	0.0118 ppb	08:52:43
3	Co 228.616†	-30.1	17.0	0.4138 ug/L	0.4138 ppb	08:52:43
3	Cr 267.716†	94.7	25.2	0.3096 ug/L	0.3096 ppb	08:52:43
3	Cu 324.752†	6354.0	-61.5	-0.1854 ug/L	-0.1854 ppb	08:52:23
3	Mn 257.610†	477.8	8.2	0.0153 ug/L	0.0153 ppb	08:52:43
3	Mo 202.031†	20.7	6.6	0.5390 ug/L	0.5390 ppb	08:52:43
3	Ni 231.604†	104.7	7.7	0.2261 ug/L	0.2261 ppb	08:52:43
3	P 214.914†	171.8	-8.9	-5.9637 ug/L	-5.9637 ppb	08:52:43
3	Pb 220.353†	-64.6	-13.6	-1.9316 ug/L	-1.9316 ppb	08:52:43
3	S 181.975 Axial†	19.1	-4.4	-7.0212 ug/L	-7.0212 ppb	08:52:43
3	Sb 206.836†	21.6	-6.2	-2.3738 ug/L	-2.3738 ppb	08:52:43
3	Se 196.026†	-20.7	-3.7	-2.7168 ug/L	-2.7168 ppb	08:52:43
3	Si 251.611†	581.4	4.5	0.1509 ug/L	0.1509 ppb	08:52:43
3	Sn 189.927†	6.6	-0.4	-0.0823 ug/L	-0.0823 ppb	08:52:43
3	Ti 334.940†	-1125.6	-58.1	-0.0843 ug/L	-0.0843 ppb	08:52:23
3	Tl 190.801†	-27.8	6.4	2.2798 ug/L	2.2798 ppb	08:52:43
3	U 409.014†	-1948.2	-33.0	-0.8988 ug/L	-0.8988 ppb	08:52:18
3	V 292.402†	-1399.6	-7.4	-0.0514 ug/L	-0.0514 ppb	08:52:23
3	Zn 213.857†	687.5	53.2	0.5858 ug/L	0.5858 ppb	08:52:43
3	SiO2†	596.1	-6.1	-0.4719 ug/L	-0.4719 ppb	08:53:44

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	888028.5	100.76	%	0.812				0.81%
Sc Radial	4497.0	106	%	0.2				0.20%
Y 371.029	756229.8	100.99	%	0.776				0.77%
Y RADIAL	4899.6	102.2	%	0.24				0.24%
Ag 328.068†	4.7	0.0305	ug/L	0.16735	0.0305	ppb	0.16735	548.08%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.6	5.7729	ug/L	3.18364	5.7729	ppb	3.18364	55.15%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.1	-1.0513	ug/L	2.02617	-1.0513	ppb	2.02617	192.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	223.4	5.6835	ug/L	0.23358	5.6835	ppb	0.23358	4.11%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	15.2	0.1329	ug/L	0.03306	0.1329	ppb	0.03306	24.88%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	105.6	0.0399	ug/L	0.02081	0.0399	ppb	0.02081	52.22%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	4.8	9.4248	ug/L	3.68725	9.4248	ppb	3.68725	39.12%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                5.9      0.0745 ug/L       0.05540      0.0745 ppb        0.05540  74.34%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               12.4      0.3014 ug/L       0.09966      0.3014 ppb        0.09966  33.07%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               38.2      0.4697 ug/L       0.16278      0.4697 ppb        0.16278  34.65%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              -30.6     -0.0904 ug/L       0.08400     -0.0904 ppb        0.08400  92.88%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         2.1      25.464 ug/L       11.8923      25.464 ppb        11.8923  46.70%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -150.4     -28.463 ug/L       12.5218     -28.463 ppb        12.5218  43.99%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            0.2      9.1558 ug/L      97.88212      9.1558 ppb       97.88212 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -2.3     -0.0007 ug/L       0.01971     -0.0007 ppb        0.01971 >999.9%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                4.3      0.3543 ug/L       0.24031      0.3543 ppb        0.24031  67.82%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -23.3     -9.1862 ug/L       1.59340     -9.1862 ppb        1.59340  17.35%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -0.1     -0.0035 ug/L       0.25133     -0.0035 ppb        0.25133 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -10.3     -6.9434 ug/L       7.16587     -6.9434 ppb        7.16587 103.20%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -7.9     -1.1176 ug/L       0.91006     -1.1176 ppb        0.91006  81.43%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           1.9      3.0637 ug/L      11.58261      3.0637 ppb       11.58261 378.06%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -8.9     -3.4026 ug/L       2.74314     -3.4026 ppb        2.74314  80.62%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               -1.7     -1.1566 ug/L       1.36692     -1.1566 ppb        1.36692 118.18%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               21.0      0.7244 ug/L       0.49680      0.7244 ppb        0.49680  68.58%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.1     -0.0232 ug/L       0.49355     -0.0232 ppb        0.49355 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -4.4     -0.0359 ug/L       0.09576     -0.0359 ppb        0.09576 266.63%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              -26.4     -0.0418 ug/L       0.06001     -0.0418 ppb        0.06001 143.73%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                5.9      2.1126 ug/L       1.48209      2.1126 ppb        1.48209  70.15%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -66.1     -1.7992 ug/L       3.12995     -1.7992 ppb        3.12995 173.96%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -27.5     -0.2014 ug/L       0.13218     -0.2014 ppb        0.13218  65.64%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               68.1      0.7505 ug/L       0.14466      0.7505 ppb        0.14466  19.28%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      1.2      0.0826 ug/L       0.97307      0.0826 ppb        0.97307 >999.9%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
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Analysis Begun

Start Time: 3/24/2010 10:04:23 **Plasma On Time: 3/22/2010 06:16:18**
Logged In Analyst: Optima3 **Technique: ICP Continuous**
Spectrometer Model: Optima 5300 DV, S/N 077C7090601Autosampler Model: S10

Sample Information File: C:\pe\Optima3\Sample Information\032410.sif
Batch ID:
Results Data Set: 032410
Results Library: C:\pe\Optima3\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/24/2010 10:04:24**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4201.9	4201.9	98.8	%			10:06:36
1	Y RADIAL	4742.3	4742.3	95.70	%			10:06:16
1	Al 396.153Radial†	5151.1	5286.3	5403.8	ug/L	5403.8	ppb	10:06:16
1	Ca 317.933Radial†	2706.0	2720.5	5391.9	ug/L	5391.9	ppb	10:06:36
1	Fe 238.204 Radial†	441.1	440.1	5331.5	ug/L	5331.5	ppb	10:06:36
1	K 766.490 Radial†	29884.4	27526.1	5202.0	ug/L	5202.0	ppb	10:06:16
1	Mg 279.077 IEC†	132.4	133.3	5670.7	ug/L	5670.7	ppb	10:06:36
1	Na 589.592 Radial†	26368.3	27546.7	10840	ug/L	10840	ppb	10:06:16
1	Sr 421.552†	62991.5	63708.0	523.64	ug/L	523.64	ppb	10:06:16
1	Sc 361.383	888355.5	888355.5	100.80	%			10:07:33
1	Y 371.029	744491.1	744491.1	97.421	%			10:07:33
1	Ag 328.068†	104158.6	103076.5	488.40	ug/L	488.40	ppb	10:07:38
1	As 188.979†	956.4	969.5	486.49	ug/L	486.49	ppb	10:07:58
1	B 249.677†	18384.4	18627.4	472.13	ug/L	472.13	ppb	10:07:38
1	Ba 233.527†	55662.5	55212.8	483.68	ug/L	483.68	ppb	10:07:38
1	Be 313.107†	1285182.1	1279315.9	485.14	ug/L	485.14	ppb	10:07:33
1	Cd 226.502†	36581.2	36464.2	481.55	ug/L	481.55	ppb	10:07:38
1	Co 228.616†	20324.5	20210.8	490.78	ug/L	490.78	ppb	10:07:38
1	Cr 267.716†	39906.1	39522.8	483.93	ug/L	483.93	ppb	10:07:38
1	Cu 324.752†	165747.3	158110.4	480.01	ug/L	480.01	ppb	10:07:38
1	Mn 257.610†	402523.4	398881.6	486.75	ug/L	486.75	ppb	10:07:33
1	Mo 202.031†	5988.2	5927.1	485.46	ug/L	485.46	ppb	10:07:58
1	Ni 231.604†	17037.7	16807.6	490.82	ug/L	490.82	ppb	10:07:38
1	P 214.914†	3735.9	3528.1	2284.1	ug/L	2284.1	ppb	10:07:58
1	Pb 220.353†	3363.1	3386.6	480.89	ug/L	480.89	ppb	10:07:58
1	S 181.975 Axial†	628.0	599.8	954.85	ug/L	954.85	ppb	10:07:58
1	Sb 206.836†	1257.1	1219.6	486.32	ug/L	486.32	ppb	10:07:58
1	Se 196.026†	632.0	643.7	496.01	ug/L	496.01	ppb	10:07:58
1	Si 251.611†	70670.5	69543.6	2404.5	ug/L	2404.5	ppb	10:07:38
1	Sn 189.927†	2346.1	2320.6	482.33	ug/L	482.33	ppb	10:07:58
1	Ti 334.940†	299166.3	297855.7	482.88	ug/L	482.88	ppb	10:07:38
1	Tl 190.801†	1322.9	1346.2	486.78	ug/L	486.78	ppb	10:07:58
1	U 409.014†	16086.0	17847.3	483.33	ug/L	483.33	ppb	10:07:38
1	V 292.402†	65749.7	66603.4	488.39	ug/L	488.39	ppb	10:07:38
1	Zn 213.857†	44799.3	43820.8	480.57	ug/L	480.57	ppb	10:07:38
1	SiO2†	71160.2	70004.2	5195.0	ug/L	5195.0	ppb	10:09:06
2	Sc Radial	4215.5	4215.5	99.2	%			10:07:01
2	Y RADIAL	4790.1	4790.1	96.66	%			10:06:41
2	Al 396.153Radial†	5056.9	5174.4	5289.3	ug/L	5289.3	ppb	10:06:41
2	Ca 317.933Radial†	2714.1	2719.8	5390.6	ug/L	5390.6	ppb	10:07:01
2	Fe 238.204 Radial†	446.7	444.3	5382.2	ug/L	5382.2	ppb	10:07:01
2	K 766.490 Radial†	29726.8	27269.4	5153.5	ug/L	5153.5	ppb	10:06:41
2	Mg 279.077 IEC†	132.0	132.5	5635.0	ug/L	5635.0	ppb	10:07:01
2	Na 589.592 Radial†	25796.5	26883.9	10579	ug/L	10579	ppb	10:06:41
2	Sr 421.552†	61864.9	62365.9	512.61	ug/L	512.61	ppb	10:06:41
2	Sc 361.383	894307.4	894307.4	101.47	%			10:08:04
2	Y 371.029	751150.1	751150.1	98.293	%			10:08:04

2	Ag 328.068†	104176.6	102406.6	485.25 ug/L	485.25 ppb	10:08:09
2	As 188.979†	950.8	957.6	480.60 ug/L	480.60 ppb	10:08:29
2	B 249.677†	18371.5	18493.2	468.72 ug/L	468.72 ppb	10:08:09
2	Ba 233.527†	55796.8	54977.7	481.62 ug/L	481.62 ppb	10:08:09
2	Be 313.107†	1296253.7	1281741.2	486.05 ug/L	486.05 ppb	10:08:04
2	Cd 226.502†	36531.5	36173.6	477.71 ug/L	477.71 ppb	10:08:09
2	Co 228.616†	20356.4	20107.9	488.27 ug/L	488.27 ppb	10:08:09
2	Cr 267.716†	39958.7	39311.2	481.35 ug/L	481.35 ppb	10:08:09
2	Cu 324.752†	165680.8	156950.4	476.49 ug/L	476.49 ppb	10:08:09
2	Mn 257.610†	404600.8	398271.2	486.01 ug/L	486.01 ppb	10:08:04
2	Mo 202.031†	5956.0	5855.7	479.62 ug/L	479.62 ppb	10:08:29
2	Ni 231.604†	16987.7	16645.9	486.09 ug/L	486.09 ppb	10:08:09
2	P 214.914†	3720.7	3488.4	2257.9 ug/L	2257.9 ppb	10:08:29
2	Pb 220.353†	3364.4	3365.7	477.88 ug/L	477.88 ppb	10:08:29
2	S 181.975 Axial†	621.5	589.2	938.00 ug/L	938.00 ppb	10:08:29
2	Sb 206.836†	1263.7	1217.9	485.51 ug/L	485.51 ppb	10:08:29
2	Se 196.026†	628.6	636.2	490.52 ug/L	490.52 ppb	10:08:29
2	Si 251.611†	70724.9	69130.5	2390.2 ug/L	2390.2 ppb	10:08:09
2	Sn 189.927†	2354.7	2313.7	480.88 ug/L	480.88 ppb	10:08:29
2	Ti 334.940†	299106.2	295821.3	479.59 ug/L	479.59 ppb	10:08:09
2	Tl 190.801†	1314.1	1328.8	480.53 ug/L	480.53 ppb	10:08:29
2	U 409.014†	15999.6	17656.0	478.13 ug/L	478.13 ppb	10:08:09
2	V 292.402†	65833.1	66251.5	485.75 ug/L	485.75 ppb	10:08:09
2	Zn 213.857†	44724.7	43451.4	476.51 ug/L	476.51 ppb	10:08:09
2	SiO2†	70786.6	69166.2	5132.8 ug/L	5132.8 ppb	10:09:11
3	Sc Radial	4231.0	4231.0	99.5 %		10:07:26
3	Y RADIAL	4812.5	4812.5	97.11 %		10:07:06
3	Al 396.153Radial†	5105.6	5204.6	5320.1 ug/L	5320.1 ppb	10:07:06
3	Ca 317.933Radial†	2719.9	2715.7	5382.3 ug/L	5382.3 ppb	10:07:26
3	Fe 238.204 Radial†	447.6	443.5	5372.7 ug/L	5372.7 ppb	10:07:26
3	K 766.490 Radial†	29891.2	27324.8	5164.0 ug/L	5164.0 ppb	10:07:06
3	Mg 279.077 IEC†	130.4	130.4	5546.1 ug/L	5546.1 ppb	10:07:26
3	Na 589.592 Radial†	26111.5	27105.0	10666 ug/L	10666 ppb	10:07:06
3	Sr 421.552†	62463.6	62738.7	515.68 ug/L	515.68 ppb	10:07:06
3	Sc 361.383	889879.1	889879.1	100.97 %		10:08:35
3	Y 371.029	746345.4	746345.4	97.664 %		10:08:35
3	Ag 328.068†	104202.8	102943.4	487.78 ug/L	487.78 ppb	10:08:40
3	As 188.979†	947.3	958.9	481.23 ug/L	481.23 ppb	10:09:01
3	B 249.677†	18526.8	18737.1	474.93 ug/L	474.93 ppb	10:08:40
3	Ba 233.527†	55594.6	55051.1	482.27 ug/L	482.27 ppb	10:08:40
3	Be 313.107†	1290269.5	1282171.4	486.22 ug/L	486.22 ppb	10:08:35
3	Cd 226.502†	36444.7	36266.8	478.94 ug/L	478.94 ppb	10:08:40
3	Co 228.616†	20294.7	20146.7	489.22 ug/L	489.22 ppb	10:08:40
3	Cr 267.716†	39916.3	39465.1	483.23 ug/L	483.23 ppb	10:08:40
3	Cu 324.752†	165814.9	157895.8	479.36 ug/L	479.36 ppb	10:08:40
3	Mn 257.610†	403644.6	399308.4	487.28 ug/L	487.28 ppb	10:08:35
3	Mo 202.031†	5987.2	5915.9	484.55 ug/L	484.55 ppb	10:09:01
3	Ni 231.604†	16993.5	16735.0	488.70 ug/L	488.70 ppb	10:08:40
3	P 214.914†	3731.2	3517.1	2276.7 ug/L	2276.7 ppb	10:09:01
3	Pb 220.353†	3367.3	3385.0	480.64 ug/L	480.64 ppb	10:09:01
3	S 181.975 Axial†	626.1	596.9	950.17 ug/L	950.17 ppb	10:09:01
3	Sb 206.836†	1271.7	1232.0	491.05 ug/L	491.05 ppb	10:09:01
3	Se 196.026†	632.0	642.6	495.27 ug/L	495.27 ppb	10:09:01
3	Si 251.611†	70770.4	69522.4	2403.7 ug/L	2403.7 ppb	10:08:40
3	Sn 189.927†	2346.8	2317.4	481.64 ug/L	481.64 ppb	10:09:01
3	Ti 334.940†	299165.3	297346.6	482.07 ug/L	482.07 ppb	10:08:40
3	Tl 190.801†	1319.3	1340.4	484.71 ug/L	484.71 ppb	10:09:01
3	U 409.014†	16119.4	17853.1	483.49 ug/L	483.49 ppb	10:08:40
3	V 292.402†	65849.1	66590.1	488.28 ug/L	488.28 ppb	10:08:40
3	Zn 213.857†	44750.8	43696.6	479.21 ug/L	479.21 ppb	10:08:40
3	SiO2†	68087.0	66839.7	4959.6 ug/L	4959.6 ppb	10:09:16

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	890847.4	101.08	%	0.351				0.35%
Sc Radial	4216.1	99.2	%	0.34				0.35%
Y 371.029	747328.9	97.793	%	0.4497				0.46%
Y RADIAL	4781.6	96.49	%	0.723				0.75%
Ag 328.068†	102808.8	487.15	ug/L	1.667	487.15	ppb	1.667	0.34%

```
   QC value within limits for Ag 328.068  Recovery = 97.43%
Al 396.153Radial†       5221.8      5337.7 ug/L         59.30      5337.7 ppb          59.30   1.11%
   QC value within limits for Al 396.153Radial  Recovery = 106.75%
As 188.979†              962.0      482.77 ug/L         3.236      482.77 ppb          3.236   0.67%
   QC value within limits for As 188.979  Recovery = 96.55%
B 249.677†             18619.2      471.93 ug/L         3.111      471.93 ppb          3.111   0.66%
   QC value within limits for B 249.677  Recovery = 94.39%
Ba 233.527†            55080.5      482.52 ug/L         1.053      482.52 ppb          1.053   0.22%
   QC value within limits for Ba 233.527  Recovery = 96.50%
Be 313.107†          1281076.2      485.81 ug/L         0.580      485.81 ppb          0.580   0.12%
   QC value within limits for Be 313.107  Recovery = 97.16%
Ca 317.933Radial†       2718.7      5388.3 ug/L          5.22      5388.3 ppb           5.22   0.10%
   QC value within limits for Ca 317.933Radial  Recovery = 107.77%
Cd 226.502†            36301.6      479.40 ug/L         1.964      479.40 ppb          1.964   0.41%
   QC value within limits for Cd 226.502  Recovery = 95.88%
Co 228.616†            20155.1      489.42 ug/L         1.264      489.42 ppb          1.264   0.26%
   QC value within limits for Co 228.616  Recovery = 97.88%
Cr 267.716†            39433.0      482.84 ug/L         1.335      482.84 ppb          1.335   0.28%
   QC value within limits for Cr 267.716  Recovery = 96.57%
Cu 324.752†           157652.2      478.62 ug/L         1.871      478.62 ppb          1.871   0.39%
   QC value within limits for Cu 324.752  Recovery = 95.72%
Fe 238.204 Radial†       442.7      5362.1 ug/L         26.93      5362.1 ppb          26.93   0.50%
   QC value within limits for Fe 238.204 Radial  Recovery = 107.24%
K 766.490 Radial†      27373.4      5173.1 ug/L         25.50      5173.1 ppb          25.50   0.49%
   QC value within limits for K 766.490 Radial  Recovery = 103.46%
Mg 279.077 IEC†          132.0      5617.3 ug/L         64.13      5617.3 ppb          64.13   1.14%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 112.35%
Mn 257.610†           398820.4      486.68 ug/L         0.637      486.68 ppb          0.637   0.13%
   QC value within limits for Mn 257.610  Recovery = 97.34%
Mo 202.031†             5899.6      483.21 ug/L         3.139      483.21 ppb          3.139   0.65%
   QC value within limits for Mo 202.031  Recovery = 96.64%
Na 589.592 Radial†     27178.5       10695 ug/L         132.8       10695 ppb          132.8   1.24%
   QC value within limits for Na 589.592 Radial  Recovery = 106.95%
Ni 231.604†            16729.5      488.54 ug/L         2.367      488.54 ppb          2.367   0.48%
   QC value within limits for Ni 231.604  Recovery = 97.71%
P 214.914†              3511.2      2272.9 ug/L         13.47      2272.9 ppb          13.47   0.59%
   QC value within limits for P 214.914  Recovery = 90.92%
Pb 220.353†             3379.1      479.80 ug/L         1.670      479.80 ppb          1.670   0.35%
   QC value within limits for Pb 220.353  Recovery = 95.96%
S 181.975 Axial†         595.3      947.67 ug/L         8.700      947.67 ppb          8.700   0.92%
   QC value within limits for S 181.975 Axial  Recovery = 94.77%
Sb 206.836†             1223.2      487.63 ug/L         2.992      487.63 ppb          2.992   0.61%
   QC value within limits for Sb 206.836  Recovery = 97.53%
Se 196.026†              640.8      493.93 ug/L         2.980      493.93 ppb          2.980   0.60%
   QC value within limits for Se 196.026  Recovery = 98.79%
Si 251.611†            69398.8      2399.5 ug/L          8.02      2399.5 ppb           8.02   0.33%
   QC value within limits for Si 251.611  Recovery = 95.98%
Sn 189.927†             2317.2      481.62 ug/L         0.724      481.62 ppb          0.724   0.15%
   QC value within limits for Sn 189.927  Recovery = 96.32%
Sr 421.552†            62937.5      517.31 ug/L         5.695      517.31 ppb          5.695   1.10%
   QC value within limits for Sr 421.552  Recovery = 103.46%
Ti 334.940†           297007.9      481.51 ug/L         1.715      481.51 ppb          1.715   0.36%
   QC value within limits for Ti 334.940  Recovery = 96.30%
Tl 190.801†             1338.5      484.01 ug/L         3.184      484.01 ppb          3.184   0.66%
   QC value within limits for Tl 190.801  Recovery = 96.80%
U 409.014†             17785.5      481.65 ug/L         3.047      481.65 ppb          3.047   0.63%
   QC value within limits for U 409.014  Recovery = 96.33%
V 292.402†             66481.7      487.47 ug/L         1.493      487.47 ppb          1.493   0.31%
   QC value within limits for V 292.402  Recovery = 97.49%
Zn 213.857†            43656.2      478.76 ug/L         2.067      478.76 ppb          2.067   0.43%
   QC value within limits for Zn 213.857  Recovery = 95.75%
SiO2†                  68670.0      5095.8 ug/L        121.99      5095.8 ppb         121.99   2.39%
   QC value within limits for SiO2  Recovery = 95.29%
QC Failed.  Continue with analysis.
```

Sequence No.: 2
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/24/2010 10:11:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4451.7	4451.7	105	%			10:13:20
1	Y RADIAL	4830.3	4830.3	97.47	%			10:13:20
1	Al 396.153Radial†	-79.8	-1.2	-1.2978	ug/L	-1.2978	ppb	10:13:40
1	Ca 317.933Radial†	28.1	9.8	19.343	ug/L	19.343	ppb	10:13:40
1	Fe 238.204 Radial†	8.8	2.3	27.256	ug/L	27.256	ppb	10:13:40
1	K 766.490 Radial†	2758.5	-73.5	-13.919	ug/L	-13.919	ppb	10:13:20
1	Mg 279.077 IEC†	-1.3	-1.9	-79.824	ug/L	-79.824	ppb	10:13:40
1	Na 589.592 Radial†	-938.1	-25.6	-10.086	ug/L	-10.086	ppb	10:13:20
1	Sr 421.552†	25.4	4.4	0.0357	ug/L	0.0357	ppb	10:13:20
1	Sc 361.383	869079.5	869079.5	98.609	%			10:14:37
1	Y 371.029	742821.6	742821.6	97.203	%			10:14:37
1	Ag 328.068†	305.2	50.0	0.2440	ug/L	0.2440	ppb	10:14:37
1	As 188.979†	-20.3	0.0	0.0093	ug/L	0.0093	ppb	10:14:57
1	B 249.677†	-258.2	126.3	3.2101	ug/L	3.2101	ppb	10:14:57
1	Ba 233.527†	16.6	6.7	0.0589	ug/L	0.0589	ppb	10:14:57
1	Be 313.107†	-4115.4	109.3	0.0411	ug/L	0.0411	ppb	10:14:37
1	Cd 226.502†	-163.5	6.0	0.0763	ug/L	0.0763	ppb	10:14:57
1	Co 228.616†	-28.4	17.9	0.4363	ug/L	0.4363	ppb	10:14:57
1	Cr 267.716†	104.9	38.2	0.4700	ug/L	0.4700	ppb	10:14:57
1	Cu 324.752†	6372.1	134.0	0.4092	ug/L	0.4092	ppb	10:14:37
1	Mn 257.610†	484.6	28.4	0.0406	ug/L	0.0406	ppb	10:14:57
1	Mo 202.031†	20.0	6.4	0.5254	ug/L	0.5254	ppb	10:14:57
1	Ni 231.604†	90.8	-3.4	-0.0993	ug/L	-0.0993	ppb	10:14:57
1	P 214.914†	168.7	-7.2	-4.9314	ug/L	-4.9314	ppb	10:14:57
1	Pb 220.353†	-67.3	-18.2	-2.5856	ug/L	-2.5856	ppb	10:14:57
1	S 181.975 Axial†	35.0	12.2	19.499	ug/L	19.499	ppb	10:14:57
1	Sb 206.836†	23.6	-3.6	-1.3492	ug/L	-1.3492	ppb	10:14:57
1	Se 196.026†	-9.9	6.6	4.9910	ug/L	4.9910	ppb	10:14:57
1	Si 251.611†	598.8	38.3	1.3224	ug/L	1.3224	ppb	10:14:57
1	Sn 189.927†	14.0	7.3	1.5208	ug/L	1.5208	ppb	10:14:57
1	Ti 334.940†	-1104.1	-67.7	-0.1000	ug/L	-0.1000	ppb	10:14:37
1	Tl 190.801†	-23.5	9.9	3.5510	ug/L	3.5510	ppb	10:14:57
1	U 409.014†	-1928.2	-67.0	-1.8254	ug/L	-1.8254	ppb	10:14:37
1	V 292.402†	-1393.3	-40.0	-0.2909	ug/L	-0.2909	ppb	10:14:37
1	Zn 213.857†	722.8	108.2	1.1935	ug/L	1.1935	ppb	10:14:57
1	SiO2†	579.6	-6.3	-0.4811	ug/L	-0.4811	ppb	10:16:08
2	Sc Radial	4598.7	4598.7	108	%			10:13:45
2	Y RADIAL	4997.6	4997.6	100.8	%			10:13:45
2	Al 396.153Radial†	-75.9	4.8	4.9140	ug/L	4.9140	ppb	10:14:05
2	Ca 317.933Radial†	28.7	9.4	18.611	ug/L	18.611	ppb	10:14:05
2	Fe 238.204 Radial†	8.6	1.8	21.361	ug/L	21.361	ppb	10:14:05
2	K 766.490 Radial†	2656.1	-252.4	-47.785	ug/L	-47.785	ppb	10:13:45
2	Mg 279.077 IEC†	1.4	0.6	27.011	ug/L	27.011	ppb	10:14:05
2	Na 589.592 Radial†	-862.8	72.6	28.571	ug/L	28.571	ppb	10:13:45
2	Sr 421.552†	9.8	-10.9	-0.0898	ug/L	-0.0898	ppb	10:13:45
2	Sc 361.383	865525.0	865525.0	98.206	%			10:15:02
2	Y 371.029	739951.3	739951.3	96.827	%			10:15:02
2	Ag 328.068†	322.2	68.5	0.3304	ug/L	0.3304	ppb	10:15:02
2	As 188.979†	-15.5	4.9	2.4352	ug/L	2.4352	ppb	10:15:22
2	B 249.677†	-226.0	158.0	4.0184	ug/L	4.0184	ppb	10:15:22
2	Ba 233.527†	20.6	10.9	0.0948	ug/L	0.0948	ppb	10:15:22
2	Be 313.107†	-4255.9	-50.9	-0.0194	ug/L	-0.0194	ppb	10:15:02
2	Cd 226.502†	-176.3	-7.6	-0.1037	ug/L	-0.1037	ppb	10:15:22
2	Co 228.616†	-23.1	23.2	0.5650	ug/L	0.5650	ppb	10:15:22
2	Cr 267.716†	93.3	26.8	0.3308	ug/L	0.3308	ppb	10:15:22
2	Cu 324.752†	6248.9	35.0	0.1097	ug/L	0.1097	ppb	10:15:02
2	Mn 257.610†	451.2	-3.6	-0.0033	ug/L	-0.0033	ppb	10:15:22
2	Mo 202.031†	21.2	7.8	0.6363	ug/L	0.6363	ppb	10:15:22
2	Ni 231.604†	87.4	-6.6	-0.1920	ug/L	-0.1920	ppb	10:15:22

2	P 214.914†	172.1	-3.1	-2.1025 ug/L	-2.1025 ppb	10:15:22
2	Pb 220.353†	-48.4	0.8	0.1129 ug/L	0.1129 ppb	10:15:22
2	S 181.975 Axial†	30.6	7.9	12.658 ug/L	12.658 ppb	10:15:22
2	Sb 206.836†	33.7	6.8	2.6299 ug/L	2.6299 ppb	10:15:22
2	Se 196.026†	-25.4	-9.2	-6.7552 ug/L	-6.7552 ppb	10:15:22
2	Si 251.611†	589.7	31.6	1.0864 ug/L	1.0864 ppb	10:15:22
2	Sn 189.927†	5.2	-1.6	-0.3326 ug/L	-0.3326 ppb	10:15:22
2	Ti 334.940†	-1072.6	-40.3	-0.0632 ug/L	-0.0632 ppb	10:15:02
2	Tl 190.801†	-25.9	7.4	2.6464 ug/L	2.6464 ppb	10:15:22
2	U 409.014†	-2008.1	-156.4	-4.2547 ug/L	-4.2547 ppb	10:15:02
2	V 292.402†	-1418.3	-71.3	-0.5177 ug/L	-0.5177 ppb	10:15:02
2	Zn 213.857†	713.8	102.0	1.1271 ug/L	1.1271 ppb	10:15:22
2	SiO2†	606.7	23.7	1.7486 ug/L	1.7486 ppb	10:16:28
3	Sc Radial	4467.3	4467.3	105 %		10:14:10
3	Y RADIAL	4897.4	4897.4	98.83 %		10:14:10
3	Al 396.153Radial†	-81.7	-2.8	-2.8716 ug/L	-2.8716 ppb	10:14:30
3	Ca 317.933Radial†	22.1	3.9	7.8221 ug/L	7.8221 ppb	10:14:30
3	Fe 238.204 Radial†	10.0	3.4	40.615 ug/L	40.615 ppb	10:14:30
3	K 766.490 Radial†	2704.3	-134.3	-25.414 ug/L	-25.414 ppb	10:14:10
3	Mg 279.077 IEC†	2.0	1.2	52.342 ug/L	52.342 ppb	10:14:30
3	Na 589.592 Radial†	-931.9	-16.6	-6.5433 ug/L	-6.5433 ppb	10:14:10
3	Sr 421.552†	31.9	10.5	0.0859 ug/L	0.0859 ppb	10:14:10
3	Sc 361.383	866253.0	866253.0	98.288 %		10:15:27
3	Y 371.029	741580.0	741580.0	97.040 %		10:15:27
3	Ag 328.068†	259.4	4.4	0.0318 ug/L	0.0318 ppb	10:15:27
3	As 188.979†	-16.8	3.5	1.7580 ug/L	1.7580 ppb	10:15:47
3	B 249.677†	-252.1	131.7	3.3465 ug/L	3.3465 ppb	10:15:47
3	Ba 233.527†	30.1	20.6	0.1797 ug/L	0.1797 ppb	10:15:47
3	Be 313.107†	-4194.7	15.0	0.0056 ug/L	0.0056 ppb	10:15:27
3	Cd 226.502†	-177.5	-8.7	-0.1194 ug/L	-0.1194 ppb	10:15:47
3	Co 228.616†	-35.8	10.3	0.2495 ug/L	0.2495 ppb	10:15:47
3	Cr 267.716†	103.4	37.0	0.4562 ug/L	0.4562 ppb	10:15:47
3	Cu 324.752†	6261.1	42.1	0.1308 ug/L	0.1308 ppb	10:15:27
3	Mn 257.610†	465.1	10.2	0.0143 ug/L	0.0143 ppb	10:15:47
3	Mo 202.031†	16.8	3.2	0.2669 ug/L	0.2669 ppb	10:15:47
3	Ni 231.604†	93.4	-0.5	-0.0149 ug/L	-0.0149 ppb	10:15:47
3	P 214.914†	166.2	-9.2	-6.2271 ug/L	-6.2271 ppb	10:15:47
3	Pb 220.353†	-54.3	-5.2	-0.7417 ug/L	-0.7417 ppb	10:15:47
3	S 181.975 Axial†	29.9	7.2	11.478 ug/L	11.478 ppb	10:15:47
3	Sb 206.836†	29.3	2.3	0.8860 ug/L	0.8860 ppb	10:15:47
3	Se 196.026†	-23.0	-6.7	-4.8829 ug/L	-4.8829 ppb	10:15:47
3	Si 251.611†	591.1	32.5	1.1245 ug/L	1.1245 ppb	10:15:47
3	Sn 189.927†	8.4	1.6	0.3399 ug/L	0.3399 ppb	10:15:47
3	Ti 334.940†	-1049.2	-15.5	-0.0278 ug/L	-0.0278 ppb	10:15:27
3	Tl 190.801†	-25.7	7.7	2.7497 ug/L	2.7497 ppb	10:15:47
3	U 409.014†	-1919.0	-64.0	-1.7448 ug/L	-1.7448 ppb	10:15:27
3	V 292.402†	-1448.9	-101.2	-0.7372 ug/L	-0.7372 ppb	10:15:27
3	Zn 213.857†	713.7	101.3	1.1150 ug/L	1.1150 ppb	10:15:47
3	SiO2†	620.2	37.0	2.7442 ug/L	2.7442 ppb	10:16:48

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	866952.5	98.368	%	0.2130				0.22%
Sc Radial	4505.9	106	%	1.9				1.79%
Y 371.029	741451.0	97.024	%	0.1884				0.19%
Y RADIAL	4908.4	99.05	%	1.699				1.72%
Ag 328.068†	41.0	0.2021	ug/L	0.15367	0.2021	ppb	0.15367	76.05%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	0.3	0.2482	ug/L	4.11659	0.2482	ppb	4.11659	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.8	1.4009	ug/L	1.25175	1.4009	ppb	1.25175	89.36%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	138.6	3.5250	ug/L	0.43271	3.5250	ppb	0.43271	12.28%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	12.7	0.1111	ug/L	0.06202	0.1111	ppb	0.06202	55.81%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	24.5	0.0091	ug/L	0.03041	0.0091	ppb	0.03041	333.49%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.7	15.259	ug/L	6.4508	15.259	ppb	6.4508	42.28%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -3.4     -0.0489 ug/L       0.10875     -0.0489 ppb        0.10875 222.27%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                17.1      0.4170 ug/L       0.15862      0.4170 ppb        0.15862  38.04%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                34.0      0.4190 ug/L       0.07670      0.4190 ppb        0.07670  18.30%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                70.3      0.2166 ug/L       0.16715      0.2166 ppb        0.16715  77.17%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.5     29.744 ug/L        9.8649     29.744 ppb         9.8649  33.17%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -153.4    -29.039 ug/L       17.2217    -29.039 ppb        17.2217  59.30%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -0.0     -0.1571 ug/L      70.14637     -0.1571 ppb       70.14637 >999.9%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                11.7      0.0172 ug/L       0.02211      0.0172 ppb        0.02211 128.69%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 5.8      0.4762 ug/L       0.18952      0.4762 ppb        0.18952  39.80%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         10.1      3.9806 ug/L      21.36911      3.9806 ppb       21.36911 536.83%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -3.5     -0.1021 ug/L       0.08859     -0.1021 ppb        0.08859  86.76%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -6.5     -4.4204 ug/L       2.10929     -4.4204 ppb        2.10929  47.72%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -7.5     -1.0715 ug/L       1.37912     -1.0715 ppb        1.37912 128.71%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            9.1     14.545 ug/L        4.3309     14.545 ppb         4.3309  29.78%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.8      0.7222 ug/L       1.99463      0.7222 ppb        1.99463 276.17%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -3.1     -2.2157 ug/L       6.31101     -2.2157 ppb        6.31101 284.83%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                34.1      1.1778 ug/L       0.12670      1.1778 ppb        0.12670  10.76%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 2.4      0.5094 ug/L       0.93828      0.5094 ppb        0.93828 184.21%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 1.3      0.0106 ug/L       0.09048      0.0106 ppb        0.09048 855.24%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -41.2     -0.0637 ug/L       0.03612     -0.0637 ppb        0.03612  56.71%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 8.3      2.9824 ug/L       0.49519      2.9824 ppb        0.49519  16.60%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                -95.8     -2.6083 ug/L       1.42639     -2.6083 ppb        1.42639  54.69%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -70.8     -0.5153 ug/L       0.22317     -0.5153 ppb        0.22317  43.31%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               103.8      1.1452 ug/L       0.04224      1.1452 ppb        0.04224   3.69%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      18.1      1.3372 ug/L       1.65156      1.3372 ppb        1.65156 123.51%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/24/2010 10:59:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4361.7	4361.7	103	%			11:01:33
1	Y RADIAL	4734.2	4734.2	95.53	%			11:01:33
1	Al 396.153Radial†	4975.3	4924.1	5032.1	ug/L	5032.1	ppb	11:01:33
1	Ca 317.933Radial†	2689.7	2604.4	5161.7	ug/L	5161.7	ppb	11:01:53
1	Fe 238.204 Radial†	442.0	424.6	5144.1	ug/L	5144.1	ppb	11:01:53
1	K 766.490 Radial†	29307.6	25856.3	4886.4	ug/L	4886.4	ppb	11:01:33
1	Mg 279.077 IEC†	131.3	127.3	5416.5	ug/L	5416.5	ppb	11:01:53
1	Na 589.592 Radial†	25054.8	25289.2	9951.3	ug/L	9951.3	ppb	11:01:33
1	Sr 421.552†	60436.2	58882.7	483.98	ug/L	483.98	ppb	11:01:33
1	Sc 361.383	884601.5	884601.5	100.37	%			11:02:50
1	Y 371.029	740165.7	740165.7	96.855	%			11:02:50
1	Ag 328.068†	103232.6	102592.5	486.06	ug/L	486.06	ppb	11:02:56
1	As 188.979†	944.2	961.3	482.39	ug/L	482.39	ppb	11:03:16
1	B 249.677†	18297.4	18618.1	471.93	ug/L	471.93	ppb	11:02:56
1	Ba 233.527†	55435.1	55220.6	483.74	ug/L	483.74	ppb	11:02:56
1	Be 313.107†	1270581.4	1270179.9	481.68	ug/L	481.68	ppb	11:02:50
1	Cd 226.502†	36386.4	36424.2	481.04	ug/L	481.04	ppb	11:02:56
1	Co 228.616†	20244.6	20216.7	490.92	ug/L	490.92	ppb	11:02:56
1	Cr 267.716†	39635.4	39421.2	482.67	ug/L	482.67	ppb	11:02:56
1	Cu 324.752†	163946.4	157013.9	476.67	ug/L	476.67	ppb	11:02:56
1	Mn 257.610†	389731.1	387831.2	473.26	ug/L	473.26	ppb	11:02:56
1	Mo 202.031†	5929.4	5893.6	482.70	ug/L	482.70	ppb	11:03:16
1	Ni 231.604†	16914.1	16756.3	489.32	ug/L	489.32	ppb	11:02:56
1	P 214.914†	3718.4	3526.4	2283.6	ug/L	2283.6	ppb	11:03:16
1	Pb 220.353†	3353.5	3391.2	481.47	ug/L	481.47	ppb	11:03:16
1	S 181.975 Axial†	618.0	592.4	943.14	ug/L	943.14	ppb	11:03:16
1	Sb 206.836†	1262.6	1230.4	490.43	ug/L	490.43	ppb	11:03:16
1	Se 196.026†	636.3	650.7	500.51	ug/L	500.51	ppb	11:03:16
1	Si 251.611†	70141.1	69313.6	2396.5	ug/L	2396.5	ppb	11:02:56
1	Sn 189.927†	2341.9	2326.3	483.48	ug/L	483.48	ppb	11:03:16
1	Ti 334.940†	296592.3	296550.9	480.76	ug/L	480.76	ppb	11:02:56
1	Tl 190.801†	1312.8	1341.8	485.12	ug/L	485.12	ppb	11:03:16
1	U 409.014†	15906.0	17735.7	480.32	ug/L	480.32	ppb	11:02:56
1	V 292.402†	65162.7	66295.4	486.14	ug/L	486.14	ppb	11:02:56
1	Zn 213.857†	44432.7	43644.0	478.66	ug/L	478.66	ppb	11:02:56
1	SiO2†	71416.4	70559.0	5236.4	ug/L	5236.4	ppb	11:04:23
2	Sc Radial	4398.2	4398.2	103	%			11:01:58
2	Y RADIAL	4746.2	4746.2	95.78	%			11:01:58
2	Al 396.153Radial†	5011.9	4919.1	5026.9	ug/L	5026.9	ppb	11:01:58
2	Ca 317.933Radial†	2709.6	2601.8	5156.6	ug/L	5156.6	ppb	11:02:18
2	Fe 238.204 Radial†	439.9	419.0	5076.1	ug/L	5076.1	ppb	11:02:18
2	K 766.490 Radial†	29525.4	25829.6	4881.4	ug/L	4881.4	ppb	11:01:58
2	Mg 279.077 IEC†	129.7	124.8	5308.3	ug/L	5308.3	ppb	11:02:18
2	Na 589.592 Radial†	24970.4	25004.9	9839.4	ug/L	9839.4	ppb	11:01:58
2	Sr 421.552†	60603.7	58555.5	481.29	ug/L	481.29	ppb	11:01:58
2	Sc 361.383	882638.8	882638.8	100.15	%			11:03:21
2	Y 371.029	738874.7	738874.7	96.686	%			11:03:21
2	Ag 328.068†	103725.0	103312.9	489.44	ug/L	489.44	ppb	11:03:27
2	As 188.979†	934.4	953.7	478.58	ug/L	478.58	ppb	11:03:47
2	B 249.677†	18347.4	18708.5	474.24	ug/L	474.24	ppb	11:03:27
2	Ba 233.527†	55466.6	55374.9	485.09	ug/L	485.09	ppb	11:03:27
2	Be 313.107†	1267776.5	1270194.2	481.70	ug/L	481.70	ppb	11:03:21
2	Cd 226.502†	36395.6	36513.9	482.24	ug/L	482.24	ppb	11:03:27
2	Co 228.616†	20264.3	20281.2	492.48	ug/L	492.48	ppb	11:03:27
2	Cr 267.716†	39668.0	39541.5	484.14	ug/L	484.14	ppb	11:03:27
2	Cu 324.752†	165273.7	158702.5	481.79	ug/L	481.79	ppb	11:03:27
2	Mn 257.610†	390860.9	389822.8	475.69	ug/L	475.69	ppb	11:03:27
2	Mo 202.031†	5927.6	5905.0	483.63	ug/L	483.63	ppb	11:03:47
2	Ni 231.604†	16971.7	16851.2	492.09	ug/L	492.09	ppb	11:03:27

2	P 214.914†	3703.4	3519.7	2278.1 ug/L	2278.1 ppb	11:03:47
2	Pb 220.353†	3344.7	3389.8	481.28 ug/L	481.28 ppb	11:03:47
2	S 181.975 Axial†	616.8	592.6	943.47 ug/L	943.47 ppb	11:03:47
2	Sb 206.836†	1265.7	1236.3	492.72 ug/L	492.72 ppb	11:03:47
2	Se 196.026†	633.9	649.7	499.57 ug/L	499.57 ppb	11:03:47
2	Si 251.611†	70574.6	69901.9	2416.9 ug/L	2416.9 ppb	11:03:27
2	Sn 189.927†	2336.3	2326.0	483.41 ug/L	483.41 ppb	11:03:47
2	Ti 334.940†	298305.7	298918.9	484.60 ug/L	484.60 ppb	11:03:27
2	Tl 190.801†	1323.5	1355.3	490.01 ug/L	490.01 ppb	11:03:47
2	U 409.014†	16016.5	17881.3	484.28 ug/L	484.28 ppb	11:03:27
2	V 292.402†	65493.8	66770.4	489.61 ug/L	489.61 ppb	11:03:27
2	Zn 213.857†	44649.2	43958.7	482.13 ug/L	482.13 ppb	11:03:27
2	SiO2†	70480.7	69783.0	5178.6 ug/L	5178.6 ppb	11:04:28
3	Sc Radial	4416.2	4416.2	104 %		11:02:24
3	Y RADIAL	4812.1	4812.1	97.11 %		11:02:24
3	Al 396.153Radial†	5049.1	4935.1	5043.2 ug/L	5043.2 ppb	11:02:24
3	Ca 317.933Radial†	2695.0	2577.0	5107.5 ug/L	5107.5 ppb	11:02:44
3	Fe 238.204 Radial†	439.6	417.0	5052.1 ug/L	5052.1 ppb	11:02:44
3	K 766.490 Radial†	29662.6	25845.0	4884.3 ug/L	4884.3 ppb	11:02:24
3	Mg 279.077 IEC†	129.8	124.3	5289.6 ug/L	5289.6 ppb	11:02:44
3	Na 589.592 Radial†	25248.8	25174.1	9906.0 ug/L	9906.0 ppb	11:02:24
3	Sr 421.552†	61192.8	58883.0	483.98 ug/L	483.98 ppb	11:02:24
3	Sc 361.383	875502.0	875502.0	99.338 %		11:03:52
3	Y 371.029	734688.3	734688.3	96.139 %		11:03:52
3	Ag 328.068†	105061.7	105502.8	499.77 ug/L	499.77 ppb	11:03:57
3	As 188.979†	939.0	965.9	484.76 ug/L	484.76 ppb	11:04:17
3	B 249.677†	18706.0	19218.9	487.21 ug/L	487.21 ppb	11:03:57
3	Ba 233.527†	56170.4	56534.9	495.24 ug/L	495.24 ppb	11:03:57
3	Be 313.107†	1262365.2	1275066.1	483.56 ug/L	483.56 ppb	11:03:52
3	Cd 226.502†	36785.0	37202.1	491.34 ug/L	491.34 ppb	11:03:57
3	Co 228.616†	20469.3	20652.5	501.49 ug/L	501.49 ppb	11:03:57
3	Cr 267.716†	40134.2	40333.7	493.82 ug/L	493.82 ppb	11:03:57
3	Cu 324.752†	167461.9	162250.6	492.56 ug/L	492.56 ppb	11:03:57
3	Mn 257.610†	395221.5	397394.1	484.92 ug/L	484.92 ppb	11:03:57
3	Mo 202.031†	5939.4	5965.1	488.54 ug/L	488.54 ppb	11:04:17
3	Ni 231.604†	17060.9	17079.2	498.75 ug/L	498.75 ppb	11:03:57
3	P 214.914†	3725.1	3571.7	2311.1 ug/L	2311.1 ppb	11:04:17
3	Pb 220.353†	3355.6	3428.1	486.71 ug/L	486.71 ppb	11:04:17
3	S 181.975 Axial†	624.5	605.4	963.89 ug/L	963.89 ppb	11:04:17
3	Sb 206.836†	1260.9	1241.8	494.99 ug/L	494.99 ppb	11:04:17
3	Se 196.026†	620.0	640.8	492.92 ug/L	492.92 ppb	11:04:17
3	Si 251.611†	71362.7	71269.7	2464.3 ug/L	2464.3 ppb	11:03:57
3	Sn 189.927†	2340.1	2348.8	488.14 ug/L	488.14 ppb	11:04:17
3	Ti 334.940†	301791.9	304856.4	494.22 ug/L	494.22 ppb	11:03:57
3	Tl 190.801†	1313.4	1356.0	490.32 ug/L	490.32 ppb	11:04:17
3	U 409.014†	16214.0	18210.5	493.21 ug/L	493.21 ppb	11:03:57
3	V 292.402†	66250.1	68064.8	499.05 ug/L	499.05 ppb	11:03:57
3	Zn 213.857†	45162.0	44838.4	491.81 ug/L	491.81 ppb	11:03:57
3	SiO2†	70724.7	70602.3	5239.4 ug/L	5239.4 ppb	11:04:33

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	880914.1	99.952	%	0.5433				0.54%
Sc Radial	4392.0	103	%	0.7				0.63%
Y 371.029	737909.6	96.560	%	0.3747				0.39%
Y RADIAL	4764.2	96.14	%	0.847				0.88%
Ag 328.068†	103802.7	491.76	ug/L	7.145	491.76	ppb	7.145	1.45%
QC value within limits for Ag 328.068 Recovery = 98.35%								
Al 396.153Radial†	4926.1	5034.1	ug/L	8.29	5034.1	ppb	8.29	0.16%
QC value within limits for Al 396.153Radial Recovery = 100.68%								
As 188.979†	960.3	481.91	ug/L	3.116	481.91	ppb	3.116	0.65%
QC value within limits for As 188.979 Recovery = 96.38%								
B 249.677†	18848.5	477.79	ug/L	8.240	477.79	ppb	8.240	1.72%
QC value within limits for B 249.677 Recovery = 95.56%								
Ba 233.527†	55710.2	488.02	ug/L	6.291	488.02	ppb	6.291	1.29%
QC value within limits for Ba 233.527 Recovery = 97.60%								
Be 313.107†	1271813.4	482.31	ug/L	1.081	482.31	ppb	1.081	0.22%
QC value within limits for Be 313.107 Recovery = 96.46%								
Ca 317.933Radial†	2594.4	5141.9	ug/L	29.95	5141.9	ppb	29.95	0.58%

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   QC value within limits for Ca 317.933Radial  Recovery = 102.84%
Cd 226.502†            36713.4      484.87 ug/L         5.631      484.87 ppb          5.631   1.16%
   QC value within limits for Cd 226.502  Recovery = 96.97%
Co 228.616†            20383.5      494.97 ug/L         5.705      494.97 ppb          5.705   1.15%
   QC value within limits for Co 228.616  Recovery = 98.99%
Cr 267.716†            39765.4      486.88 ug/L         6.060      486.88 ppb          6.060   1.24%
   QC value within limits for Cr 267.716  Recovery = 97.38%
Cu 324.752†           159322.3      483.68 ug/L         8.108      483.68 ppb          8.108   1.68%
   QC value within limits for Cu 324.752  Recovery = 96.74%
Fe 238.204 Radial†       420.2      5090.8 ug/L        47.74      5090.8 ppb          47.74   0.94%
   QC value within limits for Fe 238.204 Radial  Recovery = 101.82%
K 766.490 Radial†      25843.6      4884.1 ug/L         2.51      4884.1 ppb           2.51   0.05%
   QC value within limits for K 766.490 Radial  Recovery = 97.68%
Mg 279.077 IEC†          125.5      5338.1 ug/L        68.52      5338.1 ppb          68.52   1.28%
   QC value within limits for Mg 279.077 IEC  Recovery = 106.76%
Mn 257.610†           391682.7      477.96 ug/L         6.151      477.96 ppb          6.151   1.29%
   QC value within limits for Mn 257.610  Recovery = 95.59%
Mo 202.031†             5921.3      484.96 ug/L         3.139      484.96 ppb          3.139   0.65%
   QC value within limits for Mo 202.031  Recovery = 96.99%
Na 589.592 Radial†     25156.1      9898.9 ug/L        56.29      9898.9 ppb          56.29   0.57%
   QC value within limits for Na 589.592 Radial  Recovery = 98.99%
Ni 231.604†            16895.6      493.38 ug/L         4.846      493.38 ppb          4.846   0.98%
   QC value within limits for Ni 231.604  Recovery = 98.68%
P 214.914†              3539.2      2291.0 ug/L        17.67      2291.0 ppb          17.67   0.77%
   QC value within limits for P 214.914  Recovery = 91.64%
Pb 220.353†             3403.0      483.16 ug/L         3.081      483.16 ppb          3.081   0.64%
   QC value within limits for Pb 220.353  Recovery = 96.63%
S 181.975 Axial†         596.8      950.17 ug/L        11.883      950.17 ppb         11.883   1.25%
   QC value within limits for S 181.975 Axial  Recovery = 95.02%
Sb 206.836†             1236.1      492.71 ug/L         2.282      492.71 ppb          2.282   0.46%
   QC value within limits for Sb 206.836  Recovery = 98.54%
Se 196.026†              647.0      497.67 ug/L         4.137      497.67 ppb          4.137   0.83%
   QC value within limits for Se 196.026  Recovery = 99.53%
Si 251.611†            70161.8      2425.9 ug/L        34.75      2425.9 ppb          34.75   1.43%
   QC value within limits for Si 251.611  Recovery = 97.04%
Sn 189.927†             2333.7      485.01 ug/L         2.714      485.01 ppb          2.714   0.56%
   QC value within limits for Sn 189.927  Recovery = 97.00%
Sr 421.552†            58773.8      483.09 ug/L         1.554      483.09 ppb          1.554   0.32%
   QC value within limits for Sr 421.552  Recovery = 96.62%
Ti 334.940†           300108.7      486.53 ug/L         6.934      486.53 ppb          6.934   1.43%
   QC value within limits for Ti 334.940  Recovery = 97.31%
Tl 190.801†             1351.0      488.48 ug/L         2.917      488.48 ppb          2.917   0.60%
   QC value within limits for Tl 190.801  Recovery = 97.70%
U 409.014†             17942.5      485.94 ug/L         6.601      485.94 ppb          6.601   1.36%
   QC value within limits for U 409.014  Recovery = 97.19%
V 292.402†             67043.5      491.60 ug/L         6.679      491.60 ppb          6.679   1.36%
   QC value within limits for V 292.402  Recovery = 98.32%
Zn 213.857†            44147.0      484.20 ug/L         6.818      484.20 ppb          6.818   1.41%
   QC value within limits for Zn 213.857  Recovery = 96.84%
SiO2†                  70314.8      5218.2 ug/L        34.27      5218.2 ppb          34.27   0.66%
   QC value within limits for SiO2  Recovery = 97.58%
All analyte(s) passed QC.
```

Sequence No.: 10 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/24/2010 11:06:43**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4480.2	4480.2	105	%			11:08:36
1	Y RADIAL	4899.0	4899.0	98.86	%			11:08:36
1	Al 396.153Radial†	-80.3	-1.2	-1.1979	ug/L	-1.1979	ppb	11:08:56
1	Ca 317.933Radial†	30.9	12.2	24.104	ug/L	24.104	ppb	11:08:56
1	Fe 238.204 Radial†	5.5	-0.9	-11.078	ug/L	-11.078	ppb	11:08:56
1	K 766.490 Radial†	2623.8	-218.1	-41.265	ug/L	-41.265	ppb	11:08:36
1	Mg 279.077 IEC†	0.1	-0.5	-23.281	ug/L	-23.281	ppb	11:08:56
1	Na 589.592 Radial†	-968.1	-48.4	-19.051	ug/L	-19.051	ppb	11:08:36
1	Sr 421.552†	14.9	-5.8	-0.0478	ug/L	-0.0478	ppb	11:08:36
1	Sc 361.383	869673.2	869673.2	98.676	%			11:09:53
1	Y 371.029	743281.8	743281.8	97.263	%			11:09:53
1	Ag 328.068†	295.3	39.8	0.1808	ug/L	0.1808	ppb	11:09:53
1	As 188.979†	-30.9	-10.7	-5.3180	ug/L	-5.3180	ppb	11:10:13
1	B 249.677†	-225.9	159.2	4.0559	ug/L	4.0559	ppb	11:10:13
1	Ba 233.527†	13.5	3.6	0.0306	ug/L	0.0306	ppb	11:10:13
1	Be 313.107†	-4202.0	24.4	0.0093	ug/L	0.0093	ppb	11:09:53
1	Cd 226.502†	-170.6	-1.0	-0.0117	ug/L	-0.0117	ppb	11:10:13
1	Co 228.616†	-36.6	9.7	0.2337	ug/L	0.2337	ppb	11:10:13
1	Cr 267.716†	76.7	9.6	0.1152	ug/L	0.1152	ppb	11:10:13
1	Cu 324.752†	6318.7	75.4	0.2274	ug/L	0.2274	ppb	11:09:53
1	Mn 257.610†	450.4	-6.6	-0.0082	ug/L	-0.0082	ppb	11:10:13
1	Mo 202.031†	6.3	-7.5	-0.6135	ug/L	-0.6135	ppb	11:10:13
1	Ni 231.604†	89.4	-4.9	-0.1438	ug/L	-0.1438	ppb	11:10:13
1	P 214.914†	178.0	2.1	1.3425	ug/L	1.3425	ppb	11:10:13
1	Pb 220.353†	-68.9	-19.7	-2.7921	ug/L	-2.7921	ppb	11:10:13
1	S 181.975 Axial†	32.4	9.5	15.216	ug/L	15.216	ppb	11:10:13
1	Sb 206.836†	27.5	0.3	0.1060	ug/L	0.1060	ppb	11:10:13
1	Se 196.026†	-15.0	1.5	1.1044	ug/L	1.1044	ppb	11:10:13
1	Si 251.611†	564.5	3.2	0.1173	ug/L	0.1173	ppb	11:10:13
1	Sn 189.927†	4.0	-2.9	-0.5870	ug/L	-0.5870	ppb	11:10:13
1	Ti 334.940†	-1023.0	15.2	0.0291	ug/L	0.0291	ppb	11:09:53
1	Tl 190.801†	-17.8	15.8	5.6592	ug/L	5.6592	ppb	11:10:13
1	U 409.014†	-1807.4	56.8	1.5442	ug/L	1.5442	ppb	11:09:53
1	V 292.402†	-1406.0	-51.9	-0.3802	ug/L	-0.3802	ppb	11:09:53
1	Zn 213.857†	728.1	113.1	1.2544	ug/L	1.2544	ppb	11:10:13
1	SiO2†	577.7	-8.6	-0.6258	ug/L	-0.6258	ppb	11:11:09
2	Sc Radial	4568.7	4568.7	107	%			11:09:01
2	Y RADIAL	4979.2	4979.2	100.5	%			11:09:01
2	Al 396.153Radial†	-80.0	0.6	0.5454	ug/L	0.5454	ppb	11:09:21
2	Ca 317.933Radial†	26.7	7.7	15.297	ug/L	15.297	ppb	11:09:21
2	Fe 238.204 Radial†	7.0	0.4	4.8370	ug/L	4.8370	ppb	11:09:21
2	K 766.490 Radial†	2566.4	-319.7	-60.509	ug/L	-60.509	ppb	11:09:01
2	Mg 279.077 IEC†	-0.5	-1.1	-45.556	ug/L	-45.556	ppb	11:09:21
2	Na 589.592 Radial†	-922.8	11.5	4.5347	ug/L	4.5347	ppb	11:09:01
2	Sr 421.552†	17.8	-3.4	-0.0277	ug/L	-0.0277	ppb	11:09:01
2	Sc 361.383	864817.7	864817.7	98.125	%			11:10:18
2	Y 371.029	740087.6	740087.6	96.845	%			11:10:18
2	Ag 328.068†	263.8	9.3	0.0434	ug/L	0.0434	ppb	11:10:18
2	As 188.979†	-17.0	3.3	1.6453	ug/L	1.6453	ppb	11:10:38
2	B 249.677†	-255.8	127.5	3.2454	ug/L	3.2454	ppb	11:10:38
2	Ba 233.527†	29.7	20.2	0.1749	ug/L	0.1749	ppb	11:10:38
2	Be 313.107†	-4157.7	45.7	0.0171	ug/L	0.0171	ppb	11:10:18
2	Cd 226.502†	-167.5	1.2	0.0150	ug/L	0.0150	ppb	11:10:38
2	Co 228.616†	-48.1	-2.3	-0.0540	ug/L	-0.0540	ppb	11:10:38
2	Cr 267.716†	74.9	8.2	0.1003	ug/L	0.1003	ppb	11:10:38
2	Cu 324.752†	6331.2	124.1	0.3779	ug/L	0.3779	ppb	11:10:18
2	Mn 257.610†	444.6	-9.9	-0.0098	ug/L	-0.0098	ppb	11:10:38
2	Mo 202.031†	21.5	8.1	0.6620	ug/L	0.6620	ppb	11:10:38
2	Ni 231.604†	95.0	1.3	0.0380	ug/L	0.0380	ppb	11:10:38

2	P 214.914†	170.3	-4.7	-3.2660 ug/L	-3.2660 ppb	11:10:38
2	Pb 220.353†	-58.0	-9.0	-1.2736 ug/L	-1.2736 ppb	11:10:38
2	S 181.975 Axial†	26.0	3.2	5.1531 ug/L	5.1531 ppb	11:10:38
2	Sb 206.836†	23.1	-4.0	-1.5060 ug/L	-1.5060 ppb	11:10:38
2	Se 196.026†	-19.5	-3.2	-2.3304 ug/L	-2.3304 ppb	11:10:38
2	Si 251.611†	581.1	23.3	0.8002 ug/L	0.8002 ppb	11:10:38
2	Sn 189.927†	13.2	6.5	1.3554 ug/L	1.3554 ppb	11:10:38
2	Ti 334.940†	-1076.4	-45.0	-0.0666 ug/L	-0.0666 ppb	11:10:18
2	Tl 190.801†	-21.5	11.8	4.2459 ug/L	4.2459 ppb	11:10:38
2	U 409.014†	-1905.1	-53.1	-1.4432 ug/L	-1.4432 ppb	11:10:18
2	V 292.402†	-1445.7	-100.3	-0.7211 ug/L	-0.7211 ppb	11:10:18
2	Zn 213.857†	719.1	108.0	1.1940 ug/L	1.1940 ppb	11:10:38
2	SiO2†	551.0	-32.5	-2.4344 ug/L	-2.4344 ppb	11:11:14
3	Sc Radial	4438.5	4438.5	104 %		11:09:26
3	Y RADIAL	4867.4	4867.4	98.22 %		11:09:26
3	Al 396.153Radial†	-81.7	-3.3	-3.3435 ug/L	-3.3435 ppb	11:09:46
3	Ca 317.933Radial†	22.2	4.1	8.1196 ug/L	8.1196 ppb	11:09:46
3	Fe 238.204 Radial†	9.2	2.6	31.751 ug/L	31.751 ppb	11:09:46
3	K 766.490 Radial†	2758.2	-66.0	-12.493 ug/L	-12.493 ppb	11:09:26
3	Mg 279.077 IEC†	1.8	1.1	45.363 ug/L	45.363 ppb	11:09:46
3	Na 589.592 Radial†	-933.9	-24.2	-9.5418 ug/L	-9.5418 ppb	11:09:26
3	Sr 421.552†	-0.6	-20.5	-0.1685 ug/L	-0.1685 ppb	11:09:26
3	Sc 361.383	860697.3	860697.3	97.658 %		11:10:43
3	Y 371.029	735147.2	735147.2	96.199 %		11:10:43
3	Ag 328.068†	181.4	-73.7	-0.3404 ug/L	-0.3404 ppb	11:10:43
3	As 188.979†	-21.2	-1.1	-0.5487 ug/L	-0.5487 ppb	11:11:03
3	B 249.677†	-249.6	132.5	3.3699 ug/L	3.3699 ppb	11:11:03
3	Ba 233.527†	5.0	-4.9	-0.0437 ug/L	-0.0437 ppb	11:11:03
3	Be 313.107†	-4181.7	0.8	0.0001 ug/L	0.0001 ppb	11:10:43
3	Cd 226.502†	-175.6	-7.9	-0.1081 ug/L	-0.1081 ppb	11:11:03
3	Co 228.616†	-50.3	-4.7	-0.1153 ug/L	-0.1153 ppb	11:11:03
3	Cr 267.716†	94.8	28.9	0.3551 ug/L	0.3551 ppb	11:11:03
3	Cu 324.752†	6318.8	142.3	0.4335 ug/L	0.4335 ppb	11:10:43
3	Mn 257.610†	451.0	-1.2	-0.0002 ug/L	-0.0002 ppb	11:11:03
3	Mo 202.031†	14.3	0.7	0.0639 ug/L	0.0639 ppb	11:11:03
3	Ni 231.604†	85.7	-7.7	-0.2250 ug/L	-0.2250 ppb	11:11:03
3	P 214.914†	162.9	-11.5	-7.8336 ug/L	-7.8336 ppb	11:11:03
3	Pb 220.353†	-65.9	-17.4	-2.4740 ug/L	-2.4740 ppb	11:11:03
3	S 181.975 Axial†	26.3	3.7	5.9281 ug/L	5.9281 ppb	11:11:03
3	Sb 206.836†	34.1	7.4	2.8384 ug/L	2.8384 ppb	11:11:03
3	Se 196.026†	-23.3	-7.2	-5.2317 ug/L	-5.2317 ppb	11:11:03
3	Si 251.611†	571.7	16.5	0.5706 ug/L	0.5706 ppb	11:11:03
3	Sn 189.927†	5.9	-0.9	-0.1807 ug/L	-0.1807 ppb	11:11:03
3	Ti 334.940†	-1076.9	-50.8	-0.0852 ug/L	-0.0852 ppb	11:10:43
3	Tl 190.801†	-24.9	8.3	2.9677 ug/L	2.9677 ppb	11:11:03
3	U 409.014†	-1828.1	16.5	0.4428 ug/L	0.4428 ppb	11:10:43
3	V 292.402†	-1428.5	-89.9	-0.6523 ug/L	-0.6523 ppb	11:10:43
3	Zn 213.857†	736.9	129.7	1.4322 ug/L	1.4322 ppb	11:11:03
3	SiO2†	603.0	23.4	1.7412 ug/L	1.7412 ppb	11:11:19

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	865062.7	98.153	%	0.5098				0.52%
Sc Radial	4495.8	106	%	1.6				1.48%
Y 371.029	739505.6	96.769	%	0.5363				0.55%
Y RADIAL	4915.2	99.19	%	1.164				1.17%
Ag 328.068†	-8.2	-0.0387	ug/L	0.27011	-0.0387	ppb	0.27011	697.06%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-1.3	-1.3320	ug/L	1.94791	-1.3320	ppb	1.94791	146.24%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.8	-1.4071	ug/L	3.56014	-1.4071	ppb	3.56014	253.01%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	139.7	3.5571	ug/L	0.43649	3.5571	ppb	0.43649	12.27%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.3	0.0539	ug/L	0.11117	0.0539	ppb	0.11117	206.15%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	23.6	0.0088	ug/L	0.00851	0.0088	ppb	0.00851	96.42%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8.0	15.840	ug/L	8.0061	15.840	ppb	8.0061	50.54%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -2.6     -0.0349 ug/L      0.06474     -0.0349 ppb       0.06474 185.30%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               0.9      0.0215 ug/L      0.18634      0.0215 ppb       0.18634 867.05%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              15.6      0.1902 ug/L      0.14300      0.1902 ppb       0.14300  75.16%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             113.9      0.3463 ug/L      0.10659      0.3463 ppb       0.10659  30.78%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        0.7      8.5034 ug/L     21.64836      8.5034 ppb      21.64836 254.59%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -201.3    -38.089 ug/L      24.1648     -38.089 ppb       24.1648  63.44%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -0.2     -7.8248 ug/L     47.38940     -7.8248 ppb      47.38940 605.63%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              -5.9     -0.0061 ug/L      0.00512     -0.0061 ppb       0.00512  84.64%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               0.4      0.0375 ug/L      0.63815      0.0375 ppb       0.63815 >999.9%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -20.4     -8.0193 ug/L     11.86615     -8.0193 ppb      11.86615 147.97%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -3.8     -0.1103 ug/L      0.13468     -0.1103 ppb       0.13468 122.13%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -4.7     -3.2524 ug/L      4.58808     -3.2524 ppb       4.58808 141.07%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -15.4     -2.1799 ug/L      0.80084     -2.1799 ppb       0.80084  36.74%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          5.5      8.7657 ug/L      5.59947      8.7657 ppb       5.59947  63.88%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               1.2      0.4795 ug/L      2.19616      0.4795 ppb       2.19616 458.04%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†              -2.9     -2.1525 ug/L      3.17180     -2.1525 ppb       3.17180 147.35%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†              14.3      0.4961 ug/L      0.34750      0.4961 ppb       0.34750  70.05%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               0.9      0.1959 ug/L      1.02451      0.1959 ppb       1.02451 523.02%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              -9.9     -0.0814 ug/L      0.07616     -0.0814 ppb       0.07616  93.60%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -26.8     -0.0409 ug/L      0.06135     -0.0409 ppb       0.06135 149.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              11.9      4.2909 ug/L      1.34634      4.2909 ppb       1.34634  31.38%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                6.7      0.1813 ug/L      1.51075      0.1813 ppb       1.51075 833.51%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -80.7     -0.5845 ug/L      0.18027     -0.5845 ppb       0.18027  30.84%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             116.9      1.2935 ug/L      0.12381      1.2935 ppb       0.12381   9.57%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                    -5.9     -0.4397 ug/L      2.09403     -0.4397 ppb       2.09403 476.26%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: 1202053148|957527|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 48
Date Collected: 3/24/2010 11:13:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053148|957527|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4596.8	4596.8	108	%			11:15:22
1	Y RADIAL	4935.7	4935.7	99.60	%			11:15:22
1	Al 396.153Radial†	-64.1	15.7	16.141	ug/L	16.141	ppb	11:15:42
1	Ca 317.933Radial†	22.8	3.9	7.7904	ug/L	7.7904	ppb	11:15:42
1	Fe 238.204 Radial†	8.1	1.3	15.839	ug/L	15.839	ppb	11:15:42
1	K 766.490 Radial†	2654.3	-253.1	-47.900	ug/L	-47.900	ppb	11:15:22
1	Mg 279.077 IEC†	3.4	2.5	108.12	ug/L	108.12	ppb	11:15:42
1	Na 589.592 Radial†	-874.5	61.5	24.194	ug/L	24.194	ppb	11:15:22
1	Sr 421.552†	13.8	-7.2	-0.0594	ug/L	-0.0594	ppb	11:15:22
1	Sc 361.383	894610.5	894610.5	101.51	%			11:16:39
1	Y 371.029	757760.5	757760.5	99.158	%			11:16:39
1	Ag 328.068†	250.5	-12.8	-0.0551	ug/L	-0.0551	ppb	11:16:44
1	As 188.979†	-21.7	-0.8	-0.3795	ug/L	-0.3795	ppb	11:17:04
1	B 249.677†	-257.0	134.9	3.4332	ug/L	3.4332	ppb	11:17:04
1	Ba 233.527†	11.8	1.5	0.0128	ug/L	0.0128	ppb	11:17:04
1	Be 313.107†	-4327.1	19.9	0.0079	ug/L	0.0079	ppb	11:16:44
1	Cd 226.502†	-150.4	23.7	0.3114	ug/L	0.3114	ppb	11:17:04
1	Co 228.616†	-42.8	4.6	0.1106	ug/L	0.1106	ppb	11:17:04
1	Cr 267.716†	94.1	24.5	0.3020	ug/L	0.3020	ppb	11:17:04
1	Cu 324.752†	6343.3	-78.9	-0.2369	ug/L	-0.2369	ppb	11:16:44
1	Mn 257.610†	515.9	45.3	0.0523	ug/L	0.0523	ppb	11:17:04
1	Mo 202.031†	13.2	-0.9	-0.0701	ug/L	-0.0701	ppb	11:17:04
1	Ni 231.604†	101.1	4.1	0.1197	ug/L	0.1197	ppb	11:17:04
1	P 214.914†	186.4	5.3	3.6318	ug/L	3.6318	ppb	11:17:04
1	Pb 220.353†	-60.9	-10.0	-1.4084	ug/L	-1.4084	ppb	11:17:04
1	S 181.975 Axial†	32.8	9.1	14.478	ug/L	14.478	ppb	11:17:04
1	Sb 206.836†	42.4	14.2	5.4811	ug/L	5.4811	ppb	11:17:04
1	Se 196.026†	-15.2	1.7	1.3275	ug/L	1.3275	ppb	11:17:04
1	Si 251.611†	800.5	219.7	7.6172	ug/L	7.6172	ppb	11:17:04
1	Sn 189.927†	12.8	5.7	1.1834	ug/L	1.1834	ppb	11:17:04
1	Ti 334.940†	-953.6	112.5	0.1759	ug/L	0.1759	ppb	11:16:44
1	Tl 190.801†	-21.1	12.9	4.6461	ug/L	4.6461	ppb	11:17:04
1	U 409.014†	-2026.8	-108.3	-2.9461	ug/L	-2.9461	ppb	11:16:39
1	V 292.402†	-1466.9	-72.2	-0.5299	ug/L	-0.5299	ppb	11:16:44
1	Zn 213.857†	645.5	11.1	0.1200	ug/L	0.1200	ppb	11:17:04
1	SiO2†	814.4	208.3	15.498	ug/L	15.498	ppb	11:18:10
2	Sc Radial	4549.8	4549.8	107	%			11:15:47
2	Y RADIAL	4922.2	4922.2	99.33	%			11:15:47
2	Al 396.153Radial†	-68.8	10.7	10.946	ug/L	10.946	ppb	11:16:07
2	Ca 317.933Radial†	18.5	0.2	0.3449	ug/L	0.3449	ppb	11:16:07
2	Fe 238.204 Radial†	8.2	1.5	17.709	ug/L	17.709	ppb	11:16:07
2	K 766.490 Radial†	2661.3	-221.1	-41.851	ug/L	-41.851	ppb	11:15:47
2	Mg 279.077 IEC†	3.5	2.7	113.52	ug/L	113.52	ppb	11:16:07
2	Na 589.592 Radial†	-900.4	28.9	11.385	ug/L	11.385	ppb	11:15:47
2	Sr 421.552†	7.4	-13.0	-0.1069	ug/L	-0.1069	ppb	11:15:47
2	Sc 361.383	908359.6	908359.6	103.07	%			11:17:09
2	Y 371.029	768714.6	768714.6	100.59	%			11:17:09
2	Ag 328.068†	210.7	-55.1	-0.2524	ug/L	-0.2524	ppb	11:17:14
2	As 188.979†	-22.3	-1.0	-0.4757	ug/L	-0.4757	ppb	11:17:34
2	B 249.677†	-273.4	122.8	3.1249	ug/L	3.1249	ppb	11:17:34
2	Ba 233.527†	9.7	-0.7	-0.0051	ug/L	-0.0051	ppb	11:17:34
2	Be 313.107†	-4280.7	129.4	0.0494	ug/L	0.0494	ppb	11:17:14
2	Cd 226.502†	-184.1	-6.8	-0.0917	ug/L	-0.0917	ppb	11:17:34
2	Co 228.616†	-42.0	6.0	0.1451	ug/L	0.1451	ppb	11:17:34
2	Cr 267.716†	96.3	25.3	0.3121	ug/L	0.3121	ppb	11:17:34
2	Cu 324.752†	6367.4	-150.0	-0.4538	ug/L	-0.4538	ppb	11:17:14
2	Mn 257.610†	493.0	15.3	0.0158	ug/L	0.0158	ppb	11:17:34
2	Mo 202.031†	16.5	2.2	0.1802	ug/L	0.1802	ppb	11:17:34
2	Ni 231.604†	94.1	-4.2	-0.1217	ug/L	-0.1217	ppb	11:17:34

2	P 214.914†	191.2	7.2	4.9451 ug/L	4.9451 ppb	11:17:34
2	Pb 220.353†	-58.4	-6.6	-0.9376 ug/L	-0.9376 ppb	11:17:34
2	S 181.975 Axial†	28.2	4.2	6.6351 ug/L	6.6351 ppb	11:17:34
2	Sb 206.836†	35.6	7.0	2.6996 ug/L	2.6996 ppb	11:17:34
2	Se 196.026†	-22.6	-5.2	-3.8167 ug/L	-3.8167 ppb	11:17:34
2	Si 251.611†	802.5	209.7	7.2673 ug/L	7.2673 ppb	11:17:34
2	Sn 189.927†	3.3	-3.7	-0.7752 ug/L	-0.7752 ppb	11:17:34
2	Ti 334.940†	-955.1	125.3	0.1944 ug/L	0.1944 ppb	11:17:14
2	Tl 190.801†	-21.8	12.7	4.5454 ug/L	4.5454 ppb	11:17:34
2	U 409.014†	-1995.5	-47.7	-1.3000 ug/L	-1.3000 ppb	11:17:09
2	V 292.402†	-1393.2	21.1	0.1523 ug/L	0.1523 ppb	11:17:14
2	Zn 213.857†	654.9	10.6	0.1165 ug/L	0.1165 ppb	11:17:34
2	SiO2†	809.0	190.9	14.194 ug/L	14.194 ppb	11:18:15
3	Sc Radial	4557.2	4557.2	107 %		11:16:12
3	Y RADIAL	4946.7	4946.7	99.82 %		11:16:12
3	Al 396.153Radial†	-69.4	10.2	10.413 ug/L	10.413 ppb	11:16:32
3	Ca 317.933Radial†	24.9	6.1	12.148 ug/L	12.148 ppb	11:16:32
3	Fe 238.204 Radial†	8.7	1.9	23.459 ug/L	23.459 ppb	11:16:32
3	K 766.490 Radial†	2616.2	-267.2	-50.566 ug/L	-50.566 ppb	11:16:12
3	Mg 279.077 IEC†	3.2	2.4	101.00 ug/L	101.00 ppb	11:16:32
3	Na 589.592 Radial†	-952.9	-18.7	-7.3582 ug/L	-7.3582 ppb	11:16:12
3	Sr 421.552†	8.7	-11.9	-0.0976 ug/L	-0.0976 ppb	11:16:12
3	Sc 361.383	905291.8	905291.8	102.72 %		11:17:39
3	Y 371.029	767081.3	767081.3	100.38 %		11:17:39
3	Ag 328.068†	261.4	-5.1	-0.0191 ug/L	-0.0191 ppb	11:17:44
3	As 188.979†	-28.9	-7.5	-3.7116 ug/L	-3.7116 ppb	11:18:05
3	B 249.677†	-335.2	61.8	1.5692 ug/L	1.5692 ppb	11:18:05
3	Ba 233.527†	15.3	4.9	0.0431 ug/L	0.0431 ppb	11:18:05
3	Be 313.107†	-4248.1	147.0	0.0558 ug/L	0.0558 ppb	11:17:44
3	Cd 226.502†	-179.3	-2.7	-0.0383 ug/L	-0.0383 ppb	11:18:05
3	Co 228.616†	-40.7	7.1	0.1732 ug/L	0.1732 ppb	11:18:05
3	Cr 267.716†	102.6	31.8	0.3894 ug/L	0.3894 ppb	11:18:05
3	Cu 324.752†	6302.6	-192.2	-0.5836 ug/L	-0.5836 ppb	11:17:44
3	Mn 257.610†	507.3	30.8	0.0358 ug/L	0.0358 ppb	11:18:05
3	Mo 202.031†	23.6	9.1	0.7450 ug/L	0.7450 ppb	11:18:05
3	Ni 231.604†	87.2	-10.6	-0.3102 ug/L	-0.3102 ppb	11:18:05
3	P 214.914†	185.9	2.7	1.9374 ug/L	1.9374 ppb	11:18:05
3	Pb 220.353†	-73.1	-21.1	-2.9809 ug/L	-2.9809 ppb	11:18:05
3	S 181.975 Axial†	27.7	3.7	5.8821 ug/L	5.8821 ppb	11:18:05
3	Sb 206.836†	31.4	3.1	1.2156 ug/L	1.2156 ppb	11:18:05
3	Se 196.026†	-22.3	-5.1	-3.6837 ug/L	-3.6837 ppb	11:18:05
3	Si 251.611†	791.7	201.9	6.9891 ug/L	6.9891 ppb	11:18:05
3	Sn 189.927†	11.4	4.2	0.8728 ug/L	0.8728 ppb	11:18:05
3	Ti 334.940†	-1020.2	58.8	0.0874 ug/L	0.0874 ppb	11:17:44
3	Tl 190.801†	-24.9	9.5	3.4141 ug/L	3.4141 ppb	11:18:05
3	U 409.014†	-1842.6	94.5	2.5646 ug/L	2.5646 ppb	11:17:39
3	V 292.402†	-1420.5	-10.0	-0.0586 ug/L	-0.0586 ppb	11:17:44
3	Zn 213.857†	662.1	19.8	0.2184 ug/L	0.2184 ppb	11:18:05
3	SiO2†	850.2	233.6	17.361 ug/L	17.361 ppb	11:18:20

Mean Data: 1202053148|957527|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	902753.9	102.43	%	0.819				0.80%
Sc Radial	4567.9	107	%	0.6				0.55%
Y 371.029	764518.8	100.04	%	0.773				0.77%
Y RADIAL	4934.9	99.58	%	0.247				0.25%
Ag 328.068†	-24.3	-0.1088	ug/L	0.12558	-0.1088	ppb	0.12558	115.38%
Al 396.153Radial†	12.2	12.500	ug/L	3.1646	12.500	ppb	3.1646	25.32%
As 188.979†	-3.1	-1.5223	ug/L	1.89666	-1.5223	ppb	1.89666	124.59%
B 249.677†	106.5	2.7091	ug/L	0.99918	2.7091	ppb	0.99918	36.88%
Ba 233.527†	1.9	0.0169	ug/L	0.02438	0.0169	ppb	0.02438	143.87%
Be 313.107†	98.8	0.0377	ug/L	0.02601	0.0377	ppb	0.02601	68.93%
Ca 317.933Radial†	3.4	6.7610	ug/L	5.96844	6.7610	ppb	5.96844	88.28%
Cd 226.502†	4.7	0.0605	ug/L	0.21892	0.0605	ppb	0.21892	361.95%
Co 228.616†	5.9	0.1430	ug/L	0.03133	0.1430	ppb	0.03133	21.91%
Cr 267.716†	27.2	0.3345	ug/L	0.04779	0.3345	ppb	0.04779	14.29%
Cu 324.752†	-140.3	-0.4248	ug/L	0.17513	-0.4248	ppb	0.17513	41.23%
Fe 238.204 Radial†	1.6	19.002	ug/L	3.9713	19.002	ppb	3.9713	20.90%
K 766.490 Radial†	-247.1	-46.772	ug/L	4.4656	-46.772	ppb	4.4656	9.55%

Mg 279.077 IEC†	2.5	107.55	ug/L	6.280	107.55	ppb	6.280	5.84%
Mn 257.610†	30.5	0.0346	ug/L	0.01829	0.0346	ppb	0.01829	52.79%
Mo 202.031†	3.5	0.2850	ug/L	0.41755	0.2850	ppb	0.41755	146.50%
Na 589.592 Radial†	23.9	9.4069	ug/L	15.86865	9.4069	ppb	15.86865	168.69%
Ni 231.604†	-3.6	-0.1041	ug/L	0.21548	-0.1041	ppb	0.21548	207.08%
P 214.914†	5.1	3.5048	ug/L	1.50791	3.5048	ppb	1.50791	43.02%
Pb 220.353†	-12.6	-1.7757	ug/L	1.07001	-1.7757	ppb	1.07001	60.26%
S 181.975 Axial†	5.6	8.9984	ug/L	4.76040	8.9984	ppb	4.76040	52.90%
Sb 206.836†	8.1	3.1321	ug/L	2.16540	3.1321	ppb	2.16540	69.14%
Se 196.026†	-2.9	-2.0576	ug/L	2.93236	-2.0576	ppb	2.93236	142.51%
Si 251.611†	210.5	7.2912	ug/L	0.31475	7.2912	ppb	0.31475	4.32%
Sn 189.927†	2.1	0.4270	ug/L	1.05268	0.4270	ppb	1.05268	246.53%
Sr 421.552†	-10.7	-0.0880	ug/L	0.02515	-0.0880	ppb	0.02515	28.60%
Ti 334.940†	98.9	0.1526	ug/L	0.05717	0.1526	ppb	0.05717	37.47%
Tl 190.801†	11.7	4.2019	ug/L	0.68405	4.2019	ppb	0.68405	16.28%
U 409.014†	-20.5	-0.5605	ug/L	2.82877	-0.5605	ppb	2.82877	504.69%
V 292.402†	-20.4	-0.1454	ug/L	0.34932	-0.1454	ppb	0.34932	240.25%
Zn 213.857†	13.8	0.1516	ug/L	0.05781	0.1516	ppb	0.05781	38.12%
SiO2†	210.9	15.685	ug/L	1.5914	15.685	ppb	1.5914	10.15%

Sequence No.: 12
Sample ID: 1202053149|957527|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 49
Date Collected: 3/24/2010 11:20:32
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053149|957527|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4467.4	4467.4	105	%			11:22:25
1	Y RADIAL	4833.2	4833.2	97.53	%			11:22:25
1	Al 396.153Radial†	5037.1	4868.0	4975.3	ug/L	4975.3	ppb	11:22:25
1	Ca 317.933Radial†	2696.3	2548.5	5051.0	ug/L	5051.0	ppb	11:22:45
1	Fe 238.204 Radial†	440.9	413.4	5008.4	ug/L	5008.4	ppb	11:22:45
1	K 766.490 Radial†	29394.7	25262.8	4776.1	ug/L	4776.1	ppb	11:22:25
1	Mg 279.077 IEC†	132.4	125.4	5333.7	ug/L	5333.7	ppb	11:22:45
1	Na 589.592 Radial†	12489.8	12754.8	5019.0	ug/L	5019.0	ppb	11:22:25
1	Sr 421.552†	61798.9	58784.7	483.18	ug/L	483.18	ppb	11:22:25
1	Sc 361.383	894639.5	894639.5	101.51	%			11:23:43
1	Y 371.029	749471.5	749471.5	98.073	%			11:23:43
1	Ag 328.068†	100021.3	98274.9	465.67	ug/L	465.67	ppb	11:23:48
1	As 188.979†	933.5	940.2	471.85	ug/L	471.85	ppb	11:24:08
1	B 249.677†	18147.6	18266.0	463.03	ug/L	463.03	ppb	11:23:48
1	Ba 233.527†	55894.5	55053.5	482.27	ug/L	482.27	ppb	11:23:48
1	Be 313.107†	1264370.0	1249857.4	473.98	ug/L	473.98	ppb	11:23:43
1	Cd 226.502†	35667.7	35309.4	466.33	ug/L	466.33	ppb	11:23:48
1	Co 228.616†	19721.2	19474.7	472.89	ug/L	472.89	ppb	11:23:48
1	Cr 267.716†	39377.2	38723.7	474.13	ug/L	474.13	ppb	11:23:48
1	Cu 324.752†	167324.5	158509.1	481.20	ug/L	481.20	ppb	11:23:48
1	Mn 257.610†	387965.5	381735.2	465.82	ug/L	465.82	ppb	11:23:48
1	Mo 202.031†	5798.3	5698.2	466.70	ug/L	466.70	ppb	11:24:08
1	Ni 231.604†	16888.2	16541.6	483.06	ug/L	483.06	ppb	11:23:48
1	P 214.914†	950.0	757.6	416.64	ug/L	416.64	ppb	11:24:08
1	Pb 220.353†	3313.5	3314.3	470.55	ug/L	470.55	ppb	11:24:08
1	S 181.975 Axial†	2970.8	2903.4	4625.9	ug/L	4625.9	ppb	11:24:08
1	Sb 206.836†	1304.9	1258.0	500.55	ug/L	500.55	ppb	11:24:08
1	Se 196.026†	613.3	620.9	477.93	ug/L	477.93	ppb	11:24:08
1	Si 251.611†	136193.0	133599.6	4624.9	ug/L	4624.9	ppb	11:23:48
1	Sn 189.927†	2316.1	2274.8	472.76	ug/L	472.76	ppb	11:24:08
1	Ti 334.940†	295630.1	292287.4	473.83	ug/L	473.83	ppb	11:23:48
1	Tl 190.801†	1306.4	1320.7	477.56	ug/L	477.56	ppb	11:24:08
1	U 409.014†	16620.6	18261.9	494.66	ug/L	494.66	ppb	11:23:48
1	V 292.402†	65698.0	66094.3	484.52	ug/L	484.52	ppb	11:23:48
1	Zn 213.857†	43585.0	42312.2	463.97	ug/L	463.97	ppb	11:23:48
1	SiO2†	136546.5	133922.6	9951.0	ug/L	9951.0	ppb	11:25:15
2	Sc Radial	4450.6	4450.6	105	%			11:22:51
2	Y RADIAL	4858.8	4858.8	98.05	%			11:22:51
2	Al 396.153Radial†	5021.7	4871.4	4978.4	ug/L	4978.4	ppb	11:22:51
2	Ca 317.933Radial†	2704.0	2565.6	5084.8	ug/L	5084.8	ppb	11:23:11
2	Fe 238.204 Radial†	440.8	414.8	5025.6	ug/L	5025.6	ppb	11:23:11
2	K 766.490 Radial†	29622.8	25586.5	4837.3	ug/L	4837.3	ppb	11:22:51
2	Mg 279.077 IEC†	126.5	120.2	5113.1	ug/L	5113.1	ppb	11:23:11
2	Na 589.592 Radial†	12502.7	12812.0	5041.5	ug/L	5041.5	ppb	11:22:51
2	Sr 421.552†	62058.2	59254.7	487.04	ug/L	487.04	ppb	11:22:51
2	Sc 361.383	892140.5	892140.5	101.23	%			11:24:13
2	Y 371.029	748825.9	748825.9	97.989	%			11:24:13
2	Ag 328.068†	100270.5	98797.1	468.14	ug/L	468.14	ppb	11:24:19
2	As 188.979†	934.1	943.5	473.45	ug/L	473.45	ppb	11:24:39
2	B 249.677†	18235.7	18403.0	466.51	ug/L	466.51	ppb	11:24:19
2	Ba 233.527†	56093.5	55404.3	485.34	ug/L	485.34	ppb	11:24:19
2	Be 313.107†	1262322.1	1251323.2	474.54	ug/L	474.54	ppb	11:24:13
2	Cd 226.502†	35772.0	35510.8	468.99	ug/L	468.99	ppb	11:24:19
2	Co 228.616†	19761.8	19569.2	475.20	ug/L	475.20	ppb	11:24:19
2	Cr 267.716†	39453.9	38908.1	476.38	ug/L	476.38	ppb	11:24:19
2	Cu 324.752†	167715.3	159356.9	483.77	ug/L	483.77	ppb	11:24:19
2	Mn 257.610†	388716.7	383547.9	468.04	ug/L	468.04	ppb	11:24:19
2	Mo 202.031†	5865.9	5781.0	473.48	ug/L	473.48	ppb	11:24:39
2	Ni 231.604†	16906.6	16606.4	484.95	ug/L	484.95	ppb	11:24:19

2	P 214.914†	962.8	772.8	426.44 ug/L	426.44 ppb	11:24:39
2	Pb 220.353†	3313.7	3323.7	471.89 ug/L	471.89 ppb	11:24:39
2	S 181.975 Axial†	3011.0	2951.3	4702.2 ug/L	4702.2 ppb	11:24:39
2	Sb 206.836†	1311.6	1268.2	504.69 ug/L	504.69 ppb	11:24:39
2	Se 196.026†	617.8	627.0	482.56 ug/L	482.56 ppb	11:24:39
2	Si 251.611†	136272.0	134053.4	4640.6 ug/L	4640.6 ppb	11:24:19
2	Sn 189.927†	2328.5	2293.4	476.62 ug/L	476.62 ppb	11:24:39
2	Ti 334.940†	296219.3	293685.2	476.12 ug/L	476.12 ppb	11:24:19
2	Tl 190.801†	1310.8	1328.7	480.43 ug/L	480.43 ppb	11:24:39
2	U 409.014†	16776.0	18461.3	500.07 ug/L	500.07 ppb	11:24:19
2	V 292.402†	65889.4	66464.7	487.30 ug/L	487.30 ppb	11:24:19
2	Zn 213.857†	43654.9	42501.6	466.05 ug/L	466.05 ppb	11:24:19
2	SiO2†	136299.3	134055.2	9960.7 ug/L	9960.7 ppb	11:25:20
3	Sc Radial	4411.4	4411.4	104 %		11:23:16
3	Y RADIAL	4785.7	4785.7	96.57 %		11:23:16
3	Al 396.153Radial†	5014.2	4906.8	5015.3 ug/L	5015.3 ppb	11:23:16
3	Ca 317.933Radial†	2702.1	2586.7	5126.7 ug/L	5126.7 ppb	11:23:36
3	Fe 238.204 Radial†	447.1	424.7	5144.5 ug/L	5144.5 ppb	11:23:36
3	K 766.490 Radial†	29285.9	25513.3	4823.5 ug/L	4823.5 ppb	11:23:16
3	Mg 279.077 IEC†	129.9	124.5	5298.2 ug/L	5298.2 ppb	11:23:36
3	Na 589.592 Radial†	12342.0	12763.3	5022.4 ug/L	5022.4 ppb	11:23:16
3	Sr 421.552†	61250.3	59003.0	484.97 ug/L	484.97 ppb	11:23:16
3	Sc 361.383	908677.9	908677.9	103.10 %		11:24:44
3	Y 371.029	761609.8	761609.8	99.661 %		11:24:44
3	Ag 328.068†	100871.7	97577.5	462.42 ug/L	462.42 ppb	11:24:49
3	As 188.979†	931.7	924.3	463.94 ug/L	463.94 ppb	11:25:09
3	B 249.677†	18464.1	18296.8	463.80 ug/L	463.80 ppb	11:24:49
3	Ba 233.527†	56423.1	54715.5	479.31 ug/L	479.31 ppb	11:24:49
3	Be 313.107†	1283684.7	1249347.7	473.78 ug/L	473.78 ppb	11:24:44
3	Cd 226.502†	36077.9	35164.4	464.40 ug/L	464.40 ppb	11:24:49
3	Co 228.616†	19898.7	19346.7	469.78 ug/L	469.78 ppb	11:24:49
3	Cr 267.716†	39821.5	38555.3	472.08 ug/L	472.08 ppb	11:24:49
3	Cu 324.752†	169060.7	157646.4	478.59 ug/L	478.59 ppb	11:24:49
3	Mn 257.610†	391724.4	379476.3	463.08 ug/L	463.08 ppb	11:24:49
3	Mo 202.031†	5846.3	5656.6	463.30 ug/L	463.30 ppb	11:25:09
3	Ni 231.604†	17043.9	16435.7	479.96 ug/L	479.96 ppb	11:24:49
3	P 214.914†	967.6	760.2	418.82 ug/L	418.82 ppb	11:25:09
3	Pb 220.353†	3324.0	3274.1	464.84 ug/L	464.84 ppb	11:25:09
3	S 181.975 Axial†	3010.5	2896.7	4615.2 ug/L	4615.2 ppb	11:25:09
3	Sb 206.836†	1311.2	1244.2	495.12 ug/L	495.12 ppb	11:25:09
3	Se 196.026†	610.0	608.3	469.00 ug/L	469.00 ppb	11:25:09
3	Si 251.611†	137455.7	132751.4	4595.6 ug/L	4595.6 ppb	11:24:49
3	Sn 189.927†	2332.3	2255.2	468.71 ug/L	468.71 ppb	11:25:09
3	Ti 334.940†	298058.2	290143.1	470.37 ug/L	470.37 ppb	11:24:49
3	Tl 190.801†	1329.5	1323.2	478.43 ug/L	478.43 ppb	11:25:09
3	U 409.014†	16837.4	18219.2	493.49 ug/L	493.49 ppb	11:24:49
3	V 292.402†	66148.9	65531.7	480.38 ug/L	480.38 ppb	11:24:49
3	Zn 213.857†	44063.3	42112.9	461.76 ug/L	461.76 ppb	11:24:49
3	SiO2†	136817.6	132107.4	9816.1 ug/L	9816.1 ppb	11:25:25

Mean Data: 1202053149|957527|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	898486.0	101.95	%	1.011				0.99%
Sc Radial	4443.1	105	%	0.7				0.65%
Y 371.029	753302.4	98.574	%	0.9424				0.96%
Y RADIAL	4825.9	97.39	%	0.748				0.77%
Ag 328.068†	98216.5	465.41	ug/L	2.873	465.41	ppb	2.873	0.62%
Al 396.153Radial†	4882.1	4989.7	ug/L	22.26	4989.7	ppb	22.26	0.45%
As 188.979†	936.0	469.75	ug/L	5.091	469.75	ppb	5.091	1.08%
B 249.677†	18321.9	464.45	ug/L	1.828	464.45	ppb	1.828	0.39%
Ba 233.527†	55057.8	482.31	ug/L	3.015	482.31	ppb	3.015	0.63%
Be 313.107†	1250176.1	474.10	ug/L	0.394	474.10	ppb	0.394	0.08%
Ca 317.933Radial†	2566.9	5087.5	ug/L	37.94	5087.5	ppb	37.94	0.75%
Cd 226.502†	35328.2	466.57	ug/L	2.306	466.57	ppb	2.306	0.49%
Co 228.616†	19463.6	472.62	ug/L	2.718	472.62	ppb	2.718	0.58%
Cr 267.716†	38729.0	474.20	ug/L	2.153	474.20	ppb	2.153	0.45%
Cu 324.752†	158504.1	481.18	ug/L	2.591	481.18	ppb	2.591	0.54%
Fe 238.204 Radial†	417.6	5059.5	ug/L	74.11	5059.5	ppb	74.11	1.46%
K 766.490 Radial†	25454.2	4812.3	ug/L	32.10	4812.3	ppb	32.10	0.67%

Mg 279.077 IEC†	123.4	5248.3 ug/L	118.45	5248.3 ppb	118.45	2.26%
Mn 257.610†	381586.5	465.65 ug/L	2.485	465.65 ppb	2.485	0.53%
Mo 202.031†	5711.9	467.83 ug/L	5.180	467.83 ppb	5.180	1.11%
Na 589.592 Radial†	12776.7	5027.6 ug/L	12.15	5027.6 ppb	12.15	0.24%
Ni 231.604†	16527.9	482.66 ug/L	2.517	482.66 ppb	2.517	0.52%
P 214.914†	763.5	420.63 ug/L	5.143	420.63 ppb	5.143	1.22%
Pb 220.353†	3304.0	469.09 ug/L	3.745	469.09 ppb	3.745	0.80%
S 181.975 Axial†	2917.1	4647.8 ug/L	47.43	4647.8 ppb	47.43	1.02%
Sb 206.836†	1256.8	500.12 ug/L	4.800	500.12 ppb	4.800	0.96%
Se 196.026†	618.7	476.50 ug/L	6.893	476.50 ppb	6.893	1.45%
Si 251.611†	133468.1	4620.4 ug/L	22.85	4620.4 ppb	22.85	0.49%
Sn 189.927†	2274.4	472.70 ug/L	3.960	472.70 ppb	3.960	0.84%
Sr 421.552†	59014.1	485.06 ug/L	1.933	485.06 ppb	1.933	0.40%
Ti 334.940†	292038.6	473.44 ug/L	2.895	473.44 ppb	2.895	0.61%
Tl 190.801†	1324.2	478.81 ug/L	1.471	478.81 ppb	1.471	0.31%
U 409.014†	18314.1	496.07 ug/L	3.511	496.07 ppb	3.511	0.71%
V 292.402†	66030.2	484.07 ug/L	3.479	484.07 ppb	3.479	0.72%
Zn 213.857†	42308.9	463.93 ug/L	2.141	463.93 ppb	2.141	0.46%
SiO2†	133361.8	9909.2 ug/L	80.86	9909.2 ppb	80.86	0.82%

Sequence No.: 15
Sample ID: 247829001|957527|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 52
Date Collected: 3/24/2010 11:41:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 247829001|957527|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4538.4	4538.4	107	%			11:43:39
1	Y RADIAL	4923.8	4923.8	99.36	%			11:43:39
1	Al 396.153Radial†	237.9	297.8	305.68	ug/L	305.68	ppb	11:43:59
1	Ca 317.933Radial†	6057.5	5656.7	11211	ug/L	11211	ppb	11:43:39
1	Fe 238.204 Radial†	27.4	19.5	235.32	ug/L	235.32	ppb	11:43:59
1	K 766.490 Radial†	11992.4	8525.2	1603.6	ug/L	1603.6	ppb	11:43:39
1	Mg 279.077 IEC†	80.5	74.7	3179.1	ug/L	3179.1	ppb	11:43:59
1	Na 589.592 Radial†	39666.4	38024.2	14963	ug/L	14963	ppb	11:43:39
1	Sr 421.552†	6955.3	6494.8	53.304	ug/L	53.304	ppb	11:43:39
1	Sc 361.383	882358.9	882358.9	100.12	%			11:44:56
1	Y 371.029	741200.7	741200.7	96.991	%			11:44:56
1	Ag 328.068†	269.6	9.8	-0.0067	ug/L	-0.0067	ppb	11:45:01
1	As 188.979†	-16.8	3.8	1.9942	ug/L	1.9942	ppb	11:45:21
1	B 249.677†	170.2	558.2	14.176	ug/L	14.176	ppb	11:45:21
1	Ba 233.527†	2690.8	2677.6	23.417	ug/L	23.417	ppb	11:45:21
1	Be 313.107†	-4269.0	18.6	0.0159	ug/L	0.0159	ppb	11:45:01
1	Cd 226.502†	-148.2	23.8	0.2886	ug/L	0.2886	ppb	11:45:21
1	Co 228.616†	-29.8	16.9	0.4111	ug/L	0.4111	ppb	11:45:21
1	Cr 267.716†	335.9	267.4	3.3015	ug/L	3.3015	ppb	11:45:21
1	Cu 324.752†	6422.4	86.9	0.2790	ug/L	0.2790	ppb	11:45:01
1	Mn 257.610†	10301.7	9826.7	11.877	ug/L	11.877	ppb	11:45:01
1	Mo 202.031†	21.3	7.4	0.7579	ug/L	0.7579	ppb	11:45:21
1	Ni 231.604†	61.2	-34.4	-1.0045	ug/L	-1.0045	ppb	11:45:21
1	P 214.914†	217.6	39.0	25.940	ug/L	25.940	ppb	11:45:21
1	Pb 220.353†	-59.3	-9.2	-1.1119	ug/L	-1.1119	ppb	11:45:21
1	S 181.975 Axial†	956.3	931.9	1485.1	ug/L	1485.1	ppb	11:45:21
1	Sb 206.836†	21.1	-6.4	-2.8196	ug/L	-2.8196	ppb	11:45:21
1	Se 196.026†	-18.8	-2.1	-0.8028	ug/L	-0.8028	ppb	11:45:21
1	Si 251.611†	944240.8	942581.8	32671	ug/L	32671	ppb	11:44:56
1	Sn 189.927†	-100.7	-107.5	-20.343	ug/L	-20.343	ppb	11:45:21
1	Ti 334.940†	1343.3	2393.7	5.1266	ug/L	5.1266	ppb	11:45:01
1	Tl 190.801†	-31.8	2.0	0.7946	ug/L	0.7946	ppb	11:45:21
1	U 409.014†	-2067.8	-177.1	-4.8461	ug/L	-4.8461	ppb	11:44:56
1	V 292.402†	-594.2	779.5	5.6617	ug/L	5.6617	ppb	11:45:01
1	Zn 213.857†	999.1	373.1	4.1019	ug/L	4.1019	ppb	11:45:21
1	SiO2†	948386.6	946697.8	70433	ug/L	70433	ppb	11:46:28
2	Sc Radial	4543.1	4543.1	107	%			11:44:04
2	Y RADIAL	4865.3	4865.3	98.18	%			11:44:04
2	Al 396.153Radial†	231.1	291.2	298.94	ug/L	298.94	ppb	11:44:24
2	Ca 317.933Radial†	6045.4	5639.6	11177	ug/L	11177	ppb	11:44:04
2	Fe 238.204 Radial†	30.6	22.5	271.86	ug/L	271.86	ppb	11:44:24
2	K 766.490 Radial†	11970.8	8493.5	1597.7	ug/L	1597.7	ppb	11:44:04
2	Mg 279.077 IEC†	82.0	76.1	3237.9	ug/L	3237.9	ppb	11:44:24
2	Na 589.592 Radial†	39434.2	37769.0	14862	ug/L	14862	ppb	11:44:04
2	Sr 421.552†	6937.5	6471.5	53.113	ug/L	53.113	ppb	11:44:04
2	Sc 361.383	899105.9	899105.9	102.02	%			11:45:26
2	Y 371.029	753480.4	753480.4	98.598	%			11:45:26
2	Ag 328.068†	256.8	-7.8	-0.0855	ug/L	-0.0855	ppb	11:45:31
2	As 188.979†	-16.6	4.4	2.2858	ug/L	2.2858	ppb	11:45:51
2	B 249.677†	132.4	517.9	13.143	ug/L	13.143	ppb	11:45:51
2	Ba 233.527†	2705.3	2641.7	23.103	ug/L	23.103	ppb	11:45:51
2	Be 313.107†	-4232.9	133.5	0.0592	ug/L	0.0592	ppb	11:45:31
2	Cd 226.502†	-143.8	30.9	0.3796	ug/L	0.3796	ppb	11:45:51
2	Co 228.616†	-17.8	29.2	0.7089	ug/L	0.7089	ppb	11:45:51
2	Cr 267.716†	327.0	252.4	3.1188	ug/L	3.1188	ppb	11:45:51
2	Cu 324.752†	6456.5	0.9	0.0160	ug/L	0.0160	ppb	11:45:31
2	Mn 257.610†	10385.2	9717.0	11.745	ug/L	11.745	ppb	11:45:31
2	Mo 202.031†	20.4	6.1	0.6551	ug/L	0.6551	ppb	11:45:51
2	Ni 231.604†	61.9	-34.8	-1.0178	ug/L	-1.0178	ppb	11:45:51

2	P 214.914†	219.1	36.5	24.256 ug/L	24.256 ppb	11:45:51
2	Pb 220.353†	-69.0	-17.6	-2.3076 ug/L	-2.3076 ppb	11:45:51
2	S 181.975 Axial†	952.2	910.2	1450.4 ug/L	1450.4 ppb	11:45:51
2	Sb 206.836†	19.0	-8.9	-3.7498 ug/L	-3.7498 ppb	11:45:51
2	Se 196.026†	-18.1	-1.1	0.0676 ug/L	0.0676 ppb	11:45:51
2	Si 251.611†	963257.7	943655.6	32708 ug/L	32708 ppb	11:45:26
2	Sn 189.927†	-94.3	-99.3	-18.646 ug/L	-18.646 ppb	11:45:51
2	Ti 334.940†	1343.6	2369.0	5.0744 ug/L	5.0744 ppb	11:45:31
2	Tl 190.801†	-25.1	9.1	3.3599 ug/L	3.3599 ppb	11:45:51
2	U 409.014†	-1857.1	68.0	1.8098 ug/L	1.8098 ppb	11:45:26
2	V 292.402†	-684.2	702.3	5.1102 ug/L	5.1102 ppb	11:45:31
2	Zn 213.857†	990.5	346.1	3.7977 ug/L	3.7977 ppb	11:45:51
2	SiO2†	945076.2	925808.2	68879 ug/L	68879 ppb	11:46:34
3	Sc Radial	4511.2	4511.2	106 %		11:44:29
3	Y RADIAL	4881.6	4881.6	98.51 %		11:44:29
3	Al 396.153Radial†	239.3	300.5	308.49 ug/L	308.49 ppb	11:44:49
3	Ca 317.933Radial†	6039.8	5674.3	11246 ug/L	11246 ppb	11:44:29
3	Fe 238.204 Radial†	29.2	21.4	258.37 ug/L	258.37 ppb	11:44:49
3	K 766.490 Radial†	11948.6	8551.6	1608.6 ug/L	1608.6 ppb	11:44:29
3	Mg 279.077 IEC†	82.6	77.2	3284.0 ug/L	3284.0 ppb	11:44:49
3	Na 589.592 Radial†	39432.9	38028.3	14964 ug/L	14964 ppb	11:44:29
3	Sr 421.552†	6929.4	6509.7	53.426 ug/L	53.426 ppb	11:44:29
3	Sc 361.383	888590.9	888590.9	100.82 %		11:45:57
3	Y 371.029	744155.1	744155.1	97.377 %		11:45:57
3	Ag 328.068†	195.2	-65.9	-0.3627 ug/L	-0.3627 ppb	11:46:02
3	As 188.979†	-17.1	3.6	1.9000 ug/L	1.9000 ppb	11:46:22
3	B 249.677†	119.6	506.8	12.864 ug/L	12.864 ppb	11:46:22
3	Ba 233.527†	2680.2	2648.3	23.160 ug/L	23.160 ppb	11:46:22
3	Be 313.107†	-4299.1	18.7	0.0159 ug/L	0.0159 ppb	11:46:02
3	Cd 226.502†	-140.1	32.9	0.4071 ug/L	0.4071 ppb	11:46:22
3	Co 228.616†	-28.3	18.7	0.4516 ug/L	0.4516 ppb	11:46:22
3	Cr 267.716†	322.8	252.0	3.1136 ug/L	3.1136 ppb	11:46:22
3	Cu 324.752†	6425.0	44.5	0.1491 ug/L	0.1491 ppb	11:46:02
3	Mn 257.610†	10356.1	9808.6	11.853 ug/L	11.853 ppb	11:46:02
3	Mo 202.031†	18.1	4.1	0.4874 ug/L	0.4874 ppb	11:46:22
3	Ni 231.604†	70.2	-25.9	-0.7559 ug/L	-0.7559 ppb	11:46:22
3	P 214.914†	223.2	43.1	28.680 ug/L	28.680 ppb	11:46:22
3	Pb 220.353†	-72.8	-22.2	-2.9489 ug/L	-2.9489 ppb	11:46:22
3	S 181.975 Axial†	962.7	931.6	1484.5 ug/L	1484.5 ppb	11:46:22
3	Sb 206.836†	20.4	-7.3	-3.1072 ug/L	-3.1072 ppb	11:46:22
3	Se 196.026†	-17.6	-0.8	0.2649 ug/L	0.2649 ppb	11:46:22
3	Si 251.611†	952591.6	944249.8	32728 ug/L	32728 ppb	11:45:57
3	Sn 189.927†	-91.5	-97.7	-18.296 ug/L	-18.296 ppb	11:46:22
3	Ti 334.940†	1351.0	2391.9	5.1180 ug/L	5.1180 ppb	11:46:02
3	Tl 190.801†	-24.5	9.5	3.4805 ug/L	3.4805 ppb	11:46:22
3	U 409.014†	-1922.9	-18.8	-0.5472 ug/L	-0.5472 ppb	11:45:57
3	V 292.402†	-684.0	694.5	5.0502 ug/L	5.0502 ppb	11:46:02
3	Zn 213.857†	987.7	354.8	3.8939 ug/L	3.8939 ppb	11:46:22
3	SiO2†	952778.8	944410.4	70263 ug/L	70263 ppb	11:46:40

Mean Data: 247829001|957527|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	890018.6	100.98	%	0.960				0.95%
Sc Radial	4530.9	107	%	0.4				0.38%
Y 371.029	746278.7	97.655	%	0.8387				0.86%
Y RADIAL	4890.3	98.68	%	0.610				0.62%
Ag 328.068†	-21.3	-0.1517	ug/L	0.18698	-0.1517	ppb	0.18698	123.29%
Al 396.153Radial†	296.5	304.37	ug/L	4.907	304.37	ppb	4.907	1.61%
As 188.979†	4.0	2.0600	ug/L	0.20116	2.0600	ppb	0.20116	9.77%
B 249.677†	527.6	13.394	ug/L	0.6913	13.394	ppb	0.6913	5.16%
Ba 233.527†	2655.9	23.227	ug/L	0.1672	23.227	ppb	0.1672	0.72%
Be 313.107†	57.0	0.0303	ug/L	0.02503	0.0303	ppb	0.02503	82.52%
Ca 317.933Radial†	5656.9	11212	ug/L	34.3	11212	ppb	34.3	0.31%
Cd 226.502†	29.2	0.3584	ug/L	0.06203	0.3584	ppb	0.06203	17.31%
Co 228.616†	21.6	0.5239	ug/L	0.16151	0.5239	ppb	0.16151	30.83%
Cr 267.716†	257.3	3.1780	ug/L	0.10701	3.1780	ppb	0.10701	3.37%
Cu 324.752†	44.1	0.1480	ug/L	0.13153	0.1480	ppb	0.13153	88.87%
Fe 238.204 Radial†	21.1	255.18	ug/L	18.480	255.18	ppb	18.480	7.24%
K 766.490 Radial†	8523.5	1603.3	ug/L	5.47	1603.3	ppb	5.47	0.34%

Mg 279.077 IEC†	76.0	3233.7	ug/L	52.60	3233.7	ppb	52.60	1.63%
Mn 257.610†	9784.1	11.825	ug/L	0.0706	11.825	ppb	0.0706	0.60%
Mo 202.031†	5.9	0.6335	ug/L	0.13653	0.6335	ppb	0.13653	21.55%
Na 589.592 Radial†	37940.5	14930	ug/L	58.4	14930	ppb	58.4	0.39%
Ni 231.604†	-31.7	-0.9261	ug/L	0.14752	-0.9261	ppb	0.14752	15.93%
P 214.914†	39.5	26.292	ug/L	2.2330	26.292	ppb	2.2330	8.49%
Pb 220.353†	-16.3	-2.1228	ug/L	0.93236	-2.1228	ppb	0.93236	43.92%
S 181.975 Axial†	924.6	1473.3	ug/L	19.88	1473.3	ppb	19.88	1.35%
Sb 206.836†	-7.5	-3.2256	ug/L	0.47626	-3.2256	ppb	0.47626	14.77%
Se 196.026†	-1.3	-0.1567	ug/L	0.56810	-0.1567	ppb	0.56810	362.46%
Si 251.611†	943495.8	32702	ug/L	29.3	32702	ppb	29.3	0.09%
Sn 189.927†	-101.5	-19.095	ug/L	1.0949	-19.095	ppb	1.0949	5.73%
Sr 421.552†	6492.0	53.281	ug/L	0.1580	53.281	ppb	0.1580	0.30%
Ti 334.940†	2384.9	5.1063	ug/L	0.02800	5.1063	ppb	0.02800	0.55%
Tl 190.801†	6.9	2.5450	ug/L	1.51708	2.5450	ppb	1.51708	59.61%
U 409.014†	-42.6	-1.1945	ug/L	3.37482	-1.1945	ppb	3.37482	282.53%
V 292.402†	725.4	5.2740	ug/L	0.33704	5.2740	ppb	0.33704	6.39%
Zn 213.857†	358.0	3.9312	ug/L	0.15550	3.9312	ppb	0.15550	3.96%
SiO2†	938972.1	69859	ug/L	852.4	69859	ppb	852.4	1.22%

Sequence No.: 16
Sample ID: 1202053150|957527|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 53
Date Collected: 3/24/2010 11:48:51
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053150|957527|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4609.4	4609.4	108	%			11:50:44
1	Y RADIAL	4963.9	4963.9	100.2	%			11:50:44
1	Al 396.153Radial†	510.5	545.8	560.33	ug/L	560.33	ppb	11:50:44
1	Ca 317.933Radial†	6136.1	5641.8	11182	ug/L	11182	ppb	11:50:44
1	Fe 238.204 Radial†	30.2	21.7	262.41	ug/L	262.41	ppb	11:51:04
1	K 766.490 Radial†	12095.4	8447.2	1588.8	ug/L	1588.8	ppb	11:50:44
1	Mg 279.077 IEC†	83.0	75.9	3231.0	ug/L	3231.0	ppb	11:51:04
1	Na 589.592 Radial†	40522.8	38241.7	15048	ug/L	15048	ppb	11:50:44
1	Sr 421.552†	7114.7	6541.5	53.688	ug/L	53.688	ppb	11:50:44
1	Sc 361.383	891187.0	891187.0	101.12	%			11:52:01
1	Y 371.029	747432.4	747432.4	97.806	%			11:52:01
1	Ag 328.068†	272.4	9.8	0.0004	ug/L	0.0004	ppb	11:52:06
1	As 188.979†	-14.0	6.8	3.4785	ug/L	3.4785	ppb	11:52:26
1	B 249.677†	93.2	480.3	12.188	ug/L	12.188	ppb	11:52:26
1	Ba 233.527†	2719.7	2679.5	23.433	ug/L	23.433	ppb	11:52:26
1	Be 313.107†	-4174.9	154.0	0.0666	ug/L	0.0666	ppb	11:52:06
1	Cd 226.502†	-149.4	24.1	0.2899	ug/L	0.2899	ppb	11:52:26
1	Co 228.616†	-24.1	22.9	0.5538	ug/L	0.5538	ppb	11:52:26
1	Cr 267.716†	317.0	245.3	3.0347	ug/L	3.0347	ppb	11:52:26
1	Cu 324.752†	6451.1	51.8	0.1742	ug/L	0.1742	ppb	11:52:06
1	Mn 257.610†	10275.0	9698.4	11.721	ug/L	11.721	ppb	11:52:06
1	Mo 202.031†	16.7	2.7	0.3740	ug/L	0.3740	ppb	11:52:26
1	Ni 231.604†	62.5	-33.7	-0.9843	ug/L	-0.9843	ppb	11:52:26
1	P 214.914†	216.2	35.5	23.625	ug/L	23.625	ppb	11:52:26
1	Pb 220.353†	-61.4	-10.7	-1.2690	ug/L	-1.2690	ppb	11:52:26
1	S 181.975 Axial†	967.1	933.2	1487.0	ug/L	1487.0	ppb	11:52:26
1	Sb 206.836†	26.9	-1.0	-0.6886	ug/L	-0.6886	ppb	11:52:26
1	Se 196.026†	-12.2	4.7	4.3840	ug/L	4.3840	ppb	11:52:26
1	Si 251.611†	950580.5	939508.6	32564	ug/L	32564	ppb	11:52:01
1	Sn 189.927†	-88.3	-94.2	-17.588	ug/L	-17.588	ppb	11:52:26
1	Ti 334.940†	1229.4	2267.8	4.9148	ug/L	4.9148	ppb	11:52:06
1	Tl 190.801†	-36.6	-2.4	-0.7828	ug/L	-0.7828	ppb	11:52:26
1	U 409.014†	-2124.0	-212.1	-5.8012	ug/L	-5.8012	ppb	11:52:01
1	V 292.402†	-688.7	691.9	5.0179	ug/L	5.0179	ppb	11:52:06
1	Zn 213.857†	1216.9	578.6	6.3730	ug/L	6.3730	ppb	11:52:26
1	SiO2†	961636.4	950417.2	70710	ug/L	70710	ppb	11:53:33
2	Sc Radial	4529.9	4529.9	107	%			11:51:09
2	Y RADIAL	4869.0	4869.0	98.25	%			11:51:09
2	Al 396.153Radial†	486.9	531.9	546.05	ug/L	546.05	ppb	11:51:09
2	Ca 317.933Radial†	6029.4	5641.0	11180	ug/L	11180	ppb	11:51:09
2	Fe 238.204 Radial†	29.2	21.3	256.88	ug/L	256.88	ppb	11:51:29
2	K 766.490 Radial†	11946.6	8503.4	1599.5	ug/L	1599.5	ppb	11:51:09
2	Mg 279.077 IEC†	81.1	75.5	3210.4	ug/L	3210.4	ppb	11:51:29
2	Na 589.592 Radial†	39594.6	38026.8	14964	ug/L	14964	ppb	11:51:09
2	Sr 421.552†	6942.6	6495.2	53.308	ug/L	53.308	ppb	11:51:09
2	Sc 361.383	884143.3	884143.3	100.32	%			11:52:31
2	Y 371.029	741753.6	741753.6	97.063	%			11:52:31
2	Ag 328.068†	364.4	103.8	0.4400	ug/L	0.4400	ppb	11:52:37
2	As 188.979†	-24.3	-3.6	-1.6995	ug/L	-1.6995	ppb	11:52:57
2	B 249.677†	115.8	503.6	12.782	ug/L	12.782	ppb	11:52:57
2	Ba 233.527†	2683.2	2664.7	23.304	ug/L	23.304	ppb	11:52:57
2	Be 313.107†	-4171.4	124.5	0.0559	ug/L	0.0559	ppb	11:52:37
2	Cd 226.502†	-155.4	17.0	0.1963	ug/L	0.1963	ppb	11:52:57
2	Co 228.616†	-17.3	29.5	0.7164	ug/L	0.7164	ppb	11:52:57
2	Cr 267.716†	341.2	272.0	3.3590	ug/L	3.3590	ppb	11:52:57
2	Cu 324.752†	6371.6	23.4	0.0865	ug/L	0.0865	ppb	11:52:37
2	Mn 257.610†	10423.8	9927.7	12.001	ug/L	12.001	ppb	11:52:37
2	Mo 202.031†	23.7	9.8	0.9540	ug/L	0.9540	ppb	11:52:57
2	Ni 231.604†	71.9	-23.8	-0.6956	ug/L	-0.6956	ppb	11:52:57

2	P 214.914†	226.9	47.9	31.995 ug/L	31.995 ppb	11:52:57
2	Pb 220.353†	-49.5	0.7	0.3380 ug/L	0.3380 ppb	11:52:57
2	S 181.975 Axial†	952.2	925.9	1475.4 ug/L	1475.4 ppb	11:52:57
2	Sb 206.836†	18.6	-9.0	-3.7760 ug/L	-3.7760 ppb	11:52:57
2	Se 196.026†	-15.3	1.4	1.9627 ug/L	1.9627 ppb	11:52:57
2	Si 251.611†	951217.5	947632.9	32846 ug/L	32846 ppb	11:52:31
2	Sn 189.927†	-93.7	-100.3	-18.843 ug/L	-18.843 ppb	11:52:57
2	Ti 334.940†	1326.7	2374.5	5.0881 ug/L	5.0881 ppb	11:52:37
2	Tl 190.801†	-27.7	6.1	2.2803 ug/L	2.2803 ppb	11:52:57
2	U 409.014†	-2019.9	-125.2	-3.4379 ug/L	-3.4379 ppb	11:52:31
2	V 292.402†	-646.9	728.1	5.2926 ug/L	5.2926 ppb	11:52:37
2	Zn 213.857†	1217.0	588.4	6.4798 ug/L	6.4798 ppb	11:52:57
2	SiO2†	959876.0	956238.8	71143 ug/L	71143 ppb	11:53:39
3	Sc Radial	4422.9	4422.9	104 %		11:51:34
3	Y RADIAL	4773.3	4773.3	96.32 %		11:51:34
3	Al 396.153Radial†	492.8	548.6	563.19 ug/L	563.19 ppb	11:51:34
3	Ca 317.933Radial†	6001.5	5751.1	11398 ug/L	11398 ppb	11:51:34
3	Fe 238.204 Radial†	31.1	23.7	286.25 ug/L	286.25 ppb	11:51:54
3	K 766.490 Radial†	11910.8	8740.1	1644.1 ug/L	1644.1 ppb	11:51:34
3	Mg 279.077 IEC†	84.3	80.4	3419.6 ug/L	3419.6 ppb	11:51:54
3	Na 589.592 Radial†	39271.2	38614.6	15195 ug/L	15195 ppb	11:51:34
3	Sr 421.552†	6929.1	6639.7	54.494 ug/L	54.494 ppb	11:51:34
3	Sc 361.383	880308.2	880308.2	99.883 %		11:53:02
3	Y 371.029	738313.7	738313.7	96.613 %		11:53:02
3	Ag 328.068†	197.0	-62.3	-0.3345 ug/L	-0.3345 ppb	11:53:07
3	As 188.979†	-24.5	-3.9	-1.8432 ug/L	-1.8432 ppb	11:53:27
3	B 249.677†	88.4	476.7	12.093 ug/L	12.093 ppb	11:53:27
3	Ba 233.527†	2688.2	2681.3	23.449 ug/L	23.449 ppb	11:53:27
3	Be 313.107†	-4246.3	31.5	0.0208 ug/L	0.0208 ppb	11:53:07
3	Cd 226.502†	-143.2	28.5	0.3451 ug/L	0.3451 ppb	11:53:27
3	Co 228.616†	-29.0	17.6	0.4280 ug/L	0.4280 ppb	11:53:27
3	Cr 267.716†	313.8	246.0	3.0456 ug/L	3.0456 ppb	11:53:27
3	Cu 324.752†	6444.3	123.8	0.3937 ug/L	0.3937 ppb	11:53:07
3	Mn 257.610†	10360.2	9909.3	11.973 ug/L	11.973 ppb	11:53:07
3	Mo 202.031†	23.3	9.5	0.9323 ug/L	0.9323 ppb	11:53:27
3	Ni 231.604†	78.4	-17.0	-0.4980 ug/L	-0.4980 ppb	11:53:27
3	P 214.914†	210.3	32.2	21.347 ug/L	21.347 ppb	11:53:27
3	Pb 220.353†	-55.7	-5.7	-0.5620 ug/L	-0.5620 ppb	11:53:27
3	S 181.975 Axial†	953.2	931.1	1483.7 ug/L	1483.7 ppb	11:53:27
3	Sb 206.836†	25.7	-1.8	-1.0017 ug/L	-1.0017 ppb	11:53:27
3	Se 196.026†	-15.8	0.9	1.6419 ug/L	1.6419 ppb	11:53:27
3	Si 251.611†	949294.7	949838.8	32922 ug/L	32922 ppb	11:53:02
3	Sn 189.927†	-91.5	-98.5	-18.433 ug/L	-18.433 ppb	11:53:27
3	Ti 334.940†	1347.7	2401.2	5.1443 ug/L	5.1443 ppb	11:53:07
3	Tl 190.801†	-32.6	1.1	0.4761 ug/L	0.4761 ppb	11:53:27
3	U 409.014†	-2058.3	-172.3	-4.7227 ug/L	-4.7227 ppb	11:53:02
3	V 292.402†	-641.5	730.7	5.3087 ug/L	5.3087 ppb	11:53:07
3	Zn 213.857†	1208.2	584.8	6.4338 ug/L	6.4338 ppb	11:53:27
3	SiO2†	962901.6	963436.5	71679 ug/L	71679 ppb	11:53:45

Mean Data: 1202053150|957527|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	885212.8	100.44	%	0.626				0.62%
Sc Radial	4520.7	106	%	2.2				2.07%
Y 371.029	742499.9	97.161	%	0.6026				0.62%
Y RADIAL	4868.7	98.25	%	1.923				1.96%
Ag 328.068†	17.1	0.0353	ug/L	0.38843	0.0353	ppb	0.38843	>999.9%
Al 396.153Radial†	542.1	556.52	ug/L	9.179	556.52	ppb	9.179	1.65%
As 188.979†	-0.2	-0.0214	ug/L	3.03182	-0.0214	ppb	3.03182	>999.9%
B 249.677†	486.9	12.354	ug/L	0.3735	12.354	ppb	0.3735	3.02%
Ba 233.527†	2675.2	23.395	ug/L	0.0799	23.395	ppb	0.0799	0.34%
Be 313.107†	103.3	0.0477	ug/L	0.02397	0.0477	ppb	0.02397	50.21%
Ca 317.933Radial†	5678.0	11253	ug/L	125.5	11253	ppb	125.5	1.12%
Cd 226.502†	23.2	0.2771	ug/L	0.07521	0.2771	ppb	0.07521	27.14%
Co 228.616†	23.3	0.5660	ug/L	0.14458	0.5660	ppb	0.14458	25.54%
Cr 267.716†	254.5	3.1464	ug/L	0.18418	3.1464	ppb	0.18418	5.85%
Cu 324.752†	66.3	0.2181	ug/L	0.15822	0.2181	ppb	0.15822	72.54%
Fe 238.204 Radial†	22.2	268.51	ug/L	15.606	268.51	ppb	15.606	5.81%
K 766.490 Radial†	8563.5	1610.8	ug/L	29.33	1610.8	ppb	29.33	1.82%

Mg 279.077 IEC†	77.3	3287.0	ug/L	115.28	3287.0	ppb	115.28	3.51%
Mn 257.610†	9845.1	11.899	ug/L	0.1541	11.899	ppb	0.1541	1.30%
Mo 202.031†	7.3	0.7534	ug/L	0.32875	0.7534	ppb	0.32875	43.63%
Na 589.592 Radial†	38294.4	15069	ug/L	117.0	15069	ppb	117.0	0.78%
Ni 231.604†	-24.8	-0.7260	ug/L	0.24456	-0.7260	ppb	0.24456	33.69%
P 214.914†	38.5	25.655	ug/L	5.6072	25.655	ppb	5.6072	21.86%
Pb 220.353†	-5.2	-0.4977	ug/L	0.80540	-0.4977	ppb	0.80540	161.83%
S 181.975 Axial†	930.1	1482.0	ug/L	5.95	1482.0	ppb	5.95	0.40%
Sb 206.836†	-3.9	-1.8221	ug/L	1.69933	-1.8221	ppb	1.69933	93.26%
Se 196.026†	2.3	2.6629	ug/L	1.49916	2.6629	ppb	1.49916	56.30%
Si 251.611†	945660.1	32777	ug/L	188.6	32777	ppb	188.6	0.58%
Sn 189.927†	-97.7	-18.288	ug/L	0.6397	-18.288	ppb	0.6397	3.50%
Sr 421.552†	6558.8	53.830	ug/L	0.6057	53.830	ppb	0.6057	1.13%
Ti 334.940†	2347.8	5.0491	ug/L	0.11966	5.0491	ppb	0.11966	2.37%
Tl 190.801†	1.6	0.6579	ug/L	1.53964	0.6579	ppb	1.53964	234.03%
U 409.014†	-169.9	-4.6539	ug/L	1.18319	-4.6539	ppb	1.18319	25.42%
V 292.402†	716.9	5.2064	ug/L	0.16344	5.2064	ppb	0.16344	3.14%
Zn 213.857†	583.9	6.4288	ug/L	0.05358	6.4288	ppb	0.05358	0.83%
SiO2†	956697.5	71177	ug/L	485.2	71177	ppb	485.2	0.68%

Sequence No.: 17
Sample ID: 1202053151|957527|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 54
Date Collected: 3/24/2010 11:55:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053151|957527|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4409.4	4409.4	104	%			11:57:49
1	Y RADIAL	4765.5	4765.5	96.17	%			11:57:49
1	Al 396.153Radial†	5413.0	5293.4	5411.9	ug/L	5411.9	ppb	11:57:49
1	Ca 317.933Radial†	8459.6	8138.4	16130	ug/L	16130	ppb	11:57:49
1	Fe 238.204 Radial†	463.5	440.7	5337.8	ug/L	5337.8	ppb	11:58:09
1	K 766.490 Radial†	37932.4	33861.5	6393.8	ug/L	6393.8	ppb	11:57:49
1	Mg 279.077 IEC†	202.4	194.5	8272.9	ug/L	8272.9	ppb	11:58:09
1	Na 589.592 Radial†	50926.0	49966.0	19662	ug/L	19662	ppb	11:57:49
1	Sr 421.552†	67140.2	64707.4	531.78	ug/L	531.78	ppb	11:57:49
1	Sc 361.383	877594.2	877594.2	99.575	%			11:59:06
1	Y 371.029	733343.8	733343.8	95.963	%			11:59:06
1	Ag 328.068†	98983.2	99146.2	469.76	ug/L	469.76	ppb	11:59:12
1	As 188.979†	928.1	952.7	478.17	ug/L	478.17	ppb	11:59:32
1	B 249.677†	18646.4	19114.1	484.58	ug/L	484.58	ppb	11:59:12
1	Ba 233.527†	57537.3	57772.8	506.06	ug/L	506.06	ppb	11:59:12
1	Be 313.107†	1250331.1	1259951.0	477.82	ug/L	477.82	ppb	11:59:06
1	Cd 226.502†	35027.3	35348.7	466.81	ug/L	466.81	ppb	11:59:12
1	Co 228.616†	19412.1	19541.6	474.51	ug/L	474.51	ppb	11:59:12
1	Cr 267.716†	38896.4	38994.2	477.48	ug/L	477.48	ppb	11:59:12
1	Cu 324.752†	169120.6	163514.4	496.41	ug/L	496.41	ppb	11:59:12
1	Mn 257.610†	393049.7	394264.5	481.01	ug/L	481.01	ppb	11:59:12
1	Mo 202.031†	5719.9	5730.5	469.50	ug/L	469.50	ppb	11:59:32
1	Ni 231.604†	16401.7	16376.2	478.22	ug/L	478.22	ppb	11:59:12
1	P 214.914†	974.6	800.5	442.27	ug/L	442.27	ppb	11:59:32
1	Pb 220.353†	3227.0	3290.8	467.43	ug/L	467.43	ppb	11:59:32
1	S 181.975 Axial†	3862.1	3855.3	6142.8	ug/L	6142.8	ppb	11:59:32
1	Sb 206.836†	1282.9	1260.8	501.48	ug/L	501.48	ppb	11:59:32
1	Se 196.026†	591.6	610.8	471.59	ug/L	471.59	ppb	11:59:32
1	Si 251.611†	1074688.6	1078707.2	37383	ug/L	37383	ppb	11:59:06
1	Sn 189.927†	2212.9	2215.4	462.39	ug/L	462.39	ppb	11:59:32
1	Ti 334.940†	295231.6	297543.8	483.60	ug/L	483.60	ppb	11:59:12
1	Tl 190.801†	1267.0	1306.1	472.43	ug/L	472.43	ppb	11:59:32
1	U 409.014†	16389.7	18348.0	496.95	ug/L	496.95	ppb	11:59:12
1	V 292.402†	65553.5	67206.2	492.61	ug/L	492.61	ppb	11:59:12
1	Zn 213.857†	43310.3	42870.3	470.11	ug/L	470.11	ppb	11:59:12
1	SiO2†	1077079.7	1081083.3	80419	ug/L	80419	ppb	12:00:40
2	Sc Radial	4454.4	4454.4	105	%			11:58:14
2	Y RADIAL	4812.4	4812.4	97.11	%			11:58:14
2	Al 396.153Radial†	5475.9	5300.8	5420.0	ug/L	5420.0	ppb	11:58:14
2	Ca 317.933Radial†	8520.5	8114.4	16082	ug/L	16082	ppb	11:58:14
2	Fe 238.204 Radial†	464.2	436.9	5291.5	ug/L	5291.5	ppb	11:58:34
2	K 766.490 Radial†	38385.3	33924.9	6405.9	ug/L	6405.9	ppb	11:58:14
2	Mg 279.077 IEC†	208.3	198.1	8429.7	ug/L	8429.7	ppb	11:58:34
2	Na 589.592 Radial†	51207.9	49739.8	19573	ug/L	19573	ppb	11:58:14
2	Sr 421.552†	67668.5	64558.7	530.56	ug/L	530.56	ppb	11:58:14
2	Sc 361.383	888317.2	888317.2	100.79	%			11:59:37
2	Y 371.029	741018.9	741018.9	96.967	%			11:59:37
2	Ag 328.068†	98107.9	97077.8	459.99	ug/L	459.99	ppb	11:59:43
2	As 188.979†	916.6	930.0	466.84	ug/L	466.84	ppb	12:00:03
2	B 249.677†	18410.0	18653.6	472.87	ug/L	472.87	ppb	11:59:43
2	Ba 233.527†	57514.2	57052.4	499.74	ug/L	499.74	ppb	11:59:43
2	Be 313.107†	1263770.8	1258127.8	477.11	ug/L	477.11	ppb	11:59:37
2	Cd 226.502†	34958.9	34856.2	460.30	ug/L	460.30	ppb	11:59:43
2	Co 228.616†	19427.2	19321.3	469.16	ug/L	469.16	ppb	11:59:43
2	Cr 267.716†	38754.2	38381.7	469.98	ug/L	469.98	ppb	11:59:43
2	Cu 324.752†	167524.2	159880.4	485.38	ug/L	485.38	ppb	11:59:43
2	Mn 257.610†	391618.4	388079.6	473.46	ug/L	473.46	ppb	11:59:43
2	Mo 202.031†	5689.8	5631.3	461.38	ug/L	461.38	ppb	12:00:03
2	Ni 231.604†	16334.8	16111.0	470.47	ug/L	470.47	ppb	11:59:43

2	P 214.914†	978.8	792.8	439.30 ug/L	439.30 ppb	12:00:03
2	Pb 220.353†	3200.3	3225.2	458.13 ug/L	458.13 ppb	12:00:03
2	S 181.975 Axial†	3815.9	3762.7	5995.2 ug/L	5995.2 ppb	12:00:03
2	Sb 206.836†	1259.0	1221.6	486.16 ug/L	486.16 ppb	12:00:03
2	Se 196.026†	584.9	597.0	461.19 ug/L	461.19 ppb	12:00:03
2	Si 251.611†	1090116.7	1080985.9	37462 ug/L	37462 ppb	11:59:37
2	Sn 189.927†	2212.1	2187.8	456.65 ug/L	456.65 ppb	12:00:03
2	Ti 334.940†	293410.1	292157.6	474.86 ug/L	474.86 ppb	11:59:43
2	Tl 190.801†	1254.6	1278.5	462.44 ug/L	462.44 ppb	12:00:03
2	U 409.014†	16152.2	17913.7	485.17 ug/L	485.17 ppb	11:59:43
2	V 292.402†	65280.3	66140.5	484.78 ug/L	484.78 ppb	11:59:43
2	Zn 213.857†	43044.2	42081.4	461.44 ug/L	461.44 ppb	11:59:43
2	SiO2†	1095271.2	1086074.7	80790 ug/L	80790 ppb	12:00:46
3	Sc Radial	4468.5	4468.5	105 %		11:58:39
3	Y RADIAL	4805.0	4805.0	96.96 %		11:58:39
3	Al 396.153Radial†	5446.7	5256.5	5374.1 ug/L	5374.1 ppb	11:58:39
3	Ca 317.933Radial†	8440.4	8012.4	15880 ug/L	15880 ppb	11:58:39
3	Fe 238.204 Radial†	464.4	435.6	5276.7 ug/L	5276.7 ppb	11:58:59
3	K 766.490 Radial†	38182.6	33616.2	6347.6 ug/L	6347.6 ppb	11:58:39
3	Mg 279.077 IEC†	203.8	193.2	8221.6 ug/L	8221.6 ppb	11:58:59
3	Na 589.592 Radial†	50889.6	49282.4	19393 ug/L	19393 ppb	11:58:39
3	Sr 421.552†	67629.8	64317.5	528.58 ug/L	528.58 ppb	11:58:39
3	Sc 361.383	874384.9	874384.9	99.211 %		12:00:08
3	Y 371.029	731072.8	731072.8	95.666 %		12:00:08
3	Ag 328.068†	98020.4	98540.6	466.89 ug/L	466.89 ppb	12:00:13
3	As 188.979†	907.8	935.7	469.68 ug/L	469.68 ppb	12:00:34
3	B 249.677†	18410.8	18945.4	480.30 ug/L	480.30 ppb	12:00:13
3	Ba 233.527†	57123.1	57567.4	504.26 ug/L	504.26 ppb	12:00:13
3	Be 313.107†	1241697.4	1255857.3	476.26 ug/L	476.26 ppb	12:00:08
3	Cd 226.502†	34667.6	35115.2	463.73 ug/L	463.73 ppb	12:00:13
3	Co 228.616†	19192.8	19392.2	470.88 ug/L	470.88 ppb	12:00:13
3	Cr 267.716†	38656.3	38895.6	476.26 ug/L	476.26 ppb	12:00:13
3	Cu 324.752†	167644.4	162649.9	493.78 ug/L	493.78 ppb	12:00:13
3	Mn 257.610†	389679.6	392316.3	478.63 ug/L	478.63 ppb	12:00:13
3	Mo 202.031†	5678.1	5709.4	467.77 ug/L	467.77 ppb	12:00:34
3	Ni 231.604†	16265.4	16299.2	475.97 ug/L	475.97 ppb	12:00:13
3	P 214.914†	973.8	803.3	444.72 ug/L	444.72 ppb	12:00:34
3	Pb 220.353†	3178.6	3253.9	462.20 ug/L	462.20 ppb	12:00:34
3	S 181.975 Axial†	3833.5	3840.8	6119.6 ug/L	6119.6 ppb	12:00:34
3	Sb 206.836†	1263.4	1246.0	495.74 ug/L	495.74 ppb	12:00:34
3	Se 196.026†	589.4	610.8	471.36 ug/L	471.36 ppb	12:00:34
3	Si 251.611†	1069455.9	1077394.1	37338 ug/L	37338 ppb	12:00:08
3	Sn 189.927†	2205.8	2216.4	462.56 ug/L	462.56 ppb	12:00:34
3	Ti 334.940†	292737.4	296118.0	481.26 ug/L	481.26 ppb	12:00:13
3	Tl 190.801†	1275.5	1319.4	477.18 ug/L	477.18 ppb	12:00:34
3	U 409.014†	16161.9	18178.9	492.37 ug/L	492.37 ppb	12:00:13
3	V 292.402†	65026.9	66917.1	490.49 ug/L	490.49 ppb	12:00:13
3	Zn 213.857†	42909.6	42626.1	467.43 ug/L	467.43 ppb	12:00:13
3	SiO2†	1081393.9	1089401.9	81038 ug/L	81038 ppb	12:00:52

Mean Data: 1202053151|957527|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	880098.8	99.859	%	0.8278				0.83%
Sc Radial	4444.1	105	%	0.7				0.69%
Y 371.029	735145.2	96.198	%	0.6820				0.71%
Y RADIAL	4794.3	96.75	%	0.509				0.53%
Ag 328.068†	98254.9	465.54	ug/L	5.023	465.54	ppb	5.023	1.08%
Al 396.153Radial†	5283.6	5402.0	ug/L	24.46	5402.0	ppb	24.46	0.45%
As 188.979†	939.5	471.57	ug/L	5.894	471.57	ppb	5.894	1.25%
B 249.677†	18904.4	479.25	ug/L	5.924	479.25	ppb	5.924	1.24%
Ba 233.527†	57464.2	503.35	ug/L	3.252	503.35	ppb	3.252	0.65%
Be 313.107†	1257978.7	477.06	ug/L	0.778	477.06	ppb	0.778	0.16%
Ca 317.933Radial†	8088.4	16031	ug/L	132.6	16031	ppb	132.6	0.83%
Cd 226.502†	35106.7	463.62	ug/L	3.256	463.62	ppb	3.256	0.70%
Co 228.616†	19418.4	471.52	ug/L	2.731	471.52	ppb	2.731	0.58%
Cr 267.716†	38757.2	474.57	ug/L	4.023	474.57	ppb	4.023	0.85%
Cu 324.752†	162014.9	491.86	ug/L	5.761	491.86	ppb	5.761	1.17%
Fe 238.204 Radial†	437.7	5302.0	ug/L	31.86	5302.0	ppb	31.86	0.60%
K 766.490 Radial†	33800.9	6382.4	ug/L	30.77	6382.4	ppb	30.77	0.48%

Mg 279.077 IEC†	195.3	8308.1	ug/L	108.42	8308.1	ppb	108.42	1.31%
Mn 257.610†	391553.4	477.70	ug/L	3.862	477.70	ppb	3.862	0.81%
Mo 202.031†	5690.4	466.21	ug/L	4.277	466.21	ppb	4.277	0.92%
Na 589.592 Radial†	49662.7	19542	ug/L	137.0	19542	ppb	137.0	0.70%
Ni 231.604†	16262.1	474.89	ug/L	3.986	474.89	ppb	3.986	0.84%
P 214.914†	798.9	442.10	ug/L	2.716	442.10	ppb	2.716	0.61%
Pb 220.353†	3256.6	462.58	ug/L	4.660	462.58	ppb	4.660	1.01%
S 181.975 Axial†	3819.6	6085.8	ug/L	79.38	6085.8	ppb	79.38	1.30%
Sb 206.836†	1242.8	494.46	ug/L	7.739	494.46	ppb	7.739	1.57%
Se 196.026†	606.2	468.05	ug/L	5.941	468.05	ppb	5.941	1.27%
Si 251.611†	1079029.0	37394	ug/L	63.0	37394	ppb	63.0	0.17%
Sn 189.927†	2206.5	460.53	ug/L	3.362	460.53	ppb	3.362	0.73%
Sr 421.552†	64527.9	530.30	ug/L	1.616	530.30	ppb	1.616	0.30%
Ti 334.940†	295273.1	479.91	ug/L	4.528	479.91	ppb	4.528	0.94%
Tl 190.801†	1301.3	470.69	ug/L	7.524	470.69	ppb	7.524	1.60%
U 409.014†	18146.9	491.50	ug/L	5.938	491.50	ppb	5.938	1.21%
V 292.402†	66754.6	489.29	ug/L	4.049	489.29	ppb	4.049	0.83%
Zn 213.857†	42525.9	466.33	ug/L	4.436	466.33	ppb	4.436	0.95%
SiO2†	1085520.0	80749	ug/L	311.5	80749	ppb	311.5	0.39%

Sequence No.: 18
Sample ID: 1202053152|957527|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 55
Date Collected: 3/24/2010 12:03:02
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053152|957527|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4422.0	4422.0	104	%			12:04:55
1	Y RADIAL	4834.8	4834.8	97.56	%			12:04:55
1	Al 396.153Radial†	-9.7	65.7	67.371	ug/L	67.371	ppb	12:05:15
1	Ca 317.933Radial†	1193.3	1130.0	2239.7	ug/L	2239.7	ppb	12:05:15
1	Fe 238.204 Radial†	13.2	6.6	79.341	ug/L	79.341	ppb	12:05:15
1	K 766.490 Radial†	4487.6	1606.4	302.08	ug/L	302.08	ppb	12:04:55
1	Mg 279.077 IEC†	15.3	14.1	598.95	ug/L	598.95	ppb	12:05:15
1	Na 589.592 Radial†	6817.2	7423.7	2921.2	ug/L	2921.2	ppb	12:04:55
1	Sr 421.552†	1362.1	1289.5	10.583	ug/L	10.583	ppb	12:04:55
1	Sc 361.383	894202.7	894202.7	101.46	%			12:06:12
1	Y 371.029	754993.8	754993.8	98.796	%			12:06:12
1	Ag 328.068†	375.0	110.1	0.5180	ug/L	0.5180	ppb	12:06:17
1	As 188.979†	-20.0	0.9	0.4733	ug/L	0.4733	ppb	12:06:37
1	B 249.677†	-196.8	194.1	4.9313	ug/L	4.9313	ppb	12:06:37
1	Ba 233.527†	556.0	537.9	4.7053	ug/L	4.7053	ppb	12:06:37
1	Be 313.107†	-4224.9	118.7	0.0469	ug/L	0.0469	ppb	12:06:17
1	Cd 226.502†	-168.0	6.3	0.0742	ug/L	0.0742	ppb	12:06:37
1	Co 228.616†	-44.9	2.5	0.0622	ug/L	0.0622	ppb	12:06:37
1	Cr 267.716†	135.6	65.5	0.8105	ug/L	0.8105	ppb	12:06:37
1	Cu 324.752†	6297.6	-121.1	-0.3625	ug/L	-0.3625	ppb	12:06:17
1	Mn 257.610†	2334.5	1837.9	2.2247	ug/L	2.2247	ppb	12:06:37
1	Mo 202.031†	24.8	10.6	0.9012	ug/L	0.9012	ppb	12:06:37
1	Ni 231.604†	80.8	-15.8	-0.4626	ug/L	-0.4626	ppb	12:06:37
1	P 214.914†	173.4	-7.4	-5.0219	ug/L	-5.0219	ppb	12:06:37
1	Pb 220.353†	-57.8	-7.0	-0.9478	ug/L	-0.9478	ppb	12:06:37
1	S 181.975 Axial†	211.7	185.4	295.40	ug/L	295.40	ppb	12:06:37
1	Sb 206.836†	24.1	-3.7	-1.5007	ug/L	-1.5007	ppb	12:06:37
1	Se 196.026†	-21.6	-4.6	-3.1539	ug/L	-3.1539	ppb	12:06:37
1	Si 251.611†	188024.1	184750.6	6403.6	ug/L	6403.6	ppb	12:06:12
1	Sn 189.927†	-18.1	-24.8	-4.7457	ug/L	-4.7457	ppb	12:06:37
1	Ti 334.940†	-515.3	544.1	1.1341	ug/L	1.1341	ppb	12:06:17
1	Tl 190.801†	-35.3	-1.1	-0.3645	ug/L	-0.3645	ppb	12:06:37
1	U 409.014†	-1976.0	-59.2	-1.6184	ug/L	-1.6184	ppb	12:06:12
1	V 292.402†	-1246.6	144.3	1.0520	ug/L	1.0520	ppb	12:06:17
1	Zn 213.857†	858.2	221.0	2.4388	ug/L	2.4388	ppb	12:06:37
1	SiO2†	188149.3	184848.8	13753	ug/L	13753	ppb	12:07:43
2	Sc Radial	4443.5	4443.5	105	%			12:05:20
2	Y RADIAL	4845.0	4845.0	97.77	%			12:05:20
2	Al 396.153Radial†	-20.5	55.4	56.853	ug/L	56.853	ppb	12:05:40
2	Ca 317.933Radial†	1194.7	1125.8	2231.3	ug/L	2231.3	ppb	12:05:40
2	Fe 238.204 Radial†	13.2	6.5	78.402	ug/L	78.402	ppb	12:05:40
2	K 766.490 Radial†	4492.4	1590.1	299.03	ug/L	299.03	ppb	12:05:20
2	Mg 279.077 IEC†	19.6	18.1	770.26	ug/L	770.26	ppb	12:05:40
2	Na 589.592 Radial†	6776.1	7352.7	2893.3	ug/L	2893.3	ppb	12:05:20
2	Sr 421.552†	1344.6	1266.4	10.393	ug/L	10.393	ppb	12:05:20
2	Sc 361.383	892652.6	892652.6	101.28	%			12:06:42
2	Y 371.029	753529.4	753529.4	98.604	%			12:06:42
2	Ag 328.068†	338.4	74.6	0.3495	ug/L	0.3495	ppb	12:06:47
2	As 188.979†	-25.5	-4.6	-2.2599	ug/L	-2.2599	ppb	12:07:07
2	B 249.677†	-195.4	195.3	4.9592	ug/L	4.9592	ppb	12:07:07
2	Ba 233.527†	555.9	538.7	4.7118	ug/L	4.7118	ppb	12:07:07
2	Be 313.107†	-4250.7	85.9	0.0340	ug/L	0.0340	ppb	12:06:47
2	Cd 226.502†	-159.7	14.2	0.1788	ug/L	0.1788	ppb	12:07:07
2	Co 228.616†	-35.2	12.0	0.2913	ug/L	0.2913	ppb	12:07:07
2	Cr 267.716†	118.8	49.1	0.6102	ug/L	0.6102	ppb	12:07:07
2	Cu 324.752†	6315.8	-92.3	-0.2752	ug/L	-0.2752	ppb	12:06:47
2	Mn 257.610†	2323.5	1831.0	2.2093	ug/L	2.2093	ppb	12:07:07
2	Mo 202.031†	16.9	2.9	0.2661	ug/L	0.2661	ppb	12:07:07
2	Ni 231.604†	82.8	-13.8	-0.4021	ug/L	-0.4021	ppb	12:07:07

2	P 214.914†	185.4	4.8	3.1729 ug/L	3.1729 ppb	12:07:07
2	Pb 220.353†	-57.2	-6.4	-0.8726 ug/L	-0.8726 ppb	12:07:07
2	S 181.975 Axial†	212.9	187.0	297.95 ug/L	297.95 ppb	12:07:07
2	Sb 206.836†	19.9	-7.9	-3.1285 ug/L	-3.1285 ppb	12:07:07
2	Se 196.026†	-10.1	6.7	5.2115 ug/L	5.2115 ppb	12:07:07
2	Si 251.611†	187388.4	184444.8	6393.0 ug/L	6393.0 ppb	12:06:42
2	Sn 189.927†	-19.3	-25.9	-4.9903 ug/L	-4.9903 ppb	12:07:07
2	Ti 334.940†	-644.5	415.6	0.9108 ug/L	0.9108 ppb	12:06:47
2	Tl 190.801†	-20.7	13.4	4.8160 ug/L	4.8160 ppb	12:07:07
2	U 409.014†	-1970.5	-57.2	-1.5639 ug/L	-1.5639 ppb	12:06:42
2	V 292.402†	-1279.4	109.7	0.7970 ug/L	0.7970 ppb	12:06:47
2	Zn 213.857†	860.1	224.4	2.4753 ug/L	2.4753 ppb	12:07:07
2	SiO2†	185881.8	182932.1	13610 ug/L	13610 ppb	12:07:48
3	Sc Radial	4455.5	4455.5	105 %		12:05:45
3	Y RADIAL	4854.3	4854.3	97.96 %		12:05:45
3	Al 396.153Radial†	-12.3	63.2	64.926 ug/L	64.926 ppb	12:06:05
3	Ca 317.933Radial†	1195.1	1123.1	2225.9 ug/L	2225.9 ppb	12:06:05
3	Fe 238.204 Radial†	10.9	4.2	50.736 ug/L	50.736 ppb	12:06:05
3	K 766.490 Radial†	4413.5	1503.3	282.60 ug/L	282.60 ppb	12:05:45
3	Mg 279.077 IEC†	16.2	14.8	629.31 ug/L	629.31 ppb	12:06:05
3	Na 589.592 Radial†	6712.5	7274.5	2862.5 ug/L	2862.5 ppb	12:05:45
3	Sr 421.552†	1330.0	1249.0	10.250 ug/L	10.250 ppb	12:05:45
3	Sc 361.383	884851.7	884851.7	100.40 %		12:07:12
3	Y 371.029	748220.2	748220.2	97.909 %		12:07:12
3	Ag 328.068†	224.3	-36.1	-0.1787 ug/L	-0.1787 ppb	12:07:17
3	As 188.979†	-19.4	1.3	0.6437 ug/L	0.6437 ppb	12:07:38
3	B 249.677†	-215.5	173.5	4.4101 ug/L	4.4101 ppb	12:07:38
3	Ba 233.527†	544.6	532.3	4.6558 ug/L	4.6558 ppb	12:07:38
3	Be 313.107†	-4230.2	69.4	0.0280 ug/L	0.0280 ppb	12:07:17
3	Cd 226.502†	-162.0	10.5	0.1337 ug/L	0.1337 ppb	12:07:38
3	Co 228.616†	-32.6	14.2	0.3446 ug/L	0.3446 ppb	12:07:38
3	Cr 267.716†	139.7	70.9	0.8744 ug/L	0.8744 ppb	12:07:38
3	Cu 324.752†	6284.5	-68.5	-0.2044 ug/L	-0.2044 ppb	12:07:17
3	Mn 257.610†	2303.5	1831.3	2.2127 ug/L	2.2127 ppb	12:07:38
3	Mo 202.031†	11.7	-2.2	-0.1463 ug/L	-0.1463 ppb	12:07:38
3	Ni 231.604†	86.8	-9.0	-0.2633 ug/L	-0.2633 ppb	12:07:38
3	P 214.914†	183.4	4.4	2.9256 ug/L	2.9256 ppb	12:07:38
3	Pb 220.353†	-70.9	-20.5	-2.8693 ug/L	-2.8693 ppb	12:07:38
3	S 181.975 Axial†	215.0	190.9	304.21 ug/L	304.21 ppb	12:07:38
3	Sb 206.836†	23.1	-4.5	-1.8044 ug/L	-1.8044 ppb	12:07:38
3	Se 196.026†	-6.1	10.6	8.0339 ug/L	8.0339 ppb	12:07:38
3	Si 251.611†	185290.0	183985.8	6377.1 ug/L	6377.1 ppb	12:07:12
3	Sn 189.927†	-17.0	-23.8	-4.5552 ug/L	-4.5552 ppb	12:07:38
3	Ti 334.940†	-586.1	468.2	1.0067 ug/L	1.0067 ppb	12:07:17
3	Tl 190.801†	-27.4	6.4	2.3267 ug/L	2.3267 ppb	12:07:38
3	U 409.014†	-1945.7	-49.6	-1.3550 ug/L	-1.3550 ppb	12:07:12
3	V 292.402†	-1213.5	164.3	1.1872 ug/L	1.1872 ppb	12:07:17
3	Zn 213.857†	857.1	228.9	2.5288 ug/L	2.5288 ppb	12:07:38
3	SiO2†	187977.1	186637.1	13886 ug/L	13886 ppb	12:07:54

Mean Data: 1202053152|957527|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	890569.0	101.05	%	0.569				0.56%
Sc Radial	4440.3	104	%	0.4				0.38%
Y 371.029	752247.8	98.436	%	0.4664				0.47%
Y RADIAL	4844.7	97.76	%	0.196				0.20%
Ag 328.068†	49.5	0.2296	ug/L	0.36351	0.2296	ppb	0.36351	158.33%
Al 396.153Radial†	61.4	63.050	ug/L	5.5044	63.050	ppb	5.5044	8.73%
As 188.979†	-0.8	-0.3810	ug/L	1.62944	-0.3810	ppb	1.62944	427.72%
B 249.677†	187.6	4.7669	ug/L	0.30924	4.7669	ppb	0.30924	6.49%
Ba 233.527†	536.3	4.6909	ug/L	0.03059	4.6909	ppb	0.03059	0.65%
Be 313.107†	91.3	0.0363	ug/L	0.00966	0.0363	ppb	0.00966	26.62%
Ca 317.933Radial†	1126.3	2232.3	ug/L	6.93	2232.3	ppb	6.93	0.31%
Cd 226.502†	10.3	0.1289	ug/L	0.05248	0.1289	ppb	0.05248	40.72%
Co 228.616†	9.6	0.2327	ug/L	0.15005	0.2327	ppb	0.15005	64.49%
Cr 267.716†	61.8	0.7650	ug/L	0.13787	0.7650	ppb	0.13787	18.02%
Cu 324.752†	-93.9	-0.2807	ug/L	0.07919	-0.2807	ppb	0.07919	28.21%
Fe 238.204 Radial†	5.8	69.493	ug/L	16.2509	69.493	ppb	16.2509	23.38%
K 766.490 Radial†	1566.6	294.57	ug/L	10.478	294.57	ppb	10.478	3.56%

Mg 279.077 IEC†	15.7	666.17	ug/L	91.409	666.17	ppb	91.409	13.72%
Mn 257.610†	1833.4	2.2155	ug/L	0.00811	2.2155	ppb	0.00811	0.37%
Mo 202.031†	3.8	0.3403	ug/L	0.52764	0.3403	ppb	0.52764	155.04%
Na 589.592 Radial†	7350.3	2892.4	ug/L	29.37	2892.4	ppb	29.37	1.02%
Ni 231.604†	-12.9	-0.3760	ug/L	0.10219	-0.3760	ppb	0.10219	27.18%
P 214.914†	0.6	0.3588	ug/L	4.66151	0.3588	ppb	4.66151	>999.9%
Pb 220.353†	-11.3	-1.5632	ug/L	1.13169	-1.5632	ppb	1.13169	72.40%
S 181.975 Axial†	187.8	299.19	ug/L	4.531	299.19	ppb	4.531	1.51%
Sb 206.836†	-5.4	-2.1445	ug/L	0.86556	-2.1445	ppb	0.86556	40.36%
Se 196.026†	4.2	3.3638	ug/L	5.81823	3.3638	ppb	5.81823	172.96%
Si 251.611†	184393.8	6391.2	ug/L	13.34	6391.2	ppb	13.34	0.21%
Sn 189.927†	-24.8	-4.7637	ug/L	0.21810	-4.7637	ppb	0.21810	4.58%
Sr 421.552†	1268.3	10.409	ug/L	0.1668	10.409	ppb	0.1668	1.60%
Ti 334.940†	476.0	1.0172	ug/L	0.11203	1.0172	ppb	0.11203	11.01%
Tl 190.801†	6.3	2.2594	ug/L	2.59090	2.2594	ppb	2.59090	114.67%
U 409.014†	-55.3	-1.5124	ug/L	0.13907	-1.5124	ppb	0.13907	9.20%
V 292.402†	139.4	1.0121	ug/L	0.19813	1.0121	ppb	0.19813	19.58%
Zn 213.857†	224.8	2.4810	ug/L	0.04531	2.4810	ppb	0.04531	1.83%
SiO2†	184806.0	13749	ug/L	137.9	13749	ppb	137.9	1.00%

Sequence No.: 19
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/24/2010 12:10:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4225.9	4225.9	99.4	%			12:12:17
1	Y RADIAL	4847.9	4847.9	97.83	%			12:11:56
1	Al 396.153Radial†	5095.3	5200.5	5315.8	ug/L	5315.8	ppb	12:11:56
1	Ca 317.933Radial†	2705.9	2704.9	5360.9	ug/L	5360.9	ppb	12:12:17
1	Fe 238.204 Radial†	443.8	440.2	5333.0	ug/L	5333.0	ppb	12:12:17
1	K 766.490 Radial†	29845.5	27315.0	5162.0	ug/L	5162.0	ppb	12:11:56
1	Mg 279.077 IEC†	132.1	132.2	5626.3	ug/L	5626.3	ppb	12:12:17
1	Na 589.592 Radial†	26681.8	27710.3	10904	ug/L	10904	ppb	12:11:56
1	Sr 421.552†	63177.2	63532.2	522.20	ug/L	522.20	ppb	12:11:56
1	Sc 361.383	876339.6	876339.6	99.433	%			12:13:14
1	Y 371.029	734379.9	734379.9	96.098	%			12:13:14
1	Ag 328.068†	103088.9	103417.7	490.01	ug/L	490.01	ppb	12:13:19
1	As 188.979†	934.0	960.0	481.79	ug/L	481.79	ppb	12:13:39
1	B 249.677†	18212.0	18704.1	474.08	ug/L	474.08	ppb	12:13:19
1	Ba 233.527†	55234.8	55539.9	486.54	ug/L	486.54	ppb	12:13:19
1	Be 313.107†	1261854.6	1273337.8	482.89	ug/L	482.89	ppb	12:13:14
1	Cd 226.502†	36265.7	36644.5	483.94	ug/L	483.94	ppb	12:13:19
1	Co 228.616†	20166.3	20328.1	493.62	ug/L	493.62	ppb	12:13:19
1	Cr 267.716†	39480.1	39637.2	485.33	ug/L	485.33	ppb	12:13:19
1	Cu 324.752†	163976.0	158583.7	481.45	ug/L	481.45	ppb	12:13:19
1	Mn 257.610†	388604.5	390359.0	476.36	ug/L	476.36	ppb	12:13:19
1	Mo 202.031†	5902.6	5922.4	485.07	ug/L	485.07	ppb	12:13:39
1	Ni 231.604†	16833.5	16834.0	491.59	ug/L	491.59	ppb	12:13:19
1	P 214.914†	3672.2	3514.8	2274.9	ug/L	2274.9	ppb	12:13:39
1	Pb 220.353†	3326.1	3395.2	482.08	ug/L	482.08	ppb	12:13:39
1	S 181.975 Axial†	619.6	599.8	954.91	ug/L	954.91	ppb	12:13:39
1	Sb 206.836†	1272.9	1252.7	499.07	ug/L	499.07	ppb	12:13:39
1	Se 196.026†	615.5	635.7	490.05	ug/L	490.05	ppb	12:13:39
1	Si 251.611†	70077.1	69908.1	2417.1	ug/L	2417.1	ppb	12:13:19
1	Sn 189.927†	2331.2	2337.6	485.84	ug/L	485.84	ppb	12:13:39
1	Ti 334.940†	296165.8	298907.8	484.59	ug/L	484.59	ppb	12:13:19
1	Tl 190.801†	1296.9	1338.1	483.83	ug/L	483.83	ppb	12:13:39
1	U 409.014†	15882.5	17861.5	483.71	ug/L	483.71	ppb	12:13:19
1	V 292.402†	65087.7	66832.0	490.04	ug/L	490.04	ppb	12:13:19
1	Zn 213.857†	44308.6	43936.6	481.85	ug/L	481.85	ppb	12:13:19
1	SiO2†	70039.7	69845.3	5183.2	ug/L	5183.2	ppb	12:14:46
2	Sc Radial	4204.3	4204.3	98.9	%			12:12:42
2	Y RADIAL	4774.9	4774.9	96.36	%			12:12:22
2	Al 396.153Radial†	5036.9	5167.8	5282.0	ug/L	5282.0	ppb	12:12:22
2	Ca 317.933Radial†	2699.8	2712.7	5376.4	ug/L	5376.4	ppb	12:12:42
2	Fe 238.204 Radial†	444.7	443.4	5372.0	ug/L	5372.0	ppb	12:12:42
2	K 766.490 Radial†	29560.7	27181.3	5136.8	ug/L	5136.8	ppb	12:12:22
2	Mg 279.077 IEC†	130.6	131.4	5591.5	ug/L	5591.5	ppb	12:12:42
2	Na 589.592 Radial†	26276.2	27438.1	10797	ug/L	10797	ppb	12:12:22
2	Sr 421.552†	62242.1	62913.4	517.11	ug/L	517.11	ppb	12:12:22
2	Sc 361.383	870068.7	870068.7	98.721	%			12:13:44
2	Y 371.029	730238.3	730238.3	95.556	%			12:13:44
2	Ag 328.068†	104109.2	105198.4	498.43	ug/L	498.43	ppb	12:13:50
2	As 188.979†	940.7	973.5	488.59	ug/L	488.59	ppb	12:14:10
2	B 249.677†	18419.2	19045.9	482.76	ug/L	482.76	ppb	12:13:50
2	Ba 233.527†	55485.1	56193.8	492.27	ug/L	492.27	ppb	12:13:50
2	Be 313.107†	1258327.9	1278912.0	485.01	ug/L	485.01	ppb	12:13:44
2	Cd 226.502†	36378.4	37021.5	488.92	ug/L	488.92	ppb	12:13:50
2	Co 228.616†	20298.5	20608.2	500.41	ug/L	500.41	ppb	12:13:50
2	Cr 267.716†	39674.1	40119.9	491.24	ug/L	491.24	ppb	12:13:50
2	Cu 324.752†	165860.3	161680.9	490.85	ug/L	490.85	ppb	12:13:50
2	Mn 257.610†	390978.3	395580.3	482.73	ug/L	482.73	ppb	12:13:50
2	Mo 202.031†	5894.8	5957.3	487.93	ug/L	487.93	ppb	12:14:10
2	Ni 231.604†	16870.8	16993.8	496.25	ug/L	496.25	ppb	12:13:50

2	P 214.914†	3683.5	3552.9	2298.6 ug/L	2298.6 ppb	12:14:10
2	Pb 220.353†	3345.4	3438.8	488.25 ug/L	488.25 ppb	12:14:10
2	S 181.975 Axial†	617.4	602.1	958.53 ug/L	958.53 ppb	12:14:10
2	Sb 206.836†	1252.1	1240.8	494.59 ug/L	494.59 ppb	12:14:10
2	Se 196.026†	623.7	648.5	499.61 ug/L	499.61 ppb	12:14:10
2	Si 251.611†	70589.5	70935.0	2452.7 ug/L	2452.7 ppb	12:13:50
2	Sn 189.927†	2317.7	2340.8	486.50 ug/L	486.50 ppb	12:14:10
2	Ti 334.940†	298784.6	303707.3	492.37 ug/L	492.37 ppb	12:13:50
2	Tl 190.801†	1309.5	1360.3	491.85 ug/L	491.85 ppb	12:14:10
2	U 409.014†	15933.1	18027.9	488.22 ug/L	488.22 ppb	12:13:50
2	V 292.402†	65642.3	67865.6	497.55 ug/L	497.55 ppb	12:13:50
2	Zn 213.857†	44608.0	44561.1	488.71 ug/L	488.71 ppb	12:13:50
2	SiO2†	69879.7	70190.9	5208.9 ug/L	5208.9 ppb	12:14:51
3	Sc Radial	4227.1	4227.1	99.4 %		12:13:07
3	Y RADIAL	4737.9	4737.9	95.61 %		12:12:47
3	Al 396.153Radial†	4999.4	5102.5	5215.1 ug/L	5215.1 ppb	12:12:47
3	Ca 317.933Radial†	2711.8	2710.0	5371.0 ug/L	5371.0 ppb	12:13:07
3	Fe 238.204 Radial†	446.3	442.7	5362.5 ug/L	5362.5 ppb	12:13:07
3	K 766.490 Radial†	29325.1	26782.8	5061.4 ug/L	5061.4 ppb	12:12:47
3	Mg 279.077 IEC†	130.0	130.1	5535.7 ug/L	5535.7 ppb	12:13:07
3	Na 589.592 Radial†	25853.9	26869.8	10573 ug/L	10573 ppb	12:12:47
3	Sr 421.552†	61435.6	61762.0	507.65 ug/L	507.65 ppb	12:12:47
3	Sc 361.383	874936.2	874936.2	99.273 %		12:14:15
3	Y 371.029	735284.3	735284.3	96.217 %		12:14:15
3	Ag 328.068†	104300.6	104804.5	496.56 ug/L	496.56 ppb	12:14:20
3	As 188.979†	935.9	963.4	483.51 ug/L	483.51 ppb	12:14:41
3	B 249.677†	18539.5	19063.3	483.22 ug/L	483.22 ppb	12:14:20
3	Ba 233.527†	55381.5	55776.7	488.62 ug/L	488.62 ppb	12:14:20
3	Be 313.107†	1257151.6	1270636.0	481.87 ug/L	481.87 ppb	12:14:15
3	Cd 226.502†	36298.3	36735.9	485.14 ug/L	485.14 ppb	12:14:20
3	Co 228.616†	20188.6	20383.1	494.95 ug/L	494.95 ppb	12:14:20
3	Cr 267.716†	39617.0	39838.8	487.80 ug/L	487.80 ppb	12:14:20
3	Cu 324.752†	166496.8	161387.5	489.96 ug/L	489.96 ppb	12:14:20
3	Mn 257.610†	390345.2	392739.3	479.26 ug/L	479.26 ppb	12:14:20
3	Mo 202.031†	5917.2	5946.7	487.06 ug/L	487.06 ppb	12:14:41
3	Ni 231.604†	16898.0	16926.1	494.28 ug/L	494.28 ppb	12:14:20
3	P 214.914†	3703.9	3552.7	2298.6 ug/L	2298.6 ppb	12:14:41
3	Pb 220.353†	3345.3	3419.8	485.54 ug/L	485.54 ppb	12:14:41
3	S 181.975 Axial†	622.1	603.4	960.64 ug/L	960.64 ppb	12:14:41
3	Sb 206.836†	1273.0	1254.8	499.90 ug/L	499.90 ppb	12:14:41
3	Se 196.026†	622.8	644.1	496.31 ug/L	496.31 ppb	12:14:41
3	Si 251.611†	70748.2	70697.1	2444.4 ug/L	2444.4 ppb	12:14:20
3	Sn 189.927†	2314.1	2324.2	483.05 ug/L	483.05 ppb	12:14:41
3	Ti 334.940†	298761.8	302000.6	489.61 ug/L	489.61 ppb	12:14:20
3	Tl 190.801†	1311.3	1354.6	489.81 ug/L	489.81 ppb	12:14:41
3	U 409.014†	16184.1	18190.9	492.66 ug/L	492.66 ppb	12:14:20
3	V 292.402†	65656.8	67510.3	494.98 ug/L	494.98 ppb	12:14:20
3	Zn 213.857†	44550.8	44252.0	485.31 ug/L	485.31 ppb	12:14:20
3	SiO2†	69880.4	69797.8	5179.6 ug/L	5179.6 ppb	12:14:56

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	873781.5	99.142	%	0.3734				0.38%
Sc Radial	4219.1	99.3	%	0.30				0.30%
Y 371.029	733300.8	95.957	%	0.3521				0.37%
Y RADIAL	4786.9	96.60	%	1.130				1.17%
Ag 328.068†	104473.5	495.00	ug/L	4.422	495.00	ppb	4.422	0.89%
QC value within limits for Ag 328.068 Recovery = 99.00%								
Al 396.153Radial†	5156.9	5271.0	ug/L	51.25	5271.0	ppb	51.25	0.97%
QC value within limits for Al 396.153Radial Recovery = 105.42%								
As 188.979†	965.6	484.63	ug/L	3.533	484.63	ppb	3.533	0.73%
QC value within limits for As 188.979 Recovery = 96.93%								
B 249.677†	18937.8	480.02	ug/L	5.150	480.02	ppb	5.150	1.07%
QC value within limits for B 249.677 Recovery = 96.00%								
Ba 233.527†	55836.8	489.14	ug/L	2.901	489.14	ppb	2.901	0.59%
QC value within limits for Ba 233.527 Recovery = 97.83%								
Be 313.107†	1274295.3	483.26	ug/L	1.602	483.26	ppb	1.602	0.33%
QC value within limits for Be 313.107 Recovery = 96.65%								
Ca 317.933Radial†	2709.2	5369.5	ug/L	7.85	5369.5	ppb	7.85	0.15%

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   QC value within limits for Ca 317.933Radial  Recovery = 107.39%
Cd 226.502†            36800.6      486.00 ug/L         2.598      486.00 ppb          2.598   0.53%
   QC value within limits for Cd 226.502  Recovery = 97.20%
Co 228.616†            20439.8      496.33 ug/L         3.599      496.33 ppb          3.599   0.73%
   QC value within limits for Co 228.616  Recovery = 99.27%
Cr 267.716†            39865.3      488.13 ug/L         2.968      488.13 ppb          2.968   0.61%
   QC value within limits for Cr 267.716  Recovery = 97.63%
Cu 324.752†           160550.7      487.42 ug/L         5.190      487.42 ppb          5.190   1.06%
   QC value within limits for Cu 324.752  Recovery = 97.48%
Fe 238.204 Radial†       442.1      5355.8 ug/L        20.34      5355.8 ppb          20.34   0.38%
   QC value within limits for Fe 238.204 Radial  Recovery = 107.12%
K 766.490 Radial†      27093.1      5120.1 ug/L        52.33      5120.1 ppb          52.33   1.02%
   QC value within limits for K 766.490 Radial  Recovery = 102.40%
Mg 279.077 IEC†          131.3      5584.5 ug/L        45.70      5584.5 ppb          45.70   0.82%
   QC value greater than the upper limit for Mg 279.077 IEC  Recovery = 111.69%
Mn 257.610†           392892.9      479.45 ug/L         3.190      479.45 ppb          3.190   0.67%
   QC value within limits for Mn 257.610  Recovery = 95.89%
Mo 202.031†             5942.1      486.69 ug/L         1.465      486.69 ppb          1.465   0.30%
   QC value within limits for Mo 202.031  Recovery = 97.34%
Na 589.592 Radial†     27339.4       10758 ug/L        168.7       10758 ppb          168.7   1.57%
   QC value within limits for Na 589.592 Radial  Recovery = 107.58%
Ni 231.604†            16918.0      494.04 ug/L         2.342      494.04 ppb          2.342   0.47%
   QC value within limits for Ni 231.604  Recovery = 98.81%
P 214.914†              3540.2      2290.7 ug/L        13.71      2290.7 ppb          13.71   0.60%
   QC value within limits for P 214.914  Recovery = 91.63%
Pb 220.353†             3417.9      485.29 ug/L         3.094      485.29 ppb          3.094   0.64%
   QC value within limits for Pb 220.353  Recovery = 97.06%
S 181.975 Axial†         601.8      958.03 ug/L         2.899      958.03 ppb          2.899   0.30%
   QC value within limits for S 181.975 Axial  Recovery = 95.80%
Sb 206.836†             1249.4      497.85 ug/L         2.856      497.85 ppb          2.856   0.57%
   QC value within limits for Sb 206.836  Recovery = 99.57%
Se 196.026†              642.8      495.32 ug/L         4.856      495.32 ppb          4.856   0.98%
   QC value within limits for Se 196.026  Recovery = 99.06%
Si 251.611†            70513.4      2438.1 ug/L        18.61      2438.1 ppb          18.61   0.76%
   QC value within limits for Si 251.611  Recovery = 97.52%
Sn 189.927†             2334.2      485.13 ug/L         1.828      485.13 ppb          1.828   0.38%
   QC value within limits for Sn 189.927  Recovery = 97.03%
Sr 421.552†            62735.9      515.65 ug/L         7.385      515.65 ppb          7.385   1.43%
   QC value within limits for Sr 421.552  Recovery = 103.13%
Ti 334.940†           301538.5      488.86 ug/L         3.946      488.86 ppb          3.946   0.81%
   QC value within limits for Ti 334.940  Recovery = 97.77%
Tl 190.801†             1351.0      488.50 ug/L         4.167      488.50 ppb          4.167   0.85%
   QC value within limits for Tl 190.801  Recovery = 97.70%
U 409.014†             18026.8      488.20 ug/L         4.472      488.20 ppb          4.472   0.92%
   QC value within limits for U 409.014  Recovery = 97.64%
V 292.402†             67402.6      494.19 ug/L         3.818      494.19 ppb          3.818   0.77%
   QC value within limits for V 292.402  Recovery = 98.84%
Zn 213.857†            44249.9      485.29 ug/L         3.433      485.29 ppb          3.433   0.71%
   QC value within limits for Zn 213.857  Recovery = 97.06%
SiO2†                  69944.7      5190.6 ug/L        15.94      5190.6 ppb          15.94   0.31%
   QC value within limits for SiO2  Recovery = 97.07%
QC Failed.  Continue with analysis.
```

Sequence No.: 20
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/24/2010 12:17:06
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc Radial	4492.3	4492.3	106	%			12:18:59
1	Y RADIAL	4912.9	4912.9	99.14	%			12:18:59
1	Al 396.153Radial†	-78.3	0.8	0.8071	ug/L	0.8071	ppb	12:19:19
1	Ca 317.933Radial†	25.2	6.8	13.415	ug/L	13.415	ppb	12:19:19
1	Fe 238.204 Radial†	9.0	2.4	28.530	ug/L	28.530	ppb	12:19:19
1	K 766.490 Radial†	2607.0	-240.7	-45.551	ug/L	-45.551	ppb	12:18:59
1	Mg 279.077 IEC†	0.6	-0.1	-4.0669	ug/L	-4.0669	ppb	12:19:19
1	Na 589.592 Radial†	-897.1	21.2	8.3557	ug/L	8.3557	ppb	12:18:59
1	Sr 421.552†	16.1	-4.7	-0.0386	ug/L	-0.0386	ppb	12:18:59
1	Sc 361.383	877621.3	877621.3	99.578	%			12:20:16
1	Y 371.029	744473.5	744473.5	97.419	%			12:20:16
1	Ag 328.068†	230.5	-28.0	-0.1198	ug/L	-0.1198	ppb	12:20:21
1	As 188.979†	-21.5	-0.9	-0.4574	ug/L	-0.4574	ppb	12:20:41
1	B 249.677†	-250.3	136.8	3.4782	ug/L	3.4782	ppb	12:20:41
1	Ba 233.527†	23.9	14.0	0.1230	ug/L	0.1230	ppb	12:20:41
1	Be 313.107†	-4202.9	62.0	0.0234	ug/L	0.0234	ppb	12:20:21
1	Cd 226.502†	-158.7	12.5	0.1612	ug/L	0.1612	ppb	12:20:41
1	Co 228.616†	-27.6	19.0	0.4630	ug/L	0.4630	ppb	12:20:41
1	Cr 267.716†	85.7	17.9	0.2239	ug/L	0.2239	ppb	12:20:41
1	Cu 324.752†	6210.3	-91.4	-0.2737	ug/L	-0.2737	ppb	12:20:21
1	Mn 257.610†	456.1	-5.0	-0.0032	ug/L	-0.0032	ppb	12:20:41
1	Mo 202.031†	22.6	8.8	0.7255	ug/L	0.7255	ppb	12:20:41
1	Ni 231.604†	117.3	22.3	0.6503	ug/L	0.6503	ppb	12:20:41
1	P 214.914†	175.2	-2.4	-1.5809	ug/L	-1.5809	ppb	12:20:41
1	Pb 220.353†	-61.8	-12.0	-1.6974	ug/L	-1.6974	ppb	12:20:41
1	S 181.975 Axial†	28.1	5.0	7.9852	ug/L	7.9852	ppb	12:20:41
1	Sb 206.836†	25.8	-1.6	-0.5936	ug/L	-0.5936	ppb	12:20:41
1	Se 196.026†	-17.2	-0.6	-0.3400	ug/L	-0.3400	ppb	12:20:41
1	Si 251.611†	603.5	37.2	1.2793	ug/L	1.2793	ppb	12:20:41
1	Sn 189.927†	9.8	2.9	0.6046	ug/L	0.6046	ppb	12:20:41
1	Ti 334.940†	-1068.1	-20.6	-0.0296	ug/L	-0.0296	ppb	12:20:21
1	Tl 190.801†	-23.4	10.3	3.6832	ug/L	3.6832	ppb	12:20:41
1	U 409.014†	-2031.5	-151.7	-4.1270	ug/L	-4.1270	ppb	12:20:16
1	V 292.402†	-1368.5	-1.3	-0.0116	ug/L	-0.0116	ppb	12:20:21
1	Zn 213.857†	705.9	84.0	0.9223	ug/L	0.9223	ppb	12:20:41
1	SiO2†	622.3	30.9	2.2793	ug/L	2.2793	ppb	12:22:02
2	Sc Radial	4481.1	4481.1	105	%			12:19:24
2	Y RADIAL	4895.8	4895.8	98.80	%			12:19:24
2	Al 396.153Radial†	-72.8	5.8	5.9922	ug/L	5.9922	ppb	12:19:44
2	Ca 317.933Radial†	25.9	7.5	14.856	ug/L	14.856	ppb	12:19:44
2	Fe 238.204 Radial†	7.9	1.4	16.343	ug/L	16.343	ppb	12:19:44
2	K 766.490 Radial†	2712.7	-134.3	-25.408	ug/L	-25.408	ppb	12:19:24
2	Mg 279.077 IEC†	1.1	0.4	17.675	ug/L	17.675	ppb	12:19:44
2	Na 589.592 Radial†	-927.9	-10.1	-3.9602	ug/L	-3.9602	ppb	12:19:24
2	Sr 421.552†	-1.3	-21.2	-0.1742	ug/L	-0.1742	ppb	12:19:24
2	Sc 361.383	874920.8	874920.8	99.272	%			12:20:46
2	Y 371.029	743441.3	743441.3	97.284	%			12:20:46
2	Ag 328.068†	248.9	-8.7	-0.0328	ug/L	-0.0328	ppb	12:20:51
2	As 188.979†	-26.2	-5.8	-2.8883	ug/L	-2.8883	ppb	12:21:11
2	B 249.677†	-257.1	129.2	3.2874	ug/L	3.2874	ppb	12:21:11
2	Ba 233.527†	23.2	13.3	0.1169	ug/L	0.1169	ppb	12:21:11
2	Be 313.107†	-4157.9	94.3	0.0358	ug/L	0.0358	ppb	12:20:51
2	Cd 226.502†	-179.2	-8.7	-0.1168	ug/L	-0.1168	ppb	12:21:11
2	Co 228.616†	-55.6	-9.3	-0.2260	ug/L	-0.2260	ppb	12:21:11
2	Cr 267.716†	79.0	11.5	0.1436	ug/L	0.1436	ppb	12:21:11
2	Cu 324.752†	6313.8	32.1	0.1004	ug/L	0.1004	ppb	12:20:51
2	Mn 257.610†	424.7	-35.2	-0.0420	ug/L	-0.0420	ppb	12:21:11
2	Mo 202.031†	17.2	3.4	0.2833	ug/L	0.2833	ppb	12:21:11
2	Ni 231.604†	90.3	-4.6	-0.1336	ug/L	-0.1336	ppb	12:21:11

2	P 214.914†	178.1	1.1	0.7051 ug/L	0.7051 ppb	12:21:11
2	Pb 220.353†	-60.6	-11.0	-1.5596 ug/L	-1.5596 ppb	12:21:11
2	S 181.975 Axial†	28.4	5.4	8.5632 ug/L	8.5632 ppb	12:21:11
2	Sb 206.836†	26.8	-0.5	-0.1713 ug/L	-0.1713 ppb	12:21:11
2	Se 196.026†	-17.8	-1.2	-0.8656 ug/L	-0.8656 ppb	12:21:11
2	Si 251.611†	597.8	33.3	1.1514 ug/L	1.1514 ppb	12:21:11
2	Sn 189.927†	11.1	4.3	0.8919 ug/L	0.8919 ppb	12:21:11
2	Ti 334.940†	-1018.6	25.9	0.0443 ug/L	0.0443 ppb	12:20:51
2	Tl 190.801†	-26.4	7.2	2.5909 ug/L	2.5909 ppb	12:21:11
2	U 409.014†	-2023.8	-150.3	-4.0859 ug/L	-4.0859 ppb	12:20:46
2	V 292.402†	-1357.0	6.0	0.0374 ug/L	0.0374 ppb	12:20:51
2	Zn 213.857†	721.9	102.4	1.1315 ug/L	1.1315 ppb	12:21:11
2	SiO2†	595.5	5.8	0.4268 ug/L	0.4268 ppb	12:22:22
3	Sc Radial	4483.9	4483.9	105 %		12:19:49
3	Y RADIAL	4895.1	4895.1	98.78 %		12:19:49
3	Al 396.153Radial†	-67.6	10.8	11.106 ug/L	11.106 ppb	12:20:09
3	Ca 317.933Radial†	26.2	7.7	15.327 ug/L	15.327 ppb	12:20:09
3	Fe 238.204 Radial†	9.0	2.4	28.846 ug/L	28.846 ppb	12:20:09
3	K 766.490 Radial†	2799.2	-53.8	-10.197 ug/L	-10.197 ppb	12:19:49
3	Mg 279.077 IEC†	3.8	3.0	126.02 ug/L	126.02 ppb	12:20:09
3	Na 589.592 Radial†	-876.8	38.9	15.298 ug/L	15.298 ppb	12:19:49
3	Sr 421.552†	-10.9	-30.2	-0.2486 ug/L	-0.2486 ppb	12:19:49
3	Sc 361.383	891032.0	891032.0	101.10 %		12:21:16
3	Y 371.029	757369.0	757369.0	99.107 %		12:21:16
3	Ag 328.068†	269.7	7.3	0.0449 ug/L	0.0449 ppb	12:21:21
3	As 188.979†	-15.7	5.1	2.5359 ug/L	2.5359 ppb	12:21:41
3	B 249.677†	-216.4	174.0	4.4278 ug/L	4.4278 ppb	12:21:41
3	Ba 233.527†	12.0	1.8	0.0166 ug/L	0.0166 ppb	12:21:41
3	Be 313.107†	-4217.4	111.2	0.0418 ug/L	0.0418 ppb	12:21:21
3	Cd 226.502†	-178.0	-4.2	-0.0590 ug/L	-0.0590 ppb	12:21:41
3	Co 228.616†	-46.0	1.2	0.0300 ug/L	0.0300 ppb	12:21:41
3	Cr 267.716†	86.0	16.9	0.2105 ug/L	0.2105 ppb	12:21:41
3	Cu 324.752†	6328.9	-68.0	-0.2035 ug/L	-0.2035 ppb	12:21:21
3	Mn 257.610†	438.4	-29.4	-0.0382 ug/L	-0.0382 ppb	12:21:41
3	Mo 202.031†	15.6	1.6	0.1335 ug/L	0.1335 ppb	12:21:41
3	Ni 231.604†	101.0	4.4	0.1289 ug/L	0.1289 ppb	12:21:41
3	P 214.914†	181.5	1.2	0.8589 ug/L	0.8589 ppb	12:21:41
3	Pb 220.353†	-65.5	-14.7	-2.0826 ug/L	-2.0826 ppb	12:21:41
3	S 181.975 Axial†	27.9	4.4	6.9847 ug/L	6.9847 ppb	12:21:41
3	Sb 206.836†	29.0	1.1	0.4478 ug/L	0.4478 ppb	12:21:41
3	Se 196.026†	-20.3	-3.4	-2.4314 ug/L	-2.4314 ppb	12:21:41
3	Si 251.611†	577.5	2.3	0.0775 ug/L	0.0775 ppb	12:21:41
3	Sn 189.927†	10.4	3.3	0.6958 ug/L	0.6958 ppb	12:21:41
3	Ti 334.940†	-1138.5	-74.1	-0.1275 ug/L	-0.1275 ppb	12:21:21
3	Tl 190.801†	-23.0	11.0	3.9528 ug/L	3.9528 ppb	12:21:41
3	U 409.014†	-1995.6	-85.5	-2.3279 ug/L	-2.3279 ppb	12:21:16
3	V 292.402†	-1381.8	6.2	0.0405 ug/L	0.0405 ppb	12:21:21
3	Zn 213.857†	720.0	87.3	0.9619 ug/L	0.9619 ppb	12:21:41
3	SiO2†	614.8	14.0	1.0396 ug/L	1.0396 ppb	12:22:42

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	881191.4	99.983	%	0.9790				0.98%
Sc Radial	4485.8	106	%	0.1				0.13%
Y 371.029	748428.0	97.937	%	1.0155				1.04%
Y RADIAL	4901.3	98.91	%	0.203				0.21%
Ag 328.068†	-9.8	-0.0359	ug/L	0.08244	-0.0359	ppb	0.08244	229.58%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.8	5.9684	ug/L	5.14948	5.9684	ppb	5.14948	86.28%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.6	-0.2700	ug/L	2.71697	-0.2700	ppb	2.71697	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	146.7	3.7311	ug/L	0.61083	3.7311	ppb	0.61083	16.37%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	9.7	0.0855	ug/L	0.05973	0.0855	ppb	0.05973	69.85%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	89.2	0.0337	ug/L	0.00939	0.0337	ppb	0.00939	27.89%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.3	14.533	ug/L	0.9960	14.533	ppb	0.9960	6.85%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†                -0.1     -0.0049 ug/L       0.14669     -0.0049 ppb        0.14669 >999.9%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†                 3.6      0.0890 ug/L       0.34830      0.0890 ppb        0.34830 391.39%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                15.4      0.1927 ug/L       0.04302      0.1927 ppb        0.04302  22.33%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -42.4     -0.1256 ug/L       0.19887     -0.1256 ppb        0.19887 158.36%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          2.0      24.573 ug/L        7.1289      24.573 ppb         7.1289  29.01%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -142.9     -27.052 ug/L       17.7347     -27.052 ppb        17.7347  65.56%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†             1.1      46.543 ug/L       69.6826      46.543 ppb        69.6826 149.72%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               -23.2     -0.0278 ug/L       0.02141     -0.0278 ppb        0.02141  77.06%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 4.6      0.3807 ug/L       0.30779      0.3807 ppb        0.30779  80.84%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         16.7      6.5644 ug/L       9.75313      6.5644 ppb        9.75313 148.58%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 7.4      0.2152 ug/L       0.39900      0.2152 ppb        0.39900 185.41%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -0.0     -0.0056 ug/L       1.36640     -0.0056 ppb        1.36640 >999.9%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†               -12.6     -1.7799 ug/L       0.27111     -1.7799 ppb        0.27111  15.23%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            4.9      7.8444 ug/L       0.79866      7.8444 ppb        0.79866  10.18%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -0.3     -0.1057 ug/L       0.52379     -0.1057 ppb        0.52379 495.65%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                -1.7     -1.2124 ug/L       1.08797     -1.2124 ppb        1.08797  89.74%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†                24.3      0.8361 ug/L       0.66008      0.8361 ppb        0.66008  78.95%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 3.5      0.7308 ug/L       0.14677      0.7308 ppb        0.14677  20.08%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               -18.7     -0.1538 ug/L       0.10648     -0.1538 ppb        0.10648  69.23%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               -22.9     -0.0376 ug/L       0.08614     -0.0376 ppb        0.08614 229.16%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 9.5      3.4090 ug/L       0.72118      3.4090 ppb        0.72118  21.16%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               -129.2     -3.5136 ug/L       1.02704     -3.5136 ppb        1.02704  29.23%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                  3.6      0.0221 ug/L       0.02924      0.0221 ppb        0.02924 132.21%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                91.2      1.0052 ug/L       0.11116      1.0052 ppb        0.11116  11.06%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                      16.9      1.2486 ug/L       0.94374      1.2486 ppb        0.94374  75.59%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 21
Sample ID: 247829002|957527|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 56
Date Collected: 3/24/2010 12:24:52
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 247829002|957527|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4530.6	4530.6	107	%			12:26:45
1	Y RADIAL	4870.6	4870.6	98.29	%			12:26:45
1	Al 396.153Radial†	378.4	430.0	441.40	ug/L	441.40	ppb	12:26:45
1	Ca 317.933Radial†	6084.3	5691.7	11281	ug/L	11281	ppb	12:26:45
1	Fe 238.204 Radial†	53.7	44.2	534.41	ug/L	534.41	ppb	12:27:05
1	K 766.490 Radial†	12072.3	8619.6	1621.4	ug/L	1621.4	ppb	12:26:45
1	Mg 279.077 IEC†	78.9	73.4	3121.3	ug/L	3121.3	ppb	12:27:05
1	Na 589.592 Radial†	39933.4	38339.0	15086	ug/L	15086	ppb	12:26:45
1	Sr 421.552†	7067.4	6611.3	54.261	ug/L	54.261	ppb	12:26:45
1	Sc 361.383	883736.9	883736.9	100.27	%			12:28:01
1	Y 371.029	742581.4	742581.4	97.171	%			12:28:01
1	Ag 328.068†	248.1	-12.1	-0.0191	ug/L	-0.0191	ppb	12:28:06
1	As 188.979†	-18.8	1.9	1.1069	ug/L	1.1069	ppb	12:28:26
1	B 249.677†	175.7	563.4	14.262	ug/L	14.262	ppb	12:28:26
1	Ba 233.527†	2906.1	2888.1	25.265	ug/L	25.265	ppb	12:28:26
1	Be 313.107†	-4098.1	195.8	0.0893	ug/L	0.0893	ppb	12:28:06
1	Cd 226.502†	-141.7	30.5	0.3469	ug/L	0.3469	ppb	12:28:26
1	Co 228.616†	-50.2	-3.3	-0.0900	ug/L	-0.0900	ppb	12:28:26
1	Cr 267.716†	340.9	271.8	3.3876	ug/L	3.3876	ppb	12:28:26
1	Cu 324.752†	6494.7	149.1	0.4836	ug/L	0.4836	ppb	12:28:06
1	Mn 257.610†	14954.3	14450.7	17.548	ug/L	17.548	ppb	12:28:06
1	Mo 202.031†	24.9	11.0	1.0723	ug/L	1.0723	ppb	12:28:26
1	Ni 231.604†	80.1	-15.6	-0.4553	ug/L	-0.4553	ppb	12:28:26
1	P 214.914†	241.3	62.4	41.428	ug/L	41.428	ppb	12:28:26
1	Pb 220.353†	-60.8	-10.6	-1.3206	ug/L	-1.3206	ppb	12:28:26
1	S 181.975 Axial†	941.6	915.8	1459.4	ug/L	1459.4	ppb	12:28:26
1	Sb 206.836†	22.5	-5.1	-2.2949	ug/L	-2.2949	ppb	12:28:26
1	Se 196.026†	-21.5	-4.8	-1.8500	ug/L	-1.8500	ppb	12:28:26
1	Si 251.611†	940811.1	937690.9	32501	ug/L	32501	ppb	12:28:01
1	Sn 189.927†	-94.1	-100.7	-18.933	ug/L	-18.933	ppb	12:28:26
1	Ti 334.940†	3091.8	4135.4	7.9650	ug/L	7.9650	ppb	12:28:06
1	Tl 190.801†	-23.7	10.1	3.7506	ug/L	3.7506	ppb	12:28:26
1	U 409.014†	-2072.4	-178.4	-4.9152	ug/L	-4.9152	ppb	12:28:01
1	V 292.402†	-623.5	751.1	5.4126	ug/L	5.4126	ppb	12:28:06
1	Zn 213.857†	1026.5	398.9	4.3382	ug/L	4.3382	ppb	12:28:26
1	SiO2†	930882.7	927764.2	69025	ug/L	69025	ppb	12:29:34
2	Sc Radial	4472.0	4472.0	105	%			12:27:10
2	Y RADIAL	4827.5	4827.5	97.42	%			12:27:10
2	Al 396.153Radial†	378.9	435.1	446.65	ug/L	446.65	ppb	12:27:10
2	Ca 317.933Radial†	5995.8	5682.4	11262	ug/L	11262	ppb	12:27:10
2	Fe 238.204 Radial†	52.7	43.9	530.24	ug/L	530.24	ppb	12:27:30
2	K 766.490 Radial†	12018.2	8716.5	1639.8	ug/L	1639.8	ppb	12:27:10
2	Mg 279.077 IEC†	80.2	75.6	3214.3	ug/L	3214.3	ppb	12:27:30
2	Na 589.592 Radial†	39450.1	38370.3	15099	ug/L	15099	ppb	12:27:10
2	Sr 421.552†	6935.4	6572.7	53.944	ug/L	53.944	ppb	12:27:10
2	Sc 361.383	879611.3	879611.3	99.804	%			12:28:32
2	Y 371.029	738146.8	738146.8	96.591	%			12:28:32
2	Ag 328.068†	212.1	-47.0	-0.1827	ug/L	-0.1827	ppb	12:28:37
2	As 188.979†	-24.7	-4.1	-1.8748	ug/L	-1.8748	ppb	12:28:57
2	B 249.677†	178.5	567.0	14.354	ug/L	14.354	ppb	12:28:57
2	Ba 233.527†	2929.1	2924.7	25.585	ug/L	25.585	ppb	12:28:57
2	Be 313.107†	-4038.5	236.3	0.1040	ug/L	0.1040	ppb	12:28:37
2	Cd 226.502†	-140.5	31.1	0.3537	ug/L	0.3537	ppb	12:28:57
2	Co 228.616†	-40.7	6.0	0.1373	ug/L	0.1373	ppb	12:28:57
2	Cr 267.716†	359.6	292.1	3.6354	ug/L	3.6354	ppb	12:28:57
2	Cu 324.752†	6484.0	168.7	0.5439	ug/L	0.5439	ppb	12:28:37
2	Mn 257.610†	14881.6	14447.8	17.541	ug/L	17.541	ppb	12:28:37
2	Mo 202.031†	25.7	11.9	1.1481	ug/L	1.1481	ppb	12:28:57
2	Ni 231.604†	71.8	-23.5	-0.6877	ug/L	-0.6877	ppb	12:28:57

2	P 214.914†	242.2	64.4	42.768 ug/L	42.768 ppb	12:28:57
2	Pb 220.353†	-52.2	-2.2	-0.1356 ug/L	-0.1356 ppb	12:28:57
2	S 181.975 Axial†	952.7	931.3	1484.1 ug/L	1484.1 ppb	12:28:57
2	Sb 206.836†	35.2	7.8	2.6726 ug/L	2.6726 ppb	12:28:57
2	Se 196.026†	-20.2	-3.5	-0.9443 ug/L	-0.9443 ppb	12:28:57
2	Si 251.611†	937329.5	938603.0	32533 ug/L	32533 ppb	12:28:32
2	Sn 189.927†	-89.6	-96.6	-18.090 ug/L	-18.090 ppb	12:28:57
2	Ti 334.940†	2897.9	3955.6	7.6641 ug/L	7.6641 ppb	12:28:37
2	Tl 190.801†	-30.7	3.0	1.2063 ug/L	1.2063 ppb	12:28:57
2	U 409.014†	-2129.8	-245.6	-6.7439 ug/L	-6.7439 ppb	12:28:32
2	V 292.402†	-615.4	756.3	5.4508 ug/L	5.4508 ppb	12:28:37
2	Zn 213.857†	1014.5	391.7	4.2610 ug/L	4.2610 ppb	12:28:57
2	SiO2†	941365.5	942621.7	70130 ug/L	70130 ppb	12:29:39
3	Sc Radial	4500.1	4500.1	106 %		12:27:35
3	Y RADIAL	4880.1	4880.1	98.48 %		12:27:35
3	Al 396.153Radial†	363.0	417.9	429.00 ug/L	429.00 ppb	12:27:35
3	Ca 317.933Radial†	6009.0	5659.2	11216 ug/L	11216 ppb	12:27:35
3	Fe 238.204 Radial†	54.8	45.6	551.34 ug/L	551.34 ppb	12:27:55
3	K 766.490 Radial†	12044.4	8670.0	1631.0 ug/L	1631.0 ppb	12:27:35
3	Mg 279.077 IEC†	80.9	75.8	3225.8 ug/L	3225.8 ppb	12:27:55
3	Na 589.592 Radial†	39539.1	38220.4	15040 ug/L	15040 ppb	12:27:35
3	Sr 421.552†	6989.3	6582.4	54.024 ug/L	54.024 ppb	12:27:35
3	Sc 361.383	881050.8	881050.8	99.967 %		12:29:02
3	Y 371.029	739866.2	739866.2	96.816 %		12:29:02
3	Ag 328.068†	272.5	13.1	0.1060 ug/L	0.1060 ppb	12:29:07
3	As 188.979†	-13.6	7.0	3.6600 ug/L	3.6600 ppb	12:29:27
3	B 249.677†	163.3	551.5	13.956 ug/L	13.956 ppb	12:29:27
3	Ba 233.527†	2940.4	2931.3	25.642 ug/L	25.642 ppb	12:29:27
3	Be 313.107†	-4178.0	103.4	0.0537 ug/L	0.0537 ppb	12:29:07
3	Cd 226.502†	-140.9	30.9	0.3500 ug/L	0.3500 ppb	12:29:27
3	Co 228.616†	-37.1	9.6	0.2241 ug/L	0.2241 ppb	12:29:27
3	Cr 267.716†	344.5	276.4	3.4457 ug/L	3.4457 ppb	12:29:27
3	Cu 324.752†	6592.5	266.7	0.8418 ug/L	0.8418 ppb	12:29:07
3	Mn 257.610†	15051.5	14593.5	17.720 ug/L	17.720 ppb	12:29:07
3	Mo 202.031†	21.1	7.3	0.7700 ug/L	0.7700 ppb	12:29:27
3	Ni 231.604†	70.9	-24.6	-0.7186 ug/L	-0.7186 ppb	12:29:27
3	P 214.914†	231.9	53.7	35.514 ug/L	35.514 ppb	12:29:27
3	Pb 220.353†	-53.8	-3.7	-0.3537 ug/L	-0.3537 ppb	12:29:27
3	S 181.975 Axial†	939.8	916.9	1461.1 ug/L	1461.1 ppb	12:29:27
3	Sb 206.836†	17.4	-10.1	-4.2342 ug/L	-4.2342 ppb	12:29:27
3	Se 196.026†	-21.7	-5.0	-1.9716 ug/L	-1.9716 ppb	12:29:27
3	Si 251.611†	936511.4	936250.3	32451 ug/L	32451 ppb	12:29:02
3	Sn 189.927†	-94.2	-101.2	-19.036 ug/L	-19.036 ppb	12:29:27
3	Ti 334.940†	2899.3	3952.2	7.6512 ug/L	7.6512 ppb	12:29:07
3	Tl 190.801†	-35.5	-1.8	-0.5025 ug/L	-0.5025 ppb	12:29:27
3	U 409.014†	-2095.8	-208.1	-5.7258 ug/L	-5.7258 ppb	12:29:02
3	V 292.402†	-630.4	742.3	5.3430 ug/L	5.3430 ppb	12:29:07
3	Zn 213.857†	1027.2	402.7	4.3796 ug/L	4.3796 ppb	12:29:27
3	SiO2†	942323.2	942038.7	70087 ug/L	70087 ppb	12:29:45

Mean Data: 247829002|957527|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	881466.3	100.01	%	0.238				0.24%
Sc Radial	4500.9	106	%	0.7				0.65%
Y 371.029	740198.1	96.860	%	0.2926				0.30%
Y RADIAL	4859.4	98.06	%	0.565				0.58%
Ag 328.068†	-15.3	-0.0319	ug/L	0.14477	-0.0319	ppb	0.14477	453.23%
Al 396.153Radial†	427.6	439.02	ug/L	9.061	439.02	ppb	9.061	2.06%
As 188.979†	1.6	0.9641	ug/L	2.77015	0.9641	ppb	2.77015	287.34%
B 249.677†	560.7	14.191	ug/L	0.2082	14.191	ppb	0.2082	1.47%
Ba 233.527†	2914.7	25.497	ug/L	0.2034	25.497	ppb	0.2034	0.80%
Be 313.107†	178.5	0.0823	ug/L	0.02587	0.0823	ppb	0.02587	31.42%
Ca 317.933Radial†	5677.8	11253	ug/L	33.2	11253	ppb	33.2	0.29%
Cd 226.502†	30.8	0.3502	ug/L	0.00337	0.3502	ppb	0.00337	0.96%
Co 228.616†	4.1	0.0905	ug/L	0.16221	0.0905	ppb	0.16221	179.25%
Cr 267.716†	280.1	3.4896	ug/L	0.12962	3.4896	ppb	0.12962	3.71%
Cu 324.752†	194.8	0.6231	ug/L	0.19179	0.6231	ppb	0.19179	30.78%
Fe 238.204 Radial†	44.6	538.66	ug/L	11.176	538.66	ppb	11.176	2.07%
K 766.490 Radial†	8668.7	1630.7	ug/L	9.18	1630.7	ppb	9.18	0.56%

Mg 279.077 IEC†	74.9	3187.1	ug/L	57.30	3187.1	ppb	57.30	1.80%
Mn 257.610†	14497.3	17.603	ug/L	0.1013	17.603	ppb	0.1013	0.58%
Mo 202.031†	10.0	0.9968	ug/L	0.20003	0.9968	ppb	0.20003	20.07%
Na 589.592 Radial†	38309.9	15075	ug/L	31.1	15075	ppb	31.1	0.21%
Ni 231.604†	-21.2	-0.6205	ug/L	0.14389	-0.6205	ppb	0.14389	23.19%
P 214.914†	60.1	39.903	ug/L	3.8598	39.903	ppb	3.8598	9.67%
Pb 220.353†	-5.5	-0.6033	ug/L	0.63069	-0.6033	ppb	0.63069	104.54%
S 181.975 Axial†	921.3	1468.2	ug/L	13.79	1468.2	ppb	13.79	0.94%
Sb 206.836†	-2.5	-1.2855	ug/L	3.56233	-1.2855	ppb	3.56233	277.11%
Se 196.026†	-4.4	-1.5886	ug/L	0.56129	-1.5886	ppb	0.56129	35.33%
Si 251.611†	937514.7	32495	ug/L	41.1	32495	ppb	41.1	0.13%
Sn 189.927†	-99.5	-18.687	ug/L	0.5190	-18.687	ppb	0.5190	2.78%
Sr 421.552†	6588.8	54.076	ug/L	0.1648	54.076	ppb	0.1648	0.30%
Ti 334.940†	4014.4	7.7601	ug/L	0.17757	7.7601	ppb	0.17757	2.29%
Tl 190.801†	3.8	1.4848	ug/L	2.14016	1.4848	ppb	2.14016	144.14%
U 409.014†	-210.7	-5.7950	ug/L	0.91627	-5.7950	ppb	0.91627	15.81%
V 292.402†	749.9	5.4021	ug/L	0.05464	5.4021	ppb	0.05464	1.01%
Zn 213.857†	397.8	4.3263	ug/L	0.06022	4.3263	ppb	0.06022	1.39%
SiO2†	937474.9	69747	ug/L	626.1	69747	ppb	626.1	0.90%

Sequence No.: 24
Sample ID: 247829001|957527|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 59
Date Collected: 3/24/2010 12:45:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 247829001|957527|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4486.3	4486.3	106	%			12:47:39
1	Y RADIAL	4857.4	4857.4	98.02	%			12:47:39
1	Al 396.153Radial†	-3.4	71.7	73.617	ug/L	73.617	ppb	12:47:59
1	Ca 317.933Radial†	1221.4	1140.2	2259.8	ug/L	2259.8	ppb	12:47:59
1	Fe 238.204 Radial†	9.7	3.1	37.210	ug/L	37.210	ppb	12:47:59
1	K 766.490 Radial†	4541.4	1595.5	300.04	ug/L	300.04	ppb	12:47:39
1	Mg 279.077 IEC†	19.7	18.0	765.89	ug/L	765.89	ppb	12:47:59
1	Na 589.592 Radial†	6773.9	7288.6	2868.1	ug/L	2868.1	ppb	12:47:39
1	Sr 421.552†	1347.6	1257.0	10.316	ug/L	10.316	ppb	12:47:39
1	Sc 361.383	866875.5	866875.5	98.359	%			12:48:55
1	Y 371.029	736765.0	736765.0	96.410	%			12:48:55
1	Ag 328.068†	339.4	85.6	0.3905	ug/L	0.3905	ppb	12:48:55
1	As 188.979†	-29.2	-9.1	-4.5088	ug/L	-4.5088	ppb	12:49:16
1	B 249.677†	-289.6	93.8	2.3803	ug/L	2.3803	ppb	12:49:16
1	Ba 233.527†	559.8	559.0	4.8881	ug/L	4.8881	ppb	12:49:16
1	Be 313.107†	-4200.5	12.1	0.0062	ug/L	0.0062	ppb	12:48:55
1	Cd 226.502†	-165.2	3.9	0.0470	ug/L	0.0470	ppb	12:49:16
1	Co 228.616†	-27.5	18.7	0.4557	ug/L	0.4557	ppb	12:49:16
1	Cr 267.716†	132.4	66.4	0.8180	ug/L	0.8180	ppb	12:49:16
1	Cu 324.752†	6240.7	16.8	0.0549	ug/L	0.0549	ppb	12:48:55
1	Mn 257.610†	2292.1	1867.4	2.2497	ug/L	2.2497	ppb	12:49:16
1	Mo 202.031†	16.3	2.7	0.2508	ug/L	0.2508	ppb	12:49:16
1	Ni 231.604†	89.1	-4.9	-0.1431	ug/L	-0.1431	ppb	12:49:16
1	P 214.914†	186.1	10.9	7.2948	ug/L	7.2948	ppb	12:49:16
1	Pb 220.353†	-59.7	-10.7	-1.4660	ug/L	-1.4660	ppb	12:49:16
1	S 181.975 Axial†	210.3	190.6	303.74	ug/L	303.74	ppb	12:49:16
1	Sb 206.836†	24.4	-2.7	-1.1395	ug/L	-1.1395	ppb	12:49:16
1	Se 196.026†	-18.4	-2.0	-1.3313	ug/L	-1.3313	ppb	12:49:16
1	Si 251.611†	188479.3	191055.4	6622.1	ug/L	6622.1	ppb	12:48:55
1	Sn 189.927†	-20.2	-27.5	-5.3069	ug/L	-5.3069	ppb	12:49:16
1	Ti 334.940†	-610.5	431.3	0.9413	ug/L	0.9413	ppb	12:48:55
1	Tl 190.801†	-33.3	-0.1	-0.0389	ug/L	-0.0389	ppb	12:49:16
1	U 409.014†	-1990.5	-135.3	-3.6828	ug/L	-3.6828	ppb	12:48:55
1	V 292.402†	-1223.4	129.1	0.9385	ug/L	0.9385	ppb	12:48:55
1	Zn 213.857†	854.0	243.5	2.6909	ug/L	2.6909	ppb	12:49:16
1	SiO2†	187844.3	190384.7	14164	ug/L	14164	ppb	12:50:12
2	Sc Radial	4482.6	4482.6	105	%			12:48:04
2	Y RADIAL	4853.4	4853.4	97.94	%			12:48:04
2	Al 396.153Radial†	-12.5	63.1	64.722	ug/L	64.722	ppb	12:48:24
2	Ca 317.933Radial†	1207.1	1127.6	2234.8	ug/L	2234.8	ppb	12:48:24
2	Fe 238.204 Radial†	11.6	4.8	58.327	ug/L	58.327	ppb	12:48:24
2	K 766.490 Radial†	4612.9	1667.0	313.57	ug/L	313.57	ppb	12:48:04
2	Mg 279.077 IEC†	16.4	14.9	634.36	ug/L	634.36	ppb	12:48:24
2	Na 589.592 Radial†	6795.5	7314.5	2878.3	ug/L	2878.3	ppb	12:48:04
2	Sr 421.552†	1371.3	1280.5	10.509	ug/L	10.509	ppb	12:48:04
2	Sc 361.383	866624.1	866624.1	98.330	%			12:49:21
2	Y 371.029	736121.9	736121.9	96.326	%			12:49:21
2	Ag 328.068†	276.6	21.7	0.0930	ug/L	0.0930	ppb	12:49:21
2	As 188.979†	-18.8	1.5	0.7572	ug/L	0.7572	ppb	12:49:41
2	B 249.677†	-278.0	105.4	2.6733	ug/L	2.6733	ppb	12:49:41
2	Ba 233.527†	563.5	563.0	4.9223	ug/L	4.9223	ppb	12:49:41
2	Be 313.107†	-4191.6	20.0	0.0087	ug/L	0.0087	ppb	12:49:21
2	Cd 226.502†	-175.3	-6.4	-0.0906	ug/L	-0.0906	ppb	12:49:41
2	Co 228.616†	-36.7	9.4	0.2306	ug/L	0.2306	ppb	12:49:41
2	Cr 267.716†	140.8	75.0	0.9244	ug/L	0.9244	ppb	12:49:41
2	Cu 324.752†	6279.2	57.8	0.1795	ug/L	0.1795	ppb	12:49:21
2	Mn 257.610†	2340.4	1917.1	2.3178	ug/L	2.3178	ppb	12:49:41
2	Mo 202.031†	23.2	9.8	0.8306	ug/L	0.8306	ppb	12:49:41
2	Ni 231.604†	100.7	6.9	0.2010	ug/L	0.2010	ppb	12:49:41

2	P 214.914†	168.9	-6.5	-4.4890 ug/L	-4.4890 ppb	12:49:41
2	Pb 220.353†	-61.3	-12.2	-1.6936 ug/L	-1.6936 ppb	12:49:41
2	S 181.975 Axial†	223.8	204.4	325.72 ug/L	325.72 ppb	12:49:41
2	Sb 206.836†	20.2	-7.0	-2.7548 ug/L	-2.7548 ppb	12:49:41
2	Se 196.026†	-20.0	-3.7	-2.5491 ug/L	-2.5491 ppb	12:49:41
2	Si 251.611†	188589.0	191222.5	6627.9 ug/L	6627.9 ppb	12:49:21
2	Sn 189.927†	-18.0	-25.2	-4.8461 ug/L	-4.8461 ppb	12:49:41
2	Ti 334.940†	-718.9	320.8	0.7687 ug/L	0.7687 ppb	12:49:21
2	Tl 190.801†	-26.5	6.8	2.4428 ug/L	2.4428 ppb	12:49:41
2	U 409.014†	-1924.9	-69.2	-1.8891 ug/L	-1.8891 ppb	12:49:21
2	V 292.402†	-1300.3	50.5	0.3761 ug/L	0.3761 ppb	12:49:21
2	Zn 213.857†	875.0	265.0	2.9239 ug/L	2.9239 ppb	12:49:41
2	SiO2†	189656.8	192283.3	14306 ug/L	14306 ppb	12:50:17
3	Sc Radial	4522.1	4522.1	106 %		12:48:29
3	Y RADIAL	4852.7	4852.7	97.93 %		12:48:29
3	Al 396.153Radial†	-17.8	58.2	59.747 ug/L	59.747 ppb	12:48:49
3	Ca 317.933Radial†	1212.8	1123.0	2225.8 ug/L	2225.8 ppb	12:48:49
3	Fe 238.204 Radial†	11.5	4.7	56.693 ug/L	56.693 ppb	12:48:49
3	K 766.490 Radial†	4313.2	1347.0	253.05 ug/L	253.05 ppb	12:48:29
3	Mg 279.077 IEC†	17.2	15.6	661.73 ug/L	661.73 ppb	12:48:49
3	Na 589.592 Radial†	6640.5	7112.5	2798.8 ug/L	2798.8 ppb	12:48:29
3	Sr 421.552†	1368.9	1266.9	10.398 ug/L	10.398 ppb	12:48:29
3	Sc 361.383	875793.5	875793.5	99.371 %		12:49:46
3	Y 371.029	744070.8	744070.8	97.366 %		12:49:46
3	Ag 328.068†	217.3	-40.8	-0.1964 ug/L	-0.1964 ppb	12:49:46
3	As 188.979†	-20.4	0.1	0.0900 ug/L	0.0900 ppb	12:50:06
3	B 249.677†	-265.5	121.0	3.0700 ug/L	3.0700 ppb	12:50:06
3	Ba 233.527†	560.6	554.1	4.8449 ug/L	4.8449 ppb	12:50:06
3	Be 313.107†	-4221.9	34.2	0.0148 ug/L	0.0148 ppb	12:49:46
3	Cd 226.502†	-166.1	4.7	0.0549 ug/L	0.0549 ppb	12:50:06
3	Co 228.616†	-28.2	18.4	0.4447 ug/L	0.4447 ppb	12:50:06
3	Cr 267.716†	139.9	72.6	0.8969 ug/L	0.8969 ppb	12:50:06
3	Cu 324.752†	6325.9	37.9	0.1218 ug/L	0.1218 ppb	12:49:46
3	Mn 257.610†	2309.4	1861.0	2.2481 ug/L	2.2481 ppb	12:50:06
3	Mo 202.031†	10.1	-3.7	-0.2685 ug/L	-0.2685 ppb	12:50:06
3	Ni 231.604†	77.6	-17.4	-0.5095 ug/L	-0.5095 ppb	12:50:06
3	P 214.914†	185.8	8.7	5.7515 ug/L	5.7515 ppb	12:50:06
3	Pb 220.353†	-69.7	-20.1	-2.8050 ug/L	-2.8050 ppb	12:50:06
3	S 181.975 Axial†	214.6	192.7	307.05 ug/L	307.05 ppb	12:50:06
3	Sb 206.836†	32.9	5.5	2.0231 ug/L	2.0231 ppb	12:50:06
3	Se 196.026†	-21.4	-4.9	-3.4443 ug/L	-3.4443 ppb	12:50:06
3	Si 251.611†	191246.5	191888.8	6651.0 ug/L	6651.0 ppb	12:49:46
3	Sn 189.927†	-23.3	-30.3	-5.9030 ug/L	-5.9030 ppb	12:50:06
3	Ti 334.940†	-534.9	513.7	1.0801 ug/L	1.0801 ppb	12:49:46
3	Tl 190.801†	-32.0	1.6	0.5779 ug/L	0.5779 ppb	12:50:06
3	U 409.014†	-2111.6	-236.6	-6.4382 ug/L	-6.4382 ppb	12:49:46
3	V 292.402†	-1254.6	110.4	0.7857 ug/L	0.7857 ppb	12:49:46
3	Zn 213.857†	853.1	233.7	2.5823 ug/L	2.5823 ppb	12:50:06
3	SiO2†	190151.3	190761.6	14192 ug/L	14192 ppb	12:50:22

Mean Data: 247829001|957527|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	869764.4	98.687	%	0.5926				0.60%
Sc Radial	4497.0	106	%	0.5				0.48%
Y 371.029	738985.9	96.701	%	0.5778				0.60%
Y RADIAL	4854.5	97.96	%	0.051				0.05%
Ag 328.068†	22.2	0.0957	ug/L	0.29348	0.0957	ppb	0.29348	306.76%
Al 396.153Radial†	64.3	66.028	ug/L	7.0267	66.028	ppb	7.0267	10.64%
As 188.979†	-2.5	-1.2205	ug/L	2.86721	-1.2205	ppb	2.86721	234.92%
B 249.677†	106.7	2.7079	ug/L	0.34613	2.7079	ppb	0.34613	12.78%
Ba 233.527†	558.7	4.8851	ug/L	0.03882	4.8851	ppb	0.03882	0.79%
Be 313.107†	22.1	0.0099	ug/L	0.00444	0.0099	ppb	0.00444	44.77%
Ca 317.933Radial†	1130.3	2240.1	ug/L	17.61	2240.1	ppb	17.61	0.79%
Cd 226.502†	0.7	0.0037	ug/L	0.08182	0.0037	ppb	0.08182	>999.9%
Co 228.616†	15.5	0.3770	ug/L	0.12691	0.3770	ppb	0.12691	33.66%
Cr 267.716†	71.4	0.8798	ug/L	0.05520	0.8798	ppb	0.05520	6.27%
Cu 324.752†	37.5	0.1187	ug/L	0.06235	0.1187	ppb	0.06235	52.53%
Fe 238.204 Radial†	4.2	50.743	ug/L	11.7484	50.743	ppb	11.7484	23.15%
K 766.490 Radial†	1536.5	288.89	ug/L	31.764	288.89	ppb	31.764	11.00%

Mg 279.077 IEC†	16.2	687.33	ug/L	69.400	687.33	ppb	69.400 10.10%
Mn 257.610†	1881.8	2.2719	ug/L	0.03978	2.2719	ppb	0.03978 1.75%
Mo 202.031†	2.9	0.2710	ug/L	0.54982	0.2710	ppb	0.54982 202.90%
Na 589.592 Radial†	7238.6	2848.4	ug/L	43.25	2848.4	ppb	43.25 1.52%
Ni 231.604†	-5.1	-0.1505	ug/L	0.35526	-0.1505	ppb	0.35526 236.01%
P 214.914†	4.4	2.8524	ug/L	6.40455	2.8524	ppb	6.40455 224.53%
Pb 220.353†	-14.3	-1.9882	ug/L	0.71647	-1.9882	ppb	0.71647 36.04%
S 181.975 Axial†	195.9	312.17	ug/L	11.851	312.17	ppb	11.851 3.80%
Sb 206.836†	-1.4	-0.6237	ug/L	2.43039	-0.6237	ppb	2.43039 389.65%
Se 196.026†	-3.5	-2.4416	ug/L	1.06060	-2.4416	ppb	1.06060 43.44%
Si 251.611†	191388.9	6633.7	ug/L	15.29	6633.7	ppb	15.29 0.23%
Sn 189.927†	-27.7	-5.3520	ug/L	0.52990	-5.3520	ppb	0.52990 9.90%
Sr 421.552†	1268.2	10.408	ug/L	0.0972	10.408	ppb	0.0972 0.93%
Ti 334.940†	422.0	0.9300	ug/L	0.15598	0.9300	ppb	0.15598 16.77%
Tl 190.801†	2.7	0.9939	ug/L	1.29207	0.9939	ppb	1.29207 129.99%
U 409.014†	-147.0	-4.0034	ug/L	2.29143	-4.0034	ppb	2.29143 57.24%
V 292.402†	96.7	0.7001	ug/L	0.29081	0.7001	ppb	0.29081 41.54%
Zn 213.857†	247.4	2.7324	ug/L	0.17453	2.7324	ppb	0.17453 6.39%
SiO2†	191143.2	14221	ug/L	74.8	14221	ppb	74.8 0.53%

Sequence No.: 25
Sample ID: 1202053150|957527|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 60
Date Collected: 3/24/2010 12:52:33
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053150|957527|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4495.5	4495.5	106	%			12:54:27
1	Y RADIAL	4866.0	4866.0	98.19	%			12:54:27
1	Al 396.153Radial†	44.3	116.8	119.91	ug/L	119.91	ppb	12:54:47
1	Ca 317.933Radial†	1222.9	1139.3	2258.0	ug/L	2258.0	ppb	12:54:47
1	Fe 238.204 Radial†	10.6	3.8	46.248	ug/L	46.248	ppb	12:54:47
1	K 766.490 Radial†	4581.8	1624.9	305.57	ug/L	305.57	ppb	12:54:27
1	Mg 279.077 IEC†	16.1	14.6	620.10	ug/L	620.10	ppb	12:54:47
1	Na 589.592 Radial†	7079.5	7564.6	2976.7	ug/L	2976.7	ppb	12:54:27
1	Sr 421.552†	1426.0	1328.5	10.903	ug/L	10.903	ppb	12:54:27
1	Sc 361.383	886653.1	886653.1	100.60	%			12:55:44
1	Y 371.029	749364.3	749364.3	98.059	%			12:55:44
1	Ag 328.068†	231.2	-29.7	-0.1482	ug/L	-0.1482	ppb	12:55:49
1	As 188.979†	-11.9	8.8	4.3920	ug/L	4.3920	ppb	12:56:09
1	B 249.677†	-305.5	84.4	2.1420	ug/L	2.1420	ppb	12:56:09
1	Ba 233.527†	573.8	560.3	4.9001	ug/L	4.9001	ppb	12:56:09
1	Be 313.107†	-4204.7	103.2	0.0406	ug/L	0.0406	ppb	12:55:49
1	Cd 226.502†	-172.9	0.0	-0.0052	ug/L	-0.0052	ppb	12:56:09
1	Co 228.616†	-37.7	9.2	0.2252	ug/L	0.2252	ppb	12:56:09
1	Cr 267.716†	135.7	66.7	0.8235	ug/L	0.8235	ppb	12:56:09
1	Cu 324.752†	6343.0	-23.1	-0.0660	ug/L	-0.0660	ppb	12:55:49
1	Mn 257.610†	2433.2	1955.6	2.3641	ug/L	2.3641	ppb	12:56:09
1	Mo 202.031†	18.6	4.6	0.4096	ug/L	0.4096	ppb	12:56:09
1	Ni 231.604†	82.8	-13.2	-0.3850	ug/L	-0.3850	ppb	12:56:09
1	P 214.914†	201.0	21.5	14.465	ug/L	14.465	ppb	12:56:09
1	Pb 220.353†	-70.5	-20.0	-2.7802	ug/L	-2.7802	ppb	12:56:09
1	S 181.975 Axial†	228.4	203.8	324.68	ug/L	324.68	ppb	12:56:09
1	Sb 206.836†	26.3	-1.4	-0.6144	ug/L	-0.6144	ppb	12:56:09
1	Se 196.026†	-18.3	-1.5	-0.9203	ug/L	-0.9203	ppb	12:56:09
1	Si 251.611†	192839.9	191115.5	6624.2	ug/L	6624.2	ppb	12:55:44
1	Sn 189.927†	-15.5	-22.3	-4.2338	ug/L	-4.2338	ppb	12:56:09
1	Ti 334.940†	-633.2	422.6	0.9385	ug/L	0.9385	ppb	12:55:49
1	Tl 190.801†	-29.9	4.0	1.4503	ug/L	1.4503	ppb	12:56:09
1	U 409.014†	-2013.5	-113.0	-3.0779	ug/L	-3.0779	ppb	12:55:44
1	V 292.402†	-1196.0	184.1	1.3360	ug/L	1.3360	ppb	12:55:49
1	Zn 213.857†	872.2	242.2	2.6767	ug/L	2.6767	ppb	12:56:09
1	SiO2†	195441.1	193675.9	14409	ug/L	14409	ppb	12:57:15
2	Sc Radial	4590.4	4590.4	108	%			12:54:52
2	Y RADIAL	4983.1	4983.1	100.6	%			12:54:52
2	Al 396.153Radial†	41.2	113.1	116.06	ug/L	116.06	ppb	12:55:12
2	Ca 317.933Radial†	1242.0	1133.0	2245.6	ug/L	2245.6	ppb	12:55:12
2	Fe 238.204 Radial†	10.3	3.4	40.960	ug/L	40.960	ppb	12:55:12
2	K 766.490 Radial†	4512.0	1470.8	276.41	ug/L	276.41	ppb	12:54:52
2	Mg 279.077 IEC†	18.2	16.3	691.54	ug/L	691.54	ppb	12:55:12
2	Na 589.592 Radial†	7142.0	7484.1	2945.0	ug/L	2945.0	ppb	12:54:52
2	Sr 421.552†	1454.9	1327.3	10.894	ug/L	10.894	ppb	12:54:52
2	Sc 361.383	896010.7	896010.7	101.66	%			12:56:14
2	Y 371.029	755414.7	755414.7	98.851	%			12:56:14
2	Ag 328.068†	167.2	-95.1	-0.4607	ug/L	-0.4607	ppb	12:56:19
2	As 188.979†	-31.6	-10.4	-5.1656	ug/L	-5.1656	ppb	12:56:39
2	B 249.677†	-296.9	96.1	2.4408	ug/L	2.4408	ppb	12:56:39
2	Ba 233.527†	583.0	563.4	4.9260	ug/L	4.9260	ppb	12:56:39
2	Be 313.107†	-4240.3	111.9	0.0441	ug/L	0.0441	ppb	12:56:19
2	Cd 226.502†	-160.2	14.3	0.1844	ug/L	0.1844	ppb	12:56:39
2	Co 228.616†	-37.9	9.5	0.2321	ug/L	0.2321	ppb	12:56:39
2	Cr 267.716†	134.5	64.2	0.7905	ug/L	0.7905	ppb	12:56:39
2	Cu 324.752†	6344.2	-87.7	-0.2629	ug/L	-0.2629	ppb	12:56:19
2	Mn 257.610†	2431.1	1928.3	2.3274	ug/L	2.3274	ppb	12:56:39
2	Mo 202.031†	25.0	10.7	0.9056	ug/L	0.9056	ppb	12:56:39
2	Ni 231.604†	89.7	-7.2	-0.2117	ug/L	-0.2117	ppb	12:56:39

2	P 214.914†	190.7	9.3	6.2851 ug/L	6.2851 ppb	12:56:39
2	Pb 220.353†	-68.3	-17.1	-2.3728 ug/L	-2.3728 ppb	12:56:39
2	S 181.975 Axial†	225.9	198.9	317.02 ug/L	317.02 ppb	12:56:39
2	Sb 206.836†	30.2	2.2	0.7883 ug/L	0.7883 ppb	12:56:39
2	Se 196.026†	-15.8	1.1	1.0012 ug/L	1.0012 ppb	12:56:39
2	Si 251.611†	195228.4	191463.1	6636.2 ug/L	6636.2 ppb	12:56:14
2	Sn 189.927†	-17.5	-24.1	-4.6099 ug/L	-4.6099 ppb	12:56:39
2	Ti 334.940†	-571.8	489.6	1.0393 ug/L	1.0393 ppb	12:56:19
2	Tl 190.801†	-26.8	7.4	2.6869 ug/L	2.6869 ppb	12:56:39
2	U 409.014†	-2003.4	-82.2	-2.2397 ug/L	-2.2397 ppb	12:56:14
2	V 292.402†	-1289.8	104.3	0.7689 ug/L	0.7689 ppb	12:56:19
2	Zn 213.857†	876.4	237.3	2.6223 ug/L	2.6223 ppb	12:56:39
2	SiO2†	194222.1	190448.0	14169 ug/L	14169 ppb	12:57:20
3	Sc Radial	4464.3	4464.3	105 %		12:55:17
3	Y RADIAL	4872.3	4872.3	98.32 %		12:55:17
3	Al 396.153Radial†	48.5	121.1	124.36 ug/L	124.36 ppb	12:55:37
3	Ca 317.933Radial†	1247.6	1170.9	2320.6 ug/L	2320.6 ppb	12:55:37
3	Fe 238.204 Radial†	14.2	7.3	88.792 ug/L	88.792 ppb	12:55:37
3	K 766.490 Radial†	4469.3	1548.1	291.01 ug/L	291.01 ppb	12:55:17
3	Mg 279.077 IEC†	17.0	15.5	660.61 ug/L	660.61 ppb	12:55:37
3	Na 589.592 Radial†	6964.4	7501.7	2951.9 ug/L	2951.9 ppb	12:55:17
3	Sr 421.552†	1409.8	1322.5	10.854 ug/L	10.854 ppb	12:55:17
3	Sc 361.383	892129.3	892129.3	101.22 %		12:56:45
3	Y 371.029	752995.9	752995.9	98.534 %		12:56:45
3	Ag 328.068†	224.7	-37.5	-0.1770 ug/L	-0.1770 ppb	12:56:50
3	As 188.979†	-19.0	1.8	0.9450 ug/L	0.9450 ppb	12:57:10
3	B 249.677†	-311.8	80.1	2.0242 ug/L	2.0242 ppb	12:57:10
3	Ba 233.527†	569.6	552.7	4.8344 ug/L	4.8344 ppb	12:57:10
3	Be 313.107†	-4259.2	75.1	0.0299 ug/L	0.0299 ppb	12:56:50
3	Cd 226.502†	-164.3	9.6	0.1180 ug/L	0.1180 ppb	12:57:10
3	Co 228.616†	-34.5	12.7	0.3070 ug/L	0.3070 ppb	12:57:10
3	Cr 267.716†	140.3	70.5	0.8715 ug/L	0.8715 ppb	12:57:10
3	Cu 324.752†	6341.1	-63.6	-0.1890 ug/L	-0.1890 ppb	12:56:50
3	Mn 257.610†	2437.6	1945.1	2.3539 ug/L	2.3539 ppb	12:57:10
3	Mo 202.031†	13.8	-0.3	0.0125 ug/L	0.0125 ppb	12:57:10
3	Ni 231.604†	106.5	9.7	0.2840 ug/L	0.2840 ppb	12:57:10
3	P 214.914†	178.3	-2.2	-1.5322 ug/L	-1.5322 ppb	12:57:10
3	Pb 220.353†	-57.7	-7.0	-0.9368 ug/L	-0.9368 ppb	12:57:10
3	S 181.975 Axial†	208.7	182.9	291.45 ug/L	291.45 ppb	12:57:10
3	Sb 206.836†	18.0	-9.8	-3.8501 ug/L	-3.8501 ppb	12:57:10
3	Se 196.026†	-16.9	-0.0	0.2909 ug/L	0.2909 ppb	12:57:10
3	Si 251.611†	194237.0	191319.1	6631.3 ug/L	6631.3 ppb	12:56:45
3	Sn 189.927†	-19.0	-25.7	-4.9329 ug/L	-4.9329 ppb	12:57:10
3	Ti 334.940†	-648.6	411.2	0.9234 ug/L	0.9234 ppb	12:56:50
3	Tl 190.801†	-23.3	10.7	3.8725 ug/L	3.8725 ppb	12:57:10
3	U 409.014†	-1872.8	38.2	1.0274 ug/L	1.0274 ppb	12:56:45
3	V 292.402†	-1231.3	156.5	1.1331 ug/L	1.1331 ppb	12:56:50
3	Zn 213.857†	880.5	245.0	2.6981 ug/L	2.6981 ppb	12:57:10
3	SiO2†	194547.6	191600.8	14255 ug/L	14255 ppb	12:57:26

Mean Data: 1202053150|957527|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	891597.7	101.16	%	0.533				0.53%
Sc Radial	4516.7	106	%	1.5				1.45%
Y 371.029	752591.7	98.481	%	0.3985				0.40%
Y RADIAL	4907.1	99.02	%	1.329				1.34%
Ag 328.068†	-54.1	-0.2620	ug/L	0.17270	-0.2620	ppb	0.17270	65.92%
Al 396.153Radial†	117.0	120.11	ug/L	4.155	120.11	ppb	4.155	3.46%
As 188.979†	0.1	0.0572	ug/L	4.84026	0.0572	ppb	4.84026	>999.9%
B 249.677†	86.9	2.2023	ug/L	0.21474	2.2023	ppb	0.21474	9.75%
Ba 233.527†	558.8	4.8868	ug/L	0.04725	4.8868	ppb	0.04725	0.97%
Be 313.107†	96.7	0.0382	ug/L	0.00740	0.0382	ppb	0.00740	19.37%
Ca 317.933Radial†	1147.7	2274.7	ug/L	40.23	2274.7	ppb	40.23	1.77%
Cd 226.502†	8.0	0.0990	ug/L	0.09622	0.0990	ppb	0.09622	97.15%
Co 228.616†	10.5	0.2548	ug/L	0.04538	0.2548	ppb	0.04538	17.81%
Cr 267.716†	67.1	0.8285	ug/L	0.04072	0.8285	ppb	0.04072	4.91%
Cu 324.752†	-58.1	-0.1726	ug/L	0.09948	-0.1726	ppb	0.09948	57.63%
Fe 238.204 Radial†	4.9	58.667	ug/L	26.2228	58.667	ppb	26.2228	44.70%
K 766.490 Radial†	1547.9	291.00	ug/L	14.580	291.00	ppb	14.580	5.01%

Mg 279.077 IEC†	15.5	657.42	ug/L	35.825	657.42	ppb	35.825	5.45%
Mn 257.610†	1943.0	2.3485	ug/L	0.01895	2.3485	ppb	0.01895	0.81%
Mo 202.031†	5.0	0.4426	ug/L	0.44746	0.4426	ppb	0.44746	101.10%
Na 589.592 Radial†	7516.8	2957.9	ug/L	16.65	2957.9	ppb	16.65	0.56%
Ni 231.604†	-3.6	-0.1042	ug/L	0.34722	-0.1042	ppb	0.34722	333.13%
P 214.914†	9.5	6.4059	ug/L	7.99913	6.4059	ppb	7.99913	124.87%
Pb 220.353†	-14.7	-2.0299	ug/L	0.96833	-2.0299	ppb	0.96833	47.70%
S 181.975 Axial†	195.2	311.05	ug/L	17.398	311.05	ppb	17.398	5.59%
Sb 206.836†	-3.0	-1.2254	ug/L	2.37876	-1.2254	ppb	2.37876	194.12%
Se 196.026†	-0.1	0.1239	ug/L	0.97155	0.1239	ppb	0.97155	783.86%
Si 251.611†	191299.2	6630.6	ug/L	6.05	6630.6	ppb	6.05	0.09%
Sn 189.927†	-24.1	-4.5922	ug/L	0.34988	-4.5922	ppb	0.34988	7.62%
Sr 421.552†	1326.1	10.884	ug/L	0.0262	10.884	ppb	0.0262	0.24%
Ti 334.940†	441.1	0.9671	ug/L	0.06299	0.9671	ppb	0.06299	6.51%
Tl 190.801†	7.4	2.6699	ug/L	1.21120	2.6699	ppb	1.21120	45.37%
U 409.014†	-52.3	-1.4300	ug/L	2.16910	-1.4300	ppb	2.16910	151.68%
V 292.402†	148.3	1.0793	ug/L	0.28733	1.0793	ppb	0.28733	26.62%
Zn 213.857†	241.5	2.6657	ug/L	0.03908	2.6657	ppb	0.03908	1.47%
SiO2†	191908.3	14278	ug/L	121.7	14278	ppb	121.7	0.85%

Sequence No.: 26
Sample ID: 1202053151|957527|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 61
Date Collected: 3/24/2010 12:59:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053151|957527|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4481.4	4481.4	105	%			13:01:30
1	Y RADIAL	4845.4	4845.4	97.78	%			13:01:30
1	Al 396.153Radial†	1036.2	1057.9	1081.6	ug/L	1081.6	ppb	13:01:30
1	Ca 317.933Radial†	1748.7	1641.7	3253.7	ug/L	3253.7	ppb	13:01:50
1	Fe 238.204 Radial†	99.3	88.0	1066.4	ug/L	1066.4	ppb	13:01:50
1	K 766.490 Radial†	9897.3	6680.8	1261.5	ug/L	1261.5	ppb	13:01:30
1	Mg 279.077 IEC†	44.9	41.9	1783.7	ug/L	1783.7	ppb	13:01:50
1	Na 589.592 Radial†	9484.4	9866.9	3882.6	ug/L	3882.6	ppb	13:01:30
1	Sr 421.552†	13446.4	12735.1	104.66	ug/L	104.66	ppb	13:01:30
1	Sc 361.383	885439.9	885439.9	100.47	%			13:02:47
1	Y 371.029	745832.5	745832.5	97.597	%			13:02:47
1	Ag 328.068†	20242.5	19889.3	94.235	ug/L	94.235	ppb	13:02:52
1	As 188.979†	174.6	194.5	97.586	ug/L	97.586	ppb	13:03:12
1	B 249.677†	3376.2	3748.7	95.026	ug/L	95.026	ppb	13:02:52
1	Ba 233.527†	11801.8	11737.1	102.81	ug/L	102.81	ppb	13:02:52
1	Be 313.107†	248747.8	251878.8	95.522	ug/L	95.522	ppb	13:02:47
1	Cd 226.502†	6887.6	7027.6	92.805	ug/L	92.805	ppb	13:03:12
1	Co 228.616†	3895.6	3924.3	95.288	ug/L	95.288	ppb	13:03:12
1	Cr 267.716†	8026.8	7921.5	96.994	ug/L	96.994	ppb	13:02:52
1	Cu 324.752†	38588.2	32081.5	97.398	ug/L	97.398	ppb	13:02:52
1	Mn 257.610†	82222.9	81379.2	99.278	ug/L	99.278	ppb	13:02:52
1	Mo 202.031†	1163.1	1143.9	93.720	ug/L	93.720	ppb	13:03:12
1	Ni 231.604†	3399.9	3288.6	96.034	ug/L	96.034	ppb	13:03:12
1	P 214.914†	333.5	153.6	84.473	ug/L	84.473	ppb	13:03:12
1	Pb 220.353†	622.6	669.8	95.129	ug/L	95.129	ppb	13:03:12
1	S 181.975 Axial†	809.9	783.0	1247.5	ug/L	1247.5	ppb	13:03:12
1	Sb 206.836†	279.4	250.5	99.678	ug/L	99.678	ppb	13:03:12
1	Se 196.026†	107.6	123.8	95.535	ug/L	95.535	ppb	13:03:12
1	Si 251.611†	219060.1	217476.9	7536.8	ug/L	7536.8	ppb	13:02:47
1	Sn 189.927†	454.8	445.8	93.046	ug/L	93.046	ppb	13:03:12
1	Ti 334.940†	58935.2	59714.3	97.048	ug/L	97.048	ppb	13:02:52
1	Tl 190.801†	241.2	273.9	99.039	ug/L	99.039	ppb	13:03:12
1	U 409.014†	1622.8	3503.7	94.878	ug/L	94.878	ppb	13:02:47
1	V 292.402†	12058.4	13375.5	98.036	ug/L	98.036	ppb	13:02:52
1	Zn 213.857†	9581.3	8912.1	97.764	ug/L	97.764	ppb	13:02:52
1	SiO2†	221033.2	219415.8	16322	ug/L	16322	ppb	13:04:19
2	Sc Radial	4484.7	4484.7	105	%			13:01:55
2	Y RADIAL	4859.8	4859.8	98.07	%			13:01:55
2	Al 396.153Radial†	1024.7	1046.3	1069.7	ug/L	1069.7	ppb	13:01:55
2	Ca 317.933Radial†	1730.5	1623.2	3217.1	ug/L	3217.1	ppb	13:02:16
2	Fe 238.204 Radial†	97.3	86.1	1042.7	ug/L	1042.7	ppb	13:02:16
2	K 766.490 Radial†	9837.3	6616.9	1249.4	ug/L	1249.4	ppb	13:01:55
2	Mg 279.077 IEC†	42.5	39.6	1685.7	ug/L	1685.7	ppb	13:02:16
2	Na 589.592 Radial†	9499.6	9874.6	3885.7	ug/L	3885.7	ppb	13:01:55
2	Sr 421.552†	13480.3	12757.8	104.85	ug/L	104.85	ppb	13:01:55
2	Sc 361.383	895321.2	895321.2	101.59	%			13:03:18
2	Y 371.029	752625.6	752625.6	98.486	%			13:03:18
2	Ag 328.068†	20052.8	19480.2	92.289	ug/L	92.289	ppb	13:03:23
2	As 188.979†	176.3	194.2	97.445	ug/L	97.445	ppb	13:03:43
2	B 249.677†	3360.7	3696.3	93.701	ug/L	93.701	ppb	13:03:23
2	Ba 233.527†	11708.0	11515.1	100.86	ug/L	100.86	ppb	13:03:23
2	Be 313.107†	250943.8	251308.0	95.301	ug/L	95.301	ppb	13:03:18
2	Cd 226.502†	6861.6	6926.3	91.469	ug/L	91.469	ppb	13:03:43
2	Co 228.616†	3883.7	3869.8	93.966	ug/L	93.966	ppb	13:03:43
2	Cr 267.716†	7924.1	7732.2	94.675	ug/L	94.675	ppb	13:03:23
2	Cu 324.752†	38190.6	31266.2	94.919	ug/L	94.919	ppb	13:03:23
2	Mn 257.610†	81607.3	79870.0	97.439	ug/L	97.439	ppb	13:03:23
2	Mo 202.031†	1157.5	1125.6	92.219	ug/L	92.219	ppb	13:03:43
2	Ni 231.604†	3374.6	3226.4	94.219	ug/L	94.219	ppb	13:03:43

2	P 214.914†	337.8	154.2	85.384 ug/L	85.384 ppb	13:03:43
2	Pb 220.353†	621.2	661.5	93.958 ug/L	93.958 ppb	13:03:43
2	S 181.975 Axial†	808.0	772.1	1230.3 ug/L	1230.3 ppb	13:03:43
2	Sb 206.836†	272.5	240.7	95.839 ug/L	95.839 ppb	13:03:43
2	Se 196.026†	105.8	120.8	93.250 ug/L	93.250 ppb	13:03:43
2	Si 251.611†	221429.7	217403.0	7534.2 ug/L	7534.2 ppb	13:03:18
2	Sn 189.927†	451.5	437.6	91.330 ug/L	91.330 ppb	13:03:43
2	Ti 334.940†	58243.6	58386.1	94.896 ug/L	94.896 ppb	13:03:23
2	Tl 190.801†	238.3	268.4	97.050 ug/L	97.050 ppb	13:03:43
2	U 409.014†	1832.0	3691.8	99.997 ug/L	99.997 ppb	13:03:18
2	V 292.402†	11870.5	13058.0	95.732 ug/L	95.732 ppb	13:03:23
2	Zn 213.857†	9472.9	8700.2	95.436 ug/L	95.436 ppb	13:03:23
2	SiO2†	216740.6	212762.1	15827 ug/L	15827 ppb	13:04:24
3	Sc Radial	4563.1	4563.1	107 %		13:02:21
3	Y RADIAL	4949.6	4949.6	99.88 %		13:02:21
3	Al 396.153Radial†	1072.8	1074.4	1098.5 ug/L	1098.5 ppb	13:02:21
3	Ca 317.933Radial†	1760.0	1622.5	3215.6 ug/L	3215.6 ppb	13:02:41
3	Fe 238.204 Radial†	101.7	88.5	1072.5 ug/L	1072.5 ppb	13:02:41
3	K 766.490 Radial†	9986.1	6595.4	1245.3 ug/L	1245.3 ppb	13:02:21
3	Mg 279.077 IEC†	43.2	39.6	1683.6 ug/L	1683.6 ppb	13:02:41
3	Na 589.592 Radial†	9637.6	9848.5	3875.4 ug/L	3875.4 ppb	13:02:21
3	Sr 421.552†	13743.4	12783.4	105.06 ug/L	105.06 ppb	13:02:21
3	Sc 361.383	893340.5	893340.5	101.36 %		13:03:48
3	Y 371.029	751888.1	751888.1	98.389 %		13:03:48
3	Ag 328.068†	20209.3	19678.3	93.238 ug/L	93.238 ppb	13:03:53
3	As 188.979†	174.8	193.1	96.898 ug/L	96.898 ppb	13:04:13
3	B 249.677†	3324.0	3667.5	92.963 ug/L	92.963 ppb	13:03:53
3	Ba 233.527†	11791.1	11622.7	101.80 ug/L	101.80 ppb	13:03:53
3	Be 313.107†	250000.2	250924.7	95.160 ug/L	95.160 ppb	13:03:48
3	Cd 226.502†	6837.3	6917.3	91.347 ug/L	91.347 ppb	13:04:13
3	Co 228.616†	3852.9	3847.9	93.433 ug/L	93.433 ppb	13:04:13
3	Cr 267.716†	7981.2	7805.8	95.580 ug/L	95.580 ppb	13:03:53
3	Cu 324.752†	38755.6	31906.9	96.865 ug/L	96.865 ppb	13:03:53
3	Mn 257.610†	82245.9	80678.1	98.427 ug/L	98.427 ppb	13:03:53
3	Mo 202.031†	1170.3	1140.7	93.458 ug/L	93.458 ppb	13:04:13
3	Ni 231.604†	3362.5	3221.9	94.085 ug/L	94.085 ppb	13:04:13
3	P 214.914†	338.0	155.1	85.581 ug/L	85.581 ppb	13:04:13
3	Pb 220.353†	601.9	643.9	91.463 ug/L	91.463 ppb	13:04:13
3	S 181.975 Axial†	786.0	752.2	1198.5 ug/L	1198.5 ppb	13:04:13
3	Sb 206.836†	271.7	240.6	95.789 ug/L	95.789 ppb	13:04:13
3	Se 196.026†	109.5	124.7	96.197 ug/L	96.197 ppb	13:04:13
3	Si 251.611†	220779.4	217244.8	7528.7 ug/L	7528.7 ppb	13:03:48
3	Sn 189.927†	445.0	432.1	90.192 ug/L	90.192 ppb	13:04:13
3	Ti 334.940†	59126.2	59383.9	96.513 ug/L	96.513 ppb	13:03:53
3	Tl 190.801†	235.9	266.5	96.380 ug/L	96.380 ppb	13:04:13
3	U 409.014†	1845.3	3708.9	100.46 ug/L	100.46 ppb	13:03:48
3	V 292.402†	12108.6	13318.9	97.632 ug/L	97.632 ppb	13:03:53
3	Zn 213.857†	9559.9	8806.6	96.609 ug/L	96.609 ppb	13:03:53
3	SiO2†	220381.4	216827.0	16129 ug/L	16129 ppb	13:04:29

Mean Data: 1202053151|957527|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	891367.2	101.14	%	0.593				0.59%
Sc Radial	4509.7	106	%	1.1				1.03%
Y 371.029	750115.4	98.157	%	0.4878				0.50%
Y RADIAL	4884.9	98.58	%	1.139				1.16%
Ag 328.068†	19682.6	93.254	ug/L	0.9732	93.254	ppb	0.9732	1.04%
Al 396.153Radial†	1059.5	1083.3	ug/L	14.48	1083.3	ppb	14.48	1.34%
As 188.979†	193.9	97.309	ug/L	0.3635	97.309	ppb	0.3635	0.37%
B 249.677†	3704.2	93.896	ug/L	1.0451	93.896	ppb	1.0451	1.11%
Ba 233.527†	11625.0	101.82	ug/L	0.973	101.82	ppb	0.973	0.96%
Be 313.107†	251370.5	95.327	ug/L	0.1826	95.327	ppb	0.1826	0.19%
Ca 317.933Radial†	1629.1	3228.8	ug/L	21.57	3228.8	ppb	21.57	0.67%
Cd 226.502†	6957.0	91.874	ug/L	0.8087	91.874	ppb	0.8087	0.88%
Co 228.616†	3880.6	94.229	ug/L	0.9547	94.229	ppb	0.9547	1.01%
Cr 267.716†	7819.8	95.750	ug/L	1.1691	95.750	ppb	1.1691	1.22%
Cu 324.752†	31751.5	96.394	ug/L	1.3052	96.394	ppb	1.3052	1.35%
Fe 238.204 Radial†	87.6	1060.5	ug/L	15.75	1060.5	ppb	15.75	1.48%
K 766.490 Radial†	6631.0	1252.0	ug/L	8.39	1252.0	ppb	8.39	0.67%

Mg 279.077 IEC†	40.4	1717.7	ug/L	57.20	1717.7	ppb	57.20	3.33%
Mn 257.610†	80642.4	98.381	ug/L	0.9203	98.381	ppb	0.9203	0.94%
Mo 202.031†	1136.7	93.133	ug/L	0.8015	93.133	ppb	0.8015	0.86%
Na 589.592 Radial†	9863.3	3881.2	ug/L	5.28	3881.2	ppb	5.28	0.14%
Ni 231.604†	3245.6	94.780	ug/L	1.0888	94.780	ppb	1.0888	1.15%
P 214.914†	154.3	85.146	ug/L	0.5913	85.146	ppb	0.5913	0.69%
Pb 220.353†	658.4	93.517	ug/L	1.8725	93.517	ppb	1.8725	2.00%
S 181.975 Axial†	769.1	1225.4	ug/L	24.85	1225.4	ppb	24.85	2.03%
Sb 206.836†	243.9	97.102	ug/L	2.2309	97.102	ppb	2.2309	2.30%
Se 196.026†	123.1	94.994	ug/L	1.5462	94.994	ppb	1.5462	1.63%
Si 251.611†	217374.9	7533.2	ug/L	4.11	7533.2	ppb	4.11	0.05%
Sn 189.927†	438.5	91.523	ug/L	1.4365	91.523	ppb	1.4365	1.57%
Sr 421.552†	12758.7	104.85	ug/L	0.199	104.85	ppb	0.199	0.19%
Ti 334.940†	59161.4	96.152	ug/L	1.1206	96.152	ppb	1.1206	1.17%
Tl 190.801†	269.6	97.490	ug/L	1.3827	97.490	ppb	1.3827	1.42%
U 409.014†	3634.8	98.444	ug/L	3.0974	98.444	ppb	3.0974	3.15%
V 292.402†	13250.8	97.133	ug/L	1.2303	97.133	ppb	1.2303	1.27%
Zn 213.857†	8806.3	96.603	ug/L	1.1638	96.603	ppb	1.1638	1.20%
SiO2†	216334.9	16093	ug/L	249.5	16093	ppb	249.5	1.55%

Sequence No.: 27
Sample ID: 1202053152|957527|25
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 62
Date Collected: 3/24/2010 13:06:41
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202053152|957527|25

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4450.6	4450.6	105	%			13:08:34
1	Y RADIAL	4828.5	4828.5	97.44	%			13:08:34
1	Al 396.153Radial†	-67.6	10.4	10.700	ug/L	10.700	ppb	13:08:54
1	Ca 317.933Radial†	258.3	229.6	454.99	ug/L	454.99	ppb	13:08:54
1	Fe 238.204 Radial†	7.7	1.2	14.094	ug/L	14.094	ppb	13:08:54
1	K 766.490 Radial†	3037.0	193.1	36.171	ug/L	36.171	ppb	13:08:34
1	Mg 279.077 IEC†	7.5	6.5	276.99	ug/L	276.99	ppb	13:08:54
1	Na 589.592 Radial†	630.4	1472.3	579.36	ug/L	579.36	ppb	13:08:34
1	Sr 421.552†	284.4	251.7	2.0657	ug/L	2.0657	ppb	13:08:34
1	Sc 361.383	893869.9	893869.9	101.42	%			13:09:51
1	Y 371.029	757336.3	757336.3	99.102	%			13:09:51
1	Ag 328.068†	257.0	-6.2	-0.0329	ug/L	-0.0329	ppb	13:09:56
1	As 188.979†	-26.0	-5.0	-2.4796	ug/L	-2.4796	ppb	13:10:16
1	B 249.677†	-391.2	2.4	0.0588	ug/L	0.0588	ppb	13:10:16
1	Ba 233.527†	124.9	113.0	0.9876	ug/L	0.9876	ppb	13:10:16
1	Be 313.107†	-4260.7	81.8	0.0311	ug/L	0.0311	ppb	13:09:56
1	Cd 226.502†	-181.3	-6.9	-0.0926	ug/L	-0.0926	ppb	13:10:16
1	Co 228.616†	-34.1	13.1	0.3152	ug/L	0.3152	ppb	13:10:16
1	Cr 267.716†	92.2	22.7	0.2783	ug/L	0.2783	ppb	13:10:16
1	Cu 324.752†	6351.1	-66.0	-0.2001	ug/L	-0.2001	ppb	13:09:56
1	Mn 257.610†	817.3	342.9	0.4082	ug/L	0.4082	ppb	13:10:16
1	Mo 202.031†	3.0	-10.9	-0.8830	ug/L	-0.8830	ppb	13:10:16
1	Ni 231.604†	94.8	-2.0	-0.0600	ug/L	-0.0600	ppb	13:10:16
1	P 214.914†	186.8	5.9	3.9708	ug/L	3.9708	ppb	13:10:16
1	Pb 220.353†	-48.1	2.7	0.3832	ug/L	0.3832	ppb	13:10:16
1	S 181.975 Axial†	66.9	42.7	68.111	ug/L	68.111	ppb	13:10:16
1	Sb 206.836†	26.0	-1.9	-0.7463	ug/L	-0.7463	ppb	13:10:16
1	Se 196.026†	-10.6	6.2	4.6397	ug/L	4.6397	ppb	13:10:16
1	Si 251.611†	38524.6	37415.7	1296.9	ug/L	1296.9	ppb	13:09:56
1	Sn 189.927†	4.3	-2.6	-0.4644	ug/L	-0.4644	ppb	13:10:16
1	Ti 334.940†	-1032.0	34.4	0.0936	ug/L	0.0936	ppb	13:09:56
1	Tl 190.801†	-35.1	-0.9	-0.3161	ug/L	-0.3161	ppb	13:10:16
1	U 409.014†	-1872.3	42.4	1.1492	ug/L	1.1492	ppb	13:09:51
1	V 292.402†	-1432.2	-39.2	-0.2906	ug/L	-0.2906	ppb	13:09:56
1	Zn 213.857†	838.7	202.1	2.2362	ug/L	2.2362	ppb	13:10:16
1	SiO2†	38039.2	36911.9	2746.2	ug/L	2746.2	ppb	13:11:22
2	Sc Radial	4481.1	4481.1	105	%			13:08:59
2	Y RADIAL	4883.6	4883.6	98.55	%			13:08:59
2	Al 396.153Radial†	-64.2	14.0	14.419	ug/L	14.419	ppb	13:09:19
2	Ca 317.933Radial†	259.3	228.9	453.64	ug/L	453.64	ppb	13:09:19
2	Fe 238.204 Radial†	7.5	0.9	11.082	ug/L	11.082	ppb	13:09:19
2	K 766.490 Radial†	3029.7	166.5	31.133	ug/L	31.133	ppb	13:08:59
2	Mg 279.077 IEC†	5.3	4.4	185.98	ug/L	185.98	ppb	13:09:19
2	Na 589.592 Radial†	580.9	1421.3	559.27	ug/L	559.27	ppb	13:08:59
2	Sr 421.552†	317.6	281.3	2.3092	ug/L	2.3092	ppb	13:08:59
2	Sc 361.383	883840.2	883840.2	100.28	%			13:10:21
2	Y 371.029	747613.9	747613.9	97.830	%			13:10:21
2	Ag 328.068†	205.0	-55.1	-0.2570	ug/L	-0.2570	ppb	13:10:26
2	As 188.979†	-33.6	-12.9	-6.4140	ug/L	-6.4140	ppb	13:10:46
2	B 249.677†	-386.2	3.0	0.0739	ug/L	0.0739	ppb	13:10:46
2	Ba 233.527†	129.2	118.8	1.0389	ug/L	1.0389	ppb	13:10:46
2	Be 313.107†	-4204.1	90.6	0.0347	ug/L	0.0347	ppb	13:10:26
2	Cd 226.502†	-189.7	-17.3	-0.2301	ug/L	-0.2301	ppb	13:10:46
2	Co 228.616†	-37.4	9.4	0.2283	ug/L	0.2283	ppb	13:10:46
2	Cr 267.716†	78.1	9.7	0.1217	ug/L	0.1217	ppb	13:10:46
2	Cu 324.752†	6319.7	-26.2	-0.0766	ug/L	-0.0766	ppb	13:10:26
2	Mn 257.610†	806.0	340.7	0.4090	ug/L	0.4090	ppb	13:10:46
2	Mo 202.031†	12.9	-1.0	-0.0794	ug/L	-0.0794	ppb	13:10:46
2	Ni 231.604†	88.8	-7.0	-0.2037	ug/L	-0.2037	ppb	13:10:46

2	P 214.914†	179.8	1.0	0.6441	ug/L	0.6441 ppb	13:10:46
2	Pb 220.353†	-60.9	-10.6	-1.4963	ug/L	-1.4963 ppb	13:10:46
2	S 181.975 Axial†	69.1	45.6	72.724	ug/L	72.724 ppb	13:10:46
2	Sb 206.836†	26.7	-0.9	-0.3741	ug/L	-0.3741 ppb	13:10:46
2	Se 196.026†	-21.4	-4.6	-3.3861	ug/L	-3.3861 ppb	13:10:46
2	Si 251.611†	38755.5	38077.0	1319.8	ug/L	1319.8 ppb	13:10:26
2	Sn 189.927†	-2.4	-9.3	-1.8423	ug/L	-1.8423 ppb	13:10:46
2	Ti 334.940†	-925.6	129.0	0.2568	ug/L	0.2568 ppb	13:10:26
2	Tl 190.801†	-23.3	10.5	3.7705	ug/L	3.7705 ppb	13:10:46
2	U 409.014†	-2058.8	-164.6	-4.4745	ug/L	-4.4745 ppb	13:10:21
2	V 292.402†	-1327.8	48.9	0.3458	ug/L	0.3458 ppb	13:10:26
2	Zn 213.857†	831.8	204.6	2.2653	ug/L	2.2653 ppb	13:10:46
2	SiO2†	38065.4	37363.7	2779.8	ug/L	2779.8 ppb	13:11:27
3	Sc Radial	4495.8	4495.8	106	%		13:09:24
3	Y RADIAL	4874.6	4874.6	98.37	%		13:09:24
3	Al 396.153Radial†	-60.3	17.9	18.430	ug/L	18.430 ppb	13:09:44
3	Ca 317.933Radial†	263.5	232.0	459.90	ug/L	459.90 ppb	13:09:44
3	Fe 238.204 Radial†	9.0	2.4	28.692	ug/L	28.692 ppb	13:09:44
3	K 766.490 Radial†	3093.8	217.7	40.826	ug/L	40.826 ppb	13:09:24
3	Mg 279.077 IEC†	7.2	6.2	263.42	ug/L	263.42 ppb	13:09:44
3	Na 589.592 Radial†	572.1	1411.1	555.29	ug/L	555.29 ppb	13:09:24
3	Sr 421.552†	278.8	243.7	1.9999	ug/L	1.9999 ppb	13:09:24
3	Sc 361.383	889844.2	889844.2	100.96	%		13:10:51
3	Y 371.029	753424.9	753424.9	98.590	%		13:10:51
3	Ag 328.068†	184.0	-77.3	-0.3525	ug/L	-0.3525 ppb	13:10:56
3	As 188.979†	-14.4	6.3	3.1571	ug/L	3.1571 ppb	13:11:16
3	B 249.677†	-377.4	14.4	0.3609	ug/L	0.3609 ppb	13:11:16
3	Ba 233.527†	119.9	108.7	0.9532	ug/L	0.9532 ppb	13:11:16
3	Be 313.107†	-4246.4	77.0	0.0294	ug/L	0.0294 ppb	13:10:56
3	Cd 226.502†	-173.5	0.0	-0.0039	ug/L	-0.0039 ppb	13:11:16
3	Co 228.616†	-34.0	13.0	0.3146	ug/L	0.3146 ppb	13:11:16
3	Cr 267.716†	97.0	28.0	0.3483	ug/L	0.3483 ppb	13:11:16
3	Cu 324.752†	6284.6	-103.5	-0.3094	ug/L	-0.3094 ppb	13:10:56
3	Mn 257.610†	803.5	332.8	0.3979	ug/L	0.3979 ppb	13:11:16
3	Mo 202.031†	8.5	-5.4	-0.4371	ug/L	-0.4371 ppb	13:11:16
3	Ni 231.604†	99.8	3.4	0.0978	ug/L	0.0978 ppb	13:11:16
3	P 214.914†	182.0	2.0	1.3529	ug/L	1.3529 ppb	13:11:16
3	Pb 220.353†	-65.8	-15.1	-2.1356	ug/L	-2.1356 ppb	13:11:16
3	S 181.975 Axial†	61.5	37.7	60.095	ug/L	60.095 ppb	13:11:16
3	Sb 206.836†	25.9	-1.9	-0.7524	ug/L	-0.7524 ppb	13:11:16
3	Se 196.026†	-23.5	-6.6	-4.8053	ug/L	-4.8053 ppb	13:11:16
3	Si 251.611†	38578.3	37640.7	1304.7	ug/L	1304.7 ppb	13:10:56
3	Sn 189.927†	2.2	-4.8	-0.9100	ug/L	-0.9100 ppb	13:11:16
3	Ti 334.940†	-1000.3	61.2	0.1419	ug/L	0.1419 ppb	13:10:56
3	Tl 190.801†	-24.3	9.7	3.4761	ug/L	3.4761 ppb	13:11:16
3	U 409.014†	-2124.9	-216.2	-5.8798	ug/L	-5.8798 ppb	13:10:51
3	V 292.402†	-1243.4	141.4	1.0064	ug/L	1.0064 ppb	13:10:56
3	Zn 213.857†	838.2	205.3	2.2688	ug/L	2.2688 ppb	13:11:16
3	SiO2†	38755.2	37790.8	2811.6	ug/L	2811.6 ppb	13:11:32

Mean Data: 1202053152|957527|25

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	889184.8	100.89	%	0.573				0.57%
Sc Radial	4475.8	105	%	0.5				0.52%
Y 371.029	752791.7	98.508	%	0.6402				0.65%
Y RADIAL	4862.2	98.12	%	0.597				0.61%
Ag 328.068†	-46.2	-0.2141	ug/L	0.16407	-0.2141	ppb	0.16407	76.62%
Al 396.153Radial†	14.1	14.516	ug/L	3.8659	14.516	ppb	3.8659	26.63%
As 188.979†	-3.9	-1.9122	ug/L	4.81069	-1.9122	ppb	4.81069	251.58%
B 249.677†	6.6	0.1645	ug/L	0.17020	0.1645	ppb	0.17020	103.45%
Ba 233.527†	113.5	0.9932	ug/L	0.04309	0.9932	ppb	0.04309	4.34%
Be 313.107†	83.1	0.0317	ug/L	0.00275	0.0317	ppb	0.00275	8.68%
Ca 317.933Radial†	230.2	456.18	ug/L	3.296	456.18	ppb	3.296	0.72%
Cd 226.502†	-8.1	-0.1089	ug/L	0.11396	-0.1089	ppb	0.11396	104.69%
Co 228.616†	11.8	0.2860	ug/L	0.05003	0.2860	ppb	0.05003	17.49%
Cr 267.716†	20.1	0.2495	ug/L	0.11603	0.2495	ppb	0.11603	46.51%
Cu 324.752†	-65.2	-0.1954	ug/L	0.11649	-0.1954	ppb	0.11649	59.63%
Fe 238.204 Radial†	1.5	17.956	ug/L	9.4187	17.956	ppb	9.4187	52.45%
K 766.490 Radial†	192.4	36.044	ug/L	4.8475	36.044	ppb	4.8475	13.45%

Mg 279.077 IEC†	5.7	242.13	ug/L	49.100	242.13	ppb	49.100	20.28%
Mn 257.610†	338.8	0.4050	ug/L	0.00619	0.4050	ppb	0.00619	1.53%
Mo 202.031†	-5.8	-0.4665	ug/L	0.40264	-0.4665	ppb	0.40264	86.31%
Na 589.592 Radial†	1434.9	564.64	ug/L	12.905	564.64	ppb	12.905	2.29%
Ni 231.604†	-1.9	-0.0553	ug/L	0.15083	-0.0553	ppb	0.15083	272.88%
P 214.914†	2.9	1.9893	ug/L	1.75228	1.9893	ppb	1.75228	88.09%
Pb 220.353†	-7.7	-1.0829	ug/L	1.30926	-1.0829	ppb	1.30926	120.90%
S 181.975 Axial†	42.0	66.977	ug/L	6.3905	66.977	ppb	6.3905	9.54%
Sb 206.836†	-1.6	-0.6243	ug/L	0.21668	-0.6243	ppb	0.21668	34.71%
Se 196.026†	-1.7	-1.1839	ug/L	5.09309	-1.1839	ppb	5.09309	430.19%
Si 251.611†	37711.2	1307.1	ug/L	11.65	1307.1	ppb	11.65	0.89%
Sn 189.927†	-5.6	-1.0722	ug/L	0.70310	-1.0722	ppb	0.70310	65.57%
Sr 421.552†	258.9	2.1249	ug/L	0.16292	2.1249	ppb	0.16292	7.67%
Ti 334.940†	74.9	0.1641	ug/L	0.08383	0.1641	ppb	0.08383	51.09%
Tl 190.801†	6.4	2.3102	ug/L	2.27920	2.3102	ppb	2.27920	98.66%
U 409.014†	-112.8	-3.0684	ug/L	3.71947	-3.0684	ppb	3.71947	121.22%
V 292.402†	50.4	0.3539	ug/L	0.64850	0.3539	ppb	0.64850	183.26%
Zn 213.857†	204.0	2.2568	ug/L	0.01787	2.2568	ppb	0.01787	0.79%
SiO2†	37355.4	2779.2	ug/L	32.69	2779.2	ppb	32.69	1.18%

Sequence No.: 28
Sample ID: 247829002|957527|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 63
Date Collected: 3/24/2010 13:13:43
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 247829002|957527|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4470.3	4470.3	105	%			13:15:36
1	Y RADIAL	4843.5	4843.5	97.74	%			13:15:36
1	Al 396.153Radial†	22.6	96.4	98.969	ug/L	98.969	ppb	13:15:56
1	Ca 317.933Radial†	1212.2	1135.6	2250.6	ug/L	2250.6	ppb	13:15:56
1	Fe 238.204 Radial†	16.5	9.5	114.98	ug/L	114.98	ppb	13:15:56
1	K 766.490 Radial†	4427.0	1502.1	282.43	ug/L	282.43	ppb	13:15:36
1	Mg 279.077 IEC†	19.7	18.1	771.54	ug/L	771.54	ppb	13:15:56
1	Na 589.592 Radial†	6374.8	6932.2	2727.8	ug/L	2727.8	ppb	13:15:36
1	Sr 421.552†	1359.2	1272.6	10.444	ug/L	10.444	ppb	13:15:36
1	Sc 361.383	903611.7	903611.7	102.53	%			13:16:53
1	Y 371.029	761326.7	761326.7	99.624	%			13:16:53
1	Ag 328.068†	248.2	-17.4	-0.0705	ug/L	-0.0705	ppb	13:16:58
1	As 188.979†	-19.4	1.7	0.8677	ug/L	0.8677	ppb	13:17:18
1	B 249.677†	-296.4	99.0	2.5031	ug/L	2.5031	ppb	13:17:18
1	Ba 233.527†	620.0	594.7	5.2029	ug/L	5.2029	ppb	13:17:18
1	Be 313.107†	-4273.4	114.7	0.0463	ug/L	0.0463	ppb	13:16:58
1	Cd 226.502†	-162.7	13.2	0.1625	ug/L	0.1625	ppb	13:17:18
1	Co 228.616†	-38.7	9.0	0.2184	ug/L	0.2184	ppb	13:17:18
1	Cr 267.716†	130.1	58.7	0.7318	ug/L	0.7318	ppb	13:17:18
1	Cu 324.752†	6429.9	-56.6	-0.1649	ug/L	-0.1649	ppb	13:16:58
1	Mn 257.610†	3387.1	2840.6	3.4440	ug/L	3.4440	ppb	13:16:58
1	Mo 202.031†	26.6	12.1	1.0254	ug/L	1.0254	ppb	13:17:18
1	Ni 231.604†	100.4	2.4	0.0713	ug/L	0.0713	ppb	13:17:18
1	P 214.914†	187.5	4.6	2.9911	ug/L	2.9911	ppb	13:17:18
1	Pb 220.353†	-52.0	-0.6	-0.0524	ug/L	-0.0524	ppb	13:17:18
1	S 181.975 Axial†	213.5	185.0	294.78	ug/L	294.78	ppb	13:17:18
1	Sb 206.836†	21.3	-6.7	-2.6564	ug/L	-2.6564	ppb	13:17:18
1	Se 196.026†	-14.7	2.4	2.1333	ug/L	2.1333	ppb	13:17:18
1	Si 251.611†	192543.5	187229.0	6489.5	ug/L	6489.5	ppb	13:16:53
1	Sn 189.927†	-18.3	-24.8	-4.7537	ug/L	-4.7537	ppb	13:17:18
1	Ti 334.940†	-265.4	793.1	1.5255	ug/L	1.5255	ppb	13:16:58
1	Tl 190.801†	-24.5	9.9	3.5804	ug/L	3.5804	ppb	13:17:18
1	U 409.014†	-1999.0	-61.3	-1.6807	ug/L	-1.6807	ppb	13:16:53
1	V 292.402†	-1223.8	179.3	1.3046	ug/L	1.3046	ppb	13:16:58
1	Zn 213.857†	859.0	213.0	2.3407	ug/L	2.3407	ppb	13:17:18
1	SiO2†	190052.2	184773.9	13747	ug/L	13747	ppb	13:18:25
2	Sc Radial	4477.4	4477.4	105	%			13:16:02
2	Y RADIAL	4853.5	4853.5	97.94	%			13:16:02
2	Al 396.153Radial†	17.9	91.9	94.410	ug/L	94.410	ppb	13:16:22
2	Ca 317.933Radial†	1213.4	1134.9	2249.3	ug/L	2249.3	ppb	13:16:22
2	Fe 238.204 Radial†	15.4	8.5	102.62	ug/L	102.62	ppb	13:16:22
2	K 766.490 Radial†	4462.5	1529.2	287.56	ug/L	287.56	ppb	13:16:02
2	Mg 279.077 IEC†	17.1	15.6	665.02	ug/L	665.02	ppb	13:16:22
2	Na 589.592 Radial†	6394.0	6940.8	2731.2	ug/L	2731.2	ppb	13:16:02
2	Sr 421.552†	1352.0	1263.7	10.371	ug/L	10.371	ppb	13:16:02
2	Sc 361.383	885248.6	885248.6	100.44	%			13:17:24
2	Y 371.029	747507.1	747507.1	97.816	%			13:17:24
2	Ag 328.068†	344.6	83.5	0.4029	ug/L	0.4029	ppb	13:17:29
2	As 188.979†	-17.1	3.6	1.8132	ug/L	1.8132	ppb	13:17:49
2	B 249.677†	-307.4	82.1	2.0728	ug/L	2.0728	ppb	13:17:49
2	Ba 233.527†	609.9	597.1	5.2228	ug/L	5.2228	ppb	13:17:49
2	Be 313.107†	-4259.4	42.1	0.0189	ug/L	0.0189	ppb	13:17:29
2	Cd 226.502†	-185.6	-12.9	-0.1830	ug/L	-0.1830	ppb	13:17:49
2	Co 228.616†	-20.2	26.7	0.6430	ug/L	0.6430	ppb	13:17:49
2	Cr 267.716†	131.3	62.6	0.7795	ug/L	0.7795	ppb	13:17:49
2	Cu 324.752†	6269.7	-86.0	-0.2525	ug/L	-0.2525	ppb	13:17:29
2	Mn 257.610†	3358.8	2881.0	3.4964	ug/L	3.4964	ppb	13:17:29
2	Mo 202.031†	1.1	-12.7	-1.0082	ug/L	-1.0082	ppb	13:17:49
2	Ni 231.604†	85.7	-10.2	-0.2972	ug/L	-0.2972	ppb	13:17:49

2	P 214.914†	196.4	17.2	11.535	ug/L	11.535 ppb	13:17:49
2	Pb 220.353†	-60.5	-10.2	-1.4075	ug/L	-1.4075 ppb	13:17:49
2	S 181.975 Axial†	207.9	183.8	292.83	ug/L	292.83 ppb	13:17:49
2	Sb 206.836†	17.3	-10.3	-4.0827	ug/L	-4.0827 ppb	13:17:49
2	Se 196.026†	-22.9	-6.1	-4.2075	ug/L	-4.2075 ppb	13:17:49
2	Si 251.611†	189257.6	187853.2	6511.1	ug/L	6511.1 ppb	13:17:24
2	Sn 189.927†	-22.2	-29.0	-5.6185	ug/L	-5.6185 ppb	13:17:49
2	Ti 334.940†	-244.0	809.1	1.5617	ug/L	1.5617 ppb	13:17:29
2	Tl 190.801†	-40.3	-6.3	-2.2528	ug/L	-2.2528 ppb	13:17:49
2	U 409.014†	-2114.0	-216.3	-5.8922	ug/L	-5.8922 ppb	13:17:24
2	V 292.402†	-1254.6	123.8	0.8664	ug/L	0.8664 ppb	13:17:29
2	Zn 213.857†	866.8	238.1	2.6230	ug/L	2.6230 ppb	13:17:49
2	SiO2†	189405.3	187975.1	13985	ug/L	13985 ppb	13:18:30
3	Sc Radial	4584.4	4584.4	108	%		13:16:27
3	Y RADIAL	5007.8	5007.8	101.1	%		13:16:27
3	Al 396.153Radial†	22.7	96.0	98.553	ug/L	98.553 ppb	13:16:47
3	Ca 317.933Radial†	1214.8	1109.4	2198.7	ug/L	2198.7 ppb	13:16:47
3	Fe 238.204 Radial†	16.7	9.4	113.12	ug/L	113.12 ppb	13:16:47
3	K 766.490 Radial†	4582.2	1541.3	289.85	ug/L	289.85 ppb	13:16:27
3	Mg 279.077 IEC†	18.2	16.2	690.78	ug/L	690.78 ppb	13:16:47
3	Na 589.592 Radial†	6566.7	6959.2	2738.4	ug/L	2738.4 ppb	13:16:27
3	Sr 421.552†	1378.9	1258.7	10.330	ug/L	10.330 ppb	13:16:27
3	Sc 361.383	897601.5	897601.5	101.85	%		13:17:54
3	Y 371.029	756818.5	756818.5	99.035	%		13:17:54
3	Ag 328.068†	304.3	39.3	0.1952	ug/L	0.1952 ppb	13:17:59
3	As 188.979†	-22.8	-1.8	-0.8446	ug/L	-0.8446 ppb	13:18:19
3	B 249.677†	-298.6	94.9	2.3972	ug/L	2.3972 ppb	13:18:19
3	Ba 233.527†	614.0	592.8	5.1861	ug/L	5.1861 ppb	13:18:19
3	Be 313.107†	-4179.8	178.7	0.0704	ug/L	0.0704 ppb	13:17:59
3	Cd 226.502†	-175.8	-0.8	-0.0229	ug/L	-0.0229 ppb	13:18:19
3	Co 228.616†	-22.9	24.2	0.5865	ug/L	0.5865 ppb	13:18:19
3	Cr 267.716†	121.5	51.1	0.6381	ug/L	0.6381 ppb	13:18:19
3	Cu 324.752†	6346.1	-96.9	-0.2881	ug/L	-0.2881 ppb	13:17:59
3	Mn 257.610†	3383.1	2858.8	3.4694	ug/L	3.4694 ppb	13:17:59
3	Mo 202.031†	13.6	-0.5	-0.0052	ug/L	-0.0052 ppb	13:18:19
3	Ni 231.604†	62.2	-34.4	-1.0052	ug/L	-1.0052 ppb	13:18:19
3	P 214.914†	192.5	10.7	7.1594	ug/L	7.1594 ppb	13:18:19
3	Pb 220.353†	-65.7	-14.4	-2.0058	ug/L	-2.0058 ppb	13:18:19
3	S 181.975 Axial†	213.9	186.7	297.57	ug/L	297.57 ppb	13:18:19
3	Sb 206.836†	21.0	-6.9	-2.7346	ug/L	-2.7346 ppb	13:18:19
3	Se 196.026†	-11.4	5.5	4.4205	ug/L	4.4205 ppb	13:18:19
3	Si 251.611†	191357.7	187322.2	6492.7	ug/L	6492.7 ppb	13:17:54
3	Sn 189.927†	-17.5	-24.1	-4.6204	ug/L	-4.6204 ppb	13:18:19
3	Ti 334.940†	-290.8	766.4	1.4811	ug/L	1.4811 ppb	13:17:59
3	Tl 190.801†	-32.1	2.2	0.8281	ug/L	0.8281 ppb	13:18:19
3	U 409.014†	-1930.3	-7.0	-0.2033	ug/L	-0.2033 ppb	13:17:54
3	V 292.402†	-1225.6	169.5	1.2209	ug/L	1.2209 ppb	13:17:59
3	Zn 213.857†	850.4	210.1	2.3163	ug/L	2.3163 ppb	13:18:19
3	SiO2†	190938.6	186885.5	13904	ug/L	13904 ppb	13:18:35

Mean Data: 247829002|957527|5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	895487.3	101.61	%	1.062				1.05%
Sc Radial	4510.7	106	%	1.5				1.42%
Y 371.029	755217.4	98.825	%	0.9222				0.93%
Y RADIAL	4901.6	98.91	%	1.859				1.88%
Ag 328.068†	35.1	0.1759	ug/L	0.23729	0.1759	ppb	0.23729	134.93%
Al 396.153Radial†	94.8	97.310	ug/L	2.5205	97.310	ppb	2.5205	2.59%
As 188.979†	1.2	0.6121	ug/L	1.34720	0.6121	ppb	1.34720	220.10%
B 249.677†	92.0	2.3244	ug/L	0.22420	2.3244	ppb	0.22420	9.65%
Ba 233.527†	594.9	5.2040	ug/L	0.01838	5.2040	ppb	0.01838	0.35%
Be 313.107†	111.8	0.0452	ug/L	0.02578	0.0452	ppb	0.02578	57.01%
Ca 317.933Radial†	1126.6	2232.9	ug/L	29.61	2232.9	ppb	29.61	1.33%
Cd 226.502†	-0.2	-0.0145	ug/L	0.17286	-0.0145	ppb	0.17286	>999.9%
Co 228.616†	20.0	0.4826	ug/L	0.23056	0.4826	ppb	0.23056	47.78%
Cr 267.716†	57.5	0.7164	ug/L	0.07195	0.7164	ppb	0.07195	10.04%
Cu 324.752†	-79.9	-0.2352	ug/L	0.06340	-0.2352	ppb	0.06340	26.95%
Fe 238.204 Radial†	9.1	110.24	ug/L	6.666	110.24	ppb	6.666	6.05%
K 766.490 Radial†	1524.2	286.61	ug/L	3.803	286.61	ppb	3.803	1.33%

Mg 279.077 IEC†	16.7	709.11	ug/L	55.575	709.11	ppb	55.575	7.84%
Mn 257.610†	2860.1	3.4699	ug/L	0.02619	3.4699	ppb	0.02619	0.75%
Mo 202.031†	-0.4	0.0040	ug/L	1.01683	0.0040	ppb	1.01683	>999.9%
Na 589.592 Radial†	6944.1	2732.5	ug/L	5.43	2732.5	ppb	5.43	0.20%
Ni 231.604†	-14.0	-0.4103	ug/L	0.54710	-0.4103	ppb	0.54710	133.33%
P 214.914†	10.8	7.2287	ug/L	4.27258	7.2287	ppb	4.27258	59.11%
Pb 220.353†	-8.4	-1.1552	ug/L	1.00084	-1.1552	ppb	1.00084	86.64%
S 181.975 Axial†	185.2	295.06	ug/L	2.384	295.06	ppb	2.384	0.81%
Sb 206.836†	-8.0	-3.1579	ug/L	0.80188	-3.1579	ppb	0.80188	25.39%
Se 196.026†	0.6	0.7821	ug/L	4.46990	0.7821	ppb	4.46990	571.53%
Si 251.611†	187468.1	6497.8	ug/L	11.68	6497.8	ppb	11.68	0.18%
Sn 189.927†	-26.0	-4.9975	ug/L	0.54188	-4.9975	ppb	0.54188	10.84%
Sr 421.552†	1265.0	10.382	ug/L	0.0578	10.382	ppb	0.0578	0.56%
Ti 334.940†	789.5	1.5228	ug/L	0.04035	1.5228	ppb	0.04035	2.65%
Tl 190.801†	1.9	0.7186	ug/L	2.91816	0.7186	ppb	2.91816	406.10%
U 409.014†	-94.9	-2.5921	ug/L	2.95191	-2.5921	ppb	2.95191	113.88%
V 292.402†	157.5	1.1306	ug/L	0.23263	1.1306	ppb	0.23263	20.58%
Zn 213.857†	220.4	2.4267	ug/L	0.17047	2.4267	ppb	0.17047	7.03%
SiO2†	186544.8	13879	ug/L	121.1	13879	ppb	121.1	0.87%

Sequence No.: 29
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/24/2010 13:20:46
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4496.7	4496.7	106	%			13:22:38
1	Y RADIAL	4861.8	4861.8	98.11	%			13:22:38
1	Al 396.153Radial†	5089.7	4886.5	4993.2	ug/L	4993.2	ppb	13:22:38
1	Ca 317.933Radial†	2719.0	2553.3	5060.5	ug/L	5060.5	ppb	13:22:58
1	Fe 238.204 Radial†	450.9	420.1	5089.5	ug/L	5089.5	ppb	13:22:58
1	K 766.490 Radial†	29908.7	25566.8	4831.5	ug/L	4831.5	ppb	13:22:38
1	Mg 279.077 IEC†	128.8	121.1	5152.7	ug/L	5152.7	ppb	13:22:58
1	Na 589.592 Radial†	26919.7	26319.0	10357	ug/L	10357	ppb	13:22:38
1	Sr 421.552†	63284.8	59806.9	491.58	ug/L	491.58	ppb	13:22:38
1	Sc 361.383	872259.1	872259.1	98.970	%			13:23:55
1	Y 371.029	730880.5	730880.5	95.640	%			13:23:55
1	Ag 328.068†	103644.4	104463.9	494.88	ug/L	494.88	ppb	13:24:01
1	As 188.979†	942.3	972.7	488.08	ug/L	488.08	ppb	13:24:21
1	B 249.677†	18159.0	18736.2	474.93	ug/L	474.93	ppb	13:24:01
1	Ba 233.527†	55308.3	55874.1	489.46	ug/L	489.46	ppb	13:24:01
1	Be 313.107†	1259793.6	1277192.1	484.35	ug/L	484.35	ppb	13:23:55
1	Cd 226.502†	36384.0	36934.6	487.80	ug/L	487.80	ppb	13:24:01
1	Co 228.616†	20171.6	20428.4	496.06	ug/L	496.06	ppb	13:24:01
1	Cr 267.716†	39639.7	39984.3	489.55	ug/L	489.55	ppb	13:24:01
1	Cu 324.752†	164604.8	159990.5	485.71	ug/L	485.71	ppb	13:24:01
1	Mn 257.610†	389425.6	393016.9	479.59	ug/L	479.59	ppb	13:24:01
1	Mo 202.031†	5934.6	5982.5	489.97	ug/L	489.97	ppb	13:24:21
1	Ni 231.604†	16874.9	16955.1	495.12	ug/L	495.12	ppb	13:24:01
1	P 214.914†	3708.6	3569.0	2310.6	ug/L	2310.6	ppb	13:24:21
1	Pb 220.353†	3355.3	3440.3	488.43	ug/L	488.43	ppb	13:24:21
1	S 181.975 Axial†	627.8	611.1	972.88	ug/L	972.88	ppb	13:24:21
1	Sb 206.836†	1276.6	1262.4	502.99	ug/L	502.99	ppb	13:24:21
1	Se 196.026†	637.1	660.4	507.58	ug/L	507.58	ppb	13:24:21
1	Si 251.611†	70367.0	70530.7	2438.6	ug/L	2438.6	ppb	13:24:01
1	Sn 189.927†	2342.3	2359.7	490.40	ug/L	490.40	ppb	13:24:21
1	Ti 334.940†	297149.9	301295.6	488.46	ug/L	488.46	ppb	13:24:01
1	Tl 190.801†	1309.0	1356.4	490.42	ug/L	490.42	ppb	13:24:21
1	U 409.014†	15824.5	17877.7	484.17	ug/L	484.17	ppb	13:24:01
1	V 292.402†	65291.3	67344.0	493.83	ug/L	493.83	ppb	13:24:01
1	Zn 213.857†	44534.1	44373.0	486.69	ug/L	486.69	ppb	13:24:01
1	SiO2†	69524.0	69653.8	5168.8	ug/L	5168.8	ppb	13:25:28
2	Sc Radial	4454.8	4454.8	105	%			13:23:03
2	Y RADIAL	4808.0	4808.0	97.02	%			13:23:03
2	Al 396.153Radial†	5016.0	4861.4	4967.6	ug/L	4967.6	ppb	13:23:03
2	Ca 317.933Radial†	2729.0	2587.0	5127.3	ug/L	5127.3	ppb	13:23:23
2	Fe 238.204 Radial†	449.8	423.1	5125.5	ug/L	5125.5	ppb	13:23:23
2	K 766.490 Radial†	29707.5	25640.3	4845.4	ug/L	4845.4	ppb	13:23:03
2	Mg 279.077 IEC†	131.3	124.6	5303.3	ug/L	5303.3	ppb	13:23:23
2	Na 589.592 Radial†	26556.4	26211.2	10314	ug/L	10314	ppb	13:23:03
2	Sr 421.552†	62570.2	59686.8	490.59	ug/L	490.59	ppb	13:23:03
2	Sc 361.383	874015.5	874015.5	99.169	%			13:24:26
2	Y 371.029	732328.5	732328.5	95.830	%			13:24:26
2	Ag 328.068†	103092.2	103696.7	491.26	ug/L	491.26	ppb	13:24:32
2	As 188.979†	939.8	968.3	485.91	ug/L	485.91	ppb	13:24:52
2	B 249.677†	18171.4	18711.8	474.31	ug/L	474.31	ppb	13:24:32
2	Ba 233.527†	55173.5	55625.8	487.28	ug/L	487.28	ppb	13:24:32
2	Be 313.107†	1262055.9	1276915.5	484.24	ug/L	484.24	ppb	13:24:26
2	Cd 226.502†	36103.5	36578.0	483.08	ug/L	483.08	ppb	13:24:32
2	Co 228.616†	20159.6	20375.3	494.77	ug/L	494.77	ppb	13:24:32
2	Cr 267.716†	39433.1	39695.4	486.02	ug/L	486.02	ppb	13:24:32
2	Cu 324.752†	163859.6	158904.8	482.41	ug/L	482.41	ppb	13:24:32
2	Mn 257.610†	387709.8	390496.0	476.51	ug/L	476.51	ppb	13:24:32
2	Mo 202.031†	5883.8	5919.2	484.80	ug/L	484.80	ppb	13:24:52
2	Ni 231.604†	16821.1	16866.6	492.54	ug/L	492.54	ppb	13:24:32

2	P 214.914†	3681.4	3533.9	2287.6 ug/L	2287.6 ppb	13:24:52
2	Pb 220.353†	3342.5	3420.6	485.62 ug/L	485.62 ppb	13:24:52
2	S 181.975 Axial†	622.5	604.4	962.29 ug/L	962.29 ppb	13:24:52
2	Sb 206.836†	1273.2	1256.3	500.42 ug/L	500.42 ppb	13:24:52
2	Se 196.026†	626.4	648.3	498.68 ug/L	498.68 ppb	13:24:52
2	Si 251.611†	70033.8	70051.9	2422.1 ug/L	2422.1 ppb	13:24:32
2	Sn 189.927†	2304.2	2316.6	481.44 ug/L	481.44 ppb	13:24:52
2	Ti 334.940†	295979.4	299511.9	485.56 ug/L	485.56 ppb	13:24:32
2	Tl 190.801†	1307.5	1352.2	488.91 ug/L	488.91 ppb	13:24:52
2	U 409.014†	15931.7	17953.6	486.24 ug/L	486.24 ppb	13:24:32
2	V 292.402†	64897.7	66814.5	489.94 ug/L	489.94 ppb	13:24:32
2	Zn 213.857†	44325.1	44071.7	483.37 ug/L	483.37 ppb	13:24:32
2	SiO2†	70050.1	70043.1	5197.9 ug/L	5197.9 ppb	13:25:33
3	Sc Radial	4459.6	4459.6	105 %		13:23:29
3	Y RADIAL	4803.5	4803.5	96.93 %		13:23:29
3	Al 396.153Radial†	5071.8	4909.5	5017.1 ug/L	5017.1 ppb	13:23:29
3	Ca 317.933Radial†	2721.7	2577.3	5108.0 ug/L	5108.0 ppb	13:23:49
3	Fe 238.204 Radial†	451.1	423.8	5134.6 ug/L	5134.6 ppb	13:23:49
3	K 766.490 Radial†	29875.2	25770.0	4870.0 ug/L	4870.0 ppb	13:23:29
3	Mg 279.077 IEC†	130.5	123.8	5266.9 ug/L	5266.9 ppb	13:23:49
3	Na 589.592 Radial†	26477.5	26109.1	10274 ug/L	10274 ppb	13:23:29
3	Sr 421.552†	62751.5	59795.9	491.49 ug/L	491.49 ppb	13:23:29
3	Sc 361.383	879407.8	879407.8	99.781 %		13:24:57
3	Y 371.029	738203.0	738203.0	96.599 %		13:24:57
3	Ag 328.068†	104430.3	104400.3	494.59 ug/L	494.59 ppb	13:25:02
3	As 188.979†	930.6	953.3	478.46 ug/L	478.46 ppb	13:25:22
3	B 249.677†	18529.3	18958.1	480.57 ug/L	480.57 ppb	13:25:02
3	Ba 233.527†	55553.4	55665.4	487.64 ug/L	487.64 ppb	13:25:02
3	Be 313.107†	1263905.6	1270965.9	482.00 ug/L	482.00 ppb	13:24:57
3	Cd 226.502†	36415.4	36667.3	484.26 ug/L	484.26 ppb	13:25:02
3	Co 228.616†	20320.2	20411.6	495.64 ug/L	495.64 ppb	13:25:02
3	Cr 267.716†	39773.6	39792.8	487.22 ug/L	487.22 ppb	13:25:02
3	Cu 324.752†	166644.3	160682.4	487.81 ug/L	487.81 ppb	13:25:02
3	Mn 257.610†	391845.9	392244.0	478.65 ug/L	478.65 ppb	13:25:02
3	Mo 202.031†	5906.9	5906.1	483.72 ug/L	483.72 ppb	13:25:22
3	Ni 231.604†	16980.7	16922.5	494.17 ug/L	494.17 ppb	13:25:02
3	P 214.914†	3705.7	3535.6	2287.6 ug/L	2287.6 ppb	13:25:22
3	Pb 220.353†	3340.4	3397.8	482.40 ug/L	482.40 ppb	13:25:22
3	S 181.975 Axial†	620.2	598.3	952.50 ug/L	952.50 ppb	13:25:22
3	Sb 206.836†	1262.0	1237.3	493.09 ug/L	493.09 ppb	13:25:22
3	Se 196.026†	622.0	640.0	492.57 ug/L	492.57 ppb	13:25:22
3	Si 251.611†	70912.5	70499.5	2437.6 ug/L	2437.6 ppb	13:25:02
3	Sn 189.927†	2326.0	2324.2	483.03 ug/L	483.03 ppb	13:25:22
3	Ti 334.940†	299764.6	301475.3	488.75 ug/L	488.75 ppb	13:25:02
3	Tl 190.801†	1303.1	1339.7	484.45 ug/L	484.45 ppb	13:25:22
3	U 409.014†	15966.0	17889.5	484.49 ug/L	484.49 ppb	13:25:02
3	V 292.402†	65801.1	67318.7	493.56 ug/L	493.56 ppb	13:25:02
3	Zn 213.857†	44711.8	44185.2	484.60 ug/L	484.60 ppb	13:25:02
3	SiO2†	71152.6	70714.9	5248.0 ug/L	5248.0 ppb	13:25:38

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	875227.5	99.306	%	0.4227				0.43%
Sc Radial	4470.4	105	%	0.5				0.51%
Y 371.029	733804.0	96.023	%	0.5074				0.53%
Y RADIAL	4824.4	97.36	%	0.655				0.67%
Ag 328.068†	104187.0	493.58	ug/L	2.012	493.58	ppb	2.012	0.41%
QC value within limits for Ag 328.068 Recovery = 98.72%								
Al 396.153Radial†	4885.8	4992.6	ug/L	24.76	4992.6	ppb	24.76	0.50%
QC value within limits for Al 396.153Radial Recovery = 99.85%								
As 188.979†	964.8	484.15	ug/L	5.046	484.15	ppb	5.046	1.04%
QC value within limits for As 188.979 Recovery = 96.83%								
B 249.677†	18802.0	476.60	ug/L	3.453	476.60	ppb	3.453	0.72%
QC value within limits for B 249.677 Recovery = 95.32%								
Ba 233.527†	55721.8	488.13	ug/L	1.168	488.13	ppb	1.168	0.24%
QC value within limits for Ba 233.527 Recovery = 97.63%								
Be 313.107†	1275024.5	483.53	ug/L	1.329	483.53	ppb	1.329	0.27%
QC value within limits for Be 313.107 Recovery = 96.71%								
Ca 317.933Radial†	2572.5	5098.6	ug/L	34.36	5098.6	ppb	34.36	0.67%

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   QC value within limits for Ca 317.933Radial  Recovery = 101.97%
Cd 226.502†            36726.6      485.04 ug/L         2.455      485.04 ppb          2.455   0.51%
   QC value within limits for Cd 226.502  Recovery = 97.01%
Co 228.616†            20405.1      495.49 ug/L         0.660      495.49 ppb          0.660   0.13%
   QC value within limits for Co 228.616  Recovery = 99.10%
Cr 267.716†            39824.2      487.60 ug/L         1.796      487.60 ppb          1.796   0.37%
   QC value within limits for Cr 267.716  Recovery = 97.52%
Cu 324.752†           159859.2      485.31 ug/L         2.721      485.31 ppb          2.721   0.56%
   QC value within limits for Cu 324.752  Recovery = 97.06%
Fe 238.204 Radial†       422.3      5116.5 ug/L        23.85      5116.5 ppb         23.85   0.47%
   QC value within limits for Fe 238.204 Radial  Recovery = 102.33%
K 766.490 Radial†      25659.0      4849.0 ug/L        19.48      4849.0 ppb         19.48   0.40%
   QC value within limits for K 766.490 Radial  Recovery = 96.98%
Mg 279.077 IEC†          123.2      5240.9 ug/L        78.55      5240.9 ppb         78.55   1.50%
   QC value within limits for Mg 279.077 IEC  Recovery = 104.82%
Mn 257.610†           391919.0      478.25 ug/L         1.576      478.25 ppb          1.576   0.33%
   QC value within limits for Mn 257.610  Recovery = 95.65%
Mo 202.031†             5935.9      486.16 ug/L         3.344      486.16 ppb          3.344   0.69%
   QC value within limits for Mo 202.031  Recovery = 97.23%
Na 589.592 Radial†     26213.1       10315 ug/L          41.3       10315 ppb           41.3   0.40%
   QC value within limits for Na 589.592 Radial  Recovery = 103.15%
Ni 231.604†            16914.7      493.94 ug/L         1.307      493.94 ppb          1.307   0.26%
   QC value within limits for Ni 231.604  Recovery = 98.79%
P 214.914†              3546.2      2295.3 ug/L        13.30      2295.3 ppb         13.30   0.58%
   QC value within limits for P 214.914  Recovery = 91.81%
Pb 220.353†             3419.5      485.48 ug/L         3.019      485.48 ppb          3.019   0.62%
   QC value within limits for Pb 220.353  Recovery = 97.10%
S 181.975 Axial†         604.6      962.56 ug/L        10.190      962.56 ppb         10.190   1.06%
   QC value within limits for S 181.975 Axial  Recovery = 96.26%
Sb 206.836†             1252.0      498.83 ug/L         5.138      498.83 ppb          5.138   1.03%
   QC value within limits for Sb 206.836  Recovery = 99.77%
Se 196.026†              649.6      499.61 ug/L         7.551      499.61 ppb          7.551   1.51%
   QC value within limits for Se 196.026  Recovery = 99.92%
Si 251.611†            70360.7      2432.8 ug/L          9.27      2432.8 ppb          9.27   0.38%
   QC value within limits for Si 251.611  Recovery = 97.31%
Sn 189.927†             2333.5      484.96 ug/L         4.779      484.96 ppb          4.779   0.99%
   QC value within limits for Sn 189.927  Recovery = 96.99%
Sr 421.552†            59763.2      491.22 ug/L         0.546      491.22 ppb          0.546   0.11%
   QC value within limits for Sr 421.552  Recovery = 98.24%
Ti 334.940†           300760.9      487.59 ug/L         1.761      487.59 ppb          1.761   0.36%
   QC value within limits for Ti 334.940  Recovery = 97.52%
Tl 190.801†             1349.4      487.93 ug/L         3.105      487.93 ppb          3.105   0.64%
   QC value within limits for Tl 190.801  Recovery = 97.59%
U 409.014†             17906.9      484.97 ug/L         1.113      484.97 ppb          1.113   0.23%
   QC value within limits for U 409.014  Recovery = 96.99%
V 292.402†             67159.1      492.44 ug/L         2.176      492.44 ppb          2.176   0.44%
   QC value within limits for V 292.402  Recovery = 98.49%
Zn 213.857†            44210.0      484.89 ug/L         1.678      484.89 ppb          1.678   0.35%
   QC value within limits for Zn 213.857  Recovery = 96.98%
SiO2†                  70137.3      5204.9 ug/L        40.02      5204.9 ppb         40.02   0.77%
   QC value within limits for SiO2  Recovery = 97.33%
All analyte(s) passed QC.
```

Sequence No.: 30
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/24/2010 13:27:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc Radial	4490.7	4490.7	106	%			13:29:41
1	Y RADIAL	4871.2	4871.2	98.30	%			13:29:41
1	Al 396.153Radial†	-73.4	5.5	5.5644	ug/L	5.5644	ppb	13:30:01
1	Ca 317.933Radial†	27.0	8.5	16.794	ug/L	16.794	ppb	13:30:01
1	Fe 238.204 Radial†	8.3	1.7	20.257	ug/L	20.257	ppb	13:30:01
1	K 766.490 Radial†	2604.8	-241.9	-45.784	ug/L	-45.784	ppb	13:29:41
1	Mg 279.077 IEC†	3.1	2.3	96.260	ug/L	96.260	ppb	13:30:01
1	Na 589.592 Radial†	-918.7	0.5	0.2112	ug/L	0.2112	ppb	13:29:41
1	Sr 421.552†	6.5	-13.7	-0.1131	ug/L	-0.1131	ppb	13:29:41
1	Sc 361.383	883422.7	883422.7	100.24	%			13:30:58
1	Y 371.029	748924.6	748924.6	98.002	%			13:30:58
1	Ag 328.068†	225.0	-35.0	-0.1562	ug/L	-0.1562	ppb	13:31:03
1	As 188.979†	-24.6	-3.9	-1.9571	ug/L	-1.9571	ppb	13:31:23
1	B 249.677†	-296.5	92.3	2.3477	ug/L	2.3477	ppb	13:31:23
1	Ba 233.527†	7.2	-2.9	-0.0253	ug/L	-0.0253	ppb	13:31:23
1	Be 313.107†	-4290.5	2.4	0.0008	ug/L	0.0008	ppb	13:31:03
1	Cd 226.502†	-187.5	-15.2	-0.2037	ug/L	-0.2037	ppb	13:31:23
1	Co 228.616†	-39.4	7.4	0.1811	ug/L	0.1811	ppb	13:31:23
1	Cr 267.716†	73.5	5.1	0.0663	ug/L	0.0663	ppb	13:31:23
1	Cu 324.752†	6465.6	122.3	0.3748	ug/L	0.3748	ppb	13:31:03
1	Mn 257.610†	444.3	-19.8	-0.0261	ug/L	-0.0261	ppb	13:31:23
1	Mo 202.031†	22.9	9.0	0.7397	ug/L	0.7397	ppb	13:31:23
1	Ni 231.604†	96.9	1.2	0.0336	ug/L	0.0336	ppb	13:31:23
1	P 214.914†	183.6	4.9	3.2150	ug/L	3.2150	ppb	13:31:23
1	Pb 220.353†	-76.7	-26.5	-3.7524	ug/L	-3.7524	ppb	13:31:23
1	S 181.975 Axial†	29.5	6.2	9.8194	ug/L	9.8194	ppb	13:31:23
1	Sb 206.836†	29.7	2.1	0.8209	ug/L	0.8209	ppb	13:31:23
1	Se 196.026†	-19.6	-2.9	-2.0703	ug/L	-2.0703	ppb	13:31:23
1	Si 251.611†	578.7	8.5	0.2840	ug/L	0.2840	ppb	13:31:23
1	Sn 189.927†	3.8	-3.1	-0.6517	ug/L	-0.6517	ppb	13:31:23
1	Ti 334.940†	-1067.6	-13.1	-0.0249	ug/L	-0.0249	ppb	13:31:03
1	Tl 190.801†	-21.4	12.5	4.4728	ug/L	4.4728	ppb	13:31:23
1	U 409.014†	-2062.7	-169.5	-4.6083	ug/L	-4.6083	ppb	13:30:58
1	V 292.402†	-1416.7	-40.5	-0.2923	ug/L	-0.2923	ppb	13:31:03
1	Zn 213.857†	735.1	108.6	1.1983	ug/L	1.1983	ppb	13:31:23
1	SiO2†	615.6	20.1	1.4730	ug/L	1.4730	ppb	13:32:29
2	Sc Radial	4434.2	4434.2	104	%			13:30:06
2	Y RADIAL	4870.8	4870.8	98.29	%			13:30:06
2	Al 396.153Radial†	-73.5	4.5	4.6462	ug/L	4.6462	ppb	13:30:26
2	Ca 317.933Radial†	24.5	6.3	12.546	ug/L	12.546	ppb	13:30:26
2	Fe 238.204 Radial†	9.3	2.7	32.801	ug/L	32.801	ppb	13:30:26
2	K 766.490 Radial†	2705.2	-114.3	-21.624	ug/L	-21.624	ppb	13:30:06
2	Mg 279.077 IEC†	3.6	2.8	119.99	ug/L	119.99	ppb	13:30:26
2	Na 589.592 Radial†	-913.6	-5.7	-2.2430	ug/L	-2.2430	ppb	13:30:06
2	Sr 421.552†	18.6	-2.1	-0.0173	ug/L	-0.0173	ppb	13:30:06
2	Sc 361.383	875921.3	875921.3	99.385	%			13:31:28
2	Y 371.029	742920.2	742920.2	97.216	%			13:31:28
2	Ag 328.068†	316.4	58.8	0.2896	ug/L	0.2896	ppb	13:31:33
2	As 188.979†	-18.3	2.2	1.1064	ug/L	1.1064	ppb	13:31:53
2	B 249.677†	-288.0	98.4	2.4997	ug/L	2.4997	ppb	13:31:53
2	Ba 233.527†	17.6	7.6	0.0679	ug/L	0.0679	ppb	13:31:53
2	Be 313.107†	-4235.0	21.6	0.0080	ug/L	0.0080	ppb	13:31:33
2	Cd 226.502†	-167.3	3.5	0.0427	ug/L	0.0427	ppb	13:31:53
2	Co 228.616†	-40.6	5.9	0.1435	ug/L	0.1435	ppb	13:31:53
2	Cr 267.716†	79.3	11.6	0.1469	ug/L	0.1469	ppb	13:31:53
2	Cu 324.752†	6309.8	20.8	0.0666	ug/L	0.0666	ppb	13:31:33
2	Mn 257.610†	430.5	-29.9	-0.0381	ug/L	-0.0381	ppb	13:31:53
2	Mo 202.031†	15.4	1.7	0.1401	ug/L	0.1401	ppb	13:31:53
2	Ni 231.604†	93.6	-1.3	-0.0377	ug/L	-0.0377	ppb	13:31:53

2	P 214.914†	178.0	0.9	0.5329	ug/L	0.5329	ppb	13:31:53
2	Pb 220.353†	-67.5	-17.9	-2.5346	ug/L	-2.5346	ppb	13:31:53
2	S 181.975 Axial†	33.6	10.6	16.819	ug/L	16.819	ppb	13:31:53
2	Sb 206.836†	32.1	4.7	1.8219	ug/L	1.8219	ppb	13:31:53
2	Se 196.026†	-13.4	3.2	2.4558	ug/L	2.4558	ppb	13:31:53
2	Si 251.611†	588.2	22.9	0.7925	ug/L	0.7925	ppb	13:31:53
2	Sn 189.927†	5.3	-1.6	-0.3277	ug/L	-0.3277	ppb	13:31:53
2	Ti 334.940†	-1085.9	-40.7	-0.0728	ug/L	-0.0728	ppb	13:31:33
2	Tl 190.801†	-23.1	10.5	3.7750	ug/L	3.7750	ppb	13:31:53
2	U 409.014†	-1983.7	-107.6	-2.9278	ug/L	-2.9278	ppb	13:31:28
2	V 292.402†	-1352.3	12.3	0.0830	ug/L	0.0830	ppb	13:31:33
2	Zn 213.857†	714.4	94.0	1.0363	ug/L	1.0363	ppb	13:31:53
2	SiO2†	595.2	4.9	0.3591	ug/L	0.3591	ppb	13:32:34
3	Sc Radial	4465.4	4465.4	105	%			13:30:31
3	Y RADIAL	4882.7	4882.7	98.53	%			13:30:31
3	Al 396.153Radial†	-80.3	-1.5	-1.5014	ug/L	-1.5014	ppb	13:30:51
3	Ca 317.933Radial†	24.9	6.6	13.075	ug/L	13.075	ppb	13:30:51
3	Fe 238.204 Radial†	9.4	2.8	34.224	ug/L	34.224	ppb	13:30:51
3	K 766.490 Radial†	2666.0	-169.7	-32.116	ug/L	-32.116	ppb	13:30:31
3	Mg 279.077 IEC†	4.0	3.2	135.31	ug/L	135.31	ppb	13:30:51
3	Na 589.592 Radial†	-921.9	-7.4	-2.9243	ug/L	-2.9243	ppb	13:30:31
3	Sr 421.552†	52.9	30.4	0.2499	ug/L	0.2499	ppb	13:30:31
3	Sc 361.383	888033.5	888033.5	100.76	%			13:31:59
3	Y 371.029	753508.7	753508.7	98.601	%			13:31:59
3	Ag 328.068†	318.0	56.1	0.2758	ug/L	0.2758	ppb	13:32:04
3	As 188.979†	-14.6	6.1	3.0509	ug/L	3.0509	ppb	13:32:24
3	B 249.677†	-325.9	64.7	1.6417	ug/L	1.6417	ppb	13:32:24
3	Ba 233.527†	11.8	1.6	0.0152	ug/L	0.0152	ppb	13:32:24
3	Be 313.107†	-4253.6	61.2	0.0231	ug/L	0.0231	ppb	13:32:04
3	Cd 226.502†	-170.3	2.9	0.0340	ug/L	0.0340	ppb	13:32:24
3	Co 228.616†	-41.0	6.1	0.1473	ug/L	0.1473	ppb	13:32:24
3	Cr 267.716†	77.7	8.9	0.1135	ug/L	0.1135	ppb	13:32:24
3	Cu 324.752†	6296.2	-79.3	-0.2377	ug/L	-0.2377	ppb	13:32:04
3	Mn 257.610†	465.7	-0.8	-0.0031	ug/L	-0.0031	ppb	13:32:24
3	Mo 202.031†	16.9	2.9	0.2387	ug/L	0.2387	ppb	13:32:24
3	Ni 231.604†	97.8	1.6	0.0458	ug/L	0.0458	ppb	13:32:24
3	P 214.914†	182.5	2.8	1.9017	ug/L	1.9017	ppb	13:32:24
3	Pb 220.353†	-64.6	-14.1	-1.9943	ug/L	-1.9943	ppb	13:32:24
3	S 181.975 Axial†	31.2	7.7	12.334	ug/L	12.334	ppb	13:32:24
3	Sb 206.836†	20.1	-7.6	-2.8897	ug/L	-2.8897	ppb	13:32:24
3	Se 196.026†	-14.9	1.9	1.5083	ug/L	1.5083	ppb	13:32:24
3	Si 251.611†	571.5	-1.7	-0.0621	ug/L	-0.0621	ppb	13:32:24
3	Sn 189.927†	10.3	3.3	0.6852	ug/L	0.6852	ppb	13:32:24
3	Ti 334.940†	-1084.4	-24.3	-0.0478	ug/L	-0.0478	ppb	13:32:04
3	Tl 190.801†	-25.1	8.8	3.1723	ug/L	3.1723	ppb	13:32:24
3	U 409.014†	-1976.3	-73.0	-1.9877	ug/L	-1.9877	ppb	13:31:59
3	V 292.402†	-1394.2	-10.7	-0.0803	ug/L	-0.0803	ppb	13:32:04
3	Zn 213.857†	729.0	98.7	1.0876	ug/L	1.0876	ppb	13:32:24
3	SiO2†	600.1	1.5	0.1054	ug/L	0.1054	ppb	13:32:39

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	882459.2	100.13	%	0.694				0.69%
Sc Radial	4463.4	105	%	0.7				0.63%
Y 371.029	748451.2	97.940	%	0.6949				0.71%
Y RADIAL	4874.9	98.37	%	0.136				0.14%
Ag 328.068†	26.6	0.1364	ug/L	0.25350	0.1364	ppb	0.25350	185.88%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2.8	2.9031	ug/L	3.84191	2.9031	ppb	3.84191	132.34%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.5	0.7334	ug/L	2.52479	0.7334	ppb	2.52479	344.25%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	85.1	2.1630	ug/L	0.45785	2.1630	ppb	0.45785	21.17%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2.1	0.0193	ug/L	0.04673	0.0193	ppb	0.04673	242.64%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	28.4	0.0106	ug/L	0.01135	0.0106	ppb	0.01135	106.58%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	7.1	14.138	ug/L	2.3149	14.138	ppb	2.3149	16.37%

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   QC value within limits for Ca 317.933Radial  Recovery = Not calculated
Cd 226.502†              -2.9     -0.0423 ug/L       0.13984     -0.0423 ppb        0.13984 330.45%
   QC value within limits for Cd 226.502  Recovery = Not calculated
Co 228.616†               6.5      0.1573 ug/L       0.02065      0.1573 ppb        0.02065  13.13%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†               8.6      0.1089 ug/L       0.04051      0.1089 ppb        0.04051  37.20%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              21.3      0.0679 ug/L       0.30626      0.0679 ppb        0.30626 451.00%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        2.4      29.094 ug/L        7.6859      29.094 ppb         7.6859  26.42%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -175.3     -33.175 ug/L       12.1147     -33.175 ppb        12.1147  36.52%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           2.8      117.19 ug/L        19.677      117.19 ppb         19.677  16.79%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             -16.8     -0.0224 ug/L       0.01776     -0.0224 ppb        0.01776  79.17%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               4.5      0.3729 ug/L       0.32151      0.3729 ppb        0.32151  86.23%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -4.2     -1.6521 ug/L       1.64916     -1.6521 ppb        1.64916  99.82%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.5      0.0139 ug/L       0.04510      0.0139 ppb        0.04510 324.38%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                2.8      1.8832 ug/L       1.34114      1.8832 ppb        1.34114  71.22%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -19.5     -2.7604 ug/L       0.90051     -2.7604 ppb        0.90051  32.62%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          8.2      12.991 ug/L        3.5457      12.991 ppb         3.5457  27.29%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.2     -0.0823 ug/L       2.48225     -0.0823 ppb        2.48225 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               0.7      0.6313 ug/L       2.38710      0.6313 ppb        2.38710 378.15%
   QC value within limits for Se 196.026  Recovery = Not calculated
Si 251.611†               9.9      0.3381 ug/L       0.42986      0.3381 ppb        0.42986 127.14%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.5     -0.0981 ug/L       0.69738     -0.0981 ppb        0.69738 710.98%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               4.9      0.0398 ug/L       0.18809      0.0398 ppb        0.18809 472.09%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             -26.0     -0.0485 ug/L       0.02398     -0.0485 ppb        0.02398  49.45%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              10.6      3.8067 ug/L       0.65085      3.8067 ppb        0.65085  17.10%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -116.7     -3.1746 ug/L       1.32758     -3.1746 ppb        1.32758  41.82%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -13.0     -0.0965 ug/L       0.18819     -0.0965 ppb        0.18819 194.97%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             100.4      1.1074 ug/L       0.08280      1.1074 ppb        0.08280   7.48%
   QC value within limits for Zn 213.857  Recovery = Not calculated
SiO2†                     8.8      0.6459 ug/L       0.72750      0.6459 ppb        0.72750 112.64%
   QC value within limits for SiO2  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, April 15, 2010 12:06:38
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.1065
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	1937.5	1937.532	78.762	4.1
	Mg	24.0	35069.4	35069.398	454.955	1.3
	Co	58.9	69340.3	69340.277	248.748	0.4
	Rh	102.9	138174.0	138174.049	1242.109	0.9
	In	114.9	179528.3	179528.304	1747.385	1.0
	Pb	208.0	206316.2	206316.166	937.448	0.5
⌈>	Ba	137.9	178500.2	178500.154	607.704	0.3
⌊	Ba++	69.0	3244.1	0.018	0.000	1.7
⌈>	Ce	139.9	218663.6	218663.604	1078.278	0.5
⌊	CeO	155.9	4653.5	0.021	0.000	1.5
	Bkgd	220.0	22.8	22.800	1.924	8.4

Current Optimization File Data

Current Value	Description
0.86	Nebulizer Gas Flow
6.75	Lens Voltage
1450.00	ICP RF Power
-1812.50	Analog Stage Voltage
1300.00	Pulse Stage Voltage
200.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	9.3	3229.7
Co	59	21	10.0	69006.6
In	115	21	11.8	183202.9

ICPMS #5 Instrument Tuning Report

File Name: 100415.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	599	2072	0.580
Be	9.0	9.0	2044	2088	0.593
Mg	24.0	24.0	5695	2085	0.616
Mg	25.0	25.0	5947	2085	0.606
Mg	26.0	26.0	6184	2100	0.581
Co	58.9	58.9	14189	2125	0.579
Rh	102.9	102.9	24878	2180	0.582
In	114.9	114.9	27794	2200	0.586
Ce	139.9	139.9	33864	2220	0.591
Pb	206.0	206.0	49948	2305	0.612
Pb	207.0	207.0	50171	2240	0.666
Pb	208.0	208.0	50451	2280	0.715
U	238.1	238.1	57731	2295	0.723

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Thursday, April 15, 2010 22:07:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\Blank.237

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9		ug/L		27	
>	Sc	45		ug/L		766866	
	Cr	52		ug/L		-3248	
	Cr	53		ug/L		97444	
	Mn	55		ug/L		1740	
	Ni	60		ug/L		259	
>	Ge	74		ug/L		311762	
	As	75		ug/L		-213	
	Se	77		ug/L		5200	
	Se	82		ug/L		-2	
	Kr	83		ug/L		112	
	Mo	98		ug/L		163	
	Ag	107		ug/L		126	
	Cd	111		ug/L		52	
	Cd	114		ug/L		96	
>	In	115		ug/L		185310	
	Sb	121		ug/L		192	
	Sb	123		ug/L		161	
>	Lu	175		ug/L		344769	
	Tl	205		ug/L		1532	
	Pb	208		ug/L		2717	
	U	238		ug/L		657	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Simple Linear	
Cr	53	Simple Linear	
Mn	55	Simple Linear	
Ni	60	Linear Thru Zero	1.0000
Ge	74	Simple Linear	
As	75	Simple Linear	
Se	77	Simple Linear	
Se	82	Simple Linear	
Kr	83	Simple Linear	
Mo	98	Simple Linear	
Ag	107	Simple Linear	
Cd	111	Simple Linear	
Cd	114	Simple Linear	
In	115	Simple Linear	
Sb	121	Simple Linear	
Sb	123	Simple Linear	
Lu	175	Simple Linear	
Tl	205	Simple Linear	
Pb	208	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Thursday, April 15, 2010 22:12:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\Standard 1.238

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	10.000	ug/L	3.356	2422	0.003
>	Sc	45		ug/L		803049	803048.704
	Cr	52	10.000	ug/L	1.865	41817	0.056
	Cr	53		ug/L		105014	0.004
	Mn	55	10.000	ug/L	1.243	72347	0.088
	Ni	60	10.000	ug/L	1.337	11516	0.014
>	Ge	74		ug/L		323265	323264.871
	As	75	10.000	ug/L	0.552	9274	0.029
	Se	77		ug/L		5984	0.002
	Se	82	10.000	ug/L	5.352	808	0.003
	Kr	83		ug/L		122	0.000
	Mo	98	10.000	ug/L	2.571	27409	0.140
	Ag	107	10.000	ug/L	1.047	47144	0.241
	Cd	111	10.000	ug/L	3.560	11583	0.059
	Cd	114		ug/L		27763	0.142
>	In	115		ug/L		194792	194791.573
	Sb	121	10.000	ug/L	5.742	42067	0.215
	Sb	123		ug/L		32599	0.167
>	Lu	175		ug/L		354262	354262.297
	Tl	205	10.000	ug/L	3.047	170511	0.477
	Pb	208	10.000	ug/L	1.797	302115	0.845
	U	238	10.000	ug/L	0.738	372018	1.048

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Thursday, April 15, 2010 22:17:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl liquid.mth
Dataset File: C:\elandata\Dataset\100415\Standard 2.239

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**99.979**	**ug/L**	3.063	23074	0.029
>	Sc	45		**ug/L**		789878	789877.838
	Cr	52	**99.969**	**ug/L**	1.443	427672	0.546
	Cr	53		**ug/L**		146718	0.059
	Mn	55	**99.973**	**ug/L**	1.208	677110	0.855
	Ni	60	**99.990**	**ug/L**	0.524	109765	0.139
>	Ge	74		**ug/L**		319844	319843.808
	As	75	**99.997**	**ug/L**	0.398	93489	0.293
	Se	77		**ug/L**		11380	0.019
	Se	82	**100.036**	**ug/L**	0.723	8315	0.026
	Kr	83		**ug/L**		135	0.000
	Mo	98	**100.002**	**ug/L**	0.496	269652	1.401
	Ag	107	**99.970**	**ug/L**	0.296	450775	2.343
	Cd	111	**100.008**	**ug/L**	1.509	114805	0.597
	Cd	114		**ug/L**		273548	1.422
>	In	115		**ug/L**		192361	192360.962
	Sb	121	**100.032**	**ug/L**	1.320	427454	2.221
	Sb	123		**ug/L**		333538	1.733
>	Lu	175		**ug/L**		356568	356567.985
	Tl	205	**99.896**	**ug/L**	2.502	1540974	4.317
	Pb	208	**99.920**	**ug/L**	0.752	2790692	7.819
	U	238	**99.910**	**ug/L**	0.121	3425215	9.604

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45					
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Thursday, April 15, 2010 22:21:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 1.240

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.713**	**ug/L**	2.967	11552	0.015
>	Sc	45		**ug/L**		778929	778929.271
	Cr	52	**51.693**	**ug/L**	0.923	216471	0.282
	Cr	53		**ug/L**		122151	0.030
	Mn	55	**52.174**	**ug/L**	3.108	349216	0.446
	Ni	60	**51.874**	**ug/L**	2.076	56262	0.072
>	Ge	74		**ug/L**		319197	319197.454
	As	75	**50.644**	**ug/L**	0.608	47143	0.148
	Se	77		**ug/L**		7996	0.008
	Se	82	**51.210**	**ug/L**	1.804	4247	0.013
	Kr	83		**ug/L**		142	0.000
	Mo	98	**50.061**	**ug/L**	1.379	133723	0.701
	Ag	107	**51.400**	**ug/L**	0.851	229541	1.205
	Cd	111	**50.756**	**ug/L**	0.882	57715	0.303
	Cd	114		**ug/L**		136610	0.717
>	In	115		**ug/L**		190454	190454.399
	Sb	121	**54.457**	**ug/L**	0.840	230494	1.209
	Sb	123		**ug/L**		179201	0.940
>	Lu	175		**ug/L**		351774	351774.318
	Tl	205	**51.846**	**ug/L**	1.431	789825	2.241
	Pb	208	**51.966**	**ug/L**	0.750	1433199	4.066
	U	238	**51.641**	**ug/L**	0.858	1746988	4.964

Calibration

Analyte	MassCurve Type	Correlation Coefficient
Be	9Linear Thru Zero	1.0000
Sc	45Linear Thru Zero	
Cr	52Linear Thru Zero	1.0000
Cr	53Linear Thru Zero	
Mn	55Linear Thru Zero	1.0000
Ni	60Linear Thru Zero	1.0000
Ge	74Linear Thru Zero	
As	75Linear Thru Zero	1.0000
Se	77Linear Thru Zero	
Se	82Linear Thru Zero	1.0000
Kr	83Linear Thru Zero	
Mo	98Linear Thru Zero	1.0000
Ag	107Linear Thru Zero	1.0000
Cd	111Linear Thru Zero	1.0000
Cd	114Linear Thru Zero	
In	115Linear Thru Zero	
Sb	121Linear Thru Zero	1.0000
Sb	123Linear Thru Zero	
Lu	175Linear Thru Zero	
Tl	205Linear Thru Zero	0.9999
Pb	208Linear Thru Zero	1.0000
U	238Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Be	9	101.425				
>	Sc	45		101.6			
	Cr	52	103.386				
	Cr	53					
	Mn	55	104.348				
	Ni	60	103.749				
>	Ge	74		102.4			
	As	75	101.288				
	Se	77					
	Se	82	102.421				
	Kr	83					
	Mo	98	100.122				
	Ag	107	102.801				
	Cd	111	101.512				
	Cd	114					
>	In	115		102.8			
	Sb	121	108.915				
	Sb	123					
>	Lu	175		102.0			
	Tl	205	103.692				
	Pb	208	103.932				
	U	238	103.282				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Thursday, April 15, 2010 22:26:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 2.241

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.001**	**ug/L**	3557.444	28	-0.000
>	Sc	45		**ug/L**		788166	788165.913
	Cr	52	**0.012**	**ug/L**	497.067	-3285	0.000
	Cr	53		**ug/L**		97542	-0.003
	Mn	55	**-0.025**	**ug/L**	45.030	1617	-0.000
	Ni	60	**-0.029**	**ug/L**	40.489	235	-0.000
>	Ge	74		**ug/L**		321028	321028.237
	As	75	**0.267**	**ug/L**	165.205	31	0.001
	Se	77		**ug/L**		4918	-0.001
	Se	82	**0.016**	**ug/L**	480.237	-1	0.000
	Kr	83		**ug/L**		115	-0.000
	Mo	98	**0.030**	**ug/L**	12.006	248	0.000
	Ag	107	**0.001**	**ug/L**	128.746	134	0.000
	Cd	111	**-0.010**	**ug/L**	107.807	43	-0.000
	Cd	114		**ug/L**		109	0.000
>	In	115		**ug/L**		191951	191950.512
	Sb	121	**0.230**	**ug/L**	5.857	1178	0.005
	Sb	123		**ug/L**		913	0.004
>	Lu	175		**ug/L**		354645	354645.459
	Tl	205	**0.119**	**ug/L**	8.070	3400	0.005
	Pb	208	**-0.002**	**ug/L**	52.379	2736	-0.000
	U	238	**0.000**	**ug/L**	428.191	679	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.8			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		103.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.6			
	Sb	121					
	Sb	123					
>	Lu	175		102.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Thursday, April 15, 2010 22:30:50
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 3.242

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.515**	**ug/L**	7.850	144	0.000
>	Sc	45		**ug/L**		776160	776159.921
	Cr	52	**11.556**	**ug/L**	2.731	45664	0.063
	Cr	53		**ug/L**		103536	0.006
	Mn	55	**5.960**	**ug/L**	1.736	41316	0.051
	Ni	60	**2.349**	**ug/L**	4.510	2789	0.003
>	Ge	74		**ug/L**		312970	312969.830
	As	75	**6.514**	**ug/L**	8.031	5755	0.019
	Se	77		**ug/L**		5219	-0.000
	Se	82	**6.036**	**ug/L**	8.364	489	0.002
	Kr	83		**ug/L**		117	0.000
	Mo	98	**0.538**	**ug/L**	5.856	1607	0.008
	Ag	107	**1.059**	**ug/L**	1.898	4864	0.025
	Cd	111	**1.135**	**ug/L**	5.823	1346	0.007
	Cd	114		**ug/L**		3039	0.015
>	In	115		**ug/L**		190809	190809.430
	Sb	121	**3.196**	**ug/L**	3.970	13735	0.071
	Sb	123		**ug/L**		10564	0.054
>	Lu	175		**ug/L**		351836	351835.709
	Tl	205	**1.218**	**ug/L**	1.438	20078	0.053
	Pb	208	**2.367**	**ug/L**	0.511	67932	0.185
	U	238	**0.282**	**ug/L**	1.174	10205	0.027

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	103.071				
>	Sc	45		101.2			
	Cr	52	115.558				
	Cr	53					
	Mn	55	119.202				
	Ni	60	117.470				
>	Ge	74		100.4			
	As	75	130.287				
	Se	77					
	Se	82	120.714				
	Kr	83					
	Mo	98	107.637				
	Ag	107	105.861				
	Cd	111	113.548				
	Cd	114					
>	In	115		103.0			
	Sb	121	106.527				
	Sb	123					
>	Lu	175		102.0			
	Tl	205	121.755				
	Pb	208	118.339				
	U	238	140.967				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	As	75	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Thursday, April 15, 2010 22:35:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 4.243

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.095**	ug/L	21.963	46	0.000
>	Sc	45		ug/L		725297	725296.595
	Cr	52	**2.364**	ug/L	0.562	6287	0.013
	Cr	53		ug/L		83137	-0.012
	Mn	55	**5.611**	ug/L	1.066	36448	0.048
	Ni	60	**2.866**	ug/L	3.277	3127	0.004
>	Ge	74		ug/L		299312	299312.015
	As	75	**0.082**	ug/L	241.725	-134	0.000
	Se	77		ug/L		5766	0.003
	Se	82	**-1.502**	ug/L	19.207	-119	-0.000
	Kr	83		ug/L		253	0.000
	Mo	98	**1961.000**	ug/L	2.254	4945655	27.472
	Ag	107	**0.116**	ug/L	11.140	613	0.003
	Cd	111	**0.423**	ug/L	17.941	505	0.003
	Cd	114		ug/L		6579	0.036
>	In	115		ug/L		180060	180060.464
	Sb	121	**0.138**	ug/L	19.562	739	0.003
	Sb	123		ug/L		576	0.002
>	Lu	175		ug/L		329856	329855.642
	Tl	205	**-0.004**	ug/L	104.094	1415	-0.000
	Pb	208	**0.201**	ug/L	4.199	7777	0.016
	U	238	**-0.014**	ug/L	2.417	174	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		94.6			
	Cr	52	71.632				
	Cr	53					
	Mn	55	96.736				
	Ni	60	86.577				
>	Ge	74		96.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98	98.050				
	Ag	107					
	Cd	111	95.339				
	Cd	114					
>	In	115		97.2			
	Sb	121					
	Sb	123					
>	Lu	175		95.7			
	Tl	205					
	Pb	208	106.188				
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Thursday, April 15, 2010 22:40:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 5.244

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**19.690**	**ug/L**	2.588	4317	0.006
>	Sc	45		**ug/L**		746662	746661.593
	Cr	52	**21.614**	**ug/L**	1.782	84948	0.118
	Cr	53		**ug/L**		92079	-0.004
	Mn	55	**24.212**	**ug/L**	0.967	156306	0.207
	Ni	60	**20.554**	**ug/L**	1.914	21528	0.028
>	Ge	74		**ug/L**		309090	309089.682
	As	75	**19.575**	**ug/L**	3.189	17519	0.057
	Se	77		**ug/L**		6980	0.006
	Se	82	**17.500**	**ug/L**	3.781	1404	0.005
	Kr	83		**ug/L**		250	0.000
	Mo	98	**2015.827**	**ug/L**	1.457	5073930	28.240
	Ag	107	**18.841**	**ug/L**	1.012	79452	0.442
	Cd	111	**18.804**	**ug/L**	1.303	20206	0.112
	Cd	114		**ug/L**		53270	0.296
>	In	115		**ug/L**		179684	179684.454
	Sb	121	**20.343**	**ug/L**	0.122	81345	0.452
	Sb	123		**ug/L**		62780	0.349
>	Lu	175		**ug/L**		337418	337417.774
	Tl	205	**18.428**	**ug/L**	1.236	270241	0.796
	Pb	208	**19.238**	**ug/L**	0.772	510596	1.505
	U	238	**20.221**	**ug/L**	0.858	656497	1.944

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	98.449				
>	Sc	45		97.4			
	Cr	52	92.766				
	Cr	53					
	Mn	55	93.845				
	Ni	60	88.178				
>	Ge	74		99.1			
	As	75	97.873				
	Se	77					
	Se	82	87.502				
	Kr	83					
	Mo	98	100.791				
	Ag	107	94.204				
	Cd	111	91.979				
	Cd	114					
>	In	115		97.0			
	Sb	121	101.713				
	Sb	123					
>	Lu	175		97.9			
	Tl	205	92.142				
	Pb	208	95.290				
	U	238	101.106				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Thursday, April 15, 2010 22:44:37
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 6.245

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.841**	**ug/L**	7.523	11121	0.014
>	Sc	45		**ug/L**		778756	778755.627
	Cr	52	**49.136**	**ug/L**	0.838	205596	0.268
	Cr	53		**ug/L**		117794	0.024
	Mn	55	**49.392**	**ug/L**	1.293	330692	0.422
	Ni	60	**48.984**	**ug/L**	1.965	53141	0.068
>	Ge	74		**ug/L**		318835	318834.508
	As	75	**49.874**	**ug/L**	0.904	46369	0.146
	Se	77		**ug/L**		7566	0.007
	Se	82	**48.731**	**ug/L**	1.902	4037	0.013
	Kr	83		**ug/L**		112	-0.000
	Mo	98	**49.318**	**ug/L**	2.019	129791	0.691
	Ag	107	**50.005**	**ug/L**	1.854	219984	1.172
	Cd	111	**48.485**	**ug/L**	1.363	54320	0.289
	Cd	114		**ug/L**		130052	0.693
>	In	115		**ug/L**		187636	187635.846
	Sb	121	**51.922**	**ug/L**	1.244	216507	1.153
	Sb	123		**ug/L**		166576	0.887
>	Lu	175		**ug/L**		346731	346731.353
	Tl	205	**49.688**	**ug/L**	1.461	746078	2.147
	Pb	208	**50.209**	**ug/L**	1.357	1364880	3.929
	U	238	**50.017**	**ug/L**	1.120	1667726	4.808

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	97.682				
>	Sc	45		101.6			
	Cr	52	98.273				
	Cr	53					
	Mn	55	98.784				
	Ni	60	97.968				
>	Ge	74		102.3			
	As	75	99.748				
	Se	77					
	Se	82	97.463				
	Kr	83					
	Mo	98	98.637				
	Ag	107	100.009				
	Cd	111	96.970				
	Cd	114					
>	In	115		101.3			
	Sb	121	103.845				
	Sb	123					
>	Lu	175		100.6			
	Tl	205	99.376				
	Pb	208	100.418				
	U	238	100.034				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Thursday, April 15, 2010 22:49:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 7.246

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.015	ug/L	99.763	25	-0.000
>	Sc	45		ug/L		790087	790086.816
	Cr	52	-0.069	ug/L	44.569	-3646	-0.000
	Cr	53		ug/L		97929	-0.003
	Mn	55	-0.037	ug/L	20.233	1541	-0.000
	Ni	60	-0.013	ug/L	89.114	253	-0.000
>	Ge	74		ug/L		324315	324315.055
	As	75	0.508	ug/L	77.359	259	0.001
	Se	77		ug/L		4714	-0.002
	Se	82	-0.091	ug/L	123.475	-10	-0.000
	Kr	83		ug/L		121	0.000
	Mo	98	0.077	ug/L	10.515	378	0.001
	Ag	107	0.002	ug/L	86.519	141	0.000
	Cd	111	0.004	ug/L	234.429	59	0.000
	Cd	114		ug/L		105	0.000
>	In	115		ug/L		192501	192501.494
	Sb	121	0.054	ug/L	2.073	431	0.001
	Sb	123		ug/L		362	0.001
>	Lu	175		ug/L		354312	354311.777
	Tl	205	0.191	ug/L	14.991	4503	0.008
	Pb	208	0.003	ug/L	89.109	2868	0.000
	U	238	0.002	ug/L	66.646	739	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		103.0			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		104.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.9			
	Sb	121					
	Sb	123					
>	Lu	175		102.8			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Thursday, April 15, 2010 22:53:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 10.247

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**993.952**	**ug/L**	6.219	218217	0.290
>	Sc	45		**ug/L**		752929	752929.437
	Cr	52	**971.053**	**ug/L**	0.859	3987517	5.301
	Cr	53		**ug/L**		545283	0.598
	Mn	55	**944.228**	**ug/L**	2.091	6079757	8.076
	Ni	60	**904.234**	**ug/L**	2.896	943624	1.254
>	Ge	74		**ug/L**		312000	311999.712
	As	75	**910.165**	**ug/L**	0.227	831784	2.667
	Se	77		**ug/L**		33507	0.091
	Se	82	**468.196**	**ug/L**	0.366	37970	0.122
	Kr	83		**ug/L**		176	0.000
	Mo	98	**1043.524**	**ug/L**	2.072	2592945	14.619
	Ag	107	**249.242**	**ug/L**	2.156	1035922	5.841
	Cd	111	**938.020**	**ug/L**	2.572	992337	5.596
	Cd	114		**ug/L**		2491852	14.050
>	In	115		**ug/L**		177374	177374.473
	Sb	121	**271.065**	**ug/L**	1.705	1067614	6.019
	Sb	123		**ug/L**		826925	4.662
>	Lu	175		**ug/L**		347721	347720.822
	Tl	205	**469.580**	**ug/L**	1.949	7058920	20.295
	Pb	208	**4826.231**	**ug/L**	0.888	131322437	377.653
	U	238	**5148.665**	**ug/L**	0.449	172098121	494.933

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	99.395				
>	Sc	45		98.2			
	Cr	52	97.105				
	Cr	53					
	Mn	55	94.423				
	Ni	60	90.423				
>	Ge	74		100.1			
	As	75	91.016				
	Se	77					
	Se	82	93.639				
	Kr	83					
	Mo	98	104.352				
	Ag	107	99.697				
	Cd	111	93.802				
	Cd	114					
>	In	115		95.7			
	Sb	121	108.426				
	Sb	123					
>	Lu	175		100.9			
	Tl	205	93.916				
	Pb	208	96.525				
	U	238	102.973				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Thursday, April 15, 2010 22:58:25
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 11.248

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**50.334**	**ug/L**	3.985	11452	0.015
>	Sc	45		**ug/L**		777872	777871.764
	Cr	52	**51.361**	**ug/L**	0.841	214813	0.280
	Cr	53		**ug/L**		116971	0.023
	Mn	55	**52.307**	**ug/L**	1.778	349699	0.447
	Ni	60	**51.576**	**ug/L**	2.385	55872	0.072
>	Ge	74		**ug/L**		321514	321514.454
	As	75	**51.447**	**ug/L**	1.773	48234	0.151
	Se	77		**ug/L**		7507	0.007
	Se	82	**50.136**	**ug/L**	3.814	4187	0.013
	Kr	83		**ug/L**		121	0.000
	Mo	98	**50.271**	**ug/L**	0.668	134171	0.704
	Ag	107	**51.370**	**ug/L**	1.591	229175	1.204
	Cd	111	**50.170**	**ug/L**	1.502	57009	0.299
	Cd	114		**ug/L**		135102	0.710
>	In	115		**ug/L**		190289	190288.913
	Sb	121	**53.826**	**ug/L**	0.434	227620	1.195
	Sb	123		**ug/L**		173633	0.912
>	Lu	175		**ug/L**		352149	352148.990
	Tl	205	**52.985**	**ug/L**	1.382	807936	2.290
	Pb	208	**52.678**	**ug/L**	1.383	1454320	4.122
	U	238	**52.422**	**ug/L**	0.692	1775216	5.039

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	100.668				
>	Sc	45		101.4			
	Cr	52	102.723				
	Cr	53					
	Mn	55	104.615				
	Ni	60	103.152				
>	Ge	74		103.1			
	As	75	102.893				
	Se	77					
	Se	82	100.272				
	Kr	83					
	Mo	98	100.543				
	Ag	107	102.740				
	Cd	111	100.341				
	Cd	114					
>	In	115		102.7			
	Sb	121	107.651				
	Sb	123					
>	Lu	175		102.1			
	Tl	205	105.970				
	Pb	208	105.357				
	U	238	104.844				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Thursday, April 15, 2010 23:03:01
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 12.249

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.012**	**ug/L**	131.023	25	-0.000
>	Sc	45		**ug/L**		788211	788210.858
	Cr	52	**-0.008**	**ug/L**	226.332	-3372	-0.000
	Cr	53		**ug/L**		93544	-0.008
	Mn	55	**-0.018**	**ug/L**	13.791	1671	-0.000
	Ni	60	**-0.004**	**ug/L**	882.802	262	-0.000
>	Ge	74		**ug/L**		320109	320109.102
	As	75	**0.242**	**ug/L**	164.325	10	0.001
	Se	77		**ug/L**		4400	-0.003
	Se	82	**-0.258**	**ug/L**	58.281	-23	-0.000
	Kr	83		**ug/L**		131	0.000
	Mo	98	**0.117**	**ug/L**	20.095	477	0.002
	Ag	107	**0.003**	**ug/L**	189.526	140	0.000
	Cd	111	**-0.000**	**ug/L**	2321.217	53	-0.000
	Cd	114		**ug/L**		129	0.000
>	In	115		**ug/L**		189578	189577.861
	Sb	121	**0.074**	**ug/L**	8.884	506	0.002
	Sb	123		**ug/L**		437	0.001
>	Lu	175		**ug/L**		356219	356218.557
	Tl	205	**0.373**	**ug/L**	9.692	7327	0.016
	Pb	208	**0.039**	**ug/L**	13.708	3891	0.003
	U	238	**0.033**	**ug/L**	16.631	1817	0.003

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.8			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		102.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.3			
	Sb	121					
	Sb	123					
>	Lu	175		103.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Thursday, April 15, 2010 23:39:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 8.257

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**48.542**	**ug/L**	5.291	10997	0.014
>	Sc	45		**ug/L**		774615	774614.586
	Cr	52	**49.034**	**ug/L**	0.496	204058	0.268
	Cr	53		**ug/L**		131342	0.043
	Mn	55	**49.046**	**ug/L**	0.928	326663	0.419
	Ni	60	**48.813**	**ug/L**	2.199	52671	0.068
>	Ge	74		**ug/L**		316794	316794.297
	As	75	**49.492**	**ug/L**	3.189	45725	0.145
	Se	77		**ug/L**		7873	0.008
	Se	82	**48.219**	**ug/L**	1.889	3968	0.013
	Kr	83		**ug/L**		137	0.000
	Mo	98	**47.922**	**ug/L**	0.771	126313	0.671
	Ag	107	**49.647**	**ug/L**	1.975	218706	1.163
	Cd	111	**48.620**	**ug/L**	1.825	54546	0.290
	Cd	114		**ug/L**		128537	0.684
>	In	115		**ug/L**		187896	187895.794
	Sb	121	**51.567**	**ug/L**	0.093	215327	1.145
	Sb	123		**ug/L**		168516	0.896
>	Lu	175		**ug/L**		347968	347968.250
	Tl	205	**50.139**	**ug/L**	0.735	755539	2.167
	Pb	208	**50.023**	**ug/L**	1.872	1364607	3.914
	U	238	**49.759**	**ug/L**	1.276	1664925	4.783

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	97.085				
>	Sc	45		101.0			
	Cr	52	98.069				
	Cr	53					
	Mn	55	98.093				
	Ni	60	97.625				
>	Ge	74		101.6			
	As	75	98.984				
	Se	77					
	Se	82	96.438				
	Kr	83					
	Mo	98	95.844				
	Ag	107	99.293				
	Cd	111	97.240				
	Cd	114					
>	In	115		101.4			
	Sb	121	103.135				
	Sb	123					
>	Lu	175		100.9			
	Tl	205	100.277				
	Pb	208	100.046				
	U	238	99.519				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Thursday, April 15, 2010 23:44:21
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 9.258

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.013**	**ug/L**	148.840	25	-0.000
>	Sc	45		**ug/L**		795064	795064.059
	Cr	52	**-0.171**	**ug/L**	39.781	-4108	-0.001
	Cr	53		**ug/L**		101503	0.001
	Mn	55	**-0.036**	**ug/L**	13.417	1558	-0.000
	Ni	60	**-0.033**	**ug/L**	41.872	233	-0.000
>	Ge	74		**ug/L**		322080	322079.957
	As	75	**0.419**	**ug/L**	36.475	175	0.001
	Se	77		**ug/L**		4766	-0.002
	Se	82	**-0.128**	**ug/L**	60.114	-13	-0.000
	Kr	83		**ug/L**		121	0.000
	Mo	98	**0.031**	**ug/L**	27.606	250	0.000
	Ag	107	**0.002**	**ug/L**	61.339	137	0.000
	Cd	111	**0.003**	**ug/L**	83.485	57	0.000
	Cd	114		**ug/L**		110	0.000
>	In	115		**ug/L**		190751	190751.332
	Sb	121	**0.044**	**ug/L**	17.680	382	0.001
	Sb	123		**ug/L**		295	0.001
>	Lu	175		**ug/L**		351920	351919.645
	Tl	205	**0.510**	**ug/L**	7.124	9319	0.022
	Pb	208	**0.014**	**ug/L**	38.524	3163	0.001
	U	238	**0.011**	**ug/L**	21.184	1049	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		103.7			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		103.3			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.9			
	Sb	121					
	Sb	123					
>	Lu	175		102.1			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, April 16, 2010 00:16:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 8.265

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**49.933**	**ug/L**	1.329	11057	0.015
>	Sc	45		**ug/L**		756741	756741.034
	Cr	52	**49.443**	**ug/L**	0.520	201040	0.270
	Cr	53		**ug/L**		127789	0.042
	Mn	55	**50.785**	**ug/L**	1.619	330420	0.434
	Ni	60	**49.756**	**ug/L**	1.689	52460	0.069
>	Ge	74		**ug/L**		311523	311522.550
	As	75	**49.190**	**ug/L**	2.128	44683	0.144
	Se	77		**ug/L**		7980	0.009
	Se	82	**48.251**	**ug/L**	1.992	3906	0.013
	Kr	83		**ug/L**		139	0.000
	Mo	98	**48.166**	**ug/L**	2.623	125473	0.675
	Ag	107	**49.446**	**ug/L**	1.644	215358	1.159
	Cd	111	**48.594**	**ug/L**	2.096	53891	0.290
	Cd	114		**ug/L**		130146	0.700
>	In	115		**ug/L**		185791	185791.397
	Sb	121	**51.696**	**ug/L**	2.632	213351	1.148
	Sb	123		**ug/L**		167738	0.902
>	Lu	175		**ug/L**		344083	344082.970
	Tl	205	**49.450**	**ug/L**	0.799	736780	2.137
	Pb	208	**50.878**	**ug/L**	1.858	1372118	3.981
	U	238	**50.255**	**ug/L**	0.334	1662789	4.831

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	99.866				
>	Sc	45		98.7			
	Cr	52	98.887				
	Cr	53					
	Mn	55	101.571				
	Ni	60	99.513				
>	Ge	74		99.9			
	As	75	98.381				
	Se	77					
	Se	82	96.502				
	Kr	83					
	Mo	98	96.332				
	Ag	107	98.891				
	Cd	111	97.189				
	Cd	114					
>	In	115		100.3			
	Sb	121	103.391				
	Sb	123					
>	Lu	175		99.8			
	Tl	205	98.899				
	Pb	208	101.755				
	U	238	100.510				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, April 16, 2010 00:21:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 9.266

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.018	ug/L	49.381	24	-0.000
>	Sc	45		ug/L		788976	788976.351
	Cr	52	-0.143	ug/L	71.886	-3951	-0.001
	Cr	53		ug/L		101605	0.002
	Mn	55	-0.037	ug/L	2.883	1539	-0.000
	Ni	60	-0.008	ug/L	265.530	257	-0.000
>	Ge	74		ug/L		323441	323440.529
	As	75	0.407	ug/L	57.340	164	0.001
	Se	77		ug/L		4844	-0.002
	Se	82	-0.148	ug/L	65.872	-14	-0.000
	Kr	83		ug/L		127	0.000
	Mo	98	0.031	ug/L	49.880	253	0.000
	Ag	107	0.002	ug/L	137.058	142	0.000
	Cd	111	-0.002	ug/L	794.547	53	-0.000
	Cd	114		ug/L		98	-0.000
>	In	115		ug/L		193673	193673.451
	Sb	121	0.038	ug/L	11.452	362	0.001
	Sb	123		ug/L		281	0.001
>	Lu	175		ug/L		359388	359388.331
	Tl	205	0.720	ug/L	3.617	12770	0.031
	Pb	208	0.005	ug/L	33.104	2984	0.000
	U	238	0.008	ug/L	27.665	964	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		102.9			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		103.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		104.5			
	Sb	121					
	Sb	123					
>	Lu	175		104.2			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, April 16, 2010 00:57:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 8.274

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.696**	ug/L	4.384	12404	0.015
>	Sc	45		ug/L		805134	805133.584
	Cr	52	**51.174**	ug/L	2.092	221440	0.279
	Cr	53		ug/L		138372	0.045
	Mn	55	**51.516**	ug/L	3.029	356388	0.441
	Ni	60	**50.911**	ug/L	2.060	57080	0.071
>	Ge	74		ug/L		328216	328215.812
	As	75	**51.127**	ug/L	1.223	48938	0.150
	Se	77		ug/L		10129	0.014
	Se	82	**50.378**	ug/L	2.350	4297	0.013
	Kr	83		ug/L		142	0.000
	Mo	98	**50.266**	ug/L	2.987	136203	0.704
	Ag	107	**51.024**	ug/L	1.825	231173	1.196
	Cd	111	**49.771**	ug/L	3.429	57405	0.297
	Cd	114		ug/L		138516	0.716
>	In	115		ug/L		193271	193271.079
	Sb	121	**53.246**	ug/L	2.494	228619	1.182
	Sb	123		ug/L		175432	0.907
>	Lu	175		ug/L		363677	363677.402
	Tl	205	**51.703**	ug/L	0.279	814256	2.235
	Pb	208	**51.576**	ug/L	1.086	1470434	4.036
	U	238	**50.823**	ug/L	0.523	1777359	4.886

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
	Be	9	105.392				
>	Sc	45		105.0			
	Cr	52	102.348				
	Cr	53					
	Mn	55	103.032				
	Ni	60	101.822				
>	Ge	74		105.3			
	As	75	102.255				
	Se	77					
	Se	82	100.757				
	Kr	83					
	Mo	98	100.532				
	Ag	107	102.047				
	Cd	111	99.542				
	Cd	114					
>	In	115		104.3			
	Sb	121	106.492				
	Sb	123					
>	Lu	175		105.5			
	Tl	205	103.406				
	Pb	208	103.152				
	U	238	101.647				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, April 16, 2010 01:02:29
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 9.275

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.000**	**ug/L**	1583.377	28	-0.000
>	Sc	45		**ug/L**		797474	797474.023
	Cr	52	**0.275**	**ug/L**	14.154	-2178	0.002
	Cr	53		**ug/L**		107344	0.008
	Mn	55	**-0.016**	**ug/L**	40.872	1701	-0.000
	Ni	60	**-0.008**	**ug/L**	238.572	261	-0.000
>	Ge	74		**ug/L**		324839	324839.446
	As	75	**0.230**	**ug/L**	63.699	-3	0.001
	Se	77		**ug/L**		6452	0.003
	Se	82	**-0.199**	**ug/L**	66.272	-19	-0.000
	Kr	83		**ug/L**		130	0.000
	Mo	98	**0.028**	**ug/L**	22.122	243	0.000
	Ag	107	**0.002**	**ug/L**	63.429	140	0.000
	Cd	111	**-0.003**	**ug/L**	215.407	51	-0.000
	Cd	114		**ug/L**		110	0.000
>	In	115		**ug/L**		191658	191657.648
	Sb	121	**0.045**	**ug/L**	2.201	391	0.001
	Sb	123		**ug/L**		316	0.001
>	Lu	175		**ug/L**		359989	359989.476
	Tl	205	**0.225**	**ug/L**	8.285	5099	0.010
	Pb	208	**-0.010**	**ug/L**	14.994	2543	-0.001
	U	238	**0.008**	**ug/L**	14.101	950	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		104.0			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		104.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.4			
	Sb	121					
	Sb	123					
>	Lu	175		104.4			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, April 16, 2010 01:48:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 8.285

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**47.784**	**ug/L**	6.039	11099	0.014
>	Sc	45		**ug/L**		794171	794170.571
	Cr	52	**48.558**	**ug/L**	2.136	207169	0.265
	Cr	53		**ug/L**		141813	0.052
	Mn	55	**48.670**	**ug/L**	1.375	332341	0.416
	Ni	60	**48.235**	**ug/L**	3.409	53358	0.067
>	Ge	74		**ug/L**		323310	323310.262
	As	75	**48.529**	**ug/L**	2.256	45750	0.142
	Se	77		**ug/L**		10430	0.016
	Se	82	**48.727**	**ug/L**	1.487	4093	0.013
	Kr	83		**ug/L**		140	0.000
	Mo	98	**48.056**	**ug/L**	2.481	127194	0.673
	Ag	107	**49.317**	**ug/L**	0.988	218214	1.156
	Cd	111	**47.295**	**ug/L**	0.881	53294	0.282
	Cd	114		**ug/L**		127460	0.675
>	In	115		**ug/L**		188715	188714.813
	Sb	121	**51.264**	**ug/L**	2.398	214978	1.138
	Sb	123		**ug/L**		166091	0.879
>	Lu	175		**ug/L**		350040	350040.165
	Tl	205	**49.935**	**ug/L**	2.646	756894	2.158
	Pb	208	**50.245**	**ug/L**	0.729	1378957	3.932
	U	238	**49.585**	**ug/L**	0.796	1669073	4.766

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9	95.569				
>	Sc	45		103.6			
	Cr	52	97.117				
	Cr	53					
	Mn	55	97.341				
	Ni	60	96.470				
>	Ge	74		103.7			
	As	75	97.058				
	Se	77					
	Se	82	97.454				
	Kr	83					
	Mo	98	96.112				
	Ag	107	98.634				
	Cd	111	94.590				
	Cd	114					
>	In	115		101.8			
	Sb	121	102.529				
	Sb	123					
>	Lu	175		101.5			
	Tl	205	99.869				
	Pb	208	100.490				
	U	238	99.169				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, April 16, 2010 01:53:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 9.286

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.015**	**ug/L**	159.424	24	-0.000
>	Sc	45		**ug/L**		780349	780349.153
	Cr	52	**0.086**	**ug/L**	58.398	-2940	0.000
	Cr	53		**ug/L**		110401	0.014
	Mn	55	**-0.037**	**ug/L**	17.330	1527	-0.000
	Ni	60	**-0.028**	**ug/L**	17.143	233	-0.000
>	Ge	74		**ug/L**		316714	316713.569
	As	75	**0.471**	**ug/L**	19.432	220	0.001
	Se	77		**ug/L**		6823	0.005
	Se	82	**-0.402**	**ug/L**	25.816	-35	-0.000
	Kr	83		**ug/L**		134	0.000
	Mo	98	**0.025**	**ug/L**	6.097	227	0.000
	Ag	107	**0.002**	**ug/L**	230.179	133	0.000
	Cd	111	**-0.009**	**ug/L**	197.479	43	-0.000
	Cd	114		**ug/L**		109	0.000
>	In	115		**ug/L**		185130	185130.182
	Sb	121	**0.039**	**ug/L**	15.683	354	0.001
	Sb	123		**ug/L**		284	0.001
>	Lu	175		**ug/L**		344094	344094.221
	Tl	205	**0.365**	**ug/L**	13.412	6945	0.016
	Pb	208	**0.004**	**ug/L**	71.572	2809	0.000
	U	238	**0.009**	**ug/L**	18.286	955	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.8			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		101.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.9			
	Sb	121					
	Sb	123					
>	Lu	175		99.8			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202053155
Sample Date/Time: Friday, April 16, 2010 01:57:41
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 957529|1|skj
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\1202053155.287

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**-0.015**	**ug/L**	78.946	24	-0.000
>	Sc	45		**ug/L**		777036	777035.845
	Cr	52	**0.332**	**ug/L**	24.098	-1877	0.002
	Cr	53		**ug/L**		218599	0.154
	Mn	55	**0.135**	**ug/L**	8.842	2662	0.001
	Ni	60	**-0.064**	**ug/L**	8.519	193	-0.000
>	Ge	74		**ug/L**		315197	315197.181
	As	75	**0.224**	**ug/L**	97.931	-7	0.001
	Se	77		**ug/L**		17100	0.038
	Se	82	**-0.143**	**ug/L**	76.450	-14	-0.000
	Kr	83		**ug/L**		127	0.000
	Mo	98	**-0.021**	**ug/L**	5.404	107	-0.000
	Ag	107	**-0.016**	**ug/L**	12.240	54	-0.000
	Cd	111	**-0.003**	**ug/L**	634.041	49	-0.000
	Cd	114		**ug/L**		90	-0.000
>	In	115		**ug/L**		182801	182801.357
	Sb	121	**0.006**	**ug/L**	66.060	215	0.000
	Sb	123		**ug/L**		183	0.000
>	Lu	175		**ug/L**		344191	344190.974
	Tl	205	**0.118**	**ug/L**	7.814	3280	0.005
	Pb	208	**-0.025**	**ug/L**	3.808	2038	-0.002
	U	238	**-0.014**	**ug/L**	1.879	191	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		101.3			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		101.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.6			
	Sb	121					
	Sb	123					
>	Lu	175		99.8			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202053156
Sample Date/Time: Friday, April 16, 2010 02:02:16
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 957529|1|skj
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\1202053156.288

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**51.924**	**ug/L**	5.355	11751	0.015
>	Sc	45		**ug/L**		774137	774137.339
	Cr	52	**48.367**	**ug/L**	2.645	201093	0.264
	Cr	53		**ug/L**		241740	0.185
	Mn	55	**48.051**	**ug/L**	2.649	319851	0.411
	Ni	60	**47.958**	**ug/L**	1.675	51724	0.066
>	Ge	74		**ug/L**		317525	317524.668
	As	75	**47.131**	**ug/L**	1.698	43622	0.138
	Se	77		**ug/L**		19545	0.045
	Se	82	**47.003**	**ug/L**	2.036	3878	0.012
	Kr	83		**ug/L**		153	0.000
	Mo	98	**48.280**	**ug/L**	2.711	124000	0.676
	Ag	107	**49.329**	**ug/L**	2.256	211815	1.156
	Cd	111	**48.165**	**ug/L**	4.605	52637	0.287
	Cd	114		**ug/L**		124475	0.679
>	In	115		**ug/L**		183224	183223.710
	Sb	121	**50.837**	**ug/L**	3.127	206847	1.129
	Sb	123		**ug/L**		162735	0.888
>	Lu	175		**ug/L**		350750	350750.221
	Tl	205	**43.678**	**ug/L**	0.216	663645	1.888
	Pb	208	**49.165**	**ug/L**	1.386	1351779	3.847
	U	238	**48.359**	**ug/L**	0.195	1631233	4.649

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		100.9			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		101.8			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.9			
	Sb	121					
	Sb	123					
>	Lu	175		101.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 247829001
Sample Date/Time: Friday, April 16, 2010 02:16:04
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 957529|1|skj
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\247829001.291

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.016	ug/L	129.113	27	-0.000
>	Sc	45		ug/L		873993	873993.150
	Cr	52	3.252	ug/L	3.121	11815	0.018
	Cr	53		ug/L		226852	0.132
	Mn	55	10.141	ug/L	0.411	77786	0.087
	Ni	60	0.554	ug/L	5.221	966	0.001
>	Ge	74		ug/L		321708	321707.686
	As	75	-0.244	ug/L	239.753	-444	-0.001
	Se	77		ug/L		18860	0.042
	Se	82	0.017	ug/L	419.193	-1	0.000
	Kr	83		ug/L		151	0.000
	Mo	98	1.033	ug/L	1.241	2888	0.014
	Ag	107	-0.017	ug/L	7.243	51	-0.000
	Cd	111	-0.020	ug/L	15.787	30	-0.000
	Cd	114		ug/L		77	-0.000
>	In	115		ug/L		188167	188166.767
	Sb	121	0.061	ug/L	6.501	449	0.001
	Sb	123		ug/L		391	0.001
>	Lu	175		ug/L		363626	363625.516
	Tl	205	0.083	ug/L	11.408	2914	0.004
	Pb	208	0.132	ug/L	5.570	6610	0.010
	U	238	0.475	ug/L	1.787	17307	0.046

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		114.0			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		103.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		101.5			
	Sb	121					
	Sb	123					
>	Lu	175		105.5			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202053157
Sample Date/Time: Friday, April 16, 2010 02:20:41
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 957529|1|skj
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\1202053157.292

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.024	ug/L	63.606	24	-0.000
>	Sc	45		ug/L		851054	851054.496
	Cr	52	3.445	ug/L	1.006	12399	0.019
	Cr	53		ug/L		227683	0.140
	Mn	55	10.497	ug/L	2.121	78343	0.090
	Ni	60	0.518	ug/L	1.791	899	0.001
>	Ge	74		ug/L		315272	315271.816
	As	75	0.041	ug/L	1153.939	-177	0.000
	Se	77		ug/L		18844	0.043
	Se	82	-0.064	ug/L	220.640	-7	-0.000
	Kr	83		ug/L		148	0.000
	Mo	98	1.084	ug/L	3.032	2955	0.015
	Ag	107	-0.016	ug/L	5.402	55	-0.000
	Cd	111	-0.026	ug/L	7.229	23	-0.000
	Cd	114		ug/L		81	-0.000
>	In	115		ug/L		183902	183901.688
	Sb	121	0.061	ug/L	5.928	441	0.001
	Sb	123		ug/L		373	0.001
>	Lu	175		ug/L		355525	355525.410
	Tl	205	0.063	ug/L	6.947	2547	0.003
	Pb	208	0.144	ug/L	2.676	6818	0.011
	U	238	0.492	ug/L	1.347	17501	0.047

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		111.0			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		101.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		99.2			
	Sb	121					
	Sb	123					
>	Lu	175		103.1			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202053158
Sample Date/Time: Friday, April 16, 2010 02:25:17
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 957529|1|skj
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\1202053158.293

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**54.847**	**ug/L**	1.824	12910	0.016
>	Sc	45		**ug/L**		804795	804794.978
	Cr	52	**47.094**	**ug/L**	2.776	203420	0.257
	Cr	53		**ug/L**		232269	0.162
	Mn	55	**54.399**	**ug/L**	1.465	376318	0.465
	Ni	60	**44.354**	**ug/L**	2.134	49772	0.061
>	Ge	74		**ug/L**		299669	299668.692
	As	75	**74.369**	**ug/L**	2.064	65071	0.218
	Se	77		**ug/L**		17942	0.043
	Se	82	**18.578**	**ug/L**	0.363	1445	0.005
	Kr	83		**ug/L**		173	0.000
	Mo	98	**47.158**	**ug/L**	2.858	117522	0.661
	Ag	107	**48.292**	**ug/L**	0.181	201237	1.132
	Cd	111	**9.828**	**ug/L**	3.551	10465	0.059
	Cd	114		**ug/L**		24039	0.135
>	In	115		**ug/L**		177714	177713.827
	Sb	121	**191.198**	**ug/L**	1.106	754534	4.245
	Sb	123		**ug/L**		592850	3.336
>	Lu	175		**ug/L**		345854	345853.914
	Tl	205	**82.673**	**ug/L**	0.481	1237360	3.573
	Pb	208	**38.596**	**ug/L**	2.557	1046875	3.020
	U	238	**48.407**	**ug/L**	0.841	1609940	4.653

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		104.9			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		96.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.9			
	Sb	121					
	Sb	123					
>	Lu	175		100.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202053159
Sample Date/Time: Friday, April 16, 2010 02:29:53
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 957529|5|skj
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\1202053159.294

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.013	ug/L	175.679	26	-0.000
>	Sc	45		ug/L		803206	803205.877
	Cr	52	0.629	ug/L	17.010	-639	0.003
	Cr	53		ug/L		138299	0.045
	Mn	55	2.194	ug/L	2.683	16890	0.019
	Ni	60	0.031	ug/L	43.234	306	0.000
>	Ge	74		ug/L		322878	322878.311
	As	75	0.588	ug/L	83.177	337	0.002
	Se	77		ug/L		9375	0.012
	Se	82	-0.384	ug/L	46.741	-34	-0.000
	Kr	83		ug/L		137	0.000
	Mo	98	0.204	ug/L	5.504	708	0.003
	Ag	107	-0.016	ug/L	16.285	59	-0.000
	Cd	111	-0.020	ug/L	7.367	30	-0.000
	Cd	114		ug/L		57	-0.000
>	In	115		ug/L		189614	189614.017
	Sb	121	0.030	ug/L	13.665	324	0.001
	Sb	123		ug/L		259	0.000
>	Lu	175		ug/L		352551	352551.206
	Tl	205	1.061	ug/L	8.435	17727	0.046
	Pb	208	0.016	ug/L	19.637	3216	0.001
	U	238	0.089	ug/L	3.203	3681	0.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		104.7			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		103.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		102.3			
	Sb	121					
	Sb	123					
>	Lu	175		102.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 247829002
Sample Date/Time: Friday, April 16, 2010 02:34:30
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 957529|1|skj
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\247829002.295

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**0.034**	**ug/L**	113.904	37	0.000
>	Sc	45		**ug/L**		819770	819770.490
	Cr	52	**3.522**	**ug/L**	6.122	12271	0.019
	Cr	53		**ug/L**		206972	0.126
	Mn	55	**15.806**	**ug/L**	3.904	112605	0.135
	Ni	60	**0.741**	**ug/L**	3.128	1118	0.001
>	Ge	74		**ug/L**		302468	302467.758
	As	75	**0.566**	**ug/L**	121.609	288	0.002
	Se	77		**ug/L**		16550	0.038
	Se	82	**-0.011**	**ug/L**	1859.492	-3	-0.000
	Kr	83		**ug/L**		142	0.000
	Mo	98	**1.075**	**ug/L**	1.203	2865	0.015
	Ag	107	**-0.015**	**ug/L**	11.087	59	-0.000
	Cd	111	**-0.002**	**ug/L**	285.911	48	-0.000
	Cd	114		**ug/L**		84	-0.000
>	In	115		**ug/L**		179765	179765.424
	Sb	121	**0.046**	**ug/L**	6.836	370	0.001
	Sb	123		**ug/L**		318	0.001
>	Lu	175		**ug/L**		339639	339638.522
	Tl	205	**0.365**	**ug/L**	7.270	6857	0.016
	Pb	208	**0.480**	**ug/L**	1.633	15435	0.038
	U	238	**0.559**	**ug/L**	2.378	18883	0.054

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		106.9			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		97.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		97.0			
	Sb	121					
	Sb	123					
>	Lu	175		98.5			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, April 16, 2010 02:39:06
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 6.296

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	**52.135**	**ug/L**	3.236	11549	0.015
>	Sc	45		**ug/L**		757692	757692.416
	Cr	52	**48.620**	**ug/L**	1.717	197822	0.265
	Cr	53		**ug/L**		130778	0.046
	Mn	55	**49.342**	**ug/L**	3.655	321235	0.422
	Ni	60	**48.458**	**ug/L**	1.476	51151	0.067
>	Ge	74		**ug/L**		310316	310315.524
	As	75	**48.300**	**ug/L**	2.035	43698	0.142
	Se	77		**ug/L**		9236	0.013
	Se	82	**48.861**	**ug/L**	3.974	3938	0.013
	Kr	83		**ug/L**		143	0.000
	Mo	98	**47.329**	**ug/L**	0.592	122661	0.663
	Ag	107	**49.037**	**ug/L**	1.306	212435	1.149
	Cd	111	**47.299**	**ug/L**	2.109	52175	0.282
	Cd	114		**ug/L**		125257	0.677
>	In	115		**ug/L**		184754	184753.508
	Sb	121	**51.126**	**ug/L**	1.834	209913	1.135
	Sb	123		**ug/L**		162321	0.878
>	Lu	175		**ug/L**		345251	345251.293
	Tl	205	**48.073**	**ug/L**	2.682	718909	2.078
	Pb	208	**50.135**	**ug/L**	2.926	1356652	3.923
	U	238	**50.120**	**ug/L**	0.984	1664153	4.818

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9	104.270				
>	Sc	45		98.8			
	Cr	52	97.241				
	Cr	53					
	Mn	55	98.685				
	Ni	60	96.915				
>	Ge	74		99.5			
	As	75	96.601				
	Se	77					
	Se	82	97.723				
	Kr	83					
	Mo	98	94.657				
	Ag	107	98.074				
	Cd	111	94.598				
	Cd	114					
>	In	115		99.7			
	Sb	121	102.252				
	Sb	123					
>	Lu	175		100.1			
	Tl	205	96.146				
	Pb	208	100.271				
	U	238	100.239				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, April 16, 2010 02:43:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\anl liquid.mth
Dataset File: C:\elandata\Dataset\100415\QC Std 7.297

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
	Be	9	-0.016	ug/L	160.988	25	-0.000
>	Sc	45		ug/L		795673	795672.969
	Cr	52	0.103	ug/L	102.216	-2919	0.001
	Cr	53		ug/L		104660	0.005
	Mn	55	-0.039	ug/L	19.315	1538	-0.000
	Ni	60	-0.029	ug/L	35.027	236	-0.000
>	Ge	74		ug/L		323250	323249.968
	As	75	0.157	ug/L	75.143	-71	0.000
	Se	77		ug/L		5895	0.002
	Se	82	-0.139	ug/L	245.919	-14	-0.000
	Kr	83		ug/L		138	0.000
	Mo	98	0.028	ug/L	31.751	246	0.000
	Ag	107	0.002	ug/L	152.883	140	0.000
	Cd	111	0.002	ug/L	257.216	57	0.000
	Cd	114		ug/L		102	0.000
>	In	115		ug/L		192427	192426.754
	Sb	121	0.018	ug/L	28.212	276	0.000
	Sb	123		ug/L		223	0.000
>	Lu	175		ug/L		360754	360754.287
	Tl	205	0.564	ug/L	5.967	10396	0.024
	Pb	208	-0.007	ug/L	10.623	2656	-0.001
	U	238	0.009	ug/L	5.692	989	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Be	9	Linear Thru Zero	1.0000
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Mn	55	Linear Thru Zero	1.0000
Ni	60	Linear Thru Zero	1.0000
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	0.9999
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
	Be	9					
>	Sc	45		103.8			
	Cr	52					
	Cr	53					
	Mn	55					
	Ni	60					
>	Ge	74		103.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		103.8			
	Sb	121					
	Sb	123					
>	Lu	175		104.6			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #5 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, April 16, 2010 14:12:40
Sample Description:
Method File: c:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\default\Sample.1080
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	4096.4	4096.388	103.077	2.5
	Mg	24.0	57078.2	57078.225	954.120	1.7
	Co	58.9	106943.5	106943.490	1811.457	1.7
	Rh	102.9	205757.0	205756.988	958.409	0.5
	In	114.9	287057.5	287057.547	3658.722	1.3
	Pb	208.0	304945.8	304945.848	5761.142	1.9
⌈>	Ba	137.9	275284.2	275284.201	4136.739	1.5
⌊	Ba++	69.0	4779.6	0.017	0.000	1.4
⌈>	Ce	139.9	340439.5	340439.475	3719.924	1.1
⌊	CeO	155.9	8053.2	0.024	0.001	3.3
	Bkgd	220.0	26.5	26.500	4.077	15.4

Current Optimization File Data

Current Value	Description
0.88	Nebulizer Gas Flow
6.75	Lens Voltage
1450.00	ICP RF Power
-1812.50	Analog Stage Voltage
1300.00	Pulse Stage Voltage
200.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	9.0	3118.7
Co	59	21	9.8	70529.0
In	115	21	10.8	192576.0

ICPMS #5 Instrument Tuning Report

File Name: 100416.tun
File Path: C:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	601	2072	0.577
Be	9.0	9.1	2059	2088	0.597
Mg	24.0	24.0	5693	2085	0.586
Mg	25.0	25.0	5945	2085	0.585
Mg	26.0	25.9	6170	2100	0.578
Co	58.9	58.9	14187	2125	0.570
Rh	102.9	102.9	24871	2180	0.571
In	114.9	114.9	27799	2200	0.579
Ce	139.9	139.9	33869	2220	0.589
Pb	206.0	206.0	49948	2305	0.598
Pb	207.0	207.0	50171	2240	0.653
Pb	208.0	207.9	50439	2280	0.700
U	238.1	238.0	57725	2295	0.708

ICPMS#5 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, April 17, 2010 02:41:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\Blank.197

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		480241	
	U	238		ug/L		859	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, April 17, 2010 02:42:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\Standard 1.198

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		477606	477605.958
	U	238	10.000	ug/L	1.510	433712	0.906

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, April 17, 2010 02:44:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\Standard 2.199

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		473304	473304.247
	U	238	99.894	ug/L	0.766	3873959	8.183

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, April 17, 2010 02:46:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\QC Std 1.200

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		473128	473127.858
	U	238	51.433	ug/L	1.146	1994127	4.213

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		98.5			
	U	238	102.866				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, April 17, 2010 02:47:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\QC Std 2.201

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		471739	471738.675
⌊	U	238	0.020	ug/L	9.497	1632	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		98.2			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, April 17, 2010 02:49:30
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\QC Std 3.202

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		475542	475542.457
	U	238	**0.210**	**ug/L**	1.195	9012	0.017

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		99.0			
	U	238	104.755				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, April 17, 2010 02:51:09
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\QC Std 4.203

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		444530	444529.905
⌊	U	238	**-0.014**	**ug/L**	1.988	282	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		92.6			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, April 17, 2010 02:52:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\QC Std 5.204

Concentration Results

Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
Lu	175		**ug/L**		447699	447698.864
U	238	**22.727**	**ug/L**	0.492	834286	1.862

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
Lu	175		93.2			
U	238	113.637				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, April 17, 2010 02:54:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\QC Std 6.205

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		463655	463654.534
	U	238	52.472	ug/L	1.110	1993708	4.298

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		96.5			
	U	238	104.945				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, April 17, 2010 02:56:08
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\QC Std 7.206

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		487589	487589.426
⌊	U	238	**0.016**	**ug/L**	10.466	1513	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		101.5			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Saturday, April 17, 2010 03:09:32
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\QC Std 8.214

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		450881	450880.531
⌊	U	238	**53.499**	**ug/L**	0.529	1976776	4.383

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		93.9			
⌊	U	238	106.997				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Saturday, April 17, 2010 03:11:13
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\QC Std 9.215

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		464346	464346.092
	U	238	**0.022**	**ug/L**	4.837	1661	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		96.7			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202053155
Sample Date/Time: Saturday, April 17, 2010 03:12:54
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 957529|1|skj
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\1202053155.216

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		458337	458336.792
	U	238	-0.008	ug/L	3.171	522	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		95.4			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202053156
Sample Date/Time: Saturday, April 17, 2010 03:14:35
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 957529|1|skj
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\1202053156.217

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		451653	451652.835
⌊	U	238	53.267	ug/L	1.471	1971420	4.364

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		94.0			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 247829001
Sample Date/Time: Saturday, April 17, 2010 03:19:38
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 957529|1|skj
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\247829001.220

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		428927	428927.323
	U	238	**0.551**	**ug/L**	0.151	20144	0.045

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		89.3			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202053157
Sample Date/Time: Saturday, April 17, 2010 03:21:20
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 957529|1|skj
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\1202053157.221

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		438702	438701.548
⌊	U	238	0.545	ug/L	1.327	20356	0.045

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		91.4			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202053158
Sample Date/Time: Saturday, April 17, 2010 03:23:01
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 957529|1|skj
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\1202053158.222

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		444030	444030.387
	U	238	**52.155**	**ug/L**	1.517	1897892	4.272

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		92.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 1202053159
Sample Date/Time: Saturday, April 17, 2010 03:24:42
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 957529|5|skj
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\1202053159.223

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		432880	432880.214
⌊	U	238	0.107	ug/L	2.656	4556	0.009

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		90.1			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: 247829002
Sample Date/Time: Saturday, April 17, 2010 03:26:23
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 957529|1|skj
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\247829002.224

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		450163	450162.652
⌊	U	238	**0.602**	**ug/L**	0.902	23011	0.049

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		93.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Saturday, April 17, 2010 03:28:04
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\QC Std 8.225

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		441343	441343.222
	U	238	**53.410**	**ug/L**	0.248	1931768	4.375

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		91.9			
	U	238	106.820				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#5 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Saturday, April 17, 2010 03:29:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u only.mth
Dataset File: C:\elandata\Dataset\100416\QC Std 9.226

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		476715	476715.227
⌊	U	238	**0.020**	**ug/L**	5.801	1646	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		99.3			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\030210W1.SIF
Batch ID:
Results Data Set: 030210W3
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 3/2/2010 08:26:33**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0006	0.0027	0.0006	08:27:33	Yes
2		[0.00]	0.0006	0.0025	0.0006	08:28:08	Yes
Mean:		[0.00]	0.0006				
SD:		0.00	0.0000				
%RSD:		0.00	8.04				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 3/2/2010 08:28:26**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0021	0.0131	0.0027	08:29:27	Yes
2		[0.2]	0.0021	0.0122	0.0028	08:30:02	Yes
Mean:		[0.2]	0.0021				
SD:		0.0	0.0000				
%RSD:		0.0	0.35				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01068 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/2/2010 08:30:21**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0054	0.0299	0.0060	08:31:22	Yes
2		[0.5]	0.0055	0.0282	0.0061	08:31:57	Yes
Mean:		[0.5]	0.0055				
SD:		0.0	0.0001				
%RSD:		0.0	1.42				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999936 Slope: 0.01097 Intercept: -0.00002

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 3/2/2010 08:32:17**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	[2.0]	0.0209	0.1041	0.0215	08:33:18	Yes
2	[2.0]	0.0206	0.1004	0.0212	08:33:53	Yes
Mean:	[2.0]	0.0207				
SD:	0.0	0.0002				
%RSD:	0.0	0.90				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999896 Slope: 0.01034 Intercept: 0.00011

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 3/2/2010 08:34:13**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0520	0.2558	0.0526	08:35:15	Yes
2		[5.0]	0.0500	0.2379	0.0506	08:35:49	Yes
Mean:		[5.0]	0.0510				
SD:		0.0	0.0014				
%RSD:		0.0	2.77				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999965 Slope: 0.01018 Intercept: 0.00020

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 3/2/2010 08:36:10**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1058	0.5210	0.1064	08:37:10	Yes
2		[10.0]	0.1077	0.5459	0.1083	08:37:45	Yes
Mean:		[10.0]	0.1068				
SD:		0.0	0.0014				
%RSD:		0.0	1.27				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999746 Slope: 0.01062 Intercept: -0.00030

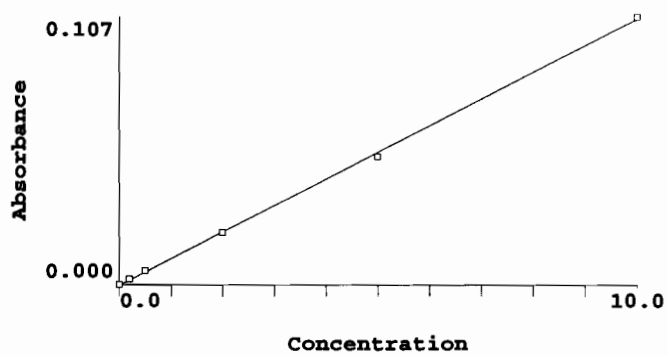

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	0.028	0.00	8.0
S0.2	0.0021	0.2	0.229	0.00	0.4
S0.5	0.0055	0.5	0.544	0.00	1.4
S2.0	0.0207	2.0	1.982	0.00	0.9
S5.0	0.0510	5.0	4.832	0.00	2.8
S10.0	0.1068	10.0	10.085	0.00	1.3

Correlation Coef.: 0.999746 Slope: 0.01062 Intercept: -0.00030

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 3/2/2010 08:38:04**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.221	5.221	0.0551	0.2819	0.0557	08:39:05	Yes
2	5.176	5.176	0.0547	0.2755	0.0553	08:39:40	Yes
Mean:	5.199	5.199	0.0549				
SD:	0.032	0.032	0.0003				
%RSD:	0.612	0.612	0.61				

QC value within limits for Hg 253.7 Recovery = 103.98%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 3/2/2010 08:40:00**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.031	0.031	0.0000	0.0024	0.0006	08:41:01	Yes
2	0.039	0.039	0.0001	0.0036	0.0007	08:41:36	Yes
Mean:	0.035	0.035	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	15.89	15.89	82.13				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 3/2/2010 08:41:56**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.234	0.234	0.0022	0.0142	0.0028	08:42:57	Yes
2	0.245	0.245	0.0023	0.0156	0.0029	08:43:32	Yes
Mean:	0.240	0.240	0.0022				
SD:	0.008	0.008	0.0001				
%RSD:	3.187	3.187	3.61				

QC value within limits for Hg 253.7 Recovery = 119.76%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 08:43:52**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.182	5.182	0.0547	0.2774	0.0553	08:44:52	Yes
2	5.128	5.128	0.0542	0.2734	0.0548	08:45:27	Yes
Mean:	5.155	5.155	0.0544				
SD:	0.038	0.038	0.0004				
%RSD:	0.738	0.738	0.74				

QC value within limits for Hg 253.7 Recovery = 103.11%
All analyte(s) passed QC.

==========

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 08:45:46**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	-0.0002	-0.0000	0.0004	08:46:47	Yes
2	0.012	0.012	-0.0002	-0.0001	0.0004	08:47:22	Yes
Mean:	0.012	0.012	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.848	0.848	0.63				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202055823|958575|1 **Date Collected: 3/2/2010 08:47:41**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055823|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	-0.0002	-0.0000	0.0004	08:48:43	Yes
2	0.016	0.016	-0.0001	0.0004	0.0005	08:49:17	Yes
Mean:	0.014	0.014	-0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	18.17	18.17	19.03				

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1202055824|958575|1 **Date Collected: 3/2/2010 08:49:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055824|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.127	2.127	0.0223	0.1129	0.0229	08:50:40	Yes
2	2.104	2.104	0.0220	0.1110	0.0227	08:51:14	Yes
Mean:	2.116	2.116	0.0222				
SD:	0.016	0.016	0.0002				
%RSD:	0.778	0.778	0.79				

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 247037001|958575|1 **Date Collected: 3/2/2010 08:51:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 247037001|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.028	0.028	-0.0000	0.0025	0.0006	08:52:35	Yes
2	0.045	0.045	0.0002	0.0048	0.0008	08:53:11	Yes
Mean:	0.037	0.037	0.0001				
SD:	0.012	0.012	0.0001				
%RSD:	34.19	34.19	145.41				

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 1202055825|958575|1 **Date Collected: 3/2/2010 08:53:30**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055825|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.019	0.019	-0.0001	0.0021	0.0005	08:54:30	Yes
2	0.028	0.028	-0.0000	0.0030	0.0006	08:55:05	Yes
Mean:	0.024	0.024	-0.0000				
SD:	0.006	0.006	0.0001				

1	0.032	0.032	0.0000	0.0035	0.0007	09:04:04	Yes
2	0.032	0.032	0.0000	0.0030	0.0007	09:04:39	Yes
Mean:	0.032	0.032	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	0.786	0.786	6.22				

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 247042004|958575|1 **Date Collected: 3/2/2010 09:04:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 247042004|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.028	0.028	0.0000	0.0031	0.0006	09:05:59	Yes
2	0.030	0.030	0.0000	0.0036	0.0006	09:06:34	Yes
Mean:	0.029	0.029	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.826	4.826	93.90				

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 09:06:54**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.128	5.128	0.0541	0.2768	0.0548	09:07:54	Yes
2	5.127	5.127	0.0541	0.2755	0.0547	09:08:29	Yes
Mean:	5.128	5.128	0.0541				
SD:	0.001	0.001	0.0000				
%RSD:	0.015	0.015	0.02				

QC value within limits for Hg 253.7 Recovery = 102.55%
All analyte(s) passed QC.

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 09:08:48**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.032	0.032	0.0000	0.0035	0.0007	09:09:49	Yes
2	0.037	0.037	0.0001	0.0040	0.0007	09:10:24	Yes
Mean:	0.035	0.035	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	10.44	10.44	53.94				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 247042005|958575|1 **Date Collected: 3/2/2010 09:10:43**
Analyst: JXL **Data Type: Original**

Replicate Data: 247042005|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.029	0.029	0.0000	0.0033	0.0006	09:11:44	Yes
2	0.033	0.033	0.0001	0.0036	0.0007	09:12:19	Yes
Mean:	0.031	0.031	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	8.235	8.235	83.29				

SD:	0.003	0.003	0.0000
%RSD:	9.252	9.252	154.88

==========

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 1202055830|958578|1 **Date Collected: 3/2/2010 09:22:19**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055830|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.029	0.029	0.0000	0.0034	0.0006	09:23:19	Yes
2	0.026	0.026	-0.0000	0.0025	0.0006	09:23:54	Yes
Mean:	0.027	0.027	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	7.825	7.825	359.08				

==========

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 1202055831|958578|1 **Date Collected: 3/2/2010 09:24:13**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055831|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.105	2.105	0.0221	0.1147	0.0227	09:25:14	Yes
2	2.105	2.105	0.0221	0.1146	0.0227	09:25:49	Yes
Mean:	2.105	2.105	0.0221				
SD:	0.000	0.000	0.0000				
%RSD:	0.010	0.010	0.01				

==========

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 1202055832|958278|5 **Date Collected: 3/2/2010 09:26:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055832|958278|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.026	0.026	-0.0000	0.0028	0.0006	09:27:08	Yes
2	0.025	0.025	-0.0000	0.0026	0.0006	09:27:43	Yes
Mean:	0.025	0.025	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	3.125	3.125	27.93				

==========

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 247036002|958578|1 **Date Collected: 3/2/2010 09:28:02**
Analyst: JXL **Data Type: Original**

Replicate Data: 247036002|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.023	0.023	-0.0001	0.0026	0.0006	09:29:03	Yes
2	0.029	0.029	0.0000	0.0031	0.0006	09:29:38	Yes
Mean:	0.026	0.026	-0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	16.58	16.58	246.20				

==========

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 09:29:57**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.092	5.092	0.0538	0.2718	0.0544	09:30:58	Yes
2	5.019	5.019	0.0530	0.2655	0.0536	09:31:32	Yes
Mean:	5.056	5.056	0.0534				
SD:	0.051	0.051	0.0005				
%RSD:	1.013	1.013	1.02				

QC value within limits for Hg 253.7 Recovery = 101.11%
All analyte(s) passed QC.

==========

Sequence No.: 35 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 09:31:51**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.048	0.048	0.0002	0.0039	0.0008	09:32:52	Yes
2	0.033	0.033	0.0001	0.0029	0.0007	09:33:27	Yes
Mean:	0.040	0.040	0.0001				
SD:	0.010	0.010	0.0001				
%RSD:	25.10	25.10	81.63				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 36 **Autosampler Location: 32**
Sample ID: 247036003|958578|1 **Date Collected: 3/2/2010 09:33:47**
Analyst: JXL **Data Type: Original**

Replicate Data: 247036003|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.026	0.026	-0.0000	0.0027	0.0006	09:34:48	Yes
2	0.029	0.029	0.0000	0.0030	0.0006	09:35:23	Yes
Mean:	0.028	0.028	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	8.511	8.511	602.34				

==========

Sequence No.: 37 **Autosampler Location: 33**
Sample ID: 247036004|958578|1 **Date Collected: 3/2/2010 09:35:42**
Analyst: JXL **Data Type: Original**

Replicate Data: 247036004|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.023	0.023	-0.0000	0.0024	0.0006	09:36:43	Yes
2	0.037	0.037	0.0001	0.0036	0.0007	09:37:18	Yes
Mean:	0.030	0.030	0.0000				
SD:	0.009	0.009	0.0001				
%RSD:	31.23	31.23	437.06				

==========

Sequence No.: 38 **Autosampler Location: 34**
Sample ID: 247036005|958578|1 **Date Collected: 3/2/2010 09:37:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 247036005|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.027	0.027	-0.0000	0.0029	0.0006	09:38:39	Yes
2	0.025	0.025	-0.0000	0.0028	0.0006	09:39:14	Yes
Mean:	0.026	0.026	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.570	4.570	52.14				

Mean:	0.029	0.029	0.0000
SD:	0.004	0.004	0.0000
%RSD:	15.71	15.71	746.11

==========

Sequence No.: 44 **Autosampler Location: 40**
Sample ID: 1202055833|958581|1 **Date Collected: 3/2/2010 09:49:16**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055833|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.021	0.021	-0.0001	0.0024	0.0005	09:50:17	Yes
2	0.029	0.029	0.0000	0.0030	0.0006	09:50:51	Yes
Mean:	0.025	0.025	-0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	21.51	21.51	171.71				

==========

Sequence No.: 45 **Autosampler Location: 41**
Sample ID: 1202055834|958581|1 **Date Collected: 3/2/2010 09:51:11**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055834|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.186	2.186	0.0229	0.1196	0.0235	09:52:12	Yes
2	2.183	2.183	0.0229	0.1194	0.0235	09:52:47	Yes
Mean:	2.184	2.184	0.0229				
SD:	0.003	0.003	0.0000				
%RSD:	0.123	0.123	0.12				

==========

Sequence No.: 46 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 09:53:06**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.016	5.016	0.0530	0.2735	0.0536	09:54:06	Yes
2	5.018	5.018	0.0530	0.2717	0.0536	09:54:41	Yes
Mean:	5.017	5.017	0.0530				
SD:	0.001	0.001	0.0000				
%RSD:	0.023	0.023	0.02				

QC value within limits for Hg 253.7 Recovery = 100.34%
All analyte(s) passed QC.

==========

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 09:55:00**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.035	0.035	0.0001	0.0033	0.0007	09:56:01	Yes
2	0.032	0.032	0.0000	0.0031	0.0007	09:56:36	Yes
Mean:	0.034	0.034	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	5.467	5.467	32.35				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 48 **Autosampler Location: 42**
Sample ID: 247817001|958581|1 **Date Collected: 3/2/2010 09:56:55**

Analyst: JXL Data Type: Original

Replicate Data: 247817001|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.038	0.038	0.0001	0.0034	0.0007	09:57:56	Yes
2	0.045	0.045	0.0002	0.0041	0.0008	09:58:31	Yes
Mean:	0.042	0.042	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	13.38	13.38	40.85				

Sequence No.: 49 Autosampler Location: 43
Sample ID: 1202055835|958581|1 Date Collected: 3/2/2010 09:58:50
Analyst: JXL Data Type: Original

Replicate Data: 1202055835|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.029	0.029	0.0000	0.0029	0.0006	09:59:51	Yes
2	0.033	0.033	0.0001	0.0033	0.0007	10:00:26	Yes
Mean:	0.031	0.031	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	9.334	9.334	96.53				

Sequence No.: 50 Autosampler Location: 44
Sample ID: 1202055836|958581|1 Date Collected: 3/2/2010 10:00:46
Analyst: JXL Data Type: Original

Replicate Data: 1202055836|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.161	2.161	0.0226	0.1194	0.0233	10:01:47	Yes
2	2.162	2.162	0.0227	0.1189	0.0233	10:02:21	Yes
Mean:	2.161	2.161	0.0227				
SD:	0.001	0.001	0.0000				
%RSD:	0.032	0.032	0.03				

Sequence No.: 51 Autosampler Location: 45
Sample ID: 1202055837|958581|5 Date Collected: 3/2/2010 10:02:41
Analyst: JXL Data Type: Original

Replicate Data: 1202055837|958581|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.033	0.033	0.0001	0.0033	0.0007	10:03:42	Yes
2	0.027	0.027	-0.0000	0.0028	0.0006	10:04:17	Yes
Mean:	0.030	0.030	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	13.36	13.36	192.48				

Sequence No.: 52 Autosampler Location: 46
Sample ID: 247817002|958581|1 Date Collected: 3/2/2010 10:04:36
Analyst: JXL Data Type: Original

Replicate Data: 247817002|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.027	0.027	-0.0000	0.0029	0.0006	10:05:38	Yes
2	0.035	0.035	0.0001	0.0034	0.0007	10:06:13	Yes
Mean:	0.031	0.031	0.0000				
SD:	0.006	0.006	0.0001				
%RSD:	18.10	18.10	191.43				

Sequence No.: 53 Autosampler Location: 47
Sample ID: 247829001|958581|1 Date Collected: 3/2/2010 10:06:33
Analyst: JXL Data Type: Original

Replicate Data: 247829001|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.027	0.027	-0.0000	0.0027	0.0006	10:07:34	Yes
2	0.031	0.031	0.0000	0.0031	0.0006	10:08:09	Yes
Mean:	0.029	0.029	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	11.64	11.64	344.25				

Sequence No.: 54 Autosampler Location: 48
Sample ID: 247829002|958581|1 Date Collected: 3/2/2010 10:08:29
Analyst: JXL Data Type: Original

Replicate Data: 247829002|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.028	0.028	-0.0000	0.0029	0.0006	10:09:31	Yes
2	0.032	0.032	0.0000	0.0034	0.0007	10:10:05	Yes
Mean:	0.030	0.030	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	10.28	10.28	177.73				

Sequence No.: 55 Autosampler Location: 49
Sample ID: 247922004|958581|1 Date Collected: 3/2/2010 10:10:26
Analyst: JXL Data Type: Original

Replicate Data: 247922004|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.035	0.035	0.0001	0.0035	0.0007	10:11:27	Yes
2	0.037	0.037	0.0001	0.0034	0.0007	10:12:02	Yes
Mean:	0.036	0.036	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	4.563	4.563	20.73				

Sequence No.: 56 Autosampler Location: 50
Sample ID: 248023001|958581|1 Date Collected: 3/2/2010 10:12:23
Analyst: JXL Data Type: Original

Replicate Data: 248023001|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.031	0.031	0.0000	0.0033	0.0006	10:13:24	Yes
2	0.032	0.032	0.0000	0.0031	0.0007	10:13:59	Yes
Mean:	0.031	0.031	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	3.412	3.412	30.68				

Sequence No.: 57 Autosampler Location: 51
Sample ID: 248023002|958581|1 Date Collected: 3/2/2010 10:14:19
Analyst: JXL Data Type: Original

Replicate Data: 248023002|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.036	0.036	0.0001	0.0037	0.0007	10:15:20	Yes

2	0.038	0.038	0.0001	0.0037	0.0007	10:15:55	Yes
Mean:	0.037	0.037	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	4.045	4.045	16.44				

==========

Sequence No.: 58 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 10:16:14**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.001	5.001	0.0528	0.2739	0.0534	10:17:15	Yes
2	4.992	4.992	0.0527	0.2715	0.0533	10:17:50	Yes
Mean:	4.997	4.997	0.0528				
SD:	0.006	0.006	0.0001				
%RSD:	0.126	0.126	0.13				

QC value within limits for Hg 253.7 Recovery = 99.93%
All analyte(s) passed QC.

==========

Sequence No.: 59 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 10:18:09**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.031	0.031	0.0000	0.0030	0.0006	10:19:09	Yes
2	0.033	0.033	0.0001	0.0032	0.0007	10:19:45	Yes
Mean:	0.032	0.032	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	5.084	5.084	37.73				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 60 **Autosampler Location: 52**
Sample ID: 1202055843|958587|1 **Date Collected: 3/2/2010 10:20:04**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055843|958587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.028	0.028	-0.0000	0.0029	0.0006	10:21:05	Yes
2	0.032	0.032	0.0000	0.0035	0.0007	10:21:41	Yes
Mean:	0.030	0.030	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	11.19	11.19	167.05				

==========

Sequence No.: 61 **Autosampler Location: 53**
Sample ID: 1202055844|958587|1 **Date Collected: 3/2/2010 10:22:00**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055844|958587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.176	2.176	0.0228	0.1196	0.0234	10:23:01	Yes
2	2.169	2.169	0.0227	0.1186	0.0233	10:23:36	Yes
Mean:	2.173	2.173	0.0228				
SD:	0.005	0.005	0.0001				
%RSD:	0.228	0.228	0.23				

==========

Sequence No.: 62 **Autosampler Location: 54**

Miscellaneous

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **957526.0** Verified by: _____

Analyst: Francena Armstrong

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202053149	Metals Spike Mix I	UI100205-01	.25	mL
LCS	1202053149	Metals Spike Mix II	UI100205-06	.25	mL
MS	1202053151	Metals Spike Mix I	UI100205-01	.25	mL
MS	1202053151	Metals Spike Mix II	UI100205-06	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202053148 MB	01-MAR-2010 12:45:00	Ground Water	50	50	1	<2
1202053149 LCS	01-MAR-2010 12:45:00	Ground Water	50	50	1	<2
247817001	01-MAR-2010 12:45:00	Ground Water	50	50	1	<2
247817002	01-MAR-2010 12:45:00	Ground Water	50	50	1	<2
247829001	01-MAR-2010 12:45:00	Ground Water	50	50	1	<2
1202053150 DUP (247829001)	01-MAR-2010 12:45:00	Ground Water	50	50	1	<2
1202053151 MS (247829001)	01-MAR-2010 12:45:00	Ground Water	50	50	1	<2
1202053152 SDILT (247829001)	01-MAR-2010 12:45:00	Ground Water	50	50	1	<2
247829002	01-MAR-2010 12:45:00	Ground Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1274969	Nitric Acid CONC.	1 mL
1274973	HYDROCHLORIC ACID	2.5 mL

Comments:

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **957528.0** Verified by: _____

Analyst: Francena Armstrong

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202053156	ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).	UI100205-A	.5	mL
LCS	1202053156	MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).	UI100205-B	.5	mL
MS	1202053158	ICP-MS DOE liquid Spike Solution A	UI090930-A	.5	mL
MS	1202053158	ICP-MS DOE Liquid Spike Solution B	UI090930-B	.5	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202053155 MB	02-MAR-2010 14:30:00	Ground Water	50	50	1	<2
1202053156 LCS	02-MAR-2010 14:30:00	Ground Water	50	50	1	<2
247817001	02-MAR-2010 14:30:00	Ground Water	50	50	1	<2
247817002	02-MAR-2010 14:30:00	Ground Water	50	50	1	<2
247829001	02-MAR-2010 14:30:00	Ground Water	50	50	1	<2
1202053157 DUP (247829001)	02-MAR-2010 14:30:00	Ground Water	50	50	1	<2
1202053158 MS (247829001)	02-MAR-2010 14:30:00	Ground Water	50	50	1	<2
1202053159 SDILT (247829001)	02-MAR-2010 14:30:00	Ground Water	50	50	1	<2
247829002	02-MAR-2010 14:30:00	Ground Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1274969	Nitric Acid CONC.	1 mL
1274973	HYDROCHLORIC ACID	2.5 mL

Comments:

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **958580.0** Verified by: _____

Analyst: Tara Griffin

Method: EPA 245.1/245.2 Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: No analytical instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202055834	Mercury working intermediate standard for LCS/MS	WHG100301-13	.2	mL
MS	1202055836	Mercury working intermediate standard for LCS/MS	WHG100301-13	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202055833 MB	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
1202055834 LCS	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
247817001	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
1202055835 DUP (247817001)	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
1202055836 MS (247817001)	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
1202055837 SDILT (247817001)	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
247817002	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
247829001	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
247829002	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
247922004	01-MAR-2010 12:20:00	Water	20	20	1	<2
248023001	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
248023002	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2

Reagent/Solvent Lot ID	Description	Amount
1176183	Sulfuric Acid, Concentrated	1 mL
1255532-C	Hg reducing agent	1 mL
1274391-1	NITRIC ACID	.5 mL
1274397-C	5% KMnO4 solution	3 mL
1276435-C	5% Potassium Persulfate	1.5 mL
WHG100301-01a	Mercury Working 1st Source CAL 0.2/CRA	20 uL
WHG100301-02	Mercury Working 1st Source CAL 0.5	50 mL
WHG100301-03	Mercury Working 1st Source CAL 2.0	200 uL
WHG100301-04	Mercury Working 1st Source CAL 5.0/CCV	500 uL
WHG100301-05	Mercury Working 1st Source CAL 10.0	1 mL
WHG100301-06	Mercury Working 2nd Source 5.0/ICV	500 uL

Comments:

Digestion Start Date: 01-MAR-10 12:20

Digestion End Date: 01-MAR-10 14:20

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
24-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ICP	SW846 3005/6010B	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
957527	See Below		

Potentially affected work order(s)(SDG): 247817(10-2001),247829(10-2006)

Application Issues:

Failed RPD for DUP

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for DUP: QC 1202053150DUP	1. The sample and sample duplicate % RPD failed outside the control limits for aluminum due to possible sample non-homogeneity and/or matrix interference. Per GEL's accredited methods and SOPs, a corrective action is not required and the data is qualified and reported.

Originator's Name:

Helen Camello 24-MAR-10

Data Validator/Group Leader:

Christopher Louviere 25-MAR-10

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 04-MAY-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Standard Logbook

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L

Analyte	Concentration	Analyte	Concentration
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL Sta **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Standard Logbook

Serial ID:	UI090925-41	**Opened:**	23-OCT-09	**Amount :**	500 mL
Name:	SECOND SOURCE STD -1	**Received:**	25-SEP-09	**Catalog Number :**	SGELMX39-500B
Type:	Source Material	**Expires:**	30-SEP-10	**Lot Number :**	4909130
Employee:	Helen Camello			**Solvent :**	5%HNO3,TR.HF
Supplier:	SPECTRO PURE				

Description: SECOND SOURCE STD #1B

Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID:	UI090930-A	**Opened:**	30-SEP-09	**Catalog Number :**	160067-02
Name:	ICP-MS DOE Liquid SPIKE	**Received:**	28-SEP-09	**Lot Number :**	1017141
Type:	Source Material	**Expires:**	30-SEP-10		
Employee:	Francena Armstrong	**Verified:**	21-NOV-08		
Supplier:	O2Si				

Description: ICP-MS DOE liquid Spike Solution A

Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090930-B **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100205-01 **Opened:** 05-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Standard Logbook

Serial ID: UI100205-06 **Opened:** 05-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI100205-A **Opened:** 05-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 05-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI100205-B **Opened:** 05-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 05-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI100310-48 **Opened:** 19-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 12-MAR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 19-MAR-11 **Lot Number :** 1019141
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100312-40 **Opened:** 14-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 12-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 14-MAR-11 **Lot Number :** 1018981
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L

Analyte	Concentration	Analyte	Concentration
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100312-41 **Opened:** 14-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 12-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 14-MAR-11 **Lot Number :** 1018981
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Serial ID: UI100317-06 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master A **Received:** 17-MAR-10 **Catalog Number :** 160055-01
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019161
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV SOLN A - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2020 mg/L	Calcium	2000 mg/L
Iron	2000 mg/L	Magnesium	2000 mg/L
Phosphorous	2000 mg/L	Potassium	2000 mg/L
Sodium	2000 mg/L		

Serial ID: UI100317-07 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master B **Received:** 17-MAR-10 **Catalog Number :** 160054-02
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019162
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln B - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	20 mg/L	Barium	20 mg/L
Beryllium	20 mg/L	Boron	40 mg/L
Cadmium	20 mg/L	Chromium	20 mg/L
Cobalt	20 mg/L	Copper	20 mg/L
Lead	20 mg/L	Lithium	20 mg/L
Manganese	20 mg/L	Nickel	20 mg/L

Analyte	Concentration	Analyte	Concentration
Selenium	20 mg/L	Strontium	20 mg/L
Thallium	20 mg/L	Thorium	20 mg/L
Uranium	20 mg/L	Vanadium	20 mg/L
Zinc	20 mg/L		

Serial ID: UI100317-08 **Opened:** 17-MAR-10 **Amount :** 250 mL
Name: ICP-MS ICV/CCV Master C **Received:** 17-MAR-10 **Catalog Number :** 160054-03
Type: Source Material **Expires:** 17-MAR-11 **Lot Number :** 1019163
Employee: Paul Boyd **Solvent :** +/- 0.5% in 5% HNO3 100 cm2
Supplier: 02SI
Description: ICPMS ICV/CCV Soln C - 10ppm
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	20 mg/L
Silver	20 mg/L	Tin	20 mg/L
Titanium	20 mg/L	Tungsten	20 mg/L
Zirconium	20 mg/L		

Serial ID: UI100318-11 **Opened:** 18-MAR-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 18-MAR-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 15-APR-10 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UI100405-12 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 05-APR-10 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019466
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI100405-13 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 05-APR-10 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019467
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100405-60 **Opened:** 05-APR-10 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 05-APR-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019464
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Arsenic	100 mg/L
Barium	250 mg/L	Beryllium	100 mg/L
Cadmium	100 mg/L	Calcium	5000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	5000 mg/L
Lead	500 mg/L	Lithium	100 mg/L
Magnesium	5000 mg/L	Manganese	100 mg/L
Nickel	100 mg/L	Phosphorous	2500 mg/L
Potassium	5000 mg/L	Selenium	50 mg/L
Sodium	5000 mg/L	Strontium	100 mg/L
Thallium	50 mg/L	Thorium	250 mg/L
Uranium	500 mg/L	Vanadium	100 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Zinc	250 mg/L		

Serial ID: UI100405-61 **Opened:** 05-APR-10 **Amount :** .5 mL
Name: ICPMS High Range Standar **Received:** 05-APR-10 **Catalog Number :** 160212-02-01
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019464
Employee: Paul Boyd **Solvent :** 2%HNO3 + Tr HF
Supplier: O2SI
Description: Linear Range Standard B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	25 mg/L	Molybdenum	100 mg/L
Silver	25 mg/L	Tin	100 mg/L
Tungsten	100 mg/L	Zirconium	50 mg/L

Serial ID: UI100415-11 **Opened:** 15-APR-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 15-APR-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 15-APR-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UMS100226-01 **Opened:** 26-FEB-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 26-FEB-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-104JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L

Analyte	Concentration	Analyte	Concentration
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100226-02 **Opened:** 26-FEB-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 26-FEB-10 **Lot Number :** 21-103JB
Type: Source Material **Expires:** 26-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100226-03 **Opened:** 26-FEB-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 26-FEB-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 26-FEB-11 **Lot Number :** 21-102JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: UMS100415-01 **Opened:** 15-APR-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 15-APR-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-20JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100415-02 **Opened:** 15-APR-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 15-APR-10 **Lot Number :** 22-21JB
Type: Source Material **Expires:** 28-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100415-03 **Opened:** 15-APR-11 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 15-APR-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-22JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100301-01 **Opened:** 01-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 01-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 02-MAR-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100301-02 **Opened:** 01-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 02-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100301-01a **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG100301-02 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100301-03 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG100301-04 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100301-05 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG100301-06 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100301-13 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100322-42 **Opened:** 22-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 23-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1289705
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100322-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100322-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100322-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100322-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100322-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100322-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100322-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100322-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100322-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100322-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100322-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100322-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Serial ID: WI100322-43 **Opened:** 22-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 23-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1289705
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Serial ID: WI100322-44 **Opened:** 22-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 23-MAR-10 **Solvent :** 3%HCL and 1 %HNO3-1289705
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Serial ID: WI100322-45 **Opened:** 22-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 23-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1289705
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100322-46 **Opened:** 22-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 23-MAR-10 **Solvent :** 3%HCL AND 1%HNO3-1289705
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100322-47 **Opened:** 22-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 23-MAR-10 **Solvent :** 3%HCL &1%HNO3-1289705
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WI100324-43 **Opened:** 24-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 25-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1289705
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100324-47 **Opened:** 24-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 25-MAR-10 **Solvent :** 3%HCL &1%HNO3-1289705
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Standard Logbook

Serial ID: WMS100415-04 **Opened:** 15-APR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 15-APR-10 **Balance Id :** 4025216
Type: Working **Expires:** 16-APR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1300209
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100226-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100226-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100226-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100226-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Serial ID: WMS100415-04A **Opened:** 15-APR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 15-APR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 16-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100415-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100415-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100415-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100415-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100415-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100415-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100415-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100415-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100415-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100415-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100415-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Serial ID: WMS100415-05 **Opened:** 15-APR-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 15-APR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 16-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Serial ID: WMS100415-06 **Opened:** 15-APR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 15-APR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 16-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Serial ID: WMS100415-07 **Opened:** 15-APR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 15-APR-10 **Lot Number :** 1010773
Type: Working **Expires:** 16-APR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1300209
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100415-08 **Opened:** 15-APR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 15-APR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 16-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100318-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100318-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100318-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100318-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L

Serial ID: WMS100415-70 **Opened:** 15-APR-10 **Balance Id :** 40245216
Name: ICPMS LINEAR RANGE ST **Received:** 15-APR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 16-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: 02SI
Description: ICPMS LINEAR RANGE STANDARD
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-60	Aluminum	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Arsenic	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Barium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-60	Beryllium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Cadmium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Calcium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Chromium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Cobalt	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Copper	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Iron	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Lead	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100405-60	Lithium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Magnesium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Manganese	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Nickel	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Phosphorous	2500 mg/L	.5 mL	50 mL	25000 ug/L
UI100405-60	Potassium	5000 mg/L	.5 mL	50 mL	50000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-60	Selenium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100405-60	Sodium	5000 mg/L	.5 mL	50 mL	50000 ug/L
UI100405-60	Strontium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Thallium	50 mg/L	.5 mL	50 mL	500 ug/L
UI100405-60	Thorium	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-60	Uranium	500 mg/L	.5 mL	50 mL	5000 ug/L
UI100405-60	Vanadium	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-60	Zinc	250 mg/L	.5 mL	50 mL	2500 ug/L
UI100405-61	Antimony	25 mg/L	.5 mL	50 mL	250 ug/L
UI100405-61	Molybdenum	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Silver	25 mg/L	.5 mL	50 mL	250 ug/L
UI100405-61	Tin	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Tungsten	100 mg/L	.5 mL	50 mL	1000 ug/L
UI100405-61	Zirconium	50 mg/L	.5 mL	50 mL	500 ug/L

Serial ID: WMS100416-04 **Opened:** 16-APR-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 16-APR-10 **Balance Id :** 4025216
Type: Working **Expires:** 17-APR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1300209
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100416-04A **Opened:** 16-APR-10 **Balance Id :** 4025216
Name: ICPMS Cal Standard 10 **Received:** 16-APR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 17-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd **Verified:** 16-APR-10
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100416-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100416-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100416-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100416-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100416-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100416-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100416-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100416-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100416-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100416-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100416-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100416-05 **Opened:** 16-APR-10 **Balance Id :** 40245216
Name: ICPMS ICV **Received:** 16-APR-10 **Pipet Id :** 3541598
Type: Working **Expires:** 17-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-06	Aluminum	2020 mg/L	.125 mL	50 mL	5050 ug/L
UI100317-06	Calcium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Iron	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Magnesium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Phosphorous	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Potassium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-06	Sodium	2000 mg/L	.125 mL	50 mL	5000 ug/L
UI100317-07	Arsenic	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Barium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Beryllium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Boron	40 mg/L	.125 mL	50 mL	100 ug/L
UI100317-07	Cadmium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Chromium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Cobalt	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Copper	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lead	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Lithium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Manganese	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Nickel	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Selenium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Strontium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thallium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Thorium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Uranium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-07	Vanadium	20 mg/L	.125 mL	50 mL	50 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100317-07	Zinc	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Antimony	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Molybdenum	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Silver	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tin	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Titanium	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Tungsten	20 mg/L	.125 mL	50 mL	50 ug/L
UI100317-08	Zirconium	20 mg/L	.125 mL	50 mL	50 ug/L

Serial ID: WMS100416-06 **Opened:** 16-APR-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 16-APR-10 **Pipet Id :** 3820544
Type: Working **Expires:** 17-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100416-07 **Opened:** 16-APR-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 16-APR-10 **Lot Number :** 1010773
Type: Working **Expires:** 17-APR-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl - 1300209
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100416-08 **Opened:** 16-APR-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 16-APR-10 **Pipet Id :** 1758088
Type: Working **Expires:** 17-APR-10 **Solvent :** 2%HNO3/1%HCl - 1300209
Employee: Paul Boyd
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-07
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Standard Logbook

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1274397-C **Opened:** 24-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 24-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1274969 **Opened:** 24-FEB-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 24-FEB-10
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1274973 **Opened:** 24-FEB-10 **Lot Number :** J02039
Name: I-HCL **Received:** 24-FEB-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1276435-C **Opened:** 28-FEB-10 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 28-FEB-10
Type: Reagent/Solvent **Expires:** 28-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1277916 **Opened:** 02-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 02-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 02-MAR-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1289705 **Opened:** 22-MAR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 12-MAR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 28-MAR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL

Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1291278 **Opened:** 25-MAR-10 **Lot Number :** J 08035 L
Name: I-HNO3 **Received:** 25-MAR-10
Type: Reagent/Solvent **Expires:** 25-MAR-11
Employee: Anthony Green
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1300209 **Opened:** 12-APR-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 12-APR-10
Type: Reagent/Solvent **Expires:** 19-APR-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1277916	I-HCL	36.5-38.0	90 mL	9 l	N/A
1291278	I-HNO3	69.0-70.0	180 mL	9 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2006

Method/Analysis Information

Product: **Specific Conductivity**

Analytical Batch: 960274 **Method:** EPA120.1 Specific Conductivity

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 120.1:

Sample ID	Client ID
247829001	CAPA-10-13497
1202059732	247817001(CAPA-10-13094) Sample Duplicate (DUP)
1202059733	247922004(WST29-10-13281) Sample Duplicate (DUP)
1202059735	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-009 REV# 9.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Conductivity analysis was performed on a Orion 160 Conductivity Meter.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 247817001 (CAPA-10-13094) and 247922004 (WST29-10-13281).

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **pH**

Analytical Batch: 957681 **Method:** EPA 150.1 pH

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 150.1:

Sample ID	Client ID
247829001	CAPA-10-13497
1202053581	247922004(WST29-10-13281) Sample Duplicate (DUP)
1202053582	247817001(CAPA-10-13094) Sample Duplicate (DUP)
1202053583	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-008 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Electrode analysis was performed on a PerpHecT LogR pH/ISE.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 247817001 (CAPA-10-13094) and 247922004 (WST29-10-13281).

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
The following sample from this sample group was received by the lab outside of the method specified holding time: 247829001 (CAPA-10-13497).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	957584	**Method:**	EPA 335.4 Cyanide and Total
Prep Batch :	957581	**Method:**	EEPA 335.4

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 335.4:

Sample ID	Client ID
247829002	CAPA-10-13498
1202053300	Method Blank (MB)
1202053301	247922004(WST29-10-13281) Sample Duplicate (DUP)
1202053302	247829002(CAPA-10-13498) Sample Duplicate (DUP)
1202053304	247922004(WST29-10-13281) Matrix Spike (MS)
1202053305	247829002(CAPA-10-13498) Matrix Spike (MS)
1202053307	247922004(WST29-10-13281) Matrix Spike Duplicate (MSD)
1202053308	247829002(CAPA-10-13498) Matrix Spike Duplicate (MSD)
1202053310	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 247829002 (CAPA-10-13498) and 247922004 (WST29-10-13281).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Ion Chromatography**

Analytical Batch: 963224 **Method:** EPA 300.0 Anions Liquid 28 day

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
247829001	CAPA-10-13497
1202066399	Method Blank (MB)
1202066400	247261004(CAPA-10-12692) Sample Duplicate (DUP)
1202066401	247261004(CAPA-10-12692) Post Spike (PS)
1202066402	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-086 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Ion Chromatography analysis was performed on a Dionex ICS-3000 Ion Chromatograph.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 247261004 (CAPA-10-12692).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following samples were re-extracted and reanalyzed due to CCV, CCB, and LCS failures for Sulfate: 1202066399 (MB), 1202066400 (CAPA-10-12692), 1202066401 (CAPA-10-12692), 1202066402 (LCS) and 247829001 (CAPA-10-13497).

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Manual Integrations
The following samples from this sample group had to be manually integrated due to errors in the instrument software peak integration: 1202066400 (CAPA-10-12692), 1202066401 (CAPA-10-12692) and 247829001 (CAPA-10-13497).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Ammonia Nitrogen**		
Analytical Batch:	957556	**Method:**	EPA 350.1 Nitrogen and Ammonia L
Prep Batch :	957555	**Method:**	EEPA 350.2 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 350.1:

Sample ID	Client ID
247829001	CAPA-10-13497
1202053226	Method Blank (MB)
1202053227	247817001(CAPA-10-13094) Sample Duplicate (DUP)
1202053229	247817001(CAPA-10-13094) Matrix Spike (MS)
1202053231	247817001(CAPA-10-13094) Matrix Spike Duplicate (MSD)
1202053233	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-106 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 247817001 (CAPA-10-13094).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202053229 (CAPA-10-13094).

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202053231 (CAPA-10-13094).

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202053227 (CAPA-10-13094).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following samples were re-analyzed due to MB failure: 1202053226 (MB), 1202053227 (CAPA-10-13094), 1202053229 (CAPA-10-13094), 1202053231 (CAPA-10-13094) and 1202053233 (LCS).

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 796155 1202053229 (CAPA-10-13094) and 1202053231 (CAPA-10-13094).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Nitrate Nitrite by Cadmium Reduction**		
Analytical Batch:	957559	**Method:**	EPA 353.2 Nitrogen and Nitrate/Nitrite

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 353.2:

Sample ID	Client ID
247829001	CAPA-10-13497
1202053242	Method Blank (MB)
1202053243	247780001(RE11-10-1579) Sample Duplicate (DUP)
1202053244	247817001(CAPA-10-13094) Sample Duplicate (DUP)
1202053245	247780001(RE11-10-1579) Post Spike (PS)
1202053246	247817001(CAPA-10-13094) Post Spike (PS)
1202053247	Laboratory Control Sample (LCS)
1202053327	247913001(50FWC-10-9942) Sample Duplicate (DUP)
1202053328	247913001(50FWC-10-9942) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-128 REV# 5.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8500 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 247780001 (RE11-10-1579), 247817001 (CAPA-10-13094) and 247913001 (50FWC-10-9942).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202053245 (RE11-10-1579).

Duplicate Relative Percent Difference (RPD) Statement
One or more of the values for the sample and/or duplicate are less than 5 times the Practical Quantitation Limit (PQL), and the difference is within one PQL value; therefore, the RPD is not applicable. 1202053244 (CAPA-10-13094).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1202053327 (50FWC-10-9942) and 1202053328 (50FWC-10-9942). The following samples in this sample group were diluted due to matrix interference: 1202053243 (RE11-10-1579), 1202053244 (CAPA-10-13094), 1202053245 (RE11-10-1579), 1202053246 (CAPA-10-13094) and 247829001 (CAPA-10-13497).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 795918 1202053245 (RE11-10-1579).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be

scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Total Phosphorus**		
Analytical Batch:	958139	**Method:**	EPA 365.4 Phosphorus and Total in
Prep Batch :	958136	**Method:**	EEPA 365.4 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 365.4:

Sample ID	Client ID
247829001	CAPA-10-13497
1202054686	Method Blank (MB)
1202054687	247817001(CAPA-10-13094) Sample Duplicate (DUP)
1202054689	247817001(CAPA-10-13094) Matrix Spike (MS)
1202054691	247817001(CAPA-10-13094) Matrix Spike Duplicate (MSD)
1202054693	Laboratory Control Sample (LCS)
1202054716	248019001(WST05-10-12492) Sample Duplicate (DUP)
1202054717	248019001(WST05-10-12492) Matrix Spike (MS)
1202054718	248019001(WST05-10-12492) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-103 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 247817001 (CAPA-10-13094) and 248019001 (WST05-10-12492).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following samples were re-analyzed due to CCB failure: 1202054717 (WST05-10-12492) and 1202054718 (WST05-10-12492).

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Solids, Total Dissolved**

Analytical Batch: 958112 **Method:** EPA 160.1 Solids and Dissolved-F

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 160.1:

Sample ID	Client ID
247829001	CAPA-10-13497
1202054639	Method Blank (MB)
1202054640	247817001(CAPA-10-13094) Sample Duplicate (DUP)
1202054642	Laboratory Control Sample (LCS)
1202055007	247922004(WST29-10-13281) Sample Duplicate (DUP)
1202055008	248074001(SWWS46-10-13636) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-001 REV# 10.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Solids analysis was performed on a Sartorius Balance BAL216. Solids lab

Initial Calibration

All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 247817001 (CAPA-10-13094), 247922004 (WST29-10-13281) and 248074001 (SWWS46-10-13636).

Duplicate Relative Percent Difference (RPD) Statement

The Relative Percent Difference (RPD) between the sample and its duplicate falls outside of the normal acceptance limits for sample 1202054640 (CAPA-10-13094) because of the heterogeneous matrix of the sample.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Sample Aliquot
A sufficient amount of sample was provided by the client for analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 798385 1202054640 (CAPA-10-13094).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Alkalinity**

Analytical Batch: 957056 **Method:** EPA 310.1 Total Alkalinity

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 310.1:

Sample ID	Client ID
247829001	CAPA-10-13497
1202052085	Method Blank (MB)
1202052087	247817001(CAPA-10-13094) Sample Duplicate (DUP)
1202052089	247817001(CAPA-10-13094) Matrix Spike (MS)
1202052090	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-033 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Titration analysis was performed on a manually operated buret.

Initial Standardization

The titrant was properly standardized

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following sample was selected for QC analysis: 247817001 (CAPA-10-13094).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The MS/PS recovery for this sample set was within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
N/A

MS/MSD Relative Percent Difference (RPD) Statement
N/A

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Nikki Cole A. Elmore **Date:** 3.23.10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2006 GEL Work Order: 247829

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Nikki Cole A. Elmore 3-23-10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 23, 2010

Client SDG: 10-2006

Client Sample ID:	CAPA-10-13497	Project:	ESHL01000
Sample ID:	247829001	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	22-FEB-10 12:00		
Receive Date:	23-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Conductivity Analysis										
EPA120.1 Specific Conductivity "As Received"										
Conductivity		142	1.00	1.00	umhos/cm	1	TXT1 03/03/10	1625	960274	1
Electrode Analysis										
EPA 150.1 pH "As Received"										
pH at Temp 15.0C	H	8.02	0.010	0.100	SU	1	LXA1 02/25/10	1211	957681	2
Ion Chromatography										
EPA 300.0 Anions Liquid 28 day "As Received"										
Bromide	U	ND	0.066	0.200	mg/L	1	GXM 03/10/10 3	2140	963224	3
Chloride		2.80	0.066	0.200	mg/L	1				
Fluoride		0.196	0.033	0.100	mg/L	1				
Sulfate		4.44	0.100	0.400	mg/L	1	GXM 03/17/10 3	1810	963224	4
Nutrient Analysis										
EPA 350.1 Nitrogen, Ammonia L "As Received"										
Nitrogen, Ammonia	J	0.026	0.016	0.050	mg/L	1	AXH3 02/25/10	1545	957556	5
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"										
Nitrogen, Nitrate/Nitrite		0.955	0.050	0.250	mg/L	5	AXH3 02/25/10	1457	957559	6
EPA 365.4 Phosphorus, Total in "As Received"										
Phosphorus, Total as P		0.064	0.015	0.050	mg/L	1	AXH3 03/05/10	0859	958139	7
Solids Analysis										
EPA 160.1 Solids, Dissolved-F "As Received"										
Total Dissolved Solids		153	2.38	10.0	mg/L		SDS 02/26/10	1123	958112	8
Titration Analysis										
EPA 310.1 Total Alkalinity "As Received"										
Alkalinity, Total as CaCO3		59.5	0.725	1.00	mg/L		LXA1 02/24/10	1130	957056	9
Carbonate alkalinity (CaCO3)	U	ND	0.725	1.00	mg/L					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	SXJ1	02/25/10	1300	957555
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	SXJ1	03/02/10	1030	958136

The following Analytical Methods were performed

Method	Description	Analyst Comments

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 23, 2010

Client SDG: 10-2006

Client Sample ID: CAPA-10-13497
Sample ID: 247829001

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 120.1	
2	EPA 150.1	
3	EPA 300.0	
4	EPA 300.0	
5	EPA 350.1	
6	EPA 353.2	
7	EPA 365.4	
8	EPA 160.1	
9	EPA 310.1	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 23, 2010

Client SDG: 10-2006

Client Sample ID: CAPA-10-13498
Sample ID: 247829002
Matrix: Ground Water
Collect Date: 22-FEB-10 12:00
Receive Date: 23-FEB-10
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
EPA 335.4 Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/08/10	1147	957584	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	03/05/10	1300	957581

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

Quality Control Summary

QC Summary

Report Date: March 23, 2010
Page 1 of 4

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 247829

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Conductivity Analysis											
Batch 960274											
QC1202059732 247817001 DUP											
Conductivity			122		122	umhos/cm	0.164		(0%-10%)	TXT1	03/03/10 16:25
QC1202059733 247922004 DUP											
Conductivity			281		282	umhos/cm	0.355		(0%-10%)		03/03/10 16:27
QC1202059735 LCS											
Conductivity	1410				1380	umhos/cm		97.4	(95%-105%)		03/03/10 16:24
Electrode Analysis											
Batch 957681											
QC1202053581 247922004 DUP											
pH		H	7.57	H	7.61	SU	0.527		(0%-10%)	LXA1	02/25/10 12:48
QC1202053582 247817001 DUP											
pH		H	7.92	H	7.81	SU	1.40		(0%-10%)		02/25/10 12:03
QC1202053583 LCS											
pH	7.00				7.02	SU		100	(95%-105%)		02/25/10 11:50
Flow Injection Analysis											
Batch 957584											
QC1202053301 247922004 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A			AXC2	03/08/10 12:13
QC1202053302 247829002 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A				03/08/10 11:48
QC1202053310 LCS											
Cyanide, Total	50.0				52.0	ug/L		104	(90%-110%)		03/08/10 11:46
QC1202053300 MB											
Cyanide, Total				U	ND	ug/L					03/08/10 11:45
QC1202053304 247922004 MS											
Cyanide, Total	100	U	ND		98.2	ug/L		97.5	(60%-144%)		03/08/10 12:18
QC1202053305 247829002 MS											
Cyanide, Total	100	U	ND		108	ug/L		108	(60%-144%)		03/08/10 11:53
QC1202053307 247922004 MSD											
Cyanide, Total	100	U	ND		98.4	ug/L	0.203	97.7	(0%-20%)		03/08/10 12:19
QC1202053308 247829002 MSD											
Cyanide, Total	100	U	ND		108	ug/L	0.00	108	(0%-20%)		03/08/10 11:54
Ion Chromatography											
Batch 963224											
QC1202066400 247261004 DUP											
Bromide		U	ND	U	ND	mg/L	N/A			GXM3	03/10/10 19:41
Chloride			2.01		2.01	mg/L	0.239		(0%-20%)		
Fluoride			0.241		0.239	mg/L	0.709 ^		(+/-0.100)		
Sulfate		H	2.36	H	2.35	mg/L	0.352		(0%-20%)		03/17/10 16:11
QC1202066402 LCS											
Bromide	2.50				2.50	mg/L		100	(90%-110%)		03/10/10 18:41

QC Summary

Workorder: 247829

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Ion Chromatography											
Batch 963224											
Chloride	10.0				9.38	mg/L		93.8	(90%-110%)		
Fluoride	5.00				4.88	mg/L		97.6	(90%-110%)	GXM3	03/10/10 18:41
Sulfate	20.0				19.0	mg/L		95	(90%-110%)		03/17/10 15:11
QC1202066399 MB											
Bromide				U	ND	mg/L					03/10/10 18:11
Chloride				U	ND	mg/L					
Fluoride				U	ND	mg/L					
Sulfate				U	ND	mg/L					03/17/10 14:42
QC1202066401 247261004 PS											
Bromide	2.50	U	ND		2.53	mg/L		101	(90%-110%)		03/10/10 20:11
Chloride	10.0		2.01		11.6	mg/L		96.2	(90%-110%)		
Fluoride	5.00		0.241		5.08	mg/L		96.7	(90%-110%)		
Sulfate	20.0	H	2.36	H	21.4	mg/L		95.3	(90%-110%)		03/17/10 16:41
Nutrient Analysis											
Batch 957556											
QC1202053227 247817001 DUP											
Nitrogen, Ammonia		J	0.038	J	0.020	mg/L	62.1 ^		(+/-0.050)	AXH3	02/25/10 15:35
QC1202053233 LCS											
Nitrogen, Ammonia	1.00				1.00	mg/L		100	(90%-110%)		02/25/10 15:33
QC1202053226 MB											
Nitrogen, Ammonia				J	0.026	mg/L					02/25/10 15:32
QC1202053229 247817001 MS											
Nitrogen, Ammonia	1.00	J	0.038		0.800	mg/L		76.2*	(90%-110%)		02/25/10 15:36
QC1202053231 247817001 MSD											
Nitrogen, Ammonia	1.00	J	0.038		0.815	mg/L	1.86	77.7*	(0%-15%)		02/25/10 15:37
Batch 957559											
QC1202053243 247780001 DUP											
Nitrogen, Nitrate/Nitrite		J	0.0735	J	0.0605	mg/L	19.4 ^		(+/-0.250)	AXH3	02/25/10 14:42
QC1202053244 247817001 DUP											
Nitrogen, Nitrate/Nitrite			0.390		0.314	mg/L	21.6 ^		(+/-0.250)		02/25/10 14:47
QC1202053327 247913001 DUP											
Nitrogen, Nitrate/Nitrite			1.84		1.74	mg/L	5.59 ^		(+/-0.500)		02/25/10 14:55
QC1202053247 LCS											
Nitrogen, Nitrate/Nitrite	1.00				0.928	mg/L		92.8	(90%-110%)		02/25/10 14:40
QC1202053242 MB											
Nitrogen, Nitrate/Nitrite				U	ND	mg/L					02/25/10 14:39
QC1202053245 247780001 PS											
Nitrogen, Nitrate/Nitrite	1.00	J	0.0147		0.913	mg/L		89.8*	(90%-110%)		02/25/10 14:43
QC1202053246 247817001 PS											
Nitrogen, Nitrate/Nitrite	1.00		0.0779		0.994	mg/L		91.6	(90%-110%)		02/25/10 14:46
QC1202053328 247913001 PS											
Nitrogen, Nitrate/Nitrite	1.00		0.184		1.16	mg/L		97.6	(90%-110%)		02/25/10 14:54
Batch 958139											
QC1202054687 247817001 DUP											
Phosphorus, Total as P			0.060		0.050	mg/L	18.2 ^		(+/-0.050)	AXH3	03/05/10 08:57
QC1202054716 248019001 DUP											

QC Summary

Workorder: 247829

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Nutrient Analysis											
Batch 958139											
Phosphorus, Total as P			0.102		0.096	mg/L	6.06 ^		(+/-0.050)		03/05/10 09:02
QC1202054693 LCS											
Phosphorus, Total as P	1.00				1.09	mg/L		109	(86%-120%)	AXH3	03/05/10 08:55
QC1202054686 MB											
Phosphorus, Total as P				J	0.027	mg/L					03/05/10 08:54
QC1202054689 247817001 MS											
Phosphorus, Total as P	1.00		0.060		1.07	mg/L		107	(42%-150%)		03/05/10 08:58
QC1202054717 248019001 MS											
Phosphorus, Total as P	1.00		0.102		1.14	mg/L		104	(42%-150%)		03/05/10 09:44
QC1202054691 247817001 MSD											
Phosphorus, Total as P	1.00		0.060		1.05	mg/L	1.88	105	(0%-26%)		03/05/10 08:58
QC1202054718 248019001 MSD											
Phosphorus, Total as P	1.00		0.102		1.15	mg/L	1.48	105	(0%-26%)		03/05/10 09:44
Solids Analysis											
Batch 958112											
QC1202054640 247817001 DUP											
Total Dissolved Solids			123		155	mg/L	23.0*		(0%-10%)	SDS	02/26/10 11:23
QC1202055007 247922004 DUP											
Total Dissolved Solids			260		260	mg/L	1.53		(0%-10%)		02/26/10 11:23
QC1202055008 248074001 DUP											
Total Dissolved Solids			652		672	mg/L	3.02		(0%-10%)		02/26/10 11:23
QC1202054642 LCS											
Total Dissolved Solids	300				299	mg/L		99.7	(95%-105%)		02/26/10 11:23
QC1202054639 MB											
Total Dissolved Solids				U	ND	mg/L					02/26/10 11:23
Titration Analysis											
Batch 957056											
QC1202052087 247817001 DUP											
Alkalinity, Total as CaCO3			53.8		53.8	mg/L	0.00		(0%-20%)	LXA1	02/24/10 11:14
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1202052090 LCS											
Alkalinity, Total as CaCO3	50.0				50.5	mg/L		101	(90%-110%)		02/24/10 11:04
QC1202052085 MB											
Alkalinity, Total as CaCO3				J	0.953	mg/L					02/24/10 11:03
Carbonate alkalinity (CaCO3)				U	ND	mg/L					
QC1202052089 247817001 MS											
Alkalinity, Total as CaCO3	50.0		53.8		102	mg/L		97.2	(80%-120%)		02/24/10 11:24

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.

QC Summary

Workorder: 247829

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 23-MAR-2010 12:47

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-2006

Flow Injection Analysis

Method: EPA 335.4 Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**08-MAR-2010 10:32:54**	**OM_3-8-2010_10-24-48**	**147**	**150**	**98**	**(90%-110%)**	**Yes**
CCV	08-MAR-2010 11:37:00	OM_3-8-2010_10-24-48	106	100	106	(90%-110%)	Yes
CCV	08-MAR-2010 11:49:26	OM_3-8-2010_10-24-48	107	100	107	(90%-110%)	Yes
CCV	08-MAR-2010 12:02:00	OM_3-8-2010_10-24-48	106	100	106	(90%-110%)	Yes
CCV	08-MAR-2010 12:14:34	OM_3-8-2010_10-24-48	107	100	107	(90%-110%)	Yes
CCV	08-MAR-2010 12:24:25	OM_3-8-2010_10-24-48	106	100	106	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**08-MAR-2010 10:34:44**	**OM_3-8-2010_10-24-48**	**-1.65**	**10**	**Yes**
CCB	08-MAR-2010 11:38:51	OM_3-8-2010_10-24-48	-2.34	10	Yes
CCB	08-MAR-2010 11:51:15	OM_3-8-2010_10-24-48	-1.71	10	Yes
CCB	08-MAR-2010 12:03:51	OM_3-8-2010_10-24-48	-1.63	10	Yes
CCB	08-MAR-2010 12:16:24	OM_3-8-2010_10-24-48	-1.86	10	Yes
CCB	08-MAR-2010 12:26:15	OM_3-8-2010_10-24-48	-1.71	10	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 23-MAR-2010 12:47

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-2006

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Bromide

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**10-MAR-2010 11:42:00**	**100310**	**2.5086**	**2.5**	**100**	**(90%-110%)**	**Yes**
CCV	10-MAR-2010 17:11:00	100310	3.8241	3.75	102	(90%-110%)	Yes
CCV	10-MAR-2010 23:10:00	100310	2.498	2.5	99.9	(90%-110%)	Yes
ICV	**11-MAR-2010 22:21:00**	**100311**	**2.4934**	**2.5**	**99.7**	**(90%-110%)**	**Yes**
CCV	12-MAR-2010 20:16:00	100311	0	3.75	0	(90%-110%)	No
CCV	13-MAR-2010 02:15:00	100311	0	2.5	0	(90%-110%)	No
ICV	**17-MAR-2010 13:43:00**	**100317**	**2.4926**	**2.5**	**99.7**	**(90%-110%)**	**Yes**
CCV	17-MAR-2010 19:40:00	100317	3.7794	3.75	101	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**10-MAR-2010 12:12:00**	**100310**	**0**	**0.2**	**Yes**
CCB	10-MAR-2010 17:41:00	100310	0	0.2	Yes
CCB	10-MAR-2010 23:40:00	100310	0	0.2	Yes
ICB	**11-MAR-2010 22:51:00**	**100311**	**0**	**0.2**	**Yes**
CCB	12-MAR-2010 20:46:00	100311	0	0.2	Yes
CCB	13-MAR-2010 02:45:00	100311	0	0.2	Yes
ICB	**17-MAR-2010 14:12:00**	**100317**	**0**	**0.2**	**Yes**
CCB	17-MAR-2010 20:10:00	100317	0	0.2	Yes

Parmname: Chloride

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**10-MAR-2010 11:42:00**	**100310**	**9.3258**	**10**	**93.3**	**(90%-110%)**	**Yes**
CCV	10-MAR-2010 17:11:00	100310	14.7559	15	98.4	(90%-110%)	Yes
CCV	10-MAR-2010 23:10:00	100310	9.3353	10	93.4	(90%-110%)	Yes
ICV	**11-MAR-2010 22:21:00**	**100311**	**9.4835**	**10**	**94.8**	**(90%-110%)**	**Yes**
CCV	12-MAR-2010 20:16:00	100311	14.6759	15	97.8	(90%-110%)	Yes
CCV	13-MAR-2010 02:15:00	100311	9.2695	10	92.7	(90%-110%)	Yes
ICV	**17-MAR-2010 13:43:00**	**100317**	**9.3464**	**10**	**93.5**	**(90%-110%)**	**Yes**
CCV	17-MAR-2010 19:40:00	100317	14.8256	15	98.8	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**10-MAR-2010 12:12:00**	**100310**	**0**	**0.2**	**Yes**
CCB	10-MAR-2010 17:41:00	100310	0	0.2	Yes
CCB	10-MAR-2010 23:40:00	100310	0	0.2	Yes
ICB	**11-MAR-2010 22:51:00**	**100311**	**0**	**0.2**	**Yes**
CCB	12-MAR-2010 20:46:00	100311	0	0.2	Yes
CCB	13-MAR-2010 02:45:00	100311	0	0.2	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 23-MAR-2010 12:47

GEL Laboratories LLC
Contract: ESHL01000
SDG #: 10-2006

Ion Chromatography
Method: EPA 300.0 Concentration Units:mg/L
Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Chloride

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**17-MAR-2010 14:12:00**	**100317**	**0.1862**	**0.2**	**Yes**
CCB	17-MAR-2010 20:10:00	100317	0	0.2	Yes

Parmname: Fluoride

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**10-MAR-2010 11:42:00**	**100310**	**4.8773**	**5**	**97.5**	**(90%-110%)**	**Yes**
CCV	10-MAR-2010 17:11:00	100310	7.4981	7.5	100	(90%-110%)	Yes
CCV	10-MAR-2010 23:10:00	100310	4.8879	5	97.8	(90%-110%)	Yes
ICV	**11-MAR-2010 22:21:00**	**100311**	**4.9917**	**5**	**99.8**	**(90%-110%)**	**Yes**
CCV	12-MAR-2010 20:16:00	100311	7.503	7.5	100	(90%-110%)	Yes
CCV	13-MAR-2010 02:15:00	100311	4.8754	5	97.5	(90%-110%)	Yes
ICV	**17-MAR-2010 13:43:00**	**100317**	**4.9617**	**5**	**99.2**	**(90%-110%)**	**Yes**
CCV	17-MAR-2010 19:40:00	100317	7.5953	7.5	101	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**10-MAR-2010 12:12:00**	**100310**	**0**	**0.1**	**Yes**
CCB	10-MAR-2010 17:41:00	100310	0	0.1	Yes
CCB	10-MAR-2010 23:40:00	100310	0	0.1	Yes
ICB	**11-MAR-2010 22:51:00**	**100311**	**0**	**0.1**	**Yes**
CCB	12-MAR-2010 20:46:00	100311	0	0.1	Yes
CCB	13-MAR-2010 02:45:00	100311	0	0.1	Yes
ICB	**17-MAR-2010 14:12:00**	**100317**	**0**	**0.1**	**Yes**
CCB	17-MAR-2010 20:10:00	100317	0	0.1	Yes

Parmname: Sulfate

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**10-MAR-2010 11:42:00**	**100310**	**19.169**	**20**	**95.8**	**(90%-110%)**	**Yes**
CCV	10-MAR-2010 17:11:00	100310	35.262	30	118	(90%-110%)	No
CCV	10-MAR-2010 23:10:00	100310	23.2474	20	116	(90%-110%)	No
ICV	**11-MAR-2010 22:21:00**	**100311**	**19.7293**	**20**	**98.6**	**(90%-110%)**	**Yes**
CCV	12-MAR-2010 20:16:00	100311	30.1294	30	100	(90%-110%)	Yes
CCV	13-MAR-2010 02:15:00	100311	19.291	20	96.5	(90%-110%)	Yes
ICV	**17-MAR-2010 13:43:00**	**100317**	**18.9605**	**20**	**94.8**	**(90%-110%)**	**Yes**
CCV	17-MAR-2010 19:40:00	100317	29.6703	30	98.9	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**10-MAR-2010 12:12:00**	**100310**	**0**	**0.4**	**Yes**

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 23-MAR-2010 12:47

GEL Laboratories LLC

Contract: **ESHL01000**

SDG #: **10-2006**

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Sulfate

Sample Type	Run Date	Data File	Result	Limits	Within Limits
CCB	10-MAR-2010 17:41:00	100310	0	0.4	Yes
CCB	10-MAR-2010 23:40:00	100310	1.924	0.4	No
ICB	**11-MAR-2010 22:51:00**	**100311**	**0**	**0.4**	**Yes**
CCB	12-MAR-2010 20:46:00	100311	0	0.4	Yes
CCB	13-MAR-2010 02:45:00	100311	0.3616	0.4	Yes
ICB	**17-MAR-2010 14:12:00**	**100317**	**0**	**0.4**	**Yes**
CCB	17-MAR-2010 20:10:00	100317	0	0.4	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 23-MAR-2010 12:47

GEL Laboratories LLC
Contract: ESHL01000
SDG #: 10-2006

Nutrient Analysis
Method: EPA 350.1 Concentration Units:mg/L
Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Nitrogen, Ammonia

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**25-FEB-2010 12:53:13**	**OM_2-25-2010_12-43-55**	**0.996**	**1**	**99.6**	**(90%-110%)**	**Yes**
CCV	25-FEB-2010 15:29:19	OM_2-25-2010_15-16-29	1.043	1	104	(90%-110%)	Yes
CCV	25-FEB-2010 15:41:23	OM_2-25-2010_15-16-29	1.045	1	105	(90%-110%)	Yes
CCV	25-FEB-2010 15:53:11	OM_2-25-2010_15-16-29	1.043	1	104	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**25-FEB-2010 12:55:04**	**OM_2-25-2010_12-43-55**	**-0.011**	**0.05**	**Yes**
CCB	25-FEB-2010 15:31:10	OM_2-25-2010_15-16-29	-0.008	0.05	Yes
CCB	25-FEB-2010 15:43:13	OM_2-25-2010_15-16-29	-0.006	0.05	Yes
CCB	25-FEB-2010 15:55:01	OM_2-25-2010_15-16-29	-0.005	0.05	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 23-MAR-2010 12:47

GEL Laboratories LLC

Contract: **ESHL01000**

SDG #: **10-2006**

Nutrient Analysis

Method: EPA 353.2 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8500 Series

Parmname: Nitrogen, Nitrate/Nitrite

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**25-FEB-2010 10:18:53**	**OM_2-25-2010_10-08-41**	**0.978**	**1**	**97.8**	**(90%-110%)**	**Yes**
CCV	25-FEB-2010 14:32:00	OM_2-25-2010_13-40-36	0.912	1	91.2	(90%-110%)	Yes
CCV	25-FEB-2010 14:48:45	OM_2-25-2010_13-40-36	0.901	1	90.1	(90%-110%)	Yes
CCV	25-FEB-2010 15:01:49	OM_2-25-2010_13-40-36	0.936	1	93.6	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**25-FEB-2010 10:21:15**	**OM_2-25-2010_10-08-41**	**-0.00122**	**0.05**	**Yes**
CCB	25-FEB-2010 14:34:22	OM_2-25-2010_13-40-36	-0.00146	0.05	Yes
CCB	25-FEB-2010 14:51:07	OM_2-25-2010_13-40-36	-0.00014	0.05	Yes
CCB	25-FEB-2010 15:04:11	OM_2-25-2010_13-40-36	-0.00147	0.05	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 23-MAR-2010 12:47

GEL Laboratories LLC

Contract: **ESHL01000**

SDG #: **10-2006**

Nutrient Analysis

Method: EPA 365.4 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Phosphorus, Total as P

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**05-MAR-2010 08:50:31**	**OM_3-5-2010_08-40-57**	**1.021**	**1**	**102**	**(90%-110%)**	**Yes**
CCV	05-MAR-2010 09:02:59	OM_3-5-2010_08-40-57	1.002	1	100	(90%-110%)	Yes
CCV	05-MAR-2010 09:40:00	OM_3-5-2010_09-38-31	0.987	1	98.7	(90%-110%)	Yes
CCV	05-MAR-2010 09:52:23	OM_3-5-2010_09-38-31	0.966	1	96.6	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**05-MAR-2010 08:52:36**	**OM_3-5-2010_08-40-57**	**0.024**	**0.05**	**Yes**
CCB	05-MAR-2010 09:05:03	OM_3-5-2010_08-40-57	0.016	0.05	Yes
CCB	05-MAR-2010 09:42:04	OM_3-5-2010_09-38-31	0.017	0.05	Yes
CCB	05-MAR-2010 09:54:27	OM_3-5-2010_09-38-31	0.017	0.05	Yes

Alkalinity

Alkalinity LogBook

Analyst: LXA1
Batch: 957056
Lab SOP: GL-GC-E-033 REV# 6
SOP Description: Alkalinity: Total, Bicarbonate, Carbonate, Hydroxide, and Phenolphthalein
Run Date: 24-FEB-2010

Type	Sample Id	Lot Id	Nc(mg/L)	Recovery(%)
LCS	1202052090	IMM100107-ALK	50	100.965
LCS	1202052251	IMM100107-ALK	50	100.33
MS	1202052089	IMM100107-ALK	50	97.155
MS	1202052338	IMM100107-ALK	100	1103.63
MSD	1202052350	IMM100107-ALK	100	963.168

Type	Sample Id	Rpd(%)	Parmname
DUP	1202052087	0	Alkalinity, Total as CaCO3
DUP	1202052087	0	Carbonate alkalinity (CaCO3)
DUP	1202052337	1.527	Carbonate alkalinity (CaCO3)

Type	Sample id	Parent Sample Id	Time	Ph	Aliquot	Units	Normality H2SO4	H2SO4 Ph 8.3 (mL)	H2SO4 Ph 4.5(mL)	Alkalinity	Bicarbonate	CO2 Dissolved	CO2 Free	CO2 Total	Carbonate	Hydroxide	Phenol phthalein	Units
MB	1202052250		11:01	6.15	100	mL	0.10033	0	0.05	2.5083					0.0000			mg/L
LCS	1202052251		11:02	9.18	100	mL	0.10033	0	1	50.165								mg/L
MB	1202052085		11:03	6.29	100	mL	0.01905	0	0.1	0.95250					0.0000			mg/L
LCS	1202052090		11:04	9.22	100	mL	0.01905	0	5.3	50.483								mg/L
SAMPLE	247817001		11:08	7.89	100	mL	0.01905	0	5.65	53.816					0.0000			mg/L
DUP	1202052087	247817001	11:14	7.92	100	mL	0.01905	0	5.65	53.816					0.0000			mg/L
MS	1202052089	247817001	11:24	9.07	100	mL	0.01905	0	10.75	102.39								mg/L
SAMPLE	247829001		11:30	7.96	100	mL	0.01905	0	6.25	59.531					0.0000			mg/L
SAMPLE	247854001		11:40	8.42	50	mL	0.10033	4.15	31.9	3200.5					832.74			mg/L
SAMPLE	247854002		12:12	8.46	50	mL	0.10033	3.7	20.2	2026.7					742.44			mg/L
SAMPLE	247854003		12:18	8.45	50	mL	0.10033	3.9	29.4	2949.7					782.57			mg/L
SAMPLE	247854004		12:24	8.41	50	mL	0.10033	3.25	21.8	2187.2					652.15			mg/L
DUP	1202052337	247854004	12:33	8.41	50	mL	0.10033	3.3	22	2207.3					662.18			mg/L
MS	1202052338	247854004	12:42	8.45	50	mL	0.10033	0	32.8	3290.8								mg/L
MSD	1202052350	247854004	12:54	8.46	50	mL	0.10033	0	31.4	3150.4								mg/L

Run Date: 24-FEB-10 08:19
Instrument: PHX370
Analyst: LXA1

Standard	Observed	Theoretical		%Recovery
UPH100224-PH3	10.04	10	SU	100.4
UPH100224-PH5	12.01	12	SU	100.08
UPH100224-PH4	2.09	2	SU	104.5
IMM100224-PH1	4.01	4	SU	100.25
IMM100224-PH2	7.01	7	SU	100.14
IMM100224-PH6	7.03	7	SU	100.43

Comments:

Run Date: 11-FEB-2010 16:53
Instrument: TIT001
Analyst: LXA1

Na2CO3 Std. ID	Na2CO3, 0.05 N g Na2C03/L
1071836	2.5214

GEL Laboratories LLC

Page#_____

Alkalinity LogBook

	H2SO4 N (approx.)	NA2CO3 titrated	H2SO4 to pH 3.7	Actual Normality	Normality Average
2.5214	.1	40	18.9	.09989	.10033
2.5214	.1	40	18.95	.10042	
	.1	40	19.05	.10068	

Run Date: 11-FEB-2010 18:08
Instrument: TIT001
Analyst: LXA1

Na2CO3 Std. ID	Na2CO3, 0.05 N g Na2C03/L	H2SO4 N (approx.)	NA2CO3 titrated	H2SO4 to pH 3.7	Actual Normality	Normality Average
1071836	2.5214	.02	15	37.4	.01903	.01905
	2.5214	.02	15	37.45	.01905	
	2.5214	.02	15	37.5	.01908	

Normality of H2SO4 solution
A x B / 53.00 x C
where:
A = grams of Na2CO3
B = volume (mL) of the Na2CO3 solution
C = Total volume of the 0.02 N H2SO4 acid titrant used to reach a pH of 3.7

Total Alkalinity (mg/L)
Vt x N x 50000 / Vs
Where:
Vt = volume (mL) of H2SO4 used to reach the pH 4.5 endpoint
N = normality of the H2SO4 titrant
Vs = volume (mL) of sample used

Phenolphthalein alkalinity (mg/L)
Vt x N x 50000 / Vs
Where:
Vt = volume (mL) of H2SO4 used to reach the pH 8.3 endpoint
N = normality of the H2SO4 titrant
Vs = volume (mL) of sample used

Bicarbonate Alkalinity
Relationship Table SM2320B

Carbonate Alkalinity
Relationship Table SM2320B

Hydroxide Alkalinity
Relationship Table SM2320B

Free Carbon Dioxide
mg CO2/L = 2.0 x B x 10 (6-pH)
Where B = Bicarbonate Alkalinity

Total Carbon Dioxide
mg total CO2/L = A + 0.44(2B + C)
Where:
A = mg Free CO2/L
B = Bicarbonate Alkalinity

Alkalinity LogBook

C = Carbonate Alkalinity

Relationship Table SM2320B

P = 0	then H = 0,	C = 0,	B = T
P < 1/2 T	then H = 0,	C = 2P,	B = T - 2P
P = 1/2 T	then H = 0,	C = 2P,	B = 0
P > 1/2 T	then H = 2P - T,	C = 2(T - P),	B = 0
P = T	then H = T,	C = 0,	B = 0

Ammonia Nitrogen

Prep Logbook

Ammonia-Nitrogen Sample Preparation

Batch ID: **957555.0** Verified by: _____

Analyst: Stephanie Jackson

Method: EPA 350.2 Prep

Lab SOP: GL-GC-E-072 REV# 11

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202053233	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202053229	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202053230	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202053231	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202053232	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202053226 MB	25-FEB-2010 13:00:00	Ground Water	25	25	1	9.5
1202053233 LCS	25-FEB-2010 13:00:00	Ground Water	25	25	1	9.5
247817001	25-FEB-2010 13:00:00	Ground Water	25	25	1	9.5
1202053227 DUP (247817001)	25-FEB-2010 13:00:00	Ground Water	25	25	1	9.5
1202053229 MS (247817001)	25-FEB-2010 13:00:00	Ground Water	25	25	1	9.5
1202053231 MSD (247817001)	25-FEB-2010 13:00:00	Ground Water	25	25	1	9.5
247829001	25-FEB-2010 13:00:00	Ground Water	25	25	1	9.5
247867001	25-FEB-2010 13:00:00	Waste Water	10	25	2.5	9.5
247867002	25-FEB-2010 13:00:00	Waste Water	5	25	5	9.5
247867003	25-FEB-2010 13:00:00	Water	5	25	5	9.5
247929001	25-FEB-2010 13:00:00	Ground Water	25	25	1	9.5
247929002	25-FEB-2010 13:00:00	Ground Water	10	25	2.5	9.5
247929003	25-FEB-2010 13:00:00	Ground Water	25	25	1	9.5
247929004	25-FEB-2010 13:00:00	Ground Water	25	25	1	9.5
247936001	25-FEB-2010 13:00:00	Misc Liquid	10	25	2.5	9.5
1202053228 DUP (247936001)	25-FEB-2010 13:00:00	Misc Liquid	10	25	2.5	9.5
1202053230 MS (247936001)	25-FEB-2010 13:00:00	Misc Liquid	10	25	2.5	9.5
1202053232 MSD (247936001)	25-FEB-2010 13:00:00	Misc Liquid	10	25	2.5	9.5
247936002	25-FEB-2010 13:00:00	Misc Liquid	25	25	1	9.5
247936003	25-FEB-2010 13:00:00	Misc Liquid	10	25	2.5	9.5
247936004	25-FEB-2010 13:00:00	Misc Liquid	25	25	1	9.5
247936005	25-FEB-2010 13:00:00	Misc Liquid	25	25	1	9.5
247936006	25-FEB-2010 13:00:00	Misc Liquid	25	25	1	9.5

Prep Logbook

Batch ID: **957555.0** Verified by: _____

Analyst: Stephanie Jackson

Method: EPA 350.2 Prep

Lab SOP: GL-GC-E-072 REV# 11

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202053233	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202053229	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202053230	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202053231	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202053232	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
247936007	25-FEB-2010 13:00:00	Misc Liquid	10	25	2.5	9.5
247936008	25-FEB-2010 13:00:00	Misc Liquid	25	25	1	9.5
247953001	25-FEB-2010 13:00:00	Waste Water	10	25	2.5	9.5

Reagent/Solvent Lot ID	Description	Amount
1271208-C	Borate Buffer	1.25 mL
1271210-C	50% NaOH Solution	1 mL

Comments:

samples 247867001, 247929002, 247936001, DUP, MS and MSD, 247963003, 2479636007 and 247953001 prepped @10mL due to bright yellow color NH3 test strip... samples 247867002 and 247867003 prepped @ 5mL due to dark orange color on NH3 test strip

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
2.0 ppm Std.		1	axh3	2/25/2010 12:47:07	OM_2-25-2010_12-43-55
1.0 ppm Std.		1	axh3	2/25/2010 12:47:57	OM_2-25-2010_12-43-55
0.5 ppm Std		1	axh3	2/25/2010 12:48:47	OM_2-25-2010_12-43-55
0.1 ppm Std		1	axh3	2/25/2010 12:49:38	OM_2-25-2010_12-43-55
0.05 ppm Std		1	axh3	2/25/2010 12:50:30	OM_2-25-2010_12-43-55
ICAL-00		1	axh3	2/25/2010 12:51:22	OM_2-25-2010_12-43-55
ICV		1	axh3	2/25/2010 12:53:13	OM_2-25-2010_12-43-55
ICB		1	axh3	2/25/2010 12:55:04	OM_2-25-2010_12-43-55
1202050875	956489	1	axh3	2/25/2010 12:56:53	OM_2-25-2010_12-43-55
1202050879	956489	1	axh3	2/25/2010 12:57:43	OM_2-25-2010_12-43-55
247763002	956489	1	axh3	2/25/2010 12:58:34	OM_2-25-2010_12-43-55
1202050876	956489	1	axh3	2/25/2010 12:59:25	OM_2-25-2010_12-43-55
1202050877	956489	1	axh3	2/25/2010 13:00:15	OM_2-25-2010_12-43-55
1202050878	956489	1	axh3	2/25/2010 13:01:04	OM_2-25-2010_12-43-55
247854001	956489	1	axh3	2/25/2010 13:01:55	OM_2-25-2010_12-43-55
1202051767	956489	1	axh3	2/25/2010 13:02:46	OM_2-25-2010_12-43-55
1202051768	956489	1	axh3	2/25/2010 13:03:37	OM_2-25-2010_12-43-55
1202051769	956489	1	axh3	2/25/2010 13:04:28	OM_2-25-2010_12-43-55
CCV		1	axh3	2/25/2010 13:05:18	OM_2-25-2010_12-43-55
CCB		1	axh3	2/25/2010 13:07:08	OM_2-25-2010_12-43-55
247763001	956489	1	axh3	2/25/2010 13:08:57	OM_2-25-2010_12-43-55
247850001	956489	1	axh3	2/25/2010 13:09:47	OM_2-25-2010_12-43-55
247850002	956489	1	axh3	2/25/2010 13:10:36	OM_2-25-2010_12-43-55
247850003	956489	1	axh3	2/25/2010 13:11:25	OM_2-25-2010_12-43-55
247850004	956489	1	axh3	2/25/2010 13:12:13	OM_2-25-2010_12-43-55
247850005	956489	1	axh3	2/25/2010 13:13:01	OM_2-25-2010_12-43-55
247850006	956489	1	axh3	2/25/2010 13:13:49	OM_2-25-2010_12-43-55
247850007	956489	1	axh3	2/25/2010 13:14:37	OM_2-25-2010_12-43-55
247850008	956489	1	axh3	2/25/2010 13:15:24	OM_2-25-2010_12-43-55
247854002	956489	1	axh3	2/25/2010 13:16:13	OM_2-25-2010_12-43-55
CCV		1	axh3	2/25/2010 13:17:03	OM_2-25-2010_12-43-55
CCB		1	axh3	2/25/2010 13:18:54	OM_2-25-2010_12-43-55
247854003	956489	1	axh3	2/25/2010 13:20:42	OM_2-25-2010_12-43-55
247854004	956489	1	axh3	2/25/2010 13:21:32	OM_2-25-2010_12-43-55
1202050413	956216	1	axh3	2/25/2010 13:22:22	OM_2-25-2010_12-43-55
1202050417	956216	1	axh3	2/25/2010 13:23:11	OM_2-25-2010_12-43-55
247435002*	956216	1	axh3	2/25/2010 13:24:00	OM_2-25-2010_12-43-55
1202050414*	956216	1	axh3	2/25/2010 13:24:49	OM_2-25-2010_12-43-55
1202050415*	956216	1	axh3	2/25/2010 13:25:38	OM_2-25-2010_12-43-55
1202050416*	956216	1	axh3	2/25/2010 13:26:26	OM_2-25-2010_12-43-55
247435001	956216	1	axh3	2/25/2010 13:27:14	OM_2-25-2010_12-43-55
247435003	956216	1	axh3	2/25/2010 13:28:03	OM_2-25-2010_12-43-55
CCV		1	axh3	2/25/2010 13:28:52	OM_2-25-2010_12-43-55
CCB		1	axh3	2/25/2010 13:30:42	OM_2-25-2010_12-43-55
247435004	956216	1	axh3	2/25/2010 13:32:32	OM_2-25-2010_12-43-55
247435005	956216	1	axh3	2/25/2010 13:33:24	OM_2-25-2010_12-43-55
247435006	956216	1	axh3	2/25/2010 13:34:16	OM_2-25-2010_12-43-55
247435002	956216	1	axh3	2/25/2010 13:35:05	OM_2-25-2010_12-43-55
1202050414	956216	1	axh3	2/25/2010 13:35:54	OM_2-25-2010_12-43-55
1202050415	956216	1	axh3	2/25/2010 13:36:42	OM_2-25-2010_12-43-55
1202050416	956216	1	axh3	2/25/2010 13:37:30	OM_2-25-2010_12-43-55
CCV		1	axh3	2/25/2010 13:39:19	OM_2-25-2010_12-43-55
CCB		1	axh3	2/25/2010 13:41:09	OM_2-25-2010_12-43-55

Author: axh3 Date : 2/25/2010

Original Run Filename: OM_2-25-2010_12-43-55.OMN created 2/25/2010 12:43:55
Original Run Author's Signature: [axh3]
Current Run Filename: OM_2-25-2010_12-43-55.OMN last modified 2/25/2010 13:42:13
Current Run Author's Signature: [axh3]
Description: Ammonia EPA Method 350.1 GEL SOP: GL-GC-E-106
Detection Wavelength: 630nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 NH3 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100225-03	1	S10	2.000	14.483	2/25/2010@12:47:07			2.0 ppm Std.
WTR100225-04	1	S11	1.000	7.504	2/25/2010@12:47:57			1.0 ppm Std.
WTR100225-05	1	S12	0.500	3.822	2/25/2010@12:48:47			0.5 ppm Std
WTR100225-06	1	S13	0.100	0.839	2/25/2010@12:49:38			0.1 ppm Std
WTR100225-07	1	S14	0.050	0.415	2/25/2010@12:50:30			0.05 ppm Std
WTR100225-10 0.0 ppm	1	S15	0.000	0.053	2/25/2010@12:51:22			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99984 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR100225-08 ICV	1	S16	0.996	7.322	2/25/2010@12:53:13			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	0.996 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.996 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR100225-10 ICB	1	S15	-0.011	0.044	2/25/2010@12:55:04			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.011 < 0.050					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.011 > -0.050					
		Message	ICB Passed					
		Action	Continue					
1202050875|956489|MB	1	1	0.022	0.278	2/25/2010@12:56:53			
1202050879||LCS	1	2	1.000	7.351	2/25/2010@12:57:43			
247763002	1	4	0.026	0.312	2/25/2010@12:58:34			
1202050876||DUP	1	5	0.043	0.433	2/25/2010@12:59:25			
1202050877||MS	1	6	0.780	5.760	2/25/2010@13:00:15			
1202050878||MSD	1	7	0.733	5.423	2/25/2010@13:01:04			
247854001	1	16	0.324	2.466	2/25/2010@13:01:55			
1202051767||DUP	1	17	0.454	3.406	2/25/2010@13:02:46			
1202051768||MS	1	18	1.231	9.025	2/25/2010@13:03:37			
1202051769||MSD	1	19	1.129	8.286	2/25/2010@13:04:28			
WTR100225-04 CCV	1	S11	1.035	7.608	2/25/2010@13:05:18			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.035 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.035 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100225-10 CCB	1	S15	-0.008	0.060	2/25/2010@13:07:08			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.008 < 0.049					

		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.008 > -0.050					
		Message	CCB Passed					
		Action	Continue					
247763001	1	3	0.059	0.548	2/25/2010@13:08:57			
247850001	1	8	0.064	0.584	2/25/2010@13:09:47			
247850002	1	9	0.058	0.543	2/25/2010@13:10:36			
247850003	1	10	0.058	0.544	2/25/2010@13:11:25			
247850004	1	11	0.040	0.413	2/25/2010@13:12:13			
247850005	1	12	0.373	2.816	2/25/2010@13:13:01			
247850006	1	13	0.225	1.748	2/25/2010@13:13:49			
247850007	1	14	0.049	0.477	2/25/2010@13:14:37			
247850008	1	15	0.041	0.417	2/25/2010@13:15:24			
247854002	1	20	0.163	1.298	2/25/2010@13:16:13			
WTR100225-04 CCV	1	S11	1.030	7.568	2/25/2010@13:17:03			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.030 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.030 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100225-10 CCB	1	S15	-0.007	0.072	2/25/2010@13:18:54			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.007 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.007 > -0.050					
		Message	CCB Passed					
		Action	Continue					
247854003	1	21	0.201	1.572	2/25/2010@13:20:42			
247854004	1	22	0.242	1.869	2/25/2010@13:21:32			
1202050413|956216|MB	1	23	0.032	0.352	2/25/2010@13:22:22			
1202050417||LCS	1	24	1.007	7.403	2/25/2010@13:23:11			
247435002	1	26	0.055	0.521	2/25/2010@13:24:00			
1202050414||DUP	1	27	0.042	0.427	2/25/2010@13:24:49			
1202050415||MS	1	28	0.577	4.291	2/25/2010@13:25:38			
1202050416||MSD	1	29	0.462	3.463	2/25/2010@13:26:26			
247435001	1	25	0.030	0.335	2/25/2010@13:27:14			
247435003	1	30	0.016	0.237	2/25/2010@13:28:03			
WTR100225-04 CCV	1	S11	1.029	7.559	2/25/2010@13:28:52			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.029 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.029 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100225-10 CCB	1	S15	-0.009	0.059	2/25/2010@13:30:42			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.009 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.009 > -0.050					
		Message	CCB Passed					
		Action	Continue					
247435004	1	31	0.002	0.136	2/25/2010@13:32:32			
247435005	1	32	0.049	0.472	2/25/2010@13:33:24			

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247435006	1	33	0.029	0.327	2/25/2010@13:34:16			
247435002	1	26	0.049	0.474	2/25/2010@13:35:05			
1202050414||DUP	1	27	0.043	0.434	2/25/2010@13:35:54			
1202050415||MS	1	28	0.575	4.282	2/25/2010@13:36:42			
1202050416||MSD	1	29	0.578	4.299	2/25/2010@13:37:30			
WTR100225-04 CCV	1	S11	1.047	7.691	2/25/2010@13:39:19			CCV
Known Conc:			1.000					
DQM Test: > + Concentration Limit								
Result:			1.047 < 1.104					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			1.047 > 0.895					
Message			CCV Passed					
Action			Continue					
WTR100225-10 CCB	1	S15	-0.007	0.073	2/25/2010@13:41:09			CCB
Known Conc:			0.000					
DQM Test: > + Concentration Limit								
Result:			-0.007 < 0.049					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.007 > -0.050					
Message			CCB Passed					
Action			Continue					

Channel 1 (NH3) : Current View

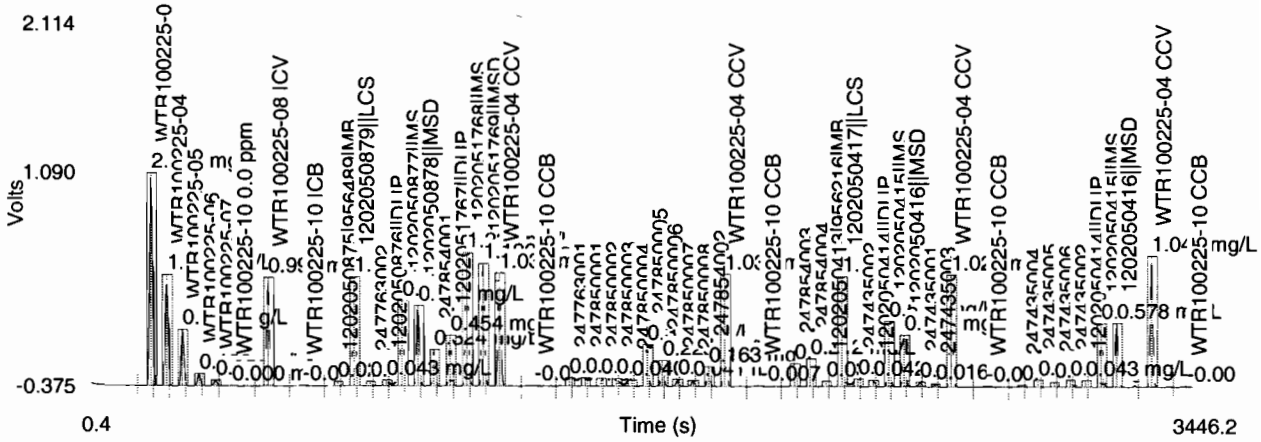

Table 1: NH3

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	2.000	1	14.483	1.459	0.7	2/25/2010	12:48:10
2	1.000	1	7.504	0.762	-2.1	2/25/2010	12:48:59
3	0.500	1	3.822	0.387	-2.3	2/25/2010	12:49:49
4	0.100	1	0.839	0.084	0.7	2/25/2010	12:50:40
5	0.050	1	0.415	0.041	14.1	2/25/2010	12:51:32
6	0.000	1	0.053	0.003		2/25/2010	12:52:25

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Figure 1: NH3

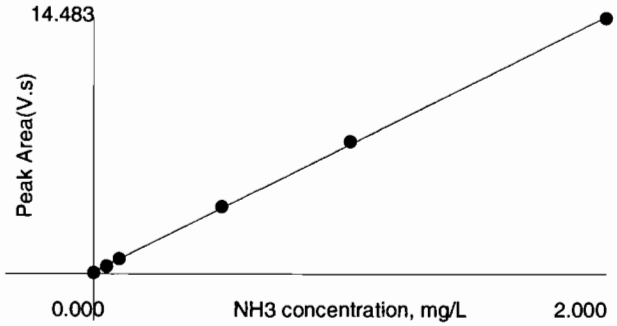

Area = 7.229 * Conc + 0.122
Conc = 0.138 * Area - 0.017
Correlation Coefficient (r) = 0.99984

No Weighting

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axh3	2/25/2010 15:17:16	OM_2-25-2010_15-16-29
CCB		1	axh3	2/25/2010 15:19:06	OM_2-25-2010_15-16-29
1202053226*	957556	1	axh3	2/25/2010 15:20:55	OM_2-25-2010_15-16-29
1202053233*	957556	1	axh3	2/25/2010 15:21:46	OM_2-25-2010_15-16-29
247817001*	957556	1	axh3	2/25/2010 15:22:37	OM_2-25-2010_15-16-29
1202053227*	957556	1	axh3	2/25/2010 15:23:28	OM_2-25-2010_15-16-29
1202053229*	957556	1	axh3	2/25/2010 15:24:18	OM_2-25-2010_15-16-29
1202053231*	957556	1	axh3	2/25/2010 15:25:08	OM_2-25-2010_15-16-29
247936001*	957556	1	axh3	2/25/2010 15:25:56	OM_2-25-2010_15-16-29
1202053228*	957556	1	axh3	2/25/2010 15:26:46	OM_2-25-2010_15-16-29
1202053230*	957556	1	axh3	2/25/2010 15:27:38	OM_2-25-2010_15-16-29
1202053232*	957556	1	axh3	2/25/2010 15:28:29	OM_2-25-2010_15-16-29
CCV		1	axh3	2/25/2010 15:29:19	OM_2-25-2010_15-16-29
CCB		1	axh3	2/25/2010 15:31:10	OM_2-25-2010_15-16-29
1202053226	957556	1	axh3	2/25/2010 15:32:59	OM_2-25-2010_15-16-29
1202053233	957556	1	axh3	2/25/2010 15:33:50	OM_2-25-2010_15-16-29
247817001	957556	1	axh3	2/25/2010 15:34:41	OM_2-25-2010_15-16-29
1202053227	957556	1	axh3	2/25/2010 15:35:31	OM_2-25-2010_15-16-29
1202053229	957556	1	axh3	2/25/2010 15:36:22	OM_2-25-2010_15-16-29
1202053231	957556	1	axh3	2/25/2010 15:37:12	OM_2-25-2010_15-16-29
247936001	957556	1	axh3	2/25/2010 15:38:00	OM_2-25-2010_15-16-29
1202053228	957556	1	axh3	2/25/2010 15:38:50	OM_2-25-2010_15-16-29
1202053230	957556	1	axh3	2/25/2010 15:39:41	OM_2-25-2010_15-16-29
1202053232	957556	1	axh3	2/25/2010 15:40:32	OM_2-25-2010_15-16-29
CCV		1	axh3	2/25/2010 15:41:23	OM_2-25-2010_15-16-29
CCB		1	axh3	2/25/2010 15:43:13	OM_2-25-2010_15-16-29
247829001	957556	1	axh3	2/25/2010 15:45:01	OM_2-25-2010_15-16-29
247867001	957556	1	axh3	2/25/2010 15:45:51	OM_2-25-2010_15-16-29
247867002	957556	1	axh3	2/25/2010 15:46:39	OM_2-25-2010_15-16-29
247867003	957556	1	axh3	2/25/2010 15:47:28	OM_2-25-2010_15-16-29
247929001	957556	1	axh3	2/25/2010 15:48:17	OM_2-25-2010_15-16-29
247929002	957556	1	axh3	2/25/2010 15:49:05	OM_2-25-2010_15-16-29
247929003	957556	1	axh3	2/25/2010 15:49:53	OM_2-25-2010_15-16-29
247929004	957556	1	axh3	2/25/2010 15:50:41	OM_2-25-2010_15-16-29
247936002	957556	1	axh3	2/25/2010 15:51:30	OM_2-25-2010_15-16-29
247936003	957556	1	axh3	2/25/2010 15:52:20	OM_2-25-2010_15-16-29
CCV		1	axh3	2/25/2010 15:53:11	OM_2-25-2010_15-16-29
CCB		1	axh3	2/25/2010 15:55:01	OM_2-25-2010_15-16-29
247936004	957556	1	axh3	2/25/2010 15:56:50	OM_2-25-2010_15-16-29
247936005	957556	1	axh3	2/25/2010 15:57:40	OM_2-25-2010_15-16-29
247936006	957556	1	axh3	2/25/2010 15:58:29	OM_2-25-2010_15-16-29
247936007	957556	1	axh3	2/25/2010 15:59:19	OM_2-25-2010_15-16-29
247936008	957556	1	axh3	2/25/2010 16:00:09	OM_2-25-2010_15-16-29
247953001	957556	1	axh3	2/25/2010 16:00:57	OM_2-25-2010_15-16-29
247867002	957556	5	axh3	2/25/2010 16:01:46	OM_2-25-2010_15-16-29
247867003	957556	10	axh3	2/25/2010 16:02:35	OM_2-25-2010_15-16-29
247929002	957556	5	axh3	2/25/2010 16:03:23	OM_2-25-2010_15-16-29
247936003	957556	5	axh3	2/25/2010 16:04:12	OM_2-25-2010_15-16-29
CCV		1	axh3	2/25/2010 16:05:03	OM_2-25-2010_15-16-29
CCB		1	axh3	2/25/2010 16:06:53	OM_2-25-2010_15-16-29
247936007	957556	5	axh3	2/25/2010 16:08:42	OM_2-25-2010_15-16-29
CCV		1	axh3	2/25/2010 16:10:31	OM_2-25-2010_15-16-29
CCB		1	axh3	2/25/2010 16:12:21	OM_2-25-2010_15-16-29

Author: axh3 Date : 2/25/2010

Original Run Filename: OM_2-25-2010_15-16-29.OMN created 2/25/2010 15:16:29
Original Run Author's Signature: [axh3]
Current Run Filename: OM_2-25-2010_15-16-29.OMN last modified 2/25/2010 16:13:25
Current Run Author's Signature: [axh3]
Description: Ammonia EPA Method 350.1 GEL SOP: GL-GC-E-106
Detection Wavelength: 630nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 NH3 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100225-04 CCV	1	S11	1.008	7.406	2/25/2010@15:17:16			CCV
	Known Conc:		1.000					
DQM Test: > + Concentration Limit								
	Result:		1.008 < 1.104					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		1.008 > 0.895					
	Message		CCV Passed					
	Action		Continue					
	Calibration:		Table/Fig. 1					
WTR100225-10 CCB	1	S15	-0.008	0.065	2/25/2010@15:19:06			CCB
	Known Conc:		0.000					
DQM Test: > + Concentration Limit								
	Result:		-0.008 < 0.049					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-0.008 > -0.050					
	Message		CCB Passed					
	Action		Continue					
1202053226|957556|MB	1	1	0.059	0.547	2/25/2010@15:20:55			
1202053233||LCS	1	2	1.011	7.432	2/25/2010@15:21:46			
247817001	1	3	0.038	0.398	2/25/2010@15:22:37			
1202053227||DUP	1	4	0.017	0.243	2/25/2010@15:23:28			
1202053229||MS	1	5	0.586	4.356	2/25/2010@15:24:18			
1202053231||MSD	1	6	0.819	6.045	2/25/2010@15:25:08			
247936001	1	15	2.419	17.612	2/25/2010@15:25:56			
1202053228||DUP	1	16	1.777	12.969	2/25/2010@15:26:46			
1202053230||MS	1	17	2.679	19.493	2/25/2010@15:27:38			
1202053232||MSD	1	18	3.548	25.774	2/25/2010@15:28:29			
WTR100225-04 CCV	1	S11	1.043	7.665	2/25/2010@15:29:19			CCV
	Known Conc:		1.000					
DQM Test: > + Concentration Limit								
	Result:		1.043 < 1.104					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		1.043 > 0.895					
	Message		CCV Passed					
	Action		Continue					
WTR100225-10 CCB	1	S15	-0.008	0.063	2/25/2010@15:31:10			CCB
	Known Conc:		0.000					
DQM Test: > + Concentration Limit								
	Result:		-0.008 < 0.049					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-0.008 > -0.050					
	Message		CCB Passed					
	Action		Continue					
1202053226|957556|MB	1	1	0.026	0.312	2/25/2010@15:32:59			
1202053233||LCS	1	2	1.000	7.351	2/25/2010@15:33:50			
247817001	1	3	0.038	0.392	2/25/2010@15:34:41			
1202053227||DUP	1	4	0.020	0.263	2/25/2010@15:35:31			

1202053229||MS	1	5	0.800	5.905	2/25/2010@15:36:22			
1202053231||MSD	1	6	0.815	6.014	2/25/2010@15:37:12			
247936001	1	15	1.782	13.006	2/25/2010@15:38:00			
1202053228||DUP	1	16	1.781	13.001	2/25/2010@15:38:50			
1202053230||MS	1	17	3.546	25.763	2/25/2010@15:39:41			
1202053232||MSD	1	18	3.565	25.899	2/25/2010@15:40:32			
WTR100225-04 CCV	1	S11	1.045	7.678	2/25/2010@15:41:23			CCV
	Known Conc:		1.000					
DQM Test: > + Concentration Limit								
Result:			1.045 < 1.104					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			1.045 > 0.895					
Message			CCV Passed					
Action			Continue					
WTR100225-10 CCB	1	S15	-0.006	0.075	2/25/2010@15:43:13			CCB
	Known Conc:		0.000					
DQM Test: > + Concentration Limit								
Result:			-0.006 < 0.049					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.006 > -0.050					
Message			CCB Passed					
Action			Continue					
247829001	1	7	0.026	0.312	2/25/2010@15:45:01			
247867001	1	8	1.701	12.423	2/25/2010@15:45:51			
247867002	1	9	4.198	30.475	2/25/2010@15:46:39			
247867003	1	10	6.918	50.142	2/25/2010@15:47:28			
247929001	1	11	0.065	0.592	2/25/2010@15:48:17			
247929002	1	12	3.402	24.722	2/25/2010@15:49:05			
247929003	1	13	0.038	0.396	2/25/2010@15:49:53			
247929004	1	14	0.024	0.297	2/25/2010@15:50:41			
247936002	1	19	0.318	2.423	2/25/2010@15:51:30			
247936003	1	20	2.788	20.277	2/25/2010@15:52:20			
WTR100225-04 CCV	1	S11	1.043	7.663	2/25/2010@15:53:11			CCV
	Known Conc:		1.000					
DQM Test: > + Concentration Limit								
Result:			1.043 < 1.104					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			1.043 > 0.895					
Message			CCV Passed					
Action			Continue					
WTR100225-10 CCB	1	S15	-0.005	0.081	2/25/2010@15:55:01			CCB
	Known Conc:		0.000					
DQM Test: > + Concentration Limit								
Result:			-0.005 < 0.049					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.005 > -0.050					
Message			CCB Passed					
Action			Continue					
247936004	1	21	0.096	0.817	2/25/2010@15:56:50			
247936005	1	22	0.189	1.486	2/25/2010@15:57:40			
247936006	1	23	0.339	2.571	2/25/2010@15:58:29			
247936007	1	24	3.622	26.313	2/25/2010@15:59:19			
247936008	1	25	0.281	2.153	2/25/2010@16:00:09			
247953001	1	26	1.913	13.956	2/25/2010@16:00:57			
247867002	1	9	0.688	5.099	2/25/2010@16:01:46		5.00	
247867003	1	10	0.668	4.954	2/25/2010@16:02:35		10.00	
247929002	1	12	0.626	4.645	2/25/2010@16:03:23		5.00	
247936003	1	20	0.472	3.534	2/25/2010@16:04:12		5.00	
WTR100225-04 CCV	1	S11	1.019	7.486	2/25/2010@16:05:03			CCV
	Known Conc:		1.000					

DQM Test: > + Concentration Limit								
Result:			1.019 < 1.104					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			1.019 > 0.895					
Message			CCV Passed					
Action			Continue					
WTR100225-10 CCB	1	S15	-0.005	0.085	2/25/2010@16:06:53			CCB
Known Conc:			0.000					
DQM Test: > + Concentration Limit								
Result:			-0.005 < 0.049					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.005 > -0.050					
Message			CCB Passed					
Action			Continue					
247936007	1	24	0.666	4.937	2/25/2010@16:08:42		5.00	
WTR100225-04 CCV	1	S11	1.021	7.505	2/25/2010@16:10:31			CCV
Known Conc:			1.000					
DQM Test: > + Concentration Limit								
Result:			1.021 < 1.104					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			1.021 > 0.895					
Message			CCV Passed					
Action			Continue					
WTR100225-10 CCB	1	S15	-0.006	0.079	2/25/2010@16:12:21			CCB
Known Conc:			0.000					
DQM Test: > + Concentration Limit								
Result:			-0.006 < 0.049					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.006 > -0.050					
Message			CCB Passed					
Action			Continue					

Channel 1 (NH3) : Current View

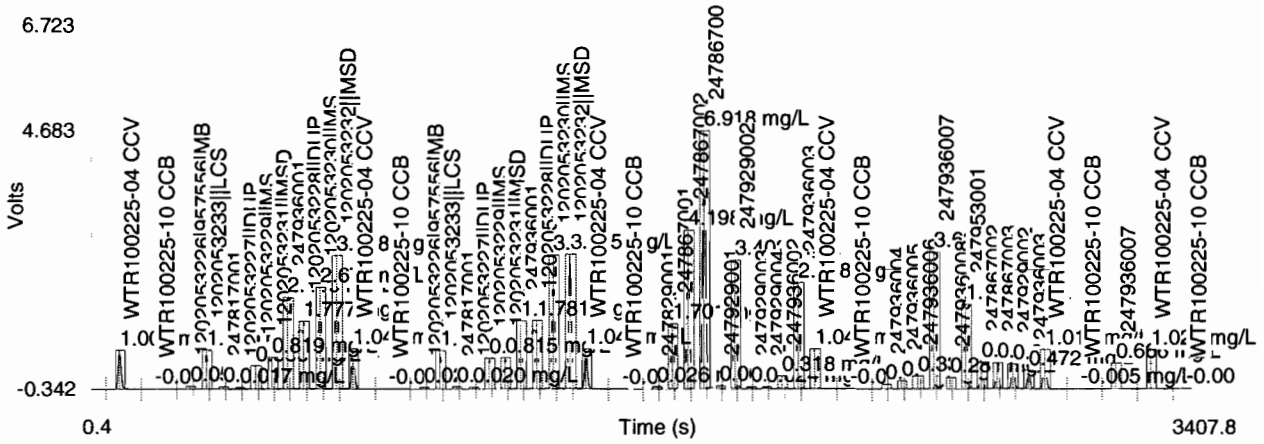

Author: axh3 Date : 2/25/2010

Table 1: NH3

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	2.000	1	14.483	1.459	0.7	2/25/2010	12:48:10
2	1.000	1	7.504	0.762	-2.1	2/25/2010	12:48:59
3	0.500	1	3.822	0.387	-2.3	2/25/2010	12:49:49
4	0.100	1	0.839	0.084	0.7	2/25/2010	12:50:40
5	0.050	1	0.415	0.041	14.1	2/25/2010	12:51:32
6	0.000	1	0.053	0.003		2/25/2010	12:52:25

Figure 1: NH3

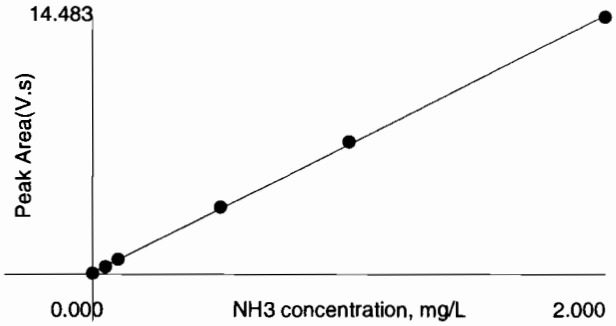

Area = 7.229 * Conc + 0.122
Conc = 0.138 * Area - 0.017
Correlation Coefficient (r) = 0.99984

No Weighting

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **957581.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202053310	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202053304	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202053305	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202053306	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202053307	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202053308	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202053309	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202053300 MB	05-MAR-2010 13:00:00	Water	25	25	1	>12
1202053310 LCS	05-MAR-2010 13:00:00	Water	25	25	1	>12
247829002	05-MAR-2010 13:00:00	Ground Water	25	25	1	>12
1202053302 DUP (247829002)	05-MAR-2010 13:00:00	Ground Water	25	25	1	>12
1202053305 MS (247829002)	05-MAR-2010 13:00:00	Ground Water	25	25	1	>12
1202053308 MSD (247829002)	05-MAR-2010 13:00:00	Ground Water	25	25	1	>12
247865010	05-MAR-2010 13:00:00	Ground Water	25	25	1	>12
247865012	05-MAR-2010 13:00:00	Ground Water	25	25	1	>12
1202053303 DUP (247865012)	05-MAR-2010 13:00:00	Ground Water	25	25	1	>12
1202053306 MS (247865012)	05-MAR-2010 13:00:00	Ground Water	25	25	1	>12
1202053309 MSD (247865012)	05-MAR-2010 13:00:00	Ground Water	25	25	1	>12
247865013	05-MAR-2010 13:00:00	Ground Water	25	25	1	>12
247865014	05-MAR-2010 13:00:00	Ground Water	25	25	1	>12
247865015	05-MAR-2010 13:00:00	Ground Water	25	25	1	>12
247865016	05-MAR-2010 13:00:00	Ground Water	25	25	1	>12
247865017	05-MAR-2010 13:00:00	Ground Water	25	25	1	>12

Prep Logbook

Batch ID: **957581.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202053310	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202053304	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202053305	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202053306	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202053307	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202053308	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202053309	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
247865018	05-MAR-2010 13:00:00	Ground Water	25	25	1	>12
247865019	05-MAR-2010 13:00:00	Ground Water	25	25	1	>12
247865020	05-MAR-2010 13:00:00	Ground Water	25	25	1	>12
247866001	05-MAR-2010 13:00:00	Ground Water	25	25	1	>12
247919001	05-MAR-2010 13:00:00	Water	25	25	1	>12
247919002	05-MAR-2010 13:00:00	Water	25	25	1	>12
247922004	05-MAR-2010 13:00:00	Water	25	25	1	>12
1202053301 DUP (247922004)	05-MAR-2010 13:00:00	Water	25	25	1	>12
1202053304 MS (247922004)	05-MAR-2010 13:00:00	Water	25	25	1	>12
1202053307 MSD (247922004)	05-MAR-2010 13:00:00	Water	25	25	1	>12
248164004	05-MAR-2010 13:00:00	Ground Water	25	25	1	>12
248382002	05-MAR-2010 13:00:00	Ground Water	25	25	1	>12
248382003	05-MAR-2010 13:00:00	Ground Water	25	25	1	>12
248401002	05-MAR-2010 13:00:00	Ground Water	25	25	1	>12
248401004	05-MAR-2010 13:00:00	Ground Water	25	25	1	>12

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL

Comments:

Analytical Logbook version 1 11-04-2002

GEL Laboratories LLC

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/8/2010 10:25:45	OM_3-8-2010_10-24-48
150 ppb		1	axc2	3/8/2010 10:26:37	OM_3-8-2010_10-24-48
100 ppb		1	axc2	3/8/2010 10:27:29	OM_3-8-2010_10-24-48
50 ppb		1	axc2	3/8/2010 10:28:22	OM_3-8-2010_10-24-48
10 ppb		1	axc2	3/8/2010 10:29:15	OM_3-8-2010_10-24-48
CRDL 5.0 ppb		1	axc2	3/8/2010 10:30:09	OM_3-8-2010_10-24-48
ICAL-00		1	axc2	3/8/2010 10:31:03	OM_3-8-2010_10-24-48
ICV		1	axc2	3/8/2010 10:32:54	OM_3-8-2010_10-24-48
ICB		1	axc2	3/8/2010 10:34:44	OM_3-8-2010_10-24-48
CRDL		1	axc2	3/8/2010 10:36:34	OM_3-8-2010_10-24-48
1202054789	958168	1	axc2	3/8/2010 10:38:23	OM_3-8-2010_10-24-48
1202054796	958168	1	axc2	3/8/2010 10:39:17	OM_3-8-2010_10-24-48
248010001	958168	1	axc2	3/8/2010 10:40:10	OM_3-8-2010_10-24-48
1202054790	958168	1	axc2	3/8/2010 10:41:03	OM_3-8-2010_10-24-48
1202054792	958168	1	axc2	3/8/2010 10:41:56	OM_3-8-2010_10-24-48
1202054794	958168	1	axc2	3/8/2010 10:42:48	OM_3-8-2010_10-24-48
248010002	958168	1	axc2	3/8/2010 10:43:42	OM_3-8-2010_10-24-48
248019001	958168	1	axc2	3/8/2010 10:44:34	OM_3-8-2010_10-24-48
248019002	958168	1	axc2	3/8/2010 10:45:26	OM_3-8-2010_10-24-48
248023002	958168	1	axc2	3/8/2010 10:46:19	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010 10:47:11	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010 10:49:01	OM_3-8-2010_10-24-48
248024001	958168	1	axc2	3/8/2010 10:50:50	OM_3-8-2010_10-24-48
248024003	958168	1	axc2	3/8/2010 10:51:41	OM_3-8-2010_10-24-48
248044002	958168	1	axc2	3/8/2010 10:52:34	OM_3-8-2010_10-24-48
1202054791	958168	1	axc2	3/8/2010 10:53:25	OM_3-8-2010_10-24-48
1202054793	958168	1	axc2	3/8/2010 10:54:17	OM_3-8-2010_10-24-48
1202054795	958168	1	axc2	3/8/2010 10:55:10	OM_3-8-2010_10-24-48
248401005	958168	1	axc2	3/8/2010 10:56:04	OM_3-8-2010_10-24-48
248516001	958168	1	axc2	3/8/2010 10:56:58	OM_3-8-2010_10-24-48
248516002	958168	1	axc2	3/8/2010 10:57:51	OM_3-8-2010_10-24-48
248518001	958168	1	axc2	3/8/2010 10:58:44	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010 10:59:36	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010 11:01:27	OM_3-8-2010_10-24-48
248533001	958168	1	axc2	3/8/2010 11:03:16	OM_3-8-2010_10-24-48
248548001	958168	1	axc2	3/8/2010 11:04:09	OM_3-8-2010_10-24-48
248548003	958168	1	axc2	3/8/2010 11:05:01	OM_3-8-2010_10-24-48
248551001	958168	1	axc2	3/8/2010 11:05:54	OM_3-8-2010_10-24-48
248551002	958168	1	axc2	3/8/2010 11:06:46	OM_3-8-2010_10-24-48
248555002	958168	1	axc2	3/8/2010 11:07:39	OM_3-8-2010_10-24-48
1202059721	960271	1	axc2	3/8/2010 11:08:31	OM_3-8-2010_10-24-48
1202059731	960271	1	axc2	3/8/2010 11:09:23	OM_3-8-2010_10-24-48
248072001	960271	1	axc2	3/8/2010 11:10:15	OM_3-8-2010_10-24-48
1202059722	960271	1	axc2	3/8/2010 11:11:06	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010 11:11:59	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010 11:13:49	OM_3-8-2010_10-24-48
1202059725	960271	1	axc2	3/8/2010 11:15:40	OM_3-8-2010_10-24-48
1202059728	960271	1	axc2	3/8/2010 11:16:33	OM_3-8-2010_10-24-48
248072002	960271	1	axc2	3/8/2010 11:17:27	OM_3-8-2010_10-24-48
248072003	960271	1	axc2	3/8/2010 11:18:21	OM_3-8-2010_10-24-48
248097001	960271	1	axc2	3/8/2010 11:19:14	OM_3-8-2010_10-24-48
1202059724	960271	1	axc2	3/8/2010 11:20:07	OM_3-8-2010_10-24-48
1202059727	960271	1	axc2	3/8/2010 11:21:00	OM_3-8-2010_10-24-48
1202059730	960271	1	axc2	3/8/2010 11:21:53	OM_3-8-2010_10-24-48
248097002	960271	1	axc2	3/8/2010 11:22:47	OM_3-8-2010_10-24-48
248097003	960271	1	axc2	3/8/2010 11:23:38	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010 11:24:31	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010 11:26:21	OM_3-8-2010_10-24-48

248097004	960271	1	axc2	3/8/2010	11:28:09	OM_3-8-2010_10-24-48
248298001	960271	1	axc2	3/8/2010	11:29:02	OM_3-8-2010_10-24-48
248298002	960271	1	axc2	3/8/2010	11:29:53	OM_3-8-2010_10-24-48
248298003	960271	1	axc2	3/8/2010	11:30:46	OM_3-8-2010_10-24-48
248303001	960271	1	axc2	3/8/2010	11:31:38	OM_3-8-2010_10-24-48
248337001	960271	1	axc2	3/8/2010	11:32:32	OM_3-8-2010_10-24-48
248375001	960271	1	axc2	3/8/2010	11:33:26	OM_3-8-2010_10-24-48
248375002	960271	1	axc2	3/8/2010	11:34:19	OM_3-8-2010_10-24-48
248397001	960271	1	axc2	3/8/2010	11:35:14	OM_3-8-2010_10-24-48
248397002	960271	1	axc2	3/8/2010	11:36:06	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010	11:37:00	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010	11:38:51	OM_3-8-2010_10-24-48
248407001	960271	1	axc2	3/8/2010	11:40:39	OM_3-8-2010_10-24-48
1202059723	960271	1	axc2	3/8/2010	11:41:33	OM_3-8-2010_10-24-48
1202059726	960271	1	axc2	3/8/2010	11:42:26	OM_3-8-2010_10-24-48
1202059729	960271	1	axc2	3/8/2010	11:43:19	OM_3-8-2010_10-24-48
248419001	960271	1	axc2	3/8/2010	11:44:11	OM_3-8-2010_10-24-48
248419002	960271	1	axc2	3/8/2010	11:45:04	OM_3-8-2010_10-24-48
1202053300	957584	1	axc2	3/8/2010	11:45:57	OM_3-8-2010_10-24-48
1202053310	957584	1	axc2	3/8/2010	11:46:49	OM_3-8-2010_10-24-48
247829002	957584	1	axc2	3/8/2010	11:47:41	OM_3-8-2010_10-24-48
1202053302	957584	1	axc2	3/8/2010	11:48:33	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010	11:49:26	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010	11:51:15	OM_3-8-2010_10-24-48
1202053305	957584	1	axc2	3/8/2010	11:53:05	OM_3-8-2010_10-24-48
1202053308	957584	1	axc2	3/8/2010	11:54:00	OM_3-8-2010_10-24-48
247865010	957584	1	axc2	3/8/2010	11:54:55	OM_3-8-2010_10-24-48
247865012	957584	1	axc2	3/8/2010	11:55:48	OM_3-8-2010_10-24-48
1202053303	957584	1	axc2	3/8/2010	11:56:41	OM_3-8-2010_10-24-48
1202053306	957584	1	axc2	3/8/2010	11:57:35	OM_3-8-2010_10-24-48
1202053309	957584	1	axc2	3/8/2010	11:58:28	OM_3-8-2010_10-24-48
247865013	957584	1	axc2	3/8/2010	11:59:21	OM_3-8-2010_10-24-48
247865014	957584	1	axc2	3/8/2010	12:00:15	OM_3-8-2010_10-24-48
247865015	957584	1	axc2	3/8/2010	12:01:07	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010	12:02:00	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010	12:03:51	OM_3-8-2010_10-24-48
247865016	957584	1	axc2	3/8/2010	12:05:41	OM_3-8-2010_10-24-48
247865017	957584	1	axc2	3/8/2010	12:06:33	OM_3-8-2010_10-24-48
247865018	957584	1	axc2	3/8/2010	12:07:25	OM_3-8-2010_10-24-48
247865019	957584	1	axc2	3/8/2010	12:08:18	OM_3-8-2010_10-24-48
247865020	957584	1	axc2	3/8/2010	12:09:10	OM_3-8-2010_10-24-48
247866001	957584	1	axc2	3/8/2010	12:10:05	OM_3-8-2010_10-24-48
247919001	957584	1	axc2	3/8/2010	12:10:59	OM_3-8-2010_10-24-48
247919002	957584	1	axc2	3/8/2010	12:11:53	OM_3-8-2010_10-24-48
247922004	957584	1	axc2	3/8/2010	12:12:48	OM_3-8-2010_10-24-48
1202053301	957584	1	axc2	3/8/2010	12:13:41	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010	12:14:34	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010	12:16:24	OM_3-8-2010_10-24-48
1202053304	957584	1	axc2	3/8/2010	12:18:14	OM_3-8-2010_10-24-48
1202053307	957584	1	axc2	3/8/2010	12:19:07	OM_3-8-2010_10-24-48
248164004	957584	1	axc2	3/8/2010	12:20:01	OM_3-8-2010_10-24-48
248382002	957584	1	axc2	3/8/2010	12:20:54	OM_3-8-2010_10-24-48
248382003	957584	1	axc2	3/8/2010	12:21:47	OM_3-8-2010_10-24-48
248401002	957584	1	axc2	3/8/2010	12:22:40	OM_3-8-2010_10-24-48
248401004	957584	1	axc2	3/8/2010	12:23:33	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010	12:24:25	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010	12:26:15	OM_3-8-2010_10-24-48

Author: axc2 Date : 3/8/2010

Original Run Filename: OM_3-8-2010_10-24-48.OMN created 3/8/2010 10:24:48
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-8-2010_10-24-48.OMN last modified 3/8/2010 12:27:20
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100308-01	1	S1	200	10.4	3/8/2010@10:25:45			200 ppb
WCN100308-02	1	S2	150	7.82	3/8/2010@10:26:37			150 ppb
WCN100308-03	1	S3	100	5.36	3/8/2010@10:27:29			100 ppb
WCN100308-04	1	S4	50.0	2.85	3/8/2010@10:28:22			50 ppb
WCN100308-05	1	S5	10.0	0.644	3/8/2010@10:29:15			10 ppb
WCN100308-06	1	S6	5.00	0.400	3/8/2010@10:30:09			CRDL 5.0 ppb
WCN100308-08	1	S7	0.00	-0.0189	3/8/2010@10:31:03			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99976 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100308-07	1	S8	147	7.72	3/8/2010@10:32:54			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-2.1 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-2.1 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100308-08	1	S7	-1.65	0.0363	3/8/2010@10:34:44			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.65 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.65 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100308-06	1	S6	5.25	0.393	3/8/2010@10:36:34			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.25 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.25 > 2.50					
		Message	Pass					
		Action	None					
1202054789|958168|MB	1	1	-1.83	0.0269	3/8/2010@10:38:23			
1202054796||LCS	1	2	50.4	2.73	3/8/2010@10:39:17			
248010001	1	3	-1.53	0.0427	3/8/2010@10:40:10			
1202054790||DUP	1	4	-1.69	0.0344	3/8/2010@10:41:03			
1202054792||MS	1	5	114	6.01	3/8/2010@10:41:56			
1202054794||MSD	1	6	111	5.86	3/8/2010@10:42:48			
248010002	1	7	-1.44	0.0471	3/8/2010@10:43:42			
248019001	1	8	-1.39	0.0498	3/8/2010@10:44:34			
248019002	1	9	-1.40	0.0491	3/8/2010@10:45:26			
248023002	1	10	-1.75	0.0312	3/8/2010@10:46:19			
WCN100308-03	1	S3	105	5.54	3/8/2010@10:47:11			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.8 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.67	0.0352	3/8/2010@10:49:01			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.67 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.67 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248024001	1	11	-2.29	0.00319	3/8/2010@10:50:50			
248024003	1	12	-0.940	0.0730	3/8/2010@10:51:41			
248044002	1	13	-1.78	0.0297	3/8/2010@10:52:34			
1202054791||DUP	1	14	-1.89	0.0237	3/8/2010@10:53:25			
1202054793||MS	1	15	113	5.97	3/8/2010@10:54:17			
1202054795||MSD	1	16	94.5	5.01	3/8/2010@10:55:10			
248401005	1	17	-2.36	-4.50e-4	3/8/2010@10:56:04			
248516001	1	18	-1.70	0.0336	3/8/2010@10:56:58			
248516002	1	19	-2.03	0.0168	3/8/2010@10:57:51			
248518001	1	20	-2.35	3.13e-4	3/8/2010@10:58:44			
WCN100308-03	1	S3	107	5.64	3/8/2010@10:59:36			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.82	0.0275	3/8/2010@11:01:27			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.82 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.82 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248533001	1	21	-1.85	0.0260	3/8/2010@11:03:16			
248548001	1	22	-2.24	0.00579	3/8/2010@11:04:09			
248548003	1	23	-1.45	0.0465	3/8/2010@11:05:01			
248551001	1	24	-0.552	0.0931	3/8/2010@11:05:54			
248551002	1	25	-1.81	0.0281	3/8/2010@11:06:46			
248555002	1	26	-1.99	0.0185	3/8/2010@11:07:39			
1202059721|960271|MB	1	27	-1.70	0.0339	3/8/2010@11:08:31			
1202059731||LCS	1	28	49.0	2.66	3/8/2010@11:09:23			
248072001	1	29	-2.36	-5.25e-4	3/8/2010@11:10:15			
1202059722||DUP	1	30	-1.95	0.0206	3/8/2010@11:11:06			
WCN100308-03	1	S3	105	5.54	3/8/2010@11:11:59			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.72	0.0325	3/8/2010@11:13:49			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
Result:			-1.72 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.72 > -5.00					
Message			CCB Passed					
Action			Continue					
1202059725|MS	1	31	102	5.41	3/8/2010@11:15:40			
1202059728|MSD	1	32	101	5.33	3/8/2010@11:16:33			
248072002	1	33	-1.30	0.0543	3/8/2010@11:17:27			
248072003	1	34	-2.90	-0.0286	3/8/2010@11:18:21			
248097001	1	35	-1.88	0.0245	3/8/2010@11:19:14			
1202059724|DUP	1	36	-1.58	0.0398	3/8/2010@11:20:07			
1202059727|MS	1	37	100	5.32	3/8/2010@11:21:00			
1202059730|MSD	1	38	102	5.39	3/8/2010@11:21:53			
248097002	1	39	12.3	0.757	3/8/2010@11:22:47			
248097003	1	40	-1.04	0.0680	3/8/2010@11:23:38			
WCN100308-03	1	S3	106	5.63	3/8/2010@11:24:31			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			6.4 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			6.4 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100308-08	1	S7	-1.68	0.0346	3/8/2010@11:26:21			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.68 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.68 > -5.00					
Message			CCB Passed					
Action			Continue					
248097004	1	41	-0.871	0.0766	3/8/2010@11:28:09			
248298001	1	42	-1.67	0.0350	3/8/2010@11:29:02			
248298002	1	43	-1.93	0.0216	3/8/2010@11:29:53			
248298003	1	44	-0.109	0.116	3/8/2010@11:30:46			
248303001	1	45	2.92	0.273	3/8/2010@11:31:38			
248337001	1	46	-2.49	-0.00692	3/8/2010@11:32:32			
248375001	1	47	-2.35	1.70e-4	3/8/2010@11:33:26			
248375002	1	48	-2.05	0.0157	3/8/2010@11:34:19			
248397001	1	49	-1.87	0.0247	3/8/2010@11:35:14			
248397002	1	50	-2.17	0.00925	3/8/2010@11:36:06			
WCN100308-03	1	S3	106	5.62	3/8/2010@11:37:00			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			6.2 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			6.2 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100308-08	1	S7	-2.34	8.36e-4	3/8/2010@11:38:51			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-2.34 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-2.34 > -5.00					
Message			CCB Passed					
Action			Continue					

248407001	1	51	-1.69	0.0345	3/8/2010@11:40:39			
1202059723||DUP	1	52	-2.37	-0.00102	3/8/2010@11:41:33			
1202059726||MS	1	53	104	5.51	3/8/2010@11:42:26			
1202059729||MSD	1	54	82.4	4.39	3/8/2010@11:43:19			
248419001	1	55	-1.45	0.0465	3/8/2010@11:44:11			
248419002	1	56	-1.82	0.0276	3/8/2010@11:45:04			
1202053300|957584|MB	1	57	-1.77	0.0301	3/8/2010@11:45:57			
1202053310||LCS	1	58	52.0	2.81	3/8/2010@11:46:49			
247829002	1	59	-1.36	0.0515	3/8/2010@11:47:41			
1202053302||DUP	1	60	-1.35	0.0518	3/8/2010@11:48:33			
WCN100308-03	1	S3	107	5.65	3/8/2010@11:49:26			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		6.9 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		6.9 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100308-08	1	S7	-1.71	0.0332	3/8/2010@11:51:15			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.71 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.71 > -5.00					
	Message		CCB Passed					
	Action		Continue					
1202053305||MS	1	61	108	5.71	3/8/2010@11:53:05			
1202053308||MSD	1	62	108	5.72	3/8/2010@11:54:00			
247865010	1	63	-1.12	0.0636	3/8/2010@11:54:55			
247865012	1	64	-1.20	0.0593	3/8/2010@11:55:48			
1202053303||DUP	1	65	-1.53	0.0427	3/8/2010@11:56:41			
1202053306||MS	1	66	86.3	4.59	3/8/2010@11:57:35			
1202053309||MSD	1	67	102	5.39	3/8/2010@11:58:28			
247865013	1	68	-1.42	0.0483	3/8/2010@11:59:21			
247865014	1	69	-1.44	0.0472	3/8/2010@12:00:15			
247865015	1	70	-1.50	0.0439	3/8/2010@12:01:07			
WCN100308-03	1	S3	106	5.63	3/8/2010@12:02:00			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		6.4 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		6.4 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100308-08	1	S7	-1.63	0.0372	3/8/2010@12:03:51			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.63 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.63 > -5.00					
	Message		CCB Passed					
	Action		Continue					
247865016	1	71	-1.63	0.0374	3/8/2010@12:05:41			
247865017	1	72	-1.38	0.0501	3/8/2010@12:06:33			
247865018	1	73	-2.31	0.00203	3/8/2010@12:07:25			
247865019	1	74	-1.70	0.0337	3/8/2010@12:08:18			
247865020	1	75	-1.21	0.0589	3/8/2010@12:09:10			
247866001	1	76	-1.82	0.0273	3/8/2010@12:10:05			
247919001	1	77	-1.59	0.0392	3/8/2010@12:10:59			
247919002	1	78	-1.41	0.0486	3/8/2010@12:11:53			

247922004	1	79	0.739	0.160	3/8/2010@12:12:48			
1202053301||DUP	1	80	0.641	0.155	3/8/2010@12:13:41			
WCN100308-03	1	S3	107	5.65	3/8/2010@12:14:34			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.86	0.0256	3/8/2010@12:16:24			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202053304||MS	1	81	98.2	5.21	3/8/2010@12:18:14			
1202053307||MSD	1	82	98.4	5.21	3/8/2010@12:19:07			
248164004	1	83	-1.49	0.0445	3/8/2010@12:20:01			
248382002	1	84	-1.58	0.0400	3/8/2010@12:20:54			
248382003	1	85	-1.82	0.0273	3/8/2010@12:21:47			
248401002	1	86	-1.52	0.0428	3/8/2010@12:22:40			
248401004	1	87	-1.38	0.0501	3/8/2010@12:23:33			
WCN100308-03	1	S3	106	5.59	3/8/2010@12:24:25			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.71	0.0334	3/8/2010@12:26:15			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.71 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.71 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_3-8-2010_10-24-48.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 3/8/2010

Channel 1: Current View

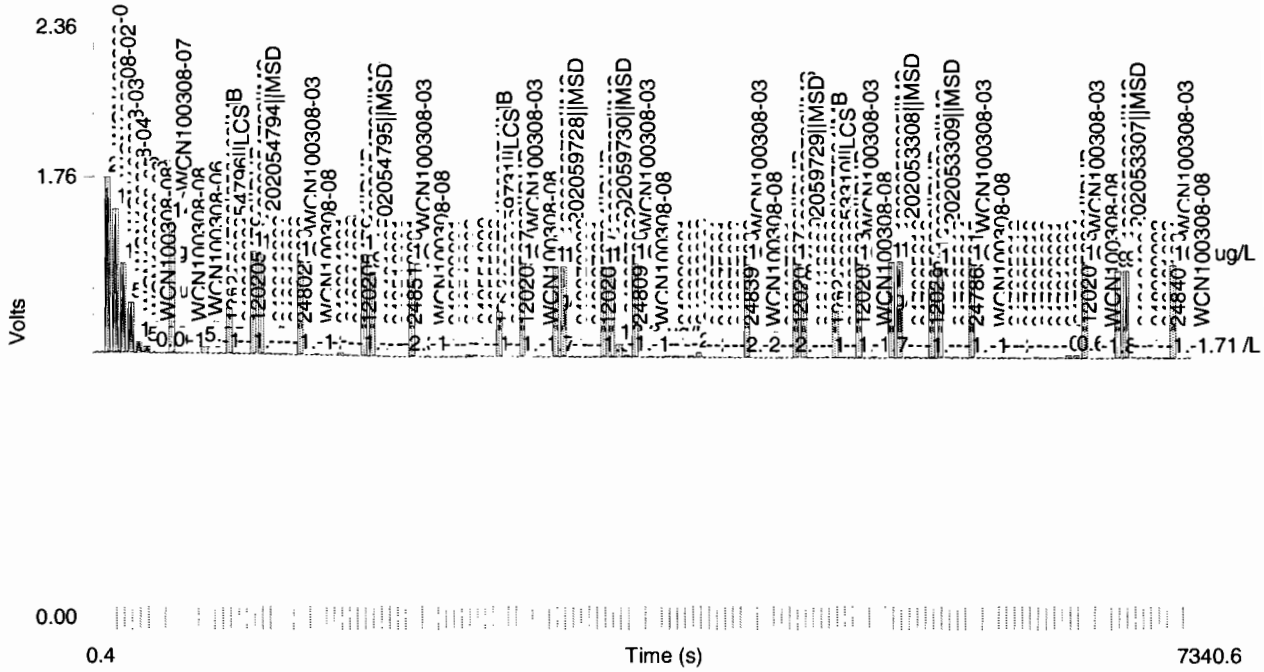

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.4	0.692	0.2	3/8/2010	10:26:48
2	150	1	7.82	0.567	0.7	3/8/2010	10:27:40
3	100	1	5.36	0.353	-1.3	3/8/2010	10:28:32
4	50.0	1	2.85	0.199	-5.1	3/8/2010	10:29:25
5	10.0	1	0.644	0.0420	-0.6	3/8/2010	10:30:18
6	5.00	1	0.400	0.0240	-4.6	3/8/2010	10:31:12
7	0.00	1	-0.0189	-0.00306		3/8/2010	10:32:06

Figure 1: TCYANIDE

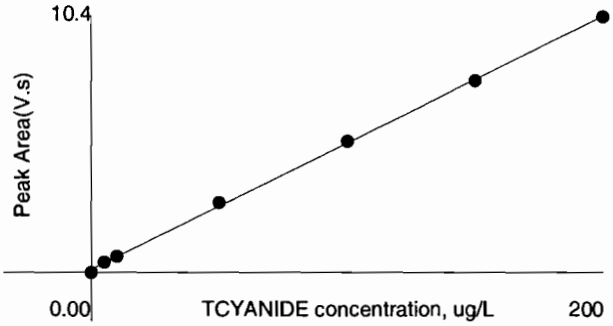

Area = 0.0517 * Conc + 0.124
Conc = 19.3 * Area - 2.35
Correlation Coefficient (r) = 0.99976

No Weighting

Ion Chromatography

This is runlog for Sequence 100311.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	02/26/10 14:29		1	100311	GXM3
ICAL-06	02/26/10 14:59		1	100311	GXM3
ICAL-05	02/26/10 15:28		1	100311	GXM3
ICAL-04	02/26/10 15:58		1	100311	GXM3
ICAL-03	02/26/10 16:28		1	100311	GXM3
ICAL-02	02/26/10 16:58		1	100311	GXM3
ICAL-01	02/26/10 17:28		1	100311	GXM3

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 14:29	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

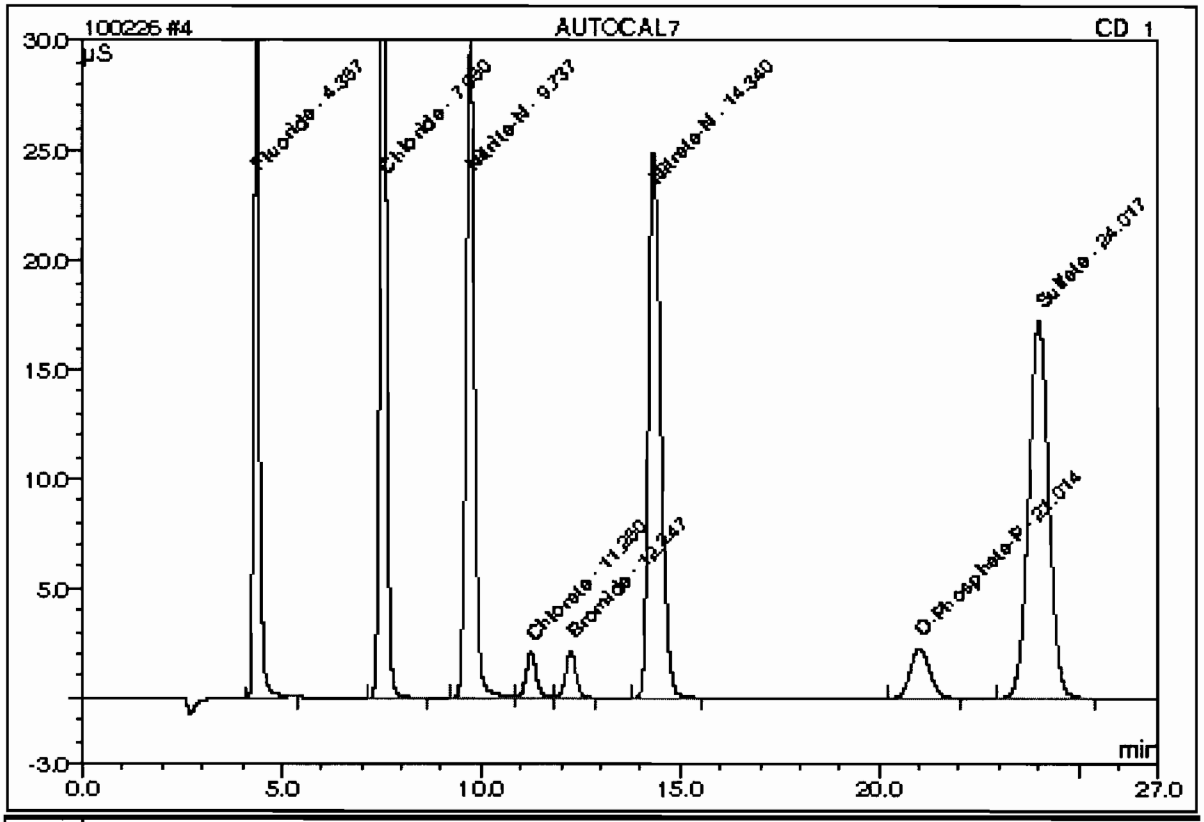

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.37	Fluoride	10.0000	10.0089		5.17293	12.53
2	7.56	Chloride	20.0000	20.0282		7.48637	18.14
3	9.74	Nitrite-N	10.0000	10.0103		7.50155	18.17
4	11.25	Chlorate	5.0000	5.0704		0.60764	1.47
5	12.25	Bromide	5.0000	5.0446		0.64007	1.55
6	14.34	Nitrate-N	10.0000	10.0132		8.61510	20.87
7	21.01	O-Phosphate-P	5.0000	5.3556		1.28170	3.11
8	24.02	Sulfate	40.0000	40.0413		9.96929	24.15
Total:				105.5724	0.000	41.275	100.00

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 14:59	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

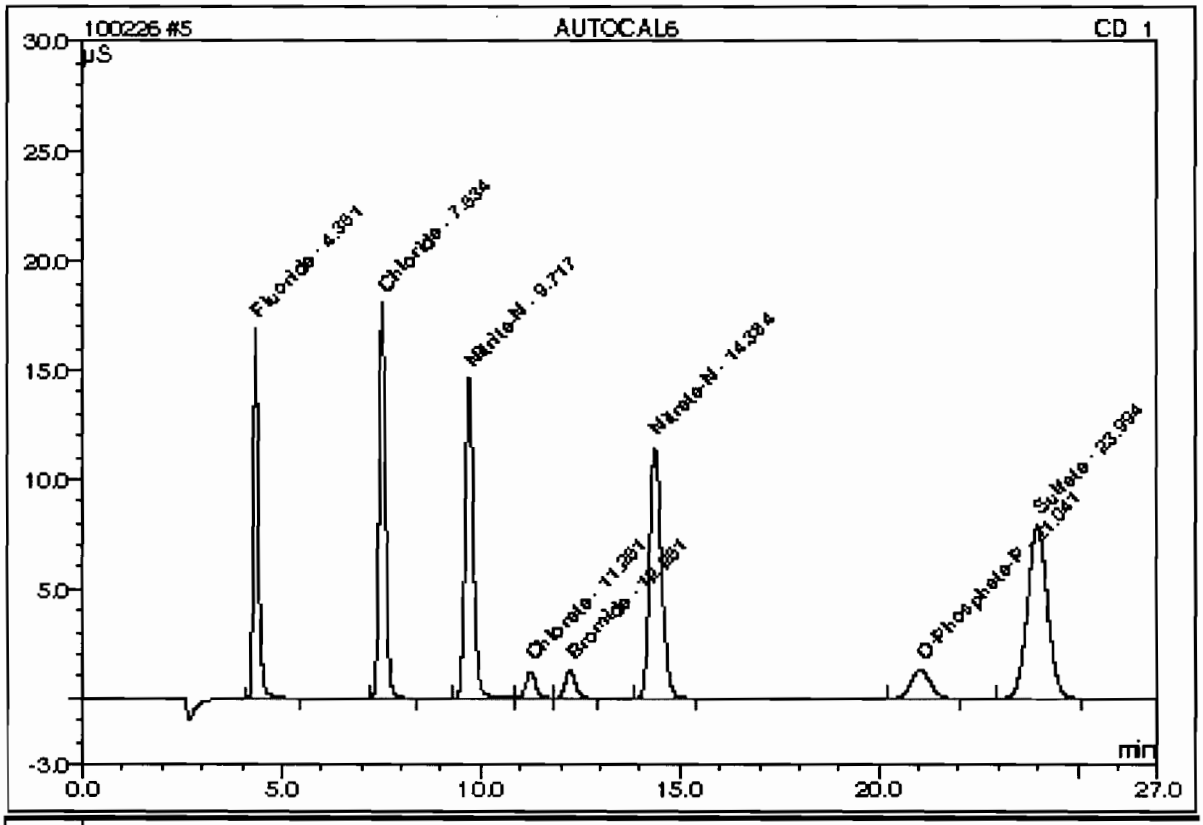

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	5.0000	4.8821		2.49823	12.80
2	7.53	Chloride	10.0000	9.2680		3.37962	17.32
3	9.72	Nitrite-N	5.0000	4.8519		3.59051	18.40
4	11.25	Chlorate	3.0000	2.9576		0.35494	1.82
5	12.25	Bromide	3.0000	2.9844		0.37955	1.94
6	14.38	Nitrate-N	5.0000	4.6879		3.93722	20.17
7	21.04	O-Phosphate-P	3.0000	3.0697		0.73810	3.78
8	23.99	Sulfate	20.0000	18.9886		4.63933	23.77
Total:				51.6902	0.000	19.517	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 15:28	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

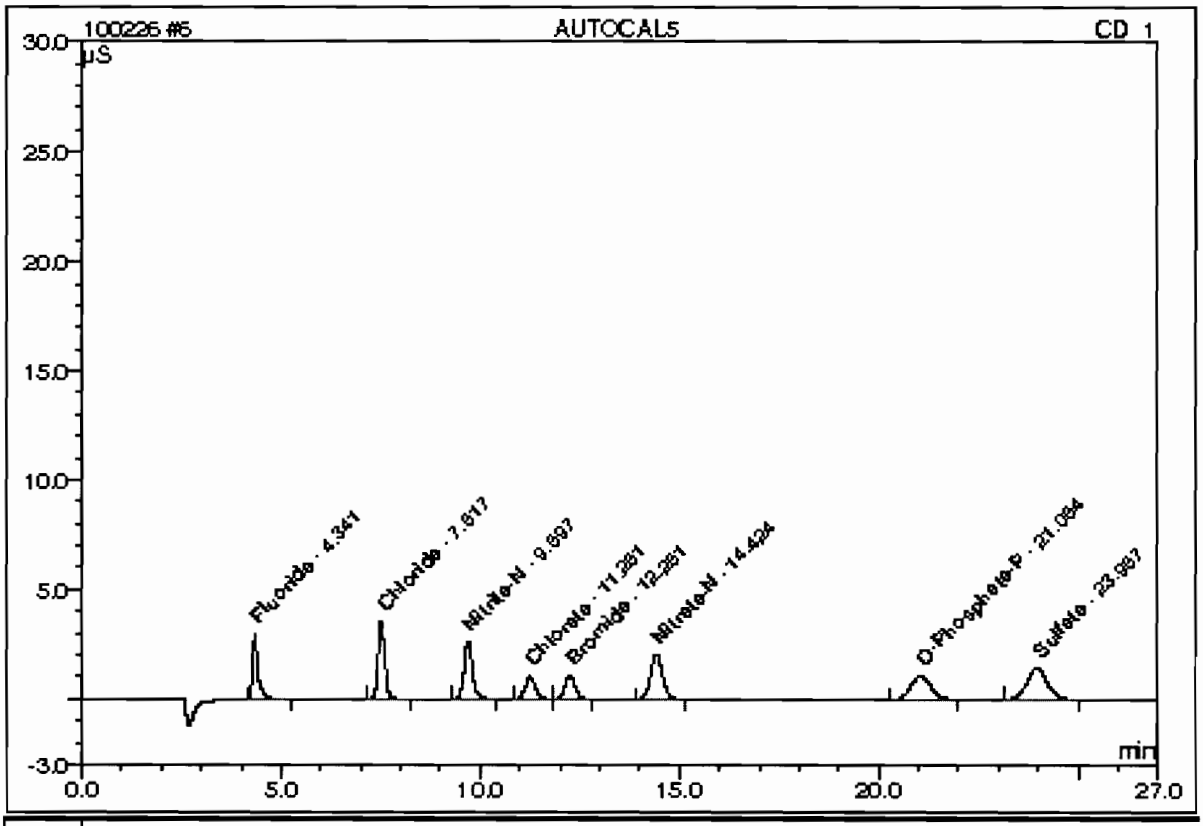

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	1.0000	0.9835		0.48520	10.55
2	7.52	Chloride	2.0000	2.0144		0.69068	15.02
3	9.70	Nitrite-N	1.0000	0.9293		0.64565	14.04
4	11.25	Chlorate	2.5000	2.4181		0.28784	6.26
5	12.25	Bromide	2.5000	2.4815		0.31507	6.85
6	14.42	Nitrate-N	1.0000	0.9207		0.70125	15.25
7	21.05	O-Phosphate-P	2.5000	2.5218		0.61342	13.34
8	23.97	Sulfate	4.0000	3.7785		0.85932	18.69
Total:				16.0479	0.000	4.598	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 15:58	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

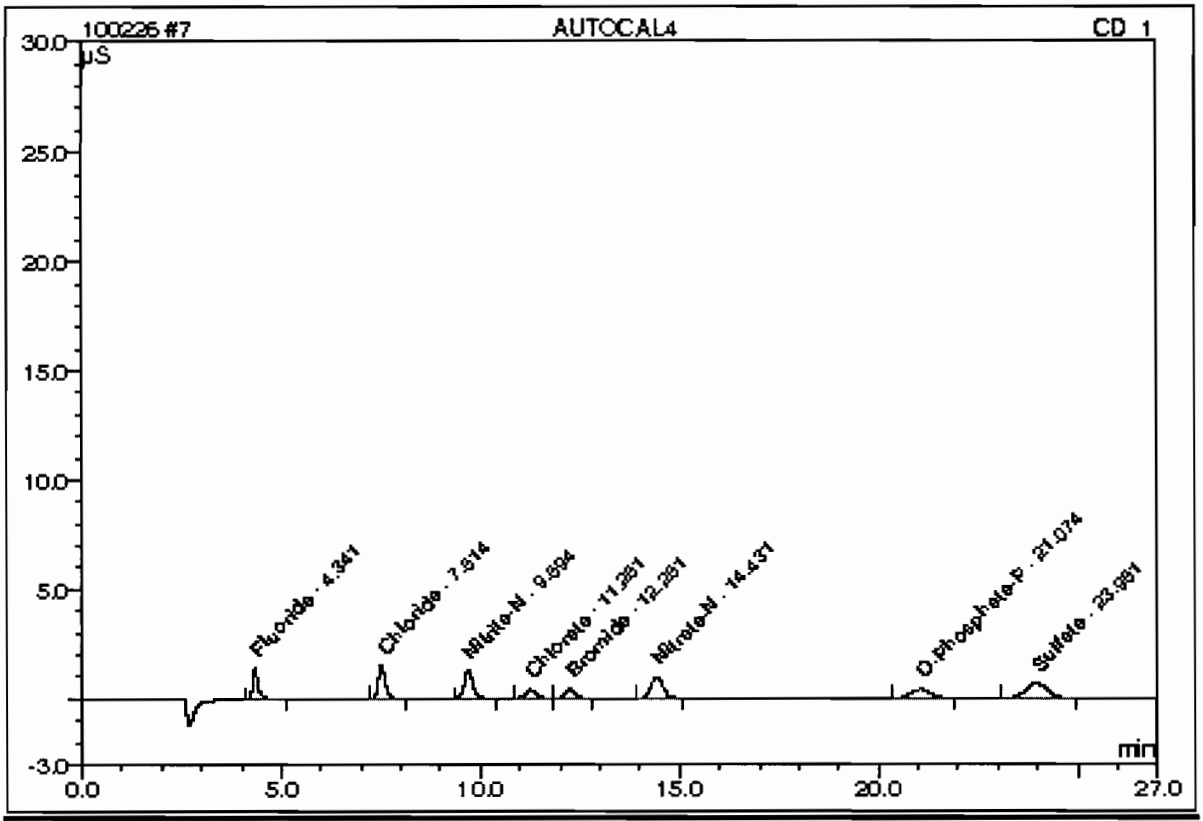

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	0.5000	0.4876		0.22674	10.95
2	7.51	Chloride	1.0000	0.9962		0.30574	14.76
3	9.69	Nitrite-N	0.5000	0.4958		0.31546	15.23
4	11.25	Chlorate	1.0000	0.9869		0.11408	5.51
5	12.25	Bromide	1.0000	0.9898		0.12420	6.00
6	14.43	Nitrate-N	0.5000	0.5100		0.34068	16.45
7	21.07	O-Phosphate-P	1.0000	0.9472		0.22299	10.76
8	23.96	Sulfate	2.0000	2.0454		0.42174	20.36
Total:				7.4589	0.000	2.072	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 16:28	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

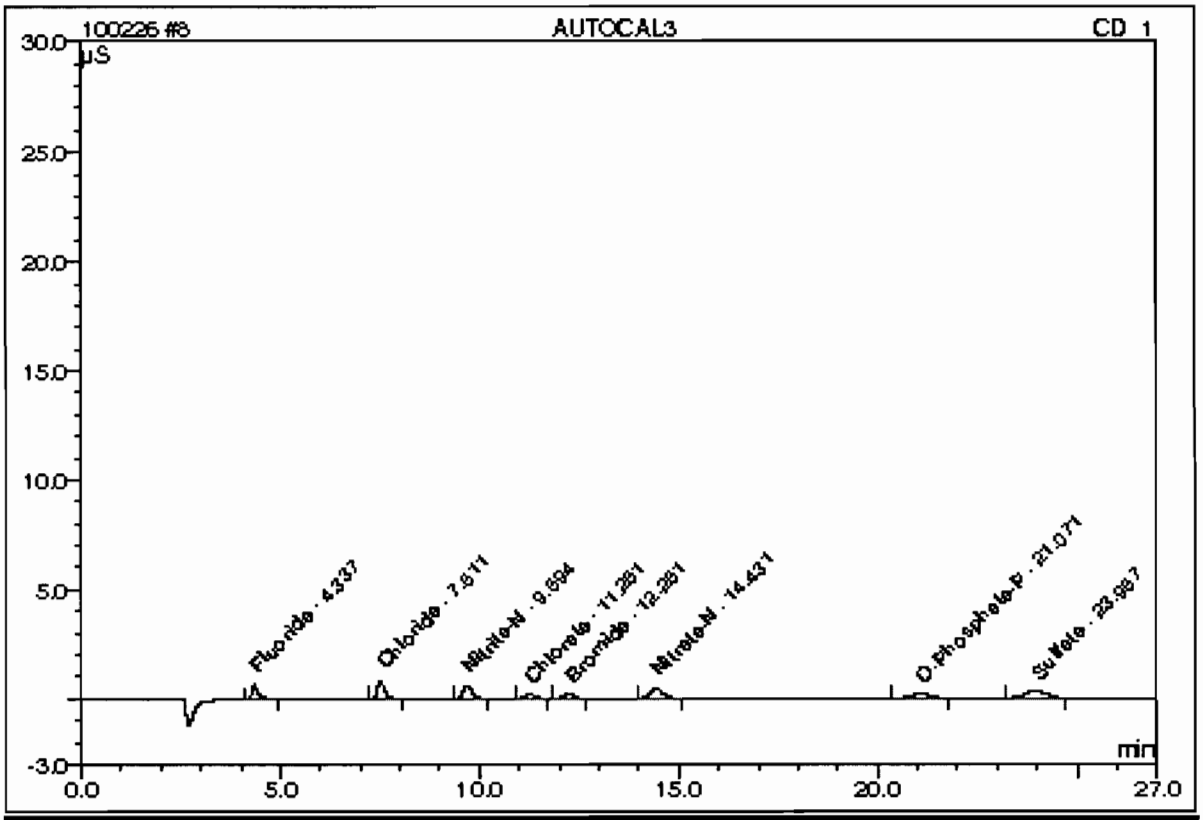

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	0.2500	0.2732		0.11429	11.11
2	7.51	Chloride	0.5000	0.6328		0.16712	16.25
3	9.69	Nitrite-N	0.2500	0.2882		0.15506	15.08
4	11.25	Chlorate	0.5000	0.5030		0.05470	5.32
5	12.25	Bromide	0.5000	0.4969		0.06070	5.90
6	14.43	Nitrate-N	0.2500	0.3206		0.17223	16.75
7	21.07	O-Phosphate-P	0.5000	0.4740		0.09833	9.56
8	23.96	Sulfate	1.0000	1.2003		0.20584	20.02
Total:				4.1891	0.000	1.028	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 16:58	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

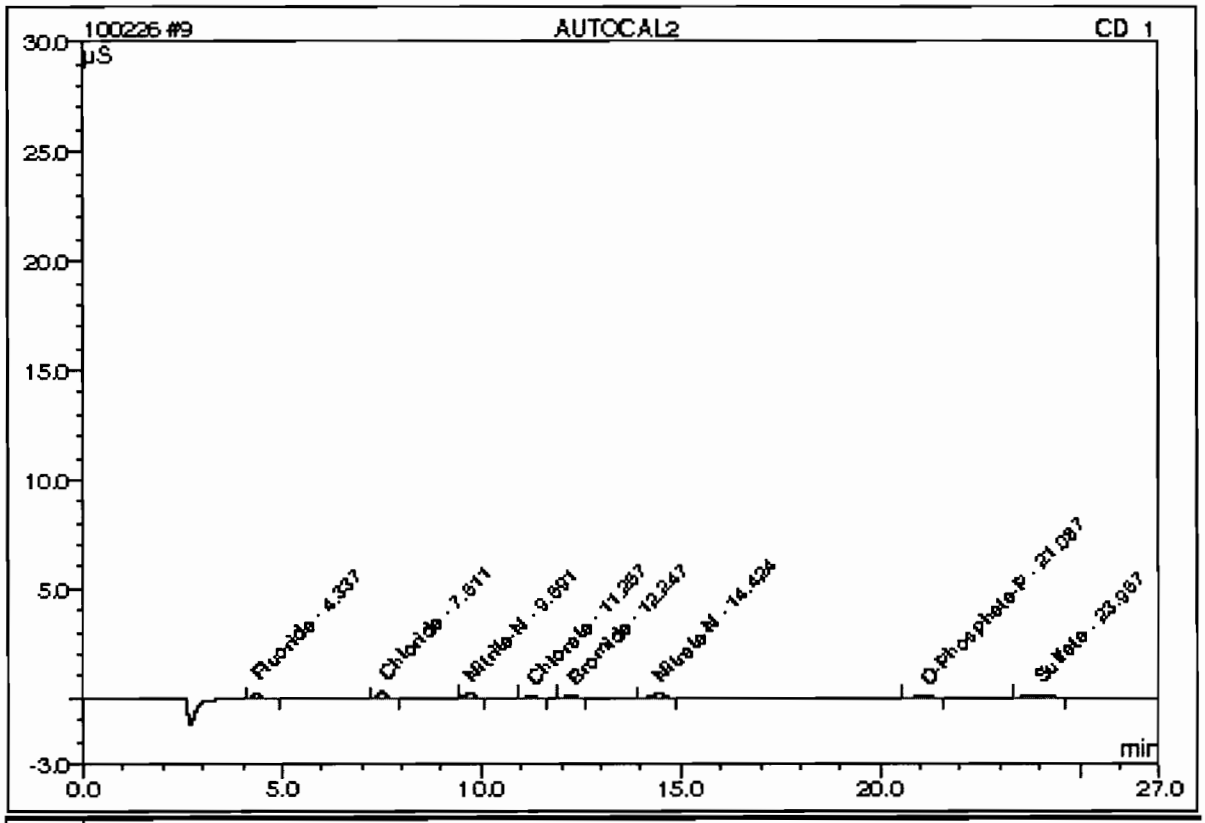

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.34	Fluoride	0.1000	0.1332		0.04630	12.02
2	7.51	Chloride	0.2000	0.3232		0.06387	16.58
3	9.69	Nitrite-N	0.1000	0.1495		0.06041	15.68
4	11.26	Chlorate	0.2000	0.2188		0.02097	5.44
5	12.25	Bromide	0.2000	0.2015		0.02291	5.95
6	14.42	Nitrate-N	0.1000	0.1778		0.06658	17.28
7	21.09	O-Phosphate-P	0.2000	0.1992		0.02730	7.09
8	23.96	Sulfate	0.4000	0.6242		0.07690	19.96
Total:				2.0274	0.000	0.385	100.00

10 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 17:28	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

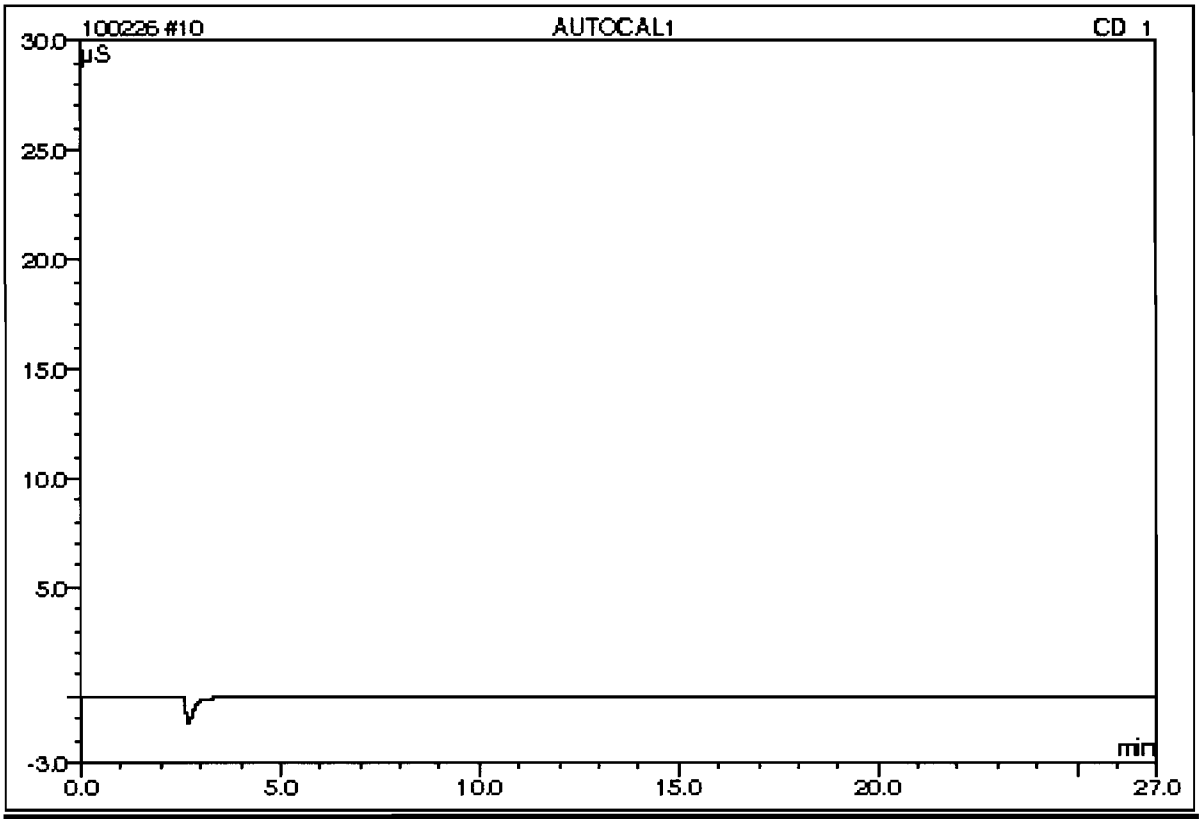

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

10 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 17:28	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002713;GLGCE086;300;9056

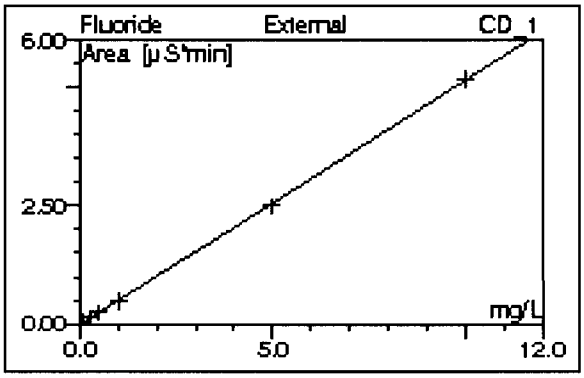

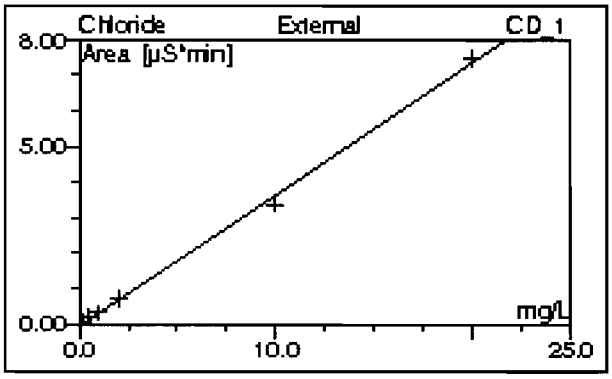

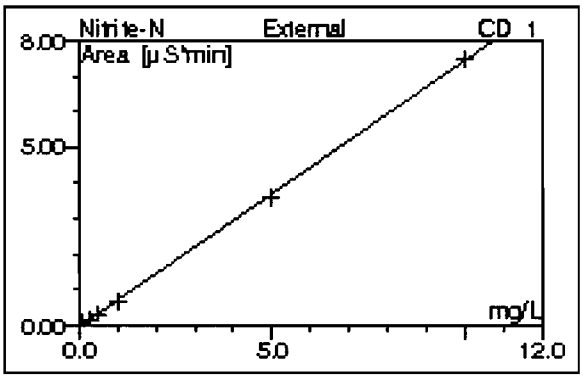

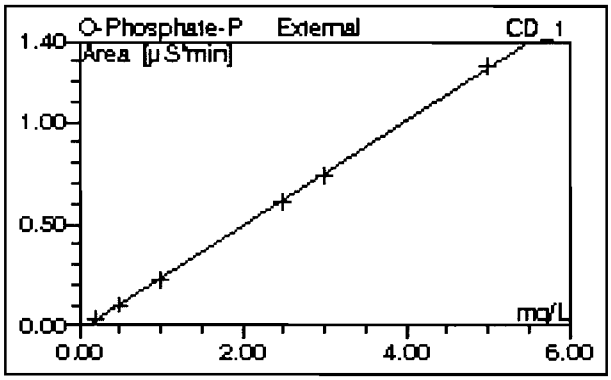

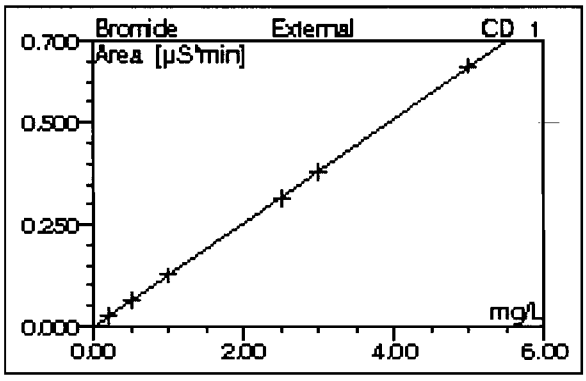

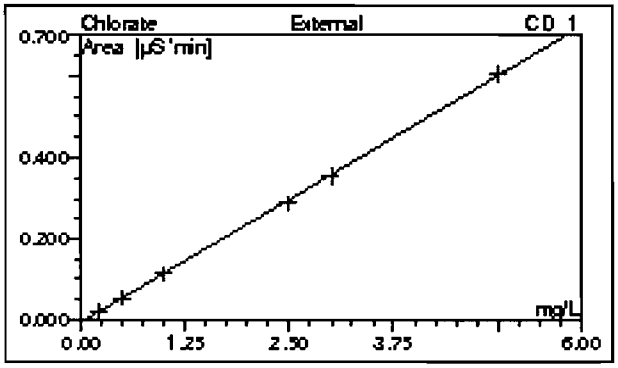

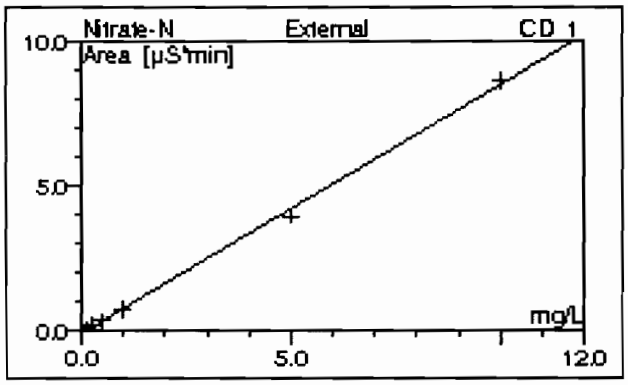

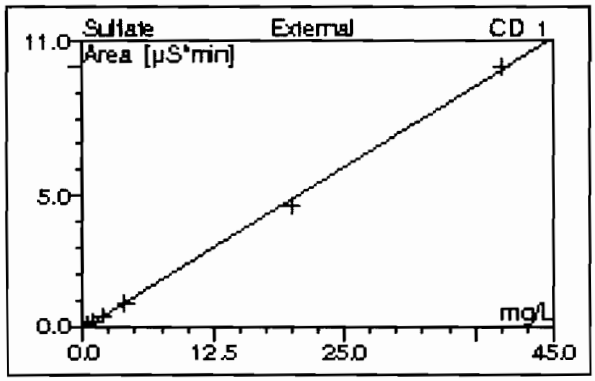

No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	0LO11	99.9752	-0.0225	0.5164	0.0000
n.a.	n.a.	Chloride	0LO11	99.7855	-0.0559	0.3705	0.0000
n.a.	n.a.	Nitrite-N	0LO11	99.9574	-0.0516	0.7496	0.0000
n.a.	n.a.	Chlorate	0LO11	99.9351	-0.0056	0.1212	0.0000
n.a.	n.a.	Bromide	0LO11	99.9942	-0.0029	0.1281	0.0000
n.a.	n.a.	Nitrate-N	0LO11	99.8341	-0.0857	0.8566	0.0000
n.a.	n.a.	O-Phosphate-P	0LO11	99.9473	-0.0242	0.2583	0.0000
n.a.	n.a.	Sulfate	0LO11	99.8946	-0.0779	0.2480	0.0000
Average:				99.9154	-0.0408	0.4061	0.0000

11 WIC100226-02ICV

Sample Name:	WIC100226-02ICV	*Injection Volume:*	50.0
Vial Number:	11	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 17:58	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

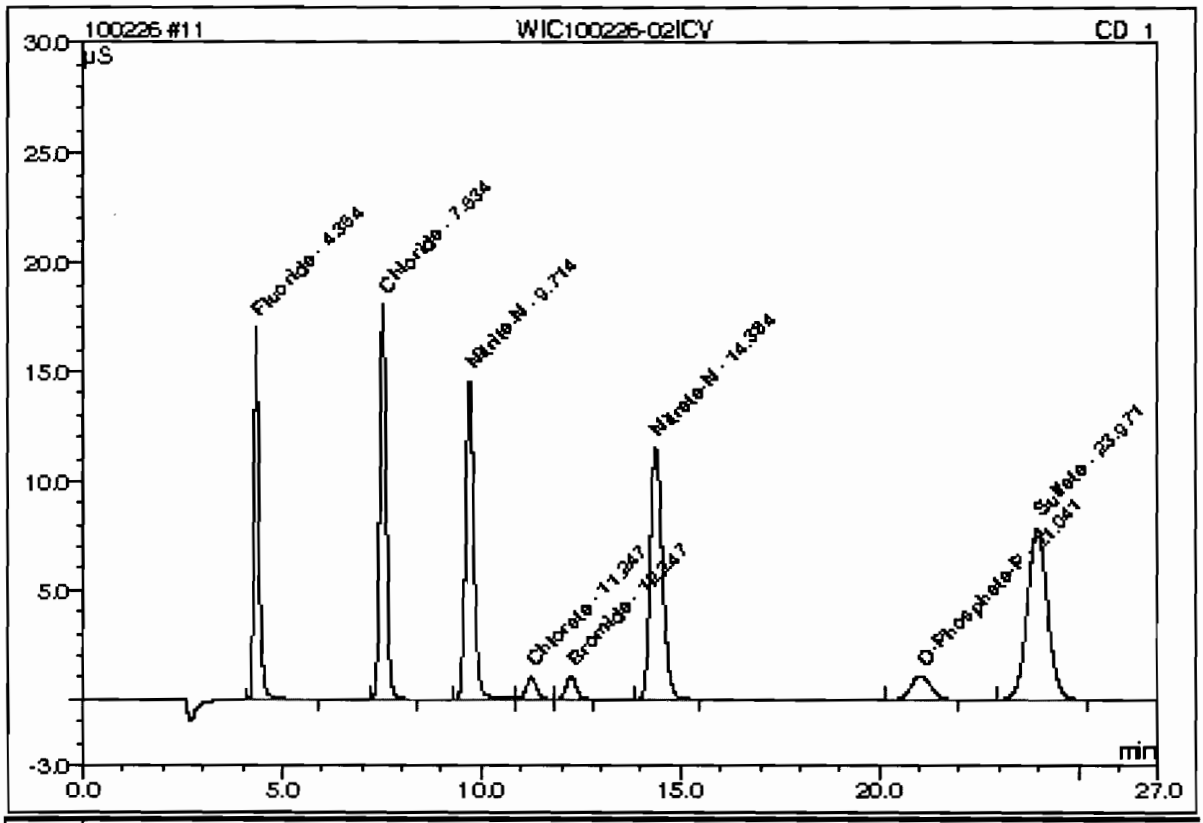

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.35	Fluoride	n.a.	4.9045		2.51013	13.00
2	7.53	Chloride	n.a.	9.2798		3.38193	17.52
3	9.71	Nitrite-N	n.a.	4.8611		3.59205	18.61
4	11.25	Chlorate	n.a.	2.4929		0.29666	1.54
5	12.25	Bromide	n.a.	2.5024		0.31765	1.65
6	14.38	Nitrate-N	n.a.	4.7351		3.97015	20.56
7	21.04	O-Phosphate-P	n.a.	2.4448		0.60728	3.15
8	23.97	Sulfate	n.a.	18.9837		4.63080	23.99
Total:				50.2043	0.000	19.307	100.00

12 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	12	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	2/26/2010 18:27	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

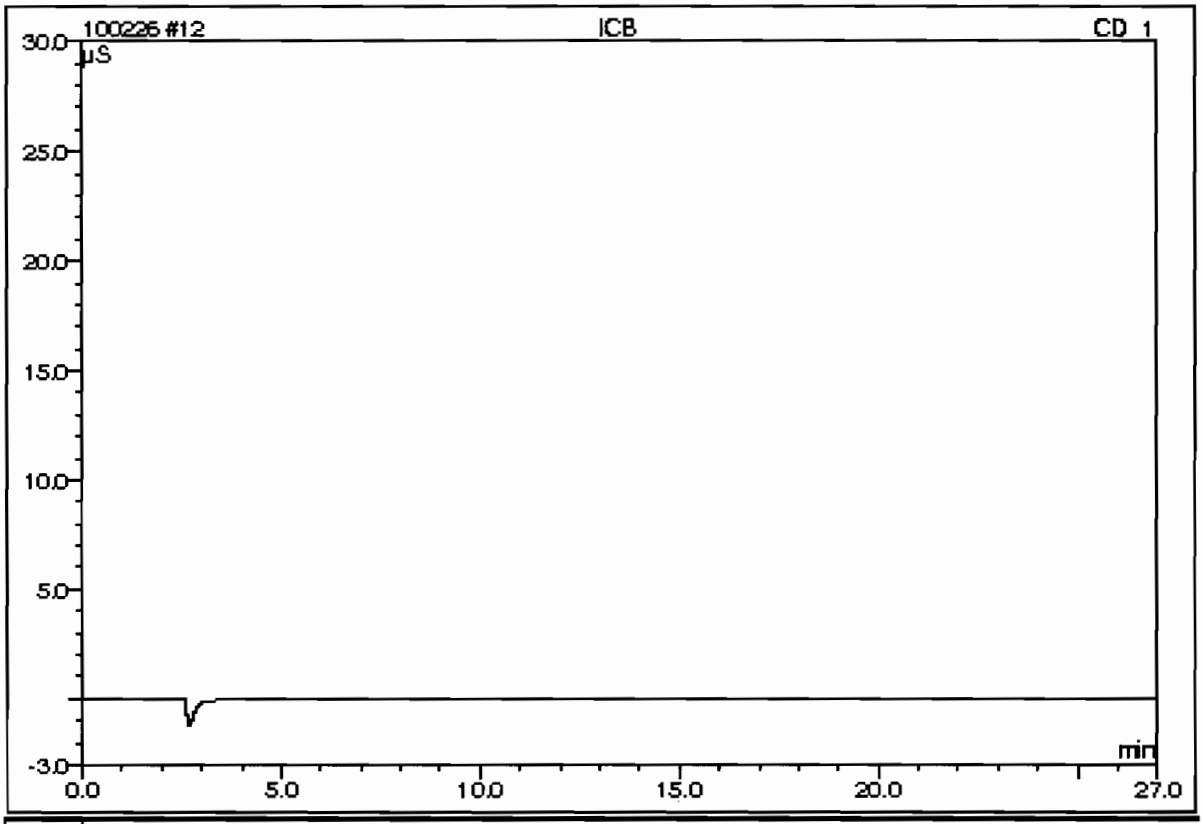

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100310.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/10/10 10:13		1	100310	GXM3
BLK	03/10/10 10:42		1	100310	GXM3
BLK	03/10/10 11:12		1	100310	GXM3
ICV	03/10/10 11:42		1	100310	GXM3
ICB	03/10/10 12:12		1	100310	GXM3
248169004	03/10/10 12:42	963046	2	100310	GXM3
1202066020	03/10/10 13:12	963046	2	100310	GXM3
1202066021	03/10/10 13:42	963046	2	100310	GXM3
CCV	03/10/10 14:12		1	100310	GXM3
CCB	03/10/10 14:42		1	100310	GXM3
248452002	03/10/10 15:12	963207	10	100310	GXM3
1202066363	03/10/10 15:41	963207	10	100310	GXM3
1202066365	03/10/10 16:11	963207	10	100310	GXM3
248452003	03/10/10 16:41	963207	10	100310	GXM3
CVH	03/10/10 17:11		1	100310	GXM3
CCB	03/10/10 17:41		1	100310	GXM3
1202066399	03/10/10 18:11	963224	1	100310	GXM3
1202066402	03/10/10 18:41	963224	1	100310	GXM3
247261004	03/10/10 19:11	963224	1	100310	GXM3
1202066400	03/10/10 19:41	963224	1	100310	GXM3
1202066401	03/10/10 20:11	963224	1	100310	GXM3
247431002	03/10/10 20:41	963224	1	100310	GXM3
247817001	03/10/10 21:10	963224	1	100310	GXM3
247829001	03/10/10 21:40	963224	1	100310	GXM3
248024002	03/10/10 22:10	963224	1	100310	GXM3
248024004	03/10/10 22:40	963224	1	100310	GXM3
CCV	03/10/10 23:10		1	100310	GXM3
CCB	03/10/10 23:40		1	100310	GXM3

11 WIC100309-02ICV

Sample Name:	WIC100309-02ICV	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 11:42	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

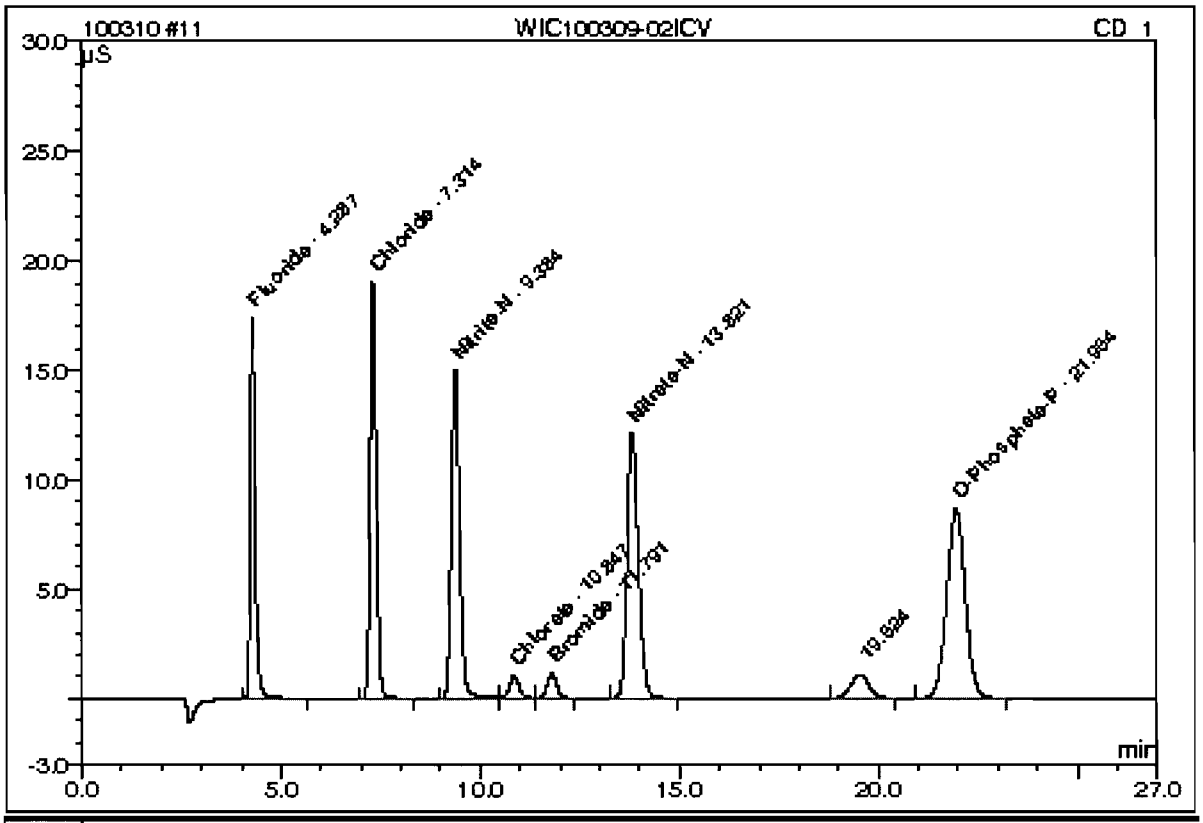

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	n.a.	4.8773		2.49606	12.91
2	7.31	Chloride	n.a.	9.3258		3.39897	17.58
3	9.38	Nitrite-N	n.a.	4.8148		3.55737	18.40
4	10.85	Chlorate	n.a.	2.5311		0.30129	1.56
5	11.79	Bromide	n.a.	2.5086		0.31844	1.65
6	13.82	Nitrate-N	n.a.	4.7730		4.00263	20.71
8	21.95	O-Phosphate-P	n.a.	18.2013		4.67675	24.19
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				47.0319	0.000	18.752	97.00

11 WIC100309-02ICV

Sample Name:	WIC100309-02ICV	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 11:42	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

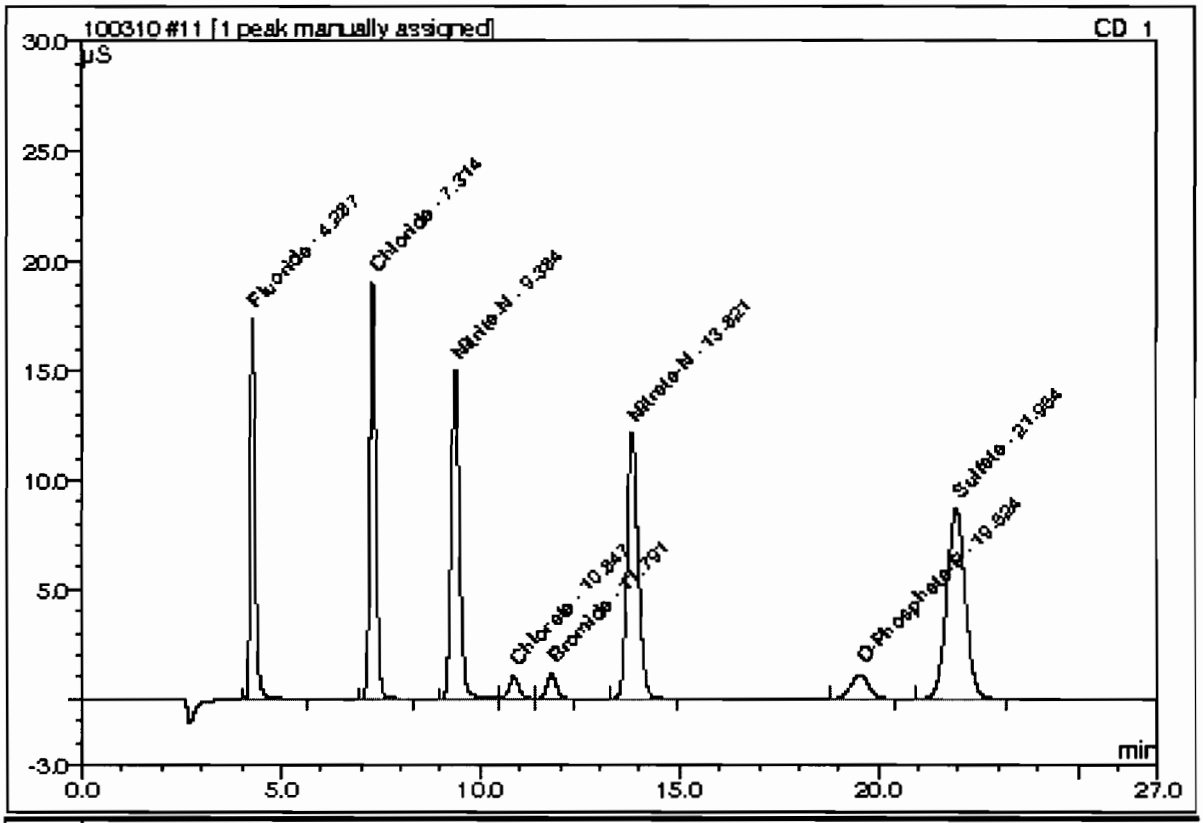

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	n.a.	4.8773		2.49606	12.91
2	7.31	Chloride	n.a.	9.3258		3.39897	17.58
3	9.38	Nitrite-N	n.a.	4.8148		3.55737	18.40
4	10.85	Chlorate	n.a.	2.5311		0.30129	1.56
5	11.79	Bromide	n.a.	2.5086		0.31844	1.65
6	13.82	Nitrate-N	n.a.	4.7730		4.00263	20.71
7	19.52	O-Phosphate-P	n.a.	2.3391		0.57998	3.00
8	21.95	Sulfate	n.a.	19.1690		4.67675	24.19
Total:				50.3387	0.000	19.332	100.00

12 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 12:12	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

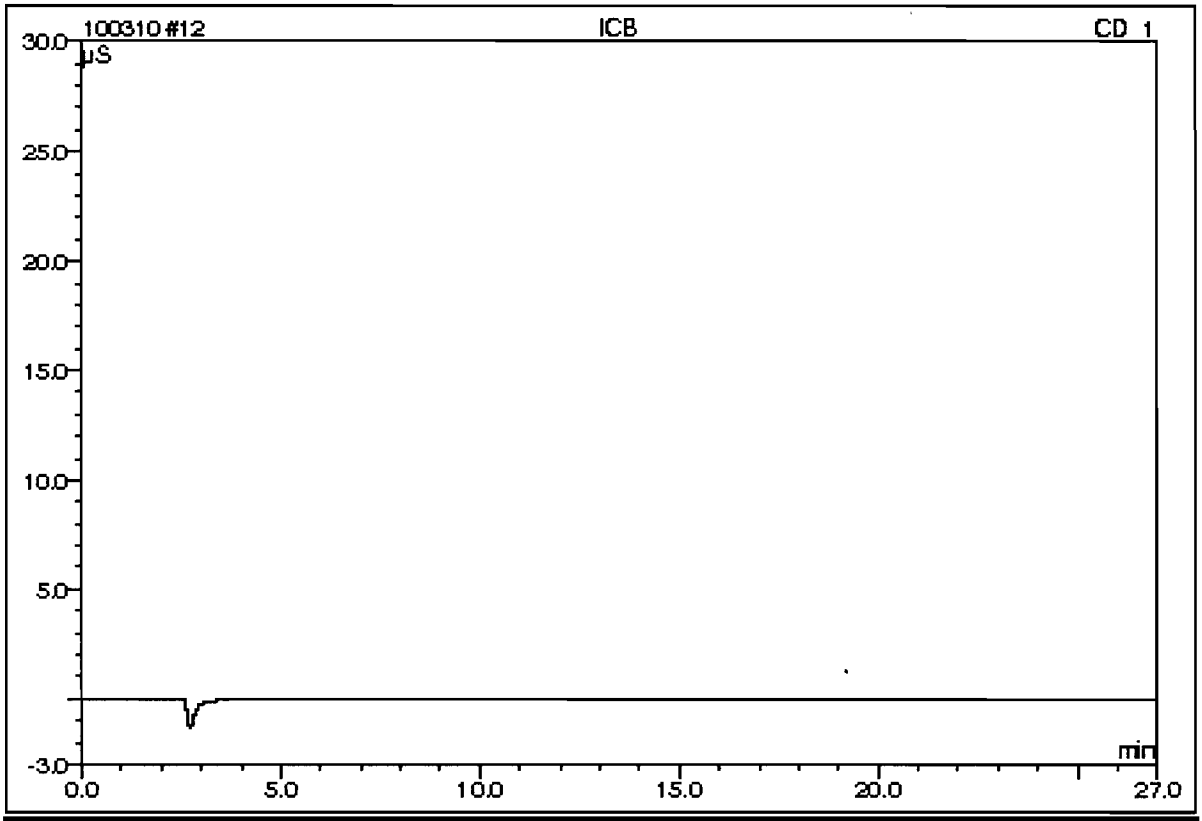

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

22 WIC100309-02CVH

Sample Name:	WIC100309-02CVH	*Injection Volume:*	50.0
Vial Number:	15	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 17:11	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

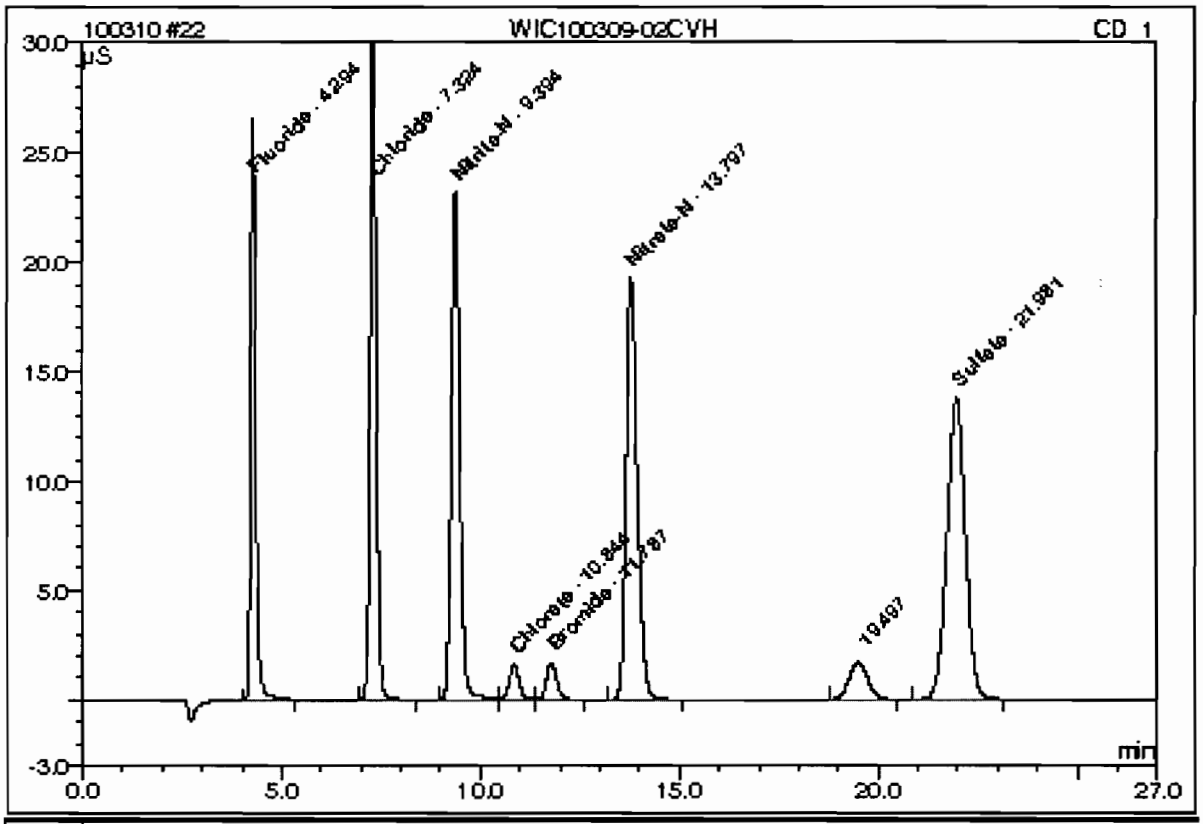

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	n.a.	7.4981		3.84942	12.70
2	7.32	Chloride	n.a.	14.7559		5.41061	17.85
3	9.39	Nitrite-N	n.a.	7.4565		5.53748	18.27
4	10.84	Chlorate	n.a.	3.7660		0.45100	1.49
5	11.79	Bromide	n.a.	3.8241		0.48696	1.61
6	13.80	Nitrate-N	n.a.	7.4675		6.31066	20.82
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
8	21.98	Sulfate	n.a.	35.2620		7.35667	24.27
Total:				80.0301	0.000	29.403	97.01

23 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	16	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 17:41	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

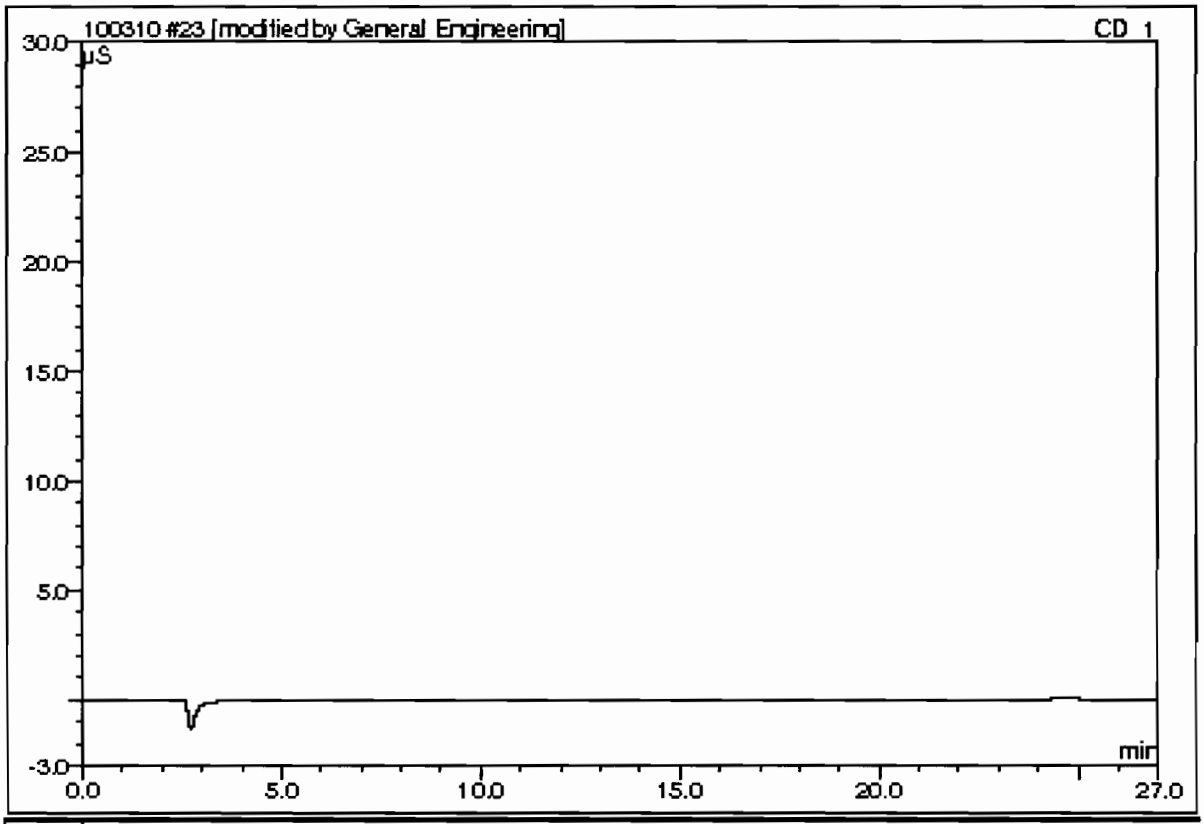

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

24 1202066399/963224/1/1/MB

Sample Name:	1202066399/963224/1/1/MB	*Injection Volume:*	50.0
Vial Number:	17	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 18:11	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

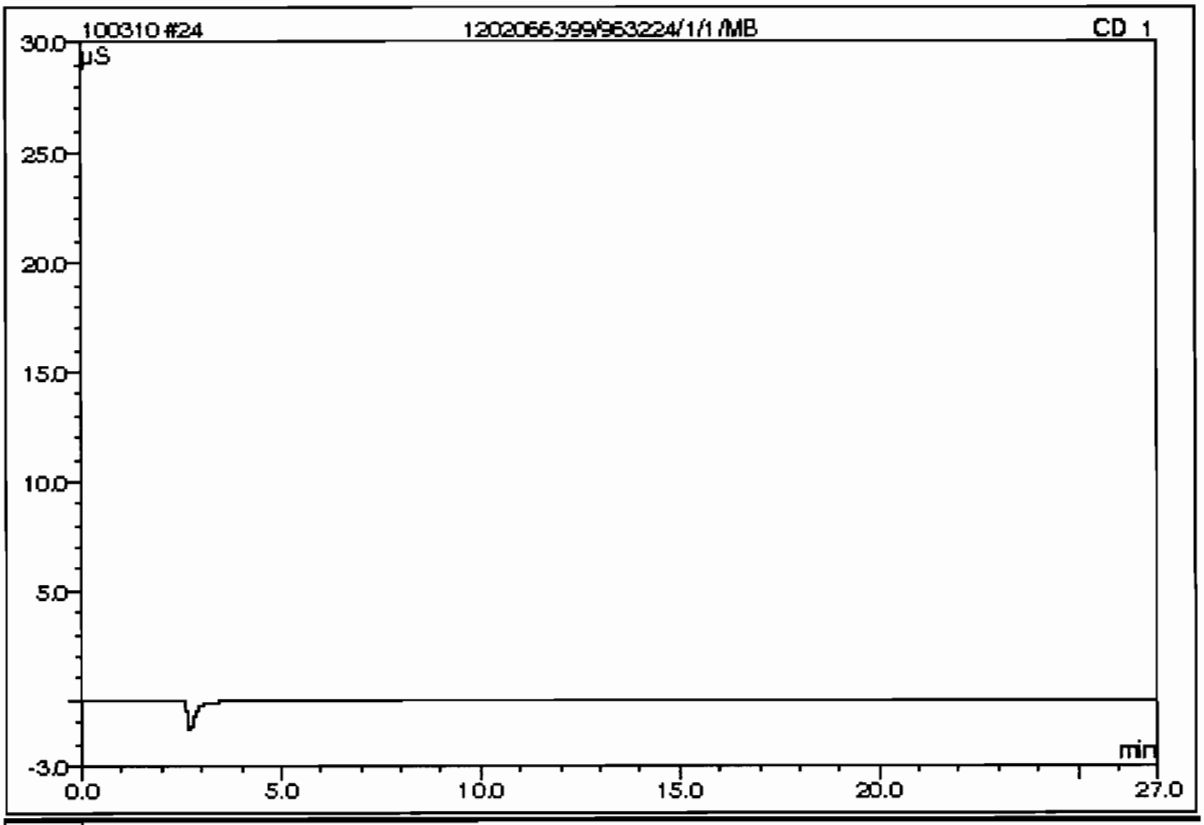

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

25 1202066402/963224/1/1/LCS

Sample Name:	1202066402/963224/1/1/LCS	*Injection Volume:*	50.0
Vial Number:	18	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 18:41	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

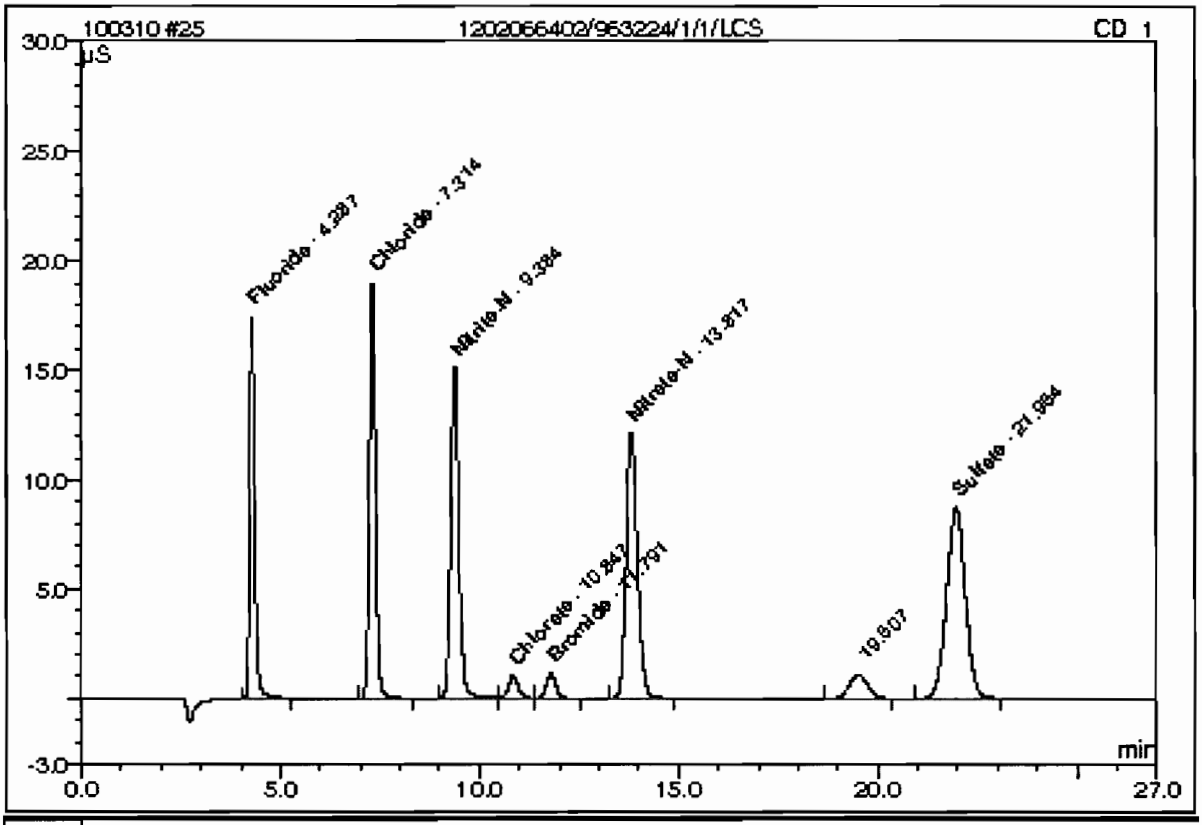

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	n.a.	4.8821		2.49854	12.88
2	7.31	Chloride	n.a.	9.3796		3.41891	17.62
3	9.38	Nitrite-N	n.a.	4.8510		3.58446	18.47
4	10.85	Chlorate	n.a.	2.5055		0.29820	1.54
5	11.79	Bromide	n.a.	2.5000		0.31734	1.64
6	13.82	Nitrate-N	n.a.	4.7576		3.98949	20.56
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
8	21.96	Sulfate	n.a.	23.2876		4.72241	24.34
Total:				52.1634	0.000	18.829	97.04

26 247261004/963224/1/1/

Sample Name:	247261004/963224/1/1/	*Injection Volume:*	50.0
Vial Number:	19	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 19:11	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

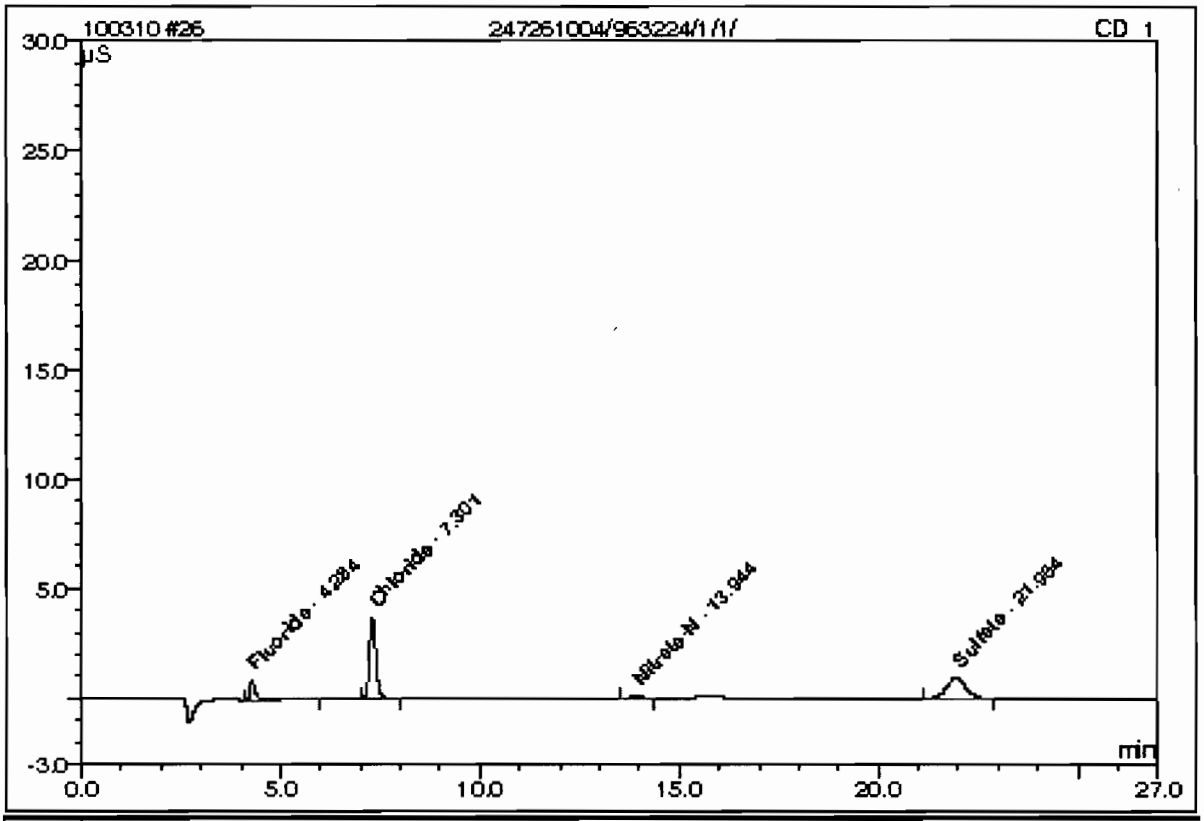

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.28	Fluoride	n.a.	0.4900		0.23055	15.70
2	7.30	Chloride	n.a.	2.0113		0.68925	46.94
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.94	Nitrate-N	n.a.	0.1316		0.02703	1.84
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	21.95	Sulfate	n.a.	4.1921		0.52158	35.52
Total:				6.8251	0.000	1.468	100.00

26 247261004/963224/1/1/

Sample Name:	247261004/963224/1/1/	*Injection Volume:*	50.0
Vial Number:	19	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 19:11	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

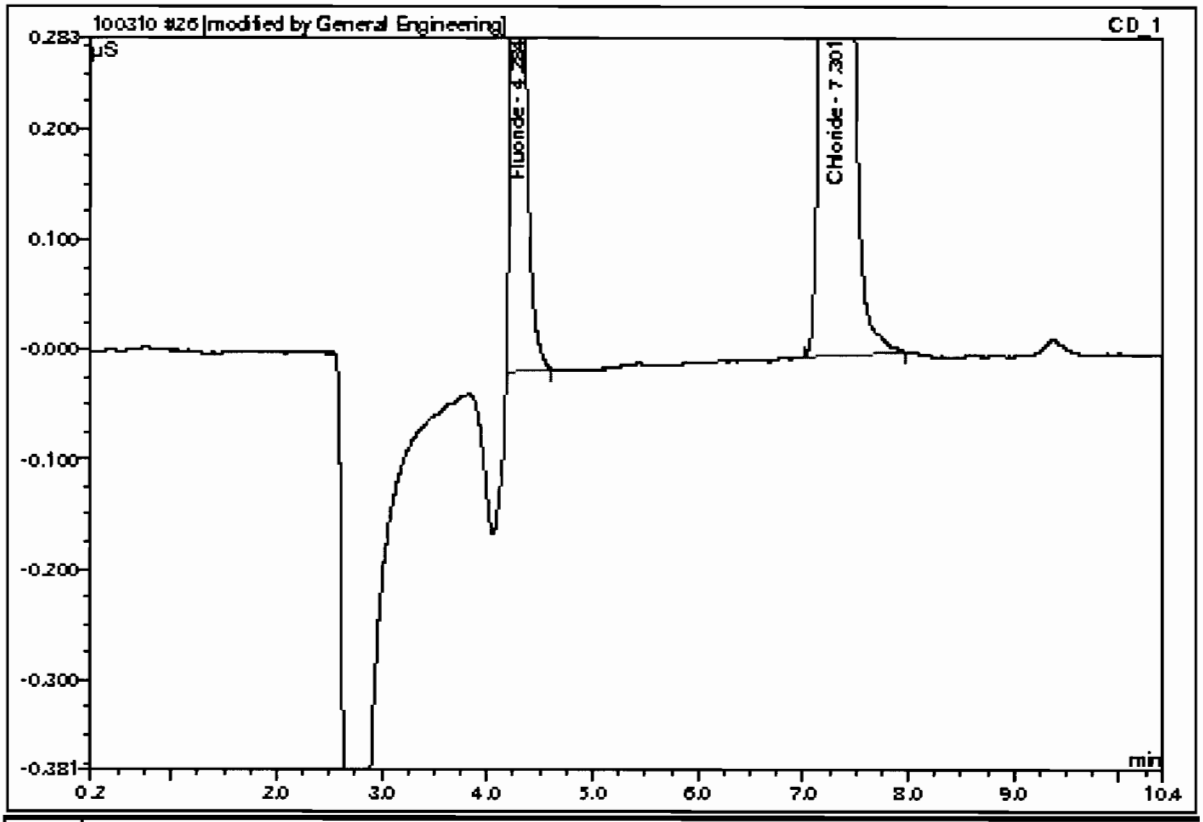

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.28	Fluoride	n.a.	0.2406	*	0.10176	7.60
2	7.30	Chloride	n.a.	2.0113		0.68925	51.45
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.94	Nitrate-N	n.a.	0.1316		0.02703	2.02
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	21.95	Sulfate	n.a.	4.1921		0.52158	38.93
Total:				6.5757	0.000	1.340	100.00

27 1202066400/963224/1/1/DUP

Sample Name:	1202066400/963224/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	20	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 19:41	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

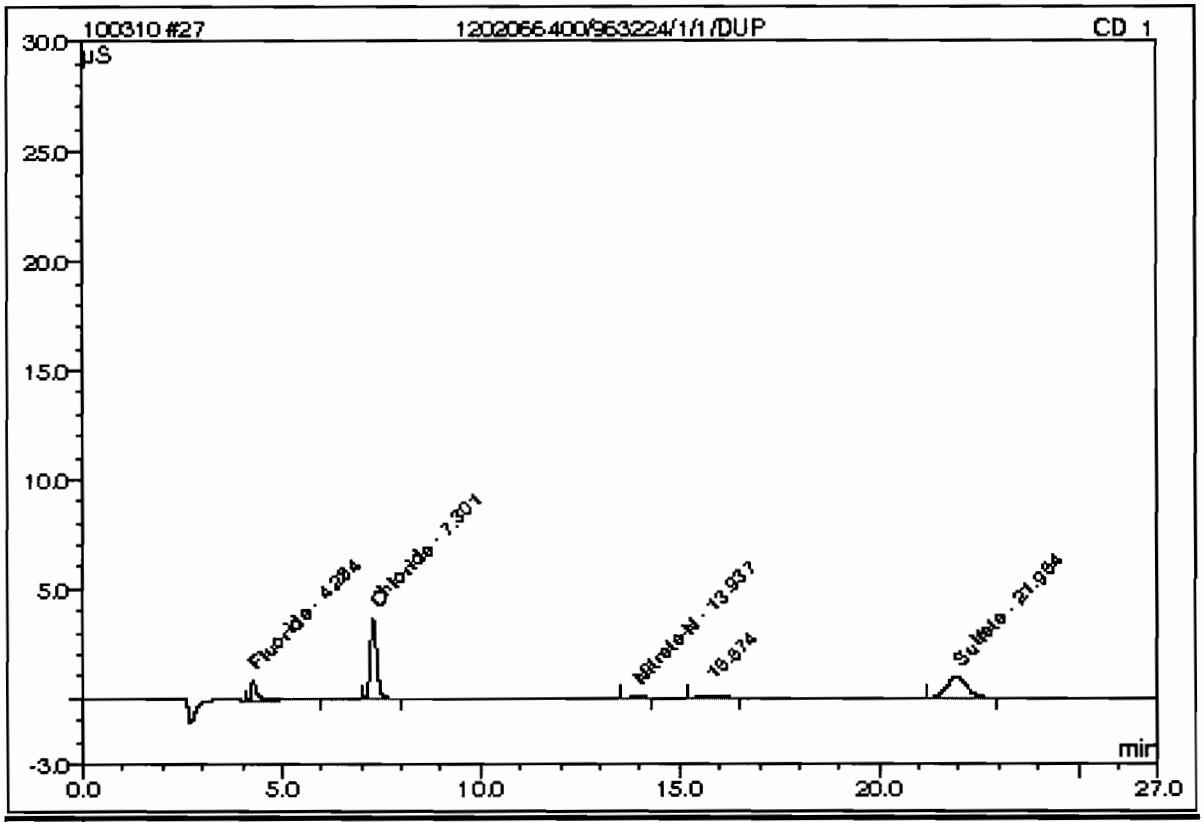

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.28	Fluoride	n.a.	0.4922		0.23166	15.21
2	7.30	Chloride	n.a.	2.0065		0.68746	45.14
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.94	Nitrate-N	n.a.	0.1309		0.02643	1.74
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	21.95	Sulfate	n.a.	4.2345		0.53089	34.86
Total:				6.8641	0.000	1.476	96.94

27 1202066400/963224/1/1/DUP

Sample Name:	1202066400/963224/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	20	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 19:41	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

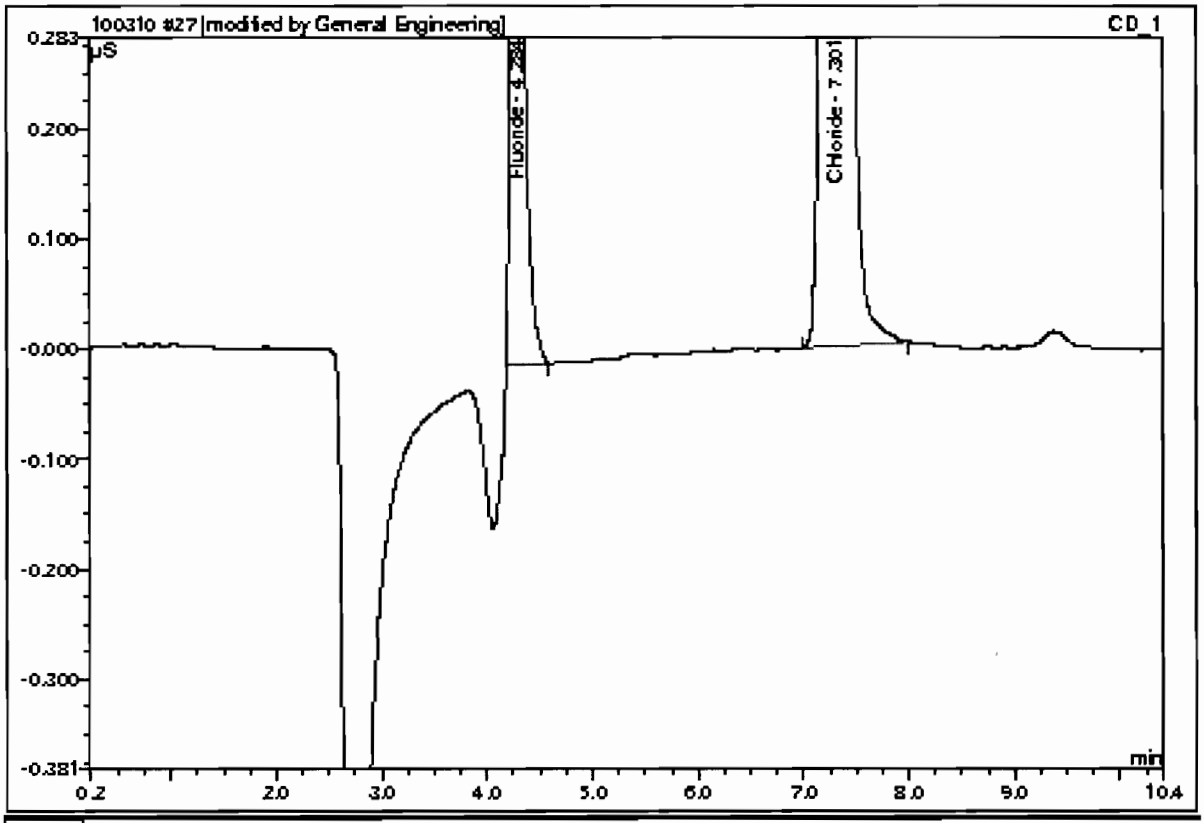

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.28	Fluoride	n.a.	0.2389		0.10088	7.25
2	7.30	Chloride	n.a.	2.0065		0.68746	49.37
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.94	Nitrate-N	n.a.	0.1309		0.02643	1.90
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	21.95	Sulfate	n.a.	4.2345		0.53089	38.13
Total:				6.6108	0.000	1.346	96.65

28 1202066401/963224/1/1/PS

Sample Name:	1202066401/963224/1/1/PS	*Injection Volume:*	50.0
Vial Number:	21	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 20:11	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

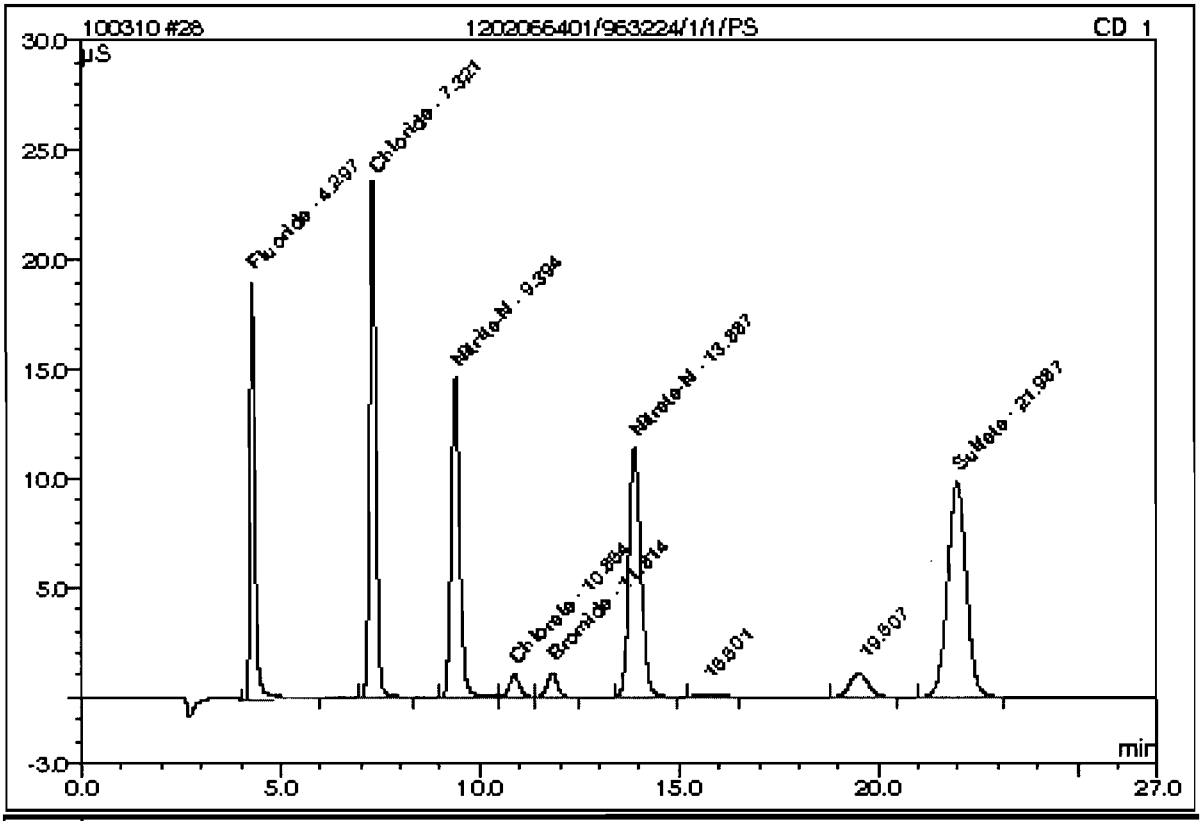

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	5.3425		2.73632	13.02
2	7.32	Chloride	n.a.	11.6349		4.25441	20.24
3	9.39	Nitrite-N	n.a.	4.7939		3.54165	16.85
4	10.86	Chlorate	n.a.	2.4933		0.29671	1.41
5	11.81	Bromide	n.a.	2.5314		0.32137	1.53
6	13.89	Nitrate-N	n.a.	4.7259		3.96227	18.85
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
9	21.99	Sulfate	n.a.	25.8170		5.27887	25.12
Total:				57.3389	0.000	20.392	97.03

28 1202066401/963224/1/1/PS

Sample Name:	1202066401/963224/1/1/PS	*Injection Volume:*	50.0
Vial Number:	21	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 20:11	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

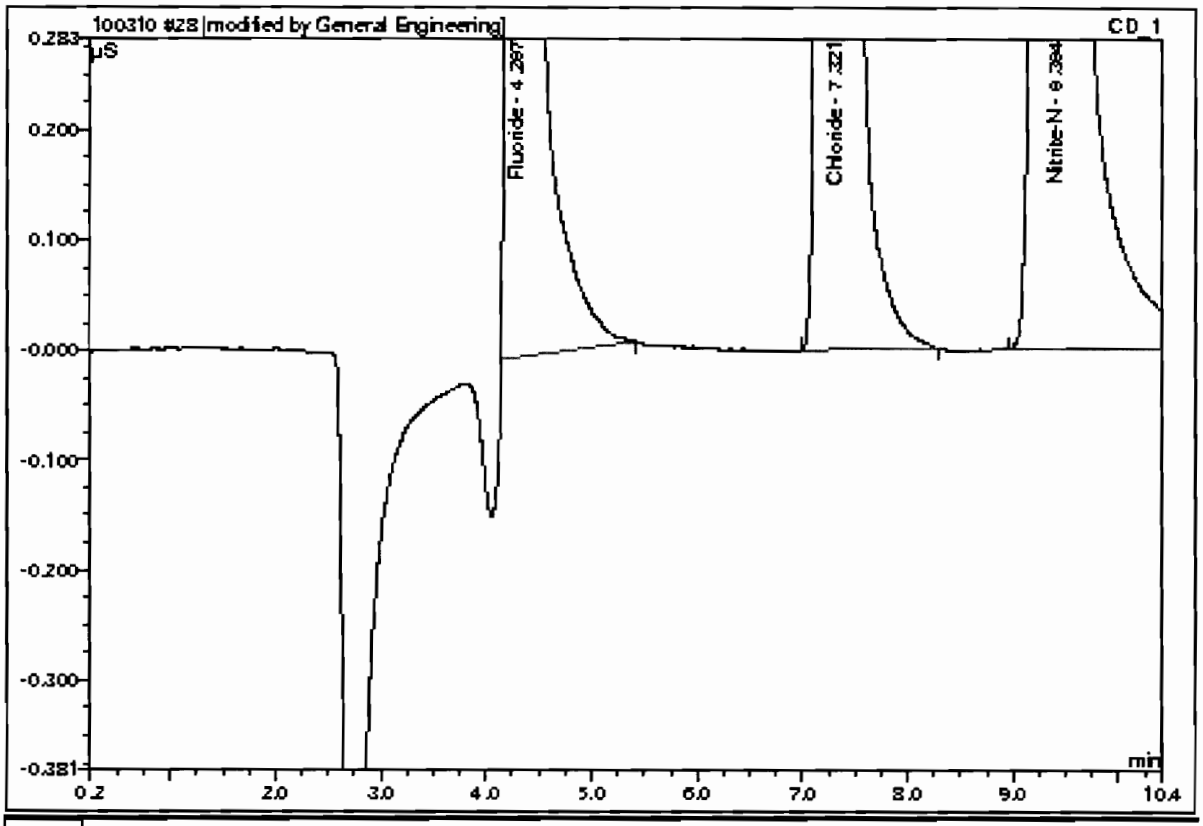

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	5.0756		2.59847	12.45
2	7.32	Chloride	n.a.	11.6349		4.25441	20.38
3	9.39	Nitrite-N	n.a.	4.7939		3.54165	16.96
4	10.86	Chlorate	n.a.	2.4933		0.29671	1.42
5	11.81	Bromide	n.a.	2.5314		0.32137	1.54
6	13.89	Nitrate-N	n.a.	4.7259		3.96227	18.98
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
9	21.99	Sulfate	n.a.	25.8170		5.27887	25.28
Total:				57.0720	0.000	20.254	97.01

31 247829001/963224/1/1/

Sample Name:	247829001/963224/1/1/	*Injection Volume:*	50.0
Vial Number:	24	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 21:40	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

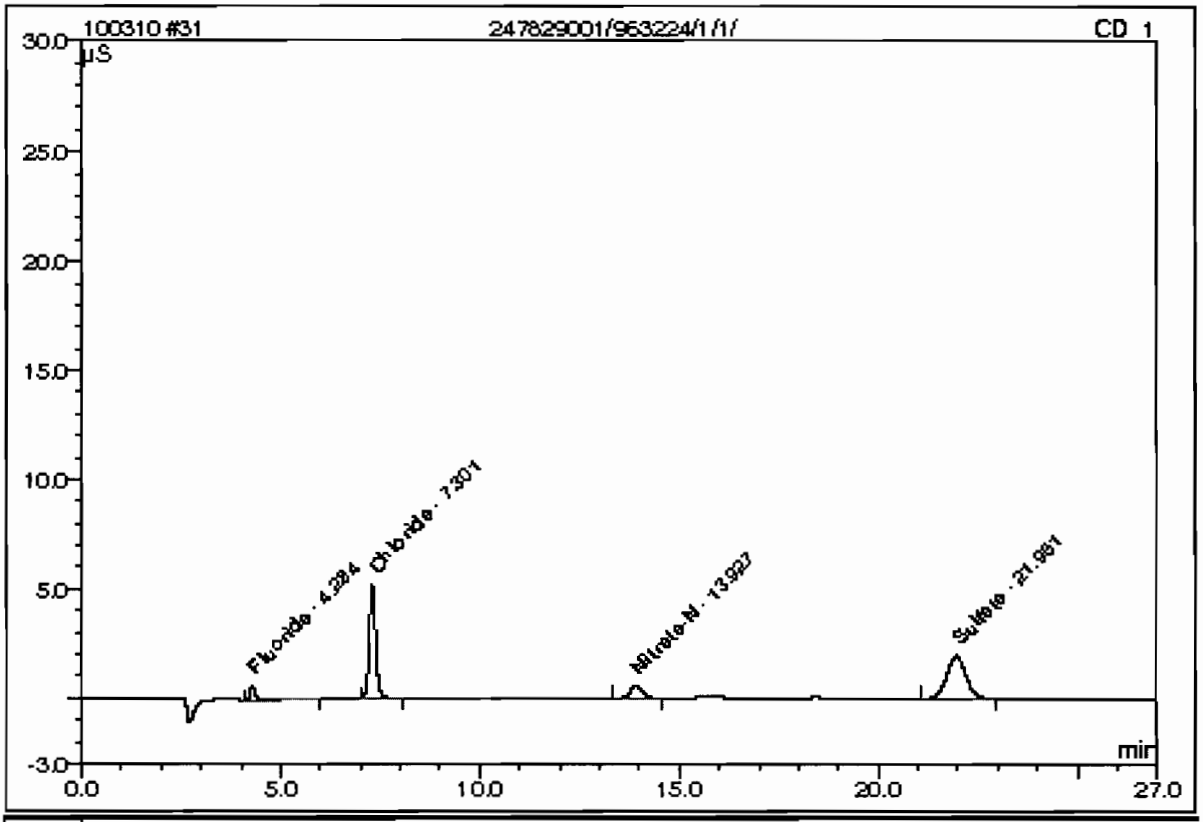

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.28	Fluoride	n.a.	0.4464		0.20805	8.44
2	7.30	Chloride	n.a.	2.7968		0.98023	39.77
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.93	Nitrate-N	n.a.	0.3316		0.19837	8.05
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	21.96	Sulfate	n.a.	6.7221		1.07816	43.74
Total:				10.2970	0.000	2.465	100.00

31 247829001/963224/1/1/

Sample Name:	247829001/963224/1/1/	*Injection Volume:*	50.0
Vial Number:	24	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 21:40	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

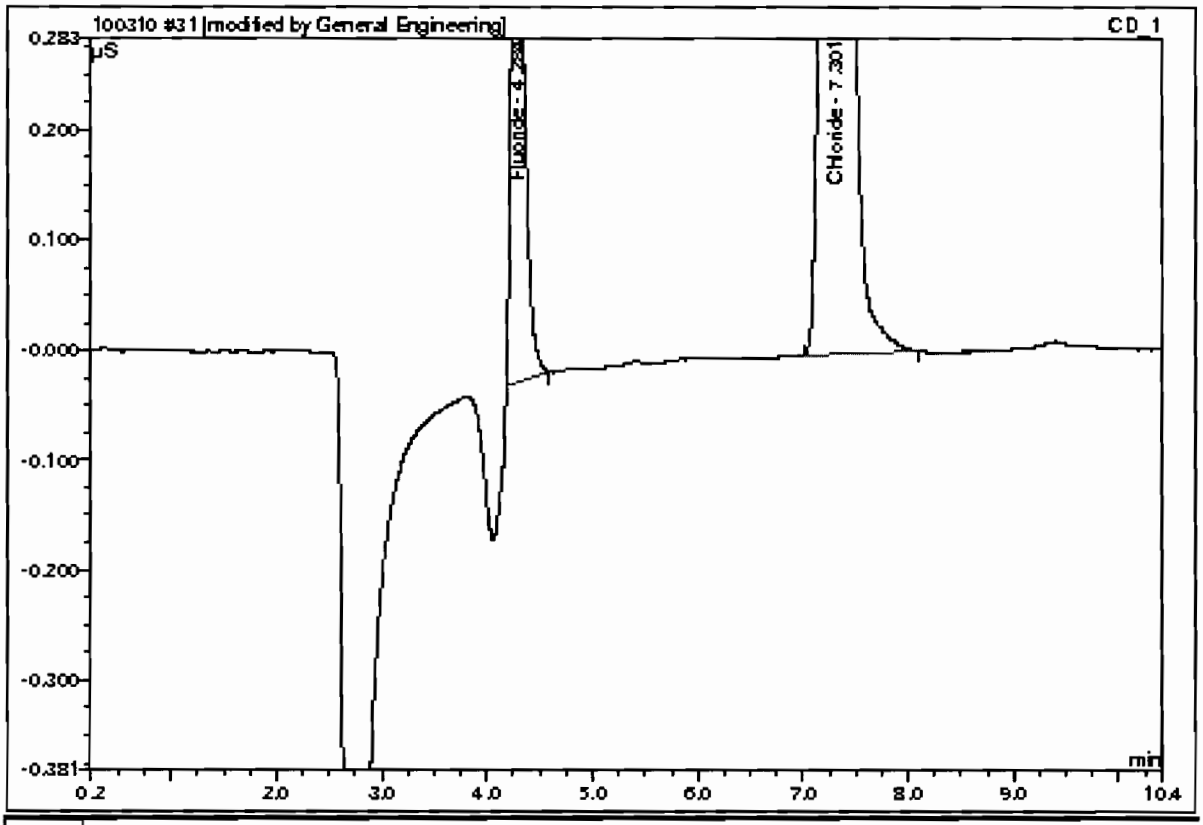

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.28	Fluoride	n.a.	0.1957		0.07857	3.36
2	7.30	Chloride	n.a.	2.7968		0.98023	41.97
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.93	Nitrate-N	n.a.	0.3316		0.19837	8.49
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	21.96	Sulfate	n.a.	6.7221		1.07816	46.17
Total:				10.0463	0.000	2.335	100.00

34 WIC100309-02CCV

Sample Name:	WIC100309-02CCV	*Injection Volume:*	50.0
Vial Number:	27	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 23:10	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

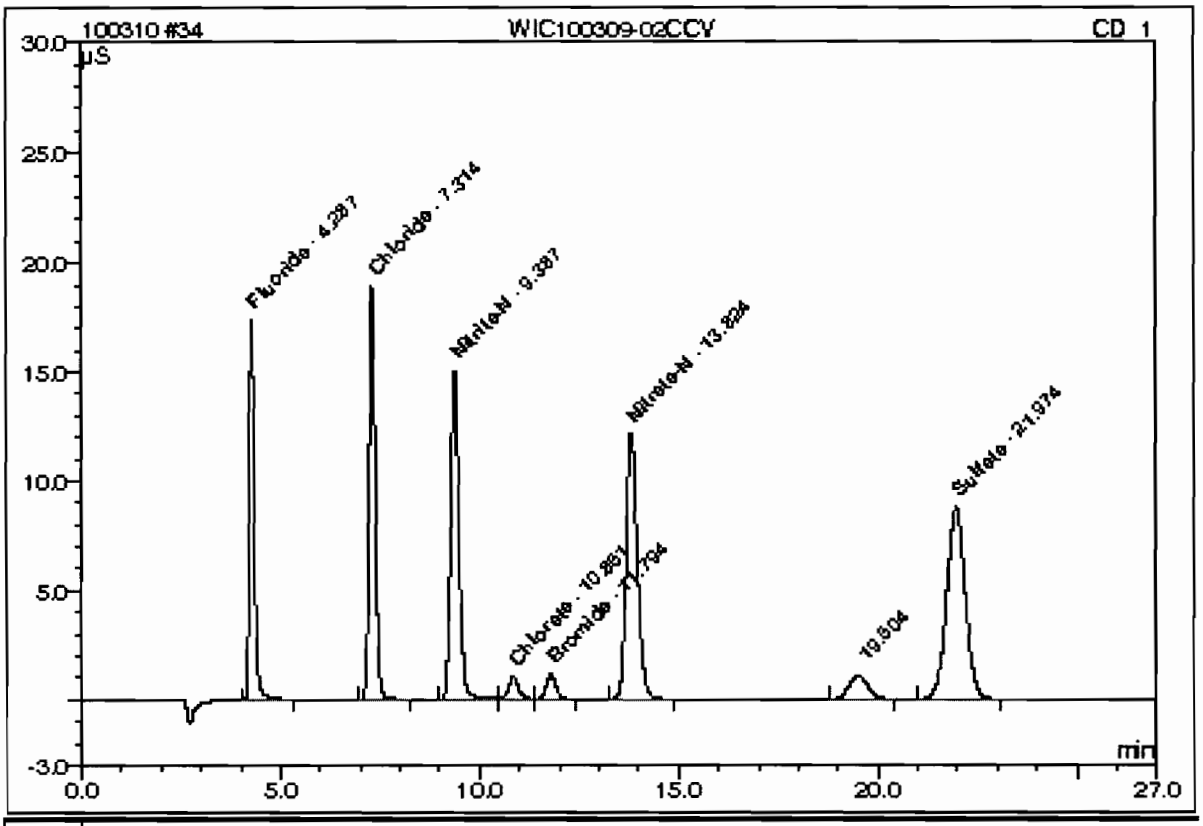

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	n.a.	4.8879		2.50157	12.90
2	7.31	Chloride	n.a.	9.3353		3.40248	17.54
3	9.39	Nitrite-N	n.a.	4.8543		3.58698	18.50
4	10.85	Chlorate	n.a.	2.5194		0.29987	1.55
5	11.79	Bromide	n.a.	2.4980		0.31709	1.64
6	13.82	Nitrate-N	n.a.	4.7598		3.99133	20.58
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
8	21.97	Sulfate	n.a.	23.2474		4.71357	24.31
Total:				52.1021	0.000	18.813	97.01

35 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	28	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/10/2010 23:40	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

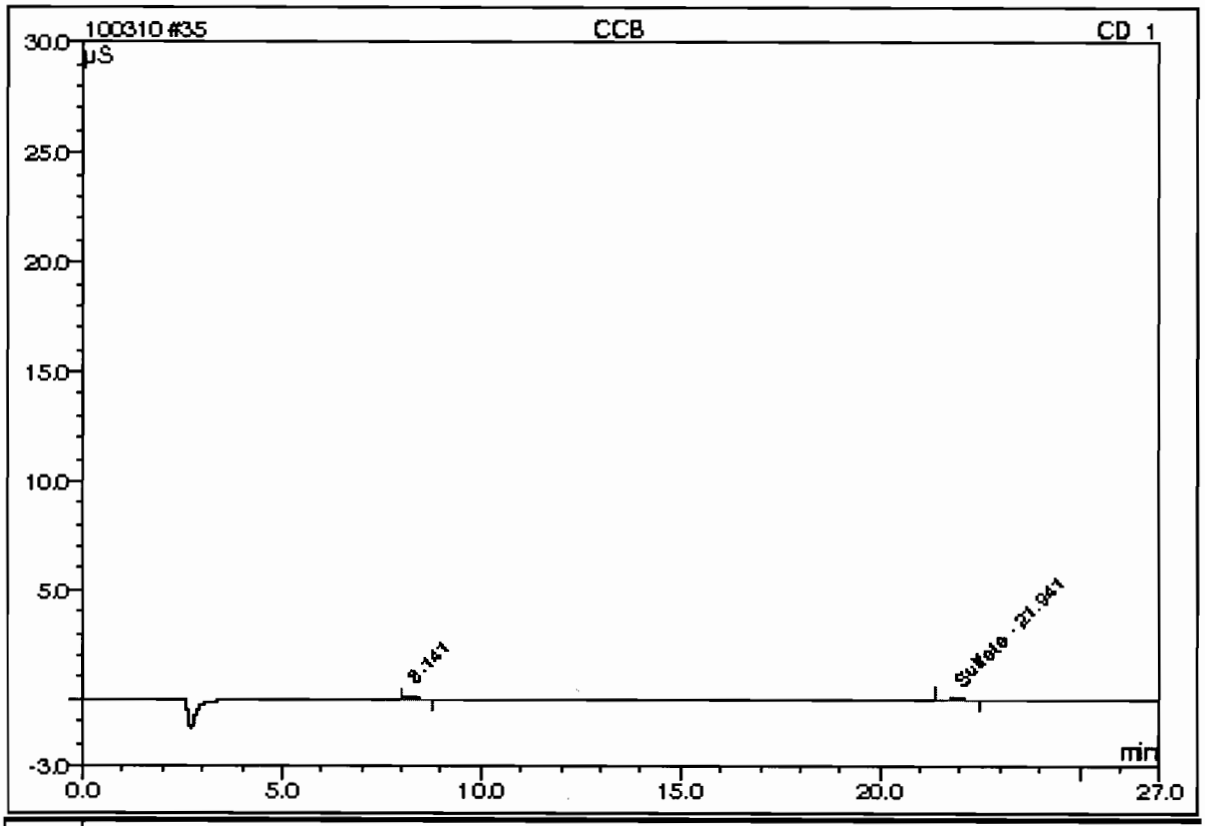

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
2	21.94	Sulfate	n.a.	1.9240		0.02260	51.99
Total:				1.9240	0.000	0.023	51.99

This is runlog for Sequence 100311.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/11/10 22:02		1	100311	GXM3
ICV	03/11/10 22:21		1	100311	GXM3
ICB	03/11/10 22:51		1	100311	GXM3
248507001	03/11/10 23:21	961208	1000	100311	GXM3
1202061770	03/11/10 23:51	961208	1000	100311	GXM3

9 WIC100310-02ICV

Sample Name:	WIC100310-02ICV	*Injection Volume:*	50.0
Vial Number:	2	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/11/2010 22:21	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC B086;300;9056

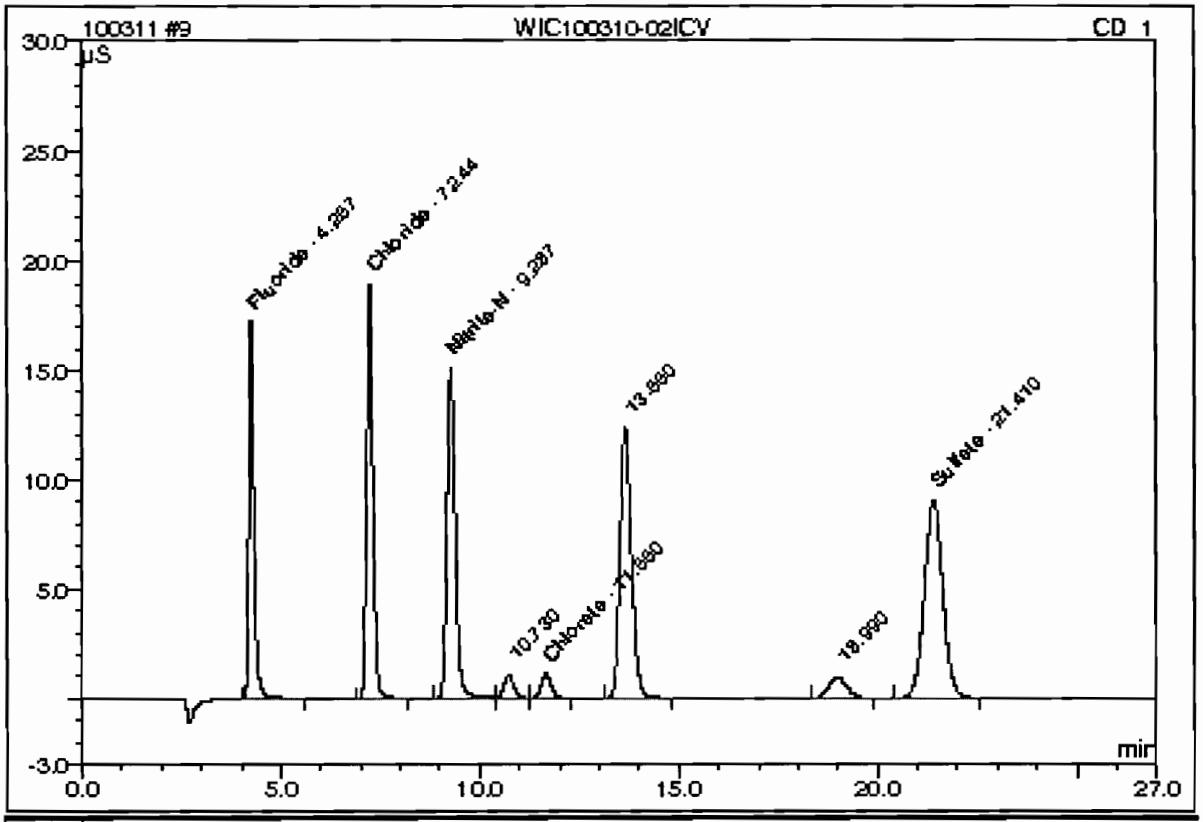

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	4.9917		2.55513	13.01
2	7.24	Chloride	n.a.	9.4835		3.45739	17.60
3	9.29	Nitrite-N	n.a.	4.9309		3.64434	18.55
5	11.66	Chlorate	n.a.	2.6564		0.31649	1.61
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
8	21.41	Sulfate	n.a.	23.7117		4.81572	24.51
Total:				45.7742	0.000	14.789	75.28

9 WIC100310-02ICV

Sample Name:	WIC100310-02ICV	*Injection Volume:*	50.0
Vial Number:	2	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/11/2010 22:21	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC E086;300;9056

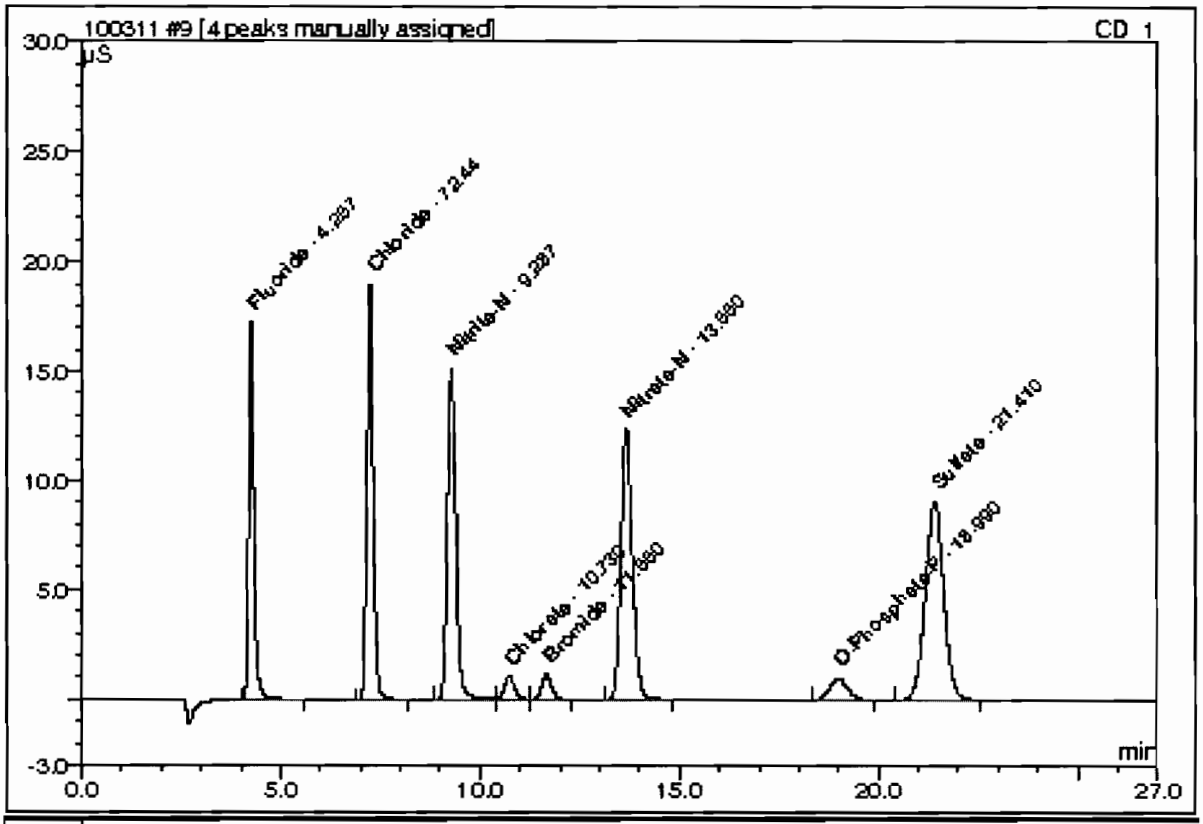

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	4.9917		2.55513	13.01
2	7.24	Chloride	n.a.	9.4835		3.45739	17.60
3	9.29	Nitrite-N	n.a.	4.9309		3.64434	18.55
4	10.73	Chlorate	n.a.	2.4591		0.29257	1.49
5	11.66	Bromide	n.a.	2.4934		0.31649	1.61
6	13.66	Nitrate-N	n.a.	4.8539		4.07196	20.73
7	18.99	O-Phosphate-P	n.a.	2.0014		0.49274	2.51
8	21.41	Sulfate	n.a.	19.7293		4.81572	24.51
Total:				50.9431	0.000	19.646	100.00

9 WIC100310-02ICV

Sample Name:	WIC100310-02ICV	*Injection Volume:*	50.0
Vial Number:	2	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/11/2010 22:21	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

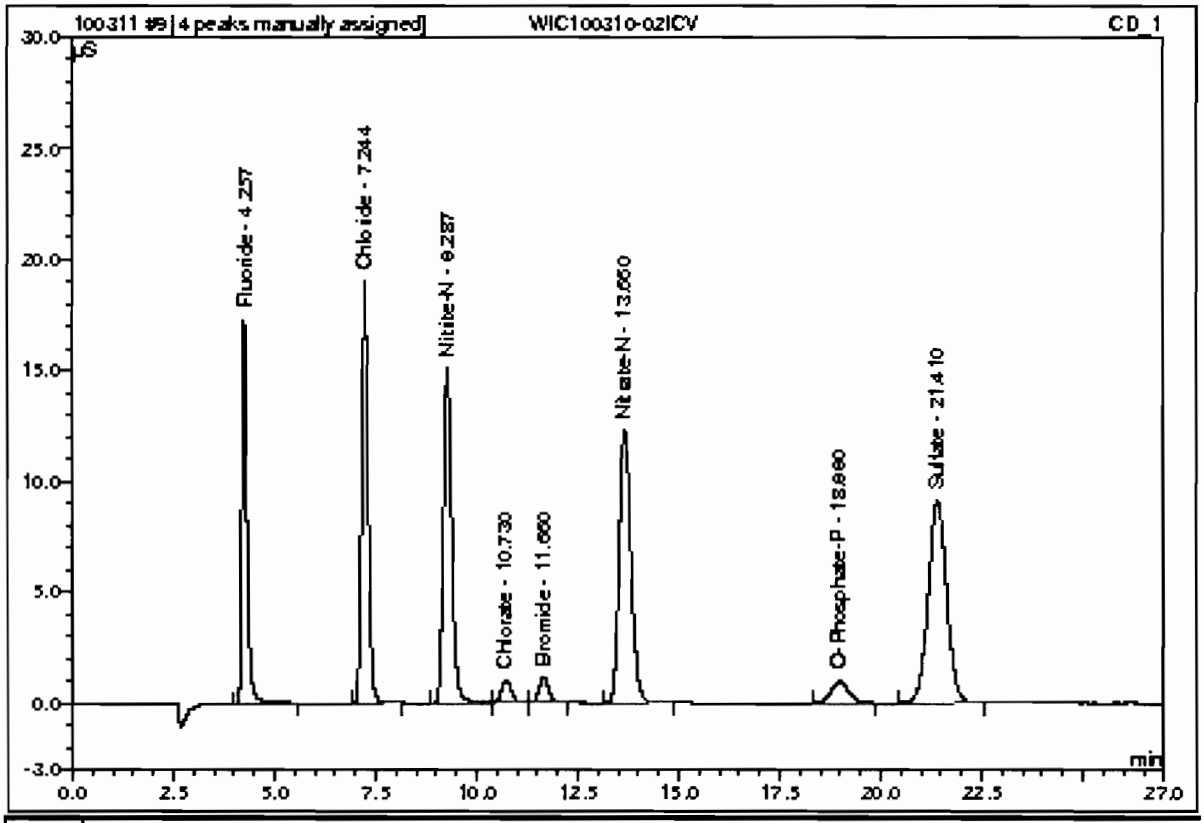

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	4.9917		2.55513	13.01
2	7.24	Chloride	n.a.	9.4835		3.45739	17.60
3	9.29	Nitrite-N	n.a.	4.9309		3.64434	18.55
4	10.73	Chlorate	n.a.	2.4591		0.29257	1.49
5	11.66	Bromide	n.a.	2.4934		0.31649	1.61
6	13.66	Nitrate-N	n.a.	4.8539		4.07196	20.73
7	18.99	O-Phosphate-P	n.a.	0.6673		0.49274	2.51
8	21.41	Sulfate	n.a.	23.7117		4.81572	24.51
Total:				53.5915	0.000	19.646	100.00

10 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/11/2010 22:51	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

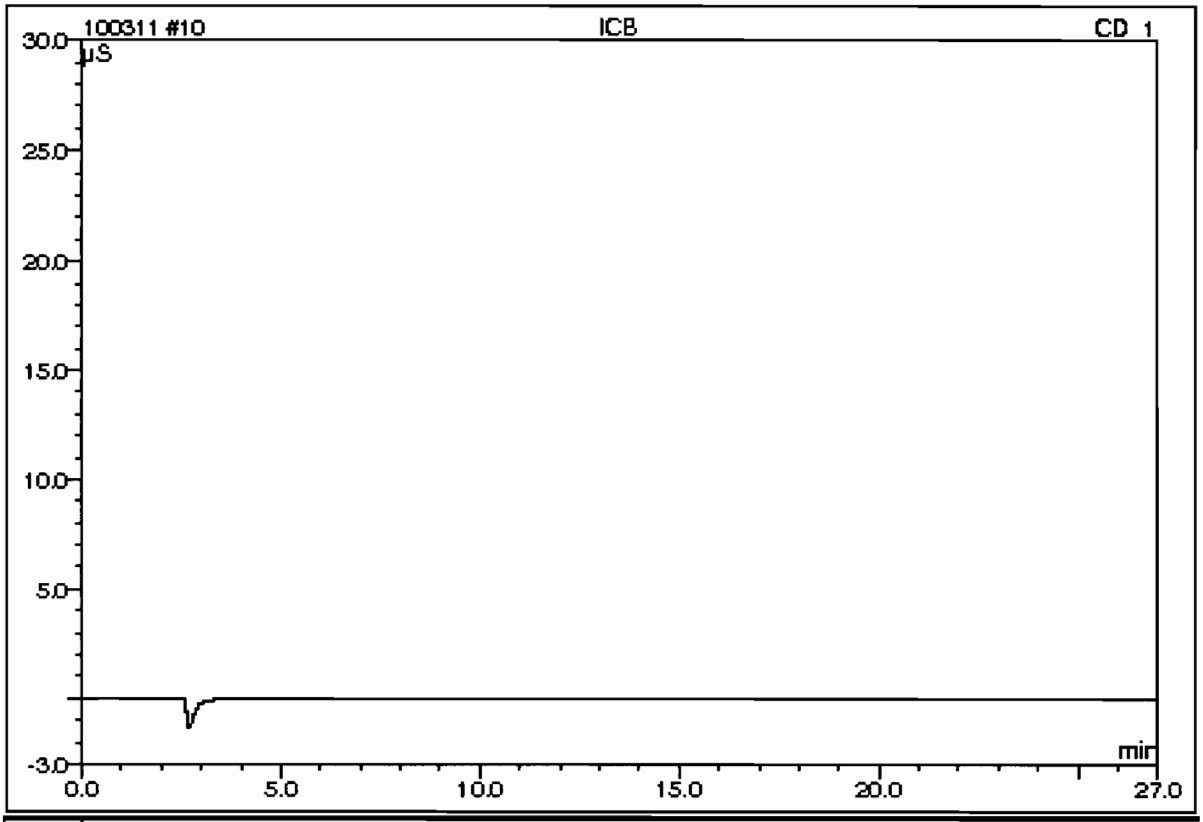

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100311.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
1202061772	03/12/10 00:21	961208	1000	100311	GXM3
248507002	03/12/10 00:51	961208	1000	100311	GXM3
248507003	03/12/10 01:20	961208	1000	100311	GXM3
248507004	03/12/10 01:50	961208	1000	100311	GXM3
248507005	03/12/10 02:20	961208	1000	100311	GXM3
248507006	03/12/10 02:50	961208	1000	100311	GXM3
248507007	03/12/10 03:20	961208	1000	100311	GXM3
248507008	03/12/10 03:50	961208	1000	100311	GXM3
CVH	03/12/10 04:20		1	100311	GXM3
CCB	03/12/10 04:50		1	100311	GXM3
248507009	03/12/10 05:20	961208	1000	100311	GXM3
248507010	03/12/10 05:50	961208	1000	100311	GXM3
248507011	03/12/10 06:20	961208	1000	100311	GXM3
248507012	03/12/10 06:49	961208	100	100311	GXM3
248507013	03/12/10 07:19	961208	100	100311	GXM3
248507014	03/12/10 07:49	961208	100	100311	GXM3
248507015	03/12/10 08:19	961208	1000	100311	GXM3
248507016	03/12/10 08:49	961208	1000	100311	GXM3
248507017	03/12/10 09:19	961208	1000	100311	GXM3
248507018	03/12/10 09:49	961208	1000	100311	GXM3
CCV	03/12/10 10:19		1	100311	GXM3
CCB	03/12/10 10:49		1	100311	GXM3
1202061769	03/12/10 11:19	961208	1	100311	GXM3
1202061774	03/12/10 11:48	961208	1	100311	GXM3
248507007	03/12/10 12:18	961208	10	100311	GXM3
248507008	03/12/10 12:48	961208	10	100311	GXM3
248507013	03/12/10 13:18	961208	5	100311	GXM3
248507019	03/12/10 13:48	961208	5	100311	GXM3

CVH	03/12/10	14:18		1	100311	GXM3
CCB	03/12/10	14:48		1	100311	GXM3
247531001	03/12/10	15:18	963216	200	100311	GXM3
1202066382	03/12/10	15:47	963216	200	100311	GXM3
1202066383	03/12/10	16:17	963216	200	100311	GXM3
CCV	03/12/10	16:47		1	100311	GXM3
CCB	03/12/10	17:17		1	100311	GXM3
1202068820	03/12/10	17:47	964332	1	100311	GXM3
1202068821	03/12/10	18:17	964332	1	100311	GXM3
248953001	03/12/10	18:47	964332	1	100311	GXM3
1202068822	03/12/10	19:17	964332	1	100311	GXM3
1202068823	03/12/10	19:47	964332	1	100311	GXM3
CVH	03/12/10	20:16		1	100311	GXM3
CCB	03/12/10	20:46		1	100311	GXM3
247261004	03/12/10	21:16	963224	1	100311	GXM3
1202066400	03/12/10	21:46	963224	1	100311	GXM3
1202066401	03/12/10	22:16	963224	1	100311	GXM3
247431002	03/12/10	22:46	963224	1	100311	GXM3
247817001	03/12/10	23:16	963224	1	100311	GXM3
247829001	03/12/10	23:46	963224	1	100311	GXM3

53 WIC100311-02CVH

Sample Name:	WIC100311-02CVH	*Injection Volume:*	50.0
Vial Number:	46	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/12/2010 20:16	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GC B086;300;9056

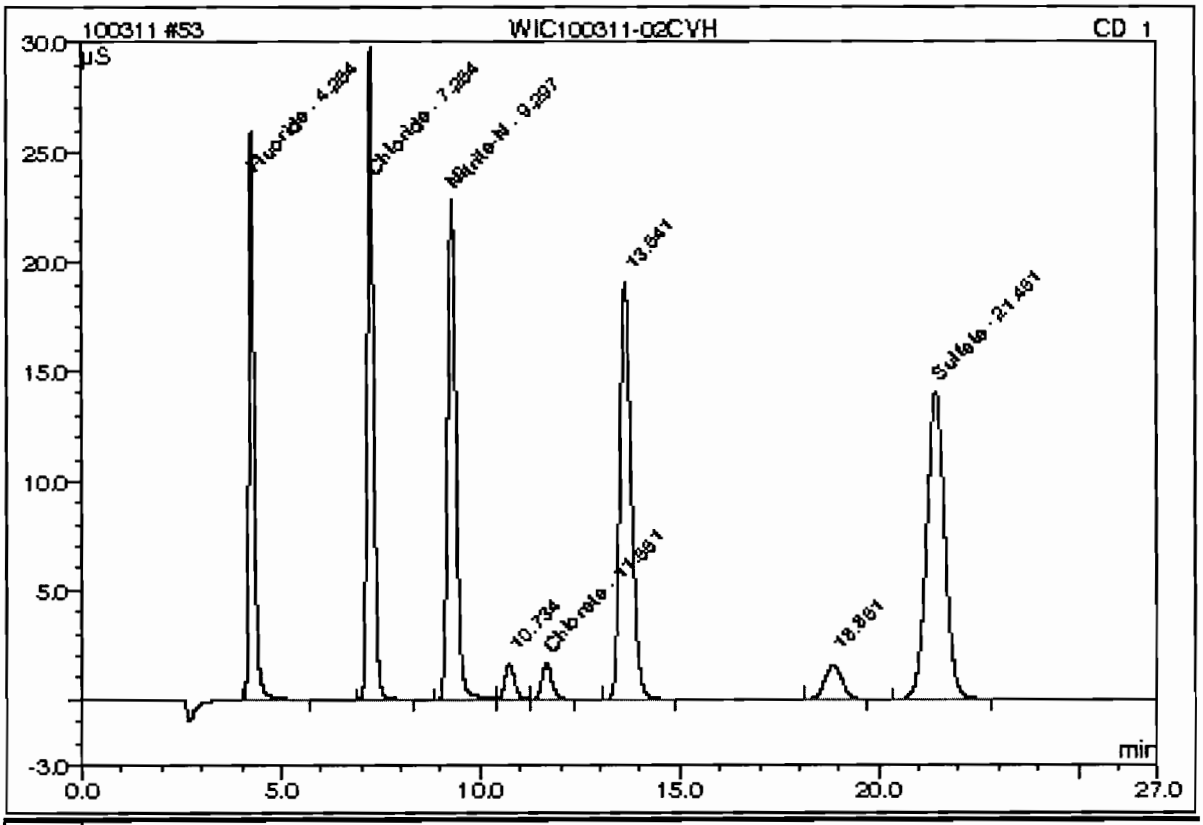

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	7.5030		3.85198	12.77
2	7.25	Chloride	n.a.	14.6759		5.38097	17.84
3	9.30	Nitrite-N	n.a.	7.4310		5.51831	18.29
5	11.66	Chlorate	n.a.	4.0220		0.48204	1.60
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
8	21.45	Sulfate	n.a.	30.1294		7.39535	24.52
Total:				63.7613	0.000	22.629	75.02

54 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	47	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/12/2010 20:46	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

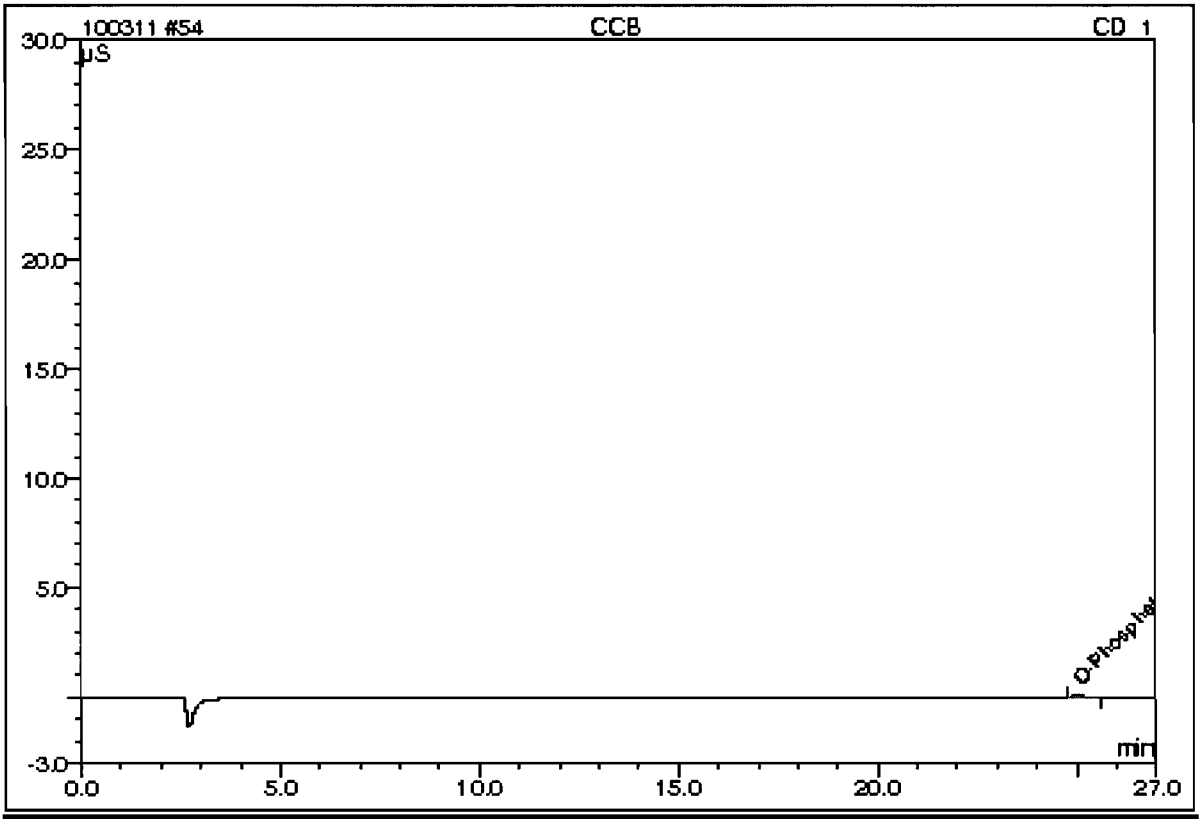

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
1	24.99	O-Phosphate-P	n.a.	0.1670		0.01898	100.00
Total:				0.1670	0.000	0.019	100.00

55 247261004/963224/1/2/

Sample Name:	247261004/963224/1/2/	*Injection Volume:*	50.0
Vial Number:	48	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/12/2010 21:16	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

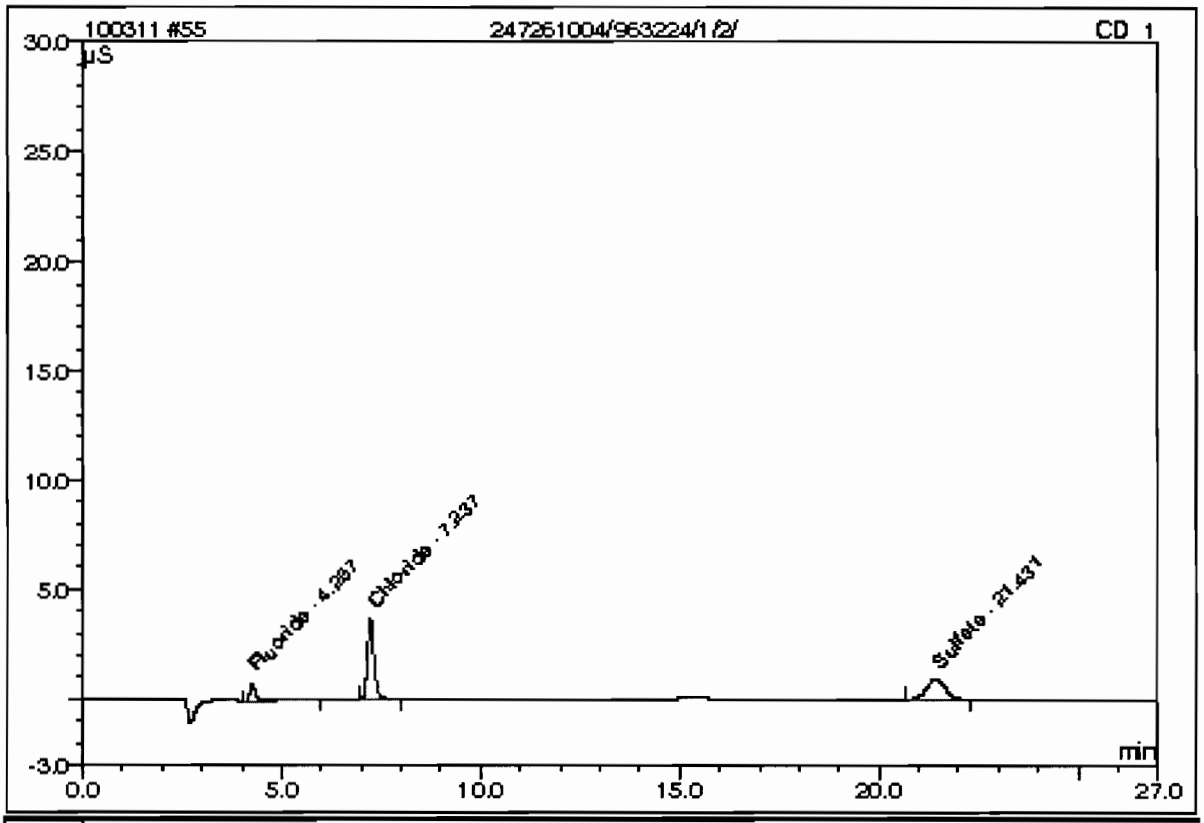

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.4935		0.23236	16.05
2	7.24	Chloride	n.a.	2.0357		0.69828	48.22
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	21.43	Sulfate	n.a.	2.4005		0.51749	35.74
Total:				4.9297	0.000	1.448	100.00

56 1202066400/963224/1/2/DUP

Sample Name:	1202066400/963224/1/2/DUP	*Injection Volume:*	50.0
Vial Number:	49	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/12/2010 21:46	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

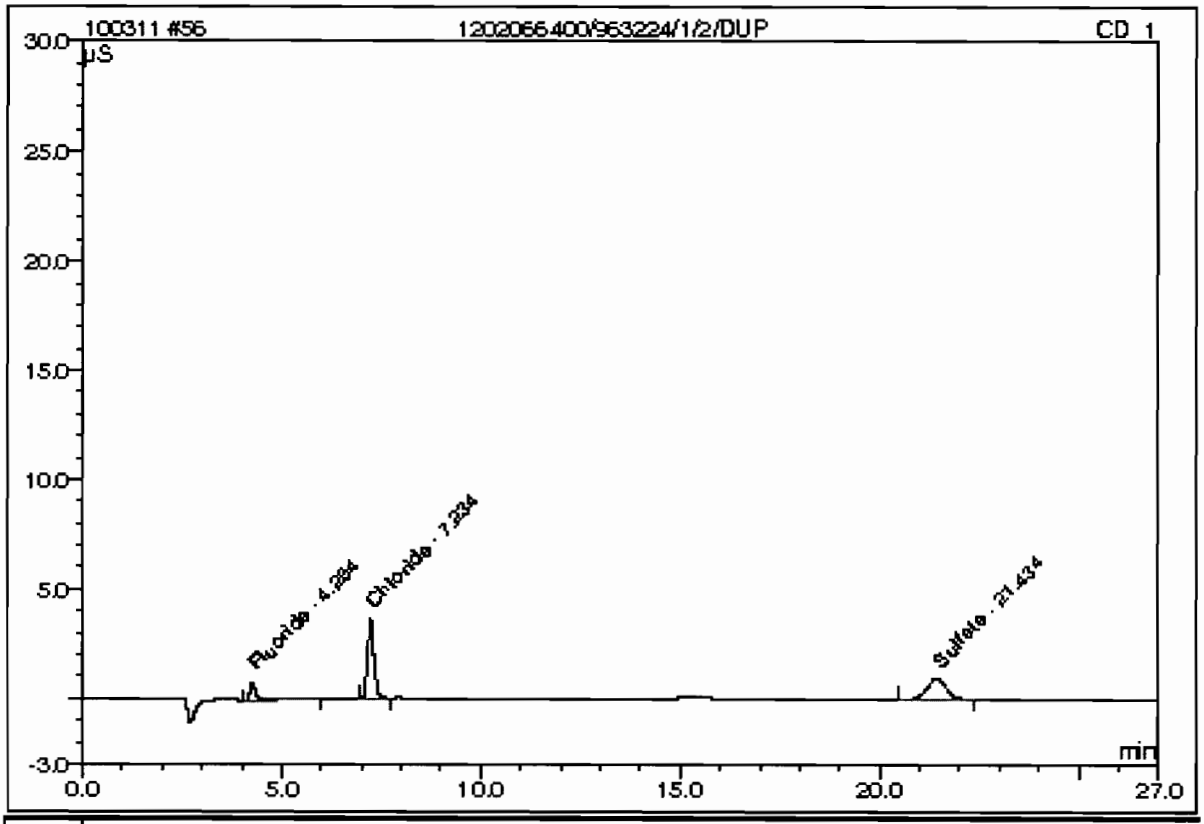

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.25	Fluoride	n.a.	0.4924		0.23176	16.10
2	7.23	Chloride	n.a.	2.0092		0.68845	47.83
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	21.43	Sulfate	n.a.	2.4072		0.51917	36.07
Total:				4.9088	0.000	1.439	100.00

57 1202066401/963224/1/2/PS

Sample Name:	1202066401/963224/1/2/PS	*Injection Volume:*	50.0
Vial Number:	50	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/12/2010 22:16	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

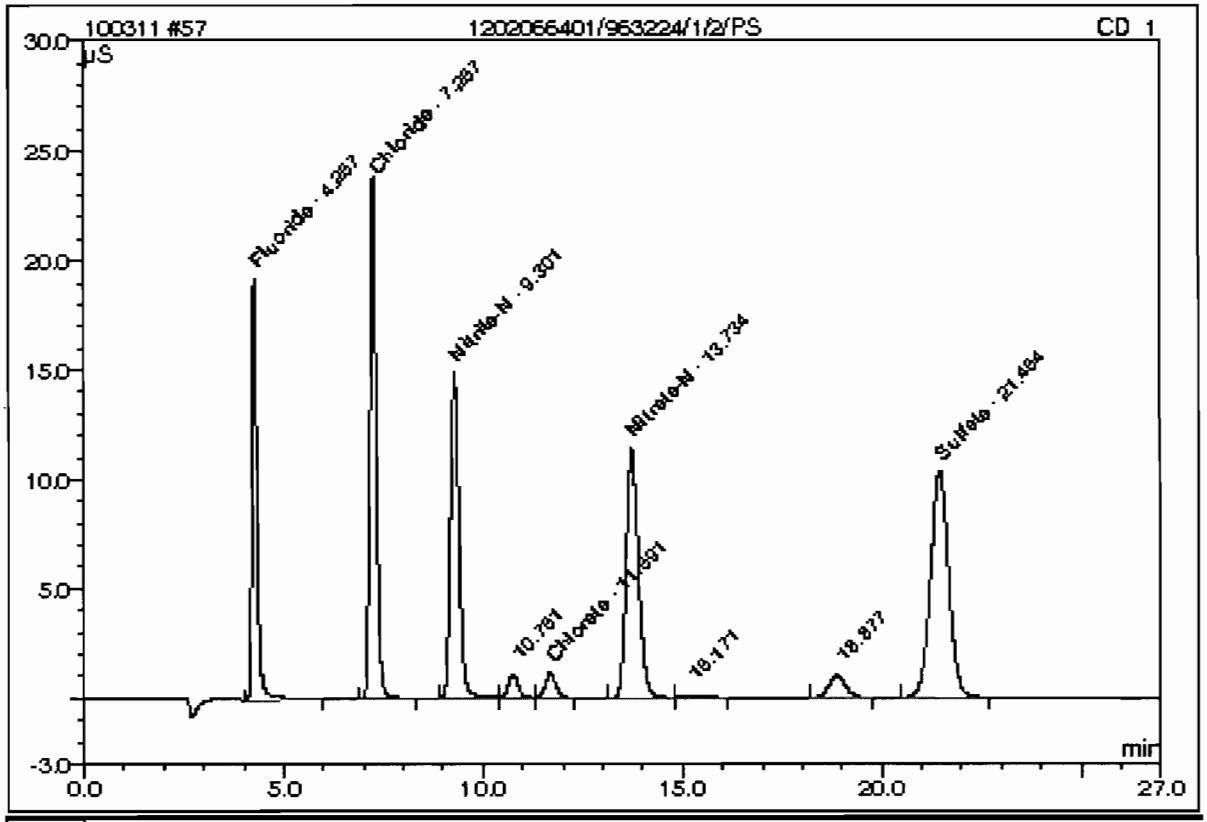

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.27	Fluoride	n.a.	5.4994		2.81731	13.08
2	7.26	Chloride	n.a.	11.9611		4.37523	20.31
3	9.30	Nitrite-N	n.a.	4.9488		3.65779	16.98
5	11.69	Chlorate	n.a.	2.7767		0.33107	1.54
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
6	13.73	Nitrate-N	n.a.	4.8457		4.06496	18.87
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
9	21.46	Sulfate	n.a.	22.2918		5.45132	25.30
Total:				52.3235	0.000	20.698	96.06

60 247829001/963224/1/2/

Sample Name:	247829001/963224/1/2/	*Injection Volume:*	50.0
Vial Number:	3	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/12/2010 23:46	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

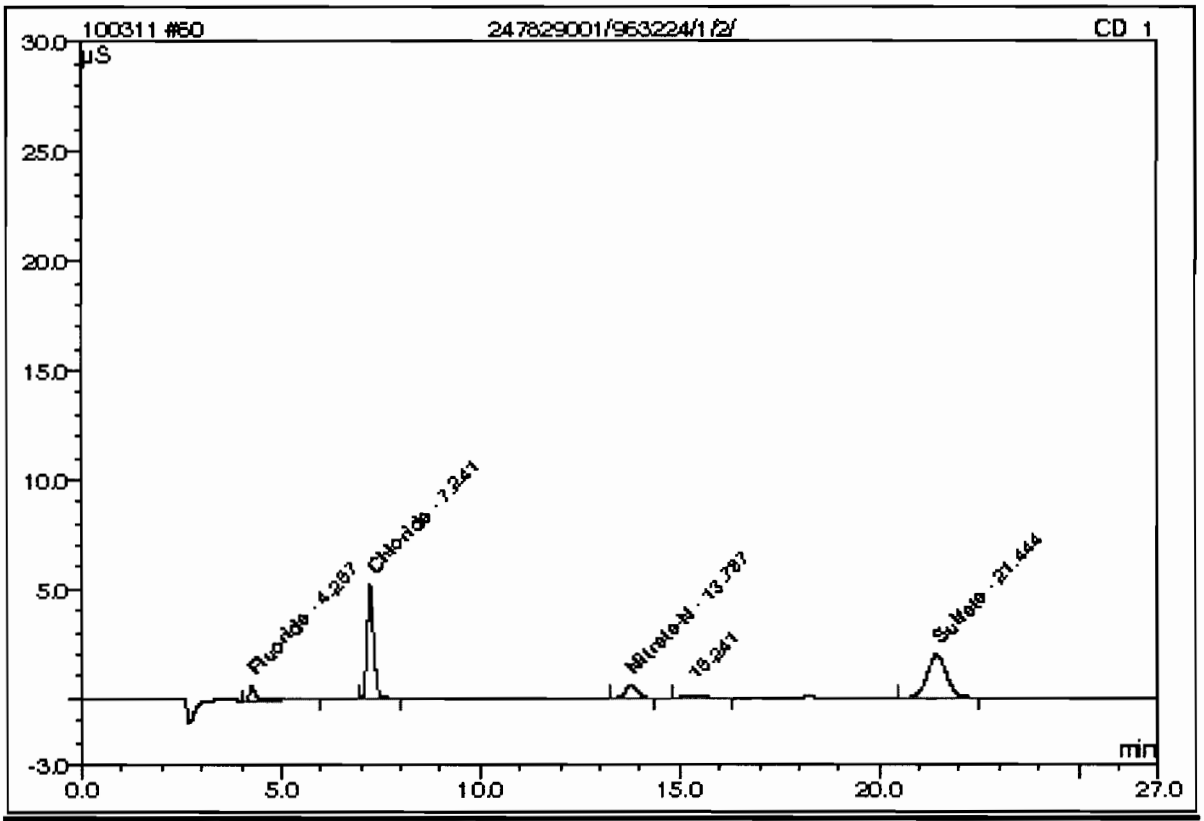

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	0.4454		0.20752	8.31
2	7.24	Chloride	n.a.	2.8033		0.98264	39.33
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.79	Nitrate-N	n.a.	0.3299		0.19689	7.88
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	21.44	Sulfate	n.a.	4.6010		1.06331	42.56
Total:				8.1797	0.000	2.450	98.08

This is runlog for Sequence 100311.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
248024002	03/13/10 00:16	963224	1	100311	GXM3
248024004	03/13/10 00:46	963224	1	100311	GXM3
248024002	03/13/10 01:15	963224	20	100311	GXM3
248024004	03/13/10 01:45	963224	20	100311	GXM3
CCV	03/13/10 02:15		1	100311	GXM3
CCB	03/13/10 02:45		1	100311	GXM3
BLK	03/13/10 03:45		1	100311	GXM3
BLK	03/13/10 04:15		1	100311	GXM3
BLK	03/13/10 04:45		1	100311	GXM3

65 WIC100311-02CCV

Sample Name:	WIC100311-02CCV	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/13/2010 2:15	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

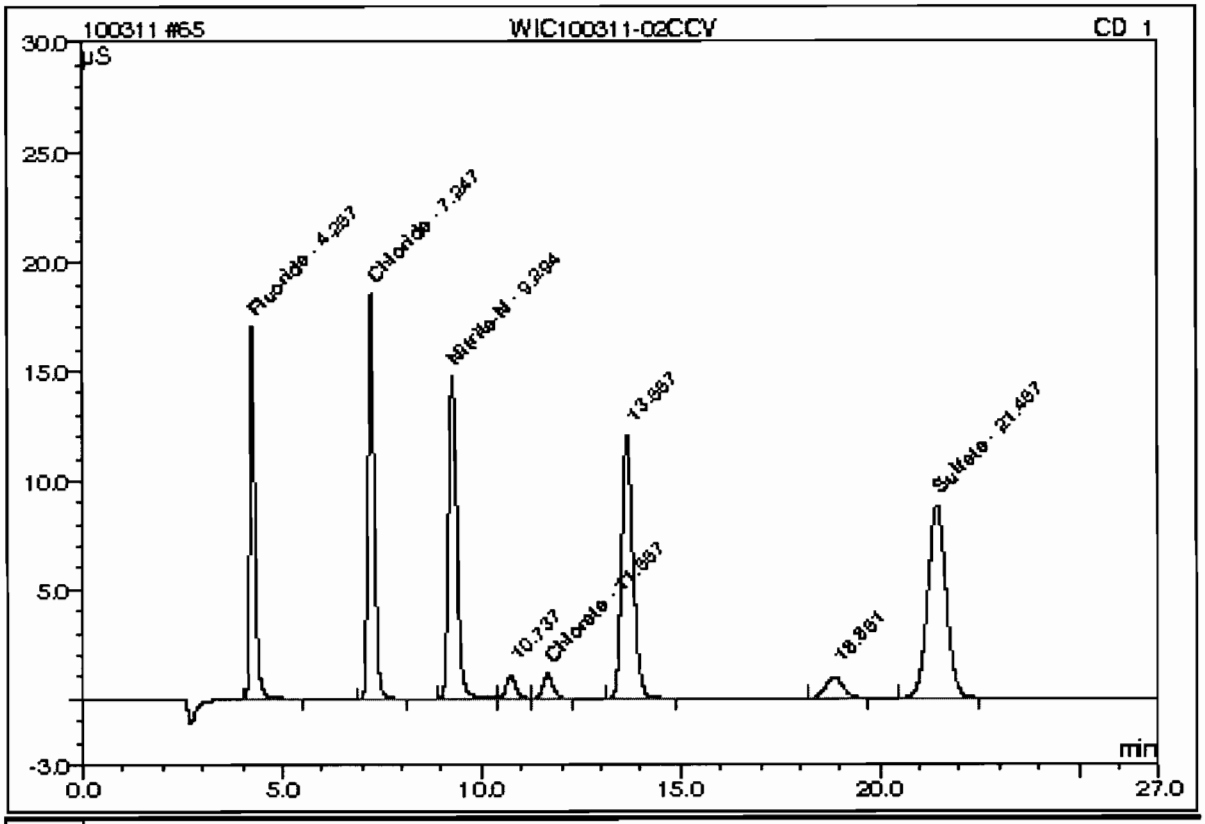

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.26	Fluoride	n.a.	4.8754		2.49510	12.97
2	7.25	Chloride	n.a.	9.2695		3.37810	17.57
3	9.29	Nitrite-N	n.a.	4.8263		3.56598	18.54
5	11.67	Chlorate	n.a.	2.6726		0.31845	1.66
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
8	21.46	Sulfate	n.a.	19.2910		4.70700	24.48
Total:				40.9347	0.000	14.465	75.22

66 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100226an	*Sample Amount:*	1.0000
Recording Time:	3/13/2010 2:45	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

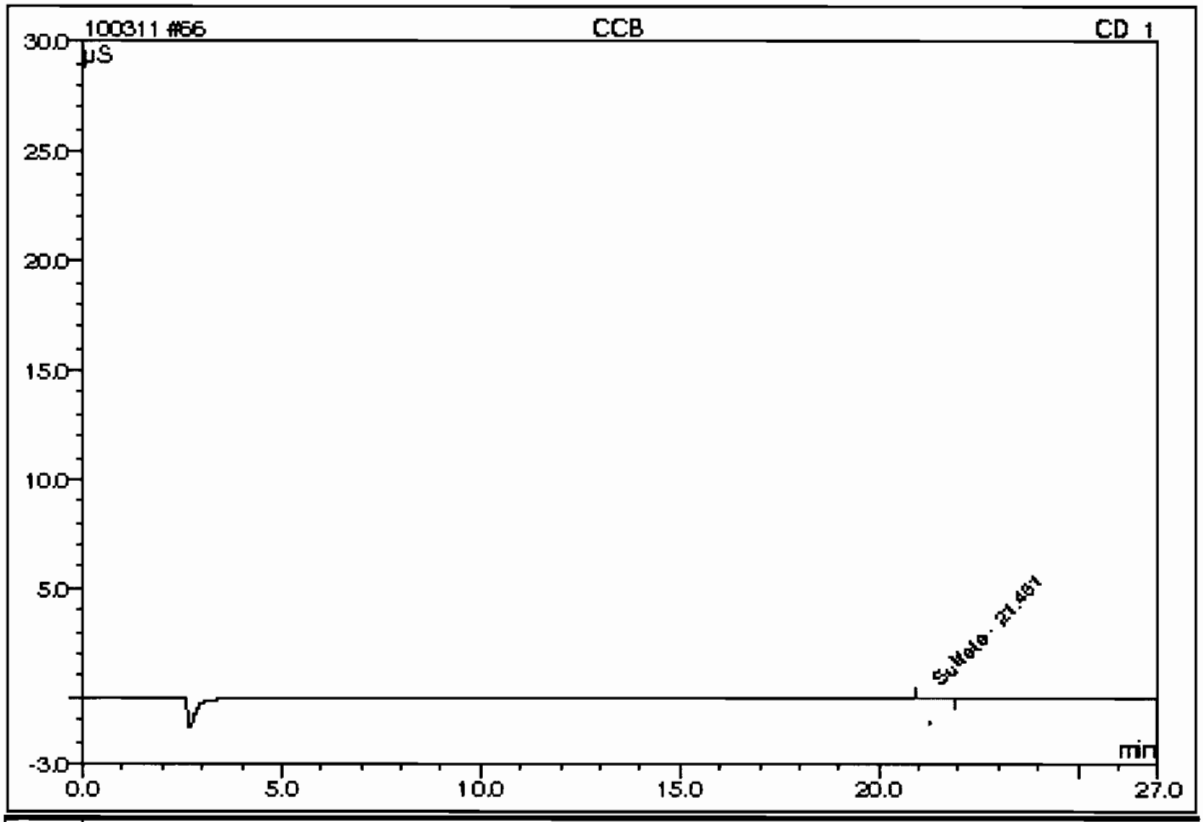

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
1	21.46	Sulfate	n.a.	0.3616		0.01177	100.00
Total:				0.3616	0.000	0.012	100.00

This is runlog for Sequence 100321.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	03/17/10 09:15		1	100321	GXM3
ICAL-06	03/17/10 09:45		1	100321	GXM3
ICAL-05	03/17/10 10:15		1	100321	GXM3
ICAL-04	03/17/10 10:45		1	100321	GXM3
ICAL-03	03/17/10 11:15		1	100321	GXM3
ICAL-02	03/17/10 11:45		1	100321	GXM3
ICAL-01	03/17/10 13:14		1	100321	GXM3

4 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	4	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 9:15	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

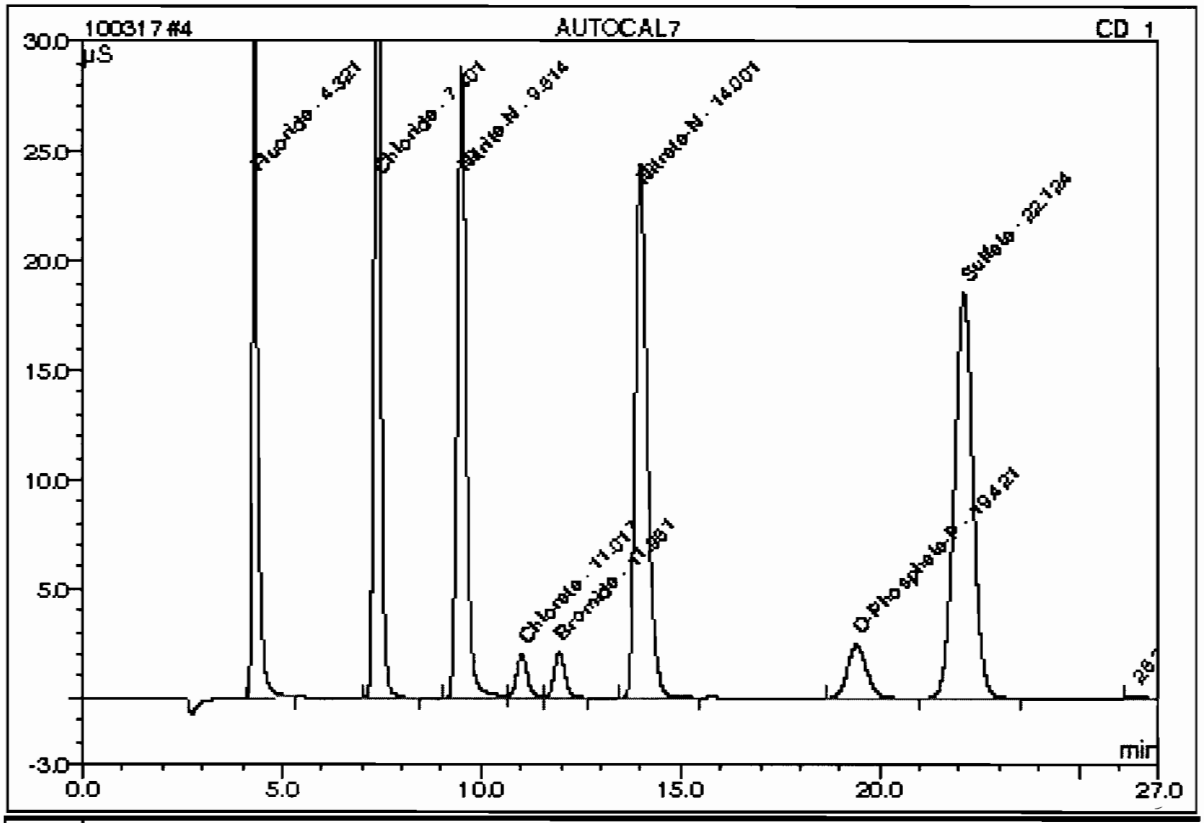

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.32	Fluoride	10.0000	10.0024		5.01638	12.24
2	7.40	Chloride	20.0000	20.0097		7.37427	18.00
3	9.51	Nitrite-N	10.0000	10.0083		7.36725	17.98
4	11.02	Chlorate	5.0000	5.0490		0.60961	1.49
5	11.96	Bromide	5.0000	5.0206		0.64557	1.58
6	14.00	Nitrate-N	10.0000	10.0123		8.56118	20.89
7	19.42	O-Phosphate-P	5.0000	5.0000		1.32928	3.24
8	22.12	Sulfate	40.0000	40.0384		10.04798	24.52
Total:				105.1408	0.000	40.952	99.94

5 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	5	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 9:45	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

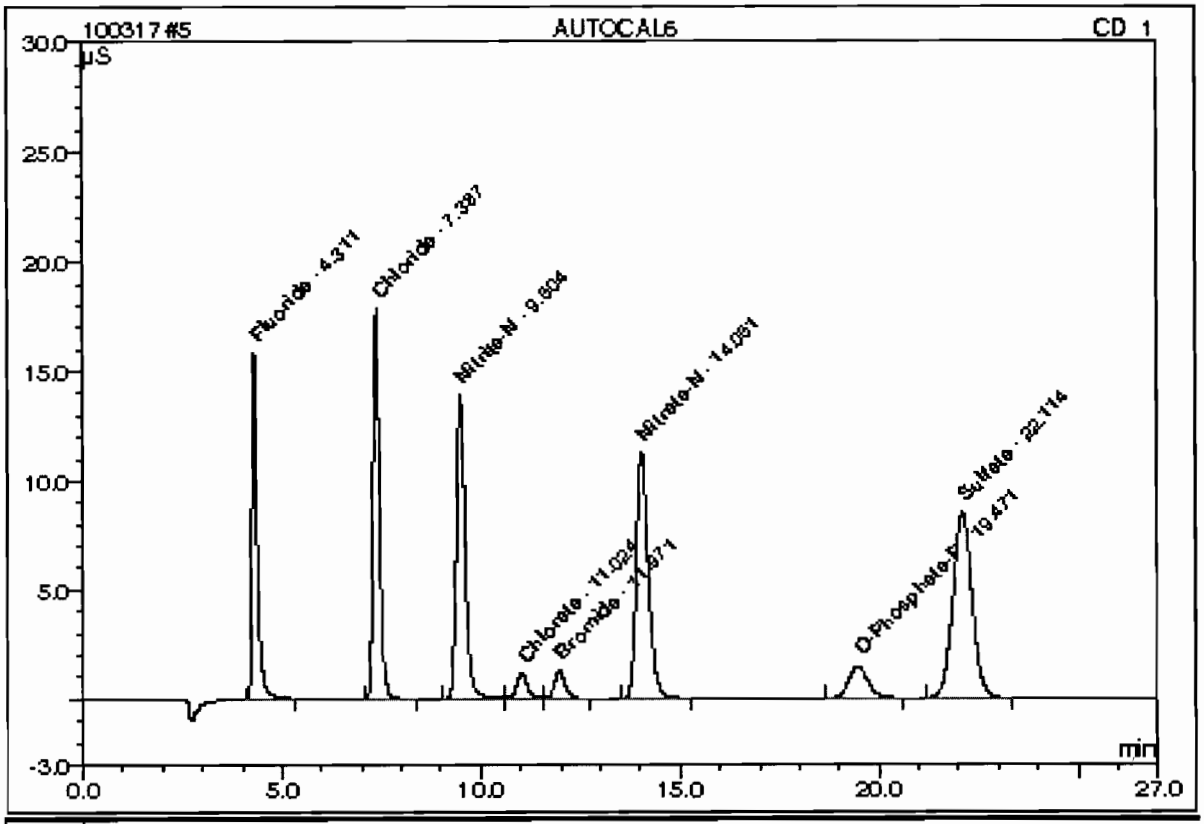

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.31	Fluoride	5.0000	4.8820		2.42594	12.44
2	7.39	Chloride	10.0000	9.3500		3.36519	17.26
3	9.50	Nitrite-N	5.0000	4.8693		3.54551	18.19
4	11.02	Chlorate	3.0000	2.9878		0.36137	1.85
5	11.97	Bromide	3.0000	2.9986		0.38556	1.98
6	14.05	Nitrate-N	5.0000	4.7145		3.94401	20.23
7	19.47	O-Phosphate-P	3.0000	2.9536		0.77886	4.00
8	22.11	Sulfate	20.0000	19.0326		4.68879	24.05
Total:				51.7885	0.000	19.495	100.00

6 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	6	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 10:15	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

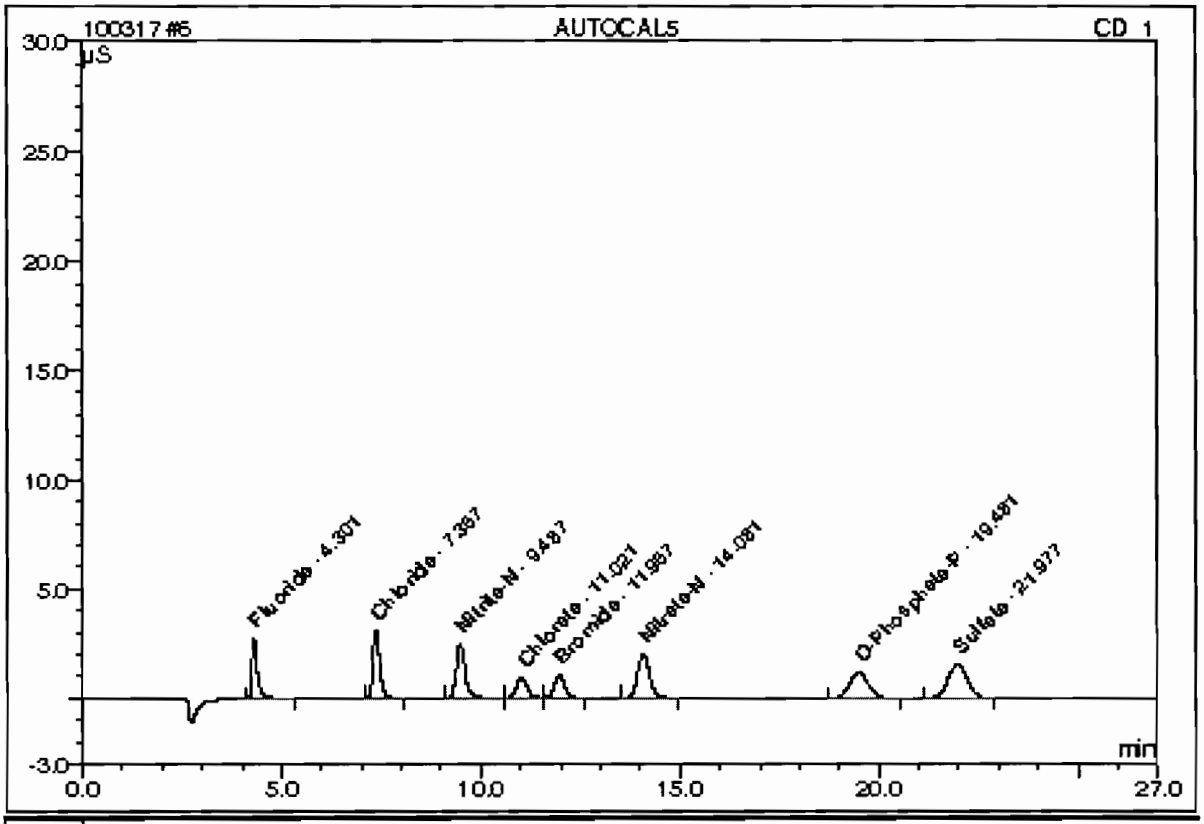

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	1.0000	0.9378		0.44618	9.89
2	7.37	Chloride	2.0000	1.8432		0.61004	13.52
3	9.49	Nitrite-N	1.0000	0.9327		0.64234	14.24
4	11.02	Chlorate	2.5000	2.3781		0.28403	6.30
5	11.97	Bromide	2.5000	2.4513		0.31361	6.95
6	14.08	Nitrate-N	1.0000	0.9208		0.70455	15.62
7	19.48	O-Phosphate-P	2.5000	2.4823		0.65221	14.46
8	21.98	Sulfate	4.0000	3.7504		0.85753	19.01
Total:				15.6967	0.000	4.511	100.00

7 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	7	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 10:45	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

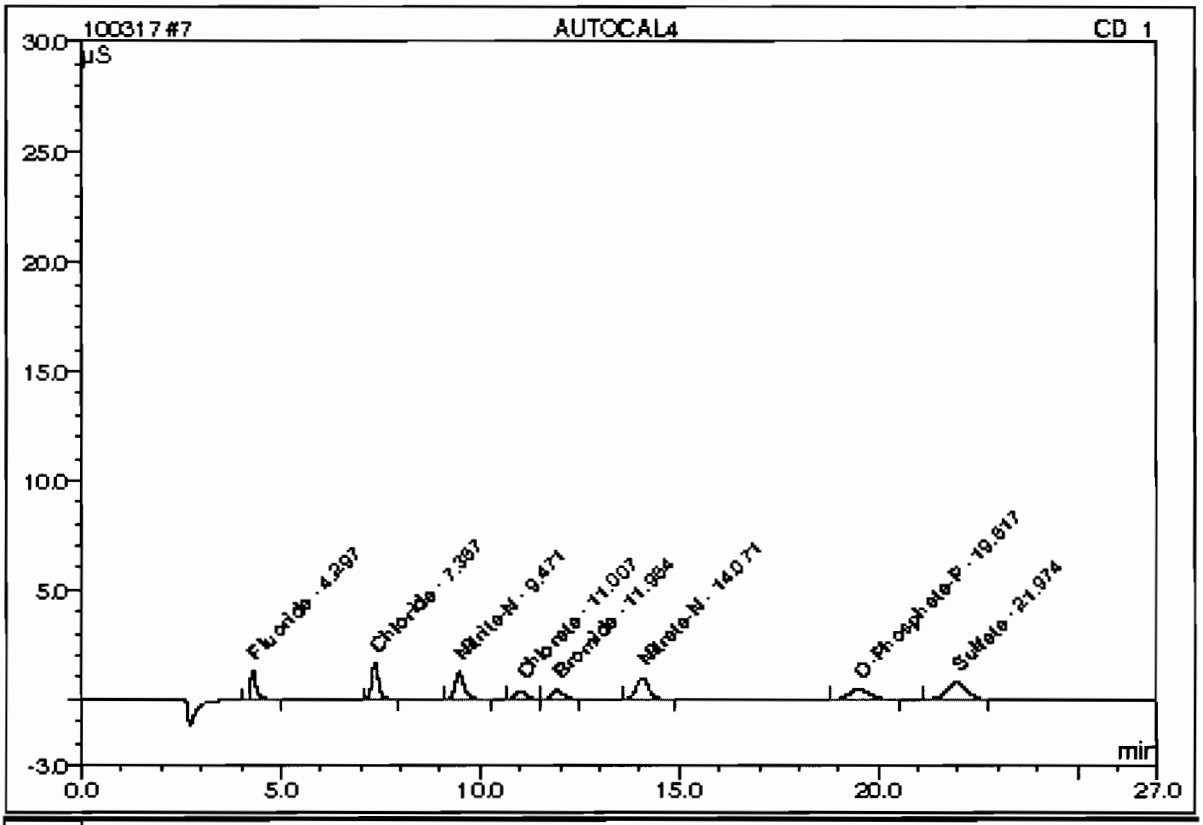

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	0.5000	0.4925		0.21806	10.30
2	7.36	Chloride	1.0000	1.0806		0.32478	15.34
3	9.47	Nitrite-N	0.5000	0.4940		0.31326	14.80
4	11.01	Chlorate	1.0000	0.9498		0.10869	5.13
5	11.95	Bromide	1.0000	0.9722		0.12171	5.75
6	14.07	Nitrate-N	0.5000	0.5111		0.34644	16.36
7	19.52	O-Phosphate-P	1.0000	0.9993		0.25849	12.21
8	21.97	Sulfate	2.0000	2.0534		0.42575	20.11
Total:				7.5529	0.000	2.117	100.00

8 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	8	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 11:15	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCB086;300;9056

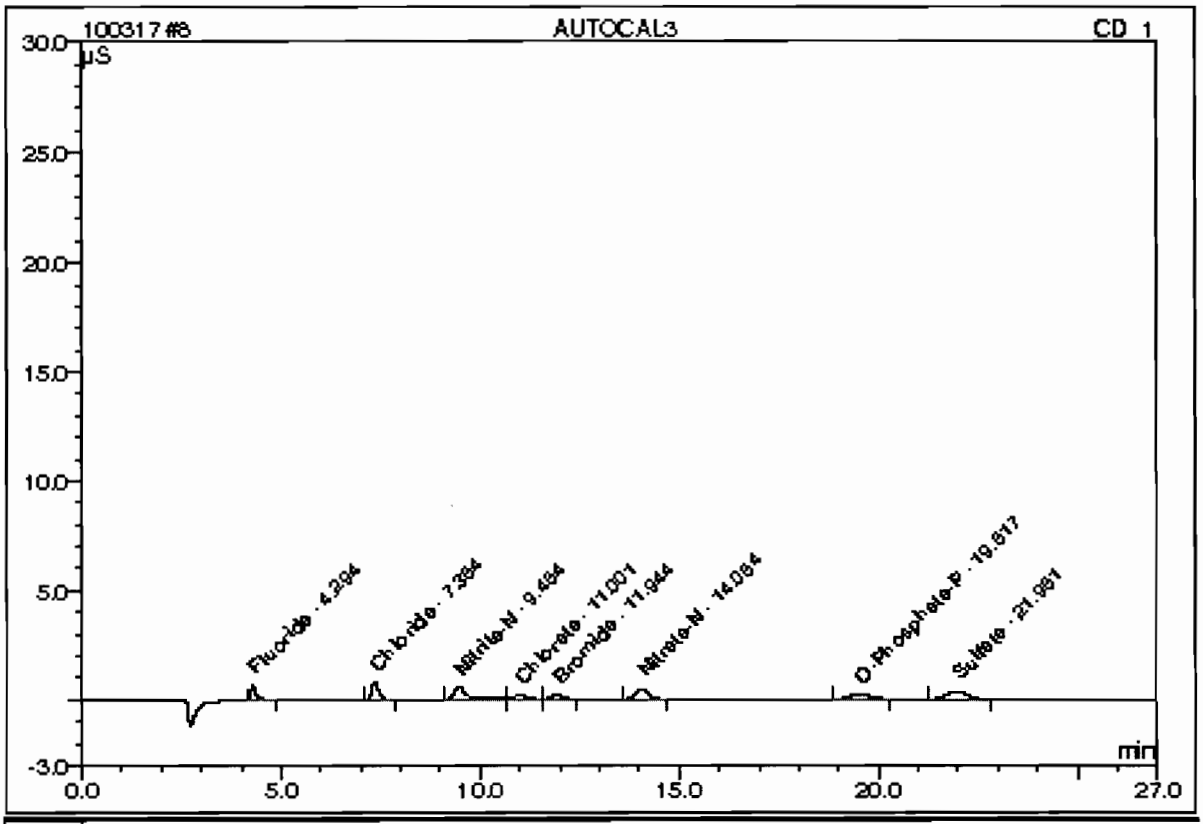

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	0.2500	0.2772		0.10608	9.31
2	7.35	Chloride	0.5000	0.6486		0.16371	14.36
3	9.46	Nitrite-N	0.2500	0.3510		0.21960	19.26
4	11.00	Chlorate	0.5000	0.6270		0.07382	6.48
5	11.94	Bromide	0.5000	0.5232		0.06434	5.64
6	14.06	Nitrate-N	0.2500	0.3124		0.17066	14.97
7	19.52	O-Phosphate-P	0.5000	0.5128		0.13076	11.47
8	21.96	Sulfate	1.0000	1.2128		0.21096	18.51
Total:				4.4648	0.000	1.140	100.00

9 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	9	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 11:45	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

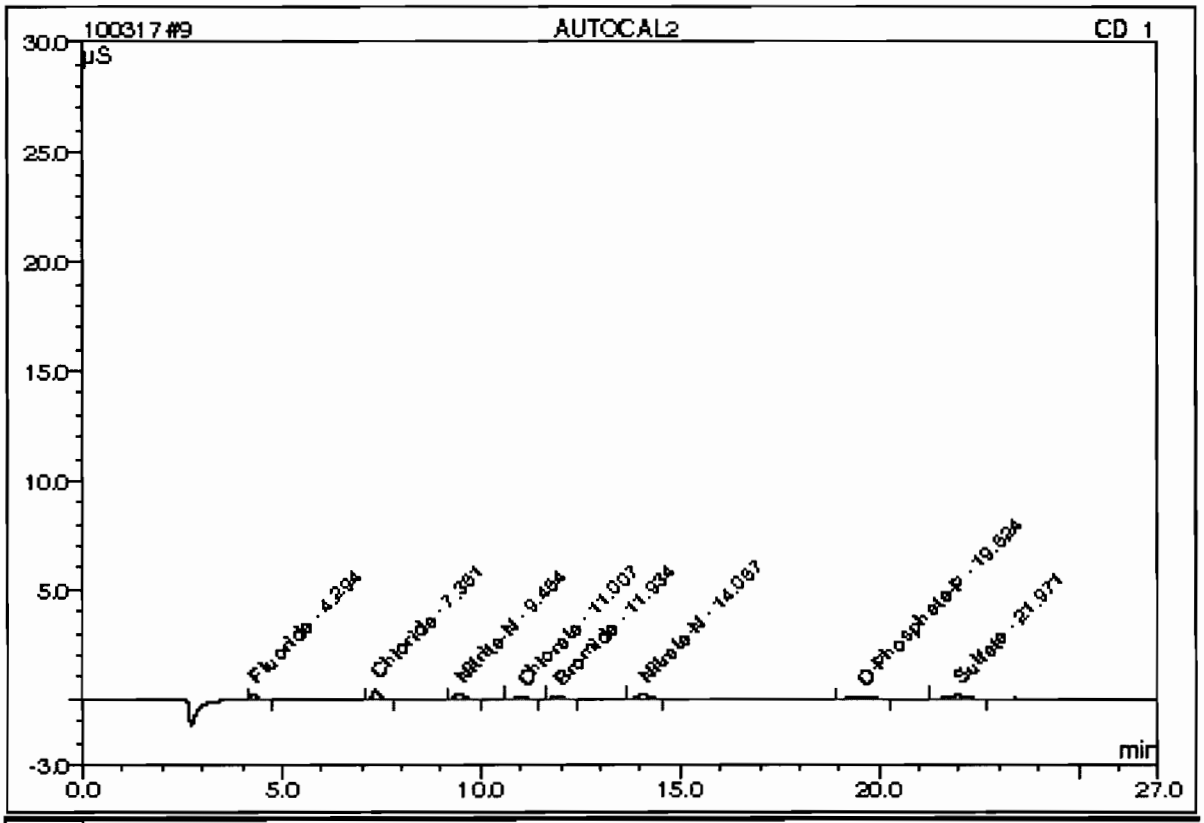

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.29	Fluoride	0.1000	0.1392		0.04186	9.37
2	7.35	Chloride	0.2000	0.3749		0.07965	17.83
3	9.46	Nitrite-N	0.1000	0.1279		0.06080	13.61
4	11.01	Chlorate	0.2000	0.1981		0.02196	4.92
5	11.93	Bromide	0.2000	0.2157		0.02531	5.67
6	14.07	Nitrate-N	0.1000	0.1723		0.06679	14.95
7	19.52	O-Phosphate-P	0.2000	0.2351		0.06039	13.52
8	21.97	Sulfate	0.4000	0.6629		0.08998	20.14
Total:				2.1261	0.000	0.447	100.00

10 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 13:14	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

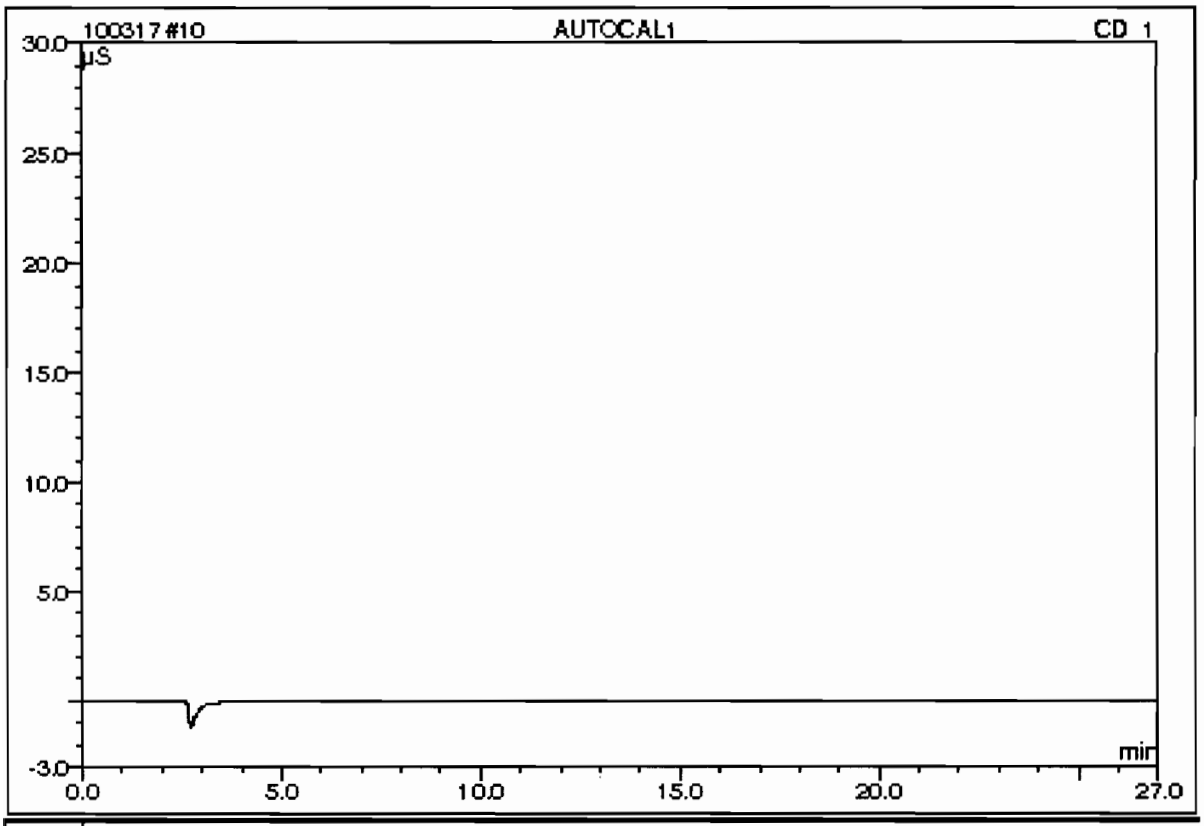

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

10 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	10	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 13:14	*Analyst:*	GXM3
Run Time (min):	27.00	Column:	AS23-002714;GLGCE086;300;9056

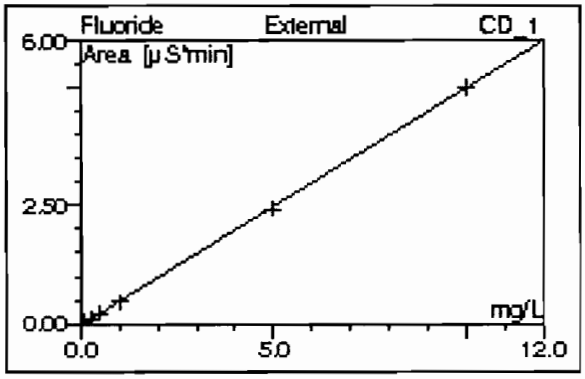

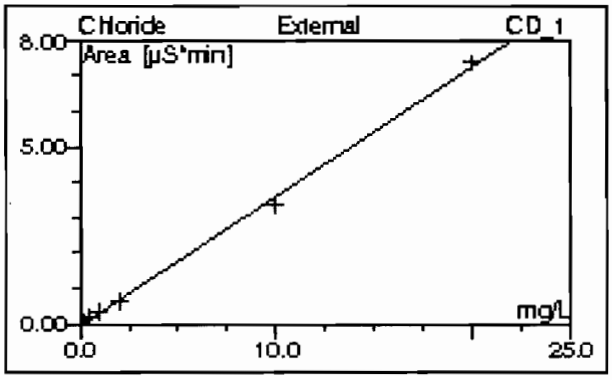

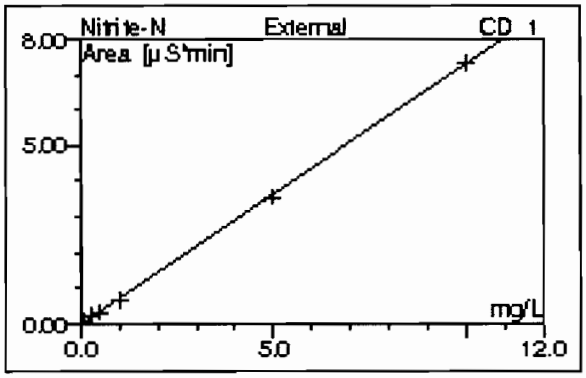

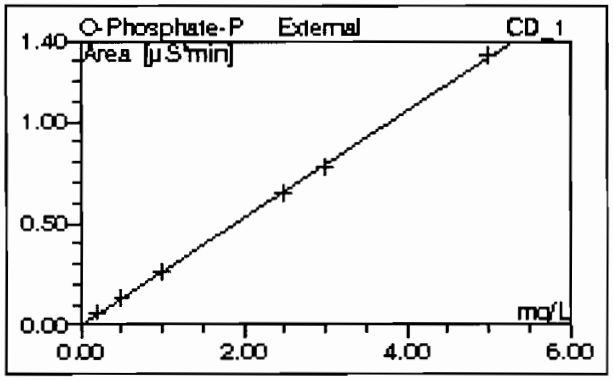

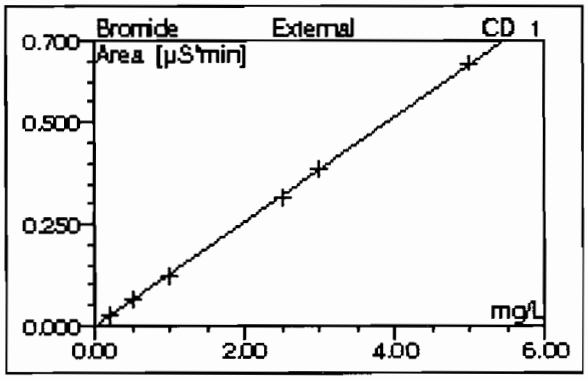

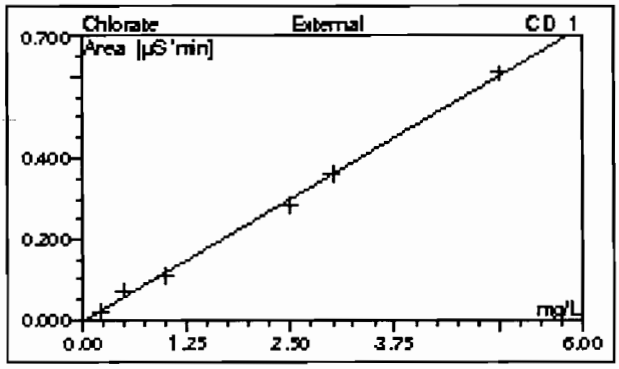

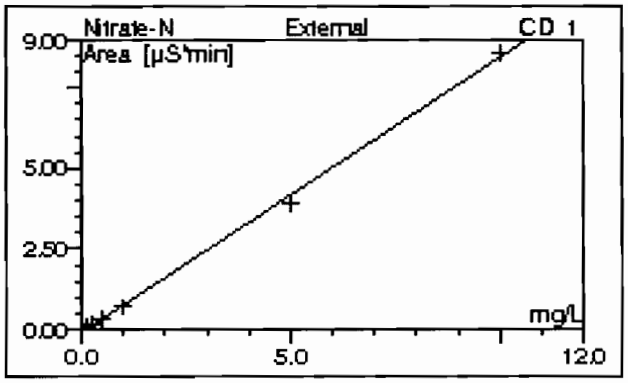

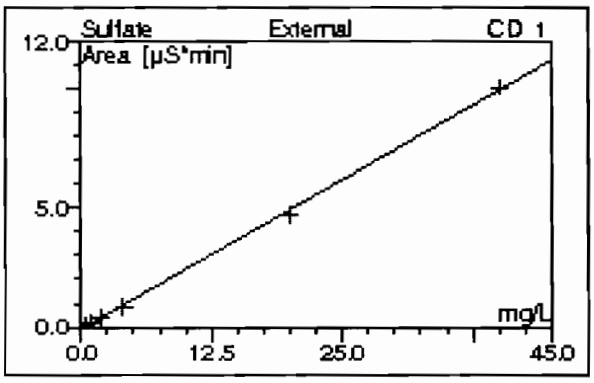

No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	OLOff	99.9751	-0.0280	0.5015	0.0000
n.a.	n.a.	Chloride	OLOff	99.8150	-0.0574	0.3656	0.0000
n.a.	n.a.	Nitrite-N	OLOff	99.9510	-0.0332	0.7348	0.0000
n.a.	n.a.	Chlorate	OLOff	99.7338	-0.0020	0.1208	0.0000
n.a.	n.a.	Bromide	OLOff	99.9700	-0.0025	0.1290	0.0000
n.a.	n.a.	Nitrate-N	OLOff	99.8613	-0.0800	0.8518	0.0000
n.a.	n.a.	O-Phosphate-P	OLOff	99.9667	-0.0017	0.2641	0.0000
n.a.	n.a.	Sulfate	OLOff	99.8983	-0.0758	0.2500	0.0000
Average:				99.8964	-0.0351	0.4022	0.0000

This is runlog for Sequence 100317.seq for IC7

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/17/10 08:45		1	100317	GXM3
ICAL-07	03/17/10 09:15		1	100317	GXM3
ICAL-06	03/17/10 09:45		1	100317	GXM3
ICAL-05	03/17/10 10:15		1	100317	GXM3
ICAL-04	03/17/10 10:45		1	100317	GXM3
ICAL-03	03/17/10 11:15		1	100317	GXM3
ICAL-02	03/17/10 11:45		1	100317	GXM3
ICAL-01	03/17/10 13:14		1	100317	GXM3
ICV	03/17/10 13:43		1	100317	GXM3
ICB	03/17/10 14:12		1	100317	GXM3
1202066399	03/17/10 14:42	963224	1	100317	GXM3
1202066402	03/17/10 15:11	963224	1	100317	GXM3
247261004	03/17/10 15:41	963224	1	100317	GXM3
1202066400	03/17/10 16:11	963224	1	100317	GXM3
1202066401	03/17/10 16:41	963224	1	100317	GXM3
247431002	03/17/10 17:10	963224	1	100317	GXM3
247817001	03/17/10 17:40	963224	1	100317	GXM3
247829001	03/17/10 18:10	963224	1	100317	GXM3
248024002	03/17/10 18:40	963224	1	100317	GXM3
248024004	03/17/10 19:10	963224	1	100317	GXM3
CVH	03/17/10 19:40		1	100317	GXM3
CCB	03/17/10 20:10		1	100317	GXM3
1202063619	03/17/10 20:39	962082	1	100317	GXM3
1202063626	03/17/10 21:09	962082	1	100317	GXM3
248666001	03/17/10 21:39	962082	1	100317	GXM3
1202063620	03/17/10 22:09	962082	1	100317	GXM3
1202063622	03/17/10 22:39	962082	1	100317	GXM3
1202063624	03/17/10 23:09	962082	1	100317	GXM3

17 WIC100317-02ICV

Sample Name:	WIC100317-02ICV	*Injection Volume:*	50.0
Vial Number:	11	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 13:43	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

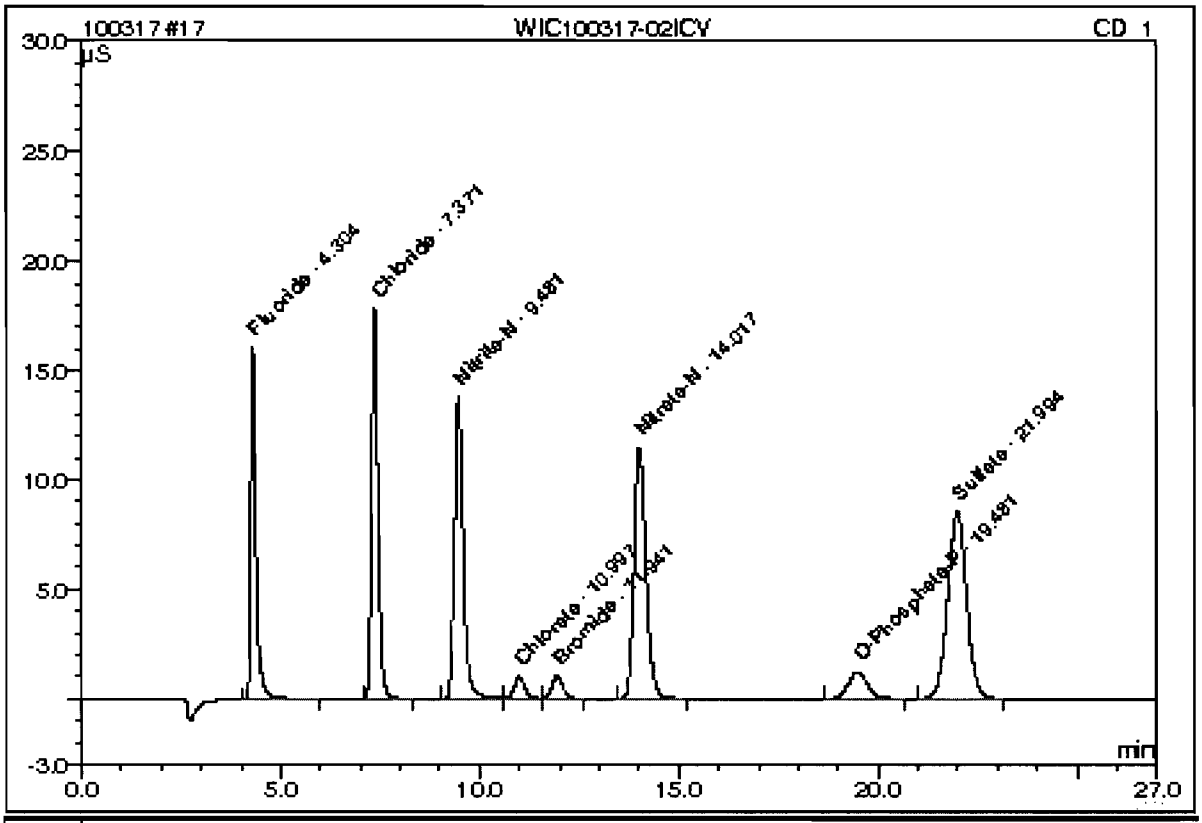

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	4.9617		2.46032	12.79
2	7.37	Chloride	n.a.	9.3464		3.35930	17.46
3	9.48	Nitrite-N	n.a.	4.8136		3.50372	18.21
4	11.00	Chlorate	n.a.	2.4909		0.29883	1.55
5	11.94	Bromide	n.a.	2.4926		0.31900	1.66
6	14.02	Nitrate-N	n.a.	4.7581		3.97314	20.65
7	19.48	O-Phosphate-P	n.a.	2.5072		0.66041	3.43
8	21.99	Sulfate	n.a.	18.9605		4.66474	24.25
Total:				50.3309	0.000	19.239	100.00

18 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	12	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 14:12	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

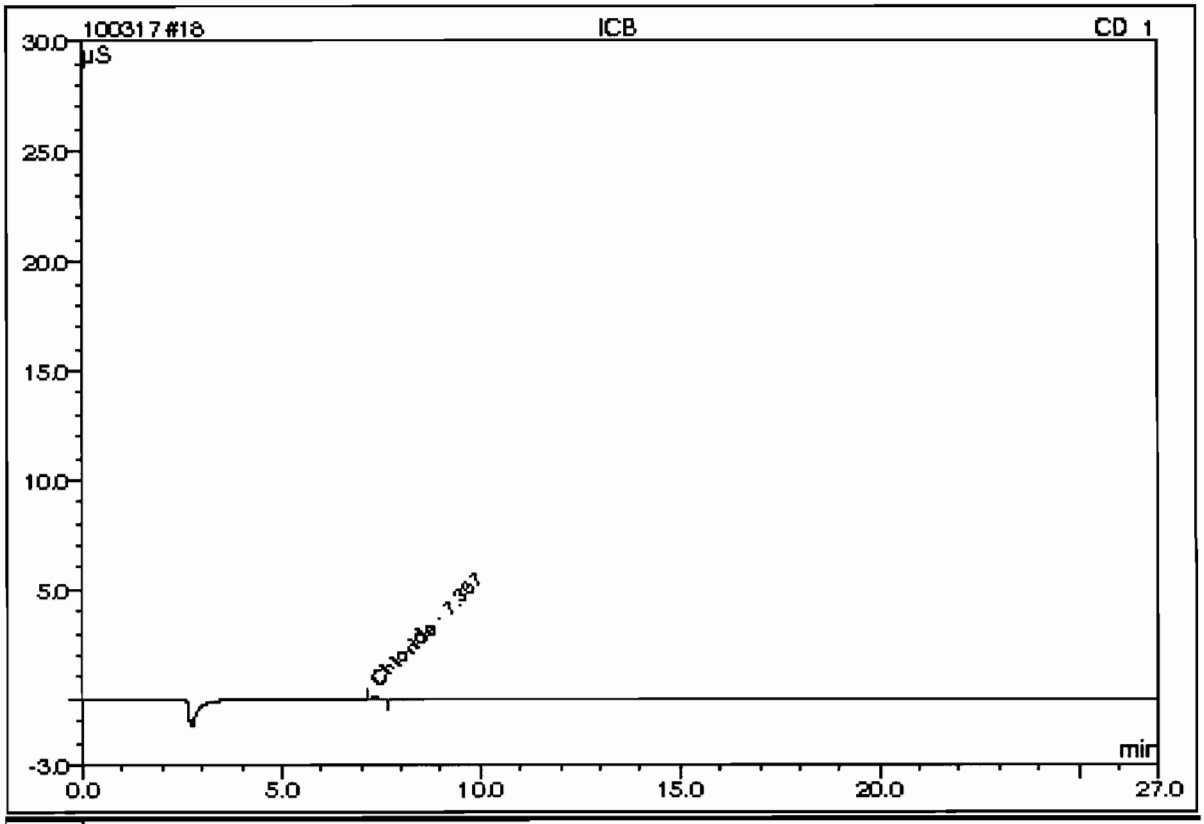

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.36	Chloride	n.a.	0.1862		0.01068	100.00
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.1862	0.000	0.011	100.00

19 1202066399/963224/1/2/MB

Sample Name:	1202066399/963224/1/2/MB	*Injection Volume:*	50.0
Vial Number:	13	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 14:42	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

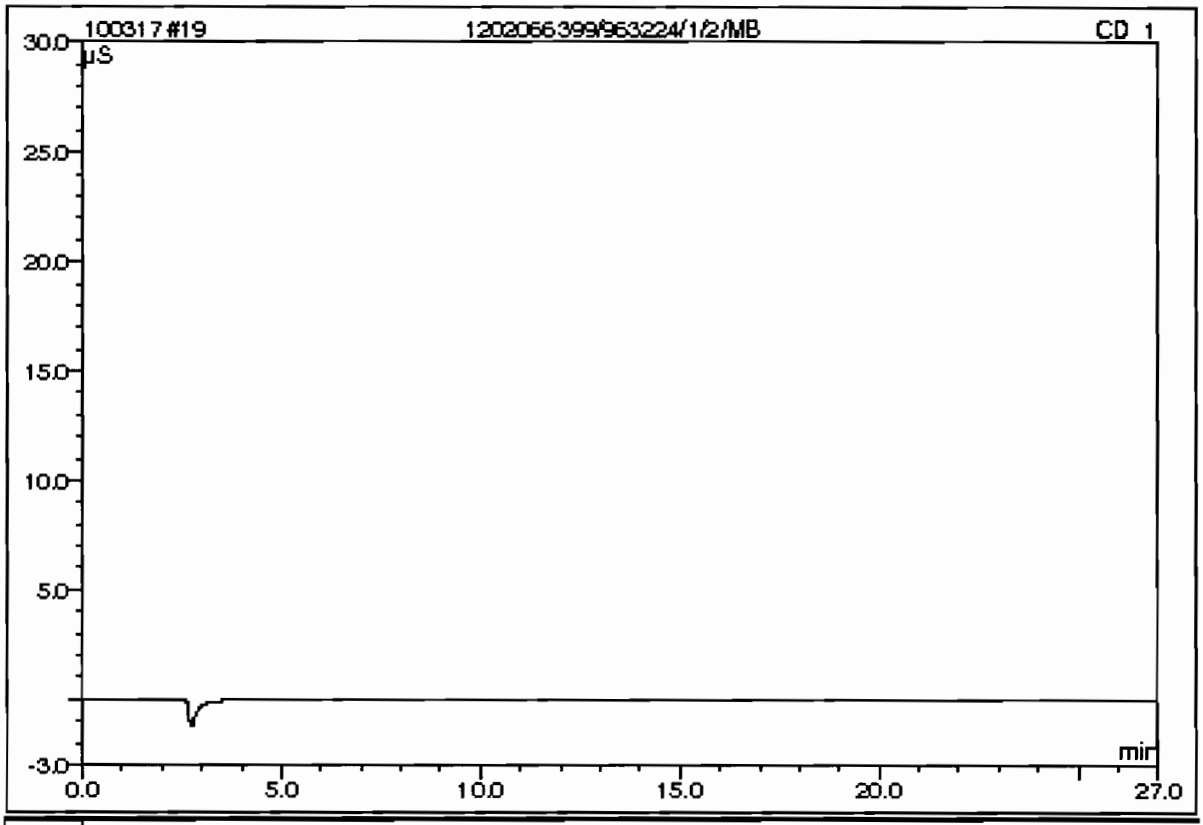

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

20 1202066402/963224/1/2/LCS

Sample Name:	1202066402/963224/1/2/LCS	*Injection Volume:*	50.0
Vial Number:	14	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 15:11	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

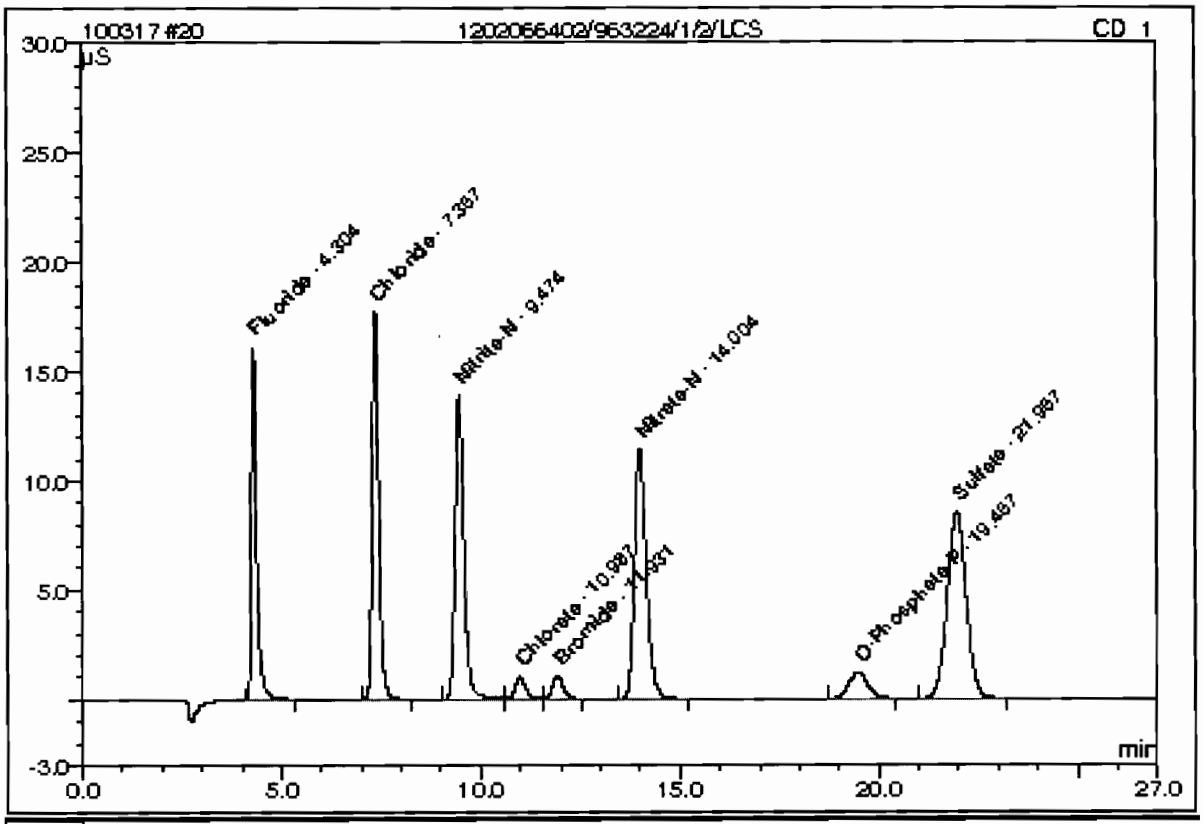

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	4.9085		2.43365	12.70
2	7.37	Chloride	n.a.	9.2905		3.33885	17.42
3	9.47	Nitrite-N	n.a.	4.8410		3.52386	18.39
4	10.99	Chlorate	n.a.	2.5161		0.30187	1.58
5	11.93	Bromide	n.a.	2.4912		0.31883	1.66
6	14.00	Nitrate-N	n.a.	4.7101		3.93230	20.52
7	19.47	O-Phosphate-P	n.a.	2.4298		0.63999	3.34
8	21.97	Sulfate	n.a.	19.0003		4.67469	24.39
Total:				50.1875	0.000	19.164	100.00

21 247261004/963224/1/3/

Sample Name:	247261004/963224/1/3/	*Injection Volume:*	50.0
Vial Number:	15	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 15:41	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

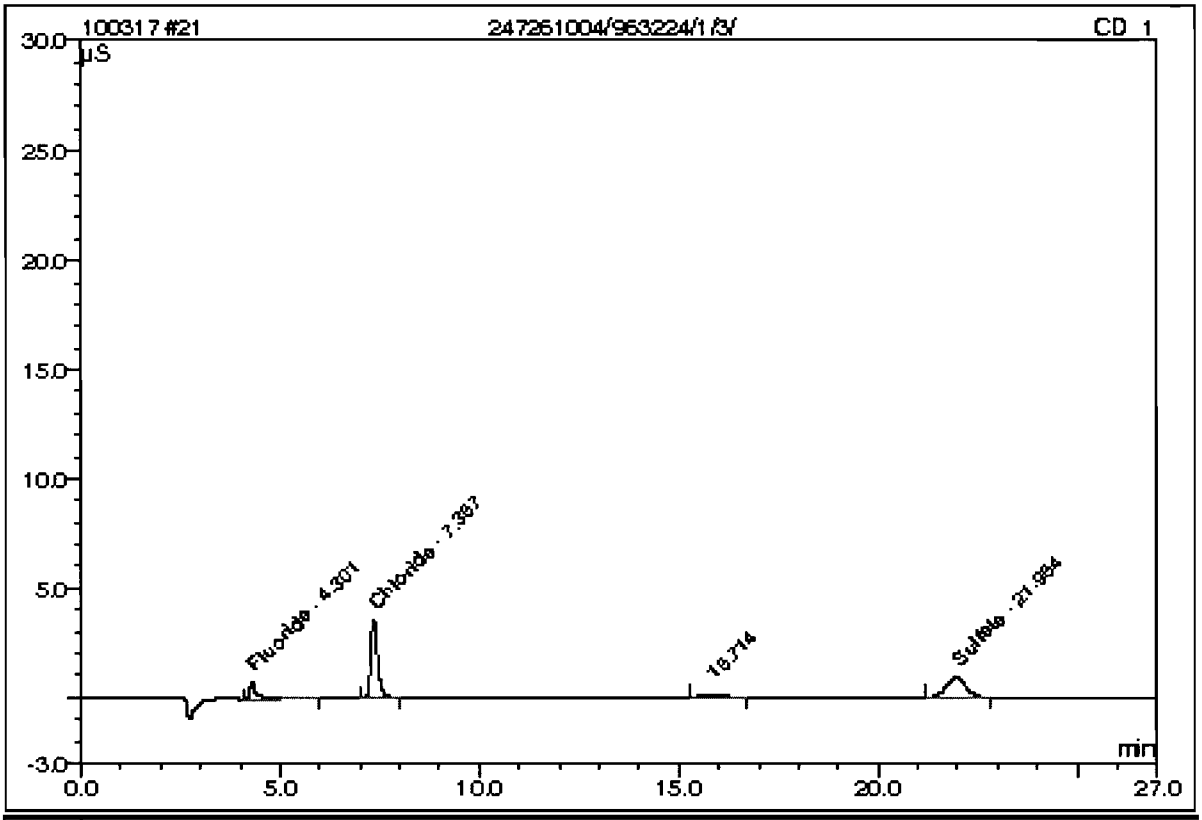

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	0.4997		0.22263	15.05
2	7.36	Chloride	n.a.	2.0600		0.69565	47.04
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	21.95	Sulfate	n.a.	2.3598		0.51423	34.77
Total:				4.9194	0.000	1.432	96.88

22 1202066400/963224/1/3/DUP

Sample Name:	1202066400/963224/1/3/DUP	*Injection Volume:*	50.0
Vial Number:	16	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 16:11	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GLGCE086;300;9056

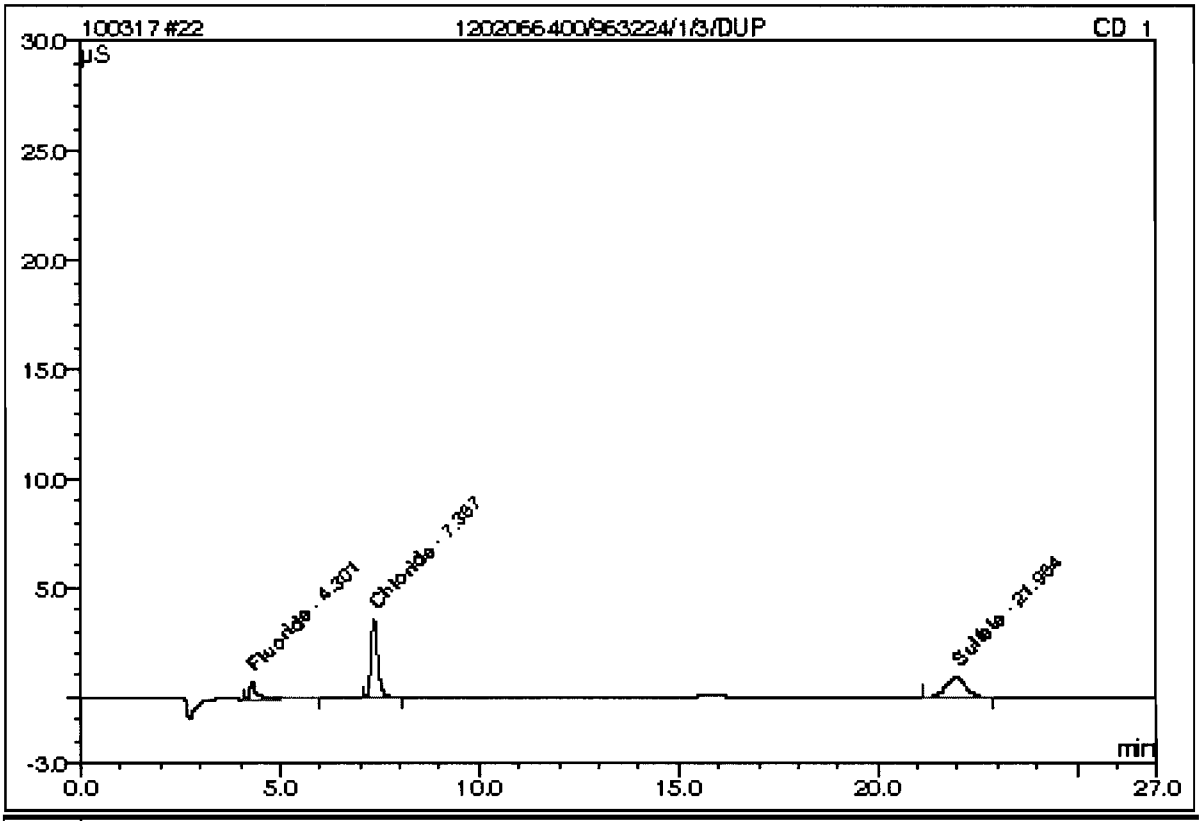

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	0.4918		0.21869	15.31
2	7.36	Chloride	n.a.	2.0647		0.69737	48.83
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	21.95	Sulfate	n.a.	2.3515		0.51216	35.86
Total:				4.9080	0.000	1.428	100.00

23 1202066401/963224/1/3/PS

Sample Name:	1202066401/963224/1/3/PS	*Injection Volume:*	50.0
Vial Number:	17	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 16:41	*Analyst:*	GXM3
Run Time (min):	27.00	*Column:*	AS23-002407; GL GCB086;300;9056

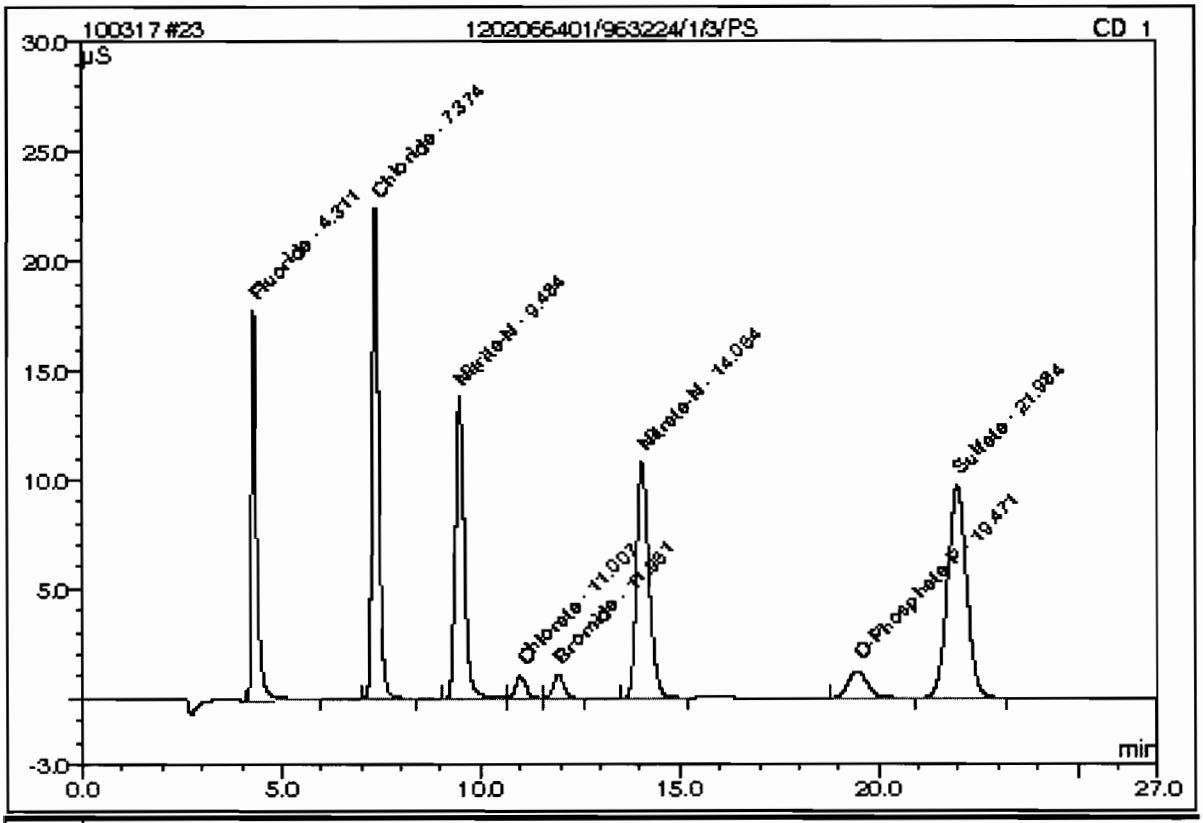

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.31	Fluoride	n.a.	5.4370		2.69867	12.89
2	7.37	Chloride	n.a.	11.7372		4.23326	20.21
3	9.48	Nitrite-N	n.a.	4.8312		3.51669	16.79
4	11.01	Chlorate	n.a.	2.4959		0.29944	1.43
5	11.96	Bromide	n.a.	2.5221		0.32281	1.54
6	14.06	Nitrate-N	n.a.	4.6962		3.92045	18.72
7	19.47	O-Phosphate-P	n.a.	2.5485		0.67132	3.21
8	21.98	Sulfate	n.a.	21.4243		5.28074	25.21
Total:				55.6924	0.000	20.943	100.00

26 247829001/963224/1/3/

Sample Name:	247829001/963224/1/3/	*Injection Volume:*	50.0
Vial Number:	20	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 18:10	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

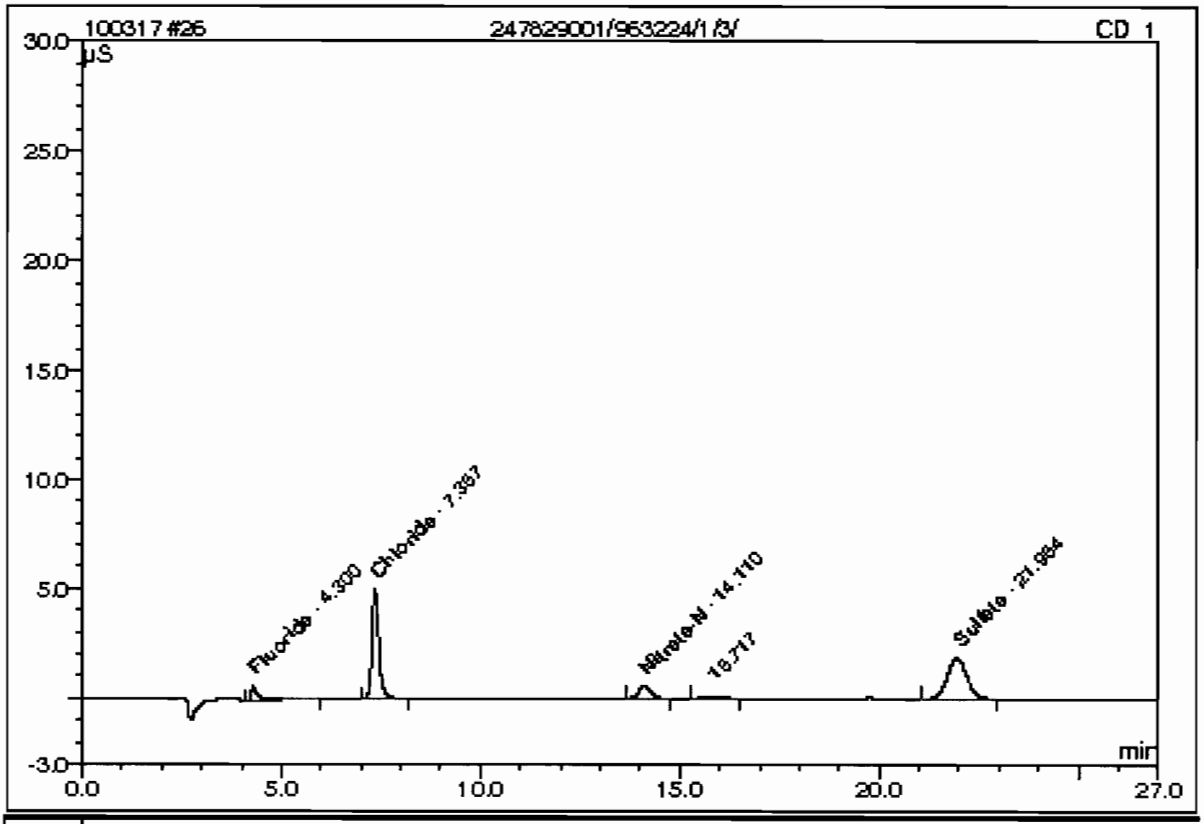

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.30	Fluoride	n.a.	0.4544		0.19990	8.18
2	7.36	Chloride	n.a.	2.8291		0.97680	39.98
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	14.11	Nitrate-N	n.a.	0.3197		0.19239	7.87
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	21.95	Sulfate	n.a.	4.4420		1.03482	42.35
Total:				8.0452	0.000	2.404	98.39

29 WIC100317-02CVH

Sample Name:	WIC100317-02CVH	*Injection Volume:*	50.0
Vial Number:	23	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 19:40	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCE086;300;9056

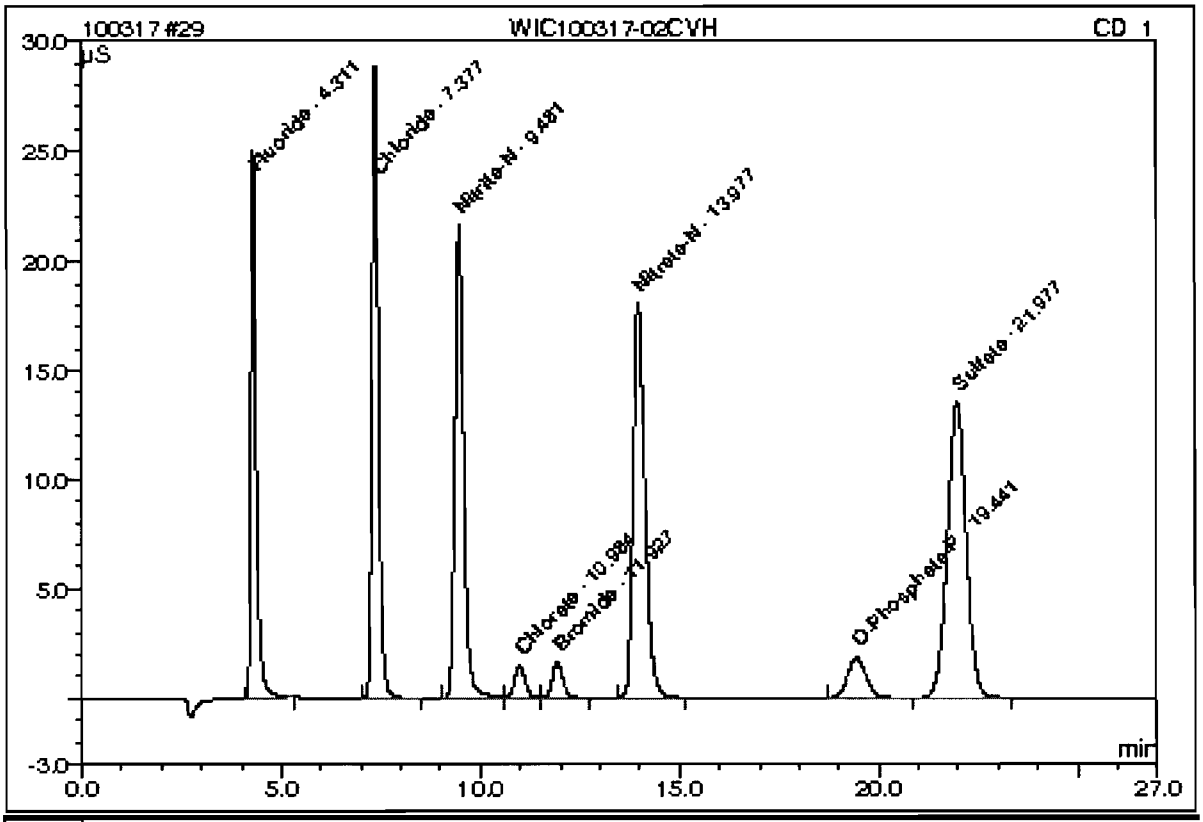

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.31	Fluoride	n.a.	7.5953		3.78108	12.57
2	7.38	Chloride	n.a.	14.8256		5.36228	17.82
3	9.48	Nitrite-N	n.a.	7.4770		5.46076	18.15
4	10.98	Chlorate	n.a.	3.7101		0.44605	1.48
5	11.93	Bromide	n.a.	3.7794		0.48498	1.61
6	13.98	Nitrate-N	n.a.	7.3974		6.22141	20.68
7	19.44	O-Phosphate-P	n.a.	3.7480		0.98809	3.28
8	21.98	Sulfate	n.a.	29.6703		7.34240	24.40
Total:				78.2031	0.000	30.087	100.00

30 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	24	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantit. Method:	100317an	*Sample Amount:*	1.0000
Recording Time:	3/17/2010 20:10	Analyst:	GXM3
Run Time (min):	27.00	Column:	AS23-002407; GL GCB086;300;9056

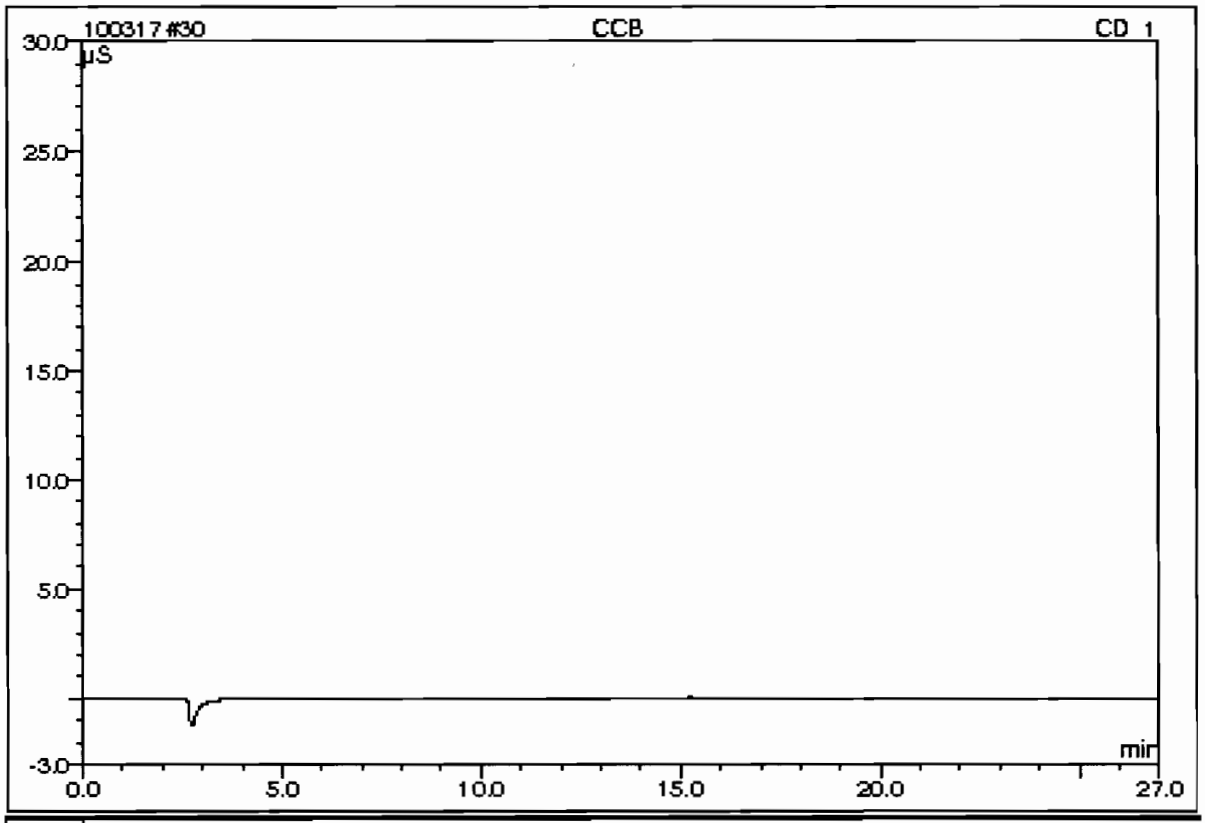

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

Nitrate Nitrite by Cadmium Reduction

This is runlog lachat3

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
1.5 PPM		1	axh3	2/25/2010 10:10:26	OM_2-25-2010_10-08-41
1.0 PPM		1	axh3	2/25/2010 10:11:38	OM_2-25-2010_10-08-41
0.5 ppm		1	axh3	2/25/2010 10:12:50	OM_2-25-2010_10-08-41
0.1 ppm		1	axh3	2/25/2010 10:14:04	OM_2-25-2010_10-08-41
0.05 ppm		1	axh3	2/25/2010 10:15:17	OM_2-25-2010_10-08-41
ICAL-00		1	axh3	2/25/2010 10:16:31	OM_2-25-2010_10-08-41
1.0 ppm ICV		1	axh3	2/25/2010 10:18:53	OM_2-25-2010_10-08-41
ICB		1	axh3	2/25/2010 10:21:15	OM_2-25-2010_10-08-41
Nitrate 1.0 ppm		1	axh3	2/25/2010 10:23:34	OM_2-25-2010_10-08-41
Nitrite 1.0 ppm		1	axh3	2/25/2010 10:25:54	OM_2-25-2010_10-08-41
1202051741	956913	1	axh3	2/25/2010 10:28:15	OM_2-25-2010_10-08-41
1202051746	956913	1	axh3	2/25/2010 10:29:29	OM_2-25-2010_10-08-41
247772001	956913	250	axh3	2/25/2010 10:30:42	OM_2-25-2010_10-08-41
247772002	956913	250	axh3	2/25/2010 10:31:55	OM_2-25-2010_10-08-41
247772003	956913	100	axh3	2/25/2010 10:33:07	OM_2-25-2010_10-08-41
247772004	956913	250	axh3	2/25/2010 10:34:20	OM_2-25-2010_10-08-41
1202051743	956913	250	axh3	2/25/2010 10:35:33	OM_2-25-2010_10-08-41
1202051745	956913	250	axh3	2/25/2010 10:36:45	OM_2-25-2010_10-08-41
247772006	956913	250	axh3	2/25/2010 10:37:57	OM_2-25-2010_10-08-41
247844003	956913	10	axh3	2/25/2010 10:39:09	OM_2-25-2010_10-08-41
1.0 ppm CCV		1	axh3	2/25/2010 10:40:22	OM_2-25-2010_10-08-41
CCB		1	axh3	2/25/2010 10:42:44	OM_2-25-2010_10-08-41
1202051742	956913	10	axh3	2/25/2010 10:45:04	OM_2-25-2010_10-08-41
1202051744	956913	10	axh3	2/25/2010 10:46:16	OM_2-25-2010_10-08-41
247772004	956913	250	axh3	2/25/2010 10:47:29	OM_2-25-2010_10-08-41
1202051743	956913	250	axh3	2/25/2010 10:48:41	OM_2-25-2010_10-08-41
1202051745	956913	250	axh3	2/25/2010 10:49:54	OM_2-25-2010_10-08-41
247844006	956913	25	axh3	2/25/2010 10:51:06	OM_2-25-2010_10-08-41
247844009	956913	25	axh3	2/25/2010 10:52:18	OM_2-25-2010_10-08-41
247844012	956913	25	axh3	2/25/2010 10:53:29	OM_2-25-2010_10-08-41
247844015	956913	10	axh3	2/25/2010 10:54:42	OM_2-25-2010_10-08-41
247844018	956913	10	axh3	2/25/2010 10:55:55	OM_2-25-2010_10-08-41
1.0 ppm CCV		1	axh3	2/25/2010 10:57:08	OM_2-25-2010_10-08-41
CCB		1	axh3	2/25/2010 10:59:29	OM_2-25-2010_10-08-41
247844022	956913	50	axh3	2/25/2010 11:01:51	OM_2-25-2010_10-08-41
247844025	956913	50	axh3	2/25/2010 11:03:03	OM_2-25-2010_10-08-41
247844029	956913	10	axh3	2/25/2010 11:04:15	OM_2-25-2010_10-08-41
247844032	956913	5	axh3	2/25/2010 11:05:28	OM_2-25-2010_10-08-41
247844035	956913	10	axh3	2/25/2010 11:06:41	OM_2-25-2010_10-08-41
247844038	956913	5	axh3	2/25/2010 11:07:54	OM_2-25-2010_10-08-41
247852001	956913	5	axh3	2/25/2010 11:09:06	OM_2-25-2010_10-08-41
1202050852	956481	1	axh3	2/25/2010 11:10:18	OM_2-25-2010_10-08-41
1202050856	956481	1	axh3	2/25/2010 11:11:30	OM_2-25-2010_10-08-41
247762001	956481	1	axh3	2/25/2010 11:12:42	OM_2-25-2010_10-08-41
1.0 ppm CCV		1	axh3	2/25/2010 11:13:54	OM_2-25-2010_10-08-41
CCB		1	axh3	2/25/2010 11:16:16	OM_2-25-2010_10-08-41
1202050853*	956481	1	axh3	2/25/2010 11:18:36	OM_2-25-2010_10-08-41
1202050854*	956481	1	axh3	2/25/2010 11:19:47	OM_2-25-2010_10-08-41
1202050855*	956481	1	axh3	2/25/2010 11:20:59	OM_2-25-2010_10-08-41
1202050857*	956483	1	axh3	2/25/2010 11:22:12	OM_2-25-2010_10-08-41
1202050860*	956483	1	axh3	2/25/2010 11:23:25	OM_2-25-2010_10-08-41
247335001*	956483	5	axh3	2/25/2010 11:24:38	OM_2-25-2010_10-08-41
1202050858*	956483	5	axh3	2/25/2010 11:25:51	OM_2-25-2010_10-08-41
1202050859*	956483	5	axh3	2/25/2010 11:27:04	OM_2-25-2010_10-08-41
247768002*	956483	25	axh3	2/25/2010 11:28:16	OM_2-25-2010_10-08-41
1202051739*	956483	25	axh3	2/25/2010 11:29:28	OM_2-25-2010_10-08-41
1.0 ppm CCV		1	axh3	2/25/2010 11:30:40	OM_2-25-2010_10-08-41

Author: lachat

Date : 2/25/2010

Original Run Filename: OM_2-25-2010_10-08-41.OMN created 2/25/2010 10:08:41
Original Run Author's Signature: [lachat]
Current Run Filename: OM_2-25-2010_10-08-41.OMN last modified 2/25/2010 11:32:02
Current Run Author's Signature: [lachat]
Description: EPA 353.2
Cadmium Colum 9056CAJ
LCS nominal 1.0 mg/L

Sample	Rep.	Cup No.	Channel 1 NO3 + NO2 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100225-26	1	S9	1.50	15.7	2/25/2010@10:10:26			1.5 PPM
WTR100225-25	1	S10	1.00	10.3	2/25/2010@10:11:38			1.0 PPM
WTR100225-24	1	S11	0.500	5.18	2/25/2010@10:12:50			0.5 ppm
WTR100225-23	1	S12	0.100	1.07	2/25/2010@10:14:04			0.1 ppm
WTR100225-21	1	S13	0.0500	0.530	2/25/2010@10:15:17			0.05 ppm
0.0ppm	1	S15	0.00	-0.0208	2/25/2010@10:16:31			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99996 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR100225-27 ICV	1	S16	0.978	10.2	2/25/2010@10:18:53			1.0 ppm ICV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.978 < 1.10					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.978 > 0.894					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
ICB	1	S15	-0.00122	-0.0225	2/25/2010@10:21:15			ICB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00122 < 0.0500					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00122 > -0.0500					
		Message	ICB Passed					
		Action	Continue					
WTR100225-22	1	S1	0.955	9.92	2/25/2010@10:23:34			Nitrate 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.955 < 1.10					
		Message	Nitrate Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.955 > 0.894					
		Message	Nitrate Standard Passed					
		Action	Continue					
WTR100225-28	1	S2	0.945	9.82	2/25/2010@10:25:54			Nitrite 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.945 < 1.10					
		Message	Nitrite Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.945 > 0.894					
		Message	Nitrite Standard Passed					
		Action	Continue					
1202051741|956913|MB	1	1	0.00449	0.0370	2/25/2010@10:28:15			
1202051746||LCS	1	2	0.986	10.2	2/25/2010@10:29:29			
247772001	1	3	0.541	5.61	2/25/2010@10:30:42		250.00	
247772002	1	4	0.508	5.27	2/25/2010@10:31:55		250.00	
247772003	1	5	0.122	1.26	2/25/2010@10:33:07		100.00	

247772004	1	6	0.469	4.87	2/25/2010@10:34:20		250.00	
1202051743||DUP	1	7	0.461	4.79	2/25/2010@10:35:33		250.00	
1202051745||PS	1	8	1.34	13.9	2/25/2010@10:36:45		250.00	
247772006	1	9	0.493	5.12	2/25/2010@10:37:57		250.00	
247844003	1	10	0.201	2.08	2/25/2010@10:39:09		10.00	
WTR100225-25 CCV	1	S10	0.992	10.3	2/25/2010@10:40:22			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.992 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.992 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00189	-0.0294	2/25/2010@10:42:44			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00189 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00189 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202051742||DUP	1	11	0.197	2.04	2/25/2010@10:45:04		10.00	
1202051744||PS	1	12	1.20	12.5	2/25/2010@10:46:16		10.00	
247772004	1	6	0.437	4.53	2/25/2010@10:47:29		250.00	
1202051743||DUP	1	7	0.461	4.79	2/25/2010@10:48:41		250.00	
1202051745||PS	1	8	1.44	14.9	2/25/2010@10:49:54		250.00	
247844006	1	13	0.0858	0.882	2/25/2010@10:51:06		25.00	
247844009	1	14	0.0942	0.970	2/25/2010@10:52:18		25.00	
247844012	1	15	0.0916	0.942	2/25/2010@10:53:29		25.00	
247844015	1	16	0.217	2.24	2/25/2010@10:54:42		10.00	
247844018	1	17	0.153	1.59	2/25/2010@10:55:55		10.00	
WTR100225-25 CCV	1	S10	0.978	10.2	2/25/2010@10:57:08			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.978 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.978 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00126	-0.0228	2/25/2010@10:59:29			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00126 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00126 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
247844022	1	18	0.199	2.05	2/25/2010@11:01:51		50.00	
247844025	1	19	0.148	1.53	2/25/2010@11:03:03		50.00	
247844029	1	20	0.240	2.49	2/25/2010@11:04:15		10.00	
247844032	1	21	0.433	4.50	2/25/2010@11:05:28		5.00	
247844035	1	22	0.216	2.23	2/25/2010@11:06:41		10.00	
247844038	1	23	0.411	4.27	2/25/2010@11:07:54		5.00	
247852001	1	24	0.0657	0.674	2/25/2010@11:09:06		5.00	
1202050852|956481|MB	1	25	0.00844	0.0780	2/25/2010@11:10:18			
1202050856||LCS	1	26	0.974	10.1	2/25/2010@11:11:30			
247762001	1	27	0.0340	0.344	2/25/2010@11:12:42			
WTR100225-25 CCV	1	S10	0.965	10.0	2/25/2010@11:13:54			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								

		Result:	0.965 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.965 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.0111	-0.125	2/25/2010@11:16:16			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.0111 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.0111 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202050853||DUP	1	28	0.0380	0.386	2/25/2010@11:18:36			
1202050854||MS	1	29	1.02	10.6	2/25/2010@11:19:47			
1202050855||MSD	1	30	1.11	11.5	2/25/2010@11:20:59			
1202050857|956483|MB	1	31	0.0156	0.153	2/25/2010@11:22:12			
1202050860||LCS	1	32	1.02	10.6	2/25/2010@11:23:25			
247335001	1	33	0.211	2.18	2/25/2010@11:24:38		5.00	
1202050858||DUP	1	34	-0.0352	-0.375	2/25/2010@11:25:51		5.00	
1202050859||PS	1	35	0.196	2.03	2/25/2010@11:27:04		5.00	
247768002	1	39	0.480	4.98	2/25/2010@11:28:16		25.00	
1202051739||DUP	1	40	0.492	5.11	2/25/2010@11:29:28		25.00	
WTR100225-25 CCV	1	S10	1.12	11.6	2/25/2010@11:30:40			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.12 > 1.10					
		Message	CCV Failed					
		Action	Stop Run					
DQM Test: < - Concentration Limit								
		Result:	1.12 > 0.894					
		Message	CCV Passed					
		Action	Continue					

Author: lachat

Date : 2/25/2010

Channel 1 (NO3 + NO2) : Current View

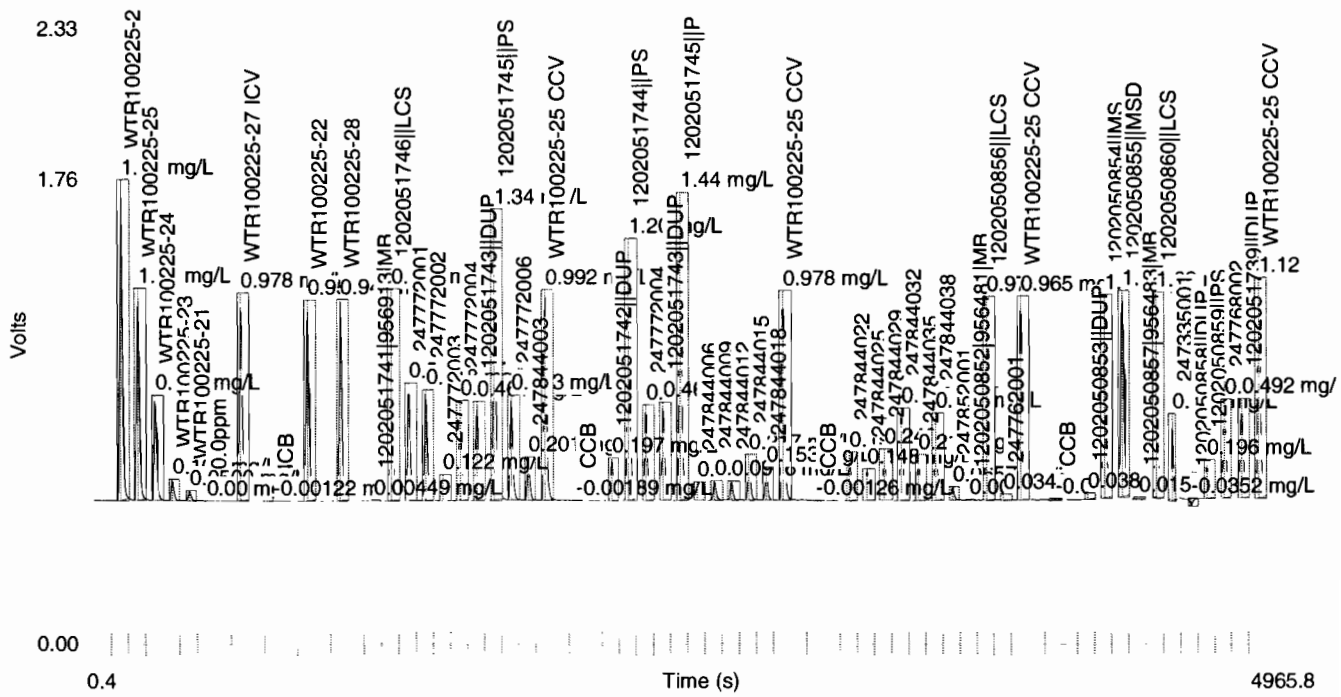

Table 1: NO3 + NO2

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	1.50	1	15.7	1.21	-0.4	2/25/2010	10:11:46
2	1.00	1	10.3	0.799	0.9	2/25/2010	10:12:57
3	0.500	1	5.18	0.398	0.2	2/25/2010	10:14:10
4	0.100	1	1.07	0.0824	-3.4	2/25/2010	10:15:23
5	0.0500	1	0.530	0.0397	-3.9	2/25/2010	10:16:37
6	0.00	1	-0.0208	-8.52e-4		2/25/2010	10:17:50

Figure 1: NO3 + NO2

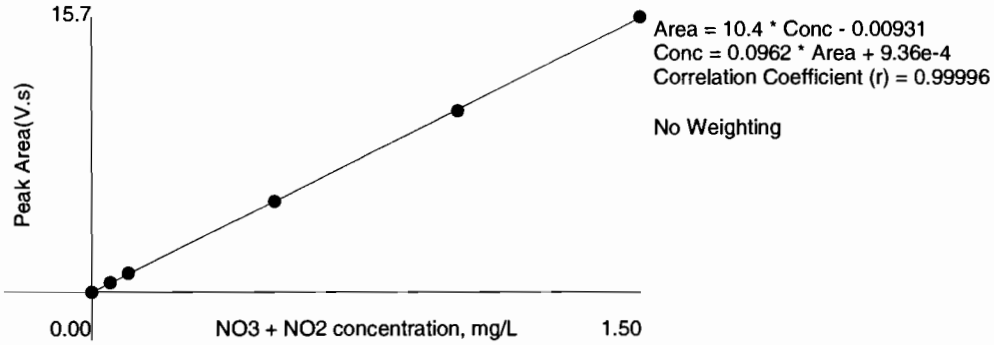

This is runlog lachat3

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
1.0 ppm CCV		1	axh3	2/25/2010 13:41:38	OM_2-25-2010_13-40-36
CCB		1	axh3	2/25/2010 13:44:00	OM_2-25-2010_13-40-36
1202050853	956481	1	axh3	2/25/2010 13:46:20	OM_2-25-2010_13-40-36
1202050854	956481	1	axh3	2/25/2010 13:47:31	OM_2-25-2010_13-40-36
1202050855	956481	1	axh3	2/25/2010 13:48:43	OM_2-25-2010_13-40-36
1202050857	956483	1	axh3	2/25/2010 13:49:56	OM_2-25-2010_13-40-36
1202050860	956483	1	axh3	2/25/2010 13:51:09	OM_2-25-2010_13-40-36
247335001	956483	10	axh3	2/25/2010 13:52:23	OM_2-25-2010_13-40-36
1202050858	956483	10	axh3	2/25/2010 13:53:35	OM_2-25-2010_13-40-36
1202050859	956483	10	axh3	2/25/2010 13:54:48	OM_2-25-2010_13-40-36
247768002	956483	25	axh3	2/25/2010 13:56:00	OM_2-25-2010_13-40-36
1202051739	956483	25	axh3	2/25/2010 13:57:12	OM_2-25-2010_13-40-36
1.0 ppm CCV		1	axh3	2/25/2010 13:58:24	OM_2-25-2010_13-40-36
CCB		1	axh3	2/25/2010 14:00:46	OM_2-25-2010_13-40-36
1202051740	956483	25	axh3	2/25/2010 14:03:06	OM_2-25-2010_13-40-36
247335001	956483	10	axh3	2/25/2010 14:04:20	OM_2-25-2010_13-40-36
1202050858	956483	10	axh3	2/25/2010 14:05:32	OM_2-25-2010_13-40-36
1202050859	956483	10	axh3	2/25/2010 14:06:45	OM_2-25-2010_13-40-36
247560001	956483	5	axh3	2/25/2010 14:07:57	OM_2-25-2010_13-40-36
247763001	956483	5	axh3	2/25/2010 14:09:10	OM_2-25-2010_13-40-36
247763002	956483	5	axh3	2/25/2010 14:10:23	OM_2-25-2010_13-40-36
247768004	956483	10	axh3	2/25/2010 14:11:35	OM_2-25-2010_13-40-36
247768006	956483	10	axh3	2/25/2010 14:12:47	OM_2-25-2010_13-40-36
247768008	956483	10	axh3	2/25/2010 14:13:58	OM_2-25-2010_13-40-36
1.0 ppm CCV		1	axh3	2/25/2010 14:15:11	OM_2-25-2010_13-40-36
CCB		1	axh3	2/25/2010 14:17:33	OM_2-25-2010_13-40-36
247768010	956483	5	axh3	2/25/2010 14:19:53	OM_2-25-2010_13-40-36
247852002	956483	5	axh3	2/25/2010 14:21:05	OM_2-25-2010_13-40-36
247852003	956483	5	axh3	2/25/2010 14:22:19	OM_2-25-2010_13-40-36
247852004	956483	5	axh3	2/25/2010 14:23:32	OM_2-25-2010_13-40-36
247852005	956483	5	axh3	2/25/2010 14:24:44	OM_2-25-2010_13-40-36
247852006	956483	5	axh3	2/25/2010 14:25:58	OM_2-25-2010_13-40-36
247852007	956483	5	axh3	2/25/2010 14:27:10	OM_2-25-2010_13-40-36
247852008	956483	5	axh3	2/25/2010 14:28:22	OM_2-25-2010_13-40-36
247852009	956483	5	axh3	2/25/2010 14:29:35	OM_2-25-2010_13-40-36
247852010	956483	5	axh3	2/25/2010 14:30:48	OM_2-25-2010_13-40-36
1.0 ppm CCV		1	axh3	2/25/2010 14:32:00	OM_2-25-2010_13-40-36
CCB		1	axh3	2/25/2010 14:34:22	OM_2-25-2010_13-40-36
247852013	956483	5	axh3	2/25/2010 14:36:41	OM_2-25-2010_13-40-36
247852014	956483	5	axh3	2/25/2010 14:37:54	OM_2-25-2010_13-40-36
1202053242	957559	1	axh3	2/25/2010 14:39:06	OM_2-25-2010_13-40-36
1202053247	957559	1	axh3	2/25/2010 14:40:18	OM_2-25-2010_13-40-36
247780001	957559	5	axh3	2/25/2010 14:41:29	OM_2-25-2010_13-40-36
1202053243	957559	5	axh3	2/25/2010 14:42:42	OM_2-25-2010_13-40-36
1202053245	957559	5	axh3	2/25/2010 14:43:54	OM_2-25-2010_13-40-36
247817001	957559	5	axh3	2/25/2010 14:45:09	OM_2-25-2010_13-40-36
1202053246	957559	5	axh3	2/25/2010 14:46:20	OM_2-25-2010_13-40-36
1202053244	957559	5	axh3	2/25/2010 14:47:33	OM_2-25-2010_13-40-36
1.0 ppm CCV		1	axh3	2/25/2010 14:48:45	OM_2-25-2010_13-40-36
CCB		1	axh3	2/25/2010 14:51:07	OM_2-25-2010_13-40-36
247913001	957559	10	axh3	2/25/2010 14:53:28	OM_2-25-2010_13-40-36
1202053328	957559	10	axh3	2/25/2010 14:54:41	OM_2-25-2010_13-40-36
1202053327	957559	10	axh3	2/25/2010 14:55:53	OM_2-25-2010_13-40-36
247829001	957559	5	axh3	2/25/2010 14:57:05	OM_2-25-2010_13-40-36
247913002	957559	10	axh3	2/25/2010 14:58:18	OM_2-25-2010_13-40-36
247949001	957559	5	axh3	2/25/2010 14:59:30	OM_2-25-2010_13-40-36
1.0 ppm CCV		1	axh3	2/25/2010 15:01:49	OM_2-25-2010_13-40-36
CCB		1	axh3	2/25/2010 15:04:11	OM_2-25-2010_13-40-36

Author: lachat

Date : 2/25/2010

Original Run Filename: OM_2-25-2010_13-40-36.OMN created 2/25/2010 13:40:36
Original Run Author's Signature: [lachat]
Current Run Filename: OM_2-25-2010_13-40-36.OMN last modified 2/25/2010 15:05:33
Current Run Author's Signature: [lachat]
Description: EPA 353.2
Cadmium Colum 9056CAJ
LCS nominal 1.0 mg/L

Sample	Rep.	Cup No.	Channel 1 NO3 + NO2 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100225-25 CCV	1	S10	1.00	10.4	2/25/2010@13:41:38			1.0 ppm CCV
		Known Conc:	1.00					
			DQM Test: > + Concentration Limit					
		Result:	1.00 < 1.10					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.00 > 0.894					
		Message	CCV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
CCB	1	S15	0.00223	0.0134	2/25/2010@13:44:00			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	0.00223 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.00223 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202050853|956481|DUP	1	28	0.0289	0.291	2/25/2010@13:46:20			
1202050854||MS	1	29	0.901	9.36	2/25/2010@13:47:31			
1202050855||MSD	1	30	0.947	9.84	2/25/2010@13:48:43			
1202050857|956483|MB	1	31	0.00299	0.0213	2/25/2010@13:49:56			
1202050860||LCS	1	32	0.962	9.99	2/25/2010@13:51:09			
247335001	1	33	-0.0102	-0.116	2/25/2010@13:52:23		10.00	
1202050858||DUP	1	34	-0.00794	-0.0923	2/25/2010@13:53:35		10.00	
1202050859||PS	1	35	0.601	6.24	2/25/2010@13:54:48		10.00	
247768002	1	39	0.401	4.16	2/25/2010@13:56:00		25.00	
1202051739||DUP	1	40	0.382	3.96	2/25/2010@13:57:12		25.00	
WTR100225-25 CCV	1	S10	0.939	9.76	2/25/2010@13:58:24			1.0 ppm CCV
		Known Conc:	1.00					
			DQM Test: > + Concentration Limit					
		Result:	0.939 < 1.10					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.939 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00130	-0.0233	2/25/2010@14:00:46			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-0.00130 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.00130 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202051740||PS	1	41	1.35	14.0	2/25/2010@14:03:06		25.00	
247335001	1	33	0.00583	0.0509	2/25/2010@14:04:20		10.00	
1202050858||DUP	1	34	0.00661	0.0590	2/25/2010@14:05:32		10.00	
1202050859||PS	1	35	0.825	8.57	2/25/2010@14:06:45		10.00	
247560001	1	36	0.0495	0.505	2/25/2010@14:07:57		5.00	

247763001	1	37	0.0950	0.978	2/25/2010@14:09:10		5.00	
247763002	1	38	0.194	2.00	2/25/2010@14:10:23		5.00	
247768004	1	42	0.399	4.14	2/25/2010@14:11:35		10.00	
247768006	1	43	0.740	7.68	2/25/2010@14:12:47		10.00	
247768008	1	44	0.560	5.82	2/25/2010@14:13:58		10.00	
WTR100225-25 CCV	1	S10	0.951	9.88	2/25/2010@14:15:11			1.0 ppm CCV
	Known Conc:		1.00					
DQM Test: > + Concentration Limit								
	Result:		0.951 < 1.10					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		0.951 > 0.894					
	Message		CCV Passed					
	Action		Continue					
CCB	1	S15	-0.00160	-0.0264	2/25/2010@14:17:33			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-0.00160 < 0.0500					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-0.00160 > -0.0500					
	Message		CCB Passed					
	Action		Continue					
247768010	1	45	0.00904	0.0843	2/25/2010@14:19:53		5.00	
247852002	1	46	0.0217	0.216	2/25/2010@14:21:05		5.00	
247852003	1	47	0.0937	0.965	2/25/2010@14:22:19		5.00	
247852004	1	48	0.0848	0.872	2/25/2010@14:23:32		5.00	
247852005	1	49	0.0142	0.138	2/25/2010@14:24:44		5.00	
247852006	1	50	0.0145	0.141	2/25/2010@14:25:58		5.00	
247852007	1	51	0.0486	0.495	2/25/2010@14:27:10		5.00	
247852008	1	52	0.0402	0.408	2/25/2010@14:28:22		5.00	
247852009	1	53	0.0389	0.395	2/25/2010@14:29:35		5.00	
247852010	1	54	0.0411	0.418	2/25/2010@14:30:48		5.00	
WTR100225-25 CCV	1	S10	0.912	9.47	2/25/2010@14:32:00			1.0 ppm CCV
	Known Conc:		1.00					
DQM Test: > + Concentration Limit								
	Result:		0.912 < 1.10					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		0.912 > 0.894					
	Message		CCV Passed					
	Action		Continue					
CCB	1	S15	-0.00146	-0.0250	2/25/2010@14:34:22			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-0.00146 < 0.0500					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-0.00146 > -0.0500					
	Message		CCB Passed					
	Action		Continue					
247852013	1	55	0.0828	0.851	2/25/2010@14:36:41		5.00	
247852014	1	56	0.0106	0.100	2/25/2010@14:37:54		5.00	
1202053242|957559|MB	1	57	0.00733	0.0665	2/25/2010@14:39:06			
1202053247||LCS	1	58	0.928	9.64	2/25/2010@14:40:18			
247780001	1	59	0.0147	0.143	2/25/2010@14:41:29		5.00	
1202053243||DUP	1	60	0.0121	0.116	2/25/2010@14:42:42		5.00	
1202053245||PS	1	61	0.913	9.48	2/25/2010@14:43:54		5.00	
247817001	1	63	0.0779	0.800	2/25/2010@14:45:09		5.00	
1202053246||PS	1	64	0.994	10.3	2/25/2010@14:46:20		5.00	
1202053244||DUP	1	65	0.0627	0.642	2/25/2010@14:47:33		5.00	
WTR100225-25 CCV	1	S10	0.901	9.36	2/25/2010@14:48:45			1.0 ppm CCV
	Known Conc:		1.00					
DQM Test: > + Concentration Limit								

		Result:	0.901 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.901 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-1.44e-4	-0.0112	2/25/2010@14:51:07			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.44e-4 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.44e-4 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
247913001	1	67	0.184	1.90	2/25/2010@14:53:28		10.00	
1202053328||PS	1	68	1.16	12.1	2/25/2010@14:54:41		10.00	
1202053327||DUP	1	69	0.174	1.80	2/25/2010@14:55:53		10.00	
247829001	1	66	0.191	1.97	2/25/2010@14:57:05		5.00	
247913002	1	70	-0.0138	-0.153	2/25/2010@14:58:18		10.00	
247949001	1	71	0.154	1.59	2/25/2010@14:59:30		5.00	
WTR100225-25 CCV	1	S10	0.936	9.73	2/25/2010@15:01:49			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.936 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.936 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	-0.00147	-0.0250	2/25/2010@15:04:11			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.00147 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.00147 > -0.0500					
		Message	CCB Passed					
		Action	Continue					

Author: lachat

Date : 2/25/2010

Channel 1 (NO3 + NO2) : Current View

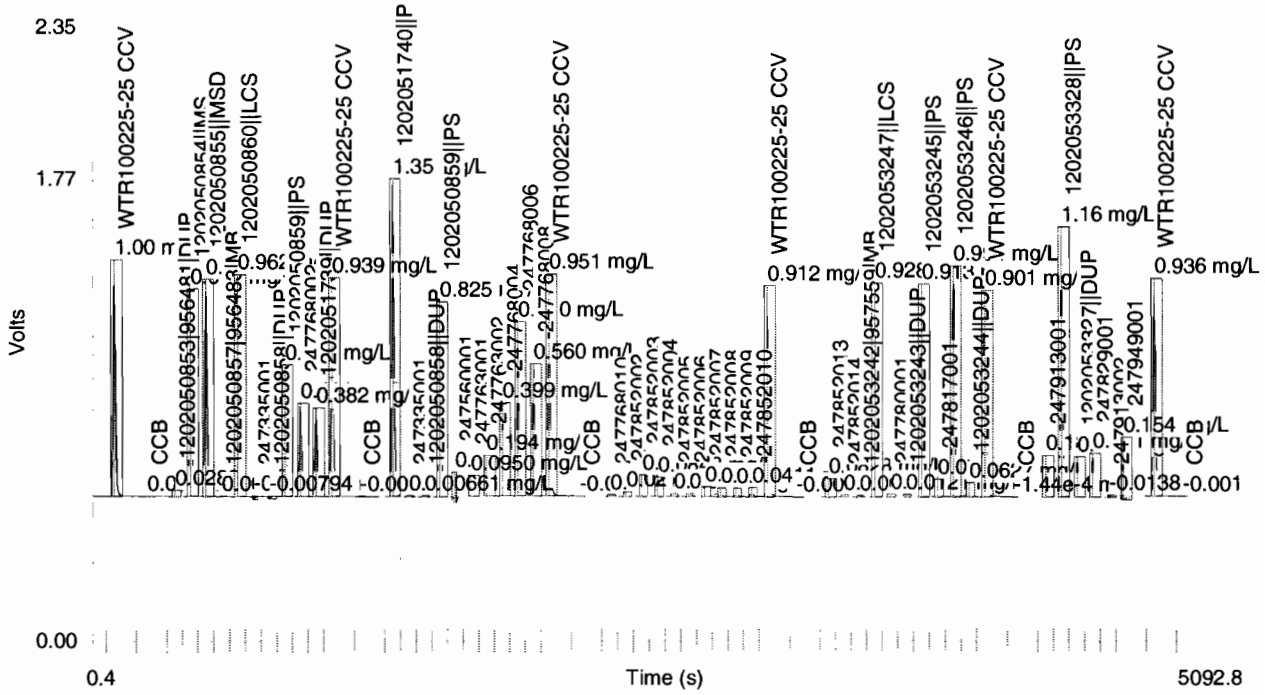

Table 1: NO3 + NO2

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	1.50	1	15.7	1.21	-0.4	2/25/2010	10:11:46
2	1.00	1	10.3	0.799	0.9	2/25/2010	10:12:57
3	0.500	1	5.18	0.398	0.2	2/25/2010	10:14:10
4	0.100	1	1.07	0.0824	-3.4	2/25/2010	10:15:23
5	0.0500	1	0.530	0.0397	-3.9	2/25/2010	10:16:37
6	0.00	1	-0.0208	-8.52e-4		2/25/2010	10:17:50

Figure 1: NO3 + NO2

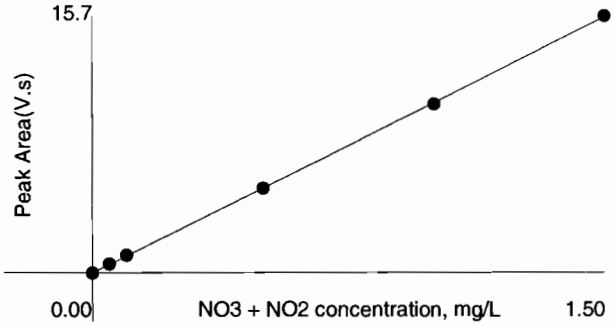

Area = 10.4 * Conc - 0.00931
Conc = 0.0962 * Area + 9.36e-4
Correlation Coefficient (r) = 0.99996

No Weighting

Solids, Total Dissolved

Batch: 958112.0
Analyst:SDS

TDS/TS/VS LogBook

Procedure Code BALDSEP_L
Procedure Description EPA 160.1 Solids, Dissolved
Lab Sop GL-GC-E-001

Sample Type	Sample Id	Lot Id	Nc(mg/L)	Recovery(%)
LCS	1202054642	WTD1254191-01	300	99.667

Sample Type	Sample Id	Rpd(%)
DUP	1202054640	23.021582733813
DUP	1202054641	6.7006654038564
DUP	1202055007	1.5267175572519
DUP	1202055008	3.0211480362538

Sample Id	Sample Type	Original Hsn	Instrument	Run Date	Crucible ID	Aliquot (L)	Crucible Wt(g)	Final Wt Event 1	Final Wt Event 2	Final Wt Event 3	Final Wt Event 4	Result	Units
1202054639	MB		BAL216	26-FEB-2010 11:23	MO R	0.1	65.6293	65.6294	65.6294			1	mg/L
1202054642	LCS		BAL216	26-FEB-2010 11:23	A1	0.1	54.1631	54.1928	54.193			299	mg/L
247817001	SAMPLE		BAL216	26-FEB-2010 11:23	JC	0.1	53.7057	53.7175	53.718			123	mg/L
1202054640	DUP	247817001	BAL216	26-FEB-2010 11:23	RAT	0.1	55.355	55.37	55.3705			155	mg/L
247829001	SAMPLE		BAL216	26-FEB-2010 11:23	GUN	0.1	50.8927	50.908	50.908			153	mg/L
247922004	SAMPLE		BAL216	26-FEB-2010 11:23	WA X	0.1	51.9184	51.9448	51.9444			260	mg/L
1202055007	DUP	247922004	BAL216	26-FEB-2010 11:23	EMS	0.1	52.247	52.2729	52.273			260	mg/L
247929001	SAMPLE		BAL216	26-FEB-2010 11:23	789	0.1	62.9298	62.9361	62.9365			67	mg/L
247929002	SAMPLE		BAL216	26-FEB-2010 11:23	14	0.1	52.986	53.0107	53.0104			244	mg/L
247929003	SAMPLE		BAL216	26-FEB-2010 11:23	LIP	0.1	51.1232	51.1311	51.1316			84	mg/L
247929004	SAMPLE		BAL216	26-FEB-2010 11:23	PUB	0.1	49.1473	49.1556	49.1556			83	mg/L
247957001	SAMPLE		BAL216	26-FEB-2010 11:23	TAC	0.1	53.7737	53.9206	53.9205			1468	mg/L
247966010	SAMPLE		BAL216	26-FEB-2010 11:23	300	0.1	54.6393	59.959	59.959			53197	mg/L
1202054641	DUP	247966010	BAL216	26-FEB-2010 11:23	DOG	0.1	53.9257	58.9006	58.9005			49748	mg/L
248074001	SAMPLE		BAL216	26-FEB-2010 11:23	JAW	0.1	51.8544	51.9192	51.9196			652	mg/L
1202055008	DUP	248074001	BAL216	26-FEB-2010 11:23	RON	0.1	51.8396	51.9066	51.9068			672	mg/L
248074002	SAMPLE		BAL216	26-FEB-2010 11:23	MO B	0.1	57.3498	57.4161	57.416			662	mg/L
248074003	SAMPLE		BAL216	26-FEB-2010 11:23	LAG	0.1	56.5166	56.5762	56.5764			598	mg/L

Comments: **All Weights are in Grams**
A) Result = (Final - Crucible)/Aliquot * 1000
B) Prep Factor = 0.5 / Aliquot

Date: 26-FEB-10 12:59:28
Date: 01-FEB-10 07:20:14
Temperature: 104 C
Temperature: 180 C

Note: Aliquot is used for the determination of the effective MDL and PQL in LIMS

Specific Conductivity

Analytical Logbook

Conductivity and Salinity

Batch ID: 960274.0
Analyst: Travis Tola
Method: EPA 120.1 (gk) SW846 9050A (jj)
Lab SOP: GL-GC-E-009 REV# 9
Instrument: Orion 160 Conductivity Meter

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
CCV	240	Conductivity LCS	WCO091117-06	25	mL
LCS	1202059735	Conductivity LCS	WCO091117-06	25	mL

Sample ID	Run Date	Dilution	Temperature (C)	Conductivity Result (umhos/cm)
1202059735 LCS	03-MAR-2010 16:24:37	1	25.1	1376
247817001 (gk)	03-MAR-2010 16:25:06	1	25.3	121.6
1202059732 DUP (247817001)	03-MAR-2010 16:25:27	1	25.8	121.8
247829001 (gk)	03-MAR-2010 16:25:59	1	25.3	141.9
247922004 (gk)	03-MAR-2010 16:26:42	1	24.8	281
CCV	03-MAR-2010 16:26:56	1	25.2	1381
1202059733 DUP (247922004)	03-MAR-2010 16:27:09	1	24.9	282
248019001 (gk)	03-MAR-2010 16:27:26	1	24.7	239
248023001 (gk)	03-MAR-2010 16:27:45	1	24.4	122.5
248024002 (gk)	03-MAR-2010 16:28:02	1	24.5	658
248024004 (gk)	03-MAR-2010 16:28:24	1	25.7	677
CCV	03-MAR-2010 16:29:37	1	25.4	1386
248044001 (gk)	03-MAR-2010 16:30:17	1	25.8	203
248044003 (gk)	03-MAR-2010 16:30:34	1	25.4	211
248044005 (gk)	03-MAR-2010 16:30:54	1	25	1.18
248044006 (gk)	03-MAR-2010 16:31:13	1	24.6	1.39
248127001 (gk)	03-MAR-2010 16:31:33	1	24.1	283
CCV	03-MAR-2010 16:31:58	1	25.6	1384
248164001 (gk)	03-MAR-2010 16:32:14	1	24.3	143.1
248164003 (gk)	03-MAR-2010 16:32:31	1	24.3	142.1
248168006 (gk)	03-MAR-2010 16:32:51	1	24.5	157.5
248169004 (gk)	03-MAR-2010 16:33:15	1	24.5	400
248362006 (jj)	03-MAR-2010 16:33:35	1	26.1	2.17
CCV	03-MAR-2010 16:33:55	1	25.4	1378
1202059734 DUP (248362006)	03-MAR-2010 16:34:19	1	26	2.18
248362007 (jj)	03-MAR-2010 16:34:33	1	24.3	1.38
248382001 (gk)	03-MAR-2010 16:34:47	1	24.2	135.4
248382004 (gk)	03-MAR-2010 16:35:35	1	24.2	163
CCV	03-MAR-2010 16:35:50	1	25	1372

Comments:

Analytical Logbook

Batch ID: 960274.0
Analyst: Travis Tola
Method: EPA 120.1 (gk) SW846 9050A (jj)
Lab SOP: GL-GC-E-009 REV# 9
Instrument: Orion 160 Conductivity Meter

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
CCV	240	Conductivity LCS	WCO091117-06	25	mL
LCS	1202059735	Conductivity LCS	WCO091117-06	25	mL

Sample ID	Run Date	Dilution	Temperature (C)	Conductivity Result (umhos/cm)

Calibration Information:

Run Date: 03-MAR-10 16:0
Instrument: CON160
Analyst: TXT1

Standard	Observed	Theoretical		%Recovery
WCO100303-07	15.58	14.5	umhos/cm	107.45
WD100303-03	1394	1413	umhos/cm	98.655
WCO100303-04	1785	1900	umhos/cm	93.947
WCO100303-08	23300	24800	umhos/cm	93.952
WCO100303-01	250	250	umhos/cm	100
WCO100303-02	731	750	umhos/cm	97.467

Total Phosphorus

Prep Logbook

Total Phosphorous and Total Kjeldahl Nitrogen Sample Preparation

Batch ID: **958136.0** Verified by: _____

Analyst: Stephanie Jackson

Method: EPA 365.4 Prep

Lab SOP: GL-GC-E-071 REV# 10

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202054693	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054689	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054690	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054717	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054691	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054692	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054718	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202054686 MB	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
1202054693 LCS	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
247817001	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
1202054687 DUP (247817001)	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
1202054689 MS (247817001)	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
1202054691 MSD (247817001)	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
247829001	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
247957001	02-MAR-2010 10:30:00	Surface Water	20	20	1	< 2
248019001	02-MAR-2010 10:30:00	Water	20	20	1	< 2
1202054716 DUP (248019001)	02-MAR-2010 10:30:00	Water	20	20	1	< 2
1202054717 MS (248019001)	02-MAR-2010 10:30:00	Water	20	20	1	< 2
1202054718 MSD (248019001)	02-MAR-2010 10:30:00	Water	20	20	1	< 2
248023001	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248024002	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248024004	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248044001	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248044003	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248044005	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248044006	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248072001	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2

Prep Logbook

Batch ID: **958136.0** Verified by: _____

Analyst: Stephanie Jackson

Method: EPA 365.4 Prep

Lab SOP: GL-GC-E-071 REV# 10

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202054693	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054689	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054690	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054717	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054691	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054692	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054718	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202054688 DUP (248072001)	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
1202054690 MS (248072001)	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
1202054692 MSD (248072001)	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248072002	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248072003	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248298001	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248298002	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248298003	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2

Reagent/Solvent Lot ID	Description	Amount
1269276-C	TKN/PO4 Digestion Solution	4 mL

Comments:

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
3.0 ppm Std.		1	axh3	3/5/2010 8:44:15	OM_3-5-2010_08-40-57
1.0 ppm Std.		1	axh3	3/5/2010 8:45:03	OM_3-5-2010_08-40-57
0.5 ppm Std		1	axh3	3/5/2010 8:45:53	OM_3-5-2010_08-40-57
0.1 ppm Std		1	axh3	3/5/2010 8:46:43	OM_3-5-2010_08-40-57
0.05 ppm Std		1	axh3	3/5/2010 8:47:34	OM_3-5-2010_08-40-57
ICAL-00		1	axh3	3/5/2010 8:48:26	OM_3-5-2010_08-40-57
ICV		1	axh3	3/5/2010 8:50:31	OM_3-5-2010_08-40-57
ICB		1	axh3	3/5/2010 8:52:36	OM_3-5-2010_08-40-57
1202054686	958139	1	axh3	3/5/2010 8:54:40	OM_3-5-2010_08-40-57
1202054693	958139	1	axh3	3/5/2010 8:55:31	OM_3-5-2010_08-40-57
247817001*	958139	1	axh3	3/5/2010 8:56:22	OM_3-5-2010_08-40-57
1202054687	958139	1	axh3	3/5/2010 8:57:12	OM_3-5-2010_08-40-57
1202054689	958139	1	axh3	3/5/2010 8:58:03	OM_3-5-2010_08-40-57
1202054691	958139	1	axh3	3/5/2010 8:58:53	OM_3-5-2010_08-40-57
247829001	958139	1	axh3	3/5/2010 8:59:43	OM_3-5-2010_08-40-57
247957001	958139	1	axh3	3/5/2010 9:00:32	OM_3-5-2010_08-40-57
248019001	958139	1	axh3	3/5/2010 9:01:21	OM_3-5-2010_08-40-57
1202054716	958139	1	axh3	3/5/2010 9:02:09	OM_3-5-2010_08-40-57
CCV		1	axh3	3/5/2010 9:02:59	OM_3-5-2010_08-40-57
CCB		1	axh3	3/5/2010 9:05:03	OM_3-5-2010_08-40-57
1202054717*	958139	1	axh3	3/5/2010 9:07:05	OM_3-5-2010_08-40-57
1202054718*	958139	1	axh3	3/5/2010 9:07:54	OM_3-5-2010_08-40-57
247817001*	958139	1	axh3	3/5/2010 9:08:43	OM_3-5-2010_08-40-57
248023001*	958139	1	axh3	3/5/2010 9:09:33	OM_3-5-2010_08-40-57
248024002*	958139	1	axh3	3/5/2010 9:10:21	OM_3-5-2010_08-40-57
248024004*	958139	1	axh3	3/5/2010 9:11:08	OM_3-5-2010_08-40-57
248044001*	958139	1	axh3	3/5/2010 9:11:58	OM_3-5-2010_08-40-57
248044003*	958139	1	axh3	3/5/2010 9:12:49	OM_3-5-2010_08-40-57
248044005*	958139	1	axh3	3/5/2010 9:13:41	OM_3-5-2010_08-40-57
248044006*	958139	1	axh3	3/5/2010 9:14:32	OM_3-5-2010_08-40-57
CCV		1	axh3	3/5/2010 9:15:22	OM_3-5-2010_08-40-57
CCB		1	axh3	3/5/2010 9:17:26	OM_3-5-2010_08-40-57

Author: axh3 Date : 3/5/2010

Original Run Filename: OM_3-5-2010_08-40-57.OMN created 3/5/2010 8:40:57
Original Run Author's Signature: [axh3]
Current Run Filename: OM_3-5-2010_08-40-57.OMN last modified 3/5/2010 9:18:48
Current Run Author's Signature: [axh3]
Description: Total Phosphorous EPA Method 365.4 GEL SOP: GL-GC-E-103
Detection Wavelength: 880nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TLPOS Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100305-13	1	S2	3.000	14.147	3/5/2010@8:44:15			3.0 ppm Std.
WTR100305-14	1	S3	1.000	4.748	3/5/2010@8:45:03			1.0 ppm Std.
WTR100305-15	1	S4	0.500	2.331	3/5/2010@8:45:53			0.5 ppm Std
WTR100305-16	1	S5	0.100	0.389	3/5/2010@8:46:43			0.1 ppm Std
WTR100305-17	1	S6	0.050	0.183	3/5/2010@8:47:34			0.05 ppm Std
WTR100305-19 0.0	1	S7	0.000	0.034	3/5/2010@8:48:26			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99997 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR100305-18 ICV	1	S8	1.021	4.800	3/5/2010@8:50:31			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.021 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.021 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR100305-19 ICB	1	S7	0.024	0.089	3/5/2010@8:52:36			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	0.024 < 0.050					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.024 > -0.050					
		Message	ICB Passed					
		Action	Continue					
1202054686|958139|MB	1	1	0.027	0.102	3/5/2010@8:54:40			
1202054693||LCS	1	2	1.093	5.145	3/5/2010@8:55:31			
247817001	1	3	0.336	1.563	3/5/2010@8:56:22			
1202054687||DUP	1	4	0.050	0.211	3/5/2010@8:57:12			
1202054689||MS	1	5	1.072	5.045	3/5/2010@8:58:03			
1202054691||MSD	1	6	1.052	4.949	3/5/2010@8:58:53			
247829001	1	7	0.064	0.275	3/5/2010@8:59:43			
247957001	1	8	0.067	0.292	3/5/2010@9:00:32			
248019001	1	9	0.102	0.455	3/5/2010@9:01:21			
1202054716||DUP	1	10	0.096	0.429	3/5/2010@9:02:09			
WTR100305-14 CCV	1	S3	1.002	4.711	3/5/2010@9:02:59			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.002 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.002 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100305-19 CCB	1	S7	0.016	0.049	3/5/2010@9:05:03			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								

		Result:	0.016 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.016 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1202054717||MS	1	11	1.148	5.403	3/5/2010@9:07:05			
1202054718||MSD	1	12	1.158	5.451	3/5/2010@9:07:54			
247817001	1	3	0.061	0.263	3/5/2010@9:08:43			
248023001	1	13	0.066	0.284	3/5/2010@9:09:33			
248024002	1	14	0.057	0.244	3/5/2010@9:10:21			
248024004	1	15	0.060	0.256	3/5/2010@9:11:08			
248044001	1	16	0.067	0.292	3/5/2010@9:11:58			
248044003	1	17	0.046	0.194	3/5/2010@9:12:49			
248044005	1	18	0.029	0.113	3/5/2010@9:13:41			
248044006	1	19	0.022	0.078	3/5/2010@9:14:32			
WTR100305-14 CCV	1	S3	0.971	4.565	3/5/2010@9:15:22			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.971 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.971 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100305-19 CCB	1	S7	0.100	0.447	3/5/2010@9:17:26			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.100 > 0.050					
		Message	CCB Failed					
		Action	Stop Run					
			DQM Test: < - Concentration Limit					
		Result:	0.100 > -0.050					
		Message	CCB Passed					
		Action	Continue					

Channel 1 (TLPOS) : Current View

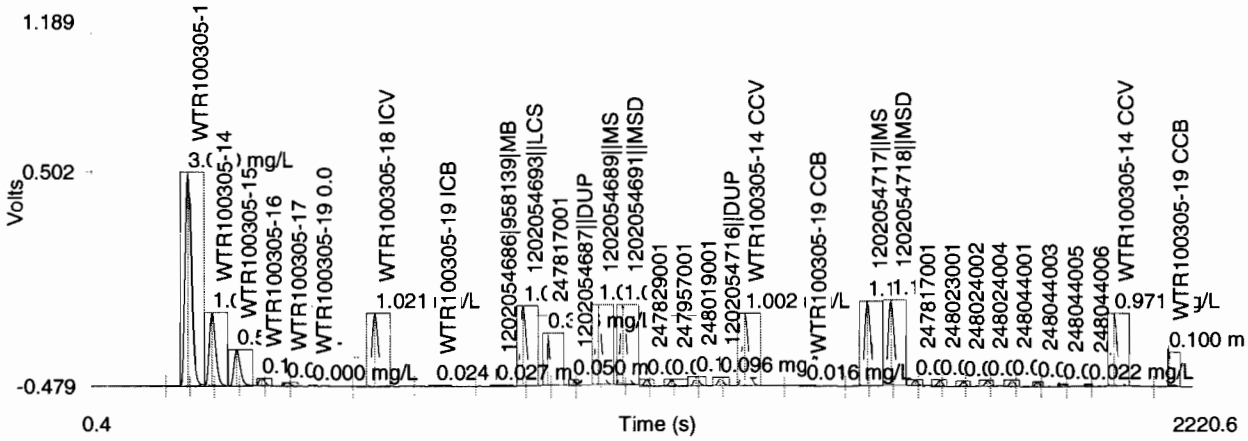

Author: axh3 Date : 3/5/2010

Table 1: TLPOS

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	3.000	1	14.147	0.976	0.1	3/5/2010	8:45:35
2	1.000	1	4.748	0.331	-1.0	3/5/2010	8:46:23
3	0.500	1	2.331	0.164	0.3	3/5/2010	8:47:13
4	0.100	1	0.389	0.032	13.0	3/5/2010	8:48:03
5	0.050	1	0.183	0.015	13.3	3/5/2010	8:48:55
6	0.000	1	0.034	0.004		3/5/2010	8:49:47

Figure 1: TLPOS

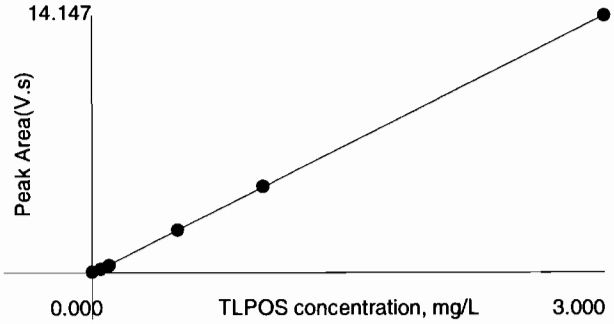

Area = 4.728 * Conc - 0.025
Conc = 0.211 * Area + 0.005
Correlation Coefficient (r) = 0.99997

No Weighting

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axh3	3/5/2010 9:40:00	OM_3-5-2010_09-38-31
CCB		1	axh3	3/5/2010 9:42:04	OM_3-5-2010_09-38-31
1202054717	958139	1	axh3	3/5/2010 9:44:07	OM_3-5-2010_09-38-31
1202054718	958139	1	axh3	3/5/2010 9:44:55	OM_3-5-2010_09-38-31
247817001	958139	1	axh3	3/5/2010 9:45:45	OM_3-5-2010_09-38-31
248023001	958139	1	axh3	3/5/2010 9:46:34	OM_3-5-2010_09-38-31
248024002	958139	1	axh3	3/5/2010 9:47:22	OM_3-5-2010_09-38-31
248024004	958139	1	axh3	3/5/2010 9:48:09	OM_3-5-2010_09-38-31
248044001	958139	1	axh3	3/5/2010 9:48:59	OM_3-5-2010_09-38-31
248044003*	958139	1	axh3	3/5/2010 9:49:50	OM_3-5-2010_09-38-31
248044005	958139	1	axh3	3/5/2010 9:50:41	OM_3-5-2010_09-38-31
248044006	958139	1	axh3	3/5/2010 9:51:32	OM_3-5-2010_09-38-31
CCV		1	axh3	3/5/2010 9:52:23	OM_3-5-2010_09-38-31
CCB		1	axh3	3/5/2010 9:54:27	OM_3-5-2010_09-38-31
248072001	958139	1	axh3	3/5/2010 9:56:31	OM_3-5-2010_09-38-31
1202054688	958139	1	axh3	3/5/2010 9:57:22	OM_3-5-2010_09-38-31
1202054690	958139	1	axh3	3/5/2010 9:58:12	OM_3-5-2010_09-38-31
1202054692	958139	1	axh3	3/5/2010 9:59:01	OM_3-5-2010_09-38-31
248072002	958139	1	axh3	3/5/2010 9:59:51	OM_3-5-2010_09-38-31
248072003	958139	1	axh3	3/5/2010 10:00:40	OM_3-5-2010_09-38-31
248298001	958139	1	axh3	3/5/2010 10:01:29	OM_3-5-2010_09-38-31
248298002	958139	1	axh3	3/5/2010 10:02:18	OM_3-5-2010_09-38-31
248298003	958139	1	axh3	3/5/2010 10:03:07	OM_3-5-2010_09-38-31
248044003	958139	1	axh3	3/5/2010 10:03:56	OM_3-5-2010_09-38-31
CCV		1	axh3	3/5/2010 10:04:47	OM_3-5-2010_09-38-31
CCB		1	axh3	3/5/2010 10:06:51	OM_3-5-2010_09-38-31
1202057080*	959198	1	axh3	3/5/2010 10:08:53	OM_3-5-2010_09-38-31
1202057087*	959198	1	axh3	3/5/2010 10:09:41	OM_3-5-2010_09-38-31
248005001*	959198	1	axh3	3/5/2010 10:10:31	OM_3-5-2010_09-38-31
248005002*	959198	1	axh3	3/5/2010 10:11:23	OM_3-5-2010_09-38-31
248127001*	959198	1	axh3	3/5/2010 10:12:14	OM_3-5-2010_09-38-31
248164001*	959198	1	axh3	3/5/2010 10:13:03	OM_3-5-2010_09-38-31
1202057080	959198	1	axh3	3/5/2010 10:13:53	OM_3-5-2010_09-38-31
1202057087	959198	1	axh3	3/5/2010 10:14:40	OM_3-5-2010_09-38-31
248005001	959198	1	axh3	3/5/2010 10:15:30	OM_3-5-2010_09-38-31
248005002	959198	1	axh3	3/5/2010 10:16:22	OM_3-5-2010_09-38-31
CCV		1	axh3	3/5/2010 10:17:12	OM_3-5-2010_09-38-31
CCB		1	axh3	3/5/2010 10:19:17	OM_3-5-2010_09-38-31
248127001*	959198	1	axh3	3/5/2010 10:21:20	OM_3-5-2010_09-38-31
248164001*	959198	1	axh3	3/5/2010 10:22:11	OM_3-5-2010_09-38-31
1202057082*	959198	1	axh3	3/5/2010 10:23:00	OM_3-5-2010_09-38-31
1202057084*	959198	1	axh3	3/5/2010 10:23:50	OM_3-5-2010_09-38-31
1202057086*	959198	1	axh3	3/5/2010 10:24:39	OM_3-5-2010_09-38-31
248321001*	959198	1	axh3	3/5/2010 10:25:27	OM_3-5-2010_09-38-31
1202059637*	959198	1	axh3	3/5/2010 10:26:16	OM_3-5-2010_09-38-31
1202059638*	959198	1	axh3	3/5/2010 10:27:04	OM_3-5-2010_09-38-31
1202059639*	959198	1	axh3	3/5/2010 10:27:54	OM_3-5-2010_09-38-31
248547001*	959198	1	axh3	3/5/2010 10:28:45	OM_3-5-2010_09-38-31
CCV		1	axh3	3/5/2010 10:29:35	OM_3-5-2010_09-38-31
CCB		1	axh3	3/5/2010 10:31:39	OM_3-5-2010_09-38-31

Author: axh3 Date : 3/5/2010

Original Run Filename: OM_3-5-2010_09-38-31.OMN created 3/5/2010 9:38:31
Original Run Author's Signature: [axh3]
Current Run Filename: OM_3-5-2010_09-38-31.OMN last modified 3/5/2010 10:33:03
Current Run Author's Signature: [axh3]
Description: Total Phosphorous EPA Method 365.4 GEL SOP: GL-GC-E-103
Detection Wavelength: 880nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TLPOS Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100305-14 CCV	1	S3	0.987	4.641	3/5/2010@9:40:00			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.987 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.987 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100305-19 CCB	1	S7	0.017	0.056	3/5/2010@9:42:04			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.017 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.017 > -0.050					
		Message	CCB Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
1202054717|958139|MS	1	11	1.137	5.350	3/5/2010@9:44:07			
1202054718||MSD	1	12	1.154	5.429	3/5/2010@9:44:55			
247817001	1	3	0.060	0.260	3/5/2010@9:45:45			
248023001	1	13	0.067	0.291	3/5/2010@9:46:34			
248024002	1	14	0.058	0.248	3/5/2010@9:47:22			
248024004	1	15	0.062	0.268	3/5/2010@9:48:09			
248044001	1	16	0.061	0.261	3/5/2010@9:48:59			
248044003	1	17	0.281	1.304	3/5/2010@9:49:50			
248044005	1	18	0.028	0.107	3/5/2010@9:50:41			
248044006	1	19	0.005	-6.549e-5	3/5/2010@9:51:32			
WTR100305-14 CCV	1	S3	0.966	4.542	3/5/2010@9:52:23			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.966 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.966 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100305-19 CCB	1	S7	0.017	0.057	3/5/2010@9:54:27			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.017 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.017 > -0.050					
		Message	CCB Passed					
		Action	Continue					
248072001	1	20	0.199	0.918	3/5/2010@9:56:31			
1202054688||DUP	1	21	0.162	0.741	3/5/2010@9:57:22			
1202054690||MS	1	22	1.201	5.654	3/5/2010@9:58:12			
1202054692||MSD	1	23	1.136	5.344	3/5/2010@9:59:01			

248072002	1	24	0.050	0.212	3/5/2010@9:59:51			
248072003	1	25	0.038	0.156	3/5/2010@10:00:40			
248298001	1	26	0.042	0.174	3/5/2010@10:01:29			
248298002	1	27	0.035	0.140	3/5/2010@10:02:18			
248298003	1	28	0.037	0.150	3/5/2010@10:03:07			
248044003	1	17	0.062	0.267	3/5/2010@10:03:56			
WTR100305-14 CCV	1	S3	0.961	4.519	3/5/2010@10:04:47			CCV
	Known Conc:		1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.961 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.961 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100305-19 CCB	1	S7	-0.008	-0.064	3/5/2010@10:06:51			CCB
	Known Conc:		0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.008 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.008 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1202057080|959198|MB	1	29	0.018	0.058	3/5/2010@10:08:53			
1202057087||LCS	1	30	0.215	0.991	3/5/2010@10:09:41			
248005001	1	31	0.042	0.172	3/5/2010@10:10:31			
248005002	1	32	0.025	0.094	3/5/2010@10:11:23			
248127001	1	37	0.399	1.861	3/5/2010@10:12:14			
248164001	1	38	0.080	0.352	3/5/2010@10:13:03			
1202057080|959198|MB	1	29	0.018	0.058	3/5/2010@10:13:53			
1202057087||LCS	1	30	1.089	5.126	3/5/2010@10:14:40			
248005001	1	31	0.044	0.183	3/5/2010@10:15:30			
248005002	1	32	0.026	0.096	3/5/2010@10:16:22			
WTR100305-14 CCV	1	S3	0.980	4.607	3/5/2010@10:17:12			CCV
	Known Conc:		1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.980 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.980 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100305-19 CCB	1	S7	0.023	0.083	3/5/2010@10:19:17			CCB
	Known Conc:		0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.023 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.023 > -0.050					
		Message	CCB Passed					
		Action	Continue					
248127001	1	37	0.411	1.920	3/5/2010@10:21:20			
248164001	1	38	0.077	0.338	3/5/2010@10:22:11			
1202057082||DUP	1	39	0.152	0.696	3/5/2010@10:23:00			
1202057084||MS	1	40	0.681	3.194	3/5/2010@10:23:50			
1202057086||MSD	1	41	0.926	4.355	3/5/2010@10:24:39			
248321001	1	43	0.898	4.220	3/5/2010@10:25:27			
1202059637||DUP	1	44	0.433	2.023	3/5/2010@10:26:16			
1202059638||MS	1	45	1.013	4.765	3/5/2010@10:27:04			
1202059639||MSD	1	46	1.129	5.312	3/5/2010@10:27:54			
248547001	1	54	0.070	0.305	3/5/2010@10:28:45			
WTR100305-14 CCV	1	S3	1.042	4.901	3/5/2010@10:29:35			CCV
	Known Conc:		1.000					

Author: axh3 Date : 3/5/2010

DQM Test: > + Concentration Limit								
Result:			1.042 < 1.104					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			1.042 > 0.895					
Message			CCV Passed					
Action			Continue					
WTR100305-19 CCB	1	S7	-0.412	-1.975	3/5/2010@10:31:39			CCB
Known Conc:			0.000					
DQM Test: > + Concentration Limit								
Result:			-0.412 < 0.050					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.412 < -0.050					
Message			CCB Failed					
Action			Stop Run					

Channel 1 (TLPOS) : Current View

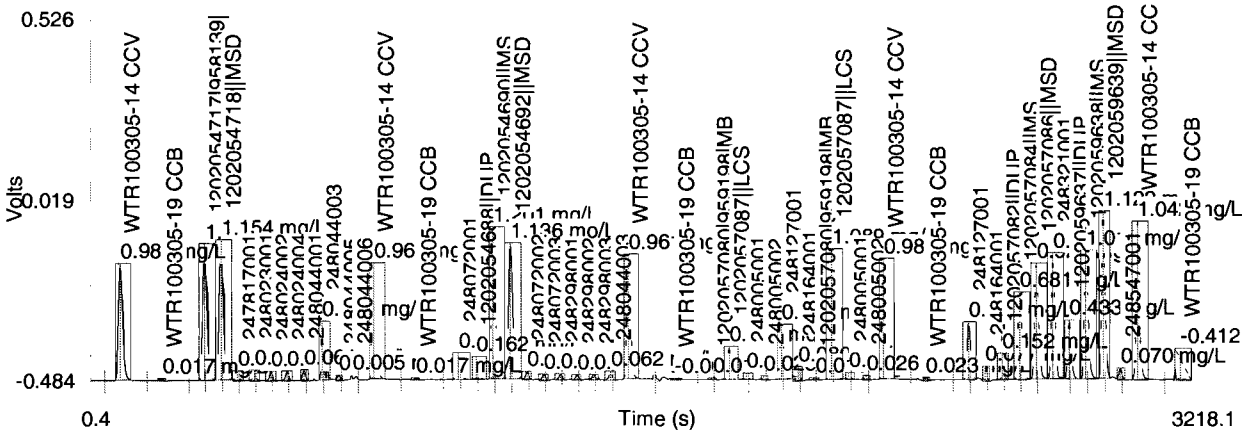

Table 1: TLPOS

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	3.000	1	14.147	0.976	0.1	3/5/2010	8:45:35
2	1.000	1	4.748	0.331	-1.0	3/5/2010	8:46:23
3	0.500	1	2.331	0.164	0.3	3/5/2010	8:47:13
4	0.100	1	0.389	0.032	13.0	3/5/2010	8:48:03
5	0.050	1	0.183	0.015	13.3	3/5/2010	8:48:55
6	0.000	1	0.034	0.004		3/5/2010	8:49:47

Author: axh3 Date : 3/5/2010

Figure 1: TLPOS

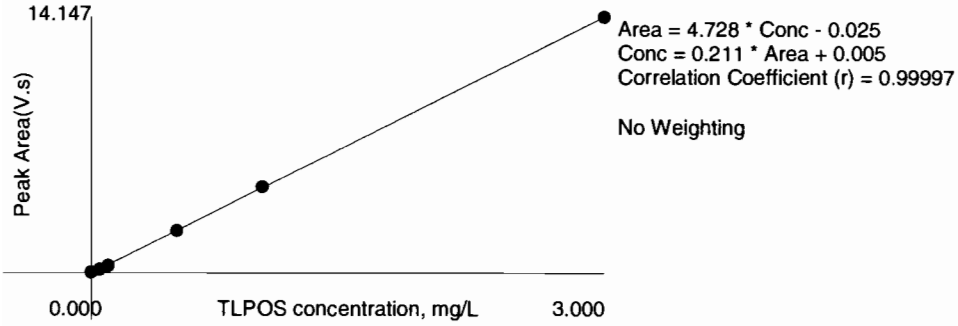

pH

pH / Corrosivity LogBook

Analyst: LXA1
Batch: 957681
Lab SOP: GL-GC-E-008 REV# 17
Description: pH
Method: SW846 9040B/9040C

Type	Sample Id	Serial Number	Description
CCV	240	IMM091029-PH	PH 7 BUFFER FOR PH
LCS	1202053583	IMM100209-01	LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parmname	Initial Wt()	Final Vol()	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
1202053583 LCS		Misc Liquid			25-FEB-10 11:50	pH			7.02	20.3'C	7	100.286	
1202053583 LCS		Misc Liquid			25-FEB-10 11:50	pH 2			7.02	20.3'C	7	100.286	
247409001		Misc Liquid			25-FEB-10 11:50	pH			13.73	14.2'C			
247409001		Misc Liquid			25-FEB-10 11:50	pH 2			13.74	14.2'C			
247531001		Waste Water			25-FEB-10 11:50	pH			9.61	12.6'C			
247531001		Waste Water			25-FEB-10 11:50	pH 2			9.61	12.6'C			
247750004		Misc Liquid			25-FEB-10 11:50	pH			3.44	15.0'C			
247750004		Misc Liquid			25-FEB-10 11:50	pH 2			3.44	15.0'C			
247817001		Ground Water			25-FEB-10 11:56	pH			7.92	12.1'C			
247817001		Ground Water			25-FEB-10 11:56	pH 2			7.91	12.1'C			
CCV					25-FEB-10 11:59	pH			7.03	20.2'C	7	100.429	
CCV					25-FEB-10 11:59	pH 2			7.03	20.2'C	7	100.429	
1202053582 DUP	247817001	Ground Water			25-FEB-10 12:03	pH			7.81	14.2'C			1.399
1202053582 DUP	247817001	Ground Water			25-FEB-10 12:03	pH 2			7.81	14.2'C			1.272
247819001		Misc Liquid			25-FEB-10 12:10	pH			8.2	15.7'C			
247819001		Misc Liquid			25-FEB-10 12:10	pH 2			8.19	15.7'C			
247829001		Ground Water			25-FEB-10 12:11	pH			8.02	15.0'C			
247829001		Ground Water			25-FEB-10 12:11	pH 2			8.01	15.0'C			
247862001		Misc Liquid			25-FEB-10 12:17	pH			0.06	17.7'C			
247862001		Misc Liquid			25-FEB-10 12:17	pH 2			0.08	18.0'C			
1202053580 DUP	247862001	Misc Liquid			25-FEB-10 12:23	pH			0.03	18.3'C			66.667
1202053580 DUP	247862001	Misc Liquid			25-FEB-10 12:23	pH 2			0.02	18.6'C			120

pH / Corrosivity LogBook

Analyst: LXA1
Batch: 957681
Lab SOP: GL-GC-E-008 REV# 17
Description: pH
Method: SW846 9040C

Type	Sample Id	Serial Number	Description
CCV	240	IMM091029-PH	PH 7 BUFFER FOR PH
LCS	1202053583	IMM100209-01	LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parmname	Initial Wt()	Final Vol()	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
CCV					25-FEB-10 12:25	pH			7.02	18.9'C	7	100.286	
CCV					25-FEB-10 12:25	pH 2			7.02	18.9'C	7	100.286	
247922004		Water			25-FEB-10 12:45	pH			7.57	17.1'C			
247922004		Water			25-FEB-10 12:45	pH 2			7.57	17.1'C			
1202053581 DUP	247922004	Water			25-FEB-10 12:48	pH			7.61	16.9'C			.527
1202053581 DUP	247922004	Water			25-FEB-10 12:48	pH 2			7.62	16.9'C			.658
247949001		Surface Water			25-FEB-10 12:52	pH			7.64	17.9'C			
247949001		Surface Water			25-FEB-10 12:52	pH 2			7.64	17.9'C			
CCV					25-FEB-10 12:56	pH			7.02	19.6'C	7	100.286	
CCV					25-FEB-10 12:56	pH 2			7.02	19.6'C	7	100.286	

Calibration Information:
Run Date: 25-FEB-10 08:32
Instrument: PHX742
Analyst: LXA1

	Standard	Observed	Theoretical		C	%Recovery
08:32	IMM100225-PH1	4.01	4	SU	21.2	100.25
08:32	IMM100225-PH2	7.01	7	SU	21.2	100.14
08:32	UPH100225-PH3	10.04	10	SU	21.2	100.4
08:32	UPH100225-PH4	2.09	2	SU	21.2	104.5
08:32	UPH100225-PH5	12.08	12	SU	21.2	100.67
08:32	IMM100225-PH6	7.03	7	SU	21.2	100.43

Comments:

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
25-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 353.2	Liquid	ESHL, HNLK, LANL
Batch ID:	**Sample Numbers:**		
957559	See Below		

Potentially affected work order(s)(SDG): 247780(10-1976),247817(10-2001),247829(10-2006),247913(10-2019),247949

Application Issues:

Failed Recovery for MS/PS

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for PS: QC 1202053245PS	1. The spike recovery falls outside of the GEL acceptance limits but within the client specified limits.

Originator's Name:

Aubrey Kingsbury 25-FEB-10

Data Validator/Group Leader:

Elzbieta Szulc 02-MAR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
26-FEB-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 350.1	Liquid	ALBR, ESHL, SCEG, SNDC,
Batch ID:	**Sample Numbers:**		
957556	See Below		

Potentially affected work order(s)(SDG): 247817(10-2001),247829(10-2006),247867,247929,247936,247953

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/MSD: QC 1202053230MS,1202053232MSD 2. Failed Recovery for MS/MSD: QC 1202053229MS,1202053231MSD	1. The matrix spike was outside of the required acceptance limits due to matrix interference. The matrix spike duplicate verified the result with a passing RPD. 2. The spike and spike duplicate recoveries fall outside of the GEL acceptance limits but within the client specified limits.

Originator's Name:

Aubrey Kingsbury 26-FEB-10

Data Validator/Group Leader:

Elzbieta Szulc 01-MAR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
03-MAR-10	Industrial	Specifications	Process
Instrument Type: BALANCE	**Test / Method:** EPA 160.1	**Matrix Type:** Liquid	**Client Code:** BJCO, ESHL, LANL, SCEG,
Batch ID: 958112	**Sample Numbers:** See Below		

Potentially affected work order(s)(SDG): 247817(10-2001),247829(10-2006),247922(10-2022),247929,247957,247966,248074(10-2050)

Application Issues:

Failed RPD for DUP

Specification and Requirements Exception Description:	DER Disposition:
1. Failed RPD for DUP: QC 1202054640DUP	1. The RPD between the sample and the duplicate falls outside the normal acceptance limits because of the heterogeneous matrix of the sample.

Originator's Name:

Shannon Hoffman 03-MAR-10

Data Validator/Group Leader:

Elzbieta Szulc 03-MAR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
13-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
IC	EPA 300.0	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
963224	See Below		

Potentially affected work order(s)(SDG): 247261(10-1886),247431(10-1927),247817(10-2001),247829(10-2006),248024(10-2046)

Application Issues:

Sample Analyzed out of Holding

Specification and Requirements Exception Description:	DER Disposition:
1. Sample Analyzed out of Holding: 247261004 QC 1202066400DUP, QC 1202066401PS	1. Sample and QC were initially analyzed within holding; however, the holding time had expired prior to reprep/reanalysis due to QC failures:

Originator's Name:

Greg Milton 18-MAR-10

Data Validator/Group Leader:

Julia Hamilton 18-MAR-10

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2006

Method/Analysis Information

Product:	**Alphaspec Am241 Liquid**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Analytical Batch Number:	957019

Sample ID	Client ID
247829002	CAPA-10-13498
1202052006	Method Blank (MB)
1202052007	247829002(CAPA-10-13498) Sample Duplicate (DUP)
1202052008	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202052006 (MB) and 1202052008 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 247829002 (CAPA-10-13498). The QC was from LANL work order 247829.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 247829002 (CAPA-10-13498) was recounted due to a peak shift.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec Pu, Liquid**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	957023

Sample ID	Client ID
247829002	CAPA-10-13498
1202052015	Method Blank (MB)
1202052016	247829002(CAPA-10-13498) Sample Duplicate (DUP)
1202052017	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202052015 (MB) and 1202052017 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 247829002 (CAPA-10-13498). The QC was from LANL work order 247829.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 1202052016 (CAPA-10-13498) was recounted due to high MDA.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec U, Liquid**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Analytical Batch Number:	957025

Sample ID	Client ID
247829002	CAPA-10-13498
1202052018	Method Blank (MB)
1202052019	247829002(CAPA-10-13498) Sample Duplicate (DUP)
1202052020	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202052018 (MB) and 1202052020 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 247829002 (CAPA-10-13498). The QC was from LANL work order 247829.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U-233/234 and U-235/236 blank results are greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The U-233/234, U-235/236, and U-238 blank results are greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Gammaspec, Gamma, Liquid**
Analytical Method:	EPA 901.1
Analytical Batch Number:	956976

Sample ID	Client ID
247829002	CAPA-10-13498
1202051903	Method Blank (MB)
1202051904	247829002(CAPA-10-13498) Sample Duplicate (DUP)
1202051905	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 19.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in March 2009, June 2009 and July 2009.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 247829002 (CAPA-10-13498). The QC was from LANL work order 247829.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The method blank, 1202051903 (MB), results for Np-237 and Gross Gamma are greater than 1.65 times the CSU, but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The method blank, 1202051903 (MB), result for Np-237 is greater than the decision level, but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Gross A/B, liquid**
Analytical Method:	EPA 900.0
Analytical Batch Number:	959739

Sample ID	Client ID
247829002	CAPA-10-13498
1202058390	Method Blank (MB)
1202058391	248020003(CAPA-10-13085) Sample Duplicate (DUP)
1202058392	248020003(CAPA-10-13085) Matrix Spike (MS)
1202058393	248020003(CAPA-10-13085) Matrix Spike Duplicate (MSD)
1202058394	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-001 REV# 12.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in July 2009. The discrimination settings are calibrated in beta discriminating mode to reduce beta to alpha crosstalk.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202058390 (MB) and 1202058394 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248020003 (CAPA-10-13085). The QC was from LANL work order 248020.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 1202058391 (CAPA-10-13085) was recounted due to a negative result greater than three times the error. Second count being reported.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Gross Alpha/Beta Preparation Information

High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating, especially to a dull red heat. For this sample set, the prepared planchet was counted for beta activity before being flamed. After flaming, the planchet was counted for alpha activity.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Sr90, liquid**
Analytical Method:	EPA 905.0 Modified
Analytical Batch Number:	959738

Sample ID	Client ID
247829002	CAPA-10-13498
1202058386	Method Blank (MB)
1202058387	248024003(CAPA-10-12873) Sample Duplicate (DUP)
1202058388	248024003(CAPA-10-12873) Matrix Spike (MS)
1202058389	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in February 2010.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202058386 (MB) and 1202058389 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248024003 (CAPA-10-12873). The QC was from LANL work order 248024.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level

The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: Pamela Wells 3/13/10

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2006 GEL Work Order: 247829

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: March 11, 2010

Client Sample ID:	CAPA-10-13498	Project:	ESHL01000
Sample ID:	247829002	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	22-FEB-10		
Receive Date:	23-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
Alphaspec Am241 Liquid "As Received"												
Americium-241	U	-0.00285	0.0296	+/-0.00232	0.050	pCi/L		HAKB	03/10/10	1856	957019	1
Alphaspec Pu, Liquid "As Received"												
Plutonium-238	U	0.00	0.0444	+/-0.00272	0.050	pCi/L		HAKB	03/09/10	0801	957023	3
Plutonium-239/240	U	0.00348	0.031	+/-0.00431	0.050	pCi/L						
Alphaspec U, Liquid "As Received"												
Uranium-234		0.392	0.0351	+/-0.0394	1.00	pCi/L		HAKB	03/05/10	1223	957025	4
Uranium-235/236	U	0.0171	0.0276	+/-0.00657	1.00	pCi/L						
Uranium-238		0.274	0.0248	+/-0.0304	0.500	pCi/L						
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Liquid "As Received"												
Americium-241	U	-25.6	18.3	+/-6.15	25.0	pCi/L		KXG3	03/04/10	2220	956976	5
Cesium-137	U	-0.115	3.44	+/-1.06	8.00	pCi/L						
Cobalt-60	U	0.137	3.67	+/-1.10	8.00	pCi/L						
Gross Gamma		32.8	26.3	+/-9.38	120	pCi/L						
Neptunium-237	U	0.230	26.8	+/-8.18	10.0	pCi/L						
Potassium-40	U	-10	42.9	+/-14.0	10.0	pCi/L						
Sodium-22	U	-0.983	3.74	+/-1.17	10.0	pCi/L						
Rad Gas Flow Proportional Counting												
GFPC, Gross A/B, liquid "As Received"												
Beta		3.47	2.44	+/-0.879	3.00	pCi/L		DXF3	03/05/10	0917	959739	6
Alpha	U	1.43	1.93	+/-0.719	3.00	pCi/L		DXF3	03/06/10	0355	959739	7
GFPC, Sr90, liquid "As Received"												
Strontium-90	U	0.0618	0.472	+/-0.132	0.500	pCi/L		JXR1	03/04/10	1515	959738	8

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	DOE EML HASL-300, U-02-RC Modified

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: March 11, 2010

Client Sample ID: CAPA-10-13498
Sample ID: 247829002

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
5	EPA 901.1											
6	EPA 900.0											
7	EPA 900.0											
8	EPA 905.0 Modified											

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	Alphaspec Am241 Liquid "As Rec	88.5	(50%-105%)
Plutonium-242 Tracer	Alphaspec Pu, Liquid "As Receive	85.5	(50%-105%)
Uranium-232 Tracer	Alphaspec U, Liquid "As Received	81.9	(50%-105%)
Strontium Carrier	GFPC, Sr90, liquid "As Received"	68.3	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit
NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: March 11, 2010

Client Sample ID: CAPA-10-13498
Sample ID: 247829002

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: March 11, 2010

Client : **Los Alamos National Laboratory**
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico
Contact: **Ms. Joylene Valdez**

Workorder: **247829**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 957019										
QC1202052007 247829002 DUP										
Americium-241	U	-0.00285	U	-0.000151	pCi/L	0.000592		(0-1)	HAKB	03/08/1021:20
	TPU:	+/-0.00232		+/-0.00271						
	Yield:	88.5		79.5						
QC1202052008 LCS										
Americium-241	2.84			2.64	pCi/L		93	(80%-120%)		
	TPU:			+/-0.182						
	Yield:			94.3						
QC1202052006 MB										
Americium-241			U	-0.00336	pCi/L					03/08/1009:38
	TPU:			+/-0.00372						
	Yield:			86.7						
Batch 957023										
QC1202052016 247829002 DUP										
Plutonium-238	U	0.00	U	0.00753	pCi/L	0.531		(0-1)	HAKB	03/10/1016:36
	TPU:	+/-0.00272		+/-0.00437						
	Yield:	85.5		69.5						
Plutonium-239/240	U	0.00348	U	0.00	pCi/L	0.255		(0-1)		
	TPU:	+/-0.00431		+/-0.00251						
	Yield:	85.5		69.5						
QC1202052017 LCS										
Plutonium-238			U	0.00827	pCi/L			(80%-120%)		03/09/1008:01
	TPU:			+/-0.00416						
	Yield:			95.4						
Plutonium-239/240	2.27			2.29	pCi/L		101	(80%-120%)		
	TPU:			+/-0.142						
	Yield:			95.4						
QC1202052015 MB										
Plutonium-238			U	-0.0018	pCi/L					
	TPU:			+/-0.00309						
	Yield:			76.4						
Plutonium-239/240			U	0.0032	pCi/L					
	TPU:			+/-0.00398						
	Yield:			76.4						

QC Summary

Workorder: 247829

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 957025										
QC1202052019 247829002 DUP										
Uranium-234		0.392		0.387	pCi/L	0.0293		(0-1)	HAKB	03/08/1007:05
	TPU:	+/-0.0394		+/-0.0538						
	Yield:	81.9		87.7						
Uranium-235/236	U	0.0171	U	0.0125	pCi/L	0.124		(0-1)		
	TPU:	+/-0.00657		+/-0.0118						
	Yield:	81.9		87.7						
Uranium-238		0.274		0.155	pCi/L	0.971		(0-1)		
	TPU:	+/-0.0304		+/-0.0309						
	Yield:	81.9		87.7						
QC1202052020 LCS										
Uranium-234				2.13	pCi/L					03/08/1007:05
	TPU:			+/-0.185						
	Yield:			95.9						
Uranium-235/236				0.126	pCi/L					
	TPU:			+/-0.0257						
	Yield:			95.9						
Uranium-238	2.59			2.28	pCi/L		87.7	(80%-120%)		
	TPU:			+/-0.196						
	Yield:			95.9						
QC1202052018 MB										
Uranium-234			U	0.0265	pCi/L					03/05/1012:23
	TPU:			+/-0.00778						
	Yield:			91.0						
Uranium-235/236			U	0.0117	pCi/L					
	TPU:			+/-0.0056						
	Yield:			91.0						
Uranium-238			U	0.00792	pCi/L					
	TPU:			+/-0.00528						
	Yield:			91.0						
Rad Gamma Spec										
Batch 956976										
QC1202051904 247829002 DUP										
Americium-241	U	-25.6	U	-20.6	pCi/L	0.155		(0-1)	KXG3	03/05/1016:47
	TPU:	+/-6.15		+/-9.83						
Cesium-137	U	-0.115	U	1.56	pCi/L	0.299		(0-1)		
	TPU:	+/-1.06		+/-1.74						

QC Summary

Workorder: 247829

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 956976										
Cobalt-60	U	0.137	U	2.26	pCi/L	0.341		(0-1)		
	TPU:	+/-1.10		+/-2.01						
Gross Gamma		32.8		31.7	pCi/L	0.0298		(0-1)		
	TPU:	+/-9.38		+/-8.76						
Neptunium-237	U	0.230	U	-28	pCi/L	0.612		(0-1)		
	TPU:	+/-8.18		+/-14.9						
Potassium-40	U	-10	U	-43.2	pCi/L	0.471		(0-1)		
	TPU:	+/-14.0		+/-21.2						
Sodium-22	U	-0.983	U	-0.245	pCi/L	0.133		(0-1)		
	TPU:	+/-1.17		+/-1.61						
QC1202051905 LCS										
Americium-241	1240			1490	pCi/L		121	(75%-125%)		03/05/1016:48
	TPU:			+/-96.3						
Cesium-137	431			452	pCi/L		105	(75%-125%)		
	TPU:			+/-18.5						
Cobalt-60	493			505	pCi/L		102	(75%-125%)		
	TPU:			+/-25.4						
Gross Gamma	2180			2050	pCi/L		94.2	(75%-125%)		
	TPU:			+/-182						
Neptunium-237				820	pCi/L					
	TPU:			+/-102						
Potassium-40			U	20.5	pCi/L					
	TPU:			+/-38.8						
Sodium-22			U	-1.21	pCi/L					
	TPU:			+/-2.28						
QC1202051903 MB										
Americium-241			U	0.417	pCi/L					03/04/1022:20
	TPU:			+/-2.56						
Cesium-137			U	0.642	pCi/L					
	TPU:			+/-0.698						
Cobalt-60			U	0.337	pCi/L					
	TPU:			+/-0.705						
Gross Gamma			U	24.6	pCi/L					

QC Summary

Workorder: 247829

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 956976										
	TPU:			+/-11.7						
Neptunium-237			U	11.0	pCi/L					
	TPU:			+/-4.57						
Potassium-40			U	2.05	pCi/L					
	TPU:			+/-11.6						
Sodium-22			U	0.0811	pCi/L					
	TPU:			+/-0.632						
Rad Gas Flow										
Batch 959738										
QC1202058387 248024003 DUP										
Strontium-90	U	0.0327	U	0.329	pCi/L	0.521		(0-1)	JXR1	03/04/1015:15
	TPU:	+/-0.134		+/-0.151						
	Yield:	78.4		86.3						
QC1202058389 LCS										
Strontium-90	22.2			19.3	pCi/L		86.9	(80%-120%)		03/04/1015:15
	TPU:			+/-1.66						
	Yield:			85.2						
QC1202058386 MB										
Strontium-90			U	0.0999	pCi/L					03/04/1018:04
	TPU:			+/-0.0688						
	Yield:			78.4						
QC1202058388 248024003 MS										
Strontium-90	222 U	0.0327		234	pCi/L		105	(75%-125%)		03/04/1016:38
	TPU:	+/-0.134		+/-19.9						
	Yield:	78.4		82.9						
Batch 959739										
QC1202058391 248020003 DUP										
Alpha	U	0.261	U	-0.387	pCi/L	0.373		(0-1)	DXF3	03/06/1015:27
	TPU:	+/-0.393		+/-0.476						
Beta	U	-0.762	U	-0.705	pCi/L	0.0179		(0-1)		03/05/1009:17
	TPU:	+/-0.739		+/-0.832						
QC1202058394 LCS										
Alpha	12.6			12.2	pCi/L		97	(80%-120%)		03/06/1004:00
	TPU:			+/-1.45						
Beta	38.5			42.5	pCi/L		111	(80%-120%)		03/05/1009:22
	TPU:			+/-3.72						
QC1202058390 MB										

QC Summary

Workorder: 247829

Parmname	NOM		Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gas Flow											
Batch 959739											
Alpha				U	0.0674	pCi/L					
		TPU:			+/-0.0742						
Beta				U	-0.242	pCi/L					03/05/1009:44
		TPU:			+/-0.117						
QC1202058392 248020003 MS											
Alpha	252	U	0.261		304	pCi/L		121	(75%-125%)		03/06/1004:00
		TPU:	+/-0.393		+/-30.0						
Beta	769	U	-0.762		791	pCi/L		103	(75%-125%)		03/05/1009:22
		TPU:	+/-0.739		+/-68.5						
QC1202058393 248020003 MSD											
Alpha	252	U	0.261		310	pCi/L	0.045	123	(0-1)		03/06/1004:00
		TPU:	+/-0.393		+/-35.7						
Beta	769	U	-0.762		824	pCi/L	0.119	107	(0-1)		03/05/1009:22
		TPU:	+/-0.739		+/-71.6						

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

QC Summary

Workorder: **247829**

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date	Time

P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
Ul	Gamma Spectroscopy--Uncertain identification
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 957019. Product: Am Date: 3/11/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 3/11/10

Secondary Review Performed By: [signature] 3/11/10

3/13

Am/Cm Que Sheet

24-FEB-10

Batch #: 957019 Analyst: HAKB First Client Due Date: 13-MAR-10 Internal Due Date02-MAR-10 Comments:

Tracer(s): Am243/Cm244 Tracer Code: 445-96-2-55 Expiration Date: 5/11/10 Vol: 0.1

LCS Isotope(s): Am241/Cm244 LCS Code(s): 0533-0 / NA Expiration Date: 9/10/10 / NA Vol(s): 0.1 / NA

Spike Isotope(s): Am241/Cm244 Spike Code(s): NA / NA Expiration Date: NA / NA Vol(s): NA / NA

Prep Date: 2/25/10 Initials: HAKB Pipet ID: 2971058 Balance ID: MDA 2/25/10 1750207 Witness: MDA 2/25/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/f)	Am/Cm Det #
246862002-1	CASA-10-9475	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	09-FEB-10	1	1	0.800	25
246877002-1	CASA-10-9446	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	09-FEB-10	2	2	0.800	26
246877003-1	CASA-10-9447	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	09-FEB-10	3	3	0.800	27
246886001-1	CASA-10-9456	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	09-FEB-10	4	4	0.800	28
246886003-1	CASA-10-9479	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	09-FEB-10	5	5	0.800	29
246964001-1	CAMO-10-9370	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	10-FEB-10	6	6	0.800	30
246964003-1	CAMO-10-9373	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	10-FEB-10	7	7	0.800	31
246967002-1	CAMO-10-9350	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	10-FEB-10	8	8	0.800	33
246967003-1	CAMO-10-9357	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	10-FEB-10	9	9	0.800	35
247036001-1	CASA-10-9464	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	11-FEB-10	10	10	0.800	36
247036004-1	CASA-10-9469	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	11-FEB-10	11	11	0.800	37
247042003-1	CAMO-10-9329	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	11-FEB-10	12	12	0.800	38
247042005-1	CAMO-10-9343	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	11-FEB-10	13	13	0.800	39
~~247261003-1~~	~~CAPA-10-12691~~	~~SAMPLE~~		~~.05 pCi/L~~	~~GROUND WATER~~	~~LANL010~~	~~16-FEB-10~~	~~14~~	14	0.800	40
247431001-1	CAWA-10-13090	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	17-FEB-10	15	15	0.800	41
247817002-1	CAPA-10-13095	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	21-FEB-10	16	16	0.800	42
247829002-1	CAPA-10-13498	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	22-FEB-10	17	17	0.800	~~255~~ 228
1202052006-1	MB for batch 957019	MB		.05 pCi/L	GROUND WATER	QC ACCOUNT		18	18	* ~~0.800~~	256
1202052007-1	CAPA-10-13498(247829002DUP)	DUP		.05 pCi/L	GROUND WATER	QC ACCOUNT	22-FEB-10	19	19	0.800	43
1202052008-1	LCS for batch 957019	LCS		.05 pCi/L	GROUND WATER	QC ACCOUNT		20	20	* ~~0.800~~	44

* 1.0 JG 3/9/10

Choose SOP Used: GL-RAD-A-011 / GL-RAD-A-036

Solid Sample Dissolution by: LEACH / or DIGESTION (Circle One) NA ESB 3/9/10

Data Reviewed By: [signature] 3/11/10

GEL Laboratories LLC, Radiochemistry Division

Blank Correction Report

Batch ID 957019

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202052007	DUP	Americium-241	0.800 L	-0.000151	0.00271	0.0345	-.0042	pCi/L	NO
1202052008	LCS	Americium-241	1.00 L	2.64	0.182	0.0238	-.00336	pCi/L	NO
1202052006	MB	Americium-241	1.00 L	-0.00336	0.00372	0.0229	-.00336	pCi/L	NO
246862002	CASA-10-9475	Americium-241	0.800 L	0.00916	0.0124	0.0404	-.0042	pCi/L	NO
246877002	CASA-10-9446	Americium-241	0.800 L	-0.00205	0.00355	0.0368	-.0042	pCi/L	NO
246877003	CASA-10-9447	Americium-241	0.800 L	-0.00655	0.00367	0.0328	-.0042	pCi/L	NO
246886001	CASA-10-9456	Americium-241	0.800 L	-0.00626	0.0047	0.0376	-.0042	pCi/L	NO
246886003	CASA-10-9479	Americium-241	0.800 L	-0.00575	0.00716	0.0356	-.0042	pCi/L	NO
246964001	CAMO-10-9370	Americium-241	0.800 L	-0.0136	0.008	0.0394	-.0042	pCi/L	NO
246964003	CAMO-10-9373	Americium-241	0.800 L	-0.00722	0.00518	0.0349	-.0042	pCi/L	NO
246967002	CAMO-10-9350	Americium-241	0.800 L	0.00624	0.0052	0.0354	-.0042	pCi/L	NO
246967003	CAMO-10-9357	Americium-241	0.800 L	0.0167	0.00807	0.0397	-.0042	pCi/L	NO
247036001	CASA-10-9464	Americium-241	0.800 L	0.00828	0.00483	0.0356	-.0042	pCi/L	NO
247036004	CASA-10-9469	Americium-241	0.800 L	-0.00484	0.00742	0.0334	-.0042	pCi/L	NO
247042003	CAMO-10-9329	Americium-241	0.800 L	-0.00756	0.00712	0.0342	-.0042	pCi/L	NO
247042005	CAMO-10-9343	Americium-241	0.800 L	-0.00306	0.0102	0.0325	-.0042	pCi/L	NO
247431001	CAWA-10-13090	Americium-241	0.800 L	-0.00625	0.00469	0.0375	-.0042	pCi/L	NO
247817002	CAPA-10-13095	Americium-241	0.800 L	-0.00326	0.00407	0.0325	-.0042	pCi/L	NO
247829002	CAPA-10-13498	Americium-241	0.800 L	-0.00285	0.00232	0.0296	-.0042	pCi/L	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957019	CHAMBER : 228	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S0247829002_AM	DETECTOR S/N : 79421	BKG FILE : B228.CNF;87
SAMPLE QTY : 0.800 L	AVERAGE %EFFICIENCY : 38.2168	BKG DATE : 7-MAR-2010
SAMPLE DATE : 22-FEB-2010 00:00:00	COUNT DATE : 10-MAR-2010 18:56:07	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W228.CNF;30
% YIELD : 88.541		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0533-O	ID : 0533-O
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9166E+00 dpm	NOMINAL : 3.5516E+00 pCi/L	NOMINAL : 3.5516E+00 pCi/L
RESULTS : 2.5824E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
AM-241	5479.150	5509.091	0.000	0.000	-1.234	0.000	2.3343	99.94000	-2.85E-03	2.32E-03	1.16E-02	2.96E-02	2.31E-03
AM243	5270.000	5280.209	40.153	709.000	709.000	0.000	0.0000	99.78000	1.64E+00	1.21E-01	0.00E+00	6.28E-03	6.17E-02
CM-242	6102.000	6086.097	0.000	0.000	-0.720	0.720	3.1757	100.0000	-1.79E-03	3.07E-03	1.58E-02	3.79E-02	3.06E-03
CM-3/4	5795.020	5760.439	0.000	0.000	0.000	0.000	3.3743	100.0000	0.00E+00	2.32E-03	1.68E-02	3.99E-02	2.32E-03
CM-5/6	5386.000	5380.411	8.176	9.000	9.000	0.000	6.9212	86.09000	2.42E-02	8.20E-03	4.01E-02	8.74E-02	8.05E-03
CM-247	4946.000	4912.417	4.936	12.000	12.000	0.000	5.6900	79.30000	3.50E-02	1.03E-02	3.58E-02	7.95E-02	1.01E-02
CM-248	5078.600	5063.295	0.000	17.000	17.000	0.000	7.8985	91.00000	4.32E-02	1.08E-02	4.33E-02	9.34E-02	1.05E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

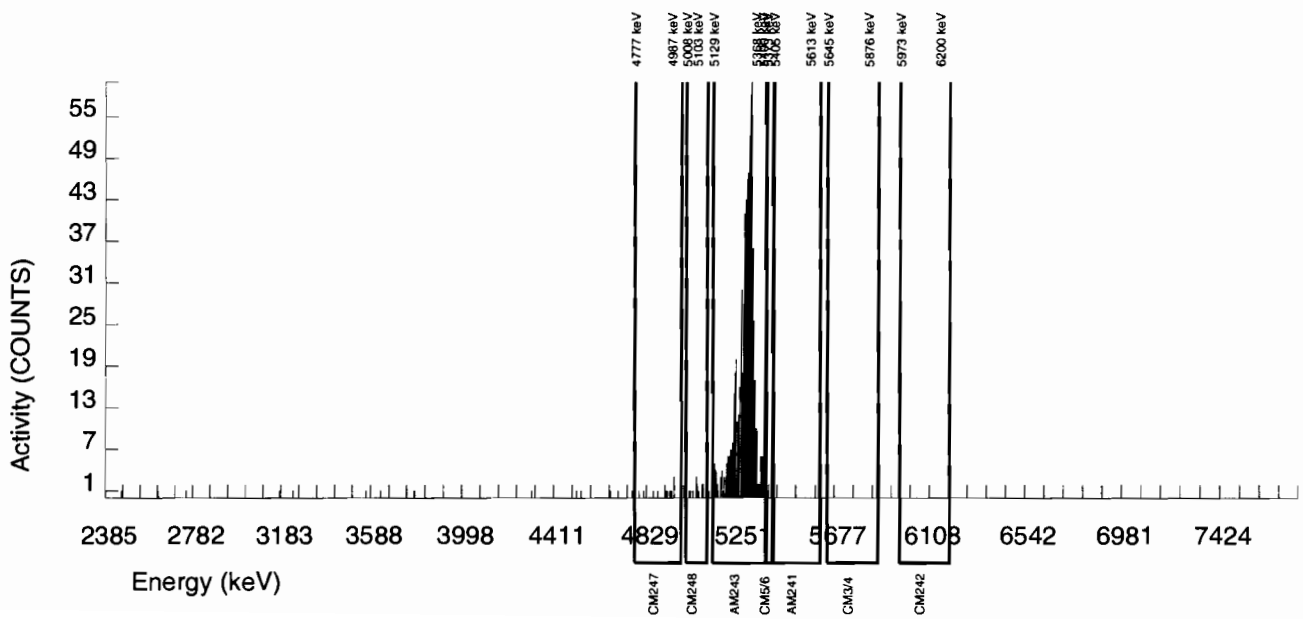

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957019	CHAMBER : 256	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202052006_AM	DETECTOR S/N : 79449	BKG FILE : B256.CNF;89
SAMPLE QTY : 1.000 L	AVERAGE %EFFICIENCY : 40.3572	BKG DATE : 7-MAR-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 8-MAR-2010 09:38:12	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W256.CNF;30
% YIELD : 86.665		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0533-O	ID : 0533-O
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9165E+00 dpm	NOMINAL : 2.8412E+00 pCi/L	NOMINAL : 2.8412E+00 pCi/L
RESULTS : 2.5276E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
AM-241	5479.150	5506.371	49.204	3.000	-1.875	3.600	2.3343	99.94000	-3.36E-03	3.72E-03	9.01E-03	2.29E-02	3.72E-03
AM243	5270.000	5278.176	39.402	735.000	732.840	2.160	1.4697	99.78000	1.31E+00	9.61E-02	5.68E-03	1.62E-02	4.87E-02
CM-242	6102.000	6087.865	0.000	0.000	0.000	0.000	3.1757	100.0000	0.00E+00	1.88E-03	1.23E-02	2.94E-02	1.88E-03
CM-3/4	5795.020	5763.292	0.000	0.000	-1.440	1.440	3.3743	100.0000	-2.58E-03	2.56E-03	1.30E-02	3.09E-02	2.56E-03
CM-5/6	5386.000	5376.653	9.072	10.000	10.000	0.000	6.9212	86.09000	2.08E-02	6.70E-03	3.10E-02	6.77E-02	6.57E-03
CM-247	4946.000	4871.334	177.136	9.000	6.840	2.160	5.6900	79.30000	1.54E-02	7.39E-03	2.77E-02	6.15E-02	7.33E-03
CM-248	5078.600	5068.838	9.841	14.000	13.280	0.720	7.8985	91.00000	2.61E-02	7.67E-03	3.35E-02	7.23E-02	7.49E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

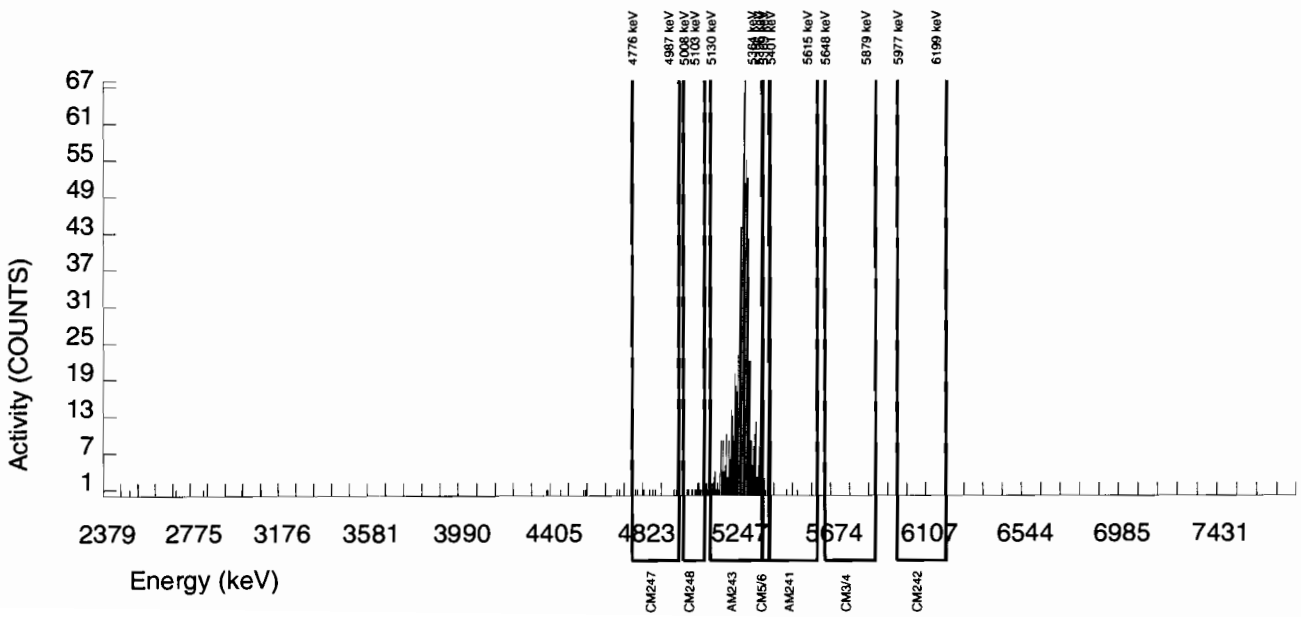

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957019	CHAMBER : 043	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202052007_AM	DETECTOR S/N : 76543	BKG FILE : B043.CNF;1113
SAMPLE QTY : 0.800 L	AVERAGE %EFFICIENCY : 36.4208	BKG DATE : 7-MAR-2010
SAMPLE DATE : 22-FEB-2010 00:00:00	COUNT DATE : 8-MAR-2010 21:20:27	BKG LIVE TIME(SEC) : 59999.99
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W043.CNF;288
% YIELD : 79.521		CAL DATE : 5-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0533-O	ID : 0533-O
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9165E+00 dpm	NOMINAL : 3.5516E+00 pCi/L	NOMINAL : 3.5516E+00 pCi/L
RESULTS : 2.3193E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
AM-241	5479.150	5584.581	4.918	1.000	-0.056	0.000	2.3343	99.94000	-1.51E-04	2.71E-03	1.36E-02	3.45E-02	2.70E-03
AM243	5270.000	5277.236	32.232	609.000	606.840	2.160	1.4697	99.78000	1.64E+00	1.27E-01	8.58E-03	2.45E-02	6.69E-02
CM-242	6102.000	6086.501	0.000	0.000	0.000	0.000	3.1757	100.0000	0.00E+00	2.89E-03	1.85E-02	4.43E-02	2.88E-03
CM-3/4	5795.020	5723.568	4.918	1.000	-1.880	2.880	3.3743	100.0000	-5.08E-03	4.74E-03	1.97E-02	4.66E-02	4.74E-03
CM-5/6	5386.000	5384.913	0.000	2.000	2.000	0.000	6.9212	86.09000	6.27E-03	4.45E-03	4.68E-02	1.02E-01	4.44E-03
CM-247	4946.000	4884.739	41.653	9.000	7.560	1.440	5.6900	79.30000	2.57E-02	1.09E-02	4.18E-02	9.28E-02	1.08E-02
CM-248	5078.600	5064.480	67.168	19.000	19.000	0.000	7.8985	91.00000	5.64E-02	1.34E-02	5.06E-02	1.09E-01	1.29E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

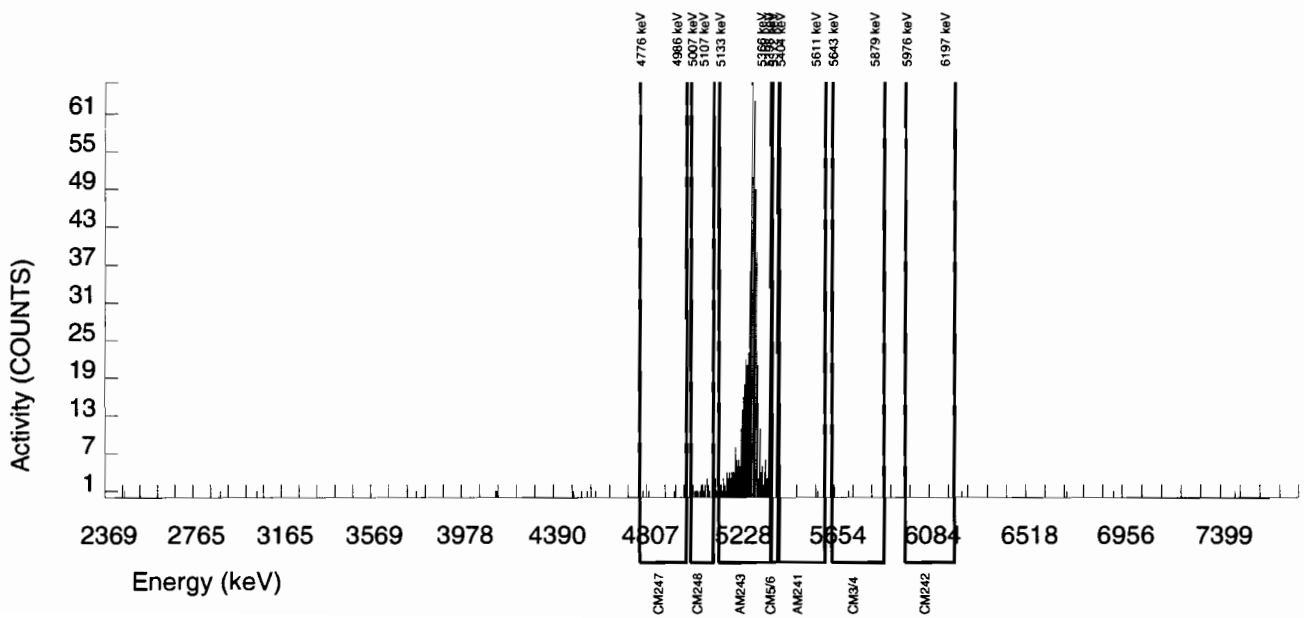

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957019	CHAMBER : 044	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202052008_AM	DETECTOR S/N : 79459	BKG FILE : B044.CNF;1123
SAMPLE QTY : 1.000 L	AVERAGE %EFFICIENCY : 35.5933	BKG DATE : 7-MAR-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 8-MAR-2010 21:20:27	BKG LIVE TIME(SEC) : 59999.99
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W044.CNF;309
% YIELD : 94.301		CAL DATE : 5-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0533-O	ID : 0533-O
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9165E+00 dpm	NOMINAL : 2.8412E+00 pCi/L	NOMINAL : 2.8412E+00 pCi/L
RESULTS : 2.7503E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
AM-241	5479.150	5501.675	38.811	1418.000	1416.776	0.000	2.3343	99.94000	2.64E+00	1.82E-01	9.39E-03	2.38E-02	7.02E-02
AM243	5270.000	5279.464	32.295	704.000	703.280	0.720	0.8485	99.78000	1.31E+00	9.72E-02	3.42E-03	1.19E-02	4.96E-02
CM-242	6102.000	6108.446	0.000	3.000	2.280	0.720	3.1757	100.0000	4.47E-03	3.69E-03	1.28E-02	3.06E-02	3.68E-03
CM-3/4	5795.020	5755.281	138.701	4.000	1.120	2.880	3.3743	100.0000	2.09E-03	4.60E-03	1.36E-02	3.22E-02	4.60E-03
CM-5/6	5386.000	5384.914	13.003	25.000	25.000	0.000	6.9212	86.09000	5.41E-02	1.14E-02	3.23E-02	7.05E-02	1.08E-02
CM-247	4946.000	4868.396	0.000	8.000	8.000	0.000	5.6900	79.30000	1.88E-02	6.75E-03	2.89E-02	6.41E-02	6.65E-03
CM-248	5078.600	5053.749	59.443	14.000	13.280	0.720	7.8985	91.00000	2.72E-02	7.99E-03	3.49E-02	7.54E-02	7.80E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

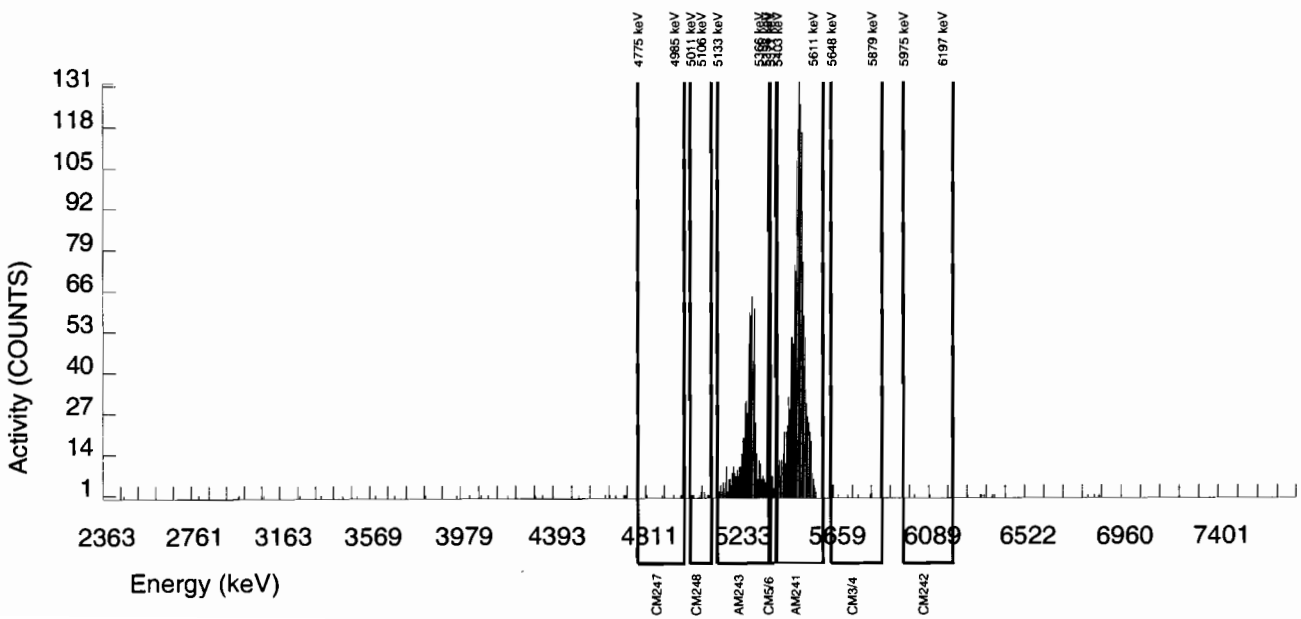

Radiochemistry Batch Checklist, Rev10

Batch# 957023 Product: PU Date: 3/4/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.		✓	CASE NARRATIVE
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: 3/11/10

Secondary Review Performed By: 3/11/10

3/2 - 3/13

Plutonium Que Sheet

24-FEB-10

Batch #: 957023 Analyst: HAKB First Client Due Date: 13-MAR-10 Internal Due Date: 02-MAR-10

Tracer Isotope(s): Pu-242/Pu-238 Tracer Code: 1375-A Expiration Date: 1/8/11 Vol: 0.1

LCS Isotope(s): Pu-239/Pu-238 LCS Code: 0338-BB Expiration Date: 6/23/10 Vol: 0.1

Spike Isotope(s): Pu-239/Pu-238 Spike Code: NA Expiration Date: NA Vol: NA

Prep Date: 2/25/10 Initials: HAKB Pipet ID: 2971058 Balance ID: MDA 2/25/10 16750207 Witness: MDA 2/25/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g (1/f))	Pu Det #
246862002-1	CASA-10-9475	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	09-FEB-10	1	1	0.800	99 ~~45~~
246877002-1	CASA-10-9446	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	09-FEB-10	2	2	0.800	46
246877003-1	CASA-10-9447	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	09-FEB-10	3	3	0.800	48
246886001-1	CASA-10-9456	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	09-FEB-10	4	4	0.800	71
246886003-1	CASA-10-9479	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	09-FEB-10	5	5	0.800	72
246964001-1	CAMO-10-9370	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	10-FEB-10	6	6	0.800	100 ~~73~~
246964003-1	CAMO-10-9373	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	10-FEB-10	7	7	0.800	74
246967002-1	CAMO-10-9350	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	10-FEB-10	8	8	0.800	75
246967003-1	CAMO-10-9357	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	10-FEB-10	9	9	0.800	101 ~~76~~
247036001-1	CASA-10-9464	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	11-FEB-10	10	10	0.800	83
247036004-1	CASA-10-9469	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	11-FEB-10	11	11	0.800	84
247042003-1	CAMO-10-9329	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	11-FEB-10	12	12	0.800	85
247042005-1	CAMO-10-9343	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	11-FEB-10	13	13	0.800	102 ~~86~~
247261003-1	CAPA-10-12691	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	15-FEB-10	14	14	0.800	103 ~~87~~
247431001-1	CAWA-10-13090	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	17-FEB-10	15	15	0.800	105 ~~88~~
247817002-1	CAPA-10-13095	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	21-FEB-10	16	16	0.800	106
247829002-1	CAPA-10-13498	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	22-FEB-10	17	17	0.800	101
1202052015-1	MB for batch 957023	MB		.05 pCi/L	GROUND WATE	QC ACCOUNT		18	18	~~0.800~~	102
1202052016-1	CAPA-10-13498(247829002DUP)	DUP		.05 pCi/L	GROUND WATE	QC ACCOUNT	22-FEB-10	19	19	0.800	~~105~~ 106
1202052017-1	LCS for batch 957023	LCS		.05 pCi/L	GROUND WATE	QC ACCOUNT		20	20	~~0.800~~	105

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) NA

Data Reviewed By: 3/11/10

ESB 3/9/10

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 957023

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202052016	DUP	Plutonium-238	0.800 L	0.00753	0.00437	0.0437	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00	0.00251	0.0304	.004	pCi/L	YES
1202052017	LCS	Plutonium-238	1.00 L	0.00827	0.00416	0.0337	-.0018	pCi/L	NO
		Plutonium-239/240	1.00 L	2.29	0.142	0.0236	.0032	pCi/L	NO
1202052015	MB	Plutonium-238	1.00 L	-0.0018	0.00309	0.0409	-.0018	pCi/L	NO
		Plutonium-239/240	1.00 L	0.0032	0.00398	0.0286	.0032	pCi/L	YES
246862002	CASA-10-9475	Plutonium-238	0.800 L	-0.000685	0.00455	0.052	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00502	0.00608	0.036	.004	pCi/L	YES
246877002	CASA-10-9446	Plutonium-238	0.800 L	0.00841	0.00488	0.0458	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00919	0.00598	0.032	.004	pCi/L	YES
246877003	CASA-10-9447	Plutonium-238	0.800 L	-0.0234	0.0109	0.0507	-.00225	pCi/L	YES
		Plutonium-239/240	0.800 L	-0.0237	0.00835	0.0354	.004	pCi/L	YES
246886001	CASA-10-9456	Plutonium-238	0.800 L	-0.00798	0.00774	0.0472	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00162	0.00504	0.033	.004	pCi/L	YES
246886003	CASA-10-9479	Plutonium-238	0.800 L	0.00582	0.0122	0.0528	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	-0.00142	0.00461	0.0369	.004	pCi/L	YES
246964001	CAMO-10-9370	Plutonium-238	0.800 L	0.00825	0.00479	0.0478	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.0055	0.0039	0.0333	.004	pCi/L	YES
246964003	CAMO-10-9373	Plutonium-238	0.800 L	0.00171	0.00532	0.0498	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.0039	0.00484	0.0348	.004	pCi/L	YES
246967002	CAMO-10-9350	Plutonium-238	0.800 L	0.00312	0.00312	0.0509	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.0227	0.00919	0.0356	.004	pCi/L	NO
246967003	CAMO-10-9357	Plutonium-238	0.800 L	0.00234	0.00235	0.0407	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00468	0.00469	0.0283	.004	pCi/L	YES
247036001	CASA-10-9464	Plutonium-238	0.800 L	0.00329	0.0122	0.0448	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	-0.00121	0.00392	0.0313	.004	pCi/L	YES
247036004	CASA-10-9469	Plutonium-238	0.800 L	-0.00213	0.00364	0.0482	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.000826	0.00364	0.0337	.004	pCi/L	YES
247042003	CAMO-10-9329	Plutonium-238	0.800 L	0.00	0.00298	0.0485	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.000832	0.00367	0.0339	.004	pCi/L	YES
247042005	CAMO-10-9343	Plutonium-238	0.800 L	0.0022	0.00381	0.0382	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	1.31E-10	0.00311	0.0266	.004	pCi/L	YES
247261003	CAPA-10-12691	Plutonium-238	0.800 L	0.00282	0.00488	0.049	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00844	0.0049	0.0341	.004	pCi/L	YES
247431001	CAWA-10-13090	Plutonium-238	0.800 L	0.00238	0.00239	0.0414	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	-0.00238	0.00533	0.0288	.004	pCi/L	YES
247817002	CAPA-10-13095	Plutonium-238	0.800 L	0.00	0.00302	0.0492	-.00225	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00603	0.00428	0.0344	.004	pCi/L	YES
247829002	CAPA-10-13498	Plutonium-238	0.800 L	0.00	0.00272	0.0444	-.00225	pCi/L	NO

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
247829002	CAPA-10-13498	Plutonium-239/240	0.800 L	0.00348	0.00431	0.031	.004	pCi/L	YES

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957023	CHAMBER : 101	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0247829002_PU	DETECTOR S/N : 64253	BKG FILE : B101.CNF;690
SAMPLE QTY : 0.800 L	AVERAGE %EFFICIENCY : 33.7124	BKG DATE : 7-MAR-2010
SAMPLE DATE : 22-FEB-2010 00:00:00	COUNT DATE : 9-MAR-2010 08:01:30	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W101.CNF;180
% YIELD : 85.493		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0338-BB	ID : 0338-BB
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 2.8357E+00 pCi/L	NOMINAL : 2.8357E+00 pCi/L
RESULTS : 2.8903E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-236	5749.000	5674.479	74.065	2.000	1.280	0.720	1.6619	100.0000	3.51E-03	4.35E-03	9.73E-03	2.68E-02	4.35E-03
PU-238	5499.000	5441.996	0.000	0.000	0.000	0.000	3.1571	99.90000	0.00E+00	2.72E-03	1.85E-02	4.44E-02	2.72E-03
PU-9/0	5155.000	5091.665	108.629	2.000	1.280	0.720	2.0178	99.90000	3.48E-03	4.31E-03	1.18E-02	3.10E-02	4.31E-03
PU242	4890.000	4859.827	43.485	703.000	701.560	1.440	1.2000	100.0000	1.90E+00	1.27E-01	7.02E-03	2.14E-02	7.20E-02
PU-244	4589.000	4522.030	0.000	10.000	10.000	0.000	4.0676	99.90000	2.72E-02	8.72E-03	2.38E-02	5.50E-02	8.59E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU242 calculated as sqrt(BKG AREA).

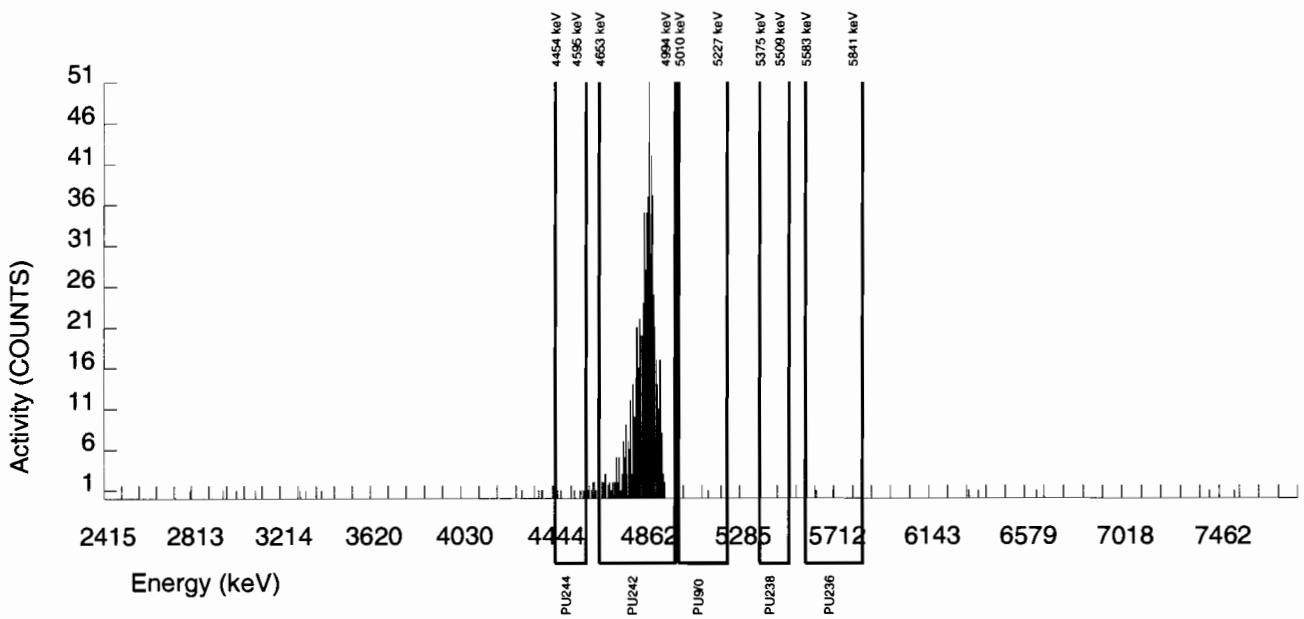

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957023	CHAMBER : 102	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202052015_PU	DETECTOR S/N : 72525	BKG FILE : B102.CNF;688
SAMPLE QTY : 1.000 L	AVERAGE %EFFICIENCY : 32.7311	BKG DATE : 7-MAR-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 9-MAR-2010 08:01:30	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W102.CNF;194
% YIELD : 76.418		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0338-BB	ID : 0338-BB
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 2.2686E+00 pCi/L	NOMINAL : 2.2686E+00 pCi/L
RESULTS : 2.5835E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-236	5749.000	5712.323	0.000	0.000	0.000	0.000	1.6619	100.0000	0.00E+00	2.53E-03	8.97E-03	2.47E-02	2.52E-03
PU-238	5499.000	5441.918	0.000	0.000	-0.720	0.720	3.1571	99.90000	-1.80E-03	3.09E-03	1.71E-02	4.09E-02	3.09E-03
PU-9/0	5155.000	5191.655	53.621	2.000	1.280	0.720	2.0178	99.90000	3.20E-03	3.98E-03	1.09E-02	2.86E-02	3.97E-03
PU242	4890.000	4875.004	60.830	611.000	608.840	2.160	1.4697	100.0000	1.52E+00	1.06E-01	7.93E-03	2.26E-02	6.19E-02
PU-244	4589.000	4547.753	126.740	7.000	6.280	0.720	4.0676	99.90000	1.57E-02	6.92E-03	2.20E-02	5.07E-02	6.87E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU242 calculated as sqrt(BKG AREA).

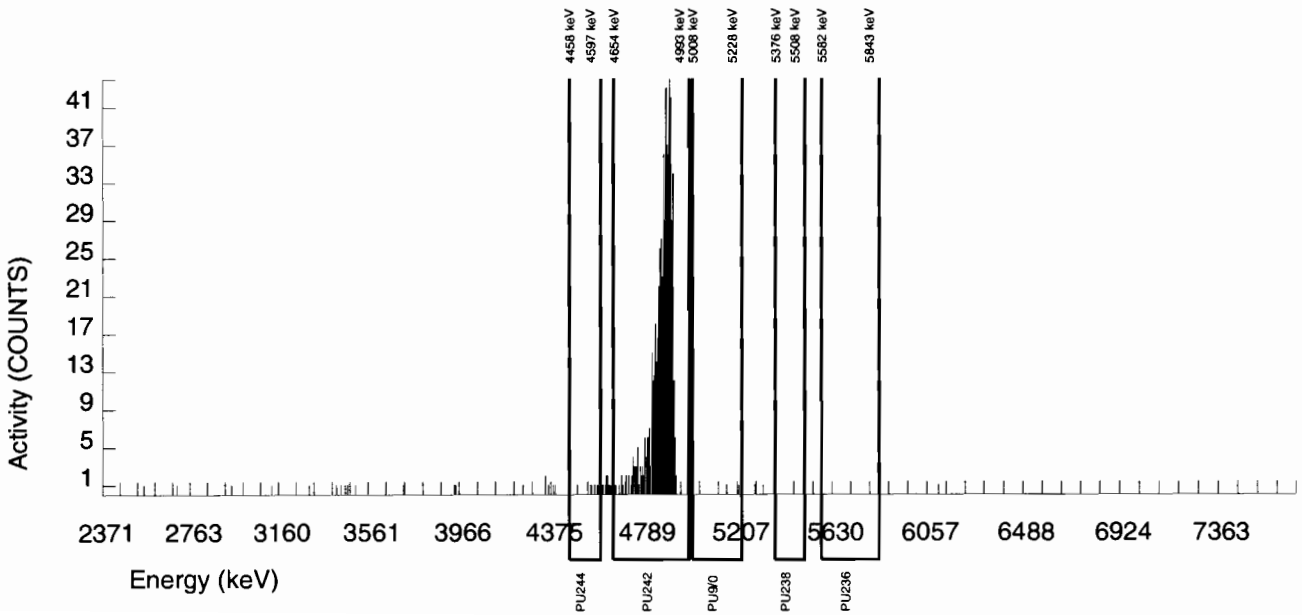

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957023	CHAMBER : 106	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202052016_PU	DETECTOR S/N : 64274	BKG FILE : B106.CNF;690
SAMPLE QTY : 0.800 L	AVERAGE %EFFICIENCY : 32.3164	BKG DATE : 7-MAR-2010
SAMPLE DATE : 22-FEB-2010 00:00:00	COUNT DATE : 10-MAR-2010 16:36:42	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 59999.99	EFF FILE : W106.CNF;186
% YIELD : 69.471		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0338-BB	ID : 0338-BB
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 2.8357E+00 pCi/L	NOMINAL : 2.8357E+00 pCi/L
RESULTS : 2.3487E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-236	5749.000	5675.328	133.732	3.000	2.000	1.000	1.6619	100.0000	5.07E-03	5.08E-03	9.70E-03	2.62E-02	5.07E-03
PU-238	5499.000	5440.916	39.624	3.000	3.000	0.000	3.1571	99.90000	7.53E-03	4.37E-03	1.84E-02	4.37E-02	4.35E-03
PU-9/0	5155.000	5120.042	0.000	0.000	0.000	0.000	2.0178	99.90000	0.00E+00	2.51E-03	1.18E-02	3.04E-02	2.51E-03
PU242	4890.000	4855.089	56.429	763.000	759.000	4.000	2.0000	100.0000	1.90E+00	1.24E-01	1.17E-02	3.01E-02	6.95E-02
PU-244	4589.000	4566.228	7.275	9.000	9.000	0.000	4.0676	99.90000	2.26E-02	7.63E-03	2.38E-02	5.43E-02	7.53E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU242 calculated as sqrt(BKG AREA).

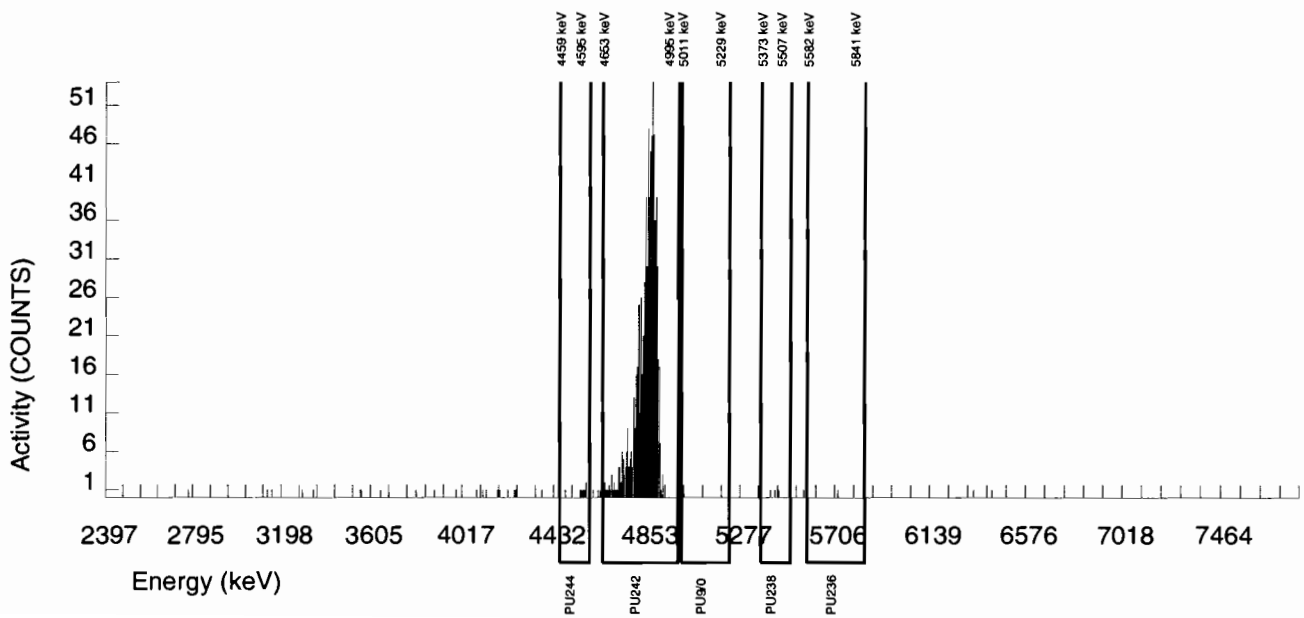

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957023	CHAMBER : 105	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202052017_PU	DETECTOR S/N : 78777	BKG FILE : B105.CNF;690
SAMPLE QTY : 1.000 L	AVERAGE %EFFICIENCY : 31.7688	BKG DATE : 7-MAR-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 9-MAR-2010 08:01:30	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W105.CNF;175
% YIELD : 95.415		CAL DATE : 9-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1375-A	ID : 0338-BB	ID : 0338-BB
NUCLIDE : PU242	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.3808E+00 dpm	NOMINAL : 2.2686E+00 pCi/L	NOMINAL : 2.2686E+00 pCi/L
RESULTS : 3.2257E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-236	5749.000	5712.688	0.000	0.000	0.000	0.000	1.6619	100.0000	0.00E+00	2.08E-03	7.40E-03	2.04E-02	2.08E-03
PU-238	5499.000	5483.600	4.882	4.000	4.000	0.000	3.1571	99.90000	8.27E-03	4.16E-03	1.41E-02	3.37E-02	4.13E-03
PU-9/0	5155.000	5132.687	65.257	1111.000	1108.840	2.160	2.0178	99.90000	2.29E+00	1.42E-01	8.99E-03	2.36E-02	6.89E-02
PU242	4890.000	4869.600	57.140	740.000	737.840	2.160	1.4697	100.0000	1.52E+00	9.99E-02	6.54E-03	1.87E-02	5.62E-02
PU-244	4589.000	4533.603	78.107	2.000	1.280	0.720	4.0676	99.90000	2.64E-03	3.28E-03	1.81E-02	4.19E-02	3.28E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU242 calculated as sqrt(BKG AREA).

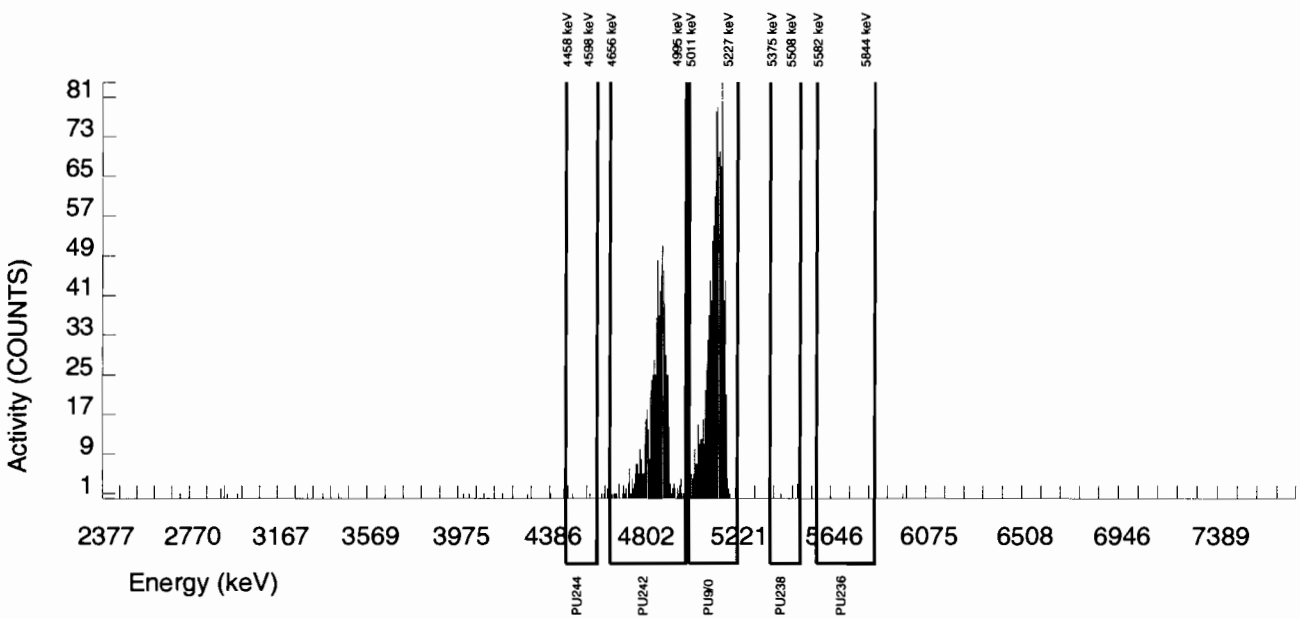

Radiochemistry Batch Checklist, Rev10

Batch# 957025 Product: U Date: 3/9/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		Case narrative
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 3/9/10

Secondary Review Performed By: [signature] 3/11/10

LANL

3/2 - 3/13

Uranium Que Sheet

24-FEB-10

Batch #: 957025 Analyst: HAKB First Client Due Date:13-MAR-10 Internal Due Date:02-MAR-10

Tracer Isotope: U-232/U-236 Tracer Code: 1283-H Expiration Date: 12/9/10 Vol: 0.1

LCS Isotope: U-238 LCS Code: 1163-H Expiration Date: 10/21/10 Vol: 0.1

Spike Isotope: U-238 Spike Code: NA Expiration Date: NA Vol: NA

Prep Date: 2/25/10 Initials: HAKB Pipet ID: 2971058 Balance ID: MDA 2/25/10 16750207 Witness: MDA 2/25/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l)	U Det #
246862002-1	CASA-10-9475	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	09-FEB-10	1	1	0.800	7
246877002-1	CASA-10-9446	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	09-FEB-10	2	2	0.800	8
246877003-1	CASA-10-9447	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	09-FEB-10	3	3	0.800	9
246886001-1	CASA-10-9456	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	09-FEB-10	4	4	0.800	10
246886003-1	CASA-10-9479	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	09-FEB-10	5	5	0.800	141
246964001-1	CAMO-10-9370	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	10-FEB-10	6	6	0.800	142
246964003-1	CAMO-10-9373	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	10-FEB-10	7	7	0.800	143
246967002-1	CAMO-10-9350	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	10-FEB-10	8	8	0.800	144
246967003-1	CAMO-10-9357	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	10-FEB-10	9	9	0.800	145
247036001-1	CASA-10-9464	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	11-FEB-10	10	10	0.800	146
247036004-1	CASA-10-9469	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	11-FEB-10	11	11	0.800	147
247042003-1	CAMO-10-9329	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	11-FEB-10	12	12	0.800	148
247042005-1	CAMO-10-9343	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	11-FEB-10	13	13	0.800	149
247261003-1	CAPA-10-12691	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	15-FEB-10	14	14	0.800	150
247431001-1	CAWA-10-13090	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	17-FEB-10	15	15	0.800	151
247817002-1	CAPA-10-13095	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	21-FEB-10	16	16	0.800	152
247829002-1	CAPA-10-13498	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	22-FEB-10	17	17	0.800	1
1202052018-1	MB for batch 957025	MB		.5 pCi/L	GROUND WATER	QC ACCOUNT		18	18 *	~~0.800~~	11
1202052019-1	CAPA-10-13498(247829002DUP)	DUP		.5 pCi/L	GROUND WATER	QC ACCOUNT	22-FEB-10	19	19	0.800	153
1202052020-1	LCS for batch 957025	LCS		.5 pCi/L	GROUND WATER	QC ACCOUNT		20	20 *	~~0.800~~	154

* 1.0 DG 3/8/10

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: LEACH or ~~DIGESTION~~ NA ESS 3/9/10
Circle One

Data Reviewed By: E. [illegible] 3/9/10

Blank Correction Report

Batch ID 957025

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202052019	DUP	Uranium-233/234	0.800 L	0.387	0.0538	0.0804	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0125	0.0118	0.0639	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.155	0.0309	0.0574	.0099	pCi/L	NO
1202052020	LCS	Uranium-233/234	1.00 L	2.13	0.185	0.0574	.0265	pCi/L	NO
		Uranium-235/236	1.00 L	0.126	0.0257	0.0457	.0117	pCi/L	NO
		Uranium-238	1.00 L	2.28	0.196	0.041	.00792	pCi/L	NO
1202052018	MB	Uranium-233/234	1.00 L	0.0265	0.00778	0.0282	.0265	pCi/L	YES
		Uranium-235/236	1.00 L	0.0117	0.0056	0.0221	.0117	pCi/L	YES
		Uranium-238	1.00 L	0.00792	0.00528	0.0199	.00792	pCi/L	YES
246862002	CASA-10-9475	Uranium-233/234	0.800 L	0.646	0.0711	0.0628	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0245	0.0127	0.050	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.382	0.0489	0.0448	.0099	pCi/L	NO
246877002	CASA-10-9446	Uranium-233/234	0.800 L	0.416	0.0521	0.0648	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.033	0.0139	0.0515	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.224	0.035	0.0463	.0099	pCi/L	NO
246877003	CASA-10-9447	Uranium-233/234	0.800 L	0.311	0.0424	0.0619	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0363	0.0142	0.0492	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.127	0.025	0.0442	.0099	pCi/L	NO
246886001	CASA-10-9456	Uranium-233/234	0.800 L	1.15	0.110	0.0616	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0217	0.0112	0.049	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.710	0.0757	0.044	.0099	pCi/L	NO
246886003	CASA-10-9479	Uranium-233/234	0.800 L	0.930	0.101	0.0798	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.050	0.0181	0.0635	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.447	0.0594	0.057	.0099	pCi/L	NO
246964001	CAMO-10-9370	Uranium-233/234	0.800 L	0.386	0.0521	0.0748	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.00586	0.00587	0.0595	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.197	0.0343	0.0534	.0099	pCi/L	NO
246964003	CAMO-10-9373	Uranium-233/234	0.800 L	0.481	0.0658	0.0915	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0215	0.0125	0.0727	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.252	0.0436	0.0653	.0099	pCi/L	NO
246967002	CAMO-10-9350	Uranium-233/234	0.800 L	0.325	0.0485	0.081	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0253	0.0128	0.0644	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.182	0.034	0.0578	.0099	pCi/L	NO
246967003	CAMO-10-9357	Uranium-233/234	0.800 L	0.560	0.0675	0.0746	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0234	0.0118	0.0593	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.217	0.0363	0.0532	.0099	pCi/L	NO
247036001	CASA-10-9464	Uranium-233/234	0.800 L	0.504	0.0628	0.0758	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0297	0.0135	0.0603	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.168	0.0312	0.0541	.0099	pCi/L	NO
247036004	CASA-10-9469	Uranium-233/234	0.800 L	0.329	0.0489	0.0819	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0352	0.0163	0.0651	.014625	pCi/L	YES

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
247036004	CASA-10-9469	Uranium-238	0.800 L	0.119	0.0273	0.0584	.0099	pCi/L	NO
247042003	CAMO-10-9329	Uranium-233/234	0.800 L	0.759	0.0857	0.0802	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0345	0.0159	0.0638	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.267	0.0425	0.0572	.0099	pCi/L	NO
247042005	CAMO-10-9343	Uranium-233/234	0.800 L	0.176	0.0331	0.0796	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0125	0.00886	0.0633	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.136	0.0289	0.0568	.0099	pCi/L	NO
247261003	CAPA-10-12691	Uranium-233/234	0.800 L	1.15	0.129	0.107	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0419	0.019	0.0851	.014625	pCi/L	YES
		Uranium-238	0.800 L	1.20	0.133	0.0764	.0099	pCi/L	NO
247431001	CAWA-10-13090	Uranium-233/234	0.800 L	0.400	0.0553	0.0819	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.00	0.00643	0.0652	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.270	0.0429	0.0585	.0099	pCi/L	NO
247817002	CAPA-10-13095	Uranium-233/234	0.800 L	0.224	0.0398	0.0896	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	-0.00354	0.00787	0.0712	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.111	0.027	0.0639	.0099	pCi/L	NO
247829002	CAPA-10-13498	Uranium-233/234	0.800 L	0.392	0.0394	0.0351	.033125	pCi/L	NO
		Uranium-235/236	0.800 L	0.0171	0.00657	0.0276	.014625	pCi/L	YES
		Uranium-238	0.800 L	0.274	0.0304	0.0248	.0099	pCi/L	NO

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GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957025	CHAMBER : 001	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0247829002_UU	DETECTOR S/N : 79451	BKG FILE : B001.CNF;1129
SAMPLE QTY : 0.800 L	AVERAGE %EFFICIENCY : 34.8147	BKG DATE : 28-FEB-2010
SAMPLE DATE : 22-FEB-2010 00:00:00	COUNT DATE : 5-MAR-2010 12:23:25	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W001.CNF;384
% YIELD : 81.929		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 1163-H	ID : 1163-H
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5031E+00 dpm	NOMINAL : 3.2427E+00 pCi/L	NOMINAL : 3.2427E+00 pCi/L
RESULTS : 3.6893E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U232	5302.100	5300.351	64.186	1291.000	1284.000	7.000	2.6458	100.0000	2.54E+00	1.93E-01	1.22E-02	2.97E-02	7.11E-02
U-3/4	4763.020	4750.946	54.733	201.000	198.700	1.000	3.2416	100.0000	3.92E-01	3.94E-02	1.49E-02	3.51E-02	2.80E-02
U-235	4391.000	4399.780	127.546	7.000	7.000	0.000	1.8455	80.90000	1.71E-02	6.57E-03	1.05E-02	2.76E-02	6.46E-03
U-238	4184.730	4175.824	49.388	140.000	139.000	1.000	2.1208	100.0000	2.74E-01	3.04E-02	9.74E-03	2.48E-02	2.34E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

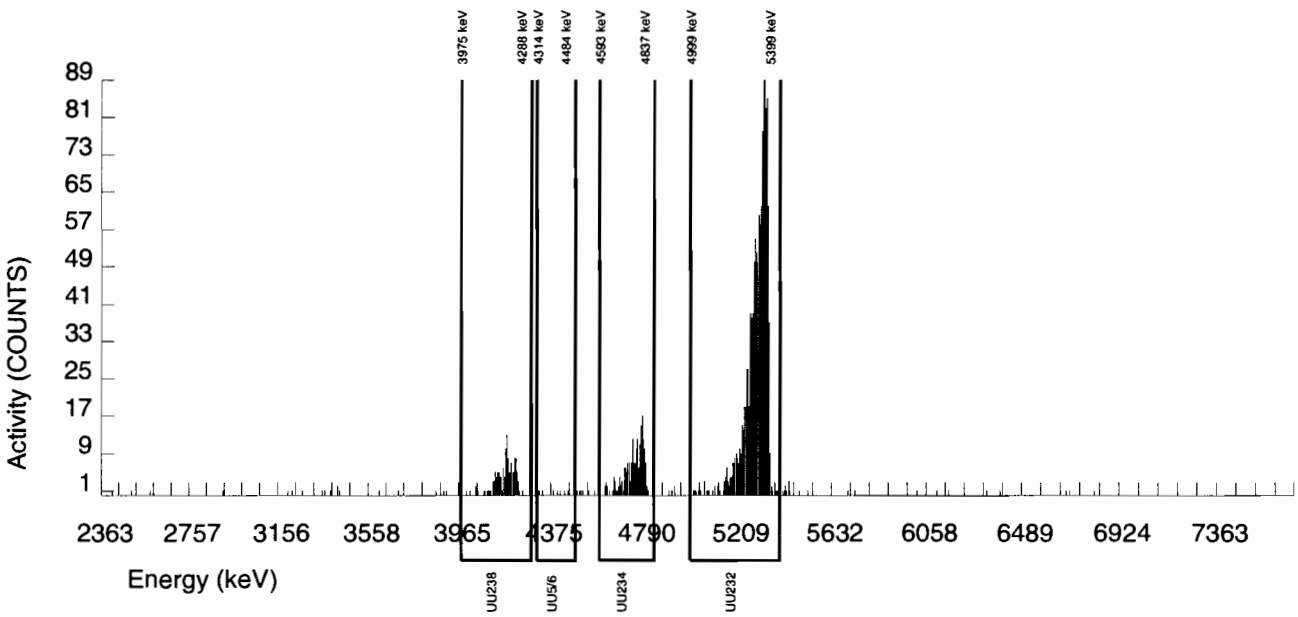

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957025	CHAMBER : 011	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202052018_UU	DETECTOR S/N : 72531	BKG FILE : B011.CNF;1120
SAMPLE QTY : 1.000 L	AVERAGE %EFFICIENCY : 31.2445	BKG DATE : 28-FEB-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 5-MAR-2010 12:23:26	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 60000.00	EFF FILE : W011.CNF;315
% YIELD : 91.006		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 1163-H	ID : 1163-H
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5027E+00 dpm	NOMINAL : 2.5941E+00 pCi/L	NOMINAL : 2.5941E+00 pCi/L
RESULTS : 4.0977E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U232	5302.100	5300.796	62.035	1286.000	1280.000	6.000	2.4495	100.0000	2.03E+00	1.54E-01	9.03E-03	2.23E-02	5.70E-02
U-3/4	4763.020	4728.037	0.000	21.000	16.704	3.000	3.2416	100.0000	2.65E-02	7.78E-03	1.19E-02	2.82E-02	7.55E-03
U-235	4391.000	4398.053	99.555	7.000	6.000	1.000	1.8455	80.90000	1.17E-02	5.60E-03	8.41E-03	2.21E-02	5.54E-03
U-238	4184.730	4214.212	184.177	8.000	5.000	3.000	2.1208	100.0000	7.92E-03	5.28E-03	7.82E-03	1.99E-02	5.25E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

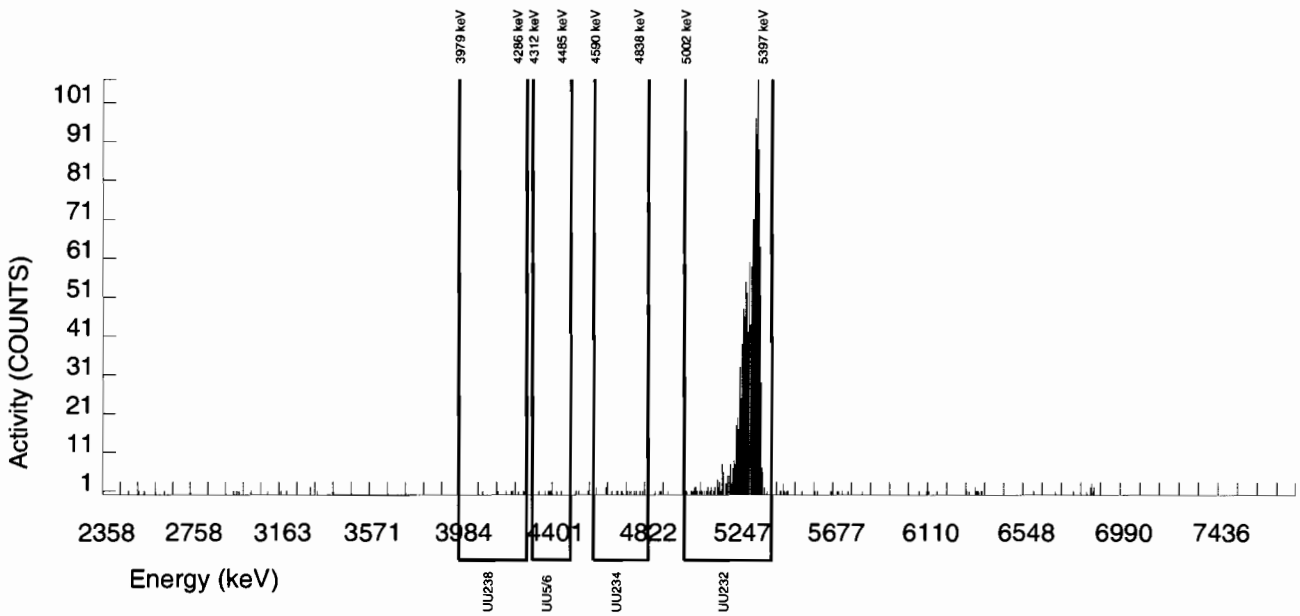

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957025	CHAMBER : 153	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202052019_UU	DETECTOR S/N : 76223	BKG FILE : B153.CNF;395
SAMPLE QTY : 0.800 L	AVERAGE %EFFICIENCY : 24.9933	BKG DATE : 7-MAR-2010
SAMPLE DATE : 22-FEB-2010 00:00:00	COUNT DATE : 8-MAR-2010 07:05:03	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 30300.00	EFF FILE : W153.CNF;110
% YIELD : 87.650		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 1163-H	ID : 1163-H
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5031E+00 dpm	NOMINAL : 3.2427E+00 pCi/L	NOMINAL : 3.2427E+00 pCi/L
RESULTS : 3.9470E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U232	5302.100	5298.599	73.687	501.000	497.970	3.030	1.7407	100.0000	2.54E+00	2.28E-01	1.79E-02	4.96E-02	1.14E-01
U-3/4	4763.020	4755.443	37.747	77.000	75.991	0.505	3.2416	100.0000	3.87E-01	5.38E-02	3.33E-02	8.04E-02	4.46E-02
U-235	4391.000	4396.438	103.394	3.000	1.990	1.010	1.8455	80.90000	1.25E-02	1.18E-02	2.34E-02	6.39E-02	1.18E-02
U-238	4184.730	4175.416	95.701	31.000	30.495	0.505	2.1208	100.0000	1.55E-01	3.09E-02	2.18E-02	5.74E-02	2.85E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

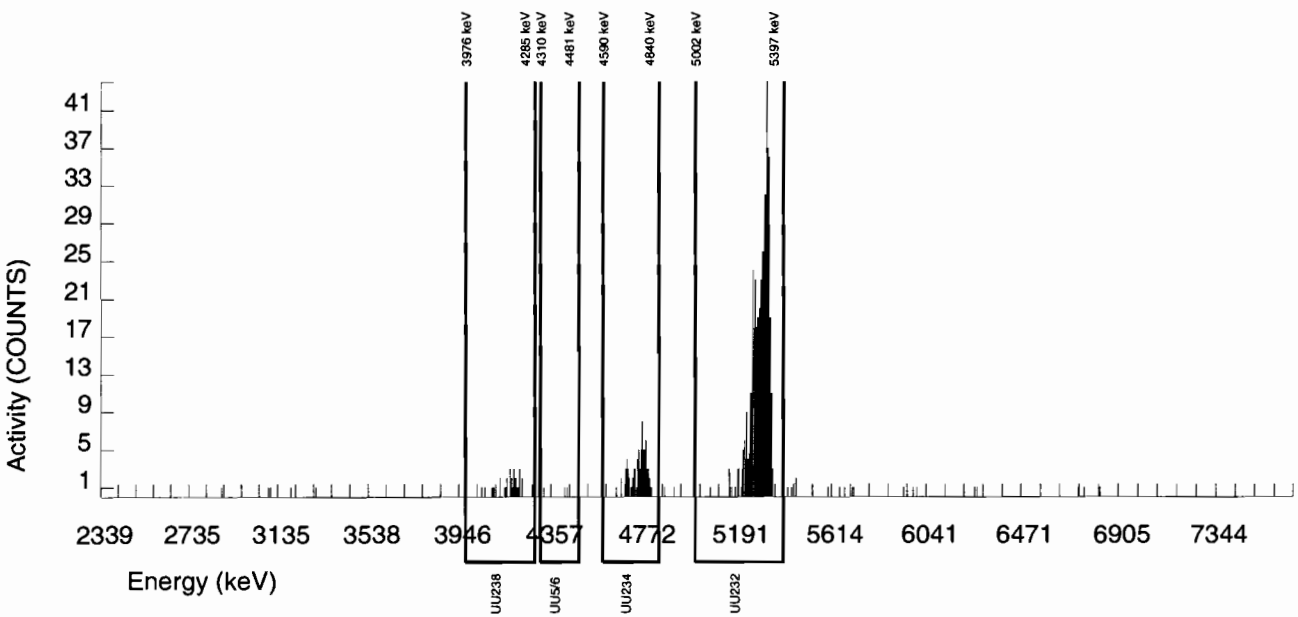

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 957025	CHAMBER : 154	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S1202052020_UU	DETECTOR S/N : 76224	BKG FILE : B154.CNF;397
SAMPLE QTY : 1.000 L	AVERAGE %EFFICIENCY : 25.5722	BKG DATE : 7-MAR-2010
SAMPLE DATE : 25-FEB-2010 00:00:00	COUNT DATE : 8-MAR-2010 07:05:06	BKG LIVE TIME(SEC) : 60000.00
ANALYST : HAKB	ELAPSED LIVE TIME(SEC) : 30300.00	EFF FILE : W154.CNF;108
% YIELD : 95.902		CAL DATE : 19-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 1163-H	ID : 1163-H
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5027E+00 dpm	NOMINAL : 2.5941E+00 pCi/L	NOMINAL : 2.5941E+00 pCi/L
RESULTS : 4.3182E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U232	5302.100	5299.680	69.400	560.000	557.475	2.525	1.5890	100.0000	2.03E+00	1.77E-01	1.17E-02	3.32E-02	8.62E-02
U-3/4	4763.020	4751.652	77.688	585.000	584.435	0.000	3.2416	100.0000	2.13E+00	1.85E-01	2.38E-02	5.74E-02	8.79E-02
U-235	4391.000	4399.715	86.490	28.000	28.000	0.000	1.8455	80.90000	1.26E-01	2.57E-02	1.67E-02	4.57E-02	2.38E-02
U-238	4184.730	4179.346	68.439	626.000	625.495	0.505	2.1208	100.0000	2.28E+00	1.96E-01	1.56E-02	4.10E-02	9.10E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

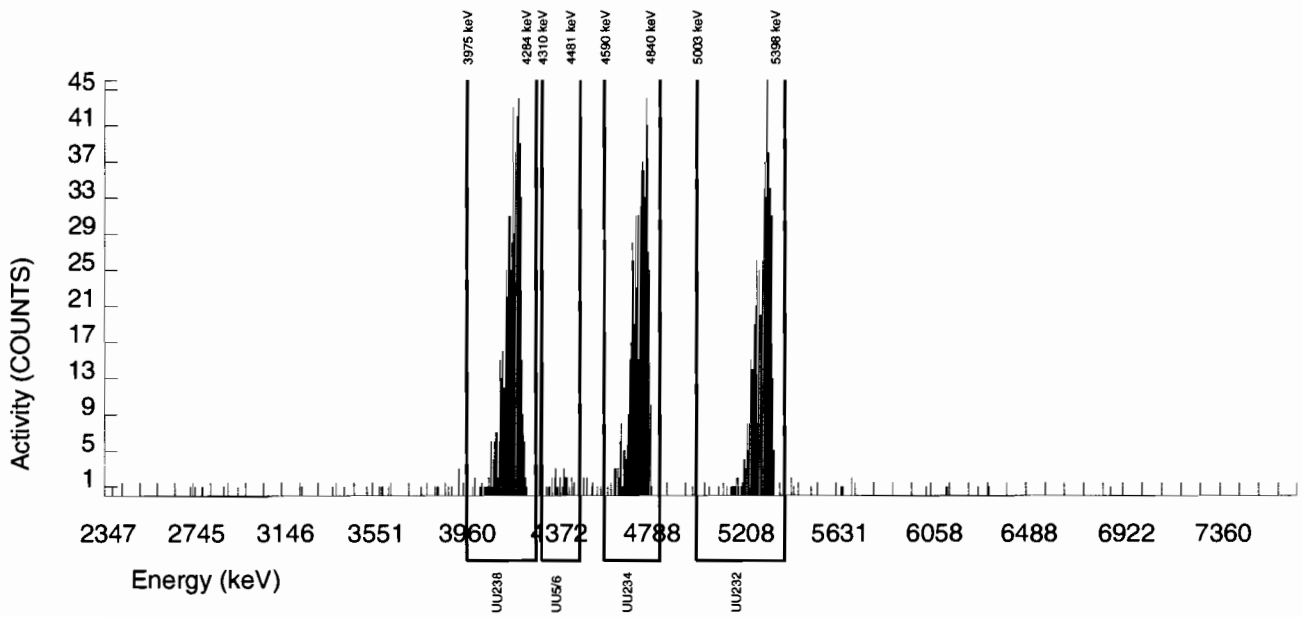

Radiochemistry Batch Checklist, Rev10

Batch# 956976 **Product:** 8L **Date:** 3/4/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [illegible] 3/4/10

Secondary Review Performed By: [illegible] 3/10/10

LANL
3/25/10

Gamma Spec Que Sheet

02/24/2010

Batch #:956976 **Analyst: KXG3** **First Client DueDate03/25/2010** **Internal Due Date: 03/14/2010**

Gamma Spike Isotope: Mixed Gamma **Spike Code:** Not **Expiration Date:** Not **Vol:** Not **Nominal Concentration:** Not

Gamma LCS Isotope: Mixed Gamma **LCS Code:** 1032-A **Expiration Date:** 12/2/10 **Vol:** 1.0 mL **Nominal Concentration:** Am241-1236 Cs137-431.5 Co60-493.1 Cross 8-2177

Initials: KXG **Prep Date:** 3/3/10 **Library:** Liquid **Witness:** Not

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date		Geometry	Wet/Dry Aliquot (~~L/g/F~~) mL	Detector	Sealing Date/Time (if Applicable)	
247817002-1	CAPA-10-13095	SAMPLE		LANL010	GROUND WATER	21-FEB-10 12:00:00	1	2LMB	2000	17		u
247829002-1	CAPA-10-13498	SAMPLE		LANL010	GROUND WATER	22-FEB-10 12:00:00	2		1571	19		u
1202051903-1	MB	MB		QC ACCOUNT	GROUND WATER	3/3/10	3		2000	20		u
1202051904-1	DUP CAPA-10-13498(247829002)	DUP		QC ACCOUNT	GROUND WATER	22-FEB-10 12:00:00			1571	14		u
1202051905-1	LCS	LCS		QC ACCOUNT	GROUND WATER	3/3/10		—	2000	2		u

JSE 3/6/10

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: [signature] 3/6/10

Daillesv

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
956976	247817002	SAMPLE	04-MAR-10		Neptunium-237	-0.7874	16.02	1.00E+01
					Potassium-40	-11.13	39.49	1.00E+01
956976	247829002	SAMPLE	04-MAR-10		Neptunium-237	0.2303	26.84	1.00E+01
					Potassium-40	-10.02	42.9	1.00E+01
956976	1202051903	MB	04-MAR-10		Neptunium-237	0.1869	13.74	1.00E+01
					Potassium-40	2.048	29.55	1.00E+01
956976	1202051904	DUP	05-MAR-10		Neptunium-237	-28.03	42.25	1.00E+01
					Potassium-40	-43.17	59.73	1.00E+01
956976	1202051905	LCS	05-MAR-10		Potassium-40	20.5	142.7	1.00E+01

Gamma Review Report based on Result > MDA for Batch:956976

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
247817002	21-FEB-10 12:00	04-MAR-10 22:19	11.4	SAMPLE	LOAD	1	LANL	ESHL01000|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Bismuth-211	HE	24.55	568	pCi/L	17.75	N	351.6	1	1.48	IDENTIFIED	43.56	☐	
Cerium-143	HE	709.5	540.2	pCi/L	0	N	0	5	0	SHORT_HLIF	0	☐	
Iodine-133	HE	2344	8886	pCi/L	0	N	0	5	0	SHORT_HLIF	0	☐	
Lead-214	HE	8.899	3.91	pCi/L	8.634	N	0	5	0	FAIL_ABUND	0	☐	
Sodium-24	HE	2.65E+05	4.22E+05	pCi/L	0	N	0	5	0	SHORT_HLIF	0	☐	
Technetium-99m		2.83E+14	7.75E+13	pCi/L	0	N	0	5	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
247829002	22-FEB-10 12:00	04-MAR-10 22:20	10.4	SAMPLE	LOAD	1	LANL	ESHL01000|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Bismuth-211	HE	47.67	1008	pCi/L	20.48	N	352	2	1.067	IDENTIFIED	25.79	☐	
Bismuth-214	✓	23.25	4.909	pCi/L	10.96	N	0	4	0	FAIL_ABUND	0	☐	
Californium-251	LA	31.94	7.934	pCi/L	15.85	N	0	4	0	FAIL_ABUND	0	☐	
Gross Gamma		32.82	9.382	pCi/L	26.29	120		0				☐	
Lead-214	✓	17.28	4.519	pCi/L	7.441	N	352	2	1.067	IDENTIFIED	25.79	☐	
Radium-224	HE	67.46	27.11	pCi/L	60.46	N	242.1	1	1.635	IDENTIFIED	40.08	☐	
Sodium-24	HE	72910	1.35E+05	pCi/L	0	N	0	4	0	SHORT_HLIF	0	☐	
Technetium-99m	HE	4.31E+12	4.09E+12	pCi/L	0	N	0	4	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202051903		04-MAR-10 22:20	0	MB	LOAD	1		GEL	N	RGSP

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202051904	22-FEB-10 12:00	05-MAR-10 16:47	11.2	DUP	LOAD	1		ESHL01000|GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Bismuth-211	HE	72.98	1643	pCi/L	34.24	N	351.9	1	1.601	IDENTIFIED	22.3	☐	
Bismuth-214	HE	23.2	5.019	pCi/L	18.23	N	0	6	0	FAIL_ABUND	0	☐	
Cerium-143		2001	961.1	pCi/L	0	N	0	6	0	SHORT_HLIF	0	☐	
Gross Gamma		31.74	8.76	pCi/L	29.49	120		0				☐	
Iodine-135	HE	5.97E+12	1.23E+13	pCi/L	0	N	0	6	0	SHORT_HLIF	0	☐	
Lead-214	HE	26.46	6.012	pCi/L	19.62	N	0	6	0	FAIL_ABUND	0	☐	
Sodium-24	HE	1.12E+05	5.77E+05	pCi/L	0	N	0	6	0	SHORT_HLIF	0	☐	
Technetium-99m	HE	1.76E+13	5.34E+13	pCi/L	0	N	0	6	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202051905		05-MAR-10 16:48	0	LCS	LOAD	1		GEL	N	RGSP

Name	Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual	Qual Comment
Americium-241	1493	96.29	pCi/L	98.4	N	59.18	1	0.9905	IDENTIFIED	4.93	☐	
Barium-137m	428	17.5	pCi/L	11.89	N	661.2	2	1.576	IDENTIFIED	3.275	☐	

Cadmium-109		**2760**	186.5	pCi/L	**298**	N	87.71	3	0.9075	IDENTIFIED	5.41	☐
Cesium-137		**452.2**	18.53	pCi/L	**12.56**	**8.00**	661.2	2	1.576	IDENTIFIED	3.275	☐
Cobalt-57	HE	**16**	4.457	pCi/L	**9.514**	N	121.7	1	0.9711	IDENTIFIED	27.69	☐
Cobalt-60		**505.4**	25.35	pCi/L	**3.863**	**8.00**	1332	1	1.904	IDENTIFIED	3.619	☐
Gross Gamma		**2051**	182.1	pCi/L	**189.8**	**120**		0				☐
Neptunium-237		**820.1**	102.3	pCi/L	**99.39**	**10.0**	87.71	3	0.9075	IDENTIFIED	5.41	☐
Technetium-99m	HE	**4935**	5321	pCi/L	**0**	N	0	1	0	SHORT_HLIF	0	☐
Tin-126		**274.8**	18.58	pCi/L	**29.9**	N	87.71	3	0.9075	IDENTIFIED	5.41	☐

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

ASE 3/6/10

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
956976	247817002	SAMPLE	04-MAR-10	Bismuth-211	24.55	568	pCi/L	8.878	N
				Bismuth-212	44.1	13.9	pCi/L	25.99	N
				Cerium-143	709.5	540.2	pCi/L	0	N
				Gross Gamma	15.43	5.248	pCi/L	10.24	120
				Iodine-133	2344	8886	pCi/L	0	N
				Sodium-24	2.65E+05	4.22E+05	pCi/L	0	N
				Technetium-99m	2.83E+14	7.75E+13	pCi/L	0	N
				Thorium-229	24.43	13.98	pCi/L	23.52	N
956976	247829002	SAMPLE	04-MAR-10	Bismuth-211	47.67	1008	pCi/L	10.25	N
				Bismuth-214	23.25	4.909	pCi/L	5.482	N
				Californium-251	31.94	7.934	pCi/L	7.928	N
				Cerium-143	1405	476	pCi/L	726.6	N
				Gross Gamma	32.82	9.382	pCi/L	12.78	120
				Lead-214	17.28	4.519	pCi/L	3.723	N
				Radium-224	67.46	27.11	pCi/L	30.25	N
				Sodium-24	72910	1.35E+05	pCi/L	0	N
				Technetium-99m	4.31E+12	4.09E+12	pCi/L	0	N
956976	1202051903	MB	04-MAR-10	Protactinium-234	15.15	5.803	pCi/L	10.45	N
956976	1202051904	DUP	05-MAR-10	Bismuth-211	72.98	1643	pCi/L	17.13	N
				Bismuth-214	23.2	5.019	pCi/L	9.119	N
				Cerium-143	2001	961.1	pCi/L	0	N
				Gross Gamma	31.74	8.76	pCi/L	13.8	120
				Iodine-135	5.97E+12	1.23E+13	pCi/L	0	N
				Lead-214	26.46	6.012	pCi/L	9.816	N
				Sodium-24	1.12E+05	5.77E+05	pCi/L	0	N
				Technetium-99m	1.76E+13	5.34E+13	pCi/L	0	N
				Tellurium-132	33.31	17.26	pCi/L	30.66	N
956976	1202051905	LCS	05-MAR-10	Americium-241	1493	96.29	pCi/L	49.23	25.0
				Barium-133	11.46	4.721	pCi/L	8.427	N
				Barium-137m	428	17.5	pCi/L	5.948	N
				Beryllium-7	88.73	32.04	pCi/L	57.87	N
				Cadmium-109	2760	186.5	pCi/L	149.1	N
				Cesium-137	452.2	18.53	pCi/L	6.283	8.00
				Cobalt-57	16	4.457	pCi/L	4.76	N
				Cobalt-60	505.4	25.35	pCi/L	1.933	8.00
				Gross Gamma	2051	182.1	pCi/L	90.84	120
				Neptunium-237	820.1	102.3	pCi/L	49.72	10.0

ASE 3/6/10

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 04:20:42.55

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G247829002.CNF;1
Sample date       : 22-FEB-2010 12:00:00 Acquisition date : 4-MAR-2010 22:20:12.
Sample ID         : G247829002           Sample quantity  : 1.57100E+00 LITER
Detector name     : GAM19                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:02.24  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 956976                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	176.04	182	408	1.45	351.77	345	14	8.44E-03	24.7	0.00E+00
2	1	242.05	77	241	1.64	483.70	470	19	3.58E-03	40.1	1.50E+00
3	0	294.98	122	205	1.31	589.48	584	11	5.64E-03	24.6	
4	0	352.01*	138	234	1.07	703.48	697	12	6.39E-03	25.8	
5	0	557.90	49	134	1.48	1115.06	1110	13	2.26E-03	50.8	
6	0	609.47*	162	137	1.78	1218.18	1211	17	7.51E-03	20.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 5-MAR-2010 04:20:45

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G247829002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 22-FEB-2010 12:00:00 Acquisition date : 4-MAR-2010 22:20:12
Sample ID : G247829002 Sample quantity : 1.5710 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA19 Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00 Elapsed real time: 0 06:00:02.24 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BI-211		72.87		-1.226E+02	5.190E+03	3.512E+02	1.485E+04	-0.349
	+	351.06	*	4.767E+01	2.015E+03	2.048E+01	8.659E+02	2.327
PB-214		74.82		4.217E+00	5.315E+01	7.364E+01	8.879E+00	0.057
		77.11		1.271E+00	2.756E+01	4.190E+01	5.162E+00	0.030
	+	242.00		3.775E+01	3.042E+01	3.392E+01	2.814E+00	1.113
	+	295.22		2.632E+01	1.313E+01	1.403E+01	1.242E+00	1.876
	+	351.93	*	1.728E+01	9.037E+00	7.441E+00	6.352E-01	2.323
RA-224	+	240.99	*	6.746E+01	5.422E+01	6.046E+01	3.588E+00	1.116

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.60	*	1.044E+01	1.815E+01	3.111E+01	2.070E+00	0.336
NA-22		1274.54	*	-9.827E-01	2.349E+00	3.740E+00	2.315E-01	-0.263
NA-24		1368.63	*	7.291E-02	2.349E+00	Half-Life too short		
K-40		1460.82	*	-1.002E+01	2.796E+01	4.290E+01	2.901E+00	-0.234
SC-46		889.28	*	7.262E-01	1.907E+00	3.199E+00	2.188E-01	0.227
		1120.55		3.926E+00	2.550E+00	4.760E+00	2.823E-01	0.825
V-48		944.13		1.273E+01	3.735E+01	6.221E+01	4.217E+00	0.205
		983.53	*	3.254E+00	3.076E+00	5.453E+00	3.616E-01	0.597
		1312.11		-2.693E+00	3.024E+00	4.432E+00	2.836E-01	-0.608
CR-51		320.08	*	4.844E+00	2.053E+01	3.483E+01	2.301E+00	0.139
MN-54		834.85	*	-2.746E+00	2.076E+00	2.936E+00	1.868E-01	-0.935
CO-56		846.77	*	2.622E-01	2.220E+00	3.627E+00	2.344E-01	0.072
		1037.84		-4.152E+00	1.579E+01	2.584E+01	1.805E+00	-0.161
		1238.28		2.892E+00	3.551E+00	6.358E+00	4.017E-01	0.455
		1771.35		-2.190E+01	1.519E+01	1.904E+01	1.111E+00	-1.150
CO-57		122.06	*	6.120E-02	1.869E+00	3.045E+00	1.950E-01	0.020
		136.47		-1.597E+01	1.528E+01	2.373E+01	1.649E+00	-0.673
CO-58		810.76	*	-8.993E-01	2.198E+00	3.432E+00	2.121E-01	-0.262
FE-59		1099.25	*	1.144E-02	4.017E+00	6.719E+00	4.715E-01	0.002
		1291.59		-5.322E+00	6.115E+00	8.109E+00	6.324E-01	-0.656
CO-60		1173.23		-1.424E+00	2.620E+00	3.539E+00	1.976E-01	-0.403

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1332.49	*	1.367E-01	2.203E+00	3.673E+00	2.395E-01	0.037
ZN-65		1115.54	*	-2.610E+00	4.690E+00	7.456E+00	4.455E-01	-0.350
SE-75		121.12		5.790E-01	9.655E+00	1.575E+01	1.496E+00	0.037
		136.00		-2.826E+00	2.859E+00	4.454E+00	2.748E-01	-0.635
		264.66	*	3.210E-01	2.740E+00	4.645E+00	2.806E-01	0.069
		279.54		2.784E+00	6.600E+00	1.132E+01	7.310E-01	0.246
		400.66		2.512E+00	1.516E+01	2.548E+01	2.296E+00	0.099
SR-85		514.00	*	-4.998E+00	3.201E+00	4.910E+00	2.758E-01	-1.018
Y-88		898.04		-9.655E-01	2.919E+00	3.495E+00	2.437E-01	-0.276
		1836.06	*	6.392E-01	2.366E+00	3.996E+00	2.258E-01	0.160
Y-91		1204.77	*	-1.076E+02	9.392E+02	1.546E+03	8.916E+01	-0.070
NB-94		702.65	*	1.730E+00	2.001E+00	3.464E+00	1.819E-01	0.499
		871.09		-9.862E-01	1.986E+00	3.056E+00	2.041E-01	-0.323
NB-95		765.80	*	1.559E+00	2.267E+00	3.878E+00	2.238E-01	0.402
NB-95M		235.69	*	-1.136E+00	8.351E+00	1.154E+01	8.828E-01	-0.098
ZR-95		724.19		1.533E+00	4.595E+00	7.689E+00	5.013E-01	0.199
		756.73	*	-6.685E+00	4.934E+00	5.746E+00	4.014E-01	-1.163
MO-99		140.51		2.664E+02	5.064E+02	8.319E+02	1.907E+02	0.320
		181.07		-6.292E+02	4.635E+02	5.815E+02	1.027E+02	-1.082
		366.42		-1.655E+02	1.877E+03	3.121E+03	1.820E+02	-0.053
		739.50	*	1.430E+01	1.955E+02	3.202E+02	4.582E+01	0.045
		777.92		2.245E+02	6.647E+02	1.109E+03	6.511E+01	0.203
TC-99M		140.51	*	4.305E+06	6.647E+02	Half-Life too short		
RU-103		497.08	*	7.323E-02	2.400E+00	3.974E+00	4.911E-01	0.018
	+	610.33		2.212E+02	9.764E+01	1.030E+02	1.529E+01	2.147
RH-106		621.93	*	-9.599E+00	1.834E+01	2.880E+01	3.260E+00	-0.333
		1050.41		-4.153E+01	1.260E+02	2.043E+02	1.292E+01	-0.203
RU-106		621.93	*	-9.599E+00	1.832E+01	2.880E+01	1.490E+00	-0.333
		1050.41		-4.153E+01	1.260E+02	2.043E+02	1.292E+01	-0.203
AG-108M		433.94	*	-9.114E-01	1.743E+00	2.797E+00	1.716E-01	-0.326
		614.28		3.980E-01	2.265E+00	3.275E+00	1.857E-01	0.122
		722.91		-1.321E+00	2.058E+00	3.168E+00	1.852E-01	-0.417
CD-109		88.03	*	-4.154E+01	5.585E+01	8.886E+01	8.661E+00	-0.467
AG-110M		657.76	*	-6.448E-01	1.835E+00	2.909E+00	1.567E-01	-0.222
		677.62		-5.610E+00	1.624E+01	2.571E+01	1.405E+00	-0.218
		706.68		7.146E+00	1.306E+01	2.212E+01	1.256E+00	0.323
		763.94		1.085E+00	9.338E+00	1.531E+01	9.344E-01	0.071
		884.68		2.869E-01	2.735E+00	4.458E+00	3.186E-01	0.064
		937.49		-3.008E+00	5.974E+00	9.116E+00	6.556E-01	-0.330
		1384.29		-1.275E+00	1.040E+01	1.700E+01	1.156E+00	-0.075
SN-113		391.70	*	2.337E-01	2.571E+00	4.308E+00	2.625E-01	0.054
CD-115		260.90		-1.208E+03	2.260E+03	3.505E+03	2.094E+02	-0.345
		492.35		4.102E+02	5.706E+02	9.849E+02	5.580E+01	0.416
		527.90	*	-2.202E+01	1.551E+02	2.531E+02	1.412E+01	-0.087
SN-117M		156.02		1.178E+02	1.266E+02	2.120E+02	1.234E+01	0.555
		158.56	*	1.495E-01	3.076E+00	4.986E+00	2.889E-01	0.030
TE-123M		159.00	*	1.238E-02	1.969E+00	3.186E+00	1.870E-01	0.004
SB-124		602.73		2.472E+00	2.464E+00	3.836E+00	2.025E-01	0.644
		645.85		-7.893E-01	2.715E+01	4.432E+01	2.588E+00	-0.018

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		722.78		-1.319E+01	1.956E+01	3.001E+01	1.718E+00	-0.439
		1690.97	*	3.146E-01	5.025E+00	8.291E+00	5.429E-01	0.038
SB-125		427.87	*	4.725E+00	5.426E+00	9.468E+00	5.648E-01	0.499
		463.37		1.147E+01	1.517E+01	2.631E+01	1.750E+00	0.436
		600.60		-1.307E+01	1.194E+01	1.817E+01	1.140E+00	-0.719
		635.95		3.827E+00	1.538E+01	2.566E+01	1.592E+00	0.149
TE-125M		109.28	*	-2.825E+02	6.756E+02	1.084E+03	1.014E+02	-0.261
I-126		388.63		-4.815E+00	7.773E+00	1.248E+01	7.137E-01	-0.386
		666.33	*	-2.810E+00	9.557E+00	1.524E+01	7.563E-01	-0.184
		753.82		1.993E+01	7.920E+01	1.315E+02	7.455E+00	0.152
SB-126		414.70		2.949E-01	3.507E+00	5.862E+00	3.353E-01	0.050
		666.50		-1.081E+00	3.233E+00	5.138E+00	2.550E-01	-0.210
		695.00		2.935E+00	3.436E+00	5.963E+00	3.095E-01	0.492
		697.00		-1.371E+01	1.251E+01	1.865E+01	9.706E-01	-0.735
		720.70	*	-5.723E-01	6.031E+00	9.742E+00	5.258E-01	-0.059
		856.80		-7.181E+00	2.585E+01	3.488E+01	2.285E+00	-0.206
SN-126		64.28		3.227E+01	4.705E+01	7.272E+01	1.123E+01	0.444
		86.94		5.491E+00	2.256E+01	3.711E+01	1.543E+01	0.148
		87.57	*	-2.960E+00	5.433E+00	8.716E+00	8.473E-01	-0.340
SB-127		252.40		4.067E+01	1.243E+02	2.001E+02	8.153E+01	0.203
		473.00		1.750E+01	4.201E+01	7.138E+01	6.967E+00	0.245
		685.70	*	4.064E+00	3.266E+01	5.384E+01	4.002E+00	0.075
		783.70		7.919E+01	8.129E+01	1.425E+02	1.333E+01	0.556
I-131		80.19		-2.755E+02	2.139E+02	3.320E+02	3.090E+01	-0.830
		284.31		-3.509E+01	5.909E+01	9.646E+01	6.345E+00	-0.364
		364.49	*	-2.664E+00	4.888E+00	7.918E+00	5.122E-01	-0.336
		636.99		4.585E+01	5.866E+01	1.018E+02	5.948E+00	0.450
TE-132		49.72		-3.329E+02	5.056E+02	8.126E+02	7.917E+01	-0.410
		111.76		4.511E+02	9.074E+02	1.506E+03	1.281E+02	0.300
		116.30		-4.990E+02	7.908E+02	1.255E+03	1.036E+02	-0.398
		228.16	*	4.097E+00	1.767E+01	2.860E+01	3.907E+00	0.143
BA-133		81.00		-8.231E+00	6.687E+00	1.028E+01	1.636E+00	-0.801
		276.40		-2.122E+00	2.220E+01	3.725E+01	4.722E+00	-0.057
		302.85		-3.252E+00	8.549E+00	1.409E+01	1.621E+00	-0.231
		356.01	*	-2.568E-01	2.911E+00	4.203E+00	4.755E-01	-0.061
		383.85		-4.883E+00	1.836E+01	3.017E+01	3.208E+00	-0.162
I-133		529.87	*	-2.533E-03	1.836E+01	Half-Life too short		
		875.33		-1.873E-01	1.836E+01	Half-Life too short		
		1298.22		1.377E-01	1.836E+01	Half-Life too short		
CS-134		563.25		-4.018E+01	2.722E+01	3.301E+01	1.844E+00	-1.217
		569.33		-3.608E+00	1.972E+01	2.132E+01	1.197E+00	-0.169
		604.72		-1.438E+00	2.369E+00	3.162E+00	1.676E-01	-0.455
		795.86	*	2.642E-01	2.406E+00	3.941E+00	2.409E-01	0.067
		801.95		7.757E-01	2.333E+01	3.792E+01	2.330E+00	0.020
		1365.19		-6.606E+01	8.422E+01	1.114E+02	7.825E+00	-0.593
CS-135		268.22	*	-7.846E+00	9.452E+00	1.530E+01	1.193E+00	-0.513
I-135		546.56		-3.588E+06	9.452E+00	Half-Life too short		
		836.80		-8.604E+06	9.452E+00	Half-Life too short		
		1038.76		1.783E+05	9.452E+00	Half-Life too short		

Sample ID : G247829002 Acquisition date : 4-MAR-2010 22:20:12

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1131.51		-9.607E+05	9.452E+00	Half-Life too short		
		1260.41	*	-1.896E+06	9.452E+00	Half-Life too short		
		1457.56		-6.325E+06	9.452E+00	Half-Life too short		
		1678.03		2.402E+06	9.452E+00	Half-Life too short		
		1791.20		-5.991E+06	9.452E+00	Half-Life too short		
CS-136		153.25		-4.635E+01	4.779E+01	7.412E+01	5.988E+00	-0.625
	+	176.60		9.635E+01	4.802E+01	4.904E+01	3.435E+00	1.965
		273.65		1.163E+01	2.475E+01	4.252E+01	2.975E+00	0.273
		340.55		4.434E-01	6.446E+00	1.083E+01	6.917E-01	0.041
		818.51		3.746E-01	3.179E+00	5.206E+00	3.240E-01	0.072
		1048.07	*	4.962E-01	4.147E+00	7.028E+00	4.792E-01	0.071
		1235.36		1.068E+01	1.752E+01	3.092E+01	3.083E+00	0.345
BA-137M		661.66	*	-1.091E-01	1.999E+00	3.254E+00	1.603E-01	-0.034
CS-137		661.66	*	-1.153E-01	2.112E+00	3.437E+00	1.703E-01	-0.034
CE-139		165.86	*	-3.916E-01	2.051E+00	3.287E+00	1.884E-01	-0.119
BA-140		162.66		-4.039E+01	4.910E+01	6.912E+01	4.557E+00	-0.584
		304.85		-4.326E+01	6.564E+01	1.047E+02	2.996E+01	-0.413
		423.72		-4.705E+01	9.174E+01	1.456E+02	4.697E+01	-0.323
		537.26	*	7.798E+00	1.152E+01	1.945E+01	6.472E+00	0.401
LA-140		328.76		-2.789E+00	1.465E+01	2.433E+01	1.618E+00	-0.115
		487.02		-1.641E+00	6.513E+00	1.059E+01	6.839E-01	-0.155
		815.77		3.333E+00	1.385E+01	2.294E+01	1.729E+00	0.145
		1596.21	*	-2.728E-01	4.269E+00	6.952E+00	4.342E-01	-0.039
CE-141		145.44	*	-8.669E-01	4.462E+00	6.593E+00	4.068E-01	-0.131
CE-143		57.36		1.493E+03	7.731E+03	1.285E+04	1.447E+03	0.116
		293.27	*	1.405E+03	9.520E+02	1.452E+03	3.000E+02	0.967
		664.57		-8.133E+01	6.259E+03	1.022E+04	2.990E+03	-0.008
		721.93		-6.627E+03	7.324E+03	1.064E+04	2.905E+03	-0.623
CE-144		80.12		-2.179E+02	1.702E+02	2.644E+02	2.453E+01	-0.824
		133.52	*	3.003E+00	1.383E+01	2.265E+01	3.179E+00	0.133
PM-144		476.78		1.431E+00	3.820E+00	6.474E+00	4.380E-01	0.221
		618.01		8.639E-01	1.817E+00	3.083E+00	1.721E-01	0.280
		696.49	*	-6.675E-01	2.068E+00	3.291E+00	1.712E-01	-0.203
PR-144		696.51	*	-5.094E+01	1.543E+02	2.454E+02	1.277E+01	-0.208
		1489.16		-1.795E+02	7.649E+02	1.223E+03	7.836E+01	-0.147
PM-146		453.88	*	-1.210E+00	3.260E+00	4.099E+00	3.443E-01	-0.295
		633.25		-4.188E+01	8.185E+01	1.260E+02	4.732E+01	-0.332
		735.93		-8.646E+00	8.138E+00	1.135E+01	3.090E+00	-0.762
		747.24		-4.058E+00	5.279E+00	7.932E+00	1.034E+00	-0.512
ND-147		91.11		-2.353E+01	1.811E+01	2.558E+01	2.532E+00	-0.920
		319.41		3.023E+00	1.567E+02	2.631E+02	1.572E+01	0.011
		531.02	*	-2.301E+01	2.285E+01	3.430E+01	4.604E+00	-0.671
PM-149		285.90	*	-1.195E+03	1.309E+03	2.085E+03	2.970E+02	-0.573
EU-152		121.78		-4.298E-01	5.473E+00	8.882E+00	7.153E-01	-0.048
		244.70		9.825E+00	2.364E+01	3.388E+01	2.014E+00	0.290
		344.28	*	-4.381E-01	6.186E+00	9.737E+00	6.460E-01	-0.045
		778.90		-7.308E+00	1.563E+01	2.438E+01	1.434E+00	-0.300
		964.08		1.946E+01	1.502E+01	2.678E+01	1.796E+00	0.727
		1085.87		2.140E+00	1.939E+01	3.279E+01	2.012E+00	0.065

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1112.07		8.097E+00	1.494E+01	2.620E+01	1.568E+00	0.309
		1408.01		9.830E+00	1.134E+01	2.030E+01	1.316E+00	0.484
GD-153		69.67		-2.753E+02	1.285E+02	1.912E+02	1.722E+01	-1.440
		97.43	*	2.485E+00	6.084E+00	1.010E+01	8.448E-01	0.246
		103.18		3.107E+00	7.796E+00	1.293E+01	1.003E+00	0.240
EU-154		123.07		1.401E+00	3.807E+00	6.279E+00	6.122E-01	0.223
		723.31		-2.511E+00	9.218E+00	1.466E+01	9.858E-01	-0.171
		873.19		-9.045E+00	1.628E+01	2.485E+01	2.630E+00	-0.364
		996.26		-1.470E+01	2.027E+01	2.987E+01	4.946E+00	-0.492
		1004.73		-4.621E+00	1.107E+01	1.788E+01	1.822E+00	-0.258
		1274.44	*	-3.286E+00	6.687E+00	1.056E+01	1.020E+00	-0.311
EU-155		86.55		1.094E-01	6.633E+00	1.088E+01	1.058E+00	0.010
		105.31	*	1.808E+00	7.584E+00	1.250E+01	9.594E-01	0.145
TA-182		67.75		-8.401E+00	9.484E+00	1.393E+01	1.255E+00	-0.603
		100.11		-7.600E+00	1.420E+01	1.994E+01	1.608E+00	-0.381
		152.43		-9.749E+00	2.377E+01	3.785E+01	2.217E+00	-0.258
		222.11		3.567E+00	2.238E+01	3.614E+01	2.126E+00	0.099
		1121.30		6.215E+00	1.003E+01	1.345E+01	7.972E-01	0.462
		1189.05		3.188E+00	1.312E+01	2.240E+01	1.271E+00	0.142
		1221.41	*	3.514E+00	7.882E+00	1.372E+01	8.042E-01	0.256
		1231.02		-2.597E+00	1.652E+01	2.694E+01	1.595E+00	-0.096
IR-192	+	295.96		1.864E+01	9.224E+00	1.196E+01	7.279E-01	1.559
		308.46		3.166E+00	5.813E+00	1.001E+01	6.058E-01	0.316
		316.51	*	-1.462E+00	2.060E+00	3.329E+00	2.000E-01	-0.439
		468.07		-3.715E+00	3.827E+00	5.922E+00	3.916E-01	-0.627
HG-203		70.83		-1.249E+02	9.104E+01	1.385E+02	2.255E+01	-0.902
		72.87		-2.849E+01	6.070E+01	8.158E+01	1.287E+01	-0.349
		279.20	*	3.233E-01	2.254E+00	3.820E+00	2.410E-01	0.085
BI-207		72.81		-3.396E+00	1.485E+01	2.013E+01	1.819E+00	-0.169
		74.97		7.527E+00	8.512E+00	1.207E+01	1.097E+00	0.624
		569.70		-4.402E-01	3.058E+00	3.296E+00	1.790E-01	-0.134
		1063.66	*	1.467E+00	3.019E+00	5.251E+00	3.286E-01	0.279
		1770.23		-7.507E+01	3.635E+01	4.159E+01	2.427E+00	-1.805
TL-208		277.37		4.377E+00	2.463E+01	4.180E+01	4.551E+00	0.105
		583.19	*	-2.232E+00	2.982E+00	3.628E+00	2.286E-01	-0.615
		860.56		-8.807E+00	1.717E+01	2.648E+01	1.958E+00	-0.333
PB-210		46.54	*	-1.035E+02	3.326E+02	4.247E+02	3.464E+01	-0.244
PB-211		404.85	*	-2.764E+01	1.169E+03	6.790E+01	2.870E+03	-0.407
		427.09		8.961E+01	3.789E+03	1.589E+02	6.718E+03	0.564
		832.01		1.799E+01	7.625E+02	9.272E+01	3.919E+03	0.194
BI-212		727.33	*	-1.391E+00	2.884E+01	4.676E+01	4.919E+00	-0.030
		785.37		7.072E+00	1.721E+02	2.803E+02	1.664E+01	0.025
		1620.50		1.135E+01	1.508E+02	2.495E+02	1.546E+01	0.045
PB-212		74.82		2.404E+00	3.030E+01	4.199E+01	5.588E+00	0.057
		77.11		7.285E-01	1.580E+01	2.402E+01	2.198E+00	0.030
		238.63	*	3.359E+00	4.891E+00	6.835E+00	5.124E-01	0.491
		300.09		4.622E+01	5.258E+01	8.145E+01	6.943E+00	0.567
BI-214	+	609.32	*	2.325E+01	9.817E+00	1.096E+01	8.149E-01	2.121
		1120.29		1.730E+01	1.618E+01	2.915E+01	2.609E+00	0.593

Sample ID : G247829002 Acquisition date : 4-MAR-2010 22:20:12

---- Non-Identified Nuclides ----

Nuclide	Line Energy Ided (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
	1764.49		2.938E+01	2.158E+01	3.721E+01	2.177E+00	0.789
RN-219	271.23		3.761E+00	1.596E+02	2.437E+01	1.030E+03	0.154
	401.81	*	7.502E+00	3.180E+02	4.094E+01	1.731E+03	0.183
RA-223	81.07		-1.871E+01	7.909E+02	2.330E+01	9.850E+02	-0.803
	83.79		3.475E+00	1.471E+02	1.400E+01	5.916E+02	0.248
	94.56		1.935E+01	8.180E+02	3.829E+01	1.618E+03	0.505
	144.24		-4.438E+00	1.950E+02	7.930E+01	3.352E+03	-0.056
	154.21		-8.455E+00	3.585E+02	4.409E+01	1.864E+03	-0.192
	269.46		-1.026E+01	4.336E+02	1.809E+01	7.645E+02	-0.567
	323.87	*	-3.873E+00	1.688E+02	6.860E+01	2.900E+03	-0.056
	338.28		2.282E+01	9.661E+02	9.556E+01	4.039E+03	0.239
RA-226	186.21	*	-2.033E+01	6.552E+01	8.568E+01	5.749E+01	-0.237
AC-227	79.69		-9.224E+01	8.711E+01	1.350E+02	2.371E+01	-0.683
	235.96		1.478E+00	1.068E+01	1.504E+01	1.238E+00	0.098
	256.23	*	-5.584E+00	1.709E+01	2.681E+01	2.767E+00	-0.208
	299.98		4.916E+01	5.732E+01	8.852E+01	9.820E+00	0.555
	304.50		-5.614E+01	1.008E+02	1.642E+02	2.516E+01	-0.342
	329.85		-5.829E+00	4.205E+01	6.999E+01	6.980E+00	-0.083
	334.37		-1.048E+02	1.083E+02	1.709E+02	2.441E+01	-0.613
TH-227	79.69		-9.224E+01	3.900E+03	1.350E+02	5.707E+03	-0.683
	235.96		1.478E+00	6.339E+01	1.504E+01	6.357E+02	0.098
	256.23	*	-5.584E+00	2.366E+02	2.681E+01	1.133E+03	-0.208
	299.98		4.916E+01	2.079E+03	8.852E+01	3.742E+03	0.555
	304.50		-5.614E+01	2.375E+03	1.642E+02	6.939E+03	-0.342
	329.85		-5.829E+00	2.499E+02	6.999E+01	2.959E+03	-0.083
	334.37		-1.048E+02	4.431E+03	1.709E+02	7.225E+03	-0.613
AC-228	338.32		5.765E+00	1.433E+01	2.414E+01	9.958E+00	0.239
	911.20	*	5.608E+00	8.022E+00	1.371E+01	1.421E+00	0.409
	968.97		-5.273E+00	1.304E+01	2.000E+01	4.749E+00	-0.264
RA-228	338.32		5.765E+00	1.433E+01	2.414E+01	9.958E+00	0.239
	911.20	*	5.608E+00	8.022E+00	1.371E+01	1.421E+00	0.409
	968.97		-5.273E+00	1.304E+01	2.000E+01	4.749E+00	-0.264
TH-228	74.82		2.404E+00	3.030E+01	4.199E+01	3.844E+00	0.057
	77.11		7.285E-01	1.580E+01	2.402E+01	2.198E+00	0.030
	238.63	*	3.359E+00	4.891E+00	6.835E+00	5.124E-01	0.491
	300.09		4.622E+01	5.951E+01	8.145E+01	4.960E+01	0.567
TH-229	85.43		3.531E+00	1.384E+01	2.289E+01	2.192E+00	0.154
	88.47		-1.520E+01	8.937E+00	1.359E+01	1.314E+00	-1.118
	193.51	*	-1.906E+01	3.420E+01	5.360E+01	3.104E+00	-0.356
	210.85		3.918E+01	5.678E+01	9.390E+01	5.490E+00	0.417
PA-231	283.69	*	-6.078E+01	8.870E+01	1.438E+02	1.899E+01	-0.423
	301.36		-7.258E-01	3.093E+01	4.905E+01	4.701E+00	-0.015
	330.06		-5.107E+00	1.207E+02	2.018E+02	5.889E+01	-0.025
TH-231	84.21	*	-9.424E-01	3.152E+01	5.163E+01	9.234E+00	-0.018
TH-232	63.81	*	-1.850E+02	2.267E+03	2.677E+03	2.059E+04	-0.069
	140.88		4.589E+03	7.901E+03	1.309E+04	7.864E+02	0.350
PA-233	94.65		1.192E+01	1.855E+01	3.096E+01	2.739E+00	0.385
	98.43		3.751E-01	1.131E+01	1.634E+01	1.426E+00	0.023
	300.13		2.296E+01	2.602E+01	4.015E+01	5.410E+00	0.572

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		311.90	*	-3.891E-02	4.029E+00	6.760E+00	4.283E-01	-0.006
		340.48		4.879E+00	3.521E+01	5.934E+01	1.379E+01	0.082
PA-234		94.67		7.429E+00	1.247E+01	2.076E+01	2.588E+00	0.358
		98.44		2.073E-01	7.524E+00	1.087E+01	6.057E+00	0.019
		111.00		8.038E+00	1.354E+01	2.253E+01	2.491E+00	0.357
		131.20		-6.721E+00	7.527E+00	1.178E+01	7.270E-01	-0.571
		569.50		-5.186E+00	2.729E+01	2.947E+01	1.600E+00	-0.176
		733.00		5.037E+00	2.010E+01	3.339E+01	7.071E+00	0.151
		880.51		1.061E+01	1.526E+01	2.625E+01	1.775E+00	0.404
		883.24		9.837E+00	1.711E+01	2.699E+01	1.809E+01	0.364
		926.36		6.880E-01	9.578E+00	1.553E+01	3.840E+00	0.044
		946.00	*	-8.080E+00	1.562E+01	2.361E+01	4.247E+00	-0.342
		949.00		9.725E+00	2.207E+01	3.718E+01	2.514E+00	0.262
PA-234M		766.42		9.416E+02	7.819E+02	1.128E+03	5.677E+02	0.835
		1001.03	*	-1.422E+01	3.080E+02	4.220E+02	3.481E+01	-0.034
TH-234		63.29	*	-7.879E+01	1.275E+02	1.888E+02	3.511E+01	-0.417
		92.59		-4.352E+01	6.065E+01	8.698E+01	1.934E+01	-0.500
U-235		89.96		-1.075E+02	6.626E+01	9.328E+01	2.323E+01	-1.152
		93.35		-2.824E+01	4.533E+01	6.536E+01	1.516E+01	-0.432
		143.76	*	-8.455E+00	1.614E+01	2.357E+01	3.717E+00	-0.359
		163.33		-1.530E+01	3.369E+01	4.809E+01	8.063E+00	-0.318
		185.72		5.594E-01	3.988E+00	5.417E+00	3.125E-01	0.103
		205.31		-2.833E+00	3.229E+01	5.167E+01	8.783E+00	-0.055
NP-237		86.48	*	2.303E-01	1.637E+01	2.684E+01	6.194E+00	0.009
		95.86		-2.205E+02	8.988E+01	1.061E+02	2.542E+01	-2.079
U-238		63.29	*	-7.879E+01	1.275E+02	1.888E+02	3.511E+01	-0.417
		92.59		-4.352E+01	6.000E+01	8.698E+01	7.831E+00	-0.500
NP-239		99.53		-3.228E+00	1.343E+01	1.912E+01	1.554E+00	-0.169
		103.37		4.639E+00	7.155E+00	1.197E+01	9.262E-01	0.388
		106.12		6.105E-01	6.015E+00	9.858E+00	7.385E-01	0.062
		116.74	*	-7.577E+00	1.964E+01	3.151E+01	2.114E+00	-0.240
		228.18		3.302E+00	1.418E+01	2.297E+01	1.355E+00	0.144
		277.60		8.817E-01	1.109E+01	1.875E+01	1.124E+00	0.047
AM-241		59.54	*	-2.559E+01	1.229E+01	1.829E+01	1.804E+00	-1.399
CM-247		278.00		-1.497E+01	4.748E+01	7.887E+01	4.727E+00	-0.190
		287.50		-4.038E+01	7.574E+01	1.206E+02	7.235E+00	-0.335
		402.40	*	2.660E-01	2.227E+00	3.734E+00	2.133E-01	0.071
CF-249		252.80		-5.165E+00	6.278E+01	9.984E+01	5.951E+00	-0.052
		333.37		2.811E-01	1.124E+01	1.885E+01	1.120E+00	0.015
		388.16	*	-1.218E+00	2.402E+00	3.885E+00	2.223E-01	-0.314
CF-251	+	177.52	*	3.194E+01	1.587E+01	1.585E+01	9.106E-01	2.016
		227.38		-6.141E+00	2.329E+01	3.683E+01	2.173E+00	-0.167
		285.41		-1.964E+02	1.326E+02	2.060E+02	1.236E+01	-0.953
ANH-511		511.00	*	-7.545E+00	4.131E+00	6.030E+00	3.392E-01	-1.251

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G247829002      *
* Acquisition date :  4-MAR-2010 22:20:12 Detector SN#    :                 *
* Detector ID        : GAM19               Sensitivity     : 5.000         *
* Geometry           : 2LMB                Energy tolerance: 1.500         *
* Elapsed live time:    0 06:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 06:00:02.24      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date        : 22-FEB-2010 12:00:00 Nuclide Library : LIQUI         *
* Sample ID          : G247829002           Analyst initials: KXG3          *
* Batch Number       : 956976               Sample Quantity : 1.5710E+00 LITER *
* Recovery           :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 11-MAR-2009 08:32:49 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
BI-211	4.767E+01	1.975E+03	2.048E+01	0.000E+00
PB-214	1.728E+01	8.857E+00	7.441E+00	0.000E+00
RA-224	6.746E+01	5.313E+01	6.046E+01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	1.044E+01	1.778E+01	3.111E+01	0.000E+00	NOT IDENT.
NA-22	-9.827E-01	2.302E+00	3.740E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.636E+05	0.000E+00	0.000E+00	SHORT HLIF
K-40	-1.002E+01	2.740E+01	4.290E+01	0.000E+00	NOT IDENT.
SC-46	7.262E-01	1.869E+00	3.199E+00	0.000E+00	NOT IDENT.
V-48	3.254E+00	3.014E+00	5.453E+00	0.000E+00	NOT IDENT.
CR-51	4.844E+00	2.012E+01	3.483E+01	0.000E+00	NOT IDENT.
MN-54	-2.746E+00	2.035E+00	2.936E+00	0.000E+00	NOT IDENT.
CO-56	2.622E-01	2.175E+00	3.627E+00	0.000E+00	NOT IDENT.
CO-57	6.120E-02	1.831E+00	3.045E+00	0.000E+00	NOT IDENT.
CO-58	-8.993E-01	2.154E+00	3.432E+00	0.000E+00	NOT IDENT.
FE-59	1.144E-02	3.937E+00	6.719E+00	0.000E+00	NOT IDENT.
CO-60	1.367E-01	2.159E+00	3.673E+00	0.000E+00	NOT IDENT.
ZN-65	-2.610E+00	4.596E+00	7.456E+00	0.000E+00	NOT IDENT.
SE-75	3.210E-01	2.685E+00	4.645E+00	0.000E+00	NOT IDENT.
SR-85	-4.998E+00	3.137E+00	4.910E+00	0.000E+00	NOT IDENT.
Y-88	6.392E-01	2.319E+00	3.996E+00	0.000E+00	NOT IDENT.
Y-91	-1.076E+02	9.204E+02	1.546E+03	0.000E+00	NOT IDENT.
NB-94	1.730E+00	1.961E+00	3.464E+00	0.000E+00	NOT IDENT.
NB-95	1.559E+00	2.222E+00	3.878E+00	0.000E+00	NOT IDENT.
NB-95M	-1.136E+00	8.184E+00	1.154E+01	0.000E+00	NOT IDENT.
ZR-95	-6.685E+00	4.836E+00	5.746E+00	0.000E+00	NOT IDENT.
MO-99	1.430E+01	1.916E+02	3.202E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	8.008E+12	0.000E+00	0.000E+00	SHORT HLIF

RU-103	7.323E-02	2.352E+00	3.974E+00	0.000E+00	FAIL ABUN
RH-106	-9.599E+00	1.798E+01	2.880E+01	0.000E+00	NOT IDENT.
RU-106	-9.599E+00	1.795E+01	2.880E+01	0.000E+00	NOT IDENT.
AG-108M	-9.114E-01	1.708E+00	2.797E+00	0.000E+00	NOT IDENT.
CD-109	-4.154E+01	5.473E+01	8.886E+01	0.000E+00	NOT IDENT.
AG-110M	-6.448E-01	1.798E+00	2.909E+00	0.000E+00	NOT IDENT.
SN-113	2.337E-01	2.520E+00	4.308E+00	0.000E+00	NOT IDENT.
CD-115	-2.202E+01	1.520E+02	2.531E+02	0.000E+00	NOT IDENT.
SN-117M	1.495E-01	3.015E+00	4.986E+00	0.000E+00	NOT IDENT.
TE-123M	1.238E-02	1.930E+00	3.186E+00	0.000E+00	NOT IDENT.
SB-124	3.146E-01	4.925E+00	8.291E+00	0.000E+00	NOT IDENT.
SB-125	4.725E+00	5.317E+00	9.468E+00	0.000E+00	NOT IDENT.
TE-125M	-2.825E+02	6.621E+02	1.084E+03	0.000E+00	NOT IDENT.
I-126	-2.810E+00	9.366E+00	1.524E+01	0.000E+00	NOT IDENT.
SB-126	-5.723E-01	5.910E+00	9.742E+00	0.000E+00	NOT IDENT.
SN-126	-2.960E+00	5.324E+00	8.716E+00	0.000E+00	NOT IDENT.
SB-127	4.064E+00	3.201E+01	5.384E+01	0.000E+00	NOT IDENT.
I-131	-2.664E+00	4.790E+00	7.918E+00	0.000E+00	NOT IDENT.
TE-132	4.097E+00	1.731E+01	2.860E+01	0.000E+00	NOT IDENT.
BA-133	-2.568E-01	2.853E+00	4.203E+00	0.000E+00	NOT IDENT.
I-133	0.000E+00	7.947E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	2.642E-01	2.358E+00	3.941E+00	0.000E+00	NOT IDENT.
CS-135	-7.846E+00	9.263E+00	1.530E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.814E+12	0.000E+00	0.000E+00	SHORT HLIF
CS-136	4.962E-01	4.064E+00	7.028E+00	0.000E+00	FAIL ABUN
BA-137M	-1.091E-01	1.959E+00	3.254E+00	0.000E+00	NOT IDENT.
CS-137	-1.153E-01	2.070E+00	3.437E+00	0.000E+00	NOT IDENT.
CE-139	-3.916E-01	2.010E+00	3.287E+00	0.000E+00	NOT IDENT.
BA-140	7.798E+00	1.129E+01	1.945E+01	0.000E+00	NOT IDENT.
LA-140	-2.728E-01	4.183E+00	6.952E+00	0.000E+00	NOT IDENT.
CE-141	-8.669E-01	4.373E+00	6.593E+00	0.000E+00	NOT IDENT.
CE-143	1.405E+03	9.330E+02	1.452E+03	0.000E+00	NOT IDENT.
CE-144	3.003E+00	1.356E+01	2.265E+01	0.000E+00	NOT IDENT.
PM-144	-6.675E-01	2.026E+00	3.291E+00	0.000E+00	NOT IDENT.
PR-144	-5.094E+01	1.512E+02	2.454E+02	0.000E+00	NOT IDENT.
PM-146	-1.210E+00	3.195E+00	4.099E+00	0.000E+00	NOT IDENT.
ND-147	-2.301E+01	2.239E+01	3.430E+01	0.000E+00	NOT IDENT.
PM-149	-1.195E+03	1.283E+03	2.085E+03	0.000E+00	NOT IDENT.
EU-152	-4.381E-01	6.062E+00	9.737E+00	0.000E+00	NOT IDENT.
GD-153	2.485E+00	5.962E+00	1.010E+01	0.000E+00	NOT IDENT.
EU-154	-3.286E+00	6.554E+00	1.056E+01	0.000E+00	NOT IDENT.
EU-155	1.808E+00	7.433E+00	1.250E+01	0.000E+00	NOT IDENT.
TA-182	3.514E+00	7.724E+00	1.372E+01	0.000E+00	NOT IDENT.
IR-192	-1.462E+00	2.019E+00	3.329E+00	0.000E+00	FAIL ABUN
HG-203	3.233E-01	2.209E+00	3.820E+00	0.000E+00	NOT IDENT.
BI-207	1.467E+00	2.958E+00	5.251E+00	0.000E+00	NOT IDENT.
TL-208	-2.232E+00	2.922E+00	3.628E+00	0.000E+00	NOT IDENT.
PB-210	-1.035E+02	3.260E+02	4.247E+02	0.000E+00	NOT IDENT.
PB-211	-2.764E+01	1.146E+03	6.790E+01	0.000E+00	NOT IDENT.
BI-212	-1.391E+00	2.826E+01	4.676E+01	0.000E+00	NOT IDENT.
PB-212	3.359E+00	4.793E+00	6.835E+00	0.000E+00	NOT IDENT.
BI-214	0.000E+00	9.621E+00	1.096E+01	0.000E+00	FAIL ABUN
RN-219	7.502E+00	3.117E+02	4.094E+01	0.000E+00	NOT IDENT.
RA-223	-3.873E+00	1.654E+02	6.860E+01	0.000E+00	NOT IDENT.
RA-226	-2.033E+01	6.421E+01	8.568E+01	0.000E+00	NOT IDENT.
AC-227	-5.584E+00	1.675E+01	2.681E+01	0.000E+00	NOT IDENT.
TH-227	-5.584E+00	2.319E+02	2.681E+01	0.000E+00	NOT IDENT.
AC-228	5.608E+00	7.862E+00	1.371E+01	0.000E+00	NOT IDENT.
RA-228	5.608E+00	7.862E+00	1.371E+01	0.000E+00	NOT IDENT.
TH-228	3.359E+00	4.793E+00	6.835E+00	0.000E+00	NOT IDENT.
TH-229	-1.906E+01	3.352E+01	5.360E+01	0.000E+00	NOT IDENT.
PA-231	-6.078E+01	8.693E+01	1.438E+02	0.000E+00	NOT IDENT.
TH-231	-9.424E-01	3.089E+01	5.163E+01	0.000E+00	NOT IDENT.
TH-232	-1.850E+02	2.222E+03	2.677E+03	0.000E+00	NOT IDENT.
PA-233	-3.891E-02	3.949E+00	6.760E+00	0.000E+00	NOT IDENT.
PA-234	-8.080E+00	1.531E+01	2.361E+01	0.000E+00	NOT IDENT.
PA-234M	-1.422E+01	3.019E+02	4.220E+02	0.000E+00	NOT IDENT.
TH-234	-7.879E+01	1.249E+02	1.888E+02	0.000E+00	NOT IDENT.
U-235	-8.455E+00	1.582E+01	2.357E+01	0.000E+00	NOT IDENT.
NP-237	2.303E-01	1.604E+01	2.684E+01	0.000E+00	NOT IDENT.
U-238	-7.879E+01	1.249E+02	1.888E+02	0.000E+00	NOT IDENT.
NP-239	-7.577E+00	1.925E+01	3.151E+01	0.000E+00	NOT IDENT.
AM-241	-2.559E+01	1.205E+01	1.829E+01	0.000E+00	NOT IDENT.
CM-247	2.660E-01	2.183E+00	3.734E+00	0.000E+00	NOT IDENT.
CF-249	-1.218E+00	2.354E+00	3.885E+00	0.000E+00	NOT IDENT.
CF-251	0.000E+00	1.555E+01	1.585E+01	0.000E+00	FAIL ABUN
ANH-511	-7.545E+00	4.049E+00	6.030E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 04:20:39.15

```
*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G247829002.CNF;1
Sample date       : 22-FEB-2010 12:00:00 Acquisition date : 4-MAR-2010 22:20:12.
Sample ID         : G247829002           Sample quantity  : 1.57100E+00 LITER
Detector name     : GAM19                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:02.24  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 956976               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	4	63.68	200	487	1.93	127.23	118	20	9.25E-03	23.6	1.62E+00
2	4	66.44	116	383	1.46	132.74	118	20	5.38E-03	32.5	
3	0	92.74	159	493	1.24	185.30	181	10	7.35E-03	27.4	
4	0	176.04	182	408	1.45	351.77	345	14	8.44E-03	24.7	
5	0	185.39	175	352	0.85	370.45	365	10	8.11E-03	21.4	
6	0	198.11	74	304	0.91	395.88	393	9	3.45E-03	43.6	
7	1	238.35	96	264	1.63	476.30	470	19	4.44E-03	32.8	1.50E+00
8	1	242.05	77	241	1.64	483.70	470	19	3.58E-03	40.1	
9	0	294.98	122	205	1.31	589.48	584	11	5.64E-03	24.6	
10	0	352.01	151	234	1.07	703.48	697	12	6.99E-03	21.9	
11	0	511.14	457	203	2.75	1021.58	1013	20	2.12E-02	9.0	
12	0	557.90	49	134	1.48	1115.06	1110	13	2.26E-03	50.8	
13	0	609.47	196	137	1.78	1218.18	1211	17	9.07E-03	15.4	
14	0	1121.02	42	52	1.59	2241.19	2234	14	1.93E-03	39.9	

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 04:20:43.40

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G247829002.CNF;1
Sample date       : 22-FEB-2010 12:00:00 Acquisition date : 4-MAR-2010 22:20:12.
Sample ID         : G247829002           Sample quantity  : 1.57100E+00 LITER
Detector name     : GAM19                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:00:02.24  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 956976               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
BI-211	72.87	------	1.23	1.709E+00	------	Line Not Found	------
	351.06	138	12.92*	1.786E+00	4.763E+01	4.767E+01	4227.18
PB-214	74.82	------	5.80	1.797E+00	------	Line Not Found	------
	77.11	------	9.70	1.894E+00	------	Line Not Found	------
	242.00	77	7.25	2.253E+00	3.775E+01	3.775E+01	80.58
	295.22	122	18.42	2.001E+00	2.632E+01	2.632E+01	49.91
	351.93	138	35.60*	1.786E+00	1.728E+01	1.728E+01	52.29
RA-224	240.99	77	4.10*	2.253E+00	6.675E+01	6.746E+01	80.37

Flag: "*" = Keyline

Sample ID : G247829002 Acquisition date : 4-MAR-2010 22:20:12

Total number of lines in spectrum	6	
Number of unidentified lines	1	
Number of lines tentatively identified by NID	5	83.33%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
BI-211	21.77Y	1.00	4.763E+01	4.767E+01	201.5E+01	4227.18	
PB-214	1600.00Y	1.00	1.728E+01	1.728E+01	0.904E+01	52.29	
RA-224	1.91Y	1.01	6.675E+01	6.746E+01	5.422E+01	80.37	
	Total Activity :		1.317E+02	1.324E+02			
	Grand Total Activity :		1.317E+02	1.324E+02			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G247829002 Acquisition date : 4-MAR-2010 22:20:12

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	176.04	182	408	1.45	351.77	345	14	8.44E-03	49.3	2.63E+00	T
0	557.90	49	134	1.48	1115.06	1110	13	2.26E-03	****	1.30E+00	
0	609.47	162	137	1.78	1218.18	1211	17	7.51E-03	41.6	1.22E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 04:20:47.17

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G247829002.CNF;1  *
* Acquisition date : 4-MAR-2010 22:20:12.  Detector SN#    :                *
* Detector ID      : GAM19                 Sensitivity     : 5.00000        *
* Geometry         : 2LMB                  Energy tolerance: 1.50000        *
* Elapsed live time: 0 06:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 06:00:02.24         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 22-FEB-2010 12:00:00  Nuclide Library : LIQUID          *
* Sample ID        : G247829002            Analyst initials: KXG3            *
* Batch Number     : 956976                Sample Quantity : 1.57100E+00 LITER *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 11-MAR-2009 08:32:49.9MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BI-211	4.767E+01	2.015E+03	2.048E+01	8.659E+02	2.327
PB-214	1.728E+01	9.037E+00	7.441E+00	6.352E-01	2.323
RA-224	6.746E+01	5.422E+01	6.046E+01	3.588E+00	1.116

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	1.044E+01		1.815E+01	3.111E+01	2.070E+00	0.336
NA-22	-9.827E-01		2.349E+00	3.740E+00	2.315E-01	-0.263
NA-24	7.291E-02		1.345E-01	Half-Life too short		
K-40	-1.002E+01		2.796E+01	4.290E+01	2.901E+00	-0.234
SC-46	7.262E-01		1.907E+00	3.199E+00	2.188E-01	0.227
V-48	3.254E+00		3.076E+00	5.453E+00	3.616E-01	0.597
CR-51	4.844E+00		2.053E+01	3.483E+01	2.301E+00	0.139
MN-54	-2.746E+00		2.076E+00	2.936E+00	1.868E-01	-0.935
CO-56	2.622E-01		2.220E+00	3.627E+00	2.344E-01	0.072

Sample ID : G247829002 Acquisition date : 4-MAR-2010 22:20:12

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-57	6.120E-02		1.869E+00	3.045E+00	1.950E-01	0.020
CO-58	-8.993E-01		2.198E+00	3.432E+00	2.121E-01	-0.262
FE-59	1.144E-02		4.017E+00	6.719E+00	4.715E-01	0.002
CO-60	1.367E-01		2.203E+00	3.673E+00	2.395E-01	0.037
ZN-65	-2.610E+00		4.690E+00	7.456E+00	4.455E-01	-0.350
SE-75	3.210E-01		2.740E+00	4.645E+00	2.806E-01	0.069
SR-85	-4.998E+00		3.201E+00	4.910E+00	2.758E-01	-1.018
Y-88	6.392E-01		2.366E+00	3.996E+00	2.258E-01	0.160
Y-91	-1.076E+02		9.392E+02	1.546E+03	8.916E+01	-0.070
NB-94	1.730E+00		2.001E+00	3.464E+00	1.819E-01	0.499
NB-95	1.559E+00		2.267E+00	3.878E+00	2.238E-01	0.402
NB-95M	-1.136E+00		8.351E+00	1.154E+01	8.828E-01	-0.098
ZR-95	-6.685E+00		4.934E+00	5.746E+00	4.014E-01	-1.163
MO-99	1.430E+01		1.955E+02	3.202E+02	4.582E+01	0.045
TC-99M	4.305E+06		4.086E+06	Half-Life too short		
RU-103	7.323E-02		2.400E+00	3.974E+00	4.911E-01	0.018
RH-106	-9.599E+00		1.834E+01	2.880E+01	3.260E+00	-0.333
RU-106	-9.599E+00		1.832E+01	2.880E+01	1.490E+00	-0.333
AG-108M	-9.114E-01		1.743E+00	2.797E+00	1.716E-01	-0.326
CD-109	-4.154E+01		5.585E+01	8.886E+01	8.661E+00	-0.467
AG-110M	-6.448E-01		1.835E+00	2.909E+00	1.567E-01	-0.222
SN-113	2.337E-01		2.571E+00	4.308E+00	2.625E-01	0.054
CD-115	-2.202E+01		1.551E+02	2.531E+02	1.412E+01	-0.087
SN-117M	1.495E-01		3.076E+00	4.986E+00	2.889E-01	0.030
TE-123M	1.238E-02		1.969E+00	3.186E+00	1.870E-01	0.004
SB-124	3.146E-01		5.025E+00	8.291E+00	5.429E-01	0.038
SB-125	4.725E+00		5.426E+00	9.468E+00	5.648E-01	0.499
TE-125M	-2.825E+02		6.756E+02	1.084E+03	1.014E+02	-0.261
I-126	-2.810E+00		9.557E+00	1.524E+01	7.563E-01	-0.184
SB-126	-5.723E-01		6.031E+00	9.742E+00	5.258E-01	-0.059
SN-126	-2.960E+00		5.433E+00	8.716E+00	8.473E-01	-0.340
SB-127	4.064E+00		3.266E+01	5.384E+01	4.002E+00	0.075
I-131	-2.664E+00		4.888E+00	7.918E+00	5.122E-01	-0.336
TE-132	4.097E+00		1.767E+01	2.860E+01	3.907E+00	0.143
BA-133	-2.568E-01		2.911E+00	4.203E+00	4.755E-01	-0.061
I-133	-2.533E-03		4.054E-03	Half-Life too short		
CS-134	2.642E-01		2.406E+00	3.941E+00	2.409E-01	0.067
CS-135	-7.846E+00		9.452E+00	1.530E+01	1.193E+00	-0.513
I-135	-1.896E+06		1.435E+06	Half-Life too short		
CS-136	4.962E-01		4.147E+00	7.028E+00	4.792E-01	0.071
BA-137M	-1.091E-01		1.999E+00	3.254E+00	1.603E-01	-0.034
CS-137	-1.153E-01		2.112E+00	3.437E+00	1.703E-01	-0.034
CE-139	-3.916E-01		2.051E+00	3.287E+00	1.884E-01	-0.119
BA-140	7.798E+00		1.152E+01	1.945E+01	6.472E+00	0.401
LA-140	-2.728E-01		4.269E+00	6.952E+00	4.342E-01	-0.039
CE-141	-8.669E-01		4.462E+00	6.593E+00	4.068E-01	-0.131
CE-143	1.405E+03		9.520E+02	1.452E+03	3.000E+02	0.967
CE-144	3.003E+00		1.383E+01	2.265E+01	3.179E+00	0.133

Sample ID : G247829002 Acquisition date : 4-MAR-2010 22:20:12

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PM-144	-6.675E-01		2.068E+00	3.291E+00	1.712E-01	-0.203
PR-144	-5.094E+01		1.543E+02	2.454E+02	1.277E+01	-0.208
PM-146	-1.210E+00		3.260E+00	4.099E+00	3.443E-01	-0.295
ND-147	-2.301E+01		2.285E+01	3.430E+01	4.604E+00	-0.671
PM-149	-1.195E+03		1.309E+03	2.085E+03	2.970E+02	-0.573
EU-152	-4.381E-01		6.186E+00	9.737E+00	6.460E-01	-0.045
GD-153	2.485E+00		6.084E+00	1.010E+01	8.448E-01	0.246
EU-154	-3.286E+00		6.687E+00	1.056E+01	1.020E+00	-0.311
EU-155	1.808E+00		7.584E+00	1.250E+01	9.594E-01	0.145
TA-182	3.514E+00		7.882E+00	1.372E+01	8.042E-01	0.256
IR-192	-1.462E+00		2.060E+00	3.329E+00	2.000E-01	-0.439
HG-203	3.233E-01		2.254E+00	3.820E+00	2.410E-01	0.085
BI-207	1.467E+00		3.019E+00	5.251E+00	3.286E-01	0.279
TL-208	-2.232E+00		2.982E+00	3.628E+00	2.286E-01	-0.615
PB-210	-1.035E+02		3.326E+02	4.247E+02	3.464E+01	-0.244
PB-211	-2.764E+01		1.169E+03	6.790E+01	2.870E+03	-0.407
BI-212	-1.391E+00		2.884E+01	4.676E+01	4.919E+00	-0.030
PB-212	3.359E+00		4.891E+00	6.835E+00	5.124E-01	0.491
BI-214	2.325E+01	+	9.817E+00	1.096E+01	8.149E-01	2.121
RN-219	7.502E+00		3.180E+02	4.094E+01	1.731E+03	0.183
RA-223	-3.873E+00		1.688E+02	6.860E+01	2.900E+03	-0.056
RA-226	-2.033E+01		6.552E+01	8.568E+01	5.749E+01	-0.237
AC-227	-5.584E+00		1.709E+01	2.681E+01	2.767E+00	-0.208
TH-227	-5.584E+00		2.366E+02	2.681E+01	1.133E+03	-0.208
AC-228	5.608E+00		8.022E+00	1.371E+01	1.421E+00	0.409
RA-228	5.608E+00		8.022E+00	1.371E+01	1.421E+00	0.409
TH-228	3.359E+00		4.891E+00	6.835E+00	5.124E-01	0.491
TH-229	-1.906E+01		3.420E+01	5.360E+01	3.104E+00	-0.356
PA-231	-6.078E+01		8.870E+01	1.438E+02	1.899E+01	-0.423
TH-231	-9.424E-01		3.152E+01	5.163E+01	9.234E+00	-0.018
TH-232	-1.850E+02		2.267E+03	2.677E+03	2.059E+04	-0.069
PA-233	-3.891E-02		4.029E+00	6.760E+00	4.283E-01	-0.006
PA-234	-8.080E+00		1.562E+01	2.361E+01	4.247E+00	-0.342
PA-234M	-1.422E+01		3.080E+02	4.220E+02	3.481E+01	-0.034
TH-234	-7.879E+01		1.275E+02	1.888E+02	3.511E+01	-0.417
U-235	-8.455E+00		1.614E+01	2.357E+01	3.717E+00	-0.359
NP-237	2.303E-01		1.637E+01	2.684E+01	6.194E+00	0.009
U-238	-7.879E+01		1.275E+02	1.888E+02	3.511E+01	-0.417
NP-239	-7.577E+00		1.964E+01	3.151E+01	2.114E+00	-0.240
AM-241	-2.559E+01		1.229E+01	1.829E+01	1.804E+00	-1.399
CM-247	2.660E-01		2.227E+00	3.734E+00	2.133E-01	0.071
CF-249	-1.218E+00		2.402E+00	3.885E+00	2.223E-01	-0.314
CF-251	3.194E+01	+	1.587E+01	1.585E+01	9.106E-01	2.016
ANH-511	-7.545E+00		4.131E+00	6.030E+00	3.392E-01	-1.251

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G247829002            *
* Acquisition date :  4-MAR-2010 22:20:12 Detector SN#    :                 *
* Detector ID      : GAM19                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 06:00:02.24     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 22-FEB-2010 12:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G247829002           Analyst initials: KXG3            *
* Batch Number     : 956976               Sample Quantity : 1.5710E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 11-MAR-2009 08:32:49 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
BI-211	4.767E+01	1.975E+03	1.025E+01	1.008E+03
PB-214	1.728E+01	8.857E+00	3.723E+00	4.519E+00
RA-224	6.746E+01	5.313E+01	3.025E+01	2.711E+01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU	
BE-7	1.044E+01	1.778E+01	1.557E+01	9.073E+00	NOT IDENT.
NA-22	-9.827E-01	2.302E+00	1.871E+00	1.174E+00	NOT IDENT.
NA-24	7.291E+04	2.636E+05	0.000E+00	1.345E+05	SHORT HLIF
K-40	-1.002E+01	2.740E+01	2.146E+01	1.398E+01	NOT IDENT.
SC-46	7.262E-01	1.869E+00	1.600E+00	9.536E-01	NOT IDENT.
V-48	3.254E+00	3.014E+00	2.728E+00	1.538E+00	NOT IDENT.
CR-51	4.844E+00	2.012E+01	1.742E+01	1.026E+01	NOT IDENT.
MN-54	-2.746E+00	2.035E+00	1.469E+00	1.038E+00	NOT IDENT.
CO-56	2.622E-01	2.175E+00	1.814E+00	1.110E+00	NOT IDENT.
CO-57	6.120E-02	1.831E+00	1.524E+00	9.343E-01	NOT IDENT.
CO-58	-8.993E-01	2.154E+00	1.717E+00	1.099E+00	NOT IDENT.
FE-59	1.144E-02	3.937E+00	3.362E+00	2.009E+00	NOT IDENT.
CO-60	1.367E-01	2.159E+00	1.838E+00	1.101E+00	NOT IDENT.
ZN-65	-2.610E+00	4.596E+00	3.730E+00	2.345E+00	NOT IDENT.
SE-75	3.210E-01	2.685E+00	2.324E+00	1.370E+00	NOT IDENT.
SR-85	-4.998E+00	3.137E+00	2.457E+00	1.601E+00	NOT IDENT.
Y-88	6.392E-01	2.319E+00	1.999E+00	1.183E+00	NOT IDENT.
Y-91	-1.076E+02	9.204E+02	7.736E+02	4.696E+02	NOT IDENT.
NB-94	1.730E+00	1.961E+00	1.733E+00	1.000E+00	NOT IDENT.
NB-95	1.559E+00	2.222E+00	1.940E+00	1.134E+00	NOT IDENT.
NB-95M	-1.136E+00	8.184E+00	5.775E+00	4.175E+00	NOT IDENT.
ZR-95	-6.685E+00	4.836E+00	2.875E+00	2.467E+00	NOT IDENT.
MO-99	1.430E+01	1.916E+02	1.602E+02	9.773E+01	NOT IDENT.
TC-99M	4.305E+12	8.008E+12	0.000E+00	4.086E+12	SHORT HLIF

RU-103	7.323E-02	2.352E+00	1.988E+00	1.200E+00	FAIL ABUN
RH-106	-9.599E+00	1.798E+01	1.441E+01	9.171E+00	NOT IDENT.
RU-106	-9.599E+00	1.795E+01	1.441E+01	9.159E+00	NOT IDENT.
AG-108M	-9.114E-01	1.708E+00	1.399E+00	8.713E-01	NOT IDENT.
CD-109	-4.154E+01	5.473E+01	4.446E+01	2.793E+01	NOT IDENT.
AG-110M	-6.448E-01	1.798E+00	1.456E+00	9.174E-01	NOT IDENT.
SN-113	2.337E-01	2.520E+00	2.155E+00	1.286E+00	NOT IDENT.
CD-115	-2.202E+01	1.520E+02	1.266E+02	7.753E+01	NOT IDENT.
SN-117M	1.495E-01	3.015E+00	2.494E+00	1.538E+00	NOT IDENT.
TE-123M	1.238E-02	1.930E+00	1.594E+00	9.847E-01	NOT IDENT.
SB-124	3.146E-01	4.925E+00	4.148E+00	2.513E+00	NOT IDENT.
SB-125	4.725E+00	5.317E+00	4.737E+00	2.713E+00	NOT IDENT.
TE-125M	-2.825E+02	6.621E+02	5.421E+02	3.378E+02	NOT IDENT.
I-126	-2.810E+00	9.366E+00	7.626E+00	4.778E+00	NOT IDENT.
SB-126	-5.723E-01	5.910E+00	4.874E+00	3.015E+00	NOT IDENT.
SN-126	-2.960E+00	5.324E+00	4.361E+00	2.717E+00	NOT IDENT.
SB-127	4.064E+00	3.201E+01	2.694E+01	1.633E+01	NOT IDENT.
I-131	-2.664E+00	4.790E+00	3.962E+00	2.444E+00	NOT IDENT.
TE-132	4.097E+00	1.731E+01	1.431E+01	8.833E+00	NOT IDENT.
BA-133	-2.568E-01	2.853E+00	2.103E+00	1.455E+00	NOT IDENT.
I-133	-2.533E+03	7.947E+03	0.000E+00	4.054E+03	SHORT HLIF
CS-134	2.642E-01	2.358E+00	1.972E+00	1.203E+00	NOT IDENT.
CS-135	-7.846E+00	9.263E+00	7.653E+00	4.726E+00	NOT IDENT.
I-135	-1.896E+12	2.814E+12	0.000E+00	1.435E+12	SHORT HLIF
CS-136	4.962E-01	4.064E+00	3.516E+00	2.073E+00	FAIL ABUN
BA-137M	-1.091E-01	1.959E+00	1.628E+00	9.997E-01	NOT IDENT.
CS-137	-1.153E-01	2.070E+00	1.720E+00	1.056E+00	NOT IDENT.
CE-139	-3.916E-01	2.010E+00	1.645E+00	1.025E+00	NOT IDENT.
BA-140	7.798E+00	1.129E+01	9.733E+00	5.760E+00	NOT IDENT.
LA-140	-2.728E-01	4.183E+00	3.478E+00	2.134E+00	NOT IDENT.
CE-141	-8.669E-01	4.373E+00	3.299E+00	2.231E+00	NOT IDENT.
CE-143	1.405E+03	9.330E+02	7.266E+02	4.760E+02	NOT IDENT.
CE-144	3.003E+00	1.356E+01	1.133E+01	6.916E+00	NOT IDENT.
PM-144	-6.675E-01	2.026E+00	1.646E+00	1.034E+00	NOT IDENT.
PR-144	-5.094E+01	1.512E+02	1.228E+02	7.714E+01	NOT IDENT.
PM-146	-1.210E+00	3.195E+00	2.051E+00	1.630E+00	NOT IDENT.
ND-147	-2.301E+01	2.239E+01	1.716E+01	1.142E+01	NOT IDENT.
PM-149	-1.195E+03	1.283E+03	1.043E+03	6.545E+02	NOT IDENT.
EU-152	-4.381E-01	6.062E+00	4.871E+00	3.093E+00	NOT IDENT.
GD-153	2.485E+00	5.962E+00	5.051E+00	3.042E+00	NOT IDENT.
EU-154	-3.286E+00	6.554E+00	5.284E+00	3.344E+00	NOT IDENT.
EU-155	1.808E+00	7.433E+00	6.252E+00	3.792E+00	NOT IDENT.
TA-182	3.514E+00	7.724E+00	6.862E+00	3.941E+00	NOT IDENT.
IR-192	-1.462E+00	2.019E+00	1.666E+00	1.030E+00	FAIL ABUN
HG-203	3.233E-01	2.209E+00	1.911E+00	1.127E+00	NOT IDENT.
BI-207	1.467E+00	2.958E+00	2.627E+00	1.509E+00	NOT IDENT.
TL-208	-2.232E+00	2.922E+00	1.815E+00	1.491E+00	NOT IDENT.
PB-210	-1.035E+02	3.260E+02	2.125E+02	1.663E+02	NOT IDENT.
PB-211	-2.764E+01	1.146E+03	3.397E+01	5.846E+02	NOT IDENT.
BI-212	-1.391E+00	2.826E+01	2.339E+01	1.442E+01	NOT IDENT.
PB-212	3.359E+00	4.793E+00	3.419E+00	2.446E+00	NOT IDENT.
BI-214	2.325E+01	9.621E+00	5.482E+00	4.909E+00	FAIL ABUN
RN-219	7.502E+00	3.117E+02	2.048E+01	1.590E+02	NOT IDENT.
RA-223	-3.873E+00	1.654E+02	3.432E+01	8.439E+01	NOT IDENT.
RA-226	-2.033E+01	6.421E+01	4.286E+01	3.276E+01	NOT IDENT.
AC-227	-5.584E+00	1.675E+01	1.341E+01	8.544E+00	NOT IDENT.
TH-227	-5.584E+00	2.319E+02	1.341E+01	1.183E+02	NOT IDENT.
AC-228	5.608E+00	7.862E+00	6.858E+00	4.011E+00	NOT IDENT.
RA-228	5.608E+00	7.862E+00	6.858E+00	4.011E+00	NOT IDENT.
TH-228	3.359E+00	4.793E+00	3.419E+00	2.446E+00	NOT IDENT.
TH-229	-1.906E+01	3.352E+01	2.682E+01	1.710E+01	NOT IDENT.
PA-231	-6.078E+01	8.693E+01	7.195E+01	4.435E+01	NOT IDENT.
TH-231	-9.424E-01	3.089E+01	2.583E+01	1.576E+01	NOT IDENT.
TH-232	-1.850E+02	2.222E+03	1.339E+03	1.134E+03	NOT IDENT.
PA-233	-3.891E-02	3.949E+00	3.382E+00	2.015E+00	NOT IDENT.
PA-234	-8.080E+00	1.531E+01	1.181E+01	7.812E+00	NOT IDENT.
PA-234M	-1.422E+01	3.019E+02	2.111E+02	1.540E+02	NOT IDENT.
TH-234	-7.879E+01	1.249E+02	9.444E+01	6.374E+01	NOT IDENT.
U-235	-8.455E+00	1.582E+01	1.179E+01	8.071E+00	NOT IDENT.
NP-237	2.303E-01	1.604E+01	1.343E+01	8.183E+00	NOT IDENT.
U-238	-7.879E+01	1.249E+02	9.444E+01	6.374E+01	NOT IDENT.
NP-239	-7.577E+00	1.925E+01	1.577E+01	9.822E+00	NOT IDENT.
AM-241	-2.559E+01	1.205E+01	9.149E+00	6.147E+00	NOT IDENT.
CM-247	2.660E-01	2.183E+00	1.868E+00	1.114E+00	NOT IDENT.
CF-249	-1.218E+00	2.354E+00	1.944E+00	1.201E+00	NOT IDENT.
CF-251	3.194E+01	1.555E+01	7.928E+00	7.934E+00	FAIL ABUN
ANH-511	-7.545E+00	4.049E+00	3.017E+00	2.066E+00	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	280.8694
49.72	326.8232
57.36	317.8582
59.54	447.8250
63.29	454.5421
63.29	454.5421
63.81	437.9416
64.28	406.4309
67.75	478.4807
69.67	482.3789
70.83	442.0131
72.81	397.8694
72.87	417.8868
72.87	417.8868
74.82	412.6475
74.82	412.6475
74.82	412.6475
74.97	367.6286
77.11	404.4943
77.11	404.4943
77.11	404.4943
79.69	429.5932
79.69	429.5932
80.12	435.7997
80.19	435.8278
81.00	445.2103
81.07	445.2373
83.79	376.6411
84.21	395.9717
85.43	384.2589
86.48	400.8038
86.55	400.8279
86.94	386.7870
87.57	419.4154
88.03	438.8357
88.47	510.9848
89.96	523.8125
91.11	403.4000
92.59	380.4986
92.59	380.4986
93.35	375.6482
94.56	426.9742
94.65	427.0062
94.67	427.0126
95.86	542.7011
97.43	346.2586
98.43	335.2921
98.44	335.2959
99.53	335.5874
100.11	345.9786
103.18	324.2404
103.37	315.0526
105.31	335.0546
106.12	336.2907
109.28	369.0578
111.00	341.6645
111.76	350.1214
116.30	375.1256
116.74	362.8067
121.12	357.7104
121.78	364.1191
122.06	356.9074
123.07	341.5432
131.20	373.8324
133.52	327.2225
136.00	390.7941
136.47	401.4247

140.51	357.1847
140.51	0.0000
140.88	353.0545
143.76	363.2141
144.24	337.9785
145.44	329.7814
152.43	353.5280
153.25	379.2008
154.21	360.2935
156.02	320.2626
158.56	337.8089
159.00	340.0303
162.66	335.4361
163.33	318.4711
165.86	336.0733
176.60	283.2419
177.52	279.2958
181.07	376.5929
185.72	285.7731
186.21	311.8359
193.51	286.9876
205.31	299.7189
210.85	263.2764
222.11	254.8399
227.38	261.0311
228.16	247.8523
228.18	247.8540
235.69	255.8584
235.96	255.8918
235.96	255.8918
238.63	223.5226
238.63	223.5226
240.99	223.7711
242.00	223.8769
244.70	221.2595
252.40	213.7661
252.80	222.7598
256.23	238.8035
256.23	238.8035
260.90	243.8005
264.66	216.0732
268.22	229.9420
269.46	243.5999
271.23	213.0885
273.65	215.1210
276.40	228.0489
277.37	227.2390
277.60	227.2604
278.00	239.0728
279.20	215.6381
279.54	203.8898
283.69	209.6991
284.31	194.3163
285.41	221.6611
285.90	204.4418
287.50	195.9945
293.27	200.5190
295.22	194.6003
295.96	205.3043
299.98	164.5159
299.98	164.5159
300.09	164.5247
300.09	164.5247
300.13	164.5269
301.36	196.6179
302.85	202.2263
304.50	205.1109
304.50	205.1109
304.85	205.1410
308.46	178.8420
311.90	184.6001
316.51	192.3019
319.41	182.3898
320.08	175.9872
323.87	197.4746
328.76	204.3225
329.85	203.4839
329.85	203.4839

330.06	203.5000
333.37	188.0154
334.37	209.3976
334.37	209.3976
338.28	165.1715
338.32	165.1736
338.32	165.1736
340.48	164.3797
340.55	164.3840
344.28	162.7573
351.06	163.1696
351.93	163.2230
356.01	158.8002
364.49	168.6621
366.42	150.9650
383.85	159.4566
388.16	151.1914
388.63	150.2717
391.70	136.2410
400.66	142.3572
401.81	131.9686
402.40	136.7437
404.85	148.2628
414.70	133.4990
423.72	137.7246
427.09	109.1530
427.87	113.0132
433.94	128.5906
453.88	122.6545
463.37	99.7725
468.07	133.8711
473.00	105.8998
476.78	107.9689
477.60	106.0501
487.02	118.0621
492.35	107.5011
497.08	130.1637
511.00	134.6303
514.00	320.6416
527.90	94.8023
529.87	0.0000
531.02	96.8635
537.26	75.2522
546.56	0.0000
563.25	144.6177
569.33	82.9189
569.50	82.9230
569.70	78.9306
583.19	87.2421
600.60	150.1059
602.73	89.0385
604.72	124.3842
609.32	93.9059
610.33	93.9309
614.28	87.6230
618.01	80.9609
621.93	97.2516
621.93	97.2516
633.25	88.3891
635.95	78.2840
636.99	68.1352
645.85	85.6140
657.76	77.6903
661.66	83.9059
661.66	83.9059
664.57	78.8460
666.33	85.0264
666.50	85.0304
677.62	72.9345
685.70	77.1936
695.00	74.2720
696.49	101.1295
696.51	101.1295
697.00	110.4300
702.65	81.6423
706.68	92.0637
720.70	73.6868
721.93	91.3559

722.78	86.1814
722.91	86.1854
723.31	79.9627
724.19	69.5910
727.33	81.0754
733.00	65.5701
735.93	79.1543
739.50	58.3721
747.24	76.2276
753.82	70.0670
756.73	88.9491
763.94	84.8997
765.80	74.4495
766.42	61.8751
777.92	73.5991
778.90	87.2878
783.70	54.7447
785.37	68.4547
795.86	63.3354
801.95	76.1027
810.76	77.3076
815.77	58.3073
818.51	59.4029
832.01	64.8929
834.85	88.3496
836.80	0.0000
846.77	69.3640
856.80	80.2020
860.56	82.4047
871.09	70.7873
873.19	70.8179
875.33	0.0000
880.51	49.4320
883.24	51.6094
884.68	59.1532
889.28	45.2136
898.04	50.6856
911.20	57.3075
911.20	57.3075
926.36	55.3106
937.49	63.0396
944.13	46.7961
946.00	55.5235
949.00	42.4839
964.08	52.4391
968.97	62.3298
968.97	62.3298
983.53	40.5717
996.26	67.0494
1001.03	52.2570
1004.73	60.5497
1037.84	59.0755
1038.76	0.0000
1048.07	47.1630
1050.41	52.7324
1050.41	52.7324
1063.66	60.2789
1085.87	48.4136
1099.25	45.7281
1112.07	44.8945
1115.54	70.1904
1120.29	56.1987
1120.55	46.8343
1121.30	44.0300
1131.51	0.0000
1173.23	51.9810
1189.05	40.7464
1204.77	50.3539
1221.41	37.1528
1231.02	33.3950
1235.36	35.3274
1238.28	39.1649
1260.41	0.0000
1274.44	57.6465
1274.54	56.6881
1291.59	41.4253
1298.22	0.0000
1312.11	39.6253

1332.49	42.6572
1365.19	42.8703
1368.63	0.0000
1384.29	54.7194
1408.01	38.2415
1457.56	0.0000
1460.82	37.5485
1489.16	34.7237
1596.21	36.2476
1620.50	31.3141
1678.03	0.0000
1690.97	27.5273
1764.49	22.6410
1770.23	53.5531
1771.35	37.0796
1791.20	0.0000
1836.06	24.9180

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G247829002

Total Uranium Activity	-2.3830E+02	ug/g
Total Uranium Counting Unc.	3.7175E+02	ug/g
Total Uranium Tpu	1.8967E-04	ug/g
Total Uranium Mda	2.8101E+02	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 956976                    SAMPLE ID  : G247829002       *
*   ANALYST       : KXG3                      DETECTOR   : GAM19            *
*   SAMPLE DATE   : 22-FEB-2010 12:00:00.00   COUNT TIME :    0 06:00:00.00 *
*   ANALYSIS DATE:  4-MAR-2010 22:20:12.36    SAMPLE ALQT:    1.571 LITER   *
*                                                                           *
*****************************************************************************


         GROSS GAMMA ACTIVITY (pCi/LITER ) : 3.282E+01
         GROSS GAMMA ERROR   (pCi/LITER )  : 9.382E+00
         GROSS GAMMA MDA     (pCi/LITER )  : 2.629E+01
         GROSS GAMMA DLC     (pCi/LITER )  : 1.278E+01
```

VAX/VMS Nuclide Identification Report Generated 9-MAR-2010 14:11:24.04

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051903.CNF;1
Sample date       : 3-MAR-2010 00:00:00. Acquisition date : 4-MAR-2010 22:20:38.
Sample ID         : G1202051903          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM20                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:01:36.63  0.4%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 3.00000
Batch ID         : 956976                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	66.90	40	214	1.33	133.78	131	6	1.85E-03	60.3	
2	0	87.46	56	179	1.27	174.82	172	6	2.61E-03	39.8	
3	0	248.94	42	127	1.91	497.35	494	8	1.94E-03	49.0	
4	0	264.18	33	78	1.42	527.78	526	5	1.50E-03	44.3	
5	0	379.48	48	133	1.73	758.14	752	13	2.20E-03	52.1	
6	0	767.91	44	43	4.21	1534.51	1528	15	2.02E-03	36.7	
7	0	834.49	40	65	7.36	1667.66	1656	20	1.86E-03	51.7	
8	0	972.18	21	35	4.33	1943.05	1936	12	9.67E-04	61.3	
9	0	1016.78	26	32	0.73	2032.26	2024	15	1.19E-03	52.7	
10	0	1086.48	19	19	3.17	2171.70	2165	11	8.66E-04	51.0	
11	0	1209.79	37	27	6.21	2418.44	2407	19	1.73E-03	37.8	
12	0	1487.26	18	12	4.48	2973.85	2967	12	8.43E-04	44.6	
13	0	1872.33	10	4	1.93	3745.13	3739	10	4.50E-04	53.0	
14	0	1897.50	18	0	4.59	3795.56	3789	13	8.33E-04	23.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 9-MAR-2010 14:11:27

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051903.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 3-MAR-2010 00:00:00 Acquisition date : 4-MAR-2010 22:20:38
Sample ID : G1202051903 Sample quantity : 2.0000 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA20 Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00 Elapsed real time: 0 06:01:36.63 0.4%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
MN-54	+	834.85	*	2.530E+00	2.628E+00	1.976E+00	1.848E-01	1.280
CD-109	+	88.03	*	3.680E+01	2.973E+01	4.745E+01	6.392E+00	0.775
SN-126		64.28		-7.669E+00	2.753E+01	3.733E+01	6.507E+00	-0.205
	+	86.94		1.525E+01	1.378E+01	1.954E+01	8.322E+00	0.781
	+	87.57	*	3.668E+00	2.963E+00	4.622E+00	6.205E-01	0.794
NP-237	+	86.48	*	1.095E+01	9.135E+00	1.394E+01	3.462E+00	0.785
		95.86		-2.672E+02	8.196E+01	5.525E+01	1.402E+01	-4.837

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.60	*	-7.180E+00	1.072E+01	1.639E+01	1.481E+00	-0.438
NA-22		1274.54	*	8.114E-02	1.263E+00	2.056E+00	1.897E-01	0.039
NA-24		1368.63	*	-1.882E-01	1.235E+01	2.068E+01	1.963E+00	-0.009
K-40		1460.82	*	2.048E+00	2.326E+01	2.955E+01	2.833E+00	0.069
SC-46		889.28	*	-1.626E-01	1.255E+00	2.045E+00	1.957E-01	-0.080
		1120.55		1.027E+00	1.487E+00	2.598E+00	2.362E-01	0.395
V-48		944.13		1.601E+01	1.860E+01	3.312E+01	3.170E+00	0.483
		983.53	*	-1.932E-02	1.320E+00	2.163E+00	2.057E-01	-0.009
		1312.11		-1.842E-01	1.405E+00	2.212E+00	2.067E-01	-0.083
CR-51		320.08	*	-6.971E+00	1.096E+01	1.740E+01	1.771E+00	-0.401
CO-56		846.77	*	-2.111E-01	1.342E+00	2.190E+00	2.060E-01	-0.096
		1037.84		-6.636E+00	8.104E+00	1.163E+01	1.140E+00	-0.570
		1238.28		1.567E+00	2.065E+00	3.659E+00	3.413E-01	0.428
		1771.35		-3.608E+00	8.938E+00	1.373E+01	1.179E+00	-0.263
CO-57		122.06	*	-7.772E-01	9.927E-01	1.520E+00	1.355E-01	-0.511
		136.47		-5.473E+00	8.107E+00	1.244E+01	1.143E+00	-0.440
CO-58		810.76	*	2.268E-01	1.103E+00	1.873E+00	1.735E-01	0.121
FE-59		1099.25	*	-1.219E+00	2.481E+00	3.790E+00	3.729E-01	-0.322
		1291.59		-2.523E+00	3.471E+00	4.997E+00	5.181E-01	-0.505
CO-60		1173.23		5.376E-01	1.453E+00	2.458E+00	2.173E-01	0.219
		1332.49	*	3.366E-01	1.409E+00	2.339E+00	2.200E-01	0.144
ZN-65		1115.54	*	-9.981E-01	2.701E+00	4.189E+00	3.822E-01	-0.238

Sample ID : G1202051903 Acquisition date : 4-MAR-2010 22:20:38

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
SE-75		121.12		-7.294E-01	4.778E+00	7.610E+00	8.660E-01	-0.096
		136.00		2.820E-01	1.448E+00	2.343E+00	2.019E-01	0.120
	+	264.66	*	1.619E+00	1.442E+00	2.876E+00	2.925E-01	0.563
		279.54		4.188E-01	4.031E+00	6.763E+00	7.247E-01	0.062
		400.66		-2.691E-01	8.918E+00	1.458E+01	1.553E+00	-0.018
SR-85		514.00	*	-1.027E+01	2.548E+00	3.104E+00	2.620E-01	-3.309
Y-88		898.04		6.838E-01	1.335E+00	2.319E+00	2.236E-01	0.295
		1836.06	*	-4.377E-04	1.158E+00	1.902E+00	1.584E-01	0.000
Y-91		1204.77	*	1.599E+02	6.469E+02	9.429E+02	8.453E+01	0.170
NB-94		702.65	*	-6.512E-01	1.237E+00	1.981E+00	1.726E-01	-0.329
		871.09		9.920E-01	1.215E+00	2.169E+00	2.061E-01	0.457
NB-95		765.80	*	7.037E-01	1.469E+00	2.255E+00	2.037E-01	0.312
NB-95M		235.69	*	-1.114E+01	4.691E+00	6.729E+00	7.181E-01	-1.655
ZR-95		724.19		-1.629E+00	2.847E+00	4.521E+00	4.312E-01	-0.360
		756.73	*	-2.067E-01	2.227E+00	3.685E+00	3.633E-01	-0.056
MO-99		140.51		-3.603E+01	4.434E+01	5.468E+01	1.295E+01	-0.659
		181.07		2.800E+00	2.662E+01	4.233E+01	7.901E+00	0.066
		366.42		1.451E+01	1.443E+02	2.392E+02	2.085E+01	0.061
		739.50	*	1.249E+00	1.574E+01	2.651E+01	4.218E+00	0.047
		777.92		1.277E+01	4.358E+01	7.473E+01	6.796E+00	0.171
TC-99M		140.51	*	-3.136E+02	3.797E+02	4.759E+02	4.414E+01	-0.659
RU-103		497.08	*	-5.710E-01	1.232E+00	1.911E+00	2.643E-01	-0.299
		610.33		4.855E-01	3.285E+01	4.660E+01	7.596E+00	0.010
RH-106		621.93	*	2.489E+00	1.198E+01	1.950E+01	2.573E+00	0.128
		1050.41		-2.335E+01	8.759E+01	1.386E+02	1.296E+01	-0.168
RU-106		621.93	*	2.489E+00	1.198E+01	1.950E+01	1.662E+00	0.128
		1050.41		-2.335E+01	8.759E+01	1.386E+02	1.296E+01	-0.168
AG-108M		433.94	*	5.956E-01	1.158E+00	1.960E+00	1.665E-01	0.304
		614.28		6.621E-01	1.412E+00	2.345E+00	2.067E-01	0.282
		722.91		-8.801E-01	1.396E+00	2.208E+00	2.007E-01	-0.399
AG-110M		657.76	*	-4.936E-01	1.180E+00	1.913E+00	1.675E-01	-0.258
		677.62		8.552E+00	1.032E+01	1.855E+01	1.637E+00	0.461
		706.68		-3.552E+00	7.689E+00	1.238E+01	1.112E+00	-0.287
		763.94		1.010E+00	6.005E+00	8.904E+00	8.239E-01	0.113
		884.68		9.288E-01	1.746E+00	3.035E+00	2.976E-01	0.306
		937.49		-4.038E-01	3.663E+00	5.958E+00	5.874E-01	-0.068
		1384.29		-3.301E+00	5.398E+00	8.281E+00	7.966E-01	-0.399
SN-113		391.70	*	2.934E-01	1.556E+00	2.587E+00	2.146E-01	0.113
CD-115		260.90		5.387E+01	1.063E+02	1.627E+02	1.636E+01	0.331
		492.35		7.292E+00	2.504E+01	4.154E+01	3.486E+00	0.176
		527.90	*	2.263E+00	7.368E+00	1.220E+01	1.033E+00	0.185
SN-117M		156.02		-6.186E+01	4.776E+01	6.977E+01	5.722E+00	-0.887
		158.56	*	1.749E-01	1.162E+00	1.863E+00	1.520E-01	0.094
TE-123M		159.00	*	1.011E+00	1.076E+00	1.796E+00	1.475E-01	0.563
SB-124		602.73		1.198E+00	1.499E+00	2.535E+00	2.163E-01	0.472
		645.85		-1.489E+01	1.551E+01	2.386E+01	2.150E+00	-0.624
		722.78		-7.741E+00	1.205E+01	1.903E+01	1.716E+00	-0.407
		1690.97	*	1.874E+00	2.505E+00	4.656E+00	4.296E-01	0.403
SB-125		427.87	*	-1.484E+00	3.459E+00	5.453E+00	4.552E-01	-0.272

Sample ID : G1202051903 Acquisition date : 4-MAR-2010 22:20:38

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		463.37		-2.112E+00	1.053E+01	1.684E+01	1.512E+00	-0.125
		600.60		2.705E+00	8.215E+00	1.346E+01	1.235E+00	0.201
		635.95		-1.381E+01	1.430E+01	1.712E+01	1.580E+00	-0.807
TE-125M		109.28	*	-3.558E+00	3.484E+02	5.617E+02	6.611E+01	-0.006
I-126		388.63		-2.364E-01	3.015E+00	4.919E+00	3.986E-01	-0.048
		666.33	*	-1.666E+00	3.966E+00	6.432E+00	5.477E-01	-0.259
		753.82		6.583E-01	3.040E+01	5.085E+01	4.566E+00	0.013
SB-126		414.70		-1.330E+00	1.787E+00	2.174E+00	1.765E-01	-0.612
		666.50		-4.933E-01	1.322E+00	2.154E+00	1.835E-01	-0.229
		695.00		7.811E-01	1.442E+00	2.518E+00	2.184E-01	0.310
		697.00		2.197E+00	5.233E+00	9.042E+00	7.853E-01	0.243
		720.70	*	2.321E+00	2.604E+00	4.658E+00	4.104E-01	0.498
		856.80		-1.716E+00	8.608E+00	1.399E+01	1.321E+00	-0.123
SB-127		252.40		-2.927E-01	1.777E+01	2.620E+01	1.080E+01	-0.011
		473.00		4.301E+00	5.903E+00	1.012E+01	1.056E+00	0.425
		685.70	*	6.036E-01	4.113E+00	7.001E+00	6.262E-01	0.086
		783.70		-8.753E+00	1.124E+01	1.718E+01	1.820E+00	-0.509
I-131		80.19		-2.864E+01	5.084E+01	8.036E+01	1.017E+01	-0.356
		284.31		6.830E+00	1.931E+01	3.281E+01	3.511E+00	0.208
		364.49	*	-2.522E-01	1.513E+00	2.463E+00	2.260E-01	-0.102
		636.99		-2.378E+01	2.695E+01	3.266E+01	2.928E+00	-0.728
TE-132		49.72		-2.585E+01	3.611E+01	5.730E+01	6.538E+00	-0.451
		111.76		4.905E+01	8.305E+01	1.376E+02	1.368E+01	0.357
		116.30		-5.419E+01	7.043E+01	1.084E+02	1.028E+01	-0.500
		228.16	*	-2.604E-01	1.641E+00	2.739E+00	4.038E-01	-0.095
BA-133		81.00		-1.272E+00	3.187E+00	5.077E+00	9.201E-01	-0.251
		276.40		-6.880E+00	1.415E+01	2.291E+01	3.495E+00	-0.300
		302.85		4.178E-01	5.512E+00	9.201E+00	1.296E+00	0.045
		356.01	*	-2.338E-01	1.828E+00	2.990E+00	3.946E-01	-0.078
		383.85		-5.607E-01	1.192E+01	1.707E+01	2.076E+00	-0.033
I-133		529.87	*	1.536E+00	6.337E+00	1.044E+01	9.043E-01	0.147
		875.33		-7.309E+01	1.396E+02	2.176E+02	2.272E+01	-0.336
		1298.22		-1.577E+02	3.353E+02	5.054E+02	5.229E+01	-0.312
CS-134		563.25		9.111E+00	1.316E+01	2.242E+01	1.927E+00	0.406
		569.33		-8.182E-01	7.414E+00	1.178E+01	1.018E+00	-0.069
		604.72		-2.689E+00	1.794E+00	2.329E+00	1.991E-01	-1.155
		795.86	*	-4.967E-01	1.529E+00	2.460E+00	2.273E-01	-0.202
		801.95		-1.387E+01	2.289E+01	2.502E+01	2.315E+00	-0.555
		1365.19		2.266E+01	3.704E+01	6.766E+01	6.615E+00	0.335
CS-135		268.22	*	-5.367E+00	6.990E+00	9.606E+00	1.092E+00	-0.559
I-135		546.56		2.515E+03	2.659E+03	4.620E+03	5.054E+02	0.544
		836.80		1.223E+03	3.871E+03	5.809E+03	6.912E+02	0.210
		1038.76		-1.553E+03	2.568E+03	3.828E+03	4.660E+02	-0.406
		1131.51		4.182E+02	1.088E+03	1.848E+03	2.142E+02	0.226
		1260.41	*	4.874E+02	8.663E+02	1.498E+03	1.455E+02	0.325
		1457.56		-1.085E+03	3.153E+03	5.042E+03	5.917E+02	-0.215
		1678.03		1.587E+02	2.227E+03	3.727E+03	4.586E+02	0.043
		1791.20		1.735E+03	2.627E+03	4.830E+03	5.222E+02	0.359
CS-136		153.25		5.596E+00	1.655E+01	2.686E+01	2.672E+00	0.208

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		176.60		5.176E+00	1.008E+01	1.642E+01	1.506E+00	0.315
		273.65		3.123E+00	9.910E+00	1.683E+01	1.841E+00	0.186
		340.55		1.300E+00	2.764E+00	4.696E+00	4.529E-01	0.277
		818.51		1.168E+00	1.371E+00	2.451E+00	2.275E-01	0.477
		1048.07	*	5.972E-01	1.917E+00	3.240E+00	3.138E-01	0.184
		1235.36		-3.536E+00	7.584E+00	1.142E+01	1.382E+00	-0.310
BA-137M		661.66	*	6.081E-01	1.322E+00	2.304E+00	1.956E-01	0.264
CS-137		661.66	*	6.424E-01	1.397E+00	2.434E+00	2.070E-01	0.264
CE-139		165.86	*	1.663E-01	1.181E+00	1.889E+00	1.520E-01	0.088
BA-140		162.66		-1.734E+01	2.020E+01	2.594E+01	2.260E+00	-0.668
		304.85		-1.804E+01	2.773E+01	4.343E+01	1.291E+01	-0.415
		423.72		-8.072E+00	3.449E+01	5.509E+01	1.806E+01	-0.147
		537.26	*	1.994E+00	5.280E+00	8.708E+00	2.950E+00	0.229
LA-140		328.76		-1.830E+00	5.663E+00	9.177E+00	9.222E-01	-0.199
		487.02		2.419E+00	2.652E+00	4.597E+00	4.103E-01	0.526
		815.77		-4.232E+00	5.546E+00	8.433E+00	8.615E-01	-0.502
		1596.21	*	7.406E-01	1.576E+00	2.790E+00	2.550E-01	0.265
CE-141		145.44	*	2.060E+00	2.017E+00	3.377E+00	2.883E-01	0.610
CE-143		57.36		-3.620E+01	4.731E+01	7.432E+01	9.228E+00	-0.487
		293.27	*	2.837E+00	6.751E+00	1.146E+01	2.447E+00	0.248
		664.57		2.631E+01	5.740E+01	9.930E+01	2.920E+01	0.265
		721.93		-2.602E+00	6.527E+01	1.089E+02	2.990E+01	-0.024
CE-144		80.12		-4.892E+01	8.241E+01	1.300E+02	1.644E+01	-0.376
		133.52	*	1.778E-01	7.406E+00	1.187E+01	1.814E+00	0.015
PM-144		476.78		-2.198E+00	2.534E+00	3.806E+00	3.468E-01	-0.578
		618.01		-8.243E-01	1.279E+00	1.919E+00	1.683E-01	-0.430
		696.49	*	1.048E-01	1.340E+00	2.262E+00	1.964E-01	0.046
PR-144		696.51	*	6.970E+00	9.957E+01	1.679E+02	1.458E+01	0.042
		1489.16		4.111E+00	6.395E+02	9.203E+02	8.586E+01	0.004
PM-146		453.88	*	2.083E-01	1.496E+00	2.464E+00	2.541E-01	0.085
		633.25		7.413E+00	5.625E+01	9.073E+01	3.463E+01	0.082
		735.93		-4.775E+00	5.324E+00	7.849E+00	2.206E+00	-0.608
		747.24		-1.807E-01	3.365E+00	5.593E+00	8.266E-01	-0.032
ND-147		91.11		-4.256E+00	6.441E+00	8.768E+00	1.167E+00	-0.485
		319.41		-4.243E+01	5.874E+01	9.262E+01	9.069E+00	-0.458
		531.02	*	1.623E+00	9.662E+00	1.580E+01	2.349E+00	0.103
PM-149		285.90	*	-3.793E+01	6.104E+01	9.742E+01	1.612E+01	-0.389
EU-152		121.78		-2.409E+00	2.963E+00	4.526E+00	4.607E-01	-0.532
		244.70		-3.513E+00	1.483E+01	2.154E+01	2.091E+00	-0.163
		344.28	*	-1.247E+00	3.909E+00	6.320E+00	6.156E-01	-0.197
		778.90		2.031E+00	8.847E+00	1.507E+01	1.371E+00	0.135
		964.08		7.517E-01	1.020E+01	1.594E+01	1.521E+00	0.047
	+	1085.87		1.426E+01	1.461E+01	2.202E+01	2.033E+00	0.648
		1112.07		4.997E+00	1.005E+01	1.729E+01	1.578E+00	0.289
		1408.01		-4.781E-01	6.581E+00	1.092E+01	1.026E+00	-0.044
GD-153		69.67		-7.063E+01	6.534E+01	8.798E+01	1.064E+01	-0.803
		97.43	*	-5.057E+00	4.035E+00	5.142E+00	6.021E-01	-0.984
		103.18		-7.823E-01	4.037E+00	6.454E+00	7.033E-01	-0.121
EU-154		123.07		-4.169E-01	2.081E+00	3.304E+00	3.816E-01	-0.126

Sample ID : G1202051903 Acquisition date : 4-MAR-2010 22:20:38

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		723.31		-5.006E+00	6.359E+00	9.903E+00	9.584E-01	-0.505
		873.19		1.614E+00	9.797E+00	1.648E+01	2.069E+00	0.098
		996.26		-4.255E+00	1.132E+01	1.765E+01	3.161E+00	-0.241
		1004.73		-2.801E+00	7.168E+00	1.119E+01	1.374E+00	-0.250
		1274.44	*	-5.862E-01	3.728E+00	5.866E+00	6.946E-01	-0.100
EU-155	+	86.55		4.425E+00	3.575E+00	5.597E+00	7.479E-01	0.791
		105.31	*	-1.080E+00	4.067E+00	6.471E+00	6.932E-01	-0.167
TA-182	+	67.75		3.457E+00	4.187E+00	5.941E+00	7.176E-01	0.582
		100.11		-6.580E+00	7.986E+00	1.040E+01	1.177E+00	-0.633
		152.43		2.420E+00	1.255E+01	2.022E+01	1.670E+00	0.120
		222.11		4.351E+00	1.258E+01	2.156E+01	1.987E+00	0.202
		1121.30		1.804E+00	4.384E+00	7.443E+00	6.766E-01	0.242
		1189.05		-9.048E+00	8.030E+00	9.008E+00	8.021E-01	-1.004
		1221.41	*	-9.108E-01	5.219E+00	8.240E+00	7.440E-01	-0.111
		1231.02		5.324E+00	1.096E+01	1.894E+01	1.717E+00	0.281
IR-192		295.96		1.476E+00	3.726E+00	6.330E+00	6.493E-01	0.233
		308.46		4.519E+00	3.666E+00	6.457E+00	6.479E-01	0.700
		316.51	*	4.416E-01	1.266E+00	2.142E+00	2.113E-01	0.206
		468.07		5.781E-01	2.225E+00	3.689E+00	3.309E-01	0.157
HG-203		70.83		3.526E+01	3.871E+01	6.256E+01	1.137E+01	0.564
		72.87		1.269E+01	2.186E+01	3.652E+01	6.486E+00	0.347
		279.20	*	7.004E-02	1.270E+00	2.126E+00	2.259E-01	0.033
BI-207		72.81		3.462E+00	6.119E+00	1.024E+01	1.248E+00	0.338
		74.97		-4.113E+00	4.206E+00	5.896E+00	7.241E-01	-0.698
		569.70		1.575E-02	1.167E+00	1.876E+00	1.598E-01	0.008
		1063.66	*	7.702E-01	1.894E+00	3.228E+00	3.004E-01	0.239
		1770.23		-7.990E+00	2.168E+01	3.372E+01	2.898E+00	-0.237
TL-208		277.37		7.705E-02	1.484E+01	2.477E+01	3.423E+00	0.003
		583.19	*	4.934E-01	1.991E+00	2.717E+00	2.483E-01	0.182
		860.56		7.956E+00	1.101E+01	1.935E+01	1.942E+00	0.411
PB-210		46.54	*	-1.225E+02	1.590E+02	2.117E+02	2.274E+01	-0.579
BI-211		72.87		6.193E+01	5.210E+02	1.783E+02	1.468E+03	0.347
		351.06	*	-1.040E+00	1.427E+01	1.510E+01	1.244E+02	-0.069
PB-211		404.85	*	-6.147E+00	5.816E+01	4.590E+01	3.786E+02	-0.134
		427.09		-8.420E+00	8.907E+01	8.993E+01	7.418E+02	-0.094
		832.01		8.736E+00	7.991E+01	5.865E+01	4.840E+02	0.149
BI-212		727.33	*	-2.180E+00	2.475E+01	3.080E+01	3.886E+00	-0.071
		785.37		6.044E+01	1.007E+02	1.775E+02	1.620E+01	0.341
		1620.50		3.787E+01	8.064E+01	1.439E+02	1.306E+01	0.263
PB-212		74.82		-1.545E+01	1.473E+01	2.041E+01	3.197E+00	-0.757
		77.11		-1.427E+00	8.484E+00	1.183E+01	1.469E+00	-0.121
		238.63	*	-4.591E-01	3.535E+00	4.899E+00	5.202E-01	-0.094
		300.09		-4.800E+00	3.036E+01	4.998E+01	5.903E+00	-0.096
BI-214		609.32	*	-6.114E-02	4.094E+00	5.830E+00	5.847E-01	-0.010
		1120.29		7.808E+00	9.549E+00	1.690E+01	1.909E+00	0.462
		1764.49		5.485E+00	1.193E+01	1.888E+01	1.627E+00	0.291
PB-214		74.82		-2.732E+01	2.600E+01	3.610E+01	5.276E+00	-0.757
		77.11		-2.511E+00	1.493E+01	2.082E+01	3.103E+00	-0.121
		242.00		-3.572E+01	1.589E+01	2.293E+01	2.580E+00	-1.558

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		295.22		2.197E+00	5.518E+00	9.379E+00	1.136E+00	0.234
		351.93	*	4.127E-01	4.126E+00	5.512E+00	6.056E-01	0.075
RN-219		271.23		4.140E+00	3.527E+01	1.548E+01	1.275E+02	0.267
		401.81	*	-5.728E+00	4.967E+01	2.478E+01	2.041E+02	-0.231
RA-223		81.07		-2.720E+00	2.354E+01	1.156E+01	9.518E+01	-0.235
		83.79		-5.028E+00	4.184E+01	7.092E+00	5.841E+01	-0.709
		94.56		-1.734E+01	1.435E+02	2.170E+01	1.787E+02	-0.799
		144.24		-1.939E+01	1.647E+02	4.803E+01	3.956E+02	-0.404
		154.21		1.906E+01	1.577E+02	2.555E+01	2.104E+02	0.746
		269.46		-8.177E-01	9.646E+00	1.146E+01	9.440E+01	-0.071
		323.87	*	5.104E+00	4.964E+01	4.424E+01	3.644E+02	0.115
		338.28		2.408E+01	2.019E+02	6.486E+01	5.342E+02	0.371
RA-224		240.99	*	-4.371E+01	2.791E+01	4.293E+01	4.132E+00	-1.018
RA-226		186.21	*	-1.399E+01	4.083E+01	6.101E+01	4.111E+01	-0.229
AC-227		79.69		-5.475E+01	4.438E+01	6.580E+01	1.286E+01	-0.832
		235.96		-1.342E+01	6.423E+00	9.420E+00	1.046E+00	-1.424
		256.23	*	1.875E-01	9.604E+00	1.610E+01	2.100E+00	0.012
		299.98		-6.095E+00	3.315E+01	5.449E+01	7.509E+00	-0.112
		304.50		-4.643E+01	6.767E+01	1.071E+02	1.856E+01	-0.434
		329.85		-1.029E+01	2.586E+01	4.167E+01	5.202E+00	-0.247
		334.37		-4.513E+01	6.834E+01	1.077E+02	1.731E+01	-0.419
TH-227		79.69		-5.475E+01	4.531E+02	6.580E+01	5.420E+02	-0.832
		235.96		-1.342E+01	1.107E+02	9.420E+00	7.758E+01	-1.424
		256.23	*	1.875E-01	9.727E+00	1.610E+01	1.326E+02	0.012
		299.98		-6.095E+00	6.015E+01	5.449E+01	4.488E+02	-0.112
		304.50		-4.643E+01	3.883E+02	1.071E+02	8.822E+02	-0.434
		329.85		-1.029E+01	8.856E+01	4.167E+01	3.432E+02	-0.247
		334.37		-4.513E+01	3.778E+02	1.077E+02	8.867E+02	-0.419
AC-228		338.32		5.977E+00	9.849E+00	1.634E+01	6.842E+00	0.366
		911.20	*	1.612E+00	6.687E+00	8.972E+00	1.107E+00	0.180
		968.97		-1.203E+01	1.209E+01	1.404E+01	3.469E+00	-0.857
RA-228		338.32		5.977E+00	9.849E+00	1.634E+01	6.842E+00	0.366
		911.20	*	1.612E+00	6.687E+00	8.972E+00	1.107E+00	0.180
		968.97		-1.203E+01	1.209E+01	1.404E+01	3.469E+00	-0.857
TH-228		74.82		-1.545E+01	1.465E+01	2.041E+01	2.516E+00	-0.757
		77.11		-1.427E+00	8.484E+00	1.183E+01	1.469E+00	-0.121
		238.63	*	-4.591E-01	3.535E+00	4.899E+00	5.202E-01	-0.094
		300.09		-4.800E+00	3.049E+01	4.998E+01	3.071E+01	-0.096
TH-229		85.43		-7.427E+00	9.771E+00	1.160E+01	1.528E+00	-0.640
	+	88.47		5.655E+00	4.569E+00	7.243E+00	9.685E-01	0.781
		193.51	*	4.373E+00	1.983E+01	3.397E+01	2.922E+00	0.129
		210.85		1.399E+01	3.132E+01	5.407E+01	4.852E+00	0.259
PA-231		283.69	*	3.045E+01	5.867E+01	1.003E+02	1.575E+01	0.303
		301.36		5.111E+00	1.871E+01	3.158E+01	3.973E+00	0.162
		330.06		-2.837E+01	7.438E+01	1.193E+02	3.596E+01	-0.238
TH-231		84.21	*	-1.554E+01	2.204E+01	2.608E+01	5.214E+00	-0.596
TH-232		63.81	*	1.671E+02	1.642E+03	1.418E+03	1.091E+04	0.118
		140.88		-5.733E+03	5.865E+03	7.260E+03	6.142E+02	-0.790
PA-233		94.65		-1.818E+01	1.162E+01	1.727E+01	2.117E+00	-1.052

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		98.43		-5.623E+00	6.736E+00	8.829E+00	1.051E+00	-0.637
		300.13		-2.046E+00	1.510E+01	2.490E+01	3.924E+00	-0.082
		311.90	*	-1.473E+00	2.726E+00	4.371E+00	4.436E-01	-0.337
		340.48		1.127E+01	2.367E+01	4.000E+01	9.736E+00	0.282
PA-234		94.67		-1.282E+01	7.889E+00	1.154E+01	1.740E+00	-1.111
		98.44		-3.725E+00	4.929E+00	5.877E+00	3.310E+00	-0.634
		111.00		6.041E-01	7.913E+00	1.281E+01	1.677E+00	0.047
		131.20		1.055E+00	4.026E+00	6.546E+00	5.670E-01	0.161
		569.50		-9.962E-01	1.035E+01	1.648E+01	1.403E+00	-0.060
		733.00		3.738E+00	1.310E+01	2.244E+01	5.003E+00	0.167
		880.51		2.203E-01	9.914E+00	1.643E+01	1.567E+00	0.013
		883.24		6.997E+00	1.133E+01	1.819E+01	1.225E+01	0.385
		926.36		2.760E+00	5.841E+00	1.007E+01	2.579E+00	0.274
		946.00	*	1.515E+01	1.161E+01	2.090E+01	4.016E+00	0.725
		949.00		-1.731E+01	1.729E+01	2.534E+01	2.424E+00	-0.683
PA-234M	+	766.42		7.995E+02	7.142E+02	6.923E+02	3.518E+02	1.155
		1001.03	*	4.732E+01	1.522E+02	2.581E+02	2.766E+01	0.183
TH-234		63.29	*	4.356E+01	7.193E+01	1.009E+02	2.047E+01	0.432
		92.59		-8.196E+01	4.222E+01	5.828E+01	1.392E+01	-1.406
U-235		89.96		-3.054E+02	9.517E+01	4.820E+01	1.277E+01	-6.336
		93.35		-5.198E+01	3.080E+01	4.408E+01	1.091E+01	-1.179
		143.76	*	-5.920E+00	1.209E+01	1.422E+01	2.396E+00	-0.416
		163.33		-2.721E+01	2.290E+01	2.829E+01	5.008E+00	-0.962
		185.72		-3.053E-01	2.519E+00	3.909E+00	3.299E-01	-0.078
		205.31		-1.574E+01	2.406E+01	3.195E+01	5.834E+00	-0.492
U-238		63.29	*	4.356E+01	7.193E+01	1.009E+02	2.047E+01	0.432
		92.59		-8.196E+01	3.879E+01	5.828E+01	7.304E+00	-1.406
NP-239		99.53		-4.363E+00	7.973E+00	1.062E+01	1.210E+00	-0.411
		103.37		-4.448E-02	3.757E+00	6.068E+00	6.598E-01	-0.007
		106.12		2.536E-02	3.299E+00	5.330E+00	5.614E-01	0.005
		116.74	*	-6.707E+00	1.086E+01	1.685E+01	1.584E+00	-0.398
		228.18		-2.686E+00	8.373E+00	1.385E+01	1.295E+00	-0.194
		277.60		2.199E-01	6.830E+00	1.142E+01	1.189E+00	0.019
AM-241		59.54	*	4.166E-01	5.119E+00	8.453E+00	1.093E+00	0.049
CM-247		278.00		8.371E+00	2.892E+01	4.902E+01	5.108E+00	0.171
		287.50		7.135E+00	4.849E+01	8.148E+01	8.419E+00	0.088
		402.40	*	-3.145E-02	1.433E+00	2.343E+00	1.889E-01	-0.013
CF-249		252.80		-1.587E+00	4.216E+01	6.206E+01	6.133E+00	-0.026
		333.37		-8.810E-01	7.005E+00	1.149E+01	1.093E+00	-0.077
		388.16	*	2.745E-02	1.423E+00	2.339E+00	1.899E-01	0.012
CF-251		177.52	*	6.710E-02	5.295E+00	8.384E+00	6.935E-01	0.008
		227.38		4.010E+00	1.362E+01	2.327E+01	2.171E+00	0.172
		285.41		-2.991E+01	8.859E+01	1.447E+02	1.499E+01	-0.207
ANH-511		511.00	*	-4.707E+00	3.228E+00	4.741E+00	3.998E-01	-0.993

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
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*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051903     *
* Acquisition date :  4-MAR-2010 22:20:38 Detector SN#     :                *
* Detector ID       : GAM20               Sensitivity      : 3.000         *
* Geometry          : 2LMB                Energy tolerance: 1.500          *
* Elapsed live time:    0 06:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 06:01:36.63     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       :  3-MAR-2010 00:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G1202051903          Analyst initials: KXG3           *
* Batch Number      : 956976               Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  6-JUL-2009 16:37:21 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
MN-54	2.530E+00	2.576E+00	1.976E+00	0.000E+00
CD-109	3.680E+01	2.913E+01	4.745E+01	0.000E+00
SN-126	3.668E+00	2.904E+00	4.622E+00	0.000E+00
NP-237	1.095E+01	8.953E+00	1.394E+01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	-7.180E+00	1.050E+01	1.639E+01	0.000E+00	NOT IDENT.
NA-22	8.114E-02	1.238E+00	2.056E+00	0.000E+00	NOT IDENT.
NA-24	-1.882E-01	1.210E+01	2.068E+01	0.000E+00	NOT IDENT.
K-40	2.048E+00	2.279E+01	2.955E+01	0.000E+00	NOT IDENT.
SC-46	-1.626E-01	1.230E+00	2.045E+00	0.000E+00	NOT IDENT.
V-48	-1.932E-02	1.294E+00	2.163E+00	0.000E+00	NOT IDENT.
CR-51	-6.971E+00	1.074E+01	1.740E+01	0.000E+00	NOT IDENT.
CO-56	-2.111E-01	1.315E+00	2.190E+00	0.000E+00	NOT IDENT.
CO-57	-7.772E-01	9.728E-01	1.520E+00	0.000E+00	NOT IDENT.
CO-58	2.268E-01	1.080E+00	1.873E+00	0.000E+00	NOT IDENT.
FE-59	-1.219E+00	2.432E+00	3.790E+00	0.000E+00	NOT IDENT.
CO-60	3.366E-01	1.381E+00	2.339E+00	0.000E+00	NOT IDENT.
ZN-65	-9.981E-01	2.647E+00	4.189E+00	0.000E+00	NOT IDENT.
SE-75	1.619E+00	1.413E+00	2.876E+00	0.000E+00	FAIL ABUN
SR-85	-1.027E+01	2.497E+00	3.104E+00	0.000E+00	NOT IDENT.
Y-88	-4.377E-04	1.135E+00	1.902E+00	0.000E+00	NOT IDENT.
Y-91	1.599E+02	6.339E+02	9.429E+02	0.000E+00	NOT IDENT.
NB-94	-6.512E-01	1.213E+00	1.981E+00	0.000E+00	NOT IDENT.
NB-95	7.037E-01	1.439E+00	2.255E+00	0.000E+00	NOT IDENT.
NB-95M	-1.114E+01	4.597E+00	6.729E+00	0.000E+00	NOT IDENT.
ZR-95	-2.067E-01	2.182E+00	3.685E+00	0.000E+00	NOT IDENT.
MO-99	1.249E+00	1.543E+01	2.651E+01	0.000E+00	NOT IDENT.
TC-99M	-3.136E+02	3.722E+02	4.759E+02	0.000E+00	NOT IDENT.

RU-103	-5.710E-01	1.207E+00	1.911E+00	0.000E+00	NOT IDENT.
RH-106	2.489E+00	1.174E+01	1.950E+01	0.000E+00	NOT IDENT.
RU-106	2.489E+00	1.174E+01	1.950E+01	0.000E+00	NOT IDENT.
AG-108M	5.956E-01	1.135E+00	1.960E+00	0.000E+00	NOT IDENT.
AG-110M	-4.936E-01	1.157E+00	1.913E+00	0.000E+00	NOT IDENT.
SN-113	2.934E-01	1.524E+00	2.587E+00	0.000E+00	NOT IDENT.
CD-115	2.263E+00	7.220E+00	1.220E+01	0.000E+00	NOT IDENT.
SN-117M	1.749E-01	1.139E+00	1.863E+00	0.000E+00	NOT IDENT.
TE-123M	1.011E+00	1.055E+00	1.796E+00	0.000E+00	NOT IDENT.
SB-124	1.874E+00	2.455E+00	4.656E+00	0.000E+00	NOT IDENT.
SB-125	-1.484E+00	3.390E+00	5.453E+00	0.000E+00	NOT IDENT.
TE-125M	-3.558E+00	3.414E+02	5.617E+02	0.000E+00	NOT IDENT.
I-126	-1.666E+00	3.887E+00	6.432E+00	0.000E+00	NOT IDENT.
SB-126	2.321E+00	2.552E+00	4.658E+00	0.000E+00	NOT IDENT.
SB-127	6.036E-01	4.031E+00	7.001E+00	0.000E+00	NOT IDENT.
I-131	-2.522E-01	1.483E+00	2.463E+00	0.000E+00	NOT IDENT.
TE-132	-2.604E-01	1.609E+00	2.739E+00	0.000E+00	NOT IDENT.
BA-133	-2.338E-01	1.791E+00	2.990E+00	0.000E+00	NOT IDENT.
I-133	1.536E+00	6.210E+00	1.044E+01	0.000E+00	NOT IDENT.
CS-134	-4.967E-01	1.498E+00	2.460E+00	0.000E+00	NOT IDENT.
CS-135	-5.367E+00	6.850E+00	9.606E+00	0.000E+00	NOT IDENT.
I-135	4.874E+02	8.490E+02	1.498E+03	0.000E+00	NOT IDENT.
CS-136	5.972E-01	1.879E+00	3.240E+00	0.000E+00	NOT IDENT.
BA-137M	6.081E-01	1.296E+00	2.304E+00	0.000E+00	NOT IDENT.
CS-137	6.424E-01	1.369E+00	2.434E+00	0.000E+00	NOT IDENT.
CE-139	1.663E-01	1.157E+00	1.889E+00	0.000E+00	NOT IDENT.
BA-140	1.994E+00	5.175E+00	8.708E+00	0.000E+00	NOT IDENT.
LA-140	7.406E-01	1.545E+00	2.790E+00	0.000E+00	NOT IDENT.
CE-141	2.060E+00	1.977E+00	3.377E+00	0.000E+00	NOT IDENT.
CE-143	2.837E+00	6.616E+00	1.146E+01	0.000E+00	NOT IDENT.
CE-144	1.778E-01	7.257E+00	1.187E+01	0.000E+00	NOT IDENT.
PM-144	1.048E-01	1.314E+00	2.262E+00	0.000E+00	NOT IDENT.
PR-144	6.970E+00	9.758E+01	1.679E+02	0.000E+00	NOT IDENT.
PM-146	2.083E-01	1.467E+00	2.464E+00	0.000E+00	NOT IDENT.
ND-147	1.623E+00	9.469E+00	1.580E+01	0.000E+00	NOT IDENT.
PM-149	-3.793E+01	5.981E+01	9.742E+01	0.000E+00	NOT IDENT.
EU-152	-1.247E+00	3.831E+00	6.320E+00	0.000E+00	FAIL ABUN
GD-153	-5.057E+00	3.954E+00	5.142E+00	0.000E+00	NOT IDENT.
EU-154	-5.862E-01	3.654E+00	5.866E+00	0.000E+00	NOT IDENT.
EU-155	-1.080E+00	3.985E+00	6.471E+00	0.000E+00	FAIL ABUN
TA-182	-9.108E-01	5.115E+00	8.240E+00	0.000E+00	FAIL ABUN
IR-192	4.416E-01	1.241E+00	2.142E+00	0.000E+00	NOT IDENT.
HG-203	7.004E-02	1.245E+00	2.126E+00	0.000E+00	NOT IDENT.
BI-207	7.702E-01	1.856E+00	3.228E+00	0.000E+00	NOT IDENT.
TL-208	4.934E-01	1.952E+00	2.717E+00	0.000E+00	NOT IDENT.
PB-210	-1.225E+02	1.558E+02	2.117E+02	0.000E+00	NOT IDENT.
BI-211	-1.040E+00	1.399E+01	1.510E+01	0.000E+00	NOT IDENT.
PB-211	-6.147E+00	5.699E+01	4.590E+01	0.000E+00	NOT IDENT.
BI-212	-2.180E+00	2.426E+01	3.080E+01	0.000E+00	NOT IDENT.
PB-212	-4.591E-01	3.464E+00	4.899E+00	0.000E+00	NOT IDENT.
BI-214	-6.114E-02	4.013E+00	5.830E+00	0.000E+00	NOT IDENT.
PB-214	4.127E-01	4.044E+00	5.512E+00	0.000E+00	NOT IDENT.
RN-219	-5.728E+00	4.868E+01	2.478E+01	0.000E+00	NOT IDENT.
RA-223	5.104E+00	4.865E+01	4.424E+01	0.000E+00	NOT IDENT.
RA-224	-4.371E+01	2.735E+01	4.293E+01	0.000E+00	NOT IDENT.
RA-226	-1.399E+01	4.001E+01	6.101E+01	0.000E+00	NOT IDENT.
AC-227	1.875E-01	9.412E+00	1.610E+01	0.000E+00	NOT IDENT.
TH-227	1.875E-01	9.533E+00	1.610E+01	0.000E+00	NOT IDENT.
AC-228	1.612E+00	6.554E+00	8.972E+00	0.000E+00	NOT IDENT.
RA-228	1.612E+00	6.554E+00	8.972E+00	0.000E+00	NOT IDENT.
TH-228	-4.591E-01	3.464E+00	4.899E+00	0.000E+00	NOT IDENT.
TH-229	4.373E+00	1.944E+01	3.397E+01	0.000E+00	FAIL ABUN
PA-231	3.045E+01	5.750E+01	1.003E+02	0.000E+00	NOT IDENT.
TH-231	-1.554E+01	2.160E+01	2.608E+01	0.000E+00	NOT IDENT.
TH-232	1.671E+02	1.610E+03	1.418E+03	0.000E+00	NOT IDENT.
PA-233	-1.473E+00	2.672E+00	4.371E+00	0.000E+00	NOT IDENT.
PA-234	1.515E+01	1.137E+01	2.090E+01	0.000E+00	NOT IDENT.
PA-234M	4.732E+01	1.491E+02	2.581E+02	0.000E+00	FAIL ABUN
TH-234	4.356E+01	7.049E+01	1.009E+02	0.000E+00	NOT IDENT.
U-235	-5.920E+00	1.185E+01	1.422E+01	0.000E+00	NOT IDENT.
U-238	4.356E+01	7.049E+01	1.009E+02	0.000E+00	NOT IDENT.
NP-239	-6.707E+00	1.064E+01	1.685E+01	0.000E+00	NOT IDENT.
AM-241	4.166E-01	5.016E+00	8.453E+00	0.000E+00	NOT IDENT.
CM-247	-3.145E-02	1.404E+00	2.343E+00	0.000E+00	NOT IDENT.
CF-249	2.745E-02	1.395E+00	2.339E+00	0.000E+00	NOT IDENT.
CF-251	6.710E-02	5.189E+00	8.384E+00	0.000E+00	NOT IDENT.
ANH-511	-4.707E+00	3.163E+00	4.741E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 9-MAR-2010 14:11:21.58

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051903.CNF;1
Sample date       : 3-MAR-2010 00:00:00. Acquisition date : 4-MAR-2010 22:20:38.
Sample ID         : G1202051903          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM20                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00         Elapsed real time: 0 06:01:36.63  0.4%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 3.00000
Batch ID          : 956976               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.39	91	245	1.19	92.81	89	8	4.19E-03	31.9	
2	0	63.28	191	325	0.91	126.55	123	9	8.86E-03	18.4	
3	0	66.90	40	214	1.33	133.78	131	6	1.85E-03	60.3	
4	0	87.46	56	179	1.27	174.82	172	6	2.61E-03	39.8	
5	0	92.91	262	439	1.01	185.70	181	11	1.21E-02	16.8	
6	0	98.90	61	190	1.33	197.67	194	8	2.83E-03	41.0	
7	0	143.92	58	211	0.80	287.58	284	8	2.68E-03	45.3	
8	0	185.70	200	353	1.26	371.02	366	13	9.26E-03	20.6	
9	0	238.57	140	215	1.49	476.62	470	11	6.50E-03	21.9	
10	0	248.94	42	127	1.91	497.35	494	8	1.94E-03	49.0	
11	0	264.18	33	78	1.42	527.78	526	5	1.50E-03	44.3	
12	0	379.48	48	133	1.73	758.14	752	13	2.20E-03	52.1	
13	0	511.27	533	175	2.14	1021.49	1013	20	2.47E-02	7.5	
14	0	609.90	59	114	0.84	1218.64	1212	13	2.75E-03	39.6	
15	0	767.91	44	43	4.21	1534.51	1528	15	2.02E-03	36.7	
16	0	834.49	40	65	7.36	1667.66	1656	20	1.86E-03	51.7	
17	0	972.18	21	35	4.33	1943.05	1936	12	9.67E-04	61.3	
18	0	1016.78	26	32	0.73	2032.26	2024	15	1.19E-03	52.7	
19	0	1086.48	19	19	3.17	2171.70	2165	11	8.66E-04	51.0	
20	0	1209.79	37	27	6.21	2418.44	2407	19	1.73E-03	37.8	
21	0	1461.25	24	19	2.24	2921.78	2917	10	1.10E-03	40.7	
22	0	1487.26	18	12	4.48	2973.85	2967	12	8.43E-04	44.6	
23	0	1872.33	10	4	1.93	3745.13	3739	10	4.50E-04	53.0	
24	0	1897.50	18	0	4.59	3795.56	3789	13	8.33E-04	23.6	

VAX/VMS Nuclide Identification Report Generated 9-MAR-2010 14:11:25.08

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051903.CNF;1
Sample date      : 3-MAR-2010 00:00:00. Acquisition date : 4-MAR-2010 22:20:38.
Sample ID        : G1202051903          Sample quantity  : 2.00000E+00 LITER
Detector name    : GAM20                Detector geometry: 2LMB
Elapsed live time: 0 06:00:00.00        Elapsed real time: 0 06:01:36.63  0.4%
Energy tolerance : 1.50000 keV          Analyst Initials : KXG3
Abundance limit  : 75.00000             Sensitivity      : 3.00000
Batch ID         : 956976               Detector SN#     :
Matrix Spike ID  :                      LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
MN-54	834.85	40	99.98*	9.959E-01	2.518E+00	2.530E+00	103.91
CD-109	88.03	56	3.70*	2.595E+00	3.668E+01	3.680E+01	80.79
SN-126	64.28	------	9.60	1.629E+00	------ Line Not Found		------
	86.94	56	8.90	2.595E+00	1.525E+01	1.525E+01	90.35
	87.57	56	37.00*	2.595E+00	3.668E+00	3.668E+00	80.79
NP-237	86.48	56	12.40*	2.595E+00	1.095E+01	1.095E+01	83.46
	95.86	------	2.68	2.763E+00	------ Line Not Found		------

Flag: "*" = Keyline

Sample ID : G1202051903 Acquisition date : 4-MAR-2010 22:20:38

Total number of lines in spectrum 14
Number of unidentified lines 8
Number of lines tentatively identified by NID 6 42.86%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
MN-54	312.05D	1.00	2.518E+00	2.530E+00	2.628E+00	103.91	
CD-109	461.40D	1.00	3.668E+01	3.680E+01	2.973E+01	80.79	
SN-126	2.30E+05Y	1.00	3.668E+00	3.668E+00	2.963E+00	80.79	
NP-237	2.14E+06Y	1.00	1.095E+01	1.095E+01	0.914E+01	83.46	
			---	---			
	Total Activity :		5.381E+01	5.394E+01			

Grand Total Activity : 5.381E+01 5.394E+01

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202051903 Acquisition date : 4-MAR-2010 22:20:38

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	66.90	40	214	1.33	133.78	131	6	1.85E-03	****	1.78E+00	T
0	248.94	42	127	1.91	497.35	494	8	1.94E-03	98.0	2.23E+00	
0	264.18	33	78	1.42	527.78	526	5	1.50E-03	88.5	2.16E+00	T
0	379.48	48	133	1.73	758.14	752	13	2.20E-03	****	1.74E+00	
0	767.91	44	43	4.21	1534.51	1528	15	2.02E-03	73.5	1.06E+00	T
0	972.18	21	35	4.33	1943.05	1936	12	9.67E-04	****	8.78E-01	
0	1016.78	26	32	0.73	2032.26	2024	15	1.19E-03	****	8.46E-01	
0	1086.48	19	19	3.17	2171.70	2165	11	8.66E-04	****	8.01E-01	T
0	1209.79	37	27	6.21	2418.44	2407	19	1.73E-03	75.6	7.34E-01	
0	1487.26	18	12	4.48	2973.85	2967	12	8.43E-04	89.3	6.30E-01	
0	1872.33	10	4	1.93	3745.13	3739	10	4.50E-04	****	5.61E-01	
0	1897.50	18	0	4.59	3795.56	3789	13	8.33E-04	47.1	5.59E-01	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 9-MAR-2010 14:11:29.80

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051903.CNF;1 *
* Acquisition date : 4-MAR-2010 22:20:38.  Detector SN#    :                *
* Detector ID      : GAM20                 Sensitivity     : 3.00000        *
* Geometry         : 2LMB                  Energy tolerance: 1.50000        *
* Elapsed live time: 0 06:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 06:01:36.63         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 3-MAR-2010 00:00:00.  Nuclide Library : LIQUID         *
* Sample ID        : G1202051903           Analyst initials: KXG3           *
* Batch Number     : 956976                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 6-JUL-2009 16:37:21.51MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
MN-54	2.530E+00	2.628E+00	1.976E+00	1.848E-01	1.280
CD-109	3.680E+01	2.973E+01	4.745E+01	6.392E+00	0.775
SN-126	3.668E+00	2.963E+00	4.622E+00	6.205E-01	0.794
NP-237	1.095E+01	9.135E+00	1.394E+01	3.462E+00	0.785

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	-7.180E+00		1.072E+01	1.639E+01	1.481E+00	-0.438
NA-22	8.114E-02		1.263E+00	2.056E+00	1.897E-01	0.039
NA-24	-1.882E-01		1.235E+01	2.068E+01	1.963E+00	-0.009
K-40	2.048E+00		2.326E+01	2.955E+01	2.833E+00	0.069
SC-46	-1.626E-01		1.255E+00	2.045E+00	1.957E-01	-0.080
V-48	-1.932E-02		1.320E+00	2.163E+00	2.057E-01	-0.009
CR-51	-6.971E+00		1.096E+01	1.740E+01	1.771E+00	-0.401
CO-56	-2.111E-01		1.342E+00	2.190E+00	2.060E-01	-0.096

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-57	-7.772E-01		9.927E-01	1.520E+00	1.355E-01	-0.511
CO-58	2.268E-01		1.103E+00	1.873E+00	1.735E-01	0.121
FE-59	-1.219E+00		2.481E+00	3.790E+00	3.729E-01	-0.322
CO-60	3.366E-01		1.409E+00	2.339E+00	2.200E-01	0.144
ZN-65	-9.981E-01		2.701E+00	4.189E+00	3.822E-01	-0.238
SE-75	1.619E+00	+	1.442E+00	2.876E+00	2.925E-01	0.563
SR-85	-1.027E+01		2.548E+00	3.104E+00	2.620E-01	-3.309
Y-88	-4.377E-04		1.158E+00	1.902E+00	1.584E-01	0.000
Y-91	1.599E+02		6.469E+02	9.429E+02	8.453E+01	0.170
NB-94	-6.512E-01		1.237E+00	1.981E+00	1.726E-01	-0.329
NB-95	7.037E-01		1.469E+00	2.255E+00	2.037E-01	0.312
NB-95M	-1.114E+01		4.691E+00	6.729E+00	7.181E-01	-1.655
ZR-95	-2.067E-01		2.227E+00	3.685E+00	3.633E-01	-0.056
MO-99	1.249E+00		1.574E+01	2.651E+01	4.218E+00	0.047
TC-99M	-3.136E+02		3.797E+02	4.759E+02	4.414E+01	-0.659
RU-103	-5.710E-01		1.232E+00	1.911E+00	2.643E-01	-0.299
RH-106	2.489E+00		1.198E+01	1.950E+01	2.573E+00	0.128
RU-106	2.489E+00		1.198E+01	1.950E+01	1.662E+00	0.128
AG-108M	5.956E-01		1.158E+00	1.960E+00	1.665E-01	0.304
AG-110M	-4.936E-01		1.180E+00	1.913E+00	1.675E-01	-0.258
SN-113	2.934E-01		1.556E+00	2.587E+00	2.146E-01	0.113
CD-115	2.263E+00		7.368E+00	1.220E+01	1.033E+00	0.185
SN-117M	1.749E-01		1.162E+00	1.863E+00	1.520E-01	0.094
TE-123M	1.011E+00		1.076E+00	1.796E+00	1.475E-01	0.563
SB-124	1.874E+00		2.505E+00	4.656E+00	4.296E-01	0.403
SB-125	-1.484E+00		3.459E+00	5.453E+00	4.552E-01	-0.272
TE-125M	-3.558E+00		3.484E+02	5.617E+02	6.611E+01	-0.006
I-126	-1.666E+00		3.966E+00	6.432E+00	5.477E-01	-0.259
SB-126	2.321E+00		2.604E+00	4.658E+00	4.104E-01	0.498
SB-127	6.036E-01		4.113E+00	7.001E+00	6.262E-01	0.086
I-131	-2.522E-01		1.513E+00	2.463E+00	2.260E-01	-0.102
TE-132	-2.604E-01		1.641E+00	2.739E+00	4.038E-01	-0.095
BA-133	-2.338E-01		1.828E+00	2.990E+00	3.946E-01	-0.078
I-133	1.536E+00		6.337E+00	1.044E+01	9.043E-01	0.147
CS-134	-4.967E-01		1.529E+00	2.460E+00	2.273E-01	-0.202
CS-135	-5.367E+00		6.990E+00	9.606E+00	1.092E+00	-0.559
I-135	4.874E+02		8.663E+02	1.498E+03	1.455E+02	0.325
CS-136	5.972E-01		1.917E+00	3.240E+00	3.138E-01	0.184
BA-137M	6.081E-01		1.322E+00	2.304E+00	1.956E-01	0.264
CS-137	6.424E-01		1.397E+00	2.434E+00	2.070E-01	0.264
CE-139	1.663E-01		1.181E+00	1.889E+00	1.520E-01	0.088
BA-140	1.994E+00		5.280E+00	8.708E+00	2.950E+00	0.229
LA-140	7.406E-01		1.576E+00	2.790E+00	2.550E-01	0.265
CE-141	2.060E+00		2.017E+00	3.377E+00	2.883E-01	0.610
CE-143	2.837E+00		6.751E+00	1.146E+01	2.447E+00	0.248
CE-144	1.778E-01		7.406E+00	1.187E+01	1.814E+00	0.015
PM-144	1.048E-01		1.340E+00	2.262E+00	1.964E-01	0.046
PR-144	6.970E+00		9.957E+01	1.679E+02	1.458E+01	0.042

Sample ID : G1202051903 Acquisition date : 4-MAR-2010 22:20:38

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PM-146	2.083E-01		1.496E+00	2.464E+00	2.541E-01	0.085
ND-147	1.623E+00		9.662E+00	1.580E+01	2.349E+00	0.103
PM-149	-3.793E+01		6.104E+01	9.742E+01	1.612E+01	-0.389
EU-152	-1.247E+00		3.909E+00	6.320E+00	6.156E-01	-0.197
GD-153	-5.057E+00		4.035E+00	5.142E+00	6.021E-01	-0.984
EU-154	-5.862E-01		3.728E+00	5.866E+00	6.946E-01	-0.100
EU-155	-1.080E+00		4.067E+00	6.471E+00	6.932E-01	-0.167
TA-182	-9.108E-01		5.219E+00	8.240E+00	7.440E-01	-0.111
IR-192	4.416E-01		1.266E+00	2.142E+00	2.113E-01	0.206
HG-203	7.004E-02		1.270E+00	2.126E+00	2.259E-01	0.033
BI-207	7.702E-01		1.894E+00	3.228E+00	3.004E-01	0.239
TL-208	4.934E-01		1.991E+00	2.717E+00	2.483E-01	0.182
PB-210	-1.225E+02		1.590E+02	2.117E+02	2.274E+01	-0.579
BI-211	-1.040E+00		1.427E+01	1.510E+01	1.244E+02	-0.069
PB-211	-6.147E+00		5.816E+01	4.590E+01	3.786E+02	-0.134
BI-212	-2.180E+00		2.475E+01	3.080E+01	3.886E+00	-0.071
PB-212	-4.591E-01		3.535E+00	4.899E+00	5.202E-01	-0.094
BI-214	-6.114E-02		4.094E+00	5.830E+00	5.847E-01	-0.010
PB-214	4.127E-01		4.126E+00	5.512E+00	6.056E-01	0.075
RN-219	-5.728E+00		4.967E+01	2.478E+01	2.041E+02	-0.231
RA-223	5.104E+00		4.964E+01	4.424E+01	3.644E+02	0.115
RA-224	-4.371E+01		2.791E+01	4.293E+01	4.132E+00	-1.018
RA-226	-1.399E+01		4.083E+01	6.101E+01	4.111E+01	-0.229
AC-227	1.875E-01		9.604E+00	1.610E+01	2.100E+00	0.012
TH-227	1.875E-01		9.727E+00	1.610E+01	1.326E+02	0.012
AC-228	1.612E+00		6.687E+00	8.972E+00	1.107E+00	0.180
RA-228	1.612E+00		6.687E+00	8.972E+00	1.107E+00	0.180
TH-228	-4.591E-01		3.535E+00	4.899E+00	5.202E-01	-0.094
TH-229	4.373E+00		1.983E+01	3.397E+01	2.922E+00	0.129
PA-231	3.045E+01		5.867E+01	1.003E+02	1.575E+01	0.303
TH-231	-1.554E+01		2.204E+01	2.608E+01	5.214E+00	-0.596
TH-232	1.671E+02		1.642E+03	1.418E+03	1.091E+04	0.118
PA-233	-1.473E+00		2.726E+00	4.371E+00	4.436E-01	-0.337
PA-234	1.515E+01		1.161E+01	2.090E+01	4.016E+00	0.725
PA-234M	4.732E+01		1.522E+02	2.581E+02	2.766E+01	0.183
TH-234	4.356E+01		7.193E+01	1.009E+02	2.047E+01	0.432
U-235	-5.920E+00		1.209E+01	1.422E+01	2.396E+00	-0.416
U-238	4.356E+01		7.193E+01	1.009E+02	2.047E+01	0.432
NP-239	-6.707E+00		1.086E+01	1.685E+01	1.584E+00	-0.398
AM-241	4.166E-01		5.119E+00	8.453E+00	1.093E+00	0.049
CM-247	-3.145E-02		1.433E+00	2.343E+00	1.889E-01	-0.013
CF-249	2.745E-02		1.423E+00	2.339E+00	1.899E-01	0.012
CF-251	6.710E-02		5.295E+00	8.384E+00	6.935E-01	0.008
ANH-511	-4.707E+00		3.228E+00	4.741E+00	3.998E-01	-0.993

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202051903          *
* Acquisition date  :  4-MAR-2010 22:20:38 Detector SN#     :               *
* Detector ID       : GAM20                Sensitivity      : 3.000         *
* Geometry          : 2LMB                 Energy tolerance: 1.500          *
* Elapsed live time:    0 06:00:00.00      Abundance limit : 75.000         *
* Elapsed real time:    0 06:01:36.63      Half life ratio : 8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  3-MAR-2010 00:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G1202051903          Analyst initials: KXG3           *
* Batch Number      : 956976               Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME :  6-JUL-2009 16:37:21 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
MN-54	2.530E+00	2.576E+00	9.888E-01	1.314E+00
CD-109	3.680E+01	2.913E+01	2.374E+01	1.486E+01
SN-126	3.668E+00	2.904E+00	2.312E+00	1.482E+00
NP-237	1.095E+01	8.953E+00	6.976E+00	4.568E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU	
BE-7	-7.180E+00	1.050E+01	8.199E+00	5.358E+00	NOT IDENT.
NA-22	8.114E-02	1.238E+00	1.029E+00	6.317E-01	NOT IDENT.
NA-24	-1.882E-01	1.210E+01	1.035E+01	6.176E+00	NOT IDENT.
K-40	2.048E+00	2.279E+01	1.478E+01	1.163E+01	NOT IDENT.
SC-46	-1.626E-01	1.230E+00	1.023E+00	6.274E-01	NOT IDENT.
V-48	-1.932E-02	1.294E+00	1.082E+00	6.600E-01	NOT IDENT.
CR-51	-6.971E+00	1.074E+01	8.707E+00	5.478E+00	NOT IDENT.
CO-56	-2.111E-01	1.315E+00	1.096E+00	6.708E-01	NOT IDENT.
CO-57	-7.772E-01	9.728E-01	7.605E-01	4.963E-01	NOT IDENT.
CO-58	2.268E-01	1.080E+00	9.370E-01	5.513E-01	NOT IDENT.
FE-59	-1.219E+00	2.432E+00	1.896E+00	1.241E+00	NOT IDENT.
CO-60	3.366E-01	1.381E+00	1.170E+00	7.046E-01	NOT IDENT.
ZN-65	-9.981E-01	2.647E+00	2.096E+00	1.351E+00	NOT IDENT.
SE-75	1.619E+00	1.413E+00	1.439E+00	7.211E-01	FAIL ABUN
SR-85	-1.027E+01	2.497E+00	1.553E+00	1.274E+00	NOT IDENT.
Y-88	-4.377E-04	1.135E+00	9.514E-01	5.790E-01	NOT IDENT.
Y-91	1.599E+02	6.339E+02	4.717E+02	3.234E+02	NOT IDENT.
NB-94	-6.512E-01	1.213E+00	9.910E-01	6.187E-01	NOT IDENT.
NB-95	7.037E-01	1.439E+00	1.128E+00	7.343E-01	NOT IDENT.
NB-95M	-1.114E+01	4.597E+00	3.367E+00	2.345E+00	NOT IDENT.
ZR-95	-2.067E-01	2.182E+00	1.844E+00	1.113E+00	NOT IDENT.
MO-99	1.249E+00	1.543E+01	1.326E+01	7.871E+00	NOT IDENT.
TC-99M	-3.136E+02	3.722E+02	2.381E+02	1.899E+02	NOT IDENT.

RU-103	-5.710E-01	1.207E+00	9.559E-01	6.160E-01	NOT IDENT.
RH-106	2.489E+00	1.174E+01	9.755E+00	5.991E+00	NOT IDENT.
RU-106	2.489E+00	1.174E+01	9.755E+00	5.990E+00	NOT IDENT.
AG-108M	5.956E-01	1.135E+00	9.808E-01	5.789E-01	NOT IDENT.
AG-110M	-4.936E-01	1.157E+00	9.569E-01	5.901E-01	NOT IDENT.
SN-113	2.934E-01	1.524E+00	1.294E+00	7.778E-01	NOT IDENT.
CD-115	2.263E+00	7.220E+00	6.106E+00	3.684E+00	NOT IDENT.
SN-117M	1.749E-01	1.139E+00	9.319E-01	5.809E-01	NOT IDENT.
TE-123M	1.011E+00	1.055E+00	8.986E-01	5.380E-01	NOT IDENT.
SB-124	1.874E+00	2.455E+00	2.329E+00	1.253E+00	NOT IDENT.
SB-125	-1.484E+00	3.390E+00	2.728E+00	1.730E+00	NOT IDENT.
TE-125M	-3.558E+00	3.414E+02	2.810E+02	1.742E+02	NOT IDENT.
I-126	-1.666E+00	3.887E+00	3.218E+00	1.983E+00	NOT IDENT.
SB-126	2.321E+00	2.552E+00	2.331E+00	1.302E+00	NOT IDENT.
SB-127	6.036E-01	4.031E+00	3.503E+00	2.057E+00	NOT IDENT.
I-131	-2.522E-01	1.483E+00	1.232E+00	7.566E-01	NOT IDENT.
TE-132	-2.604E-01	1.609E+00	1.370E+00	8.207E-01	NOT IDENT.
BA-133	-2.338E-01	1.791E+00	1.496E+00	9.140E-01	NOT IDENT.
I-133	1.536E+00	6.210E+00	5.222E+00	3.168E+00	NOT IDENT.
CS-134	-4.967E-01	1.498E+00	1.231E+00	7.644E-01	NOT IDENT.
CS-135	-5.367E+00	6.850E+00	4.806E+00	3.495E+00	NOT IDENT.
I-135	4.874E+02	8.490E+02	7.496E+02	4.332E+02	NOT IDENT.
CS-136	5.972E-01	1.879E+00	1.621E+00	9.586E-01	NOT IDENT.
BA-137M	6.081E-01	1.296E+00	1.153E+00	6.611E-01	NOT IDENT.
CS-137	6.424E-01	1.369E+00	1.218E+00	6.984E-01	NOT IDENT.
CE-139	1.663E-01	1.157E+00	9.448E-01	5.904E-01	NOT IDENT.
BA-140	1.994E+00	5.175E+00	4.357E+00	2.640E+00	NOT IDENT.
LA-140	7.406E-01	1.545E+00	1.396E+00	7.881E-01	NOT IDENT.
CE-141	2.060E+00	1.977E+00	1.689E+00	1.009E+00	NOT IDENT.
CE-143	2.837E+00	6.616E+00	5.732E+00	3.376E+00	NOT IDENT.
CE-144	1.778E-01	7.257E+00	5.940E+00	3.703E+00	NOT IDENT.
PM-144	1.048E-01	1.314E+00	1.132E+00	6.702E-01	NOT IDENT.
PR-144	6.970E+00	9.758E+01	8.400E+01	4.978E+01	NOT IDENT.
PM-146	2.083E-01	1.467E+00	1.233E+00	7.482E-01	NOT IDENT.
ND-147	1.623E+00	9.469E+00	7.905E+00	4.831E+00	NOT IDENT.
PM-149	-3.793E+01	5.981E+01	4.874E+01	3.052E+01	NOT IDENT.
EU-152	-1.247E+00	3.831E+00	3.162E+00	1.955E+00	FAIL ABUN
GD-153	-5.057E+00	3.954E+00	2.573E+00	2.017E+00	NOT IDENT.
EU-154	-5.862E-01	3.654E+00	2.935E+00	1.864E+00	NOT IDENT.
EU-155	-1.080E+00	3.985E+00	3.237E+00	2.033E+00	FAIL ABUN
TA-182	-9.108E-01	5.115E+00	4.123E+00	2.610E+00	FAIL ABUN
IR-192	4.416E-01	1.241E+00	1.072E+00	6.330E-01	NOT IDENT.
HG-203	7.004E-02	1.245E+00	1.063E+00	6.351E-01	NOT IDENT.
BI-207	7.702E-01	1.856E+00	1.615E+00	9.471E-01	NOT IDENT.
TL-208	4.934E-01	1.952E+00	1.360E+00	9.957E-01	NOT IDENT.
PB-210	-1.225E+02	1.558E+02	1.059E+02	7.951E+01	NOT IDENT.
BI-211	-1.040E+00	1.399E+01	7.554E+00	7.137E+00	NOT IDENT.
PB-211	-6.147E+00	5.699E+01	2.296E+01	2.908E+01	NOT IDENT.
BI-212	-2.180E+00	2.426E+01	1.541E+01	1.238E+01	NOT IDENT.
PB-212	-4.591E-01	3.464E+00	2.451E+00	1.767E+00	NOT IDENT.
BI-214	-6.114E-02	4.013E+00	2.917E+00	2.047E+00	NOT IDENT.
PB-214	4.127E-01	4.044E+00	2.758E+00	2.063E+00	NOT IDENT.
RN-219	-5.728E+00	4.868E+01	1.240E+01	2.484E+01	NOT IDENT.
RA-223	5.104E+00	4.865E+01	2.214E+01	2.482E+01	NOT IDENT.
RA-224	-4.371E+01	2.735E+01	2.148E+01	1.396E+01	NOT IDENT.
RA-226	-1.399E+01	4.001E+01	3.052E+01	2.041E+01	NOT IDENT.
AC-227	1.875E-01	9.412E+00	8.056E+00	4.802E+00	NOT IDENT.
TH-227	1.875E-01	9.533E+00	8.056E+00	4.864E+00	NOT IDENT.
AC-228	1.612E+00	6.554E+00	4.489E+00	3.344E+00	NOT IDENT.
RA-228	1.612E+00	6.554E+00	4.489E+00	3.344E+00	NOT IDENT.
TH-228	-4.591E-01	3.464E+00	2.451E+00	1.767E+00	NOT IDENT.
TH-229	4.373E+00	1.944E+01	1.700E+01	9.917E+00	FAIL ABUN
PA-231	3.045E+01	5.750E+01	5.020E+01	2.933E+01	NOT IDENT.
TH-231	-1.554E+01	2.160E+01	1.305E+01	1.102E+01	NOT IDENT.
TH-232	1.671E+02	1.610E+03	7.092E+02	8.212E+02	NOT IDENT.
PA-233	-1.473E+00	2.672E+00	2.187E+00	1.363E+00	NOT IDENT.
PA-234	1.515E+01	1.137E+01	1.045E+01	5.803E+00	NOT IDENT.
PA-234M	4.732E+01	1.491E+02	1.292E+02	7.609E+01	FAIL ABUN
TH-234	4.356E+01	7.049E+01	5.048E+01	3.596E+01	NOT IDENT.
U-235	-5.920E+00	1.185E+01	7.116E+00	6.044E+00	NOT IDENT.
U-238	4.356E+01	7.049E+01	5.048E+01	3.596E+01	NOT IDENT.
NP-239	-6.707E+00	1.064E+01	8.431E+00	5.429E+00	NOT IDENT.
AM-241	4.166E-01	5.016E+00	4.229E+00	2.559E+00	NOT IDENT.
CM-247	-3.145E-02	1.404E+00	1.172E+00	7.163E-01	NOT IDENT.
CF-249	2.745E-02	1.395E+00	1.170E+00	7.117E-01	NOT IDENT.
CF-251	6.710E-02	5.189E+00	4.194E+00	2.647E+00	NOT IDENT.
ANH-511	-4.707E+00	3.163E+00	2.372E+00	1.614E+00	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	199.3841
49.72	209.5466
57.36	190.8862
59.54	191.6729
63.29	188.4694
63.29	188.4694
63.81	223.3558
64.28	244.6896
67.75	189.9538
69.67	248.5143
70.83	193.0890
72.81	220.7000
72.87	220.7219
72.87	220.7219
74.82	261.4059
74.82	261.4059
74.82	261.4059
74.97	261.4694
77.11	230.4725
77.11	230.4725
77.11	230.4725
79.69	253.1048
79.69	253.1048
80.12	231.5651
80.19	231.5902
81.00	221.5289
81.07	221.5528
83.79	216.7559
84.21	202.8493
85.43	207.9109
86.48	233.2854
86.55	233.3104
86.94	238.1448
87.57	233.1378
88.03	246.3726
88.47	222.9768
89.96	659.3643
91.11	412.9810
92.59	248.5221
92.59	248.5221
93.35	231.9227
94.56	380.1563
94.65	380.2039
94.67	380.2148
95.86	514.1404
97.43	203.5576
98.43	185.7884
98.44	185.7906
99.53	171.1812
100.11	175.5718
103.18	183.7727
103.37	175.2693
105.31	191.7881
106.12	191.9911
109.28	217.5439
111.00	224.4949
111.76	209.5855
116.30	218.3757
116.74	205.4489
121.12	174.8478
121.78	202.3268
122.06	200.2065
123.07	189.4933
131.20	168.0653
133.52	169.6145
136.00	172.3079
136.47	199.0916

140.51	227.9021
140.51	227.9021
140.88	230.2286
143.76	209.6426
144.24	211.9944
145.44	189.8035
152.43	170.8304
153.25	165.3119
154.21	147.3410
156.02	213.4698
158.56	184.4187
159.00	163.9995
162.66	201.1743
163.33	217.3198
165.86	190.3383
176.60	161.0199
177.52	173.9105
181.07	181.4620
185.72	193.6212
186.21	190.1995
193.51	164.0910
205.31	181.8073
210.85	145.9417
222.11	157.2255
227.38	152.4397
228.16	159.7968
228.18	165.2471
235.69	265.7613
235.96	255.7666
235.96	255.7666
238.63	166.5885
238.63	166.5885
240.99	253.0814
242.00	261.5341
244.70	170.6653
252.40	137.6087
252.80	140.6097
256.23	132.6158
256.23	132.6158
260.90	135.4825
264.66	148.3492
268.22	157.1411
269.46	140.4259
271.23	134.0385
273.65	138.0211
276.40	157.0976
277.37	138.3755
277.60	140.2809
278.00	134.6691
279.20	144.2032
279.54	140.4673
283.69	130.4637
284.31	131.4642
285.41	145.7591
285.90	146.7552
287.50	127.9550
293.27	134.1583
295.22	131.4723
295.96	140.1139
299.98	132.8386
299.98	132.8386
300.09	133.8028
300.09	133.8028
300.13	133.8071
301.36	126.2617
302.85	131.1697
304.50	153.3545
304.50	153.3545
304.85	151.4713
308.46	121.0743
311.90	146.3779
316.51	123.6250
319.41	133.5233
320.08	138.4200
323.87	129.0426
328.76	128.4571
329.85	130.4913
329.85	130.4913

330.06	130.5077
333.37	121.9864
334.37	135.7316
334.37	135.7316
338.28	119.4106
338.32	119.4143
338.32	119.4143
340.48	114.6684
340.55	114.6720
344.28	123.7679
351.06	134.1219
351.93	127.2836
356.01	137.4750
364.49	111.3113
366.42	104.4681
383.85	83.5847
388.16	82.5731
388.63	87.6306
391.70	89.7944
400.66	92.2539
401.81	99.4101
402.40	95.3827
404.85	105.6663
414.70	88.8506
423.72	81.0553
427.09	81.1939
427.87	92.5365
433.94	81.4748
453.88	69.7828
463.37	93.1216
468.07	75.5024
473.00	69.3727
476.78	96.8726
477.60	91.6436
487.02	67.7119
492.35	72.1203
497.08	82.9048
511.00	132.6251
514.00	426.2516
527.90	65.7303
529.87	65.7861
531.02	72.2937
537.26	72.4879
546.56	54.3106
563.25	57.9752
569.33	71.2802
569.50	71.2842
569.70	70.1934
583.19	67.2735
600.60	101.0587
602.73	90.0299
604.72	136.8210
609.32	99.1771
610.33	91.4142
614.28	71.4570
618.01	81.6237
621.93	63.8310
621.93	63.8310
633.25	65.2323
635.95	71.1540
636.99	70.2819
645.85	73.2283
657.76	63.5657
661.66	61.8392
661.66	61.8392
664.57	57.3529
666.33	69.2331
666.50	69.2368
677.62	44.8202
685.70	47.7039
695.00	65.3509
696.49	76.4366
696.51	76.4366
697.00	74.6066
702.65	71.9881
706.68	72.0891
720.70	53.8681
721.93	65.0405

722.78	73.4241
722.91	73.4280
723.31	76.2264
724.19	68.8095
727.33	58.6457
733.00	50.3653
735.93	63.4860
739.50	50.4760
747.24	51.5464
753.82	48.8414
756.73	54.5308
763.94	50.2630
765.80	53.4377
766.42	55.0208
777.92	41.6582
778.90	45.4594
783.70	56.9136
785.37	37.9629
795.86	51.4239
801.95	46.7534
810.76	37.3157
815.77	51.7496
818.51	41.2437
832.01	45.2708
834.85	45.3109
836.80	48.2312
846.77	56.1209
856.80	58.2334
860.56	49.5544
871.09	36.0660
873.19	40.9654
875.33	48.7988
880.51	43.0096
883.24	38.1535
884.68	41.1059
889.28	45.0813
898.04	38.3202
911.20	40.4395
911.20	40.4395
926.36	32.6914
937.49	41.7385
944.13	37.8349
946.00	33.8697
949.00	60.8183
964.08	48.8095
968.97	56.8119
968.97	56.8119
983.53	35.2307
996.26	36.3630
1001.03	35.3982
1004.73	41.5075
1037.84	33.7042
1038.76	32.6906
1048.07	37.8907
1050.41	42.0110
1050.41	42.0110
1063.66	38.0424
1085.87	32.0550
1099.25	40.4625
1112.07	32.2654
1115.54	38.5447
1120.29	31.2891
1120.55	34.4196
1121.30	39.6421
1131.51	32.4213
1173.23	33.8063
1189.05	26.5100
1204.77	31.9292
1221.41	33.1222
1231.02	21.4160
1235.36	33.2281
1238.28	23.5963
1260.41	25.8715
1274.44	27.0349
1274.54	23.7907
1291.59	36.9069
1298.22	38.0488
1312.11	23.9884

1332.49	26.2852
1365.19	14.7057
1368.63	23.9137
1384.29	30.4514
1408.01	27.8210
1457.56	34.6604
1460.82	26.2466
1489.16	30.7040
1596.21	18.2826
1620.50	13.5323
1678.03	15.6283
1690.97	10.7695
1764.49	18.8431
1770.23	25.8106
1771.35	21.8442
1791.20	9.9630
1836.06	13.0503

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202051903

Total Uranium Activity	1.2684E+02	ug/g
Total Uranium Counting Unc.	2.0978E+02	ug/g
Total Uranium Tpu	1.0703E-04	ug/g
Total Uranium Mda	1.5021E+02	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 956976                    SAMPLE ID  : G1202051903      *
*   ANALYST       : KXG3                      DETECTOR   : GAM20            *
*   SAMPLE DATE   :  3-MAR-2010 00:00:00.00   COUNT TIME :    0 06:00:00.00 *
*   ANALYSIS DATE:  4-MAR-2010 22:20:38.97    SAMPLE ALQT:    2.000 LITER   *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 2.461E+01
        GROSS GAMMA ERROR  (pCi/LITER )   : 1.171E+01
        GROSS GAMMA MDA    (pCi/LITER )   : 6.391E+01
        GROSS GAMMA DLC    (pCi/LITER )   : 3.075E+01
```

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 18:47:42.72

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051904.CNF;1
Sample date       : 22-FEB-2010 12:00:00 Acquisition date : 5-MAR-2010 16:47:09.
Sample ID         : G1202051904          Sample quantity  : 1.57100E+00 LITER
Detector name     : GAM14                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.60  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 956976                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	76.68	74	111	1.20	152.90	148	9	1.03E-02	28.3	
2	0	351.94*	70	45	1.60	702.93	698	9	9.67E-03	22.3	
3	0	609.13*	53	15	2.35	1217.03	1212	10	7.29E-03	21.3	
4	0	796.48	12	10	1.34	1591.63	1586	9	1.62E-03	59.1	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 5-MAR-2010 18:47:46

```
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051904.CNF;1
Analyses by       : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title      : KXG3
Sample date       : 22-FEB-2010 12:00:00 Acquisition date : 5-MAR-2010 16:47:09
Sample ID         : G1202051904          Sample quantity  : 1.5710 LITER
Sample type       : LIQUID               Sample geometry  :
Detector name     : GAMMA14              Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.60   0.0%
Peak Width (FWHM):     3.00              Confidence level :     5.00 %
Energy tolerance :     1.50 keV          Half life ratio  :     8.00
Errors propagated: Yes                   Systematic Error :     0.00 %
Efficiency type  : Empirical             Efficiencies at  : Peak Energy
Abundance limit  :    75.00              WTM error limit  :     3.00
```

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BI-211		72.87		1.610E+02	7.261E+03	6.044E+02	2.720E+04	0.266
	+	351.06	*	7.298E+01	3.285E+03	3.424E+01	1.541E+03	2.132

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.60	*	-2.319E+01	3.268E+01	4.893E+01	3.399E+00	-0.474
NA-22		1274.54	*	-2.451E-01	3.213E+00	5.195E+00	3.440E-01	-0.047
NA-24		1368.63	*	1.122E-01	3.213E+00	Half-Life too short		
K-40		1460.82	*	-4.317E+01	4.238E+01	5.973E+01	4.385E+00	-0.723
SC-46		889.28	*	-1.783E+00	3.808E+00	5.916E+00	4.516E-01	-0.301
		1120.55		2.930E+00	5.008E+00	8.940E+00	5.457E-01	0.328
V-48		944.13		-2.731E+01	7.219E+01	1.132E+02	8.490E+00	-0.241
		983.53	*	1.741E+00	5.834E+00	1.016E+01	7.364E-01	0.171
		1312.11		1.218E+00	6.758E+00	1.146E+01	8.046E-01	0.106
CR-51		320.08	*	1.099E+00	3.792E+01	6.314E+01	4.202E+00	0.017
MN-54		834.85	*	-1.032E-01	3.451E+00	5.642E+00	3.912E-01	-0.018
CO-56		846.77	*	2.442E+00	3.909E+00	7.085E+00	5.019E-01	0.345
		1037.84		-1.752E+01	2.563E+01	3.693E+01	2.735E+00	-0.474
		1238.28		-1.015E+00	6.197E+00	9.893E+00	6.496E-01	-0.103
		1771.35		-1.489E+01	2.896E+01	4.062E+01	2.450E+00	-0.366
CO-57		122.06	*	5.938E+00	3.545E+00	6.254E+00	3.779E-01	0.949
		136.47		-1.144E+00	2.910E+01	4.662E+01	3.089E+00	-0.025
CO-58		810.76	*	2.352E-01	3.681E+00	5.969E+00	3.975E-01	0.039
FE-59		1099.25	*	3.776E+00	7.500E+00	1.348E+01	9.751E-01	0.280
		1291.59		-3.034E+00	1.011E+01	1.560E+01	1.283E+00	-0.194
CO-60		1173.23		1.063E+00	3.765E+00	6.526E+00	3.624E-01	0.163
		1332.49	*	2.257E+00	4.009E+00	7.246E+00	5.249E-01	0.312
ZN-65		1115.54	*	1.294E+00	9.404E+00	1.587E+01	9.783E-01	0.082
SE-75		121.12		3.048E+01	1.862E+01	3.257E+01	3.015E+00	0.936
		136.00		-1.394E+00	5.521E+00	8.725E+00	5.064E-01	-0.160
		264.66	*	2.024E+00	5.086E+00	8.742E+00	5.132E-01	0.232
		279.54		1.134E+00	1.207E+01	2.027E+01	1.287E+00	0.056

Sample ID : G1202051904 Acquisition date : 5-MAR-2010 16:47:09

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		400.66		-1.433E+01	2.749E+01	4.287E+01	3.980E+00	-0.334
SR-85		514.00	*	-1.091E+01	6.205E+00	8.776E+00	5.185E-01	-1.243
Y-88		898.04		-4.607E-01	3.988E+00	6.297E+00	4.910E-01	-0.073
		1836.06	*	6.640E-01	3.564E+00	6.069E+00	3.489E-01	0.109
Y-91		1204.77	*	-3.378E+02	1.805E+03	2.885E+03	1.695E+02	-0.117
NB-94		702.65	*	-2.591E-01	3.254E+00	5.192E+00	2.784E-01	-0.050
		871.09		-6.454E-02	3.840E+00	6.417E+00	4.746E-01	-0.010
NB-95		765.80	*	2.847E-01	3.891E+00	6.329E+00	3.853E-01	0.045
NB-95M		235.69	*	-7.525E+00	1.294E+01	2.078E+01	1.546E+00	-0.362
ZR-95		724.19		1.747E+00	8.307E+00	1.382E+01	9.216E-01	0.126
		756.73	*	4.739E+00	7.925E+00	1.374E+01	9.922E-01	0.345
MO-99		140.51		1.912E+02	1.161E+03	1.828E+03	4.174E+02	0.105
		181.07		-2.208E+03	9.258E+02	1.191E+03	2.087E+02	-1.854
		366.42		-3.212E+03	3.823E+03	5.749E+03	3.515E+02	-0.559
		739.50	*	2.273E+02	4.434E+02	7.691E+02	1.108E+02	0.295
		777.92		-1.598E+01	1.411E+03	2.264E+03	1.411E+02	-0.007
TC-99M		140.51	*	1.758E+07	1.411E+03	Half-Life too short		
RU-103		497.08	*	1.259E+00	4.530E+00	7.622E+00	9.532E-01	0.165
	+	610.33		2.235E+02	1.009E+02	1.772E+02	2.638E+01	1.261
RH-106		621.93	*	-9.191E-01	3.482E+01	5.632E+01	6.399E+00	-0.016
		1050.41		1.430E+02	2.665E+02	4.759E+02	3.209E+01	0.300
RU-106		621.93	*	-9.191E-01	3.482E+01	5.632E+01	2.963E+00	-0.016
		1050.41		1.430E+02	2.665E+02	4.759E+02	3.209E+01	0.300
AG-108M		433.94	*	-2.256E+00	3.260E+00	4.947E+00	3.215E-01	-0.456
		614.28		3.584E+00	4.236E+00	6.804E+00	3.924E-01	0.527
		722.91		4.119E-01	3.612E+00	5.925E+00	3.560E-01	0.070
CD-109		88.03	*	-1.227E+02	1.016E+02	1.447E+02	1.337E+01	-0.848
AG-110M		657.76	*	-1.862E+00	3.479E+00	5.184E+00	2.793E-01	-0.359
		677.62		5.007E+01	3.402E+01	6.480E+01	3.562E+00	0.773
		706.68		-7.573E+00	2.069E+01	3.153E+01	1.827E+00	-0.240
		763.94		-6.475E+00	1.598E+01	2.409E+01	1.541E+00	-0.269
		884.68		3.499E+00	4.615E+00	8.569E+00	6.759E-01	0.408
		937.49		8.275E+00	1.017E+01	1.900E+01	1.500E+00	0.436
		1384.29		-1.885E+00	1.677E+01	2.688E+01	2.004E+00	-0.070
SN-113		391.70	*	-6.321E-01	5.134E+00	8.376E+00	5.438E-01	-0.075
CD-115		260.90		-1.396E+03	5.094E+03	8.345E+03	4.832E+02	-0.167
		492.35		-8.887E+02	1.292E+03	1.945E+03	1.164E+02	-0.457
		527.90	*	1.409E+02	3.491E+02	5.986E+02	3.501E+01	0.235
SN-117M		156.02		1.056E+02	2.269E+02	3.751E+02	2.025E+01	0.282
		158.56	*	-1.066E+00	5.662E+00	8.938E+00	4.795E-01	-0.119
TE-123M		159.00	*	-8.392E-01	3.515E+00	5.527E+00	3.009E-01	-0.152
SB-124		602.73		2.284E-01	4.418E+00	6.554E+00	3.545E-01	0.035
		645.85		-2.029E+01	4.962E+01	7.571E+01	4.441E+00	-0.268
		722.78		3.954E+00	3.469E+01	5.689E+01	3.351E+00	0.070
		1690.97	*	-2.776E+00	9.799E+00	1.482E+01	1.014E+00	-0.187
SB-125		427.87	*	6.800E+00	9.531E+00	1.685E+01	1.069E+00	0.404
		463.37		-2.888E+00	3.022E+01	4.909E+01	3.415E+00	-0.059
		600.60		-1.553E+01	2.105E+01	3.121E+01	1.994E+00	-0.498
		635.95		-5.319E+00	2.928E+01	4.630E+01	2.893E+00	-0.115

Sample ID : G1202051904 Acquisition date : 5-MAR-2010 16:47:09

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TE-125M		109.28	*	-9.129E+02	1.227E+03	1.877E+03	1.706E+02	-0.486
I-126		388.63		-7.893E+00	1.562E+01	2.452E+01	1.501E+00	-0.322
		666.33	*	-1.446E+01	1.684E+01	2.342E+01	1.163E+00	-0.617
		753.82		2.945E+01	1.702E+02	2.803E+02	1.667E+01	0.105
SB-126		414.70		2.461E+00	6.495E+00	1.111E+01	6.807E-01	0.221
		666.50		-4.639E+00	5.762E+00	8.109E+00	4.028E-01	-0.572
		695.00		2.524E+00	7.355E+00	1.088E+01	5.742E-01	0.232
		697.00		1.642E+01	2.205E+01	3.914E+01	2.075E+00	0.420
		720.70	*	-5.639E+00	1.195E+01	1.791E+01	9.966E-01	-0.315
		856.80		-2.863E+00	3.710E+01	6.149E+01	4.435E+00	-0.047
SN-126		64.28		7.077E+01	6.885E+01	1.181E+02	1.770E+01	0.599
		86.94		-4.585E+01	4.460E+01	5.785E+01	2.399E+01	-0.793
		87.57	*	-8.456E+00	9.540E+00	1.386E+01	1.276E+00	-0.610
SB-127		252.40		-5.697E+01	2.544E+02	4.167E+02	1.698E+02	-0.137
		473.00		-2.333E+01	8.312E+01	1.316E+02	1.333E+01	-0.177
		685.70	*	4.307E+00	7.021E+01	1.129E+02	8.685E+00	0.038
		783.70		1.251E+02	1.765E+02	3.121E+02	3.048E+01	0.401
I-131		80.19		1.110E+00	4.230E+02	6.006E+02	5.251E+01	0.002
		284.31		6.003E+01	1.204E+02	2.084E+02	1.353E+01	0.288
		364.49	*	-3.844E+00	8.770E+00	1.385E+01	9.308E-01	-0.277
		636.99		-4.641E+01	1.180E+02	1.806E+02	1.064E+01	-0.257
TE-132		49.72		-3.623E+02	9.104E+02	1.450E+03	1.333E+02	-0.250
		111.76		2.358E+03	1.785E+03	3.114E+03	2.616E+02	0.757
		116.30		-2.860E+03	1.625E+03	2.259E+03	1.842E+02	-1.266
		228.16	*	3.331E+01	3.452E+01	6.129E+01	8.366E+00	0.544
BA-133		81.00		6.960E+00	1.229E+01	1.824E+01	2.844E+00	0.382
		276.40		2.616E+01	3.853E+01	6.741E+01	8.506E+00	0.388
		302.85		1.193E+01	1.519E+01	2.679E+01	3.079E+00	0.445
		356.01	*	-6.142E+00	5.447E+00	6.489E+00	7.419E-01	-0.946
		383.85		1.751E+01	3.261E+01	5.651E+01	6.127E+00	0.310
I-133		529.87	*	-4.521E-03	3.261E+01	Half-Life too short		
		875.33		3.827E-01	3.261E+01	Half-Life too short		
		1298.22		2.193E-01	3.261E+01	Half-Life too short		
CS-134		563.25		-3.192E+01	4.295E+01	6.388E+01	3.699E+00	-0.500
		569.33		-1.045E+01	2.554E+01	3.874E+01	2.250E+00	-0.270
		604.72		2.090E+00	3.406E+00	5.362E+00	2.910E-01	0.390
	+	795.86	*	3.795E+00	4.494E+00	7.566E+00	4.943E-01	0.502
		801.95		2.728E+01	4.048E+01	7.149E+01	4.710E+00	0.382
		1365.19		-2.372E+01	1.565E+02	2.592E+02	1.990E+01	-0.092
CS-135		268.22	*	-1.865E+01	1.725E+01	2.617E+01	2.009E+00	-0.713
I-135		546.56		-2.906E+07	1.725E+01	Half-Life too short		
		836.80		-1.850E+07	1.725E+01	Half-Life too short		
		1038.76		-6.261E+07	1.725E+01	Half-Life too short		
		1131.51		7.783E+06	1.725E+01	Half-Life too short		
		1260.41	*	5.971E+06	1.725E+01	Half-Life too short		
		1457.56		-7.128E+07	1.725E+01	Half-Life too short		
		1678.03		7.109E+07	1.725E+01	Half-Life too short		
		1791.20		-2.507E+07	1.725E+01	Half-Life too short		
CS-136		153.25		-3.094E+01	8.727E+01	1.362E+02	1.060E+01	-0.227

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---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		176.60		7.199E+01	5.636E+01	9.690E+01	6.453E+00	0.743
		273.65		-3.897E+01	4.635E+01	7.208E+01	4.957E+00	-0.541
		340.55		-3.326E+00	1.220E+01	1.973E+01	1.287E+00	-0.169
		818.51		-2.087E+00	5.911E+00	9.407E+00	6.334E-01	-0.222
		1048.07	*	1.909E+00	8.485E+00	1.459E+01	1.052E+00	0.131
		1235.36		1.250E+01	3.243E+01	5.730E+01	5.799E+00	0.218
BA-137M		661.66	*	1.477E+00	3.301E+00	5.698E+00	2.801E-01	0.259
CS-137		661.66	*	1.561E+00	3.487E+00	6.019E+00	2.977E-01	0.259
CE-139		165.86	*	8.829E-01	3.580E+00	5.824E+00	3.072E-01	0.152
BA-140		162.66		9.709E+00	8.331E+01	1.343E+02	8.339E+00	0.072
		304.85		-9.496E+01	1.240E+02	1.876E+02	5.367E+01	-0.506
		423.72		-1.787E+02	1.685E+02	2.249E+02	7.272E+01	-0.794
		537.26	*	1.056E+01	2.273E+01	3.878E+01	1.292E+01	0.272
LA-140		328.76		-3.036E+01	2.806E+01	4.219E+01	2.840E+00	-0.720
		487.02		-3.027E+00	1.319E+01	2.107E+01	1.421E+00	-0.144
		815.77		5.652E+00	2.582E+01	4.467E+01	3.553E+00	0.127
		1596.21	*	1.724E+00	7.997E+00	1.360E+01	9.100E-01	0.127
CE-141		145.44	*	5.522E-01	6.955E+00	1.122E+01	6.498E-01	0.049
CE-143		57.36		-7.170E-03	6.955E+00	Half-Life too short		
		293.27	*	2.001E-03	6.955E+00	Half-Life too short		
		664.57		-1.099E-02	6.955E+00	Half-Life too short		
		721.93		-4.672E-03	6.955E+00	Half-Life too short		
CE-144		80.12		-5.065E+00	3.174E+02	4.499E+02	3.918E+01	-0.011
		133.52	*	5.070E+00	2.669E+01	4.339E+01	6.021E+00	0.117
PM-144		476.78		-8.726E-01	6.859E+00	1.108E+01	7.815E-01	-0.079
		618.01		-5.175E-01	3.728E+00	5.950E+00	3.376E-01	-0.087
		696.49	*	1.681E+00	3.503E+00	6.025E+00	3.192E-01	0.279
PR-144		696.51	*	1.262E+02	2.617E+02	4.503E+02	2.384E+01	0.280
		1489.16		5.497E+02	1.605E+03	2.787E+03	1.946E+02	0.197
PM-146		453.88	*	-2.943E+00	4.712E+00	7.193E+00	6.224E-01	-0.409
		633.25		1.423E+02	1.669E+02	2.846E+02	1.069E+02	0.500
		735.93		-4.878E+00	1.612E+01	2.468E+01	6.733E+00	-0.198
		747.24		-1.228E+00	9.873E+00	1.559E+01	2.050E+00	-0.079
ND-147		91.11		-2.784E+01	2.899E+01	4.601E+01	4.357E+00	-0.605
		319.41		-7.950E+00	2.916E+02	4.832E+02	2.911E+01	-0.016
		531.02	*	-2.994E+01	4.531E+01	6.713E+01	9.087E+00	-0.446
PM-149		285.90	*	2.731E+03	3.206E+03	5.642E+03	8.015E+02	0.484
EU-152		121.78		1.218E+01	1.055E+01	1.808E+01	1.405E+00	0.674
		244.70		-2.635E+01	3.707E+01	5.878E+01	3.353E+00	-0.448
		344.28	*	1.875E+00	1.037E+01	1.747E+01	1.185E+00	0.107
		778.90		1.562E+01	2.526E+01	4.448E+01	2.777E+00	0.351
		964.08		-1.124E+01	2.790E+01	4.390E+01	3.239E+00	-0.256
		1085.87		-2.350E+01	3.559E+01	5.193E+01	3.341E+00	-0.452
		1112.07		-1.907E+01	2.936E+01	4.333E+01	2.681E+00	-0.440
		1408.01		1.115E+01	2.129E+01	3.795E+01	2.711E+00	0.294
GD-153		69.67		-2.079E+02	2.125E+02	3.241E+02	2.692E+01	-0.642
		97.43	*	-4.773E+00	1.147E+01	1.806E+01	1.439E+00	-0.264
		103.18		-4.814E-01	1.378E+01	2.220E+01	1.641E+00	-0.022
EU-154		123.07		5.004E+00	7.558E+00	1.262E+01	1.201E+00	0.396

Sample ID : G1202051904 Acquisition date : 5-MAR-2010 16:47:09

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		723.31		2.354E+00	1.643E+01	2.705E+01	1.857E+00	0.087
		873.19		7.110E+00	2.988E+01	5.162E+01	5.708E+00	0.138
		996.26		-1.456E+01	3.215E+01	4.912E+01	8.251E+00	-0.296
		1004.73		-2.873E+00	1.892E+01	3.066E+01	3.238E+00	-0.094
		1274.44	*	-9.042E-01	9.074E+00	1.459E+01	1.450E+00	-0.062
EU-155		86.55		-1.136E+01	1.184E+01	1.713E+01	1.578E+00	-0.664
		105.31	*	6.290E+00	1.325E+01	2.206E+01	1.616E+00	0.285
TA-182		67.75		-1.195E+01	1.424E+01	2.199E+01	1.821E+00	-0.543
		100.11		-5.522E+00	2.215E+01	3.519E+01	2.704E+00	-0.157
		152.43		-1.563E+01	4.277E+01	6.672E+01	3.635E+00	-0.234
		222.11		8.087E+00	3.868E+01	6.584E+01	3.671E+00	0.123
		1121.30		6.022E+00	1.311E+01	2.313E+01	1.410E+00	0.260
		1189.05		-7.950E+00	2.851E+01	4.122E+01	2.355E+00	-0.193
		1221.41	*	9.682E+00	1.327E+01	2.496E+01	1.509E+00	0.388
		1231.02		3.084E+01	3.445E+01	6.567E+01	4.037E+00	0.470
IR-192		295.96		5.790E+00	1.143E+01	1.975E+01	1.192E+00	0.293
		308.46		-3.605E+00	1.022E+01	1.646E+01	9.962E-01	-0.219
		316.51	*	-7.852E-01	3.670E+00	5.980E+00	3.613E-01	-0.131
		468.07		-2.656E+00	6.705E+00	1.048E+01	7.250E-01	-0.253
HG-203		70.83		-5.873E+01	1.632E+02	2.383E+02	3.791E+01	-0.246
		72.87		3.779E+01	9.668E+01	1.418E+02	2.185E+01	0.266
		279.20	*	1.485E-01	4.098E+00	6.853E+00	4.245E-01	0.022
BI-207		72.81		9.047E+00	2.366E+01	3.473E+01	2.912E+00	0.260
		74.97		4.905E+00	1.506E+01	2.117E+01	1.792E+00	0.232
		569.70		-1.909E+00	3.992E+00	6.008E+00	3.380E-01	-0.318
		1063.66	*	-9.030E-01	4.313E+00	6.871E+00	4.556E-01	-0.131
		1770.23		-6.640E+01	6.393E+01	7.568E+01	4.568E+00	-0.877
TL-208		277.37		2.094E+01	4.370E+01	7.542E+01	8.161E+00	0.278
		583.19	*	-5.176E-01	4.857E+00	7.119E+00	4.590E-01	-0.073
		860.56		1.971E+01	2.693E+01	4.967E+01	3.974E+00	0.397
PB-210		46.54	*	-2.528E+02	3.916E+02	6.322E+02	4.929E+01	-0.400
PB-211		404.85	*	3.824E+00	1.886E+02	1.277E+02	5.747E+03	0.030
		427.09		1.048E+01	4.981E+02	2.652E+02	1.194E+04	0.040
		832.01		-2.706E+01	1.221E+03	1.458E+02	6.565E+03	-0.186
BI-212		727.33	*	2.953E+00	5.071E+01	8.246E+01	8.756E+00	0.036
		785.37		-4.812E+01	3.280E+02	5.153E+02	3.258E+01	-0.093
		1620.50		3.136E+00	2.758E+02	4.495E+02	2.972E+01	0.007
PB-212		74.82		1.285E+01	5.282E+01	7.376E+01	9.507E+00	0.174
	+	77.11		5.247E+01	3.001E+01	4.126E+01	3.529E+00	1.272
		238.63	*	2.002E+00	7.530E+00	1.287E+01	9.390E-01	0.155
		300.09		-2.604E+01	9.060E+01	1.473E+02	1.252E+01	-0.177
BI-214	+	609.32	*	2.320E+01	1.004E+01	1.823E+01	1.371E+00	1.273
		1120.29		2.393E+01	2.967E+01	5.442E+01	4.934E+00	0.440
		1764.49		1.347E+01	3.303E+01	5.836E+01	3.537E+00	0.231
PB-214		74.82		2.252E+01	9.258E+01	1.293E+02	1.499E+01	0.174
	+	77.11		9.147E+01	5.285E+01	7.193E+01	8.547E+00	1.272
		242.00		-2.555E+01	4.218E+01	6.771E+01	5.498E+00	-0.377
		295.22		1.230E+01	1.568E+01	2.763E+01	2.436E+00	0.445
	+	351.93	*	2.646E+01	1.202E+01	1.962E+01	1.703E+00	1.349

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RN-219		271.23		1.545E+01	6.959E+02	4.338E+01	1.953E+03	0.356
		401.81	*	1.814E+01	8.175E+02	7.358E+01	3.312E+03	0.246
RA-223		81.07		1.682E+01	7.575E+02	4.157E+01	1.871E+03	0.405
		83.79		-1.154E+01	5.199E+02	2.350E+01	1.058E+03	-0.491
		94.56		7.404E+01	3.333E+03	7.128E+01	3.209E+03	1.039
		144.24		-4.968E+01	2.238E+03	1.340E+02	6.031E+03	-0.371
		154.21		-1.378E+01	6.220E+02	7.551E+01	3.399E+03	-0.182
		269.46		-8.061E+00	3.634E+02	3.211E+01	1.445E+03	-0.251
		323.87	*	4.305E-01	7.730E+01	1.243E+02	5.595E+03	0.003
		338.28		2.513E+01	1.136E+03	1.732E+02	7.796E+03	0.145
RA-224		240.99	*	1.736E+01	7.559E+01	1.284E+02	7.300E+00	0.135
RA-226		186.21	*	1.773E+01	9.503E+01	1.601E+02	1.074E+02	0.111
AC-227		79.69		1.027E+01	1.610E+02	2.299E+02	3.970E+01	0.045
		235.96		-5.973E+00	1.635E+01	2.670E+01	2.146E+00	-0.224
		256.23	*	2.296E+01	3.072E+01	5.386E+01	5.497E+00	0.426
		299.98		-4.786E+01	1.008E+02	1.613E+02	1.787E+01	-0.297
		304.50		-1.309E+02	1.814E+02	2.811E+02	4.306E+01	-0.466
		329.85		-4.516E+01	7.663E+01	1.207E+02	1.210E+01	-0.374
		334.37		1.008E+02	1.994E+02	3.434E+02	4.921E+01	0.293
TH-227		79.69		1.027E+01	4.896E+02	2.299E+02	1.035E+04	0.045
		235.96		-5.973E+00	2.693E+02	2.670E+01	1.202E+03	-0.224
		256.23	*	2.296E+01	1.034E+03	5.386E+01	2.425E+03	0.426
		299.98		-4.786E+01	2.157E+03	1.613E+02	7.262E+03	-0.297
		304.50		-1.309E+02	5.897E+03	2.811E+02	1.265E+04	-0.466
		329.85		-4.516E+01	2.034E+03	1.207E+02	5.432E+03	-0.374
		334.37		1.008E+02	4.540E+03	3.434E+02	1.546E+04	0.293
AC-228		338.32		2.760E+00	2.615E+01	4.371E+01	1.804E+01	0.063
		911.20	*	2.911E+00	1.313E+01	2.267E+01	2.474E+00	0.128
		968.97		-7.875E+00	2.713E+01	4.067E+01	9.735E+00	-0.194
RA-228		338.32		2.760E+00	2.615E+01	4.371E+01	1.804E+01	0.063
		911.20	*	2.911E+00	1.313E+01	2.267E+01	2.474E+00	0.128
		968.97		-7.875E+00	2.713E+01	4.067E+01	9.735E+00	-0.194
TH-228		74.82		1.285E+01	5.281E+01	7.376E+01	6.296E+00	0.174
	+	77.11		5.247E+01	3.001E+01	4.126E+01	3.529E+00	1.272
		238.63	*	2.002E+00	7.530E+00	1.287E+01	9.390E-01	0.155
		300.09		-2.604E+01	9.195E+01	1.473E+02	8.969E+01	-0.177
TH-229		85.43		-2.381E+01	2.521E+01	3.720E+01	3.367E+00	-0.640
		88.47		-2.097E+01	1.496E+01	2.193E+01	2.010E+00	-0.956
		193.51	*	-8.385E+01	6.868E+01	1.070E+02	5.788E+00	-0.783
		210.85		2.894E+01	1.020E+02	1.744E+02	9.606E+00	0.166
PA-231		283.69	*	7.536E+01	1.710E+02	2.941E+02	3.870E+01	0.256
		301.36		4.337E+01	5.270E+01	9.320E+01	8.914E+00	0.465
		330.06		-1.173E+02	2.221E+02	3.480E+02	1.016E+02	-0.337
TH-231		84.21	*	-5.627E+01	5.847E+01	8.537E+01	1.503E+01	-0.659
TH-232		63.81	*	9.894E+02	8.035E+03	4.331E+03	3.332E+04	0.228
		140.88		7.091E+03	1.437E+04	2.379E+04	1.338E+03	0.298
PA-233		94.65		3.711E+01	3.395E+01	5.800E+01	4.889E+00	0.640
		98.43		-1.343E+00	1.775E+01	2.856E+01	2.386E+00	-0.047
		300.13		-1.297E+01	4.460E+01	7.246E+01	9.752E+00	-0.179

Sample ID : G1202051904 Acquisition date : 5-MAR-2010 16:47:09

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		311.90	*	2.113E+00	6.844E+00	1.169E+01	7.422E-01	0.181
		340.48		-1.745E+01	6.413E+01	1.035E+02	2.409E+01	-0.169
PA-234		94.67		2.445E+01	2.290E+01	3.892E+01	4.739E+00	0.628
		98.44		-8.790E-01	1.182E+01	1.900E+01	1.058E+01	-0.046
		111.00		1.139E+01	2.324E+01	3.868E+01	4.191E+00	0.294
		131.20		-9.791E+00	1.427E+01	2.188E+01	1.271E+00	-0.447
		569.50		-1.764E+01	3.537E+01	5.310E+01	2.988E+00	-0.332
		733.00		-3.403E+01	4.045E+01	5.574E+01	1.184E+01	-0.610
		880.51		-2.187E+01	2.735E+01	3.983E+01	2.995E+00	-0.549
		883.24		9.739E+00	2.668E+01	4.585E+01	3.076E+01	0.212
		926.36		-8.352E+00	1.545E+01	2.307E+01	5.756E+00	-0.362
		946.00	*	8.543E+00	2.806E+01	4.898E+01	8.950E+00	0.174
		949.00		-2.934E+01	4.080E+01	5.951E+01	4.446E+00	-0.493
PA-234M		766.42		7.415E+02	1.089E+03	1.827E+03	9.202E+02	0.406
		1001.03	*	-7.697E+01	4.097E+02	6.604E+02	5.749E+01	-0.117
TH-234		63.29	*	-8.015E+01	1.880E+02	3.023E+02	5.505E+01	-0.265
		92.59		-3.809E+01	9.387E+01	1.533E+02	3.382E+01	-0.248
U-235		89.96		-1.536E+02	1.091E+02	1.504E+02	3.718E+01	-1.021
		93.35		-3.141E+01	7.169E+01	1.167E+02	2.688E+01	-0.269
		143.76	*	-1.943E+01	2.711E+01	3.910E+01	6.111E+00	-0.497
		163.33		2.963E+01	5.478E+01	9.055E+01	1.505E+01	0.327
		185.72		7.785E-01	5.938E+00	1.005E+01	5.393E-01	0.077
		205.31		-7.525E+00	5.868E+01	9.334E+01	1.576E+01	-0.081
NP-237		86.48	*	-2.803E+01	2.978E+01	4.225E+01	9.662E+00	-0.663
		95.86		-2.687E+02	1.484E+02	1.908E+02	4.545E+01	-1.409
U-238		63.29	*	-8.015E+01	1.880E+02	3.023E+02	5.505E+01	-0.265
		92.59		-3.809E+01	9.355E+01	1.533E+02	1.312E+01	-0.248
NP-239		99.53		-4.067E+00	2.042E+01	3.256E+01	2.521E+00	-0.125
		103.37		9.465E-01	1.275E+01	2.071E+01	1.527E+00	0.046
		106.12		7.273E+00	1.075E+01	1.811E+01	1.292E+00	0.402
		116.74	*	-6.788E+01	3.526E+01	4.849E+01	3.082E+00	-1.400
		228.18		2.313E+01	2.373E+01	4.243E+01	2.381E+00	0.545
		277.60		1.113E+01	1.952E+01	3.395E+01	1.993E+00	0.328
AM-241		59.54	*	-2.064E+01	1.965E+01	2.983E+01	2.689E+00	-0.692
CM-247		278.00		3.399E+01	8.290E+01	1.426E+02	8.370E+00	0.238
		287.50		3.817E+01	1.426E+02	2.425E+02	1.434E+01	0.157
		402.40	*	8.542E-01	4.006E+00	6.748E+00	4.134E-01	0.127
CF-249		252.80		-2.000E+01	1.144E+02	1.888E+02	1.086E+01	-0.106
		333.37		1.170E+01	2.116E+01	3.663E+01	2.219E+00	0.320
		388.16	*	-1.798E+00	4.492E+00	7.124E+00	4.362E-01	-0.252
CF-251		177.52	*	1.447E+01	1.766E+01	2.966E+01	1.578E+00	0.488
		227.38		4.997E+00	3.910E+01	6.617E+01	3.710E+00	0.076
		285.41		2.771E+02	2.514E+02	4.530E+02	2.674E+01	0.612
ANH-511		511.00	*	-5.176E+00	6.094E+00	1.110E+01	6.571E-01	-0.466

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051904      *
* Acquisition date :  5-MAR-2010 16:47:09 Detector SN#    :                 *
* Detector ID      : GAM14                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:00.60     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 22-FEB-2010 12:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G1202051904          Analyst initials: KXG3            *
* Batch Number     : 956976               Sample Quantity : 1.5710E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME :  9-MAR-2009 15:03:15 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
BI-211	7.298E+01	3.220E+03	3.424E+01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	-2.319E+01	3.203E+01	4.893E+01	0.000E+00	NOT IDENT.
NA-22	-2.451E-01	3.149E+00	5.195E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00	1.132E+06	0.000E+00	0.000E+00	SHORT HLIF
K-40	-4.317E+01	4.154E+01	5.973E+01	0.000E+00	NOT IDENT.
SC-46	-1.783E+00	3.732E+00	5.916E+00	0.000E+00	NOT IDENT.
V-48	1.741E+00	5.717E+00	1.016E+01	0.000E+00	NOT IDENT.
CR-51	1.099E+00	3.716E+01	6.314E+01	0.000E+00	NOT IDENT.
MN-54	-1.032E-01	3.382E+00	5.642E+00	0.000E+00	NOT IDENT.
CO-56	2.442E+00	3.831E+00	7.085E+00	0.000E+00	NOT IDENT.
CO-57	5.938E+00	3.474E+00	6.254E+00	0.000E+00	NOT IDENT.
CO-58	2.352E-01	3.607E+00	5.969E+00	0.000E+00	NOT IDENT.
FE-59	3.776E+00	7.350E+00	1.348E+01	0.000E+00	NOT IDENT.
CO-60	2.257E+00	3.929E+00	7.246E+00	0.000E+00	NOT IDENT.
ZN-65	1.294E+00	9.216E+00	1.587E+01	0.000E+00	NOT IDENT.
SE-75	2.024E+00	4.984E+00	8.742E+00	0.000E+00	NOT IDENT.
SR-85	-1.091E+01	6.081E+00	8.776E+00	0.000E+00	NOT IDENT.
Y-88	6.640E-01	3.492E+00	6.069E+00	0.000E+00	NOT IDENT.
Y-91	-3.378E+02	1.769E+03	2.885E+03	0.000E+00	NOT IDENT.
NB-94	-2.591E-01	3.189E+00	5.192E+00	0.000E+00	NOT IDENT.
NB-95	2.847E-01	3.813E+00	6.329E+00	0.000E+00	NOT IDENT.
NB-95M	-7.525E+00	1.268E+01	2.078E+01	0.000E+00	NOT IDENT.
ZR-95	4.739E+00	7.766E+00	1.374E+01	0.000E+00	NOT IDENT.
MO-99	2.273E+02	4.345E+02	7.691E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.046E+14	0.000E+00	0.000E+00	SHORT HLIF
RU-103	1.259E+00	4.440E+00	7.622E+00	0.000E+00	FAIL ABUN
RH-106	-9.191E-01	3.412E+01	5.632E+01	0.000E+00	NOT IDENT.

RU-106	-9.191E-01	3.412E+01	5.632E+01	0.000E+00	NOT IDENT.
AG-108M	-2.256E+00	3.195E+00	4.947E+00	0.000E+00	NOT IDENT.
CD-109	-1.227E+02	9.952E+01	1.447E+02	0.000E+00	NOT IDENT.
AG-110M	-1.862E+00	3.410E+00	5.184E+00	0.000E+00	NOT IDENT.
SN-113	-6.321E-01	5.031E+00	8.376E+00	0.000E+00	NOT IDENT.
CD-115	1.409E+02	3.421E+02	5.986E+02	0.000E+00	NOT IDENT.
SN-117M	-1.066E+00	5.549E+00	8.938E+00	0.000E+00	NOT IDENT.
TE-123M	-8.392E-01	3.445E+00	5.527E+00	0.000E+00	NOT IDENT.
SB-124	-2.776E+00	9.603E+00	1.482E+01	0.000E+00	NOT IDENT.
SB-125	6.800E+00	9.341E+00	1.685E+01	0.000E+00	NOT IDENT.
TE-125M	-9.129E+02	1.203E+03	1.877E+03	0.000E+00	NOT IDENT.
I-126	-1.446E+01	1.650E+01	2.342E+01	0.000E+00	NOT IDENT.
SB-126	-5.639E+00	1.171E+01	1.791E+01	0.000E+00	NOT IDENT.
SN-126	-8.456E+00	9.349E+00	1.386E+01	0.000E+00	NOT IDENT.
SB-127	4.307E+00	6.881E+01	1.129E+02	0.000E+00	NOT IDENT.
I-131	-3.844E+00	8.595E+00	1.385E+01	0.000E+00	NOT IDENT.
TE-132	3.331E+01	3.383E+01	6.129E+01	0.000E+00	NOT IDENT.
BA-133	-6.142E+00	5.339E+00	6.489E+00	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.781E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-134	3.795E+00	4.404E+00	7.566E+00	0.000E+00	FAIL ABUN
CS-135	-1.865E+01	1.690E+01	2.617E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	2.417E+13	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.909E+00	8.316E+00	1.459E+01	0.000E+00	NOT IDENT.
BA-137M	1.477E+00	3.235E+00	5.698E+00	0.000E+00	NOT IDENT.
CS-137	1.561E+00	3.418E+00	6.019E+00	0.000E+00	NOT IDENT.
CE-139	8.829E-01	3.508E+00	5.824E+00	0.000E+00	NOT IDENT.
BA-140	1.056E+01	2.228E+01	3.878E+01	0.000E+00	NOT IDENT.
LA-140	1.724E+00	7.837E+00	1.360E+01	0.000E+00	NOT IDENT.
CE-141	5.522E-01	6.816E+00	1.122E+01	0.000E+00	NOT IDENT.
CE-143	0.000E+00	1.884E+03	0.000E+00	0.000E+00	SHORT HLIF
CE-144	5.070E+00	2.616E+01	4.339E+01	0.000E+00	NOT IDENT.
PM-144	1.681E+00	3.433E+00	6.025E+00	0.000E+00	NOT IDENT.
PR-144	1.262E+02	2.565E+02	4.503E+02	0.000E+00	NOT IDENT.
PM-146	-2.943E+00	4.618E+00	7.193E+00	0.000E+00	NOT IDENT.
ND-147	-2.994E+01	4.440E+01	6.713E+01	0.000E+00	NOT IDENT.
PM-149	2.731E+03	3.142E+03	5.642E+03	0.000E+00	NOT IDENT.
EU-152	1.875E+00	1.016E+01	1.747E+01	0.000E+00	NOT IDENT.
GD-153	-4.773E+00	1.124E+01	1.806E+01	0.000E+00	NOT IDENT.
EU-154	-9.042E-01	8.892E+00	1.459E+01	0.000E+00	NOT IDENT.
EU-155	6.290E+00	1.298E+01	2.206E+01	0.000E+00	NOT IDENT.
TA-182	9.682E+00	1.301E+01	2.496E+01	0.000E+00	NOT IDENT.
IR-192	-7.852E-01	3.596E+00	5.980E+00	0.000E+00	NOT IDENT.
HG-203	1.485E-01	4.016E+00	6.853E+00	0.000E+00	NOT IDENT.
BI-207	-9.030E-01	4.227E+00	6.871E+00	0.000E+00	NOT IDENT.
TL-208	-5.176E-01	4.760E+00	7.119E+00	0.000E+00	NOT IDENT.
PB-210	-2.528E+02	3.838E+02	6.322E+02	0.000E+00	NOT IDENT.
PB-211	3.824E+00	1.848E+02	1.277E+02	0.000E+00	NOT IDENT.
BI-212	2.953E+00	4.970E+01	8.246E+01	0.000E+00	NOT IDENT.
PB-212	2.002E+00	7.379E+00	1.287E+01	0.000E+00	FAIL ABUN
BI-214	0.000E+00	9.838E+00	1.823E+01	0.000E+00	FAIL ABUN
PB-214	0.000E+00	1.178E+01	1.962E+01	0.000E+00	FAIL ABUN
RN-219	1.814E+01	8.011E+02	7.358E+01	0.000E+00	NOT IDENT.
RA-223	4.305E-01	7.575E+01	1.243E+02	0.000E+00	NOT IDENT.
RA-224	1.736E+01	7.408E+01	1.284E+02	0.000E+00	NOT IDENT.
RA-226	1.773E+01	9.313E+01	1.601E+02	0.000E+00	NOT IDENT.
AC-227	2.296E+01	3.011E+01	5.386E+01	0.000E+00	NOT IDENT.
TH-227	2.296E+01	1.013E+03	5.386E+01	0.000E+00	NOT IDENT.
AC-228	2.911E+00	1.286E+01	2.267E+01	0.000E+00	NOT IDENT.
RA-228	2.911E+00	1.286E+01	2.267E+01	0.000E+00	NOT IDENT.
TH-228	2.002E+00	7.379E+00	1.287E+01	0.000E+00	FAIL ABUN
TH-229	-8.385E+01	6.731E+01	1.070E+02	0.000E+00	NOT IDENT.
PA-231	7.536E+01	1.676E+02	2.941E+02	0.000E+00	NOT IDENT.
TH-231	-5.627E+01	5.730E+01	8.537E+01	0.000E+00	NOT IDENT.
TH-232	9.894E+02	7.875E+03	4.331E+03	0.000E+00	NOT IDENT.
PA-233	2.113E+00	6.708E+00	1.169E+01	0.000E+00	NOT IDENT.
PA-234	8.543E+00	2.750E+01	4.898E+01	0.000E+00	NOT IDENT.
PA-234M	-7.697E+01	4.015E+02	6.604E+02	0.000E+00	NOT IDENT.
TH-234	-8.015E+01	1.842E+02	3.023E+02	0.000E+00	NOT IDENT.
U-235	-1.943E+01	2.657E+01	3.910E+01	0.000E+00	NOT IDENT.
NP-237	-2.803E+01	2.919E+01	4.225E+01	0.000E+00	NOT IDENT.
U-238	-8.015E+01	1.842E+02	3.023E+02	0.000E+00	NOT IDENT.
NP-239	-6.788E+01	3.455E+01	4.849E+01	0.000E+00	NOT IDENT.
AM-241	-2.064E+01	1.926E+01	2.983E+01	0.000E+00	NOT IDENT.
CM-247	8.542E-01	3.926E+00	6.748E+00	0.000E+00	NOT IDENT.
CF-249	-1.798E+00	4.403E+00	7.124E+00	0.000E+00	NOT IDENT.
CF-251	1.447E+01	1.730E+01	2.966E+01	0.000E+00	NOT IDENT.
ANH-511	-5.176E+00	5.973E+00	1.110E+01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 18:47:40.12

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051904.CNF;1
Sample date       : 22-FEB-2010 12:00:00 Acquisition date : 5-MAR-2010 16:47:09.
Sample ID         : G1202051904          Sample quantity  : 1.57100E+00 LITER
Detector name     : GAM14                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.60  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 956976               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
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Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	76.68	74	111	1.20	152.90	148	9	1.03E-02	28.3	
2	0	92.99	106	147	1.46	185.48	181	11	1.48E-02	24.1	
3	0	186.04	45	168	1.79	371.40	363	13	6.28E-03	61.0	
4	0	238.58	50	84	1.38	476.38	472	10	7.00E-03	36.6	
5	0	351.94	76	45	1.60	702.93	698	9	1.06E-02	19.5	
6	0	510.50	182	50	2.31	1019.86	1011	18	2.53E-02	11.7	
7	0	609.13	62	15	2.35	1217.03	1212	10	8.62E-03	17.2	
8	0	796.48	12	10	1.34	1591.63	1586	9	1.62E-03	59.1	

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 18:47:43.68

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051904.CNF;1
Sample date       : 22-FEB-2010 12:00:00 Acquisition date : 5-MAR-2010 16:47:09.
Sample ID         : G1202051904          Sample quantity  : 1.57100E+00 LITER
Detector name     : GAM14                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.60  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 956976                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
BI-211	72.87	------	1.23	1.847E+00	------	Line Not Found	------
	351.06	70	12.92*	1.766E+00	7.291E+01	7.298E+01	4501.53

Flag: "*" = Keyline

Sample ID : G1202051904 Acquisition date : 5-MAR-2010 16:47:09

Total number of lines in spectrum	4	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	4	100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
BI-211	21.77Y	1.00	7.291E+01	7.298E+01	328.5E+01	4501.53	
		Total Activity :	7.291E+01	7.298E+01			
		Grand Total Activity :	7.291E+01	7.298E+01			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202051904 Acquisition date : 5-MAR-2010 16:47:09

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	76.68	74	111	1.20	152.90	148	9	1.03E-02	56.6	2.01E+00	T
0	609.13	53	15	2.35	1217.03	1212	10	7.29E-03	42.6	1.19E+00	T
0	796.48	12	10	1.34	1591.63	1586	9	1.62E-03	****	9.62E-01	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 18:47:48.19

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051904.CNF;1 *
* Acquisition date : 5-MAR-2010 16:47:09.  Detector SN#    :                *
* Detector ID      : GAM14                 Sensitivity     : 5.00000        *
* Geometry         : 2LMB                  Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:00.60         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 22-FEB-2010 12:00:00  Nuclide Library : LIQUID          *
* Sample ID        : G1202051904           Analyst initials: KXG3            *
* Batch Number     : 956976                Sample Quantity : 1.57100E+00 LITER *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 9-MAR-2009 15:03:15.29MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BI-211	7.298E+01	3.285E+03	3.424E+01	1.541E+03	2.132

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	-2.319E+01		3.268E+01	4.893E+01	3.399E+00	-0.474
NA-22	-2.451E-01		3.213E+00	5.195E+00	3.440E-01	-0.047
NA-24	1.122E-01		5.774E-01	Half-Life too short		
K-40	-4.317E+01		4.238E+01	5.973E+01	4.385E+00	-0.723
SC-46	-1.783E+00		3.808E+00	5.916E+00	4.516E-01	-0.301
V-48	1.741E+00		5.834E+00	1.016E+01	7.364E-01	0.171
CR-51	1.099E+00		3.792E+01	6.314E+01	4.202E+00	0.017
MN-54	-1.032E-01		3.451E+00	5.642E+00	3.912E-01	-0.018
CO-56	2.442E+00		3.909E+00	7.085E+00	5.019E-01	0.345
CO-57	5.938E+00		3.545E+00	6.254E+00	3.779E-01	0.949
CO-58	2.352E-01		3.681E+00	5.969E+00	3.975E-01	0.039

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
FE-59	3.776E+00		7.500E+00	1.348E+01	9.751E-01	0.280
CO-60	2.257E+00		4.009E+00	7.246E+00	5.249E-01	0.312
ZN-65	1.294E+00		9.404E+00	1.587E+01	9.783E-01	0.082
SE-75	2.024E+00		5.086E+00	8.742E+00	5.132E-01	0.232
SR-85	-1.091E+01		6.205E+00	8.776E+00	5.185E-01	-1.243
Y-88	6.640E-01		3.564E+00	6.069E+00	3.489E-01	0.109
Y-91	-3.378E+02		1.805E+03	2.885E+03	1.695E+02	-0.117
NB-94	-2.591E-01		3.254E+00	5.192E+00	2.784E-01	-0.050
NB-95	2.847E-01		3.891E+00	6.329E+00	3.853E-01	0.045
NB-95M	-7.525E+00		1.294E+01	2.078E+01	1.546E+00	-0.362
ZR-95	4.739E+00		7.925E+00	1.374E+01	9.922E-01	0.345
MO-99	2.273E+02		4.434E+02	7.691E+02	1.108E+02	0.295
TC-99M	1.758E+07		5.338E+07	Half-Life too short		
RU-103	1.259E+00		4.530E+00	7.622E+00	9.532E-01	0.165
RH-106	-9.191E-01		3.482E+01	5.632E+01	6.399E+00	-0.016
RU-106	-9.191E-01		3.482E+01	5.632E+01	2.963E+00	-0.016
AG-108M	-2.256E+00		3.260E+00	4.947E+00	3.215E-01	-0.456
CD-109	-1.227E+02		1.016E+02	1.447E+02	1.337E+01	-0.848
AG-110M	-1.862E+00		3.479E+00	5.184E+00	2.793E-01	-0.359
SN-113	-6.321E-01		5.134E+00	8.376E+00	5.438E-01	-0.075
CD-115	1.409E+02		3.491E+02	5.986E+02	3.501E+01	0.235
SN-117M	-1.066E+00		5.662E+00	8.938E+00	4.795E-01	-0.119
TE-123M	-8.392E-01		3.515E+00	5.527E+00	3.009E-01	-0.152
SB-124	-2.776E+00		9.799E+00	1.482E+01	1.014E+00	-0.187
SB-125	6.800E+00		9.531E+00	1.685E+01	1.069E+00	0.404
TE-125M	-9.129E+02		1.227E+03	1.877E+03	1.706E+02	-0.486
I-126	-1.446E+01		1.684E+01	2.342E+01	1.163E+00	-0.617
SB-126	-5.639E+00		1.195E+01	1.791E+01	9.966E-01	-0.315
SN-126	-8.456E+00		9.540E+00	1.386E+01	1.276E+00	-0.610
SB-127	4.307E+00		7.021E+01	1.129E+02	8.685E+00	0.038
I-131	-3.844E+00		8.770E+00	1.385E+01	9.308E-01	-0.277
TE-132	3.331E+01		3.452E+01	6.129E+01	8.366E+00	0.544
BA-133	-6.142E+00		5.447E+00	6.489E+00	7.419E-01	-0.946
I-133	-4.521E-03		1.419E-02	Half-Life too short		
CS-134	3.795E+00	+	4.494E+00	7.566E+00	4.943E-01	0.502
CS-135	-1.865E+01		1.725E+01	2.617E+01	2.009E+00	-0.713
I-135	5.971E+06		1.233E+07	Half-Life too short		
CS-136	1.909E+00		8.485E+00	1.459E+01	1.052E+00	0.131
BA-137M	1.477E+00		3.301E+00	5.698E+00	2.801E-01	0.259
CS-137	1.561E+00		3.487E+00	6.019E+00	2.977E-01	0.259
CE-139	8.829E-01		3.580E+00	5.824E+00	3.072E-01	0.152
BA-140	1.056E+01		2.273E+01	3.878E+01	1.292E+01	0.272
LA-140	1.724E+00		7.997E+00	1.360E+01	9.100E-01	0.127
CE-141	5.522E-01		6.955E+00	1.122E+01	6.498E-01	0.049
CE-143	2.001E-03		9.611E-04	Half-Life too short		
CE-144	5.070E+00		2.669E+01	4.339E+01	6.021E+00	0.117
PM-144	1.681E+00		3.503E+00	6.025E+00	3.192E-01	0.279
PR-144	1.262E+02		2.617E+02	4.503E+02	2.384E+01	0.280

Sample ID : G1202051904 Acquisition date : 5-MAR-2010 16:47:09

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PM-146	-2.943E+00		4.712E+00	7.193E+00	6.224E-01	-0.409
ND-147	-2.994E+01		4.531E+01	6.713E+01	9.087E+00	-0.446
PM-149	2.731E+03		3.206E+03	5.642E+03	8.015E+02	0.484
EU-152	1.875E+00		1.037E+01	1.747E+01	1.185E+00	0.107
GD-153	-4.773E+00		1.147E+01	1.806E+01	1.439E+00	-0.264
EU-154	-9.042E-01		9.074E+00	1.459E+01	1.450E+00	-0.062
EU-155	6.290E+00		1.325E+01	2.206E+01	1.616E+00	0.285
TA-182	9.682E+00		1.327E+01	2.496E+01	1.509E+00	0.388
IR-192	-7.852E-01		3.670E+00	5.980E+00	3.613E-01	-0.131
HG-203	1.485E-01		4.098E+00	6.853E+00	4.245E-01	0.022
BI-207	-9.030E-01		4.313E+00	6.871E+00	4.556E-01	-0.131
TL-208	-5.176E-01		4.857E+00	7.119E+00	4.590E-01	-0.073
PB-210	-2.528E+02		3.916E+02	6.322E+02	4.929E+01	-0.400
PB-211	3.824E+00		1.886E+02	1.277E+02	5.747E+03	0.030
BI-212	2.953E+00		5.071E+01	8.246E+01	8.756E+00	0.036
PB-212	2.002E+00		7.530E+00	1.287E+01	9.390E-01	0.155
BI-214	2.320E+01	+	1.004E+01	1.823E+01	1.371E+00	1.273
PB-214	2.646E+01	+	1.202E+01	1.962E+01	1.703E+00	1.349
RN-219	1.814E+01		8.175E+02	7.358E+01	3.312E+03	0.246
RA-223	4.305E-01		7.730E+01	1.243E+02	5.595E+03	0.003
RA-224	1.736E+01		7.559E+01	1.284E+02	7.300E+00	0.135
RA-226	1.773E+01		9.503E+01	1.601E+02	1.074E+02	0.111
AC-227	2.296E+01		3.072E+01	5.386E+01	5.497E+00	0.426
TH-227	2.296E+01		1.034E+03	5.386E+01	2.425E+03	0.426
AC-228	2.911E+00		1.313E+01	2.267E+01	2.474E+00	0.128
RA-228	2.911E+00		1.313E+01	2.267E+01	2.474E+00	0.128
TH-228	2.002E+00		7.530E+00	1.287E+01	9.390E-01	0.155
TH-229	-8.385E+01		6.868E+01	1.070E+02	5.788E+00	-0.783
PA-231	7.536E+01		1.710E+02	2.941E+02	3.870E+01	0.256
TH-231	-5.627E+01		5.847E+01	8.537E+01	1.503E+01	-0.659
TH-232	9.894E+02		8.035E+03	4.331E+03	3.332E+04	0.228
PA-233	2.113E+00		6.844E+00	1.169E+01	7.422E-01	0.181
PA-234	8.543E+00		2.806E+01	4.898E+01	8.950E+00	0.174
PA-234M	-7.697E+01		4.097E+02	6.604E+02	5.749E+01	-0.117
TH-234	-8.015E+01		1.880E+02	3.023E+02	5.505E+01	-0.265
U-235	-1.943E+01		2.711E+01	3.910E+01	6.111E+00	-0.497
NP-237	-2.803E+01		2.978E+01	4.225E+01	9.662E+00	-0.663
U-238	-8.015E+01		1.880E+02	3.023E+02	5.505E+01	-0.265
NP-239	-6.788E+01		3.526E+01	4.849E+01	3.082E+00	-1.400
AM-241	-2.064E+01		1.965E+01	2.983E+01	2.689E+00	-0.692
CM-247	8.542E-01		4.006E+00	6.748E+00	4.134E-01	0.127
CF-249	-1.798E+00		4.492E+00	7.124E+00	4.362E-01	-0.252
CF-251	1.447E+01		1.766E+01	2.966E+01	1.578E+00	0.488
ANH-511	-5.176E+00		6.094E+00	1.110E+01	6.571E-01	-0.466

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202051904           *
* Acquisition date :  5-MAR-2010 16:47:09 Detector SN#    :                 *
* Detector ID      : GAM14                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:00.60     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 22-FEB-2010 12:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G1202051904          Analyst initials: KXG3            *
* Batch Number     : 956976               Sample Quantity : 1.5710E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME :  9-MAR-2009 15:03:15 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
BI-211	7.298E+01	3.220E+03	1.713E+01	1.643E+03

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU	
BE-7	-2.319E+01	3.203E+01	2.448E+01	1.634E+01	NOT IDENT.
NA-22	-2.451E-01	3.149E+00	2.599E+00	1.606E+00	NOT IDENT.
NA-24	1.122E+05	1.132E+06	0.000E+00	5.774E+05	SHORT HLIF
K-40	-4.317E+01	4.154E+01	2.988E+01	2.119E+01	NOT IDENT.
SC-46	-1.783E+00	3.732E+00	2.960E+00	1.904E+00	NOT IDENT.
V-48	1.741E+00	5.717E+00	5.082E+00	2.917E+00	NOT IDENT.
CR-51	1.099E+00	3.716E+01	3.159E+01	1.896E+01	NOT IDENT.
MN-54	-1.032E-01	3.382E+00	2.823E+00	1.725E+00	NOT IDENT.
CO-56	2.442E+00	3.831E+00	3.544E+00	1.955E+00	NOT IDENT.
CO-57	5.938E+00	3.474E+00	3.129E+00	1.772E+00	NOT IDENT.
CO-58	2.352E-01	3.607E+00	2.986E+00	1.840E+00	NOT IDENT.
FE-59	3.776E+00	7.350E+00	6.743E+00	3.750E+00	NOT IDENT.
CO-60	2.257E+00	3.929E+00	3.625E+00	2.005E+00	NOT IDENT.
ZN-65	1.294E+00	9.216E+00	7.938E+00	4.702E+00	NOT IDENT.
SE-75	2.024E+00	4.984E+00	4.374E+00	2.543E+00	NOT IDENT.
SR-85	-1.091E+01	6.081E+00	4.391E+00	3.103E+00	NOT IDENT.
Y-88	6.640E-01	3.492E+00	3.037E+00	1.782E+00	NOT IDENT.
Y-91	-3.378E+02	1.769E+03	1.443E+03	9.026E+02	NOT IDENT.
NB-94	-2.591E-01	3.189E+00	2.597E+00	1.627E+00	NOT IDENT.
NB-95	2.847E-01	3.813E+00	3.166E+00	1.946E+00	NOT IDENT.
NB-95M	-7.525E+00	1.268E+01	1.039E+01	6.470E+00	NOT IDENT.
ZR-95	4.739E+00	7.766E+00	6.874E+00	3.962E+00	NOT IDENT.
MO-99	2.273E+02	4.345E+02	3.848E+02	2.217E+02	NOT IDENT.
TC-99M	1.758E+13	1.046E+14	0.000E+00	5.338E+13	SHORT HLIF
RU-103	1.259E+00	4.440E+00	3.813E+00	2.265E+00	FAIL ABUN
RH-106	-9.191E-01	3.412E+01	2.817E+01	1.741E+01	NOT IDENT.

RU-106	-9.191E-01	3.412E+01	2.817E+01	1.741E+01	NOT IDENT.
AG-108M	-2.256E+00	3.195E+00	2.475E+00	1.630E+00	NOT IDENT.
CD-109	-1.227E+02	9.952E+01	7.241E+01	5.078E+01	NOT IDENT.
AG-110M	-1.862E+00	3.410E+00	2.593E+00	1.740E+00	NOT IDENT.
SN-113	-6.321E-01	5.031E+00	4.191E+00	2.567E+00	NOT IDENT.
CD-115	1.409E+02	3.421E+02	2.995E+02	1.745E+02	NOT IDENT.
SN-117M	-1.066E+00	5.549E+00	4.471E+00	2.831E+00	NOT IDENT.
TE-123M	-8.392E-01	3.445E+00	2.765E+00	1.757E+00	NOT IDENT.
SB-124	-2.776E+00	9.603E+00	7.415E+00	4.900E+00	NOT IDENT.
SB-125	6.800E+00	9.341E+00	8.430E+00	4.766E+00	NOT IDENT.
TE-125M	-9.129E+02	1.203E+03	9.389E+02	6.136E+02	NOT IDENT.
I-126	-1.446E+01	1.650E+01	1.171E+01	8.419E+00	NOT IDENT.
SB-126	-5.639E+00	1.171E+01	8.959E+00	5.975E+00	NOT IDENT.
SN-126	-8.456E+00	9.349E+00	6.933E+00	4.770E+00	NOT IDENT.
SB-127	4.307E+00	6.881E+01	5.650E+01	3.511E+01	NOT IDENT.
I-131	-3.844E+00	8.595E+00	6.930E+00	4.385E+00	NOT IDENT.
TE-132	3.331E+01	3.383E+01	3.066E+01	1.726E+01	NOT IDENT.
BA-133	-6.142E+00	5.339E+00	3.247E+00	2.724E+00	NOT IDENT.
I-133	-4.521E+03	2.781E+04	0.000E+00	1.419E+04	SHORT HLIF
CS-134	3.795E+00	4.404E+00	3.785E+00	2.247E+00	FAIL ABUN
CS-135	-1.865E+01	1.690E+01	1.309E+01	8.623E+00	NOT IDENT.
I-135	5.971E+12	2.417E+13	0.000E+00	1.233E+13	SHORT HLIF
CS-136	1.909E+00	8.316E+00	7.298E+00	4.243E+00	NOT IDENT.
BA-137M	1.477E+00	3.235E+00	2.851E+00	1.651E+00	NOT IDENT.
CS-137	1.561E+00	3.418E+00	3.012E+00	1.744E+00	NOT IDENT.
CE-139	8.829E-01	3.508E+00	2.914E+00	1.790E+00	NOT IDENT.
BA-140	1.056E+01	2.228E+01	1.940E+01	1.137E+01	NOT IDENT.
LA-140	1.724E+00	7.837E+00	6.803E+00	3.998E+00	NOT IDENT.
CE-141	5.522E-01	6.816E+00	5.611E+00	3.478E+00	NOT IDENT.
CE-143	2.001E+03	1.884E+03	0.000E+00	9.611E+02	SHORT HLIF
CE-144	5.070E+00	2.616E+01	2.171E+01	1.335E+01	NOT IDENT.
PM-144	1.681E+00	3.433E+00	3.014E+00	1.752E+00	NOT IDENT.
PR-144	1.262E+02	2.565E+02	2.253E+02	1.309E+02	NOT IDENT.
PM-146	-2.943E+00	4.618E+00	3.599E+00	2.356E+00	NOT IDENT.
ND-147	-2.994E+01	4.440E+01	3.359E+01	2.265E+01	NOT IDENT.
PM-149	2.731E+03	3.142E+03	2.823E+03	1.603E+03	NOT IDENT.
EU-152	1.875E+00	1.016E+01	8.740E+00	5.184E+00	NOT IDENT.
GD-153	-4.773E+00	1.124E+01	9.036E+00	5.736E+00	NOT IDENT.
EU-154	-9.042E-01	8.892E+00	7.298E+00	4.537E+00	NOT IDENT.
EU-155	6.290E+00	1.298E+01	1.104E+01	6.623E+00	NOT IDENT.
TA-182	9.682E+00	1.301E+01	1.249E+01	6.636E+00	NOT IDENT.
IR-192	-7.852E-01	3.596E+00	2.992E+00	1.835E+00	NOT IDENT.
HG-203	1.485E-01	4.016E+00	3.428E+00	2.049E+00	NOT IDENT.
BI-207	-9.030E-01	4.227E+00	3.438E+00	2.157E+00	NOT IDENT.
TL-208	-5.176E-01	4.760E+00	3.562E+00	2.429E+00	NOT IDENT.
PB-210	-2.528E+02	3.838E+02	3.163E+02	1.958E+02	NOT IDENT.
PB-211	3.824E+00	1.848E+02	6.388E+01	9.430E+01	NOT IDENT.
BI-212	2.953E+00	4.970E+01	4.126E+01	2.536E+01	NOT IDENT.
PB-212	2.002E+00	7.379E+00	6.440E+00	3.765E+00	FAIL ABUN
BI-214	2.320E+01	9.838E+00	9.119E+00	5.019E+00	FAIL ABUN
PB-214	2.646E+01	1.178E+01	9.816E+00	6.012E+00	FAIL ABUN
RN-219	1.814E+01	8.011E+02	3.681E+01	4.087E+02	NOT IDENT.
RA-223	4.305E-01	7.575E+01	6.219E+01	3.865E+01	NOT IDENT.
RA-224	1.736E+01	7.408E+01	6.425E+01	3.780E+01	NOT IDENT.
RA-226	1.773E+01	9.313E+01	8.009E+01	4.752E+01	NOT IDENT.
AC-227	2.296E+01	3.011E+01	2.695E+01	1.536E+01	NOT IDENT.
TH-227	2.296E+01	1.013E+03	2.695E+01	5.169E+02	NOT IDENT.
AC-228	2.911E+00	1.286E+01	1.134E+01	6.563E+00	NOT IDENT.
RA-228	2.911E+00	1.286E+01	1.134E+01	6.563E+00	NOT IDENT.
TH-228	2.002E+00	7.379E+00	6.440E+00	3.765E+00	FAIL ABUN
TH-229	-8.385E+01	6.731E+01	5.355E+01	3.434E+01	NOT IDENT.
PA-231	7.536E+01	1.676E+02	1.471E+02	8.552E+01	NOT IDENT.
TH-231	-5.627E+01	5.730E+01	4.271E+01	2.924E+01	NOT IDENT.
TH-232	9.894E+02	7.875E+03	2.167E+03	4.018E+03	NOT IDENT.
PA-233	2.113E+00	6.708E+00	5.848E+00	3.422E+00	NOT IDENT.
PA-234	8.543E+00	2.750E+01	2.451E+01	1.403E+01	NOT IDENT.
PA-234M	-7.697E+01	4.015E+02	3.304E+02	2.049E+02	NOT IDENT.
TH-234	-8.015E+01	1.842E+02	1.512E+02	9.400E+01	NOT IDENT.
U-235	-1.943E+01	2.657E+01	1.956E+01	1.356E+01	NOT IDENT.
NP-237	-2.803E+01	2.919E+01	2.114E+01	1.489E+01	NOT IDENT.
U-238	-8.015E+01	1.842E+02	1.512E+02	9.400E+01	NOT IDENT.
NP-239	-6.788E+01	3.455E+01	2.426E+01	1.763E+01	NOT IDENT.
AM-241	-2.064E+01	1.926E+01	1.492E+01	9.826E+00	NOT IDENT.
CM-247	8.542E-01	3.926E+00	3.376E+00	2.003E+00	NOT IDENT.
CF-249	-1.798E+00	4.403E+00	3.564E+00	2.246E+00	NOT IDENT.
CF-251	1.447E+01	1.730E+01	1.484E+01	8.828E+00	NOT IDENT.
ANH-511	-5.176E+00	5.973E+00	5.554E+00	3.047E+00	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	103.6444
49.72	129.5292
57.36	0.0000
59.54	163.9157
63.29	168.6845
63.29	168.6845
63.81	147.0287
64.28	131.5593
67.75	180.8613
69.67	169.7403
70.83	151.5088
72.81	137.0287
72.87	137.0362
72.87	137.0362
74.82	147.3275
74.82	147.3275
74.82	147.3275
74.97	147.3479
77.11	137.5677
77.11	137.5677
77.11	137.5677
79.69	131.1580
79.69	131.1580
80.12	131.2075
80.19	131.2156
81.00	124.5751
81.07	124.5828
83.79	142.3839
84.21	144.5455
85.43	139.4146
86.48	139.5385
86.55	139.5466
86.94	142.7649
87.57	134.3755
88.03	155.5965
88.47	177.8899
89.96	183.4099
91.11	136.8913
92.59	130.6814
92.59	130.6814
93.35	138.2034
94.56	128.7605
94.65	152.1824
94.67	152.1846
95.86	214.1130
97.43	152.5179
98.43	129.1547
98.44	129.1556
99.53	120.7190
100.11	127.1861
103.18	118.9152
103.37	118.9326
105.31	110.5223
106.12	111.6632
109.28	142.0592
111.00	110.9887
111.76	95.9558
116.30	150.3525
116.74	154.7272
121.12	116.1304
121.78	128.1276
122.06	112.9478
123.07	141.2830
131.20	149.7079
133.52	132.4259
136.00	152.3706
136.47	149.1277

140.51	135.2219
140.51	0.0000
140.88	125.3572
143.76	133.2964
144.24	132.2342
145.44	110.2776
152.43	125.1490
153.25	125.2111
154.21	120.8487
156.02	105.4414
158.56	118.9390
159.00	120.0819
162.66	116.9971
163.33	107.0105
165.86	104.9346
176.60	115.6809
177.52	117.9872
181.07	179.2397
185.72	115.5805
186.21	112.9013
193.51	153.2357
205.31	105.8210
210.85	104.2859
222.11	89.2259
227.38	84.8406
228.16	71.9567
228.18	71.9577
235.69	102.7631
235.96	100.9241
235.96	100.9241
238.63	84.3622
238.63	84.3622
240.99	103.9438
242.00	115.1337
244.70	98.5424
252.40	90.4887
252.80	90.5053
256.23	79.4294
256.23	79.4294
260.90	96.4481
264.66	75.0342
268.22	89.2399
269.46	80.8287
271.23	62.0780
273.65	89.4475
276.40	64.1003
277.37	71.6703
277.60	68.8483
278.00	70.7465
279.20	75.5010
279.54	74.5678
283.69	72.8060
284.31	66.2043
285.41	60.5570
285.90	67.1943
287.50	71.0266
293.27	0.0000
295.22	63.6508
295.96	70.3217
299.98	84.7141
299.98	84.7141
300.09	79.0060
300.09	79.0060
300.13	79.0070
301.36	58.0945
302.85	56.2229
304.50	75.3316
304.50	75.3316
304.85	76.2954
308.46	65.8987
311.90	53.5555
316.51	62.2745
319.41	62.3443
320.08	63.3196
323.87	69.1769
328.76	85.6701
329.85	78.0011
329.85	78.0011

330.06	78.0080
333.37	64.6053
334.37	63.6652
334.37	63.6652
338.28	58.9277
338.32	61.8273
338.32	61.8273
340.48	61.8766
340.55	61.8781
344.28	52.2822
351.06	49.5003
351.93	48.5449
356.01	68.0629
364.49	52.6658
366.42	54.6533
383.85	46.1497
388.16	57.0350
388.63	60.9783
391.70	59.0728
400.66	55.3014
401.81	41.4919
402.40	45.4525
404.85	47.4680
414.70	41.6693
423.72	48.7572
427.09	40.8413
427.87	34.8731
433.94	50.9141
453.88	50.2289
463.37	47.3528
468.07	41.3669
473.00	38.3971
476.78	39.4523
477.60	44.5215
487.02	47.6902
492.35	47.7654
497.08	44.7783
511.00	54.1552
514.00	134.9930
527.90	28.7479
529.87	0.0000
531.02	36.9932
537.26	28.8230
546.56	0.0000
563.25	49.7625
569.33	36.3441
569.50	37.3843
569.70	37.3860
583.19	30.2249
600.60	49.2077
602.73	35.9155
604.72	20.9614
609.32	34.6274
610.33	43.7327
614.28	26.2659
618.01	38.9105
621.93	33.6852
621.93	33.6852
633.25	25.3359
635.95	31.6912
636.99	31.6992
645.85	31.7688
657.76	30.7990
661.66	20.1982
661.66	20.1982
664.57	0.0000
666.33	29.7992
666.50	29.8006
677.62	19.2085
685.70	22.4530
695.00	19.2876
696.49	24.6537
696.51	24.6537
697.00	22.5124
702.65	25.7625
706.68	27.9354
720.70	30.1813
721.93	0.0000

722.78	23.7252
722.91	23.7263
723.31	23.7284
724.19	22.6545
727.33	24.8294
733.00	33.5089
735.93	27.0410
739.50	18.4028
747.24	24.9412
753.82	30.4076
756.73	26.0807
763.94	28.2991
765.80	23.9551
766.42	17.4242
777.92	25.1102
778.90	17.4719
783.70	19.6761
785.37	26.2441
795.86	25.2079
801.95	18.6560
810.76	19.7903
815.77	20.1783
818.51	23.8608
832.01	22.0874
834.85	18.4172
836.80	0.0000
846.77	19.3854
856.80	23.1252
860.56	15.7372
871.09	26.9031
873.19	22.2739
875.33	0.0000
880.51	25.0950
883.24	14.8792
884.68	13.9532
889.28	24.2078
898.04	16.7886
911.20	17.7669
911.20	17.7669
926.36	18.7573
937.49	13.1583
944.13	21.6444
946.00	16.0039
949.00	21.6645
964.08	28.3386
968.97	21.7464
968.97	21.7464
983.53	17.0651
996.26	19.0059
1001.03	18.0715
1004.73	17.1321
1037.84	18.1921
1038.76	0.0000
1048.07	17.2661
1050.41	18.2331
1050.41	18.2331
1063.66	14.4281
1085.87	20.2780
1099.25	12.5821
1112.07	23.2793
1115.54	24.2635
1120.29	17.4836
1120.55	20.3993
1121.30	18.4588
1131.51	0.0000
1173.23	13.7192
1189.05	15.7201
1204.77	18.7147
1221.41	7.9010
1231.02	8.9022
1235.36	10.8881
1238.28	14.8541
1260.41	0.0000
1274.44	9.9593
1274.54	9.9593
1291.59	13.9795
1298.22	0.0000
1312.11	14.0234

1332.49	11.0524
1365.19	15.1453
1368.63	0.0000
1384.29	14.1755
1408.01	13.2084
1457.56	0.0000
1460.82	11.2609
1489.16	12.3335
1596.21	10.4281
1620.50	10.4614
1678.03	0.0000
1690.97	11.6128
1764.49	7.4583
1770.23	15.9930
1771.35	11.7300
1791.20	0.0000
1836.06	5.3739

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202051904

Total Uranium Activity	-2.4743E+02	ug/g
Total Uranium Counting Unc.	5.4827E+02	ug/g
Total Uranium Tpu	2.7973E-04	ug/g
Total Uranium Mda	4.5002E+02	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 956976                    SAMPLE ID  : G1202051904      *
*   ANALYST       : KXG3                      DETECTOR   : GAM14            *
*   SAMPLE DATE   : 22-FEB-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  5-MAR-2010 16:47:09.74    SAMPLE ALQT:    1.571 LITER   *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/LITER ) : 3.174E+01
GROSS GAMMA ERROR  (pCi/LITER )   : 8.760E+00
GROSS GAMMA MDA    (pCi/LITER )   : 2.949E+01
GROSS GAMMA DLC    (pCi/LITER )   : 1.380E+01
```

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 17:48:34.61

```
*******************************************************************************
*                              GEL Laboratories LLC                            *
*                                2040 Savage Road                              *
*                              Charleston, SC 29414                            *
*******************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051905.CNF;1
Sample date       : 3-MAR-2010 00:00:00. Acquisition date : 5-MAR-2010 16:48:00.
Sample ID         : G1202051905          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM02                Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.99  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 956976               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*******************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.18	979	351	0.99	117.55	112	11	2.72E-01	4.9	
2	0	62.97*	30	102	1.29	125.13	123	5	8.27E-03	59.5	
3	2	87.71	528	134	0.91	174.63	170	18	1.47E-01	5.4	2.08E+00
4	0	121.68	92	188	0.97	242.61	239	8	2.57E-02	27.7	
5	0	197.65*	50	133	1.49	394.63	391	9	1.39E-02	44.3	
6	0	661.16*	1073	35	1.58	1322.19	1315	14	2.98E-01	3.3	
7	0	1172.53	863	39	2.12	2345.61	2337	16	2.40E-01	3.8	
8	0	1331.75	803	9	1.90	2664.29	2655	16	2.23E-01	3.6	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 5-MAR-2010 17:48:37

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051905.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 3-MAR-2010 00:00:00 Acquisition date : 5-MAR-2010 16:48:00
Sample ID : G1202051905 Sample quantity : 2.0000 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA2 Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:01.99 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-57	+	122.06	*	1.600E+01	8.913E+00	9.514E+00	5.799E-01	1.681
		136.47		-9.427E+00	4.881E+01	7.895E+01	5.189E+00	-0.119
CO-60	+	1173.23		4.910E+02	4.619E+01	1.563E+01	8.755E-01	31.417
	+	1332.49	*	5.054E+02	5.069E+01	3.863E+00	2.684E-01	130.852
CD-109	+	88.03	*	2.760E+03	3.730E+02	2.980E+02	2.419E+01	9.260
SN-126	+	64.28		1.340E+02	1.606E+02	2.427E+02	3.551E+01	0.552
	+	86.94		1.143E+03	4.873E+02	1.255E+02	5.178E+01	9.101
	+	87.57	*	2.748E+02	3.715E+01	2.990E+01	2.420E+00	9.193
BA-137M	+	661.66	*	4.280E+02	3.500E+01	1.189E+01	5.815E-01	36.001
CS-137	+	661.66	*	4.522E+02	3.705E+01	1.256E+01	6.180E-01	36.001
TH-232	+	63.81	*	4.946E+03	3.850E+04	8.669E+03	6.669E+04	0.571
		140.88		1.435E+04	2.520E+04	4.230E+04	2.344E+03	0.339
NP-237	+	86.48	*	8.201E+02	2.046E+02	9.939E+01	2.232E+01	8.251
		95.86		8.458E+01	2.194E+02	3.373E+02	7.936E+01	0.251
AM-241	+	59.54	*	1.493E+03	1.926E+02	9.840E+01	8.168E+00	15.170

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.60	*	8.873E+01	6.408E+01	1.157E+02	7.923E+00	0.767
NA-22		1274.54	*	-1.209E+00	4.551E+00	6.934E+00	4.479E-01	-0.174
NA-24		1368.63	*	5.820E+01	9.381E+01	1.784E+02	1.268E+01	0.326
K-40		1460.82	*	2.050E+01	7.760E+01	1.427E+02	1.016E+01	0.144
SC-46		889.28	*	2.448E+00	9.626E+00	1.595E+01	1.291E+00	0.153
		1120.55		2.125E+00	1.021E+01	1.743E+01	1.089E+00	0.122
V-48		944.13		-4.295E+01	1.714E+02	2.705E+02	2.142E+01	-0.159
		983.53	*	1.689E+00	1.209E+01	1.970E+01	1.500E+00	0.086
		1312.11		1.437E+00	6.725E+00	1.152E+01	7.802E-01	0.125
CR-51		320.08	*	-9.527E+00	6.129E+01	1.008E+02	6.569E+00	-0.095
MN-54		834.85	*	1.367E+00	9.423E+00	1.558E+01	1.130E+00	0.088
CO-56		846.77	*	-4.060E+00	8.958E+00	1.389E+01	1.032E+00	-0.292
		1037.84		-6.539E+01	6.539E+01	9.693E+01	7.432E+00	-0.675
		1238.28		-1.254E+01	9.098E+00	1.118E+01	7.250E-01	-1.122

Sample ID : G1202051905 Acquisition date : 5-MAR-2010 16:48:00

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1771.35		-1.930E+01	3.166E+01	4.125E+01	2.475E+00	-0.468
CO-58		810.76	*	2.576E+00	8.449E+00	1.425E+01	9.864E-01	0.181
FE-59		1099.25	*	4.805E+00	1.976E+01	3.367E+01	2.490E+00	0.143
		1291.59		1.058E+00	1.352E+01	2.259E+01	1.820E+00	0.047
ZN-65		1115.54	*	-1.315E+01	2.143E+01	3.347E+01	2.115E+00	-0.393
SE-75	+	121.12		8.031E+01	4.510E+01	6.155E+01	5.703E+00	1.305
		136.00		5.400E+00	8.749E+00	1.482E+01	8.514E-01	0.364
		264.66	*	-8.201E-01	9.481E+00	1.589E+01	9.060E-01	-0.052
		279.54		-7.636E+00	2.341E+01	3.847E+01	2.385E+00	-0.198
		400.66		1.600E+01	5.573E+01	9.324E+01	8.573E+00	0.172
SR-85		514.00	*	-3.338E-01	8.700E+00	1.391E+01	8.082E-01	-0.024
Y-88		898.04		1.799E+00	1.122E+01	1.844E+01	1.525E+00	0.098
		1836.06	*	4.085E+00	4.848E+00	9.972E+00	5.748E-01	0.410
Y-91		1204.77	*	3.252E+01	2.799E+03	4.636E+03	2.717E+02	0.007
NB-94		702.65	*	-1.180E+00	7.332E+00	1.194E+01	6.455E-01	-0.099
		871.09		6.697E+00	9.423E+00	1.633E+01	1.275E+00	0.410
NB-95		765.80	*	-5.200E+00	8.641E+00	1.338E+01	8.368E-01	-0.389
NB-95M		235.69	*	-2.022E+00	2.397E+01	4.049E+01	2.958E+00	-0.050
ZR-95		724.19		8.185E-01	1.758E+01	2.915E+01	1.965E+00	0.028
		756.73	*	2.258E+00	1.498E+01	2.500E+01	1.836E+00	0.090
MO-99		140.51		1.049E+02	2.274E+02	3.774E+02	8.608E+01	0.278
		181.07		-8.625E+01	1.725E+02	2.670E+02	4.666E+01	-0.323
		366.42		-4.696E+02	1.071E+03	1.706E+03	1.019E+02	-0.275
		739.50	*	8.198E+01	1.231E+02	2.155E+02	3.114E+01	0.380
		777.92		2.399E+02	3.865E+02	6.715E+02	4.315E+01	0.357
TC-99M		140.51	*	4.935E-03	3.865E+02	Half-Life too short		
RU-103		497.08	*	-1.970E+00	7.782E+00	1.221E+01	1.521E+00	-0.161
		610.33		-1.021E+01	1.298E+02	2.156E+02	3.205E+01	-0.047
RH-106		621.93	*	6.479E+01	7.158E+01	1.285E+02	1.457E+01	0.504
		1050.41		3.386E+02	5.923E+02	1.048E+03	7.342E+01	0.323
RU-106		621.93	*	6.479E+01	7.128E+01	1.285E+02	6.694E+00	0.504
		1050.41		3.386E+02	5.923E+02	1.048E+03	7.342E+01	0.323
AG-108M		433.94	*	1.880E+00	7.267E+00	1.207E+01	7.703E-01	0.156
		614.28		5.820E+00	7.957E+00	1.413E+01	8.082E-01	0.412
		722.91		-1.604E+00	8.186E+00	1.324E+01	8.060E-01	-0.121
AG-110M		657.76	*	1.714E+01	1.119E+01	1.861E+01	9.979E-01	0.921
		677.62		-2.823E+01	6.548E+01	1.037E+02	5.704E+00	-0.272
		706.68		1.244E+01	4.696E+01	7.964E+01	4.654E+00	0.156
		763.94		1.321E+01	3.493E+01	5.957E+01	3.904E+00	0.222
		884.68		4.897E+00	1.268E+01	2.137E+01	1.777E+00	0.229
		937.49		-1.762E+01	3.282E+01	5.027E+01	4.174E+00	-0.351
		1384.29		2.526E+00	1.927E+01	3.259E+01	2.345E+00	0.078
SN-113		391.70	*	3.385E+00	1.023E+01	1.718E+01	1.093E+00	0.197
CD-115		260.90		1.889E+02	6.774E+02	1.161E+03	6.523E+01	0.163
		492.35		2.035E+02	2.046E+02	3.567E+02	2.097E+01	0.570
		527.90	*	-1.996E+01	5.432E+01	8.352E+01	4.806E+00	-0.239
SN-117M		156.02		-1.158E+02	2.798E+02	4.426E+02	2.324E+01	-0.262
		158.56	*	3.741E-01	6.696E+00	1.089E+01	5.675E-01	0.034
TE-123M		159.00	*	5.483E-01	6.178E+00	1.007E+01	5.325E-01	0.054

Sample ID : G1202051905 Acquisition date : 5-MAR-2010 16:48:00

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
SB-124		602.73		-5.386E-01	6.671E+00	1.109E+01	5.930E-01	-0.049
		645.85		5.556E-01	1.022E+02	1.704E+02	9.941E+00	0.003
		722.78		-3.886E+01	7.315E+01	1.142E+02	6.815E+00	-0.340
		1690.97	*	-9.558E+00	1.391E+01	1.926E+01	1.303E+00	-0.496
SB-125		427.87	*	-1.181E+01	2.162E+01	3.352E+01	2.085E+00	-0.352
		463.37		4.432E+01	7.026E+01	1.191E+02	8.168E+00	0.372
		600.60		-2.040E+01	3.753E+01	5.961E+01	3.776E+00	-0.342
		635.95		-1.065E+01	6.480E+01	1.065E+02	6.616E+00	-0.100
TE-125M		109.28	*	1.370E+03	2.074E+03	3.554E+03	3.110E+02	0.385
I-126		388.63		-2.476E+00	2.123E+01	3.451E+01	2.065E+00	-0.072
		666.33	*	-1.774E+01	2.613E+01	3.349E+01	1.657E+00	-0.530
		753.82		1.104E+02	2.164E+02	3.739E+02	2.277E+01	0.295
SB-126		414.70		2.906E+00	9.337E+00	1.560E+01	9.353E-01	0.186
		666.50		-3.987E+00	8.536E+00	1.137E+01	5.630E-01	-0.351
		695.00		-3.693E+00	8.653E+00	1.372E+01	7.284E-01	-0.269
		697.00		4.825E+00	2.743E+01	4.626E+01	2.468E+00	0.104
		720.70	*	-1.944E+00	1.566E+01	2.553E+01	1.441E+00	-0.076
		856.80		-1.409E+01	5.855E+01	9.288E+01	7.044E+00	-0.152
SB-127		252.40		8.205E+01	1.126E+02	1.897E+02	7.666E+01	0.432
		473.00		-2.957E+01	4.325E+01	6.460E+01	5.603E+00	-0.458
		685.70	*	-1.467E+01	3.132E+01	4.940E+01	2.850E+00	-0.297
		783.70		-3.547E+01	9.352E+01	1.476E+02	1.253E+01	-0.240
I-131		80.19		6.980E+01	3.827E+02	6.500E+02	5.054E+01	0.107
		284.31		9.125E+01	1.174E+02	2.062E+02	1.300E+01	0.443
		364.49	*	4.002E+00	9.678E+00	1.642E+01	1.076E+00	0.244
		636.99		2.130E+01	1.321E+02	2.235E+02	1.299E+01	0.095
TE-132		49.72		1.544E+02	6.709E+02	1.054E+03	8.314E+01	0.147
		111.76		-7.795E+01	5.699E+02	9.339E+02	6.035E+01	-0.083
		116.30		3.122E+01	4.593E+02	7.612E+02	4.817E+01	0.041
		228.16	*	-7.647E+00	1.208E+01	1.821E+01	2.304E+00	-0.420
BA-133		81.00		-1.371E+00	2.298E+01	3.853E+01	5.810E+00	-0.036
		276.40		-2.438E+01	7.919E+01	1.303E+02	1.635E+01	-0.187
		302.85		-1.161E+01	2.992E+01	4.851E+01	5.536E+00	-0.239
		356.01	*	1.146E+01	9.443E+00	1.684E+01	1.913E+00	0.680
		383.85		2.311E+01	7.015E+01	1.180E+02	1.270E+01	0.196
I-133		529.87	*	1.851E+01	6.152E+01	1.017E+02	6.288E+00	0.182
		875.33		-5.224E+02	1.902E+03	3.006E+03	2.726E+02	-0.174
		1298.22		-4.185E+03	2.479E+03	2.402E+03	1.962E+02	-1.742
CS-134		563.25		-6.682E+01	7.716E+01	1.192E+02	6.812E+00	-0.560
		569.33		5.645E+01	4.368E+01	8.117E+01	4.653E+00	0.696
		604.72		-9.993E-01	6.721E+00	1.110E+01	5.957E-01	-0.090
		795.86	*	-1.897E+00	9.562E+00	1.529E+01	1.034E+00	-0.124
		801.95		-5.602E+01	9.254E+01	1.419E+02	9.690E+00	-0.395
		1365.19		9.013E+00	1.526E+02	2.536E+02	1.881E+01	0.036
CS-135		268.22	*	-1.788E+01	3.446E+01	5.603E+01	4.231E+00	-0.319
I-135		546.56		2.916E-02	3.446E+01	Half-Life too short		
		836.80		2.843E-02	3.446E+01	Half-Life too short		
		1038.76		-1.363E-01	3.446E+01	Half-Life too short		
		1131.51		6.679E-04	3.446E+01	Half-Life too short		

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1260.41	*	-7.406E-05	3.446E+01	Half-Life too short		
		1457.56		-3.804E-02	3.446E+01	Half-Life too short		
		1678.03		-7.389E-03	3.446E+01	Half-Life too short		
		1791.20		1.853E-02	3.446E+01	Half-Life too short		
CS-136		153.25		2.263E+01	1.000E+02	1.647E+02	1.266E+01	0.137
		176.60		-3.423E+01	6.055E+01	9.389E+01	6.111E+00	-0.365
		273.65		-4.572E+01	5.872E+01	9.365E+01	6.304E+00	-0.488
		340.55		1.720E+00	1.705E+01	2.843E+01	1.815E+00	0.060
		818.51		4.752E-01	9.310E+00	1.530E+01	1.072E+00	0.031
		1048.07	*	-4.604E+00	1.336E+01	2.154E+01	1.607E+00	-0.214
		1235.36		-1.287E+01	3.328E+01	5.036E+01	5.071E+00	-0.256
CE-139		165.86	*	4.655E+00	6.354E+00	1.073E+01	5.473E-01	0.434
BA-140		162.66		-6.785E+01	9.542E+01	1.478E+02	8.969E+00	-0.459
		304.85		-2.652E+00	1.514E+02	2.524E+02	7.211E+01	-0.011
		423.72		9.395E+01	2.491E+02	4.148E+02	1.340E+02	0.226
		537.26	*	-1.035E-01	3.295E+01	5.266E+01	1.753E+01	-0.002
LA-140		328.76		1.034E+01	3.348E+01	5.677E+01	3.746E+00	0.182
		487.02		-1.374E+01	1.814E+01	2.720E+01	1.809E+00	-0.505
		815.77		5.652E+00	4.075E+01	6.756E+01	5.532E+00	0.084
		1596.21	*	-4.933E-01	5.600E+00	9.128E+00	5.975E-01	-0.054
CE-141		145.44	*	-3.494E+00	1.092E+01	1.744E+01	9.925E-01	-0.200
CE-143		57.36		1.645E+03	1.048E+03	1.727E+03	1.369E+02	0.953
		293.27	*	3.744E+00	5.075E+01	8.537E+01	1.676E+01	0.044
		664.57		1.454E+03	7.774E+02	1.175E+03	3.360E+02	1.238
		721.93		-2.716E+02	5.630E+02	8.766E+02	2.335E+02	-0.310
CE-144		80.12		1.189E+02	5.885E+02	1.000E+03	7.774E+01	0.119
		133.52	*	-7.645E+00	4.724E+01	7.664E+01	1.062E+01	-0.100
PM-144		476.78		2.856E+00	1.532E+01	2.514E+01	1.749E+00	0.114
		618.01		-5.601E+00	7.347E+00	1.141E+01	6.416E-01	-0.491
		696.49	*	2.761E+00	6.826E+00	1.178E+01	6.279E-01	0.234
PR-144		696.51	*	2.030E+02	5.073E+02	8.753E+02	4.665E+01	0.232
		1489.16		7.854E+02	1.849E+03	3.336E+03	2.259E+02	0.235
PM-146		453.88	*	6.383E+00	1.078E+01	1.828E+01	1.566E+00	0.349
		633.25		-1.452E+02	3.372E+02	5.327E+02	2.001E+02	-0.273
		735.93		2.044E+00	3.208E+01	5.324E+01	1.454E+01	0.038
		747.24		-1.165E+01	2.170E+01	3.354E+01	4.429E+00	-0.347
ND-147		91.11		-1.709E+01	3.125E+01	5.589E+01	4.758E+00	-0.306
		319.41		-5.616E+01	3.410E+02	5.603E+02	3.290E+01	-0.100
		531.02	*	-3.627E+01	5.903E+01	8.787E+01	1.186E+01	-0.413
PM-149		285.90	*	1.366E+02	4.384E+02	7.484E+02	1.057E+02	0.183
EU-152	+	121.78		4.745E+01	2.654E+01	3.643E+01	2.842E+00	1.302
		244.70		2.270E+01	7.586E+01	1.305E+02	7.215E+00	0.174
		344.28	*	-3.012E+00	2.233E+01	3.658E+01	2.434E+00	-0.082
		778.90		2.711E+01	6.465E+01	1.103E+02	7.104E+00	0.246
		964.08		-1.045E+01	7.465E+01	1.186E+02	9.213E+00	-0.088
		1085.87		-2.638E+01	9.983E+01	1.621E+02	1.076E+01	-0.163
		1112.07		-2.666E-01	7.717E+01	1.284E+02	8.152E+00	-0.002
		1408.01		-2.316E+00	2.818E+01	4.506E+01	3.103E+00	-0.051
GD-153		69.67		-1.070E+02	4.388E+02	7.297E+02	5.535E+01	-0.147

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		97.43	*	-6.266E+00	1.940E+01	3.168E+01	2.254E+00	-0.198
		103.18		-1.084E+01	2.472E+01	3.997E+01	2.690E+00	-0.271
EU-154	+	123.07		3.351E+01	1.884E+01	2.391E+01	2.282E+00	1.402
		723.31		8.974E+00	3.676E+01	6.218E+01	4.311E+00	0.144
		873.19		-2.090E+01	8.046E+01	1.274E+02	1.445E+01	-0.164
		996.26		-4.017E+01	9.864E+01	1.511E+02	2.560E+01	-0.266
		1004.73		-2.744E+01	5.160E+01	8.180E+01	8.824E+00	-0.335
		1274.44	*	-3.446E+00	1.298E+01	1.977E+01	1.944E+00	-0.174
EU-155	+	86.55		3.316E+02	4.501E+01	6.952E+01	5.658E+00	4.770
		105.31	*	-1.160E+01	2.376E+01	3.822E+01	2.579E+00	-0.304
TA-182		67.75		4.784E+00	2.822E+01	4.827E+01	3.661E+00	0.099
		100.11		1.927E+01	3.937E+01	6.729E+01	4.656E+00	0.286
		152.43		2.546E+01	7.322E+01	1.215E+02	6.454E+00	0.210
		222.11		-4.136E+01	8.286E+01	1.270E+02	6.849E+00	-0.326
		1121.30		2.219E+00	2.931E+01	4.940E+01	3.083E+00	0.045
		1189.05		-2.094E+01	3.992E+01	5.964E+01	3.418E+00	-0.351
		1221.41	*	-1.490E+01	2.097E+01	2.905E+01	1.742E+00	-0.513
		1231.02		2.309E+01	5.919E+01	1.041E+02	6.326E+00	0.222
IR-192		295.96		3.664E+00	2.008E+01	3.399E+01	1.999E+00	0.108
		308.46		-9.114E+00	2.009E+01	3.244E+01	1.914E+00	-0.281
		316.51	*	-1.432E+00	7.087E+00	1.163E+01	6.849E-01	-0.123
		468.07		-6.209E+00	1.580E+01	2.470E+01	1.684E+00	-0.251
HG-203		70.83		-2.702E+02	2.901E+02	4.588E+02	7.125E+01	-0.589
		72.87		2.249E+01	1.614E+02	2.748E+02	4.121E+01	0.082
		279.20	*	-1.719E+00	7.240E+00	1.197E+01	7.229E-01	-0.144
BI-207		72.81		4.549E+00	4.483E+01	7.618E+01	5.795E+00	0.060
		74.97		-7.067E-01	2.601E+01	4.360E+01	3.331E+00	-0.016
		569.70		4.804E+00	6.890E+00	1.226E+01	6.806E-01	0.392
		1063.66	*	8.007E+00	1.259E+01	2.237E+01	1.538E+00	0.358
		1770.23		-5.287E+01	7.933E+01	1.046E+02	6.284E+00	-0.505
TL-208		277.37		6.692E+01	8.661E+01	1.518E+02	1.629E+01	0.441
		583.19	*	-1.251E+00	8.448E+00	1.410E+01	9.006E-01	-0.089
		860.56		5.877E+01	6.610E+01	1.174E+02	9.804E+00	0.500
PB-210		46.54	*	-2.470E+02	1.825E+03	2.812E+03	2.136E+02	-0.088
BI-211		72.87		1.087E+02	1.418E+03	1.328E+03	1.447E+04	0.082
		351.06	*	9.415E+00	1.135E+02	8.185E+01	8.917E+02	0.115
PB-211		404.85	*	-2.447E+01	3.169E+02	2.763E+02	3.013E+03	-0.089
		427.09		-1.034E+02	1.187E+03	5.881E+02	6.413E+03	-0.176
		832.01		-1.408E+02	1.557E+03	3.936E+02	4.293E+03	-0.358
BI-212		727.33	*	8.780E+01	1.136E+02	2.010E+02	2.144E+01	0.437
		785.37		3.022E+02	7.455E+02	1.271E+03	8.302E+01	0.238
		1620.50		-6.449E+01	3.075E+02	4.802E+02	3.112E+01	-0.134
PB-212		74.82		6.703E+00	9.146E+01	1.541E+02	1.906E+01	0.043
		77.11		-3.156E+01	5.035E+01	8.201E+01	6.302E+00	-0.385
		238.63	*	-1.001E+01	1.362E+01	2.215E+01	1.585E+00	-0.452
		300.09		3.651E+01	1.624E+02	2.757E+02	2.313E+01	0.132
BI-214		609.32	*	-1.392E+01	1.588E+01	2.506E+01	1.874E+00	-0.555
		1120.29		1.177E+01	6.737E+01	1.147E+02	1.051E+01	0.103
		1764.49		-1.321E+01	4.432E+01	8.039E+01	4.845E+00	-0.164

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PB-214		74.82		1.185E+01	1.617E+02	2.724E+02	3.000E+01	0.043
		77.11		-5.549E+01	8.864E+01	1.442E+02	1.625E+01	-0.385
		242.00		2.818E+01	7.946E+01	1.372E+02	1.097E+01	0.205
		295.22		8.268E+00	3.114E+01	5.299E+01	4.617E+00	0.156
		351.93	*	-3.666E+00	1.705E+01	2.791E+01	2.394E+00	-0.131
RN-219		271.23		4.999E+01	5.469E+02	8.791E+01	9.578E+02	0.569
		401.81	*	4.220E+01	4.696E+02	1.617E+02	1.762E+03	0.261
RA-223		81.07		-9.097E+00	1.121E+02	8.733E+01	9.515E+02	-0.104
		83.79		-3.044E+00	4.780E+01	5.156E+01	5.618E+02	-0.059
		94.56		-2.034E+01	2.330E+02	1.054E+02	1.149E+03	-0.193
		144.24		9.489E+00	1.862E+02	2.555E+02	2.784E+03	0.037
		154.21		2.446E+00	9.278E+01	1.445E+02	1.575E+03	0.017
		269.46		1.221E+01	1.388E+02	6.764E+01	7.370E+02	0.181
		323.87	*	-7.392E+01	8.186E+02	2.336E+02	2.545E+03	-0.316
		338.28		-2.809E+01	3.757E+02	3.577E+02	3.898E+03	-0.079
RA-224		240.99	*	-1.160E+02	1.423E+02	2.301E+02	1.267E+01	-0.504
RA-226		186.21	*	-9.783E+00	1.673E+02	2.884E+02	1.934E+02	-0.034
AC-227		79.69		2.981E+01	3.066E+02	5.185E+02	8.722E+01	0.057
		235.96		1.565E+01	3.234E+01	5.627E+01	4.454E+00	0.278
		256.23	*	-1.338E+01	5.825E+01	9.695E+01	9.801E+00	-0.138
		299.98		2.504E+01	1.770E+02	2.987E+02	3.283E+01	0.084
		304.50		-2.088E+01	3.578E+02	5.947E+02	9.073E+01	-0.035
		329.85		3.193E+01	1.452E+02	2.448E+02	2.433E+01	0.130
		334.37		-1.576E+02	3.850E+02	6.186E+02	8.827E+01	-0.255
TH-227		79.69		2.981E+01	4.466E+02	5.185E+02	5.650E+03	0.057
		235.96		1.565E+01	1.736E+02	5.627E+01	6.131E+02	0.278
		256.23	*	-1.338E+01	1.570E+02	9.695E+01	1.056E+03	-0.138
		299.98		2.504E+01	3.252E+02	2.987E+02	3.255E+03	0.084
		304.50		-2.088E+01	4.240E+02	5.947E+02	6.480E+03	-0.035
		329.85		3.193E+01	3.769E+02	2.448E+02	2.667E+03	0.130
		334.37		-1.576E+02	1.760E+03	6.186E+02	6.740E+03	-0.255
AC-228		338.32		-5.982E+00	5.508E+01	9.047E+01	3.731E+01	-0.066
		911.20	*	9.768E-02	4.094E+01	6.749E+01	7.589E+00	0.001
		968.97		-1.744E+01	6.459E+01	1.008E+02	2.425E+01	-0.173
RA-228		338.32		-5.982E+00	5.508E+01	9.047E+01	3.731E+01	-0.066
		911.20	*	9.768E-02	4.094E+01	6.749E+01	7.589E+00	0.001
		968.97		-1.744E+01	6.459E+01	1.008E+02	2.425E+01	-0.173
TH-228		74.82		6.703E+00	9.146E+01	1.541E+02	1.191E+01	0.043
		77.11		-3.156E+01	5.035E+01	8.201E+01	6.302E+00	-0.385
		238.63	*	-1.001E+01	1.362E+01	2.215E+01	1.585E+00	-0.452
		300.09		3.651E+01	1.639E+02	2.757E+02	1.678E+02	0.132
TH-229		85.43		2.034E+01	5.741E+01	8.837E+01	7.059E+00	0.230
	+	88.47		4.237E+02	5.728E+01	9.286E+01	7.479E+00	4.563
		193.51	*	1.085E+02	1.272E+02	1.949E+02	1.017E+01	0.556
		210.85		9.905E+01	2.091E+02	3.425E+02	1.823E+01	0.289
PA-231		283.69	*	-3.842E+01	3.396E+02	5.654E+02	7.399E+01	-0.068
		301.36		4.410E+01	9.881E+01	1.701E+02	1.611E+01	0.259
		330.06		-1.155E+02	4.228E+02	6.857E+02	2.000E+02	-0.168
TH-231		84.21	*	6.778E+00	1.272E+02	1.923E+02	3.289E+01	0.035

Sample ID : G1202051905 Acquisition date : 5-MAR-2010 16:48:00

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PA-233		94.65		-2.292E+01	5.875E+01	8.517E+01	6.395E+00	-0.269
		98.43		-1.985E+01	3.331E+01	5.346E+01	4.058E+00	-0.371
		300.13		2.059E+01	8.087E+01	1.374E+02	1.840E+01	0.150
		311.90	*	1.058E+01	1.507E+01	2.626E+01	1.629E+00	0.403
		340.48		1.414E+01	1.401E+02	2.336E+02	5.429E+01	0.061
PA-234		94.67		-1.634E+01	3.949E+01	5.708E+01	6.597E+00	-0.286
		98.44		-1.326E+01	2.333E+01	3.556E+01	1.976E+01	-0.373
		111.00		3.471E+00	4.574E+01	7.601E+01	8.059E+00	0.046
		131.20		8.272E-01	2.509E+01	4.122E+01	2.383E+00	0.020
		569.50		7.176E+01	6.019E+01	1.112E+02	6.173E+00	0.645
		733.00		-2.895E+01	8.189E+01	1.295E+02	2.753E+01	-0.224
		880.51		3.135E+01	7.767E+01	1.310E+02	1.042E+01	0.239
		883.24		-7.017E+01	9.391E+01	1.203E+02	8.076E+01	-0.583
		926.36		1.811E+01	5.380E+01	8.931E+01	2.240E+01	0.203
		946.00	*	2.532E+01	9.855E+01	1.623E+02	2.994E+01	0.156
		949.00		1.784E+01	1.437E+02	2.342E+02	1.846E+01	0.076
PA-234M		766.42		-1.212E+03	2.674E+03	4.091E+03	2.062E+03	-0.296
		1001.03	*	-1.216E+03	1.295E+03	1.911E+03	1.717E+02	-0.636
TH-234	+	63.29	*	3.476E+02	4.182E+02	7.071E+02	1.266E+02	0.492
		92.59		4.178E+01	1.770E+02	3.241E+02	7.030E+01	0.129
U-235		89.96		3.258E-01	1.839E+02	3.077E+02	7.495E+01	0.001
		93.35		-7.313E+00	1.325E+02	2.256E+02	5.120E+01	-0.032
		143.76	*	7.690E+00	4.643E+01	7.707E+01	1.202E+01	0.100
		163.33		-1.194E+02	1.051E+02	1.555E+02	2.576E+01	-0.768
		185.72		9.478E-01	1.029E+01	1.794E+01	9.288E-01	0.053
		205.31		-9.793E+00	1.133E+02	1.774E+02	2.985E+01	-0.055
U-238	+	63.29	*	3.476E+02	4.182E+02	7.071E+02	1.266E+02	0.492
		92.59		4.178E+01	1.768E+02	3.241E+02	2.450E+01	0.129
NP-239		99.53		-3.974E+00	3.935E+01	6.511E+01	4.532E+00	-0.061
		103.37		-1.488E+01	2.343E+01	3.739E+01	2.512E+00	-0.398
		106.12		-6.391E+00	1.934E+01	3.145E+01	2.068E+00	-0.203
		116.74	*	-8.495E-01	6.656E+01	1.047E+02	6.487E+00	-0.008
		228.18		-3.308E+01	5.281E+01	7.988E+01	4.336E+00	-0.414
		277.60		4.165E+01	3.907E+01	6.977E+01	3.980E+00	0.597
CM-247		278.00		1.930E+02	1.652E+02	2.967E+02	1.693E+01	0.650
		287.50		1.931E+02	2.833E+02	4.949E+02	2.846E+01	0.390
		402.40	*	-4.652E-01	8.761E+00	1.427E+01	8.550E-01	-0.033
CF-249		252.80		2.094E+02	2.272E+02	4.033E+02	2.248E+01	0.519
		333.37		-2.687E+01	3.903E+01	6.131E+01	3.624E+00	-0.438
		388.16	*	-1.963E+00	1.005E+01	1.624E+01	9.719E-01	-0.121
CF-251		177.52	*	7.233E+00	2.973E+01	4.858E+01	2.496E+00	0.149
		227.38		-3.107E+01	8.348E+01	1.286E+02	6.974E+00	-0.242
		285.41		2.374E+02	5.148E+02	8.872E+02	5.094E+01	0.268
ANH-511		511.00	*	-1.137E+01	8.793E+00	1.484E+01	8.637E-01	-0.766

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration     : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051905      *
* Acquisition date :  5-MAR-2010 16:48:00 Detector SN#    :                 *
* Detector ID      : GAM02                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:01.99     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  3-MAR-2010 00:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G1202051905          Analyst initials: KXG3            *
* Batch Number     : 956976               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 17-JUN-2009 08:42:38 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
CO-57	1.600E+01	8.735E+00	9.514E+00	0.000E+00
CO-60	5.054E+02	4.968E+01	3.863E+00	0.000E+00
CD-109	2.760E+03	3.656E+02	2.980E+02	0.000E+00
SN-126	2.748E+02	3.641E+01	2.990E+01	0.000E+00
BA-137M	4.280E+02	3.430E+01	1.189E+01	0.000E+00
CS-137	4.522E+02	3.631E+01	1.256E+01	0.000E+00
TH-232	4.946E+03	3.773E+04	8.669E+03	0.000E+00
NP-237	8.201E+02	2.005E+02	9.939E+01	0.000E+00
AM-241	1.493E+03	1.887E+02	9.840E+01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)		
BE-7	8.873E+01		6.279E+01	1.157E+02	0.000E+00	NOT IDENT.
NA-22	-1.209E+00		4.460E+00	6.934E+00	0.000E+00	NOT IDENT.
NA-24	5.820E+01		9.194E+01	1.784E+02	0.000E+00	NOT IDENT.
K-40	2.050E+01		7.605E+01	1.427E+02	0.000E+00	NOT IDENT.
SC-46	2.448E+00		9.434E+00	1.595E+01	0.000E+00	NOT IDENT.
V-48	1.689E+00		1.185E+01	1.970E+01	0.000E+00	NOT IDENT.
CR-51	-9.527E+00		6.006E+01	1.008E+02	0.000E+00	NOT IDENT.
MN-54	1.367E+00		9.234E+00	1.558E+01	0.000E+00	NOT IDENT.
CO-56	-4.060E+00		8.779E+00	1.389E+01	0.000E+00	NOT IDENT.
CO-58	2.576E+00		8.280E+00	1.425E+01	0.000E+00	NOT IDENT.
FE-59	4.805E+00		1.936E+01	3.367E+01	0.000E+00	NOT IDENT.
ZN-65	-1.315E+01		2.100E+01	3.347E+01	0.000E+00	NOT IDENT.
SE-75	-8.201E-01		9.292E+00	1.589E+01	0.000E+00	FAIL ABUN
SR-85	-3.338E-01		8.526E+00	1.391E+01	0.000E+00	NOT IDENT.
Y-88	4.085E+00		4.751E+00	9.972E+00	0.000E+00	NOT IDENT.
Y-91	3.252E+01		2.743E+03	4.636E+03	0.000E+00	NOT IDENT.
NB-94	-1.180E+00		7.185E+00	1.194E+01	0.000E+00	NOT IDENT.
NB-95	-5.200E+00		8.468E+00	1.338E+01	0.000E+00	NOT IDENT.

NB-95M	-2.022E+00	2.349E+01	4.049E+01	0.000E+00	NOT IDENT.
ZR-95	2.258E+00	1.468E+01	2.500E+01	0.000E+00	NOT IDENT.
MO-99	8.198E+01	1.207E+02	2.155E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.043E+04	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-1.970E+00	7.627E+00	1.221E+01	0.000E+00	NOT IDENT.
RH-106	6.479E+01	7.015E+01	1.285E+02	0.000E+00	NOT IDENT.
RU-106	6.479E+01	6.986E+01	1.285E+02	0.000E+00	NOT IDENT.
AG-108M	1.880E+00	7.122E+00	1.207E+01	0.000E+00	NOT IDENT.
AG-110M	1.714E+01	1.096E+01	1.861E+01	0.000E+00	NOT IDENT.
SN-113	3.385E+00	1.003E+01	1.718E+01	0.000E+00	NOT IDENT.
CD-115	-1.996E+01	5.324E+01	8.352E+01	0.000E+00	NOT IDENT.
SN-117M	3.741E-01	6.562E+00	1.089E+01	0.000E+00	NOT IDENT.
TE-123M	5.483E-01	6.054E+00	1.007E+01	0.000E+00	NOT IDENT.
SB-124	-9.558E+00	1.363E+01	1.926E+01	0.000E+00	NOT IDENT.
SB-125	-1.181E+01	2.119E+01	3.352E+01	0.000E+00	NOT IDENT.
TE-125M	1.370E+03	2.033E+03	3.554E+03	0.000E+00	NOT IDENT.
I-126	-1.774E+01	2.561E+01	3.349E+01	0.000E+00	NOT IDENT.
SB-126	-1.944E+00	1.535E+01	2.553E+01	0.000E+00	NOT IDENT.
SB-127	-1.467E+01	3.069E+01	4.940E+01	0.000E+00	NOT IDENT.
I-131	4.002E+00	9.485E+00	1.642E+01	0.000E+00	NOT IDENT.
TE-132	-7.647E+00	1.184E+01	1.821E+01	0.000E+00	NOT IDENT.
BA-133	1.146E+01	9.254E+00	1.684E+01	0.000E+00	NOT IDENT.
I-133	1.851E+01	6.029E+01	1.017E+02	0.000E+00	NOT IDENT.
CS-134	-1.897E+00	9.371E+00	1.529E+01	0.000E+00	NOT IDENT.
CS-135	-1.788E+01	3.377E+01	5.603E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.775E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-136	-4.604E+00	1.310E+01	2.154E+01	0.000E+00	NOT IDENT.
CE-139	4.655E+00	6.227E+00	1.073E+01	0.000E+00	NOT IDENT.
BA-140	-1.035E-01	3.229E+01	5.266E+01	0.000E+00	NOT IDENT.
LA-140	-4.933E-01	5.488E+00	9.128E+00	0.000E+00	NOT IDENT.
CE-141	-3.494E+00	1.070E+01	1.744E+01	0.000E+00	NOT IDENT.
CE-143	3.744E+00	4.974E+01	8.537E+01	0.000E+00	NOT IDENT.
CE-144	-7.645E+00	4.629E+01	7.664E+01	0.000E+00	NOT IDENT.
PM-144	2.761E+00	6.690E+00	1.178E+01	0.000E+00	NOT IDENT.
PR-144	2.030E+02	4.972E+02	8.753E+02	0.000E+00	NOT IDENT.
PM-146	6.383E+00	1.056E+01	1.828E+01	0.000E+00	NOT IDENT.
ND-147	-3.627E+01	5.785E+01	8.787E+01	0.000E+00	NOT IDENT.
PM-149	1.366E+02	4.296E+02	7.484E+02	0.000E+00	NOT IDENT.
EU-152	-3.012E+00	2.189E+01	3.658E+01	0.000E+00	FAIL ABUN
GD-153	-6.266E+00	1.901E+01	3.168E+01	0.000E+00	NOT IDENT.
EU-154	-3.446E+00	1.272E+01	1.977E+01	0.000E+00	FAIL ABUN
EU-155	-1.160E+01	2.328E+01	3.822E+01	0.000E+00	FAIL ABUN
TA-182	-1.490E+01	2.055E+01	2.905E+01	0.000E+00	NOT IDENT.
IR-192	-1.432E+00	6.946E+00	1.163E+01	0.000E+00	NOT IDENT.
HG-203	-1.719E+00	7.095E+00	1.197E+01	0.000E+00	NOT IDENT.
BI-207	8.007E+00	1.234E+01	2.237E+01	0.000E+00	NOT IDENT.
TL-208	-1.251E+00	8.279E+00	1.410E+01	0.000E+00	NOT IDENT.
PB-210	-2.470E+02	1.789E+03	2.812E+03	0.000E+00	NOT IDENT.
BI-211	9.415E+00	1.112E+02	8.185E+01	0.000E+00	NOT IDENT.
PB-211	-2.447E+01	3.106E+02	2.763E+02	0.000E+00	NOT IDENT.
BI-212	8.780E+01	1.113E+02	2.010E+02	0.000E+00	NOT IDENT.
PB-212	-1.001E+01	1.335E+01	2.215E+01	0.000E+00	NOT IDENT.
BI-214	-1.392E+01	1.556E+01	2.506E+01	0.000E+00	NOT IDENT.
PB-214	-3.666E+00	1.671E+01	2.791E+01	0.000E+00	NOT IDENT.
RN-219	4.220E+01	4.602E+02	1.617E+02	0.000E+00	NOT IDENT.
RA-223	-7.392E+01	8.022E+02	2.336E+02	0.000E+00	NOT IDENT.
RA-224	-1.160E+02	1.395E+02	2.301E+02	0.000E+00	NOT IDENT.
RA-226	-9.783E+00	1.639E+02	2.884E+02	0.000E+00	NOT IDENT.
AC-227	-1.338E+01	5.709E+01	9.695E+01	0.000E+00	NOT IDENT.
TH-227	-1.338E+01	1.539E+02	9.695E+01	0.000E+00	NOT IDENT.
AC-228	9.768E-02	4.012E+01	6.749E+01	0.000E+00	NOT IDENT.
RA-228	9.768E-02	4.012E+01	6.749E+01	0.000E+00	NOT IDENT.
TH-228	-1.001E+01	1.335E+01	2.215E+01	0.000E+00	NOT IDENT.
TH-229	1.085E+02	1.247E+02	1.949E+02	0.000E+00	FAIL ABUN
PA-231	-3.842E+01	3.328E+02	5.654E+02	0.000E+00	NOT IDENT.
TH-231	6.778E+00	1.247E+02	1.923E+02	0.000E+00	NOT IDENT.
PA-233	1.058E+01	1.477E+01	2.626E+01	0.000E+00	NOT IDENT.
PA-234	2.532E+01	9.658E+01	1.623E+02	0.000E+00	NOT IDENT.
PA-234M	-1.216E+03	1.269E+03	1.911E+03	0.000E+00	NOT IDENT.
TH-234	3.476E+02	4.098E+02	7.071E+02	0.000E+00	FAIL ABUN
U-235	7.690E+00	4.550E+01	7.707E+01	0.000E+00	NOT IDENT.
U-238	3.476E+02	4.098E+02	7.071E+02	0.000E+00	FAIL ABUN
NP-239	-8.495E-01	6.523E+01	1.047E+02	0.000E+00	NOT IDENT.
CM-247	-4.652E-01	8.586E+00	1.427E+01	0.000E+00	NOT IDENT.
CF-249	-1.963E+00	9.848E+00	1.624E+01	0.000E+00	NOT IDENT.
CF-251	7.233E+00	2.913E+01	4.858E+01	0.000E+00	NOT IDENT.
ANH-511	-1.137E+01	8.617E+00	1.484E+01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 17:48:32.29

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*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051905.CNF;1
Sample date       : 3-MAR-2010 00:00:00. Acquisition date : 5-MAR-2010 16:48:00.
Sample ID         : G1202051905          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM02                Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.99  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 956976               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	59.18	979	351	0.99	117.55	112	11	2.72E-01	4.9	
2	0	62.97	68	102	1.29	125.13	123	5	1.90E-02	25.1	
3	2	87.71	528	134	0.91	174.63	170	18	1.47E-01	5.4	2.08E+00
4	2	92.36	165	133	1.13	183.94	170	18	4.57E-02	15.0	
5	0	121.68	92	188	0.97	242.61	239	8	2.57E-02	27.7	
6	0	185.25	97	156	1.27	369.83	366	9	2.71E-02	25.2	
7	0	197.65	55	133	1.49	394.63	391	9	1.54E-02	39.6	
8	0	661.16	1076	35	1.58	1322.19	1315	14	2.99E-01	3.3	
9	0	1172.53	863	39	2.12	2345.61	2337	16	2.40E-01	3.8	
10	0	1331.75	803	9	1.90	2664.29	2655	16	2.23E-01	3.6	

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 17:48:35.57

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051905.CNF;1
Sample date       : 3-MAR-2010 00:00:00. Acquisition date : 5-MAR-2010 16:48:00.
Sample ID         : G1202051905          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM02                Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:01.99  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 956976               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
CO-57	122.06	92	85.60*	2.553E+00	1.589E+01	1.600E+01	55.72
	136.47	------	10.68	2.598E+00	------ Line Not Found		------
CO-60	1173.23	863	99.85	6.616E-01	4.905E+02	4.910E+02	9.41
	1332.49	803	99.98*	5.969E-01	5.049E+02	5.054E+02	10.03
CD-109	88.03	528	3.70*	1.949E+00	2.748E+03	2.760E+03	13.52
SN-126	64.28	30	9.60	8.692E-01	1.340E+02	1.340E+02	119.87
	86.94	528	8.90	1.949E+00	1.143E+03	1.143E+03	42.65
	87.57	528	37.00*	1.949E+00	2.748E+02	2.748E+02	13.52
BA-137M	661.66	1073	89.90*	1.047E+00	4.279E+02	4.280E+02	8.18
CS-137	661.66	1073	85.10*	1.047E+00	4.521E+02	4.522E+02	8.19
TH-232	63.81	30	0.26*	8.692E-01	4.946E+03	4.946E+03	778.41
	140.88	------	0.02	2.597E+00	------ Line Not Found		------
NP-237	86.48	528	12.40*	1.949E+00	8.201E+02	8.201E+02	24.95
	95.86	------	2.68	2.183E+00	------ Line Not Found		------
AM-241	59.54	979	35.90*	6.856E-01	1.493E+03	1.493E+03	12.90

Flag: "*" = Keyline

Sample ID : G1202051905 Acquisition date : 5-MAR-2010 16:48:00

Total number of lines in spectrum	8	
Number of unidentified lines	1	
Number of lines tentatively identified by NID	7	87.50%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	271.74D	1.01	1.589E+01	1.600E+01	0.891E+01	55.72	
CO-60	1925.28D	1.00	5.049E+02	5.054E+02	0.507E+02	10.03	
CD-109	461.40D	1.00	2.748E+03	2.760E+03	0.373E+03	13.52	
SN-126	2.30E+05Y	1.00	2.748E+02	2.748E+02	0.372E+02	13.52	
BA-137M	30.08Y	1.00	4.279E+02	4.280E+02	0.350E+02	8.18	
CS-137	30.08Y	1.00	4.521E+02	4.522E+02	0.371E+02	8.19	
TH-232	1.41E+10Y	1.00	4.946E+03	4.946E+03	38.50E+03	778.41	
NP-237	2.14E+06Y	1.00	8.201E+02	8.201E+02	2.046E+02	24.95	
AM-241	432.60Y	1.00	1.493E+03	1.493E+03	0.193E+03	12.90	
			---	---			
	Total Activity :		1.168E+04	1.170E+04			
	Grand Total Activity :		1.168E+04	1.170E+04			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202051905 Acquisition date : 5-MAR-2010 16:48:00

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	197.65	50	133	1.49	394.63	391	9	1.39E-02	88.7	2.35E+00	

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 5-MAR-2010 17:48:39.90

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*****************************************************************************
*                              GEL Laboratories LLC                         *
*                                2040 Savage Road                           *
*                              Charleston, SC 29414                         *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202051905.CNF;1 *
* Acquisition date : 5-MAR-2010 16:48:00.  Detector SN#    :                *
* Detector ID      : GAM02                 Sensitivity     : 5.00000        *
* Geometry         : 2LMB                  Energy tolerance: 1.50000        *
* Elapsed live time: 0 01:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 01:00:01.99         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 3-MAR-2010 00:00:00.  Nuclide Library : LIQUID         *
* Sample ID        : G1202051905           Analyst initials: KXG3           *
* Batch Number     : 956976                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 17-JUN-2009 08:42:38.1MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-57	1.600E+01	8.913E+00	9.514E+00	5.799E-01	1.681
CO-60	5.054E+02	5.069E+01	3.863E+00	2.684E-01	130.852
CD-109	2.760E+03	3.730E+02	2.980E+02	2.419E+01	9.260
SN-126	2.748E+02	3.715E+01	2.990E+01	2.420E+00	9.193
BA-137M	4.280E+02	3.500E+01	1.189E+01	5.815E-01	36.001
CS-137	4.522E+02	3.705E+01	1.256E+01	6.180E-01	36.001
TH-232	4.946E+03	3.850E+04	8.669E+03	6.669E+04	0.571
NP-237	8.201E+02	2.046E+02	9.939E+01	2.232E+01	8.251
AM-241	1.493E+03	1.926E+02	9.840E+01	8.168E+00	15.170

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	8.873E+01		6.408E+01	1.157E+02	7.923E+00	0.767
NA-22	-1.209E+00		4.551E+00	6.934E+00	4.479E-01	-0.174
NA-24	5.820E+01		9.381E+01	1.784E+02	1.268E+01	0.326

Sample ID : G1202051905 Acquisition date : 5-MAR-2010 16:48:00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
K-40	2.050E+01		7.760E+01	1.427E+02	1.016E+01	0.144
SC-46	2.448E+00		9.626E+00	1.595E+01	1.291E+00	0.153
V-48	1.689E+00		1.209E+01	1.970E+01	1.500E+00	0.086
CR-51	-9.527E+00		6.129E+01	1.008E+02	6.569E+00	-0.095
MN-54	1.367E+00		9.423E+00	1.558E+01	1.130E+00	0.088
CO-56	-4.060E+00		8.958E+00	1.389E+01	1.032E+00	-0.292
CO-58	2.576E+00		8.449E+00	1.425E+01	9.864E-01	0.181
FE-59	4.805E+00		1.976E+01	3.367E+01	2.490E+00	0.143
ZN-65	-1.315E+01		2.143E+01	3.347E+01	2.115E+00	-0.393
SE-75	-8.201E-01		9.481E+00	1.589E+01	9.060E-01	-0.052
SR-85	-3.338E-01		8.700E+00	1.391E+01	8.082E-01	-0.024
Y-88	4.085E+00		4.848E+00	9.972E+00	5.748E-01	0.410
Y-91	3.252E+01		2.799E+03	4.636E+03	2.717E+02	0.007
NB-94	-1.180E+00		7.332E+00	1.194E+01	6.455E-01	-0.099
NB-95	-5.200E+00		8.641E+00	1.338E+01	8.368E-01	-0.389
NB-95M	-2.022E+00		2.397E+01	4.049E+01	2.958E+00	-0.050
ZR-95	2.258E+00		1.498E+01	2.500E+01	1.836E+00	0.090
MO-99	8.198E+01		1.231E+02	2.155E+02	3.114E+01	0.380
TC-99M	4.935E-03		5.321E-03	Half-Life too short		
RU-103	-1.970E+00		7.782E+00	1.221E+01	1.521E+00	-0.161
RH-106	6.479E+01		7.158E+01	1.285E+02	1.457E+01	0.504
RU-106	6.479E+01		7.128E+01	1.285E+02	6.694E+00	0.504
AG-108M	1.880E+00		7.267E+00	1.207E+01	7.703E-01	0.156
AG-110M	1.714E+01		1.119E+01	1.861E+01	9.979E-01	0.921
SN-113	3.385E+00		1.023E+01	1.718E+01	1.093E+00	0.197
CD-115	-1.996E+01		5.432E+01	8.352E+01	4.806E+00	-0.239
SN-117M	3.741E-01		6.696E+00	1.089E+01	5.675E-01	0.034
TE-123M	5.483E-01		6.178E+00	1.007E+01	5.325E-01	0.054
SB-124	-9.558E+00		1.391E+01	1.926E+01	1.303E+00	-0.496
SB-125	-1.181E+01		2.162E+01	3.352E+01	2.085E+00	-0.352
TE-125M	1.370E+03		2.074E+03	3.554E+03	3.110E+02	0.385
I-126	-1.774E+01		2.613E+01	3.349E+01	1.657E+00	-0.530
SB-126	-1.944E+00		1.566E+01	2.553E+01	1.441E+00	-0.076
SB-127	-1.467E+01		3.132E+01	4.940E+01	2.850E+00	-0.297
I-131	4.002E+00		9.678E+00	1.642E+01	1.076E+00	0.244
TE-132	-7.647E+00		1.208E+01	1.821E+01	2.304E+00	-0.420
BA-133	1.146E+01		9.443E+00	1.684E+01	1.913E+00	0.680
I-133	1.851E+01		6.152E+01	1.017E+02	6.288E+00	0.182
CS-134	-1.897E+00		9.562E+00	1.529E+01	1.034E+00	-0.124
CS-135	-1.788E+01		3.446E+01	5.603E+01	4.231E+00	-0.319
I-135	-7.406E-05		9.057E-03	Half-Life too short		
CS-136	-4.604E+00		1.336E+01	2.154E+01	1.607E+00	-0.214
CE-139	4.655E+00		6.354E+00	1.073E+01	5.473E-01	0.434
BA-140	-1.035E-01		3.295E+01	5.266E+01	1.753E+01	-0.002
LA-140	-4.933E-01		5.600E+00	9.128E+00	5.975E-01	-0.054
CE-141	-3.494E+00		1.092E+01	1.744E+01	9.925E-01	-0.200
CE-143	3.744E+00		5.075E+01	8.537E+01	1.676E+01	0.044
CE-144	-7.645E+00		4.724E+01	7.664E+01	1.062E+01	-0.100

Sample ID : G1202051905 Acquisition date : 5-MAR-2010 16:48:00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PM-144	2.761E+00		6.826E+00	1.178E+01	6.279E-01	0.234
PR-144	2.030E+02		5.073E+02	8.753E+02	4.665E+01	0.232
PM-146	6.383E+00		1.078E+01	1.828E+01	1.566E+00	0.349
ND-147	-3.627E+01		5.903E+01	8.787E+01	1.186E+01	-0.413
PM-149	1.366E+02		4.384E+02	7.484E+02	1.057E+02	0.183
EU-152	-3.012E+00		2.233E+01	3.658E+01	2.434E+00	-0.082
GD-153	-6.266E+00		1.940E+01	3.168E+01	2.254E+00	-0.198
EU-154	-3.446E+00		1.298E+01	1.977E+01	1.944E+00	-0.174
EU-155	-1.160E+01		2.376E+01	3.822E+01	2.579E+00	-0.304
TA-182	-1.490E+01		2.097E+01	2.905E+01	1.742E+00	-0.513
IR-192	-1.432E+00		7.087E+00	1.163E+01	6.849E-01	-0.123
HG-203	-1.719E+00		7.240E+00	1.197E+01	7.229E-01	-0.144
BI-207	8.007E+00		1.259E+01	2.237E+01	1.538E+00	0.358
TL-208	-1.251E+00		8.448E+00	1.410E+01	9.006E-01	-0.089
PB-210	-2.470E+02		1.825E+03	2.812E+03	2.136E+02	-0.088
BI-211	9.415E+00		1.135E+02	8.185E+01	8.917E+02	0.115
PB-211	-2.447E+01		3.169E+02	2.763E+02	3.013E+03	-0.089
BI-212	8.780E+01		1.136E+02	2.010E+02	2.144E+01	0.437
PB-212	-1.001E+01		1.362E+01	2.215E+01	1.585E+00	-0.452
BI-214	-1.392E+01		1.588E+01	2.506E+01	1.874E+00	-0.555
PB-214	-3.666E+00		1.705E+01	2.791E+01	2.394E+00	-0.131
RN-219	4.220E+01		4.696E+02	1.617E+02	1.762E+03	0.261
RA-223	-7.392E+01		8.186E+02	2.336E+02	2.545E+03	-0.316
RA-224	-1.160E+02		1.423E+02	2.301E+02	1.267E+01	-0.504
RA-226	-9.783E+00		1.673E+02	2.884E+02	1.934E+02	-0.034
AC-227	-1.338E+01		5.825E+01	9.695E+01	9.801E+00	-0.138
TH-227	-1.338E+01		1.570E+02	9.695E+01	1.056E+03	-0.138
AC-228	9.768E-02		4.094E+01	6.749E+01	7.589E+00	0.001
RA-228	9.768E-02		4.094E+01	6.749E+01	7.589E+00	0.001
TH-228	-1.001E+01		1.362E+01	2.215E+01	1.585E+00	-0.452
TH-229	1.085E+02		1.272E+02	1.949E+02	1.017E+01	0.556
PA-231	-3.842E+01		3.396E+02	5.654E+02	7.399E+01	-0.068
TH-231	6.778E+00		1.272E+02	1.923E+02	3.289E+01	0.035
PA-233	1.058E+01		1.507E+01	2.626E+01	1.629E+00	0.403
PA-234	2.532E+01		9.855E+01	1.623E+02	2.994E+01	0.156
PA-234M	-1.216E+03		1.295E+03	1.911E+03	1.717E+02	-0.636
TH-234	3.476E+02	+	4.182E+02	7.071E+02	1.266E+02	0.492
U-235	7.690E+00		4.643E+01	7.707E+01	1.202E+01	0.100
U-238	3.476E+02	+	4.182E+02	7.071E+02	1.266E+02	0.492
NP-239	-8.495E-01		6.656E+01	1.047E+02	6.487E+00	-0.008
CM-247	-4.652E-01		8.761E+00	1.427E+01	8.550E-01	-0.033
CF-249	-1.963E+00		1.005E+01	1.624E+01	9.719E-01	-0.121
CF-251	7.233E+00		2.973E+01	4.858E+01	2.496E+00	0.149
ANH-511	-1.137E+01		8.793E+00	1.484E+01	8.637E-01	-0.766

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202051905           *
* Acquisition date :  5-MAR-2010 16:48:00 Detector SN#    :                 *
* Detector ID      : GAM02                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:01.99     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      :  3-MAR-2010 00:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G1202051905          Analyst initials: KXG3            *
* Batch Number     : 956976               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 17-JUN-2009 08:42:38 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
CO-57	1.600E+01	8.735E+00	4.760E+00	4.457E+00
CO-60	5.054E+02	4.968E+01	1.933E+00	2.535E+01
CD-109	2.760E+03	3.656E+02	1.491E+02	1.865E+02
SN-126	2.748E+02	3.641E+01	1.496E+01	1.858E+01
BA-137M	4.280E+02	3.430E+01	5.948E+00	1.750E+01
CS-137	4.522E+02	3.631E+01	6.283E+00	1.853E+01
TH-232	4.946E+03	3.773E+04	4.337E+03	1.925E+04
NP-237	8.201E+02	2.005E+02	4.972E+01	1.023E+02
AM-241	1.493E+03	1.887E+02	4.923E+01	9.629E+01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU	
BE-7	8.873E+01	6.279E+01	5.787E+01	3.204E+01	NOT IDENT.
NA-22	-1.209E+00	4.460E+00	3.469E+00	2.276E+00	NOT IDENT.
NA-24	5.820E+01	9.194E+01	8.924E+01	4.691E+01	NOT IDENT.
K-40	2.050E+01	7.605E+01	7.141E+01	3.880E+01	NOT IDENT.
SC-46	2.448E+00	9.434E+00	7.982E+00	4.813E+00	NOT IDENT.
V-48	1.689E+00	1.185E+01	9.858E+00	6.046E+00	NOT IDENT.
CR-51	-9.527E+00	6.006E+01	5.042E+01	3.064E+01	NOT IDENT.
MN-54	1.367E+00	9.234E+00	7.794E+00	4.711E+00	NOT IDENT.
CO-56	-4.060E+00	8.779E+00	6.947E+00	4.479E+00	NOT IDENT.
CO-58	2.576E+00	8.280E+00	7.128E+00	4.225E+00	NOT IDENT.
FE-59	4.805E+00	1.936E+01	1.685E+01	9.879E+00	NOT IDENT.
ZN-65	-1.315E+01	2.100E+01	1.674E+01	1.072E+01	NOT IDENT.
SE-75	-8.201E-01	9.292E+00	7.948E+00	4.741E+00	FAIL ABUN
SR-85	-3.338E-01	8.526E+00	6.962E+00	4.350E+00	NOT IDENT.
Y-88	4.085E+00	4.751E+00	4.989E+00	2.424E+00	NOT IDENT.
Y-91	3.252E+01	2.743E+03	2.320E+03	1.400E+03	NOT IDENT.
NB-94	-1.180E+00	7.185E+00	5.972E+00	3.666E+00	NOT IDENT.
NB-95	-5.200E+00	8.468E+00	6.692E+00	4.320E+00	NOT IDENT.

NB-95M	-2.022E+00	2.349E+01	2.026E+01	1.198E+01	NOT IDENT.
ZR-95	2.258E+00	1.468E+01	1.251E+01	7.488E+00	NOT IDENT.
MO-99	8.198E+01	1.207E+02	1.078E+02	6.157E+01	NOT IDENT.
TC-99M	4.935E+03	1.043E+04	0.000E+00	5.321E+03	SHORT HLIF
RU-103	-1.970E+00	7.627E+00	6.110E+00	3.891E+00	NOT IDENT.
RH-106	6.479E+01	7.015E+01	6.428E+01	3.579E+01	NOT IDENT.
RU-106	6.479E+01	6.986E+01	6.428E+01	3.564E+01	NOT IDENT.
AG-108M	1.880E+00	7.122E+00	6.038E+00	3.634E+00	NOT IDENT.
AG-110M	1.714E+01	1.096E+01	9.311E+00	5.593E+00	NOT IDENT.
SN-113	3.385E+00	1.003E+01	8.596E+00	5.116E+00	NOT IDENT.
CD-115	-1.996E+01	5.324E+01	4.179E+01	2.716E+01	NOT IDENT.
SN-117M	3.741E-01	6.562E+00	5.449E+00	3.348E+00	NOT IDENT.
TE-123M	5.483E-01	6.054E+00	5.036E+00	3.089E+00	NOT IDENT.
SB-124	-9.558E+00	1.363E+01	9.638E+00	6.953E+00	NOT IDENT.
SB-125	-1.181E+01	2.119E+01	1.677E+01	1.081E+01	NOT IDENT.
TE-125M	1.370E+03	2.033E+03	1.778E+03	1.037E+03	NOT IDENT.
I-126	-1.774E+01	2.561E+01	1.676E+01	1.306E+01	NOT IDENT.
SB-126	-1.944E+00	1.535E+01	1.277E+01	7.831E+00	NOT IDENT.
SB-127	-1.467E+01	3.069E+01	2.471E+01	1.566E+01	NOT IDENT.
I-131	4.002E+00	9.485E+00	8.216E+00	4.839E+00	NOT IDENT.
TE-132	-7.647E+00	1.184E+01	9.110E+00	6.039E+00	NOT IDENT.
BA-133	1.146E+01	9.254E+00	8.427E+00	4.721E+00	NOT IDENT.
I-133	1.851E+01	6.029E+01	5.087E+01	3.076E+01	NOT IDENT.
CS-134	-1.897E+00	9.371E+00	7.649E+00	4.781E+00	NOT IDENT.
CS-135	-1.788E+01	3.377E+01	2.803E+01	1.723E+01	NOT IDENT.
I-135	-7.406E+01	1.775E+04	0.000E+00	9.057E+03	SHORT HLIF
CS-136	-4.604E+00	1.310E+01	1.078E+01	6.682E+00	NOT IDENT.
CE-139	4.655E+00	6.227E+00	5.369E+00	3.177E+00	NOT IDENT.
BA-140	-1.035E-01	3.229E+01	2.634E+01	1.648E+01	NOT IDENT.
LA-140	-4.933E-01	5.488E+00	4.567E+00	2.800E+00	NOT IDENT.
CE-141	-3.494E+00	1.070E+01	8.725E+00	5.458E+00	NOT IDENT.
CE-143	3.744E+00	4.974E+01	4.271E+01	2.538E+01	NOT IDENT.
CE-144	-7.645E+00	4.629E+01	3.835E+01	2.362E+01	NOT IDENT.
PM-144	2.761E+00	6.690E+00	5.895E+00	3.413E+00	NOT IDENT.
PR-144	2.030E+02	4.972E+02	4.379E+02	2.537E+02	NOT IDENT.
PM-146	6.383E+00	1.056E+01	9.143E+00	5.389E+00	NOT IDENT.
ND-147	-3.627E+01	5.785E+01	4.396E+01	2.952E+01	NOT IDENT.
PM-149	1.366E+02	4.296E+02	3.744E+02	2.192E+02	NOT IDENT.
EU-152	-3.012E+00	2.189E+01	1.830E+01	1.117E+01	FAIL ABUN
GD-153	-6.266E+00	1.901E+01	1.585E+01	9.700E+00	NOT IDENT.
EU-154	-3.446E+00	1.272E+01	9.891E+00	6.490E+00	FAIL ABUN
EU-155	-1.160E+01	2.328E+01	1.912E+01	1.188E+01	FAIL ABUN
TA-182	-1.490E+01	2.055E+01	1.453E+01	1.048E+01	NOT IDENT.
IR-192	-1.432E+00	6.946E+00	5.817E+00	3.544E+00	NOT IDENT.
HG-203	-1.719E+00	7.095E+00	5.988E+00	3.620E+00	NOT IDENT.
BI-207	8.007E+00	1.234E+01	1.119E+01	6.295E+00	NOT IDENT.
TL-208	-1.251E+00	8.279E+00	7.055E+00	4.224E+00	NOT IDENT.
PB-210	-2.470E+02	1.789E+03	1.407E+03	9.127E+02	NOT IDENT.
BI-211	9.415E+00	1.112E+02	4.095E+01	5.675E+01	NOT IDENT.
PB-211	-2.447E+01	3.106E+02	1.382E+02	1.585E+02	NOT IDENT.
BI-212	8.780E+01	1.113E+02	1.005E+02	5.681E+01	NOT IDENT.
PB-212	-1.001E+01	1.335E+01	1.108E+01	6.809E+00	NOT IDENT.
BI-214	-1.392E+01	1.556E+01	1.254E+01	7.941E+00	NOT IDENT.
PB-214	-3.666E+00	1.671E+01	1.396E+01	8.527E+00	NOT IDENT.
RN-219	4.220E+01	4.602E+02	8.091E+01	2.348E+02	NOT IDENT.
RA-223	-7.392E+01	8.022E+02	1.169E+02	4.093E+02	NOT IDENT.
RA-224	-1.160E+02	1.395E+02	1.151E+02	7.115E+01	NOT IDENT.
RA-226	-9.783E+00	1.639E+02	1.443E+02	8.363E+01	NOT IDENT.
AC-227	-1.338E+01	5.709E+01	4.850E+01	2.913E+01	NOT IDENT.
TH-227	-1.338E+01	1.539E+02	4.850E+01	7.850E+01	NOT IDENT.
AC-228	9.768E-02	4.012E+01	3.377E+01	2.047E+01	NOT IDENT.
RA-228	9.768E-02	4.012E+01	3.377E+01	2.047E+01	NOT IDENT.
TH-228	-1.001E+01	1.335E+01	1.108E+01	6.809E+00	NOT IDENT.
TH-229	1.085E+02	1.247E+02	9.751E+01	6.360E+01	FAIL ABUN
PA-231	-3.842E+01	3.328E+02	2.828E+02	1.698E+02	NOT IDENT.
TH-231	6.778E+00	1.247E+02	9.620E+01	6.360E+01	NOT IDENT.
PA-233	1.058E+01	1.477E+01	1.314E+01	7.533E+00	NOT IDENT.
PA-234	2.532E+01	9.658E+01	8.120E+01	4.928E+01	NOT IDENT.
PA-234M	-1.216E+03	1.269E+03	9.560E+02	6.474E+02	NOT IDENT.
TH-234	3.476E+02	4.098E+02	3.537E+02	2.091E+02	FAIL ABUN
U-235	7.690E+00	4.550E+01	3.856E+01	2.322E+01	NOT IDENT.
U-238	3.476E+02	4.098E+02	3.537E+02	2.091E+02	FAIL ABUN
NP-239	-8.495E-01	6.523E+01	5.238E+01	3.328E+01	NOT IDENT.
CM-247	-4.652E-01	8.586E+00	7.139E+00	4.381E+00	NOT IDENT.
CF-249	-1.963E+00	9.848E+00	8.125E+00	5.025E+00	NOT IDENT.
CF-251	7.233E+00	2.913E+01	2.431E+01	1.486E+01	NOT IDENT.
ANH-511	-1.137E+01	8.617E+00	7.425E+00	4.396E+00	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
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```

ENERGY	MDA COUNTS
46.54	175.2119
49.72	204.6490
57.36	234.1867
59.54	202.2792
63.29	137.2481
63.29	137.2481
63.81	138.3278
64.28	155.5054
67.75	147.8160
69.67	146.8390
70.83	162.3905
72.81	155.2298
72.87	155.2546
72.87	155.2546
74.82	163.2324
74.82	163.2324
74.82	163.2324
74.97	163.2962
77.11	175.0310
77.11	175.0310
77.11	175.0310
79.69	164.3737
79.69	164.3737
80.12	160.0049
80.19	160.0335
81.00	166.7336
81.07	170.4075
83.79	172.0047
84.21	168.0469
85.43	172.6847
86.48	181.4253
86.55	151.4436
86.94	151.5829
87.57	151.8081
88.03	151.9716
88.47	152.1276
89.96	152.6535
91.11	153.0560
92.59	153.5707
92.59	153.5707
93.35	129.4452
94.56	136.8495
94.65	136.8769
94.67	136.8828
95.86	114.6052
97.43	138.1890
98.43	147.9742
98.44	147.9774
99.53	143.5709
100.11	132.3253
103.18	139.8922
103.37	144.7406
105.31	135.6994
106.12	138.8174
109.28	144.5597
111.00	156.7377
111.76	156.9735
116.30	139.6758
116.74	144.1252
121.12	139.9601
121.78	140.1315
122.06	140.2039
123.07	137.4771
131.20	154.6622
133.52	163.4092
136.00	138.6258
136.47	162.1993

140.51	142.7668
140.51	0.0000
140.88	134.6327
143.76	135.2763
144.24	135.3816
145.44	150.1449
152.43	137.1726
153.25	138.3983
154.21	145.9554
156.02	156.8968
158.56	141.6526
159.00	144.9214
162.66	147.8515
163.33	162.9065
165.86	125.0445
176.60	151.9615
177.52	132.5948
181.07	144.1749
185.72	127.5087
186.21	136.3932
193.51	106.6279
205.31	137.5789
210.85	139.6663
222.11	158.8452
227.38	132.0340
228.16	144.9051
228.18	144.9089
235.69	145.5768
235.96	129.8308
235.96	129.8308
238.63	152.2197
238.63	152.2197
240.99	156.1498
242.00	132.4791
244.70	131.9892
252.40	111.6590
252.80	111.7077
256.23	121.9831
256.23	121.9831
260.90	115.3750
264.66	113.1115
268.22	118.0684
269.46	103.6691
271.23	85.6350
273.65	124.2025
276.40	116.3030
277.37	99.9172
277.60	93.5208
278.00	90.8064
279.20	113.8735
279.54	118.5065
283.69	113.4582
284.31	95.9893
285.41	105.3321
285.90	106.3069
287.50	95.3633
293.27	91.2395
295.22	95.1410
295.96	97.0747
299.98	85.2625
299.98	85.2625
300.09	85.2722
300.09	85.2722
300.13	85.2750
301.36	79.7446
302.85	96.7652
304.50	95.0327
304.50	95.0327
304.85	95.0635
308.46	106.7134
311.90	88.1028
316.51	96.0822
319.41	90.6092
320.08	92.5715
323.87	100.5460
328.76	88.4764
329.85	87.5981
329.85	87.5981

330.06	97.2427
333.37	91.7283
334.37	94.7072
334.37	94.7072
338.28	100.8436
338.32	100.8468
338.32	100.8468
340.48	98.1181
340.55	98.1242
344.28	90.6373
351.06	81.3510
351.93	80.4297
356.01	64.9536
364.49	84.2322
366.42	100.2418
383.85	79.4906
388.16	94.8993
388.63	90.8933
391.70	84.0208
400.66	75.4171
401.81	73.4425
402.40	79.5972
404.85	83.8318
414.70	80.3209
423.72	77.7351
427.09	79.9996
427.87	81.0838
433.94	73.0794
453.88	69.8551
463.37	78.8226
468.07	89.7524
473.00	73.9647
476.78	65.5506
477.60	47.3073
487.02	83.2917
492.35	59.6955
497.08	67.4946
511.00	77.9628
514.00	89.1073
527.90	56.5781
529.87	44.4275
531.02	60.0183
537.26	60.2391
546.56	0.0000
563.25	62.5110
569.33	42.7257
569.50	42.7303
569.70	50.0089
583.19	57.7151
600.60	57.3394
602.73	47.2211
604.72	50.9784
609.32	60.3948
610.33	58.5688
614.28	49.3744
618.01	65.3405
621.93	44.8969
621.93	44.8969
633.25	59.2748
635.95	58.4141
636.99	57.5032
645.85	55.8699
657.76	65.0968
661.66	41.0421
661.66	41.0421
664.57	44.6068
666.33	46.2400
666.50	43.0543
677.62	49.0626
685.70	51.1859
695.00	54.3252
696.49	37.8603
696.51	37.8603
697.00	40.7829
702.65	49.6540
706.68	48.7732
720.70	46.1474
721.93	55.0156

722.78	55.0375
722.91	49.1431
723.31	44.2375
724.19	48.1889
727.33	40.3794
733.00	46.4091
735.93	42.5160
739.50	39.6143
747.24	48.6973
753.82	42.8604
756.73	47.9051
763.94	44.0537
765.80	54.1107
766.42	52.1206
777.92	45.3318
778.90	48.3738
783.70	59.5834
785.37	45.4779
795.86	39.5913
801.95	47.8365
810.76	43.9270
815.77	45.0431
818.51	44.0698
832.01	59.7757
834.85	56.7496
836.80	0.0000
846.77	53.9145
856.80	52.0508
860.56	34.4051
871.09	47.1127
873.19	61.8204
875.33	60.8235
880.51	50.4398
883.24	66.2730
884.68	46.3117
889.28	47.4489
898.04	58.1891
911.20	58.4832
911.20	58.4832
926.36	60.9577
937.49	73.0236
944.13	79.6620
946.00	71.0982
949.00	71.1772
964.08	62.8938
968.97	55.4015
968.97	55.4015
983.53	55.6916
996.26	55.9431
1001.03	61.5303
1004.73	49.5077
1037.84	49.1484
1038.76	0.0000
1048.07	44.6680
1050.41	35.3900
1050.41	35.3900
1063.66	35.5461
1085.87	49.9441
1099.25	48.2690
1112.07	48.4683
1115.54	56.1335
1120.29	39.0664
1120.55	38.1169
1121.30	40.0330
1131.51	0.0000
1173.23	34.8750
1189.05	18.4952
1204.77	18.5825
1221.41	14.7437
1231.02	13.7995
1235.36	13.8171
1238.28	16.7925
1260.41	0.0000
1274.44	7.9850
1274.54	7.9854
1291.59	10.0301
1298.22	23.1123
1312.11	10.0879

1332.49	1.7391
1365.19	6.1411
1368.63	4.0980
1384.29	6.1726
1408.01	9.3168
1457.56	0.0000
1460.82	11.5434
1489.16	5.2844
1596.21	5.5779
1620.50	5.6095
1678.03	0.0000
1690.97	12.3498
1764.49	6.7578
1770.23	8.6993
1771.35	6.7678
1791.20	0.0000
1836.06	1.9602

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202051905

Total Uranium Activity	1.0376E+03	ug/g
Total Uranium Counting Unc.	1.2194E+03	ug/g
Total Uranium Tpu	6.2217E-04	ug/g
Total Uranium Mda	1.0525E+03	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 956976                    SAMPLE ID   : G1202051905     *
*   ANALYST       : KXG3                      DETECTOR    : GAM02           *
*   SAMPLE DATE   :  3-MAR-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE:  5-MAR-2010 16:48:00.22    SAMPLE ALQT:    2.000 LITER   *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 2.051E+03
        GROSS GAMMA ERROR  (pCi/LITER )   : 1.821E+02
        GROSS GAMMA MDA    (pCi/LITER )   : 1.898E+02
        GROSS GAMMA DLC    (pCi/LITER )   : 9.084E+01
```

Radiochemistry Batch Checklist, Rev10

Batch# 959738 Product: SR-90 Date: 03/10/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.			N/A
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: V. Calpepper

Secondary Review Performed By: [illegible]

LANL
03/25

Strontium 90 Que Sheet

03/02/10

Batch #: 959738 Analyst: JXR1 First Client Due Date: 03/25/2010 Internal Due Date 03/14/2010 Comments

Sr-90 Spike Code: 1243-B Expiration Date: 1-21-11 Vol: 0.1 Sr Sep. Date/time: 3-4-10 / 0952

Sr-90 LCS Code: 1243-B Expiration Date: 1-21-11 Vol: 0.1

Sr Carrier Code: 1194590 Exp Date: 3-19-10 Vol: 0.5 Sdt Wt: 8.93

Prep Date: 3-3-10 Initials: JLR Pipet ID: 1795419 Balance #: 512048663 Analytical Scale #: 38110047 Witness: HS 3-3-10

Sample ID	Client Description	Type	RDL	Collection Date	Matrix	Client	Rad	Pos. #	Wet/Dry Aliquot (mL) or (g)	Det # 1 & 2	Initial Sr wt (g)	Final Sr wt (g)	Net Sr wt (mg)
247817002-1	CAPA-10-13095	SAMPLE	.5 pCi/L	FEB-21-10 12:00 PM	GROUND WATE	LANL010		1	500	13C		0.0258	0.0325	6.7
247829002-1	CAPA-10-13498	SAMPLE	.5 pCi/L	FEB-22-10 12:00 PM	GROUND WATE	LANL010		2	500	13B		0.0250	0.0311	6.1
248020001-1	CAPA-10-12771	SAMPLE	.5 pCi/L	FEB-22-10 12:00 PM	GROUND WATE	LANL010		3	500	14B		0.0252	0.0320	6.8
248020003-1	CAPA-10-13085	SAMPLE	.5 pCi/L	FEB-23-10 12:00 PM	GROUND WATE	LANL010		4	500 * ~~14A~~	1C		0.0259	0.0332	7.3
248023002-1	CAPA-10-12917	SAMPLE	.5 pCi/L	FEB-23-10 12:00 PM	GROUND WATE	LANL010		5	500	14C		0.0261	0.0335	7.4
248024001-1	CAPA-10-12871	SAMPLE	.5 pCi/L	FEB-23-10 12:00 PM	GROUND WATE	LANL010		6	500 * ~~14A~~	2A		0.0255	0.0326	7.1
248024003-1	CAPA-10-12873	SAMPLE	.5 pCi/L	FEB-23-10 12:00 PM	GROUND WATE	LANL010		7	400	13C		0.0250	0.0320	7.0
1202058386-1	MB for batch 959738	MB	.5 pCi/L		GROUND WATE	QC ACCOUNT		8	1000 ~~500~~ *	14B		0.0250	0.0320	7.0
1202058387-1	CAPA-10-12873(248024003DUP)	DUP	.5 pCi/L	FEB-23-10 12:00 PM	GROUND WATE	QC ACCOUNT		9	400	14D		0.0258	0.0335	7.7
1202058388-1	CAPA-10-12873(248024003MS)	MS	.5 pCi/L	FEB-23-10 12:00 PM	GROUND WATE	QC ACCOUNT		10	100	13A		0.0253	0.0327	7.4
1202058389-1	LCS for batch 959738	LCS	.5 pCi/L		GROUND WATE	QC ACCOUNT		11	1000 ~~500~~ *	13A		0.0250	0.0326	7.6

* VC 03/05/10 Daily ✓ wtv

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) Data Reviewed By: V. Calpepper 03/10/10

Blank Correction Report

Batch ID 959738

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202058387	DUP	Strontium-90	0.400 L	0.329	0.151	0.480	.24975	pCi/L	YES
1202058389	LCS	Strontium-90	1.00 L	19.3	1.66	0.505	.0999	pCi/L	NO
1202058386	MB	Strontium-90	1.00 L	0.0999	0.0688	0.229	.0999	pCi/L	YES
1202058388	MS	Strontium-90	0.100 L	234	19.9	5.10	.999	pCi/L	NO
247817002	CAPA-10-13095	Strontium-90	0.500 L	0.105	0.135	0.469	.1998	pCi/L	YES
247829002	CAPA-10-13498	Strontium-90	0.500 L	0.0618	0.132	0.472	.1998	pCi/L	YES
248020001	CAPA-10-12771	Strontium-90	0.500 L	0.165	0.135	0.456	.1998	pCi/L	YES
248020003	CAPA-10-13085	Strontium-90	0.500 L	-0.255	0.0944	0.471	.1998	pCi/L	YES
248023002	CAPA-10-12917	Strontium-90	0.500 L	-0.111	0.127	0.475	.1998	pCi/L	YES
248024001	CAPA-10-12871	Strontium-90	0.500 L	0.0283	0.128	0.474	.1998	pCi/L	YES
248024003	CAPA-10-12873	Strontium-90	0.400 L	0.0327	0.134	0.474	.24975	pCi/L	YES

Strontium-90 Liquid

Filename : SR90.XLS
File type : Excel
Version # : 1.3.1

Spike S/N : 1243-B
Spike Exp Date : 1/21/2011
Spike Activity (dpm/ml): 493.26
Spike Volume Added: 0.10

Batch : 959738
Analyst : JXR1
Prep Date : 3/3/2010

LCS S/N : 1243-B
LCS Exp Date : 1/21/2011
LCS Activity (dpm/ml): 493.26
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Sr-90 Abundance : 1
Method Uncertainty : 0.0784

Procedure Code : GFC90SRL
Parmname : Strontium-90
Required MDC : 0.5 pCi/L
Halflife of Sr-90 : 28.90 years
Halflife of Y-90 : 64.053 hours

Geometry: Tuffryn Filter

Carrier S/N : 1194590
Carrier Exp Date : 3/19/2010
Carrier Volume Added: 0.50
Carrier Weight (mg/ml): 17.85
Carrier Weight StDev.: 0.06

Sample Characteristics					Carrier Calculations				
Pos.	Sample ID	Sample Aliquot L	Sample Aliquot StDev. L	Sample Date/Time	Carrier Weight (mg) (Standard)	Net Weight (mg) (Sample)	Net Weight StDev. (mg)	Carrier Aliquot (mL)	Carrier Aliquot StDev. (mL)
1	247817002.1	0.5000	2.0256E-05	2/21/2010 12:00	17.85	6.70	0.036127	0.5	0.002564
2	247829002.1	0.5000	2.0256E-05	2/22/2010 12:00	17.85	6.10	0.033548	0.5	0.002564
3	248020001.1	0.5000	2.0256E-05	2/22/2010 12:00	17.85	6.80	0.036556	0.5	0.002564
4	248020003.1	0.5000	2.0256E-05	2/23/2010 12:00	17.85	7.30	0.038705	0.5	0.002564
5	248023002.1	0.5000	2.0256E-05	2/23/2010 12:00	17.85	7.40	0.039135	0.5	0.002564
6	248024001.1	0.5000	2.0256E-05	2/23/2010 12:00	17.85	7.10	0.037846	0.5	0.002564
7	248024003.1	0.4000	1.9669E-05	2/23/2010 12:00	17.85	7.00	0.037416	0.5	0.002564
8	1202058386.1	1.0000	2.0399E-05	3/3/2010 0:00	17.85	7.00	0.037416	0.5	0.002564
9	1202058387.1	0.4000	1.9669E-05	2/23/2010 12:00	17.85	7.70	0.040425	0.5	0.002564
10	1202058388.1	0.1000	1.1370E-05	2/23/2010 12:00	17.85	7.40	0.039135	0.5	0.002564
11	1202058389.1	1.0000	2.0399E-05	3/3/2010 0:00	17.85	7.60	0.039995	0.5	0.002564

Count Raw Data

Pos.	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Gross Beta CPM	Count Start Date/Time	Strontium Separation Date/Time	Yttrium Ingrowth	Sr-90 Decay	Calculated Sample Recovery %	Sample Recovery Error %
1	13C	160	10	56	0.345	3/4/2010 15:15	3/4/2010 9:52	0.070	0.999	75.07%	0.98%
2	13B	170	5	50	0.292	3/4/2010 15:15	3/4/2010 9:52	0.071	0.999	68.35%	0.99%
3	14B	160	5	56	0.346	3/4/2010 15:15	3/4/2010 9:52	0.070	0.999	76.19%	0.98%
4	1C	60	2	15	0.248	3/9/2010 17:52	3/4/2010 9:52	0.751	0.999	81.79%	0.97%
5	14C	180	5	67	0.367	3/4/2010 15:16	3/4/2010 9:52	0.072	0.999	82.91%	0.97%
6	8A	70	6	35	0.496	3/9/2010 9:21	3/4/2010 9:52	0.727	0.999	79.55%	0.97%
7	13C	220	9	70	0.315	3/4/2010 18:05	3/4/2010 9:52	0.103	0.999	78.43%	0.97%
8	14B	140	0	51	0.364	3/4/2010 18:04	3/4/2010 9:52	0.096	1.000	78.43%	0.97%
9	14D	280	6	152	0.536	3/4/2010 15:15	3/4/2010 9:52	0.080	0.999	86.27%	0.96%
10	13A	60	4	1238	20.629	3/4/2010 16:38	3/4/2010 9:52	0.076	0.999	82.91%	0.97%
11	13A	60	3	1038	17.297	3/4/2010 15:15	3/4/2010 9:52	0.062	1.000	85.15%	0.96%

Calibration Data

Pos.	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm) Sr-90	Detector Efficiency (cpm/dpm) Y-90	Detector Efficiency Error (cpm/dpm)	Alpha X-Talk	Weekly Bkg CPM	Weekly Bkg Count Time (min.)
1	PIC	2/1/2010	2/28/2011	0.4333	0.5190	0.00816	0.07662	0.304	500
2	PIC	2/1/2010	2/28/2011	0.4369	0.5200	0.00816	0.06516	0.270	500
3	PIC	2/1/2010	2/28/2011	0.4246	0.5092	0.00816	0.12148	0.282	500
4	PIC	2/1/2010	2/28/2011	0.4142	0.4984	0.00344	0.07334	0.430	1000
5	PIC	2/1/2010	2/28/2011	0.4223	0.5095	0.00816	0.18229	0.414	500
6	PIC	2/1/2010	2/28/2011	0.4211	0.5137	0.00816	0.04870	0.476	500
7	PIC	2/1/2010	2/28/2011	0.4324	0.5190	0.00816	0.07669	0.304	500
8	PIC	2/1/2010	2/28/2011	0.4241	0.5092	0.00816	0.12147	0.282	500
9	PIC	2/1/2010	2/28/2011	0.4213	0.5096	0.00816	0.30648	0.420	500
10	PIC	2/1/2010	2/28/2011	0.4231	0.5109	0.00816	0.06800	0.726	500
11	PIC	2/1/2010	2/28/2011	0.4225	0.5109	0.00816	0.06802	0.726	500

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

* - RPD changed to 0% due to activity below MDC for 1202058387.1

Results Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	0.2983	0.2106	0.5	0.4692	**0.1054**	1.2761	0.0412	0.0526	0.1345	0.1347		SAMPLE				
2	0.2992	0.2113	0.5	0.4716	**0.0618**	2.1408	0.0222	0.0475	0.1323	0.1324		SAMPLE				
3	0.2888	0.2039	0.5	0.4560	**0.1650**	0.8136	0.0642	0.0522	0.1342	0.1349		SAMPLE				
4	0.2839	0.2005	0.5	0.4708	**-0.2551**	0.3701	-0.1824	0.0675	0.0944	0.0944		SAMPLE				
5	0.3087	0.2179	0.5	0.4753	**-0.1110**	1.1433	-0.0468	0.0536	0.1268	0.1269		SAMPLE				
6	0.2926	0.2066	0.5	0.4743	**0.0283**	4.5215	0.0198	0.0896	0.1279	0.1279		SAMPLE				
7	0.3073	0.2170	0.5	0.4743	**0.0327**	4.0895	0.0110	0.0452	0.1335	0.1336		SAMPLE				
8	0.1436	0.1014	0.5	0.2288	**0.0999**	0.6839	0.0823	0.0563	0.0683	0.0688		MB				
9	0.3185	0.2249	0.5	0.4801	**0.3287**	0.4516	0.1163	0.0525	0.1484	0.1507	248024003.1	DUP	0.0%	0.5207		
10	3.1932	2.2544	0.5	5.0975	**234.3058**	0.0321	19.9028	0.5876	6.9174	19.9433	248024003.1	MS			222.2998	105.4%
11	0.3161	0.2231	0.5	0.5045	**19.3086**	0.0349	16.5706	0.5383	0.6272	1.6641		LCS			22.2190	86.9%

959738r2

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
247817002	13C	160	10	56	3/4/2010 15:15	3/4/2010 17:55	PIC
247829002	13B	170	5	50	3/4/2010 15:15	3/4/2010 18:05	PIC
248020001	14B	160	5	56	3/4/2010 15:15	3/4/2010 17:55	PIC
248020003	1C	60	2	15	3/9/2010 17:52	3/9/2010 18:52	PIC
248023002	14C	180	5	67	3/4/2010 15:16	3/4/2010 18:16	PIC
248024001	8A	70	6	35	3/9/2010 9:21	3/9/2010 10:31	PIC
248024003	13C	220	9	70	3/4/2010 18:05	3/4/2010 21:45	PIC
1202058386	14B	140	0	51	3/4/2010 18:04	3/4/2010 20:24	PIC
1202058387	14D	280	6	152	3/4/2010 15:15	3/4/2010 19:55	PIC
1202058388	13A	60	4	1238	3/4/2010 16:38	3/4/2010 17:38	PIC
1202058389	13A	60	3	1038	3/4/2010 15:15	3/4/2010 16:15	PIC

Radiochemistry Batch Checklist, Rev10

Batch# 959739 **Product:** GAB **Date:** 3.6.10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.	✓		
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.	✓		
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Rhyan Brantley LANL

Secondary Review Performed By: [illegible] 3.25

Blank Correction Report

Batch ID 959739

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202058391	DUP	ALPHA	0.150 L	-0.387	0.476	2.49	.449333333	pCi/L	YES
		BETA	0.150 L	-0.705	0.832	2.98	-1.6133333	pCi/L	NO
1202058394	LCS	ALPHA	1.00 L	12.2	1.45	0.385	.0674	pCi/L	NO
		BETA	1.00 L	42.5	3.72	0.592	-.242	pCi/L	NO
1202058390	MB	ALPHA	1.00 L	0.0674	0.0742	0.284	.0674	pCi/L	YES
		BETA	1.00 L	-0.242	0.117	0.446	-.242	pCi/L	NO
1202058392	MS	ALPHA	0.050 L	304	30.0	9.03	1.348	pCi/L	NO
		BETA	0.050 L	791	68.5	10.2	-4.84	pCi/L	NO
1202058393	MSD	ALPHA	0.050 L	310	35.7	6.75	1.348	pCi/L	NO
		BETA	0.050 L	824	71.6	10.1	-4.84	pCi/L	NO
247817002	CAPA-10-13095	ALPHA	0.150 L	0.0727	0.364	1.84	.449333333	pCi/L	YES
		BETA	0.150 L	1.78	0.762	2.39	-1.6133333	pCi/L	NO
247829002	CAPA-10-13498	ALPHA	0.150 L	1.43	0.719	1.93	.449333333	pCi/L	YES
		BETA	0.150 L	3.47	0.879	2.44	-1.6133333	pCi/L	NO
248020001	CAPA-10-12771	ALPHA	0.150 L	1.79	0.818	2.13	.449333333	pCi/L	YES
		BETA	0.150 L	4.55	0.984	2.60	-1.6133333	pCi/L	NO
248020002	CAPA-10-13083	ALPHA	0.150 L	1.33	0.754	2.23	.449333333	pCi/L	YES
		BETA	0.150 L	2.15	0.859	2.66	-1.6133333	pCi/L	NO
248020003	CAPA-10-13085	ALPHA	0.150 L	0.261	0.393	1.68	.449333333	pCi/L	YES
		BETA	0.150 L	-0.762	0.739	2.70	-1.6133333	pCi/L	NO
248023002	CAPA-10-12917	ALPHA	0.150 L	0.350	0.524	2.12	.449333333	pCi/L	YES
		BETA	0.150 L	-0.00872	0.789	2.78	-1.6133333	pCi/L	NO
248024001	CAPA-10-12871	ALPHA	0.150 L	1.59	0.839	2.35	.449333333	pCi/L	YES
		BETA	0.150 L	6.13	1.13	2.81	-1.6133333	pCi/L	NO
248024003	CAPA-10-12873	ALPHA	0.150 L	2.46	0.994	2.21	.449333333	pCi/L	NO
		BETA	0.150 L	4.24	1.04	2.94	-1.6133333	pCi/L	NO

Gross Alpha Beta Que Sheet

03/02/2010 08:37:48

Batch #:959739 Analyst:DXF3 First Client DueDate 03/25/2010 Internal Due Date 03/14/2010

Alpha Spike Isotope: Th-230 Spike Code: 1242-B Vol: 0.1 Balance #: 167 SD207
Beta Spike Isotope: Sr-90 Spike Code: 1067-C Vol: 0.1 Pipette #: 4497063
Alpha LCS Isotope: Th-230 LCS Code: 1242-B Vol: 0.1 Prep Date: 3/4/10
Beta LCS Isotope: Sr-90 LCS Code: 1067-C Vol: 0.1 Initials: DHF

Analytical Scale # C3154
Witness: SEH 3-4-10 Reopy

10% HNO3: 1269401
Conc HNO3: 1274802.8
Conc HCl: —
Conc HF: —
Conc Boric: —

Sample ID	Client Description	Type	Hazard Code	RDL Alpha/Beta	Client	Matrix	Bkr#	Wet/Dry Aliquot (mL or g)	Carrier or Det#	Initial Wt (g)	Final Wt (g)	Net Wt (mg)
247817002-1	CAPA-10-13095	SAMPLE		3 pCi/L	LANL010	GROUND WATER	1	1SD	8B	7.5896	7.6049	15.3
247829002-1	CAPA-10-13498	SAMPLE		3 pCi/L	LANL010	GROUND WATER	2	1SD	11C	7.5648	7.5842	19.4
248020001-1	CAPA-10-12771	SAMPLE		3 pCi/L	LANL010	GROUND WATER	3	1SD	1A	7.5499	7.5676	17.7
248020002-1	CAPA-10-13083	SAMPLE		3 pCi/L	LANL010	GROUND WATER	4	1SD	12B	7.5866	7.6060	19.4
• 248020003-1	CAPA-10-13085	SAMPLE		3 pCi/L	LANL010	GROUND WATER	5	1SD	9C	7.5681	7.5688	0.7 *
248023002-1	CAPA-10-12917	SAMPLE		3 pCi/L	LANL010	GROUND WATER	6	1SD	4C	7.6149	7.6306	15.7
248024001-1	CAPA-10-12871	SAMPLE		3 pCi/L	LANL010	GROUND WATER	7	1SD	10A	7.5615	7.6033	41.8
248024003-1	CAPA-10-12873	SAMPLE		3 pCi/L	LANL010	GROUND WATER	8	1SD	5B	7.5829	7.6262	43.3
1202058390-1	MB	MB		3 pCi/L	QC ACCOUNT	GROUND WATER	9	1SD ~~1SD~~	10B	7.5777	7.5779	0.2
1202058391-1	DUP CAPA-10-13085(248020003)	DUP		3 pCi/L	QC ACCOUNT	GROUND WATER	10	1SD	~~11A~~ F1	7.5920	7.5925	0.5
1202058392-1	MS CAPA-10-13085(248020003)	MS		3 pCi/L	QC ACCOUNT	GROUND WATER	11	5D	4B	7.5588	7.5596	0.8
1202058393-1	MSD CAPA-10-13085(248020003)	MSD		3 pCi/L	QC ACCOUNT	GROUND WATER	12	5D	8C	7.5346	7.5357	1.1
1202058394-1	LCS	LCS		3 pCi/L	QC ACCOUNT	GROUND WATER	13	1SD ~~1SD~~	8D	7.5808	7.5822	1.4

* → 26 3.6.10

Have the planchets been flamed? Yes / No

Data Reviewed By: Ryan Brandly

Gross Alpha Liquid

Filename : ALPHA.XLS
File type : Excel
Version # : 1.3

Batch : 959739
Analyst : DXF3
Prep Date : 3/4/2010

Method Uncertainty : 0.0829
Geometry: 2 inch Planchett

Spike S/N : 1242-B
Spike Exp Date : 12/2/2010
Spike Activity (dpm/ml): 279.79
Spike Volume Added: 0.10

LCS S/N : 1242-B
LCS Exp Date : 12/2/2010
LCS Activity (dpm/ml): 279.79
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Procedure Code : GFCGANBL
Parmname : Alpha
Required MDC : 3 pCi/L

Sample Characteristics						Count Raw Data				
Pos.	Sample ID	Sample Aliquot L	Sample Residue Wt. (mg)	Sample Aliquot StDev. L	Sample Date/Time	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Count Start Date/Time
1	247817002.2	0.1500	15.3	1.4035E-05	2/21/2010 12:00	8B	60	2	29	3/6/2010 4:00
2	247829002.2	0.1500	19.4	1.4035E-05	2/22/2010 12:00	11C	60	7	40	3/6/2010 3:55
3	248020001.2	0.1500	17.7	1.4035E-05	2/22/2010 12:00	1A	60	9	40	3/6/2010 4:22
4	248020002.2	0.1500	19.4	1.4035E-05	2/23/2010 12:00	12B	60	7	40	3/6/2010 3:55
5	248020003.2	0.1500	0.7	1.4035E-05	2/23/2010 12:00	9C	60	3	41	3/6/2010 4:23
6	248023002.2	0.1500	15.7	1.4035E-05	2/23/2010 12:00	4C	60	4	34	3/6/2010 4:23
7	248024001.2	0.1500	41.8	1.4035E-05	2/23/2010 12:00	10A	60	7	41	3/6/2010 4:23
8	248024003.2	0.1500	43.3	1.4035E-05	2/23/2010 12:00	5B	60	10	61	3/6/2010 4:23
9	1202058390.2	1.0000	0.2	2.0399E-05	3/4/2010 0:00	10B	60	5	21	3/6/2010 4:00
10	1202058391.2	0.1500	0.5	1.4035E-05	2/23/2010 12:00	F1	60	4	92	3/6/2010 15:27
11	1202058392.2	0.0500	0.8	7.8337E-06	2/23/2010 12:00	4B	60	417	2648	3/6/2010 4:00
12	1202058393.2	0.0500	1.1	7.8337E-06	2/23/2010 12:00	8C	60	502	2752	3/6/2010 4:00
13	1202058394.2	1.0000	1.4	2.0399E-05	3/4/2010 0:00	8D	60	406	2728	3/6/2010 4:00

Calibration Data

Pos.	Counted on	Calibration Date	Calibration Due Date	Calibration Source Used	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Beta X-Talk	Weekly Bkg CPM	Weekly Bkg Count Time (min.)
1	PIC	7/31/2009	7/31/2010	Th230	0.2043	0.06392	0.00081	0.028	500
2	PIC	7/31/2009	7/31/2010	Th230	0.1908	0.06392	0.00011	0.026	500
3	PIC	7/31/2009	7/31/2010	Th230	0.1906	0.04886	0.00080	0.036	500
4	PIC	7/31/2009	7/31/2010	Th230	0.1819	0.06392	0.00006	0.036	500
5	PIC	7/31/2009	7/31/2010	Th230	0.2287	0.06392	0.00012	0.030	500
6	PIC	7/31/2009	7/31/2010	Th230	0.1984	0.04190	0.00623	0.040	500
7	PIC	7/31/2009	7/31/2010	Th230	0.1634	0.06392	0.00038	0.030	500
8	PIC	7/31/2009	7/31/2010	Th230	0.1668	0.06392	0.00406	0.026	500
9	PIC	7/31/2009	7/31/2010	Th230	0.2351	0.06392	0.00042	0.048	500
10	LB4100	7/31/2009	7/31/2010	Th230	0.2279	0.03764	0.00004	0.096	500
11	PIC	7/31/2009	7/31/2010	Th230	0.2026	0.01889	0.00007	0.116	500
12	PIC	7/31/2009	7/31/2010	Th230	0.2385	0.06392	0.00187	0.082	500
13	PIC	7/31/2009	7/31/2010	Th230	0.2406	0.06392	0.00264	0.120	500

Notes:
* - Reference date for Spike Activity (dpm/ml) is the batch Prep Date

* - RPD changed to 0% due to activity below MDC for 1202058391.2

Alpha Results Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	0.7830	0.5528	3	1.8407	**0.0727**	4.6372	0.0053	0.0247	0.3635	0.3644		SAMPLE				
2	0.8081	0.5705	3	1.9281	**1.4261**	0.4969	0.0907	0.0447	0.7034	0.7191		SAMPLE				
3	0.9517	0.6719	3	2.1317	**1.7878**	0.4475	0.1140	0.0507	0.7991	0.8176		SAMPLE				
4	0.9970	0.7039	3	2.2331	**1.3309**	0.5603	0.0807	0.0449	0.7412	0.7542		SAMPLE				
5	0.7239	0.5111	3	1.6785	**0.2615**	1.4958	0.0200	0.0299	0.3924	0.3934		SAMPLE				
6	0.9635	0.6803	3	2.1172	**0.3502**	1.2949	0.0267	0.0345	0.5223	0.5236		SAMPLE				
7	1.0131	0.7152	3	2.3491	**1.5876**	0.5205	0.0867	0.0448	0.8226	0.8393		SAMPLE				
8	0.9241	0.6525	3	2.2051	**2.4582**	0.3835	0.1407	0.0532	0.9577	0.9937		SAMPLE				
9	0.1336	0.0943	3	0.2844	**0.0674**	1.0925	0.0353	0.0385	0.0738	0.0742		MB				
10	1.2999	0.9177	3	2.4944	**-0.3874**	1.2312	-0.0293	0.0361	0.4757	0.4762	248020003.2	DUP	0.0%	0.3731		
11	4.8220	3.4044	3	9.0326	**303.8051**	0.0533	6.8340	0.3407	15.1518	29.9572	248020003.2	MS			252.0645	120.5%
12	3.4435	2.4311	3	6.7509	**309.7145**	0.0762	8.2847	0.3736	14.1141	35.6718	248020003.2	MSD	1.9%	0.0450	252.0645	122.9%
13	0.2065	0.1458	3	0.3852	**12.2202**	0.0815	6.6467	0.3362	0.6295	1.4469		LCS			12.6032	97.0%

959739r1

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
247817002	8B	60	2	29	3/6/2010 4:00	3/6/2010 5:00	PIC
247829002	11C	60	7	40	3/6/2010 3:55	3/6/2010 4:55	PIC
248020001	1A	60	9	40	3/6/2010 4:22	3/6/2010 5:22	PIC
248020002	12B	60	7	40	3/6/2010 3:55	3/6/2010 4:55	PIC
248020003	9C	60	3	41	3/6/2010 4:23	3/6/2010 5:23	PIC
248023002	4C	60	4	34	3/6/2010 4:23	3/6/2010 5:23	PIC
248024001	10A	60	7	41	3/6/2010 4:23	3/6/2010 5:23	PIC
248024003	5B	60	10	61	3/6/2010 4:23	3/6/2010 5:23	PIC
1202058390	10B	60	5	21	3/6/2010 4:00	3/6/2010 5:00	PIC
1202058391	F1	60	4	92	3/6/2010 15:27	3/6/2010 16:27	LB4100
1202058392	4B	60	417	2648	3/6/2010 4:00	3/6/2010 5:00	PIC
1202058393	8C	60	502	2752	3/6/2010 4:00	3/6/2010 5:00	PIC
1202058394	8D	60	406	2728	3/6/2010 4:00	3/6/2010 5:00	PIC

Gross Alpha Beta Que Sheet

03/02/2010 08:37:48

Batch #:959739 Analyst:DXF3 First Client DueDate 03/25/2010 Internal Due Date 03/14/2010

Alpha Spike Isotope: Th-230 Spike Code: 1242-B Vol: 0.1 Balance #: 16750207
Beta Spike Isotope: Sr-90 Spike Code: 1067-C Vol: 0.1 Pipette #: 4497063
Alpha LCS Isotope: Th-230 LCS Code: 1242-B Vol: 0.1 Prep Date: 3/4/10
Beta LCS Isotope: Sr-90 LCS Code: 1067-C Vol: 0.1 Initials: DHF

Analytical Scale # C31574
Witness: JEH 3-4-10

10% HNO3: 1269401
Conc HNO3: 1274802.8
Conc HCl: —
Conc HF: —
Conc Boric: —

Sample ID	Client Description	Type	Hazard Code	RDL Alpha/Beta	Client	Matrix	Bkr#	Wet/Dry Aliquot (mL or g)	Carrier or Det#	Initial Wt (g)	Final Wt (g)	Net Wt (mg)
247817002-1	CAPA-10-13095	SAMPLE		3 pCi/L	LANL010	GROUND WATER	1	150	F2	7.5896	7.6172	27.6
247829002-1	CAPA-10-13498	SAMPLE		3 pCi/L	LANL010	GROUND WATER	2	150	F3	7.5648	7.5975	32.7
248020001-1	CAPA-10-12771	SAMPLE		3 pCi/L	LANL010	GROUND WATER	3	150	G2	7.5499	7.5811	31.2
248020002-1	CAPA-10-13083	SAMPLE		3 pCi/L	LANL010	GROUND WATER	4	150	H1	7.5866	7.6231	36.5
• 248020003-1	CAPA-10-13085	SAMPLE		3 pCi/L	LANL010	GROUND WATER	5	150	H4	7.5681	7.5681	0
248023002-1	CAPA-10-12917	SAMPLE		3 pCi/L	LANL010	GROUND WATER	6	150	H2	7.6149	7.6412	26.3
248024001-1	CAPA-10-12871	SAMPLE		3 pCi/L	LANL010	GROUND WATER	7	150	H3	7.5615	7.6431	81.6
248024003-1	CAPA-10-12873	SAMPLE		3 pCi/L	LANL010	GROUND WATER	8	150	F4	7.5829	7.6639	81.0
1202058390-1	MB	MB		3 pCi/L	QC ACCOUNT	GROUND WATER	9	1000 ~~150~~ *	G1	7.5777	7.5774	0
1202058391-1	DUP CAPA-10-13085(248020003)	DUP		3 pCi/L	QC ACCOUNT	GROUND WATER	10	150	F1	7.5920	7.5920	0
1202058392-1	MS CAPA-10-13085(248020003)	MS		3 pCi/L	QC ACCOUNT	GROUND WATER	11	50	B1	7.5588	7.5587	0
1202058393-1	MSD CAPA-10-13085(248020003)	MSD		3 pCi/L	QC ACCOUNT	GROUND WATER	12	50	B2	7.5346	7.5345	0
1202058394-1	LCS	LCS		3 pCi/L	QC ACCOUNT	GROUND WATER	13	1000 ~~150~~ *	B4	7.5808	7.5807	0

* vc 03/05/10

weighs

Have the planchets been flamed? Yes / No

Data Reviewed By: Ryan Brantley

Gross Beta Liquid

Filename : BETA.XLS
File type : Excel
Version # : 1.3

Batch : 959739
Analyst : DXF3
Prep Date : 3/4/2010

Method Uncertainty : 0.0821
Geometry: 2 inch Planchett

Spike S/N : 1067-C
Spike Exp Date : 6/17/2010
Spike Activity (dpm/ml): 426.80
Spike Volume Added: 0.10

LCS S/N : 1067-C
LCS Exp Date : 6/17/2010
LCS Activity (dpm/ml): 426.80
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Procedure Code : GFCGANBL
Parmname : Beta
Required MDC : 3 pCi/L

Sample Characteristics						Count Raw Data				
Pos.	Sample ID	Sample Aliquot L	Sample Residue Wt. (mg)	Sample Aliquot StDev. L	Sample Date/Time	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Count Start Date/Time
1	247817002.1	0.1500	27.6	1.4035E-05	2/21/2010 12:00	F2	110	3	133	3/5/2010 9:17
2	247829002.1	0.1500	32.7	1.4035E-05	2/22/2010 12:00	F3	110	16	165	3/5/2010 9:17
3	248020001.1	0.1500	31.2	1.4035E-05	2/22/2010 12:00	G2	110	14	181	3/5/2010 9:44
4	248020002.1	0.1500	36.5	1.4035E-05	2/23/2010 12:00	H1	110	8	150	3/5/2010 9:20
5	248020003.1	0.1500	0	1.4035E-05	2/23/2010 12:00	H4	110	7	129	3/5/2010 9:20
6	248023002.1	0.1500	26.3	1.4035E-05	2/23/2010 12:00	H2	110	7	136	3/5/2010 9:20
7	248024001.1	0.1500	81.6	1.4035E-05	2/23/2010 12:00	H3	110	15	245	3/5/2010 9:20
8	248024003.1	0.1500	81	1.4035E-05	2/23/2010 12:00	F4	110	10	242	3/5/2010 9:17
9	1202058390.1	1.0000	0	2.0399E-05	3/4/2010 0:00	G1	110	2	111	3/5/2010 9:44
10	1202058391.1	0.1500	0	1.4035E-05	2/23/2010 12:00	F1	110	5	181	3/5/2010 9:17
11	1202058392.1	0.0500	0	7.8337E-06	2/23/2010 12:00	B1	60	428	2611	3/5/2010 9:22
12	1202058393.1	0.0500	0	7.8337E-06	2/23/2010 12:00	B2	60	474	2721	3/5/2010 9:22
13	1202058394.1	1.0000	0	2.0399E-05	3/4/2010 0:00	B4	60	340	2427	3/5/2010 9:22

Calibration Data

Pos.	Counted on	Calibration Date	Calibration Due Date	Calibration Source Used	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Alpha X-Talk	Weekly Bkg CPM	Weekly Bkg Count Time (min.)
1	LB4100	7/31/2009	7/31/2010	Sr90	0.4557	0.01570	0.02983	0.938	500
2	LB4100	7/31/2009	7/31/2010	Sr90	0.4531	0.02185	0.03031	0.972	500
3	LB4100	7/31/2009	7/31/2010	Sr90	0.4303	0.01093	0.03146	0.990	500
4	LB4100	7/31/2009	7/31/2010	Sr90	0.4312	0.02167	0.03067	1.052	500
5	LB4100	7/31/2009	7/31/2010	Sr90	0.4674	0.01752	0.02043	1.290	500
6	LB4100	7/31/2009	7/31/2010	Sr90	0.4459	0.01656	0.02606	1.236	500
7	LB4100	7/31/2009	7/31/2010	Sr90	0.4509	0.01564	0.03419	1.302	500
8	LB4100	7/31/2009	7/31/2010	Sr90	0.4669	0.02017	0.03562	1.538	500
9	LB4100	7/31/2009	7/31/2010	Sr90	0.4164	0.01162	0.02106	1.232	500
10	LB4100	7/31/2009	7/31/2010	Sr90	0.4904	0.01646	0.01479	1.760	500
11	LB4100	7/31/2009	7/31/2010	Sr90	0.4810	0.01808	0.01330	1.202	500
12	LB4100	7/31/2009	7/31/2010	Sr90	0.4811	0.01942	0.01722	1.194	500
13	LB4100	7/31/2009	7/31/2010	Sr90	0.4145	0.02075	0.02403	1.210	500

Notes:
* - Reference date for Spike Activity (dpm/ml) is the batch Prep Date

* - RPD changed to 0% due to activity below MDC for 1202058391.1

Beta Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	1.5662	1.1057	3	2.3912	**1.7812**	0.4187	0.2711	0.1134	0.7476	0.7623		SAMPLE				
2	1.6033	1.1319	3	2.4446	**3.4700**	0.2374	0.5280	0.1248	0.8272	0.8790		SAMPLE				
3	1.7038	1.2029	3	2.5960	**4.5460**	0.1989	0.6555	0.1301	0.9082	0.9841		SAMPLE				
4	1.7526	1.2373	3	2.6646	**2.1546**	0.3870	0.3116	0.1204	0.8386	0.8586		SAMPLE				
5	1.7906	1.2641	3	2.7035	**-0.7618**	0.9814	-0.1173	0.1151	0.7393	0.7393		SAMPLE				
6	1.8373	1.2972	3	2.7781	**-8.719E-03**	322.0163	0.0004	0.1171	0.7887	0.7887		SAMPLE				
7	1.8648	1.3165	3	2.8147	**6.1314**	0.1641	0.9253	0.1512	1.0068	1.1309		SAMPLE				
8	1.9573	1.3819	3	2.9392	**4.2371**	0.2304	0.6620	0.1519	0.9771	1.0413		SAMPLE				
9	0.2947	0.2080	3	0.4456	**-0.2416**	0.4841	-0.2229	0.1079	0.1167	0.1167		MB				
10	1.9933	1.4073	3	2.9815	**-0.7055**	1.1869	-0.1145	0.1359	0.8324	0.8324	248020003.1	DUP	0.0%	0.0179		
11	6.5376	4.6156	3	10.1677	**790.8443**	0.0271	42.3147	0.8530	15.9788	68.5224	248020003.1	MS			769.0016	102.8%
12	6.5138	4.5988	3	10.1339	**824.3145**	0.0277	44.1560	0.8708	16.3058	71.6395	248020003.1	MSD	4.1%	0.1194	769.0016	107.2%
13	0.3806	0.2687	3	0.5917	**42.4972**	0.0295	39.2400	0.8225	0.8939	3.7202		LCS			38.4501	110.5%

959739

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
247817002	F2	110	3	133	3/5/2010 9:17	3/5/2010 11:07	LB4100
247829002	F3	110	16	165	3/5/2010 9:17	3/5/2010 11:07	LB4100
248020001	G2	110	14	181	3/5/2010 9:44	3/5/2010 11:34	LB4100
248020002	H1	110	8	150	3/5/2010 9:20	3/5/2010 11:10	LB4100
248020003	H4	110	7	129	3/5/2010 9:20	3/5/2010 11:10	LB4100
248023002	H2	110	7	136	3/5/2010 9:20	3/5/2010 11:10	LB4100
248024001	H3	110	15	245	3/5/2010 9:20	3/5/2010 11:10	LB4100
248024003	F4	110	10	242	3/5/2010 9:17	3/5/2010 11:07	LB4100
1202058390	G1	110	2	111	3/5/2010 9:44	3/5/2010 11:34	LB4100
1202058391	F1	110	5	181	3/5/2010 9:17	3/5/2010 11:07	LB4100
1202058392	B1	60	428	2611	3/5/2010 9:22	3/5/2010 10:22	LB4100
1202058393	B2	60	474	2721	3/5/2010 9:22	3/5/2010 10:22	LB4100
1202058394	B4	60	340	2427	3/5/2010 9:22	3/5/2010 10:22	LB4100

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W001.QAF;7
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.294900 through 0.361886

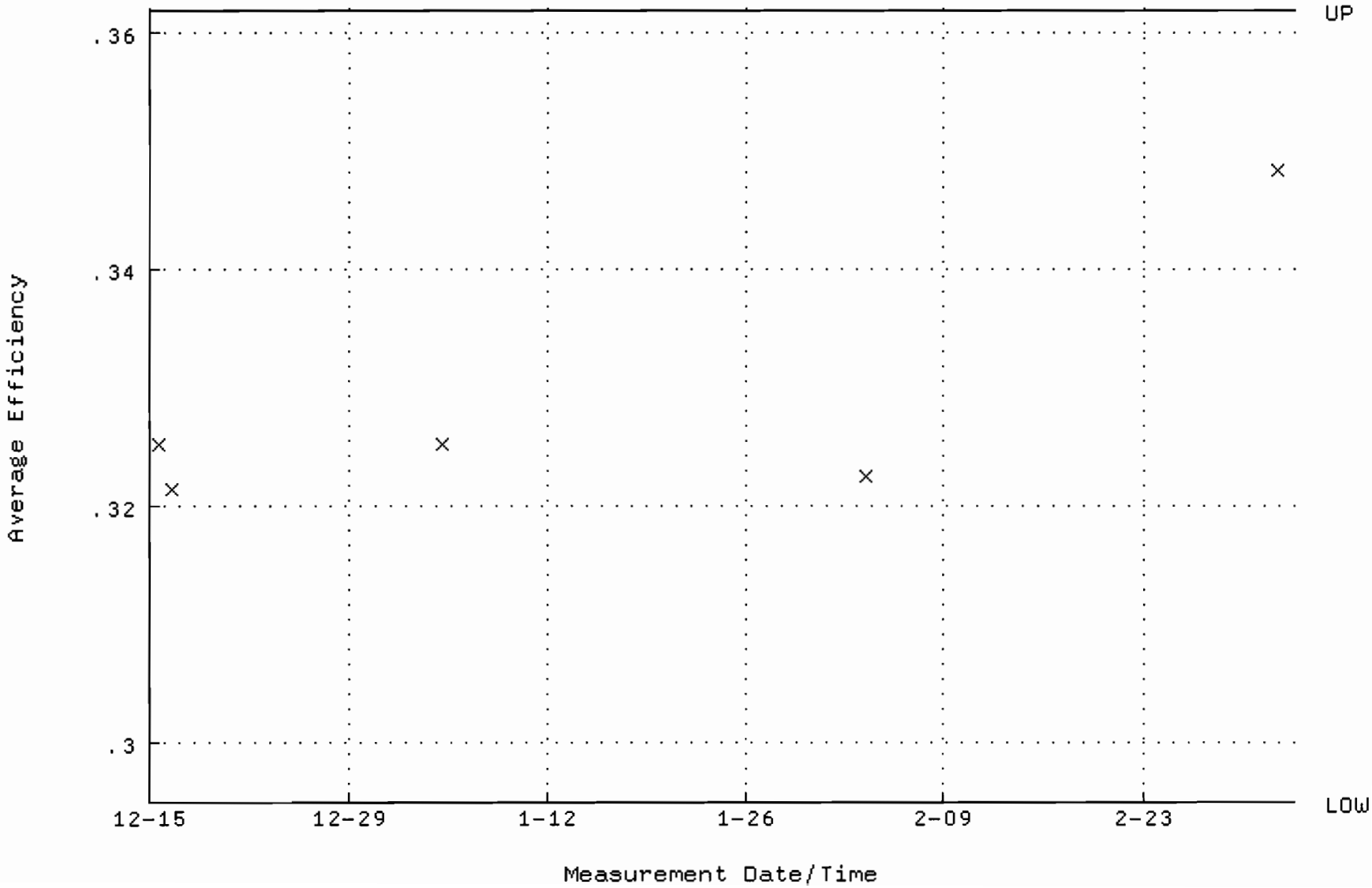

QA filename : DKA100:[ENV_ALPHA.QA.W]W001.QAF;7
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 15-DEC-2009 14:48:34 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 82.3264 through 98.7414

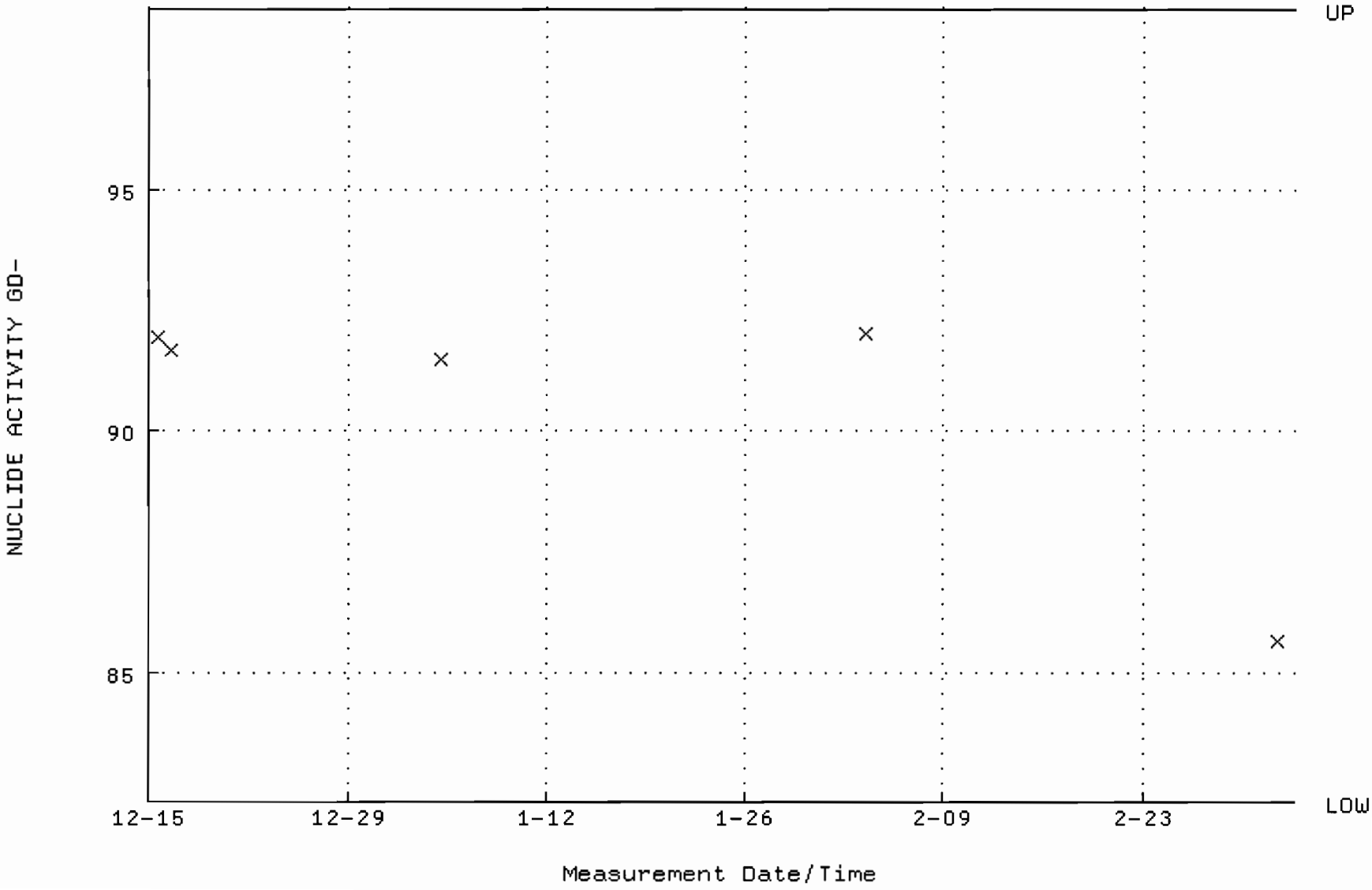

QA filename : DKA100:[ENV_ALPHA.QA.B]B001.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:00 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

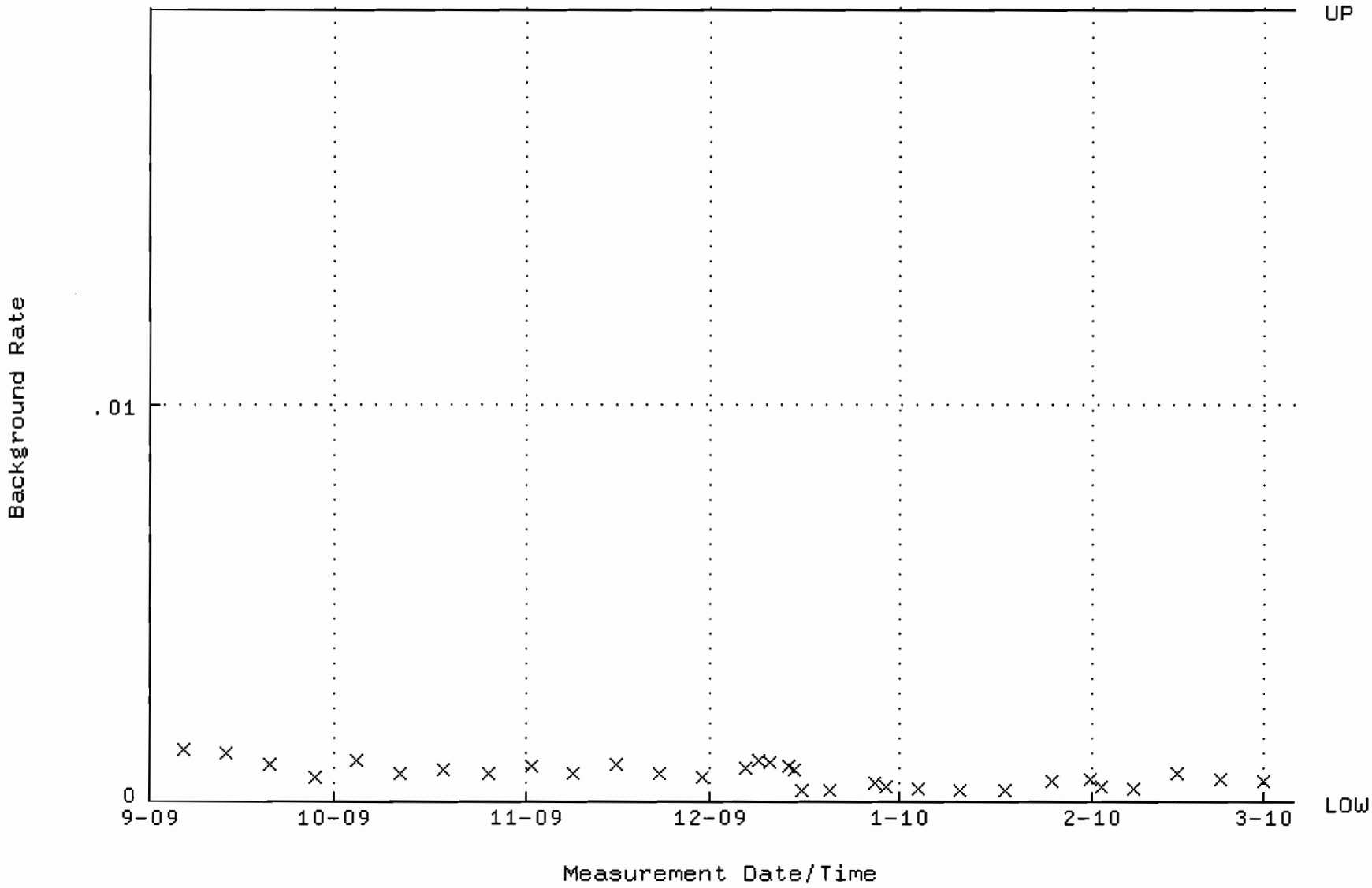

QA filename : DKA100:[ENV_ALPHA.QA.W]W011.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:40 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.279805 through 0.315875

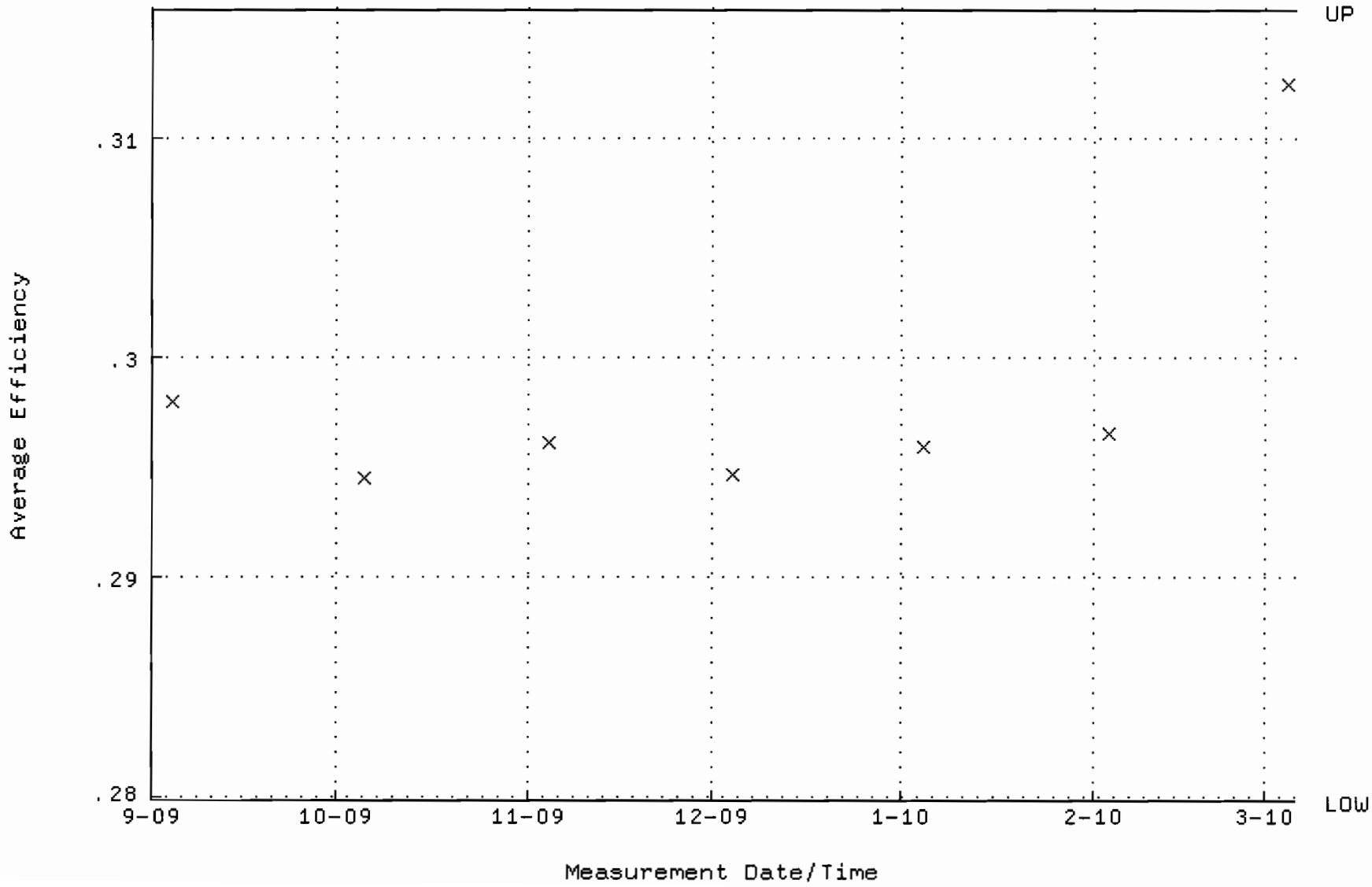

QA filename : DKA100:[ENV_ALPHA.QA.W]W011.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:40 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 88.5390 through 101.289

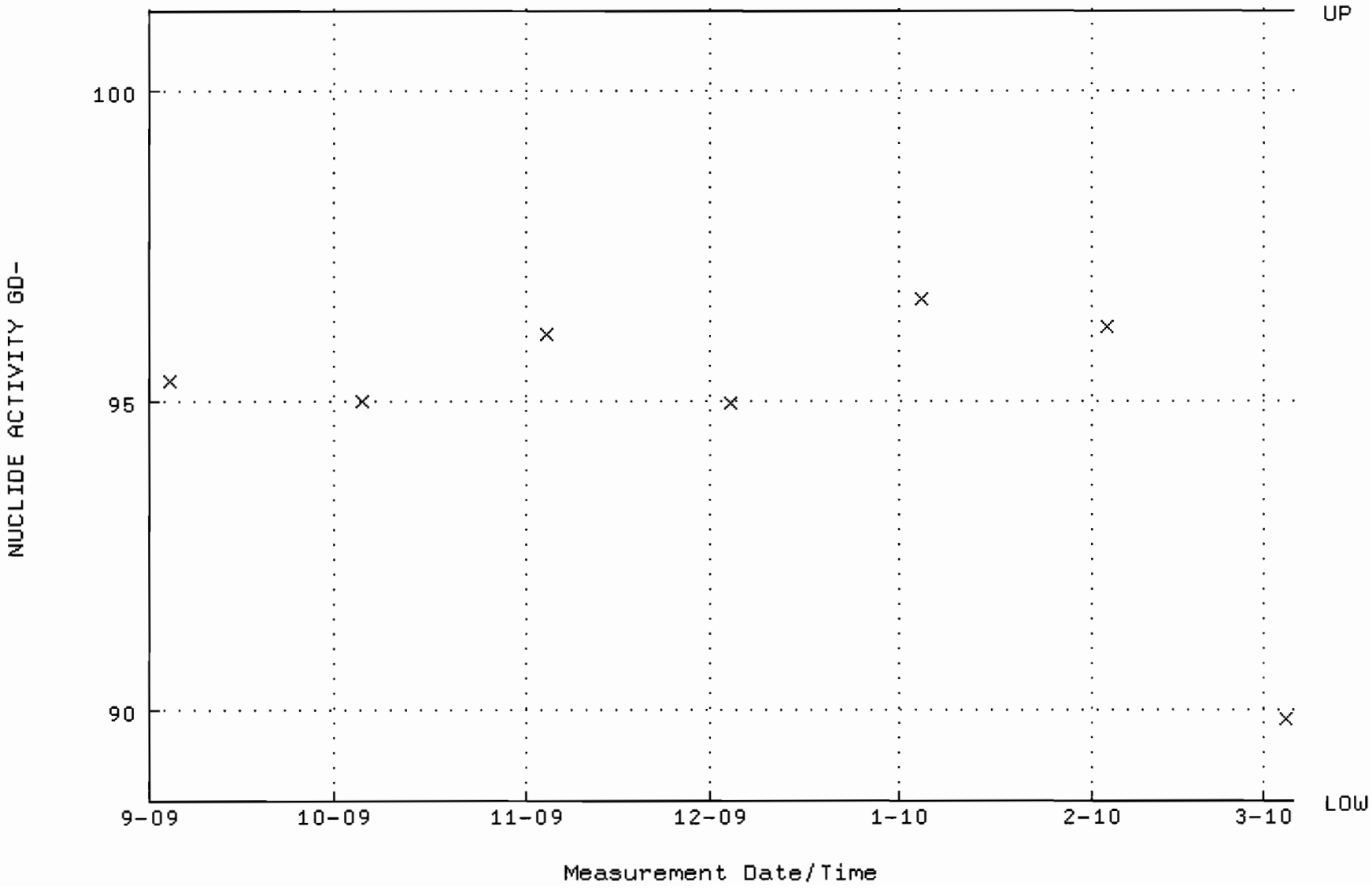

QA filename : DKA100:[ENV_ALPHA.QA.B]B011.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:01 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

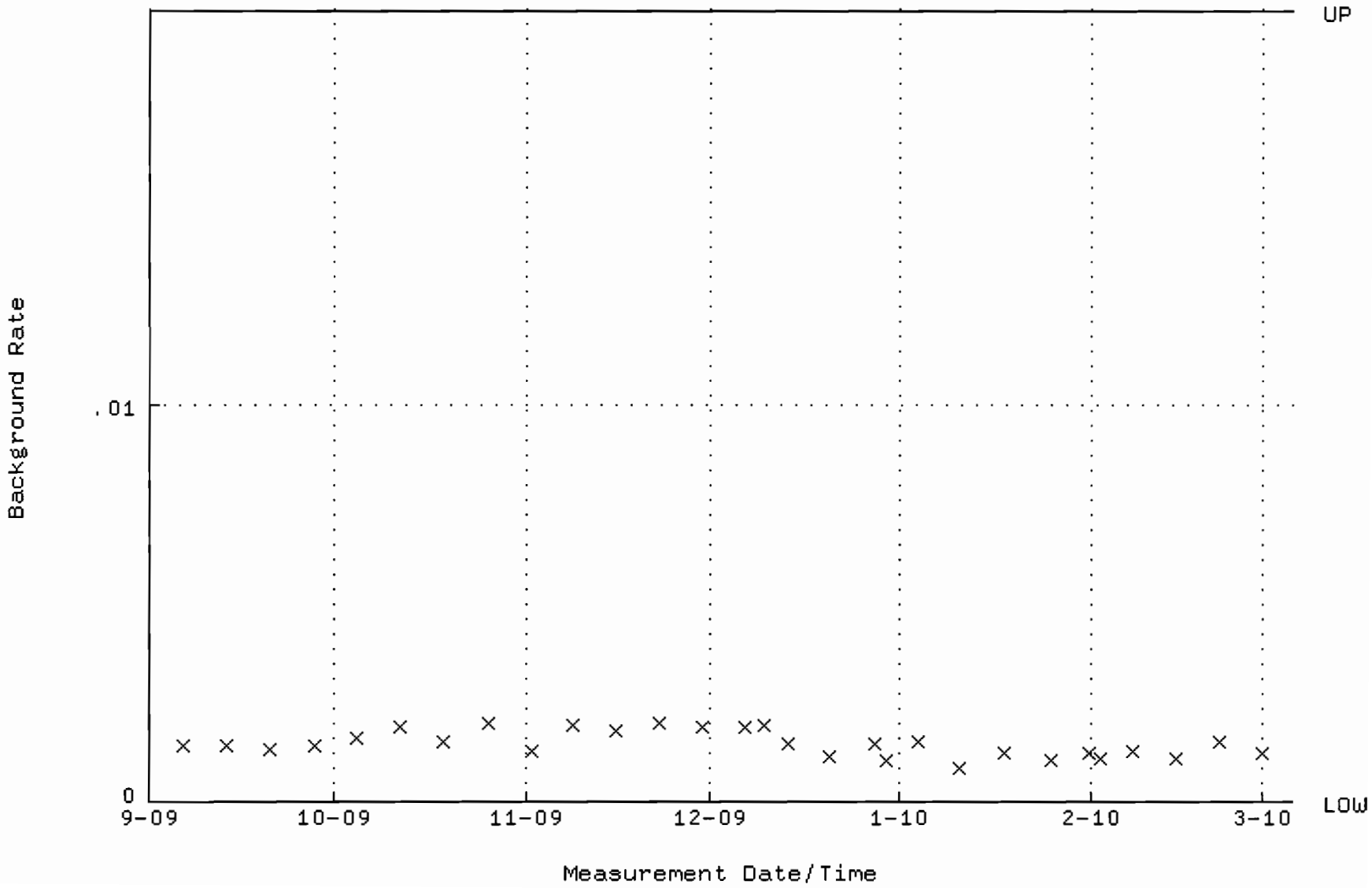

QA filename : DKA100:[ENV_ALPHA.QA.W]W043.QAF;102
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:12 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.316853 through 0.369991

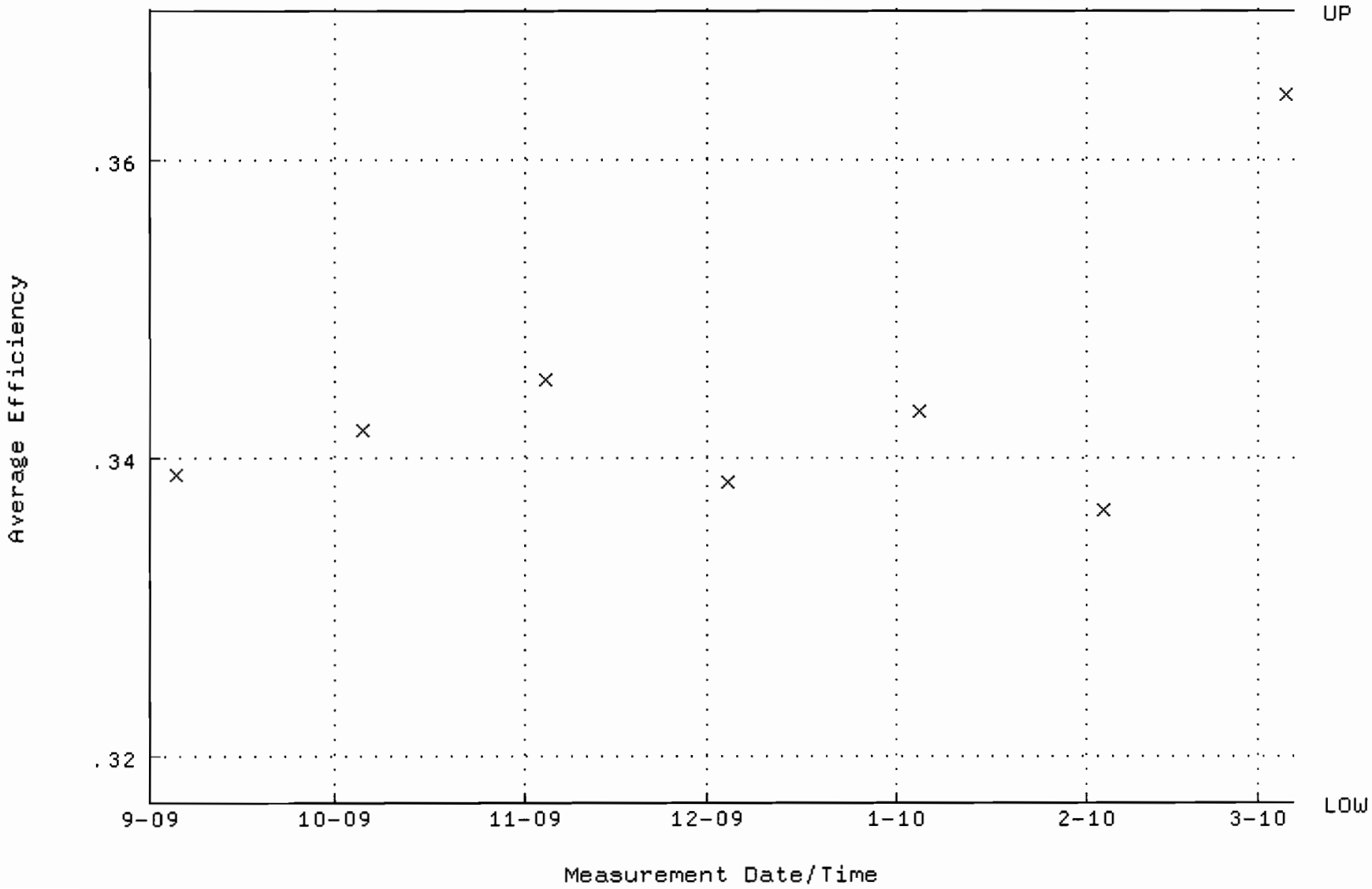

QA filename : DKA100:[ENV_ALPHA.QA.W]W043.QAF;102
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:12 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 79.8821 through 94.8741

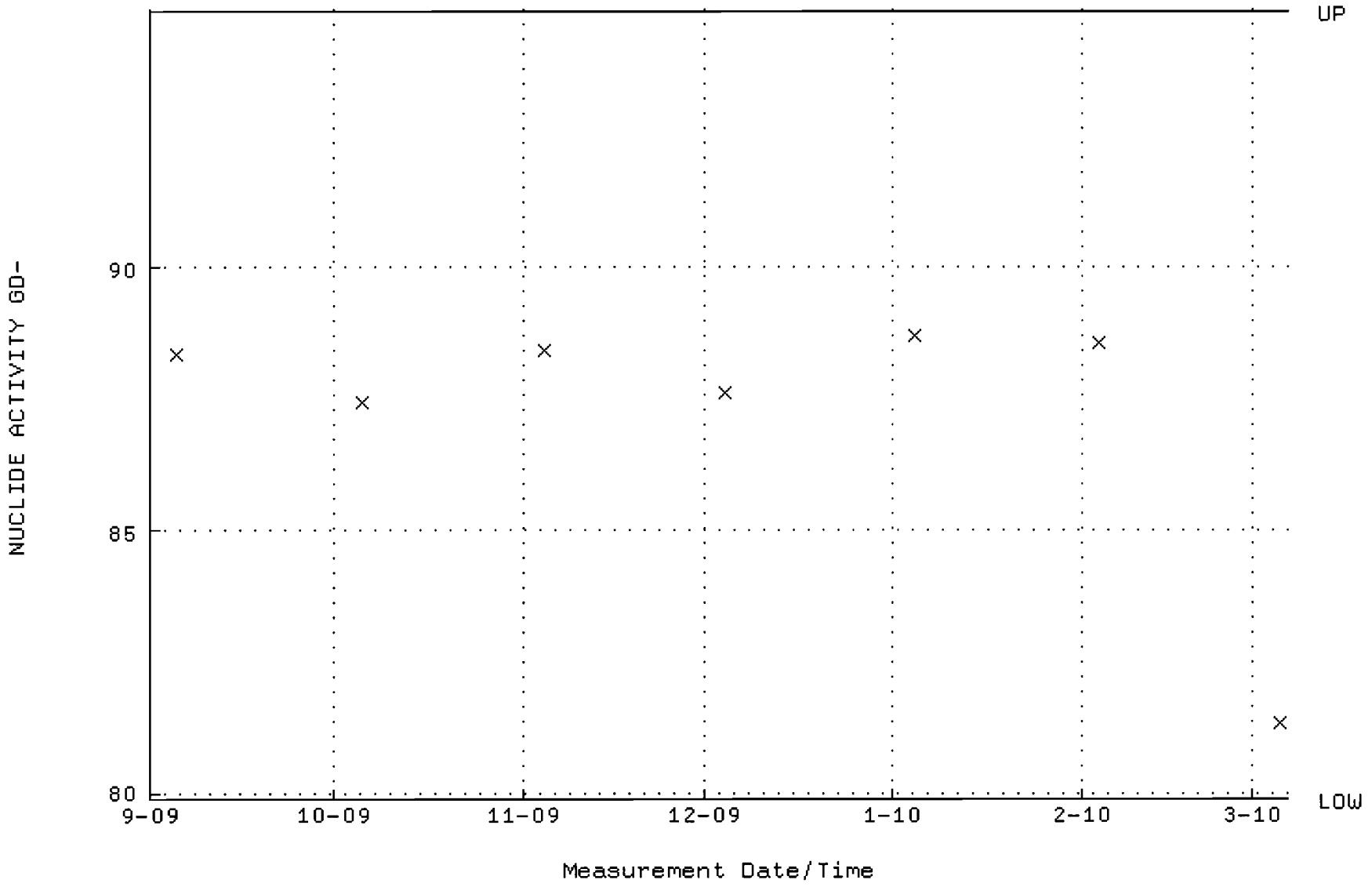

QA filename : DKA100:[ENV_ALPHA.QA.B]B043.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:06 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

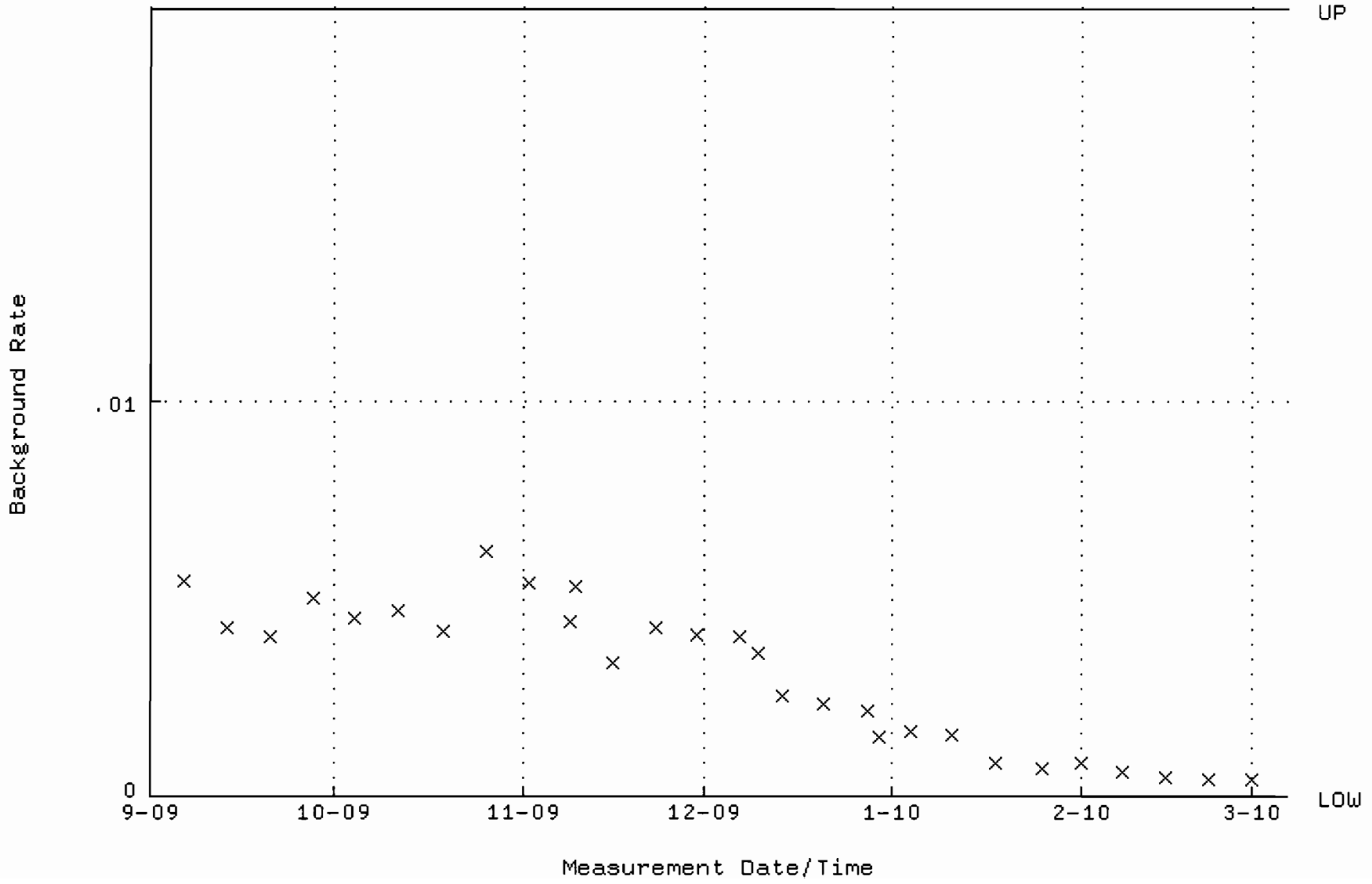

QA filename : DKA100:[ENV_ALPHA.QA.W]W044.QAF;5
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:12 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.335013 through 0.362525

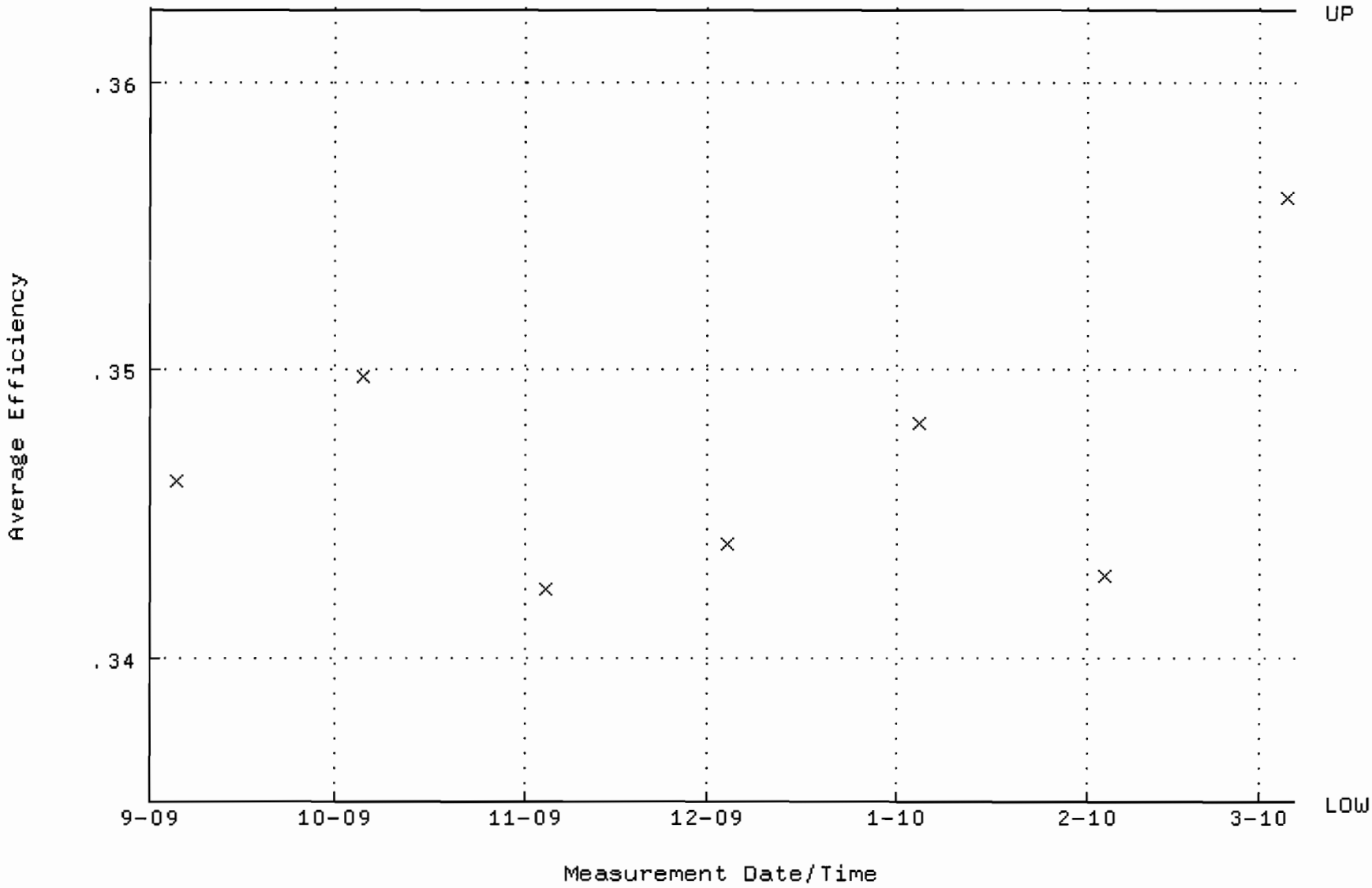

QA filename : DKA100:[ENV_ALPHA.QA.W]W044.QAF;5
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:12 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 83.8858 through 91.0588

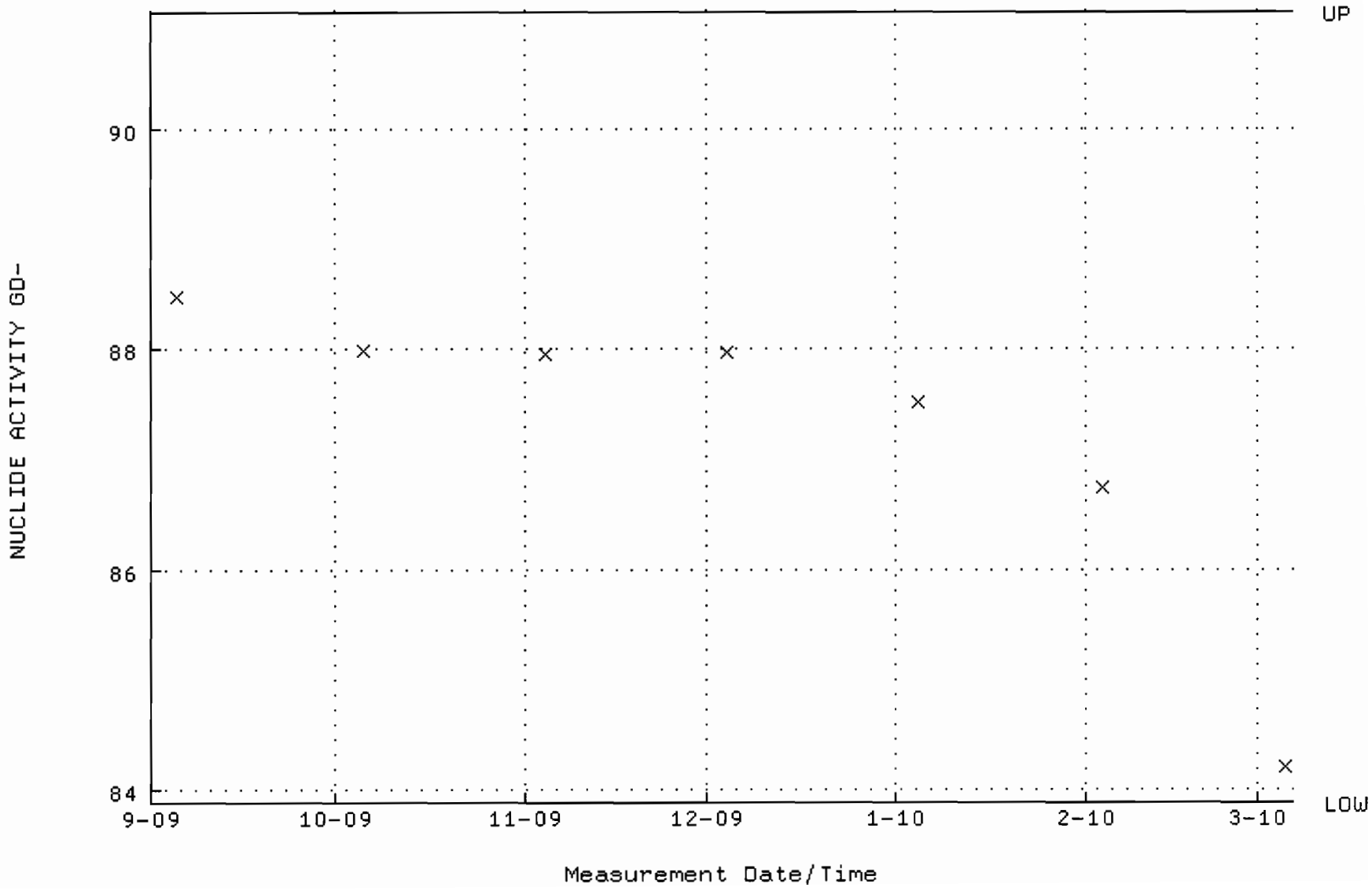

QA filename : DKA100:[ENV_ALPHA.QA.B]B044.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:06 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

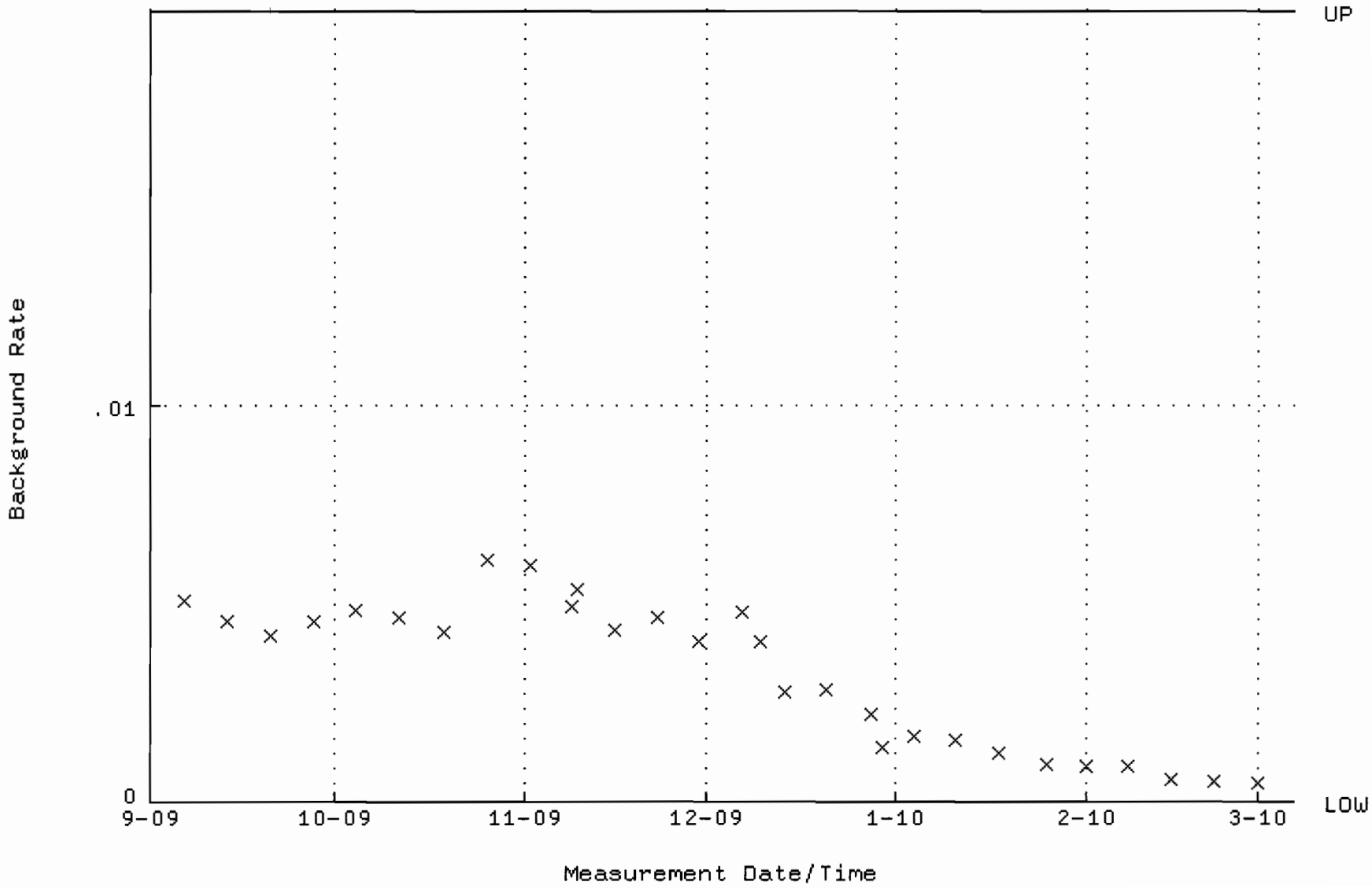

QA filename : DKA100:[ENV_ALPHA.QA.W]W101.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:51 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.317122 through 0.350794

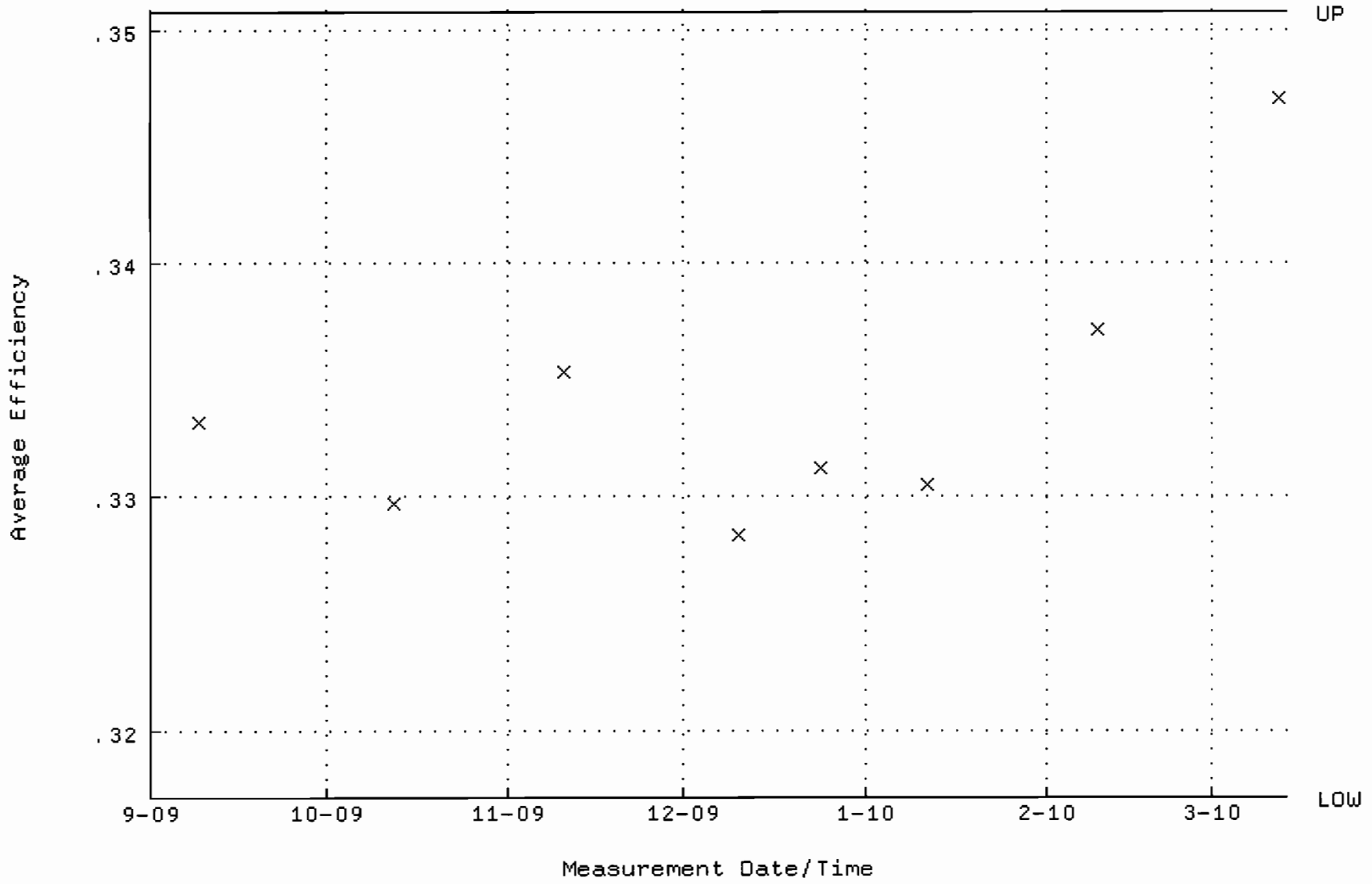

QA filename : DKA100:[ENV_ALPHA.QA.W]W101.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:51 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 66.8994 through 74.4026

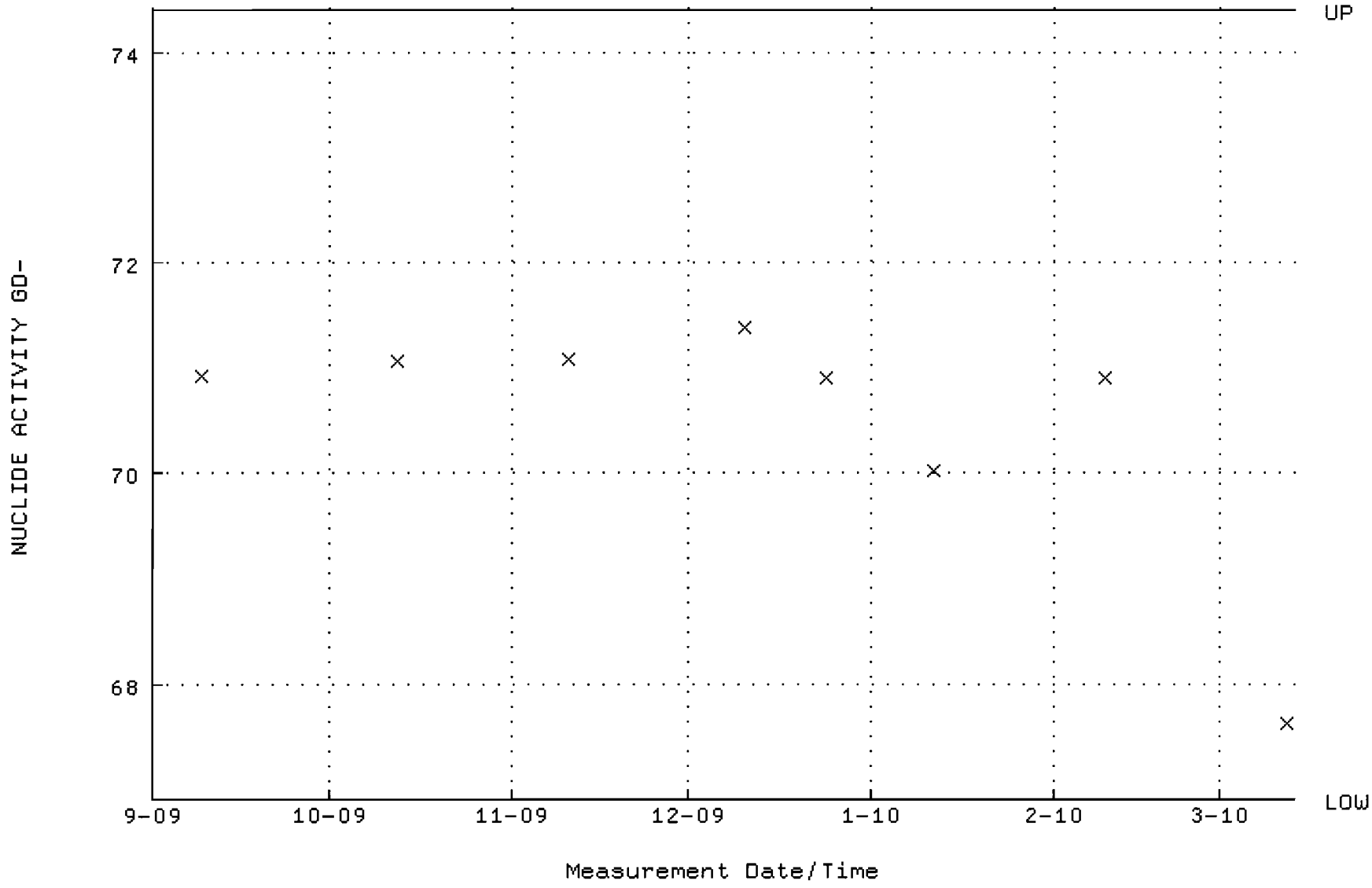

QA filename : DKA100:[ENV_ALPHA.QA.B]B101.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

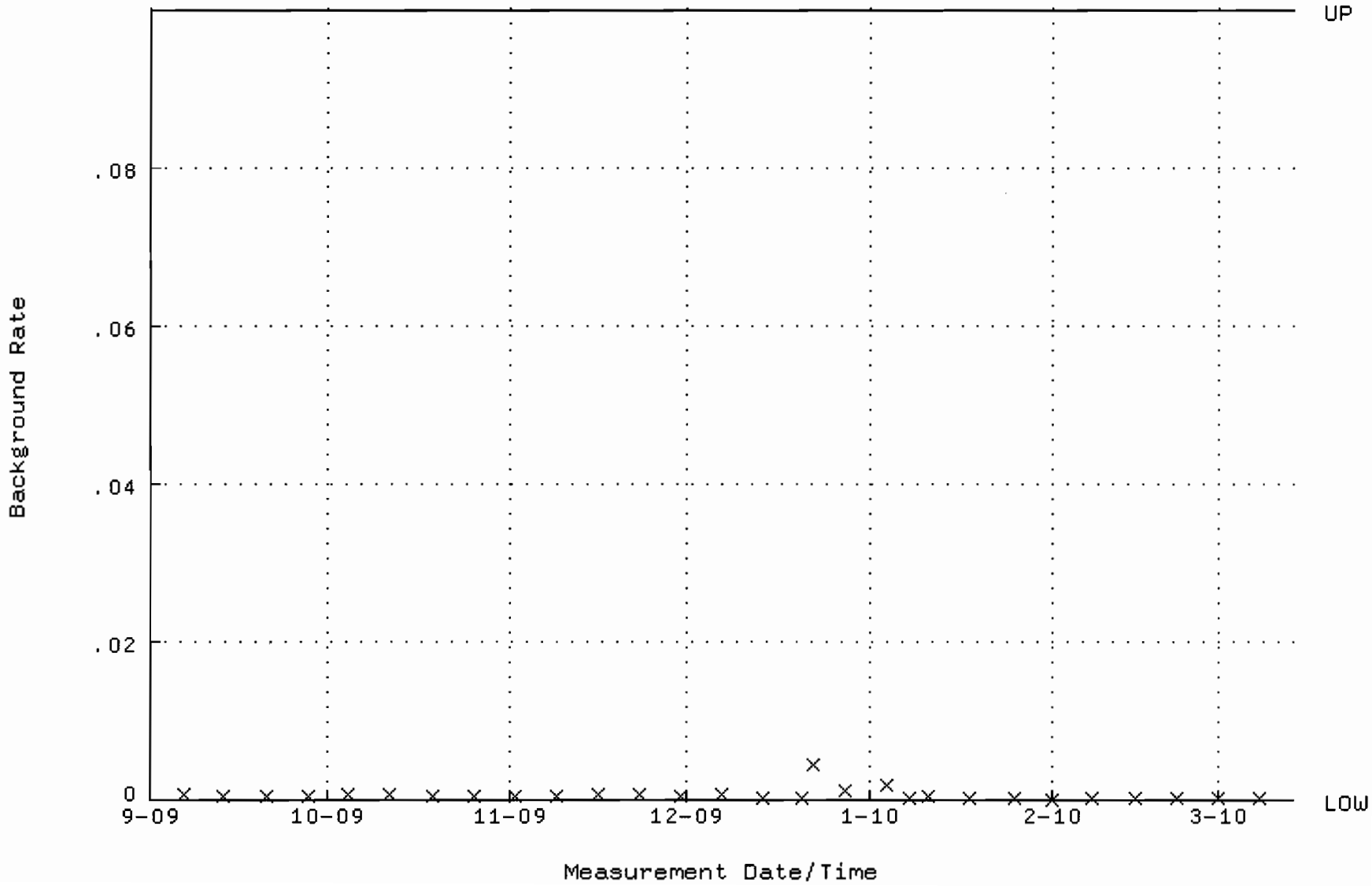

QA filename : DKA100:[ENV_ALPHA.QA.W]W102.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:51 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.315554 through 0.352816

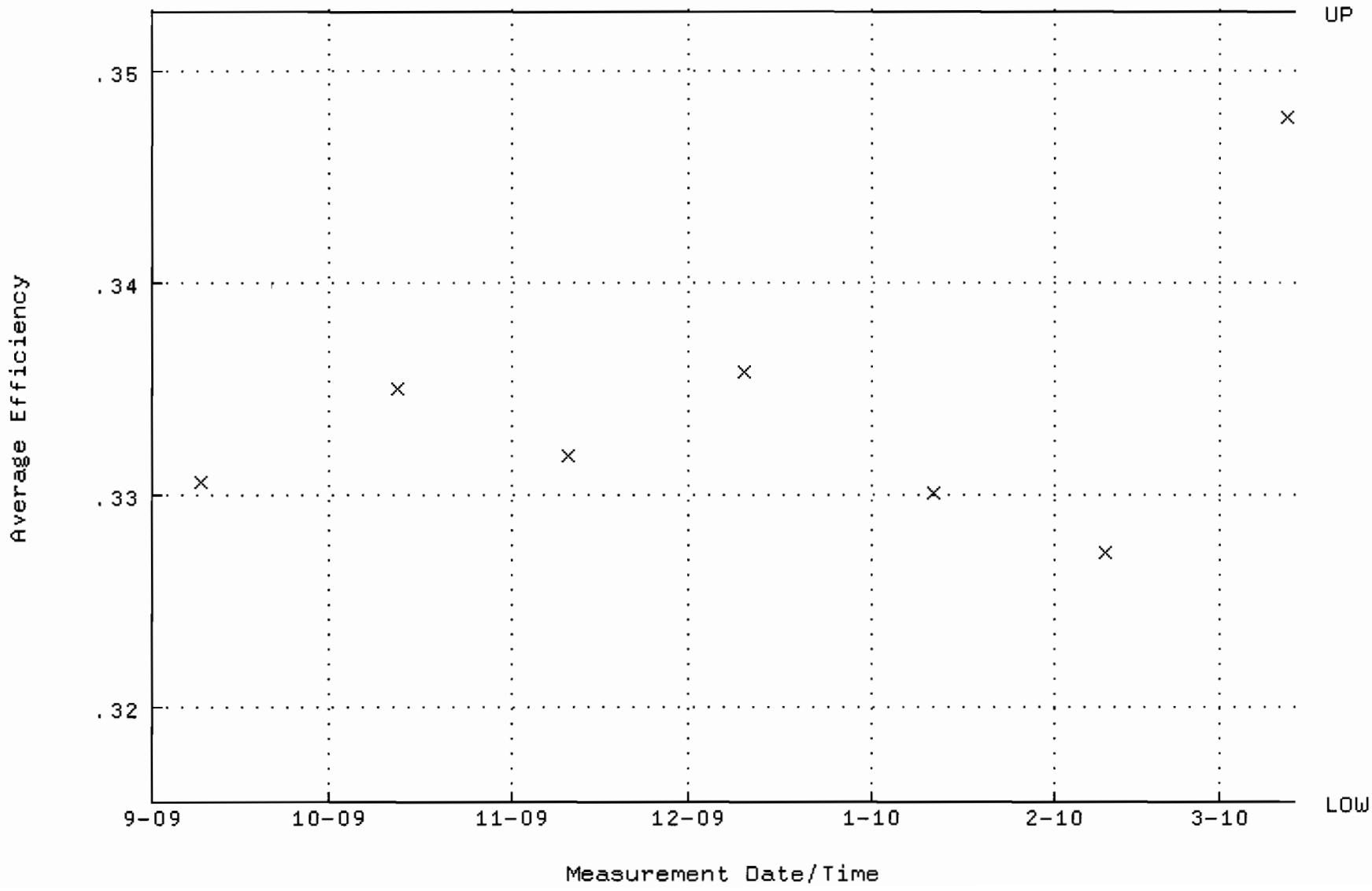

QA filename : DKA100:[ENV_ALPHA.QA.W]W102.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:51 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 66.6183 through 74.7119

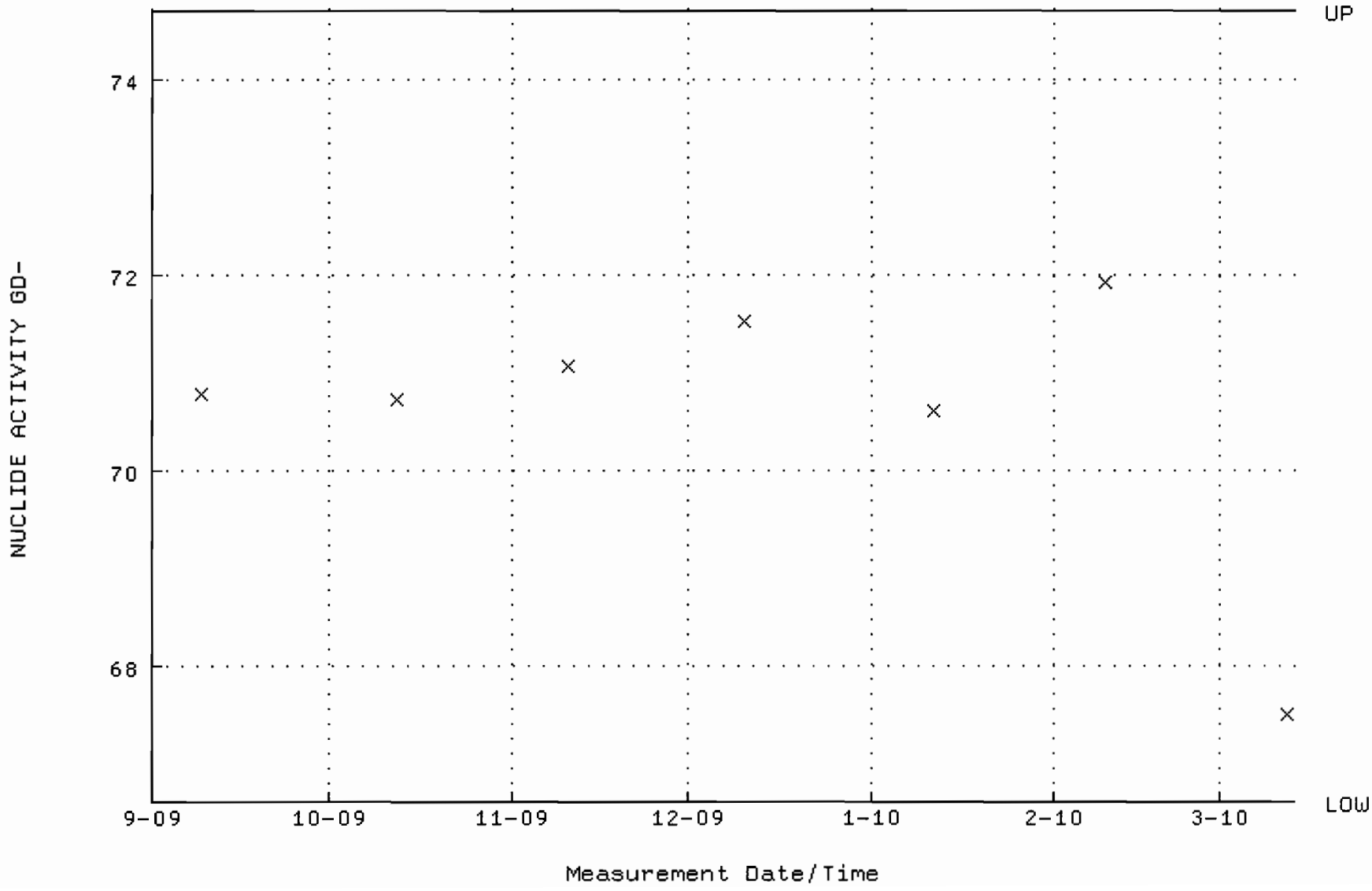

QA filename : DKA100:[ENV_ALPHA.QA.B]B102.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

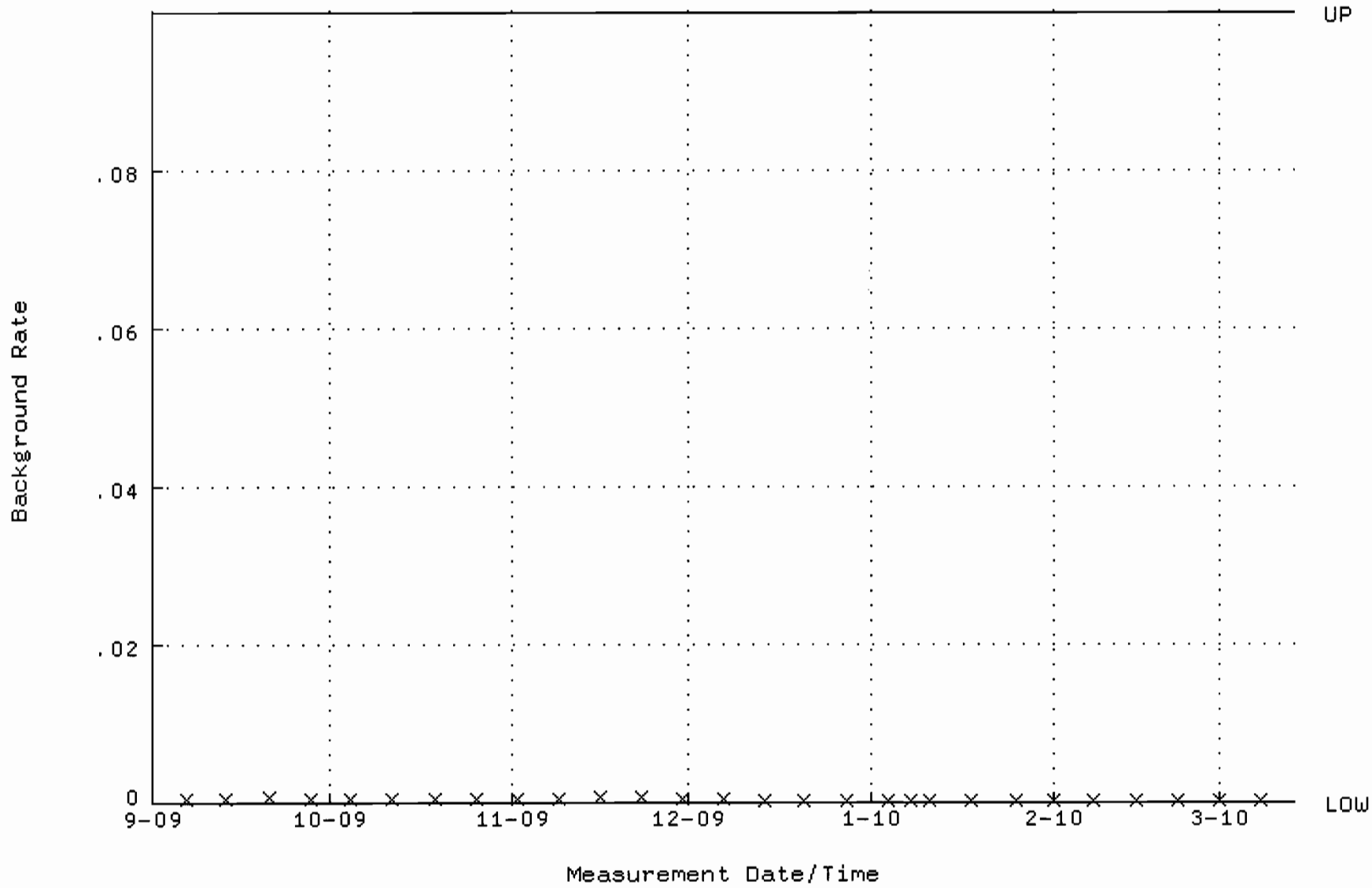

QA filename : DKA100:[ENV_ALPHA.QA.W]W105.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-SEP-2009 08:05:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.309544 through 0.338666

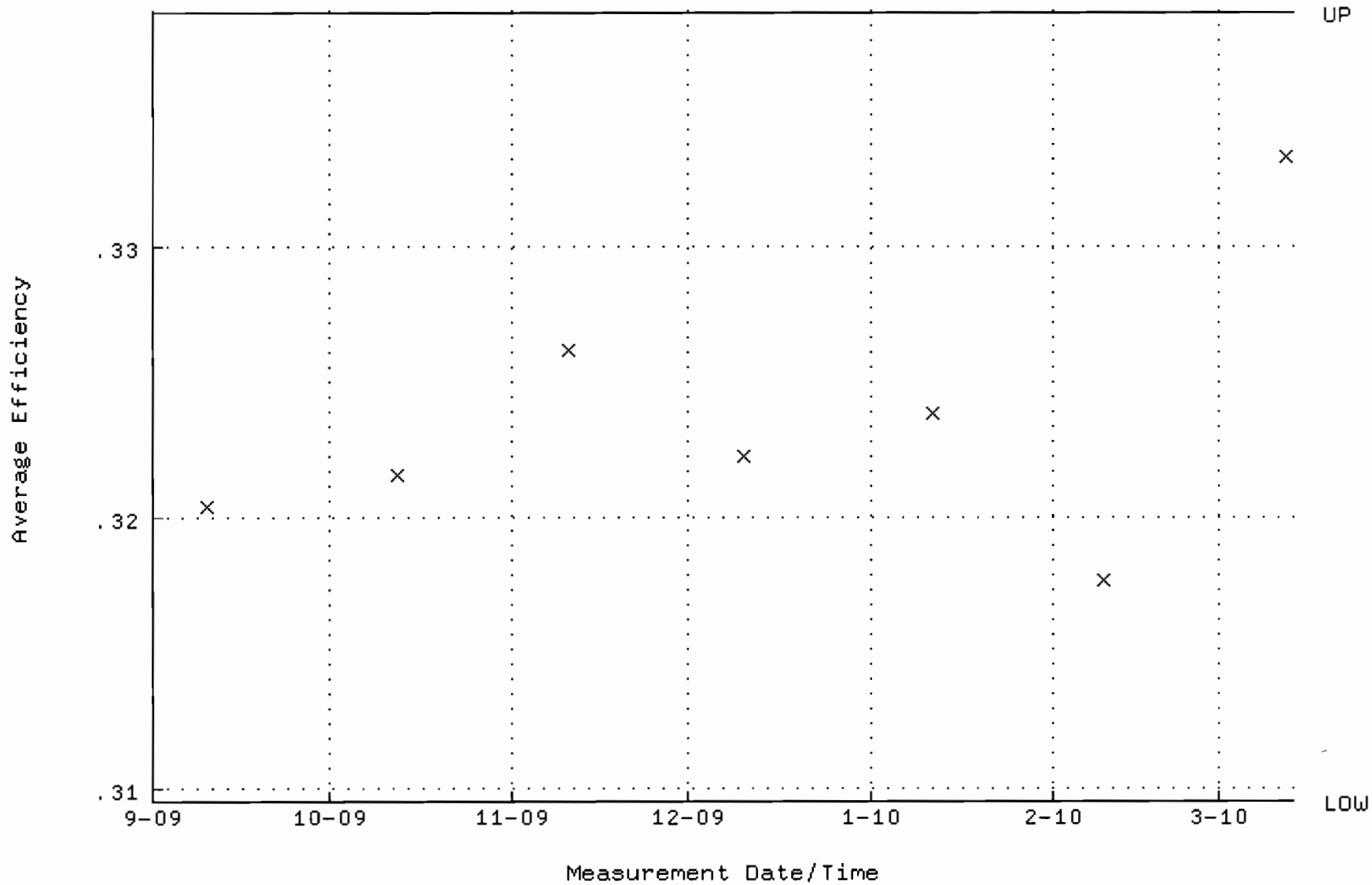

QA filename : DKA100:[ENV_ALPHA.QA.W]W105.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-SEP-2009 08:05:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 67.6585 through 76.2091

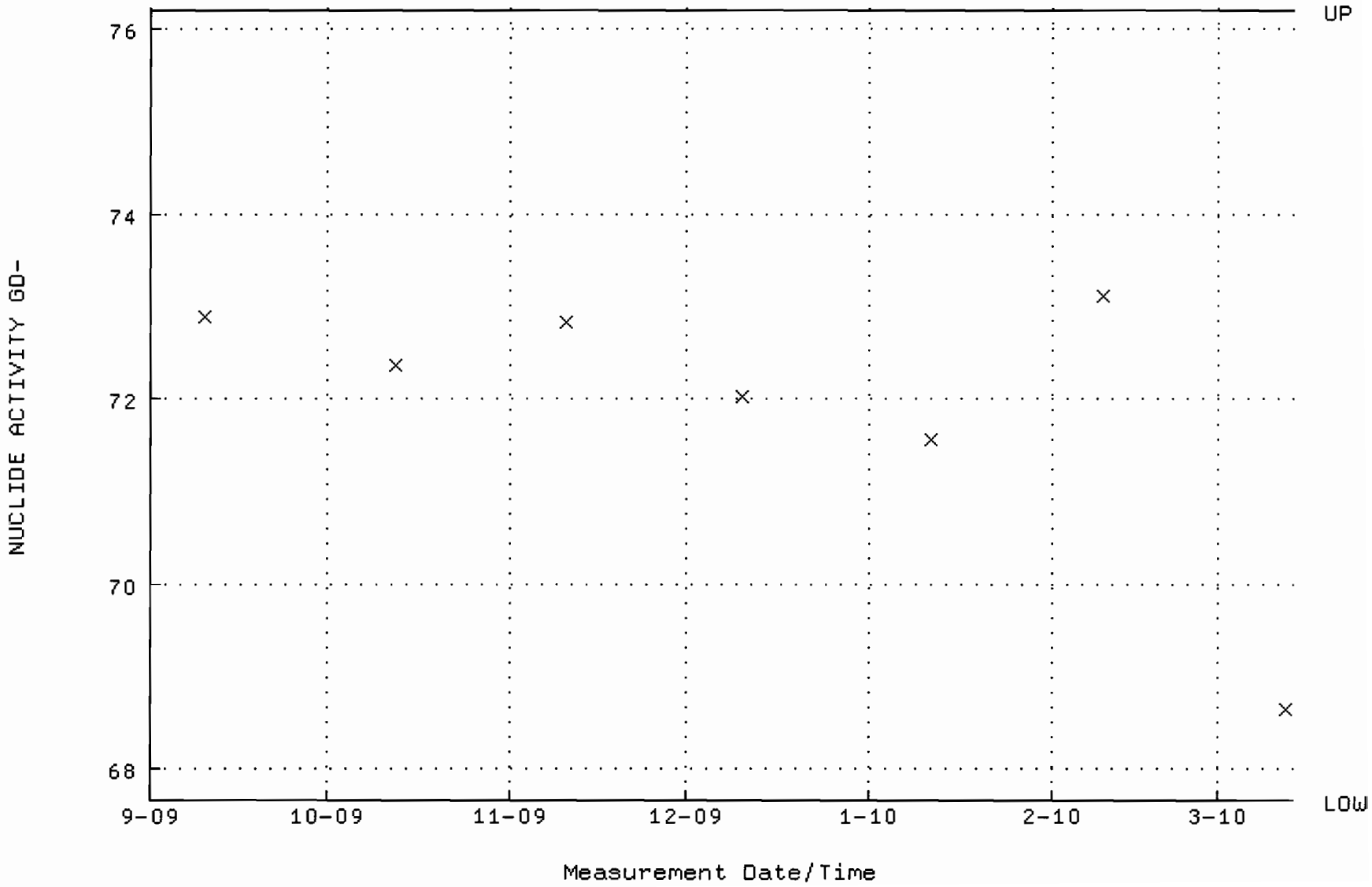

QA filename : DKA100:[ENV_ALPHA.QA.B]B105.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

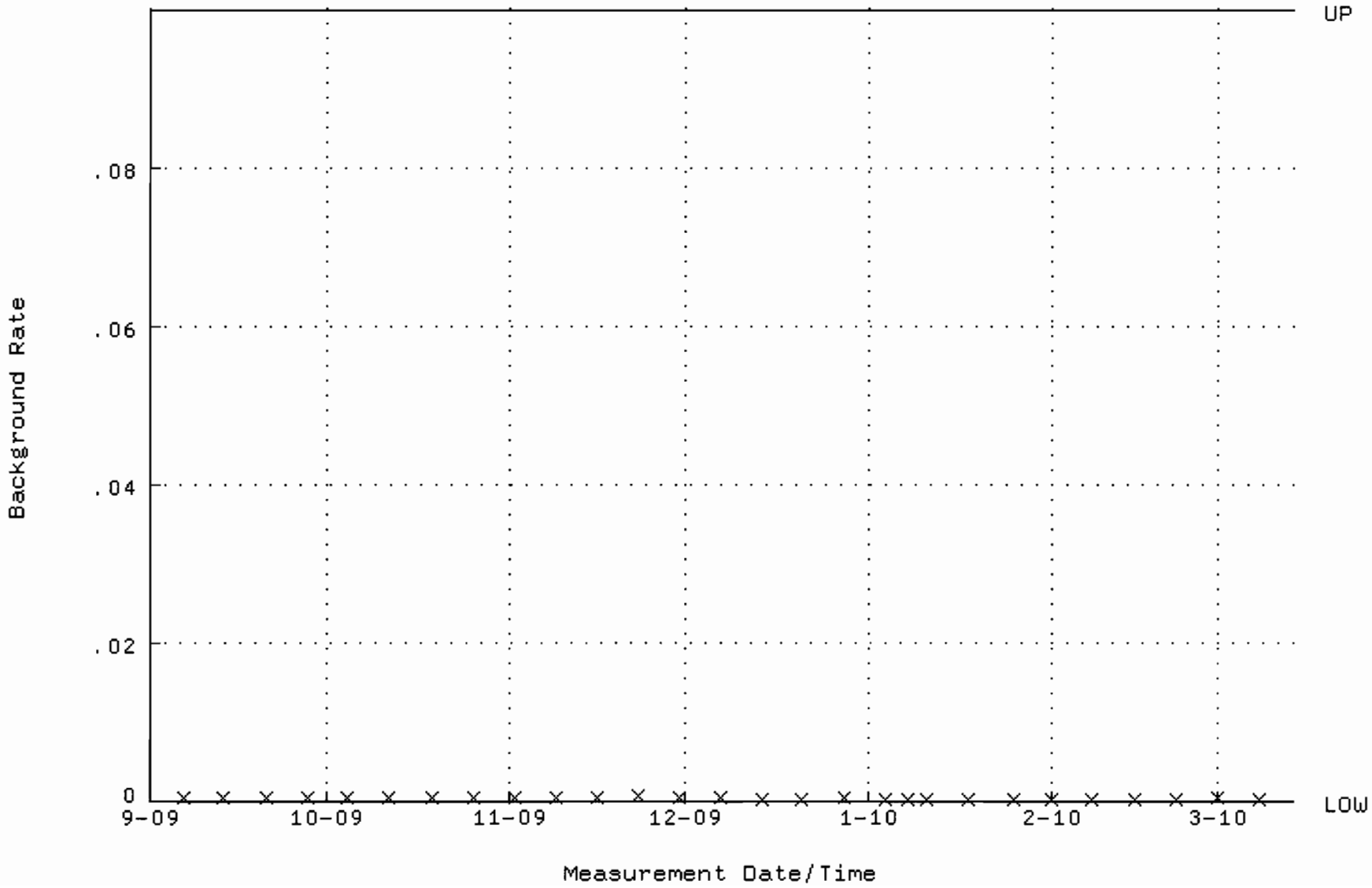

QA filename : DKA100:[ENV_ALPHA.QA.W]W106.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:51 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.307743 through 0.341905

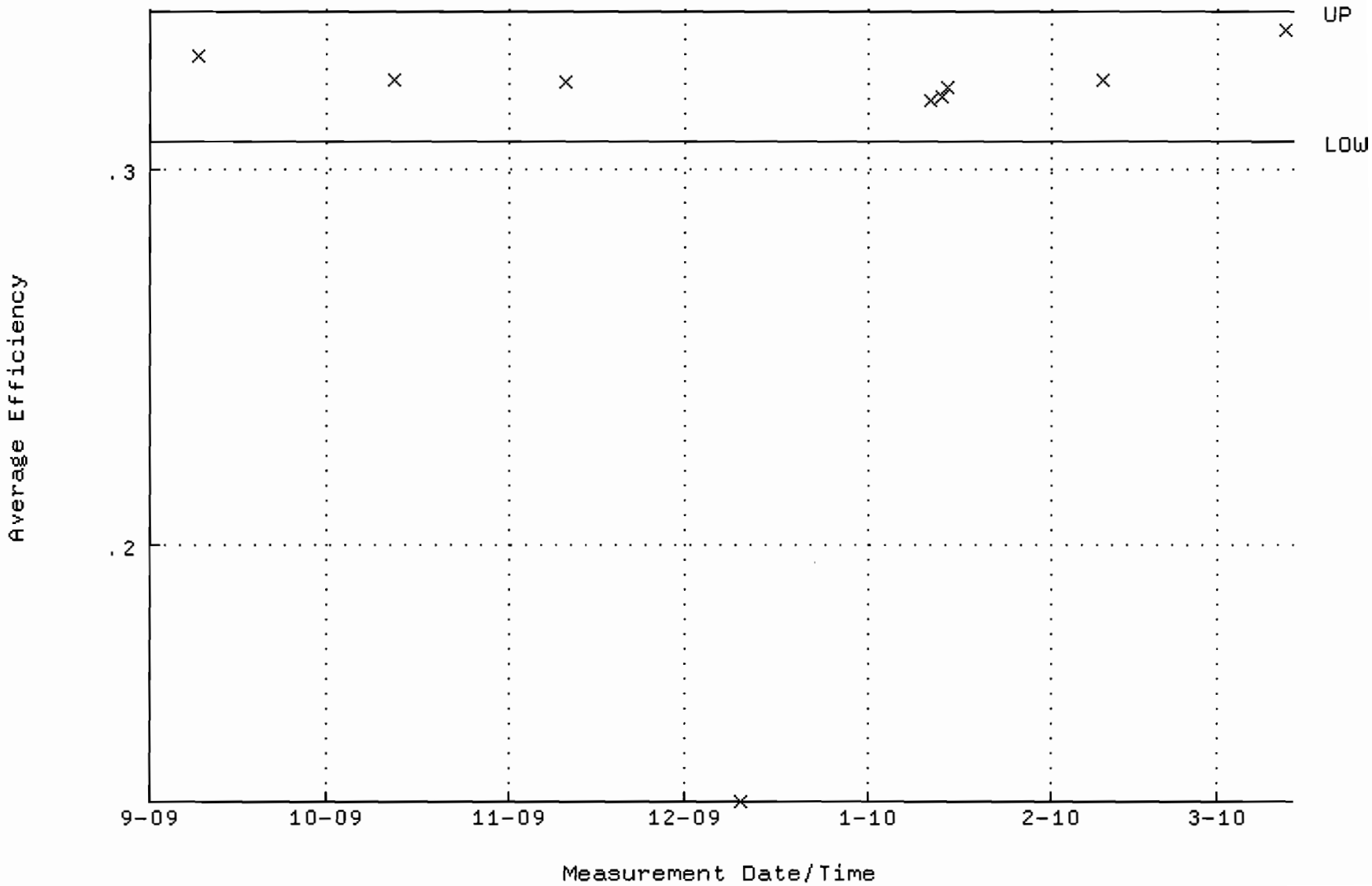

QA filename : DKA100:[ENV_ALPHA.QA.W]W106.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:51 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 63.2632 through 75.3973

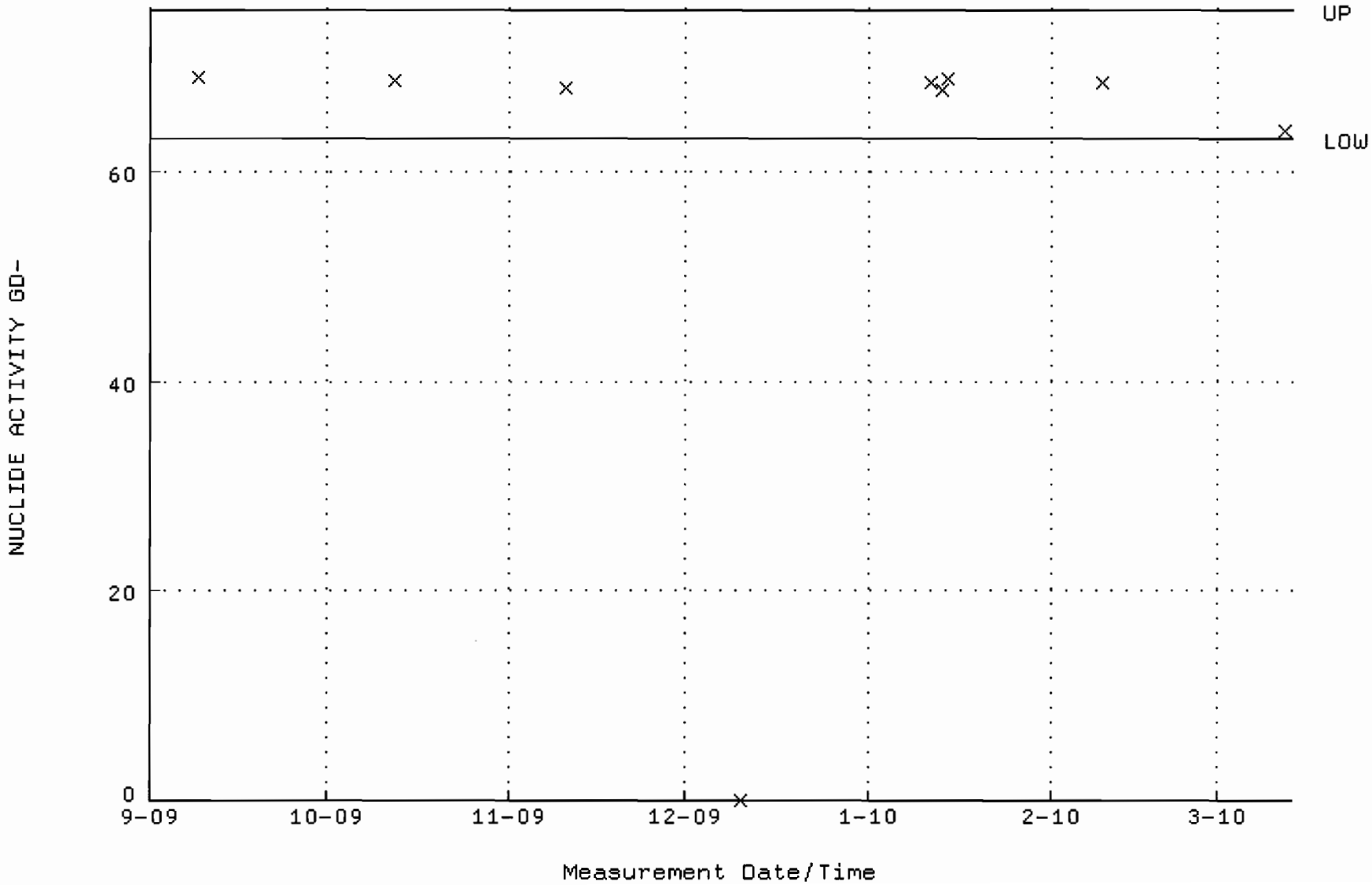

QA filename : DKA100:[ENV_ALPHA.QA.B]B106.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

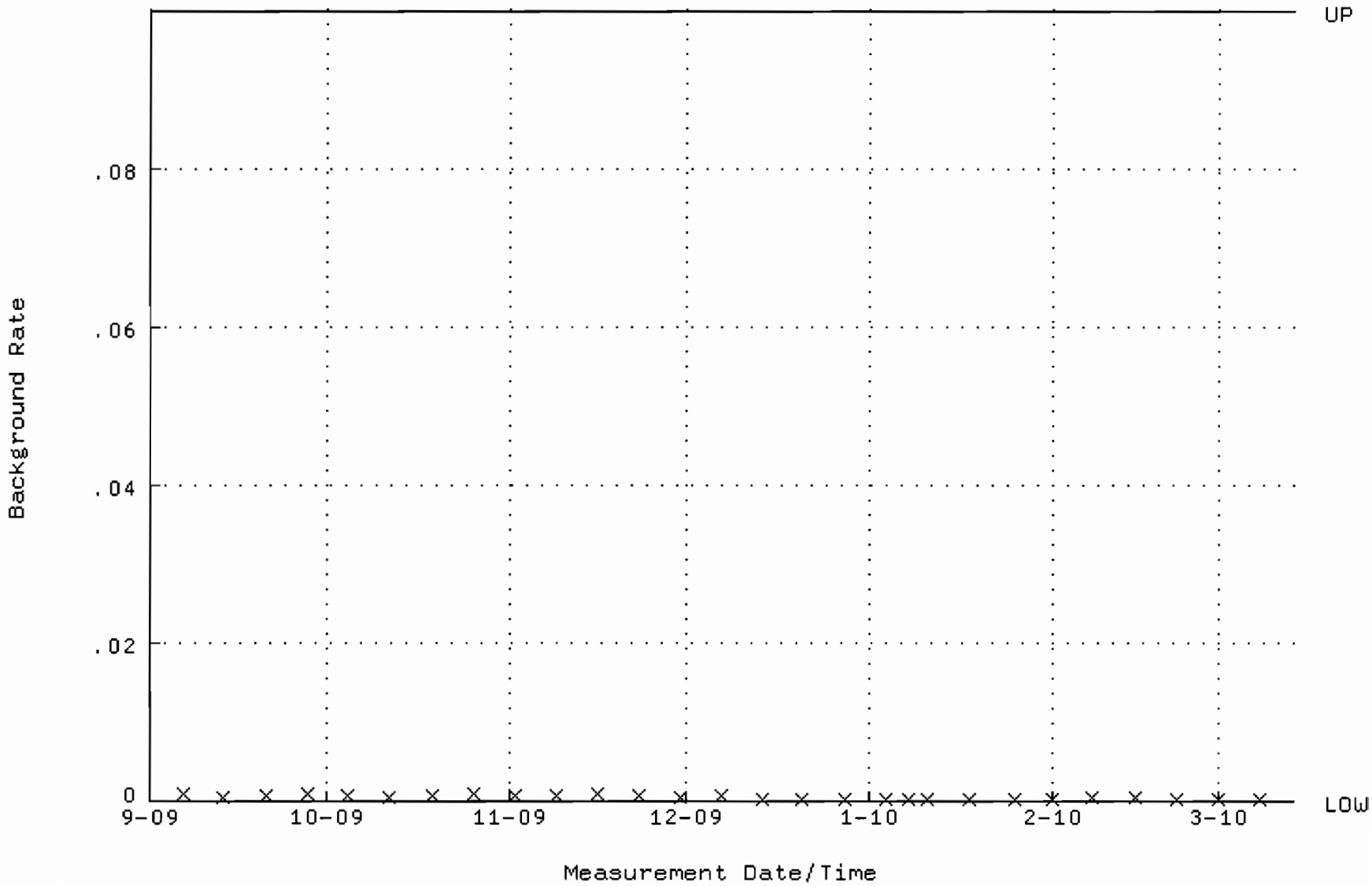

QA filename : DKA100:[ENV_ALPHA.QA.W]W153.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:47:33 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.244738 through 0.264738

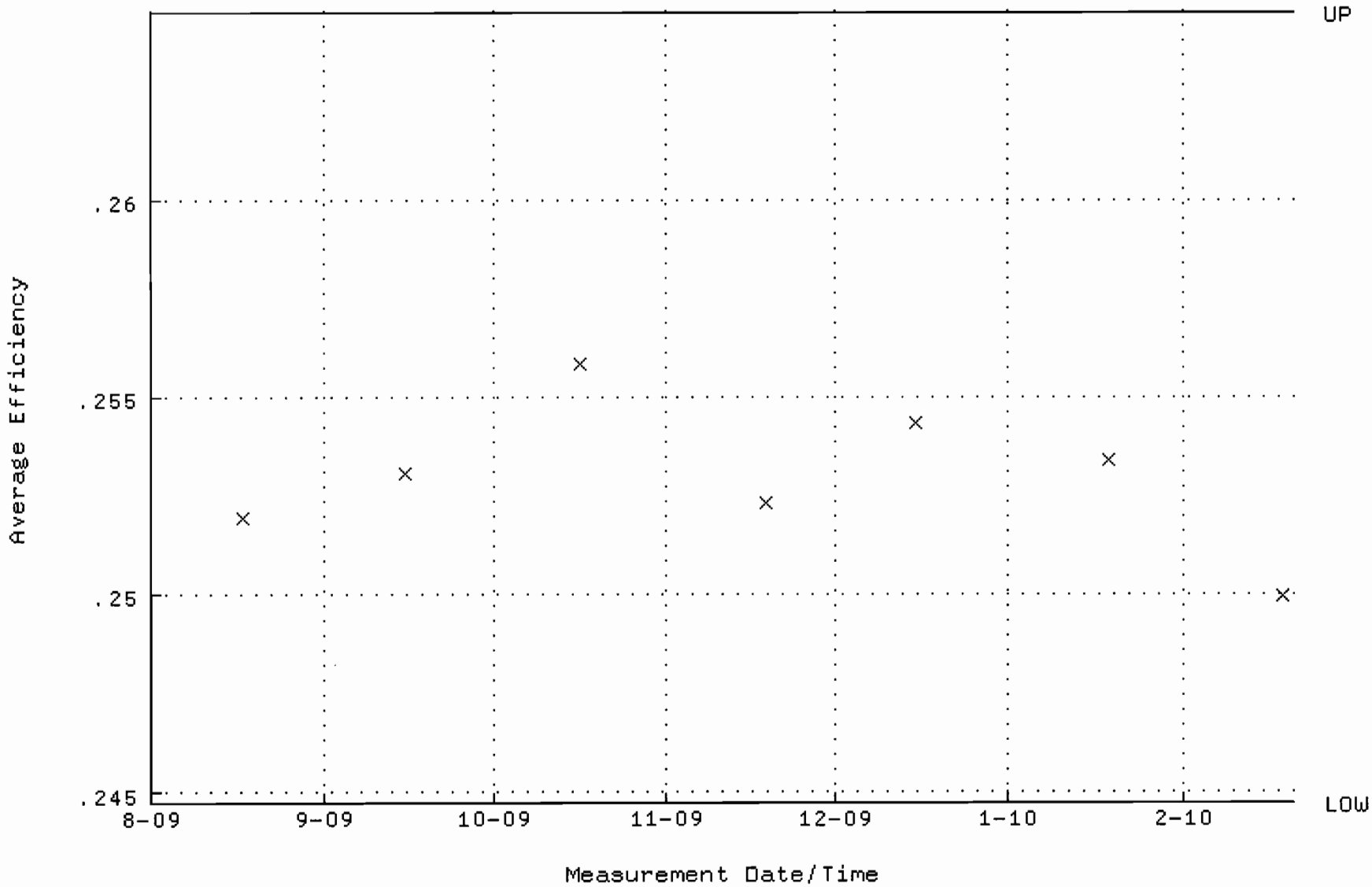

QA filename : DKA100:[ENV_ALPHA.QA.W]W153.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:47:33 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 81.3634 through 89.9280

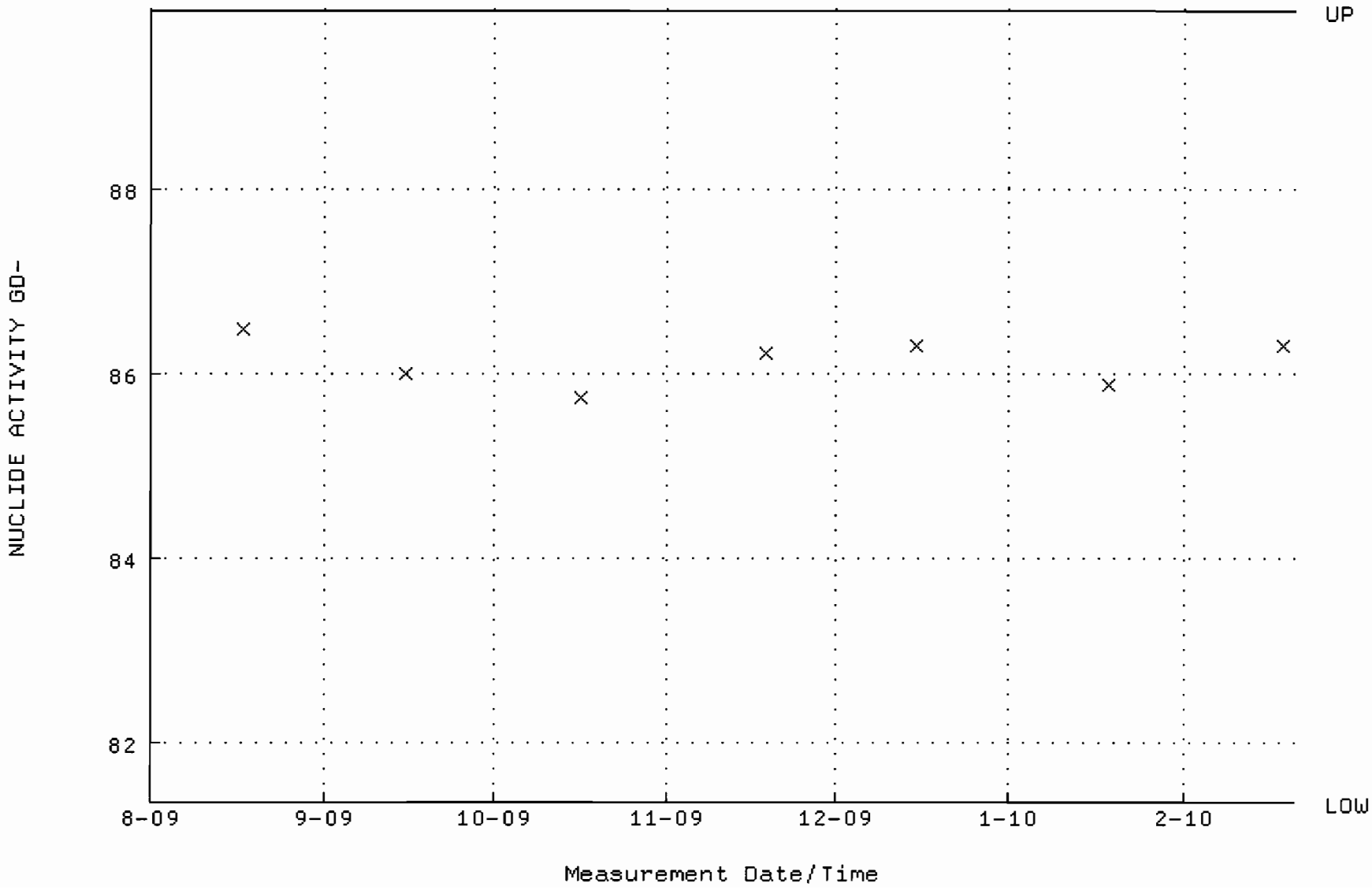

QA filename : DKA100:[ENV_ALPHA.QA.B]B153.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:49 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

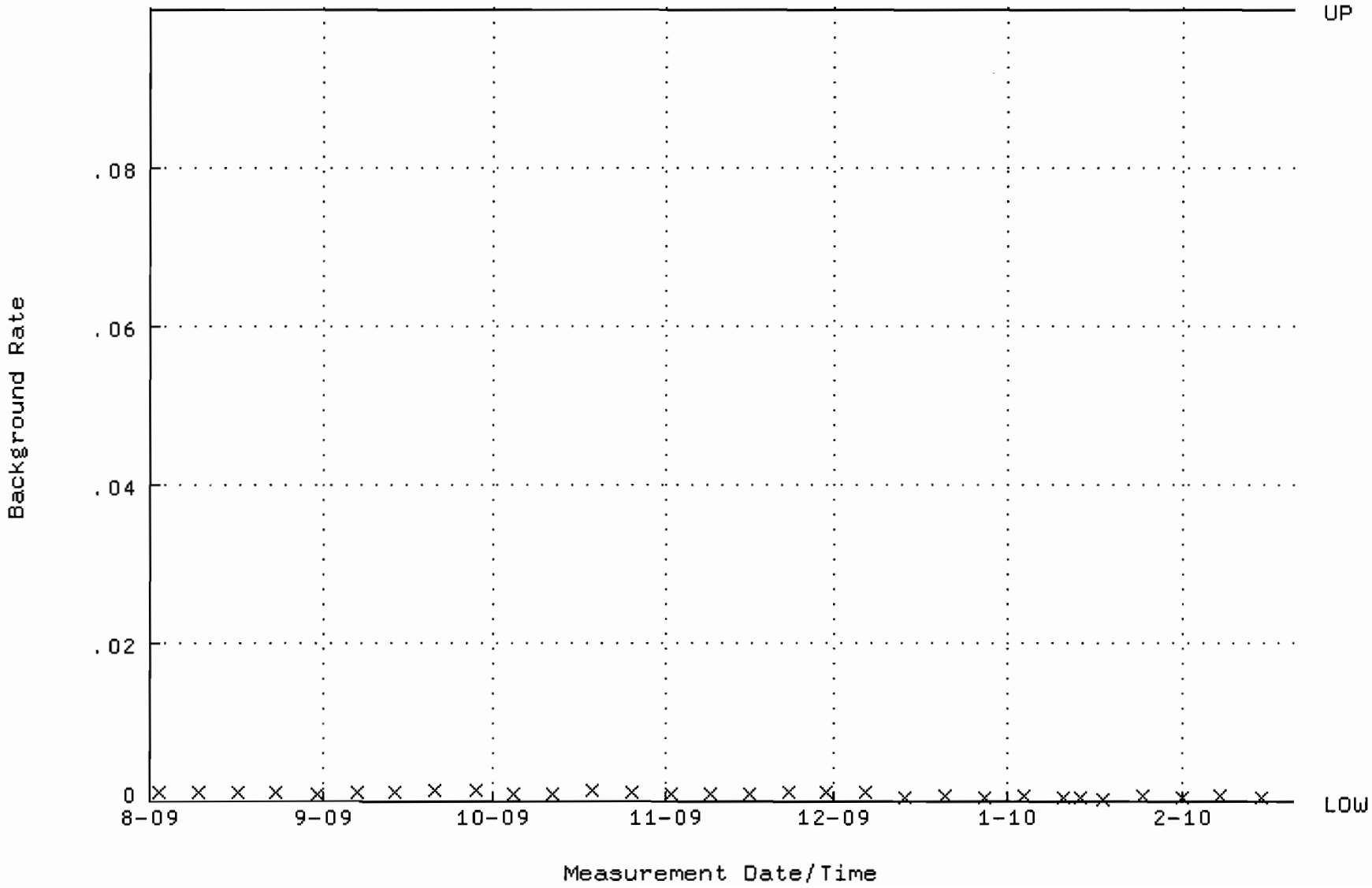

QA filename : DKA100:[ENV_ALPHA.QA.W]W154.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-AUG-2009 09:47:38 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.251386 through 0.271386

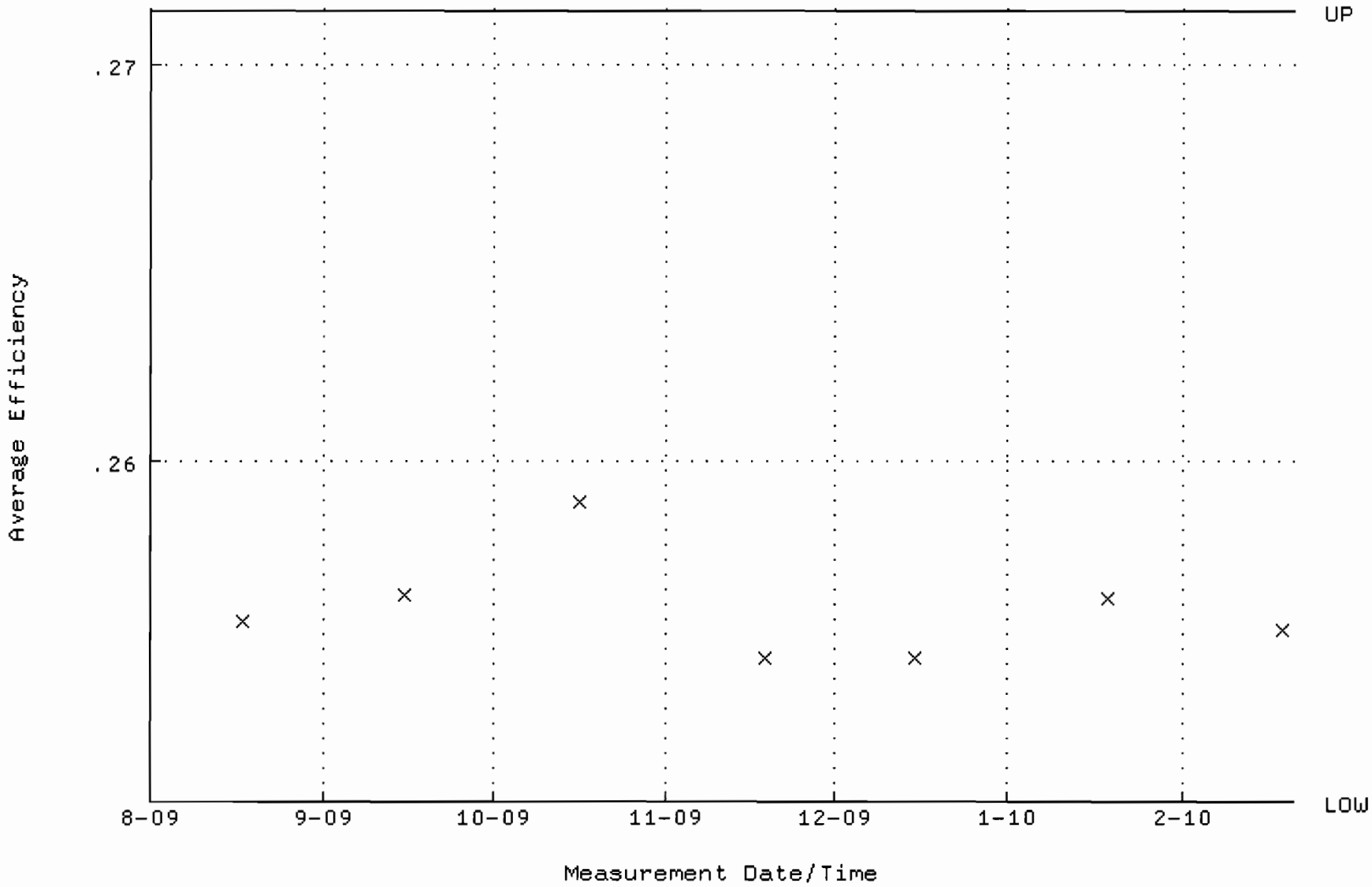

QA filename : DKA100:[ENV_ALPHA.QA.W]W154.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-AUG-2009 09:47:38 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 79.9003 through 88.3109

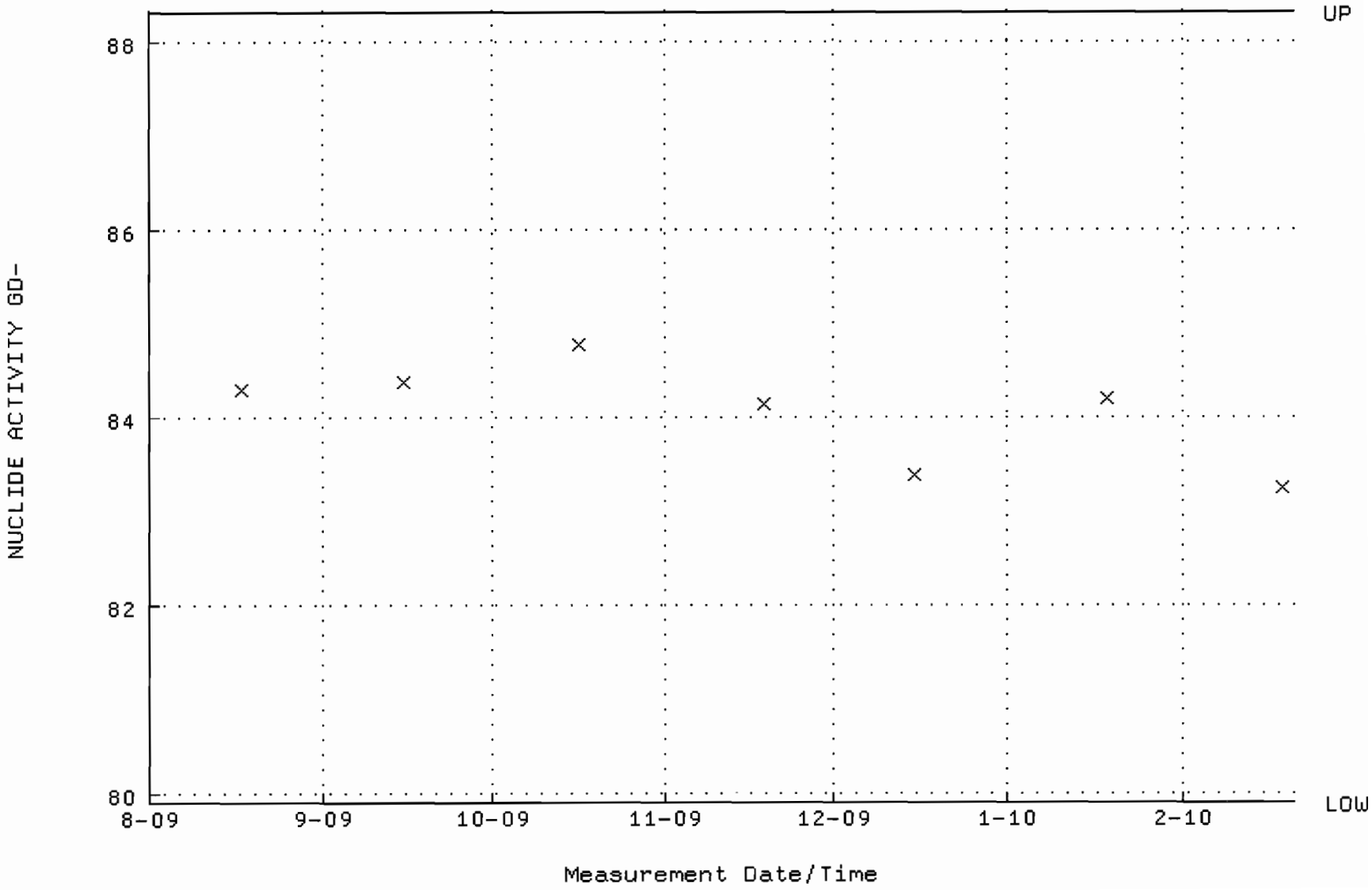

QA filename : DKA100:[ENV_ALPHA.QA.B]B154.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:14:53 through 20-FEB-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

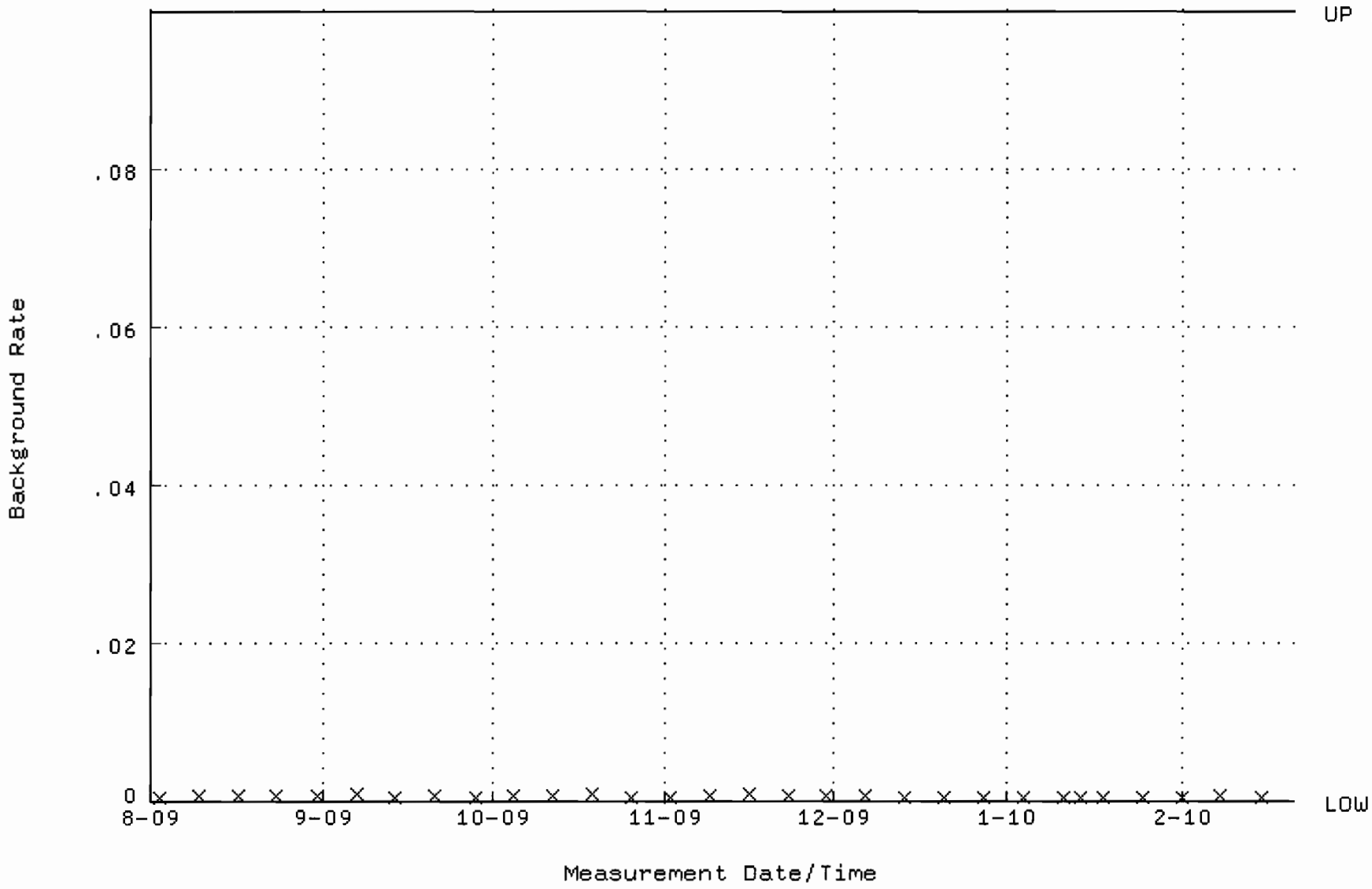

QA filename : DKA100:[ENV_ALPHA.QA.W]W228.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:08:10 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.359272 through 0.386096

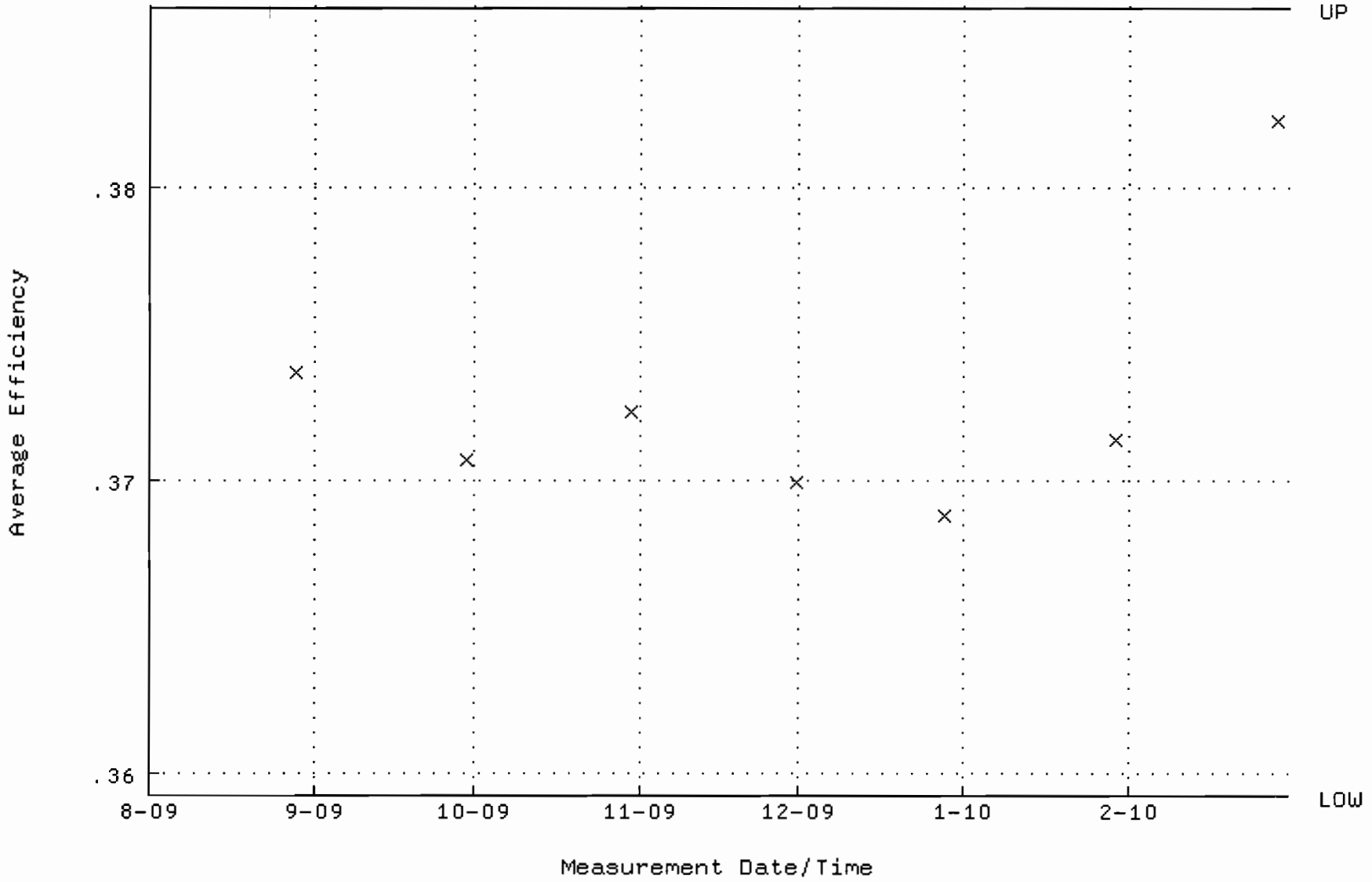

QA filename : DKA100:[ENV_ALPHA.QA.W]W228.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:08:10 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 87.8750 through 94.5380

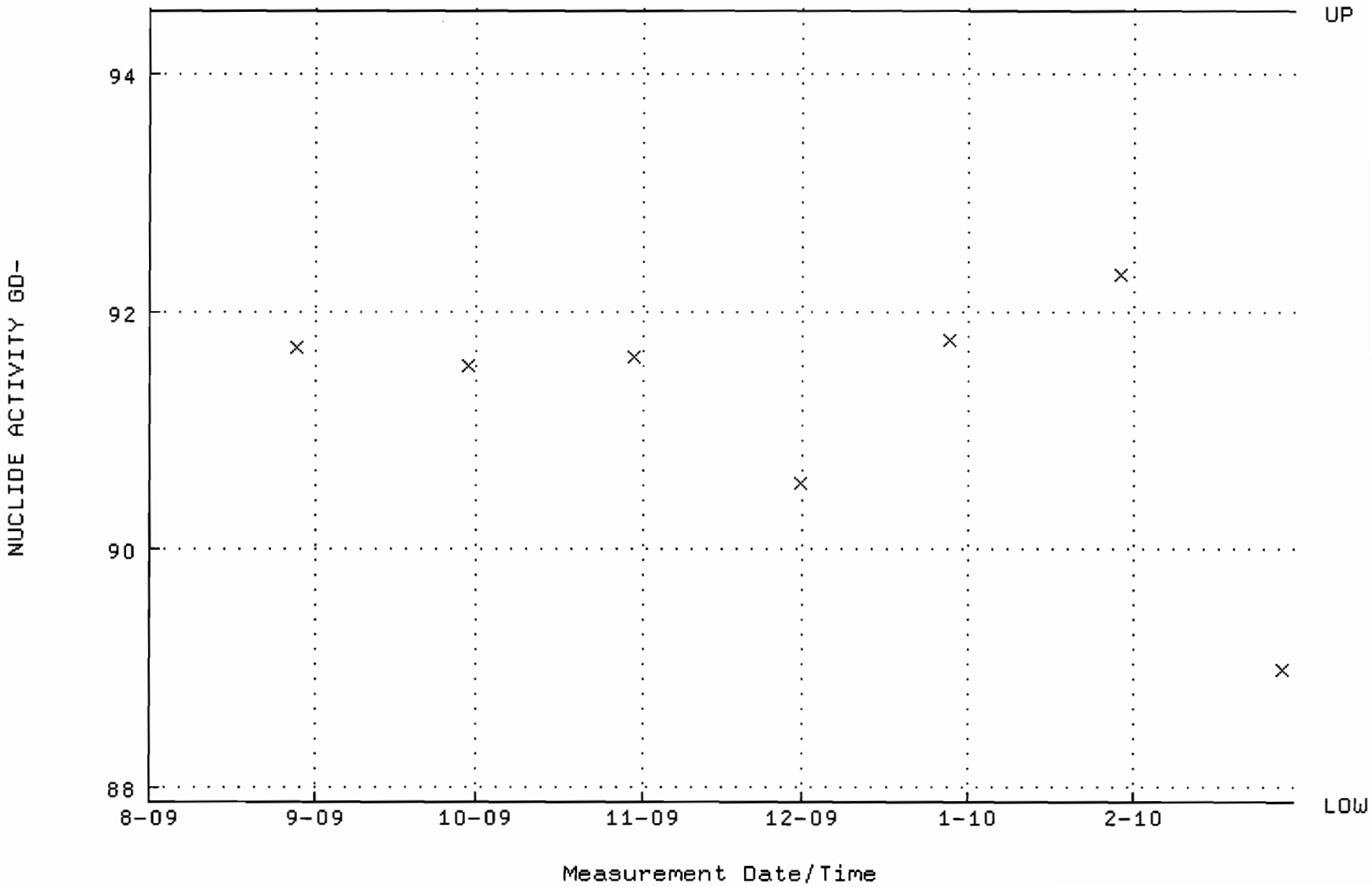

QA filename : DKA100:[ENV_ALPHA.QA.B]B228.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:26:29 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

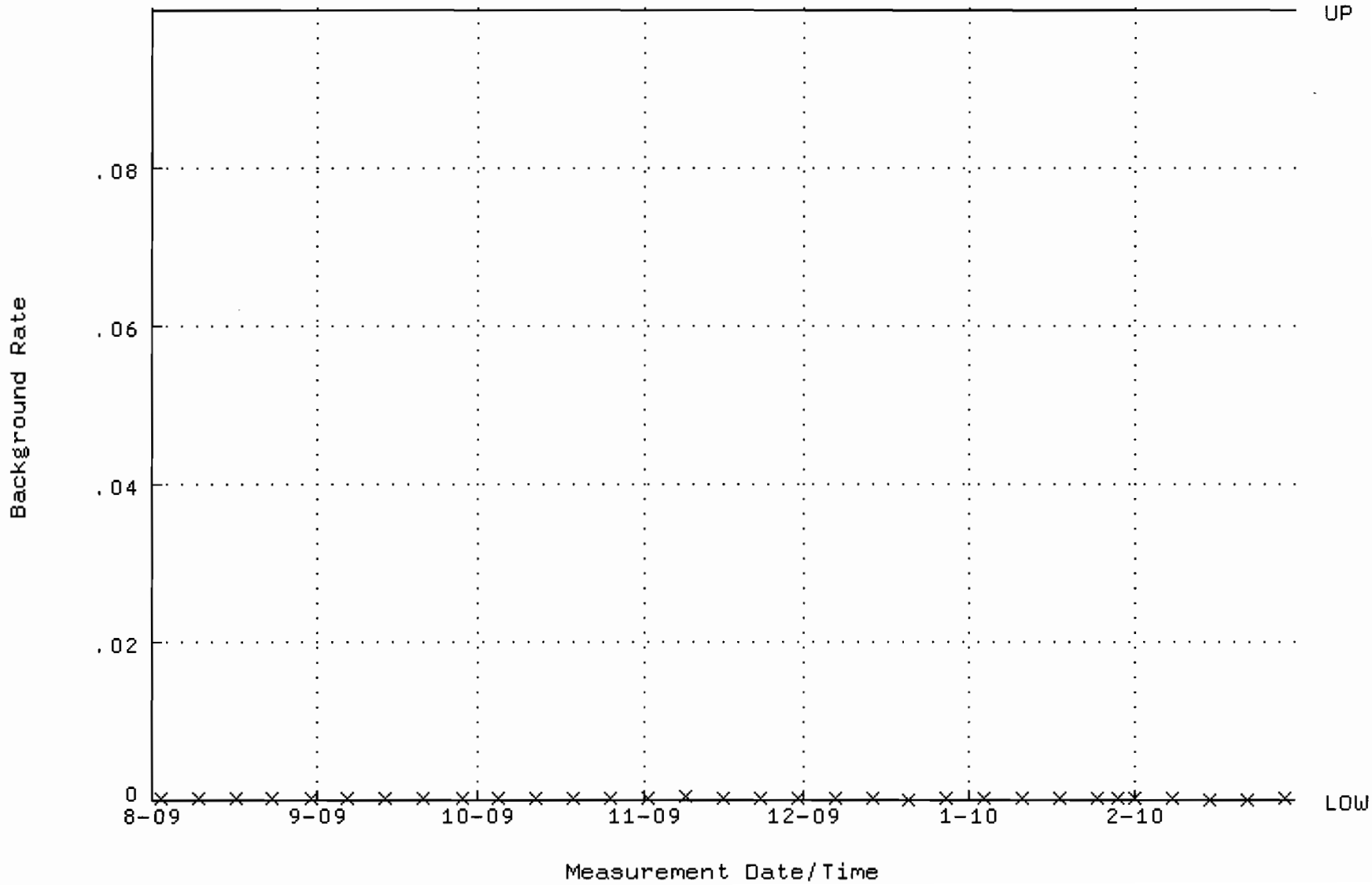

QA filename : DKA100:[ENV_ALPHA.QA.W]W256.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:10:37 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.355610 through 0.410626

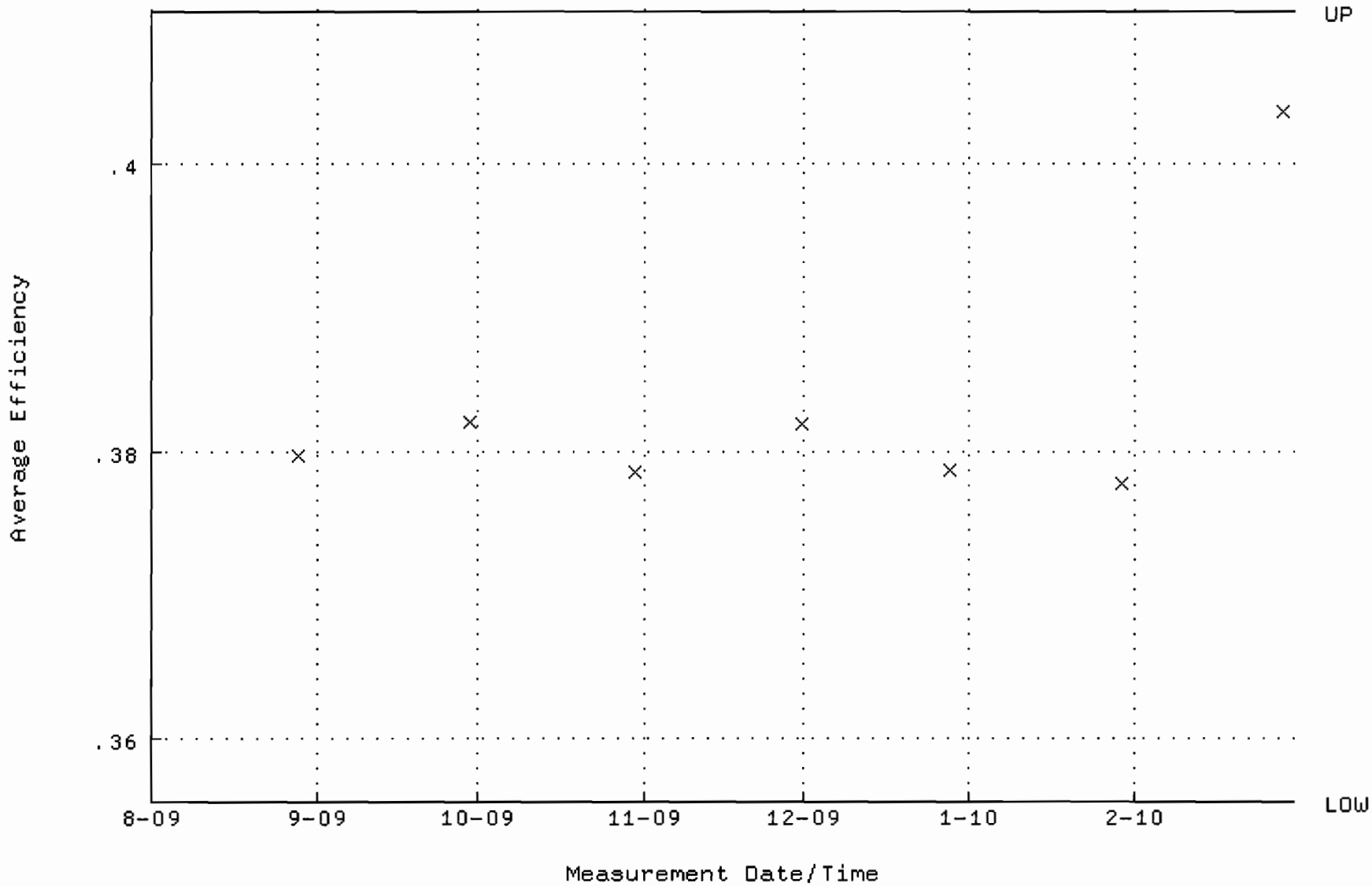

QA filename : DKA100:[ENV_ALPHA.QA.W]W256.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:10:37 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 78.3575 through 89.6335

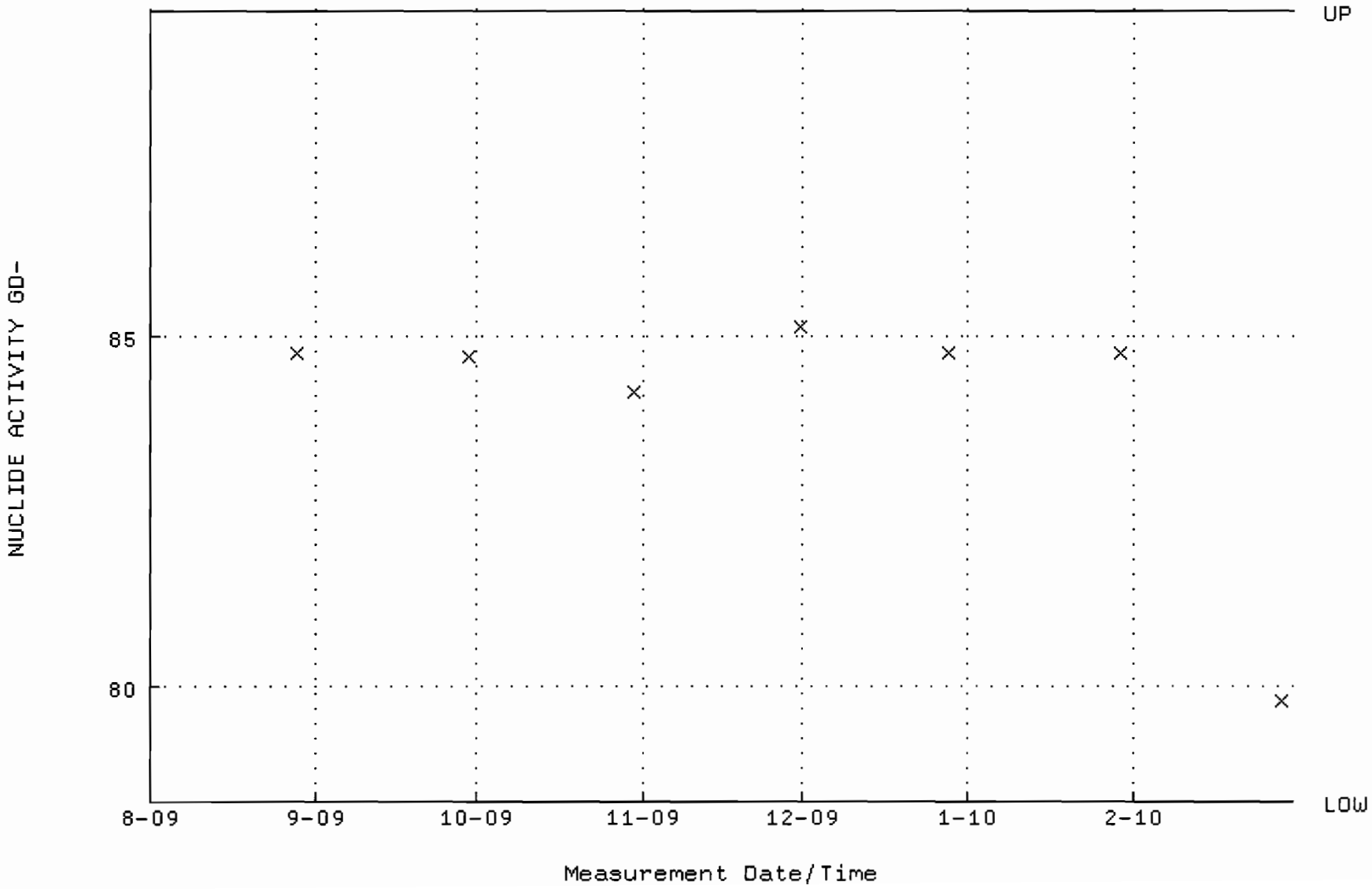

QA filename : DKA100:[ENV_ALPHA.QA.B]B256.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:28:37 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

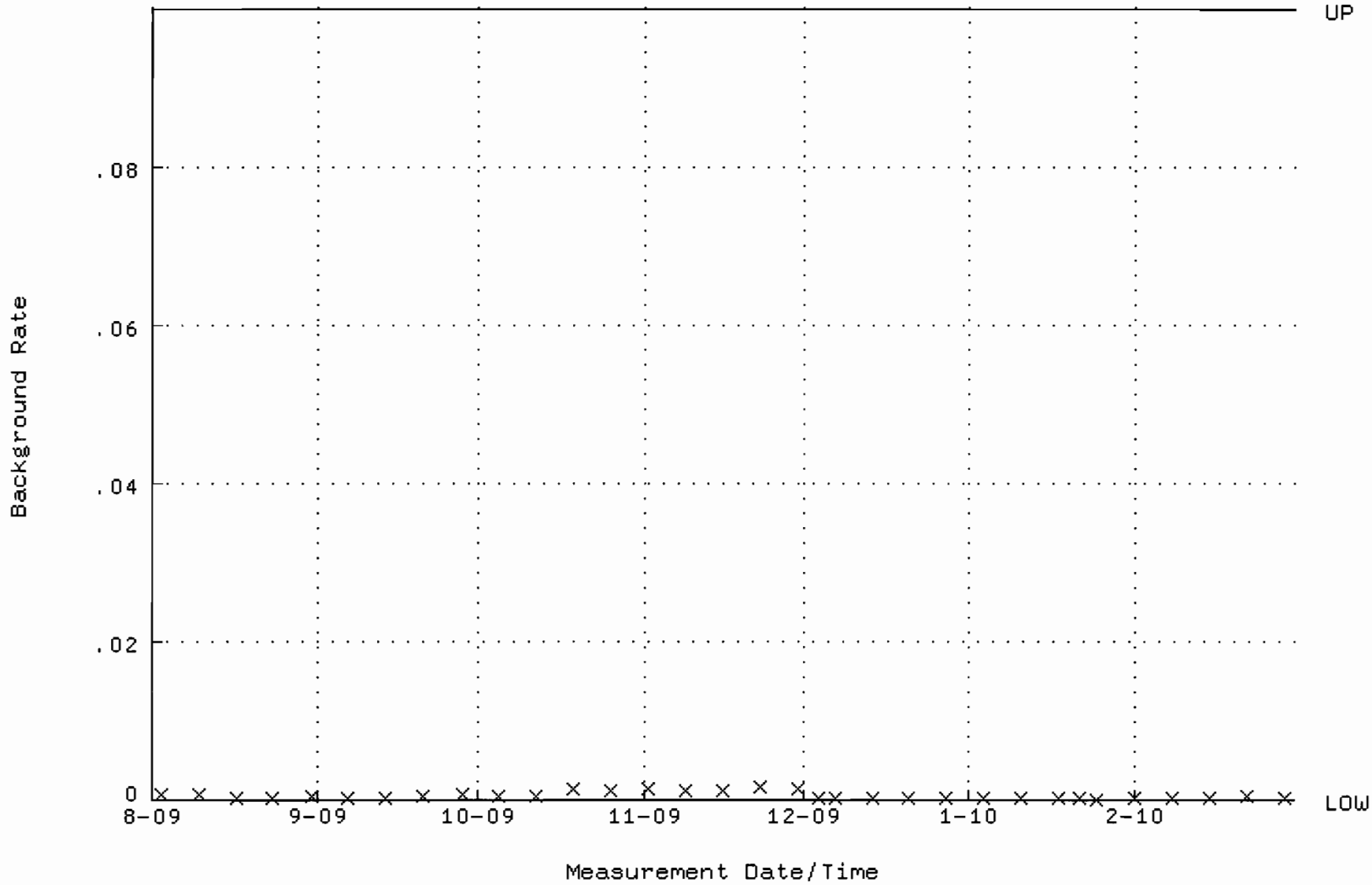

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM02_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:40:02 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

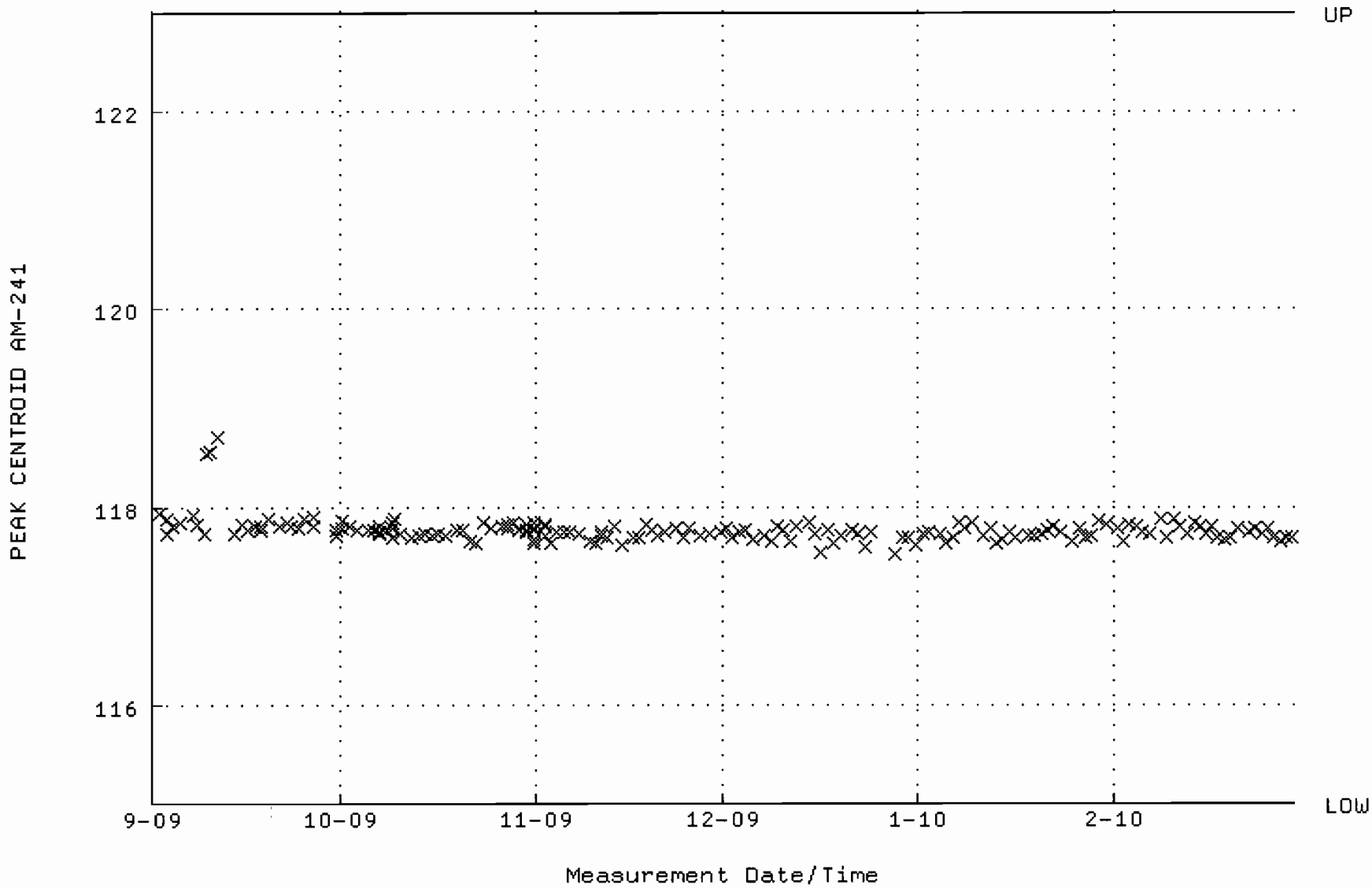

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM02.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:37:17 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 2.00226 +- 2.139827E-02 (1.07 %)

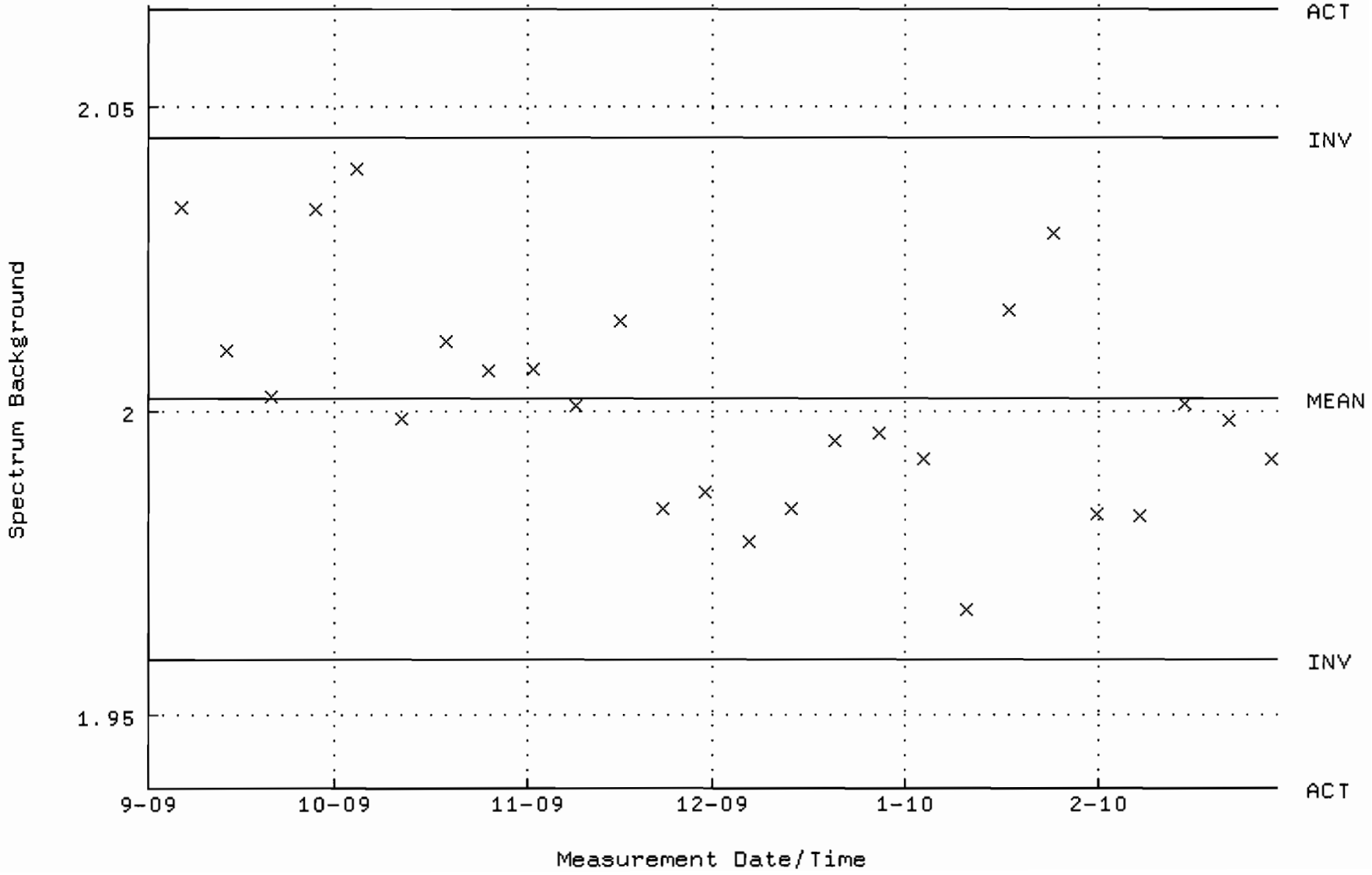

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM14_2LMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:40:36 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

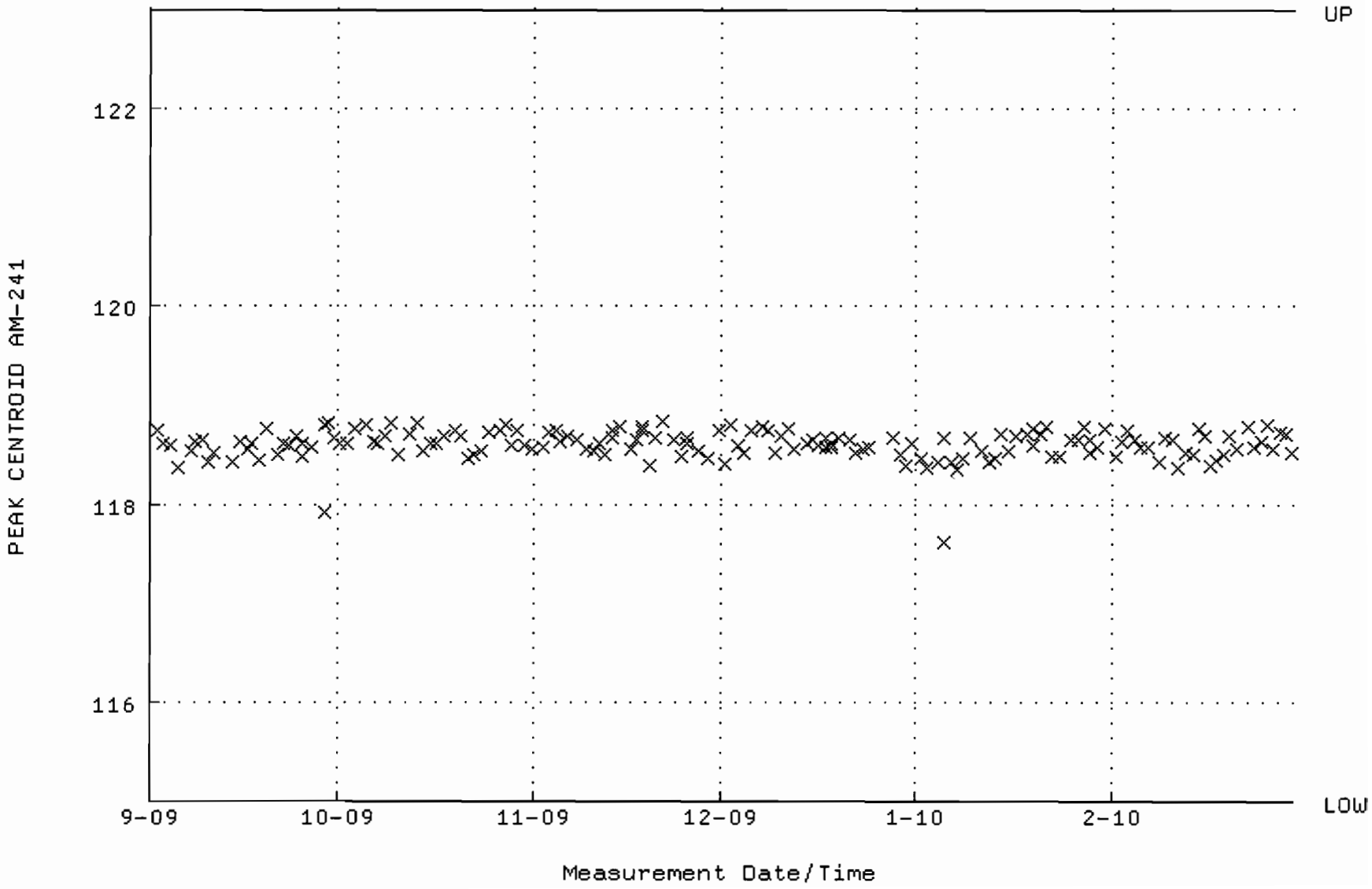

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM14.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:43:20 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.48240 +- 2.535500E-02 (1.71 %)

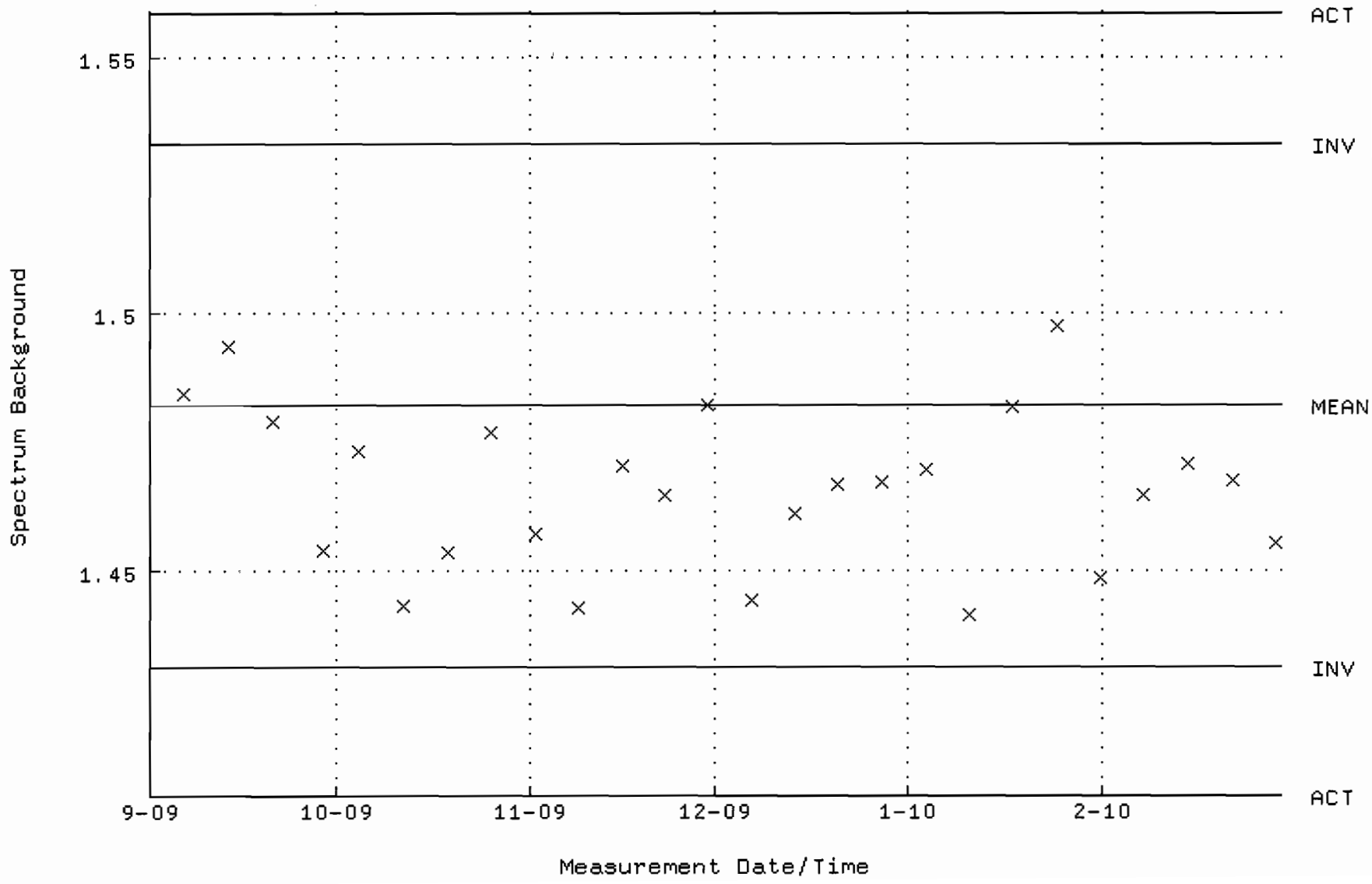

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM19_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 05:06:58 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

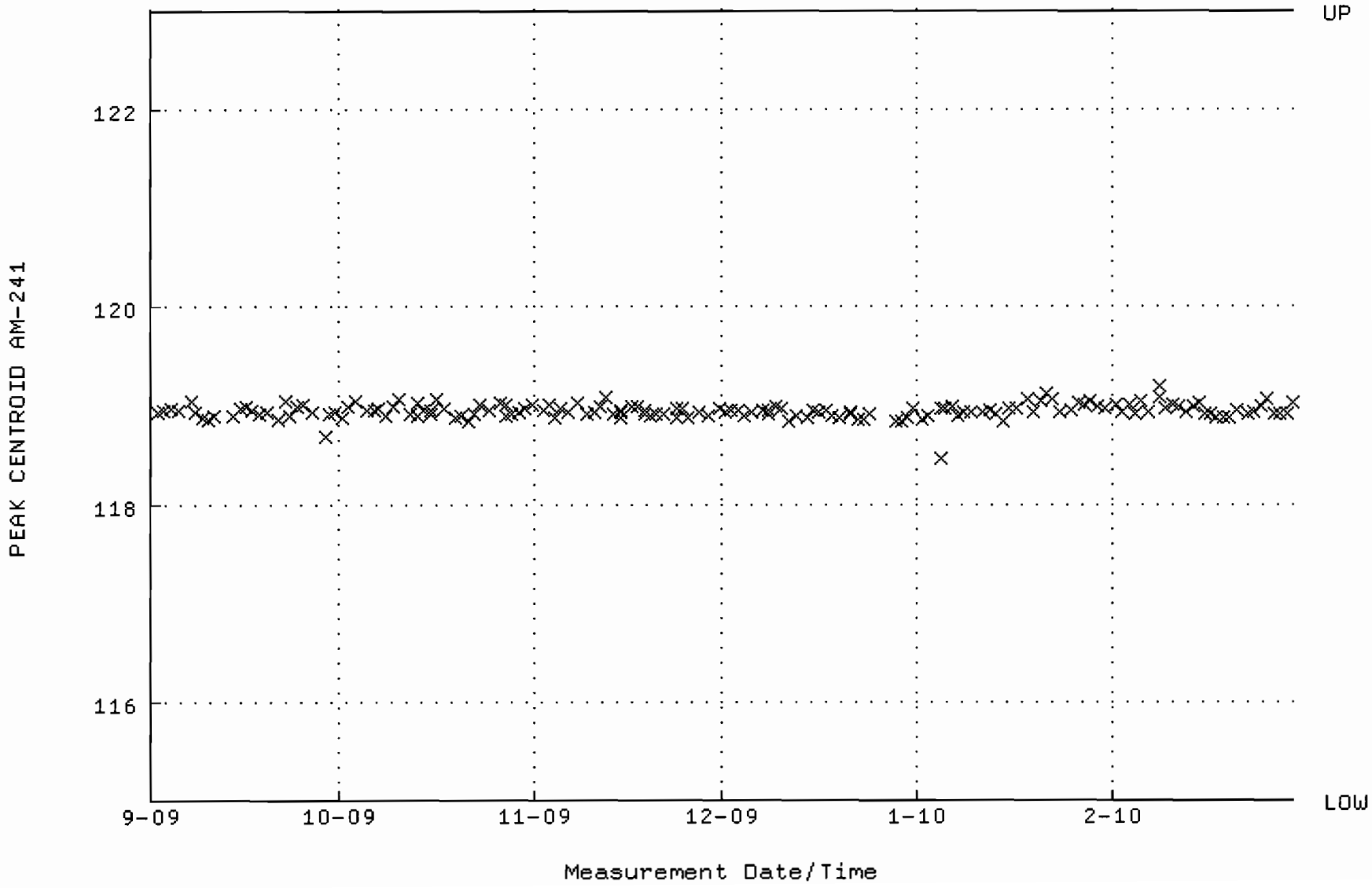

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM19.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:45:39 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.45067 +- 2.046038E-02 (1.41 %)

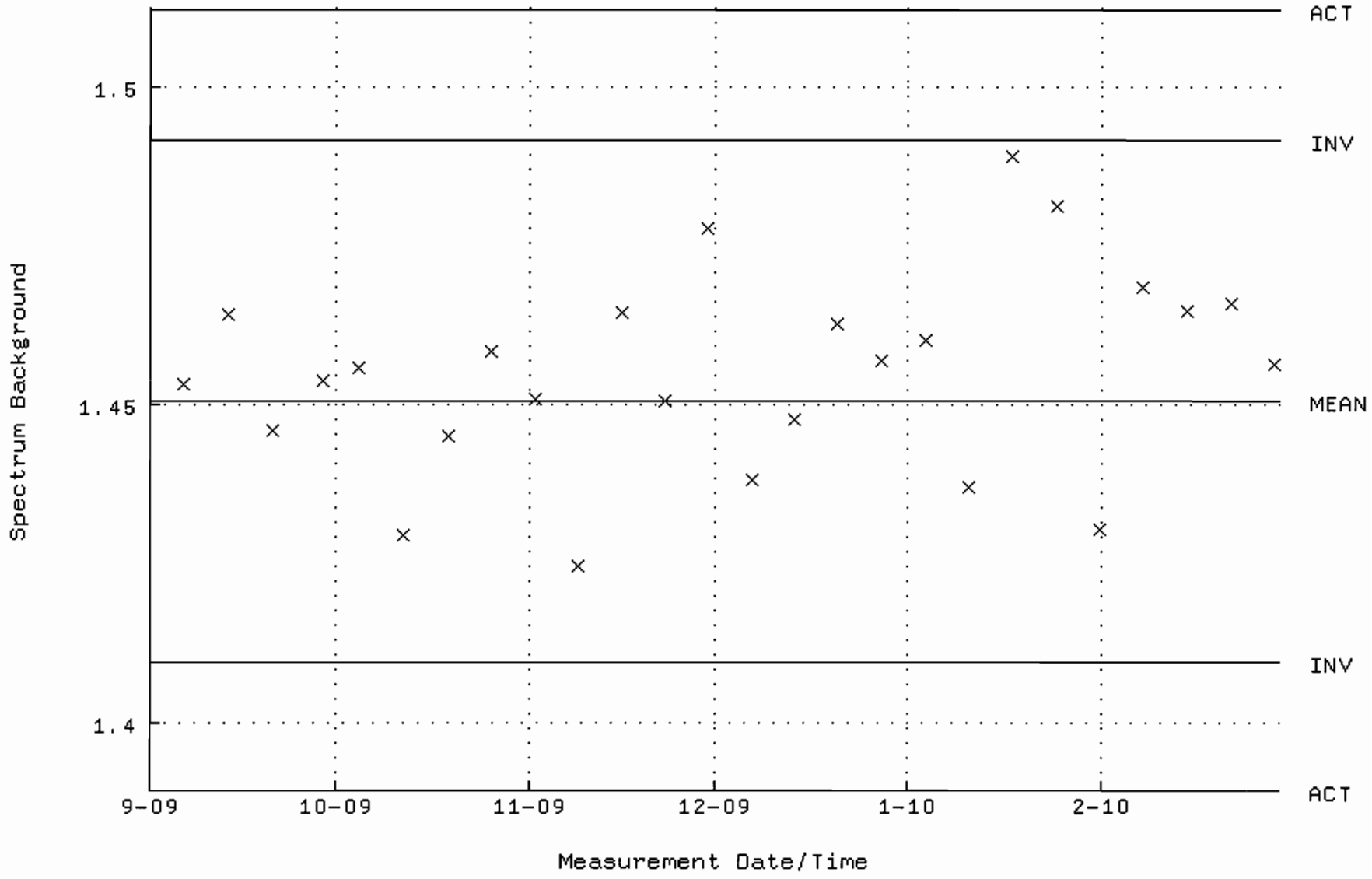

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM20_500MLMB.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:53:11 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

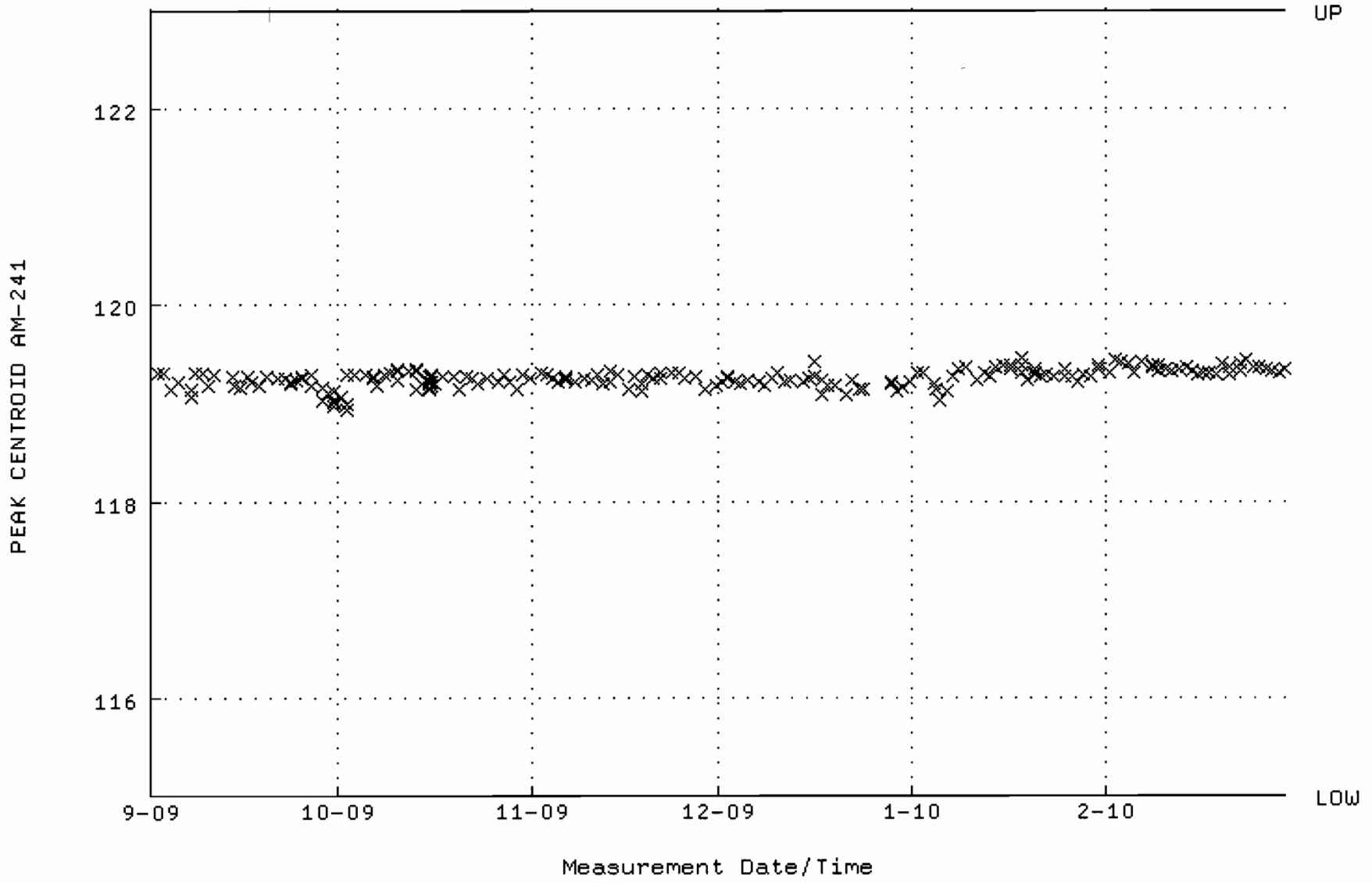

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM20.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:46:04 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.48527 +- 2.388665E-02 (1.61 %)

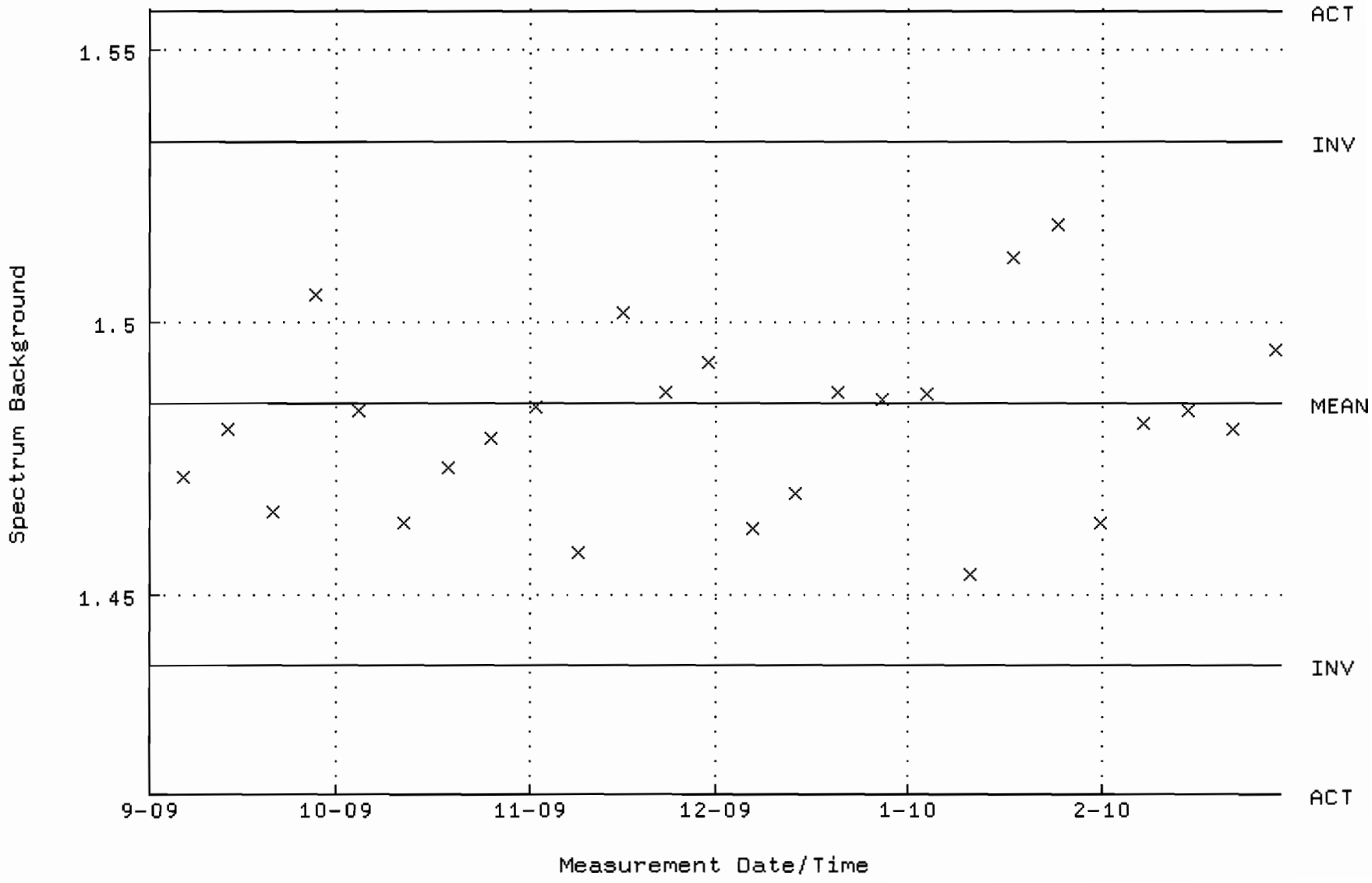

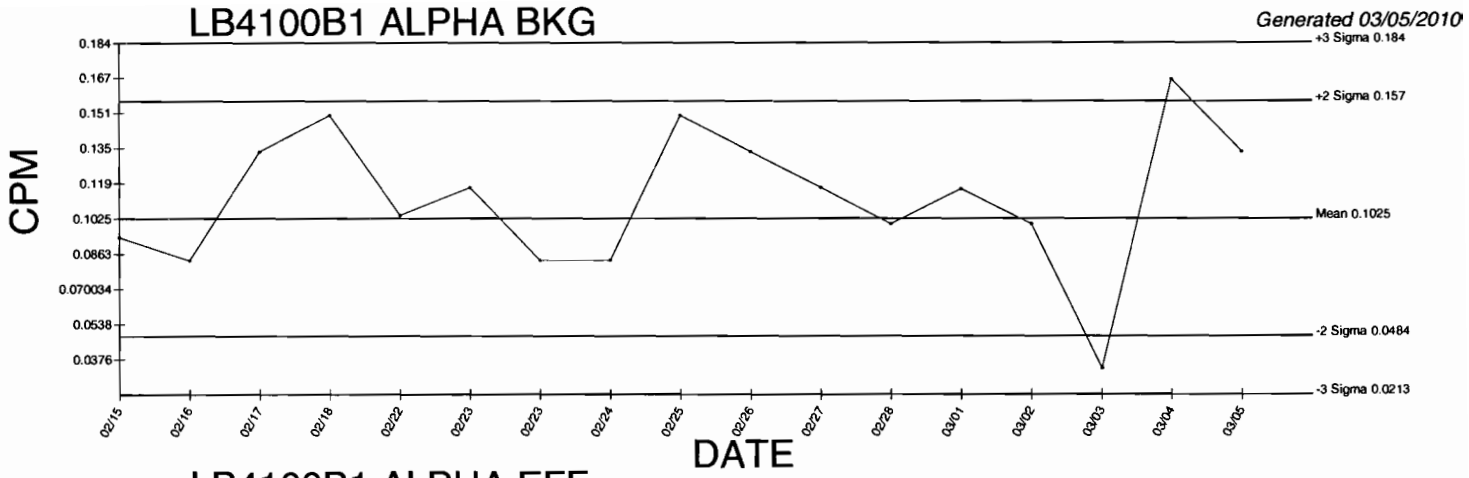

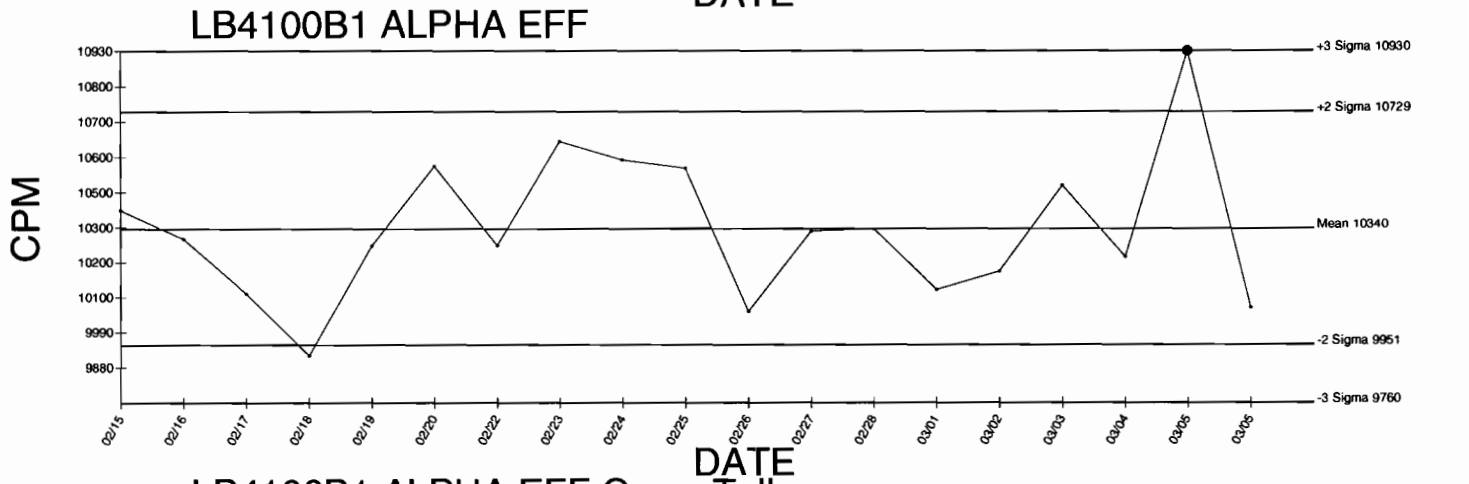

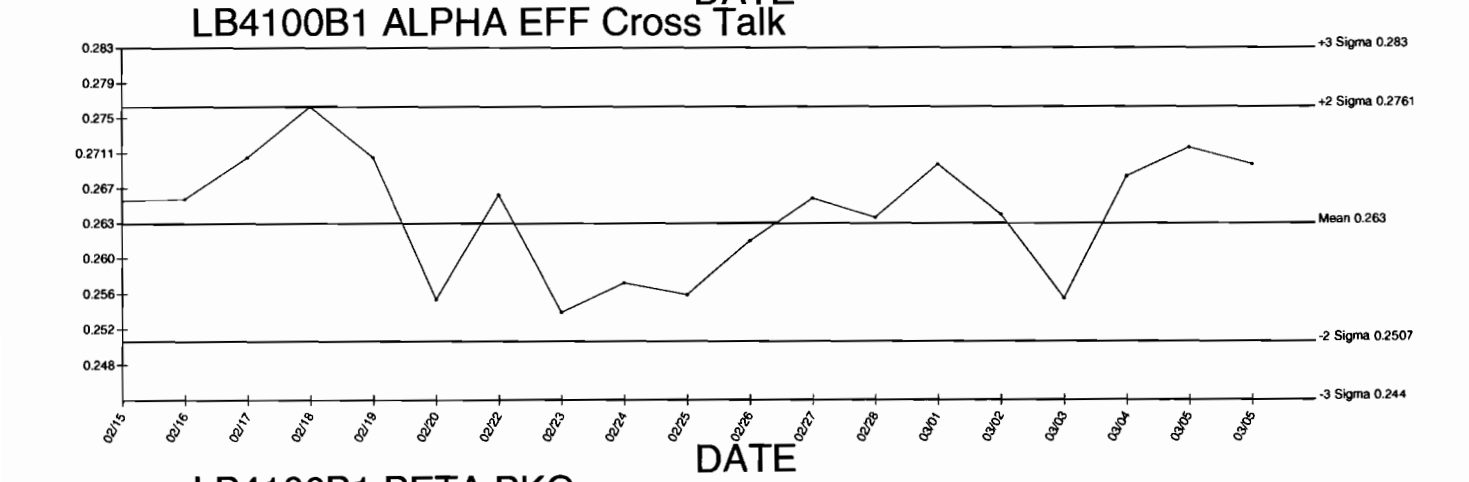

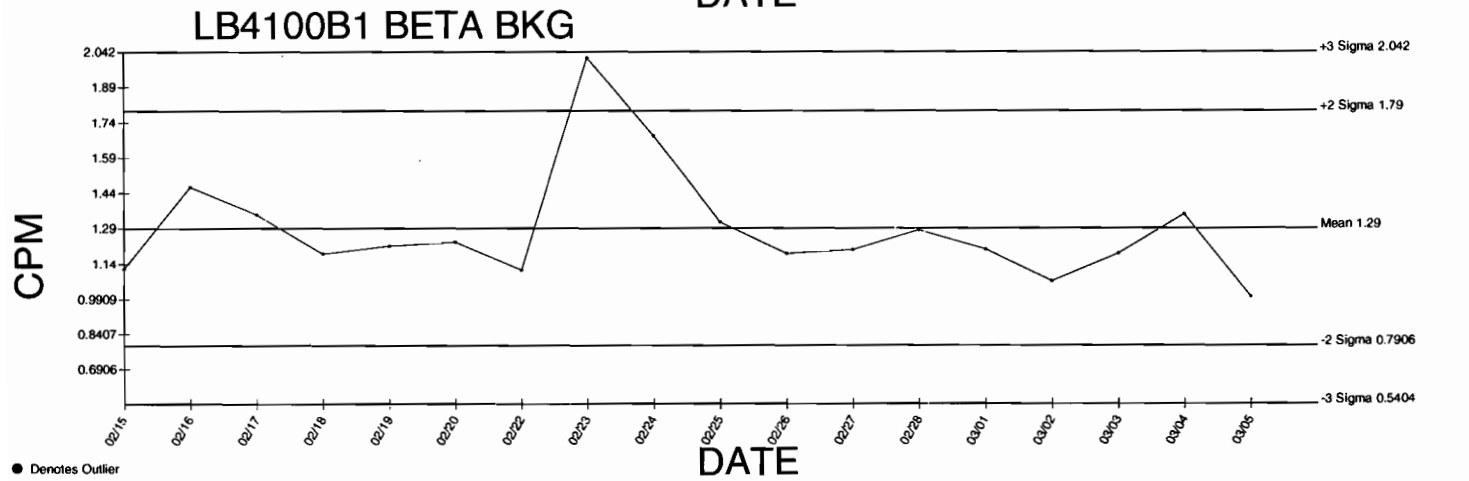

● Denotes Outlier

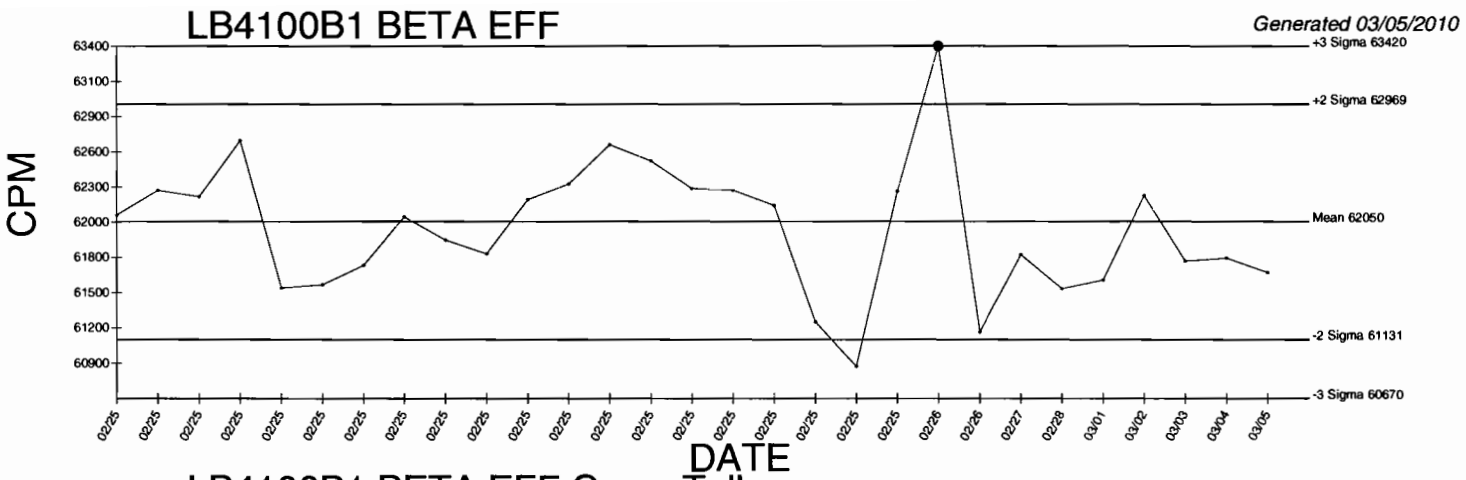

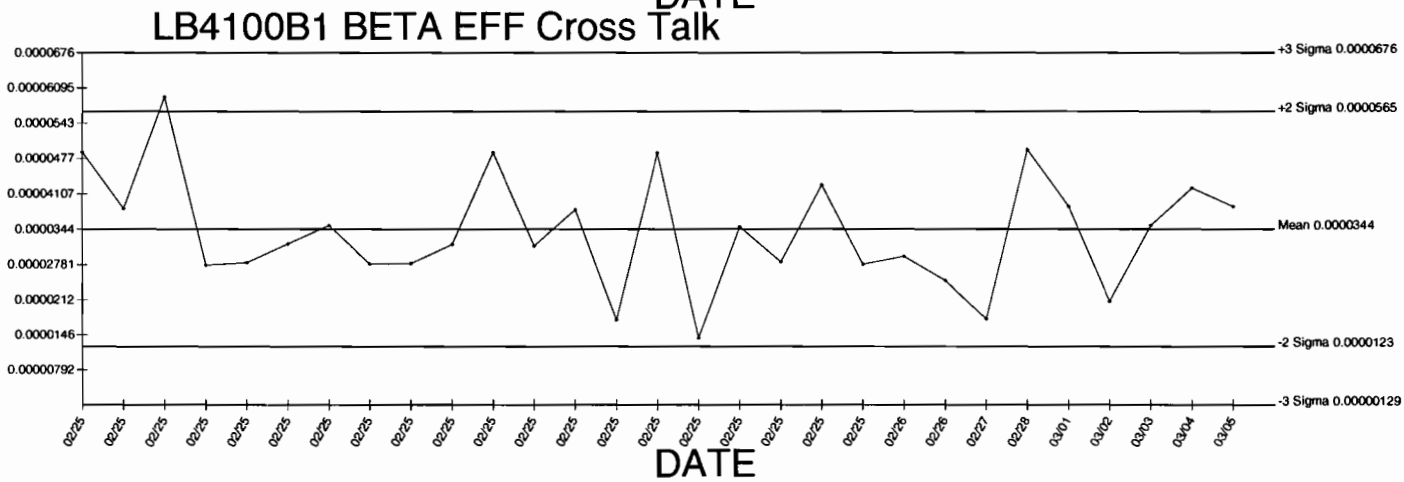

● Denotes Outlier

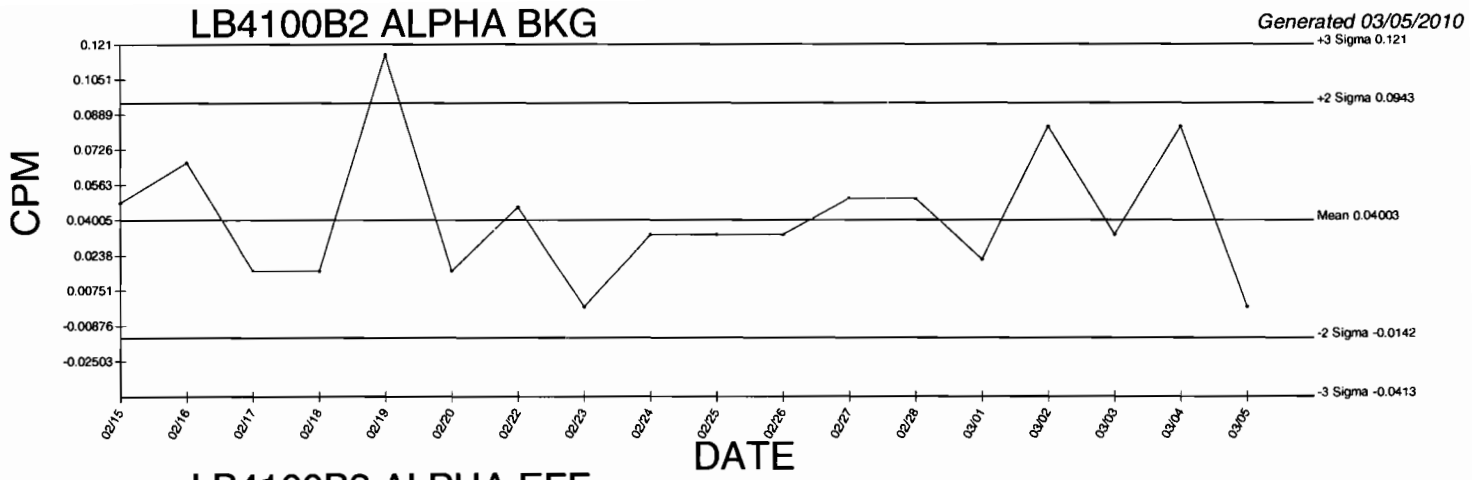
LB4100B2 ALPHA BKG
Generated 03/05/2010
CPM
0.121
0.1051
0.0889
0.0726
0.0563
0.04005
0.0238
0.00751
-0.00876
-0.02503
+3 Sigma 0.121
+2 Sigma 0.0943
Mean 0.04003
-2 Sigma -0.0142
-3 Sigma -0.0413
02/15
02/16
02/17
02/18
02/19
02/20
02/22
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
DATE

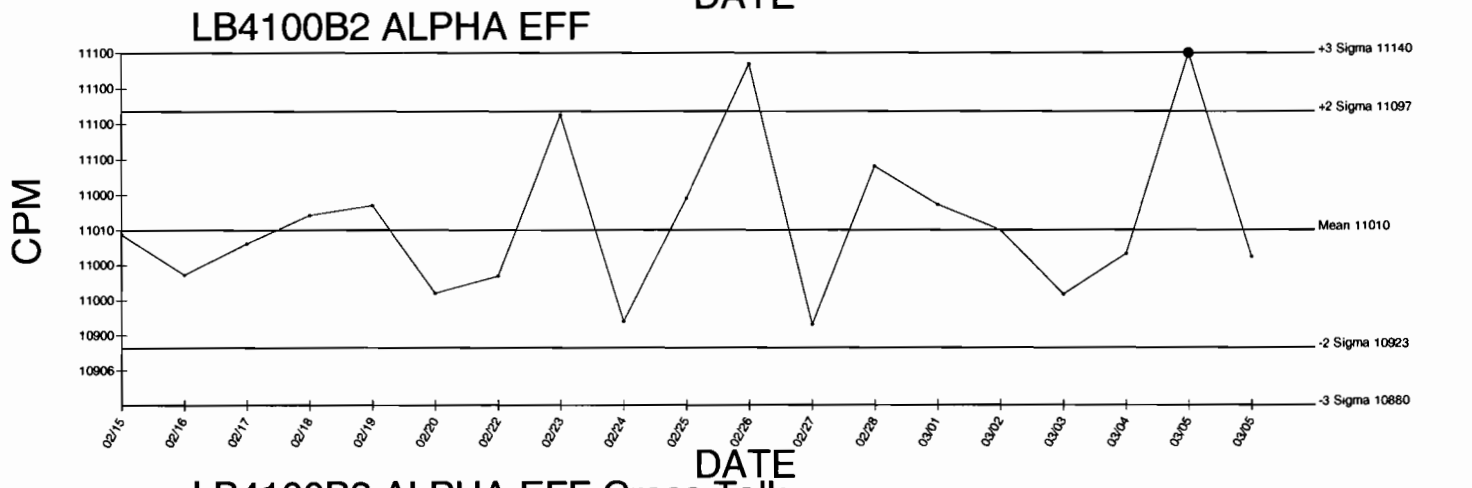
LB4100B2 ALPHA EFF
CPM
11100
11100
11100
11100
11000
11010
11000
11000
10900
10906
+3 Sigma 11140
+2 Sigma 11097
Mean 11010
-2 Sigma 10923
-3 Sigma 10880
02/15
02/16
02/17
02/18
02/19
02/20
02/22
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
DATE

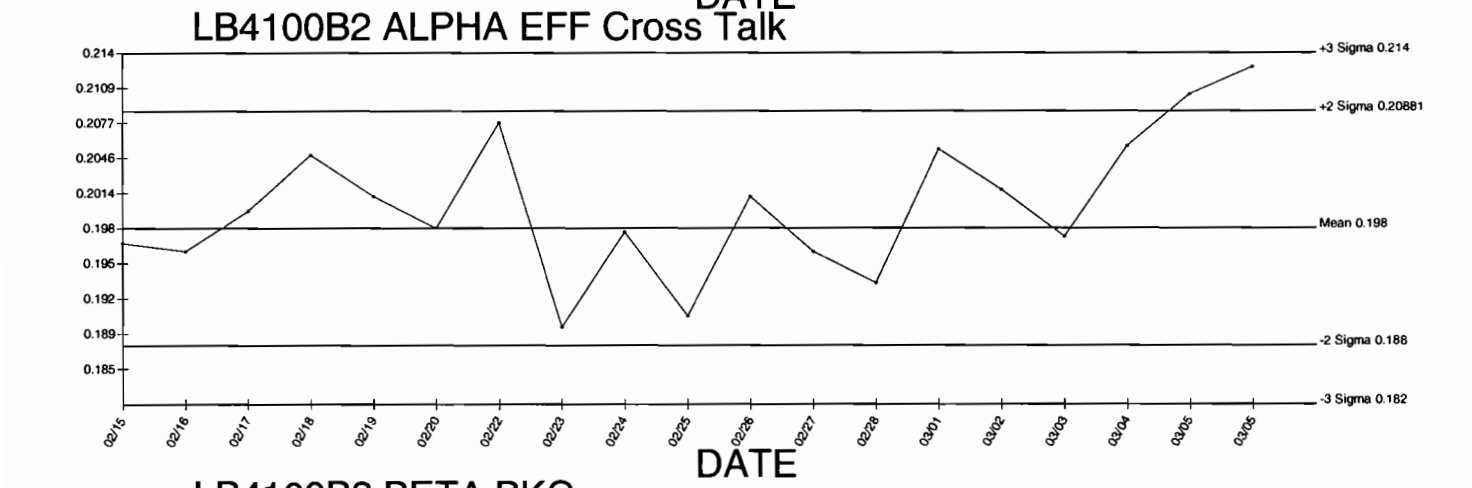
LB4100B2 ALPHA EFF Cross Talk
0.214
0.2109
0.2077
0.2046
0.2014
0.198
0.195
0.192
0.189
0.185
+3 Sigma 0.214
+2 Sigma 0.20881
Mean 0.198
-2 Sigma 0.188
-3 Sigma 0.182
02/15
02/16
02/17
02/18
02/19
02/20
02/22
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
DATE

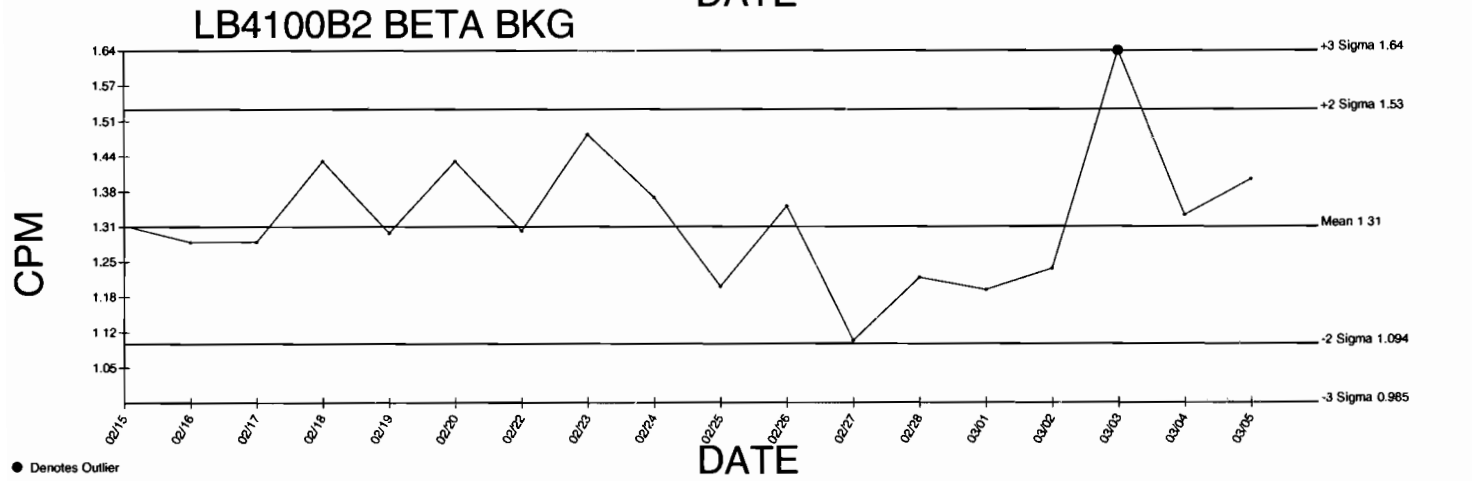
LB4100B2 BETA BKG
CPM
1.64
1.57
1.51
1.44
1.38
1.31
1.25
1.18
1.12
1.05
+3 Sigma 1.64
+2 Sigma 1.53
Mean 1.31
-2 Sigma 1.094
-3 Sigma 0.985
02/15
02/16
02/17
02/18
02/19
02/20
02/22
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
DATE
● Denotes Outlier

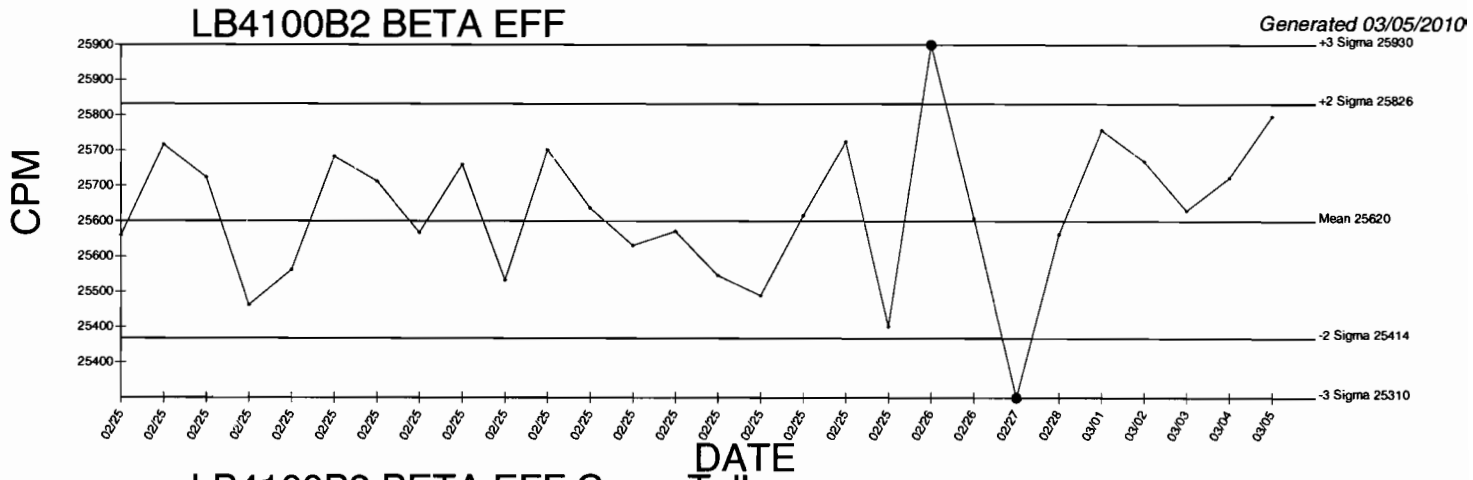

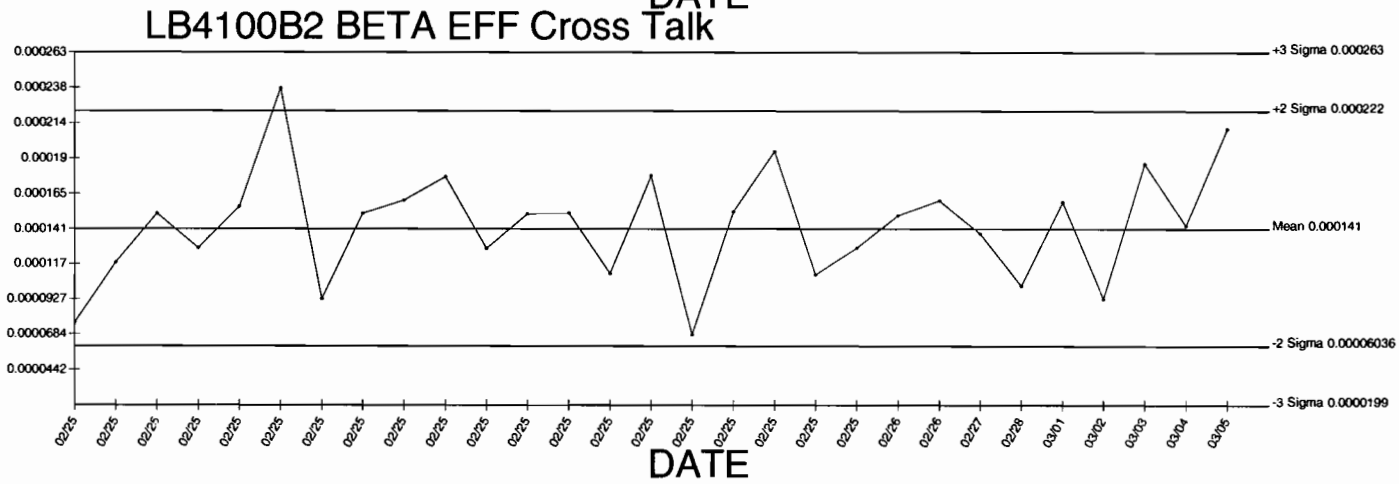

● Denotes Outlier

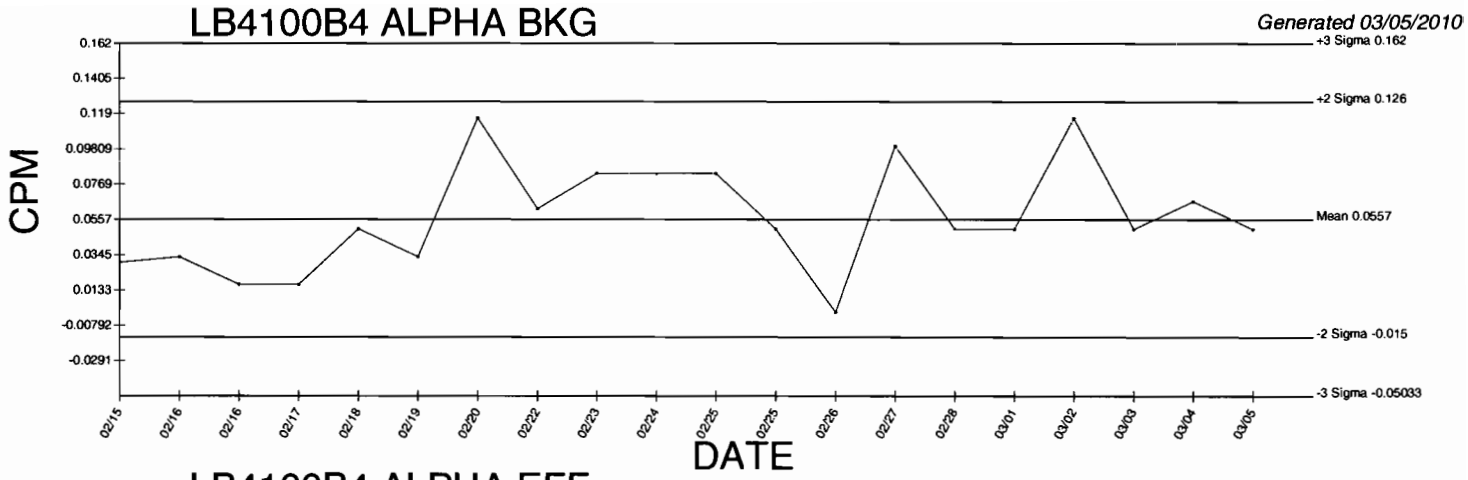

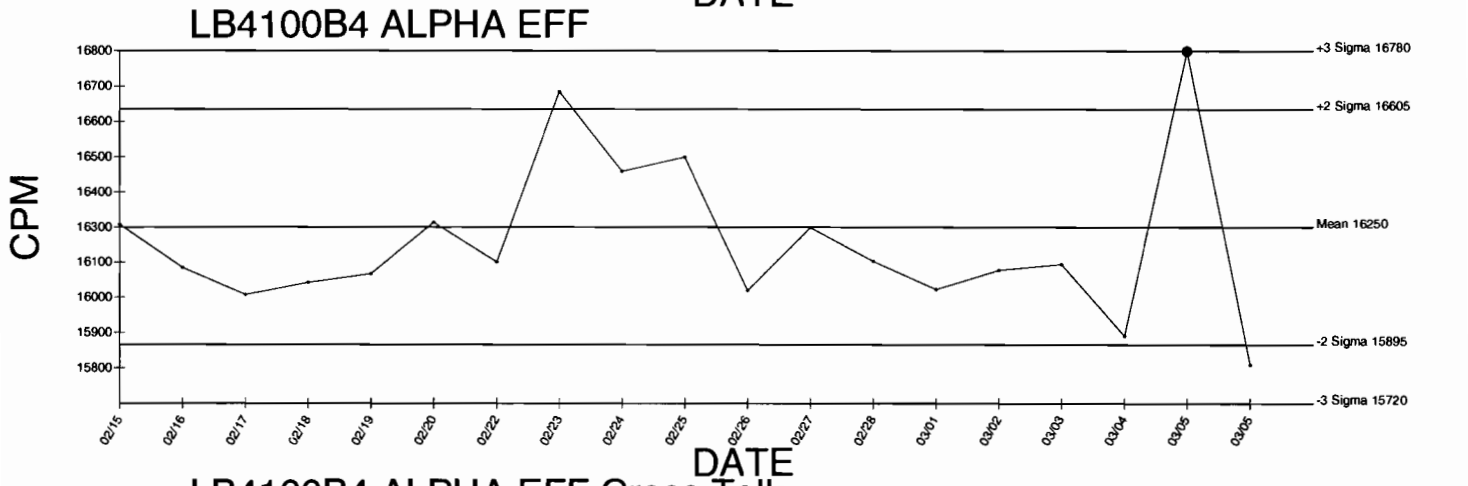

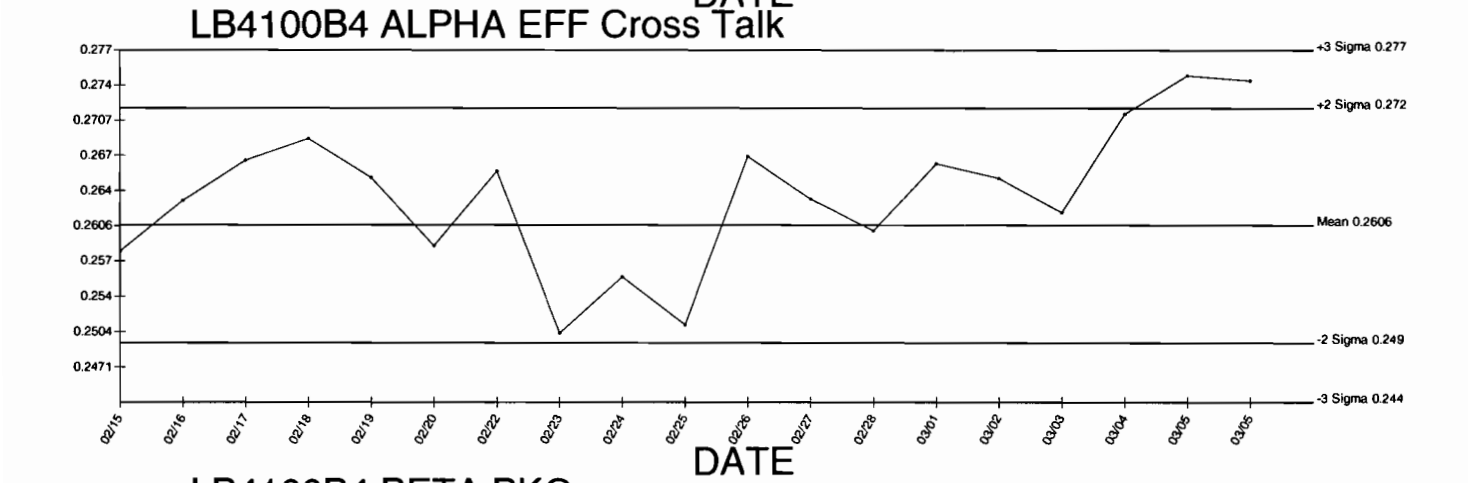

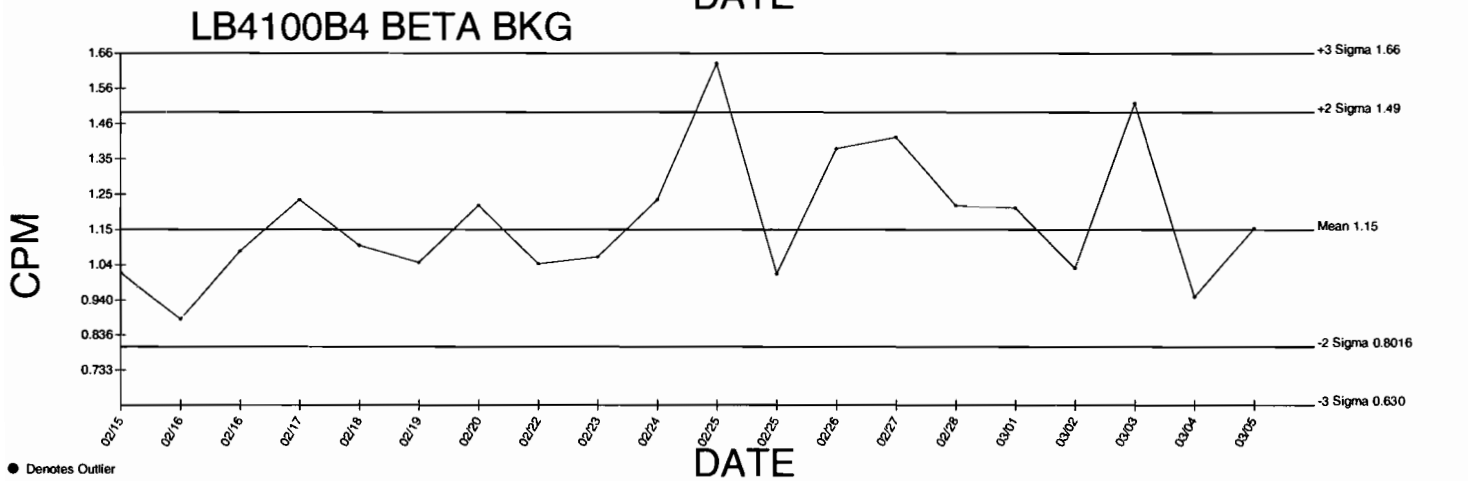

● Denotes Outlier

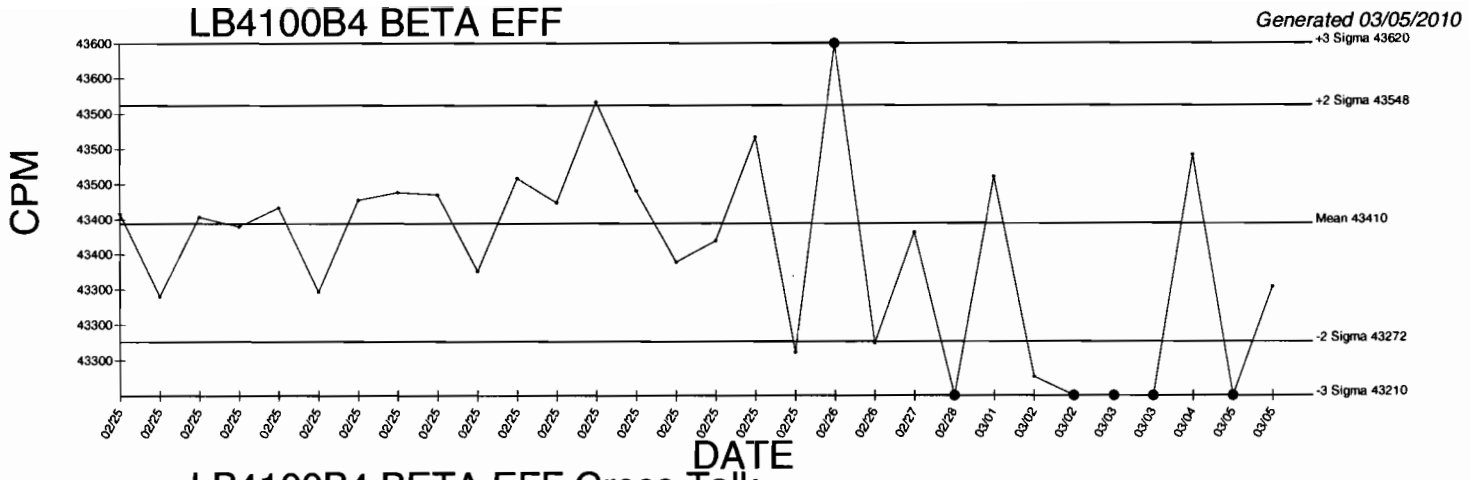

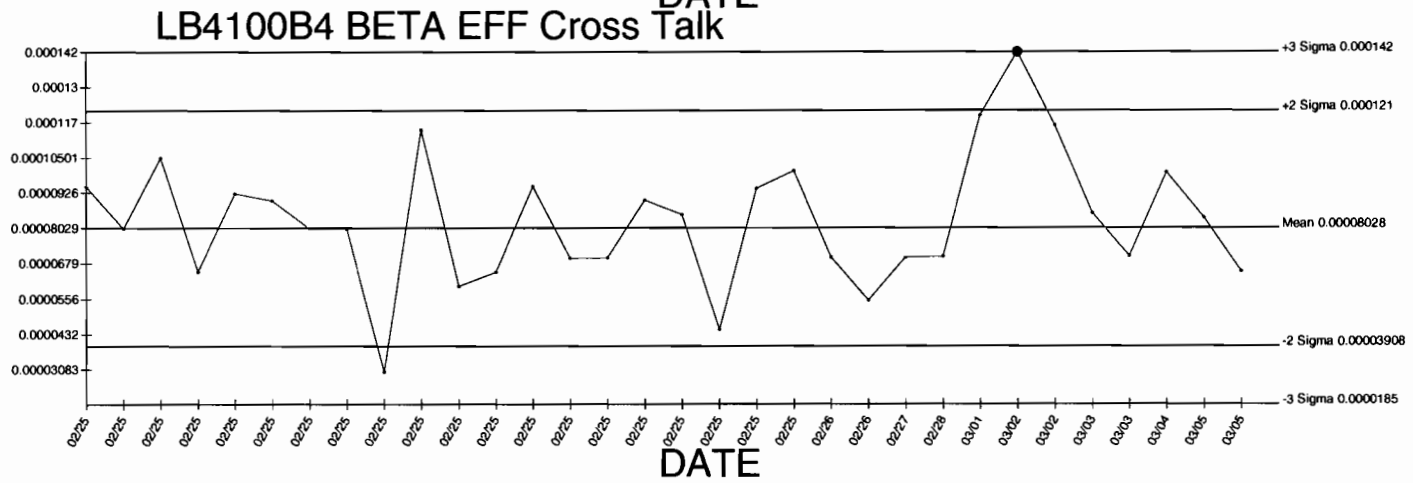

● Denotes Outlier

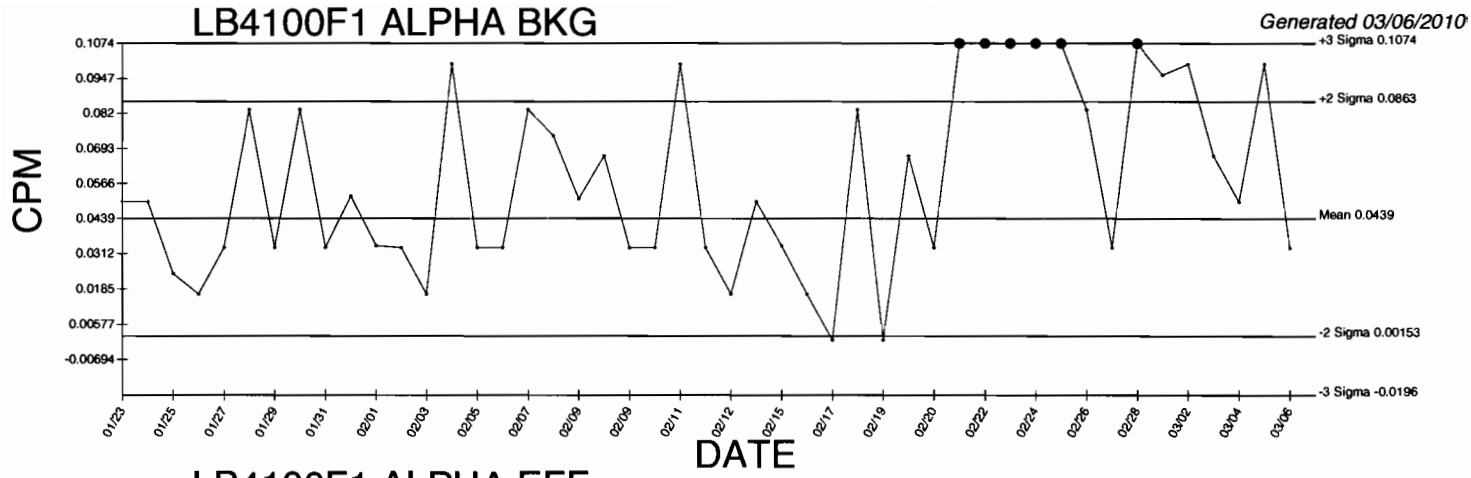
LB4100F1 ALPHA BKG
Generated 03/06/2010
CPM
DATE
+3 Sigma 0.1074
+2 Sigma 0.0863
Mean 0.0439
-2 Sigma 0.00153
-3 Sigma -0.0196

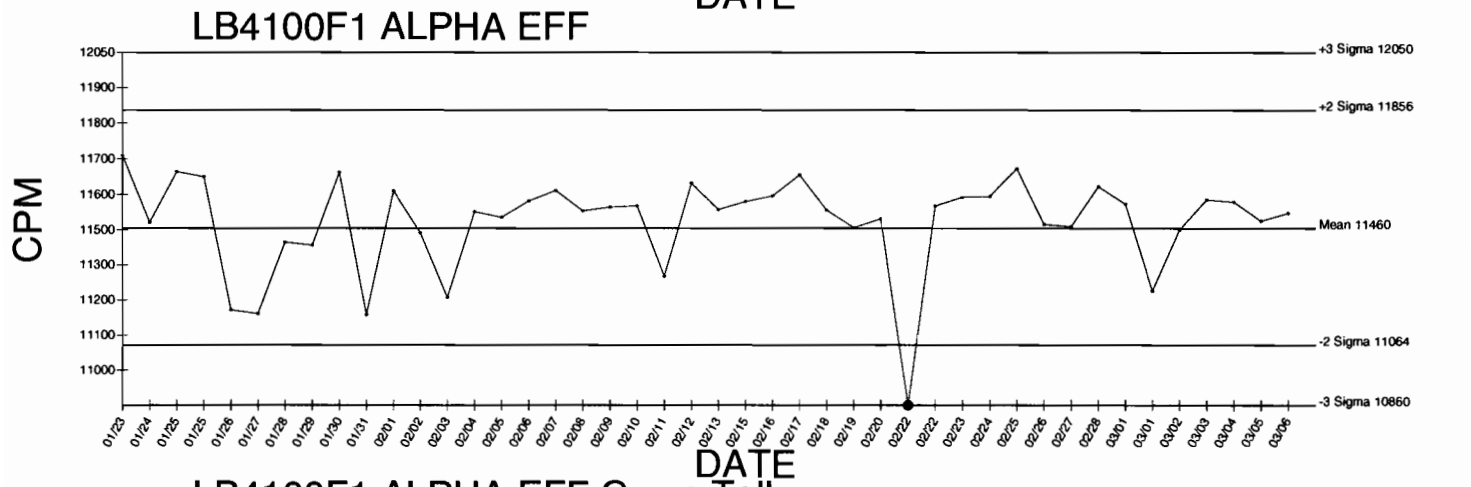
LB4100F1 ALPHA EFF
CPM
DATE
+3 Sigma 12050
+2 Sigma 11856
Mean 11460
-2 Sigma 11064
-3 Sigma 10860

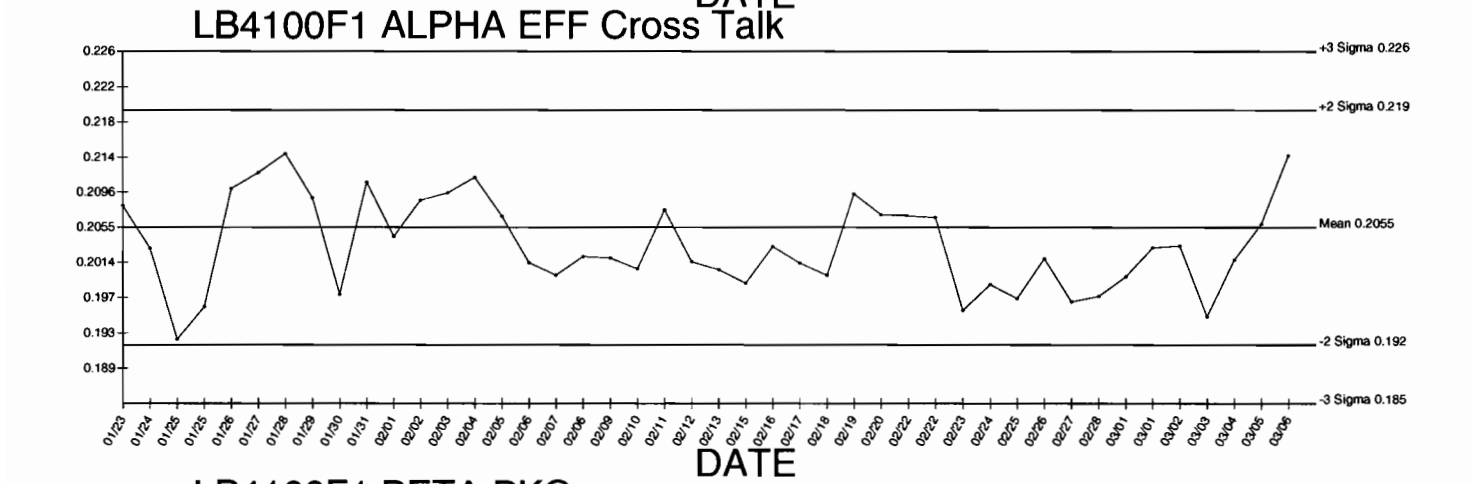
LB4100F1 ALPHA EFF Cross Talk
DATE
+3 Sigma 0.226
+2 Sigma 0.219
Mean 0.2055
-2 Sigma 0.192
-3 Sigma 0.185

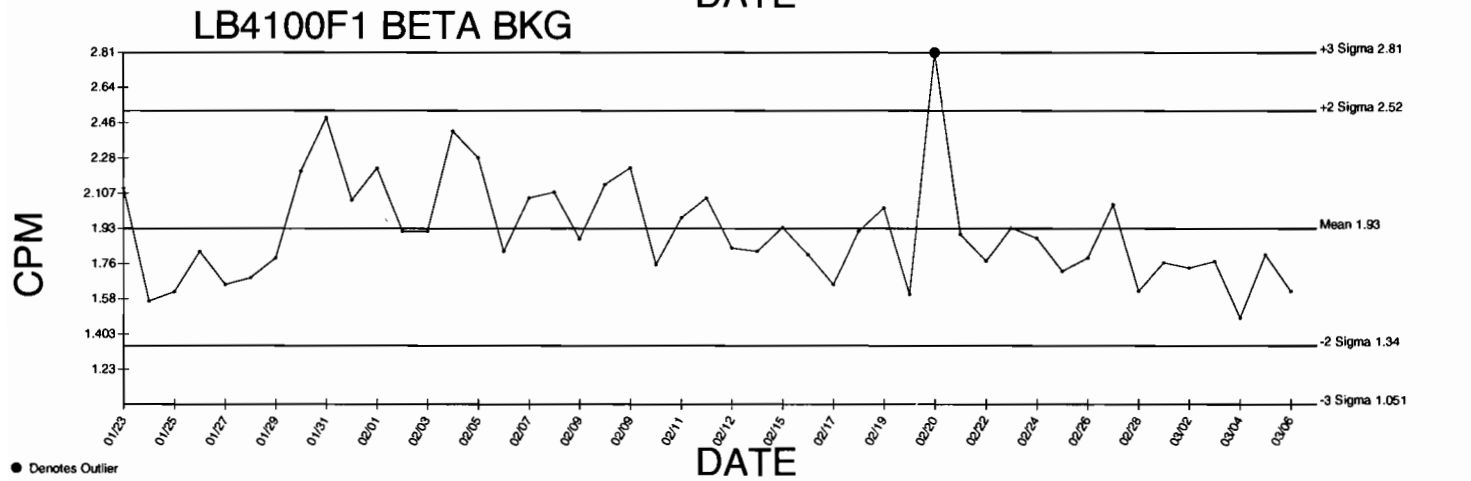
LB4100F1 BETA BKG
CPM
DATE
+3 Sigma 2.81
+2 Sigma 2.52
Mean 1.93
-2 Sigma 1.34
-3 Sigma 1.051
● Denotes Outlier

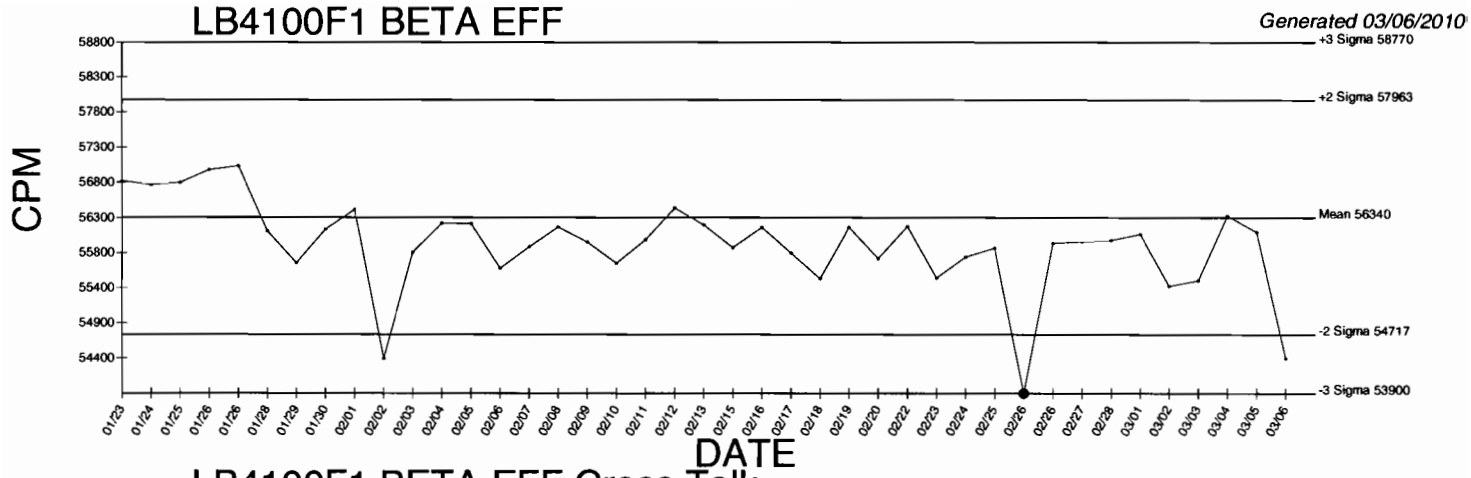

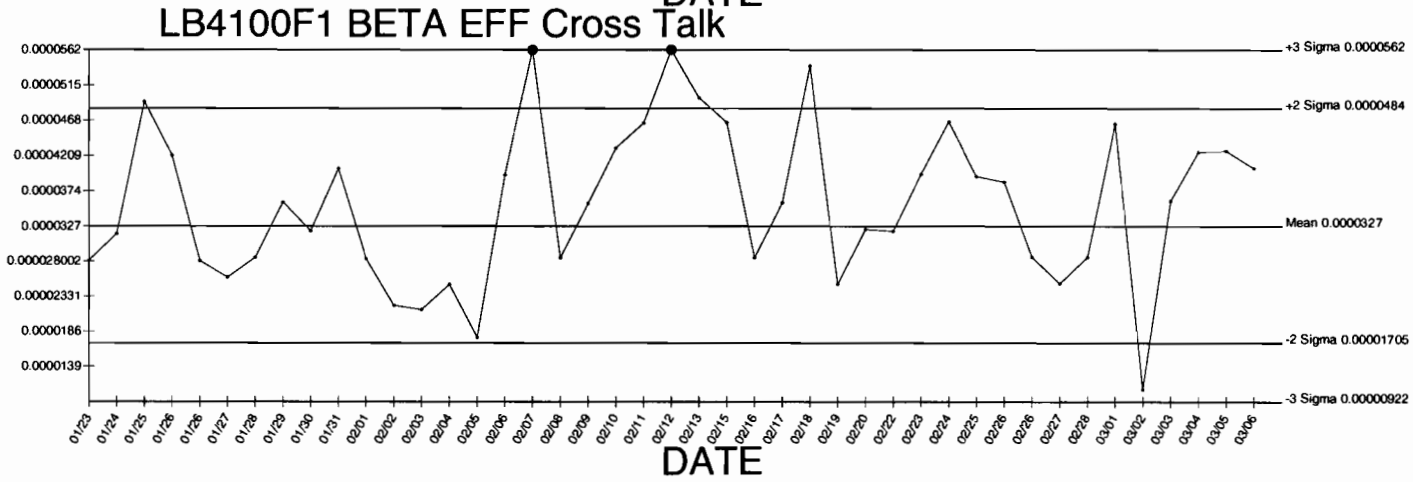

● Denotes Outlier

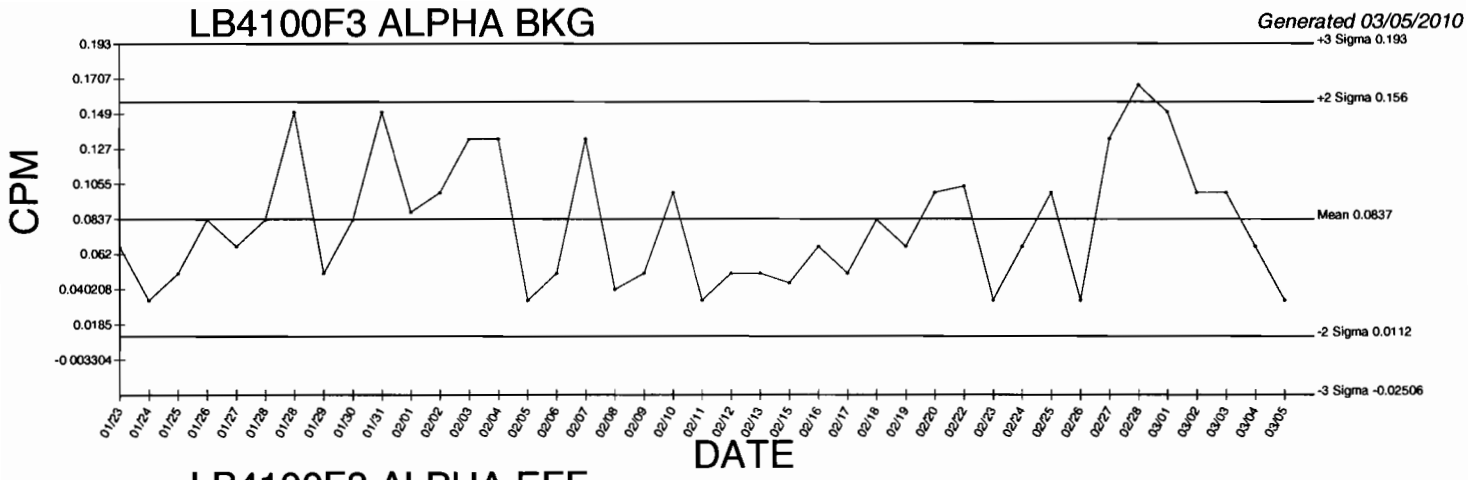
LB4100F3 ALPHA BKG
Generated 03/05/2010
CPM
DATE
+3 Sigma 0.193
+2 Sigma 0.156
Mean 0.0837
-2 Sigma 0.0112
-3 Sigma -0.02506

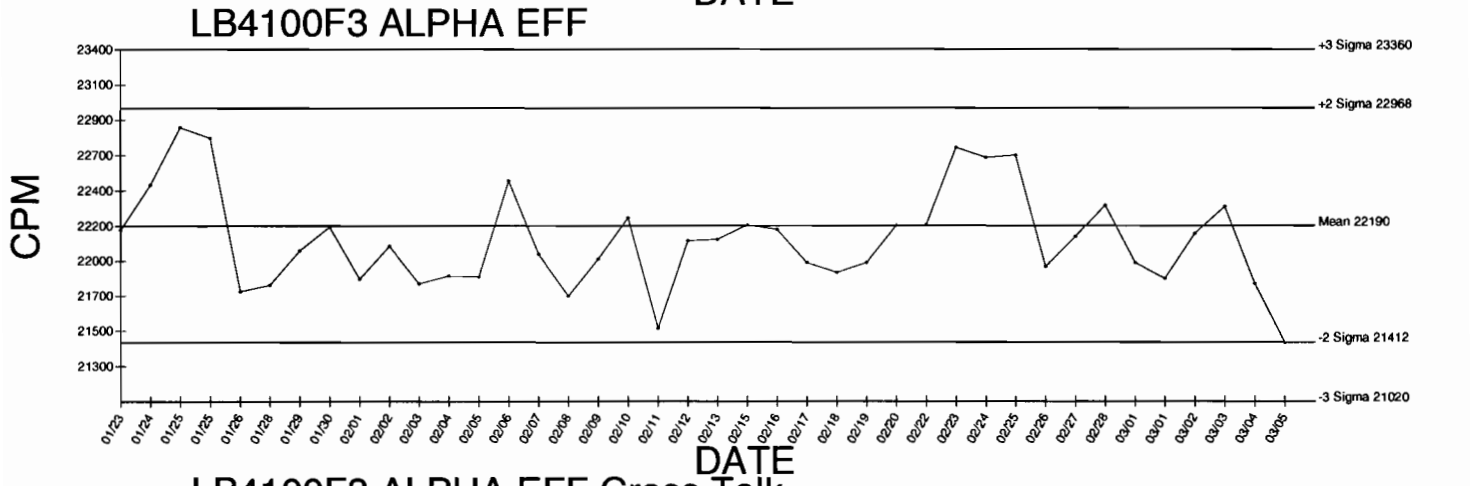
LB4100F3 ALPHA EFF
CPM
DATE
+3 Sigma 23360
+2 Sigma 22968
Mean 22190
-2 Sigma 21412
-3 Sigma 21020

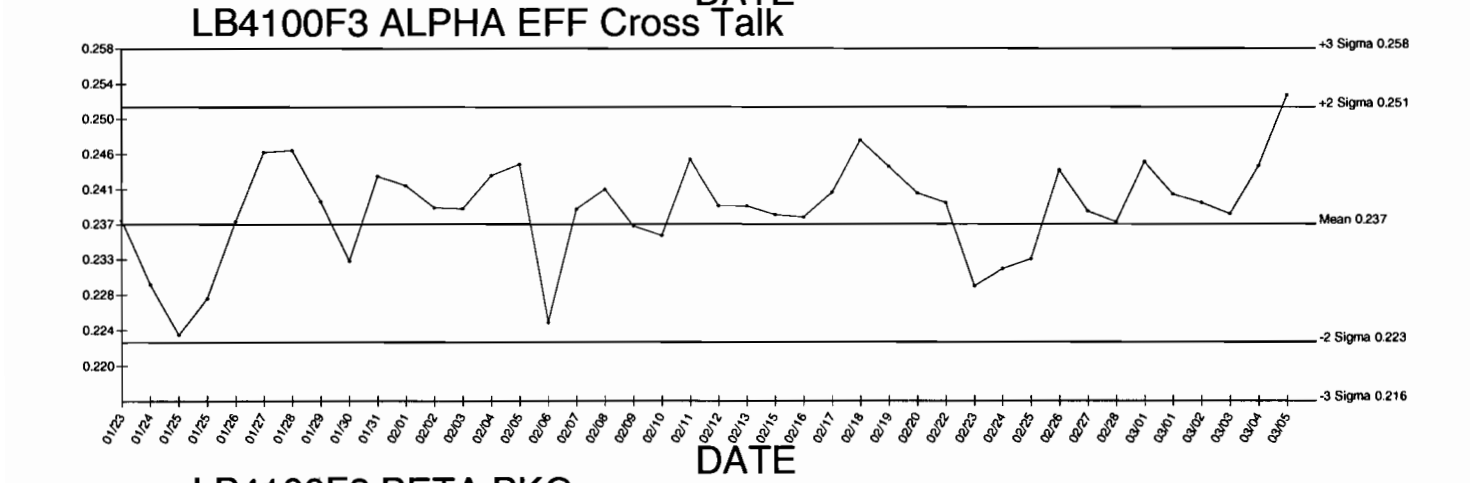
LB4100F3 ALPHA EFF Cross Talk
DATE
+3 Sigma 0.258
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Mean 0.237
-2 Sigma 0.223
-3 Sigma 0.216

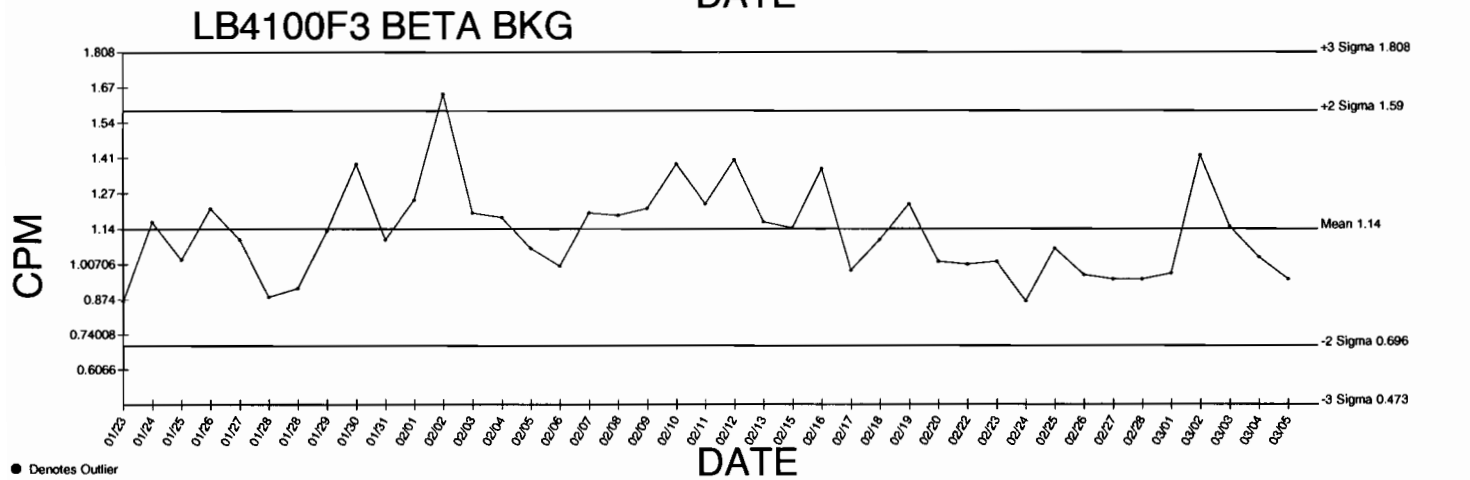
LB4100F3 BETA BKG
CPM
DATE
+3 Sigma 1.808
+2 Sigma 1.59
Mean 1.14
-2 Sigma 0.696
-3 Sigma 0.473
● Denotes Outlier

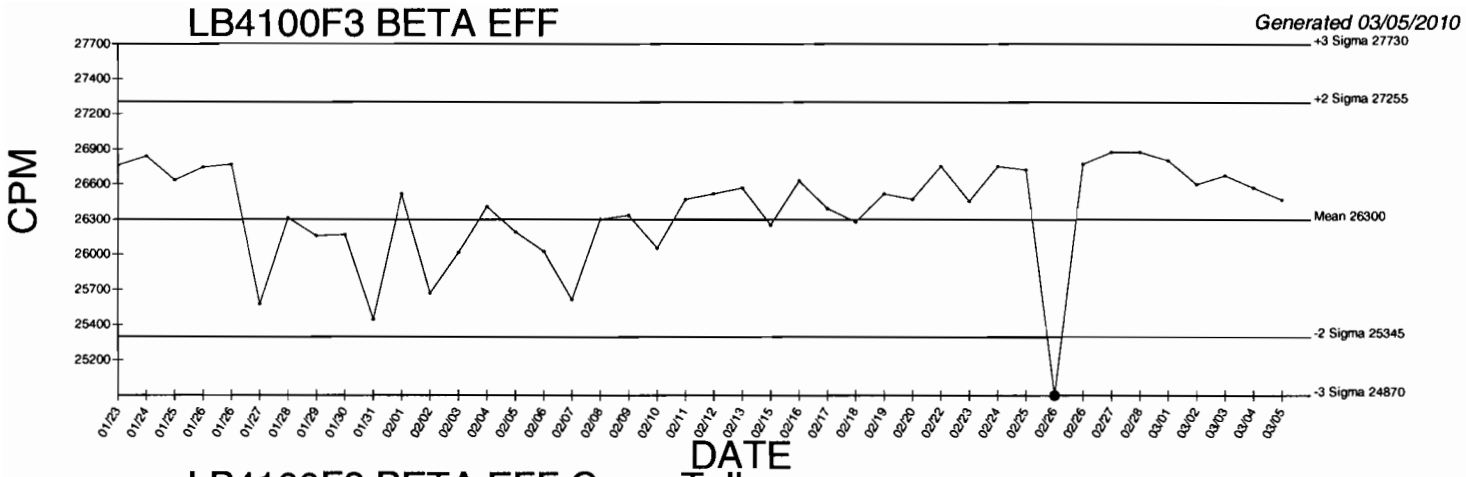

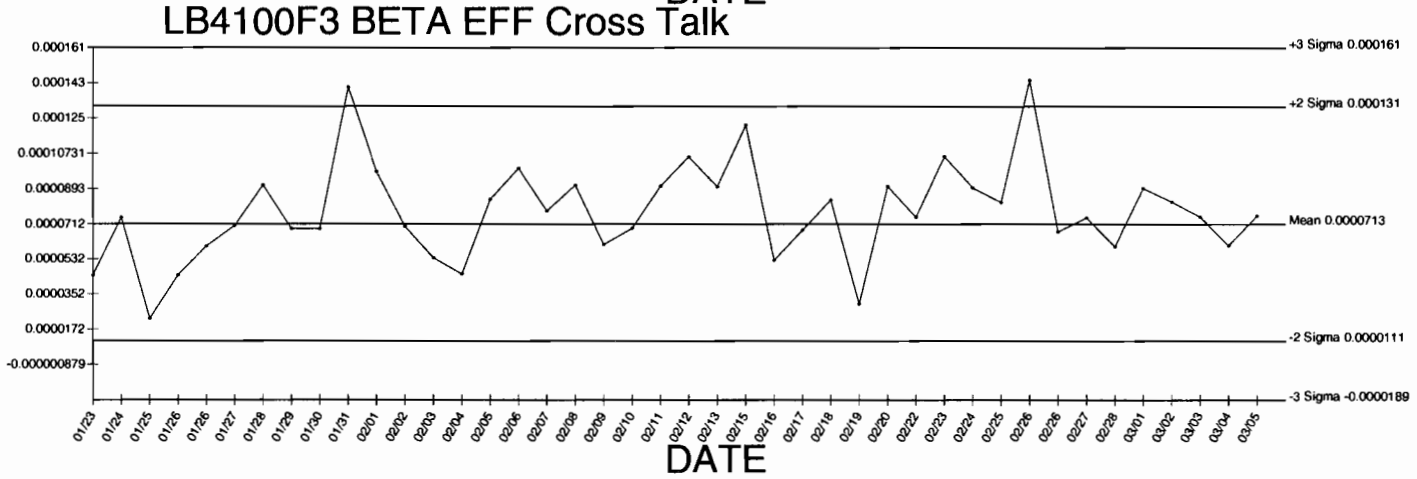

● Denotes Outlier

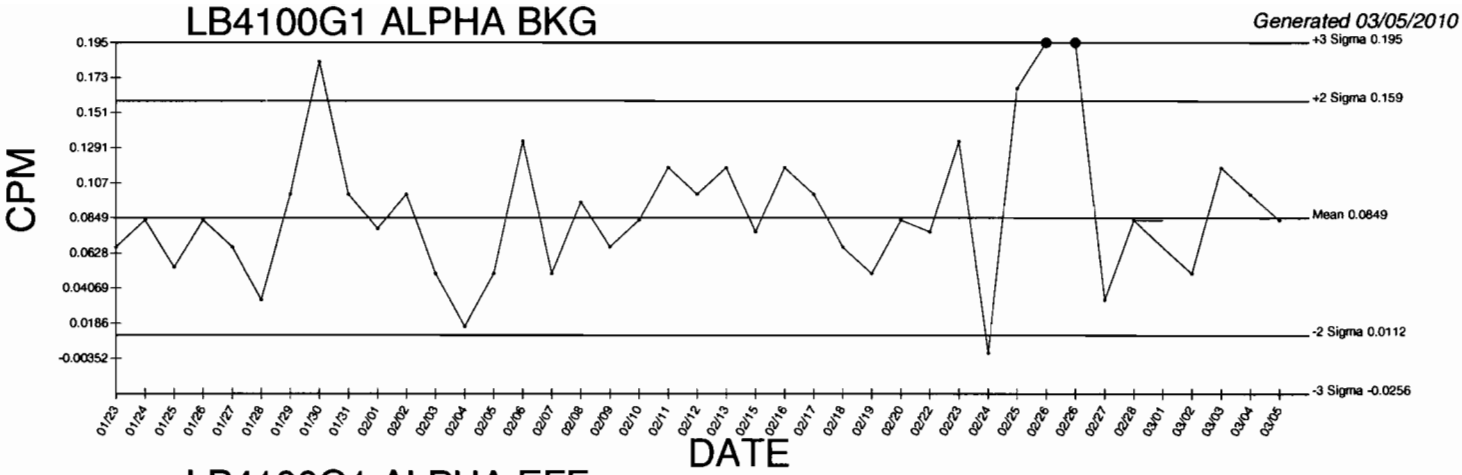

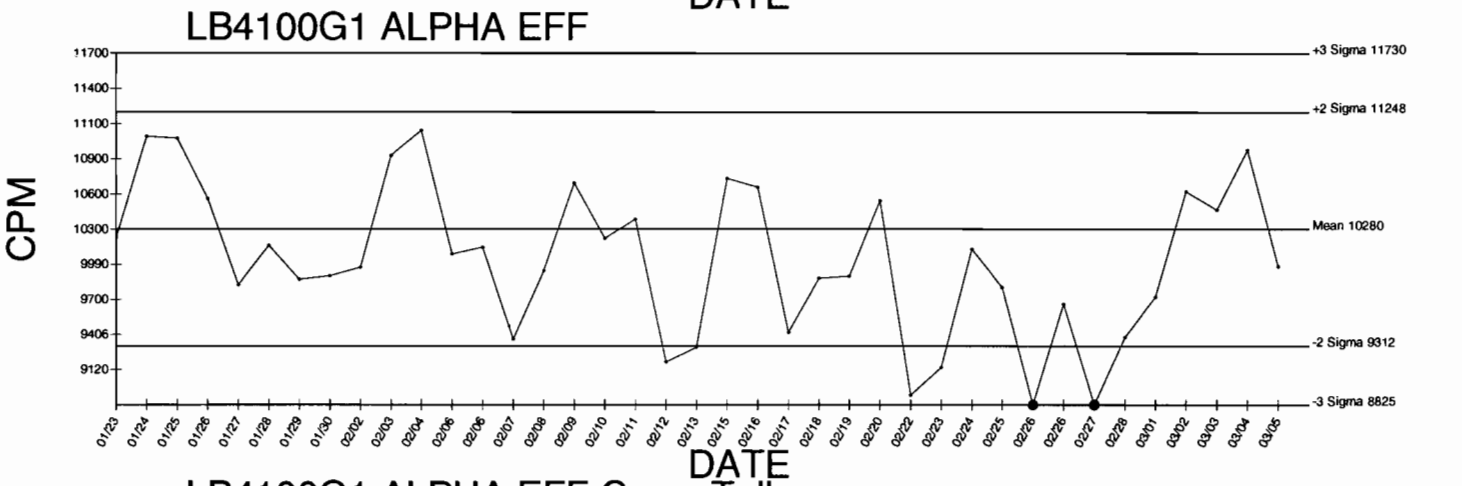

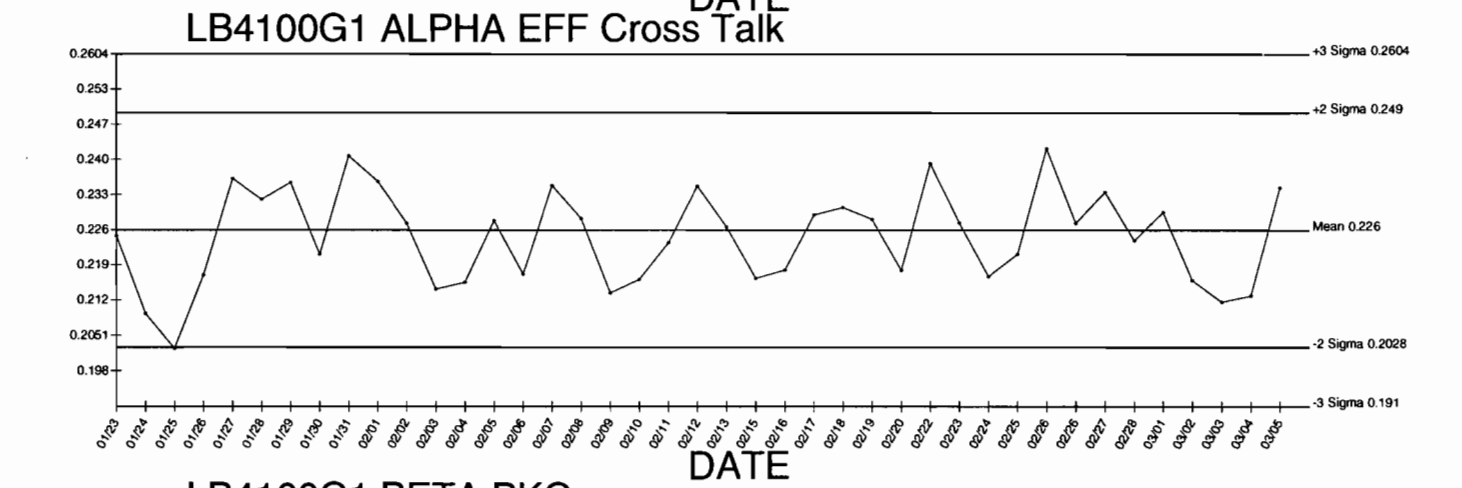

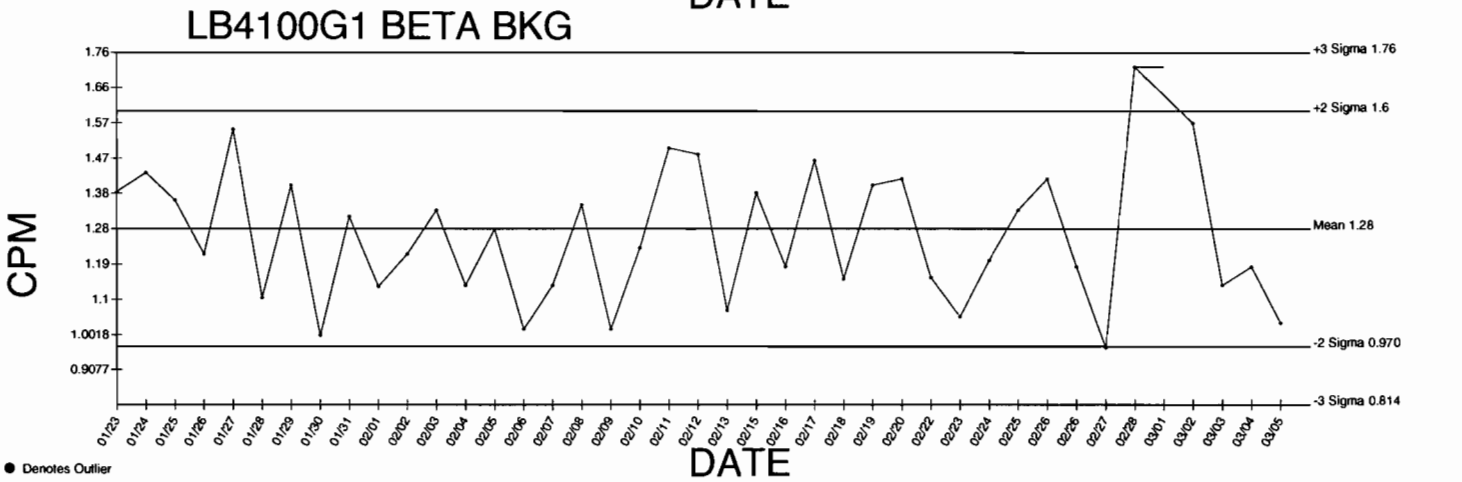

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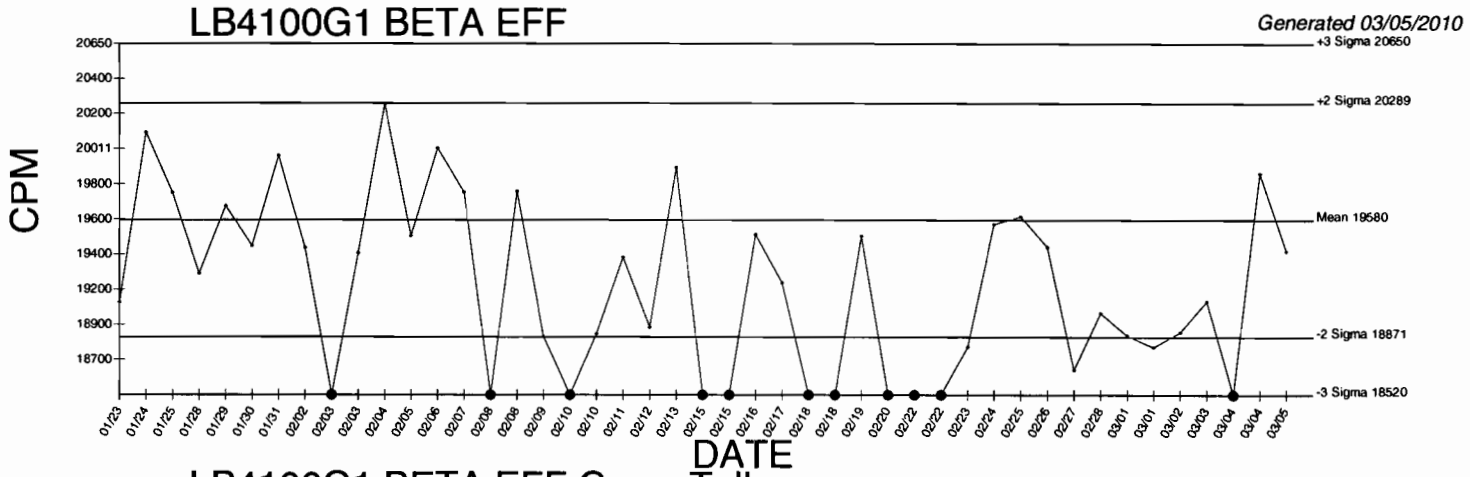

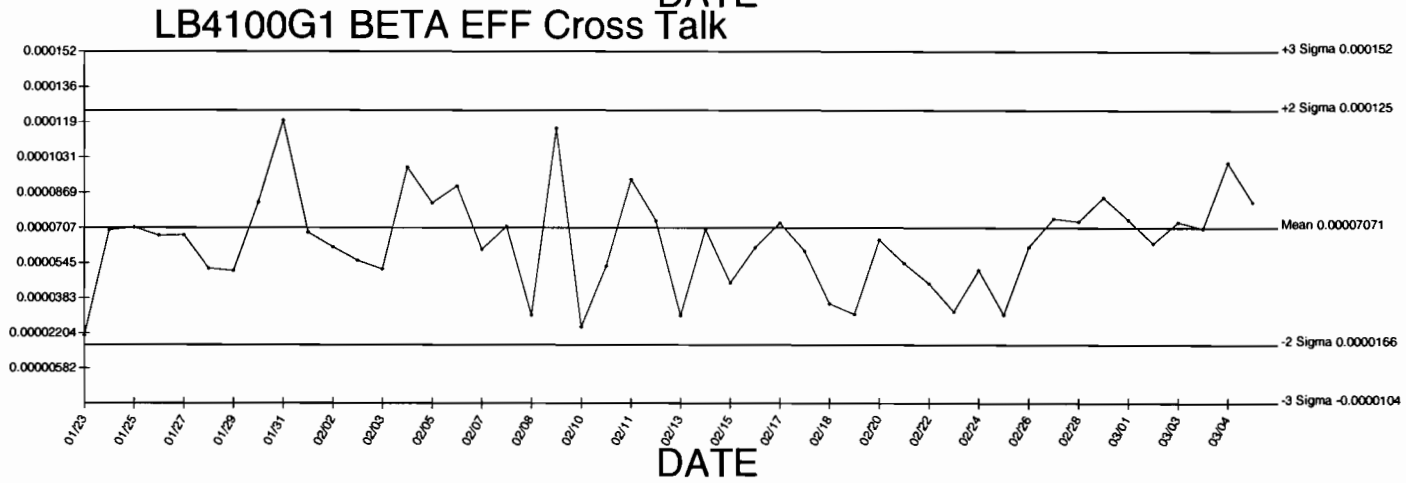

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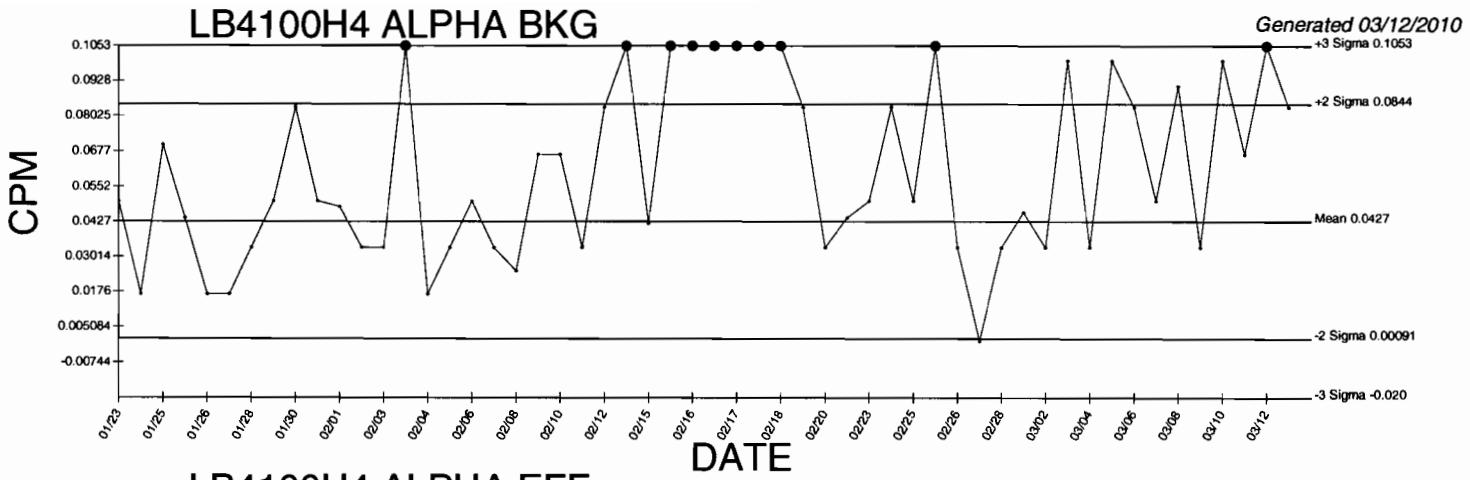
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+2 Sigma 0.0844
Mean 0.0427
-2 Sigma 0.00091
-3 Sigma -0.020

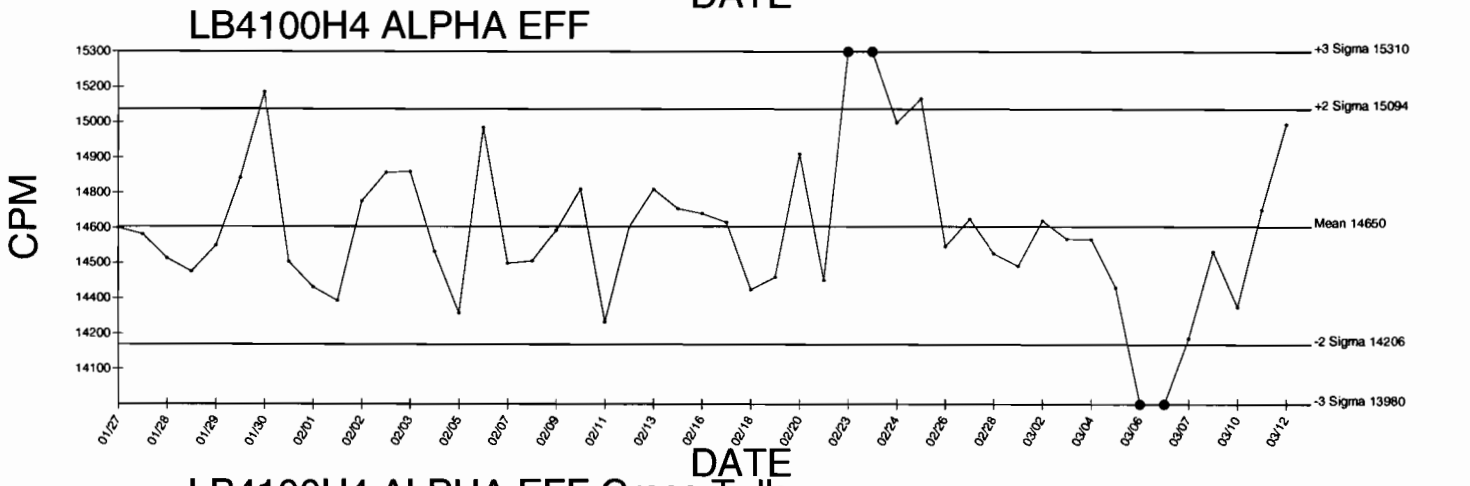
LB4100H4 ALPHA EFF
CPM
DATE
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+2 Sigma 15094
Mean 14650
-2 Sigma 14206
-3 Sigma 13980

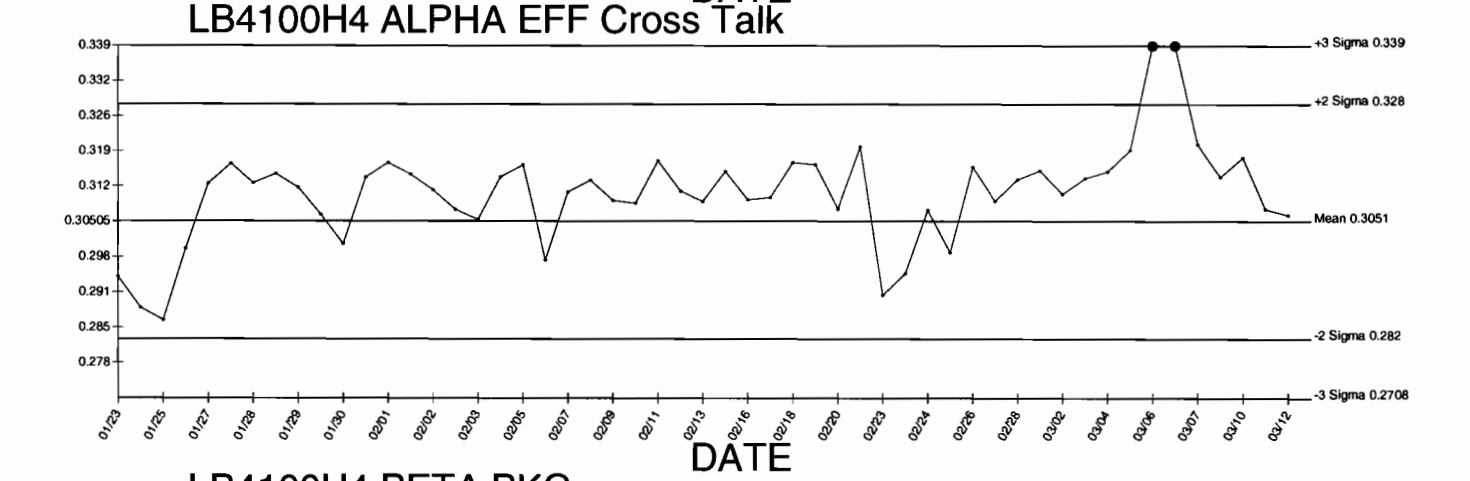
LB4100H4 ALPHA EFF Cross Talk
DATE
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+2 Sigma 0.328
Mean 0.3051
-2 Sigma 0.282
-3 Sigma 0.2708

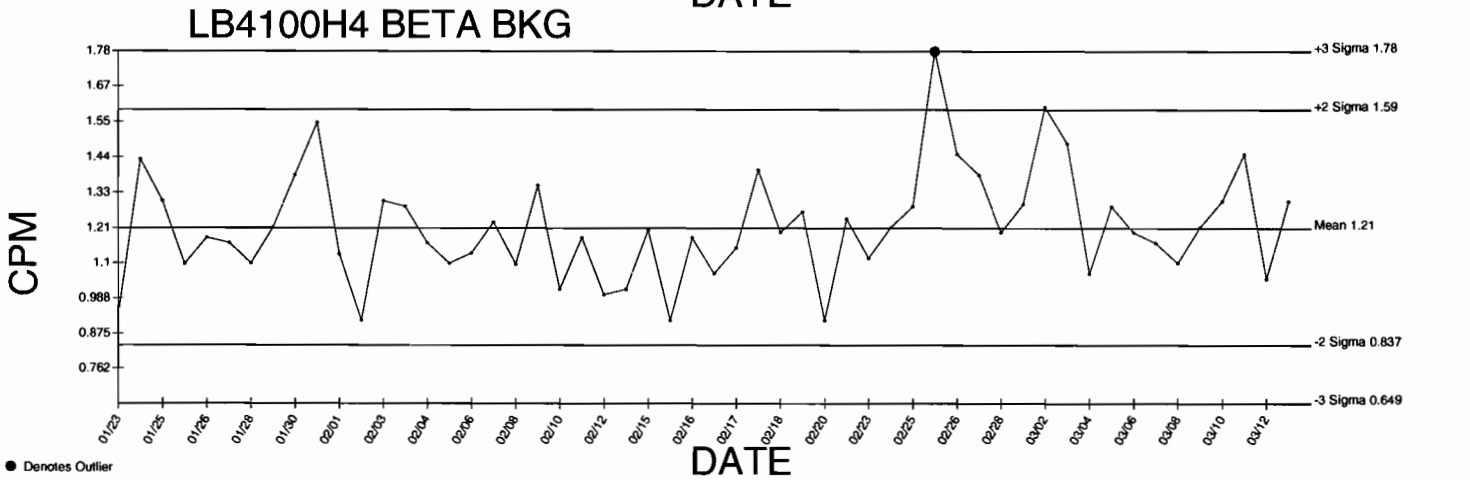
LB4100H4 BETA BKG
CPM
DATE
+3 Sigma 1.78
+2 Sigma 1.59
Mean 1.21
-2 Sigma 0.837
-3 Sigma 0.649
● Denotes Outlier

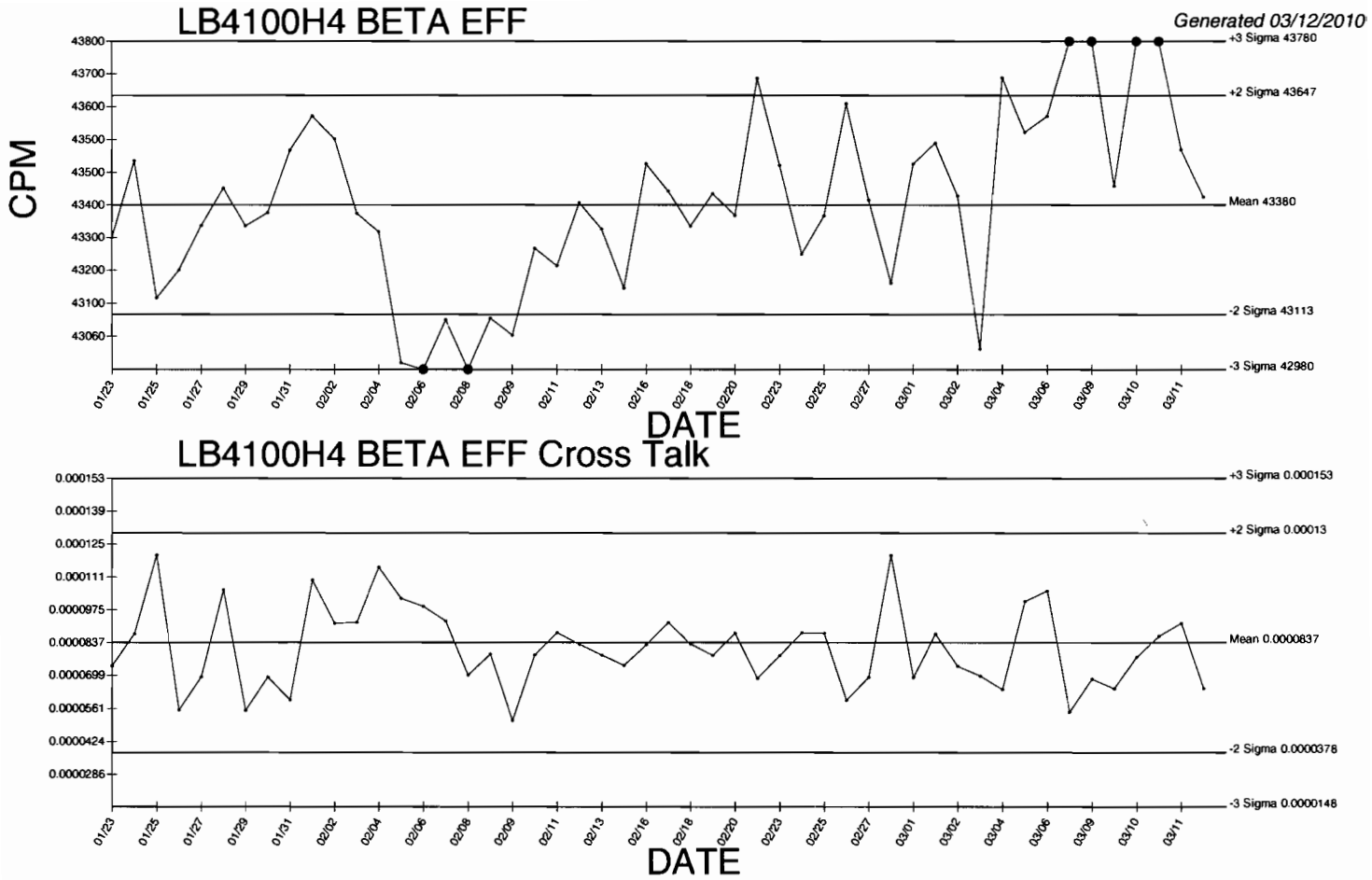

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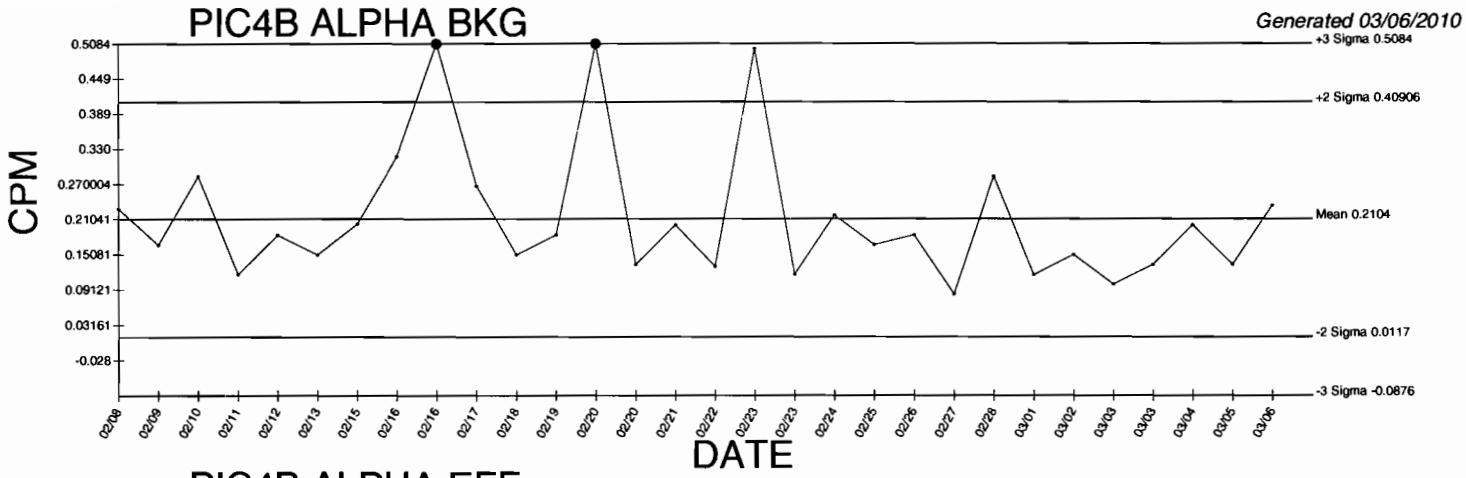
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Generated 03/06/2010
CPM
DATE
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Mean 0.2104
-2 Sigma 0.0117
-3 Sigma -0.0876

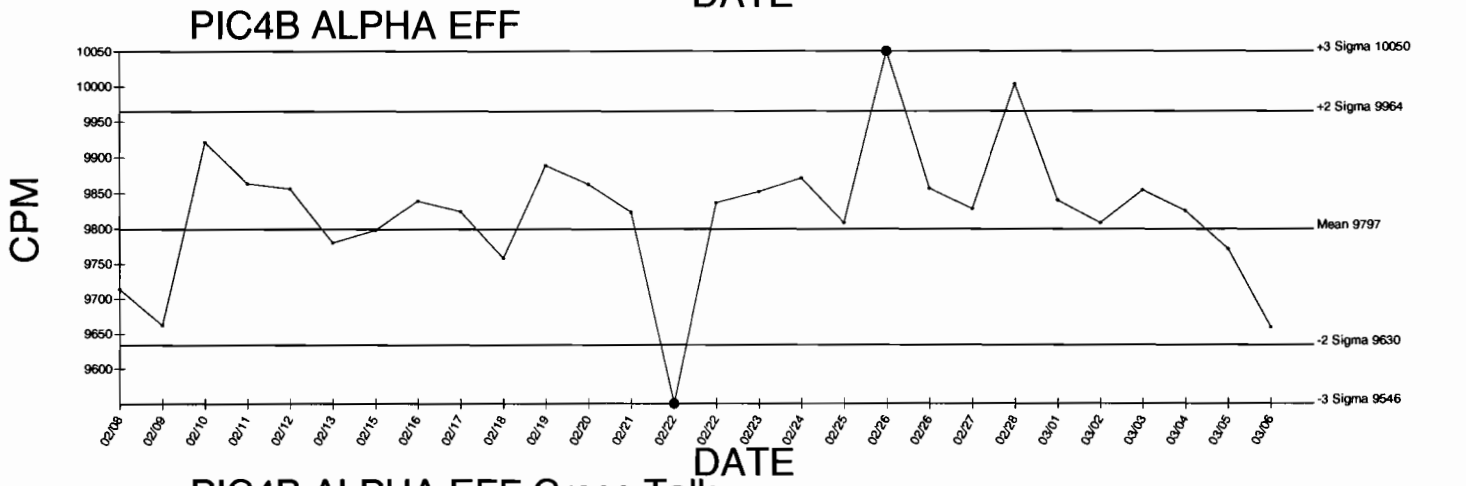
PIC4B ALPHA EFF
CPM
DATE
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+2 Sigma 9964
Mean 9797
-2 Sigma 9630
-3 Sigma 9546

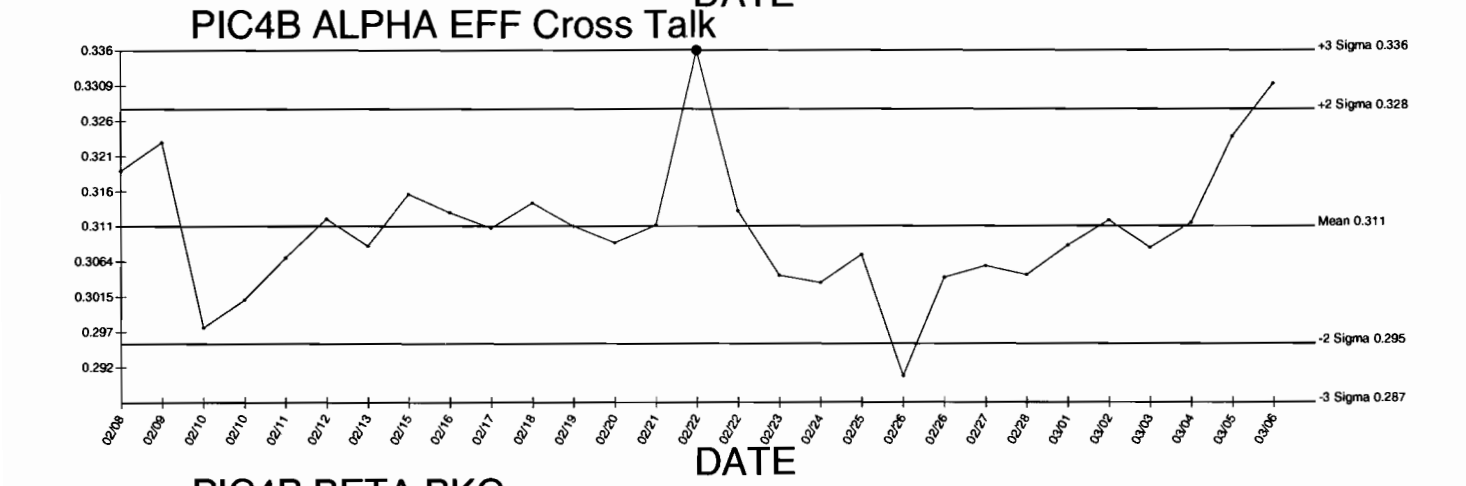
PIC4B ALPHA EFF Cross Talk
DATE
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+2 Sigma 0.328
Mean 0.311
-2 Sigma 0.295
-3 Sigma 0.287

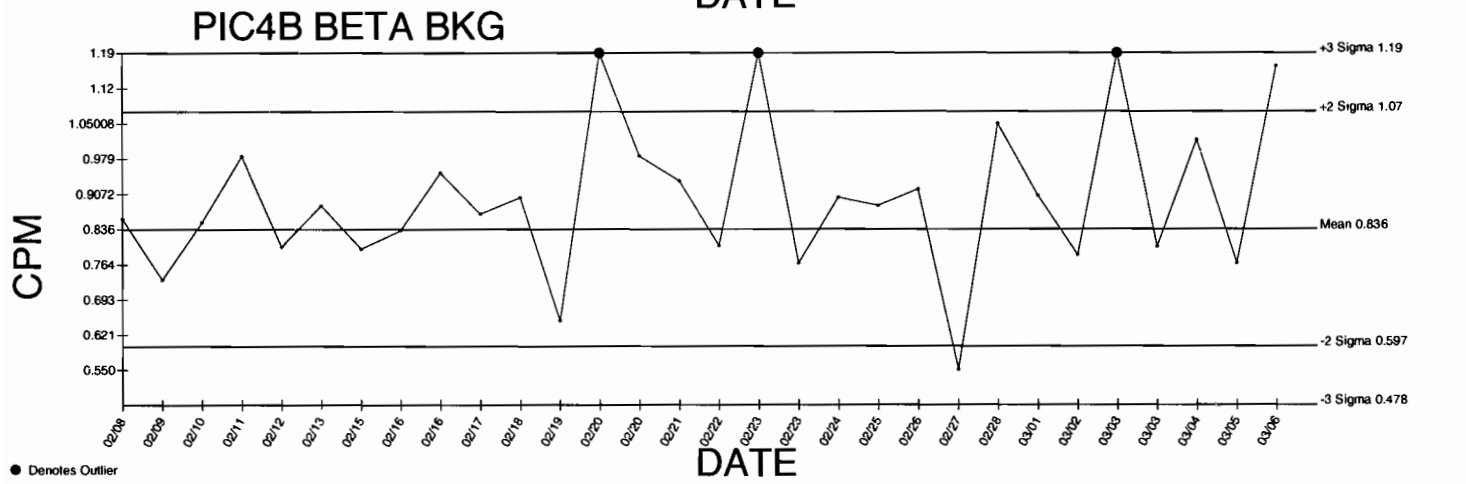
PIC4B BETA BKG
CPM
DATE
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+2 Sigma 1.07
Mean 0.836
-2 Sigma 0.597
-3 Sigma 0.478
● Denotes Outlier

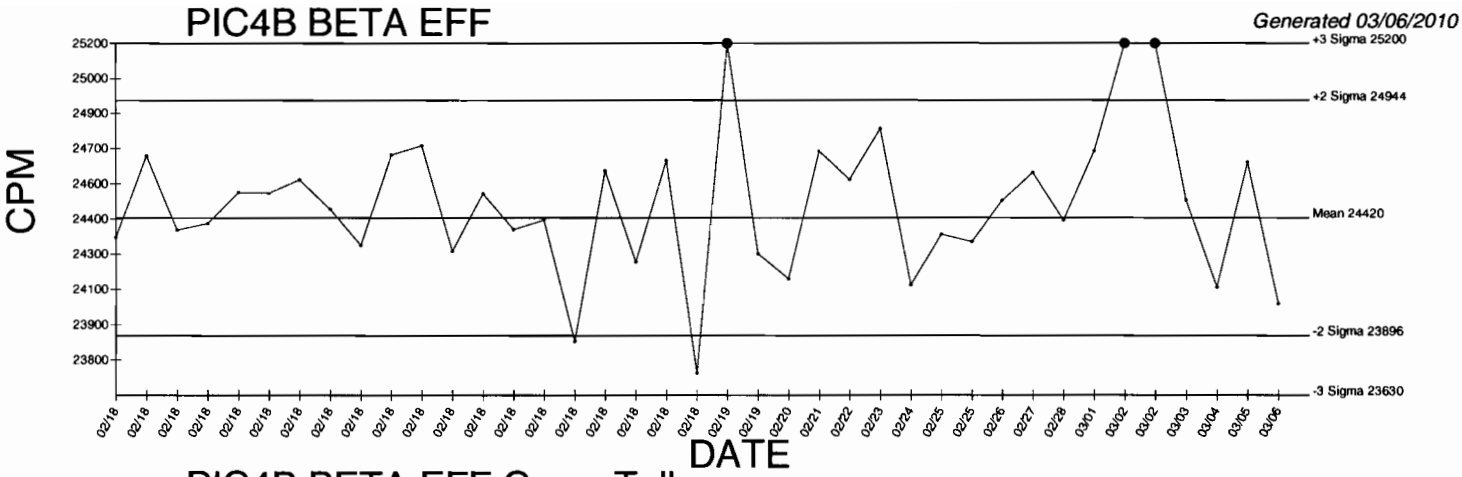

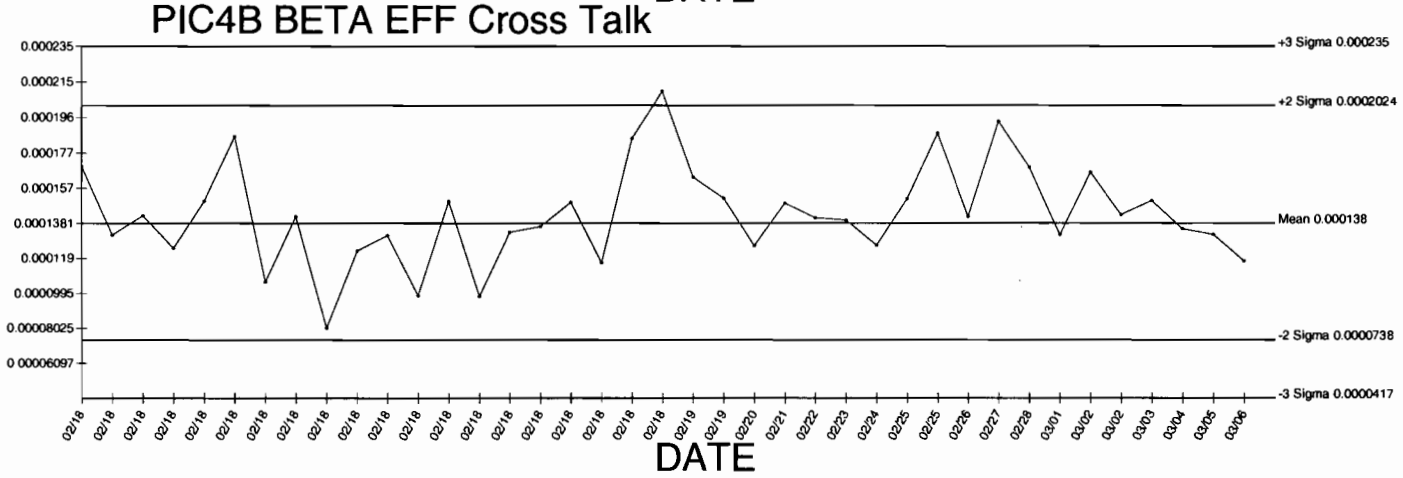

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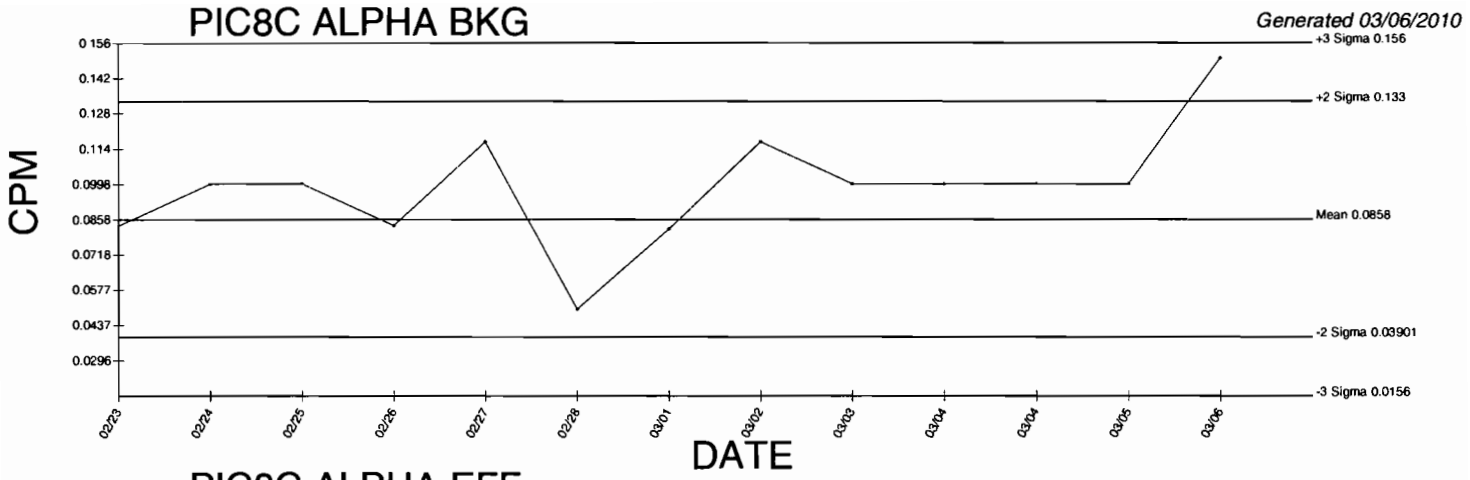

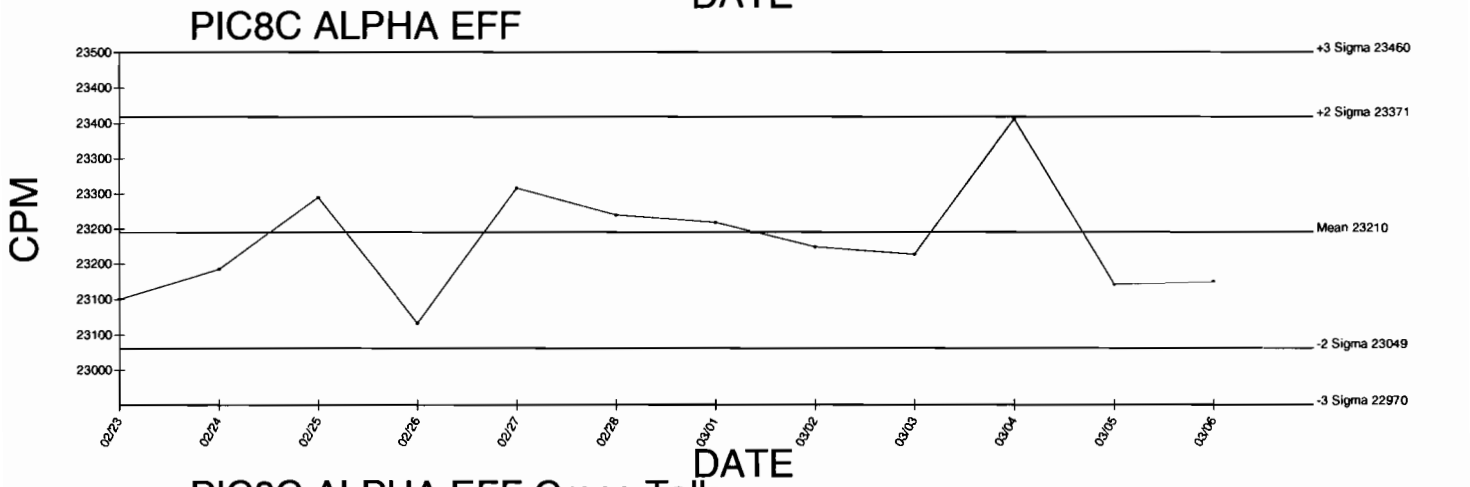

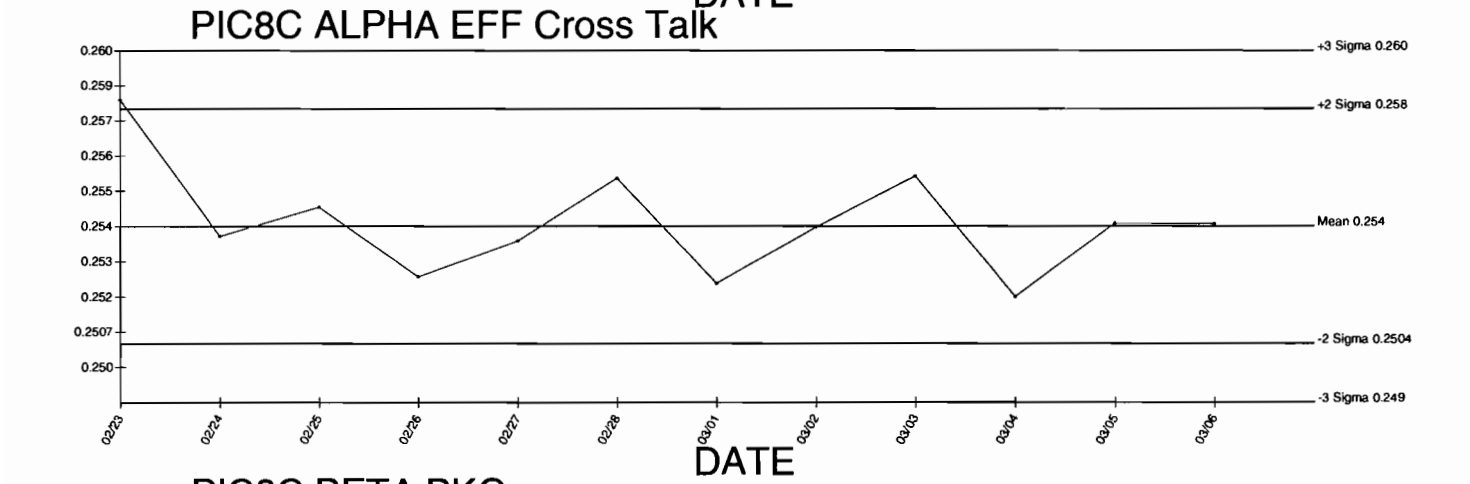

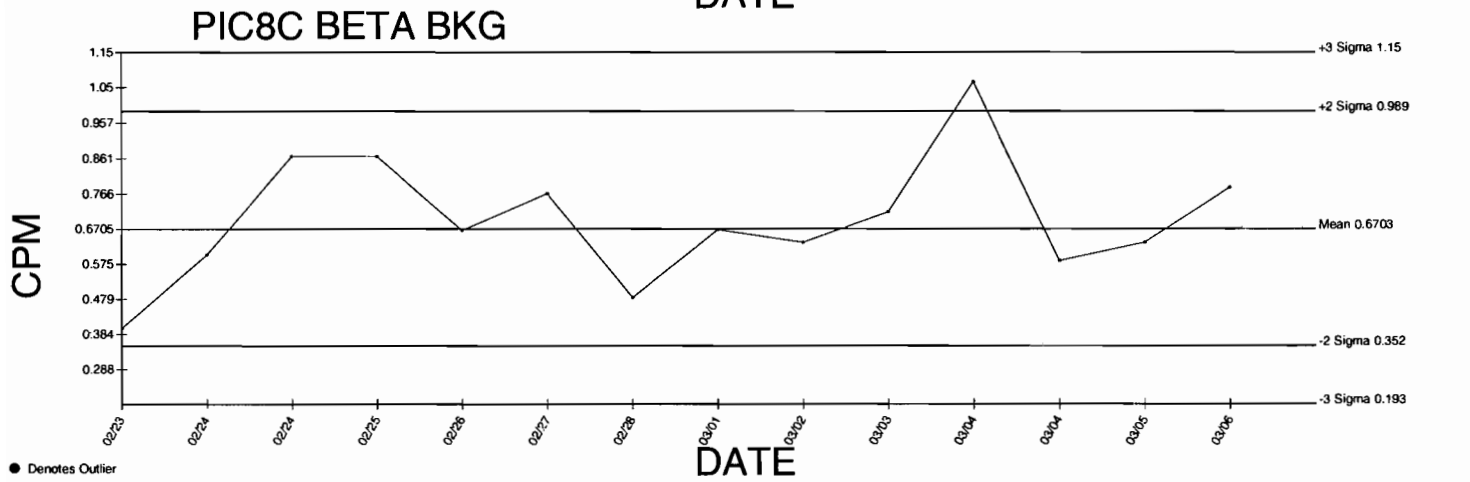

● Denotes Outlier

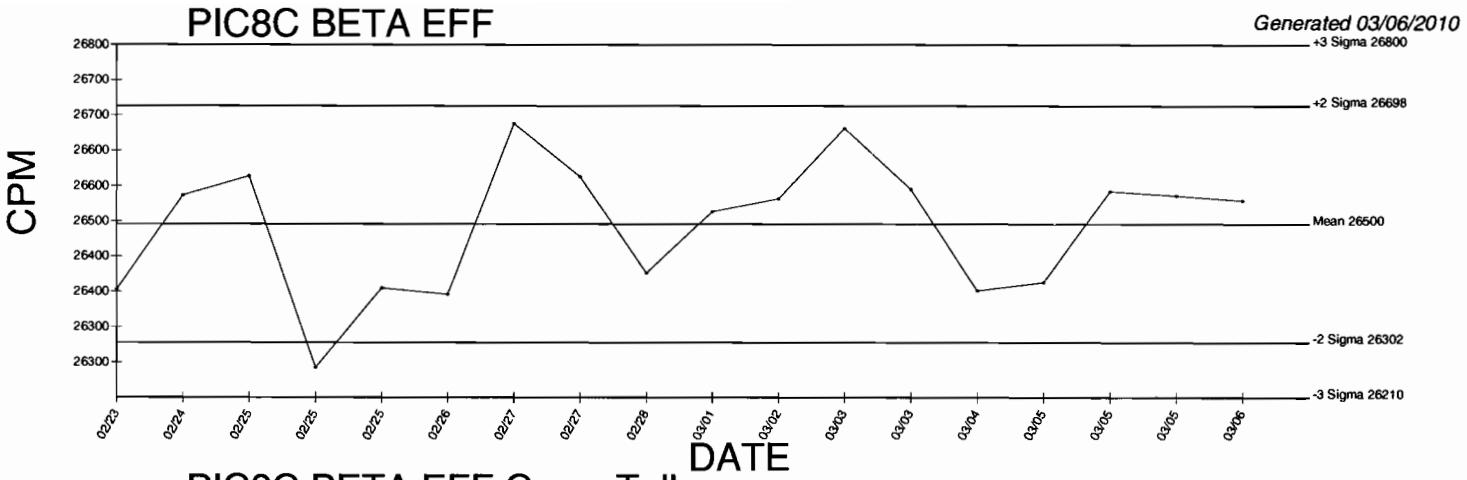

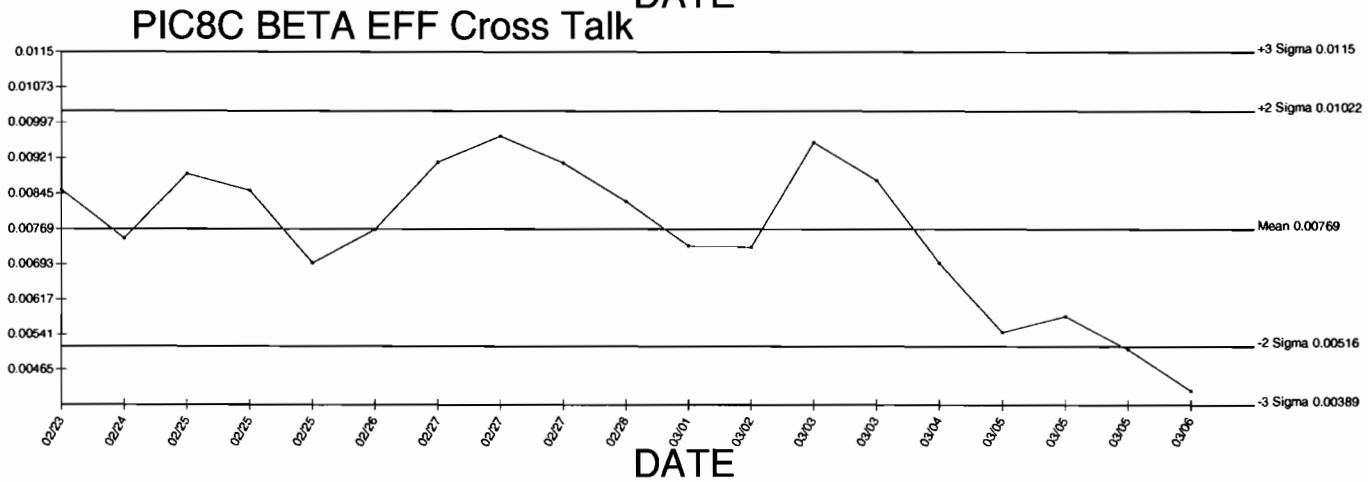

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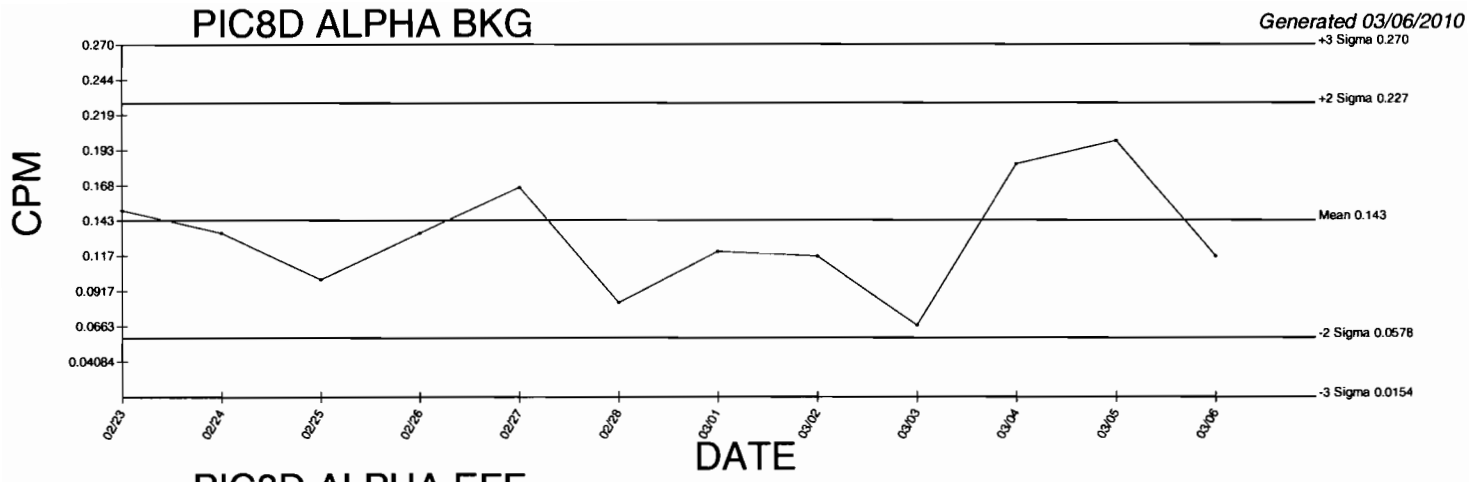
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Generated 03/06/2010
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0.219
0.193
0.168
0.143
0.117
0.0917
0.0663
0.04084
+3 Sigma 0.270
+2 Sigma 0.227
Mean 0.143
-2 Sigma 0.0578
-3 Sigma 0.0154
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
03/06
DATE

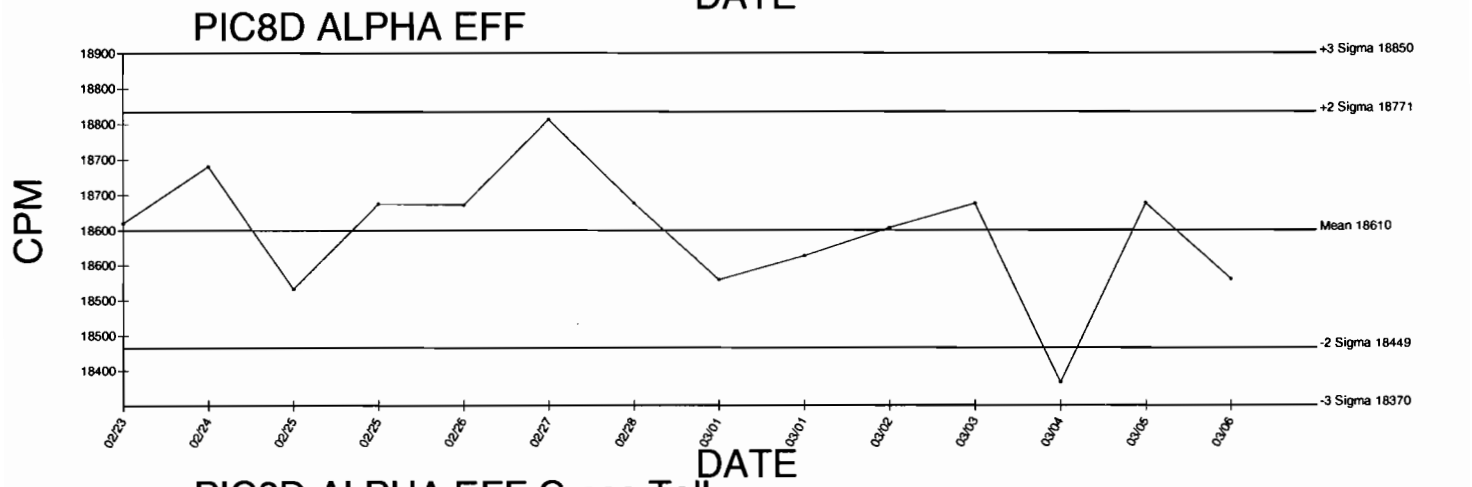
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CPM
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18800
18800
18700
18700
18600
18600
18500
18500
18400
+3 Sigma 18850
+2 Sigma 18771
Mean 18610
-2 Sigma 18449
-3 Sigma 18370
02/23
02/24
02/25
02/25
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02/27
02/28
03/01
03/01
03/02
03/03
03/04
03/05
03/06
DATE

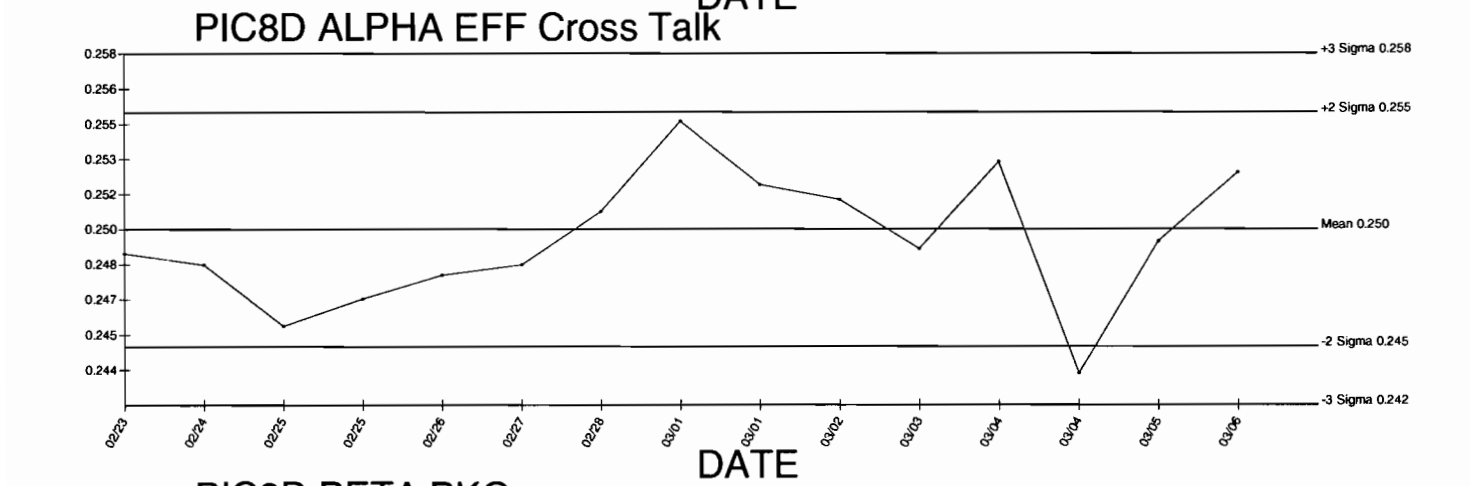
PIC8D ALPHA EFF Cross Talk
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0.255
0.253
0.252
0.250
0.248
0.247
0.245
0.244
+3 Sigma 0.258
+2 Sigma 0.255
Mean 0.250
-2 Sigma 0.245
-3 Sigma 0.242
02/23
02/24
02/25
02/25
02/26
02/27
02/28
03/01
03/01
03/02
03/03
03/04
03/04
03/05
03/06
DATE

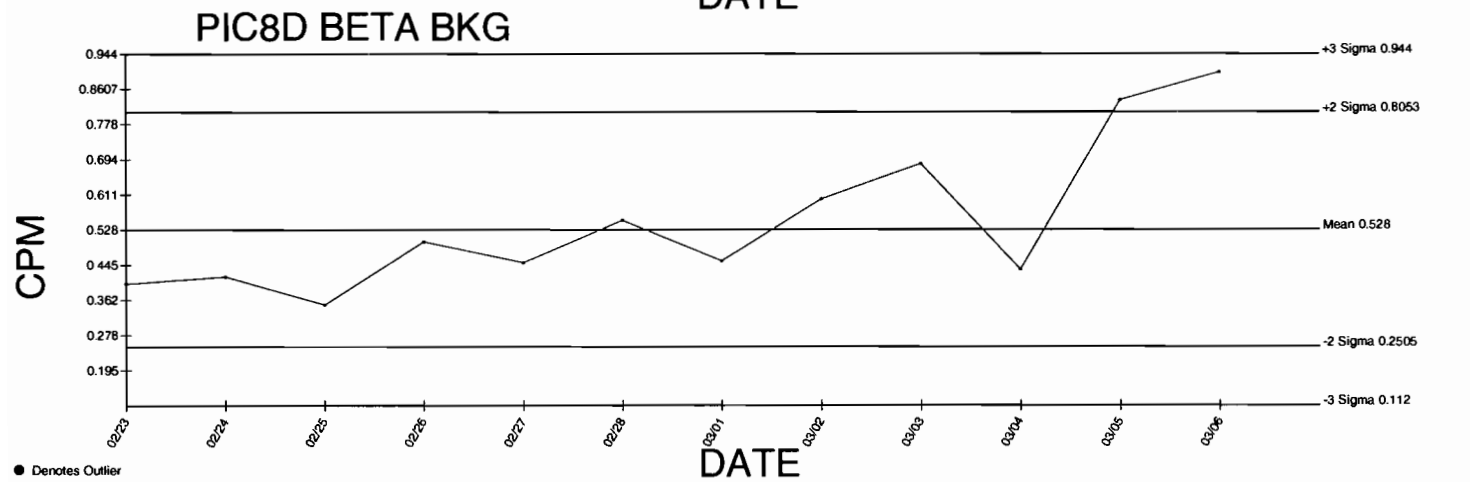
PIC8D BETA BKG
CPM
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0.8607
0.778
0.694
0.611
0.528
0.445
0.362
0.278
0.195
+3 Sigma 0.944
+2 Sigma 0.8053
Mean 0.528
-2 Sigma 0.2505
-3 Sigma 0.112
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
03/06
DATE
● Denotes Outlier

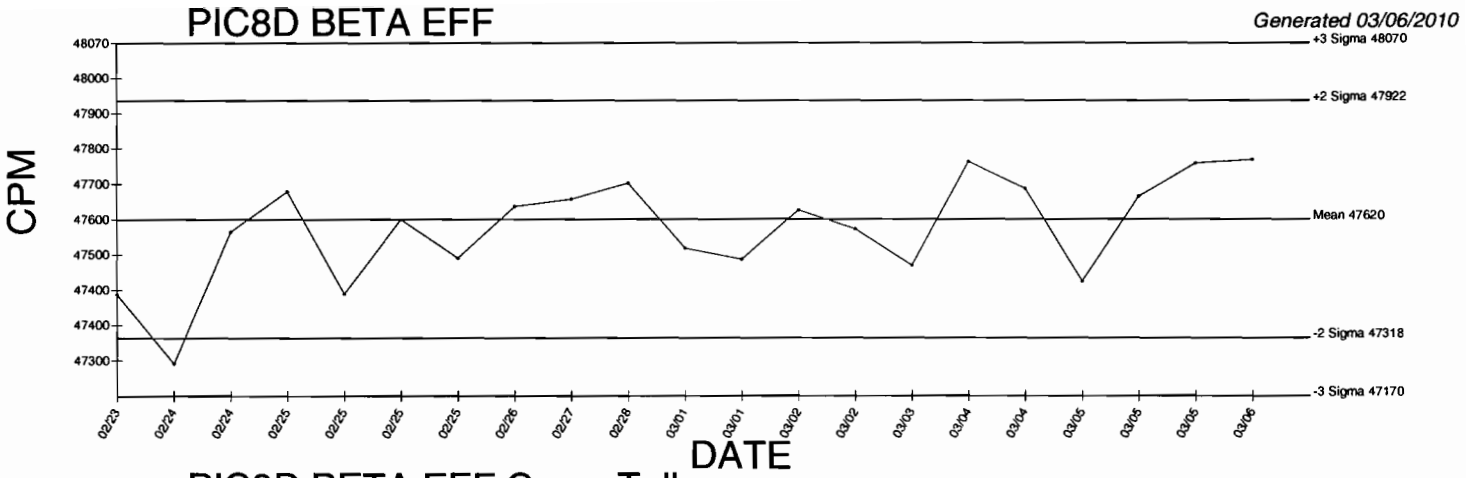

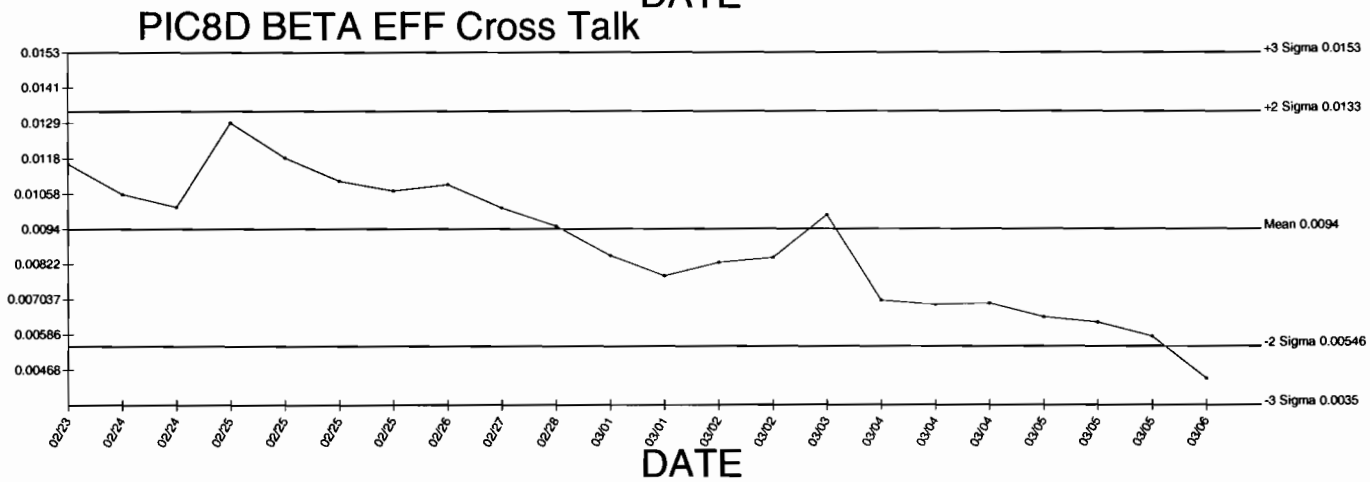

● Denotes Outlier

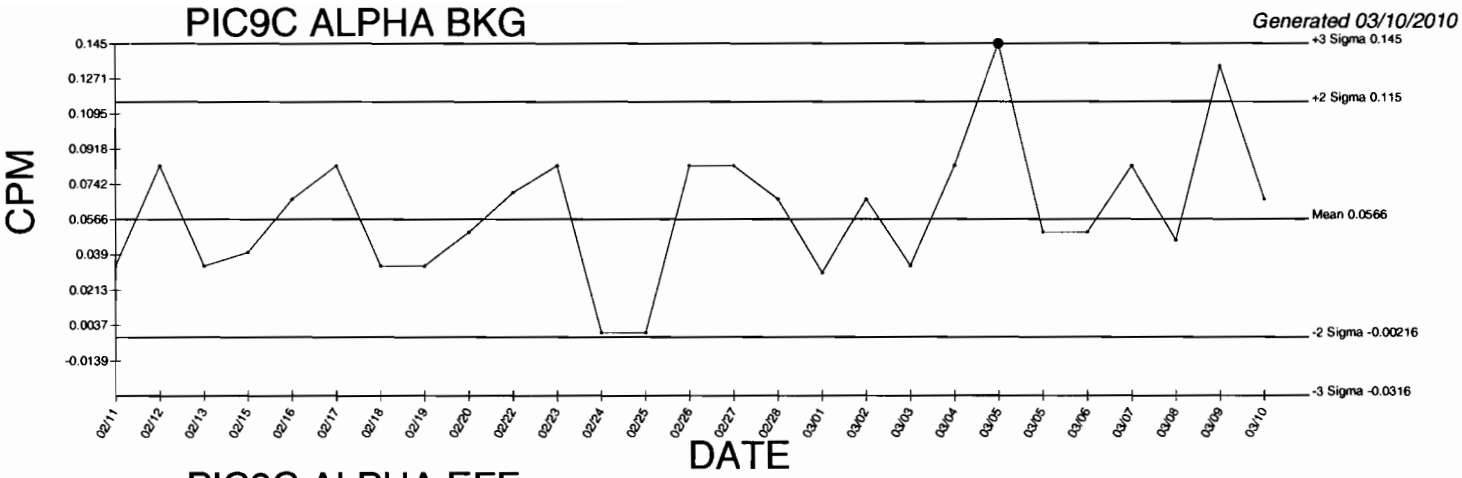

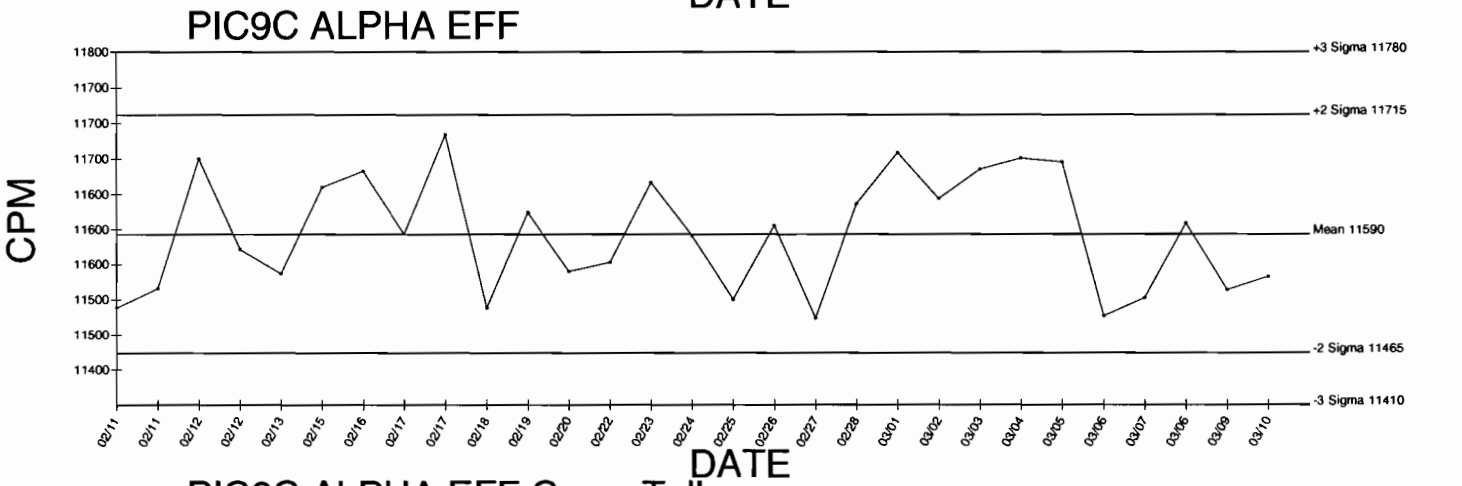

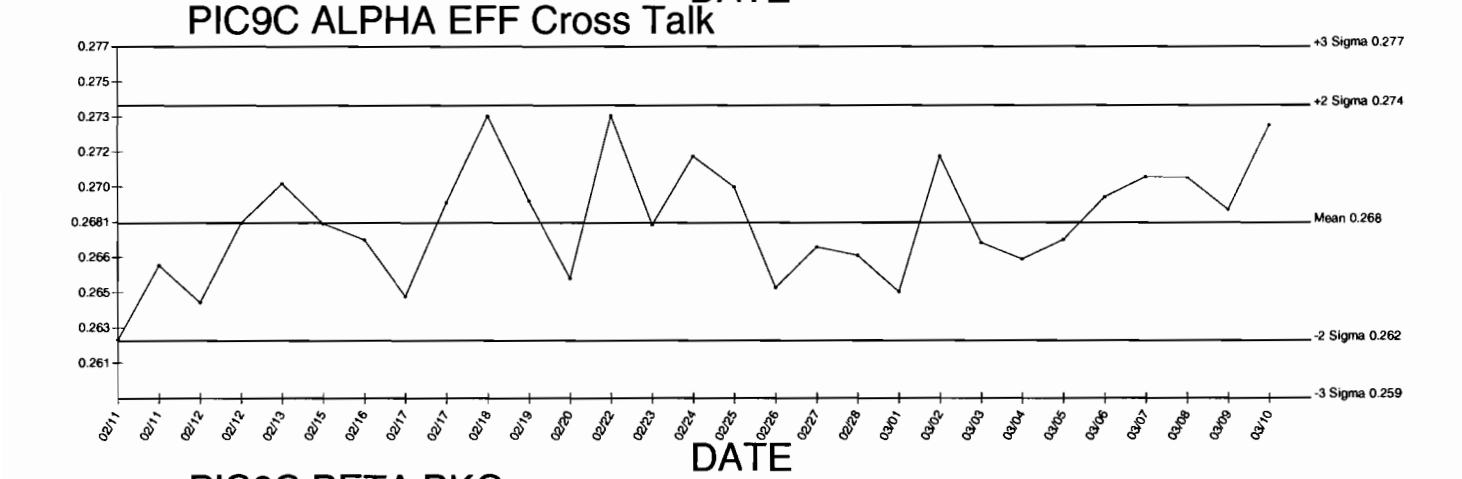

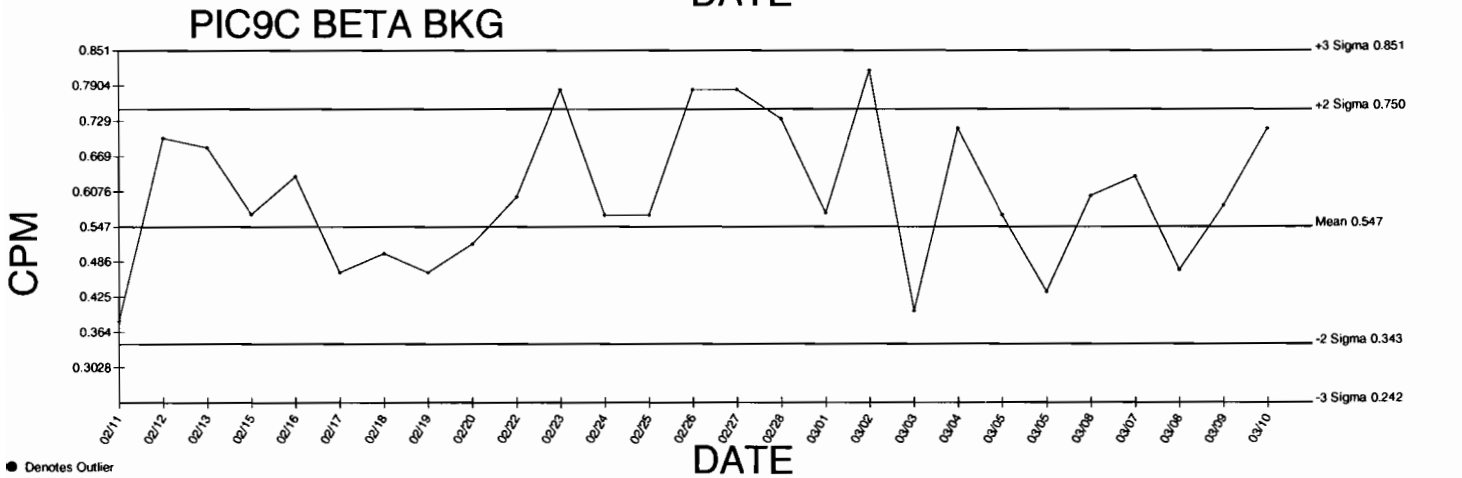

● Denotes Outlier

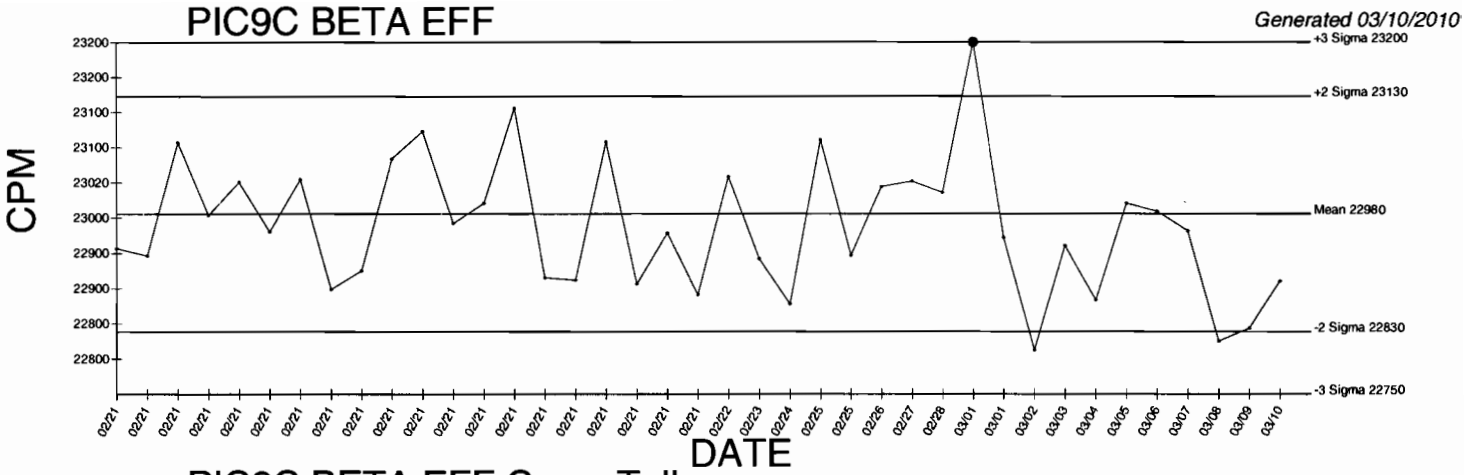

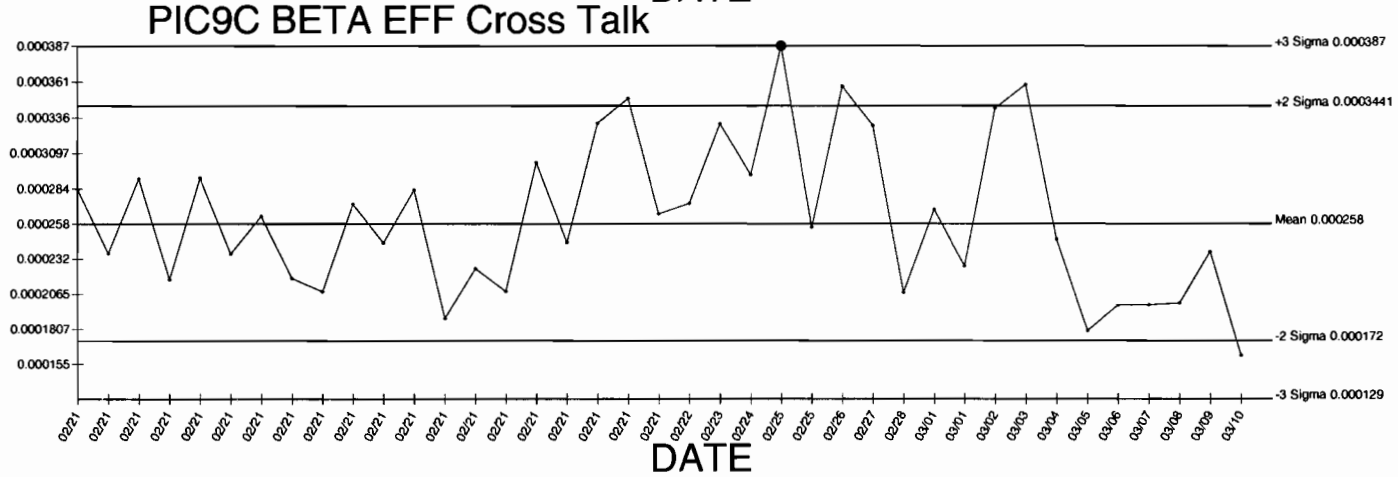

● Denotes Outlier

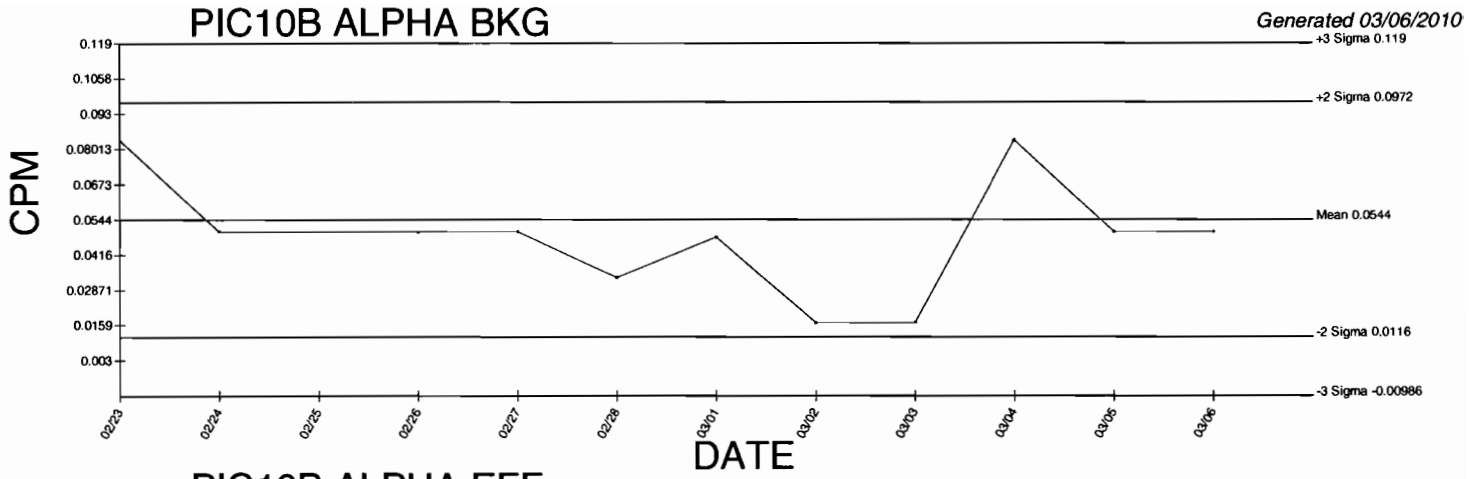
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Generated 03/06/2010
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0.08013
0.0673
0.0544
0.0416
0.02871
0.0159
0.003
+3 Sigma 0.119
+2 Sigma 0.0972
Mean 0.0544
-2 Sigma 0.0116
-3 Sigma -0.00986
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
03/06
DATE

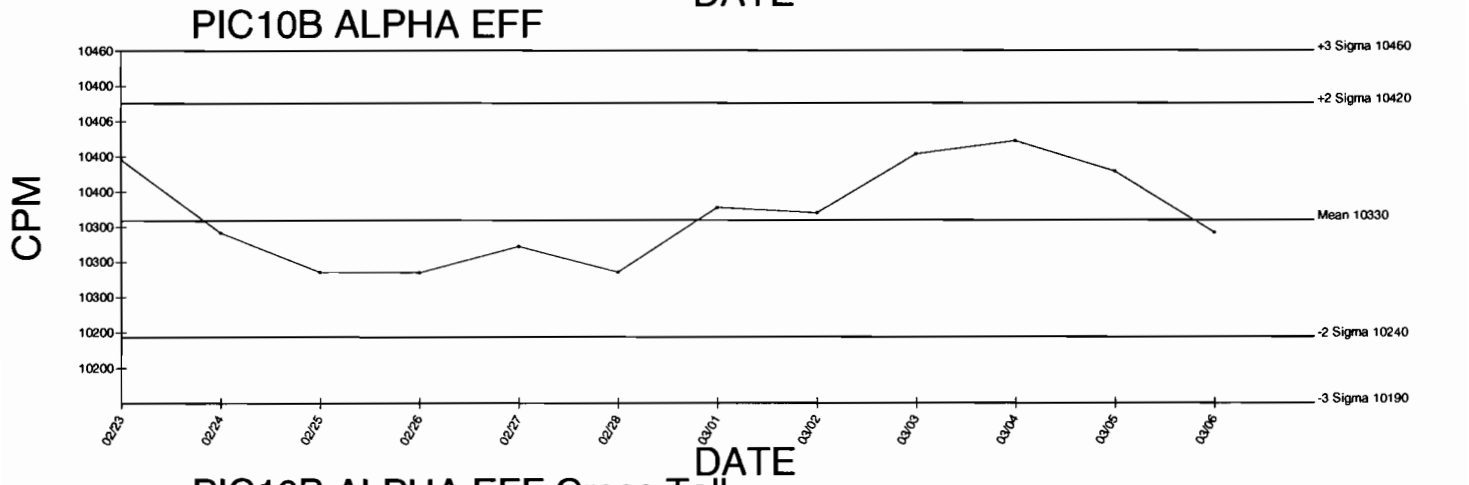
PIC10B ALPHA EFF
CPM
10460
10400
10406
10400
10400
10300
10300
10300
10200
10200
+3 Sigma 10460
+2 Sigma 10420
Mean 10330
-2 Sigma 10240
-3 Sigma 10190
02/23
02/24
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02/26
02/27
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03/01
03/02
03/03
03/04
03/05
03/06
DATE

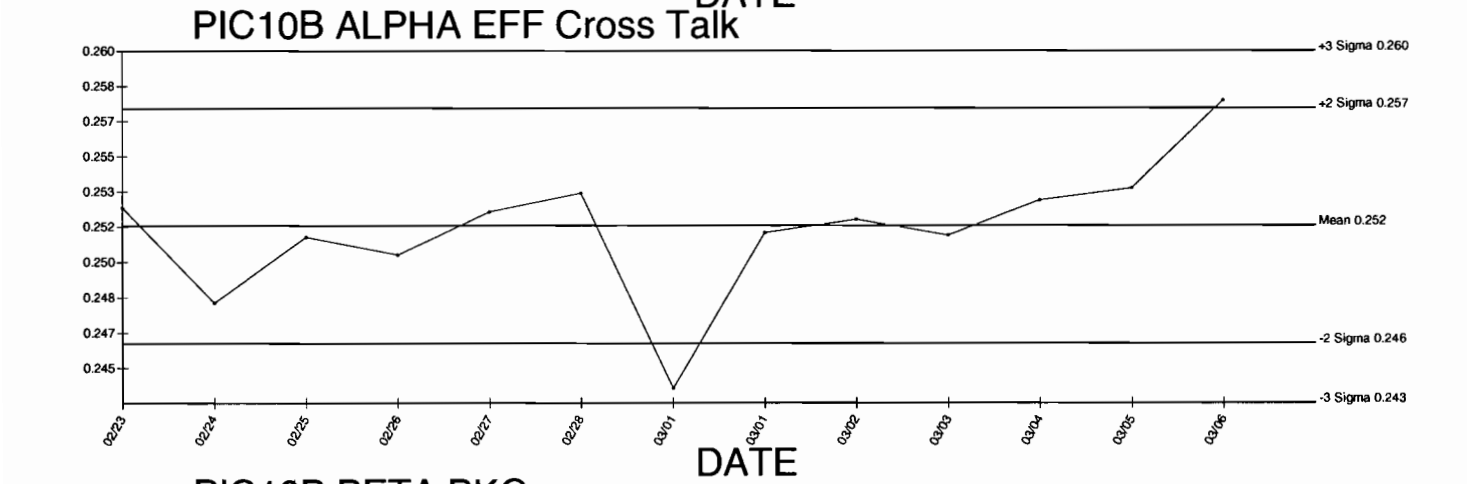
PIC10B ALPHA EFF Cross Talk
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0.258
0.257
0.255
0.253
0.252
0.250
0.248
0.247
0.245
+3 Sigma 0.260
+2 Sigma 0.257
Mean 0.252
-2 Sigma 0.246
-3 Sigma 0.243
02/23
02/24
02/25
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02/27
02/28
03/01
03/01
03/02
03/03
03/04
03/05
03/06
DATE

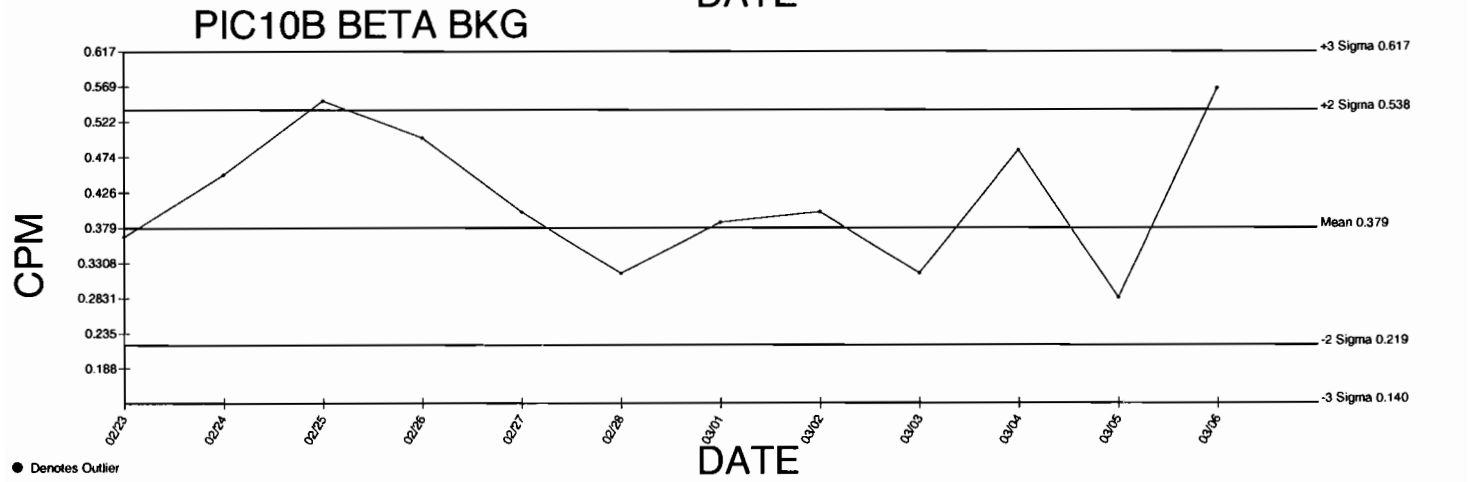
PIC10B BETA BKG
CPM
0.617
0.569
0.522
0.474
0.426
0.379
0.3308
0.2831
0.235
0.188
+3 Sigma 0.617
+2 Sigma 0.538
Mean 0.379
-2 Sigma 0.219
-3 Sigma 0.140
02/23
02/24
02/25
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02/27
02/28
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03/02
03/03
03/04
03/05
03/06
DATE
● Denotes Outlier

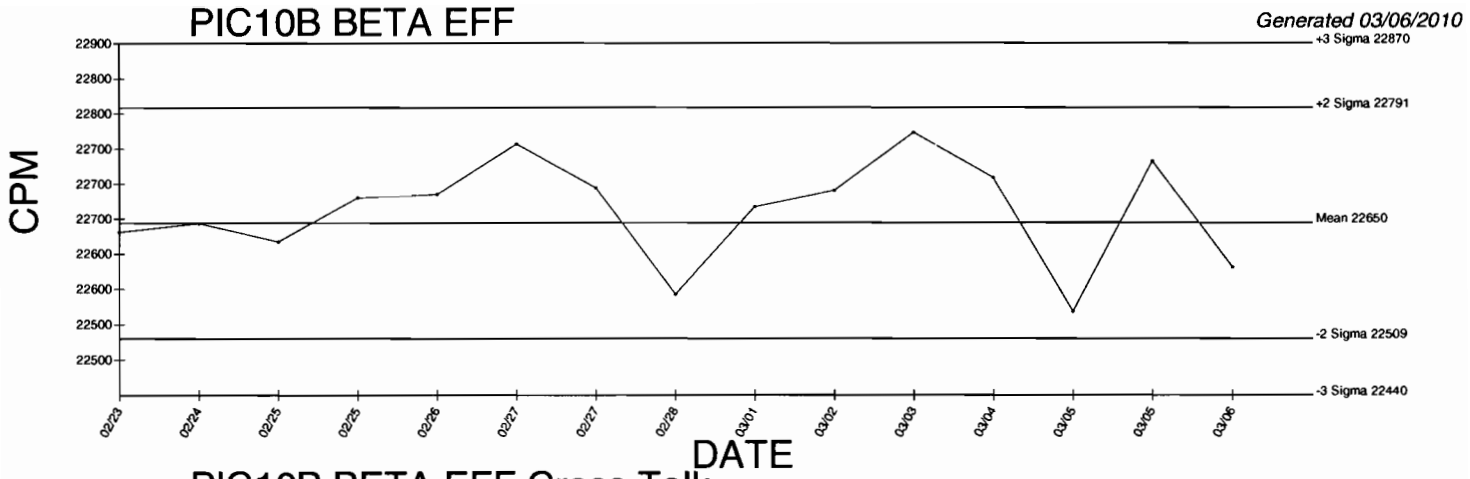

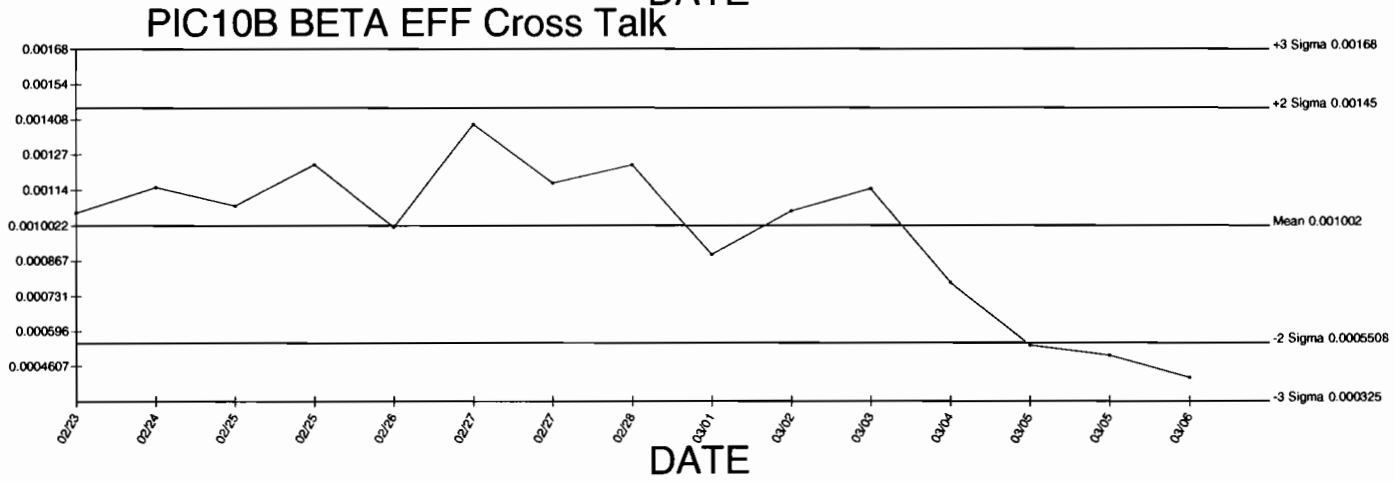

● Denotes Outlier

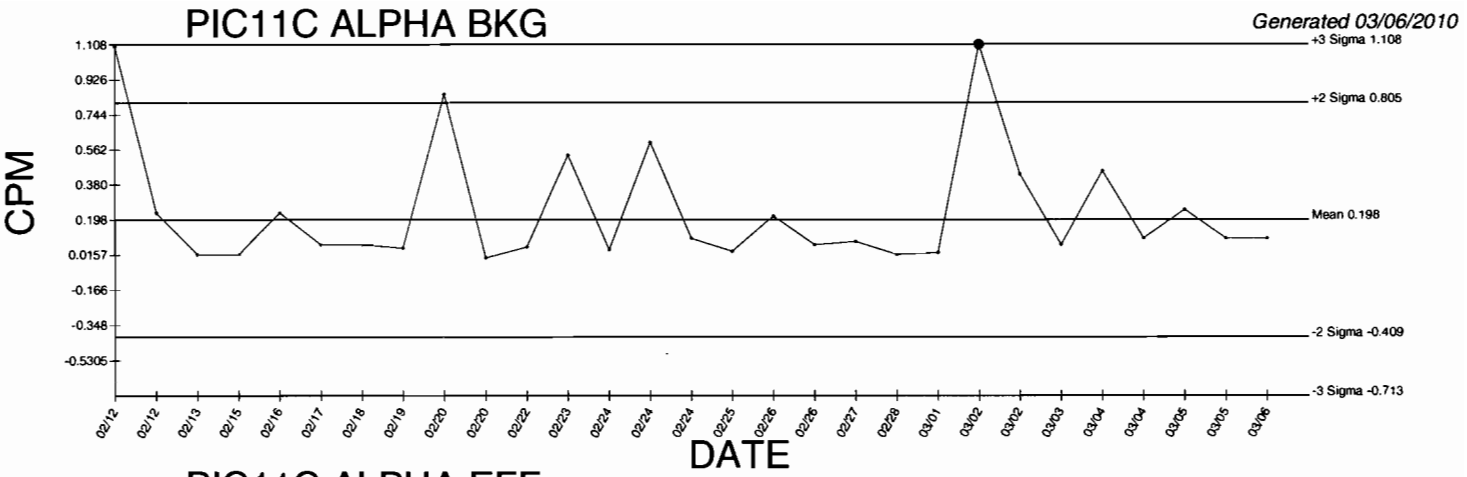
PIC11C ALPHA BKG
Generated 03/06/2010
CPM
DATE
+3 Sigma 1.108
+2 Sigma 0.805
Mean 0.198
-2 Sigma -0.409
-3 Sigma -0.713

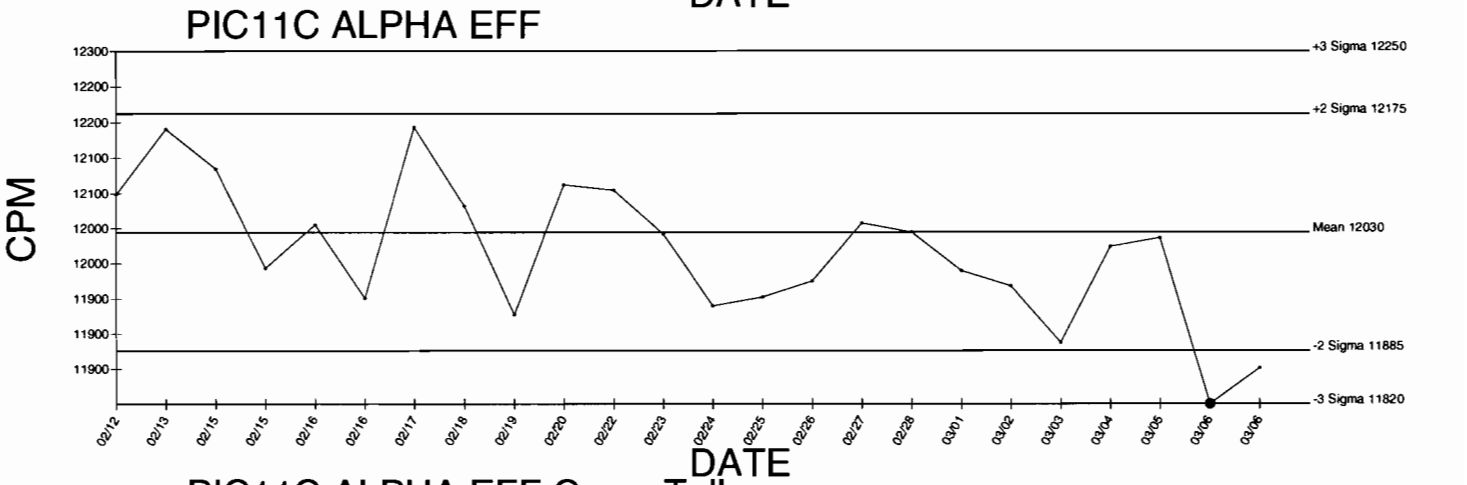
PIC11C ALPHA EFF
CPM
DATE
+3 Sigma 12250
+2 Sigma 12175
Mean 12030
-2 Sigma 11885
-3 Sigma 11820

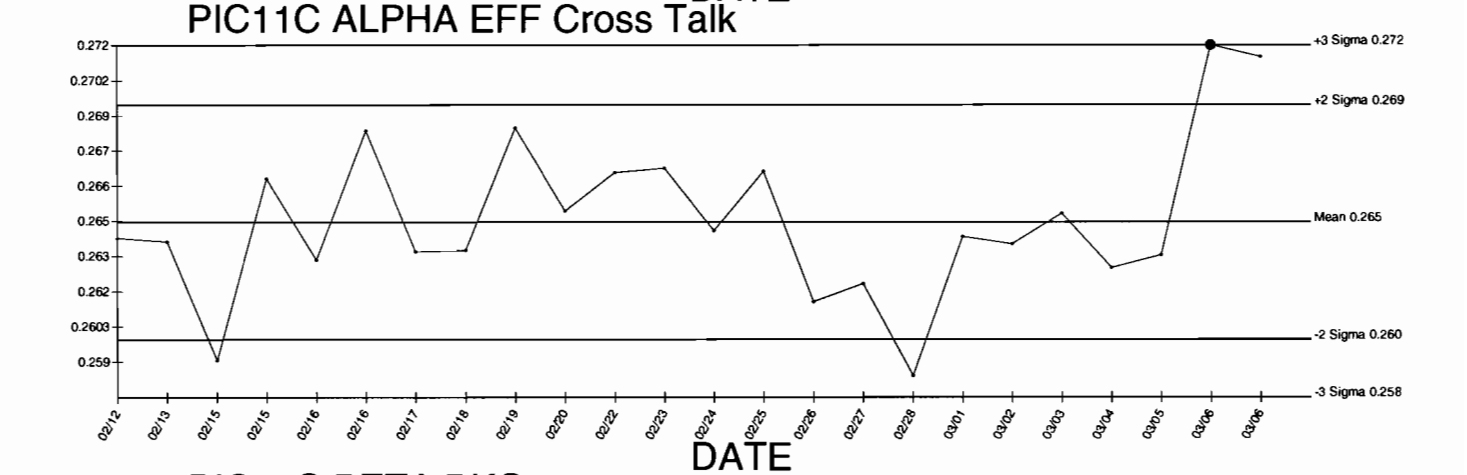
PIC11C ALPHA EFF Cross Talk
DATE
+3 Sigma 0.272
+2 Sigma 0.269
Mean 0.265
-2 Sigma 0.260
-3 Sigma 0.258

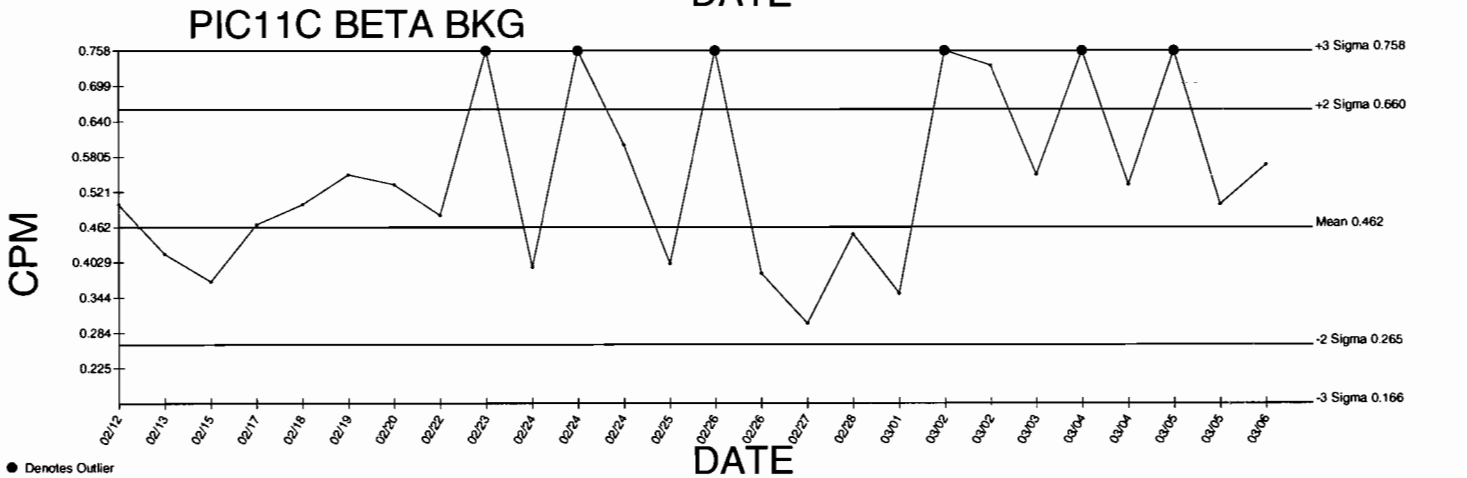
PIC11C BETA BKG
CPM
DATE
+3 Sigma 0.758
+2 Sigma 0.660
Mean 0.462
-2 Sigma 0.265
-3 Sigma 0.166
● Denotes Outlier

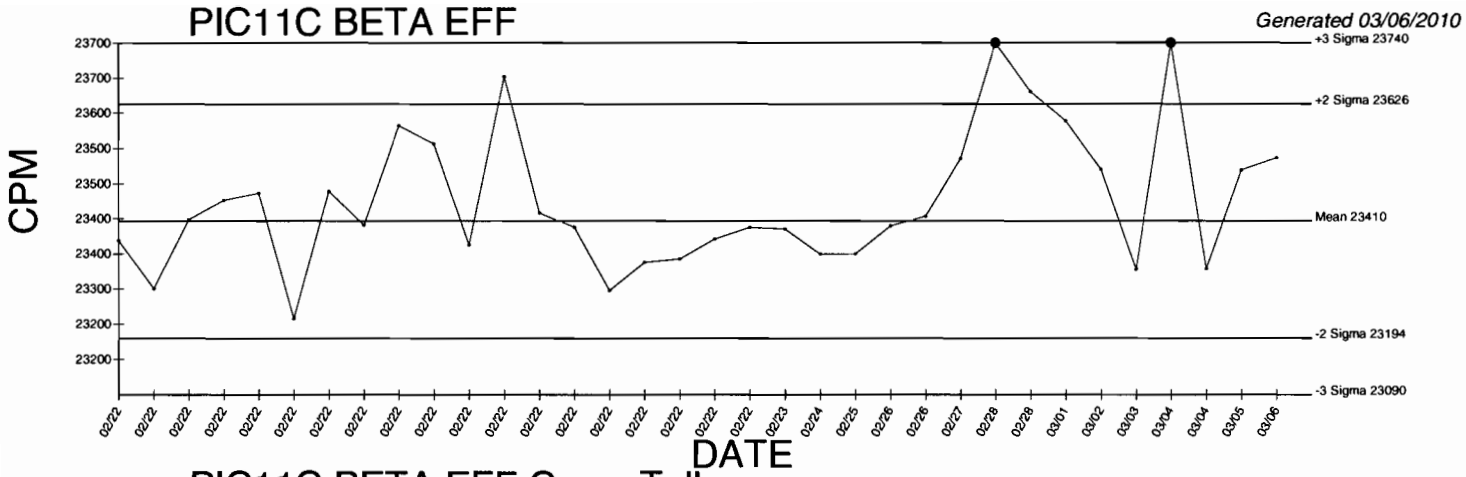

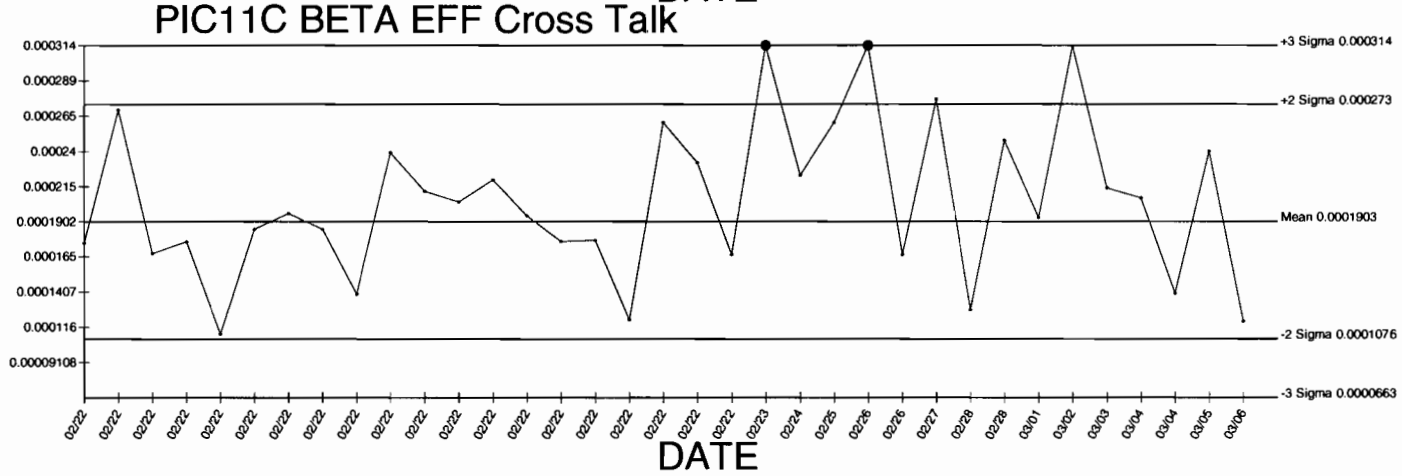

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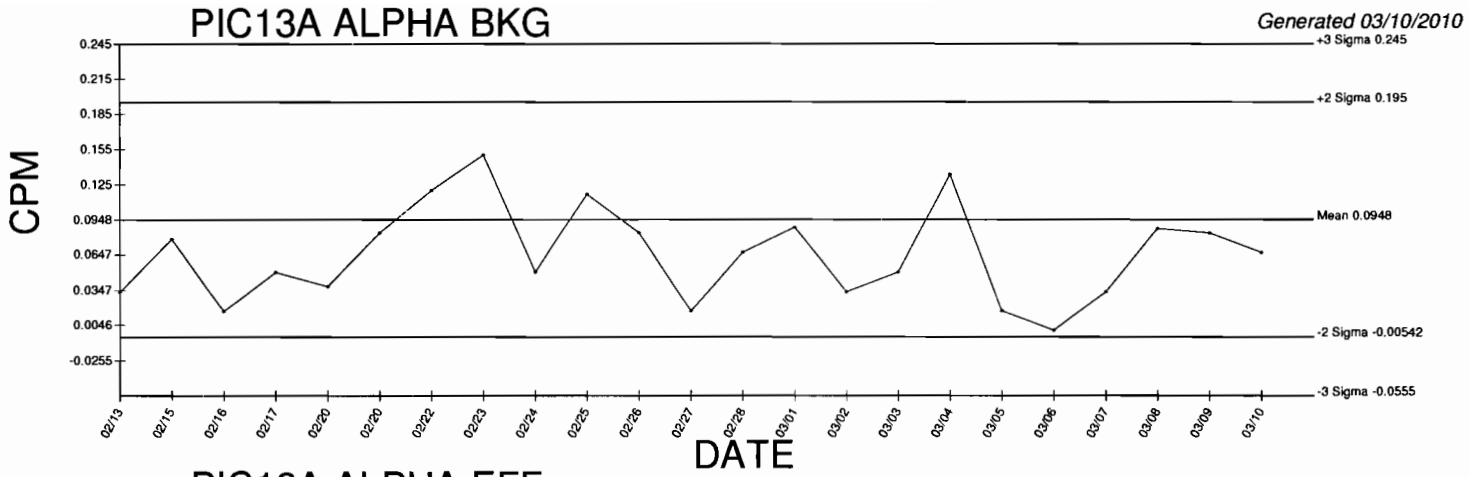
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Generated 03/10/2010
CPM
DATE
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+2 Sigma 0.195
Mean 0.0948
-2 Sigma -0.00542
-3 Sigma -0.0555

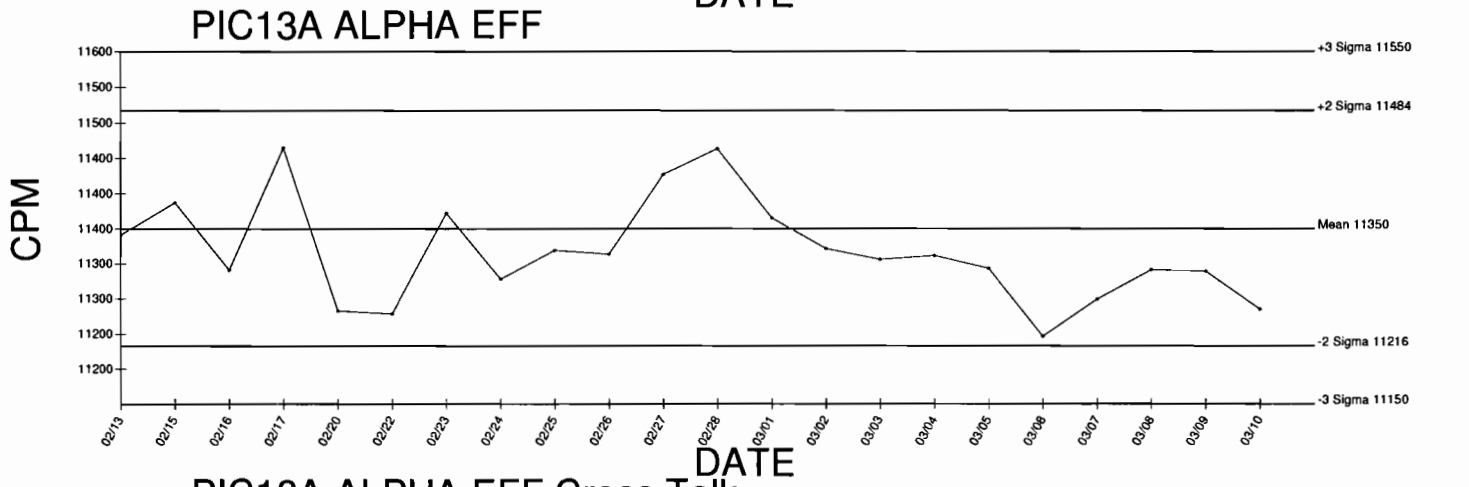
PIC13A ALPHA EFF
CPM
DATE
+3 Sigma 11550
+2 Sigma 11484
Mean 11350
-2 Sigma 11216
-3 Sigma 11150

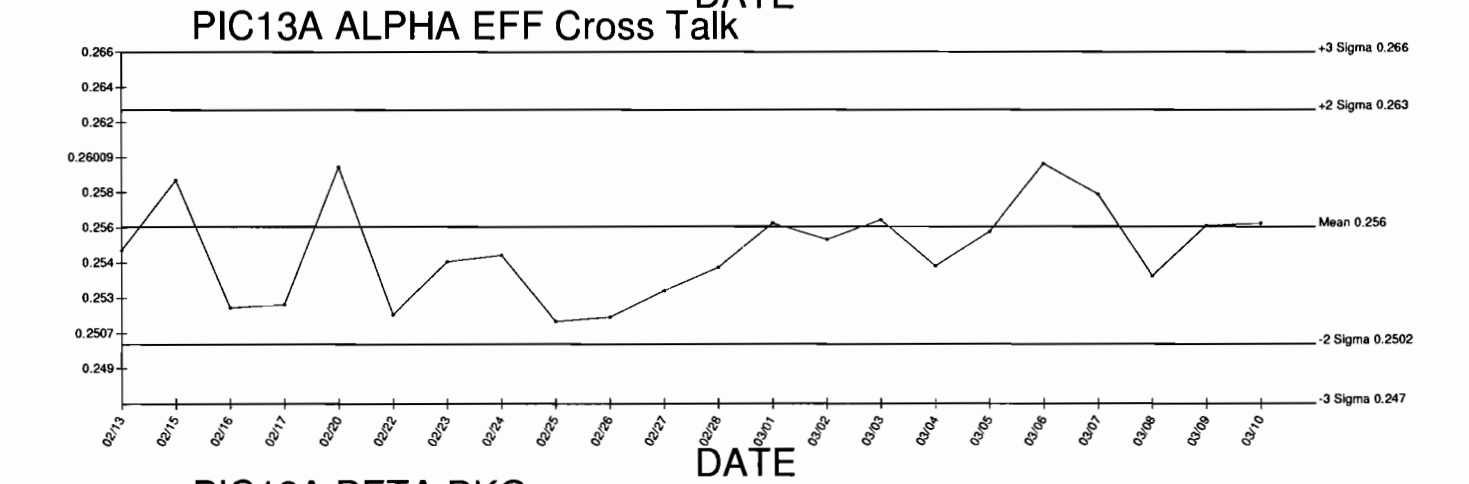
PIC13A ALPHA EFF Cross Talk
DATE
+3 Sigma 0.266
+2 Sigma 0.263
Mean 0.256
-2 Sigma 0.2502
-3 Sigma 0.247

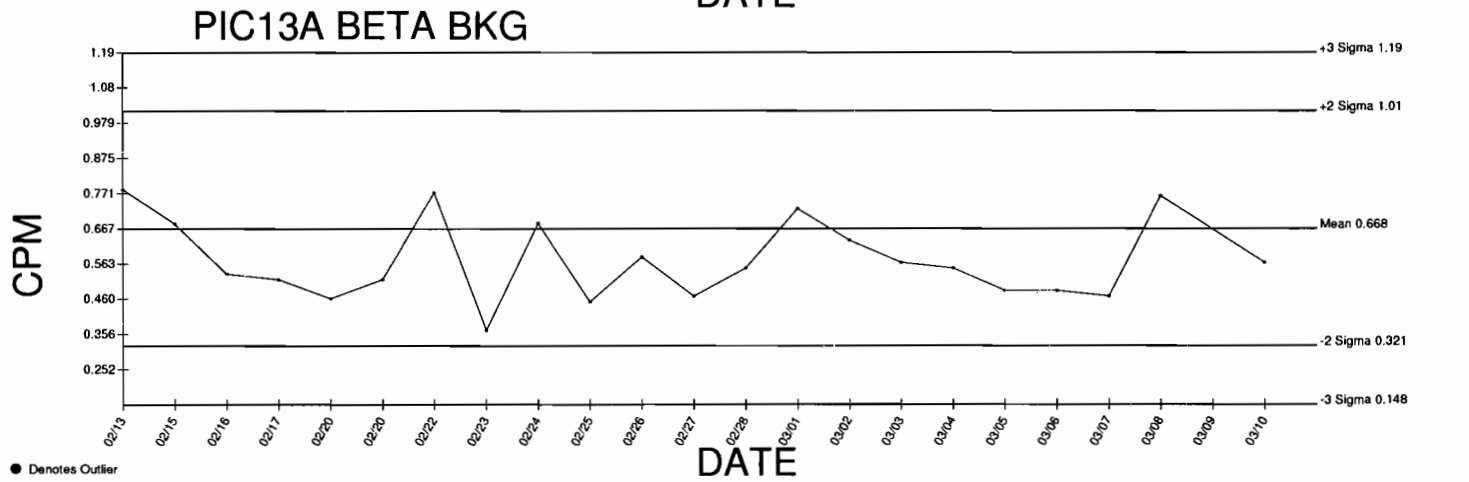
PIC13A BETA BKG
CPM
DATE
+3 Sigma 1.19
+2 Sigma 1.01
Mean 0.668
-2 Sigma 0.321
-3 Sigma 0.148
● Denotes Outlier

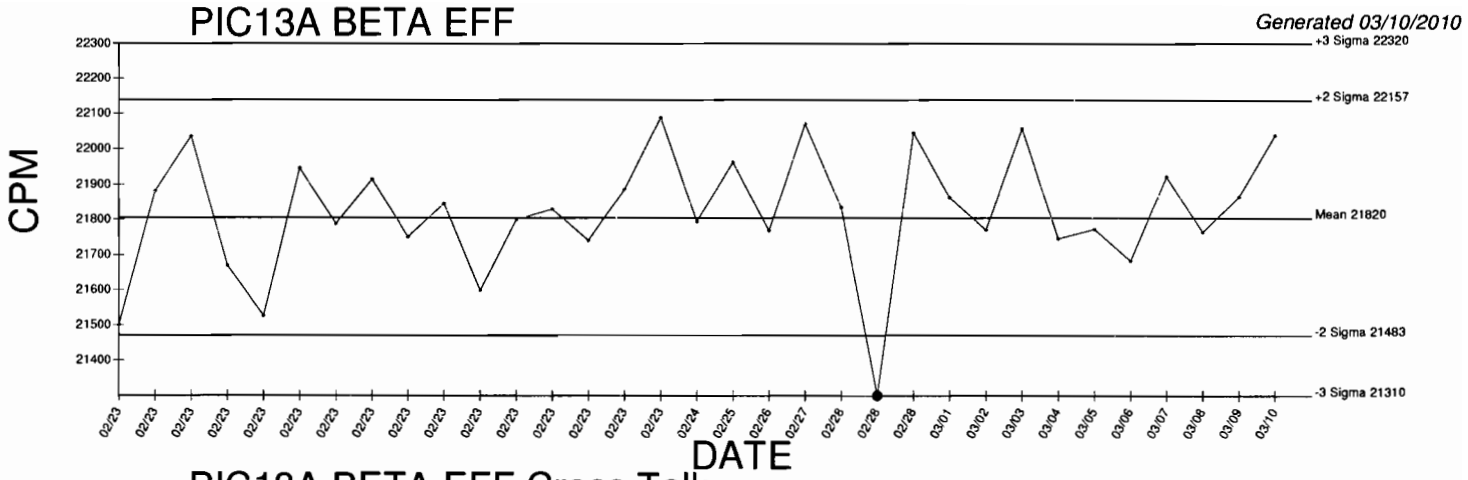

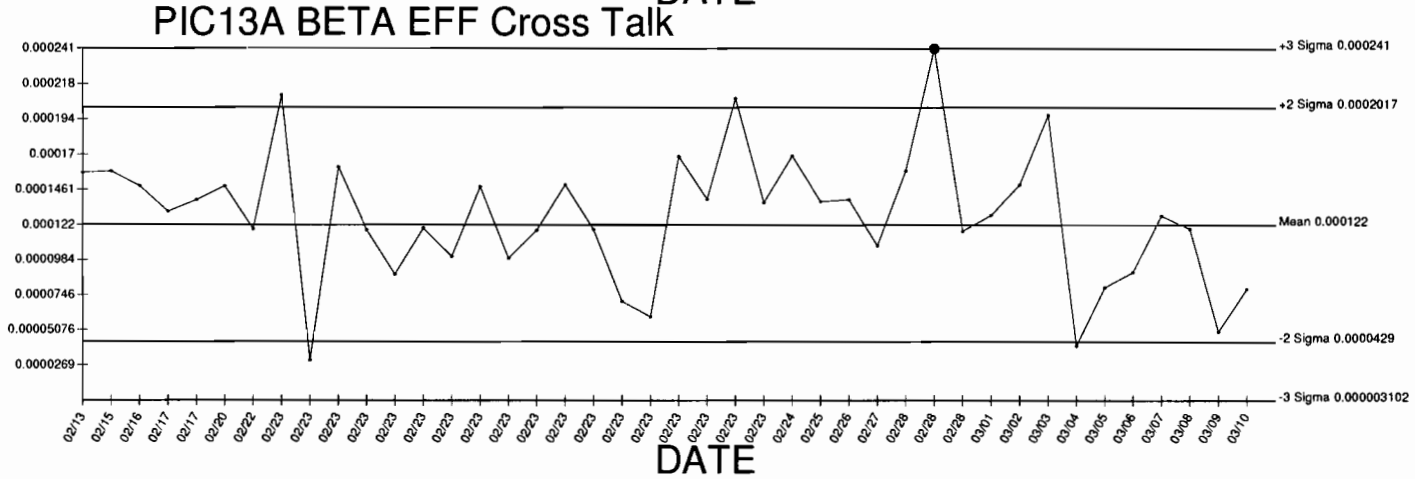

● Denotes Outlier

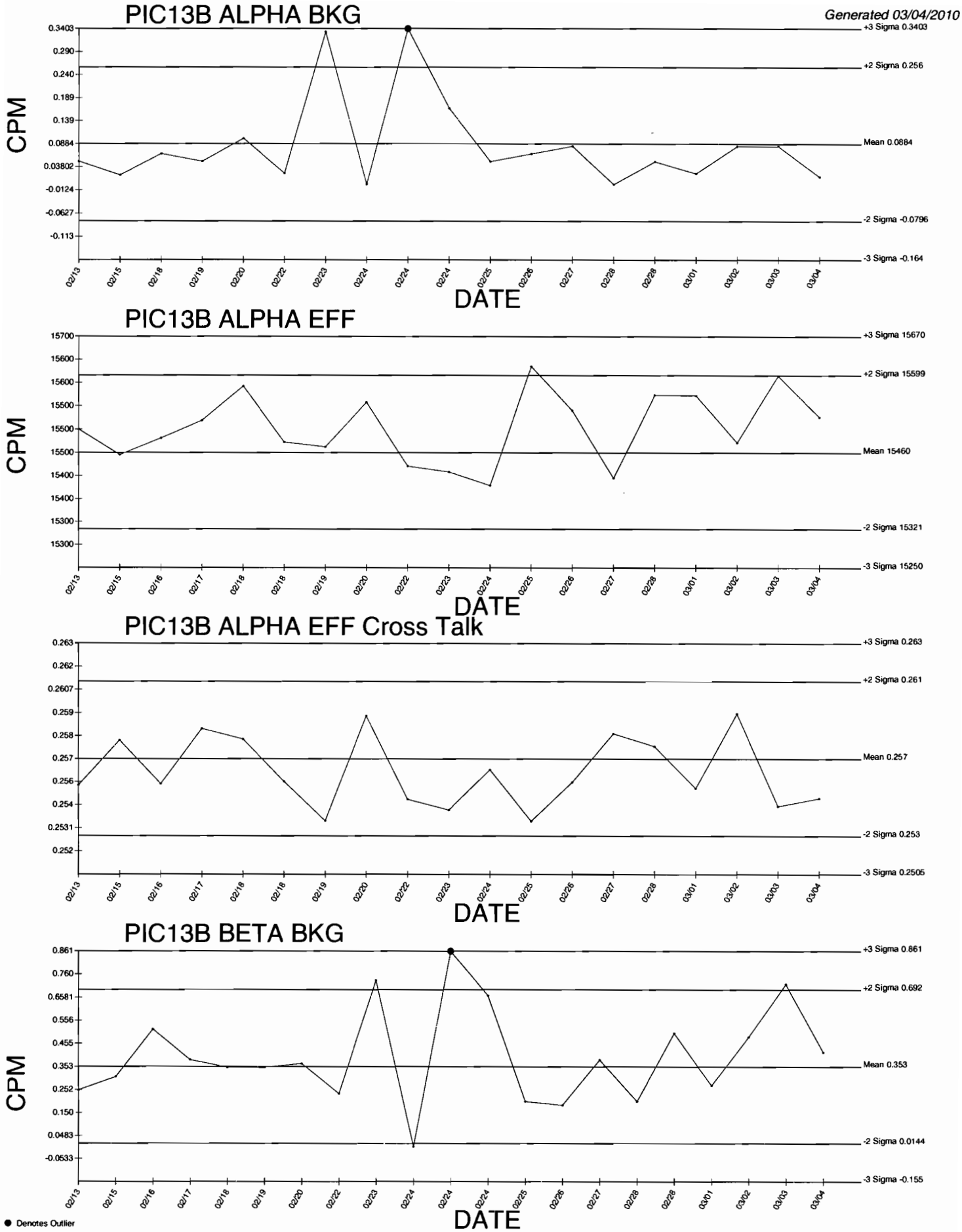
PIC13B ALPHA BKG
Generated 03/04/2010
CPM
0.3403
0.290
0.240
0.189
0.139
0.0884
0.03802
-0.0124
-0.0627
-0.113
+3 Sigma 0.3403
+2 Sigma 0.256
Mean 0.0884
-2 Sigma -0.0796
-3 Sigma -0.164
02/13 02/15 02/16 02/19 02/20 02/22 02/23 02/24 02/24 02/24 02/25 02/26 02/27 02/28 02/28 03/01 03/02 03/03 03/04
DATE
PIC13B ALPHA EFF
CPM
15700
15600
15600
15500
15500
15500
15400
15400
15300
15300
+3 Sigma 15670
+2 Sigma 15599
Mean 15460
-2 Sigma 15321
-3 Sigma 15250
02/13 02/15 02/16 02/17 02/18 02/18 02/19 02/20 02/22 02/23 02/24 02/25 02/26 02/27 02/28 03/01 03/02 03/03 03/04
DATE
PIC13B ALPHA EFF Cross Talk
0.263
0.262
0.2607
0.259
0.258
0.257
0.256
0.254
0.2531
0.252
+3 Sigma 0.263
+2 Sigma 0.261
Mean 0.257
-2 Sigma 0.253
-3 Sigma 0.2505
02/13 02/15 02/16 02/17 02/18 02/18 02/19 02/20 02/22 02/23 02/24 02/25 02/26 02/27 02/28 03/01 03/02 03/03 03/04
DATE
PIC13B BETA BKG
CPM
0.861
0.760
0.6581
0.556
0.455
0.353
0.252
0.150
0.0483
-0.0533
+3 Sigma 0.861
+2 Sigma 0.692
Mean 0.353
-2 Sigma 0.0144
-3 Sigma -0.155
02/13 02/15 02/16 02/17 02/18 02/19 02/20 02/22 02/23 02/24 02/24 02/24 02/25 02/26 02/27 02/28 02/28 03/01 03/02 03/03 03/04
DATE
● Denotes Outlier

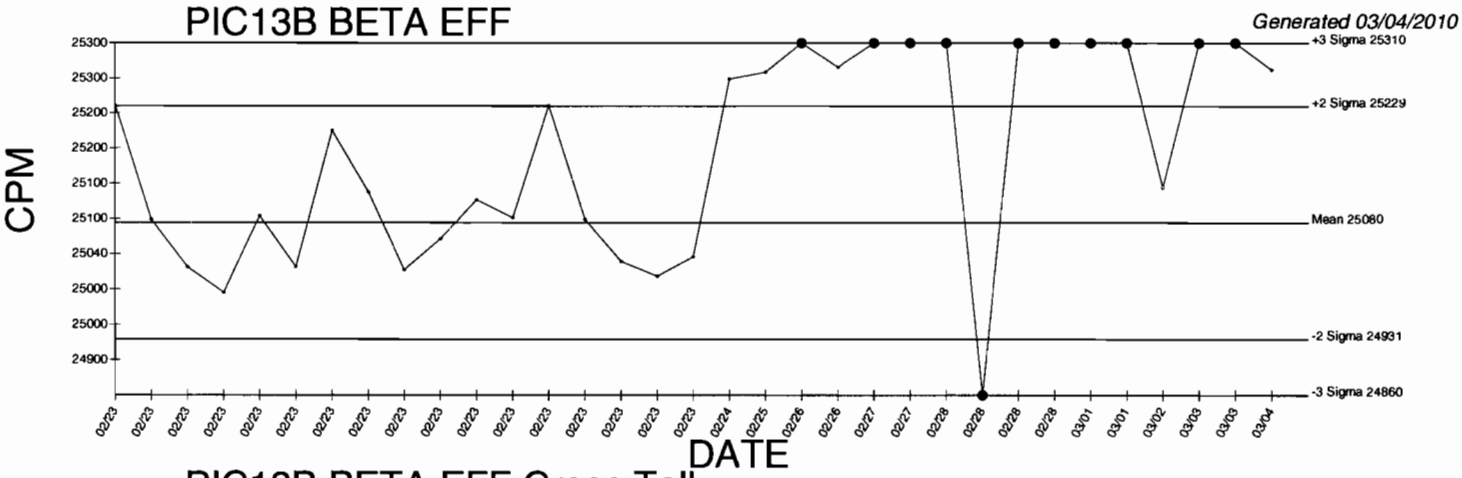

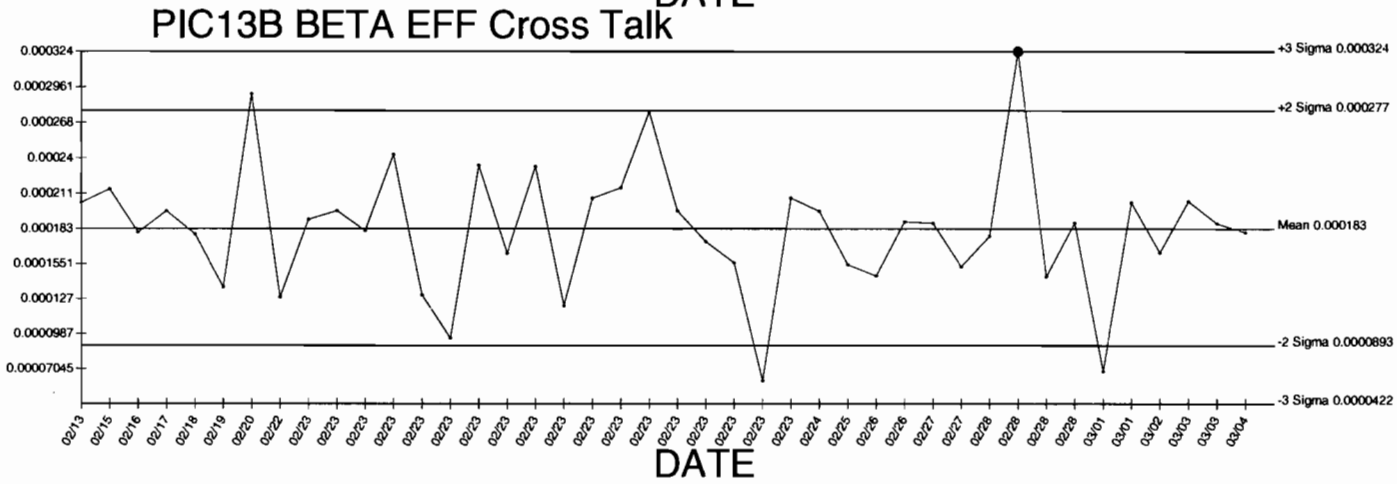

● Denotes Outlier

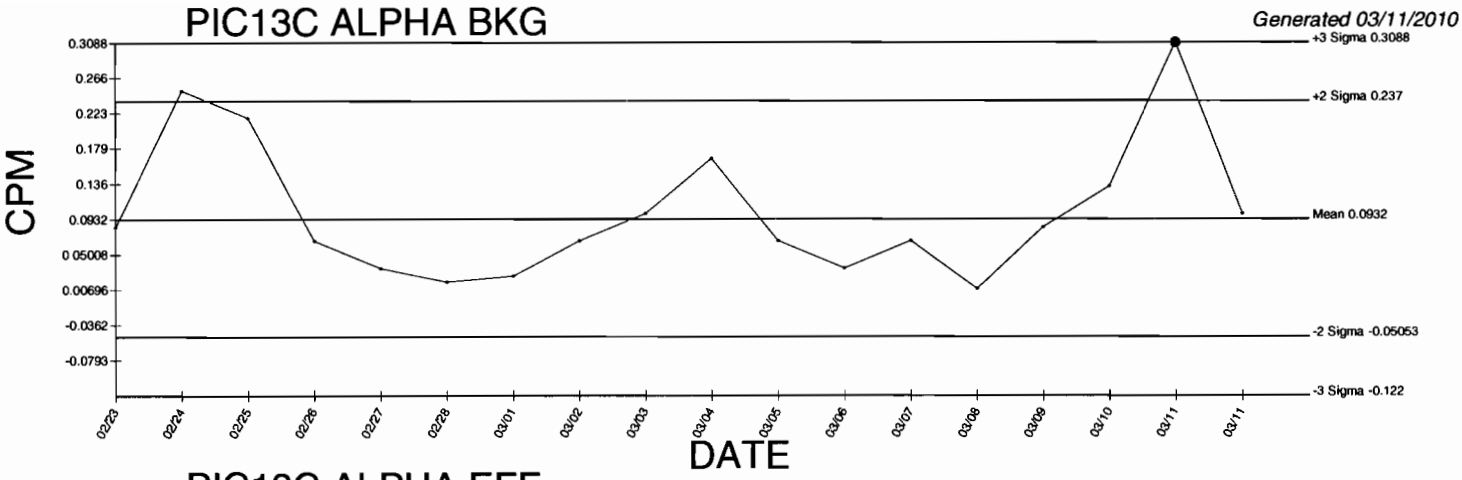
PIC13C ALPHA BKG
Generated 03/11/2010
CPM
0.3088
0.266
0.223
0.179
0.136
0.0932
0.05008
0.00696
-0.0362
-0.0793
+3 Sigma 0.3088
+2 Sigma 0.237
Mean 0.0932
-2 Sigma -0.05053
-3 Sigma -0.122
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
03/06
03/07
03/08
03/09
03/10
03/11
03/11
DATE

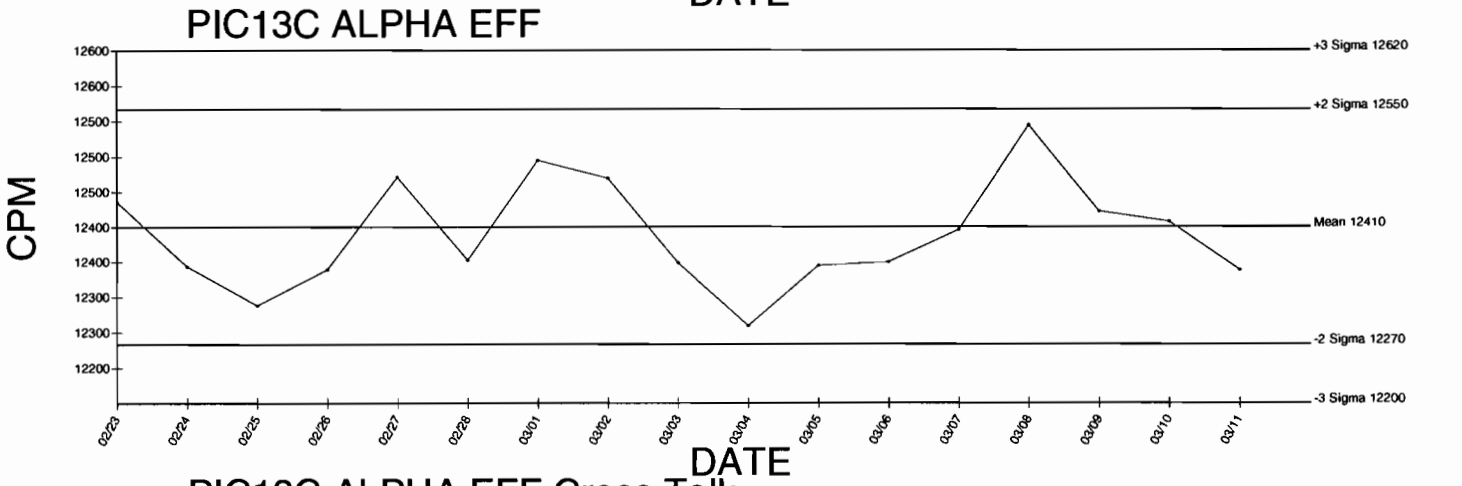
PIC13C ALPHA EFF
CPM
12600
12600
12500
12500
12500
12400
12400
12300
12300
12200
+3 Sigma 12620
+2 Sigma 12550
Mean 12410
-2 Sigma 12270
-3 Sigma 12200
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
03/06
03/07
03/08
03/09
03/10
03/11
DATE

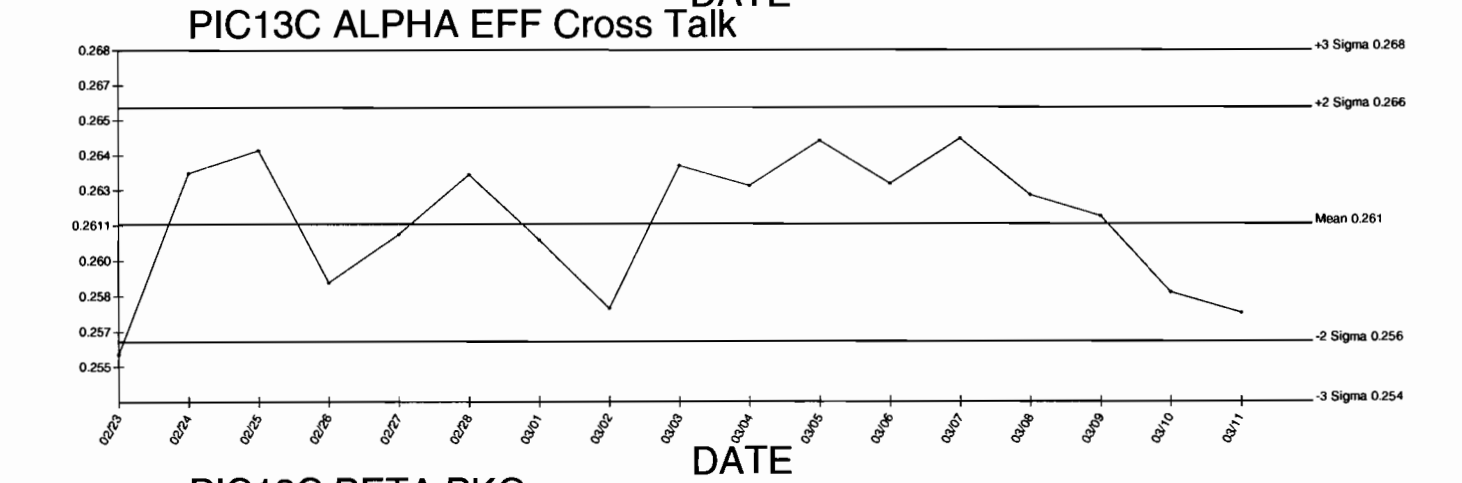
PIC13C ALPHA EFF Cross Talk
0.268
0.267
0.265
0.264
0.263
0.2611
0.260
0.258
0.257
0.255
+3 Sigma 0.268
+2 Sigma 0.266
Mean 0.261
-2 Sigma 0.256
-3 Sigma 0.254
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
03/06
03/07
03/08
03/09
03/10
03/11
DATE

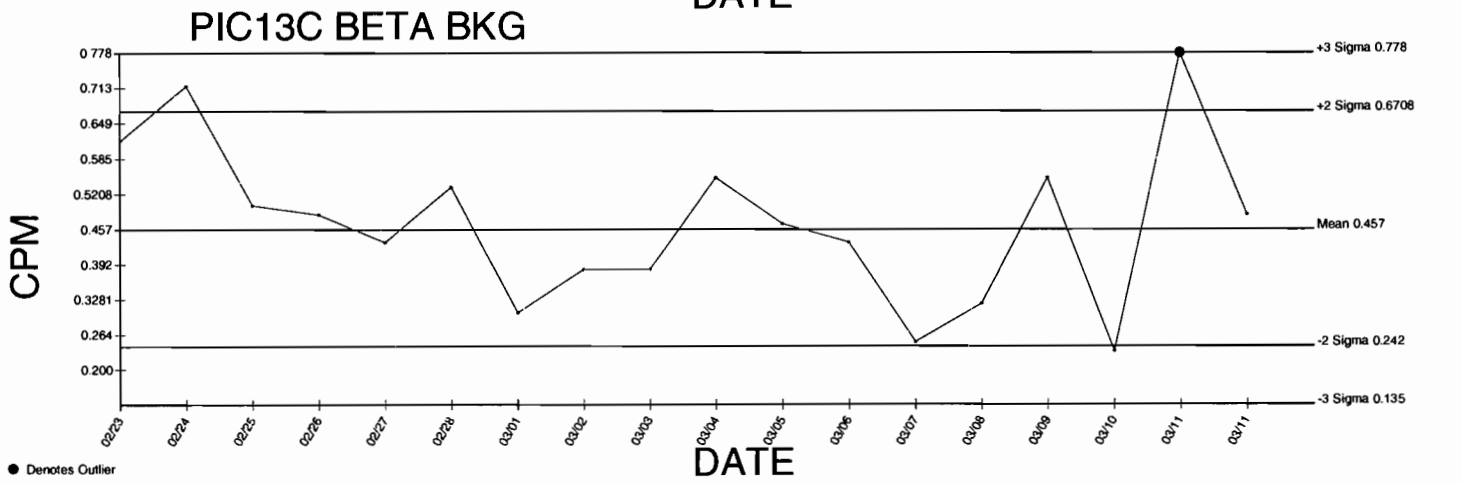
PIC13C BETA BKG
CPM
0.778
0.713
0.649
0.585
0.5208
0.457
0.392
0.3281
0.264
0.200
+3 Sigma 0.778
+2 Sigma 0.6708
Mean 0.457
-2 Sigma 0.242
-3 Sigma 0.135
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
03/06
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03/10
03/11
03/11
DATE
● Denotes Outlier

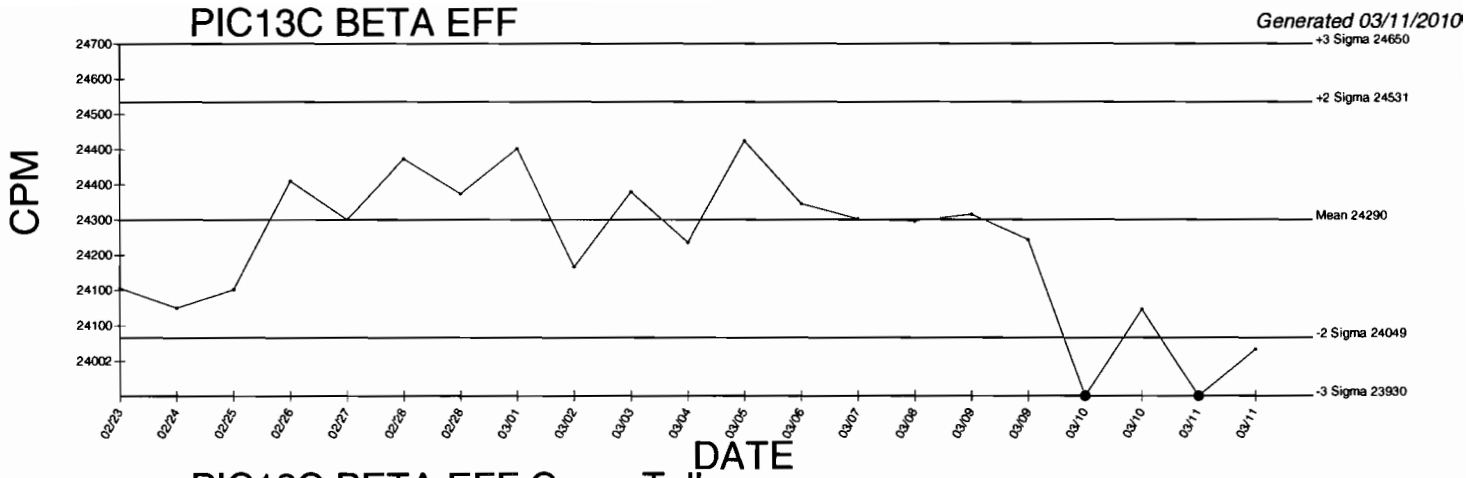

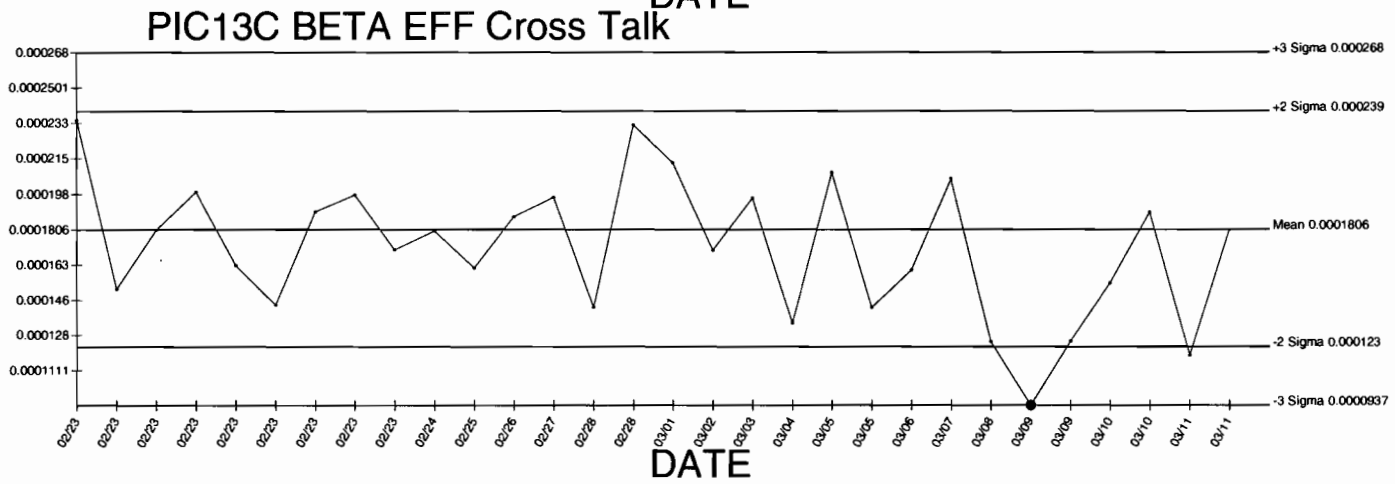

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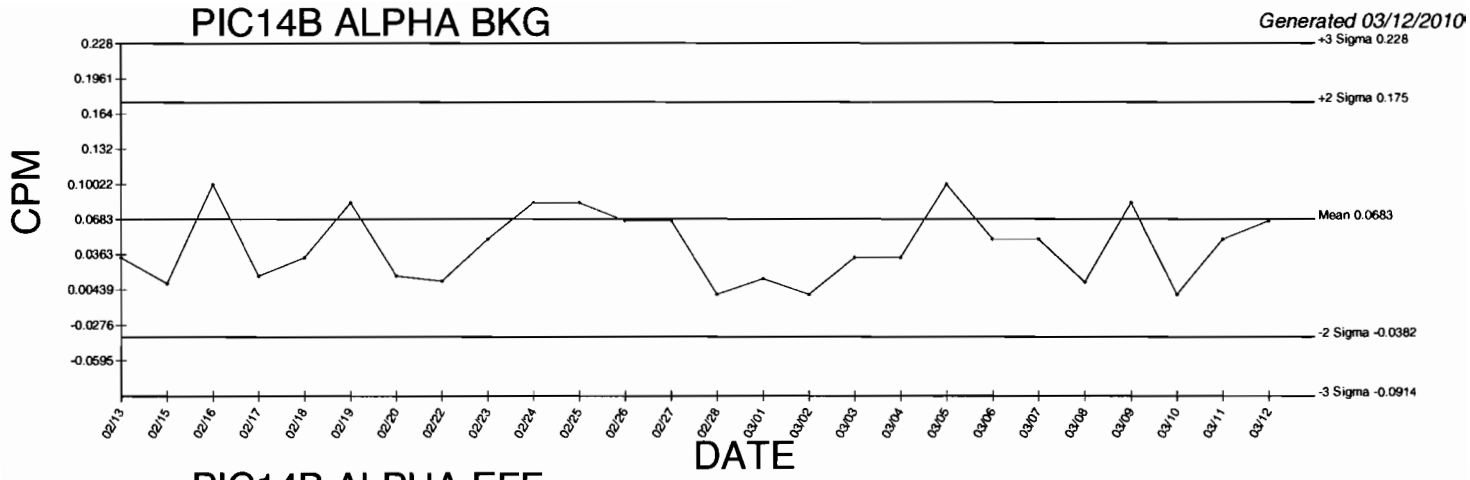
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Generated 03/12/2010
CPM
DATE
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+2 Sigma 0.175
Mean 0.0683
-2 Sigma -0.0382
-3 Sigma -0.0914

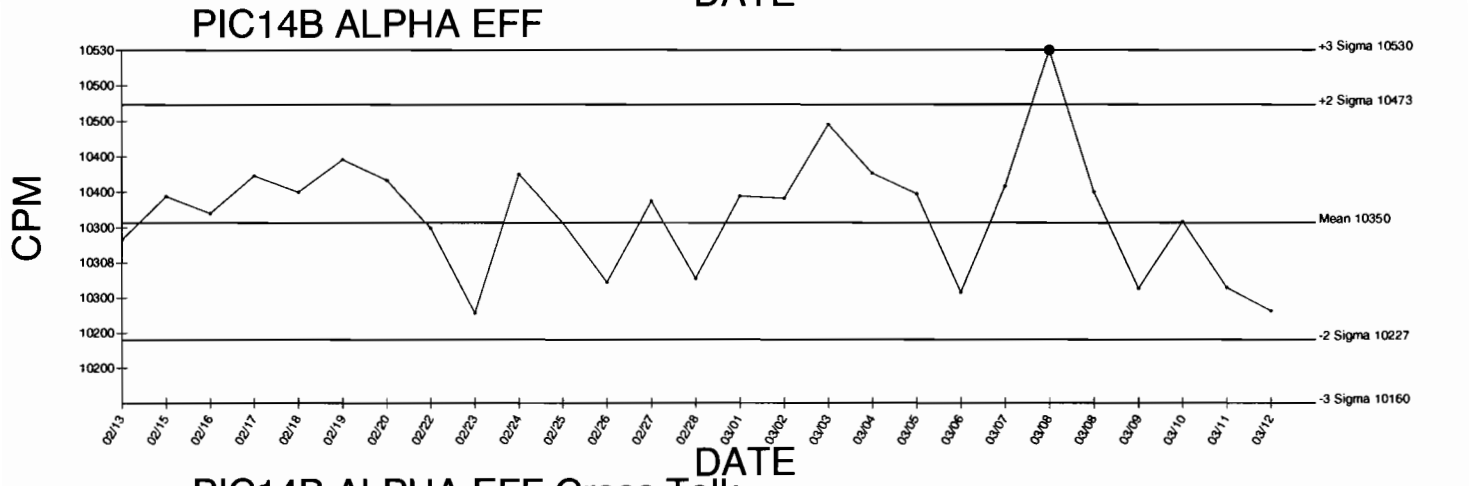
PIC14B ALPHA EFF
CPM
DATE
+3 Sigma 10530
+2 Sigma 10473
Mean 10350
-2 Sigma 10227
-3 Sigma 10160

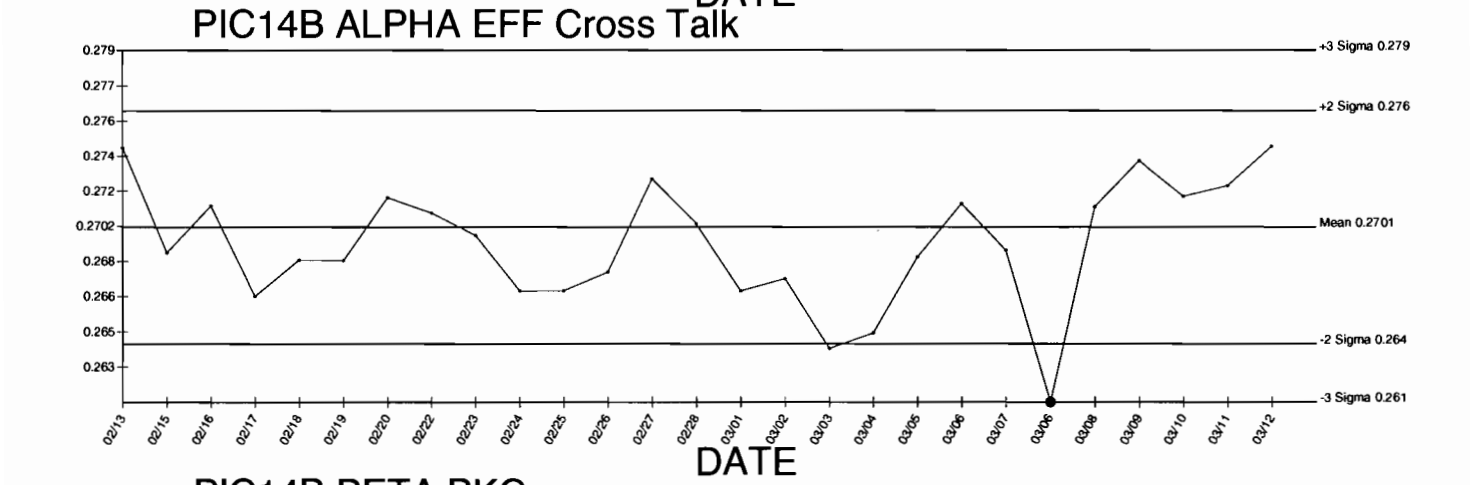
PIC14B ALPHA EFF Cross Talk
DATE
+3 Sigma 0.279
+2 Sigma 0.276
Mean 0.2701
-2 Sigma 0.264
-3 Sigma 0.261

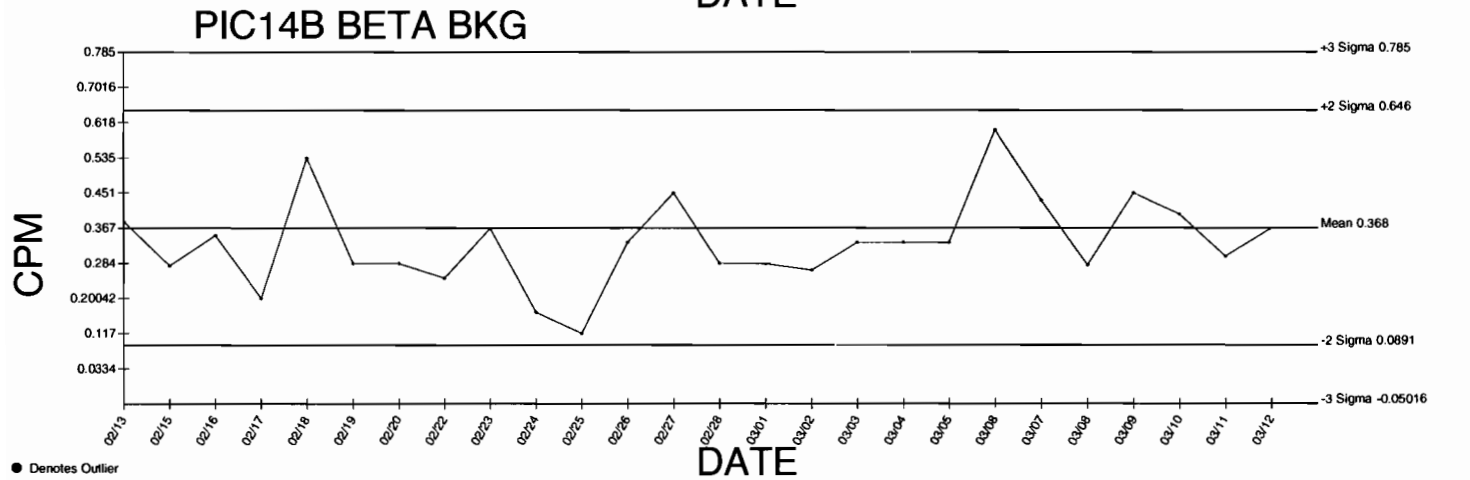
PIC14B BETA BKG
CPM
DATE
+3 Sigma 0.785
+2 Sigma 0.646
Mean 0.368
-2 Sigma 0.0891
-3 Sigma -0.05016
● Denotes Outlier

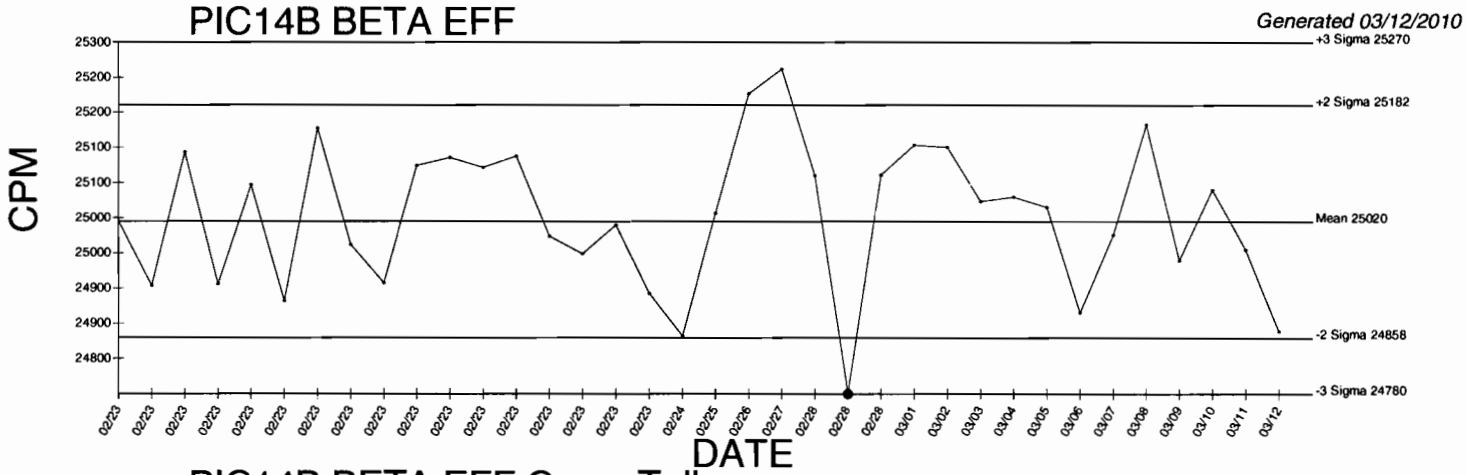

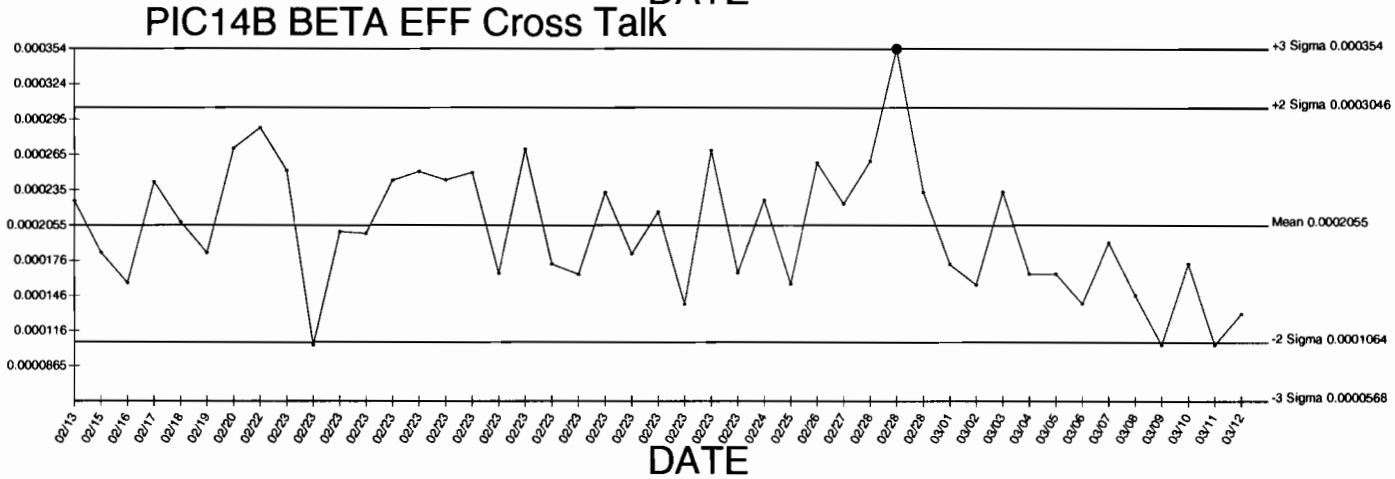

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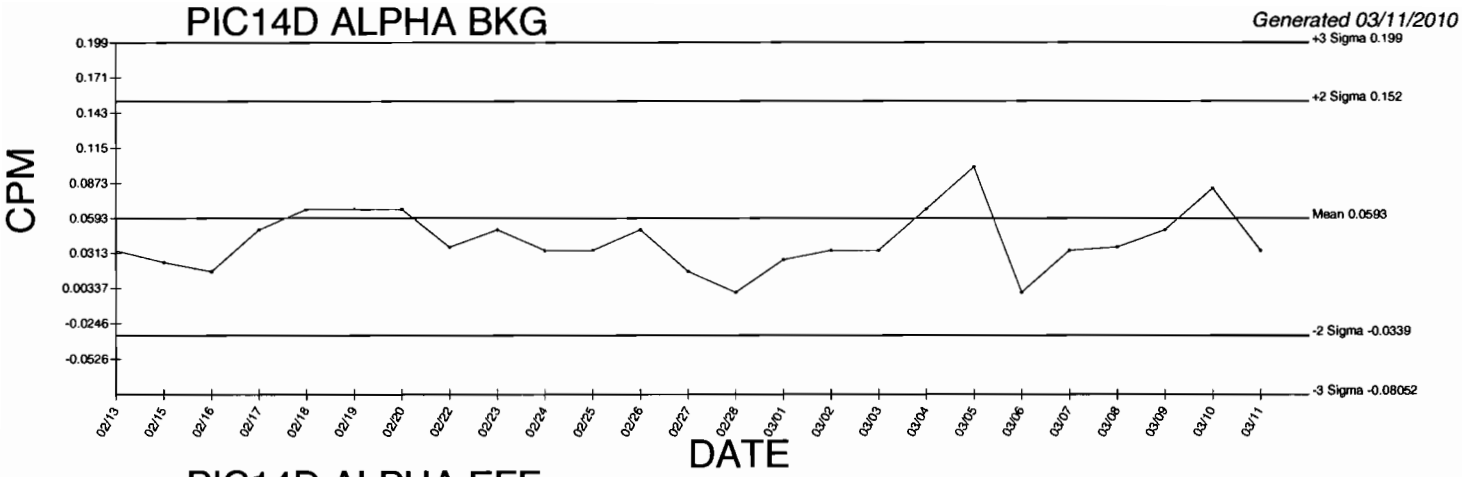
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Generated 03/11/2010
CPM
DATE
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+2 Sigma 0.152
Mean 0.0593
-2 Sigma -0.0339
-3 Sigma -0.08052

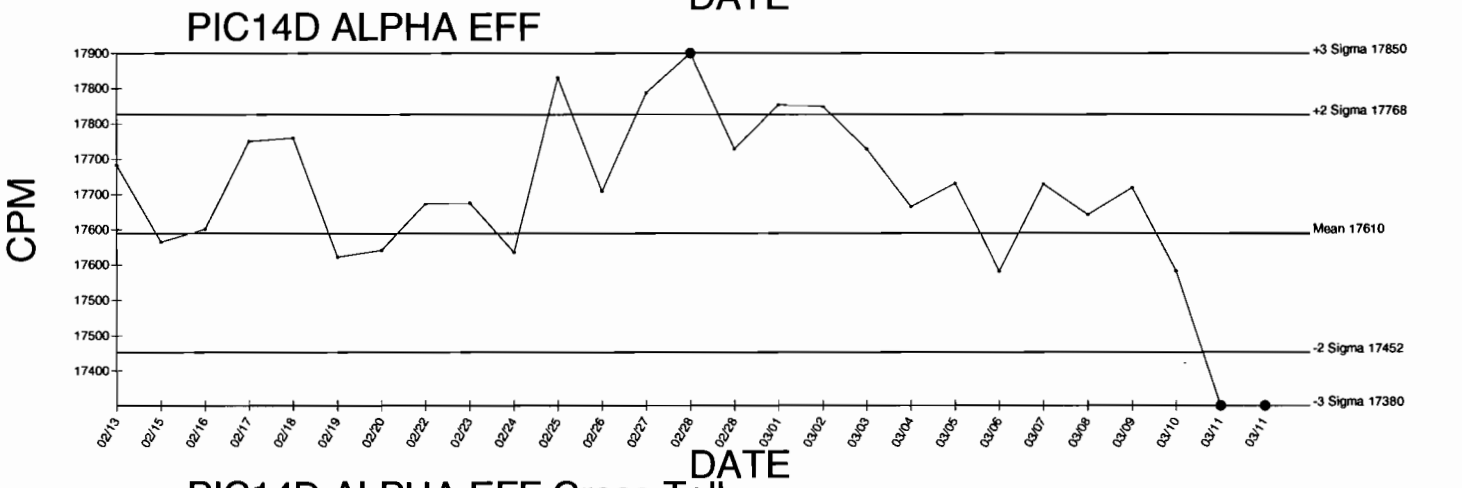
PIC14D ALPHA EFF
CPM
DATE
+3 Sigma 17850
+2 Sigma 17768
Mean 17610
-2 Sigma 17452
-3 Sigma 17380

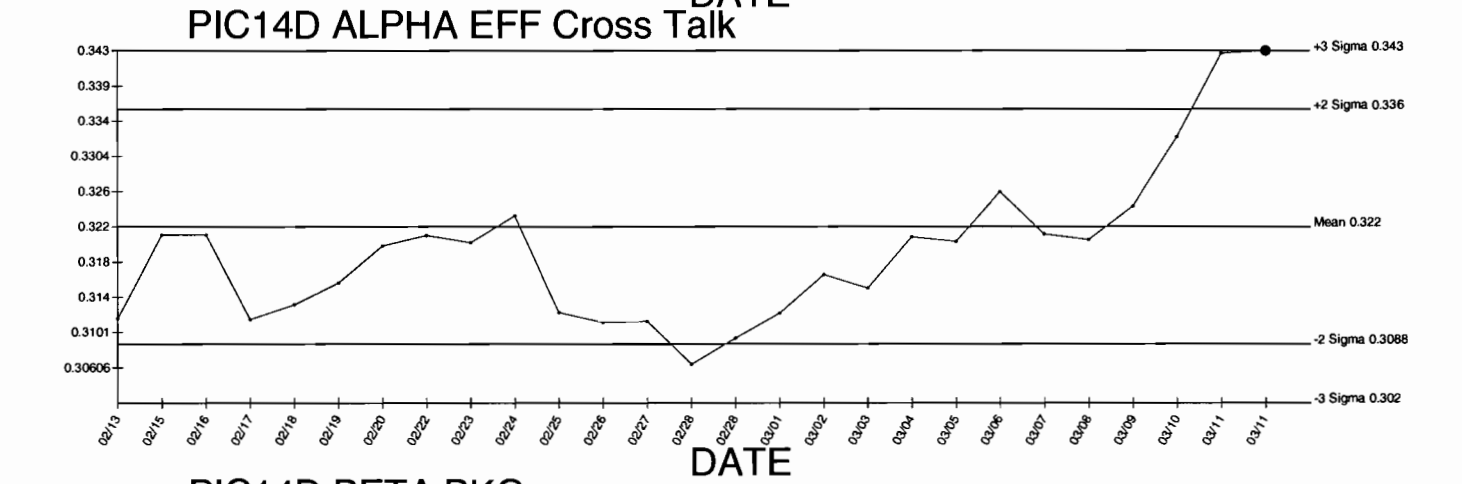
PIC14D ALPHA EFF Cross Talk
DATE
+3 Sigma 0.343
+2 Sigma 0.336
Mean 0.322
-2 Sigma 0.3088
-3 Sigma 0.302

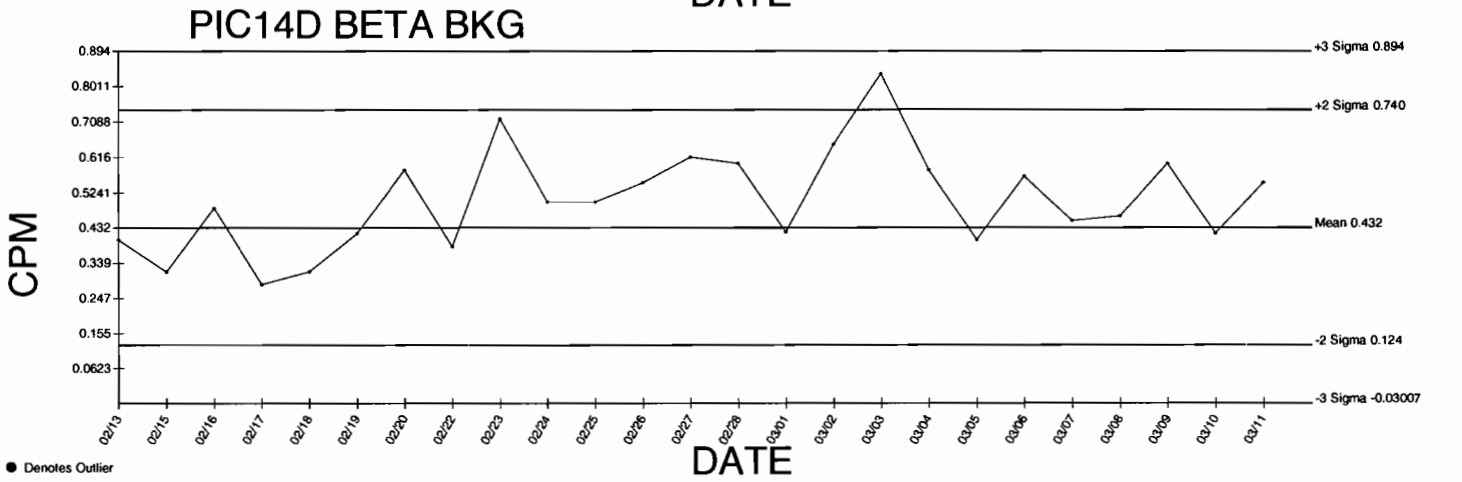
PIC14D BETA BKG
CPM
DATE
+3 Sigma 0.894
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Mean 0.432
-2 Sigma 0.124
-3 Sigma -0.03007
● Denotes Outlier

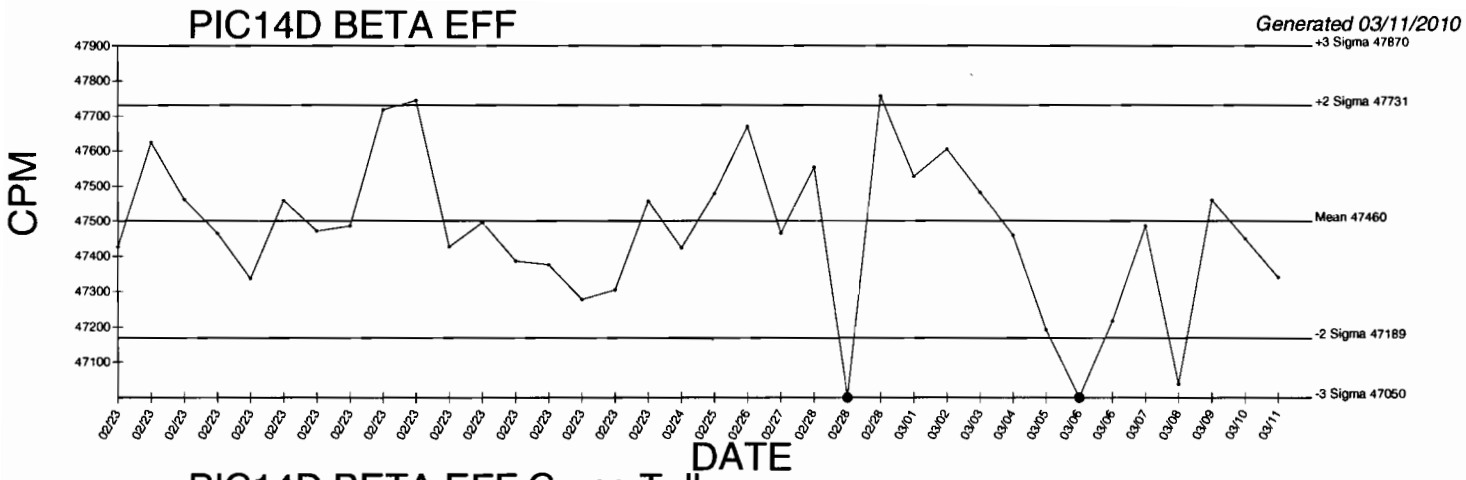

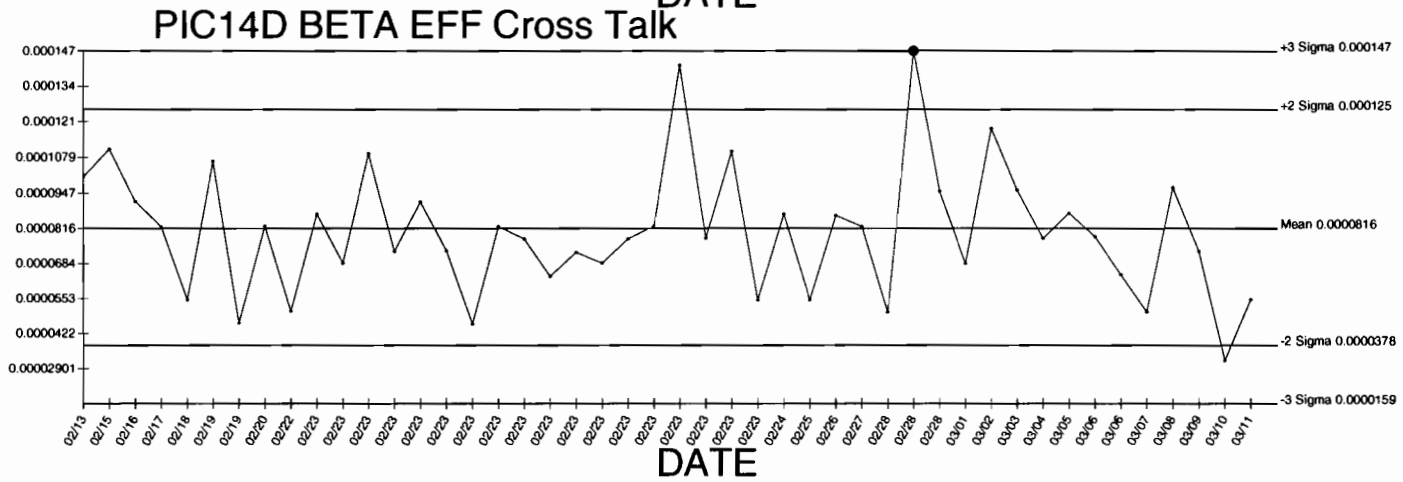

● Denotes Outlier

STANDARDS DATA

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/30/06
RC-S-045-073-0

Controlled Copy
Laboratory
24937 Avenue Tibbitts, Valencia, California 91355
1380 Seaboard Industrial Blvd., Atlanta, Georgia 30318

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An Isotope Products Laboratories Company

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Atlanta, Georgia 30318

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ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- VER. JAR-1
	Mixed Gamma N2	2510	pCi/L	- VER. JAR-3
	Mixed Gamma N3	2413	pCi/L	- VER. JAR. 5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**	
Stdev =	64.065		**Rule 3 (Pass/Fail)**	
Certificate Value =	2485.68018	pCi/L		
Lower Limit =	2357.536524	pCi/L		
Upper Limit =	2613.796809	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	128.1301422			
10 % of Mean =	248.56666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2
Mean Value (Counting) =	886.90	**95.01**	**Pass**	
Stdev =	28.651	**Rule 3 (Pass/Fail)**		
Certificate Value =	933.44144	pCi/L		
Lower Limit =	829.597644	pCi/L		
Upper Limit =	944.202356	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	57.30235597			
10 % of Mean =	88.69000000			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result	
	Mixed Gamma N1	1572	pCi/L - VER-JAR-5
	Mixed Gamma N2	1495	pCi/L - VER-JAR-2
	Mixed Gamma N3	1501	pCi/L - VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**
Stdev =	42.829	**Rule 3 (Pass/Fail)**	
Certificate Value =	1545.8378	pCi/L	
Lower Limit =	1437.008431	pCi/L	
Upper Limit =	1608.324902	pCi/L	
Rule 1 (Pass/Fail)	**Pass**		
Two sigma =	85.65823564		
10 % of Mean =	152.26666667		
Rule 2 (Pass/Fail)	**Pass**		

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0533

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 · U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

65338-278

Am-241 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Am-241
ACTIVITY (dps):	3.920 E4
HALF-LIFE:	4.322 E2 years
CALIBRATION DATE:	January 15, 2003 12:00 EST
TOTAL UNCERTAINTY*:	3.2%
SYSTEMATIC:	2.2%
RANDOM:	1.0%

*99% confidence level.

5.10649 grams 1M HCl solution.

Impurities: γ-impurities <0.1%
α-impurities <0.1%

P O NUMBER 3213 RD, Item 1

SOURCE PREPARED BY: MTaskaeva
M. Taskaeva, Radiochemist

Q A APPROVED: UM Mt 1-16-03

RC-S-035-048a

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0533
Prepared By:	Angela Johnson
Carrier Conc:	1 M HCL
Reference Date:	01/15/2003
Ampoule Mass (g):	5.10649 g
Uncertainty:	+/- 3.2 %
LogBook No:	RC S 035 048

A Solution Material Info	
Isotope:	Americium-241
Prepared By:	Angela Johnson
Prep Date:	02/05/2003
Verification Date:	09/29/2008
Expiration Date:	09/29/2009
Primary Code:	0533-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8225 g
Density(g/mL):	1.0139
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8225 g) * (39200 dps) * (60 dpm/dps) / (5.10649 g * 100 mL) = 22211.9695 dpm/mL
(4.8225 g) * (39200 dps) * (60 dpm/dps) / (1.0139 g/mL)/ (5.10649 g * 100 mL) = 21907.2185 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
02/20/2003	Angela Johnson	1.0151	100	0533-B	222.38 dpm/mL	03/01/2006	03/01/2007
02/20/2003	Angela Johnson	.6819	250	0533-C	59.754 dpm/mL	02/20/2004	02/20/2005
05/07/2003	Tim Chandler	.1245	100	0533-D	27.2745 dpm/mL	05/03/2004	05/03/2005
09/10/2004	Amanda Fehr	.6933	250	0533-E	60.753 dpm/mL	09/10/2005	09/10/2006
12/17/2004	Brenda Burke	.0093	100	0533-F	2.0374 dpm/mL	12/20/2004	12/20/2005
12/21/2004	Brenda Burke	.009273	100	0533-G	2.0315 dpm/mL	12/07/2005	12/07/2006
04/28/2005	Brenda Burke	.1347	100	0533-H	29.4598 dpm/mL	04/27/2006	04/27/2007
10/19/2005	Mary Aders	.6948	250	0533-I	60.7831 dpm/mL	10/18/2006	10/18/2007

05/08/2006	Julie Strock	.0711	100	0533-J	15.576 dpm/mL	05/10/2008	05/10/2009
05/11/2006	Brenda Burke	.00092601	100	0533-K	.20286 dpm/mL	08/02/2007	07/28/2007
11/15/2006	Tara Sides	.132	1000	0533-L	2.88586 dpm/mL	10/06/2009	10/06/2010
06/12/2007	Julie Strock	.000979	100	0533-M	.21448 dpm/mL	05/20/2009	05/20/2010
08/03/2007	Daniel Roy	.7042	250	0533-N	61.7083 dpm/ml	08/02/2008	08/02/2009
09/25/2008	Daniel Roy	1.4561	500	0533-O	63.7982 dpm/ml	09/10/2009	09/10/2010
09/29/2008	Tara Sides	.1004	100	0533-P	21.9948 dpm/mL	09/09/2009	09/09/2010
06/03/2009	Julie Strock	.0009751	100	0533-Q	.2136 dpm/mL	06/05/2009	06/03/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-241 Standard *0533-O*

M. Aders			
9/10/2009	**Isotope**	**Value**	**Uncertainty**
	0533-O #1	2.880	0.3960
	0533-O #2	2.820	0.3910
	0533-O #3	2.790	0.3840
Mean Value (Counting) =	2.830	0.9953264	
Stdev =	0.045825757		
Target =	2.84		
Lower Limit =	2.738348486		
Upper Limit =	2.921651514		
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**
Two sigma =	0.091651514		
10 % of Mean =	0.283		
Rule 2 (Pass/Fail)	**Pass**		

Rule 1 = The target value must lie within the average counting value concentration plus or minus two times the standard deviation of the three counting sources.
Rule 2 =The calculated value of two times the standard deviation of the concentration of the three counted sources must be less than 10% of the average concentration value.
Rule 3 = The determined mean value must be +/- 5% of the of the certificate value or within the uncertainty of the standards being verified.

The analyst prepared three standard verification sources for standard ***0533-O*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Am_243*** standard ***445-96-2-SS*** in a disposable centrifuge tube. 4 mL of 2M HCL was added and was diluted with 6 mL of DI water. 25 micrograms of neodymium carrier and two mL of 49% HF was added to precipitate neodymium (and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-241 were calculated by comparison to Am-243 certified values.

9/22/09

9/25/09

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Pen

QUALITY CONTROL

Jan 3, 1994

Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ 1. STANDARD WIPE TEST

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 2. SOAK TEST

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 3. SOAK TEST -- BERYLLIUM WINDOW

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 4. GAS SOURCE TEST (Radioactive Gas)

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ 5. OTHER LEAK TEST

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ 6. LEAK TEST NOT APPLICABLE

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	05/11/2009
Expiration Date:	05/11/2010
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Julie Strock	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/30/2008	09/29/2009
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-SS*

M. Aders	Isotope	Value	Uncertainty
5/15/2009	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590

Mean Value (Counting) =	1.340	101.99	**Pass**
Stdev =	0.043588989		**Rule 3 (Pass/Fail)**

Target =	1.314
Lower Limit =	1.252822021
Upper Limit =	1.427177979
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.087177979
10 % of Mean =	0.134
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-SS*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Mary Fridean 5/15/09
Robert Bin 007509

0338

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 · U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

60513-278

Pu-239 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using an aliquot measured gravimetrically from a master radionuclide solution standard. The master radionuclide solution standard was calibrated by the Department Des Applications Et De La Metrologie Des Rayonnements Ionisants (DAMRI), Paris, France, as Number 24148.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Pu-239
ACTIVITY (dps):	3.674 E4
HALF-LIFE:	24131 years
CALIBRATION DATE:	October 30, 2000 12:00 EST
TOTAL UNCERTAINTY*:	5.0%

*99% confidence level.

5.45541 grams 3M HNO_3 solution.

Impurities detected (activity in dps/vial on Oct. 30, 2000):

Am-241 297.28
Pu-240 1208.8
Pu-241 2010.7
Pu-242 0.17

See reverse side for additional information.

P O NUMBER 2528RD, Item 1

PREPARED BY: M. Taskaeva
M. Taskaeva, Radiochemist

Q A APPROVED: RCullen 11/13/00

RC-S-028-167

Standard Traceability Log Rad

Source Material Info

Parent Code:	0338
Prepared By:	Penet Melton
Carrier Conc:	3 M HNO3
Reference Date:	10/30/2000
Ampoule Mass (g):	5.45541 g
Uncertainty:	+/- 5 %
LogBook No:	RC S 027 167

A Solution Material Info

Isotope:	Plutonium-239
Prepared By:	Penet Melton
Prep Date:	12/01/2000
Verification Date:	09/29/2008
Expiration Date:	09/29/2009
Primary Code:	0338-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.1674 g
Density(g/mL):	1.0121
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL | dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)

(5.1674 g) * (36740 dps) * (60 dpm/dps) / (5.45541 g * 100 mL) = 20880.2208 dpm/mL

(5.1674 g) * (36740 dps) * (60 dpm/dps) / (1.0121 g/mL)/ (5.45541 g * 100 mL) = 20630.6111 dpm/g

(5.1674 g) * (37948.8 dps) * (60 dpm/dps) / (5.45541 g * 100 mL) = 21567.2108 dpm/mL

(5.1674 g) * (37948.8 dps) * (60 dpm/dps) / (1.0121 g/mL)/ (5.45541 g * 100 mL) = 21309.3885 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
06/23/2009	Mary Aders	.591	250	0338-BB	50.3753 dpm/mL	06/23/2009	06/23/2010
10/29/2001	Tim Chandler	.3032	250	0338-E		10/16/2003	10/16/2004
12/30/2002	Tim Chandler	10.0252	100	0338-I		10/24/2003	10/24/2004
08/12/2003	Amanda Fehr	.2282	100	0338-K		08/12/2003	08/12/2004
12/09/2003	Amanda Fehr	.2409	100	0338-L		12/09/2003	12/09/2004

03/18/2004	Tim Chandler	10.0192	500	0338-M		03/18/2004	03/18/2005
04/26/2004	Amanda Fehr	.643	250	0338-N		04/26/2005	04/26/2006
05/26/2004	Eric Williamson	.355	250	0338-O	30.2619 dpm/mL	05/17/2007	05/17/2008
12/20/2004	Brenda Burke	.01957	100	0338-P	4.16992 dpm/mL	12/19/2006	12/19/2007
03/16/2005	Julie Strock	10.0395	100	0338-Q	2139.558 dpm/mL	06/12/2008	06/12/2009
07/19/2005	Amanda Fehr	.677	250	0338-R		07/10/2006	07/10/2007
05/11/2006	Brenda Burke	.0009935	100	0338-S	.21172 dpm/mL	07/30/2007	07/28/2007
01/04/2007	Julie Strock	.050286	250	0338-T	4.2887 dpm/mL	12/31/2007	12/31/2008
01/05/2007	Daniel Roy	.7285	250	0338-U		01/05/2008	01/05/2009
03/16/2005	Julie Strock	.010175	1000	0338-V	.216847 dpm/mL	04/23/2009	04/23/2010
05/15/2007	Eric Williamson	.253	250	0338-W	21.567 dpm/mL	05/21/2009	05/21/2010
07/31/2007	Julie Strock	.0010045	100	0338-X	.21379 dpm/mL	12/31/2007	12/31/2008
12/10/2008	Daniel Roy	.7715	250	0338-Y		12/10/2008	12/10/2009
09/29/2008	Julie Strock	.0504	250	0338-Z	4.29599 dpm/mL	09/30/2008	09/29/2009

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Plutonium-239 Standard *0338-BB*

Analyst: M. Aders	**Serial #**	**Value**	**Uncertainty**
Date: 6/25/09	0338-BB #1	2.350	0.2960
	0338-BB #2	2.190	0.2210
	0338-BB #3	2.300	0.2920
Mean Value (Counting) =	2.280	103.80917	**Pass**
Stdev =	0.081853528		
Target =	2.196		
Lower Limit =	2.116292945		
Upper Limit =	2.443707055		
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**
Two sigma =	0.163707055		
10 % of Mean =	0.228		
Rule 2 (Pass/Fail)	**Pass**		

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements.
Rule 2 = The two sigma value used for the 95% cinfidence interval shall not exceed 10% of the mean value of the three measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three Pu-239 standard verification sources for standard ***0338-BB*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Pu-242*** standard ***1262-A*** and was diluted in a disposable centrifuge tube with 4 mL of 2 M HCl, and 6 mL of DI water, 50 micrograms of Nd carrier and 5 drops of hydrazine dihydrochloride were added to the centrifuge tube and swirled. After waiting ten minutes, two mL of 49% HF was added to precipitate Nd(and ***plutonium***) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for ***Pu-239*** were calculated by comparison to ***Pu-242*** certified values.

Mary L. Adams 6/26/09

Robert R 06 26 09

1375

National Institute of Standards & Technology
Certificate

Standard Reference Material 4334H
Plutonium-242 Radioactivity Standard

This Standard Reference Material (SRM) consists of radioactive plutonium-242 nitrate and nitric acid dissolved in 5 mL of distilled water. The solution is contained in a flame-sealed NIST borosilicate-glass ampoule. The SRM is intended for the calibration of alpha-particle counting instruments and for the monitoring of radiochemical procedures.

Radiological Hazard: The SRM ampoule contains plutonium-242 with a total activity of approximately 150 Bq. Plutonium-242 decays by alpha-particle emission. None of the alpha particles escape from the SRM ampoule. During the decay process, X-rays and gamma rays with energies from 10 keV to 160 keV are also emitted. Most of these photons escape from the SRM ampoule but their intensities are so small that they do not represent a radiation hazard. Approximate unshielded dose rates at several distances (as of the reference time) are given in note [a]*. The SRM should be used only by persons qualified to handle radioactive material.

Chemical Hazard: The SRM ampoule contains nitric acid (HNO_3) with a concentration of 3 moles per liter of water. The solution is corrosive and represents a health hazard if it comes in contact with eyes or skin. If the ampoule is to be opened to transfer the solution, the recommended procedure is given on page 2. The ampoule should be opened only by persons qualified to handle both radioactive material and strong acid solution.

Storage and Handling: The SRM should be stored and used at a temperature between 5 °C and 65 °C. The solution in an unopened ampoule should remain stable and homogeneous until at least January 2015. The ampoule (or any subsequent container) should always be clearly marked as containing radioactive material. If the ampoule is transported it should be packed, marked, labeled, and shipped in accordance with the applicable national, international, and carrier regulations. The solution in the ampoule is a dangerous good (hazardous material) both because of the radioactivity and because of the strong acid.

Preparation: This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

RECEIVED 12/01

Lisa R. Karam, Acting Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
January 2005

Robert L. Watters, Jr., Chief
Measurement Services Division

*Notes and references are on pages 5 to 7.

RC-5-08-094

Recommended Procedure for Opening the SRM Ampoule

1) If the SRM solution is to be diluted, it is recommended that the diluting solution have a composition comparable to that of the SRM solution.

2) Wear eye protection, gloves, and protective clothing and work over a tray with absorbent paper in it. Work in a fume hood. In addition to the radioactive material, the solution contains strong acid and is corrosive.

3) Shake the ampoule to wet all of the inside surface of the ampoule. Return the ampoule to the upright position.

4) Check that all of the liquid has drained out of the neck of the ampoule. If necessary, gently tap the neck to speed the process.

5) Holding the ampoule upright, score the narrowest part of the neck with a scribe or diamond pencil.

6) Lightly wet the scored line. This reduces the crack propagation velocity and makes for a cleaner break.

7) Hold the ampoule upright with a paper towel, a wiper, or a support jig. Position the scored line away from you. Using a paper towel or wiper to avoid contamination, snap off the top of the ampoule by pressing the narrowest part of the neck away from you while pulling the tip of the ampoule towards you.

8) Transfer the solution from the ampoule using a pycnometer or a pipet with dispenser handle. NEVER PIPETTE BY MOUTH.

9) Seal any unused SRM solution in a flame-sealed glass ampoule, if possible, to minimize the evaporation loss.

See also reference [4]*.

*Notes and references are on pages 5 to 7.

PROPERTIES OF SRM 4334H

Certified values

Radionuclide	**Plutonium-242**
Reference time	**1200 EST, 07 June 1994 [b]***
Massic activity of the solution [c]	**26.31 $Bq \cdot g^{-1}$**
Relative expanded uncertainty (k=2)	**0.72% [d] [e]**
Solution density	**(1.105 ± 0.002) $g \cdot mL^{-1}$ at 20 °C [f]**

Uncertified values

Physical Properties:			
Source description	Liquid in flame-sealed NIST borosilicate-glass ampoule		
Ampoule specifications	Body outside diameter Wall thickness Barium content Lead-oxide content Other heavy elements	(16.5 ± 0.5) mm (0.60 ± 0.04) mm Less than 2.5% Less than 0.02% Trace quantities	
Solution mass	Approximately 5.5 g		
Chemical Properties:			
Solution composition	Chemical Formula	Concentration ($mol \cdot L^{-1}$)	Mass Fraction ($g \cdot g^{-1}$)
	H_2O HNO_3 $^{242}Pu^{+6}$	50 3.2 8×10^{-7}	0.81 0.19 2×10^{-7}
Radiological Properties:			
Alpha-particle-emitting impurities	None detected [g] [h]. See table on page 5.		
Beta-particle-emitting impurities	Plutonium-241: (0.092 ± 0.018) $Bq \cdot g^{-1}$ [f] [h]		
Photon-emitting impurities	None detected [i]		
Half lives used	Plutonium-242: (373 500 ± 1100) a [j] [5] Plutonium-241: (14.35 ± 0.10) a [j] [5] Americium-241: (432.2 ± 0.7) a [j] [5]		
Calibration method and measuring instrument(s)	Three 4πα liquid-scintillation counters, a calibrated germanium detector system, and a silicon surface-barrier detector		

*Notes and references are on pages 5 to 7.

EVALUATION OF THE UNCERTAINTY OF THE MASSIC ACTIVITY [d] [e]*

Input Quantity x_i, the source of uncertainty (and individual uncertainty components where appropriate)	Method Used To Evaluate $u(x_i)$, the standard uncertainty of x_i (A) denotes evaluation by statistical methods (B) denotes evaluation by other methods	Relative Uncertainty Of Input Quantity, $u(x_i)/x_i$, (%) [k]	Relative Sensitivity Factor, $\lvert\partial y/\partial x_i\rvert \cdot (x_i/y)$ [m]	Relative Uncertainty Of Output Quantity, $u_r(y)/y$, (%) [n]
Massic alpha-particle emission rate, corrected for background and decay	Standard deviation of the mean for 80 sets of $4\pi\alpha$ liquid-scintillation measurements (A)	0.05	1.0	0.05
Half life of Pu-242	Standard uncertainty of the half life (A)	0.32 [p]	0.00001 [q]	0.000003
Decay-scheme data	Standard uncertainty of the probability of decay by alpha-particle emission (A)	0.001	1.0	0.001
Extrapolation of alpha-particle-count-rate-versus-energy to zero energy	Estimated (B)	0.25	1.0	0.25
Gravimetric measurements	Estimated (B)	0.10	1.0	0.10
Live time [r]	Estimated (B)	0.10	1.0	0.10
Alpha-particle detection efficiency of scintillators	Estimated (B)	0.15	1.0	0.15
Alpha-particle-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Photon-emitting impurities	Limit of detection (B) [s]	100.	0.001	0.10
Relative Combined Standard Uncertainty of the Output Quantity, $u_c(y)/y$, (%)				0.36
Coverage Factor, k				x 2
Relative Expanded Uncertainty of the Output Quantity, U/y, (%)				0.72

*Notes and references are on pages 5 to 7.

RELATIVE ACTIVITIES OF RADIONUCLIDIC IMPURITIES AT THE REFERENCE TIME [b]

Radionuclide	Half Life (years) [j] [5]	Relative Activity As Determined By	
		LLNL	NIST
Plutonium-242	373 500 ± 1100	1.000 000	1.000 000
Plutonium-241	14.35 ± 0.10	- -	0.0035 ± 0.0004 [t]
Plutonium-240	6 564 ± 11	^{239}Pu + ^{240}Pu <0.000 001 [u]	^{239}Pu + ^{240}Pu 0.000 020 ± 0.000 021 [v]
Plutonium-239	24 110 ± 30		
Plutonium-238	87.7 ± 0.1	^{238}Pu + ^{241}Am <0.000 016 [u]	0.000 009 ± 0.000 016 [v]
Americium-241	432.2 ± 0.7		0.000 000 assumed [t]

NOTES

[a] The Sievert is the SI unit for dose equivalent. See reference [1]. One μSv is equal to 0.1 mrem.

Distance from Ampoule (cm):	1	30	100
Approximate Dose Rate (μSv/h):	<0.1	-	-

[b] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994.

[c] **Massic activity** is the preferred name for the quantity activity divided by the total mass of the sample. See reference [1].

[d] The reported value, y, of massic activity (activity per unit mass) at the reference time was not measured directly but was derived from measurements and calculations of other quantities. This can be expressed as $y = f(x_1, x_2, x_3, \ldots x_n)$, where f is a mathematical function derived from the assumed model of the measurement process. The value, x_i, used for each input quantity i has a **standard uncertainty**, $u(x_i)$, that generates a corresponding uncertainty in y, $u_i(y) \equiv |\partial y/\partial x_i| \cdot u(x_i)$, called a **component of combined standard uncertainty** of y. The **combined standard uncertainty** of y, $u_c(y)$, is the positive square root of the sum of the squares of the components of combined standard uncertainty. The combined standard uncertainty is multiplied by a **coverage factor** of $k = 2$ to obtain U, the **expanded uncertainty** of y.

Since it can be assumed that the possible estimated values of the massic activity are approximately normally distributed with approximate standard deviation $u_c(y)$, the unknown value of the massic activity is believed to lie in the interval $y \pm U$ with a level of confidence of approximately 95 percent.

For further information on the expression of uncertainties, see references [2] and [3].

[e] The value of each component of combined standard uncertainty, and hence the value of the expanded uncertainty itself, is a best estimate based upon all available information, but is only approximately known. That is to say, the "uncertainty of the uncertainty" is large and not well known. This is true for uncertainties evaluated by statistical methods (e.g., the relative standard deviation of the standard deviation of the mean for the massic response is approximately 50%) and for uncertainties evaluated by other methods (which could easily be over estimated or under estimated by substantial amounts). The unknown value of the expanded uncertainty is believed to lie in the interval $U/2$ to $2U$ (i.e., within a factor of 2 of the estimated value).

[f] The stated uncertainty is two times the standard uncertainty.

[g] Estimated limits of detection for alpha-particle-emitting impurities, expressed as massic alpha-particle emission rates (numbers of alpha particles per second per gram), are:
0.003 $s^{-1} \cdot g^{-1}$ for energies less than 3.1 MeV,
0.03 $s^{-1} \cdot g^{-1}$ for energies between 3.1 and 4.4 MeV, and
0.003 $s^{-1} \cdot g^{-1}$ for energies greater than 5.0 MeV.

[h] The plutonium-242 master solution was chemically purified at 1200 EST, 07 June 1994. Americium-241, the daughter of plutonium-241, was removed but has been growing in since that time.

[i] Estimated limits of detection for photon-emitting impurities, expressed as massic photon emission rates (numbers of photons per second per gram), are:
$5 \times 10\text{-}5$ $s^{-1} \cdot g^{-1}$ for energies between 19 and 39 keV,
$7 \times 10\text{-}5$ $s^{-1} \cdot g^{-1}$ for energies between 49 and 92 keV,
$2 \times 10\text{-}5$ $s^{-1} \cdot g^{-1}$ for energies between 106 and 507 keV,
$1 \times 10\text{-}5$ $s^{-1} \cdot g^{-1}$ for energies between 515 and 1456 keV, and
$5 \times 10\text{-}6$ $s^{-1} \cdot g^{-1}$ for energies between 1465 and 2750 keV,
provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of plutonium-242, plutonium-241, or americium-241.

[j] The stated uncertainty is the standard uncertainty.

[k] Relative standard uncertainty of the input quantity x_i.

[m] The relative change in the output quantity y divided by the relative change in the input quantity x_i. If $|\partial y/\partial x_i| \cdot (x_i/y) = 1.0$, then a 1% change in x_i results in a 1% change in y. If $|\partial y/\partial x_i| \cdot (x_i/y) = 0.05$, then a 1% change in x_i results in a 0.05% change in y.

[n] Relative component of combined standard uncertainty of output quantity y, rounded to two significant figures or less. The relative component of combined standard uncertainty of y is given by $u_i(y)/y \equiv |\partial y/\partial x_i| \cdot u(x_i)/y = |\partial y/\partial x_i| \cdot (x_i/y) \cdot u(x_i)/x_i$. The numerical values of $u(x_i)/x_i$, $|\partial y/\partial x_i| \cdot (x_i/y)$, and $u_i(y)/y$, all dimensionless quantities, are listed in columns 3, 4, and 5, respectively. Thus, the value in column 5 is equal to the value in column 4 multiplied by the value in column 3. The input quantities are independent, or very nearly so. Hence the covariances are zero or negligible.

[p] The relative standard uncertainty of $\lambda \cdot t$ is determined by the relative standard uncertainty of λ (i.e., of the half life). The relative standard uncertainty of t is negligible.

[q] $|\partial y/\partial x_i| \cdot (x_i/y) = |\lambda \cdot t|$

[r] The live time is determined by counting the pulses from a gated crystal-controlled oscillator.

[s] The standard uncertainty for each undetected impurity that might reasonably be expected to be present is estimated to be equal to the estimated limit of detection for that impurity, i.e. $u(x_i)/x_i$ = 100%. $|\partial y/\partial x_i| \cdot (x_i/y)$ = {(response per Bq of impurity)/(response per Bq of Pu-242)}•{(Bq of impurity)/(Bq of Pu-242)}. Thus $u_i(y)/y$ is the relative change in y if the impurity were present with a massic activity equal to the estimated limit of detection.

[t] The stated uncertainty is the standard uncertainty. The plutonium-241 activity was calculated from a gamma-ray measurement of the americium-241 ingrowth as of 25 November 1998, assuming that americium-241 was completely removed at the time of chemical purification.

[u] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The value shown is an estimated upper limit based upon background and counting statistics. Measurements were made at the Lawrence Livermore National Laboratory (LLNL) in July of 1994.

[v] Using alpha-particle spectrometry, no alpha-particle emission was detected that could reliably be ascribed to these radionuclides. The stated uncertainty is the standard uncertainty. Measurements were made at the National Institute of Standards and Technology (NIST) in June and July of 1999.

REFERENCES

[1] International Organization for Standardization (ISO), *ISO Standards Handbook - Quantities and Units*, 1993. Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B.N. Taylor and C.E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

[4] National Council on Radiation Protection and Measurements Report No. 58, *A Handbook of Radioactivity Measurements Procedures*, Second Edition, 1985. Available from the National Council on Radiation Protection and Measurements, 7910 Woodmont Avenue, Bethesda, MD 20814 U.S.A.

[5] Evaluated Nuclear Structure Data File (ENSDF), January 2005.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1375
Prepared By:	Mary Aders
Carrier Conc:	0.5M HNO3
Reference Date:	06/07/1994
Ampoule Mass (g):	5.5 g
Uncertainty:	+/- .72 %
LogBook No:	RC-S-051-094

A Solution Material Info	
Isotope:	Plutonium-242
Prepared By:	Ashley Drochter
Prep Date:	01/08/2010
Verification Date:	01/08/2010
Expiration Date:	01/08/2011
Primary Code:	1375-A
Dilution(mL):	250 mL
Mass of Parent(g):	5.3542 g
Density(g/mL):	1.0148
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (250 mL) = 33.8086 dpm/mL
(5.3542 g) * (26.31 Bq/g) * (60 dpm/Bq) / (1.0148 g/mL) / (250 mL) = 33.3155 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Pu-242 Standard 1375-*A*

A.Drochter	Isotope	Value	Uncertainty
1/9/2010	1375-A	1.530	0.2410
	1375-A	1.630	0.2630
	1375-A	1.580	0.2480

Mean Value (Counting) =	1.580	103.75	**Pass**
Stdev =	0.05		**Rule 3 (Pass/Fail)**

Target =	1.52
Lower Limit =	1.48
Upper Limit =	1.68
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.1
10 % of Mean =	0.158
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for standard 1375-A using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. Two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-242 were calculated by comparison to Pu-239 certified values.

1/12/10

1/12/10

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CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1067

74463-278

Sr-90 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Sr-90
ACTIVITY (Bq):	3.835 E4
HALF-LIFE:	28.79 years
CALIBRATION DATE:	February 7, 2007 12:00 EST
RELATIVE EXPANDED UNCERTAINTY (k=2):	1.7%

Impurities: γ-impurities <0.1%

5.01066 grams 0.1M HCl solution with 30 μg/g Sr carrier.

NOTE: This source also contains Y-90 in secular equilibrium with Sr-90. The Y-90 activity is equal to the Sr-90 activity. Since Sr-90 and Y-90 both decay 100% by beta emission, the total beta emission rate for the source is twice the certified Sr-90 activity. The half-life for Y-90 is 64.08 hours.

P O NUMBER 2739 RD, Item 1

RECEIVED 2/8/07

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: UM MJ 2-7-07

RC-S-045-108-A

Corporate Office
24937 Avenue Tibbitts Valencia, California 91355

Laboratory
1380 Seaboard Industrial Blvd. Atlanta, Georgia, 30318

Standard Traceability Log Rad

Source Material Info

Parent Code:	1067
Prepared By:	Daniel Roy
Carrier Conc:	0.1M HCl
Reference Date:	02/07/2007
Ampoule Mass (g):	5.01066 g
Uncertainty:	+/- 1.7 %
LogBook No:	RC-S-045-108

A Solution Material Info

Isotope:	Strontium-90
Prepared By:	Julie Strock
Prep Date:	10/12/2007
Verification Date:	06/17/2009
Expiration Date:	06/23/2010
Primary Code:	1067-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.9657 g
Density(g/mL):	0.9962
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (bq)) * (conversion dpm to bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)

(Mass of parent(g)) * (Parm Activity (bq)) * (conversion dpm to bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)

(4.9657 g) * (38350 bq) * (60 dpm/bq) / (5.01066 g * 100 mL) = 22803.5343 dpm/mL

(4.9657 g) * (38350 bq) * (60 dpm/bq) / (0.9962 g/mL)/ (5.01066 g * 100 mL) = 22889.8293 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/23/2008	Daniel Roy	20.0611	1000	1067-B	459.1952 dpm/ml	07/23/2008	07/23/2009
06/16/2009	Mary Aders	20.0693	1000	1067-C	459.3829 dpm/mL	06/17/2009	06/17/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Sr-90 Standard 1067-C

6/18/2009	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (mL)	Source DPM/mL
M. Aders	1067-C N1	922.6000	45.1300	877.4700	2.030242	1.0000	432.1997082
	1067-C N2	905.2700	45.1300	860.1400	2.030242	1.0000	423.66378
	1067-C N3	918.2700	45.1300	873.1400	2.030242	1.0000	430.0669575
						Average =	428.6434819
Mean Value (Counting) =	428.6434819		98.7965109	% of known	Pass		
Stdev =	4.442435123		0.01036394				
Certificate Value =	433.865	dpm/mL					
Lower Limit =	419.7586117	dpm/mL					
Upper Limit =	437.5283522	dpm/mL					
Rule 1 Pass/Fail	Pass	Pass	Pass				
Two sigma =	8.884870247						
10 % of Mean =	42.86434819						
Rule 2 (Pass/Fail)	Pass						

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for Sr-90 source 1067-C by transferring 1 mL portions of the standard into glass liquid scintillation vials. Thirteen mL of Ecoscint Ultra liqiuid scintillation coctail was prepared in a similar fashion using 1 mL of DI water and 13 mL of Ecoscint Ultra liqiuid scintillation coctail. The standard verification vials and Background source were dark adapted for two hours and counted on LSC Green for Sr-90 source standard verification. The Sr-90 efficiency calibration which was used for verification calculations was performed on 6/17/09 using source 0133-A (Sr-90). Calibration data is recorded in this logbook under Sr-90 0133-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.
RAD SOP M-001

6/18/09
6/29/09

STANDARDIZATION OF STRONTIUM CARRIER

DATE: [redacted] EXP. DATE: [redacted]

LOT NUMBER [redacted]

STRONTIUM PRECIPITATES

	1	2	3	4
Weight of carrier added	[redacted]	[redacted]	[redacted]	[redacted]
Aliquot (5.00 mL)				
Crucible + ppt.	[redacted]	[redacted]	[redacted]	[redacted]
Crucible	[redacted]	[redacted]	[redacted]	[redacted]
Wt. of ppt., g	0.0178	0.0179	0.0179	0.0178
mg Sr/mL	17.80	17.90	17.90	17.80
mg Sr/g	17.28	17.72	17.55	17.28

Must weigh carrier added

Jennifer L. Robb
9-24-09

Average	**Std. Dev.**	
17.85	± 0.06	0.00323446
17.46	± 0.22	0.0124023
mg Sr/ 0.5 mL		**8.93**
mg Sr/g		17.46

0.5% of Mean Value = 0.08925 Pass

A satisfactory standardization is obtained when results give a standard deviation of less than 0.5% of the mean value.

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CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1243

78352-278

Sr-90 10 mL Liquid in Flame Sealed Vial

Customer: General Engineering Labs/Charleston, SC
P.O. No.: 7312 RD, Item 3

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	Sr-90
Activity (Bq):	3.856 E5
Half-Life:	28.79 years
Calibration Date:	October 1, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	1.7%

Comments:
Impurities: γ-impurities <0.1%
10.41484 grams 0.1M HCl solution with 30 μg/g Sr carrier.

NOTE: This source also contains Y-90 in secular equilibrium with Sr-90. The Y-90 activity is equal to the Sr-90 activity. Since Sr-90 and Y-90 both decay 100% by beta emission, the total beta emission rate for the source is twice the certified Sr-90 activity. The half-life for Y-90 is 64.08 hours.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 10/3/08
D. M. Montgomery, QA Manager

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Standard Traceability Log Rad

Source Material Info	
Parent Code:	1243
Prepared By:	Daniel Roy
Carrier Conc:	0.1M HCL
Reference Date:	10/01/2008
Ampoule Mass (g):	10.41484 g
Uncertainty:	+/- 1.7 %
LogBook No:	RC-S-048-124

A Solution Material Info	
Isotope:	Strontium-90
Prepared By:	Daniel Roy
Prep Date:	12/19/2008
Verification Date:	01/21/2010
Expiration Date:	01/21/2011
Primary Code:	1243-A
Dilution(mL):	100 mL
Mass of Parent(g):	10.2164 g
Density(g/mL):	0.9991
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(10.2164 g) * (385600 Bq) * (60 dpm/Bq) / (10.41484 g * 100 mL) = 226951.7634 dpm/mL
(10.2164 g) * (385600 Bq) * (60 dpm/Bq) / (0.9991 g/mL)/ (10.41484 g * 100 mL) = 227146.2010 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/21/2010	Bethany Fiem	2.2467	1000	1243-B	510.329369 dpm/mL	01/21/2010	01/21/2011

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Sr-90 Standard 1243-B

1/21/2010	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (mL)	Source DPM/mL
B. Flem	1243-B N1	1043.4000	43.6000	999.8000	2.030242	1.0000	492.453609
	1243-B N2	1035.2000	43.6000	991.6000	2.030242	1.0000	488.4146816
	1243-B N3	1020.0000	43.6000	976.4000	2.030242	1.0000	480.9278894
						Average =	487.2653933
Mean Value (Counting) =	487.2653933		**98.5553214**	**Pass**			
Stdev =	5.848179264		0.01200204	**Rule 3 (Pass/Fail)**			

Certificate Value =	494.408	dpm/mL
Lower Limit =	475.5690348	dpm/mL
Upper Limit =	498.9617518	dpm/mL
Rule 1 Pass/Fail	**Pass**	
Two sigma =	11.69635853	
10 % of Mean =	48.72653933	
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall fie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shell be within 5% of the certificate value.

The analyst prepared three standard verification sources for Sr-90 source 1243-B by transferring 1 mL portions of the standard into glass liquid scintillation vials with 10 mL of Ecoscint Ultra liqiuid scintillation coctai. A Background was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liqiuid scintillation coctail. The standard verification vials and Background source were dark adapted for two hours and counted on LSC Green for Sr-90 source standard verification. The Sr-90 efficiency calibration which was used for verification calculations was performed on 6/17/09 using source 0133-A (Sr-90). Calibration data is recorded in this logbook under Sr-90 0133-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.
RAD SOP M-001

1/25/10

BF 1-25-10

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CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1242

78148-278

Th-230 5 mL Liquid in Flame Sealed Vial

Customer: General Engineerings Labs
P.O. No.: 7311RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	Th-230
Activity (Bq):	4.021 E4
Half-Life:	7.538 E4 years
Calibration Date:	August 25, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	2.0%

Comments:
Impurities: γ-impurities <0.1%, α-impurities <0.04%
5.07467 grams 0.5M HNO3 solution.

Source Prepared By: MITaskaeva
M. I. Taskaeva, Radiochemist

QA Approved: DM Montgomery
D. M. Montgomery, QA Manager

Date: 9-4-08

RECEIVED 9/17/08
RC-S-048-123

End of Certificate

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1242
Prepared By:	Daniel Roy
Carrier Conc:	0.5M HNO3
Reference Date:	08/25/2008
Ampoule Mass (g):	5.07467 g
Uncertainty:	+/- 2 %
LogBook No:	RC-S-048-123

A Solution Material Info	
Isotope:	Thorium-230
Prepared By:	Ashley Drochter
Prep Date:	11/10/2009
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1242-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8836 g
Density(g/mL):	1.0597
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8836 g) * (40210 Bq) * (60 dpm/Bq) / (5.07467 g * 100 mL) = 23217.6149 dpm/mL
(4.8836 g) * (40210 Bq) * (60 dpm/Bq) / (1.0597 g/mL)/ (5.07467 g * 100 mL) = 21908.6601 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/01/2009	Bethany Fiem	6.3855	500	1242-B	279.79548 dpm/mL	12/02/2009	12/02/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Th-230 Standard 1242-B

Analyst: B. Flem	Source ID	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (ml)	Source DPM/ml
Date: 12/1/09	1242-B #1	321.8000	39.8000	282.0000	1.069320	1.0000	263.719
	1242-B #2	325.2000	39.8000	285.4000	1.069320	1.0000	266.899
	1242-B #3	339.2000	39.8000	299.4000	1.069320	1.0000	279.991

Mean Value (Counting) =	270.2028704	96.5727649	**Pass**
Stdev =	8.62458049		**Rule 3 (Pass/Fail)**

Certificate Value =	279.792
Lower Limit =	252.9537094
Upper Limit =	287.4520313
Rule 1 Pass/Fail	**Pass**
Two sigma =	17.24916098
10 % of Mean =	27.02028704
Rule 2 (Pass/Fail)	**Pass**

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for **Th-230** source **1242-B** by transferring 1.0 mL portions of the standard to glass liquid scintillation vials. 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Background vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for one hour and counted on LSC Green for standard verification. The alpha efficiency calibration which was used for verification calculations was performed on 11/16/09 using NIST source 0905-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference: RAD SOP M - 001

12-1-09

12/2/09

National Institute of Standards & Technology

Certificate 1163

Standard Reference Material 4321C
Natural Uranium Radioactivity Standard

This Standard Reference Material (SRM) consists of a solution of a standardized and certified quantity of radioactive uranium-238, uranium-235, and uranium-234 in a suitably stable and homogeneous matrix. It is intended primarily for the calibration of instruments that are used to measure radioactivity and for the monitoring of radiochemical procedures. The solution, whose composition is specified in Table 1, is contained in a flame-sealed, 5 mL, NIST, borosilicate-glass ampoule (see Note 1)*.

The certified massic activities for the uranium isotopes at a **Reference Time of 1200 EST, 1 August 1997**, are:

Uranium-238: (242.0 ± 1.5) Bq•g^{-1}

Uranium-235: (11.14 ± 0.07) Bq•g^{-1}

Uranium-234: (233.1 ± 2.2) Bq•g^{-1}

Additional physical, chemical, and radiological properties for the SRM, as well as details on the standardization method, are given in Table 1. Uncertainty intervals for certified quantities are expanded ($k = 2$) uncertainties calculated according to the ISO and NIST Guidelines (see Note 2). Table 2 contains a specification of the components that comprise the uncertainty analyses.

The certification of this SRM, within the measurement uncertainties specified, is valid for at least five (5) years after receipt. The solution matrix, in an unopened ampoule, is believed to be indefinitely homogeneous and stable, within its half-life-dependent, useful lifetime. NIST will monitor this material and will report any substantive changes in certification to the purchaser. Should any of the certified values change, purchasers of this SRM will be notified of the change by NIST.

This SRM may represent a radiological hazard and a chemical hazard. Consult the Material Safety Data Sheet (MSDS), enclosed with the SRM shipment, for details (see Note 1).

This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, Dr. M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by Dr. L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

Lisa R. Karam, Deputy Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
November 1997
Text revised and expiration date extended February 2007

Robert L. Watters, Jr., Chief
Measurement Services Division

RECEIVED 11/5/08

*Notes and references are on page 4

RC-S-048-044

Table 1. Properties of SRM 4321C

Certified values

Radionuclides	**Natural Uranium (Mixture of ^{238}U, ^{235}U, and ^{234}U)**
Reference time	**1200 EST, 1 August 1997**
Massic activities of the solution	**^{238}U : 242.0 $Bq \cdot g^{-1}$** **^{235}U : 11.14 $Bq \cdot g^{-1}$** **^{234}U : 233.1 $Bq \cdot g^{-1}$**
Relative expanded uncertainties ($k = 2$)	**^{238}U : 0.60% (see Note 2)*** **^{235}U : 0.60% (see Note 2)** **^{234}U : 0.96% (see Note 2)**

Uncertified information

Source description	Liquid in flame-sealed, 5 mL NIST borosilicate ampoule (see Note 1)
Solution composition	1.0 $mol \cdot L^{-1}$ HCl with 30 mg $UO_2(NO_3)_2$ per gram of solution
Solution density	(1.053 ± 0.001) $g \cdot mL^{-1}$ at 21.4 °C (see Note 3)
Solution mass	(5.258 ± 0.002) g (see Note 3)
Mass fraction of uranium	(0.01960 ± 0.00010) $g \cdot g^{-1}$ (see Note 3)
Photon-emitting impurities	None detected (see Note 4)
Half-lifes used [1]	^{238}U : $(4.468 \pm 0.003) \times 10^9$ a ‡ ^{235}U : $(7.038 \pm 0.005) \times 10^8$ a ‡ ^{234}U : $(2.455 \pm 0.006) \times 10^5$ a ‡
Calibration method (and instruments)	The certified massic activity for natural uranium was obtained by mass spectrometer, silicon surface-barrier detector, and $4\pi\alpha\beta$ liquid scintillation (LS) counting systems.

‡ See Note 5

*Notes and references are on page 4

Table 2. Uncertainty evaluation for the massic activity for SRM 4321C

	Uncertainty component	Assessment Type †	Relative standard uncertainty contribution on massic activity of Natural Uranium (%)
1	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{238}U	A	0.001
2	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{235}U	A	0.07
3	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{234}U	A	0.3
4	Half life of ^{238}U; standard uncertainty of the half-life	A	0.07
5	Half life of ^{235}U; standard uncertainty of the half-life	A	0.07
6	Half life of ^{234}U; standard uncertainty of the half-life	A	0.24
7	Uranium mass fraction in SRM 960; from SRM960 certificate	B	0.003
8	Quantitative dissolution	B	0.25
9	Gravimetric (mass) measurements	B	0.10
10	Limit for photon-emitting impurities	B	0.10
Relative combined standard uncertainty		^{238}U	**0.30**
		^{235}U	**0.30**
		^{234}U	**0.48**
Relative expanded uncertainty ($k = 2$)		^{238}U	**0.60**
		^{235}U	**0.60**
		^{234}U	**0.96**

† = (A) denotes evaluation by statistical methods; (B) denotes evaluation by other methods.

NOTES

Note 1. Refer to http://physics.nist.gov/Divisions/Div846/srm.html for the standardized ampoule dimensions and for assistance and instructions on how to properly open an ampoule. Information on additional storage and handling requirements is also included in the website.

Note 2. The uncertainties on certified values are expanded uncertainties, $U = ku_c$. The quantity u_c is the combined standard uncertainty calculated according to the ISO and NIST Guides (see references [2] and [3]). The combined standard uncertainty is multiplied by a coverage factor of $k = 2$ and was chosen to obtain an approximate 95 % level of confidence.

Note 3. The stated uncertainty is two times the standard uncertainty. See reference [3].

Note 4. The estimated lower limits of detection for photon-emitting impurities, expressed as massic photon emission rates are;

$1.4\ s^{-1}\cdot g^{-1}$ for 8 keV < E < 59 keV
$1.1\ s^{-1}\cdot g^{-1}$ for 67 keV < E < 88 keV
$0.5\ s^{-1}\cdot g^{-1}$ for 102 keV < E < 197 keV
$0.3\ s^{-1}\cdot g^{-1}$ for 205 keV < E < 762 keV
$0.2\ s^{-1}\cdot g^{-1}$ for 770 keV < E < 996 keV, and
$0.1\ s^{-1}\cdot g^{-1}$ for 1006 keV < E < 1900 keV

provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of ^{238}U, ^{235}U, ^{234}U, or their progeny

Note 5. The stated uncertainty is the standard uncertainty. See reference [3].

REFERENCES

[1] Evaluated Nuclear Structure Data File (ENSDF), online database, National Nuclear Data Center, Brookhaven Laboratory (Upton, NY), August 2007. Refer to http://www.nndc.bnl.gov/ensdf/

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B. N. Taylor and C. E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1163
Prepared By:	Daniel Roy
Carrier Conc:	1M HCL
Reference Date:	08/01/1997
Ampoule Mass (g):	5.258 g
Uncertainty:	+/- .6 %
LogBook No:	RC-S-048-044

A Solution Material Info	
Isotope:	Uranium-238
Prepared By:	Daniel Roy
Prep Date:	02/23/2008
Verification Date:	10/21/2009
Expiration Date:	10/21/2010
Primary Code:	1163-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.118 g
Density(g/mL):	1.0327
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.118 g) * (242 Bq/g) * (60 dpm/Bq) / (100 mL) = 743.1336 dpm/mL
(5.118 g) * (242 Bq/g) * (60 dpm/Bq) / (1.0327 g/mL) / (100 mL) = 719.5817 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/23/2009	Julie Strock	.1	100	1163-090723-1		07/30/2008	07/30/2009
07/23/2009	Julie Strock	1	100	1163-090723-2		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.25	50	1163-090723-3		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.02	20	1163-090723-4		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.2	20	1163-090723-5		07/30/2008	07/30/2009
07/23/2009	Julie Strock	2	20	1163-090723-6		07/30/2008	07/30/2009
07/31/2009	James Schoneman	.1	100	1163-090731-1		08/07/2008	08/07/2009
07/31/2009	James Schoneman	1	100	1163-090731-2		08/07/2008	08/07/2009
07/31/2009	James Schoneman	.02	20	1163-090731-3		08/07/2008	08/07/2009
07/31/2009	James Schoneman	.2	20	1163-090731-4		08/07/2008	08/07/2009
07/31/2009	James Schoneman	2	20	1163-090731-5		08/07/2008	08/07/2009

08/05/2009	James Schoneman	.1	20	1163-090805-1	08/07/2008	08/07/2009
08/06/2009	James Schoneman	.02	20	1163-090806-1	08/07/2008	08/07/2009
08/06/2009	James Schoneman	.2	20	1163-090806-2	08/07/2008	08/07/2009
08/06/2009	James Schoneman	2	20	1163-090806-3	08/07/2008	08/07/2009
08/14/2009	James Schoneman	.1	100	1163-090814-1	08/21/2008	08/21/2009
08/14/2009	James Schoneman	1	100	1163-090814-2	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.02	20	1163-090814-3	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.2	20	1163-090814-4	08/21/2008	08/21/2009
08/14/2009	James Schoneman	2	20	1163-090814-5	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.01	20	1163-090814-6	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.05	25	13451163-090814-1	08/21/2008	08/21/2009
08/18/2009	James Schoneman	.1	20	1163-090818-1	08/21/2008	08/21/2009
08/18/2009	James Schoneman	2.5	25	1163-090818-2	08/21/2008	08/21/2009
08/21/2009	James Schoneman	.1	100	1163-090821-1	08/28/2008	08/28/2009
08/21/2009	James Schoneman	1	100	1163-090821-2	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.02	20	1163-090821-3	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.2	20	1163-090821-4	08/28/2008	08/28/2009
08/21/2009	James Schoneman	2	20	1163-090821-5	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.01	20	1163-090821-6	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.05	25	13451163-090821-1	08/28/2008	08/28/2009
08/28/2009	James Schoneman	.1	100	1163-090828-1	09/04/2008	09/04/2009

08/28/2009	James Schoneman	1	100	1163-090828-2		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.02	20	1163-090828-3		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.2	20	1163-090828-4		09/04/2008	09/04/2009
08/28/2009	James Schoneman	2	20	1163-090828-5		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.01	20	1163-090828-6		09/04/2008	09/04/2009
09/01/2009	James Schoneman	.01	20	1163-090901-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.01	20	1163-090902-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.01	20	1163-090902-2		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.05	25	11631345-090828-1		09/04/2008	09/04/2009
09/01/2009	James Schoneman	.05	25	11631345-090901-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.05	25	11631345-090902		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.05	25	11631345-090902-1		09/04/2008	09/04/2009
09/11/2009	James Schoneman	.1	100	1163-090911-1	999645.956 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	1	100	1163-090911-2	999.646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.02	20	1163-090911-3	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.2	20	1163-090911-4	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	2	20	1163-090911-5	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.01	20	1163-090911-6	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.02	20	1163-090916-1	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.2	20	1163-090916-2	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	2	20	1163-090916-3	9.99646 ug/L	09/18/2008	09/18/2009

09/16/2009	James Schoneman	.01	20	1163-090916-4	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.05	25	11631332-090916-1	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.05	25	11631345-090911-1	9.99646 ug/L	09/18/2008	09/18/2009
09/18/2009	James Schoneman	.1	20	1163-090918-1	999.646 ug/L	09/18/2008	09/18/2009
09/19/2009	James Schoneman	.1	100	1163-090919-1		09/26/2008	09/26/2009
09/19/2009	James Schoneman	1	100	1163-090919-2		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.02	20	1163-090919-3		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.2	20	1163-090919-4		09/26/2008	09/26/2009
09/19/2009	James Schoneman	2	20	1163-090919-5		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.01	20	1163-090919-6		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.05	25	11631332-090919-1		09/26/2008	09/26/2009
09/28/2009	James Schoneman	.1	100	1163-090928-1		10/05/2008	10/05/2009
09/28/2009	James Schoneman	1	100	1163-090928-2		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.02	20	1163-090928-3		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.2	20	1163-090928-4		10/05/2008	10/05/2009
09/28/2009	James Schoneman	2	20	1163-090928-5		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.01	20	1163-090928-6		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.05	25	11631332-090928-1		10/05/2008	10/05/2009
10/05/2009	James Schoneman	.1	100	1163-091005-1		10/12/2008	10/12/2009
10/05/2009	James Schoneman	1	100	1163-091005-2		10/12/2008	10/12/2009
10/05/2009	James Schoneman	.02	20	1163-091005-3		10/12/2008	10/12/2009

10/05/2009	James Schoneman	.2	20	1163-091005-4	10/12/2008	10/12/2009
10/05/2009	James Schoneman	2	20	1163-091005-5	10/12/2008	10/12/2009
10/05/2009	James Schoneman	.01	20	1163-091005-6	10/12/2008	10/12/2009
10/05/2009	James Schoneman	.05	25	11631332-091005	10/12/2008	10/12/2009
10/08/2009	James Schoneman	.1	20	1163-091008-1	10/12/2008	10/12/2009
10/09/2009	James Schoneman	.1	100	1163-091009-1	10/16/2008	10/16/2009
10/09/2009	James Schoneman	1	100	1163-091009-2	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.02	20	1163-091009-3	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.2	20	1163-091009-4	10/16/2008	10/16/2009
10/09/2009	James Schoneman	2	20	1163-091009-5	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.01	20	1163-091009-6	10/16/2008	10/16/2009
10/12/2009	James Schoneman	.01	20	1163-091012-1	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.05	25	11631332-091009-1	10/16/2008	10/16/2009
10/15/2009	James Schoneman	.1	100	1163-091015-1	10/22/2008	10/22/2009
10/15/2009	James Schoneman	1	100	1163-091015-2	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.02	20	1163-091015-3	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.2	20	1163-091015-4	10/22/2008	10/22/2009
10/15/2009	James Schoneman	2	20	1163-091015-5	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.01	20	1163-091015-6	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.05	25	11631332-091015	10/22/2008	10/22/2009
10/22/2009	James Schoneman	.1	100	1163-091022-1	10/29/2008	10/29/2009

10/22/2009	James Schoneman	1	100	1163-091022-2	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.2	20	1163-091022-4	10/29/2008	10/29/2009
10/22/2009	James Schoneman	2	20	1163-091022-5	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.01	20	1163-091022-6	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.05	25	11631332-091022-1	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.02	20	1163-091022-3	10/29/2008	10/29/2009
10/29/2009	James Schoneman	.1	100	1163-091029-1	11/05/2008	11/05/2009
10/29/2009	James Schoneman	1	100	1163-091029-2	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.02	20	1163-091029-3	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.2	20	1163-091029-4	11/05/2008	11/05/2009
10/29/2009	James Schoneman	2	20	1163-091029-5	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.01	20	1163-091029-6	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.05	25	11631332-091029	11/05/2008	11/05/2009
11/05/2009	James Schoneman	.1	100	1163-091105-1	11/12/2008	11/12/2009
11/05/2009	James Schoneman	1	100	1163-091105-2	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.02	20	1163-091105-3	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.2	20	1163-091105-4	11/12/2008	11/12/2009
11/05/2009	James Schoneman	2	20	1163-091105-5	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.01	20	1163-091105-6	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.05	25	11631332-091105-1	11/12/2008	11/12/2009
11/10/2009	James Schoneman	.1	20	1163-091110-1	11/12/2008	11/12/2009

11/12/2009	James Schoneman	.1	100	1163-091112-1	11/19/2008	11/19/2009
11/12/2009	James Schoneman	1	100	1163-091112-2	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.02	20	1163-091112-3	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.2	20	1163-091112-4	11/19/2008	11/19/2009
11/12/2009	James Schoneman	2	20	1163-091112-5	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.01	20	1163-091112-6	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.05	25	11631332-091112-1	11/19/2008	11/19/2009
11/18/2009	James Schoneman	.1	100	1163-091118-1	11/25/2008	11/25/2009
11/18/2009	James Schoneman	1	100	1163-091118-2	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.02	20	1163-091118-3	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.2	20	1163-091118-4	11/25/2008	11/25/2009
11/18/2009	James Schoneman	2	20	1163-091118-5	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.01	20	1163-091118-6	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.05	25	11631332-091118-1	11/25/2008	11/25/2009
11/30/2009	James Schoneman	.1	100	1163-091130-1	12/06/2008	12/06/2009
11/30/2009	James Schoneman	1	100	1163-091130-2	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.02	20	1163-091130-3	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.2	20	1163-091130-4	12/06/2008	12/06/2009
11/30/2009	James Schoneman	2	20	1163-091130-5	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.01	20	1163-091130-6	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.05	25	11631332-091130-1	12/06/2008	12/06/2009

12/07/2009	James Schoneman	.1	100	1163-091207-1		12/14/2008	12/14/2009
12/07/2009	James Schoneman	1	100	1163-091207-2		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.02	20	1163-091207-3		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.2	20	1163-091207-4		12/14/2008	12/14/2009
12/07/2009	James Schoneman	2	20	1163-091207-5		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.01	20	1163-091207-6		12/14/2008	12/14/2009
12/09/2009	James Schoneman	.01	20	1163-091209-1		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.02	20	1163-091210-2		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.2	20	1163-091210-3		12/14/2008	12/14/2009
12/10/2009	James Schoneman	2	20	1163-091210-4		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.05	25	11631332-091207-1		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.1	20	1163-091210-1		12/14/2008	12/14/2009
12/11/2009	James Schoneman	.1	100	1163-091211-1		12/18/2008	12/18/2009
12/11/2009	James Schoneman	1	100	1163-091211-2		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.02	20	1163-091211-3		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.2	20	1163-091211-4		12/18/2008	12/18/2009
12/11/2009	James Schoneman	2	20	1163-091211-5		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.01	20	1163-091211-6		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.05	25	11631333-091211-1		12/18/2008	12/18/2009
02/27/2008	Daniel Roy	8.0851	100	1163-B	58.1789 dpm/ml	03/01/2008	03/01/2009
02/27/2008	Daniel Roy	8.1015	100	1163-C	58.2969 dpm/ml	03/01/2008	03/01/2009

04/16/2008	Julie Strock	.5619	100	1163-D	4.0433 dpm/mL	04/16/2008	04/16/2009
07/10/2008	Daniel Roy	20.0175	250	1163-E	57.6169 dpm/ml	07/13/2008	07/13/2009
01/05/2009	Tina Schoneman	.519	100	1163-F	3.7346 dpm/mL	01/05/2009	01/05/2010
04/16/2009	Mary Aders	19.4278	250	1163-G	55.9196 dpm/ml	04/16/2009	04/16/2010
10/21/2009	Mary Aders	20.008	250	1163-H	57.5896 dpm/mL	10/21/2009	10/21/2010
08/01/1997	Julie Strock	7.379	250	1163-I	21.2392 dpm/mL	12/07/2009	12/02/2010
08/01/1997	Julie Strock	.106	375	1163-J	.2034 dpm/mL	12/07/2009	12/02/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Uranium-238 Standard *1163-H*

Analyst: M. Aders	Serial #	Value	Uncertainty
Date: 10/21/2009	1163-H N1	2.660	0.510
	1163-H N2	2.460	0.469
	1163-H N3	2.530	0.409

Mean Value (Counting) =	2.550	**98.298998**	**Pass**
Stdev =	0.101488916		**Rule 3 (Pass/Fail)**

Target =	2.594
Lower Limit =	2.347022169
Upper Limit =	2.752977831
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.202977831
10 % of Mean =	0.255
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1163-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-232** standard **1283-E** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

10/26/09
11/2/09

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404·352·8677
Fax 404·352·2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

End of Certificate

RECEIVED 12/15/08
RC-S-05

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	Serial #	Value		Uncertainty	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L
Mean Value (Counting) =	2.027	pCi/L		**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L			**Rule 3 (Pass/Fail)**
Target =	2.033	pCi/L			
Lower Limit =	1.965565657	pCi/L			
Upper Limit =	2.087767676	pCi/L			
Rule 1 Pass/Fail	**Pass**				
Two sigma =	0.061101009				
10 % of Mean =	0.202666667				
Rule 2 (Pass/Fail)	**Pass**				

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A. Drochter 12/14/09

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 956976**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
247817002	SAMPLE	KXG3	GAM17	04-MAR-10 22:19	DONE	2LMB	11-JAN-10 00:00
247829002	SAMPLE	KXG3	GAM19	04-MAR-10 22:20	DONE	2LMB	11-MAR-09 00:00
1202051903	MB	KXG3	GAM20	04-MAR-10 22:20	DONE	2LMB	06-JUL-09 00:00
1202051904	DUP	KXG3	GAM14	05-MAR-10 16:47	DONE	2LMB	09-MAR-09 00:00
1202051905	LCS	KXG3	GAM02	05-MAR-10 16:48	DONE	2LMB	17-JUN-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 957019**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
247829002	SAMPLE	HAKB	1255	08-MAR-10 09:38	DUSE		
1202052006	MB	HAKB	1256	08-MAR-10 09:38	DONE		
246862002	SAMPLE	HAKB	1025	08-MAR-10 21:20	DONE		
246877002	SAMPLE	HAKB	1026	08-MAR-10 21:20	DONE		
246877003	SAMPLE	HAKB	1027	08-MAR-10 21:20	DONE		
246886001	SAMPLE	HAKB	1028	08-MAR-10 21:20	DONE		
246886003	SAMPLE	HAKB	1029	08-MAR-10 21:20	DONE		
246964001	SAMPLE	HAKB	1030	08-MAR-10 21:20	DONE		
246964003	SAMPLE	HAKB	1031	08-MAR-10 21:20	DONE		
246967002	SAMPLE	HAKB	1033	08-MAR-10 21:20	DONE		
246967003	SAMPLE	HAKB	1035	08-MAR-10 21:20	DONE		
247036001	SAMPLE	HAKB	1036	08-MAR-10 21:20	DONE		
247036004	SAMPLE	HAKB	1037	08-MAR-10 21:20	DONE		
247042003	SAMPLE	HAKB	1038	08-MAR-10 21:20	DONE		
247042005	SAMPLE	HAKB	1039	08-MAR-10 21:20	DONE		
247261003	SAMPLE	HAKB	1040	08-MAR-10 21:20	DUSE		
247431001	SAMPLE	HAKB	1041	08-MAR-10 21:20	DONE		
247817002	SAMPLE	HAKB	1042	08-MAR-10 21:20	DONE		
1202052007	DUP	HAKB	1043	08-MAR-10 21:20	DONE		
1202052008	LCS	HAKB	1044	08-MAR-10 21:20	DONE		
247829002	SAMPLE	HAKB	1228	10-MAR-10 18:56	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 957023**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
246862002	SAMPLE	HAKB	1045	08-MAR-10 21:20	DUSE		
246877002	SAMPLE	HAKB	1046	08-MAR-10 21:20	DONE		
246877003	SAMPLE	HAKB	1048	08-MAR-10 21:20	DONE		
246886001	SAMPLE	HAKB	1071	08-MAR-10 21:20	DONE		
246886003	SAMPLE	HAKB	1072	08-MAR-10 21:20	DONE		
246964001	SAMPLE	HAKB	1073	08-MAR-10 21:20	DUSE		
246964003	SAMPLE	HAKB	1074	08-MAR-10 21:20	DONE		
246967002	SAMPLE	HAKB	1075	08-MAR-10 21:20	DONE		
246967003	SAMPLE	HAKB	1076	08-MAR-10 21:20	DUSE		
247036001	SAMPLE	HAKB	1083	08-MAR-10 21:20	DONE		
247036004	SAMPLE	HAKB	1084	08-MAR-10 21:20	DONE		
247042003	SAMPLE	HAKB	1085	08-MAR-10 21:20	DONE		
247042005	SAMPLE	HAKB	1086	08-MAR-10 21:20	DUSE		
247261003	SAMPLE	HAKB	1087	08-MAR-10 21:20	DUSE		
247431001	SAMPLE	HAKB	1088	08-MAR-10 21:20	DUSE		
247829002	SAMPLE	HAKB	1101	09-MAR-10 08:01	DONE		
1202052015	MB	HAKB	1102	09-MAR-10 08:01	DONE		
1202052017	LCS	HAKB	1105	09-MAR-10 08:01	DONE		
247817002	SAMPLE	HAKB	1106	09-MAR-10 08:01	DONE		
246862002	SAMPLE	HAKB	1099	10-MAR-10 16:36	DONE		
246964001	SAMPLE	HAKB	1100	10-MAR-10 16:36	DONE		
246967003	SAMPLE	HAKB	1101	10-MAR-10 16:36	DONE		
247042005	SAMPLE	HAKB	1102	10-MAR-10 16:36	DONE		
247261003	SAMPLE	HAKB	1103	10-MAR-10 16:36	DONE		
247431001	SAMPLE	HAKB	1105	10-MAR-10 16:36	DONE		
1202052016	DUP	HAKB	1106	10-MAR-10 16:36	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 957025**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
247829002	SAMPLE	HAKB	1001	05-MAR-10 12:23	DONE		
1202052018	MB	HAKB	1011	05-MAR-10 12:23	DONE		
246886003	SAMPLE	HAKB	1141	08-MAR-10 07:04	DONE		
246964001	SAMPLE	HAKB	1142	08-MAR-10 07:04	DONE		
246964003	SAMPLE	HAKB	1143	08-MAR-10 07:04	DONE		
246967002	SAMPLE	HAKB	1144	08-MAR-10 07:04	DONE		
246967003	SAMPLE	HAKB	1145	08-MAR-10 07:04	DONE		
247036001	SAMPLE	HAKB	1146	08-MAR-10 07:04	DONE		
247036004	SAMPLE	HAKB	1147	08-MAR-10 07:04	DONE		
247042003	SAMPLE	HAKB	1148	08-MAR-10 07:04	DONE		
247042005	SAMPLE	HAKB	1149	08-MAR-10 07:04	DONE		
247261003	SAMPLE	HAKB	1150	08-MAR-10 07:04	DONE		
247431001	SAMPLE	HAKB	1151	08-MAR-10 07:04	DONE		
247817002	SAMPLE	HAKB	1152	08-MAR-10 07:05	DONE		
1202052019	DUP	HAKB	1153	08-MAR-10 07:05	DONE		
1202052020	LCS	HAKB	1154	08-MAR-10 07:05	DONE		
246862002	SAMPLE	HAKB	1007	08-MAR-10 08:49	DONE		
246877002	SAMPLE	HAKB	1008	08-MAR-10 08:49	DONE		
246877003	SAMPLE	HAKB	1009	08-MAR-10 08:49	DONE		
246886001	SAMPLE	HAKB	1010	08-MAR-10 08:49	DONE		

Instrument Run Log

Instrument Type: GFPC **Batch ID: 959738**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202058389	LCS	JXR1	PIC13A	04-MAR-10 15:15	DONE	Tuffryn Filter	01-FEB-10 00:00
1202058387	DUP	JXR1	PIC14D	04-MAR-10 15:15	DONE	Tuffryn Filter	01-FEB-10 00:00
247817002	SAMPLE	JXR1	PIC13C	04-MAR-10 15:15	DONE	Tuffryn Filter	01-FEB-10 00:00
247829002	SAMPLE	JXR1	PIC13B	04-MAR-10 15:15	DONE	Tuffryn Filter	01-FEB-10 00:00
248020001	SAMPLE	JXR1	PIC14B	04-MAR-10 15:15	DONE	Tuffryn Filter	01-FEB-10 00:00
248023002	SAMPLE	JXR1	PIC14C	04-MAR-10 15:16	DONE	Tuffryn Filter	01-FEB-10 00:00
1202058388	MS	JXR1	PIC13A	04-MAR-10 16:38	DONE	Tuffryn Filter	01-FEB-10 00:00
1202058386	MB	JXR1	PIC14B	04-MAR-10 18:04	DONE	Tuffryn Filter	01-FEB-10 00:00
248024003	SAMPLE	JXR1	PIC13C	04-MAR-10 18:05	DONE	Tuffryn Filter	01-FEB-10 00:00
248024001	SAMPLE	JXR1	PIC8A	09-MAR-10 09:21	DONE	Tuffryn Filter	01-FEB-10 00:00
248020003	SAMPLE	JXR1	PIC1C	09-MAR-10 17:52	DONE	Tuffryn Filter	01-FEB-10 00:00

Instrument Run Log

Instrument Type: GFPC **Batch ID: 959739**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202058391	DUP	DXF3	LB4100F1	05-MAR-10 09:17	DONE	2 inch Planchett	31-JUL-09 00:00
247817002	SAMPLE	DXF3	LB4100F2	05-MAR-10 09:17	DONE	2 inch Planchett	31-JUL-09 00:00
247829002	SAMPLE	DXF3	LB4100F3	05-MAR-10 09:17	DONE	2 inch Planchett	31-JUL-09 00:00
248024003	SAMPLE	DXF3	LB4100F4	05-MAR-10 09:17	DONE	2 inch Planchett	31-JUL-09 00:00
248020002	SAMPLE	DXF3	LB4100H1	05-MAR-10 09:20	DONE	2 inch Planchett	31-JUL-09 00:00
248023002	SAMPLE	DXF3	LB4100H2	05-MAR-10 09:20	DONE	2 inch Planchett	31-JUL-09 00:00
248024001	SAMPLE	DXF3	LB4100H3	05-MAR-10 09:20	DONE	2 inch Planchett	31-JUL-09 00:00
248020003	SAMPLE	DXF3	LB4100H4	05-MAR-10 09:20	DONE	2 inch Planchett	31-JUL-09 00:00
1202058392	MS	DXF3	LB4100B1	05-MAR-10 09:22	DONE	2 inch Planchett	31-JUL-09 00:00
1202058393	MSD	DXF3	LB4100B2	05-MAR-10 09:22	DONE	2 inch Planchett	31-JUL-09 00:00
1202058394	LCS	DXF3	LB4100B4	05-MAR-10 09:22	DONE	2 inch Planchett	31-JUL-09 00:00
1202058390	MB	DXF3	LB4100G1	05-MAR-10 09:44	DONE	2 inch Planchett	31-JUL-09 00:00
248020001	SAMPLE	DXF3	LB4100G2	05-MAR-10 09:44	DONE	2 inch Planchett	31-JUL-09 00:00
247829002	SAMPLE	DXF3	PIC11C	06-MAR-10 03:55	DONE	2 inch Planchett	31-JUL-09 00:00
248020002	SAMPLE	DXF3	PIC12B	06-MAR-10 03:55	DONE	2 inch Planchett	31-JUL-09 00:00
1202058390	MB	DXF3	PIC10B	06-MAR-10 04:00	DONE	2 inch Planchett	31-JUL-09 00:00
1202058392	MS	DXF3	PIC4B	06-MAR-10 04:00	DONE	2 inch Planchett	31-JUL-09 00:00
1202058393	MSD	DXF3	PIC8C	06-MAR-10 04:00	DONE	2 inch Planchett	31-JUL-09 00:00
1202058394	LCS	DXF3	PIC8D	06-MAR-10 04:00	DONE	2 inch Planchett	31-JUL-09 00:00
247817002	SAMPLE	DXF3	PIC8B	06-MAR-10 04:00	DONE	2 inch Planchett	31-JUL-09 00:00
248020001	SAMPLE	DXF3	PIC1A	06-MAR-10 04:22	DONE	2 inch Planchett	31-JUL-09 00:00
248020003	SAMPLE	DXF3	PIC9C	06-MAR-10 04:23	DONE	2 inch Planchett	31-JUL-09 00:00
248023002	SAMPLE	DXF3	PIC4C	06-MAR-10 04:23	DONE	2 inch Planchett	31-JUL-09 00:00
248024001	SAMPLE	DXF3	PIC10A	06-MAR-10 04:23	DONE	2 inch Planchett	31-JUL-09 00:00
248024003	SAMPLE	DXF3	PIC5B	06-MAR-10 04:23	DONE	2 inch Planchett	31-JUL-09 00:00
1202058391	DUP	DXF3	LB4100F1	06-MAR-10 15:27	DONE	2 inch Planchett	31-JUL-09 00:00

Monday, February 22, 2010

REQUEST NUMBER: 10-2005

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2005

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/22/2010

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:351.2	1	CAPA-10-13498	WG	2/22/2010	
	SW-846:8081A	1	CAPA-10-13498	WG	2/22/2010	
		2	CAPA-10-13498	WG	2/22/2010	
	SW-846:8082	1	CAPA-10-13498	WG	2/22/2010	
		2	CAPA-10-13498	WG	2/22/2010	
	SW-846:8260B	1	CAPA-10-13498	WG	2/22/2010	
		2	CAPA-10-13498	WG	2/22/2010	
		1	CAPA-10-13499	WG	2/22/2010	
	SW-846:8270C	1	CAPA-10-13498	WG	2/22/2010	

Monday, February 22, 2010

REQUEST NUMBER: 10-2005

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	2	CAPA-10-13498	WG	2/22/2010	
	SW-846:8321A_MOD	1	CAPA-10-13498	WG	2/22/2010	
		2	CAPA-10-13498	WG	2/22/2010	
	SW-846:9060	1	CAPA-10-13498	WG	2/22/2010	

Final Page of REQUEST NUMBER 10-2005

Monday, February 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2005

REQUEST NUMBER: 10-2005

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-13498	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-13498	2	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-13498	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-13498	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-13498	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-13498	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-13498	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13498	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13498	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-13498	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-13498	2	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-13499	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG

Relinquished By:		Date	Time	Received By:		Date	Time
		4/22/10	1800				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2662 **EVENT NAME:** R-51 Characterization Sampling

SAMPLE ID: CAPA-10-13497 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		2/22/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0612	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-51		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
TOP DEPTH:		1024.84 ft bgs	SAMPLE USAGE:	INV	
BOTTOM DEPTH:		1045.59 ft bgs	SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ **COMPOSITE TIME INTERVAL:** _____ **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** _____ **BOREHOLE DIRECTION:** _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	

SAMPLE DESC:

SAMPLE COMMENTS: Collect sample from lower screen.

See CAPA 1013498

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

samples filtered @ TA-59 stormwater lab

COLLECTED BY (PRINT) D. Woody **REVIEWED BY (PRINT)** H. Wershow

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Hal Wershow (Signature)	2/22/10 0915	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	2/22/10 0915
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2662 **EVENT NAME:** R-51 Characterization Sampling

SAMPLE ID: CAPA-10-13498 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		2/22/10	MEDIA:	WGR	Ok
TIME COLLECTED (HH:MM)		0612	SUB-MEDIA:	UA	
PRS ID:	C-00-011	Ok	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-51		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
TOP DEPTH:		1024.84 ftbgs	SAMPLE USAGE:	INV	
BOTTOM DEPTH:		1045.59 ftbgs	SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	
2		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	
2		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	

AHL 02/19/10 AHL 02/19/10 AHL 02/19/10 AHL 02/19/10

SAMPLE DESC:

SAMPLE COMMENTS: Collect sample from lower screen.

Samples collected directly from stainless steel tubing, no sample tree/spigot setup available

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2662 **EVENT NAME:** R-51 Characterization Sampling

FIELD SCREENING/MEASUREMENT RESULTS:

Time	pH	T°C	SC µS/cm	DO mg/L	ORP mV	Turb NTU	Q gpm	Notes
0640	9.52	20.51	134	1.10	-36.3	19.0	21.1	Turbid

COLLECTED BY (PRINT) D. Woody **REVIEWED BY (PRINT)** H. Wershow

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Hal Wershow (Signature) Hal	2/22/10 0915	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	2/22/10 0915
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2662 **EVENT NAME:** R-51 Characterization Sampling

SAMPLE ID: CAPA-10-13499 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		2/22/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0612	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	NA	
LOCATION ID:	R-51		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
TOP DEPTH:		1029.84 ft bgs	SAMPLE USAGE:	QC	
BOTTOM DEPTH:		1045.54 ft bgs	SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
MG 1/18/10 1/2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	X	

SAMPLE DESC: QC Sample of CAPA-10-13498

SAMPLE COMMENTS: Collect sample from lower screen.

See CAPA 10 13498

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) J. Woody **REVIEWED BY (PRINT)** H. Wershow

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Hal Wershow	2/22/10	(Printed Name) Sherri Sherwood	2/22/10
(Signature) Hal	0915	(Signature) Sherri Sherwood	0915
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2005 VALIDATION DATE: 4/19/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): VOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICAL and/or ICV/CCV RRFs for n-butyl alcohol; propionitrile; and isobutyl alcohol were <0.05. The associated sample results were NDs and, thus, were qualified R,V7b.

2. Methylene chloride was detected in FTB CAPA-10-13499, associated with sample -13498. The sample result was an ND and, thus, was not qualified.

3. The ICV/CCV %Ds for dichlorodifluoromethane; chloromethane; and acetone were >20%. The associated sample results were NDs and, thus, were qualified UJ,V7c.

4. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN and that ten target analytes were not present in the MS/MSD spiking solution. No sample results were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 04/20/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 4/19/10

DATA VALIDATION COVER SHEET	
5114-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943
Form 5114-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2 Volatile Organic Compound (VOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☒	☐	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1952

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☒	☐	☐	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2005	Date Collected:	02/22/2010 12:00	Matrix:	GROUND WATER
Lab Sample ID:	247824002	Date Received:	02/23/2010 08:50		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-13498	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	961120	Inst:	VOA4.I	Dilution:	1
Run Date:	03/04/2010 13:20	Analyst:	ACJ	Purge Vol:	5 mL
Prep Date:	03/04/2010 13:20				
Data File:	030410V4\4A408.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00 UJ,V7c
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00 UJ,V7c
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0 UJ,V7c
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0 R,V7b
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

AMF
4/19/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2005	Date Collected:	02/22/2010 12:00	Matrix:	GROUND WATER
Lab Sample ID:	247824002	Date Received:	02/23/2010 08:50		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-13498	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	961120	Inst:	VOA4.I	Dilution:	1
Run Date:	03/04/2010 13:20	Analyst:	ACJ	Purge Vol:	5 mL
Prep Date:	03/04/2010 13:20				
Data File:	030410V4\4A408.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00 R,V7b
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0 R,V7b
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

AMF
4/19/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2005	Date Collected:	02/22/2010 12:00	Matrix:	GROUND WATER
Lab Sample ID:	247824002	Date Received:	02/23/2010 08:50		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-13498	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	961120	Inst:	VOA4.I	Dilution:	1
Run Date:	03/04/2010 13:20	Analyst:	ACJ	Purge Vol:	5 mL
Prep Date:	03/04/2010 13:20				
Data File:	030410V4\4A408.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	47.2	50.0	ug/L	94.3	(72%-132%)
Bromofluorobenzene	57.5	50.0	ug/L	115	(77%-123%)
Toluene-d8	49.4	50.0	ug/L	98.8	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	11.5	ug/L	0	J
	unknown siloxane	16.79	5.22	ug/L	0	J

AMF
4/19/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2005	Date Collected:	02/22/2010 12:00	Matrix:	GROUND WATER
Lab Sample ID:	247824005	Date Received:	02/23/2010 08:50		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-13499	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	961120	Inst:	VOA4.I	Dilution:	1
Run Date:	03/04/2010 13:48	Analyst:	ACJ	Purge Vol:	5 mL
Prep Date:	03/04/2010 13:48				
Data File:	030410V4\4A409.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00 UJ,V7c
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00 UJ,V7c
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0 UJ,V7c
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	J	3.49	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0 R,V7b
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2005	Date Collected:	02/22/2010 12:00	Matrix:	GROUND WATER
Lab Sample ID:	247824005	Date Received:	02/23/2010 08:50		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-13499	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	961120	Inst:	VOA4.I	Dilution:	1
Run Date:	03/04/2010 13:48	Analyst:	ACJ	Purge Vol:	5 mL
Prep Date:	03/04/2010 13:48				
Data File:	030410V4\4A409.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00 R,V7b
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0 R,V7b
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

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Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2005	Date Collected:	02/22/2010 12:00	Matrix:	GROUND WATER
Lab Sample ID:	247824005	Date Received:	02/23/2010 08:50		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-13499	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	961120	Inst:	VOA4.I	Dilution:	1
Run Date:	03/04/2010 13:48	Analyst:	ACJ	Purge Vol:	5 mL
Prep Date:	03/04/2010 13:48				
Data File:	030410V4\4A409.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	48.3	50.0	ug/L	96.5	(72%-132%)
Bromofluorobenzene	59.1	50.0	ug/L	118	(77%-123%)
Toluene-d8	50.2	50.0	ug/L	100	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	10.1	ug/L	0	J
	unknown siloxane	12.47	7.3	ug/L	0	J
	unknown siloxane	14.83	21.9	ug/L	0	J
	unknown siloxane	16.79	15	ug/L	0	J

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DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2005 VALIDATION DATE: 4/19/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): SVOCs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICAL and/or ICV/CCV RRF for atrazine was <0.05. The associated sample result was an ND and, thus, was qualified R,SV7b.
2. The ICV/CCV %Ds for 4-nitrophenol; pyridine; benzyl alcohol; bis(2-chloroisopropyl)ether; hexachlorocyclopentadiene; 2-nitroaniline; 3-nitroaniline; 2-methyl-4,6-dinitrophenol; 4-nitroaniline; benzidine; and dibenzo(a,h)anthracene were >20%. The associated sample results were NDs and, thus, were qualified UJ,SV7c.
3. The MS/MSD %Rs for benzyl alcohol; benzidine; and 3,3'-dichlorobenzidine and the RPD for benzyl alcohol were outside the laboratory acceptance limits. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN and that the raw data for the parent sample was not included in the data package. In addition, six target analytes were not present in the LCS/MS/MSD spiking solution. No sample results were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 04/20/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 4/19/10

DATA VALIDATION COVER SHEET

5115-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943
Form 5115-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☒	☐	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☐	☒	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☐	☒	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2005	Date Collected:	02/22/2010 12:00	Matrix:	GROUND WATER
Lab Sample ID:	247824002	Date Received:	02/23/2010 08:50		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-13498	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	959294	Inst:	MSD8.I	Dilution:	1
Run Date:	03/03/2010 16:40	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	03/01/2010 23:33	Aliquot:	950 mL	Final Volume:	1 mL
Data File:	s8c0314.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.5	ug/L	2.11	10.5	
108-95-2	Phenol	U	10.5	ug/L	1.05	10.5	
95-57-8	2-Chlorophenol	U	10.5	ug/L	2.11	10.5	
106-46-7	1,4-Dichlorobenzene	U	10.5	ug/L	2.11	10.5	
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	10.5	ug/L	2.11	10.5	
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	10.5	ug/L	2.11	10.5	
83-32-9	Acenaphthene	U	1.05	ug/L	0.326	1.05	
121-14-2	2,4-Dinitrotoluene	U	10.5	ug/L	2.11	10.5	
100-02-7	4-Nitrophenol	U	10.5	ug/L	2.11	10.5	UJ,SV7c
87-86-5	Pentachlorophenol	U	10.5	ug/L	2.11	10.5	
129-00-0	Pyrene	U	1.05	ug/L	0.316	1.05	
110-86-1	Pyridine	U	10.5	ug/L	3.16	10.5	UJ,SV7c
62-53-3	Aniline	U	10.5	ug/L	2.63	10.5	
111-44-4	bis(2-Chloroethyl) ether	U	10.5	ug/L	2.11	10.5	
541-73-1	1,3-Dichlorobenzene	U	10.5	ug/L	2.11	10.5	
100-51-6	Benzyl alcohol	U	10.5	ug/L	2.11	10.5	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	10.5	ug/L	2.11	10.5	
108-60-1	bis(2-Chloroisopropyl)ether	U	10.5	ug/L	2.11	10.5	UJ,SV7c
95-48-7	o-Cresol	U	10.5	ug/L	2.11	10.5	
65794-96-9	m,p-Cresols	U	10.5	ug/L	3.16	10.5	
67-72-1	Hexachloroethane	U	10.5	ug/L	2.11	10.5	
98-95-3	Nitrobenzene	U	10.5	ug/L	3.16	10.5	
78-59-1	Isophorone	U	10.5	ug/L	3.16	10.5	
88-75-5	2-Nitrophenol	U	10.5	ug/L	2.11	10.5	
105-67-9	2,4-Dimethylphenol	U	10.5	ug/L	2.11	10.5	
111-91-1	bis(2-Chloroethoxy)methane	U	10.5	ug/L	3.16	10.5	
120-83-2	2,4-Dichlorophenol	U	10.5	ug/L	2.11	10.5	
65-85-0	Benzoic acid	U	21.1	ug/L	6.32	21.1	
91-20-3	Naphthalene	U	1.05	ug/L	0.316	1.05	
106-47-8	4-Chloroaniline	U	10.5	ug/L	2.11	10.5	
87-68-3	Hexachlorobutadiene	U	10.5	ug/L	2.11	10.5	
91-57-6	2-Methylnaphthalene	U	1.05	ug/L	0.316	1.05	
90-12-0	1-Methylnaphthalene	U	1.05	ug/L	0.316	1.05	
77-47-4	Hexachlorocyclopentadiene	U	10.5	ug/L	3.16	10.5	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	10.5	ug/L	2.11	10.5	
95-95-4	2,4,5-Trichlorophenol	U	10.5	ug/L	2.11	10.5	
91-58-7	2-Chloronaphthalene	U	1.05	ug/L	0.316	1.05	

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4/19/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2005	Date Collected:	02/22/2010 12:00	Matrix:	GROUND WATER
Lab Sample ID:	247824002	Date Received:	02/23/2010 08:50		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-13498	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	959294	Inst:	MSD8.I	Dilution:	1
Run Date:	03/03/2010 16:40	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	03/01/2010 23:33	Aliquot:	950 mL	Final Volume:	1 mL
Data File:	s8c0314.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.5	ug/L	2.11	10.5	UJ,SV7c
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.5	ug/L	2.11	10.5	UJ,SV7c
131-11-3	Dimethylphthalate	U	10.5	ug/L	2.11	10.5	
606-20-2	2,6-Dinitrotoluene	U	10.5	ug/L	2.11	10.5	
208-96-8	Acenaphthylene	U	1.05	ug/L	0.211	1.05	
51-28-5	2,4-Dinitrophenol	U	21.1	ug/L	5.26	21.1	
132-64-9	Dibenzofuran	U	10.5	ug/L	2.11	10.5	
84-66-2	Diethylphthalate	U	10.5	ug/L	2.11	10.5	
86-73-7	Fluorene	U	1.05	ug/L	0.211	1.05	
7005-72-3	4-Chlorophenylphenylether	U	10.5	ug/L	2.11	10.5	
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.5	ug/L	3.16	10.5	UJ,SV7c
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.5	ug/L	3.16	10.5	UJ,SV7c
122-39-4	Diphenylamine	U	10.5	ug/L	3.16	10.5	
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	10.5	ug/L	2.11	10.5	
101-55-3	4-Bromophenylphenylether	U	10.5	ug/L	2.11	10.5	
118-74-1	Hexachlorobenzene	U	10.5	ug/L	2.11	10.5	
1912-24-9	Atrazine	U	10.5	ug/L	3.16	10.5	R,SV7b
85-01-8	Phenanthrene	U	1.05	ug/L	0.211	1.05	
120-12-7	Anthracene	U	1.05	ug/L	0.211	1.05	
84-74-2	Di-n-butylphthalate	U	10.5	ug/L	2.11	10.5	
206-44-0	Fluoranthene	U	1.05	ug/L	0.211	1.05	
92-87-5	Benzidine	U	10.5	ug/L	3.16	10.5	UJ,SV7c
85-68-7	Butylbenzylphthalate	U	10.5	ug/L	2.11	10.5	
56-55-3	Benzo(a)anthracene	U	1.05	ug/L	0.211	1.05	
91-94-1	3,3'-Dichlorobenzidine	U	10.5	ug/L	2.11	10.5	
218-01-9	Chrysene	U	1.05	ug/L	0.211	1.05	
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.5	ug/L	2.11	10.5	
117-84-0	Di-n-octylphthalate	U	10.5	ug/L	3.16	10.5	
205-99-2	Benzo(b)fluoranthene	U	1.05	ug/L	0.211	1.05	
207-08-9	Benzo(k)fluoranthene	U	1.05	ug/L	0.211	1.05	
50-32-8	Benzo(a)pyrene	U	1.05	ug/L	0.211	1.05	
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.05	ug/L	0.211	1.05	
53-70-3	Dibenzo(a,h)anthracene	U	1.05	ug/L	0.211	1.05	UJ,SV7c
191-24-2	Benzo(ghi)perylene	U	1.05	ug/L	0.211	1.05	
123-91-1	1,4-Dioxane	U	10.5	ug/L	2.11	10.5	
55-18-5	N-Nitrosodiethylamine	U	10.5	ug/L	2.11	10.5	

AMF
4/19/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2005	Date Collected:	02/22/2010 12:00	Matrix:	GROUND WATER
Lab Sample ID:	247824002	Date Received:	02/23/2010 08:50		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-13498	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	959294	Inst:	MSD8.I	Dilution:	1
Run Date:	03/03/2010 16:40	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	03/01/2010 23:33	Aliquot:	950 mL	Final Volume:	1 mL
Data File:	s8c0314.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.5	ug/L	2.11	10.5
924-16-3	N-Nitrosodi-n-butylamine	U	10.5	ug/L	3.16	10.5
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.5	ug/L	3.16	10.5
608-93-5	Pentachlorobenzene	U	10.5	ug/L	3.16	10.5
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.5	ug/L	2.11	10.5
88-85-7	Dinoseb	U	10.5	ug/L	2.11	10.5
120-82-1	1,2,4-Trichlorobenzene	U	10.5	ug/L	2.11	10.5

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	66.8	105	ug/L	63.5	(39%-120%)
2-Fluorobiphenyl	31.1	52.6	ug/L	59.1	(38%-108%)
2-Fluorophenol	40.1	105	ug/L	38.1	(19%-98%)
Nitrobenzene-d5	31.1	52.6	ug/L	59.1	(31%-122%)
Phenol-d5	25.2	105	ug/L	23.9	(15%-83%)
p-Terphenyl-d14	44.8	52.6	ug/L	85.1	(40%-138%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

AMF
4/19/10

DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2005 VALIDATION DATE: 4/19/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☒ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICAL RRFs for 2-amino-4,6-dinitrotoluene; PETN; o-nitrotoluene; m-nitrotoluene; and p-nitrotoluene were <0.05 but ≥0.01. The associated sample results were NDs and, thus, were qualified UJ,HE7b.
2. 2,6-dinitrotoluene was detected in the MB. The associated sample result was an ND and, thus, was not qualified.
3. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN and that the raw data for the parent sample was not included in the data package. No sample results were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 04/20/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 4/19/10

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
☐	☐	☒	3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
☐	☐	☒	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
☐	☐	☒	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
☐	☒	☐	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
☐	☒	☐	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
☐	☒	☐	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
☐	☐	☒	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	11. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE3d	R, HE3d
☒	☐	☐	12. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, HE4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, HE4a
☐	☐	☒	14. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, HE4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE4e	R, HE4e
☐	☒	☐	16. The absence of sample carry-over must be determined and verified.	N/A	R, N, HE4f
☐	☒	☐	17. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, HE7	J, HE7
☐	☒	☐	18. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less < 0.99.	UJ, R, HE7a	J, HE7a
☒	☐	☐	19. The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV.	UJ, R, HE7b	J, HE7b
☐	☒	☐	20. The ICV and/or CCV were recovered outside the method limits.	UJ, R, HE7c	J, HE7c
☐	☒	☐	21. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, HE7d	J, HE7d
☐	☒	☐	22. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, HE7f	R, HE7f

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
☐	☒	☐	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
☐	☒	☐	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
☐	☒	☐	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
☐	☒	☐	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
☐	☒	☐	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
☐	☒	☐	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
☐	☒	☐	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
☐	☒	☐	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
☐	☒	☐	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
☐	☒	☐	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
☐	☐	☒	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, HE15	R, HE15
☐	☐	☒	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
☐	☐	☒	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13498

Lab Code: GEL

GEL Job No (SDG) 10-2005

Matrix: GROUND WATER

GEL Sample ID: 247824003

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 23-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 957190

Concentrated Extract Volume (mL) 5

Date Extracted: 25-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0322023.wiff

Date Analyzed: 23-MAR-10 01:13

Units: ug/L

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene		0.325	U
121-14-2	2,4-Dinitrotoluene		0.325	U
121-82-4	RDX		0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.325	U
2691-41-0	HMX		0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	UJ,HE7b	0.325	U
479-45-8	Tetryl		0.649	U
606-20-2	2,6-Dinitrotoluene		0.325	U
78-11-5	PETN	UJ,HE7b	1.3	U
88-72-2	o-Nitrotoluene	UJ,HE7b	0.325	U
98-95-3	Nitrobenzene		0.325	U
99-08-1	m-Nitrotoluene	UJ,HE7b	0.325	U
99-35-4	1,3,5-Trinitrobenzene		0.325	U
99-65-0	m-Dinitrobenzene		0.325	U
99-99-0	p-Nitrotoluene	UJ,HE7b	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

AMF
4/19/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13498

Lab Code: GEL

GEL Job No (SDG) 10-2005

Matrix: GROUND WATER

GEL Sample ID: 247824003

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 23-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 957190

Concentrated Extract Volume (mL) 5

Date Extracted: 25-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310041.wiff

Date Analyzed: 31-MAR-10 19:09

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

AMF
4/19/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2005 VALIDATION DATE: 4/19/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): Pesticides

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV/CCV %D for alpha-chlordane was >15% on one column only. The associated sample result was an ND and, thus, was not qualified.
2. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN and that the raw data for the parent sample was not included in the data package. No sample results were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 04/20/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 4/19/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☒	☐	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-2005	**Date Collected:**	02/22/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	247824004	**Date Received:**	02/23/2010 08:50		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-13498	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	957867	**Inst:**	ECD7A.I	**Dilution:**	1
Run Date:	02/27/2010 01:52	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	02/26/2010 14:34	**Aliquot:**	930 mL	**Final Volume:**	5 mL
Data File:	038f3801.d	**Column:**	1 CLP-1	**Level:**	LOW
	038b3801.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.0215	ug/L	0.00538	0.0215	1
58-89-9	gamma-BHC (Lindane)	U	0.0215	ug/L	0.00538	0.0215	1
319-85-7	beta-BHC	U	0.0215	ug/L	0.00645	0.0215	1
319-86-8	delta-BHC	U	0.0215	ug/L	0.00538	0.0215	1
76-44-8	Heptachlor	U	0.0215	ug/L	0.00538	0.0215	1
309-00-2	Aldrin	U	0.0215	ug/L	0.00538	0.0215	1
1024-57-3	Heptachlor epoxide	U	0.0215	ug/L	0.00538	0.0215	1
5103-74-2	gamma-Chlordane	U	0.0215	ug/L	0.00538	0.0215	1
5103-71-9	alpha-Chlordane	U	0.0215	ug/L	0.00538	0.0215	1
959-98-8	Endosulfan I	U	0.0215	ug/L	0.00538	0.0215	1
72-55-9	4,4'-DDE	U	0.043	ug/L	0.00538	0.043	1
60-57-1	Dieldrin	U	0.043	ug/L	0.0108	0.043	1
72-20-8	Endrin	U	0.043	ug/L	0.0108	0.043	1
72-54-8	4,4'-DDD	U	0.043	ug/L	0.0108	0.043	1
33213-65-9	Endosulfan II	U	0.043	ug/L	0.0108	0.043	1
7421-93-4	Endrin aldehyde	U	0.043	ug/L	0.00538	0.043	1
50-29-3	4,4'-DDT	U	0.043	ug/L	0.0108	0.043	1
1031-07-8	Endosulfan sulfate	U	0.043	ug/L	0.0108	0.043	1
72-43-5	Methoxychlor	U	0.215	ug/L	0.0538	0.215	1
53494-70-5	Endrin ketone	U	0.043	ug/L	0.0108	0.043	1
8001-35-2	Toxaphene	U	0.538	ug/L	0.161	0.538	1

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
4cmx	0.538	1.08	ug/L	50.0	(30%-105%)
Decachlorobiphenyl	0.395	1.08	ug/L	36.7	(30%-126%)

AMF
4/19/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2005 VALIDATION DATE: 4/19/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None.

Reviewed by: Monica Dymerski **Level I** **Date:** 04/20/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 4/19/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	**32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.**	**UJ, R, P15**	**R, P15**
☒	☐	☐	**33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.**	**U, U_LAB**	**J, J_LAB, NQ, NQ**
☐	☒	☐	**34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.**	**UJ, R, P19**	**J, R, P19**

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2005	**Date Collected:**	02/22/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	247824001	**Date Received:**	02/23/2010 08:50		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA–10–13498	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	961887	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/09/2010 11:03	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/08/2010 14:29	**Aliquot:**	900 mL	**Final Volume:**	1 mL
Data File:	029f2901.d	**Column:**	1 CLP1	**Level:**	LOW
	029b2901.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	0.111	ug/L	0.037	0.111	1
11104–28–2	Aroclor–1221	U	0.111	ug/L	0.037	0.111	1
11141–16–5	Aroclor–1232	U	0.111	ug/L	0.037	0.111	1
53469–21–9	Aroclor–1242	U	0.111	ug/L	0.037	0.111	1
12672–29–6	Aroclor–1248	U	0.111	ug/L	0.037	0.111	1
11097–69–1	Aroclor–1254	U	0.111	ug/L	0.037	0.111	1
11096–82–5	Aroclor–1260	U	0.111	ug/L	0.037	0.111	1
37324–23–5	Aroclor–1262	U	0.111	ug/L	0.037	0.111	1

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
4cmx	0.108	0.222	ug/L	48.8	(30%–105%)
Decachlorobiphenyl	0.099	0.222	ug/L	44.6	(30%–126%)

AMF
4/19/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2005 VALIDATION DATE: 4/19/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Allison Felix ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the matrix QC analyses for TOC were performed on a LANL sample from another RN. No sample results were qualified.

Reviewed by: Monica Dymerski **Level I** **Date:** 04/20/10

VALIDATOR'S SIGNATURE: Allison Felix DATE: 4/19/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 23, 2010

Client SDG: 10-2005

Client Sample ID:	CAPA-10-13498	Project:	ESHL01000
Sample ID:	247824003	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	22-FEB-10 12:00		
Receive Date:	23-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis											
SW 9060 Total Organic Carbon "As Received"											
Total Organic Carbon Average	J	0.953	0.330	1.00	mg/L	1	TSM	03/02/10	1713	959246	1
Nutrient Analysis											
Nitrogen, Total Kjeldahl (TKN) "As Received"											
Nitrogen, Total Kjeldahl	U	ND	0.033	0.100	mg/L	1	AXH3	03/01/10	1011	956923	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 351.2 Prep	EPA 351.2 Total Kjeldahl Nitrogen Prep	SXJ1	02/25/10	1330	956922

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9060	
2	EPA 351.2	

AMF
4/19/10

Monday, February 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2005

REQUEST NUMBER: 10-2005

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 247824 1

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-13498	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-13498	2	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-13498	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-13498	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-13498	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-13498	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-13498	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13498	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13498	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-13498	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-13498	2	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-13499	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	2/22/10	1800	Greg Tyler	[illegible]	2-23-10	0850
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Monday, February 22, 2010

REQUEST NUMBER: 10-2005

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2005
Per Agreement Number:126310011
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/22/2010
TURNAROUND/REPORT DUE: 3/24/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:351.2	1	CAPA-10-13498	WG	2/22/2010	
	SW-846:8081A	1	CAPA-10-13498	WG	2/22/2010	
		2	CAPA-10-13498	WG	2/22/2010	
	SW-846:8082	1	CAPA-10-13498	WG	2/22/2010	
		2	CAPA-10-13498	WG	2/22/2010	
	SW-846:8260B	1	CAPA-10-13498	WG	2/22/2010	
		2	CAPA-10-13498	WG	2/22/2010	
		1	CAPA-10-13499	WG	2/22/2010	
	SW-846:8270C	1	CAPA-10-13498	WG	2/22/2010	

Monday, February 22, 2010

REQUEST NUMBER: 10-2005

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	2	CAPA-10-13498	WG	2/22/2010	
	SW-846:8321A_MOD	1	CAPA-10-13498	WG	2/22/2010	
		2	CAPA-10-13498	WG	2/22/2010	
	SW-846:9060	1	CAPA-10-13498	WG	2/22/2010	

Final Page of REQUEST NUMBER 10-2005

GEL Laboratories LLC

a member of The GEL Group Inc.

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

March 02, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL-WQH Water Samples
Work Order: 247824
SDG: 10-2005

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 23, 2010, and analyzed for Explosives by LCMSMS, GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile, GC/MS Volatile and General Chemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2005
Enclosures

problem solved

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 247824
SDG # : 10-2005

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- QC Summary 168
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- Miscellaneous Data 277

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- Quality Control Data 581
- Miscellaneous Data 605

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- Miscellaneous Data 766

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Total Kjeldahl Nitrogen 979
Miscellaneous 988

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 247824
SDG # : 10-2005

March 02, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 23, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
247824001	CAPA-10-13498
247824002	CAPA-10-13498
247824003	CAPA-10-13498
247824004	CAPA-10-13498
247824005	CAPA-10-13499

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Explosives by LCMSMS, GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile, GC/MS Volatile and General Chemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 02 March 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Monday, February 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2005

REQUEST NUMBER: 10-2005

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 247824 1.

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-13498	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-13498	2	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-13498	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-13498	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-13498	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-13498	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-13498	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13498	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13498	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-13498	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-13498	2	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-13499	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	2/22/10	1800	Greg Tyler	[illegible]	2-23-10	0850
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Monday, February 22, 2010

REQUEST NUMBER: 10-2005

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2005
Per Agreement Number:126310011
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/22/2010
TURNAROUND/REPORT DUE: 3/24/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:351.2	1	CAPA-10-13498	WG	2/22/2010	
	SW-846:8081A	1	CAPA-10-13498	WG	2/22/2010	
		2	CAPA-10-13498	WG	2/22/2010	
	SW-846:8082	1	CAPA-10-13498	WG	2/22/2010	
		2	CAPA-10-13498	WG	2/22/2010	
	SW-846:8260B	1	CAPA-10-13498	WG	2/22/2010	
		2	CAPA-10-13498	WG	2/22/2010	
		1	CAPA-10-13499	WG	2/22/2010	
	SW-846:8270C	1	CAPA-10-13498	WG	2/22/2010	

Monday, February 22, 2010

REQUEST NUMBER: 10-2005

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8270C	2	CAPA-10-13498	WG	2/22/2010	
	SW-846:8321A_MOD	1	CAPA-10-13498	WG	2/22/2010	
		2	CAPA-10-13498	WG	2/22/2010	
	SW-846:9060	1	CAPA-10-13498	WG	2/22/2010	

Final Page of REQUEST NUMBER 10-2005

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-2005**
Received By: Greg Tyler	**Date Received: 2/23/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **60cpm**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other **0, 2-4C** **7,11,12C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?	X			Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **No time on Chain of Custody.**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments:

Fed Ex Tracking Numbers:

7209 7850 1530 0C **7209 7850 1584 3C**
7209 7850 1595 2C **7209 7850 1621 4C**
7209 7850 1632 2C **7209 7850 1600 7C**
7209 7850 1529 2C **7209 7850 1507 11C**
7209 7850 1610 2C **7209 7850 1492 12C**
7209 7850 1518 3C
7209 7850 1562 3C
7209 7850 1573 3C

PM (or PMA) review: Initials _____ Date 2/24/10

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 65.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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2 of 2
MPS# 0263 7209 7850 1530
Matr# 7209 7850 1529 0201

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PRIORITY OVERNIGHT

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29407
SC-US
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

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TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A05158YD0

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2 of 2
MPS# 0263 7209 7850 1595
Matr# 7209 7850 1584 0201

TUE - 23FEB A1
PRIORITY OVERNIGHT

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CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

2°

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XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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1 of 2
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** MASTER **

TUE - 23FEB A1
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IGIN ID: SAFA (505) 665-996
YLENE VALDEZ
S ALAMOS NATL LAB
00 BLDG 1237 DPU 03

S ALAMOS, NM 87545
ITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

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ENERAL ENGINEERING LAB
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13) 556-8171
F: 6B010AMR3A05529E00

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TUE - 23FEB A1
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X CHSA

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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2 of 2
TRK# 0201 7209 7850 1518
Mstr# 7209 7850 1507 0201

TUE - 23FEB A1
PRIORITY OVERNIGHT

29407
SC-US
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XX CHSA

JOYLENE VALDEZ
OS ALAMOS NATL LAB
A00 BLDG 1237 DPU 03

OS ALAMOS, NM 87545
NITED STATES US

ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
843) 556-8171
REF: 6B010AMR3A0223KY10

3°

FedEx Express

TRK# 0201 7209 7850 1562

TUE - 23FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

(X CHSA

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

3°

FedEx Express

TRK# 0201 7209 7850 1573

TUE - 23FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-0171
REF: 6B010AMR2A0515BYD0

30

FedEx Express

1 of 2
TRK# 0201 7209 7850 1584
MASTER

TUE - 23FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-
CH

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-0171
REF: 6B010AMR3A05520E00

40

FedEx Express

2 of 2
MPS# 0263 7209 7850 1621
Trk# 7209 7850 1610 0201

TUE - 23FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-
CH

Part # 156149-434 NAIT V3 09-08

ALAMOS NATL LAB
0 BLDG 1237 DPU 03

ALAMOS, NM 87545
TED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

LERIE DAVIS
NERAL ENGINEERING LAB
40 SAVAGE RD

ARLESTON SC 29407
3) 556-0171
F: 6B010AMR3A0224JFT0

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FedEx Express

7209 7850 1600
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TUE - 23FEB A1
PRIORITY OVERNIGHT

X CHSA

29407
SC-US
CHS

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 60.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-0171
REF: 6B010AMR1A015AGWM0

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1 of 2
TRK# 0201 7209 7850 1507
MASTER

TUE - 23FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 22FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AAREW0130DM00

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2 of 2
MPSH 0203 7209 7850 1492
MatrN 7209 7850 1481 0201

TUE - 23FEB A1
PRIORITY OVERNIGHT

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CHS

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Part # 156148-434 NRIT V3 08-09

DATA REVIEW QUALIFIER FLAG DEFINITION SHEET

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

Case Narrative

ChemStation Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2005

Method/Analysis Information

Procedure:	Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method:	SW846 8260B DOE-AL
Prep Method:	SW846 5030B
Analytical Batch Number:	961120

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
247824002	CAPA-10-13498
247824005	CAPA-10-13499
1202061536	Method Blank (MB)
1202061539	Laboratory Control Sample (LCS)
1202061540	Laboratory Control Sample (LCS)
1202061537	248042001(CAPA-10-12771) Post Spike (PS)
1202061538	248042001(CAPA-10-12771) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a 'd' qualifier.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 248042001 (CAPA-10-12771) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-analyses were not required for samples in this SDG.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
A Data Exception Document was not required for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA4.I	Gas Chromatograph/Mass Spectrometer	HP6890/HP5973	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2005 GEL Work Order: 247824

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Stacy Calloway **Name: Stacy Calloway**

Date: 24 MAR 2010 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247824002**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13498**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 13:20**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 13:20**				
Data File:	**030410V4\4A408.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247824002**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13498**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 13:20**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 13:20**				
Data File:	**030410V4\4A408.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247824002**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13498**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 13:20**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 13:20**				
Data File:	**030410V4\4A408.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	47.2	50.0	ug/L	94.3	(72%-132%)
Bromofluorobenzene	57.5	50.0	ug/L	115	(77%-123%)
Toluene-d8	49.4	50.0	ug/L	98.8	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	11.5	ug/L	0	J
	unknown siloxane	16.79	5.22	ug/L	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247824005**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13499**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 13:48**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 13:48**				
Data File:	**030410V4\4A409.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	J	3.49	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247824005**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13499**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 13:48**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 13:48**				
Data File:	**030410V4\4A409.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247824005**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13499**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 13:48**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 13:48**				
Data File:	**030410V4\4A409.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	48.3	50.0	ug/L	96.5	(72%-132%)
Bromofluorobenzene	59.1	50.0	ug/L	118	(77%-123%)
Toluene-d8	50.2	50.0	ug/L	100	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	10.1	ug/L	0	J
	unknown siloxane	12.47	7.3	ug/L	0	J
	unknown siloxane	14.83	21.9	ug/L	0	J
	unknown siloxane	16.79	15	ug/L	0	J

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-2005

Matrix Type: LIQUID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202061539	LCS for batch 961120	94	95	100
1202061540	LCS for batch 961120	92	96	106
1202061536	MB for batch 961120	92	99	112
247824002	CAPA-10-13498	94	99	115
247824005	CAPA-10-13499	97	100	118

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(72%-132%)
TOL	= Toluene-d8	(76%-122%)
BFB	= Bromofluorobenzene	(77%-123%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2005

Sample Type: Post Spike

Client ID: CAPA-10-12771PS

Matrix: GROUND WATER

Lab Sample ID: 1202061537

Instrument: VOA4.I

Analysis Date: 03/04/2010 21:10

Dilution: 1

Analyst: ACJ

Prep Batch ID: 961120

Purge Vol: 5 mL

Batch ID: 961120

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	35.3	71	36-136
74-87-3	PS	Chloromethane	50.0	0.00	U	46.1	92	47-135
75-01-4	PS	Vinyl chloride	50.0	0.00	U	45.8	92	51-136
74-83-9	PS	Bromomethane	50.0	0.00	U	47.1	94	50-140
75-00-3	PS	Chloroethane	50.0	0.00	U	44.5	89	60-125
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	44.1	88	54-146
60-29-7	PS	Ethyl ether	50.0	0.00	U	46.1	92	61-112
67-64-1	PS	Acetone	250	0.00	U	93.0	37	15-142
75-05-8	PS	Acetonitrile	1250	0.00	U	1280	102	53-129
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	42.4	85	59-128
74-88-4	PS	Iodomethane	250	0.00	U	196	78	57-133
75-09-2	PS	Methylene chloride	50.0	0.00	U	39.9	80	63-122
75-15-0	PS	Carbon disulfide	250	0.00	U	241	96	62-135
1634-04-4	PS	tert-Butyl methyl ether	50.0	0.00	U	43.7	87	65-120
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	44.2	88	64-120
108-05-4	PS	Vinyl acetate	250	0.00	U	298	119	56-151
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	45.9	92	58-132
78-93-3	PS	2-Butanone	250	0.00	U	142	57	11-118
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	45.3	91	63-132
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	39.5	79	56-136
67-66-3	PS	Chloroform	50.0	0.00	U	44.9	90	68-130
74-97-5	PS	Bromochloromethane	50.0	0.00	U	43.2	86	70-124

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2005 **Sample Type:** Post Spike
Client ID: CAPA-10-12771PS **Matrix:** GROUND WATER
Lab Sample ID: 1202061537
Instrument: VOA4.I **Analysis Date:** 03/04/2010 21:10 **Dilution:** 1
Analyst: ACJ **Prep Batch ID:** 961120
Purge Vol: 5 mL **Batch ID:** 961120

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	42.0	84	66-132
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	43.0	86	64-130
71-36-3	PS	n-Butyl alcohol	5000	0.00	U	5370	107	52-149
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	41.5	83	61-137
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	47.1	94	60-127
71-43-2	PS	Benzene	50.0	0.00	U	43.2	86	65-119
79-01-6	PS	Trichloroethylene	50.0	0.00	U	41.7	83	68-121
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	47.0	94	69-122
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	47.4	95	67-134
74-95-3	PS	Dibromomethane	50.0	0.00	U	46.0	92	70-122
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	234	93	52-130
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	44.1	88	64-133
108-88-3	PS	Toluene	50.0	0.00	U	41.4	83	64-116
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	45.6	91	63-133
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	48.0	96	66-123
591-78-6	PS	2-Hexanone	250	0.00	U	174	70	25-125
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	46.5	93	70-119
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	38.3	77	63-121
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	46.2	92	66-132
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	45.5	91	72-122
108-90-7	PS	Chlorobenzene	50.0	0.00	U	42.0	84	74-116
100-41-4	PS	Ethylbenzene	50.0	0.00	U	42.4	85	59-125

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2005 **Sample Type:** Post Spike

Client ID: CAPA-10-12771PS **Matrix:** GROUND WATER

Lab Sample ID: 1202061537

Instrument: VOA4.I **Analysis Date:** 03/04/2010 21:10 **Dilution:** 1

Analyst: ACJ **Prep Batch ID:** 961120

Purge Vol: 5 mL **Batch ID:** 961120

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	PS	m,p-Xylenes	100	0.00	U	84.7	85	48-140
95-47-6	PS	o-Xylene	50.0	0.00	U	44.2	88	59-134
100-42-5	PS	Styrene	50.0	0.00	U	46.0	92	54-138
75-25-2	PS	Bromoform	50.0	0.00	U	44.3	89	59-140
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	46.0	92	65-124
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	43.7	87	61-137
108-86-1	PS	Bromobenzene	50.0	0.00	U	40.9	82	64-125
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	40.1	80	56-128
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	40.9	82	62-125
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	38.8	78	44-134
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	41.3	83	55-133
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	40.6	81	62-126
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	39.3	79	62-130
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	41.4	83	66-123
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	40.4	81	61-121
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	40.3	81	60-136
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	40.3	81	66-122
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	39.7	79	75-120
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	40.3	81	57-133
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	44.2	88	58-138
87-68-3	PS	Hexachlorobutadiene	50.0	0.00	U	34.9	70	48-136
91-20-3	PS	Naphthalene	50.0	0.00	U	39.4	79	63-129

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2005 **Sample Type:** Post Spike

Client ID: CAPA-10-12771PS **Matrix:** GROUND WATER

Lab Sample ID: 1202061537

Instrument: VOA4.I **Analysis Date:** 03/04/2010 21:10 **Dilution:** 1

Analyst: ACJ **Prep Batch ID:** 961120

Purge Vol: 5 mL **Batch ID:** 961120

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
87-61-6	PS	1,2,3-Trichlorobenzene	50.0	0.00	U	39.1	78	65-129
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	44.2	88	69-128
120-82-1	PS	1,2,4-Trichlorobenzene	50.0	0.00	U	38.3	77	56-130
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	40.7	81	67-123

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2005

Sample Type: Post Spike Duplicate

Client ID: CAPA-10-12771PSD

Matrix: GROUND WATER

Lab Sample ID: 1202061538

Instrument: VOA4.I

Analysis Date: 03/04/2010 21:38

Dilution: 1

Analyst: ACJ

Prep Batch ID: 961120

Purge Vol: 5 mL

Batch ID: 961120

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	38.5	77	36-136	9	0-20
74-87-3	PSD	Chloromethane	50.0	0.00	U	45.4	91	47-135	2	0-20
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	48.5	97	51-136	6	0-20
74-83-9	PSD	Bromomethane	50.0	0.00	U	48.3	97	50-140	2	0-20
75-00-3	PSD	Chloroethane	50.0	0.00	U	47.3	95	60-125	6	0-20
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	47.8	96	54-146	8	0-20
60-29-7	PSD	Ethyl ether	50.0	0.00	U	49.7	99	61-112	8	0-20
67-64-1	PSD	Acetone	250	0.00	U	96.8	39	15-142	4	0-20
75-05-8	PSD	Acetonitrile	1250	0.00	U	1330	106	53-129	3	0-20
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	44.8	90	59-128	6	0-20
74-88-4	PSD	Iodomethane	250	0.00	U	220	88	57-133	12	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	41.1	82	63-122	3	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	250	100	62-135	4	0-20
1634-04-4	PSD	tert-Butyl methyl ether	50.0	0.00	U	46.9	94	65-120	7	0-20
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	47.3	95	64-120	7	0-20
108-05-4	PSD	Vinyl acetate	250	0.00	U	310	124	56-151	4	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	49.0	98	58-132	6	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	147	59	11-118	3	0-20
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	48.0	96	63-132	6	0-20
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	43.6	87	56-136	10	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	47.7	95	68-130	6	0-20
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	46.3	93	70-124	7	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2005
Client ID: CAPA-10-12771PSD
Lab Sample ID: 1202061538
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 03/04/2010 21:38
Dilution: 1
Prep Batch ID: 961120
Batch ID: 961120

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	46.6	93	66-132	10	0-20
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	46.5	93	64-130	8	0-29
71-36-3	PSD	n-Butyl alcohol	5000	0.00	U	5560	111	52-149	4	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	45.8	92	61-137	10	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	49.0	98	60-127	4	0-20
71-43-2	PSD	Benzene	50.0	0.00	U	46.5	93	65-119	7	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	46.1	92	68-121	10	0-20
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	49.5	99	69-122	5	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	50.4	101	67-134	6	0-20
74-95-3	PSD	Dibromomethane	50.0	0.00	U	49.0	98	70-122	6	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	249	99	52-130	6	0-20
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	48.7	97	64-133	10	0-20
108-88-3	PSD	Toluene	50.0	0.00	U	45.3	91	64-116	9	0-20
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	48.9	98	63-133	7	0-20
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	50.6	101	66-123	5	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	182	73	25-125	5	0-20
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	49.7	99	70-119	7	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	43.2	86	63-121	12	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	49.7	99	66-132	7	0-20
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	48.9	98	72-122	7	0-20
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	46.2	92	74-116	10	0-20
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	46.8	94	59-125	10	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2005
Client ID: CAPA-10-12771PSD
Lab Sample ID: 1202061538
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 03/04/2010 21:38
Dilution: 1
Prep Batch ID: 961120
Batch ID: 961120

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	93.7	94	48-140	10	0-20
95-47-6	PSD	o-Xylene	50.0	0.00	U	48.5	97	59-134	9	0-20
100-42-5	PSD	Styrene	50.0	0.00	U	50.5	101	54-138	9	0-20
75-25-2	PSD	Bromoform	50.0	0.00	U	49.0	98	59-140	10	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	49.6	99	65-124	8	0-20
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	46.3	93	61-137	6	0-20
108-86-1	PSD	Bromobenzene	50.0	0.00	U	46.1	92	64-125	12	0-20
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	46.0	92	56-128	14	0-20
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	46.5	93	62-125	13	0-20
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	44.6	89	44-134	14	0-20
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	47.1	94	55-133	13	0-20
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	46.1	92	62-126	13	0-20
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	45.9	92	62-130	16	0-20
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	46.8	94	66-123	12	0-20
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	46.4	93	61-121	14	0-20
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	46.9	94	60-136	15	0-20
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	45.6	91	66-122	12	0-20
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	45.3	91	75-120	13	0-20
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	46.7	93	57-133	15	0-20
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	49.5	99	58-138	11	0-20
87-68-3	PSD	Hexachlorobutadiene	50.0	0.00	U	41.4	83	48-136	17	0-20
91-20-3	PSD	Naphthalene	50.0	0.00	U	44.6	89	63-129	12	0-20

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: **10-2005**
Client ID: **CAPA-10-12771PSD**
Lab Sample ID: **1202061538**
Instrument: **VOA4.I**
Analyst: **ACJ**
Purge Vol: **5 mL**

Sample Type: **Post Spike Duplicate**
Matrix: **GROUND WATER**
Analysis Date: **03/04/2010 21:38**
Prep Batch ID: **961120**
Batch ID: **961120**
Dilution: **1**

CAS No	Parmname		Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
87-61-6	PSD	1,2,3-Trichlorobenzene	50.0	0.00	U	45.2	90	65-129	15	0-24
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	47.5	95	69-128	7	0-20
120-82-1	PSD	1,2,4-Trichlorobenzene	50.0	0.00	U	44.4	89	56-130	15	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	45.8	92	67-123	12	0-20

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2005 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 961120 **Matrix:** GROUND WATER

Lab Sample ID: 1202061539

Instrument: VOA4.I **Analysis Date:** 03/04/2010 10:33 **Dilution:** 1

Analyst: ACJ **Prep Batch ID:** 961120

Purge Vol: 5 mL **Batch ID:** 961120

CAS No	Parmname		Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	45.8	92	58-147
74-87-3	LCS	Chloromethane	50.0	0.0	46.0	92	57-131
75-01-4	LCS	Vinyl chloride	50.0	0.0	50.9	102	68-129
74-83-9	LCS	Bromomethane	50.0	0.0	50.1	100	70-129
75-00-3	LCS	Chloroethane	50.0	0.0	49.9	100	69-128
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	54.4	109	70-150
60-29-7	LCS	Ethyl ether	50.0	0.0	47.4	95	68-122
67-64-1	LCS	Acetone	250	0.0	229	91	30-152
75-05-8	LCS	Acetonitrile	1250	0.0	1210	97	60-121
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	47.7	95	71-130
74-88-4	LCS	Iodomethane	250	0.0	234	94	71-129
75-09-2	LCS	Methylene chloride	50.0	0.0	40.3	81	70-124
75-15-0	LCS	Carbon disulfide	250	0.0	265	106	74-137
1634-04-4	LCS	tert-Butyl methyl ether	50.0	0.0	45.0	90	70-120
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	49.3	99	73-122
108-05-4	LCS	Vinyl acetate	250	0.0	288	115	62-143
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	49.2	98	75-121
78-93-3	LCS	2-Butanone	250	0.0	234	94	30-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	49.0	98	76-125
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	51.9	104	74-138
67-66-3	LCS	Chloroform	50.0	0.0	48.0	96	75-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	46.1	92	74-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2005
Client ID: LCS for batch 961120
Lab Sample ID: 1202061539
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/04/2010 10:33
Dilution: 1
Prep Batch ID: 961120
Batch ID: 961120

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	50.2	100	73-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	50.6	101	79-130
71-36-3	LCS	n-Butyl alcohol	5000	0.0	5230	105	60-141
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	50.8	102	73-139
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	47.0	94	66-123
71-43-2	LCS	Benzene	50.0	0.0	47.7	95	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	49.6	99	78-123
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	49.1	98	75-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	49.7	99	76-129
74-95-3	LCS	Dibromomethane	50.0	0.0	46.2	92	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	241	96	57-132
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	49.4	99	78-129
108-88-3	LCS	Toluene	50.0	0.0	47.2	94	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	49.1	98	77-126
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	48.2	96	74-120
591-78-6	LCS	2-Hexanone	250	0.0	244	98	30-149
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	46.8	94	74-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	48.7	97	73-124
124-48-1	LCS	Dibromochloromethane	50.0	0.0	48.2	96	74-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	47.0	94	77-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	47.5	95	77-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	48.8	98	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2005
Client ID: LCS for batch 961120
Lab Sample ID: 1202061539
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/04/2010 10:33
Prep Batch ID: 961120
Batch ID: 961120
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	LCS	m,p-Xylenes	100	0.0	99.2	99	75-121
95-47-6	LCS	o-Xylene	50.0	0.0	49.9	100	76-123
100-42-5	LCS	Styrene	50.0	0.0	51.8	104	74-128
75-25-2	LCS	Bromoform	50.0	0.0	47.0	94	67-134
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	44.9	90	69-120
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	43.0	86	72-134
108-86-1	LCS	Bromobenzene	50.0	0.0	46.8	94	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	48.6	97	70-123
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	48.4	97	72-121
98-82-8	LCS	Isopropylbenzene	50.0	0.0	47.1	94	58-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	49.0	98	71-125
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	47.6	95	73-122
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	47.7	95	75-127
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	48.5	97	74-123
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	48.6	97	74-126
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	50.6	101	76-129
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	48.1	96	76-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	48.1	96	75-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	52.2	104	75-130
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	47.5	95	66-130
87-68-3	LCS	Hexachlorobutadiene	50.0	0.0	48.4	97	67-132
91-20-3	LCS	Naphthalene	50.0	0.0	44.5	89	66-126

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2005
Client ID: LCS for batch 961120
Lab Sample ID: 1202061539
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/04/2010 10:33
Dilution: 1
Prep Batch ID: 961120
Batch ID: 961120

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
87-61-6	LCS	1,2,3-Trichlorobenzene	50.0	0.0	48.9	98	71-130
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	48.3	97	76-125
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	51.8	104	73-127
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	47.4	95	76-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2005
Client ID: LCS for batch 961120
Lab Sample ID: 1202061540
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/04/2010 11:29
Dilution: 1
Prep Batch ID: 961120
Batch ID: 961120

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
107-02-8	LCS	Acrolein	250	0.0	226	90	43-147
76-13-1	LCS	Trichlorotrifluoroethane	250	0.0	208	83	66-142
107-05-1	LCS	Allyl chloride	250	0.0	226	91	61-137
107-13-1	LCS	Acrylonitrile	250	0.0	215	86	55-137
126-99-8	LCS	2-Chloro-1,3-butadiene	50.0	0.0	48.7	97	71-143
107-12-0	LCS	Propionitrile	250	0.0	216	86	68-131
126-98-7	LCS	Methacrylonitrile	250	0.0	212	85	54-134
78-83-1	LCS	Isobutyl alcohol	2500	0.0	2300	92	50-143
80-62-6	LCS	Methyl methacrylate	250	0.0	215	86	63-133
97-63-2	LCS	Ethyl methacrylate	250	0.0	222	89	66-128

Method Blank Summary

SDG Number:	10-2005	Client:	LANL010	Matrix:	GROUND WATER
Client ID:	MB for batch 961120	Instrument ID:	VOA4.I	Data File:	030410V4\4A407BL.D
Lab Sample ID:	1202061536	Prep Date:	03/04/2010 12:53	Analyzed:	03/04/10 12:53
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 961120	1202061539	030410V4\4A402LL.D	03/04/10	1033
02 LCS for batch 961120	1202061540	030410V4\4A404SL.D	03/04/10	1129
03 CAPA-10-13498	247824002	030410V4\4A408.D	03/04/10	1320
04 CAPA-10-13499	247824005	030410V4\4A409.D	03/04/10	1348

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2005

Instrument ID VOA4.I **Injection Date/Time:** 01-MAR-10 19:08

Column Description: DB-624 **Lab File ID** 030110V4\4A101.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	19.1
75	30.0 - 60.0% of mass 95	49.8
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	82.3
175	5.0 -9.0% of mass 174	7
176	95.0 - 101.0% of mass 174	95.5
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W4VM100301-01	030110V4\4A103.D	01-MAR-10 20:03
ICALMIX[A]	W4VM100301-02	030110V4\4A104.D	01-MAR-10 20:30
ICALMIX[A]	W4VM100301-04	030110V4\4A106.D	01-MAR-10 21:26
ICALMIX[A]	W4VM100301-05	030110V4\4A107.D	01-MAR-10 21:54
ICALMIX[A]	W4VM100301-06	030110V4\4A108.D	01-MAR-10 22:21
ICALMIX[A]	W4VM100301-08	030110V4\4A110.D	01-MAR-10 23:16
ICALMIX[A]	W4VM100301-09	030110V4\4A111.D	01-MAR-10 23:44
ICALMIX[B]	W4VM100301-10	030110V4\4A113.D	02-MAR-10 00:39
ICALMIX[B]	W4VM100301-11	030110V4\4A114.D	02-MAR-10 01:06
ICALMIX[B]	W4VM100301-12	030110V4\4A115.D	02-MAR-10 01:34
ICALMIX[B]	W4VM100301-13	030110V4\4A116.D	02-MAR-10 02:01
ICALMIX[B]	W4VM100301-14	030110V4\4A117.D	02-MAR-10 02:28
ICALMIX[B]	W4VM100301-15	030110V4\4A118.D	02-MAR-10 02:56
ICALMIX[B]	W4VM100301-16	030110V4\4A119.D	02-MAR-10 03:23
ICVMIX[A]01	W4VM100301-18	030110V4\4A122.D	02-MAR-10 04:45
ICVMIX[B]02	W4VM100301-19	030110V4\4A123.D	02-MAR-10 05:13

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2005

Instrument ID VOA4.I **Injection Date/Time:** 04-MAR-10 10:05

Column Description: DB-624 **Lab File ID** 030410V4\4A401.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20.7
75	30.0 - 60.0% of mass 95	51.6
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	77.3
175	5.0 -9.0% of mass 174	7.3
176	95.0 - 101.0% of mass 174	95.7
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]01	W4VM100304-01	030410V4\4A402.D	04-MAR-10 10:33
BLK01LCS	1202061539	030410V4\4A402LL.D	04-MAR-10 10:33
CCVMIX[B]02	W4VM100304-03	030410V4\4A404.D	04-MAR-10 11:29
BLK01SLCS	1202061540	030410V4\4A404SL.D	04-MAR-10 11:29
BLK01	1202061536	030410V4\4A407BL.D	04-MAR-10 12:53
CAPA-10-13498	247824002	030410V4\4A408.D	04-MAR-10 13:20
CAPA-10-13499	247824005	030410V4\4A409.D	04-MAR-10 13:48

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA4.I

GC Column: DB-624

Client SDG: 10-2005

STD Analysis Time: 04-MAR-10 10:33

Data File: C:\msdchem\1\DATA\030410V4\4A402.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	# RT	#	Area	# RT	#	Area	# RT	#
12 Hour STD	1282321	10.6		1091552	13.8		770738	16.2	
Upper Limit	2564642	11.1		2183104	14.3		1541476	16.7	
Lower Limit	641161	10.1		545776	13.3		385369	15.7	
Sample ID									
BLK01LCS	1282321	10.6		1091552	13.8		770738	16.2	
BLK01SLCS	1371328	10.6		1132161	13.8		738923	16.2	
BLK01	1281902	10.6		1011802	13.8		584065	16.2	
CAPA-10-13498	1247262	10.6		989339	13.8		564347	16.2	
CAPA-10-13499	1175200	10.6		937261	13.8		527694	16.2	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247824002**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13498**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 13:20**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 13:20**				
Data File:	**030410V4\4A408.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247824002**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13498**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**I**
Run Date:	**03/04/2010 13:20**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 13:20**				
Data File:	**030410V4\4A408.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247824002**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13498**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 13:20**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 13:20**				
Data File:	**030410V4\4A408.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	47.2	50.0	ug/L	94.3	(72%-132%)
Bromofluorobenzene	57.5	50.0	ug/L	115	(77%-123%)
Toluene-d8	49.4	50.0	ug/L	98.8	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	11.5	ug/L	0	J
	unknown siloxane	16.79	5.22	ug/L	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A408.D
Acq On : 4 Mar 2010 1:20 pm
Operator : ACJ
InstName : VOA4
Sample : |247824002|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 05 17:33:44 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.620	10.620	1.000	96	1247542	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	989177	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.180	16.180	1.000	152	564382	50.00	ug/L	0.00
82) B Fluorobenzene	10.620	10.619	1.000	96	1247262	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	989339	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	564347	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.260	10.260	0.966	65	243405	47.16	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 94.32%					
43) Toluene-d8	12.253	12.247	0.890	98	906382	49.40	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 98.80%					
61) Bromofluorobenzene	14.954	14.954	0.924	95	634488	57.46	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 114.92%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.911	0.000		0	N.D.		
3) Chloromethane	5.306	5.291	0.500	50	2447	N.D.		
4) Vinyl chloride	0.000	5.521	0.000		0	N.D.		
5) Bromomethane	0.000	6.137	0.000		0	N.D.		
6) Chloroethane	0.000	6.295	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.669	0.000		0	N.D.		
8) Ethyl ether	0.000	6.998	0.000		0	N.D.		
9) Acetone	7.370	7.352	0.694	43	5287	N.D.		
10) 1,1-Dichloroethylene	0.000	7.389	0.000		0	N.D.		
11) Iodomethane	7.632	7.663	0.719	142	143	N.D.		
12) Acetonitrile	7.675	7.699	0.723	41	155	N.D.		
13) Methyl acetate	7.742	7.748	0.729	43	350	N.D.		
14) Carbon disulfide	7.767	7.773	0.731	76	1401	N.D.		
15) Methylene chloride	7.962	7.931	0.750	84	4395	N.D.		
16) tert-Butyl methyl ether	0.000	8.242	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.285	0.000		0	N.D.		
18) Vinyl acetate	8.699	8.705	0.819	43	591	N.D.		
19) 1,1-Dichloroethane	0.000	8.760	0.000		0	N.D.		
20) 2-Butanone	9.339	9.327	0.879	43	1222	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.388	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.419	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.693	9.687	0.913	83	1527	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.979	0.000		0	N.D.		
26) Cyclohexane	10.077	10.083	0.949	56	136	N.D.		
27) 1,1-Dichloropropene	0.000	10.132	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.175	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.339	0.000		0	N.D.		
31) Benzene	10.382	10.370	0.978	78	813	N.D.		
32) Cyclohexene	10.601	10.492	0.998	67	265	N.D.		
33) n-Butyl alcohol	10.711	10.693	1.009	56	407	N.D.		
34) Trichloroethylene	0.000	11.004	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.260	0.000		0	N.D.		
37) Dibromomethane	0.000	11.376	0.000		0	N.D.		
38) Bromodichloromethane	11.479	11.485	1.081	83	737	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.699	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A408.D
Acq On : 4 Mar 2010 1:20 pm
Operator : ACJ
InstName : VOA4
Sample : |247824002|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 05 17:33:44 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	12.016	12.016	0.873	58	105	N.D.	
44) Toluene	12.321	12.320	0.895	91	7241	N.D.	
45) trans-1,3-Dichloroprop...	12.473	12.461	0.906	75	1631	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.680	0.000		0	N.D.	
47) 2-Hexanone	12.894	12.857	0.936	43	1017	N.D.	
48) 1,3-Dichloropropane	0.000	12.875	0.000		0	N.D.	
49) Tetrachloroethylene	12.918	12.918	0.938	164	108	N.D.	
50) Dibromochloromethane	13.144	13.144	0.954	129	950	N.D.	
51) 1,2-Dibromoethane	0.000	13.320	0.000		0	N.D.	
52) Chlorobenzene	13.796	13.802	1.002	112	845	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.851	0.000		0	N.D.	
54) Ethylbenzene	13.863	13.863	1.007	91	1548	N.D.	
55) m,p-Xylenes	13.967	13.973	1.014	106	966	N.D.	
56) o-Xylene	14.405	14.399	1.046	106	426	N.D.	
57) Styrene	14.405	14.399	1.046	104	825	N.D.	
59) Bromoform	14.655	14.655	0.906	173	274	N.D.	
60) Isopropylbenzene	14.765	14.759	0.913	105	1404	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	15.015	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.107	0.000		0	N.D.	
64) Bromobenzene	15.168	15.168	0.937	156	353	N.D.	
65) n-Propylbenzene	15.180	15.180	0.938	91	1940	N.D.	
66) 1,3,5-Trimethylbenzene	15.326	15.332	0.947	105	1230	N.D.	
67) 2-Chlorotoluene	15.424	15.332	0.953	126	148	N.D.	
68) 4-Chlorotoluene	15.424	15.430	0.953	91	1284	N.D.	
69) tert-Butylbenzene	0.000	15.704	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.741	15.741	0.973	105	1089	N.D.	
71) sec-Butylbenzene	15.936	15.930	0.985	105	1190	N.D.	
72) 4-Isopropyltoluene	16.051	16.051	0.992	119	1008	N.D.	
73) 1,3-Dichlorobenzene	16.131	16.119	0.997	146	882	N.D.	
74) 1,4-Dichlorobenzene	16.204	16.204	1.002	146	1210	N.D.	
75) n-Butylbenzene	16.497	16.503	1.020	91	601	N.D.	
76) 1,2-Dichlorobenzene	16.649	16.643	1.029	146	492	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.527	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	18.636	18.630	1.152	180	675	N.D.	
79) Hexachlorobutadiene	0.000	18.819	0.000		0	N.D.	
80) Naphthalene	19.033	19.026	1.176	128	5331	N.D.	
81) 1,2,3-Trichlorobenzene	19.392	19.386	1.199	180	466	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	0.000	7.180	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.369	0.000		0	N.D.	
87) Isopropyl Alcohol	7.437	7.430	0.700	45	225	N.D.	
88) Allyl chloride	7.675	7.796	0.723	41	155	N.D.	
89) tert-Butyl Alcohol	7.931	7.924	0.747	59	146	N.D.	
90) Acrylonitrile	8.175	8.174	0.770	53	187	N.D.	
91) Isopropyl ether	0.000	8.741	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.869	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.143	0.000		0	N.D.	
94) Ethyl acetate	9.339	9.338	0.879	43	1222	N.D.	
95) Propionitrile	0.000	9.393	0.000		0	N.D.	
96) Methacrylonitrile	9.486	9.576	0.893	41	176	N.D.	
97) Tetrahydrofuran	9.711	9.710	0.914	42	744	N.D.	
98) Isobutyl alcohol	9.998	10.009	0.941	41	232	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A408.D
Acq On : 4 Mar 2010 1:20 pm
Operator : ACJ
InstName : VOA4
Sample : |247824002|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 05 17:33:44 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	0.000	10.387	0.000		0	N.D.	
100)	Methyl methacrylate	11.217	11.204	1.056	69	163	N.D.	
101)	1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102)	2-Nitropropane	11.686	11.673	1.100	43	293	N.D.	
104)	Ethyl methacrylate	12.467	12.466	0.905	69	578	N.D.	
106)	1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	14.777	14.783	0.913	53	196	N.D.	
108)	Cyclohexanone	14.899	14.904	0.921	42	1010	N.D.	
109)	trans-1,4-Dichloro-2-b...	15.058	15.063	0.931	53	184	N.D.	
110)	Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111)	Benzyl chloride	16.326	16.319	1.009	91	1773	N.D.	
112)	bis(2-Chloroisopropyl)...	16.722	16.721	1.034	45	959	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A408.D
Acq On : 4 Mar 2010 1:20 pm
Operator : ACJ
InstName : VOA4
Sample : |247824002|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 05 17:33:44 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

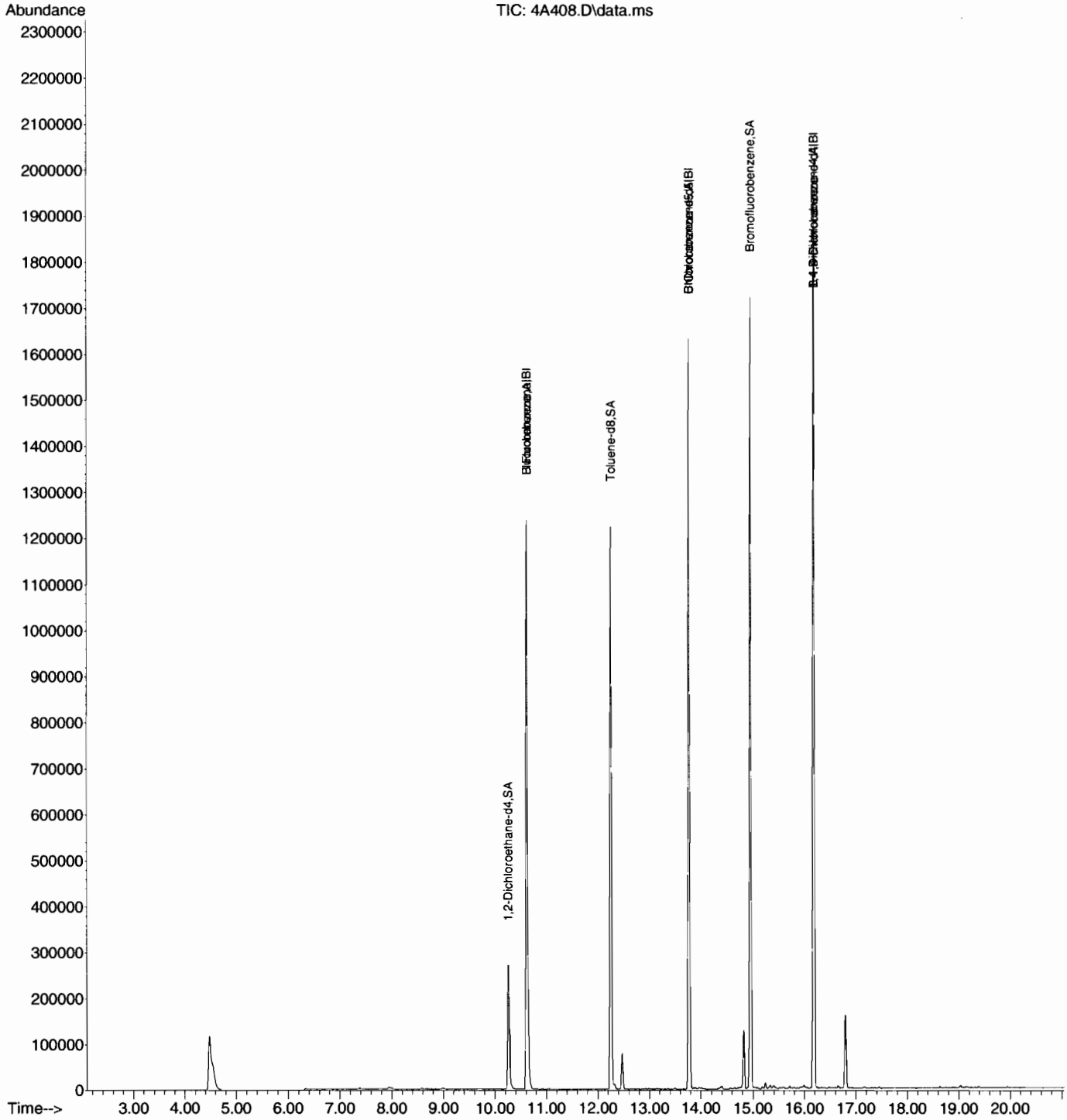

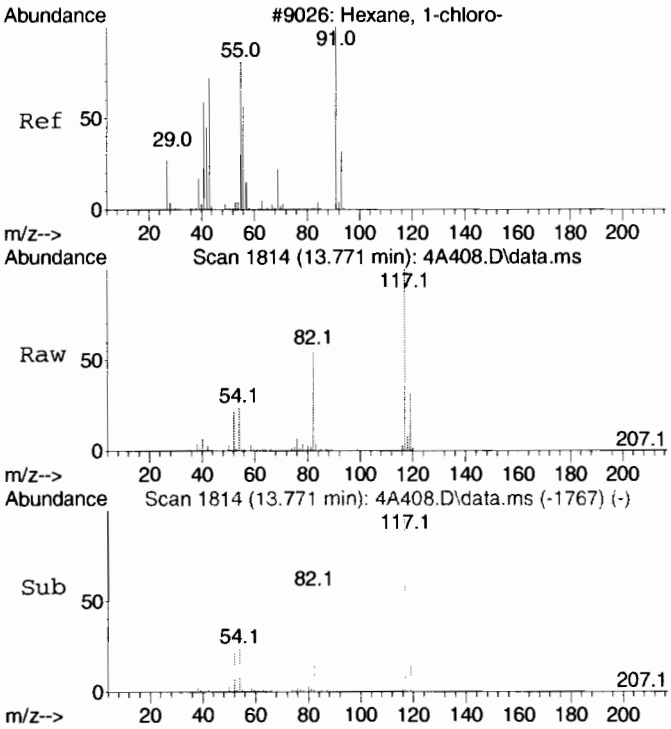

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.66 ug/L
RT: 13.771 min Scan# 1814
Delta R.T. 0.111 min
Lab File: 4A408.D
Acq: 4 Mar 2010 1:20 pm

Tgt Ion: 55 Resp: 10805

Ion	Ratio	Lower	Upper
55	100		
91	18.5	112.1	172.1#
56	62.1	28.5	88.5

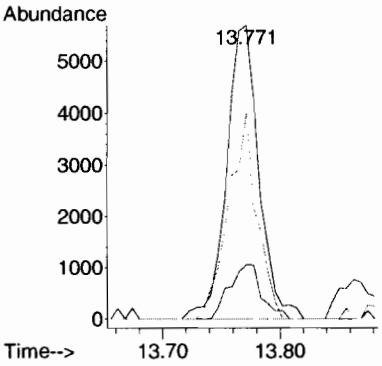

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A408.D
Acq On : 4 Mar 2010 1:20 pm
Operator : ACJ
Sample : |247824002|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	11.45 ug/L	619199	Fluorobenzene	10.620

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	2

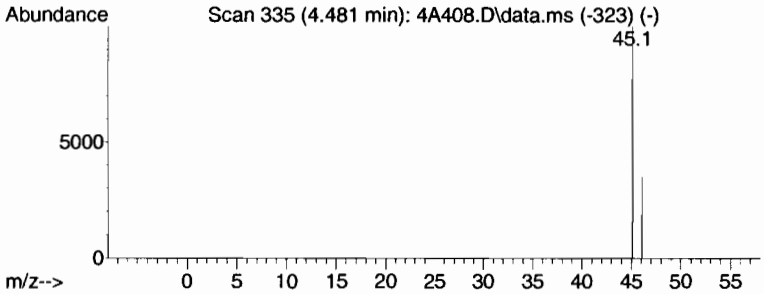

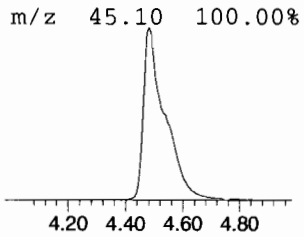

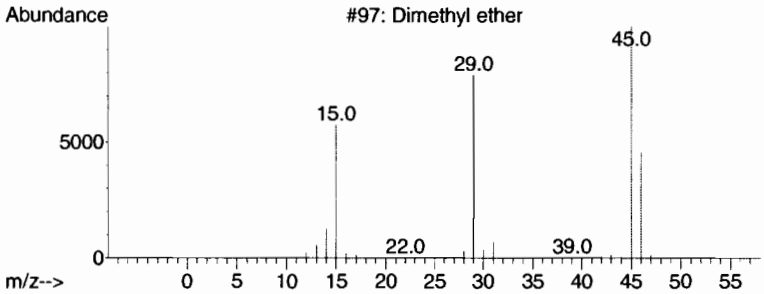

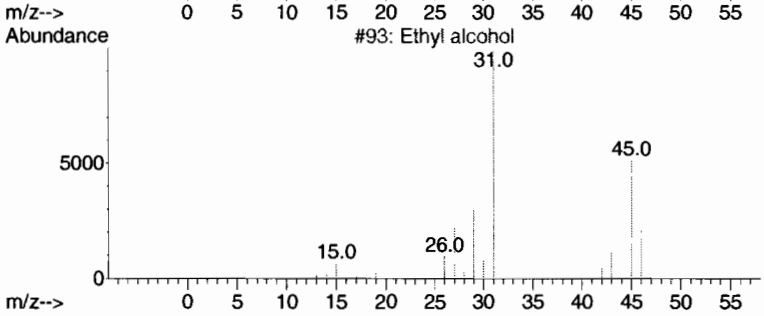

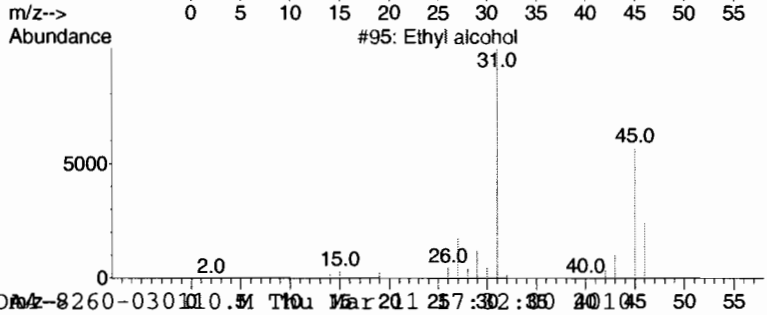

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A408.D
Acq On : 4 Mar 2010 1:20 pm
Operator : ACJ
Sample : |247824002|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 2 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.789	5.22 ug/L	365920	B 1,4-Dichlorobenzene-d4	16.180

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	40
2	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	40
3	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	40
4	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	38
5	3,5-Dimethoxyphenylacetic acid, ...	268	C13H20O4Si	1000071-82-4	22

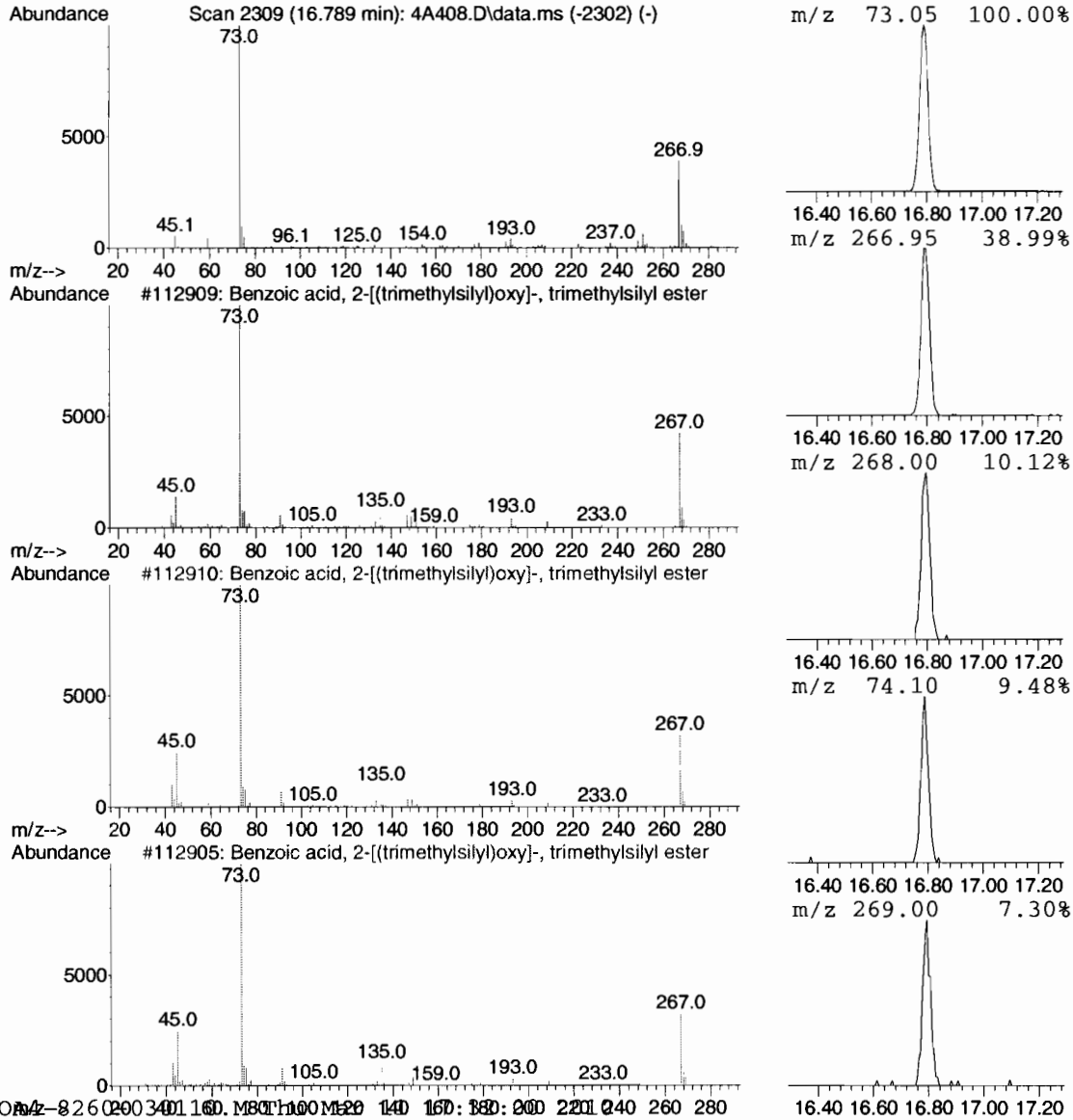

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A408.D
Acq On : 4 Mar 2010 1:20 pm
Operator : ACJ
Sample : |247824002|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown hydroca...	4.481	11.4	ug/L	619199	1	10.620	2704880	50.0
unknown siloxane	16.789	5.2	ug/L	365920	6	16.180	3506820	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247824005**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13499**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 13:48**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 13:48**				
Data File:	**030410V4\4A409.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	J	3.49	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247824005**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13499**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 13:48**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 13:48**				
Data File:	**030410V4\4A409.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247824005**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13499**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 13:48**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 13:48**				
Data File:	**030410V4\4A409.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	48.3	50.0	ug/L	96.5	(72%-132%)
Bromofluorobenzene	59.1	50.0	ug/L	118	(77%-123%)
Toluene-d8	50.2	50.0	ug/L	100	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	10.1	ug/L	0	J
	unknown siloxane	12.47	7.3	ug/L	0	J
	unknown siloxane	14.83	21.9	ug/L	0	J
	unknown siloxane	16.79	15	ug/L	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A409.D
Acq On : 4 Mar 2010 1:48 pm
Operator : ACJ
InstName : VOA4
Sample : |247824005|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 08 21:50:20 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.619	10.620	1.000	96	1175359	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.770	13.771	1.000	117	937261	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	527667	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1175200	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.770	13.771	1.000	117	937261	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	527694	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	234703	48.27	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 96.54%					
43) Toluene-d8	12.252	12.247	0.890	98	872767	50.20	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 100.40%					
61) Bromofluorobenzene	14.953	14.954	0.924	95	610211	59.11	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 118.22%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.911	0.000		0	N.D.		
3) Chloromethane	5.292	5.291	0.498	50	625	N.D.		
4) Vinyl chloride	0.000	5.521	0.000		0	N.D.		
5) Bromomethane	0.000	6.137	0.000		0	N.D.		
6) Chloroethane	0.000	6.295	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.669	0.000		0	N.D.		
8) Ethyl ether	6.997	6.998	0.659	59	570	N.D.		
9) Acetone	7.381	7.352	0.695	43	4987	N.D.		
10) 1,1-Dichloroethylene	0.000	7.389	0.000		0	N.D.		
11) Iodomethane	7.619	7.663	0.718	142	256	N.D.		
12) Acetonitrile	7.698	7.699	0.725	41	753	N.D.		
13) Methyl acetate	7.741	7.748	0.729	43	137	N.D.		
14) Carbon disulfide	7.759	7.773	0.731	76	608	N.D.		
15) Methylene chloride	7.942	7.931	0.748	84	37136	3.49	ug/L	94
16) tert-Butyl methyl ether	0.000	8.242	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.285	0.000		0	N.D.		
18) Vinyl acetate	8.692	8.705	0.819	43	226	N.D.		
19) 1,1-Dichloroethane	0.000	8.760	0.000		0	N.D.		
20) 2-Butanone	9.338	9.327	0.879	43	1266	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.388	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.419	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.686	9.687	0.912	83	672	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.979	0.000		0	N.D.		
26) Cyclohexane	10.082	10.083	0.949	56	149	N.D.		
27) 1,1-Dichloropropene	0.000	10.132	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.175	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.339	0.000		0	N.D.		
31) Benzene	10.369	10.370	0.976	78	431	N.D.		
32) Cyclohexene	10.619	10.492	1.000	67	444	N.D.		
33) n-Butyl alcohol	10.704	10.693	1.008	56	267	N.D.		
34) Trichloroethylene	0.000	11.004	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	11.259	11.260	1.060	83	122	N.D.		
37) Dibromomethane	0.000	11.376	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.485	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.699	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A409.D
Acq On : 4 Mar 2010 1:48 pm
Operator : ACJ
InstName : VOA4
Sample : |247824005|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 08 21:50:20 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.016	0.000		0	N.D.	
44) Toluene	12.326	12.320	0.895	91	2363	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.461	0.000		0m	N.D.	d
46) 1,1,2-Trichloroethane	0.000	12.680	0.000		0	N.D.	
47) 2-Hexanone	12.862	12.857	0.934	43	968	N.D.	
48) 1,3-Dichloropropane	0.000	12.875	0.000		0	N.D.	
49) Tetrachloroethylene	12.911	12.918	0.938	164	300	N.D.	
50) Dibromochloromethane	0.000	13.144	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.320	0.000		0	N.D.	
52) Chlorobenzene	13.807	13.802	1.003	112	788	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.851	0.000		0	N.D.	
54) Ethylbenzene	13.856	13.863	1.006	91	1053	N.D.	
55) m,p-Xylenes	13.966	13.973	1.014	106	692	N.D.	
56) o-Xylene	14.398	14.399	1.046	106	379	N.D.	
57) Styrene	14.404	14.399	1.046	104	593	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	14.764	14.759	0.913	105	802	N.D.	
62) 1,1,2,2-Tetrachloroethane	14.953	15.015	0.924	83	346	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.107	0.000		0	N.D.	
64) Bromobenzene	15.167	15.168	0.937	156	131	N.D.	
65) n-Propylbenzene	15.179	15.180	0.938	91	1230	N.D.	
66) 1,3,5-Trimethylbenzene	15.343	15.332	0.948	105	728	N.D.	
67) 2-Chlorotoluene	15.435	15.332	0.954	126	225	N.D.	
68) 4-Chlorotoluene	15.429	15.430	0.954	91	820	N.D.	
69) tert-Butylbenzene	0.000	15.704	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.740	15.741	0.973	105	949	N.D.	
71) sec-Butylbenzene	15.929	15.930	0.985	105	870	N.D.	
72) 4-Isopropyltoluene	16.057	16.051	0.992	119	701	N.D.	
73) 1,3-Dichlorobenzene	16.136	16.119	0.997	146	429	N.D.	
74) 1,4-Dichlorobenzene	16.203	16.204	1.002	146	754	N.D.	
75) n-Butylbenzene	16.502	16.503	1.020	91	1014	N.D.	
76) 1,2-Dichlorobenzene	16.648	16.643	1.029	146	546	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.527	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	18.641	18.630	1.152	180	385	N.D.	
79) Hexachlorobutadiene	0.000	18.819	0.000		0	N.D.	
80) Naphthalene	19.032	19.026	1.176	128	4457	N.D.	
81) 1,2,3-Trichlorobenzene	19.391	19.386	1.199	180	259	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	0.000	7.180	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.369	0.000		0	N.D.	
87) Isopropyl Alcohol	7.436	7.430	0.700	45	502	N.D.	
88) Allyl chloride	7.796	7.796	0.734	41	101	N.D.	
89) tert-Butyl Alcohol	7.918	7.924	0.746	59	720	N.D.	
90) Acrylonitrile	0.000	8.174	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.741	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.869	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.143	0.000		0	N.D.	
94) Ethyl acetate	9.338	9.338	0.879	43	1266	N.D.	
95) Propionitrile	0.000	9.393	0.000		0	N.D.	
96) Methacrylonitrile	9.576	9.576	0.902	41	273	N.D.	
97) Tetrahydrofuran	9.722	9.710	0.916	42	922	N.D.	
98) Isobutyl alcohol	10.088	10.009	0.950	41	242	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A409.D
Acq On : 4 Mar 2010 1:48 pm
Operator : ACJ
InstName : VOA4
Sample : |247824005|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 08 21:50:20 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	10.387	0.000		0	N.D.	
100) Methyl methacrylate	0.000	11.204	0.000		0	N.D.	
101) 1,4-Dioxane	11.338	11.326	1.068	88	121	N.D.	
102) 2-Nitropropane	11.728	11.673	1.104	43	286	N.D.	
104) Ethyl methacrylate	0.000	12.466	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	14.783	0.000		0	N.D.	
108) Cyclohexanone	14.904	14.904	0.921	42	563	N.D.	
109) trans-1,4-Dichloro-2-b...	15.075	15.063	0.932	53	225	N.D.	
110) Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111) Benzyl chloride	16.319	16.319	1.009	91	1149	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.721	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A409.D
Acq On : 4 Mar 2010 1:48 pm
Operator : ACJ
InstName : VOA4
Sample : |247824005|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 08 21:50:20 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

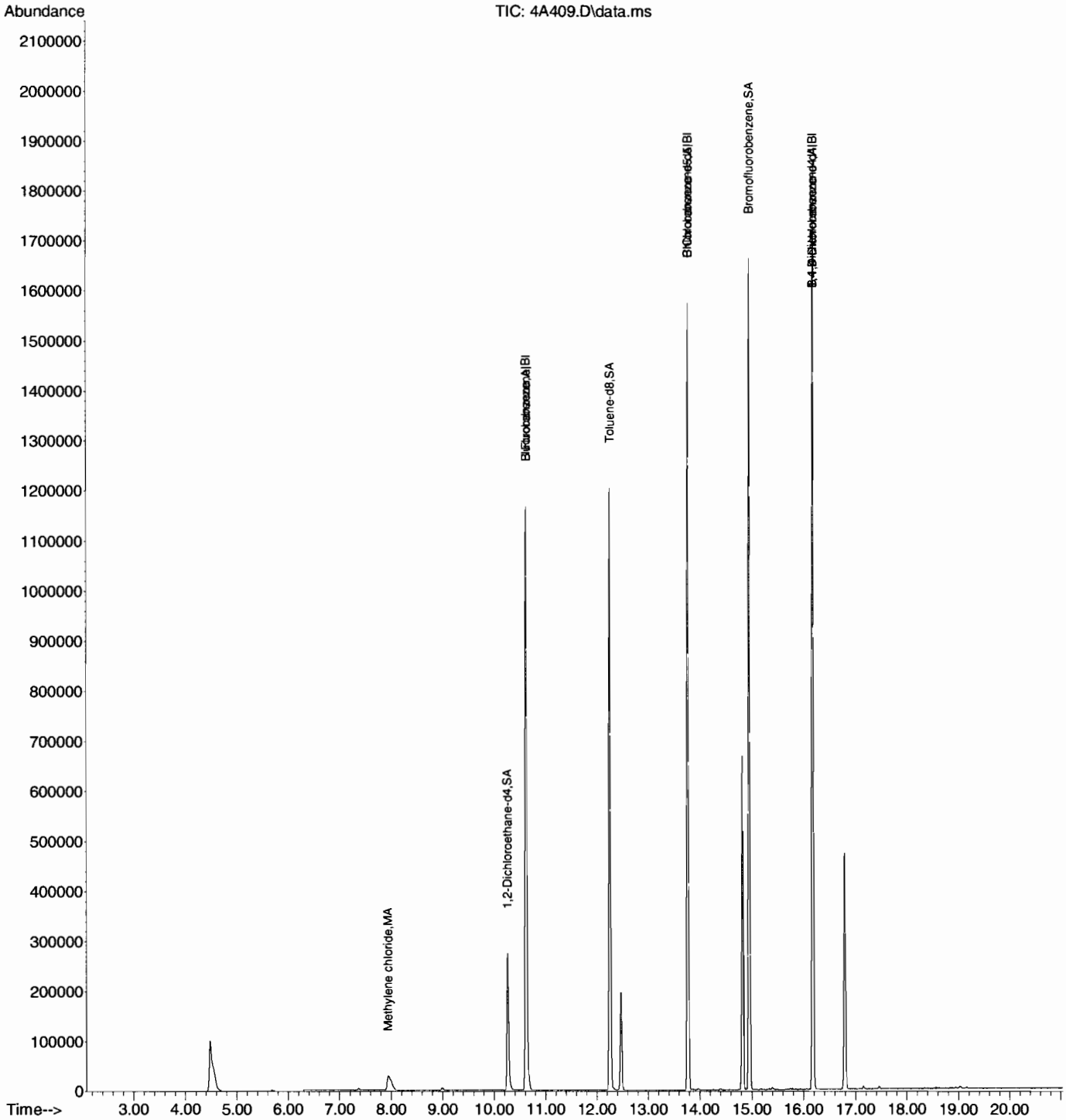

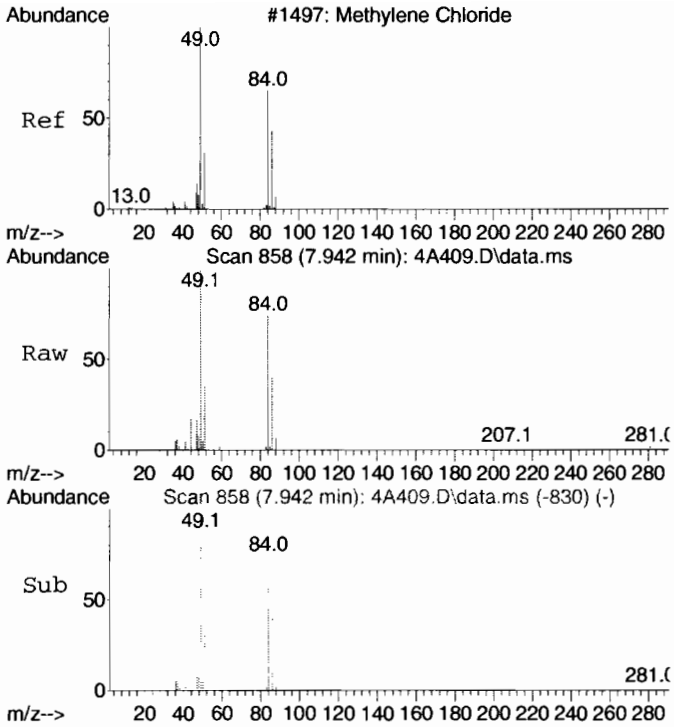

#15
Methylene chloride
Concen: 3.49 ug/L
RT: 7.942 min Scan# 858
Delta R.T. 0.011 min
Lab File: 4A409.D
Acq: 4 Mar 2010 1:48 pm

Tgt Ion: 84 Resp: 37136

Ion	Ratio	Lower	Upper
84	100		
86	59.9	33.9	93.9
49	136.2	98.9	158.9

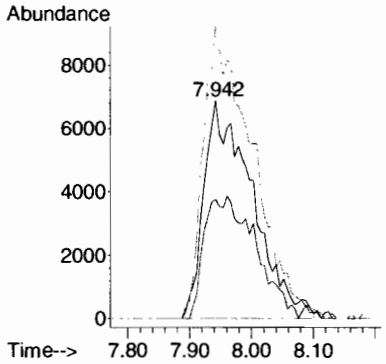

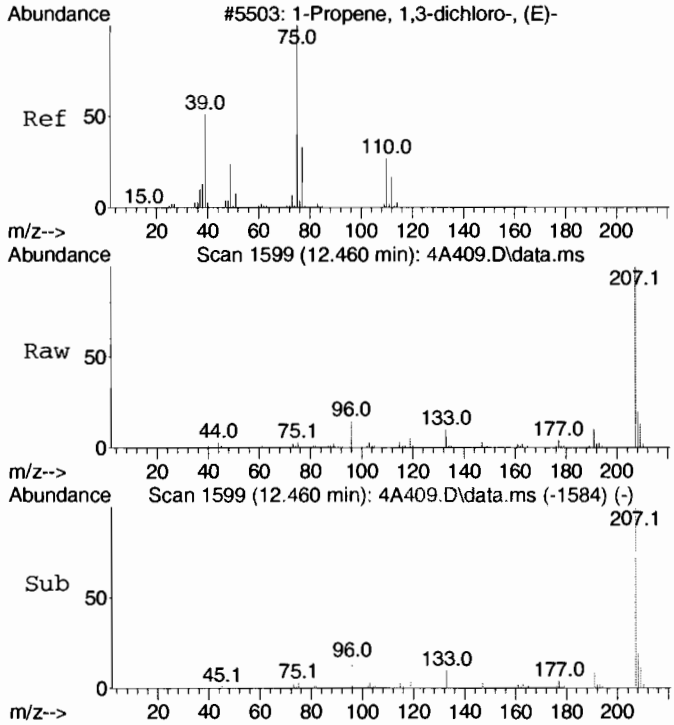

#45 BEFORE analyst DELETION
trans-1,3-Dichloropropylene
Concen: 0.35 ug/L
RT: 12.460 min Scan# 1599
Delta R.T. -0.001 min
Lab File: 4A409.D
Acq: 4 Mar 2010 1:48 pm

Tgt Ion: 75 Resp: 3850

Ion	Ratio	Lower	Upper
75	100		
39	14.1	22.8	82.8#
77	2.7	1.6	61.6

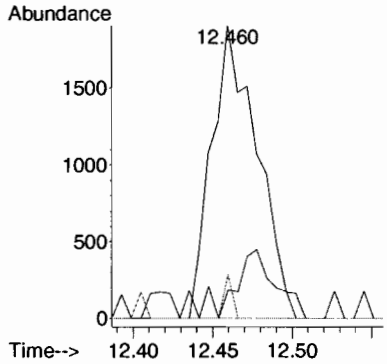

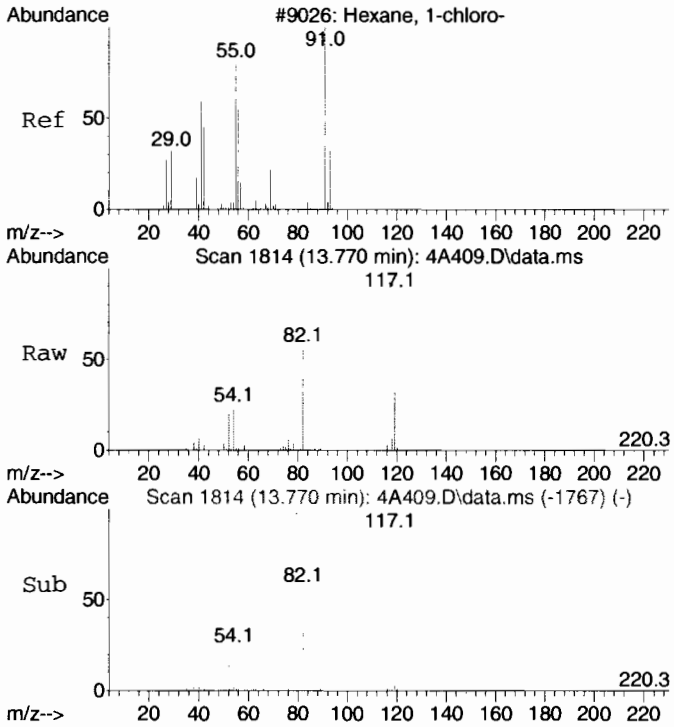

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.77 ug/L
RT: 13.770 min Scan# 1814
Delta R.T. 0.110 min
Lab File: 4A409.D
Acq: 4 Mar 2010 1:48 pm

Tgt Ion: 55 Resp: 10748

Ion	Ratio	Lower	Upper
55	100		
91	19.3	112.1	172.1#
56	54.1	28.5	88.5

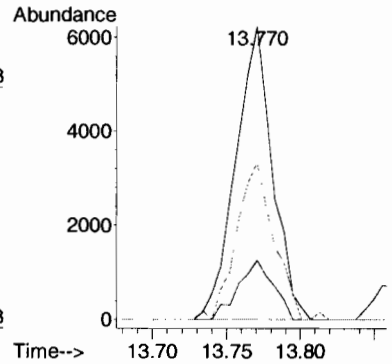

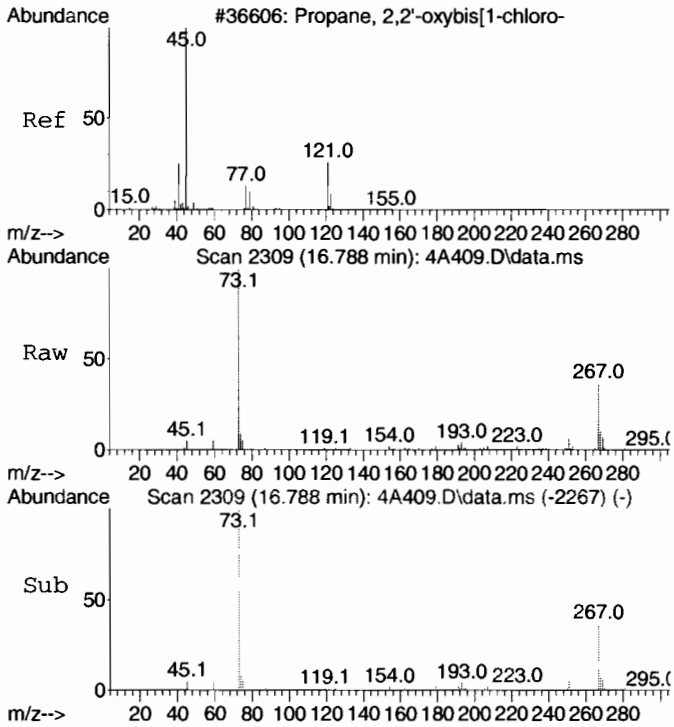

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 5.38 ug/L
RT: 16.788 min Scan# 2309
Delta R.T. 0.067 min
Lab File: 4A409.D
Acq: 4 Mar 2010 1:48 pm

Tgt Ion: 45 Resp: 22666

Ion	Ratio	Lower	Upper
45	100		
121	1.5	0.0	56.0

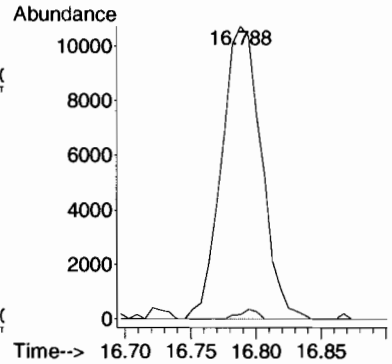

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A409.D
Acq On : 4 Mar 2010 1:48 pm
Operator : ACJ
Sample : |247824005|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	10.13 ug/L	519210	Fluorobenzene	10.619

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	4

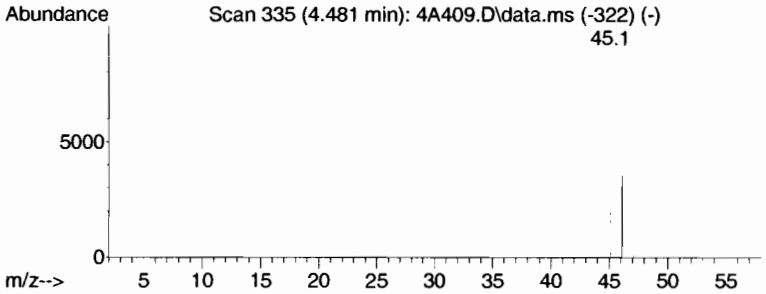

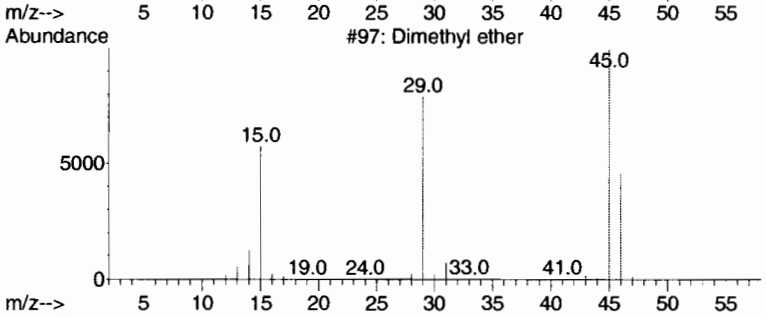

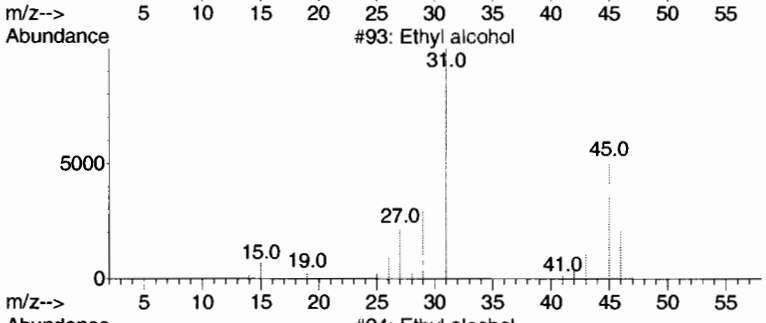

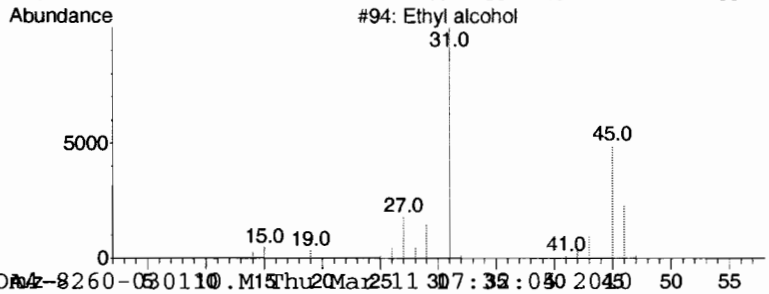

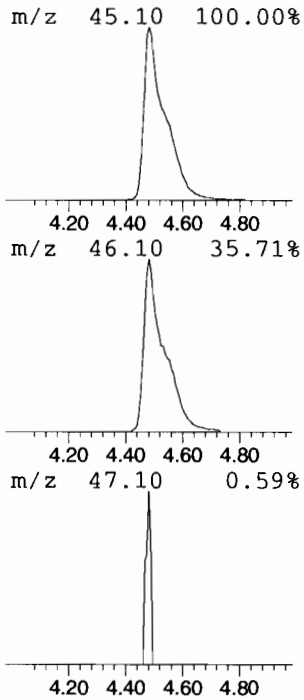

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A409.D
Acq On : 4 Mar 2010 1:48 pm
Operator : ACJ
Sample : |247824005|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 2 unknown siloxane Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.466	7.30 ug/L	432916	Chlorobenzene-d5	13.771

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	91
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	87
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	80
4	4-Cyclohexene-1,2-dicarboximide,...	207	C12H17NO2	028916-00-9	40
5	Anthracene, 9-ethyl-9,10-dihydro...	264	C20H24	1000154-57-7	38

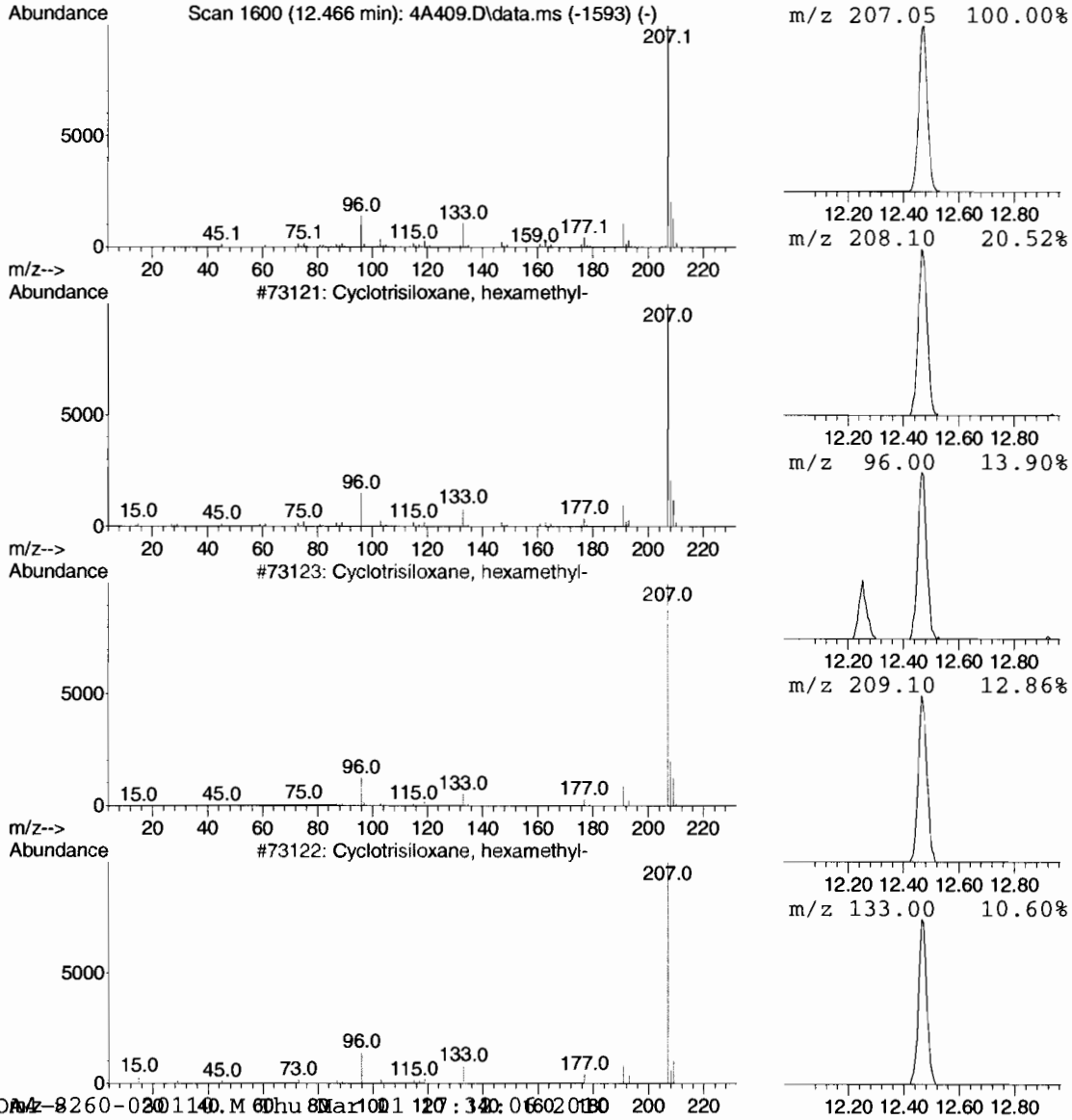

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A409.D
Acq On : 4 Mar 2010 1:48 pm
Operator : ACJ
Sample : |247824005|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 3 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.825	21.86 ug/L	1296870	B Chlorobenzene-d5	13.771

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	78
2	trans-4-Dimethylamino-4'-methoxy...	281	C18H19NO2	052119-37-6	50
3	7H-Dibenzo[b,g]carbazole, 7-methyl-	281	C21H15N	003557-49-1	50
4	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	49
5	4H-1,2,4-Triazole-3-thiol, 4-all...	281	C16H15N3S	031803-13-1	49

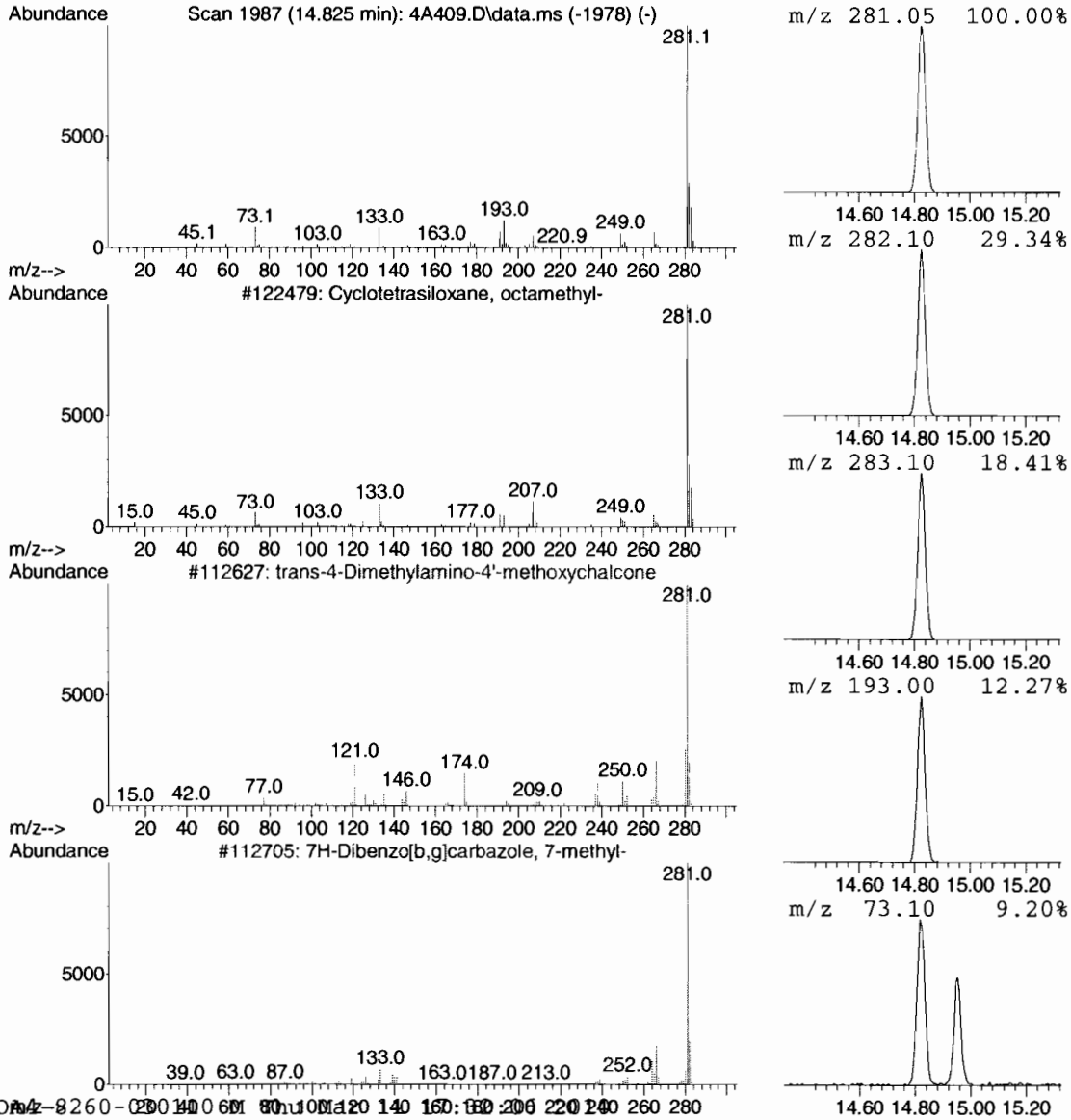

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A409.D
Acq On : 4 Mar 2010 1:48 pm
Operator : ACJ
Sample : |247824005|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 4 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.794	14.99 ug/L	1002240	B 1,4-Dichlorobenzene-d4	16.179

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	50
2	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	25
3	1-Boraindane, 3-methyl-1-[1-(tri...	266	C17H23BSi	190316-36-0	16
4	Benzeneacetic acid, 3-methoxy-4-...	268	C13H20O4Si	015964-84-8	9
5	Tetrasiloxane, 1,1,3,3,5,5,7,7-o...	282	C8H26O3Si4	001000-05-1	9

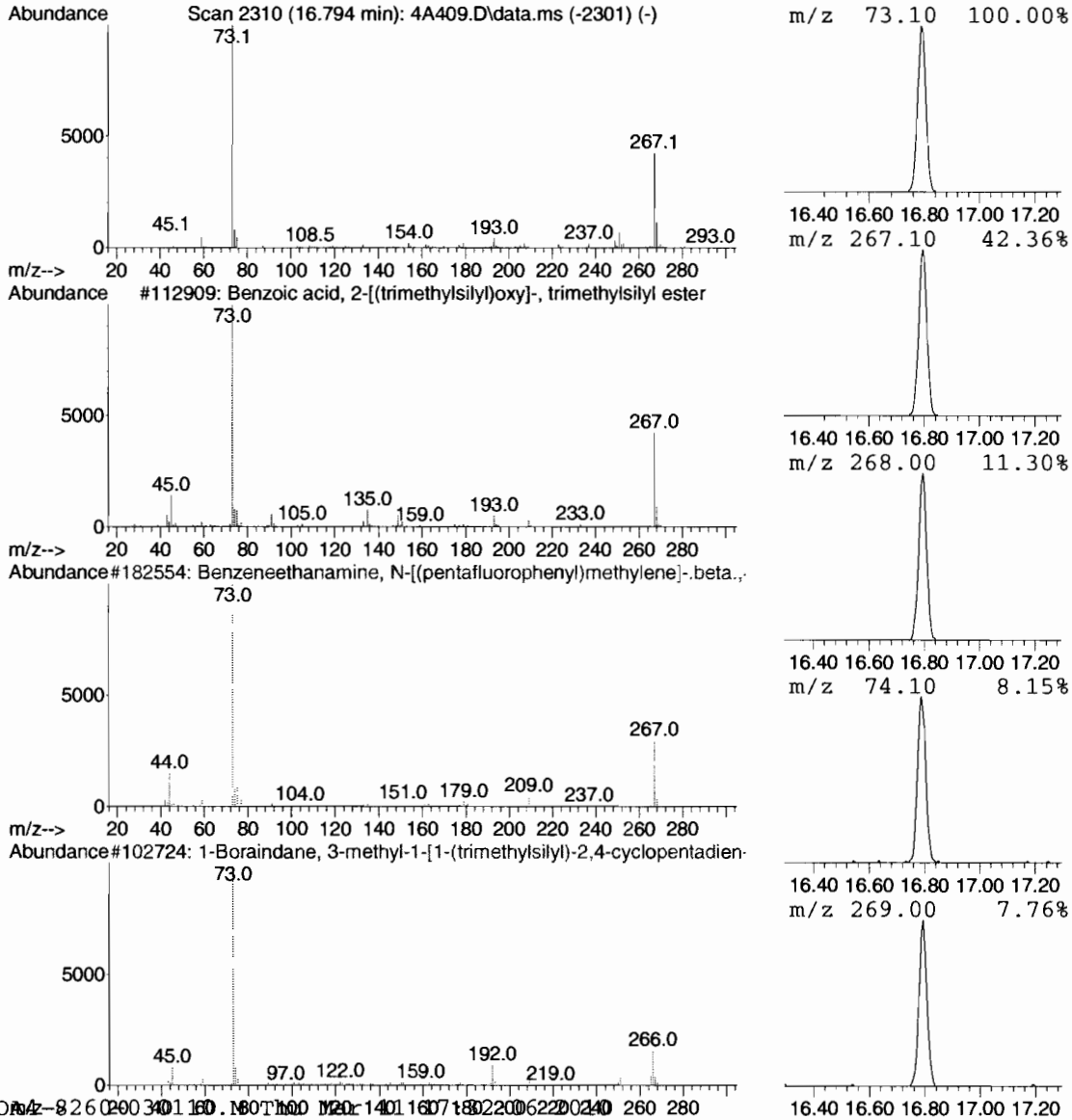

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A409.D
Acq On : 4 Mar 2010 1:48 pm
Operator : ACJ
Sample : |247824005|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown hydroca...	4.481	10.1	ug/L	519210	1	10.619	2563250	50.0
unknown siloxane	12.466	7.3	ug/L	432916	3	13.771	2965730	50.0
unknown siloxane	14.825	21.9	ug/L	1296870	4	13.771	2965730	50.0
unknown siloxane	16.794	15.0	ug/L	1002240	6	16.179	3342620	50.0

Standards

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOA4
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Last Update : Tue Mar 02 15:03:40 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\030110V4\4A103.D

Injection Date	Mix	Calibration File
1 Mar 2010 8:03 pm	A	C:\msdchem\1\DATA\030110V4\4A103.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\030110V4\4A104.D

Injection Date	Mix	Calibration File
1 Mar 2010 8:30 pm	A	C:\msdchem\1\DATA\030110V4\4A104.D
2 Mar 2010 12:39 am	B	C:\msdchem\1\DATA\030110V4\4A113.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\030110V4\4A114.D

Injection Date	Mix	Calibration File
1 Mar 2010 9:26 pm	A	C:\msdchem\1\DATA\030110V4\4A106.D
2 Mar 2010 1:06 am	B	C:\msdchem\1\DATA\030110V4\4A114.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\030110V4\4A115.D

Injection Date	Mix	Calibration File
1 Mar 2010 9:54 pm	A	C:\msdchem\1\DATA\030110V4\4A107.D
2 Mar 2010 1:34 am	B	C:\msdchem\1\DATA\030110V4\4A115.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\030110V4\4A116.D

Injection Date	Mix	Calibration File
1 Mar 2010 10:21 pm	A	C:\msdchem\1\DATA\030110V4\4A108.D
2 Mar 2010 2:01 am	B	C:\msdchem\1\DATA\030110V4\4A116.D

Cal Lvl:5 Amt:-1 Last Updated with: C:\msdchem\1\DATA\030110V4\4A117.D

Injection Date	Mix	Calibration File
1 Mar 2010 10:49 pm	A	C:\msdchem\1\DATA\030110V4\4A109.D
2 Mar 2010 2:28 am	B	C:\msdchem\1\DATA\030110V4\4A117.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\030110V4\4A118.D

Injection Date	Mix	Calibration File
1 Mar 2010 11:16 pm	A	C:\msdchem\1\DATA\030110V4\4A110.D
2 Mar 2010 2:56 am	B	C:\msdchem\1\DATA\030110V4\4A118.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\030110V4\4A119.D

Injection Date	Mix	Calibration File
1 Mar 2010 11:44 pm	A	C:\msdchem\1\DATA\030110V4\4A111.D
2 Mar 2010 3:23 am	B	C:\msdchem\1\DATA\030110V4\4A119.D

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Response Factor Report VOA4
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Last Update : Tue Mar 02 15:03:40 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane		0.3094751	0.3280031	0.3612408	0.3086181					
	0.2908561	0.3031216					0.3169	AVRG		7.8338
3)MPA Chloromethane		0.5729365	0.5257676	0.5300317	0.5087671					
	0.4893066	0.4852403					0.5187	AVRG		6.2189
4)MCA Vinyl chloride		0.5556015	0.5350749	0.5133625	0.5104256					
	0.4896654	0.4800115					0.5140	AVRG		5.4579
5)MA Bromomethane		0.2891901	0.3068545	0.2985733	0.3159442					
	0.3113689	0.3122806					0.3057	AVRG		3.2877
6)MA Chloroethane		0.2722809	0.2615291	0.2661486	0.2656411					
	0.2619117	0.2612404					0.2648	AVRG		1.6040
7)MA Trichlorofluoromethane		0.5030491	0.5264847	0.5272128	0.5275867					
	0.5258166	0.5349635					0.5242	AVRG		2.0751
8)MA Ethyl ether		0.2415341	0.2378465	0.2480119	0.2617549					
	0.2548761	0.2540043					0.2497	AVRG		3.5854
9)MA Acetone		0.3705916	0.3197349	0.3077369	0.3139688					
	0.3032708	0.2752399					0.3151	AVRG		9.9201
10)MCA 1,1-Dichloroethylene		0.5794751	0.5416569	0.6102438	0.6071555					
	0.5519492	0.6065546					0.5828	AVRG		5.1849
11)MA Iodomethane		0.5734048	0.5471266	0.6082113	0.6470482					
	0.5910160	0.6450650					0.6020	AVRG		6.5914
12)MA Acetonitrile		0.0504308	0.0513643	0.0552385	0.0552876					
	0.0510683	0.0504136					0.0523	AVRG		4.4436
13)MA Methyl acetate		0.2702859	0.2639834	0.2673019	0.2855392					
	0.2611160	0.2577124					0.2677	AVRG		3.6682
14)MA Carbon disulfide		0.9801140	0.9486797	1.1622919	1.1922855					
	1.0876449	1.1334287					1.0841	AVRG		9.1704
15)MA Methylene chloride			0.5413222	0.4788783	0.4500774					
	0.3791125	0.4118045					0.4522	AVRG		13.8235
16)MA tert-Butyl methyl ether		0.9693907	0.9709886	0.9531098	1.0246243					
	0.9092717	0.9481439					0.9626	AVRG		3.9165

Response Factor Report VOA4
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Last Update : Tue Mar 02 15:03:40 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
17)MA trans-1,2-Dichloroethyle		0.4568833	0.4331088	0.4667206	0.4691201					
	0.4278390	0.4394880					0.4489	AVRG		3.9499
18)MA Vinyl acetate		0.6003014	0.6013608	0.6048363	0.5853654					
	0.5871409	0.5211594					0.5834	AVRG		5.3988
19)MPA 1,1-Dichloroethane		0.5785324	0.5298634	0.5778642	0.5939291					
	0.5386702	0.5580868					0.5628	AVRG		4.4474
20)MA 2-Butanone		0.3516691	0.3325229	0.3247048	0.3275315					
	0.3481286	0.2989724					0.3306	AVRG		5.7383
21)MA cis-1,2-Dichloroethylene		0.5066074	0.4842512	0.5084067	0.5131511					
	0.4630022	0.4767585					0.4920	AVRG		4.1285
22)MA 2,2-Dichloropropane		0.3345652	0.2947900	0.3049192	0.3192840					
	0.2817542	0.2754918					0.3018	AVRG		7.4565
23)MA Bromochloromethane		0.1665375	0.1772055	0.1857821	0.1886328					
	0.1690604	0.1826083					0.1783	AVRG		5.0552
24)MCA Chloroform		0.6050823	0.6010229	0.5945464	0.6059334					
	0.5562893	0.5831481					0.5910	AVRG		3.2112
25)MA 1,1,1-Trichloroethane		0.4648209	0.4513728	0.4789040	0.4849944					
	0.4386245	0.4451256					0.4606	AVRG		4.0677
26)MA Cyclohexane		0.5588252	0.5202214	0.5216520	0.5277387					
	0.4630114	0.4789281					0.5117	AVRG		6.8224
27)MA 1,1-Dichloropropene		0.4624488	0.4115936	0.4524134	0.4394794					
	0.4060724	0.4217200					0.4323	AVRG		5.2686
28)MA Carbon tetrachloride		0.4498581	0.4242158	0.4397280	0.4587258					
	0.4179535	0.4380206					0.4381	AVRG		3.4843
29)SA 1,2-Dichloroethane-d4		0.2043679	0.2090512	0.2098656	0.2123324					
	0.2034892	0.2019789					0.2068	AVRG		1.9954
30)MA 1,2-Dichloroethane		0.5074893	0.4854465	0.4863183	0.4981336					
	0.4503800	0.4655985					0.4822	AVRG		4.3588
31)MA Benzene		1.3318439	1.2441519	1.3096329	1.3356057					
	1.2030885	1.2240879					1.2747	AVRG		4.5497

Response Factor Report VOA4
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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene		0.6395393	0.5860420	0.6494392	0.6392113					
	0.6007305	0.6137152					0.6214	AVRG		4.0511
33)MA n-Butyl alcohol	0.0152149	0.0108964	0.0112719	0.0124979	0.0135854					
	0.0142691	0.0143615					0.0132	AVRG		12.4909
34)MA Trichloroethylene		0.3437801	0.3200982	0.3470815	0.3477155					
	0.3248326	0.3388240					0.3371	AVRG		3.5091
35)MCA 1,2-Dichloropropane		0.3333792	0.3186002	0.3302578	0.3490766					
	0.3141259	0.3337969					0.3299	AVRG		3.7660
36)MA Methylcyclohexane		0.5498840	0.5176396	0.5554798	0.5485111					
	0.5032676	0.5212290					0.5327	AVRG		4.0167
37)MA Dibromomethane		0.2116389	0.2197578	0.2208584	0.2244713					
	0.2076497	0.2218045					0.2177	AVRG		3.0098
38)MA Bromodichloromethane		0.4181989	0.4146854	0.4276733	0.4597959					
	0.4357536	0.4678536					0.4373	AVRG		5.0211
39)MA 2-Chloroethylvinyl ether		0.1693963	0.1682743	0.2063950	0.1768768					
	0.1882166	0.1873501					0.1828	AVRG		7.8632
40)MA cis-1,3-Dichloropropylen		0.4961760	0.4860043	0.5009409	0.5342986					
	0.5042918	0.5407149					0.5104	AVRG		4.3053
42)MA 4-Methyl-2-pentanone		0.1812431	0.1913755	0.1812924	0.1814015					
	0.1874330	0.1710181					0.1823	AVRG		3.7921
43)SA Toluene-d8		0.9571065	0.9493994	0.9489777	0.9189842					
	0.9087348	0.8817669					0.9275	AVRG		3.1741
44)MCA Toluene		1.8581648	1.6886550	1.7535024	1.6503380					
	1.5066037	1.4729560					1.6550	AVRG		8.8511
45)MA trans-1,3-Dichloropropyl		0.5744260	0.5816789	0.5737143	0.5981879					
	0.5688252	0.5899924					0.5811	AVRG		1.9180
46)MA 1,1,2-Trichloroethane		0.2905339	0.3038670	0.3013148	0.3068866					
	0.2863925	0.2982854					0.2979	AVRG		2.6640
47)MA 2-Hexanone		0.5036428	0.5363755	0.5159977	0.5061352					
	0.5382292	0.4346162					0.5058	AVRG		7.4823

Response Factor Report VOA4
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Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane		0.6286995	0.6273240	0.6290113	0.6310176					
	0.5849931	0.6121944					0.6189	AVRG		2.9002
49)MA Tetrachloroethylene		0.3642776	0.3253014	0.3419562	0.3310143					
	0.3132361	0.3223346					0.3330	AVRG		5.4152
50)MA Dibromochloromethane		0.4089868	0.4098351	0.4043078	0.4264329					
	0.4309932	0.4648053					0.4242	AVRG		5.3060
51)MA 1,2-Dibromoethane		0.3814705	0.3843430	0.3784487	0.3896992					
	0.3774139	0.3926663					0.3840	AVRG		1.5981
52)MPA Chlorobenzene		1.1723073	1.1582322	1.1598989	1.1365570					
	1.0469242	1.0892324					1.1272	AVRG		4.3535
53)MA 1,1,1,2-Tetrachloroethan		0.4198035	0.4188438	0.4138090	0.4265661					
	0.4215505	0.4667464					0.4279	AVRG		4.5525
54)MCA Ethylbenzene		2.0840260	2.0164027	2.0203991	1.9648385					
	1.8396323	1.8349551					1.9600	AVRG		5.2209
55)MA m,p-Xylenes		0.7968904	0.7843637	0.7812839	0.7687025					
	0.7500114	0.7838288					0.7775	AVRG		2.0822
56)MA o-Xylene		0.7644591	0.7952265	0.8048390	0.7930166					
	0.8014504	0.8757789					0.8058	AVRG		4.6105
57)MA Styrene		1.2443810	1.2117404	1.2744438	1.3143277					
	1.3579431	1.4472582					1.3083	AVRG		6.5184
59)MPA Bromoform		0.3902477	0.4141142	0.4242333	0.4566677					
	0.4801735	0.5461896					0.4519	AVRG		12.4017
60)MA Isopropylbenzene		3.3175209	3.3494916	3.3243159	3.1363524					
	2.8963725	2.9600744					3.1640	AVRG		6.2838
61)SA Bromofluorobenzene		0.9826198	1.0053785	0.9728582	0.9665938					
	0.9564305	0.9856607					0.9783	AVRG		1.7414
62)MPA 1,1,2,2-Tetrachloroethan		0.9195561	0.9683729	0.9026073	0.9198707					
	0.8567728	0.8818222					0.9082	AVRG		4.1952
63)MA 1,2,3-Trichloropropane		0.2432967	0.2801066	0.2441238	0.2472761					
	0.2288957	0.2413168					0.2475	AVRG		6.9435

Response Factor Report VOA4
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Last Update : Tue Mar 02 15:03:40 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA Bromobenzene		0.8647386	0.8752875	0.8519557	0.8635659					
	0.8331826	0.9351452					0.8706	AVRG		3.9852
65)MA n-Propylbenzene		4.0498435	4.1369496	4.0588436	3.8552049					
	3.5743302	3.5017307					3.8628	AVRG		6.9678
66)MA 1,3,5-Trimethylbenzene		2.8354956	3.0146701	2.9763206	2.9065436					
	2.7813114	2.8437041					2.8930	AVRG		3.0971
67)MA 2-Chlorotoluene		0.8688915	0.8524719	0.8724659	0.8294085					
	0.8241385	0.9261661					0.8623	AVRG		4.2959
68)MA 4-Chlorotoluene		2.4844031	2.5612741	2.5152706	2.3978939					
	2.2460486	2.2714761					2.4127	AVRG		5.4253
69)MA tert-Butylbenzene		0.6320613	0.6437287	0.6497004	0.6155296					
	0.5991326	0.6650760					0.6342	AVRG		3.7759
70)MA 1,2,4-Trimethylbenzene		2.8841431	3.0892537	3.0875822	3.0143936					
	2.8235529	2.8025765					2.9503	AVRG		4.4071
71)MA sec-Butylbenzene		4.0143071	4.0846347	4.1051946	3.9152029					
	3.6420766	3.5181276					3.8799	AVRG		6.3072
72)MA 4-Isopropyltoluene		3.0338824	3.2694698	3.3123587	3.1719621					
	3.0102983	2.9278625					3.1210	AVRG		4.9307
73)MA 1,3-Dichlorobenzene		1.7733193	1.7685299	1.7969645	1.7342003					
	1.6369787	1.6738737					1.7306	AVRG		3.6236
74)MA 1,4-Dichlorobenzene		1.7771756	1.9012008	1.8477494	1.7442019					
	1.6703842	1.6822429					1.7705	AVRG		5.1518
75)MA n-Butylbenzene		2.9574109	3.0426503	3.2663712	3.0010450					
	2.8332954	2.6704491					2.9619	AVRG		6.7905
76)MA 1,2-Dichlorobenzene		1.6923391	1.8190827	1.7229194	1.6964463					
	1.5724597	1.6033986					1.6844	AVRG		5.2380
77)MA 1,2-Dibromo-3-chloroprop		0.1427388	0.1601043	0.1552744	0.1568820					
	0.1724465	0.1820974					0.1616	AVRG		8.5663
78)MA 1,2,4-Trichlorobenzene		0.8213712	0.8237018	0.8975434	0.8897582					
	0.8820654	0.8549721					0.8616	AVRG		3.8851

Response Factor Report VOA4
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Last Update : Tue Mar 02 15:03:40 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
79)MA Hexachlorobutadiene		0.5620564	0.5490636	0.6013384	0.5418709					
	0.5423204	0.5524787					0.5582	AVRG		4.0146
80)MA Naphthalene		2.3970157	2.2199511	2.0905527	2.1315508					
	2.0444053	1.9772015					2.1434	AVRG		6.9367
81)MA 1,2,3-Trichlorobenzene		0.7105499	0.7076489	0.7426567	0.7348618					
	0.7056849	0.7041686					0.7176	AVRG		2.3293
83)B Chlorotrifluoroethylene		0.1928176	0.1589189	0.1461446	0.1735227	0.2114385				
	0.1651545	0.1795403					0.1754	AVRG		12.4398
84)B 2-Chloro-1,1,1-trifluoro		0.5721523	0.5400354	0.5501283	0.5962120	0.5535334				
	0.5904177	0.5501506					0.5647	AVRG		3.8712
85)B Acrolein		6504	9876	23934	49064	109086				
-0.0135 | 0.0505 | 0.00	321964	773364						LINR		0.9943
86)B Trichlorotrifluoroethane		0.1461689	0.1221725	0.1222409	0.1237840	0.1087334				
	0.1023600	0.1060014					0.1188	AVRG		12.5463
87)B Isopropyl Alcohol		0.0309507	0.0289400	0.0295944	0.0321518	0.0309392				
	0.0315174	0.0328078					0.0310	AVRG		4.3869
88)B Allyl chloride		0.4410914	0.4144177	0.4329829	0.4237283	0.4390746				
	0.4247044	0.3890080					0.4236	AVRG		4.2184
89)B tert-Butyl Alcohol		0.0493194	0.0465802	0.0486116	0.0516194	0.0492098				
	0.0499952	0.0515867					0.0496	AVRG		3.5428
90)B Acrylonitrile		0.1354744	0.1169982	0.1192240	0.1172877	0.1199926				
	0.1226476	0.1210012					0.1218	AVRG		5.2104
91)B Isopropyl ether		1.0359445	1.0095069	1.0621565	1.1182501	1.0699375				
	1.0893456	1.0610693					1.0637	AVRG		3.2990
92)B 2-Chloro-1,3-butadiene		0.4432562	0.4025100	0.4251441	0.4110593	0.4255095				
	0.4396326	0.3923863					0.4199	AVRG		4.4883
93)B Ethyl tert-butyl ether		0.9724237	0.9454935	0.9877587	1.0437350	1.0062867				
	1.0232943	1.0210297					1.0000	AVRG		3.3710
94)B Ethyl acetate		0.4207751	0.3344995	0.3419534	0.3318285	0.3437715				
	0.3335166	0.3226695					0.3470	AVRG		9.5860

Response Factor Report VOA4
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Last Update : Tue Mar 02 15:03:40 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile		0.0579700	0.0471239	0.0497289	0.0512108	0.0510792				
	0.0516971	0.0529726					0.0517	AVRG		6.4357
96)B Methacrylonitrile		0.2375600	0.1961336	0.2113702	0.2065848	0.2121764				
	0.2106405	0.2040929					0.2112	AVRG		6.0965
97)B Tetrahydrofuran		0.1362498	0.1128471	0.1112702	0.1073795	0.1101952				
	0.1086713	0.1103988					0.1139	AVRG		8.8074
98)B Isobutyl alcohol		0.0152586	0.0143983	0.0161756	0.0155977	0.0159383				
	0.0170587	0.0160889					0.0158	AVRG		5.2524
99)B Methyl tert-amyl ether		0.9092583	0.9103189	0.9127399	0.9686898	0.9431764				
	0.9699206	0.9951498					0.9442	AVRG		3.6732
100)B Methyl methacrylate		0.2366812	0.2151339	0.2261493	0.2218900	0.2322491				
	0.2372493	0.2371432					0.2295	AVRG		3.7866
101)B 1,4-Dioxane		0.0045376	0.0041314	0.0041319	0.0042340	0.0043051				
	0.0045308	0.0043816					0.0043	AVRG	#	3.9414
102)B 2-Nitropropane		0.1281983	0.0945526	0.1031010	0.1109235	0.1179372				
	0.1188684	0.1221423					0.1137	AVRG		10.2389
104)B Ethyl methacrylate		0.5301747	0.4853177	0.5128271	0.5124319	0.5436019				
	0.5410113	0.4985569					0.5177	AVRG		4.1999
106)B 1-Chlorohexane		0.5706431	0.5950303	0.5938594	0.6226543	0.6078436				
	0.6049091	0.4412334					0.5766	AVRG		10.7135
107)B cis-1,4-Dichloro-2-buten		0.2562164	0.2433071	0.2543648	0.2476176	0.2715778				
	0.2753507	0.2528613					0.2573	AVRG		4.6219
108)B Cyclohexanone		0.0319960	0.0244636	0.0253938	0.0259780	0.0283148				
							0.0272	AVRG		11.0914
109)B trans-1,4-Dichloro-2-but		0.2448200	0.2333204	0.2463157	0.2452294	0.2638413				
	0.2676538	0.2425929					0.2491	AVRG		4.8999
110)B Pentachloroethane		0.2773251	0.2448282	0.2417607	0.3144067	0.3343024				
	0.2405564	0.2477113					0.2716	AVRG		14.2132
111)B Benzyl chloride		1.2135141	1.1462821	1.2503052	1.2578961	1.3440856				
	1.3187502	1.0882205					1.2313	AVRG		7.3732

Response Factor Report VOA4
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Last Update : Tue Mar 02 15:03:40 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
112)B bis(2-Chloroisopropyl)et		0.4102831	0.3581670	0.3914475	0.3940309	0.4206244				
	0.4143469	0.4031629					0.3989	AVRG		5.2157

(#) = Out of Range

Continuing Calibration Summary

Client SDG: 10-2005

Instrument ID: VOA4.I **Injection Date** 02-MAR-10 04:45

Data File: 030110V4\4A122.D **Init. Cal. Date(s)** 01-MAR-10 20:03 - 02-MAR-10 03:2

Lab Sample ID W4VM100301-18 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.2068	0.20039		.01		-3.09961	30		Averaged	
S	Toluene-d8	0.9275	0.92786		.01		0.03881	30		Averaged	
S	Bromofluorobenzene	0.9783	0.9522		.01		-2.66789	30		Averaged	
	Dichlorodifluoromethane	0.3169	0.20881		.01		-34.10855	30	*	Averaged	
	Chloromethane	0.5187	0.39141		.1		-24.5402	30		Averaged	spcc
	Vinyl chloride	0.514	0.435		.01		-15.36965	20		Averaged	ccc
	Bromomethane	0.3057	0.27503		.01		-10.03271	30		Averaged	
	Chloroethane	0.2648	0.23859		.01		-9.89804	30		Averaged	
	Trichlorofluoromethane	0.5242	0.48534		.01		-7.4132	30		Averaged	
	Ethyl ether	0.2497	0.23194		.01		-7.11254	30		Averaged	
	Acetone	0.3151	0.2404		.01		-23.70676	40		Averaged	
	1,1-Dichloroethylene	0.5828	0.49891		.01		-14.3943	20		Averaged	ccc
	Iodomethane	0.602	0.55263		.01		-8.201	30		Averaged	
	Acetonitrile	0.0523	0.0479		.01		-8.413	30		Averaged	
	Methyl acetate	0.2677	0.23983		.01		-10.41091	40		Averaged	
	Carbon disulfide	1.0841	1.0305		.01		-4.94419	30		Averaged	
	Methylene chloride	0.4522	0.36418		.01		-19.46484	30		Averaged	
	tert-Butyl methyl ether	0.9626	0.86175		.01		-10.47683	30		Averaged	
	trans-1,2-Dichloroethylene	0.4489	0.40435		.01		-9.92426	30		Averaged	
	Vinyl acetate	0.5834	0.47195		.01		-19.10353	40		Averaged	
	1,1-Dichloroethane	0.5628	0.522		.1		-7.24947	30		Averaged	spcc
	2-Butanone	0.3306	0.2659		.01		-19.57048	40		Averaged	
	cis-1,2-Dichloroethylene	0.492	0.45017		.01		-8.50203	30		Averaged	
	2,2-Dichloropropane	0.3018	0.26297		.01		-12.86614	30		Averaged	
	Bromochloromethane	0.1783	0.16596		.01		-6.92092	30		Averaged	
	Chloroform	0.591	0.55389		.01		-6.27919	20		Averaged	ccc
	1,1,1-Trichloroethane	0.4606	0.42347		.01		-8.06122	30		Averaged	
	Cyclohexane	0.5117	0.44897		.01		-12.25914	30		Averaged	
	1,1-Dichloropropene	0.4323	0.39451		.01		-8.74161	30		Averaged	
	Carbon tetrachloride	0.4381	0.40412		.01		-7.75622	30		Averaged	
	1,2-Dichloroethane	0.4822	0.43255		.01		-10.29656	30		Averaged	
	Benzene	1.2747	1.16072		.01		-8.94171	30		Averaged	
	Cyclohexene	0.6214	0.55044		.01		-11.41938	30		Averaged	
	n-Butyl alcohol	0.0132	0.01316		.01		-0.30303	40		Averaged	
	Trichloroethylene	0.3371	0.32002		.01		-5.06675	30		Averaged	
	1,2-Dichloropropane	0.3299	0.31032		.01		-5.93513	20		Averaged	ccc
	Methylcyclohexane	0.5327	0.47592		.01		-10.65891	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA4.I **Injection Date** 02-MAR-10 04:45

Data File: 030110V4\4A122.D **Init. Cal. Date(s)** 01-MAR-10 20:03 02-MAR-10 03:2

Lab Sample ID W4VM100301-18 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.2177	0.19691		.01		-9.54984	30		Averaged	
Bromodichloromethane	0.4373	0.42638		.01		-2.49714	30		Averaged	
2-Chloroethylvinyl ether	0.1828	0.18686		.01		2.22101	30		Averaged	
cis-1,3-Dichloropropylene	0.5104	0.48153		.01		-5.65635	30		Averaged	
4-Methyl-2-pentanone	0.1823	0.16376		.01		-10.17005	40		Averaged	
Toluene	1.655	1.48911		.01		-10.02356	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.5811	0.55064		.01		-5.24178	30		Averaged	
1,1,2-Trichloroethane	0.2979	0.28433		.01		-4.55522	30		Averaged	
2-Hexanone	0.5058	0.41646		.01		-17.66311	40		Averaged	
1,3-Dichloropropane	0.6189	0.57199		.01		-7.57958	30		Averaged	
Tetrachloroethylene	0.333	0.30484		.01		-8.45646	30		Averaged	
Dibromochloromethane	0.4242	0.4208		.01		-0.80151	30		Averaged	
1,2-Dibromoethane	0.384	0.36883		.01		-3.95052	30		Averaged	
Chlorobenzene	1.1272	1.05319		.3		-6.56583	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.4279	0.41668		.01		-2.62211	30		Averaged	
Ethylbenzene	1.96	1.801		.01		-8.11224	20		Averaged	ccc
m,p-Xylenes	0.7775	0.73062		.01		-6.02958	30		Averaged	
o-Xylene	0.8058	0.78154		.01		-3.01067	30		Averaged	
Styrene	1.3083	1.32658		.01		1.39723	30		Averaged	
Bromoform	0.4519	0.44567		.1		-1.37862	30		Averaged	spcc
Isopropylbenzene	3.164	2.79156		.01		-11.77118	30		Averaged	
1,1,2,2-Tetrachloroethane	0.9082	0.79153		.3		-12.84629	30		Averaged	spcc
1,2,3-Trichloropropane	0.2475	0.2197		.01		-11.23232	30		Averaged	
Bromobenzene	0.8706	0.81417		.01		-6.48174	30		Averaged	
n-Propylbenzene	3.8628	3.45672		.01		-10.51258	30		Averaged	
2-Chlorotoluene	0.8623	0.8077		.01		-6.3319	30		Averaged	
1,3,5-Trimethylbenzene	2.893	2.69152		.01		-6.9644	30		Averaged	
4-Chlorotoluene	2.4127	2.1839		.01		-9.48315	30		Averaged	
tert-Butylbenzene	0.6342	0.587		.01		-7.44245	30		Averaged	
1,2,4-Trimethylbenzene	2.9503	2.72034		.01		-7.79446	30		Averaged	
sec-Butylbenzene	3.8799	3.52828		.01		-9.0626	30		Averaged	
4-Isopropyltoluene	3.121	2.92624		.01		-6.24031	30		Averaged	
1,3-Dichlorobenzene	1.7306	1.604		.01		-7.31538	30		Averaged	
1,4-Dichlorobenzene	1.7705	1.63632		.01		-7.57865	30		Averaged	
n-Butylbenzene	2.9619	2.76611		.01		-6.61028	30		Averaged	
1,2-Dichlorobenzene	1.6844	1.58047		.01		-6.17015	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1616	0.16175		.01		0.09282	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA4.I **Injection Dat** 02-MAR-10 04:45

Data File: 0301I0V4\4A122.D **Init. Cal. Date(s)** 01-MAR-10 20:03 02-MAR-10 03:2

Lab Sample ID W4VM100301-18 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8616	0.84001		.01		-2.5058	30		Averaged
Hexachlorobutadiene	0.5582	0.5327		.01		-4.56826	30		Averaged
Naphthalene	2.1434	1.99062		.01		-7.12793	30		Averaged
1,2,3-Trichlorobenzene	0.7176	0.70968		.01		-1.10368	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A122.D
Acq On : 2 Mar 2010 4:45 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-18|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[A] 0220-01B+0301-01
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 02 15:05:11 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.619	10.620	1.000	96	1540174	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	1292531	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	911427	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1539787	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	1292531	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	913350	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	308637	48.44	ug/L	0.00
43) Toluene-d8	12.253	12.247	0.890	98	1199290	50.02	ug/L	0.00
61) Bromofluorobenzene	14.953	14.954	0.924	95	867862	48.67	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.904	4.911	0.462	85	321604	32.95	ug/L	100
3) Chloromethane	5.292	5.291	0.498	50	602837	37.73	ug/L	99
4) Vinyl chloride	5.521	5.521	0.520	62	669968	42.31	ug/L	100
5) Bromomethane	6.130	6.137	0.577	94	423599	44.98	ug/L	99
6) Chloroethane	6.295	6.295	0.593	64	367464	45.05	ug/L	100
7) Trichlorofluoromethane	6.668	6.669	0.628	101	747504	46.29	ug/L	100
8) Ethyl ether	6.997	6.998	0.659	59	357225	46.45	ug/L	98
9) Acetone	7.357	7.352	0.693	43	1851300	190.74	ug/L	100
10) 1,1-Dichloroethylene	7.394	7.389	0.696	61	768401	42.80	ug/L	100
11) Iodomethane	7.662	7.663	0.722	142	4255710	229.50	ug/L	100
12) Acetonitrile	7.699	7.699	0.725	41	1844276	1144.77	ug/L	99
13) Methyl acetate	7.753	7.748	0.730	43	1846931	224.01	ug/L	99
14) Carbon disulfide	7.772	7.773	0.732	76	7935717	237.64	ug/L	100
15) Methylene chloride	7.936	7.931	0.747	84	560901	40.26	ug/L	100
16) tert-Butyl methyl ether	8.241	8.242	0.776	73	1327244	44.76	ug/L	99
17) trans-1,2-Dichloroethy...	8.284	8.285	0.780	61	622773	45.04	ug/L	100
18) Vinyl acetate	8.711	8.705	0.820	43	3634425	202.25	ug/L	99
19) 1,1-Dichloroethane	8.759	8.760	0.825	63	803966	46.37	ug/L	100
20) 2-Butanone	9.326	9.327	0.878	43	2047670	201.08	ug/L	99
21) cis-1,2-Dichloroethylene	9.387	9.388	0.884	61	693341	45.75	ug/L	100
22) 2,2-Dichloropropane	9.418	9.419	0.887	77	405016	43.57	ug/L	98
23) Bromochloromethane	9.656	9.656	0.909	128	255613	46.54	ug/L	98
24) Chloroform	9.692	9.687	0.913	83	853090	46.86	ug/L	98
25) 1,1,1-Trichloroethane	9.979	9.979	0.940	97	652222	45.97	ug/L	100
26) Cyclohexane	10.082	10.083	0.949	56	691497	43.87	ug/L	99
27) 1,1-Dichloropropene	10.137	10.132	0.955	75	607607	45.63	ug/L #	79
28) Carbon tetrachloride	10.174	10.175	0.958	117	622408	46.12	ug/L	100
30) 1,2-Dichloroethane	10.338	10.339	0.974	62	666203	44.85	ug/L	99
31) Benzene	10.375	10.370	0.977	78	1787715	45.53	ug/L	100
32) Cyclohexene	10.497	10.492	0.989	67	847777	44.29	ug/L	98
33) n-Butyl alcohol	10.692	10.693	1.007	56	2026999	5001.56	ug/L	100
34) Trichloroethylene	11.009	11.004	1.037	95	492892	47.47	ug/L	99
35) 1,2-Dichloropropane	11.241	11.241	1.059	63	477950	47.04	ug/L	100
36) Methylcyclohexane	11.265	11.260	1.061	83	733004	44.67	ug/L	99
37) Dibromomethane	11.375	11.376	1.071	93	303275	45.23	ug/L	100
38) Bromodichloromethane	11.484	11.485	1.082	83	656694	48.75	ug/L	100
39) 2-Chloroethylvinyl ether	11.698	11.699	1.102	63	1438998	255.62	ug/L	100
40) cis-1,3-Dichloropropylene	11.929	11.930	1.123	75	741641	47.17	ug/L	100
42) 4-Methyl-2-pentanone	12.021	12.016	0.873	58	1058321	224.58	ug/L	98
44) Toluene	12.326	12.320	0.895	91	1924727	44.99	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A122.D
Acq On : 2 Mar 2010 4:45 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-18|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[A] 0220-01B+0301-01
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 02 15:05:11 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
45)	trans-1,3-Dichloroprop...	12.466	12.461	0.905	75	711716	47.38	ug/L	99
46)	1,1,2-Trichloroethane	12.685	12.680	0.921	83	367506	47.73	ug/L	100
47)	2-Hexanone	12.856	12.857	0.934	43	2691452	205.83	ug/L	98
48)	1,3-Dichloropropane	12.874	12.875	0.935	76	739318	46.21	ug/L	89
49)	Tetrachloroethylene	12.923	12.918	0.938	164	394013	45.77	ug/L	99
50)	Dibromochloromethane	13.149	13.144	0.955	129	543899	49.60	ug/L	100
51)	1,2-Dibromoethane	13.319	13.320	0.967	107	476721	48.02	ug/L	100
52)	Chlorobenzene	13.801	13.802	1.002	112	1361279	46.72	ug/L	100
53)	1,1,1,2-Tetrachloroethane	13.850	13.851	1.006	131	538577	48.69	ug/L	99
54)	Ethylbenzene	13.862	13.863	1.007	91	2327846	45.94	ug/L	100
55)	m,p-Xylenes	13.972	13.973	1.015	106	1888702	93.97	ug/L	100
56)	o-Xylene	14.405	14.399	1.046	106	1010170	48.50	ug/L	98
57)	Styrene	14.405	14.399	1.046	104	1714651	50.70	ug/L	100
59)	Bromoform	14.661	14.655	0.906	173	406192	49.31	ug/L	99
60)	Isopropylbenzene	14.758	14.759	0.912	105	2544300	44.11	ug/L	100
62)	1,1,2,2-Tetrachloroethane	15.020	15.015	0.928	83	721422	43.58	ug/L	99
63)	1,2,3-Trichloropropane	15.112	15.107	0.934	110	200239	44.38	ug/L	97
64)	Bromobenzene	15.167	15.168	0.937	156	742061	46.76	ug/L	99
65)	n-Propylbenzene	15.185	15.180	0.939	91	3150549	44.74	ug/L	99
66)	1,3,5-Trimethylbenzene	15.331	15.332	0.948	105	2453122	46.52	ug/L	100
67)	2-Chlorotoluene	15.331	15.332	0.948	126	736161	46.84	ug/L	99
68)	4-Chlorotoluene	15.429	15.430	0.954	91	1990465	45.26	ug/L	100
69)	tert-Butylbenzene	15.703	15.704	0.971	134	535011	46.28	ug/L	99
70)	1,2,4-Trimethylbenzene	15.746	15.741	0.973	105	2479390	46.10	ug/L	99
71)	sec-Butylbenzene	15.935	15.930	0.985	105	3215773	45.47	ug/L	100
72)	4-Isopropyltoluene	16.051	16.051	0.992	119	2667056	46.88	ug/L	100
73)	1,3-Dichlorobenzene	16.124	16.119	0.997	146	1461933	46.34	ug/L	100
74)	1,4-Dichlorobenzene	16.209	16.204	1.002	146	1491390	46.21	ug/L	99
75)	n-Butylbenzene	16.508	16.503	1.020	91	2521109	46.70	ug/L	100
76)	1,2-Dichlorobenzene	16.642	16.643	1.029	146	1440483	46.91	ug/L	100
77)	1,2-Dibromo-3-chloropr...	17.532	17.527	1.084	157	147425	50.05	ug/L	100
78)	1,2,4-Trichlorobenzene	18.635	18.630	1.152	180	765605	48.75	ug/L	99
79)	Hexachlorobutadiene	18.818	18.819	1.163	225	485516	47.72	ug/L	100
80)	Naphthalene	19.032	19.026	1.176	128	1814309	46.44	ug/L	99
81)	1,2,3-Trichlorobenzene	19.385	19.386	1.198	180	646822	49.45	ug/L	99
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85)	Acrolein	7.241	7.180	0.682		0m	N.D.	d	
86)	Trichlorotrifluoroethane	0.000	7.369	0.000		0	N.D.		
87)	Isopropyl Alcohol	7.351	7.430	0.692		0m	N.D.	d	
88)	Allyl chloride	7.699	7.796	0.725		0m	N.D.	d	
89)	tert-Butyl Alcohol	0.000	7.924	0.000		0	N.D.		
90)	Acrylonitrile	8.241	8.174	0.776		0m	N.D.	d	
91)	Isopropyl ether	8.711	8.741	0.820		0m	N.D.	d	
92)	2-Chloro-1,3-butadiene	8.875	8.869	0.836		0m	N.D.	d	
93)	Ethyl tert-butyl ether	9.131	9.143	0.860		0m	N.D.	d	
94)	Ethyl acetate	9.326	9.338	0.878		0m	N.D.	d	
95)	Propionitrile	9.442	9.393	0.889		0m	N.D.	d	
96)	Methacrylonitrile	0.000	9.576	0.000		0	N.D.		
97)	Tetrahydrofuran	9.716	9.710	0.915		0m	N.D.	d	
98)	Isobutyl alcohol	9.997	10.009	0.941		0m	N.D.	d	
99)	Methyl tert-amyl ether	10.375	10.387	0.977		0m	N.D.	d	
100)	Methyl methacrylate	11.167	11.204	1.052		0m	N.D.	d	
101)	1,4-Dioxane	11.344	11.326	1.068		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A122.D
Acq On : 2 Mar 2010 4:45 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-18|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[A] 0220-01B+0301-01
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 02 15:05:11 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
102) 2-Nitropropane	11.698	11.673	1.102		0m	N.D.	d
104) Ethyl methacrylate	12.466	12.466	0.905		0m	N.D.	d
106) 1-Chlorohexane	13.667	13.661	0.845		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.764	14.783	0.913		0m	N.D.	d
108) Cyclohexanone	14.911	14.904	0.922		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.069	15.063	0.931		0m	N.D.	d
110) Pentachloroethane	15.770	15.770	0.975		0m	N.D.	d
111) Benzyl chloride	16.313	16.319	1.008		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.721	16.721	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A122.D
Acq On : 2 Mar 2010 4:45 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-18|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[A] 0220-01B+0301-01
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 02 15:05:11 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

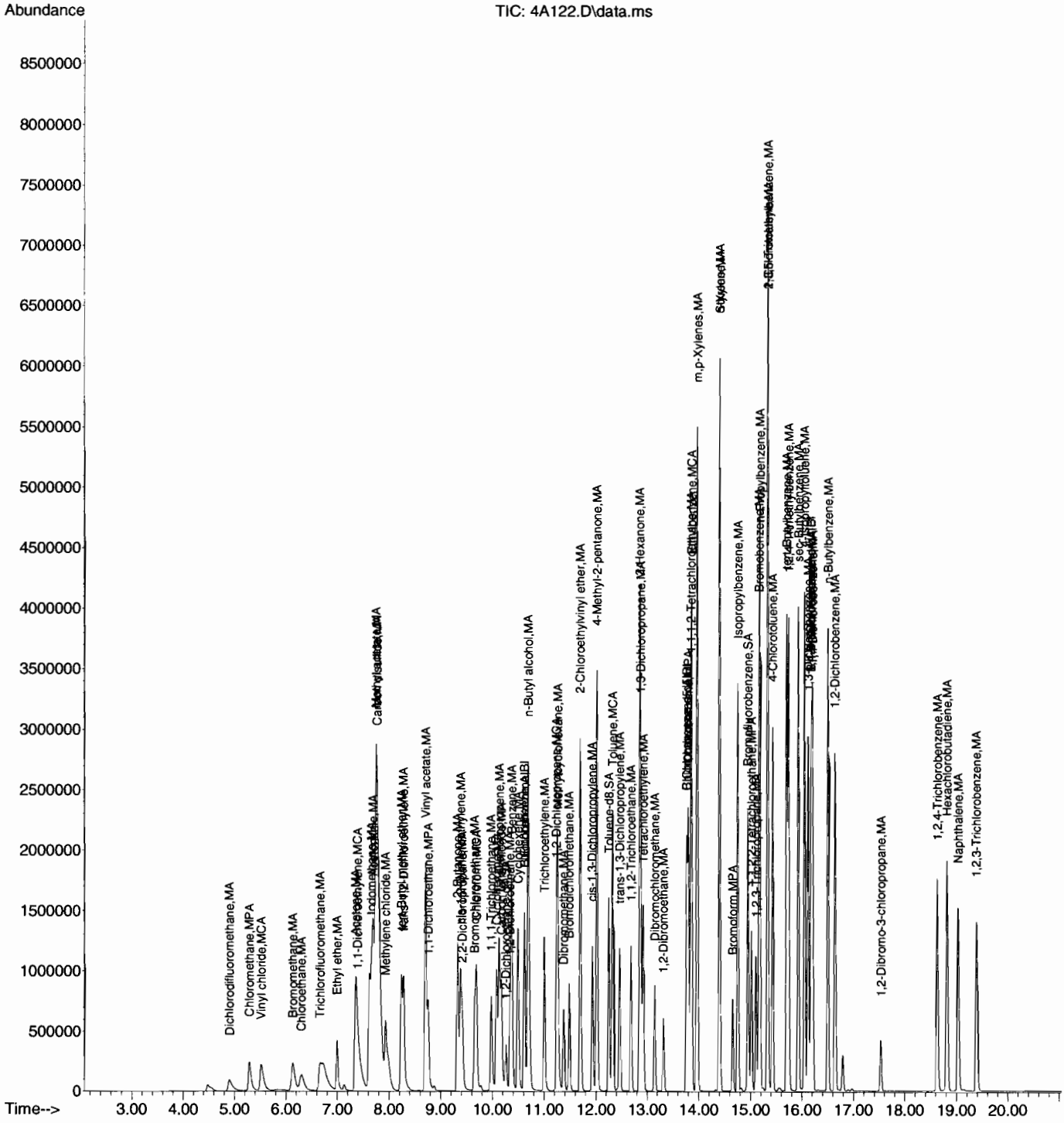

Continuing Calibration Summary

Client SDG: 10-2005

Instrument ID: VOA4.I

Injection Dat 02-MAR-10 05:13

Data File: 030110V4\4A123.D

Init. Cal. Date(s) 01-MAR-10 20:03 - 02-MAR-10 03:2

Lab Sample ID W4VM100301-19 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.2068	0.19926		.01		-3.64603	30		Averaged
S	Toluene-d8	0.9275	0.92876		.01		0.13585	30		Averaged
S	Bromofluorobenzene	0.9783	0.99852		.01		2.06685	30		Averaged
	Chlorotrifluoroethylene	0.1754	0.18522		.01		5.59863	30		Averaged
	2-Chloro-1,1,1-trifluoroethane	0.5647	0.54723		.01		-3.09368	30		Averaged
	Acrolein	250	210.71	250			-15.716	30		Linear
	Trichlorotrifluoroethane	0.1188	0.11301		.01		-4.87374	30		Averaged
	Isopropyl Alcohol	0.031	0.02807		.01		-9.45161	40		Averaged
	Allyl chloride	0.4236	0.39588		.01		-6.54391	30		Averaged
	tert-Butyl Alcohol	0.0496	0.04432		.01		-10.64516	40		Averaged
	Acrylonitrile	0.1218	0.10925		.01		-10.30378	30		Averaged
	Isopropyl ether	1.0637	1.00324		.01		-5.68393	30		Averaged
	2-Chloro-1,3-butadiene	0.4199	0.43689		.01		4.0462	30		Averaged
	Ethyl tert-butyl ether	1	0.94464		.01		-5.536	30		Averaged
	Ethyl acetate	0.347	0.27896		.01		-19.60807	40		Averaged
	Propionitrile	0.0517	0.04585		.01		-11.31528	30		Averaged
	Methacrylonitrile	0.2112	0.18555		.01		-12.14489	30		Averaged
	Tetrahydrofuran	0.1139	0.09806		.01		-13.90694	30		Averaged
	Isobutyl alcohol	0.0158	0.01386		.01		-12.27848	40		Averaged
	Methyl tert-amyl ether	0.9442	0.9056		.01		-4.08812	30		Averaged
	Methyl methacrylate	0.2295	0.20869		.01		-9.06754	30		Averaged
	1,4-Dioxane	0.0043	0.00376		.01		-12.55814	40		Averaged
	2-Nitropropane	0.1137	0.10782		.01		-5.1715	30		Averaged
	Ethyl methacrylate	0.5177	0.48191		.01		-6.91327	30		Averaged
	1-Chlorohexane	0.5766	0.55415		.01		-3.89351	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2573	0.25096		.01		-2.46405	30		Averaged
	Cyclohexanone	0.0272	0.05136		.01		88.82353	40	*	Averaged
	trans-1,4-Dichloro-2-butene	0.2491	0.23734		.01		-4.721	30		Averaged
	Pentachloroethane	0.2716	0.16088		.01		-40.76583	30	*	Averaged
	Benzyl chloride	1.2313	1.05586		.01		-14.24836	30		Averaged
	bis(2-Chloroisopropyl)ether	0.3989	0.35372		.01		-11.32615	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A123.D
Acq On : 2 Mar 2010 5:13 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-19|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[B] 0215-08A+0125-08E
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 02 15:05:20 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.619	10.620	1.000	96	1591342	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	1313113	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	848630	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1590834	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	1313113	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	848653	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	317090	48.17	ug/L	0.00
43) Toluene-d8	12.253	12.247	0.890	98	1219563	50.07	ug/L	0.00
61) Bromofluorobenzene	14.953	14.954	0.924	95	847377	51.04	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.818	4.911	0.454		0m	N.D.	d	
3) Chloromethane	5.292	5.291	0.498		0m	N.D.	d	
4) Vinyl chloride	5.521	5.521	0.520		0m	N.D.	d	
5) Bromomethane	6.130	6.137	0.577		0m	N.D.	d	
6) Chloroethane	6.321	6.295	0.595		0m	N.D.	d	
7) Trichlorofluoromethane	6.680	6.669	0.629		0m	N.D.	d	
8) Ethyl ether	6.991	6.998	0.658		0m	N.D.	d	
9) Acetone	7.430	7.352	0.700		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.375	7.389	0.695		0m	N.D.	d	
11) Iodomethane	7.619	7.663	0.718		0m	N.D.	d	
12) Acetonitrile	7.692	7.699	0.724		0m	N.D.	d	
13) Methyl acetate	7.753	7.748	0.730		0m	N.D.	d	
14) Carbon disulfide	7.802	7.773	0.735		0m	N.D.	d	
15) Methylene chloride	7.942	7.931	0.748		0m	N.D.	d	
16) tert-Butyl methyl ether	8.247	8.242	0.777		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.284	8.285	0.780		0m	N.D.	d	
18) Vinyl acetate	8.741	8.705	0.823		0m	N.D.	d	
19) 1,1-Dichloroethane	8.759	8.760	0.825		0m	N.D.	d	
20) 2-Butanone	9.338	9.327	0.879		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.338	9.388	0.879		0m	N.D.	d	
22) 2,2-Dichloropropane	9.558	9.419	0.900		0m	N.D.	d	
23) Bromochloromethane	9.655	9.656	0.909		0m	N.D.	d	
24) Chloroform	9.692	9.687	0.913		0m	N.D.	d	
25) 1,1,1-Trichloroethane	9.979	9.979	0.940		0m	N.D.	d	
26) Cyclohexane	10.009	10.083	0.943		0m	N.D.	d	
27) 1,1-Dichloropropene	10.125	10.132	0.953		0m	N.D.	d	
28) Carbon tetrachloride	10.174	10.175	0.958		0m	N.D.	d	
30) 1,2-Dichloroethane	10.357	10.339	0.975		0m	N.D.	d	
31) Benzene	10.375	10.370	0.977		0m	N.D.	d	
32) Cyclohexene	10.497	10.492	0.989		0m	N.D.	d	
33) n-Butyl alcohol	10.686	10.693	1.006		0m	N.D.	d	
34) Trichloroethylene	11.003	11.004	1.036		0m	N.D.	d	
35) 1,2-Dichloropropane	11.247	11.241	1.059		0m	N.D.	d	
36) Methylcyclohexane	11.210	11.260	1.056		0m	N.D.	d	
37) Dibromomethane	11.369	11.376	1.071		0m	N.D.	d	
38) Bromodichloromethane	11.478	11.485	1.081		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.692	11.699	1.101		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	11.935	11.930	1.124		0m	N.D.	d	
42) 4-Methyl-2-pentanone	12.015	12.016	0.872		0m	N.D.	d	
44) Toluene	12.326	12.320	0.895		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A123.D
Acq On : 2 Mar 2010 5:13 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-19|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[B] 0215-08A+0125-08E
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 02 15:05:20 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
45)	trans-1,3-Dichloroprop...	12.460	12.461	0.905		0m	N.D.	d		
46)	1,1,2-Trichloroethane	12.685	12.680	0.921		0m	N.D.	d		
47)	2-Hexanone	12.862	12.857	0.934		0m	N.D.	d		
48)	1,3-Dichloropropane	12.880	12.875	0.935		0m	N.D.	d		
49)	Tetrachloroethylene	12.923	12.918	0.938		0m	N.D.	d		
50)	Dibromochloromethane	13.136	13.144	0.954		0m	N.D.	d		
51)	1,2-Dibromoethane	13.313	13.320	0.967		0m	N.D.	d		
52)	Chlorobenzene	13.801	13.802	1.002		0m	N.D.	d		
53)	1,1,1,2-Tetrachloroethane	13.850	13.851	1.006		0m	N.D.	d		
54)	Ethylbenzene	13.862	13.863	1.007		0m	N.D.	d		
55)	m,p-Xylenes	13.972	13.973	1.015		0m	N.D.	d		
56)	o-Xylene	14.405	14.399	1.046		0m	N.D.	d		
57)	Styrene	14.405	14.399	1.046		0m	N.D.	d		
59)	Bromoform	14.654	14.655	0.906		0m	N.D.	d		
60)	Isopropylbenzene	14.764	14.759	0.913		0m	N.D.	d		
62)	1,1,2,2-Tetrachloroethane	15.008	15.015	0.928		0m	N.D.	d		
63)	1,2,3-Trichloropropane	15.112	15.107	0.934		0m	N.D.	d		
64)	Bromobenzene	15.167	15.168	0.937		0m	N.D.	d		
65)	n-Propylbenzene	15.185	15.180	0.939		0m	N.D.	d		
66)	1,3,5-Trimethylbenzene	15.331	15.332	0.948		0m	N.D.	d		
67)	2-Chlorotoluene	15.331	15.332	0.948		0m	N.D.	d		
68)	4-Chlorotoluene	15.435	15.430	0.954		0m	N.D.	d		
69)	tert-Butylbenzene	15.703	15.704	0.971		0m	N.D.	d		
70)	1,2,4-Trimethylbenzene	15.740	15.741	0.973		0m	N.D.	d		
71)	sec-Butylbenzene	15.935	15.930	0.985		0m	N.D.	d		
72)	4-Isopropyltoluene	16.057	16.051	0.992		0m	N.D.	d		
73)	1,3-Dichlorobenzene	16.118	16.119	0.996		0m	N.D.	d		
74)	1,4-Dichlorobenzene	16.209	16.204	1.002		0m	N.D.	d		
75)	n-Butylbenzene	16.502	16.503	1.020		0m	N.D.	d		
76)	1,2-Dichlorobenzene	16.648	16.643	1.029		0m	N.D.	d		
77)	1,2-Dibromo-3-chloropr...	17.532	17.527	1.084		0m	N.D.	d		
78)	1,2,4-Trichlorobenzene	18.635	18.630	1.152		0m	N.D.	d		
79)	Hexachlorobutadiene	18.812	18.819	1.163		0m	N.D.	d		
80)	Naphthalene	19.038	19.026	1.177		0m	N.D.	d		
81)	1,2,3-Trichlorobenzene	19.385	19.386	1.198		0m	N.D.	d		
83)	Chlorotrifluoroethylene	4.826	4.826	0.454	116	883966	158.43	ug/L		100
84)	2-Chloro-1,1,1-trifluo...	5.657	5.657	0.533	118	2611674	145.37	ug/L	#	99
85)	Acrolein	7.180	7.180	0.676	56	317143	210.71	ug/L		100
86)	Trichlorotrifluoroethane	7.363	7.369	0.693	85	898867	237.85	ug/L		98
87)	Isopropyl Alcohol	7.436	7.430	0.700	45	2232769	2264.77	ug/L		99
88)	Allyl chloride	7.802	7.796	0.735	41	3148934	233.66	ug/L		99
89)	tert-Butyl Alcohol	7.930	7.924	0.747	59	3525465	2235.77	ug/L	#	100
90)	Acrylonitrile	8.174	8.174	0.770	53	869015	224.24	ug/L		99
91)	Isopropyl ether	8.741	8.741	0.823	45	1595996	47.16	ug/L		100
92)	2-Chloro-1,3-butadiene	8.869	8.869	0.835	53	695018	52.02	ug/L		100
93)	Ethyl tert-butyl ether	9.143	9.143	0.861	59	1502758	47.23	ug/L		99
94)	Ethyl acetate	9.338	9.338	0.879	43	2218913	200.98	ug/L		100
95)	Propionitrile	9.393	9.393	0.885	54	364674	221.77	ug/L		100
96)	Methacrylonitrile	9.576	9.576	0.902	41	1475866	219.61	ug/L		99
97)	Tetrahydrofuran	9.716	9.710	0.915	42	780014	215.32	ug/L		99
98)	Isobutyl alcohol	10.009	10.009	0.943	41	1102186	2194.18	ug/L		100
99)	Methyl tert-amyl ether	10.387	10.387	0.978	73	1440665	47.96	ug/L		99
100)	Methyl methacrylate	11.210	11.204	1.056	69	1659968	227.33	ug/L		99
101)	1,4-Dioxane	11.332	11.326	1.067	88	299443	2177.71	ug/L		99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A123.D
Acq On : 2 Mar 2010 5:13 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-19|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[B] 0215-08A+0125-08E
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 02 15:05:20 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
102) 2-Nitropropane	11.673	11.673	1.099	43	857630	237.13	ug/L	99	
104) Ethyl methacrylate	12.466	12.466	0.905	69	3164038	232.72	ug/L	100	
106) 1-Chlorohexane	13.661	13.661	0.844	55	470278	48.05	ug/L	97	
107) cis-1,4-Dichloro-2-butene	14.782	14.783	0.914	53	1064876	243.81	ug/L	99	
108) Cyclohexanone	14.904	14.904	0.921	42	1089625	2357.66	ug/L	98	E
109) trans-1,4-Dichloro-2-b...	15.063	15.063	0.931	53	1007110	238.19	ug/L	99	
110) Pentachloroethane	15.776	15.770	0.975	167	682676	148.11	ug/L	100	
111) Benzyl chloride	16.319	16.319	1.009	91	4480303	214.38	ug/L	99	
112) bis(2-Chloroisopropyl)...	16.721	16.721	1.034	45	1500940	221.71	ug/L	99	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A123.D
Acq On : 2 Mar 2010 5:13 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-19|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[B] 0215-08A+0125-08E
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 02 15:05:20 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

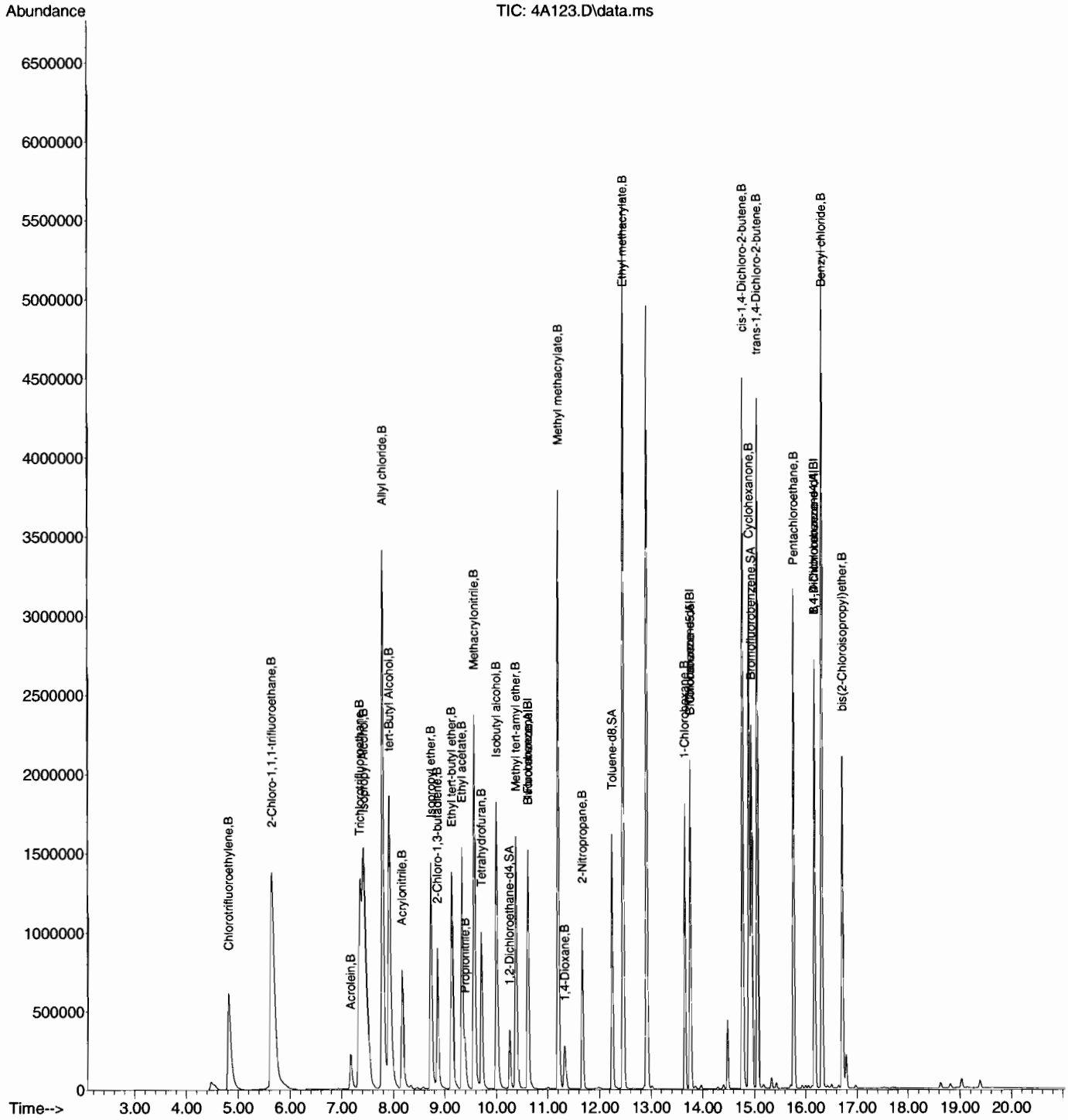

Continuing Calibration Summary

Client SDG: 10-2005

Instrument ID: VOA4.1 **Injection Dat** 04-MAR-10 10:33

Data File: 030410V4\4A402.D **Init. Cal. Date(s)** 01-MAR-10 20:03 - 02-MAR-10 03:2

Lab Sample ID W4VM100304-01 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.2068	0.19356		.01		-6.40232	30		Averaged	
S	Toluene-d8	0.9275	0.87991		.01		-5.131	30		Averaged	
S	Bromofluorobenzene	0.9783	0.97737		.01		-0.09506	30		Averaged	
	Dichlorodifluoromethane	0.3169	0.29017		.01		-8.43484	30		Averaged	
	Chloromethane	0.5187	0.47724		.1		-7.99306	30		Averaged	spcc
	Vinyl chloride	0.514	0.52345		.01		1.83852	20		Averaged	ccc
	Bromomethane	0.3057	0.30603		.01		0.10795	30		Averaged	
	Chloroethane	0.2648	0.26439		.01		-0.15483	30		Averaged	
	Trichlorofluoromethane	0.5242	0.57015		.01		8.76574	30		Averaged	
	Ethyl ether	0.2497	0.23666		.01		-5.22227	30		Averaged	
	Acetone	0.3151	0.28825		.01		-8.5211	40		Averaged	
	1,1-Dichloroethylene	0.5828	0.55627		.01		-4.55216	20		Averaged	ccc
	Iodomethane	0.602	0.56376		.01		-6.35216	30		Averaged	
	Acetonitrile	0.0523	0.05082		.01		-2.82983	30		Averaged	
	Methyl acetate	0.2677	0.25732		.01		-3.87747	40		Averaged	
	Carbon disulfide	1.0841	1.14951		.01		6.03358	30		Averaged	
	Methylene chloride	0.4522	0.36447		.01		-19.40071	30		Averaged	
	tert-Butyl methyl ether	0.9626	0.86642		.01		-9.99169	30		Averaged	
	trans-1,2-Dichloroethylene	0.4489	0.44214		.01		-1.5059	30		Averaged	
	Vinyl acetate	0.5834	0.6712		.01		15.04971	40		Averaged	
	1,1-Dichloroethane	0.5628	0.55396		.1		-1.57072	30		Averaged	spcc
	2-Butanone	0.3306	0.31004		.01		-6.219	40		Averaged	
	cis-1,2-Dichloroethylene	0.492	0.48223		.01		-1.98577	30		Averaged	
	2,2-Dichloropropane	0.3018	0.31304		.01		3.72432	30		Averaged	
	Bromochloromethane	0.1783	0.16425		.01		-7.87998	30		Averaged	
	Chloroform	0.591	0.56732		.01		-4.00677	20		Averaged	ccc
	1,1,1-Trichloroethane	0.4606	0.46281		.01		0.47981	30		Averaged	
	Cyclohexane	0.5117	0.5246		.01		2.52101	30		Averaged	
	1,1-Dichloropropene	0.4323	0.43739		.01		1.17742	30		Averaged	
	Carbon tetrachloride	0.4381	0.44494		.01		1.56129	30		Averaged	
	1,2-Dichloroethane	0.4822	0.45371		.01		-5.90834	30		Averaged	
	Benzene	1.2747	1.21721		.01		-4.51008	30		Averaged	
	Cyclohexene	0.6214	0.62524		.01		0.61796	30		Averaged	
	n-Butyl alcohol	0.0132	0.01376		.01		4.24242	40		Averaged	
	Trichloroethylene	0.3371	0.33456		.01		-0.75349	30		Averaged	
	1,2-Dichloropropane	0.3299	0.32384		.01		-1.83692	20		Averaged	ccc
	Methylcyclohexane	0.5327	0.54677		.01		2.64126	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA4.1 **Injection Dat** 04-MAR-10 10:33

Data File: 030410V4\4A402.D **Init. Cal. Date(s)** 01-MAR-10 20:03 02-MAR-10 03:2

Lab Sample ID W4VM100304-01 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.2177	0.20095		.01		-7.69407	30		Averaged	
Bromodichloromethane	0.4373	0.43487		.01		-0.55568	30		Averaged	
2-Chloroethylvinyl ether	0.1828	0.17057		.01		-6.69037	30		Averaged	
cis-1,3-Dichloropropylene	0.5104	0.50461		.01		-1.1344	30		Averaged	
4-Methyl-2-pentanone	0.1823	0.17584		.01		-3.54361	40		Averaged	
Toluene	1.655	1.56262		.01		-5.58187	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.5811	0.57118		.01		-1.70711	30		Averaged	
1,1,2-Trichloroethane	0.2979	0.28696		.01		-3.67237	30		Averaged	
2-Hexanone	0.5058	0.4934		.01		-2.45156	40		Averaged	
1,3-Dichloropropane	0.6189	0.57871		.01		-6.49378	30		Averaged	
Tetrachloroethylene	0.333	0.32453		.01		-2.54354	30		Averaged	
Dibromochloromethane	0.4242	0.40901		.01		-3.58086	30		Averaged	
1,2-Dibromoethane	0.384	0.36131		.01		-5.90885	30		Averaged	
Chlorobenzene	1.1272	1.07003		.3		-5.07186	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.4279	0.41312		.01		-3.45408	30		Averaged	
Ethylbenzene	1.96	1.91454		.01		-2.31939	20		Averaged	ccc
m,p-Xylenes	0.7775	0.77149		.01		-0.77299	30		Averaged	
Styrene	1.3083	1.35601		.01		3.64672	30		Averaged	
o-Xylene	0.8058	0.80429		.01		-0.18739	30		Averaged	
Bromoform	0.4519	0.42491		.1		-5.97256	30		Averaged	spcc
Isopropylbenzene	3.164	2.97826		.01		-5.87042	30		Averaged	
1,1,2,2-Tetrachloroethane	0.9082	0.81603		.3		-10.14865	30		Averaged	spcc
1,2,3-Trichloropropane	0.2475	0.2129		.01		-13.9798	30		Averaged	
Bromobenzene	0.8706	0.81566		.01		-6.31059	30		Averaged	
n-Propylbenzene	3.8628	3.75136		.01		-2.88495	30		Averaged	
2-Chlorotoluene	0.8623	0.83415		.01		-3.26453	30		Averaged	
1,3,5-Trimethylbenzene	2.893	2.83343		.01		-2.05911	30		Averaged	
4-Chlorotoluene	2.4127	2.29559		.01		-4.8539	30		Averaged	
tert-Butylbenzene	0.6342	0.60488		.01		-4.62315	30		Averaged	
1,2,4-Trimethylbenzene	2.9503	2.86055		.01		-3.04206	30		Averaged	
sec-Butylbenzene	3.8799	3.77175		.01		-2.78744	30		Averaged	
4-Isopropyltoluene	3.121	3.16117		.01		1.28709	30		Averaged	
1,3-Dichlorobenzene	1.7306	1.66519		.01		-3.77961	30		Averaged	
1,4-Dichlorobenzene	1.7705	1.70464		.01		-3.71985	30		Averaged	
n-Butylbenzene	2.9619	3.09114		.01		4.36342	30		Averaged	
1,2-Dichlorobenzene	1.6844	1.59513		.01		-5.29981	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1616	0.15353		.01		-4.99381	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA4.I **Injection Dat** 04-MAR-10 10:33

Data File: 030410V4\4A402.D **Init. Cal. Date(s)** 01-MAR-10 20:03 02-MAR-10 03:2

Lab Sample ID W4VM100304-01 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8616	0.8931		.01		3.65599	30		Averaged
Hexachlorobutadiene	0.5582	0.54044		.01		-3.18166	30		Averaged
Naphthalene	2.1434	1.90906		.01		-10.9331	30		Averaged
1,2,3-Trichlorobenzene	0.7176	0.7022		.01		-2.14604	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A402.D
Acq On : 4 Mar 2010 10:33 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100304-01|CCV|1|VOAF|1|
Misc : GEL 5ML - MIX[A] 0220-01C+0304-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 11:26:15 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.614	10.620	1.000	96	1282500	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	1091552	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.180	16.180	1.000	152	770618	50.00	ug/L	0.00
82) B Fluorobenzene	10.614	10.619	1.000	96	1282321	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	1091552	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	770738	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.260	10.260	0.967	65	248237	46.79	ug/L	0.00
43) Toluene-d8	12.247	12.247	0.889	98	960464	47.43	ug/L	0.00
61) Bromofluorobenzene	14.954	14.954	0.924	95	753176	49.95	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.904	4.911	0.462	85	372142	45.78	ug/L	99
3) Chloromethane	5.291	5.291	0.499	50	612057	46.01	ug/L	100
4) Vinyl chloride	5.514	5.521	0.519	62	671325	50.92	ug/L	100
5) Bromomethane	6.130	6.137	0.578	94	392482	50.05	ug/L	98
6) Chloroethane	6.288	6.295	0.592	64	339081	49.92	ug/L	100
7) Trichlorofluoromethane	6.663	6.669	0.628	101	731214	54.38	ug/L	99
8) Ethyl ether	6.998	6.998	0.659	59	303522	47.40	ug/L	98
9) Acetone	7.352	7.352	0.693	43	1848376	228.70	ug/L	97
10) 1,1-Dichloroethylene	7.382	7.389	0.696	61	713421	47.72	ug/L	98
11) Iodomethane	7.626	7.663	0.719	142	3615118	234.13	ug/L	99
12) Acetonitrile	7.699	7.699	0.725	41	1629328	1214.55	ug/L	99
13) Methyl acetate	7.748	7.748	0.730	43	1650068	240.35	ug/L	98
14) Carbon disulfide	7.767	7.773	0.732	76	7371233	265.09	ug/L	100
15) Methylene chloride	7.937	7.931	0.748	84	467439	40.30	ug/L	96
16) tert-Butyl methyl ether	8.236	8.242	0.776	73	1111184	45.00	ug/L	99
17) trans-1,2-Dichloroethy...	8.279	8.285	0.780	61	567039	49.25	ug/L	99
18) Vinyl acetate	8.705	8.705	0.820	43	4304084	287.64	ug/L	99
19) 1,1-Dichloroethane	8.754	8.760	0.825	63	710459	49.21	ug/L	99
20) 2-Butanone	9.327	9.327	0.879	43	1988147	234.46	ug/L	97
21) cis-1,2-Dichloroethylene	9.382	9.388	0.884	61	618459	49.00	ug/L	97
22) 2,2-Dichloropropane	9.419	9.419	0.887	77	401477	51.86	ug/L	96
23) Bromochloromethane	9.656	9.656	0.910	128	210647	46.06	ug/L	95
24) Chloroform	9.687	9.687	0.913	83	727592	48.00	ug/L	99
25) 1,1,1-Trichloroethane	9.980	9.979	0.940	97	593556	50.24	ug/L	98
26) Cyclohexane	10.083	10.083	0.950	56	672798	51.26	ug/L	98
27) 1,1-Dichloropropene	10.132	10.132	0.955	75	560952	50.59	ug/L	99
28) Carbon tetrachloride	10.175	10.175	0.959	117	570637	50.78	ug/L	100
30) 1,2-Dichloroethane	10.339	10.339	0.974	62	581886	47.04	ug/L	99
31) Benzene	10.370	10.370	0.977	78	1561067	47.74	ug/L	99
32) Cyclohexene	10.492	10.492	0.989	67	801866	50.30	ug/L	98
33) n-Butyl alcohol	10.687	10.693	1.007	56	1764536	5228.71	ug/L	98
34) Trichloroethylene	11.004	11.004	1.037	95	429078	49.63	ug/L	99
35) 1,2-Dichloropropane	11.241	11.241	1.059	63	415323	49.09	ug/L	99
36) Methylcyclohexane	11.260	11.260	1.061	83	701237	51.32	ug/L	98
37) Dibromomethane	11.376	11.376	1.072	93	257719	46.15	ug/L	96
38) Bromodichloromethane	11.479	11.485	1.082	83	557725	49.72	ug/L	99
39) 2-Chloroethylvinyl ether	11.699	11.699	1.102	63	1093780	233.34	ug/L	99
40) cis-1,3-Dichloropropylene	11.930	11.930	1.124	75	647161	49.43	ug/L	97
42) 4-Methyl-2-pentanone	12.016	12.016	0.873	58	959719	241.16	ug/L	93
44) Toluene	12.321	12.320	0.895	91	1705681	47.21	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A402.D
Acq On : 4 Mar 2010 10:33 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100304-01|CCV|1|VOAF|1|
Misc : GEL 5ML - MIX[A] 0220-01C+0304-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 11:26:15 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
45)	trans-1,3-Dichloroprop...	12.461	12.461	0.905	75	623474	49.14	ug/L	96
46)	1,1,2-Trichloroethane	12.680	12.680	0.921	83	313231	48.17	ug/L	97
47)	2-Hexanone	12.857	12.857	0.934	43	2692878	243.86	ug/L	97
48)	1,3-Dichloropropane	12.875	12.875	0.935	76	631693	46.76	ug/L	98
49)	Tetrachloroethylene	12.918	12.918	0.938	164	354242	48.73	ug/L	98
50)	Dibromochloromethane	13.144	13.144	0.954	129	446455	48.21	ug/L	100
51)	1,2-Dibromoethane	13.320	13.320	0.967	107	394389	47.04	ug/L	100
52)	Chlorobenzene	13.802	13.802	1.002	112	1167995	47.46	ug/L	99
53)	1,1,1,2-Tetrachloroethane	13.851	13.851	1.006	131	450938	48.27	ug/L	99
54)	Ethylbenzene	13.863	13.863	1.007	91	2089816	48.84	ug/L	99
55)	m,p-Xylenes	13.973	13.973	1.015	106	1684242	99.23	ug/L	97
56)	o-Xylene	14.406	14.399	1.046	106	877925	49.91	ug/L	97
57)	Styrene	14.399	14.399	1.046	104	1480158	51.82	ug/L	100
59)	Bromoform	14.655	14.655	0.906	173	327445	47.01	ug/L	99
60)	Isopropylbenzene	14.759	14.759	0.912	105	2295098	47.06	ug/L	100
62)	1,1,2,2-Tetrachloroethane	15.015	15.015	0.928	83	628851	44.93	ug/L	100
63)	1,2,3-Trichloropropane	15.107	15.107	0.934	110	164063	43.01	ug/L	97
64)	Bromobenzene	15.168	15.168	0.937	156	628561	46.84	ug/L	97
65)	n-Propylbenzene	15.180	15.180	0.938	91	2890868	48.56	ug/L	98
66)	1,3,5-Trimethylbenzene	15.332	15.332	0.948	105	2183492	48.97	ug/L	99
67)	2-Chlorotoluene	15.332	15.332	0.948	126	642809	48.37	ug/L	96
68)	4-Chlorotoluene	15.430	15.430	0.954	91	1769021	47.57	ug/L	99
69)	tert-Butylbenzene	15.704	15.704	0.971	134	466130	47.69	ug/L	98
70)	1,2,4-Trimethylbenzene	15.741	15.741	0.973	105	2204394	48.48	ug/L	99
71)	sec-Butylbenzene	15.930	15.930	0.985	105	2906580	48.61	ug/L	99
72)	4-Isopropyltoluene	16.052	16.051	0.992	119	2436054	50.64	ug/L	99
73)	1,3-Dichlorobenzene	16.119	16.119	0.996	146	1283227	48.11	ug/L	100
74)	1,4-Dichlorobenzene	16.204	16.204	1.002	146	1313627	48.14	ug/L	100
75)	n-Butylbenzene	16.503	16.503	1.020	91	2382086	52.18	ug/L	99
76)	1,2-Dichlorobenzene	16.643	16.643	1.029	146	1229238	47.35	ug/L	100
77)	1,2-Dibromo-3-chloropr...	17.527	17.527	1.083	157	118313	47.51	ug/L	97
78)	1,2,4-Trichlorobenzene	18.630	18.630	1.151	180	688237	51.83	ug/L	99
79)	Hexachlorobutadiene	18.819	18.819	1.163	225	416471	48.41	ug/L	100
80)	Naphthalene	19.033	19.026	1.176	128	1471154	44.53	ug/L	100
81)	1,2,3-Trichlorobenzene	19.386	19.386	1.198	180	541125	48.93	ug/L	100
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85)	Acrolein	7.017	7.180	0.661		0m	N.D.	d	
86)	Trichlorotrifluoroethane	7.358	7.369	0.693		0m	N.D.	d	
87)	Isopropyl Alcohol	7.364	7.430	0.694		0m	N.D.	d	
88)	Allyl chloride	7.699	7.796	0.725		0m	N.D.	d	
89)	tert-Butyl Alcohol	8.035	7.924	0.757		0m	N.D.	d	
90)	Acrylonitrile	8.163	8.174	0.769		0m	N.D.	d	
91)	Isopropyl ether	8.705	8.741	0.820		0m	N.D.	d	
92)	2-Chloro-1,3-butadiene	8.870	8.869	0.836		0m	N.D.	d	
93)	Ethyl tert-butyl ether	9.138	9.143	0.861		0m	N.D.	d	
94)	Ethyl acetate	9.327	9.338	0.879		0m	N.D.	d	
95)	Propionitrile	9.333	9.393	0.879		0m	N.D.	d	
96)	Methacrylonitrile	9.577	9.576	0.902		0m	N.D.	d	
97)	Tetrahydrofuran	9.693	9.710	0.913		0m	N.D.	d	
98)	Isobutyl alcohol	10.077	10.009	0.949		0m	N.D.	d	
99)	Methyl tert-amyl ether	10.370	10.387	0.977		0m	N.D.	d	
100)	Methyl methacrylate	11.260	11.204	1.061		0m	N.D.	d	
101)	1,4-Dioxane	11.339	11.326	1.068		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A402.D
Acq On : 4 Mar 2010 10:33 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100304-01|CCV|1|VOAF|1|
Misc : GEL 5ML - MIX[A] 0220-01C+0304-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 11:26:15 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
102) 2-Nitropropane	11.699	11.673	1.102		0m	N.D.	d
104) Ethyl methacrylate	12.467	12.466	0.905		0m	N.D.	d
106) 1-Chlorohexane	13.662	13.661	0.844		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.759	14.783	0.912		0m	N.D.	d
108) Cyclohexanone	14.899	14.904	0.921		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.070	15.063	0.931		0m	N.D.	d
110) Pentachloroethane	15.771	15.770	0.975		0m	N.D.	d
111) Benzyl chloride	16.320	16.319	1.009		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.722	16.721	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A402.D
Acq On : 4 Mar 2010 10:33 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100304-01|CCV|1|VOAF|1|
Misc : GEL 5ML - MIX[A] 0220-01C+0304-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 11:26:15 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

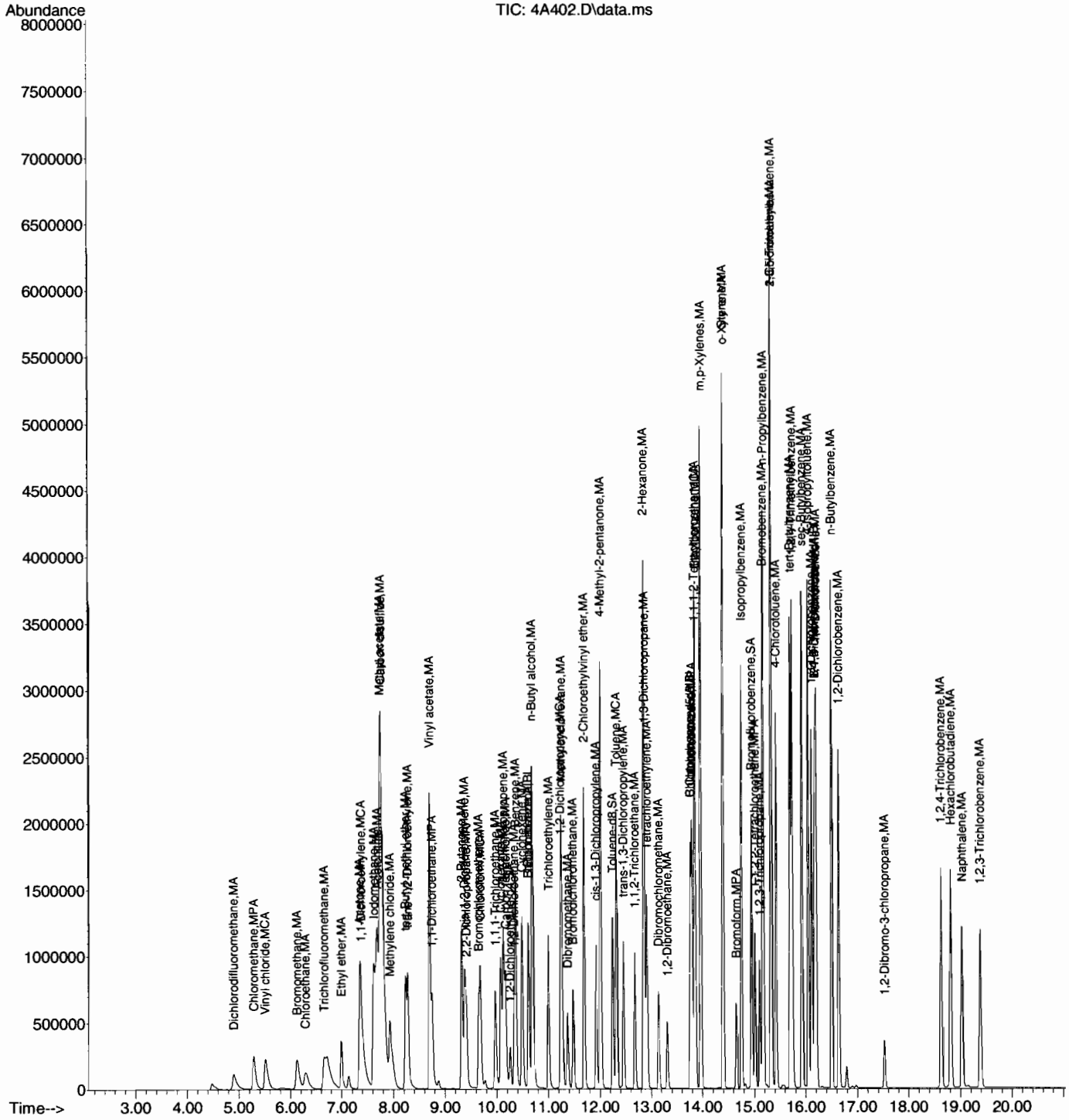

Continuing Calibration Summary

Client SDG: 10-2005

Instrument ID: VOA4.I

Injection Dat 04-MAR-10 11:29

Data File: 030410V4\4A404.D

Init. Cal. Date(s) 01-MAR-10 20:03 - 02-MAR-10 03:2

Lab Sample ID W4VM100304-03 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.2068	0.19088		.01		-7.69826	30		Averaged
S	Toluene-d8	0.9275	0.8902		.01		-4.02156	30		Averaged
S	Bromofluorobenzene	0.9783	1.03671		.01		5.97056	30		Averaged
	Acrolein	250	225.72	250			-9.712	30		Linear
	Trichlorotrifluoroethane	0.1188	0.09893		.01		-16.72559	30		Averaged
	Allyl chloride	0.4236	0.38355		.01		-9.45467	30		Averaged
	Acrylonitrile	0.1218	0.10456		.01		-14.15435	30		Averaged
	2-Chloro-1,3-butadiene	0.4199	0.40873		.01		-2.66016	30		Averaged
	Ethyl acetate	0.347	0.27773		.01		-19.96254	40		Averaged
	Propionitrile	0.0517	0.04458		.01		-13.77176	30		Averaged
	Methacrylonitrile	0.2112	0.17946		.01		-15.02841	30		Averaged
	Tetrahydrofuran	0.1139	0.09777		.01		-14.16155	30		Averaged
	Isobutyl alcohol	0.0158	0.01453		.01		-8.03797	40		Averaged
	Methyl methacrylate	0.2295	0.19782		.01		-13.80392	30		Averaged
	1,4-Dioxane	0.0043	0.00361		.01		-16.04651	40		Averaged
	2-Nitropropane	0.1137	0.10831		.01		-4.74055	30		Averaged
	Ethyl methacrylate	0.5177	0.45947		.01		-11.24783	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2573	0.26415		.01		2.66226	30		Averaged
	Cyclohexanone	0.0272	0.05554		.01		104.19118	40	*	Averaged
	trans-1,4-Dichloro-2-butene	0.2491	0.25504		.01		2.38458	30		Averaged
	Pentachloroethane	0.2716	0.34611		.01		27.43373	30		Averaged
	Benzyl chloride	1.2313	1.44326		.01		17.21433	30		Averaged
	bis(2-Chloroisopropyl)ether	0.3989	0.352		.01		-11.75733	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A404.D
Acq On : 4 Mar 2010 11:29 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100304-03|CCV|1|VOAF|1|VOA8260BL|
Misc : GEL 5ML - MIX[B] 0215-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 04 12:01:39 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.619	10.620	1.000	96	1371647	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	1132136	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	738741	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1371328	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	1132161	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	738923	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	261820	46.14	ug/L	0.00
43) Toluene-d8	12.253	12.247	0.890	98	1007824	47.99	ug/L	0.00
61) Bromofluorobenzene	14.953	14.954	0.924	95	765859	52.99	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.911	0.000		0	N.D.		
3) Chloromethane	5.306	5.291	0.500		0m	N.D.	d	
4) Vinyl chloride	5.514	5.521	0.519		0m	N.D.	d	
5) Bromomethane	6.109	6.137	0.575		0m	N.D.	d	
6) Chloroethane	6.327	6.295	0.596		0m	N.D.	d	
7) Trichlorofluoromethane	6.742	6.669	0.635		0m	N.D.	d	
8) Ethyl ether	7.010	6.998	0.660		0m	N.D.	d	
9) Acetone	7.357	7.352	0.693		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.388	7.389	0.696		0m	N.D.	d	
11) Iodomethane	7.674	7.663	0.723		0m	N.D.	d	
12) Acetonitrile	7.711	7.699	0.726		0m	N.D.	d	
13) Methyl acetate	7.747	7.748	0.730		0m	N.D.	d	
14) Carbon disulfide	7.802	7.773	0.735		0m	N.D.	d	
15) Methylene chloride	7.930	7.931	0.747		0m	N.D.	d	
16) tert-Butyl methyl ether	8.247	8.242	0.777		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.278	8.285	0.780		0m	N.D.	d	
18) Vinyl acetate	8.711	8.705	0.820		0m	N.D.	d	
19) 1,1-Dichloroethane	8.759	8.760	0.825		0m	N.D.	d	
20) 2-Butanone	9.339	9.327	0.879		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.339	9.388	0.879		0m	N.D.	d	
22) 2,2-Dichloropropane	9.424	9.419	0.887		0m	N.D.	d	
23) Bromochloromethane	9.643	9.656	0.908		0m	N.D.	d	
24) Chloroform	9.686	9.687	0.912		0m	N.D.	d	
25) 1,1,1-Trichloroethane	9.979	9.979	0.940		0m	N.D.	d	
26) Cyclohexane	10.009	10.083	0.943		0m	N.D.	d	
27) 1,1-Dichloropropene	10.137	10.132	0.955		0m	N.D.	d	
28) Carbon tetrachloride	10.174	10.175	0.958		0m	N.D.	d	
30) 1,2-Dichloroethane	10.338	10.339	0.974		0m	N.D.	d	
31) Benzene	10.369	10.370	0.976		0m	N.D.	d	
32) Cyclohexene	10.497	10.492	0.989		0m	N.D.	d	
33) n-Butyl alcohol	10.692	10.693	1.007		0m	N.D.	d	
34) Trichloroethylene	11.003	11.004	1.036		0m	N.D.	d	
35) 1,2-Dichloropropane	11.235	11.241	1.058		0m	N.D.	d	
36) Methylcyclohexane	11.204	11.260	1.055		0m	N.D.	d	
37) Dibromomethane	11.381	11.376	1.072		0m	N.D.	d	
38) Bromodichloromethane	11.484	11.485	1.082		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.698	11.699	1.102		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	11.936	11.930	1.124		0m	N.D.	d	
42) 4-Methyl-2-pentanone	12.027	12.016	0.873		0m	N.D.	d	
44) Toluene	12.320	12.320	0.895		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A404.D
Acq On : 4 Mar 2010 11:29 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100304-03|CCV|1|VOAF|1|VOA8260BL|
Misc : GEL 5ML - MIX[B] 0215-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 04 12:01:39 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
45)	trans-1,3-Dichloroprop...	12.466	12.461	0.905		0m	N.D.	d	
46)	1,1,2-Trichloroethane	12.692	12.680	0.922		0m	N.D.	d	
47)	2-Hexanone	12.862	12.857	0.934		0m	N.D.	d	
48)	1,3-Dichloropropane	12.874	12.875	0.935		0m	N.D.	d	
49)	Tetrachloroethylene	12.923	12.918	0.938		0m	N.D.	d	
50)	Dibromochloromethane	13.137	13.144	0.954		0m	N.D.	d	
51)	1,2-Dibromoethane	13.313	13.320	0.967		0m	N.D.	d	
52)	Chlorobenzene	13.807	13.802	1.003		0m	N.D.	d	
53)	1,1,1,2-Tetrachloroethane	13.850	13.851	1.006		0m	N.D.	d	
54)	Ethylbenzene	13.862	13.863	1.007		0m	N.D.	d	
55)	m,p-Xylenes	13.978	13.973	1.015		0m	N.D.	d	
56)	o-Xylene	14.399	14.399	1.046		0m	N.D.	d	
57)	Styrene	14.405	14.399	1.046		0m	N.D.	d	
59)	Bromoform	14.667	14.655	0.907		0m	N.D.	d	
60)	Isopropylbenzene	14.758	14.759	0.912		0m	N.D.	d	
62)	1,1,2,2-Tetrachloroethane	15.020	15.015	0.928		0m	N.D.	d	
63)	1,2,3-Trichloropropane	15.112	15.107	0.934		0m	N.D.	d	
64)	Bromobenzene	15.173	15.168	0.938		0m	N.D.	d	
65)	n-Propylbenzene	15.185	15.180	0.939		0m	N.D.	d	
66)	1,3,5-Trimethylbenzene	15.325	15.332	0.947		0m	N.D.	d	
67)	2-Chlorotoluene	15.337	15.332	0.948		0m	N.D.	d	
68)	4-Chlorotoluene	15.435	15.430	0.954		0m	N.D.	d	
69)	tert-Butylbenzene	15.709	15.704	0.971		0m	N.D.	d	
70)	1,2,4-Trimethylbenzene	15.746	15.741	0.973		0m	N.D.	d	
71)	sec-Butylbenzene	15.929	15.930	0.985		0m	N.D.	d	
72)	4-Isopropyltoluene	16.057	16.051	0.992		0m	N.D.	d	
73)	1,3-Dichlorobenzene	16.118	16.119	0.996		0m	N.D.	d	
74)	1,4-Dichlorobenzene	16.203	16.204	1.002		0m	N.D.	d	
75)	n-Butylbenzene	16.502	16.503	1.020		0m	N.D.	d	
76)	1,2-Dichlorobenzene	16.642	16.643	1.029		0m	N.D.	d	
77)	1,2-Dibromo-3-chloropr...	17.526	17.527	1.083		0m	N.D.	d	
78)	1,2,4-Trichlorobenzene	18.629	18.630	1.151		0m	N.D.	d	
79)	Hexachlorobutadiene	18.825	18.819	1.164		0m	N.D.	d	
80)	Naphthalene	19.026	19.026	1.176		0m	N.D.	d	
81)	1,2,3-Trichlorobenzene	19.391	19.386	1.199		0m	N.D.	d	
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	5.664	5.657	0.533	118	120	N.D.		
85)	Acrolein	7.180	7.180	0.676	56	294183	225.72	ug/L	96
86)	Trichlorotrifluoroethane	7.357	7.369	0.693	85	678348	208.23	ug/L	99
87)	Isopropyl Alcohol	0.000	7.430	0.000		0m	N.D.	d	
88)	Allyl chloride	7.802	7.796	0.735	41	2629831	226.38	ug/L	99
89)	tert-Butyl Alcohol	7.936	7.924	0.747	59	2723	N.D.		
90)	Acrylonitrile	8.174	8.174	0.770	53	716956	214.62	ug/L	98
91)	Isopropyl ether	8.735	8.741	0.823	45	393	N.D.		
92)	2-Chloro-1,3-butadiene	8.869	8.869	0.835	53	560504	48.67	ug/L	99
93)	Ethyl tert-butyl ether	9.137	9.143	0.860	59	168	N.D.		
94)	Ethyl acetate	9.339	9.338	0.879	43	1904321	200.10	ug/L	99
95)	Propionitrile	9.393	9.393	0.885	54	305679	215.65	ug/L	99
96)	Methacrylonitrile	9.576	9.576	0.902	41	1230507	212.41	ug/L	100
97)	Tetrahydrofuran	9.717	9.710	0.915	42	670382	214.68	ug/L	99
98)	Isobutyl alcohol	10.009	10.009	0.943	41	996536	2301.41	ug/L	99
99)	Methyl tert-amyl ether	10.381	10.387	0.978	73	1222	N.D.		
100)	Methyl methacrylate	11.210	11.204	1.056	69	1356348	215.49	ug/L	97
101)	1,4-Dioxane	11.332	11.326	1.067	88	247536	2088.37	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A404.D
Acq On : 4 Mar 2010 11:29 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100304-03|CCV|1|VOAF|1|VOA8260BL|
Misc : GEL 5ML - MIX[B] 0215-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 04 12:01:39 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
102) 2-Nitropropane	11.673	11.673	1.099	43	742674	238.21	ug/L	98	
104) Ethyl methacrylate	12.466	12.466	0.905	69	2600992	221.88	ug/L	97	
106) 1-Chlorohexane	13.661	13.661	0.844	55	571	N.D.			
107) cis-1,4-Dichloro-2-butene	14.783	14.783	0.914	53	975926	256.63	ug/L	98	
108) Cyclohexanone	14.905	14.904	0.921	42	1025985	2549.62	ug/L	97	E
109) trans-1,4-Dichloro-2-b...	15.063	15.063	0.931	53	942265	255.95	ug/L	98	
110) Pentachloroethane	15.776	15.770	0.975	167	1278748	318.64	ug/L	100	
111) Benzyl chloride	16.319	16.319	1.009	91	5332298	293.04	ug/L	100	
112) bis(2-Chloroisopropyl)...	16.721	16.721	1.034	45	1300496	220.62	ug/L	99	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A404.D
Acq On : 4 Mar 2010 11:29 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100304-03|CCV|1|VOAF|1|VOA8260BL|
Misc : GEL 5ML - MIX[B] 0215-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 04 12:01:39 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

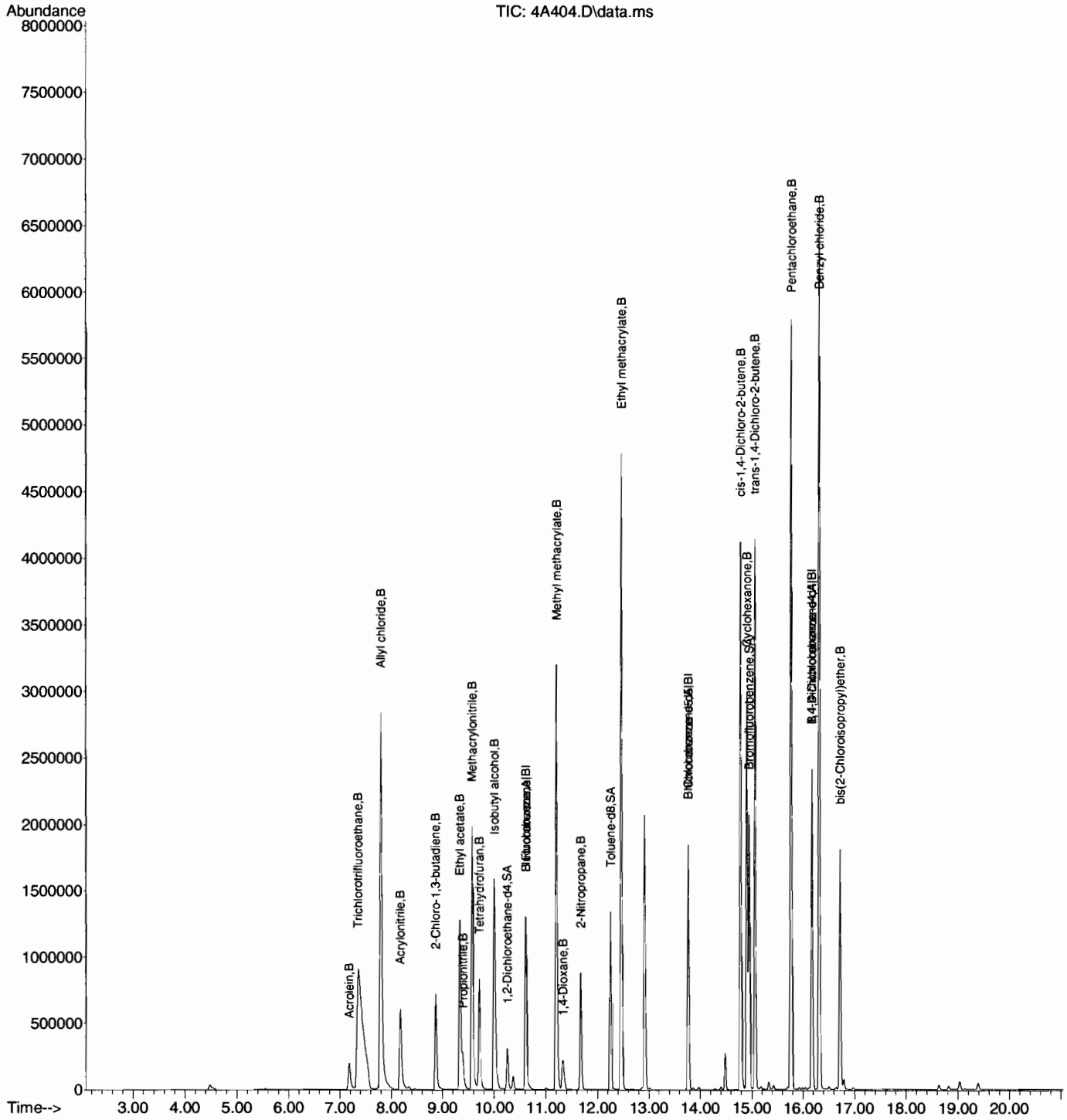

Quality Control Data

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A101.D
Acq On : 1 Mar 2010 7:08 pm
Operator : ACJ
Sample : |UVM091216-10|BFB1|1|VOAF|1|
Misc : GEL 5ML N/A
ALS Vial : 1 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Title : Volatile Organics 8260B SubList :
Last Update : Tue Mar 02 15:03:40 2010

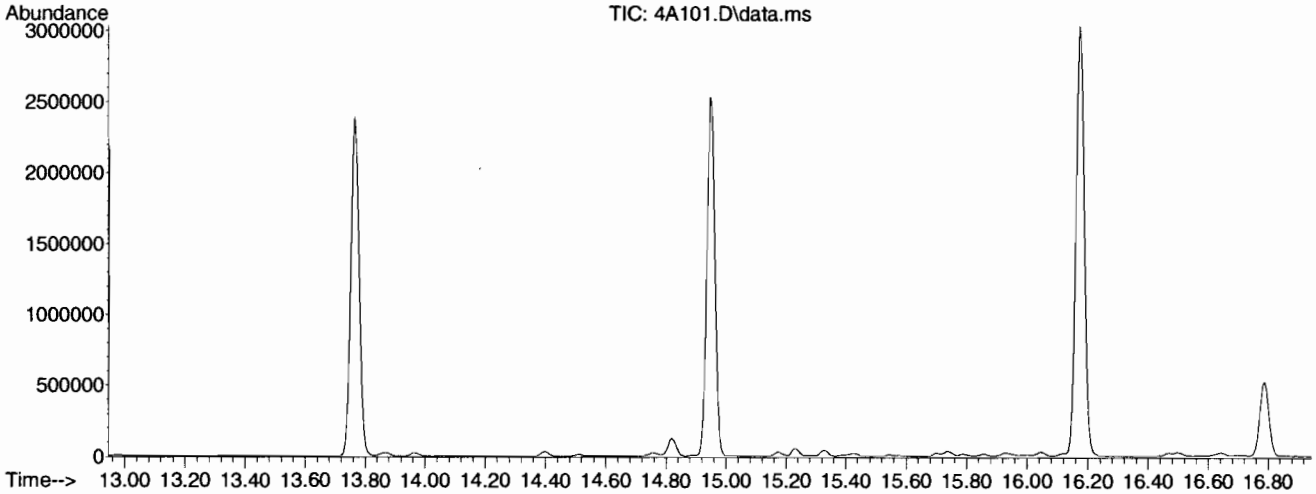

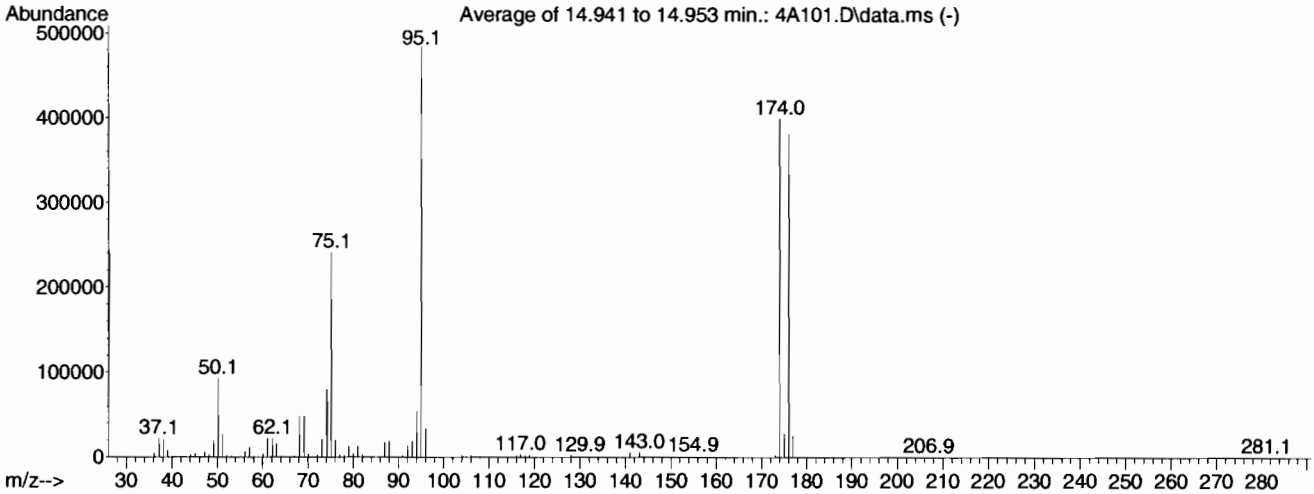

AutoFind: Scans 2006, 2007, 2008; Background Corrected with Scan 1996

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.1	92460	PASS
75	95	30	60	49.8	241152	PASS
95	95	100	100	100.0	484629	PASS
96	95	5	9	7.0	33893	PASS
173	174	0.00	2	0.5	1986	PASS
174	95	50	100	82.3	398848	PASS
175	174	5	9	7.0	27931	PASS
176	174	95	101	95.5	381035	PASS
177	176	5	9	6.7	25547	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A401.D
Acq On : 4 Mar 2010 10:05 am
Operator : ACJ
Sample : |UVM091216-10|BFB|1|VOAF|1|
Misc : GEL 5ML N/A
ALS Vial : 1 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\030210V4\Methods\VOA4-8260-030110.M
Title : Volatile Organics 8260B SubList :
Last Update : Tue Mar 02 15:03:40 2010

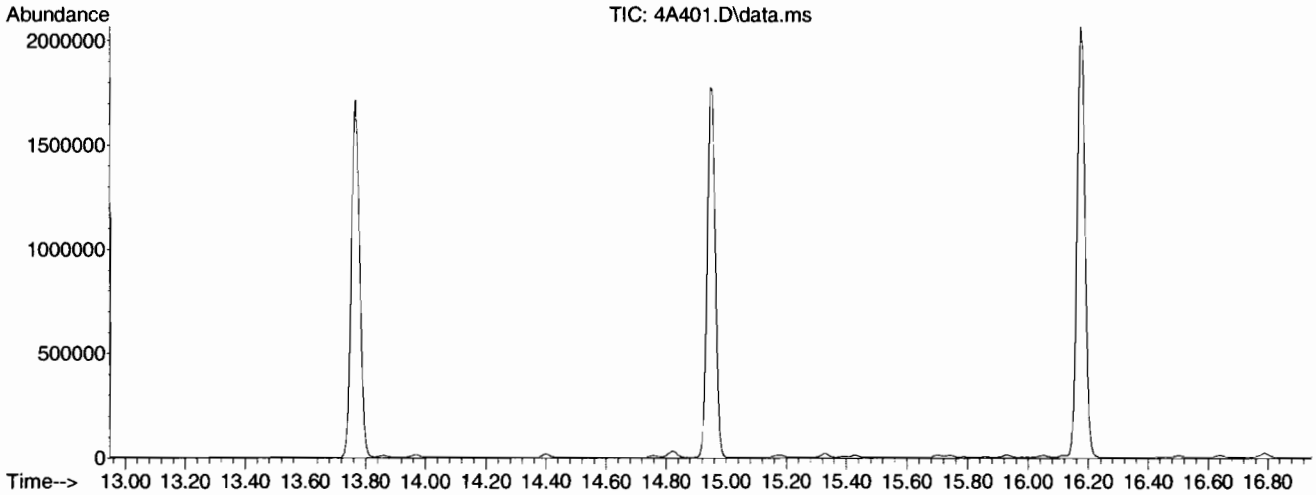

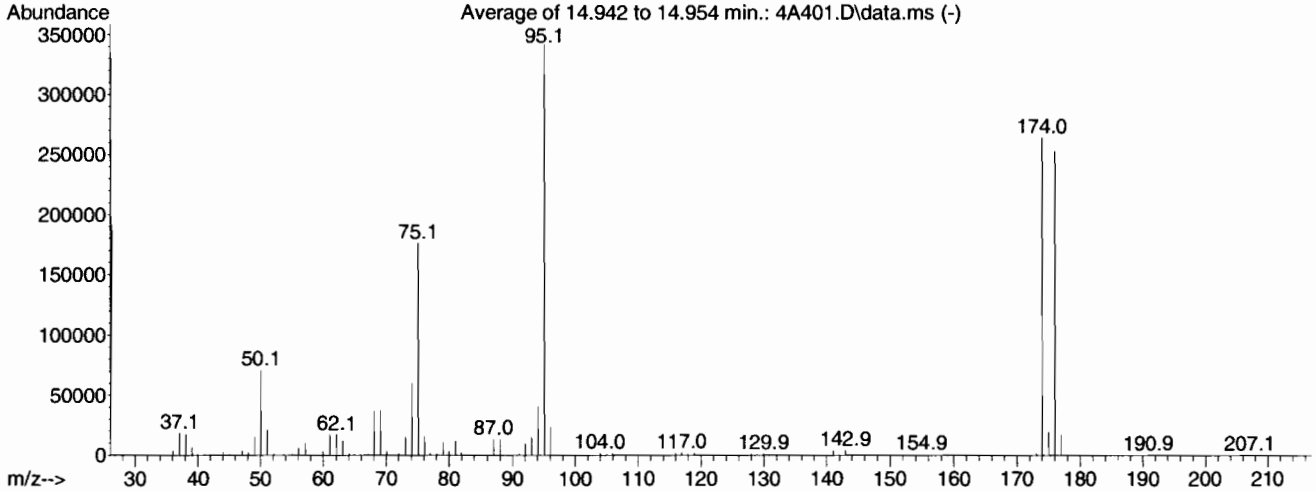

AutoFind: Scans 2006, 2007, 2008; Background Corrected with Scan 1997

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.7	70917	PASS
75	95	30	60	51.6	176235	PASS
95	95	100	100	100.0	341867	PASS
96	95	5	9	6.9	23419	PASS
173	174	0.00	2	0.6	1558	PASS
174	95	50	100	77.3	264171	PASS
175	174	5	9	7.3	19228	PASS
176	174	95	101	95.7	252907	PASS
177	176	5	9	6.7	17049	PASS

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202061536**				
Client Sample:	**QC for batch 961120**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 961120**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 12:53**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 12:53**				
Data File:	**030410V4\4A407BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202061536**				
Client Sample:	**QC for batch 961120**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 961120**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 12:53**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 12:53**				
Data File:	**030410V4\4A407BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202061536**				
Client Sample:	**QC for batch 961120**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 961120**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 12:53**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 12:53**				
Data File:	**030410V4\4A407BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	45.9	50.0	ug/L	91.9	(72%-132%)
Bromofluorobenzene	56.2	50.0	ug/L	112	(77%-123%)
Toluene-d8	49.6	50.0	ug/L	99.1	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A407BL.D
Acq On : 4 Mar 2010 12:53 pm
Operator : ACJ
InstName : VOA4
Sample : |1202061536|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML -
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 04 13:59:36 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.619	10.620	1.000	96	1282144	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	1011802	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	584049	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1281902	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	1011802	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	584065	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	243614	45.93	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 91.86%					
43) Toluene-d8	12.253	12.247	0.890	98	930429	49.57	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 99.14%					
61) Bromofluorobenzene	14.953	14.954	0.924	95	642287	56.21	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 112.42%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.911	0.000		0	N.D.		
3) Chloromethane	5.284	5.291	0.498	50	248	N.D.		
4) Vinyl chloride	5.535	5.521	0.521	62	1035	N.D.		
5) Bromomethane	0.000	6.137	0.000		0	N.D.		
6) Chloroethane	0.000	6.295	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.669	0.000		0	N.D.		
8) Ethyl ether	0.000	6.998	0.000		0	N.D.		
9) Acetone	7.363	7.352	0.693	43	4527	N.D.		
10) 1,1-Dichloroethylene	0.000	7.389	0.000		0	N.D.		
11) Iodomethane	7.625	7.663	0.718	142	124	N.D.		
12) Acetonitrile	7.705	7.699	0.726	41	394	N.D.		
13) Methyl acetate	7.741	7.748	0.729	43	195	N.D.		
14) Carbon disulfide	7.766	7.773	0.731	76	1547	N.D.		
15) Methylene chloride	7.942	7.931	0.748	84	6921	N.D.		
16) tert-Butyl methyl ether	0.000	8.242	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.285	0.000		0	N.D.		
18) Vinyl acetate	8.711	8.705	0.820	43	508	N.D.		
19) 1,1-Dichloroethane	0.000	8.760	0.000		0	N.D.		
20) 2-Butanone	9.332	9.327	0.879	43	1677	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.388	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.419	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.704	9.687	0.914	83	159	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.979	0.000		0	N.D.		
26) Cyclohexane	10.088	10.083	0.950	56	217	N.D.		
27) 1,1-Dichloropropene	0.000	10.132	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.175	0.000		0	N.D.		
30) 1,2-Dichloroethane	10.326	10.339	0.972	62	132	N.D.		
31) Benzene	10.363	10.370	0.976	78	969	N.D.		
32) Cyclohexene	10.472	10.492	0.986	67	141	N.D.		
33) n-Butyl alcohol	10.698	10.693	1.007	56	504	N.D.		
34) Trichloroethylene	11.167	11.004	1.052	95	198	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.260	0.000		0	N.D.		
37) Dibromomethane	0.000	11.376	0.000		0	N.D.		
38) Bromodichloromethane	11.478	11.485	1.081	83	147	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.699	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A407BL.D
Acq On : 4 Mar 2010 12:53 pm
Operator : ACJ
InstName : VOA4
Sample : |1202061536|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML -
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 04 13:59:36 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	11.917	11.930	1.122	75	117	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.016	0.000		0	N.D.	
44) Toluene	12.320	12.320	0.895	91	2131	N.D.	
45) trans-1,3-Dichloroprop...	12.466	12.461	0.905	75	837	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.680	0.000		0	N.D.	
47) 2-Hexanone	12.862	12.857	0.934	43	918	N.D.	
48) 1,3-Dichloropropane	0.000	12.875	0.000		0	N.D.	
49) Tetrachloroethylene	12.911	12.918	0.938	164	124	N.D.	
50) Dibromochloromethane	0.000	13.144	0.000		0	N.D.	
51) 1,2-Dibromoethane	13.313	13.320	0.967	107	184	N.D.	
52) Chlorobenzene	13.795	13.802	1.002	112	949	N.D.	
53) 1,1,1,2-Tetrachloroethane	13.795	13.851	1.002	131	128	N.D.	
54) Ethylbenzene	13.862	13.863	1.007	91	1753	N.D.	
55) m,p-Xylenes	13.960	13.973	1.014	106	878	N.D.	
56) o-Xylene	14.411	14.399	1.046	106	620	N.D.	
57) Styrene	14.399	14.399	1.046	104	892	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	14.752	14.759	0.912	105	1388	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	15.015	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.107	0.000		0	N.D.	
64) Bromobenzene	0.000	15.168	0.000		0	N.D.	
65) n-Propylbenzene	15.191	15.180	0.939	91	1925	N.D.	
66) 1,3,5-Trimethylbenzene	15.331	15.332	0.948	105	1318	N.D.	
67) 2-Chlorotoluene	15.331	15.332	0.948	126	451	N.D.	
68) 4-Chlorotoluene	15.435	15.430	0.954	91	1279	N.D.	
69) tert-Butylbenzene	0.000	15.704	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.740	15.741	0.973	105	2015	N.D.	
71) sec-Butylbenzene	15.923	15.930	0.984	105	1203	N.D.	
72) 4-Isopropyltoluene	16.051	16.051	0.992	119	924	N.D.	
73) 1,3-Dichlorobenzene	16.124	16.119	0.997	146	994	N.D.	
74) 1,4-Dichlorobenzene	16.203	16.204	1.002	146	1120	N.D.	
75) n-Butylbenzene	16.496	16.503	1.020	91	1019	N.D.	
76) 1,2-Dichlorobenzene	16.642	16.643	1.029	146	905	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.527	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	18.629	18.630	1.151	180	717	N.D.	
79) Hexachlorobutadiene	18.818	18.819	1.163	225	154	N.D.	
80) Naphthalene	19.038	19.026	1.177	128	5271	N.D.	
81) 1,2,3-Trichlorobenzene	19.391	19.386	1.199	180	612	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	0.000	7.180	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.369	0.000		0	N.D.	
87) Isopropyl Alcohol	7.400	7.430	0.697	45	149	N.D.	
88) Allyl chloride	7.778	7.796	0.732	41	262	N.D.	
89) tert-Butyl Alcohol	7.942	7.924	0.748	59	381	N.D.	
90) Acrylonitrile	8.192	8.174	0.772	53	174	N.D.	
91) Isopropyl ether	0.000	8.741	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.869	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.143	0.000		0	N.D.	
94) Ethyl acetate	9.332	9.338	0.879	43	1677	N.D.	
95) Propionitrile	0.000	9.393	0.000		0	N.D.	
96) Methacrylonitrile	9.576	9.576	0.902	41	423	N.D.	
97) Tetrahydrofuran	9.716	9.710	0.915	42	1286	N.D.	
98) Isobutyl alcohol	10.021	10.009	0.944	41	538	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A407BL.D
Acq On : 4 Mar 2010 12:53 pm
Operator : ACJ
InstName : VOA4
Sample : |1202061536|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML -
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 04 13:59:36 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	10.393	10.387	0.979	73	133	N.D.	
100) Methyl methacrylate	0.000	11.204	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102) 2-Nitropropane	11.637	11.673	1.096	43	258	N.D.	
104) Ethyl methacrylate	12.472	12.466	0.906	69	816	N.D.	
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.783	14.783	0.914	53	247	N.D.	
108) Cyclohexanone	14.911	14.904	0.922	42	1482	N.D.	
109) trans-1,4-Dichloro-2-b...	15.063	15.063	0.931	53	603	N.D.	
110) Pentachloroethane	15.770	15.770	0.975	167	250	N.D.	
111) Benzyl chloride	16.319	16.319	1.009	91	3216	N.D.	
112) bis(2-Chloroisopropyl)...	16.679	16.721	1.031	45	146	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A407BL.D
Acq On : 4 Mar 2010 12:53 pm
Operator : ACJ
InstName : VOA4
Sample : |1202061536|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML -
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 04 13:59:36 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

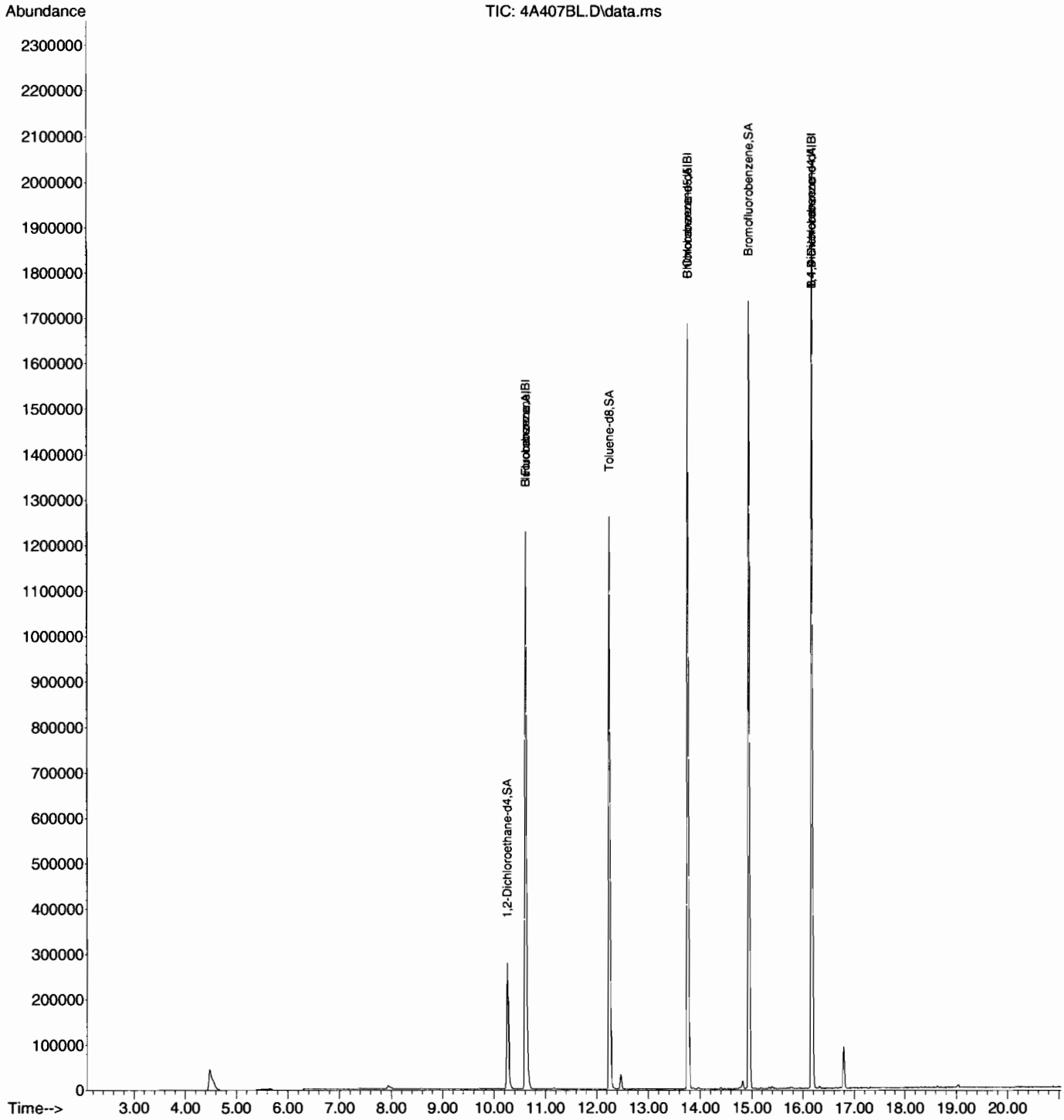

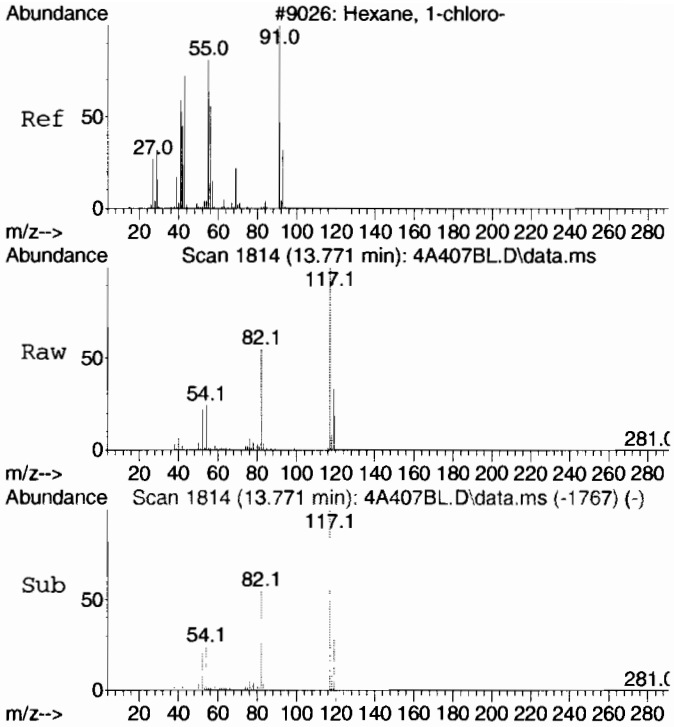

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.60 ug/L
RT: 13.771 min Scan# 1814
Delta R.T. 0.110 min
Lab File: 4A407BL.D
Acq: 4 Mar 2010 12:53 pm

Tgt Ion: 55 Resp: 10781

Ion	Ratio	Lower	Upper
55	100		
91	23.2	112.1	172.1#
56	62.1	28.5	88.5

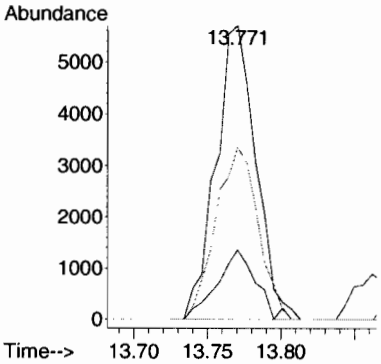

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A407BL.D
Acq On : 4 Mar 2010 12:53 pm
Operator : ACJ
Sample : |1202061536|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML -
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A407BL.D
Acq On : 4 Mar 2010 12:53 pm
Operator : ACJ
Sample : |1202061536|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML -
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202061539**				
Client Sample:	**QC for batch 961120**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961120**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 10:33**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 10:33**				
Data File:	**030410V4\4A402LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		45.8	ug/L	0.300	1.00
74-87-3	Chloromethane		46.0	ug/L	0.300	1.00
75-01-4	Vinyl chloride		50.9	ug/L	0.500	1.00
74-83-9	Bromomethane		50.1	ug/L	0.300	1.00
75-00-3	Chloroethane		49.9	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		54.4	ug/L	0.300	1.00
60-29-7	Ethyl ether		47.4	ug/L	0.300	1.00
67-64-1	Acetone		229	ug/L	3.50	10.0
75-05-8	Acetonitrile		1210	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		47.7	ug/L	0.300	1.00
74-88-4	Iodomethane		234	ug/L	1.25	5.00
75-09-2	Methylene chloride		40.3	ug/L	3.00	10.0
75-15-0	Carbon disulfide		265	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		45.0	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		49.3	ug/L	0.300	1.00
108-05-4	Vinyl acetate		288	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		49.2	ug/L	0.300	1.00
78-93-3	2-Butanone		234	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		49.0	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		51.9	ug/L	0.300	1.00
67-66-3	Chloroform		48.0	ug/L	0.250	1.00
74-97-5	Bromochloromethane		46.1	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		50.2	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		50.6	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		5230	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		50.8	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		47.0	ug/L	0.250	1.00
71-43-2	Benzene		47.7	ug/L	0.300	1.00
79-01-6	Trichloroethylene		49.6	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		49.1	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		49.7	ug/L	0.250	1.00
74-95-3	Dibromomethane		46.2	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		241	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		49.4	ug/L	0.250	1.00
108-88-3	Toluene		47.2	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		49.1	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		48.2	ug/L	0.250	1.00
591-78-6	2-Hexanone		244	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202061539**				
Client Sample:	**QC for batch 961120**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961120**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 10:33**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 10:33**				
Data File:	**030410V4\4A402LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		46.8	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		48.7	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		48.2	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		47.0	ug/L	0.250	1.00
108-90-7	Chlorobenzene		47.5	ug/L	0.250	1.00
100-41-4	Ethylbenzene		48.8	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		99.2	ug/L	0.500	2.00
95-47-6	o-Xylene		49.9	ug/L	0.300	1.00
100-42-5	Styrene		51.8	ug/L	0.250	1.00
75-25-2	Bromoform		47.0	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		44.9	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		43.0	ug/L	0.300	1.00
108-86-1	Bromobenzene		46.8	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		48.6	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		48.4	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		47.1	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		49.0	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		47.6	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		47.7	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		48.5	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		48.6	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		50.6	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		48.1	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		48.1	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		52.2	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		47.5	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		48.4	ug/L	0.300	1.00
91-20-3	Naphthalene		44.5	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		48.9	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202061539**				
Client Sample:	**QC for batch 961120**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961120**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 10:33**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 10:33**				
Data File:	**030410V4\4A402LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		48.3	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		51.8	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		47.4	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	46.8	50.0	ug/L	93.6	(72%-132%)
Bromofluorobenzene	50.0	50.0	ug/L	99.9	(77%-123%)
Toluene-d8	47.4	50.0	ug/L	94.9	(76%-122%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A402LL.D
Acq On : 4 Mar 2010 10:33 am
Operator : ACJ
InstName : VOA4
Sample : |1202061539|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[A] 0220-01C+0304-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 11:26:15 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.614	10.620	1.000	96	1282500	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	1091552	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.180	16.180	1.000	152	770618	50.00	ug/L	0.00
82) B Fluorobenzene	10.614	10.619	1.000	96	1282321	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	1091552	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	770738	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.260	10.260	0.967	65	248237	46.79	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 93.58%					
43) Toluene-d8	12.247	12.247	0.889	98	960464	47.43	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 94.86%					
61) Bromofluorobenzene	14.954	14.954	0.924	95	753176	49.95	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 99.90%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.904	4.911	0.462	85	372142	45.78	ug/L	99
3) Chloromethane	5.291	5.291	0.499	50	612057	46.01	ug/L	100
4) Vinyl chloride	5.514	5.521	0.519	62	671325	50.92	ug/L	100
5) Bromomethane	6.130	6.137	0.578	94	392482	50.05	ug/L	98
6) Chloroethane	6.288	6.295	0.592	64	339081	49.92	ug/L	100
7) Trichlorofluoromethane	6.663	6.669	0.628	101	731214	54.38	ug/L	99
8) Ethyl ether	6.998	6.998	0.659	59	303522	47.40	ug/L	98
9) Acetone	7.352	7.352	0.693	43	1848376	228.70	ug/L	97
10) 1,1-Dichloroethylene	7.382	7.389	0.696	61	713421	47.72	ug/L	98
11) Iodomethane	7.626	7.663	0.719	142	3615118	234.13	ug/L	99
12) Acetonitrile	7.699	7.699	0.725	41	1629328	1214.55	ug/L	99
13) Methyl acetate	7.748	7.748	0.730	43	1650068	240.35	ug/L	98
14) Carbon disulfide	7.767	7.773	0.732	76	7371233	265.09	ug/L	100
15) Methylene chloride	7.937	7.931	0.748	84	467439	40.30	ug/L	96
16) tert-Butyl methyl ether	8.236	8.242	0.776	73	1111184	45.00	ug/L	99
17) trans-1,2-Dichloroethy...	8.279	8.285	0.780	61	567039	49.25	ug/L	99
18) Vinyl acetate	8.705	8.705	0.820	43	4304084	287.64	ug/L	99
19) 1,1-Dichloroethane	8.754	8.760	0.825	63	710459	49.21	ug/L	99
20) 2-Butanone	9.327	9.327	0.879	43	1988147	234.46	ug/L	97
21) cis-1,2-Dichloroethylene	9.382	9.388	0.884	61	618459	49.00	ug/L	97
22) 2,2-Dichloropropane	9.419	9.419	0.887	77	401477	51.86	ug/L	96
23) Bromochloromethane	9.656	9.656	0.910	128	210647	46.06	ug/L	95
24) Chloroform	9.687	9.687	0.913	83	727592	48.00	ug/L	99
25) 1,1,1-Trichloroethane	9.980	9.979	0.940	97	593556	50.24	ug/L	98
26) Cyclohexane	10.083	10.083	0.950	56	672798	51.26	ug/L	98
27) 1,1-Dichloropropene	10.132	10.132	0.955	75	560952	50.59	ug/L	99
28) Carbon tetrachloride	10.175	10.175	0.959	117	570637	50.78	ug/L	100
30) 1,2-Dichloroethane	10.339	10.339	0.974	62	581886	47.04	ug/L	99
31) Benzene	10.370	10.370	0.977	78	1561067	47.74	ug/L	99
32) Cyclohexene	10.492	10.492	0.989	67	801866	50.30	ug/L	98
33) n-Butyl alcohol	10.687	10.693	1.007	56	1764536	5228.71	ug/L	98
34) Trichloroethylene	11.004	11.004	1.037	95	429078	49.63	ug/L	99
35) 1,2-Dichloropropane	11.241	11.241	1.059	63	415323	49.09	ug/L	99
36) Methylcyclohexane	11.260	11.260	1.061	83	701237	51.32	ug/L	98
37) Dibromomethane	11.376	11.376	1.072	93	257719	46.15	ug/L	96
38) Bromodichloromethane	11.479	11.485	1.082	83	557725	49.72	ug/L	99
39) 2-Chloroethylvinyl ether	11.699	11.699	1.102	63	1093780	233.34	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A402LL.D
Acq On : 4 Mar 2010 10:33 am
Operator : ACJ
InstName : VOA4
Sample : |1202061539|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[A] 0220-01C+0304-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 11:26:15 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40)	cis-1,3-Dichloropropylene	11.930	11.930	1.124	75	647161	49.43	ug/L	97
42)	4-Methyl-2-pentanone	12.016	12.016	0.873	58	959719	241.16	ug/L	93
44)	Toluene	12.321	12.320	0.895	91	1705681	47.21	ug/L	99
45)	trans-1,3-Dichloroprop...	12.461	12.461	0.905	75	623474	49.14	ug/L	96
46)	1,1,2-Trichloroethane	12.680	12.680	0.921	83	313231	48.17	ug/L	97
47)	2-Hexanone	12.857	12.857	0.934	43	2692878	243.86	ug/L	97
48)	1,3-Dichloropropane	12.875	12.875	0.935	76	631693	46.76	ug/L	98
49)	Tetrachloroethylene	12.918	12.918	0.938	164	354242	48.73	ug/L	98
50)	Dibromochloromethane	13.144	13.144	0.954	129	446455	48.21	ug/L	100
51)	1,2-Dibromoethane	13.320	13.320	0.967	107	394389	47.04	ug/L	100
52)	Chlorobenzene	13.802	13.802	1.002	112	1167995	47.46	ug/L	99
53)	1,1,1,2-Tetrachloroethane	13.851	13.851	1.006	131	450938	48.27	ug/L	99
54)	Ethylbenzene	13.863	13.863	1.007	91	2089816	48.84	ug/L	99
55)	m,p-Xylenes	13.973	13.973	1.015	106	1684242	99.23	ug/L	97
56)	o-Xylene	14.406	14.399	1.046	106	877925	49.91	ug/L	97
57)	Styrene	14.399	14.399	1.046	104	1480158	51.82	ug/L	100
59)	Bromoform	14.655	14.655	0.906	173	327445	47.01	ug/L	99
60)	Isopropylbenzene	14.759	14.759	0.912	105	2295098	47.06	ug/L	100
62)	1,1,2,2-Tetrachloroethane	15.015	15.015	0.928	83	628851	44.93	ug/L	100
63)	1,2,3-Trichloropropane	15.107	15.107	0.934	110	164063	43.01	ug/L	97
64)	Bromobenzene	15.168	15.168	0.937	156	628561	46.84	ug/L	97
65)	n-Propylbenzene	15.180	15.180	0.938	91	2890868	48.56	ug/L	98
66)	1,3,5-Trimethylbenzene	15.332	15.332	0.948	105	2183492	48.97	ug/L	99
67)	2-Chlorotoluene	15.332	15.332	0.948	126	642809	48.37	ug/L	96
68)	4-Chlorotoluene	15.430	15.430	0.954	91	1769021	47.57	ug/L	99
69)	tert-Butylbenzene	15.704	15.704	0.971	134	466130	47.69	ug/L	98
70)	1,2,4-Trimethylbenzene	15.741	15.741	0.973	105	2204394	48.48	ug/L	99
71)	sec-Butylbenzene	15.930	15.930	0.985	105	2906580	48.61	ug/L	99
72)	4-Isopropyltoluene	16.052	16.051	0.992	119	2436054	50.64	ug/L	99
73)	1,3-Dichlorobenzene	16.119	16.119	0.996	146	1283227	48.11	ug/L	100
74)	1,4-Dichlorobenzene	16.204	16.204	1.002	146	1313627	48.14	ug/L	100
75)	n-Butylbenzene	16.503	16.503	1.020	91	2382086	52.18	ug/L	99
76)	1,2-Dichlorobenzene	16.643	16.643	1.029	146	1229238	47.35	ug/L	100
77)	1,2-Dibromo-3-chloropr...	17.527	17.527	1.083	157	118313	47.51	ug/L	97
78)	1,2,4-Trichlorobenzene	18.630	18.630	1.151	180	688237	51.83	ug/L	99
79)	Hexachlorobutadiene	18.819	18.819	1.163	225	416471	48.41	ug/L	100
80)	Naphthalene	19.033	19.026	1.176	128	1471154	44.53	ug/L	100
81)	1,2,3-Trichlorobenzene	19.386	19.386	1.198	180	541125	48.93	ug/L	100
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85)	Acrolein	7.017	7.180	0.661		0m	N.D.	d	
86)	Trichlorotrifluoroethane	7.358	7.369	0.693		0m	N.D.	d	
87)	Isopropyl Alcohol	7.364	7.430	0.694		0m	N.D.	d	
88)	Allyl chloride	7.699	7.796	0.725		0m	N.D.	d	
89)	tert-Butyl Alcohol	8.035	7.924	0.757		0m	N.D.	d	
90)	Acrylonitrile	8.163	8.174	0.769		0m	N.D.	d	
91)	Isopropyl ether	8.705	8.741	0.820		0m	N.D.	d	
92)	2-Chloro-1,3-butadiene	8.870	8.869	0.836		0m	N.D.	d	
93)	Ethyl tert-butyl ether	9.138	9.143	0.861		0m	N.D.	d	
94)	Ethyl acetate	9.327	9.338	0.879		0m	N.D.	d	
95)	Propionitrile	9.333	9.393	0.879		0m	N.D.	d	
96)	Methacrylonitrile	9.577	9.576	0.902		0m	N.D.	d	
97)	Tetrahydrofuran	9.693	9.710	0.913		0m	N.D.	d	
98)	Isobutyl alcohol	10.077	10.009	0.949		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A402LL.D
Acq On : 4 Mar 2010 10:33 am
Operator : ACJ
InstName : VOA4
Sample : |1202061539|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[A] 0220-01C+0304-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 11:26:15 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	10.370	10.387	0.977		0m	N.D.	d
100) Methyl methacrylate	11.260	11.204	1.061		0m	N.D.	d
101) 1,4-Dioxane	11.339	11.326	1.068		0m	N.D.	d
102) 2-Nitropropane	11.699	11.673	1.102		0m	N.D.	d
104) Ethyl methacrylate	12.467	12.466	0.905		0m	N.D.	d
106) 1-Chlorohexane	13.662	13.661	0.844		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.759	14.783	0.912		0m	N.D.	d
108) Cyclohexanone	14.899	14.904	0.921		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.070	15.063	0.931		0m	N.D.	d
110) Pentachloroethane	15.771	15.770	0.975		0m	N.D.	d
111) Benzyl chloride	16.320	16.319	1.009		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.722	16.721	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A402LL.D
Acq On : 4 Mar 2010 10:33 am
Operator : ACJ
InstName : VOA4
Sample : |1202061539|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[A] 0220-01C+0304-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 11:26:15 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

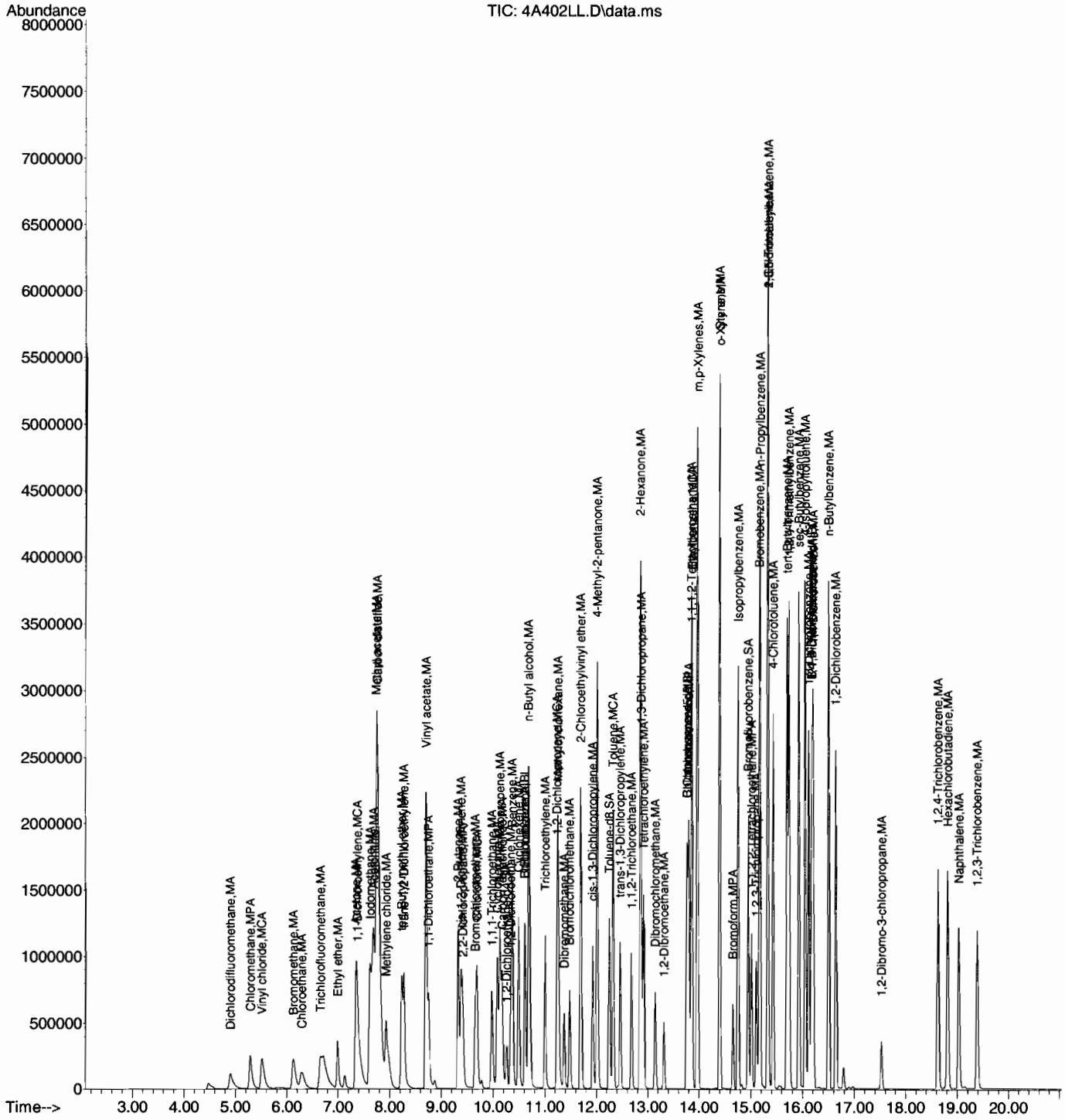

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202061540**				
Client Sample:	**QC for batch 961120**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961120**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 11:29**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 11:29**				
Data File:	**030410V4\4A404SL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202061540**				
Client Sample:	**QC for batch 961120**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961120**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 11:29**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 11:29**				
Data File:	**030410V4\4A404SL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein		226	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane		208	ug/L	1.00	5.00
107-05-1	Allyl chloride		226	ug/L	1.50	5.00
107-13-1	Acrylonitrile		215	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene		48.7	ug/L	0.300	1.00
107-12-0	Propionitrile		216	ug/L	1.50	5.00
126-98-7	Methacrylonitrile		212	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol		2300	ug/L	12.5	50.0
80-62-6	Methyl methacrylate		215	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202061540**				
Client Sample:	**QC for batch 961120**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961120**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 11:29**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 11:29**				
Data File:	**030410V4\4A404SL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate		222	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	46.1	50.0	ug/L	92.3	(72%-132%)
Bromofluorobenzene	53.0	50.0	ug/L	106	(77%-123%)
Toluene-d8	48.0	50.0	ug/L	96.0	(76%-122%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A404SL.D
Acq On : 4 Mar 2010 11:29 am
Operator : ACJ
InstName : VOA4
Sample : |1202061540|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[B] 0215-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 04 12:01:39 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.619	10.620	1.000	96	1371647	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	1132136	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	738741	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1371328	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	1132161	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	738923	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	261820	46.14	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 92.28%					
43) Toluene-d8	12.253	12.247	0.890	98	1007824	47.99	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 95.98%					
61) Bromofluorobenzene	14.953	14.954	0.924	95	765859	52.99	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 105.98%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.911	0.000		0	N.D.		
3) Chloromethane	5.306	5.291	0.500		0m	N.D.	d	
4) Vinyl chloride	5.514	5.521	0.519		0m	N.D.	d	
5) Bromomethane	6.109	6.137	0.575		0m	N.D.	d	
6) Chloroethane	6.327	6.295	0.596		0m	N.D.	d	
7) Trichlorofluoromethane	6.742	6.669	0.635		0m	N.D.	d	
8) Ethyl ether	7.010	6.998	0.660		0m	N.D.	d	
9) Acetone	7.357	7.352	0.693		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.388	7.389	0.696		0m	N.D.	d	
11) Iodomethane	7.674	7.663	0.723		0m	N.D.	d	
12) Acetonitrile	7.711	7.699	0.726		0m	N.D.	d	
13) Methyl acetate	7.747	7.748	0.730		0m	N.D.	d	
14) Carbon disulfide	7.802	7.773	0.735		0m	N.D.	d	
15) Methylene chloride	7.930	7.931	0.747		0m	N.D.	d	
16) tert-Butyl methyl ether	8.247	8.242	0.777		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.278	8.285	0.780		0m	N.D.	d	
18) Vinyl acetate	8.711	8.705	0.820		0m	N.D.	d	
19) 1,1-Dichloroethane	8.759	8.760	0.825		0m	N.D.	d	
20) 2-Butanone	9.339	9.327	0.879		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.339	9.388	0.879		0m	N.D.	d	
22) 2,2-Dichloropropane	9.424	9.419	0.887		0m	N.D.	d	
23) Bromochloromethane	9.643	9.656	0.908		0m	N.D.	d	
24) Chloroform	9.686	9.687	0.912		0m	N.D.	d	
25) 1,1,1-Trichloroethane	9.979	9.979	0.940		0m	N.D.	d	
26) Cyclohexane	10.009	10.083	0.943		0m	N.D.	d	
27) 1,1-Dichloropropene	10.137	10.132	0.955		0m	N.D.	d	
28) Carbon tetrachloride	10.174	10.175	0.958		0m	N.D.	d	
30) 1,2-Dichloroethane	10.338	10.339	0.974		0m	N.D.	d	
31) Benzene	10.369	10.370	0.976		0m	N.D.	d	
32) Cyclohexene	10.497	10.492	0.989		0m	N.D.	d	
33) n-Butyl alcohol	10.692	10.693	1.007		0m	N.D.	d	
34) Trichloroethylene	11.003	11.004	1.036		0m	N.D.	d	
35) 1,2-Dichloropropane	11.235	11.241	1.058		0m	N.D.	d	
36) Methylcyclohexane	11.204	11.260	1.055		0m	N.D.	d	
37) Dibromomethane	11.381	11.376	1.072		0m	N.D.	d	
38) Bromodichloromethane	11.484	11.485	1.082		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.698	11.699	1.102		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A404SL.D
Acq On : 4 Mar 2010 11:29 am
Operator : ACJ
InstName : VOA4
Sample : |1202061540|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[B] 0215-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 04 12:01:39 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	11.936	11.930	1.124		0m	N.D.	d	
42) 4-Methyl-2-pentanone	12.027	12.016	0.873		0m	N.D.	d	
44) Toluene	12.320	12.320	0.895		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	12.466	12.461	0.905		0m	N.D.	d	
46) 1,1,2-Trichloroethane	12.692	12.680	0.922		0m	N.D.	d	
47) 2-Hexanone	12.862	12.857	0.934		0m	N.D.	d	
48) 1,3-Dichloropropane	12.874	12.875	0.935		0m	N.D.	d	
49) Tetrachloroethylene	12.923	12.918	0.938		0m	N.D.	d	
50) Dibromochloromethane	13.137	13.144	0.954		0m	N.D.	d	
51) 1,2-Dibromoethane	13.313	13.320	0.967		0m	N.D.	d	
52) Chlorobenzene	13.807	13.802	1.003		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	13.850	13.851	1.006		0m	N.D.	d	
54) Ethylbenzene	13.862	13.863	1.007		0m	N.D.	d	
55) m,p-Xylenes	13.978	13.973	1.015		0m	N.D.	d	
56) o-Xylene	14.399	14.399	1.046		0m	N.D.	d	
57) Styrene	14.405	14.399	1.046		0m	N.D.	d	
59) Bromoform	14.667	14.655	0.907		0m	N.D.	d	
60) Isopropylbenzene	14.758	14.759	0.912		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	15.020	15.015	0.928		0m	N.D.	d	
63) 1,2,3-Trichloropropane	15.112	15.107	0.934		0m	N.D.	d	
64) Bromobenzene	15.173	15.168	0.938		0m	N.D.	d	
65) n-Propylbenzene	15.185	15.180	0.939		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	15.325	15.332	0.947		0m	N.D.	d	
67) 2-Chlorotoluene	15.337	15.332	0.948		0m	N.D.	d	
68) 4-Chlorotoluene	15.435	15.430	0.954		0m	N.D.	d	
69) tert-Butylbenzene	15.709	15.704	0.971		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	15.746	15.741	0.973		0m	N.D.	d	
71) sec-Butylbenzene	15.929	15.930	0.985		0m	N.D.	d	
72) 4-Isopropyltoluene	16.057	16.051	0.992		0m	N.D.	d	
73) 1,3-Dichlorobenzene	16.118	16.119	0.996		0m	N.D.	d	
74) 1,4-Dichlorobenzene	16.203	16.204	1.002		0m	N.D.	d	
75) n-Butylbenzene	16.502	16.503	1.020		0m	N.D.	d	
76) 1,2-Dichlorobenzene	16.642	16.643	1.029		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	17.526	17.527	1.083		0m	N.D.	d	
78) 1,2,4-Trichlorobenzene	18.629	18.630	1.151		0m	N.D.	d	
79) Hexachlorobutadiene	18.825	18.819	1.164		0m	N.D.	d	
80) Naphthalene	19.026	19.026	1.176		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	19.391	19.386	1.199		0m	N.D.	d	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	5.664	5.657	0.533	118	120	N.D.		
85) Acrolein	7.180	7.180	0.676	56	294183	225.72	ug/L	96
86) Trichlorotrifluoroethane	7.357	7.369	0.693	85	678348	208.23	ug/L	99
87) Isopropyl Alcohol	0.000	7.430	0.000		0m	N.D.	d	
88) Allyl chloride	7.802	7.796	0.735	41	2629831	226.38	ug/L	99
89) tert-Butyl Alcohol	7.936	7.924	0.747	59	2723	N.D.		
90) Acrylonitrile	8.174	8.174	0.770	53	716956	214.62	ug/L	98
91) Isopropyl ether	8.735	8.741	0.823	45	393	N.D.		
92) 2-Chloro-1,3-butadiene	8.869	8.869	0.835	53	560504	48.67	ug/L	99
93) Ethyl tert-butyl ether	9.137	9.143	0.860	59	168	N.D.		
94) Ethyl acetate	9.339	9.338	0.879	43	1904321	200.10	ug/L	99
95) Propionitrile	9.393	9.393	0.885	54	305679	215.65	ug/L	99
96) Methacrylonitrile	9.576	9.576	0.902	41	1230507	212.41	ug/L	100
97) Tetrahydrofuran	9.717	9.710	0.915	42	670382	214.68	ug/L	99
98) Isobutyl alcohol	10.009	10.009	0.943	41	996536	2301.41	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A404SL.D
Acq On : 4 Mar 2010 11:29 am
Operator : ACJ
InstName : VOA4
Sample : |1202061540|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[B] 0215-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 04 12:01:39 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
99) Methyl tert-amyl ether	10.381	10.387	0.978	73	1222	N.D.			
100) Methyl methacrylate	11.210	11.204	1.056	69	1356348	215.49	ug/L	97	
101) 1,4-Dioxane	11.332	11.326	1.067	88	247536	2088.37	ug/L	100	
102) 2-Nitropropane	11.673	11.673	1.099	43	742674	238.21	ug/L	98	
104) Ethyl methacrylate	12.466	12.466	0.905	69	2600992	221.88	ug/L	97	
106) 1-Chlorohexane	13.661	13.661	0.844	55	571	N.D.			
107) cis-1,4-Dichloro-2-butene	14.783	14.783	0.914	53	975926	256.63	ug/L	98	
108) Cyclohexanone	14.905	14.904	0.921	42	1025985	2549.62	ug/L	97	E
109) trans-1,4-Dichloro-2-b...	15.063	15.063	0.931	53	942265	255.95	ug/L	98	
110) Pentachloroethane	15.776	15.770	0.975	167	1278748	318.64	ug/L	100	
111) Benzyl chloride	16.319	16.319	1.009	91	5332298	293.04	ug/L	100	
112) bis(2-Chloroisopropyl)...	16.721	16.721	1.034	45	1300496	220.62	ug/L	99	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A404SL.D
Acq On : 4 Mar 2010 11:29 am
Operator : ACJ
InstName : VOA4
Sample : |1202061540|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[B] 0215-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 04 12:01:39 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

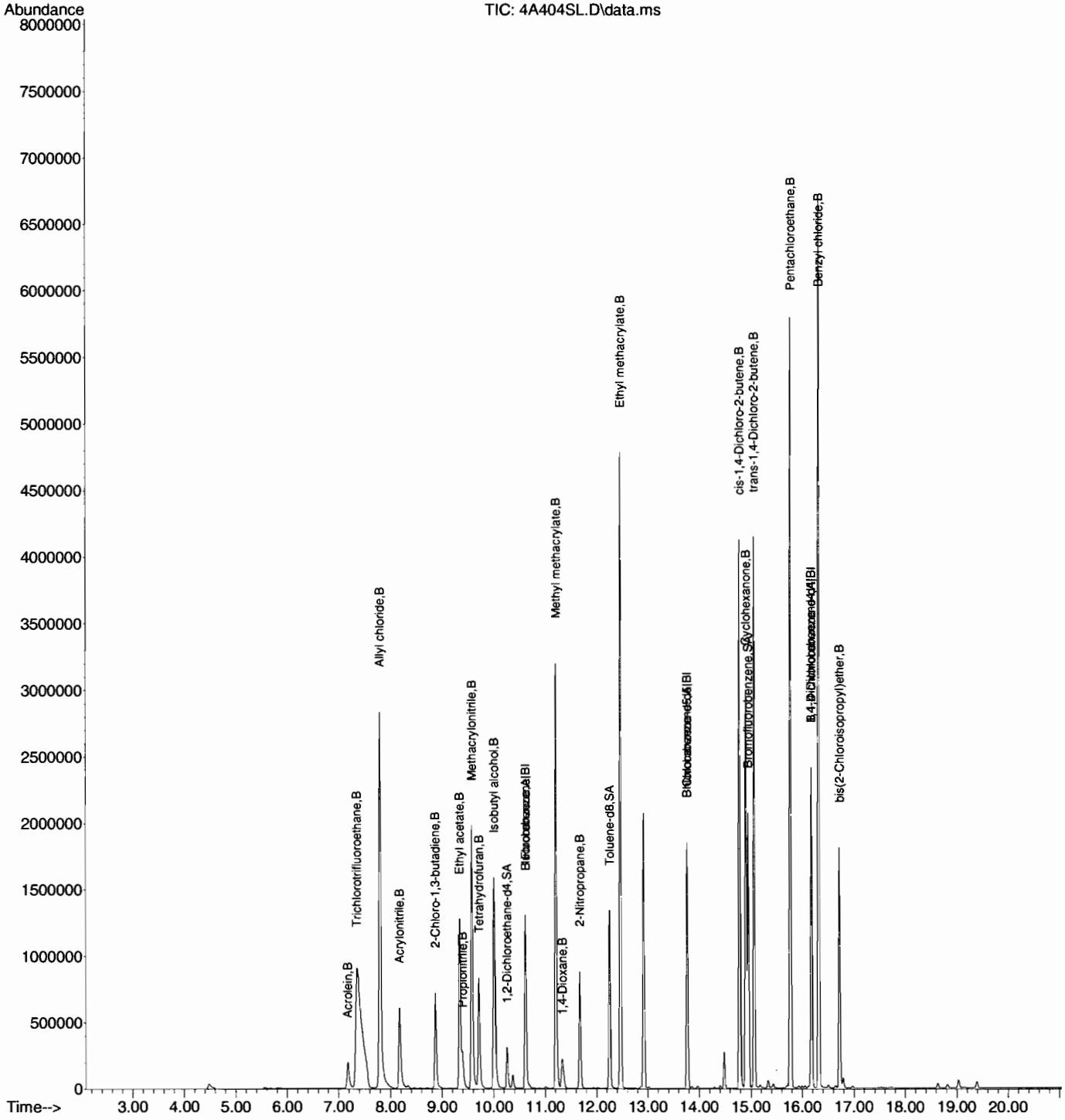

Miscellaneous

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A425.D
Acq On : 4 Mar 2010 9:10 pm
Operator : ACJ
InstName : VOA4
Sample : |1202061537|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MIX[A] MS 248042001
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 05 10:33:19 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.619	10.620	1.000	96	1073810	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.770	13.771	1.000	117	922187	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.178	16.180	1.000	152	672931	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1073731	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.770	13.771	1.000	117	922187	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.178	16.179	1.000	152	673004	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	210979	47.49	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 94.98%					
43) Toluene-d8	12.252	12.247	0.890	98	810352	47.37	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 94.74%					
61) Bromofluorobenzene	14.953	14.954	0.924	95	677105	51.43	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 102.86%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.904	4.911	0.462	85	240461	35.33	ug/L	100
3) Chloromethane	5.299	5.291	0.499	50	513813	46.13	ug/L	100
4) Vinyl chloride	5.521	5.521	0.520	62	505015	45.75	ug/L	99
5) Bromomethane	6.145	6.137	0.579	94	309193	47.09	ug/L	99
6) Chloroethane	6.288	6.295	0.592	64	252931	44.48	ug/L	100
7) Trichlorofluoromethane	6.674	6.669	0.629	101	496433	44.10	ug/L	99
8) Ethyl ether	6.997	6.998	0.659	59	247253	46.11	ug/L	98
9) Acetone	7.351	7.352	0.692	43	629627	93.04	ug/L	96
10) 1,1-Dichloroethylene	7.394	7.389	0.696	61	530515	42.38	ug/L	96
11) Iodomethane	7.656	7.663	0.721	142	2529445	195.65	ug/L	97
12) Acetonitrile	7.698	7.699	0.725	41	1437965	1280.22	ug/L	99
13) Methyl acetate	7.747	7.748	0.730	43	1412322	245.70	ug/L	96
14) Carbon disulfide	7.778	7.773	0.732	76	5601851	240.61	ug/L	99
15) Methylene chloride	7.942	7.931	0.748	84	387218	39.87	ug/L	93
16) tert-Butyl methyl ether	8.241	8.242	0.776	73	902856	43.67	ug/L	98
17) trans-1,2-Dichloroethy...	8.284	8.285	0.780	61	426446	44.24	ug/L	95
18) Vinyl acetate	8.704	8.705	0.820	43	3731152	297.82	ug/L	97
19) 1,1-Dichloroethane	8.759	8.760	0.825	63	555333	45.94	ug/L	100
20) 2-Butanone	9.326	9.327	0.878	43	1006189	141.72	ug/L	95
21) cis-1,2-Dichloroethylene	9.387	9.388	0.884	61	478405	45.27	ug/L	96
22) 2,2-Dichloropropane	9.418	9.419	0.887	77	255783	39.46	ug/L	89
23) Bromochloromethane	9.655	9.656	0.909	128	165385	43.19	ug/L	91
24) Chloroform	9.692	9.687	0.913	83	570218	44.93	ug/L	96
25) 1,1,1-Trichloroethane	9.978	9.979	0.940	97	415642	42.01	ug/L	98
26) Cyclohexane	10.082	10.083	0.949	56	452060	41.13	ug/L	83
27) 1,1-Dichloropropene	10.131	10.132	0.954	75	398977	42.98	ug/L	96
28) Carbon tetrachloride	10.174	10.175	0.958	117	390481	41.50	ug/L	100
30) 1,2-Dichloroethane	10.338	10.339	0.974	62	487444	47.07	ug/L	99
31) Benzene	10.369	10.370	0.976	78	1183651	43.24	ug/L	98
32) Cyclohexene	10.491	10.492	0.988	67	561251	42.05	ug/L	96
33) n-Butyl alcohol	10.686	10.693	1.006	56	1517832	5371.77	ug/L	95
34) Trichloroethylene	11.003	11.004	1.036	95	301496	41.65	ug/L	98
35) 1,2-Dichloropropane	11.247	11.241	1.059	63	333011	47.01	ug/L	99
36) Methylcyclohexane	11.259	11.260	1.060	83	476263	41.63	ug/L	95
37) Dibromomethane	11.375	11.376	1.071	93	215153	46.02	ug/L	93
38) Bromodichloromethane	11.484	11.485	1.082	83	445471	47.43	ug/L	99
39) 2-Chloroethylvinyl ether	0.000	11.699	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A425.D
Acq On : 4 Mar 2010 9:10 pm
Operator : ACJ
InstName : VOA4
Sample : |1202061537|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MIX[A] MS 248042001
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 05 10:33:19 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	11.929	11.930	1.123	75	482881	44.05	ug/L	94
42) 4-Methyl-2-pentanone	12.015	12.016	0.872	58	785478	233.62	ug/L	87
44) Toluene	12.326	12.320	0.895	91	1262171	41.35	ug/L	99
45) trans-1,3-Dichloroprop...	12.460	12.461	0.905	75	488500	45.58	ug/L	94
46) 1,1,2-Trichloroethane	12.685	12.680	0.921	83	263872	48.03	ug/L	97
47) 2-Hexanone	12.856	12.857	0.934	43	1624500	174.13	ug/L	93
48) 1,3-Dichloropropane	12.874	12.875	0.935	76	530760	46.50	ug/L	87
49) Tetrachloroethylene	12.923	12.918	0.938	164	234992	38.26	ug/L	95
50) Dibromochloromethane	13.149	13.144	0.955	129	361652	46.22	ug/L	99
51) 1,2-Dibromoethane	13.319	13.320	0.967	107	322268	45.50	ug/L	100
52) Chlorobenzene	13.801	13.802	1.002	112	872107	41.95	ug/L	98
53) 1,1,1,2-Tetrachloroethane	13.850	13.851	1.006	131	349129	44.24	ug/L	99
54) Ethylbenzene	13.862	13.863	1.007	91	1532202	42.38	ug/L	98
55) m,p-Xylenes	13.972	13.973	1.015	106	1214428	84.69	ug/L	95
56) o-Xylene	14.404	14.399	1.046	106	656855	44.20	ug/L	95
57) Styrene	14.404	14.399	1.046	104	1109075	45.96	ug/L	97
59) Bromoform	14.660	14.655	0.906	173	269592	44.32	ug/L	100
60) Isopropylbenzene	14.758	14.759	0.912	105	1653451	38.83	ug/L	100
62) 1,1,2,2-Tetrachloroethane	15.020	15.015	0.928	83	562437	46.02	ug/L	100
63) 1,2,3-Trichloropropane	15.106	15.107	0.934	110	145607	43.71	ug/L	97
64) Bromobenzene	15.166	15.168	0.937	156	479368	40.91	ug/L	94
65) n-Propylbenzene	15.179	15.180	0.938	91	2085210	40.11	ug/L	97
66) 1,3,5-Trimethylbenzene	15.331	15.332	0.948	105	1606021	41.25	ug/L	98
67) 2-Chlorotoluene	15.331	15.332	0.948	126	475013	40.93	ug/L	92
68) 4-Chlorotoluene	15.429	15.430	0.954	91	1318376	40.60	ug/L	98
69) tert-Butylbenzene	15.703	15.704	0.971	134	335387	39.29	ug/L	94
70) 1,2,4-Trimethylbenzene	15.746	15.741	0.973	105	1643156	41.38	ug/L	98
71) sec-Butylbenzene	15.929	15.930	0.985	105	2111324	40.43	ug/L	97
72) 4-Isopropyltoluene	16.050	16.051	0.992	119	1691117	40.26	ug/L	98
73) 1,3-Dichlorobenzene	16.124	16.119	0.997	146	939446	40.33	ug/L	99
74) 1,4-Dichlorobenzene	16.203	16.204	1.002	146	946164	39.71	ug/L	99
75) n-Butylbenzene	16.502	16.503	1.020	91	1606894	40.31	ug/L	98
76) 1,2-Dichlorobenzene	16.642	16.643	1.029	146	922719	40.70	ug/L	99
77) 1,2-Dibromo-3-chloropr...	17.526	17.527	1.083	157	96134	44.20	ug/L	95
78) 1,2,4-Trichlorobenzene	18.629	18.630	1.151	180	443521	38.25	ug/L	99
79) Hexachlorobutadiene	18.818	18.819	1.163	225	262422	34.93	ug/L	100
80) Naphthalene	19.032	19.026	1.176	128	1136759	39.41	ug/L	100
81) 1,2,3-Trichlorobenzene	19.385	19.386	1.198	180	377202	39.06	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85) Acrolein	7.205	7.180	0.678		0m	N.D.	d	
86) Trichlorotrifluoroethane	0.000	7.369	0.000		0	N.D.		
87) Isopropyl Alcohol	7.351	7.430	0.692		0m	N.D.	d	
88) Allyl chloride	7.698	7.796	0.725		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	7.924	0.000		0	N.D.		
90) Acrylonitrile	8.247	8.174	0.777		0m	N.D.	d	
91) Isopropyl ether	8.710	8.741	0.820		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	8.863	8.869	0.835		0m	N.D.	d	
93) Ethyl tert-butyl ether	9.149	9.143	0.862		0m	N.D.	d	
94) Ethyl acetate	9.326	9.338	0.878		0m	N.D.	d	
95) Propionitrile	9.393	9.393	0.885		0m	N.D.	d	
96) Methacrylonitrile	9.680	9.576	0.912		0m	N.D.	d	
97) Tetrahydrofuran	9.686	9.710	0.912		0m	N.D.	d	
98) Isobutyl alcohol	9.960	10.009	0.938		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A425.D
Acq On : 4 Mar 2010 9:10 pm
Operator : ACJ
InstName : VOA4
Sample : |1202061537|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MIX[A] MS 248042001
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 05 10:33:19 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	10.375	10.387	0.977		0m	N.D.	d
100)	Methyl methacrylate	11.259	11.204	1.060		0m	N.D.	d
101)	1,4-Dioxane	11.375	11.326	1.071		0m	N.D.	d
102)	2-Nitropropane	11.740	11.673	1.106		0m	N.D.	d
104)	Ethyl methacrylate	12.472	12.466	0.906		0m	N.D.	d
106)	1-Chlorohexane	13.667	13.661	0.845		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	14.758	14.783	0.912		0m	N.D.	d
108)	Cyclohexanone	14.904	14.904	0.921		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	15.051	15.063	0.930		0m	N.D.	d
110)	Pentachloroethane	15.776	15.770	0.975		0m	N.D.	d
111)	Benzyl chloride	16.178	16.319	1.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.721	16.721	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A425.D
Acq On : 4 Mar 2010 9:10 pm
Operator : ACJ
InstName : VOA4
Sample : |1202061537|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MIX[A] MS 248042001
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 05 10:33:19 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

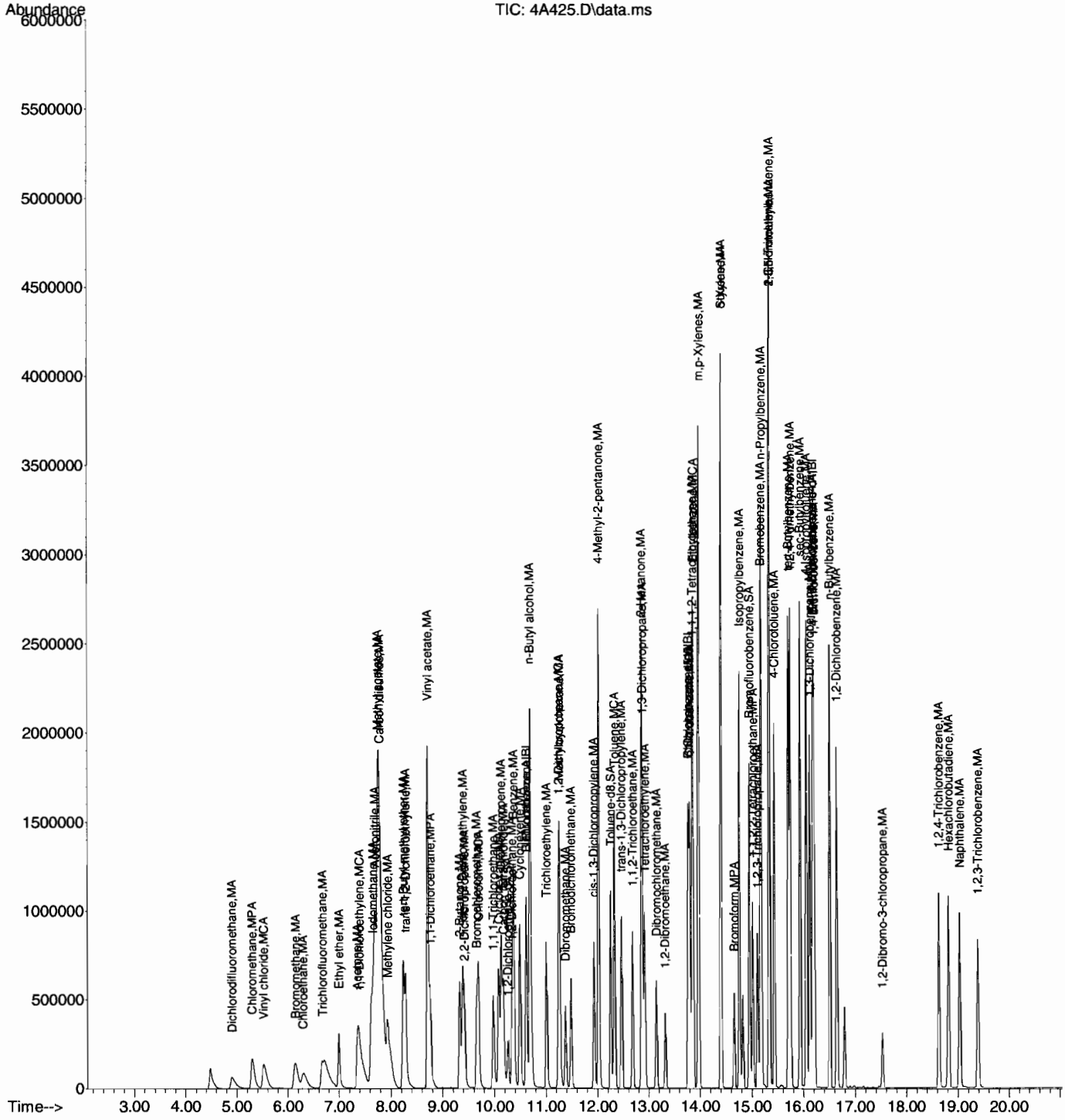

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A426.D
Acq On : 4 Mar 2010 9:38 pm
Operator : ACJ
InstName : VOA4
Sample : |1202061538|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MIX[A] MSD 248042001
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 05 10:33:21 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.619	10.620	1.000	96	1153560	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.770	13.771	1.000	117	987988	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	694054	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1153128	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.770	13.771	1.000	117	987988	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	695460	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	228682	47.92	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 95.84%					
43) Toluene-d8	12.252	12.247	0.890	98	869736	47.46	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 94.92%					
61) Bromofluorobenzene	14.953	14.954	0.924	95	713383	52.53	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 105.06%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.904	4.911	0.462	85	281382	38.49	ug/L	100
3) Chloromethane	5.292	5.291	0.498	50	543084	45.38	ug/L	100
4) Vinyl chloride	5.521	5.521	0.520	62	574717	48.46	ug/L	100
5) Bromomethane	6.130	6.137	0.577	94	340430	48.27	ug/L	99
6) Chloroethane	6.295	6.295	0.593	64	288741	47.26	ug/L	99
7) Trichlorofluoromethane	6.674	6.669	0.629	101	577503	47.75	ug/L	100
8) Ethyl ether	6.997	6.998	0.659	59	286531	49.74	ug/L	97
9) Acetone	7.357	7.352	0.693	43	703766	96.81	ug/L	97
10) 1,1-Dichloroethylene	7.388	7.389	0.696	61	602968	44.84	ug/L	96
11) Iodomethane	7.656	7.663	0.721	142	3052227	219.77	ug/L	97
12) Acetonitrile	7.698	7.699	0.725	41	1599339	1325.45	ug/L	99
13) Methyl acetate	7.747	7.748	0.730	43	1569609	254.18	ug/L	97
14) Carbon disulfide	7.772	7.773	0.732	76	6262733	250.40	ug/L	100
15) Methylene chloride	7.936	7.931	0.747	84	428421	41.06	ug/L	94
16) tert-Butyl methyl ether	8.241	8.242	0.776	73	1042393	46.94	ug/L	98
17) trans-1,2-Dichloroethy...	8.284	8.285	0.780	61	489405	47.26	ug/L	96
18) Vinyl acetate	8.710	8.705	0.820	43	4177952	310.42	ug/L	97
19) 1,1-Dichloroethane	8.759	8.760	0.825	63	636204	49.00	ug/L	99
20) 2-Butanone	9.326	9.327	0.878	43	1118723	146.68	ug/L	96
21) cis-1,2-Dichloroethylene	9.387	9.388	0.884	61	544322	47.95	ug/L	96
22) 2,2-Dichloropropane	9.418	9.419	0.887	77	303475	43.58	ug/L	92
23) Bromochloromethane	9.655	9.656	0.909	128	190425	46.29	ug/L	92
24) Chloroform	9.692	9.687	0.913	83	650239	47.69	ug/L	97
25) 1,1,1-Trichloroethane	9.979	9.979	0.940	97	495601	46.63	ug/L	98
26) Cyclohexane	10.082	10.083	0.949	56	540196	45.76	ug/L	97
27) 1,1-Dichloropropene	10.131	10.132	0.954	75	464122	46.54	ug/L #	77
28) Carbon tetrachloride	10.174	10.175	0.958	117	462420	45.75	ug/L	100
30) 1,2-Dichloroethane	10.338	10.339	0.974	62	545411	49.02	ug/L	99
31) Benzene	10.375	10.370	0.977	78	1368156	46.52	ug/L	98
32) Cyclohexene	10.491	10.492	0.988	67	652691	45.52	ug/L	96
33) n-Butyl alcohol	10.692	10.693	1.007	56	1688909	5564.01	ug/L	96
34) Trichloroethylene	11.003	11.004	1.036	95	358817	46.14	ug/L	98
35) 1,2-Dichloropropane	11.247	11.241	1.059	63	376310	49.45	ug/L	100
36) Methylcyclohexane	11.259	11.260	1.060	83	559821	45.55	ug/L	95
37) Dibromomethane	11.375	11.376	1.071	93	245918	48.96	ug/L	93
38) Bromodichloromethane	11.484	11.485	1.082	83	508309	50.38	ug/L	100
39) 2-Chloroethylvinyl ether	0.000	11.699	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A426.D
Acq On : 4 Mar 2010 9:38 pm
Operator : ACJ
InstName : VOA4
Sample : |1202061538|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MIX[A] MSD 248042001
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 05 10:33:21 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	11.929	11.930	1.123	75	573251	48.68	ug/L	95
42) 4-Methyl-2-pentanone	12.015	12.016	0.872	58	895659	248.65	ug/L	91
44) Toluene	12.326	12.320	0.895	91	1482351	45.33	ug/L	99
45) trans-1,3-Dichloroprop...	12.466	12.461	0.905	75	560946	48.85	ug/L	95
46) 1,1,2-Trichloroethane	12.685	12.680	0.921	83	297682	50.57	ug/L	97
47) 2-Hexanone	12.856	12.857	0.934	43	1822448	182.33	ug/L	94
48) 1,3-Dichloropropane	12.874	12.875	0.935	76	607533	49.68	ug/L	85
49) Tetrachloroethylene	12.917	12.918	0.938	164	284283	43.20	ug/L	97
50) Dibromochloromethane	13.143	13.144	0.954	129	416689	49.71	ug/L	100
51) 1,2-Dibromoethane	13.319	13.320	0.967	107	371014	48.90	ug/L	99
52) Chlorobenzene	13.801	13.802	1.002	112	1028950	46.20	ug/L	99
53) 1,1,1,2-Tetrachloroethane	13.850	13.851	1.006	131	401275	47.46	ug/L	98
54) Ethylbenzene	13.862	13.863	1.007	91	1812126	46.79	ug/L	98
55) m,p-Xylenes	13.972	13.973	1.015	106	1439152	93.67	ug/L	96
56) o-Xylene	14.404	14.399	1.046	106	772830	48.54	ug/L	95
57) Styrene	14.404	14.399	1.046	104	1304522	50.46	ug/L	97
59) Bromoform	14.654	14.655	0.906	173	307339	48.99	ug/L	100
60) Isopropylbenzene	14.758	14.759	0.912	105	1959631	44.62	ug/L	99
62) 1,1,2,2-Tetrachloroethane	15.020	15.015	0.928	83	625341	49.61	ug/L	99
63) 1,2,3-Trichloropropane	15.106	15.107	0.934	110	158956	46.27	ug/L	96
64) Bromobenzene	15.167	15.168	0.937	156	556972	46.09	ug/L	95
65) n-Propylbenzene	15.179	15.180	0.938	91	2466893	46.01	ug/L	98
66) 1,3,5-Trimethylbenzene	15.331	15.332	0.948	105	1891095	47.09	ug/L	99
67) 2-Chlorotoluene	15.331	15.332	0.948	126	556525	46.50	ug/L	93
68) 4-Chlorotoluene	15.429	15.430	0.954	91	1543040	46.07	ug/L	98
69) tert-Butylbenzene	15.703	15.704	0.971	134	404124	45.91	ug/L	97
70) 1,2,4-Trimethylbenzene	15.740	15.741	0.973	105	1917362	46.82	ug/L	99
71) sec-Butylbenzene	15.935	15.930	0.985	105	2496364	46.35	ug/L	98
72) 4-Isopropyltoluene	16.050	16.051	0.992	119	2032134	46.91	ug/L	99
73) 1,3-Dichlorobenzene	16.124	16.119	0.997	146	1094813	45.57	ug/L	99
74) 1,4-Dichlorobenzene	16.209	16.204	1.002	146	1114229	45.34	ug/L	99
75) n-Butylbenzene	16.502	16.503	1.020	91	1918648	46.67	ug/L	98
76) 1,2-Dichlorobenzene	16.642	16.643	1.029	146	1071753	45.84	ug/L	99
77) 1,2-Dibromo-3-chloropr...	17.526	17.527	1.083	157	111111	49.54	ug/L	97
78) 1,2,4-Trichlorobenzene	18.629	18.630	1.151	180	531095	44.41	ug/L	99
79) Hexachlorobutadiene	18.818	18.819	1.163	225	320781	41.40	ug/L	98
80) Naphthalene	19.032	19.026	1.176	128	1327105	44.60	ug/L	100
81) 1,2,3-Trichlorobenzene	19.385	19.386	1.198	180	450419	45.22	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85) Acrolein	7.199	7.180	0.678		0m	N.D.	d	
86) Trichlorotrifluoroethane	7.381	7.369	0.695		0m	N.D.	d	
87) Isopropyl Alcohol	7.467	7.430	0.703		0m	N.D.	d	
88) Allyl chloride	7.698	7.796	0.725		0m	N.D.	d	
89) tert-Butyl Alcohol	8.009	7.924	0.754		0m	N.D.	d	
90) Acrylonitrile	8.235	8.174	0.776		0m	N.D.	d	
91) Isopropyl ether	8.710	8.741	0.820		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	8.869	8.869	0.835		0m	N.D.	d	
93) Ethyl tert-butyl ether	9.155	9.143	0.862		0m	N.D.	d	
94) Ethyl acetate	9.326	9.338	0.878		0m	N.D.	d	
95) Propionitrile	9.320	9.393	0.878		0m	N.D.	d	
96) Methacrylonitrile	9.680	9.576	0.912		0m	N.D.	d	
97) Tetrahydrofuran	9.692	9.710	0.913		0m	N.D.	d	
98) Isobutyl alcohol	9.991	10.009	0.941		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A426.D
Acq On : 4 Mar 2010 9:38 pm
Operator : ACJ
InstName : VOA4
Sample : |1202061538|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MIX[A] MSD 248042001
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 05 10:33:21 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	10.375	10.387	0.977		0m	N.D.	d
100)	Methyl methacrylate	11.265	11.204	1.061		0m	N.D.	d
101)	1,4-Dioxane	11.368	11.326	1.071		0m	N.D.	d
102)	2-Nitropropane	11.673	11.673	1.099		0m	N.D.	d
104)	Ethyl methacrylate	12.466	12.466	0.905		0m	N.D.	d
106)	1-Chlorohexane	13.685	13.661	0.846		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	14.758	14.783	0.912		0m	N.D.	d
108)	Cyclohexanone	14.917	14.904	0.922		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	15.063	15.063	0.931		0m	N.D.	d
110)	Pentachloroethane	15.776	15.770	0.975		0m	N.D.	d
111)	Benzyl chloride	16.313	16.319	1.008		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.733	16.721	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A426.D
Acq On : 4 Mar 2010 9:38 pm
Operator : ACJ
InstName : VOA4
Sample : |1202061538|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MIX[A] MSD 248042001
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 05 10:33:21 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

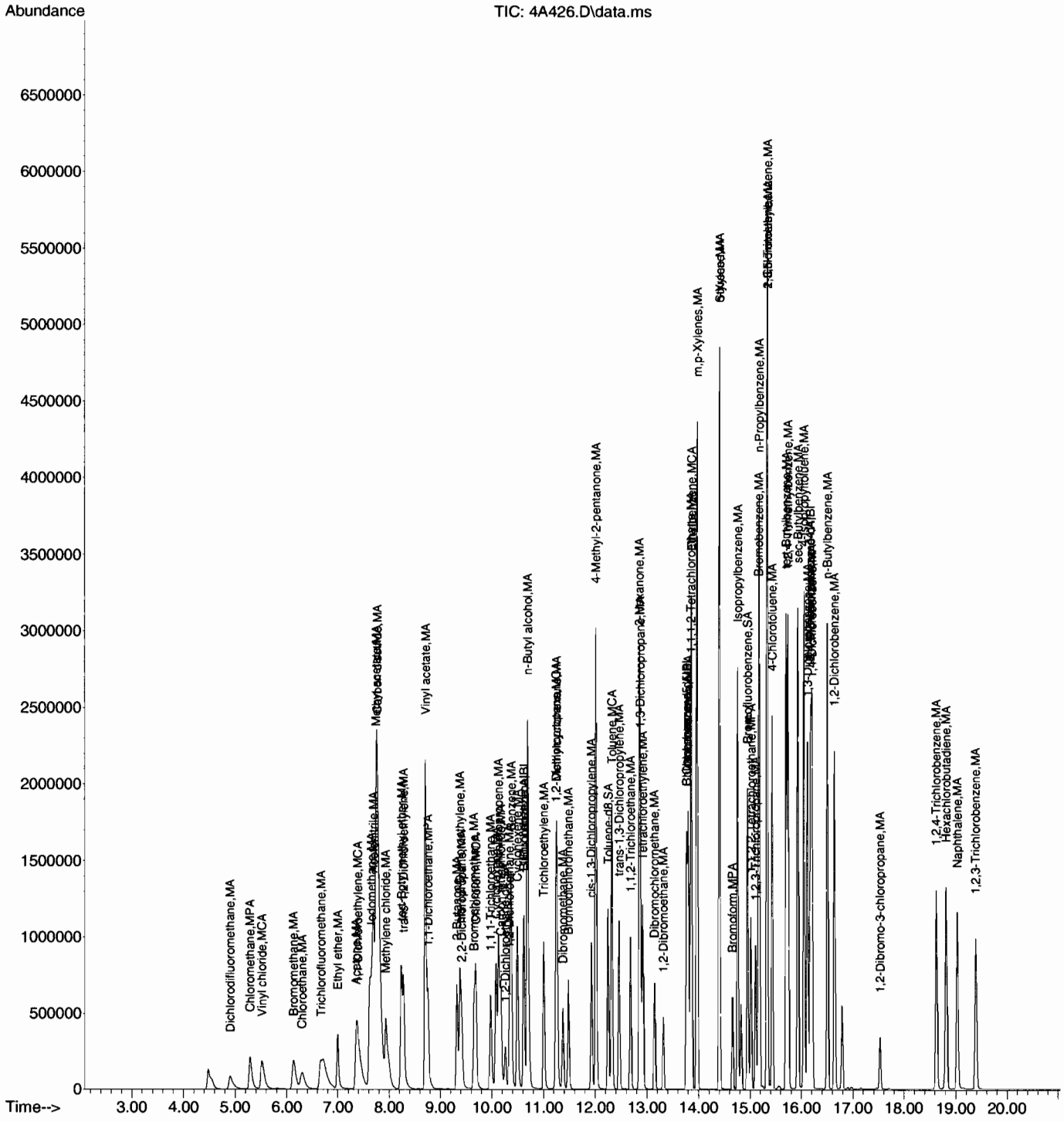

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A410.D
Acq On : 4 Mar 2010 2:16 pm
Operator : ACJ
InstName : VOA4
Sample : |248042001|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 08 21:51:15 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.620	10.620	1.000	96	1153382	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.772	13.771	1.000	117	902239	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.180	16.180	1.000	152	502987	50.00	ug/L	0.00
82) B Fluorobenzene	10.620	10.619	1.000	96	1153382	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.772	13.771	1.000	117	902239	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	503005	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.260	10.260	0.966	65	231167	48.45	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 96.90%					
43) Toluene-d8	12.254	12.247	0.890	98	854042	51.03	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 102.06%					
61) Bromofluorobenzene	14.954	14.954	0.924	95	588417	59.79	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 119.58%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.911	0.000		0	N.D.		
3) Chloromethane	5.291	5.291	0.498	50	1953	N.D.		
4) Vinyl chloride	0.000	5.521	0.000		0	N.D.		
5) Bromomethane	0.000	6.137	0.000		0	N.D.		
6) Chloroethane	0.000	6.295	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.669	0.000		0	N.D.		
8) Ethyl ether	0.000	6.998	0.000		0	N.D.		
9) Acetone	7.376	7.352	0.695	43	5013	N.D.		
10) 1,1-Dichloroethylene	0.000	7.389	0.000		0	N.D.		
11) Iodomethane	0.000	7.663	0.000		0	N.D.		
12) Acetonitrile	7.718	7.699	0.727	41	303	N.D.		
13) Methyl acetate	7.712	7.748	0.726	43	148	N.D.		
14) Carbon disulfide	7.767	7.773	0.731	76	990	N.D.		
15) Methylene chloride	7.943	7.931	0.748	84	3991	N.D.		
16) tert-Butyl methyl ether	0.000	8.242	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.285	0.000		0	N.D.		
18) Vinyl acetate	8.705	8.705	0.820	43	400	N.D.		
19) 1,1-Dichloroethane	0.000	8.760	0.000		0	N.D.		
20) 2-Butanone	9.346	9.327	0.880	43	994	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.388	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.419	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.675	9.687	0.911	83	185	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.979	0.000		0	N.D.		
26) Cyclohexane	10.095	10.083	0.951	56	137	N.D.		
27) 1,1-Dichloropropene	0.000	10.132	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.175	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.339	0.000		0	N.D.		
31) Benzene	10.364	10.370	0.976	78	379	N.D.		
32) Cyclohexene	10.620	10.492	1.000	67	344	N.D.		
33) n-Butyl alcohol	10.681	10.693	1.006	56	239	N.D.		
34) Trichloroethylene	0.000	11.004	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.260	0.000		0	N.D.		
37) Dibromomethane	0.000	11.376	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.485	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.699	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A410.D
Acq On : 4 Mar 2010 2:16 pm
Operator : ACJ
InstName : VOA4
Sample : |248042001|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 08 21:51:15 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40)	cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000	12.016	0.000		0	N.D.	
44)	Toluene	12.327	12.320	0.895	91	2039	N.D.	
45)	trans-1,3-Dichloroprop...	12.473	12.461	0.906	75	2119	N.D.	
46)	1,1,2-Trichloroethane	0.000	12.680	0.000		0	N.D.	
47)	2-Hexanone	12.863	12.857	0.934	43	252	N.D.	
48)	1,3-Dichloropropane	0.000	12.875	0.000		0	N.D.	
49)	Tetrachloroethylene	12.930	12.918	0.939	164	291	N.D.	
50)	Dibromochloromethane	0.000	13.144	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000	13.320	0.000		0	N.D.	
52)	Chlorobenzene	13.808	13.802	1.003	112	597	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	13.851	0.000		0	N.D.	
54)	Ethylbenzene	13.863	13.863	1.007	91	1094	N.D.	
55)	m,p-Xylenes	13.960	13.973	1.014	106	898	N.D.	
56)	o-Xylene	14.399	14.399	1.046	106	146	N.D.	
57)	Styrene	14.399	14.399	1.046	104	500	N.D.	
59)	Bromoform	0.000	14.655	0.000		0	N.D.	
60)	Isopropylbenzene	14.759	14.759	0.912	105	1165	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	15.015	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	15.107	0.000		0	N.D.	
64)	Bromobenzene	15.168	15.168	0.937	156	126	N.D.	
65)	n-Propylbenzene	15.180	15.180	0.938	91	1097	N.D.	
66)	1,3,5-Trimethylbenzene	15.326	15.332	0.947	105	544	N.D.	
67)	2-Chlorotoluene	15.338	15.332	0.948	126	147	N.D.	
68)	4-Chlorotoluene	15.430	15.430	0.954	91	837	N.D.	
69)	tert-Butylbenzene	0.000	15.704	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	15.741	15.741	0.973	105	690	N.D.	
71)	sec-Butylbenzene	15.930	15.930	0.985	105	756	N.D.	
72)	4-Isopropyltoluene	16.039	16.051	0.991	119	706	N.D.	
73)	1,3-Dichlorobenzene	16.125	16.119	0.997	146	388	N.D.	
74)	1,4-Dichlorobenzene	16.204	16.204	1.002	146	682	N.D.	
75)	n-Butylbenzene	16.515	16.503	1.021	91	506	N.D.	
76)	1,2-Dichlorobenzene	16.637	16.643	1.028	146	325	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	17.527	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	18.636	18.630	1.152	180	266	N.D.	
79)	Hexachlorobutadiene	0.000	18.819	0.000		0	N.D.	
80)	Naphthalene	19.033	19.026	1.176	128	4411	N.D.	
81)	1,2,3-Trichlorobenzene	19.380	19.386	1.198	180	198	N.D.	
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85)	Acrolein	0.000	7.180	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	7.369	0.000		0	N.D.	
87)	Isopropyl Alcohol	7.462	7.430	0.703	45	248	N.D.	
88)	Allyl chloride	7.797	7.796	0.734	41	274	N.D.	
89)	tert-Butyl Alcohol	7.919	7.924	0.746	59	571	N.D.	
90)	Acrylonitrile	8.193	8.174	0.772	53	144	N.D.	
91)	Isopropyl ether	8.657	8.741	0.815	45	105	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	8.869	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	9.143	0.000		0	N.D.	
94)	Ethyl acetate	9.346	9.338	0.880	43	994	N.D.	
95)	Propionitrile	0.000	9.393	0.000		0	N.D.	
96)	Methacrylonitrile	9.602	9.576	0.904	41	252	N.D.	
97)	Tetrahydrofuran	9.730	9.710	0.916	42	754	N.D.	
98)	Isobutyl alcohol	10.028	10.009	0.944	41	218	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A410.D
Acq On : 4 Mar 2010 2:16 pm
Operator : ACJ
InstName : VOA4
Sample : |248042001|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 08 21:51:15 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	10.387	0.000		0	N.D.	
100) Methyl methacrylate	11.248	11.204	1.059	69	128	N.D.	
101) 1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102) 2-Nitropropane	11.674	11.673	1.099	43	134	N.D.	
104) Ethyl methacrylate	12.461	12.466	0.905	69	206	N.D.	
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	14.783	0.000		0	N.D.	
108) Cyclohexanone	14.912	14.904	0.922	42	225	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	15.063	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111) Benzyl chloride	16.320	16.319	1.009	91	1022	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.721	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A410.D
Acq On : 4 Mar 2010 2:16 pm
Operator : ACJ
InstName : VOA4
Sample : |248042001|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 08 21:51:15 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

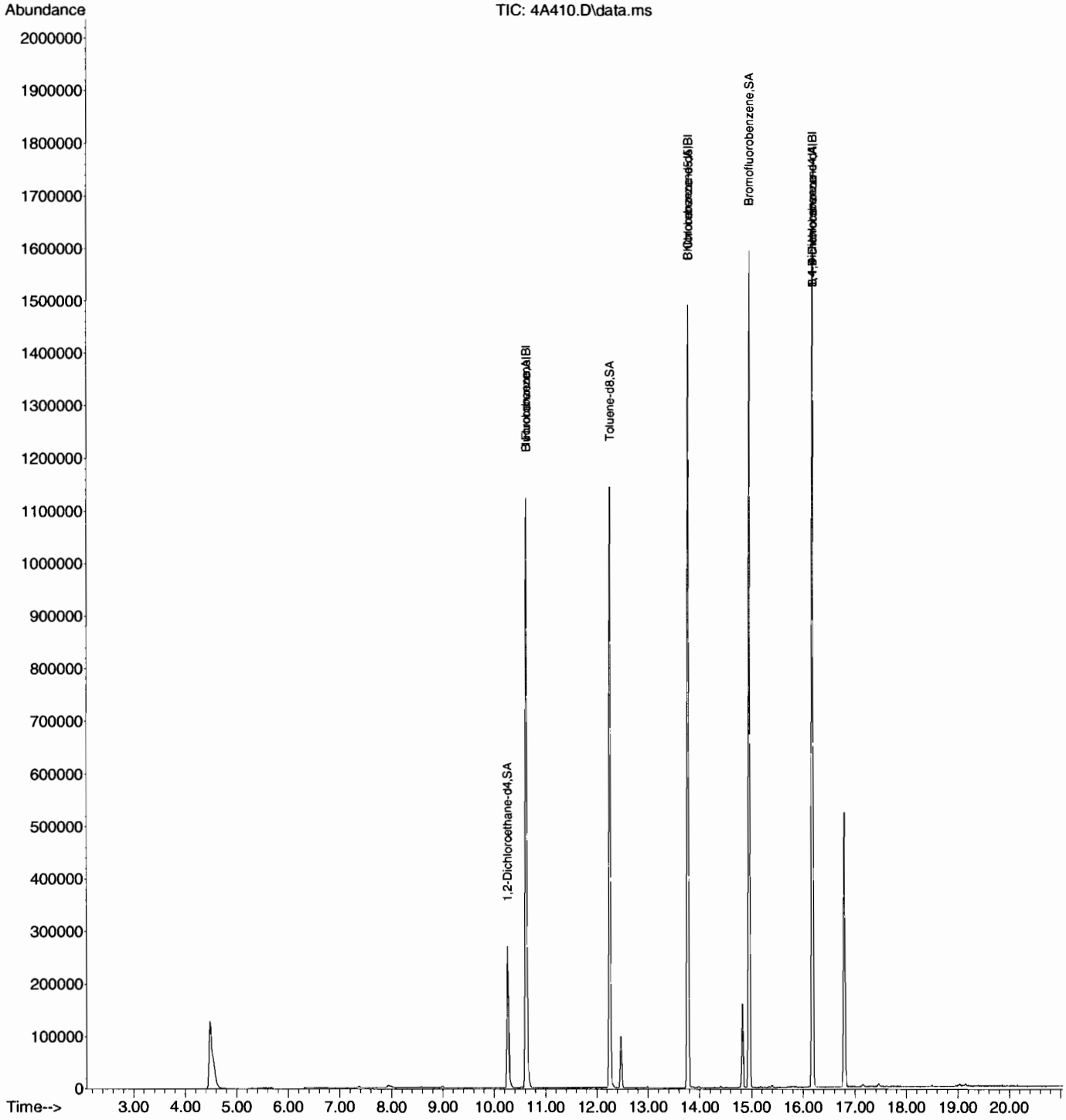

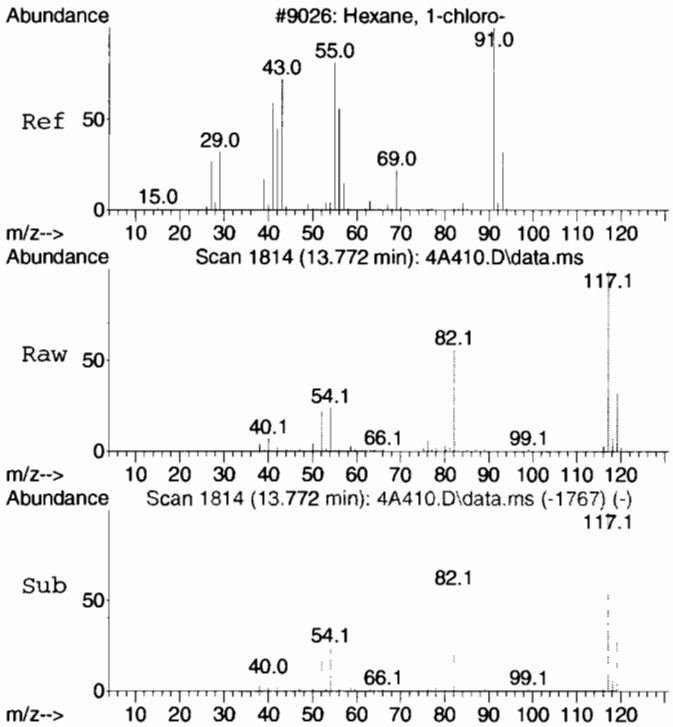

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.73 ug/L
RT: 13.772 min Scan# 1814
Delta R.T. 0.111 min
Lab File: 4A410.D
Acq: 4 Mar 2010 2:16 pm

Tgt Ion: 55 Resp: 10031

Ion	Ratio	Lower	Upper
55	100		
91	20.1	112.1	172.1#
56	61.2	28.5	88.5

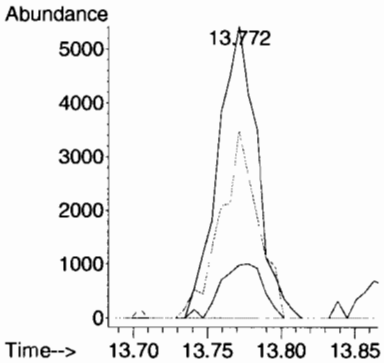

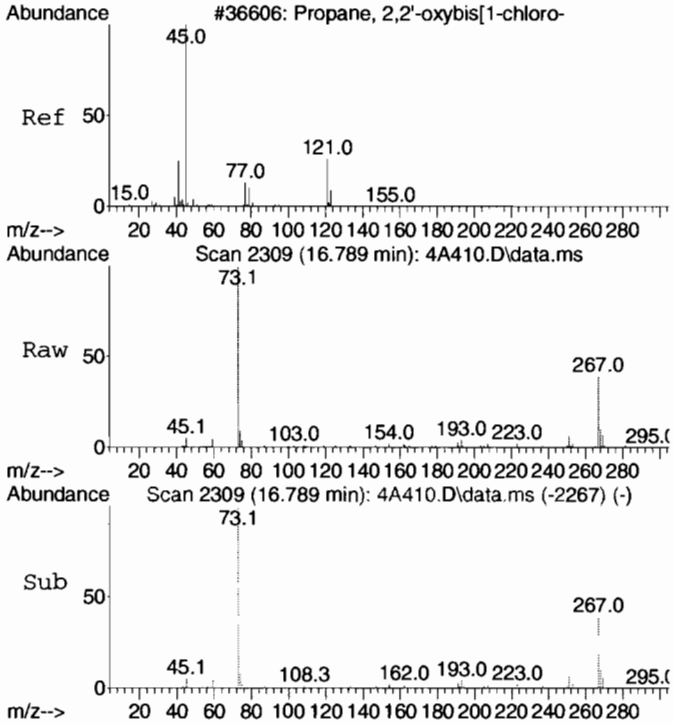

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 6.01 ug/L
RT: 16.789 min Scan# 2309
Delta R.T. 0.068 min
Lab File: 4A410.D
Acq: 4 Mar 2010 2:16 pm

Tgt Ion: 45 Resp: 24111

Ion	Ratio	Lower	Upper
45	100		
121	1.0	0.0	56.0

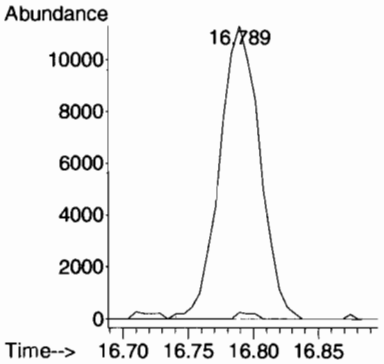

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A410.D
Acq On : 4 Mar 2010 2:16 pm
Operator : ACJ
Sample : |248042001|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	13.09 ug/L	657750	Fluorobenzene	10.620

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	3

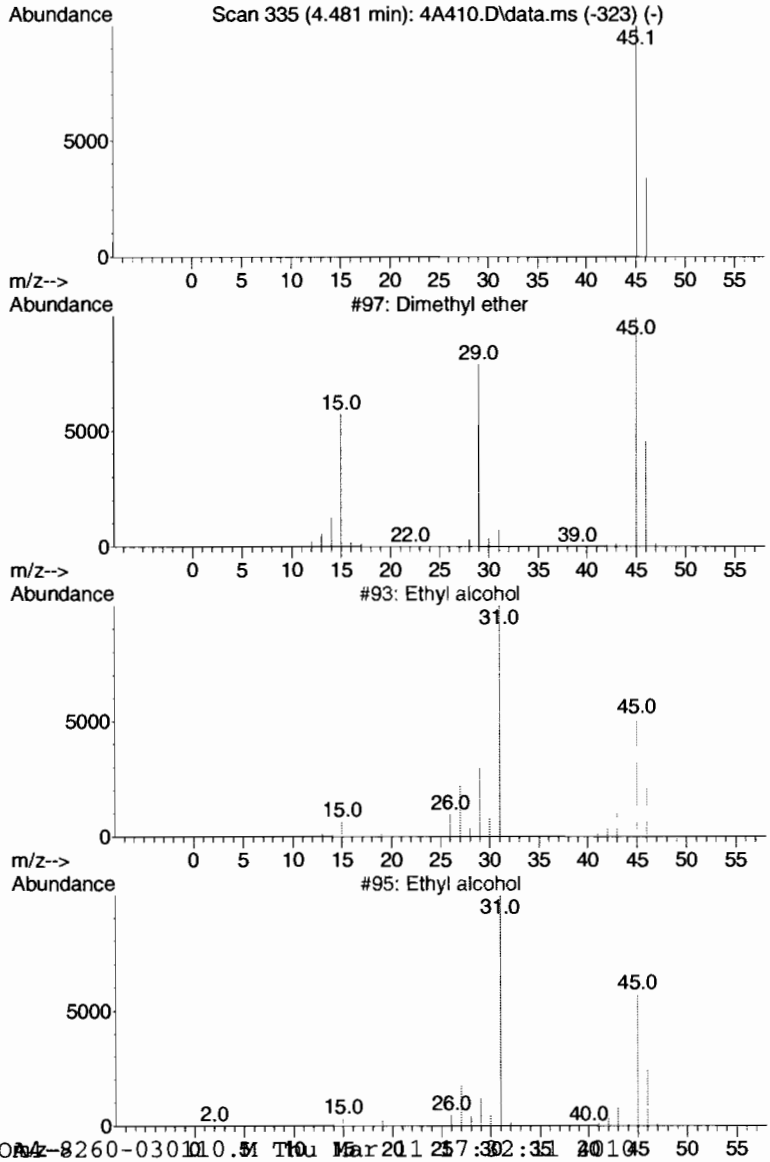

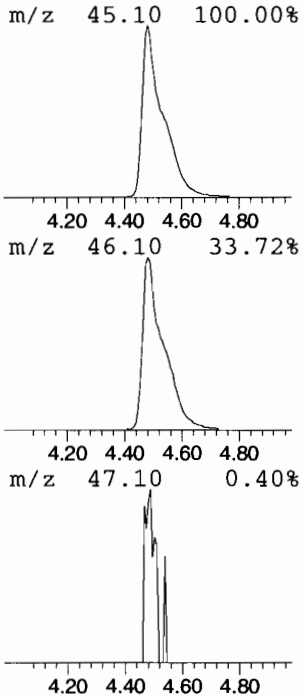

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A410.D
Acq On : 4 Mar 2010 2:16 pm
Operator : ACJ
Sample : |248042001|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 2 unknown siloxane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.826	5.41 ug/L	311398	B Chlorobenzene-d5	13.772

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	87
2	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	72
3	7H-Dibenzo[b,g]carbazole, 7-methyl-	281	C21H15N	003557-49-1	59
4	Benzoic acid, 3-methyl-2-trimeth...	296	C14H24O3Si2	1000153-57-1	59
5	trans-4-Dimethylamino-4'-methoxy...	281	C18H19NO2	052119-37-6	50

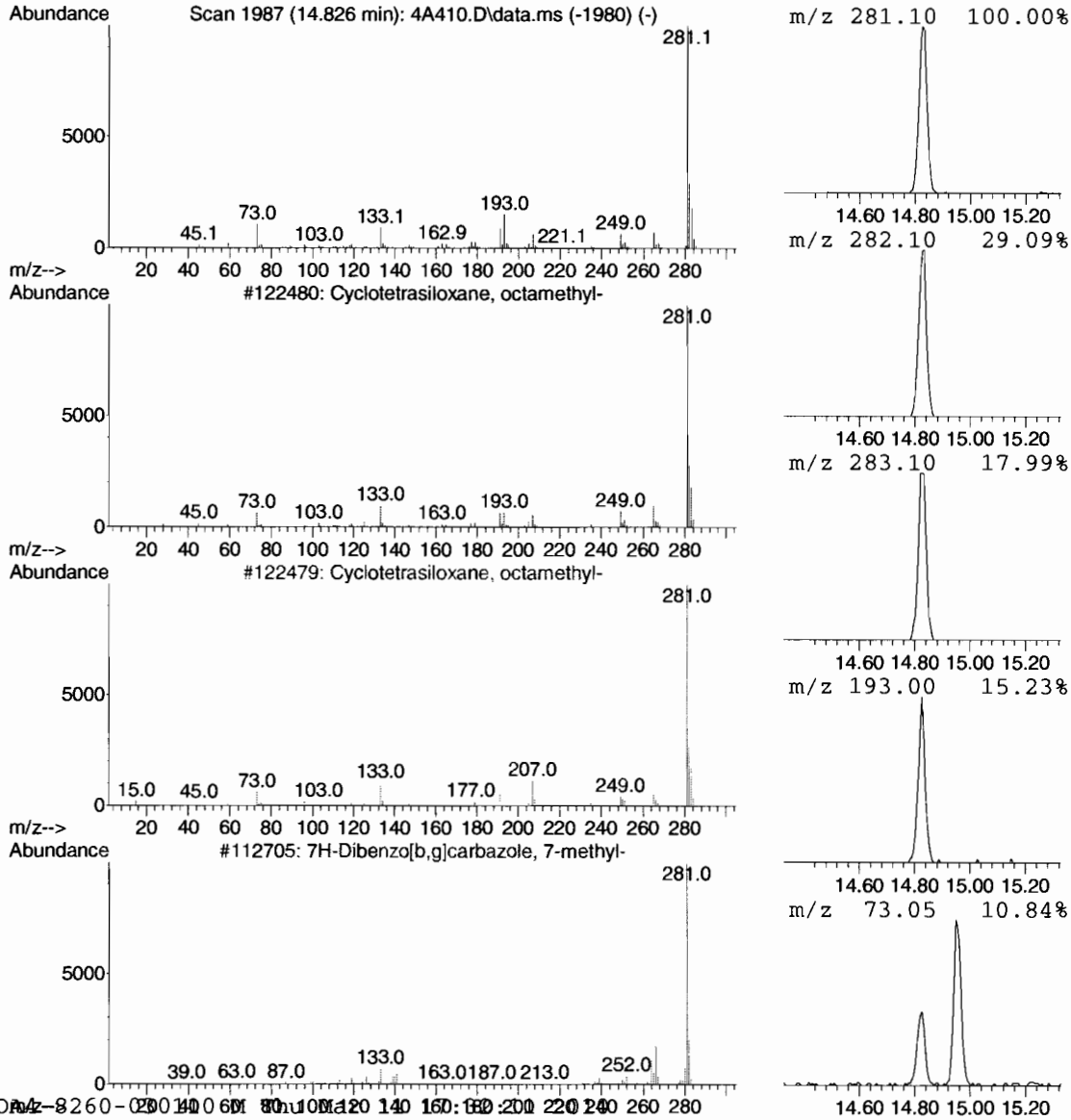

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A410.D
Acq On : 4 Mar 2010 2:16 pm
Operator : ACJ
Sample : |248042001|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 3 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.795	17.50 ug/L	1103440	B 1,4-Dichlorobenzene-d4	16.180

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	59
2	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	56
3	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	40
4	3,5-Dimethoxyphenylacetic acid, ...	268	C13H20O4Si	1000071-82-4	22
5	Tetrasiloxane, 1,1,3,3,5,5,7,7-o...	282	C8H26O3Si4	001000-05-1	10

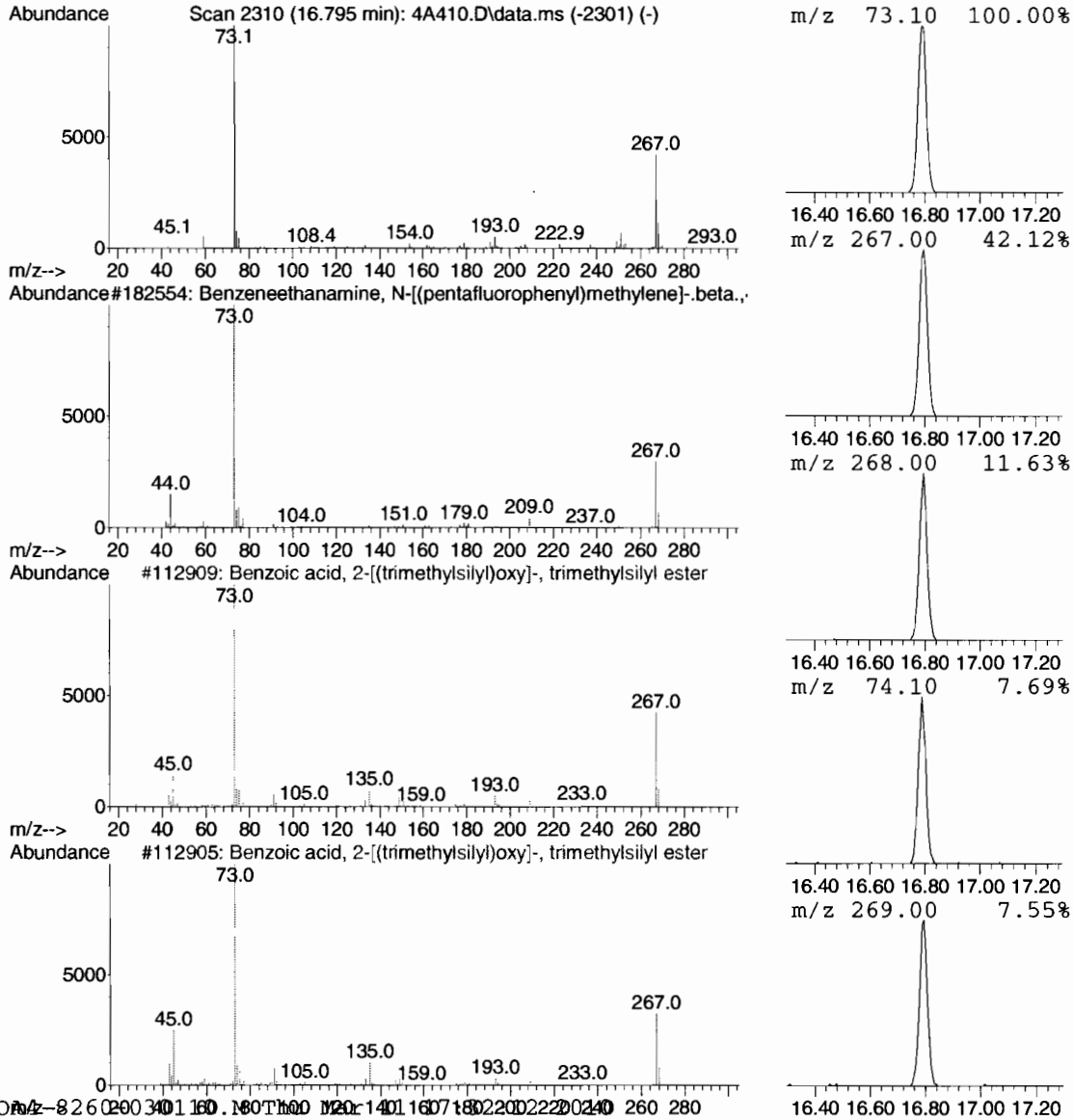

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A410.D
Acq On : 4 Mar 2010 2:16 pm
Operator : ACJ
Sample : |248042001|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown hydroca...	4.481	13.1	ug/L	657750	1	10.620	2512460	50.0
unknown siloxane	14.826	5.4	ug/L	311398	4	13.772	2879230	50.0
unknown siloxane	16.795	17.5	ug/L	1103440	6	16.180	3152750	50.0

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA4

Date: 3/1/2010 Method 8260B/624 Operator: ACJ

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1671

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/1/2010

(See pg. 63 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # _____

Sequence Number: 030110V4

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV					
IS	UVM100114-01	1	1	1	
SS	UVM091216-10	1	1	1	
LCS/MS					
BFB	UVM091216-10				1
SHORT					
DHEC					

Purge Amount	
5	Water Purge Vol:
N/A	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
1 Mar 2010 19:08	4A101.D	UVM091216-10	GEL	BFB	1UL	1	N/A	1	W	ACJ	N/A	O	
1 Mar 2010 19:35	4A102.D	120256-----	GEL	BLANK	5ML	1	N/A	2	w	ACJ	N/A	X	
1 Mar 2010 20:03	4A103.D	W4VM100301-01	GEL	ICAL	5+5UL	1	N/A	3	w	ACJ	N/A	O	UVM100126-01C+UVM100222-01A
1 Mar 2010 20:30	4A104.D	W4VM100301-02	GEL	ICAL	5+5UL	1	N/A	4	w	ACJ	N/A	O	UVM100126-02C+UVM100222-02A
1 Mar 2010 20:58	4A105.D	W4VM100301-03	GEL	ICAL	5+5UL	1	N/A	5	w	ACJ	N/A	X	UVM100126-02C+UVM100222-02A
1 Mar 2010 21:26	4A106.D	W4VM100301-04	GEL	ICAL	5+5UL	1	N/A	6	w	ACJ	N/A	O	UVM100126-03C+UVM100222-03A
1 Mar 2010 21:54	4A107.D	W4VM100301-05	GEL	ICAL	5+5UL	1	N/A	7	w	ACJ	N/A	O	UVM100126-04C+UVM100222-04A
1 Mar 2010 22:21	4A108.D	W4VM100301-06	GEL	ICAL	5+5UL	1	N/A	8	w	ACJ	N/A	O	UVM100126-05C+UVM100222-05A
1 Mar 2010 22:49	4A109.D	W4VM100301-07	GEL	ICAL	5+5UL	1	N/A	9	w	ACJ	N/A	X	UVM100126-06C+UVM100222-06A
1 Mar 2010 23:16	4A110.D	W4VM100301-08	GEL	ICAL	2.5+5UL	1	N/A	10	w	ACJ	N/A	O	UVM100126-07C+UVM100222-07A
1 Mar 2010 23:44	4A111.D	W4VM100301-09	GEL	ICAL	5+5UL	1	N/A	11	w	ACJ	N/A	O	UVM100126-08C+UVM100222-08A
2 Mar 2010 00:12	4A112.D	120256-----	GEL	BLANK	5ML	1	N/A	12	w	ACJ	N/A	X	
2 Mar 2010 00:39	4A113.D	W4VM100301-10	GEL	ICAL	5+5UL	1	N/A	13	w	ACJ	N/A	O	UVM100215-01+UVM100227-01A
2 Mar 2010 01:06	4A114.D	W4VM100301-11	GEL	ICAL	5+5UL	1	N/A	14	w	ACJ	N/A	O	UVM100215-02+UVM100227-02A
2 Mar 2010 01:34	4A115.D	W4VM100301-12	GEL	ICAL	5+5UL	1	N/A	15	w	ACJ	N/A	O	UVM100215-03+UVM100227-03A
2 Mar 2010 02:01	4A116.D	W4VM100301-13	GEL	ICAL	5+5UL	1	N/A	16	w	ACJ	N/A	O	UVM100215-04+UVM100227-04A
2 Mar 2010 02:28	4A117.D	W4VM100301-14	GEL	ICAL	5+5UL	1	N/A	17	w	ACJ	N/A	O	UVM100215-05+UVM100227-05A
2 Mar 2010 02:56	4A118.D	W4VM100301-15	GEL	ICAL	5+5UL	1	N/A	18	w	ACJ	N/A	O	UVM100215-06+UVM100227-06A
2 Mar 2010 03:23	4A119.D	W4VM100301-16	GEL	ICAL	5+5UL	1	N/A	19	w	ACJ	N/A	O	UVM100215-07+UVM100227-07A
2 Mar 2010 03:50	4A120.D	120256-----	GEL	BLANK	5ML	1	N/A	20	w	ACJ	N/A	X	
2 Mar 2010 04:18	4A121.D	W4VM100301-17	GEL	ICV	5+5UL	1	N/A	21	w	ACJ	N/A	X	UVM100126-02E+IVM100301-01
2 Mar 2010 04:45	4A122.D	W4VM100301-18	GEL	ICV	5+5UL	1	N/A	22	w	ACJ	N/A	O	UVM100220-01B+IVM100301-01
2 Mar 2010 05:13	4A123.D	W4VM100301-19	GEL	ICV	5+5UL	1	N/A	23	w	ACJ	N/A	O	UVM100215-08A+UVM100125-08E
2 Mar 2010 05:41	4A124.D	120256-----	GEL	BLANK	5ML	1	N/A	24	w	ACJ	N/A	X	
2 Mar 2010 06:08	4A125.D	W4VM100301-20	GEL	TEST	5UL	1	N/A	25	w	ACJ	N/A	X	UVM100106-07C/UVM100222-07A

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA4

Date: 3/4/2010 Method 8260B/624 Operator: ACJ

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1671

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/1/2010

(See pg. 63 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 81710

Sequence Number: 030410V4

Daily Standard	Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W4VM100304-01		5+5		
IS	UVM100114-01	1	1	1	
SS	UVM091216-10	1	1	1	
LCS/MS	W4VM100304-01/02			5+5	
BFB	UVM091216-10				1
SHORT	W4VM100304-03/04		5	5	
DHEC	N/A			5	

Purge Amount	
5	Water Purge Vol:
5G	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
4 Mar 2010 10:05	4A401.D	UVM091216-10	GEL	BFB	5ML	1	N/A	1	W	ACJ	N/A	O	
4 Mar 2010 10:33	4A402.D	W4VM100304-01	GEL	CCV	5ML	1	N/A	2	W	ACJ	N/A	O	UVM100220-01C+IVM100304-01
4 Mar 2010 11:01	4A403.D	W4VM100304-02	GEL	LCS	5G	1	N/A	3	S	ACJ	N/A	O	UVM100220-01C+IVM100304-01
4 Mar 2010 11:29	4A404.D	W4VM100304-03	GEL	CCV	5ML	1	N/A	4	W	ACJ	N/A	O	UVM100215-08A
4 Mar 2010 11:57	4A405.D	W4VM100304-04	GEL	LCS	5G	1	N/A	5	S	ACJ	N/A	O	UVM100215-08A
4 Mar 2010 12:25	4A406.D	12020-----	GEL	BLANK	5G	1	N/A	6	S	ACJ	N/A	O	
4 Mar 2010 12:53	4A407.D	12020-----	GEL	BLANK	5ML	1	N/A	7	W	ACJ	N/A	O	
4 Mar 2010 13:20	4A408.D	247824002	LANL	961120	5ML	1	PH2	8	W	ACJ	N	O	
4 Mar 2010 13:48	4A409.D	247824005	LANL	961120	5ML	1	PH2	9	W	ACJ	N	O	
4 Mar 2010 14:16	4A410.D	248042001	LANL	961120	5ML	1	PH2	10	W	ACJ	N	O	
4 Mar 2010 14:43	4A411.D	248042005	LANL	961120	5ML	1	PH2	11	W	ACJ	N	O	
4 Mar 2010 15:11	4A412.D	248042006	LANL	961120	5ML	1	PH2	12	W	ACJ	N	O	
4 Mar 2010 15:38	4A413.D	248042007	LANL	961120	5ML	1	PH2	13	W	ACJ	N	O	
4 Mar 2010 16:06	4A414.D	248042009	LANL	961120	5ML	1	PH2	14	W	ACJ	N	O	
4 Mar 2010 16:34	4A415.D	248042013	LANL	961120	5ML	1	PH2	15	W	ACJ	N	O	
4 Mar 2010 17:02	4A416.D	248169001	LANL	961120	5ML	1	PH2	16	W	ACJ	N	O	
4 Mar 2010 17:30	4A417.D	248169004	LANL	961120	5ML	1	PH6	17	W	ACJ	N	O	
4 Mar 2010 17:58	4A418.D	248187001	LANL	961120	5ML	1	PH2	18	W	ACJ	N	O	
4 Mar 2010 18:25	4A419.D	248114001	LANL	961336	5G	1	N/A	19	s	ACJ	N/A	O	
4 Mar 2010 18:53	4A420.D	248114002	LANL	961336	5G	1	N/A	20	s	ACJ	N/A	O	
4 Mar 2010 19:21	4A421.D	248114003	LANL	961336	5G	1	N/A	21	s	ACJ	N/A	O	
4 Mar 2010 19:48	4A422.D	248114004	LANL	961336	5G	1	N/A	22	s	ACJ	N/A	O	
4 Mar 2010 20:16	4A423.D	248114005	LANL	961336	5G	1	N/A	23	s	ACJ	N/A	O	
4 Mar 2010 20:43	4A424.D	248114006	LANL	961336	5G	1	N/A	24	s	ACJ	N/A	O	
4 Mar 2010 21:10	4A425.D	1202061537	LANL	961120	5ML	1	PH2	25	w	ACJ	N	O	MS 248042001
4 Mar 2010 21:38	4A426.D	1202061538	LANL	961120	5ML	1	PH2	26	w	ACJ	N	O	MSD 248042001

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2005

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3510C
Analytical Batch Number:	959294
Prep Batch Number:	959290

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
247824002	CAPA-10-13498
1202057395	Method Blank (MB)
1202057396	247922004(WST29-10-13281) Matrix Spike (MS)
1202057397	247922004(WST29-10-13281) Matrix Spike Duplicate (MSD)
1202057398	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms. 2,4-Toluene diisocyanate rapidly hydrolyzes in water (half-life less than 30 minutes). Therefore, recoveries of this compound from aqueous matrices should not be expected. In addition, in solid matrices, 2,4-Toluene diisocynate often reacts with alcohols and amines to produce urethane and ureas and consequently cannot usually coexist in a solution containing these materials. 2,4-Toluene diisocyanate is reported as an estimated value.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 247922004 (WST29-10-13281) not associated with this SDG, was selected for analysis as the matrix spike and matrix spike duplicate. Please see the associated raw data files located in the Miscellaneous Section of the data report.

Matrix Spike (MS) Recovery Statement
The MS and MSD each failed recovery for Benzidine, Benzyl alcohol and 3,3'-Dichlorobenzidine. Please see the spike recovery report for the specific recovery values. As the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported.

Matrix Spike Duplicate (MSD) Recovery Statement
The MS and MSD each failed recovery for Benzidine, Benzyl alcohol and 3,3'-Dichlorobenzidine. Please see the spike recovery report for the specific recovery values. As the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported.

MS/MSD Relative Percent Difference (RPD) Statement
The MS/MSD RPD value for Benzyl alcohol exceeded the established acceptance limit. Please see the spike recovery report for the specific values. The failure was attributed to sample matrix interference.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Sample 247824002 was re-extracted within holding in this batch due to surrogate recovery failure in the original extraction batch. The sample passed surrogate recovery in this batch. Only data from the re-extraction have been reported for that sample.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 799940. It is located in the Miscellaneous Section of the data report.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD8.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: [signature] **Date:** 3-23-10

Roadmap for LANL 10-2005 SVOA

This roadmap was analyzed by nat00999 on 03-04-2010, 11:21.
This roadmap was reviewed by dan01134 on 03-08-2010, 14:11.
This roadmap was packaged by CHA01131 on 03-19-2010, 19:37.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
■	N	/chem/MSD8.i/s022510.b/s8b2519.d	247824002	25-FEB-2010	18:00	10-2005.sub	CAPA-10-13498	1	957046	DUSE - failed surr - RX - s8c0314 passes w/in holding
☐	N	/chem/MSD8.i/s030310.b/s8c0314.d	247824002	03-MAR-2010	16:40	10-2005.sub	CAPA-10-13498	1	959294	passes w/in holding - RX of s8b2519

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD8.i/s030310.b/s8c0310.d	1202057395	mb	03-MAR-2010	14:41	10-2005.sub	SBLK01	1	959294	
☐	N	/chem/MSD8.i/s030310.b/s8c0311.d	1202057398	lcs	03-MAR-2010	15:11	10-2005.sub	SBLK01LCS	1	959294	failed <5%

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247824002**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13498**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 16:40**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**950 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0314.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.5	ug/L	2.11	10.5
108-95-2	Phenol	U	10.5	ug/L	1.05	10.5
95-57-8	2-Chlorophenol	U	10.5	ug/L	2.11	10.5
106-46-7	1,4-Dichlorobenzene	U	10.5	ug/L	2.11	10.5
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	10.5	ug/L	2.11	10.5
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	10.5	ug/L	2.11	10.5
83-32-9	Acenaphthene	U	1.05	ug/L	0.326	1.05
121-14-2	2,4-Dinitrotoluene	U	10.5	ug/L	2.11	10.5
100-02-7	4-Nitrophenol	U	10.5	ug/L	2.11	10.5
87-86-5	Pentachlorophenol	U	10.5	ug/L	2.11	10.5
129-00-0	Pyrene	U	1.05	ug/L	0.316	1.05
110-86-1	Pyridine	U	10.5	ug/L	3.16	10.5
62-53-3	Aniline	U	10.5	ug/L	2.63	10.5
111-44-4	bis(2-Chloroethyl) ether	U	10.5	ug/L	2.11	10.5
541-73-1	1,3-Dichlorobenzene	U	10.5	ug/L	2.11	10.5
100-51-6	Benzyl alcohol	U	10.5	ug/L	2.11	10.5
95-50-1	1,2-Dichlorobenzene	U	10.5	ug/L	2.11	10.5
108-60-1	bis(2-Chloroisopropyl)ether	U	10.5	ug/L	2.11	10.5
95-48-7	o-Cresol	U	10.5	ug/L	2.11	10.5
65794-96-9	m,p-Cresols	U	10.5	ug/L	3.16	10.5
67-72-1	Hexachloroethane	U	10.5	ug/L	2.11	10.5
98-95-3	Nitrobenzene	U	10.5	ug/L	3.16	10.5
78-59-1	Isophorone	U	10.5	ug/L	3.16	10.5
88-75-5	2-Nitrophenol	U	10.5	ug/L	2.11	10.5
105-67-9	2,4-Dimethylphenol	U	10.5	ug/L	2.11	10.5
111-91-1	bis(2-Chloroethoxy)methane	U	10.5	ug/L	3.16	10.5
120-83-2	2,4-Dichlorophenol	U	10.5	ug/L	2.11	10.5
65-85-0	Benzoic acid	U	21.1	ug/L	6.32	21.1
91-20-3	Naphthalene	U	1.05	ug/L	0.316	1.05
106-47-8	4-Chloroaniline	U	10.5	ug/L	2.11	10.5
87-68-3	Hexachlorobutadiene	U	10.5	ug/L	2.11	10.5
91-57-6	2-Methylnaphthalene	U	1.05	ug/L	0.316	1.05
90-12-0	1-Methylnaphthalene	U	1.05	ug/L	0.316	1.05
77-47-4	Hexachlorocyclopentadiene	U	10.5	ug/L	3.16	10.5
88-06-2	2,4,6-Trichlorophenol	U	10.5	ug/L	2.11	10.5
95-95-4	2,4,5-Trichlorophenol	U	10.5	ug/L	2.11	10.5
91-58-7	2-Chloronaphthalene	U	1.05	ug/L	0.316	1.05

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247824002**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13498**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 16:40**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**950 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0314.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.5	ug/L	2.11	10.5
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.5	ug/L	2.11	10.5
131-11-3	Dimethylphthalate	U	10.5	ug/L	2.11	10.5
606-20-2	2,6-Dinitrotoluene	U	10.5	ug/L	2.11	10.5
208-96-8	Acenaphthylene	U	1.05	ug/L	0.211	1.05
51-28-5	2,4-Dinitrophenol	U	21.1	ug/L	5.26	21.1
132-64-9	Dibenzofuran	U	10.5	ug/L	2.11	10.5
84-66-2	Diethylphthalate	U	10.5	ug/L	2.11	10.5
86-73-7	Fluorene	U	1.05	ug/L	0.211	1.05
7005-72-3	4-Chlorophenylphenylether	U	10.5	ug/L	2.11	10.5
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.5	ug/L	3.16	10.5
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.5	ug/L	3.16	10.5
122-39-4	Diphenylamine	U	10.5	ug/L	3.16	10.5
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	10.5	ug/L	2.11	10.5
101-55-3	4-Bromophenylphenylether	U	10.5	ug/L	2.11	10.5
118-74-1	Hexachlorobenzene	U	10.5	ug/L	2.11	10.5
1912-24-9	Atrazine	U	10.5	ug/L	3.16	10.5
85-01-8	Phenanthrene	U	1.05	ug/L	0.211	1.05
120-12-7	Anthracene	U	1.05	ug/L	0.211	1.05
84-74-2	Di-n-butylphthalate	U	10.5	ug/L	2.11	10.5
206-44-0	Fluoranthene	U	1.05	ug/L	0.211	1.05
92-87-5	Benzidine	U	10.5	ug/L	3.16	10.5
85-68-7	Butylbenzylphthalate	U	10.5	ug/L	2.11	10.5
56-55-3	Benzo(a)anthracene	U	1.05	ug/L	0.211	1.05
91-94-1	3,3'-Dichlorobenzidine	U	10.5	ug/L	2.11	10.5
218-01-9	Chrysene	U	1.05	ug/L	0.211	1.05
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.5	ug/L	2.11	10.5
117-84-0	Di-n-octylphthalate	U	10.5	ug/L	3.16	10.5
205-99-2	Benzo(b)fluoranthene	U	1.05	ug/L	0.211	1.05
207-08-9	Benzo(k)fluoranthene	U	1.05	ug/L	0.211	1.05
50-32-8	Benzo(a)pyrene	U	1.05	ug/L	0.211	1.05
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.05	ug/L	0.211	1.05
53-70-3	Dibenzo(a,h)anthracene	U	1.05	ug/L	0.211	1.05
191-24-2	Benzo(ghi)perylene	U	1.05	ug/L	0.211	1.05
123-91-1	1,4-Dioxane	U	10.5	ug/L	2.11	10.5
55-18-5	N-Nitrosodiethylamine	U	10.5	ug/L	2.11	10.5

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247824002**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13498**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 16:40**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**950 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0314.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.5	ug/L	2.11	10.5
924-16-3	N-Nitrosodi-n-butylamine	U	10.5	ug/L	3.16	10.5
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.5	ug/L	3.16	10.5
608-93-5	Pentachlorobenzene	U	10.5	ug/L	3.16	10.5
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.5	ug/L	2.11	10.5
88-85-7	Dinoseb	U	10.5	ug/L	2.11	10.5
120-82-1	1,2,4-Trichlorobenzene	U	10.5	ug/L	2.11	10.5

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	66.8	105	ug/L	63.5	(39%-120%)
2-Fluorobiphenyl	31.1	52.6	ug/L	59.1	(38%-108%)
2-Fluorophenol	40.1	105	ug/L	38.1	(19%-98%)
Nitrobenzene-d5	31.1	52.6	ug/L	59.1	(31%-122%)
Phenol-d5	25.2	105	ug/L	23.9	(15%-83%)
p-Terphenyl-d14	44.8	52.6	ug/L	85.1	(40%-138%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-2005

Matrix Type: LIQUID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202057395	MB for batch 959290	42	25	64	66	72	106
1202057398	LCS for batch 959290	41	24	65	65	80	87
247824002	CAPA-10-13498	38	24	59	59	64	85

Surrogate			Acceptance Limits
2FP	=	2-Fluorophenol	(19%-98%)
PHL	=	Phenol-d5	(15%-83%)
NBZ	=	Nitrobenzene-d5	(31%-122%)
FBP	=	2-Fluorobiphenyl	(38%-108%)
TBP	=	2,4,6-Tribromophenol	(39%-120%)
TPH	=	p-Terphenyl-d14	(40%-138%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2005
Sample Type: Matrix Spike
Client ID: WST29-10-13281MS
Matrix: W
Lab Sample ID: 1202057396
Instrument: MSD8.I
Analysis Date: 03/03/2010 17:40
Dilution: 1
Analyst: NAG1
Prep Batch ID: 959290
Inj. Vol: .5 uL
Batch ID: 959294

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	100	0.00	U	46.0	46	28-111
108-95-2	MS	Phenol	100	0.00	U	36.5	37	20-71
95-57-8	MS	2-Chlorophenol	100	0.00	U	51.7	52	47-99
106-46-7	MS	1,4-Dichlorobenzene	100	0.00	U	54.3	54	40-83
621-64-7	MS	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	100	0.00	U	67.3	67	35-125
59-50-7	MS	Parachlorometa cresol *4-Chloro-3-methylphenol*	100	0.00	U	60.7	61	52-112
83-32-9	MS	Acenaphthene	100	0.00	U	61.8	62	44-102
121-14-2	MS	2,4-Dinitrotoluene	100	0.00	U	76.5	76	52-111
100-02-7	MS	4-Nitrophenol	100	0.00	U	45.4	45	27-91
87-86-5	MS	Pentachlorophenol	100	0.00	U	61.9	62	20-140
129-00-0	MS	Pyrene	100	0.00	U	68.9	69	28-131
110-86-1	MS	Pyridine	100	0.00	U	57.7	58	22-113
62-53-3	MS	Aniline	100	0.00	U	60.8	61	45-126
111-44-4	MS	bis(2-Chloroethyl) ether	100	0.00	U	55.1	55	32-109
541-73-1	MS	1,3-Dichlorobenzene	100	0.00	U	55.9	56	37-83
100-51-6	MS	Benzyl alcohol	100	0.00	U	7.84	8 *	37-111
95-50-1	MS	1,2-Dichlorobenzene	100	0.00	U	59.5	60	35-88
108-60-1	MS	bis(2-Chloroisopropyl)ether	100	0.00	U	49.6	50	25-122
95-48-7	MS	o-Cresol	100	0.00	U	65.2	65	29-107
65794-96-9	MS	m,p-Cresols	100	0.00	U	69.8	70	22-116
67-72-1	MS	Hexachloroethane	100	0.00	U	52.6	53	4-98
98-95-3	MS	Nitrobenzene	100	0.00	U	76.6	77	21-138

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2005 **Sample Type:** Matrix Spike

Client ID: WST29-10-13281MS **Matrix:** W

Lab Sample ID: 1202057396

Instrument: MSD8.I **Analysis Date:** 03/03/2010 17:40 **Dilution:** 1

Analyst: NAG1 **Prep Batch ID** 959290

Inj. Vol: .5 uL **Batch ID:** 959294

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	100	0.00	U	71.2	71	24-136
88-75-5	MS	2-Nitrophenol	100	0.00	U	55.1	55	47-110
105-67-9	MS	2,4-Dimethylphenol	100	0.00	U	54.7	55	43-103
111-91-1	MS	bis(2-Chloroethoxy)methane	100	0.00	U	69.9	70	37-116
120-83-2	MS	2,4-Dichlorophenol	100	0.00	U	58.6	59	48-106
65-85-0	MS	Benzoic acid	200	41.2		178	68	30-100
91-20-3	MS	Naphthalene	100	0.00	U	65.3	65	32-94
106-47-8	MS	4-Chloroaniline	100	0.00	U	70.5	70	46-123
87-68-3	MS	Hexachlorobutadiene	100	0.00	U	57.7	58	18-90
91-57-6	MS	2-Methylnaphthalene	100	1.40		69.7	68	40-103
90-12-0	MS	1-Methylnaphthalene	100	1.32		69.3	68	16-113
77-47-4	MS	Hexachlorocyclopentadiene	100	0.00	U	43.6	44	10-101
88-06-2	MS	2,4,6-Trichlorophenol	100	0.00	U	54.5	55	50-111
95-95-4	MS	2,4,5-Trichlorophenol	100	0.00	U	59.7	60	52-115
91-58-7	MS	2-Chloronaphthalene	100	0.00	U	65.6	66	44-97
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	100	0.00	U	45.9	46	31-133
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	100	0.00	U	66.3	66	25-150
131-11-3	MS	Dimethylphthalate	100	0.00	U	84.5	85	49-128
606-20-2	MS	2,6-Dinitrotoluene	100	0.00	U	78.7	79	55-110
208-96-8	MS	Acenaphthylene	100	0.00	U	67.7	68	22-127
51-28-5	MS	2,4-Dinitrophenol	100	0.00	U	56.9	57	33-135
132-64-9	MS	Dibenzofuran	100	0.00	U	70.4	70	39-119

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2005

Sample Type: Matrix Spike

Client ID: WST29-10-13281MS

Matrix: W

Lab Sample ID: 1202057396

Instrument: MSD8.I

Analysis Date: 03/03/2010 17:40

Dilution: 1

Analyst: NAG1

Prep Batch ID: 959290

Inj. Vol: .5 uL

Batch ID: 959294

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
84-66-2	MS	Diethylphthalate	100	0.00	U	81.1	81	50-130
86-73-7	MS	Fluorene	100	0.00	U	66.1	66	37-118
7005-72-3	MS	4-Chlorophenylphenylether	100	0.00	U	70.1	70	50-111
534-52-1	MS	2-Methyl-4,6-dinitrophenol	100	0.00	U	51.6	52	41-126
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	100	0.00	U	50.5	50	23-156
122-39-4	MS	Diphenylamine	100	0.00	U	85.3	85	26-130
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	100	0.00	U	75.7	76	48-117
101-55-3	MS	4-Bromophenylphenylether	100	0.00	U	78.8	79	48-114
118-74-1	MS	Hexachlorobenzene	100	0.00	U	77.0	77	25-134
1912-24-9	MS	Atrazine	100	0.00	U	105	105	25-136
85-01-8	MS	Phenanthrene	100	0.00	U	75.6	76	33-120
120-12-7	MS	Anthracene	100	0.00	U	72.6	73	27-131
84-74-2	MS	Di-n-butylphthalate	100	0.00	U	92.0	92	38-140
206-44-0	MS	Fluoranthene	100	0.00	U	75.7	76	46-121
92-87-5	MS	Benzidine	200	0.00	U	0.00	0 *	13-138
85-68-7	MS	Butylbenzylphthalate	100	0.00	U	92.8	93	35-149
56-55-3	MS	Benzo(a)anthracene	100	0.00	U	71.2	71	33-127
91-94-1	MS	3,3'-Dichlorobenzidine	100	0.00	U	18.0	18 *	40-111
218-01-9	MS	Chrysene	100	0.00	U	78.3	78	36-125
117-81-7	MS	bis(2-Ethylhexyl)phthalate	100	122	E	241	119	35-148
117-84-0	MS	Di-n-octylphthalate	100	0.00	U	95.9	96	27-159
205-99-2	MS	Benzo(b)fluoranthene	100	0.00	U	76.2	76	32-134

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2005
Client ID: WST29-10-13281MS
Lab Sample ID: 1202057396
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: W
Analysis Date: 03/03/2010 17:40
Prep Batch ID: 959290
Batch ID: 959294
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
207-08-9	MS	Benzo(k)fluoranthene	100	0.00	U	76.3	76	33-136
50-32-8	MS	Benzo(a)pyrene	100	0.00	U	78.6	79	35-134
193-39-5	MS	Indeno(1,2,3-cd)pyrene	100	0.00	U	83.9	84	28-138
53-70-3	MS	Dibenzo(a,h)anthracene	100	0.00	U	87.8	88	28-140
191-24-2	MS	Benzo(ghi)perylene	100	0.00	U	82.4	82	24-138
123-91-1	MS	1,4-Dioxane	100	0.00	U	60.3	60	44-102
930-55-2	MS	N-Nitrosopyrrolidine	100	0.00	U	67.2	67	29-117
120-82-1	MS	1,2,4-Trichlorobenzene	100	0.00	U	60.8	61	34-88

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-2005
Client ID: WST29-10-13281MSD
Lab Sample ID: 1202057397
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: W
Analysis Date: 03/03/2010 18:09
Prep Batch ID: 959290
Batch ID: 959294
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD	N-Methyl-N-nitrosomethylam	100	0.00	U	48.5	48	28-111	5	0-25
108-95-2	MSD	Phenol	100	0.00	U	37.7	38	20-71	3	0-25
95-57-8	MSD	2-Chlorophenol	100	0.00	U	50.7	51	47-99	2	0-25
106-46-7	MSD	1,4-Dichlorobenzene	100	0.00	U	60.8	61	40-83	11	0-25
621-64-7	MSD	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	100	0.00	U	73.1	73	35-125	8	0-25
59-50-7	MSD	Parachlorometa cresol *4-Chloro-3-methylphenol*	100	0.00	U	63.1	63	52-112	4	0-25
83-32-9	MSD	Acenaphthene	100	0.00	U	67.8	68	44-102	9	0-25
121-14-2	MSD	2,4-Dinitrotoluene	100	0.00	U	79.3	79	52-111	4	0-25
100-02-7	MSD	4-Nitrophenol	100	0.00	U	45.6	46	27-91	1	0-25
87-86-5	MSD	Pentachlorophenol	100	0.00	U	61.5	61	20-140	1	0-25
129-00-0	MSD	Pyrene	100	0.00	U	71.0	71	28-131	3	0-25
110-86-1	MSD	Pyridine	100	0.00	U	54.1	54	22-113	6	0-25
62-53-3	MSD	Aniline	100	0.00	U	64.2	64	45-126	5	0-25
111-44-4	MSD	bis(2-Chloroethyl) ether	100	0.00	U	60.0	60	32-109	8	0-25
541-73-1	MSD	1,3-Dichlorobenzene	100	0.00	U	61.5	61	37-83	10	0-25
100-51-6	MSD	Benzyl alcohol	100	0.00	U	21.2	21 *	37-111	92 *	0-25
95-50-1	MSD	1,2-Dichlorobenzene	100	0.00	U	66.7	67	35-88	11	0-25
108-60-1	MSD	bis(2-Chloroisopropyl)ether	100	0.00	U	54.6	55	25-122	10	0-25
95-48-7	MSD	o-Cresol	100	0.00	U	70.3	70	29-107	8	0-25
65794-96-9	MSD	m,p-Cresols	100	0.00	U	71.2	71	22-116	2	0-25
67-72-1	MSD	Hexachloroethane	100	0.00	U	57.9	58	4-98	9	0-25
98-95-3	MSD	Nitrobenzene	100	0.00	U	79.7	80	21-138	4	0-25

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2005

Sample Type: Matrix Spike Duplicate

Client ID: WST29-10-13281MSD

Matrix: W

Lab Sample ID: 1202057397

Instrument: MSD8.I

Analysis Date: 03/03/2010 18:09

Dilution: 1

Analyst: NAG1

Prep Batch ID: 959290

Inj. Vol: .5 uL

Batch ID: 959294

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	100	0.00	U	75.9	76	24-136	6	0-25
88-75-5	MSD 2-Nitrophenol	100	0.00	U	51.2	51	47-110	7	0-25
105-67-9	MSD 2,4-Dimethylphenol	100	0.00	U	65.0	65	43-103	17	0-25
111-91-1	MSD bis(2-Chloroethoxy)methane	100	0.00	U	75.8	76	37-116	8	0-25
120-83-2	MSD 2,4-Dichlorophenol	100	0.00	U	55.1	55	48-106	6	0-25
65-85-0	MSD Benzoic acid	200	41.2		176	67	30-100	1	0-25
91-20-3	MSD Naphthalene	100	0.00	U	71.2	71	32-94	9	0-25
106-47-8	MSD 4-Chloroaniline	100	0.00	U	74.3	74	46-123	5	0-25
87-68-3	MSD Hexachlorobutadiene	100	0.00	U	64.2	64	18-90	11	0-25
91-57-6	MSD 2-Methylnaphthalene	100	1.40		78.8	77	40-103	12	0-25
90-12-0	MSD 1-Methylnaphthalene	100	1.32		77.4	76	16-113	11	0-25
77-47-4	MSD Hexachlorocyclopentadiene	100	0.00	U	47.4	47	10-101	8	0-25
88-06-2	MSD 2,4,6-Trichlorophenol	100	0.00	U	51.6	52	50-111	6	0-25
95-95-4	MSD 2,4,5-Trichlorophenol	100	0.00	U	53.9	54	52-115	10	0-25
91-58-7	MSD 2-Chloronaphthalene	100	0.00	U	72.6	73	44-97	10	0-25
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	100	0.00	U	44.3	44	31-133	3	0-25
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	100	0.00	U	67.0	67	25-150	1	0-25
131-11-3	MSD Dimethylphthalate	100	0.00	U	88.1	88	49-128	4	0-25
606-20-2	MSD 2,6-Dinitrotoluene	100	0.00	U	83.3	83	55-110	6	0-25
208-96-8	MSD Acenaphthylene	100	0.00	U	73.6	74	22-127	8	0-25
51-28-5	MSD 2,4-Dinitrophenol	100	0.00	U	51.9	52	33-135	9	0-25
132-64-9	MSD Dibenzofuran	100	0.00	U	75.6	76	39-119	7	0-25

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2005

Sample Type: Matrix Spike Duplicate

Client ID: WST29-10-13281MSD

Matrix: W

Lab Sample ID: 1202057397

Instrument: MSD8.I

Analysis Date: 03/03/2010 18:09

Dilution: 1

Analyst: NAG1

Prep Batch ID: 959290

Inj. Vol: .5 uL

Batch ID: 959294

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
84-66-2	MSD Diethylphthalate	100	0.00	U	85.2	85	50-130	5	0-25
86-73-7	MSD Fluorene	100	0.00	U	72.1	72	37-118	9	0-25
7005-72-3	MSD 4-Chlorophenylphenylether	100	0.00	U	75.8	76	50-111	8	0-25
534-52-1	MSD 2-Methyl-4,6-dinitrophenol	100	0.00	U	44.7	45	41-126	14	0-25
100-01-6	MSD 4-Nitroaniline *p-Nitroaniline*	100	0.00	U	50.5	50	23-156	0	0-25
122-39-4	MSD Diphenylamine	100	0.00	U	89.8	90	26-130	5	0-25
122-66-7	MSD Azobenzene *1,2-Diphenylhydrazine*	100	0.00	U	80.8	81	48-117	6	0-25
101-55-3	MSD 4-Bromophenylphenylether	100	0.00	U	84.0	84	48-114	6	0-25
118-74-1	MSD Hexachlorobenzene	100	0.00	U	81.2	81	25-134	5	0-25
1912-24-9	MSD Atrazine	100	0.00	U	109	109	25-136	4	0-25
85-01-8	MSD Phenanthrene	100	0.00	U	78.9	79	33-120	4	0-25
120-12-7	MSD Anthracene	100	0.00	U	74.8	75	27-131	3	0-25
84-74-2	MSD Di-n-butylphthalate	100	0.00	U	96.1	96	38-140	4	0-25
206-44-0	MSD Fluoranthene	100	0.00	U	76.6	77	46-121	1	0-25
92-87-5	MSD Benzidine	200	0.00	U	0.00	0 *	13-138	0	0-25
85-68-7	MSD Butylbenzylphthalate	100	0.00	U	98.0	98	35-149	5	0-25
56-55-3	MSD Benzo(a)anthracene	100	0.00	U	72.9	73	33-127	2	0-25
91-94-1	MSD 3,3'-Dichlorobenzidine	100	0.00	U	16.1	16 *	40-111	12	0-25
218-01-9	MSD Chrysene	100	0.00	U	79.3	79	36-125	1	0-25
117-81-7	MSD bis(2-Ethylhexyl)phthalate	100	122	E	248	126	35-148	3	0-25
117-84-0	MSD Di-n-octylphthalate	100	0.00	U	93.8	94	27-159	2	0-25
205-99-2	MSD Benzo(b)fluoranthene	100	0.00	U	76.1	76	32-134	0	0-25

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2005
Client ID: WST29-10-13281MSD
Lab Sample ID: 1202057397
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: W
Analysis Date: 03/03/2010 18:09
Dilution: 1
Prep Batch ID: 959290
Batch ID: 959294

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
207-08-9	MSD	Benzo(k)fluoranthene	100	0.00	U	74.1	74	33-136	3	0-25
50-32-8	MSD	Benzo(a)pyrene	100	0.00	U	80.1	80	35-134	2	0-25
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	100	0.00	U	87.4	87	28-138	4	0-25
53-70-3	MSD	Dibenzo(a,h)anthracene	100	0.00	U	104	104	28-140	17	0-25
191-24-2	MSD	Benzo(ghi)perylene	100	0.00	U	97.5	97	24-138	17	0-25
123-91-1	MSD	1,4-Dioxane	100	0.00	U	60.5	60	44-102	0	0-25
930-55-2	MSD	N-Nitrosopyrrolidine	100	0.00	U	73.7	74	29-117	9	0-25
120-82-1	MSD	1,2,4-Trichlorobenzene	100	0.00	U	66.8	67	34-88	9	0-25

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2005
Client ID: LCS for batch 959290
Lab Sample ID: 1202057398
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: WATER
Analysis Date: 03/03/2010 15:11
Dilution: 1
Prep Batch ID: 959290
Batch ID: 959294

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	50.0	0.0	20.1	40	29-86
108-95-2	LCS	Phenol	50.0	0.0	12.9	26	15-50
95-57-8	LCS	2-Chlorophenol	50.0	0.0	33.0	66	43-103
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	28.1	56	35-90
621-64-7	LCS	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	50.0	0.0	33.6	67	51-111
59-50-7	LCS	Parachlorometa cresol *4-Chloro-3-methylphenol*	50.0	0.0	32.9	66	57-105
83-32-9	LCS	Acenaphthene	50.0	0.0	30.2	60	49-99
121-14-2	LCS	2,4-Dinitrotoluene	50.0	0.0	38.9	78	49-117
100-02-7	LCS	4-Nitrophenol	50.0	0.0	11.1	22	18-60
87-86-5	LCS	Pentachlorophenol	50.0	0.0	38.7	77	32-125
129-00-0	LCS	Pyrene	50.0	0.0	34.6	69	53-114
110-86-1	LCS	Pyridine	50.0	0.0	25.8	52	18-108
62-53-3	LCS	Aniline	50.0	0.0	32.2	64	48-120
111-44-4	LCS	bis(2-Chloroethyl) ether	50.0	0.0	28.6	57	49-99
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	28.3	57	21-88
100-51-6	LCS	Benzyl alcohol	50.0	0.0	24.1	48	33-97
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	29.2	58	24-93
108-60-1	LCS	bis(2-Chloroisopropyl)ether	50.0	0.0	23.7	47	36-117
95-48-7	LCS	o-Cresol	50.0	0.0	27.2	54	32-100
65794-96-9	LCS	m,p-Cresols	50.0	0.0	27.8	56	23-110
67-72-1	LCS	Hexachloroethane	50.0	0.0	25.6	51	10-91
98-95-3	LCS	Nitrobenzene	50.0	0.0	31.7	63	47-112

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2005
Client ID: LCS for batch 959290
Lab Sample ID: 1202057398
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: WATER
Analysis Date: 03/03/2010 15:11
Dilution: 1
Prep Batch ID: 959290
Batch ID: 959294

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	50.0	0.0	35.9	72	55-109
88-75-5	LCS	2-Nitrophenol	50.0	0.0	35.0	70	51-108
105-67-9	LCS	2,4-Dimethylphenol	50.0	0.0	33.2	66	37-106
111-91-1	LCS	bis(2-Chloroethoxy)methane	50.0	0.0	35.1	70	51-106
120-83-2	LCS	2,4-Dichlorophenol	50.0	0.0	35.8	72	53-102
65-85-0	LCS	Benzoic acid	100	0.0	31.7	32	10-130
91-20-3	LCS	Naphthalene	50.0	0.0	31.9	64	39-90
106-47-8	LCS	4-Chloroaniline	50.0	0.0	42.2	84	54-123
87-68-3	LCS	Hexachlorobutadiene	50.0	0.0	26.6	53	16-93
91-57-6	LCS	2-Methylnaphthalene	50.0	0.0	33.7	67	44-98
90-12-0	LCS	1-Methylnaphthalene	50.0	0.0	33.5	67	29-104
77-47-4	LCS	Hexachlorocyclopentadiene	50.0	0.0	17.5	35	10-112
88-06-2	LCS	2,4,6-Trichlorophenol	50.0	0.0	37.1	74	47-115
95-95-4	LCS	2,4,5-Trichlorophenol	50.0	0.0	34.7	69	52-113
91-58-7	LCS	2-Chloronaphthalene	50.0	0.0	30.8	62	41-104
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	50.0	0.0	31.4	63	54-118
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	50.0	0.0	39.6	79	45-143
131-11-3	LCS	Dimethylphthalate	50.0	0.0	41.9	84	62-121
606-20-2	LCS	2,6-Dinitrotoluene	50.0	0.0	39.6	79	52-115
208-96-8	LCS	Acenaphthylene	50.0	0.0	33.4	67	46-111
51-28-5	LCS	2,4-Dinitrophenol	50.0	0.0	34.1	68	30-135
132-64-9	LCS	Dibenzofuran	50.0	0.0	34.2	68	59-106

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-2005
Client ID: LCS for batch 959290
Lab Sample ID: 1202057398
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: WATER
Analysis Date: 03/03/2010 15:11
Dilution: 1
Prep Batch ID: 959290
Batch ID: 959294

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
84-66-2	LCS	Diethylphthalate	50.0	0.0	41.5	83	63-124
86-73-7	LCS	Fluorene	50.0	0.0	32.9	66	49-108
7005-72-3	LCS	4-Chlorophenylphenylether	50.0	0.0	34.2	68	56-107
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	50.0	0.0	33.7	67	45-126
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	50.0	0.0	42.4	85	43-146
122-39-4	LCS	Diphenylamine	50.0	0.0	43.3	87	60-111
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	50.0	0.0	37.3	75	47-122
101-55-3	LCS	4-Bromophenylphenylether	50.0	0.0	38.7	77	53-113
118-74-1	LCS	Hexachlorobenzene	50.0	0.0	38.6	77	53-111
1912-24-9	LCS	Atrazine	50.0	0.0	52.0	104	42-133
85-01-8	LCS	Phenanthrene	50.0	0.0	37.5	75	55-105
120-12-7	LCS	Anthracene	50.0	0.0	36.0	72	54-111
84-74-2	LCS	Di-n-butylphthalate	50.0	0.0	46.7	93	56-130
206-44-0	LCS	Fluoranthene	50.0	0.0	37.6	75	58-115
92-87-5	LCS	Benzidine	100	0.0	39.8	40	10-151
85-68-7	LCS	Butylbenzylphthalate	50.0	0.0	46.6	93	54-139
56-55-3	LCS	Benzo(a)anthracene	50.0	0.0	35.7	71	58-109
91-94-1	LCS	3,3'-Dichlorobenzidine	50.0	0.0	37.4	75	44-110
218-01-9	LCS	Chrysene	50.0	0.0	39.5	79	58-112
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	50.0	0.0	48.3	97	54-138
117-84-0	LCS	Di-n-octylphthalate	50.0	0.0	42.4	85	46-145
205-99-2	LCS	Benzo(b)fluoranthene	50.0	0.0	35.4	71	55-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2005
Client ID: LCS for batch 959290
Lab Sample ID: 1202057398
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: WATER
Analysis Date: 03/03/2010 15:11
Dilution: 1
Prep Batch ID 959290
Batch ID: 959294

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
207-08-9	LCS	Benzo(k)fluoranthene	50.0	0.0	37.6	75	57-119
50-32-8	LCS	Benzo(a)pyrene	50.0	0.0	38.4	77	60-118
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	50.0	0.0	40.4	81	52-124
53-70-3	LCS	Dibenzo(a,h)anthracene	50.0	0.0	52.2	104	53-125
191-24-2	LCS	Benzo(ghi)perylene	50.0	0.0	48.9	98	49-125
123-91-1	LCS	1,4-Dioxane	50.0	0.0	27.3	55	27-93
930-55-2	LCS	N-Nitrosopyrrolidine	50.0	0.0	32.5	65	46-101
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	29.1	58	23-94

Method Blank Summary

SDG Number:	10-2005	Client:	LANL010	Matrix:	WATER
Client ID:	MB for batch 959290	Instrument ID:	MSD8.I	Data File:	s8c0310-1.d
Lab Sample ID:	1202057395	Prep Date:	03/01/2010 23:33	Analyzed:	03/03/10 14:41
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 959290	1202057398	s8c0311-1.d	03/03/10	1511
02 CAPA-10-13498	247824002	s8c0314.d	03/03/10	1640

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2005

Instrument ID MSD8.I **Injection Date/Time:** 03-MAR-10 13:25

Column Description: J & W DB-5MS **Lab File ID** /chem/MSD8.i/s030310.b/s8c0307.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	34.6
68	Less than 2% of mass 69	1.3
69	Mass 69 Relative Abundance	39
70	Less than 2% of mass 69	0.4
127	40 - 60% of mass 198	50.2
197	0 - 1% of mass 198	0.3
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	26.9
365	Greater than 1% of mass 198	2.9
441	Present, but less than mass 443	80
442	Greater than 40% of mass 198	62.8
443	17 - 23% of mass 442	20

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100225-05.5	s8c0308.d	03-MAR-10 13:40
AP12CVS	WBN100218-03.4	s8c0309.d	03-MAR-10 14:12
SBLK01	1202057395	s8c0310-1.d	03-MAR-10 14:41
SBLK01LCS	1202057398	s8c0311-1.d	03-MAR-10 15:11
CAPA-10-13498	247824002	s8c0314.d	03-MAR-10 16:40

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2005

Instrument ID: MSD8.1 **Injection Date/Time:** 20-FEB-10 12:04

Column Description: J & W DB-5MS **Lab File ID** /chem/MSD8.i/s022010.b/s8b2001.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	41.9
68	Less than 2% of mass 69	1.9
69	Mass 69 Relative Abundance	40.3
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	49.9
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	24.3
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	76.5
442	Greater than 40% of mass 198	61.7
443	17 - 23% of mass 442	19.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGAICAL	WBN100215-08	s8b2003.d	20-FEB-10 12:55
MEGAICAL	WBN100215-07	s8b2004.d	20-FEB-10 13:30
MEGAICAL	WBN100215-06	s8b2005.d	20-FEB-10 14:05
MEGAICAL	WBN100215-05.1	s8b2006.d	20-FEB-10 14:40
MEGAICAL	WBN100215-04	s8b2007.d	20-FEB-10 15:14
MEGAICAL	WBN100215-03	s8b2008.d	20-FEB-10 15:50
MEGAICAL	WBN100215-02	s8b2009.d	20-FEB-10 16:25
MEGAICAL	WBN100215-01	s8b2010.d	20-FEB-10 16:59
MEGAICV	WBN100215-05.1	s8b2012.d	20-FEB-10 18:09

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2005

Instrument: MSD8.I

STD Analysis Time: 03-MAR-10 13:40

GC Column: J&W DB-5MS

Data File: s8c0308.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	# RT	#	Area	# RT	#	Area	# RT	#	Area	# RT	#	Area	# RT	#	Area	# RT	#
12 Hour STD	337349	4.35		1317433	5.61		787174	7.46		1390793	9.06		1272293	11.9		991553	14.0	
Upper Limit	674698	4.85		2634866	6.11		1574348	7.96		2781586	9.56		2544586	12.4		1983106	14.5	
Lower Limit	168675	3.85		658717	5.11		393587	6.96		695397	8.56		636147	11.4		495777	13.5	
Sample ID																		
BLK01	494671	4.35		1872276	5.61		1088385	7.46		1782518	9.06		1263915	11.9		962548	14.0	
BLK01LCS	388983	4.35		1478511	5.61		902508	7.46		1576300	9.06		1412049	11.9		1087893	14.0	
CAPA-10-13498	416891	4.35		1601649	5.61		958821	7.46		1661349	9.06		1307134	11.9		1006901	14.0	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2005	Date Collected:	02/22/2010 12:00	Matrix:	GROUND WATER
Lab Sample ID:	247824002	Date Received:	02/23/2010 08:50		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-13498	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	959294	Inst:	MSD8.I	Dilution:	1
Run Date:	03/03/2010 16:40	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	03/01/2010 23:33	Aliquot:	950 mL	Final Volume:	1 mL
Data File:	s8c0314.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.5	ug/L	2.11	10.5
108-95-2	Phenol	U	10.5	ug/L	1.05	10.5
95-57-8	2-Chlorophenol	U	10.5	ug/L	2.11	10.5
106-46-7	1,4-Dichlorobenzene	U	10.5	ug/L	2.11	10.5
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	10.5	ug/L	2.11	10.5
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	10.5	ug/L	2.11	10.5
83-32-9	Acenaphthene	U	1.05	ug/L	0.326	1.05
121-14-2	2,4-Dinitrotoluene	U	10.5	ug/L	2.11	10.5
100-02-7	4-Nitrophenol	U	10.5	ug/L	2.11	10.5
87-86-5	Pentachlorophenol	U	10.5	ug/L	2.11	10.5
129-00-0	Pyrene	U	1.05	ug/L	0.316	1.05
110-86-1	Pyridine	U	10.5	ug/L	3.16	10.5
62-53-3	Aniline	U	10.5	ug/L	2.63	10.5
111-44-4	bis(2-Chloroethyl) ether	U	10.5	ug/L	2.11	10.5
541-73-1	1,3-Dichlorobenzene	U	10.5	ug/L	2.11	10.5
100-51-6	Benzyl alcohol	U	10.5	ug/L	2.11	10.5
95-50-1	1,2-Dichlorobenzene	U	10.5	ug/L	2.11	10.5
108-60-1	bis(2-Chloroisopropyl)ether	U	10.5	ug/L	2.11	10.5
95-48-7	o-Cresol	U	10.5	ug/L	2.11	10.5
65794-96-9	m,p-Cresols	U	10.5	ug/L	3.16	10.5
67-72-1	Hexachloroethane	U	10.5	ug/L	2.11	10.5
98-95-3	Nitrobenzene	U	10.5	ug/L	3.16	10.5
78-59-1	Isophorone	U	10.5	ug/L	3.16	10.5
88-75-5	2-Nitrophenol	U	10.5	ug/L	2.11	10.5
105-67-9	2,4-Dimethylphenol	U	10.5	ug/L	2.11	10.5
111-91-1	bis(2-Chloroethoxy)methane	U	10.5	ug/L	3.16	10.5
120-83-2	2,4-Dichlorophenol	U	10.5	ug/L	2.11	10.5
65-85-0	Benzoic acid	U	21.1	ug/L	6.32	21.1
91-20-3	Naphthalene	U	1.05	ug/L	0.316	1.05
106-47-8	4-Chloroaniline	U	10.5	ug/L	2.11	10.5
87-68-3	Hexachlorobutadiene	U	10.5	ug/L	2.11	10.5
91-57-6	2-Methylnaphthalene	U	1.05	ug/L	0.316	1.05
90-12-0	1-Methylnaphthalene	U	1.05	ug/L	0.316	1.05
77-47-4	Hexachlorocyclopentadiene	U	10.5	ug/L	3.16	10.5
88-06-2	2,4,6-Trichlorophenol	U	10.5	ug/L	2.11	10.5
95-95-4	2,4,5-Trichlorophenol	U	10.5	ug/L	2.11	10.5
91-58-7	2-Chloronaphthalene	U	1.05	ug/L	0.316	1.05

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247824002**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13498**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 16:40**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**950 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0314.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.5	ug/L	2.11	10.5
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.5	ug/L	2.11	10.5
131-11-3	Dimethylphthalate	U	10.5	ug/L	2.11	10.5
606-20-2	2,6-Dinitrotoluene	U	10.5	ug/L	2.11	10.5
208-96-8	Acenaphthylene	U	1.05	ug/L	0.211	1.05
51-28-5	2,4-Dinitrophenol	U	21.1	ug/L	5.26	21.1
132-64-9	Dibenzofuran	U	10.5	ug/L	2.11	10.5
84-66-2	Diethylphthalate	U	10.5	ug/L	2.11	10.5
86-73-7	Fluorene	U	1.05	ug/L	0.211	1.05
7005-72-3	4-Chlorophenylphenylether	U	10.5	ug/L	2.11	10.5
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.5	ug/L	3.16	10.5
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.5	ug/L	3.16	10.5
122-39-4	Diphenylamine	U	10.5	ug/L	3.16	10.5
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	10.5	ug/L	2.11	10.5
101-55-3	4-Bromophenylphenylether	U	10.5	ug/L	2.11	10.5
118-74-1	Hexachlorobenzene	U	10.5	ug/L	2.11	10.5
1912-24-9	Atrazine	U	10.5	ug/L	3.16	10.5
85-01-8	Phenanthrene	U	1.05	ug/L	0.211	1.05
120-12-7	Anthracene	U	1.05	ug/L	0.211	1.05
84-74-2	Di-n-butylphthalate	U	10.5	ug/L	2.11	10.5
206-44-0	Fluoranthene	U	1.05	ug/L	0.211	1.05
92-87-5	Benzidine	U	10.5	ug/L	3.16	10.5
85-68-7	Butylbenzylphthalate	U	10.5	ug/L	2.11	10.5
56-55-3	Benzo(a)anthracene	U	1.05	ug/L	0.211	1.05
91-94-1	3,3'-Dichlorobenzidine	U	10.5	ug/L	2.11	10.5
218-01-9	Chrysene	U	1.05	ug/L	0.211	1.05
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.5	ug/L	2.11	10.5
117-84-0	Di-n-octylphthalate	U	10.5	ug/L	3.16	10.5
205-99-2	Benzo(b)fluoranthene	U	1.05	ug/L	0.211	1.05
207-08-9	Benzo(k)fluoranthene	U	1.05	ug/L	0.211	1.05
50-32-8	Benzo(a)pyrene	U	1.05	ug/L	0.211	1.05
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.05	ug/L	0.211	1.05
53-70-3	Dibenzo(a,h)anthracene	U	1.05	ug/L	0.211	1.05
191-24-2	Benzo(ghi)perylene	U	1.05	ug/L	0.211	1.05
123-91-1	1,4-Dioxane	U	10.5	ug/L	2.11	10.5
55-18-5	N-Nitrosodiethylamine	U	10.5	ug/L	2.11	10.5

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247824002**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13498**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 16:40**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**950 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0314.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.5	ug/L	2.11	10.5
924-16-3	N-Nitrosodi-n-butylamine	U	10.5	ug/L	3.16	10.5
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.5	ug/L	3.16	10.5
608-93-5	Pentachlorobenzene	U	10.5	ug/L	3.16	10.5
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.5	ug/L	2.11	10.5
88-85-7	Dinoseb	U	10.5	ug/L	2.11	10.5
120-82-1	1,2,4-Trichlorobenzene	U	10.5	ug/L	2.11	10.5

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	66.8	105	ug/L	63.5	(39%-120%)
2-Fluorobiphenyl	31.1	52.6	ug/L	59.1	(38%-108%)
2-Fluorophenol	40.1	105	ug/L	38.1	(19%-98%)
Nitrobenzene-d5	31.1	52.6	ug/L	59.1	(31%-122%)
Phenol-d5	25.2	105	ug/L	23.9	(15%-83%)
p-Terphenyl-d14	44.8	52.6	ug/L	85.1	(40%-138%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030310.b/s8c0314.d
Lab Smp Id: 247824002 Client Smp ID: CAPA-10-13498
Inj Date : 03-MAR-2010 16:40
Operator : nagl Inst ID: MSD8.i
Smp Info : |247824002|959294|1|SVMF|2|LANL
Misc Info : |MSD82709L|WBN100227-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Meth Date : 03-Mar-2010 15:34 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2005.sub
Target Version: 3.50
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	950.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.353	4.354	(1.000)	416891	40.0000	
* 29 Naphthalene-d8	136	5.611	5.611	(1.000)	1601649	40.0000	
* 46 Acenaphthene-d10	164	7.463	7.463	(1.000)	958821	40.0000	
* 67 Phenanthrene-d10	188	9.058	9.058	(1.000)	1661349	40.0000	
* 91 Chrysene-d12	240	11.939	11.944	(1.000)	1307134	40.0000	
* 98 Perylene-d12	264	13.987	13.992	(1.000)	1006901	40.0000	
$ 3 2-Fluorophenol	112	3.201	3.201	(0.735)	374828	38.0837	40.1
$ 5 Phenol-d5	99	3.973	3.973	(0.912)	293375	23.9014	25.2
$ 20 Nitrobenzene-d5	82	4.877	4.877	(0.869)	336633	29.5667	31.1
$ 39 2-Fluorobiphenyl	172	6.734	6.735	(0.902)	834271	29.5602	31.1
$ 60 2,4,6-Tribromophenol	329	8.306	8.306	(1.113)	201280	63.5050	66.8
$ 81 p-Terphenyl-d14	244	10.773	10.773	(0.902)	1001617	42.5619	44.8

ION RATIO REPORT

SV REPORT

Data file: s8c0314.d
Report Date: 03/04/2010 07:01
Lab. ID: 247824002 SampleType: SAMPLE
Injection Date: 03-MAR-2010 16:40
Operator: nagl Instrument: MSD8.i
Sample Info: |247824002|959294|1|SVMF|2|LANL
Miscellaneous Info: |MSD82709L|WBN100227-01
Comment:
Method used: /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2005
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	44986	4.88	4.73	80-120	100	(T)
42	19908	4.88	4.73	20- 80	44	(T)
34 2-Methylnaphthalene				CAS#: 91-57-6		
142	241	6.35	6.35	80-120	100	( )
141	141	6.35	6.35	56-116	59	( )
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	122701	7.46	7.23	80-120	100	(T)
63	1598	7.46	7.23	21- 81	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	122701	7.46	7.66	80-120	100	(T)
89	1670	7.46	7.66	35- 95	1	(QT)
63	1598	7.46	7.66	16- 76	1	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	611	8.30	8.10	80-120	100	(T)
105	1184	8.30	8.10	7- 67	194	(QT)
51	1132	8.30	8.10	10- 70	185	(QT)
68 Phenanthrene				CAS#: 85-01-8		
178	830	9.08	9.08	80-120	100	( )
179	948	9.06	9.08	0- 45	114	(Q)
176	139	9.08	9.08	0- 49	17	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
92 Chrysene			CAS#: 218-01-9			
228	370	11.97	11.97	80-120	100	( )
229	893	11.94	11.97	0- 49	241	(Q)
226	281	11.94	11.97	0- 59	76	(Q)
94 Di-n-octylphthalate			CAS#: 117-84-0			
149	310	12.80	12.82	80-120	100	( )
43	159	12.86	12.82	0- 38	52	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030310.b/s8c0314.d
Lab Smp Id: 247824002 Client Smp ID: CAPA-10-13498
Inj Date : 03-MAR-2010 16:40
Operator : nag1 Inst ID: MSD8.i
Smp Info : |247824002|959294|1|SVMF|2|LANL
Misc Info : |MSD82709L|WBN100227-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Meth Date : 03-Mar-2010 15:34 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2005.sub
Target Version: 3.50
Processing Host: hpclp1

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/MSD8.i/s030310.b/s8c0314.d
Date : 03-MAR-2010 16:40
Client ID: CAPA-10-13498
Sample Info: 1247824002195929411SVMF12LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: nag1
Column diameter: 0.20

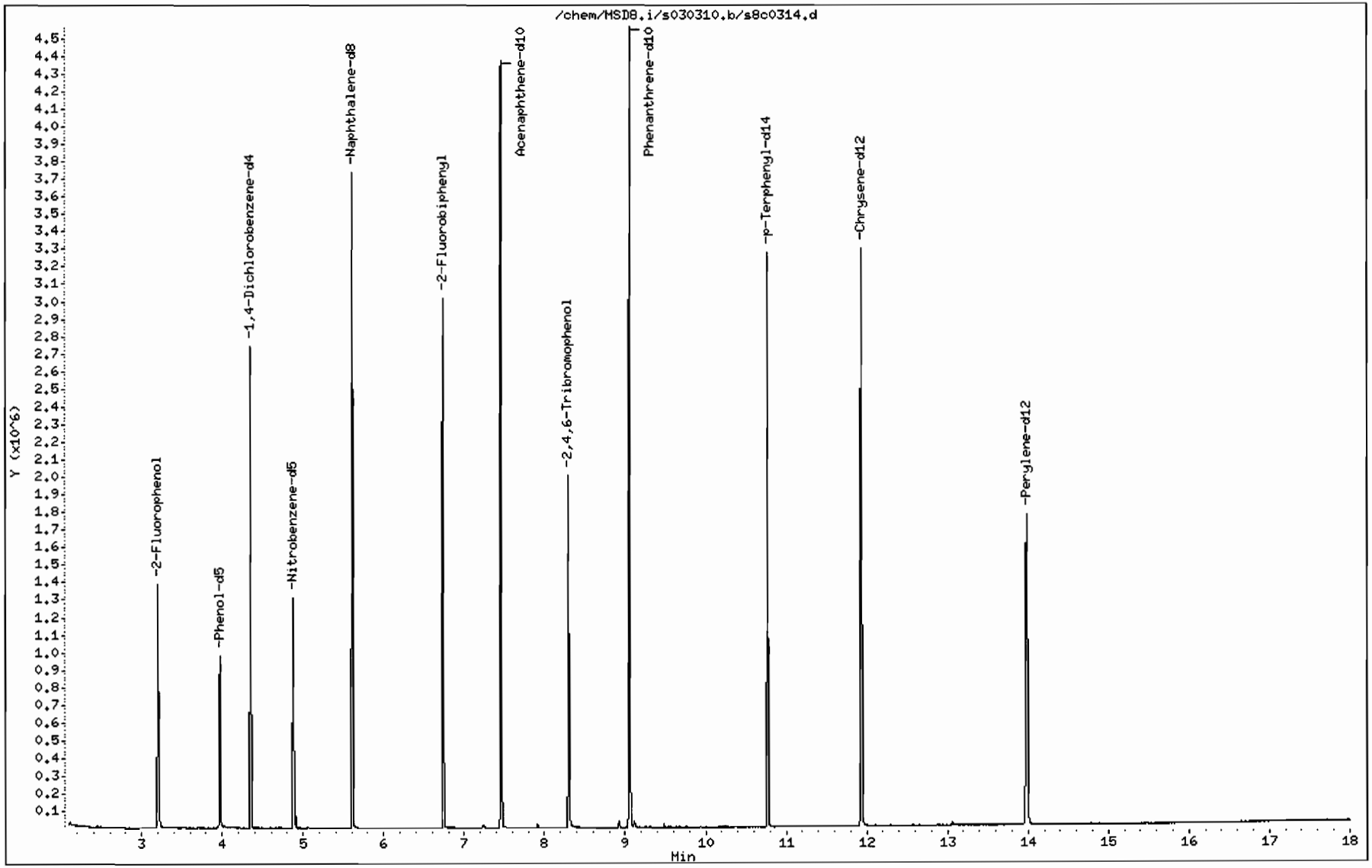

Standard Data

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate		10	20	40	50	80	100	120
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
4-Aminobiphenyl		10	20	40	50	80	100	120

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothioanisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120

SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.
(0210/Full list)

Report Date: 03-Mar-2010 15:36

Calibration History

Method : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Start Cal Date: 20-FEB-2010 12:55
End Cal Date : 22-FEB-2010 01:19

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
20-FEB-2010 12:55	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2003.d
Cal Level: 2 , Cal Amount: 10.00000		
21-FEB-2010 22:13	NEV	/chem/MSD8.i/s022010.b/s8b2040.d
21-FEB-2010 16:44	HEX	/chem/MSD8.i/s022010.b/s8b2029.d
21-FEB-2010 13:02	PEST	/chem/MSD8.i/s022010.b/s8b2022.d
21-FEB-2010 09:21	AP12	/chem/MSD8.i/s022010.b/s8b2015.d
20-FEB-2010 13:30	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2004.d
Cal Level: 3 , Cal Amount: 20.00000		
21-FEB-2010 22:45	NEV	/chem/MSD8.i/s022010.b/s8b2041.d
21-FEB-2010 17:16	HEX	/chem/MSD8.i/s022010.b/s8b2030.d
21-FEB-2010 13:33	PEST	/chem/MSD8.i/s022010.b/s8b2023.d
21-FEB-2010 09:52	AP12	/chem/MSD8.i/s022010.b/s8b2016.d
20-FEB-2010 14:05	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2005.d
Cal Level: 4 , Cal Amount: 40.00000		
21-FEB-2010 23:15	NEV	/chem/MSD8.i/s022010.b/s8b2042.d
21-FEB-2010 17:48	HEX	/chem/MSD8.i/s022010.b/s8b2031.d
21-FEB-2010 14:05	PEST	/chem/MSD8.i/s022010.b/s8b2024.d
21-FEB-2010 10:23	AP12	/chem/MSD8.i/s022010.b/s8b2017.d
20-FEB-2010 14:40	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2006.d
Cal Level: 5 , Cal Amount: 50.00000		
21-FEB-2010 23:46	NEV	/chem/MSD8.i/s022010.b/s8b2043.d
21-FEB-2010 18:19	HEX	/chem/MSD8.i/s022010.b/s8b2032.d
21-FEB-2010 14:37	PEST	/chem/MSD8.i/s022010.b/s8b2025.d
21-FEB-2010 10:54	AP12	/chem/MSD8.i/s022010.b/s8b2018.d
20-FEB-2010 15:14	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2007.d
Cal Level: 6 , Cal Amount: 80.00000		
22-FEB-2010 00:17	NEV	/chem/MSD8.i/s022010.b/s8b2044.d
21-FEB-2010 18:51	HEX	/chem/MSD8.i/s022010.b/s8b2033.d
21-FEB-2010 15:09	PEST	/chem/MSD8.i/s022010.b/s8b2026.d
21-FEB-2010 11:26	AP12	/chem/MSD8.i/s022010.b/s8b2019.d
20-FEB-2010 15:50	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2008.d
Cal Level: 7 , Cal Amount: 100.00000		

22-FEB-2010 00:48	NEV	/chem/MSD8.i/s022010.b/s8b2045.d
21-FEB-2010 19:22	HEX	/chem/MSD8.i/s022010.b/s8b2034.d
21-FEB-2010 15:40	PEST	/chem/MSD8.i/s022010.b/s8b2027.d
21-FEB-2010 11:59	AP12	/chem/MSD8.i/s022010.b/s8b2020.d
20-FEB-2010 16:25	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2009.d

Cal Level: 8 , Cal Amount: 120.00000

22-FEB-2010 01:19	NEV	/chem/MSD8.i/s022010.b/s8b2046.d
21-FEB-2010 16:12	PEST	/chem/MSD8.i/s022010.b/s8b2028.d
21-FEB-2010 12:30	AP12	/chem/MSD8.i/s022010.b/s8b2021.d
20-FEB-2010 16:59	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2010.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0

03-MAR-2010 13:40	MEGAIICARE	/chem/MSD8.i/s030310.b/s8c0308.d

Ccal Level: 4 , Ccal Amount: 40.0

03-MAR-2010 14:12	AP12	/chem/MSD8.i/s030310.b/s8c0309.d

Ccal Level: 4 , Ccal Amount: 40.0

03-MAR-2010 11:13	MEGAIICARE	/chem/MSD8.i/s030310.b/s8c0306.d

Ccal Level: 4 , Ccal Amount: 40.0

03-MAR-2010 10:08	AP12	/chem/MSD8.i/s030310.b/s8c0304.d

Ccal Level: 4 , Ccal Amount: 40.0

03-MAR-2010 09:05	MEGAIICARE	/chem/MSD8.i/s030310.b/s8c0302.d

Ccal Level: 4 , Ccal Amount: 40.0

03-MAR-2010 09:37	MEGAIICARE	/chem/MSD8.i/s030310.b/s8c0303.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55
End Cal Date : 22-FEB-2010 01:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Cal Date : 03-Mar-2010 15:34 nat00999

Calibration File Names:
Level 1: /chem/MSD8.i/s022010.b/s8b2003.d
Level 2: /chem/MSD8.i/s022010.b/s8b2040.d
Level 3: /chem/MSD8.i/s022010.b/s8b2041.d
Level 4: /chem/MSD8.i/s022010.b/s8b2042.d
Level 5: /chem/MSD8.i/s022010.b/s8b2043.d
Level 6: /chem/MSD8.i/s022010.b/s8b2044.d
Level 7: /chem/MSD8.i/s022010.b/s8b2045.d
Level 8: /chem/MSD8.i/s022010.b/s8b2046.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.61951	0.63665	0.62571	0.60931	0.60758					
	0.57992	0.58593					AVRG		0.60923		3.37337
2 Pyridine	+++++	0.89446	0.93458	0.90790	0.87786	0.88941					
	0.87607	0.87582					AVRG		0.89373		2.40541
4 Aniline	+++++	0.55291	0.56486	0.55215	0.55460	0.55759					
	0.54402	0.56183					AVRG		0.55542		1.23562
209 Benzaldehyde	+++++	0.88461	0.93065	0.82979	0.84335	0.81229					
	0.82905	0.77335					AVRG		0.84330		6.04219
6 Phenol	+++++	1.21439	1.26753	1.22620	1.19992	1.19696					
	1.19022	1.21801					AVRG		1.21617		2.13674

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55
End Cal Date : 22-FEB-2010 01:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Cal Date : 03-Mar-2010 15:34 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	+++++	0.86875	0.87510	0.84552	0.82182	0.81301					
	0.79428	0.80161					AVRG		0.83144		3.86597
8 2-Chlorophenol	+++++	1.03978	1.08408	1.07215	1.04534	1.05301					
	1.03335	1.06466					AVRG		1.05605		1.73871
203 n-Decane	+++++	1.27851	1.24822	1.15740	1.07516	1.00264					
	0.94466	0.91988					AVRG		1.08949		13.14312
9 1,3-Dichlorobenzene	+++++	1.28111	1.28796	1.25869	1.21836	1.23373					
	1.22581	1.26112					AVRG		1.25240		2.16688
11 1,4-Dichlorobenzene	+++++	1.29450	1.32850	1.27510	1.26337	1.28372					
	1.27786	1.32204					AVRG		1.29215		1.89951
12 Benzyl alcohol	+++++	0.63823	0.66891	0.66923	0.65483	0.66997					
	0.65441	0.66840					AVRG		0.66057		1.81681
13 1,2-Dichlorobenzene	+++++	1.23246	1.24228	1.20302	1.17789	1.18128					
	1.16994	1.20670					AVRG		1.20194		2.30652
14 bis(2-Chloroisopropyl)ether	+++++	1.75891	1.77869	1.68785	1.62858	1.56724					
	1.49862	1.49146					AVRG		1.63019		7.19167
15 o-Cresol	+++++	0.83685	0.86246	0.86097	0.83301	0.83522					
	0.83135	0.85253					AVRG		0.84463		1.60879

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INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55
End Cal Date : 22-FEB-2010 01:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Cal Date : 03-Mar-2010 15:34 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.22382	1.29124	1.18127	1.20711	1.16108					
	1.20314	1.15394					AVRG		1.20309		3.85004
17 N-Nitrosodipropylamine	+++++	0.77291	0.78775	0.78533	0.78242	0.77484					
	0.76559	0.77632					AVRG		0.77788		0.99721
18 m,p-Cresols	+++++	1.04493	1.08669	1.06836	1.05918	1.07181					
	1.06572	1.08557					AVRG		1.06890		1.36774
19 Hexachloroethane	+++++	0.48582	0.49574	0.48975	0.48187	0.48407					
	0.48126	0.49008					AVRG		0.48694		1.06899
21 Nitrobenzene	+++++	0.29364	0.29812	0.29008	0.28855	0.29311					
	0.29496	0.29467					AVRG		0.29331		1.08619
22 Isophorone	+++++	0.54198	0.54074	0.53290	0.53134	0.54066					
	0.54707	0.54526					AVRG		0.53999		1.09041
23 2-Nitrophenol	+++++	0.13002	0.13039	0.13172	0.13404	0.13721					
	0.13936	0.13958					AVRG		0.13462		3.05487
24 2,4-Dimethylphenol	+++++	0.23868	0.23567	0.23285	0.23796	0.24044					
	0.24421	0.24544					AVRG		0.23932		1.86969
25 bis(2-Chloroethoxy)methane	+++++	0.31326	0.30893	0.29561	0.29347	0.29853					
	0.30400	0.30594					AVRG		0.30282		2.39356

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INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55
End Cal Date : 22-FEB-2010 01:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Cal Date : 03-Mar-2010 15:34 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.20745	0.21497	0.21364	0.21276	0.21836					
	0.22351	0.22510					AVRG		0.21654		2.87770
27 Benzoic acid	+++++	+++++	83893	215984	333227	600127					
	779305	996763					LINR	0.37420	0.17210		0.99460
28 1,2,4-Trichlorobenzene	+++++	0.30108	0.29237	0.28234	0.27990	0.28748					
	0.29534	0.29975					AVRG		0.29118		2.83696
30 Naphthalene	59622	408591	879341	1743176	2453204	3915424					
	4829589	5952102					LINR	0.05011	0.91806		0.99772
204 alpha-Terpineol	+++++	0.23619	0.23584	0.22166	0.22004	0.21591					
	0.21504	0.21341					AVRG		0.22259		4.31595
31 4-Chloroaniline	+++++	0.27947	0.29236	0.29508	0.28109	0.28200					
	0.28493	0.28604					AVRG		0.28585		2.05307
189 Caprolactam	+++++	0.05934	0.06750	0.06559	0.06739	0.06727					
	0.07008	0.06871					AVRG		0.06655		5.20909
32 Hexachlorobutadiene	+++++	0.18359	0.18107	0.17811	0.17478	0.18060					
	0.18360	0.18593					AVRG		0.18110		2.07689
33 4-Chloro-3-methylphenol	+++++	0.22447	0.23171	0.23125	0.22996	0.23628					
	0.24180	0.24455					AVRG		0.23429		3.00125

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Method file : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Cal Date : 03-Mar-2010 15:34 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	38110	275963	600338	1198438	1651350	2574886					
	3185761	3911554					LINR	0.03268	0.60114		0.99853
35 1-Methylnaphthalene	38576	271665	594641	1175844	1616234	2506814					
	3139153	3823750					LINR	0.03094	0.58835		0.99835
36 Hexachlorocyclopentadiene	+++++	0.21877	0.25138	0.24756	0.25311	0.24824					
	0.25115	0.26766					AVRG		0.24827		5.90114
208 1,1'-Biphenyl	+++++	1.22247	1.29127	1.17987	1.19898	1.18070					
	1.25475	1.22731					AVRG		1.22219		3.32526
205 2,3-Dichloroaniline	+++++	0.51270	0.51480	0.49871	0.51091	0.53248					
	0.55128	0.57535					AVRG		0.52803		5.10658
37 2,4,6-Trichlorophenol	+++++	0.27914	0.29104	0.28876	0.29978	0.31571					
	0.33385	0.34903					AVRG		0.30819		8.34550
38 2,4,5-Trichlorophenol	+++++	0.29440	0.32076	0.31947	0.31565	0.33788					
	0.34169	0.35990					AVRG		0.32711		6.48907
40 2-Chloronaphthalene	36449	268251	582975	1155795	1582228	2469755					
	3039631	3702903					LINR	0.03655	1.02665		0.99760
42 o-Nitroaniline	+++++	0.25572	0.26998	0.26946	0.27364	0.27783					
	0.28197	0.28884					AVRG		0.27392		3.85593

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	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.18519	0.21448	0.21492	0.21737	0.20957					
	0.20505	0.21482					AVRG		0.20877		5.36018
43 Dimethylphthalate	+++++	1.12648	1.14453	1.10613	1.09173	1.11237					
	1.12375	1.14118					AVRG		1.12088		1.68894
44 2,6-Dinitrotoluene	+++++	0.25896	0.26346	0.25342	0.24949	0.24696					
	0.24733	0.25426					AVRG		0.25341		2.42391
45 Acenaphthylene	2.18976	1.59988	1.58469	1.52835	1.53064	1.56415					
	1.60612	1.68189					AVRG		1.66068		13.20366
47 Acenaphthene	1.41358	1.00028	0.99778	0.98187	0.99926	1.00432					
	1.02939	1.07707					AVRG		1.06294		13.61052
48 2,4-Dinitrophenol	+++++	+++++	38021	93310	146622	245403					
	320377	412311					LINR	0.35935	0.12672		0.99075
49 Dibenzofuran	+++++	1.40644	1.40820	1.32867	1.33815	1.36798					
	1.41726	1.49580					AVRG		1.39464		4.06888
50 2,4-Dinitrotoluene	+++++	0.31049	0.32653	0.32098	0.31786	0.31902					
	0.33142	0.34814					AVRG		0.32492		3.75316
51 Diethylphthalate	+++++	1.16273	1.19006	1.14803	1.15696	1.15712					
	1.18165	1.21522					AVRG		1.17311		2.02529

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
52 4-Nitrophenol	+++++	0.10359	0.13187	0.13545	0.14163	0.14151						
	0.14797	0.15374					AVRG		0.13654		11.90490	
53 Fluorene	1.69412	1.18564	1.18324	1.16123	1.18593	1.26226						
	1.29401	1.36155					AVRG		1.29100		13.69804	
54 4-Chlorophenylphenylether	+++++	0.59987	0.60491	0.58500	0.59564	0.63651						
	0.64896	0.68125					AVRG		0.62173		5.60755	
220 Hydroquinone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
55 2-Methyl-4,6-dinitrophenol	+++++	26409	78471	169233	248477	398816						
	489102	612903					LINR	0.16815	0.09594		0.99736	
56 p-Nitroaniline	+++++	0.13756	0.16571	0.18963	0.20209	0.19373						
	0.19726	0.20537					AVRG		0.18448		13.23346	
133 Diphenylamine	+++++	0.48702	0.48634	0.48646	0.49672	0.51765						
	0.52558	0.53844					AVRG		0.50546		4.26163	
58 1,2-Diphenylhydrazine	+++++	0.58322	0.59673	0.58464	0.59299	0.60280						
	0.59206	0.60379					AVRG		0.59375		1.35599	
59 Tributylphosphate	+++++	0.85316	0.98848	0.99919	0.98562	0.99554						
	0.98996	1.00565					AVRG		0.97394		5.51372	

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	100 Level 7	120 Level 8									
61 4-Bromophenylphenylether	+++++	0.18589	0.18897	0.18392	0.18630	0.19322					
	0.19629	0.20338					AVRG		0.19114		3.62682
63 Hexachlorobenzene	+++++	0.19642	0.19554	0.19003	0.19110	0.20055					
	0.20365	0.21337					AVRG		0.19866		4.06498
207 Atrazine	+++++	0.03758	0.04062	0.03420	0.03665	0.03302					
	0.03441	0.03072					AVRG		0.03531		9.21662
65 Pentachlorophenol	+++++	0.06388	0.08247	0.08843	0.09083	0.09630					
	0.09718	0.10035					AVRG		0.08849		14.02887
206 n-Octadecane	+++++	0.41912	0.42264	0.40756	0.40012	0.39129					
	0.37111	0.36735					AVRG		0.39703		5.48958
68 Phenanthrene	65568	486199	1015060	2006630	2809008	4284140					
	5370346	6608324					LINR	0.04915	0.98874		0.99753
69 Anthracene	1.26726	0.89621	0.90633	0.88074	0.91241	0.94159					
	0.95537	1.00675					AVRG		0.97083		13.00076
72 Di-n-butylphthalate	+++++	0.94663	0.99271	0.99656	1.01616	1.04338					
	1.04405	1.06383					AVRG		1.01476		3.93061
76 Fluoranthene	1.27400	0.97604	0.96078	0.93382	0.96161	0.98359					
	1.01627	1.03676					AVRG		1.01786		10.65772

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	100 Level 7	120 Level 8									
77 Benzidine	+++++	114948	240488	575469	576881	1632421					
	1879386	2370017					LINR	0.20503	0.37744		0.99275
79 Pyrene	1.59200	1.13341	1.18323	1.21007	1.19482	1.23234					
	1.21785	1.22742					AVRG		1.24889		11.38418
85 Butylbenzylphthalate	+++++	0.37478	0.43005	0.45705	0.44937	0.45125					
	0.44474	0.44980					AVRG		0.43672		6.54417
89 Benzo(a)anthracene	1.38070	0.96707	0.98220	0.96802	0.98013	1.02003					
	1.04657	1.07617					AVRG		1.05261		13.14311
90 3,3'-Dichlorobenzidine	+++++	0.19682	0.23362	0.24165	0.24177	0.26523					
	0.27999	0.27551					AVRG		0.24780		11.62921
92 Chrysene	56779	460630	913811	1690536	2342194	3398164					
	4593832	5526812					LINR	0.00950	0.92743		0.99892
93 bis(2-Ethylhexyl)phthalate	0.56666	0.53374	0.59392	0.62267	0.62324	0.64211					
	0.64575	0.66128					AVRG		0.61117		7.10990
94 Di-n-octylphthalate	+++++	368592	834860	1605441	2216889	3330642					
	4377445	+++++					LINR	0.13246	1.42322		0.99630
95 Benzo(b)fluoranthene	1.19103	0.97573	1.06659	1.08748	1.13194	1.14428					
	1.17803	1.29729					AVRG		1.13405		8.41332

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	100 Level 7	120 Level 8									
96 Benzo(k)fluoranthene	1.26573	1.00893	1.07939	1.10364	1.13551	1.12361					
	1.19513	1.20870					AVRG		1.14008		7.11278
97 Benzo(a)pyrene	0.91365	0.85418	0.92377	0.94122	0.96804	0.99011					
	1.01342	1.04734					AVRG		0.95647		6.41651
99 Indeno(1,2,3-cd)pyrene	0.79917	0.81532	0.80541	0.77792	0.75613	0.85605					
	0.74498	0.78923					AVRG		0.79303		4.41296
100 Dibenzo(a,h)anthracene	0.61288	0.61866	0.60233	0.58469	0.57198	0.65233					
	0.63604	0.62414					AVRG		0.61288		4.28662
101 Benzo(ghi)perylene	0.75516	0.69322	0.66528	0.62680	0.59234	0.66873					
	0.64840	0.59909					AVRG		0.65613		8.07863
102 1,4-Dioxane	+++++	0.35084	0.36273	0.32344	0.32306	0.29885					
	0.30758	0.29584					AVRG		0.32319		7.90081
103 Methyl methacrylate	+++++	0.17778	0.18944	0.16410	0.16994	0.15571					
	0.16230	0.15788					AVRG		0.16817		7.11952
104 Ethyl methacrylate	+++++	0.70693	0.75062	0.67894	0.68905	0.63812					
	0.66413	0.62961					AVRG		0.67963		6.10805
105 2-Picoline	+++++	1.12830	1.19020	1.07957	1.10232	1.04185					
	1.07041	1.03794					AVRG		1.09294		4.88732

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	100 Level 7	120 Level 8									
106 N-Nitrosomethylethylamine	+++++	0.44779	0.46529	0.43489	0.44140	0.42410					
	0.44409	0.42146					AVRG		0.43986		3.39928
107 Methyl methanesulfonate	+++++	0.52524	0.54520	0.49099	0.48678	0.48343					
	0.49978	0.46508					AVRG		0.49950		5.43906
108 N-Nitrosodiethylamine	+++++	0.46217	0.49395	0.44813	0.46428	0.44274					
	0.45963	0.43541					AVRG		0.45804		4.17302
109 Ethyl Methanesulfonate	+++++	0.62189	0.65375	0.60074	0.60188	0.58949					
	0.61342	0.58197					AVRG		0.60902		3.91897
110 Pentachloroethane	+++++	0.32386	0.34717	0.31621	0.32412	0.30740					
	0.32132	0.30635					AVRG		0.32092		4.26755
111 N-Nitrosopyrrolidine	+++++	0.47922	0.51794	0.48306	0.49257	0.48446					
	0.49612	0.48073					AVRG		0.49059		2.76402
113 N-Nitrosomorpholine	+++++	0.68559	0.71997	0.66306	0.66815	0.64403					
	0.65152	0.61465					AVRG		0.66385		4.99866
114 o-Toluidine	+++++	1.63357	1.73837	1.58287	1.64173	1.56389					
	1.62224	1.57015					AVRG		1.62183		3.70471
115 N-Nitrosopiperidine	+++++	0.12360	0.13377	0.12334	0.12644	0.11963					
	0.12371	0.12009					AVRG		0.12437		3.81963

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	100 Level 7	120 Level 8									
116 a,a-Dimethylphenethylamine	+++++	0.64589	0.73902	0.73378	0.77250	0.75528					
	0.78780	0.76698					AVRG		0.74304		6.29693
117 Triethylphosphorothioate	+++++	0.12776	0.13008	0.12715	0.12802	0.12765					
	0.12726	0.13005					AVRG		0.12828		0.97777
118 2,6-Dichlorophenol	+++++	0.19213	0.20693	0.19910	0.19955	0.20082					
	0.20928	0.20299					AVRG		0.20154		2.79228
119 Hexachloropropene	+++++	0.11005	0.12087	0.12529	0.11800	0.12775					
	0.13255	0.13069					AVRG		0.12360		6.37831
120 p-Phenylenediamine	+++++	0.20097	0.22012	0.20890	0.19933	0.19552					
	0.18199	0.16903					AVRG		0.19655		8.57847
121 N-Nitrosodi-n-butylamine	+++++	0.22009	0.23358	0.22059	0.22594	0.19498					
	0.19691	0.18916					AVRG		0.21161		8.26915
122 Safrole	+++++	0.19404	0.20590	0.18988	0.19335	0.18710					
	0.19409	0.18904					AVRG		0.19334		3.19019
123 1,2,4,5-Tetrachlorobenzene	+++++	0.48179	0.50127	0.46416	0.46968	0.45641					
	0.48299	0.47441					AVRG		0.47582		3.07832
124 Isosafrole	+++++	0.31959	0.34105	0.31534	0.32095	0.31245					
	0.32391	0.31581					AVRG		0.32130		2.96333

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	100 Level 7	120 Level 8									
125 1,4-Naphthoquinone	+++++	0.32816	0.34621	0.30613	0.30795	0.25958					
	0.23046	+++++					AVRG		0.29641		14.64421
126 m-Dinitrobenzene	+++++	0.15594	0.16628	0.16332	0.16381	0.16032					
	0.16004	+++++					AVRG		0.16162		2.24564
127 Pentachlorobenzene	+++++	0.43767	0.45121	0.42030	0.42682	0.42210					
	0.44346	0.43799					AVRG		0.43422		2.65150
128 1-Naphthylamine	+++++	0.82239	0.86814	0.82529	0.81386	0.84167					
	0.87214	0.85263					AVRG		0.84230		2.72431
129 2-Naphthylamine	+++++	0.87494	0.84477	0.88369	0.86051	0.89209					
	0.94061	0.91680					AVRG		0.88763		3.68720
130 2,3,4,6-Tetrachlorophenol	+++++	0.25022	0.26956	0.27043	0.27312	0.28194					
	0.29224	0.30421					AVRG		0.27739		6.29089
131 5-Nitro-o-toluidine	+++++	0.21312	0.24508	0.24080	0.23259	0.24890					
	0.25619	0.25185					AVRG		0.24122		6.04443
132 Thionazin	+++++	0.13437	0.14473	0.14728	0.14423	0.14621					
	0.14438	0.14610					AVRG		0.14390		3.02307
134 Sulfotepp	+++++	0.07479	0.07643	0.07811	0.08209	0.08186					
	0.08119	0.08666					AVRG		0.08016		5.01325

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	100 Level 7	120 Level 8									
135 Phorate	+++++	0.29874	0.30476	0.30486	0.31798	0.30102					
	0.29242	0.29307					AVRG		0.30183		2.88237
136 1,3,5-Trinitrobenzene	+++++	0.07415	0.09175	0.09919	0.09673	0.10189					
	0.10131	0.09994					AVRG		0.09499		10.32629
137 Phenacetin	+++++	0.18206	0.20988	0.21406	0.21650	0.22859					
	0.23865	0.22853					AVRG		0.21690		8.45110
138 Diallate	+++++	0.20463	0.21020	0.19892	0.21153	0.19343					
	0.20258	0.19294					AVRG		0.20203		3.67352
139 Dimethoate	+++++	0.14043	0.15915	0.16697	0.17200	0.17406					
	0.16740	0.16949					AVRG		0.16422		7.00813
140 4-Aminobiphenyl	+++++	0.43217	0.48080	0.49774	0.49087	0.54937					
	0.58751	0.58243					AVRG		0.51727		11.12235
141 Pentachloronitrobenzene	+++++	0.07756	0.08234	0.07796	0.08272	0.07781					
	0.08047	0.07668					AVRG		0.07936		3.09424
142 Pronamide	+++++	0.24165	0.25727	0.24493	0.25850	0.24762					
	0.26196	0.25418					AVRG		0.25230		3.02507
143 Dinoseb	+++++	36739	110780	253153	360839	582168					
	749359	959224					LINR	0.21574	0.15018		0.99408

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55
End Cal Date : 22-FEB-2010 01:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Cal Date : 03-Mar-2010 15:34 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
144 Disulfoton	+++++	0.26489	0.24948	0.24076	0.24841	0.23789					
	0.22925	0.23314					AVRG		0.24340		4.93796
145 Methyl parathion	+++++	0.12612	0.15136	0.15938	0.16288	0.16711					
	0.16709	0.17055					AVRG		0.15779		9.71146
146 4-Nitroquinoline-1-oxide	+++++	0.02056	0.02288	0.01846	0.01666	0.01679					
	+++++	+++++					AVRG		0.01907		13.89367
147 Methapyrilene	+++++	0.29694	0.32659	0.28898	0.30536	0.28186					
	0.28225	0.26103					AVRG		0.29186		7.08529
148 Isodrin	+++++	0.10688	0.11119	0.10398	0.11043	0.10326					
	0.10901	0.10550					AVRG		0.10718		2.91403
149 Aramite	+++++	0.03161	0.03603	0.03415	0.03476	0.03379					
	0.03486	0.03195					AVRG		0.03388		4.71492
150 Kepone	+++++	0.07589	0.08420	0.07666	0.07796	0.07644					
	0.07875	0.07575					AVRG		0.07795		3.80313
151 p-(Dimethylamino)azobenzene	+++++	0.22465	0.25205	0.24804	0.27799	0.25995					
	0.27510	0.26877					AVRG		0.25808		7.17705
152 Chlorobenzilate	+++++	0.22654	0.24955	0.24660	0.29801	0.25875					
	0.28069	0.27880					AVRG		0.26271		9.30544

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55
End Cal Date : 22-FEB-2010 01:19
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Integrator : HP RTE
Method file : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Cal Date : 03-Mar-2010 15:34 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
153 3,3'-Dimethylbenzidine	+++++	0.37150	0.43396	0.42299	0.44074	0.48724					
	0.52259	0.50844					AVRG		0.45535		11.72591
154 Famphur	+++++	0.29682	0.32000	0.33232	0.36789	0.37506					
	0.36897	0.38152					AVRG		0.34894		9.31134
155 2-Acetylaminofluorene	+++++	77941	174270	466888	454874	1169522					
	1402952	1690573					LINR	0.16495	0.26994		0.99689
157 7,12Dimethylbenz(a)anthracene	+++++	0.44428	0.50077	0.50095	0.52555	0.52043					
	0.56747	0.57419					AVRG		0.51909		8.50027
158 3-Methylcholanthrene	+++++	0.31873	0.35613	0.36783	0.37459	0.37965					
	0.39268	0.38502					AVRG		0.36780		6.70304
26 Phthalic anhydride	+++++	35664	121861	249075	381828	594958					
	723533	893615					LINR	0.12971	0.14328		0.99917
173 Carbazole	0.89649	0.61077	0.58409	0.64323	0.66829	0.69364					
	0.71352	0.73688					AVRG		0.69337		13.94742
174 Hexachlorophene	+++++	935628	3163522	4273678	5413416	6917749					
	7386241	+++++					LINR	6.19705	0.07687		0.99449
179 Dibenzo(a,e)pyrene	+++++	0.28462	0.26044	0.26698	0.22397	0.28475					
	0.27252	0.23457					AVRG		0.26112		9.06299

GEL Laboratories LLC

INITIAL CALIBRATION DATA

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End Cal Date : 22-FEB-2010 01:19
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Method file : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Cal Date : 03-Mar-2010 15:34 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
184 p-Benzoquinone	+++++	13412	38094	103028	141046	214307						
	265584	310038					LINR	0.07963	0.20135		0.99786	
191 Parathion	+++++	0.04141	0.04946	0.05375	0.05525	0.05615						
	0.05609	0.05831					AVRG		0.05291		10.91556	
192 Methoxychlor	+++++	0.47370	0.56446	0.59238	0.57838	0.60702						
	0.60937	0.59064					AVRG		0.57371		8.15235	
210 m-Toluidine	+++++	1.23929	1.38356	1.46111	1.48802	1.58621						
	1.58280	1.66243					AVRG		1.48620		9.61503	
211 p-Toluidine	+++++	1.14906	1.18370	1.16691	1.19548	1.08736						
	1.10329	1.09804					AVRG		1.14055		3.86703	
212 Cis Diallate	+++++	0.20120	0.20767	0.19674	0.21346	0.19409						
	0.19989	0.19195					AVRG		0.20071		3.79541	
213 Trans Diallate	+++++	0.24074	0.24730	0.23402	0.24886	0.22756						
	0.23833	0.22699					AVRG		0.23769		3.67352	
214 1,4-Dinitrobenzene	+++++	0.14712	0.16526	0.16942	0.17547	0.17667						
	0.18015	0.18546					AVRG		0.17136		7.34157	

GEL Laboratories LLC

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Start Cal Date : 20-FEB-2010 12:55
End Cal Date : 22-FEB-2010 01:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Cal Date : 03-Mar-2010 15:34 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
215 2-Ethoxyethanol	+++++	0.58676	0.60203	0.59483	0.55565	0.57374					
	0.55822	0.54494					AVRG		0.57374		3.77318
216 Methylenebis(2-chloroaniline)	+++++	36455	87285	192808	305235	476431					
	647915	779120					LINR	0.18581	0.13997		0.99822
229 2,2'-Dichlorobenzil	+++++	0.53014	0.54882	0.57218	0.56813	0.55363					
	0.63091	0.61172					AVRG		0.57365		6.23315
230 4-Chlorothioanisole	+++++	0.23127	0.22998	0.24707	0.25459	0.25234					
	0.25390	0.26275					AVRG		0.24741		4.99827
231 4-Chlorothiophenol	+++++	69510	156101	409410	538100	905821					
	1130595	1540522					LINR	0.15090	0.21447		0.99884
232 bis(p-Chlorophenyl)sulfone	+++++	0.32332	0.32274	0.32522	0.32041	0.30818					
	0.34792	0.33496					AVRG		0.32611		3.81298
233 bis(p-Chlorophenyl)disulfide	+++++	0.11382	0.11054	0.12051	0.11929	0.11551					
	0.12978	0.12394					AVRG		0.11906		5.46007
234 Diphenyl disulfide	+++++	0.19202	0.19186	0.19737	0.19958	0.19288					
	0.20205	0.19917					AVRG		0.19642		2.10807
235 Diphenyl sulfide	+++++	0.76604	0.75916	0.77559	0.80138	0.79306					
	0.81579	0.83897					AVRG		0.79285		3.59622

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INITIAL CALIBRATION DATA

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Method file : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Cal Date : 03-Mar-2010 15:34 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
236 Phenyl sulfone	+++++	0.34800	0.34646	0.34913	0.35609	0.34394					
	0.35788	0.36394					AVRG		0.35221		2.05193
237 Hydroxymethyl phthalimide	+++++	0.11562	0.12919	0.11505	0.10331	0.08699					
	0.09932	0.08725					AVRG		0.10525		14.88762
238 Phthalic acid	+++++	20021	61221	192852	247836	445405					
	592112	841517					LINR	0.27721	0.11935		0.99378
239 Thiophenol	+++++	0.72136	0.86680	1.01677	1.07339	1.08115					
	1.06962	1.11441					AVRG		0.99193		14.55784
240 bis(Chloromethyl)ether	+++++	0.73330	0.72927	0.75420	0.77531	0.76257					
	0.72897	0.73156					AVRG		0.74502		2.53135
241 Octachlorostyrene	+++++	0.06930	0.06943	0.07008	0.07083	0.07166					
	0.07686	0.07691					AVRG		0.07215		4.62127
M 222 Trichlorophenols	+++++	0.28677	0.30590	0.30411	0.30771	0.32680					
	0.33777	0.35446					AVRG		0.31765		7.28968
M 223 Tetrachlorophenols	+++++	0.25022	0.26956	0.27043	0.27312	0.28194					
	0.29224	0.30421					AVRG		0.27739		6.29089
M 224 Benzo(b,k)fluoranthene	1.22838	0.99233	1.07299	1.09556	1.13372	1.13395					
	1.18658	1.25299					AVRG		1.13706		7.50876

GEL Laboratories LLC

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Integrator : HP RTE
Method file : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Cal Date : 03-Mar-2010 15:34 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
M 225 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 3 2-Fluorophenol	+++++	0.92659	0.96919	0.96650	0.94036	0.93281						
	0.93098	0.94400					AVRG		0.94435		1.80921	
$ 5 Phenol-d5	+++++	1.15492	1.20808	1.18961	1.17093	1.17303						
	1.15725	1.19013					AVRG		1.17771		1.63471	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.28463	0.28610	0.28272	0.27867	0.28386						
	0.28710	0.28733					AVRG		0.28435		1.06265	
$ 39 2-Fluorobiphenyl	+++++	1.17351	1.17042	1.12460	1.11619	1.18499						
	1.20400	1.26805					AVRG		1.17740		4.32813	
$ 60 2,4,6-Tribromophenol	+++++	0.12711	0.13347	0.12836	0.12619	0.12779						
	0.13893	0.14371					AVRG		0.13223		5.12665	
$ 81 p-Terphenyl-d14	+++++	0.67083	0.69230	0.71233	0.71339	0.73658						
	0.74530	0.77029					AVRG		0.72015		4.65100	

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55
End Cal Date : 22-FEB-2010 01:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Cal Date : 03-Mar-2010 15:34 nat00999

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

Data File: /chem/MSD8.i/s022010.b/s8b2012.d
Report Date: 23-Feb-2010 13:25

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 20-FEB-2010 18:09
Lab File ID: s8b2012.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Analysis Type: Init. Cal. Times: 12:55 01:19
Lab Sample ID: WBN100215-05.1 Quant Type: ISTD
Method: /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	0.94435	0.91252	0.91252	0.000	-3.36963	60.00000	Averaged
$ 5 Phenol-d5	1.17771	1.11967	1.11967	0.000	-4.92793	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.28435	0.28445	0.28445	0.000	0.03513	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.17740	1.10971	1.10971	0.000	-5.74835	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.13223	0.12031	0.12031	0.000	-9.01194	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.72015	0.73651	0.73651	0.000	2.27163	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.60923	0.57218	0.57218	0.000	-6.08077	60.00000	Averaged
2 Pyridine	0.89373	0.67690	0.67690	0.000	-24.26051	60.00000	Averaged
4 Aniline	0.55542	0.50332	0.50332	0.000	-9.38073	60.00000	Averaged
6 Phenol	1.21617	1.17309	1.17309	0.001	-3.54259	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.83144	0.74294	0.74294	0.000	-10.64430	60.00000	Averaged
8 2-Chlorophenol	1.05605	1.02399	1.02399	0.000	-3.03618	60.00000	Averaged
203 n-Decane	1.08949	1.10768	1.10768	0.000	1.66910	60.00000	Averaged
9 1,3-Dichlorobenzene	1.25240	1.20785	1.20785	0.000	-3.55721	60.00000	Averaged
11 1,4-Dichlorobenzene	1.29215	1.21176	1.21176	0.001	-6.22171	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.20194	1.13600	1.13600	0.000	-5.48562	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.63019	1.56683	1.56683	0.000	-3.88699	60.00000	Averaged
12 Benzyl alcohol	0.66057	0.64188	0.64188	0.000	-2.82972	60.00000	Averaged
15 o-Cresol	0.84463	0.81254	0.81254	0.000	-3.79849	60.00000	Averaged
18 m,p-Cresols	1.06890	1.06346	1.06346	0.000	-0.50838	60.00000	Averaged
17 N-Nitrosodipropylamine	0.77788	0.74120	0.74120	0.050	-4.71529	60.00000	Averaged spcc
19 Hexachloroethane	0.48694	0.45665	0.45665	0.000	-6.22059	60.00000	Averaged
21 Nitrobenzene	0.29331	0.27681	0.27681	0.000	-5.62390	60.00000	Averaged
22 Isophorone	0.53999	0.49377	0.49377	0.000	-8.55934	60.00000	Averaged
23 2-Nitrophenol	0.13462	0.13301	0.13301	0.001	-1.19474	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.23932	0.22527	0.22527	0.000	-5.87154	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.30282	0.26637	0.26637	0.000	-12.03559	60.00000	Averaged
26 2,4-Dichlorophenol	0.21654	0.20901	0.20901	0.001	-3.47894	20.00000	Averaged ccc
27 Benzoic acid	41.94960	40.00000	0.11609	0.000	4.87400	60.00000	Linear
28 1,2,4-Trichlorobenzene	0.29118	0.26506	0.26506	0.000	-8.96931	60.00000	Averaged
30 Naphthalene	35.39177	40.00000	0.76629	0.000	-11.52057	60.00000	Linear
204 alpha-Terpineol	0.22259	0.20059	0.20059	0.000	-9.88109	60.00000	Averaged
31 4-Chloroaniline	0.28585	0.27423	0.27423	0.000	-4.06642	60.00000	Averaged
32 Hexachlorobutadiene	0.18110	0.17017	0.17017	0.001	-6.03393	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.23429	0.22644	0.22644	0.001	-3.34816	20.00000	Averaged ccc
34 2-Methylnaphthalene	37.56535	40.00000	0.54491	0.000	-6.08662	60.00000	Linear

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 20-FEB-2010 18:09
Lab File ID: s8b2012.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Analysis Type: Init. Cal. Times: 12:55 01:19
Lab Sample ID: WBN100215-05.1 Quant Type: ISTD
Method: /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	36.14060	40.00000	0.51338	0.000	-9.64851	60.00000	Linear	
36 Hexachlorocyclopentadiene	0.24827	0.20951	0.20951	0.050	-15.61096	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.52803	0.47281	0.47281	0.000	-10.45916	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.30819	0.28652	0.28652	0.001	-7.02903	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.32711	0.32121	0.32121	0.000	-1.80308	60.00000	Averaged	
40 2-Chloronaphthalene	36.94398	40.00000	0.91069	0.000	-7.64006	60.00000	Linear	
42 o-Nitroaniline	0.27392	0.25926	0.25926	0.000	-5.35118	60.00000	Averaged	
41 m-Nitroaniline	0.20877	0.20131	0.20131	0.000	-3.57417	60.00000	Averaged	
43 Dimethylphthalate	1.12088	1.03748	1.03748	0.000	-7.44016	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.25341	0.23417	0.23417	0.000	-7.59187	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.32492	0.29882	0.29882	0.000	-8.03184	60.00000	Averaged	
45 Acenaphthylene	1.66068	1.47808	1.47808	0.000	-10.99555	60.00000	Averaged	
47 Acenaphthene	1.06294	0.89925	0.89925	0.001	-15.39975	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	42.02206	40.00000	0.08759	0.050	5.05516	60.00000	Linear	spcc
49 Dibenzofuran	1.39464	1.27908	1.27908	0.000	-8.28625	60.00000	Averaged	
51 Diethylphthalate	1.17311	1.07200	1.07200	0.000	-8.61955	60.00000	Averaged	
52 4-Nitrophenol	0.13654	0.14391	0.14391	0.050	5.40043	60.00000	Averaged	spcc
53 Fluorene	1.29100	1.07540	1.07540	0.000	-16.69989	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.62173	0.54162	0.54162	0.000	-12.88500	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	48.66926	40.00000	0.10060	0.000	21.67316	60.00000	Linear	
56 p-Nitroaniline	0.18448	0.18495	0.18495	0.000	0.25453	60.00000	Averaged	
133 Diphenylamine	0.50546	0.46520	0.46520	0.001	-7.96469	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.59375	0.56532	0.56532	0.000	-4.78833	60.00000	Averaged	
61 4-Bromophenylphenylether	0.19114	0.16319	0.16319	0.000	-14.62019	60.00000	Averaged	
63 Hexachlorobenzene	0.19866	0.17428	0.17428	0.000	-12.27477	60.00000	Averaged	
65 Pentachlorophenol	0.08849	0.08776	0.08776	0.001	-0.83218	20.00000	Averaged	ccc
206 n-Octadecane	0.39703	0.39262	0.39262	0.000	-1.10928	60.00000	Averaged	
68 Phenanthrene	35.36562	40.00000	0.82559	0.000	-11.58594	60.00000	Linear	
69 Anthracene	0.97083	0.82497	0.82497	0.000	-15.02413	60.00000	Averaged	
72 Di-n-butylphthalate	1.01476	0.94515	0.94515	0.000	-6.85986	60.00000	Averaged	
76 Fluoranthene	1.01786	0.89285	0.89285	0.001	-12.28130	20.00000	Averaged	ccc
79 Pyrene	1.24889	1.05447	1.05447	0.000	-15.56774	60.00000	Averaged	
85 Butylbenzylphthalate	0.43672	0.42071	0.42071	0.000	-3.66508	60.00000	Averaged	
89 Benzo(a)anthracene	1.05261	0.90191	0.90191	0.000	-14.31645	60.00000	Averaged	
92 Chrysene	36.32073	40.00000	0.83331	0.000	-9.19818	60.00000	Linear	
93 bis(2-Ethylhexyl)phthalate	0.61117	0.58944	0.58944	0.000	-3.55520	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 20-FEB-2010 18:09
Lab File ID: s8b2012.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Analysis Type: Init. Cal. Times: 12:55 01:19
Lab Sample ID: WBN100215-05.1 Quant Type: ISTD
Method: /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
94 Di-n-octylphthalate	39.76021	40.00000	1.22616	0.001	-0.59948	20.00000	Linear	ccc
95 Benzo(b)fluoranthene	1.13405	1.05298	1.05298	0.000	-7.14838	60.00000	Averaged	
96 Benzo(k)fluoranthene	1.14008	1.04465	1.04465	0.000	-8.37069	60.00000	Averaged	
97 Benzo(a)pyrene	0.95647	0.89169	0.89169	0.001	-6.77277	20.00000	Averaged	ccc
99 Indeno(1,2,3-cd)pyrene	0.79303	0.69287	0.69287	0.000	-12.62907	60.00000	Averaged	
100 Dibenzo(a,h)anthracene	0.61288	0.52486	0.52486	0.000	-14.36175	60.00000	Averaged	
101 Benzo(ghi)perylene	0.65613	0.54043	0.54043	0.000	-17.63270	60.00000	Averaged	
126 m-Dinitrobenzene	0.16162	0.15617	0.15617	0.000	-3.37054	60.00000	Averaged	
130 2,3,4,6-Tetrachlorophenol	0.27739	0.25140	0.25140	0.000	-9.36867	60.00000	Averaged	
143 Dinoseb	39.33235	40.00000	0.11528	0.000	-1.66914	60.00000	Linear	
173 Carbazole	0.69337	0.64707	0.64707	0.000	-6.67637	60.00000	Averaged	
184 p-Benzoquinone	26.23116	40.00000	0.11601	0.000	-34.42209	60.00000	Linear	
192 Methoxychlor	0.57371	0.53574	0.53574	0.000	-6.61792	60.00000	Averaged	
211 p-Toluidine	1.14055	0.88750	0.88750	0.000	-22.18641	60.00000	Averaged	
210 m-Toluidine	1.48620	1.44197	1.44197	0.000	-2.97629	60.00000	Averaged	
26 Phthalic anhydride	53.94737	40.00000	0.17465	0.000	34.86844	60.00000	Linear	
179 Dibenzo(a,e)pyrene	0.26112	0.15069	0.15069	0.000	-42.29332	60.00000	Averaged	
214 1,4-Dinitrobenzene	0.17136	0.17062	0.17062	0.000	-0.43576	60.00000	Averaged	
215 2-Ethoxyethanol	0.57374	0.58779	0.58779	0.000	2.44852	60.00000	Averaged	
216 Methylenebis(2-chloroanilin	41.74874	40.00000	0.12008	0.000	4.37185	60.00000	Linear	
M 222 Trichlorophenols	0.31765	0.30387	0.30387	0.000	-4.33823	60.00000	Averaged	
M 223 Tetrachlorophenols	0.27739	0.25140	0.25140	0.000	-9.36867	60.00000	Averaged	
M 224 Benzo(b,k)fluoranthene	1.13706	1.04881	1.04881	0.000	-7.76116	60.00000	Averaged	

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Data file : /chem/MSD8.i/s022010.b/s8b2012.d
Lab Smp Id: WBN100215-05.1 Client Smp ID: MEGAICV
Inj Date : 20-FEB-2010 18:09
Operator : nagl Inst ID: MSD8.i
Smp Info : |WBN100215-05.1|40 PPM|1|SVM|1|MEGAICV
Misc Info : |MSD8270|WBN100217-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m
Meth Date : 23-Feb-2010 13:25 nat00999 Quant Type: ISTD
Cal Date : 22-FEB-2010 01:19 Cal File: s8b2046.d
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclpl

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.530	4.530	(1.000)	613599	40.0000	
* 29 Naphthalene-d8	136	5.797	5.797	(1.000)	2473544	40.0000	
* 46 Acenaphthene-d10	164	7.663	7.663	(1.000)	1402775	40.0000	
* 67 Phenanthrene-d10	188	9.263	9.263	(1.000)	2635307	40.0000	
* 91 Chrysene-d12	240	12.197	12.197	(1.000)	2302220	40.0000	
* 98 Perylene-d12	264	14.354	14.354	(1.000)	1521193	40.0000	
$ 3 2-Fluorophenol	112	3.368	3.368	(0.743)	559924	40.0000	38.6
$ 5 Phenol-d5	99	4.149	4.149	(0.916)	687028	40.0000	38.0
$ 20 Nitrobenzene-d5	82	5.063	5.063	(0.873)	703589	40.0000	40.0
$ 39 2-Fluorobiphenyl	172	6.925	6.925	(0.904)	1556680	40.0000	37.7
$ 60 2,4,6-Tribromophenol	329	8.506	8.506	(1.110)	168767	40.0000	36.4
$ 81 p-Terphenyl-d14	244	10.978	10.978	(0.900)	1695598	40.0000	40.9
1 N-Methyl-N-nitrosomethylamine	74	2.382	2.382	(0.526)	351092	40.0000	37.6
2 Pyridine	79	2.420	2.420	(0.534)	415348	40.0000	30.3
4 Aniline	66	4.220	4.220	(0.932)	308837	40.0000	36.2
6 Phenol	94	4.163	4.163	(0.919)	719807	40.0000	38.6(Q)
7 bis(2-Chloroethyl) ether	63	4.263	4.263	(0.941)	455867	40.0000	35.7
8 2-Chlorophenol	128	4.335	4.335	(0.957)	628318	40.0000	38.8
203 n-Decane	43	4.354	4.354	(0.961)	679671	40.0000	40.7
9 1,3-Dichlorobenzene	146	4.477	4.477	(0.988)	741134	40.0000	38.6
11 1,4-Dichlorobenzene	146	4.549	4.549	(1.004)	743535	40.0000	37.5
13 1,2-Dichlorobenzene	146	4.692	4.692	(1.036)	697051	40.0000	37.8
14 bis(2-Chloroisopropyl)ether	45	4.768	4.768	(1.053)	961403	40.0000	38.4
12 Benzyl alcohol	108	4.644	4.644	(1.025)	393855	40.0000	38.9(H)
15 o-Cresol	107	4.735	4.735	(1.045)	498576	40.0000	38.5
18 m,p-Cresols	107	4.887	4.887	(1.079)	652539	40.0000	39.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.906	4.906	(1.083)	454801	40.0000	38.1
19 Hexachloroethane	117	5.025	5.025	(1.109)	280201	40.0000	37.5
21 Nitrobenzene	77	5.082	5.082	(0.877)	684707	40.0000	37.8
22 Isophorone	82	5.320	5.320	(0.918)	1221372	40.0000	36.6
23 2-Nitrophenol	139	5.397	5.397	(0.931)	329005	40.0000	39.5
24 2,4-Dimethylphenol	122	5.420	5.420	(0.935)	557217	40.0000	37.6
25 bis(2-Chloroethoxy)methane	93	5.525	5.525	(0.953)	658886	40.0000	35.2
26 2,4-Dichlorophenol	162	5.644	5.644	(0.974)	516992	40.0000	38.6
27 Benzoic acid	105	5.539	5.539	(0.956)	287142	40.0000	41.9
28 1,2,4-Trichlorobenzene	180	5.735	5.735	(0.989)	655648	40.0000	36.4
30 Naphthalene	128	5.820	5.820	(1.004)	1895442	40.0000	35.4
204 alpha-Terpineol	59	5.816	5.816	(1.003)	496172	40.0000	36.0
31 4-Chloroaniline	127	5.863	5.863	(1.012)	678318	40.0000	38.4
32 Hexachlorobutadiene	225	5.939	5.939	(1.025)	420920	40.0000	37.6
33 4-Chloro-3-methylphenol	107	6.354	6.354	(1.096)	560118	40.0000	38.7
34 2-Methylnaphthalene	142	6.539	6.539	(1.128)	1347856	40.0000	37.6
35 1-Methylnaphthalene	142	6.649	6.649	(1.147)	1269859	40.0000	36.1
36 Hexachlorocyclopentadiene	237	6.706	6.706	(0.875)	293896	40.0000	33.8
205 2,3-Dichloroaniline	161	6.835	6.835	(0.892)	663240	40.0000	35.8
37 2,4,6-Trichlorophenol	196	6.835	6.835	(0.892)	401928	40.0000	37.2
38 2,4,5-Trichlorophenol	196	6.873	6.873	(0.897)	450584	40.0000	39.3
40 2-Chloronaphthalene	162	7.063	7.063	(0.922)	1277487	40.0000	36.9
42 o-Nitroaniline	65	7.163	7.163	(0.935)	363688	40.0000	37.8
41 m-Nitroaniline	138	7.606	7.606	(0.993)	282391	40.0000	38.6
43 Dimethylphthalate	163	7.363	7.363	(0.961)	1455357	40.0000	37.0
44 2,6-Dinitrotoluene	165	7.425	7.425	(0.969)	328490	40.0000	37.0
50 2,4-Dinitrotoluene	165	7.854	7.854	(1.025)	419181	40.0000	36.8
45 Acenaphthylene	152	7.511	7.511	(0.980)	2073418	40.0000	35.6
47 Acenaphthene	154	7.697	7.697	(1.004)	1261448	40.0000	33.8
48 2,4-Dinitrophenol	184	7.711	7.711	(1.006)	122866	40.0000	42.0
49 Dibenzofuran	168	7.878	7.878	(1.028)	1794261	40.0000	36.7
51 Diethylphthalate	149	8.111	8.111	(1.058)	1503769	40.0000	36.6
52 4-Nitrophenol	139	7.768	7.768	(1.014)	201873	40.0000	42.2
53 Fluorene	166	8.249	8.249	(1.076)	1508548	40.0000	33.3
54 4-Chlorophenylphenylether	204	8.239	8.239	(1.075)	759775	40.0000	34.8
55 2-Methyl-4,6-dinitrophenol	198	8.297	8.297	(0.896)	265115	40.0000	48.7
56 p-Nitroaniline	138	8.263	8.263	(1.078)	259438	40.0000	40.1
133 Diphenylamine	169	8.368	8.368	(0.903)	1225948	40.0000	36.8
58 1,2-Diphenylhydrazine	77	8.416	8.416	(0.908)	1489780	40.0000	38.1
61 4-Bromophenylphenylether	248	8.768	8.768	(0.947)	430063	40.0000	34.2
63 Hexachlorobenzene	284	8.839	8.839	(0.954)	459277	40.0000	35.1
65 Pentachlorophenol	266	9.049	9.049	(0.977)	231262	40.0000	39.7
206 n-Octadecane	57	9.125	9.125	(0.985)	1034683	40.0000	39.6
68 Phenanthrene	178	9.292	9.292	(1.003)	2175678	40.0000	35.4
69 Anthracene	178	9.344	9.344	(1.009)	2174061	40.0000	34.0
72 Di-n-butylphthalate	149	9.873	9.873	(1.066)	2490757	40.0000	37.2
76 Fluoranthene	202	10.573	10.573	(1.141)	2352940	40.0000	35.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	10.820	10.820	(0.887)	2427617	40.0000	33.8
85 Butylbenzylphthalate	149	11.497	11.497	(0.943)	968576	40.0000	38.5
89 Benzo(a)anthracene	228	12.178	12.178	(0.998)	2076405	40.0000	34.3
92 Chrysene	228	12.230	12.230	(1.003)	1918472	40.0000	36.3
93 bis(2-Ethylhexyl)phthalate	149	12.182	12.182	(0.999)	1357026	40.0000	38.6
94 Di-n-octylphthalate	149	13.097	13.097	(0.912)	1865222	40.0000	39.8
95 Benzo(b)fluoranthene	252	13.720	13.720	(0.956)	1601785	40.0000	37.1(H)
96 Benzo(k)fluoranthene	252	13.768	13.768	(0.959)	1589110	40.0000	36.6
97 Benzo(a)pyrene	252	14.254	14.254	(0.993)	1356428	40.0000	37.3
99 Indeno(1,2,3-cd)pyrene	276	16.220	16.220	(1.130)	1053996	40.0000	34.9
100 Dibenzo(a,h)anthracene	278	16.254	16.254	(1.132)	798414	40.0000	34.2
101 Benzo(ghi)perylene	276	16.701	16.701	(1.164)	822104	40.0000	32.9
126 m-Dinitrobenzene	168	7.392	7.392	(0.965)	219071	40.0000	38.6
130 2,3,4,6-Tetrachlorophenol	232	8.001	8.001	(1.044)	352660	40.0000	36.2
143 Dinoseb	211	9.239	9.239	(0.997)	303786	40.0000	39.3
173 Carbazole	167	9.511	9.511	(1.027)	1705240	40.0000	37.3
184 p-Benzoquinone	54	3.787	3.787	(0.836)	71181	40.0000	26.2
192 Methoxychlor	227	12.078	12.078	(0.990)	1233392	40.0000	37.4
211 p-Toluidine	106	4.949	4.949	(1.093)	544571	40.0000	31.1
210 m-Toluidine	106	4.982	4.982	(1.100)	884790	40.0000	38.8
26 Phthalic anhydride	104	6.597	6.597	(1.138)	432011	40.0000	53.9
179 Dibenzo(a,e)pyrene	302	19.925	19.925	(1.388)	229221	40.0000	23.1
214 1,4-Dinitrobenzene	75	7.311	7.311	(0.954)	239338	40.0000	39.8
215 2-Ethoxyethanol	59	2.177	2.177	(0.481)	360665	40.0000	41.0
216 Methylenebis(2-chloroaniline)	231	12.135	12.135	(0.995)	276453	40.0000	41.7(Q)
M 222 Trichlorophenols	196				852512	80.0000	76.5
M 223 Tetrachlorophenols	232				352660	40.0000	36.2
M 224 Benzo(b,k)fluoranthene	252				3190895	80.0000	73.8

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD8.i/s022010.b/s8b2012.d
Date : 20-FEB-2010 18:09
Client ID: MEGAICV
Sample Info: IWBN100215-05,1140 PPM|1|SVM|1|MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: nag1
Column diameter: 0.20

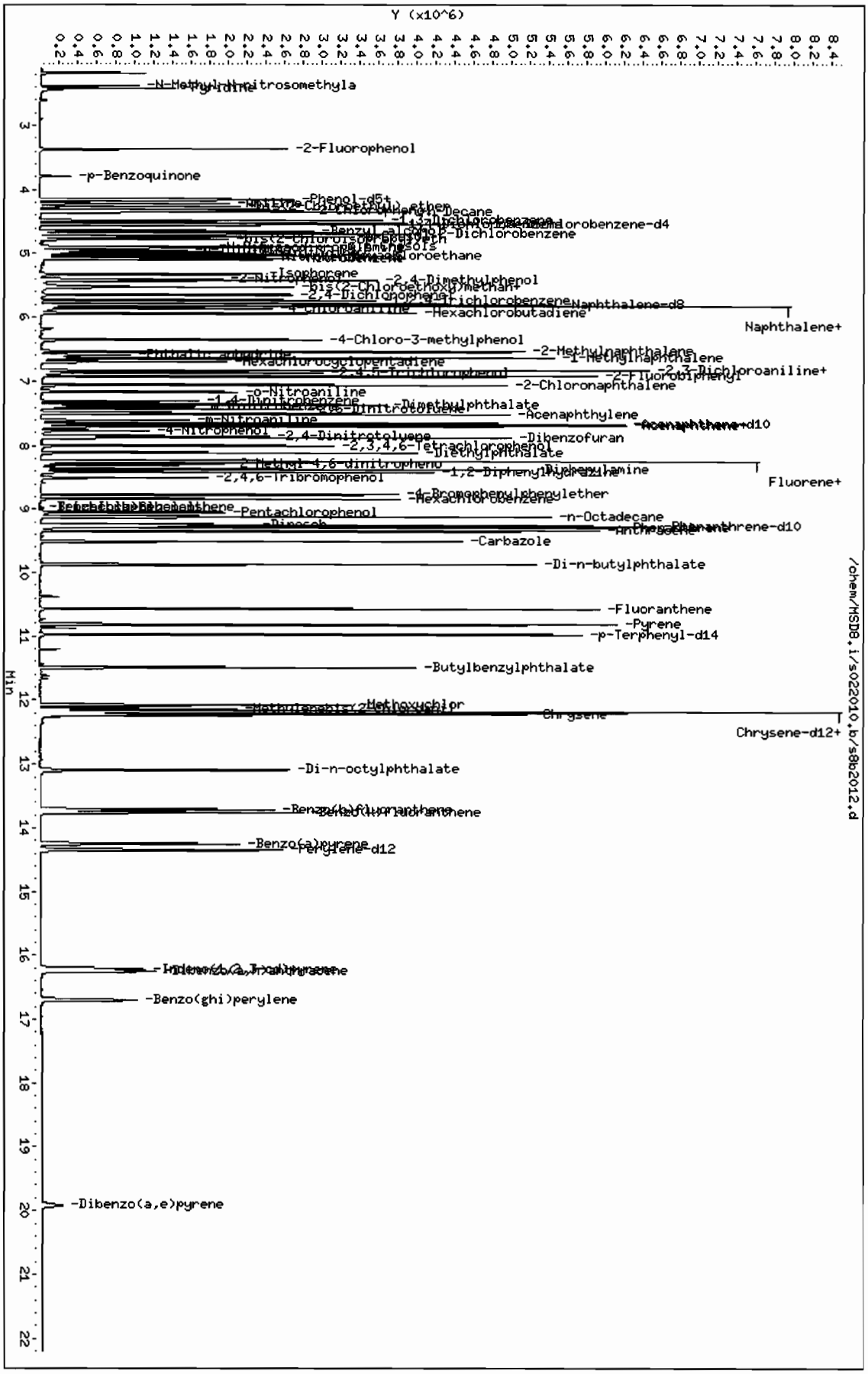

Page 1

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 21-FEB-2010 19:53
Lab File ID: s8b2035.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Analysis Type: Init. Cal. Times: 12:55 01:19
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.84330	0.69688	0.69688	0.000	-17.36320	60.00000	Averaged
16 Acetophenone	1.20309	1.14109	1.14109	0.000	-5.15283	60.00000	Averaged
189 Caprolactam	0.06655	0.06831	0.06831	0.000	2.63428	60.00000	Averaged
208 1,1'-Biphenyl	1.22219	1.19703	1.19703	0.000	-2.05853	60.00000	Averaged
207 Atrazine	0.03531	0.03806	0.03806	0.000	7.78782	60.00000	Averaged
77 Benzidine	41.98033	40.00000	0.31874	0.000	4.95082	60.00000	Linear
90 3,3'-Dichlorobenzidine	0.24780	0.27320	0.27320	0.000	10.24947	60.00000	Averaged
102 1,4-Dioxane	0.32319	0.37708	0.37708	0.000	16.67521	60.00000	Averaged
103 Methyl methacrylate	0.16817	0.19675	0.19675	0.000	16.99914	60.00000	Averaged
104 Ethyl methacrylate	0.67963	0.79943	0.79943	0.000	17.62812	60.00000	Averaged
105 2-Picoline	1.09294	1.07981	1.07981	0.000	-1.20157	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.43986	0.46246	0.46246	0.000	5.13741	60.00000	Averaged
107 Methyl methanesulfonate	0.49950	0.54492	0.54492	0.000	9.09235	60.00000	Averaged
108 N-Nitrosodiethylamine	0.45804	0.47767	0.47767	0.000	4.28449	60.00000	Averaged
109 Ethyl Methanesulfonate	0.60902	0.73730	0.73730	0.000	21.06290	60.00000	Averaged
110 Pentachloroethane	0.32092	0.43327	0.43327	0.000	35.01075	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.49059	0.49284	0.49284	0.000	0.45905	60.00000	Averaged
113 N-Nitrosomorpholine	0.66385	0.70342	0.70342	0.000	5.95974	60.00000	Averaged
114 o-Toluidine	1.62183	1.64404	1.64404	0.000	1.36960	60.00000	Averaged
115 N-Nitrosopiperidine	0.12437	0.12589	0.12589	0.000	1.22448	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.74304	0.77809	0.77809	0.000	4.71795	60.00000	Averaged
118 2,6-Dichlorophenol	0.20154	0.20467	0.20467	0.000	1.55320	60.00000	Averaged
119 Hexachloropropene	0.12360	0.18944	0.18944	0.000	53.26602	60.00000	Averaged
120 p-Phenylenediamine	0.19655	0.20159	0.20159	0.000	2.56438	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21161	0.22736	0.22736	0.000	7.44405	60.00000	Averaged
122 Safrole	0.19334	0.21416	0.21416	0.000	10.76780	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.47582	0.48716	0.48716	0.000	2.38273	60.00000	Averaged
124 Isosafrole	0.32130	0.41354	0.41354	0.000	28.70739	60.00000	Averaged
125 1,4-Naphthoquinone	0.29641	0.29356	0.29356	0.000	-0.96298	60.00000	Averaged
127 Pentachlorobenzene	0.43422	0.41984	0.41984	0.000	-3.31212	60.00000	Averaged
128 1-Naphthylamine	0.84230	0.87716	0.87716	0.000	4.13822	60.00000	Averaged
129 2-Naphthylamine	0.88763	0.93442	0.93442	0.000	5.27090	60.00000	Averaged
131 5-Nitro-o-toluidine	0.24122	0.24992	0.24992	0.000	3.60687	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.09499	0.13160	0.13160	0.000	38.54101	60.00000	Averaged
137 Phenacetin	0.21690	0.22945	0.22945	0.000	5.79020	60.00000	Averaged
138 Diallate	0.20203	0.19101	0.19101	0.000	-5.45490	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 21-FEB-2010 19:53
Lab File ID: s8b2035.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Analysis Type: Init. Cal. Times: 12:55 01:19
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.20071	0.25770	0.25770	0.000	28.39010	60.00000	Averaged
213 Trans Diallate	0.23769	0.22472	0.22472	0.000	-5.45490	60.00000	Averaged
140 4-Aminobiphenyl	0.51727	0.55152	0.55152	0.000	6.62074	60.00000	Averaged
141 Pentachloronitrobenzene	0.07936	0.08310	0.08310	0.000	4.70392	60.00000	Averaged
142 Pronamide	0.25230	0.26699	0.26699	0.000	5.82308	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.01907	0.01438	0.01438	0.000	-24.58503	60.00000	Averaged
147 Methapyrilene	0.29186	0.32275	0.32275	0.000	10.58368	60.00000	Averaged
148 Isodrin	0.10718	0.09605	0.09605	0.000	-10.38226	60.00000	Averaged
149 Aramite	0.03388	0.03359	0.03359	0.000	-0.86154	60.00000	Averaged
150 Kepone	0.07795	0.07692	0.07692	0.000	-1.31942	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.25808	0.27705	0.27705	0.000	7.35059	60.00000	Averaged
152 Chlorobenzilate	0.26271	0.28217	0.28217	0.000	7.40895	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.45535	0.49139	0.49139	0.000	7.91309	60.00000	Averaged
155 2-Acetylaminofluorene	42.39036	40.00000	0.24154	0.000	5.97589	60.00000	Linear
157 7,12Dimethylbenz(a)anthrace	0.51909	0.49026	0.49026	0.000	-5.55329	60.00000	Averaged
158 3-Methylcholanthrene	0.36780	0.40291	0.40291	0.000	9.54489	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD8.i/s022010.b/s8b2035.d
Lab Smp Id: WBN100218-08.1 Client Smp ID: APICV
Inj Date : 21-FEB-2010 19:53
Operator : nag1 Inst ID: MSD8.i
Smp Info : |WBN100218-08.1|40 PPM|1|SVM|1|APICV
Misc Info : |MSD8270|WBN100217-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m
Meth Date : 23-Feb-2010 13:31 nat00999 Quant Type: ISTD
Cal Date : 22-FEB-2010 00:48 Cal File: s8b2045.d
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.530	4.530	(1.000)	649861	40.0000	
* 29 Naphthalene-d8	136	5.796	5.796	(1.000)	2469894	40.0000	
* 46 Acenaphthene-d10	164	7.658	7.658	(1.000)	1465298	40.0000	
* 67 Phenanthrene-d10	188	9.263	9.263	(1.000)	2747481	40.0000	
* 91 Chrysene-d12	240	12.192	12.192	(1.000)	2214467	40.0000	
* 98 Perylene-d12	264	14.349	14.349	(1.000)	1648118	40.0000	
209 Benzaldehyde	77	4.125	4.125	(0.911)	452872	40.0000	33.0
16 Acetophenone	105	4.906	4.906	(1.083)	741552	40.0000	37.9
189 Caprolactam	113	6.225	6.225	(1.074)	168712	40.0000	41.0(H)
208 1,1'-Biphenyl	154	7.034	7.034	(0.919)	1754011	40.0000	39.2
207 Atrazine	173	8.939	8.939	(0.965)	104582	40.0000	43.1
77 Benzidine	184	10.706	10.706	(0.878)	705844	40.0000	42.0
90 3,3'-Dichlorobenzidine	252	12.130	12.130	(0.995)	604986	40.0000	44.1
102 1,4-Dioxane	88	2.177	2.177	(0.481)	245052	40.0000	46.7
103 Methyl methacrylate	100	2.177	2.177	(0.481)	127862	40.0000	46.8
104 Ethyl methacrylate	69	2.692	2.692	(0.594)	519520	40.0000	47.0
105 2-Picoline	93	2.939	2.939	(0.649)	701726	40.0000	39.5
106 N-Nitrosomethylethylamine	88	3.011	3.011	(0.665)	300533	40.0000	42.0
107 Methyl methanesulfonate	80	3.239	3.239	(0.715)	354120	40.0000	43.6
108 N-Nitrosodiethylamine	102	3.568	3.568	(0.788)	310419	40.0000	41.7
109 Ethyl Methanesulfonate	79	3.806	3.806	(0.840)	479140	40.0000	48.4
110 Pentachloroethane	167	4.268	4.268	(0.942)	281568	40.0000	54.0
111 N-Nitrosopyrrolidine	100	4.887	4.887	(1.079)	320276	40.0000	40.2(Q)
113 N-Nitrosomorpholine	56	4.925	4.925	(1.087)	457122	40.0000	42.4
114 o-Toluidine	106	4.944	4.944	(1.091)	1068400	40.0000	40.5
115 N-Nitrosopiperidine	114	5.230	5.230	(0.902)	310940	40.0000	40.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.630	5.630	(0.971)	1921805	40.0000	41.9
118 2,6-Dichlorophenol	162	5.872	5.872	(1.013)	505519	40.0000	40.6
119 Hexachloropropene	213	5.906	5.906	(1.019)	467897	40.0000	61.3
120 p-Phenylenediamine	108	6.230	6.230	(1.075)	497912	40.0000	41.0
121 N-Nitrosodi-n-butylamine	84	6.211	6.211	(1.071)	561557	40.0000	43.0
122 Safrole	162	6.439	6.439	(1.111)	528955	40.0000	44.3
123 1,2,4,5-Tetrachlorobenzene	216	6.715	6.715	(0.877)	713829	40.0000	41.0
124 Isosafrole	162	6.992	6.992	(0.913)	605957	40.0000	51.5
125 1,4-Naphthoquinone	158	7.244	7.244	(0.946)	430153	40.0000	39.6
127 Pentachlorobenzene	250	7.830	7.830	(1.022)	615188	40.0000	38.7
128 1-Naphthylamine	143	7.958	7.958	(1.039)	1285298	40.0000	41.6
129 2-Naphthylamine	143	8.044	8.044	(1.050)	1369199	40.0000	42.1
131 5-Nitro-o-toluidine	152	8.249	8.249	(1.077)	366207	40.0000	41.4
136 1,3,5-Trinitrobenzene	75	8.634	8.634	(0.932)	361581	40.0000	55.4
137 Phenacetin	108	8.701	8.701	(0.939)	630422	40.0000	42.3(Q)
138 Diallate	86	8.673	8.673	(0.936)	524804	40.0000	37.8
212 Cis Diallate	86	8.768	8.768	(0.947)	106203	6.00000	7.7
213 Trans Diallate	86	8.673	8.673	(0.936)	524804	34.0000	32.1
140 4-Aminobiphenyl	169	9.049	9.049	(0.977)	1515283	40.0000	42.6
141 Pentachloronitrobenzene	237	9.063	9.063	(0.978)	228304	40.0000	41.9(Q)
142 Pronamide	173	9.106	9.106	(0.983)	733556	40.0000	42.3
146 4-Nitroquinoline-1-oxide	101	10.111	10.111	(1.091)	39509	40.0000	30.2
147 Methapyrilene	58	10.192	10.192	(1.100)	886744	40.0000	44.2
148 Isodrin	193	10.411	10.411	(1.124)	263898	40.0000	35.8
149 Aramite	185	10.944	10.944	(1.181)	92281	40.0000	39.6
150 Kepone	272	11.563	11.563	(1.248)	211334	40.0000	39.5
151 p-(Dimethylamino)azobenzene	120	11.125	11.125	(0.912)	613518	40.0000	42.9
152 Chlorobenzilate	251	11.173	11.173	(0.916)	624855	40.0000	43.0
153 3,3'-Dimethylbenzidine	212	11.487	11.487	(0.942)	1088156	40.0000	43.2
155 2-Acetylaminofluorene	181	11.782	11.782	(0.966)	534890	40.0000	42.4
157 7,12Dimethylbenz(a)anthracene	256	13.706	13.706	(0.955)	808013	40.0000	37.8
158 3-Methylcholanthrene	268	14.849	14.849	(1.035)	664045	40.0000	43.8(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD8.i/s022010.b/s8b2035.d
Date : 21-FEB-2010 19:53
Client ID: APICV
Sample Info: IWBN100218-08,1140 PPM11SVM11APICV
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: nag1
Column diameter: 0.20

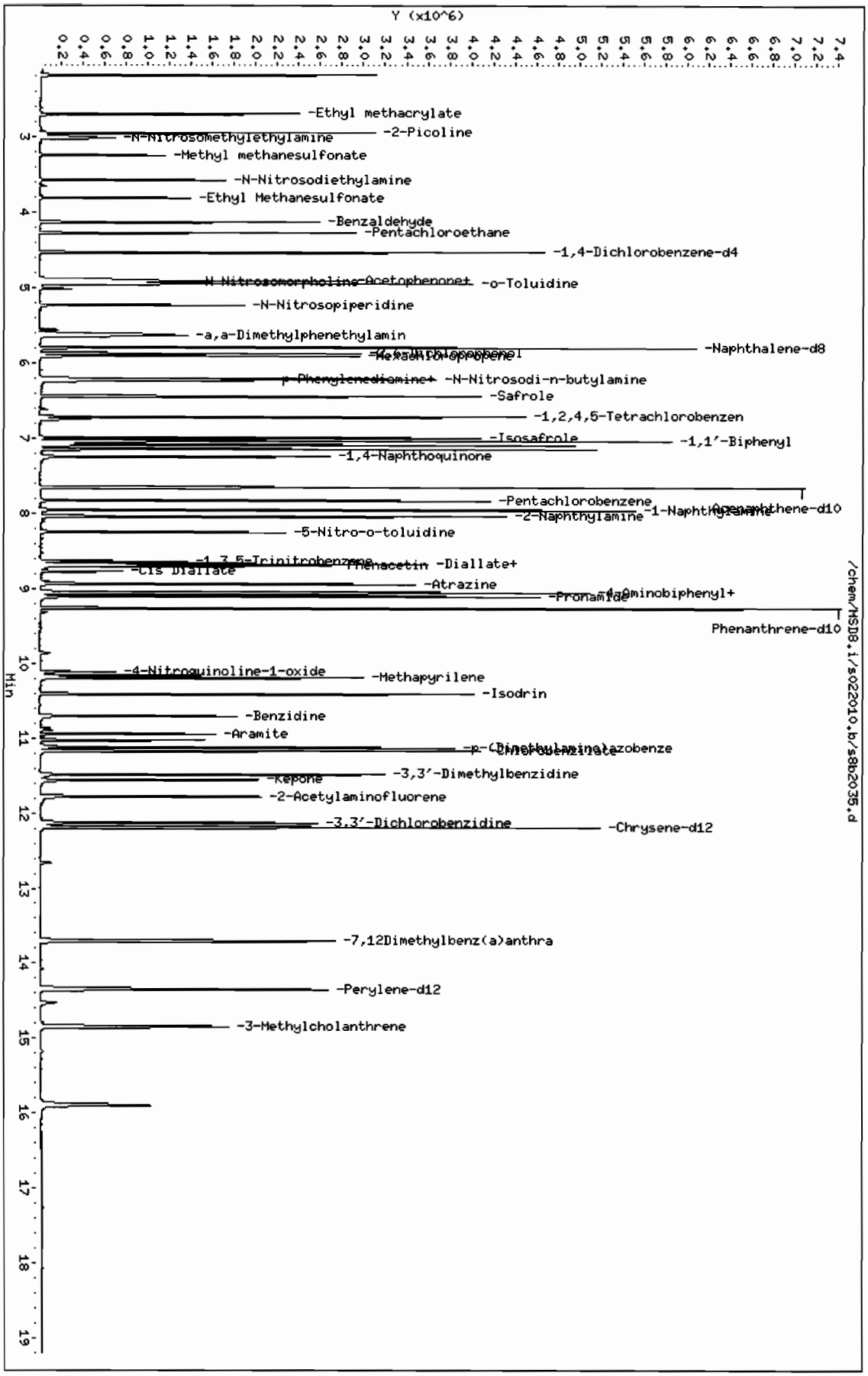

Page 1

Data File: /chem/MSD8.i/s030310.b/s8c0308.d
Report Date: 04-Mar-2010 07:36

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 03-MAR-2010 13:40
Lab File ID: s8c0308.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Analysis Type: Init. Cal. Times: 12:55 01:19
Lab Sample ID: WBN100225-05.5 Quant Type: ISTD
Method: /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	0.94435	0.87156	0.87156	0.000	-7.70713	60.00000	Averaged
$ 5 Phenol-d5	1.17771	1.09738	1.09738	0.000	-6.82055	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.28435	0.25053	0.25053	0.000	-11.89290	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.17740	1.09659	1.09659	0.000	-6.86309	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.13223	0.12505	0.12505	0.000	-5.42679	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.72015	0.67127	0.67127	0.000	-6.78726	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.60923	0.52195	0.52195	0.000	-14.32702	60.00000	Averaged
2 Pyridine	0.89373	0.76241	0.76241	0.000	-14.69332	60.00000	Averaged
4 Aniline	0.55542	0.45431	0.45431	0.000	-18.20528	60.00000	Averaged
6 Phenol	1.21617	1.09601	1.09601	0.001	-9.88049	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	0.83144	0.70784	0.70784	0.000	-14.86624	60.00000	Averaged
8 2-Chlorophenol	1.05605	1.01772	1.01772	0.000	-3.62966	60.00000	Averaged
203 n-Decane	1.08949	0.81694	0.81694	0.000	-25.01658	60.00000	Averaged
9 1,3-Dichlorobenzene	1.25240	1.22963	1.22963	0.000	-1.81758	60.00000	Averaged
11 1,4-Dichlorobenzene	1.29215	1.26496	1.26496	0.001	-2.10436	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.20194	1.18282	1.18282	0.000	-1.59087	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	1.63019	1.10550	1.10550	0.000	-32.18576	60.00000	Averaged
12 Benzyl alcohol	0.66057	0.44469	0.44469	0.000	-32.68110	60.00000	Averaged
15 o-Cresol	0.84463	0.74903	0.74903	0.000	-11.31876	60.00000	Averaged
18 m,p-Cresols	1.06890	0.92370	0.92370	0.000	-13.58351	60.00000	Averaged
17 N-Nitrosodipropylamine	0.77788	0.67631	0.67631	0.050	-13.05729	60.00000	Averaged spcc
19 Hexachloroethane	0.48694	0.46557	0.46557	0.000	-4.38944	60.00000	Averaged
21 Nitrobenzene	0.29331	0.25161	0.25161	0.000	-14.21767	60.00000	Averaged
22 Isophorone	0.53999	0.50022	0.50022	0.000	-7.36499	60.00000	Averaged
23 2-Nitrophenol	0.13462	0.13285	0.13285	0.001	-1.31382	20.00000	Averaged ccc
24 2,4-Dimethylphenol	0.23932	0.20906	0.20906	0.000	-12.64560	60.00000	Averaged
25 bis(2-Chloroethoxy)methane	0.30282	0.28790	0.28790	0.000	-4.92531	60.00000	Averaged
26 2,4-Dichlorophenol	0.21654	0.20464	0.20464	0.001	-5.49726	20.00000	Averaged ccc
27 Benzoic acid	36.08338	40.00000	0.09085	0.000	-9.79155	60.00000	Linear
28 1,2,4-Trichlorobenzene	0.29118	0.27855	0.27855	0.000	-4.33894	60.00000	Averaged
30 Naphthalene	39.33346	40.00000	0.85675	0.000	-1.66636	60.00000	Linear
204 alpha-Terpineol	0.22259	0.19758	0.19758	0.000	-11.23592	60.00000	Averaged
31 4-Chloroaniline	0.28585	0.23695	0.23695	0.000	-17.10879	60.00000	Averaged
32 Hexachlorobutadiene	0.18110	0.16870	0.16870	0.001	-6.84538	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.23429	0.19958	0.19958	0.001	-14.81396	20.00000	Averaged ccc
34 2-Methylnaphthalene	39.32008	40.00000	0.57128	0.000	-1.69979	60.00000	Linear

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 03-MAR-2010 13:40
Lab File ID: s8c0308.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Analysis Type: Init. Cal. Times: 12:55 01:19
Lab Sample ID: WBN100225-05.5 Quant Type: ISTD
Method: /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	39.37499	40.00000	0.56095	0.000	-1.56252	60.00000	Linear	
36 Hexachlorocyclopentadiene	0.24827	0.18591	0.18591	0.050	-25.11780	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.52803	0.49904	0.49904	0.000	-5.49093	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.30819	0.29193	0.29193	0.001	-5.27502	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.32711	0.27662	0.27662	0.000	-15.43327	60.00000	Averaged	
40 2-Chloronaphthalene	37.07311	40.00000	0.91400	0.000	-7.31723	60.00000	Linear	
42 o-Nitroaniline	0.27392	0.21360	0.21360	0.000	-22.02202	60.00000	Averaged	
41 m-Nitroaniline	0.20877	0.10778	0.10778	0.000	-48.37373	60.00000	Averaged	
43 Dimethylphthalate	1.12088	1.08844	1.08844	0.000	-2.89396	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.25341	0.25028	0.25028	0.000	-1.23365	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.32492	0.30660	0.30660	0.000	-5.63845	60.00000	Averaged	
45 Acenaphthylene	1.66068	1.49173	1.49173	0.000	-10.17387	60.00000	Averaged	
47 Acenaphthene	1.06294	0.93918	0.93918	0.001	-11.64350	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	35.89921	40.00000	0.06819	0.050	-10.25198	60.00000	Linear	spcc
49 Dibenzofuran	1.39464	1.28924	1.28924	0.000	-7.55756	60.00000	Averaged	
51 Diethylphthalate	1.17311	1.11693	1.11693	0.000	-4.78946	60.00000	Averaged	
52 4-Nitrophenol	0.13654	0.08886	0.08886	0.050	-34.91769	60.00000	Averaged	spcc
53 Fluorene	1.29100	1.15011	1.15011	0.000	-10.91277	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.62173	0.55203	0.55203	0.000	-11.21125	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	36.35765	40.00000	0.07107	0.000	-9.10588	60.00000	Linear	
56 p-Nitroaniline	0.18448	0.09904	0.09904	0.000	-46.31350	60.00000	Averaged	
133 Diphenylamine	0.50546	0.47966	0.47966	0.001	-5.10356	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.59375	0.51200	0.51200	0.000	-13.76846	60.00000	Averaged	
61 4-Bromophenylphenylether	0.19114	0.18518	0.18518	0.000	-3.11608	60.00000	Averaged	
63 Hexachlorobenzene	0.19866	0.19326	0.19326	0.000	-2.71891	60.00000	Averaged	
65 Pentachlorophenol	0.08849	0.08534	0.08534	0.001	-3.55931	20.00000	Averaged	ccc
206 n-Octadecane	0.39703	0.35310	0.35310	0.000	-11.06518	60.00000	Averaged	
68 Phenanthrene	37.54058	40.00000	0.87935	0.000	-6.14856	60.00000	Linear	
69 Anthracene	0.97083	0.86924	0.86924	0.000	-10.46511	60.00000	Averaged	
72 Di-n-butylphthalate	1.01476	1.06193	1.06193	0.000	4.64836	60.00000	Averaged	
76 Fluoranthene	1.01786	0.93461	0.93461	0.001	-8.17894	20.00000	Averaged	ccc
79 Pyrene	1.24889	I.09743	1.09743	0.000	-12.12756	60.00000	Averaged	
85 Butylbenzylphthalate	0.43672	0.45293	0.45293	0.000	3.71091	60.00000	Averaged	
89 Benzo(a)anthracene	1.05261	0.92696	0.92696	0.000	-11.93681	60.00000	Averaged	
92 Chrysene	38.15837	40.00000	0.87592	0.000	-4.60409	60.00000	Linear	
93 bis(2-Ethylhexyl)phthalate	0.61117	0.65614	0.65614	0.000	7.35747	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 03-MAR-2010 13:40
Lab File ID: s8c0308.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Analysis Type: Init. Cal. Times: 12:55 01:19
Lab Sample ID: WBN100225-05.5 Quant Type: ISTD
Method: /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	40.04246	40.00000	1.23620	0.001	0.10616	20.00000	Linear	ccc
	95 Benzo(b)fluoranthene	1.13405	0.99750	0.99750	0.000	-12.04012	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.14008	1.04173	1.04173	0.000	-8.62679	60.00000	Averaged	
	97 Benzo(a)pyrene	0.95647	0.90308	0.90308	0.001	-5.58147	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.79303	0.81301	0.81301	0.000	2.51997	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.61288	0.76612	0.76612	0.000	25.00234	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.65613	0.78997	0.78997	0.000	20.39901	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16162	0.15087	0.15087	0.000	-6.64811	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.27739	0.25115	0.25115	0.000	-9.45883	60.00000	Averaged	
	143 Dinoseb	36.74798	40.00000	0.10557	0.000	-8.13006	60.00000	Linear	
	173 Carbazole	0.69337	0.37963	0.37963	0.000	-45.24887	60.00000	Averaged	
	184 p-Benzoquinone	14.83768	40.00000	0.05865	0.000	-62.90581	60.00000	Linear	<-
	192 Methoxychlor	0.57371	0.56230	0.56230	0.000	-1.98780	60.00000	Averaged	
	211 p-Toluidine	1.14055	0.90774	0.90774	0.000	-20.41214	60.00000	Averaged	
	210 m-Toluidine	1.48620	1.13118	1.13118	0.000	-23.88813	60.00000	Averaged	
	26 Phthalic anhydride	23.67392	40.00000	0.06621	0.000	-40.81519	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	0.26112	0.45698	0.45698	0.000	75.00498	60.00000	Averaged	<-
	214 1,4-Dinitrobenzene	0.17136	0.12710	0.12710	0.000	-25.83037	60.00000	Averaged	
	215 2-Ethoxyethanol	0.57374	0.36887	0.36887	0.000	-35.70808	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	27.24631	40.00000	0.06933	0.000	-31.88422	60.00000	Linear	
M	222 Trichlorophenols	0.31765	0.28428	0.28428	0.000	-10.50542	60.00000	Averaged	
M	223 Tetrachlorophenols	0.27739	0.25115	0.25115	0.000	-9.45883	60.00000	Averaged	
M	224 Benzo(b,k)fluoranthene	1.13706	1.01962	1.01962	0.000	-10.32893	60.00000	Averaged	

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Data file : /chem/MSD8.i/s030310.b/s8c0308.d
Lab Smp Id: WBN100225-05.5 Client Smp ID: MEGACVS
Inj Date : 03-MAR-2010 13:40
Operator : nag1 Inst ID: MSD8.i
Smp Info : |WBN100225-05.5|40 PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN100227-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Meth Date : 04-Mar-2010 07:36 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.354	4.354	(1.000)	337349	40.0000	
* 29 Naphthalene-d8	136	5.611	5.611	(1.000)	1317433	40.0000	
* 46 Acenaphthene-d10	164	7.463	7.463	(1.000)	787174	40.0000	
* 67 Phenanthrene-d10	188	9.058	9.058	(1.000)	1390793	40.0000	
* 91 Chrysene-d12	240	11.944	11.944	(1.000)	1272293	40.0000	
* 98 Perylene-d12	264	13.992	13.992	(1.000)	991553	40.0000	
$ 3 2-Fluorophenol	112	3.201	3.201	(0.735)	294021	40.0000	36.9
$ 5 Phenol-d5	99	3.973	3.973	(0.912)	370200	40.0000	37.3
$ 20 Nitrobenzene-d5	82	4.877	4.877	(0.869)	330055	40.0000	35.2
$ 39 2-Fluorobiphenyl	172	6.735	6.735	(0.902)	863207	40.0000	37.2
$ 60 2,4,6-Tribromophenol	329	8.306	8.306	(1.113)	98436	40.0000	37.8
$ 81 p-Terphenyl-d14	244	10.773	10.773	(0.902)	854050	40.0000	37.3
1 N-Methyl-N-nitrosomethylamine	74	2.239	2.239	(0.514)	176078	40.0000	34.3
2 Pyridine	79	2.273	2.273	(0.522)	257198	40.0000	34.1
4 Aniline	66	4.044	4.044	(0.929)	153260	40.0000	32.7
6 Phenol	94	3.987	3.987	(0.916)	369738	40.0000	36.0
7 bis(2-Chloroethyl) ether	63	4.087	4.087	(0.939)	238788	40.0000	34.0
8 2-Chlorophenol	128	4.154	4.154	(0.954)	343327	40.0000	38.5
203 n-Decane	43	4.177	4.177	(0.960)	275594	40.0000	30.0
9 1,3-Dichlorobenzene	146	4.301	4.301	(0.988)	414816	40.0000	39.3
11 1,4-Dichlorobenzene	146	4.368	4.368	(1.003)	426734	40.0000	39.2
13 1,2-Dichlorobenzene	146	4.511	4.511	(1.036)	399022	40.0000	39.4
14 bis(2-Chloroisopropyl)ether	45	4.597	4.597	(1.056)	372940	40.0000	27.1
12 Benzyl alcohol	108	4.463	4.463	(1.025)	150015	40.0000	26.9
15 o-Cresol	107	4.558	4.558	(1.047)	252683	40.0000	35.5
18 m,p-Cresols	107	4.706	4.706	(1.081)	311610	40.0000	34.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.725	4.725	(1.085)	228153	40.0000	34.8
19 Hexachloroethane	117	4.839	4.839	(1.112)	157059	40.0000	38.2
21 Nitrobenzene	77	4.897	4.897	(0.873)	331474	40.0000	34.3
22 Isophorone	82	5.135	5.135	(0.915)	659011	40.0000	37.0
23 2-Nitrophenol	139	5.216	5.216	(0.930)	175020	40.0000	39.5
24 2,4-Dimethylphenol	122	5.239	5.239	(0.934)	275421	40.0000	34.9
25 bis(2-Chloroethoxy)methane	93	5.344	5.344	(0.952)	379295	40.0000	38.0
26 2,4-Dichlorophenol	162	5.454	5.454	(0.972)	269597	40.0000	37.8
27 Benzoic acid	105	5.320	5.320	(0.948)	119684	40.0000	36.1
28 1,2,4-Trichlorobenzene	180	5.549	5.549	(0.989)	366967	40.0000	38.3
30 Naphthalene	128	5.630	5.630	(1.003)	1128715	40.0000	39.3
204 alpha-Terpineol	59	5.630	5.630	(1.003)	260293	40.0000	35.5
31 4-Chloroaniline	127	5.677	5.677	(1.012)	312162	40.0000	33.2
32 Hexachlorobutadiene	225	5.754	5.754	(1.025)	222250	40.0000	37.3
33 4-Chloro-3-methylphenol	107	6.168	6.168	(1.099)	262934	40.0000	34.1
34 2-Methylnaphthalene	142	6.354	6.354	(1.132)	752623	40.0000	39.3
35 1-Methylnaphthalene	142	6.458	6.458	(1.151)	739014	40.0000	39.4
36 Hexachlorocyclopentadiene	237	6.516	6.516	(0.873)	146342	40.0000	30.0
205 2,3-Dichloroaniline	161	6.644	6.644	(0.890)	392831	40.0000	37.8
37 2,4,6-Trichlorophenol	196	6.644	6.644	(0.890)	229799	40.0000	37.9
38 2,4,5-Trichlorophenol	196	6.678	6.678	(0.895)	217751	40.0000	33.8
40 2-Chloronaphthalene	162	6.868	6.868	(0.920)	719477	40.0000	37.1
42 o-Nitroaniline	65	6.968	6.968	(0.934)	168139	40.0000	31.2
41 m-Nitroaniline	138	7.411	7.411	(0.993)	84842	40.0000	20.6
43 Dimethylphthalate	163	7.168	7.168	(0.960)	856793	40.0000	38.8
44 2,6-Dinitrotoluene	165	7.235	7.235	(0.969)	197017	40.0000	39.5
50 2,4-Dinitrotoluene	165	7.663	7.663	(1.027)	241347	40.0000	37.7
45 Acenaphthylene	152	7.311	7.311	(0.980)	1174250	40.0000	35.9
47 Acenaphthene	154	7.497	7.497	(1.004)	739297	40.0000	35.3
48 2,4-Dinitrophenol	184	7.520	7.520	(1.008)	53678	40.0000	35.9
49 Dibenzofuran	168	7.682	7.682	(1.029)	1014858	40.0000	37.0
51 Diethylphthalate	149	7.920	7.920	(1.061)	879216	40.0000	38.1
52 4-Nitrophenol	139	7.578	7.578	(1.015)	69949	40.0000	26.0
53 Fluorene	166	8.049	8.049	(1.078)	905340	40.0000	35.6
54 4-Chlorophenylphenylether	204	8.049	8.049	(1.078)	434543	40.0000	35.5
55 2-Methyl-4,6-dinitrophenol	198	8.097	8.097	(0.894)	98846	40.0000	36.4
56 p-Nitroaniline	138	8.063	8.063	(1.080)	77961	40.0000	21.5
133 Diphenylamine	169	8.173	8.173	(0.902)	667112	40.0000	38.0
58 1,2-Diphenylhydrazine	77	8.216	8.216	(0.907)	712081	40.0000	34.5
61 4-Bromophenylphenylether	248	8.573	8.573	(0.946)	257549	40.0000	38.8
63 Hexachlorobenzene	284	8.639	8.639	(0.954)	268788	40.0000	38.9
65 Pentachlorophenol	266	8.844	8.844	(0.976)	118693	40.0000	38.6
206 n-Octadecane	57	8.935	8.935	(0.986)	491083	40.0000	35.6
68 Phenanthrene	178	9.082	9.082	(1.003)	1222993	40.0000	37.5
69 Anthracene	178	9.139	9.139	(1.009)	1208926	40.0000	35.8
72 Di-n-butylphthalate	149	9.682	9.682	(1.069)	1476924	40.0000	41.8
76 Fluoranthene	202	10.363	10.363	(1.144)	1299847	40.0000	36.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	10.606	10.606	(0.888)	1396255	40.0000	35.1
85 Butylbenzylphthalate	149	11.297	11.297	(0.946)	576255	40.0000	41.5
89 Benzo(a)anthracene	228	11.930	11.930	(0.999)	1179368	40.0000	35.2
92 Chrysene	228	11.973	11.973	(1.002)	1114428	40.0000	38.2
93 bis(2-Ethylhexyl)phthalate	149	11.954	11.954	(1.001)	834799	40.0000	42.9
94 Di-n-octylphthalate	149	12.820	12.820	(0.916)	1225758	40.0000	40.0
95 Benzo(b)fluoranthene	252	13.392	13.392	(0.957)	989079	40.0000	35.2
96 Benzo(k)fluoranthene	252	13.435	13.435	(0.960)	1032928	40.0000	36.5
97 Benzo(a)pyrene	252	13.901	13.901	(0.994)	895453	40.0000	37.8
99 Indeno(1,2,3-cd)pyrene	276	15.787	15.787	(1.128)	806143	40.0000	41.0
100 Dibenzo(a,h)anthracene	278	15.825	15.825	(1.131)	759644	40.0000	50.0
101 Benzo(ghi)perylene	276	16.254	16.254	(1.162)	783297	40.0000	48.2
126 m-Dinitrobenzene	168	7.201	7.201	(0.965)	118763	40.0000	37.3
130 2,3,4,6-Tetrachlorophenol	232	7.806	7.806	(1.046)	197700	40.0000	36.2
143 Dinoseb	211	9.044	9.044	(0.998)	146829	40.0000	36.7
173 Carbazole	167	9.306	9.306	(1.027)	527981	40.0000	21.9
184 p-Benzoquinone	54	3.620	3.620	(0.832)	19787	40.0000	14.8
192 Methoxychlor	227	11.844	11.844	(0.992)	715415	40.0000	39.2
211 p-Toluidine	106	4.768	4.768	(1.095)	306225	40.0000	31.8
210 m-Toluidine	106	4.801	4.801	(1.103)	381601	40.0000	30.4
26 Phthalic anhydride	104	6.401	6.401	(1.141)	87233	40.0000	23.7
179 Dibenzo(a,e)pyrene	302	19.249	19.249	(1.376)	453117	40.0000	70.0
214 1,4-Dinitrobenzene	75	7.120	7.120	(0.954)	100050	40.0000	29.7
215 2-Ethoxyethanol	59	2.035	2.035	(0.467)	124437	40.0000	25.7
216 Methylenebis(2-chloroaniline)	231	11.897	11.897	(0.996)	88213	40.0000	27.2
M 222 Trichlorophenols	196				447550	80.0000	71.6
M 223 Tetrachlorophenols	232				197700	40.0000	36.2
M 224 Benzo(b,k)fluoranthene	252				2022007	80.0000	71.7

Data File: /chem/MSD8.i/s030310.b/s8c0308.d
Date : 03-MAR-2010 13:40
Client ID: MECACVS
Sample Info: IWBN100225-05,5140 PPM|1|SVMF1|1|MECACVS
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: nag1
Column diameter: 0.20

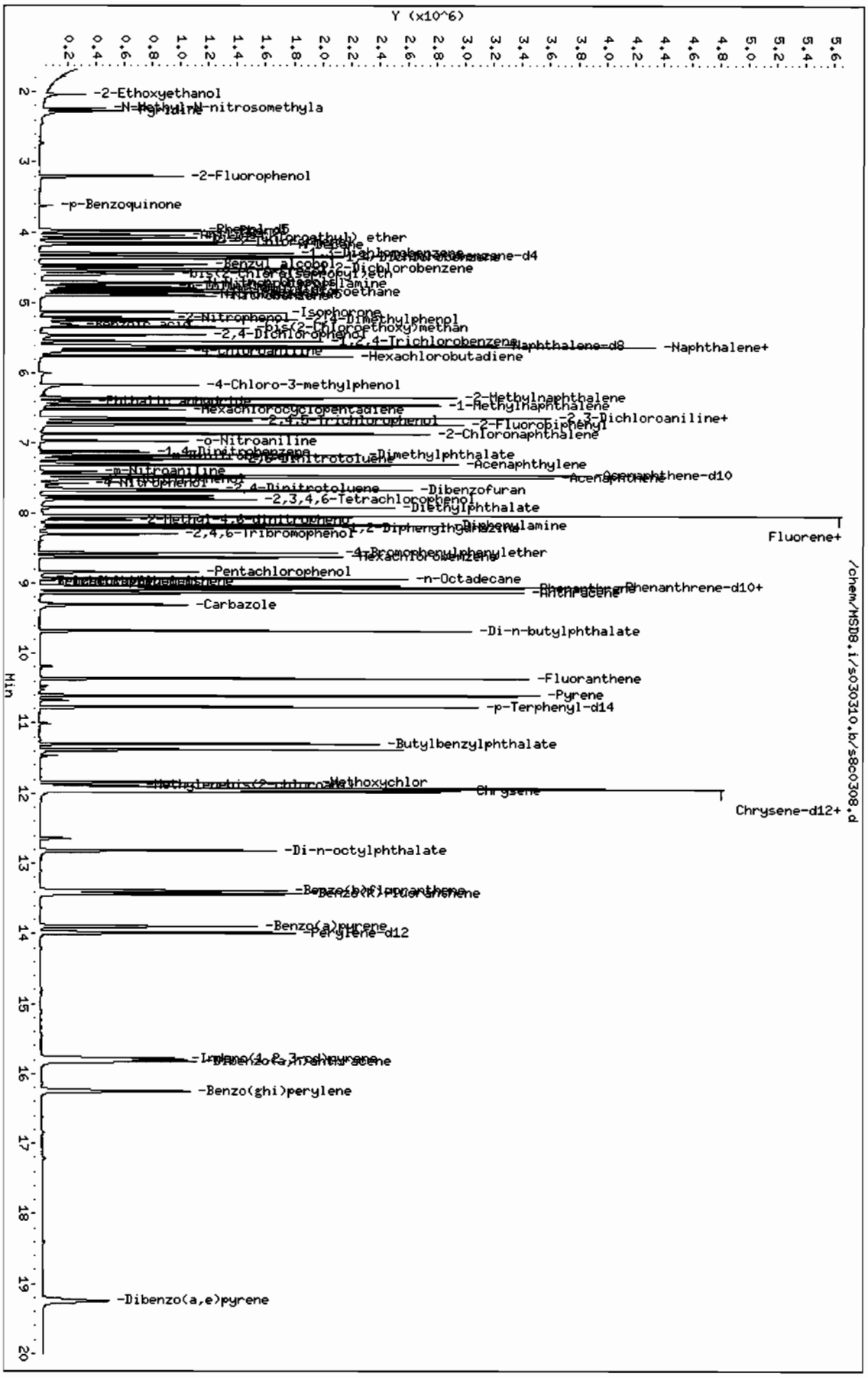

Page 1

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 03-MAR-2010 14:12
Lab File ID: s8c0309.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Analysis Type: Init. Cal. Times: 12:55 01:19
Lab Sample ID: WBN100218-03.4 Quant Type: ISTD
Method: /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.84330	0.74685	0.74685	0.000	-11.43676	60.00000	Averaged
16 Acetophenone	1.20309	1.08469	1.08469	0.000	-9.84064	60.00000	Averaged
189 Caprolactam	0.06655	0.06983	0.06983	0.000	4.92580	60.00000	Averaged
208 1,1'-Biphenyl	1.22219	1.15508	1.15508	0.000	-5.49106	60.00000	Averaged
207 Atrazine	0.03531	0.04177	0.04177	0.000	18.27090	60.00000	Averaged
77 Benzidine	25.97397	40.00000	0.16771	0.000	-35.06508	60.00000	Linear
90 3,3'-Dichlorobenzidine	0.24780	0.22841	0.22841	0.000	-7.82475	60.00000	Averaged
102 1,4-Dioxane	0.32319	0.29702	0.29702	0.000	-8.09822	60.00000	Averaged
103 Methyl methacrylate	0.16817	0.16468	0.16468	0.000	-2.07300	60.00000	Averaged
104 Ethyl methacrylate	0.67963	0.58750	0.58750	0.000	-13.55569	60.00000	Averaged
105 2-Picoline	1.09294	1.03810	1.03810	0.000	-5.01751	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.43986	0.38831	0.38831	0.000	-11.72030	60.00000	Averaged
107 Methyl methanesulfonate	0.49950	0.42657	0.42657	0.000	-14.60026	60.00000	Averaged
108 N-Nitrosodiethylamine	0.45804	0.42367	0.42367	0.000	-7.50458	60.00000	Averaged
109 Ethyl Methanesulfonate	0.60902	0.53330	0.53330	0.000	-12.43289	60.00000	Averaged
110 Pentachloroethane	0.32092	0.31105	0.31105	0.000	-3.07499	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.49059	0.43983	0.43983	0.000	-10.34637	60.00000	Averaged
113 N-Nitrosomorpholine	0.66385	0.53422	0.53422	0.000	-19.52771	60.00000	Averaged
114 o-Toluidine	1.62183	1.54532	1.54532	0.000	-4.71773	60.00000	Averaged
115 N-Nitrosopiperidine	0.12437	0.12264	0.12264	0.000	-1.38679	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.74304	0.58158	0.58158	0.000	-21.72985	60.00000	Averaged
118 2,6-Dichlorophenol	0.20154	0.20625	0.20625	0.000	2.33410	60.00000	Averaged
119 Hexachloropropene	0.12360	0.09152	0.09152	0.000	-25.95821	60.00000	Averaged
120 p-Phenylenediamine	0.19655	0.17463	0.17463	0.000	-11.15227	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21161	0.20146	0.20146	0.000	-4.79428	60.00000	Averaged
122 Safrole	0.19334	0.18942	0.18942	0.000	-2.03052	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.47582	0.44833	0.44833	0.000	-5.77719	60.00000	Averaged
124 Isosafrole	0.32130	0.30003	0.30003	0.000	-6.61887	60.00000	Averaged
125 1,4-Naphthoquinone	0.29641	0.31775	0.31775	0.000	7.19940	60.00000	Averaged
127 Pentachlorobenzene	0.43422	0.39656	0.39656	0.000	-8.67267	60.00000	Averaged
128 1-Naphthylamine	0.84230	0.76622	0.76622	0.000	-9.03219	60.00000	Averaged
129 2-Naphthylamine	0.88763	0.79647	0.79647	0.000	-10.26971	60.00000	Averaged
131 5-Nitro-o-toluidine	0.24122	0.21981	0.21981	0.000	-8.87617	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.09499	0.08269	0.08269	0.000	-12.95411	60.00000	Averaged
137 Phenacetin	0.21690	0.19915	0.19915	0.000	-8.17993	60.00000	Averaged
138 Diallate	0.20203	0.20074	0.20074	0.000	-0.64127	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 03-MAR-2010 14:12
Lab File ID: s8c0309.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Analysis Type: Init. Cal. Times: 12:55 01:19
Lab Sample ID: WBN100218-03.4 Quant Type: ISTD
Method: /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.20071	0.19732	0.19732	0.000	-1.69084	60.00000	Averaged
213 Trans Diallate	0.23769	0.23616	0.23616	0.000	-0.64127	60.00000	Averaged
140 4-Aminobiphenyl	0.51727	0.43693	0.43693	0.000	-15.53169	60.00000	Averaged
141 Pentachloronitrobenzene	0.07936	0.07257	0.07257	0.000	-8.56446	60.00000	Averaged
142 Pronamide	0.25230	0.26751	0.26751	0.000	6.02765	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.01907	0.01545	0.01545	0.000	-18.98880	60.00000	Averaged
147 Methapyrilene	0.29186	0.25442	0.25442	0.000	-12.82705	60.00000	Averaged
148 Isodrin	0.10718	0.10342	0.10342	0.000	-3.50335	60.00000	Averaged
149 Aramite	0.03388	0.03438	0.03438	0.000	1.48196	60.00000	Averaged
150 Kepone	0.07795	0.07759	0.07759	0.000	-0.46233	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.25808	0.26798	0.26798	0.000	3.83516	60.00000	Averaged
152 Chlorobenzilate	0.26271	0.28487	0.28487	0.000	8.43508	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.45535	0.34912	0.34912	0.000	-23.33020	60.00000	Averaged
155 2-Acetylaminofluorene	40.27859	40.00000	0.22729	0.000	0.69648	60.00000	Linear
157 7,12Dimethylbenz(a)anthrace	0.51909	0.50778	0.50778	0.000	-2.17967	60.00000	Averaged
158 3-Methylcholanthrene	0.36780	0.37334	0.37334	0.000	1.50602	60.00000	Averaged

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Data file : /chem/MSD8.i/s030310.b/s8c0309.d
Lab Smp Id: WBN100218-03.4 Client Smp ID: AP12CVS
Inj Date : 03-MAR-2010 14:12
Operator : nag1 Inst ID: MSD8.i
Smp Info : |WBN100218-03.4|40 PPM|1|SVMF|1|AP12CVS
Misc Info : |MSD8270|WBN100227-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Meth Date : 04-Mar-2010 07:36 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.354	4.354	(1.000)	514258	40.0000	
* 29 Naphthalene-d8	136	5.611	5.611	(1.000)	1965389	40.0000	
* 46 Acenaphthene-d10	164	7.463	7.463	(1.000)	1178677	40.0000	
* 67 Phenanthrene-d10	188	9.058	9.058	(1.000)	1980428	40.0000	
* 91 Chrysene-d12	240	11.939	11.939	(1.000)	1525476	40.0000	
* 98 Perylene-d12	264	13.987	13.987	(1.000)	1125807	40.0000	
209 Benzaldehyde	77	3.958	3.958	(0.909)	384075	40.0000	35.4
16 Acetophenone	105	4.730	4.730	(1.086)	557813	40.0000	36.1
189 Caprolactam	113	6.030	6.030	(1.075)	137248	40.0000	42.0
208 1,1'-Biphenyl	154	6.844	6.844	(0.917)	1361468	40.0000	37.8
207 Atrazine	173	8.749	8.749	(0.966)	82716	40.0000	47.3
77 Benzidine	184	10.506	10.506	(0.880)	255830	40.0000	26.0
90 3,3'-Dichlorobenzidine	252	11.892	11.892	(0.996)	348433	40.0000	36.9
102 1,4-Dioxane	88	2.039	2.039	(0.468)	152744	40.0000	36.8
103 Methyl methacrylate	100	2.044	2.044	(0.469)	84688	40.0000	39.2
104 Ethyl methacrylate	69	2.544	2.544	(0.584)	302126	40.0000	34.6
105 2-Picoline	93	2.787	2.787	(0.640)	533853	40.0000	38.0
106 N-Nitrosomethylethylamine	88	2.858	2.858	(0.657)	199690	40.0000	35.3
107 Methyl methanesulfonate	80	3.082	3.082	(0.708)	219368	40.0000	34.2
108 N-Nitrosodiethylamine	102	3.406	3.406	(0.782)	217876	40.0000	37.0
109 Ethyl Methanesulfonate	79	3.644	3.644	(0.837)	274254	40.0000	35.0
110 Pentachloroethane	167	4.096	4.096	(0.941)	159960	40.0000	38.8
111 N-Nitrosopyrrolidine	100	4.711	4.711	(1.082)	226185	40.0000	35.9(Q)
113 N-Nitrosomorpholine	56	4.744	4.744	(1.090)	274725	40.0000	32.2
114 o-Toluidine	106	4.763	4.763	(1.094)	794692	40.0000	38.1
115 N-Nitrosopiperidine	114	5.049	5.049	(0.900)	241044	40.0000	39.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.454	5.454	(0.972)	1143022	40.0000	31.3
118 2,6-Dichlorophenol	162	5.687	5.687	(1.014)	405354	40.0000	40.9
119 Hexachloropropene	213	5.720	5.720	(1.020)	179867	40.0000	29.6
120 p-Phenylenediamine	108	6.044	6.044	(1.077)	343220	40.0000	35.5
121 N-Nitrosodi-n-butylamine	84	6.030	6.030	(1.075)	395954	40.0000	38.1
122 Safrole	162	6.254	6.254	(1.115)	372277	40.0000	39.2
123 1,2,4,5-Tetrachlorobenzene	216	6.530	6.530	(0.875)	528436	40.0000	37.7
124 Isosafrole	162	6.806	6.806	(0.912)	353644	40.0000	37.4
125 1,4-Naphthoquinone	158	7.054	7.054	(0.945)	374530	40.0000	42.9
127 Pentachlorobenzene	250	7.635	7.635	(1.023)	467418	40.0000	36.5
128 1-Naphthylamine	143	7.763	7.763	(1.040)	903130	40.0000	36.4
129 2-Naphthylamine	143	7.849	7.849	(1.052)	938785	40.0000	35.9
131 5-Nitro-o-toluidine	152	8.054	8.054	(1.079)	259083	40.0000	36.4
136 1,3,5-Trinitrobenzene	75	8.449	8.449	(0.933)	163757	40.0000	34.8
137 Phenacetin	108	8.506	8.506	(0.939)	394410	40.0000	36.7(Q)
138 Diallate	86	8.482	8.482	(0.936)	397547	40.0000	39.7
212 Cis Diallate	86	8.577	8.577	(0.947)	58617	6.00000	5.9
213 Trans Diallate	86	8.482	8.482	(0.936)	397547	34.0000	33.8
140 4-Aminobiphenyl	169	8.854	8.854	(0.977)	865307	40.0000	33.8
141 Pentachloronitrobenzene	237	8.863	8.863	(0.978)	143711	40.0000	36.6(Q)
142 Pronamide	173	8.915	8.915	(0.984)	529781	40.0000	42.4
146 4-Nitroquinoline-1-oxide	101	9.911	9.911	(1.094)	30592	40.0000	32.4
147 Methapyrilene	58	9.992	9.992	(1.103)	503864	40.0000	34.9
148 Isodrin	193	10.201	10.201	(1.126)	204823	40.0000	38.6
149 Aramite	185	10.749	10.749	(1.187)	68090	40.0000	40.6
150 Kepone	272	11.344	11.344	(1.252)	153656	40.0000	39.8
151 p-(Dimethylamino)azobenzene	120	10.925	10.925	(0.915)	408793	40.0000	41.5
152 Chlorobenzilate	251	10.973	10.973	(0.919)	434555	40.0000	43.4
153 3,3'-Dimethylbenzidine	212	11.282	11.282	(0.945)	532571	40.0000	30.7
155 2-Acetylaminofluorene	181	11.558	11.558	(0.968)	346729	40.0000	40.3
157 7,12Dimethylbenz(a)anthracene	256	13.377	13.377	(0.956)	571658	40.0000	39.1
158 3-Methylcholanthrene	268	14.468	14.468	(1.034)	420313	40.0000	40.6(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD8.i/s030310.b/s8c0309.d

Date : 03-MAR-2010 14:12

Client ID: AP12CVS

Sample Info: |WBN100218-03.4|40 PPM|1|SVMF|1|AP12CVS

Column phase: J&W DB-5MS

Instrument: MSD8.i

Operator: nag1

Column diameter: 0.20

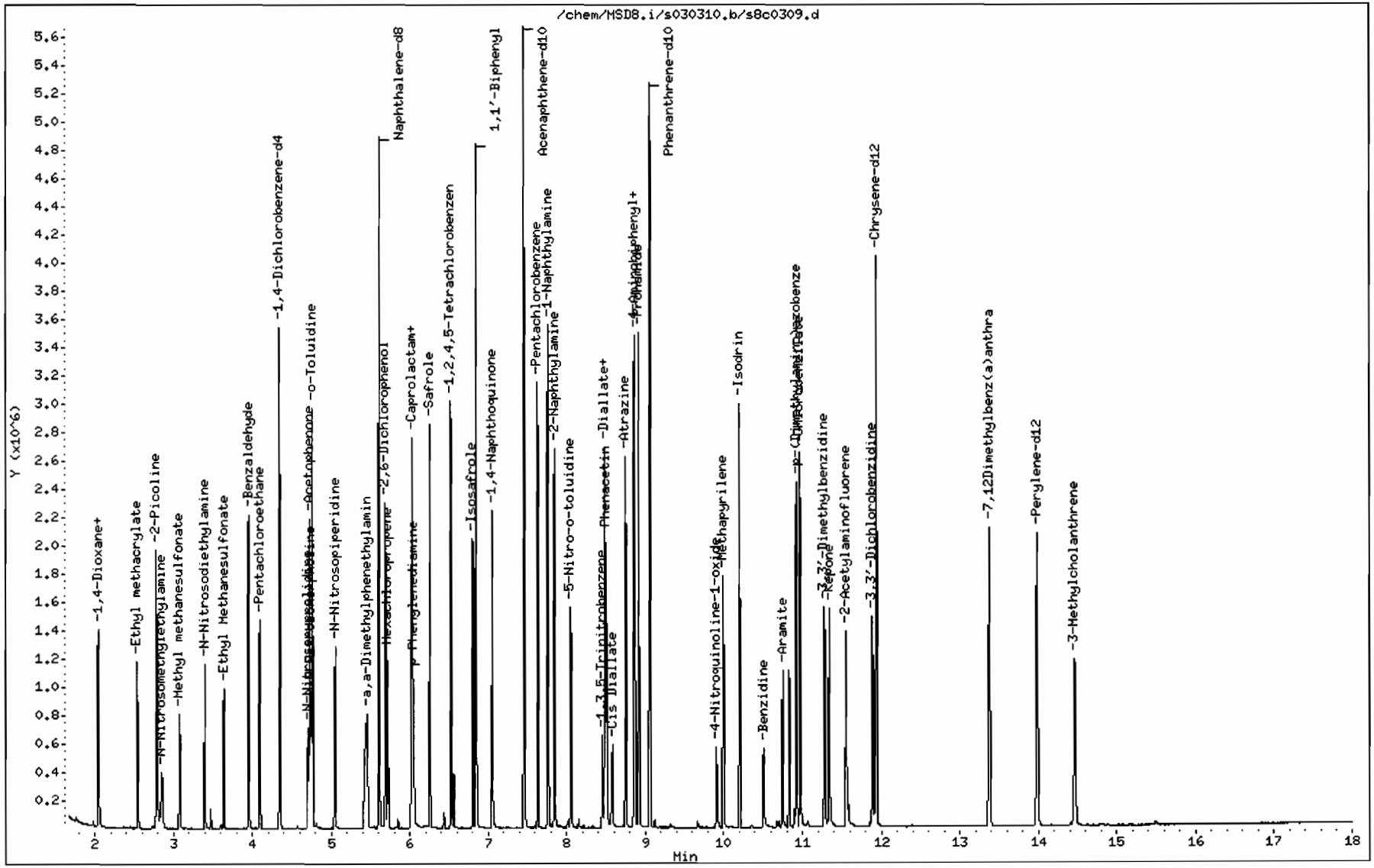

QC Data

Data File: /chem/MSD8.i/s022010.b/s8b2001.d

Date : 20-FEB-2010 12:04

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

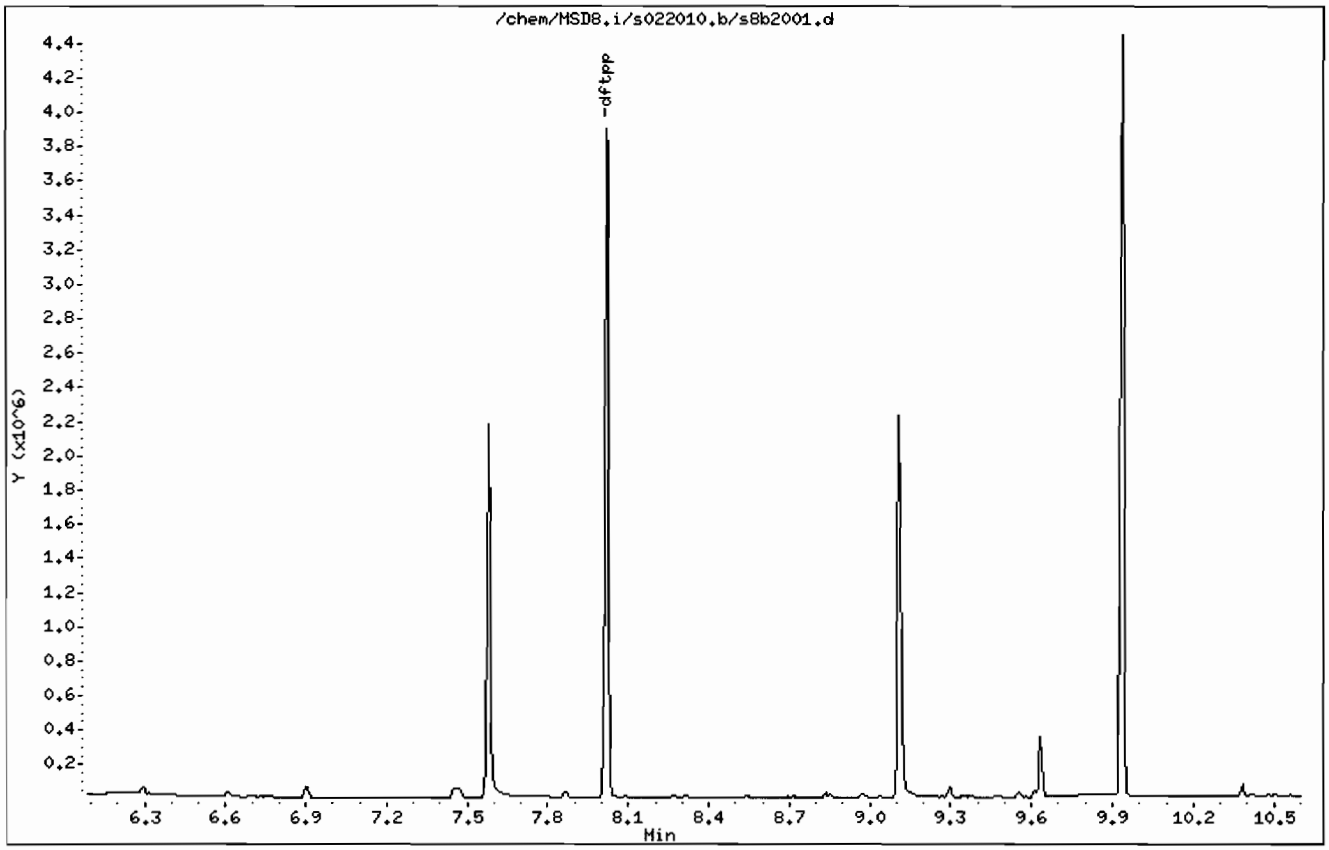

Data File: /chem/MSD8.i/s022010.b/s8b2001.d

Date : 20-FEB-2010 12:04

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: IWBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

1 dftpp

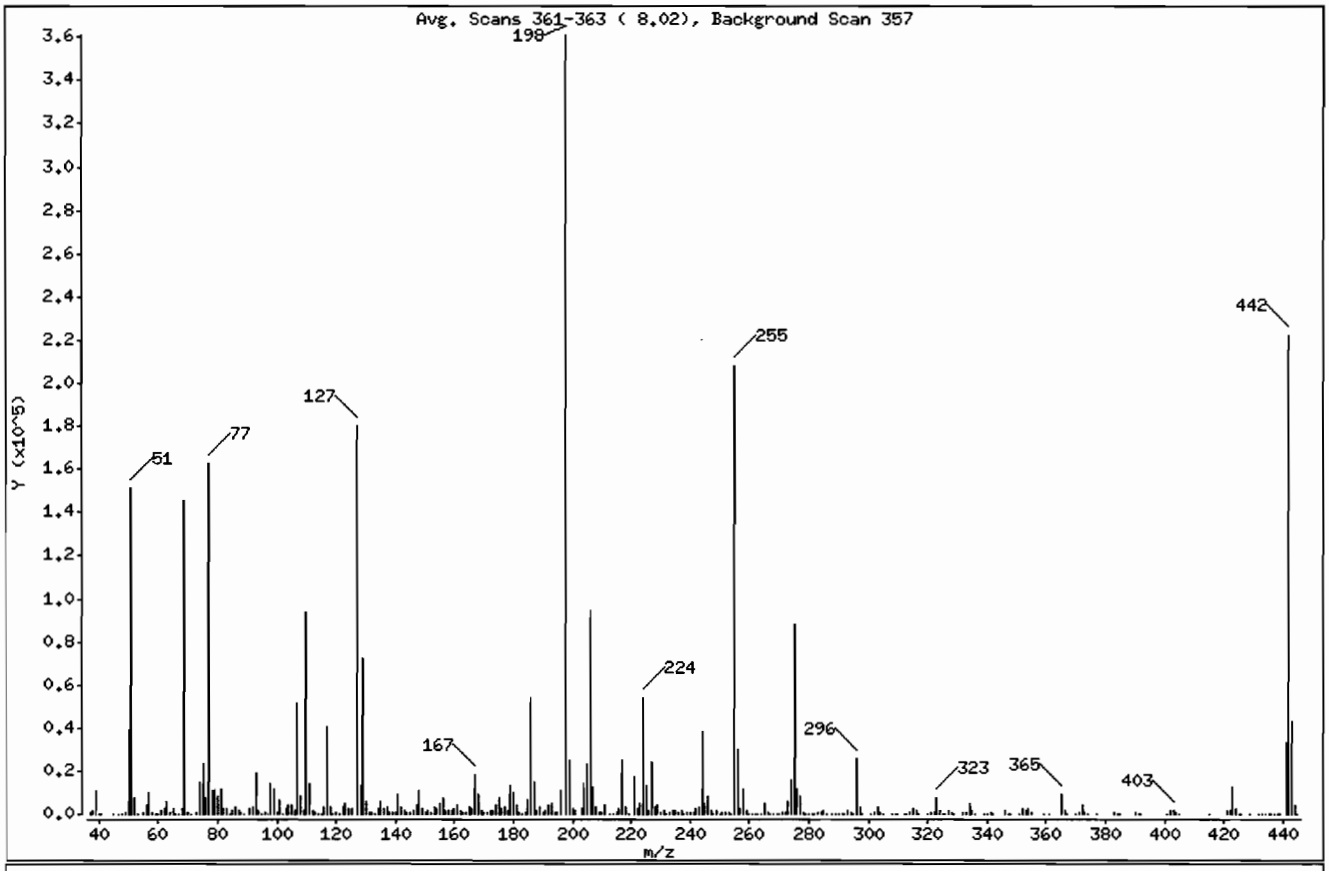

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	41.91
68	Less than 2.00% of mass 69	0.76 (1.89)
69	Mass 69 relative abundance	40.27
70	Less than 2.00% of mass 69	0.22 (0.56)
127	40.00 - 60.00% of mass 198	49.86
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.79
275	10.00 - 30.00% of mass 198	24.30
365	Greater than 1.00% of mass 198	2.63
441	Present, but less than mass 443	9.09
442	Greater than 40.00% of mass 198	61.67
443	17.00 - 23.00% of mass 442	11.88 (19.27)

Data File: /chem/MSD8.i/s022010.b/s8b2001.d

Date : 20-FEB-2010 12:04

Client ID: DFTPP | Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0 | Operator: nag1

Column phase: J & W DB-5MS | Column diameter: 0.20

Data File: s8b2001.d
Spectrum: Avg. Scans 361-363 (8.02), Background Scan 357
Location of Maximum: 198.00
Number of points: 333

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	636	129.00	72112	216.00	2111	304.00	793
38.00	1805	130.00	6198	217.00	25088	305.00	96
39.00	10515	131.00	1179	218.00	3223	308.00	368
40.00	135	132.00	719	219.00	274	309.00	231
41.00	281	133.00	246	221.00	17016	310.00	352
45.00	296	134.00	2094	222.00	2240	312.00	71
47.00	79	135.00	5474	223.00	5388	313.00	267
48.00	100	136.00	2273	224.00	53856	314.00	1186
49.00	1097	137.00	2986	225.00	13496	315.00	2886
50.00	38736	138.00	704	226.00	1520	316.00	1494
51.00	151296	139.00	433	227.00	24000	317.00	272
52.00	7819	140.00	888	228.00	3311	320.00	103
53.00	348	141.00	9408	229.00	4563	321.00	882
55.00	755	142.00	3186	230.00	691	322.00	424
56.00	4473	143.00	1904	231.00	1920	323.00	7824
57.00	10066	144.00	664	232.00	303	324.00	1477
58.00	547	145.00	475	233.00	448	325.00	190
59.00	111	146.00	1633	234.00	1560	326.00	188
60.00	164	147.00	4413	235.00	1679	327.00	1444
61.00	1759	148.00	10596	236.00	1024	328.00	743
62.00	2153	149.00	2303	237.00	1900	329.00	97
63.00	6125	150.00	612	238.00	252	332.00	590
64.00	883	151.00	1360	239.00	942	333.00	759
65.00	2765	152.00	728	240.00	677	334.00	5028
66.00	317	153.00	2923	241.00	1231	335.00	1370
67.00	157	154.00	2190	242.00	2711	336.00	167
68.00	2746	155.00	5079	243.00	3008	339.00	122
69.00	145408	156.00	7633	244.00	38520	340.00	144
70.00	809	157.00	1609	245.00	5292	341.00	1027
71.00	66	158.00	1859	246.00	8553	342.00	229
73.00	1006	159.00	1245	247.00	1526	346.00	1715
74.00	14753	160.00	2882	248.00	404	347.00	313
75.00	23536	161.00	4229	249.00	1334	348.00	34
76.00	7856	162.00	1249	250.00	237	351.00	95
77.00	162688	163.00	420	251.00	454	352.00	2254

Data File: /chem/MSD8.i/s022010.b/s8b2001.d

Date : 20-FEB-2010 12:04

Client ID: DFTPP | Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0 | Operator: nag1

Column phase: J & W DB-5MS | Column diameter: 0.20

Data File: s8b2001.d
Spectrum: Avg. Scans 361-363 (8.02), Background Scan 357
Location of Maximum: 198.00
Number of points: 333

m/z	Y	m/z	Y	m/z	Y	m/z	Y
78.00	11164	164.00	482	252.00	526	353.00	1685
79.00	11063	165.00	3411	253.00	1014	354.00	2374
80.00	8318	166.00	2886	254.00	246	355.00	442
81.00	11755	167.00	18128	255.00	208576	359.00	131
82.00	2698	168.00	8989	256.00	29864	361.00	41
83.00	2563	169.00	1693	257.00	2335	365.00	9500
84.00	292	170.00	689	258.00	11889	366.00	1267
85.00	2016	171.00	811	259.00	1946	367.00	41
86.00	3161	172.00	1827	260.00	327	370.00	143
87.00	1709	173.00	1985	261.00	323	371.00	544
88.00	611	174.00	3761	262.00	91	372.00	4073
89.00	242	175.00	7387	263.00	105	373.00	967
91.00	2732	176.00	2369	264.00	245	374.00	36
92.00	2924	177.00	3691	265.00	4904	377.00	41
93.00	18696	178.00	1264	266.00	660	383.00	924
94.00	1352	179.00	13514	267.00	81	384.00	271
95.00	383	180.00	9564	268.00	48	385.00	83
96.00	815	181.00	4172	269.00	46	390.00	495
97.00	300	182.00	737	270.00	217	391.00	390
98.00	14288	183.00	389	271.00	458	392.00	149
99.00	11396	184.00	1158	272.00	683	401.00	249
100.00	988	185.00	6644	273.00	6165	402.00	1263
101.00	6504	186.00	53976	274.00	16175	403.00	1933
102.00	385	187.00	15120	275.00	87720	404.00	757
103.00	2407	188.00	1626	276.00	11586	405.00	99
104.00	4126	189.00	3449	277.00	8344	415.00	104
105.00	3848	190.00	678	278.00	1175	421.00	1862
106.00	1319	191.00	1548	279.00	270	422.00	1706
107.00	51688	192.00	4531	280.00	40	423.00	12077
108.00	8074	193.00	4921	281.00	26	424.00	2784
109.00	1707	194.00	960	282.00	153	425.00	353
110.00	94192	195.00	585	283.00	954	426.00	35
111.00	14368	196.00	10955	284.00	633	429.00	49
112.00	1773	198.00	361024	285.00	1386	432.00	53
113.00	552	199.00	24520	286.00	247	433.00	99

Data File: /chem/MSD8.i/s022010.b/s8b2001.d

Date : 20-FEB-2010 12:04

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

Data File: s8b2001.d
Spectrum: Avg. Scans 361-363 (8.02), Background Scan 357
Location of Maximum: 198.00
Number of points: 333

m/z	Y	m/z	Y	m/z	Y	m/z	Y
114.00	137	200.00	2077	288.00	81	434.00	73
115.00	242	201.00	1683	289.00	256	435.00	109
116.00	2914	203.00	2421	290.00	281	436.00	130
117.00	40800	204.00	13892	291.00	185	437.00	215
118.00	3050	205.00	22864	292.00	403	438.00	351
119.00	350	206.00	94712	293.00	1882	439.00	245
120.00	773	207.00	12092	294.00	526	441.00	32832
121.00	290	208.00	3333	295.00	44	442.00	222592
122.00	3559	209.00	1153	296.00	25992	443.00	42896
123.00	5240	210.00	891	297.00	3524	444.00	3896
124.00	2349	211.00	3877	298.00	302	445.00	219
125.00	2177	213.00	294	301.00	317		
127.00	179968	214.00	128	302.00	514		
128.00	13270	215.00	1136	303.00	3030		

Data File: /chem/MSD8.i/s022010.b/s8b2013.d

Date : 21-FEB-2010 08:35

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

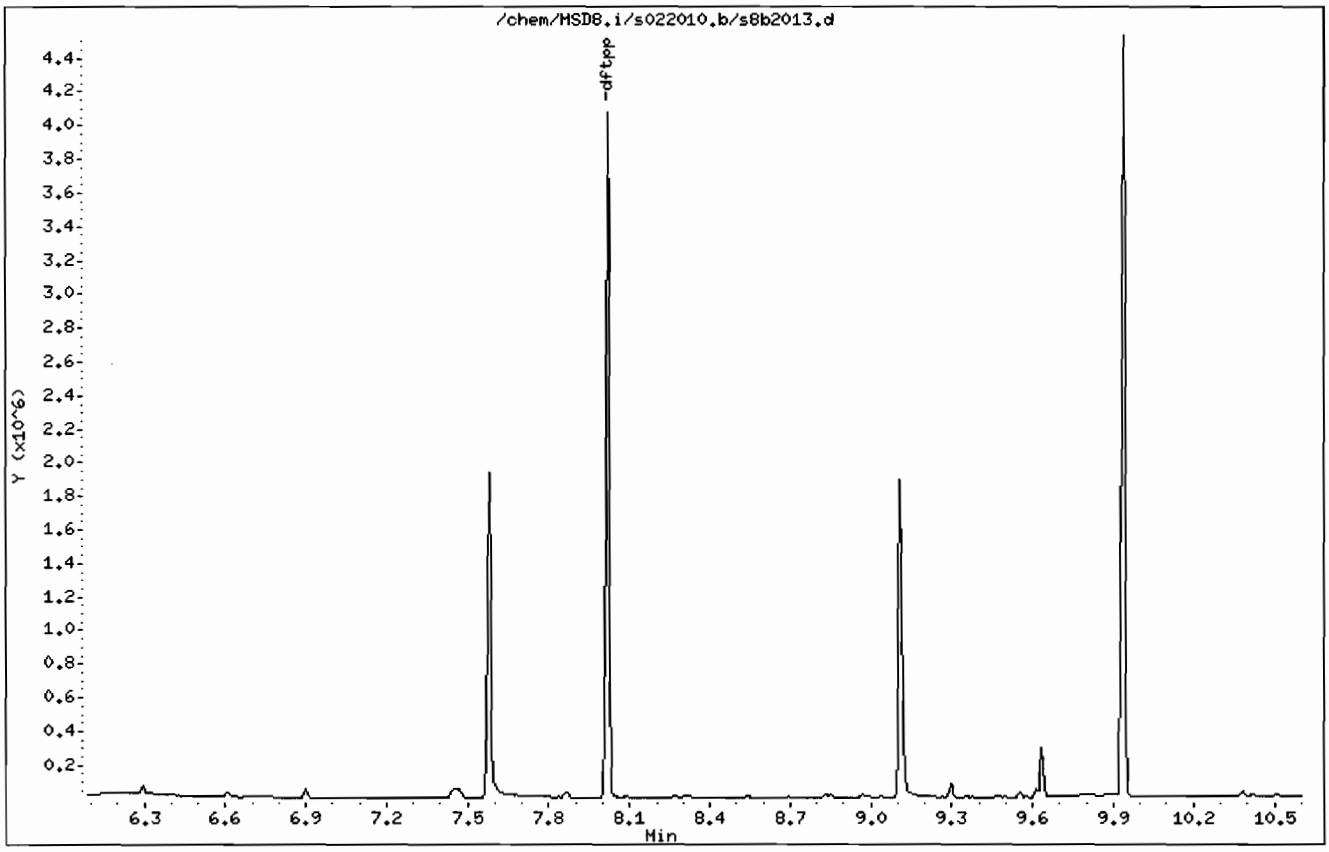

Data File: /chem/MSD8.i/s022010.b/s8b2013.d

Date : 21-FEB-2010 08:35

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

1 dftpp

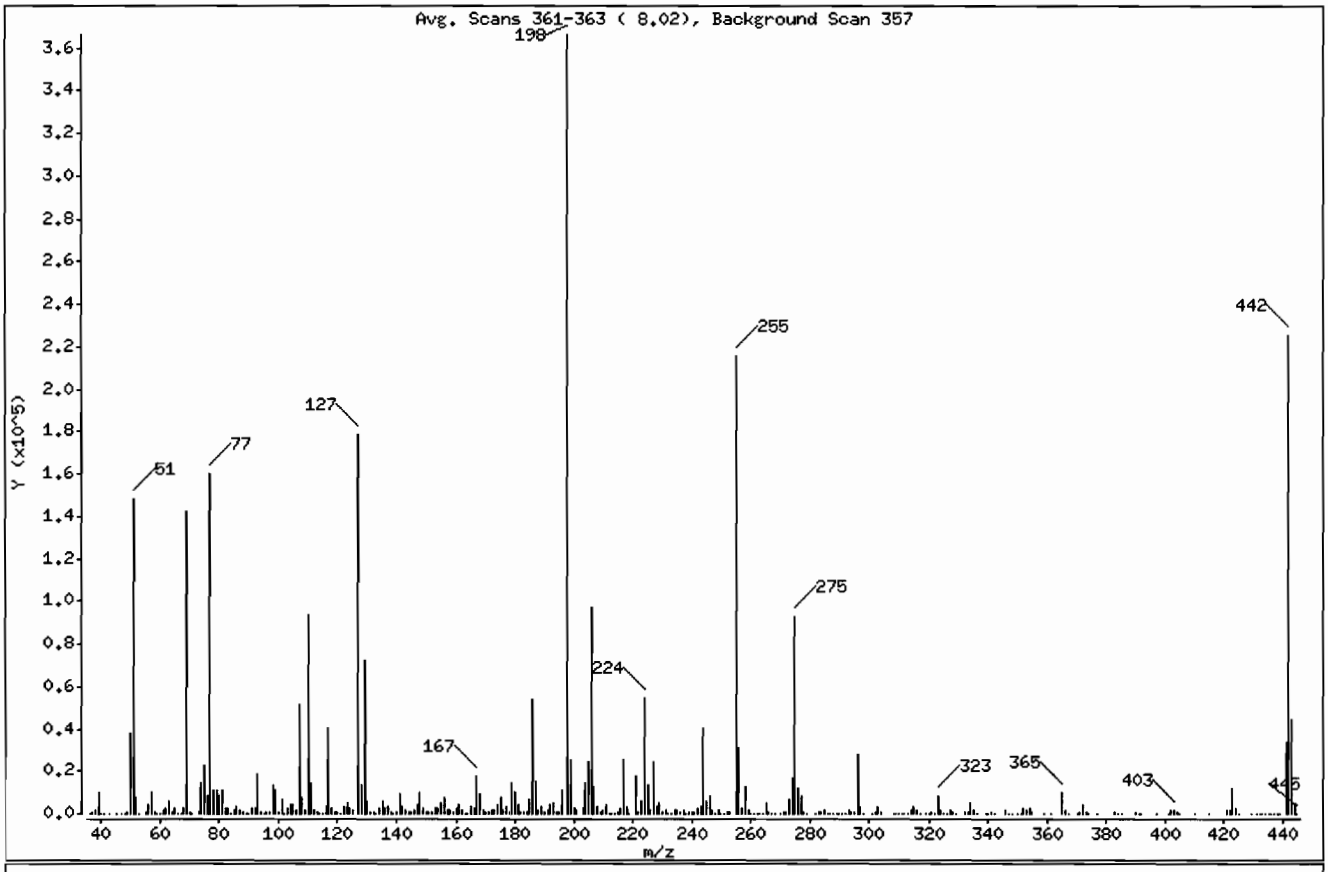

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	40.53
68	Less than 2.00% of mass 69	0.71 (1.84)
69	Mass 69 relative abundance	38.91
70	Less than 2.00% of mass 69	0.22 (0.56)
127	40.00 - 60.00% of mass 198	48.75
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.82
275	10.00 - 30.00% of mass 198	25.27
365	Greater than 1.00% of mass 198	2.78
441	Present, but less than mass 443	9.31
442	Greater than 40.00% of mass 198	61.67
443	17.00 - 23.00% of mass 442	12.15 (19.71)

Data File: /chem/MSD8.i/s022010.b/s8b2013.d

Date : 21-FEB-2010 08:35

Client ID: DFTPP | Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0 | Operator: nag1

Column phase: J & W DB-5MS | Column diameter: 0.20

Data File: s8b2013.d
Spectrum: Avg. Scans 361-363 (8.02), Background Scan 357
Location of Maximum: 198.00
Number of points: 338

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	56	127.00	178624	214.00	46	309.00	256
37.00	622	128.00	13701	215.00	1055	310.00	391
38.00	1670	129.00	72120	216.00	2351	311.00	40
39.00	10227	130.00	6084	217.00	25672	312.00	66
40.00	276	131.00	1249	218.00	3337	313.00	215
41.00	148	132.00	676	219.00	394	314.00	1282
43.00	81	133.00	345	221.00	17360	315.00	2979
45.00	175	134.00	2137	222.00	784	316.00	1571
47.00	75	135.00	5764	223.00	5854	317.00	345
48.00	135	136.00	2291	224.00	54384	319.00	39
49.00	1152	137.00	3163	225.00	13504	320.00	89
50.00	38328	138.00	613	226.00	1516	321.00	844
51.00	148480	139.00	305	227.00	24384	322.00	237
52.00	7983	140.00	874	228.00	3450	323.00	8074
53.00	379	141.00	9200	229.00	5126	324.00	1548
55.00	654	142.00	3293	230.00	654	325.00	173
56.00	4225	143.00	2051	231.00	1887	326.00	144
57.00	9800	144.00	620	232.00	354	327.00	1551
58.00	460	145.00	527	233.00	399	328.00	753
59.00	146	146.00	1802	234.00	1541	329.00	186
60.00	207	147.00	4607	235.00	1773	332.00	625
61.00	1930	148.00	10337	236.00	1054	333.00	892
62.00	2234	149.00	2168	237.00	1872	334.00	4922
63.00	5775	150.00	592	238.00	323	335.00	1472
64.00	828	151.00	1245	239.00	1019	336.00	124
65.00	2791	152.00	804	240.00	727	339.00	168
66.00	273	153.00	2889	241.00	1258	340.00	43
67.00	294	154.00	2254	242.00	2657	341.00	971
68.00	2618	155.00	4976	243.00	3024	342.00	281
69.00	142528	156.00	7917	244.00	40320	346.00	1742
70.00	801	157.00	1591	245.00	5613	347.00	411
71.00	110	158.00	1797	246.00	8746	348.00	42
73.00	982	159.00	1200	247.00	1601	350.00	100
74.00	14686	160.00	2833	248.00	402	351.00	114
75.00	23056	161.00	3964	249.00	1347	352.00	2446

Data File: /chem/MSD8.i/s022010.b/s8b2013.d

Date : 21-FEB-2010 08:35

Client ID: DFTPP | Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0 | Operator: nag1

Column phase: J & W DB-5MS | Column diameter: 0.20

Data File: s8b2013.d
Spectrum: Avg. Scans 361-363 (8.02), Background Scan 357
Location of Maximum: 198.00
Number of points: 338

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	8112	162.00	1292	250.00	297	353.00	1664
77.00	159808	163.00	370	251.00	407	354.00	2324
78.00	10752	164.00	418	252.00	537	355.00	613
79.00	10806	165.00	3457	253.00	973	359.00	188
80.00	8432	166.00	2678	255.00	216000	361.00	35
81.00	11175	167.00	17744	256.00	30888	365.00	10172
82.00	2848	168.00	9666	257.00	2348	366.00	1571
83.00	2358	169.00	1555	258.00	12794	367.00	123
84.00	380	170.00	598	259.00	1933	370.00	198
85.00	1937	171.00	742	260.00	364	371.00	652
86.00	3300	172.00	1586	261.00	405	372.00	4000
87.00	1567	173.00	2096	262.00	34	373.00	950
88.00	607	174.00	3829	263.00	99	374.00	88
89.00	261	175.00	7675	264.00	325	377.00	56
90.00	99	176.00	2028	265.00	5206	383.00	1037
91.00	2533	177.00	3616	266.00	733	384.00	350
92.00	2877	178.00	1241	267.00	130	385.00	59
93.00	18624	179.00	14050	268.00	1	390.00	434
94.00	1132	180.00	10302	270.00	314	391.00	386
95.00	384	181.00	4359	271.00	454	392.00	247
96.00	852	182.00	801	272.00	611	397.00	36
97.00	507	183.00	425	273.00	6575	401.00	218
98.00	13725	184.00	1104	274.00	16896	402.00	1420
99.00	11316	185.00	7010	275.00	92592	403.00	2003
100.00	984	186.00	53560	276.00	12112	404.00	730
101.00	6416	187.00	15376	277.00	8831	405.00	147
102.00	398	188.00	1621	278.00	1259	410.00	36
103.00	2271	189.00	3344	279.00	291	415.00	89
104.00	4172	190.00	507	282.00	228	421.00	1948
105.00	3955	191.00	1461	283.00	887	422.00	1783
106.00	1360	192.00	4556	284.00	657	423.00	12054
107.00	51416	193.00	5226	285.00	1565	424.00	2758
108.00	7732	194.00	1074	286.00	264	425.00	311
109.00	1415	195.00	648	287.00	35	429.00	89
110.00	93200	196.00	11299	288.00	114	431.00	91

Data File: /chem/MSD8.i/s022010.b/s8b2013.d

Date : 21-FEB-2010 08:35

Client ID: DFTPP | Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0 | Operator: nag1

Column phase: J & W DB-5MS | Column diameter: 0.20

Data File: s8b2013.d
Spectrum: Avg. Scans 361-363 (8.02), Background Scan 357
Location of Maximum: 198.00
Number of points: 338

m/z	Y	m/z	Y	m/z	Y	m/z	Y
111.00	14005	198.00	366464	289.00	359	432.00	75
112.00	1777	199.00	25008	290.00	221	433.00	42
113.00	565	200.00	2149	291.00	192	434.00	133
114.00	156	201.00	1762	292.00	407	435.00	174
115.00	309	203.00	2677	293.00	1828	436.00	69
116.00	2977	204.00	14145	294.00	475	437.00	142
117.00	40696	205.00	24104	295.00	609	438.00	145
118.00	2826	206.00	97072	296.00	27600	439.00	257
119.00	441	207.00	12482	297.00	3606	441.00	34104
120.00	684	208.00	3467	298.00	227	442.00	225984
121.00	249	209.00	1206	301.00	394	443.00	44536
122.00	3382	210.00	1778	302.00	459	444.00	4167
123.00	5335	211.00	3877	303.00	3092	445.00	202
124.00	2445	212.00	196	304.00	889		
125.00	2106	213.00	321	308.00	309		

Data File: /chem/MSD8.i/s030310.b/s8c0307.d

Page 1

Date : 03-MAR-2010 13:25

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

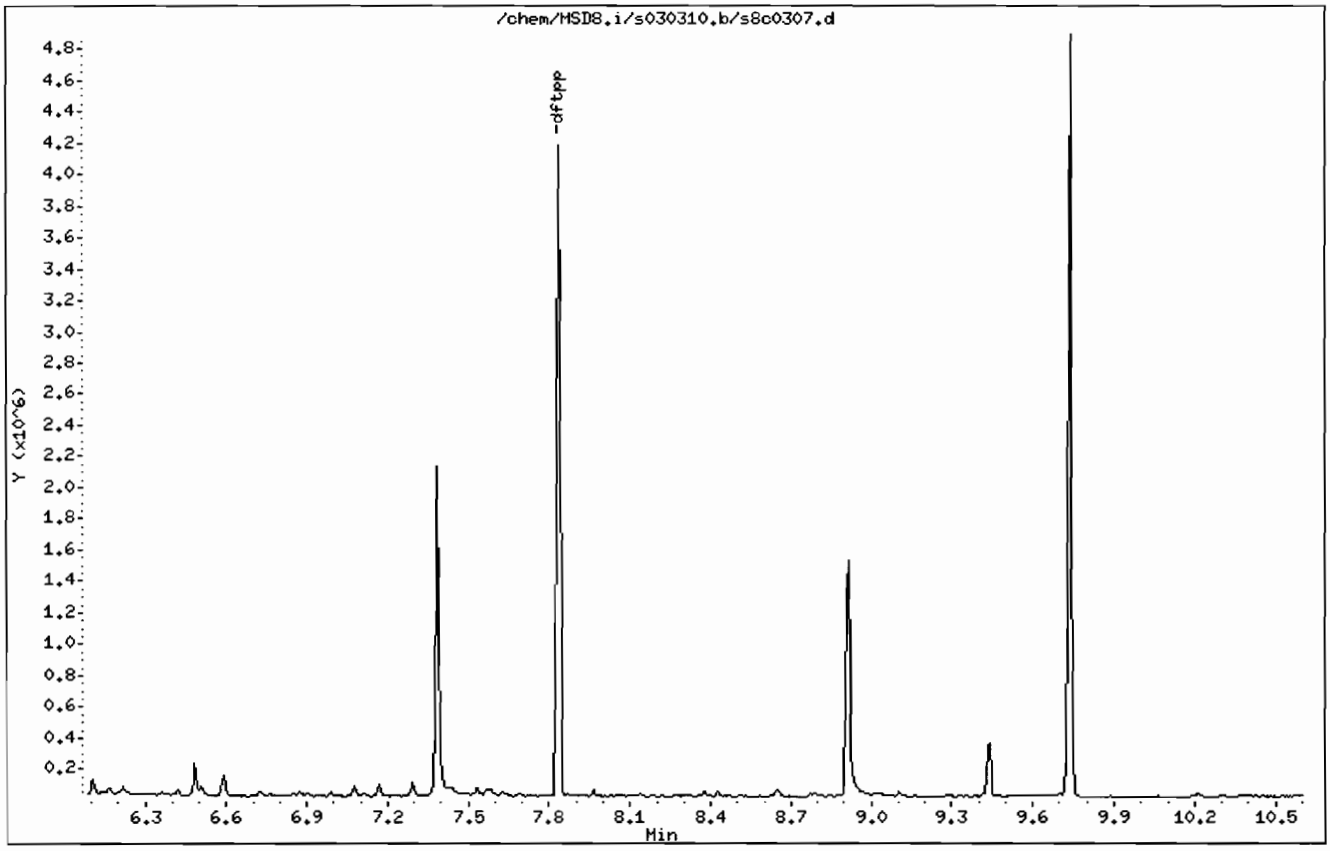

Data File: /chem/MSD8.i/s030310.b/s8c0307.d

Date : 03-MAR-2010 13:25

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

1 dftpp

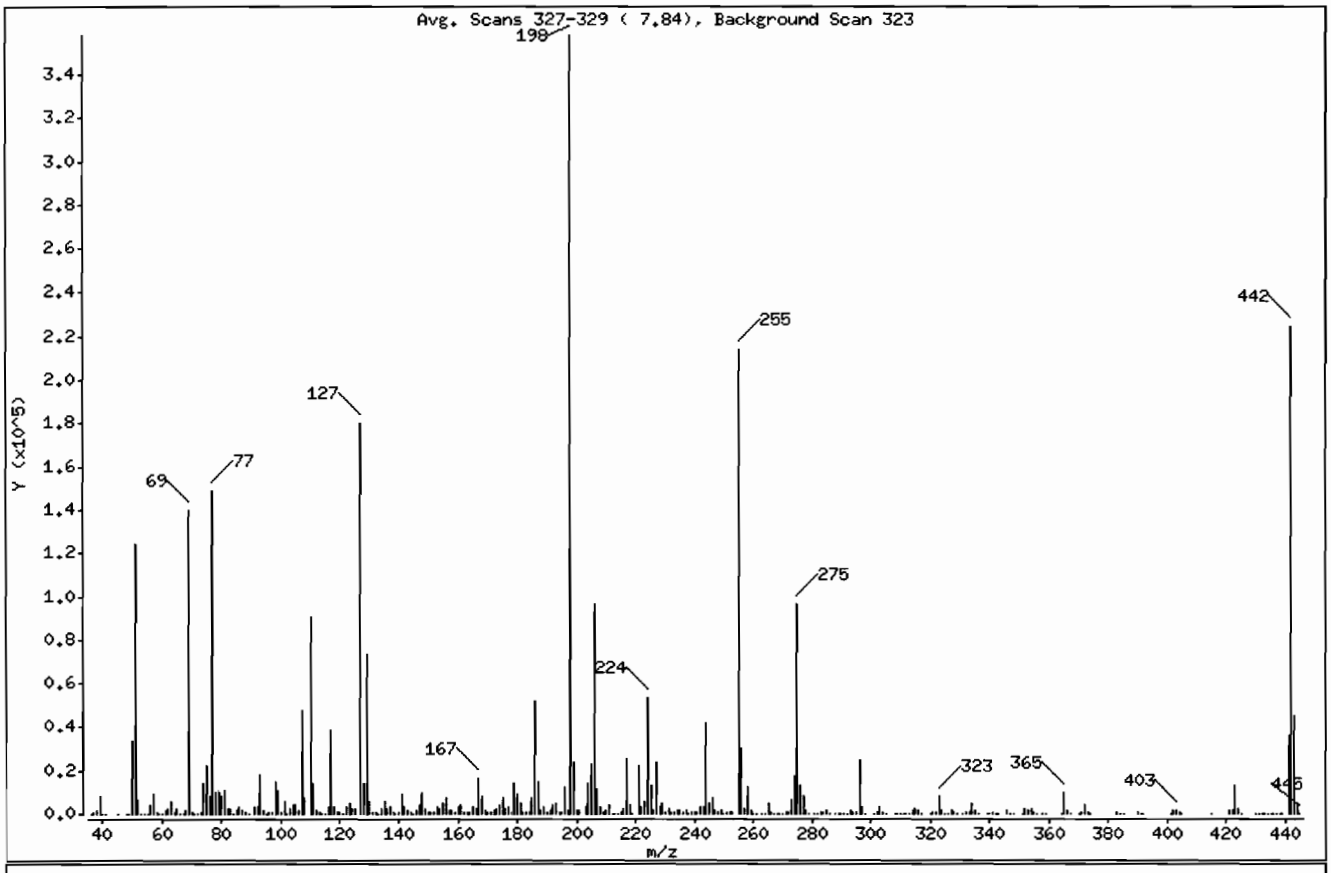

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	34.63
68	Less than 2.00% of mass 69	0.51 (1.30)
69	Mass 69 relative abundance	38.99
70	Less than 2.00% of mass 69	0.15 (0.40)
127	40.00 - 60.00% of mass 198	50.24
197	Less than 1.00% of mass 198	0.35
199	5.00 - 9.00% of mass 198	6.59
275	10.00 - 30.00% of mass 198	26.90
365	Greater than 1.00% of mass 198	2.87
441	Present, but less than mass 443	10.04
442	Greater than 40.00% of mass 198	62.84
443	17.00 - 23.00% of mass 442	12.54 (19.96)

Data File: /chem/MSD8.i/s030310.b/s8c0307.d

Date : 03-MAR-2010 13:25

Client ID: DFTPP | Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0 | Operator: nag1

Column phase: J & W DB-5MS | Column diameter: 0.20

Data File: s8c0307.d
Spectrum: Avg. Scans 327-329 (7.84), Background Scan 323
Location of Maximum: 198.00
Number of points: 337

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	52	129.00	72912	215.00	1173	309.00	266
37.00	567	130.00	6055	216.00	2083	310.00	278
38.00	1435	131.00	1009	217.00	25424	311.00	45
39.00	7936	132.00	604	218.00	3753	312.00	79
40.00	262	133.00	281	219.00	356	313.00	312
41.00	133	134.00	2128	221.00	22424	314.00	1239
45.00	363	135.00	5446	222.00	2896	315.00	2581
48.00	46	136.00	2429	223.00	6126	316.00	1574
49.00	267	137.00	2907	224.00	53816	317.00	199
50.00	33496	138.00	496	225.00	13464	320.00	114
51.00	124008	139.00	30	226.00	1593	321.00	748
52.00	6493	140.00	859	227.00	23496	322.00	501
53.00	231	141.00	9265	228.00	3213	323.00	8262
54.00	4	142.00	2955	229.00	4582	324.00	1485
55.00	411	143.00	1977	230.00	621	325.00	174
56.00	3944	144.00	629	231.00	2275	326.00	202
57.00	9105	145.00	409	232.00	448	327.00	1417
58.00	517	146.00	1511	233.00	434	328.00	951
59.00	232	147.00	4314	234.00	1447	329.00	200
60.00	245	148.00	10094	235.00	1558	331.00	50
61.00	1803	149.00	2143	236.00	1062	332.00	651
62.00	2159	150.00	733	237.00	1770	333.00	819
63.00	5767	151.00	1195	238.00	360	334.00	4884
64.00	961	152.00	932	239.00	1063	335.00	1426
65.00	2604	153.00	2912	240.00	674	336.00	136
66.00	180	154.00	2120	241.00	1230	339.00	95
67.00	228	155.00	5142	242.00	3062	340.00	152
68.00	1815	156.00	7726	243.00	3169	341.00	937
69.00	139584	157.00	1742	244.00	41984	342.00	290
70.00	554	158.00	1784	245.00	5292	343.00	46
71.00	85	159.00	1225	246.00	7792	346.00	1624
72.00	167	160.00	2999	247.00	1595	347.00	322
73.00	1115	161.00	4172	248.00	474	348.00	51
74.00	14075	162.00	1193	249.00	1446	351.00	128
75.00	22272	163.00	615	250.00	296	352.00	2154

Data File: /chem/MSD8.i/s030310.b/s8c0307.d

Date : 03-MAR-2010 13:25

Client ID: DFTPP | Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0 | Operator: nag1

Column phase: J & W DB-5MS | Column diameter: 0.20

Data File: s8c0307.d
Spectrum: Avg. Scans 327-329 (7.84), Background Scan 323
Location of Maximum: 198.00
Number of points: 337

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	8086	164.00	658	251.00	447	353.00	1707
77.00	148736	165.00	3314	252.00	451	354.00	2280
78.00	9964	166.00	2607	253.00	1081	355.00	528
79.00	10031	167.00	16304	255.00	214400	356.00	38
80.00	8005	168.00	7835	256.00	30776	358.00	56
81.00	10730	169.00	1575	257.00	2600	359.00	155
82.00	2601	170.00	746	258.00	12333	364.00	92
83.00	2563	171.00	736	259.00	1741	365.00	10291
84.00	269	172.00	1686	260.00	390	366.00	1655
85.00	2014	173.00	2223	261.00	381	367.00	76
86.00	3502	174.00	4105	263.00	109	370.00	260
87.00	1594	175.00	7298	264.00	265	371.00	624
88.00	528	176.00	2247	265.00	5170	372.00	3782
89.00	163	177.00	3029	266.00	521	373.00	941
91.00	2973	178.00	1072	267.00	160	374.00	166
92.00	3022	179.00	13875	268.00	168	383.00	1082
93.00	18360	180.00	9271	269.00	56	384.00	351
94.00	1361	181.00	4582	270.00	377	385.00	39
95.00	161	182.00	876	271.00	499	390.00	467
96.00	754	183.00	517	272.00	699	391.00	329
97.00	549	184.00	1222	273.00	6181	392.00	322
98.00	14414	185.00	7156	274.00	16896	401.00	186
99.00	10872	186.00	51608	275.00	96336	402.00	1299
100.00	995	187.00	14688	276.00	13229	403.00	2057
101.00	5811	188.00	1508	277.00	8084	404.00	634
102.00	407	189.00	3277	278.00	1322	405.00	111
103.00	2481	190.00	703	279.00	351	415.00	86
104.00	4333	191.00	1482	281.00	146	421.00	1803
105.00	3746	192.00	4299	282.00	264	422.00	1778
106.00	1493	193.00	4654	283.00	942	423.00	12992
107.00	47536	194.00	1151	284.00	682	424.00	2611
108.00	7419	195.00	883	285.00	1363	425.00	292
110.00	90168	196.00	12235	286.00	298	430.00	134
111.00	13881	197.00	1250	288.00	48	431.00	81
112.00	1636	198.00	358144	289.00	273	432.00	106

Date : 03-MAR-2010 13:25

Client ID: DFTPP Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0 Operator: nag1

Column phase: J & W DB-5MS Column diameter: 0.20

Data File: s8c0307.d
Spectrum: Avg. Scans 327-329 (7.84), Background Scan 323
Location of Maximum: 198.00
Number of points: 337

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	481	199.00	23600	290.00	292	433.00	60
114.00	199	200.00	2034	291.00	161	434.00	118
115.00	173	201.00	1949	292.00	374	435.00	272
116.00	3050	203.00	3009	293.00	1744	436.00	328
117.00	38304	204.00	13814	294.00	424	437.00	343
118.00	2919	205.00	23192	295.00	533	438.00	258
119.00	459	206.00	96248	296.00	24512	439.00	404
120.00	766	207.00	11937	297.00	3396	441.00	35944
121.00	332	208.00	3335	298.00	226	442.00	225024
122.00	3616	209.00	1136	301.00	385	443.00	44920
123.00	4839	210.00	1687	302.00	432	444.00	4143
124.00	2446	211.00	3728	303.00	3017	445.00	198
125.00	2127	212.00	319	304.00	814		
127.00	179904	213.00	303	305.00	54		
128.00	14286	214.00	136	308.00	343		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**			**Matrix:**	**WATER**
Lab Sample ID:	**1202057395**				
Client Sample:	**QC for batch 959290**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 959290**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 14:41**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0310-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.0	ug/L	2.00	10.0
108-95-2	Phenol	U	10.0	ug/L	1.00	10.0
95-57-8	2-Chlorophenol	U	10.0	ug/L	2.00	10.0
106-46-7	1,4-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	10.0	ug/L	2.00	10.0
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	10.0	ug/L	2.00	10.0
83-32-9	Acenaphthene	U	1.00	ug/L	0.310	1.00
121-14-2	2,4-Dinitrotoluene	U	10.0	ug/L	2.00	10.0
100-02-7	4-Nitrophenol	U	10.0	ug/L	2.00	10.0
87-86-5	Pentachlorophenol	U	10.0	ug/L	2.00	10.0
129-00-0	Pyrene	U	1.00	ug/L	0.300	1.00
110-86-1	Pyridine	U	10.0	ug/L	3.00	10.0
62-53-3	Aniline	U	10.0	ug/L	2.50	10.0
111-44-4	bis(2-Chloroethyl) ether	U	10.0	ug/L	2.00	10.0
541-73-1	1,3-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
100-51-6	Benzyl alcohol	U	10.0	ug/L	2.00	10.0
95-50-1	1,2-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
108-60-1	bis(2-Chloroisopropyl)ether	U	10.0	ug/L	2.00	10.0
95-48-7	o-Cresol	U	10.0	ug/L	2.00	10.0
65794-96-9	m,p-Cresols	U	10.0	ug/L	3.00	10.0
67-72-1	Hexachloroethane	U	10.0	ug/L	2.00	10.0
98-95-3	Nitrobenzene	U	10.0	ug/L	3.00	10.0
78-59-1	Isophorone	U	10.0	ug/L	3.00	10.0
88-75-5	2-Nitrophenol	U	10.0	ug/L	2.00	10.0
105-67-9	2,4-Dimethylphenol	U	10.0	ug/L	2.00	10.0
111-91-1	bis(2-Chloroethoxy)methane	U	10.0	ug/L	3.00	10.0
120-83-2	2,4-Dichlorophenol	U	10.0	ug/L	2.00	10.0
65-85-0	Benzoic acid	U	20.0	ug/L	6.00	20.0
91-20-3	Naphthalene	U	1.00	ug/L	0.300	1.00
106-47-8	4-Chloroaniline	U	10.0	ug/L	2.00	10.0
87-68-3	Hexachlorobutadiene	U	10.0	ug/L	2.00	10.0
91-57-6	2-Methylnaphthalene	U	1.00	ug/L	0.300	1.00
90-12-0	1-Methylnaphthalene	U	1.00	ug/L	0.300	1.00
77-47-4	Hexachlorocyclopentadiene	U	10.0	ug/L	3.00	10.0
88-06-2	2,4,6-Trichlorophenol	U	10.0	ug/L	2.00	10.0
95-95-4	2,4,5-Trichlorophenol	U	10.0	ug/L	2.00	10.0
91-58-7	2-Chloronaphthalene	U	1.00	ug/L	0.300	1.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**			**Matrix:**	**WATER**
Lab Sample ID:	**1202057395**				
Client Sample:	**QC for batch 959290**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 959290**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 14:41**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0310-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.0	ug/L	2.00	10.0
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.0	ug/L	2.00	10.0
131-11-3	Dimethylphthalate	U	10.0	ug/L	2.00	10.0
606-20-2	2,6-Dinitrotoluene	U	10.0	ug/L	2.00	10.0
208-96-8	Acenaphthylene	U	1.00	ug/L	0.200	1.00
51-28-5	2,4-Dinitrophenol	U	20.0	ug/L	5.00	20.0
132-64-9	Dibenzofuran	U	10.0	ug/L	2.00	10.0
84-66-2	Diethylphthalate	U	10.0	ug/L	2.00	10.0
86-73-7	Fluorene	U	1.00	ug/L	0.200	1.00
7005-72-3	4-Chlorophenylphenylether	U	10.0	ug/L	2.00	10.0
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.0	ug/L	3.00	10.0
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.0	ug/L	3.00	10.0
122-39-4	Diphenylamine	U	10.0	ug/L	3.00	10.0
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	10.0	ug/L	2.00	10.0
101-55-3	4-Bromophenylphenylether	U	10.0	ug/L	2.00	10.0
118-74-1	Hexachlorobenzene	U	10.0	ug/L	2.00	10.0
1912-24-9	Atrazine	U	10.0	ug/L	3.00	10.0
85-01-8	Phenanthrene	U	1.00	ug/L	0.200	1.00
120-12-7	Anthracene	U	1.00	ug/L	0.200	1.00
84-74-2	Di-n-butylphthalate	U	10.0	ug/L	2.00	10.0
206-44-0	Fluoranthene	U	1.00	ug/L	0.200	1.00
92-87-5	Benzidine	U	10.0	ug/L	3.00	10.0
85-68-7	Butylbenzylphthalate	U	10.0	ug/L	2.00	10.0
56-55-3	Benzo(a)anthracene	U	1.00	ug/L	0.200	1.00
91-94-1	3,3'-Dichlorobenzidine	U	10.0	ug/L	2.00	10.0
218-01-9	Chrysene	U	1.00	ug/L	0.200	1.00
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.0	ug/L	2.00	10.0
117-84-0	Di-n-octylphthalate	U	10.0	ug/L	3.00	10.0
205-99-2	Benzo(b)fluoranthene	U	1.00	ug/L	0.200	1.00
207-08-9	Benzo(k)fluoranthene	U	1.00	ug/L	0.200	1.00
50-32-8	Benzo(a)pyrene	U	1.00	ug/L	0.200	1.00
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.00	ug/L	0.200	1.00
53-70-3	Dibenzo(a,h)anthracene	U	1.00	ug/L	0.200	1.00
191-24-2	Benzo(ghi)perylene	U	1.00	ug/L	0.200	1.00
123-91-1	1,4-Dioxane	U	10.0	ug/L	2.00	10.0
55-18-5	N-Nitrosodiethylamine	U	10.0	ug/L	2.00	10.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**			**Matrix:**	**WATER**
Lab Sample ID:	**1202057395**				
Client Sample:	**QC for batch 959290**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 959290**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 14:41**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0310-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.0	ug/L	2.00	10.0
924-16-3	N-Nitrosodi-n-butylamine	U	10.0	ug/L	3.00	10.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.0	ug/L	3.00	10.0
608-93-5	Pentachlorobenzene	U	10.0	ug/L	3.00	10.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.0	ug/L	2.00	10.0
88-85-7	Dinoseb	U	10.0	ug/L	2.00	10.0
120-82-1	1,2,4-Trichlorobenzene	U	10.0	ug/L	2.00	10.0

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	72.1	100	ug/L	72.1	(39%-120%)
2-Fluorobiphenyl	32.8	50.0	ug/L	65.7	(38%-108%)
2-Fluorophenol	41.6	100	ug/L	41.6	(19%-98%)
Nitrobenzene-d5	31.9	50.0	ug/L	63.9	(31%-122%)
Phenol-d5	24.8	100	ug/L	24.8	(15%-83%)
p-Terphenyl-d14	52.8	50.0	ug/L	106	(40%-138%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030310.b/s8c0310.d
Lab Smp Id: 1202057395 Client Smp ID: SBLK01
Inj Date : 03-MAR-2010 14:41
Operator : nagl Inst ID: MSD8.i
Smp Info : |1202057395|959294|1|SVMF|1|SBLK01
Misc Info : |MSD82709L|WBN100227-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Meth Date : 03-Mar-2010 15:34 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2005.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.354	4.354	(1.000)	494671	40.0000	
* 29 Naphthalene-d8	136	5.611	5.611	(1.000)	1872276	40.0000	
* 46 Acenaphthene-d10	164	7.463	7.463	(1.000)	1088385	40.0000	
* 67 Phenanthrene-d10	188	9.058	9.058	(1.000)	1782518	40.0000	
* 91 Chrysene-d12	240	11.939	11.944	(1.000)	1263915	40.0000	
* 98 Perylene-d12	264	13.987	13.992	(1.000)	962548	40.0000	
$ 3 2-Fluorophenol	112	3.206	3.201	(0.736)	485337	41.5581	41.6
$ 5 Phenol-d5	99	3.973	3.973	(0.912)	361546	24.8239	24.8
$ 20 Nitrobenzene-d5	82	4.877	4.877	(0.869)	425126	31.9419	31.9
$ 39 2-Fluorobiphenyl	172	6.734	6.735	(0.902)	1052095	32.8405	32.8
$ 60 2,4,6-Tribromophenol	329	8.306	8.306	(1.113)	259355	72.0870	72.1
$ 81 p-Terphenyl-d14	244	10.773	10.773	(0.902)	1200709	52.7666	52.8

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030310.b/s8c0310.d
Lab Smp Id: 1202057395 Client Smp ID: SBLK01
Inj Date : 03-MAR-2010 14:41
Operator : nagl Inst ID: MSD8.i
Smp Info : |1202057395|959294|1|SVMF|1|SBLK01
Misc Info : |MSD82709L|WBN100227-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Meth Date : 03-Mar-2010 15:34 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2005.sub
Target Version: 3.50
Processing Host: hpclp1

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/MSD8.i/s030310.b/s8c0310.d
Date : 03-MAR-2010 14:41
Client ID: SBLK01
Sample Info: 1|2020573951959294|1|SVMF|1|SBLK01
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: nag1
Column diameter: 0.20

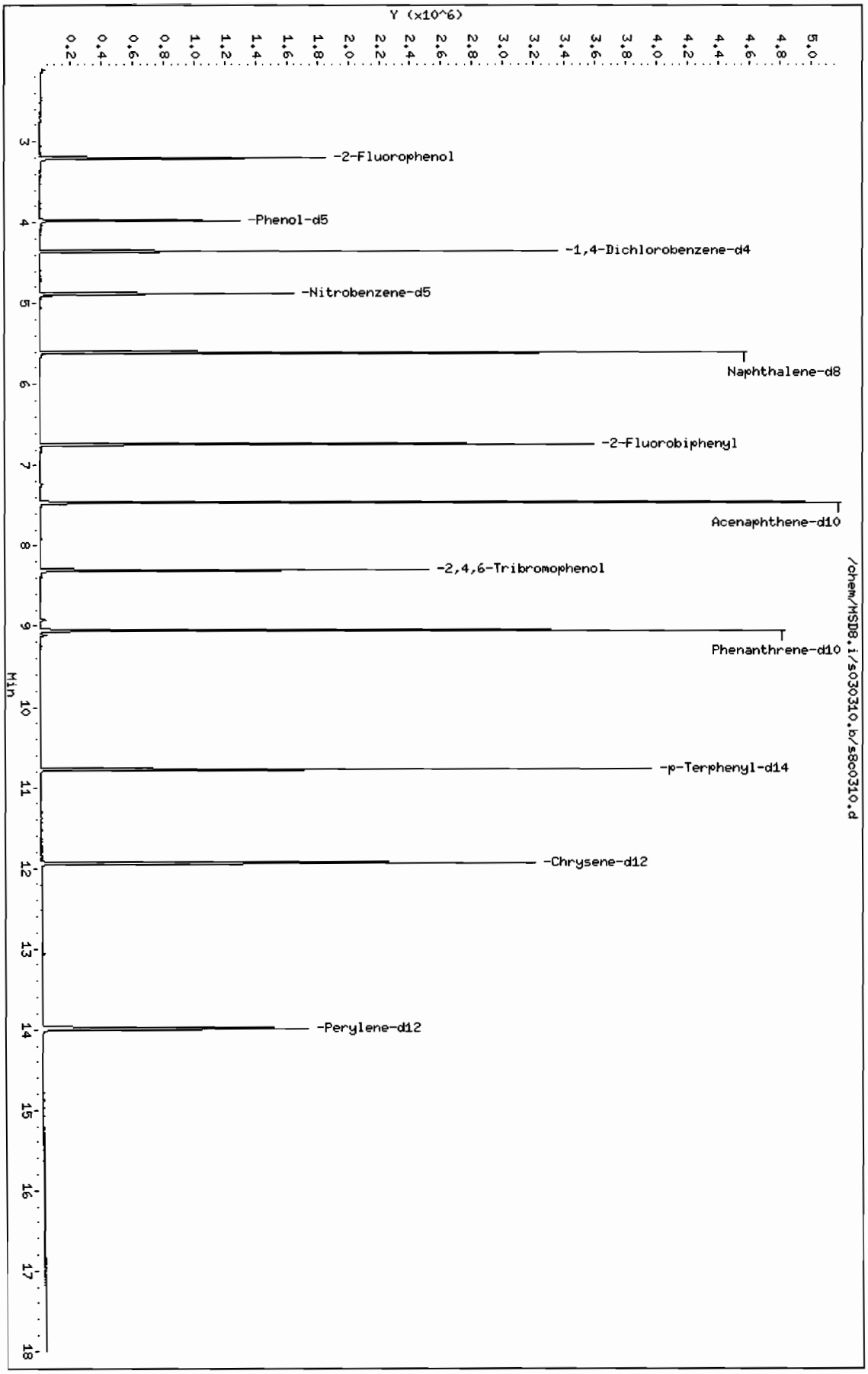

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**			**Matrix:**	**WATER**
Lab Sample ID:	**1202057398**				
Client Sample:	**QC for batch 959290**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 959290**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 15:11**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0311-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		20.1	ug/L	2.00	10.0
108-95-2	Phenol		12.9	ug/L	1.00	10.0
95-57-8	2-Chlorophenol		33.0	ug/L	2.00	10.0
106-46-7	1,4-Dichlorobenzene		28.1	ug/L	2.00	10.0
621-64-7	N-Nitrosodi--n-propylamine		33.6	ug/L	2.00	10.0
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol		32.9	ug/L	2.00	10.0
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene		30.2	ug/L	0.310	1.00
121-14-2	2,4-Dinitrotoluene		38.9	ug/L	2.00	10.0
100-02-7	4-Nitrophenol		11.1	ug/L	2.00	10.0
87-86-5	Pentachlorophenol		38.7	ug/L	2.00	10.0
129-00-0	Pyrene		34.6	ug/L	0.300	1.00
110-86-1	Pyridine		25.8	ug/L	3.00	10.0
62-53-3	Aniline		32.2	ug/L	2.50	10.0
111-44-4	bis(2-Chloroethyl) ether		28.6	ug/L	2.00	10.0
541-73-1	1,3-Dichlorobenzene		28.3	ug/L	2.00	10.0
100-51-6	Benzyl alcohol		24.1	ug/L	2.00	10.0
95-50-1	1,2-Dichlorobenzene		29.2	ug/L	2.00	10.0
108-60-1	bis(2-Chloroisopropyl)ether		23.7	ug/L	2.00	10.0
95-48-7	o-Cresol		27.2	ug/L	2.00	10.0
65794-96-9	m,p-Cresols		27.8	ug/L	3.00	10.0
67-72-1	Hexachloroethane		25.6	ug/L	2.00	10.0
98-95-3	Nitrobenzene		31.7	ug/L	3.00	10.0
78-59-1	Isophorone		35.9	ug/L	3.00	10.0
88-75-5	2-Nitrophenol		35.0	ug/L	2.00	10.0
105-67-9	2,4-Dimethylphenol		33.2	ug/L	2.00	10.0
111-91-1	bis(2-Chloroethoxy)methane		35.1	ug/L	3.00	10.0
120-83-2	2,4-Dichlorophenol		35.8	ug/L	2.00	10.0
65-85-0	Benzoic acid		31.7	ug/L	6.00	20.0
91-20-3	Naphthalene		31.9	ug/L	0.300	1.00
106-47-8	4-Chloroaniline		42.2	ug/L	2.00	10.0
87-68-3	Hexachlorobutadiene		26.6	ug/L	2.00	10.0
91-57-6	2-Methylnaphthalene		33.7	ug/L	0.300	1.00
90-12-0	1-Methylnaphthalene		33.5	ug/L	0.300	1.00
77-47-4	Hexachlorocyclopentadiene		17.5	ug/L	3.00	10.0
88-06-2	2,4,6-Trichlorophenol		37.1	ug/L	2.00	10.0
95-95-4	2,4,5-Trichlorophenol		34.7	ug/L	2.00	10.0
91-58-7	2-Chloronaphthalene		30.8	ug/L	0.300	1.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**			**Matrix:**	**WATER**
Lab Sample ID:	**1202057398**				
Client Sample:	**QC for batch 959290**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 959290**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 15:11**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0311-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*		31.4	ug/L	2.00	10.0
99-09-2	3-Nitroaniline *m-Nitroaniline*		39.6	ug/L	2.00	10.0
131-11-3	Dimethylphthalate		41.9	ug/L	2.00	10.0
606-20-2	2,6-Dinitrotoluene		39.6	ug/L	2.00	10.0
208-96-8	Acenaphthylene		33.4	ug/L	0.200	1.00
51-28-5	2,4-Dinitrophenol		34.1	ug/L	5.00	20.0
132-64-9	Dibenzofuran		34.2	ug/L	2.00	10.0
84-66-2	Diethylphthalate		41.5	ug/L	2.00	10.0
86-73-7	Fluorene		32.9	ug/L	0.200	1.00
7005-72-3	4-Chlorophenylphenylether		34.2	ug/L	2.00	10.0
534-52-1	2-Methyl-4,6-dinitrophenol		33.7	ug/L	3.00	10.0
100-01-6	4-Nitroaniline *p-Nitroaniline*		42.4	ug/L	3.00	10.0
122-39-4	Diphenylamine		43.3	ug/L	3.00	10.0
122-66-7	Azobenzene *1,2-Diphenylhydrazine*		37.3	ug/L	2.00	10.0
101-55-3	4-Bromophenylphenylether		38.7	ug/L	2.00	10.0
118-74-1	Hexachlorobenzene		38.6	ug/L	2.00	10.0
1912-24-9	Atrazine		52.0	ug/L	3.00	10.0
85-01-8	Phenanthrene		37.5	ug/L	0.200	1.00
120-12-7	Anthracene		36.0	ug/L	0.200	1.00
84-74-2	Di-n-butylphthalate		46.7	ug/L	2.00	10.0
206-44-0	Fluoranthene		37.6	ug/L	0.200	1.00
92-87-5	Benzidine		39.8	ug/L	3.00	10.0
85-68-7	Butylbenzylphthalate		46.6	ug/L	2.00	10.0
56-55-3	Benzo(a)anthracene		35.7	ug/L	0.200	1.00
91-94-1	3,3'-Dichlorobenzidine		37.4	ug/L	2.00	10.0
218-01-9	Chrysene		39.5	ug/L	0.200	1.00
117-81-7	bis(2-Ethylhexyl)phthalate		48.3	ug/L	2.00	10.0
117-84-0	Di-n-octylphthalate		42.4	ug/L	3.00	10.0
205-99-2	Benzo(b)fluoranthene		35.4	ug/L	0.200	1.00
207-08-9	Benzo(k)fluoranthene		37.6	ug/L	0.200	1.00
50-32-8	Benzo(a)pyrene		38.4	ug/L	0.200	1.00
193-39-5	Indeno(1,2,3-cd)pyrene		40.4	ug/L	0.200	1.00
53-70-3	Dibenzo(a,h)anthracene		52.2	ug/L	0.200	1.00
191-24-2	Benzo(ghi)perylene		48.9	ug/L	0.200	1.00
123-91-1	1,4-Dioxane		27.3	ug/L	2.00	10.0
55-18-5	N-Nitrosodiethylamine	U	10.0	ug/L	2.00	10.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**			**Matrix:**	**WATER**
Lab Sample ID:	**1202057398**				
Client Sample:	**QC for batch 959290**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 959290**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 15:11**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0311-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine		32.5	ug/L	2.00	10.0
924-16-3	N-Nitrosodi-n-butylamine	U	10.0	ug/L	3.00	10.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.0	ug/L	3.00	10.0
608-93-5	Pentachlorobenzene	U	10.0	ug/L	3.00	10.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.0	ug/L	2.00	10.0
88-85-7	Dinoseb	U	10.0	ug/L	2.00	10.0
120-82-1	1,2,4-Trichlorobenzene		29.1	ug/L	2.00	10.0

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	80.4	100	ug/L	80.4	(39%-120%)
2-Fluorobiphenyl	32.5	50.0	ug/L	65.1	(38%-108%)
2-Fluorophenol	41.1	100	ug/L	41.1	(19%-98%)
Nitrobenzene-d5	32.4	50.0	ug/L	64.8	(31%-122%)
Phenol-d5	24.5	100	ug/L	24.5	(15%-83%)
p-Terphenyl-d14	43.4	50.0	ug/L	86.8	(40%-138%)

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030310.b/s8c0311.d
Lab Smp Id: 1202057398 Client Smp ID: SBLK01LCS
Inj Date : 03-MAR-2010 15:11
Operator : nagl Inst ID: MSD8.i
Smp Info : |1202057398|959294|1|SVMF|1|SBLK01LCS
Misc Info : |MSD82709L|WBN100227-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Meth Date : 04-Mar-2010 07:36 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2005.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.354	4.354	(1.000)	388983	40.0000	
* 29 Naphthalene-d8	136	5.611	5.611	(1.000)	1478511	40.0000	
* 46 Acenaphthene-d10	164	7.463	7.463	(1.000)	902508	40.0000	
* 67 Phenanthrene-d10	188	9.059	9.058	(1.000)	1576300	40.0000	
* 91 Chrysene-d12	240	11.944	11.944	(1.000)	1412049	40.0000	
* 98 Perylene-d12	264	13.992	13.992	(1.000)	1087893	40.0000	
$ 3 2-Fluorophenol	112	3.201	3.201	(0.735)	377620	41.1200	41.1
$ 5 Phenol-d5	99	3.973	3.973	(0.912)	280452	24.4879	24.5
$ 20 Nitrobenzene-d5	82	4.882	4.877	(0.870)	340272	32.3754	32.4
$ 39 2-Fluorobiphenyl	172	6.739	6.735	(0.903)	864259	32.5335	32.5
$ 60 2,4,6-Tribromophenol	329	8.306	8.306	(1.113)	239868	80.4019	80.4
$ 81 p-Terphenyl-d14	244	10.773	10.773	(0.902)	1103664	43.4136	43.4
6 Phenol	94	3.987	3.987	(0.916)	153035	12.9397	12.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	4.154	4.154	(0.954)	338508	32.9620	33.0
11 1,4-Dichlorobenzene	146	4.368	4.368	(1.003)	352992	28.0918	28.1
17 N-Nitrosodipropylamine	70	4.725	4.725	(1.085)	253958	33.5720	33.6(Q)
28 1,2,4-Trichlorobenzene	180	5.549	5.549	(0.989)	313546	29.1322	29.1
33 4-Chloro-3-methylphenol	107	6.173	6.168	(1.100)	284912	32.9000	32.9
47 Acenaphthene	154	7.497	7.497	(1.004)	724039	30.1899	30.2
50 2,4-Dinitrotoluene	165	7.663	7.663	(1.027)	285115	38.8913	38.9
52 4-Nitrophenol	139	7.582	7.578	(1.016)	34261	11.1214	11.1
65 Pentachlorophenol	266	8.849	8.844	(0.977)	135115	38.7456	38.7
79 Pyrene	202	10.611	10.606	(0.888)	1524481	34.5786	34.6
2 Pyridine	79	2.277	2.273	(0.523)	224026	25.7764	25.8
4 Aniline	66	4.044	4.044	(0.929)	173962	32.2077	32.2
7 bis(2-Chloroethyl) ether	63	4.092	4.087	(0.940)	231210	28.5960	28.6
9 1,3-Dichlorobenzene	146	4.301	4.301	(0.988)	344821	28.3127	28.3
12 Benzyl alcohol	108	4.468	4.463	(1.026)	154741	24.0889	24.1
13 1,2-Dichlorobenzene	146	4.511	4.511	(1.036)	341111	29.1839	29.2
14 bis(2-Chloroisopropyl)ether	45	4.597	4.597	(1.056)	375055	23.6584	23.6
15 o-Cresol	107	4.558	4.558	(1.047)	223078	27.1595	27.2
18 m,p-Cresols	107	4.706	4.706	(1.081)	289376	27.8392	27.8
19 Hexachloroethane	117	4.839	4.839	(1.112)	121026	25.5582	25.6
21 Nitrobenzene	77	4.901	4.897	(0.874)	344096	31.7389	31.7
22 Isophorone	82	5.135	5.135	(0.915)	715789	35.8618	35.9
23 2-Nitrophenol	139	5.216	5.216	(0.930)	174173	35.0037	35.0
24 2,4-Dimethylphenol	122	5.239	5.239	(0.934)	293850	33.2183	33.2
25 bis(2-Chloroethoxy)methane	93	5.344	5.344	(0.952)	393056	35.1161	35.1
26 2,4-Dichlorophenol	162	5.458	5.454	(0.973)	286445	35.7878	35.8
27 Benzoic acid	105	5.320	5.320	(0.948)	106141	31.6539	31.6
30 Naphthalene	128	5.635	5.630	(1.004)	1014489	31.9005	31.9
31 4-Chloroaniline	127	5.678	5.677	(1.012)	445824	42.1945	42.2
32 Hexachlorobutadiene	225	5.754	5.754	(1.025)	177867	26.5719	26.6
34 2-Methylnaphthalene	142	6.354	6.354	(1.132)	719343	33.6810	33.7
35 1-Methylnaphthalene	142	6.458	6.458	(1.151)	701560	33.4978	33.5
36 Hexachlorocyclopentadiene	237	6.516	6.516	(0.873)	97840	17.4665	17.5
37 2,4,6-Trichlorophenol	196	6.644	6.644	(0.890)	258169	37.1279	37.1
38 2,4,5-Trichlorophenol	196	6.682	6.678	(0.895)	256384	34.7384	34.7
40 2-Chloronaphthalene	162	6.868	6.868	(0.920)	680004	30.8182	30.8
42 o-Nitroaniline	65	6.968	6.968	(0.934)	193839	31.3635	31.4
41 m-Nitroaniline	138	7.411	7.411	(0.993)	186406	39.5730	39.6
43 Dimethylphthalate	163	7.168	7.168	(0.960)	1058798	41.8662	41.9
44 2,6-Dinitrotoluene	165	7.235	7.235	(0.969)	226692	39.6480	39.6
45 Acenaphthylene	152	7.311	7.311	(0.980)	1250119	33.3636	33.4
48 2,4-Dinitrophenol	184	7.520	7.520	(1.008)	56268	34.0543	34.0
49 Dibenzofuran	168	7.682	7.682	(1.029)	1077087	34.2292	34.2
51 Diethylphthalate	149	7.925	7.920	(1.062)	1097486	41.4637	41.5
53 Fluorene	166	8.049	8.049	(1.078)	958642	32.9109	32.9
54 4-Chlorophenylphenylether	204	8.049	8.049	(1.078)	479580	34.1874	34.2
55 2-Methyl-4,6-dinitrophenol	198	8.097	8.097	(0.894)	101848	33.6645	33.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
56 p-Nitroaniline	138	8.063	8.063	(1.080)	176375	42.3745	42.4
133 Diphenylamine	169	8.173	8.173	(0.902)	862118	43.2814	43.3
58 1,2-Diphenylhydrazine	77	8.220	8.216	(0.907)	871990	37.2676	37.3
61 4-Bromophenylphenylether	248	8.573	8.573	(0.946)	291525	38.7036	38.7
63 Hexachlorobenzene	284	8.639	8.639	(0.954)	301923	38.5654	38.6
207 Atrazine	173	8.749	8.749	(0.966)	72368	52.0014	52.0
68 Phenanthrene	178	9.082	9.082	(1.003)	1385740	37.5309	37.5
69 Anthracene	178	9.139	9.139	(1.009)	1378328	36.0271	36.0
72 Di-n-butylphthalate	149	9.682	9.682	(1.069)	1869258	46.7441	46.7
76 Fluoranthene	202	10.363	10.363	(1.144)	1506478	37.5575	37.6
77 Benzidine	184	10.506	10.506	(0.880)	421590	39.8421	39.8
85 Butylbenzylphthalate	149	11.297	11.297	(0.946)	719114	46.6450	46.6
89 Benzo(a)anthracene	228	11.930	11.930	(0.999)	1326130	35.6885	35.7
90 3,3'-Dichlorobenzidine	252	11.892	11.892	(0.996)	326939	37.3747	37.4
92 Chrysene	228	11.978	11.973	(1.003)	1280974	39.5063	39.5
93 bis(2-Ethylhexyl)phthalate	149	11.954	11.954	(1.001)	1042499	48.3196	48.3
94 Di-n-octylphthalate	149	12.820	12.820	(0.916)	1436716	42.4157	42.4
95 Benzo(b)fluoranthene	252	13.392	13.392	(0.957)	1091312	35.3828	35.4
96 Benzo(k)fluoranthene	252	13.435	13.435	(0.960)	1165940	37.6023	37.6
97 Benzo(a)pyrene	252	13.901	13.901	(0.994)	1000063	38.4443	38.4
99 Indeno(1,2,3-cd)pyrene	276	15.787	15.787	(1.128)	871794	40.4203	40.4
100 Dibenzo(a,h)anthracene	278	15.825	15.825	(1.131)	870610	52.2302	52.2
101 Benzo(ghi)perylene	276	16.254	16.254	(1.162)	872263	48.8803	48.9
102 1,4-Dioxane	88	2.039	2.039	(0.468)	85701	27.2682	27.3
111 N-Nitrosopyrrolidine	100	4.706	4.711	(1.081)	155150	32.5212	32.5(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.239	2.239	(0.514)	119064	20.0969	20.1

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD8.i/s030310.b/s8c0311.d
Date : 03-MAR-2010 15:11
Client ID: SBLK01LCS
Sample Info: 1120205739819592941|SVMF|1|SBLK01LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: nag1
Column diameter: 0.20

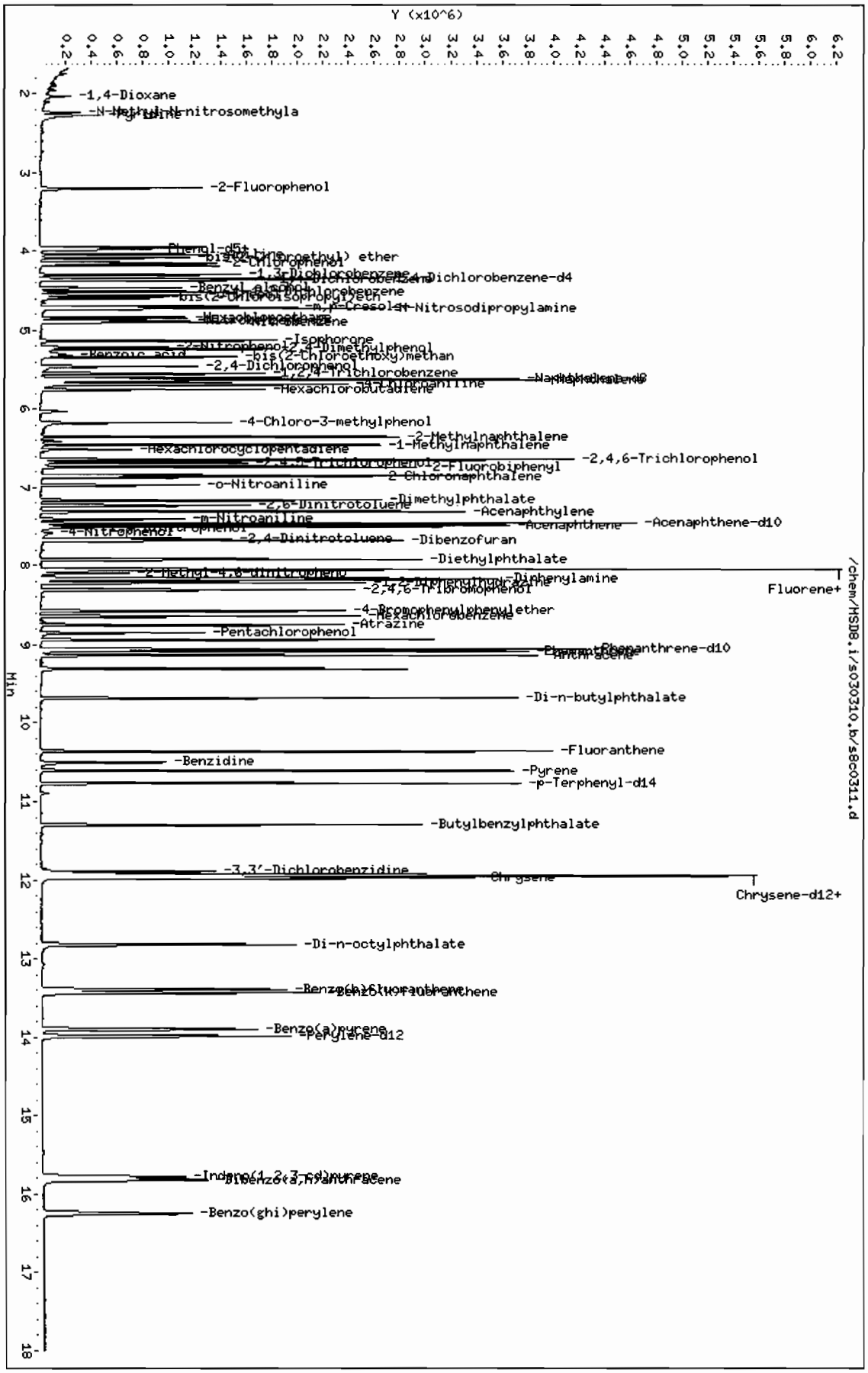

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 959290 **Verified by:**
Analyst: Sequan Smalls
Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21
Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Sec Ext pH	Final Volume (mL)	Prepped Factor (mL/mL)
1202057395 MB	01-MAR-2010 23:33:00	1000	5	1	13	1	0.001
1202057398 LCS	01-MAR-2010 23:33:00	1000	5	1	13	1	0.001
247824002 - 2	01-MAR-2010 23:33:00	950	6	1	13	1	0.00105
247922004	01-MAR-2010 23:33:00	1000	6	1	13	1	0.001
1202057396 MS (247922004)	01-MAR-2010 23:33:00	500	6	1	13	1	0.002
1202057397 MSD (247922004)	01-MAR-2010 23:33:00	500	6	1	13	1	0.002
248042001	01-MAR-2010 23:33:00	900	6	1	13	1	0.00111
248042006	01-MAR-2010 23:33:00	940	6	1	13	1	0.00106

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202057398	BNA LCS w/o Benzidine 50ppm	UE100222-14	1	mL
LCS	1202057398	BENZIDINE LCS	UE100222-22	1	mL
MS	1202057396	BNA LCS w/o Benzidine 50ppm	UE100222-14	1	mL
MS	1202057396	BENZIDINE LCS	UE100222-22	1	mL
MSD	1202057397	BNA LCS w/o Benzidine 50ppm	UE100222-14	1	mL
MSD	1202057397	BENZIDINE LCS	UE100222-22	1	mL
SURR	All	BNA for all Surrogate	UE100222-10B	1	mL
REGNT	All	Sulfuric Acid Sol., 1:1	1271216	2	mL
REGNT	All	10 N Sodium Hydroxide Solution	1274128	10	mL
REGNT	All	Methylene Chloride	1274843-D	360	mL
SOURC	All	SODIUM SULFATE	1269268	30	g

Comments:

All Samples were emulsive in acid and base.
Verified By: MJS
Final Solvent: CH2CL2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD8

DATE: 03/03/2010 METHOD:See raw data OPERATOR:NAG REVIEWED BY:_____ DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT 1266705-D
Multiplier Voltage: 1176mv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100227-01
Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
SOP: GL-OA-E-009 Rev. 23

Sequence Number: /chem/MSD8.i/s030310.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s8c0301.d	WBN100207-01	nagl	03-MAR-2010 08:49	50 PPM	s030310	1.0	DFTPP	DUSE
s8c0302.d	WBN100225-05.5	nagl	03-MAR-2010 09:05	40 PPM	s030310	1.0	MEGACVS	DUSE
s8c0303.d	WBN100215-05.5	nagl	03-MAR-2010 09:37	40 PPM	s030310	1.0	MEGACVS	DUSE
s8c0304.d	WBN100218-03.4	nagl	03-MAR-2010 10:08	40 PPM	s030310	1.0	AP12CVS	DUSE
s8c0305.d	WBN100207-01	nagl	03-MAR-2010 10:57	50 PPM	s030310	1.0	DFTPP	DUSE
s8c0306.d	WBN100225-05.5	nagl	03-MAR-2010 11:13	40 PPM	s030310	1.0	MEGACVS	DUSE
s8c0307.d	WBN100207-01	nagl	03-MAR-2010 13:25	50 PPM	s030310	1.0	DFTPP	
s8c0308.d	WBN100225-05.5	nagl	03-MAR-2010 13:40	40 PPM	s030310	1.0	MEGACVS	337349
s8c0309.d	WBN100218-03.4	nagl	03-MAR-2010 14:12	40 PPM	s030310	1.0	AP12CVS	
s8c0310-1.d	1202057395	nagl	03-MAR-2010 14:41	959294	10-2022	1.0	SBLK01	
s8c0310-2.d	1202057395	nagl	03-MAR-2010 14:41	959294	10-2057	1.0	SBLK01	
s8c0310.d	1202057395	nagl	03-MAR-2010 14:41	959294	10-2005	1.0	SBLK01	
s8c0311-1.d	1202057398	nagl	03-MAR-2010 15:11	959294	10-2022	1.0	SBLK01LCS	failed <5%
s8c0311-2.d	1202057398	nagl	03-MAR-2010 15:11	959294	10-2057	1.0	SBLK01LCS	failed <5%
s8c0311.d	1202057398	nagl	03-MAR-2010 15:11	959294	10-2005	1.0	SBLK01LCS	failed <5%
s8c0312.d	1202057827	nagl	03-MAR-2010 15:41	959459	248160	1.0	SBLK01	
s8c0313.d	1202057828	nagl	03-MAR-2010 16:11	959459	248160	1.0	SBLK01LCS	
s8c0314.d	247824002	nagl	03-MAR-2010 16:40	959294	10-2005	1.0	LANL	passes w/in holding - RX of s8b2519
s8c0315.d	247922004	nagl	03-MAR-2010 17:10	959294	10-2022	1.0	LANL	failed surr - C93 OR - rr @ 2x - see s8c0412 for DL

s8c0316.d	1202057396	nag1	03-MAR-2010 17:40	959294	10-2022		1.0	MS	failed spike
s8c0317.d	1202057397	nag1	03-MAR-2010 18:09	959294	10-2022		1.0	MSD	failed spike
s8c0318.d	248042001	nag1	03-MAR-2010 18:39	959294	10-2057		1.0	LANL	
s8c0319.d	248042006	nag1	03-MAR-2010 19:09	959294	10-2057		1.0	LANL	
s8c0320.d	247791003	nag1	03-MAR-2010 19:39	957838	10-1982		1.0	LANL	USE - rr of s8c0121
s8c0321.d	247791004	nag1	03-MAR-2010 20:09	957838	10-1982		1.0	LANL	
s8c0322.d	247791005	nag1	03-MAR-2010 20:38	957838	10-1982		1.0	LANL	
s8c0323.d	247791006	nag1	03-MAR-2010 21:08	957838	10-1982		1.0	LANL	
s8c0324.d	247855002	nag1	03-MAR-2010 21:37	957838	10-1978		1.0	LANL	
s8c0325.d	248160001	nag1	03-MAR-2010 22:07	959459	248160		1.0	ARGN	
s8c0326.d	1202057829	nag1	03-MAR-2010 22:36	959459	248160		1.0	MS	
s8c0327.d	1202057830	nag1	03-MAR-2010 23:05	959459	248160		1.0	MSD	
s8c0328.d	248160003	nag1	03-MAR-2010 23:35	959459	248160		1.0	ARGN	
s8c0329.d	248160004	nag1	04-MAR-2010 00:04	959459	248160		1.0	ARGN	
s8c0330.d	248160005	nag1	04-MAR-2010 00:33	959459	248160		1.0	ARGN	
s8c0331.d	248160006	nag1	04-MAR-2010 01:02	959459	248160		1.0	ARGN	

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD8

DATE: 02/20/2010 METHOD:See raw data OPERATOR:NAG REVIEWED BY:_____ DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT 1239699-D
Multiplier Voltage: 1094mv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100217-01
Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
SOP: GL-OA-E-009 Rev. 23

Sequence Number: /chem/MSD8.i/s022010.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s8b2001-D.d	WBN100207-01	nagl	20-FEB-2010 12:04	50 PPM	s022010	1.0	DFTPP	
s8b2001.d	WBN100207-01	nagl	20-FEB-2010 12:04	50 PPM	s022010	1.0	DFTPP	
s8b2002.d	inst blk	nagl	20-FEB-2010 12:21	--------	s022010	1.0	INST BLK	
s8b2003.d	WBN100215-08	nagl	20-FEB-2010 12:55	1 PPM	s022010	1.0	MEGAICAL	Naphthalene/1-Methylnaphthalene failed SC
s8b2004-linear.d	WBN100215-07	nagl	20-FEB-2010 13:30	10 PPM	s022010	1.0	MEGAICAL	
s8b2004.d	WBN100215-07	nagl	20-FEB-2010 13:30	10 PPM	s022010	1.0	MEGAICAL	
s8b2005-linear.d	WBN100215-06	nagl	20-FEB-2010 14:05	20 PPM	s022010	1.0	MEGAICAL	
s8b2005.d	WBN100215-06	nagl	20-FEB-2010 14:05	20 PPM	s022010	1.0	MEGAICAL	
s8b2006.d	WBN100215-05.1	nagl	20-FEB-2010 14:40	40 PPM	s022010	1.0	MEGAICAL	
s8b2007.d	WBN100215-04	nagl	20-FEB-2010 15:14	50 PPM	s022010	1.0	MEGAICAL	
s8b2008.d	WBN100215-03	nagl	20-FEB-2010 15:50	80 PPM	s022010	1.0	MEGAICAL	
s8b2009.d	WBN100215-02	nagl	20-FEB-2010 16:25	100 PPM	s022010	1.0	MEGAICAL	
s8b2010.d	WBN100215-01	nagl	20-FEB-2010 16:59	120 PPM	s022010	1.0	MEGAICAL	
s8b2011.d	inst blk	nagl	20-FEB-2010 17:34	--------	s022010	1.0	INST BLK	
s8b2012-D.d	WBN100215-05.1	nagl	20-FEB-2010 18:09	40 PPM	s022010	1.0	MEAGICV	8270D
s8b2012.d	WBN100215-05.1	nagl	20-FEB-2010 18:09	40 PPM	s022010	1.0	MEGAICV	
s8b2013-D.d	WBN100207-01	nagl	21-FEB-2010 08:35	50 PPM	s022010	1.0	DFTPP	
s8b2013.d	WBN100207-01	nagl	21-FEB-2010 08:35	50 PPM	s022010	1.0	DFTPP	
s8b2014.d	inst blk	nagl	21-FEB-2010 08:51	--------	s022010	1.0	INST BLK	

s8b2015.d	WBN100218-01	nag1	21-FEB-2010 09:21	10 PPM	s022010	1.0	APICAL	
s8b2016.d	WBN100218-02	nag1	21-FEB-2010 09:52	20 PPM	s022010	1.0	APICAL	
s8b2017.d	WBN100218-03.1	nag1	21-FEB-2010 10:23	40 PPM	s022010	1.0	APICAL	
s8b2018.d	WBN100218-04	nag1	21-FEB-2010 10:54	50 PPM	s022010	1.0	APICAL	
s8b2019.d	WBN100218-05	nag1	21-FEB-2010 11:26	80 PPM	s022010	1.0	APICAL	
s8b2020.d	WBN100218-06	nag1	21-FEB-2010 11:59	100 PPM	s022010	1.0	APICAL	
s8b2021.d	WBN100218-07	nag1	21-FEB-2010 12:30	120 PPM	s022010	1.0	APICAL	
s8b2022.d	WBN100205-25	nag1	21-FEB-2010 13:02	10 PPM	s022010	1.0	PESTICAL	
s8b2023.d	WBN100205-24	nag1	21-FEB-2010 13:33	20 PPM	s022010	1.0	PESTICAL	
s8b2024.d	WBN100205-23.1	nag1	21-FEB-2010 14:05	40 PPM	s022010	1.0	PESTICAL	
s8b2025.d	WBN100205-22	nag1	21-FEB-2010 14:37	50 PPM	s022010	1.0	PESTICAL	
s8b2026.d	WBN100205-21	nag1	21-FEB-2010 15:09	80 PPM	s022010	1.0	PESTICAL	
s8b2027.d	WBN100205-20	nag1	21-FEB-2010 15:40	100 PPM	s022010	1.0	PESTICAL	
s8b2028.d	WBN100205-19	nag1	21-FEB-2010 16:12	120 PPM	s022010	1.0	PESTICAL	
s8b2029-linear.d	WBN100120-16	nag1	21-FEB-2010 16:44	500 PPM	s022010	1.0	HEXICAL	
s8b2029.d	WBN100120-16	nag1	21-FEB-2010 16:44	500 PPM	s022010	1.0	HEXICAL	
s8b2030.d	WBN100120-15	nag1	21-FEB-2010 17:16	1000 PPM	s022010	1.0	HEXICAL	
s8b2031.d	WBN100120-14	nag1	21-FEB-2010 17:48	1250 PPM	s022010	1.0	HEXICAL	
s8b2032.d	WBN100120-13	nag1	21-FEB-2010 18:19	1500 PPM	s022010	1.0	HEXICAL	
s8b2033.d	WBN100120-12	nag1	21-FEB-2010 18:51	1750 PPM	s022010	1.0	HEXICAL	
s8b2034.d	UBN090828-02.10	nag1	21-FEB-2010 19:22	2000 PPM	s022010	1.0	HEXICAL	
s8b2035-D.d	WBN100218-08.1	nag1	21-FEB-2010 19:53	40 PPM	s022010	1.0	APICV	8270D
s8b2035.d	WBN100218-08.1	nag1	21-FEB-2010 19:53	40 PPM	s022010	1.0	APICV	
s8b2036-D.d	WBN100205-26.1	nag1	21-FEB-2010 20:25	40 PPM	s022010	1.0	PESTICV	8270D
s8b2036.d	WBN100205-26.1	nag1	21-FEB-2010 20:25	40 PPM	s022010	1.0	PESTICV	
s8b2037.d	WBN091016-10.1	nag1	21-FEB-2010 20:55	1250 PPM	s022010	1.0	HEXICV	DUSE
s8b2038-D.d	WBN100207-01	nag1	21-FEB-2010 21:26	50 PPM	s022010	1.0	DFTPP	

s8b2038.d	WBN100207-01	nag1	21-FEB-2010 21:26	50 PPM	s022010	1.0	DFTPP	
s8b2039.d	inst blk	nag1	21-FEB-2010 21:43	--------	s022010	1.0	INST BLK	
s8b2040.d	WBN100127-01	nag1	21-FEB-2010 22:13	10 PPM	s022010	1.0	NEVICAL	
s8b2041.d	WBN100127-02	nag1	21-FEB-2010 22:45	20 PPM	s022010	1.0	NEVICAL	
s8b2042.d	WBN100127-03	nag1	21-FEB-2010 23:15	40 PPM	s022010	1.0	NEVICAL	
s8b2043.d	WBN100127-04	nag1	21-FEB-2010 23:46	50 PPM	s022010	1.0	NEVICAL	
s8b2044.d	WBN100127-05	nag1	22-FEB-2010 00:17	80 PPM	s022010	1.0	NEVICAL	
s8b2045.d	WBN100127-06	nag1	22-FEB-2010 00:48	100 PPM	s022010	1.0	NEVICAL	
s8b2046.d	WBN100127-07	nag1	22-FEB-2010 01:19	120 PPM	s022010	1.0	NEVICAL	
s8b2047-D.d	WBN100103-10.2	nag1	22-FEB-2010 08:59	1250 PPM	s022010	1.0	HEXICV	8270D
s8b2047.d	WBN100103-10.2	nag1	22-FEB-2010 08:59	1250 PPM	s022010	1.0	HEXICV	

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
05-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Liquid	ESHL, LANL
Batch ID:	**Sample Numbers:**		
959294	See Below		

Potentially affected work order(s)(SDG): 247824(10-2005),247922(10-2022),248042(10-2057)

Application Issues:

Failed Recovery for MS/PS

Failed RPD for MS/MSD, or PS/PSD

Failed Yield for Surrogates

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:

1. The MS and MSD each failed recovery for Benzidine, Benzyl alcohol and 3,3'-Dichlorobenzidine. Please see the spike recovery report for the specific recovery values.

3. The MS/MSD RPD value for Benzyl alcohol exceeded the established acceptance limit. Please see the spike recovery report for the specific values.

4. Sample 247922004 failed surrogate recovery. Please see the surrogate recovery report for the specific failure

DER Disposition:

1. As the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported.

3. The RPD values were not all within the acceptance limits. The MS/MSD pair had poor recoveries for the analytes. The results are reported.

4. The associated MS/MSD pair displayed failing spike recoveries. As surrogate or spike recovery failures were present in the parent sample and associated MS/MSD pair, the failures have been attributed to sample matrix interference and the data were reported.

Originator's Name:

Nathan Greene 05-MAR-10

Data Validator/Group Leader:

Daniel Beacham 08-MAR-10

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030310.b/s8c0316.d
Lab Smp Id: 1202057396 Client Smp ID: WST29-10-13281MS
Inj Date : 03-MAR-2010 17:40
Operator : nagl Inst ID: MSD8.i
Smp Info : |1202057396|959294|1|SVMF|1|MS
Misc Info : |MSD82709L|WBN100227-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Meth Date : 04-Mar-2010 07:36 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 10 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2022.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	500.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.354	4.354	(1.000)	265569	40.0000	
* 29 Naphthalene-d8	136	5.611	5.611	(1.000)	1007121	40.0000	
* 46 Acenaphthene-d10	164	7.463	7.463	(1.000)	597994	40.0000	
* 67 Phenanthrene-d10	188	9.058	9.058	(1.000)	1036240	40.0000	
* 91 Chrysene-d12	240	11.949	11.944	(1.000)	959722	40.0000	
* 98 Perylene-d12	264	13.997	13.992	(1.000)	673649	40.0000	
$ 3 2-Fluorophenol	112	3.201	3.201	(0.735)	276442	44.0916	88.2
$ 5 Phenol-d5	99	3.977	3.973	(0.914)	279759	35.7791	71.6
$ 20 Nitrobenzene-d5	82	4.877	4.877	(0.869)	231588	32.3480	64.7
$ 39 2-Fluorobiphenyl	172	6.739	6.735	(0.903)	607191	34.4958	69.0
$ 60 2,4,6-Tribromophenol	329	8.306	8.306	(1.113)	117147	59.2624	118
$ 81 p-Terphenyl-d14	244	10.777	10.773	(0.902)	723691	41.8839	83.8
6 Phenol	94	3.992	3.987	(0.917)	147413	18.2567	36.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	4.154	4.154	(0.954)	181312	25.8597	51.7
11 1,4-Dichlorobenzene	146	4.368	4.368	(1.003)	233120	27.1736	54.3
17 N-Nitrosodipropylamine	70	4.720	4.725	(1.084)	173881	33.6683	67.3(Q)
28 1,2,4-Trichlorobenzene	180	5.549	5.549	(0.989)	222922	30.4066	60.8
33 4-Chloro-3-methylphenol	107	6.177	6.168	(1.101)	178903	30.3282	60.6
47 Acenaphthene	154	7.496	7.497	(1.004)	491019	30.8995	61.8
50 2,4-Dinitrotoluene	165	7.658	7.663	(1.026)	185794	38.2489	76.5
52 4-Nitrophenol	139	7.596	7.578	(1.018)	46309	22.6872	45.4
65 Pentachlorophenol	266	8.854	8.844	(0.977)	70997	30.9697	61.9
79 Pyrene	202	10.611	10.606	(0.888)	1032550	34.4588	68.9
2 Pyridine	79	2.273	2.273	(0.522)	171270	28.8642	57.7
4 Aniline	66	4.044	4.044	(0.929)	112191	30.4240	60.8
7 bis(2-Chloroethyl) ether	63	4.087	4.087	(0.939)	152176	27.5675	55.1
9 1,3-Dichlorobenzene	146	4.301	4.301	(0.988)	232324	27.9405	55.9
12 Benzyl alcohol	108	4.468	4.463	(1.026)	17202	3.92232	7.8(aQR)
13 1,2-Dichlorobenzene	146	4.511	4.511	(1.036)	237448	29.7556	59.5
14 bis(2-Chloroisopropyl)ether	45	4.596	4.597	(1.056)	268407	24.7992	49.6
15 o-Cresol	107	4.558	4.558	(1.047)	182849	32.6070	65.2
18 m,p-Cresols	107	4.711	4.706	(1.082)	247632	34.8943	69.8
19 Hexachloroethane	117	4.839	4.839	(1.112)	85055	26.3090	52.6
21 Nitrobenzene	77	4.896	4.897	(0.873)	282968	38.3171	76.6
22 Isophorone	82	5.135	5.135	(0.915)	483794	35.5836	71.2
23 2-Nitrophenol	139	5.215	5.216	(0.930)	93445	27.5697	55.1
24 2,4-Dimethylphenol	122	5.239	5.239	(0.934)	164729	27.3379	54.7
25 bis(2-Chloroethoxy)methane	93	5.344	5.344	(0.952)	266654	34.9738	69.9
26 2,4-Dichlorophenol	162	5.458	5.454	(0.973)	159814	29.3124	58.6
27 Benzoic acid	105	5.354	5.320	(0.954)	320017	88.8231	178
30 Naphthalene	128	5.630	5.630	(1.003)	707973	32.6330	65.3
31 4-Chloroaniline	127	5.677	5.677	(1.012)	253560	35.2303	70.5
32 Hexachlorobutadiene	225	5.754	5.754	(1.025)	131657	28.8744	57.7
34 2-Methylnaphthalene	142	6.354	6.354	(1.132)	507891	34.8632	69.7
35 1-Methylnaphthalene	142	6.458	6.458	(1.151)	494996	34.6530	69.3
36 Hexachlorocyclopentadiene	237	6.515	6.516	(0.873)	80918	21.8016	43.6
37 2,4,6-Trichlorophenol	196	6.644	6.644	(0.890)	125609	27.2628	54.5
38 2,4,5-Trichlorophenol	196	6.682	6.678	(0.895)	145957	29.8468	59.7
40 2-Chloronaphthalene	162	6.868	6.868	(0.920)	480874	32.7930	65.6
42 o-Nitroaniline	65	6.968	6.968	(0.934)	93972	22.9475	45.9
41 m-Nitroaniline	138	7.406	7.411	(0.992)	103525	33.1695	66.3
43 Dimethylphthalate	163	7.168	7.168	(0.960)	708363	42.2727	84.5
44 2,6-Dinitrotoluene	165	7.230	7.235	(0.969)	149028	39.3375	78.7
45 Acenaphthylene	152	7.311	7.311	(0.980)	840778	33.8655	67.7
48 2,4-Dinitrophenol	184	7.530	7.520	(1.009)	26708	28.4723	56.9
49 Dibenzofuran	168	7.682	7.682	(1.029)	734169	35.2124	70.4
51 Diethylphthalate	149	7.920	7.920	(1.061)	711572	40.5735	81.1
53 Fluorene	166	8.049	8.049	(1.078)	637620	33.0369	66.1
54 4-Chlorophenylphenylether	204	8.049	8.049	(1.078)	325890	35.0615	70.1
55 2-Methyl-4,6-dinitrophenol	198	8.096	8.097	(0.894)	47348	25.7762	51.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
56 p-Nitroaniline	138	8.058	8.063	(1.080)	69585	25.2312	50.5
133 Diphenylamine	169	8.173	8.173	(0.902)	558425	42.6460	85.3
58 1,2-Diphenylhydrazine	77	8.220	8.216	(0.907)	582196	37.8502	75.7
61 4-Bromophenylphenylether	248	8.573	8.573	(0.946)	195173	39.4161	78.8
63 Hexachlorobenzene	284	8.639	8.639	(0.954)	198110	38.4935	77.0
207 Atrazine	173	8.749	8.749	(0.966)	48005	52.4727	105
68 Phenanthrene	178	9.087	9.082	(1.003)	917384	37.7813	75.6
69 Anthracene	178	9.139	9.139	(1.009)	912696	36.2895	72.6
72 Di-n-butylphthalate	149	9.682	9.682	(1.069)	1209846	46.0221	92.0
76 Fluoranthene	202	10.368	10.363	(1.145)	997873	37.8432	75.7
85 Butylbenzylphthalate	149	11.301	11.297	(0.946)	486436	46.4234	92.8
89 Benzo(a)anthracene	228	11.935	11.930	(0.999)	899417	35.6129	71.2
90 3,3'-Dichlorobenzidine	252	11.896	11.892	(0.996)	53651	9.02387	18.0(aR)
92 Chrysene	228	11.977	11.973	(1.002)	862253	39.1296	78.2
93 bis(2-Ethylhexyl)phthalate	149	11.958	11.954	(1.001)	1768151	120.579	241(AR)
94 Di-n-octylphthalate	149	12.825	12.820	(0.916)	1022735	47.9682	95.9
95 Benzo(b)fluoranthene	252	13.401	13.392	(0.957)	727737	38.1040	76.2
96 Benzo(k)fluoranthene	252	13.444	13.435	(0.961)	732264	38.1381	76.3
97 Benzo(a)pyrene	252	13.906	13.901	(0.994)	633141	39.3058	78.6
99 Indeno(1,2,3-cd)pyrene	276	15.792	15.787	(1.128)	560381	41.9587	83.9
100 Dibenzo(a,h)anthracene	278	15.830	15.825	(1.131)	452978	43.8861	87.8
101 Benzo(ghi)perylene	276	16.254	16.254	(1.161)	455085	41.1843	82.4
102 1,4-Dioxane	88	2.034	2.039	(0.467)	64644	30.1267	60.2
111 N-Nitrosopyrrolidine	100	4.706	4.711	(1.081)	109484	33.6139	67.2(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.239	2.239	(0.514)	93117	23.0213	46.0

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD8.i/s030310.b/s8c0316.d
Date : 03-MAR-2010 17:40
Client ID: WST29-10-13281MS
Sample Info: 1120205739611959294|1|SVHF11|MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: nag1
Column diameter: 0.20

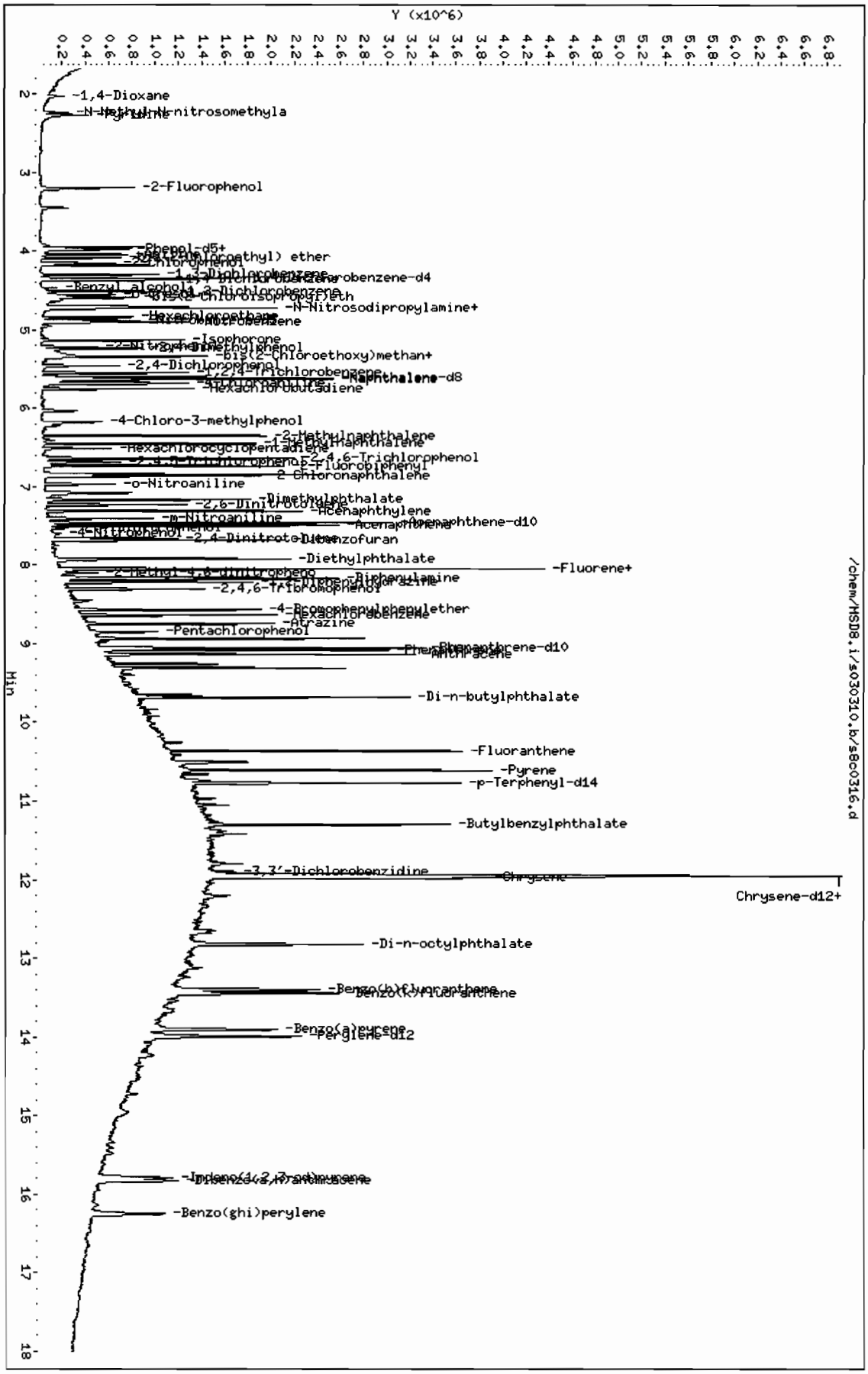

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GEL Laboratories LLC

Data file : /chem/MSD8.i/s030310.b/s8c0317.d
Lab Smp Id: 1202057397 Client Smp ID: WST29-10-13281MSD
Inj Date : 03-MAR-2010 18:09
Operator : nagl Inst ID: MSD8.i
Smp Info : |1202057397|959294|1|SVMF|1|MSD
Misc Info : |MSD82709L|WBN100227-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Meth Date : 04-Mar-2010 07:36 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 11 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2022.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	500.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.353	4.354	(1.000)	312573	40.0000	
* 29 Naphthalene-d8	136	5.611	5.611	(1.000)	1228088	40.0000	
* 46 Acenaphthene-d10	164	7.463	7.463	(1.000)	745243	40.0000	
* 67 Phenanthrene-d10	188	9.058	9.058	(1.000)	1284370	40.0000	
* 91 Chrysene-d12	240	11.949	11.944	(1.000)	1156216	40.0000	
* 98 Perylene-d12	264	14.001	13.992	(1.000)	855781	40.0000	
$ 3 2-Fluorophenol	112	3.206	3.201	(0.736)	316529	42.8935	85.8
$ 5 Phenol-d5	99	3.977	3.973	(0.914)	333680	36.2578	72.5
$ 20 Nitrobenzene-d5	82	4.882	4.877	(0.870)	293942	33.6702	67.3
$ 39 2-Fluorobiphenyl	172	6.739	6.735	(0.903)	799146	36.4306	72.9
$ 60 2,4,6-Tribromophenol	329	8.311	8.306	(1.114)	131709	53.4641	107
$ 81 p-Terphenyl-d14	244	10.777	10.773	(0.902)	882325	42.3866	84.8
6 Phenol	94	3.992	3.987	(0.917)	179287	18.8652	37.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	4.153	4.154	(0.954)	209085	25.3365	50.7
11 1,4-Dichlorobenzene	146	4.368	4.368	(1.003)	306948	30.3990	60.8
17 N-Nitrosodipropylamine	70	4.725	4.725	(1.085)	222205	36.5552	73.1(Q)
28 1,2,4-Trichlorobenzene	180	5.549	5.549	(0.989)	298626	33.4037	66.8
33 4-Chloro-3-methylphenol	107	6.177	6.168	(1.101)	227092	31.5706	63.1
47 Acenaphthene	154	7.496	7.497	(1.004)	671399	33.9026	67.8
50 2,4-Dinitrotoluene	165	7.663	7.663	(1.027)	240016	39.6484	79.3
52 4-Nitrophenol	139	7.596	7.578	(1.018)	58057	22.8228	45.6
65 Pentachlorophenol	266	8.854	8.844	(0.977)	87355	30.7436	61.5
79 Pyrene	202	10.611	10.606	(0.888)	1281608	35.5019	71.0
2 Pyridine	79	2.277	2.273	(0.523)	188943	27.0542	54.1
4 Aniline	66	4.044	4.044	(0.929)	139272	32.0884	64.2
7 bis(2-Chloroethyl) ether	63	4.092	4.087	(0.940)	194875	29.9939	60.0
9 1,3-Dichlorobenzene	146	4.301	4.301	(0.988)	300804	30.7362	61.5
12 Benzyl alcohol	108	4.468	4.463	(1.026)	54797	10.6157	21.2(R)
13 1,2-Dichlorobenzene	146	4.515	4.511	(1.037)	313139	33.3399	66.7
14 bis(2-Chloroisopropyl)ether	45	4.596	4.597	(1.056)	347603	27.2868	54.6
15 o-Cresol	107	4.563	4.558	(1.048)	232096	35.1651	70.3
18 m,p-Cresols	107	4.711	4.706	(1.082)	297370	35.6017	71.2(Q)
19 Hexachloroethane	117	4.844	4.839	(1.113)	110087	28.9312	57.9
21 Nitrobenzene	77	4.901	4.897	(0.874)	358957	39.8611	79.7
22 Isophorone	82	5.134	5.135	(0.915)	629314	37.9585	75.9
23 2-Nitrophenol	139	5.215	5.216	(0.930)	105860	25.6129	51.2
24 2,4-Dimethylphenol	122	5.244	5.239	(0.935)	238936	32.5183	65.0
25 bis(2-Chloroethoxy)methane	93	5.344	5.344	(0.952)	352425	37.9065	75.8
26 2,4-Dichlorophenol	162	5.458	5.454	(0.973)	183104	27.5414	55.1
27 Benzoic acid	105	5.363	5.320	(0.956)	384902	87.8147	176
30 Naphthalene	128	5.634	5.630	(1.004)	947306	35.6131	71.2
31 4-Chloroaniline	127	5.677	5.677	(1.012)	325960	37.1408	74.3
32 Hexachlorobutadiene	225	5.753	5.754	(1.025)	178557	32.1143	64.2
34 2-Methylnaphthalene	142	6.354	6.354	(1.132)	702964	39.3950	78.8
35 1-Methylnaphthalene	142	6.458	6.458	(1.151)	676378	38.6820	77.4
36 Hexachlorocyclopentadiene	237	6.515	6.516	(0.873)	109728	23.7225	47.4
37 2,4,6-Trichlorophenol	196	6.644	6.644	(0.890)	148006	25.7768	51.6
38 2,4,5-Trichlorophenol	196	6.687	6.678	(0.896)	164343	26.9664	53.9
40 2-Chloronaphthalene	162	6.868	6.868	(0.920)	666694	36.3172	72.6
42 o-Nitroaniline	65	6.968	6.968	(0.934)	113151	22.1715	44.3
41 m-Nitroaniline	138	7.411	7.411	(0.993)	130227	33.4806	67.0
43 Dimethylphthalate	163	7.168	7.168	(0.960)	919644	44.0375	88.1
44 2,6-Dinitrotoluene	165	7.234	7.235	(0.969)	196721	41.6667	83.3
45 Acenaphthylene	152	7.311	7.311	(0.980)	1137984	36.7799	73.6
48 2,4-Dinitrophenol	184	7.534	7.520	(1.010)	27306	25.9400	51.9
49 Dibenzofuran	168	7.682	7.682	(1.029)	982466	37.8109	75.6
51 Diethylphthalate	149	7.925	7.920	(1.062)	930634	42.5796	85.2
53 Fluorene	166	8.049	8.049	(1.078)	867592	36.0705	72.1
54 4-Chlorophenylphenylether	204	8.049	8.049	(1.078)	439282	37.9229	75.8
55 2-Methyl-4,6-dinitrophenol	198	8.101	8.097	(0.894)	48070	22.3303	44.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
56 p-Nitroaniline	138	8.063	8.063	(1.080)	86749	25.2397	50.5
133 Diphenylamine	169	8.173	8.173	(0.902)	728973	44.9154	89.8
58 1,2-Diphenylhydrazine	77	8.220	8.216	(0.907)	769828	40.3797	80.8
61 4-Bromophenylphenylether	248	8.573	8.573	(0.946)	257834	42.0111	84.0
63 Hexachlorobenzene	284	8.639	8.639	(0.954)	258842	40.5775	81.2
207 Atrazine	173	8.749	8.749	(0.966)	61879	54.5708	109
68 Phenanthrene	178	9.087	9.082	(1.003)	1190593	39.4677	78.9
69 Anthracene	178	9.139	9.139	(1.009)	1166372	37.4164	74.8
72 Di-n-butylphthalate	149	9.687	9.682	(1.069)	1565318	48.0407	96.1
76 Fluoranthene	202	10.368	10.363	(1.145)	1251559	38.2943	76.6
85 Butylbenzylphthalate	149	11.301	11.297	(0.946)	618717	49.0128	98.0
89 Benzo(a)anthracene	228	11.935	11.930	(0.999)	1108492	36.4322	72.9
90 3,3'-Dichlorobenzidine	252	11.896	11.892	(0.996)	57615	8.04372	16.1(aR)
92 Chrysene	228	11.982	11.973	(1.003)	1052806	39.6524	79.3
93 bis(2-Ethylhexyl)phthalate	149	11.963	11.954	(1.001)	2193403	124.159	248(AR)
94 Di-n-octylphthalate	149	12.825	12.820	(0.916)	1267199	46.9157	93.8
95 Benzo(b)fluoranthene	252	13.401	13.392	(0.957)	922580	38.0252	76.0
96 Benzo(k)fluoranthene	252	13.449	13.435	(0.961)	903668	37.0485	74.1
97 Benzo(a)pyrene	252	13.911	13.901	(0.994)	819099	40.0280	80.0
99 Indeno(1,2,3-cd)pyrene	276	15.796	15.787	(1.128)	741695	43.7155	87.4
100 Dibenzo(a,h)anthracene	278	15.835	15.825	(1.131)	684583	52.2092	104
101 Benzo(ghi)perylene	276	16.263	16.254	(1.162)	684185	48.7397	97.5
102 1,4-Dioxane	88	2.034	2.039	(0.467)	76368	30.2385	60.5
111 N-Nitrosopyrrolidine	100	4.706	4.711	(1.081)	141223	36.8383	73.7(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.239	2.239	(0.514)	115441	24.2486	48.5

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD8.i/s030310.b/s8c0317.d
Date : 03-MAR-2010 18:09
Client ID: WST29-10-13281MSD
Sample Info: 1120205739719592941|1|SVMF1|1|MSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: nag1
Column diameter: 0.20

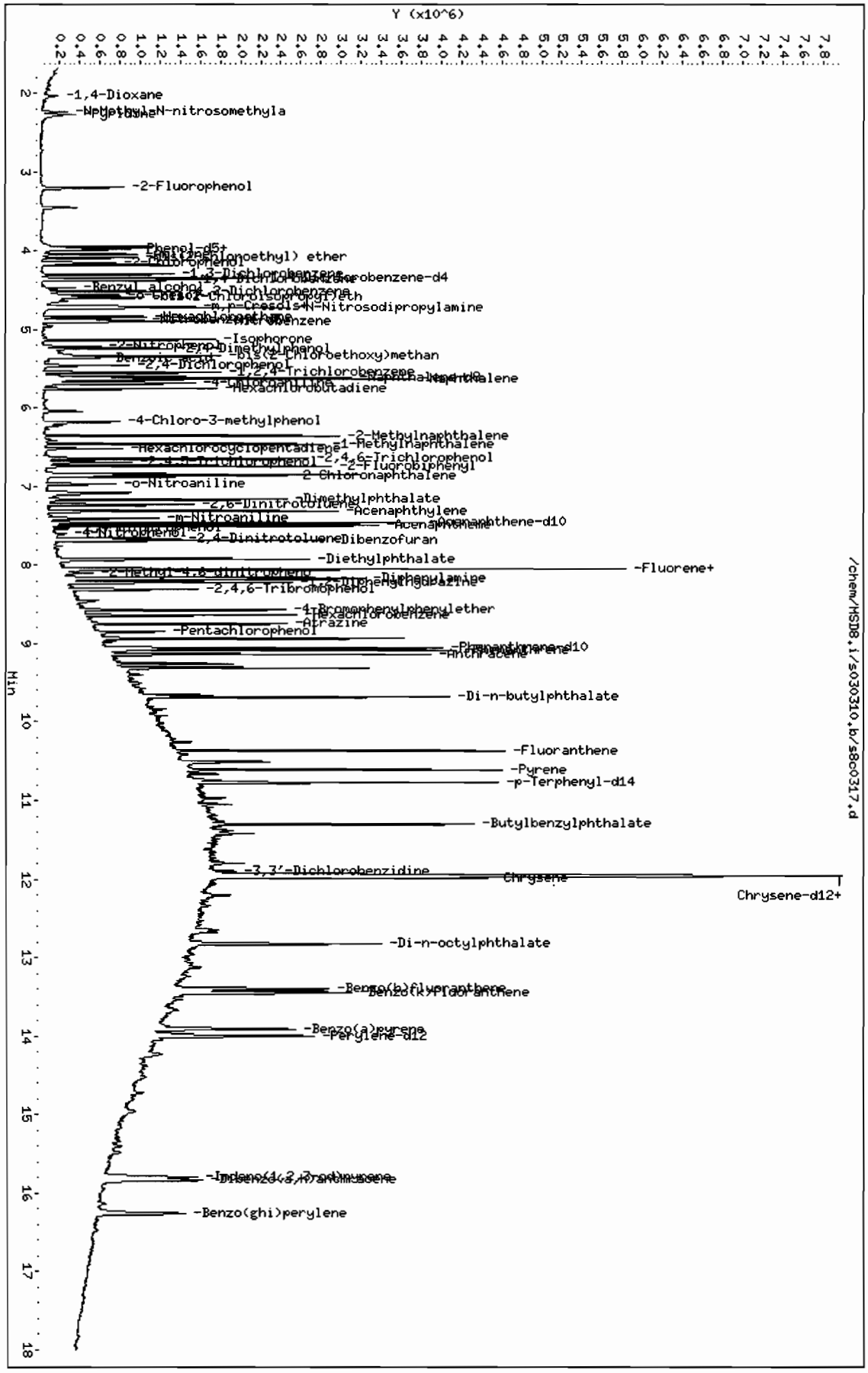

Page 1

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LC/MS/MS EXPLOSIVES ANALYSIS

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LC/MS/MS Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2005

Method/Analysis Information

Procedure:	**Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)**
Analytical Method:	SW846 3535/8321A Modified
Prep Method:	SW846 Method 3535
Analytical Batch Number:	957192
Prep Batch Number:	957190

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 3535/8321A Modified :

Sample ID	Client ID
247824003	CAPA-10-13498
1202052389	Method Blank (MB)
1202052390	Laboratory Control Sample (LCS)
1202052393	247828003(CAPA-10-13095) Matrix Spike (MS)
1202052394	247828003(CAPA-10-13095) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

Primary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

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CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB contained a detect of 2,6-Dinitrotoluene above the MDL but below the PQL. The analyte was not detected in any of the samples. The data are considered unaffected and are reported. Please see data exception report 814490.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Client sample 247828003 (CAPA-10-13095) from SDG 10-2000 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC in this SDG.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

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Secondary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Client sample 247828003 (CAPA-10-13095) from SDG 10-2000 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standards were not added to the secondary analyte extracts.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

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Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report 814490 was generated for this SDG.

The MB contained a detect of 2,6-Dinitrotoluene above the MDL but below the PQL. The analyte was not detected in any of the samples. The data are considered unaffected and are reported.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

Flagging Convention
The sample was not originally analyzed using SW-846 Method 8330.

Additional Comments
Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

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Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert M Maier **Date:** 04/07/10

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SAMPLE DATA SUMMARY

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13498

Lab Code: GEL

GEL Job No (SDG) 10-2005

Matrix: GROUND WATER

GEL Sample ID: 247824003

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 23-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 957190

Concentrated Extract Volume (mL) 5

Date Extracted: 25-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0322023.wiff

Date Analyzed: 23-MAR-10 01:13

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	U
121-14-2	2,4-Dinitrotoluene	0.325	U
121-82-4	RDX	0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	U
2691-41-0	HMX	0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	U
479-45-8	Tetryl	0.649	U
606-20-2	2,6-Dinitrotoluene	0.325	U
78-11-5	PETN	1.3	U
88-72-2	o-Nitrotoluene	0.325	U
98-95-3	Nitrobenzene	0.325	U
99-08-1	m-Nitrotoluene	0.325	U
99-35-4	1,3,5-Trinitrobenzene	0.325	U
99-65-0	m-Dinitrobenzene	0.325	U
99-99-0	p-Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13498

Lab Code: GEL

GEL Job No (SDG) 10-2005

Matrix: GROUND WATER

GEL Sample ID: 247824003

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 23-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 957190

Concentrated Extract Volume (mL) 5

Date Extracted: 25-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310041.wiff

Date Analyzed: 31-MAR-10 19:09

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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QUALITY CONTROL SUMMARY

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2

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–2005

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
247824003	CAPA–10–13498	90.8	67 – 134	
247824003	CAPA–10–13498	96.8	67 – 134	
1202052389	MB for batch 957190	91.6	67 – 134	
1202052389	MB for batch 957190	86	67 – 134	
1202052390	LCS for batch 957190	92.8	67 – 134	
1202052390	LCS for batch 957190	88.8	67 – 134	

DNT = 3,4–Dinitrotoluene

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10–2005

Extract Batch Code: 957190

Date Extracted: 25–FEB–10

GEL LCS ID: 1202052390

GEL LCSDUP ID:

Analysis Date/Time: 23–MAR–10 00:47

DUP Analysis Date/Time:

Reporting Units: ug/L

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
1,3,5–Trinitrobenzene	6.49351	5.31	81.8					64 – 129
2,4,6–Trinitrotoluene	6.49351	5.55	85.4					67 – 150
2,6–Dinitrotoluene	6.49351	5.38	82.8					73 – 123
2–Amino–4,6–dinitrotoluene	6.49351	6.18	95.2					66 – 143
2,4–Dinitrotoluene	6.49351	6.22	95.8					76.9 – 126
4–Amino–2,6–dinitrotoluene	6.49351	5.97	92					68 – 141
Nitrobenzene	6.49351	5.66	87.2					56 – 125
RDX	6.49351	5.75	88.6					66 – 150
m–Dinitrobenzene	6.49351	5.69	87.6					70 – 128
p–Nitrotoluene	6.49351	5.96	91.8					56 – 129
o–Nitrotoluene	6.49351	5.55	85.4					54 – 121
m–Nitrotoluene	6.49351	5.71	88					55 – 119
Tetryl	6.49351	5.9	90.8					53 – 123
PETN	6.49351	6.81	105					59 – 142
HMX	6.49351	5.52	85					57 – 129

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-2005

Extract Batch Code: 957190

Date Extracted: 25-FEB-10

GEL LCS ID: 1202052390

GEL LCSDUP ID:

Analysis Date/Time: 31-MAR-10 18:53

DUP Analysis Date/Time:

Reporting Units: ug/L

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec	#	LCSD Conc	LCSD Rec	#	RPD	#	RPD	Recovery Limits
2,6-Diamino-4-nitrotoluene	6.49351	5.88	90.6								59.1 – 123
3,5-Dinitroaniline	6.49351	5.22	80.4								64 – 117
2,4-Diamino-6-nitrotoluene	6.49351	4.56	70.2								38 – 114
TATB	6.49351	5.03	77.4								27 – 141
tris(o-cresyl) phosphate	6.49351	2.13	32.8								17 – 73

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: CAPA-10-13095

Lab Code: GEL

GEL Job No (SDG) 10-2005

Extract Batch Code: 957190

Date Extracted: 25-FEB-10

GEL Spike ID: 1202052393

GEL SpikeDup ID: 1202052394

Analysis Date/Time: 23-MAR-10 02:06

MSD Analysis Date/Time:

Reporting Units: ug/L

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
HMX	6.49351	0	6.12	94.2	6.65	102	8.34	30	53 - 150
Nitrobenzene	6.49351	0	6.19	95.4	6.38	98.2	2.89	30	65 - 114
PETN	6.49351	0	7.01	108	6.34	97.6	10.1	30	47 - 145
RDX	6.49351	0	6.74	104	6.81	105	.959	30	63 - 156
Tetryl	6.49351	0	4.57	70.4	4.38	67.4	4.35	30	26 - 116
m-Dinitrobenzene	6.49351	0	6.55	101	6.25	96.2	4.67	30	79 - 117
m-Nitrotoluene	6.49351	0	5.92	91.2	6.03	92.8	1.74	30	66 - 111
o-Nitrotoluene	6.49351	0	6.03	92.8	5.69	87.6	5.77	30	65 - 115
2,4,6-Trinitrotoluene	6.49351	0	5.75	88.6	5.52	85	4.15	30	68 - 147
4-Amino-2,6-dinitrotoluene	6.49351	0	6.43	99	6.13	94.4	4.76	30	73 - 140
2-Amino-4,6-dinitrotoluene	6.49351	0	5.81	89.4	5.77	88.8	.673	30	70 - 149
2,6-Dinitrotoluene	6.49351	.0621	5.71	87	5.7	86.8	.228	30	83 - 114
2,4-Dinitrotoluene	6.49351	0	6.62	102	6.08	93.6	8.59	30	77 - 131
1,3,5-Trinitrobenzene	6.49351	0	6.13	94.4	5.99	92.2	2.36	30	28 - 140
p-Nitrotoluene	6.49351	0	6.6	102	5.86	90.2	11.9	30	66 - 121

#Column to be used to flag recovery and RPD values with an asterisk

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: CAPA-10-13095

Lab Code: GEL

GEL Job No (SDG) 10-2005

Extract Batch Code: 957190

Date Extracted: 25-FEB-10

GEL Spike ID: 1202052393

GEL SpikeDup ID: 1202052394

Analysis Date/Time: 31-MAR-10 19:40

MSD Analysis Date/Time:

Reporting Units: ug/L

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
2,4-Diamino-6-nitrotoluene	6.49351	0	5.48	84.4	5.23	80.6	4.61	30	31 - 125
2,6-Diamino-4-nitrotoluene	6.49351	0	5.99	92.2	6.16	94.8	2.78	30	50.3 - 136
3,5-Dinitroaniline	6.49351	0	5.96	91.8	5.39	83	10.1	30	60 - 128
TATB	6.49351	0	5.6	86.2	5.43	83.6	3.06	30	21 - 150
tris(o-cresyl) phosphate	6.49351	0	2.17	33.4	1.9	29.2	13.4	30	14 - 78

#Column to be used to flag recovery and RPD values with an asterisk

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2005

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 22-MAR-10 15:33

GEL Data File: EXP0322001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	2.67
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322001.wiff	**Acquisition Date**	3/22/2010 3:33:15 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

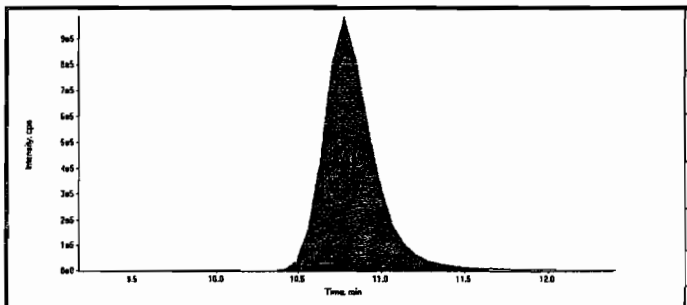

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	20000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

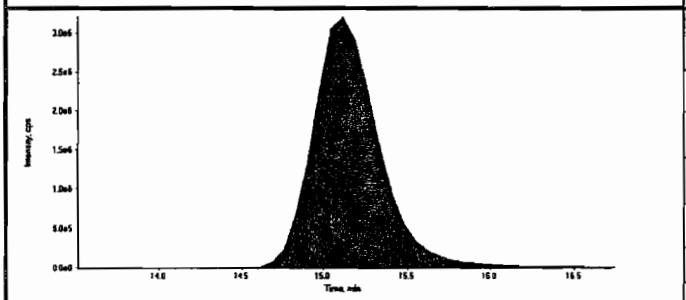

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.10
Area Counts:	88600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

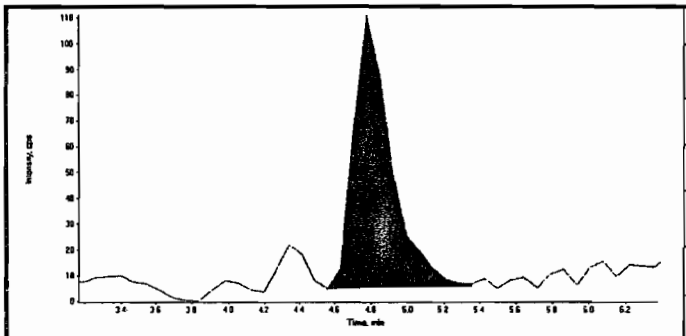

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	1.49e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

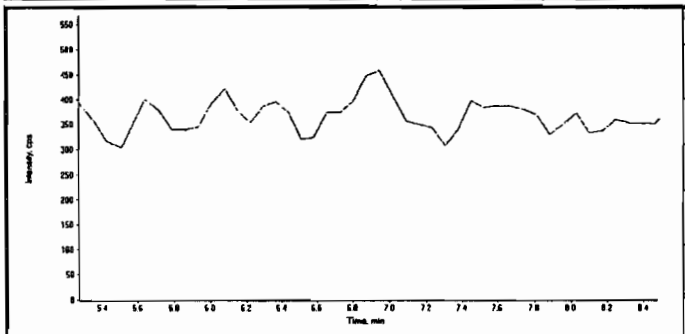

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

dmw 03/28/10
Lan 3/28/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322001.wiff	**Acquisition Date**	3/22/2010 3:33:15 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

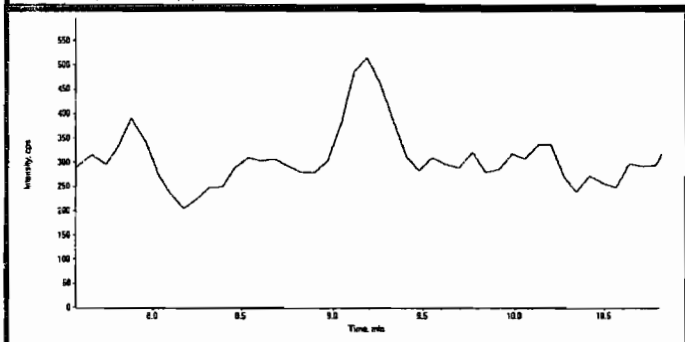

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

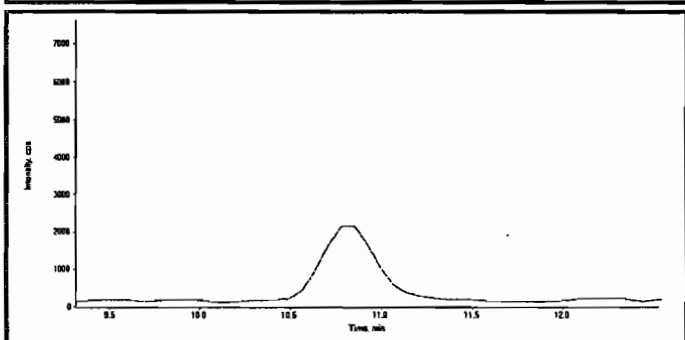

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

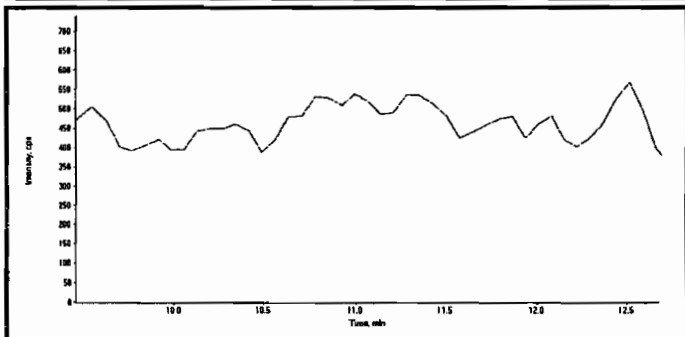

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

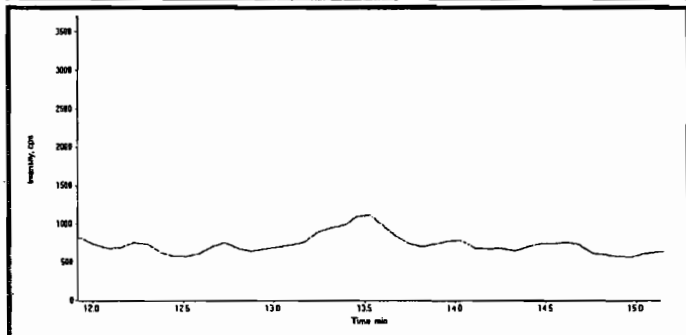

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322001.wiff	**Acquisition Date**	3/22/2010 3:33:15 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

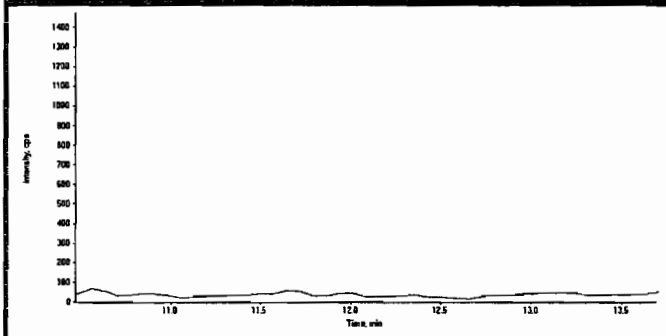

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

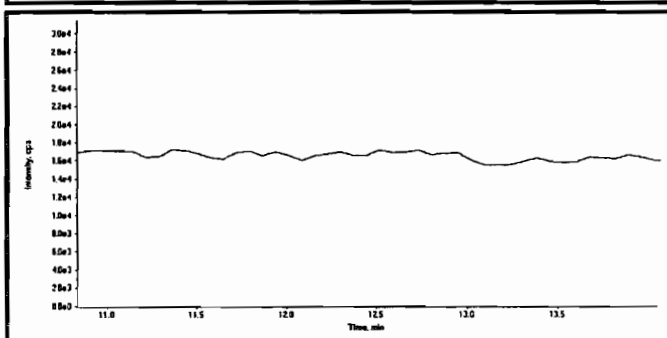

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

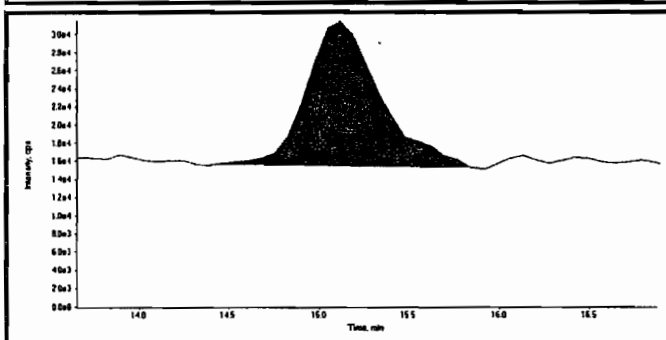

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.1
Area Counts:	4.61e+005
Manual Modification	No
Amount:	2.67 (ng/mL)
% Accuracy:	N/A

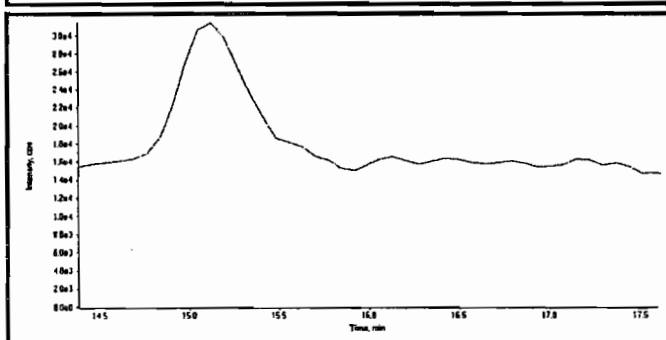

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322001.wiff	**Acquisition Date**	3/22/2010 3:33:15 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

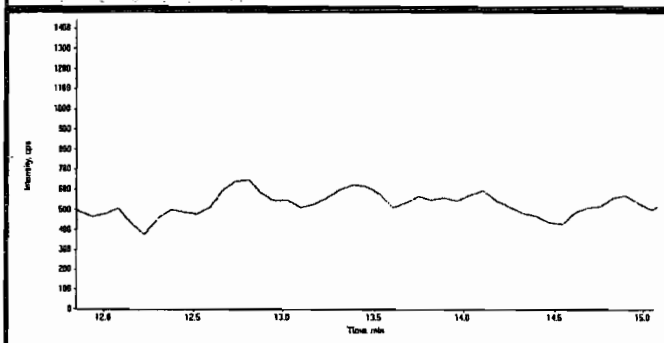

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

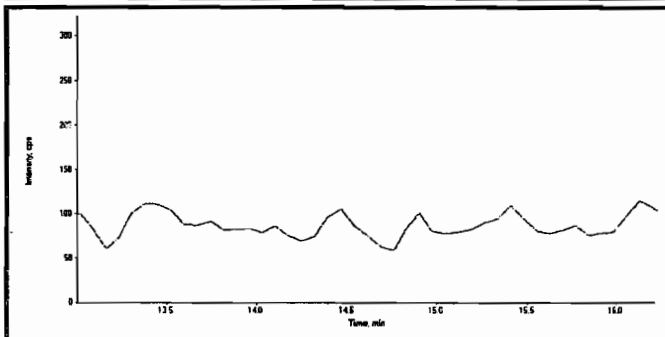

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

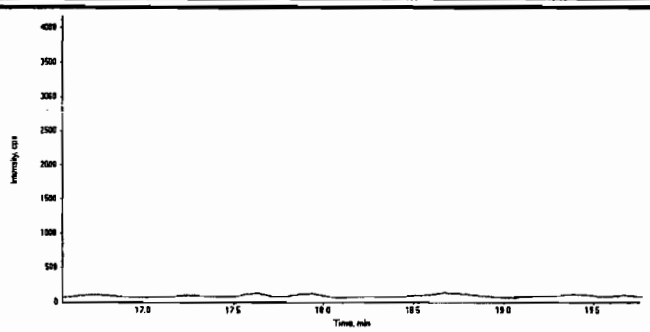

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

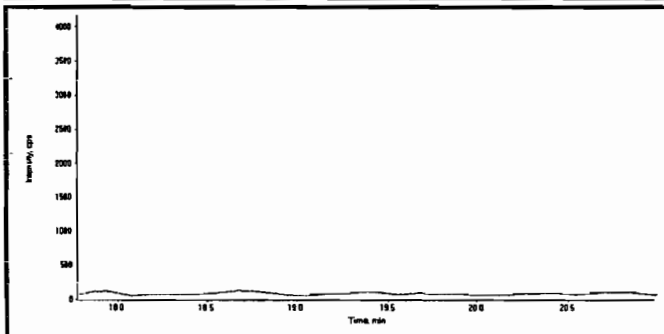

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322001.wiff	**Acquisition Date**	3/22/2010 3:33:15 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

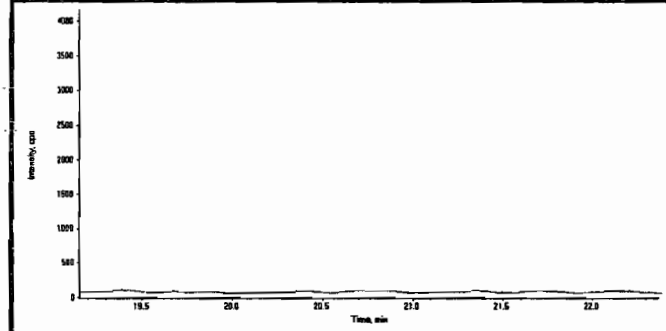

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

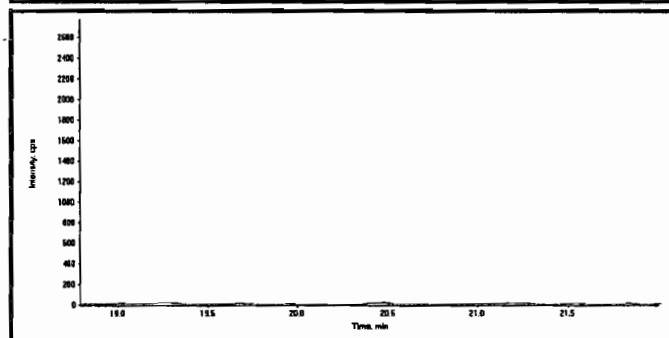

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2005

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 22–MAR–10 15:59

GEL Data File: EXP0322002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	2.8
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322002.wiff	**Acquisition Date**	3/22/2010 3:59:34 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

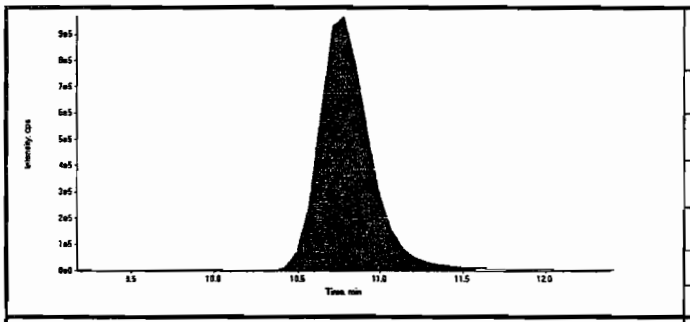

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	20800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

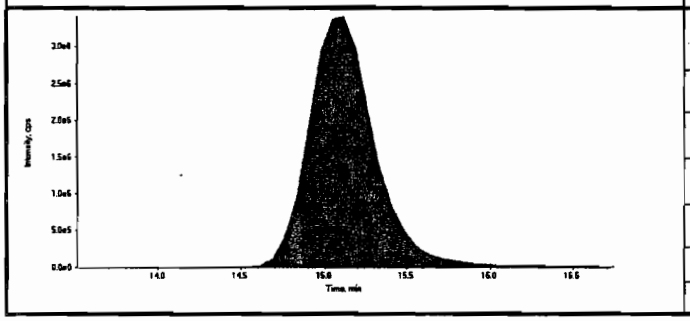

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.10
Area Counts:	96000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

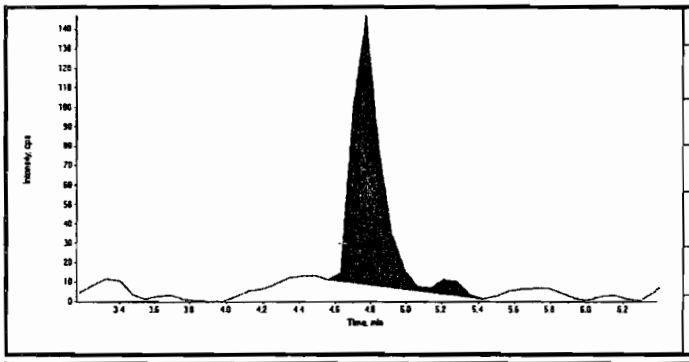

Compound Name:	HMX (341:2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	1.57e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

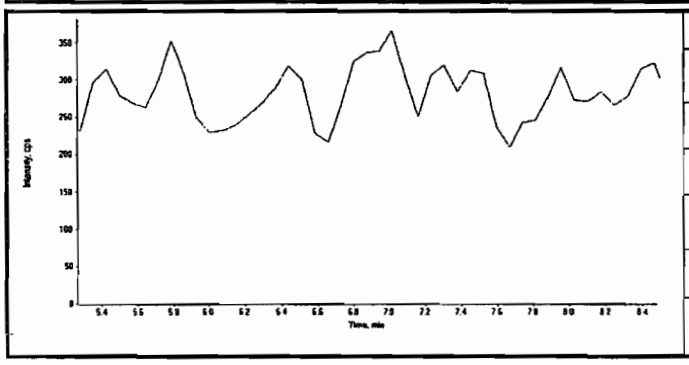

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Ran 3/28/10 dmw 03/29/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322002.wiff	**Acquisition Date**	3/22/2010 3:59:34 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

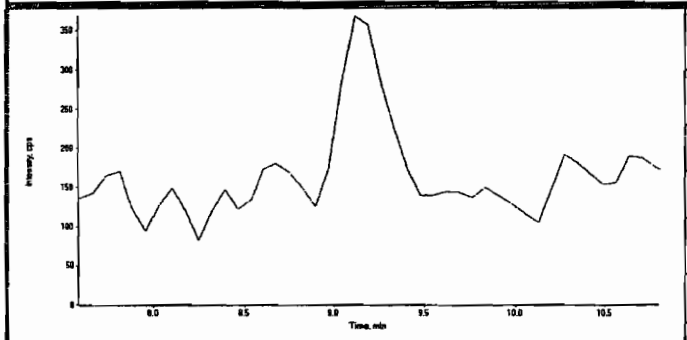

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

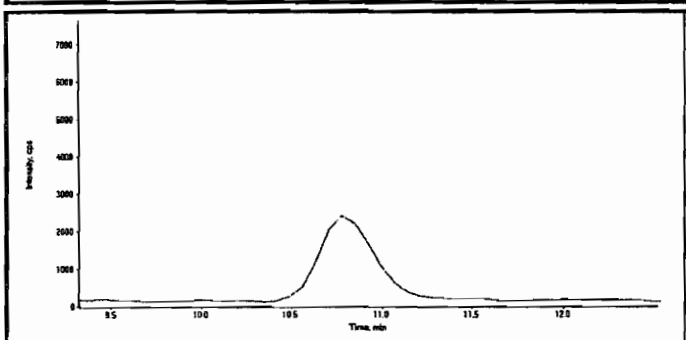

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

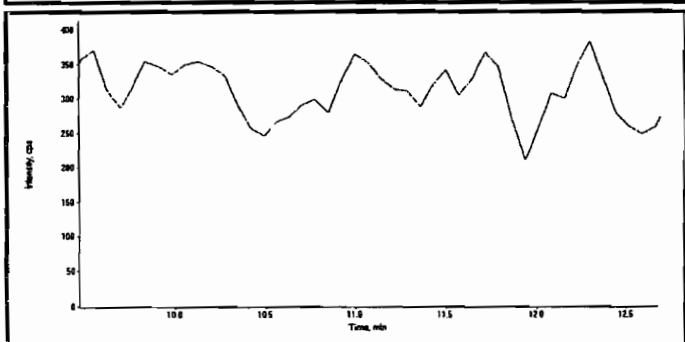

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

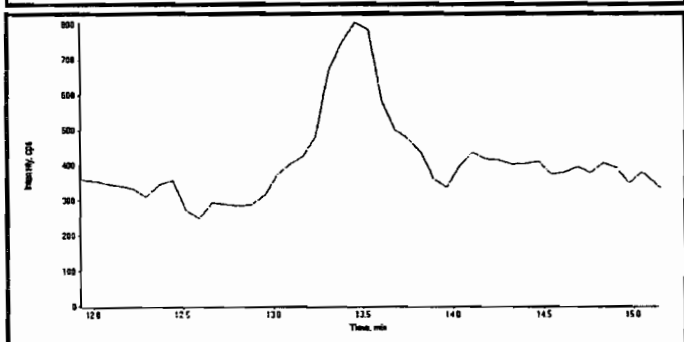

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322002.wiff	**Acquisition Date**	3/22/2010 3:59:34 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

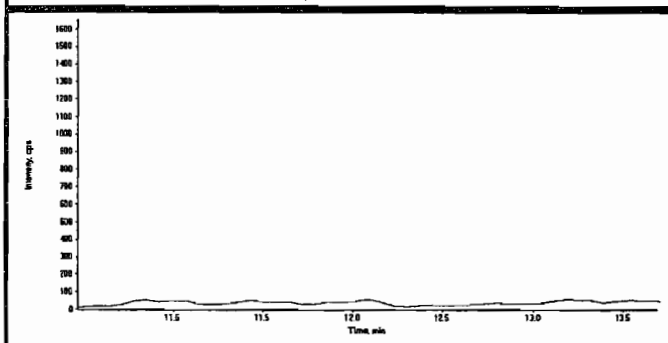

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

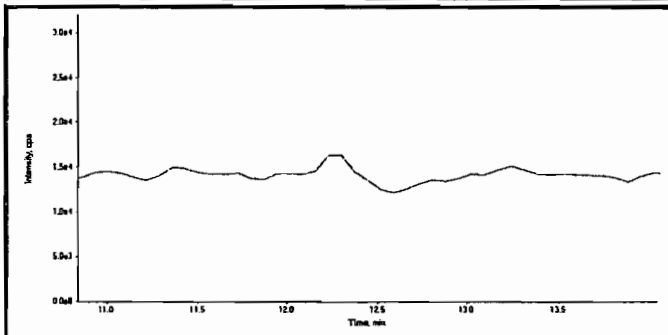

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

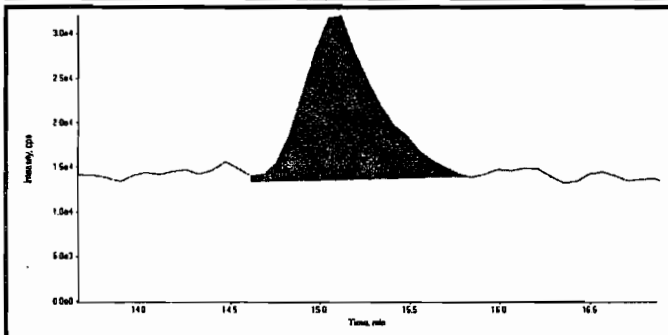

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.1
Area Counts:	5.22e+005
Manual Modification	No
Amount:	2.80 (ng/mL)
% Accuracy:	N/A

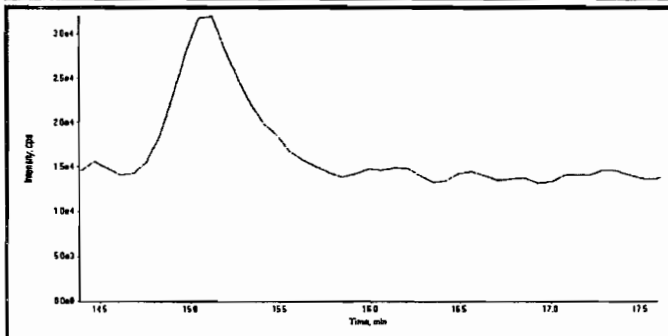

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322002.wiff	**Acquisition Date**	3/22/2010 3:59:34 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

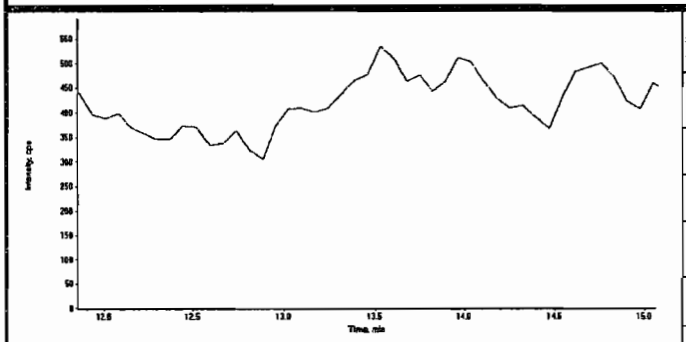

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

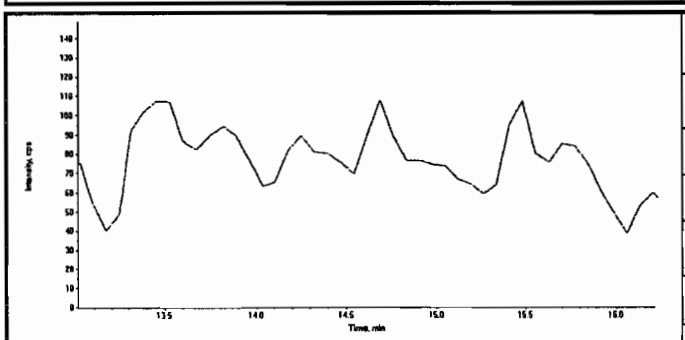

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

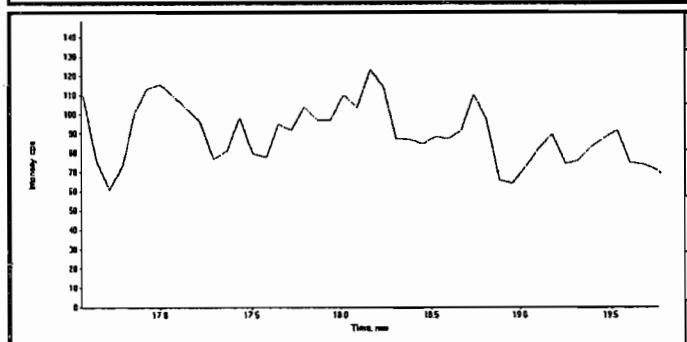

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

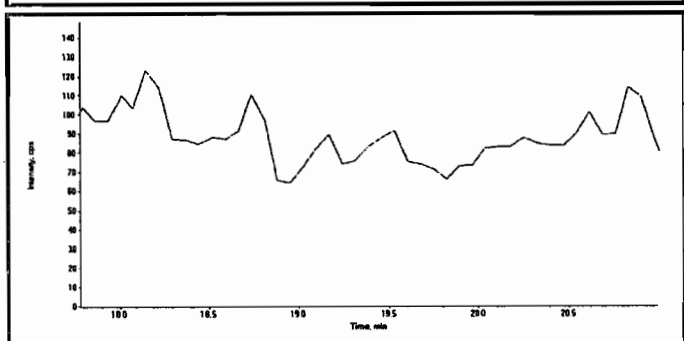

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322002.wiff	**Acquisition Date**	3/22/2010 3:59:34 PM
Sample Name	XIBLK01	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

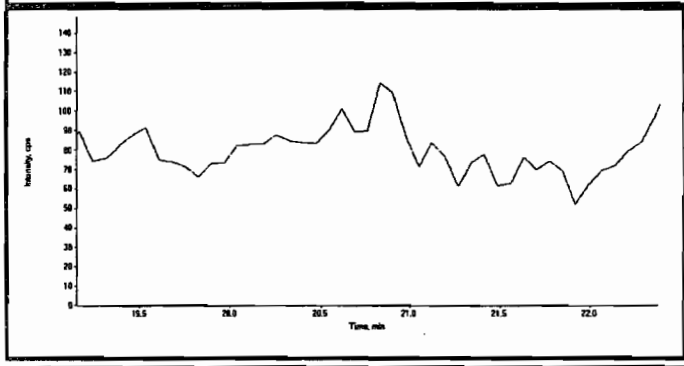

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

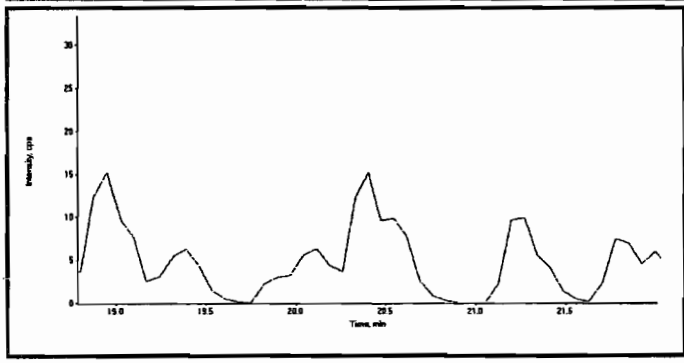

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2005

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 31–MAR–10 08:40

GEL Data File: EXS03310001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

LCR 4/5/10

le Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03310001.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
tration: N/A
ated Conc: 0.00 ng/mL
ate: 3/31/2010
ime: 8:40:32 AM

ed: No

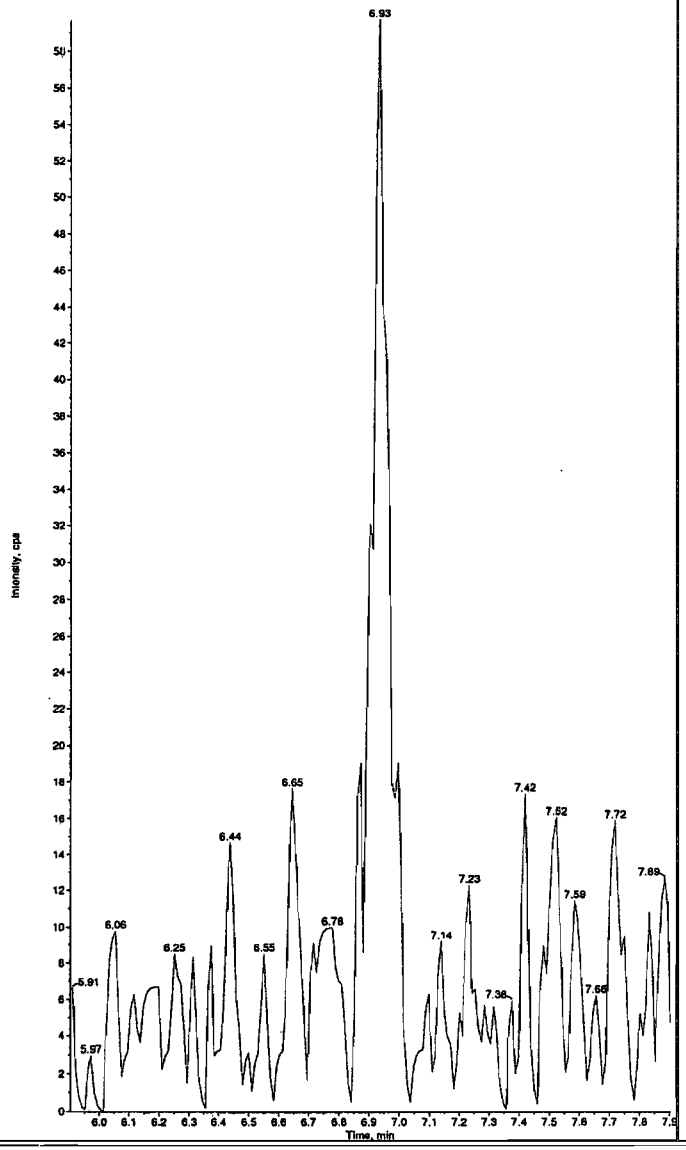

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03310001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 8:40:32 AM

Modified: No

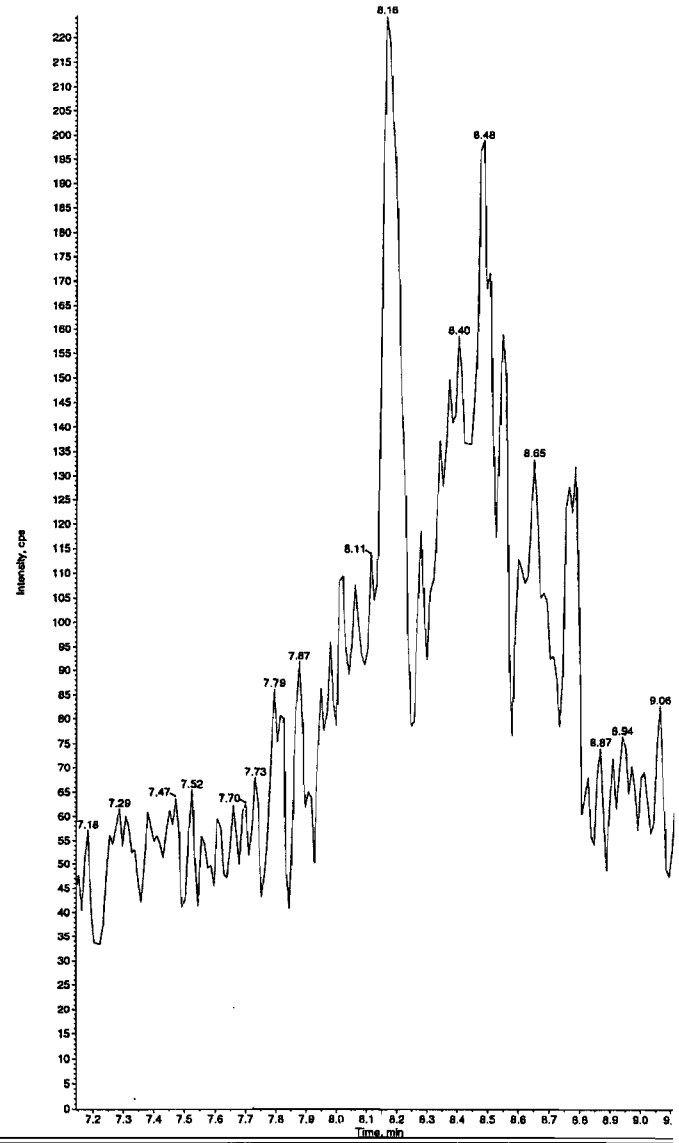

HMM 04/05/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03310001.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ent: "LCMSEXP_B" Annotation: ""

Index: 1
Type: Unknown
ration: N/A
ated Conc: 0.00 ng/mL
ate: 3/31/2010
ime: 8:40:32 AM

d: No

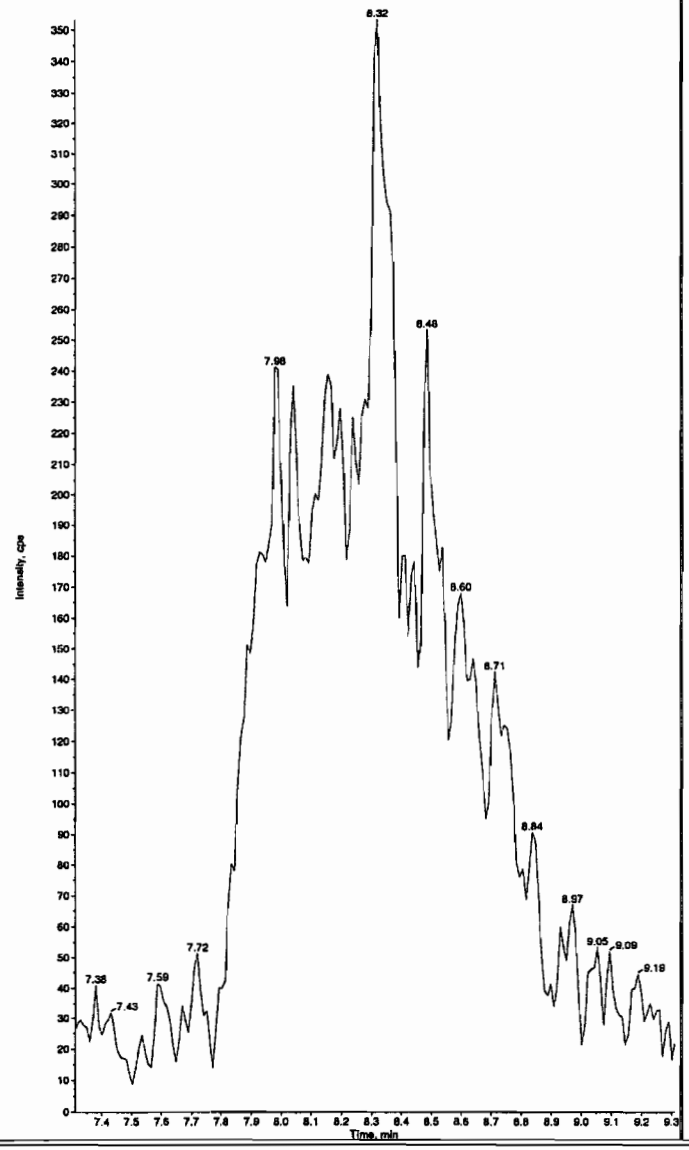

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03310001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 8:40:32 AM

Modified: No

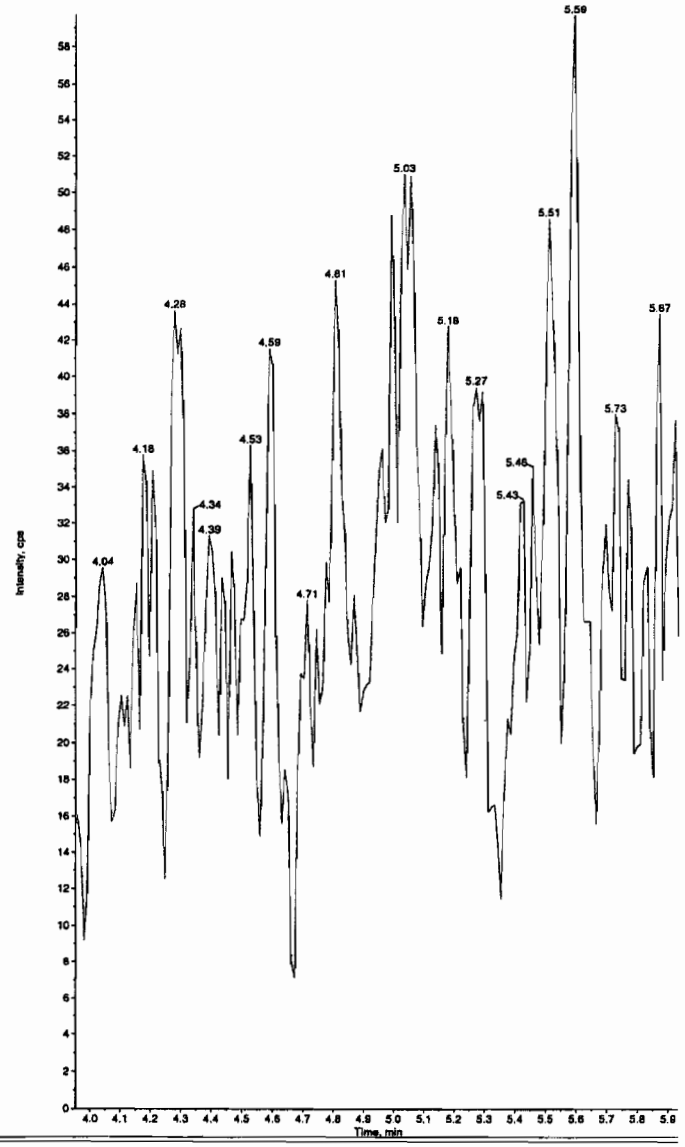

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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le Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03310001.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ent: "LCMSEXP_B" Annotation: "

Index: 1
Type: Unknown
tration: N/A
ated Conc: 0.00 ng/mL
ate: 3/31/2010
ime: 8:40:32 AM

ed: No

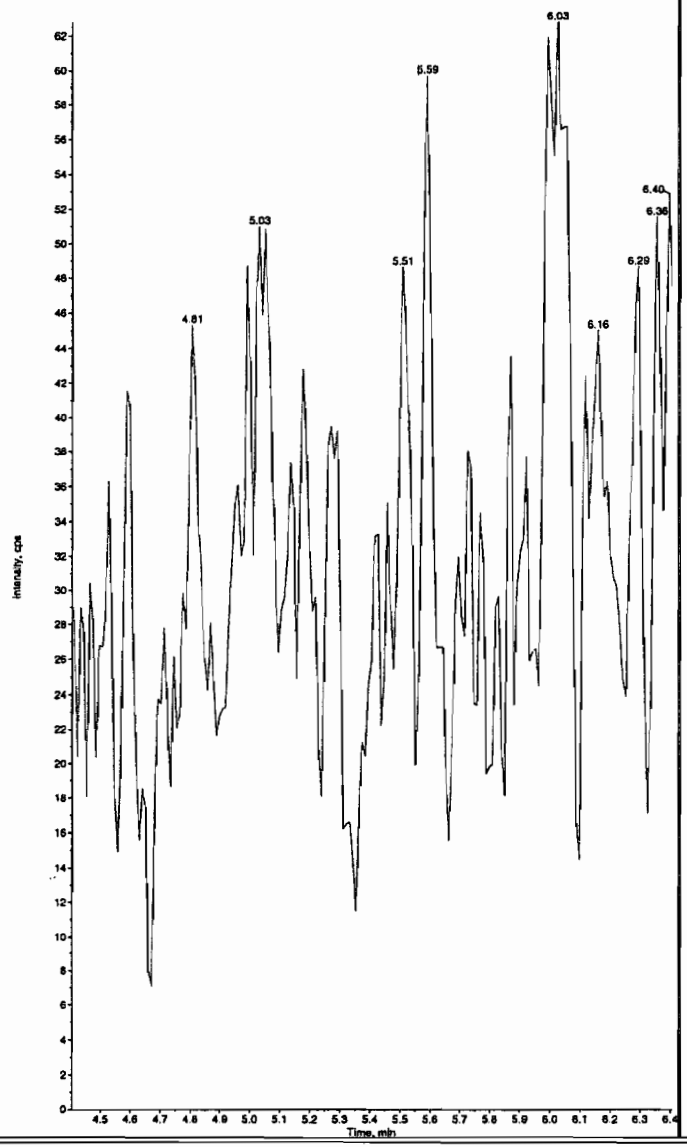

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03310001.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/31/2010
Acq. Time: 8:40:32 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.01e+005 counts
Height: 23759.306 cps
Start Time: 10.7 min
End Time: 11.0 min

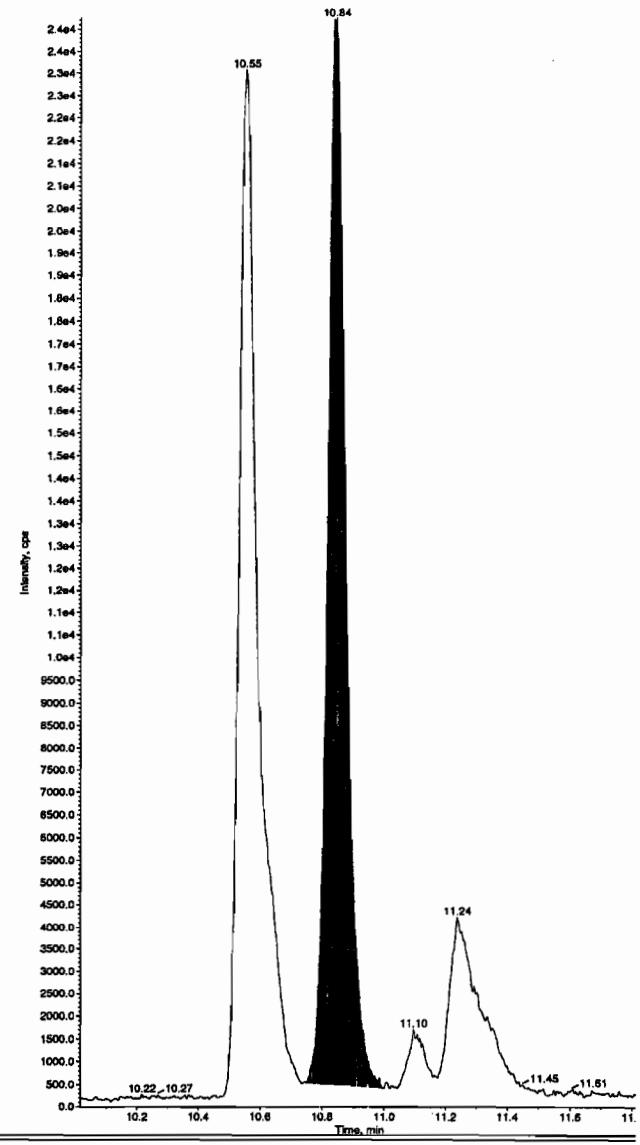

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2005

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 31-MAR-10 08:56

GEL Data File: EXS03310002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
tris(o-cresyl) phosphate	0	0
TATB	0	0
3,5-Dinitroaniline	0	0
2,4-Diamino-6-nitrotoluene	0	0
2,6-Diamino-4-nitrotoluene	0	0

Ken 4/5/10

le Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03310002.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
tration: N/A
ated Conc: 0.00 ng/mL
ate: 3/31/2010
ime: 8:56:19 AM

ed: No

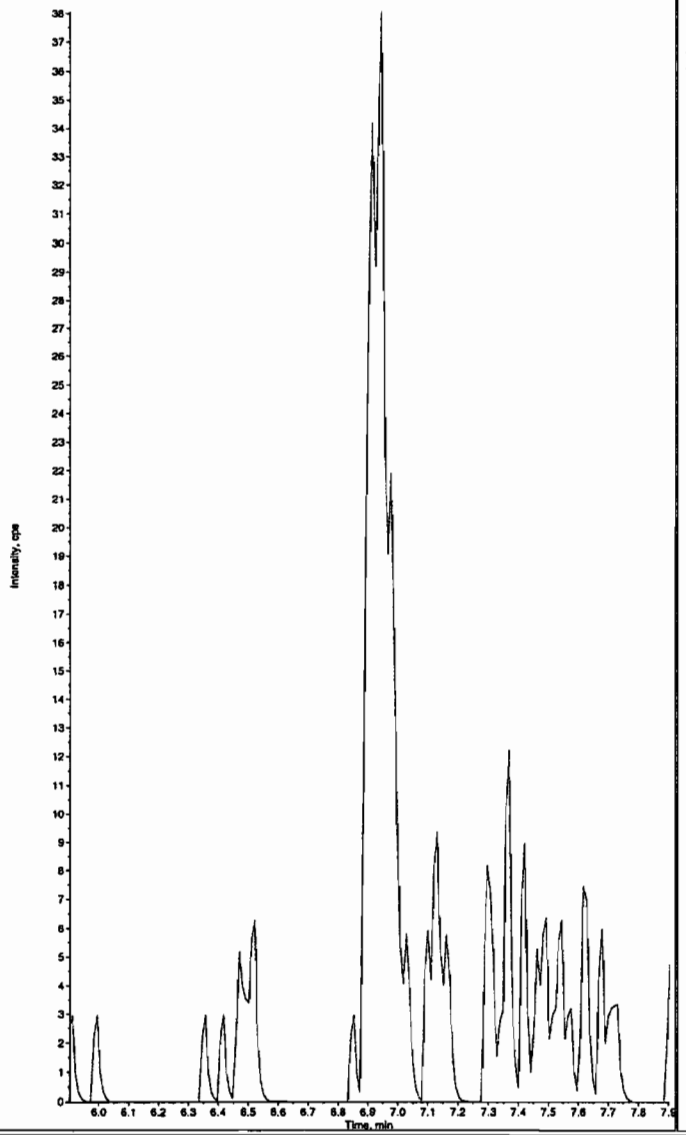

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03310002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 8:56:19 AM

Modified: No

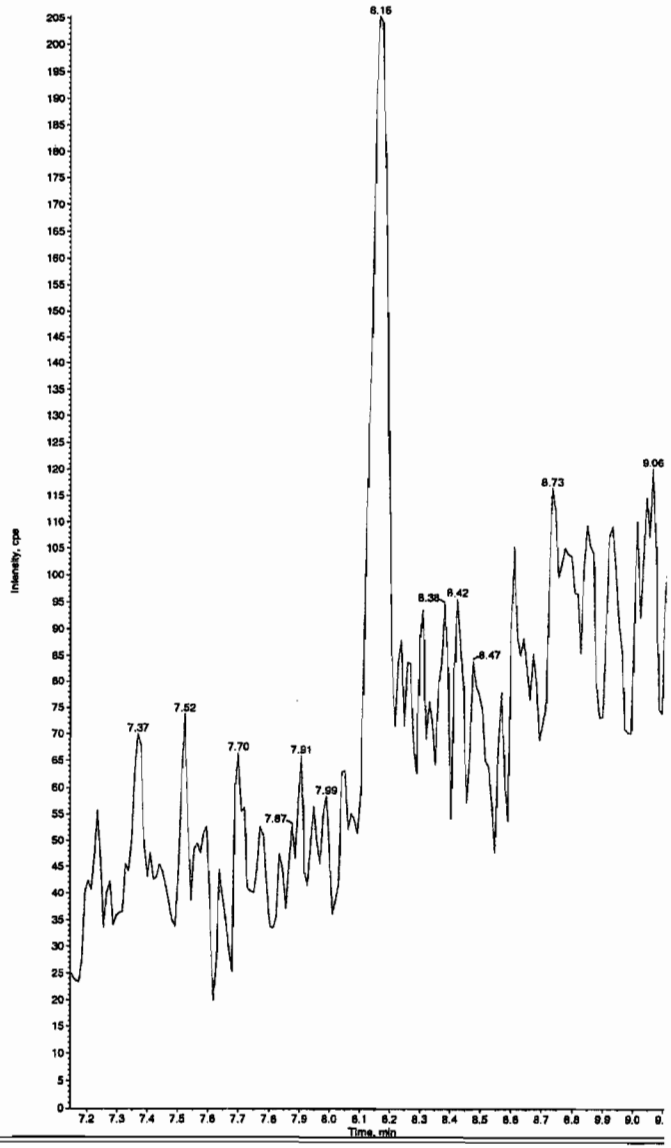

Hnm 4/05/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03310002.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/31/2010
. Time: 8:56:19 AM

fied: No

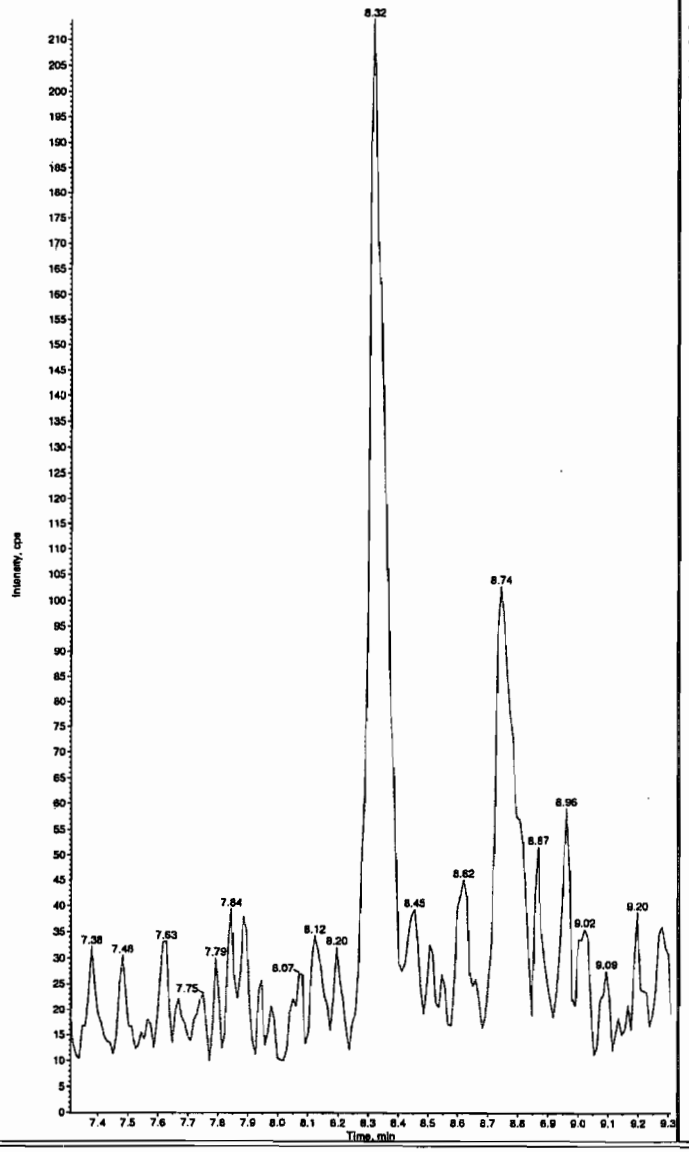

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS03310002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 8:56:19 AM

Modified: No

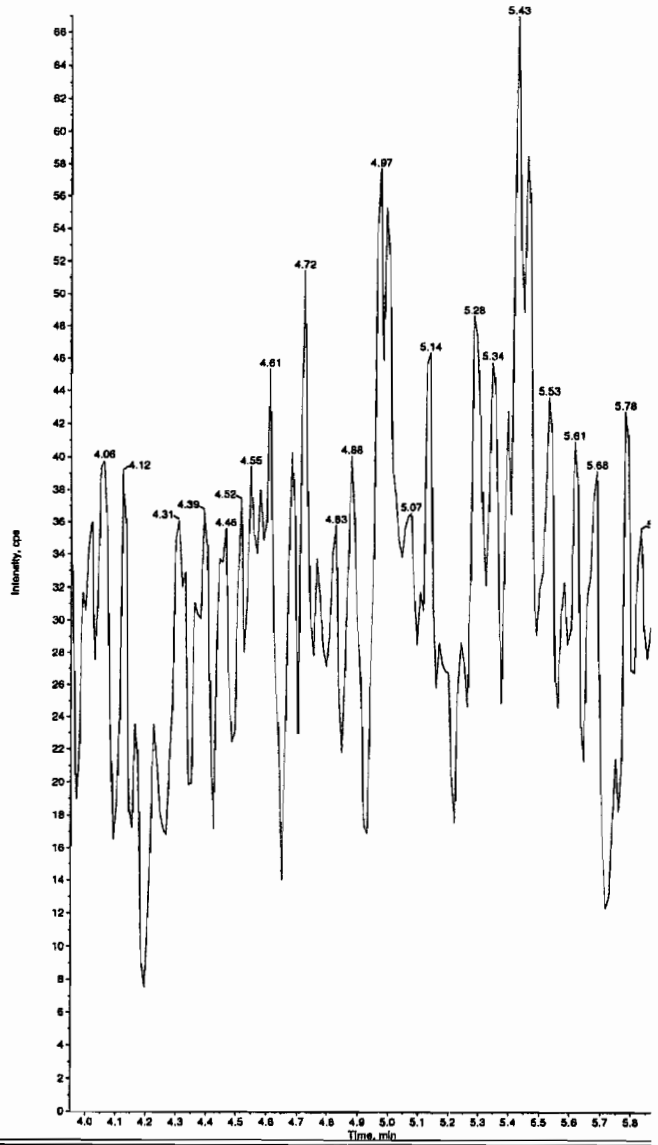

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ie Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03310002.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nent: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
.ated Conc: 0.00 ng/mL
Date: 3/31/2010
Time: 8:56:19 AM

.ed: No

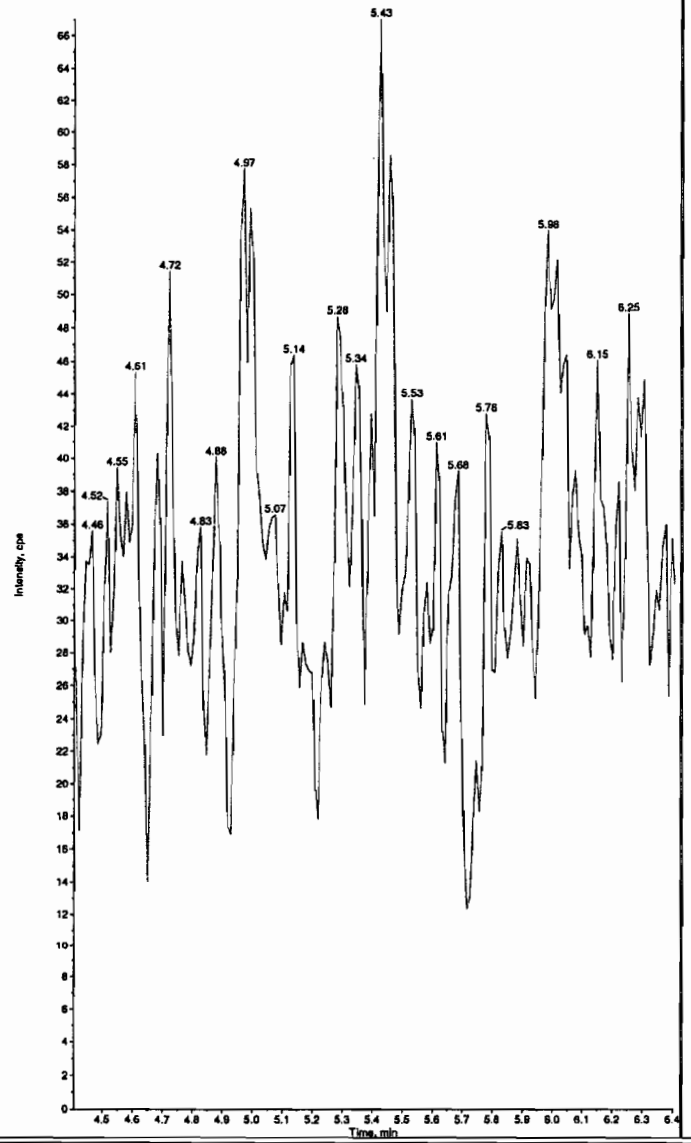

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS03310002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	No Intercept	
Acq. Date:	3/31/2010	
Acq. Time:	8:56:19 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.8	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.8	min
Area:	8.18e+004	counts
Height:	20231.262	cps
Start Time:	10.7	min
End Time:	11.0	min

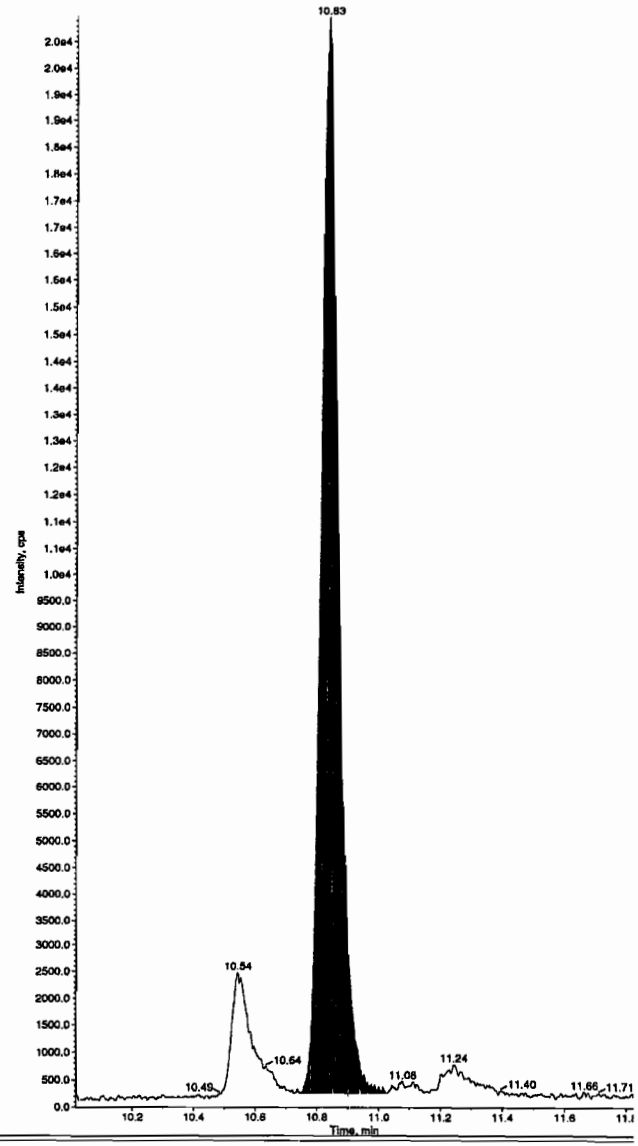

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2005

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 22–MAR–10 19:04

GEL Data File: EXP0322009.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	3.03
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322009.wiff	**Acquisition Date**	3/22/2010 7:04:06 PM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

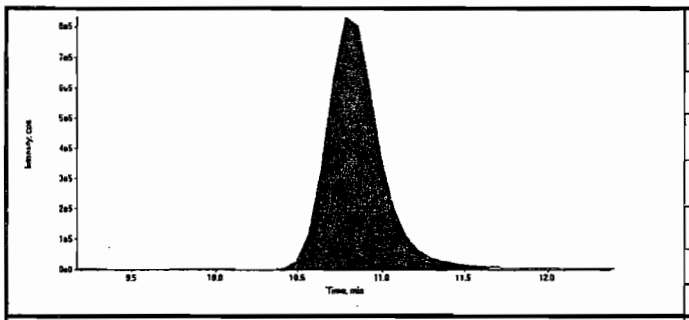

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	18200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

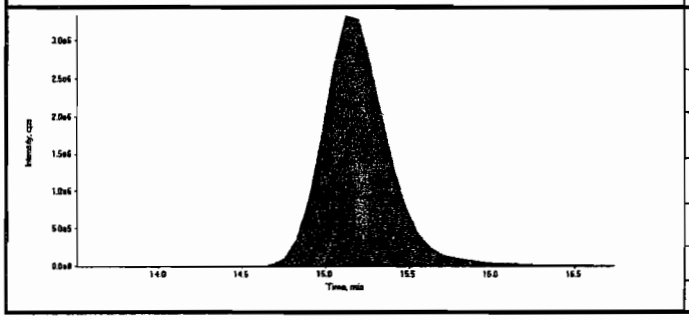

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.10
Area Counts:	89700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

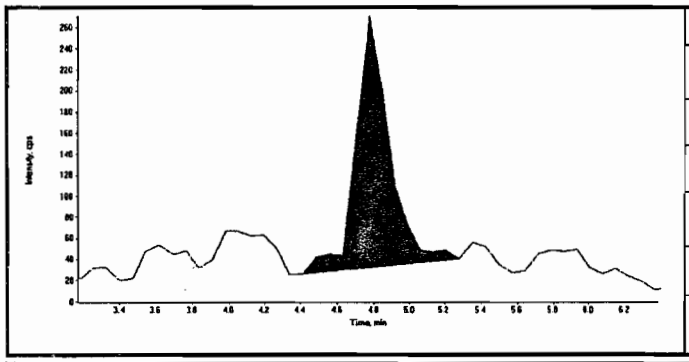

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	3.13e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

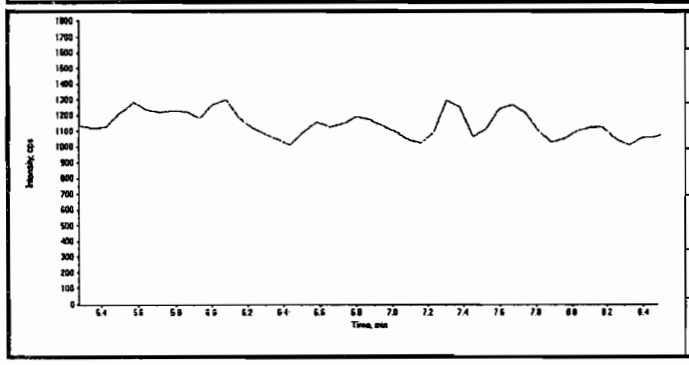

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

JMW 03/26/10 Lan 3/28/10

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Data File	EXP0322009.wiff	**Acquisition Date**	3/22/2010 7:04:06 PM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

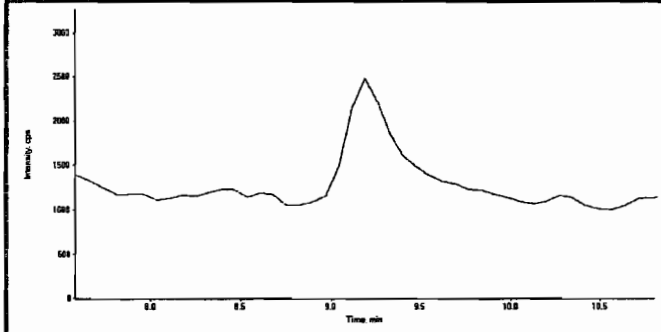

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

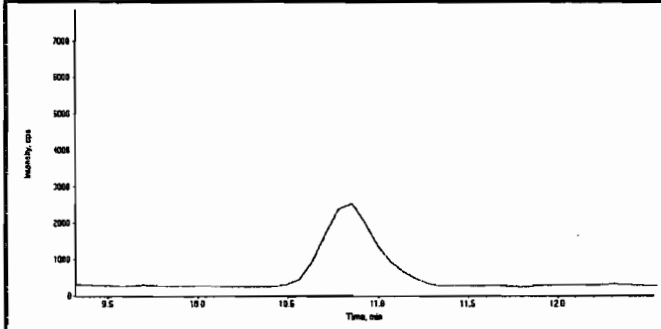

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

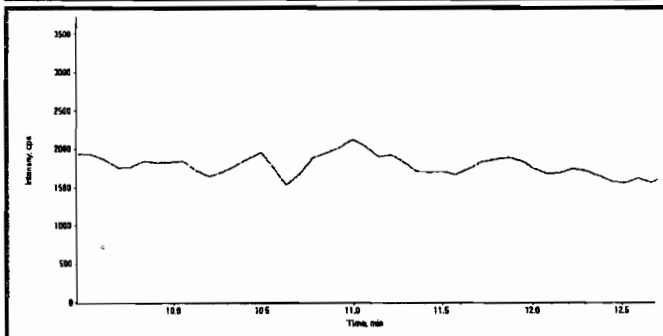

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

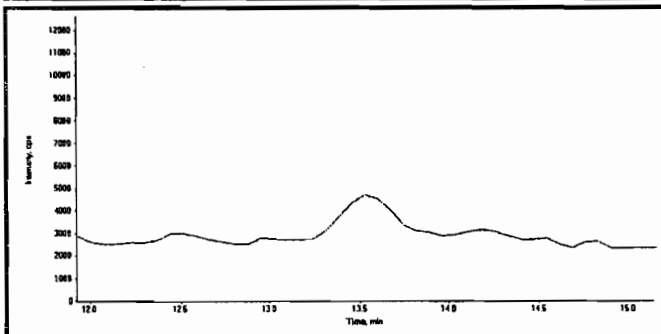

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322009.wiff	**Acquisition Date**	3/22/2010 7:04:06 PM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

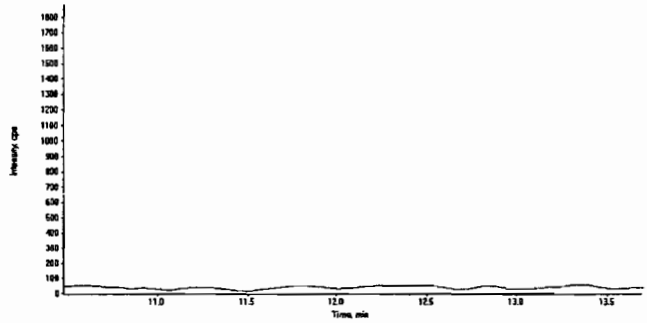

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

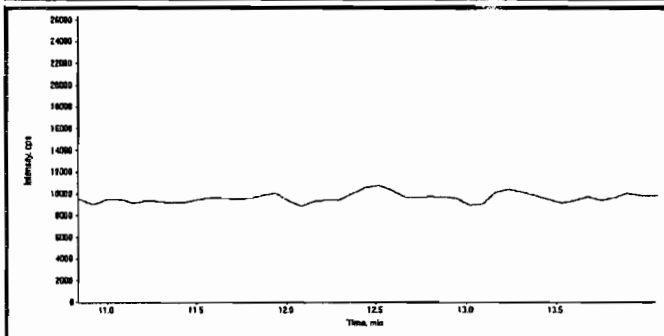

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

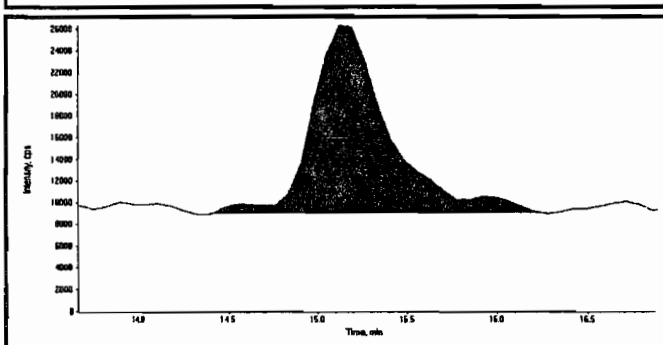

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.1
Area Counts:	5.29e+005
Manual Modification	No
Amount:	3.03 (ng/mL)
% Accuracy:	N/A

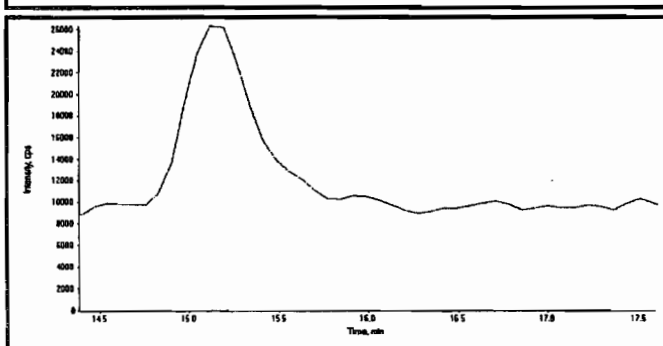

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322009.wiff	**Acquisition Date**	3/22/2010 7:04:06 PM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

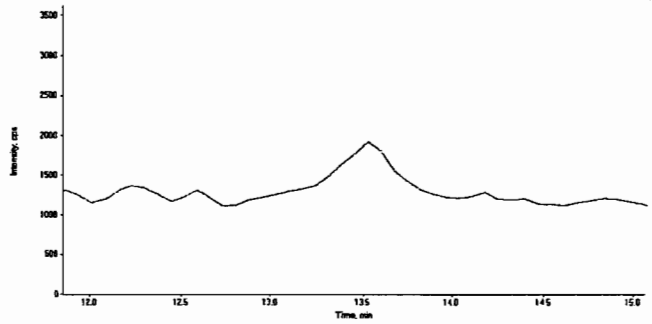

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

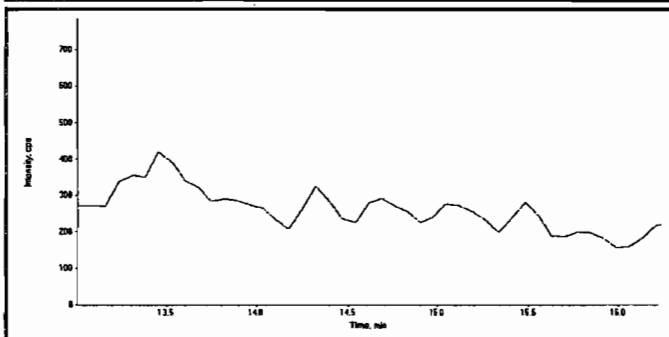

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

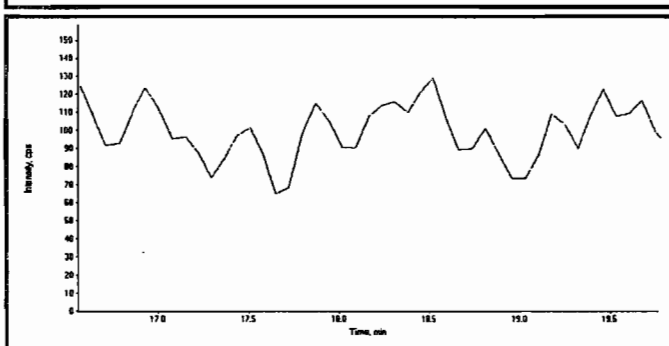

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

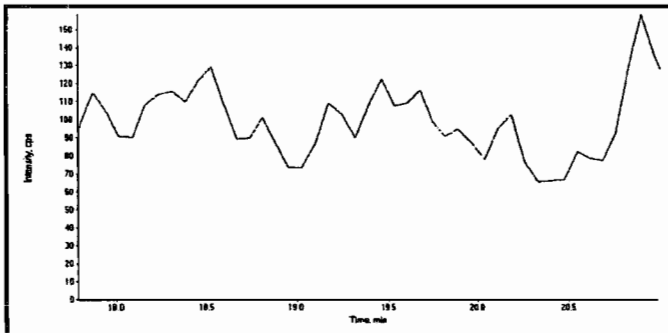

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322009.wiff	**Acquisition Date**	3/22/2010 7:04:06 PM
Sample Name	XIBLK02	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

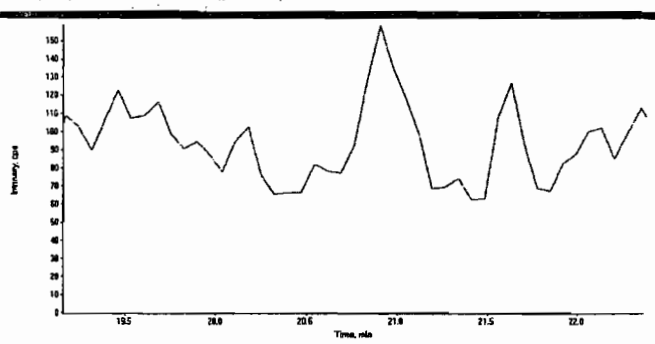

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

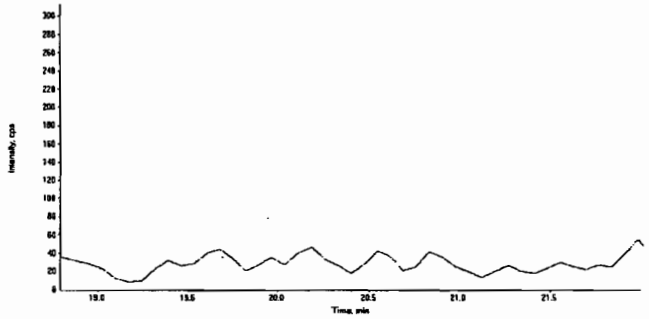

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2005

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 22–MAR–10 19:56

GEL Data File: EXP0322011.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6–Dinitrotoluene	0	2.91
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322011.wiff	**Acquisition Date**	3/22/2010 7:56:51 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

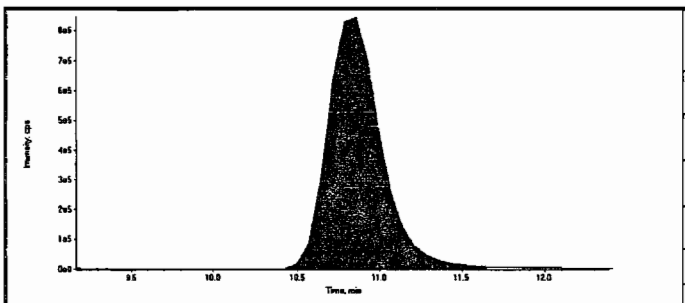

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	19500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

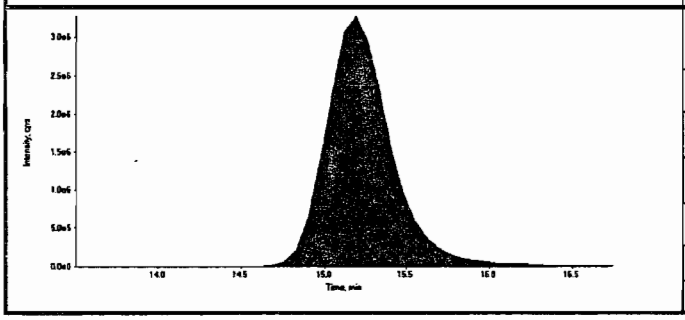

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.20
Area Counts:	90200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

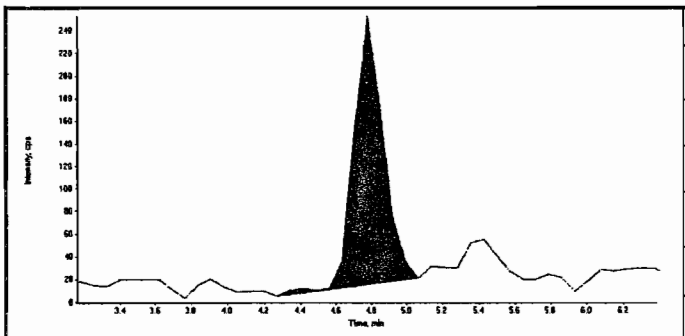

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	2.80e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

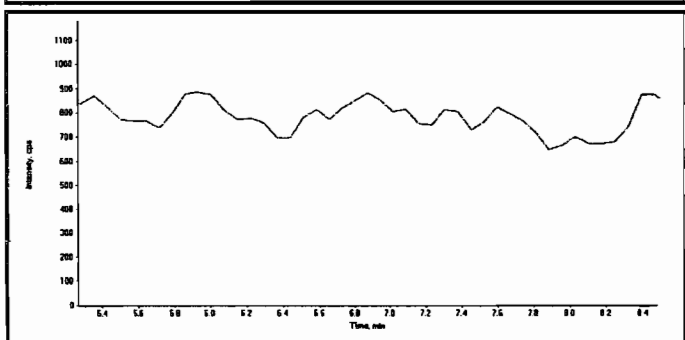

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

HMW 03/29/10

LAN 3/28/10

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Data File	EXP0322011.wiff	**Acquisition Date**	3/22/2010 7:56:51 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

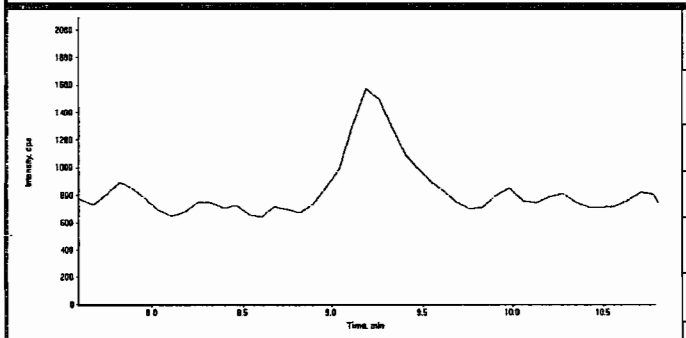

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

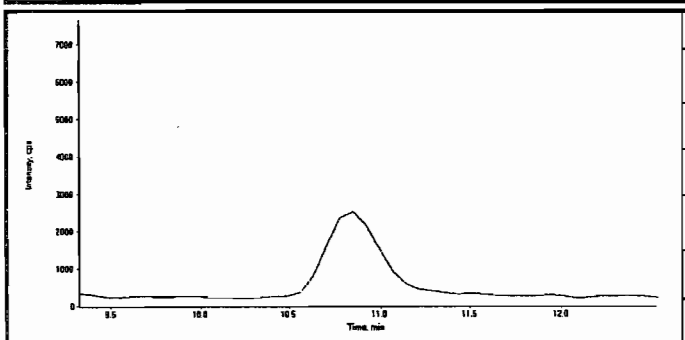

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

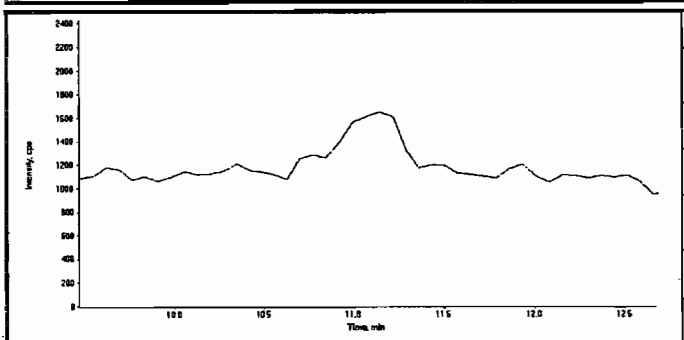

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

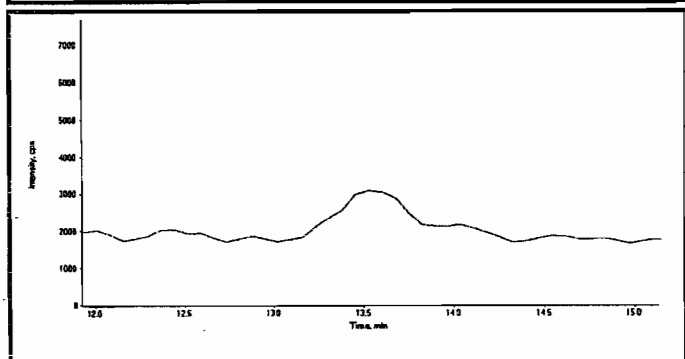

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322011.wiff	**Acquisition Date**	3/22/2010 7:56:51 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	Unknown

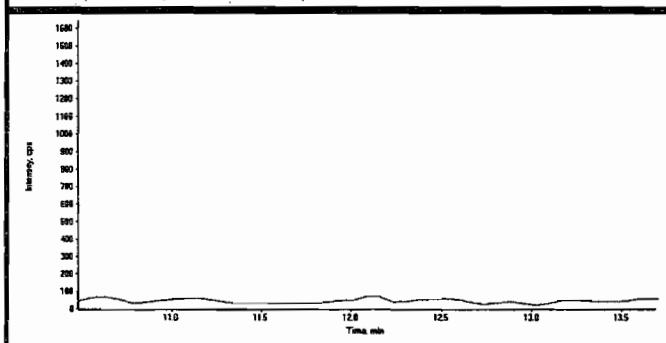

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

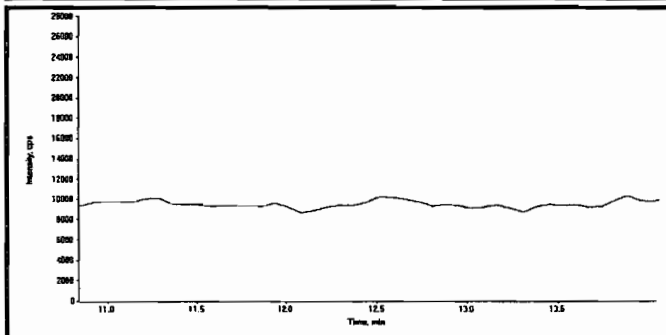

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

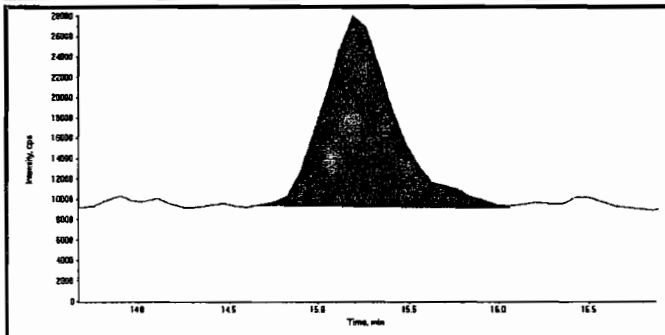

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.2
Area Counts:	5.10e+005
Manual Modification	No
Amount:	2.91 (ng/mL)
% Accuracy:	N/A

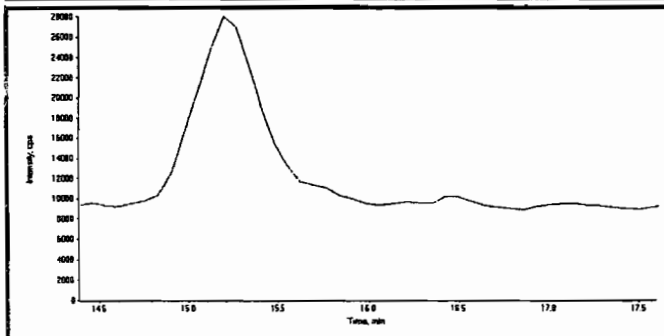

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322011.wiff	**Acquisition Date**	3/22/2010 7:56:51 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

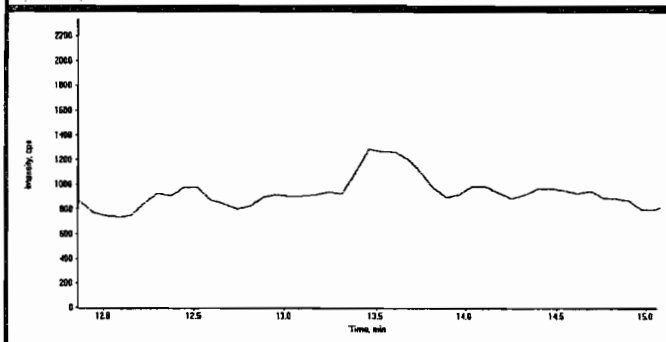

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

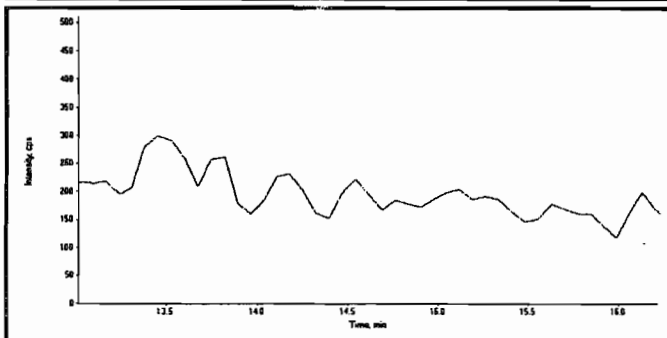

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

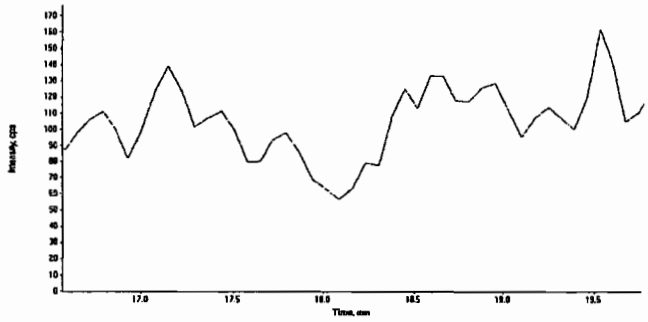

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

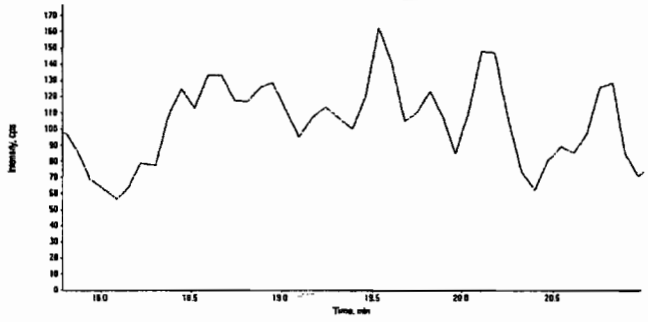

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322011.wiff	**Acquisition Date**	3/22/2010 7:56:51 PM
Sample Name	XIBLK03	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

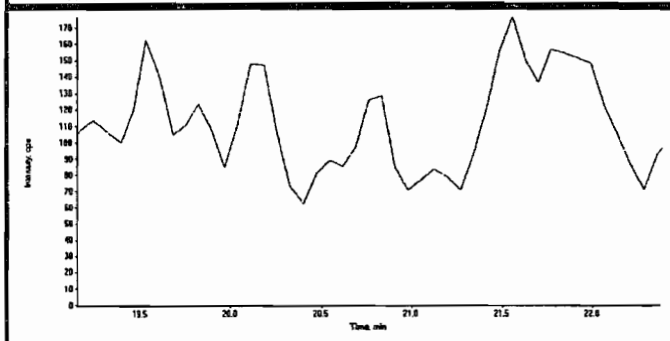

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

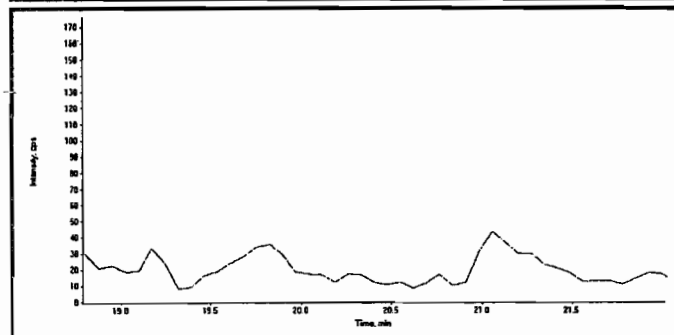

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2005

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 22–MAR–10 23:27

GEL Data File: EXP0322019.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	3.41
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322019.wiff	**Acquisition Date**	3/22/2010 11:27:58 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

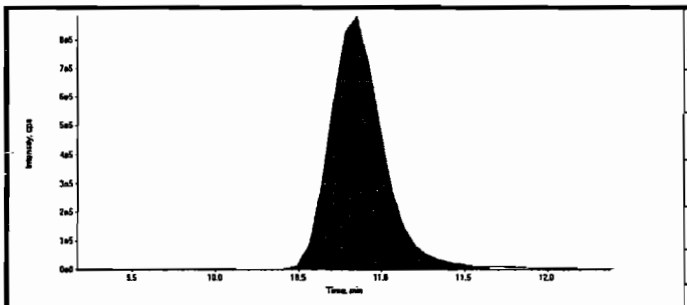

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	19700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

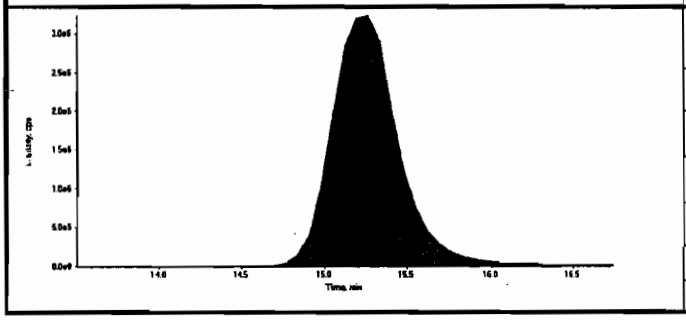

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.30
Area Counts:	92500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

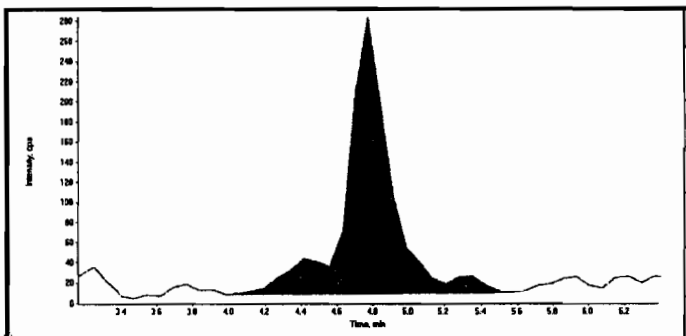

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	4.78e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

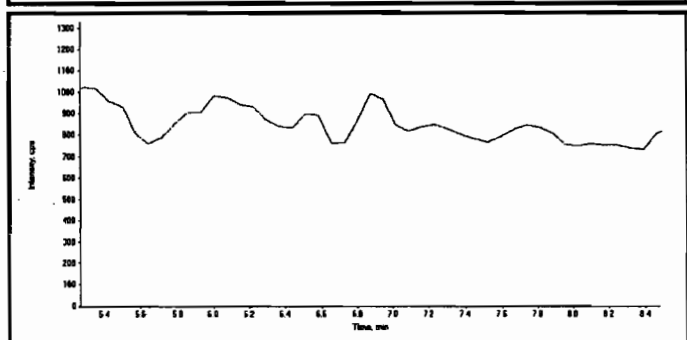

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

3/28/10

3/28/10

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Data File	EXP0322019.wiff	**Acquisition Date**	3/22/2010 11:27:58 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

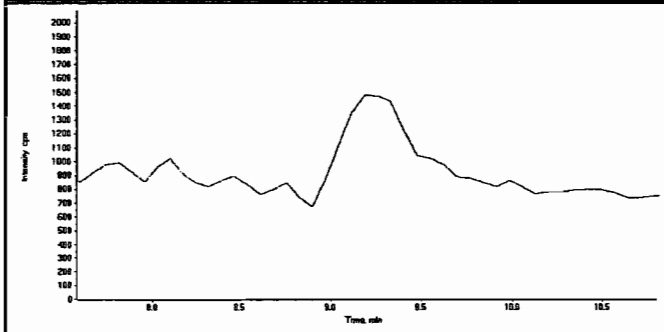

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

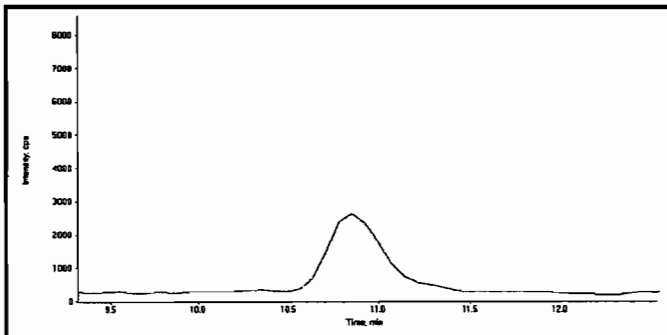

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

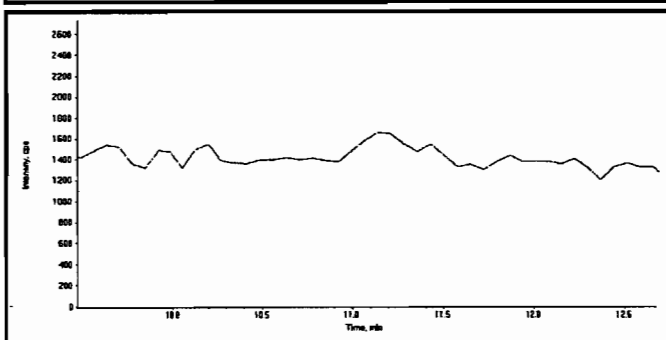

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

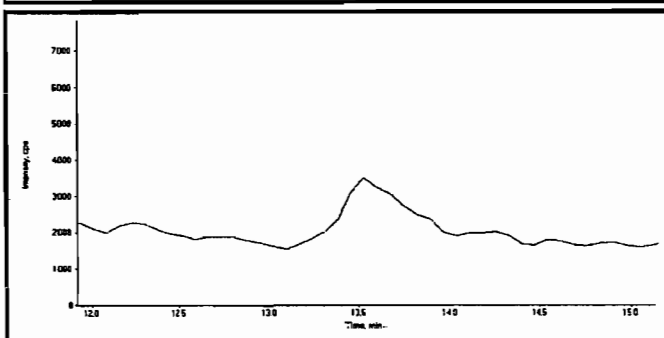

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322019.wiff	**Acquisition Date**	3/22/2010 11:27:58 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

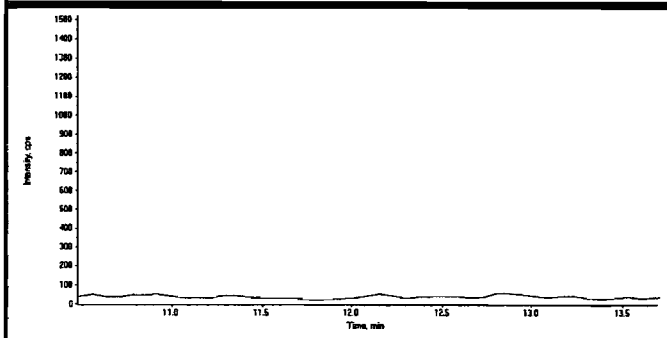

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

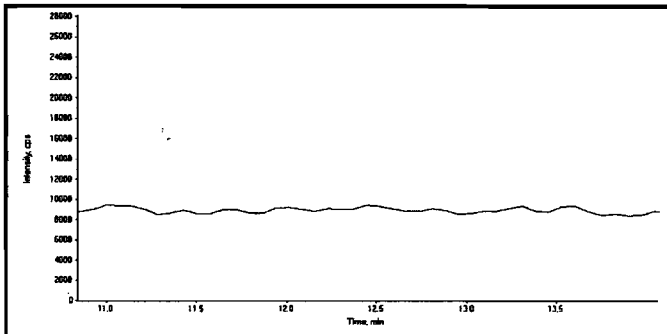

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

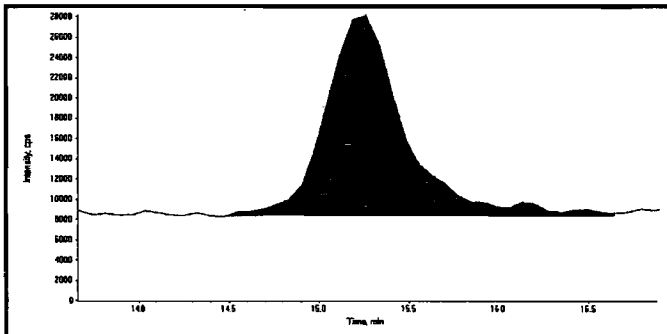

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	6.13e+005
Manual Modification	No
Amount:	3.41 (ng/mL)
% Accuracy:	N/A

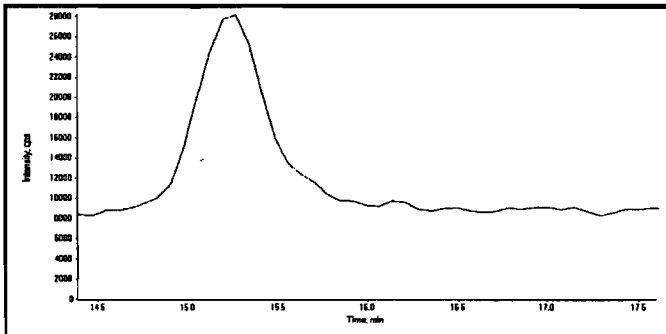

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322019.wiff	**Acquisition Date**	3/22/2010 11:27:58 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

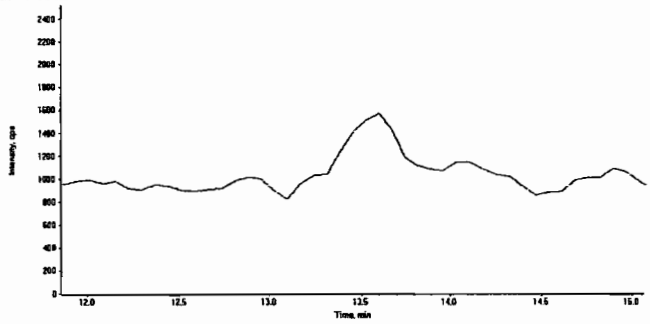

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

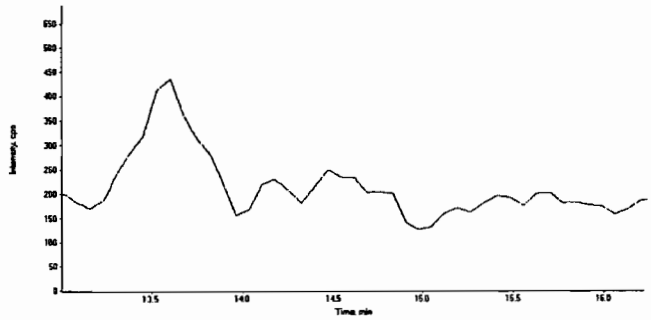

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

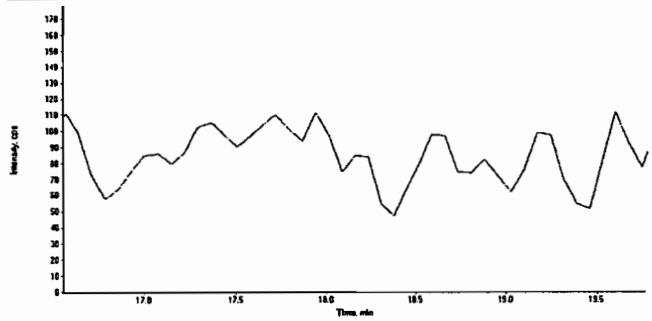

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

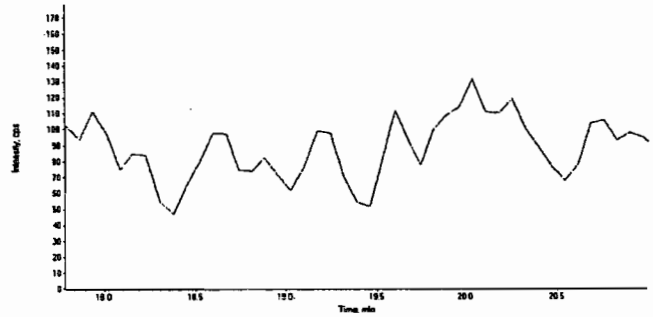

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322019.wiff	**Acquisition Date**	3/22/2010 11:27:58 PM
Sample Name	XIBLK04	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

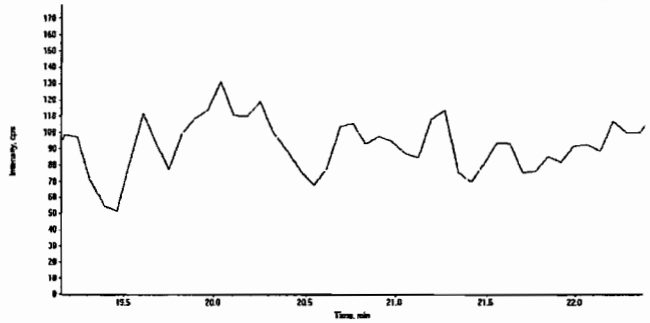

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

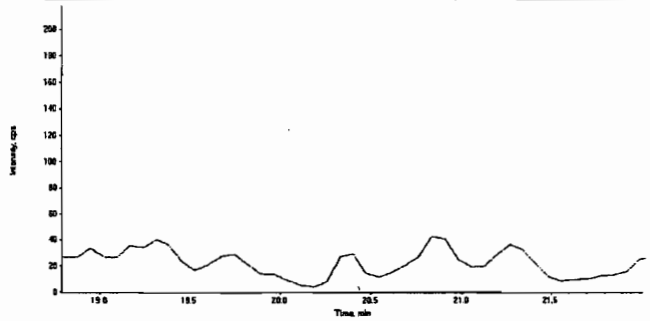

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2005

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 23–MAR–10 04:44

GEL Data File: EXP0322031.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	3.11
2–Amino–4,6–dinitrotoluene	0	0

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322031.wiff	**Acquisition Date**	3/23/2010 4:44:58 AM
Sample Name	XIBLK05	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

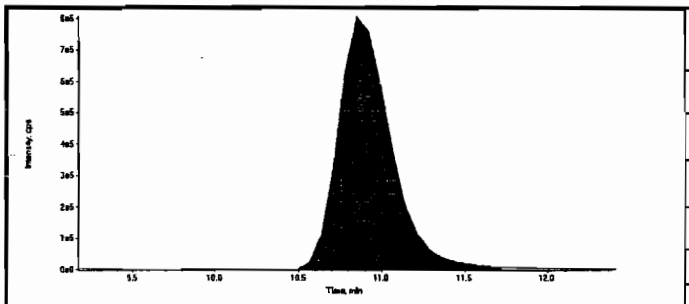

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	18000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

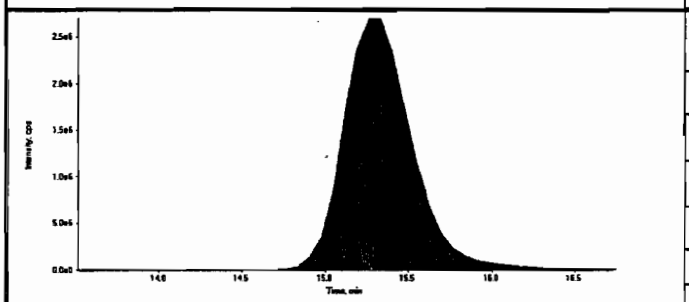

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.30
Area Counts:	78400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

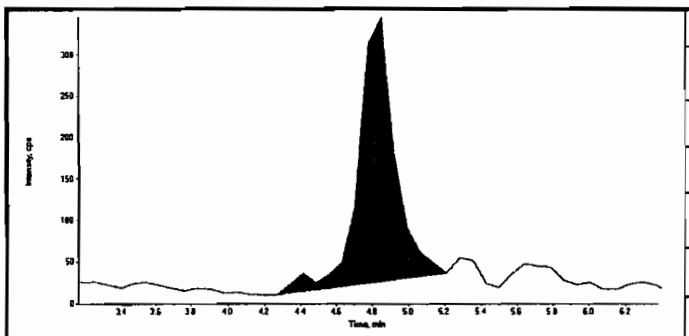

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.85
Area Counts:	4.54e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

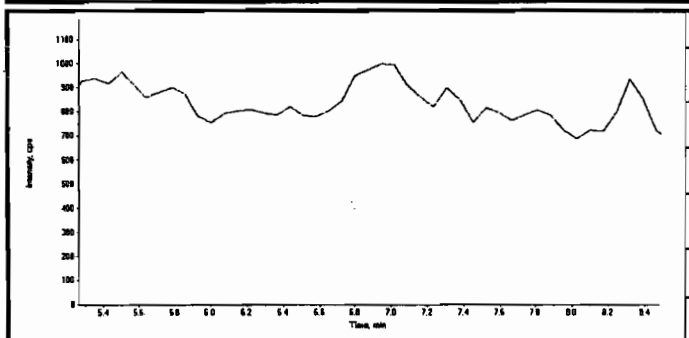

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

tmw 03/26/10
LCM 3/28/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322031.wiff	**Acquisition Date**	3/23/2010 4:44:58 AM
Sample Name	XIBLK05	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

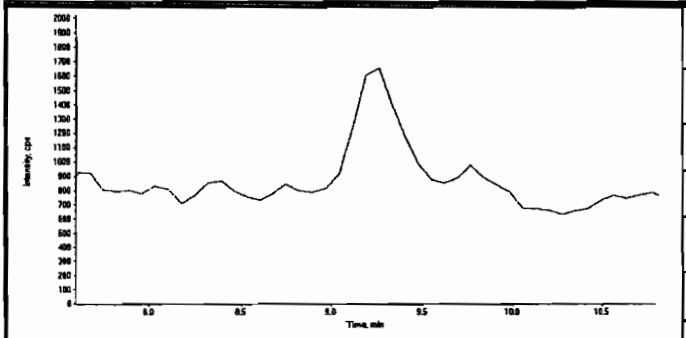

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

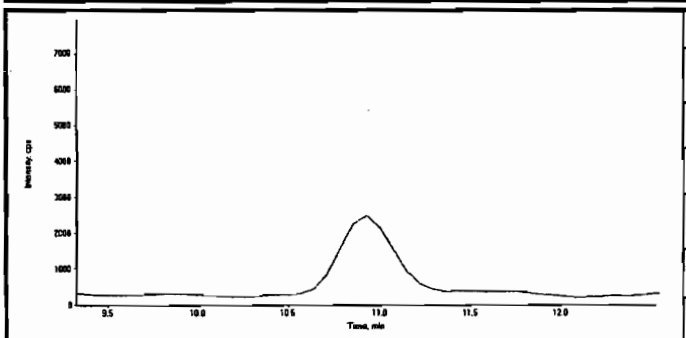

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

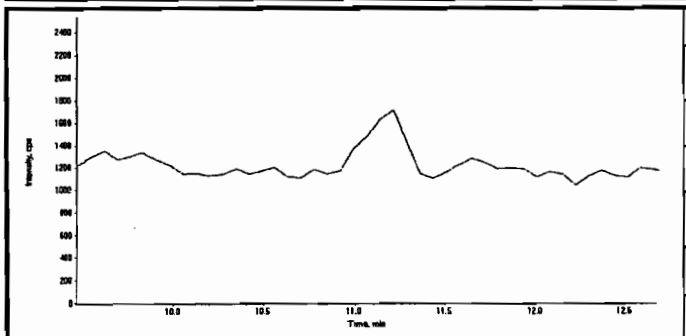

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

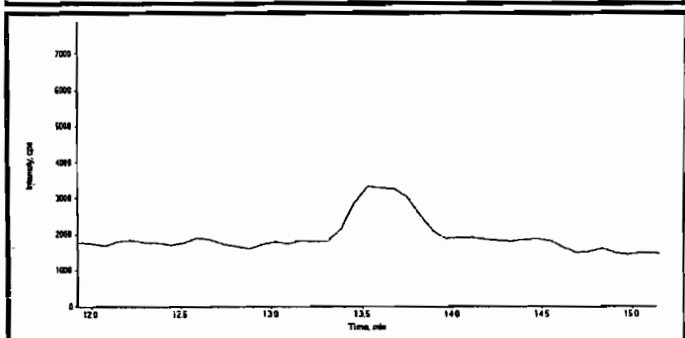

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322031.wiff	**Acquisition Date**	3/23/2010 4:44:58 AM
Sample Name	XIBLK05	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

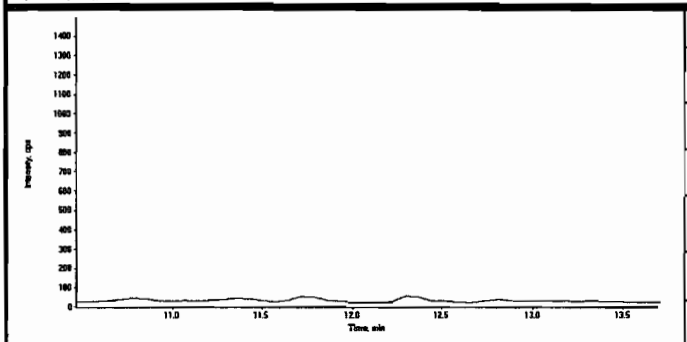

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

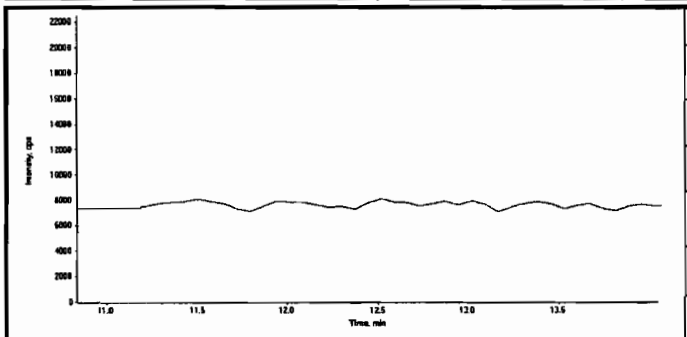

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

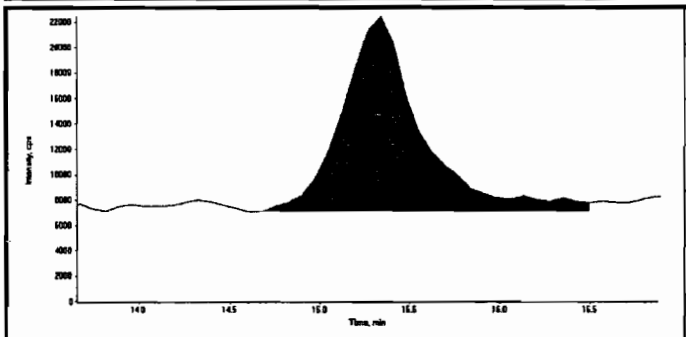

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	4.74e+005
Manual Modification	No
Amount:	3.11 (ng/mL)
% Accuracy:	N/A

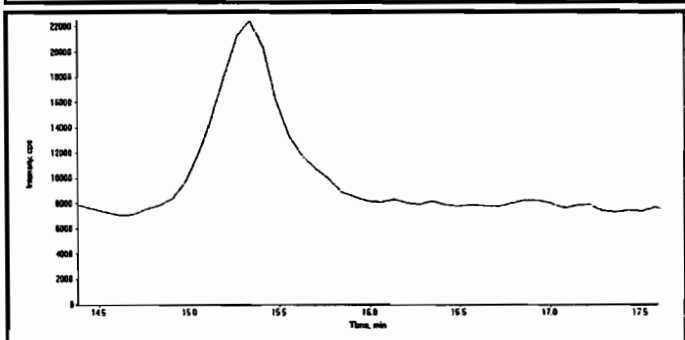

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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Data File	EXP0322031.wiff	**Acquisition Date**	3/23/2010 4:44:58 AM
Sample Name	XIBLK05	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

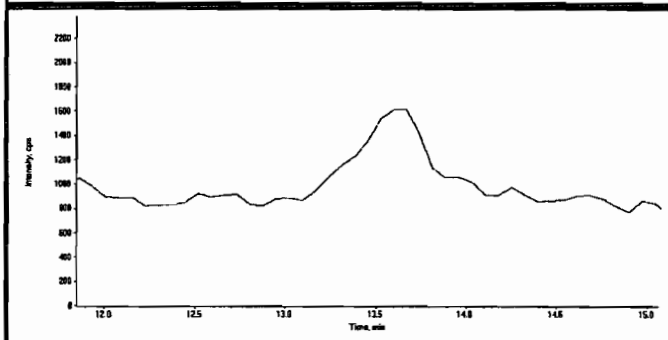

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

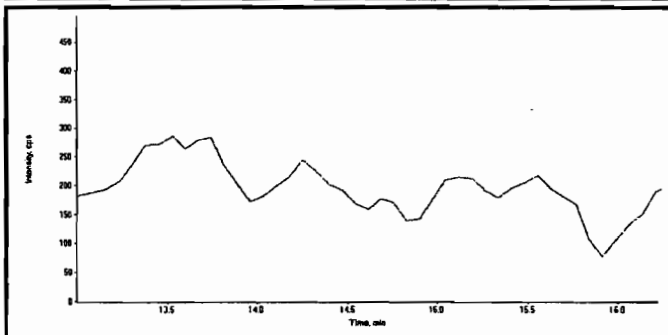

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

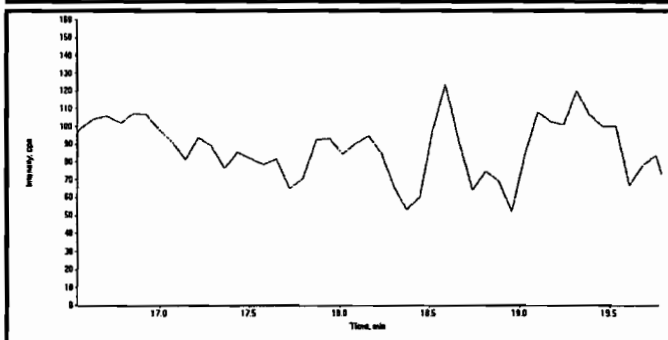

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

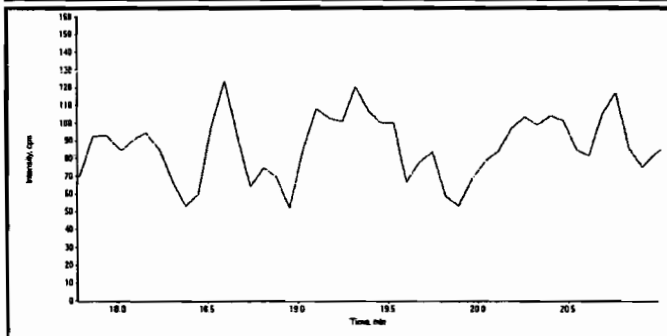

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322031.wiff	**Acquisition Date**	3/23/2010 4:44:58 AM
Sample Name	XIBLK05	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_B	**Sample Type**	**Unknown**

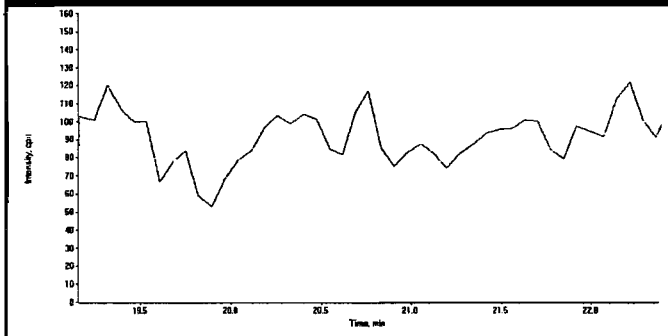

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

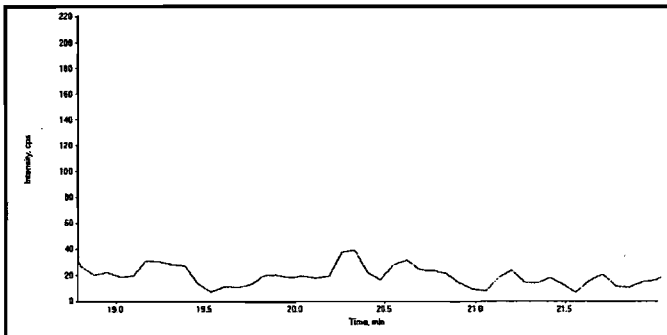

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2005

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 31–MAR–10 11:01

GEL Data File: EXS03310010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	5.19
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

LCer 4/5/10

Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS03310010.wiff"
me: "TATB" Mass(es): "257.2/204.9 amu"
t: "LCMSEXP_B" Annotation: ""
ndex: 1
ype: Unknown
ation: N/A
ed Conc: 0.00 ng/mL
e: 3/31/2010
e: 11:01:59 AM
: No

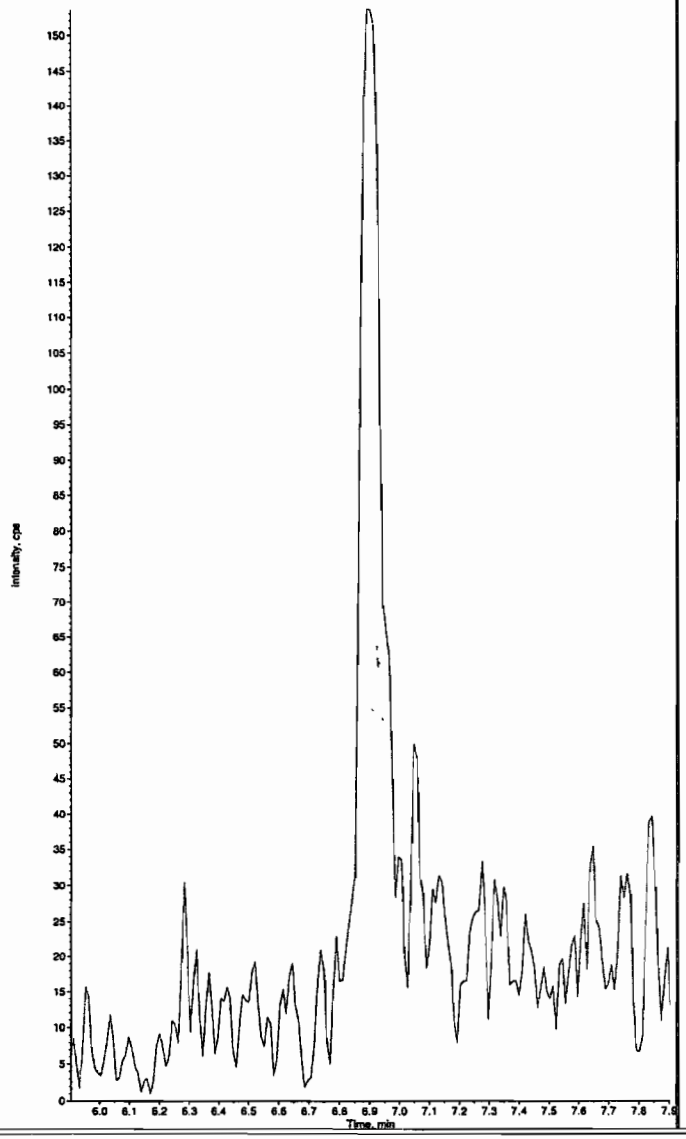

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS03310010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 11:01:59 AM

Modified: No

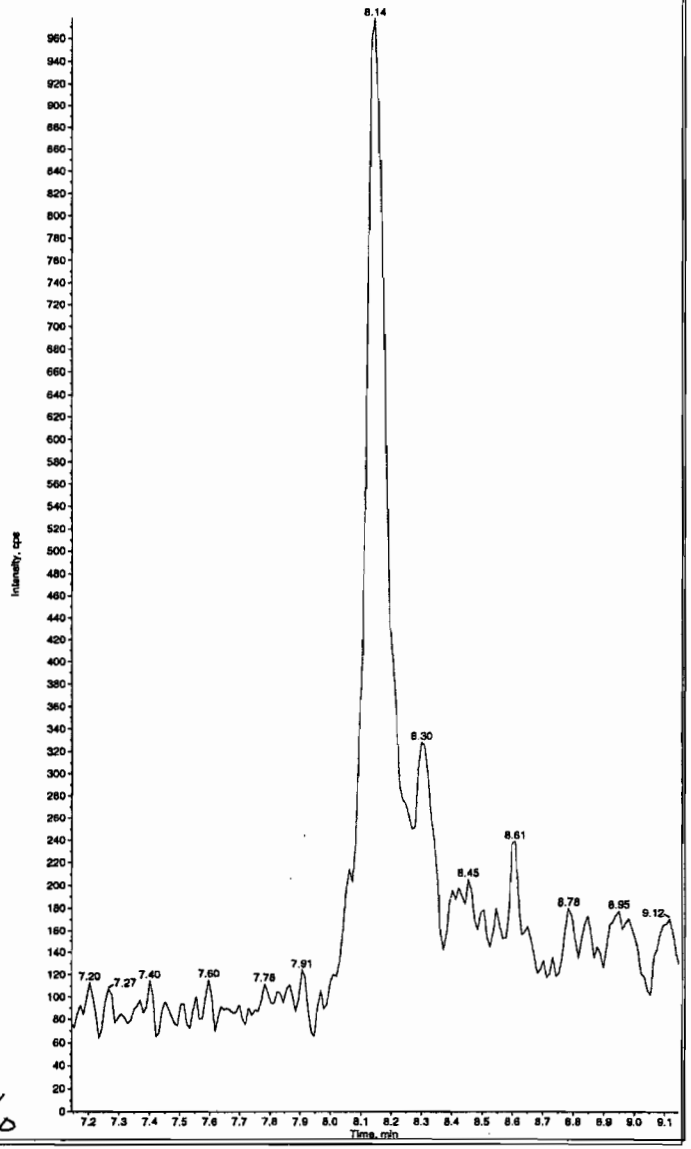

HMM 04/05/10

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS03310010.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 3/31/2010
. Time: 11:01:59 AM

ified: No

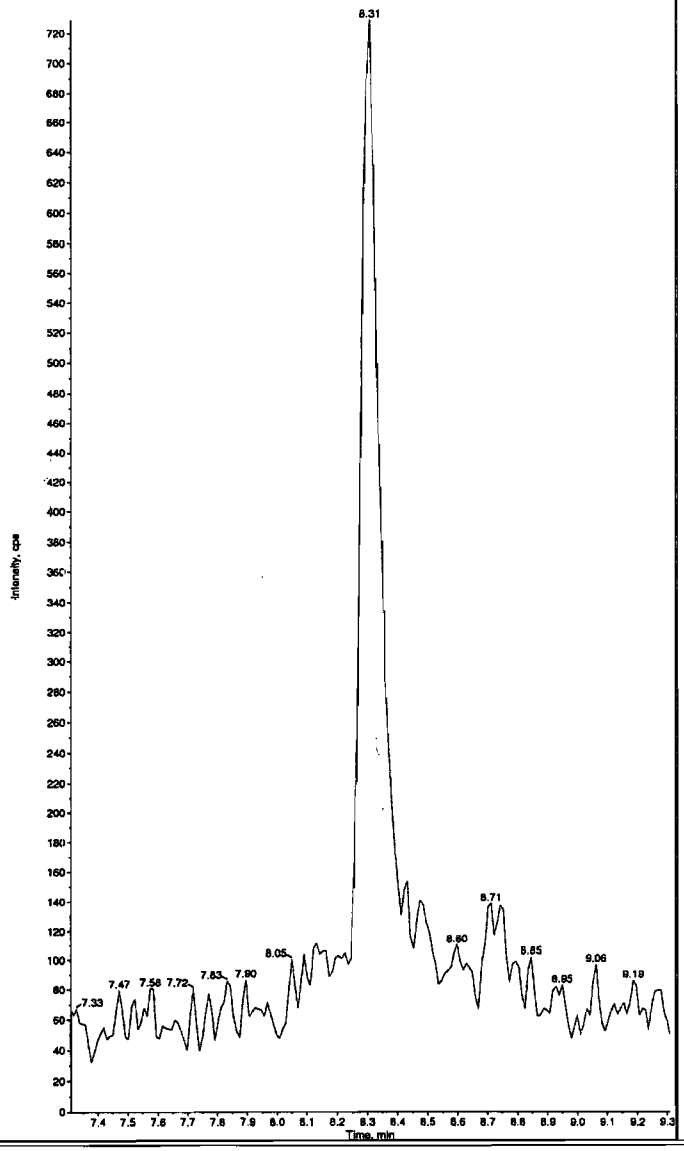

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS03310010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 11:01:59 AM

Modified: No

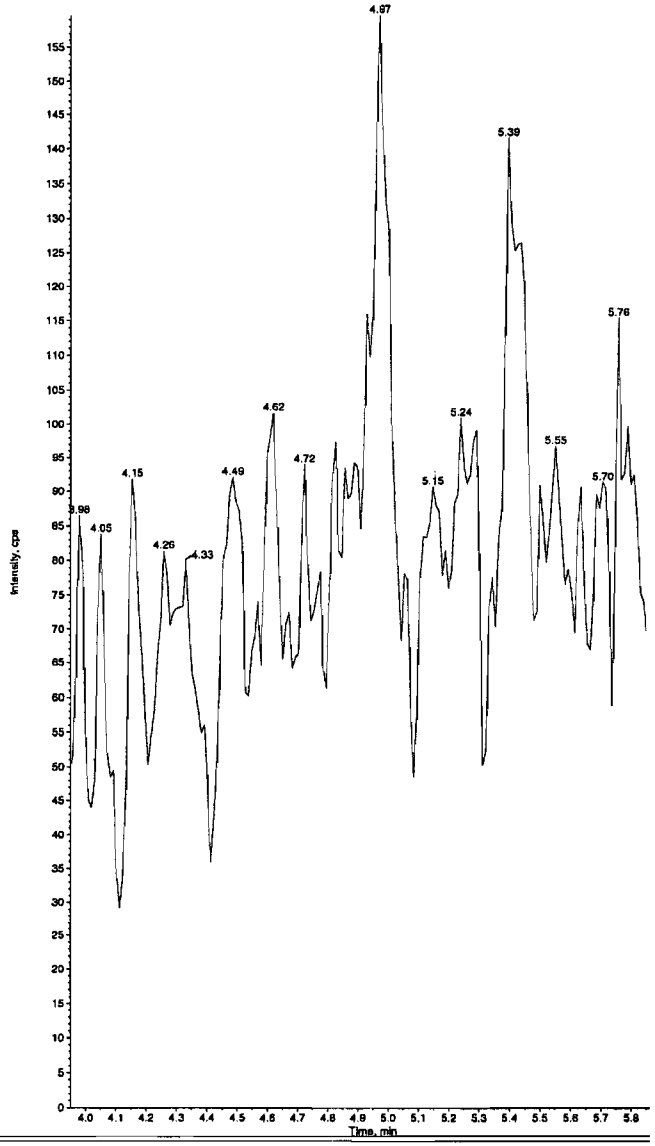

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS03310010.wiff"
me: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
t: "LCMSEXP_B" Annotation: ""
ndex: 1
ype: Unknown
ation: N/A
ed Conc: 0.00 ng/mL
e: 3/31/2010
e: 11:01:59 AM
: No

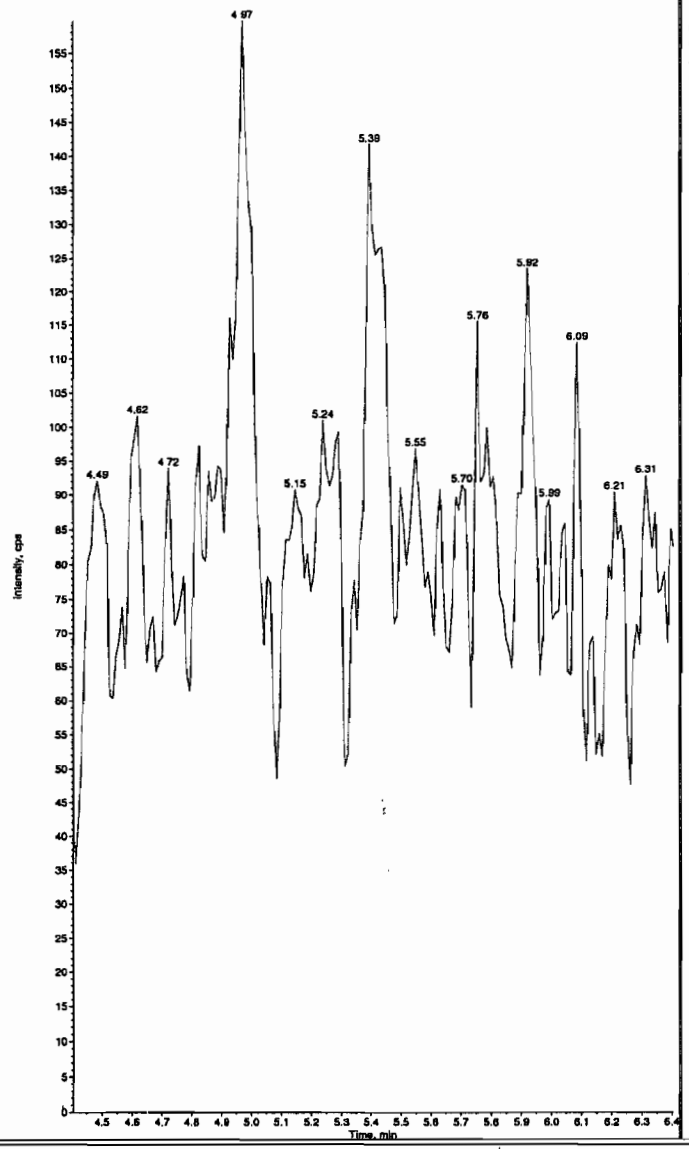

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS03310010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	5.19 ng/mL
Acq. Date:	3/31/2010
Acq. Time:	11:01:59 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.8 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.8 min
Area:	2.49e+005 counts
Height:	59729.759 cps
Start Time:	10.7 min
End Time:	11.1 min

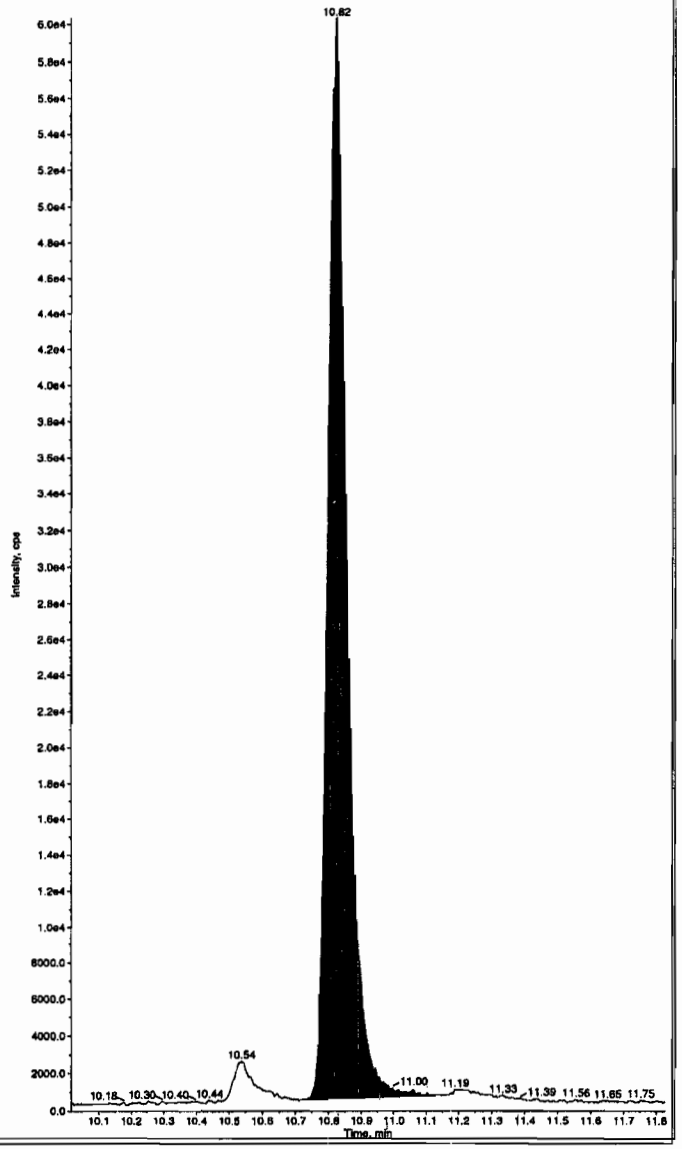

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2005

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 31–MAR–10 11:33

GEL Data File: EXS03310012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	.384
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Rcer 415710

Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS03310012.wiff"
lame: "TATB" Mass(es): "257.2/204.9 amu"
ant: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 3/31/2010
me: 11:33:26 AM
d: No

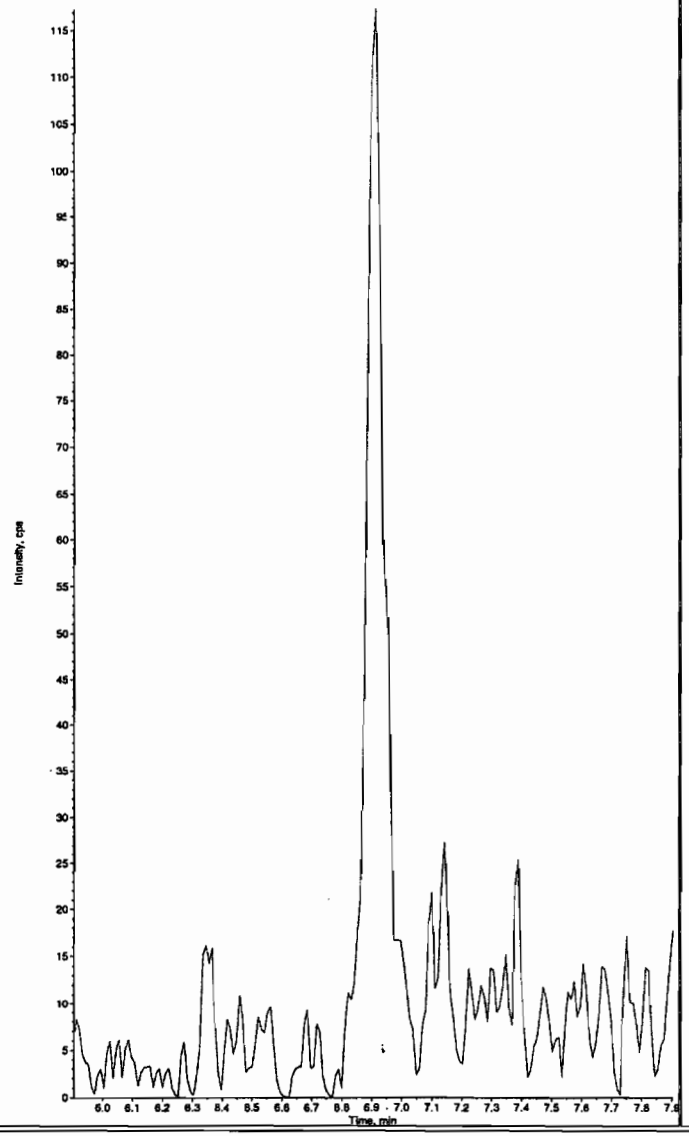

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS03310012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 11:33:26 AM

Modified: No

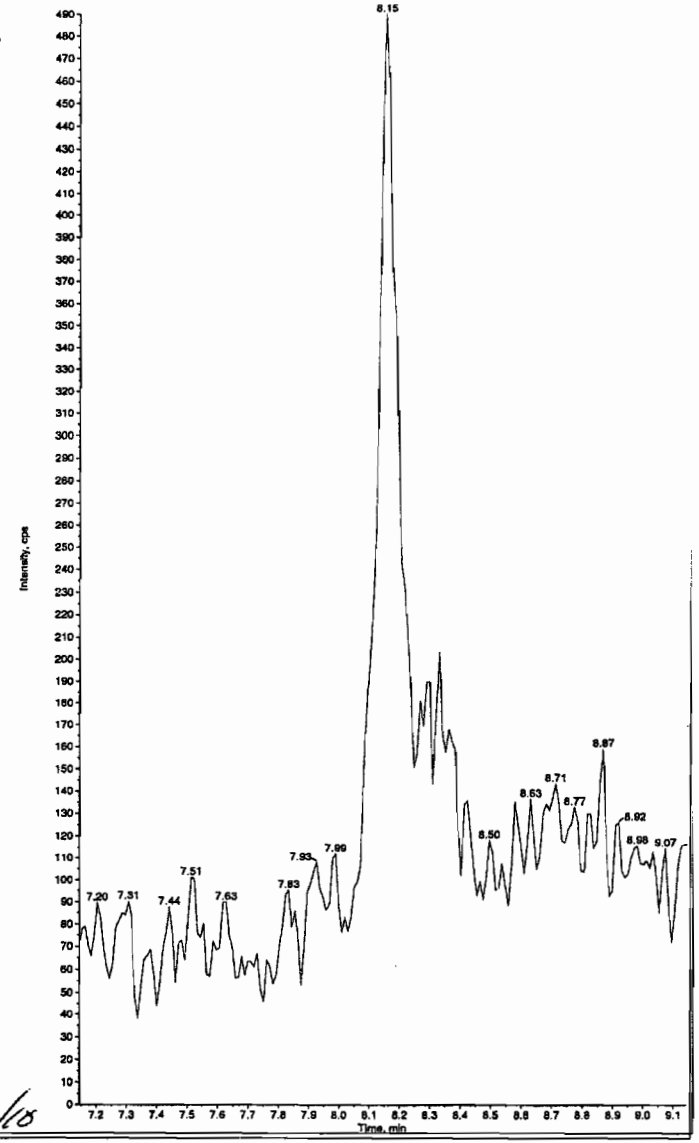

HJM 04/05/10

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nple Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS03310012.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 3/31/2010
Time: 11:33:26 AM

fied: No

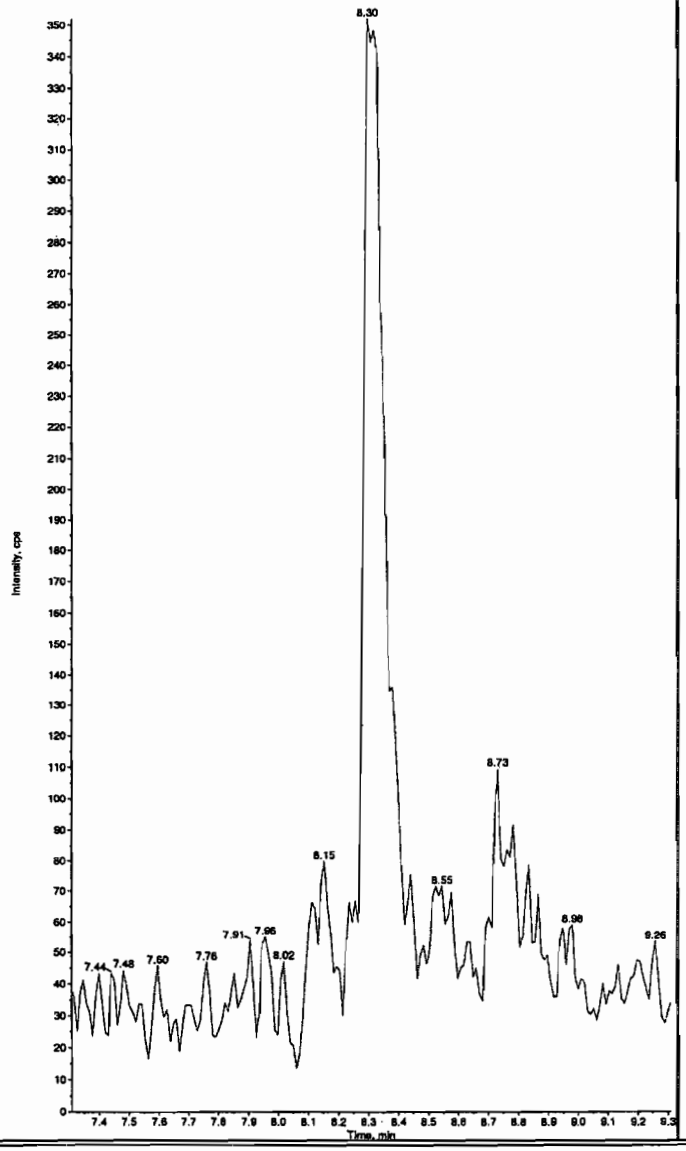

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS03310012.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 11:33:26 AM

Modified: No

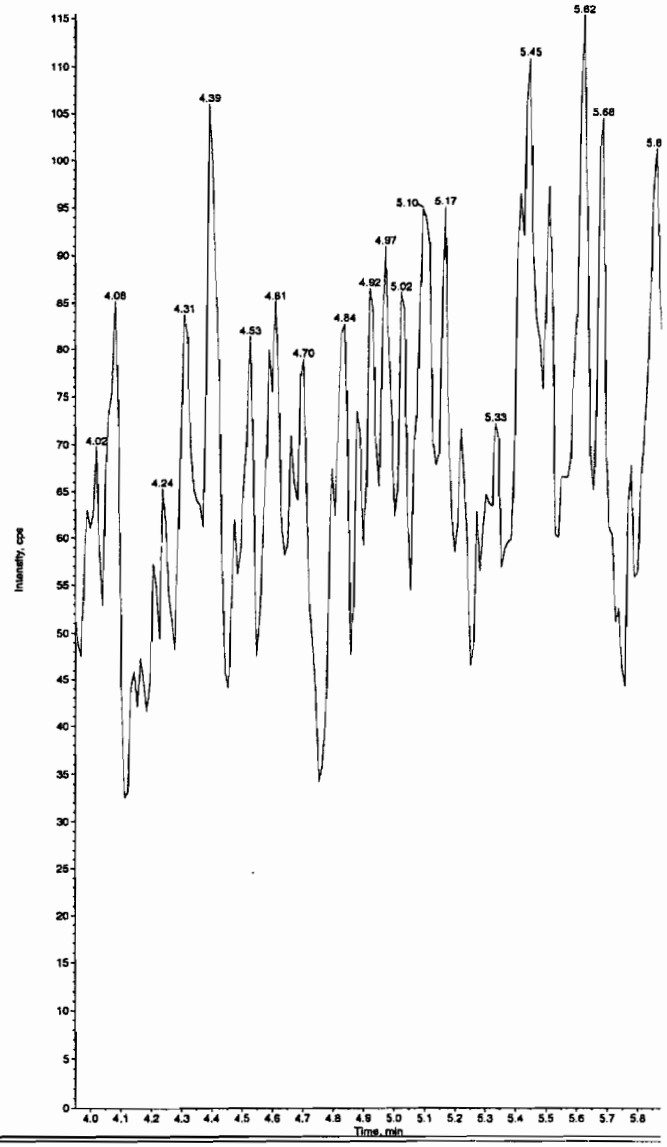

e Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS03310012.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ent: "LCMSEXP_B" Annotation: ""

Index: 1
Type: Unknown
tration: N/A
ated Conc: 0.00 ng/mL
ate: 3/31/2010
ime: 11:33:26 AM

ed: No

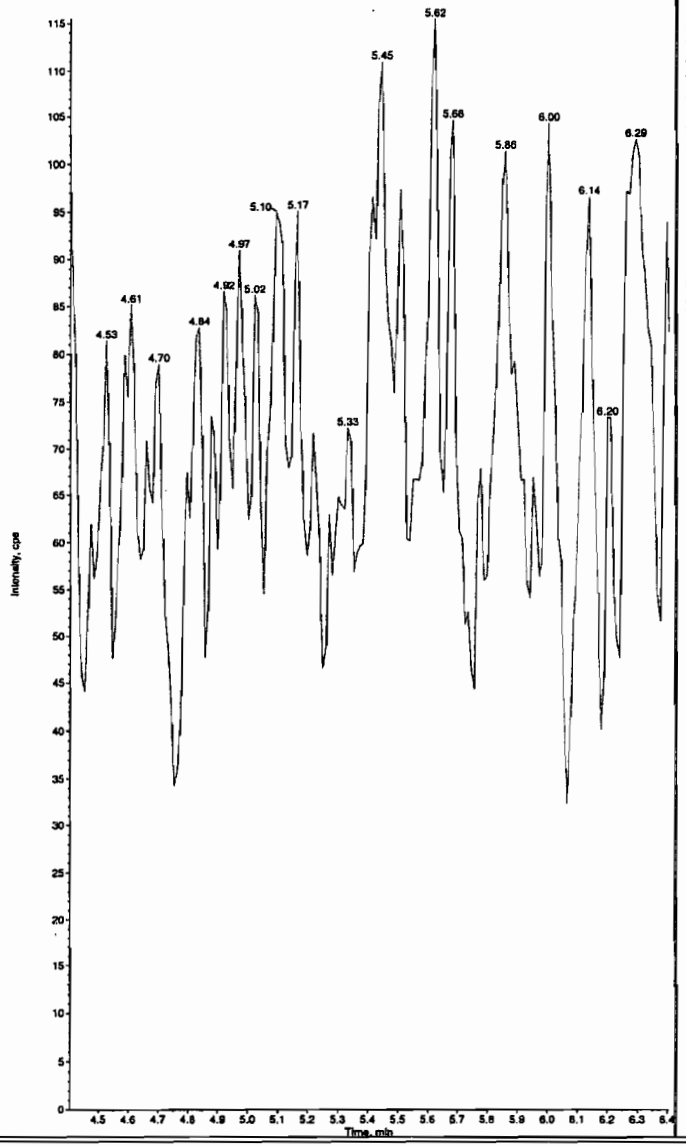

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS03310012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.384 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 11:33:26 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.54e+005 counts
Height: 37054.707 cps
Start Time: 10.7 min
End Time: 11.0 min

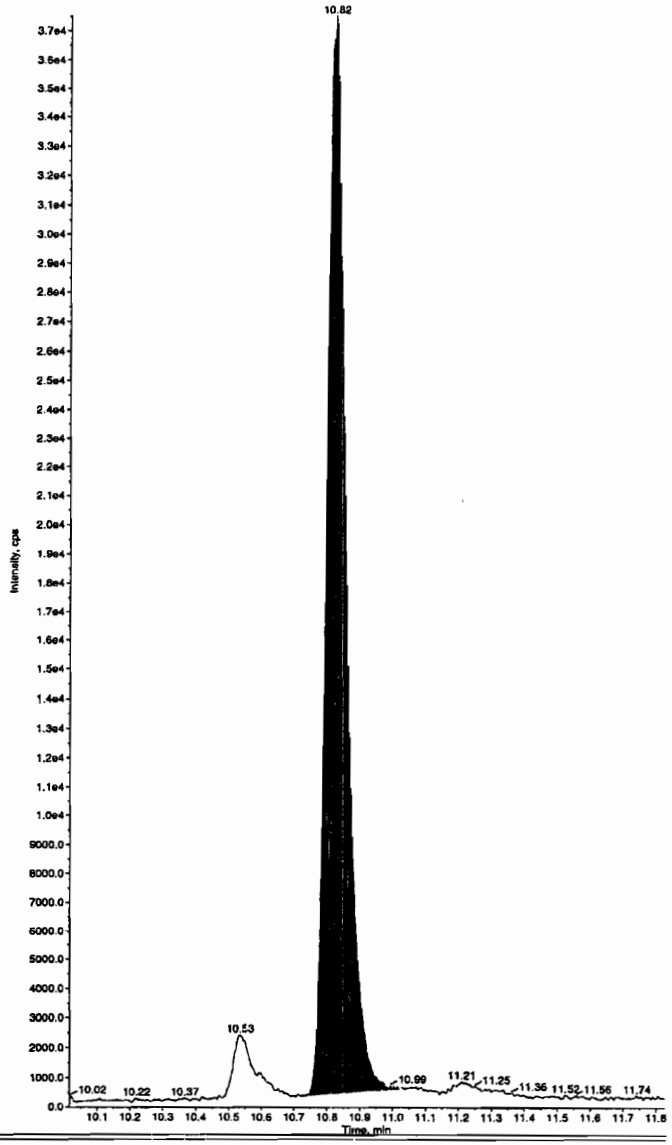

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2005

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 31–MAR–10 14:57

GEL Data File: EXS03310025.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lan 415/10

ple Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS03310025.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/31/2010
Time: 2:57:37 PM

ied: No

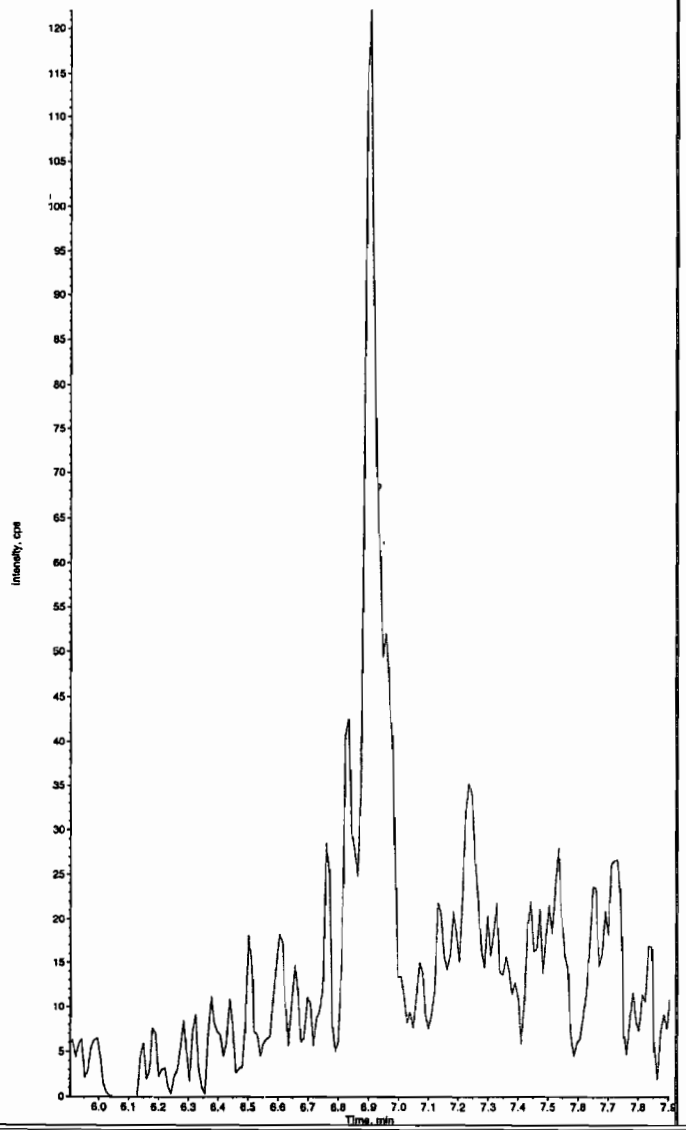

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS03310025.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 2:57:37 PM

Modified: No

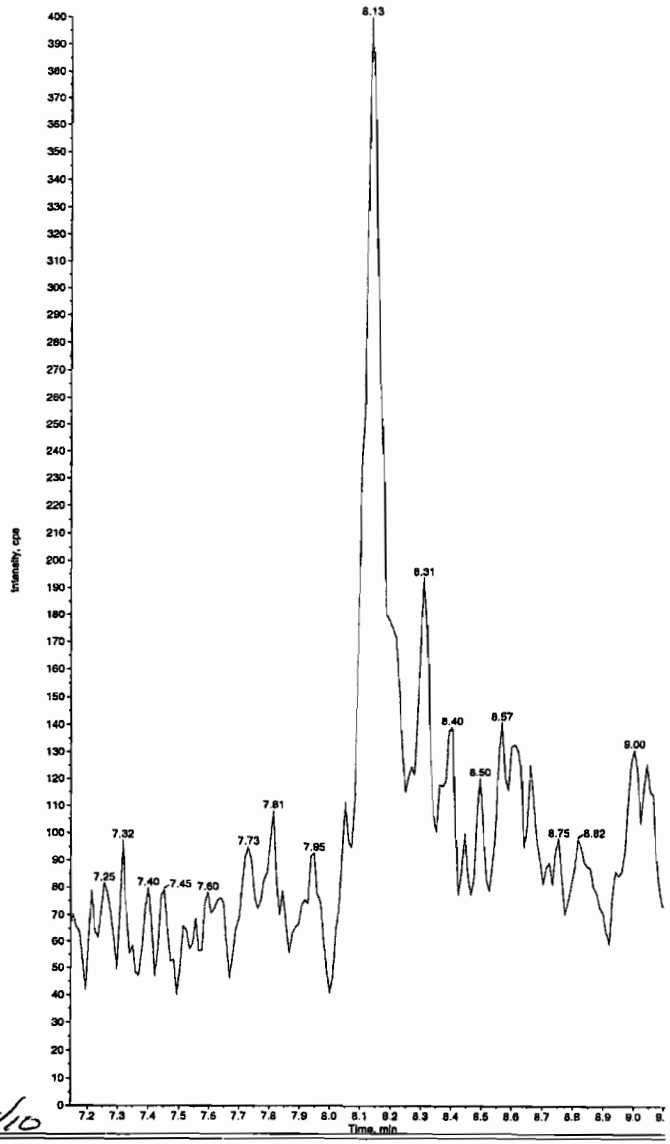

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SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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le Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS03310025.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nent: "LCMSEXP_B" Annotation: ""
: Index: 1
: Type: Unknown
ıtration: N/A
.ated Conc: 0.00 ng/mL
ıate: 3/31/2010
'ime: 2:57:37 PM

.ed: No

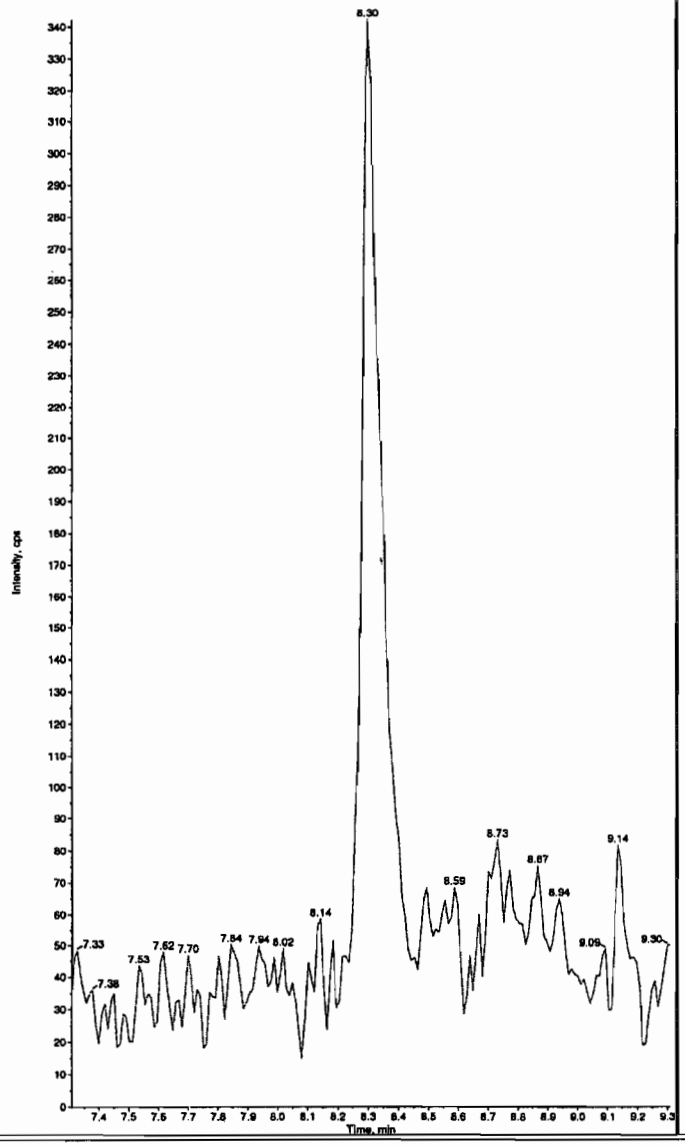

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS03310025.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 2:57:37 PM

Modified: No

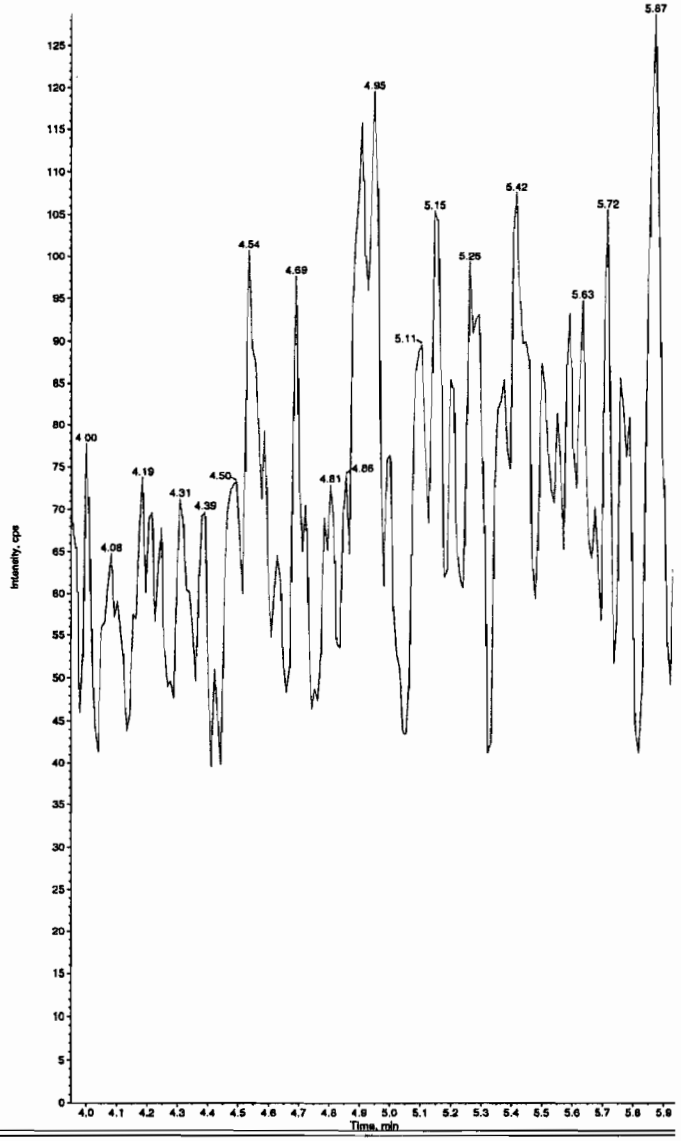

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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le Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS03310025.wiff"
Name: "24-Diamino-6-nit/ctoluene" Mass(es): "166.0/46.0 amu"
nent: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/31/2010
Time: 2:57:37 PM

led: No

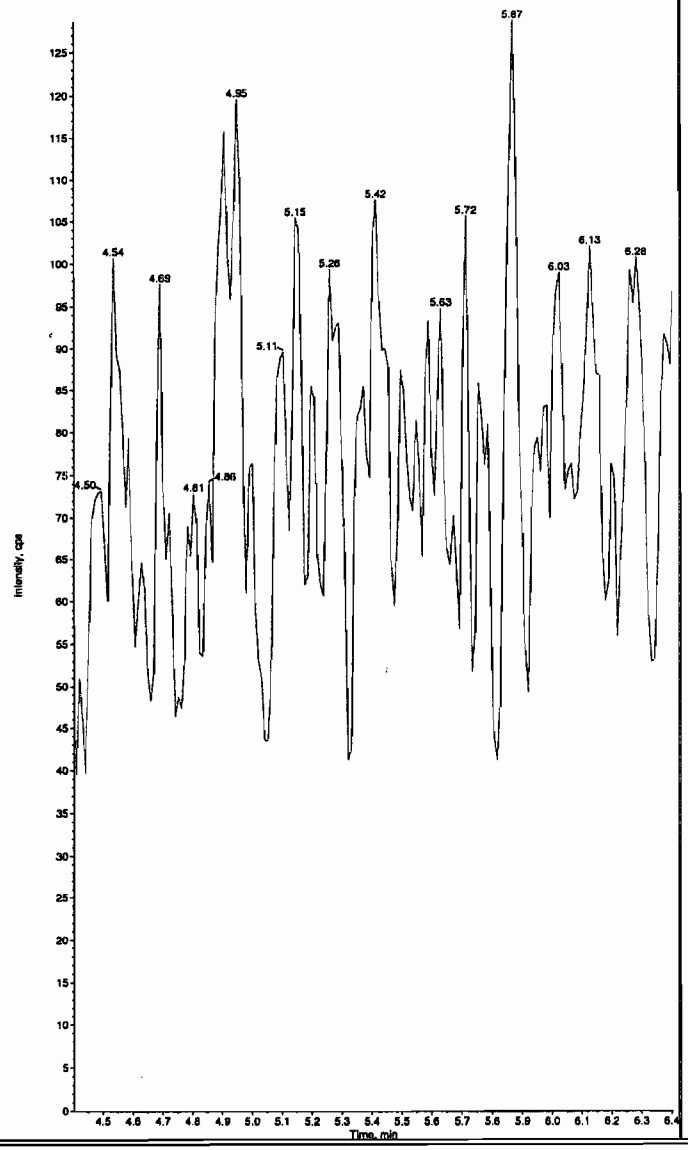

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS03310025.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/31/2010
Acq. Time: 2:57:37 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.23e+005 counts
Height: 29190.617 cps
Start Time: 10.7 min
End Time: 11.0 min

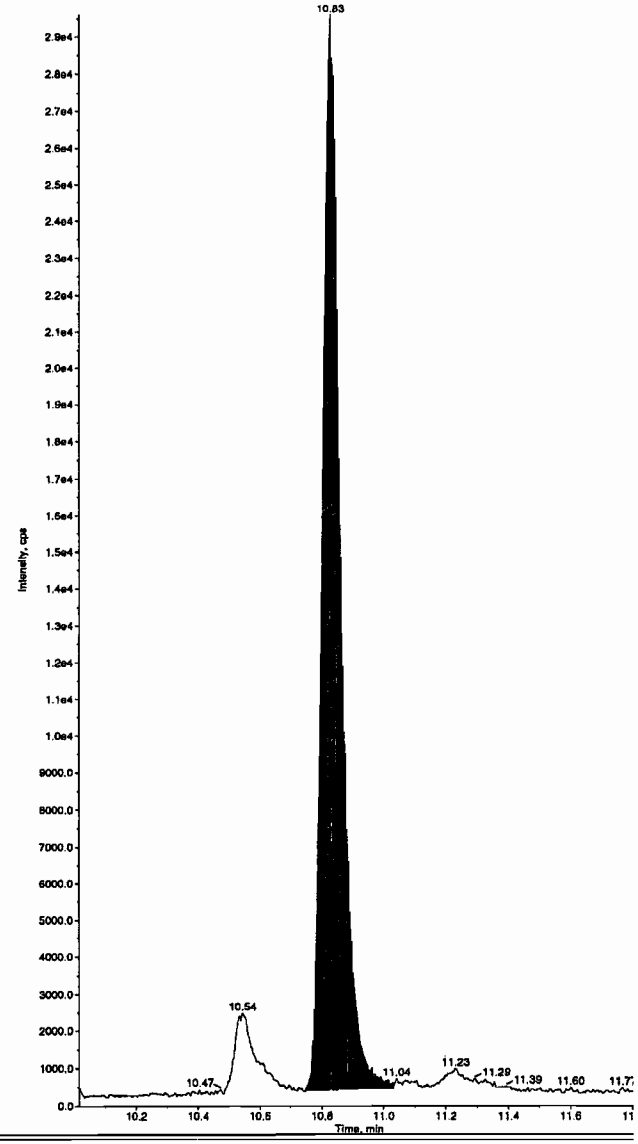

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2005

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 31–MAR–10 18:06

GEL Data File: EXS03310037.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

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Scan 4/5/10

Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS03310037.wiff"
ame: "TATB" Mass(es): "257.2/204.9 amu"
nt: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 3/31/2010
me: 6:06:13 PM

d: No

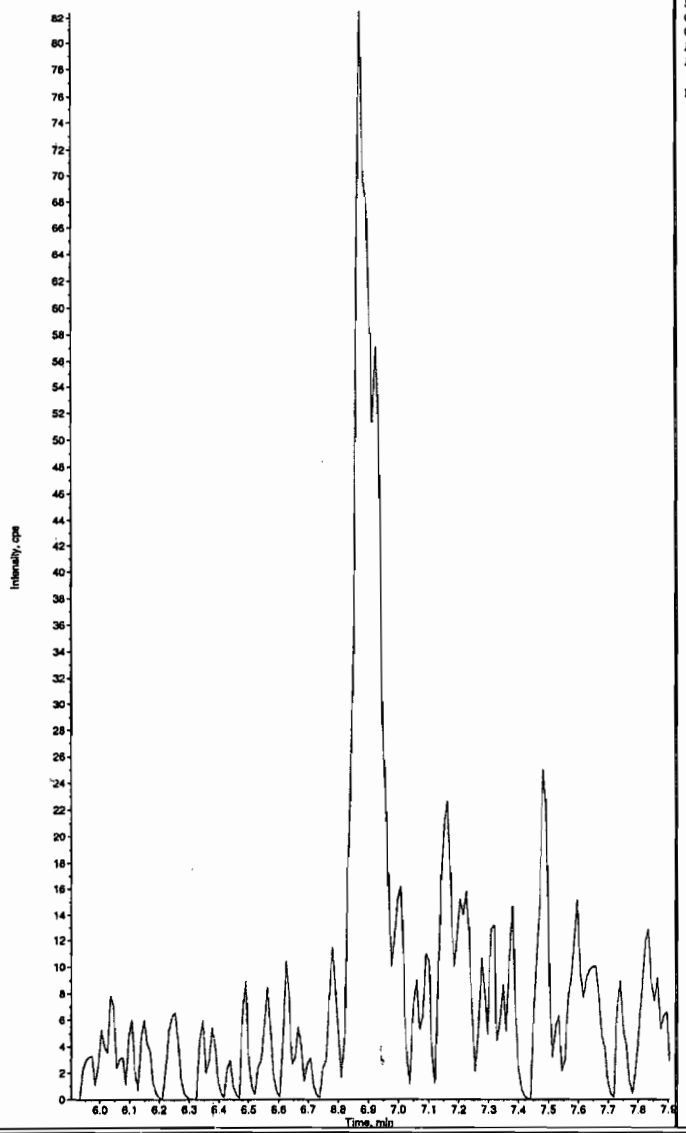

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS03310037.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 6:06:13 PM

Modified: No

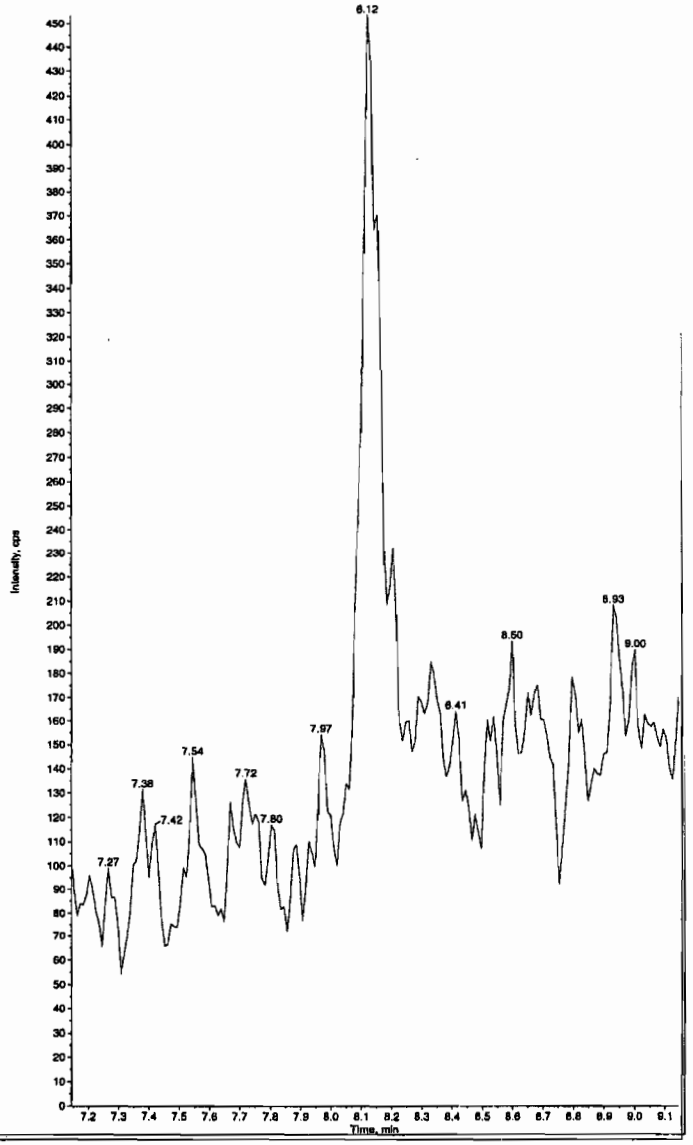

HMM 04/05/10

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS03310037.wiff"
me: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
t: "LCMSEXP_B" Annotation: ""
ndex: 1
ype: Unknown
ation: N/A
ed Conc: 0.00 ng/mL
e: 3/31/2010
e: 6:06:13 PM
: No

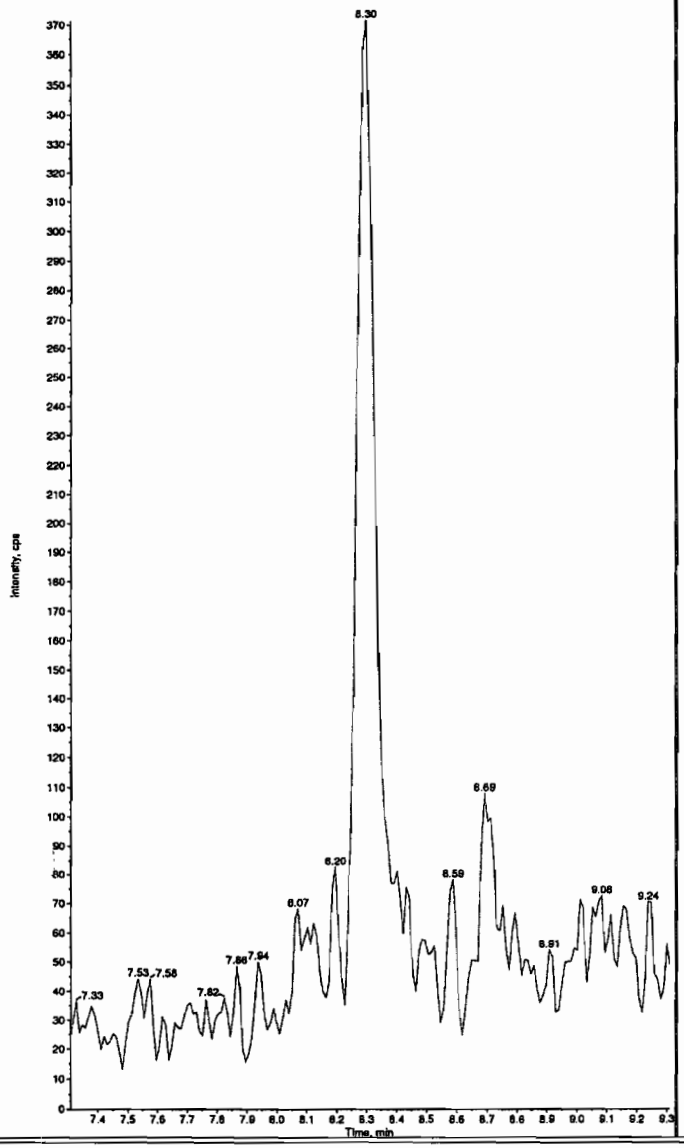

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS03310037.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 6:06:13 PM

Modified: No

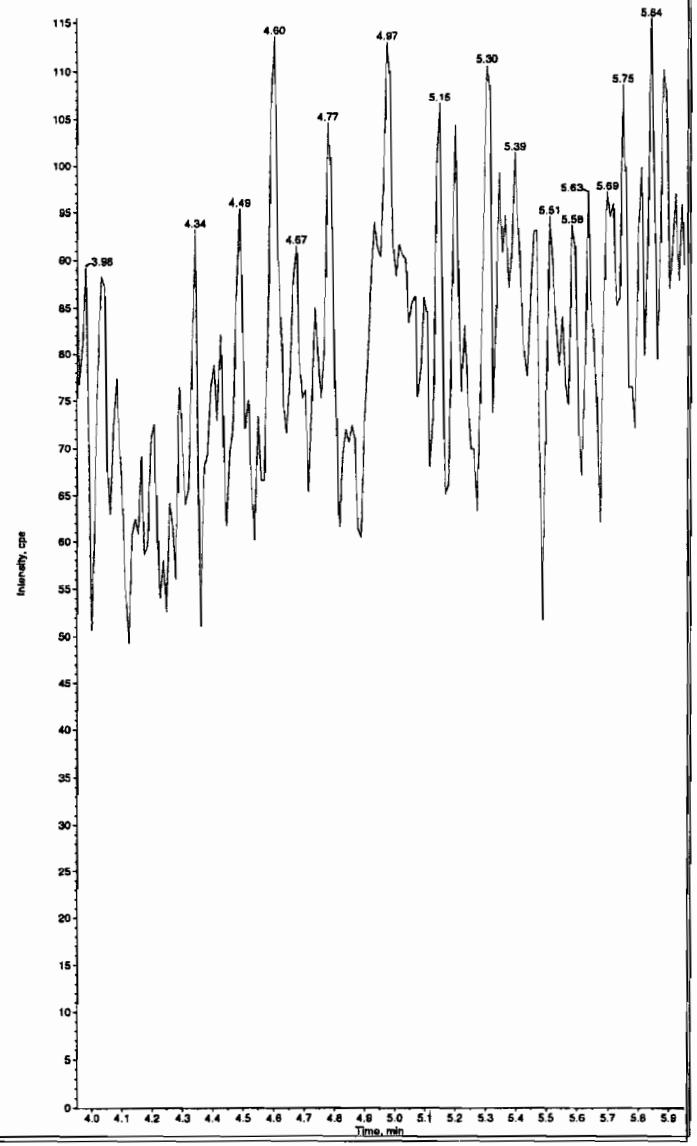

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

e Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS03310037.wiff"
lame: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ent: "LCMSEXP_B" Annotation: ""

Index: 1
Type: Unknown
ration: N/A
ated Conc: 0.00 ng/mL
ate: 3/31/2010
ime: 6:06:13 PM

d: No

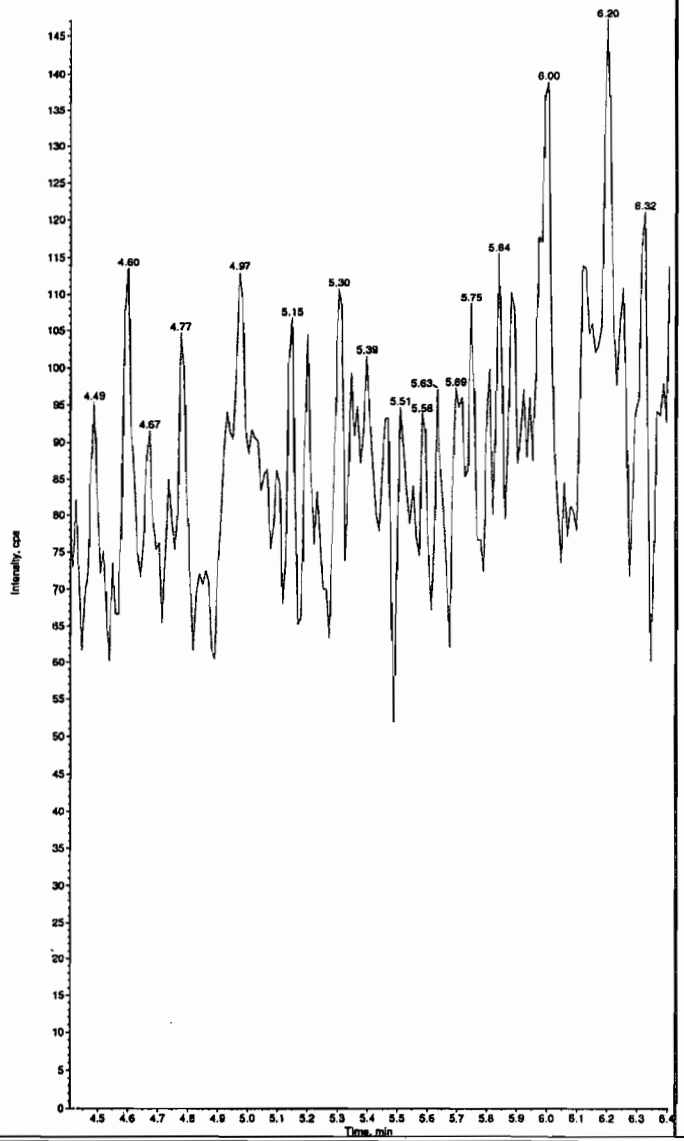

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS03310037.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: No Intercept
Acq. Date: 3/31/2010
Acq. Time: 6:06:13 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.20e+005 counts
Height: 28429.373 cps
Start Time: 10.7 min
End Time: 11.0 min

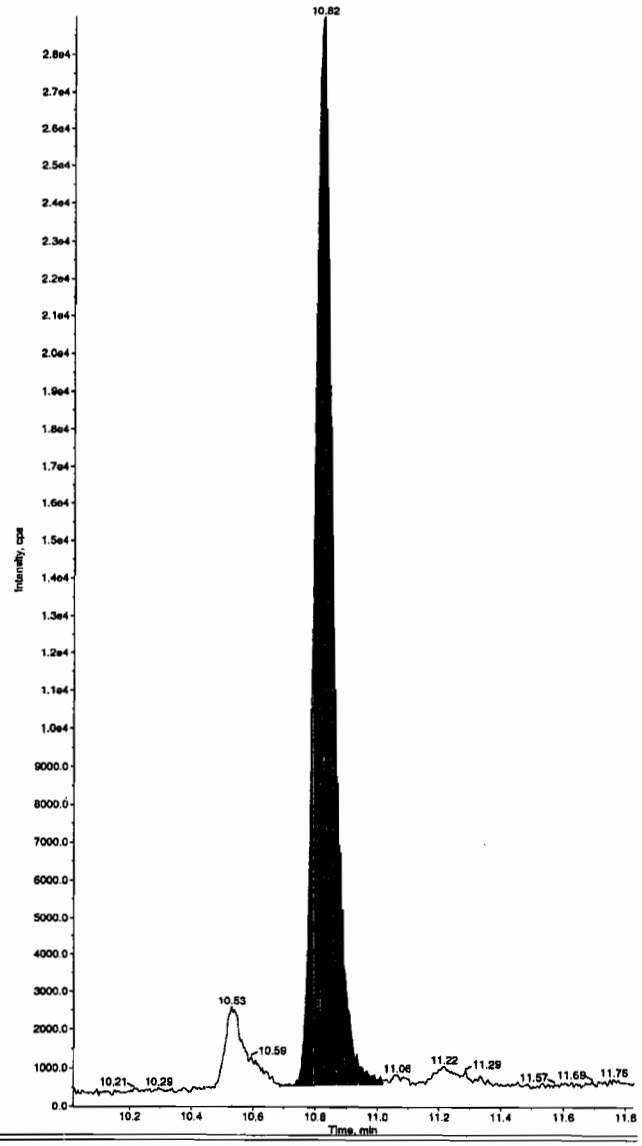

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2005

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 31–MAR–10 21:14

GEL Data File: EXS03310049.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lar 4/5/10

e Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS03310049.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_B" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ated Conc: 0.00 ng/mL
ate: 3/31/2010
ime: 9:14:49 PM

ed: No

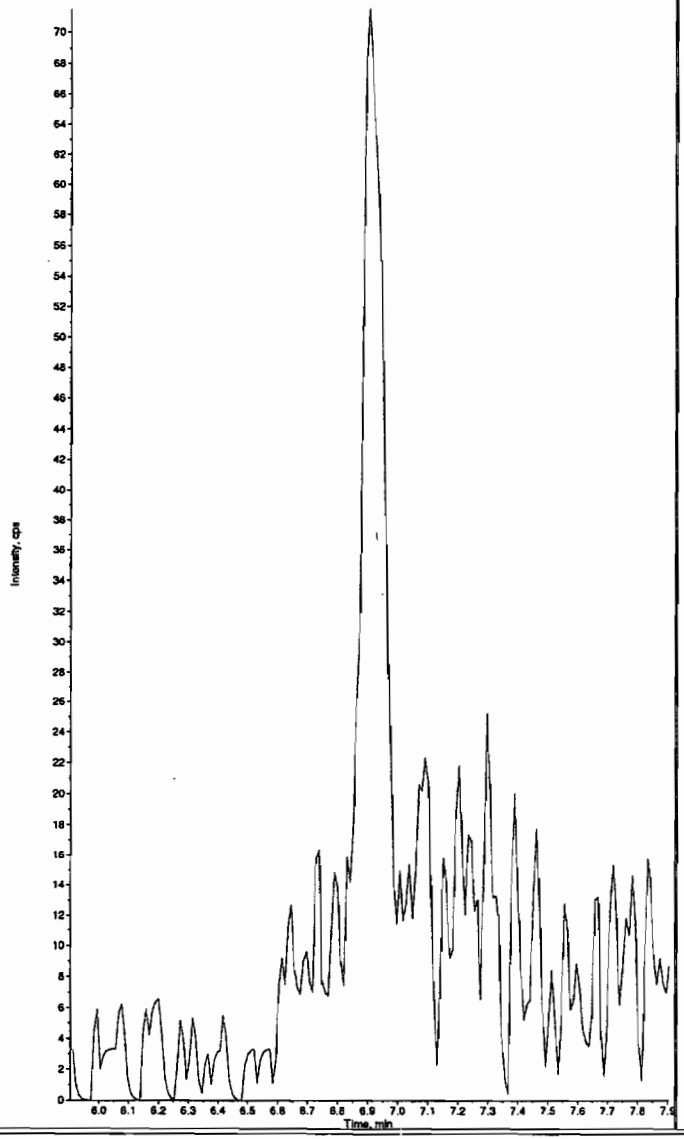

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS03310049.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:14:49 PM

Modified: No

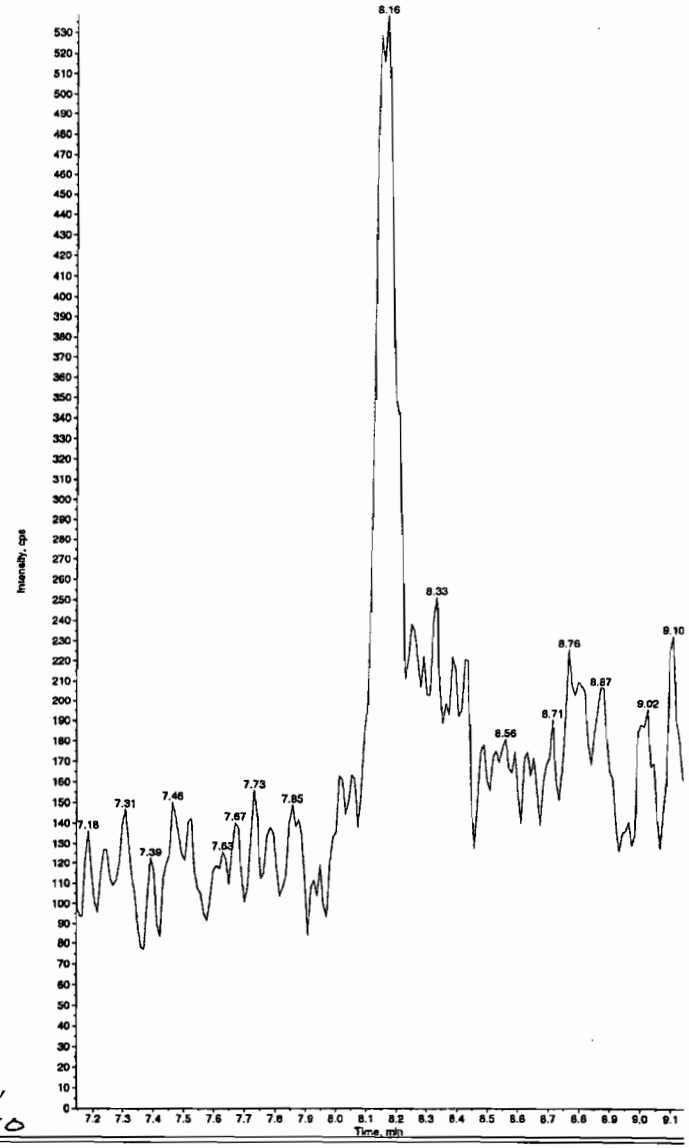

Hnm 04/05/10

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ple Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS03310049.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_B" Annotation: **
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/31/2010
Time: 9:14:49 PM

ied: No

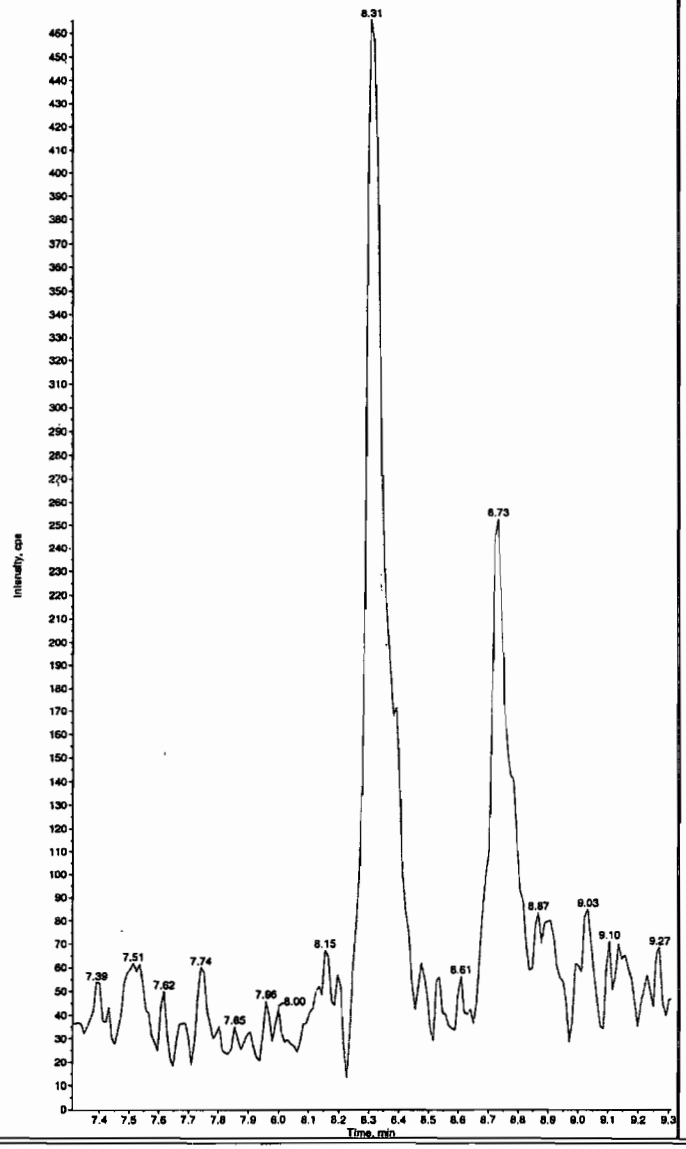

Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS03310049.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: **
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:14:49 PM

Modified: No

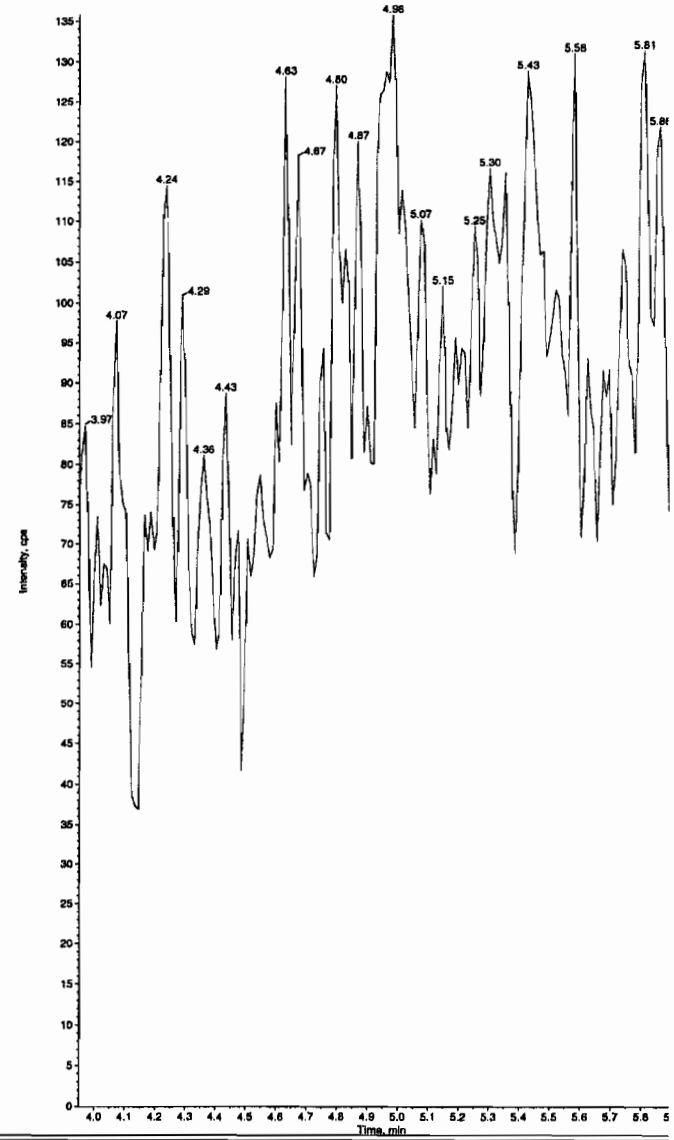

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lame: "XIBLK06" Sample ID: "[1]LER" File: "EXS03310049.wiff"
ne: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
t: "LCMSEXP_B" Annotation: ""
ndex: 1
ype: Unknown
stion: N/A
ed Conc: 0.00 ng/mL
e: 3/31/2010
e: 9:14:49 PM

: No

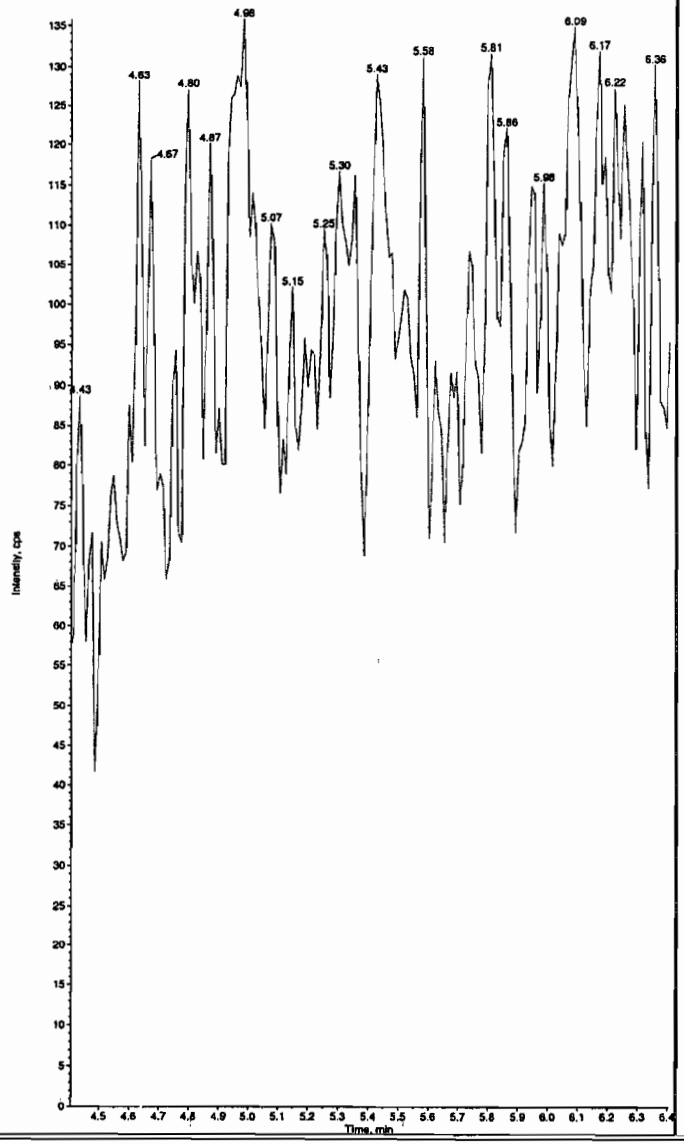

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS03310049.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: < 0
Acq. Date: 3/31/2010
Acq. Time: 9:14:49 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.37e+005 counts
Height: 32658.234 cps
Start Time: 10.8 min
End Time: 11.0 min

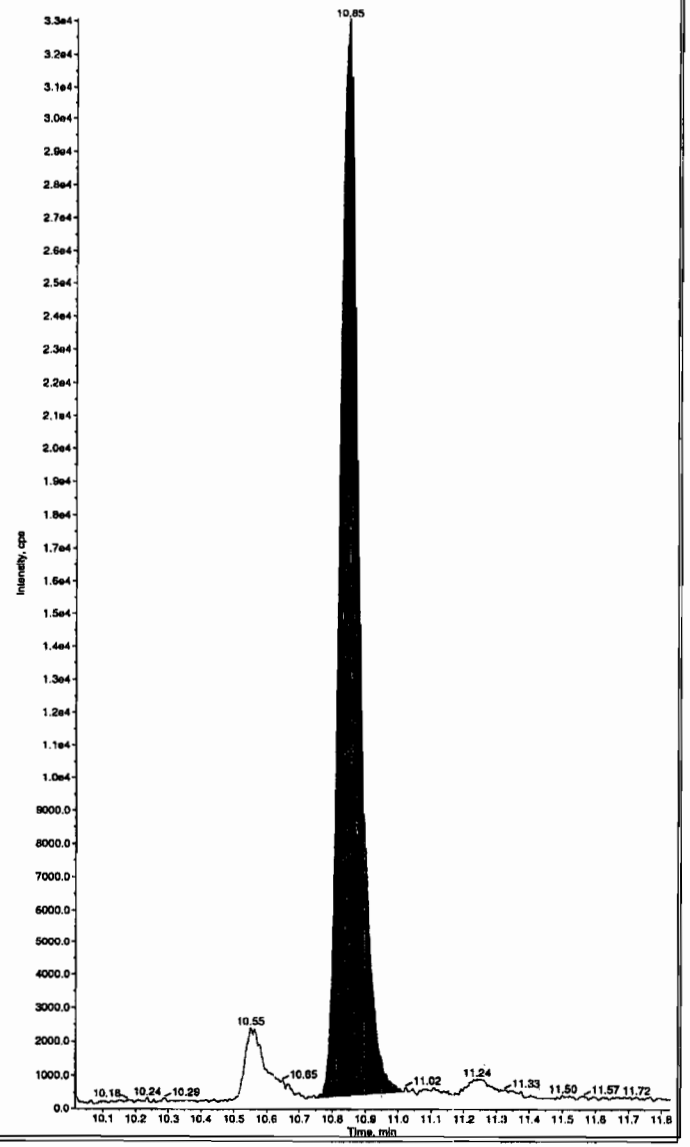

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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Calibration Report - MS1 Static

Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

15 matches of 15 tested references

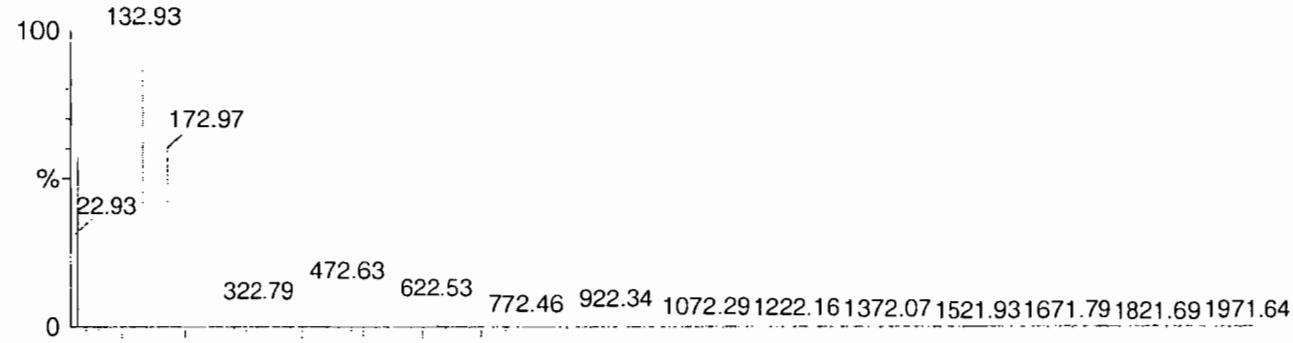

Reference file: Naics2

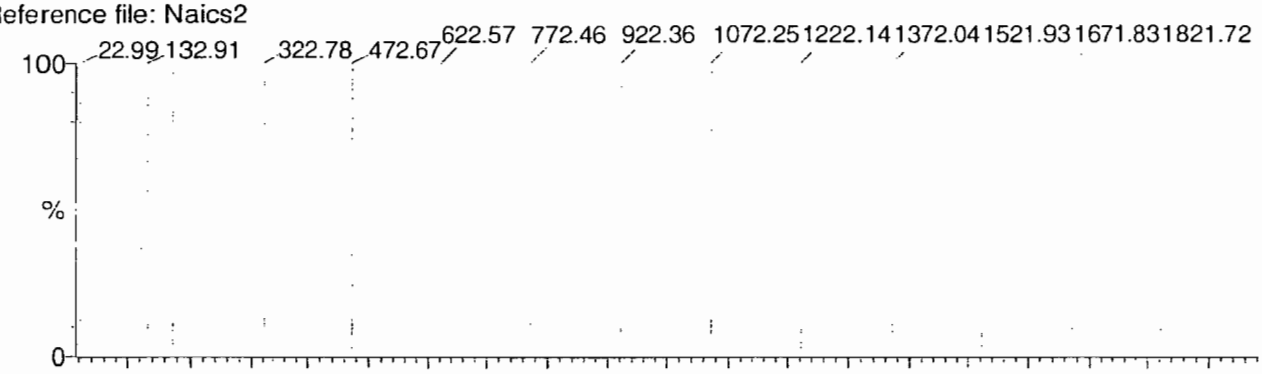

Mass difference (Raw - Ref mass)

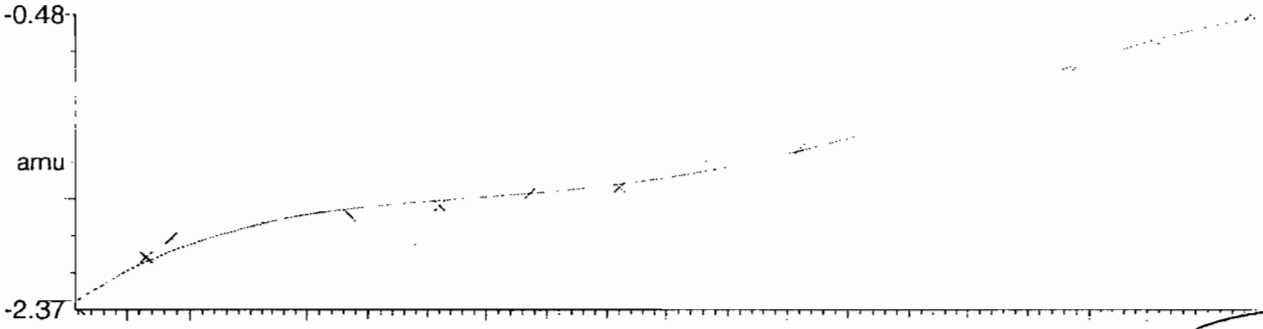

Residuals

Mean residual = -1.673470e-9 ± 0.036953

ok
lm

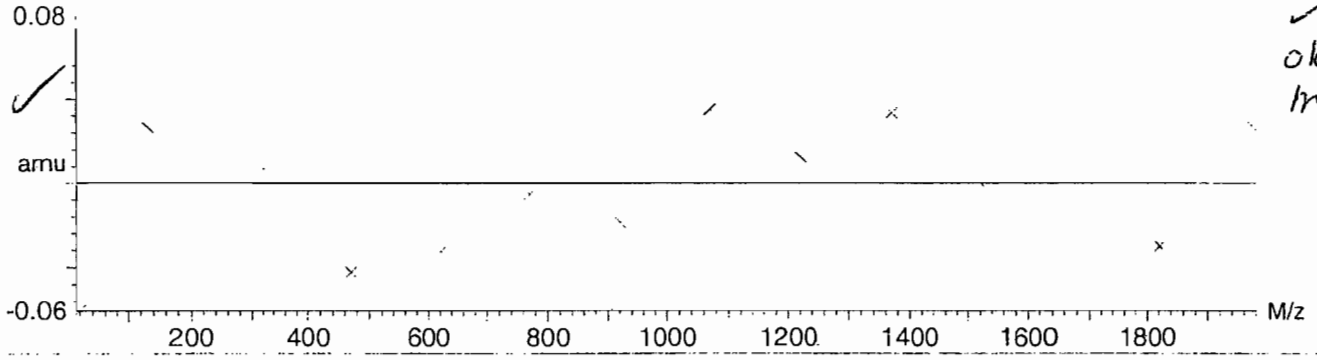

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated 15 matches of 15 tested references

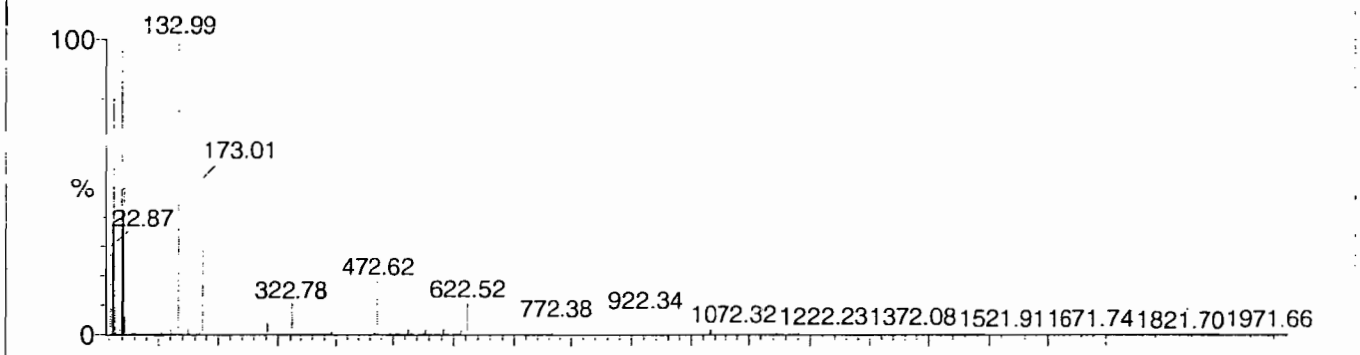

Reference file: Naics2

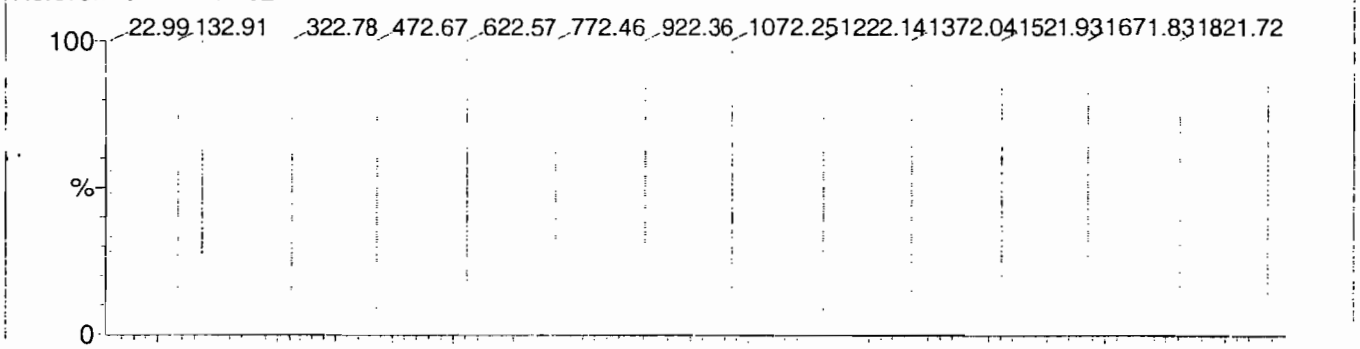

Mass difference (Raw - Ref mass)

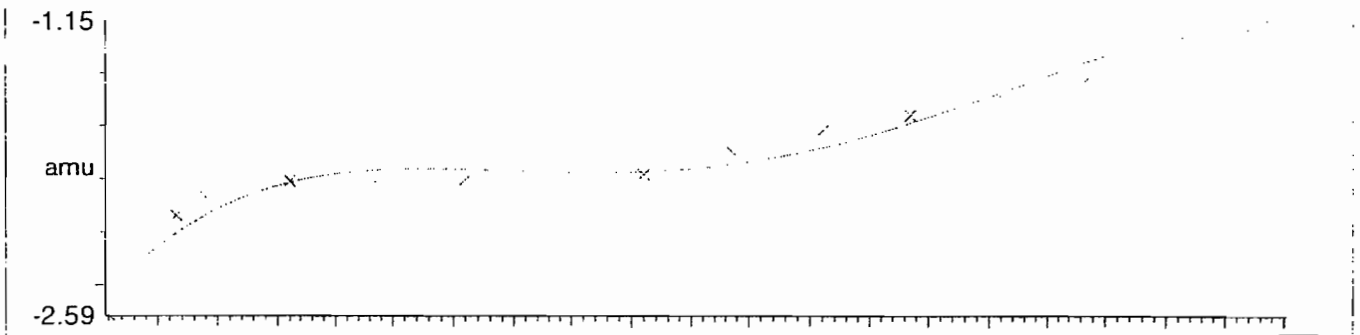

Residuals Mean residual = -5.432715e-9 ± 0.069858

ok
m

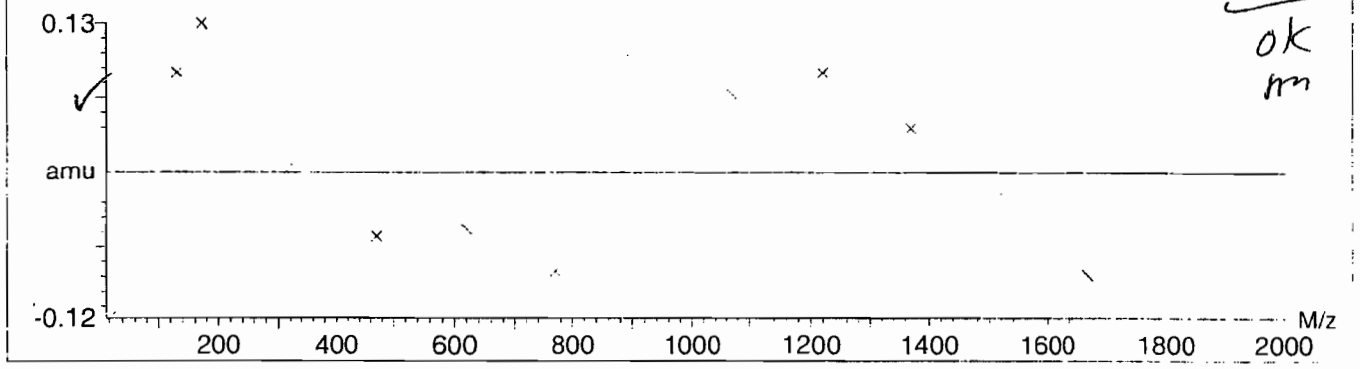

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Calibration Report - MS1 Scan Speed Compensation

Printed: **Fri Aug 25 10:52:01 2006**

Data file: FASTMS1 - Calibrated

15 matches of 15 tested references

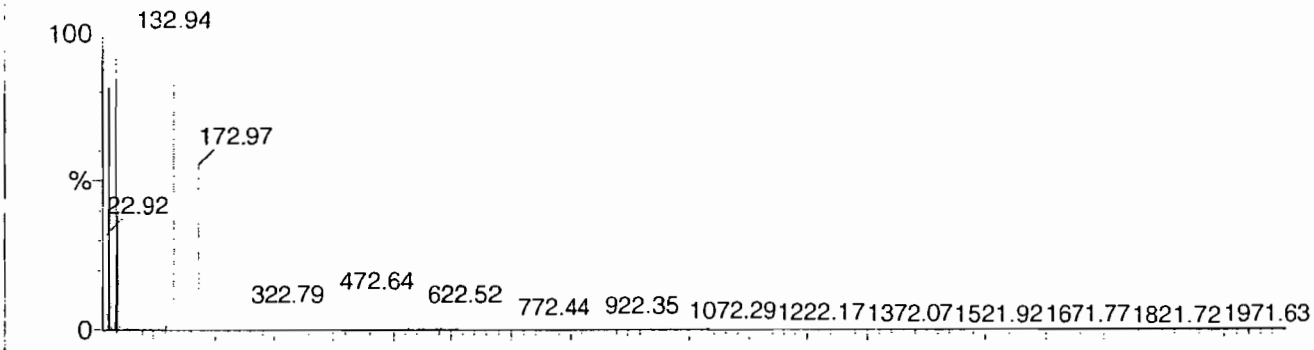

Reference file: Naics2

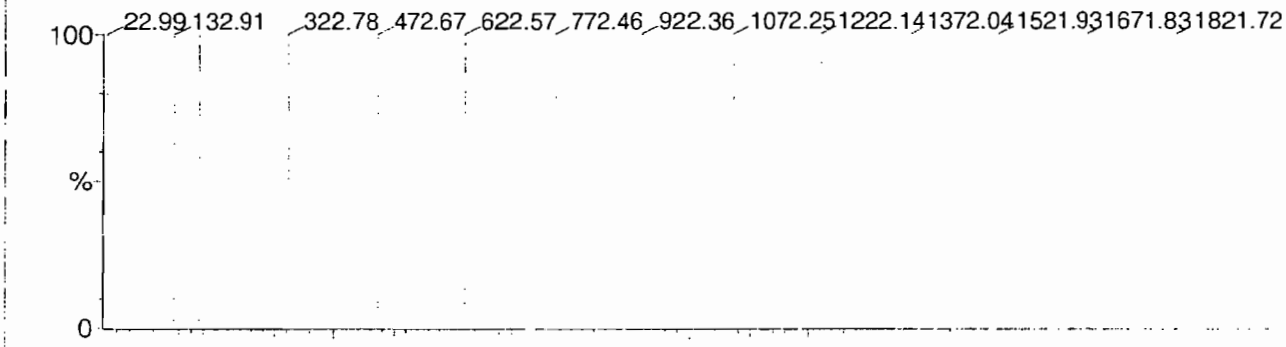

Mass difference (Raw - Ref mass)

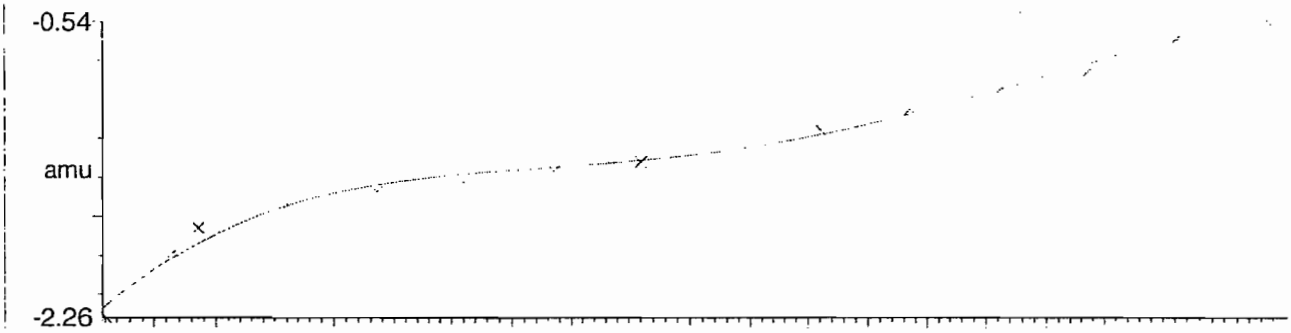

Residuals

Mean residual = 3.486639e-9 ± 0.040487

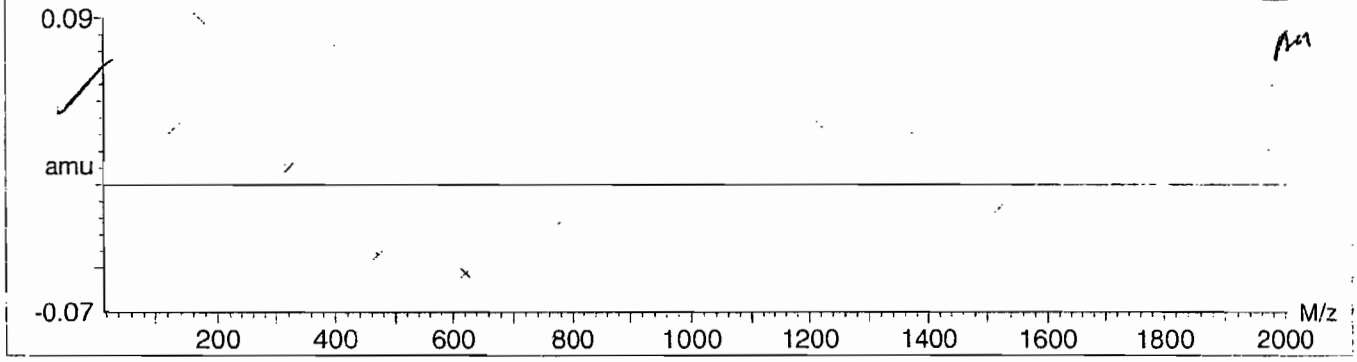

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Calibration Report - MS2 Static

Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

15 matches of 15 tested references

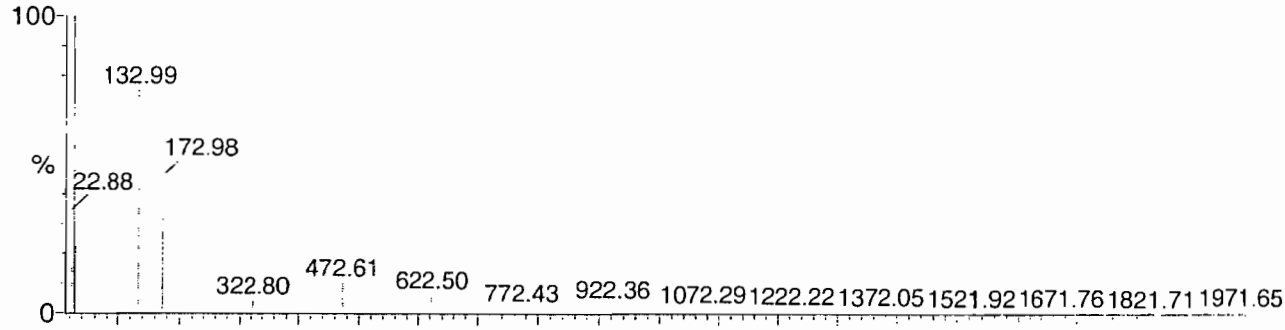

Reference file: Naics2

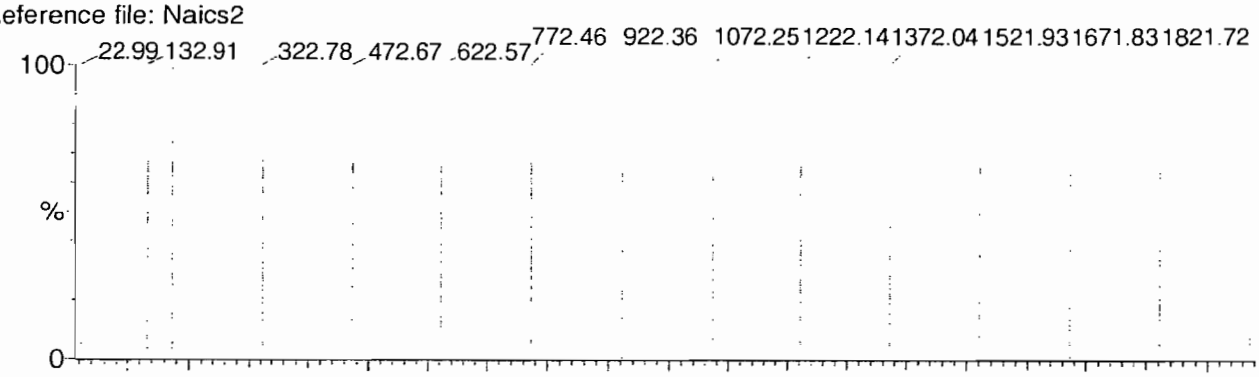

Mass difference (Raw - Ref mass)

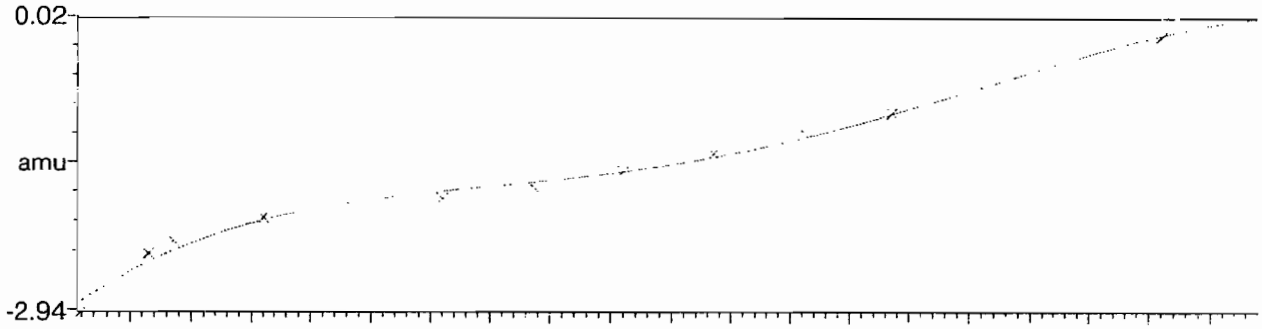

Residuals

Mean residual = 2.048910e-9 ± 0.057803

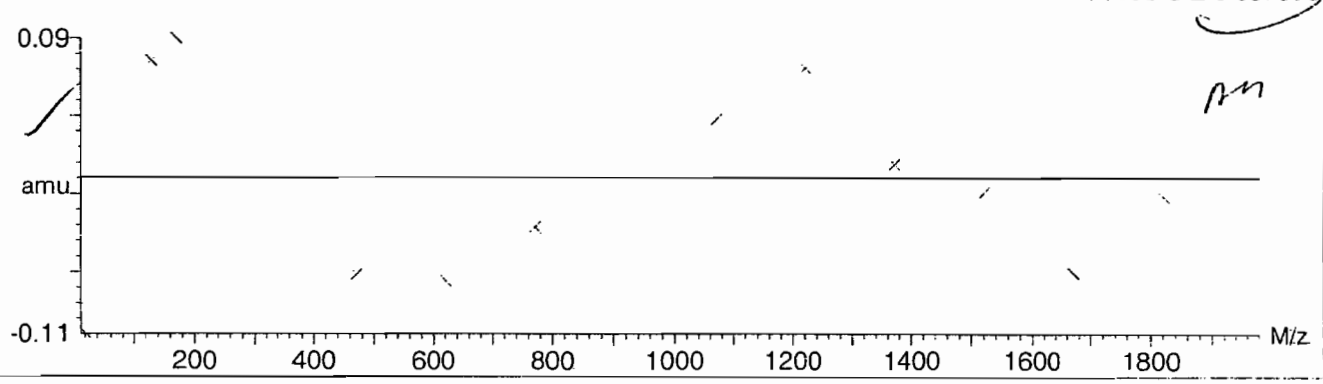

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: **Fri Aug 25 10:54:00 2006**

Data file: SCNMS2 - Calibrated

14 matches of 15 tested references

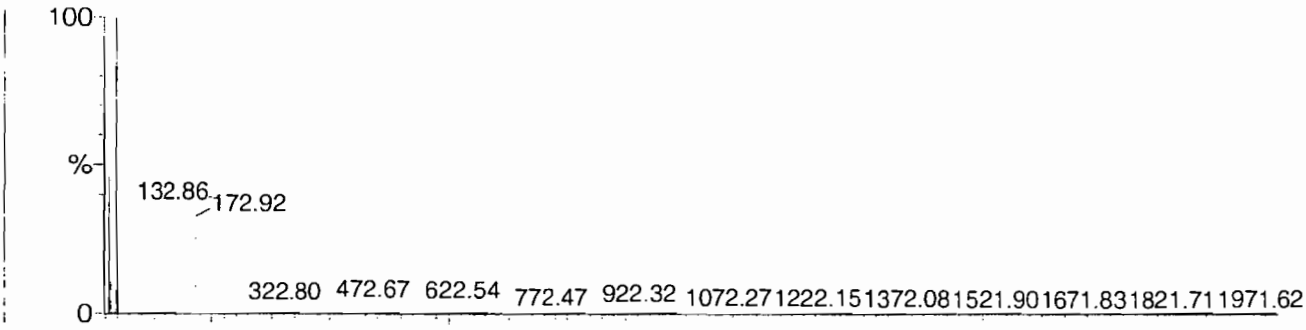

Reference file: Naics2

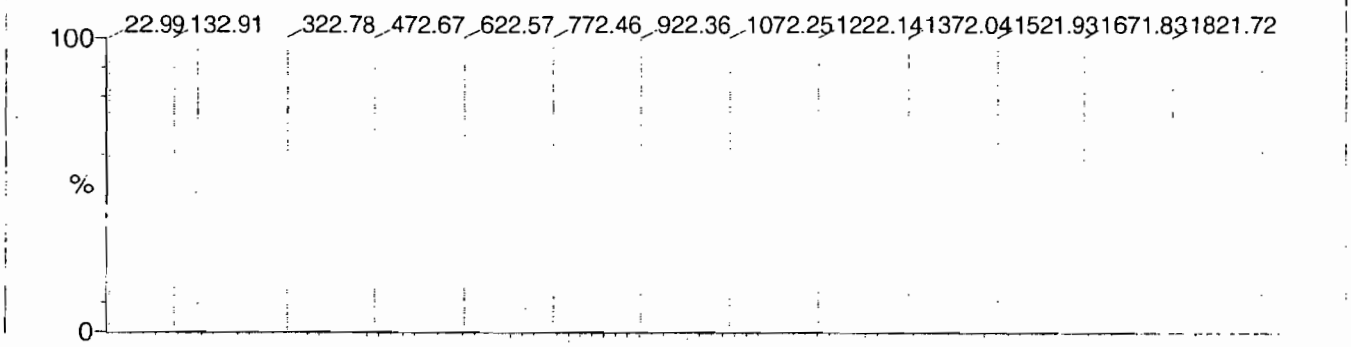

Mass difference (Raw - Ref mass)

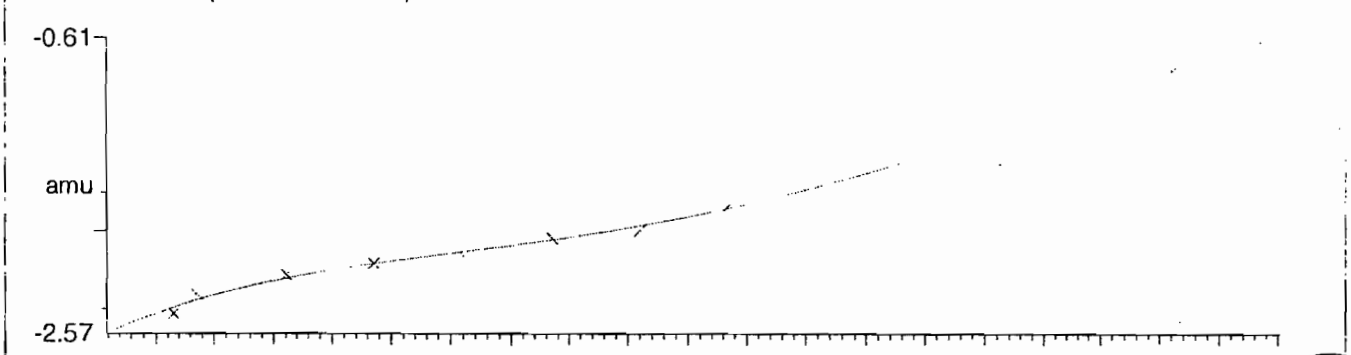

Residuals

Mean residual = -2.623502e-9 ± 0.025622

m

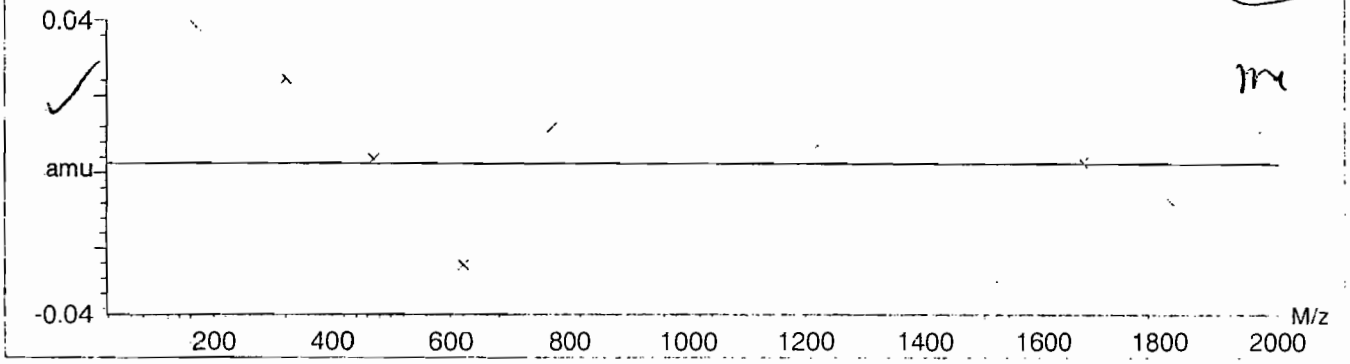

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Calibration Report - MS2 Scan Speed Compensation

Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

14 matches of 15 tested references

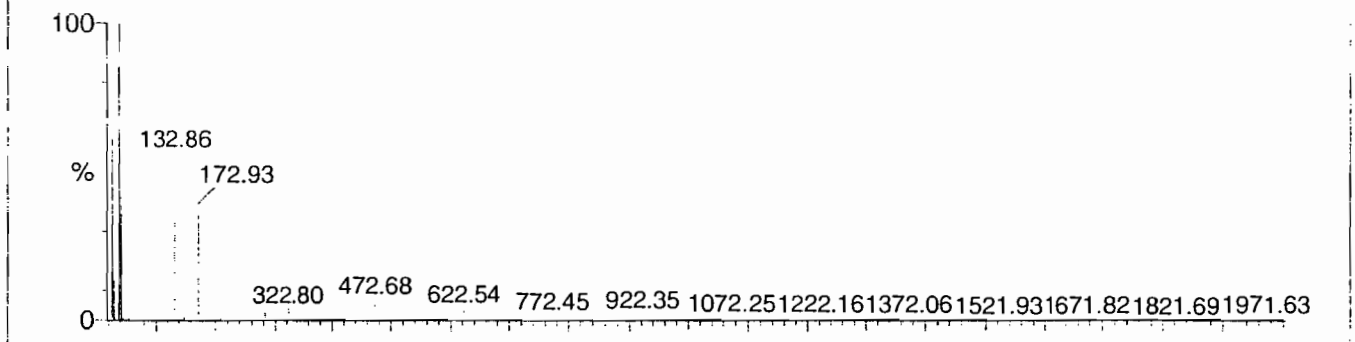

Reference file: Naics2

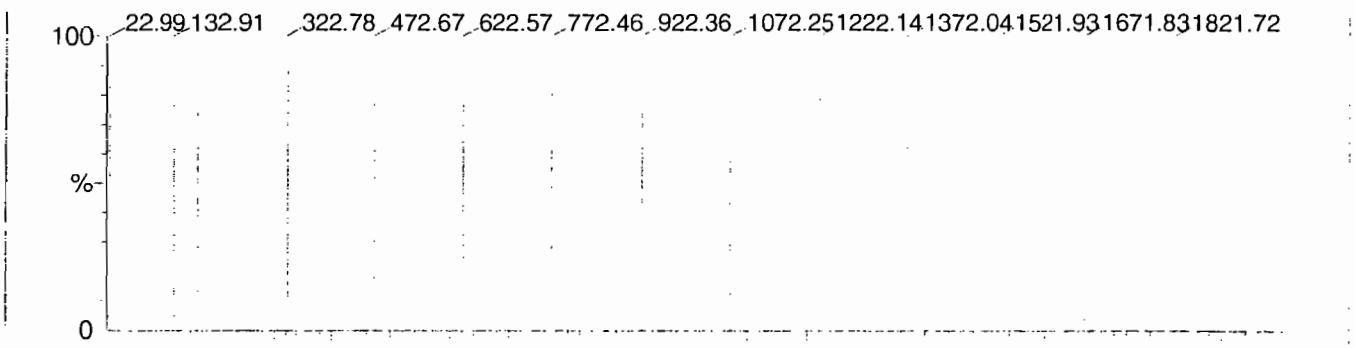

Mass difference (Raw - Ref mass)

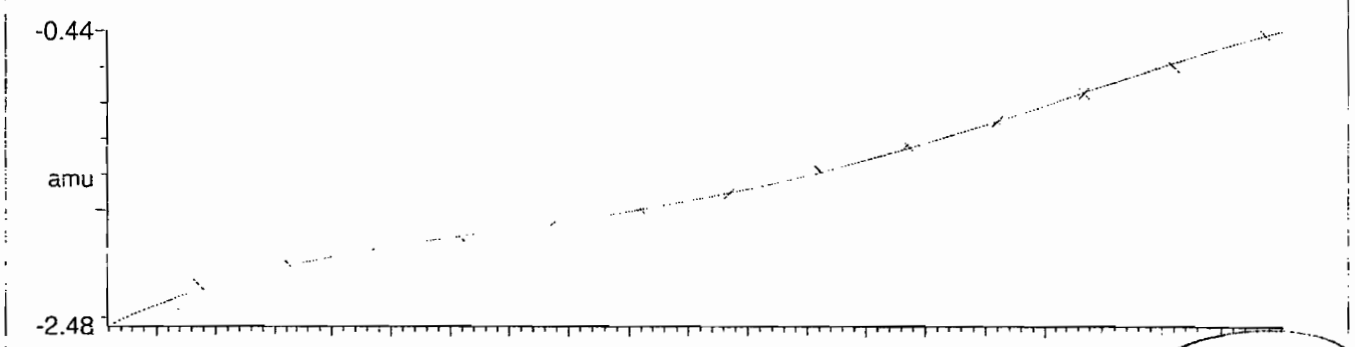

Residuals

Mean residual = -6.785350e-9 ± 0.023134

mn

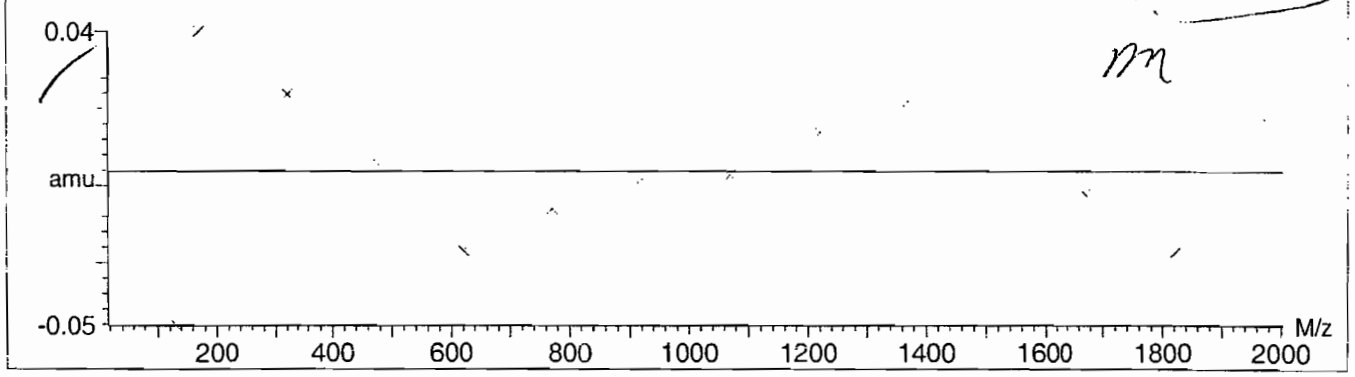

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2005

Lab Code: GEL

HPLC Column: Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			20900000	10.767	90983333.333	15.067
Upper Limit			27170000	11.267	118278333.333	15.567
Lower Limit			14630000	10.267	63688333.3331	14.567
MB for batch 957190	23–mar–10 00:20	EXP0322021.w	17300000	10.9	78100000	15.3
LCS for batch 957190	23–mar–10 00:47	EXP0322022.w	19400000	10.9	83800000	15.3
CAPA–10–13498	23–mar–10 01:13	EXP0322023.w	18800000	10.9	81200000	15.3

IS1 (DNB) = 1,3–Dinitrobenzene–d4
IS2 (DNT) = 2,6–Dinitrotoluene–d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = – 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = –0.5 of average multipoint RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits

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SAMPLE DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13498

Lab Code: GEL

GEL Job No (SDG) 10-2005

Matrix: GROUND WATER

GEL Sample ID: 247824003

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 23-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 957190

Concentrated Extract Volume (mL) 5

Date Extracted: 25-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0322023.wiff

Date Analyzed: 23-MAR-10 01:13

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	U
121-14-2	2,4-Dinitrotoluene	0.325	U
121-82-4	RDX	0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	U
2691-41-0	HMX	0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	U
479-45-8	Tetryl	0.649	U
606-20-2	2,6-Dinitrotoluene	0.325	U
78-11-5	PETN	1.3	U
88-72-2	o-Nitrotoluene	0.325	U
98-95-3	Nitrobenzene	0.325	U
99-08-1	m-Nitrotoluene	0.325	U
99-35-4	1,3,5-Trinitrobenzene	0.325	U
99-65-0	m-Dinitrobenzene	0.325	U
99-99-0	p-Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322023.wiff	**Acquisition Date**	3/23/2010 1:13:38 AM
Sample Name	247824003	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

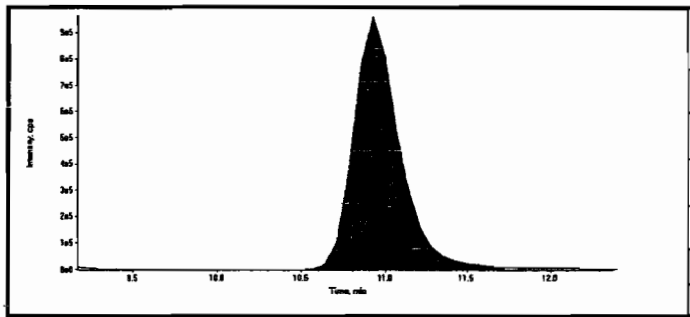

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	18800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

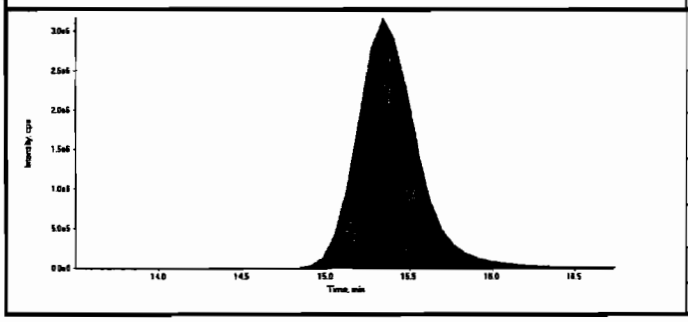

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.30
Area Counts:	81200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

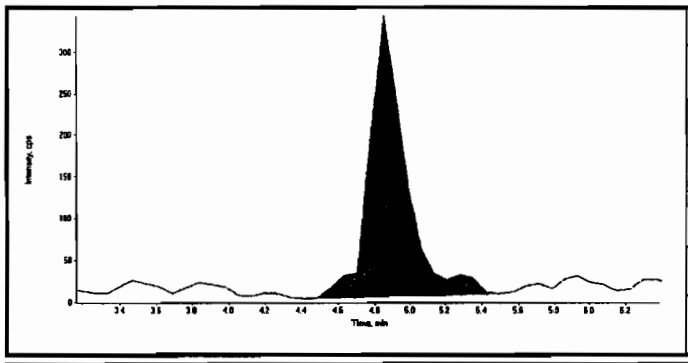

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.85
Area Counts:	4.83e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

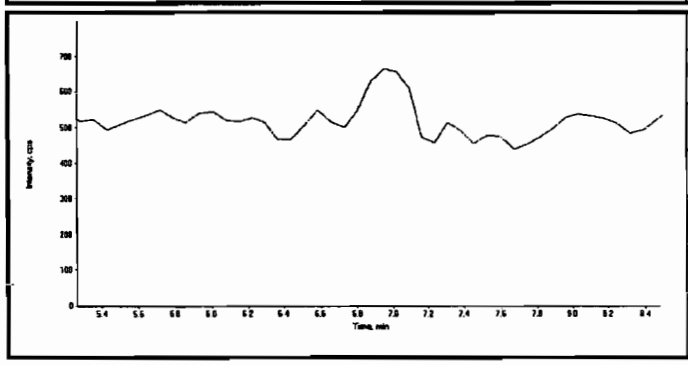

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Lcr 3/28/10

Hmm 03/30/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322023.wiff	**Acquisition Date**	3/23/2010 1:13:38 AM
Sample Name	247824003	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

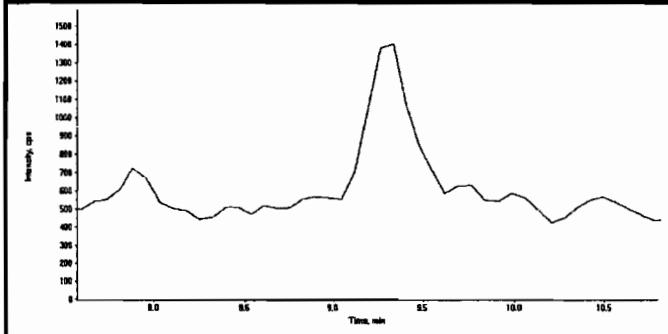

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

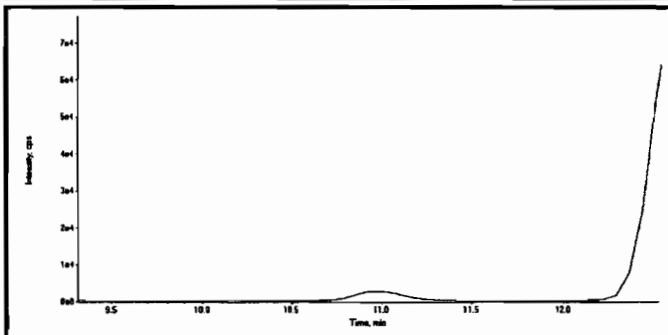

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

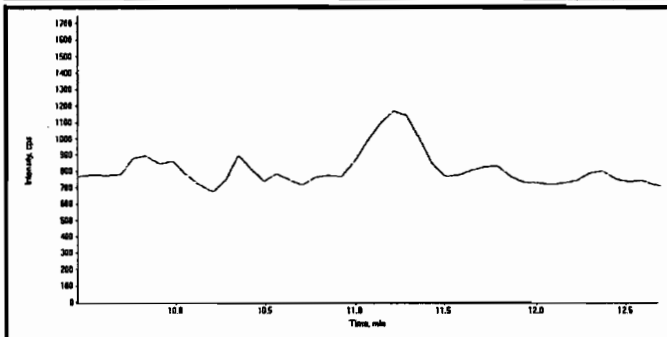

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

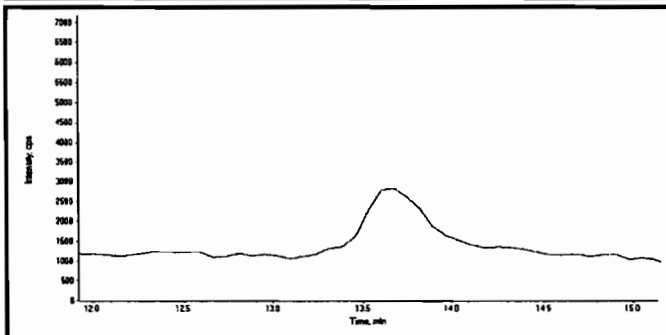

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322023.wiff	**Acquisition Date**	3/23/2010 1:13:38 AM
Sample Name	247824003	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

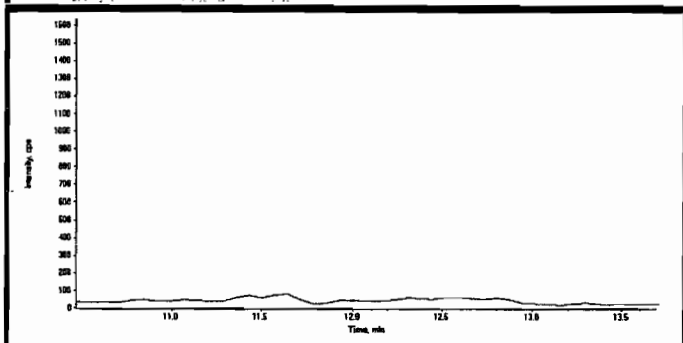

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

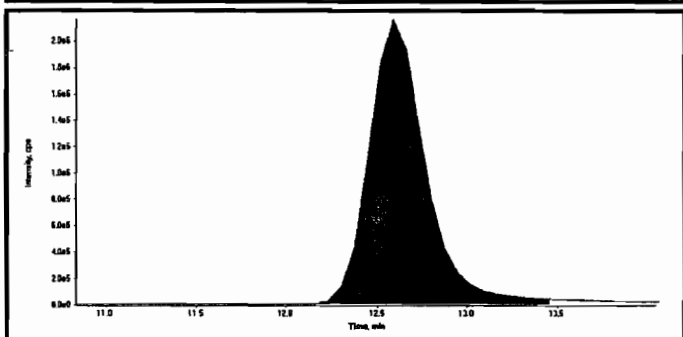

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.6
Area Counts:	4.76e+007
Manual Modification	No
Amount:	2.95 227. (ng/mL)
% Accuracy:	N/A

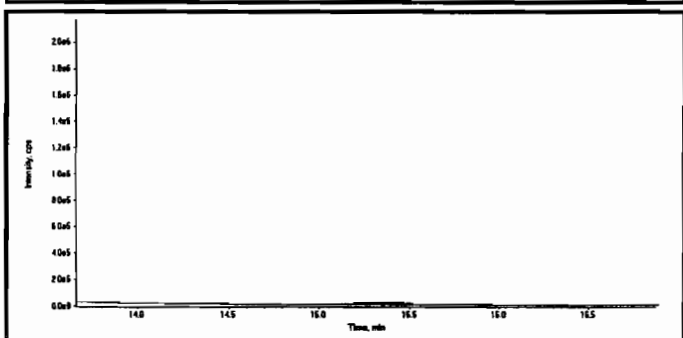

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	8.57e+005
Manual Modification	No
Amount:	5.43 (ng/mL)
% Accuracy:	N/A

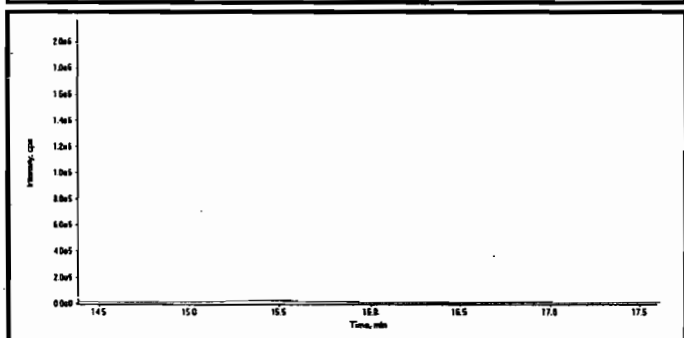

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322023.wiff	**Acquisition Date**	3/23/2010 1:13:38 AM
Sample Name	247824003	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

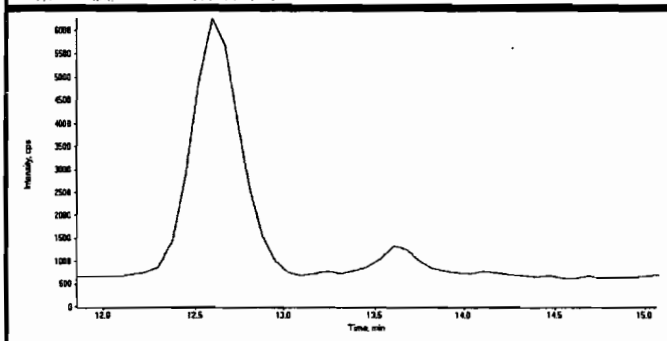

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

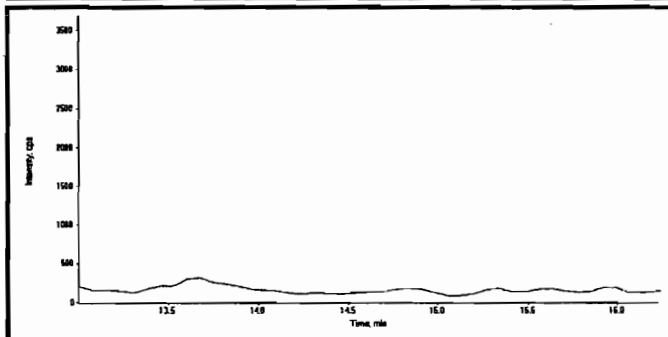

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

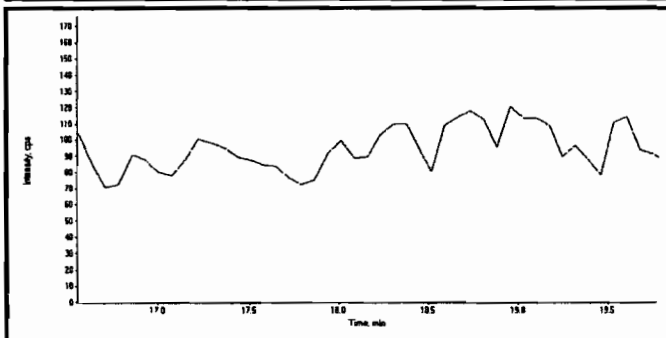

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

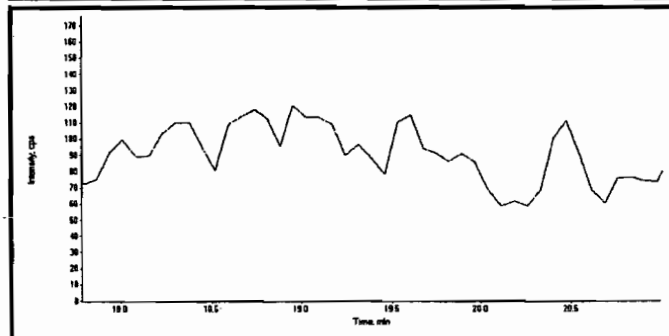

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322023.wiff	**Acquisition Date**	3/23/2010 1:13:38 AM
Sample Name	247824003	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	**Result Table**	032210.rdb
Procedure Code	LCX3521_L	**Sample Type**	**Unknown**

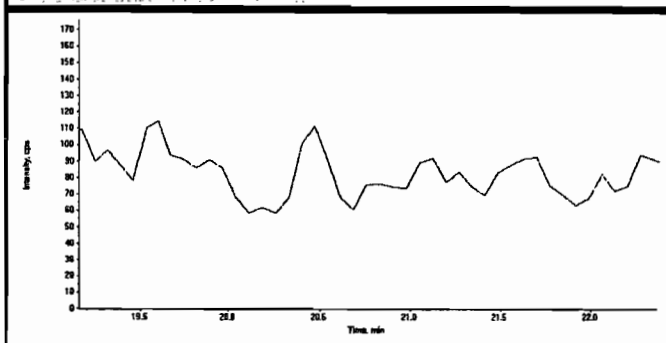

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

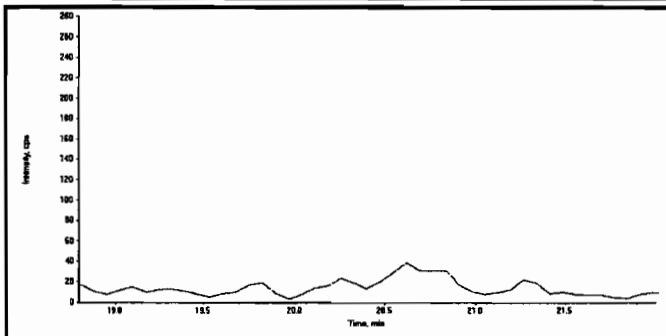

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13498

Lab Code: GEL

GEL Job No (SDG) 10-2005

Matrix: GROUND WATER

GEL Sample ID: 247824003

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 23-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 957190

Concentrated Extract Volume (mL) 5

Date Extracted: 25-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310041.wiff

Date Analyzed: 31-MAR-10 19:09

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ran 4/5/10

ple Name: "247824003" Sample ID: "957192|2|LER" File: "EXS03310041.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/31/2010
Time: 7:09:05 PM

fied: No

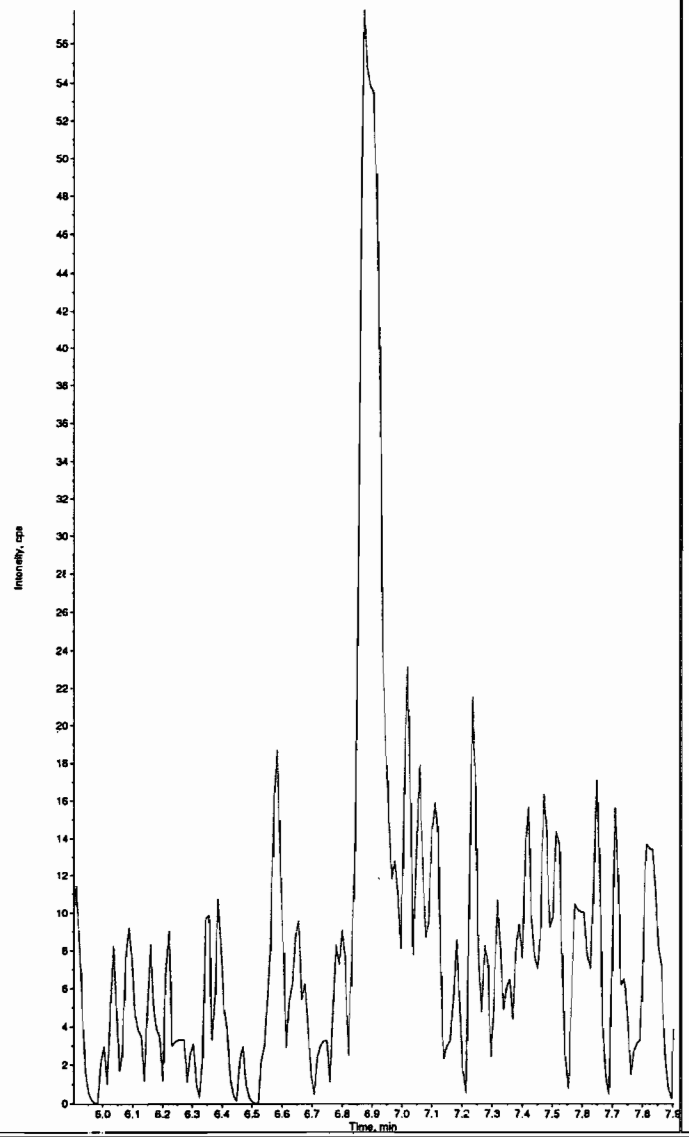

Sample Name: "247824003" Sample ID: "957192|2|LER" File: "EXS03310041.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 7:09:05 PM

Modified: No

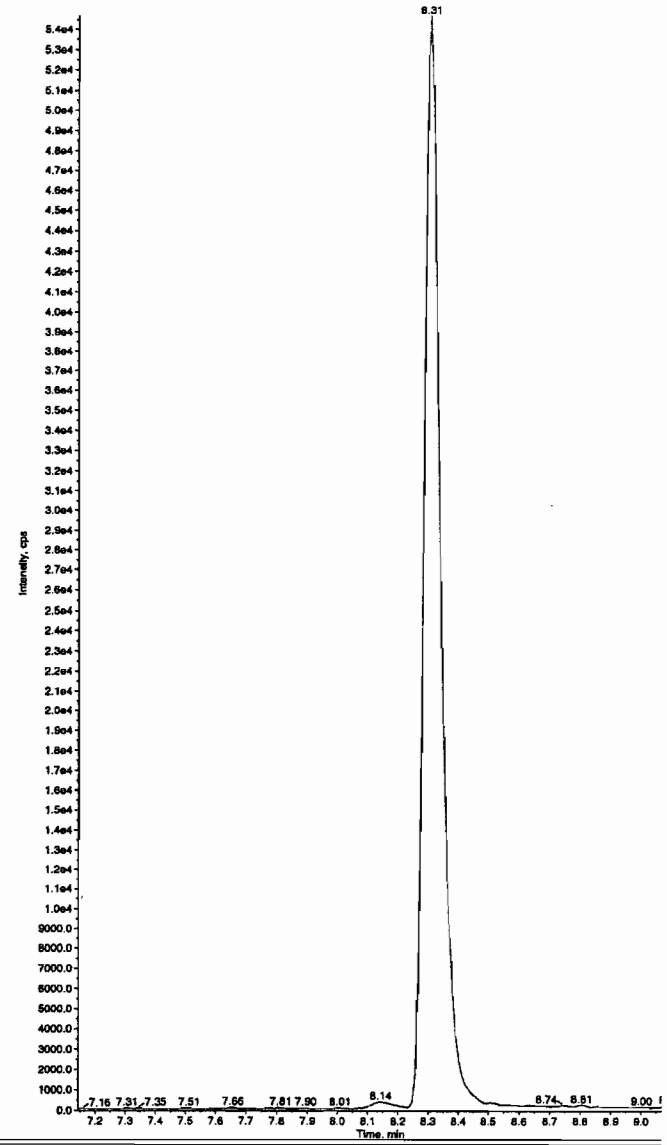

Hmx 04/07/10

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Name: "247824003" Sample ID: "957192|2|LER" File: "EXS03310041.wiff"
ıme: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ıt: "LCX83212S" Annotation: ""

3.14

:ndex: 1
Type: Unknown
:ation: N/A
:ed Conc: 242. ng/mL
:e: 3/31/2010
ıe: 7:09:05 PM

ı: No
.gorithm: IntelliQuan - IQA
ık Height: 1460.00 cps
ık Width: 0.00 sec
ıg Width: 3 points
ıw: 15.0 sec
ı RT: 8.31 min
ıtive RT: No

ıe: Valley
ın Time: 8.30 min
1.97e+006 counts
510324.463 cps
.me: 8.20 min
:: 8.66 min

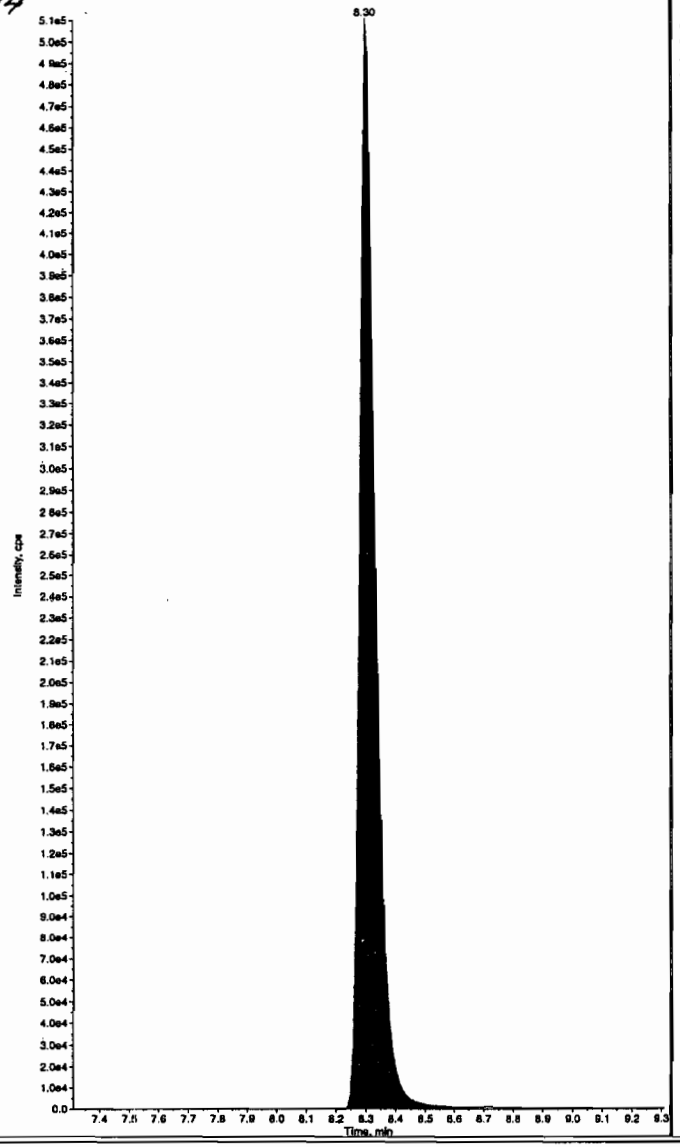

Sample Name: "247824003" Sample ID: "957192|2|LER" File: "EXS03310041.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 7:09:05 PM

Modified: No

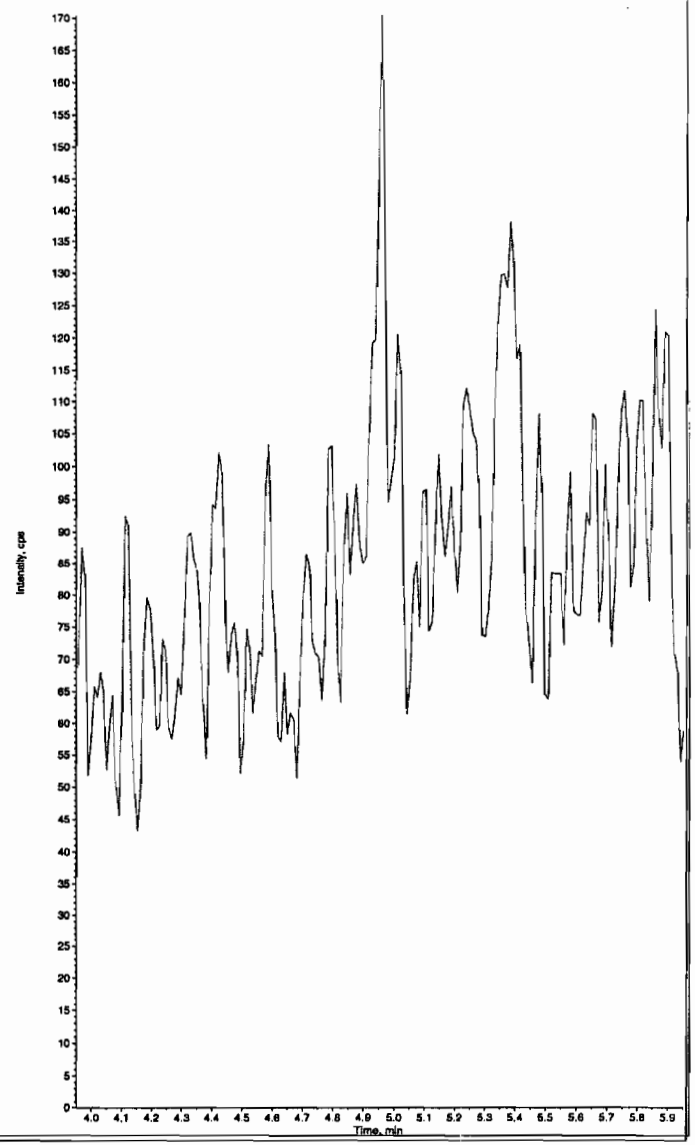

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ame: "247824003" Sample ID: "957192|2|LER" File: "EXS03310041.wiff"
ne: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
: "LCX83212S" Annotation: ""
ndex: 1
ype: Unknown
ation: N/A
ed Conc: 0.00 ng/mL
e: 3/31/2010
e: 7:09:05 PM
: No

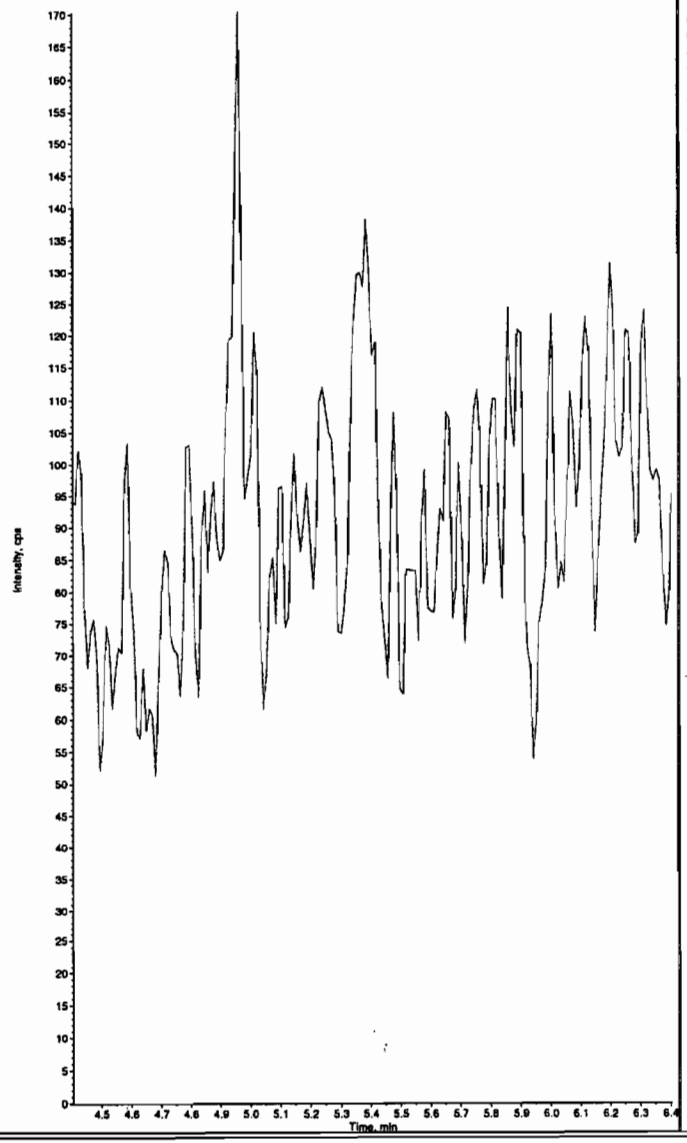

Sample Name: "247824003" Sample ID: "957192|2|LER" File: "EXS03310041.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:     Unknown
Concentration:      N/A
Calculated Conc: No Intercept
Acq. Date:       3/31/2010
Acq. Time:       7:09:05 PM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:       10.8    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.8   min
Area:          3.55e+004   counts
Height:         8639.865   cps
Start Time:         10.7   min
End Time:           11.0   min
```

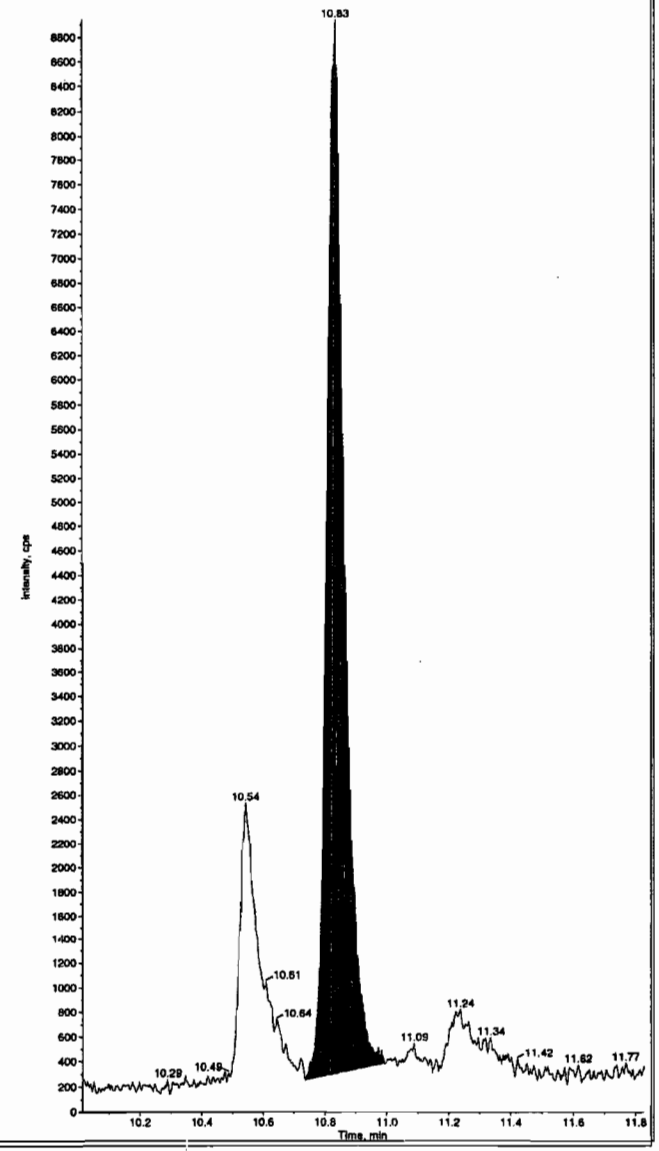

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STANDARDS DATA

SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MNX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2005

Lab Code: GEL

Run Date: 22-MAR-10,31-MAR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	50	51	52	53	54	55	Ave RF	RSD	Q
Data File:	EXP0322003.wi	EXP0322004.wi	EXP0322005.wi	EXP0322006.wi	EXP0322007.wi	EXP0322008.wi			
Parmname									
1,3,5-Trinitrobenzene	7.75	7.28	6.98	6.36	5.48	5.07	6.487	16.2	
2,4-Dinitrotoluene	.57	.651	.566	.564	.599	.561	0.585	6.02	
2,6-Dinitrotoluene	1.11	1.15	1.01	.937	.831	.801	0.973	14.7	
2-Amino-4,6-dinitrotoluene	.032	.033	.034	.031	.038	.034	0.034	7.31	
3,4-Dinitrotoluene	1.36	1.42	1.31	1.25	1.28	1.14	1.293	7.44	
4-Amino-2,6-dinitrotoluene	1.12	1.23	1.1	1	1.01	.88	1.057	11.5	
Nitrobenzene	.125	.126	.138	.136	.143	.144	0.135	6.11	
PETN	.011	.012	.012	.011	.013	.013	0.012	7.75	
RDX	1.47	1.58	1.47	1.53	1.6	1.54	1.532	3.6	
Tetryl	4.44	4.71	4.46	4.11	4.11	3.81	4.273	7.57	
m-Dinitrobenzene	2.83	2.67	2.81	2.58	2.64	2.44	2.662	5.53	
m-Nitrotoluene	.008	.01	.009	.009	.01	.01	0.009	8.63	
o-Nitrotoluene	.014	.016	.016	.015	.017	.016	0.016	5.74	
p-Nitrotoluene	.007	.008	.008	.008	.009	.008	0.008	6.86	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2005

Lab Code: GEL

Run Date: 22-MAR-10,31-MAR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Linear

Calibration Level:	50	51	52	53	54	55	Slope	Intercept	COD	Q
Data File:	EXP0322003.w	EXP0322004.w	EXP0322005.w	EXP0322006.w	EXP0322007.w	EXP0322008.w				
Parmname										
HMX	2580000	5050000	21000000	38800000	65900000	82000000	2.13	.043	.9997	

Linear fit : Y=mx +b
where b is Intercept and m is slope

COD is Coefficient of Determination

Q column used to flag COD values outside of Limit (<0.990)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2005

Lab Code: GEL

Run Date: 22-MAR-10,31-MAR-10

LCMSMS Instrument ID: LCMSMS3

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	50	51	52	53	54	55	X	X^2	Intercept	COD	Q
Data File:	EXP0322003.wiff	EXP0322004.wiff	EXP0322005.wiff	EXP0322006.wiff	EXP0322007.wiff	EXP0322008.wiff					
Parmname:											
2,4,6-Trinitrotoluene	15900000	30600000	116000000	195000000	301000000	345000000	.029	3.07	-.564	.9979	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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032210ICAL

Peak Name: 13-Dinitrobenzene-d4
Use as Internal Standard
Q1/Q3 Masses: 172.05/46.10 amu
Peak Name: 26-Dinitrotoluene-d3
Use as Internal Standard
Q1/Q3 Masses: 184.99/155.00 amu

Peak Name: HMX
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 341.20/46.00 amu

Fit Linear Weighting None Iterate No
Intercept 0.0425
Slope 2.13
Correlation coefficient 0.9997
Use Area

Peak Name: RDX
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 267.01/46.10 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.53
Standard deviation 0.0551
%RSD 3.6
Use Area

Peak Name: 135-Trinitrobenzene
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 212.97/182.80 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 6.49
Standard deviation 1.05
%RSD 16.2
Use Area

Peak Name: 13-Dinitrobenzene
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 167.95/137.90 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 2.66
Standard deviation 0.147

Lan 3/28/10

tmm 03/28/10

%RSD 5.53
Use Area

Peak Name: Tetryl
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 240.95/180.80 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 4.27
Standard deviation 0.323
%RSD 7.57
Use Area

Peak Name: 246-Trinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 227.12/209.80 amu

Fit Quadratic Weighting None Iterate No
a0 0.029
a1 3.07
a2 -0.564
Correlation coefficient 0.9979
Use Area

Peak Name: Nitrobenzene
Internal Standard: 13-Dinitrobenzene-d4
Q1/Q3 Masses: 123.04/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.135
Standard deviation 0.00826
%RSD 6.11
Use Area

Peak Name: 34-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 182.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.29
Standard deviation 0.0962
%RSD 7.44
Use Area

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Peak Name: 26-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 182.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.972
Standard deviation 0.143
%RSD 14.7
Use Area

Peak Name: 24-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 182.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.585
Standard deviation 0.0352
%RSD 6.02
Use Area

Peak Name: 4-Amino-26-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 197.02/167.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.06
Standard deviation 0.121
%RSD 11.5
Use Area

Peak Name: 2-Amino-46-dinitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 197.02/180.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.0333
Standard deviation 0.00244
%RSD 7.31
Use Area

Peak Name: 2-Nitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 137.00/46.00 amu

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Fit Mean Response Factor Weighting None Iterate No
Factor 0.0156
Standard deviation 0.000896
%RSD 5.74
Use Area

Peak Name: 4-Nitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 137.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.0078
Standard deviation 0.000535
%RSD 6.86
Use Area

Peak Name: 3-Nitrotoluene
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 137.00/46.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.00928
Standard deviation 0.0008
%RSD 8.63
Use Area

Peak Name: PETN
Internal Standard: 26-Dinitrotoluene-d3
Q1/Q3 Masses: 361.06/62.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 0.0119
Standard deviation 0.000925
%RSD 7.75
Use Area

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

032210.rdb
Analyte Name: HMX

Regression Equation: y = 2.13 x + 0.0425 (r = 0.9997)

Expected Concentration	Calculated Concentration	% Accuracy
25	17.67	70.7
50	47.17	94.3
200	207.55	103.8
400	402.17	100.5
800	812.43	101.6
1000	988.00	98.8

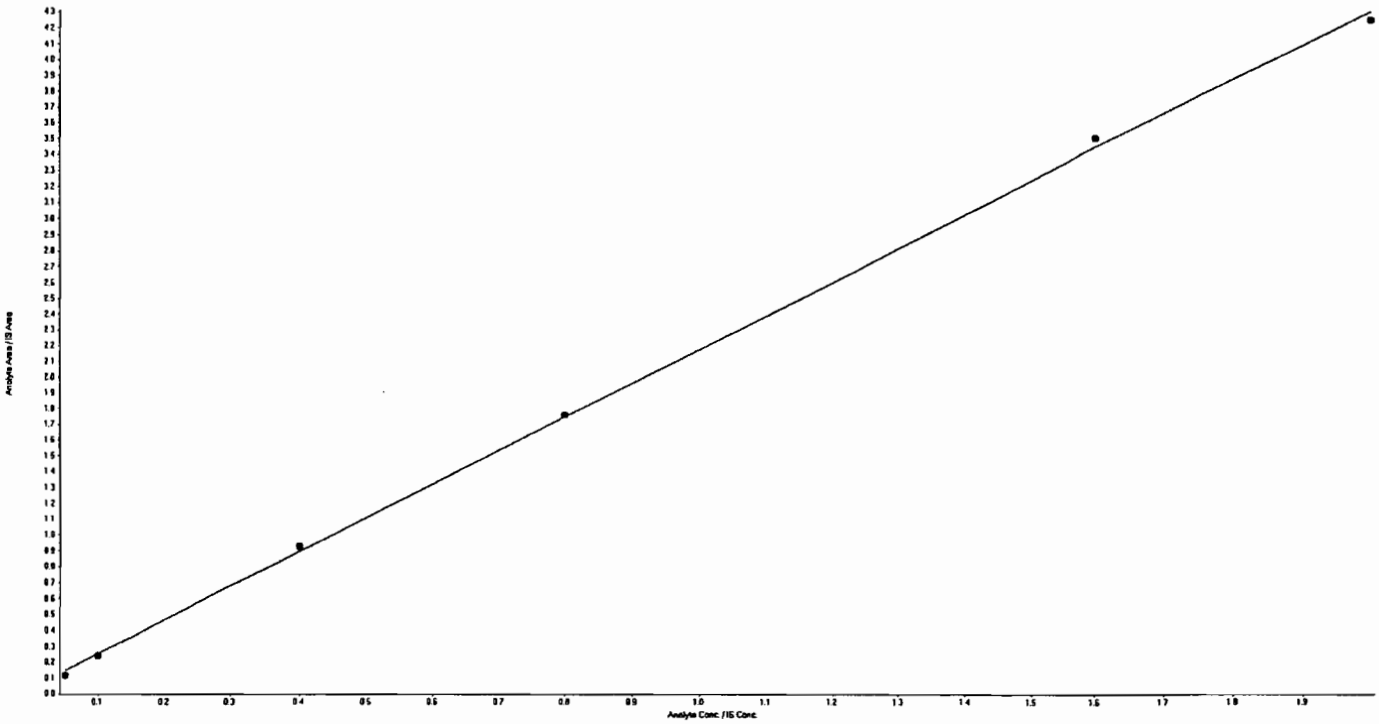

AMM 03/28/10
LCM 3/28/10

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LCMSMS#3

Analyte Name: RDX

Regression Equation: y = 1.53 x (std. dev. = 0.0551)

Expected Concentration	Calculated Concentration	% Accuracy
25	23.98	95.9
50	51.74	103.5
200	191.69	95.8
400	398.64	99.7
800	834.01	104.3
1000	1008.48	100.8

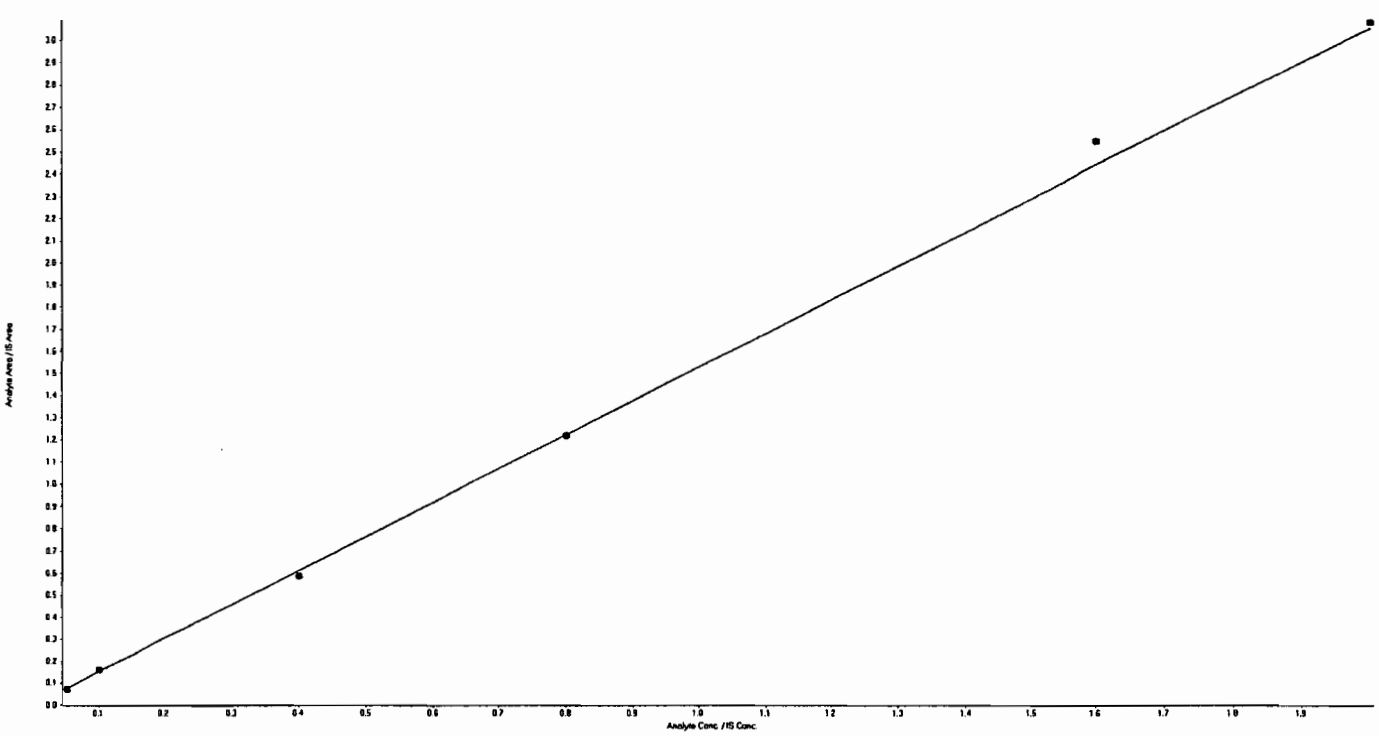

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Analyte Name: 135-Trinitrobenzene

Regression Equation: y = 6.49 x (std. dev. = 1.05)

Expected Concentration	Calculated Concentration	% Accuracy
25	29.86	119.4
50	56.14	112.3
200	215.29	107.6
400	392.08	98.0
800	675.96	84.5
1000	781.12	78.1

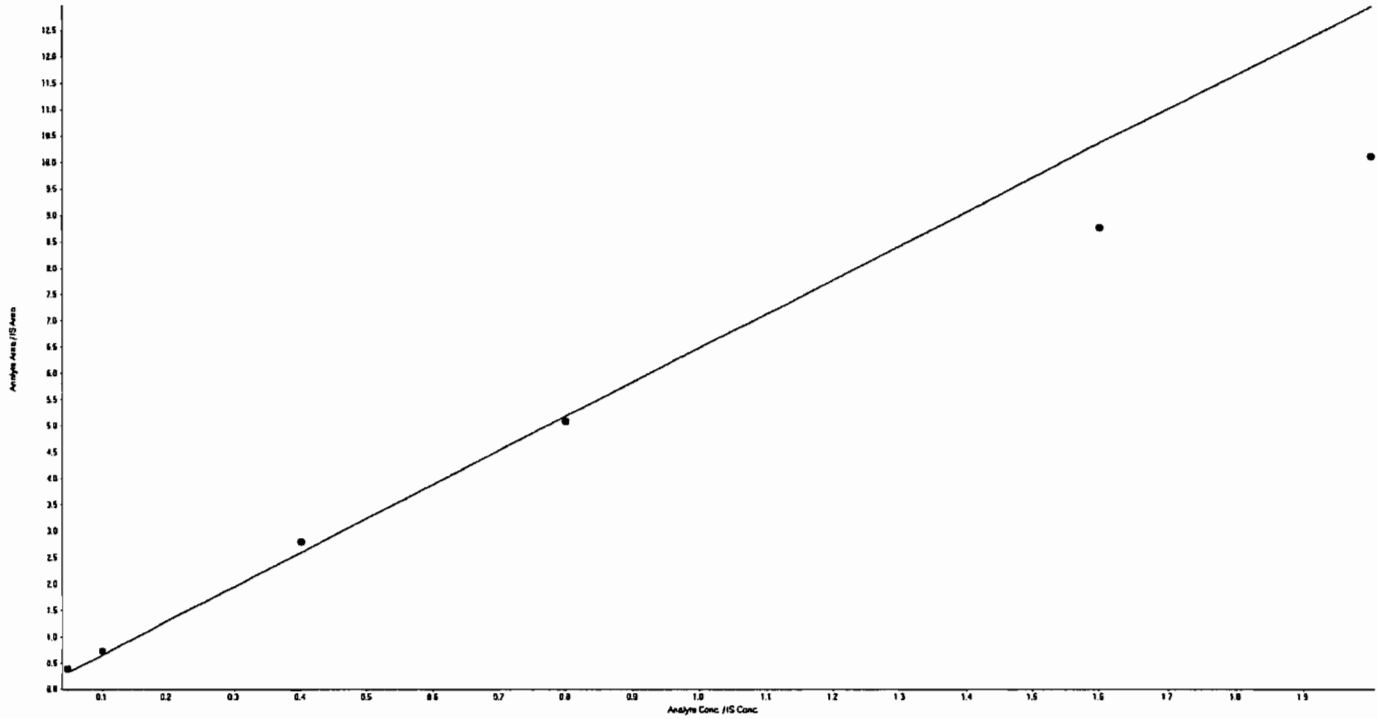

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Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Analyte Name: 13-Dinitrobenzene

Regression Equation: y = 2.66 x (std. dev. = 0.147)

Expected Concentration	Calculated Concentration	% Accuracy
25	26.60	106.4
50	50.25	100.5
200	211.01	105.5
400	387.47	96.9
800	793.17	99.1
1000	915.87	91.6

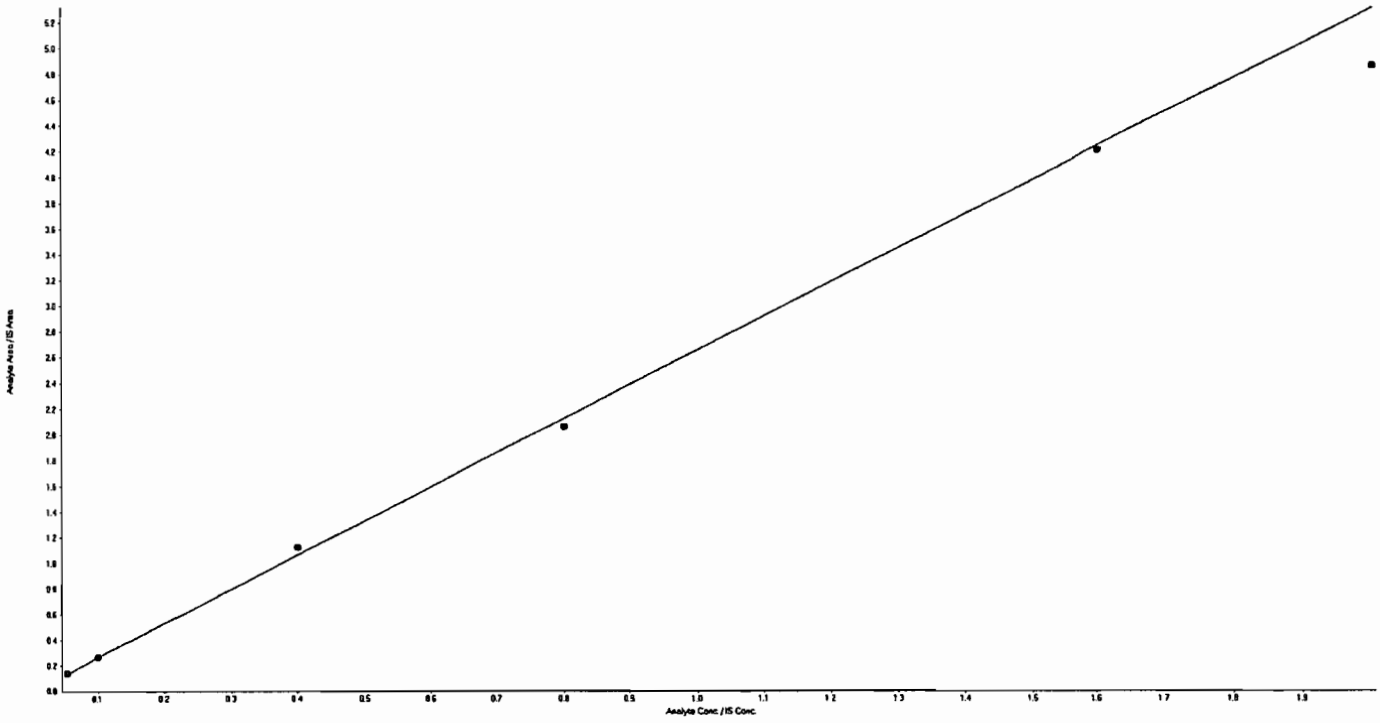

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Analyte Name: Tetryl

Regression Equation: y = 4.27 x (std. dev. = 0.323)

Expected Concentration	Calculated Concentration	% Accuracy
25	25.97	103.9
50	55.09	110.2
200	208.81	104.4
400	384.84	96.2
800	770.32	96.3
1000	890.43	89.0

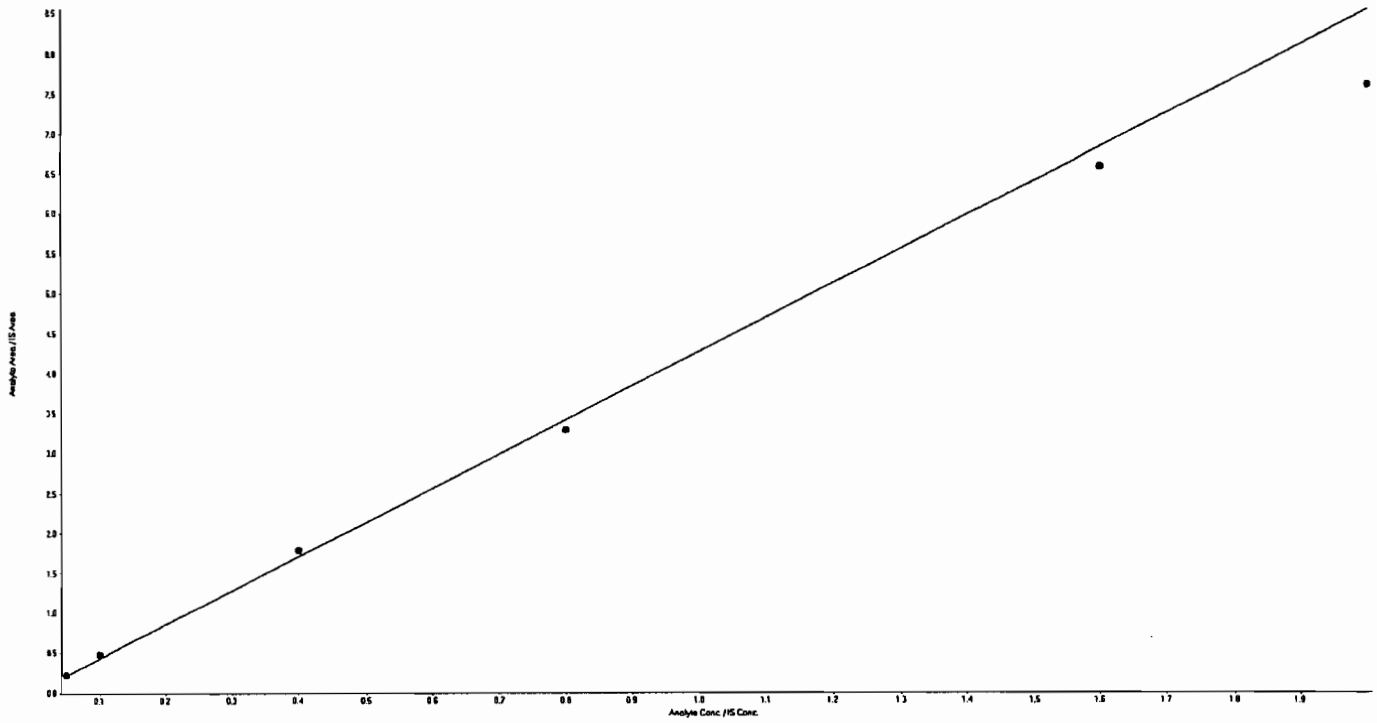

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Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Analyte Name: 246-Trinitrotoluene

Regression Equation: y = -0.564 x^2 + 3.07 x + 0.029 (r = 0.9979)

Expected Concentration	Calculated Concentration	% Accuracy
25	22.16	88.6
50	56.76	113.5
200	206.79	103.4
400	369.28	92.3
800	866.39	108.3
1000	953.30	95.3

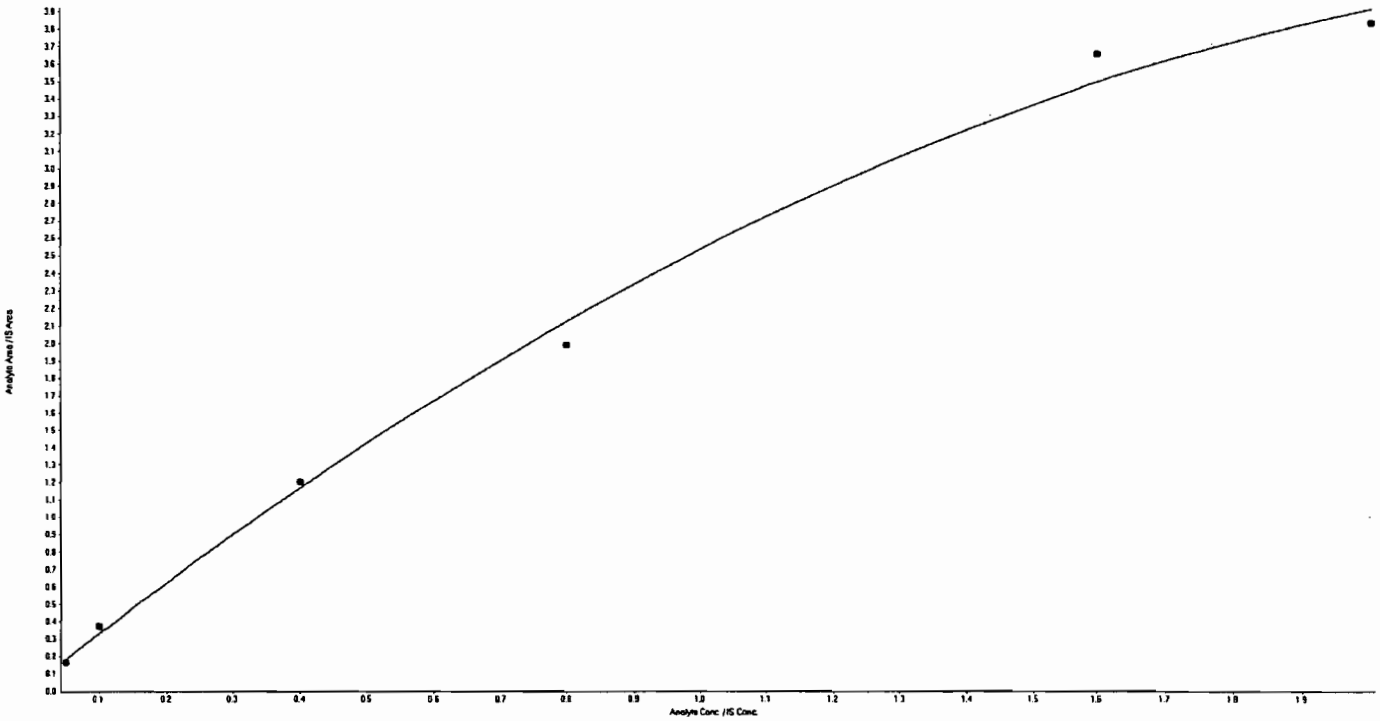

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Analyte Name: Nitrobenzene

Regression Equation: y = 0.135 x (std. dev. = 0.00826)

Expected Concentration	Calculated Concentration	% Accuracy
25	23.08	92.3
50	46.47	92.9
200	204.02	102.0
400	402.37	100.6
800	847.42	105.9
1000	1061.98	106.2

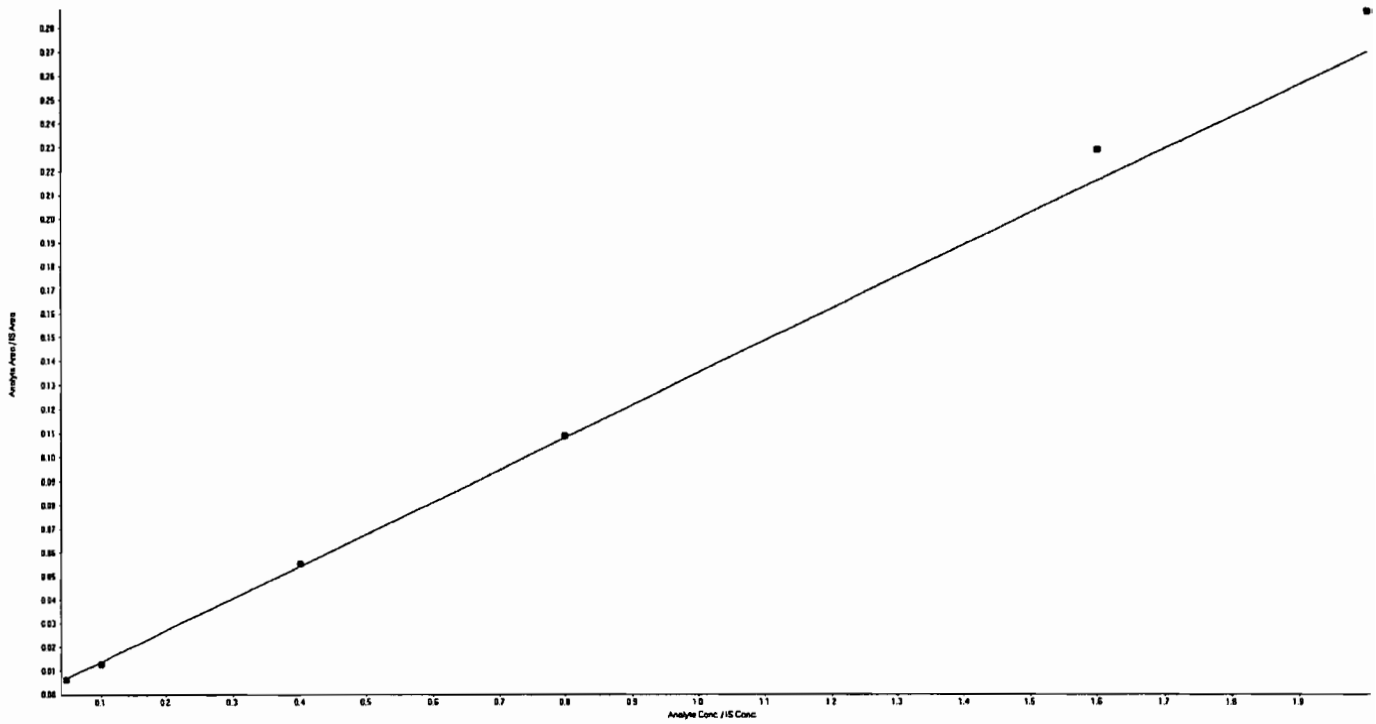

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Analyte Name: 34-dinitrotoluene

Regression Equation: y = 1.29 x (std. dev. = 0.0962)

Expected Concentration	Calculated Concentration	% Accuracy
12.5	13.12	104.9
25	27.51	110.0
100	101.29	101.3
200	192.98	96.5
400	395.66	98.9
500	441.68	88.3

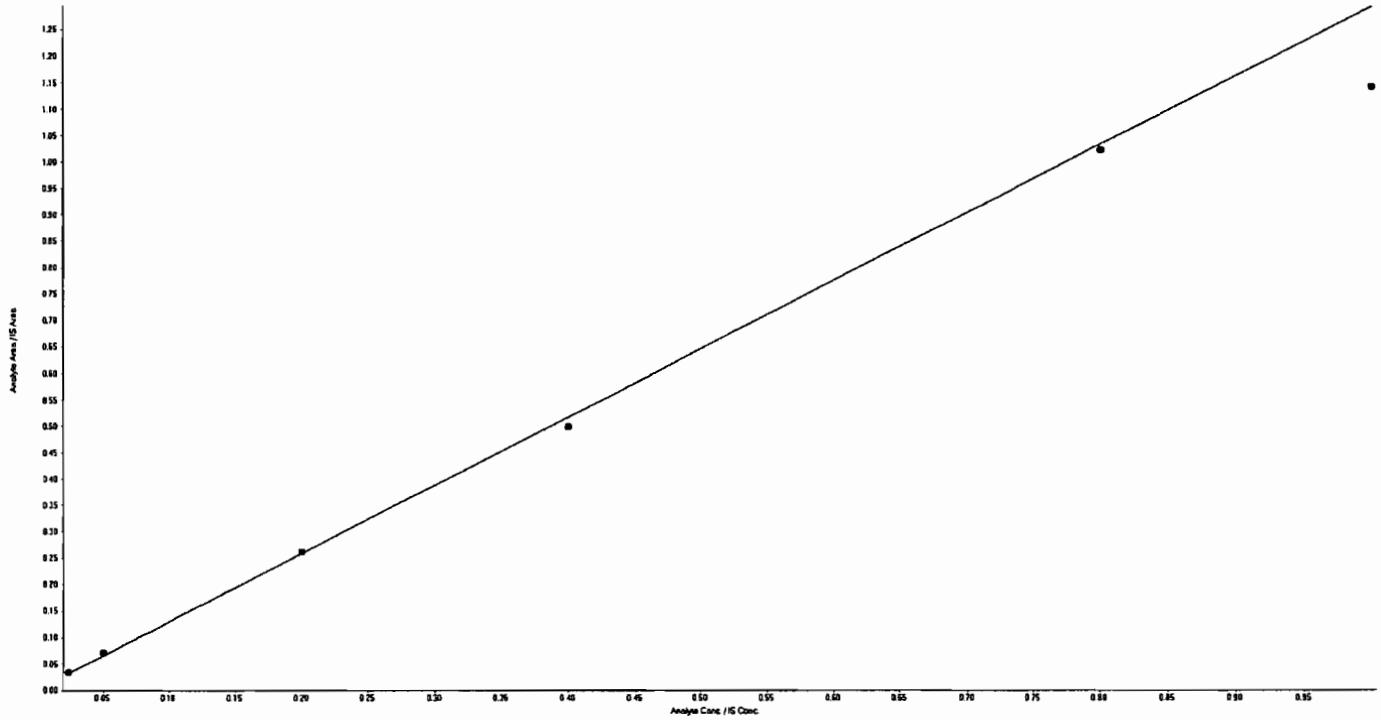

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Analyte Name: 26-dinitrotoluene

Regression Equation: y = 0.972 x (std. dev. = 0.143)

Expected Concentration	Calculated Concentration	% Accuracy
25	28.54	114.2
50	59.03	118.1
200	207.17	103.6
400	385.41	96.4
800	683.74	85.5
1000	823.74	82.4

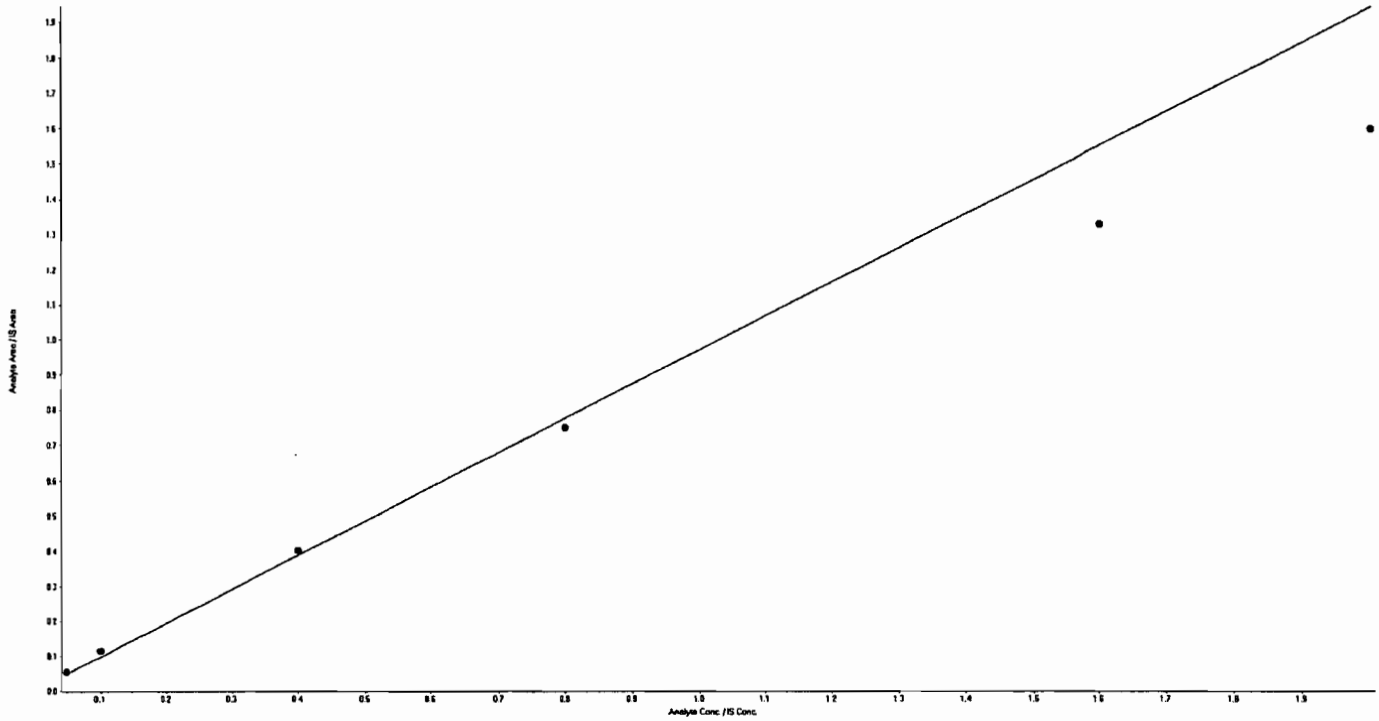

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Analyte Name: 24-dinitrotoluene

Regression Equation: y = 0.585 x (std. dev. = 0.0352)

Expected Concentration	Calculated Concentration	% Accuracy
25	24.36	97.4
50	55.65	111.3
200	193.35	96.7
400	385.77	96.4
800	818.76	102.3
1000	957.97	95.8

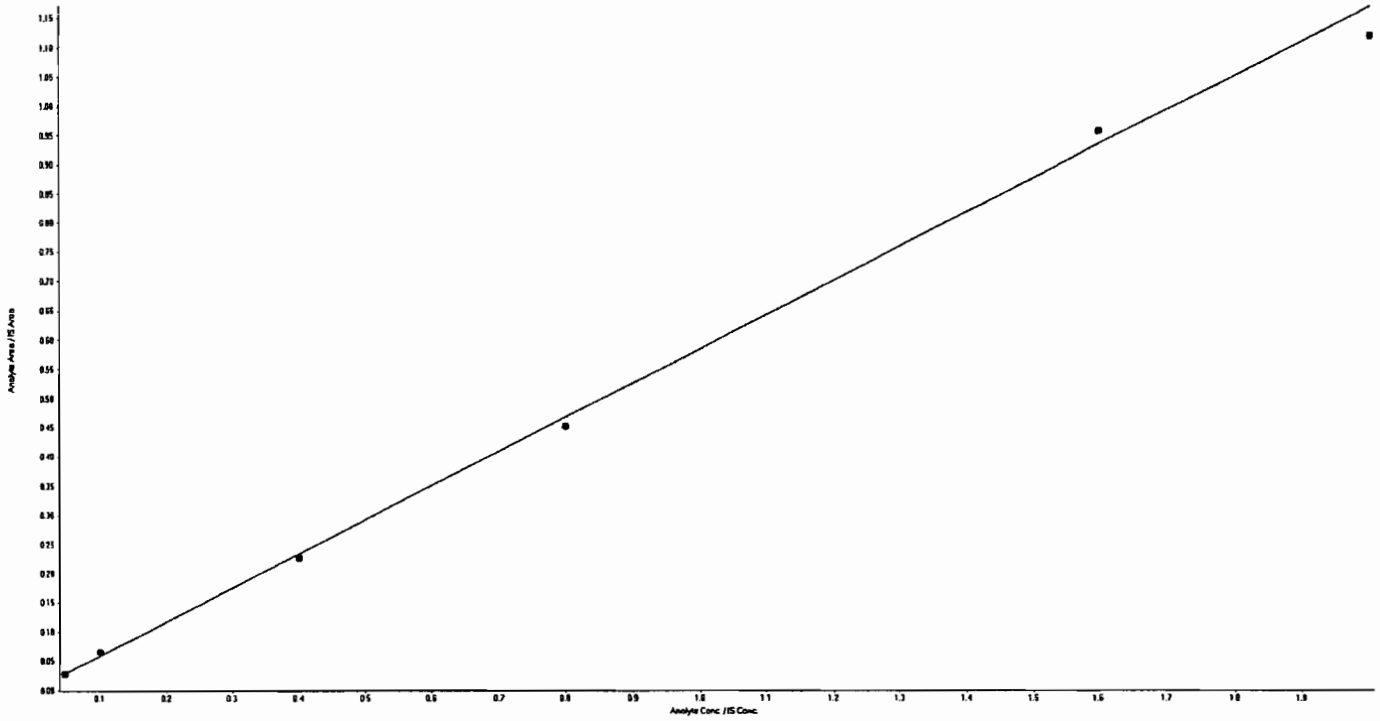

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Analyte Name: 4-Amino-26-dinitrotoluene

Regression Equation: y = 1.06 x (std. dev. = 0.121)

Expected Concentration	Calculated Concentration	% Accuracy
25	26.53	106.1
50	58.36	116.7
200	207.65	103.8
400	379.08	94.8
800	762.25	95.3
1000	832.96	83.3

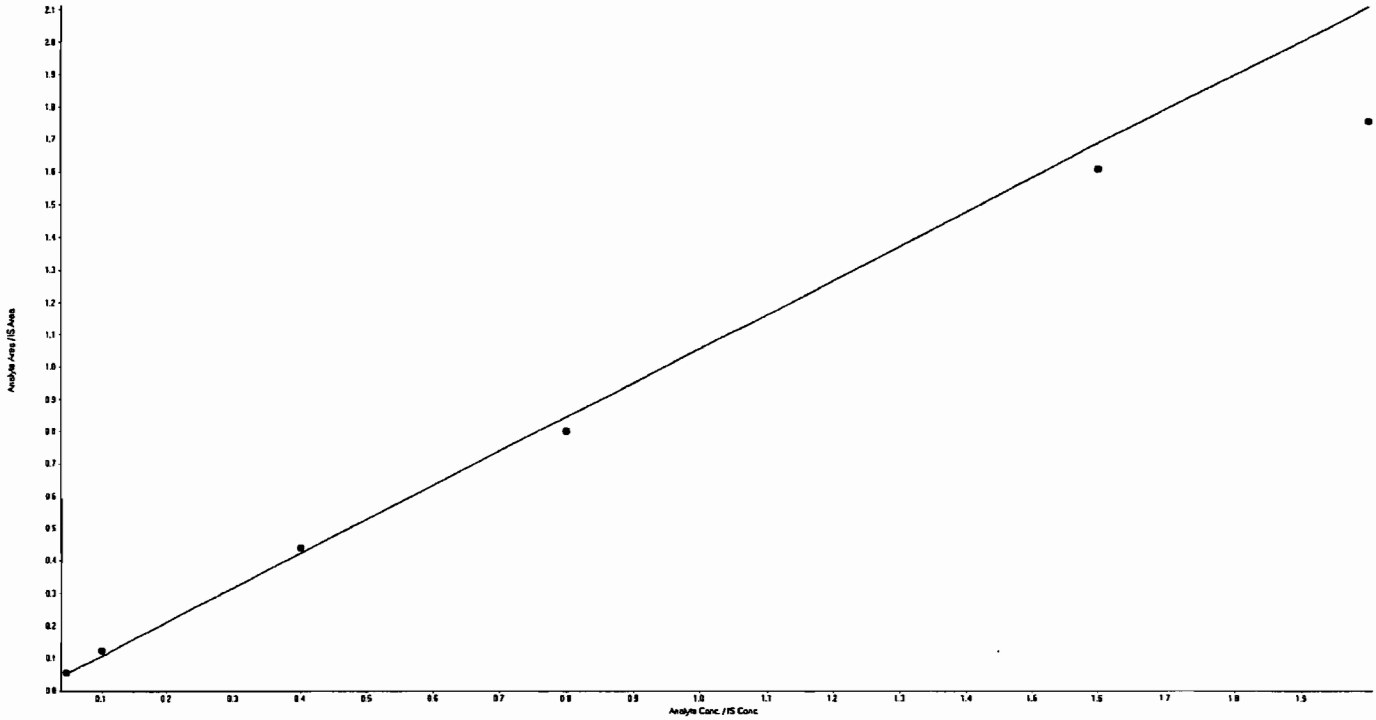

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Analyte Name: 2-Amino-46-dinitrotoluene

Regression Equation: y = 0.0333 x (std. dev. = 0.00244)

Expected Concentration	Calculated Concentration	% Accuracy
25	23.60	94.4
50	49.60	99.2
200	201.96	101.0
400	366.01	91.5
800	901.45	112.7
1000	1012.46	101.2

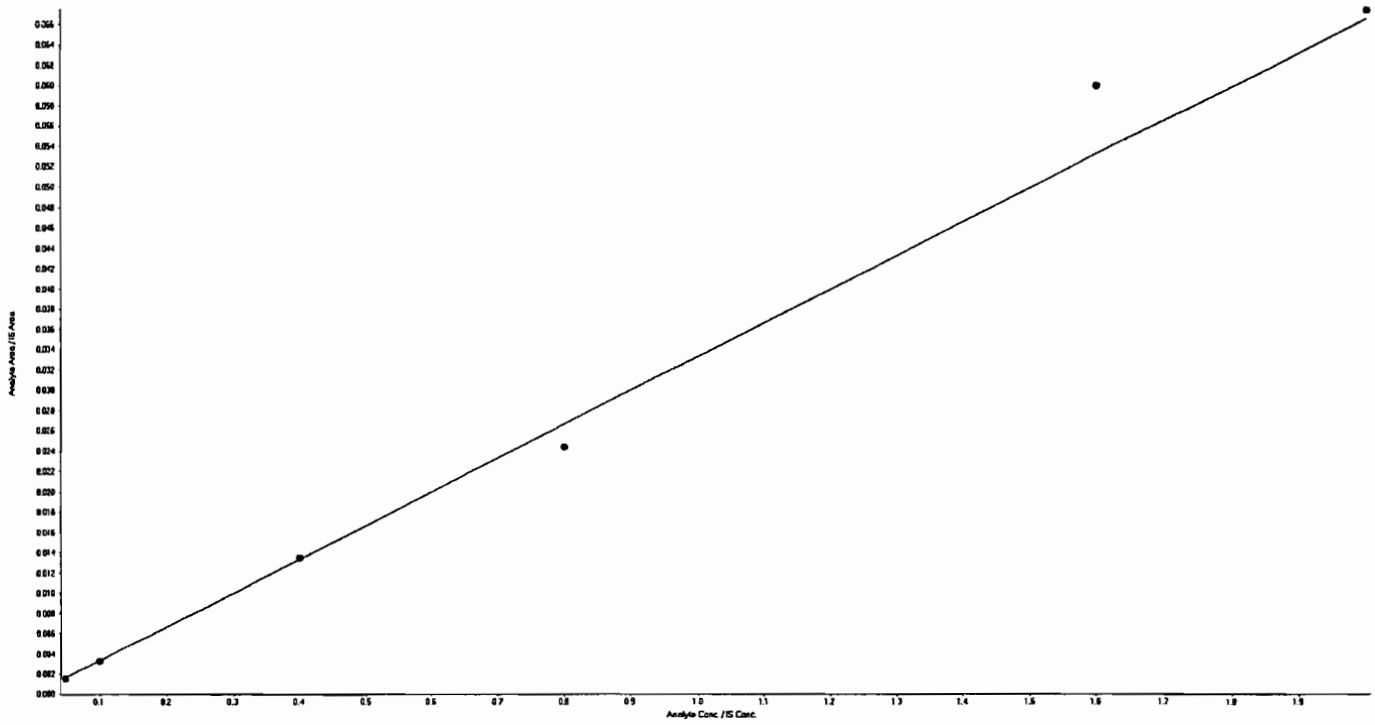

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Analyte Name: 2-Nitrotoluene

Regression Equation: y = 0.0156 x (std. dev. = 0.000896)

Expected Concentration	Calculated Concentration	% Accuracy
25	22.95	91.8
50	51.85	103.7
200	206.35	103.2
400	381.16	95.3
800	856.88	107.1
1000	989.18	98.9

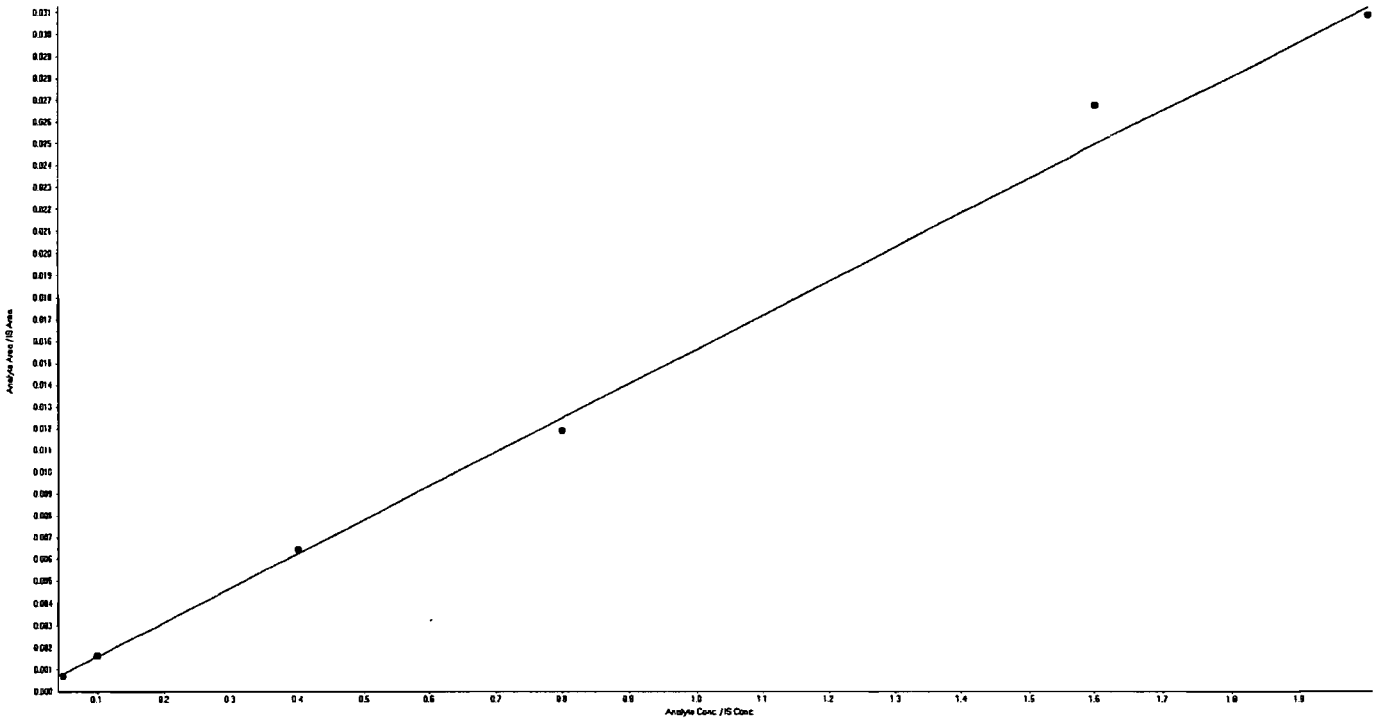

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Analyte Name: 4-Nitrotoluene

Regression Equation: y = 0.0078 x (std. dev. = 0.000535)

Expected Concentration	Calculated Concentration	% Accuracy
25	22.70	90.8
50	52.10	104.2
200	197.04	98.5
400	389.79	97.4
800	887.73	111.0
1000	980.90	98.1

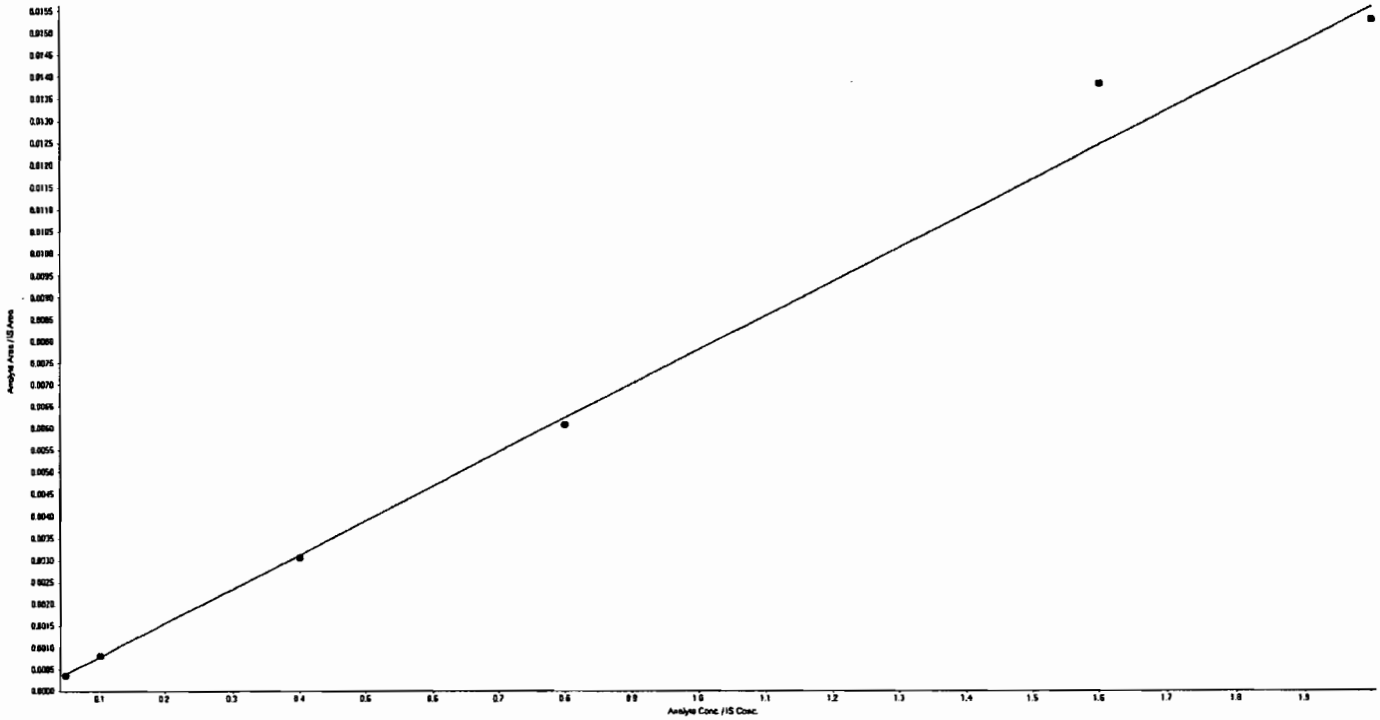

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LCMSMS#3

Analyte Name: 3-Nitrotoluene

Regression Equation: y = 0.00928 x (std. dev. = 0.0008)

Expected Concentration	Calculated Concentration	% Accuracy
25	20.97	83.9
50	51.99	104.0
200	203.43	101.7
400	391.41	97.9
800	868.43	108.6
1000	1040.03	104.0

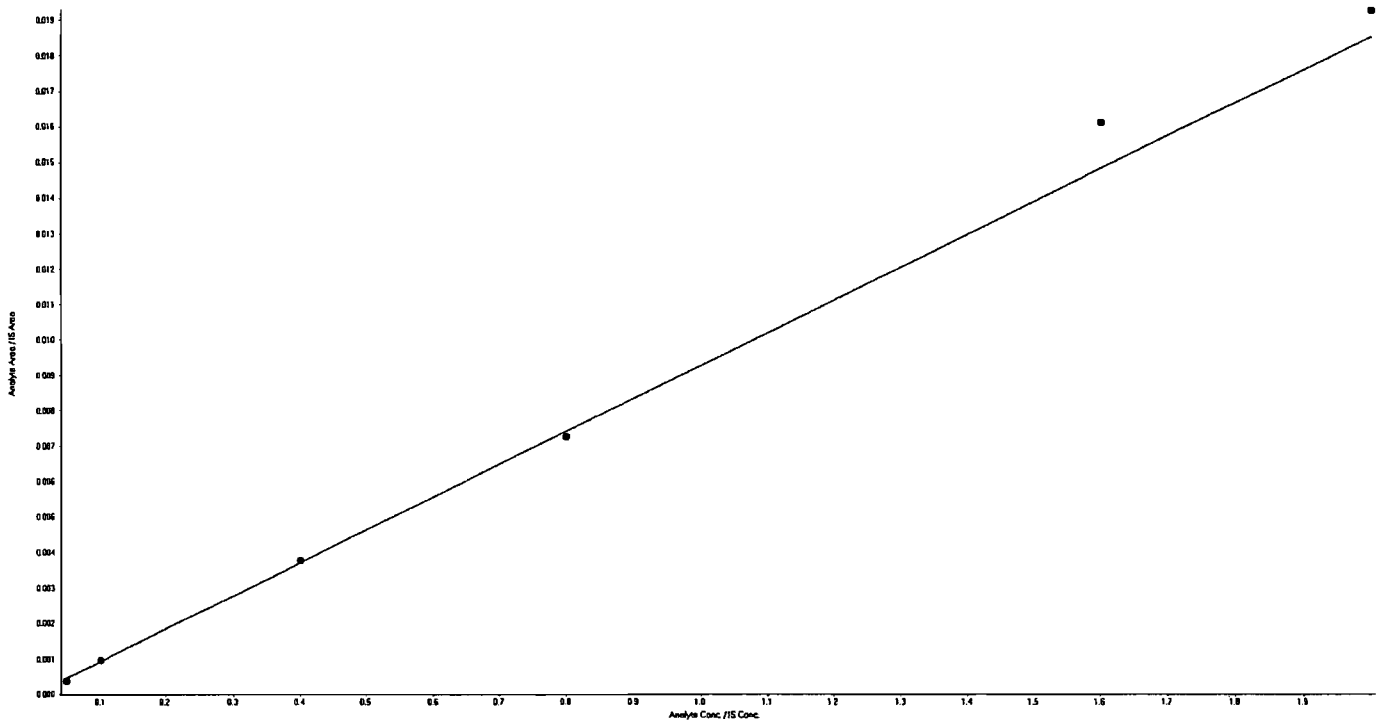

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Analyte Name: PETN

Regression Equation: y = 0.0119 x (std. dev. = 0.000925)

Expected Concentration	Calculated Concentration	% Accuracy
25	23.35	93.4
50	50.44	100.9
200	194.08	97.0
400	363.79	90.9
800	886.90	110.9
1000	1068.61	106.9

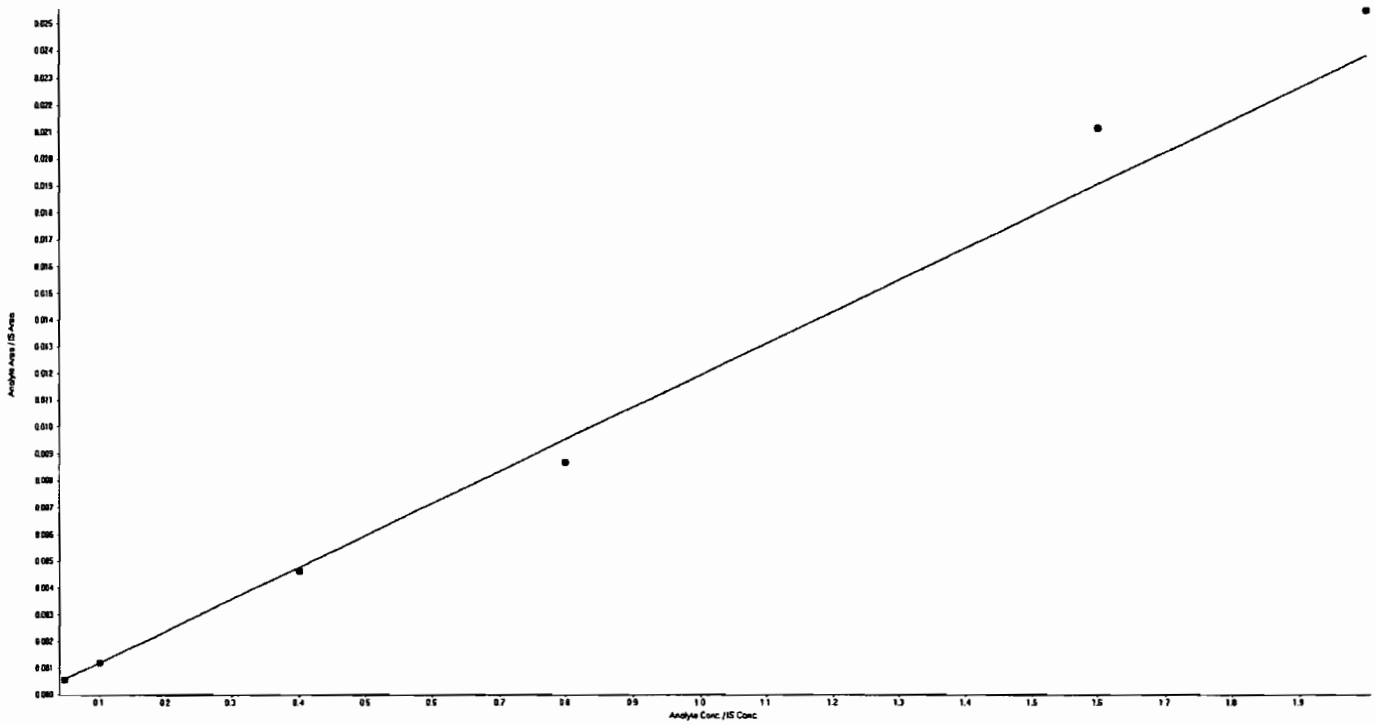

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322003.wiff	**Acquisition Date**	3/22/2010 4:25:52 PM
Sample Name	WXX100322-50	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

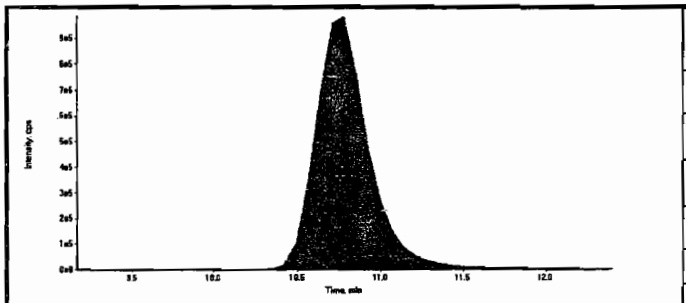

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	21900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

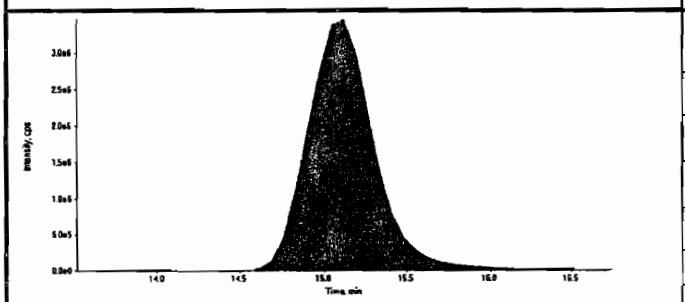

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.10
Area Counts:	96900000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

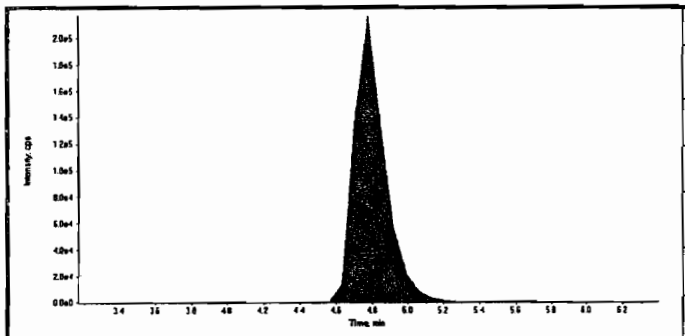

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	2.58e+006
Manual Modification	No
Amount:	17.7 (ng/mL)
% Accuracy:	70.70

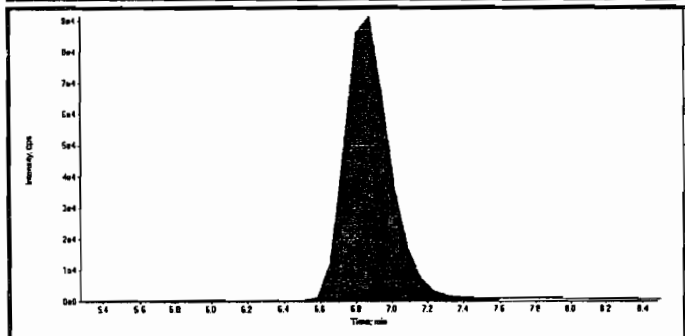

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	1.61e+006
Manual Modification	No
Amount:	24.0 (ng/mL)
% Accuracy:	95.90

LER 3/28/10

AMW 03/28/10

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Data File	EXP0322003.wiff	**Acquisition Date**	3/22/2010 4:25:52 PM
Sample Name	WXX100322-50	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

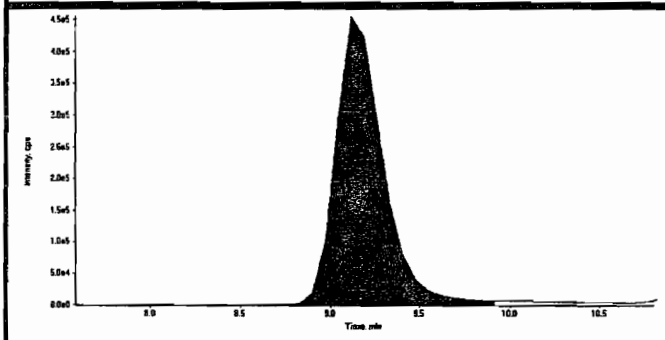

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.12
Area Counts:	8.49e+006
Manual Modification	No
Amount:	29.9 (ng/mL)
% Accuracy:	119.00

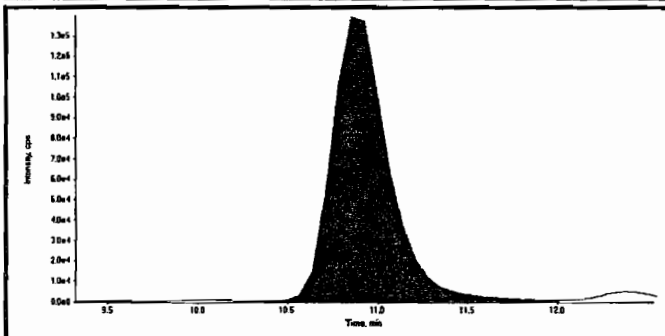

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	3.10e+006
Manual Modification	No
Amount:	26.6 (ng/mL)
% Accuracy:	106.00

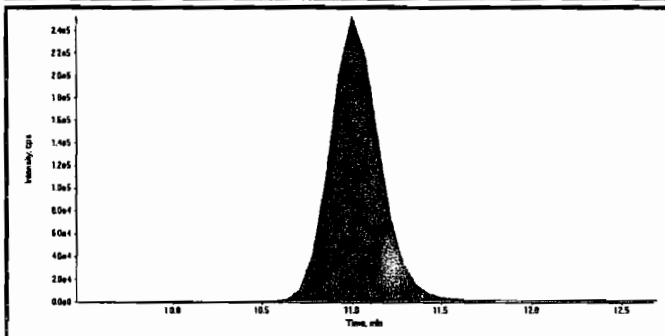

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.0
Area Counts:	4.86e+006
Manual Modification	No
Amount:	26.0 (ng/mL)
% Accuracy:	104.00

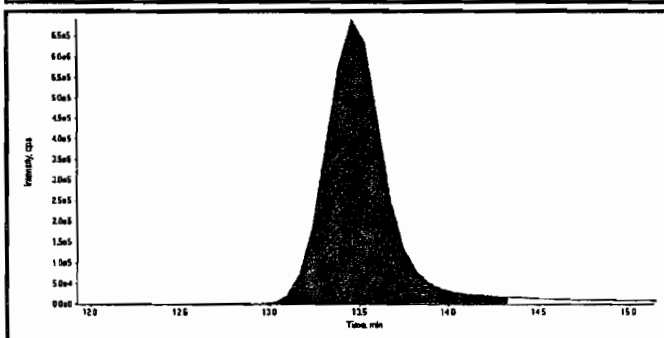

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.59e+007
Manual Modification	No
Amount:	22.2 (ng/mL)
% Accuracy:	88.60

Before Ken 3/28/10

...AX100322-50" Sample ID "[1]LER" File: "EXP032003.wiff"
...name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_1" Annotation: "

Sample Index:	1	
Sample Type:	Standard	
Concentration:	25.0	ng/mL
Calculated Conc:	0.00	ng/mL
Acq. Date:	3/22/2010	
Acq. Time:	4:35:52 PM	
Modified:	Yes	

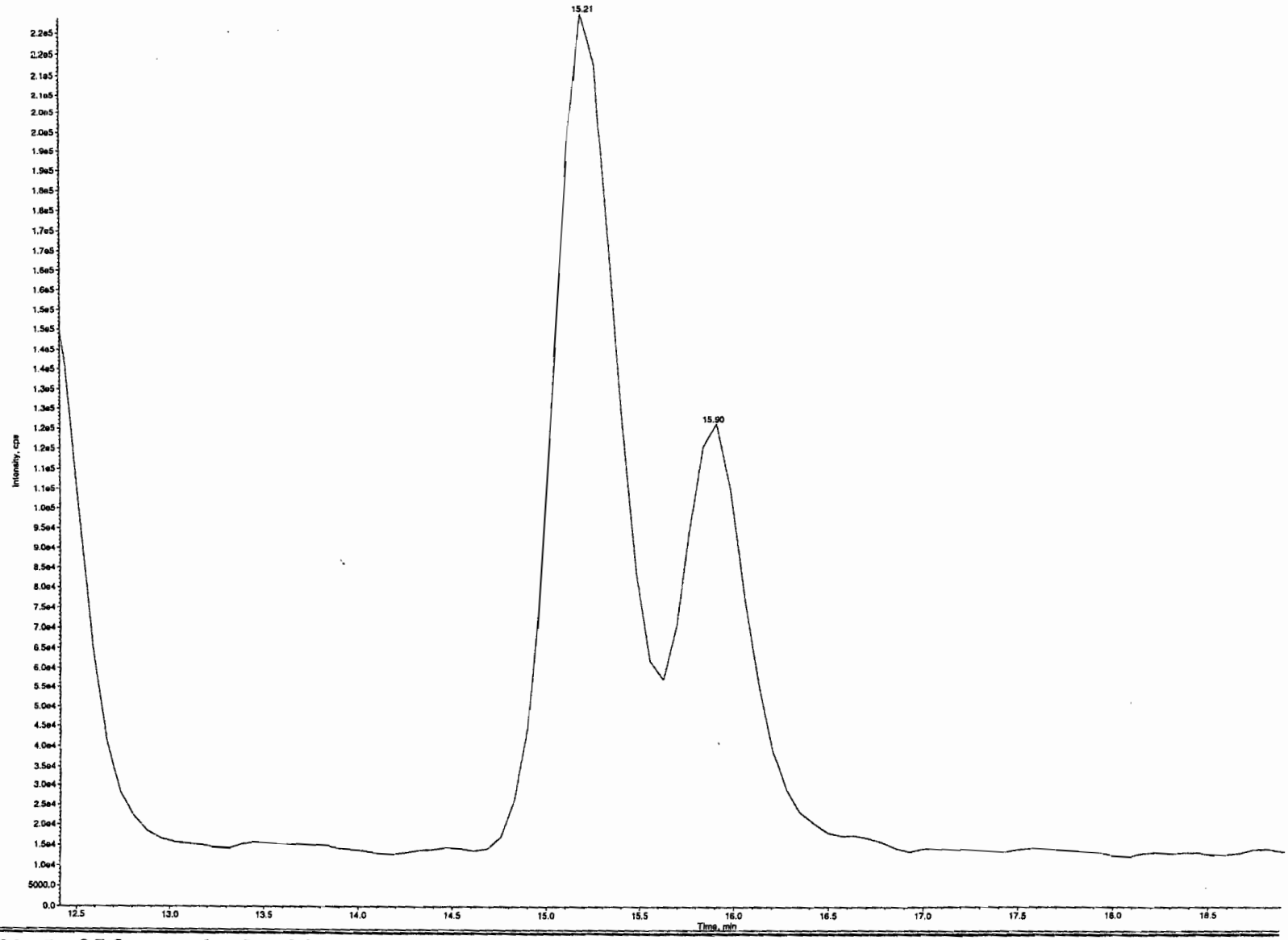

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322003.wiff	**Acquisition Date**	3/22/2010 4:25:52 PM
Sample Name	WXX100322-50	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

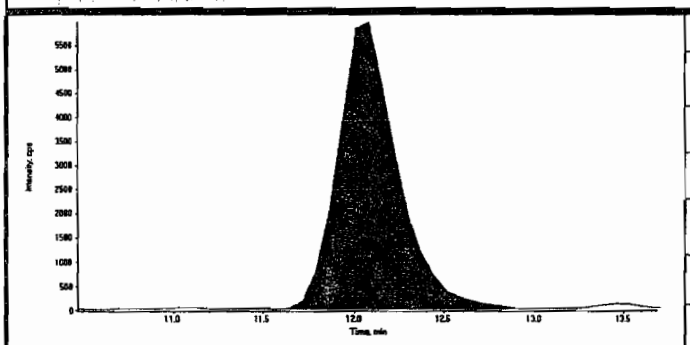

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	1.37e+005
Manual Modification	No
Amount:	23.1 (ng/mL)
% Accuracy:	92.30

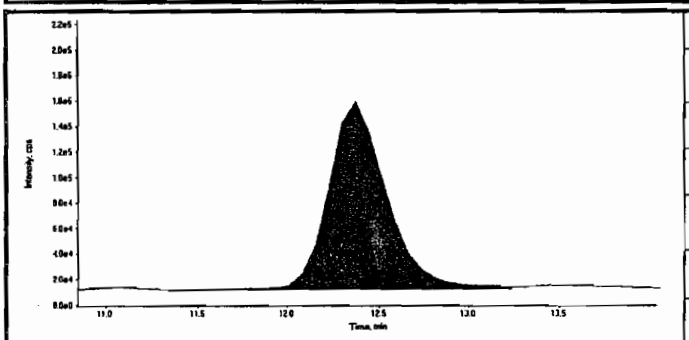

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	3.29e+006
Manual Modification	No
Amount:	13.1 (ng/mL)
% Accuracy:	105.00

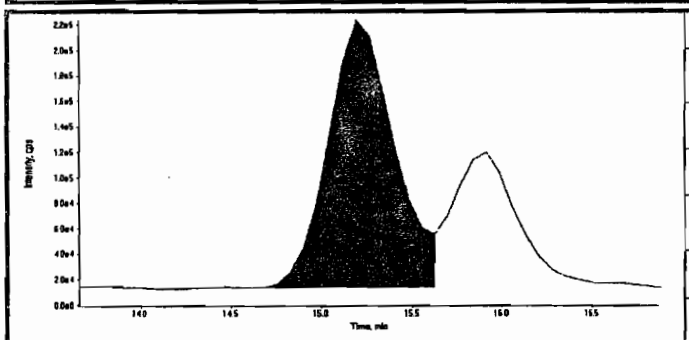

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.2
Area Counts:	5.38e+006
Manual Modification	No
Amount:	28.5 (ng/mL)
% Accuracy:	114.00

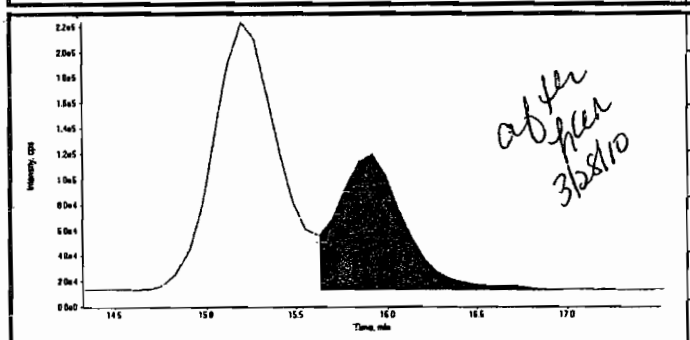

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.9
Actual RT:	15.9
Area Counts:	2.76e+006
Manual Modification	Yes
Amount:	24.4 (ng/mL)
% Accuracy:	97.40

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Data File	EXP0322003.wiff	**Acquisition Date**	3/22/2010 4:25:52 PM
Sample Name	WXX100322-50	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

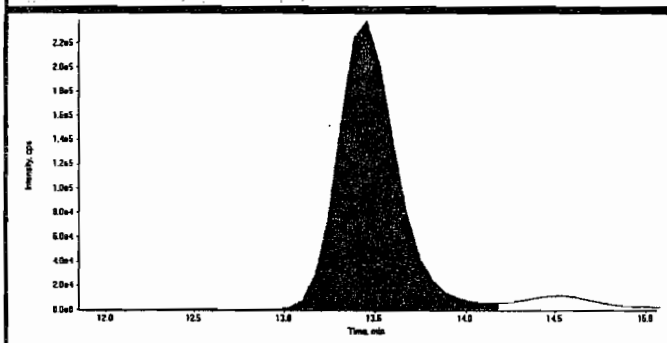

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	5.43e+006
Manual Modification	No
Amount:	26.5 (ng/mL)
% Accuracy:	106.00

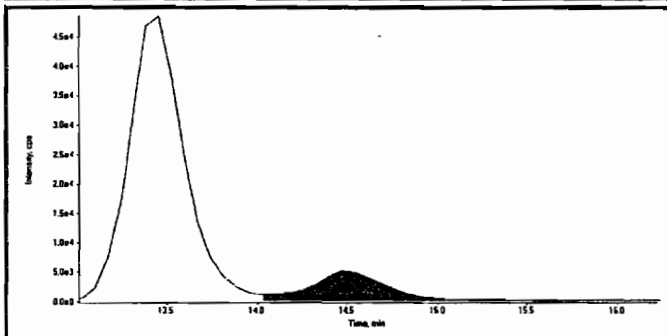

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.5
Area Counts:	1.52e+005
Manual Modification	No
Amount:	23.6 (ng/mL)
% Accuracy:	94.40

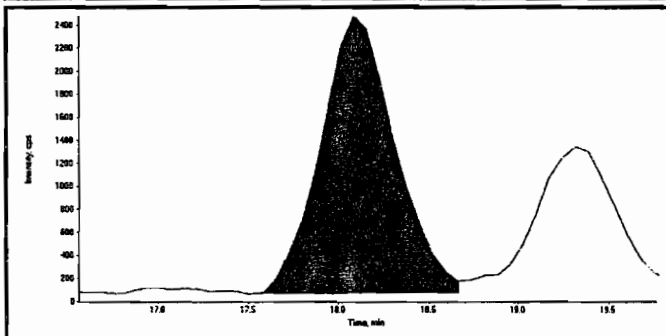

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.1
Area Counts:	6.95e+004
Manual Modification	No
Amount:	23.0 (ng/mL)
% Accuracy:	91.80

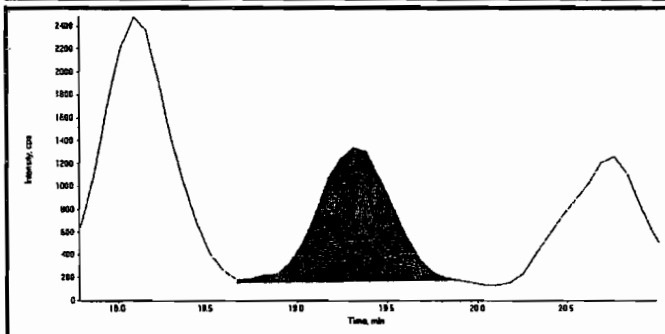

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.3
Area Counts:	3.43e+004
Manual Modification	No
Amount:	22.7 (ng/mL)
% Accuracy:	90.80

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Data File	EXP0322003.wiff	**Acquisition Date**	3/22/2010 4:25:52 PM
Sample Name	WXX100322-50	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

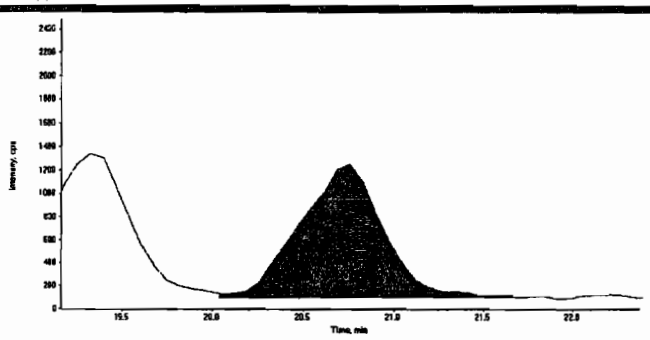

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.8
Area Counts:	3.77e+004
Manual Modification	No
Amount:	21.0 (ng/mL)
% Accuracy:	83.90

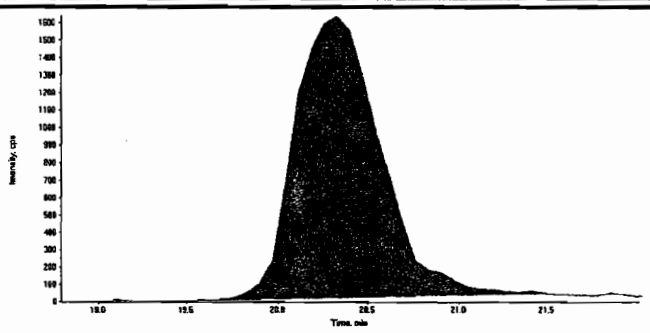

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.3
Area Counts:	5.40e+004
Manual Modification	No
Amount:	23.4 (ng/mL)
% Accuracy:	93.40

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Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322004.wiff	**Acquisition Date**	3/22/2010 4:52:08 PM
Sample Name	WXX100322-51	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

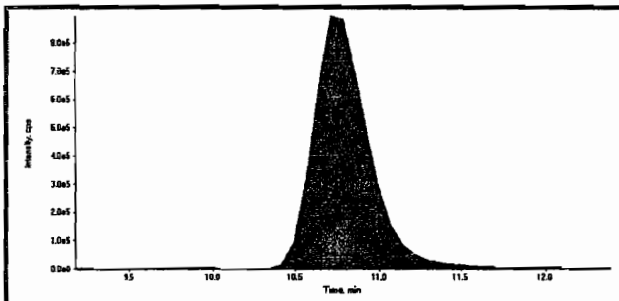

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.70
Area Counts:	20700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

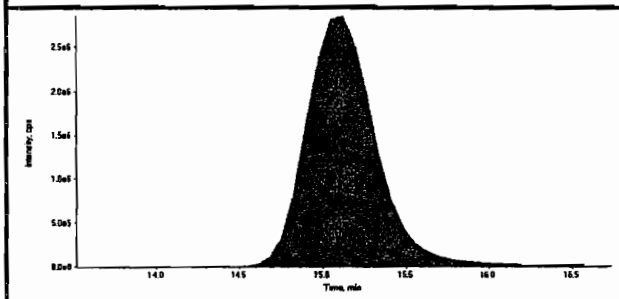

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.10
Area Counts:	82500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

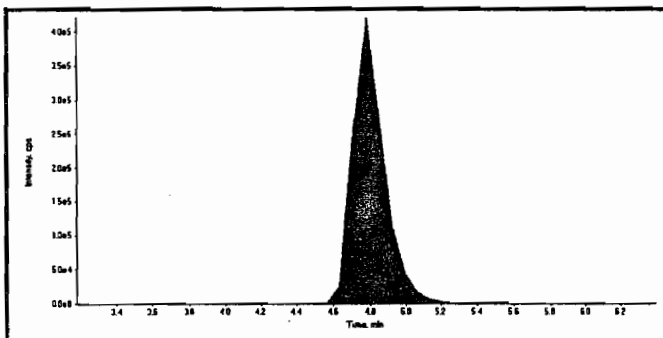

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	5.05e+006
Manual Modification	No
Amount:	47.2 (ng/mL)
% Accuracy:	94.30

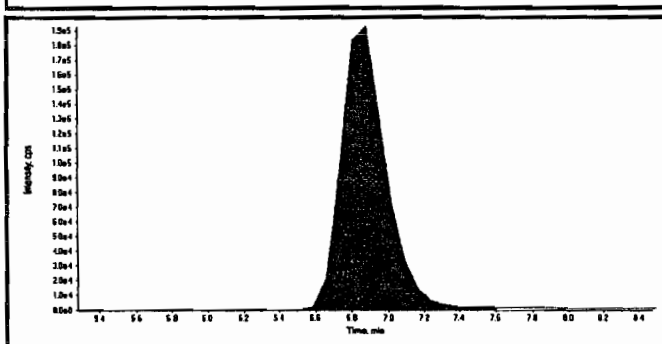

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	3.28e+006
Manual Modification	No
Amount:	51.7 (ng/mL)
% Accuracy:	103.00

Lcr 3/28/10 tmx 03/26/10

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Data File	EXP0322004.wiff	**Acquisition Date**	3/22/2010 4:52:08 PM
Sample Name	WXX100322-51	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

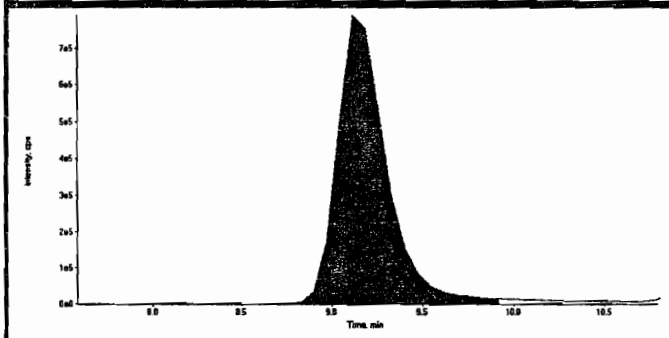

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.12
Area Counts:	1.51e+007
Manual Modification	No
Amount:	56.1 (ng/mL)
% Accuracy:	112.00

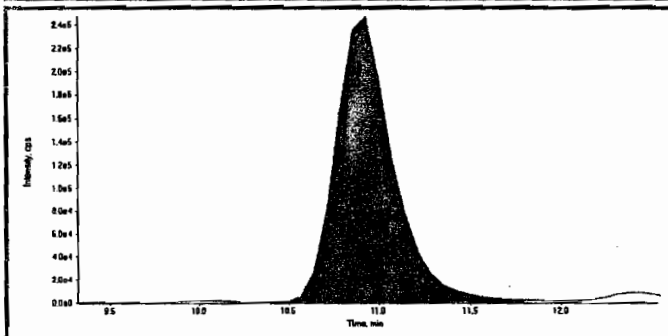

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	5.54e+006
Manual Modification	No
Amount:	50.3 (ng/mL)
% Accuracy:	101.00

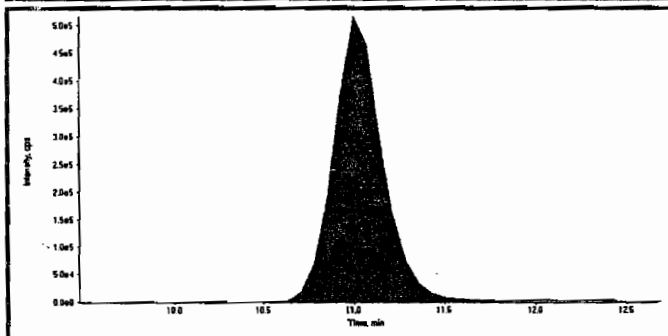

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.0
Area Counts:	9.75e+006
Manual Modification	No
Amount:	55.1 (ng/mL)
% Accuracy:	110.00

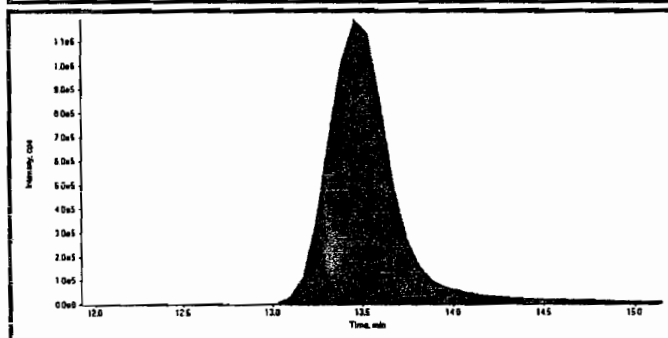

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	3.06e+007
Manual Modification	No
Amount:	56.8 (ng/mL)
% Accuracy:	114.00

Before Lan 3/28/10

nple Name: "WXX100322-51" Sample ID: "1)1)LER" File: "EXP0322004.wiff"
k Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
nment: "LCMSEXP_I" Annotation: ""
e Index: 1
e Type: Standard
ntration: 50.0 ng/mL
lated Conc: 0.00 ng/mL
Date: 3/22/2010
Time: 4:52:08 PM

ind: Yes

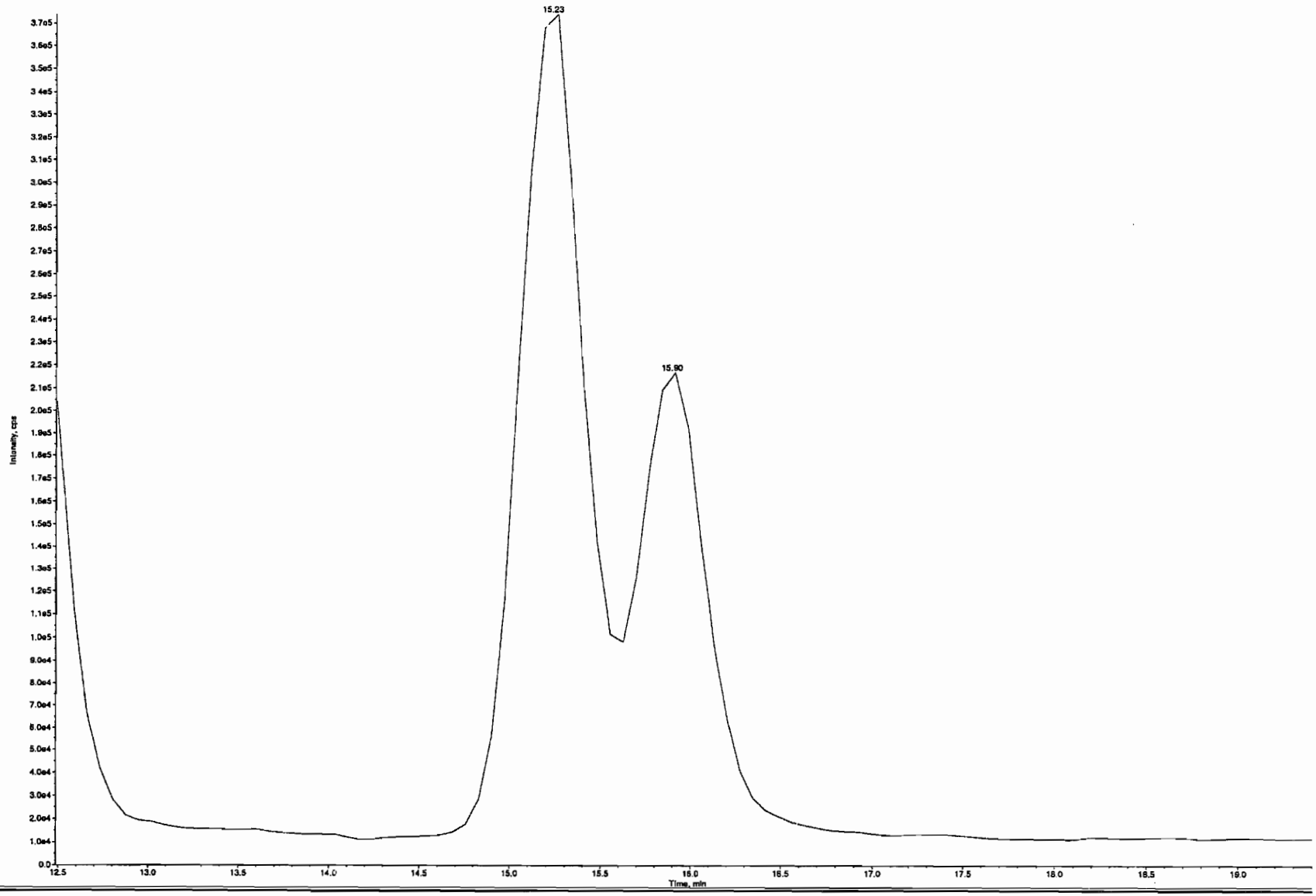

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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LCMSMS#3

Data File	EXP0322004.wiff	**Acquisition Date**	3/22/2010 4:52:08 PM
Sample Name	WXX100322-51	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

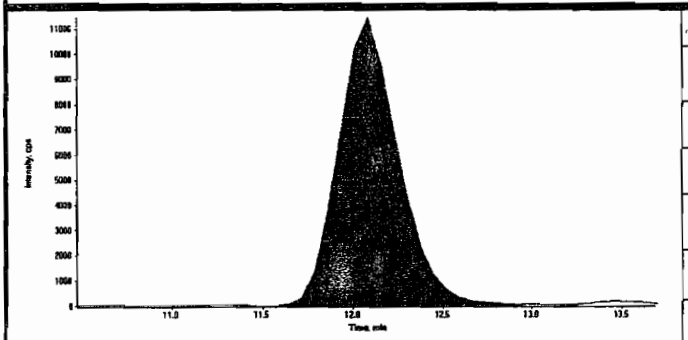

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	2.60e+005
Manual Modification	No
Amount:	46.5 (ng/mL)
% Accuracy:	92.90

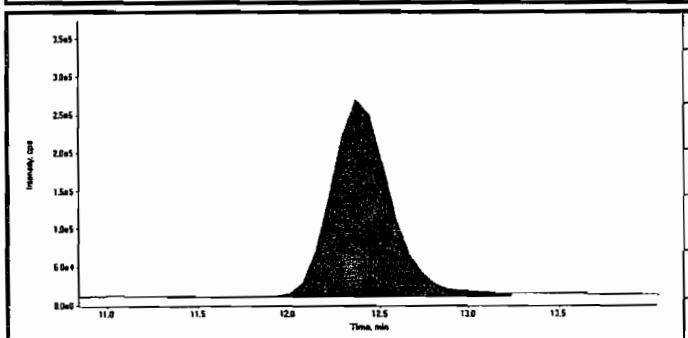

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	5.88e+006
Manual Modification	No
Amount:	27.5 (ng/mL)
% Accuracy:	110.00

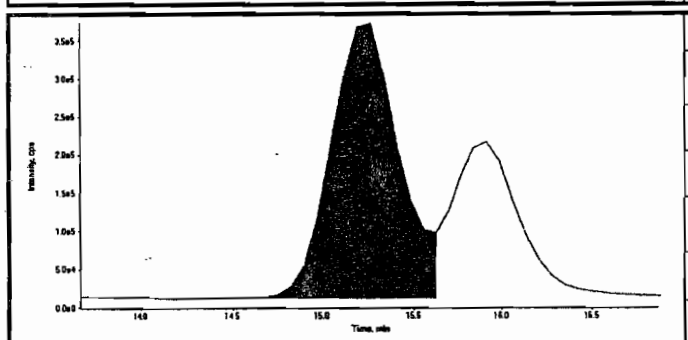

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	9.48e+006
Manual Modification	No
Amount:	59.0 (ng/mL)
% Accuracy:	118.00

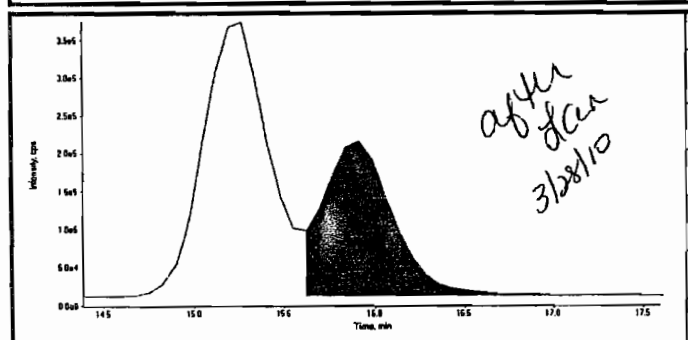

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	15.9
Area Counts:	5.38e+006
Manual Modification	Yes
Amount:	55.6 (ng/mL)
% Accuracy:	111.00

Before Ran 3/28/10

Name: "WXX100322-51" Sample ID: "[1]LER" File: "EXP0322004.wiff"
me: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
1: "LCMSEXP_I" Annotation: ""
ndex: 1
ype: Standard
ation: 50.0 ng/mL
ed Conc: 33.4 ng/mL
e: 3/23/2010
e: 4:52:08 PM

: No
gorithm: IntelliQuan - IQA
c Height: 1000.00 cps
c Width: 0.00 sec
g Width: 3 points
r: 30.0 sec
RT: 14.6 min
ive RT: No

: Valley
Time: 14.5 min
3.92e+005 counts
1.18e+004 cps
e: 14.1 min
15.3 min

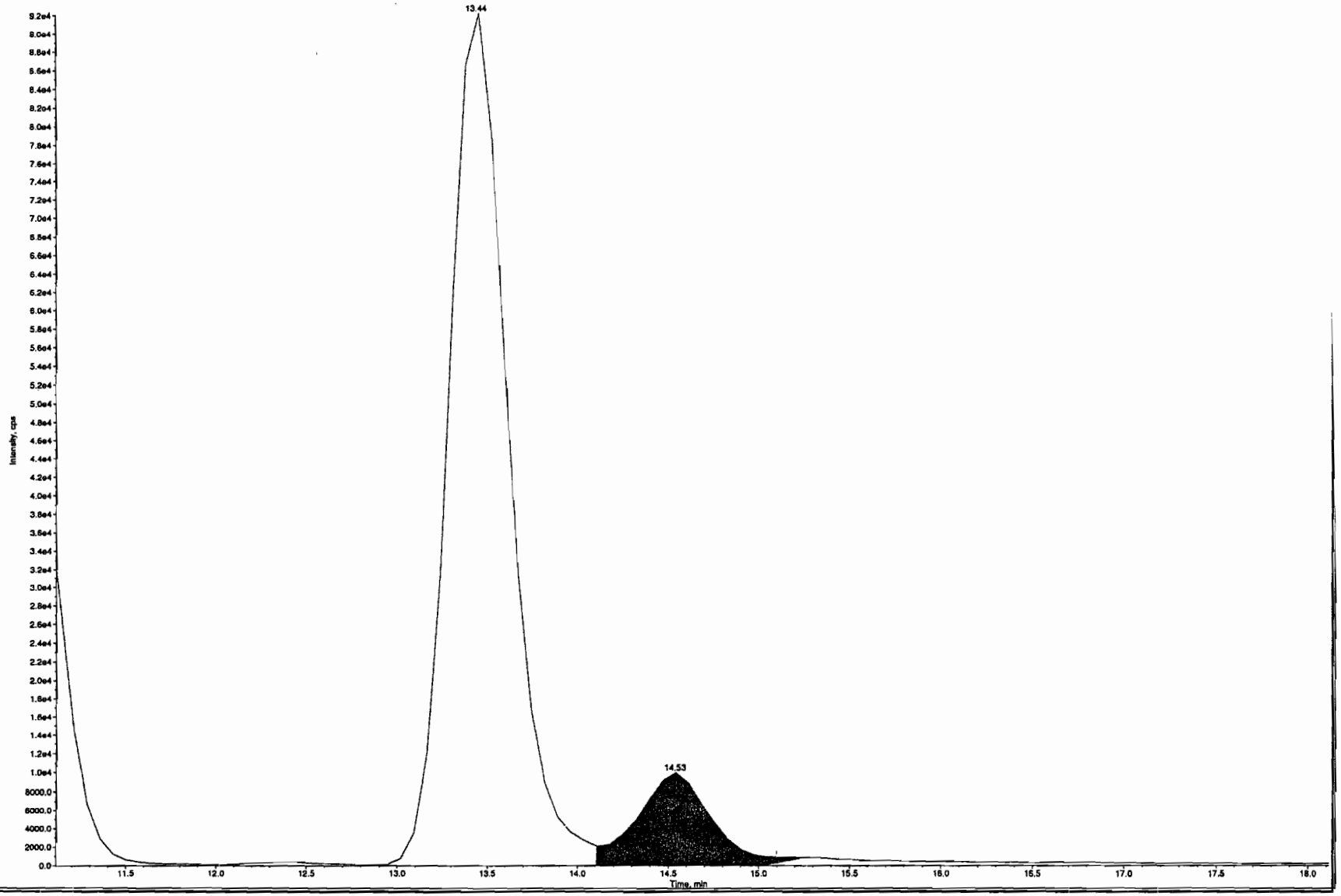

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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LCMSMS#3

Data File	EXP0322004.wiff	**Acquisition Date**	3/22/2010 4:52:08 PM
Sample Name	WXX100322-51	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

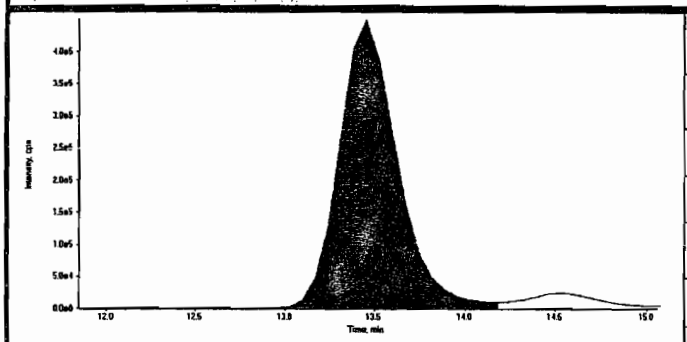

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.02e+007
Manual Modification	No
Amount:	58.4 (ng/mL)
% Accuracy:	117.00

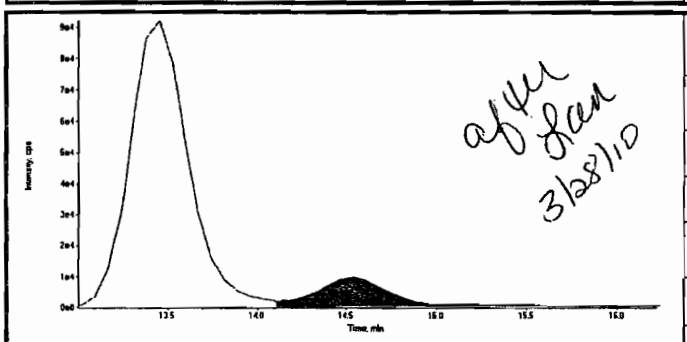

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.5
Area Counts:	2.73e+005
Manual Modification	Yes
Amount:	49.6 (ng/mL)
% Accuracy:	99.20

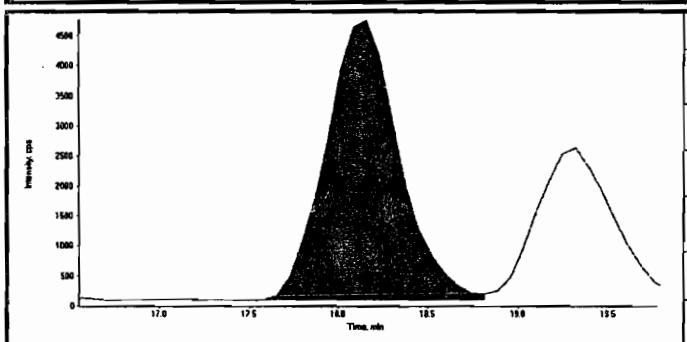

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.2
Area Counts:	1.34e+005
Manual Modification	No
Amount:	51.8 (ng/mL)
% Accuracy:	104.00

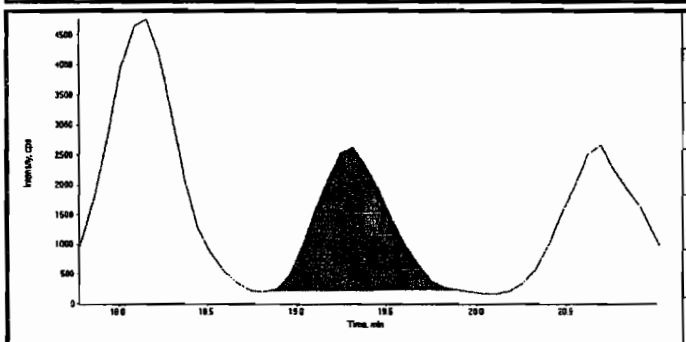

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.3
Area Counts:	6.71e+004
Manual Modification	No
Amount:	52.1 (ng/mL)
% Accuracy:	104.00

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Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322004.wiff	**Acquisition Date**	3/22/2010 4:52:08 PM
Sample Name	WXX100322-51	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

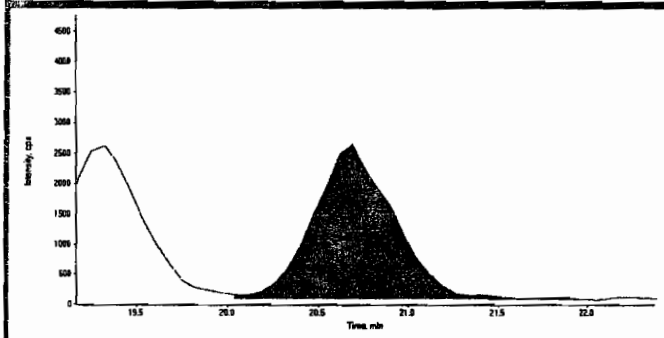

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.7
Area Counts:	7.96e+004
Manual Modification	No
Amount:	52.0 (ng/mL)
% Accuracy:	104.00

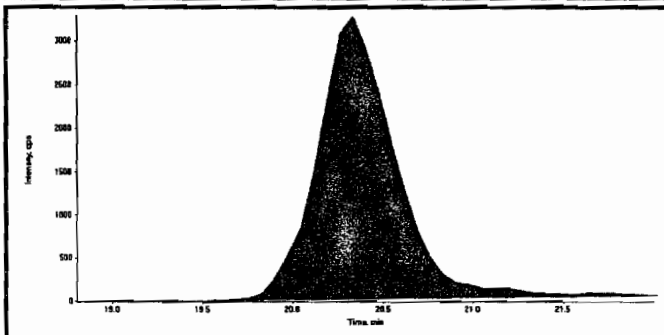

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.3
Area Counts:	9.94e+004
Manual Modification	No
Amount:	50.4 (ng/mL)
% Accuracy:	101.00

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Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322005.wiff	**Acquisition Date**	3/22/2010 5:18:27 PM
Sample Name	WXX100322-52	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

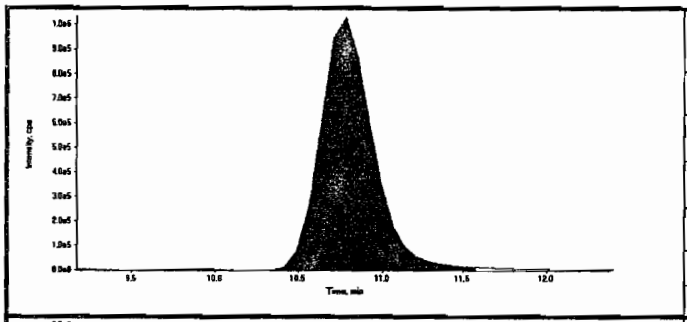

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	22600000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

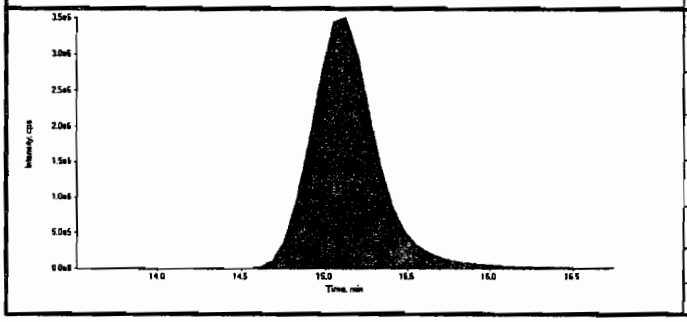

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.10
Area Counts:	96300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

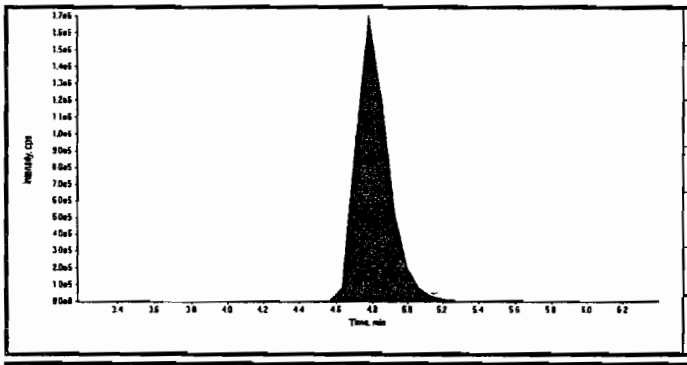

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	2.10e+007
Manual Modification	No
Amount:	208. (ng/mL)
% Accuracy:	104.00

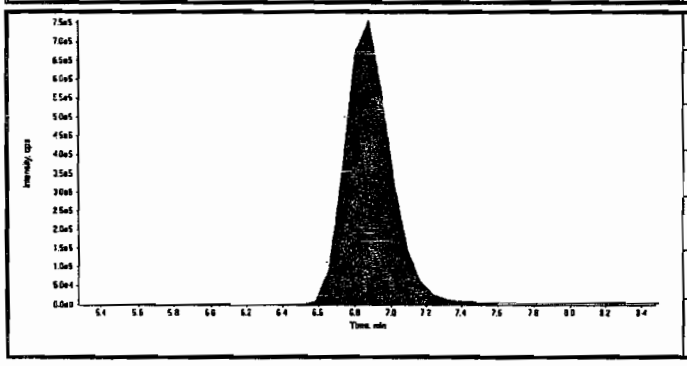

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	1.32e+007
Manual Modification	No
Amount:	192. (ng/mL)
% Accuracy:	95.80

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Data File	EXP0322005.wiff	**Acquisition Date**	3/22/2010 5:18:27 PM
Sample Name	WXX100322-52	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

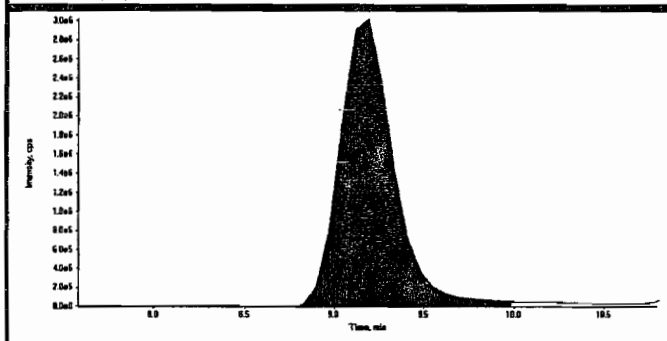

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.19
Area Counts:	6.30e+007
Manual Modification	No
Amount:	215. (ng/mL)
% Accuracy:	108.00

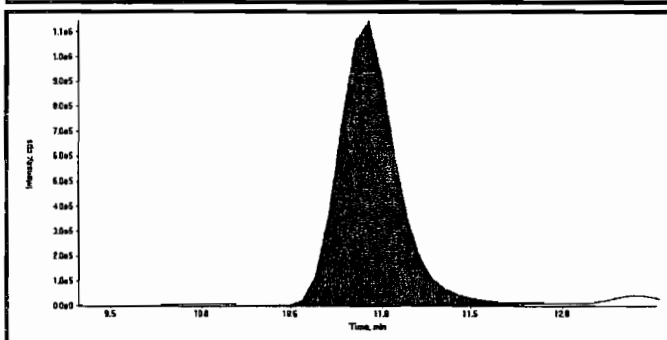

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	2.53e+007
Manual Modification	No
Amount:	211. (ng/mL)
% Accuracy:	106.00

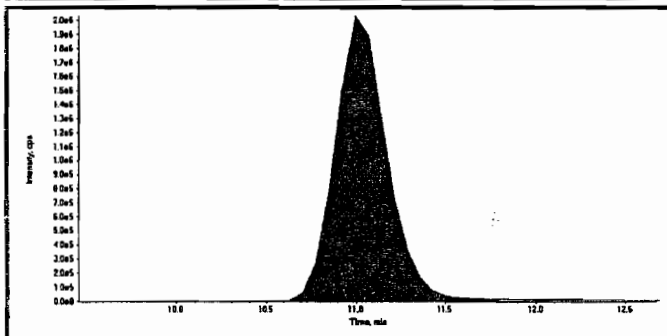

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.0
Area Counts:	4.03e+007
Manual Modification	No
Amount:	209. (ng/mL)
% Accuracy:	104.00

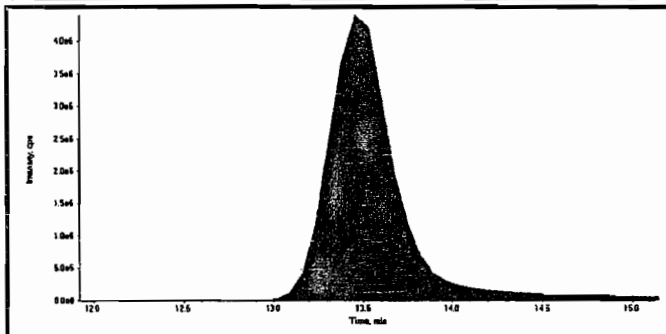

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.16e+008
Manual Modification	No
Amount:	207. (ng/mL)
% Accuracy:	103.00

Before Ran 3/28/10

Name: "WXX100322-52" Sample ID: "1ILER" File: "EXP0322005.wiff"
me: "24-dinitrotoluene" Mass(es): "182.0/45.0 amu"
t: "LCMSEXP_J" Annotation: ""
dex: 1
pe: Standard
tion: 100. ng/mL
d Conc: 0.00 ng/mL
: 3/22/2010
: 5:18:27 PM

Yes

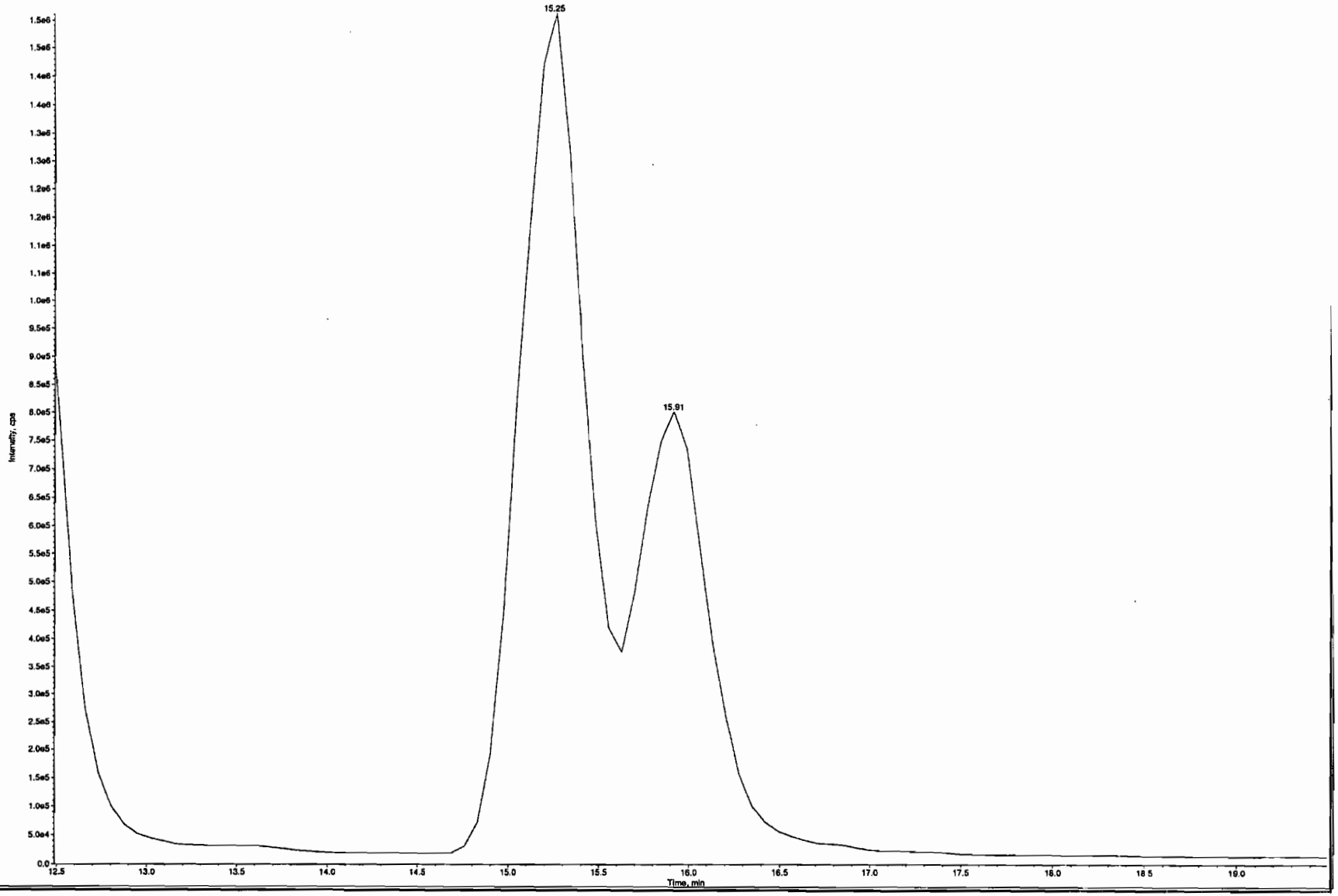

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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LCMSMS#3

Data File	EXP0322005.wiff	**Acquisition Date**	3/22/2010 5:18:27 PM
Sample Name	WXX100322-52	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

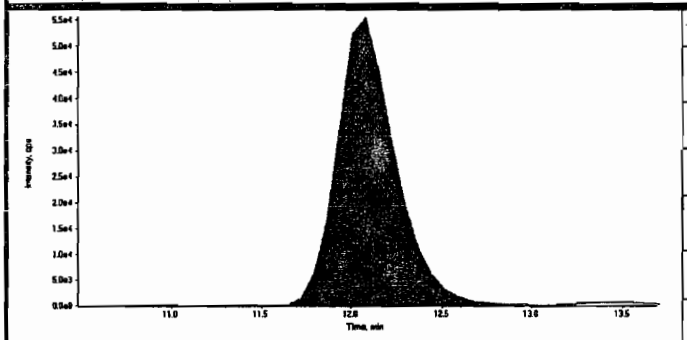

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	1.25e+006
Manual Modification	No
Amount:	204. (ng/mL)
% Accuracy:	102.00

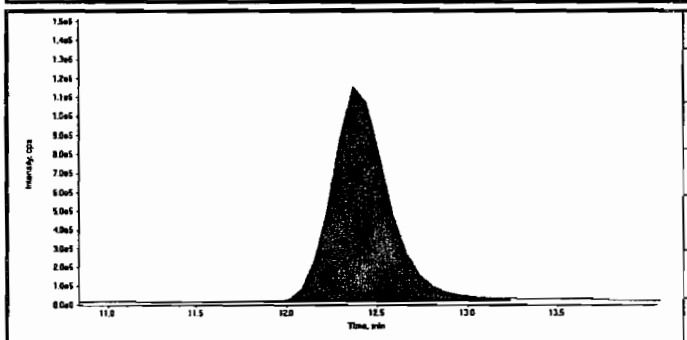

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	2.52e+007
Manual Modification	No
Amount:	101. (ng/mL)
% Accuracy:	101.00

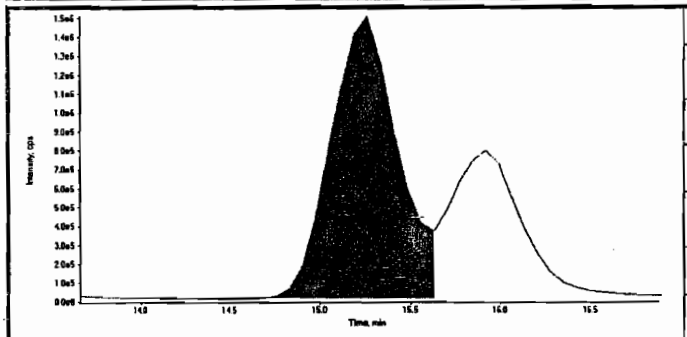

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	3.88e+007
Manual Modification	No
Amount:	207. (ng/mL)
% Accuracy:	104.00

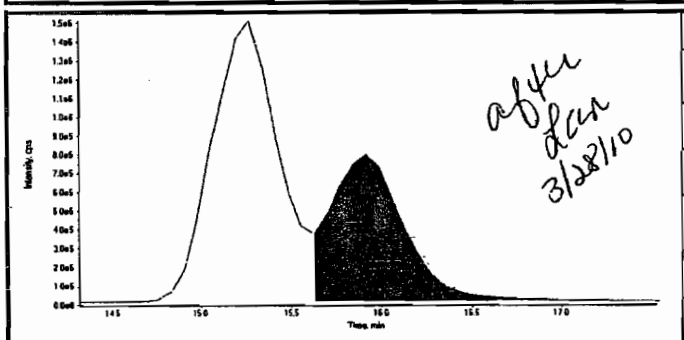

after LCA 3/28/10

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.9
Actual RT:	15.9
Area Counts:	2.18e+007
Manual Modification	Yes
Amount:	193. (ng/mL)
% Accuracy:	96.70

Before Lcn 3/28/10

mple Name: "WXX100322-52" Sample ID: "[1][LER" File: "EXP0322005.wiff"
ak Name: "2-Amino-4-dinitrotoluene" Mass(es): "197.0/180.0 amu"
mment: "LCMSEXP_I" Annotation: ""
le Index: 1
le Type: Standard
entration: 200. ng/mL
ulated Conc: 264. ng/mL
Date: 3/22/2010
Time: 5:18:27 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1000.00 cps
Peak Width: 0.00 sec
ching Width: 3 points
indow: 30.0 sec
cted RT: 14.6 min
telative RT: No

Type: Valley
ction Time: 14.5 min
3.60e+006 counts
t: 6.20e+004 cps
Time: 14.1 min
Time: 17.1 min

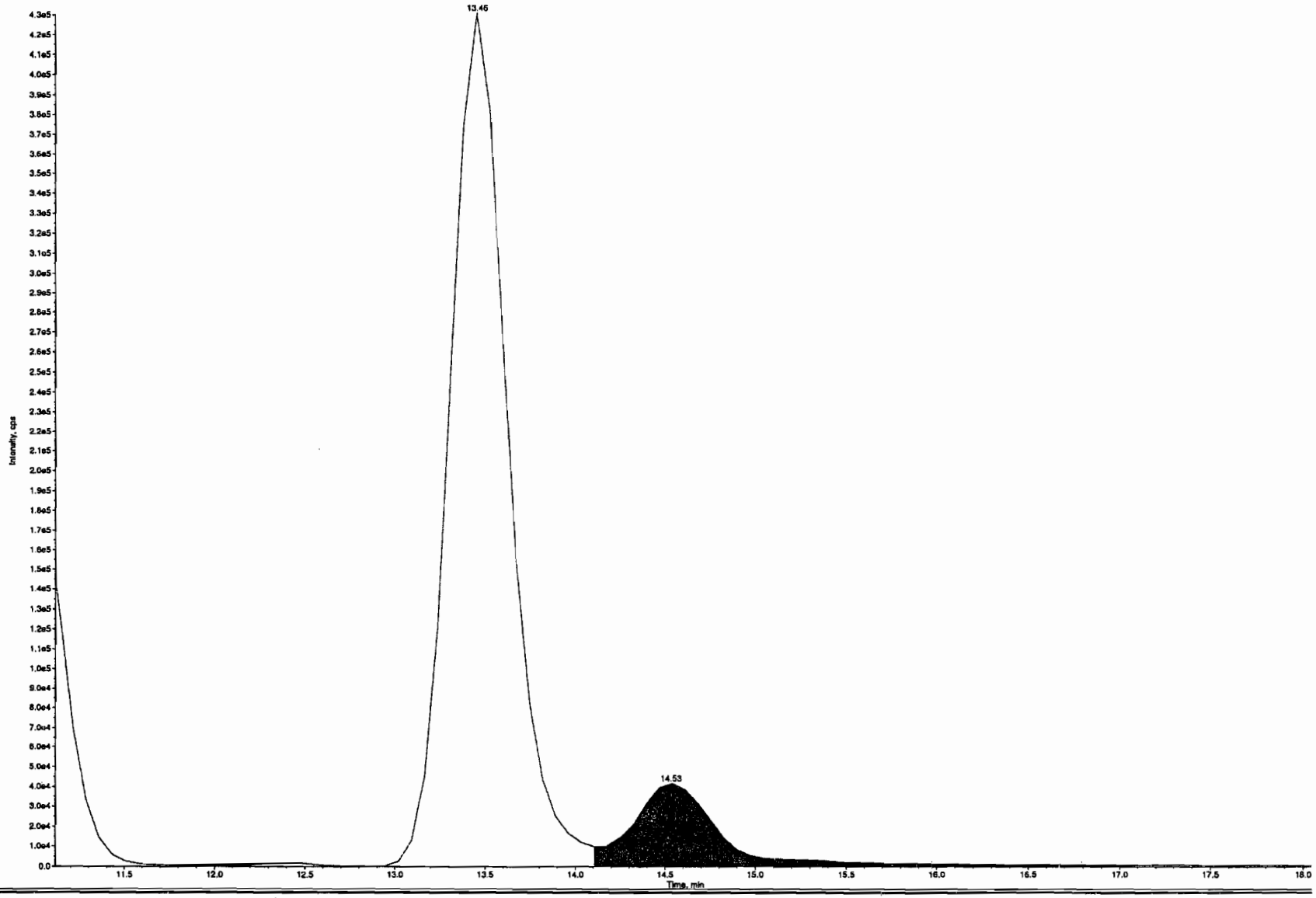

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322005.wiff	**Acquisition Date**	3/22/2010 5:18:27 PM
Sample Name	WXX100322-52	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

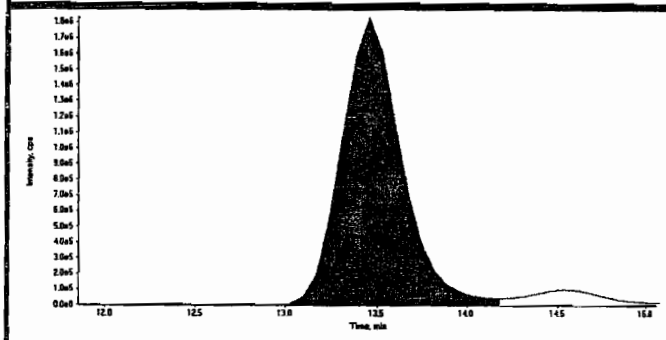

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	4.22e+007
Manual Modification	No
Amount:	208. (ng/mL)
% Accuracy:	104.00

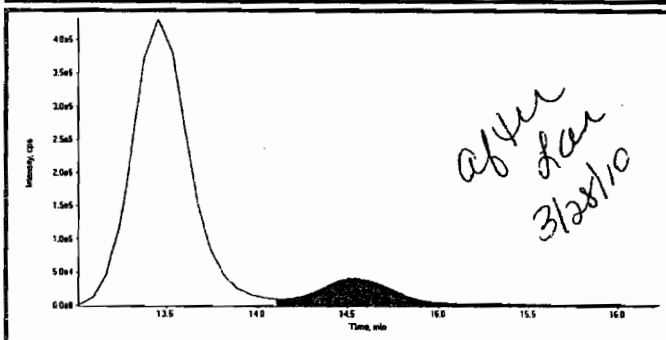

after Lar 3/28/10

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.5
Area Counts:	1.30e+006
Manual Modification	Yes
Amount:	202. (ng/mL)
% Accuracy:	101.00

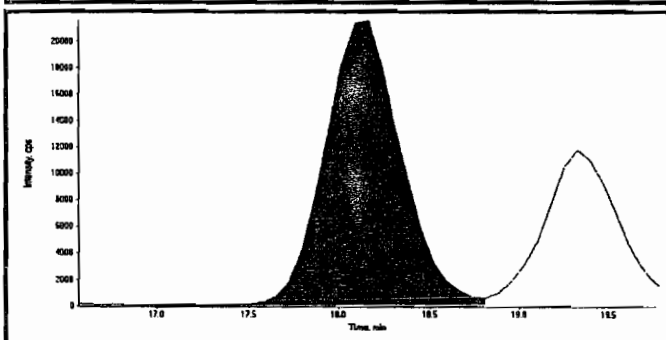

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.2
Area Counts:	6.21e+005
Manual Modification	No
Amount:	206. (ng/mL)
% Accuracy:	103.00

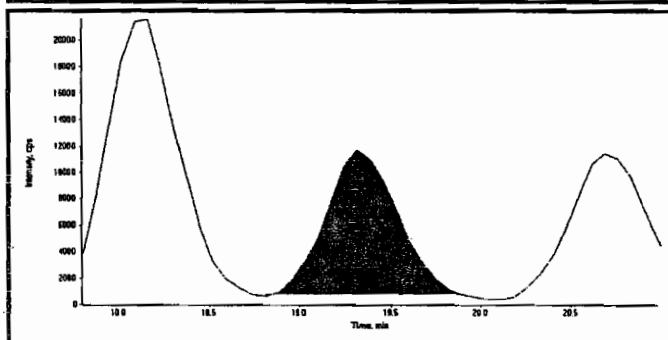

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.3
Area Counts:	2.96e+005
Manual Modification	No
Amount:	197. (ng/mL)
% Accuracy:	98.50

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LCMSMS#3

Data File	EXP0322005.wiff	**Acquisition Date**	3/22/2010 5:18:27 PM
Sample Name	WXX100322-52	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

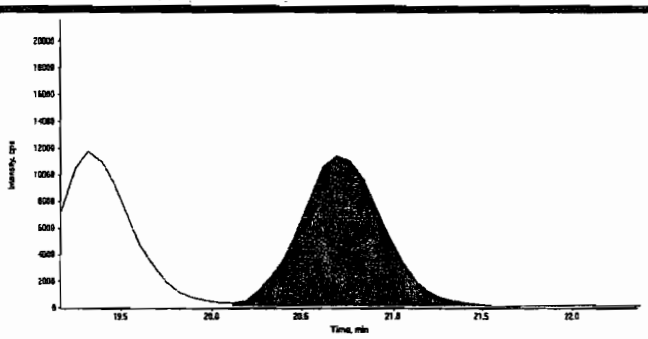

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.7
Area Counts:	3.63e+005
Manual Modification	No
Amount:	203. (ng/mL)
% Accuracy:	102.00

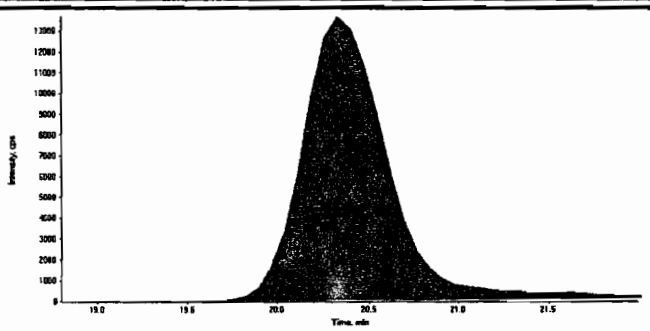

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.3
Area Counts:	4.46e+005
Manual Modification	No
Amount:	194. (ng/mL)
% Accuracy:	97.00

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Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322006.wiff	**Acquisition Date**	3/22/2010 5:44:50 PM
Sample Name	WXX100322-53	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

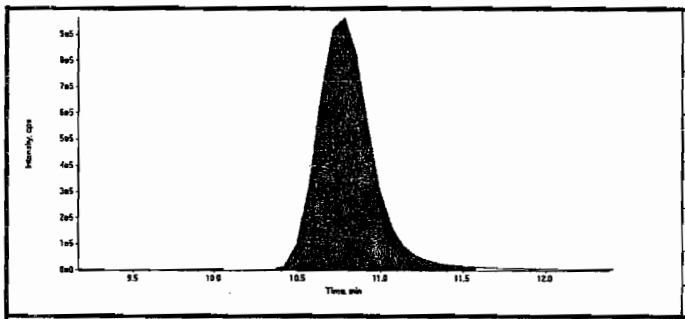

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	22100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

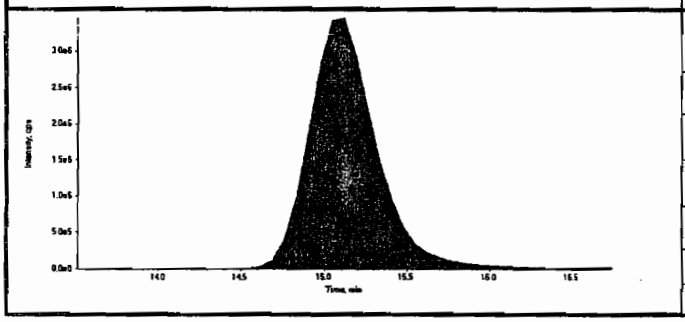

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.10
Area Counts:	98000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

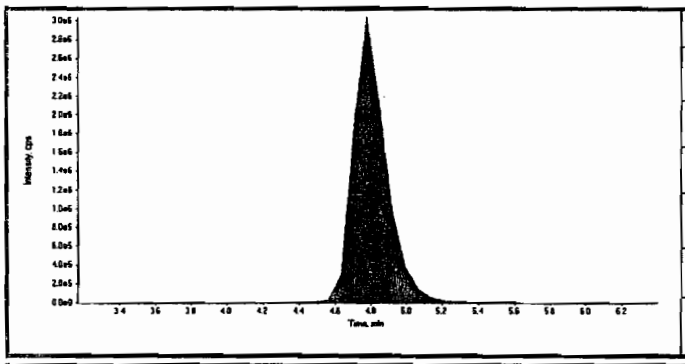

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	3.88e+007
Manual Modification	No
Amount:	402. (ng/mL)
% Accuracy:	101.00

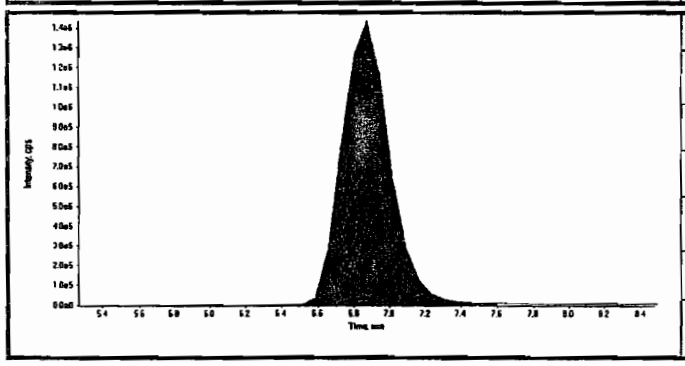

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	2.69e+007
Manual Modification	No
Amount:	399. (ng/mL)
% Accuracy:	99.70

3/28/10 3/28/10

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Data File	EXP0322006.wiff	**Acquisition Date**	3/22/2010 5:44:50 PM
Sample Name	WXX100322-53	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

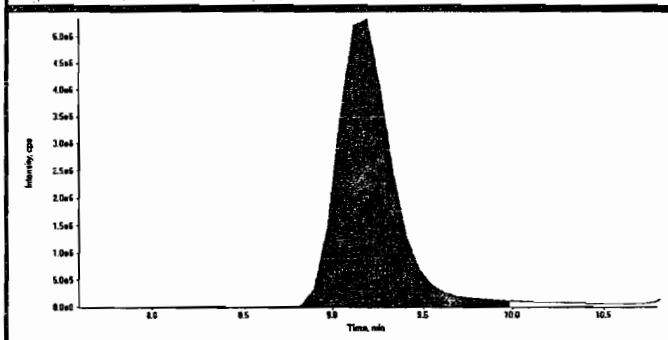

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.19
Area Counts:	1.12e+008
Manual Modification	No
Amount:	392. (ng/mL)
% Accuracy:	98.00

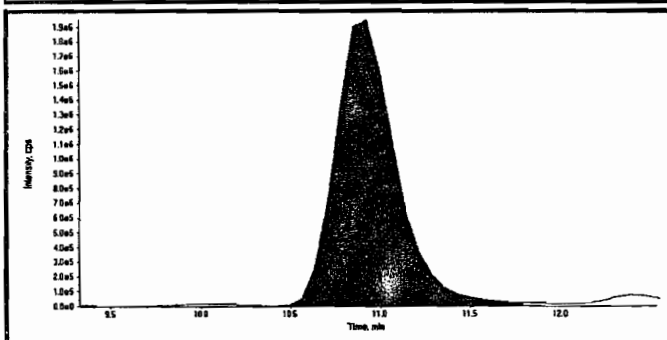

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	4.55e+007
Manual Modification	No
Amount:	387. (ng/mL)
% Accuracy:	96.90

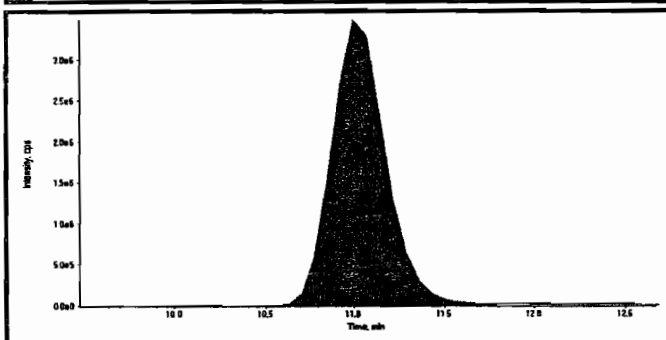

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.0
Area Counts:	7.26e+007
Manual Modification	No
Amount:	385. (ng/mL)
% Accuracy:	96.20

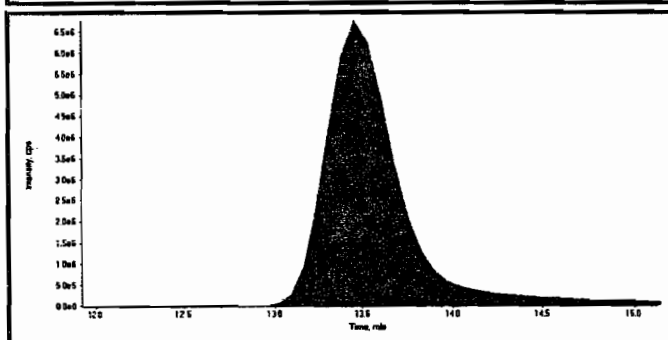

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.95e+008
Manual Modification	No
Amount:	369. (ng/mL)
% Accuracy:	92.30

Before Lan 3/28/10

Name: "WXX100322-53" Sample ID: "[1]LER" File: "EXP0322006.wiff"
me. "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
t: "LCMSEXP_I" Annotation: ""
ndex: 1
ype: Standard
ation: 400. ng/mL
ed Conc: 0.00 ng/mL
e: 3/22/2010
e: 5:44:50 PM

: No

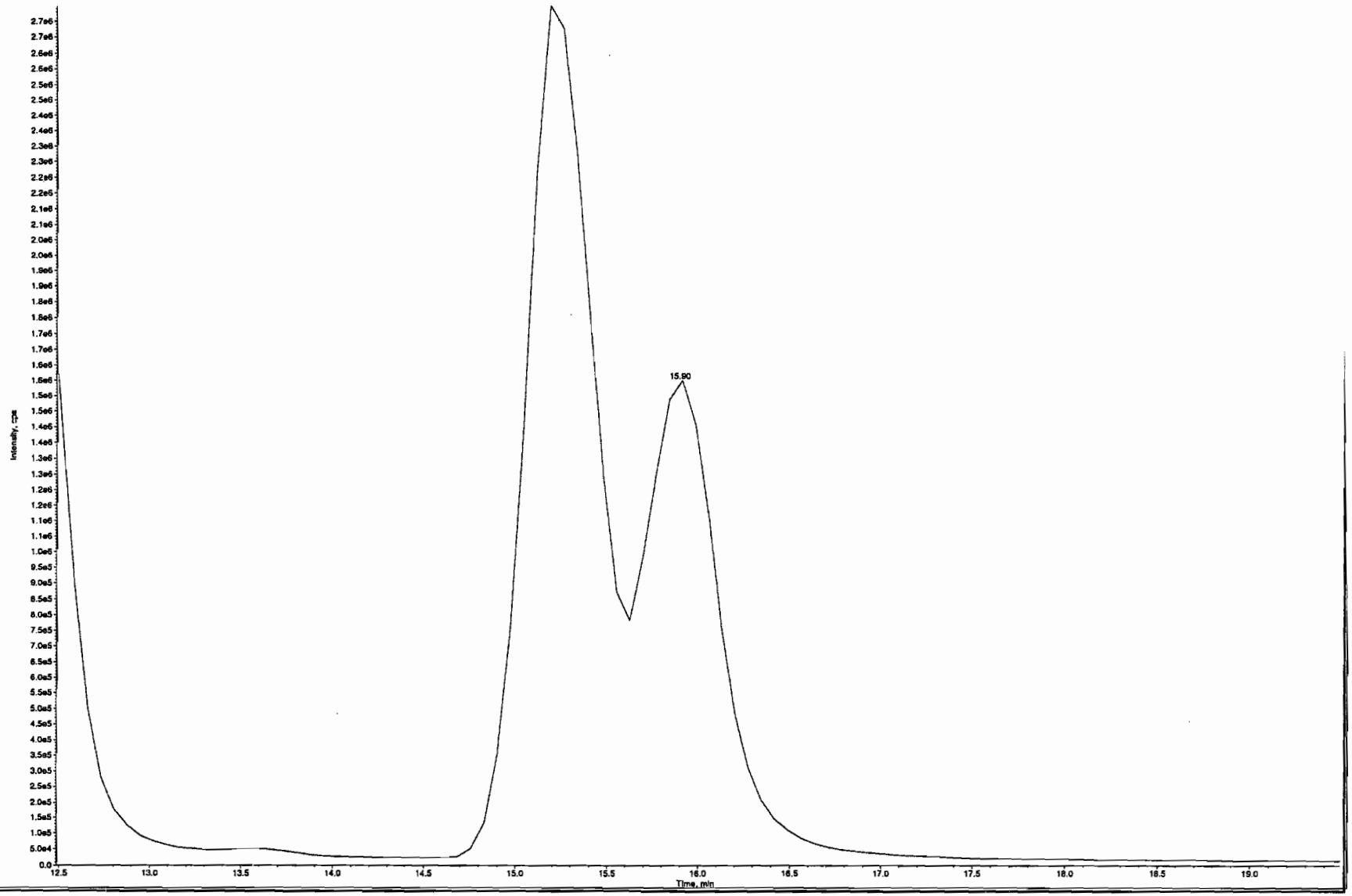

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322006.wiff	**Acquisition Date**	3/22/2010 5:44:50 PM
Sample Name	WXX100322-53	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

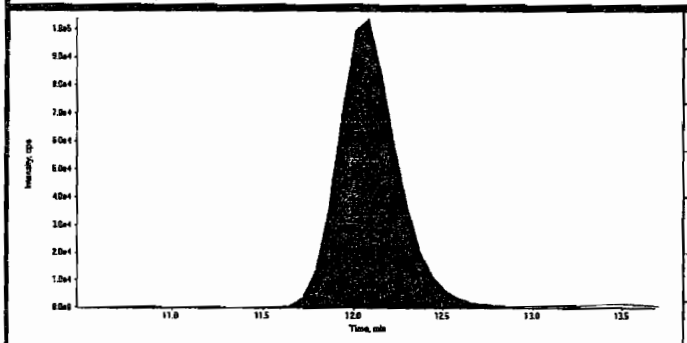

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	2.40e+006
Manual Modification	No
Amount:	402. (ng/mL)
% Accuracy:	101.00

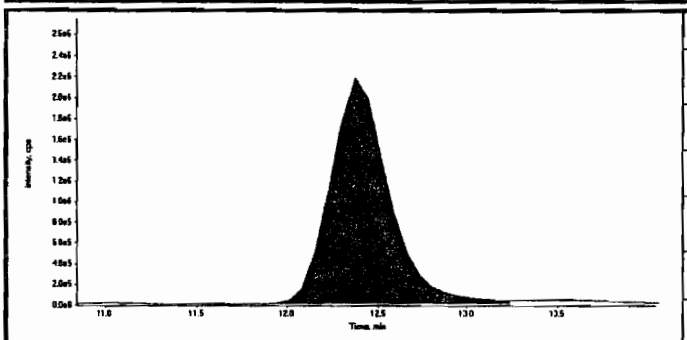

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	4.89e+007
Manual Modification	No
Amount:	193. (ng/mL)
% Accuracy:	96.50

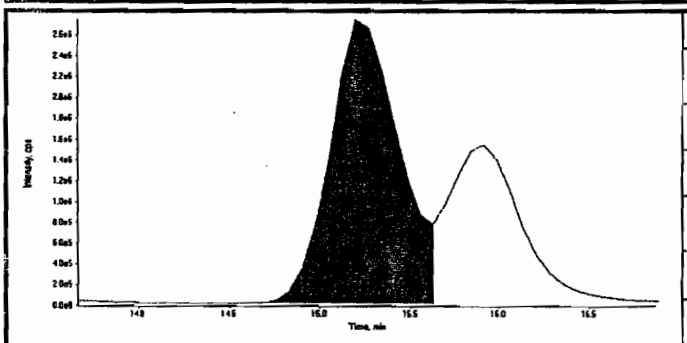

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.2
Area Counts:	7.34e+007
Manual Modification	No
Amount:	385. (ng/mL)
% Accuracy:	96.40

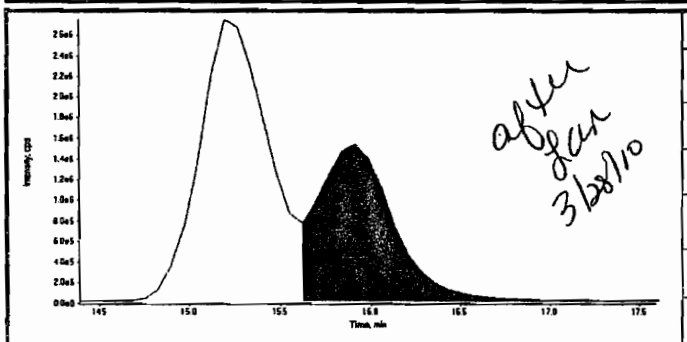

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	15.9
Area Counts:	4.42e+007
Manual Modification	Yes
Amount:	386. (ng/mL)
% Accuracy:	96.40

Before Dan 3/28/10

e Name: "WXX100322-53" Sample ID: "[1]LER" File: "EXP0322008.wiff"
Name "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
ent: "LCMSEXP_|" Annotation: ""

Index: 1
Type: Standard
ration: 400. ng/mL
ted Conc: 113. ng/mL
te: 3/22/2010
me: 5:44:50 PM

d: No
lgorithm: IntelliQuan - IQA
ak Height: 1000.00 cps
ak Width: 0.00 sec
ng Width: 3 points
ow: 30.0 sec
d RT: 14.6 min
ative RT: No

pe: Valley
on Time: 14.5 min
3.73e+006 counts
1.02e+005 cps
ime: 14.1 min
: 15.2 min

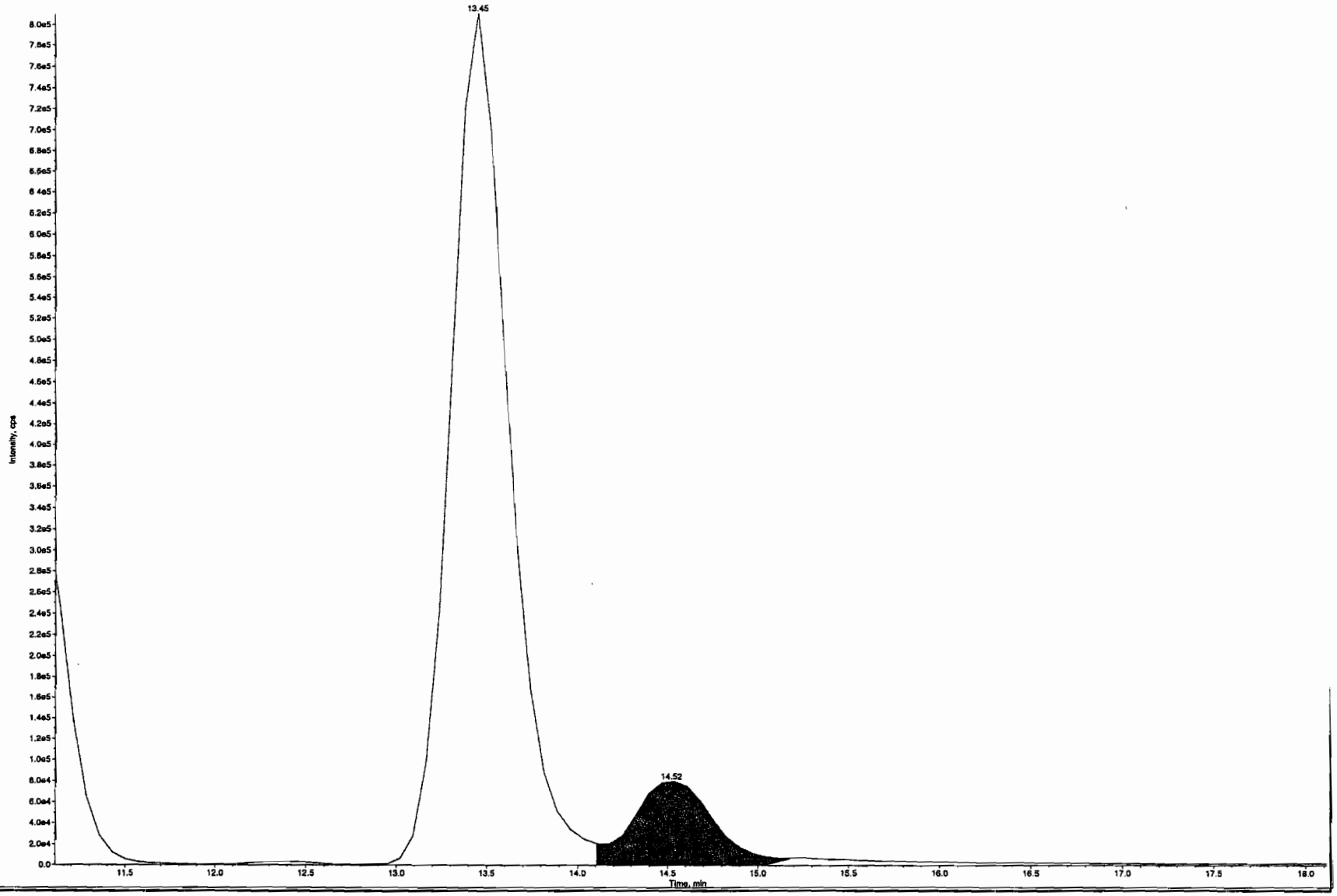

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LCMSMS#3

Data File	EXP0322006.wiff	**Acquisition Date**	3/22/2010 5:44:50 PM
Sample Name	WXX100322-53	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

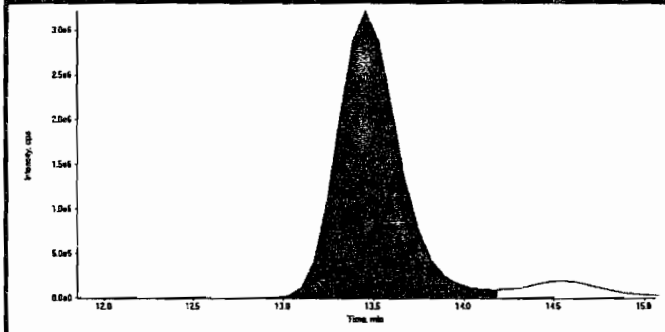

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	7.84e+007
Manual Modification	No
Amount:	379. (ng/mL)
% Accuracy:	94.80

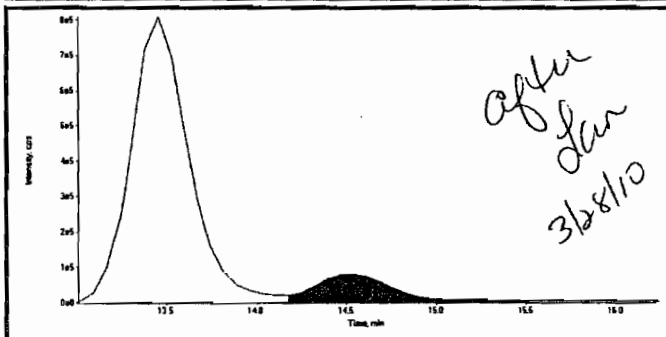

after lan 3/28/10

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.5
Area Counts:	2.39e+006
Manual Modification	Yes
Amount:	366. (ng/mL)
% Accuracy:	91.50

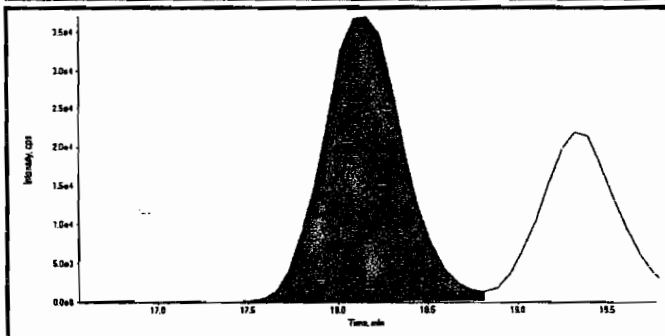

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.2
Area Counts:	1.17e+006
Manual Modification	No
Amount:	381. (ng/mL)
% Accuracy:	95.30

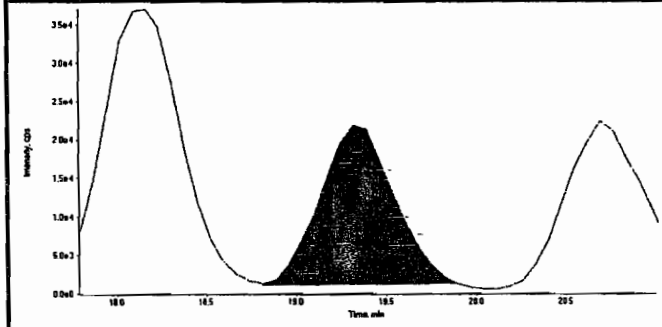

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.3
Area Counts:	5.96e+005
Manual Modification	No
Amount:	390. (ng/mL)
% Accuracy:	97.40

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Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322006.wiff	**Acquisition Date**	3/22/2010 5:44:50 PM
Sample Name	WXX100322-53	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

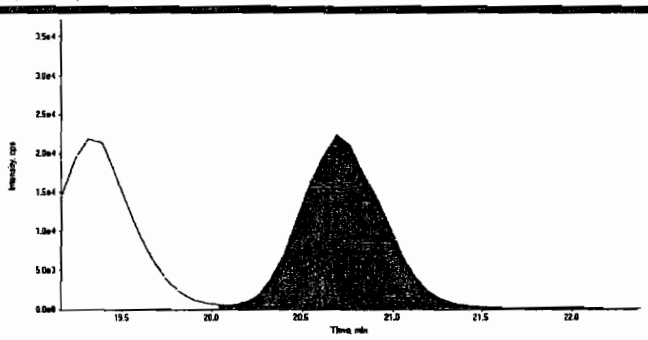

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.7
Area Counts:	7.11e+005
Manual Modification	No
Amount:	391. (ng/mL)
% Accuracy:	97.90

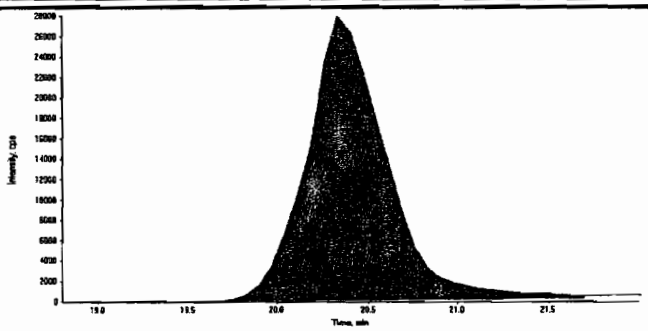

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.3
Area Counts:	8.51e+005
Manual Modification	No
Amount:	364. (ng/mL)
% Accuracy:	90.90

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Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322007.wiff	**Acquisition Date**	3/22/2010 6:11:20 PM
Sample Name	WXX100322-54	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

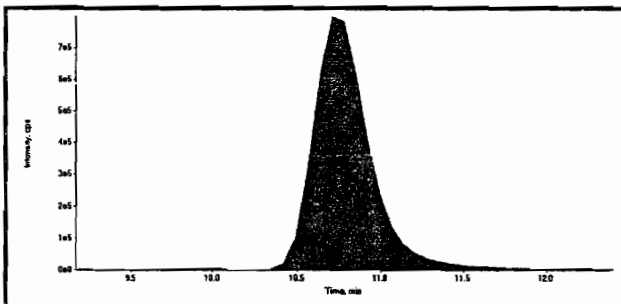

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.70
Area Counts:	18800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

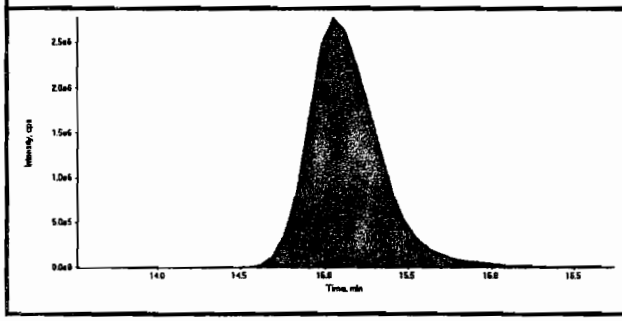

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.00
Area Counts:	82400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

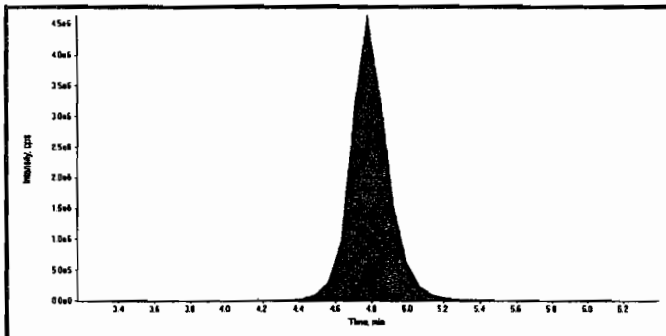

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	6.59e+007
Manual Modification	No
Amount:	812. (ng/mL)
% Accuracy:	102.00

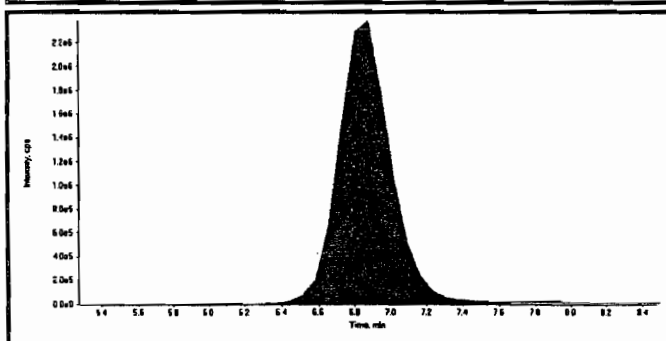

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	4.79e+007
Manual Modification	No
Amount:	834. (ng/mL)
% Accuracy:	104.00

dmw 03/26/10
Lan 3/28/10

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322007.wiff	**Acquisition Date**	3/22/2010 6:11:20 PM
Sample Name	WXX100322-54	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

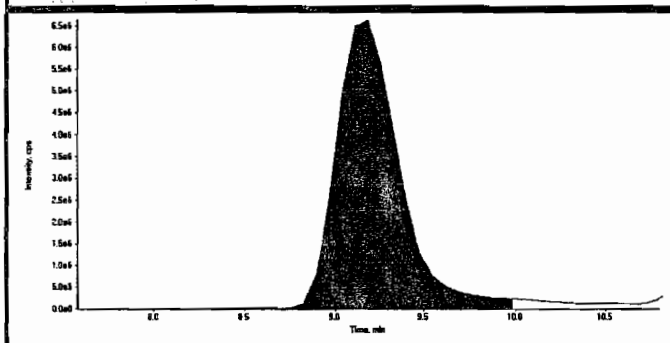

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.19
Area Counts:	1.65e+008
Manual Modification	No
Amount:	676. (ng/mL)
% Accuracy:	84.50

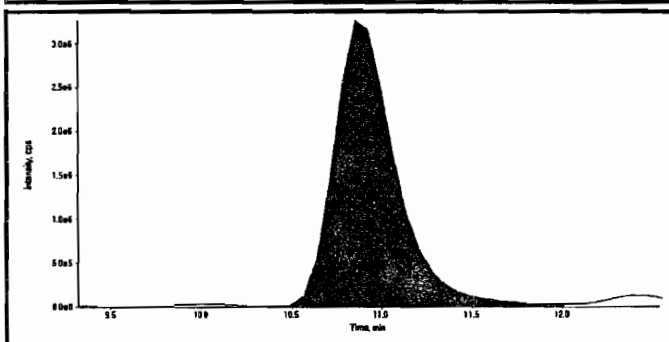

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	7.92e+007
Manual Modification	No
Amount:	793. (ng/mL)
% Accuracy:	99.10

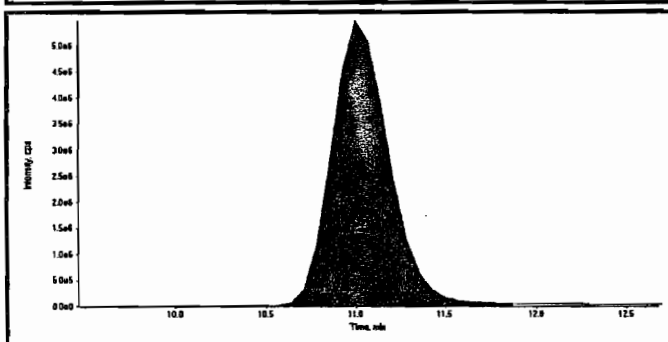

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.0
Area Counts:	1.24e+008
Manual Modification	No
Amount:	770. (ng/mL)
% Accuracy:	96.30

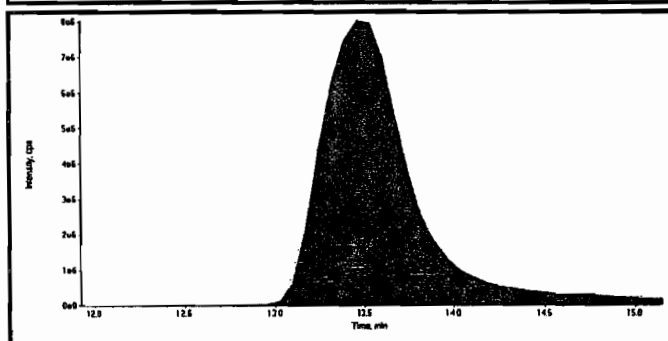

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	3.01e+008
Manual Modification	No
Amount:	866. (ng/mL)
% Accuracy:	108.00

Before Lan 3/28/10

Name: "WXX100322-S4" Sample ID: "[1]LER" File: "E:\P0322007.wiff"
me: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
t: "LCMSEXP_I" Annotation: ""
ndex: 1
ype: Standard
ation: 800. ng/mL
ed Conc: 0.00 ng/mL
: 3/22/2010
: 6:11:20 PM
: No

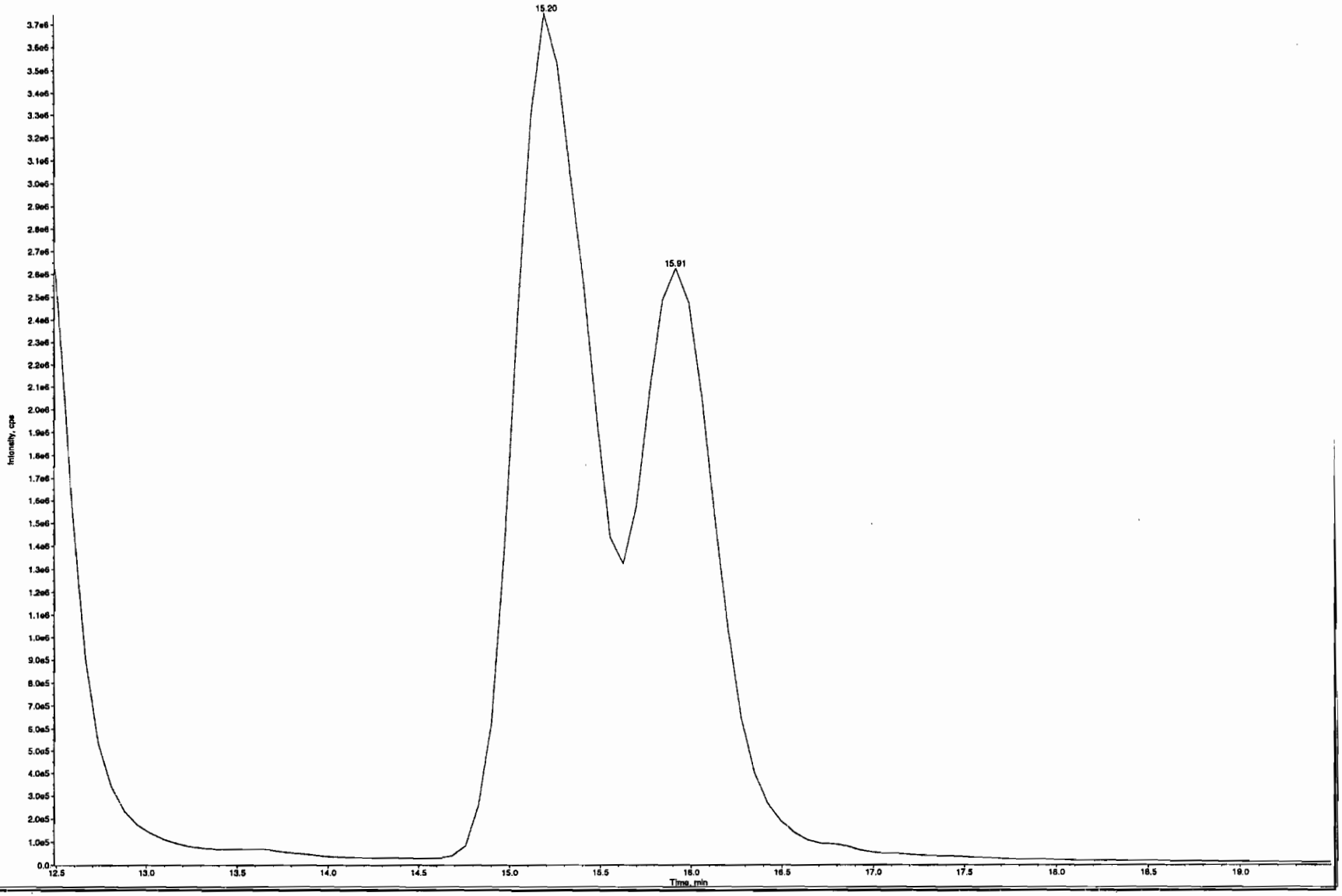

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LCMSMS#3

Data File	EXP0322007.wiff	**Acquisition Date**	3/22/2010 6:11:20 PM
Sample Name	WXX100322-54	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

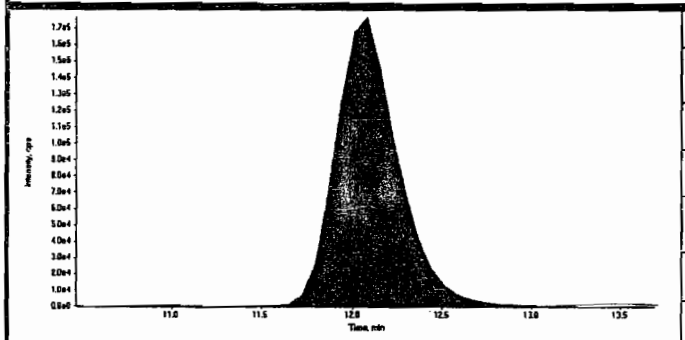

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	4.30e+006
Manual Modification	No
Amount:	847. (ng/mL)
% Accuracy:	106.00

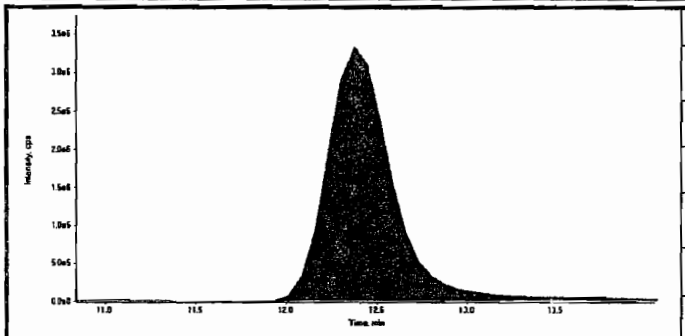

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	8.43e+007
Manual Modification	No
Amount:	396. (ng/mL)
% Accuracy:	98.90

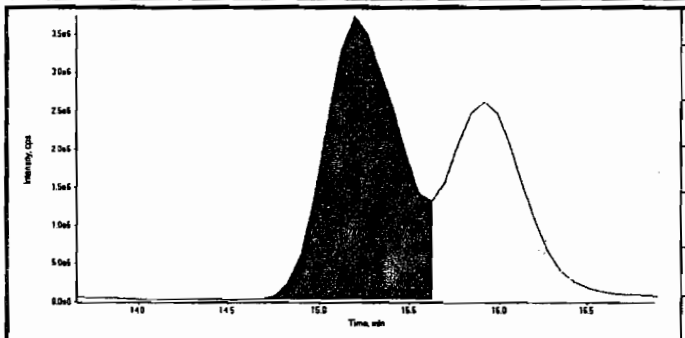

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.2
Area Counts:	1.10e+008
Manual Modification	No
Amount:	684. (ng/mL)
% Accuracy:	85.50

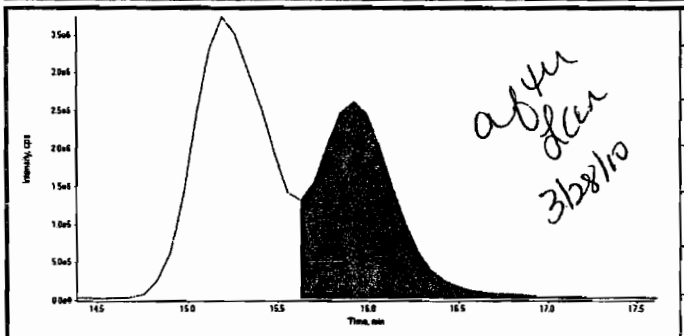

after flow 3/28/10

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	15.9
Area Counts:	7.89e+007
Manual Modification	Yes
Amount:	819. (ng/mL)
% Accuracy:	102.00

Before Lan 3/28/10

Name: "WXX100322-54" Sample ID: "[1]LER" File: "EXP0322007.wiff"
sme: "2-Amino-46-dnitrotoluene" Mass(es): "197.0/180.0 amu"
ni: "LCMSEXP_I" Annotation: ""
ndex: 1
ype: Standard
ation: 800. ng/mL
ed Conc: 1520. ng/mL
e: 3/22/2010
e: 6:11:20 PM

: No
gorithm: IntelliQuan - IQA
k Height: 1000.00 cps
k Width: 0.00 sec
g Width: 3 points
w: 30.0 sec
RT: 14.6 min
tive RT: No

s: Valley
Time: 14.5 min
1.45e+007 counts
2.14e+005 cps
se: 14.1 min
: 17.9 min

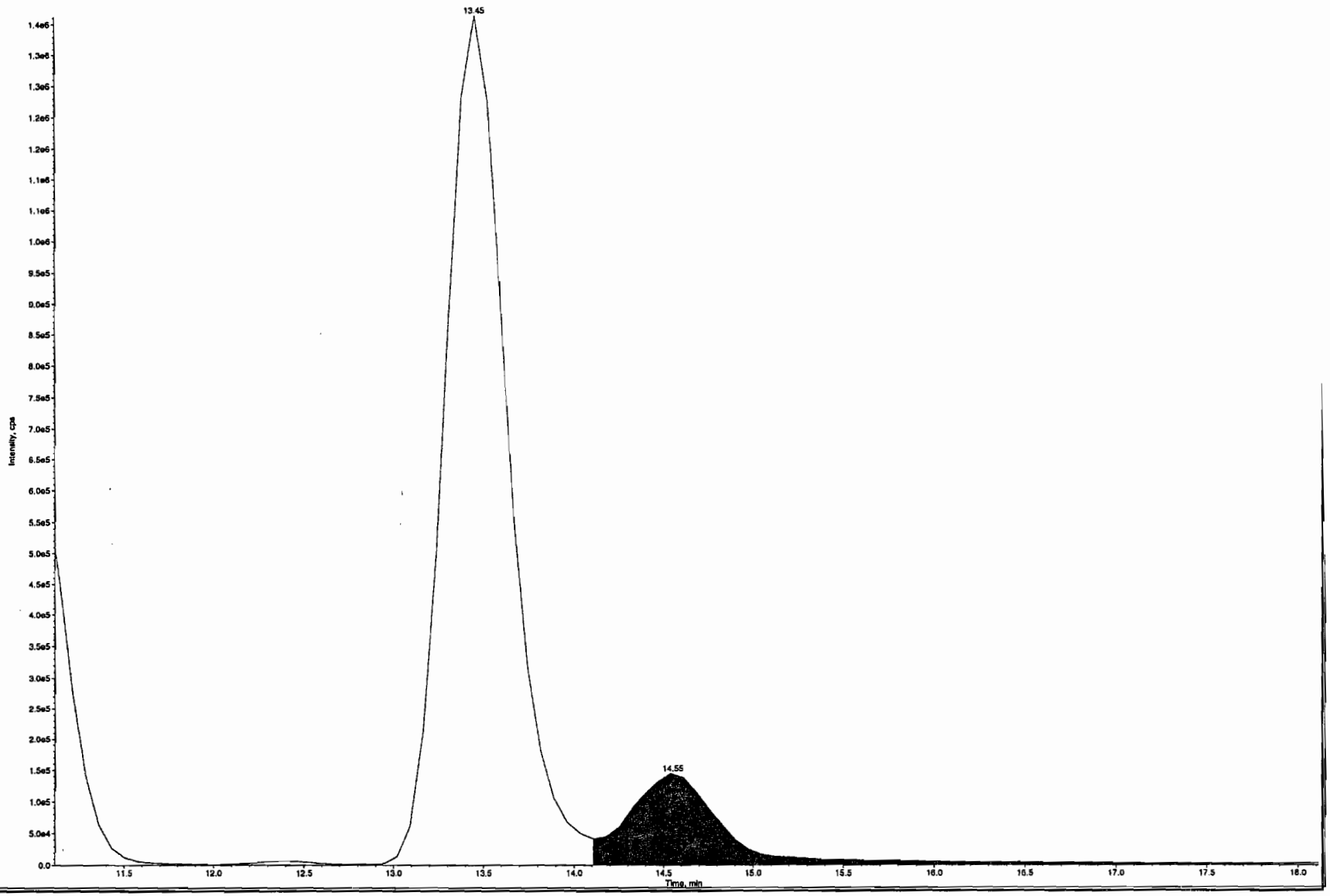

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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LCMSMS#3

Data File	EXP0322007.wiff	**Acquisition Date**	3/22/2010 6:11:20 PM
Sample Name	WXX100322-54	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

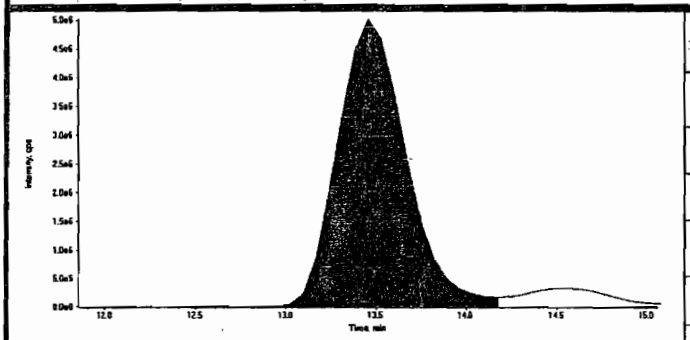

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.33e+008
Manual Modification	No
Amount:	762. (ng/mL)
% Accuracy:	95.30

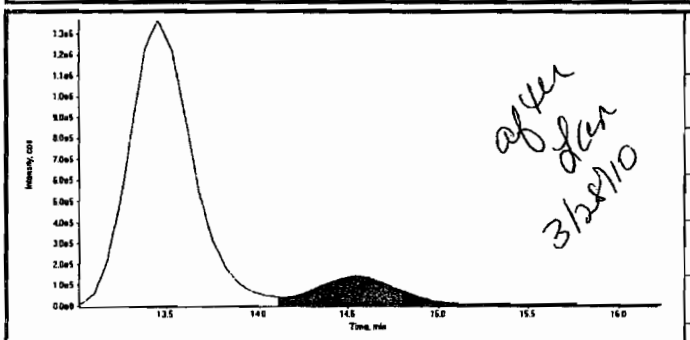

after flan 3/28/10

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.6
Area Counts:	4.95e+006
Manual Modification	Yes
Amount:	901. (ng/mL)
% Accuracy:	113.00

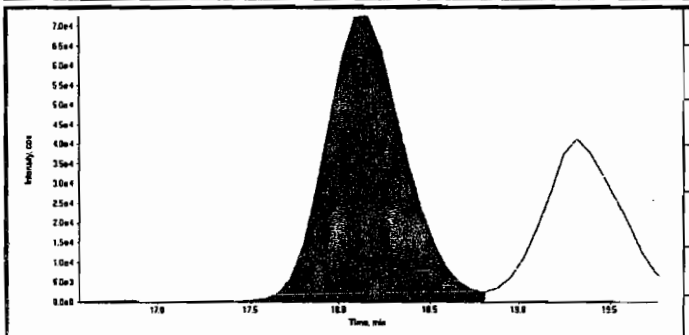

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.2
Area Counts:	2.20e+006
Manual Modification	No
Amount:	857. (ng/mL)
% Accuracy:	107.00

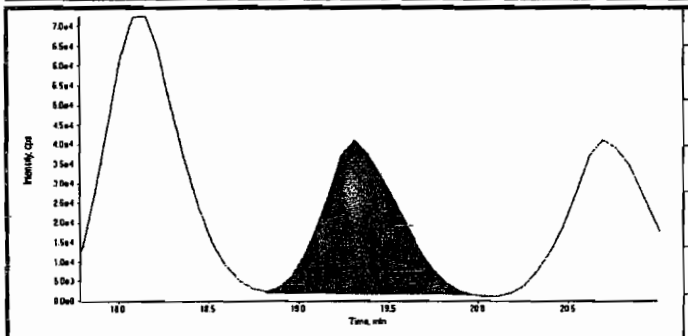

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.3
Area Counts:	1.14e+006
Manual Modification	No
Amount:	888. (ng/mL)
% Accuracy:	111.00

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LCMSMS#3

Data File	EXP0322007.wiff	**Acquisition Date**	3/22/2010 6:11:20 PM
Sample Name	WXX100322-54	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

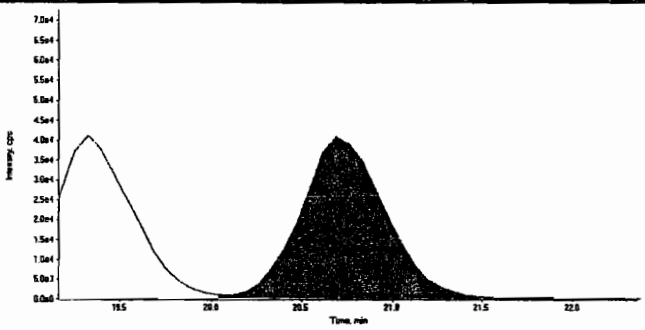

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.7
Area Counts:	1.33e+006
Manual Modification	No
Amount:	868. (ng/mL)
% Accuracy:	109.00

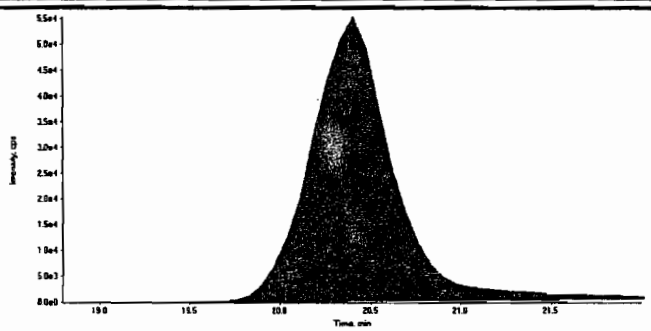

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.4
Area Counts:	1.74e+006
Manual Modification	No
Amount:	887. (ng/mL)
% Accuracy:	111.00

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Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322008.wiff	**Acquisition Date**	3/22/2010 6:37:39 PM
Sample Name	WXX100322-55	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

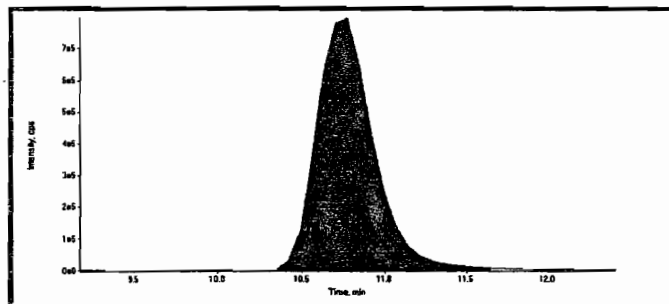

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	19300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

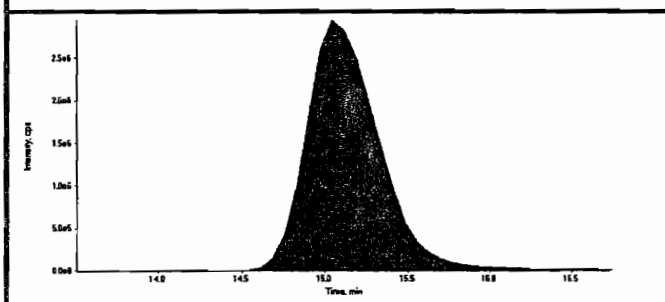

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.00
Area Counts:	89800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

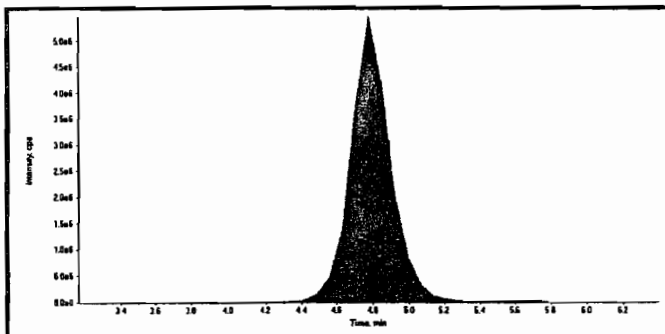

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	8.20e+007
Manual Modification	No
Amount:	988. (ng/mL)
% Accuracy:	98.80

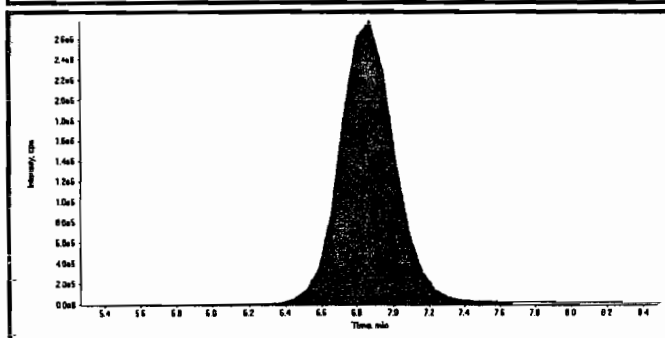

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	5.94e+007
Manual Modification	No
Amount:	1010. (ng/mL)
% Accuracy:	101.00

3/28/10 3/28/10

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Data File	EXP0322008.wiff	**Acquisition Date**	3/22/2010 6:37:39 PM
Sample Name	WXX100322-55	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

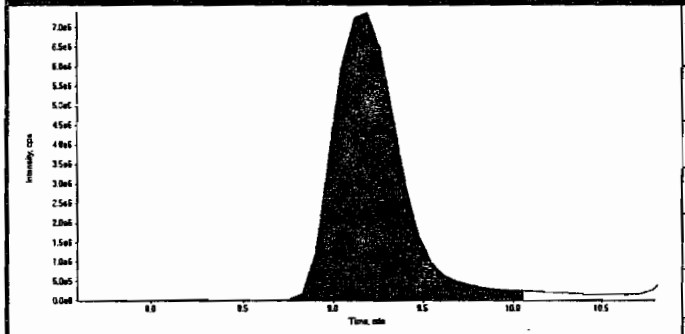

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.19
Area Counts:	1.95e+008
Manual Modification	No
Amount:	781. (ng/mL)
% Accuracy:	78.10

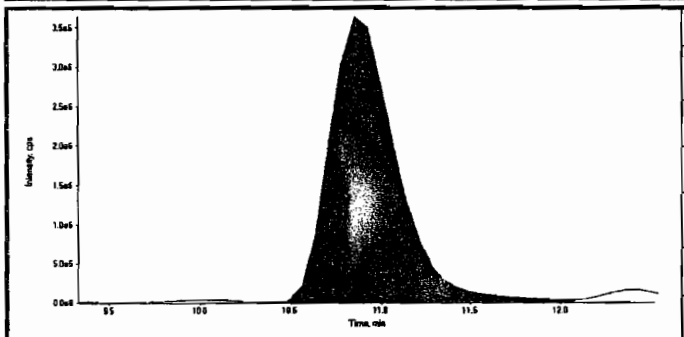

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	9.38e+007
Manual Modification	No
Amount:	916. (ng/mL)
% Accuracy:	91.60

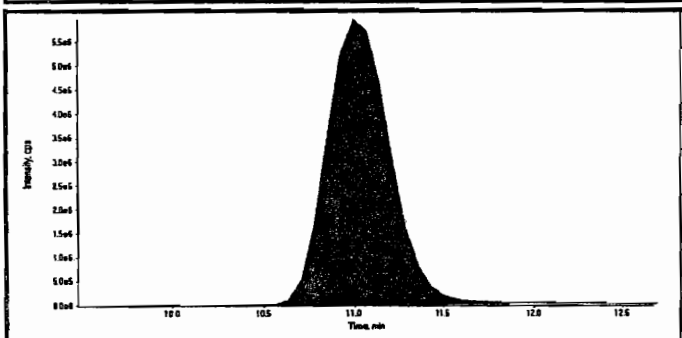

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.0
Area Counts:	1.47e+008
Manual Modification	No
Amount:	890. (ng/mL)
% Accuracy:	89.00

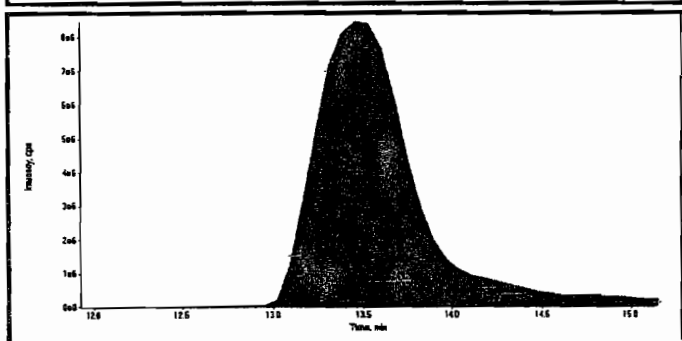

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	3.45e+008
Manual Modification	No
Amount:	953. (ng/mL)
% Accuracy:	95.30

Before Ken 3/28/10

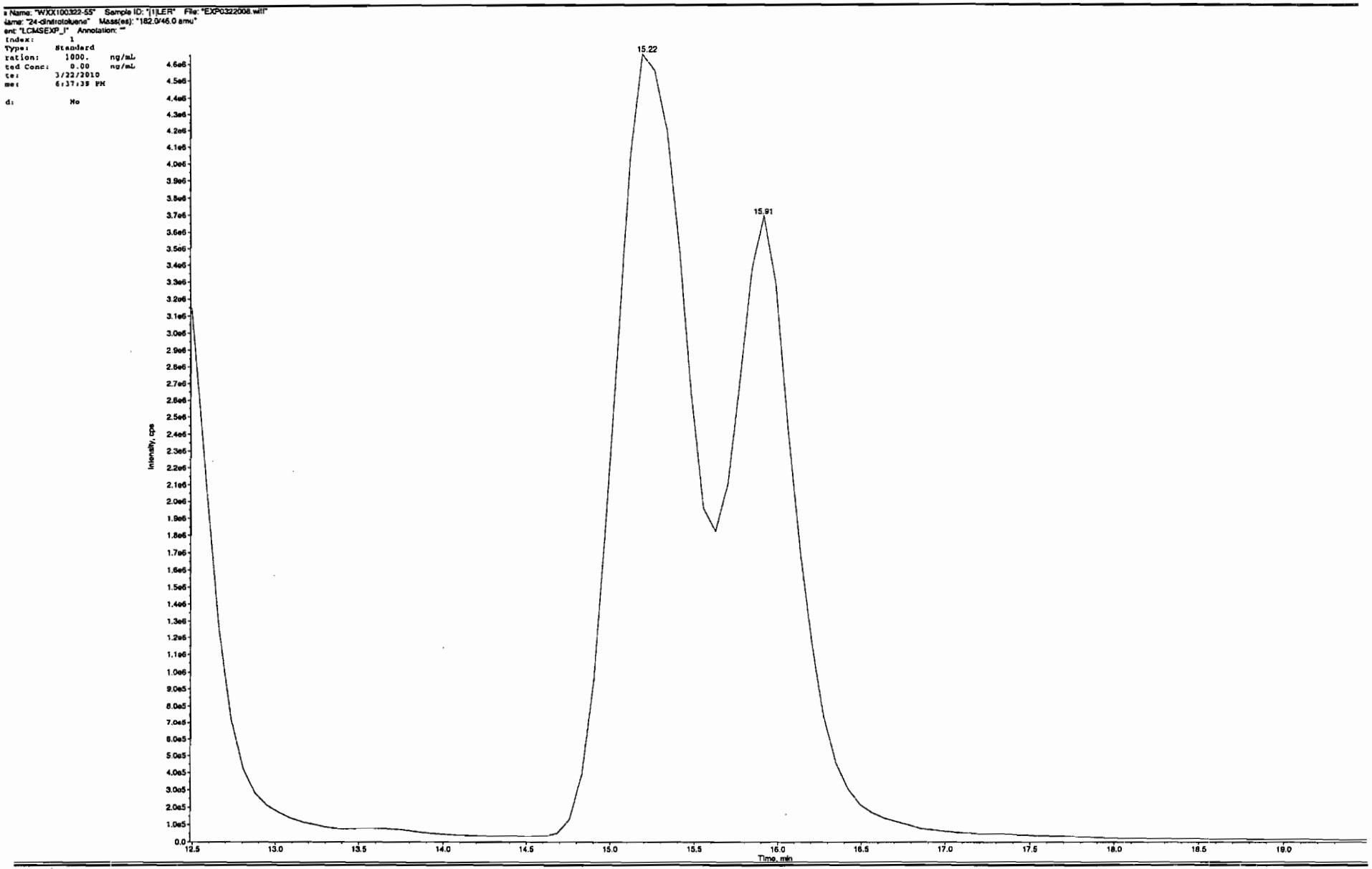

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Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322008.wiff	**Acquisition Date**	3/22/2010 6:37:39 PM
Sample Name	WXX100322-55	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

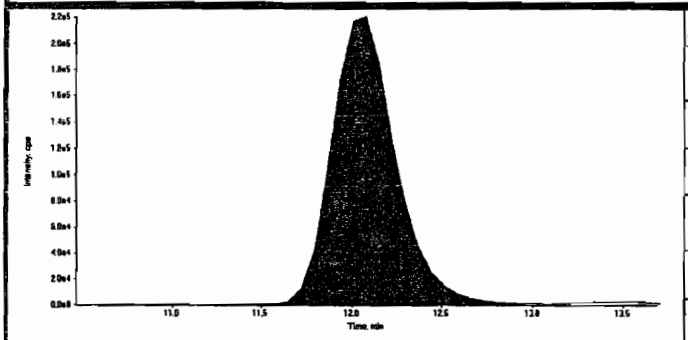

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	5.53e+006
Manual Modification	No
Amount:	1060. (ng/mL)
% Accuracy:	106.00

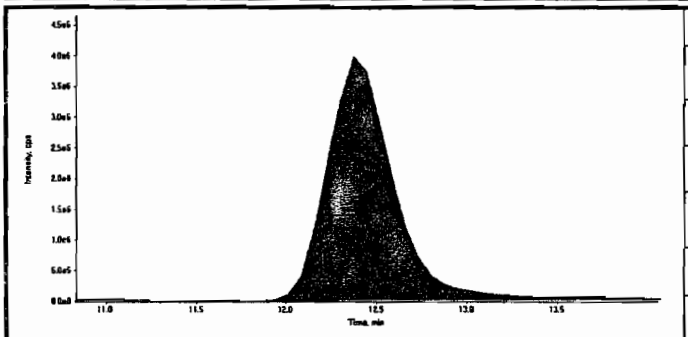

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	1.03e+008
Manual Modification	No
Amount:	442. (ng/mL)
% Accuracy:	88.30

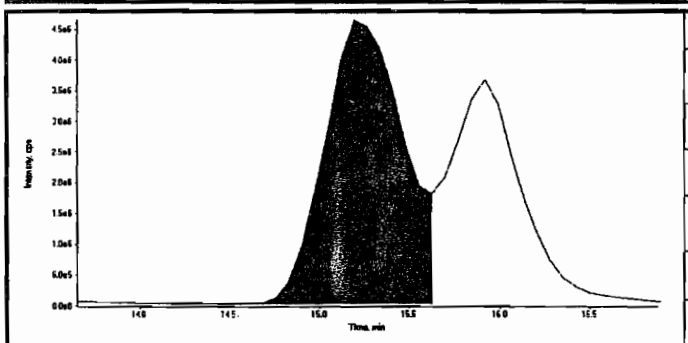

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.2
Area Counts:	1.44e+008
Manual Modification	No
Amount:	824. (ng/mL)
% Accuracy:	82.40

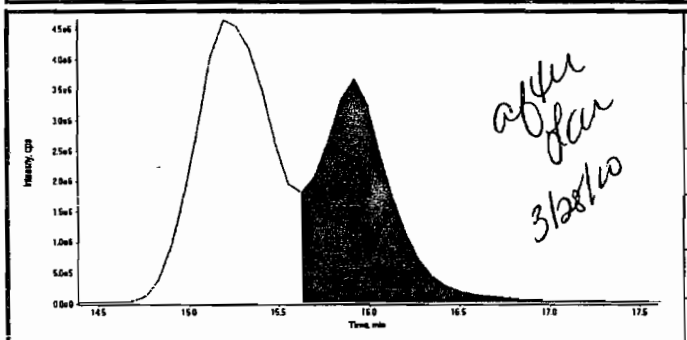

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	15.9
Area Counts:	1.01e+008
Manual Modification	Yes
Amount:	958. (ng/mL)
% Accuracy:	95.80

Before Lan 3/28/10

ple Name: "WXX100322-55" Sample ID: "]1|LER" File: "EXP0322008.wiff"
Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
ment: "LCMSEXP_|" Annotation: ""

Index:	1	
Type:	Standard	
tration:	1000.	ng/mL
ated Conc:	2370.	ng/mL
ate:	3/22/2010	
ime:	6:37:39 PM	
ed:	No	
Algorithm:	IntelliQuan - IQA	
eak Height:	1000.00	cps
eak Width:	0.00	sec
ing Width:	3	points
dow:	30.0	sec
ed RT:	14.6	min
lative RT:	No	
ype:	Valley	
ion Time:	14.5	min
	1.96e+007	counts
:	2.80e+005	cps
Time:	14.1	min
ax:	17.9	min

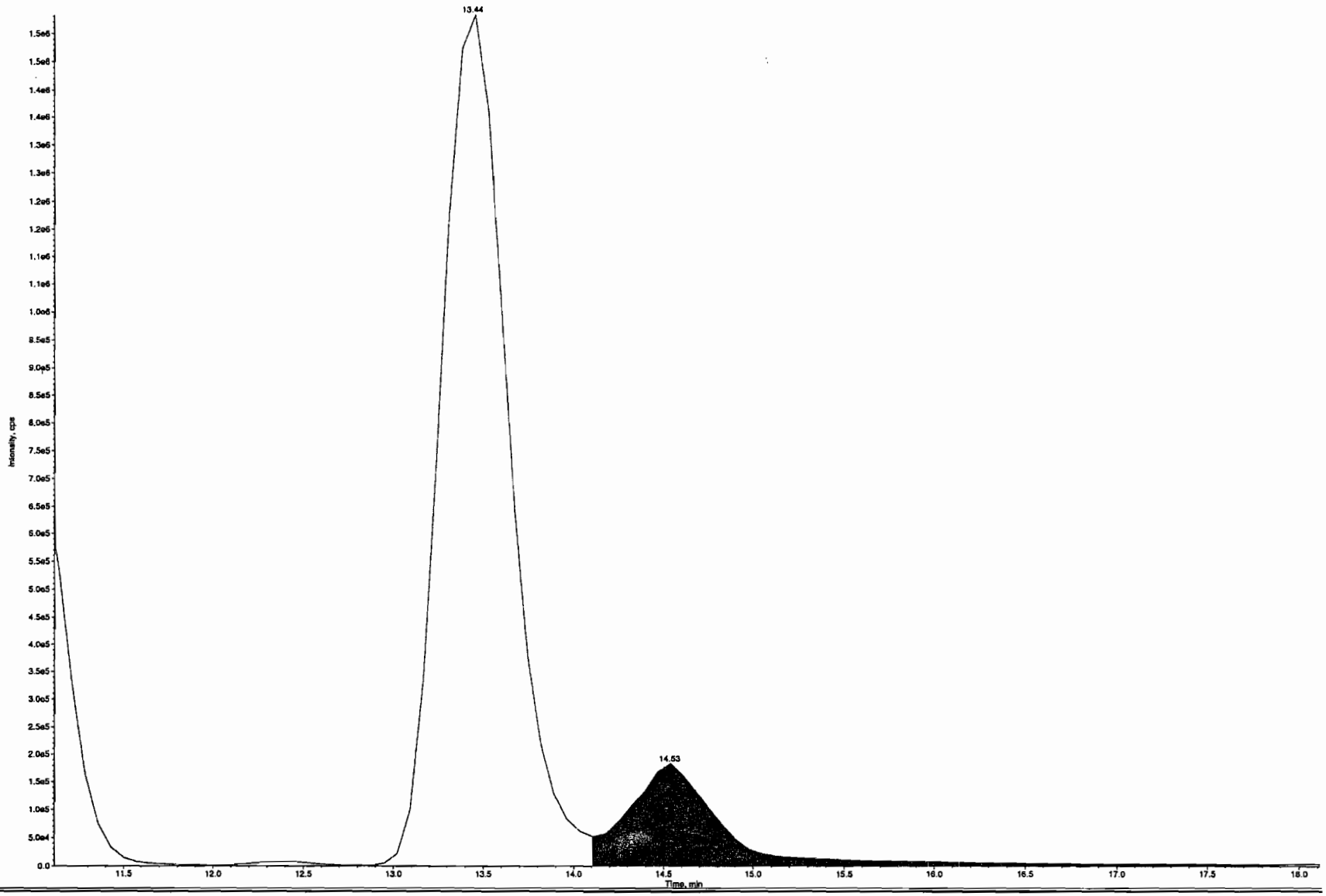

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322008.wiff	**Acquisition Date**	3/22/2010 6:37:39 PM
Sample Name	WXX100322-55	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

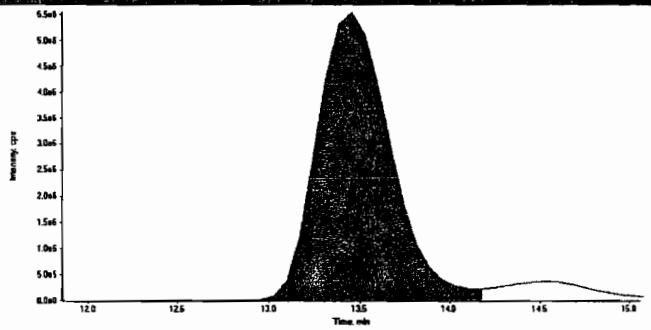

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.58e+008
Manual Modification	No
Amount:	833. (ng/mL)
% Accuracy:	83.30

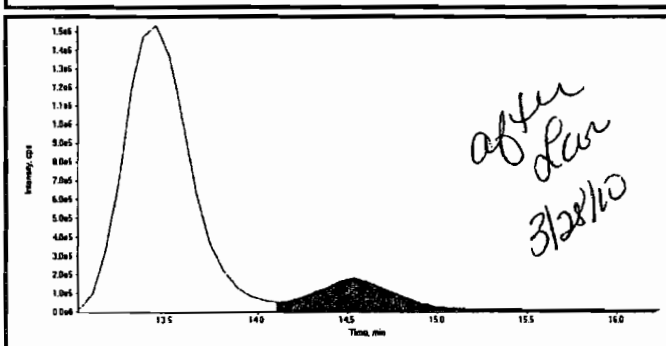

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.5
Area Counts:	6.06e+006
Manual Modification	Yes
Amount:	1010. (ng/mL)
% Accuracy:	101.00

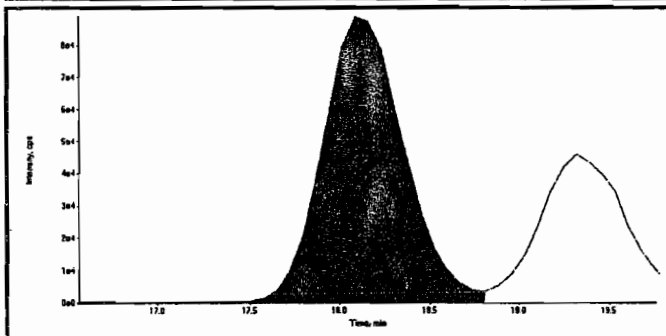

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.1
Area Counts:	2.78e+006
Manual Modification	No
Amount:	989. (ng/mL)
% Accuracy:	98.90

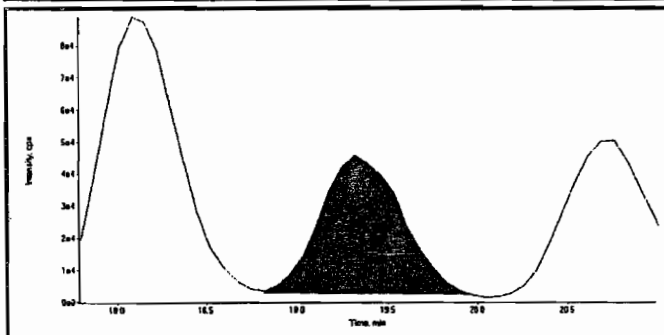

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.3
Area Counts:	1.38e+006
Manual Modification	No
Amount:	981. (ng/mL)
% Accuracy:	98.10

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322008.wiff	**Acquisition Date**	3/22/2010 6:37:39 PM
Sample Name	WXX100322-55	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_I	**Sample Type**	**Standard**

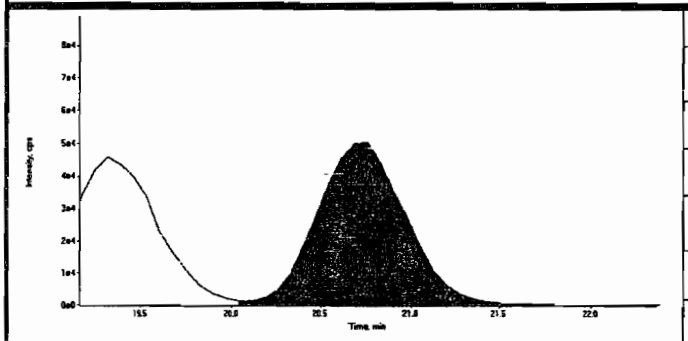

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.8
Area Counts:	1.73e+006
Manual Modification	No
Amount:	1040. (ng/mL)
% Accuracy:	104.00

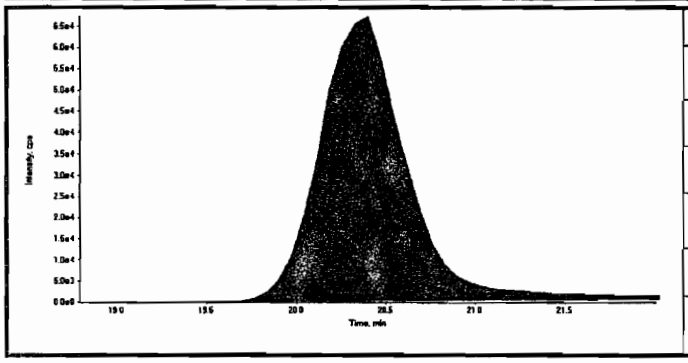

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.4
Area Counts:	2.29e+006
Manual Modification	No
Amount:	1070. (ng/mL)
% Accuracy:	107.00

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2005

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0322010.wiff

Analysis Date: 22–MAR–10 19:30

LCMSMS ID: 1189

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
Nitrobenzene	600	595	99	
PETN	600	570	95	
RDX	600	578	96	
Tetryl	600	571	95	
m–Dinitrobenzene	600	559	93	
m–Nitrotoluene	600	588	98	
o–Nitrotoluene	600	563	94	
p–Nitrotoluene	600	571	95	
1,3,5–Trinitrobenzene	600	514	86	
2,4,6–Trinitrotoluene	600	517	86	
2,4–Dinitrotoluene	600	571	95	
2,6–Dinitrotoluene	600	492	82	
2–Amino–4,6–dinitrotoluene	600	570	95	
3,4–Dinitrotoluene	300	265	88	
4–Amino–2,6–dinitrotoluene	600	540	90	
HMX	600	521	87	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322010.wiff	**Acquisition Date**	3/22/2010 7:30:24 PM
Sample Name	WXX100322-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

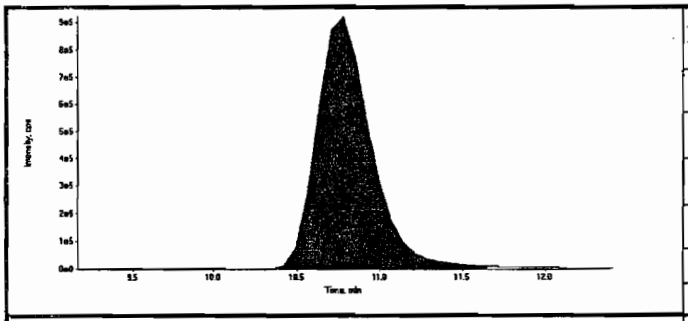

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	21000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

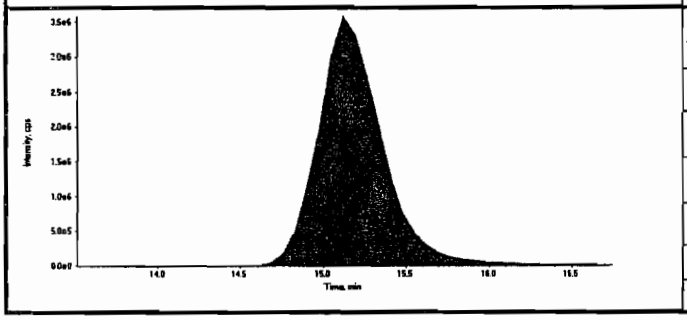

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.10
Area Counts:	96500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

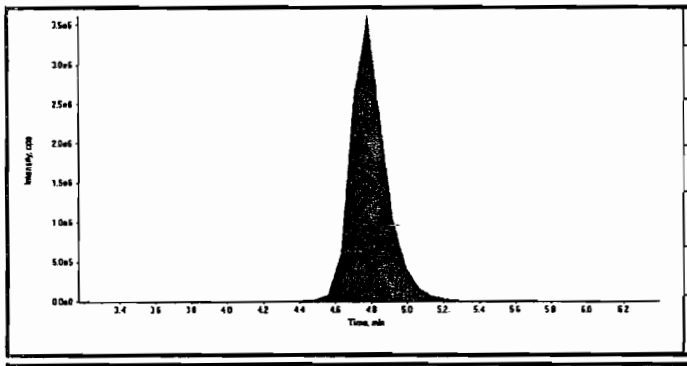

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	4.77e+007
Manual Modification	No
Amount:	521. (ng/mL)
% Accuracy:	86.90

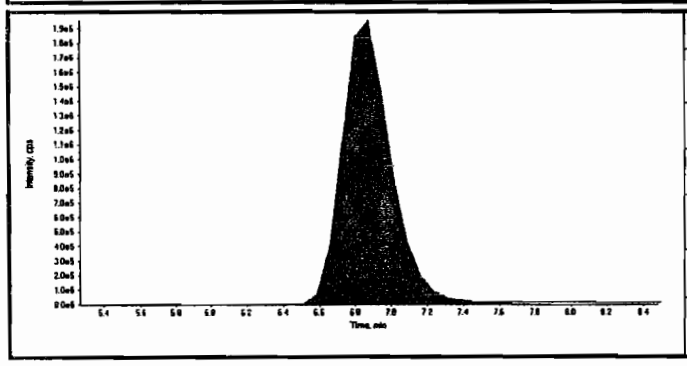

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	3.72e+007
Manual Modification	No
Amount:	578. (ng/mL)
% Accuracy:	96.30

Lan 3/28/10

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322010.wiff	**Acquisition Date**	3/22/2010 7:30:24 PM
Sample Name	WXX100322-56iCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

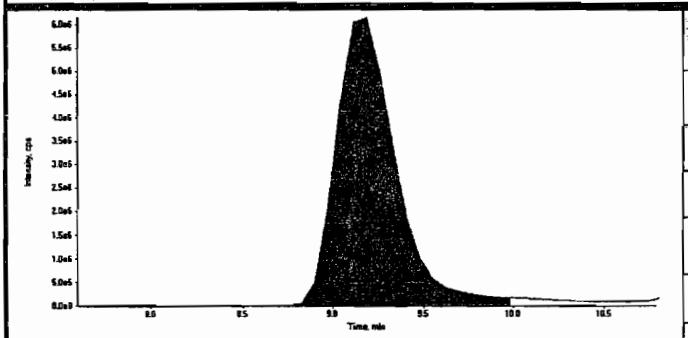

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.19
Area Counts:	1.40e+008
Manual Modification	No
Amount:	514. (ng/mL)
% Accuracy:	85.60

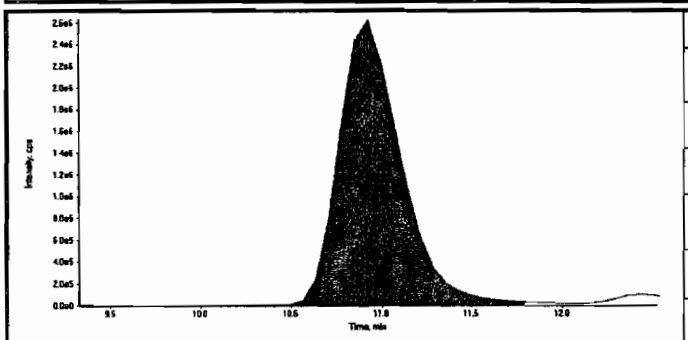

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	6.25e+007
Manual Modification	No
Amount:	559. (ng/mL)
% Accuracy:	93.10

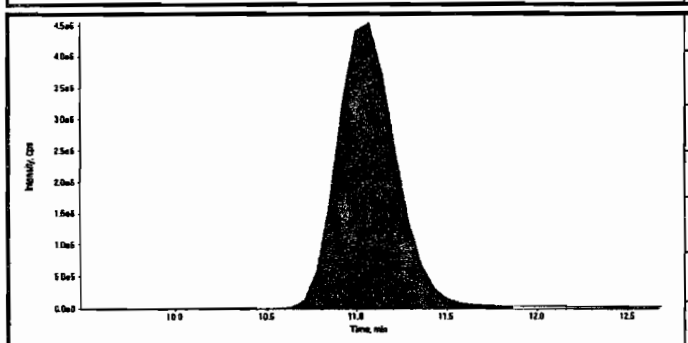

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.1
Area Counts:	1.03e+008
Manual Modification	No
Amount:	571. (ng/mL)
% Accuracy:	95.10

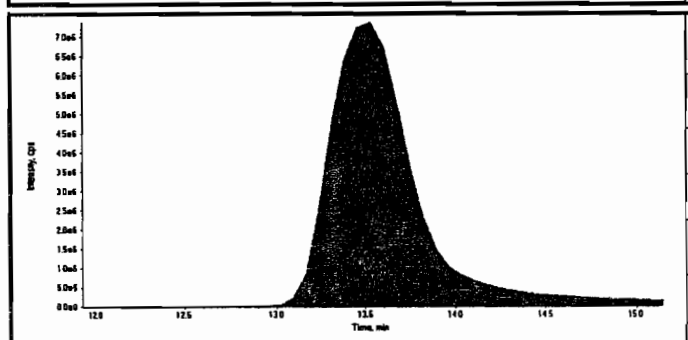

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	2.51e+008
Manual Modification	No
Amount:	517. (ng/mL)
% Accuracy:	86.20

Before LCer 3/28/10

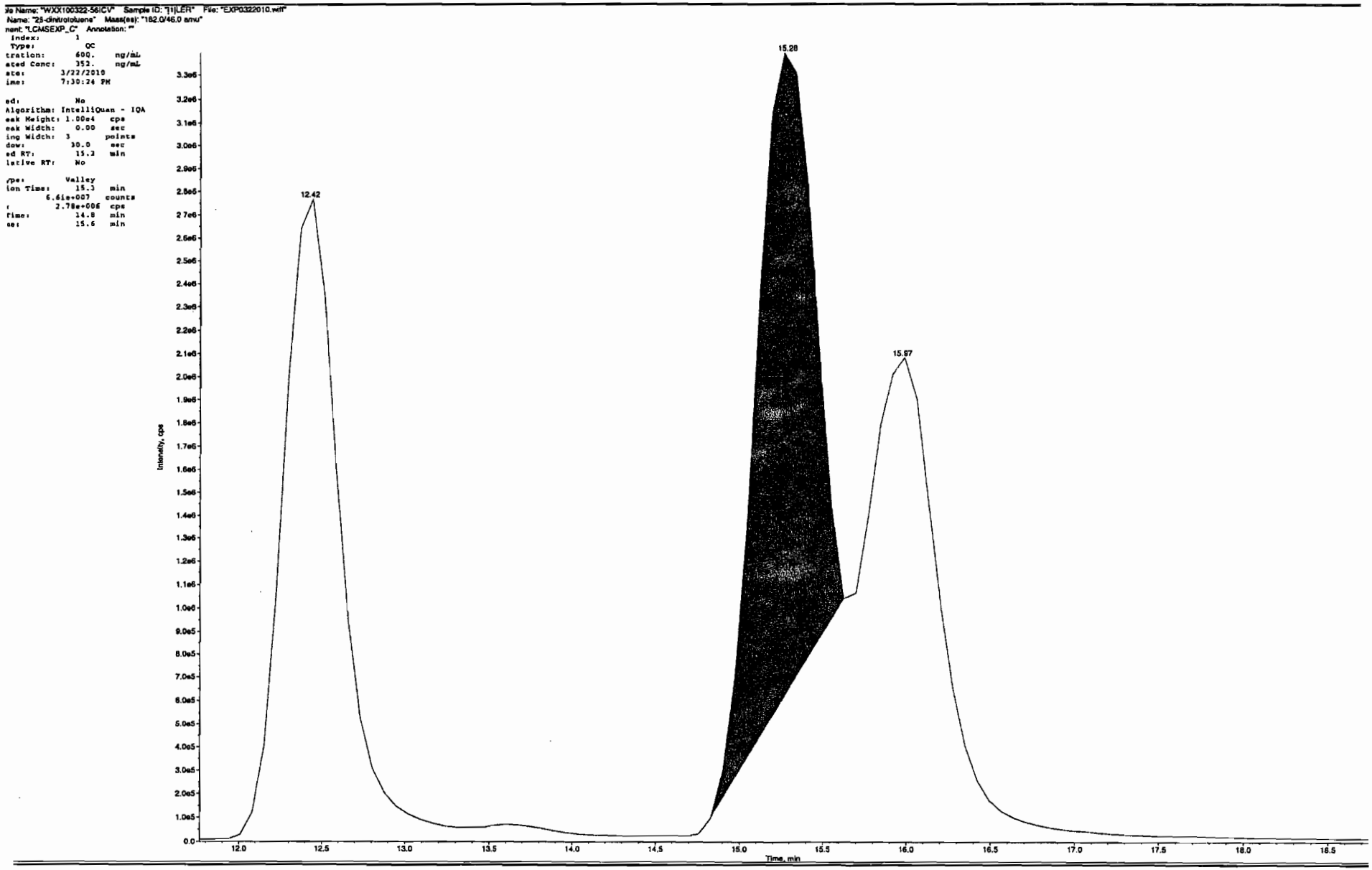

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Before Lab 3/28/10

e Name: "WXX100322-56ICV" Sample ID: "1|LER" File: "EXP0322010.wiff"
Name: "24-dinitrotoluene" Mass(as): "182.0/46.0 amu"
ent: "LCMSEXP_C" Annotation: ""
Index: 1
Type: QC
ration: 600. ng/mL
ted Conc: 0.00 ng/mL
te: 3/22/2010
me: 7:30:24 PM

d: No

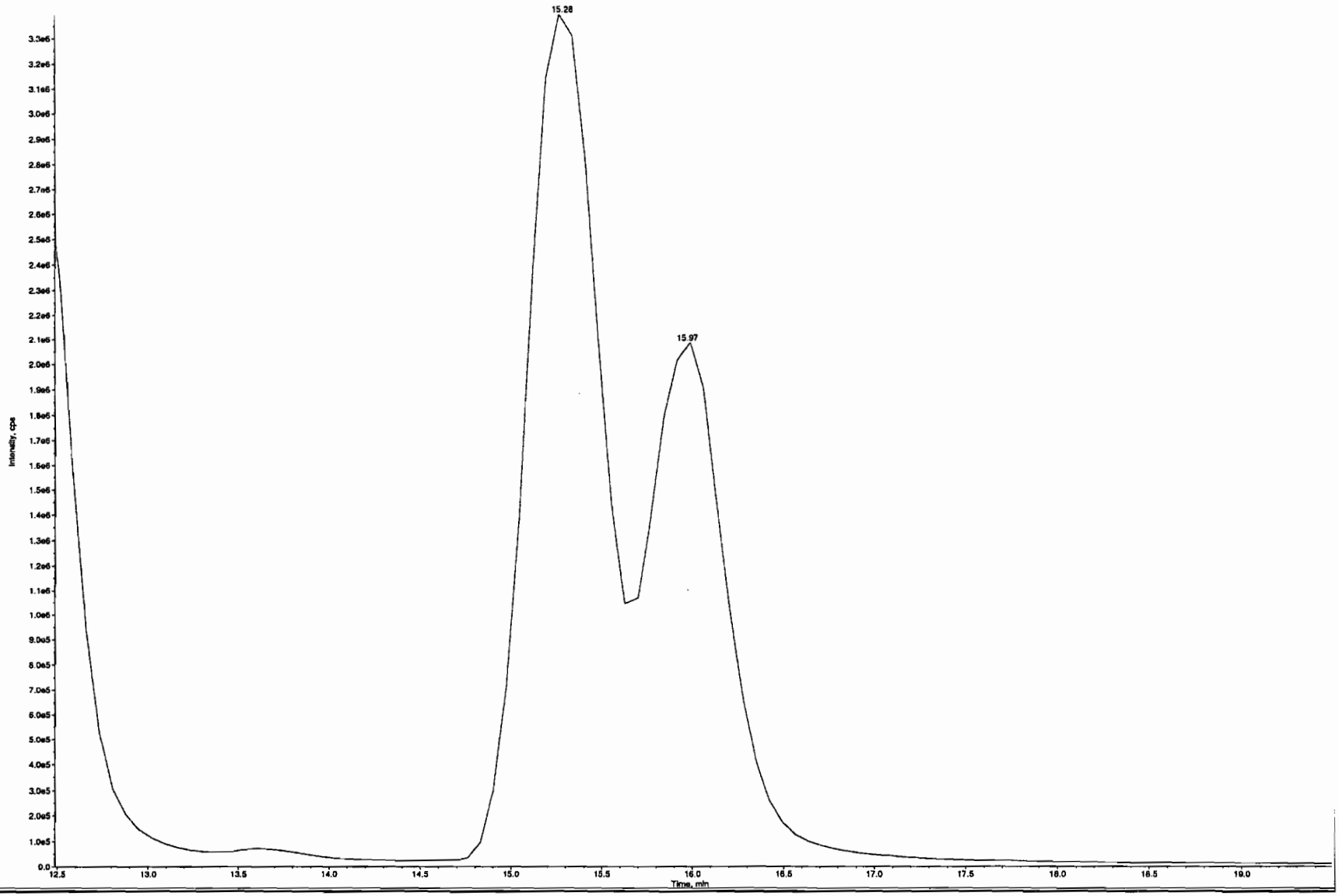

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322010.wiff	**Acquisition Date**	3/22/2010 7:30:24 PM
Sample Name	WXX100322-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

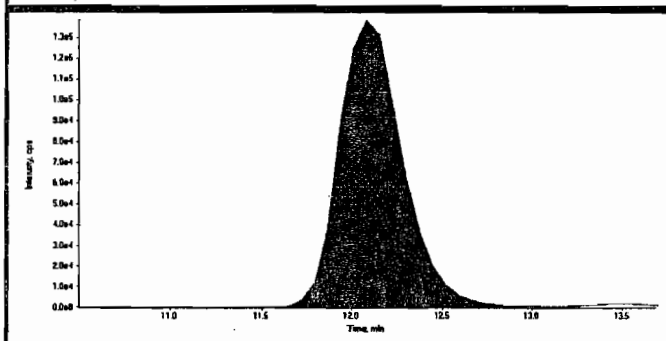

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	3.39e+006
Manual Modification	No
Amount:	595. (ng/mL)
% Accuracy:	99.20

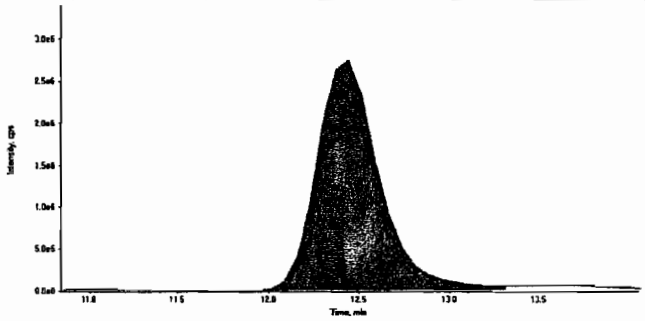

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	6.61e+007
Manual Modification	No
Amount:	265. (ng/mL)
% Accuracy:	88.30

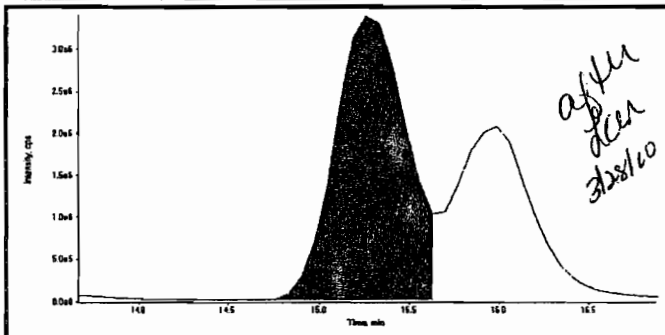

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	9.23e+007
Manual Modification	Yes
Amount:	492. (ng/mL)
% Accuracy:	82.10

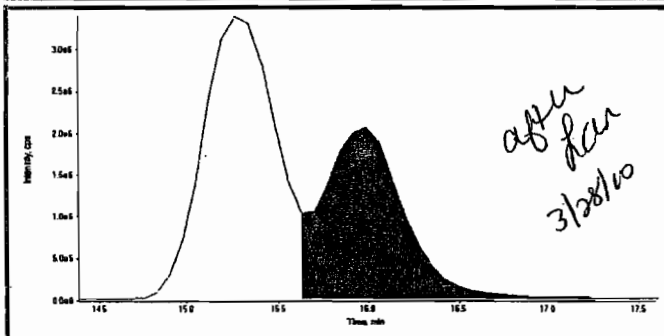

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	16.0
Area Counts:	6.45e+007
Manual Modification	Yes
Amount:	571. (ng/mL)
% Accuracy:	95.20

Before Ran 3/28/10

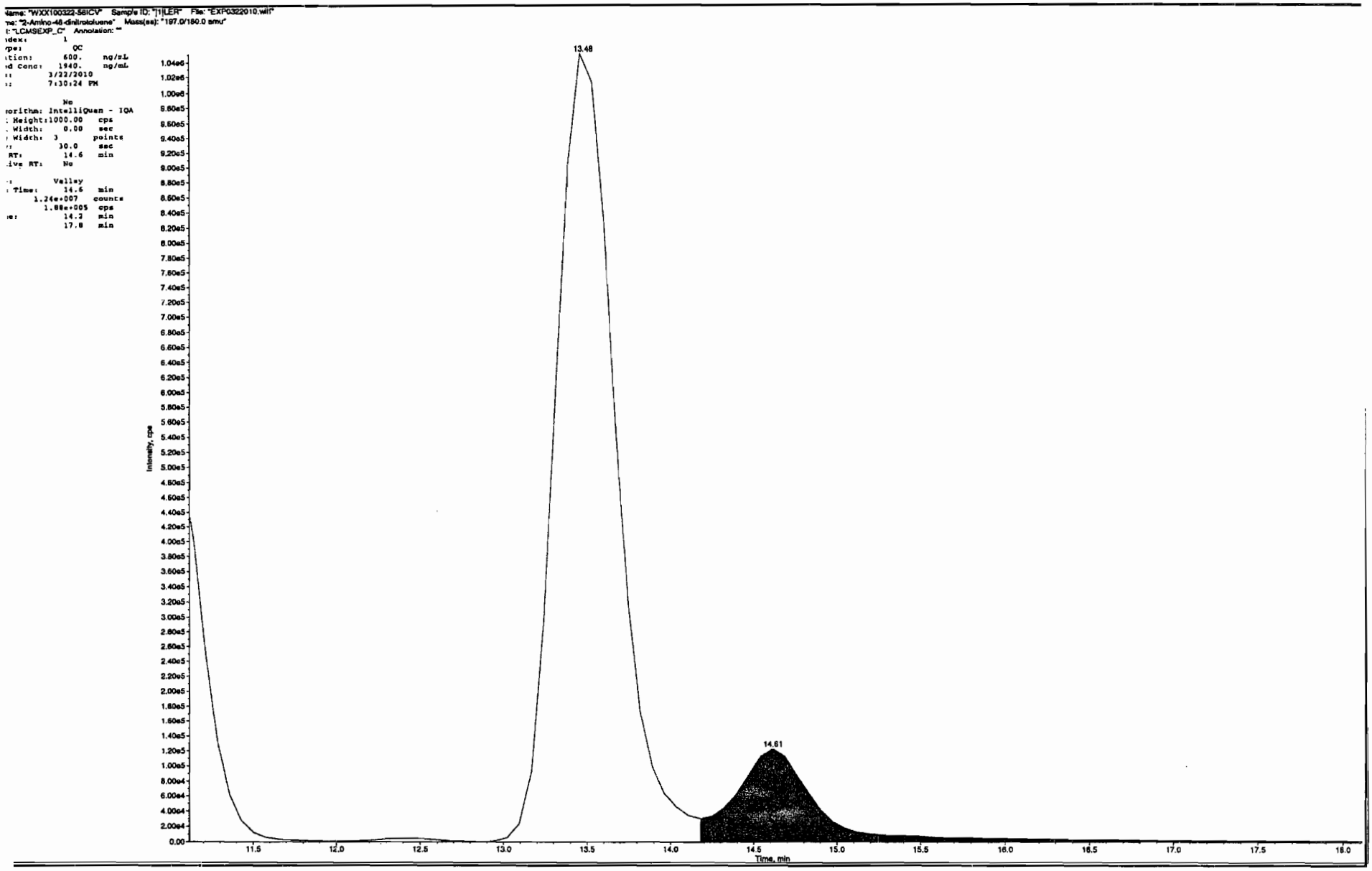

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322010.wiff	**Acquisition Date**	3/22/2010 7:30:24 PM
Sample Name	WXX100322-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

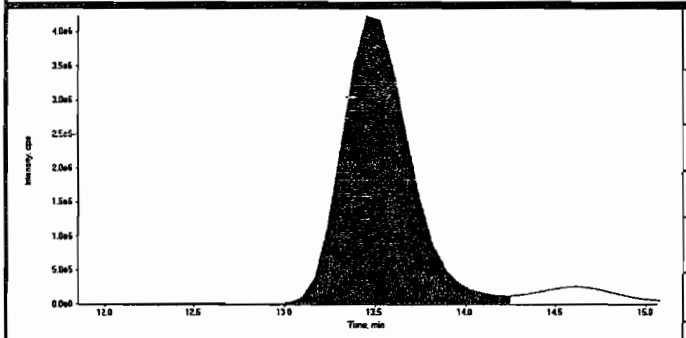

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.10e+008
Manual Modification	No
Amount:	540. (ng/mL)
% Accuracy:	90.00

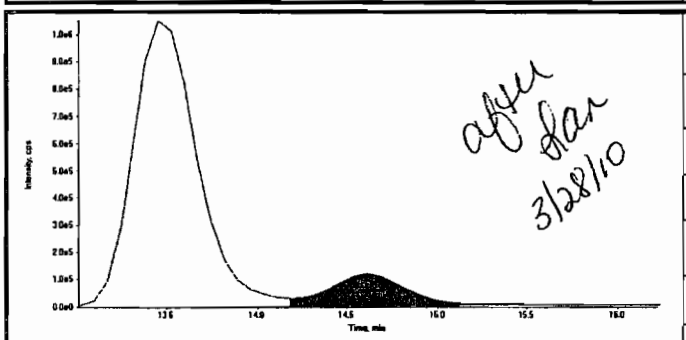

after flar 3/28/10

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.6
Area Counts:	3.66e+006
Manual Modification	Yes
Amount:	570. (ng/mL)
% Accuracy:	95.00

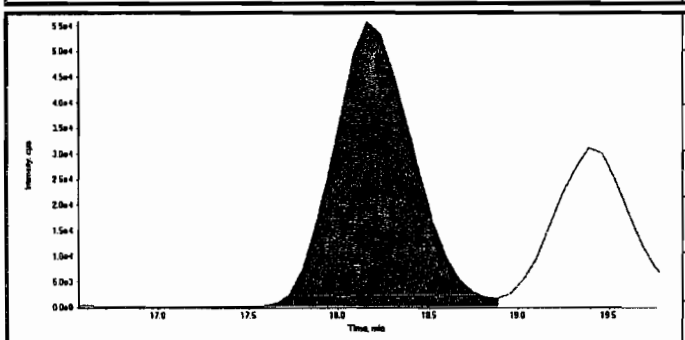

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.2
Area Counts:	1.70e+006
Manual Modification	No
Amount:	563. (ng/mL)
% Accuracy:	93.90

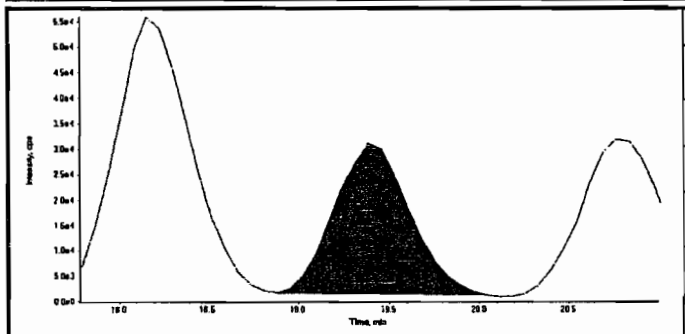

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.4
Area Counts:	8.60e+005
Manual Modification	No
Amount:	571. (ng/mL)
% Accuracy:	95.20

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322010.wiff	**Acquisition Date**	3/22/2010 7:30:24 PM
Sample Name	WXX100322-56ICV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

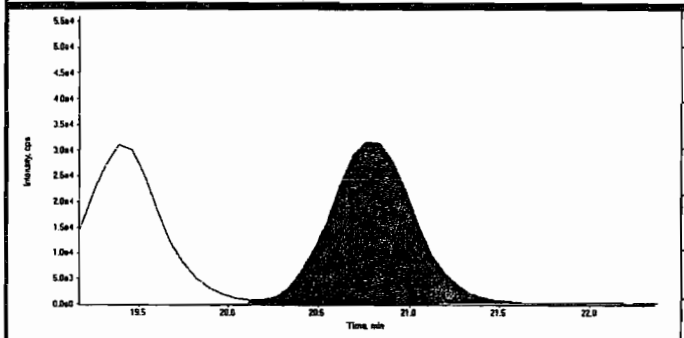

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.8
Area Counts:	1.05e+006
Manual Modification	No
Amount:	588. (ng/mL)
% Accuracy:	97.90

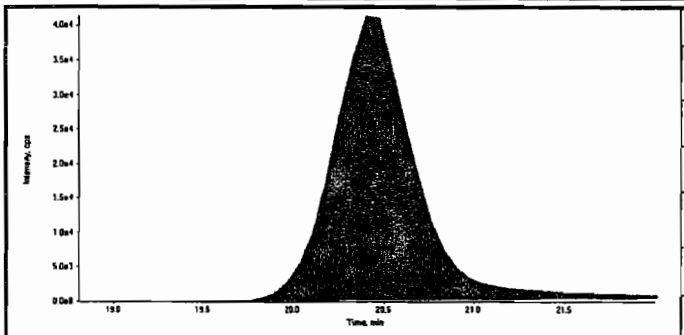

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.4
Area Counts:	1.31e+006
Manual Modification	No
Amount:	570. (ng/mL)
% Accuracy:	95.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/22/10
Time of Injection 1930
Standard Number WXX100322-56ICV
Data File EXP0322010a

HMX	86.9
RDX	96.3
135-Trinitrobenzene	85.6
13-Dinitrobenzene	93.1
Tetryl	95.1
246-Trinitrotoluene	86.2
Nitrobenzene	99.2
34-dinitrotoluene	88.3
26-dinitrotoluene	82.1
24-dinitrotoluene	95.2
4-Amino-26-dinitrotoluene	90.0
2-Amino-46-dinitrotoluene	95.0
2-Nitrotoluene	93.9
4-Nitrotoluene	95.2
3-Nitrotoluene	97.9
PETN	95.0
TOTAL	1475.0
AVERAGE	92.2

HAM 03/28/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lcr 3/28/10

Explosives Initial Calibration

F

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2005

Lab Code: GEL

Run Date: 22-MAR-10,31-MAR-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8O

Calibration Type: Linear

Calibration Level:	19	20	21	22	23	24	25	Slope	Intercept	COD	Q
Data File:	EXS03310003.w	EXS03310004.w	EXS03310005.w	EXS03310006.w	EXS03310007.w	EXS03310008.w	EXS03310009.w				
Parmname											
2,6-Diamino-4-nitrotoluene	116000	252000	620000	1100000	1520000	2110000	4370000	2150	10600	.9991	

Linear fit : Y=mx +b
where b is Intercept and m is slope

COD is Coefficient of Determination

Q column used to flag COD values outside of Limit (<0.990)
* Values outside of QC Limit

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Explosives Initial Calibration

Form

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2005

Lab Code: GEL

Run Date: 22-MAR-10,31-MAR-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8Q

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS03310003.wifl	EXS03310004.wifl	EXS03310005.wifl	EXS03310006.wifl	EXS03310007.wifl	EXS03310008.wifl	EXS03310009.wifl					
Parmname:												
2,4-Diamino-6-nitrotoluene	100000	212000	510000	954000	1540000	1660000	3440000	36100	1860	-.085	.997	
3,4-Dinitrotoluene	197000	416000	981000	1900000	2870000	3740000	6880000	-24900	8650	-1.76	.9984	
3,5-Dinitroaniline	327000	689000	1570000	2920000	4950000	5840000	10100000	-47600	6910	-.908	.9987	
TATB	33600	68300	180000	356000	588000	726000	1480000	-6740	757	-.007	.9995	
tris(o-cresyl) phosphate	1070000	2110000	4990000	9200000	13600000	16900000	28300000	146000	19800	-2.85	.9999	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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033110ICAL

Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit Quadratic Weighting None Iterate No
a0 -6.74e+003
a1 757
a2 -0.00697
Correlation coefficient 0.9995
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit Quadratic Weighting None Iterate No
a0 -4.76e+004
a1 6.91e+003
a2 -0.908
Correlation coefficient 0.9987
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit Quadratic Weighting None Iterate No
a0 -2.49e+004
a1 8.65e+003
a2 -1.76
Correlation coefficient 0.9984
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit Linear Weighting None Iterate No
Intercept 1.06e+004
Slope 2.15e+003
Correlation coefficient 0.9991
Use Area

Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

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KMM 04/05/10

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033110ICAL

Fit	Quadratic	Weighting	None	Iterate No
a0	3.61e+004			
a1	1.86e+003			
a2	-0.0854			

Correlation coefficient 0.9970
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	1.46e+005			
a1	1.98e+004			
a2	-2.85			

Correlation coefficient 0.9999
Use Area

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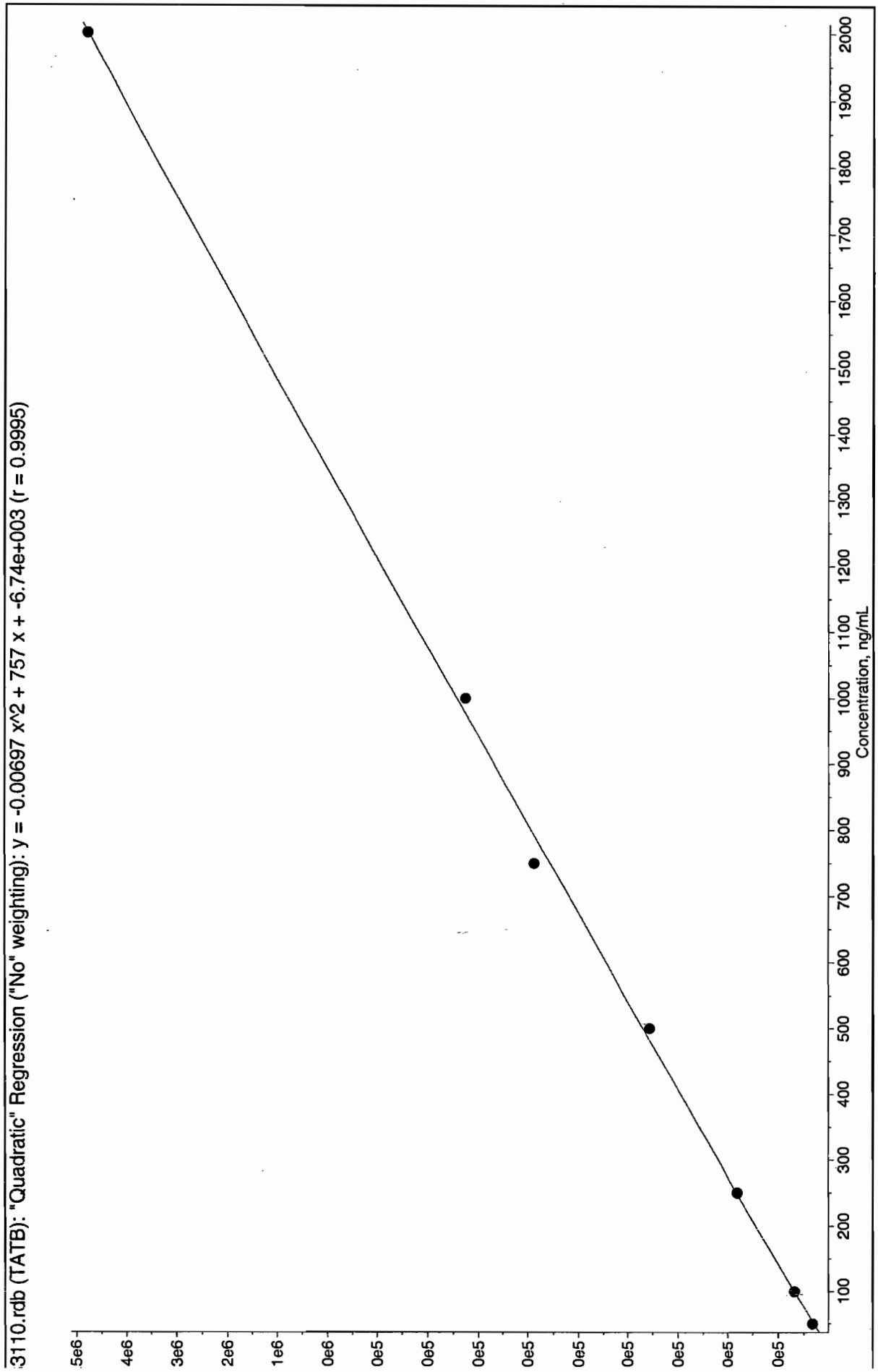

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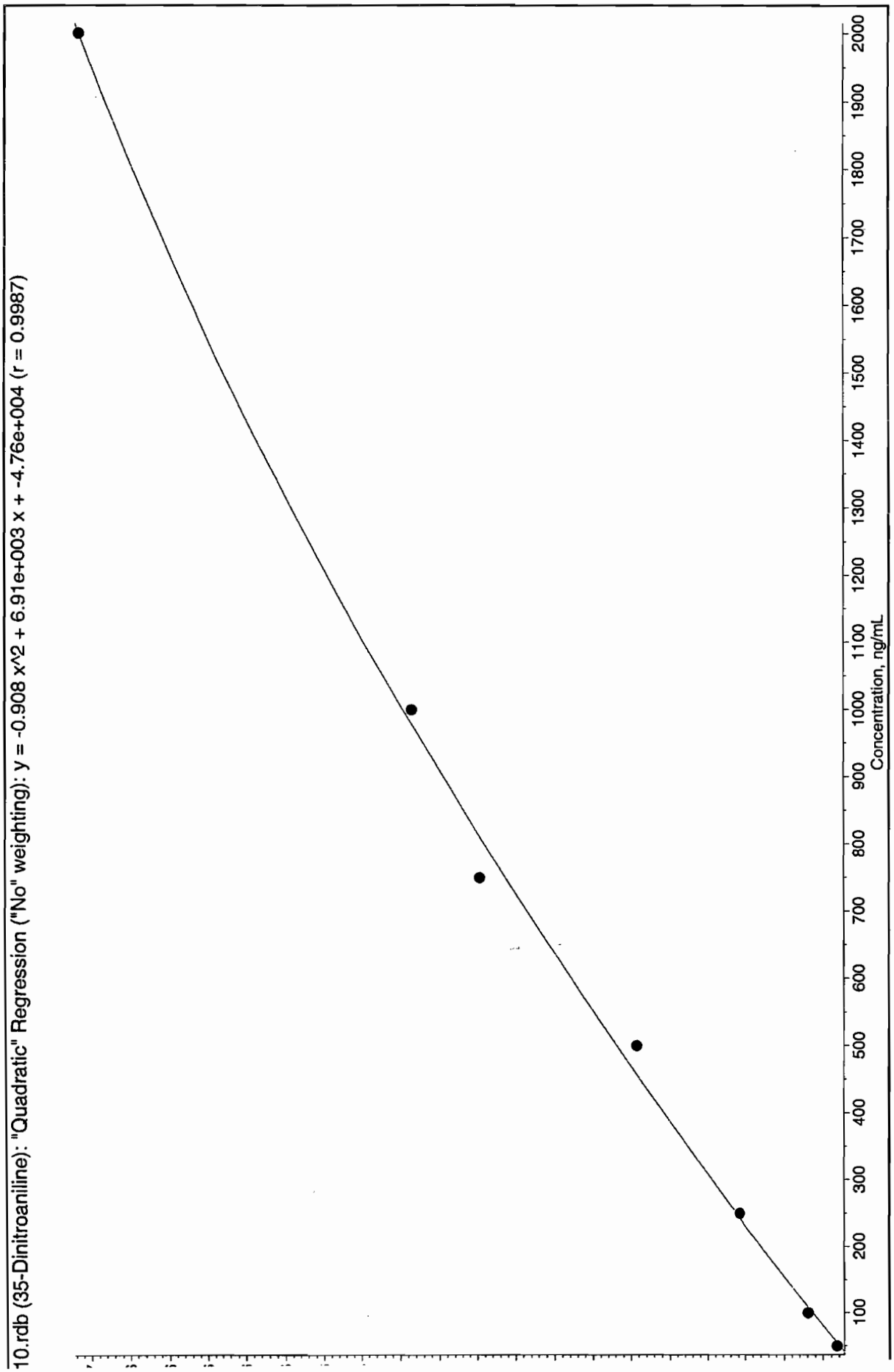

P GL-OA-E-056, Method 8321A-Modified LCMSMS#4

033110.rdb (34-Dinitrotoluene): "Quadratic" Regression ("No" weighting): y = -1.76 x^2 + 8.65e+003 x + -2.49e+004 (r = 0.9984)

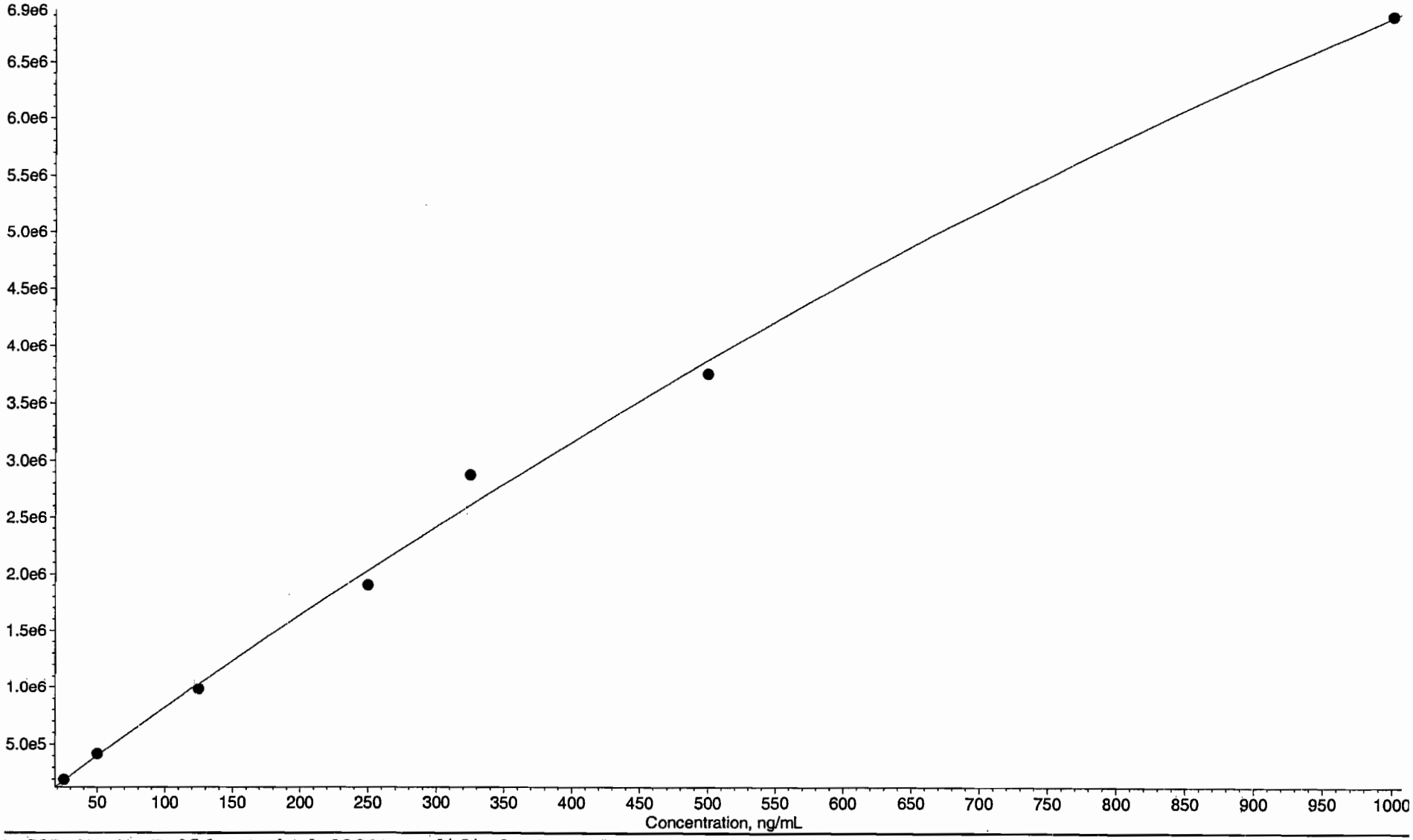

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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3110.rdb (26-Diamino-4-nitrotoluene): "Linear" Regression ("No" weighting): y = 2.15e+003 x + 1.06e+004 (r = 0.9991)

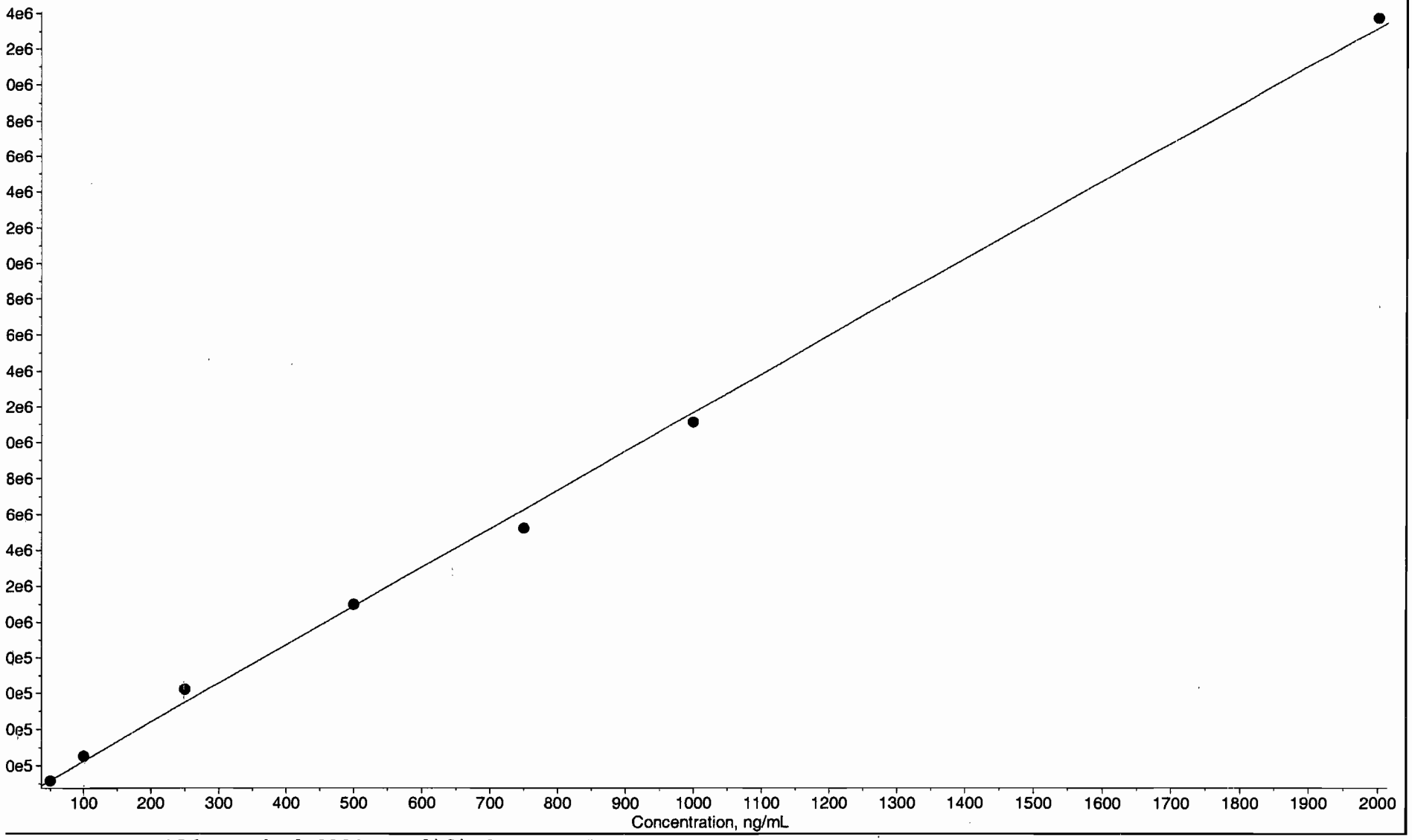

033110.rdb (24-Diamino-6-nitrotoluene): "Quadratic" Regression ("No" weighting): y = -0.0854 x^2 + 1.86e+003 x + 3.61e+004 (r = 0.9970)

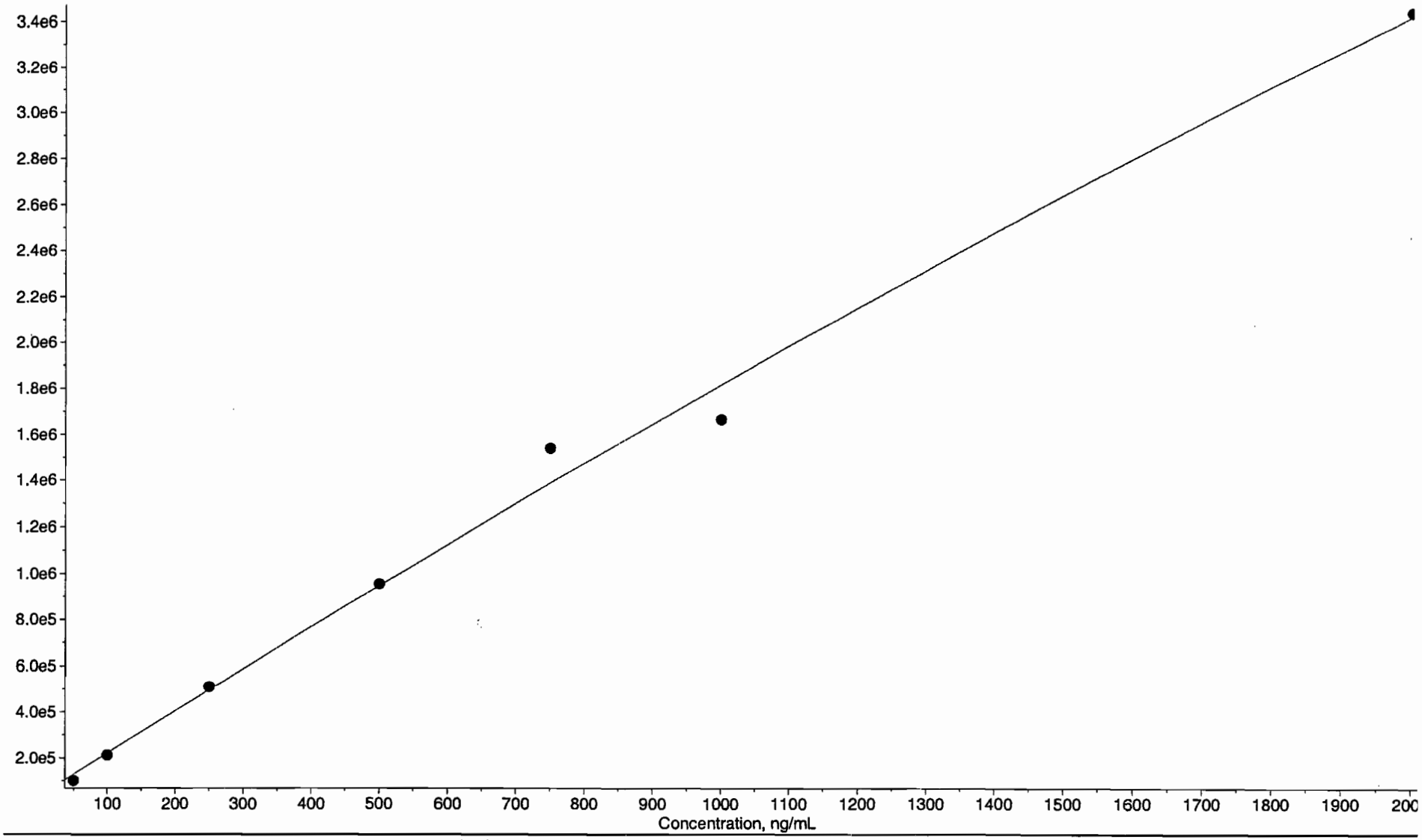

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033110.rdb (tris(o-cresyl) phosphate): "Quadratic" Regression ("No" weighting): y = -2.85 x^2 + 1.98e+004 x + 1.46e+005 (r = 0.9999)

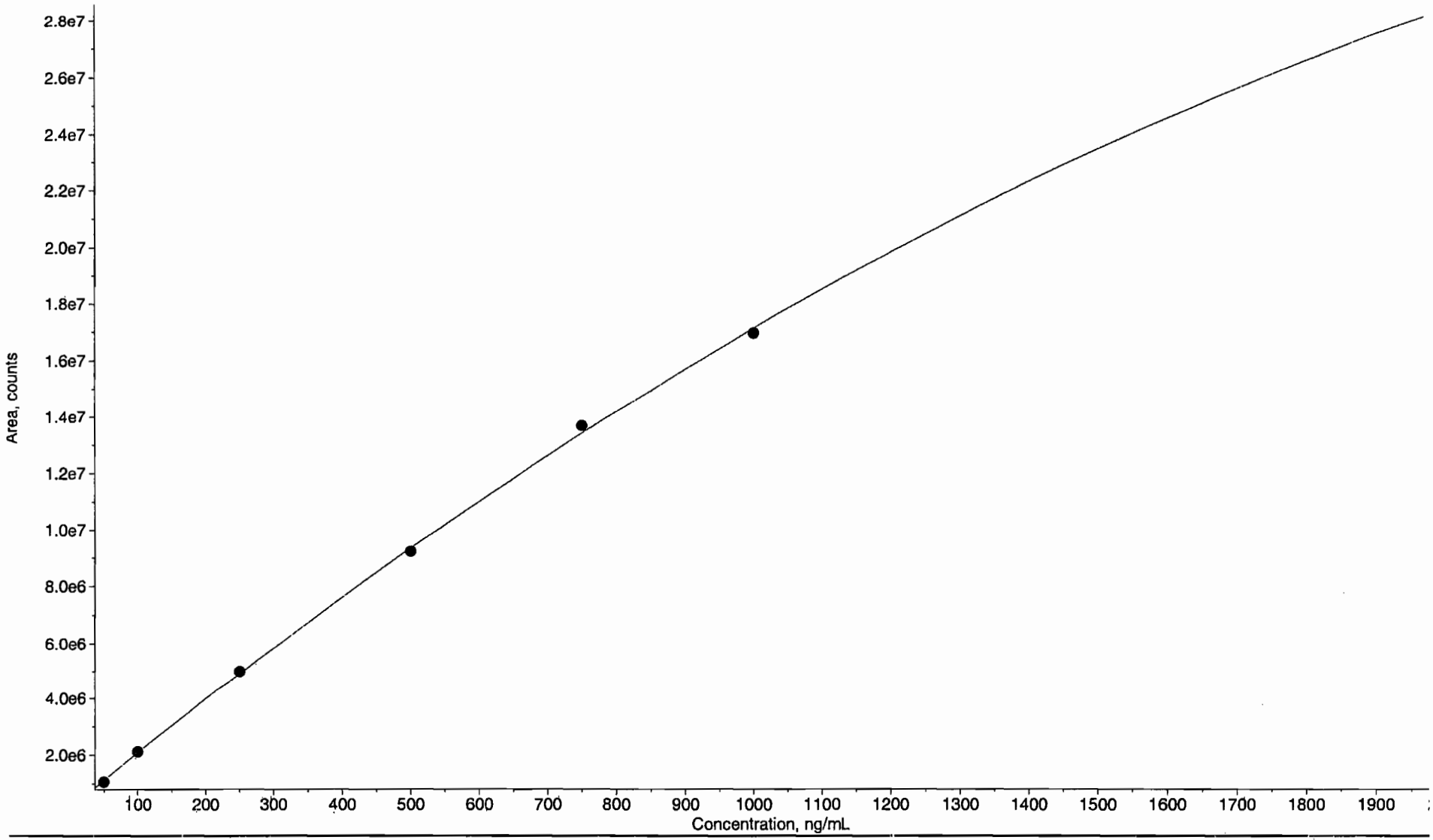

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Lan 4/5/10

ne: "WXX100331-19" Sample ID: "|1|LER" File: "EXS03310003.wiff"
: "TATB" Mass(es): "257.2/204.9 amu"
LCMSEXP_I" Annotation: ""
ex: 1
e: Standard
ion: 50.0 ng/mL
Conc: 53.3 ng/mL
3/31/2010
9:12:01 AM

No
rithm: IntelliQuan - IQA
Height: 2500.00 cps
Width: 0.00 sec
Width: 3 points
30.0 sec
T: 6.90 min
ve RT: No

Valley
Time: 6.90 min
3.36e+004 counts
8035.092 cps
: 6.82 min
7.34 min

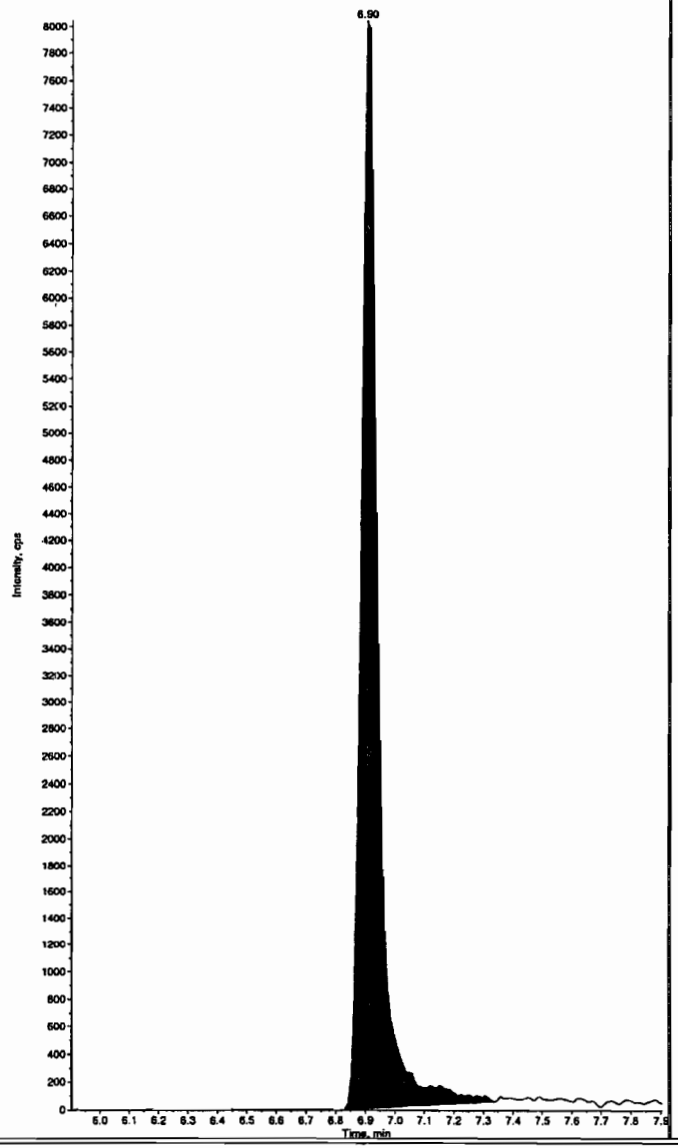

Sample Name: "WXX100331-19" Sample ID: "|1|LER" File: "EXS03310003.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 50.0 ng/mL
Calculated Conc: 54.6 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:12:01 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.14 min
Area: 3.27e+005 counts
Height: 79705.101 cps
Start Time: 8.04 min
End Time: 8.27 min

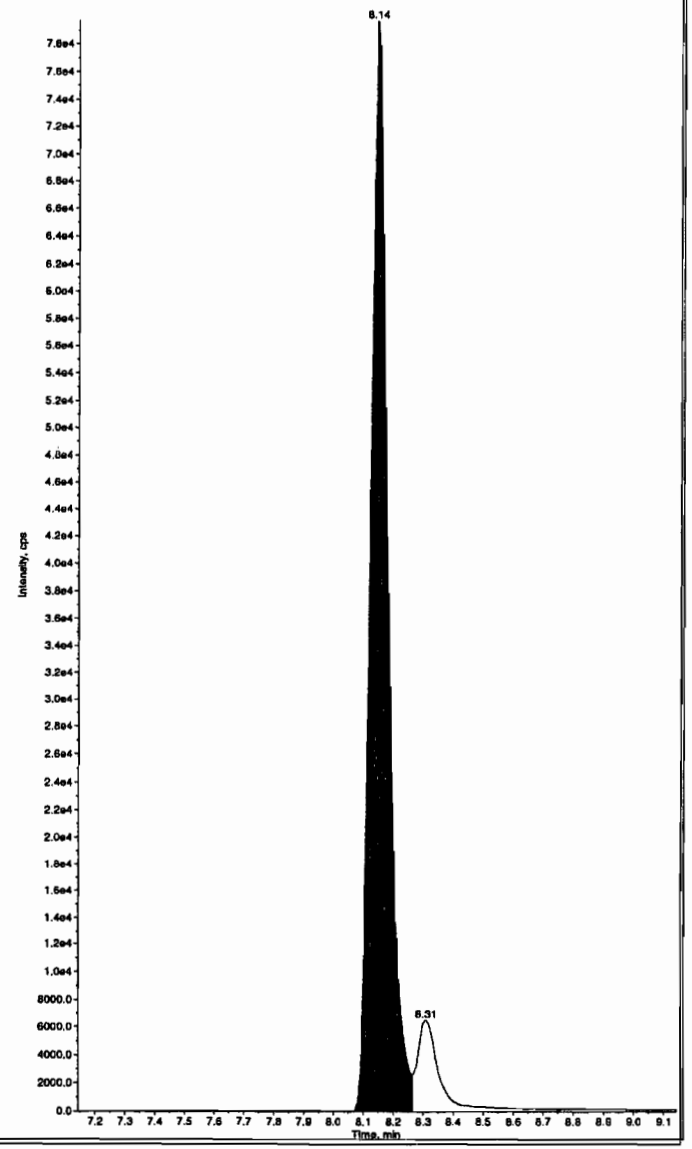

Hmm 04/05/10

OP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100331-19" Sample ID: "|1|LER" File: "EXS03310003.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_|" Annotation: ""

mple Index: 1
mple Type: Standard
ncentration: 25.0 ng/mL
lculated Conc: 25.8 ng/mL
q. Date: 3/31/2010
q. Time: 9:12:01 AM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.31 min
e Relative RT: No

t. Type: Valley
tention Time: 8.31 min
ea: 1.97e+005 counts
ight: 49695.324 cps
art Time: 8.23 min
d Time: 8.61 min

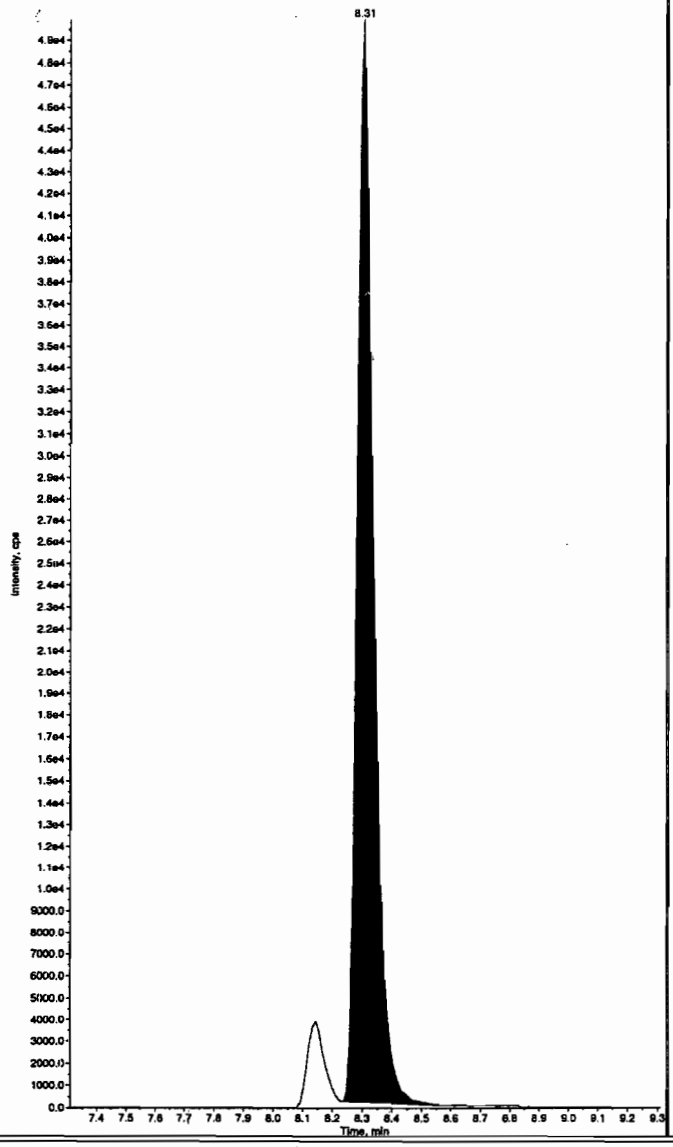

Sample Name: "WXX100331-19" Sample ID: "|1|LER" File: "EXS03310003.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_|" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 50.0 ng/mL
Calculated Conc: 49.1 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:12:01 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.96 min
Area: 1.16e+005 counts
Height: 25917.850 cps
Start Time: 4.85 min
End Time: 5.25 min

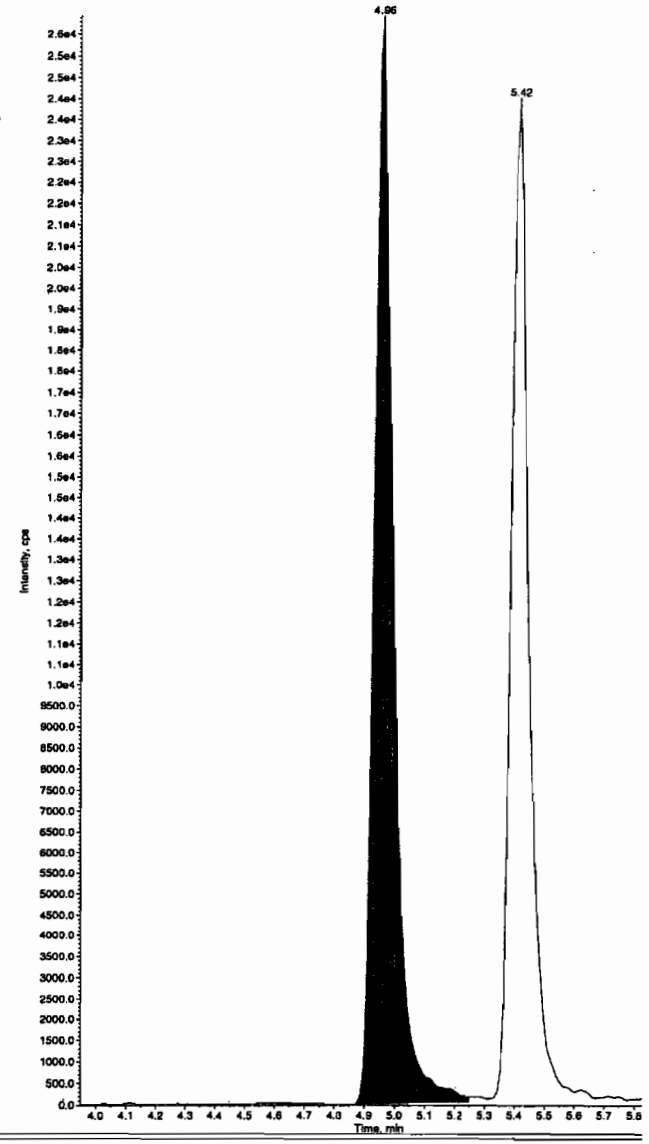

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ample Name: "WXX100331-19" Sample ID: "|1|LER" File: "EXS03310003.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_I" Annotation: ""

ple Index: 1
ple Type: Standard
centration: 50.0 ng/mL
culated Conc: 34.4 ng/mL
. Date: 3/31/2010
. Time: 9:12:01 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 5.41 min
Relative RT: No

. Type: Valley
ention Time: 5.42 min
a: 1.00e+005 counts
ght: 23869.471 cps
rt Time: 5.31 min
Time: 5.66 min

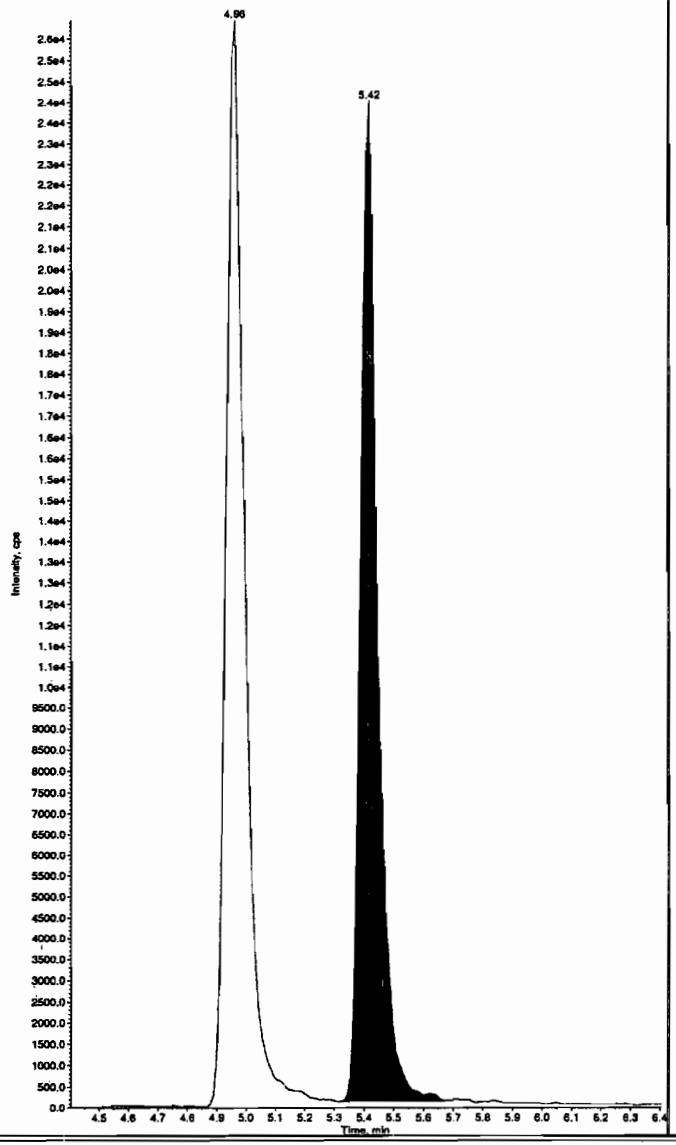

Sample Name: "WXX100331-19" Sample ID: "|1|LER" File: "EXS03310003.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 50.0 ng/mL
Calculated Conc: 47.0 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:12:01 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.07e+006 counts
Height: 261024.902 cps
Start Time: 10.7 min
End Time: 11.2 min

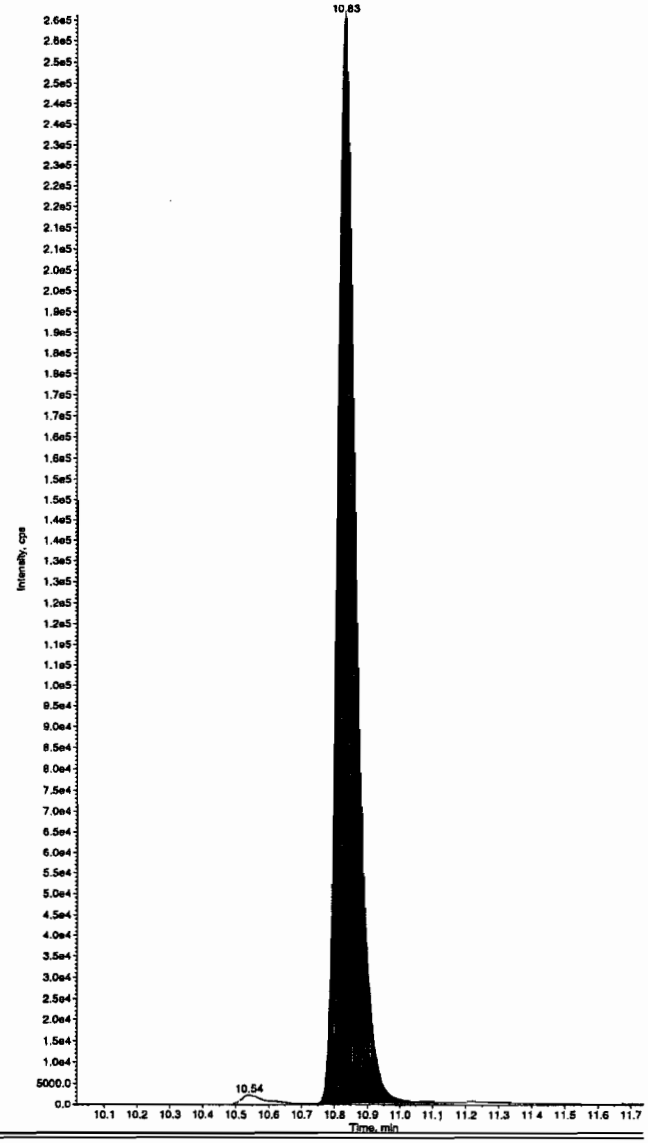

Lcm 4/5/10

ame: "WXX100331-20" Sample ID: "[1]LER" File: "EXS03310004.wiff"
e: "TATB" Mass(es): "257.2/204.9 amu"
"LCMSEXP_I" Annotation: ""
dex: 1
pe: Standard
tion: 100. ng/mL
d Conc: 99.2 ng/mL
: 3/31/2010
: 9:27:45 AM

No
orithm: IntelliQuan - IQA
Height: 2500.00 cps
Width: 0.00 sec
Width: 3 points
: 30.0 sec
RT: 6.90 min
ive RT: No

: Valley
Time: 6.91 min
6.83e+004 counts
15598.828 cps
e: 6.82 min
7.47 min

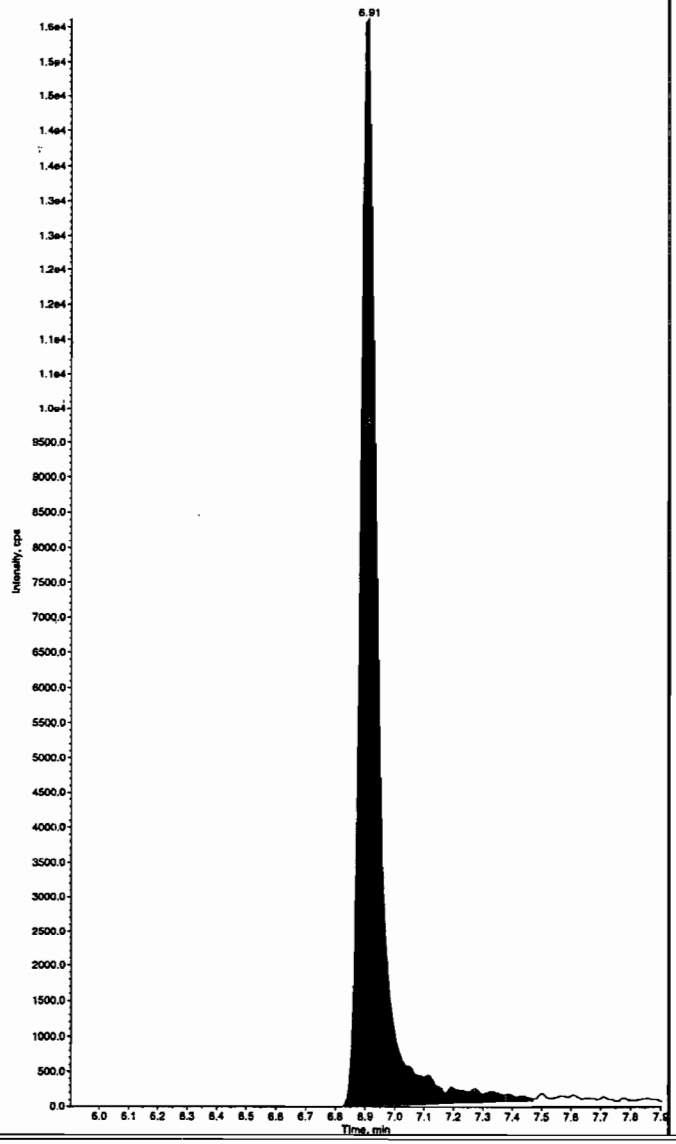

Sample Name: "WXX100331-20" Sample ID: "[1]LER" File: "EXS03310004.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 100. ng/mL
Calculated Conc: 108. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:27:45 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.13 min
Area: 6.89e+005 counts
Height: 162359.406 cps
Start Time: 8.05 min
End Time: 8.27 min

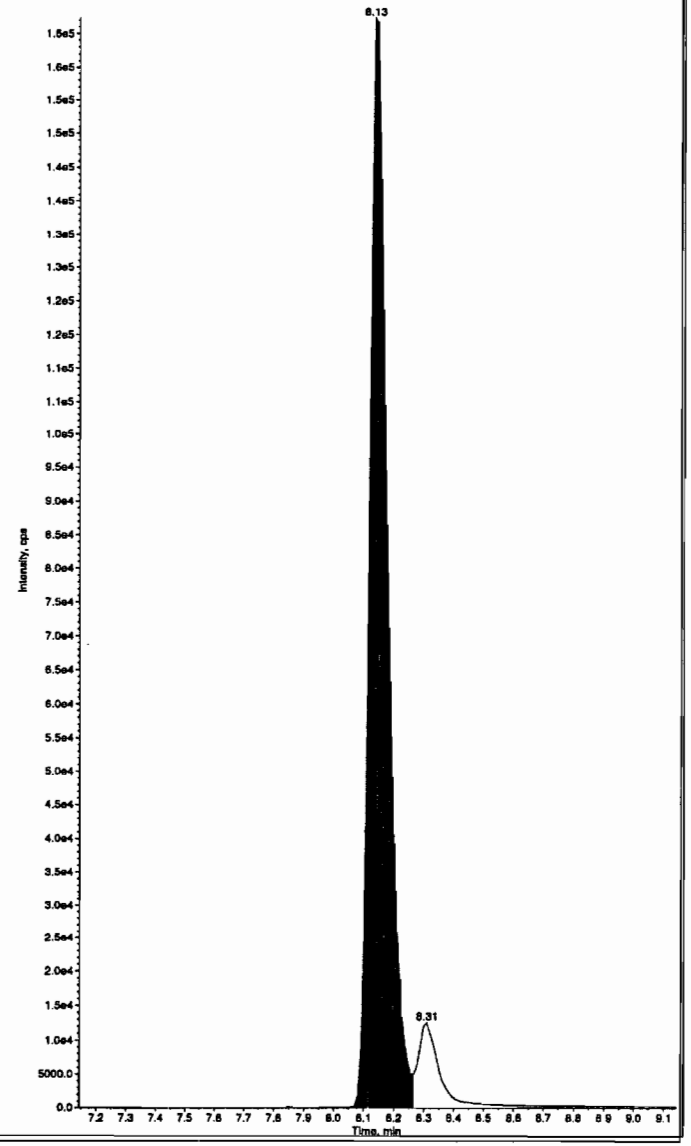

Hnm 04/05/10

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nple Name: "WXX100331-20" Sample ID: "|1|LER" File: "EXS03310004.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_I" Annotation: ""

le Index: 1
le Type: Standard
entration: 50.0 ng/mL
ulated Conc: 51.5 ng/mL
Date: 3/31/2010
Time: 9:27:45 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.31 min
Relative RT: No

Type: Valley
ation Time: 8.31 min
: 4.16e+005 counts
nt: 105767.097 cps
: Time: 8.24 min
Time: 8.57 min

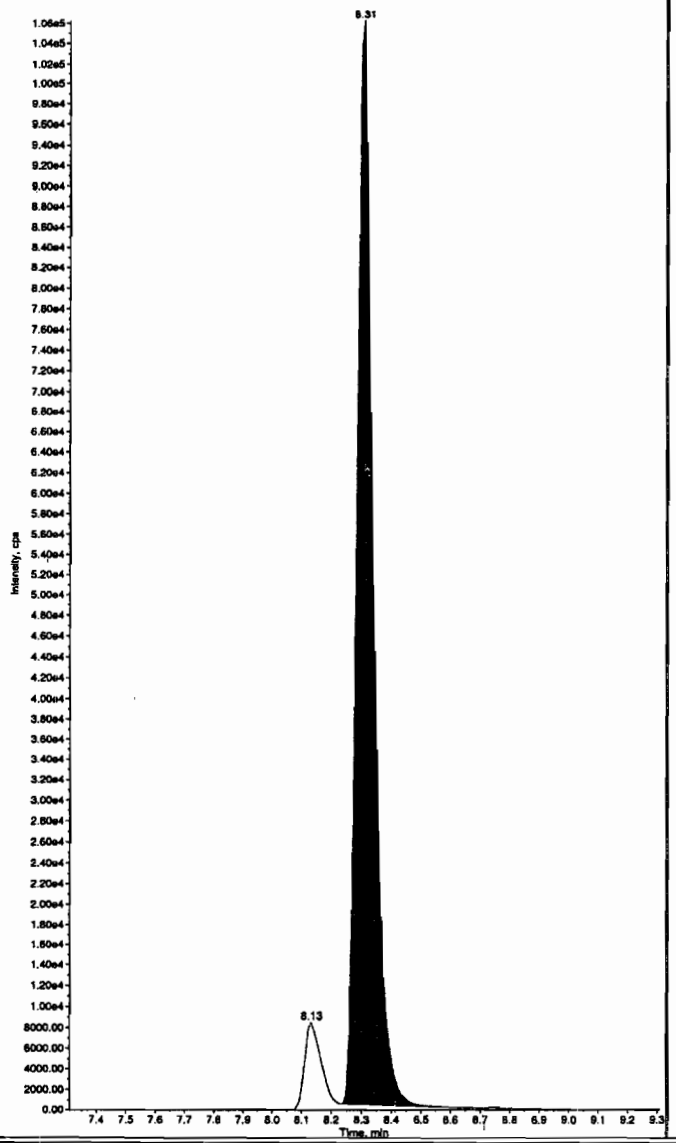

Sample Name: "WXX100331-20" Sample ID: "|1|LER" File: "EXS03310004.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 100. ng/mL
Calculated Conc: 112. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:27:45 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.96 min
Area: 2.52e+005 counts
Height: 60433.033 cps
Start Time: 4.87 min
End Time: 5.22 min

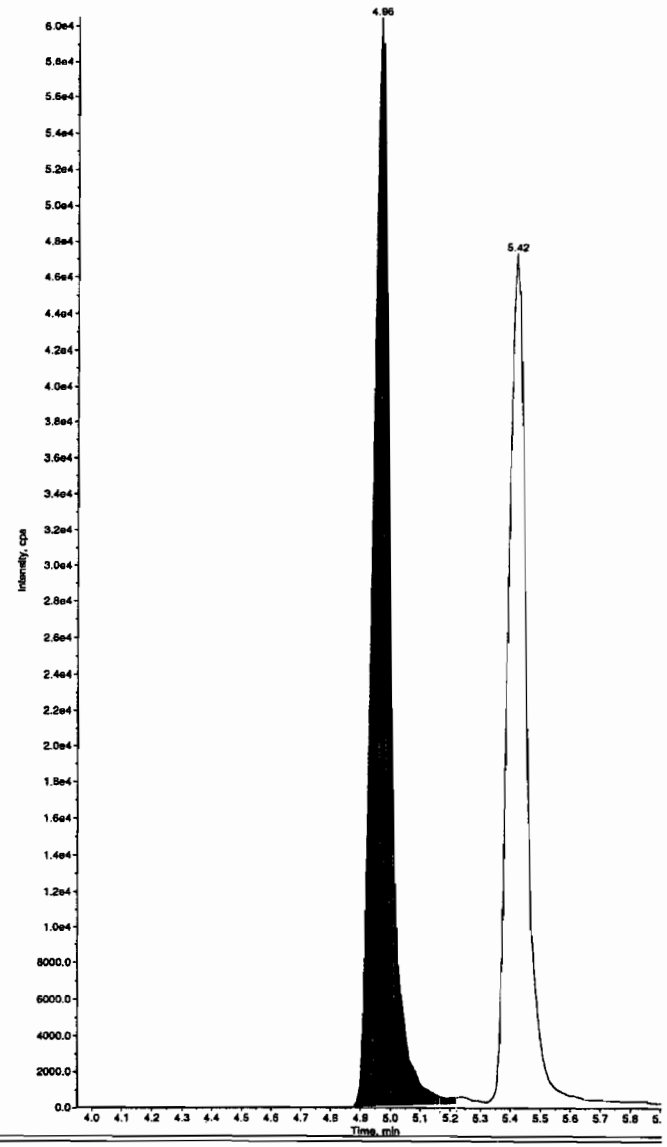

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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e: "WXX100331-20" Sample ID: "[1]LER" File: "EXS03310004.wiff"
"24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
.CMSEXP_I" Annotation: ""

```
ix:          1
::       Standard
on:        100.     ng/mL
Conc:       94.6    ng/mL
        3/31/2010
        9:27:45 AM

           No
ithm: IntelliQuan - IQA
eight: 350.00    cps
idth:    0.00    sec
idth:  3        points
         30.0    sec
:         5.41   min
e RT:     No

         Valley
ime:      5.42   min
    2.12e+005   counts
     47300.957  cps
         5.32   min
         6.07   min
```

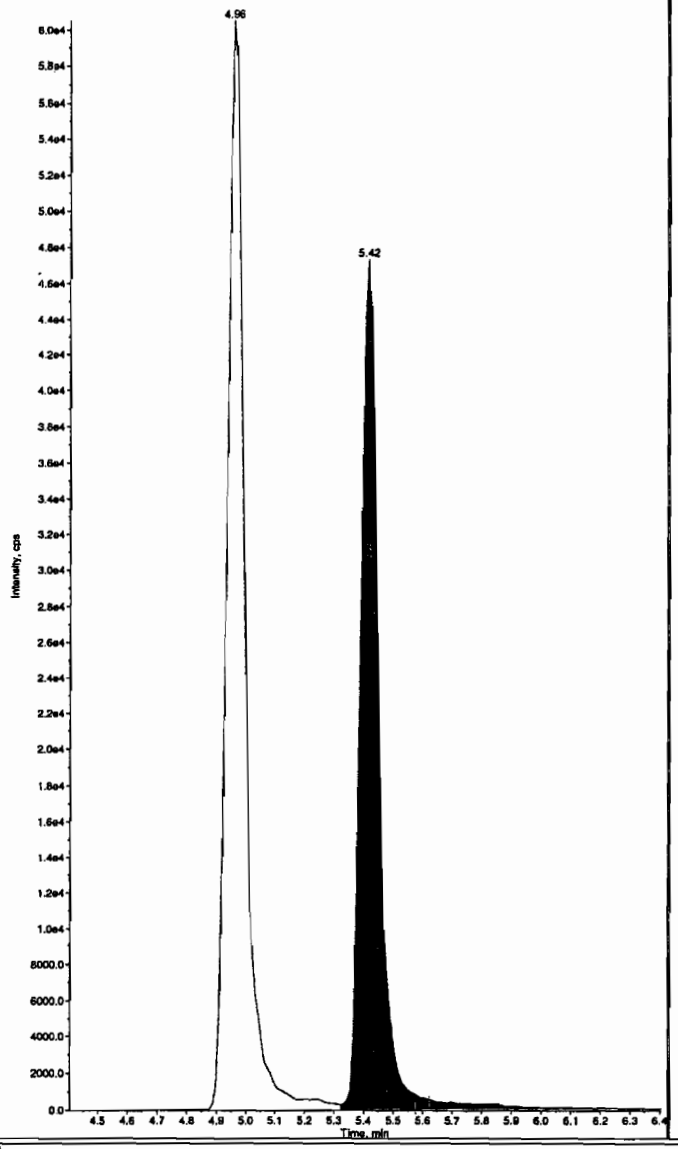

Sample Name: "WXX100331-20" Sample ID: "[1]LER" File: "EXS03310004.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:     Standard
Concentration:     100.     ng/mL
Calculated Conc:   101.     ng/mL
Acq. Date:       3/31/2010
Acq. Time:       9:27:45 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:       10.8     min
Use Relative RT:   No

Int. Type:       Valley
Retention Time:    10.8     min
Area:        2.11e+006    counts
Height:      520613.831   cps
Start Time:        10.7     min
End Time:          11.2     min
```

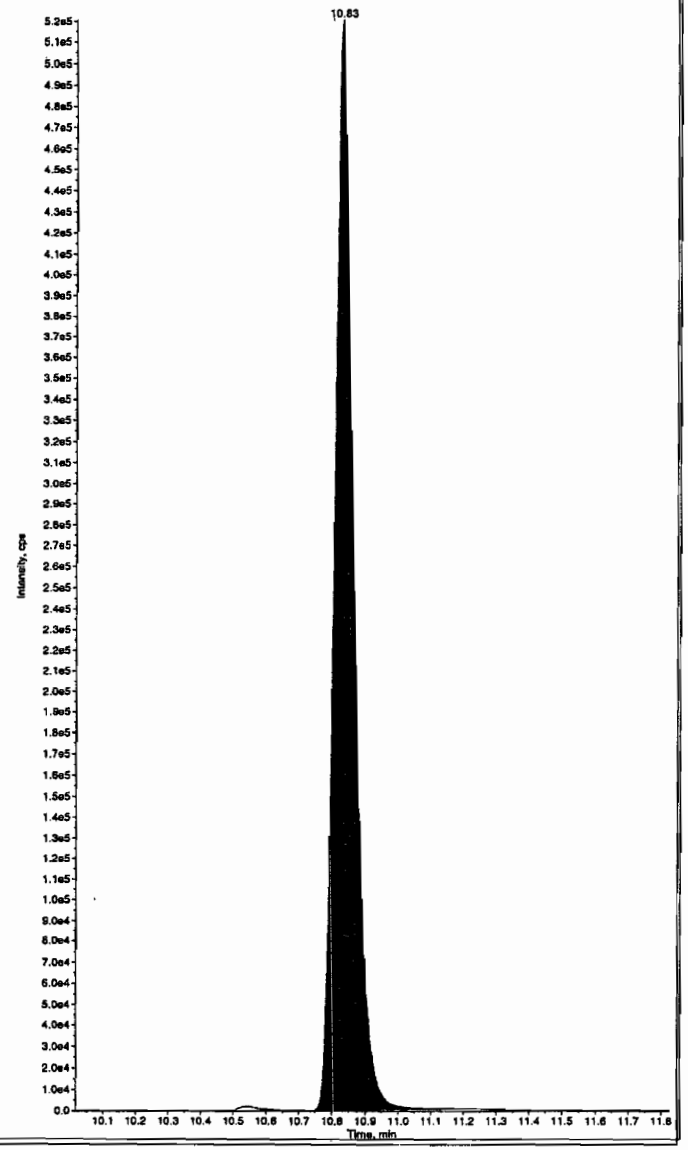

P GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Before LCR 4/5/10

a: "WXX100331-21" Sample ID: "|1|LER" File: "EXS03310005.wiff"
"TATB" Mass(es): "257.2/204.9 amu"
CMSEXP_|" Annotation: ""
x: 1
: Standard
on: 250. ng/mL
Conc: 247. ng/mL
3/31/2010
9:43:27 AM

No
ithm: IntelliQuan - IQA
eight:2500.00 cps
idth: 0.00 sec
idth: 3 points
30.0 sec
: 6.90 min
e RT: No

Valley
ime: 6.91 min
1.80e+005 counts
38235.210 cps
6.83 min
7.68 min

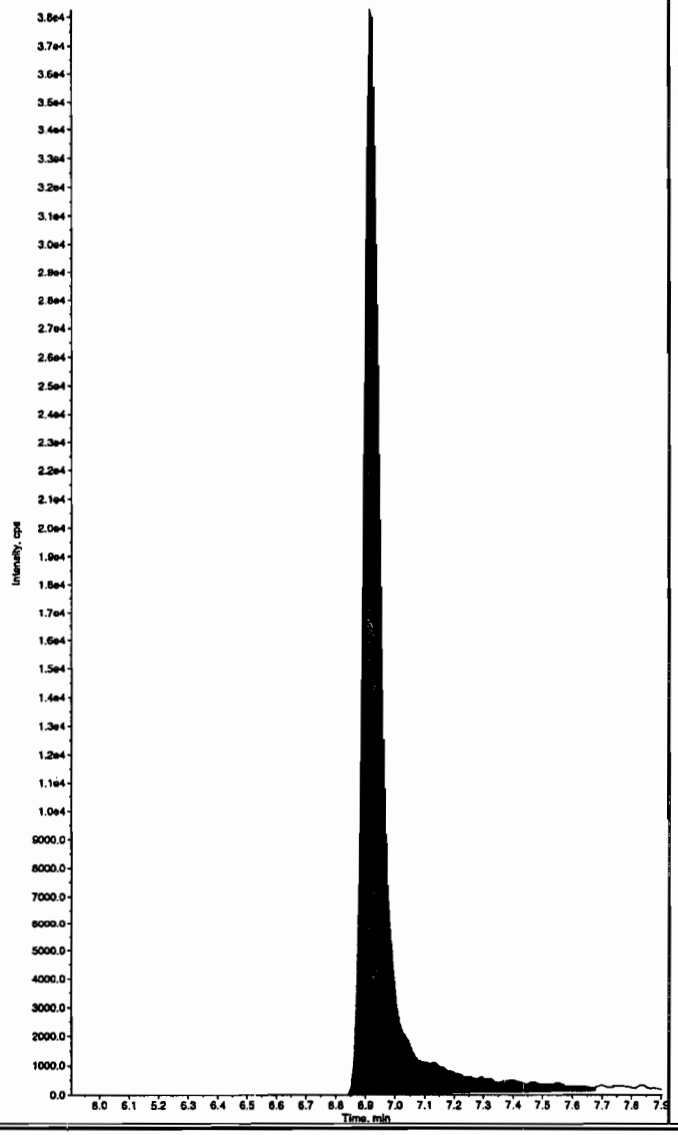

Sample Name: "WXX100331-21" Sample ID: "|1|LER" File: "EXS03310005.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_|" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 250. ng/mL
Calculated Conc: 238. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:43:27 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.15 min
Area: 1.51e+006 counts
Height: 396105.865 cps
Start Time: 8.08 min
End Time: 8.28 min

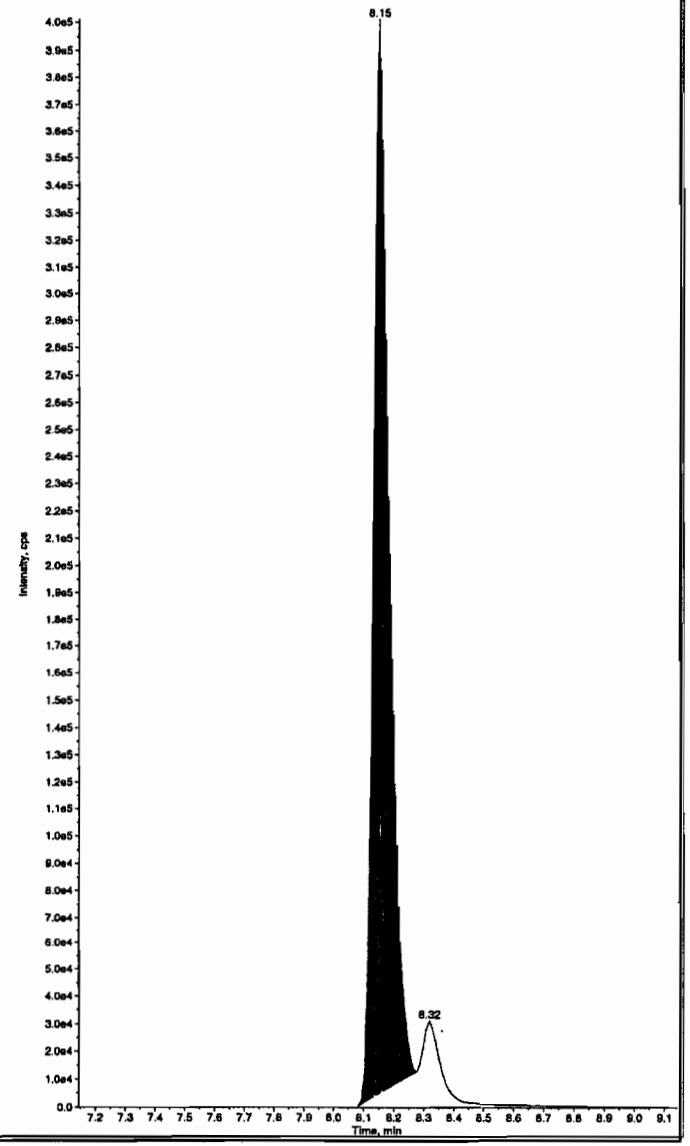

HMM 04/05/10

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after Reen 4/5/10

nple Name: "WXX100331-21" Sample ID: "|1|LER" File: "EXS03310005.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_I" Annotation: ""

le Index: 1
le Type: Standard
entration: 250. ng/mL
ulated Conc: 247. ng/mL
Date: 3/31/2010
Time: 9:43:27 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.90 min
Relative RT: No

Type: Valley
ntion Time: 6.91 min
: 1.80e+005 counts
ht: 38235.210 cps
t Time: 6.83 min
Time: 7.68 min

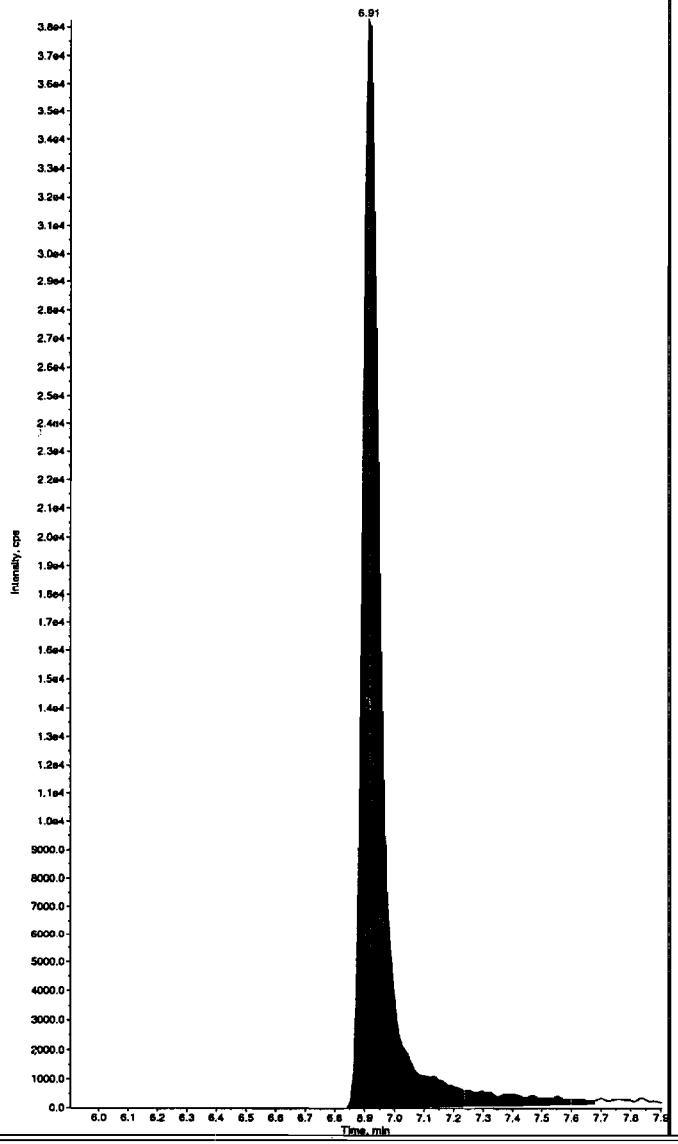

Sample Name: "WXX100331-21" Sample ID: "|1|LER" File: "EXS03310005.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 250. ng/mL
Calculated Conc: 242. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:43:27 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.15 min
Area: 1.57e+006 counts
Height: 401032.655 cps
Start Time: 8.08 min
End Time: 8.28 min

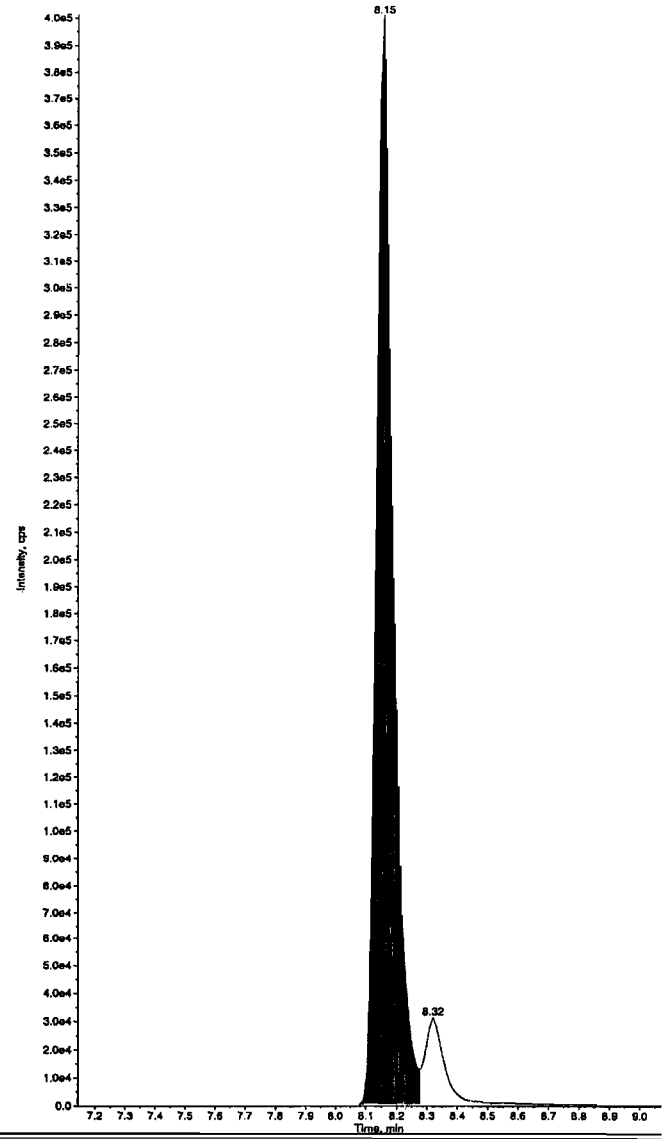

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

de Name: "WXX100331-21" Sample ID: "[1]LER" File: "EXS03310005.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nent: "LCMSEXP_I" Annotation: ""
: Index: 1
: Type: Standard
ıtration: 125. ng/mL
lated Conc: 119. ng/mL
Date: 3/31/2010
Time: 9:43:27 AM

:ed: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
ıing Width: 3 points
ıdow: 15.0 sec
:ed RT: 8.31 min
ılative RT: No

Type: Valley
:ion Time: 8.31 min
9.81e+005 counts
: 250643.387 cps
Time: 8.24 min
me: 8.61 min

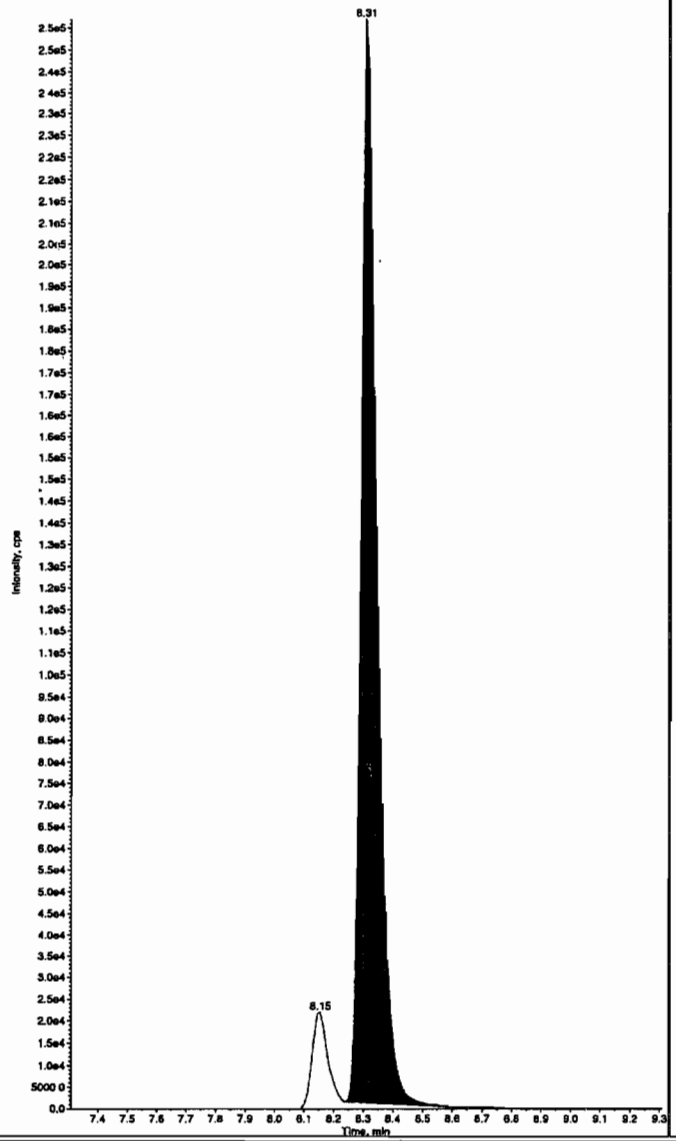

Sample Name: "WXX100331-21" Sample ID: "[1]LER" File: "EXS03310005.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 250. ng/mL
Calculated Conc: 283. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:43:27 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.97 min
Area: 6.20e+005 counts
Height: 135986.526 cps
Start Time: 4.87 min
End Time: 5.26 min

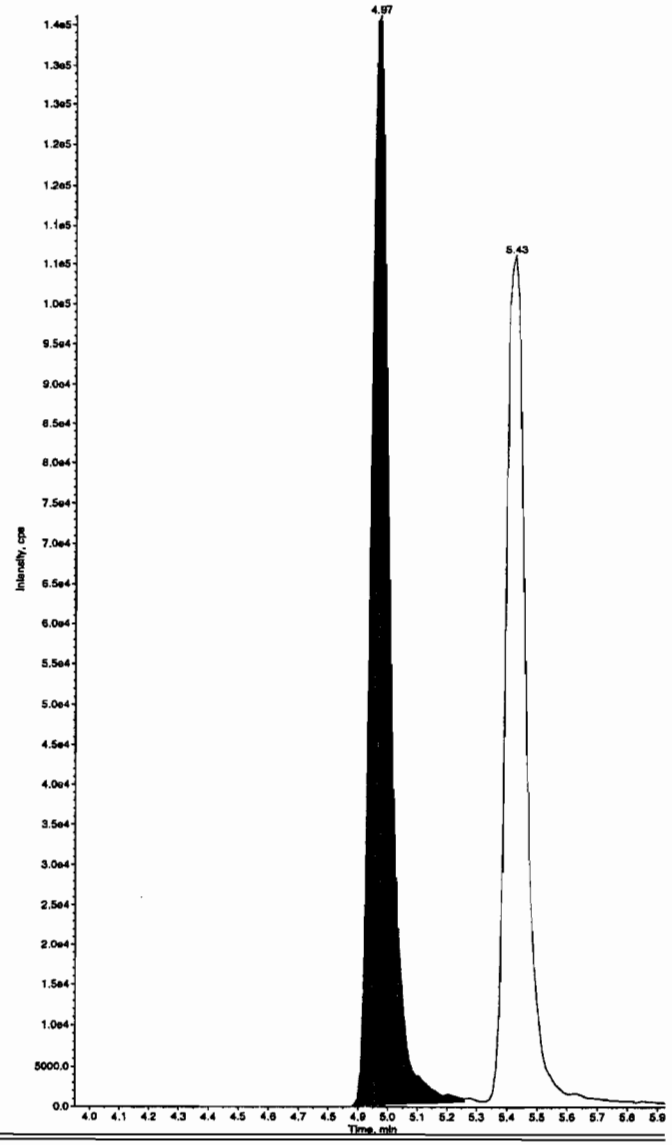

Name: "WXX100331-21" Sample ID: "|1|LER" File: "EXS03310005.wiff"
ıme: "24-Diamino-5-nitrotoluene" Mass(es): "166.0/46.0 amu"
nt: "LCMSEXP_I" Annotation: ""
Index: 1
Type: Standard
ration: 250. ng/mL
ed Conc: 257. ng/mL
e: 3/31/2010
ne: 9:43:27 AM

d: No
gorithm: IntelliQuan - IQA
k Height: 350.00 cps
k Width: 0.00 sec
g Width: 3 points
w: 30.0 sec
l RT: 5.41 min
tive RT: No

e: Valley
n Time: 5.43 min
5.10e+005 counts
106060.982 cps
me: 5.32 min
: 6.12 min

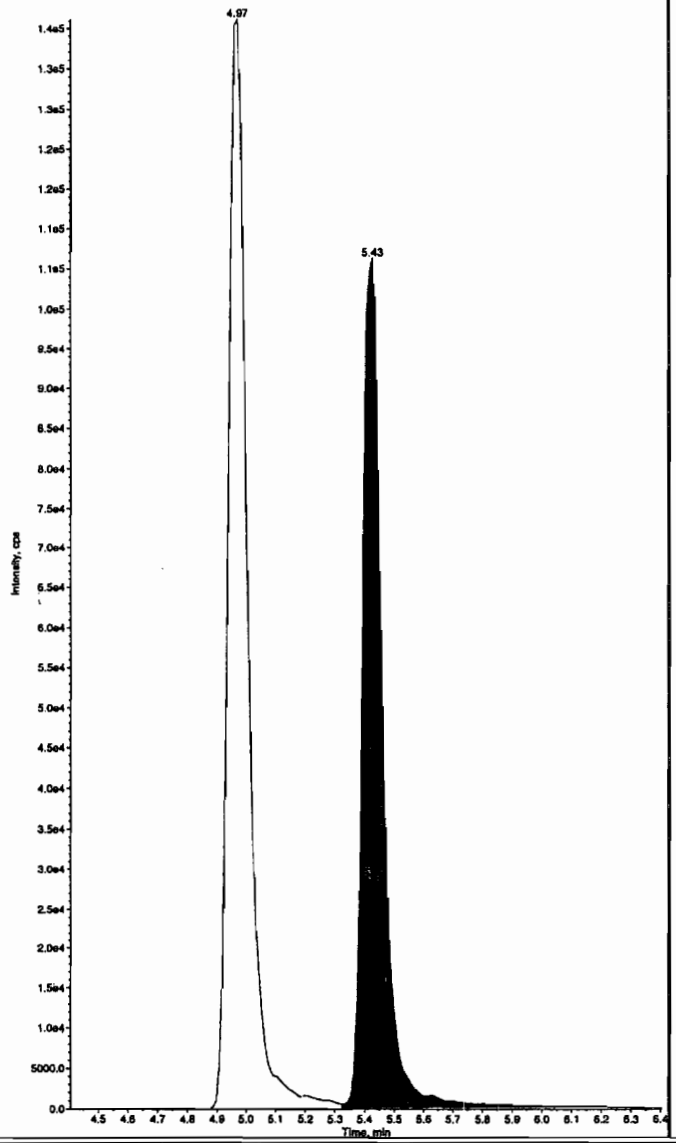

Sample Name: "WXX100331-21" Sample ID: "|1|LER" File: "EXS03310005.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 250. ng/mL
Calculated Conc: 254. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:43:27 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 4.99e+006 counts
Height: 1199644.897 cps
Start Time: 10.7 min
End Time: 11.2 min

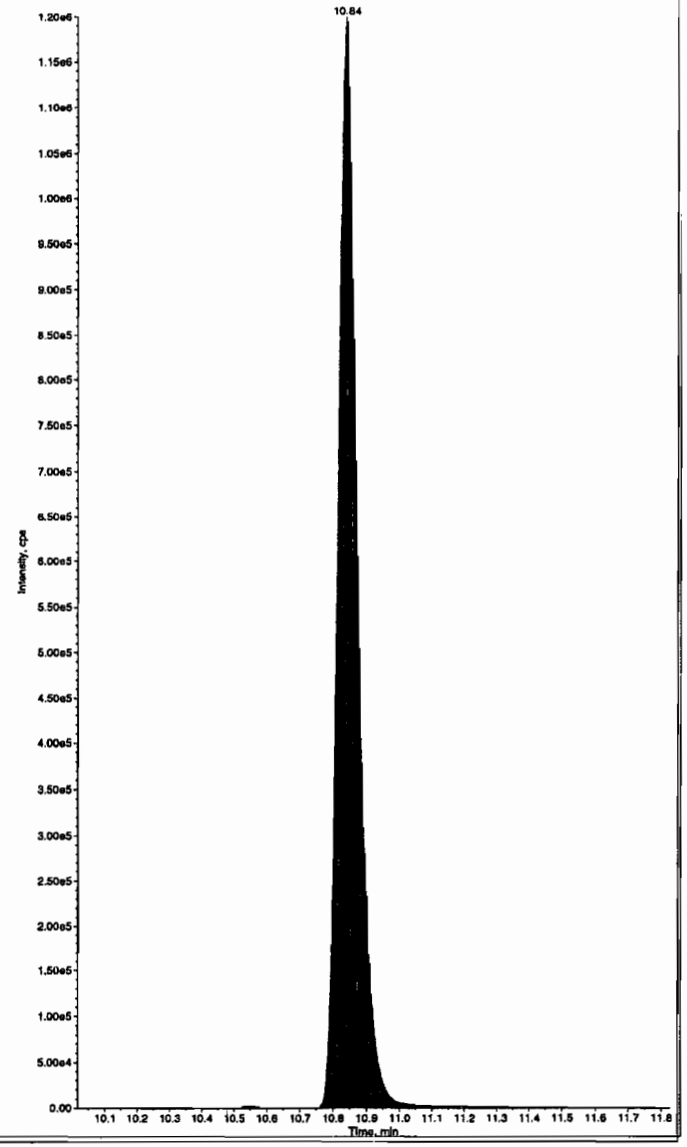

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Ran 415710

Sample Name: "WXX100331-22" Sample ID: "|1|LER" File: "EXS03310006.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 500. ng/mL
Calculated Conc: 481. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:59:11 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.90 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.92 min
Area: 3.56e+005 counts
Height: 75339.767 cps
Start Time: 6.83 min
End Time: 7.61 min

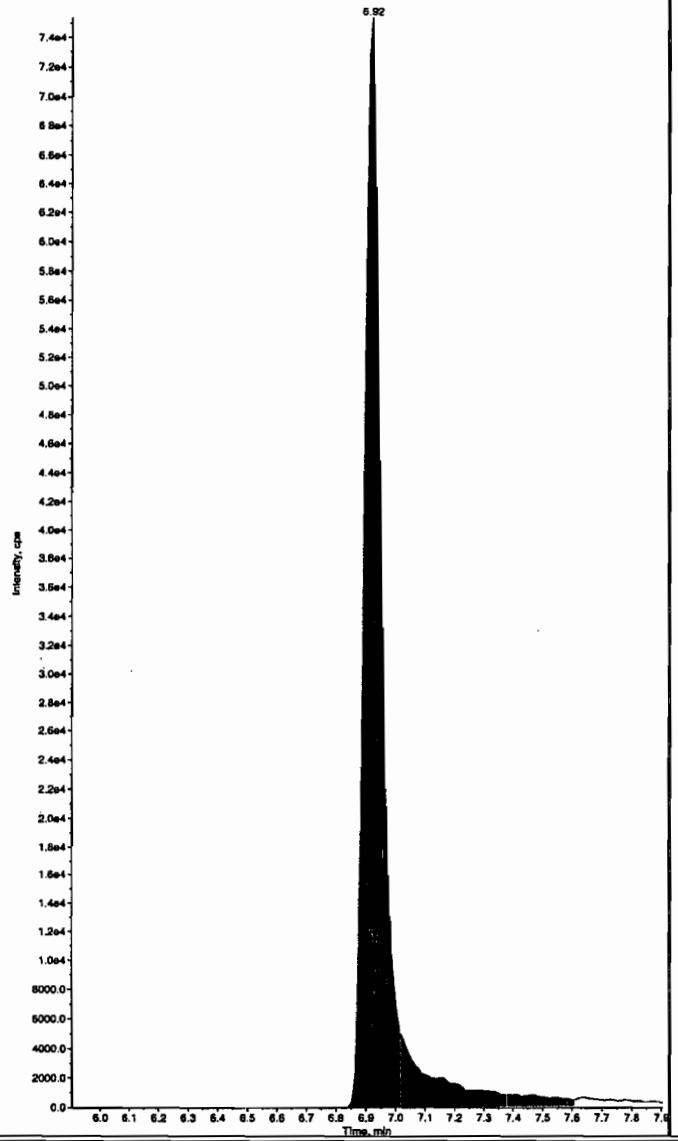

Sample Name: "WXX100331-22" Sample ID: "|1|LER" File: "EXS03310006.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 500. ng/mL
Calculated Conc: 458. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:59:11 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.16 min
Area: 2.92e+006 counts
Height: 701956.360 cps
Start Time: 8.06 min
End Time: 8.28 min

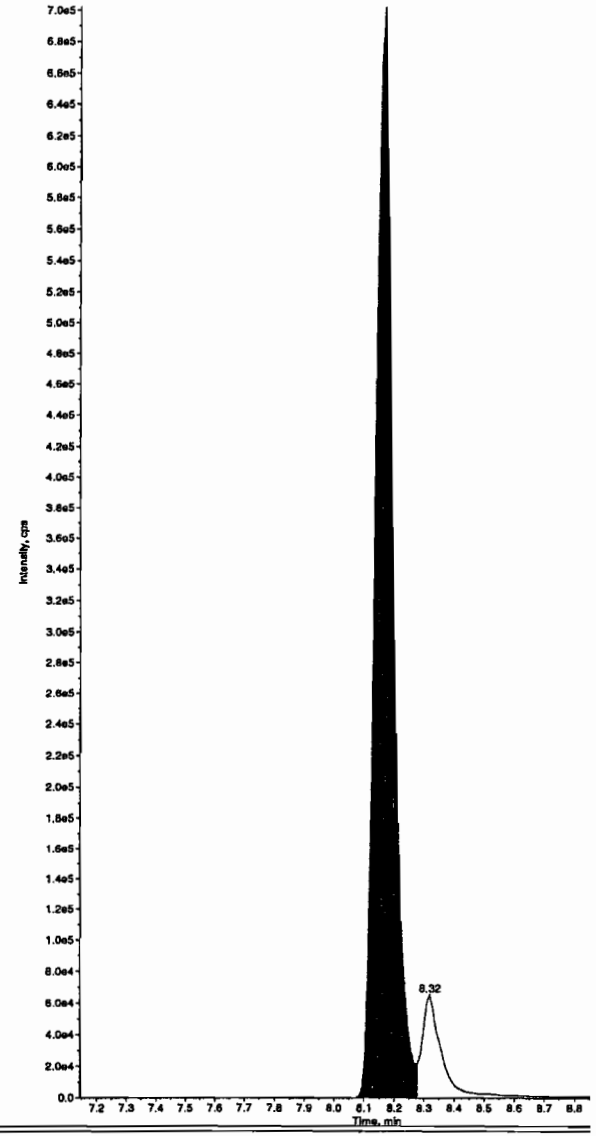

HNM 04/05/10

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

me: "WXX100331-22" Sample ID: "|1|LER" File: "EXS03310006.wiff"
: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
'LCMSEXP_I" Annotation: ""

```
ex:        1
e:      Standard
ion:      250.    ng/mL
 Conc:    233.    ng/mL
       3/31/2010
       9:59:11 AM

          No
rithm: IntelliQuan - IQA
Height:1460.00    cps
Width:    0.00    sec
Width:  3        points
         15.0     sec
T:        8.31    min
ve RT:    No

         Valley
Time:     8.31    min
    1.90e+006   counts
     482038.208  cps
:         8.24    min
          8.61    min
```

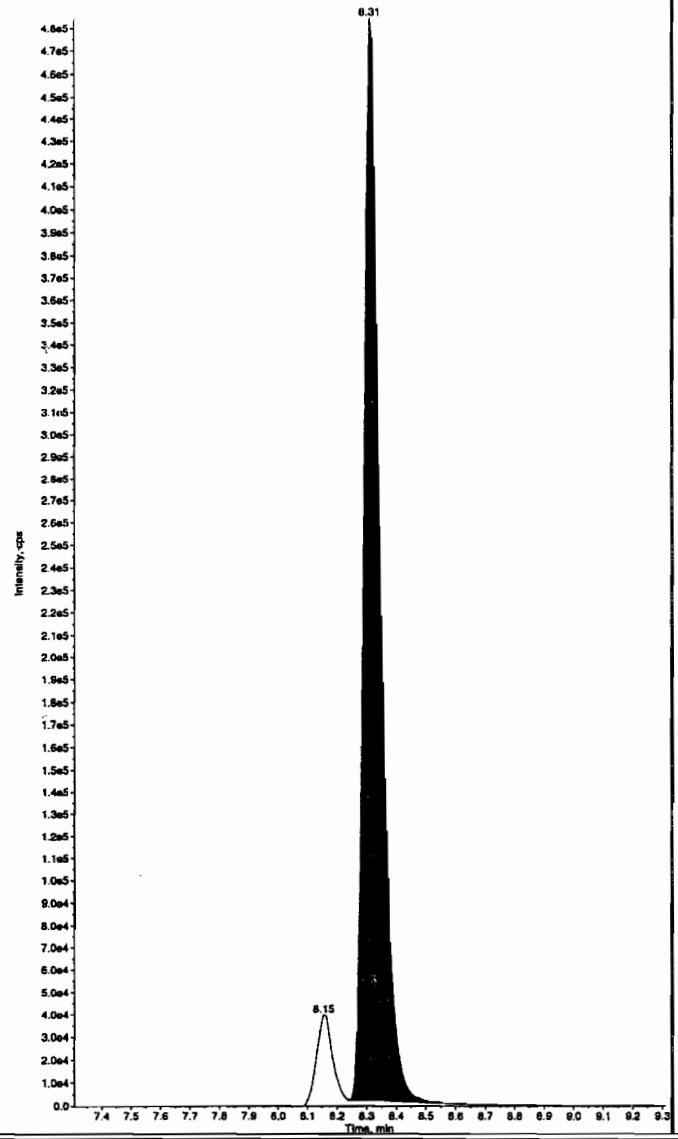

Sample Name: "WXX100331-22" Sample ID: "|1|LER" File: "EXS03310006.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:      500.    ng/mL
Calculated Conc:    504.    ng/mL
Acq. Date:       3/31/2010
Acq. Time:       9:59:11 AM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:        4.95    min
Use Relative RT:    No

Int. Type:  .     Valley
Retention Time:     4.97    min
Area:          1.10e+006   counts
Height:        255418.564  cps
Start Time:         4.87    min
End Time:           5.26    min
```

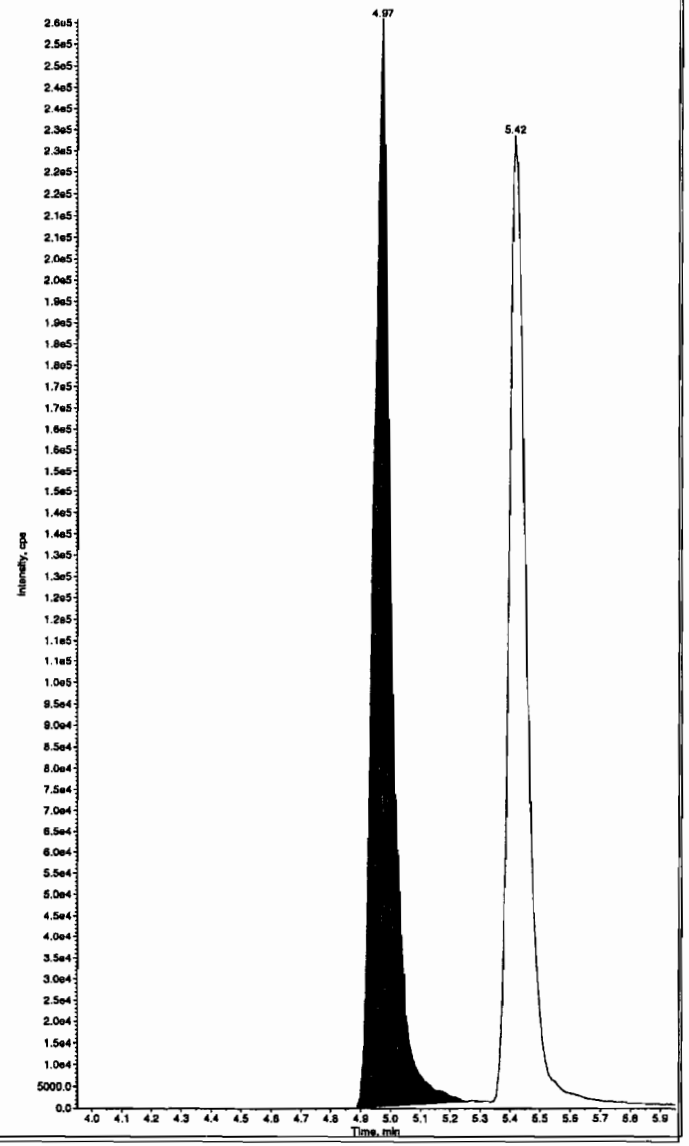

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le Name: "WXX100331-22" Sample ID: "[1]LER" File: "EXS03310006.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
nent: "LCMSEXP_I" Annotation: ""

: Index: 1
: Type: Standard
ıtration: 500. ng/mL
.ated Conc: 504. ng/mL
ɔate: 3/31/2010
:ime: 9:59:11 AM

.ed: No
Algorithm: IntelliQuan - IQA
ɔeak Height: 350.00 cps
ɔeak Width: 0.00 sec
ıing Width: 3 points
ıdow: 30.0 sec
:ed RT: 5.41 min
ɛlative RT: No

ɔype: Valley
:ion Time: 5.42 min
9.54e+005 counts
:: 227216.736 cps
Time: 5.33 min
.me: 5.81 min

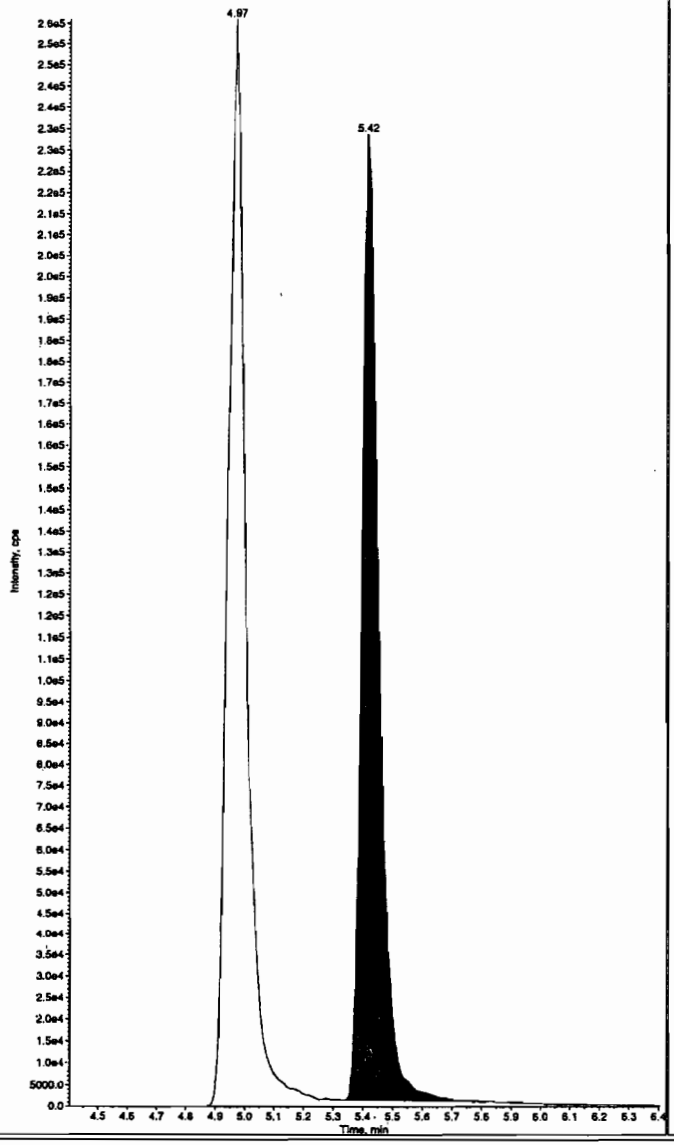

Sample Name: "WXX100331-22" Sample ID: "[1]LER" File: "EXS03310006.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 500. ng/mL
Calculated Conc: 493. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:59:11 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 9.20e+006 counts
Height: 2143457.520 cps
Start Time: 10.7 min
End Time: 11.2 min

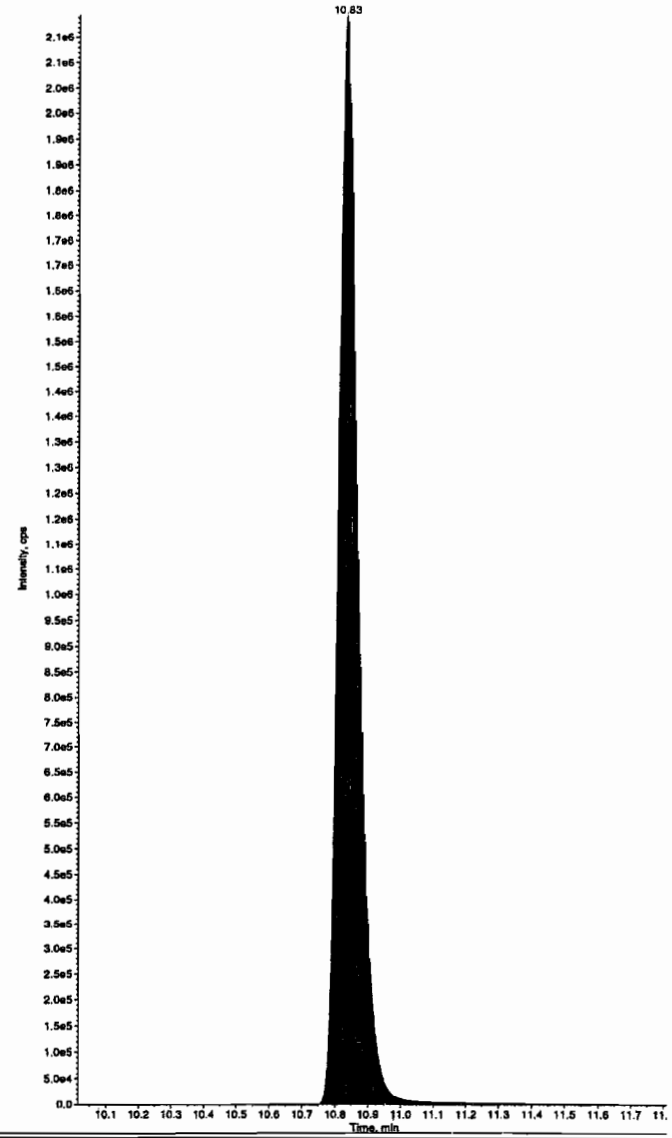

Before KCN 4/5/10

Sample Name: "WXX100331-23" Sample ID: "|1|LER" File: "EXS03310007.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
ample Index:        1
ple Type:       Standard
ncentration:        750.     ng/mL
culated Conc:       791.     ng/mL
. Date:         3/31/2010
. Time:         10:14:53 AM

ified:              No
c. Algorithm: IntelliQuan - IQA
. Peak Height:2500.00    cps
. Peak Width:     0.00    sec
oothing Width:  3        points
Window:          30.0     sec
ected RT:         6.90    min
Relative RT:      No

. Type:         Valley
ention Time:      6.91    min
a:          5.88e+005    counts
ght:         122479.515   cps
rt Time:          6.81    min
Time:             8.07    min
```

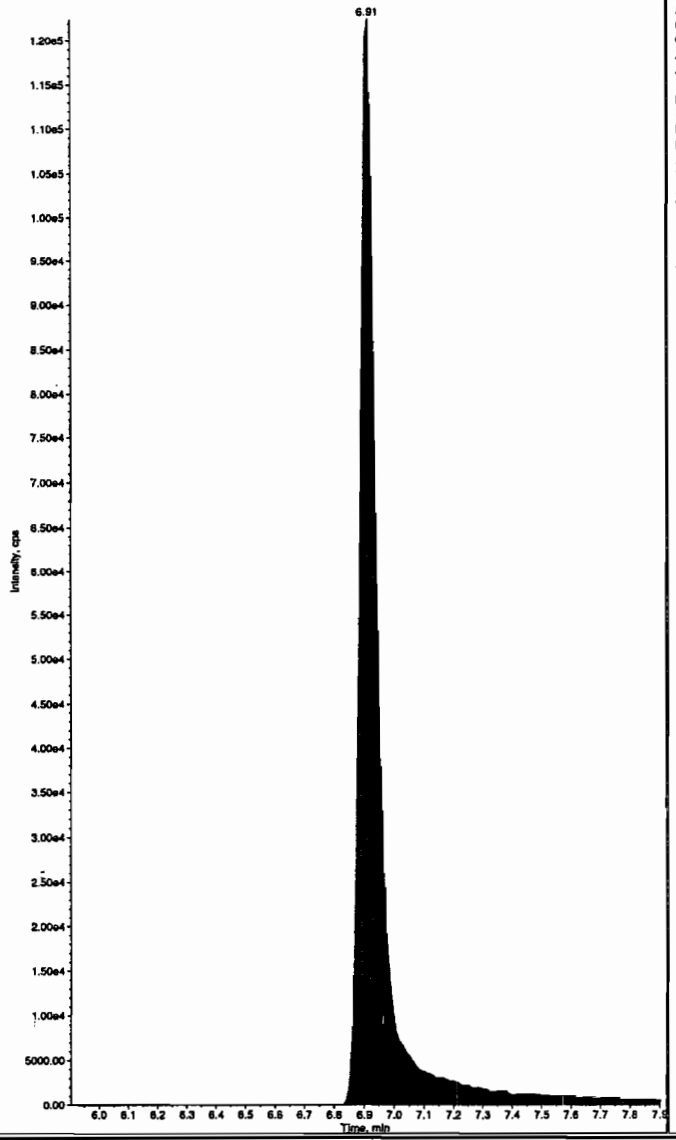

Sample Name: "WXX100331-23" Sample ID: "|1|LER" File: "EXS03310007.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:     Standard
Concentration:       750.     ng/mL
Calculated Conc:     806.     ng/mL
Acq. Date:       3/31/2010
Acq. Time:       10:14:53 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2000.00    cps
Min. Peak Width:     0.00    sec
Smoothing Width:  3        points
RT Window:          15.0     sec
Expected RT:         8.14    min
Use Relative RT:     No

Int. Type:       Valley
Retention Time:      8.15    min
Area:        4.79e+006    counts
Height:      1219317.627   cps
Start Time:          8.07    min
End Time:            8.27    min
```

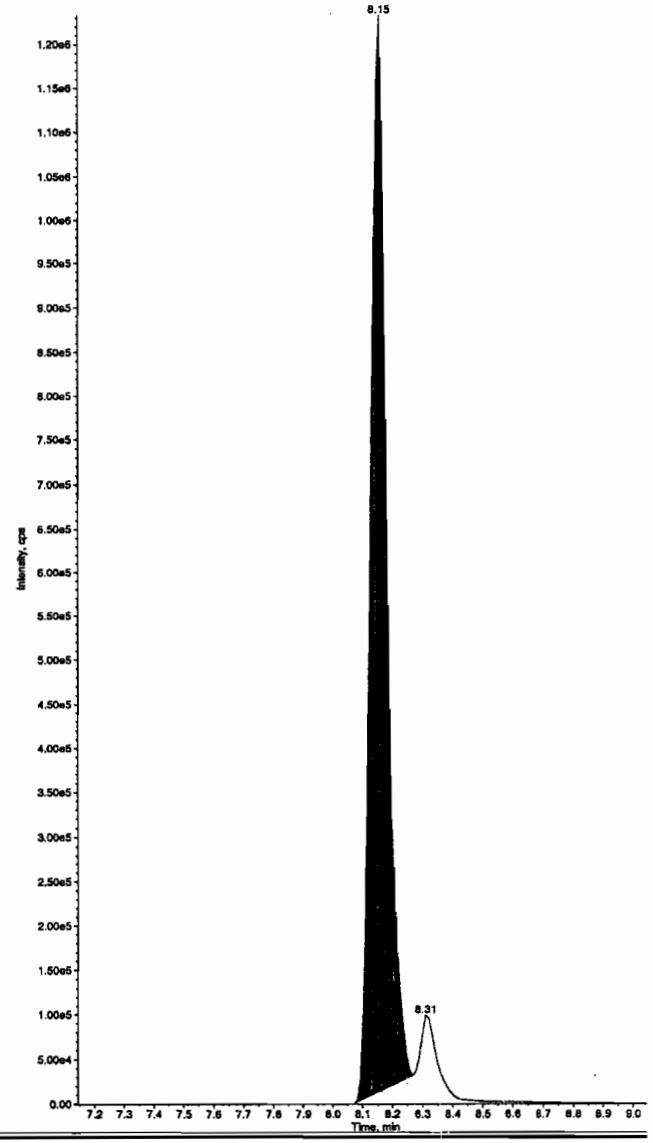

HMM 04/05/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

after Scan 4/5/10

ample Name: "WXX100331-23" Sample ID: "|1|LER" File: "EXS03310007.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_|" Annotation: ""
ple Index: 1
ple Type: Standard
entration: 750. ng/mL
culated Conc: 791. ng/mL
Date: 3/31/2010
Time: 10:14:53 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 30.0 sec
cted RT: 6.90 min
Relative RT: No

Type: Valley
ntion Time: 6.91 min
: 5.88e+005 counts
ht: 122479.515 cps
t Time: 6.81 min
Time: 8.07 min

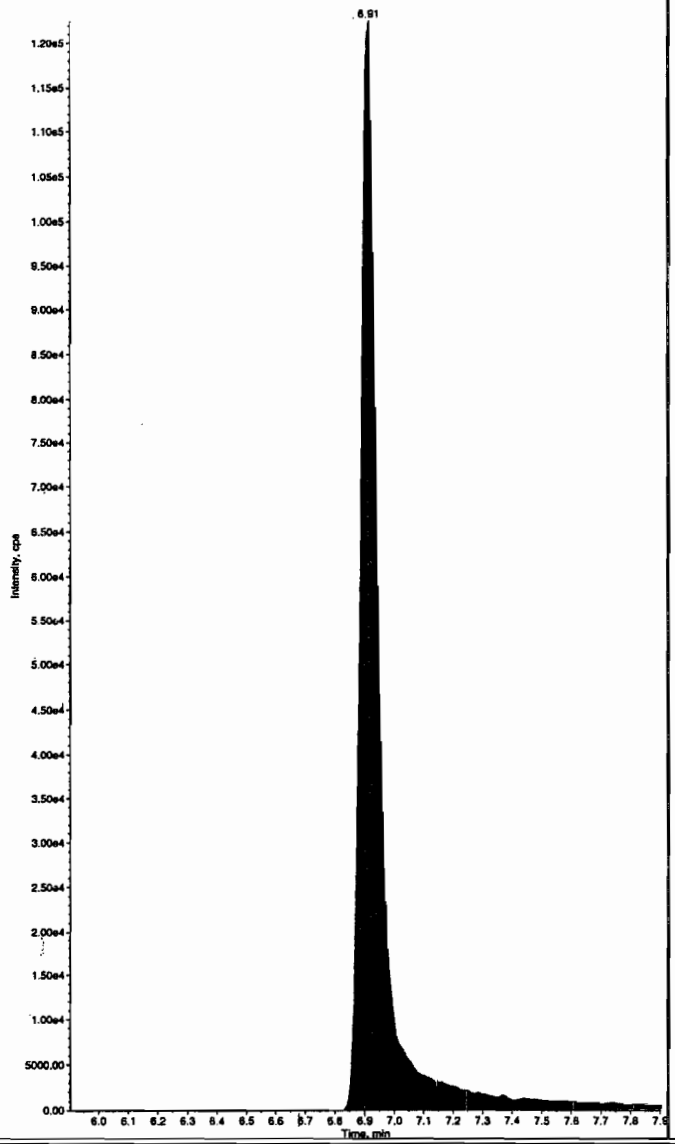

Sample Name: "WXX100331-23" Sample ID: "|1|LER" File: "EXS03310007.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "162.0/46.0 amu"
Comment: "LCMSEXP_|" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 750. ng/mL
Calculated Conc: 811. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 10:14:53 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.15 min
Area: 4.95e+006 counts
Height: 1234871.295 cps
Start Time: 8.07 min
End Time: 8.27 min

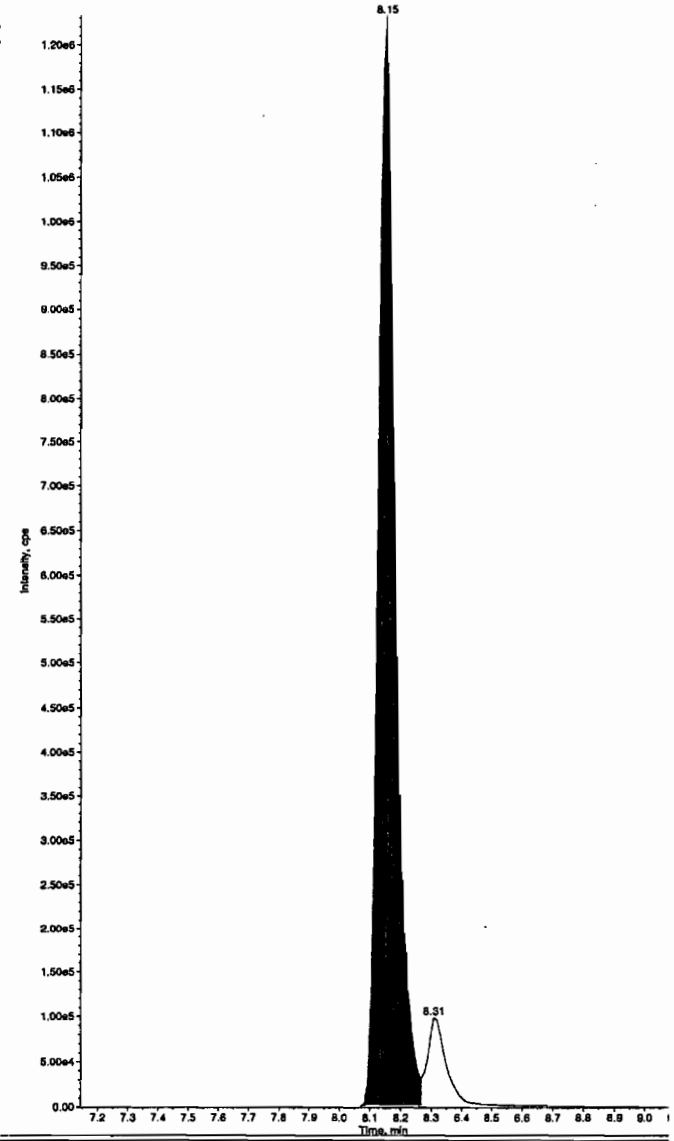

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

e: "WXX100331-23" Sample ID: "[1]LER" File: "EXS03310007.wiff"
"34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
CMSEXP_]" Annotation: ""

```
x:        1
:      Standard
on:      325.    ng/mL
Conc:    361.    ng/mL
      3/31/2010
      10:14:53 AM

         No
ithm: IntelliQuan - IQA
eight:1460.00   cps
idth:    0.00   sec
idth:  3        points
        15.0    sec
:        8.31   min
 RT:     No

       Valley
ime:     8.31   min
   2.87e+006   counts
   743916.748  cps
       8.24    min
       8.65    min
```

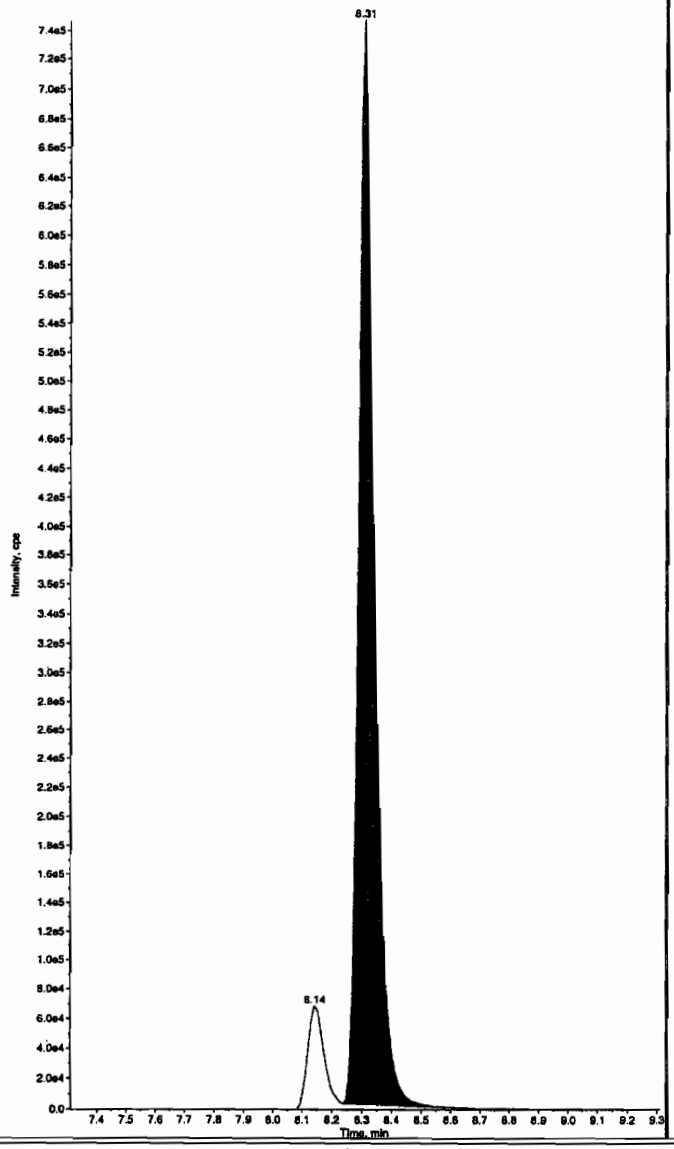

Sample Name: "WXX100331-23" Sample ID: "[1]LER" File: "EXS03310007.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_]" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:      750.    ng/mL
Calculated Conc:    701.    ng/mL
Acq. Date:       3/31/2010
Acq. Time:       10:14:53 AM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:        4.95    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     4.96    min
Area:         1.52e+006     counts
Height:        317959.747   cps
Start Time:         4.87    min
End Time:           5.26    min
```

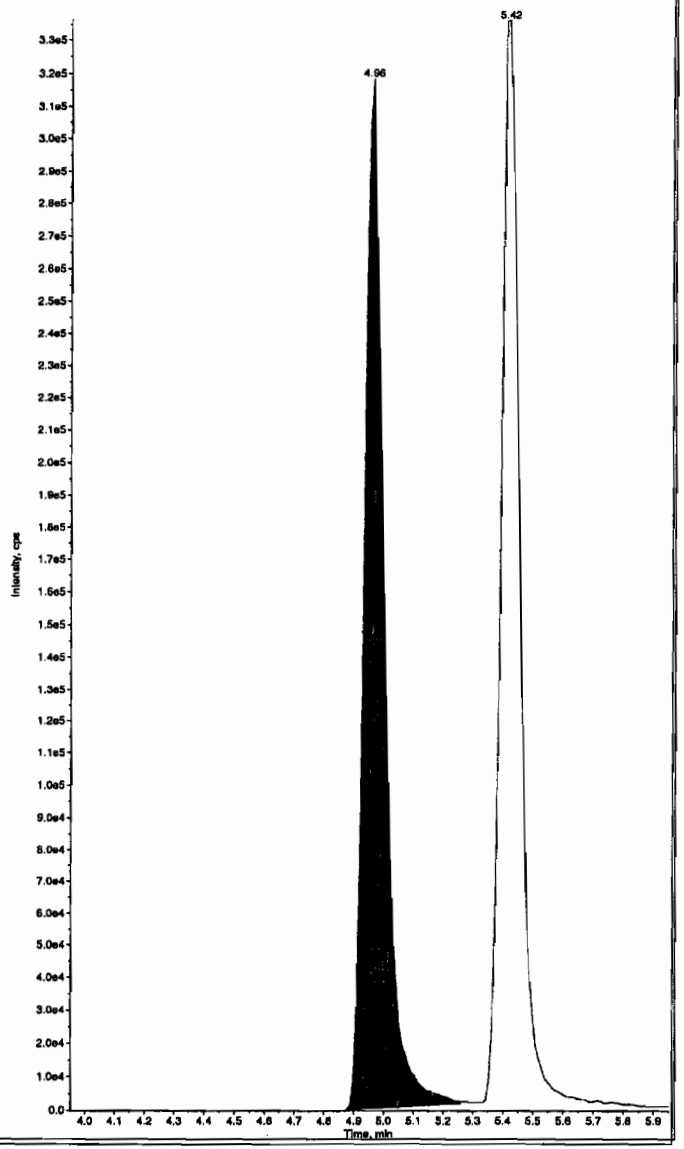

P GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

e: "WXX100331-23" Sample ID: "[1]LER" File: "EXS03310007.wiff"
"24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
CMSEXP_I" Annotation: ""

```
:x:          1
::       Standard
on:        750.     ng/mL
Conc:      839.     ng/mL
       3/31/2010
       10:14:53 AM

           No
ithm: IntelliQuan - IQA
eight: 350.00    cps
idth:    0.00    sec
idth:  3        points
         30.0    sec
:         5.41   min
e RT:     No

         Valley
ime:      5.42   min
   1.54e+006    counts
     336368.866  cps
          5.32   min
          6.16   min
```

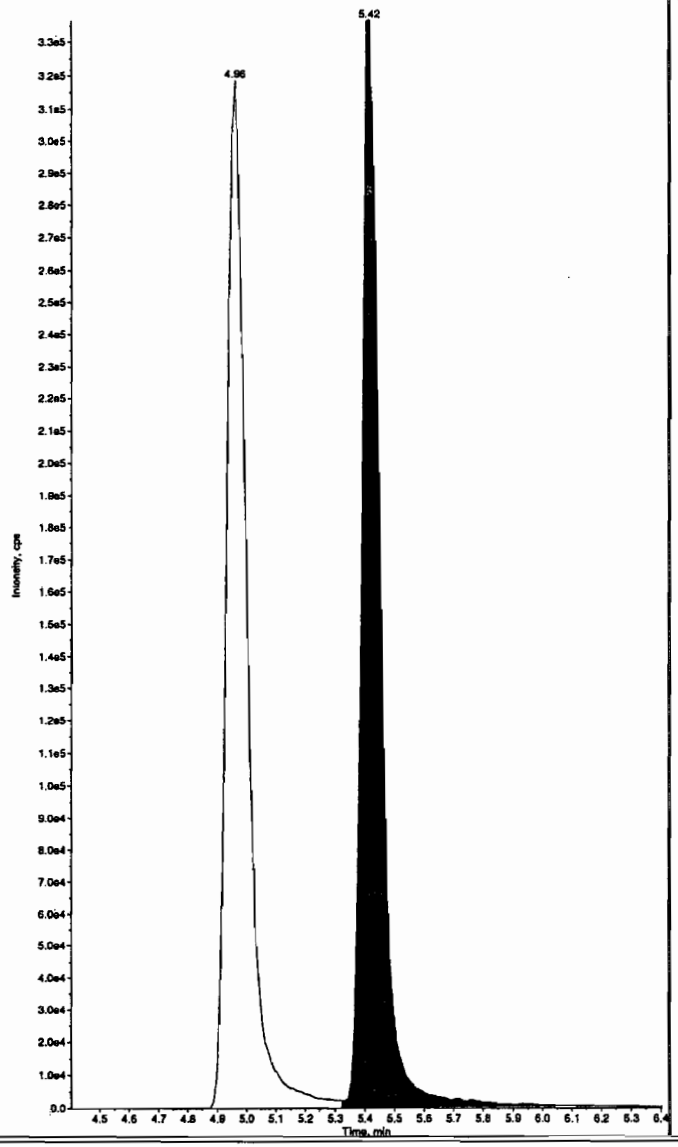

Sample Name: "WXX100331-23" Sample ID: "[1]LER" File: "EXS03310007.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:     Standard
Concentration:     750.     ng/mL
Calculated Conc:   767.     ng/mL
Acq. Date:       3/31/2010
Acq. Time:       10:14:53 AM

Modified:          No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:       10.8     min
Use Relative RT:   No

Int. Type:       Valley
Retention Time:    10.8     min
Area:        1.36e+007    counts
Height:      3160048.096  cps
Start Time:        10.7     min
End Time:          11.2     min
```

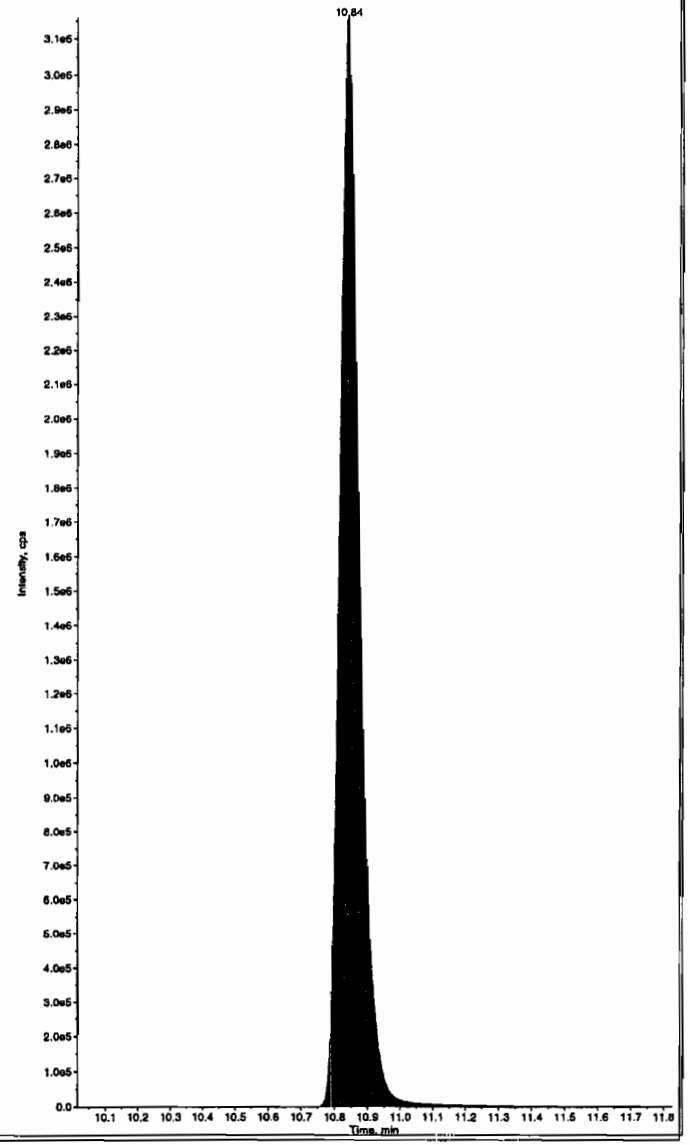

)P GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Before Scan 4/5/10

nple Name: "WXX100331-24" Sample ID: "|1|LER" File: "EXS03310008.wiff"
ik Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_I" Annotation: ""
le Index: 1
le Type: Standard
entration: 1000. ng/mL
ulated Conc: 976. ng/mL
Date: 3/31/2010
Time: 10:30:35 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.90 min
Relative RT: No

Type: Valley
ntion Time: 6.91 min
: 7.26e+005 counts
nt: 155412.201 cps
: Time: 6.81 min
Time: 7.92 min

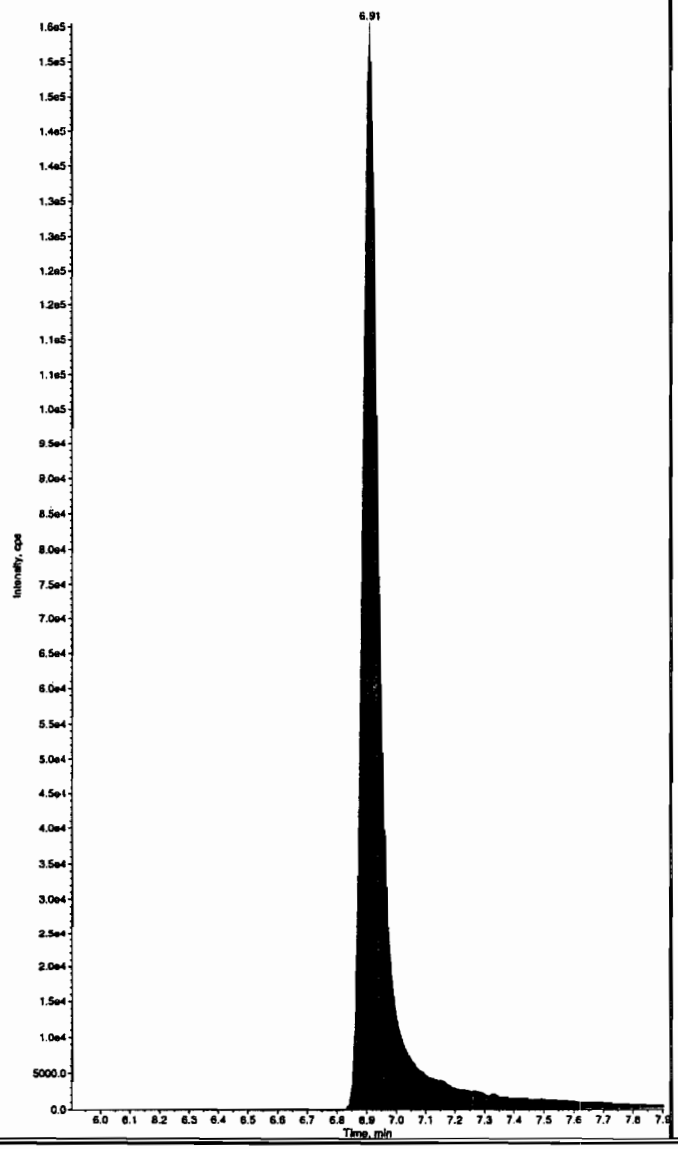

Sample Name: "WXX100331-24" Sample ID: "|1|LER" File: "EXS03310008.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 1000. ng/mL
Calculated Conc: 958. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 10:30:35 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.14 min
Area: 5.65e+006 counts
Height: 1389077.515 cps
Start Time: 8.07 min
End Time: 8.27 min

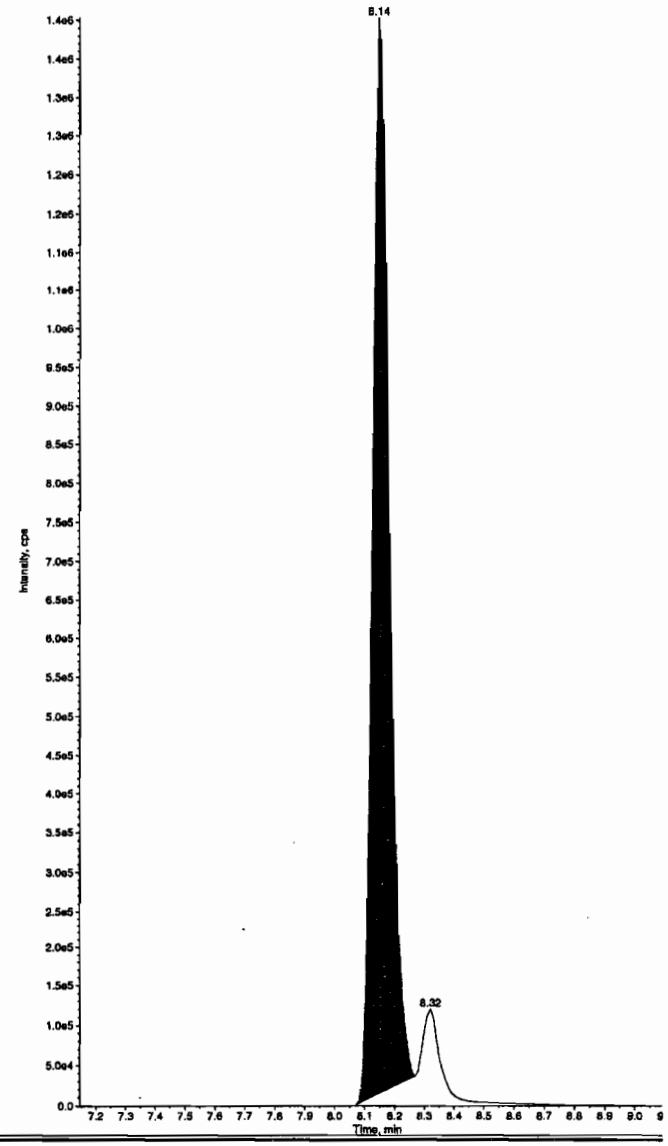

HNM 04/05/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

after Lan 4/5/10

mple Name: "WXX100331-24" Sample ID: "|1|LER" File: "EXS03310008.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_I" Annotation: ""

```
ıle Index:        1
ıle Type:      Standard
:entration:      1000.     ng/mL
:ulated Conc:     976.     ng/mL
 Date:        3/31/2010
 Time:        10:30:35 AM

.fied:            No
:. Algorithm: IntelliQuan - IQA
 Peak Height:2500.00    cps
 Peak Width:    0.00    sec
ıthing Width:  3       points
!indow:         30.0    sec
:cted RT:        6.90   min
 Relative RT:    No

 Type:         Valley
ıntion Time:     6.91   min
 :          7.26e+005   counts
ht:         155412.201  cps
t Time:          6.81   min
Time:            7.92   min
```

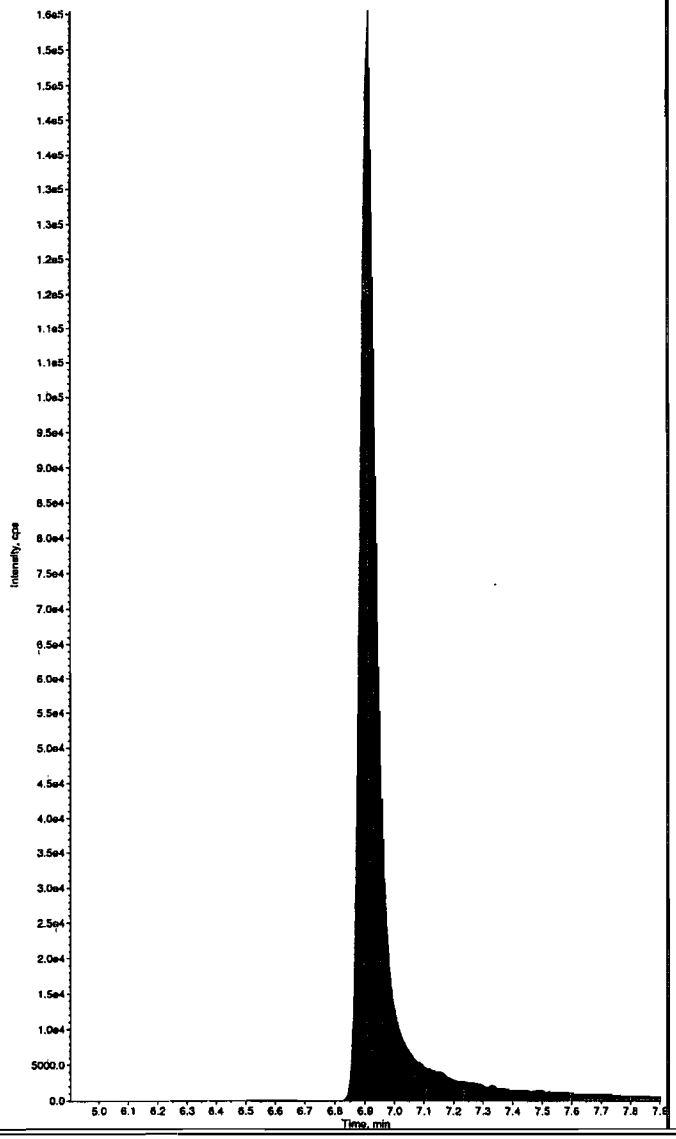

Sample Name: "WXX100331-24" Sample ID: "|1|LER" File: "EXS03310008.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:      1000.     ng/mL
Calculated Conc:     978.     ng/mL
Acq. Date:        3/31/2010
Acq. Time:        10:30:35 AM

Modified:            Yes
RT Window:          15.0     sec
Expected RT:         8.14    min
Use Relative RT:     No

Int. Type:         Manual
Retention Time:      8.15    min
Area:          5.84e+006    counts
Height:        1411524.619  cps
Start Time:          8.07    min
End Time:            8.27    min
```

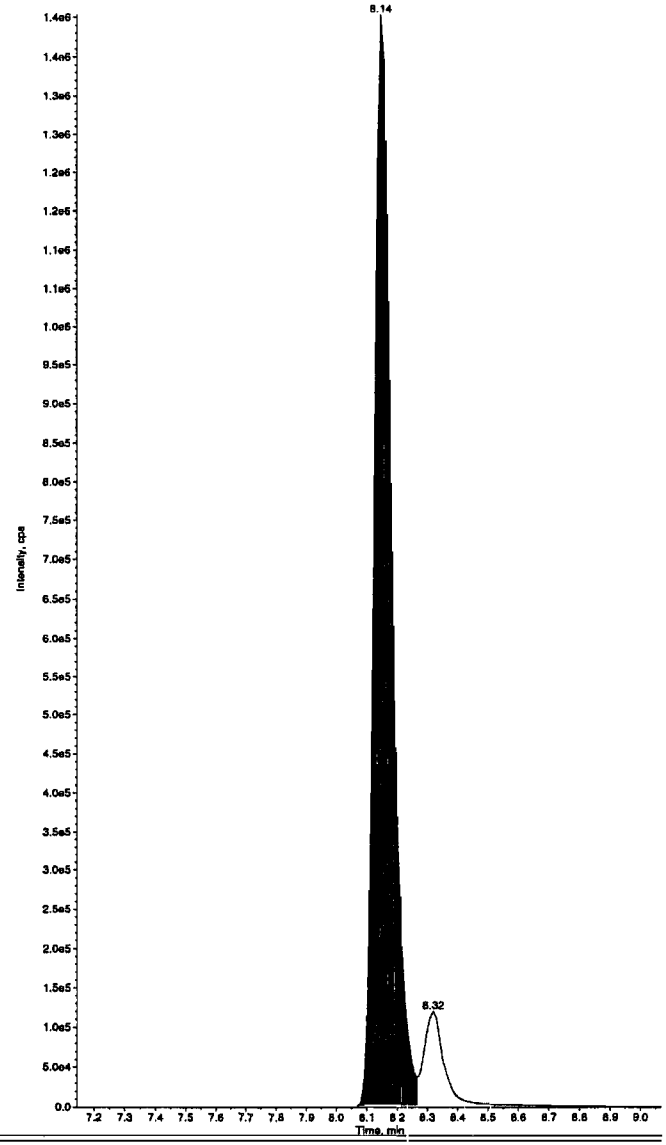

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100331-24" Sample ID: "|1|LER" File: "EXS03310008.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

ımple Index: 1
ımple Type: Standard
ncentration: 500. ng/mL
lculated Conc: 483. ng/mL
:q. Date: 3/31/2010
:q. Time: 10:30:35 AM

ıdified: No
'oc. Algorithm: IntelliQuan - IQA
.n. Peak Height: 1460.00 cps
.n. Peak Width: 0.00 sec
ıoothing Width: 3 points
' Window: 15.0 sec
:pected RT: 8.31 min
:e Relative RT: No

ıt. Type: Valley
:tention Time: 8.31 min
'ea: 3.74e+006 counts
ıight: 915284.363 cps
art Time: 8.24 min
d Time: 8.77 min

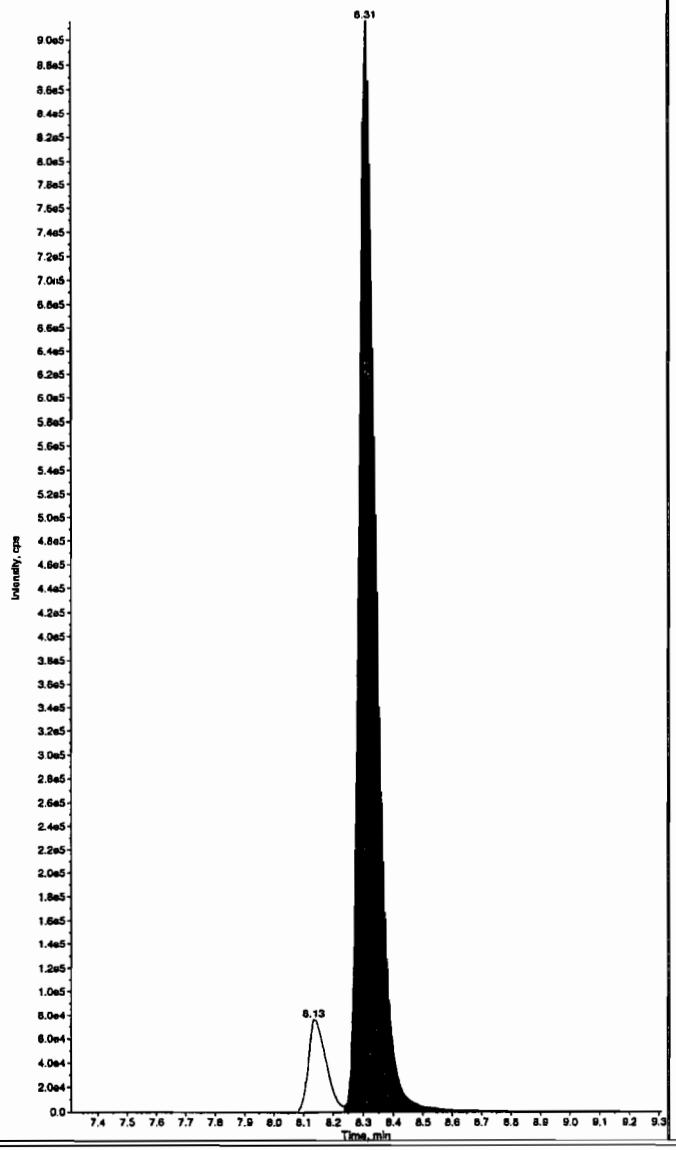

Sample Name: "WXX100331-24" Sample ID: "|1|LER" File: "EXS03310008.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 1000. ng/mL
Calculated Conc: 975. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 10:30:35 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.96 min
Area: 2.11e+006 counts
Height: 477272.064 cps
Start Time: 4.87 min
End Time: 5.23 min

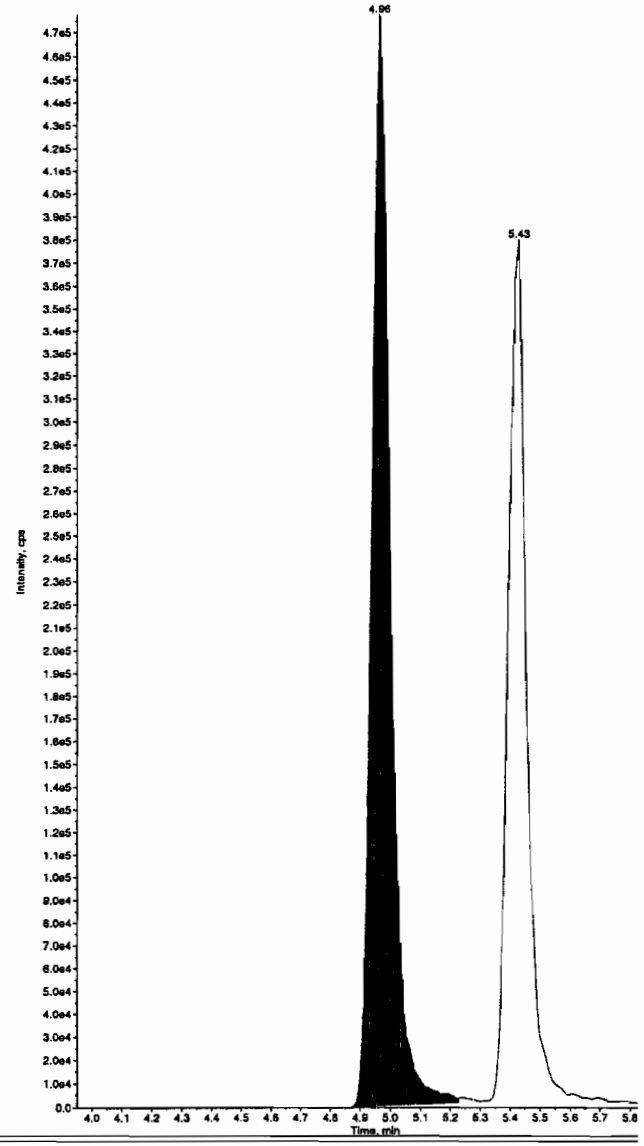

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "WXX100331-24" Sample ID: "[1]LER" File: "EXS03310008.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

ample Index: 1
ample Type: Standard
oncentration: 1000. ng/mL
alculated Conc: 912. ng/mL
cq. Date: 3/31/2010
cq. Time: 10:30:35 AM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 350.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 30.0 sec
xpected RT: 5.41 min
se Relative RT: No

nt. Type: Valley
etention Time: 5.43 min
rea: 1.66e+006 counts
eight: 377902.924 cps
tart Time: 5.30 min
nd Time: 5.93 min

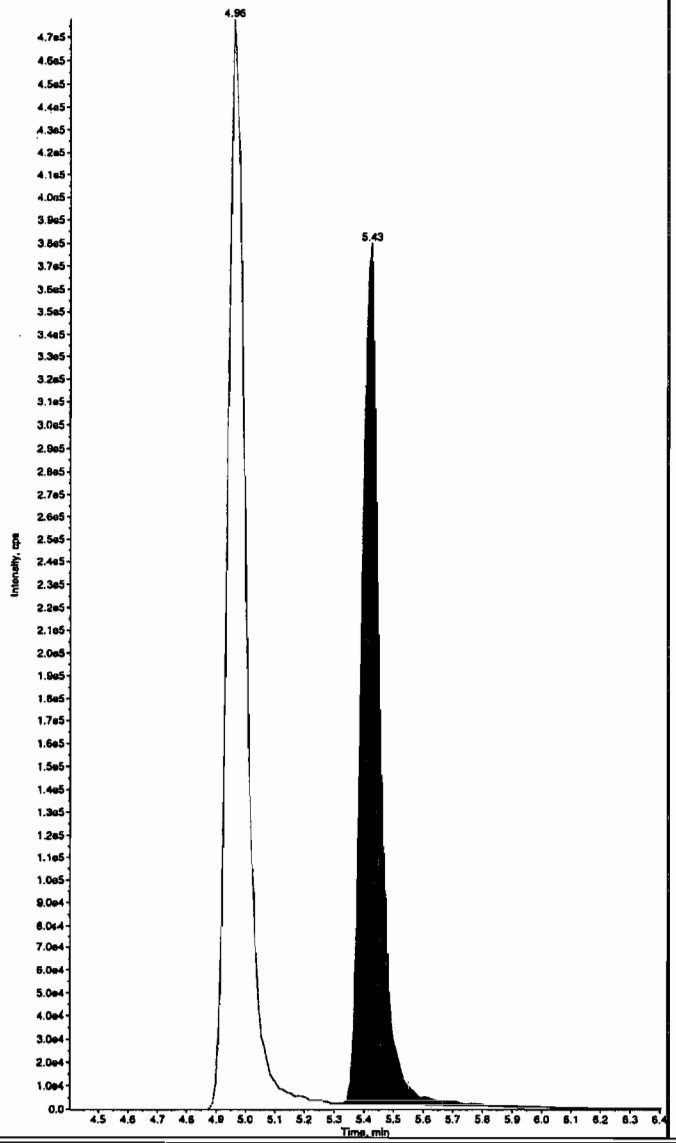

Sample Name: "WXX100331-24" Sample ID: "[1]LER" File: "EXS03310008.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 1000. ng/mL
Calculated Conc: 988. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 10:30:35 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.69e+007 counts
Height: 3762874.268 cps
Start Time: 10.7 min
End Time: 11.2 min

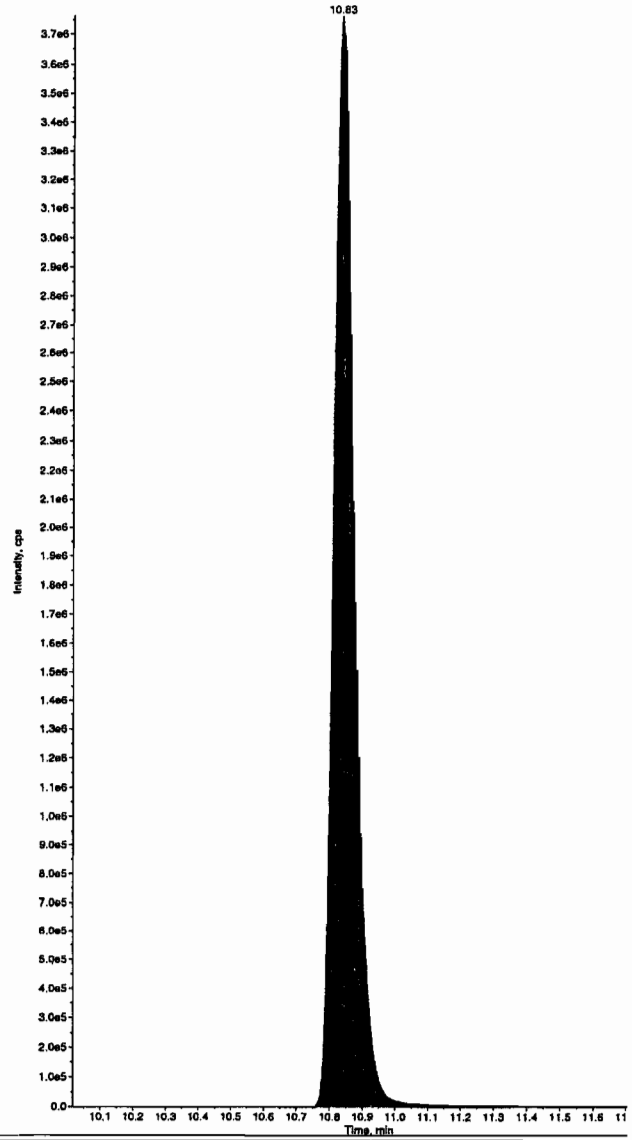

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LCR 4/5/10

Sample Name: "WXX100331-25" Sample ID: "[1]LER" File: "EXS03310009.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
mple Index:        1
mple Type:      Standard
ncentration:      2000.     ng/mL
lculated Conc:    2000.     ng/mL
q. Date:        3/31/2010
q. Time:        10:46:17 AM

dified:            No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height:2500.00   cps
n. Peak Width:    0.00   sec
oothing Width:  3       points
 Window:         30.0    sec
pected RT:        6.90   min
e Relative RT:    No

t. Type:        Valley
tention Time:     6.90   min
ea:          1.48e+006  counts
ight:         294447.876  cps
art Time:         6.80   min
d Time:           7.85   min
```

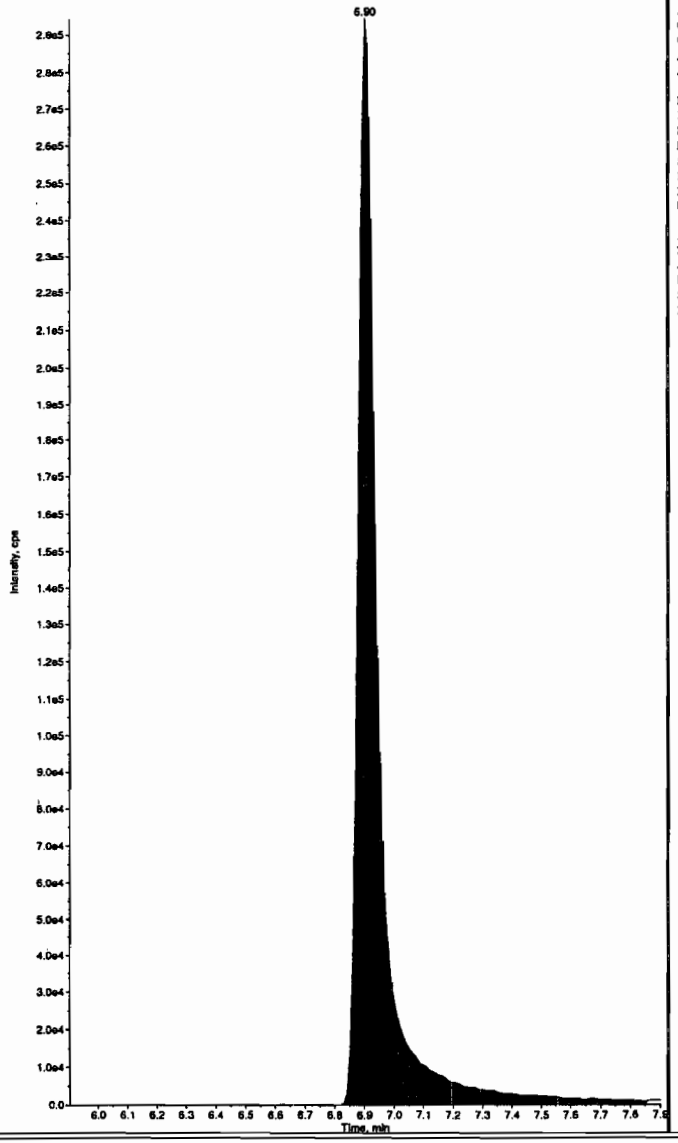

Sample Name: "WXX100331-25" Sample ID: "[1]LER" File: "EXS03310009.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:      2000.     ng/mL
Calculated Conc:    2000.     ng/mL
Acq. Date:        3/31/2010
Acq. Time:        10:46:17 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         15.0    sec
Expected RT:        8.14   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     8.14   min
Area:          1.01e+007  counts
Height:        2261494.873  cps
Start Time:         8.05   min
End Time:           8.27   min
```

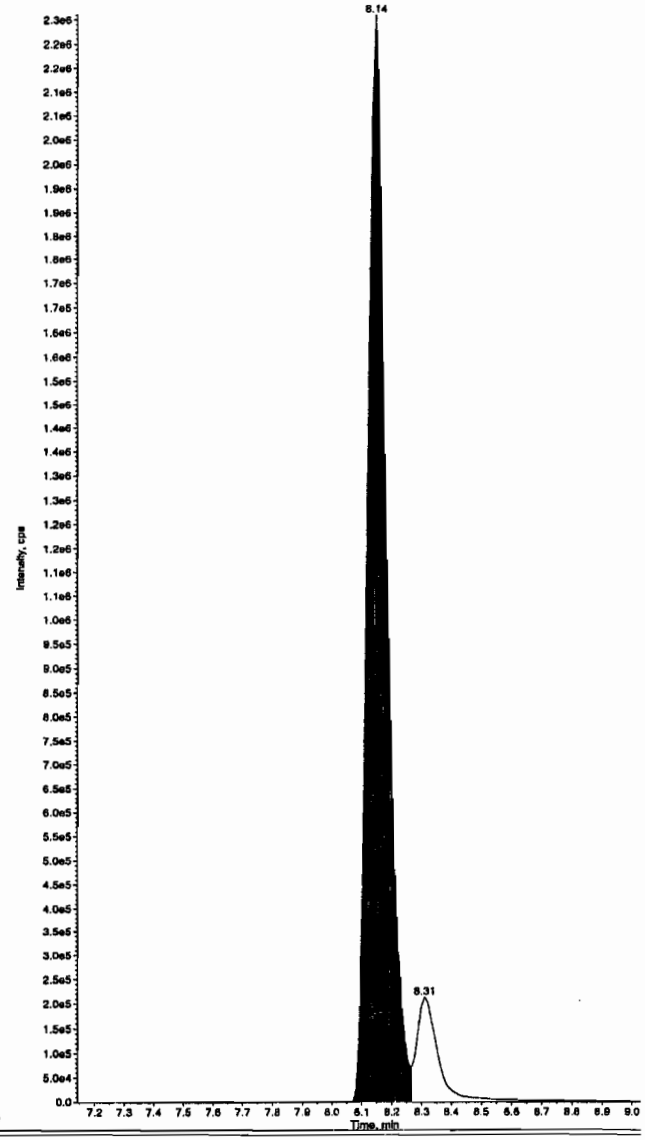

HMM 04/05/10

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100331-25" Sample ID: "[1]LER" File: "EXS03310009.wiff"
: Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_I" Annotation: ""

e Index: 1
e Type: Standard
ntration: 1000. ng/mL
lated Conc: 1000. ng/mL
Date: 3/31/2010
Time: 10:46:17 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 15.0 sec
ted RT: 8.31 min
elative RT: No

Type: Valley
tion Time: 8.31 min
6.88e+006 counts
t: 1623690.918 cps
Time: 8.24 min
ime: 8.84 min

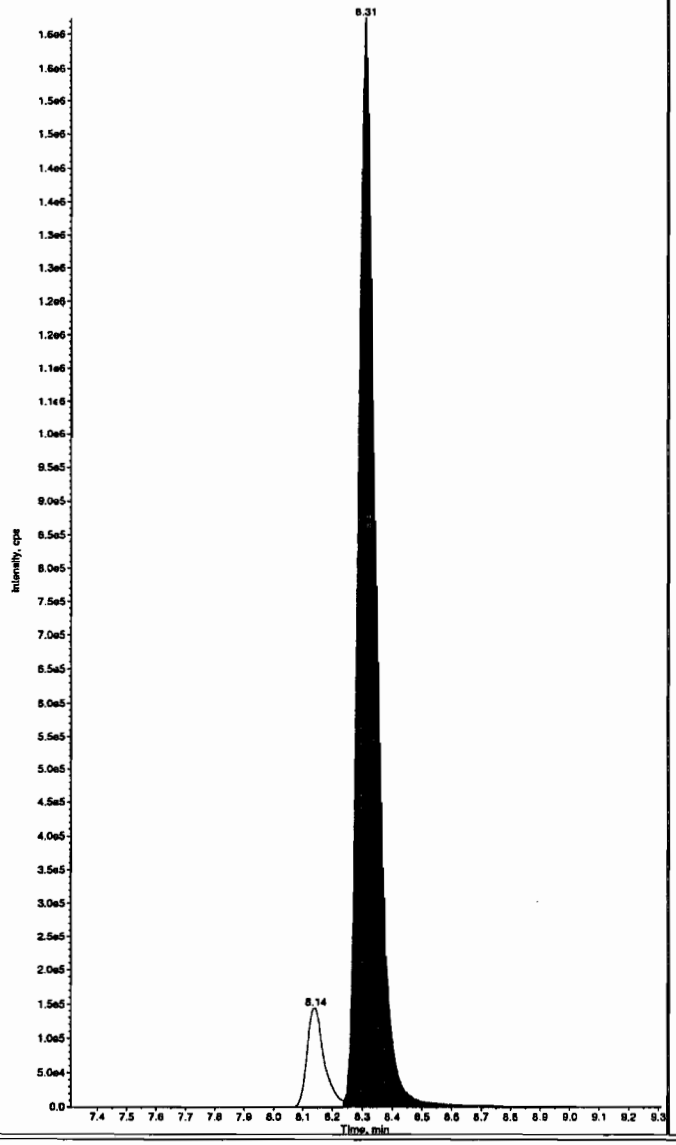

Sample Name: "WXX100331-25" Sample ID: "[1]LER" File: "EXS03310009.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 2000. ng/mL
Calculated Conc: 2030. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 10:46:17 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.95 min
Area: 4.37e+006 counts
Height: 956404.480 cps
Start Time: 4.87 min
End Time: 5.06 min

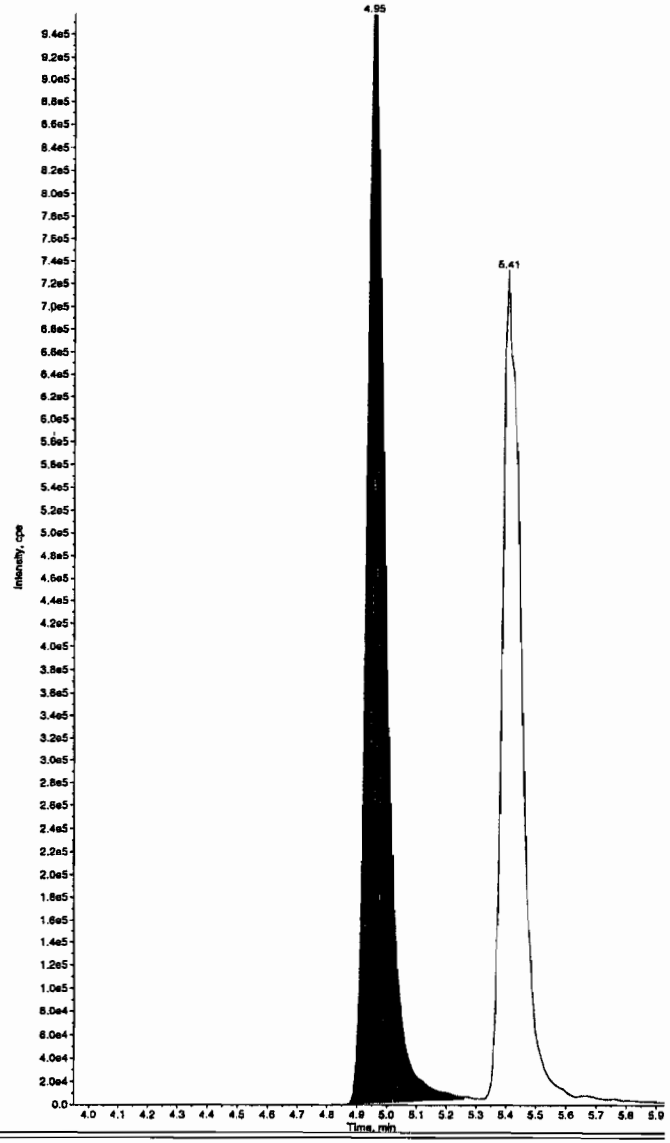

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100331-25" Sample ID: "|1|LER" File: "EXS03310009.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:      2000.     ng/mL
Calculated Conc:    2010.     ng/mL
Acq. Date:        3/31/2010
Acq. Time:        10:46:17 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 350.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:        5.41    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     5.41    min
Area:          3.44e+006    counts
Height:          730733.459  cps
Start Time:         5.31    min
End Time:           5.97    min
```

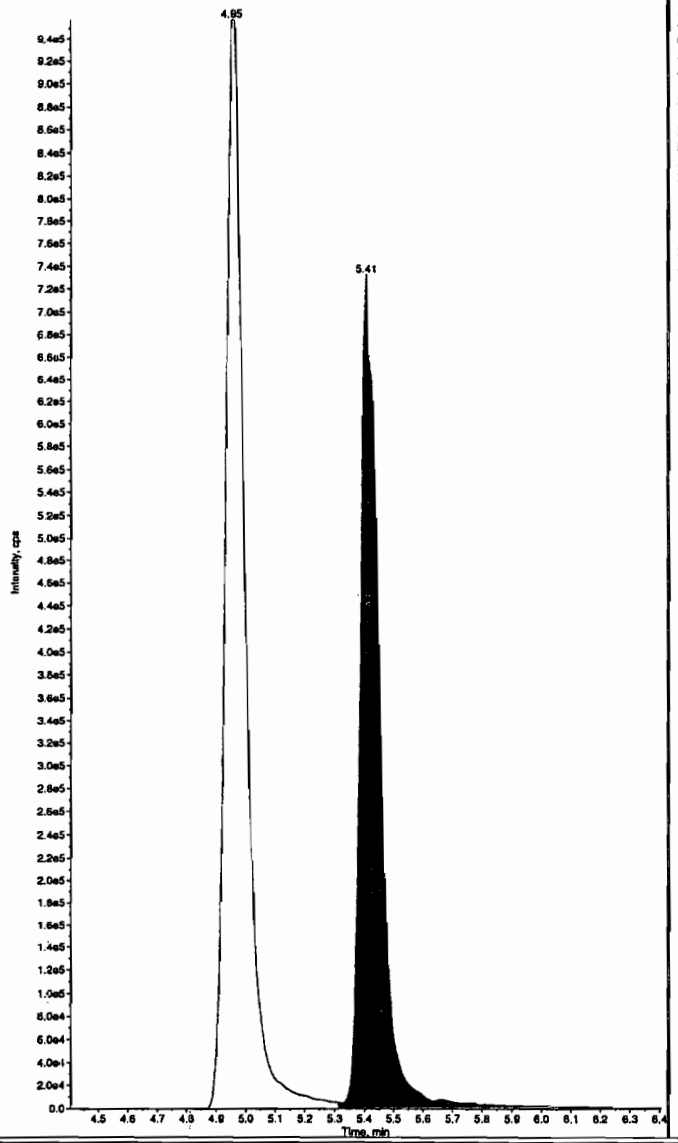

Sample Name: "WXX100331-25" Sample ID: "|1|LER" File: "EXS03310009.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:      2000.     ng/mL
Calculated Conc:    2000.     ng/mL
Acq. Date:        3/31/2010
Acq. Time:        10:46:17 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:        10.8    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.8    min
Area:          2.83e+007    counts
Height:        5603803.223  cps
Start Time:         10.7    min
End Time:           11.2    min
```

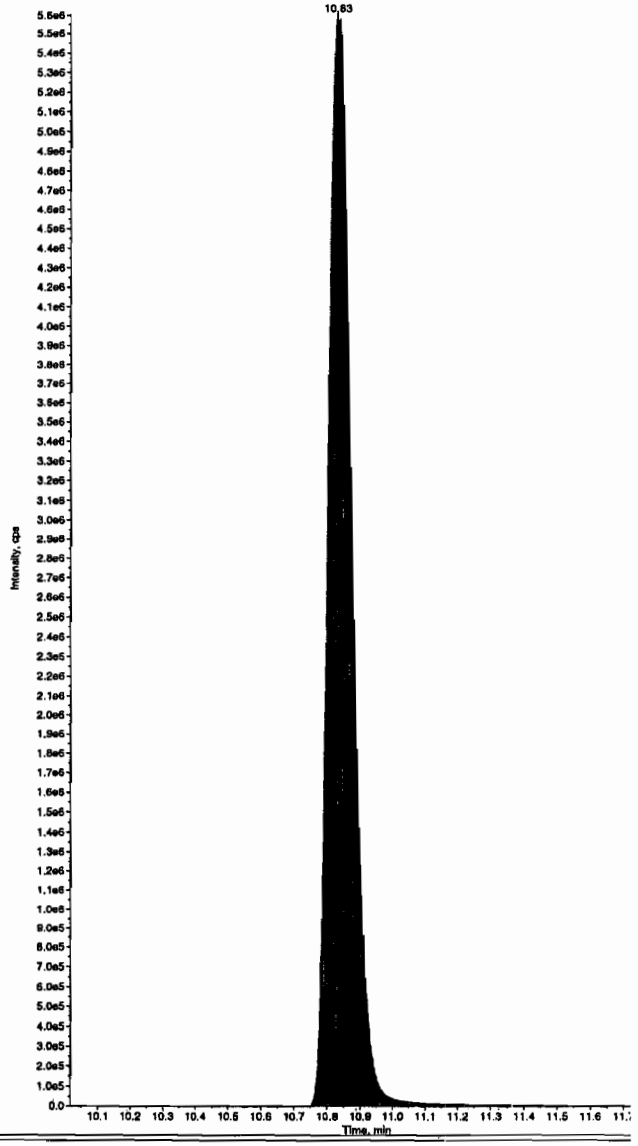

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2005

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS03310011.wiff

Analysis Date: 31–MAR–10 11:17

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	461	92	
2,6–Diamino–4–nitrotoluene	500	505	101	
3,4–Dinitrotoluene	250	221	88	
3,5–Dinitroaniline	500	463	93	
TATB	500	483	97	
tris(o–cresyl) phosphate	500	481	96	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Rcn 4/5/10

Sample Name: "WXX100331-26ICV" Sample ID: "|1|LER" File: "EXS03310011.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 483. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 11:17:44 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.90 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.90 min
Area: 3.57e+005 counts
Height: 79815.063 cps
Start Time: 6.80 min
End Time: 7.87 min

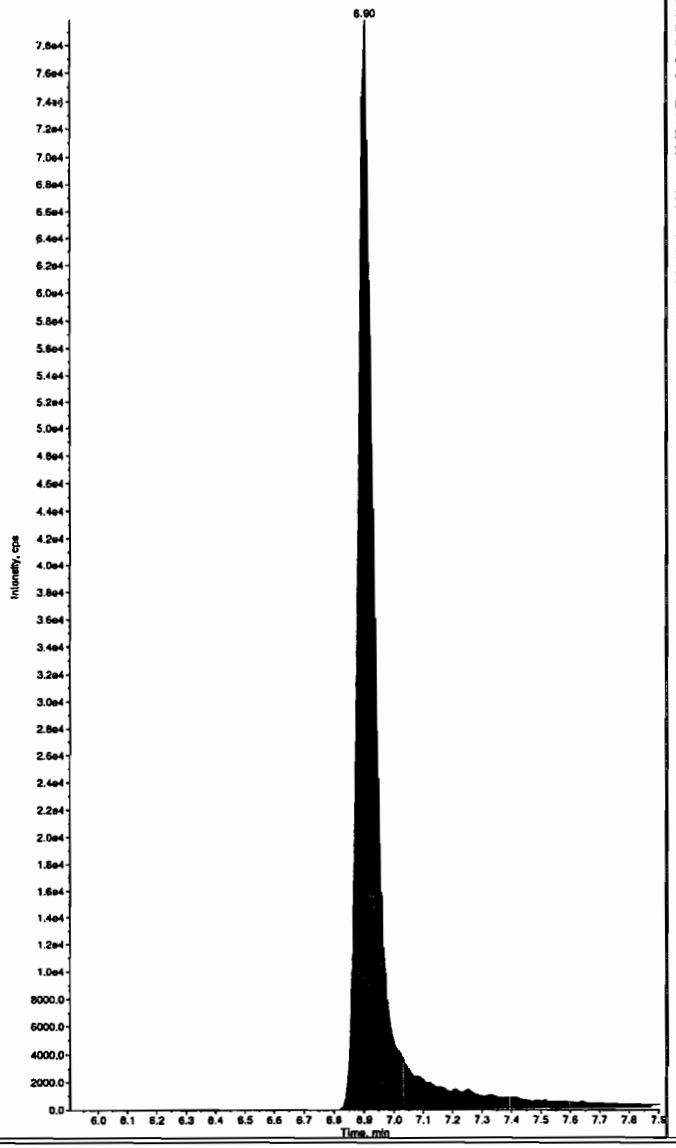

Sample Name: "WXX100331-26ICV" Sample ID: "|1|LER" File: "EXS03310011.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 463. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 11:17:44 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.14 min
Area: 2.96e+006 counts
Height: 701807.678 cps
Start Time: 8.05 min
End Time: 8.27 min

HMM 04/05/10

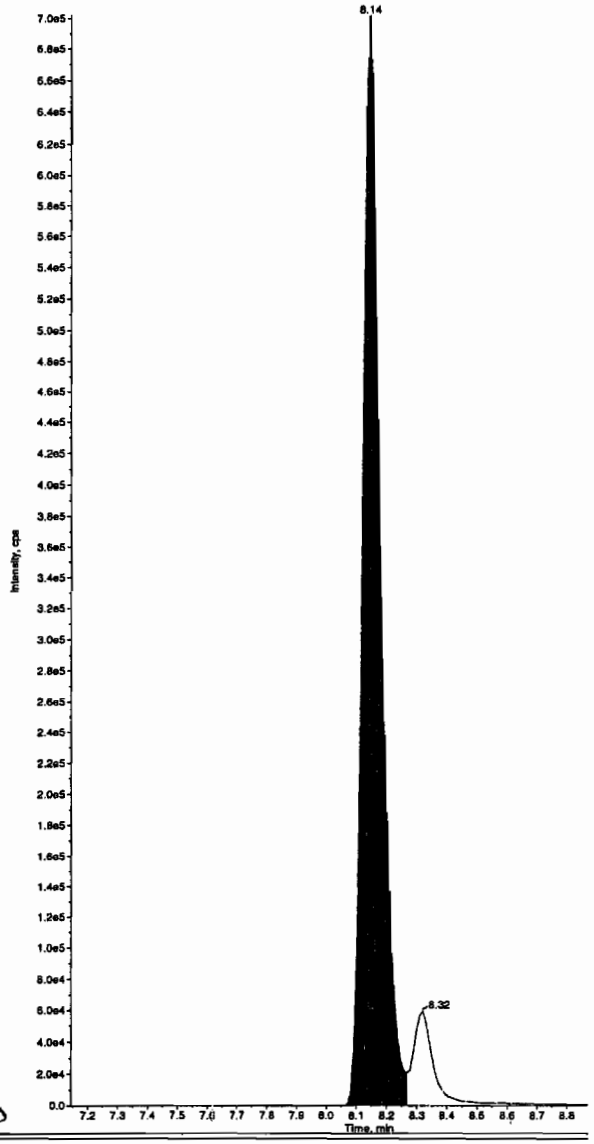

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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nple Name: "WXX100331-26ICV" Sample ID: "|1|LER" File: "EXS03310011.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 250. ng/mL
ulated Conc: 221. ng/mL
Date: 3/31/2010
Time: 11:17:44 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.31 min
Relative RT: No

Type: Valley
ntion Time: 8.31 min
: 1.80e+006 counts
nt: 447898.987 cps
: Time: 8.24 min
Time: 8.61 min

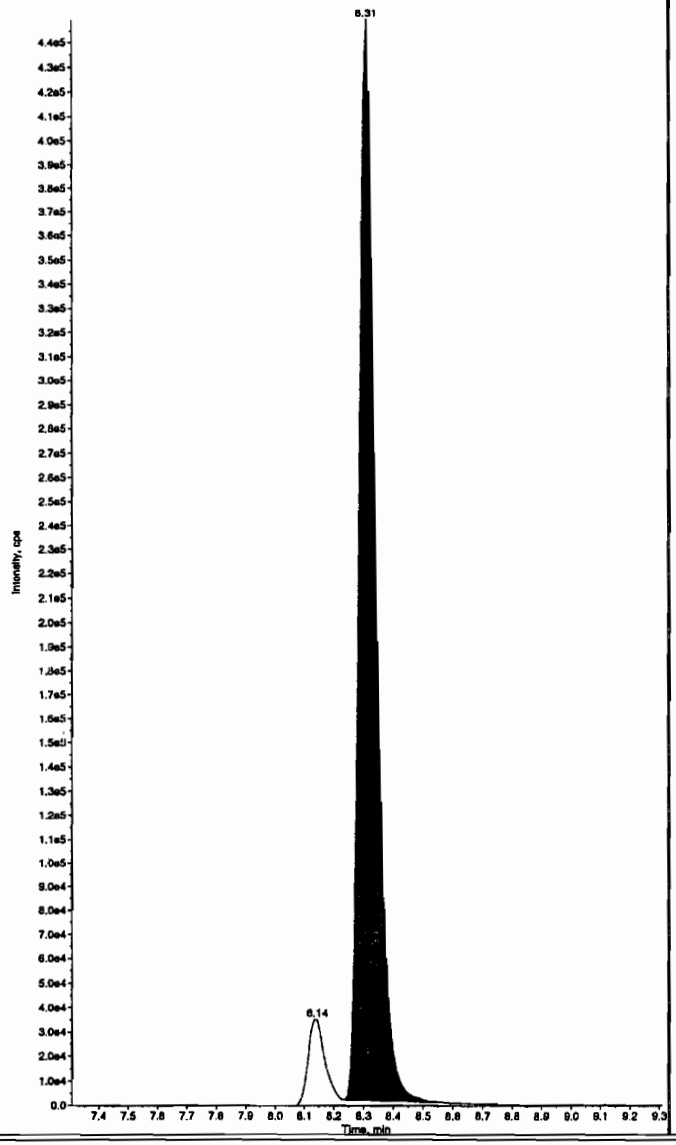

Sample Name: "WXX100331-26ICV" Sample ID: "|1|LER" File: "EXS03310011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 505. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 11:17:44 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.95 min
Area: 1.10e+006 counts
Height: 261479.004 cps
Start Time: 4.86 min
End Time: 5.25 min

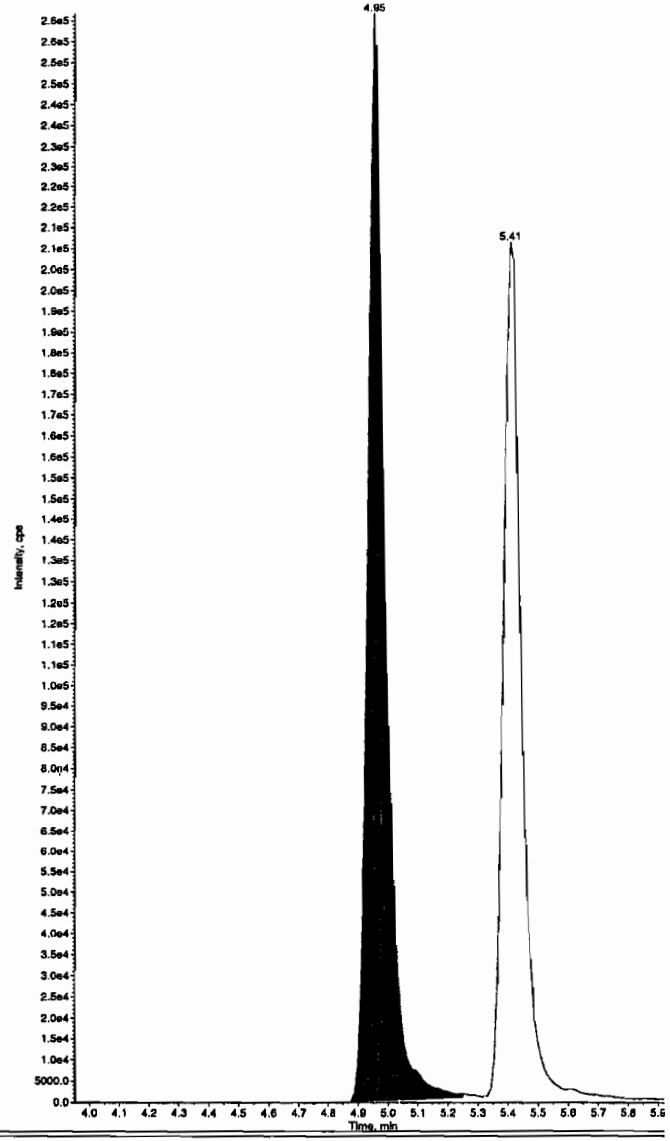

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me: "WXX100331-26ICV" Sample ID: "[1]LER" File: "EXS03310011.wiff"
: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
LCMSEXP_C" Annotation: ""
ex: 1
e: QC
ion: 500. ng/mL
Conc: 461. ng/mL
3/31/2010
11:17:44 AM

No
rithm: IntelliQuan - IQA
Height: 350.00 cps
Width: 0.00 sec
Width: 3 points
30.0 sec
T: 5.41 min
ve RT: No

Valley
Time: 5.41 min
8.77e+005 counts
205358.368 cps
: 5.31 min
5.81 min

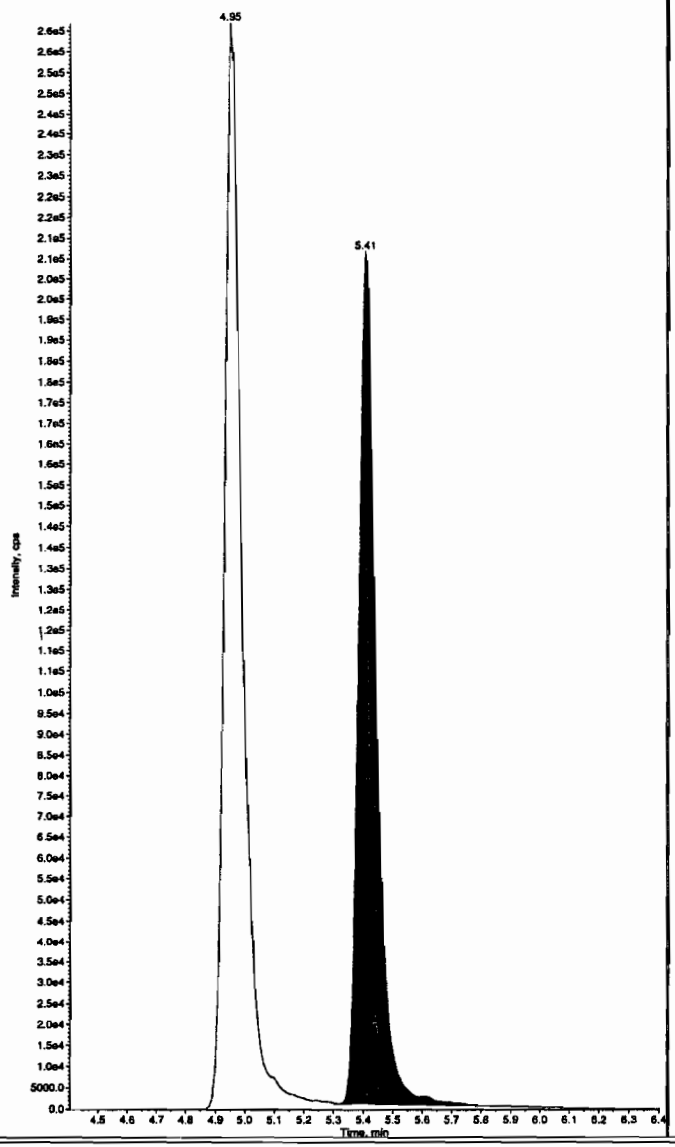

Sample Name: "WXX100331-26ICV" Sample ID: "[1]LER" File: "EXS03310011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 481. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 11:17:44 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 9.01e+006 counts
Height: 2076318.604 cps
Start Time: 10.7 min
End Time: 11.2 min

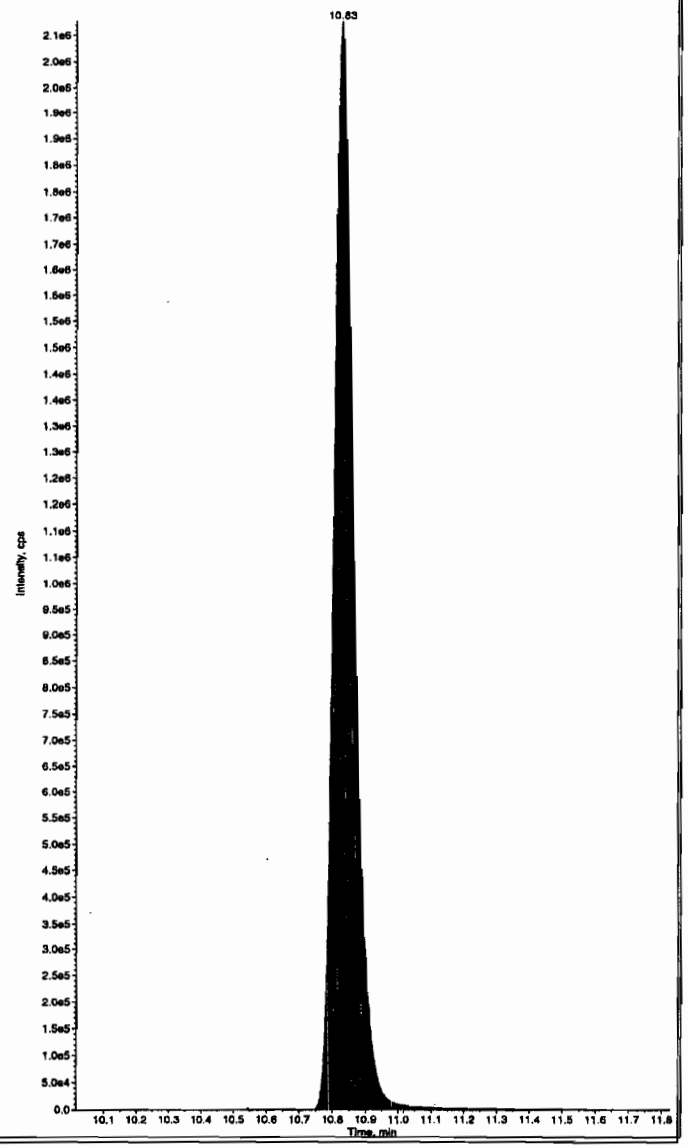

)P GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2005

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0322012.wiff

Analysis Date: 22–MAR–10 20:23

LCMSMS ID: 1189

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	44.6	112	
2,4,6–Trinitrotoluene	40	37.6	94	
2,4–Dinitrotoluene	40	45.1	113	
2,6–Dinitrotoluene	40	44.6	112	
2–Amino–4,6–dinitrotoluene	40	41.8	104	
3,4–Dinitrotoluene	20	22	110	
4–Amino–2,6–dinitrotoluene	40	45.4	113	
HMX	40	47.1	118	
Nitrobenzene	40	39.5	99	
PETN	40	40.6	102	
RDX	40	42	105	
Tetryl	40	33.7	84	
m–Dinitrobenzene	40	44.7	112	
m–Nitrotoluene	40	37.6	94	
o–Nitrotoluene	40	40.8	102	
p–Nitrotoluene	40	35.6	89	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322012.wiff	**Acquisition Date**	3/22/2010 8:23:14 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

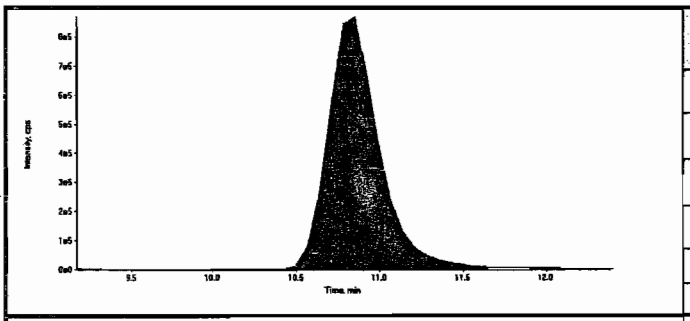

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	18800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

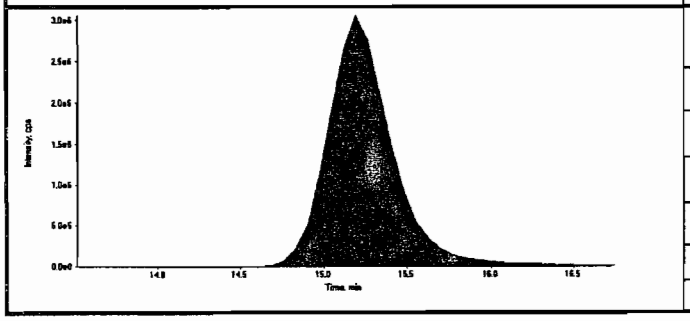

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.20
Area Counts:	81200000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

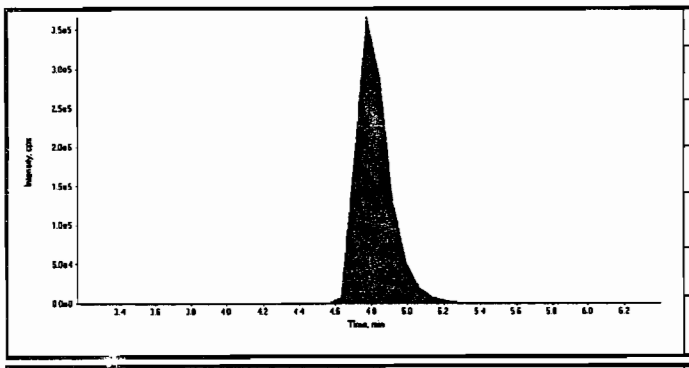

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	4.58e+006
Manual Modification	No
Amount:	47.1 (ng/mL)
% Accuracy:	118.00

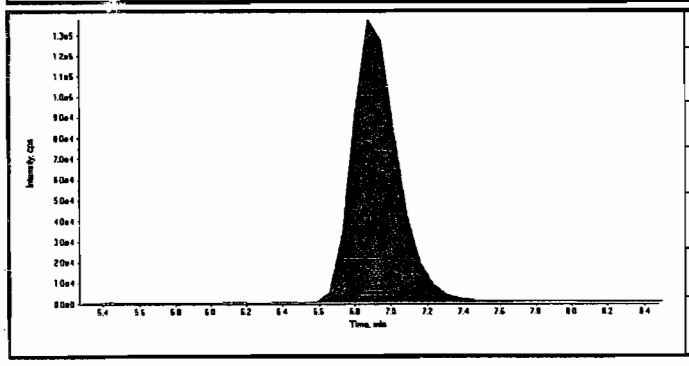

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	2.42e+006
Manual Modification	No
Amount:	42.0 (ng/mL)
% Accuracy:	105.00

Hmw 03/25/10

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Data File	EXP0322012.wiff	**Acquisition Date**	3/22/2010 8:23:14 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

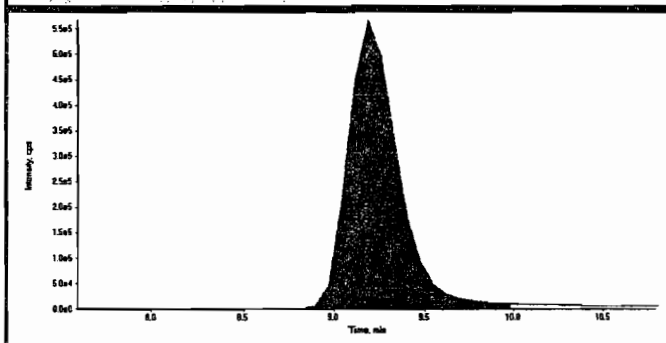

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.19
Area Counts:	1.09e+007
Manual Modification	No
Amount:	44.6 (ng/mL)
% Accuracy:	112.00

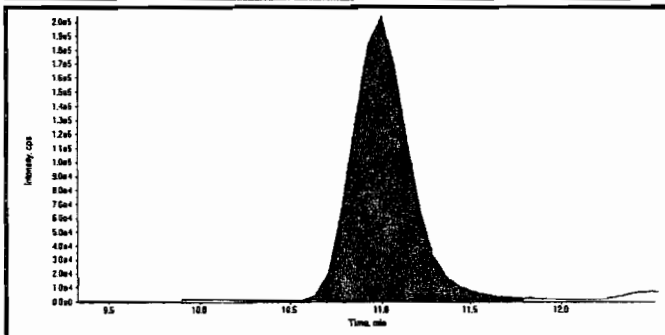

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	11.0
Area Counts:	4.47e+006
Manual Modification	No
Amount:	44.7 (ng/mL)
% Accuracy:	112.00

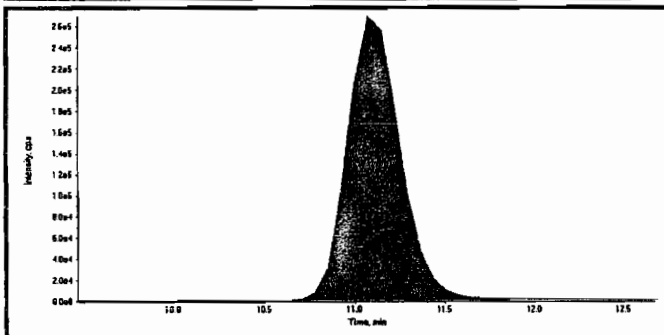

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.1
Area Counts:	5.43e+006
Manual Modification	No
Amount:	33.7 (ng/mL)
% Accuracy:	84.30

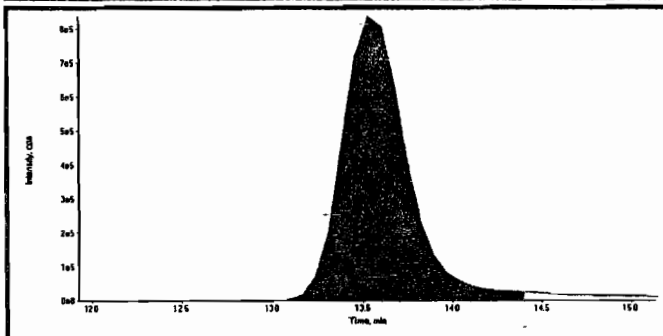

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	2.08e+007
Manual Modification	No
Amount:	37.6 (ng/mL)
% Accuracy:	93.90

Before Lan 3/28/10

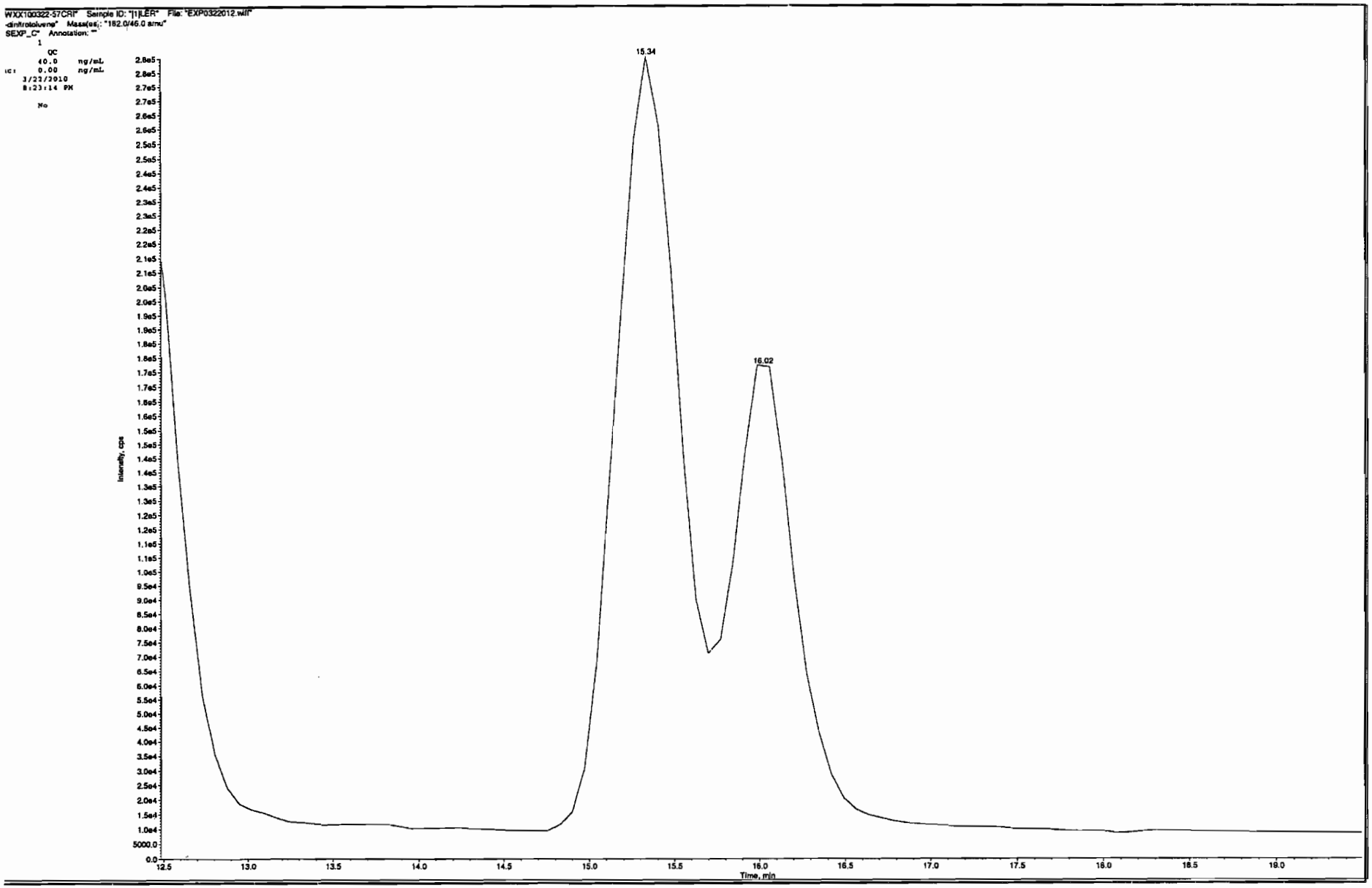

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322012.wiff	**Acquisition Date**	3/22/2010 8:23:14 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

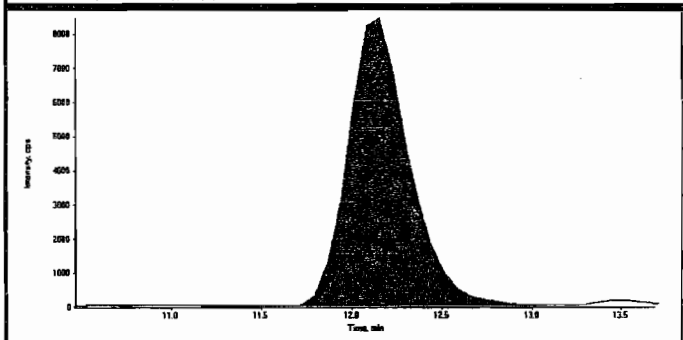

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	2.01e+005
Manual Modification	No
Amount:	39.5 (ng/mL)
% Accuracy:	98.60

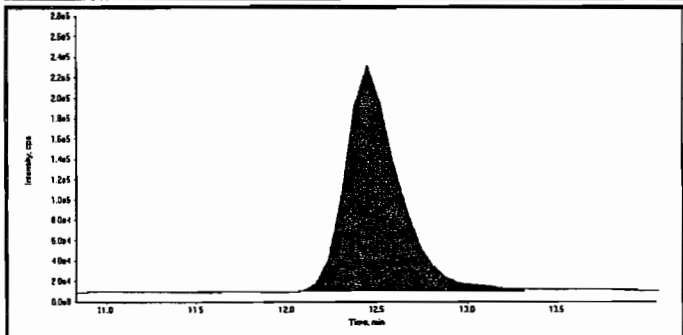

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	4.62e+006
Manual Modification	No
Amount:	22.0 (ng/mL)
% Accuracy:	110.00

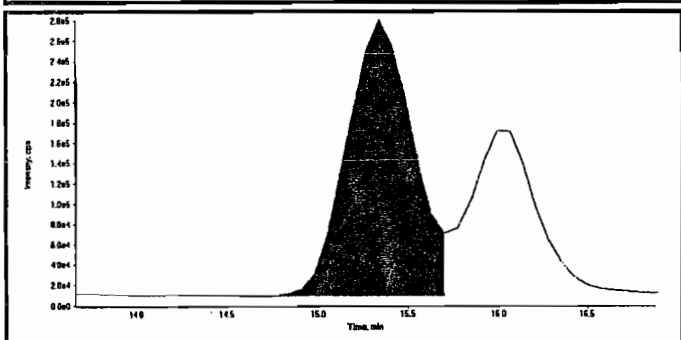

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	7.05e+006
Manual Modification	No
Amount:	44.6 (ng/mL)
% Accuracy:	112.00

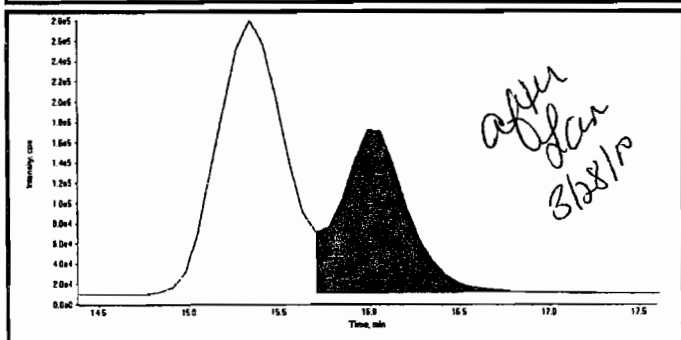

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	16.0
Area Counts:	4.28e+006
Manual Modification	Yes
Amount:	45.1 (ng/mL)
% Accuracy:	113.00

Before Lab 3/28/10

nple Name: "WXX100322-57CRI" Sample ID: "[1]LER" File: "EXP0322012.wiff"
k Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
e Index:        1
e Type:         QC
ntration:       40.0     ng/mL
lated Conc:     98.1     ng/mL
Date:        3/22/2010
Time:        8:23:14 PM

ied:            No
 Algorithm: IntelliQuan - IQA
Peak Height:1000.00    cps
Peak Width:     0.00    sec
hing Width:  3         points
ndow:          30.0     sec
ted RT:        14.6     min
elative RT:    No

Type:         Valley
tion Time:     14.7     min
          5.31e+005    counts
t:        1.16e+004    cps
 Time:         14.3     min
ima:           16.3     min
```

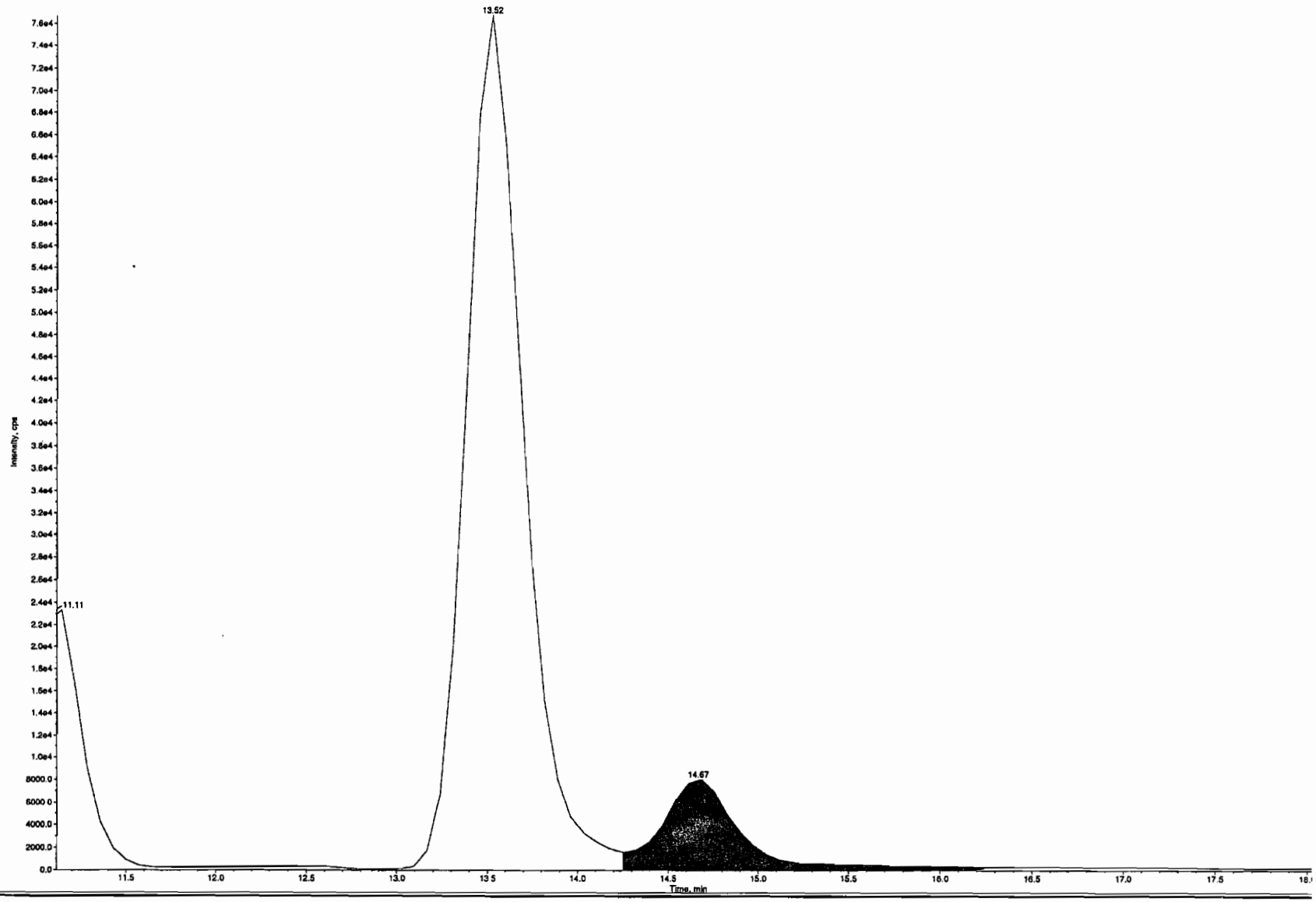

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322012.wiff	**Acquisition Date**	3/22/2010 8:23:14 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

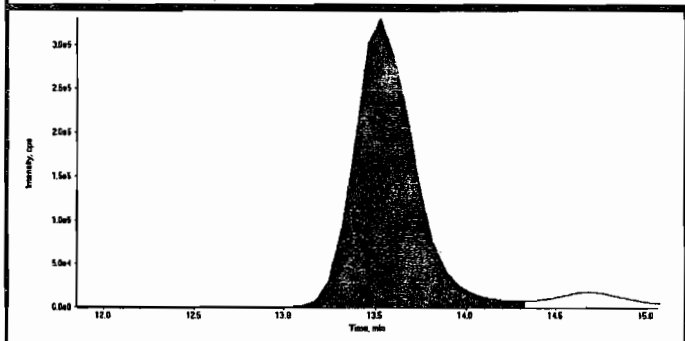

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	7.78e+006
Manual Modification	No
Amount:	45.4 (ng/mL)
% Accuracy:	113.00

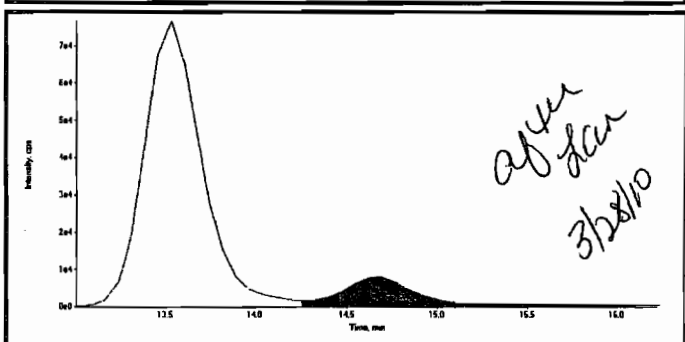

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.7
Area Counts:	2.26e+005
Manual Modification	Yes
Amount:	41.8 (ng/mL)
% Accuracy:	104.00

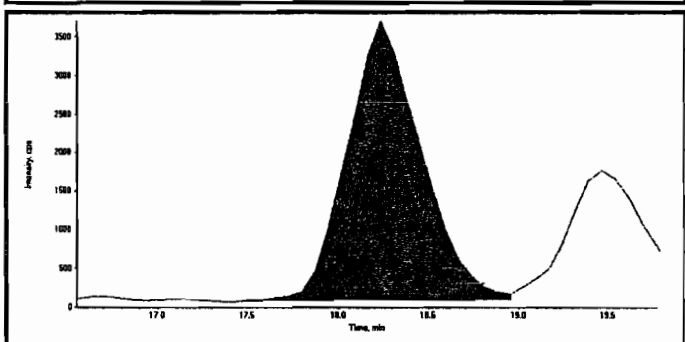

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.2
Area Counts:	1.04e+005
Manual Modification	No
Amount:	40.8 (ng/mL)
% Accuracy:	102.00

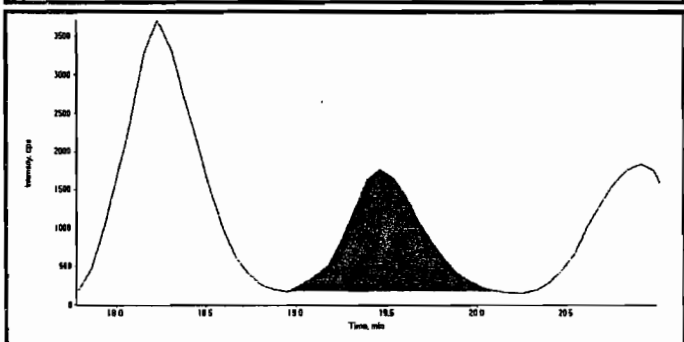

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.5
Area Counts:	4.51e+004
Manual Modification	No
Amount:	35.6 (ng/mL)
% Accuracy:	89.10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322012.wiff	**Acquisition Date**	3/22/2010 8:23:14 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

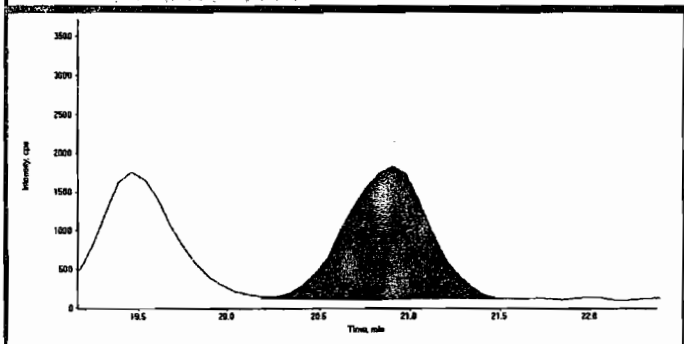

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.9
Area Counts:	5.66e+004
Manual Modification	No
Amount:	37.6 (ng/mL)
% Accuracy:	93.90

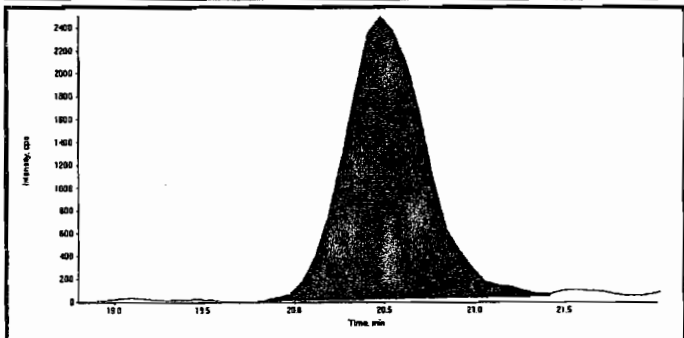

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.5
Area Counts:	7.88e+004
Manual Modification	No
Amount:	40.6 (ng/mL)
% Accuracy:	102.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/22/10
Time of Injection 2023
Standard Number WXX100322-57CRI
Data File EXP0322012a

HMX	118.0
RDX	105.0
135-Trinitrobenzene	112.0
13-Dinitrobenzene	112.0
Tetryl	84.3
246-Trinitrotoluene	93.9
Nitrobenzene	98.6
34-dinitrotoluene	110.0
26-dinitrotoluene	112.0
24-dinitrotoluene	113.0
4-Amino-26-dinitrotoluene	113.0
2-Amino-46-dinitrotoluene	104.0
2-Nitrotoluene	102.0
4-Nitrotoluene	89.1
3-Nitrotoluene	93.9
PETN	102.0
	✓
TOTAL	1662.8
AVERAGE	✓ 103.9

HMM 03/28/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lcr 3/28/10

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2005

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0322018.wiff

Analysis Date: 22–MAR–10 23:01

LCMSMS ID: 1189

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,6–Dinitrotoluene	600	530	88	
2–Amino–4,6–dinitrotoluene	600	633	105	
3,4–Dinitrotoluene	300	278	93	
4–Amino–2,6–dinitrotoluene	600	583	97	
HMX	600	582	97	
Nitrobenzene	600	648	108	
PETN	600	697	116	
RDX	600	617	103	
Tetryl	600	666	111	
m–Dinitrobenzene	600	595	99	
m–Nitrotoluene	600	647	108	
o–Nitrotoluene	600	619	103	
p–Nitrotoluene	600	676	113	
2,4–Dinitrotoluene	600	626	104	
1,3,5–Trinitrobenzene	600	571	95	
2,4,6–Trinitrotoluene	600	550	92	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322018.wiff	**Acquisition Date**	3/22/2010 11:01:27 PM
Sample Name	WXX100322-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

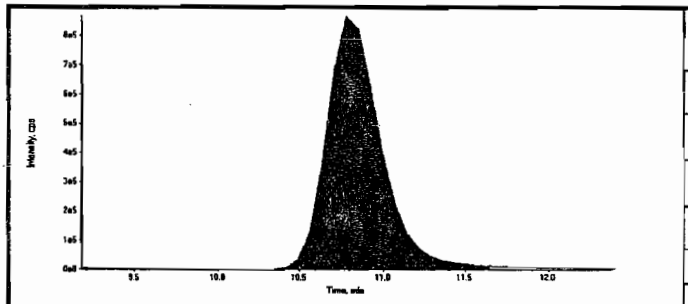

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.80
Area Counts:	19500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

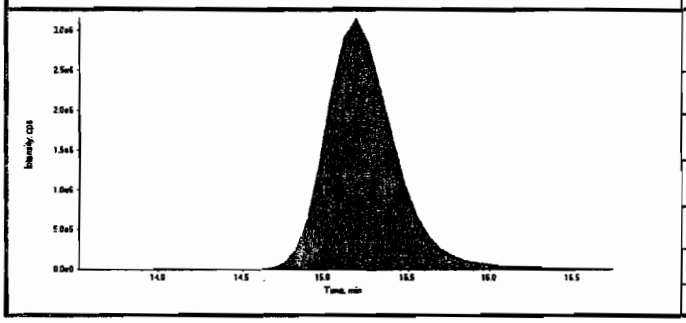

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.20
Area Counts:	89700000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

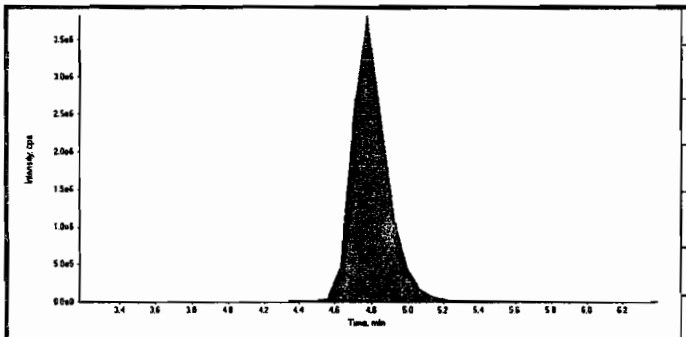

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	4.92e+007
Manual Modification	No
Amount:	582. (ng/mL)
% Accuracy:	97.00

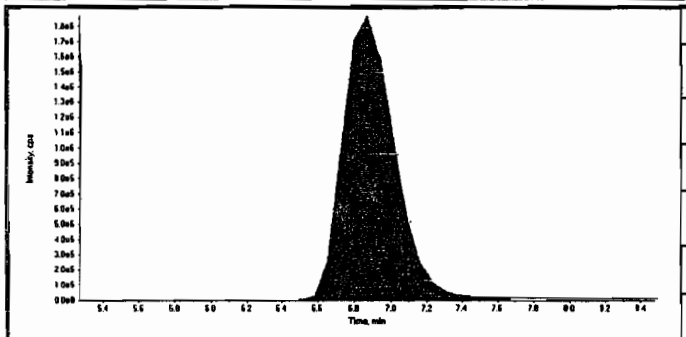

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	3.68e+007
Manual Modification	No
Amount:	617. (ng/mL)
% Accuracy:	103.00

Lar 3/28/10

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Data File	EXP0322018.wiff	**Acquisition Date**	3/22/2010 11:01:27 PM
Sample Name	WXX100322-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

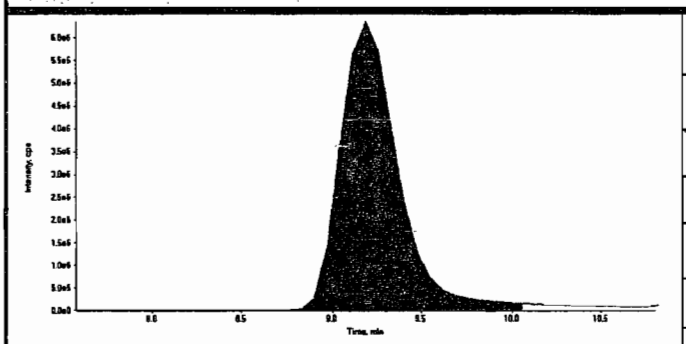

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.19
Area Counts:	1.44e+008
Manual Modification	No
Amount:	571. (ng/mL)
% Accuracy:	95.20

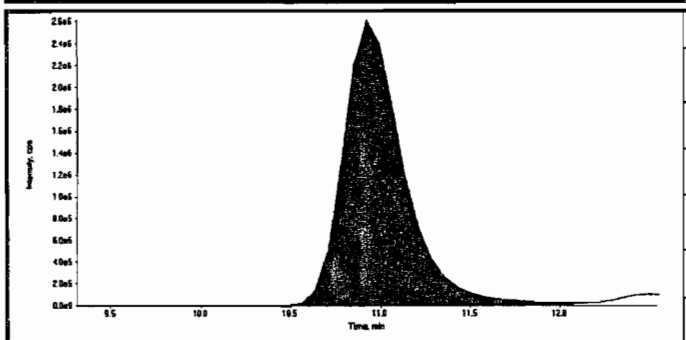

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	6.16e+007
Manual Modification	No
Amount:	595. (ng/mL)
% Accuracy:	99.10

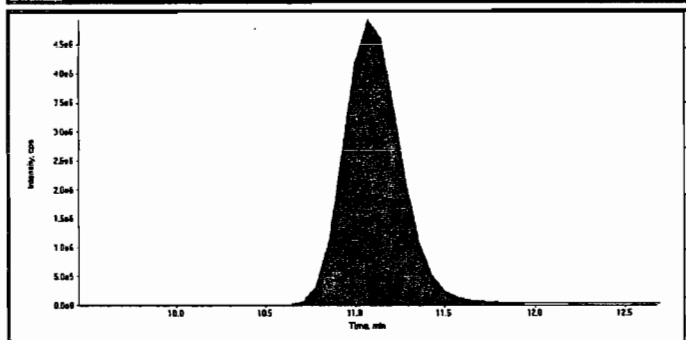

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.1
Area Counts:	1.11e+008
Manual Modification	No
Amount:	666. (ng/mL)
% Accuracy:	111.00

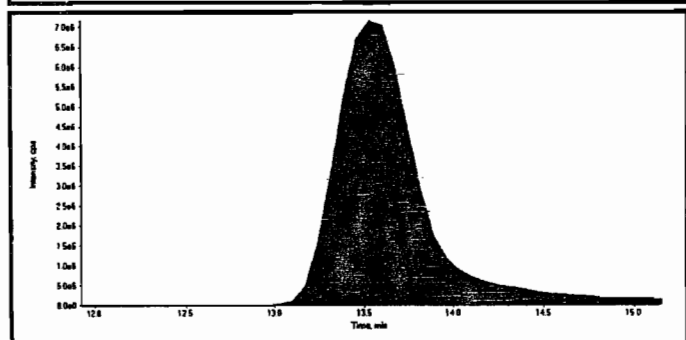

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	2.45e+008
Manual Modification	No
Amount:	550. (ng/mL)
% Accuracy:	91.70

Before Run 3/28/10

Sample Name: "WXX100322-56CCV" Sample ID: "[1]LER" File: "EXP0322018.wiff"
Peak Name: "26-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 600. ng/mL
Calculated Conc: 365. ng/mL
Acq. Date: 3/22/2010
Acq. Time: 11:01:27 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1.00e4 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 15.3 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 15.3 min
Area: 6.37e+007 counts
Height: 2.74e+006 cps
Start Time: 14.9 min
End Time: 15.7 min

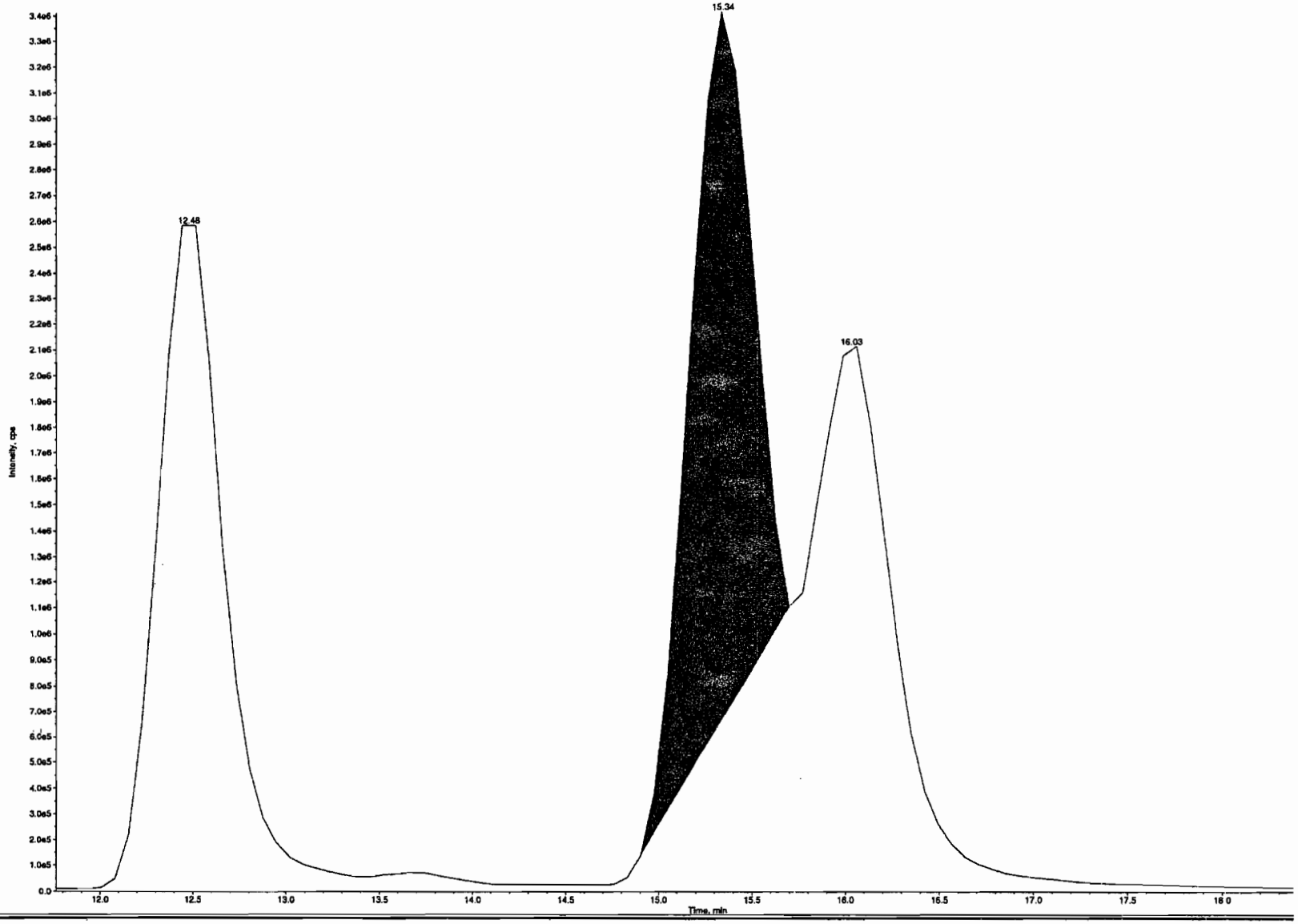

*GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Before LCer 3/28/10

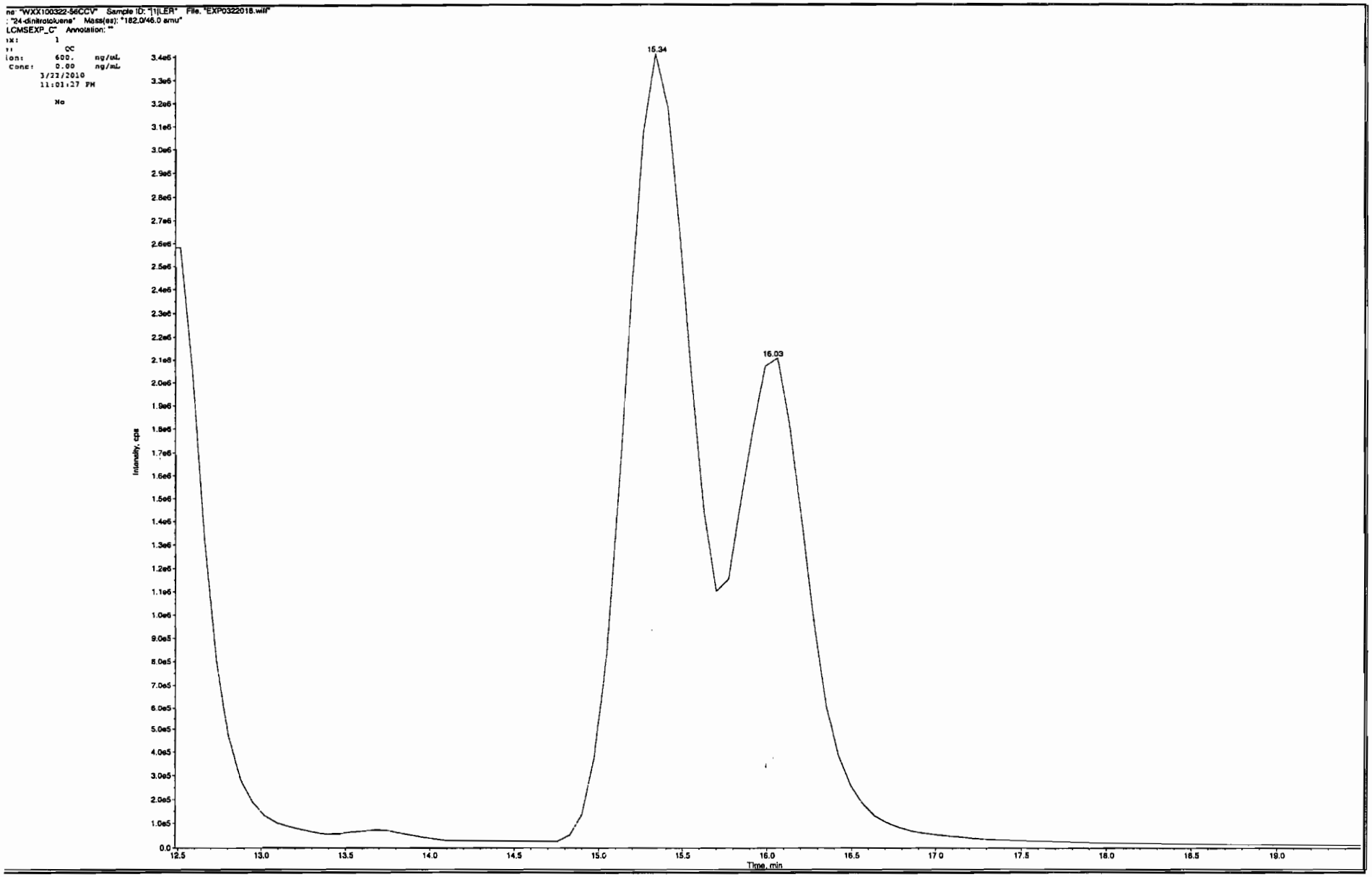

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322018.wiff	**Acquisition Date**	3/22/2010 11:01:27 PM
Sample Name	WXX100322-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

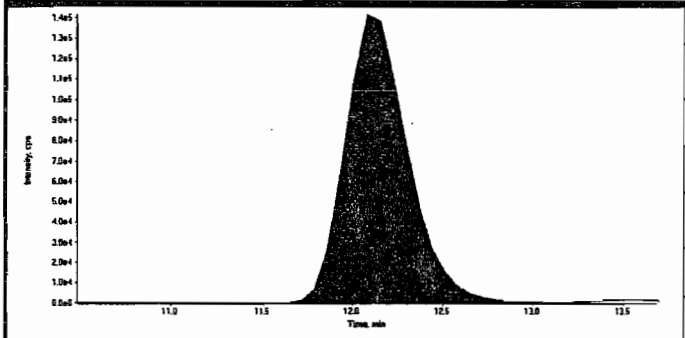

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.1
Area Counts:	3.42e+006
Manual Modification	No
Amount:	648. (ng/mL)
% Accuracy:	108.00

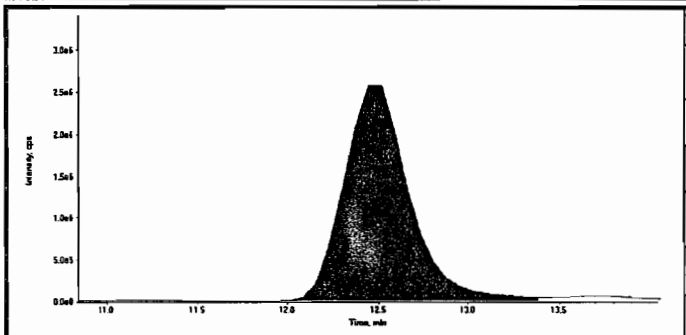

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.4
Area Counts:	6.44e+007
Manual Modification	No
Amount:	278. (ng/mL)
% Accuracy:	92.60

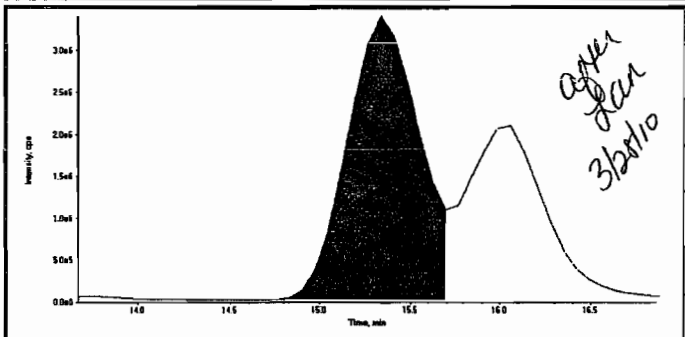

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	9.24e+007
Manual Modification	Yes
Amount:	530. (ng/mL)
% Accuracy:	88.30

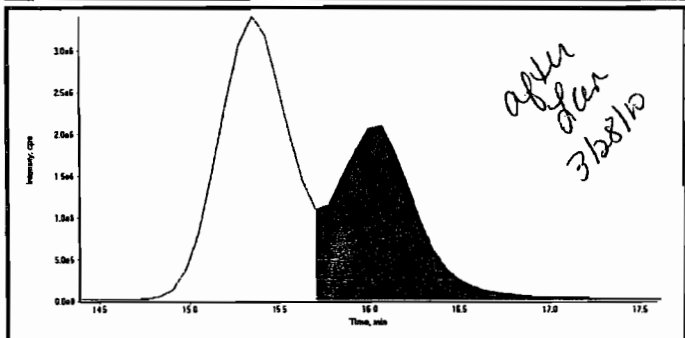

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	16.0
Area Counts:	6.58e+007
Manual Modification	Yes
Amount:	626. (ng/mL)
% Accuracy:	104.00

Before Lab 3/28/10

mple Name: "WXX100322-56CCV" Sample ID: "[1]LER" File: "EXP0322018.wiff"
ak Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index:	1	
le Type:	QC	
entration:	600.	ng/mL
ulated Conc:	2130.	ng/mL
Date:	3/22/2010	
Time:	11:01:27 PM	
fied:	No	
. Algorithm:	IntelliQuan - IQA	
Peak Height:	1000.00	cps
Peak Width:	0.00	sec
thing Width:	3	points
indow:	30.0	sec
cted RT:	14.6	min
Relative RT:	No	
Type:	Valley	
ntion Time:	14.7	min
	1.27e+007	counts
ht:	1.84e+005	cps
t Time:	14.3	min
Time:	17.9	min

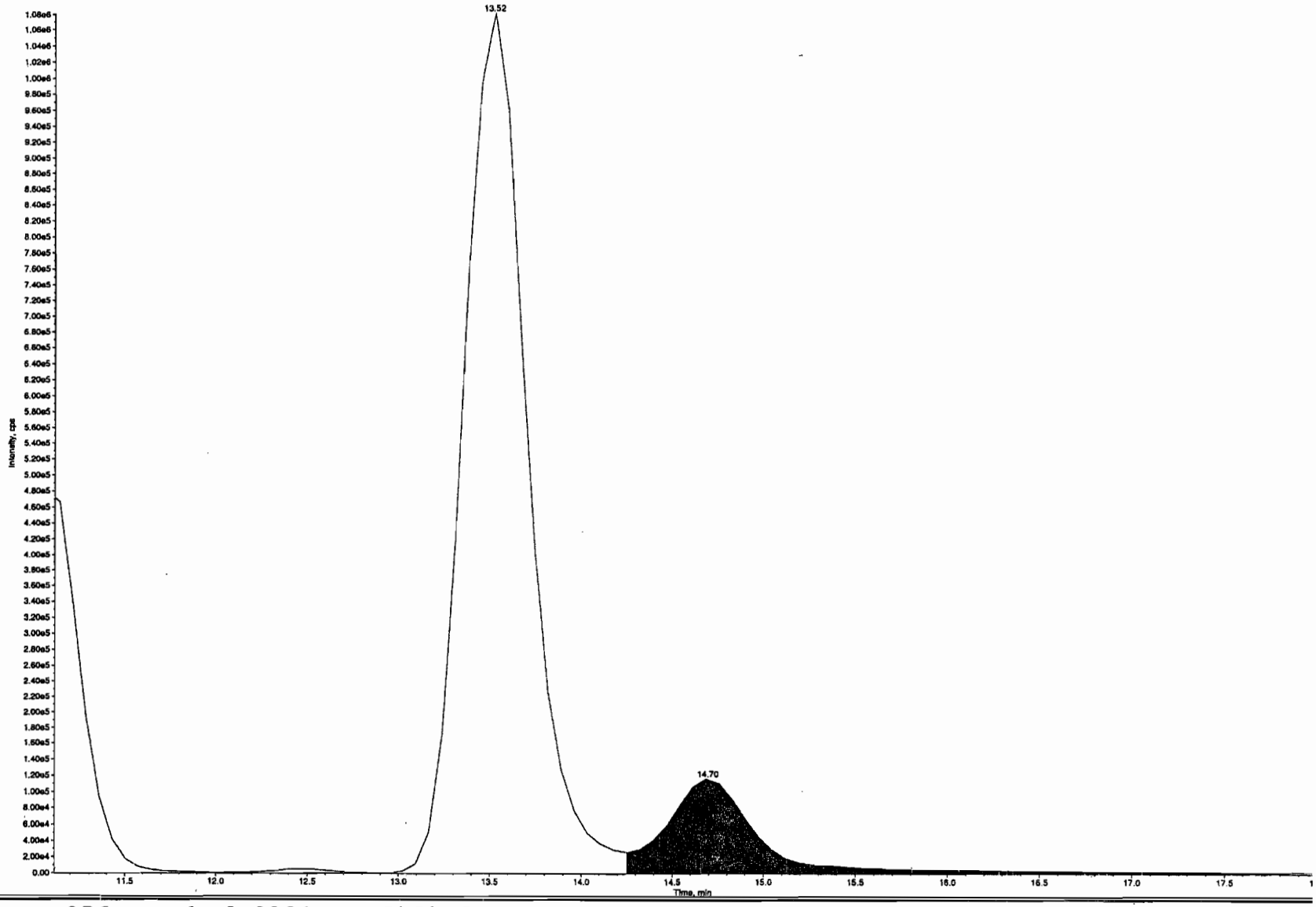

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Data File	EXP0322018.wiff	**Acquisition Date**	3/22/2010 11:01:27 PM
Sample Name	WXX100322-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

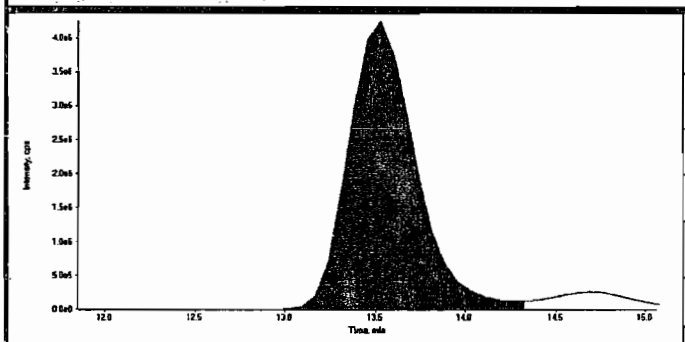

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.10e+008
Manual Modification	No
Amount:	583. (ng/mL)
% Accuracy:	97.20

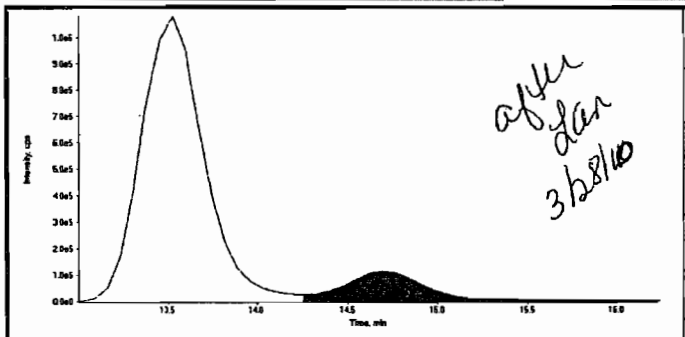

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.7
Area Counts:	3.78e+006
Manual Modification	Yes
Amount:	633. (ng/mL)
% Accuracy:	105.00

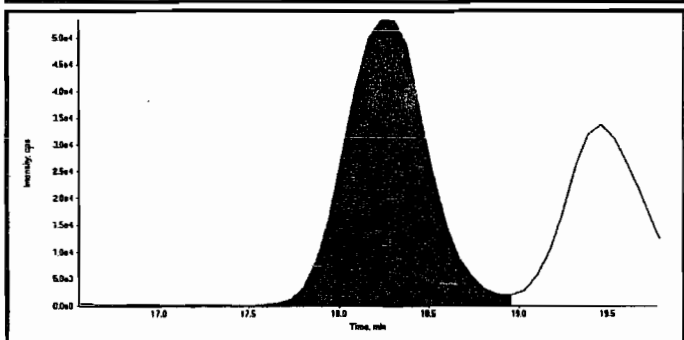

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.2
Area Counts:	1.74e+006
Manual Modification	No
Amount:	619. (ng/mL)
% Accuracy:	103.00

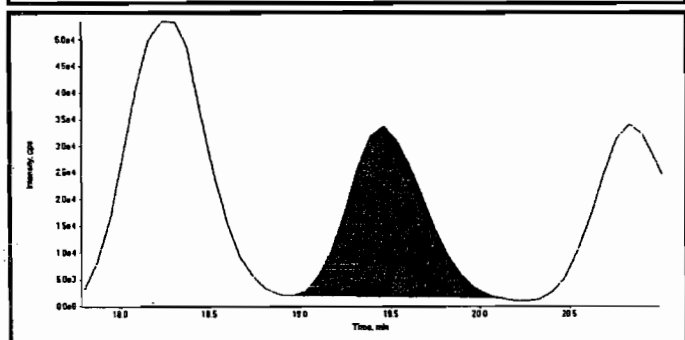

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.5
Area Counts:	9.46e+005
Manual Modification	No
Amount:	676. (ng/mL)
% Accuracy:	113.00

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Data File	EXP0322018.wiff	**Acquisition Date**	3/22/2010 11:01:27 PM
Sample Name	WXX100322-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

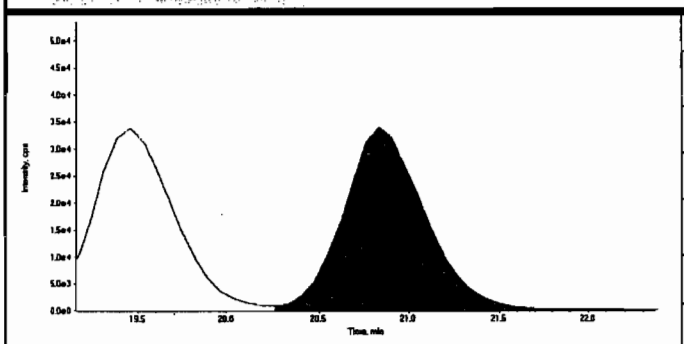

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.8
Area Counts:	1.08e+006
Manual Modification	No
Amount:	647. (ng/mL)
% Accuracy:	108.00

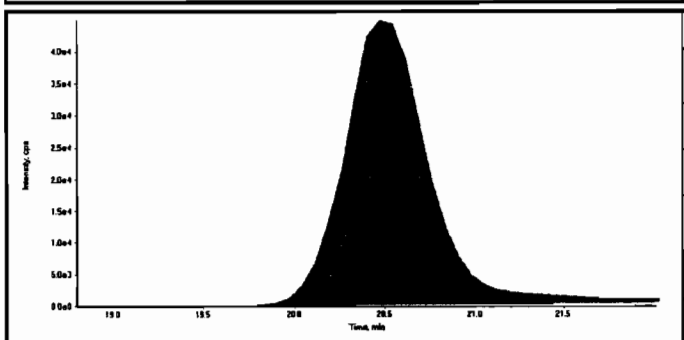

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.5
Area Counts:	1.49e+006
Manual Modification	No
Amount:	697. (ng/mL)
% Accuracy:	116.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/22/10
Time of Injection 2301
Standard Number WXX100322-56CCV
Data File EXP0322018a

HMX	97.0
RDX	103.0
135-Trinitrobenzene	95.2
13-Dinitrobenzene	99.1
Tetryl	111.0
246-Trinitrotoluene	91.7
Nitrobenzene	108.0
34-dinitrotoluene	92.6
26-dinitrotoluene	88.3
24-dinitrotoluene	104.0
4-Amino-26-dinitrotoluene	97.2
2-Amino-46-dinitrotoluene	105.0
2-Nitrotoluene	103.0
4-Nitrotoluene	113.0
3-Nitrotoluene	108.0
PETN	116.0
TOTAL	1632.1
AVERAGE	102.0

Hmc 03/28/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lcu 3/28/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2005

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0322020.wiff

Analysis Date: 22-MAR-10 23:54

LCMSMS ID: 1189

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	42.3	106	
2,4,6-Trinitrotoluene	40	33.9	85	
2,4-Dinitrotoluene	40	42.4	106	
2,6-Dinitrotoluene	40	43.5	109	
2-Amino-4,6-dinitrotoluene	40	35.7	89	
3,4-Dinitrotoluene	20	19.9	100	
4-Amino-2,6-dinitrotoluene	40	40.7	102	
HMX	40	36.7	92	
Nitrobenzene	40	40.2	100	
PETN	40	37.3	93	
RDX	40	39	97	
Tetryl	40	27.5	69	
m-Dinitrobenzene	40	42.2	106	
m-Nitrotoluene	40	36.3	91	
o-Nitrotoluene	40	35.8	90	
p-Nitrotoluene	40	38.3	96	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Data File	EXP0322020.wiff	**Acquisition Date**	3/22/2010 11:54:20 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

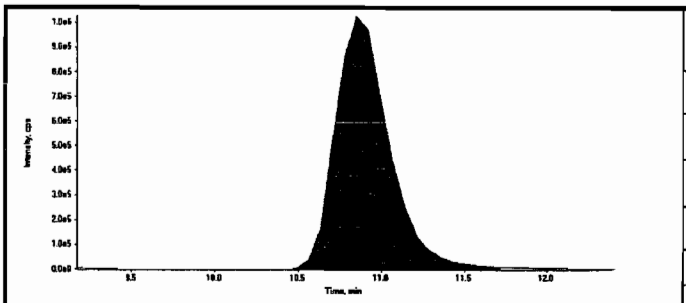

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	23000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

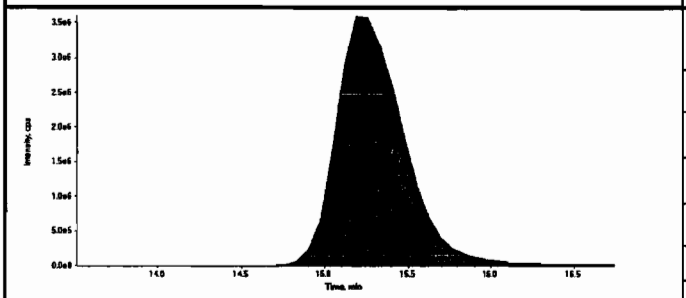

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.20
Area Counts:	102000000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

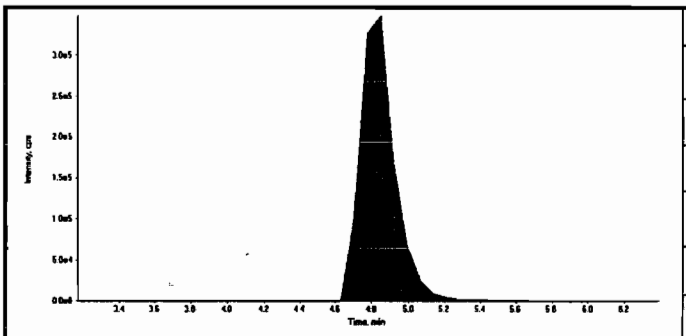

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.85
Area Counts:	4.58e+006
Manual Modification	No
Amount:	36.7 (ng/mL)
% Accuracy:	91.70

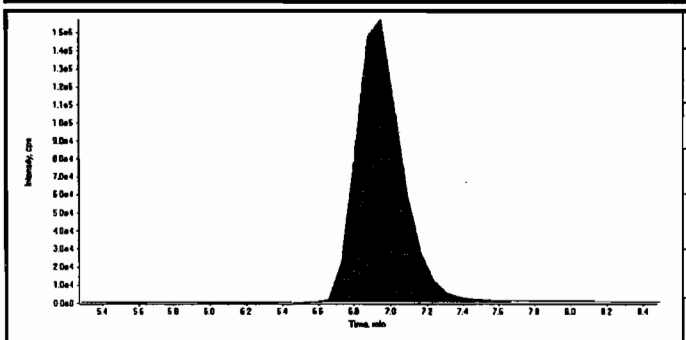

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.94
Area Counts:	2.74e+006
Manual Modification	No
Amount:	39.0 (ng/mL)
% Accuracy:	97.40

HMW 03/28/10

3/28/10

Before Lcn 3/28/10

"WXX100322-57CRI" Sample ID: "[1]LER" File: "EXP0322020.wiff"
46-Trinitrotoluene" Mass(es): "227.1/209.8 amu"
MSEXP_C" Annotation: ""

1
QC
: 40.0 ng/mL
nc: 32.6 ng/mL
3/22/2010
11:54:20 PM

No
hm: IntelliQuan - IQA
ght: 1.00e4 cps
th: 0.00 sec
th: 3 points
60.0 sec
13.5 min
RT: No

Valley
e: 13.6 min
2.32e+007 counts
9.61e+005 cps
13.0 min
14.5 min

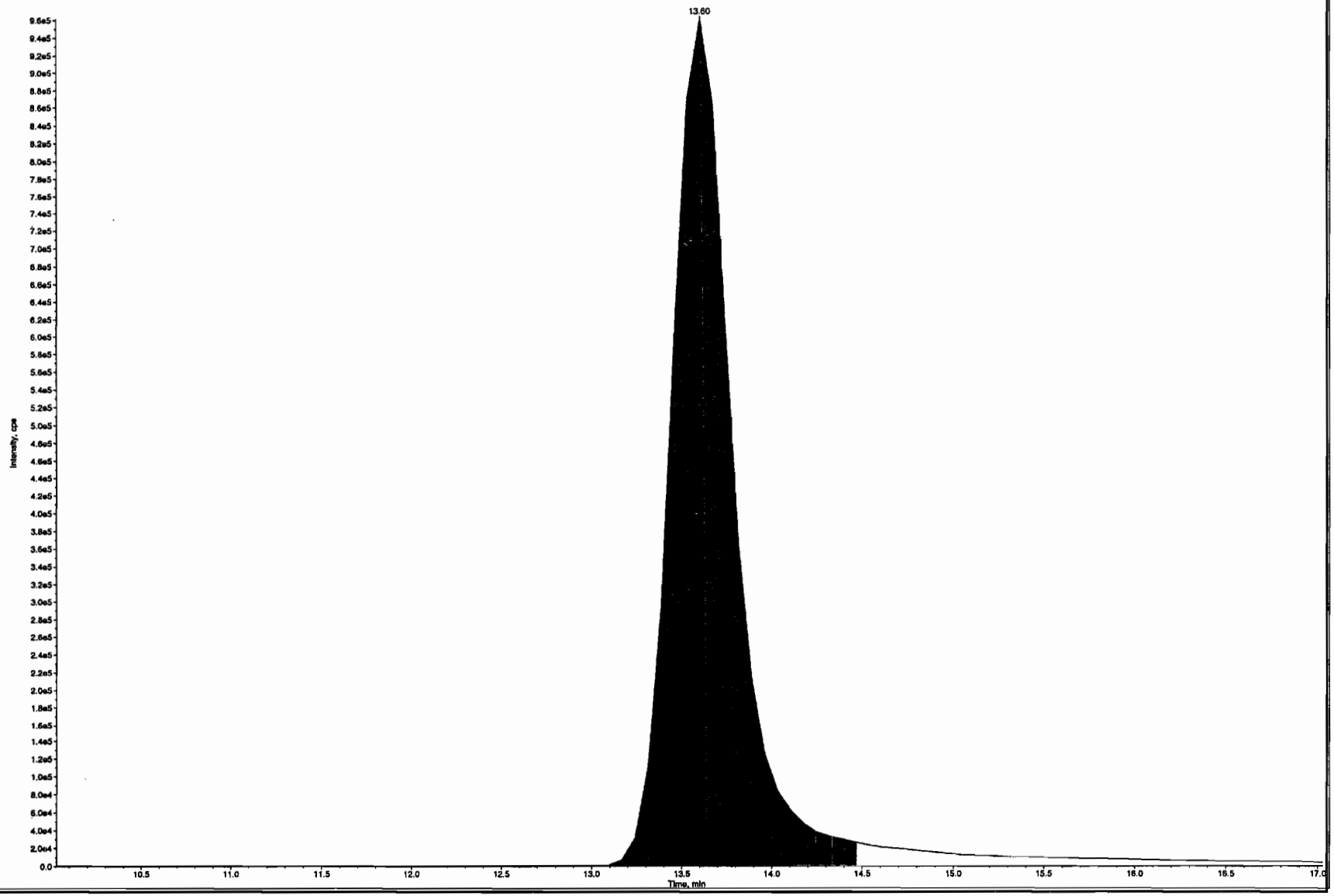

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322020.wiff	**Acquisition Date**	3/22/2010 11:54:20 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

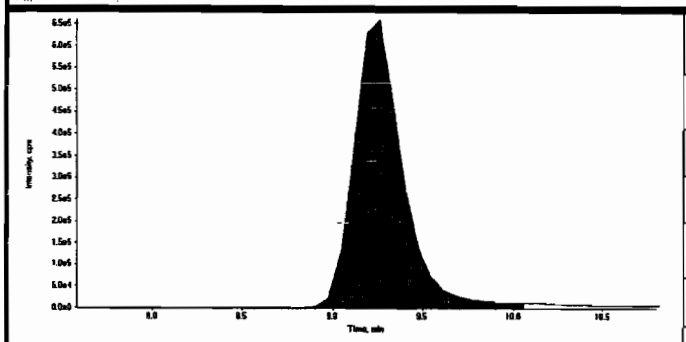

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.26
Area Counts:	1.26e+007
Manual Modification	No
Amount:	42.3 (ng/mL)
% Accuracy:	106.00

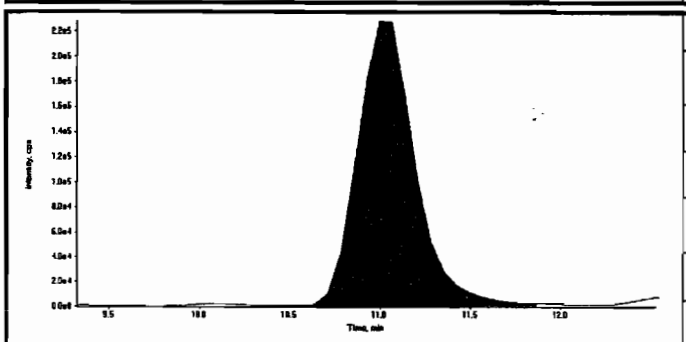

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	11.0
Area Counts:	5.17e+006
Manual Modification	No
Amount:	42.2 (ng/mL)
% Accuracy:	106.00

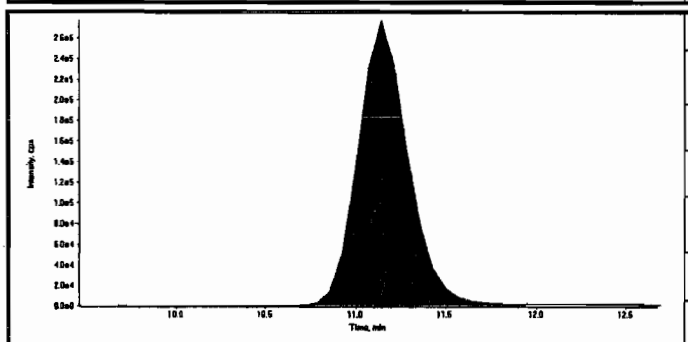

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.1
Area Counts:	5.41e+006
Manual Modification	No
Amount:	27.5 (ng/mL)
% Accuracy:	68.70

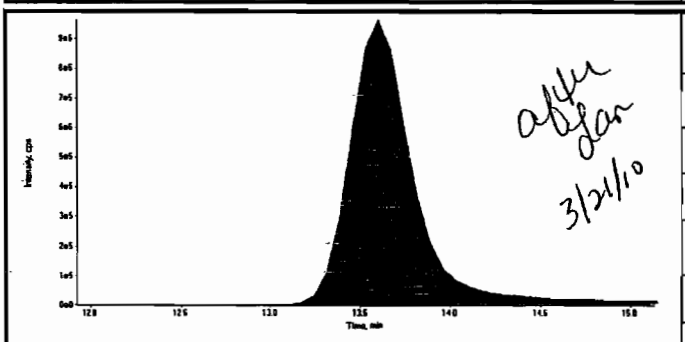

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	2.40e+007
Manual Modification	Yes
Amount:	33.9 (ng/mL)
% Accuracy:	84.80

Before Lcn 3/28/10

Name: "WXX100322-57CRI" Sample ID: "[1]LER" File: "EXP0322020.wiff"
me: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
t: "LCMSEXP_C" Annotation. ""
ndex: 1
ype: QC
ation: 40.0 ng/mL
ed Conc: 0.00 ng/mL
e: 3/22/2010
e: 11:54:20 PM

: No

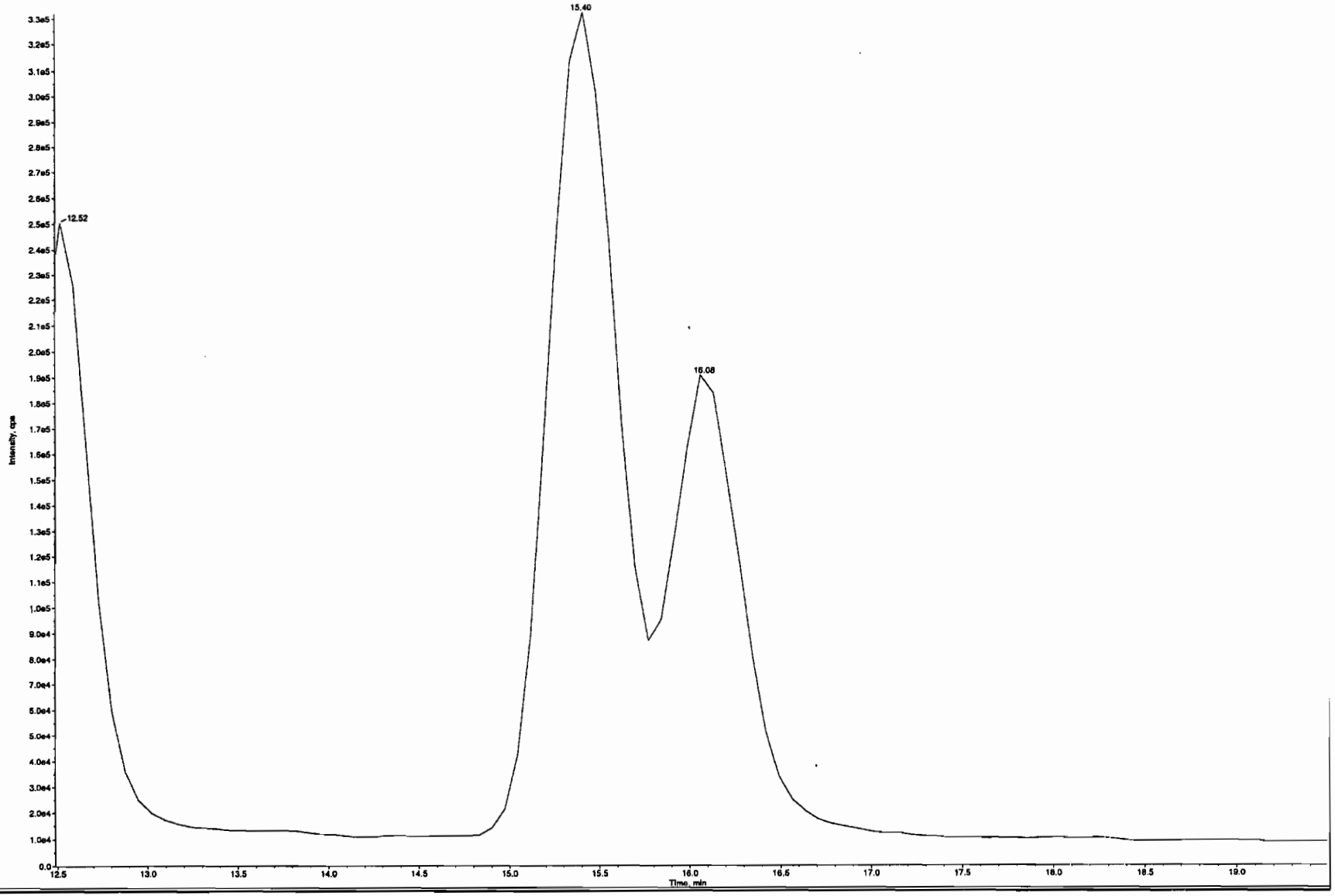

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Data File	EXP0322020.wiff	**Acquisition Date**	3/22/2010 11:54:20 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

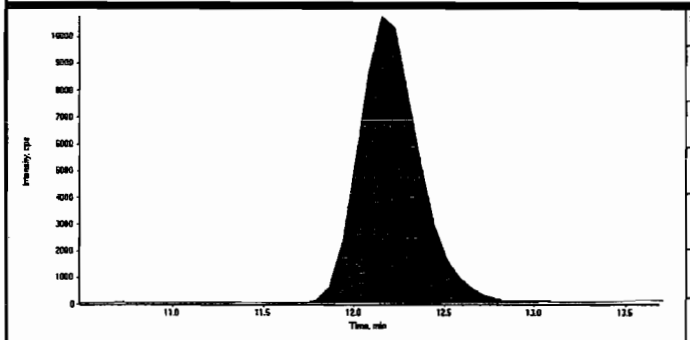

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	2.50e+005
Manual Modification	No
Amount:	40.2 (ng/mL)
% Accuracy:	100.00

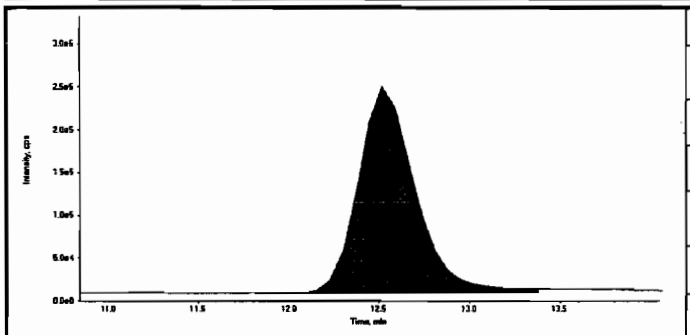

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.5
Area Counts:	5.27e+006
Manual Modification	No
Amount:	19.9 (ng/mL)
% Accuracy:	99.60

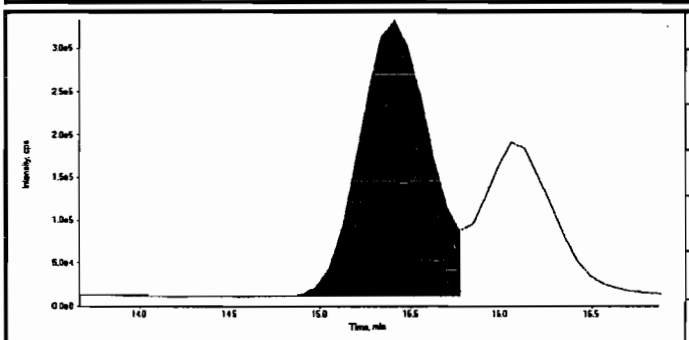

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.4
Area Counts:	8.66e+006
Manual Modification	No
Amount:	43.5 (ng/mL)
% Accuracy:	109.00

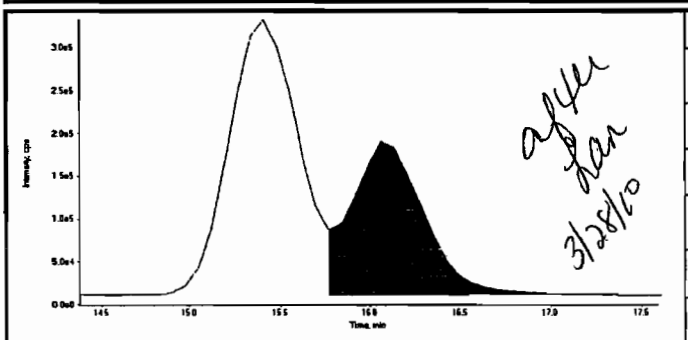

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	16.1
Area Counts:	5.07e+006
Manual Modification	Yes
Amount:	42.4 (ng/mL)
% Accuracy:	106.00

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Data File	EXP0322020.wiff	**Acquisition Date**	3/22/2010 11:54:20 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

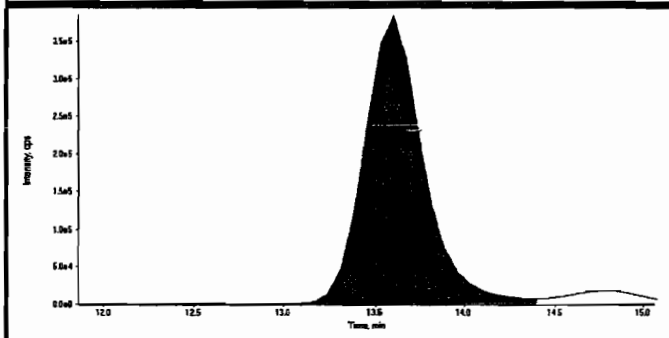

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	8.80e+006
Manual Modification	No
Amount:	40.7 (ng/mL)
% Accuracy:	102.00

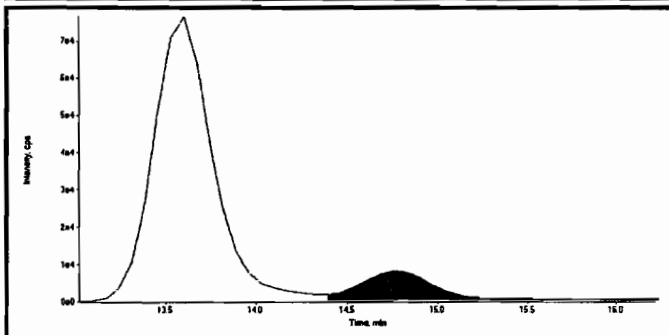

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.8
Area Counts:	2.44e+005
Manual Modification	No
Amount:	35.7 (ng/mL)
% Accuracy:	89.30

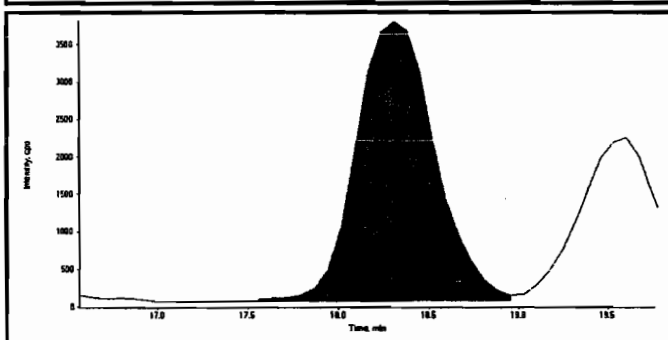

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.3
Area Counts:	1.15e+005
Manual Modification	No
Amount:	35.8 (ng/mL)
% Accuracy:	89.50

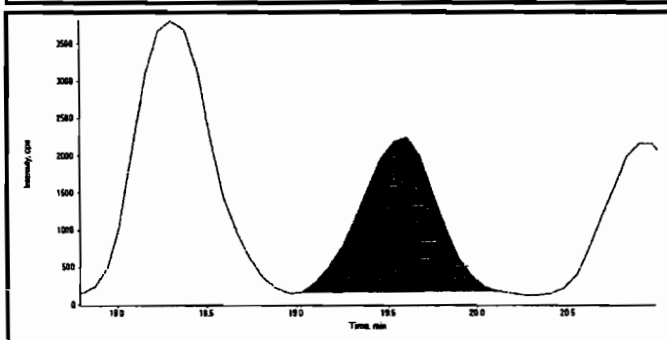

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.6
Area Counts:	6.12e+004
Manual Modification	No
Amount:	38.3 (ng/mL)
% Accuracy:	95.80

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Data File	EXP0322020.wiff	**Acquisition Date**	3/22/2010 11:54:20 PM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

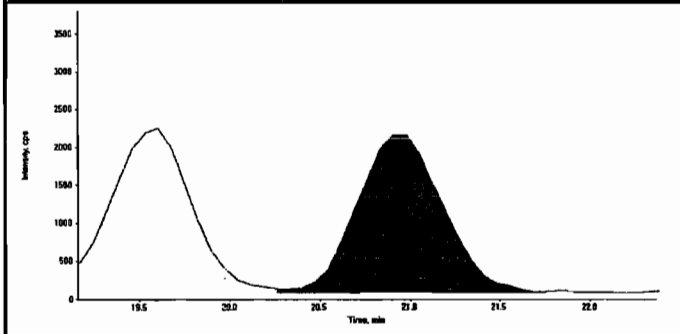

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	21.0
Area Counts:	6.89e+004
Manual Modification	No
Amount:	36.3 (ng/mL)
% Accuracy:	90.70

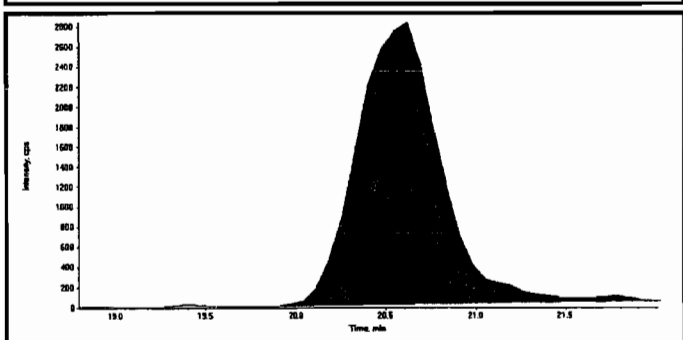

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.6
Area Counts:	9.12e+004
Manual Modification	No
Amount:	37.3 (ng/mL)
% Accuracy:	93.40

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/22/10
Time of Injection 2354
Standard Number WXX100322-57CRI
Data File EXP0322020a

HMX	91.7
RDX	97.4
135-Trinitrobenzene	106.0
13-Dinitrobenzene	106.0
Tetryl	68.7
246-Trinitrotoluene	84.8
Nitrobenzene	100.0
34-dinitrotoluene	99.6
26-dinitrotoluene	109.0
24-dinitrotoluene	106.0
4-Amino-26-dinitrotoluene	102.0
2-Amino-46-dinitrotoluene	89.3
2-Nitrotoluene	89.5
4-Nitrotoluene	95.8
3-Nitrotoluene	90.7
PETN	93.4
TOTAL	1529.9
AVERAGE	95.6

HMW 03/28/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

LCW 3/28/10

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2005

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0322030.wiff

Analysis Date: 23–MAR–10 04:18

LCMSMS ID: 1189

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	569	95	
2,4,6–Trinitrotoluene	600	595	99	
2,4–Dinitrotoluene	600	606	101	
2,6–Dinitrotoluene	600	522	87	
2–Amino–4,6–dinitrotoluene	600	601	100	
3,4–Dinitrotoluene	300	273	91	
4–Amino–2,6–dinitrotoluene	600	594	99	
HMX	600	636	106	
Nitrobenzene	600	630	105	
PETN	600	673	112	
RDX	600	665	111	
Tetryl	600	635	106	
m–Dinitrobenzene	600	595	99	
m–Nitrotoluene	600	586	98	
o–Nitrotoluene	600	593	99	
p–Nitrotoluene	600	603	101	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322030.wiff	**Acquisition Date**	3/23/2010 4:18:30 AM
Sample Name	WXX100322-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

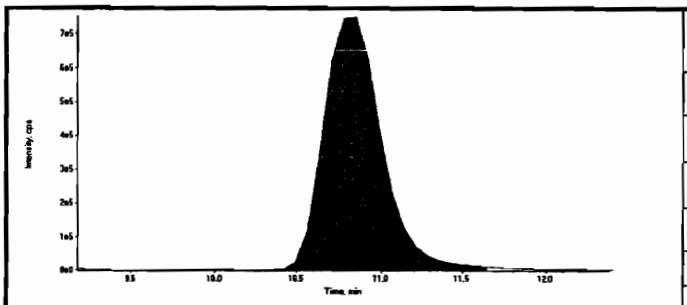

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	18300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

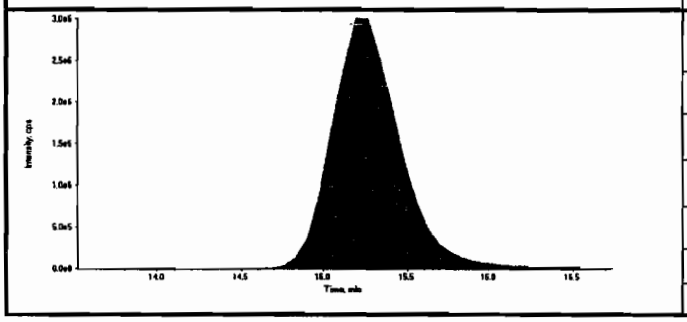

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.20
Area Counts:	85800000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

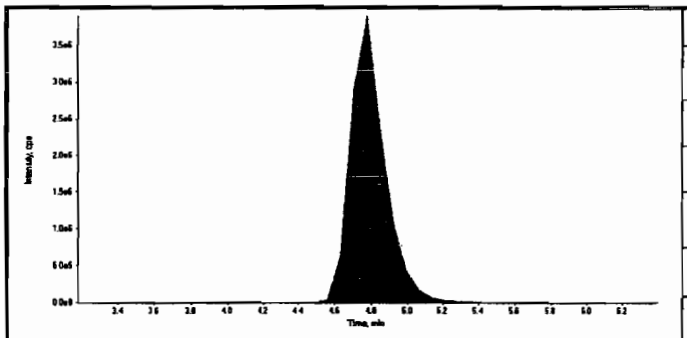

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	5.05e+007
Manual Modification	No
Amount:	636. (ng/mL)
% Accuracy:	106.00

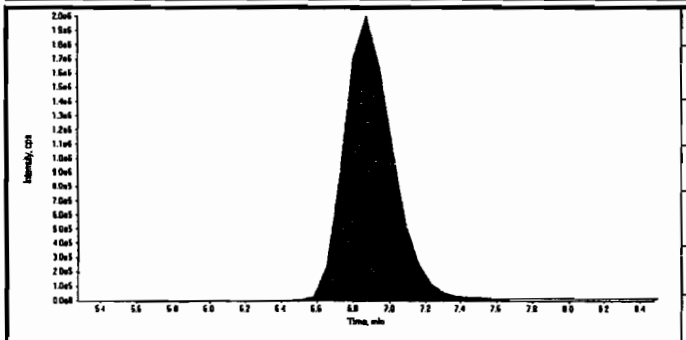

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.87
Area Counts:	3.73e+007
Manual Modification	No
Amount:	665. (ng/mL)
% Accuracy:	111.00

dmw 03/26/10

LCW 3/28/10

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Data File	EXP0322030.wiff	**Acquisition Date**	3/23/2010 4:18:30 AM
Sample Name	WXX100322-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

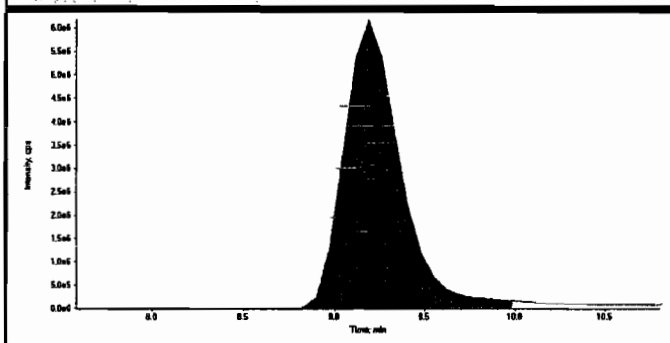

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.19
Area Counts:	1.35e+008
Manual Modification	No
Amount:	569. (ng/mL)
% Accuracy:	94.80

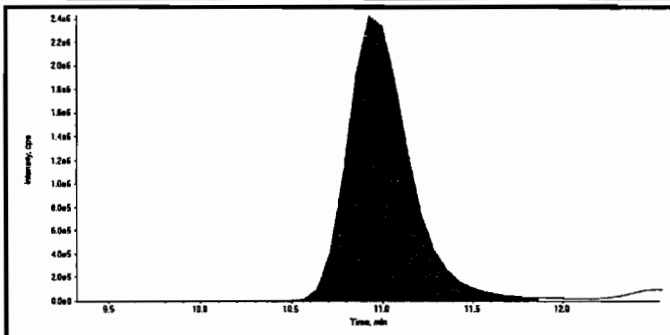

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	10.9
Area Counts:	5.80e+007
Manual Modification	No
Amount:	595. (ng/mL)
% Accuracy:	99.20

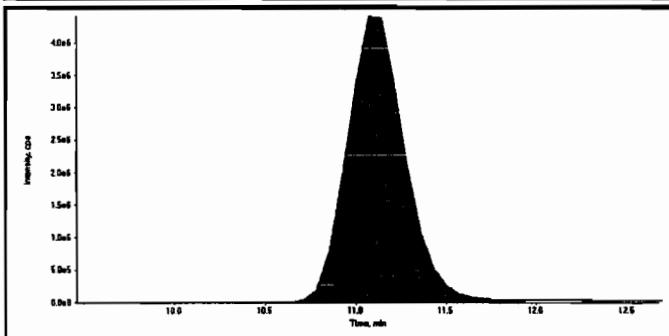

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.1
Area Counts:	9.93e+007
Manual Modification	No
Amount:	635. (ng/mL)
% Accuracy:	106.00

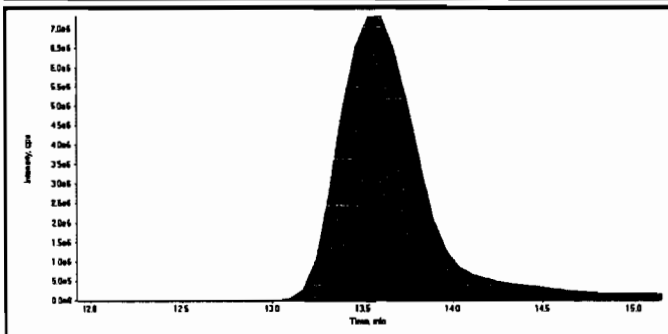

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	2.48e+008
Manual Modification	No
Amount:	595. (ng/mL)
% Accuracy:	99.20

Before Lab 3/28/10

"WXX100322-56CCV" Sample ID. "[1]LER" File: "EXP0322030.wiff"
:6-dinitrotoluene" Mass(es): "182.0/46.0 amu"
MSEXP_C' Annotation: ""
: 1
QC
:: 600. ng/mL
:nc: 352. ng/mL
3/23/2010
4:18:30 AM

No
:hm: IntelliQuan - IOA
ight: 1.00e4 cps
:th: 0.00 sec
:th: 3 points
30.0 sec
15.3 min
RT: No

Valley
ue: 15.3 min
5.87e+007 counts
2.36e+006 cps
15.0 min
15.8 min

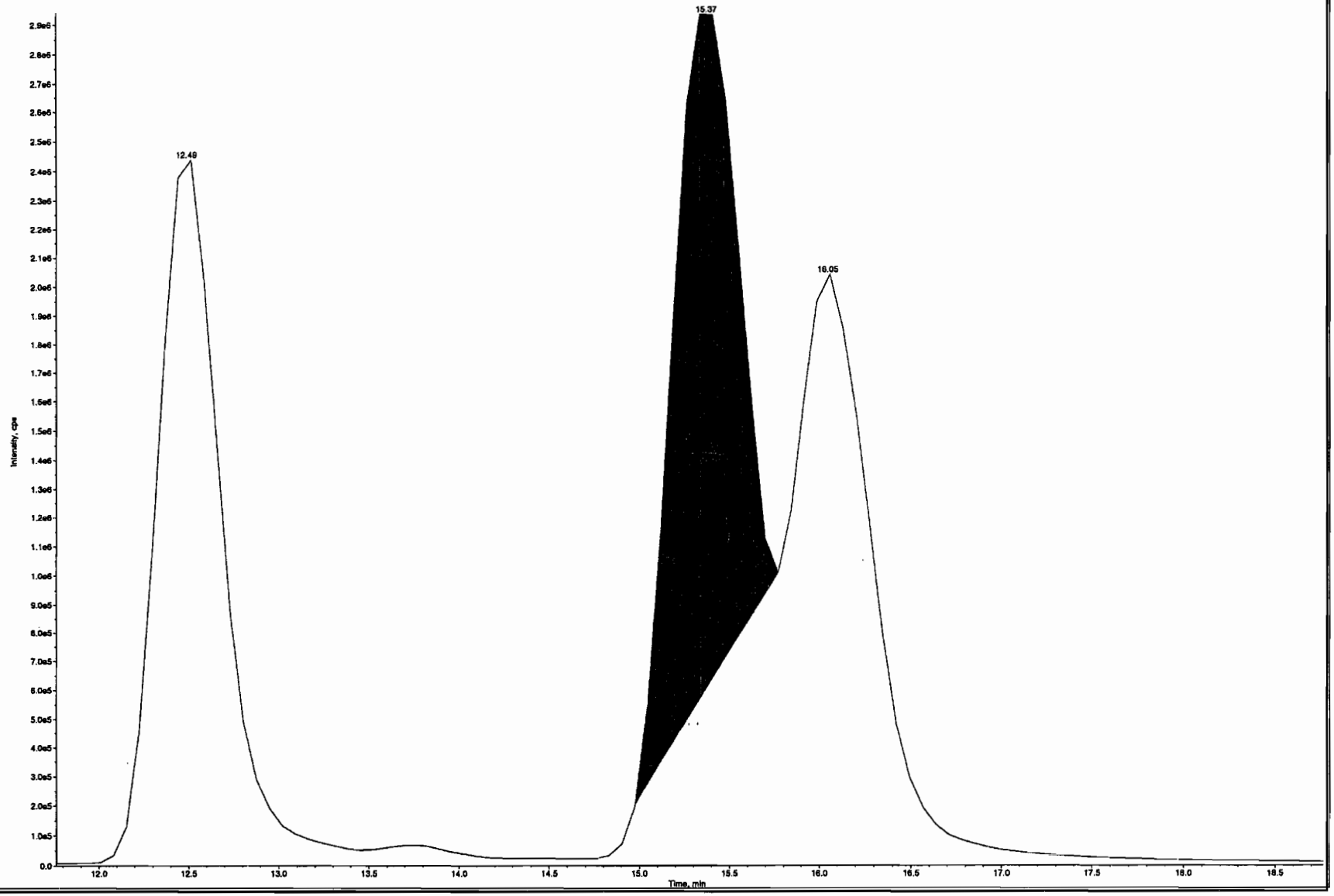

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Before Lcn 3/28/10

nple Name: "WXX100322-56CCV" Sample ID: "11[LER" File: "EXI*0322030.wiff"
k Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 600. ng/mL
lated Conc: 0.00 ng/mL
Date: 3/23/2010
Time: 4:18:30 AM

led: No

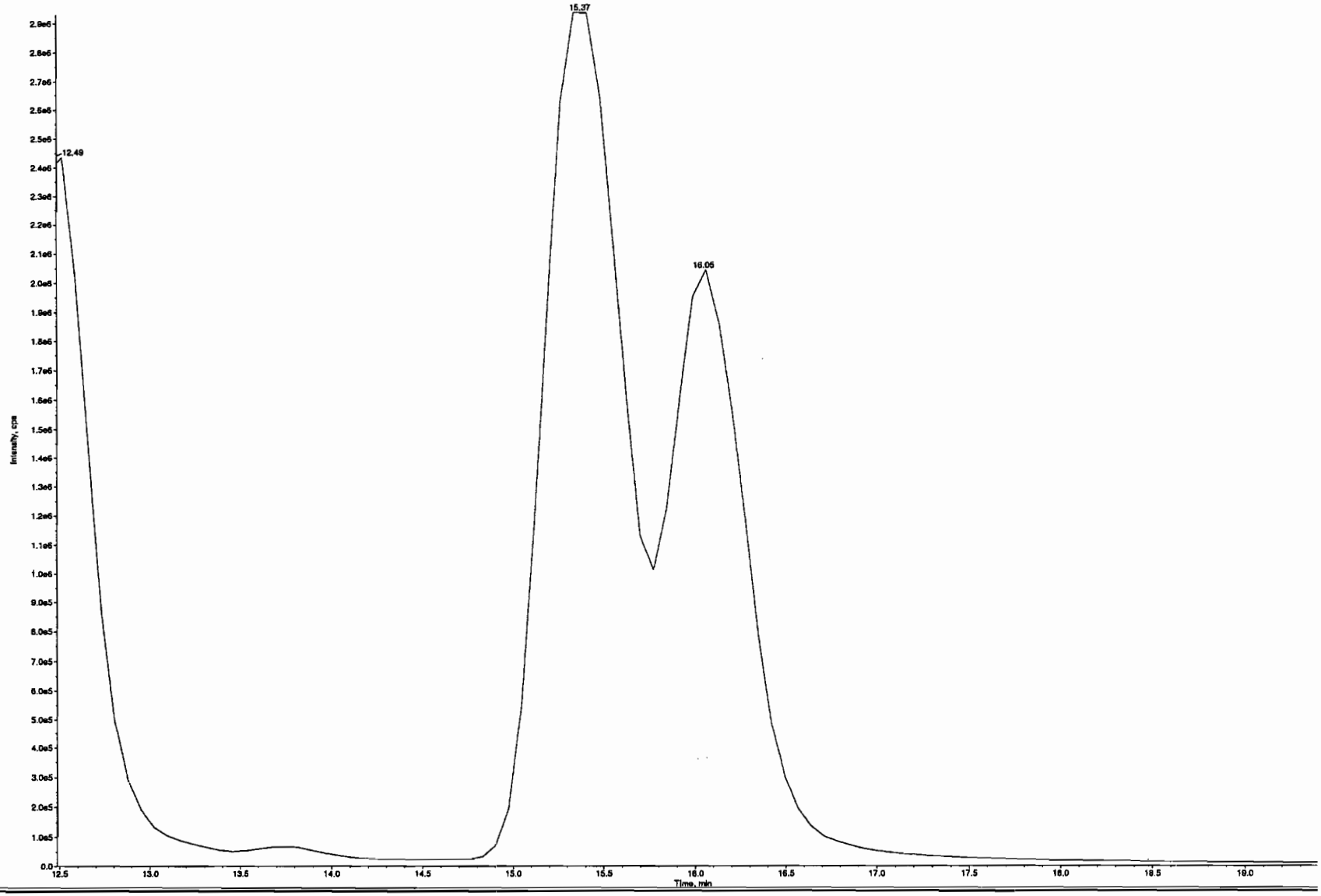

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322030.wiff	**Acquisition Date**	3/23/2010 4:18:30 AM
Sample Name	WXX100322-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

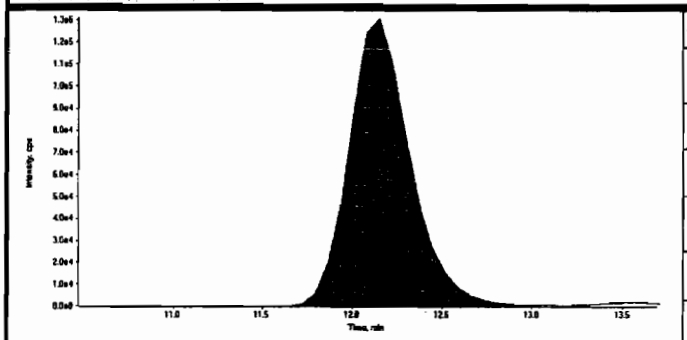

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	3.12e+006
Manual Modification	No
Amount:	630. (ng/mL)
% Accuracy:	105.00

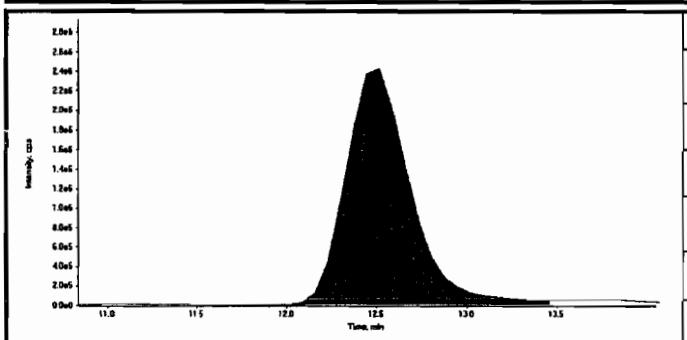

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.5
Area Counts:	6.07e+007
Manual Modification	No
Amount:	273. (ng/mL)
% Accuracy:	91.10

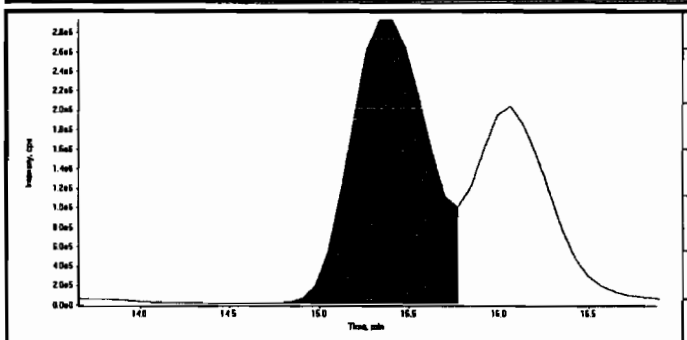

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.4
Area Counts:	8.72e+007
Manual Modification	Yes
Amount:	522. (ng/mL)
% Accuracy:	87.10

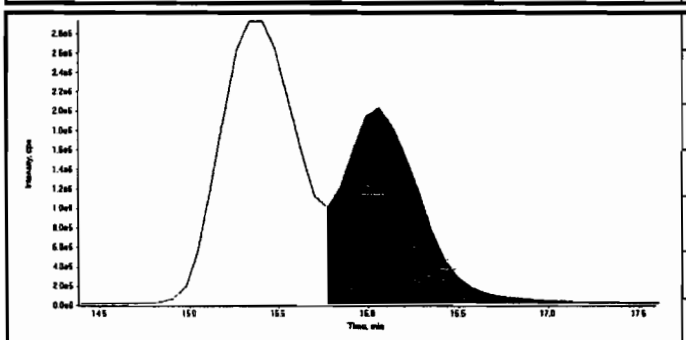

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	16.0
Area Counts:	6.08e+007
Manual Modification	Yes
Amount:	606. (ng/mL)
% Accuracy:	101.00

Before Lab 3/28/10

lame: "WXX100322-56CCV" Sample ID: "1|1|LER" File: "EXP032203.wiff"
me: "2-Amino-4&-dinitrotoluene" Mass(es): "197.0/180.0 amu"
t "LCMSEXP_C" Annotation: ""
dex: 1
pe: QC
tion: 600. ng/mL
d Conc: 2360. ng/mL
: 3/23/2010
: 4:18:30 AM

No
orithm: IntelliQuan - IQA
Height:1000.00 cps
Width: 0.00 sec
Width: 3 points
: 30.0 sec
RT: 14.6 min
ive RT: No

: Valley
Time: 14.8 min
1.35e+007 counts
1.73e+005 cps
e: 14.3 min
10.2 min

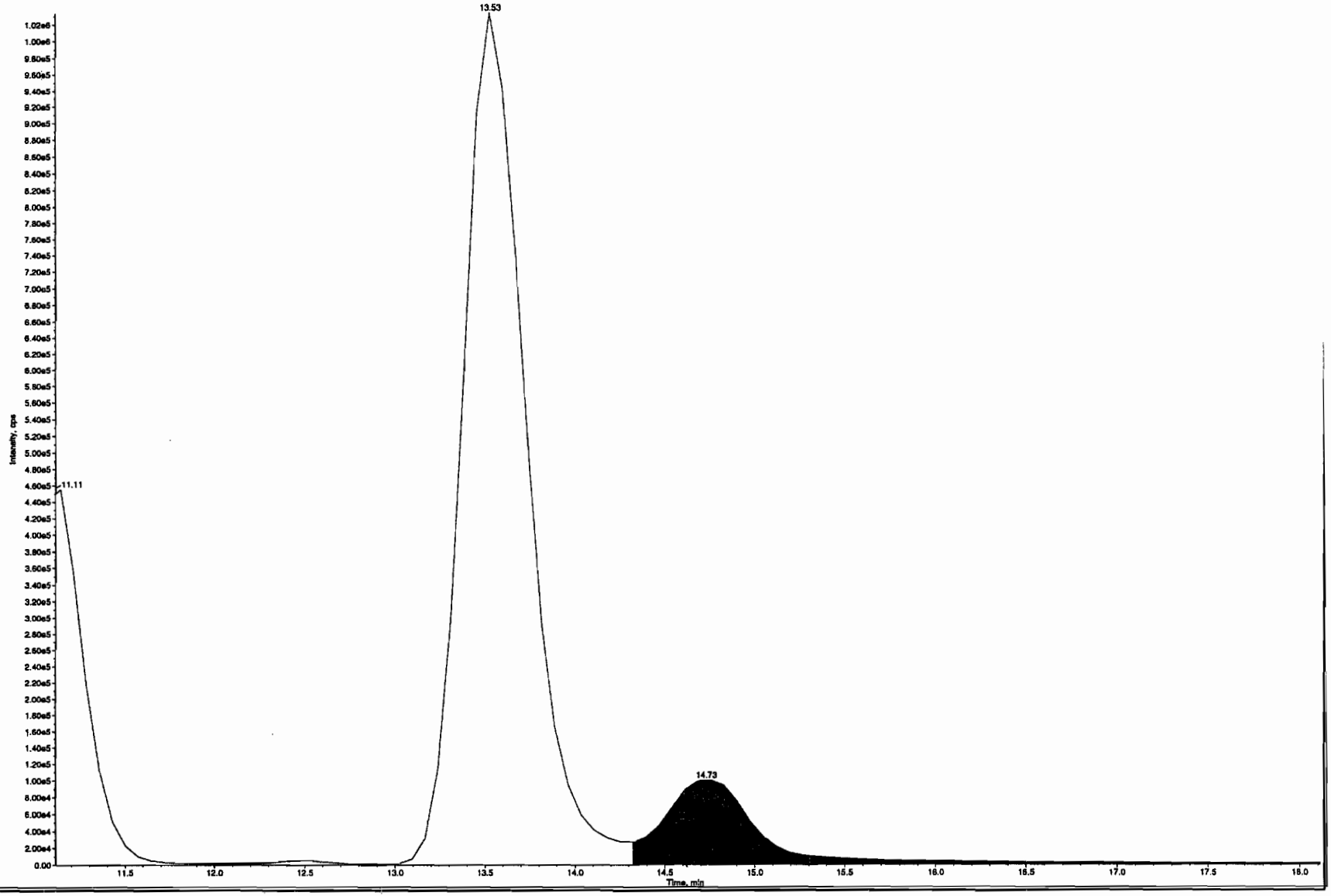

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322030.wiff	**Acquisition Date**	3/23/2010 4:18:30 AM
Sample Name	WXX100322-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

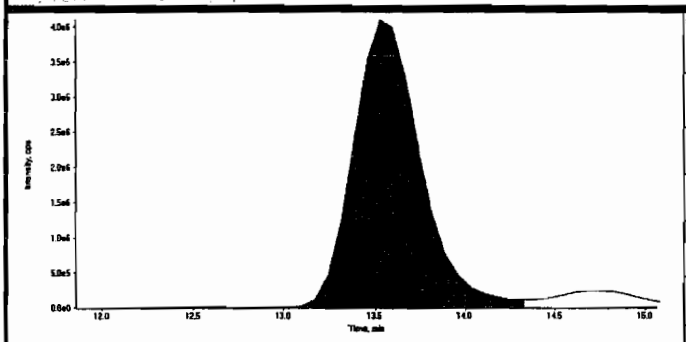

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.5
Area Counts:	1.08e+008
Manual Modification	No
Amount:	594. (ng/mL)
% Accuracy:	99.00

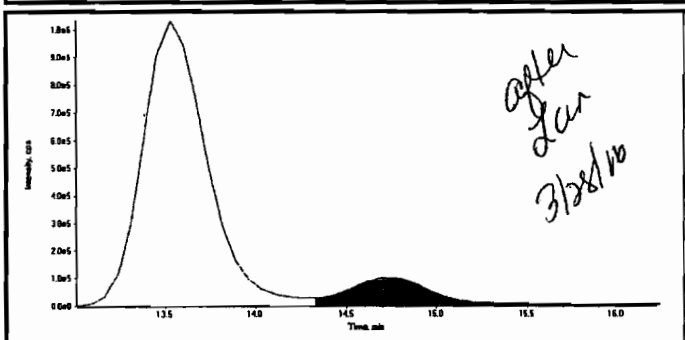

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.7
Area Counts:	3.43e+006
Manual Modification	Yes
Amount:	601. (ng/mL)
% Accuracy:	100.00

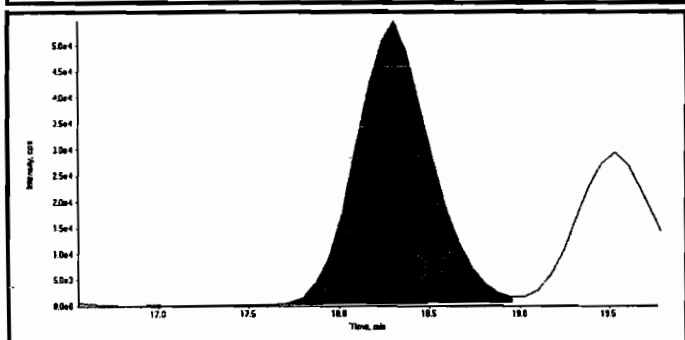

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.3
Area Counts:	1.59e+006
Manual Modification	No
Amount:	593. (ng/mL)
% Accuracy:	98.90

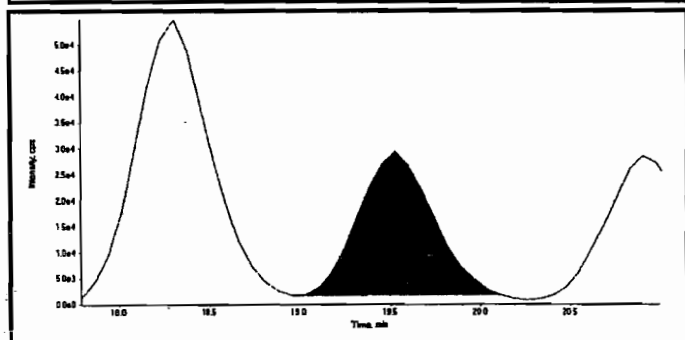

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.5
Area Counts:	8.08e+005
Manual Modification	No
Amount:	603. (ng/mL)
% Accuracy:	101.00

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Data File	EXP0322030.wiff	**Acquisition Date**	3/23/2010 4:18:30 AM
Sample Name	WXX100322-56CCV	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

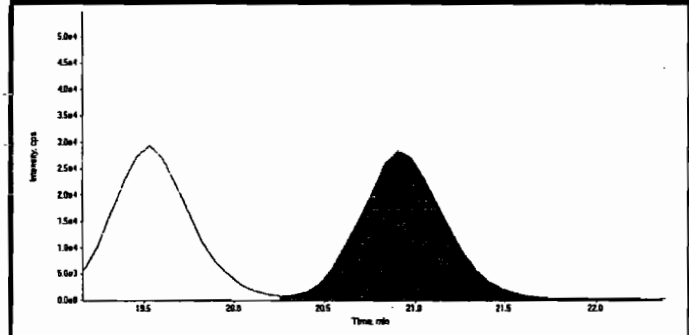

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	20.9
Area Counts:	9.34e+005
Manual Modification	No
Amount:	586. (ng/mL)
% Accuracy:	97.70

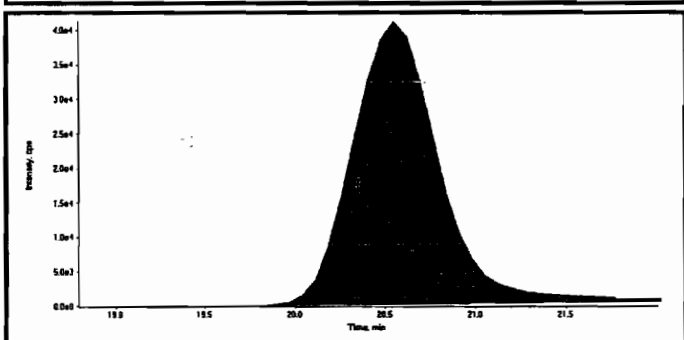

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.5
Area Counts:	1.38e+006
Manual Modification	No
Amount:	673. (ng/mL)
% Accuracy:	112.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/23/10
Time of Injection 0418
Standard Number WXX100322-56CCV
Data File EXP0322030a

HMX	106.0
RDX	111.0
135-Trinitrobenzene	94.8
13-Dinitrobenzene	99.2
Tetryl	106.0
246-Trinitrotoluene	99.2
Nitrobenzene	105.0
34-dinitrotoluene	91.1
26-dinitrotoluene	87.1
24-dinitrotoluene	101.0
4-Amino-26-dinitrotoluene	99.0
2-Amino-46-dinitrotoluene	100.0
2-Nitrotoluene	98.9
4-Nitrotoluene	101.0
3-Nitrotoluene	97.7
PETN	112.0
TOTAL	1609.0
AVERAGE	100.6

Hmm 03/28/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Lcn 3/28/10

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2005

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0322032.wiff

Analysis Date: 23–MAR–10 05:11

LCMSMS ID: 1189

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	44.9	112	
2,4,6–Trinitrotoluene	40	37	93	
2,4–Dinitrotoluene	40	42.9	107	
2,6–Dinitrotoluene	40	46.6	116	
2–Amino–4,6–dinitrotoluene	40	37.6	94	
3,4–Dinitrotoluene	20	19.9	99	
4–Amino–2,6–dinitrotoluene	40	44.2	110	
HMX	40	46.2	116	
Nitrobenzene	40	42.5	106	
PETN	40	44.7	112	
RDX	40	43.9	110	
Tetryl	40	25.4	64	
m–Dinitrobenzene	40	42.8	107	
m–Nitrotoluene	40	44.2	111	
o–Nitrotoluene	40	41	102	
p–Nitrotoluene	40	41.3	103	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322032.wiff	**Acquisition Date**	3/23/2010 5:11:16 AM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

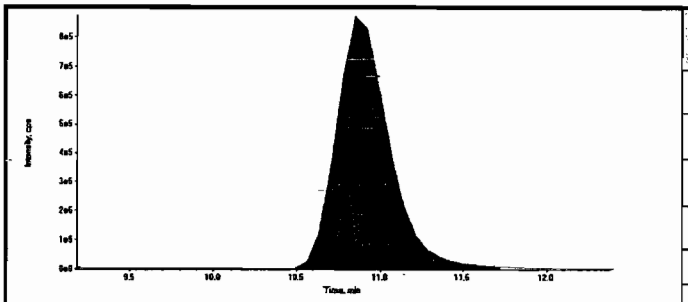

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	19000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

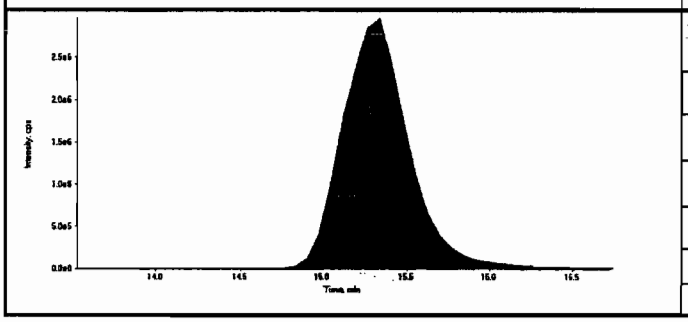

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.30
Area Counts:	82000000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

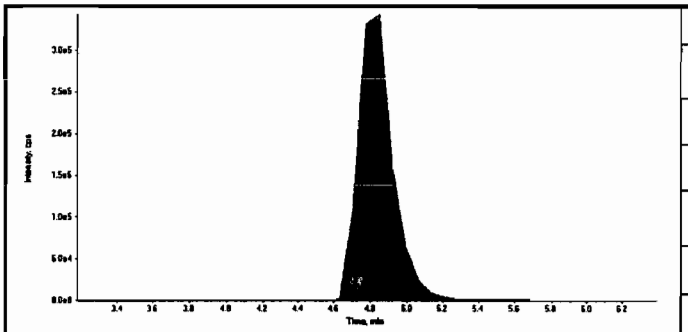

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.85
Area Counts:	4.56e+006
Manual Modification	No
Amount:	46.2 (ng/mL)
% Accuracy:	116.00

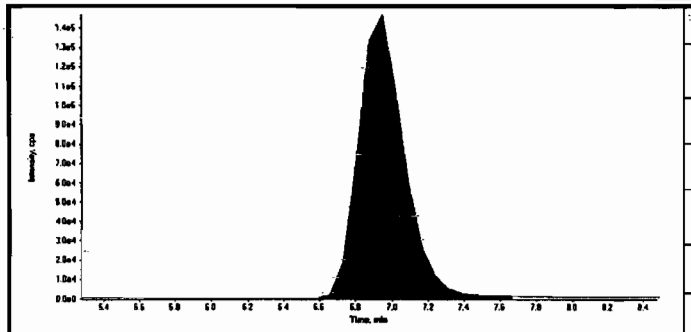

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.94
Area Counts:	2.56e+006
Manual Modification	No
Amount:	43.9 (ng/mL)
% Accuracy:	110.00

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Data File	EXP0322032.wiff	**Acquisition Date**	3/23/2010 5:11:16 AM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

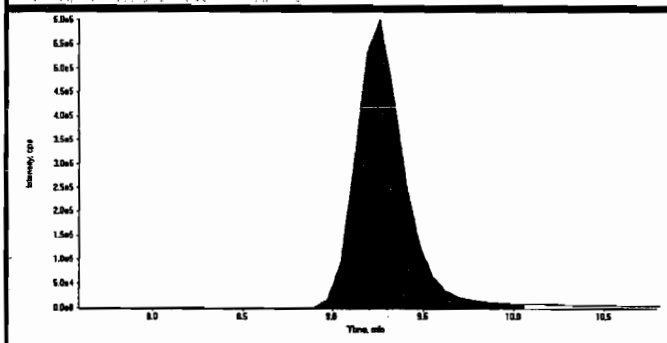

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.26
Area Counts:	1.11e+007
Manual Modification	No
Amount:	44.9 (ng/mL)
% Accuracy:	112.00

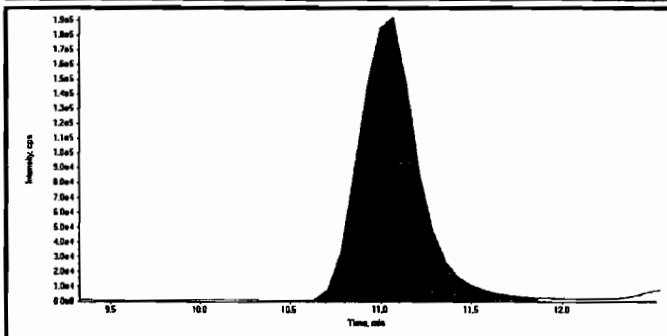

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	11.1
Area Counts:	4.33e+006
Manual Modification	No
Amount:	42.8 (ng/mL)
% Accuracy:	107.00

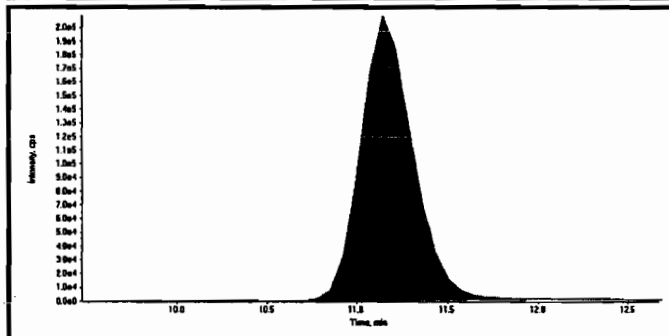

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.1
Area Counts:	4.13e+006
Manual Modification	No
Amount:	25.4 (ng/mL)
% Accuracy:	63.50

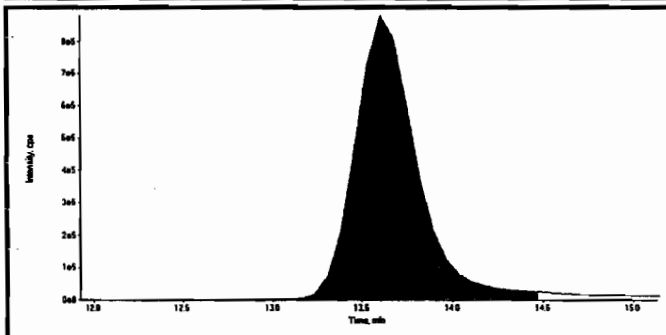

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	2.08e+007
Manual Modification	No
Amount:	37.0 (ng/mL)
% Accuracy:	92.50

Before Lax 3/28/10

Sample Name: "WXX100322-57CRI" Sample ID: "[1]LER" File: "EXP0322032.wiff"
Peak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 40.0 ng/mL
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/23/2010
Acq. Time: 5:11:16 AM

Modified: No

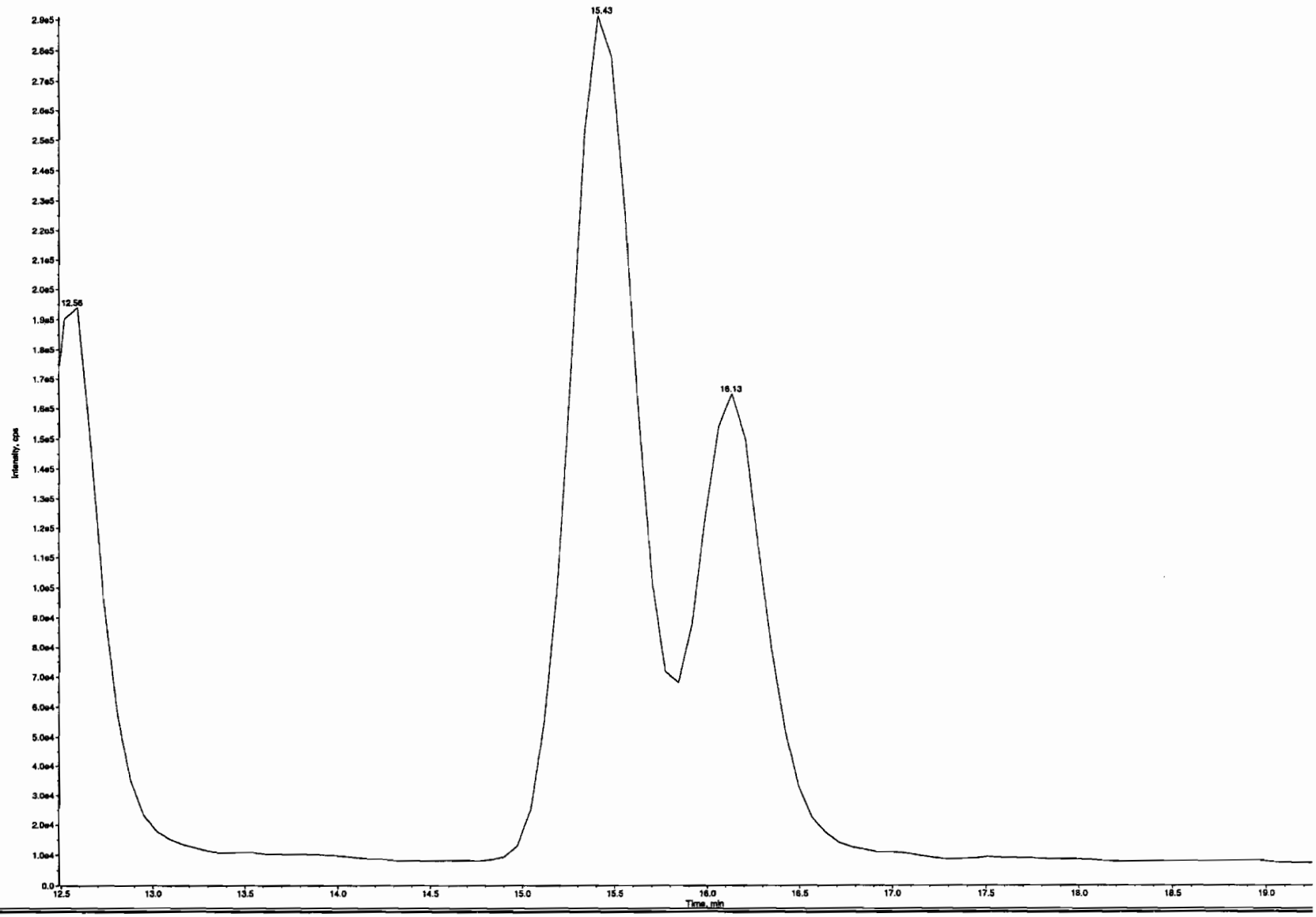

GEL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322032.wiff	**Acquisition Date**	3/23/2010 5:11:16 AM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

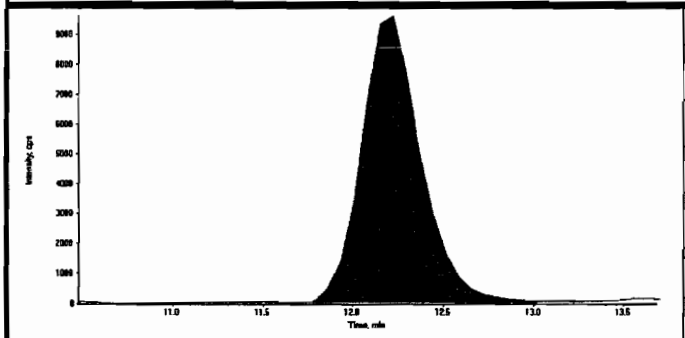

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	2.19e+005
Manual Modification	No
Amount:	42.5 (ng/mL)
% Accuracy:	106.00

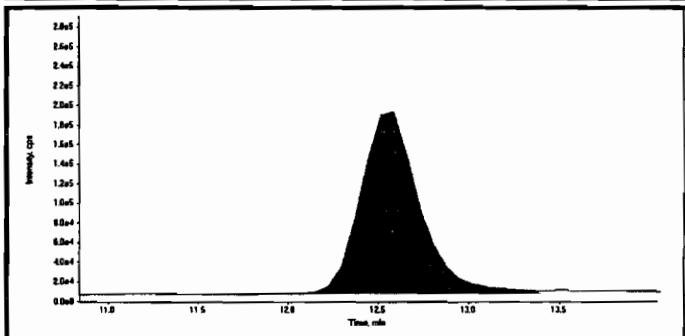

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.6
Area Counts:	4.21e+006
Manual Modification	No
Amount:	19.9 (ng/mL)
% Accuracy:	99.40

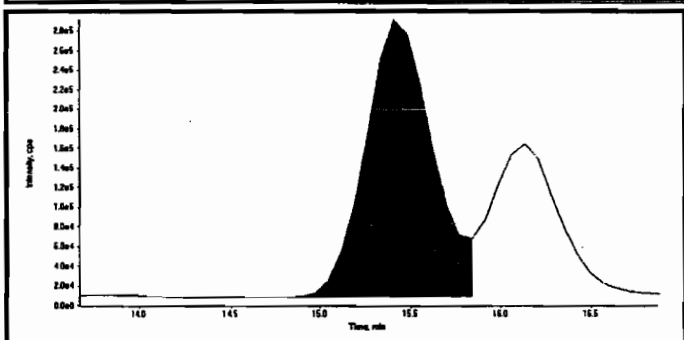

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.4
Area Counts:	7.43e+006
Manual Modification	No
Amount:	46.6 (ng/mL)
% Accuracy:	116.00

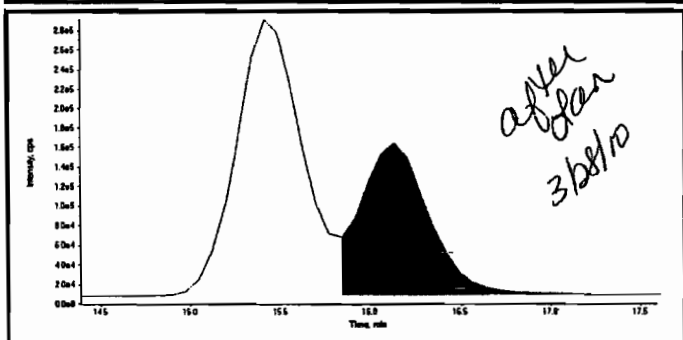

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	16.1
Area Counts:	4.11e+006
Manual Modification	Yes
Amount:	42.9 (ng/mL)
% Accuracy:	107.00

Before Lua 3/28/10

ple Name: "WXX100322-57CRI" Sample ID: "[1]LER" File: "EXP0322032.wiff"
. Name: "2-/vmino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
ment: "LCMSEXP_C" Annotation: ""

Index:	1	
Type:	QC	
ntration:	40.0	ng/mL
ated Conc:	34.3	ng/mL
ate:	3/23/2010	
ime:	5:11:16 AM	
ed:	No	
Algorithm:	IntelliQuan - IQA	
eak Height:	1000.00	cps
eak Width:	0.00	sec
ing Width:	3	points
dow:	30.0	sec
ed RT:	14.6	min
lative RT:	No	
ype:	Valley	
ion Time:	14.8	min
	1.87e+005	counts
:	7.01e+003	cps
Time:	14.4	min
me:	15.4	min

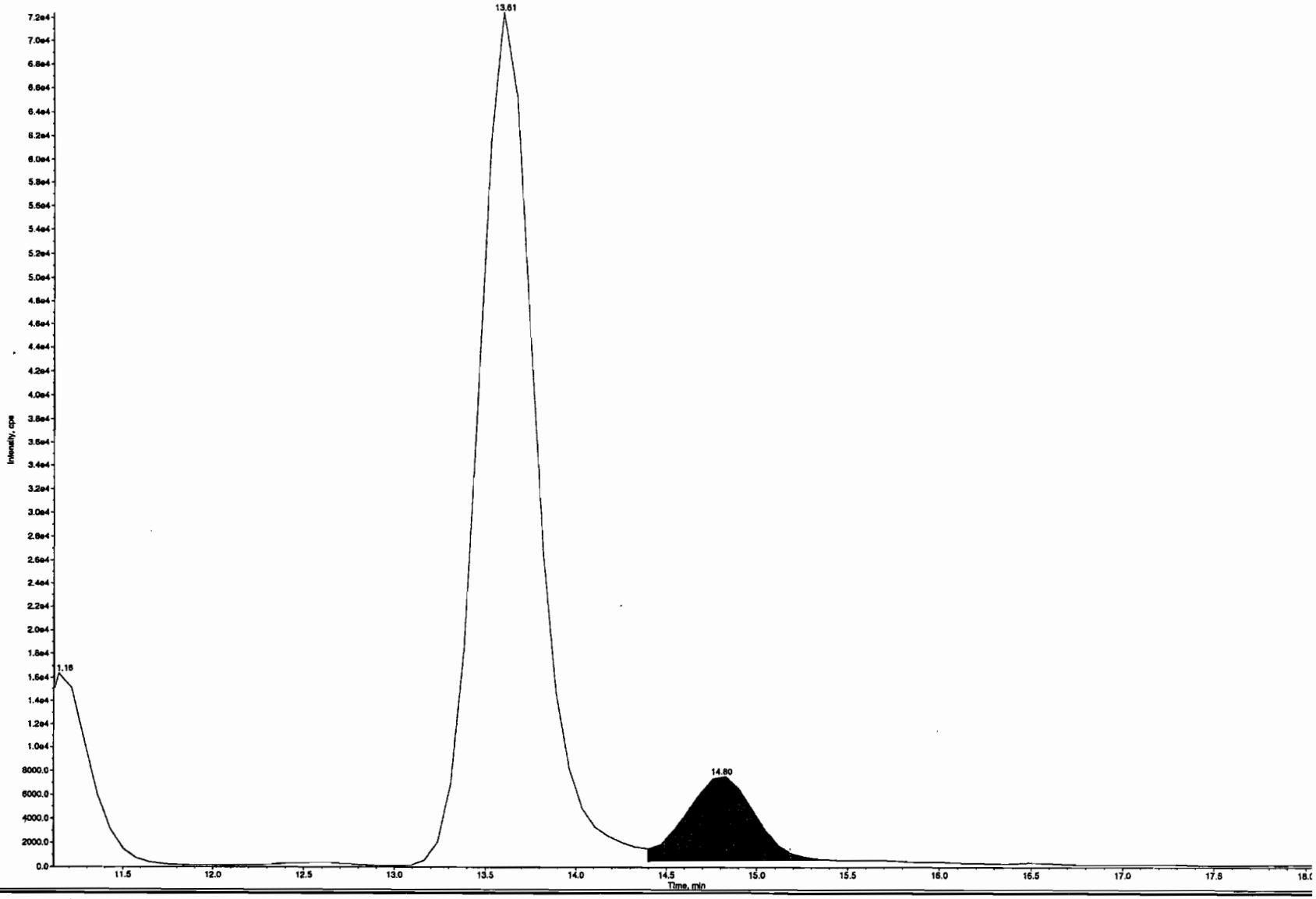

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322032.wiff	**Acquisition Date**	3/23/2010 5:11:16 AM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

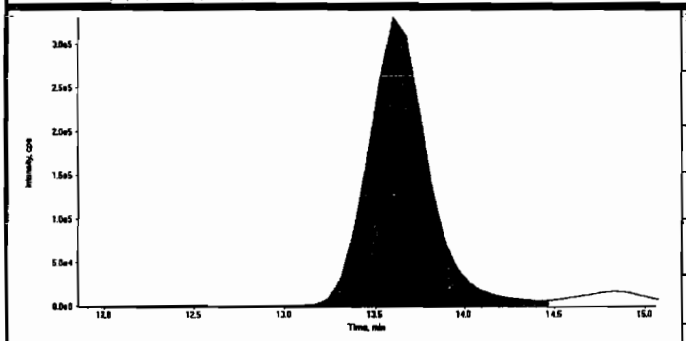

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	7.64e+006
Manual Modification	No
Amount:	44.2 (ng/mL)
% Accuracy:	110.00

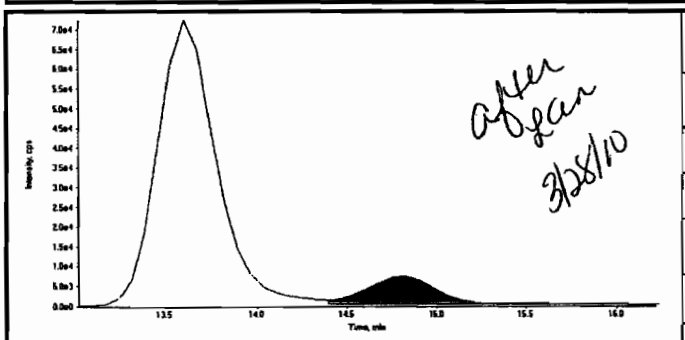

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.8
Area Counts:	2.06e+005
Manual Modification	Yes
Amount:	37.6 (ng/mL)
% Accuracy:	94.10

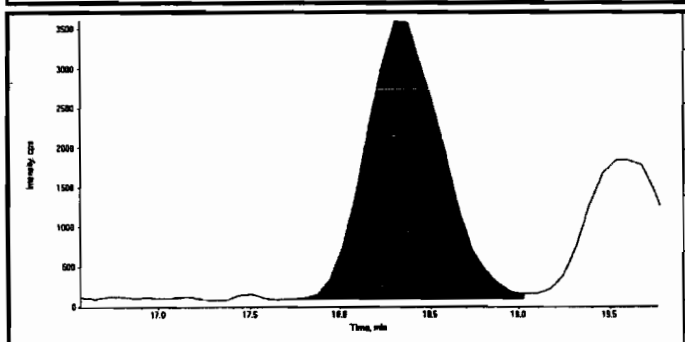

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.3
Area Counts:	1.05e+005
Manual Modification	No
Amount:	41.0 (ng/mL)
% Accuracy:	102.00

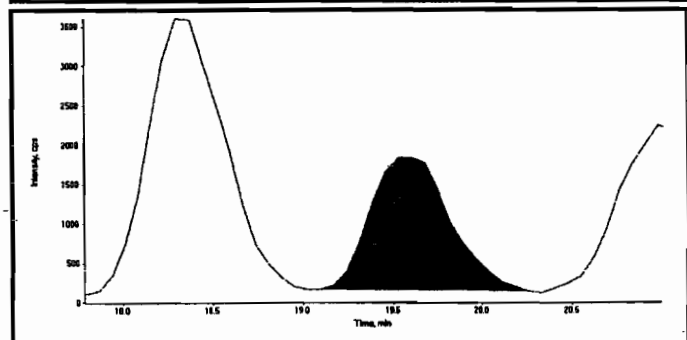

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.6
Area Counts:	5.28e+004
Manual Modification	No
Amount:	41.3 (ng/mL)
% Accuracy:	103.00

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322032.wiff	**Acquisition Date**	3/23/2010 5:11:16 AM
Sample Name	WXX100322-57CRI	**Acquisition Method**	8321_pntx.dam
Batch|Dilution|Analyst	|1|LER	**Result Table**	032210.rdb
Procedure Code	LCMSEXP_C	**Sample Type**	**Quality Control**

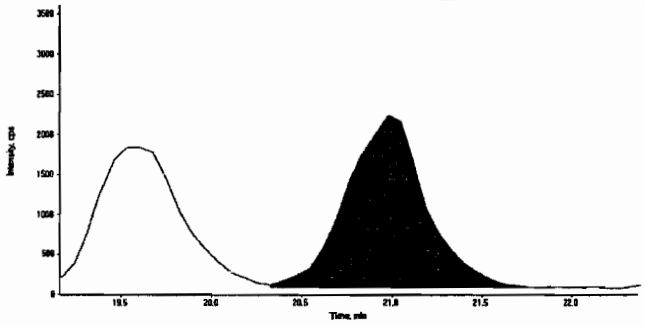

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	21.0
Area Counts:	6.73e+004
Manual Modification	No
Amount:	44.2 (ng/mL)
% Accuracy:	111.00

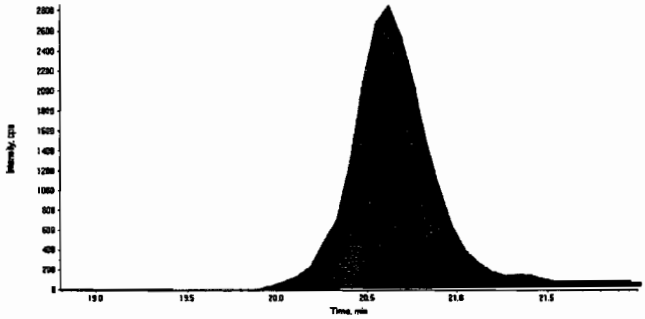

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.6
Area Counts:	8.75e+004
Manual Modification	No
Amount:	44.7 (ng/mL)
% Accuracy:	112.00

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis 03/23/10
Time of Injection 0511
Standard Number WXX100322-57CRI
Data File EXP0322032a

HMX	116.0
RDX	110.0
135-Trinitrobenzene	112.0
13-Dinitrobenzene	107.0
Tetryl	63.5
246-Trinitrotoluene	92.5
Nitrobenzene	106.0
34-dinitrotoluene	99.4
26-dinitrotoluene	116.0
24-dinitrotoluene	107.0
4-Amino-26-dinitrotoluene	110.0
2-Amino-46-dinitrotoluene	94.1
2-Nitrotoluene	102.0
4-Nitrotoluene	103.0
3-Nitrotoluene	111.0
PETN	112.0
TOTAL	1661.5
AVERAGE	103.8

HMC 03/25/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

RCR 3/28/10

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Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2005

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03310013.wiff

Analysis Date: 31-MAR-10 11:49

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,6-Diamino-4-nitrotoluene	100	94.8	95	
3,4-Dinitrotoluene	50	49.1	98	
3,5-Dinitroaniline	100	96.6	97	
TATB	100	94.1	94	
tris(o-cresyl) phosphate	100	99.5	100	
2,4-Diamino-6-nitrotoluene	100	82.3	82	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lcr 415110

ie Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310013.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
nent: "LCMSEXP_C" Annotation: ""

: Index: 1
: Type: QC
ıtration: 100. ng/mL
.ated Conc: 94.1 ng/mL
ıate: 3/31/2010
'ime: 11:49:08 AM

ed: No
Algorithm: IntelliQuan - IQA
'eak Height: 2500.00 cps
'eak Width: 0.00 sec
ıing Width: 3 points
ıdow: 30.0 sec
.ed RT: 6.90 min
·lative RT: No

ype: Valley
ion Time: 6.91 min
6.44e+004 counts
: 15590.504 cps
Time: 6.82 min
me: 7.19 min

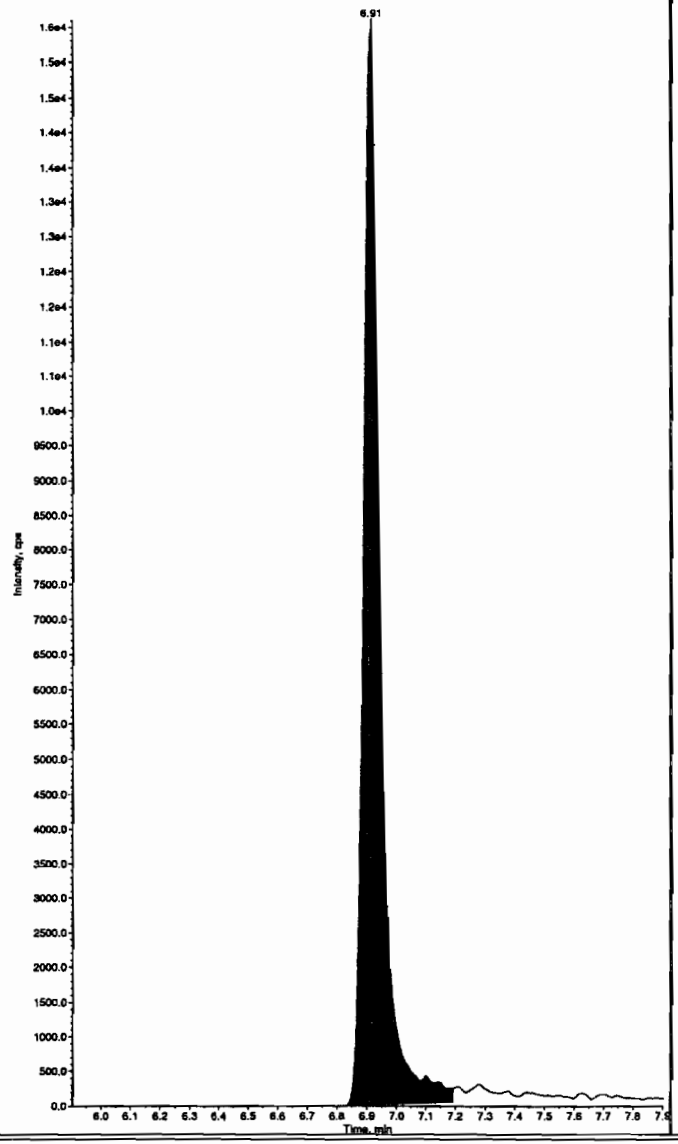

Sample Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 96.6 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 11:49:08 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.15 min
Area: 6.11e+005 counts
Height: 139893.921 cps
Start Time: 8.03 min
End Time: 8.28 min

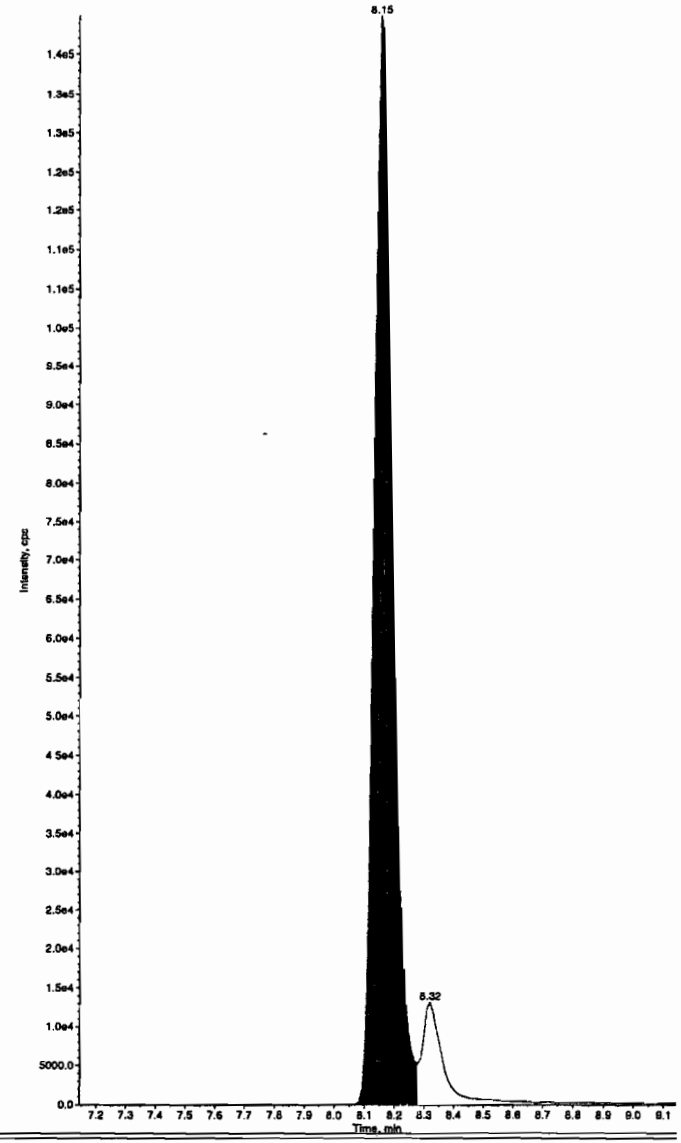

Hmw 04/05/10

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Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310013.wiff"
me: "34-Dinitrotoluene" Mass(as): "182.1/151.9 amu"
t: "LCMSEXP_C" Annotation: ""

```
ndex:          1
ype:           QC
ation:         50.0     ng/mL
ed Conc:       49.1     ng/mL
e:          3/31/2010
e:          11:49:08 AM

:              No
gorithm: IntelliQuan - IQA
k Height:1460.00    cps
k Width:     0.00    sec
g Width:  3         points
w:          15.0     sec
 RT:         8.31    min
tive RT:    No

e:          Valley
n Time:      8.32    min
        3.96e+005   counts
          103385.399  cps
me:          8.25    min
:            8.61    min
```

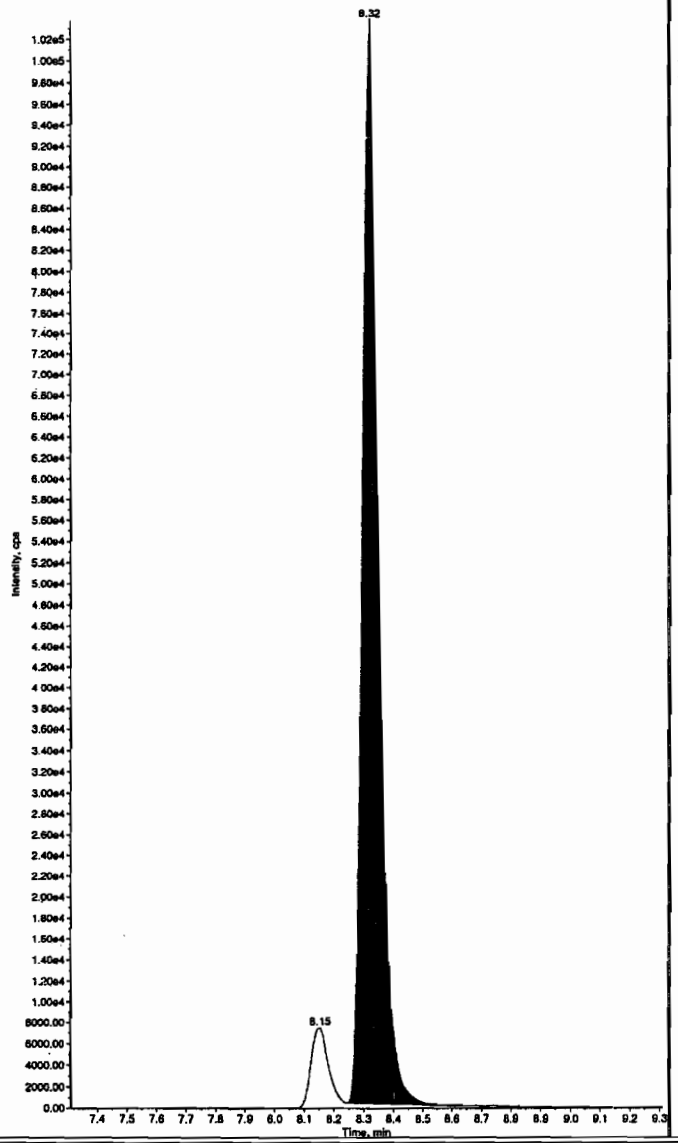

Sample Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:       100.     ng/mL
Calculated Conc:     94.8     ng/mL
Acq. Date:        3/31/2010
Acq. Time:        11:49:08 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:        4.95    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     4.96    min
Area:          2.15e+005   counts
Height:        48890.671   cps
Start Time:         4.87    min
End Time:           5.23    min
```

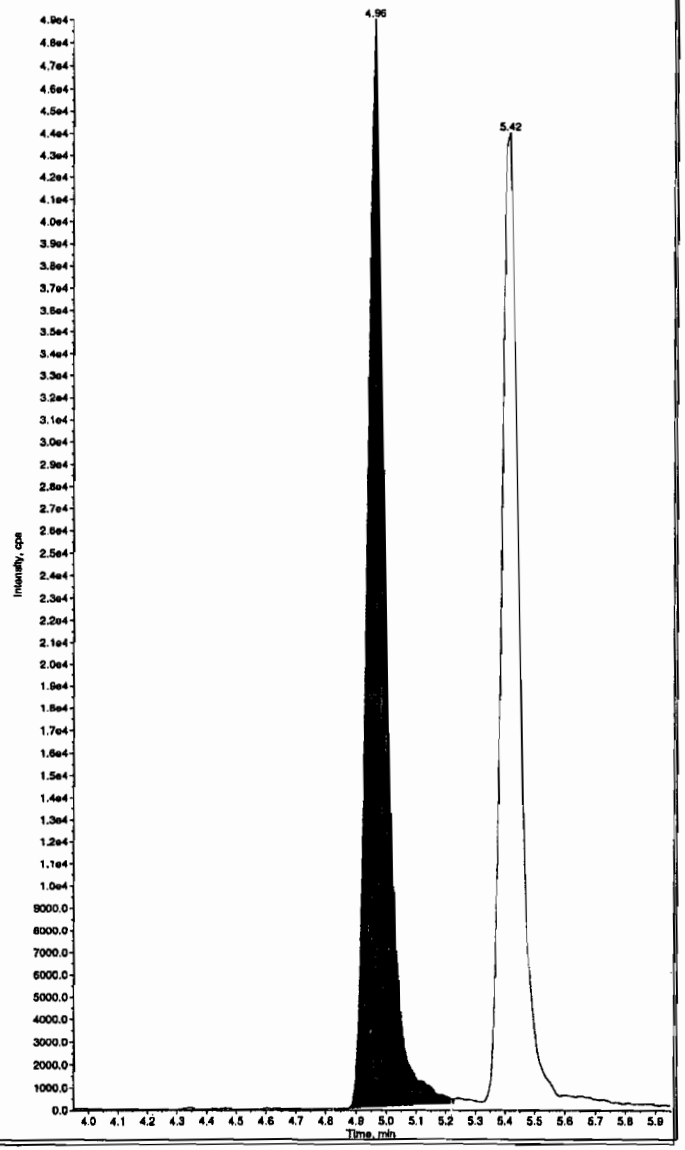

Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310013.wiff"
me: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nt: "LCMSEXP_C" Annotation: ""

ndex: 1
ype: QC
ration: 100. ng/mL
ed Conc: 82.3 ng/mL
e: 3/31/2010
e: 11:49:08 AM

d: No
gorithm: IntelliQuan - IQA
k Height: 350.00 cps
k Width: 0.00 sec
g Width: 3 points
w: 30.0 sec
RT: 5.41 min
tive RT: No

e: Valley
n Time: 5.42 min
1.89e+005 counts
43698.002 cps
me: 5.32 min
: 5.79 min

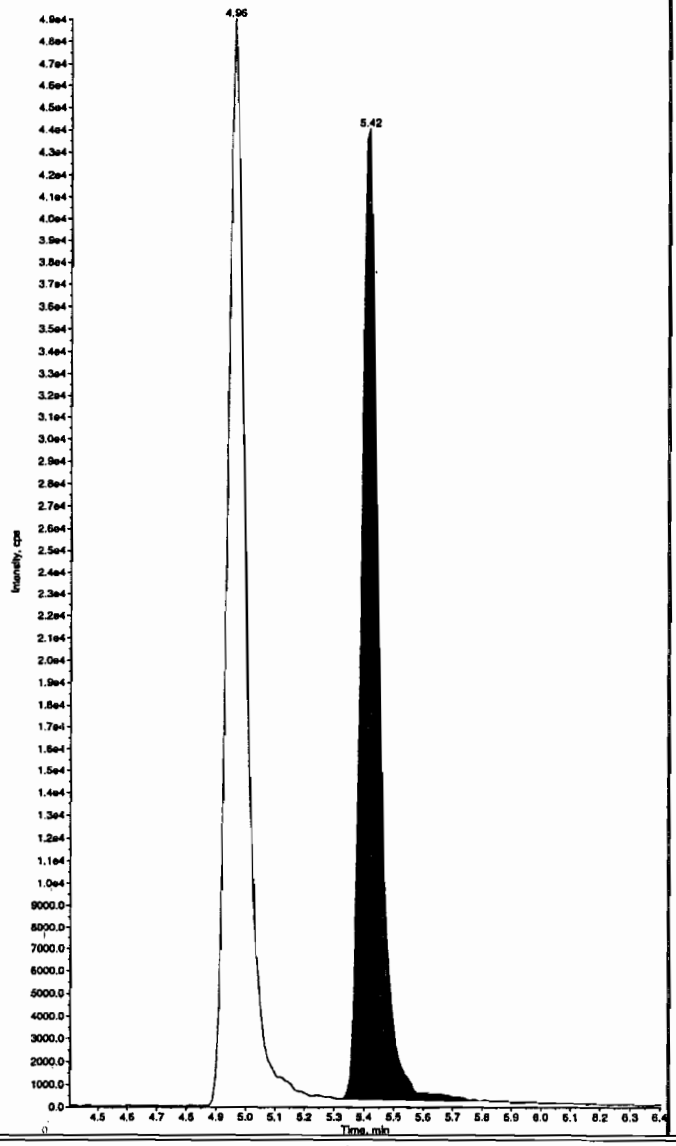

Sample Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 99.5 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 11:49:08 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 2.09e+006 counts
Height: 514991.211 cps
Start Time: 10.7 min
End Time: 11.1 min

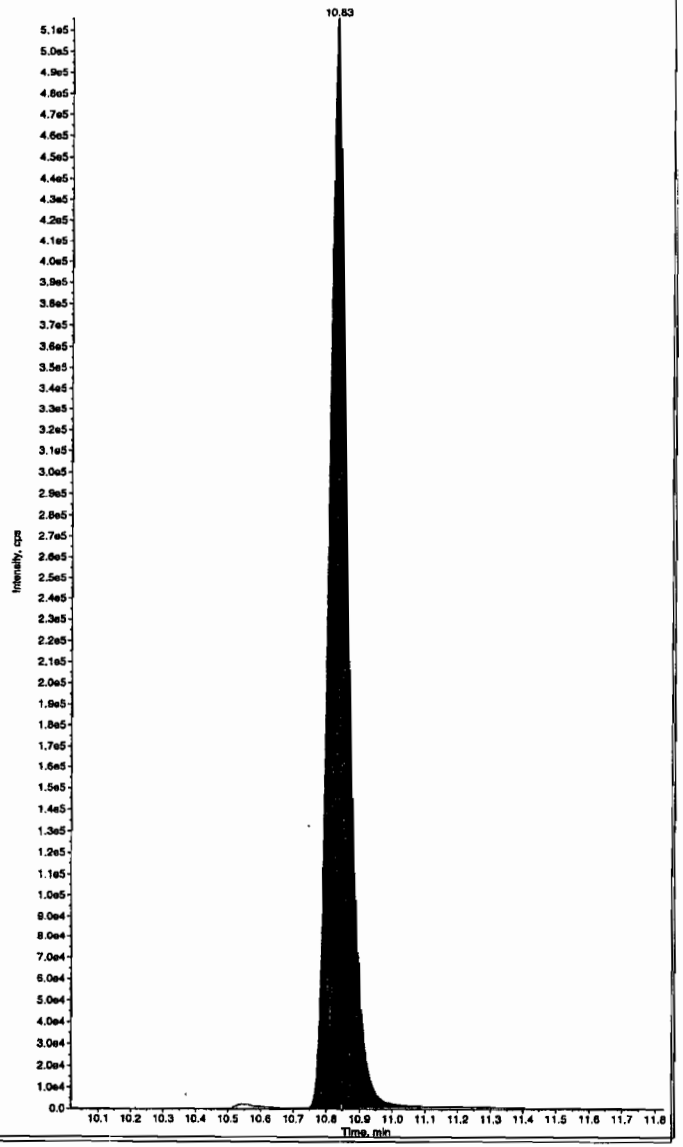

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Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2005

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03310024.wiff

Analysis Date: 31–MAR–10 14:41

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
3,4–Dinitrotoluene	250	217	87	
3,5–Dinitroaniline	500	439	88	
TATB	500	467	93	
tris(o–cresyl) phosphate	500	479	96	
2,4–Diamino–6–nitrotoluene	500	455	91	
2,6–Diamino–4–nitrotoluene	500	496	99	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

LCM 4/5/10

ple Name: "WXX100331-26CCV" Sample ID: "[1]LER" File: "EXS03310024.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
nent: "LCMSEXP_C" Annotation: ""
e Index: 1
e Type: QC
ntration: 500. ng/mL
lated Conc: 467. ng/mL
Date: 3/31/2010
Time: 2:41:55 PM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ed RT: 6.90 min
elative RT: No

Type: Valley
ion Time: 6.89 min
3.45e+005 counts
: 71980.743 cps
Time: 6.79 min
me: 7.67 min

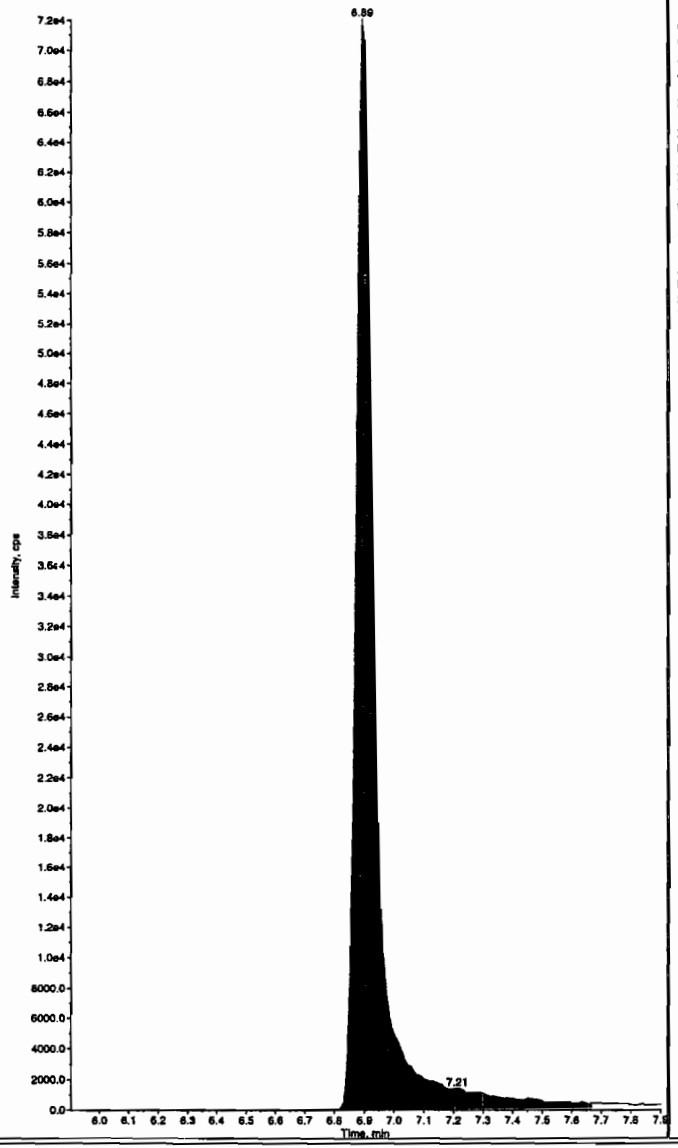

Sample Name: "WXX100331-26CCV" Sample ID: "[1]LER" File: "EXS03310024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 439. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 2:41:55 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.14 min
Area: 2.81e+006 counts
Height: 635022.827 cps
Start Time: 8.03 min
End Time: 8.26 min

Hmm 04/05/10

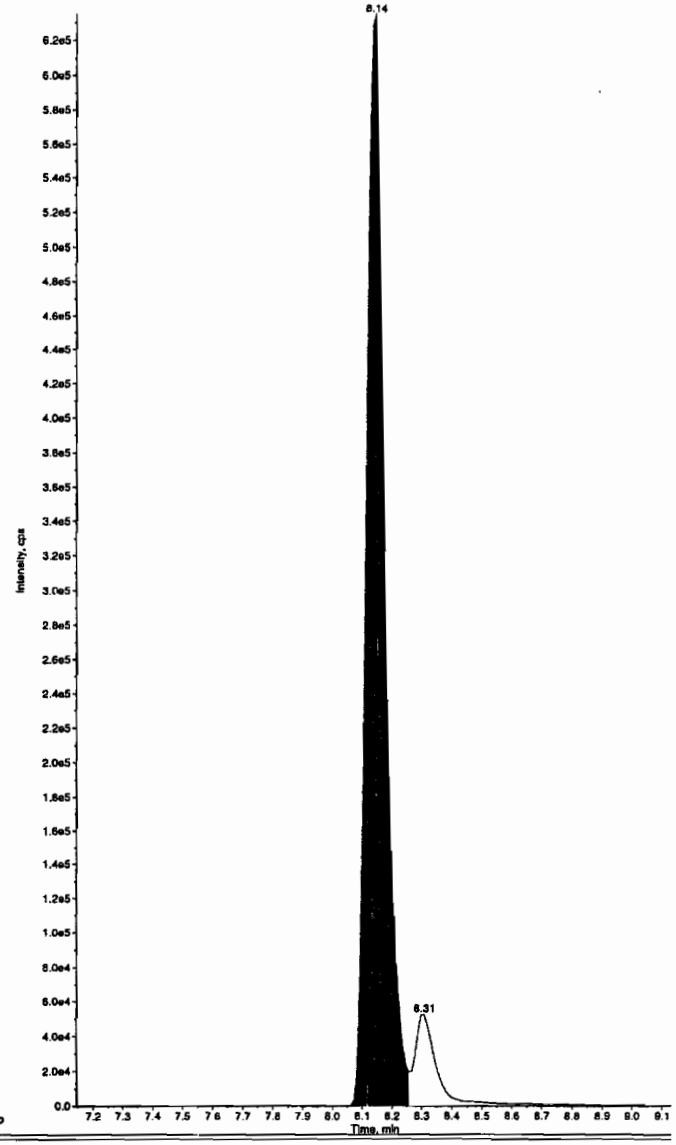

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ame: "WXX100331-26CCV" Sample ID: "|1|LER" File: "EXS03310024.wiff"
e: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
"LCMSEXP_C" Annotation: ""

```
dex:          1
pe:          QC
tion:       250.     ng/mL
d Conc:     217.     ng/mL
:        3/31/2010
:        2:41:55 PM

            No
orithm: IntelliQuan - IQA
 Height:1460.00    cps
 Width:    0.00    sec
 Width:  3        points
:         15.0     sec
RT:        8.31    min
ive RT:    No

:         Valley
 Time:     8.30    min
     1.77e+006   counts
       424537.872  cps
e:         8.23    min
           8.55    min
```

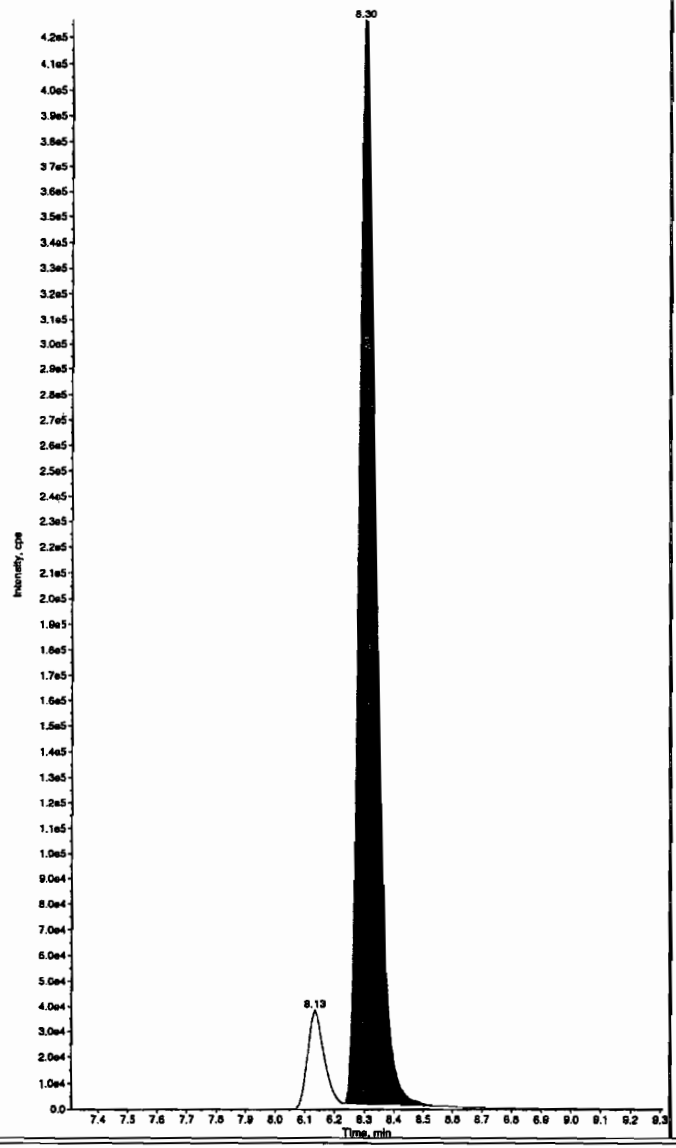

Sample Name: "WXX100331-26CCV" Sample ID: "|1|LER" File: "EXS03310024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       500.     ng/mL
Calculated Conc:     496.     ng/mL
Acq. Date:        3/31/2010
Acq. Time:        2:41:55 PM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:        4.95    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     4.95    min
Area:          1.08e+006   counts
Height:         269448.151  cps
Start Time:         4.84    min
End Time:           5.24    min
```

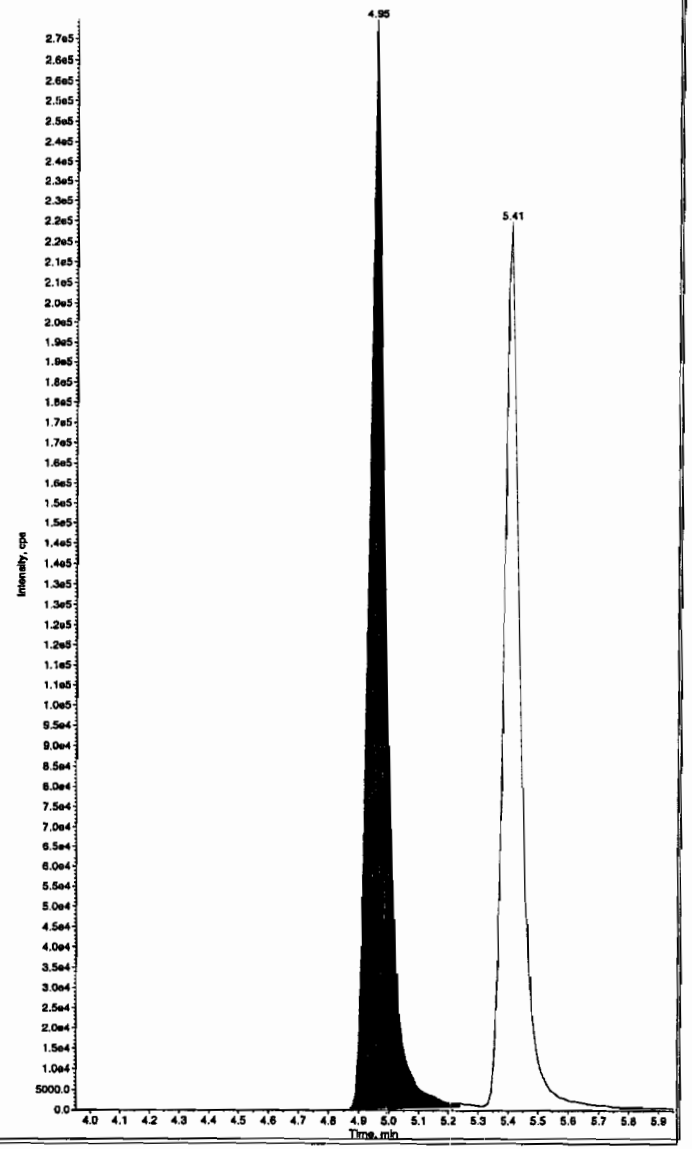

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ie: "WXX100331-26CCV" Sample ID: "[1]LER" File: "EXS03310024.wiff"
"24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
.CMSEXP_C" Annotation: ""

```
ex:          1
::          QC
ion:       500.     ng/mL
Conc:      455.     ng/mL
        3/31/2010
        2:41:55 PM

           No
rithm: IntelliQuan - IQA
Height: 350.00    cps
Width:    0.00    sec
Width:  3       points
         30.0     sec
:         5.41    min
re RT:    No

         Valley
Time:     5.41    min
    8.67e+005    counts
    218858.749   cps
        5.31     min
        5.81     min
```

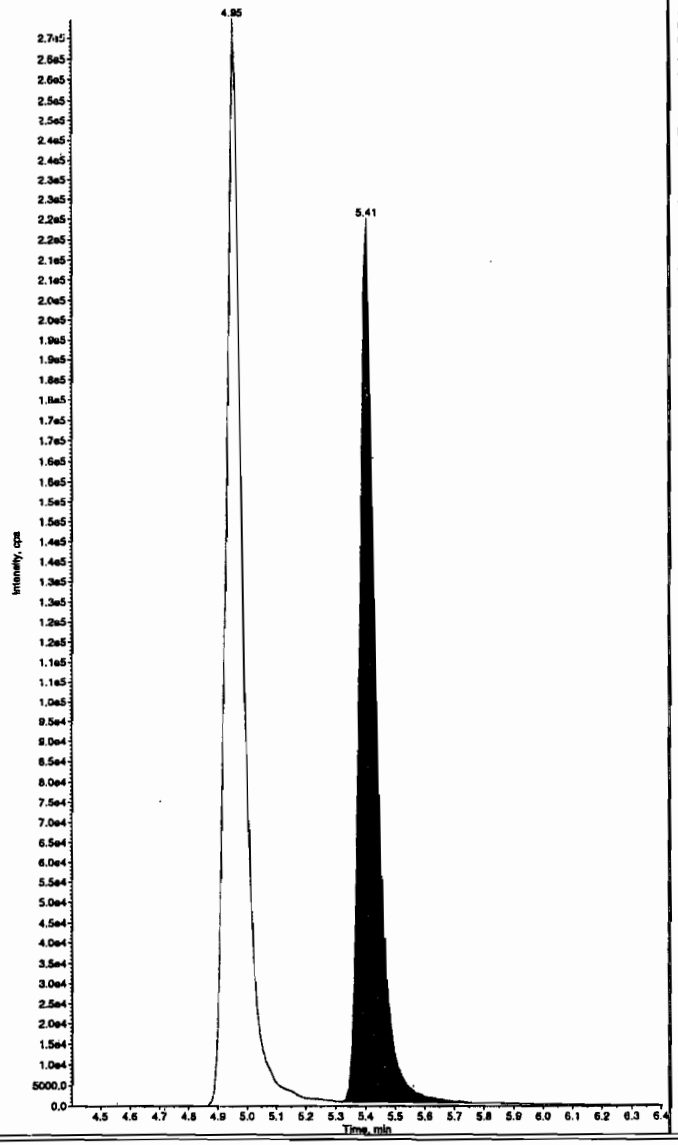

Sample Name: "WXX100331-26CCV" Sample ID: "[1]LER" File: "EXS03310024.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:     500.     ng/mL
Calculated Conc:   479.     ng/mL
Acq. Date:       3/31/2010
Acq. Time:       2:41:55 PM

Modified:          No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3       points
RT Window:        30.0      sec
Expected RT:      10.8      min
Use Relative RT:  No

Int. Type:       Valley
Retention Time:   10.8      min
Area:        8.97e+006    counts
Height:     2088793.945   cps
Start Time:       10.7      min
End Time:         11.2      min
```

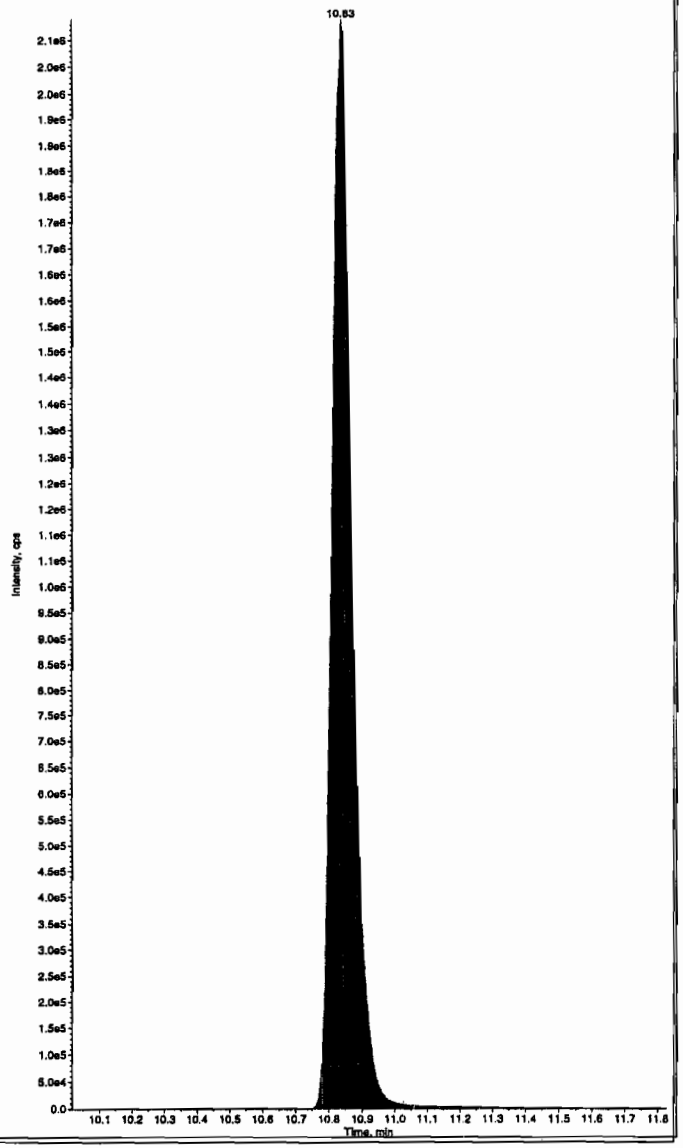

)P GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2005

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03310026.wiff

Analysis Date: 31-MAR-10 15:13

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
2,4-Diamino-6-nitrotoluene	100	75.4	75	
2,6-Diamino-4-nitrotoluene	100	92.1	92	
3,4-Dinitrotoluene	50	49.5	99	
3,5-Dinitroaniline	100	104	104	
TATB	100	96	96	
tris(o-cresyl) phosphate	100	97.6	98	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Scan 415710

lame: "WXX100331-27CRI" Sample ID: "|1|LER" File: "EXS03310026.wiff"
ne: "TATB" Mass(es): "257.2/204.9 amu"
: "LCMSEXP_C" Annotation: ""
ndex: 1
/pe: QC
ation: 100. ng/mL
ed Conc: 96.0 ng/mL
e: 3/31/2010
e: 3:13:21 PM

: No
gorithm: IntelliQuan - IQA
c Height: 2500.00 cps
c Width: 0.00 sec
g Width: 3 points
w: 30.0 sec
RT: 6.90 min
tive RT: No

e: Valley
n Time: 6.89 min
6.58e+004 counts
15405.108 cps
me: 6.76 min
: 7.32 min

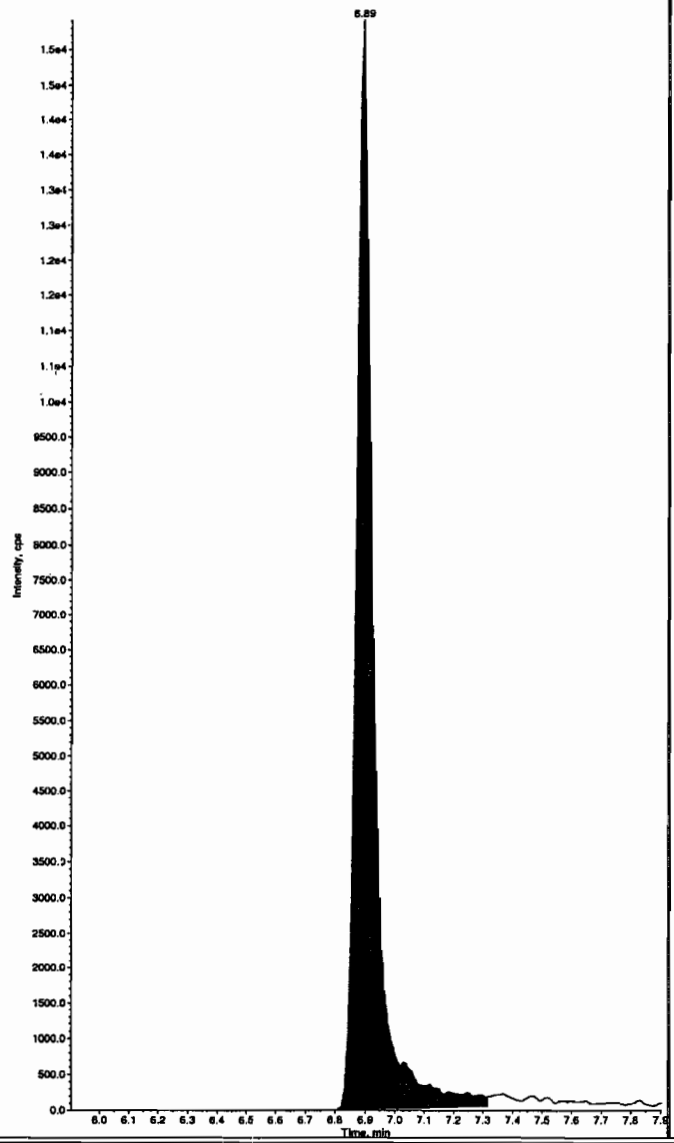

Sample Name: "WXX100331-27CRI" Sample ID: "|1|LER" File: "EXS03310026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 104. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 3:13:21 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.12 min
Area: 6.59e+005 counts
Height: 159022.293 cps
Start Time: 7.97 min
End Time: 8.26 min

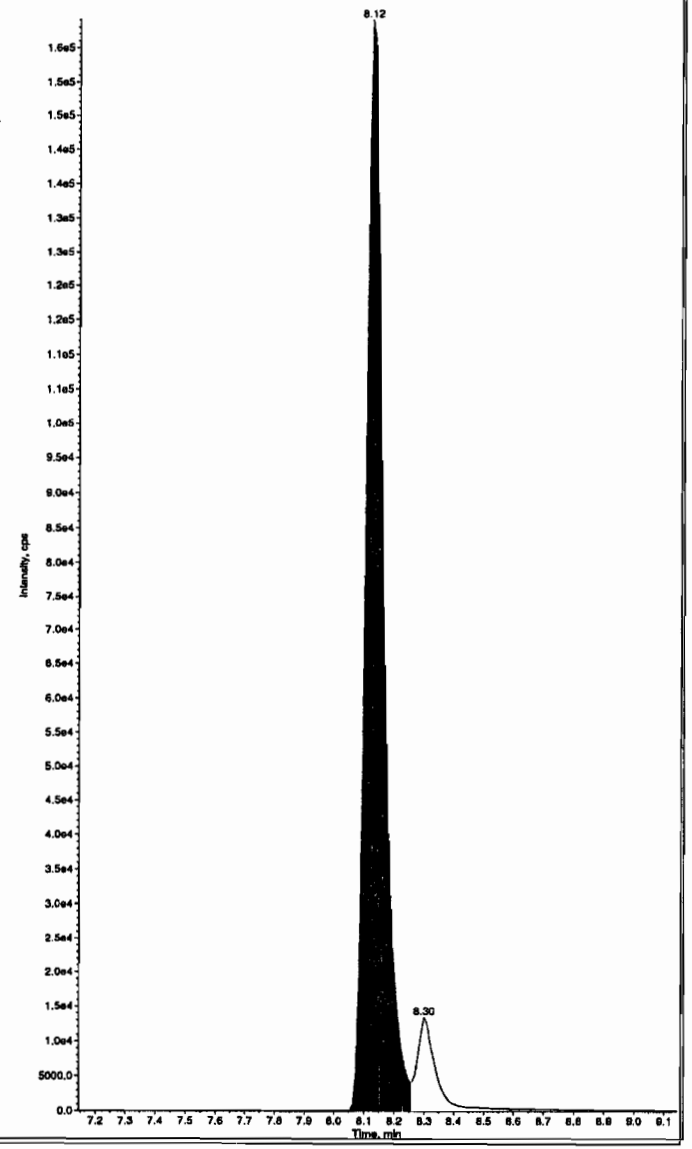

Hmm 04/05/10

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ame: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310026.wiff"
e: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
"LCMSEXP_C" Annotation: ""

```
dex:          1
pe:          QC
tion:       50.0    ng/mL
d Conc:     49.5    ng/mL
:        3/31/2010
:        3:13:21 PM

             No
orithm: IntelliQuan - IQA
 Height:1460.00    cps
 Width:    0.00    sec
 Width:  3        points
:          15.0    sec
RT:         8.31   min
ive RT:     No

:          Valley
 Time:      8.30   min
     3.99e+005    counts
      105955.788   cps
e:          8.23   min
            8.62   min
```

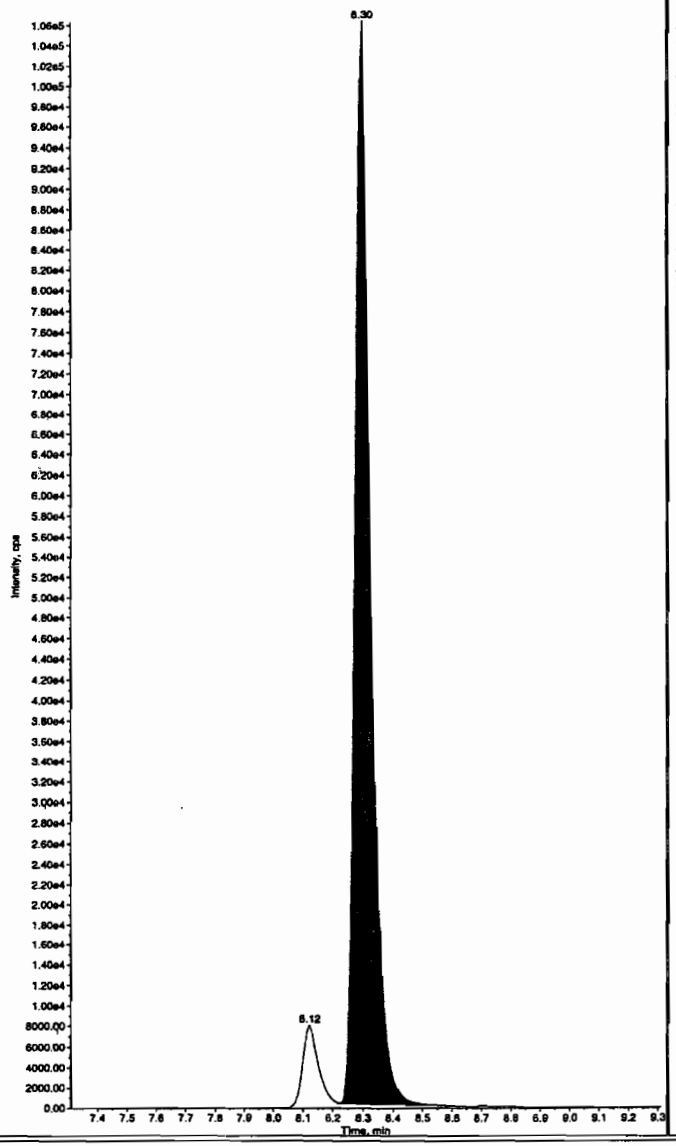

Sample Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310026.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:     100.    ng/mL
Calculated Conc:    92.1   ng/mL
Acq. Date:       3/31/2010
Acq. Time:       3:13:21 PM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         30.0    sec
Expected RT:        4.95   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     4.95   min
Area:         2.09e+005   counts
Height:        44680.908  cps
Start Time:         4.76   min
End Time:           5.25   min
```

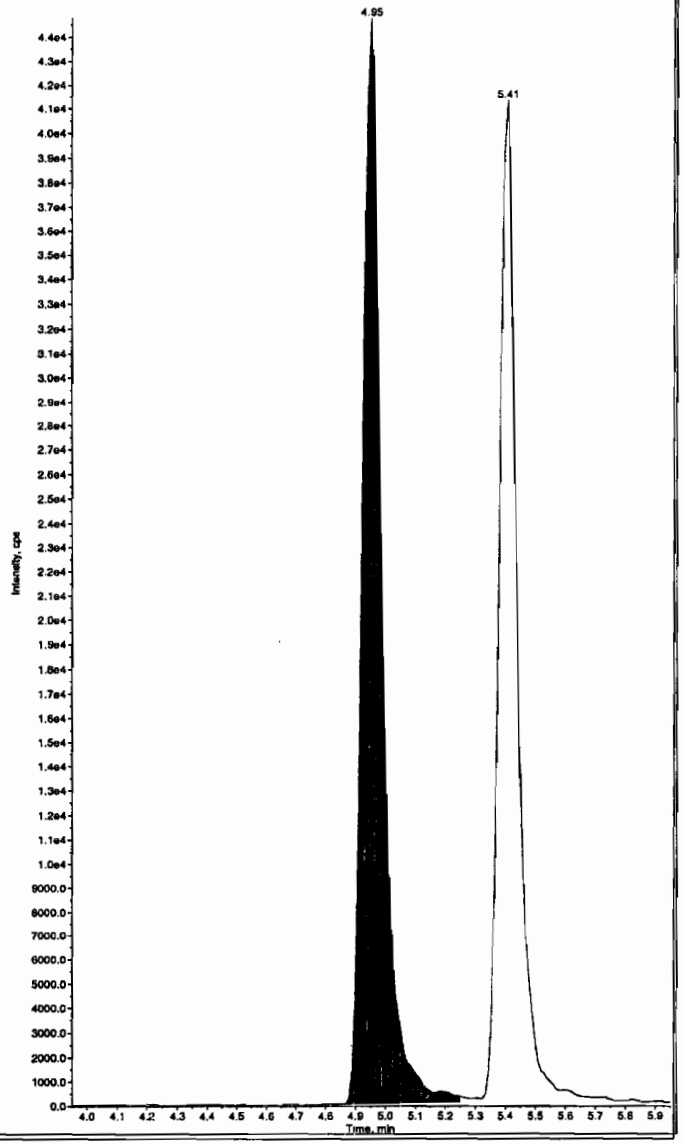

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ame: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310026.wiff"
e: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
: "LCMSEXP_C" Annotation: ""

```
ndex:          1
pe:           QC
ation:       100.     ng/mL
d Conc:     75.4     ng/mL
:        3/31/2010
:        3:13:21 PM

            No
orithm: IntelliQuan - IQA
: Height: 350.00    cps
: Width:    0.00    sec
Width:  3        points
:         30.0     sec
RT:        5.41    min
ive RT:    No

:         Valley
Time:      5.41    min
      1.76e+005   counts
      41078.697   cps
e:         5.32    min
           5.77    min
```

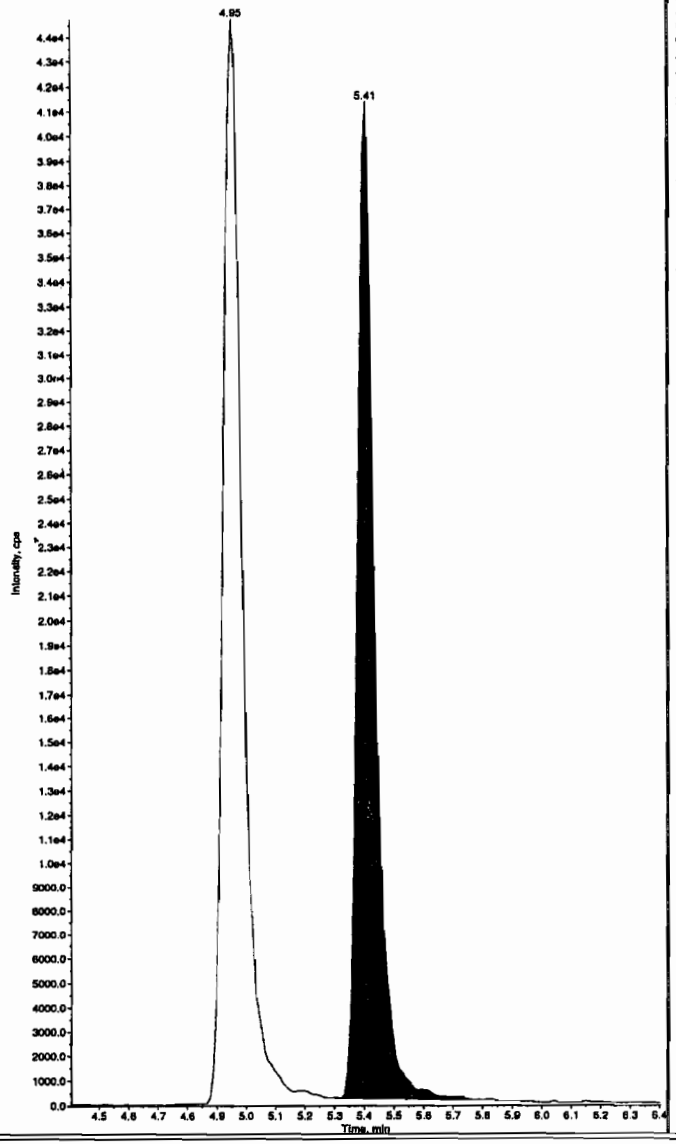

Sample Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310026.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       100.     ng/mL
Calculated Conc:     97.6     ng/mL
Acq. Date:        3/31/2010
Acq. Time:        3:13:21 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:       10.8     min
Use Relative RT:   No

Int. Type:        Valley
Retention Time:    10.8     min
Area:        2.05e+006    counts
Height:      505720.428   cps
Start Time:        10.7     min
End Time:          11.1     min
```

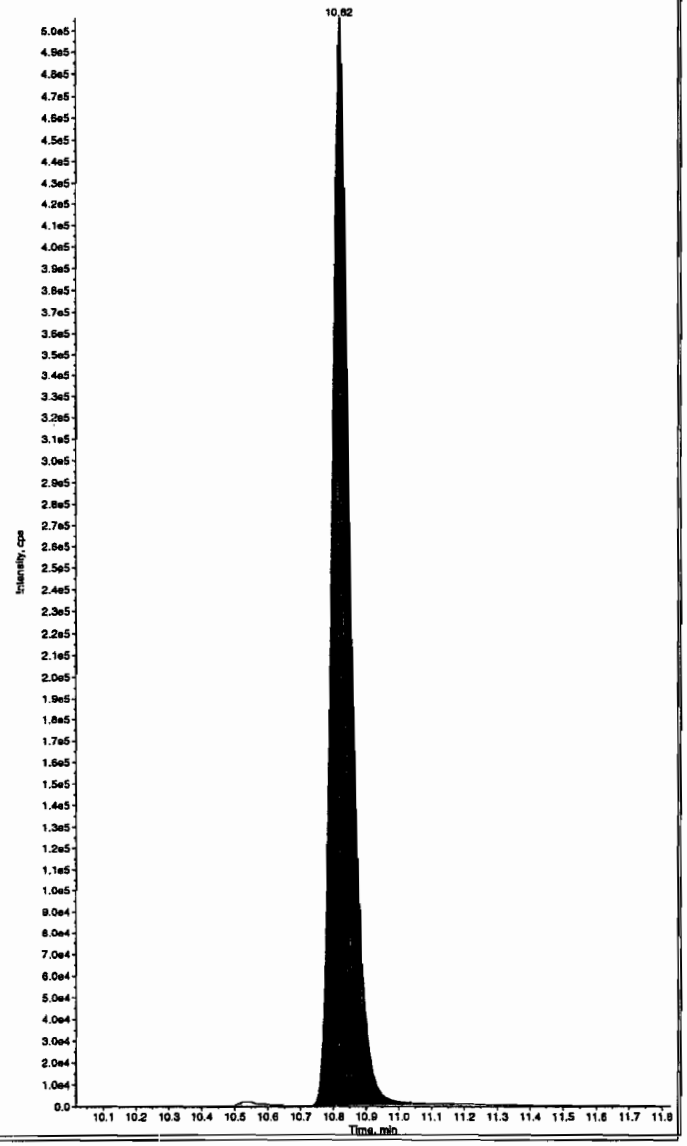

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Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2005

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS03310036.wiff

Analysis Date: 31–MAR–10 17:50

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	519	104	
2,6–Diamino–4–nitrotoluene	500	489	98	
3,4–Dinitrotoluene	250	227	91	
3,5–Dinitroaniline	500	496	99	
TATB	500	488	98	
tris(o–cresyl) phosphate	500	483	97	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Sar 4/5/10

: "WXX100331-26CCV" Sample ID: "[1]LER" File: "EXS03310036.wiff"
TATB" Mass(es): "257.2/204.9 amu"
CMSEXP_C" Annotation: ""

x: 1
: QC
on: 500. ng/mL
Conc: 488. ng/mL
3/31/2010
5:50:31 PM

No
lthm: IntelliQuan - IQA
eight: 2500.00 cps
idth: 0.00 sec
idth: 3 points
30.0 sec
: 6.90 min
: RT: No

Valley
me: 6.89 min
3.61e+005 counts
74238.579 cps
6.79 min
7.64 min

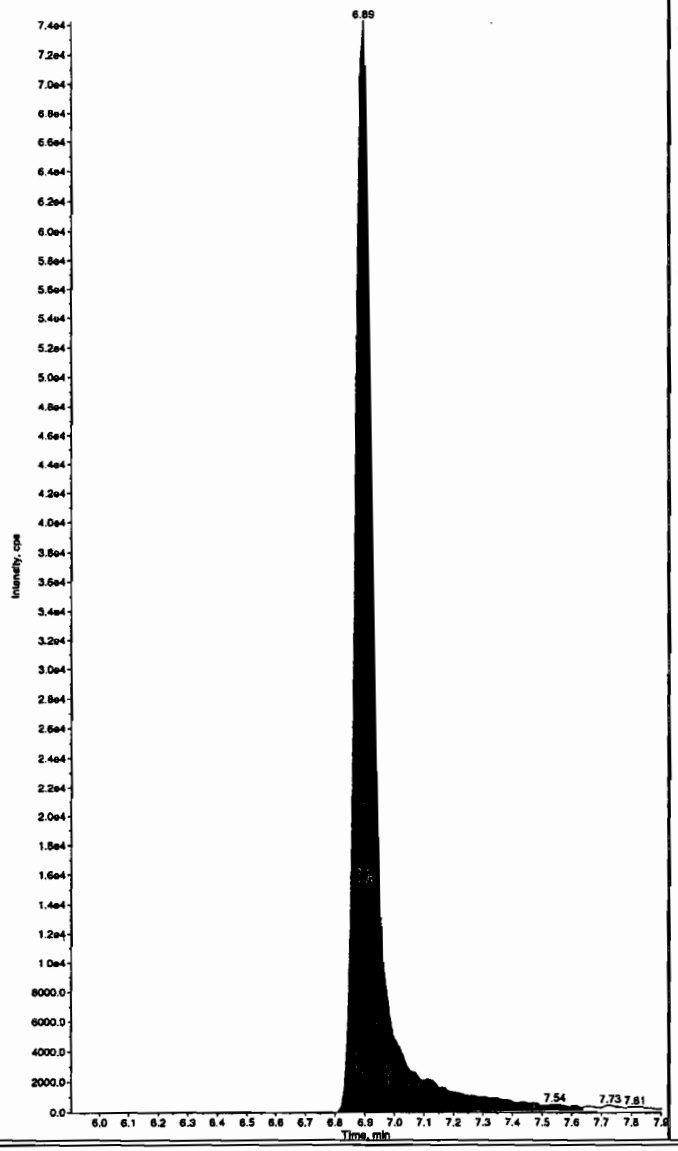

Sample Name: "WXX100331-26CCV" Sample ID: "[1]LER" File: "EXS03310036.wiff"
Peak Name: "35-Dinitroanilins" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 496. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 5:50:31 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.13 min
Area: 3.15e+006 counts
Height: 758404.663 cps
Start Time: 8.02 min
End Time: 8.26 min

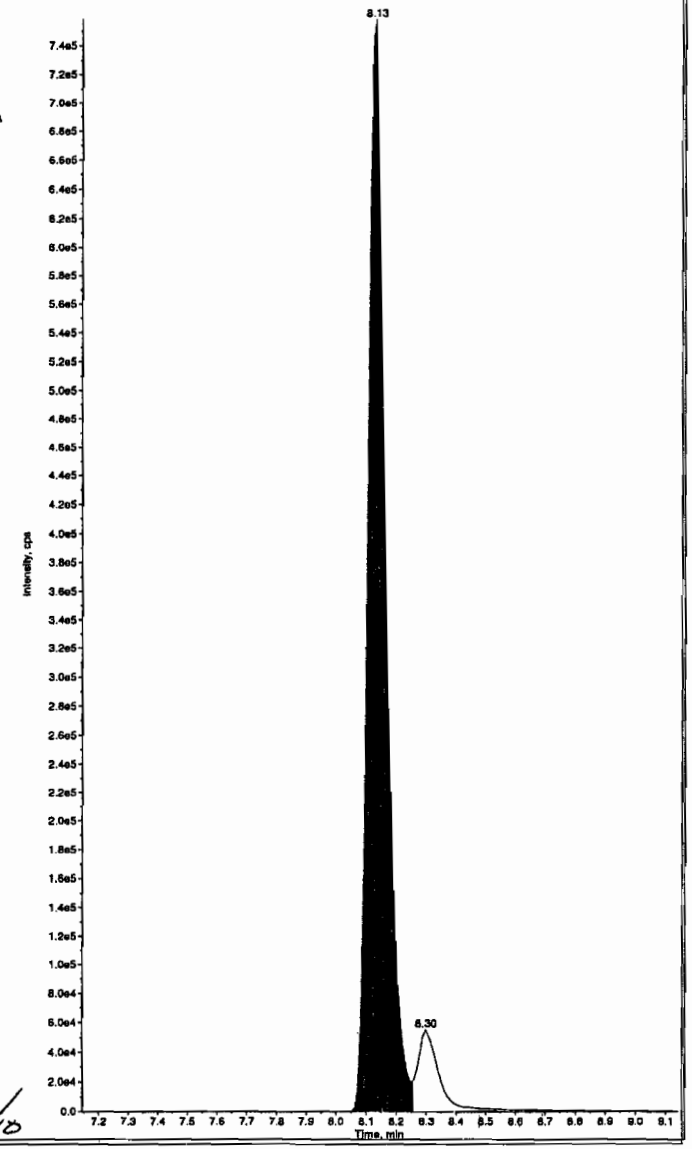

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P GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Sample Name: "WXX100331-26CCV" Sample ID: "[1]LER" File: "EXS03310036.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 250. ng/mL
Calculated Conc: 227. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 5:50:31 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.31 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.30 min
Area: 1.85e+006 counts
Height: 465641.815 cps
Start Time: 8.23 min
End Time: 8.59 min

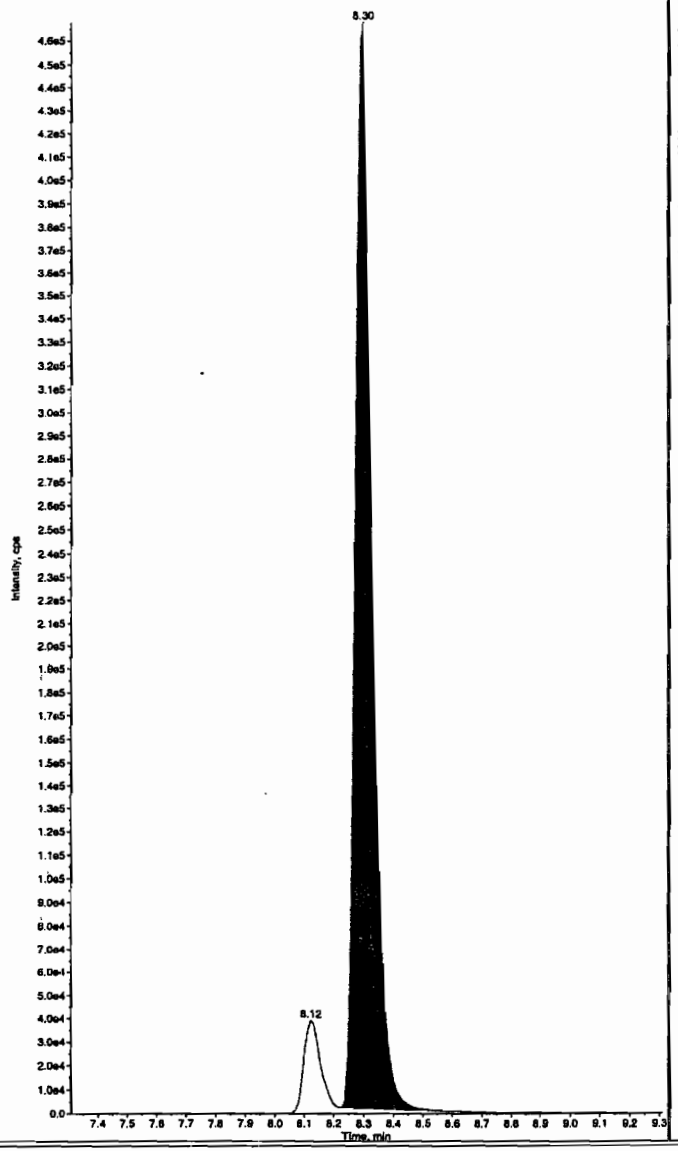

Sample Name: "WXX100331-26CCV" Sample ID: "[1]LER" File: "EXS03310036.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 489. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 5:50:31 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.94 min
Area: 1.06e+006 counts
Height: 250535.065 cps
Start Time: 4.85 min
End Time: 5.21 min

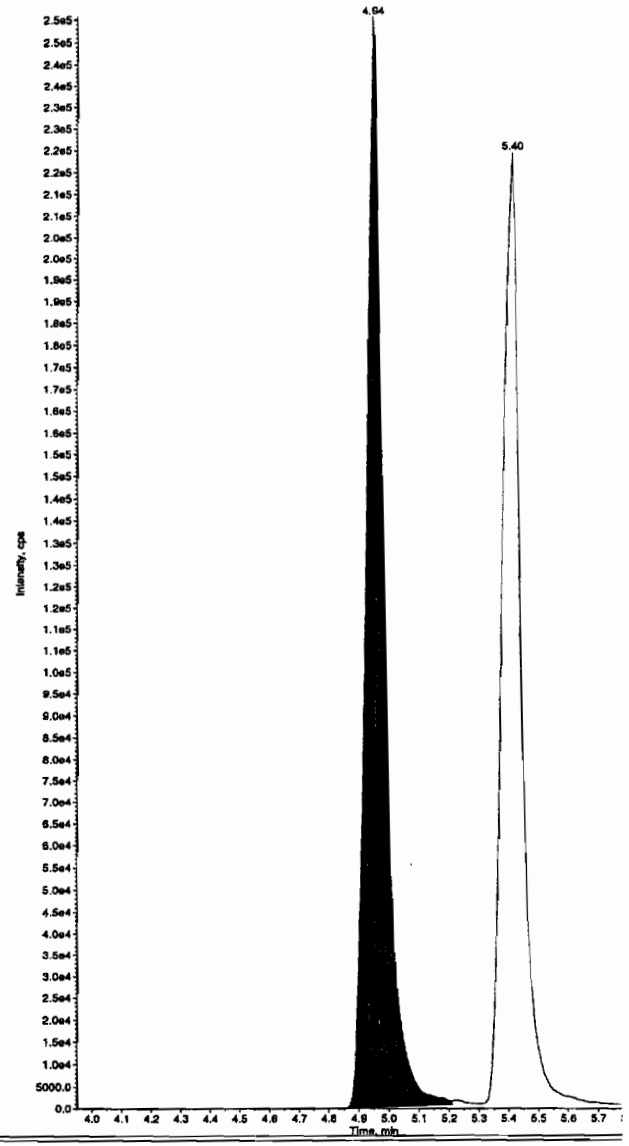

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

ple Name: "WXX100331-26CCV" Sample ID: "|1|LER" File: "EXS03310036.wiff"
(Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""

```
e Index:          1
e Type:           QC
ntration:       500.     ng/mL
lated Conc:     519.     ng/mL
Date:        3/31/2010
Time:        5:50:31 PM

ied:             No
 Algorithm: IntelliQuan - IQA
Peak Height: 350.00    cps
Peak Width:    0.00    sec
hing Width:  3        points
ndow:         30.0     sec
ted RT:        5.41    min
elative RT:    No

Type:         Valley
tion Time:     5.40    min
          9.80e+005    counts
t:         219543.869  cps
 Time:         5.31    min
ime:           6.00    min
```

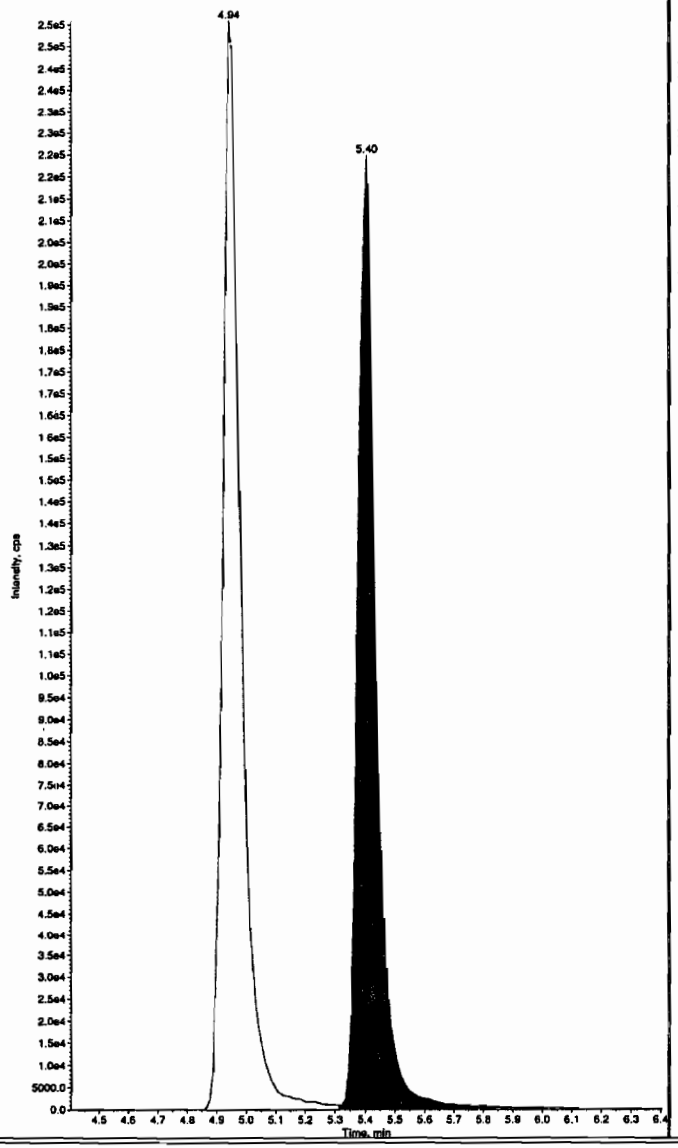

Sample Name: "WXX100331-26CCV" Sample ID: "|1|LER" File: "EXS03310036.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:     500.     ng/mL
Calculated Conc:   483.     ng/mL
Acq. Date:       3/31/2010
Acq. Time:       5:50:31 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:       10.8     min
Use Relative RT:   No

Int. Type:        Valley
Retention Time:    10.8     min
Area:         9.03e+006    counts
Height:      2053610.107   cps
Start Time:        10.7     min
End Time:          11.2     min
```

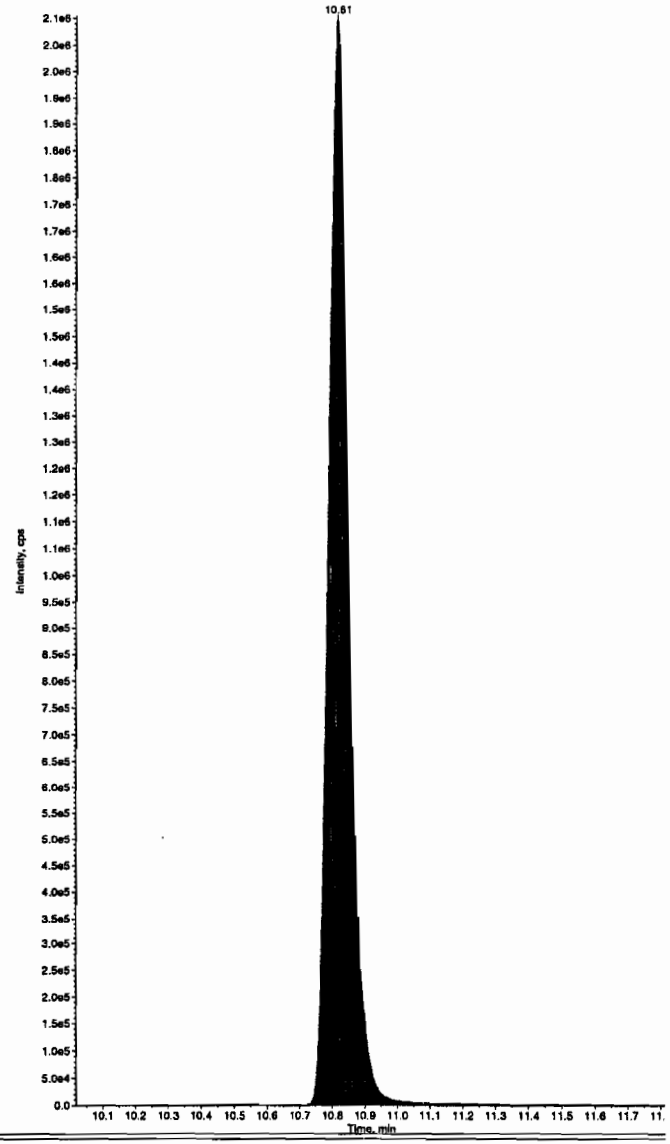

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2005

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXS03310038.wiff

Analysis Date: 31–MAR–10 18:21

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	82.4	82	
2,6–Diamino–4–nitrotoluene	100	100	100	
3,4–Dinitrotoluene	50	46.8	94	
3,5–Dinitroaniline	100	100	100	
TATB	100	97.2	97	
tris(o–cresyl) phosphate	100	99.6	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 4/5/10

Name: "WXX100331-27CRI" Sample ID: "|1|LER" File: "EXS03310038.wiff"
lame: "TATB" Mass(es): "257.2/204.9 amu"
ent: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
ration: 100. ng/mL
ated Conc: 97.2 ng/mL
ate: 3/31/2010
me: 6:21:56 PM

d: No
algorithm: IntelliQuan - IQA
eak Height: 2500.00 cps
eak Width: 0.00 sec
ing Width: 3 points
low: 30.0 sec
d RT: 6.90 min
ative RT: No

pe: Valley
on Time: 6.89 min
6.68e+004 counts
14508.543 cps
ime: 6.79 min
e: 7.39 min

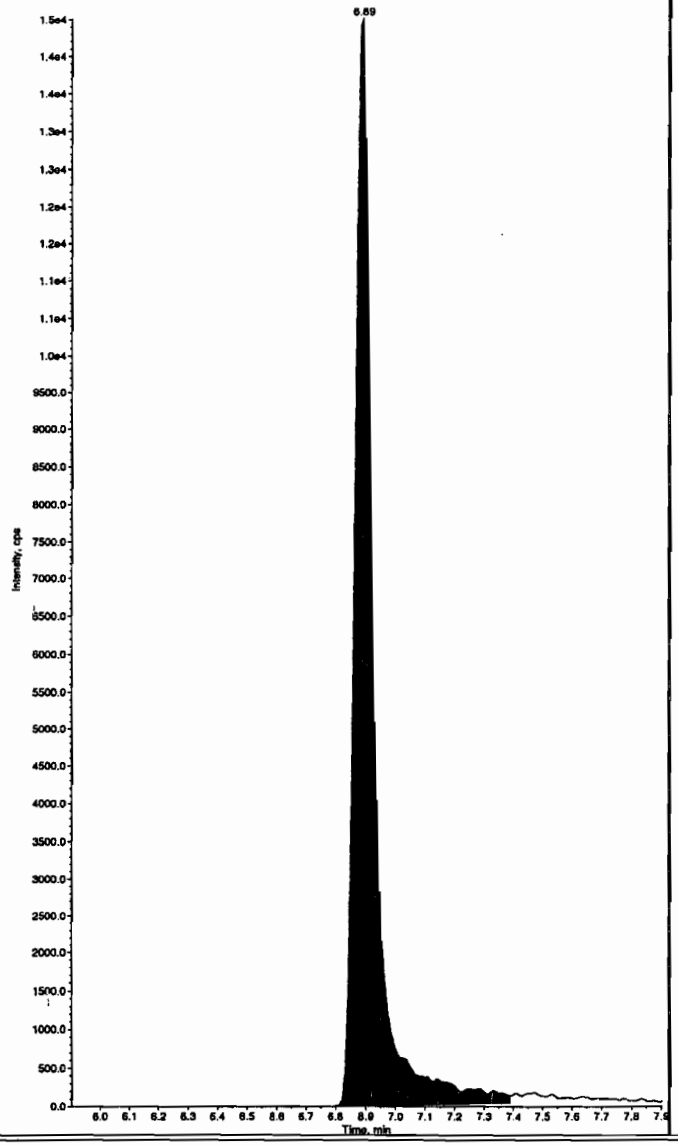

Sample Name: "WXX100331-27CRI" Sample ID: "|1|LER" File: "EXS03310038.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 100. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 6:21:56 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.13 min
Area: 6.35e+005 counts
Height: 152399.063 cps
Start Time: 7.99 min
End Time: 8.26 min

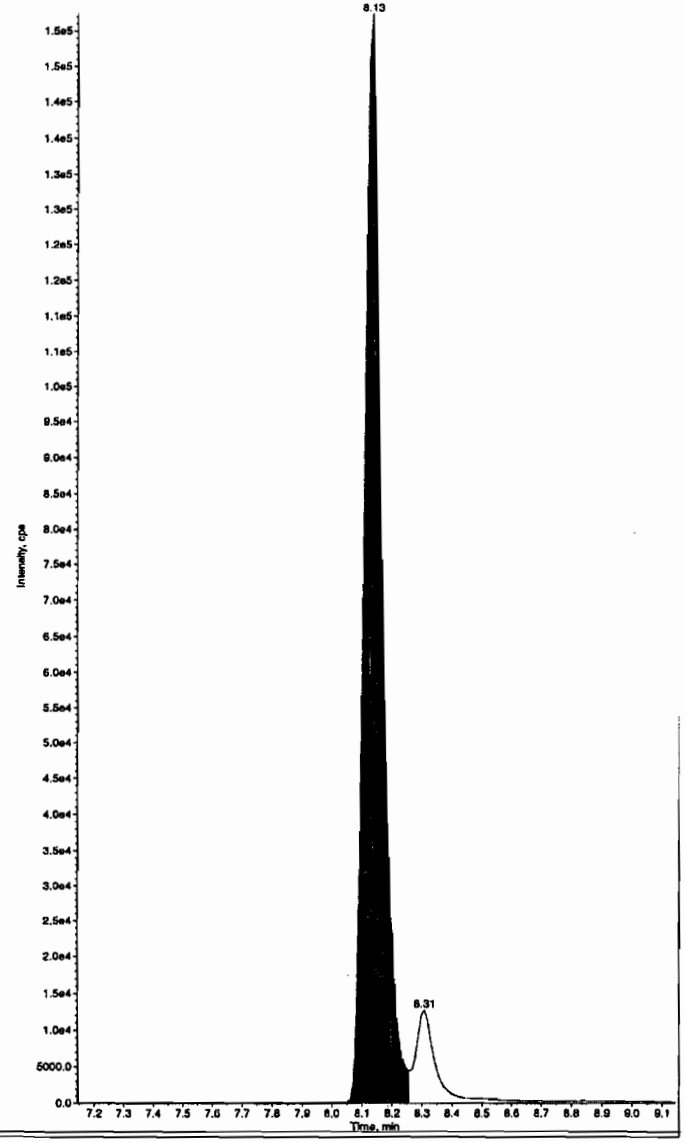

Hnm 04/05/10

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Sample Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310038.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

ample Index: 1
ample Type: QC
oncentration: 50.0 ng/mL
alculated Conc: 46.8 ng/mL
cq. Date: 3/31/2010
cq. Time: 6:21:56 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 1460.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 15.0 sec
xpected RT: 8.31 min
se Relative RT: No

nt. Type: Valley
etention Time: 8.30 min
rea: 3.76e+005 counts
eight: 97259.399 cps
tart Time: 8.23 min
nd Time: 8.69 min

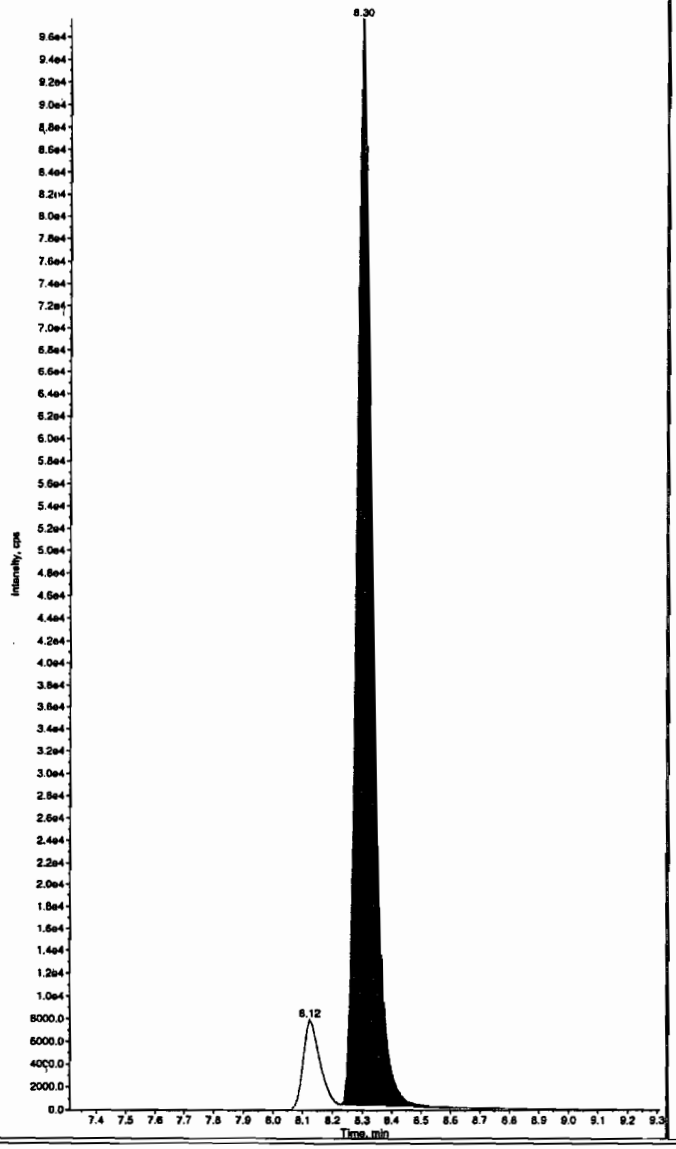

Sample Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310038.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 100. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 6:21:56 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.95 min
Area: 2.26e+005 counts
Height: 50691.868 cps
Start Time: 4.86 min
End Time: 5.23 min

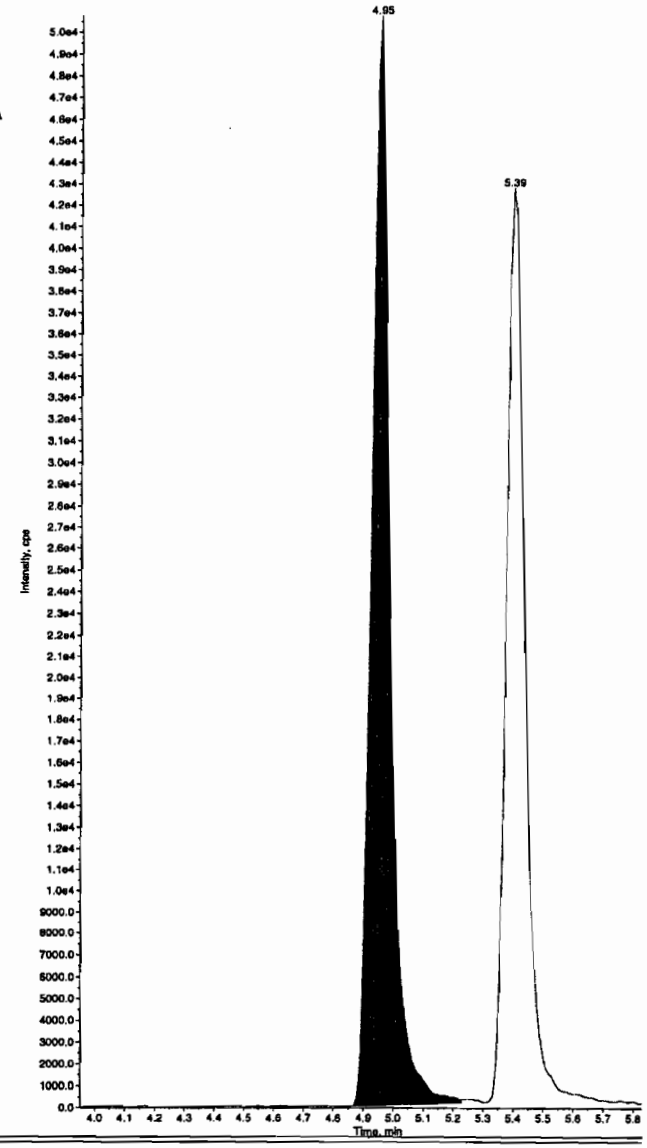

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Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310038.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ent: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
ration: 100. ng/mL
ated Conc: 82.4 ng/mL
ate: 3/31/2010
me: 6:21:56 PM

d: No
algorithm: IntelliQuan - IQA
eak Height: 350.00 cps
eak Width: 0.00 sec
ing Width: 3 points
low: 30.0 sec
d RT: 5.41 min
ative RT: No

pe: Valley
on Time: 5.39 min
1.89e+005 counts
42559.608 cps
ime: 5.31 min
e: 5.74 min

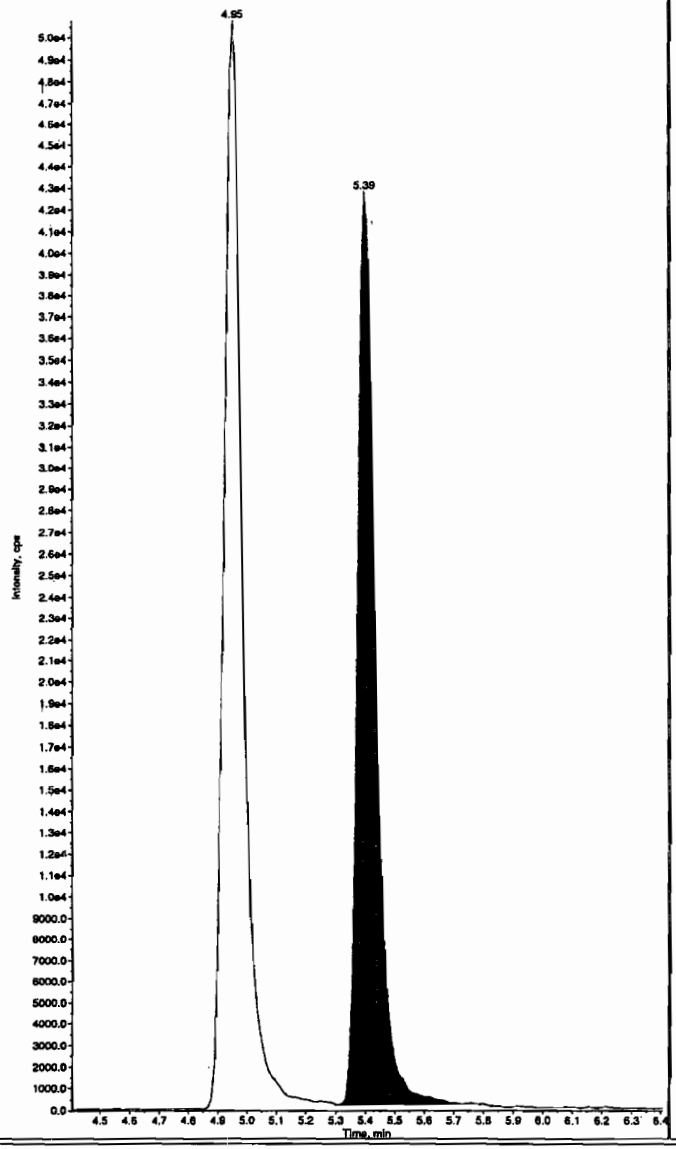

Sample Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310038.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 99.6 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 6:21:56 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 2.09e+006 counts
Height: 515698.853 cps
Start Time: 10.7 min
End Time: 11.1 min

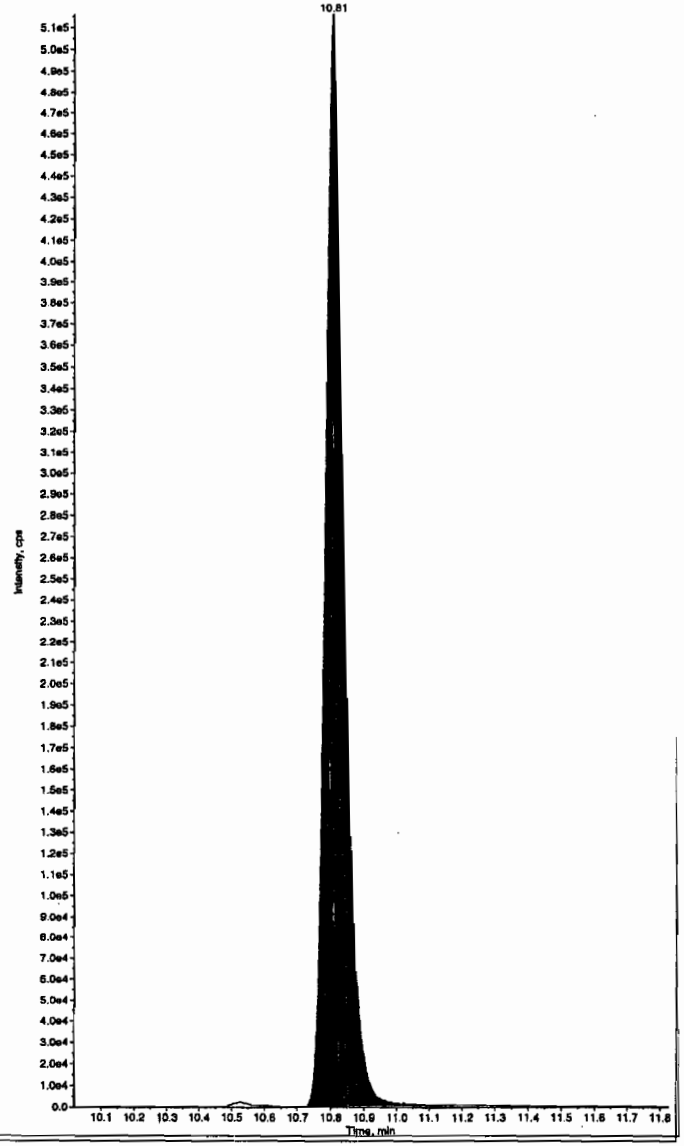

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Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2005

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXS03310048.wiff

Analysis Date: 31–MAR–10 20:59

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	535	107	
2,6–Diamino–4–nitrotoluene	500	524	105	
3,4–Dinitrotoluene	250	243	97	
3,5–Dinitroaniline	500	487	97	
TATB	500	483	97	
tris(o–cresyl) phosphate	500	498	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lar 4/5/10

lame: "WXX100331-26CCV" Sample ID: "[1]LER" File: "EXS03310048.wiff"
ne: "TATB" Mass(es): "257.2/204.9 amu"
t: "LCMSEXP_C" Annotation: ""

ndex: 1
ype: QC
ation: 500. ng/mL
ed Conc: 483. ng/mL
e: 3/31/2010
e: 8:59:07 PM

: No
gorithm: IntelliQuan - IQA
k Height: 2500.00 cps
k Width: 0.00 sec
g Width: 3 points
w: 30.0 sec
RT: 6.90 min
tive RT: No

e: Valley
Time: 6.91 min
3.57e+005 counts
73020.370 cps
ne: 6.80 min
: 7.94 min

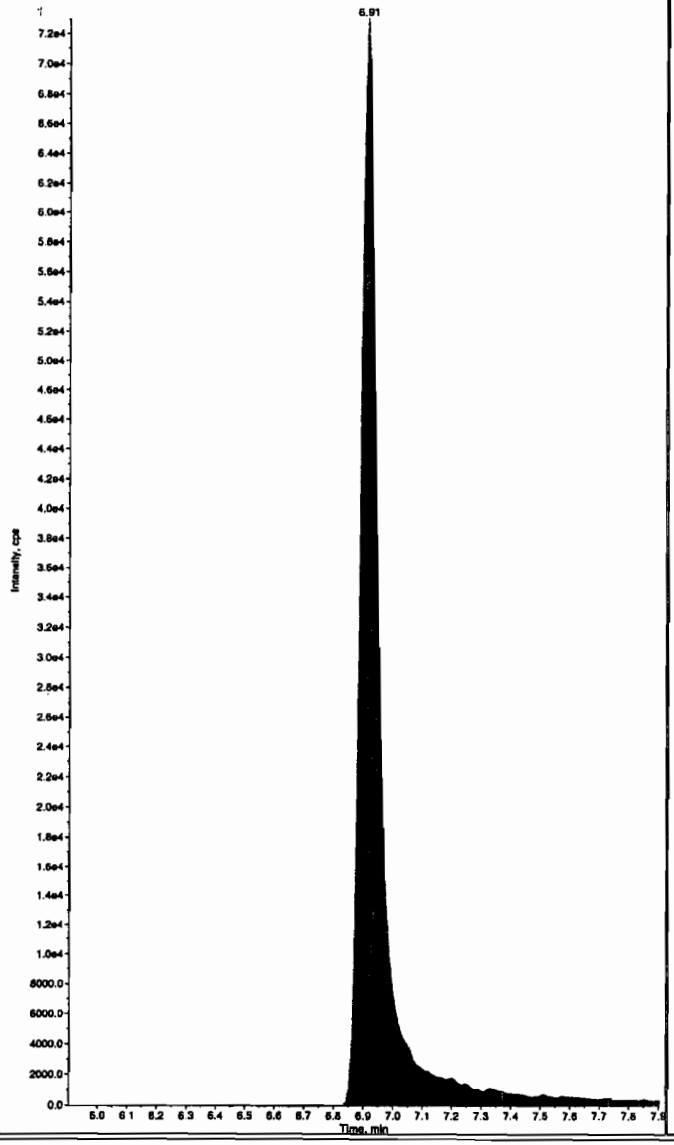

Sample Name: "WXX100331-26CCV" Sample ID: "[1]LER" File: "EXS03310048.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 487. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 8:59:07 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.15 min
Area: 3.10e+006 counts
Height: 766689.026 cps
Start Time: 8.06 min
End Time: 8.27 min

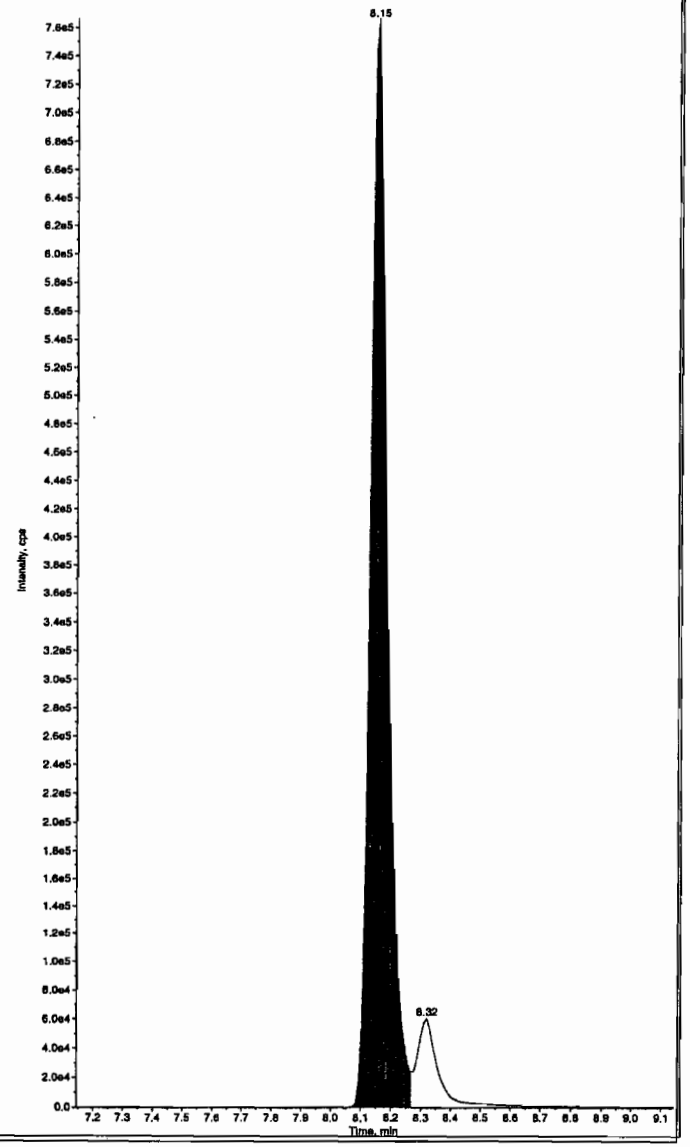

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SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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e Name: "WXX100331-26CCV" Sample ID: "|1|LER" File: "EXS03310048.wiff"
Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ent: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
tration: 250. ng/mL
ated Conc: 243. ng/mL
ate: 3/31/2010
ime: 8:59:07 PM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 1460.00 cps
eak Width: 0.00 sec
ing Width: 3 points
ow: 15.0 sec
d RT: 8.31 min
lative RT: No

pe: Valley
on Time: 8.31 min
1.98e+006 counts
516746.094 cps
Time: 8.24 min
e: 8.64 min

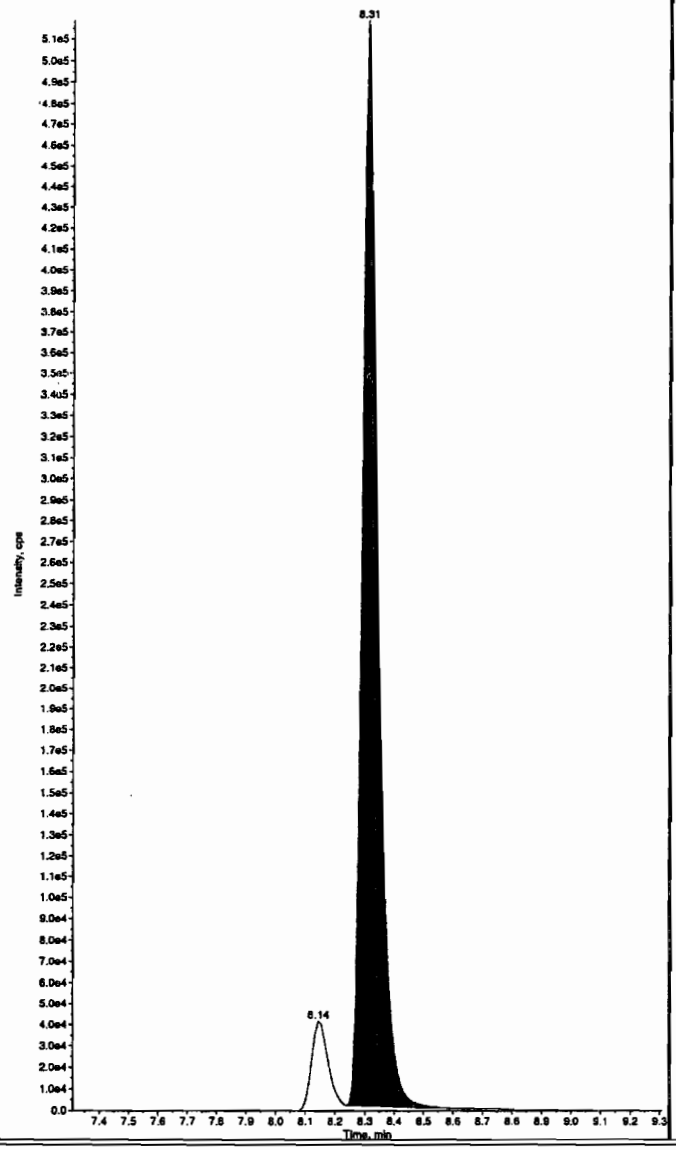

Sample Name: "WXX100331-26CCV" Sample ID: "|1|LER" File: "EXS03310048.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 524. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 8:59:07 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.97 min
Area: 1.14e+006 counts
Height: 240951.859 cps
Start Time: 4.96 min
End Time: 5.06 min

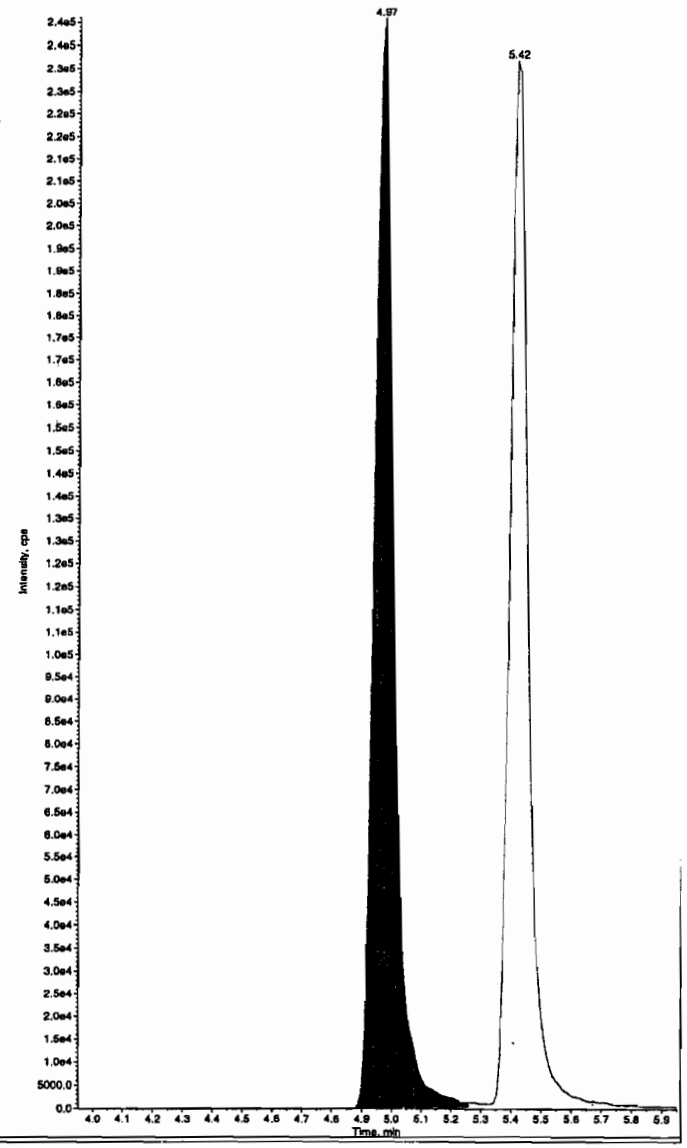

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me: "WXX100331-26CCV" Sample ID: "|1|LER" File: "EXS03310048.wiff"
a: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
"LCMSEXP_C" Annotation: ""

```
dex:          1
pe:          QC
tion:       500.     ng/mL
d Conc:     535.     ng/mL
:        3/31/2010
:        8:59:07 PM

            No
orithm: IntelliQuan - IQA
 Height: 350.00    cps
 Width:    0.00    sec
 Width:  3        points
          30.0     sec
T:         5.41    min
ve RT:     No

         Valley
 Time:     5.42    min
     1.01e+006    counts
     231794.510   cps
::         5.31    min
           5.95    min
```

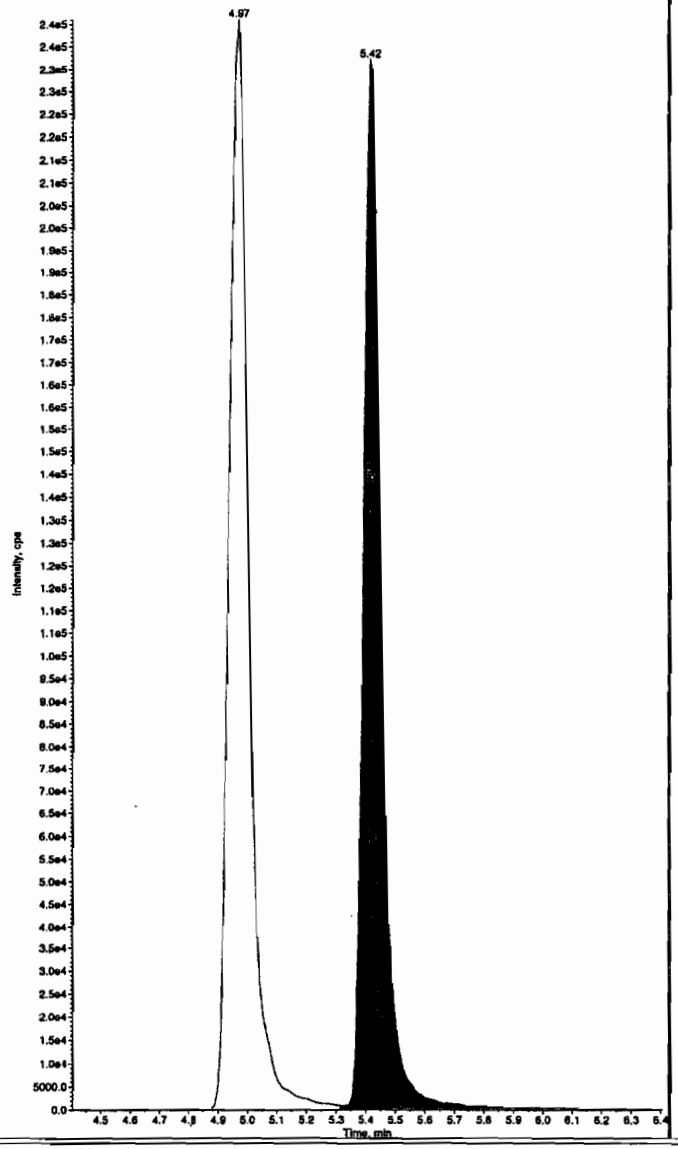

Sample Name: "WXX100331-26CCV" Sample ID: "|1|LER" File: "EXS03310048.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:     500.     ng/mL
Calculated Conc:   498.     ng/mL
Acq. Date:       3/31/2010
Acq. Time:       8:59:07 PM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:       10.8     min
Use Relative RT:   No

Int. Type:        Valley
Retention Time:    10.8     min
Area:        9.28e+006    counts
Height:       2156669.189   cps
Start Time:        10.7     min
End Time:          11.2     min
```

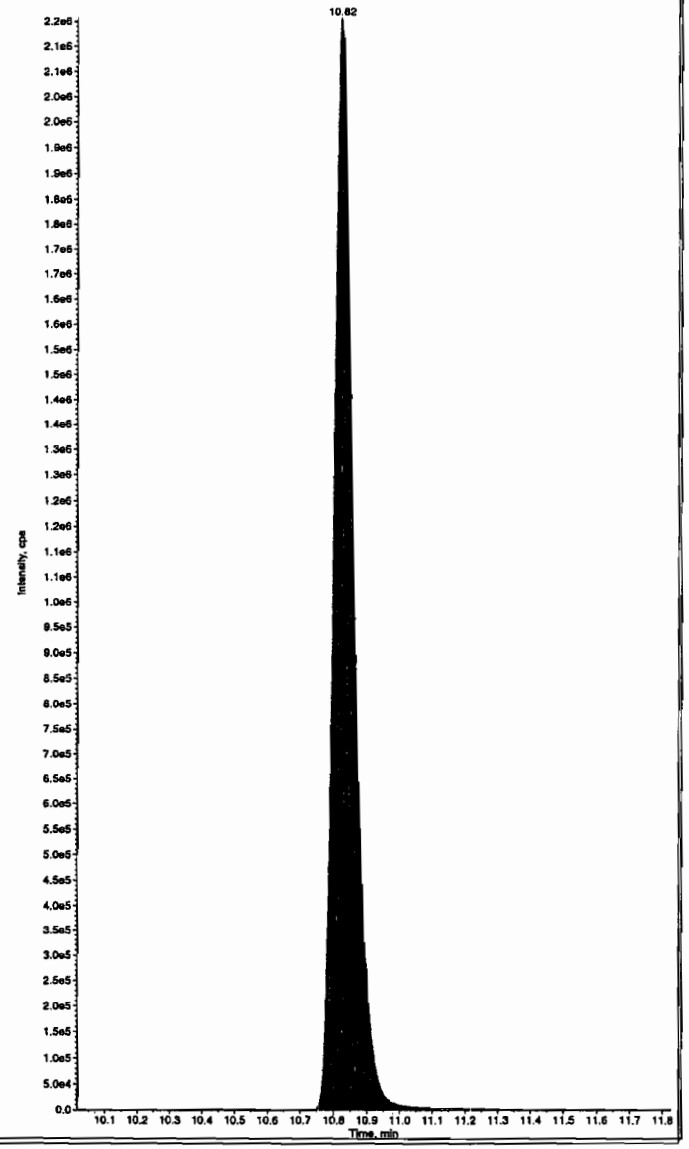

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Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2005

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS03310050.wiff

Analysis Date: 31–MAR–10 21:30

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	88.6	89	
2,6–Diamino–4–nitrotoluene	100	103	103	
3,4–Dinitrotoluene	50	48.4	97	
3,5–Dinitroaniline	100	106	106	
TATB	100	98.5	99	
tris(o–cresyl) phosphate	100	101	101	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dan 4/5/10

ame: "WXX100331-27CRI" Sample ID: "|1|LER" File: "EXS03310050.wiff"
e: "TATB" Mass(es): "257.2/204.9 amu"
: "LCMSEXP_C" Annotation: ""
ndex: 1
pe: QC
tion: 100. ng/mL
d Conc: 98.5 ng/mL
: 3/31/2010
: 9:30:32 PM

Nc
orithm: IntelliQuan - IQA
Height:2500.00 cps
Width: 0.00 sec
Width: 3 points
: 30.0 sec
RT: 6.90 min
ive RT: No

: Valley
Time: 6.90 min
6.77e+004 counts
14271.482 cps
e: 6.80 min
7.39 min

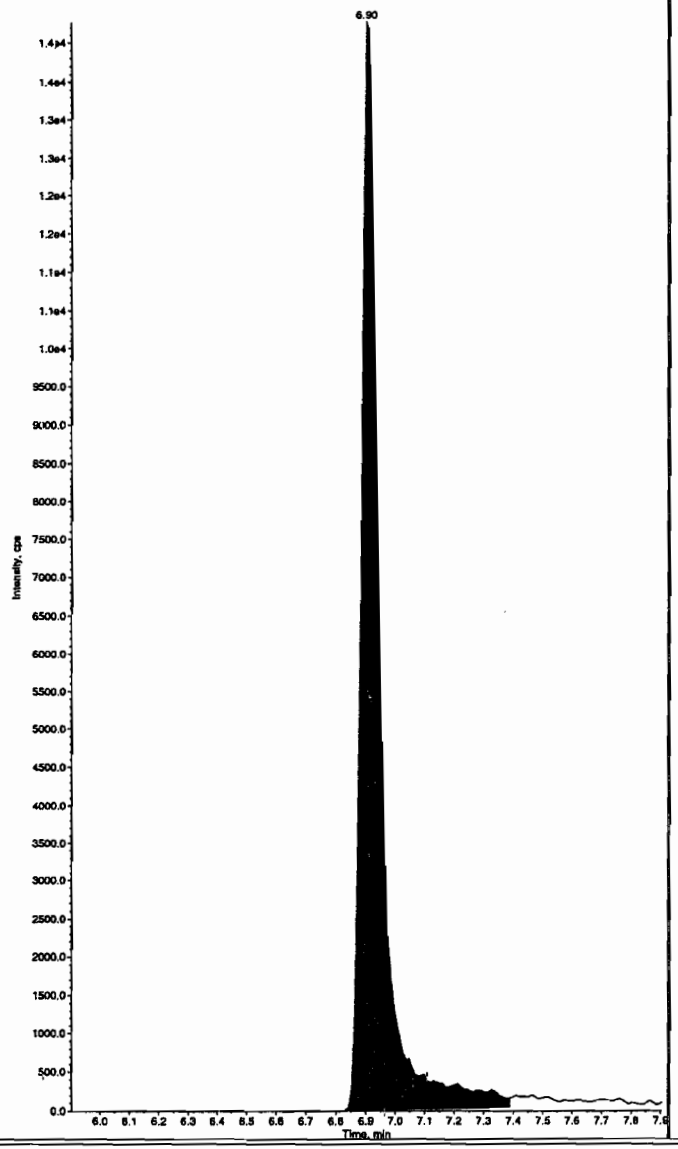

Sample Name: "WXX100331 27CRI" Sample ID: "|1|LER" File: "EXS03310050.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 106. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 9:30:32 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.15 min
Area: 6.78e+005 counts
Height: 169699.051 cps
Start Time: 8.03 min
End Time: 8.27 min

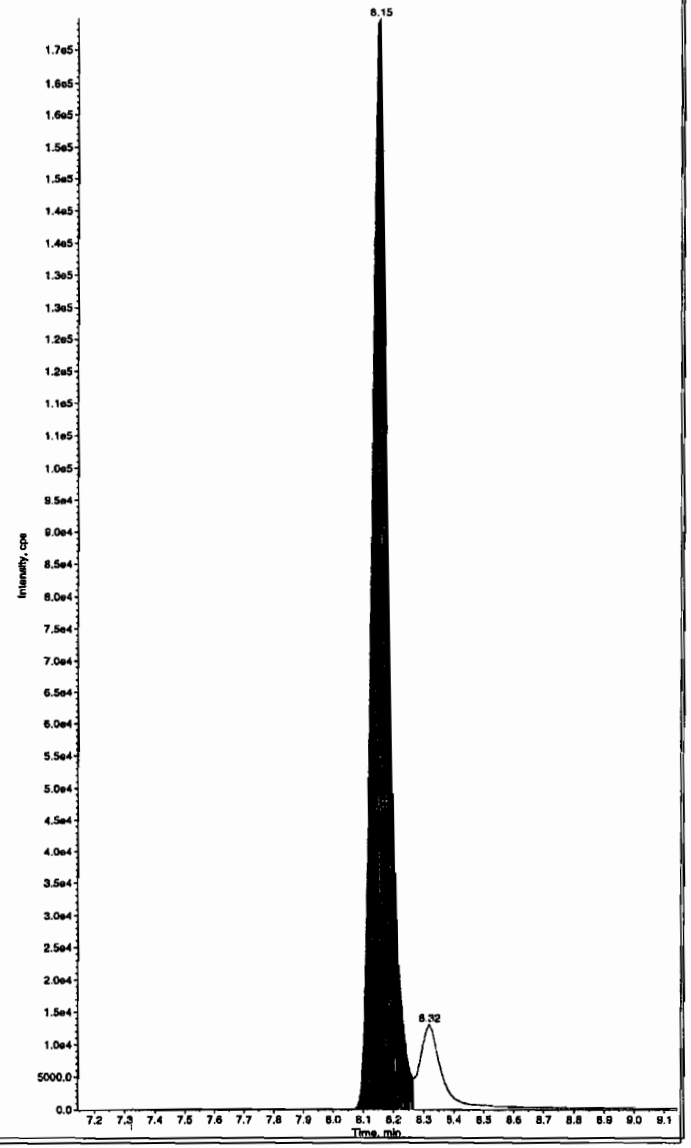

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a: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310050.wiff"
"34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
CMSEXP_C" Annotation: ""

```
x:          1
:          QC
on:       50.0     ng/mL
Conc:     48.4     ng/mL
       3/31/2010
       9:30:32 PM

          No
ithm: IntelliQuan - IQA
eight:1460.00    cps
idth:    0.00    sec
idth:  3        points
         15.0     sec
:         8.31    min
e RT:     No

        Valley
ime:      8.31    min
   3.89e+005    counts
     99726.997   cps
         8.24    min
         8.59    min
```

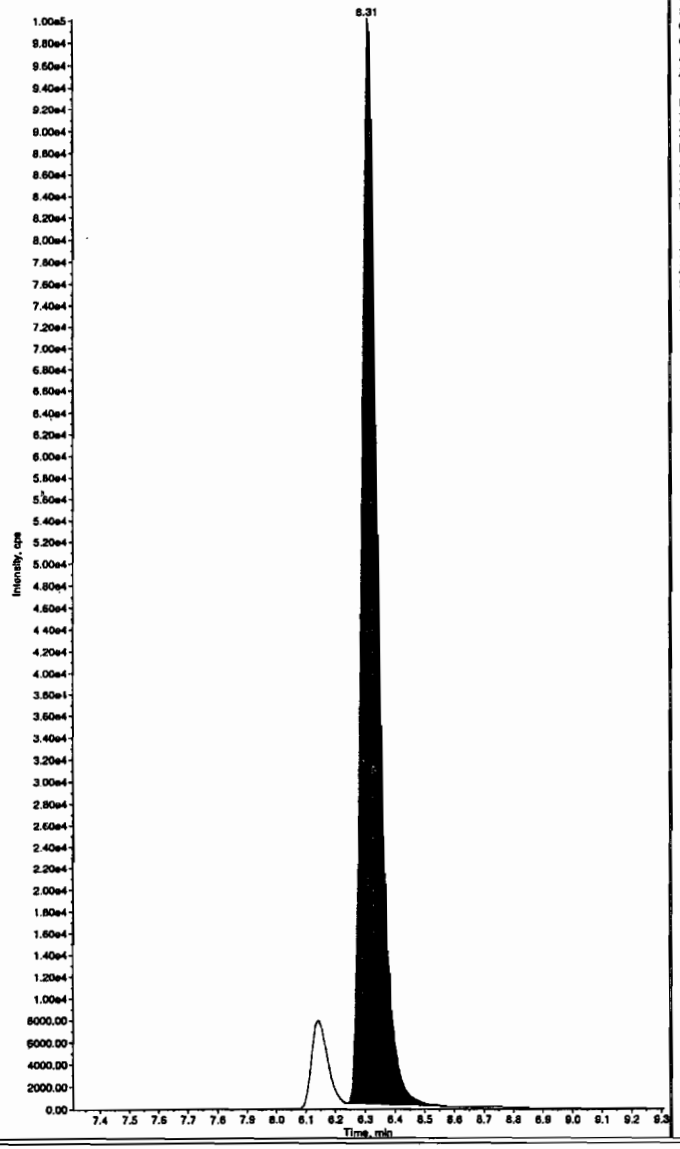

Sample Name: "WXX100331-27CRI" Sample ID: "[1]LER" File: "EXS03310050.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       100.     ng/mL
Calculated Conc:     103.     ng/mL
Acq. Date:        3/31/2010
Acq. Time:        9:30:32 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:        4.95    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     4.96    min
Area:         2.33e+005    counts
Height:        53019.333   cps
Start Time:         4.86    min
End Time:           5.25    min
```

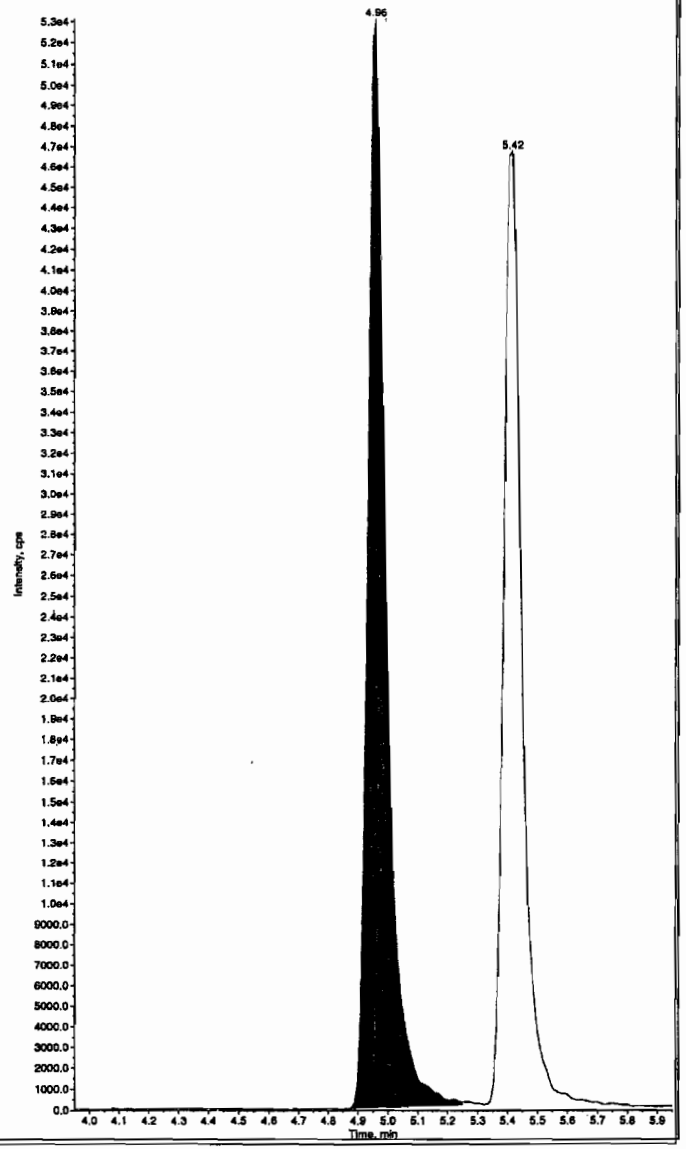

me: "WXX100331-27CRI" Sample ID: "|1|LER" File: "EXS03310050.wiff"
: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
"LCMSEXP_C" Annotation: ""

```
lex:          1
e:           QC
ion:       100.     ng/mL
l Conc:     88.6     ng/mL
        3/31/2010
        9:30:32 PM

            No
rithm: IntelliQuan - IQA
Height: 350.00    cps
Width:    0.00    sec
Width:  3        points
         30.0     sec
RT:       5.41    min
ve RT:    No

         Valley
Time:     5.42    min
     2.00e+005   counts
     46521.076   cps
:         5.32    min
          5.73    min
```

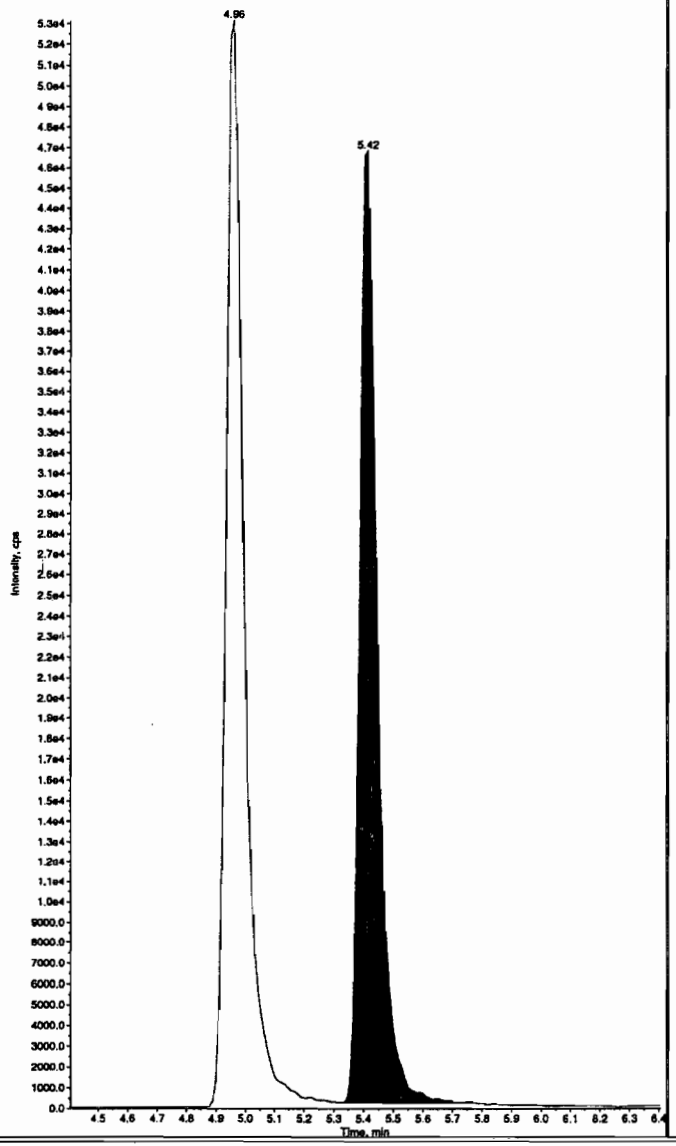

Sample Name: "WXX100331-27CRI" Sample ID: "|1|LER" File: "EXS03310050.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       100.     ng/mL
Calculated Conc:     101.     ng/mL
Acq. Date:        3/31/2010
Acq. Time:        9:30:32 PM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:       10.8     min
Use Relative RT:   No

Int. Type:        Valley
Retention Time:    10.8     min
Area:        2.11e+006    counts
Height:       515767.212   cps
Start Time:        10.7     min
End Time:          11.2     min
```

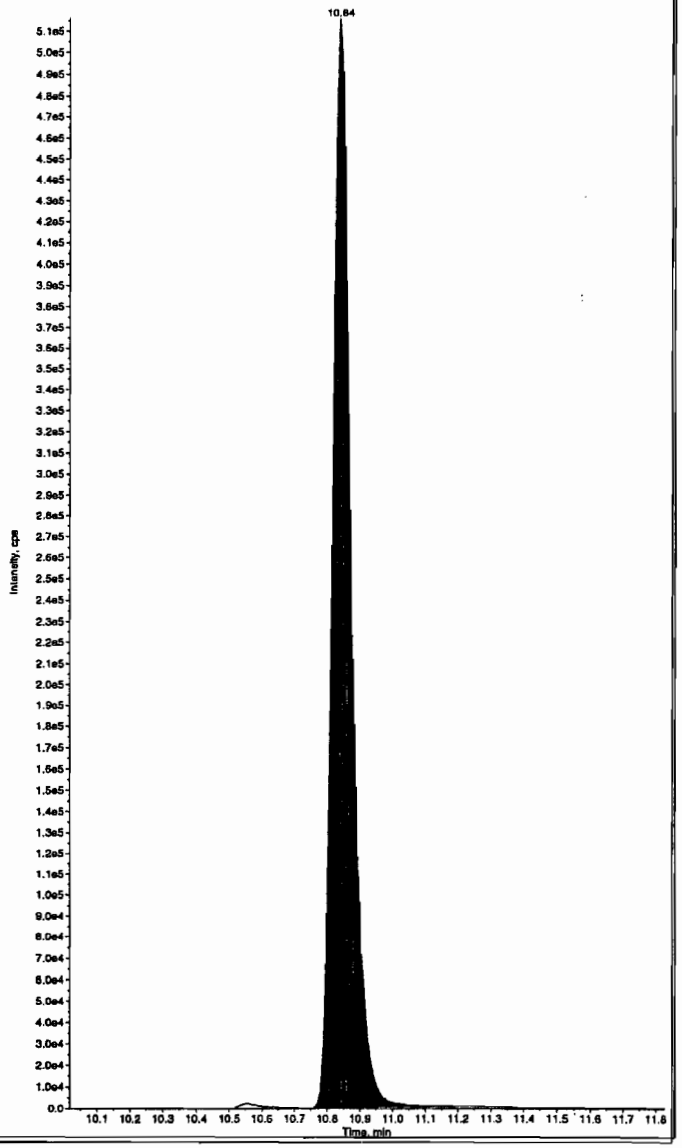

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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QUALITY CONTROL DATA

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 957190

Lab Code: GEL

GEL Job No (SDG) 10-2005

Matrix: GROUND WATER

GEL Sample ID: 1202052389

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 24-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 957190

Concentrated Extract Volume (mL) 5

Date Extracted: 25-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0322021.wiff

Date Analyzed: 23-MAR-10 00:20

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	U
121-14-2	2,4-Dinitrotoluene	0.325	U
121-82-4	RDX	0.325	U
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	U
2691-41-0	HMX	0.325	U
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	U
479-45-8	Tetryl	0.649	U
606-20-2	2,6-Dinitrotoluene	0.084	J
78-11-5	PETN	1.3	U
88-72-2	o-Nitrotoluene	0.325	U
98-95-3	Nitrobenzene	0.325	U
99-08-1	m-Nitrotoluene	0.325	U
99-35-4	1,3,5-Trinitrobenzene	0.325	U
99-65-0	m-Dinitrobenzene	0.325	U
99-99-0	p-Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322021.wiff	Acquisition Date	3/23/2010 12:20:50 AM
Sample Name	1202052389	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

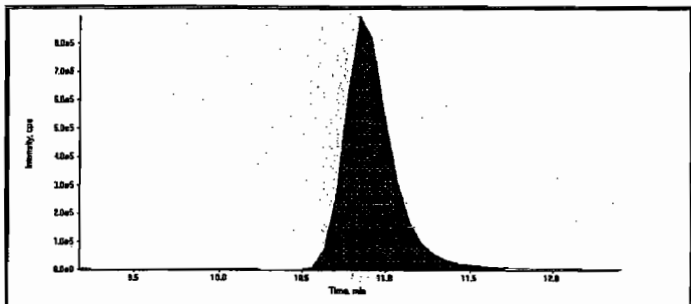

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	17300000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

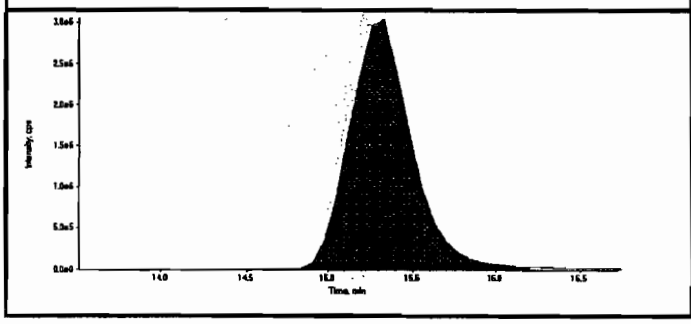

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.30
Area Counts:	78100000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

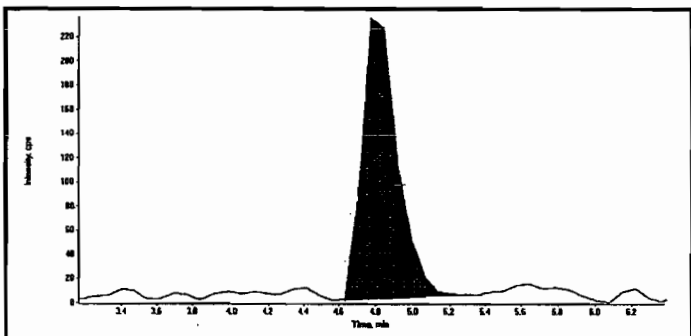

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	3.13e+003
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

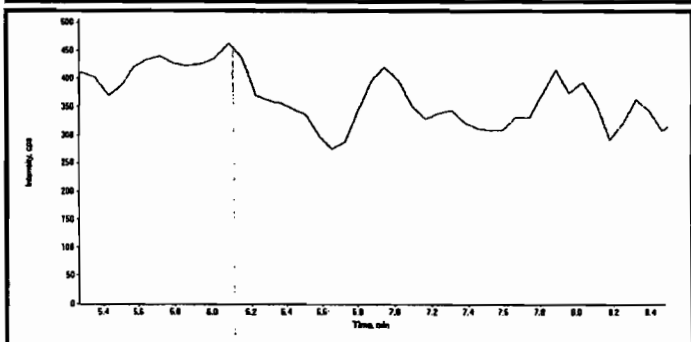

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

LCr 2/28/10 HMC 03/30/10

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322021.wiff	Acquisition Date	3/23/2010 12:20:50 AM
Sample Name	1202052389	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	**Unknown**

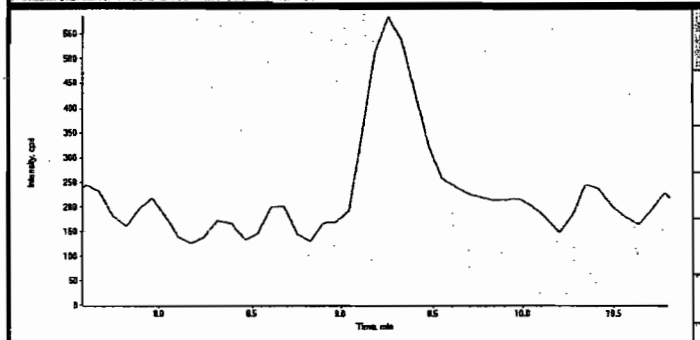

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

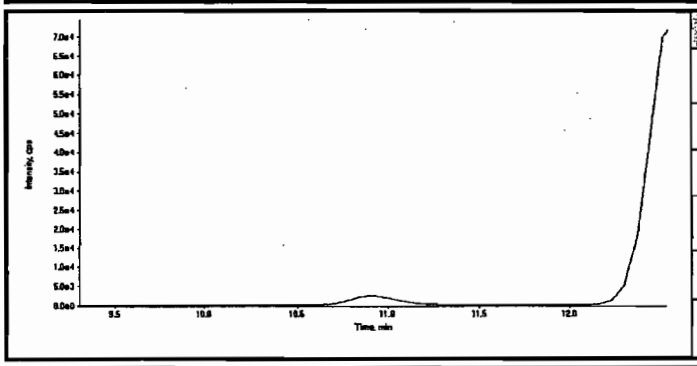

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

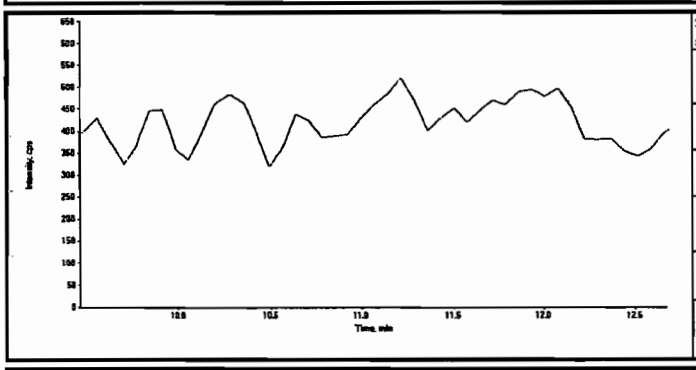

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

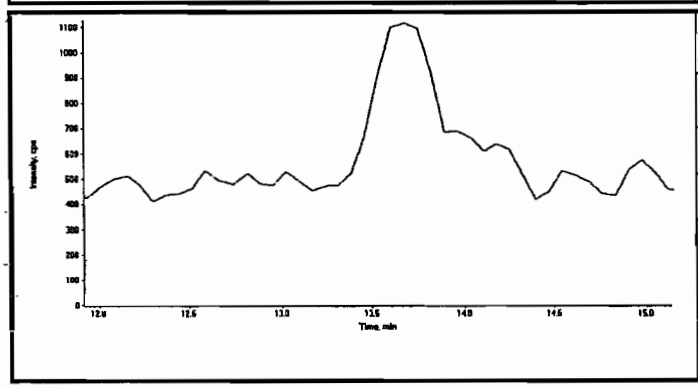

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322021.wiff	Acquisition Date	3/23/2010 12:20:50 AM
Sample Name	1202052389	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

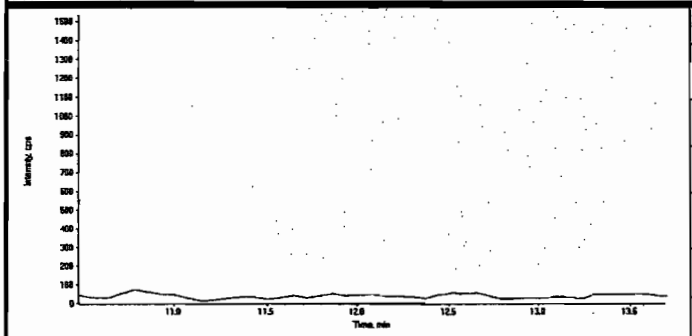

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

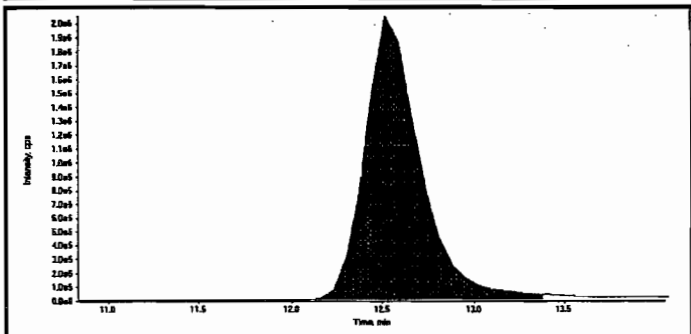

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.5
Area Counts:	4.35e+007
Manual Modification	No
Amount:	2.74 215. (ng/mL)
% Accuracy:	N/A

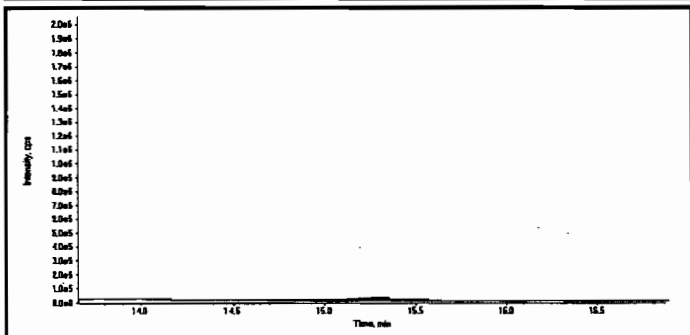

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.3
Area Counts:	9.87e+005
Manual Modification	No
Amount:	6.49 (ng/mL)
% Accuracy:	N/A

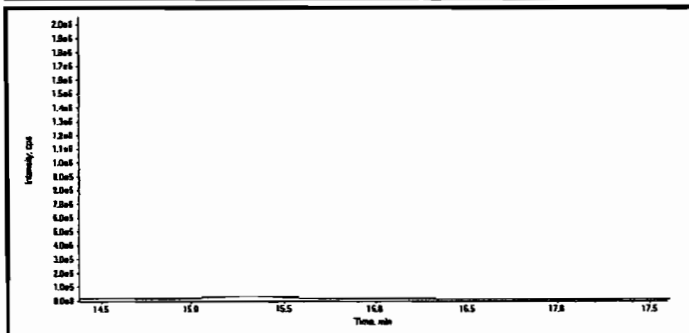

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322021.wiff	Acquisition Date	3/23/2010 12:20:50 AM
Sample Name	1202052389	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	**Unknown**

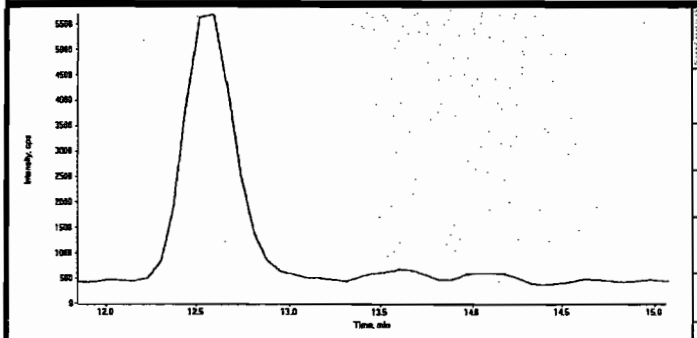

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

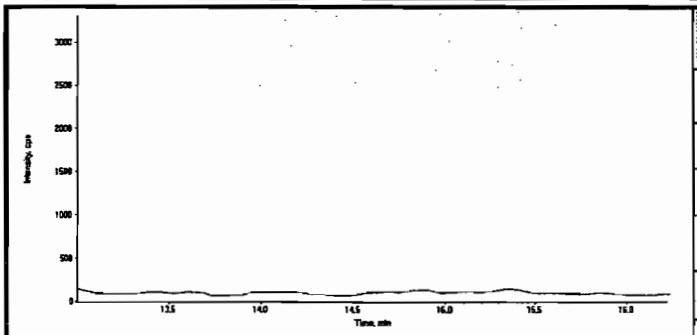

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

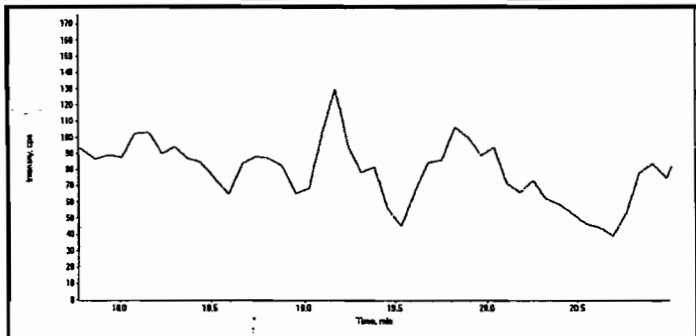

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322021.wiff	Acquisition Date	3/23/2010 12:20:50 AM
Sample Name	1202052389	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

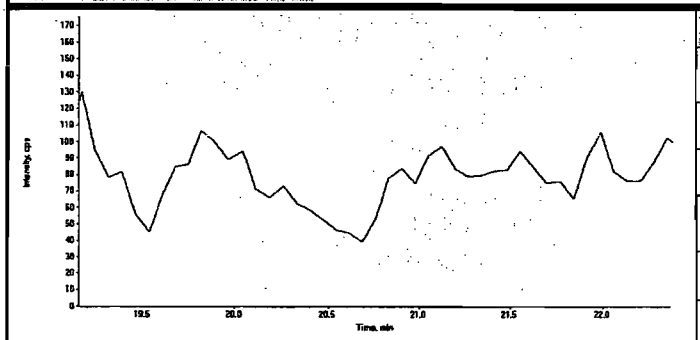

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

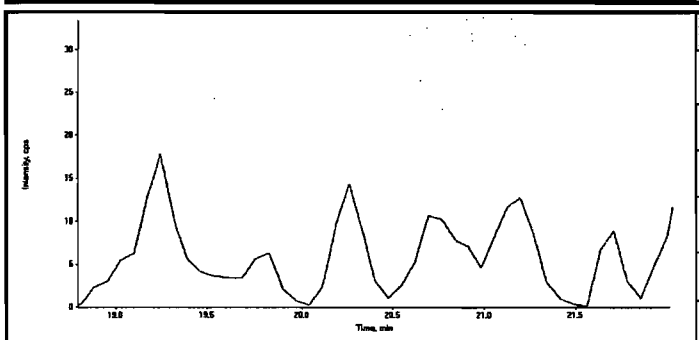

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	0.00
Area Counts:	0.00e+000
Manual Modification	No
Amount:	N/A (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 957190

Lab Code: GEL

GEL Job No (SDG) 10-2005

Matrix: GROUND WATER

GEL Sample ID: 1202052389

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 24-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 957190

Concentrated Extract Volume (mL) 5

Date Extracted: 25-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310039.wiff

Date Analyzed: 31-MAR-10 18:37

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Rcn 415/10

Name: "1202052389" Sample ID: "957192|2|LER" File: "EXS03310039.wiff"
me: "TATB" Mass(es): "257.2/204.9 amu"
nt: "LCX83212S" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 3/31/2010
me: 6:37:38 PM

d: No

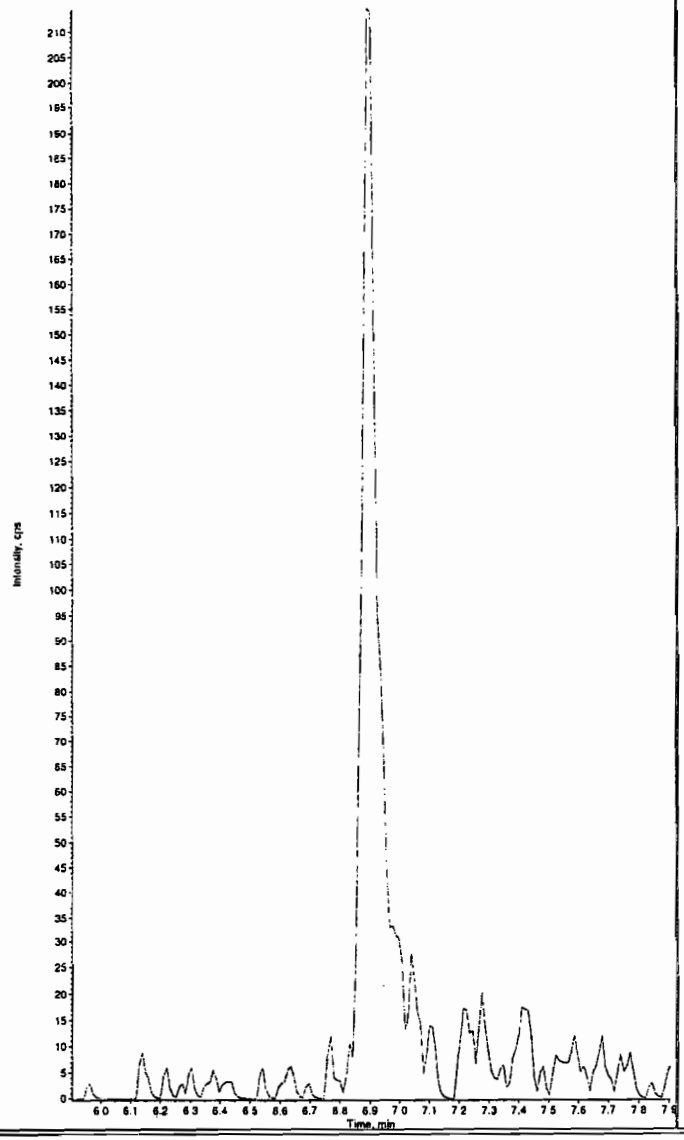

Sample Name: "1202052389" Sample ID: "957192|2|LER" File: "EXS03310039.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 3/31/2010
Acq. Time: 6:37:38 PM

Modified: No

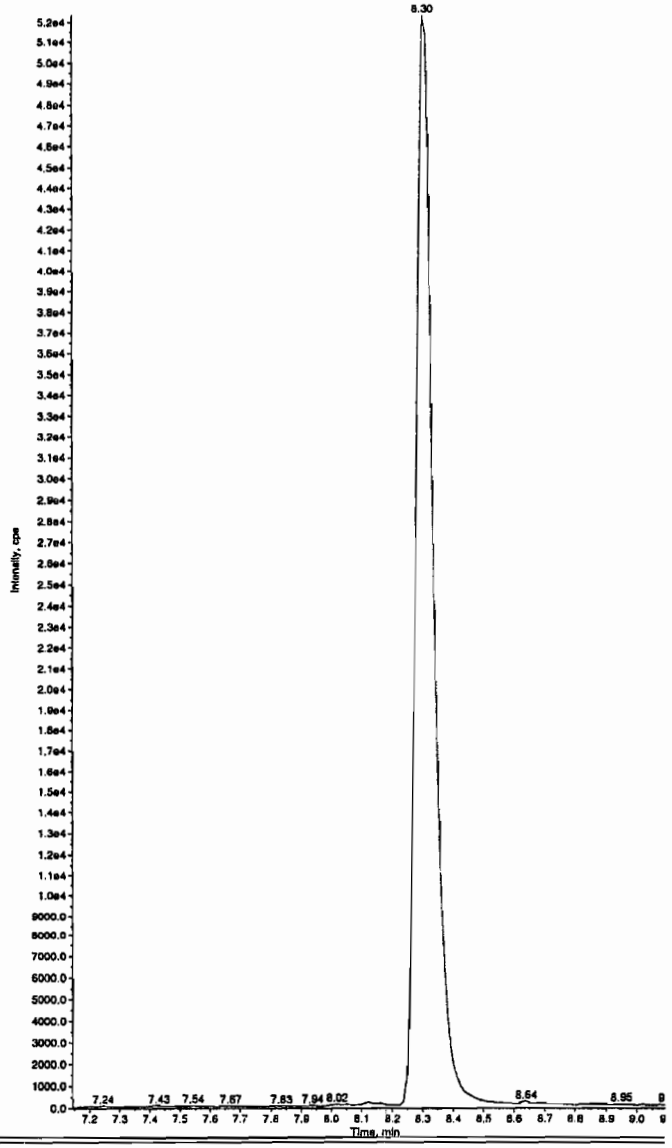

HMM 04/07/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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lame: "1202052389" Sample ID: "957192|2|LER" File: "EXS03310039.wiff"
ne. "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
: "LCX83212S" Annotation: ""

2.97

ndex:	1
ype:	Unknown
ation:	N/A
ed Conc:	229. ng/mL
e:	3/31/2010
e:	6:37:38 PM
:	No
gorithm:	IntelliQuan - IOA
k Height:	1460.00 cps
k Width:	0.00 sec
g Width:	2 points
w:	15.0 sec
RT:	8.31 min
tive RT:	No
e:	Valley
n Time:	8.10 min
	1.67e+006 counts
	465888.794 cps
me:	6.21 min
:	8.73 min

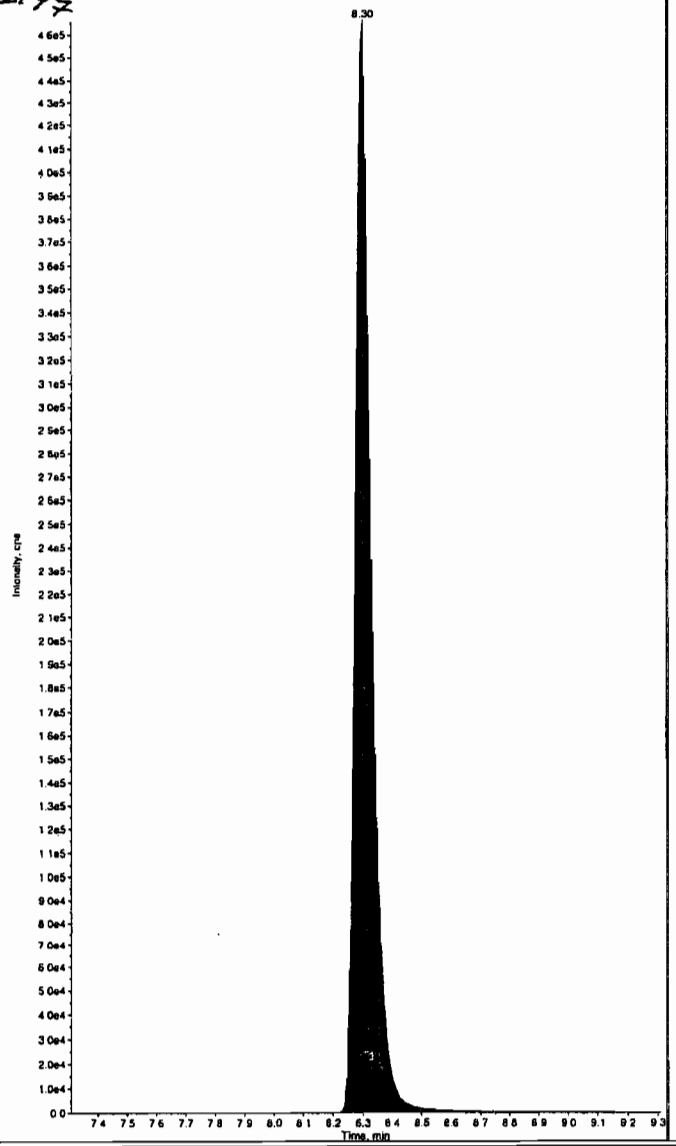

Sample Name: "1202052389" Sample ID: "957192|2|LER" File: "EXS03310039.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.00 ng/mL
Acq. Date:	3/31/2010
Acq. Time:	6:37:38 PM
Modified:	No

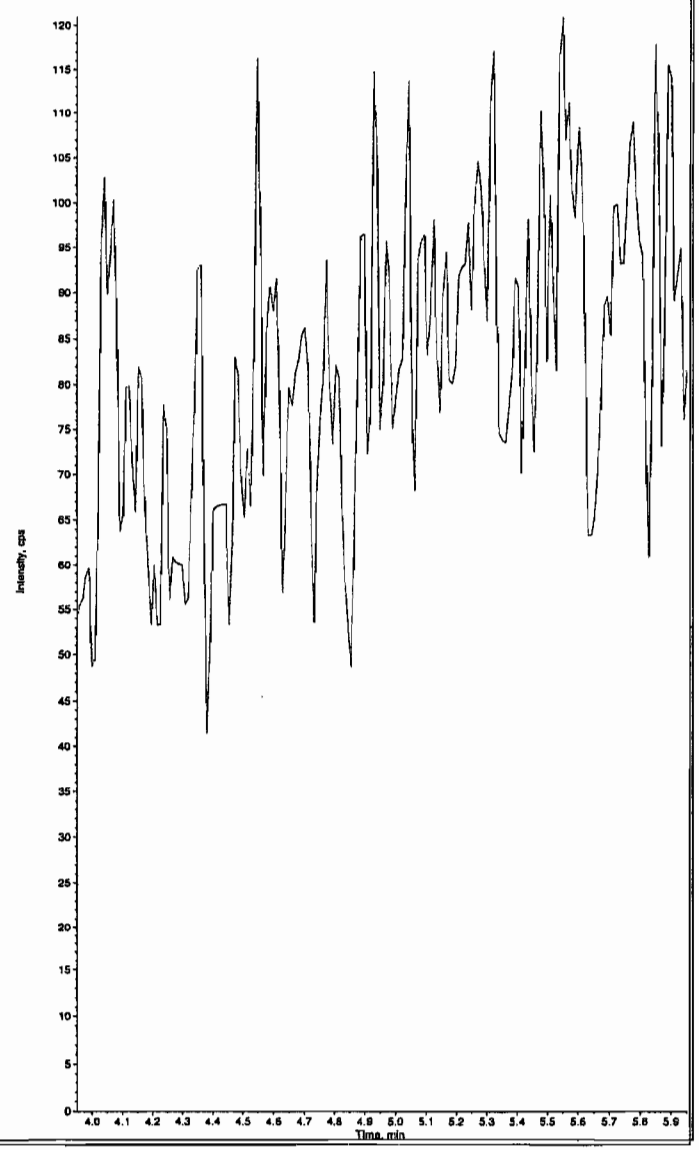

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Name: "1202052389" Sample ID: "957192|2|LER" File: "EXS03310039.wiff"
ame: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nt: "LCX83212S" Annotation: "
Index: 1
Type: Unknown
ration: N/A
ted Conc: 0.00 ng/mL
te: 3/31/2010
me: 6:37:38 PM
d: No

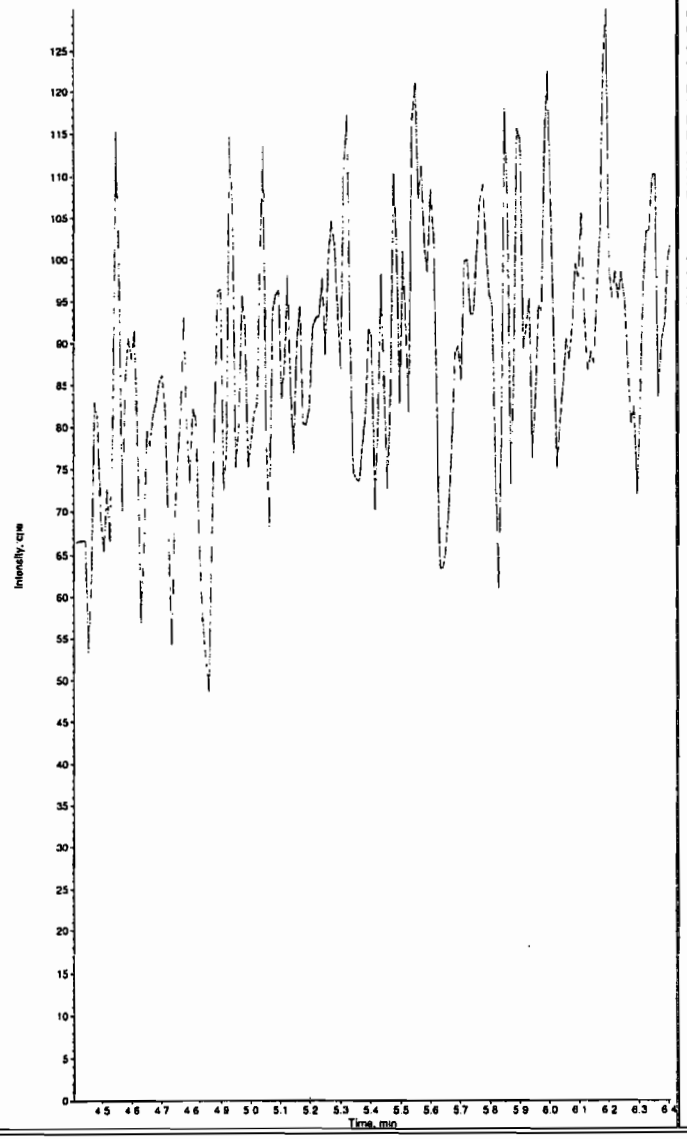

Sample Name: "1202052389" Sample ID: "957192|2|LER" File: "EXS03310039.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: "

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	No Intercept	
Acq. Date:	3/31/2010	
Acq. Time:	6:37:38 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.8	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.8	min
Area:	4.67e+004	counts
Height:	11740.528	cps
Start Time:	10.7	min
End Time:	11.0	min

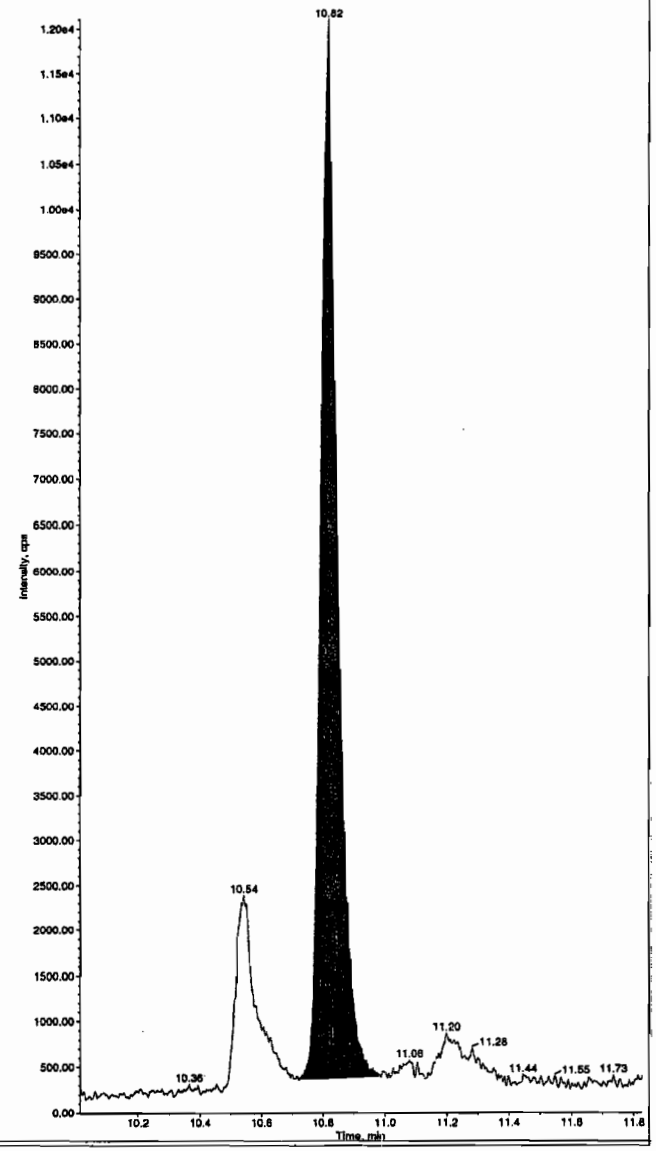

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 957190

Lab Code: GEL

GEL Job No (SDG) 10-2005

Matrix: GROUND WATER

GEL Sample ID: 1202052390

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 24-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 957190

Concentrated Extract Volume (mL) 5

Date Extracted: 25-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0322022.wiff

Date Analyzed: 23-MAR-10 00:47

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	5.55	
121-14-2	2,4-Dinitrotoluene	6.22	
121-82-4	RDX	5.75	
19406-51-0	4-Amino-2,6-dinitrotoluene	5.97	
2691-41-0	HMX	5.52	
35572-78-2	2-Amino-4,6-dinitrotoluene	6.18	
479-45-8	Tetryl	5.9	
606-20-2	2,6-Dinitrotoluene	5.38	B
78-11-5	PETN	6.81	
88-72-2	o-Nitrotoluene	5.55	
98-95-3	Nitrobenzene	5.66	
99-08-1	m-Nitrotoluene	5.71	
99-35-4	1,3,5-Trinitrobenzene	5.31	
99-65-0	m-Dinitrobenzene	5.69	
99-99-0	p-Nitrotoluene	5.96	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322022.wiff	Acquisition Date	3/23/2010 12:47:14 AM
Sample Name	1202052390	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

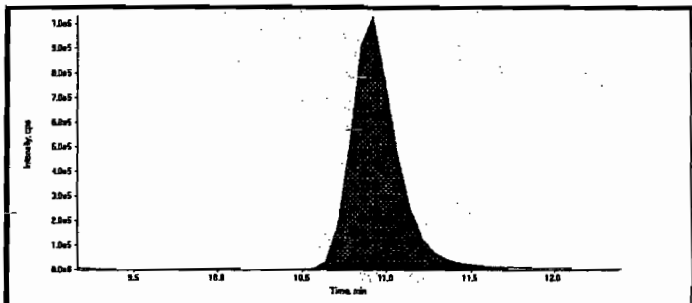

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	19400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

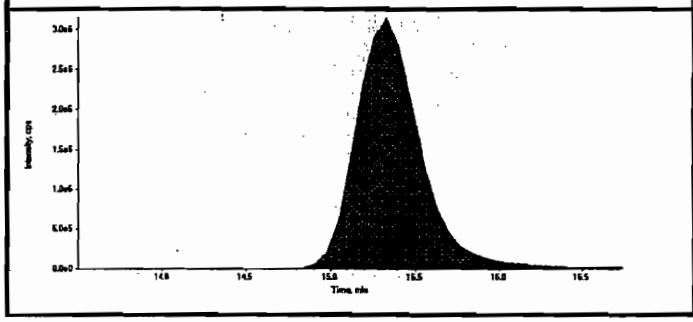

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.30
Area Counts:	83800000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

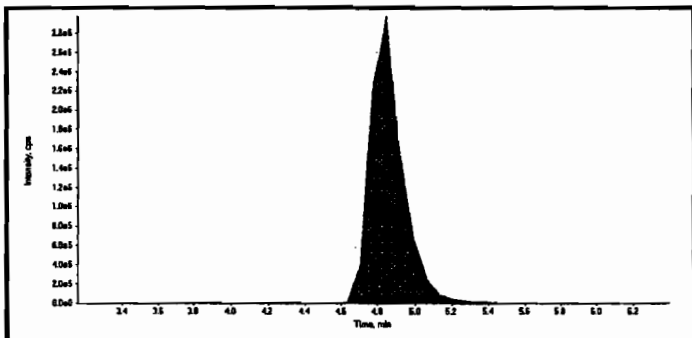

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.85
Area Counts:	3.61e+007
Manual Modification	No
Amount:	425. (ng/mL)
% Accuracy:	N/A

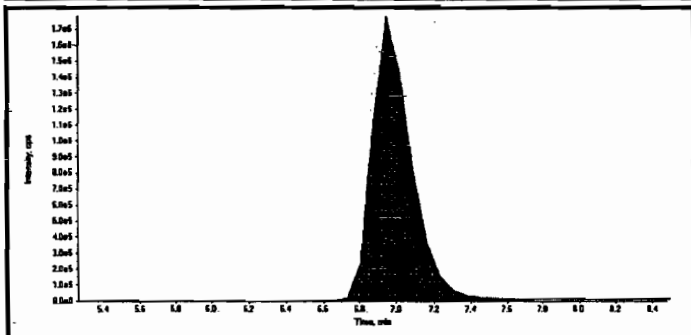

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.94
Area Counts:	2.64e+007
Manual Modification	No
Amount:	443. (ng/mL)
% Accuracy:	N/A

Lan 3/28/10

HMC 03/30/10

Before Ken 3/28/10

mple Name: "1202052390" Sample ID: "9571922[2]LER" File: "EXP0322022.wiff"
ak Name: "246-Trinitrotoluene" Mass(es): "227.1/209.8 amu"
mment: "LCX3521_L" Annotation: "

le Index: 1
le Type: Unknown
entration: N/A
lated Conc: 382. ng/mL
Date: 3/23/2010
Time: 12:47:14 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1.00e4 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 60.0 sec
ted RT: 13.5 min
lelative RT: No

Type: Valley
ction Time: 13.7 min
1.71e+008 counts
t: 6.87e+006 cps
Time: 13.2 min
ime: 14.5 min

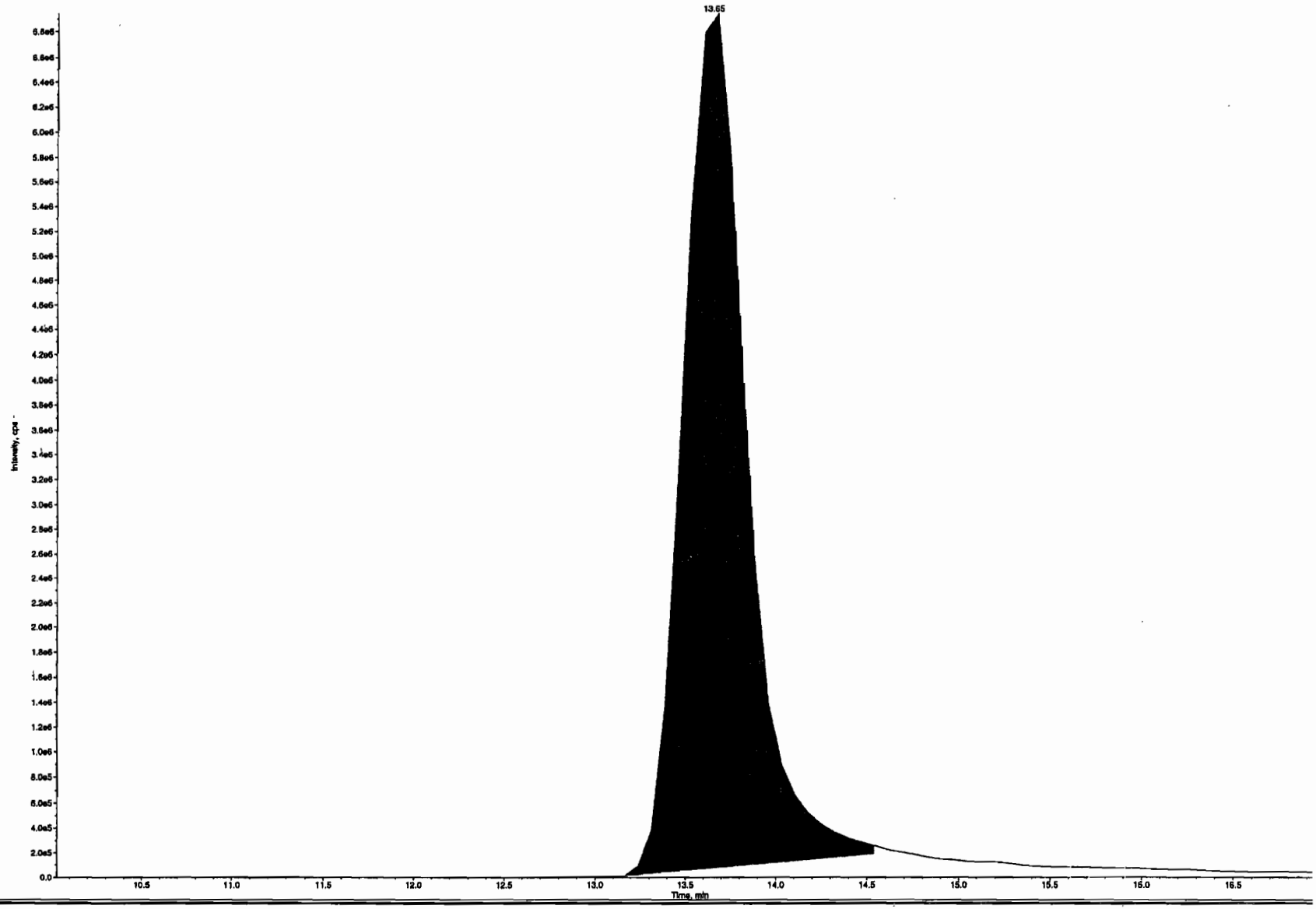

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322022.wiff	Acquisition Date	3/23/2010 12:47:14 AM
Sample Name	1202052390	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

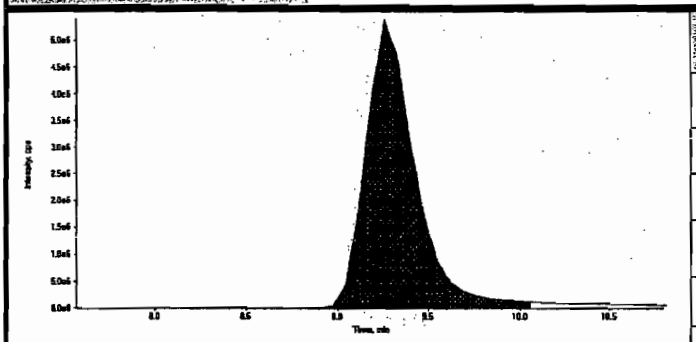

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.26
Area Counts:	1.03e+008
Manual Modification	No
Amount:	409. (ng/mL)
% Accuracy:	N/A

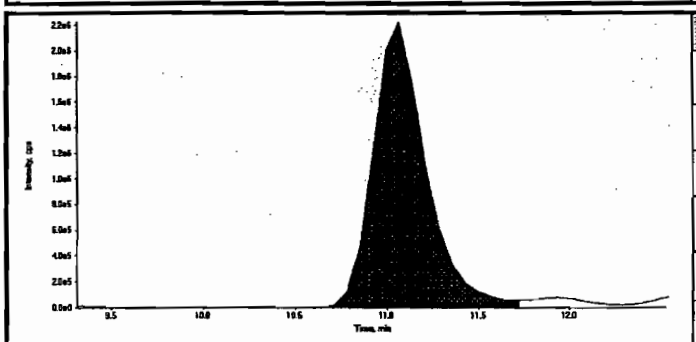

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	11.1
Area Counts:	4.53e+007
Manual Modification	No
Amount:	438. (ng/mL)
% Accuracy:	N/A

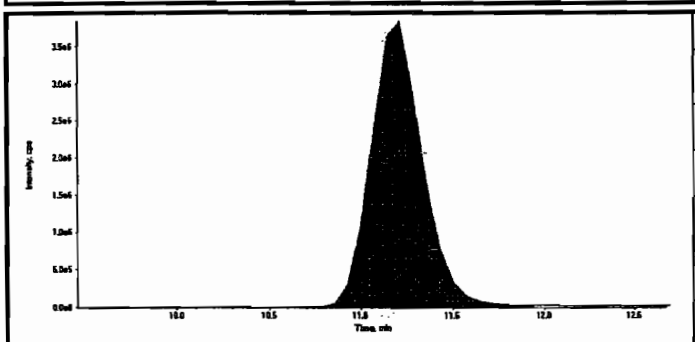

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.2
Area Counts:	7.54e+007
Manual Modification	No
Amount:	454. (ng/mL)
% Accuracy:	N/A

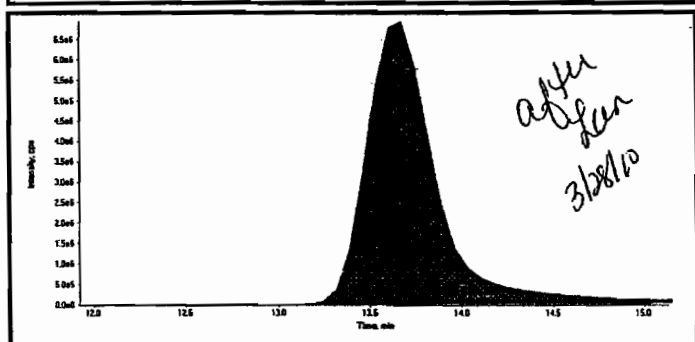

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	1.88e+008
Manual Modification	Yes
Amount:	427. (ng/mL)
% Accuracy:	N/A

Before Lar 3/28/10

mple Name: "1202052392" Sample ID: "957192[2]LER" File: "EXP0322022.wiff"
ak Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
mment: "LCX3521_L" Annotation: ""
le Index: 1
le Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 3/23/2010
Time: 12:47:14 AM

ified: No

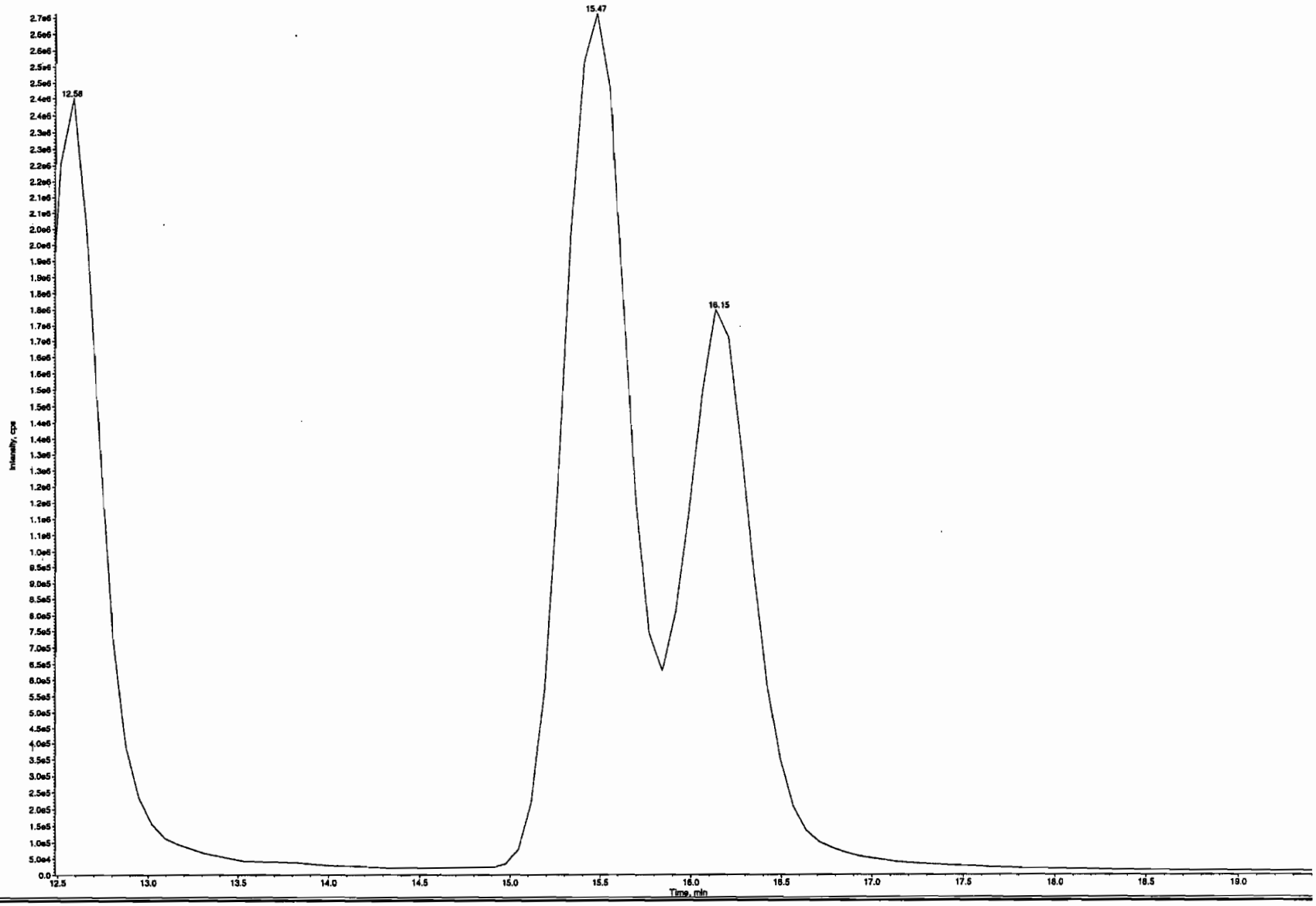

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322022.wiff	Acquisition Date	3/23/2010 12:47:14 AM
Sample Name	1202052390	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	**Unknown**

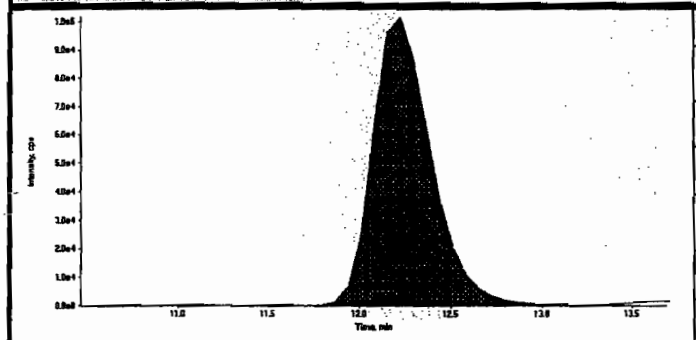

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	2.29e+006
Manual Modification	No
Amount:	436. (ng/mL)
% Accuracy:	N/A

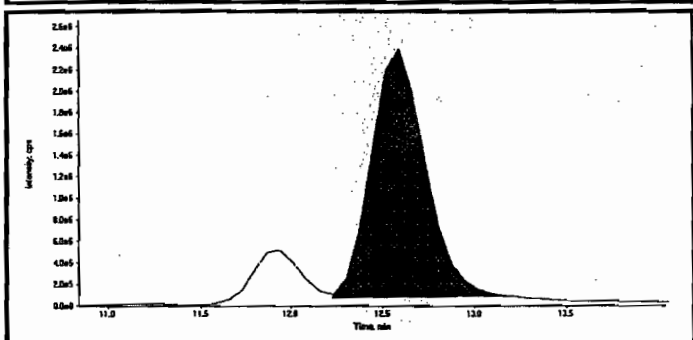

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.6
Area Counts:	4.82e+007
Manual Modification	No
Amount:	2.88 222. (ng/mL)
% Accuracy:	N/A

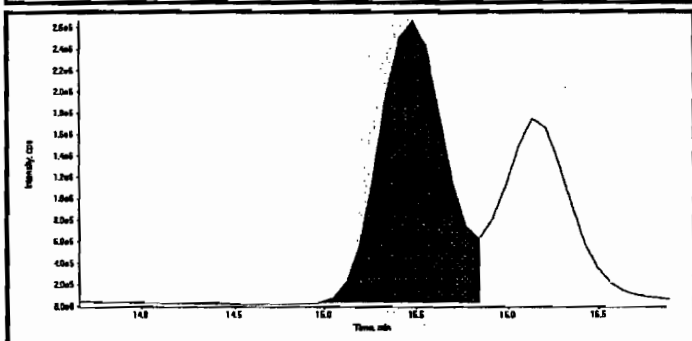

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.5
Area Counts:	6.75e+007
Manual Modification	No
Amount:	414. (ng/mL)
% Accuracy:	N/A

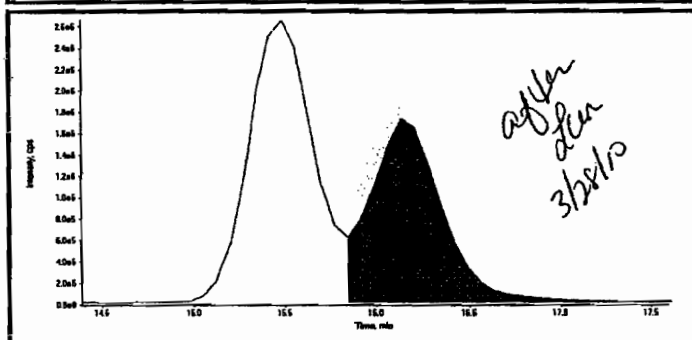

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	16.1
Area Counts:	4.70e+007
Manual Modification	Yes
Amount:	479. (ng/mL)
% Accuracy:	N/A

Before Lab 3/28/10

mple Name: "1202052390" Sample ID: "257192|2|LER" File: "EXP0322022.wiff"
k Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 a/mu"
mment: "LCX3521_L" Annotation: ""

e Index:	1	
e Type:	Unknown	
ntration:	N/A	
lated Conc:	727.	ng/mL
Date:	3/23/2010	
Time:	12:47:14 AM	
ied:	No	
Algorithm:	IntelliQuan - IQA	
Peak Height:	1000.00	cps
Peak Width:	0.00	sec
hing Width:	3	points
ndow:	30.0	sec
ted RT:	14.6	min
elative RT:	No	
Type:	Valley	
tion Time:	14.8	min
	4.06e+006	counts
t:	1.28e+005	cps
Time:	14.5	min
ime:	15.6	min

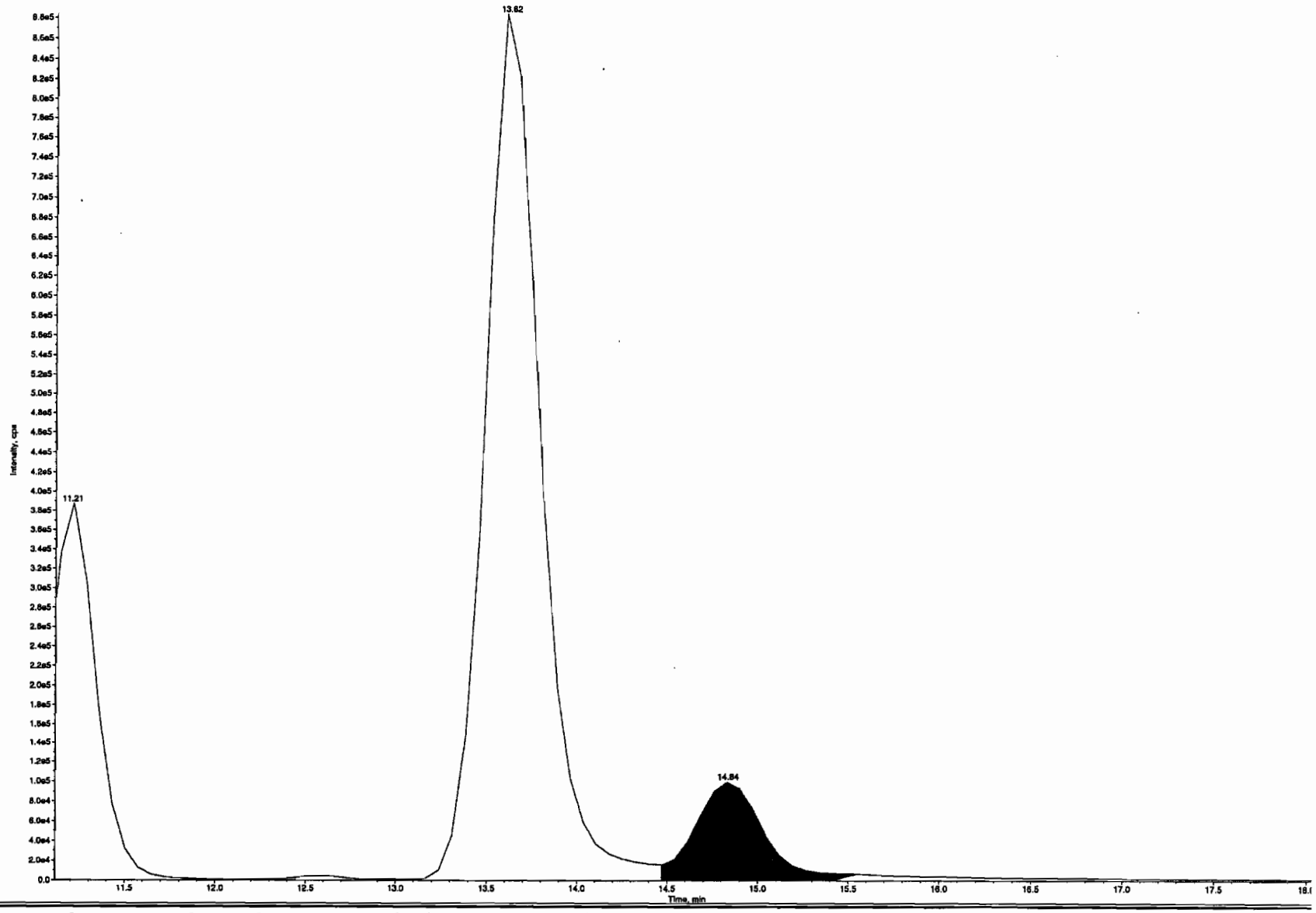

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322022.wiff	Acquisition Date	3/23/2010 12:47:14 AM
Sample Name	1202052390	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	**Unknown**

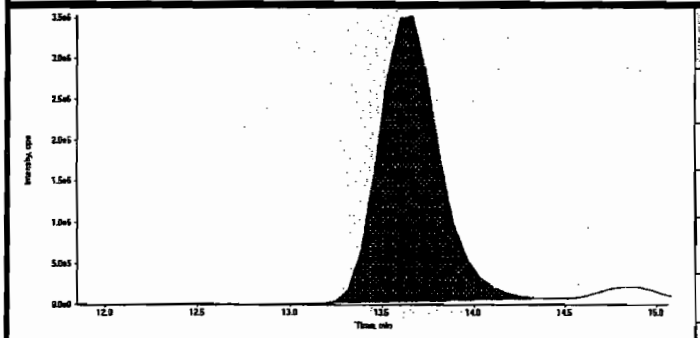

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.7
Area Counts:	8.14e+007
Manual Modification	No
Amount:	460. (ng/mL)
% Accuracy:	N/A

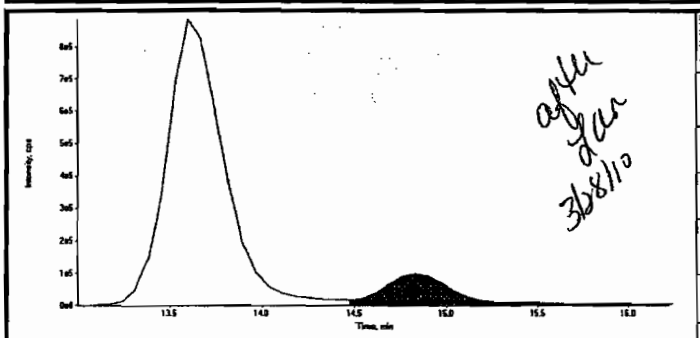

after Jan 3/8/10

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.8
Area Counts:	2.66e+006
Manual Modification	Yes
Amount:	476. (ng/mL)
% Accuracy:	N/A

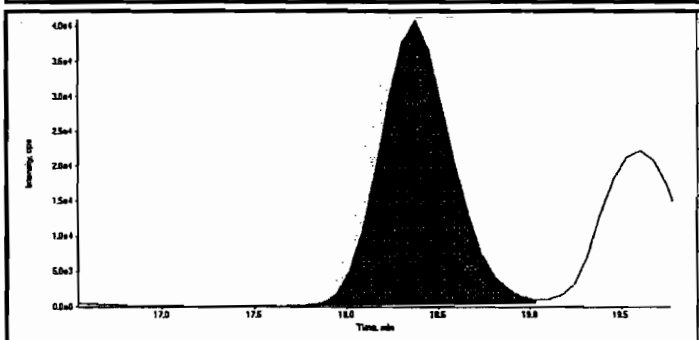

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.4
Area Counts:	1.12e+006
Manual Modification	No
Amount:	427. (ng/mL)
% Accuracy:	N/A

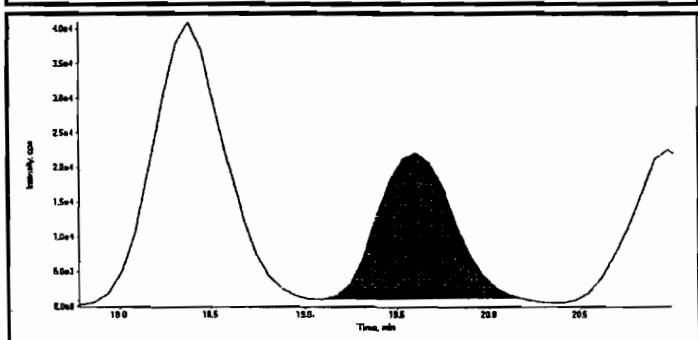

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.6
Area Counts:	6.00e+005
Manual Modification	No
Amount:	459. (ng/mL)
% Accuracy:	N/A

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GEL Laboratories, LLC
GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322022.wiff	Acquisition Date	3/23/2010 12:47:14 AM
Sample Name	1202052390	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

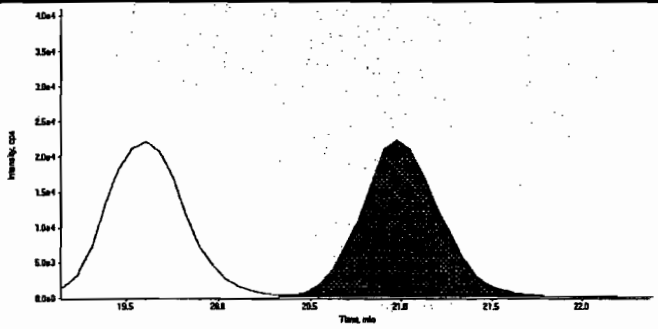

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	21.0
Area Counts:	6.85e+005
Manual Modification	No
Amount:	440. (ng/mL)
% Accuracy:	N/A

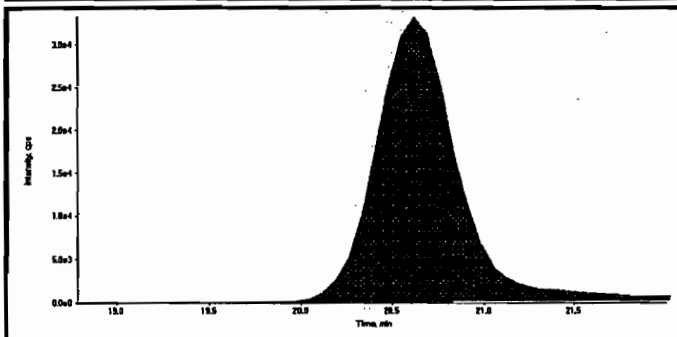

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.6
Area Counts:	1.05e+006
Manual Modification	No
Amount:	524. (ng/mL)
% Accuracy:	N/A

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 957190

Lab Code: GEL

GEL Job No (SDG) 10-2005

Matrix: GROUND WATER

GEL Sample ID: 1202052390

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 24-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 957190

Concentrated Extract Volume (mL) 5

Date Extracted: 25-FEB-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS03310040.wiff

Date Analyzed: 31-MAR-10 18:53

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5.03	
59229-75-3	2,6-Diamino-4-nitrotoluene	5.88	
618-87-1	3,5-Dinitroaniline	5.22	
6629-29-4	2,4-Diamino-6-nitrotoluene	4.56	
78-30-8	tris(o-cresyl) phosphate	2.13	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 4/5/10

ample Name: "1202052390" Sample ID: "957192|2|LER" File: "EXS03310040.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212S" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 387. ng/mL
. Date: 3/31/2010
. Time: 6:53:22 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 6.90 min
Relative RT: No

. Type: Valley
ention Time: 6.90 min
a: 2.85e+005 counts
ght: 62495.316 cps
rt Time: 6.50 min
Time: 7.53 min

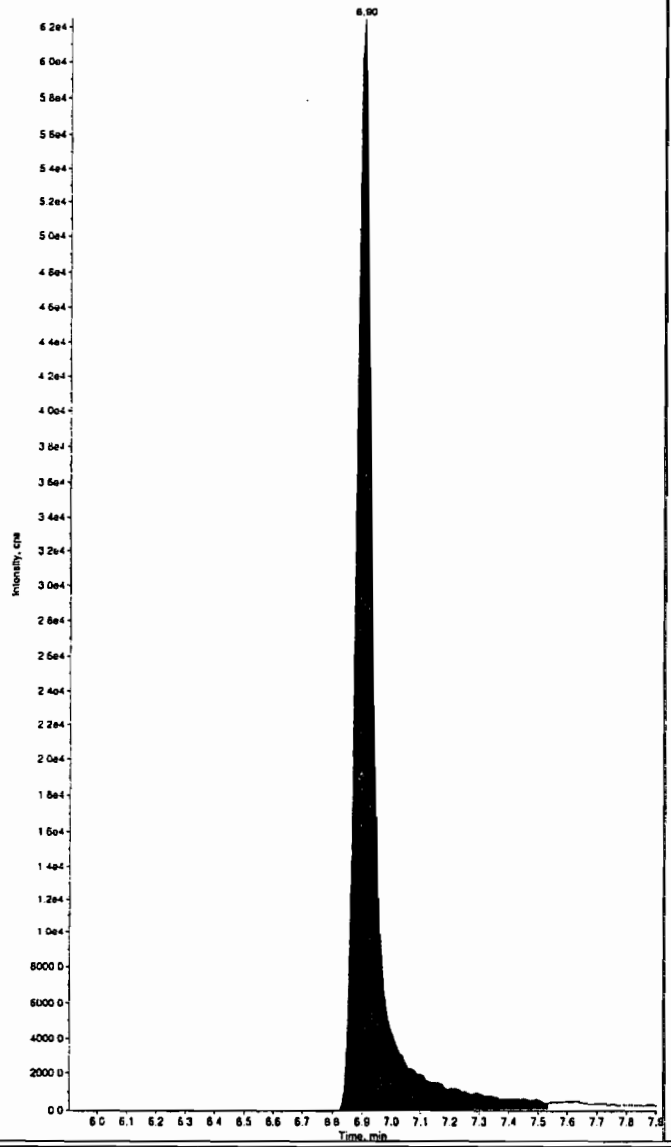

Sample Name: "1202052390" Sample ID: "957192|2|LER" File: "EXS03310040.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 402. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 6:53:22 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.13 min
Area: 2.58e+006 counts
Height: 588082.275 cps
Start Time: 8.06 min
End Time: 8.26 min

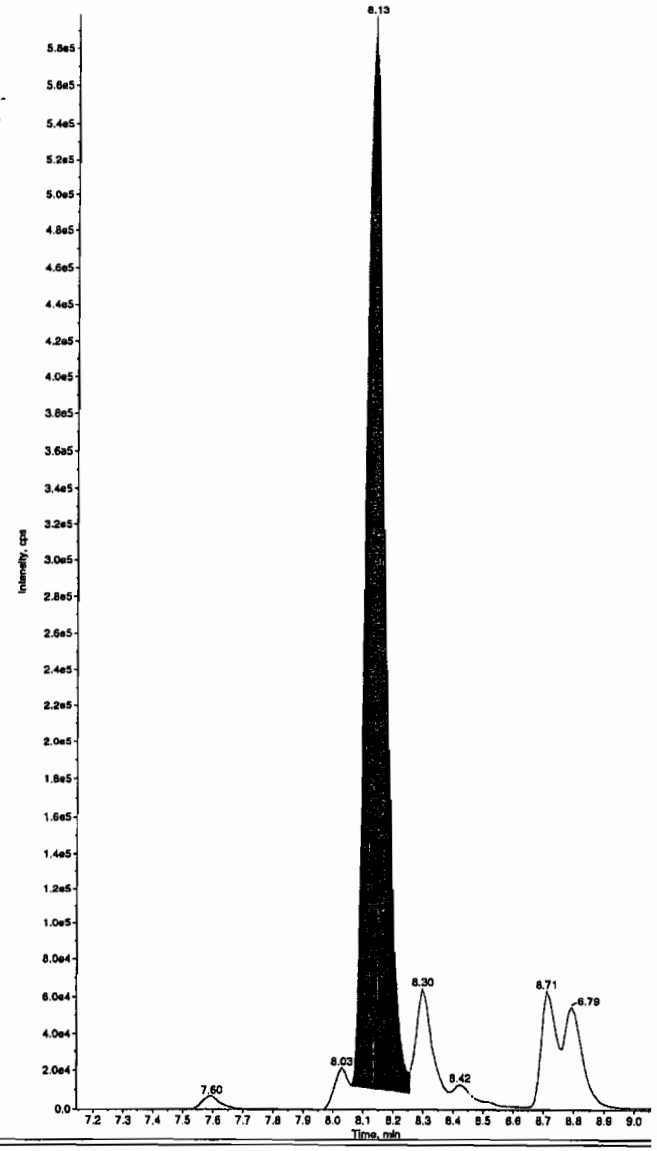

HJM 04/07/10

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Sample Name: "1202052390" Sample ID: "957192|2|LER" File: "EXS03310040.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212S" Annotation: ""

mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 232. ng/mL
q. Date: 3/31/2010
q. Time: 6:55:22 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1463.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.31 min
e Relative RT: No

t. Type: Valley
tention Time: 8.30 min
ea: 1.89e-006 counts
ight: 489089.447 cps
art Time: 8.23 min
d Time: 8.54 min

~~7.85~~ 3.01
HMM
04/07/16

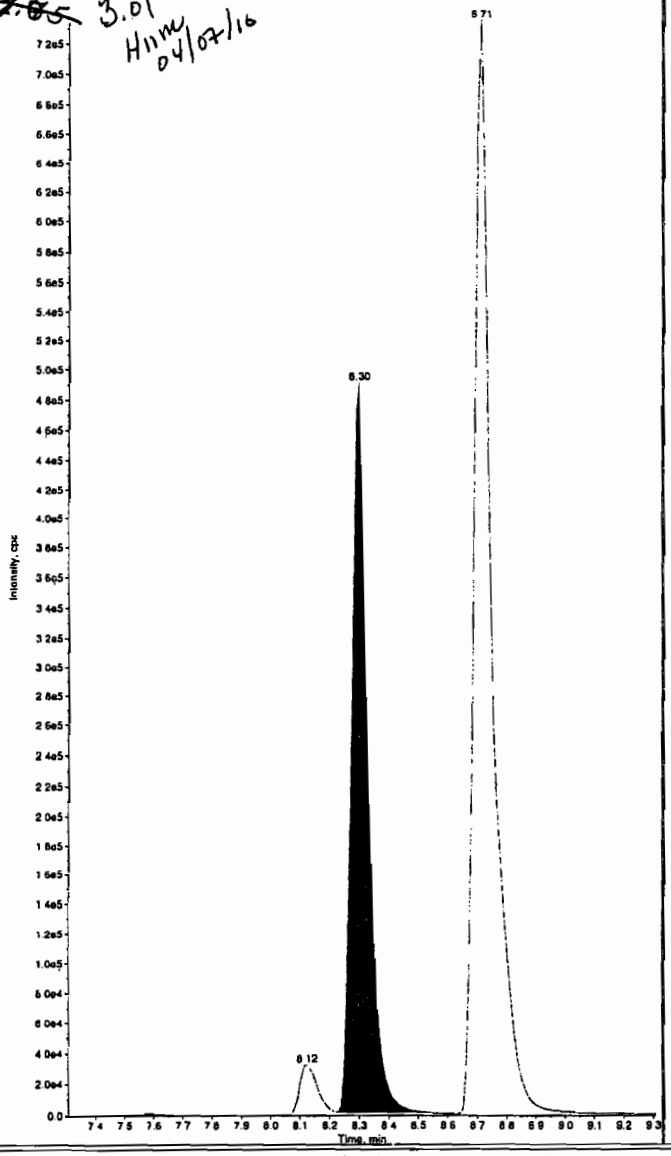

Sample Name: "1202052390" Sample ID: "957192|2|LER" File: "EXS03310040.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 453. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 6:53:22 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.95 min
Area: 9.85e+005 counts
Height: 223423.416 cps
Start Time: 4.84 min
End Time: 5.25 min

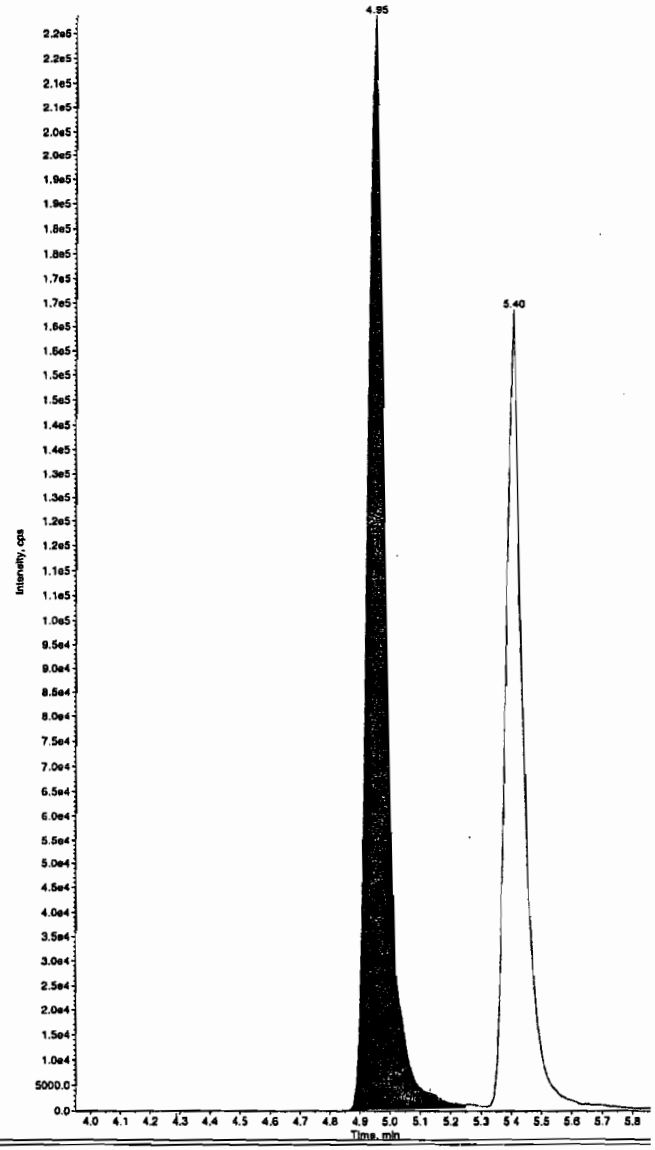

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ample Name: "1202052390" Sample ID: "957192|2|LER" File: "EXS03310040.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "153.0/46.0 amu"
omment: "LCX83212S" Annotation: ""

```
ple Index:        1
ple Type:       Unknown
centration:       N/A
culated Conc:     351.     ng/mL
. Date:        3/31/2010
. Time:        6:53:22 PM

:fied:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00    cps
. Peak Width:    0.00    sec
oothing Width:  3        points
Window:         30.0     sec
ected RT:        5.41    min
 Relative RT:    No

. Type:         Valley
ention Time:     5.40    min
a:          6.75e+005    counts
ght:         163338.806  cps
:t Time:         5.32    min
 Time:           5.83    min
```

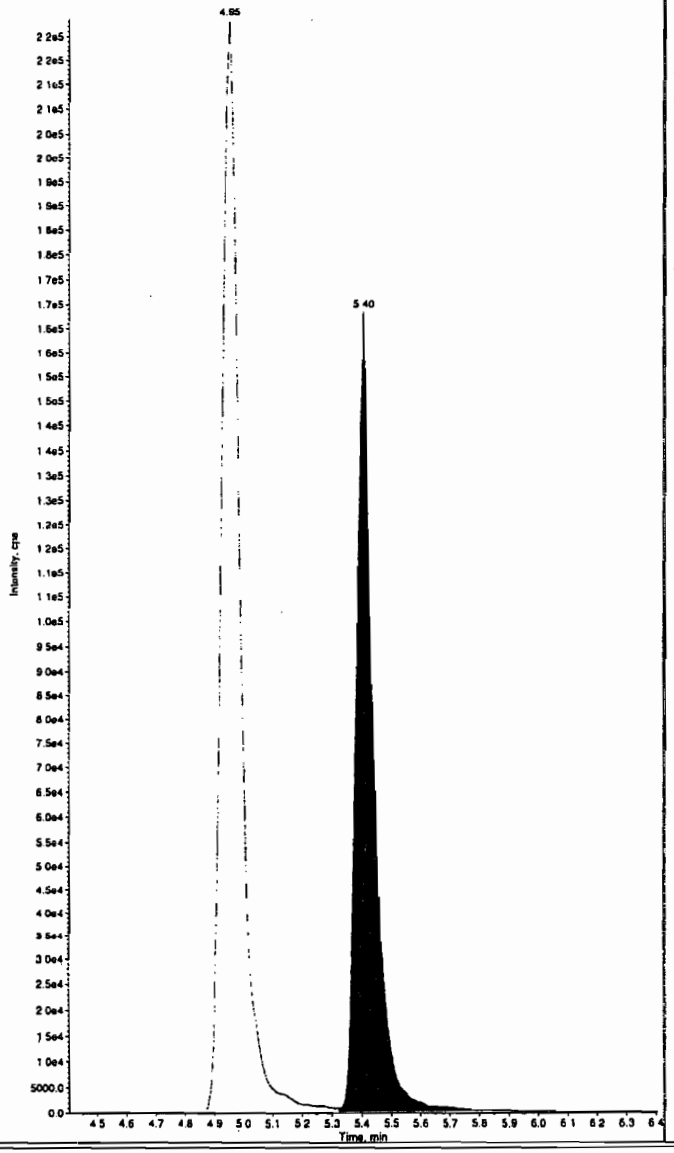

Sample Name: "1202052390" Sample ID: "957192|2|LER" File: "EXS03310040.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:       Unknown
Concentration:       N/A
Calculated Conc:     164.     ng/mL
Acq. Date:        3/31/2010
Acq. Time:        6:53:22 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:       10.8     min
Use Relative RT:   No

Int. Type:         Valley
Retention Time:    10.8     min
Area:          3.31e+006    counts
Height:         790928.284  cps
Start Time:        10.7     min
End Time:          11.2     min
```

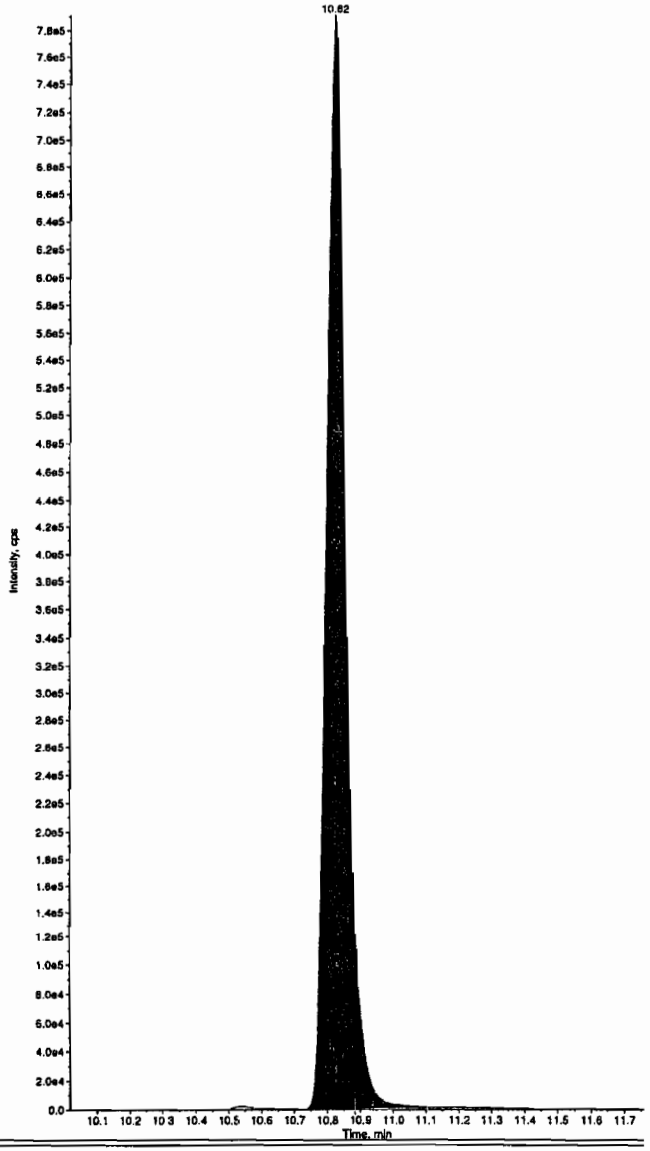

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MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 957190 **Verified by:** _____
Analyst: Sirena White
Method: SW846 Method 3535

Lab SOP: GL-OA-E-033 REV# 17
Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Ph 1	Final Volume (mL)	Prepped Factor (mL/mL)
1202052389 MB	25-FEB-2010 09:29:00	770	5	5	0.00649
1202052390 LCS	25-FEB-2010 09:29:00	770	5	5	0.00649
247824003	25-FEB-2010 09:29:00	770	6	5	0.00649
247828003	25-FEB-2010 09:29:00	770	6	5	0.00649
1202052393 MS (247828003)	25-FEB-2010 09:29:00	770	6	5	0.00649
1202052394 MSD (247828003)	25-FEB-2010 09:29:00	770	6	5	0.00649
247830002	25-FEB-2010 09:29:00	77	6	5	0.06494
1202052391 MS (247830002)	25-FEB-2010 09:29:00	77	6	5	0.06494
1202052392 MSD (247830002)	25-FEB-2010 09:29:00	77	6	5	0.06494

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202052390	8321 Explosives LCS	DXX100208-03	.05	mL
LCS	1202052390	8321 LANL Explosives Mix 10mg/L	UXX100122-01.4	.5	mL
MS	1202052391	8321 Explosives LCS	DXX100208-03	.05	mL
MS	1202052391	8321 LANL Explosives Mix 10mg/L	UXX100122-01.4	.5	mL
MS	1202052393	8321 Explosives LCS	DXX100208-03	.05	mL
MS	1202052393	8321 LANL Explosives Mix 10mg/L	UXX100122-01.4	.5	mL
MSD	1202052392	8321 Explosives LCS	DXX100208-03	.05	mL
MSD	1202052392	8321 LANL Explosives Mix 10mg/L	UXX100122-01.4	.5	mL
MSD	1202052394	8321 Explosives LCS	DXX100208-03	.05	mL
MSD	1202052394	8321 LANL Explosives Mix 10mg/L	UXX100122-01.4	.5	mL
SURR	All	3,4-Dinitrotoluene (8330 Surr.) 100ppm	DXP100223-02	.025	mL

Comments:

SPE Cartridge: 003339260A

Sample 247830002 was extremely murky. Sample was filtered and was still murky so sample was diluted in a 1:10 dilution to prevent clogging the cartridge.

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS#3

Date: 03/22/10
Extr. Injection Volume: 10uL
Sequence Number: 032210
Initial Calibration Date: 032210

Method: 8321A-Modified
Int. Std.: UXX1003090-01.3
Mobile Phase Lot#:1290941, 1281642
Standard-Samp Reagent Lot#:1284736, 1283379

Reviewed BY: HMM
Date: 03/30/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100322-56

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXP0322001.wiff	XIBLK01	LER	3/22/2010 15:33			1		USE	B
EXP0322002.wiff	XIBLK01	LER	3/22/2010 15:59			1		USE	B
EXP0322003.wiff	WXXICAL-50	LER	3/22/2010 16:25			1		USE	I
EXP0322004.wiff	WXXICAL-51	LER	3/22/2010 16:52			1		USE	I
EXP0322005.wiff	WXXICAL-52	LER	3/22/2010 17:18			1		USE	I
EXP0322006.wiff	WXXICAL-53	LER	3/22/2010 17:44			1		USE	I
EXP0322007.wiff	WXXICAL-54	LER	3/22/2010 18:11			1		USE	I
EXP0322008.wiff	WXXICAL-55	LER	3/22/2010 18:37			1		USE	I
EXP0322009.wiff	XIBLK02	LER	3/22/2010 19:04			1		USE	B
EXP0322010.wiff	WXXICV	LER	3/22/2010 19:30			1		USE	C
EXP0322011.wiff	XIBLK03	LER	3/22/2010 19:56			1		USE	B
EXP0322012.wiff	WXXCRI	LER	3/22/2010 20:23			1		USE	C
EXP0322013.wiff	1202047270	LER	3/22/2010 20:49	954941	10-1886	2	LANL	USE	S
EXP0322014.wiff	1202047271	LER	3/22/2010 21:16	954941	10-1886	2	LANL	USE	S
EXP0322015.wiff	247261003	LER	3/22/2010 21:42	954941	10-1886	2	LANL	USE	S
EXP0322016.wiff	1202047272	LER	3/22/2010 22:08	954941	10-1886	2	LANL	USE	S
EXP0322017.wiff	1202047273	LER	3/22/2010 22:35	954941	10-1886	2	LANL	USE	S
EXP0322018.wiff	WXXCCV	LER	3/22/2010 23:01			1		USE	C
EXP0322019.wiff	XIBLK04	LER	3/22/2010 23:27			1		USE	B
EXP0322020.wiff	WXXCRI	LER	3/22/2010 23:54			1		USE	C
EXP0322021.wiff	1202052389	LER	3/23/2010 0:20	957192	VARIOUS	2	LANL	USE	S
EXP0322022.wiff	1202052390	LER	3/23/2010 0:47	957192	VARIOUS	2	LANL	USE	S
EXP0322023.wiff	247824003	LER	3/23/2010 1:13	957192	10-2005	2	LANL	USE	S
EXP0322024.wiff	247828003	LER	3/23/2010 1:40	957192	10-2000	2	LANL	USE	S
EXP0322025.wiff	1202052393	LER	3/23/2010 2:06	957192	10-2000	2	LANL	USE	S
EXP0322026.wiff	1202052394	LER	3/23/2010 2:32	957192	10-2000	2	LANL	USE	S
EXP0322027.wiff	247830002	LER	3/23/2010 2:59	957192	10-2007	2	LANL	~~DUSE-RA~~ USE 4/7/10	S
EXP0322028.wiff	1202052391	LER	3/23/2010 3:25	957192	10-2007	2	LANL	USE	S
EXP0322029.wiff	1202052392	LER	3/23/2010 3:52	957192	10-2007	2	LANL	USE	S

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EXP0322030.wiff	WXXCCV	LER	3/23/2010 4:18			1		USE	C
EXP0322031.wiff	XIBLK05	LER	3/23/2010 4:44			1		USE	B
EXP0322032.wiff	WXXCRI	LER	3/23/2010 5:11			1		USE	C
EXP0322033.wiff	1202073689	LER	3/23/2010 5:37	966289	VARIOUS	2	LANL	USE	S
EXP0322034.wiff	1202073690	LER	3/23/2010 6:04	966289	VARIOUS	2	LANL	USE	S
EXP0322035.wiff	249327010	LER	3/23/2010 6:30	966289	10-2428	2	LANL	USE	S
EXP0322036.wiff	1202073691	LER	3/23/2010 6:57	966289	10-2428	2	LANL	DUSE-RA	S
EXP0322037.wiff	1202073692	LER	3/23/2010 7:23	966289	10-2428	2	LANL	USE	S
EXP0322038.wiff	249373002	LER	3/23/2010 7:49	966289	10-2453	2	LANL	USE	S
EXP0322039.wiff	249375003	LER	3/23/2010 8:16	966289	10-2445	2	LANL	USE	S
EXP0322040.wiff	249375009	LER	3/23/2010 8:42	966289	10-2445	2	LANL	USE	S
EXP0322041.wiff	WXXCCV	LER	3/23/2010 9:09			1		USE	C
EXP0322042.wiff	XIBLK06	LER	3/23/2010 9:35			1		USE	B
EXP0322043.wiff	WXXCRI	LER	3/23/2010 10:02			1		USE	C
EXP0322044.wiff	XIBLK07	LER	3/23/2010 11:36			1		USE	B
EXP0322045.wiff	WXXCCV	LER	3/23/2010 12:02			1		USE	C
EXP0322046.wiff	XIBLK08	LER	3/23/2010 12:29			1		USE	B
EXP0322047.wiff	WXXCRI	LER	3/23/2010 12:55			1		USE	C
EXP0322048.wiff	1202041953	LER	3/23/2010 13:22	952706	10-1758	2	LANL	USE	S
EXP0322049.wiff	1202041954	LER	3/23/2010 13:48	952706	10-1758	2	LANL	DUSE-RA	S
EXP0322050.wiff	246866002	LER	3/23/2010 14:14	952706	10-1758	2	LANL	USE	S
EXP0322051.wiff	1202041955	LER	3/23/2010 14:41	952706	10-1758	2	LANL	USE	S
EXP0322052.wiff	1202041956	LER	3/23/2010 15:07	952706	10-1758	2	LANL	USE	S
EXP0322053.wiff	246866003	LER	3/23/2010 15:33	952706	10-1758	2	LANL	USE	S
EXP0322054.wiff	246866004	LER	3/23/2010 16:00	952706	10-1758	2	LANL	USE	S
EXP0322055.wiff	246866005	LER	3/23/2010 16:26	952706	10-1758	2	LANL	USE	S
EXP0322056.wiff	246866006	LER	3/23/2010 16:53	952706	10-1758	2	LANL	USE	S
EXP0322057.wiff	246866007	LER	3/23/2010 17:19	952706	10-1758	2	LANL	USE	S
EXP0322058.wiff	WXXCCV	LER	3/23/2010 17:46			1		USE	C
EXP0322059.wiff	XIBLK09	LER	3/23/2010 18:12			1		USE	B
EXP0322060.wiff	WXXCRI	LER	3/23/2010 18:39			1		USE	C
EXP0322061.wiff	246866008	LER	3/23/2010 19:05	952706	10-1758	2	LANL	USE	S
EXP0322062.wiff	246866009	LER	3/23/2010 19:31	952706	10-1758	2	LANL	USE	S
EXP0322063.wiff	WXXCCV	LER	3/23/2010 19:58			1		USE	C
EXP0322064.wiff	XIBLK10	LER	3/23/2010 20:24			1		USE	B
EXP0322065.wiff	WXXCRI	LER	3/23/2010 20:51			1		USE	C
EXP0322066.wiff	1202045643	LER	3/23/2010 21:17	954271	VARIOUS	2	LANL	DUSE-RA	S

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EXP0322067.wiff	1202045644	LER	3/23/2010 21:43	954271	VARIOUS	2	LANL	DUSE-RA	S
EXP0322068.wiff	247172001	LER	3/23/2010 22:10	954271	10-1866	2	LANL	DUSE-RA	S
EXP0322069.wiff	247172002	LER	3/23/2010 22:36	954271	10-1866	2	LANL	DUSE-RA	S
EXP0322070.wiff	247175001	LER	3/23/2010 23:03	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322071.wiff	247175002	LER	3/23/2010 23:29	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322072.wiff	247175003	LER	3/23/2010 23:56	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322073.wiff	247175004	LER	3/24/2010 0:22	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322074.wiff	247175005	LER	3/24/2010 0:48	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322075.wiff	247175006	LER	3/24/2010 1:15	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322076.wiff	WXXCCV	LER	3/24/2010 1:41			1		DUSE	C
EXP0322077.wiff	XIBLK11	LER	3/24/2010 2:08			1		DUSE	B
EXP0322078.wiff	WXXCRI	LER	3/24/2010 2:34			1		DUSE	C
EXP0322079.wiff	247175007	LER	3/24/2010 3:01	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322080.wiff	247175008	LER	3/24/2010 3:27	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322081.wiff	247175009	LER	3/24/2010 3:54	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322082.wiff	247175010	LER	3/24/2010 4:20	954271	10-1870-1	2	LANL	DUSE-RA	S
EXP0322083.wiff	247181001	LER	3/24/2010 4:46	954271	10-1871-1	2	LANL	DUSE-RA	S
EXP0322084.wiff	247181002	LER	3/24/2010 5:13	954271	10-1871-1	2	LANL	DUSE-RA	S
EXP0322085.wiff	247187001	LER	3/24/2010 5:39	954271	10-1867	2	LANL	DUSE-RA	S
EXP0322086.wiff	247187002	LER	3/24/2010 6:06	954271	10-1867	2	LANL	DUSE-RA	S
EXP0322087.wiff	247187003	LER	3/24/2010 6:32	954271	10-1867	2	LANL	DUSE-RA	S
EXP0322088.wiff	WXXCCV	LER	3/24/2010 6:59			1		DUSE	C
EXP0322089.wiff	XIBLK12	LER	3/24/2010 7:25			1		DUSE	B
EXP0322090.wiff	WXXCRI	LER	3/24/2010 7:52			1		DUSE	C

GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS4

Date: 03/31/10
Extr. Injection Volume: 10uL
Sequence Number: 033110exs
Initial Calibration Date: 033110

Method: 8321A-Modified
Int. Std.: N/A
Mobile Phase Lot#:1268566, 1268568
Standard-Samp Reagent Lot# :1292884, 1284736

Reviewed By: HNM
Date: 04/07/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100331-26

2°

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS03310001.wiff	XIBLK01	LER	3/31/2010 8:40			1		USE	B
EXS03310002.wiff	XIBLK01	LER	3/31/2010 8:56			1		USE	B
EXS03310003.wiff	WXXICAL-19	LER	3/31/2010 9:12			1		USE	I
EXS03310004.wiff	WXXICAL-20	LER	3/31/2010 9:27			1		USE	I
EXS03310005.wiff	WXXICAL-21	LER	3/31/2010 9:43			1		USE	I
EXS03310006.wiff	WXXICAL-22	LER	3/31/2010 9:59			1		USE	I
EXS03310007.wiff	WXXICAL-23	LER	3/31/2010 10:14			1		USE	I
EXS03310008.wiff	WXXICAL-24	LER	3/31/2010 10:30			1		USE	I
EXS03310009.wiff	WXXICAL-25	LER	3/31/2010 10:46			1		USE	I
EXS03310010.wiff	XIBLK02	LER	3/31/2010 11:01			1		USE	B
EXS03310011.wiff	WXXICV	LER	3/31/2010 11:17			1		USE	C
EXS03310012.wiff	XIBLK03	LER	3/31/2010 11:33			1		USE	B
EXS03310013.wiff	WXXCRI	LER	3/31/2010 11:49			1		USE	C
EXS03310014.wiff	1202061351	LER	3/31/2010 12:04	961045	10-2210	2	LANL	USE	S
EXS03310015.wiff	1202061352	LER	3/31/2010 12:20	961045	10-2210	2	LANL	USE	S
EXS03310016.wiff	248541002	LER	3/31/2010 12:36	961045	10-2210	2	LANL	USE	S
EXS03310017.wiff	1202061353	LER	3/31/2010 12:52	961045	10-2210	2	LANL	USE	S
EXS03310018.wiff	1202061354	LER	3/31/2010 13:07	961045	10-2210	2	LANL	USE	S
EXS03310019.wiff	248541003	LER	3/31/2010 13:23	961045	10-2210	2	LANL	USE	S
EXS03310020.wiff	248541004	LER	3/31/2010 13:39	961045	10-2210	2	LANL	USE	S
EXS03310021.wiff	248541005	LER	3/31/2010 13:54	961045	10-2210	2	LANL	USE	S
EXS03310022.wiff	248541006	LER	3/31/2010 14:10	961045	10-2210	2	LANL	USE	S
EXS03310023.wiff	248541007	LER	3/31/2010 14:26	961045	10-2210	2	LANL	USE	S
EXS03310024.wiff	WXXCCV	LER	3/31/2010 14:41			1		USE	C
EXS03310025.wiff	XIBLK04	LER	3/31/2010 14:57			1		USE	B
EXS03310026.wiff	WXXCRI	LER	3/31/2010 15:13			1		USE	C
EXS03310027.wiff	248541008	LER	3/31/2010 15:29	961045	10-2210	2	LANL	USE	S
EXS03310028.wiff	248541009	LER	3/31/2010 15:44	961045	10-2210	2	LANL	USE	S
EXS03310029.wiff	248541010	LER	3/31/2010 16:00	961045	10-2210	2	LANL	USE	S
EXS03310030.wiff	248541011	LER	3/31/2010 16:16	961045	10-2210	2	LANL	USE	S

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EXS03310031.wiff	248541012	LER	3/31/2010 16:31	961045	10-2210	2	LANL	USE	S
EXS03310032.wiff	248541013	LER	3/31/2010 16:47	961045	10-2210	2	LANL	USE	S
EXS03310033.wiff	248541014	LER	3/31/2010 17:03	961045	10-2210	2	LANL	USE	S
EXS03310034.wiff	248541015	LER	3/31/2010 17:19	961045	10-2210	2	LANL	USE	S
EXS03310035.wiff	248541016	LER	3/31/2010 17:34	961045	10-2210	2	LANL	USE	S
EXS03310036.wiff	WXXCCV	LER	3/31/2010 17:50			1		USE	C
EXS03310037.wiff	XIBLK05	LER	3/31/2010 18:06			1		USE	B
EXS03310038.wiff	WXXCRI	LER	3/31/2010 18:21			1		USE	C
EXS03310039.wiff	1202052389	LER	3/31/2010 18:37	957192	VARIOUS	2	LANL	USE	S
EXS03310040.wiff	1202052390	LER	3/31/2010 18:53	957192	VARIOUS	2	LANL	USE	S
EXS03310041.wiff	247824003	LER	3/31/2010 19:09	957192	10-2005	2	LANL	USE	S
EXS03310042.wiff	247828003	LER	3/31/2010 19:24	957192	10-2000	2	LANL	USE	S
EXS03310043.wiff	1202052393	LER	3/31/2010 19:40	957192	10-2000	2	LANL	USE	S
EXS03310044.wiff	1202052394	LER	3/31/2010 19:56	957192	10-2000	2	LANL	USE	S
EXS03310045.wiff	247830002	LER	3/31/2010 20:11	957192	10-2007	2	LANL	USE	S
EXS03310046.wiff	1202052391	LER	3/31/2010 20:27	957192	10-2007	2	LANL	USE	S
EXS03310047.wiff	1202052392	LER	3/31/2010 20:43	957192	10-2007	2	LANL	USE	S
EXS03310048.wiff	WXXCCV	LER	3/31/2010 20:59			1		USE	C
EXS03310049.wiff	XIBLK06	LER	3/31/2010 21:14			1		USE	B
EXS03310050.wiff	WXXCRI	LER	3/31/2010 21:30			1		USE	C
EXS03310051.wiff	1202055003	LER	3/31/2010 21:46	958247	VARIOUS	2	LANL	USE	S
EXS03310052.wiff	1202055004	LER	3/31/2010 22:02	958247	VARIOUS	2	LANL	USE	S
EXS03310053.wiff	248004002	LER	3/31/2010 22:17	958247	10-2024	2	LANL	USE	S
EXS03310054.wiff	1202055005	LER	3/31/2010 22:33	958247	10-2024	2	LANL	USE	S
EXS03310055.wiff	1202055006	LER	3/31/2010 22:49	958247	10-2024	2	LANL	USE	S
EXS03310056.wiff	248004003	LER	3/31/2010 23:04	958247	10-2024	2	LANL	USE	S
EXS03310057.wiff	248004004	LER	3/31/2010 23:20	958247	10-2024	2	LANL	USE	S
EXS03310058.wiff	248004005	LER	3/31/2010 23:36	958247	10-2024	2	LANL	USE	S
EXS03310059.wiff	248004006	LER	3/31/2010 23:51	958247	10-2024	2	LANL	USE	S
EXS03310060.wiff	248012002	LER	4/1/2010 0:07	958247	10-2027	2	LANL	USE	S
EXS03310061.wiff	WXXCCV	LER	4/1/2010 0:23			1		USE	C
EXS03310062.wiff	XIBLK07	LER	4/1/2010 0:39			1		USE	B
EXS03310063.wiff	WXXCRI	LER	4/1/2010 0:54			1		USE	C
EXS03310064.wiff	248012003	LER	4/1/2010 1:10	958247	10-2027	2	LANL	USE	S
EXS03310065.wiff	248012004	LER	4/1/2010 1:26	958247	10-2027	2	LANL	USE	S
EXS03310066.wiff	248012005	LER	4/1/2010 1:42	958247	10-2027	2	LANL	USE	S
EXS03310067.wiff	248012006	LER	4/1/2010 1:57	958247	10-2027	2	LANL	USE	S

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EXS03310068.wiff	248012007	LER	4/1/2010 2:13	958247	10-2027	2	LANL	USE	S
EXS03310069.wiff	248012008	LER	4/1/2010 2:29	958247	10-2027	2	LANL	USE	S
EXS03310070.wiff	248012009	LER	4/1/2010 2:44	958247	10-2027	2	LANL	USE	S
EXS03310071.wiff	248013001	LER	4/1/2010 3:00	958247	10-2034	2	LANL	USE	S
EXS03310072.wiff	248013002	LER	4/1/2010 3:16	958247	10-2034	2	LANL	USE	S
EXS03310073.wiff	248013003	LER	4/1/2010 3:31	958247	10-2034	2	LANL	USE	S
EXS03310074.wiff	WXXCCV	LER	4/1/2010 3:47			1		USE	C
EXS03310075.wiff	XIBLK08	LER	4/1/2010 4:03			1		USE	B
EXS03310076.wiff	WXXCRI	LER	4/1/2010 4:19			1		USE	C
EXS03310077.wiff	248013004	LER	4/1/2010 4:34	958247	10-2034	2	LANL	USE	S
EXS03310078.wiff	XIBLK09	LER	4/1/2010 4:50			1		USE	B
EXS03310079.wiff	1202073689	LER	4/1/2010 5:06	966289	VARIOUS	2	LANL	USE	S
EXS03310080.wiff	1202073690	LER	4/1/2010 5:21	966289	VARIOUS	2	LANL	USE	S
EXS03310081.wiff	249327010	LER	4/1/2010 5:37	966289	10-2428	2	LANL	USE	S
EXS03310082.wiff	1202073691	LER	4/1/2010 5:53	966289	10-2428	2	LANL	USE	S
EXS03310083.wiff	1202073692	LER	4/1/2010 6:09	966289	10-2428	2	LANL	USE	S
EXS03310084.wiff	249373002	LER	4/1/2010 6:24	966289	10-2453	2	LANL	USE	S
EXS03310085.wiff	249375003	LER	4/1/2010 6:40	966289	10-2445	2	LANL	USE	S
EXS03310086.wiff	249375009	LER	4/1/2010 6:56	966289	10-2445	2	LANL	USE	S
EXS03310087.wiff	WXXCCV	LER	4/1/2010 7:11			1		USE	C
EXS03310088.wiff	XIBLK10	LER	4/1/2010 7:27			1		USE	B
EXS03310089.wiff	WXXCRI	LER	4/1/2010 7:43			1		USE	C
EXS03310090.wiff	1202055034	LER	4/1/2010 7:59	958262	10-2074	2	LANL	USE	S
EXS03310091.wiff	1202055035	LER	4/1/2010 8:14	958262	10-2074	2	LANL	USE	S
EXS03310092.wiff	248043001	LER	4/1/2010 8:30	958262	10-2074	2	LANL	USE	S
EXS03310093.wiff	1202055036	LER	4/1/2010 8:46	958262	10-2074	2	LANL	USE	S
EXS03310094.wiff	1202055037	LER	4/1/2010 9:01	958262	10-2074	2	LANL	USE	S
EXS03310095.wiff	248043002	LER	4/1/2010 9:17	958262	10-2074	2	LANL	USE	S
EXS03310096.wiff	248043003	LER	4/1/2010 9:33	958262	10-2074	2	LANL	USE	S
EXS03310097.wiff	248043004	LER	4/1/2010 9:49	958262	10-2074	2	LANL	USE	S
EXS03310098.wiff	248043005	LER	4/1/2010 10:04	958262	10-2074	2	LANL	USE	S
EXS03310099.wiff	248043006	LER	4/1/2010 10:20	958262	10-2074	2	LANL	USE	S
EXS03310100.wiff	WXXCCV	LER	4/1/2010 10:36			1		USE	C
EXS03310101.wiff	XIBLK11	LER	4/1/2010 10:52			1		USE	B
EXS03310102.wiff	WXXCRI	LER	4/1/2010 11:07			1		USE	C
EXS03310103.wiff	248043007	LER	4/1/2010 11:23	958262	10-2074	2	LANL	USE	S
EXS03310104.wiff	248043008	LER	4/1/2010 11:39	958262	10-2074	2	LANL	USE	S

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EXS03310105.wiff	248043009	LER	4/1/2010 11:54	958262	10-2074	2	LANL	USE	S
EXS03310106.wiff	248043010	LER	4/1/2010 12:10	958262	10-2074	2	LANL	USE	S
EXS03310107.wiff	248043011	LER	4/1/2010 12:26	958262	10-2074	2	LANL	USE	S
EXS03310108.wiff	248043012	LER	4/1/2010 12:41	958262	10-2074	2	LANL	USE	S
EXS03310109.wiff	248043013	LER	4/1/2010 12:57	958262	10-2074	2	LANL	USE	S
EXS03310110.wiff	248043014	LER	4/1/2010 13:13	958262	10-2074	2	LANL	USE	S
EXS03310111.wiff	248043015	LER	4/1/2010 13:29	958262	10-2074	2	LANL	USE	S
EXS03310112.wiff	248043016	LER	4/1/2010 13:44	958262	10-2074	2	LANL	USE	S
EXS03310113.wiff	WXXCCV	LER	4/1/2010 14:00			1		USE	C
EXS03310114.wiff	XIBLK12	LER	4/1/2010 14:16			1		USE	B
EXS03310115.wiff	WXXCRI	LER	4/1/2010 14:31			1		USE	C
EXS03310116.wiff	248043017	LER	4/1/2010 14:47	958262	10-2074	2	LANL	USE	S
EXS03310117.wiff	248043018	LER	4/1/2010 15:03	958262	10-2074	2	LANL	USE	S
EXS03310118.wiff	XIBLK13	LER	4/1/2010 15:19			1		USE	B
EXS03310119.wiff	1202064537	LER	4/1/2010 15:34	962415	10-2233	2	LANL	USE	S
EXS03310120.wiff	1202064538	LER	4/1/2010 15:50	962415	10-2233	2	LANL	USE	S
EXS03310121.wiff	248628002	LER	4/1/2010 16:06	962415	10-2233	2	LANL	USE	S
EXS03310122.wiff	1202064539	LER	4/1/2010 16:21	962415	10-2233	2	LANL	USE	S
EXS03310123.wiff	1202064540	LER	4/1/2010 16:37	962415	10-2233	2	LANL	USE	S
EXS03310124.wiff	248628003	LER	4/1/2010 16:53	962415	10-2233	2	LANL	USE	S
EXS03310125.wiff	248628004	LER	4/1/2010 17:08	962415	10-2233	2	LANL	USE	S
EXS03310126.wiff	WXXCCV	LER	4/1/2010 17:24			1		USE	C
EXS03310127.wiff	XIBLK14	LER	4/1/2010 17:40			1		USE	B
EXS03310128.wiff	WXXCRI	LER	4/1/2010 17:56			1		USE	C
EXS03310129.wiff	248628005	LER	4/1/2010 18:11	962415	10-2233	2	LANL	USE	S
EXS03310130.wiff	248628006	LER	4/1/2010 18:27	962415	10-2233	2	LANL	USE	S
EXS03310131.wiff	248628007	LER	4/1/2010 18:43	962415	10-2233	2	LANL	USE	S
EXS03310132.wiff	248628008	LER	4/1/2010 18:58	962415	10-2233	2	LANL	USE	S
EXS03310133.wiff	248628009	LER	4/1/2010 19:14	962415	10-2233	2	LANL	USE	S
EXS03310134.wiff	248628010	LER	4/1/2010 19:30	962415	10-2233	2	LANL	USE	S
EXS03310135.wiff	248628011	LER	4/1/2010 19:46	962415	10-2233	2	LANL	USE	S
EXS03310136.wiff	248628012	LER	4/1/2010 20:01	962415	10-2233	2	LANL	USE	S
EXS03310137.wiff	248628013	LER	4/1/2010 20:17	962415	10-2233	2	LANL	USE	S
EXS03310138.wiff	248628014	LER	4/1/2010 20:33	962415	10-2233	2	LANL	USE	S
EXS03310139.wiff	WXXCCV	LER	4/1/2010 20:48			1		USE	C
EXS03310140.wiff	XIBLK15	LER	4/1/2010 21:04			1		USE	B
EXS03310141.wiff	WXXCRI	LER	4/1/2010 21:20			1		USE	C

EXS03310142.wiff	248628015	LER	4/1/2010 21:36	962415	10-2233	2	LANL	USE	S
EXS03310143.wiff	XIBLK16	LER	4/1/2010 21:51			1		USE	B
EXS03310144.wiff	248541007	LER	4/1/2010 22:07	961045	10-2210	10	LANL	USE	S
EXS03310145.wiff	WXXCCV	LER	4/1/2010 22:23			1		USE	C
EXS03310146.wiff	XIBLK17	LER	4/1/2010 22:39			1		USE	B
EXS03310147.wiff	WXXCRI	LER	4/1/2010 22:54			1		USE	C

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322025.wiff	Acquisition Date	3/23/2010 2:06:28 AM
Sample Name	1202052393	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

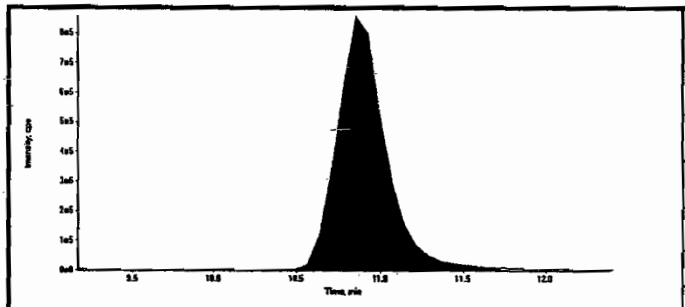

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	17400000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

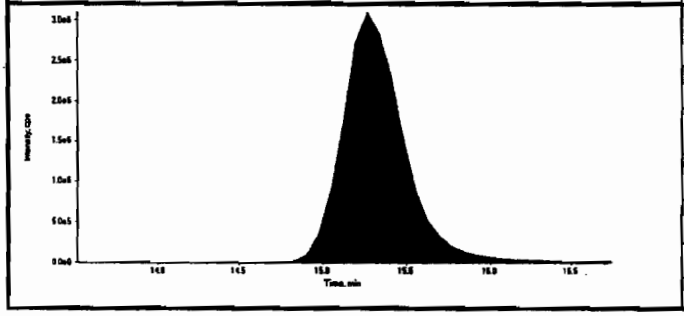

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.30
Area Counts:	79300000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

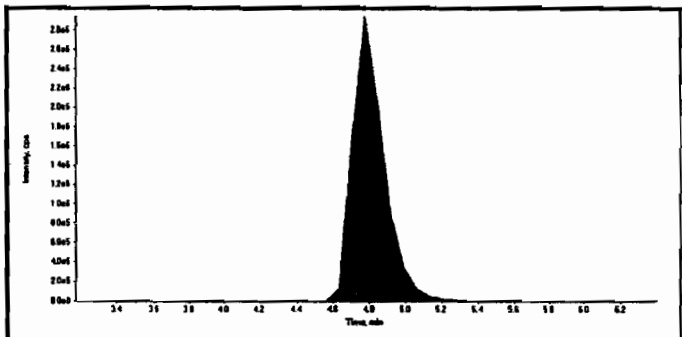

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	3.57e+007
Manual Modification	No
Amount:	471. (ng/mL)
% Accuracy:	N/A

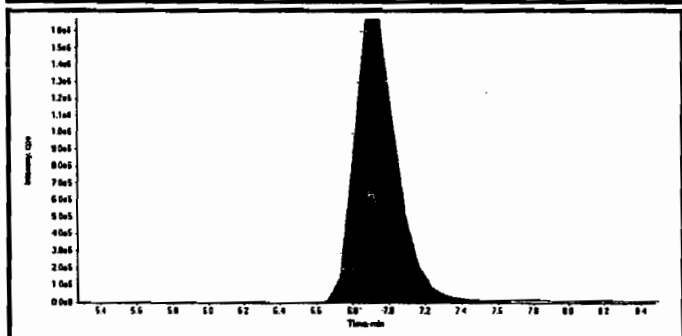

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.94
Area Counts:	2.76e+007
Manual Modification	No
Amount:	519. (ng/mL)
% Accuracy:	N/A

Hmm 03/30/10

Lcu 3/28/10

Before Lar 3/28/10

ple Name: "1202052393" Sample ID: "95719222LER" File: "EXP032025.wiff"
(Name: "246-Trinitrotoluene" Mass(es): "227.1/209.8 amu"
ment: "LCX3521_L" Annotation: ""
: Index: 1
: Type: Unknown
tration: N/A
lated Conc: 417. ng/mL
ate: 2/23/2010
ime: 2:06:28 AM

ed: No
Algorithm: IntelliQuan - IQA
eak Height: 1.00e4 cps
eak Width: 0.00 sec
ing Width: 3 points
dow: 60.0 sec
ed RT: 13.5 min
lative RT: No

ype: Valley
ion Time: 13.6 min
1.75e+006 counts
6.68e+006 cps
Time: 12.9 min
me: 14.5 min

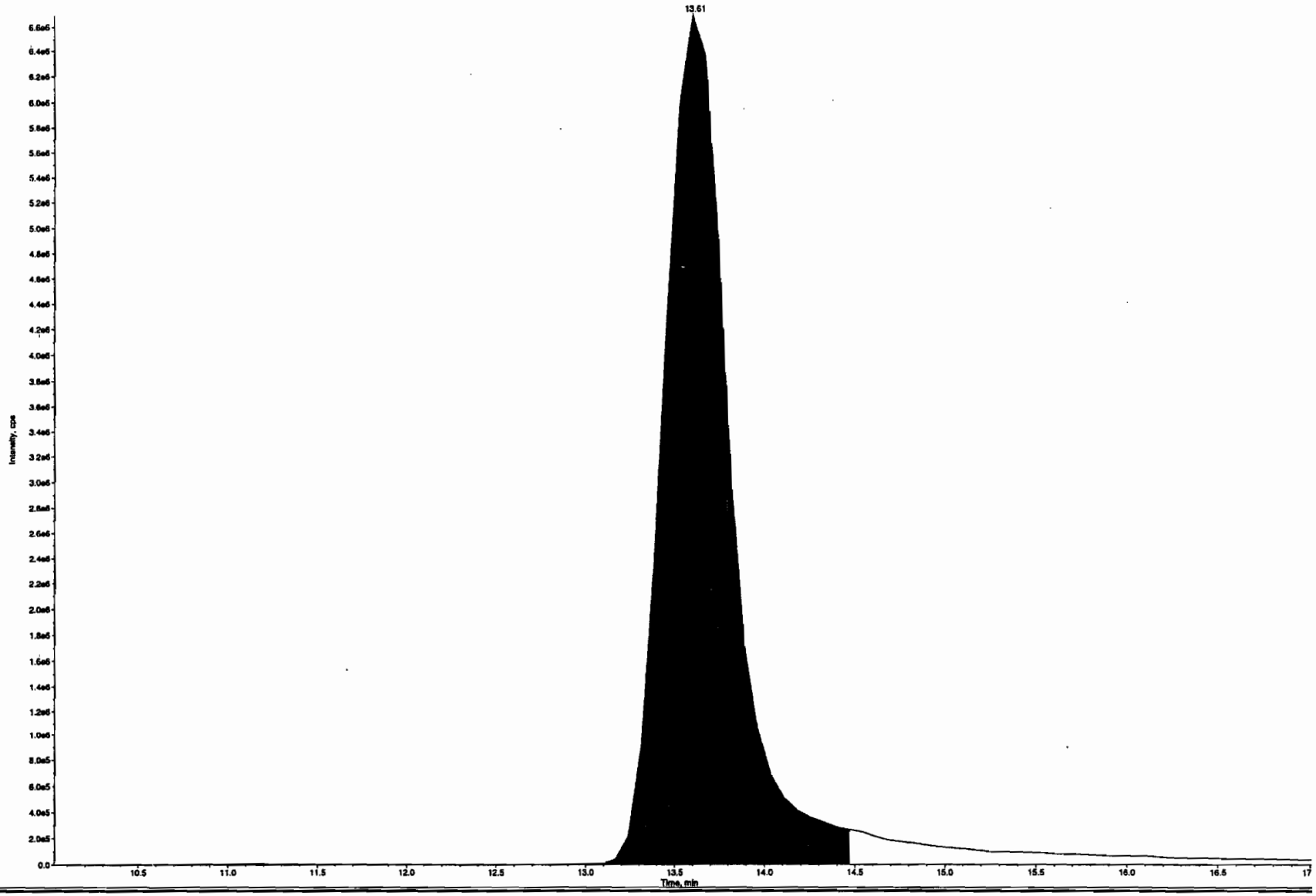

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322025.wiff	Acquisition Date	3/23/2010 2:06:28 AM
Sample Name	1202052393	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

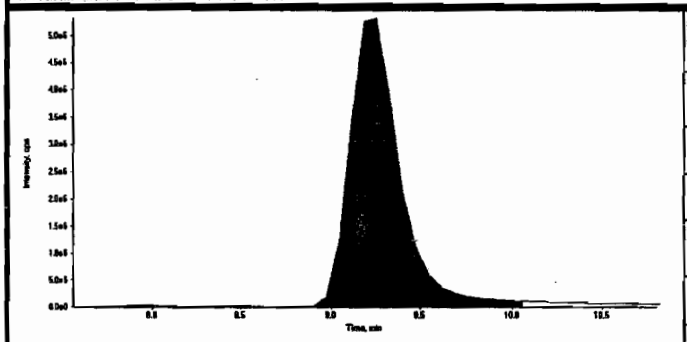

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.26
Area Counts:	1.06e+008
Manual Modification	No
Amount:	472. (ng/mL)
% Accuracy:	N/A

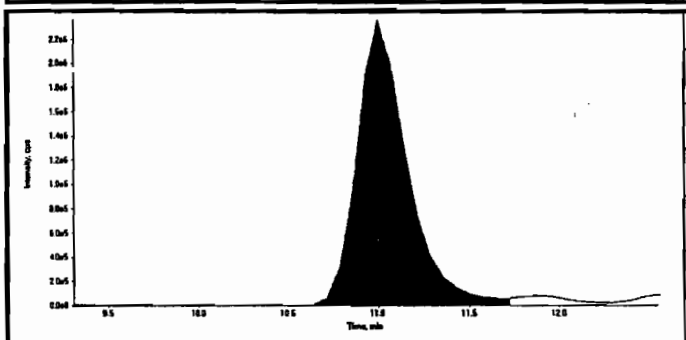

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	11.0
Area Counts:	4.65e+007
Manual Modification	No
Amount:	504. (ng/mL)
% Accuracy:	N/A

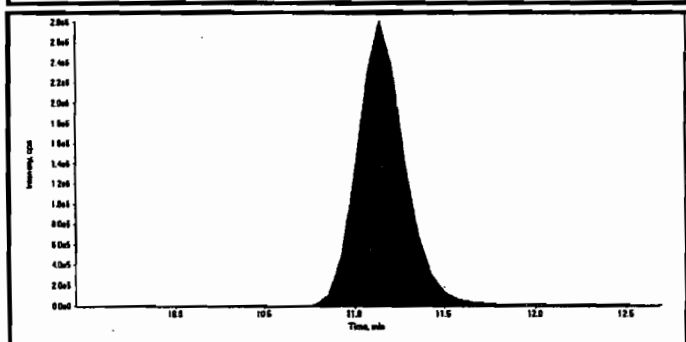

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.1
Area Counts:	5.22e+007
Manual Modification	No
Amount:	352. (ng/mL)
% Accuracy:	N/A

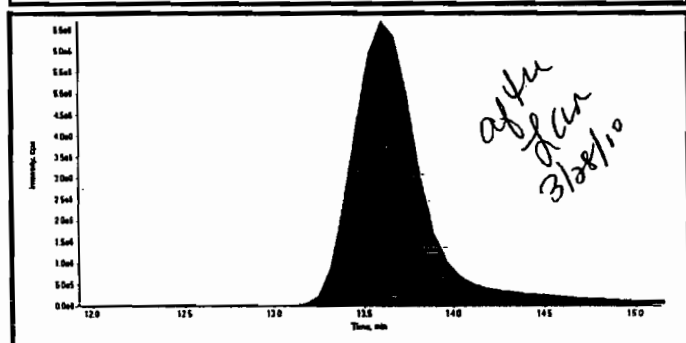

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	1.83e+008
Manual Modification	Yes
Amount:	443. (ng/mL)
% Accuracy:	N/A

Before LCer 3/28/10

ple Name: "1202052393" Sample ID: "957192[2]LER" File: "EXP032025.wiff"
: Name: "24-dinitrotoluene" Mass(es): "182.0/46.0 amu"
ment: "LCX3521_L" Annotation: ""
: Index: 1
: Type: Unknown
ration: N/A
ated Conc: 0.00 ng/mL
ate: 3/23/2010
ime: 2:06:28 AM

ed: No

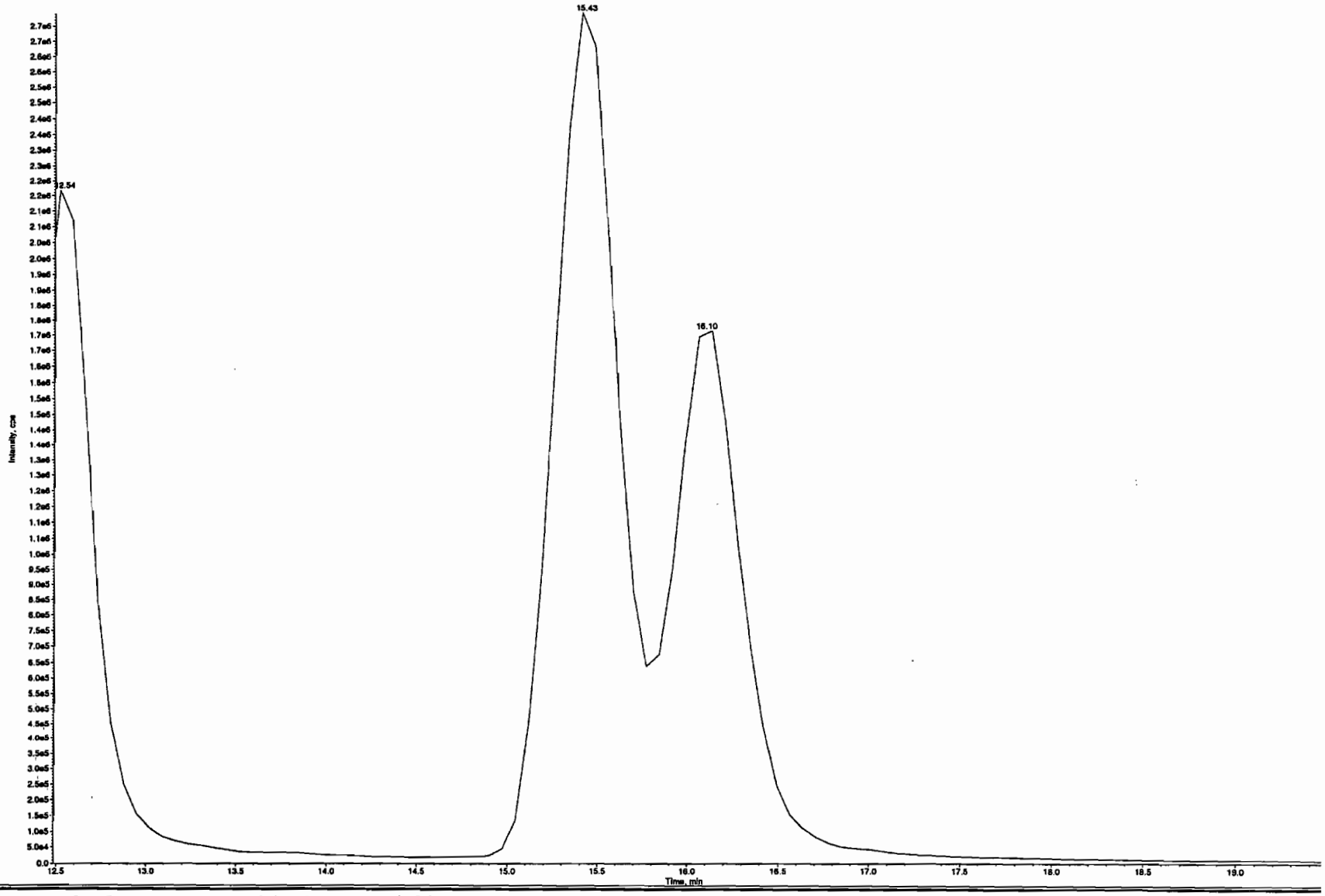

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322025.wiff	Acquisition Date	3/23/2010 2:06:28 AM
Sample Name	1202052393	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

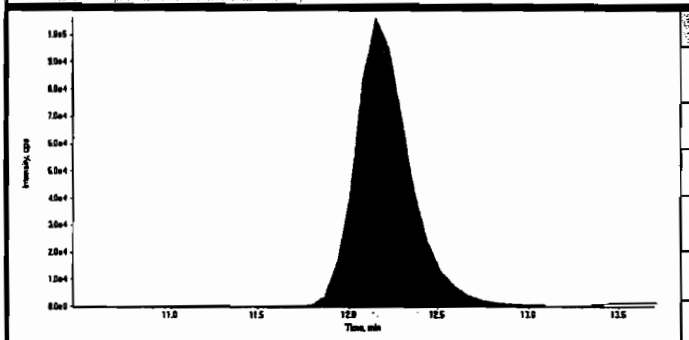

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	2.24e+006
Manual Modification	No
Amount:	477. (ng/mL)
% Accuracy:	N/A

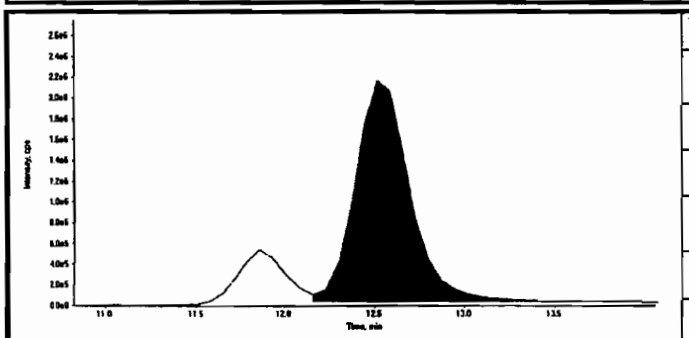

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.5
Area Counts:	4.65e+007
Manual Modification	No
Amount:	2.95 227. (ng/mL)
% Accuracy:	N/A

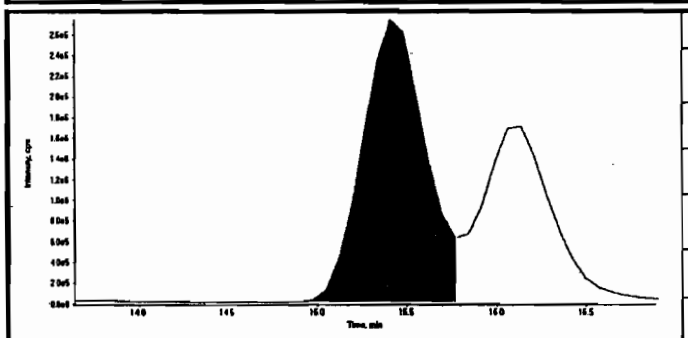

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.4
Area Counts:	6.79e+007
Manual Modification	No
Amount:	440. (ng/mL)
% Accuracy:	N/A

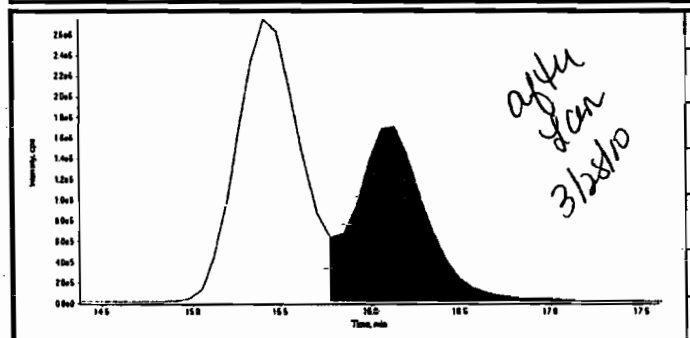

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3/28/10

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	16.1
Area Counts:	4.73e+007
Manual Modification	Yes
Amount:	510. (ng/mL)
% Accuracy:	N/A

Before Lan 3/28/10

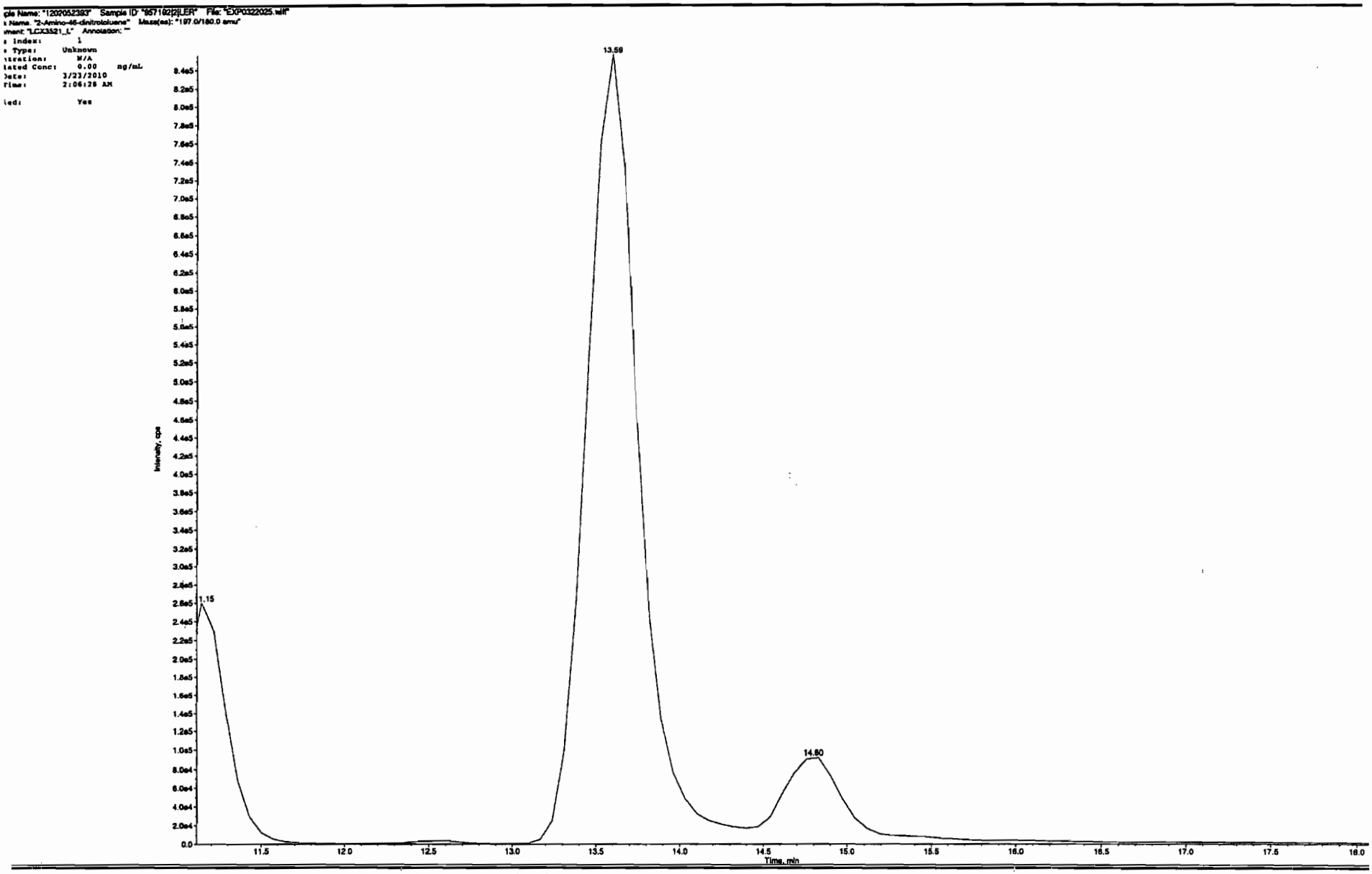

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322025.wiff	Acquisition Date	3/23/2010 2:06:28 AM
Sample Name	1202052393	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

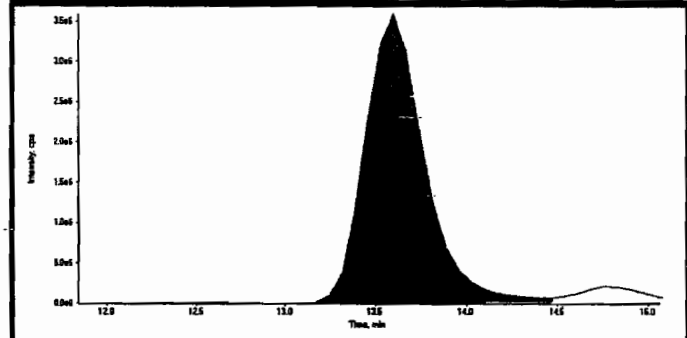

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	8.30e+007
Manual Modification	No
Amount:	495. (ng/mL)
% Accuracy:	N/A

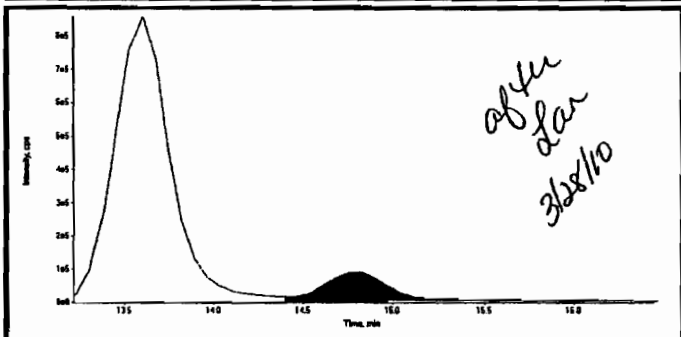

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.8
Actual RT:	14.8
Area Counts:	2.36e+006
Manual Modification	Yes
Amount:	447. (ng/mL)
% Accuracy:	N/A

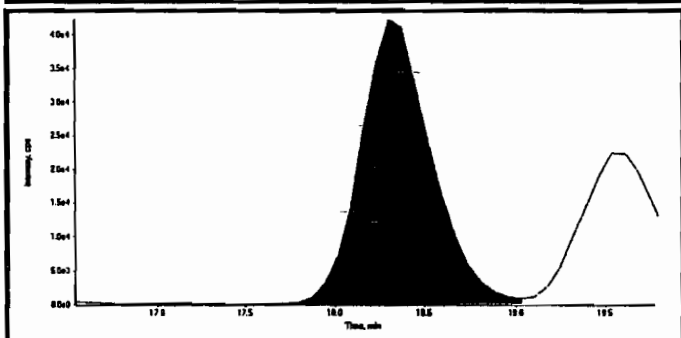

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.3
Area Counts:	1.15e+006
Manual Modification	No
Amount:	464. (ng/mL)
% Accuracy:	N/A

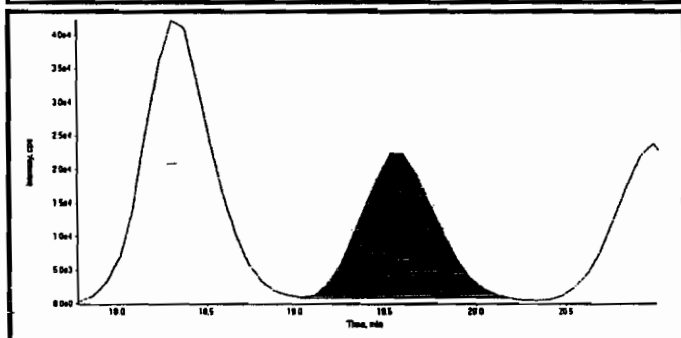

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.5
Area Counts:	6.29e+005
Manual Modification	No
Amount:	508. (ng/mL)
% Accuracy:	N/A

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322025.wiff	Acquisition Date	3/23/2010 2:06:28 AM
Sample Name	1202052393	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

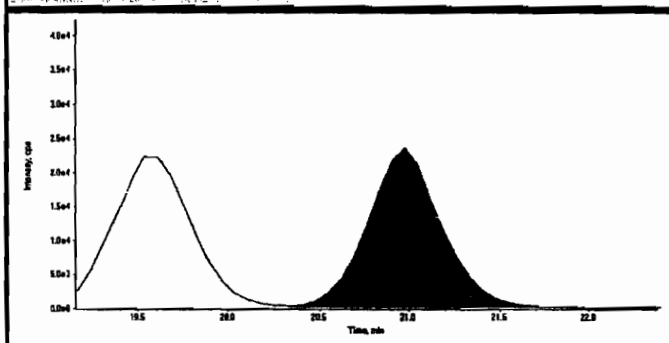

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	21.0
Area Counts:	6.71e+005
Manual Modification	No
Amount:	456. (ng/mL)
% Accuracy:	N/A

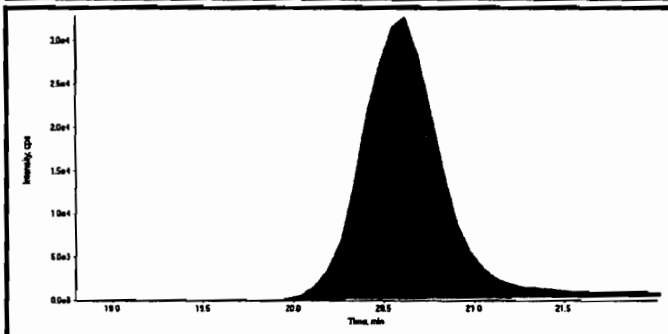

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.6
Area Counts:	1.02e+006
Manual Modification	No
Amount:	540. (ng/mL)
% Accuracy:	N/A

Before Ran 4/5/10

nple Name: "1202052393" Sample ID: "957192|2|LER" File: "EXS03310043.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
lated Conc: 431. ng/mL
Date: 3/31/2010
Time: 7:40:31 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.90 min
Relative RT: No

Type: Valley
ation Time: 6.90 min
: 3.18e+005 counts
t: 68626.816 cpa
Time: 6.79 min
Time: 7.82 min

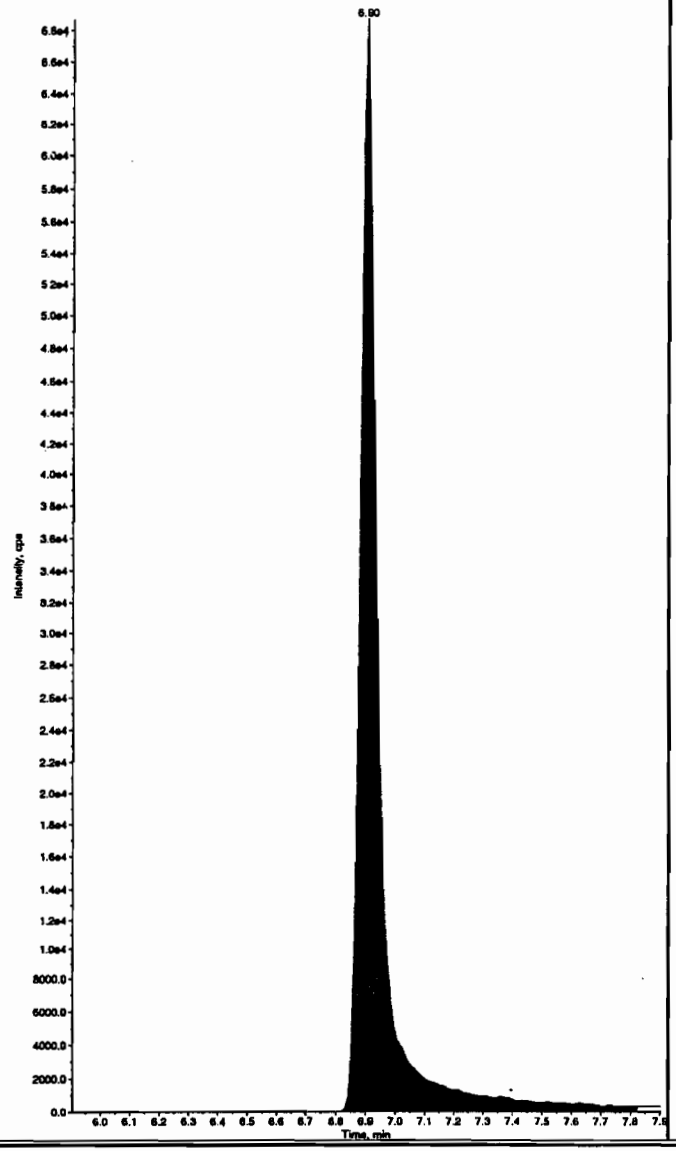

Sample Name: "1202052393" Sample ID: "957192|2|LER" File: "EXS03310043.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 467. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 7:40:31 PM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.14 min
Area: 2.98e+006 counts
Height: 669943.665 cps
Start Time: 7.97 min
End Time: 8.27 min

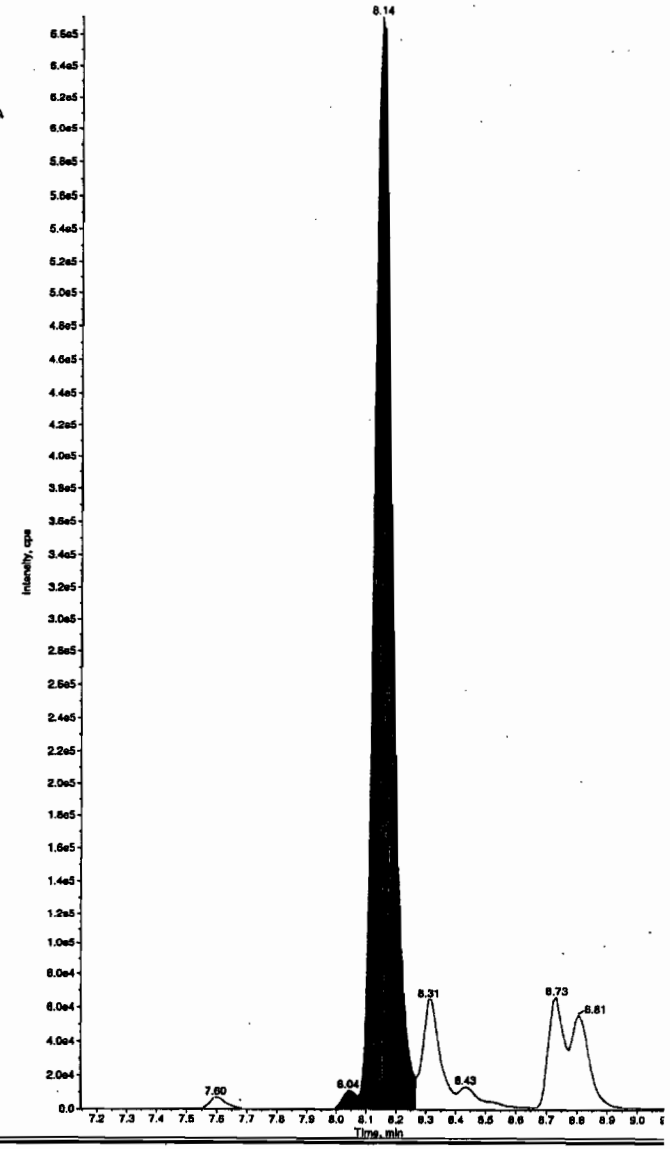

HMM 04/07/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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apu dar 4/5/10

mple Name: "1202052393" Sample ID: "957192|2|LER" File: "EXS03310043.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCX83212S" Annotation: ""

5.59

```
le Index:        1
le Type:       Unknown
entration:       N/A
ulated Conc:     431.     ng/mL
 Date:        3/31/2010
 Time:        7:40:31 PM

fied:            No
. Algorithm: IntelliQuan - IQA
 Peak Height:2500.00    cps
 Peak Width:    0.00    sec
thing Width:  3        points
indow:         30.0     sec
cted RT:        6.90    min
Relative RT:    No

 Type:         Valley
ntion Time:     6.90    min
:          3.18e+005   counts
ht:         68626.816   cps
t Time:         6.79    min
Time:           7.82    min
```

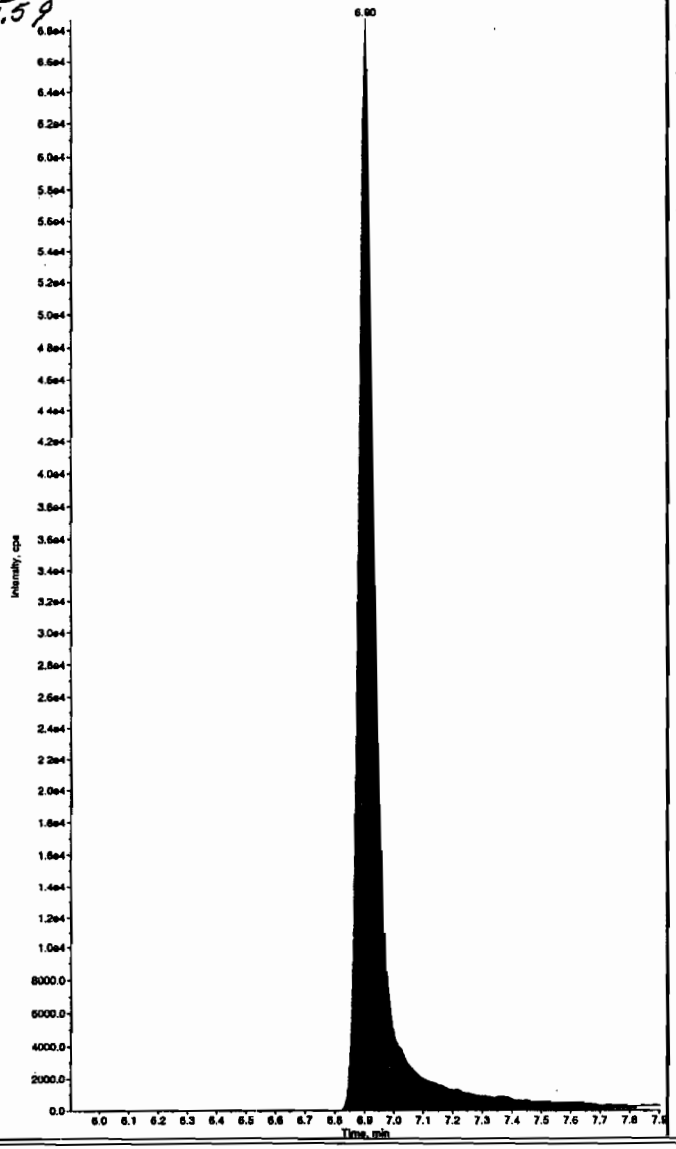

Sample Name: "1202052393" Sample ID: "957192|2|LER" File: "EXS03310043.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:       Unknown
Concentration:       N/A
Calculated Conc:     459.     ng/mL
Acq. Date:        3/31/2010
Acq. Time:        7:40:31 PM

Modified:            Yes
RT Window:          15.0     sec
Expected RT:         8.14    min
Use Relative RT:     No

Int. Type:         Manual
Retention Time:      8.15    min
Area:          2.93e+006   counts
Height:         674652.570   cps
Start Time:          8.07    min
End Time:            8.27    min
```

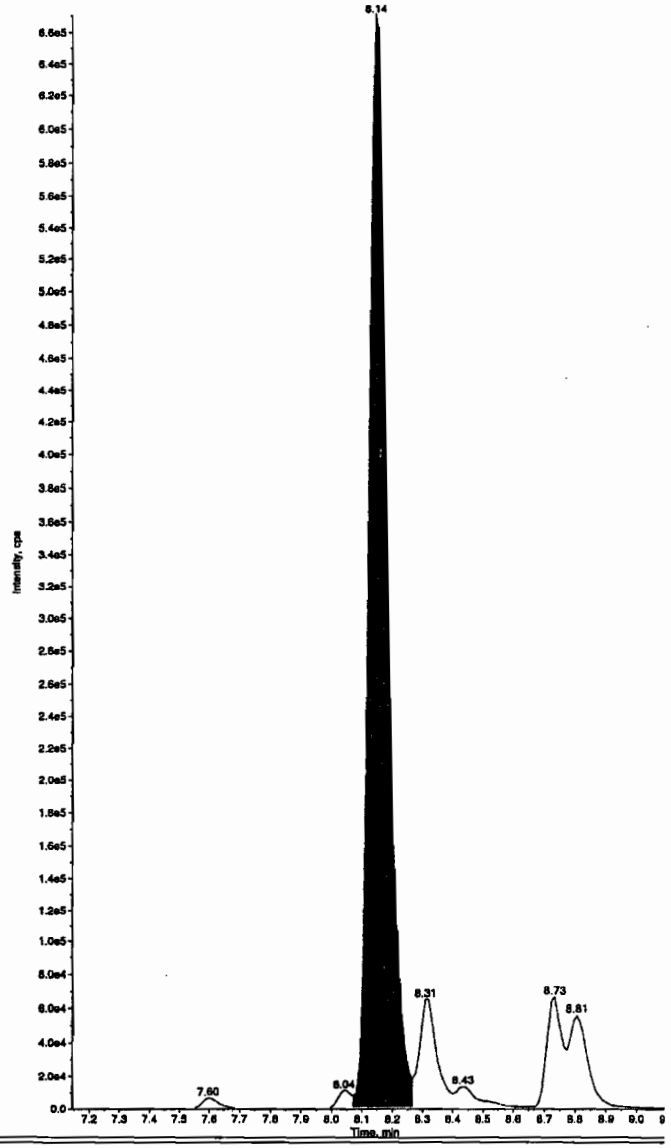

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "1202052393" Sample ID: "957192[2]LER" File: "EXS03310043.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCX83212S" Annotation: **

le Index: 1
le Type: Unknown 3.06
entration: N/A
ulated Conc: 236. ng/mL
Date: 3/31/2010
Time: 7:40:31 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.31 min
Relative RT: No

Type: Valley
ntion Time: 8.31 min
: 1.92e+006 counts
ht: 502553.314 cps
t Time: 8.24 min
Time: 8.55 min

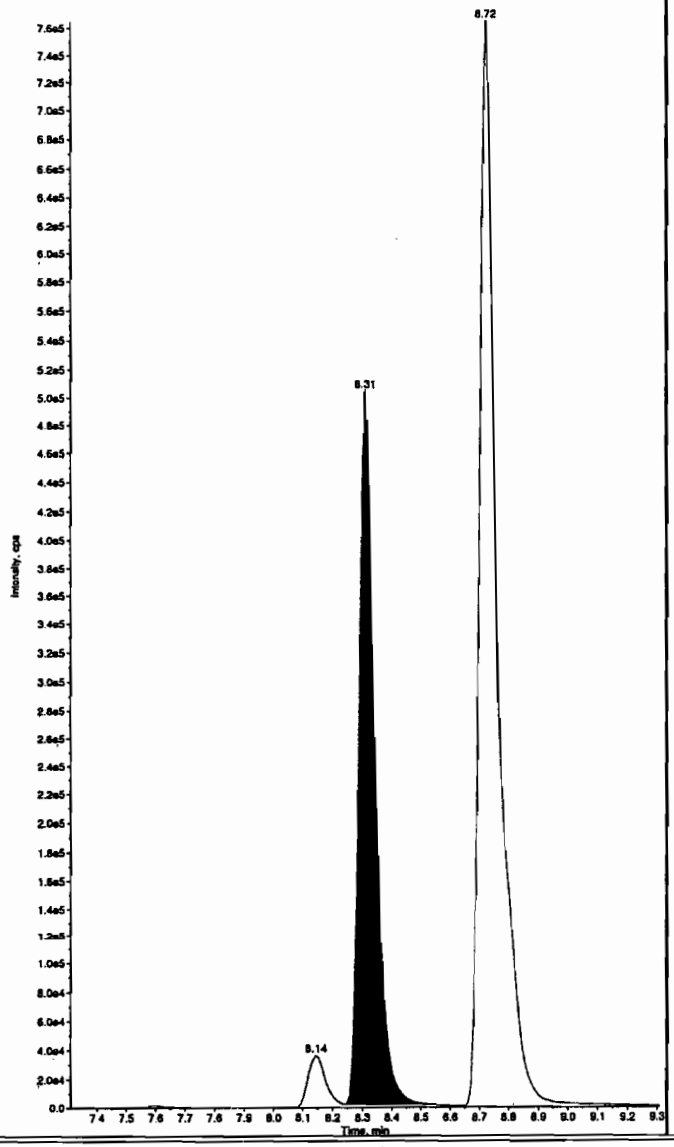

Sample Name: "1202052393" Sample ID: "957192[2]LER" File: "EXS03310043.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: **

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 461. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 7:40:31 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.95 min
Area: 1.00e+006 counts
Height: 216585.022 cps
Start Time: 4.85 min
End Time: 5.26 min

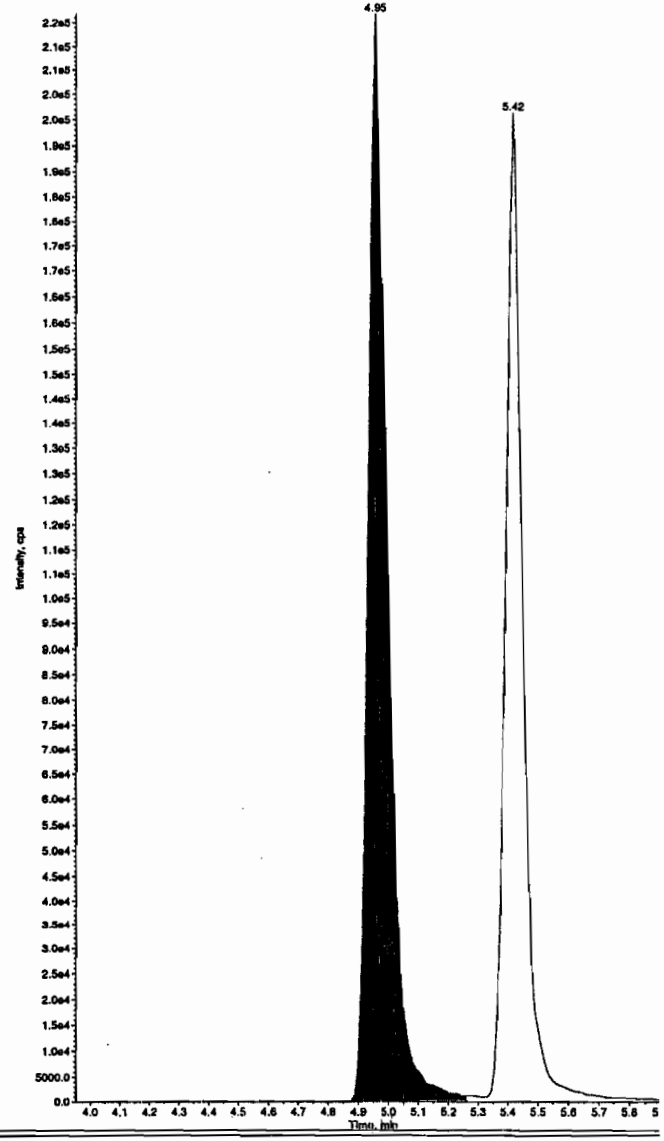

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ple Name: "1202052393" Sample ID: "957192|2|LER" File: "EXS03310043.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCX83212S" Annotation: ""

.e Index: 1
.e Type: Unknown
ntration: N/A
ilated Conc: 422. ng/mL
Date: 3/31/2010
Time: 7:40:31 PM

!ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
:hing Width: 3 points
.ndow: 30.0 sec
:ted RT: 5.41 min
lelative RT: No

Type: Valley
ıtion Time: 5.42 min
8.08e+005 counts
ıt: 196054.260 cps
: Time: 5.31 min
'ima: 6.09 min

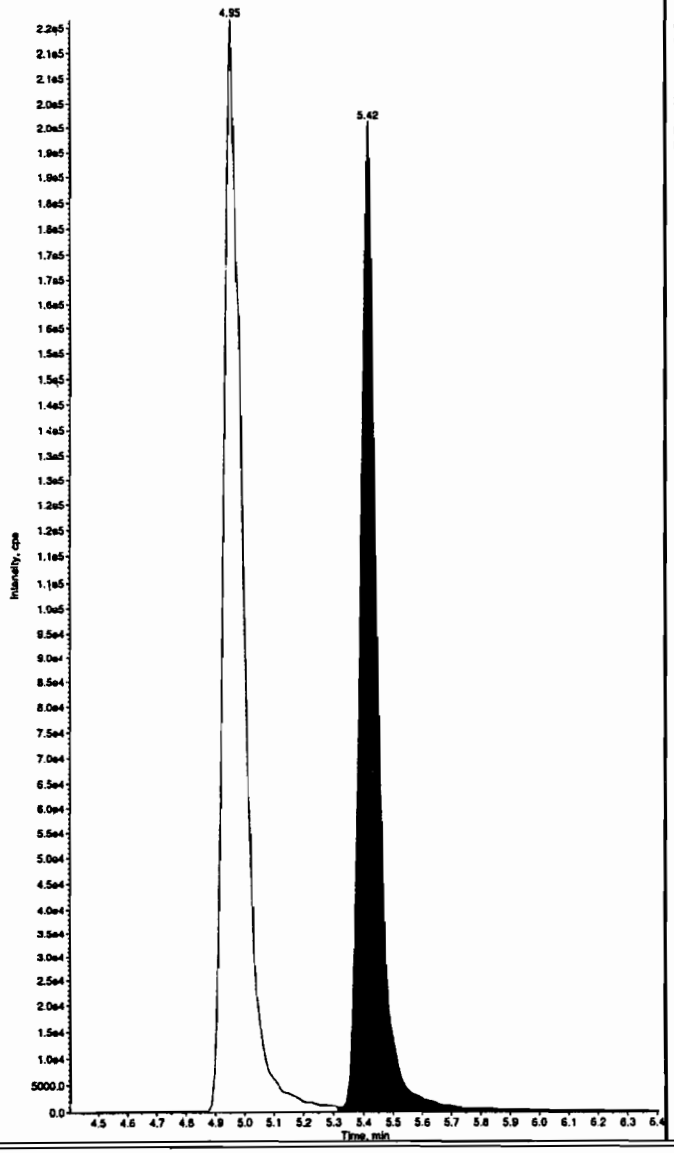

Sample Name: "1202052393" Sample ID: "957192|2|LER" File: "EXS03310043.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 167. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 7:40:31 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 3.37e+006 counts
Height: 799223.022 cps
Start Time: 10.7 min
End Time: 11.2 min

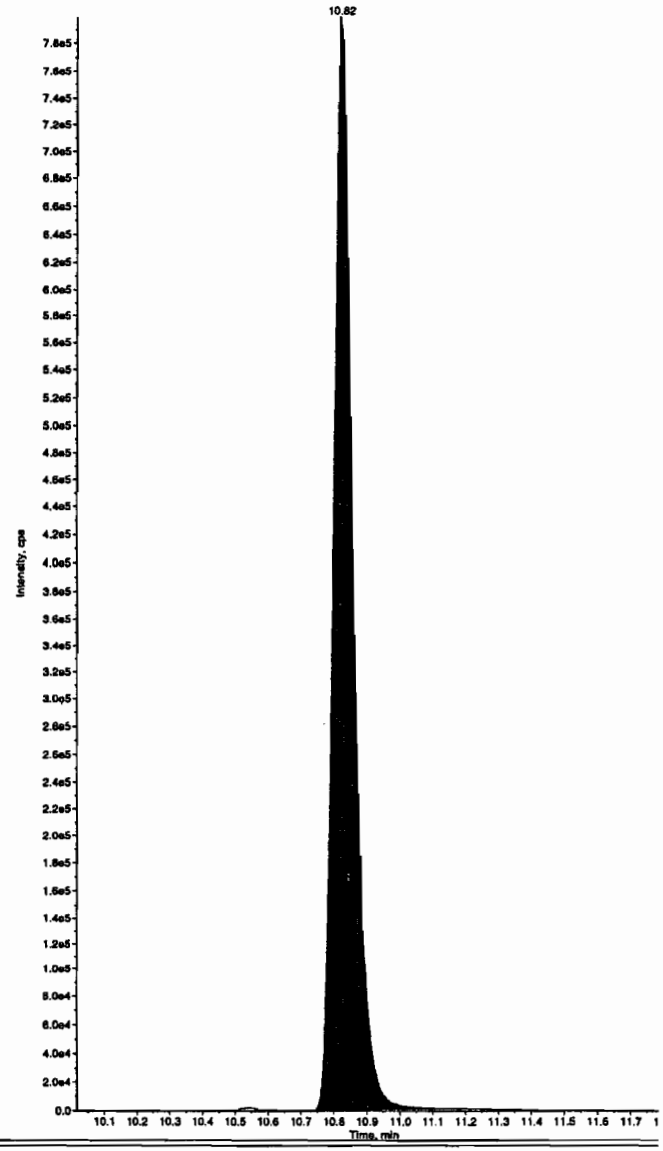

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GEL SOP GL-OA-E-056, Method 8321A-Modified

Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322026.wiff	Acquisition Date	3/23/2010 2:32:59 AM
Sample Name	1202052394	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

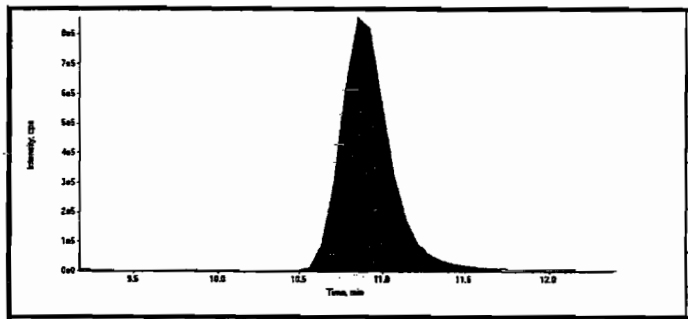

Compound Name:	13-Dinitrobenzene-d4 (172.1/46.1 amu)
Expected RT:	10.80
Actual RT:	10.90
Area Counts:	17500000.00
Manual Modification	No
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

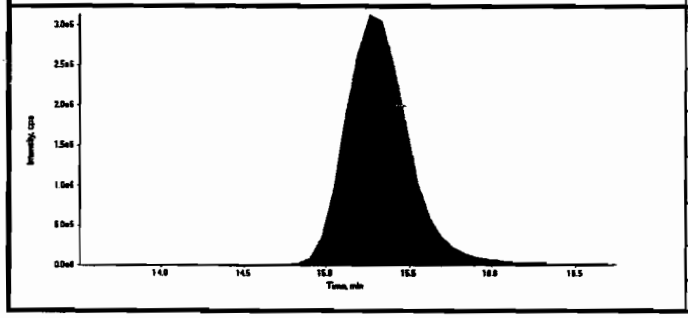

Compound Name:	26-Dinitrotoluene-d3 (185.0/155.0 amu)
Expected RT:	15.10
Actual RT:	15.30
Area Counts:	83400000.00
Manual Modification	Yes
Amount:	500.00(ng/mL)
Please refer to Form 8 for a list of Internal Standard Recoveries	

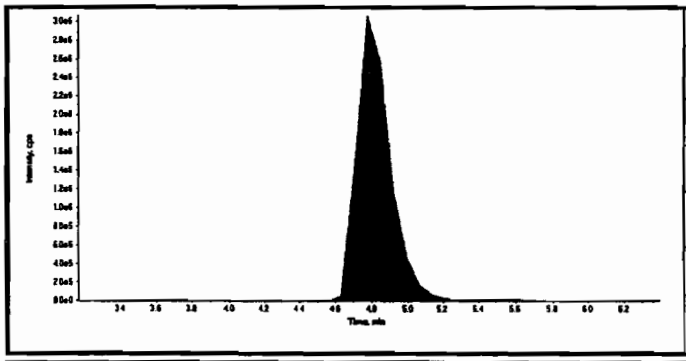

Compound Name:	HMX (341.2/46.0 amu)
Expected RT:	4.77
Actual RT:	4.77
Area Counts:	3.90e+007
Manual Modification	No
Amount:	512. (ng/mL)
% Accuracy:	N/A

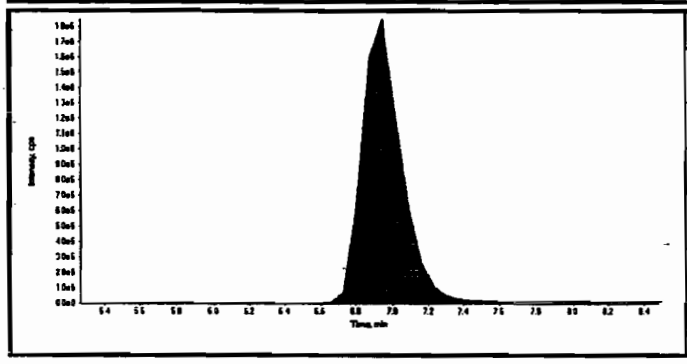

Compound Name:	RDX (267.0/46.1 amu)
Expected RT:	6.87
Actual RT:	6.94
Area Counts:	2.81e+007
Manual Modification	No
Amount:	524. (ng/mL)
% Accuracy:	N/A

Hmc 03/30/10

Kar 3/25/10

Before Lar 3/28/10

le Name: "1202052394" Sample ID: "957192[2]LER" File: "EXP0322026.wiff"
Name: "246-Trinitrotoluene" Mass(es): "227.1/209.8 amu"
vent: "LCX3521_L" Annotation: ""
Index: 1
Type: Unknown
ration: N/A
ted Conc: 399. ng/mL
te: 3/23/2010
ime: 2:32:59 AM

d: No
algorithm: IntelliQuan - IQA
eak Height: 1.00e4 cps
eak Width: 0.00 sec
ing Width: 1 points
Now: 60.0 sec
d RT: 13.5 min
ietive RT: No

ype: Valley
on Time: 13.6 min
1.77e+003 counts
6.72e+006 cps
Time: 13.0 min
e: 14.5 min

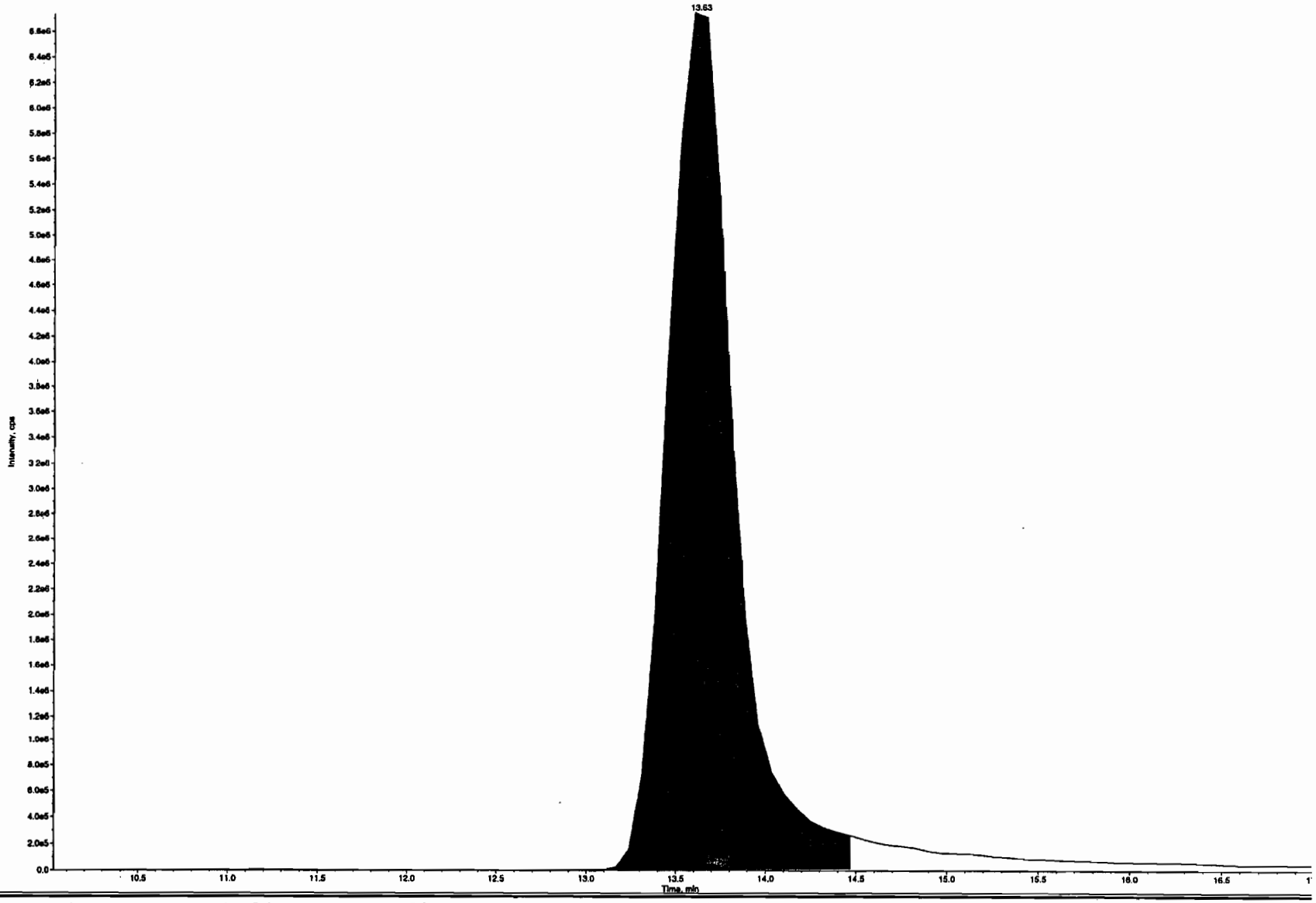

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322026.wiff	Acquisition Date	3/23/2010 2:32:59 AM
Sample Name	1202052394	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

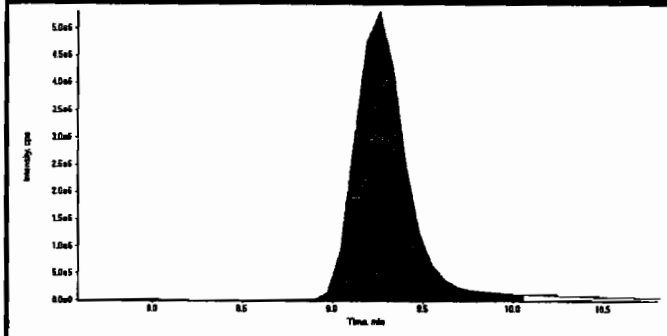

Compound Name:	135-Trinitrobenzene (213.0/182.8 amu)
Expected RT:	9.19
Actual RT:	9.26
Area Counts:	1.05e+008
Manual Modification	No
Amount:	461. (ng/mL)
% Accuracy:	N/A

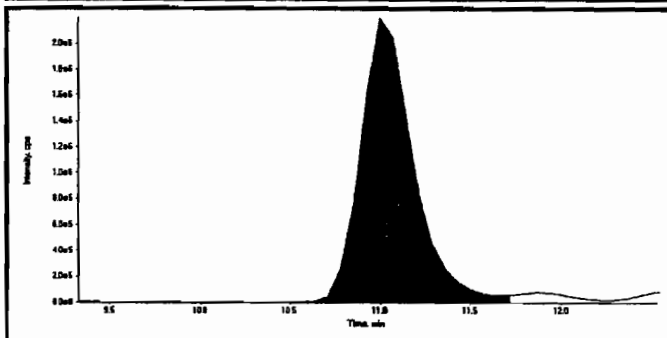

Compound Name:	13-Dinitrobenzene (168.0/137.9 amu)
Expected RT:	10.9
Actual RT:	11.0
Area Counts:	4.48e+007
Manual Modification	No
Amount:	481. (ng/mL)
% Accuracy:	N/A

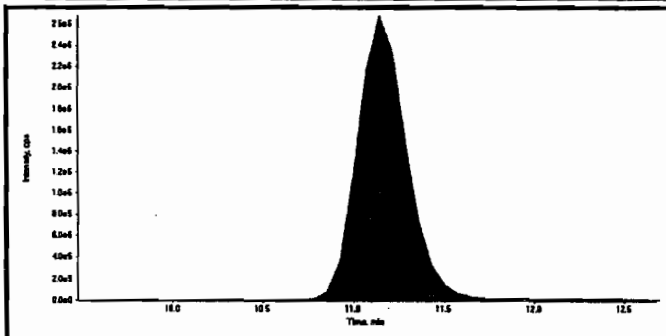

Compound Name:	Tetryl (241.0/180.8 amu)
Expected RT:	11.1
Actual RT:	11.1
Area Counts:	5.05e+007
Manual Modification	No
Amount:	337. (ng/mL)
% Accuracy:	N/A

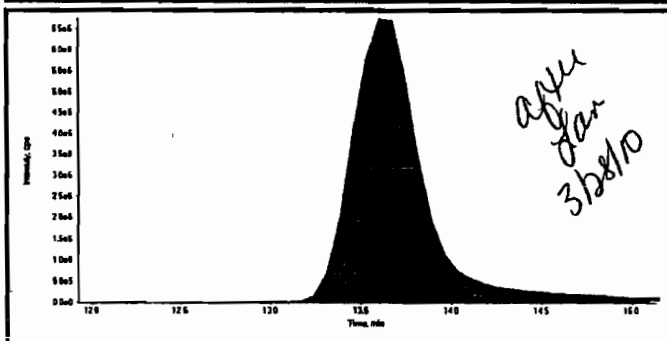

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Jan
3/28/10

Compound Name:	246-Trinitrotoluene (227.1/209.8 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	1.86e+008
Manual Modification	Yes
Amount:	425. (ng/mL)
% Accuracy:	N/A

Before Lcz 3/28/10

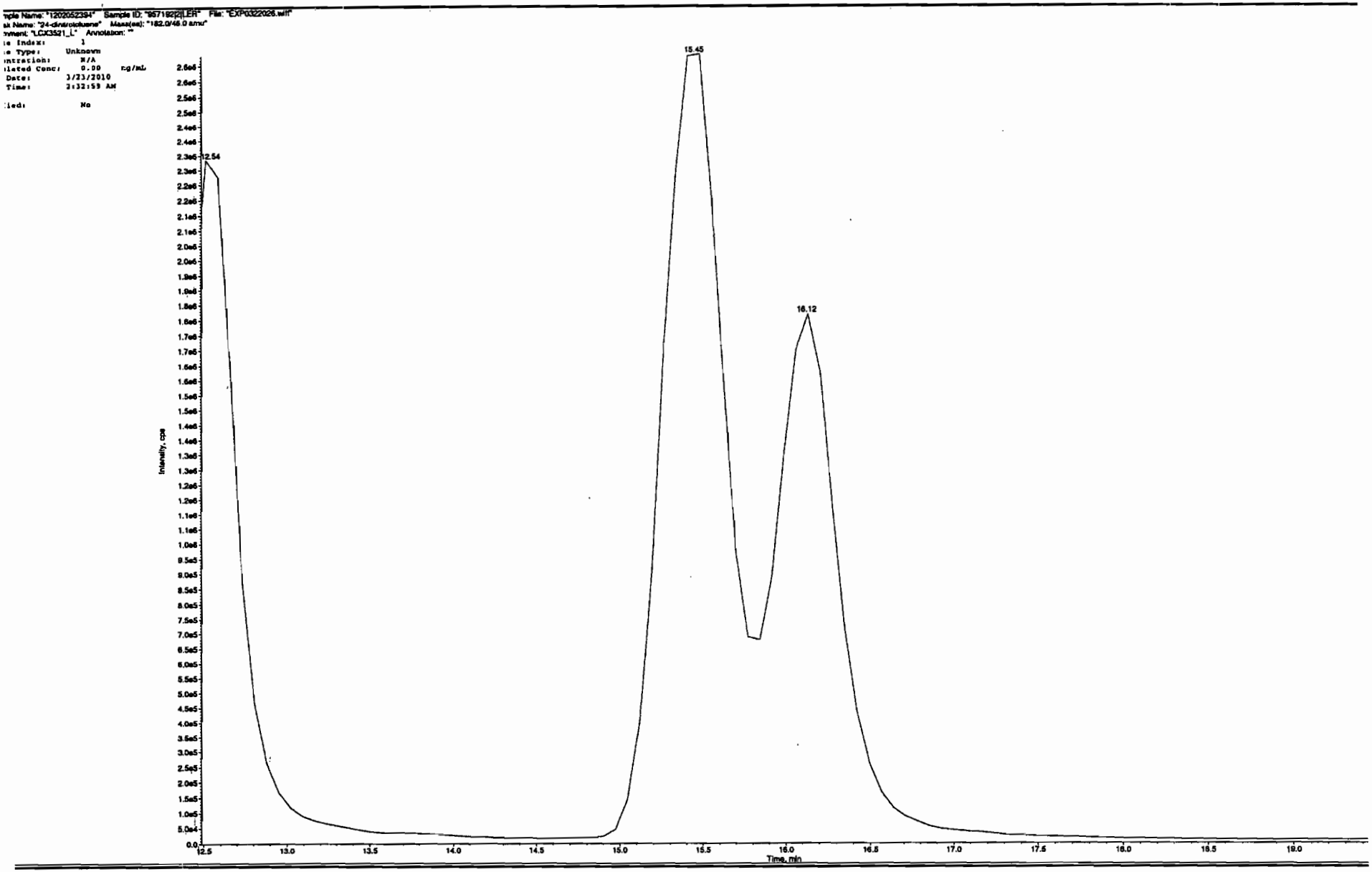

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#3

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Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322026.wiff	Acquisition Date	3/23/2010 2:32:59 AM
Sample Name	1202052394	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

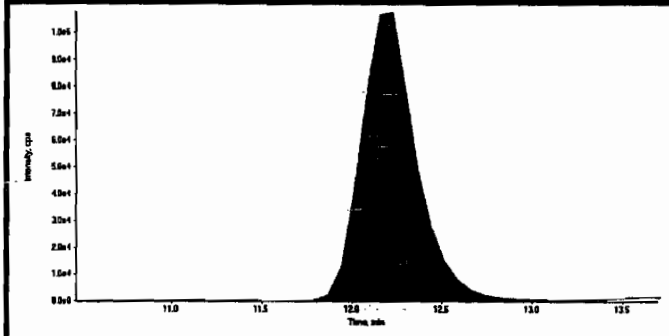

Compound Name:	Nitrobenzene (123.0/46.0 amu)
Expected RT:	12.1
Actual RT:	12.2
Area Counts:	2.33e+006
Manual Modification	No
Amount:	491. (ng/mL)
% Accuracy:	N/A

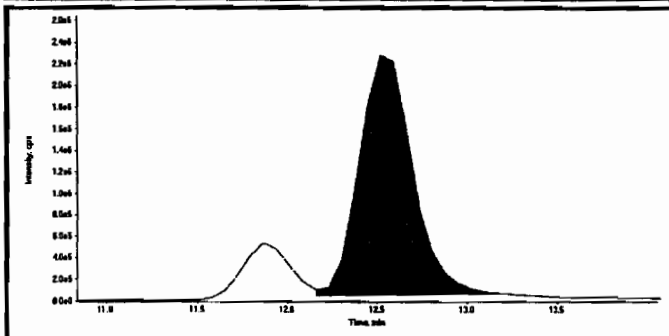

Compound Name:	34-dinitrotoluene (182.0/46.0 amu)
Expected RT:	12.4
Actual RT:	12.5
Area Counts:	4.68e+007
Manual Modification	No
Amount:	2.82 217. (ng/mL)
% Accuracy:	N/A

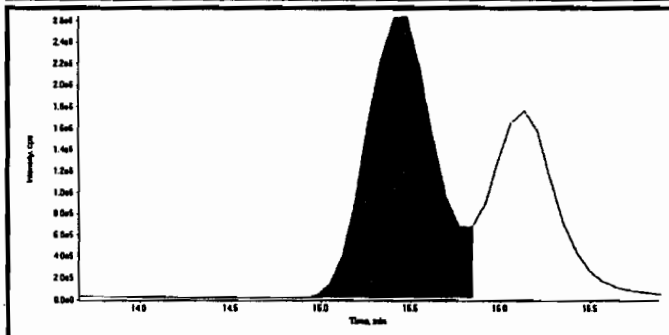

Compound Name:	26-dinitrotoluene (182.0/46.0 amu)
Expected RT:	15.3
Actual RT:	15.5
Area Counts:	7.12e+007
Manual Modification	No
Amount:	439. (ng/mL)
% Accuracy:	N/A

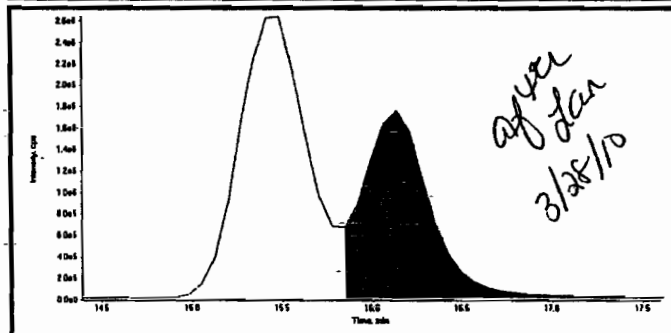

after Jan 3/28/10

Compound Name:	24-dinitrotoluene (182.0/46.0 amu)
Expected RT:	16.0
Actual RT:	16.1
Area Counts:	4.57e+007
Manual Modification	Yes
Amount:	468. (ng/mL)
% Accuracy:	N/A

Before Run 3/28/10

ple Name: "1202052184" Sample ID: "957192|2|LER" File: "EXP0322028.wiff"
k Name: "2-Amino-46-dinitrotoluene" Mass(es): "197.0/180.0 amu"
vment: "LCX3521_L" Annotation: ""

e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 733. ng/mL
Date: 3/23/2010
Time: 2:32:59 AM

ted: No
Algorithm: IntelliQuan - IQA
Peak Height: 1000.00 cps
Peak Width: 0.00 sec
ing Width: 3 points
dow: 30.0 sec
ted RT: 14.6 min
elative RT: No

Type: Valley
ion Time: 14.8 min
4.07e+006 counts
: 1.23e+005 cps
Time: 14.4 min
me: 15.5 min

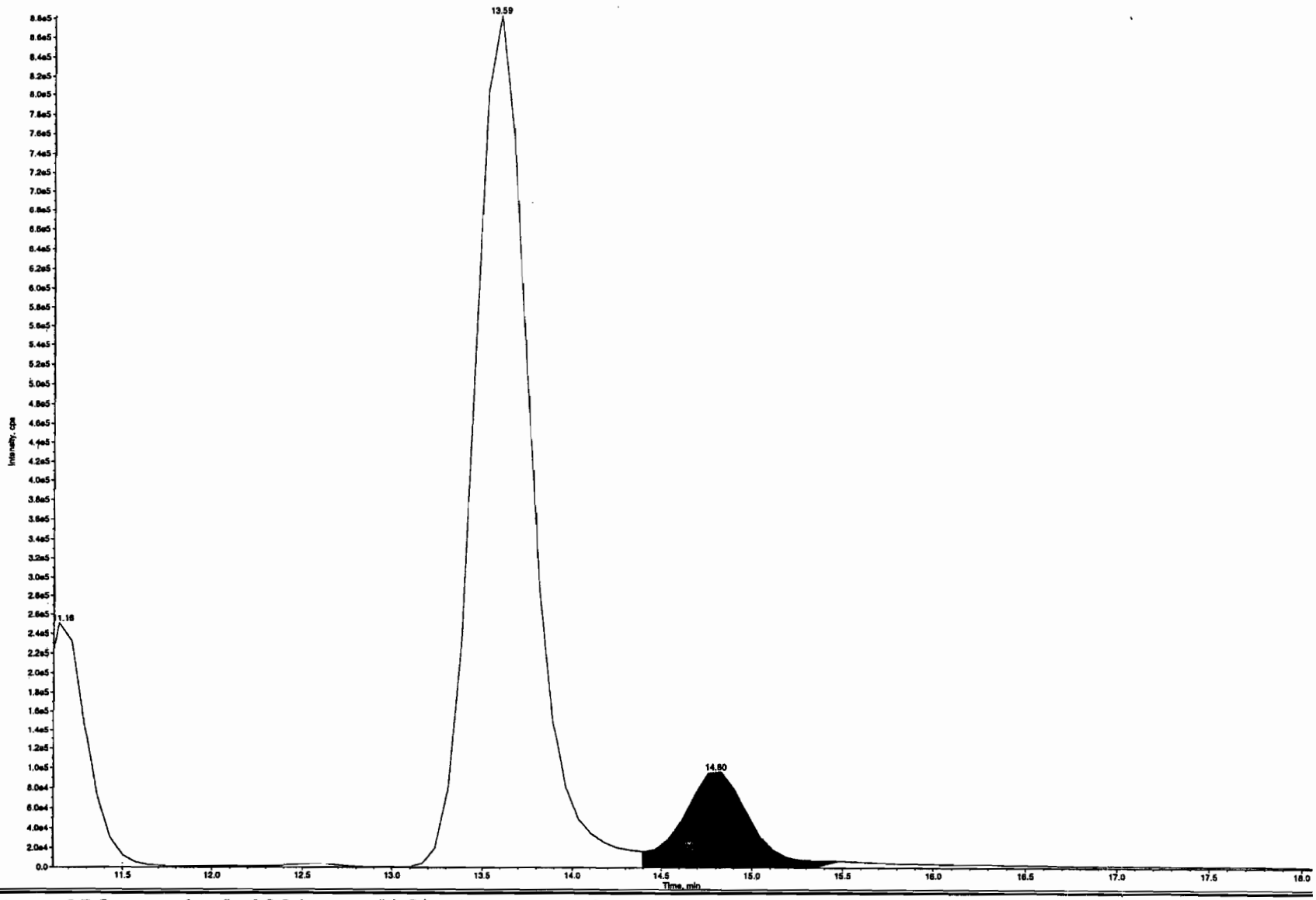

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Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322026.wiff	Acquisition Date	3/23/2010 2:32:59 AM
Sample Name	1202052394	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

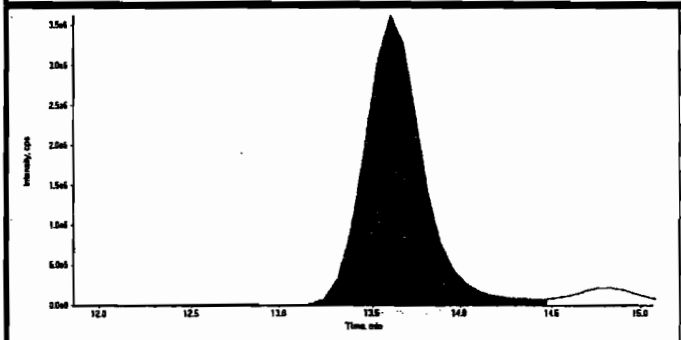

Compound Name:	4-Amino-26-dinitrotoluene (197.0/167.0 amu)
Expected RT:	13.5
Actual RT:	13.6
Area Counts:	8.32e+007
Manual Modification	No
Amount:	472. (ng/mL)
% Accuracy:	N/A

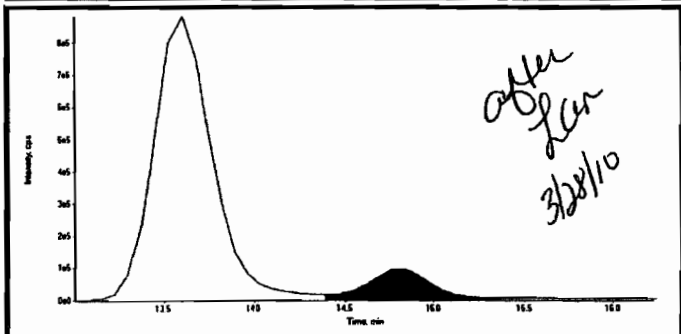

after LER 3/28/10

Compound Name:	2-Amino-46-dinitrotoluene (197.0/180.0 amu)
Expected RT:	14.6
Actual RT:	14.8
Area Counts:	2.47e+006
Manual Modification	Yes
Amount:	444. (ng/mL)
% Accuracy:	N/A

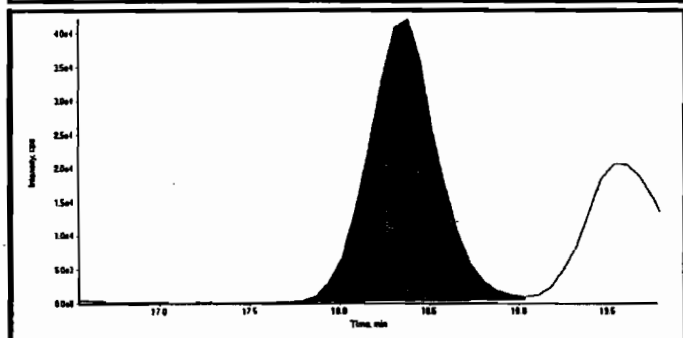

Compound Name:	2-Nitrotoluene (137.0/46.0 amu)
Expected RT:	18.2
Actual RT:	18.4
Area Counts:	1.14e+006
Manual Modification	No
Amount:	438. (ng/mL)
% Accuracy:	N/A

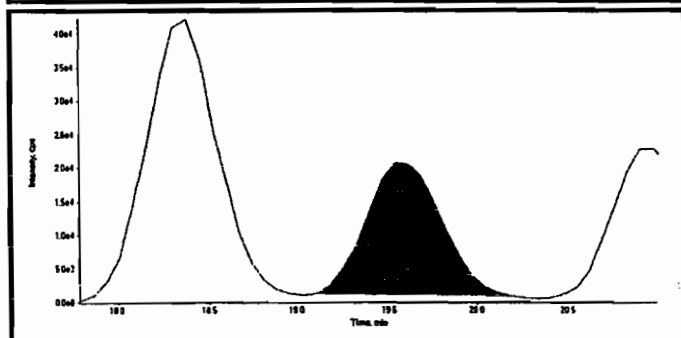

Compound Name:	4-Nitrotoluene (137.0/46.0 amu)
Expected RT:	19.4
Actual RT:	19.5
Area Counts:	5.87e+005
Manual Modification	No
Amount:	451. (ng/mL)
% Accuracy:	N/A

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Printed: 27/03/2010 1:31:00 PM
LCMSMS#3

Data File	EXP0322026.wiff	Acquisition Date	3/23/2010 2:32:59 AM
Sample Name	1202052394	Acquisition Method	8321_pntx.dam
Batch|Dilution|Analyst	957192|2|LER	Result Table	032210.rdb
Procedure Code	LCX3521_L	Sample Type	Unknown

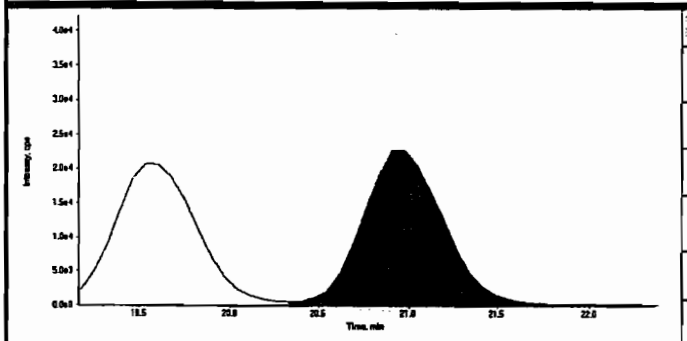

Compound Name:	3-Nitrotoluene (137.0/46.0 amu)
Expected RT:	20.8
Actual RT:	21.0
Area Counts:	7.19e+005
Manual Modification	No
Amount:	464. (ng/mL)
% Accuracy:	N/A

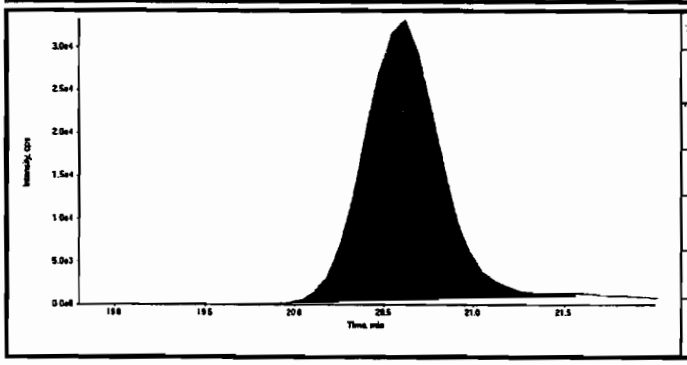

Compound Name:	PETN (361.1/62.0 amu)
Expected RT:	20.4
Actual RT:	20.6
Area Counts:	9.73e+005
Manual Modification	No
Amount:	488. (ng/mL)
% Accuracy:	N/A

Before Lan 4/5/10

nple Name: "1202052394" Sample ID: "957192|2|LER" File: "EXS03310044.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown 5.42
entration: N/A
ulated Conc: 418. ng/mL
Date: 3/31/2010
Time: 7:56:15 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.90 min
Relative RT: No

Type: Valley
ntion Time: 6.90 min
: 3.08e+005 counts
ht: 61993.492 cps
t Time: 6.81 min
Time: 7.78 min

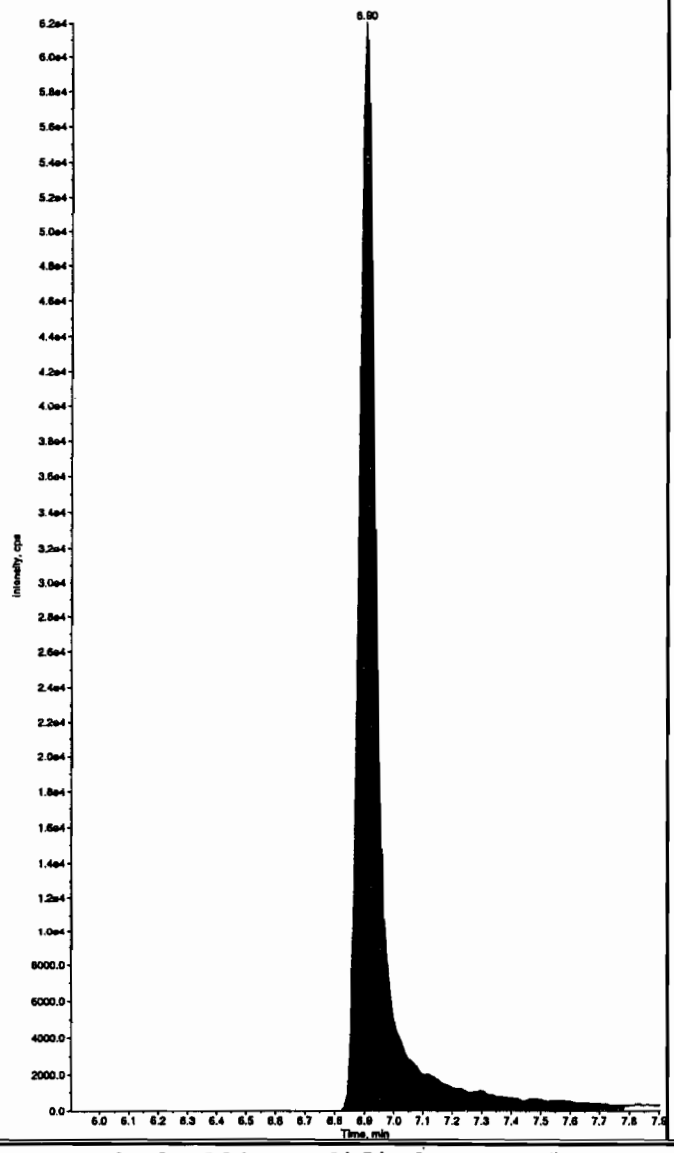

Sample Name: "1202052394" Sample ID: "957192|2|LER" File: "EXS03310044.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 422. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 7:56:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.14 min
Area: 2.71e+006 counts
Height: 607062.805 cps
Start Time: 7.96 min
End Time: 8.26 min

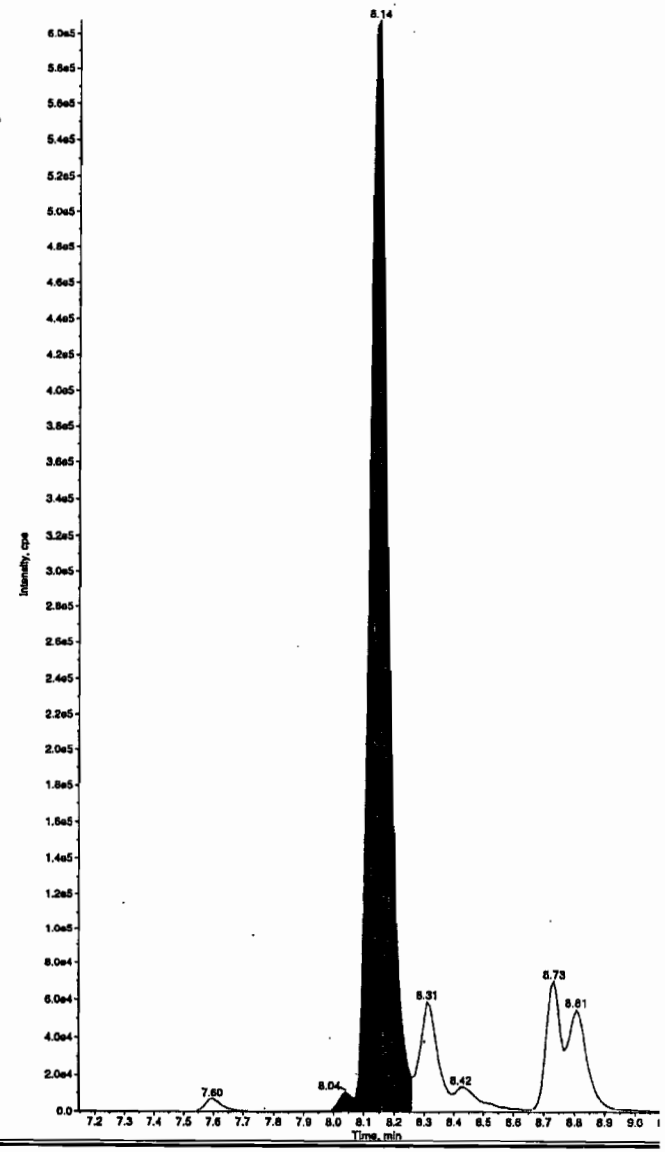

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Run 45760

mple Name: "1202052394" Sample ID: "957192|2|LER" File: "EXS03310044.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCX83212S" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 418. ng/mL
Date: 3/31/2010
Time: 7:56:15 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.90 min
Relative RT: No

Type: Valley
ntion Time: 6.90 min
: 3.08e+005 counts
ht: 61993.492 cps
t Time: 6.81 min
Time: 7.78 min

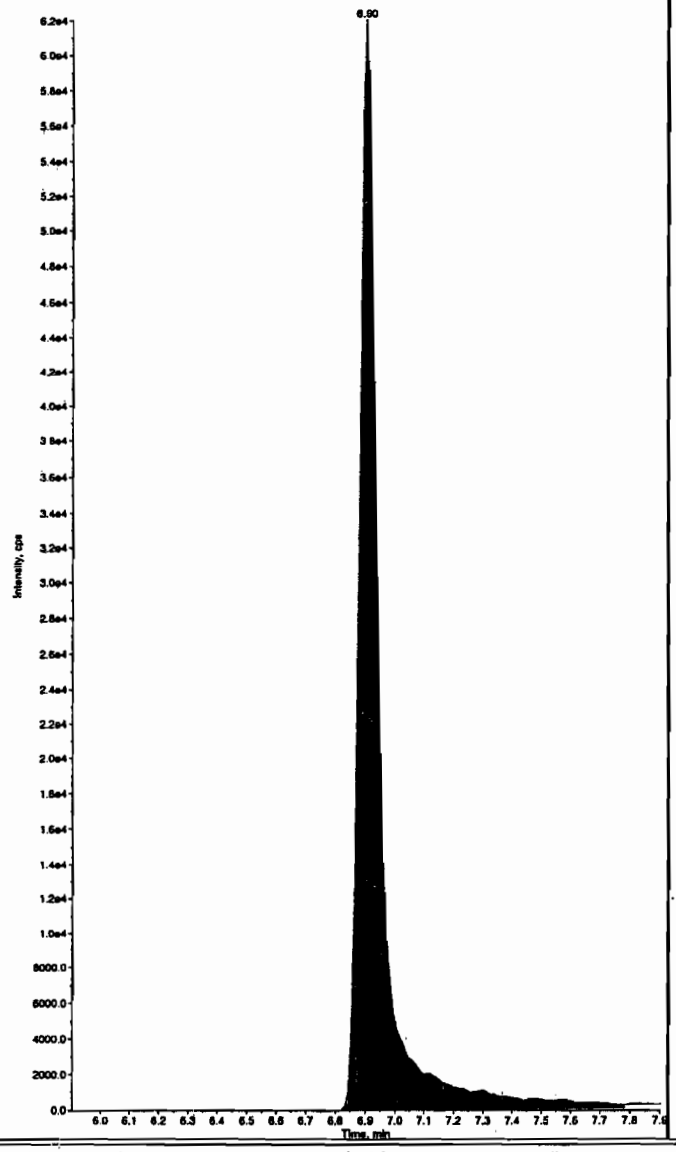

Sample Name: "1202052394" Sample ID: "957192|2|LER" File: "EXS03310044.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 415. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 7:56:15 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.14 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.14 min
Area: 2.66e+006 counts
Height: 609755.844 cps
Start Time: 8.07 min
End Time: 8.26 min

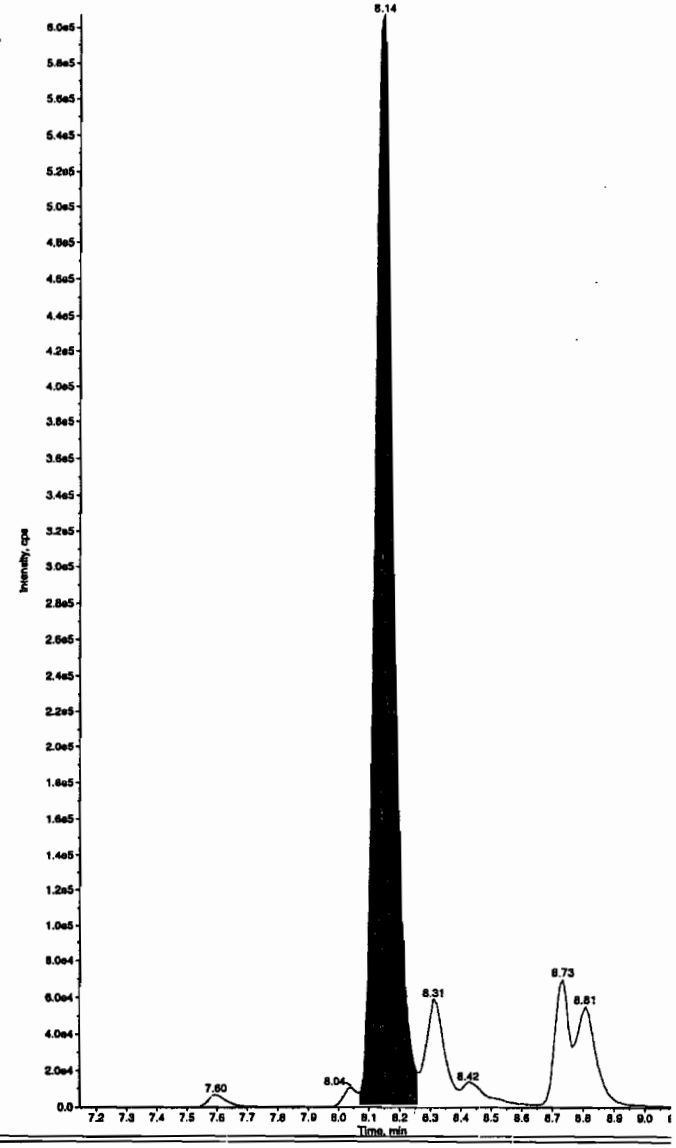

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ample Name: "1202052394" Sample ID: "957192|2|LER" File: "EXS03310044.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212S" Annotation: ""

2.95

ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 227. ng/mL
. Date: 3/31/2010
. Time: 7:56:15 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.31 min
Relative RT: No

. Type: Valley
ention Time: 8.31 min
a: 1.85e+006 counts
ght: 452626.434 cps
rt Time: 8.24 min
Time: 8.55 min

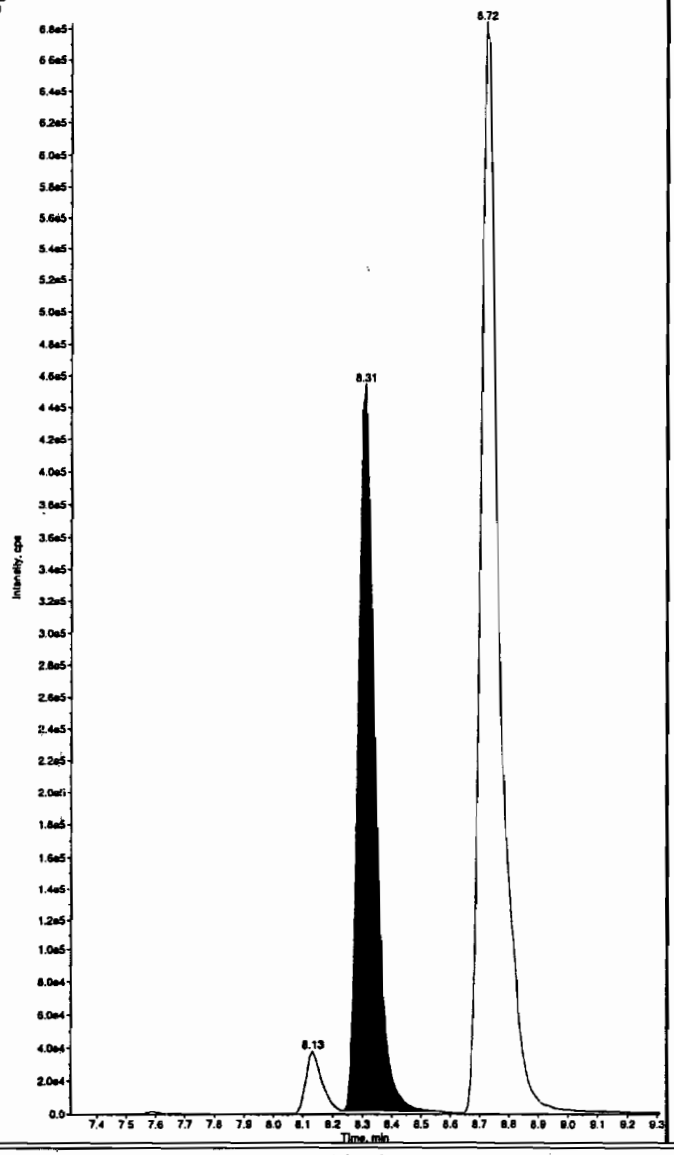

Sample Name: "1202052394" Sample ID: "957192|2|LER" File: "EXS03310044.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212S" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 474. ng/mL
Acq. Date: 3/31/2010
Acq. Time: 7:56:15 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.95 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.96 min
Area: 1.03e+006 counts
Height: 237012.512 cps
Start Time: 4.87 min
End Time: 5.26 min

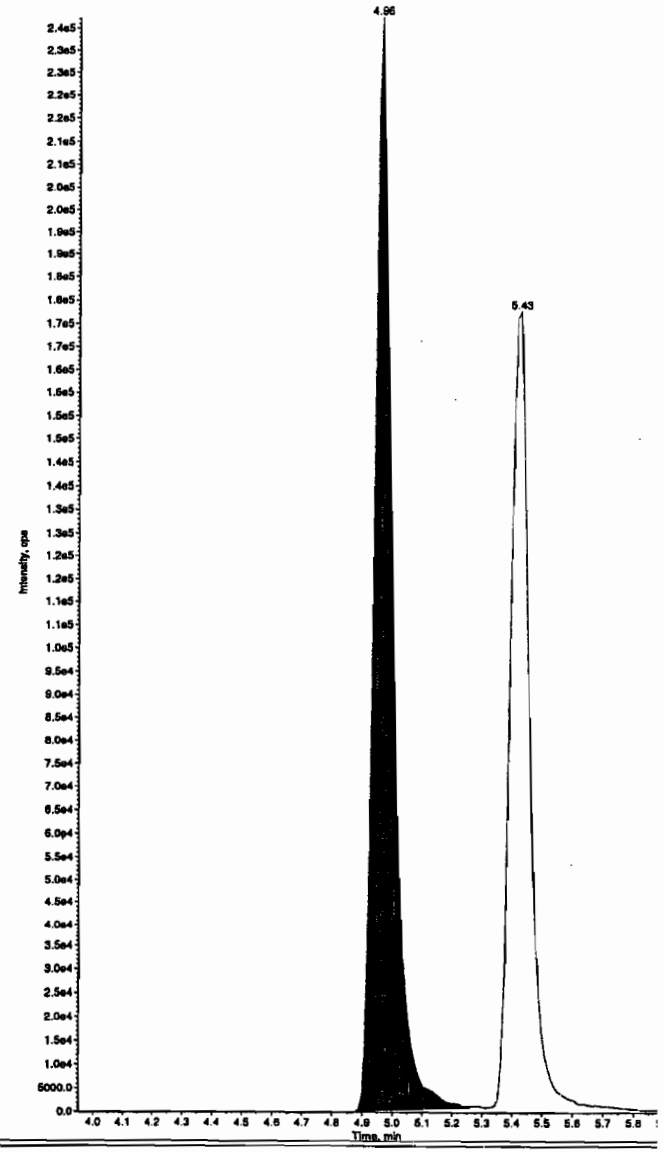

mple Name: "1202052394" Sample ID: "957192|2|LER" File: "EXS03310044.wiff"
sk Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCX83212S" Annotation: ""

```
le Index:        1
le Type:      Unknown
entration:       N/A
ulated Conc:     403.     ng/mL
 Date:        3/31/2010
 Time:        7:56:15 PM

fied:            No
. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00    cps
 Peak Width:    0.00    sec
thing Width:  3        points
indow:         30.0     sec
cted RT:        5.41    min
Relative RT:    No

 Type:         Valley
ntion Time:     5.43    min
:          7.73e+005   counts
ht:         171465.240  cps
t Time:         5.33    min
Time:           5.85    min
```

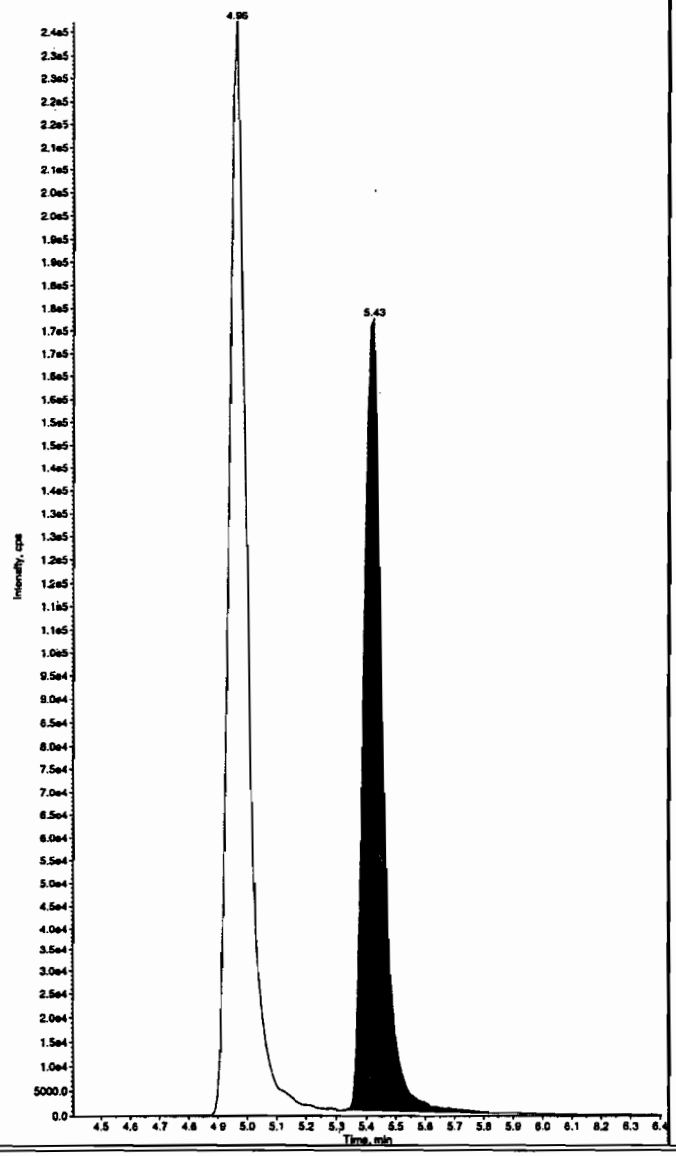

Sample Name: "1202052394" Sample ID: "957192|2|LER" File: "EXS03310044.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212S" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:       N/A
Calculated Conc:     146.     ng/mL
Acq. Date:        3/31/2010
Acq. Time:        7:56:15 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:        10.8    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.8    min
Area:          2.97e+006   counts
Height:         717737.061  cps
Start Time:         10.7    min
End Time:           11.2    min
```

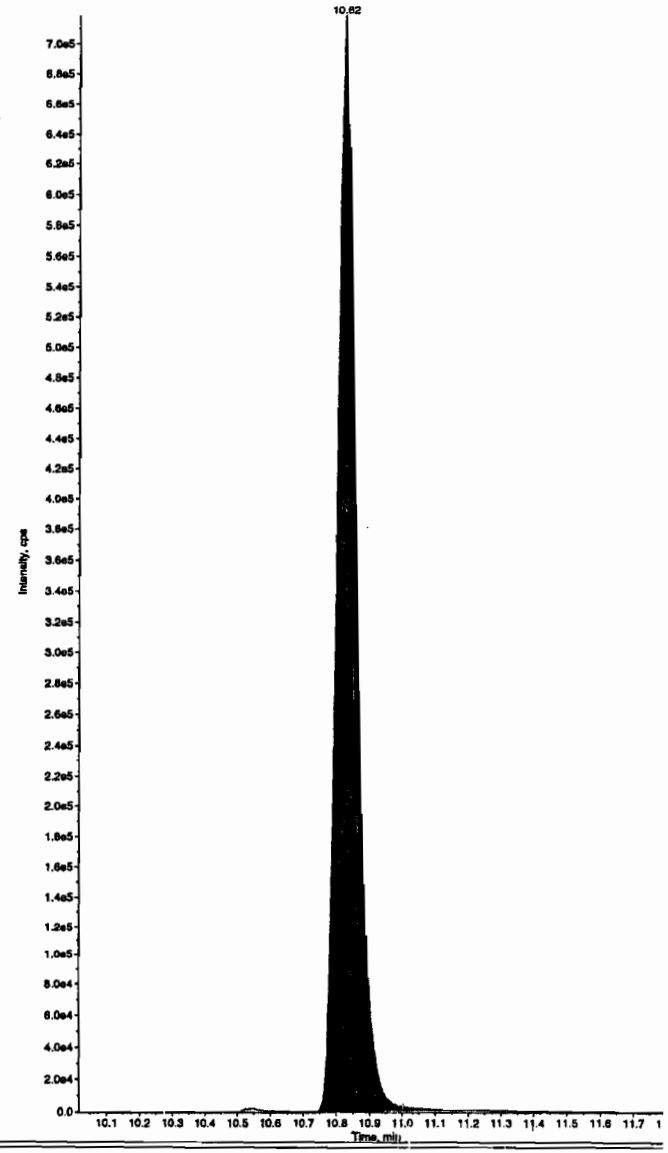

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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GEL Laboratories LLC
Form GEL-DER

DER Report No.: 814490
Revision No.: 1

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
07-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LC-MS/MS	SW846 3535/8321A Modified	Liquid	LANL
Batch ID:	**Sample Numbers:**		
957192	See Below		

Potentially affected work order(s)(SDG): 247824(10-2005),247828(10-2000),247830(10-2007)

Application Issues:

Failed Recovery for Surrogate or Tracer

Specification and Requirements Exception Description:	DER Disposition:
1.The MB(1202052389) contained a detect of 2,6-Dinitrotoluene above the MDL but below the PQL.	1. The analyte was not detected in any of the samples. The data are considered unaffected and are reported.
2. Sample 247830002 did not meet acceptance criteria for surrogate recovery at 65.2% in the Secondary analyte analysis and at 61.6% in the Primary analyte analysis. The limits are 67-134%.	2. The MS(1202052391) and MSD(1202052392) did not confirm the low recoveries. The sample was more than two times out of holding so a re-extract was not performed. The data are reported.

Originator's Name:
Lynne Russell 07-APR-10

Data Validator/Group Leader:
Herbert Maier 07-APR-10

GC SEMIVOLATILE PESTICIDE ANALYSIS

Pesticide Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2005

Method/Analysis Information

Procedure:	**Organochlorine Pesticides and Chlorinated Hydrocarbons**
Analytical Method:	SW846 8081A
Prep Method:	SW846 3510C
Analytical Batch Number:	957867
Prep Batch Number:	957866

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8081A:

Sample ID	Client ID
247824004	CAPA-10-13498
1202054045	Method Blank (MB)
1202054046	Laboratory Control Sample (LCS)
1202054049	Laboratory Control Sample (LCS)-Toxaphene LCS Only
1202054047	247922002(WST29-10-13281) Matrix Spike (MS)
1202054048	247922002(WST29-10-13281) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-041 REV# 10.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
The calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

Alpha-Chlordane recovered below the acceptance limits on one analytical column in the standard bracketing the sample in this SDG. The negative bias for the analytical data is a result of instrument response decreasing after the initial calibration. The instrument response never decreased to a point where the target analytes would not be detected. Alpha-Chlordane was not detected on either analytical column in the associated samples; therefore, the non-compliance has no adverse effects on the data.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-2022) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information:

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP. Florisil was used during sample preparation.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information:

Electronic Package Comment

This package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this pesticide fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The lower results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-Pesticide analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD7A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide I)
ECD7A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 3/24/10

Roadmap for LANL 10-2005 PEST

This roadmap was analyzed by hea01125 on 02-28-2010, 22:04.
This roadmap was reviewed by jim01140 on 03-01-2010, 16:17.
This roadmap was validated by yml on 03-24-2010, 12:17.
This roadmap was validated by jim01140 on 03-24-2010, 13:29.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd7a.i/022610.b/038f3801.d	247824004	sample	27-FEB-2010	01:52	10-2005.sub	CAPA-10-13498	1.00000	957867	USE, uploaded both columns, reporting lower result

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd7a.i/022610.b/038b3801.d	247824004	sample	27-FEB-2010	01:52	10-2005.sub	CAPA-10-13498	1.00000	957867	USE, uploaded both columns, reporting lower result

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd7a.i/022610.b/033f3301.d	1202054045	mb	27-FEB-2010	00:27	10-2005.sub	PBLK01	1.00000	957867	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd7a.i/022610.b/034f3401.d	1202054046	lcs	27-FEB-2010	00:44	10-2005.sub	PBLK01LCS	1.00000	957867	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd7a.i/022610.b/035f3501.d	1202054049	lcs	27-FEB-2010	01:01	10-2005.sub	PBLK01TLCS	1.00000	957867	USE, uploaded both columns, reporting lower result

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd7a.i/022610.b/033b3301.d	1202054045	mb	27-FEB-2010	00:27	10-2005.sub	PBLK01	1.00000	957867	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd7a.i/022610.b/034b3401.d	1202054046	lcs	27-FEB-2010	00:44	10-2005.sub	PBLK01LCS	1.00000	957867	USE, uploaded both columns, reporting lower result
☐	N	/chem/ecd7a.i/022610.b/035b3501.d	1202054049	lcs	27-FEB-2010	01:01	10-2005.sub	PBLK01TLCS	1.00000	957867	USE, uploaded both columns, reporting lower result

SAMPLE DATA SUMMARY

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–2005	**Date Collected:**	02/22/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	247824004	**Date Received:**	02/23/2010 08:50		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA–10–13498	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	957867	**Inst:**	ECD7A.I	**Dilution:**	1
Run Date:	02/27/2010 01:52	**Analyst:**	HXJ1	**Inj. Vol:**	1 uL
Prep Date:	02/26/2010 14:34	**Aliquot:**	930 mL	**Final Volume:**	5 mL
Data File:	038f3801.d	**Column:**	1 CLP–1	**Level:**	LOW
	038b3801.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.0215	ug/L	0.00538	0.0215	1
58–89–9	gamma–BHC (Lindane)	U	0.0215	ug/L	0.00538	0.0215	1
319–85–7	beta–BHC	U	0.0215	ug/L	0.00645	0.0215	1
319–86–8	delta–BHC	U	0.0215	ug/L	0.00538	0.0215	1
76–44–8	Heptachlor	U	0.0215	ug/L	0.00538	0.0215	1
309–00–2	Aldrin	U	0.0215	ug/L	0.00538	0.0215	1
1024–57–3	Heptachlor epoxide	U	0.0215	ug/L	0.00538	0.0215	1
5103–74–2	gamma–Chlordane	U	0.0215	ug/L	0.00538	0.0215	1
5103–71–9	alpha–Chlordane	U	0.0215	ug/L	0.00538	0.0215	1
959–98–8	Endosulfan I	U	0.0215	ug/L	0.00538	0.0215	1
72–55–9	4,4'–DDE	U	0.043	ug/L	0.00538	0.043	1
60–57–1	Dieldrin	U	0.043	ug/L	0.0108	0.043	1
72–20–8	Endrin	U	0.043	ug/L	0.0108	0.043	1
72–54–8	4,4'–DDD	U	0.043	ug/L	0.0108	0.043	1
33213–65–9	Endosulfan II	U	0.043	ug/L	0.0108	0.043	1
7421–93–4	Endrin aldehyde	U	0.043	ug/L	0.00538	0.043	1
50–29–3	4,4'–DDT	U	0.043	ug/L	0.0108	0.043	1
1031–07–8	Endosulfan sulfate	U	0.043	ug/L	0.0108	0.043	1
72–43–5	Methoxychlor	U	0.215	ug/L	0.0538	0.215	1
53494–70–5	Endrin ketone	U	0.043	ug/L	0.0108	0.043	1
8001–35–2	Toxaphene	U	0.538	ug/L	0.161	0.538	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.538	1.08	ug/L	50.0	(30%–105%)
Decachlorobiphenyl	0.395	1.08	ug/L	36.7	(30%–126%)

QUALITY CONTROL SUMMARY

Pesticide

Surrogate Recovery Report

SDG Number: 10-2005

Matrix Type: LIQUID

CAP Column (1) : CLP-1 **CAP Column (2) : CLP-2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202054045	MB for batch 957866	54	56	59	57
1202054046	LCS for batch 957866	45	47	70	68
1202054049	LCS for batch 957866	45	48	61	59
247824004	CAPA-10-13498	50	51	37	39

Surrogate	Acceptance Limits
4CMX = 4cmx	(30%-105%)
DCB = Decachlorobiphenyl	(30%-126%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2005
Client ID: LCS for batch 957866
Lab Sample ID: 1202054046
Instrument: ECD7A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: WATER
Analysis Date: 02/27/2010 00:44
Dilution: 1
Prep Batch ID: 957866
Batch ID: 957867

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
319–84–6	LCS	alpha–BHC	0.500	0.0	0.387	77	43–132
58–89–9	LCS	gamma–BHC (Lindane)	0.500	0.0	0.393	79	41–133
319–85–7	LCS	beta–BHC	0.500	0.0	0.376	75	44–130
319–86–8	LCS	delta–BHC	0.500	0.0	0.391	78	45–132
76–44–8	LCS	Heptachlor	0.500	0.0	0.327	65	31–118
309–00–2	LCS	Aldrin	0.500	0.0	0.277	55	30–113
1024–57–3	LCS	Heptachlor epoxide	0.500	0.0	0.369	74	42–121
5103–74–2	LCS	gamma–Chlordane	0.500	0.0	0.339	68	40–128
5103–71–9	LCS	alpha–Chlordane	0.500	0.0	0.353	71	45–127
959–98–8	LCS	Endosulfan I	0.500	0.0	0.372	74	40–128
72–55–9	LCS	4,4'–DDE	1.25	0.0	0.890	71	43–130
60–57–1	LCS	Dieldrin	1.25	0.0	0.893	71	44–129
72–20–8	LCS	Endrin	1.25	0.0	1.04	83	53–141
72–54–8	LCS	4,4'–DDD	1.25	0.0	1.02	81	48–138
33213–65–9	LCS	Endosulfan II	1.25	0.0	0.935	75	42–133
7421–93–4	LCS	Endrin aldehyde	1.25	0.0	0.863	69	39–128
50–29–3	LCS	4,4'–DDT	1.25	0.0	0.976	78	43–157
1031–07–8	LCS	Endosulfan sulfate	1.25	0.0	0.955	76	51–140
72–43–5	LCS	Methoxychlor	5.00	0.0	3.79	76	55–142
53494–70–5	LCS	Endrin ketone	1.25	0.0	0.903	72	47–140

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2005
Sample Type: Laboratory Control Sample
Client ID: LCS for batch 957866
Matrix: WATER
Lab Sample ID: 1202054049
Instrument: ECD7A.I
Analysis Date: 02/27/2010 01:01
Dilution: 1
Analyst: HXJ1
Prep Batch ID: 957866
Inj. Vol: 1 uL
Batch ID: 957867

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
8001–35–2	LCS Toxaphene	4.00	0.0	1.95	49	33–136

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2022
Client ID: WST29–10–13281MS
Lab Sample ID: 1202054047
Instrument: ECD7A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: W
Analysis Date: 02/27/2010 02:43
Prep Batch ID: 957866
Batch ID: 957867
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
319–84–6	MS	alpha–BHC	0.500	0.00	U	0.343	69	33–129
58–89–9	MS	gamma–BHC (Lindane)	0.500	0.00	U	0.296	59	38–125
319–85–7	MS	beta–BHC	0.500	0.00	U	0.266	53	33–131
319–86–8	MS	delta–BHC	0.500	0.00	U	0.284	57	31–130
76–44–8	MS	Heptachlor	0.500	0.00	U	0.298	60	27–118
309–00–2	MS	Aldrin	0.500	0.00	U	0.266	53	29–115
1024–57–3	MS	Heptachlor epoxide	0.500	0.00	U	0.278	56	33–118
5103–74–2	MS	gamma–Chlordane	0.500	0.00	U	0.275	55	31–128
5103–71–9	MS	alpha–Chlordane	0.500	0.00	U	0.267	53	31–129
959–98–8	MS	Endosulfan I	0.500	0.00	U	0.375	75	26–132
72–55–9	MS	4,4'–DDE	1.25	0.00	U	0.754	60	31–129
60–57–1	MS	Dieldrin	1.25	0.00	U	0.706	57	31–127
72–20–8	MS	Endrin	1.25	0.00	U	0.856	68	43–139
72–54–8	MS	4,4'–DDD	1.25	0.00	U	0.820	66	38–137
33213–65–9	MS	Endosulfan II	1.25	0.00	U	0.724	58	31–132
7421–93–4	MS	Endrin aldehyde	1.25	0.00	U	0.644	52	25–125
50–29–3	MS	4,4'–DDT	1.25	0.00	U	0.814	65	31–157
1031–07–8	MS	Endosulfan sulfate	1.25	0.00	U	0.761	61	31–143
72–43–5	MS	Methoxychlor	5.00	0.00	U	3.67	73	42–156
53494–70–5	MS	Endrin ketone	1.25	0.00	U	0.736	59	32–141

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2022
Client ID: WST29–10–13281MSD
Lab Sample ID: 1202054048
Instrument: ECD7A.I
Analyst: HXJ1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: W
Analysis Date: 02/27/2010 03:00
Dilution: 1
Prep Batch ID: 957866
Batch ID: 957867

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
319–84–6	MSD alpha–BHC	0.500	0.00	U	0.288	58	33–129	18	0–28
58–89–9	MSD gamma–BHC (Lindane)	0.500	0.00	U	0.266	53	38–125	10	0–22
319–85–7	MSD beta–BHC	0.500	0.00	U	0.254	51	33–131	5	0–28
319–86–8	MSD delta–BHC	0.500	0.00	U	0.257	51	31–130	10	0–29
76–44–8	MSD Heptachlor	0.500	0.00	U	0.266	53	27–118	11	0–23
309–00–2	MSD Aldrin	0.500	0.00	U	0.233	47	29–115	13	0–28
1024–57–3	MSD Heptachlor epoxide	0.500	0.00	U	0.242	48	33–118	14	0–23
5103–74–2	MSD gamma–Chlordane	0.500	0.00	U	0.237	47	31–128	15	0–29
5103–71–9	MSD alpha–Chlordane	0.500	0.00	U	0.235	47	31–129	13	0–30
959–98–8	MSD Endosulfan I	0.500	0.00	U	0.346	69	26–132	8	0–27
72–55–9	MSD 4,4'–DDE	1.25	0.00	U	0.663	53	31–129	13	0–27
60–57–1	MSD Dieldrin	1.25	0.00	U	0.619	50	31–127	13	0–29
72–20–8	MSD Endrin	1.25	0.00	U	0.757	61	43–139	12	0–22
72–54–8	MSD 4,4'–DDD	1.25	0.00	U	0.728	58	38–137	12	0–28
33213–65–9	MSD Endosulfan II	1.25	0.00	U	0.646	52	31–132	11	0–28
7421–93–4	MSD Endrin aldehyde	1.25	0.00	U	0.575	46	25–125	11	0–31
50–29–3	MSD 4,4'–DDT	1.25	0.00	U	0.727	58	31–157	11	0–29
1031–07–8	MSD Endosulfan sulfate	1.25	0.00	U	0.705	56	31–143	8	0–29
72–43–5	MSD Methoxychlor	5.00	0.00	U	3.31	66	42–156	11	0–23
53494–70–5	MSD Endrin ketone	1.25	0.00	U	0.681	55	32–141	8	0–30

Method Blank Summary

SDG Number:	10–2005	Client:	LANL010	Matrix:	WATER
Client ID:	MB for batch 957866	Instrument ID:	ECD7A.I_2 ECD7A.I_1	Data File:	033b3301.d 033f3301.d
Lab Sample ID:	1202054045				
Column:	CLP–2 CLP–1	Prep Date:	02/26/2010 14:34	Analyzed:	02/27/10 00:27
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 957866	1202054046	034f3401.d 034b3401.d	02/27/10	0044
02 LCS for batch 957866	1202054049	035f3501.d 035b3501.d	02/27/10	0101
03 CAPA–10–13498	247824004	038f3801.d 038b3801.d	02/27/10	0152

SAMPLE
DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2005**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247824004**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA–10–13498**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**957867**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 01:52**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/26/2010 14:34**	**Aliquot:**	**930 mL**	**Final Volume:**	**5 mL**
Data File:	**038f3801.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	038b3801.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.0215	ug/L	0.00538	0.0215	1
58–89–9	gamma–BHC (Lindane)	U	0.0215	ug/L	0.00538	0.0215	1
319–85–7	beta–BHC	U	0.0215	ug/L	0.00645	0.0215	1
319–86–8	delta–BHC	U	0.0215	ug/L	0.00538	0.0215	1
76–44–8	Heptachlor	U	0.0215	ug/L	0.00538	0.0215	1
309–00–2	Aldrin	U	0.0215	ug/L	0.00538	0.0215	1
1024–57–3	Heptachlor epoxide	U	0.0215	ug/L	0.00538	0.0215	1
5103–74–2	gamma–Chlordane	U	0.0215	ug/L	0.00538	0.0215	1
5103–71–9	alpha–Chlordane	U	0.0215	ug/L	0.00538	0.0215	1
959–98–8	Endosulfan I	U	0.0215	ug/L	0.00538	0.0215	1
72–55–9	4,4'–DDE	U	0.043	ug/L	0.00538	0.043	1
60–57–1	Dieldrin	U	0.043	ug/L	0.0108	0.043	1
72–20–8	Endrin	U	0.043	ug/L	0.0108	0.043	1
72–54–8	4,4'–DDD	U	0.043	ug/L	0.0108	0.043	1
33213–65–9	Endosulfan II	U	0.043	ug/L	0.0108	0.043	1
7421–93–4	Endrin aldehyde	U	0.043	ug/L	0.00538	0.043	1
50–29–3	4,4'–DDT	U	0.043	ug/L	0.0108	0.043	1
1031–07–8	Endosulfan sulfate	U	0.043	ug/L	0.0108	0.043	1
72–43–5	Methoxychlor	U	0.215	ug/L	0.0538	0.215	1
53494–70–5	Endrin ketone	U	0.043	ug/L	0.0108	0.043	1
8001–35–2	Toxaphene	U	0.538	ug/L	0.161	0.538	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.538	1.08	ug/L	50.0	(30%–105%)
Decachlorobiphenyl	0.395	1.08	ug/L	36.7	(30%–126%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022610.b/038f3801.d
Lab Smp Id: 247824004 Client Smp ID: CAPA-10-13498
Inj Date : 27-FEB-2010 01:52
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |247824004|1|
Misc Info : |ECD81A_1L|957867|SVP|LANL|GROUND WATER|CAPA-10-13498||
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 38
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	930.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.881	2.879	0.002	81689555	100.021	0.538	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.102	8.102	0.000	43674508	73.4154	0.395	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/038f3801.d

Date : 27-FEB-2010 01:52

Client ID: CAPA-10-13498

Sample Info: |247824004|1|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

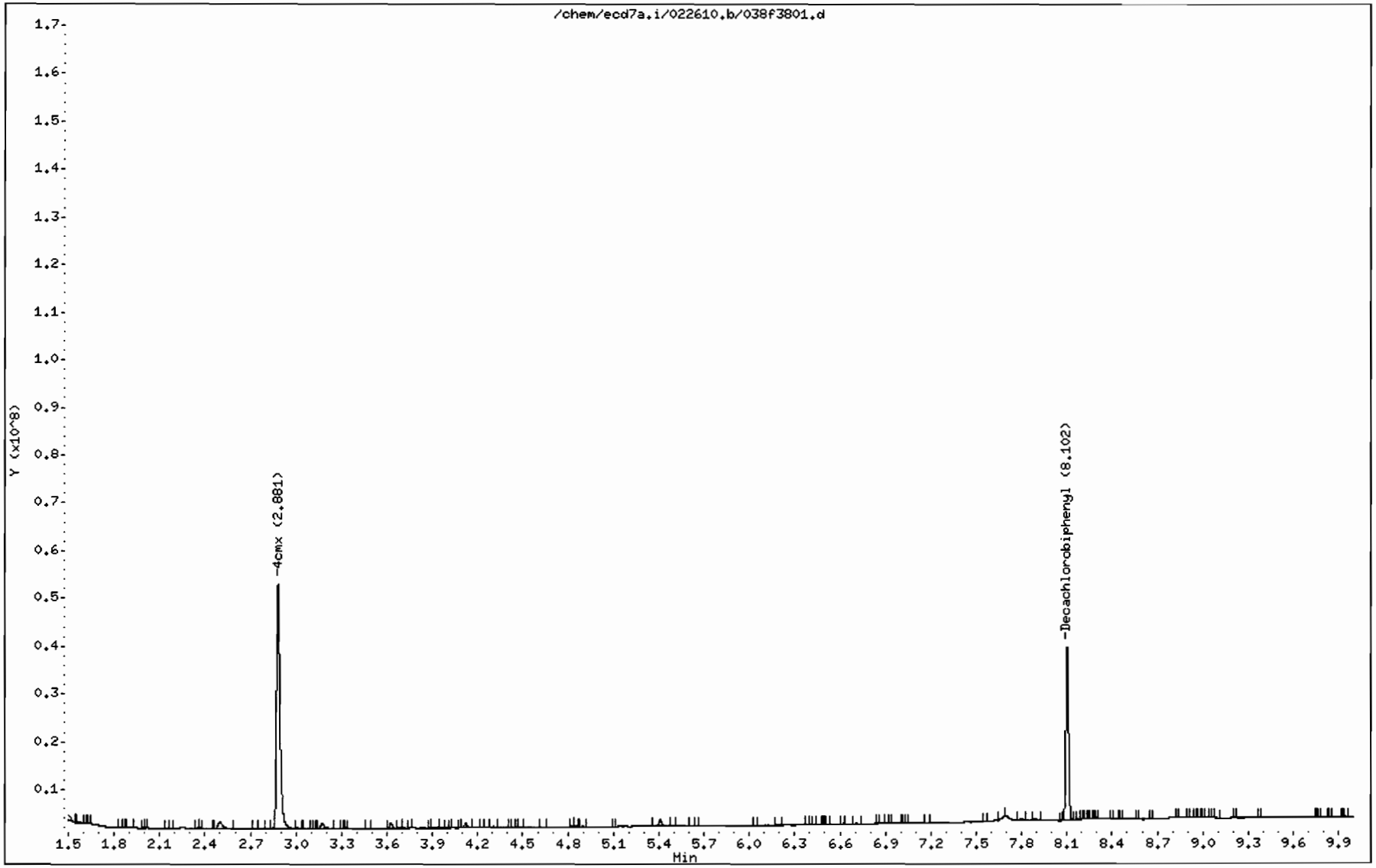

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CLP-2

Data file : /chem/ecd7a.i/022610.b/038b3801.d
Lab Smp Id: 247824004 Client Smp ID: CAPA-10-13498
Inj Date : 27-FEB-2010 01:52
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |247824004|1|
Misc Info : |ECD81A_1L|957867|SVP|LANL|GROUND WATER|CAPA-10-13498||
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 38
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	930.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.196	3.195	0.001	60811983	101.565	0.546	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.300	9.300	0.000	29371060	78.4335	0.422	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/038b3801.d

Date : 27-FEB-2010 01:52

Client ID: CAPA-10-13498

Sample Info: |247824004|1|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

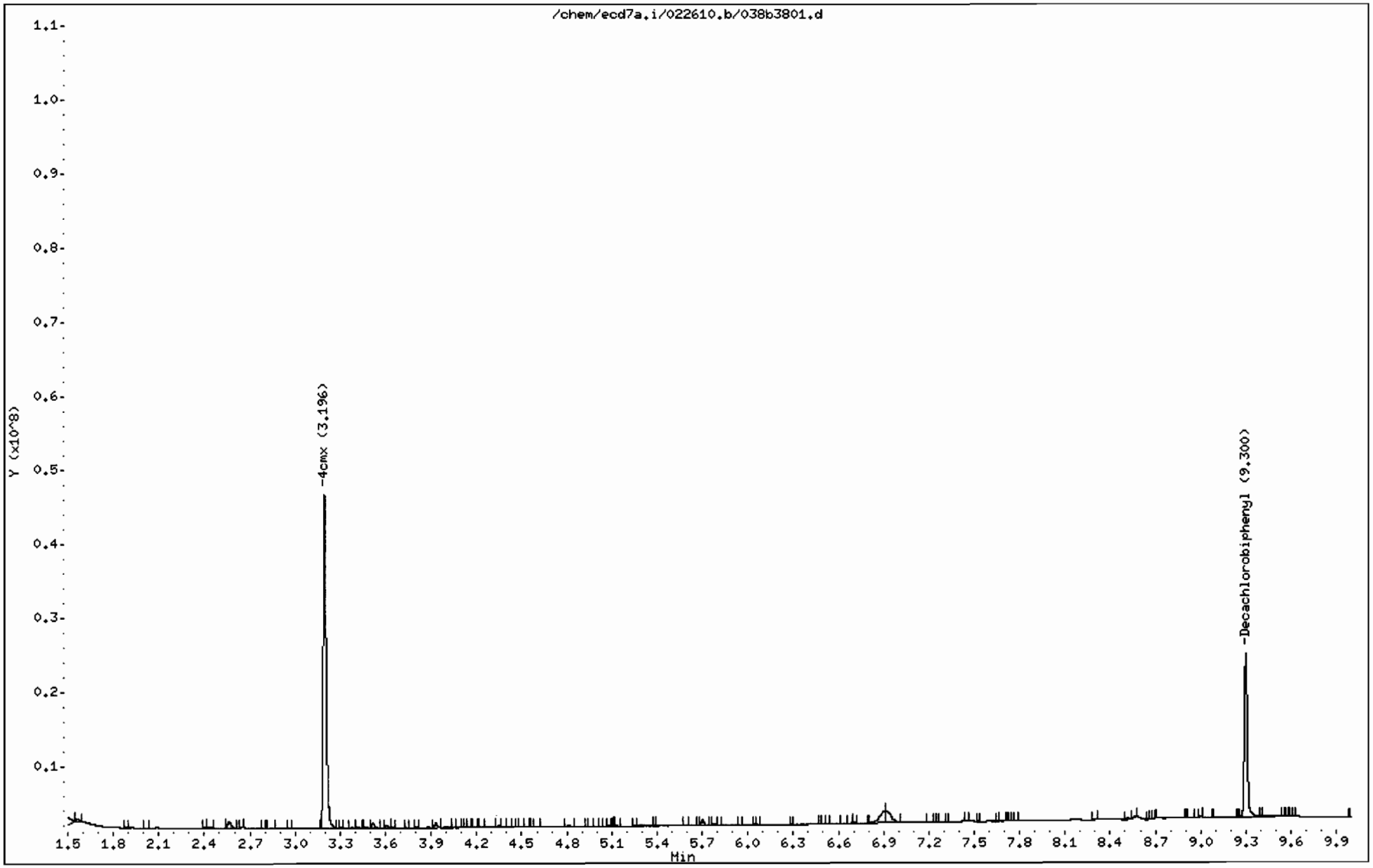

STANDARDS DATA

Report Date: 28-Feb-2010 18:33

Calibration History

Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Start Cal Date: 23-FEB-2010 13:01
End Cal Date : 25-FEB-2010 12:48

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
23-FEB-2010 18:09	gapa	/chem/ecd7a.i/022310a.b/021f2101.d
24-FEB-2010 19:06	chlor	/chem/ecd7a.i/022410.b/019f1901.d
24-FEB-2010 17:24	tox	/chem/ecd7a.i/022410.b/013f1301.d
25-FEB-2010 11:40	indab	/chem/ecd7a.i/022510.b/007f0701.d
Cal Level: 2 , Cal Amount: 10.00000		
23-FEB-2010 18:26	gapa	/chem/ecd7a.i/022310a.b/022f2201.d
24-FEB-2010 19:23	chlor	/chem/ecd7a.i/022410.b/020f2001.d
24-FEB-2010 17:41	tox	/chem/ecd7a.i/022410.b/014f1401.d
25-FEB-2010 11:57	indab	/chem/ecd7a.i/022510.b/008f0801.d
Cal Level: 3 , Cal Amount: 50.00000		
23-FEB-2010 18:43	gapa	/chem/ecd7a.i/022310a.b/023f2301.d
24-FEB-2010 19:40	chlor	/chem/ecd7a.i/022410.b/021f2101.d
24-FEB-2010 17:58	tox	/chem/ecd7a.i/022410.b/015f1501.d
25-FEB-2010 12:14	indab	/chem/ecd7a.i/022510.b/009f0901.d
Cal Level: 4 , Cal Amount: 100.00000		
23-FEB-2010 19:00	gapa	/chem/ecd7a.i/022310a.b/024f2401.d
24-FEB-2010 19:57	chlor	/chem/ecd7a.i/022410.b/022f2201.d
24-FEB-2010 18:15	tox	/chem/ecd7a.i/022410.b/016f1601.d
25-FEB-2010 12:31	indab	/chem/ecd7a.i/022510.b/010f1001.d
Cal Level: 5 , Cal Amount: 200.00000		
23-FEB-2010 19:17	gapa	/chem/ecd7a.i/022310a.b/025f2501.d
24-FEB-2010 20:14	chlor	/chem/ecd7a.i/022410.b/023f2301.d
24-FEB-2010 18:32	tox	/chem/ecd7a.i/022410.b/017f1701.d
25-FEB-2010 12:48	indab	/chem/ecd7a.i/022510.b/011f1101.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
27-FEB-2010 11:14	indab	/chem/ecd7a.i/022610.b/071f7101.d

| Ccal Level: 4 , Ccal Amount: 100 |

27-FEB-2010 08:06	indab	/chem/ecd7a.i/022610.b/060f6001.d
Ccal Level: 4 , Ccal Amount: 100		
27-FEB-2010 05:50	indab	/chem/ecd7a.i/022610.b/052f5201.d
Ccal Level: 4 , Ccal Amount: 100		
27-FEB-2010 03:34	indab	/chem/ecd7a.i/022610.b/044f4401.d
Ccal Level: 4 , Ccal Amount: 100		
26-FEB-2010 23:35	indab	/chem/ecd7a.i/022610.b/030f3001.d
Ccal Level: 4 , Ccal Amount: 100		
26-FEB-2010 20:11	indab	/chem/ecd7a.i/022610.b/018f1801.d
Ccal Level: 4 , Ccal Amount: 100		
26-FEB-2010 16:46	gapa	/chem/ecd7a.i/022610.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 100		
26-FEB-2010 16:29	chlor	/chem/ecd7a.i/022610.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 100		
26-FEB-2010 16:12	tox	/chem/ecd7a.i/022610.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 100		
26-FEB-2010 15:55	indab	/chem/ecd7a.i/022610.b/003f0301.d

Report Date: 28-Feb-2010 18:33

Calibration History

Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Start Cal Date: 23-FEB-2010 13:01
End Cal Date : 25-FEB-2010 12:48

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
23-FEB-2010 18:09	gapa	/chem/ecd7a.i/022310a.b/021b2101.d
24-FEB-2010 19:06	chlor	/chem/ecd7a.i/022410.b/019b1901.d
24-FEB-2010 17:24	tox	/chem/ecd7a.i/022410.b/013b1301.d
25-FEB-2010 11:40	indab	/chem/ecd7a.i/022510.b/007b0701.d
Cal Level: 2 , Cal Amount: 10.00000		
23-FEB-2010 18:26	gapa	/chem/ecd7a.i/022310a.b/022b2201.d
24-FEB-2010 19:23	chlor	/chem/ecd7a.i/022410.b/020b2001.d
24-FEB-2010 17:41	tox	/chem/ecd7a.i/022410.b/014b1401.d
25-FEB-2010 11:57	indab	/chem/ecd7a.i/022510.b/008b0801.d
Cal Level: 3 , Cal Amount: 50.00000		
23-FEB-2010 18:43	gapa	/chem/ecd7a.i/022310a.b/023b2301.d
24-FEB-2010 19:40	chlor	/chem/ecd7a.i/022410.b/021b2101.d
24-FEB-2010 17:58	tox	/chem/ecd7a.i/022410.b/015b1501.d
25-FEB-2010 12:14	indab	/chem/ecd7a.i/022510.b/009b0901.d
Cal Level: 4 , Cal Amount: 100.00000		
23-FEB-2010 19:00	gapa	/chem/ecd7a.i/022310a.b/024b2401.d
24-FEB-2010 19:57	chlor	/chem/ecd7a.i/022410.b/022b2201.d
24-FEB-2010 18:15	tox	/chem/ecd7a.i/022410.b/016b1601.d
25-FEB-2010 12:31	indab	/chem/ecd7a.i/022510.b/010b1001.d
Cal Level: 5 , Cal Amount: 200.00000		
23-FEB-2010 19:17	gapa	/chem/ecd7a.i/022310a.b/025b2501.d
24-FEB-2010 20:14	chlor	/chem/ecd7a.i/022410.b/023b2301.d
24-FEB-2010 18:32	tox	/chem/ecd7a.i/022410.b/017b1701.d
25-FEB-2010 12:48	indab	/chem/ecd7a.i/022510.b/011b1101.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
27-FEB-2010 11:14	indab	/chem/ecd7a.i/022610.b/071b7101.d
Ccal Level: 4 , Ccal Amount: 100		
27-FEB-2010 08:06	indab	/chem/ecd7a.i/022610.b/060b6001.d
Ccal Level: 4 , Ccal Amount: 100		

27-FEB-2010 05:50	indab	/chem/ecd7a.i/022610.b/052b5201.d
Ccal Level: 4 , Ccal Amount: 100		
27-FEB-2010 03:34	indab	/chem/ecd7a.i/022610.b/044b4401.d
Ccal Level: 4 , Ccal Amount: 100		
26-FEB-2010 23:35	indab	/chem/ecd7a.i/022610.b/030b3001.d
Ccal Level: 4 , Ccal Amount: 100		
26-FEB-2010 20:11	indab	/chem/ecd7a.i/022610.b/018b1801.d
Ccal Level: 4 , Ccal Amount: 100		
26-FEB-2010 16:46	gapa	/chem/ecd7a.i/022610.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 100		
26-FEB-2010 16:29	chlor	/chem/ecd7a.i/022610.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 100		
26-FEB-2010 16:12	tox	/chem/ecd7a.i/022610.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 100		
26-FEB-2010 15:55	indab	/chem/ecd7a.i/022610.b/003b0301.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Quant Method : ESTD Target Version : 3.50
Last Update : 28-Feb-2010 18:32 Number of Cpnds : 42
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1814.000000
Initial:End Threshold	907.000000
Initial:Area Threshold	18140.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	4.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.879	2.849-2.909	8.167e+05
61 2,4,5-TCP	2.900	2.800-3.000	
59 Hexachlorobenzene	3.171	3.071-3.271	9.401e+05
2 Aroclor-1221	3.011	2.981-3.041	
	3.120	3.090-3.150	
	3.152	3.122-3.182	
3 Aroclor-1016	3.421	3.391-3.451	
	3.794	3.764-3.824	
	3.905	3.875-3.935	
	3.958	3.928-3.988	
	4.250	4.220-4.280	
4 Aroclor-1232	3.421	3.391-3.451	
	3.904	3.874-3.934	
	3.956	3.926-3.986	
	4.248	4.218-4.278	
	4.651	4.621-4.681	
5 alpha-BHC	3.298	3.268-3.328	1.163e+06
6 Aroclor-1242	3.422	3.322-3.522	
	3.903	3.803-4.003	
	3.956	3.856-4.056	
	4.247	4.147-4.347	
	4.623	4.523-4.723	
7 gamma-BHC (Lindane)	3.549	3.519-3.579	1.046e+06

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COMPOUND LISTING

Method file : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.876	3.776-3.976	3.333e+04
	4.697	4.597-4.797	2.026e+04
	4.874	4.774-4.974	1.083e+05
	4.999	4.899-5.099	8.838e+04
	5.759	5.659-5.859	2.539e+04
9 Aroclor-1248	3.794	3.694-3.894	
	4.051	3.951-4.151	
	4.248	4.148-4.348	
	4.623	4.523-4.723	
	4.652	4.552-4.752	
10 Heptachlor	3.945	3.915-3.975	8.348e+05
11 Aldrin	4.210	4.180-4.240	9.924e+05
12 beta-BHC	3.614	3.584-3.644	4.707e+05
13 delta-BHC	3.768	3.738-3.798	1.046e+06
14 Heptachlor epoxide	4.757	4.727-4.787	8.811e+05
15 Aroclor-1254	4.584	4.554-4.614	
	4.819	4.789-4.849	
	5.086	5.056-5.116	
	5.202	5.172-5.232	
	5.472	5.442-5.502	
16 Endosulfan I	5.135	5.105-5.165	7.958e+05
17 gamma-Chlordane	4.874	4.844-4.904	8.757e+05
18 alpha-Chlordane	4.999	4.969-5.029	8.740e+05
19 4,4'-DDE	5.062	5.032-5.092	8.047e+05
20 Dieldrin	5.367	5.337-5.397	8.481e+05
21 Aroclor-1260	5.379	5.279-5.479	
	5.651	5.551-5.751	
	6.311	6.211-6.411	
	6.633	6.533-6.733	
	6.939	6.839-7.039	
22 Endrin	5.600	5.570-5.630	6.781e+05
23 Toxaphene	5.266	5.236-5.296	7.335e+03
	5.371	5.341-5.401	1.043e+04
	5.459	5.429-5.489	1.217e+04
	5.519	5.489-5.549	1.589e+04
	5.621	5.591-5.651	1.554e+04
24 Endosulfan II	5.826	5.796-5.856	7.313e+05
25 4,4'-DDD	5.653	5.623-5.683	6.354e+05
26 4,4'-DDT	5.937	5.907-5.967	5.955e+05
27 Endrin aldehyde	6.255	6.225-6.285	6.231e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m

Compound	RT	RT Window	RF
28 Methoxychlor	6.438	6.408-6.468	2.669e+05
29 Endosulfan sulfate	6.711	6.681-6.741	6.463e+05
30 Aroclor-1268	13.480	13.380-13.580	
	13.587	13.487-13.687	
	13.984	13.884-14.084	
	14.586	14.486-14.686	
	15.182	15.082-15.282	
31 Endrin ketone	7.014	6.984-7.044	8.275e+05
51 Mirex	6.603	6.573-6.633	5.726e+05
52 C-Nonachlor	5.628	5.598-5.658	8.841e+05
53 O-Chlordane	4.662	4.632-4.692	6.747e+05
54 T-Nonachlor	4.981	4.951-5.011	8.527e+05
55 1,2-Dichlorobenzene	6.525	6.495-6.555	
56 2,4-DDE	4.737	4.707-4.767	5.210e+05
58 2,4-DDD	5.233	5.203-5.263	4.258e+05
57 2,4-DDT	5.483	5.453-5.513	4.439e+05
$ 32 Decachlorobiphenyl	8.102	8.072-8.132	5.949e+05

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COMPOUND LISTING

Method file : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Quant Method : ESTD Target Version : 3.50
Last Update : 28-Feb-2010 18:21 Number of Cpnds : 42
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1475.000000
Initial:End Threshold	737.500000
Initial:Area Threshold	14750.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	4.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	3.195	3.165-3.225	5.987e+05
60 2,4,5-TCP	3.116	3.016-3.216	
59 Hexachlorobenzene	3.609	3.579-3.639	5.280e+05
2 Aroclor-1221	3.435	3.405-3.465	
	3.555	3.525-3.585	
	3.609	3.579-3.639	
3 Aroclor-1016	3.965	3.935-3.995	
	4.391	4.361-4.421	
	4.518	4.488-4.548	
	4.618	4.588-4.648	
	4.970	4.940-5.000	
4 Aroclor-1232	4.193	4.163-4.223	
	4.388	4.358-4.418	
	4.515	4.485-4.545	
	4.614	4.584-4.644	
	4.966	4.936-4.996	
5 alpha-BHC	3.721	3.691-3.751	7.857e+05
6 Aroclor-1242	3.962	3.932-3.992	
	4.387	4.357-4.417	
	4.514	4.484-4.544	
	4.615	4.585-4.645	
	4.966	4.936-4.996	
7 gamma-BHC (Lindane)	4.050	4.020-4.080	6.881e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	4.344	4.314-4.374	2.312e+04
	5.343	5.313-5.373	1.500e+04
	5.583	5.553-5.613	6.466e+04
	5.734	5.704-5.764	5.550e+04
	6.703	6.673-6.733	1.601e+04
9 Aroclor-1248	4.695	4.665-4.725	
	4.966	4.936-4.996	
	5.091	5.061-5.121	
	5.342	5.312-5.372	
	5.393	5.363-5.423	
10 Heptachlor	4.486	4.456-4.516	4.991e+05
11 Aldrin	4.817	4.787-4.847	6.730e+05
12 beta-BHC	4.114	4.084-4.144	3.239e+05
13 delta-BHC	4.404	4.374-4.434	6.888e+05
14 Heptachlor epoxide	5.386	5.356-5.416	5.739e+05
15 Aroclor-1254	5.387	5.357-5.417	
	5.573	5.543-5.603	
	5.941	5.911-5.971	
	6.065	6.035-6.095	
	6.301	6.271-6.331	
16 Endosulfan I	5.804	5.774-5.834	5.282e+05
17 gamma-Chlordane	5.583	5.553-5.613	5.881e+05
18 alpha-Chlordane	5.734	5.704-5.764	5.881e+05
19 4,4'-DDE	5.884	5.854-5.914	5.214e+05
20 Dieldrin	6.092	6.062-6.122	5.179e+05
21 Aroclor-1260	6.274	6.244-6.304	
	6.490	6.460-6.520	
	7.316	7.286-7.346	
	7.586	7.556-7.616	
	8.006	7.976-8.036	
22 Endrin	6.422	6.392-6.452	4.036e+05
23 Toxaphene	6.054	6.024-6.084	9.735e+03
	6.123	6.093-6.153	4.393e+03
	6.187	6.157-6.217	4.991e+03
	6.249	6.219-6.279	5.740e+03
	6.381	6.351-6.411	7.716e+03
24 Endosulfan II	6.647	6.617-6.677	4.767e+05
25 4,4'-DDD	6.504	6.474-6.534	3.796e+05
26 4,4'-DDT	6.850	6.820-6.880	3.192e+05
27 Endrin aldehyde	7.008	6.978-7.038	3.838e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m

Compound	RT	RT Window	RF
28 Methoxychlor	7.596	7.566-7.626	1.357e+05
29 Endosulfan sulfate	7.313	7.283-7.343	4.169e+05
30 Aroclor-1268	13.562	13.532-13.592	
	13.571	13.541-13.601	
	13.999	13.969-14.029	
	14.579	14.549-14.609	
	15.083	15.053-15.113	
31 Endrin ketone	7.924	7.894-7.954	5.022e+05
51 Mirex	7.900	7.870-7.930	2.898e+05
52 C-Nonachlor	6.498	6.468-6.528	5.805e+05
53 O-Chlordane	5.293	5.263-5.323	3.342e+05
54 T-Nonachlor	5.677	5.647-5.707	5.521e+05
55 1,2-Dichlorobenzene	6.621	6.591-6.651	
56 2,4-DDE	5.561	5.531-5.591	2.577e+05
58 2,4-DDD	6.101	6.071-6.131	1.980e+05
57 2,4-DDT	6.434	6.404-6.464	2.542e+05
$ 32 Decachlorobiphenyl	9.300	9.270-9.330	3.745e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 25-FEB-2010 12:48
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Cal Date : 28-Feb-2010 18:32 hea01125
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd7a.i/022310a.b/021f2101.d
Level 2: /chem/ecd7a.i/022310a.b/022f2201.d
Level 3: /chem/ecd7a.i/022310a.b/023f2301.d
Level 4: /chem/ecd7a.i/022310a.b/024f2401.d
Level 5: /chem/ecd7a.i/022310a.b/025f2501.d

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	___ RRF	% RSD
61 2,4,5-TCP	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Hexachlorobenzene	1129401	1000386	891531	860661	818675	940131	13.337
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Aroclor-1016(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 alpha-BHC	1120729	1156275	1199061	1188051	1153097	1163443	2.669
6 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 gamma-BHC (Lindane)	1041652	1052023	1067718	1052626	1015007	1045805	1.871
8 Chlordane (tech.)(1)	34622	33771	32986	33199	32077	33331	2.834
(2)	21744	21010	19842	19723	18997	20263	5.418
(3)	112269	112390	110378	107641	98782	108292	5.220
(4)	95313	91465	90506	86624	77994	88380	7.442
(5)	26568	25613	25637	25419	23729	25393	4.063

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 25-FEB-2010 12:48
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Cal Date : 28-Feb-2010 18:32 hea01125
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
9 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10 Heptachlor	876378	854549	839700	816763	786605	834799	4.146
11 Aldrin	1012810	1019357	1013815	984391	931738	992422	3.684
12 beta-BHC	530626	496453	458220	445320	422642	470652	9.116
13 delta-BHC	1053604	1038543	1080006	1044553	1012744	1045890	2.331
14 Heptachlor epoxide	924356	918389	893039	858924	810638	881069	5.342
15 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
16 Endosulfan I	845536	836191	796118	771471	729571	795777	5.988
17 gamma-Chlordane	895708	892053	891634	871132	828217	875749	3.228
18 alpha-Chlordane	918880	903578	880072	854629	812897	874011	4.798
19 4,4'-DDE	860332	870338	809320	766366	717150	804701	7.996
20 Dieldrin	894879	904132	858003	815229	768145	848078	6.696
21 Aroclor-1260(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 Endrin	721381	722457	677507	646273	622851	678094	6.557
23 Toxaphene(1)	7957	7295	7283	7045	7094	7335	4.980
(2)	11571	10418	10358	9779	10028	10431	6.595
(3)	12288	12015	12280	12047	12234	12173	1.079
(4)	16641	15882	16067	15356	15514	15892	3.181
(5)	15812	15134	15478	15587	15695	15541	1.667
24 Endosulfan II	797630	784877	731327	692190	650488	731302	8.465
25 4,4'-DDD	670149	671091	647310	610647	577688	635377	6.377

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 25-FEB-2010 12:48
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Cal Date : 28-Feb-2010 18:32 hea01125
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
26 4,4'-DDT	610616	615308	603861	586275	561656	595543	3.680
27 Endrin aldehyde	707402	676606	618348	580715	532408	623096	11.352
28 Methoxychlor	318899	294242	250680	238458	232045	266865	14.193
29 Endosulfan sulfate	704279	684879	642876	617006	582601	646328	7.649
30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Endrin ketone	947489	905726	812779	762898	708390	827456	11.948
51 Mirex	707843	605806	537595	517866	494032	572628	15.070
52 C-Nonachlor	990298	937215	873288	833591	785863	884051	9.193
53 O-Chlordane	804507	729313	648327	615262	576312	674744	13.612
54 T-Nonachlor	977240	915229	830723	794583	745732	852701	10.926
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 2,4-DDE	627075	571273	502019	471483	432927	520955	14.976
58 2,4-DDD	525722	465282	405634	380713	351639	425798	16.390
57 2,4-DDT	509524	462465	434205	418130	395126	443890	9.941
$ 1 4cmx	902735	866424	810577	775474	728429	816728	8.528
$ 32 Decachlorobiphenyl	695265	641948	574809	547872	514583	594895	12.282

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 25-FEB-2010 12:48
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Cal Date : 28-Feb-2010 18:21 hea01125

Calibration File Names:
Level 1: /chem/ecd7a.i/022310a.b/021b2101.d
Level 2: /chem/ecd7a.i/022310a.b/022b2201.d
Level 3: /chem/ecd7a.i/022310a.b/023b2301.d
Level 4: /chem/ecd7a.i/022310a.b/024b2401.d
Level 5: /chem/ecd7a.i/022310a.b/025b2501.d

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
60 2,4,5-TCP	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
59 Hexachlorobenzene	3534732	14953267	61966341	116772758	212736548	LINR	-10.49049	527996		0.99731
2 Aroclor-1221 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
3 Aroclor-1016 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
4 Aroclor-1232 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
5 alpha-BHC	822650	820717	796110	768528	720263	AVRG		785654		5.42881
6 Aroclor-1242 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 25-FEB-2010 12:48
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Cal Date : 28-Feb-2010 18:21 hea01125

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
7 gamma-BHC (Lindane)	740741	725258	690370	662924	621138	AVRG		688086		6.99805
8 Chlordane (tech.) (1)	25554	24460	22809	22245	20552	AVRG		23124		8.42473
(2)	17050	16566	14462	14002	12919	AVRG		15000		11.67570
(3)	71986	70600	65114	61817	53803	AVRG		64664		11.34100
(4)	62754	60569	55337	52956	45860	AVRG		55495		12.01192
(5)	18359	17195	15539	14974	13959	AVRG		16005		11.01051
9 Aroclor-1248 (1)	#####	#####	#####	#####	#####	AVRG		0.000e+00		0.000e+00
(2)	#####	#####	#####	#####	#####	AVRG		0.000e+00		0.000e+00
(3)	#####	#####	#####	#####	#####	AVRG		0.000e+00		0.000e+00
(4)	#####	#####	#####	#####	#####	AVRG		0.000e+00		0.000e+00
(5)	#####	#####	#####	#####	#####	AVRG		0.000e+00		0.000e+00
10 Heptachlor	556994	527888	495277	473192	442233	AVRG		499117		9.01601
11 Aldrin	726856	716726	680871	646926	593606	AVRG		672997		8.09011
12 beta-BHC	384860	351763	310277	295747	277041	AVRG		323937		13.51471
13 delta-BHC	739778	726671	691827	664284	621661	AVRG		688844		6.94351
14 Heptachlor epoxide	638080	618014	571287	542822	499294	AVRG		573900		9.78110
15 Aroclor-1254 (1)	#####	#####	#####	#####	#####	AVRG		0.000e+00		0.000e+00
(2)	#####	#####	#####	#####	#####	AVRG		0.000e+00		0.000e+00
(3)	#####	#####	#####	#####	#####	AVRG		0.000e+00		0.000e+00
(4)	#####	#####	#####	#####	#####	AVRG		0.000e+00		0.000e+00
(5)	#####	#####	#####	#####	#####	AVRG		0.000e+00		0.000e+00
16 Endosulfan I	589867	563753	524378	500645	462126	AVRG		528154		9.56417
17 gamma-Chlordane	641305	619473	588838	562812	527921	AVRG		588070		7.64107
18 alpha-Chlordane	658247	625554	581316	557852	517377	AVRG		588069		9.42428

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 25-FEB-2010 12:48
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Cal Date : 28-Feb-2010 18:21 hea01125

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
19 4,4'-DDE	586847	576550	522638	483917	437036	AVRG		521398		12.07248
20 Dieldrin	583377	567062	516410	482078	440674	AVRG		517920		11.40381
21 Aroclor-1260(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
22 Endrin	463065	445736	393404	370176	345742	AVRG		403624		12.31331
23 Toxaphene(1)	11160	9968	9728	8931	8887	AVRG		9735		9.53987
(2)	4748	4921	4254	4179	3865	AVRG		4393		9.84663
(3)	5497	5059	4969	4777	4652	AVRG		4991		6.50824
(4)	6075	5866	5949	5498	5312	AVRG		5740		5.60471
(5)	8372	7798	7678	7446	7287	AVRG		7716		5.40292
24 Endosulfan II	545985	521563	472705	441324	402057	AVRG		476727		12.25462
25 4,4'-DDD	438157	415983	379191	347469	317320	AVRG		379624		12.94777
26 4,4'-DDT	337338	326028	318857	313543	300162	AVRG		319186		4.34724
27 Endrin aldehyde	466743	423267	375582	345973	307417	AVRG		383797		16.36004
28 Methoxychlor	164518	149680	128263	121869	114016	AVRG		135669		15.38510
29 Endosulfan sulfate	473171	448087	411452	394994	356707	AVRG		416882		10.90825
30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 25-FEB-2010 12:48
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Cal Date : 28-Feb-2010 18:21 hea01125

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
31 Endrin ketone	611870	561527	483881	449712	404180	AVRG		502234		16.73168
51 Mirex	1967628	7984153	33372685	63134808	116876543	LINR	-9.32687	289808		0.99821
52 C-Nonachlor	732794	648092	549502	510459	461589	AVRG		580487		18.82559
53 O-Chlordane	2279545	9683402	40637135	74751518	134708141	LINR	-12.01542	334227		0.99620
54 T-Nonachlor	705195	614513	523390	481961	435531	AVRG		552118		19.56304
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
56 2,4-DDE	1821857	7770505	32067536	58513265	103872394	LINR	-13.53426	257740		0.99496
58 2,4-DDD	1489772	6031823	24578358	44052303	80168461	LINR	-13.12656	197966		0.99644
57 2,4-DDT	316646	275217	240561	227383	211109	AVRG		254183		16.57864
$ 1 4cmx	702796	662538	586912	546190	495296	AVRG		598746		14.09771
$ 32 Decachlorobiphenyl	467024	411570	354373	332141	307247	AVRG		374471		17.23265

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 25-FEB-2010 12:48
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Cal Date : 28-Feb-2010 18:21 hea01125

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 02/25/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :02/26/10

Lab Sample ID (PEM): WPE100211-99 Time Analyzed :1538

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.21	4.18	4.24	115	100	15.0
4,4'-DDE						
Endrin	5.60	5.57	5.63	114	100	14.0
4,4'-DDD						
4,4'-DDT	5.94	5.91	5.97	107	100	7.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 4.30 Endrin % breakdown (1): 4.60

Combined % breakdown (1): 8.90

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 02/25/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :02/26/10

Lab Sample ID (PEM): WPE100211-99 Time Analyzed :1538

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.82	4.79	4.85	114	100	14.0
4,4'-DDE						
Endrin	6.42	6.39	6.45	114	100	14.0
4,4'-DDD						
4,4'-DDT	6.85	6.82	6.88	114	100	14.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 5.30 Endrin % breakdown (1): 5.20

Combined % breakdown (1): 10.50

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 02/25/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM02 Date Analyzed :02/27/10

Lab Sample ID (PEM): WPE100211-99 Time Analyzed :0010

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.21	4.18	4.24	116	100	16.0
4,4'-DDE						
Endrin	5.60	5.57	5.63	113	100	13.0
4,4'-DDD						
4,4'-DDT	5.94	5.91	5.97	95.0	100	-5.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 8.40 Endrin % breakdown (1): 6.70

Combined % breakdown (1): 15.10

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 02/25/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM02 Date Analyzed :02/27/10

Lab Sample ID (PEM): WPE100211-99 Time Analyzed :0010

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.82	4.79	4.85	114	100	14.0
4,4'-DDE						
Endrin	6.42	6.39	6.45	114	100	14.0
4,4'-DDD						
4,4'-DDT	6.85	6.82	6.88	98.7	100	-1.3
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 9.30 Endrin % breakdown (1): 7.20

Combined % breakdown (1): 16.50

FORM VII PEST-1 OLM03.0

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2005

Instrument ID: ECD7A Calibration Date: 02/26/10 Time: 1555

Lab File ID: 003F0301 Init. Calib. Date(s): 02/25/10 02/25/10

Heated Purge: (Y/N) N Init. Calib. Times: 1140 1248

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	1163442.7	1191882.1	0.01	2.4	15.0
beta-BHC	470652.05	456751.26	0.01	-3.0	15.0
delta-BHC	1045890.0	1053434.7	0.01	0.7	15.0
gamma-BHC (Lindane)	1045805.0	1094827.2	0.01	4.7	15.0
Heptachlor	834798.88	835664.11	0.01	0.1	15.0
Aldrin	992422.11	948197.97	0.01	-4.4	15.0
Heptachlor epoxide	881069.13	878977.14	0.01	-0.2	15.0
Endosulfan I	795777.38	803170.97	0.01	0.9	15.0
Dieldrin	848077.81	819801.08	0.01	-3.3	15.0
4,4'-DDE	804701.36	826740.91	0.01	2.7	15.0
Endrin	678093.95	718332.31	0.01	5.9	15.0
Endosulfan II	731302.32	707420.70	0.01	-3.3	15.0
4,4'-DDD	635376.94	650137.39	0.01	2.3	15.0
Endosulfan sulfate	646327.96	610300.32	0.01	-5.6	15.0
4,4'-DDT	595543.22	649393.04	0.01	9.0	15.0
Methoxychlor	266864.82	267070.98	0.01	0.1	15.0
Endrin ketone	827456.43	742054.51	0.01	-10.3	15.0
Endrin aldehyde	623096.00	564610.20	0.01	-9.4	15.0
gamma-Chlordane	875748.57	918248.72	0.01	4.8	15.0
alpha-Chlordane	874010.96	805882.88	0.01	-7.8	15.0
4cmx	816727.82	791016.51	0.01	-3.1	15.0
Decachlorobiphenyl	594895.40	554175.81	0.01	-6.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2005

Instrument ID: ECD7A Calibration Date: 02/26/10 Time: 1555

Lab File ID: 003B0301 Init. Calib. Date(s): 02/25/10 02/25/10

Heated Purge: (Y/N) N Init. Calib. Times: 1140 1248

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	785653.59	805726.51	0.01	2.6	15.0
beta-BHC	323937.47	315765.99	0.01	-2.5	15.0
delta-BHC	688844.25	697958.33	0.01	1.3	15.0
gamma-BHC (Lindane)	688086.08	719940.21	0.01	4.6	15.0
Heptachlor	499116.78	493997.38	0.01	-1.0	15.0
Aldrin	672997.04	643170.94	0.01	-4.4	15.0
Heptachlor epoxide	573899.55	562481.12	0.01	-2.0	15.0
Endosulfan I	528153.96	531722.90	0.01	0.7	15.0
Dieldrin	517920.12	502729.57	0.01	-2.9	15.0
4,4'-DDE	521397.52	546989.01	0.01	4.9	15.0
Endrin	403624.31	427438.86	0.01	5.9	15.0
Endosulfan II	476726.88	456306.57	0.01	-4.3	15.0
4,4'-DDD	379623.95	383884.73	0.01	1.1	15.0
Endosulfan sulfate	416882.23	396789.73	0.01	-4.8	15.0
4,4'-DDT	319185.63	366771.39	0.01	14.9	15.0
Methoxychlor	135669.33	143414.35	0.01	5.7	15.0
Endrin ketone	502234.13	450822.96	0.01	-10.2	15.0
Endrin aldehyde	383796.57	349333.50	0.01	-9.0	15.0
gamma-Chlordane	588069.92	615548.45	0.01	4.7	15.0
alpha-Chlordane	588069.02	539945.53	0.01	-8.2	15.0
4cmx	598746.48	580726.80	0.01	-3.0	15.0
Decachlorobiphenyl	374471.04	351571.44	0.01	-6.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2005

Instrument ID: ECD7A Calibration Date: 02/26/10 Time: 1612

Lab File ID: 004F0401 Init. Calib. Date(s): 02/24/10 02/24/10

Heated Purge: (Y/N) N Init. Calib. Times: 1724 1832

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
Toxaphene	7334.695	7890.098	0.01	7.6	15.0
(2)	10430.832	11622.422	0.01	11.4	15.0
(3)	12172.864	13514.986	0.01	11.0	15.0
(4)	15891.838	17579.674	0.01	10.6	15.0
(5)	15541.028	15146.618	0.01	-2.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2005

Instrument ID: ECD7A Calibration Date: 02/26/10 Time: 1612

Lab File ID: 004B0401 Init. Calib. Date(s): 02/24/10 02/24/10

Heated Purge: (Y/N) N Init. Calib. Times: 1724 1832

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
Toxaphene	9734.966	10748.932	0.01	10.4	15.0
(2)	4393.318	4108.624	0.01	-6.5	15.0
(3)	4991.011	5667.124	0.01	13.5	15.0
(4)	5740.025	6076.760	0.01	5.9	15.0
(5)	7715.898	8339.040	0.01	8.1	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2005

Instrument ID: ECD7A Calibration Date: 02/26/10 Time: 2335

Lab File ID: 030F3001 Init. Calib. Date(s): 02/25/10 02/25/10

Heated Purge: (Y/N) N Init. Calib. Times: 1140 1248

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	1163442.7	1199304.3	0.01	3.1	15.0
beta-BHC	470652.05	453531.08	0.01	-3.6	15.0
delta-BHC	1045890.0	1075576.6	0.01	2.8	15.0
gamma-BHC (Lindane)	1045805.0	1103002.9	0.01	5.5	15.0
Heptachlor	834798.88	849466.22	0.01	1.8	15.0
Aldrin	992422.11	935556.44	0.01	-5.7	15.0
Heptachlor epoxide	881069.13	869775.22	0.01	-1.3	15.0
Endosulfan I	795777.38	809339.66	0.01	1.7	15.0
Dieldrin	848077.81	826960.96	0.01	-2.5	15.0
4,4'-DDE	804701.36	801898.29	0.01	-0.3	15.0
Endrin	678093.95	727439.03	0.01	7.3	15.0
Endosulfan II	731302.32	715064.17	0.01	-2.2	15.0
4,4'-DDD	635376.94	670187.87	0.01	5.5	15.0
Endosulfan sulfate	646327.96	622803.51	0.01	-3.6	15.0
4,4'-DDT	595543.22	620415.88	0.01	4.2	15.0
Methoxychlor	266864.82	262231.95	0.01	-1.7	15.0
Endrin ketone	827456.43	763180.93	0.01	-7.8	15.0
Endrin aldehyde	623096.00	571215.65	0.01	-8.3	15.0
gamma-Chlordane	875748.57	895024.66	0.01	2.2	15.0
alpha-Chlordane	874010.96	786270.30	0.01	-10.0	15.0
4cmx	816727.82	778518.93	0.01	-4.7	15.0
Decachlorobiphenyl	594895.40	548600.91	0.01	-7.8	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2005

Instrument ID: ECD7A Calibration Date: 02/26/10 Time: 2335

Lab File ID: 030B3001 Init. Calib. Date(s): 02/25/10 02/25/10

Heated Purge: (Y/N) N Init. Calib. Times: 1140 1248

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	785653.59	816978.41	0.01	4.0	15.0
beta-BHC	323937.47	314420.78	0.01	-2.9	15.0
delta-BHC	688844.25	718032.11	0.01	4.2	15.0
gamma-BHC (Lindane)	688086.08	726874.11	0.01	5.6	15.0
Heptachlor	499116.78	499206.35	0.01	0.0	15.0
Aldrin	672997.04	626635.31	0.01	-6.9	15.0
Heptachlor epoxide	573899.55	562836.17	0.01	-1.9	15.0
Endosulfan I	528153.96	529617.29	0.01	0.3	15.0
Dieldrin	517920.12	508871.96	0.01	-1.7	15.0
4,4'-DDE	521397.52	526528.98	0.01	1.0	15.0
Endrin	403624.31	434747.79	0.01	7.7	15.0
Endosulfan II	476726.88	462285.82	0.01	-3.0	15.0
4,4'-DDD	379623.95	399464.71	0.01	5.2	15.0
Endosulfan sulfate	416882.23	404787.22	0.01	-2.9	15.0
4,4'-DDT	319185.63	340771.62	0.01	6.8	15.0
Methoxychlor	135669.33	140006.90	0.01	3.2	15.0
Endrin ketone	502234.13	455554.56	0.01	-9.3	15.0
Endrin aldehyde	383796.57	355402.22	0.01	-7.4	15.0
gamma-Chlordane	588069.92	594013.09	0.01	1.0	15.0
alpha-Chlordane	588069.02	520616.93	0.01	-11.5	15.0
4cmx	598746.48	568838.23	0.01	-5.0	15.0
Decachlorobiphenyl	374471.04	329824.09	0.01	-11.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2005

Instrument ID: ECD7A Calibration Date: 02/27/10 Time: 0334

Lab File ID: 044F4401 Init. Calib. Date(s): 02/25/10 02/25/10

Heated Purge: (Y/N) N Init. Calib. Times: 1140 1248

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	1163442.7	1150611.4	0.01	-1.1	15.0
beta-BHC	470652.05	431985.85	0.01	-8.2	15.0
delta-BHC	1045890.0	1029890.9	0.01	-1.5	15.0
gamma-BHC (Lindane)	1045805.0	1054685.0	0.01	0.8	15.0
Heptachlor	834798.88	811037.81	0.01	-2.8	15.0
Aldrin	992422.11	895508.68	0.01	-9.8	15.0
Heptachlor epoxide	881069.13	824085.45	0.01	-6.5	15.0
Endosulfan I	795777.38	776875.97	0.01	-2.4	15.0
Dieldrin	848077.81	794148.05	0.01	-6.4	15.0
4,4'-DDE	804701.36	775768.54	0.01	-3.6	15.0
Endrin	678093.95	685383.22	0.01	1.1	15.0
Endosulfan II	731302.32	690738.08	0.01	-5.5	15.0
4,4'-DDD	635376.94	678867.69	0.01	6.8	15.0
Endosulfan sulfate	646327.96	604239.50	0.01	-6.5	15.0
4,4'-DDT	595543.22	554744.56	0.01	-6.8	15.0
Methoxychlor	266864.82	251017.03	0.01	-5.9	15.0
Endrin ketone	827456.43	750819.82	0.01	-9.3	15.0
Endrin aldehyde	623096.00	555315.04	0.01	-10.9	15.0
gamma-Chlordane	875748.57	843783.22	0.01	-3.6	15.0
alpha-Chlordane	874010.96	745226.04	0.01	-14.7	15.0
4cmx	816727.82	757065.66	0.01	-7.3	15.0
Decachlorobiphenyl	594895.40	545545.69	0.01	-8.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2005

Instrument ID: ECD7A Calibration Date: 02/27/10 Time: 0334

Lab File ID: 044B4401 Init. Calib. Date(s): 02/25/10 02/25/10

Heated Purge: (Y/N) N Init. Calib. Times: 1140 1248

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D	
alpha-BHC	785653.59	770158.74	0.01	-2.0	15.0	
beta-BHC	323937.47	292816.57	0.01	-9.6	15.0	
delta-BHC	688844.25	671081.26	0.01	-2.6	15.0	
gamma-BHC (Lindane)	688086.08	683397.37	0.01	-0.7	15.0	
Heptachlor	499116.78	472568.55	0.01	-5.3	15.0	
Aldrin	672997.04	587933.93	0.01	-12.6	15.0	
Heptachlor epoxide	573899.55	524013.07	0.01	-8.7	15.0	
Endosulfan I	528153.96	493093.24	0.01	-6.6	15.0	
Dieldrin	517920.12	476781.95	0.01	-7.9	15.0	
4,4'-DDE	521397.52	496956.81	0.01	-4.7	15.0	
Endrin	403624.31	406435.36	0.01	0.7	15.0	
Endosulfan II	476726.88	432958.16	0.01	-9.2	15.0	
4,4'-DDD	379623.95	402513.01	0.01	6.0	15.0	
Endosulfan sulfate	416882.23	382253.00	0.01	-8.3	15.0	
4,4'-DDT	319185.63	299904.30	0.01	-6.0	15.0	
Methoxychlor	135669.33	133187.84	0.01	-1.8	15.0	
Endrin ketone	502234.13	439541.19	0.01	-12.5	15.0	
Endrin aldehyde	383796.57	339156.60	0.01	-11.6	15.0	
gamma-Chlordane	588069.92	549638.78	0.01	-6.5	15.0	
alpha-Chlordane	588069.02	480022.09	0.01	-18.4	15.0	<-
4cmx	598746.48	545254.80	0.01	-8.9	15.0	
Decachlorobiphenyl	374471.04	325289.31	0.01	-13.1	15.0	

FORM VII PEST

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022610.b/002f0201.d
Lab Smp Id: WPE100211-99DG Client Smp ID: PEM01
Inj Date : 26-FEB-2010 15:38
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.209	4.210	-0.001	113892948	114.763	115	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.065	5.062	0.003	1920371	2.38644	2.39	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.600	5.600	0.000	77046739	113.623	114	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.654	5.653	0.001	952645	1.49934	1.50	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
6.257	6.255	0.002	1646363	2.64223	2.64	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.937	5.937	0.000	63956175	107.391	107	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.015	7.014	0.001	1968147	2.37855	2.38	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.877	2.879	-0.002	153309057	187.711	188	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.101	8.102	-0.001	109108681	183.408	183	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022610.b/002f0201.d

Date : 26-FEB-2010 15:38

Client ID: PEM01

Sample Info: IWPE100211-99DG

Column phase: CLP-1

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

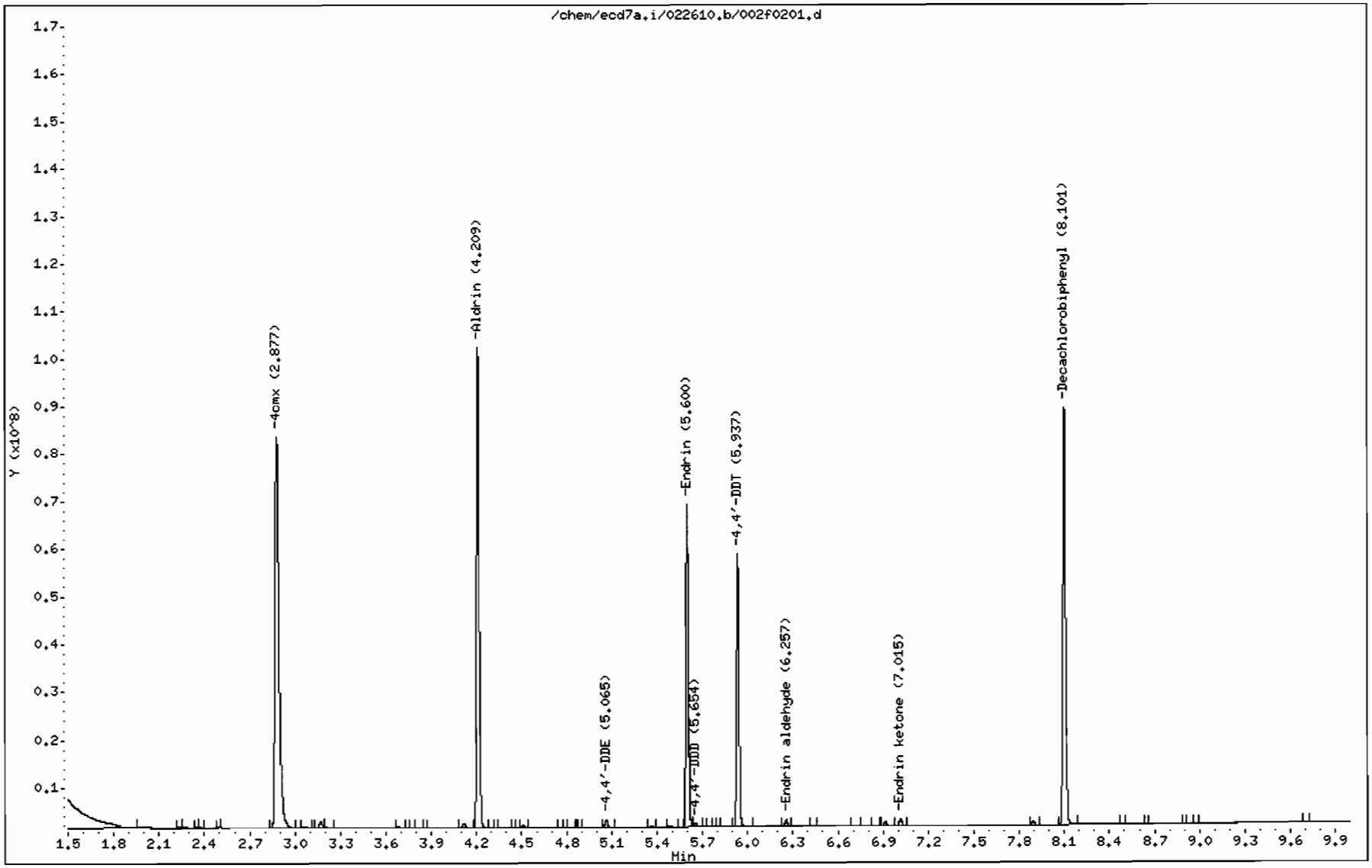

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022610.b/002b0201.d
Lab Smp Id: WPE100211-99DG Client Smp ID: PEM01
Inj Date : 26-FEB-2010 15:38
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.816	4.817	-0.001	76456188	113.606	114	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.884	5.884	0.000	1396308	2.67801	2.68	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.421	6.422	-0.001	46220874	114.515	114	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.504	6.504	0.000	639078	1.68345	1.68	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
7.009	7.008	0.001	1132823	2.95162	2.95	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.849	6.850	-0.001	36463532	114.239	114	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.924	7.924	0.000	1366707	2.72125	2.72	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.194	3.195	-0.001	112596374	188.054	188	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.298	9.300	-0.002	68067831	181.771	182	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022610.b/002b0201.d

Date : 26-FEB-2010 15:38

Client ID: PEM01

Sample Info: IWPE100211-99DG

Column phase: CLP-2

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

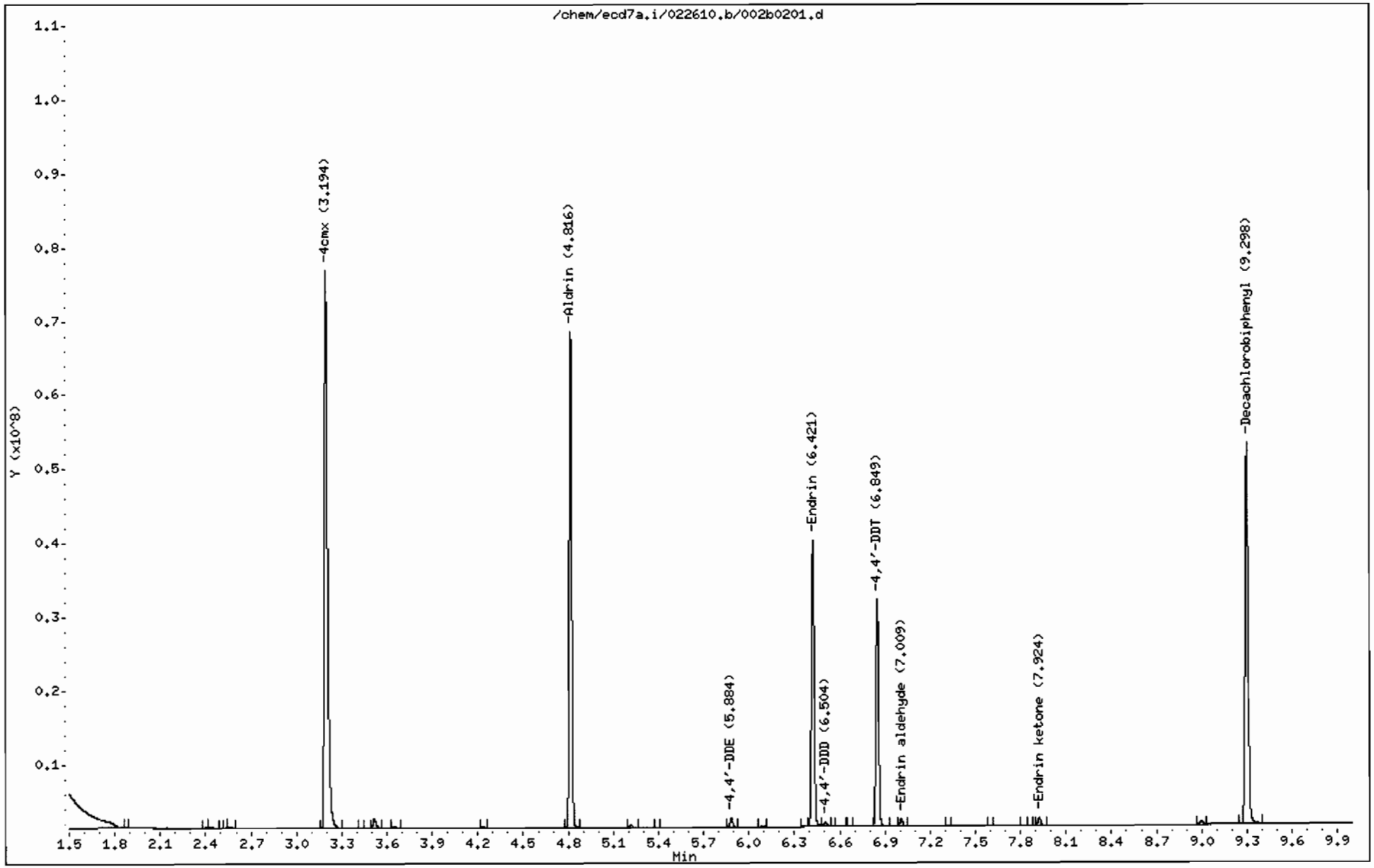

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022610.b/032f3201.d
Lab Smp Id: WPE100211-99DG Client Smp ID: PEM02
Inj Date : 27-FEB-2010 00:10
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 32 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.208	4.210	-0.002	114795865	115.672	116	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.062	5.062	0.000	393094	0.48850	0.488	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.599	5.600	-0.001	76821478	113.290	113	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.653	5.653	0.000	4802618	7.55869	7.56	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.255	6.255	0.000	1517675	2.43570	2.44	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.936	5.937	-0.001	56597043	95.0343	95.0	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.015	7.014	0.001	3969858	4.79766	4.80	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.876	2.879	-0.003	158911021	194.570	194	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.100	8.102	-0.002	111522815	187.466	187	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022610.b/032f3201.d

Date : 27-FEB-2010 00:10

Client ID: PEM02

Sample Info: IWPE100211-99DG

Column phase: CLP-1

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

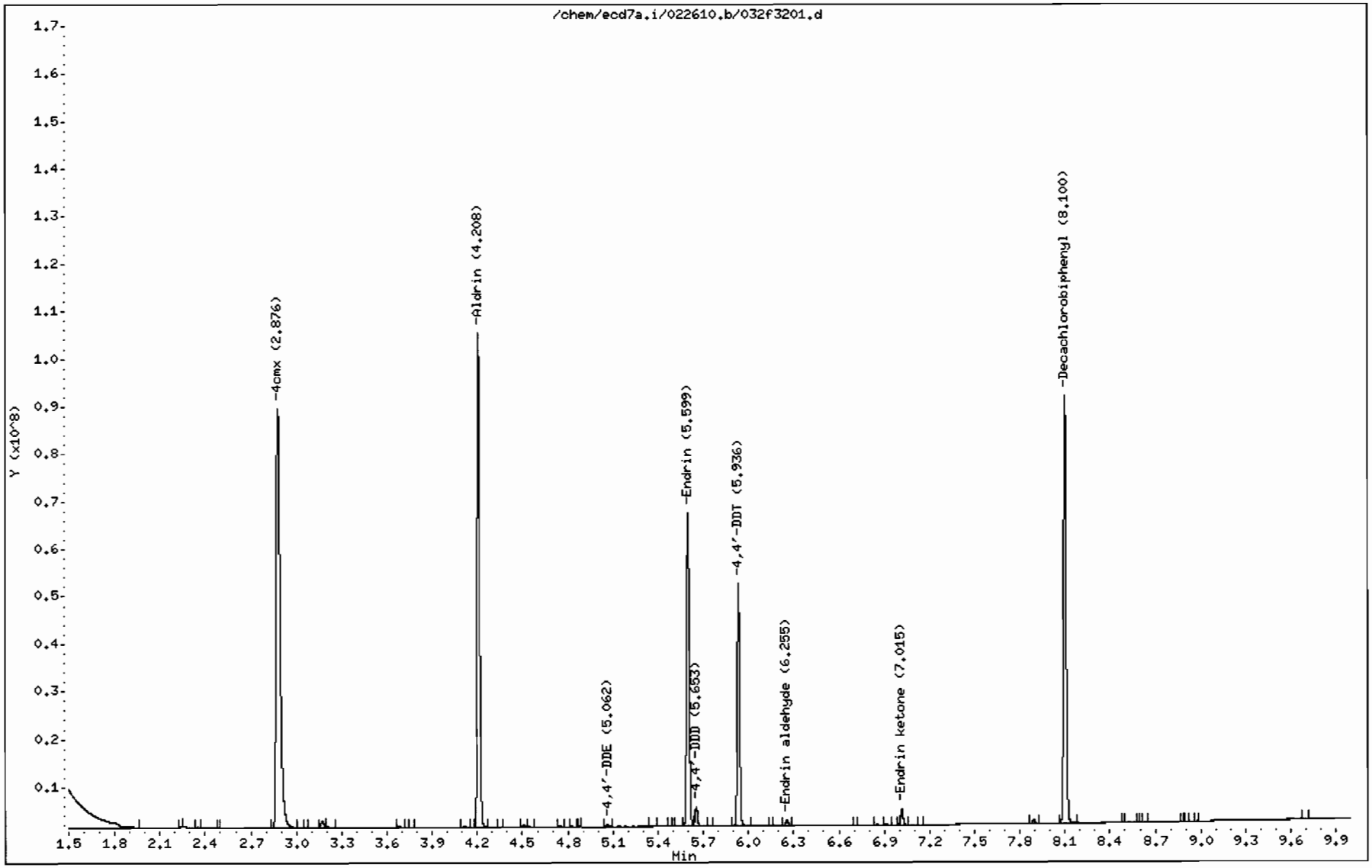

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022610.b/032b3201.d
Lab Smp Id: WPE100211-99DG Client Smp ID: PEM02
Inj Date : 27-FEB-2010 00:10
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 32 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.816	4.817	-0.001	77053841	114.494	114	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.882	5.884	-0.002	278388	0.53393	0.534	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
6.420	6.422	-0.002	45978462	113.914	114	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.504	6.504	0.000	2970103	7.82380	7.82	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.009	7.008	0.001	1024850	2.67029	2.67	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.849	6.850	-0.001	31500095	98.6890	98.7	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.923	7.924	-0.001	2533967	5.04539	5.04	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.193	3.195	-0.002	116212210	194.093	194	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.298	9.300	-0.002	67669580	180.707	181	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022610.b/032b3201.d
Date : 27-FEB-2010 00:10
Client ID: PEM02
Sample Info: IWPE100211-99DG
Column phase: CLP-2

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

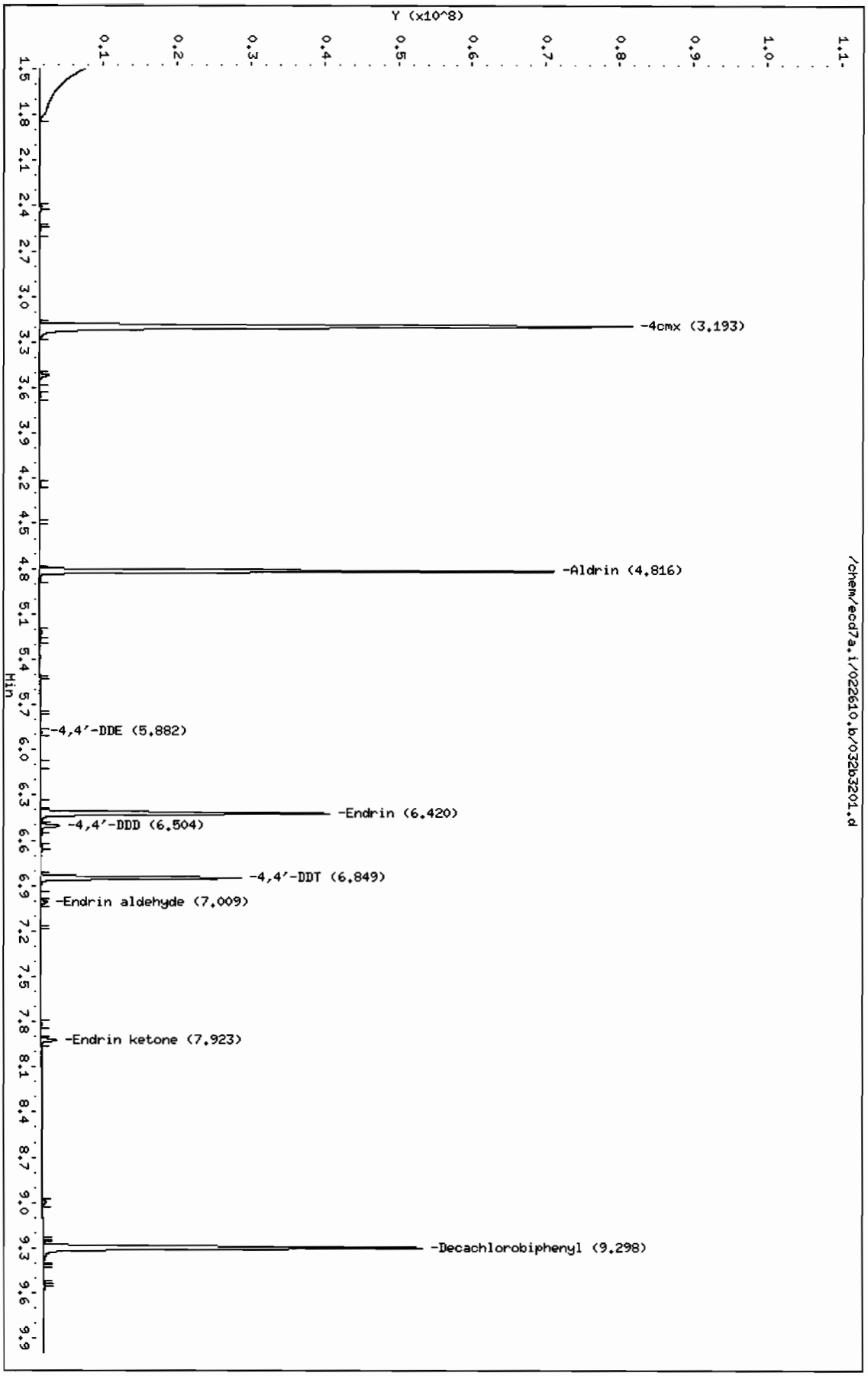

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GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022610.b/003f0301.d
Lab Smp Id: WPE100211-10AB Client Smp ID: INDAB01
Inj Date : 26-FEB-2010 15:55
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.298	3.298	0.000	119188206	100.000	102	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.549	3.549	0.000	109482718	100.000	105	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.614	3.614	0.000	45675126	100.000	97.0	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.945	3.945	0.000	83566411	100.000	100	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.768	3.768	0.000	105343474	100.000	101	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.210	4.210	0.000	94819797	100.000	95.5	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.757	4.757	0.000	87897714	100.000	99.8	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.874	4.874	0.000	91824872	100.000	105	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.999	4.999	0.000	80588288	100.000	92.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan 1					CAS #: 959-98-8		
5.135	5.135	0.000	80317097	100.000	101	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.062	5.062	0.000	165348181	200.000	205	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.367	5.367	0.000	163960217	200.000	193	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.600	5.600	0.000	143666463	200.000	212	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.653	5.653	0.000	130027477	200.000	205	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.826	5.826	0.000	141484140	200.000	193	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.255	6.255	0.000	112922040	200.000	181	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.937	5.937	0.000	129878608	200.000	218	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.711	6.711	0.000	122060064	200.000	189	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.438	6.438	0.000	267070978	1000.00	1000	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.014	7.014	0.000	148410901	200.000	179	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.879	2.879	0.000	158203301	200.000	194	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.102	8.102	0.000	110835161	200.000	186	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/003f0301.d
Date : 26-FEB-2010 15:55
Client ID: INDAB01
Sample Info: IWPE100211-10AB
Column phase: CLP-1

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

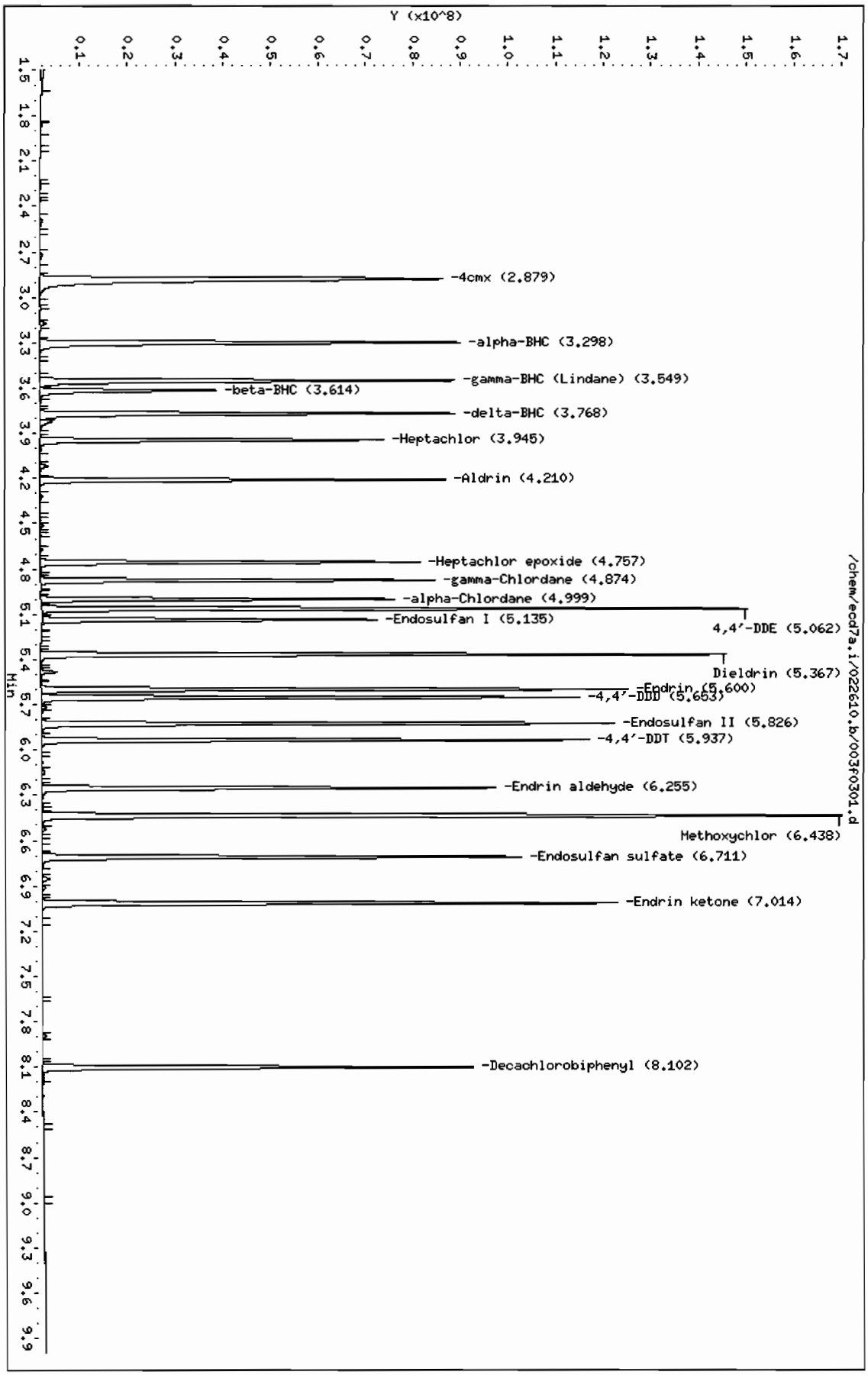

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CLP-2

Data file : /chem/ecd7a.i/022610.b/003b0301.d
Lab Smp Id: WPE100211-10AB Client Smp ID: INDAB01
Inj Date : 26-FEB-2010 15:55
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.721	3.721	0.000	80572651	100.000	102	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.050	4.050	0.000	71994021	100.000	105	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.114	4.114	0.000	31576599	100.000	97.5	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.486	4.486	0.000	49399738	100.000	99.0	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.404	4.404	0.000	69795833	100.000	101	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.817	4.817	0.000	64317094	100.000	95.6	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.386	5.386	0.000	56248112	100.000	98.0	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.583	5.583	0.000	61554845	100.000	105	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.734	5.734	0.000	53994553	100.000	91.8	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.804	5.804	0.000	53172290	100.000	101	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.884	5.884	0.000	109397801	200.000	210	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.092	6.092	0.000	100545914	200.000	194	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.422	6.422	0.000	85487773	200.000	212	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.504	6.504	0.000	76776947	200.000	202	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.647	6.647	0.000	91261314	200.000	191	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.008	7.008	0.000	69866700	200.000	182	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.850	6.850	0.000	73354277	200.000	230	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.313	7.313	0.000	79357946	200.000	190	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.596	7.596	0.000	143414350	1000.00	1060	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.924	7.924	0.000	90164592	200.000	180	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.195	3.195	0.000	116145360	200.000	194	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.300	9.300	0.000	70314288	200.000	188	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/003b0301.d
Date : 26-FEB-2010 15:55
Client ID: INDAB01
Sample Info: IWFE100211-10AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

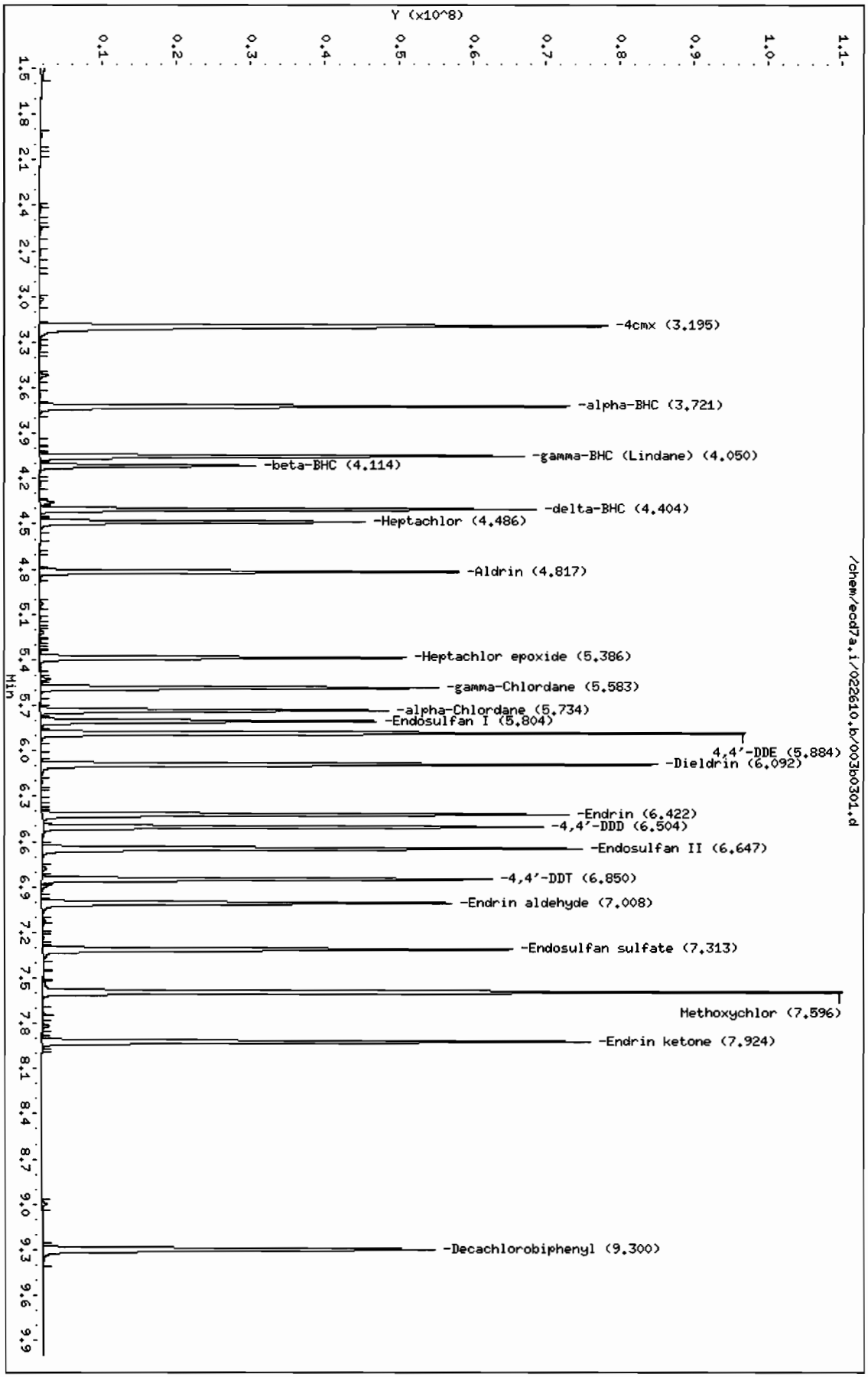

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CLP-1

Data file : /chem/ecd7a.i/022610.b/004f0401.d
Lab Smp Id: WPE100125-52TX Client Smp ID: TOXAPH01
Inj Date : 26-FEB-2010 16:12
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100125-52TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.266	5.266	0.000	15780196	2000.00	2150	80.00- 120.00	100.00(M)
5.371	5.371	0.000	23244843	2000.00	2230	127.30- 167.30	147.30
5.459	5.459	0.000	27029972	2000.00	2220	151.29- 191.29	171.29
5.519	5.519	0.000	35159349	2000.00	2210	202.81- 242.81	222.81
5.621	5.621	0.000	30293237	2000.00	1950	171.97- 211.97	191.97

Average of Peak Amounts = 2.15e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022610.b/004f0401.d

Date : 26-FEB-2010 16:12

Client ID: TOXAPH01

Sample Info: IWPE100125-52TX

Column phase: CLP-1

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

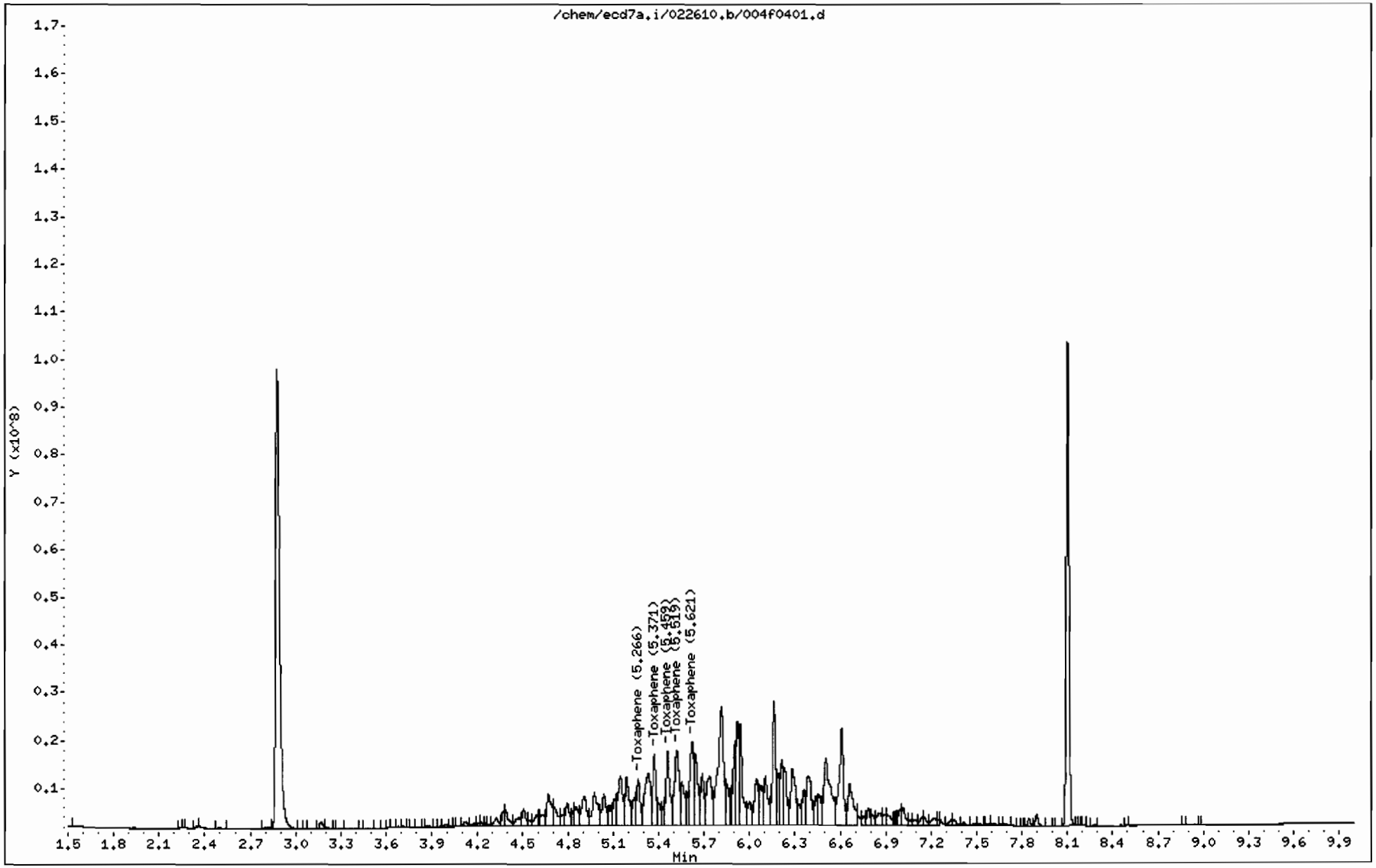

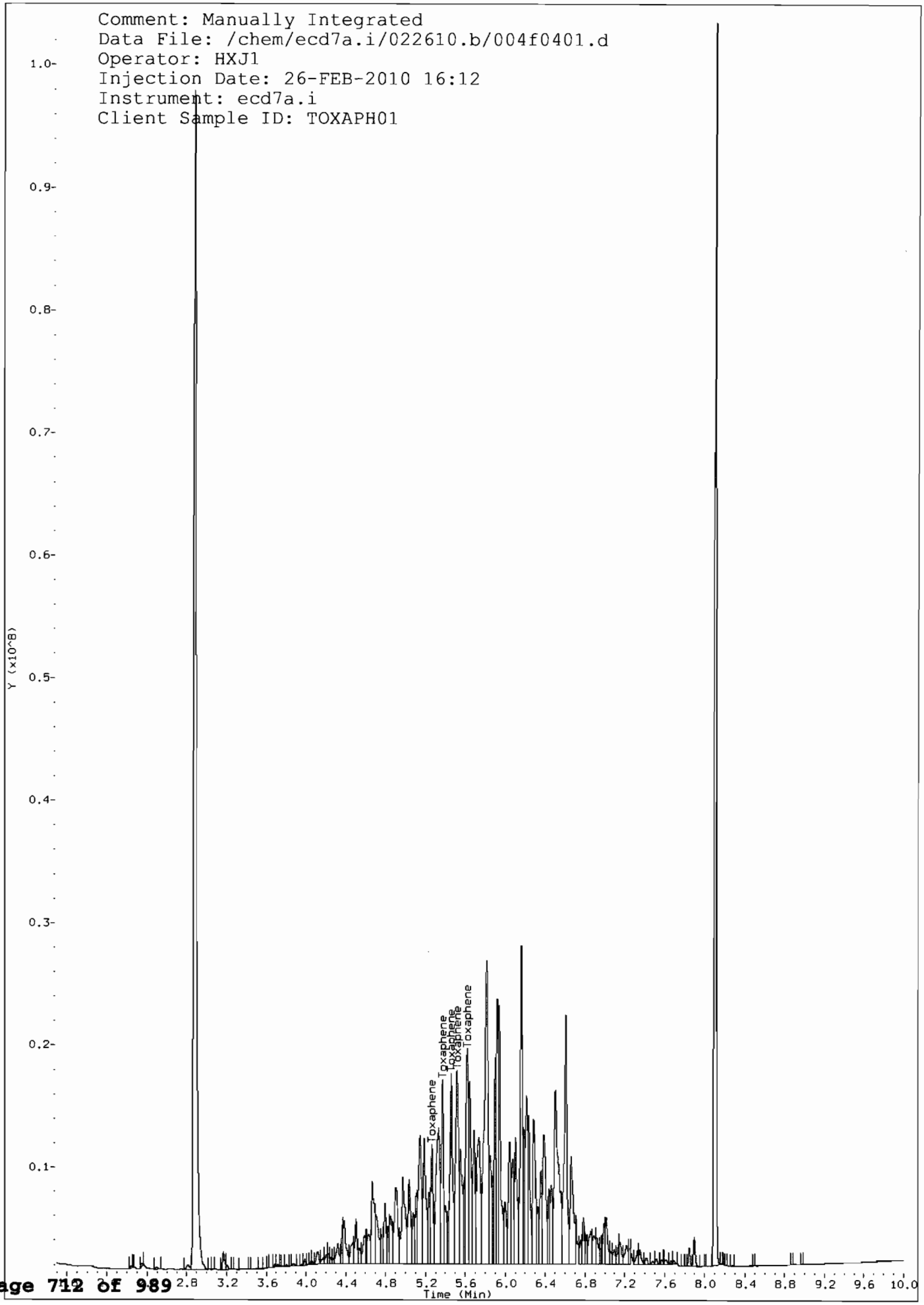
Comment: Manually Integrated
Data File: /chem/ecd7a.i/022610.b/004f0401.d
Operator: HXJ1
Injection Date: 26-FEB-2010 16:12
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
Y (x10^8)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
2.8
3.2
3.6
4.0
4.4
4.8
5.2
5.6
6.0
6.4
6.8
7.2
7.6
8.0
8.4
8.8
9.2
9.6
10.0
Time (Min)

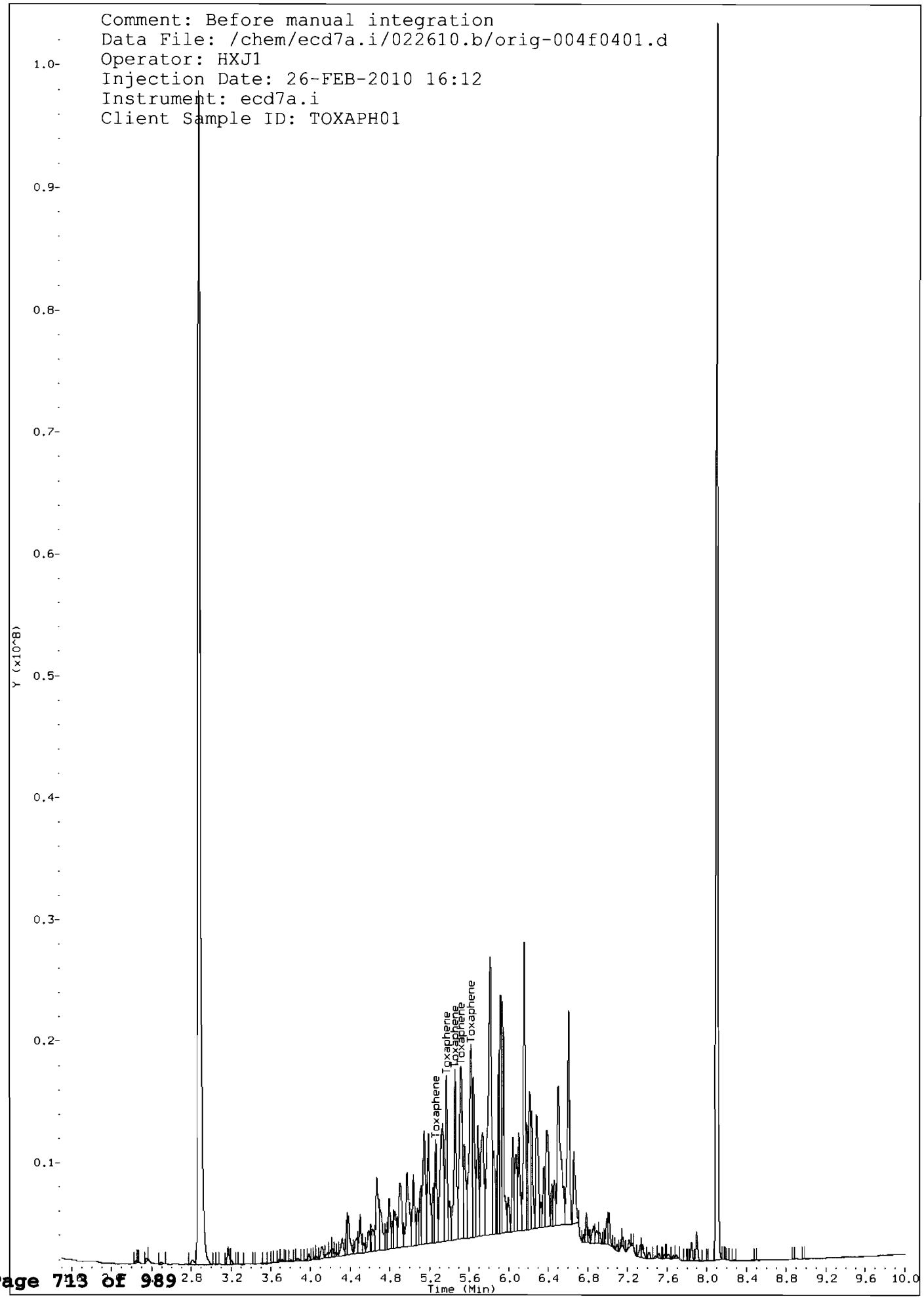
Comment: Before manual integration
Data File: /chem/ecd7a.i/022610.b/orig-004f0401.d
Operator: HXJ1
Injection Date: 26-FEB-2010 16:12
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
Y (x10^8)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
2.8
3.2
3.6
4.0
4.4
4.8
5.2
5.6
6.0
6.4
6.8
7.2
7.6
8.0
8.4
8.8
9.2
9.6
10.0
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022610.b/004b0401.d
Lab Smp Id: WPE100125-52TX Client Smp ID: TOXAPH01
Inj Date : 26-FEB-2010 16:12
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100125-52TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
6.054	6.054	0.000	21497865	2000.00	2210	80.00- 120.00	100.00(M)
6.123	6.123	0.000	8217249	2000.00	1870	18.22- 58.22	38.22
6.187	6.187	0.000	11334248	2000.00	2270	32.72- 72.72	52.72
6.249	6.249	0.000	12153520	2000.00	2120	36.53- 76.53	56.53
6.381	6.381	0.000	16678081	2000.00	2160	57.58- 97.58	77.58

Average of Peak Amounts = 2.13e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022610.b/004b0401.d

Date : 26-FEB-2010 16:12

Client ID: TOXAPH01

Sample Info: IWPE100125-52TX

Column phase: CLP-2

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

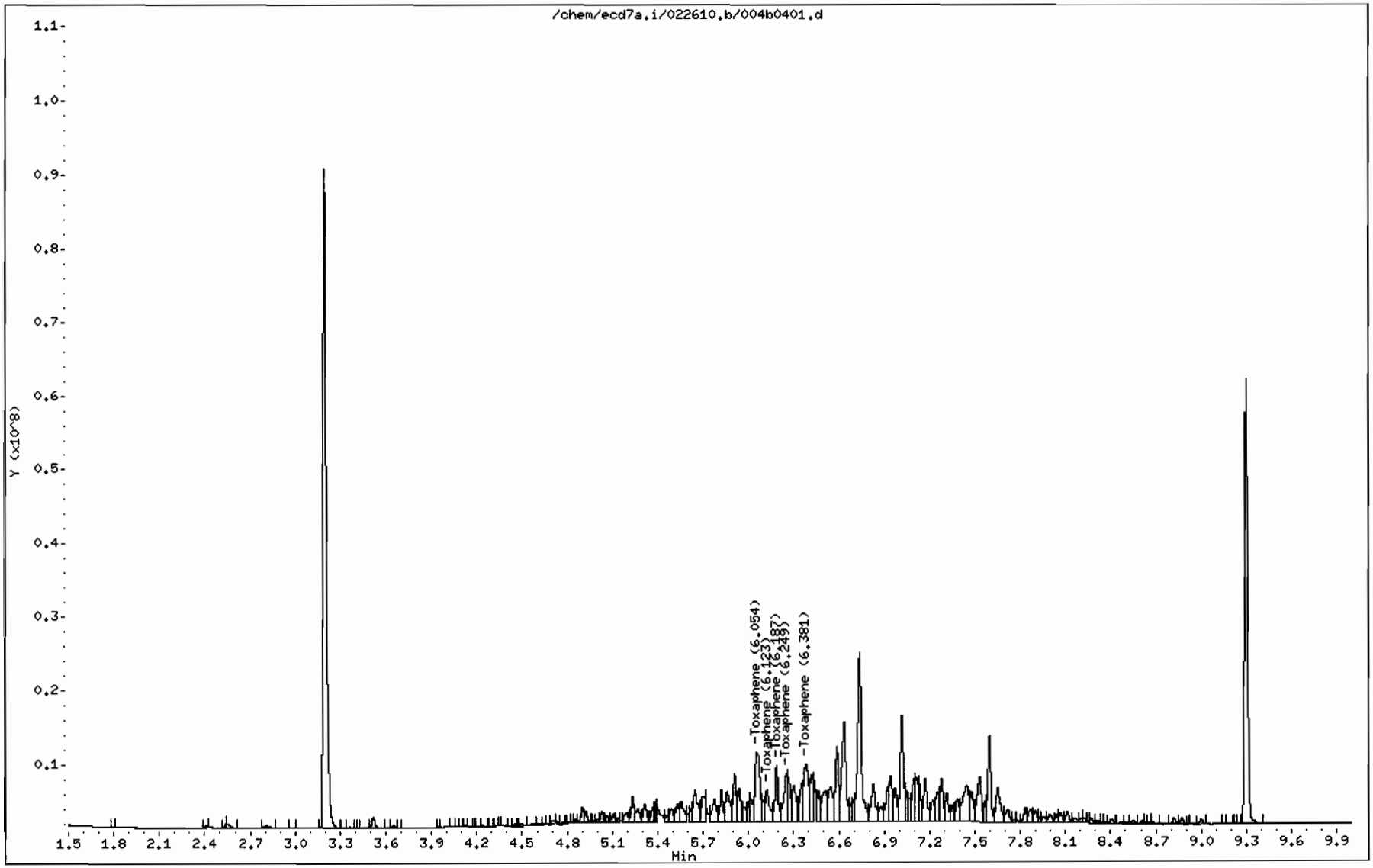

Comment: Manually Integrated
Data File: /chem/ecd7a.i/022610.b/004b0401.d
Operator: HXJ1
Injection Date: 26-FEB-2010 16:12
Instrument: ecd7a.i
Client Sample ID: TOXAPH01

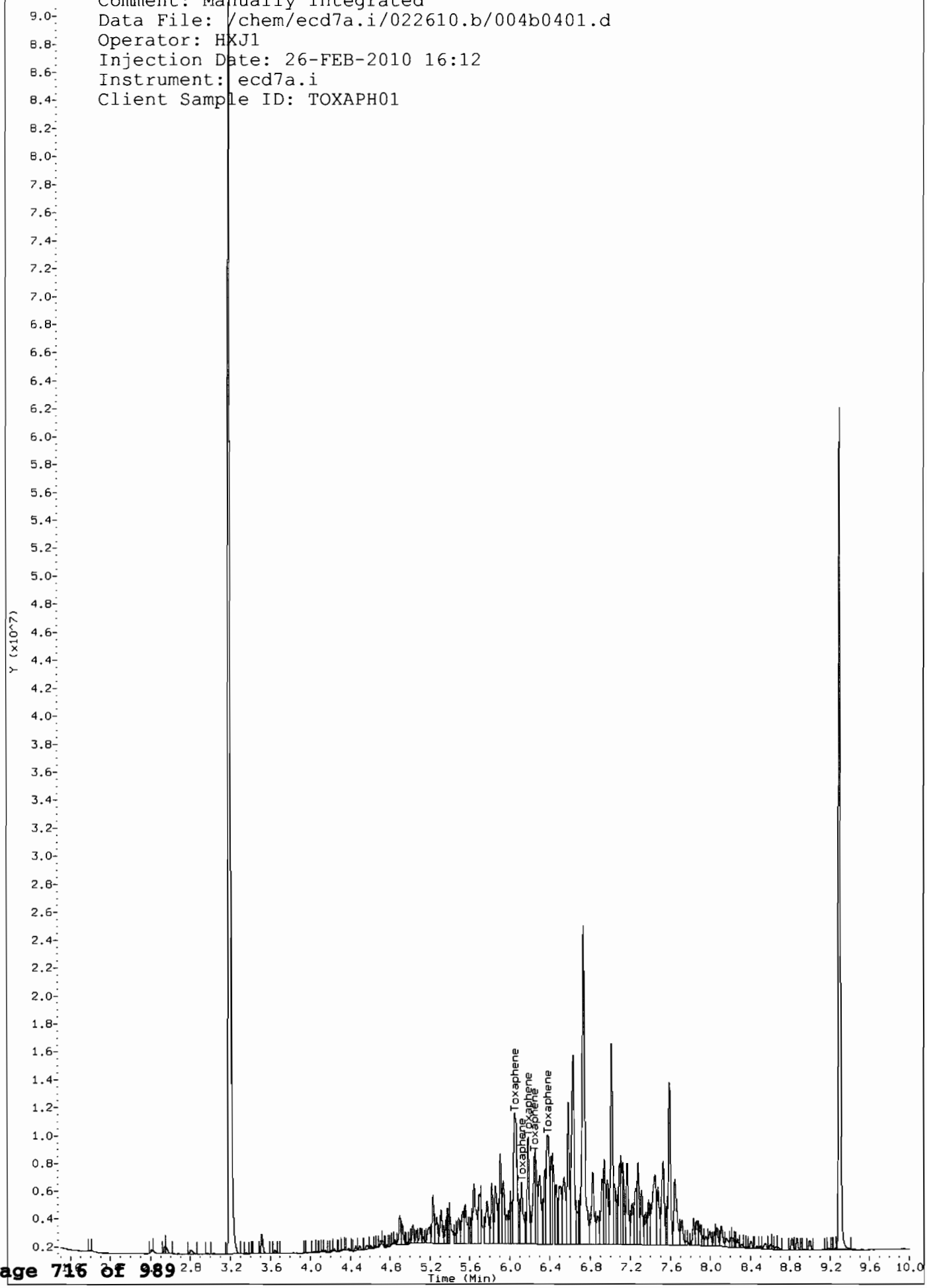

Comment: Before manual integration
Data File: /chem/ecd7a.i/022610.b/orig-004b0401.d
Operator: HXJ1
Injection Date: 26-FEB-2010 16:12
Instrument: ecd7a.i
Client Sample ID: TOXAPH01

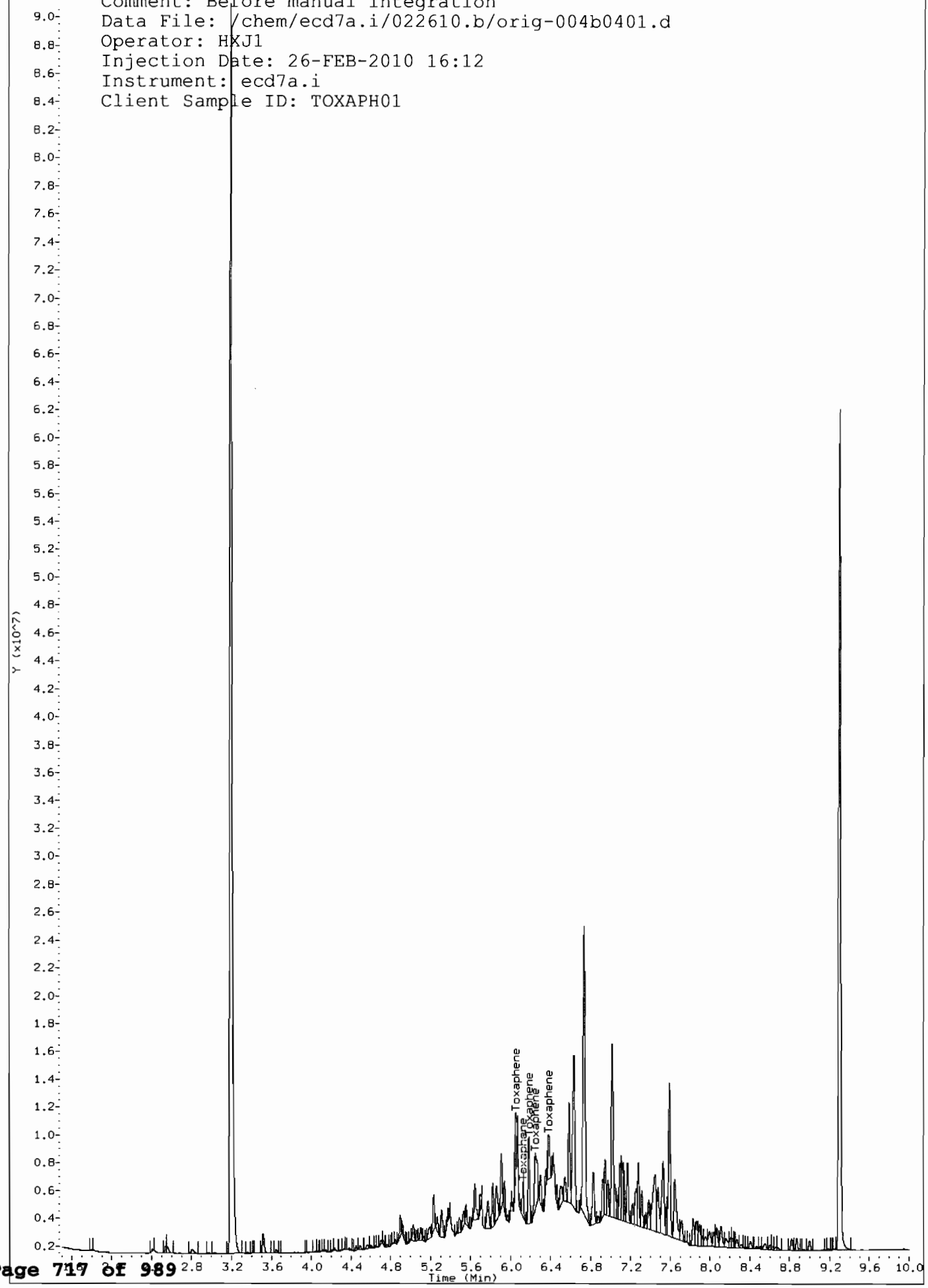

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022610.b/030f3001.d
Lab Smp Id: WPE100211-10AB Client Smp ID: INDAB03
Inj Date : 26-FEB-2010 23:35
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.296	3.298	-0.002	119930426	100.000	103	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.549	3.549	0.000	110300285	100.000	105	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.613	3.614	-0.001	45353107	100.000	96.4	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.943	3.945	-0.002	84946622	100.000	102	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.767	3.768	-0.001	107557660	100.000	103	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.208	4.210	-0.002	93555643	100.000	94.3	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.755	4.757	-0.002	86977521	100.000	98.7	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.873	4.874	-0.001	89502466	100.000	102	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.998	4.999	-0.001	78627030	100.000	90.0	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.134	5.135	-0.001	80933965	100.000	102	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.061	5.062	-0.001	160379658	200.000	199	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.366	5.367	-0.001	165392191	200.000	195	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.599	5.600	-0.001	145487806	200.000	214	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.651	5.653	-0.002	134037574	200.000	211	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.824	5.826	-0.002	143012833	200.000	196	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.252	6.255	-0.003	114243129	200.000	183	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.935	5.937	-0.002	124083176	200.000	208	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.708	6.711	-0.003	124560702	200.000	193	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.436	6.438	-0.002	262231954	1000.00	983	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.012	7.014	-0.002	152636185	200.000	184	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.878	2.879	-0.001	155703785	200.000	191	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.101	8.102	-0.001	109720182	200.000	184	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/030f3001.d
Date : 26-FEB-2010 23:35
Client ID: INDAB03
Sample Info: IWPE100211-10AB

Column phase: CLP-1

Instrument: ecd7a.i

Operator: HXJ1
Column diameter: 0.25

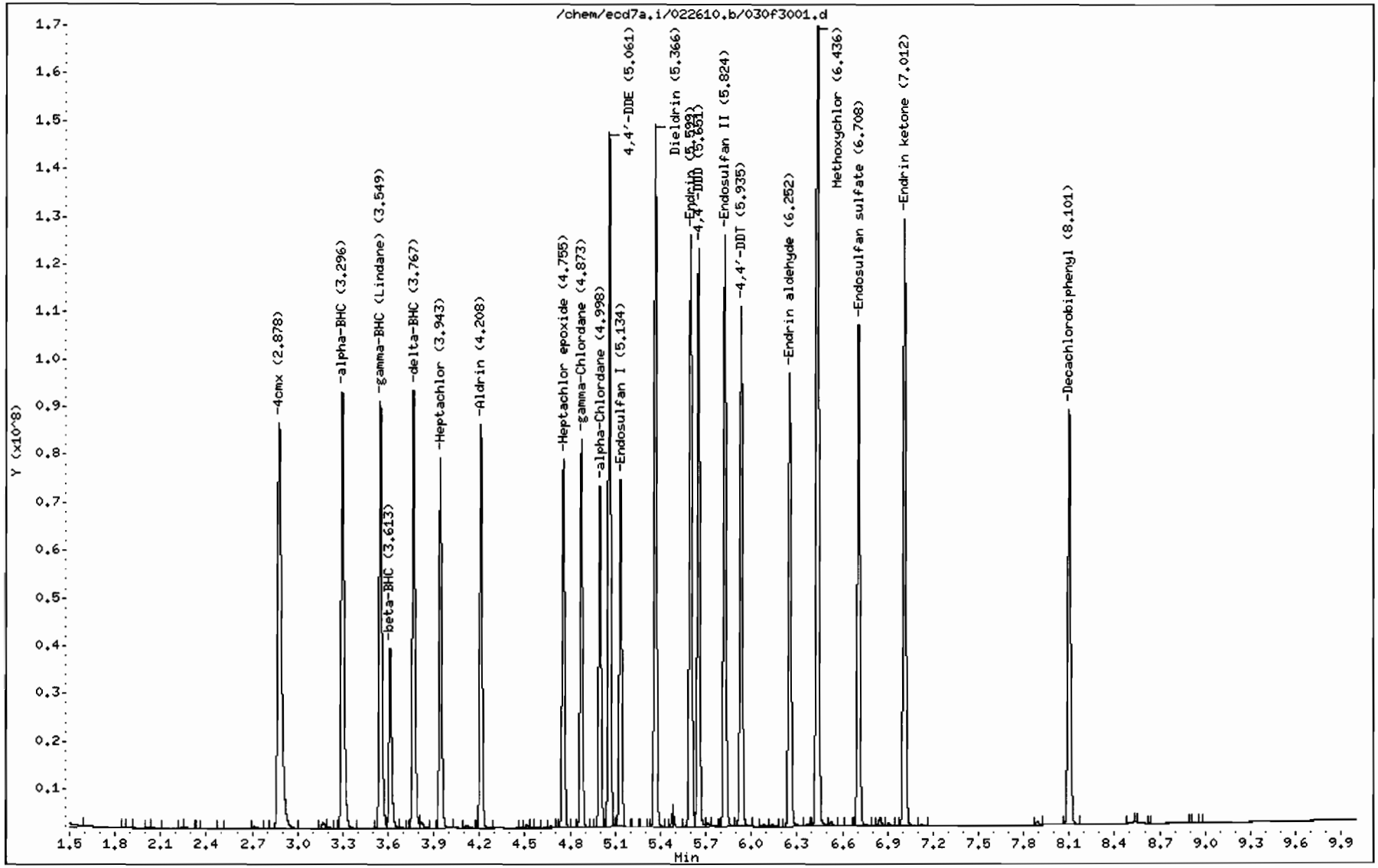

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CLP-2

Data file : /chem/ecd7a.i/022610.b/030b3001.d
Lab Smp Id: WPE100211-10AB Client Smp ID: INDAB03
Inj Date : 26-FEB-2010 23:35
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 30 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.720	3.721	-0.001	81697840	100.000	104	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.049	4.050	-0.001	72687411	100.000	106	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.112	4.114	-0.002	31442078	100.000	97.1	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.486	4.486	0.000	49920634	100.000	100	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.403	4.404	-0.001	71803210	100.000	104	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.817	4.817	0.000	62663530	100.000	93.1	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.386	5.386	0.000	56283616	100.000	98.1	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.582	5.583	-0.001	59401309	100.000	101	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.733	5.734	-0.001	52061692	100.000	88.5	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.802	5.804	-0.002	52961728	100.000	100	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.883	5.884	-0.001	105305796	200.000	202	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.091	6.092	-0.001	101774391	200.000	196	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.421	6.422	-0.001	86949557	200.000	215	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.503	6.504	-0.001	79892941	200.000	210	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.646	6.647	-0.001	92457163	200.000	194	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.007	7.008	-0.001	71080444	200.000	185	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.848	6.850	-0.002	68154323	200.000	214	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.313	7.313	0.000	80957443	200.000	194	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.594	7.596	-0.002	140006902	1000.00	1030	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.923	7.924	-0.001	91110911	200.000	181	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.194	3.195	-0.001	113767646	200.000	190	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.299	9.300	-0.001	65964817	200.000	176	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/030b3001.d
Date : 26-FEB-2010 23:35
Client ID: INDAB03
Sample Info: IWPE100211-10AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

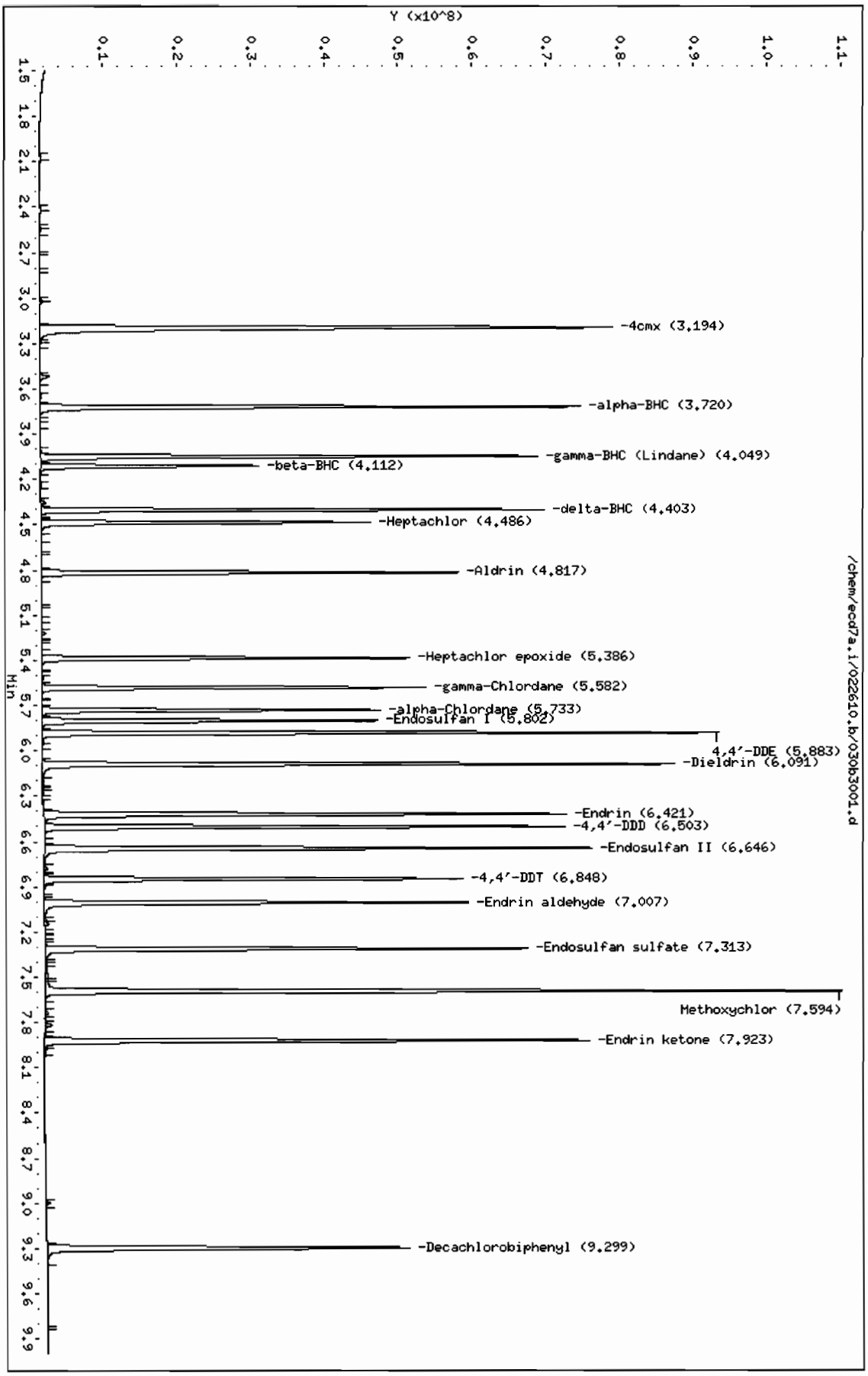

Page 1

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CLP-1

Data file : /chem/ecd7a.i/022610.b/044f4401.d
Lab Smp Id: WPE100211-10AB Client Smp ID: INDAB04
Inj Date : 27-FEB-2010 03:34
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 44 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.298	3.298	0.000	115061139	100.000	98.9	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.550	3.549	0.001	105468496	100.000	101	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.615	3.614	0.001	43198585	100.000	91.8	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.944	3.945	-0.001	81103781	100.000	97.2	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.768	3.768	0.000	102989088	100.000	98.5	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.210	4.210	0.000	89550868	100.000	90.2	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.757	4.757	0.000	82408544	100.000	93.5	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.874	4.874	0.000	84378321	100.000	96.3	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.999	4.999	0.000	74522603	100.000	85.3	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.135	5.135	0.000	77687597	100.000	97.6	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.062	5.062	0.000	155153707	200.000	193	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.366	5.367	-0.001	158829609	200.000	187	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.600	5.600	0.000	137076644	200.000	202	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.653	5.653	0.000	135773537	200.000	214	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.826	5.826	0.000	138147616	200.000	189	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.253	6.255	-0.002	111063007	200.000	178	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.936	5.937	-0.001	110948911	200.000	186	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.710	6.711	-0.001	120847899	200.000	187	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.437	6.438	-0.001	251017032	1000.00	941	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.014	7.014	0.000	150163964	200.000	181	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.881	2.879	0.002	151413131	200.000	185	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.102	8.102	0.000	109109137	200.000	183	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/044f4401.d

Date : 27-FEB-2010 03:34

Client ID: INDAB04

Sample Info: IWPE100211-10AB

Column phase: CLP-1

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

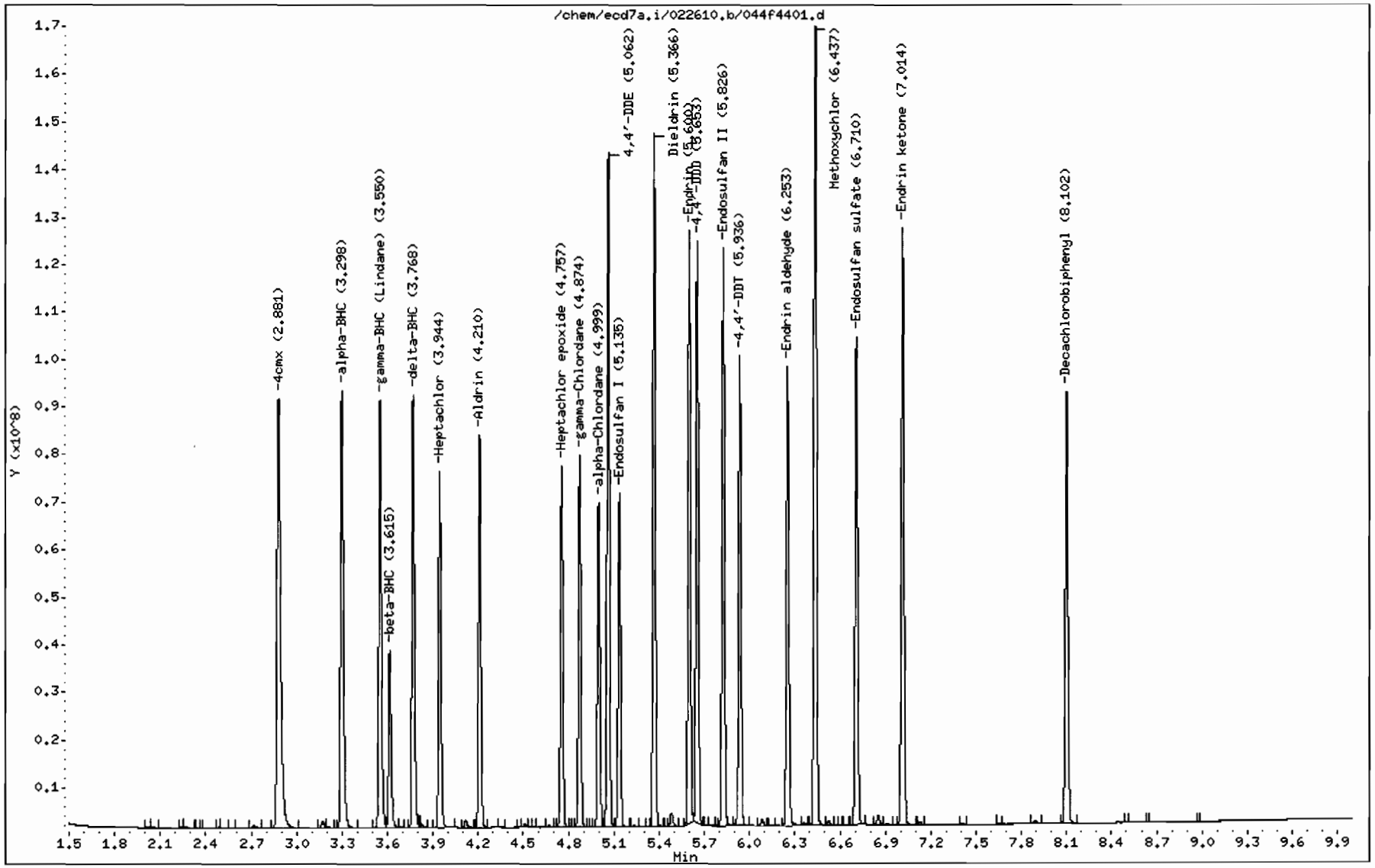

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022610.b/044b4401.d
Lab Smp Id: WPE100211-10AB Client Smp ID: INDAB04
Inj Date : 27-FEB-2010 03:34
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WPE100211-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 44 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.721	3.721	0.000	77015873	100.000	98.0	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.050	4.050	0.000	68339736	100.000	99.3	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.115	4.114	0.001	29281656	100.000	90.4	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.487	4.486	0.001	47256854	100.000	94.7	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.404	4.404	0.000	67108126	100.000	97.4	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.817	4.817	0.000	58793393	100.000	87.4	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.387	5.386	0.001	52401306	100.000	91.3	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.583	5.583	0.000	54963877	100.000	93.5	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.733	5.734	-0.001	48002208	100.000	81.6	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.804	5.804	0.000	49309323	100.000	93.4	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.884	5.884	0.000	99391361	200.000	191	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.092	6.092	0.000	95356390	200.000	184	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.422	6.422	0.000	81287072	200.000	201	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.504	6.504	0.000	80502601	200.000	212	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.647	6.647	0.000	86591631	200.000	182	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.008	7.008	0.000	67831319	200.000	177	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.850	6.850	0.000	59980860	200.000	188	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.314	7.313	0.001	76450599	200.000	183	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.596	7.596	0.000	133187840	1000.00	982	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.924	7.924	0.000	87908237	200.000	175	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.196	3.195	0.001	109050960	200.000	182	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.300	9.300	0.000	65057862	200.000	174	80.00- 120.00	100.00

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Date : 27-FEB-2010 03:34
Client ID: INDAB04
Sample Info: IWPE100211-10AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

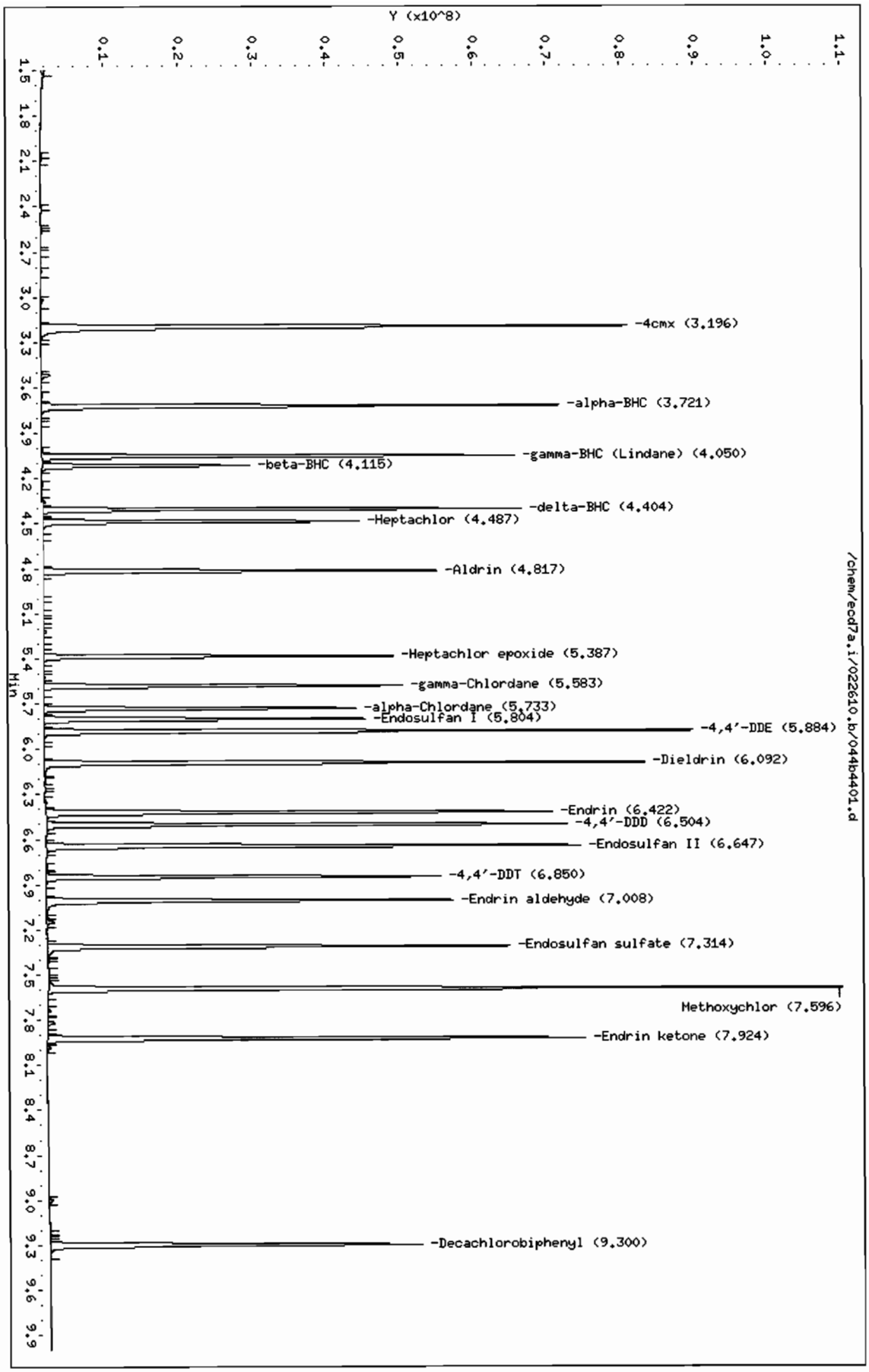

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8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 02/24/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.88 DCB: 8.10

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/24/10	1359	2.88	8.10
02	PEM01	WPE100211-99	02/24/10	1416	2.87	8.10
03	ZZZZZ	ZZZZZ	02/24/10	1433	2.88	8.10
04	ZZZZZ	ZZZZZ	02/24/10	1450		
05	GAPA01	WPE100114-05	02/24/10	1507	2.88	8.10
06	ZZZZZ	ZZZZZ	02/24/10	1524	2.88	8.10
07	INDAB01	WPE100224-01	02/24/10	1541	2.88	8.10
08	INDAB02	WPE100224-02	02/24/10	1558	2.88	8.10
09	INDAB03	WPE100224-03	02/24/10	1615	2.88	8.10
10	INDAB04	WPE100224-04	02/24/10	1632	2.88	8.10
11	INDAB05	IPE100204-02	02/24/10	1649	2.88	8.10
12	INDAB01	WPE100211-10	02/24/10	1706	2.88	8.10
13	TOXAPH01	WPE100224-11	02/24/10	1724		
14	TOXAPH02	WPE100224-12	02/24/10	1741		
15	TOXAPH03	WPE100224-13	02/24/10	1758		
16	TOXAPH04	WPE100224-14	02/24/10	1815		
17	TOXAPH05	IPE100204-40	02/24/10	1832		
18	TOXAPH01	WPE100125-52	02/24/10	1849		
19	CHLOR01	WPE100224-21	02/24/10	1906	2.87	8.10
20	CHLOR02	WPE100224-22	02/24/10	1923	2.87	8.10
21	CHLOR03	WPE100224-23	02/24/10	1940	2.87	8.10
22	CHLOR04	WPE100224-24	02/24/10	1957	2.88	8.10
23	CHLOR05	IPE100116-06	02/24/10	2014	2.88	8.10
24	CHLOR01	WPE100116-00	02/24/10	2031	2.88	8.10
25	PIBLK02	WAR100219-99	02/24/10	2048	2.88	8.10
26	PEM02	WPE100211-99	02/24/10	2105	2.87	8.10
27	ZZZZZ	ZZZZZ	02/24/10	2122	2.88	8.10
28	ZZZZZ	ZZZZZ	02/24/10	2139	2.88	8.10
29	ZZZZZ	ZZZZZ	02/24/10	2156	2.88	8.10
30	ZZZZZ	ZZZZZ	02/24/10	2214	2.88	8.10
31	PIBLK03	WAR100219-99	02/24/10	2231	2.88	8.10
32	INDAB02	WPE100211-10	02/24/10	2248	2.88	8.10

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

page 1 of 1

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 02/24/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.19 DCB: 9.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/24/10	1359	3.20	9.29
02	PEM01	WPE100211-99	02/24/10	1416	3.19	9.30
03	ZZZZZ	ZZZZZ	02/24/10	1433	3.19	9.30
04	ZZZZZ	ZZZZZ	02/24/10	1450		
05	GAPA01	WPE100114-05	02/24/10	1507	3.19	9.30
06	ZZZZZ	ZZZZZ	02/24/10	1524	3.19	9.30
07	INDAB01	WPE100224-01	02/24/10	1541	3.19	9.30
08	INDAB02	WPE100224-02	02/24/10	1558	3.19	9.30
09	INDAB03	WPE100224-03	02/24/10	1615	3.19	9.30
10	INDAB04	WPE100224-04	02/24/10	1632	3.19	9.30
11	INDAB05	IPE100204-02	02/24/10	1649	3.19	9.30
12	INDAB01	WPE100211-10	02/24/10	1706	3.19	9.30
13	TOXAPH01	WPE100224-11	02/24/10	1724		
14	TOXAPH02	WPE100224-12	02/24/10	1741		
15	TOXAPH03	WPE100224-13	02/24/10	1758		
16	TOXAPH04	WPE100224-14	02/24/10	1815		
17	TOXAPH05	IPE100204-40	02/24/10	1832		
18	TOXAPH01	WPE100125-52	02/24/10	1849		
19	CHLOR01	WPE100224-21	02/24/10	1906	3.19	9.30
20	CHLOR02	WPE100224-22	02/24/10	1923	3.19	9.30
21	CHLOR03	WPE100224-23	02/24/10	1940	3.19	9.30
22	CHLOR04	WPE100224-24	02/24/10	1957	3.19	9.30
23	CHLOR05	IPE100116-06	02/24/10	2014	3.19	9.30
24	CHLOR01	WPE100116-00	02/24/10	2031	3.19	9.30
25	PIBLK02	WAR100219-99	02/24/10	2048	3.19	9.30
26	PEM02	WPE100211-99	02/24/10	2105	3.19	9.30
27	ZZZZZ	ZZZZZ	02/24/10	2122	3.20	9.30
28	ZZZZZ	ZZZZZ	02/24/10	2139	3.20	9.30
29	ZZZZZ	ZZZZZ	02/24/10	2156	3.20	9.30
30	ZZZZZ	ZZZZZ	02/24/10	2214	3.20	9.30
31	PIBLK03	WAR100219-99	02/24/10	2231	3.19	9.30
32	INDAB02	WPE100211-10	02/24/10	2248	3.19	9.30

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM 8
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GEL LABORATORIES LLC Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/25/10 02/25/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.88 DCB: 8.10

	GOSS SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/25/10	0958	2.89	8.10
02	PEM01	WPE100211-99	02/25/10	1015	2.87	8.10
03	ZZZZZ	ZZZZZ	02/25/10	1032	2.87	8.10
04	TOXAPH01	WPE100125-52	02/25/10	1049		
05	CHLOR01	WPE100116-00	02/25/10	1106	2.88	8.10
06	GAPA01	WPE100114-05	02/25/10	1123	2.88	8.10
07	INDAB01	WPE100225-01	02/25/10	1140	2.88	8.10
08	INDAB02	WPE100225-02	02/25/10	1157	2.88	8.10
09	INDAB03	WPE100225-03	02/25/10	1214	2.88	8.10
10	INDAB04	WPE100225-04	02/25/10	1231	2.88	8.10
11	INDAB05	IPE100204-02	02/25/10	1248	2.88	8.10
12	INDAB01	WPE100211-10	02/25/10	1305	2.88	8.10
13	PIBLK02	WAR100219-99	02/25/10	1322	2.88	8.10
14	ZZZZZ	ZZZZZ	02/25/10	1339	2.88	8.10
15	ZZZZZ	ZZZZZ	02/25/10	1356	2.88	8.10
16	ZZZZZ	ZZZZZ	02/25/10	1413	2.88	8.10
17	ZZZZZ	ZZZZZ	02/25/10	1430	2.88	8.10
18	ZZZZZ	ZZZZZ	02/25/10	1447	2.88	8.10
19	ZZZZZ	ZZZZZ	02/25/10	1504	2.88	8.10
20	ZZZZZ	ZZZZZ	02/25/10	1521	2.88	8.10
21	ZZZZZ	ZZZZZ	02/25/10	1538	2.88	8.10
22	ZZZZZ	ZZZZZ	02/25/10	1555	2.88	8.10
23	ZZZZZ	ZZZZZ	02/25/10	1612	2.88	8.09
24	INDAB02	WPE100211-10	02/25/10	1629	2.88	8.10
25	PIBLK03	WAR100219-99	02/25/10	1646	2.88	8.10
26	ZZZZZ	ZZZZZ	02/25/10	1703	2.88	8.10
27	ZZZZZ	ZZZZZ	02/25/10	1720	2.88	8.10
28	ZZZZZ	ZZZZZ	02/25/10	1738	2.88	8.10
29	ZZZZZ	ZZZZZ	02/25/10	1755	2.88	8.10
30	ZZZZZ	ZZZZZ	02/25/10	1812	2.88	8.10
31	ZZZZZ	ZZZZZ	02/25/10	1829	2.88	8.10
32	PIBLK04	WAR100219-99	02/25/10	1846	2.88	8.10

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

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FORM VIII PEST

FORM 8
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GEL LABORATORIES LLC Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/25/10 02/25/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.19 DCB: 9.30

	GOSS SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/25/10	0958	3.20	9.30
02	PEM01	WPE100211-99	02/25/10	1015	3.19	9.30
03	ZZZZZ	ZZZZZ	02/25/10	1032	3.19	9.30
04	TOXAPH01	WPE100125-52	02/25/10	1049		
05	CHLOR01	WPE100116-00	02/25/10	1106	3.19	9.30
06	GAPA01	WPE100114-05	02/25/10	1123	3.20	9.30
07	INDAB01	WPE100225-01	02/25/10	1140	3.19	9.30
08	INDAB02	WPE100225-02	02/25/10	1157	3.19	9.30
09	INDAB03	WPE100225-03	02/25/10	1214	3.19	9.30
10	INDAB04	WPE100225-04	02/25/10	1231	3.20	9.30
11	INDAB05	IPE100204-02	02/25/10	1248	3.19	9.30
12	INDAB01	WPE100211-10	02/25/10	1305	3.19	9.30
13	PIBLK02	WAR100219-99	02/25/10	1322	3.19	9.30
14	ZZZZZ	ZZZZZ	02/25/10	1339	3.20	9.30
15	ZZZZZ	ZZZZZ	02/25/10	1339	3.20	9.30
16	ZZZZZ	ZZZZZ	02/25/10	1339	3.20	9.30
17	ZZZZZ	ZZZZZ	02/25/10	1339	3.20	9.30
18	ZZZZZ	ZZZZZ	02/25/10	1339	3.20	9.30
19	ZZZZZ	ZZZZZ	02/25/10	1356	3.20	9.30
20	ZZZZZ	ZZZZZ	02/25/10	1413	3.19	9.30
21	ZZZZZ	ZZZZZ	02/25/10	1430	3.19	9.30
22	ZZZZZ	ZZZZZ	02/25/10	1447	3.20	9.30
23	ZZZZZ	ZZZZZ	02/25/10	1504	3.20	9.30
24	ZZZZZ	ZZZZZ	02/25/10	1521	3.19	9.30
25	ZZZZZ	ZZZZZ	02/25/10	1538	3.20	9.30
26	ZZZZZ	ZZZZZ	02/25/10	1555	3.20	9.30
27	ZZZZZ	ZZZZZ	02/25/10	1612	3.20	9.32
28	INDAB02	WPE100211-10	02/25/10	1629	3.20	9.30
29	PIBLK03	WAR100219-99	02/25/10	1646	3.19	9.30
30	ZZZZZ	ZZZZZ	02/25/10	1703	3.20	9.30
31	ZZZZZ	ZZZZZ	02/25/10	1720	3.20	9.30
32	ZZZZZ	ZZZZZ	02/25/10	1738	3.20	9.30

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

page 1 of 1

FORM VIII PEST

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 02/25/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.88 DCB: 8.10

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/26/10	1521	2.88	8.10
02	PEM01	WPE100211-99	02/26/10	1538	2.88	8.10
03	INDAB01	WPE100211-10	02/26/10	1555	2.88	8.10
04	TOXAPH01	WPE100125-52	02/26/10	1612		
05	CHLOR01	WPE100116-00	02/26/10	1629	2.88	8.10
06	GAPA01	WPE100114-05	02/26/10	1646	2.88	8.10
07	PIBLK02	WAR100219-99	02/26/10	1703	2.88	8.10
08	ZZZZZ	ZZZZZ	02/26/10	1720	2.88	8.10
09	ZZZZZ	ZZZZZ	02/26/10	1737	2.88	8.10
10	ZZZZZ	ZZZZZ	02/26/10	1754	2.88	8.10
11	ZZZZZ	ZZZZZ	02/26/10	1811	2.88	8.10
12	ZZZZZ	ZZZZZ	02/26/10	1828	2.88	8.10
13	ZZZZZ	ZZZZZ	02/26/10	1846	2.88	8.10
14	ZZZZZ	ZZZZZ	02/26/10	1903	2.88	8.10
15	ZZZZZ	ZZZZZ	02/26/10	1920	2.88	8.10
16	ZZZZZ	ZZZZZ	02/26/10	1937	2.88	8.10
17	ZZZZZ	ZZZZZ	02/26/10	1954	2.88	8.10
18	INDAB02	WPE100211-10	02/26/10	2011	2.88	8.10
19	PIBLK03	WAR100219-99	02/26/10	2028	2.88	8.10
20	ZZZZZ	ZZZZZ	02/26/10	2045	2.88	8.10
21	ZZZZZ	ZZZZZ	02/26/10	2102	2.88	8.10
22	ZZZZZ	ZZZZZ	02/26/10	2119	2.88	8.10
23	ZZZZZ	ZZZZZ	02/26/10	2136	2.88	8.10
24	ZZZZZ	ZZZZZ	02/26/10	2153	2.88	8.10
25	ZZZZZ	ZZZZZ	02/26/10	2210	2.88	8.10
26	ZZZZZ	ZZZZZ	02/26/10	2227	2.88	8.10
27	ZZZZZ	ZZZZZ	02/26/10	2244	2.88	8.10
28	ZZZZZ	ZZZZZ	02/26/10	2301	2.88	8.10
29	ZZZZZ	ZZZZZ	02/26/10	2318	2.88	8.10
30	INDAB03	WPE100211-10	02/26/10	2335	2.88	8.10
31	PIBLK04	WAR100219-99	02/26/10	2353	2.88	8.10
32	PEM02	WPE100211-99	02/27/10	0010	2.88	8.10

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 02/25/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.88 DCB: 8.10

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PBLK01	1202054045	02/27/10	0027	2.88	8.10
02	PBLK01LCS	1202054046	02/27/10	0044	2.88	8.10
03	PBLK01TLCS	1202054049	02/27/10	0101	2.88	8.10
04	ZZZZZ	ZZZZZ	02/27/10	0118	2.88	8.10
05	ZZZZZ	ZZZZZ	02/27/10	0135	2.88	8.10
06	CAPA-10-13498	247824004	02/27/10	0152	2.88	8.10
07	ZZZZZ	ZZZZZ	02/27/10	0209	2.88	8.10
08	ZZZZZ	ZZZZZ	02/27/10	0226	2.88	8.11
09	ZZZZZ	ZZZZZ	02/27/10	0243	2.88	8.11
10	ZZZZZ	ZZZZZ	02/27/10	0300	2.88	8.11
11	PIBLK05	WAR100219-99	02/27/10	0317	2.88	8.10
12	INDAB04	WPE100211-10	02/27/10	0334	2.88	8.10
13	PIBLK06	WAR100219-99	02/27/10	0351	2.88	8.10
14	ZZZZZ	ZZZZZ	02/27/10	0408	2.88	8.10
15	ZZZZZ	ZZZZZ	02/27/10	0425	2.88	8.10
16	ZZZZZ	ZZZZZ	02/27/10	0442	2.88	8.10
17	ZZZZZ	ZZZZZ	02/27/10	0459	2.88	8.10
18	ZZZZZ	ZZZZZ	02/27/10	0516	2.88	8.10
19	ZZZZZ	ZZZZZ	02/27/10	0533	2.88	8.10
20	INDAB05	WPE100211-10	02/27/10	0550	2.88	8.10
21	PIBLK07	WAR100219-99	02/27/10	0607	2.88	8.10
22	ZZZZZ	ZZZZZ	02/27/10	0624	2.88	8.10
23	ZZZZZ	ZZZZZ	02/27/10	0641	2.88	8.10
24	ZZZZZ	ZZZZZ	02/27/10	0658	2.88	8.10
25	ZZZZZ	ZZZZZ	02/27/10	0715	2.88	8.10
26	ZZZZZ	ZZZZZ	02/27/10	0732	2.88	8.10
27	ZZZZZ	ZZZZZ	02/27/10	0749	2.88	8.10
28	INDAB06	WPE100211-10	02/27/10	0806	2.88	8.10
29	PIBLK08	WAR100219-99	02/27/10	0823	2.88	8.10
30	ZZZZZ	ZZZZZ	02/27/10	0840	2.88	8.10
31	ZZZZZ	ZZZZZ	02/27/10	0857	2.88	8.10
32	ZZZZZ	ZZZZZ	02/27/10	0914	2.88	8.10

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 02/25/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.19 DCB: 9.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/26/10	1521	3.20	9.30
02	PEM01	WPE100211-99	02/26/10	1538	3.19	9.30
03	INDAB01	WPE100211-10	02/26/10	1555	3.19	9.30
04	TOXAPH01	WPE100125-52	02/26/10	1612		
05	CHLOR01	WPE100116-00	02/26/10	1629	3.19	9.30
06	GAPA01	WPE100114-05	02/26/10	1646	3.20	9.30
07	PIBLK02	WAR100219-99	02/26/10	1703	3.19	9.30
08	ZZZZZ	ZZZZZ	02/26/10	1720	3.20	9.30
09	ZZZZZ	ZZZZZ	02/26/10	1737	3.20	9.30
10	ZZZZZ	ZZZZZ	02/26/10	1754	3.20	9.30
11	ZZZZZ	ZZZZZ	02/26/10	1811	3.20	9.30
12	ZZZZZ	ZZZZZ	02/26/10	1828	3.20	9.30
13	ZZZZZ	ZZZZZ	02/26/10	1846	3.20	9.30
14	ZZZZZ	ZZZZZ	02/26/10	1903	3.20	9.30
15	ZZZZZ	ZZZZZ	02/26/10	1920	3.20	9.30
16	ZZZZZ	ZZZZZ	02/26/10	1937	3.20	9.30
17	ZZZZZ	ZZZZZ	02/26/10	1954	3.20	9.30
18	INDAB02	WPE100211-10	02/26/10	2011	3.19	9.30
19	PIBLK03	WAR100219-99	02/26/10	2028	3.19	9.30
20	ZZZZZ	ZZZZZ	02/26/10	2045	3.20	9.30
21	ZZZZZ	ZZZZZ	02/26/10	2102	3.20	9.30
22	ZZZZZ	ZZZZZ	02/26/10	2119	3.20	9.30
23	ZZZZZ	ZZZZZ	02/26/10	2136	3.20	9.30
24	ZZZZZ	ZZZZZ	02/26/10	2153	3.19	9.30
25	ZZZZZ	ZZZZZ	02/26/10	2210	3.20	9.30
26	ZZZZZ	ZZZZZ	02/26/10	2227	3.20	9.30
27	ZZZZZ	ZZZZZ	02/26/10	2244	3.20	9.30
28	ZZZZZ	ZZZZZ	02/26/10	2301	3.20	9.30
29	ZZZZZ	ZZZZZ	02/26/10	2318	3.20	9.30
30	INDAB03	WPE100211-10	02/26/10	2335	3.19	9.30
31	PIBLK04	WAR100219-99	02/26/10	2353	3.19	9.30
32	PEM02	WPE100211-99	02/27/10	0010	3.19	9.30

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 02/25/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.19 DCB: 9.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PBLK01	1202054045	02/27/10	0027	3.19	9.30
02	PBLK01LCS	1202054046	02/27/10	0044	3.19	9.30
03	PBLK01TLCS	1202054049	02/27/10	0101	3.19	9.30
04	ZZZZZ	ZZZZZ	02/27/10	0118	3.20	9.30
05	ZZZZZ	ZZZZZ	02/27/10	0135	3.20	9.32
06	CAPA-10-13498	247824004	02/27/10	0152	3.20	9.30
07	ZZZZZ	ZZZZZ	02/27/10	0209	3.20	9.30
08	ZZZZZ	ZZZZZ	02/27/10	0226	3.20	9.31
09	ZZZZZ	ZZZZZ	02/27/10	0243	3.20	9.31
10	ZZZZZ	ZZZZZ	02/27/10	0300	3.20	9.31
11	PIBLK05	WAR100219-99	02/27/10	0317	3.20	9.30
12	INDAB04	WPE100211-10	02/27/10	0334	3.20	9.30
13	PIBLK06	WAR100219-99	02/27/10	0351	3.20	9.30
14	ZZZZZ	ZZZZZ	02/27/10	0408	3.19	9.30
15	ZZZZZ	ZZZZZ	02/27/10	0425	3.19	9.30
16	ZZZZZ	ZZZZZ	02/27/10	0442	3.20	9.30
17	ZZZZZ	ZZZZZ	02/27/10	0459	3.20	9.30
18	ZZZZZ	ZZZZZ	02/27/10	0516	3.19	9.30
19	ZZZZZ	ZZZZZ	02/27/10	0533	3.19	9.30
20	INDAB05	WPE100211-10	02/27/10	0550	3.19	9.30
21	PIBLK07	WAR100219-99	02/27/10	0607	3.19	9.30
22	ZZZZZ	ZZZZZ	02/27/10	0624	3.19	9.30
23	ZZZZZ	ZZZZZ	02/27/10	0641	3.20	9.30
24	ZZZZZ	ZZZZZ	02/27/10	0658	3.19	9.30
25	ZZZZZ	ZZZZZ	02/27/10	0715	3.19	9.30
26	ZZZZZ	ZZZZZ	02/27/10	0732	3.19	9.30
27	ZZZZZ	ZZZZZ	02/27/10	0749	3.19	9.30
28	INDAB06	WPE100211-10	02/27/10	0806	3.20	9.30
29	PIBLK08	WAR100219-99	02/27/10	0823	3.19	9.30
30	ZZZZZ	ZZZZZ	02/27/10	0840	3.20	9.30
31	ZZZZZ	ZZZZZ	02/27/10	0857	3.19	9.30
32	ZZZZZ	ZZZZZ	02/27/10	0914	3.19	9.30

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

Identification Summary

SDG Number: 10–2005 **Client ID:** LCS for batch 957866

Lab Sample ID: 1202054046

Data File:	034f3401.d	**Data File:**	034b3401.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	27–FEB–10 00:44	**Analyzed:**	27–FEB–10 00:44

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							2.25
Column 1	1	3.3	3.27 – 3.33	.387		ug/L	
Column 2	1	3.72	3.69 – 3.75	.396		ug/L	
gamma–BHC (Lindane)							1.79
Column 1	1	3.55	3.52 – 3.58	.393		ug/L	
Column 2	1	4.05	4.02 – 4.08	.4		ug/L	
beta–BHC							2.05
Column 1	1	3.61	3.58 – 3.64	.376		ug/L	
Column 2	1	4.11	4.08 – 4.14	.384		ug/L	
delta–BHC							4.04
Column 1	1	3.77	3.74 – 3.8	.391		ug/L	
Column 2	1	4.4	4.37 – 4.43	.408		ug/L	
Heptachlor							1.03
Column 1	1	3.94	3.91 – 3.97	.327		ug/L	
Column 2	1	4.48	4.46 – 4.52	.331		ug/L	

Identification Summary

SDG Number: 10–2005 **Client ID:** LCS for batch 957866

Lab Sample ID: 1202054046

Data File:	034f3401.d	**Data File:**	034b3401.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	27–FEB–10 00:44	**Analyzed:**	27–FEB–10 00:44

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							.311
Column 1	1	4.21	4.18 – 4.24	.277		ug/L	
Column 2	1	4.82	4.79 – 4.85	.278		ug/L	
Heptachlor epoxide							.488
Column 1	1	4.76	4.73 – 4.79	.371		ug/L	
Column 2	1	5.39	5.36 – 5.42	.369		ug/L	
gamma–Chlordane							2.35
Column 1	1	4.87	4.84 – 4.9	.339		ug/L	
Column 2	1	5.58	5.55 – 5.61	.348		ug/L	
alpha–Chlordane							.523
Column 1	1	5	4.97 – 5.03	.353		ug/L	
Column 2	1	5.73	5.7 – 5.76	.354		ug/L	
Endosulfan I							.235
Column 1	1	5.13	5.11 – 5.17	.372		ug/L	
Column 2	1	5.8	5.77 – 5.83	.373		ug/L	

Identification Summary

SDG Number: 10–2005 **Client ID:** LCS for batch 957866

Lab Sample ID: 1202054046

Data File:	034f3401.d	**Data File:**	034b3401.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	27–FEB–10 00:44	**Analyzed:**	27–FEB–10 00:44

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE								2.81
	Column 1	1	5.06	5.03 – 5.09	.89		ug/L	
	Column 2	1	5.88	5.85 – 5.91	.915		ug/L	
Dieldrin								2.1
	Column 1	1	5.37	5.34 – 5.4	.893		ug/L	
	Column 2	1	6.09	6.06 – 6.12	.912		ug/L	
Endrin								.273
	Column 1	1	5.6	5.57 – 5.63	1.04		ug/L	
	Column 2	1	6.42	6.39 – 6.45	1.04		ug/L	
4,4'–DDD								.546
	Column 1	1	5.65	5.62 – 5.68	1.02		ug/L	
	Column 2	1	6.5	6.47 – 6.53	1.02		ug/L	
Endosulfan II								.439
	Column 1	1	5.82	5.8 – 5.86	.935		ug/L	
	Column 2	1	6.65	6.62 – 6.68	.939		ug/L	

Identification Summary

SDG Number: 10–2005 **Client ID:** LCS for batch 957866

Lab Sample ID: 1202054046

Data File:	034f3401.d	**Data File:**	034b3401.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	27–FEB–10 00:44	**Analyzed:**	27–FEB–10 00:44

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							2.46
Column 1	1	6.25	6.22 – 6.28	.863		ug/L	
Column 2	1	7.01	6.98 – 7.04	.885		ug/L	
4,4'–DDT							1.08
Column 1	1	5.93	5.91 – 5.97	.976		ug/L	
Column 2	1	6.85	6.82 – 6.88	.987		ug/L	
Endosulfan sulfate							.887
Column 1	1	6.71	6.68 – 6.74	.964		ug/L	
Column 2	1	7.31	7.28 – 7.34	.955		ug/L	
Methoxychlor							6.37
Column 1	1	6.44	6.41 – 6.47	3.79		ug/L	
Column 2	1	7.59	7.57 – 7.63	4.03		ug/L	
Endrin ketone							.753
Column 1	1	7.01	6.98 – 7.04	.909		ug/L	
Column 2	1	7.92	7.89 – 7.95	.903		ug/L	

Identification Summary

SDG Number: 10–2005 **Client ID:** LCS for batch 957866

Lab Sample ID: 1202054049

Data File:	035f3501.d	**Data File:**	035b3501.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	27–FEB–10 01:01	**Analyzed:**	27–FEB–10 01:01

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Toxaphene							25.7
Column 1	1	5.26	5.24 – 5.3	1.73		ug/L	
	2	5.37	5.34 – 5.4	2.02		ug/L	
	3	5.46	5.43 – 5.49	1.92		ug/L	
	4	5.52	5.49 – 5.55	2.02		ug/L	
	5	5.62	5.59 – 5.65	2.04		ug/L	
					1.95		
Column 2	1	6.06	6.02 – 6.08	2.92		ug/L	
	2	6.12	6.09 – 6.15	2.41		ug/L	
	3	6.19	6.16 – 6.22	2.56		ug/L	
	4	6.25	6.22 – 6.28	2.27		ug/L	
	5	6.38	6.35 – 6.41	2.45		ug/L	
					2.52		

QUALITY CONTROL DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2005**			**Matrix:**	**WATER**
Lab Sample ID:	**1202054045**				
Client Sample:	**QC for batch 957866**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 957866**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**957867**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 00:27**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/26/2010 14:34**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**033f3301.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	033b3301.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.020	ug/L	0.005	0.020	1
58–89–9	gamma–BHC (Lindane)	U	0.020	ug/L	0.005	0.020	1
319–85–7	beta–BHC	U	0.020	ug/L	0.006	0.020	1
319–86–8	delta–BHC	U	0.020	ug/L	0.005	0.020	1
76–44–8	Heptachlor	U	0.020	ug/L	0.005	0.020	1
309–00–2	Aldrin	U	0.020	ug/L	0.005	0.020	1
1024–57–3	Heptachlor epoxide	U	0.020	ug/L	0.005	0.020	1
5103–74–2	gamma–Chlordane	U	0.020	ug/L	0.005	0.020	1
5103–71–9	alpha–Chlordane	U	0.020	ug/L	0.005	0.020	1
959–98–8	Endosulfan I	U	0.020	ug/L	0.005	0.020	1
72–55–9	4,4'–DDE	U	0.040	ug/L	0.005	0.040	1
60–57–1	Dieldrin	U	0.040	ug/L	0.010	0.040	1
72–20–8	Endrin	U	0.040	ug/L	0.010	0.040	1
72–54–8	4,4'–DDD	U	0.040	ug/L	0.010	0.040	1
33213–65–9	Endosulfan II	U	0.040	ug/L	0.010	0.040	1
7421–93–4	Endrin aldehyde	U	0.040	ug/L	0.005	0.040	1
50–29–3	4,4'–DDT	U	0.040	ug/L	0.010	0.040	1
1031–07–8	Endosulfan sulfate	U	0.040	ug/L	0.010	0.040	1
72–43–5	Methoxychlor	U	0.200	ug/L	0.050	0.200	1
53494–70–5	Endrin ketone	U	0.040	ug/L	0.010	0.040	1
8001–35–2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.544	1.00	ug/L	54.4	(30%–105%)
Decachlorobiphenyl	0.566	1.00	ug/L	56.6	(30%–126%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022610.b/033f3301.d
Lab Smp Id: 1202054045 Client Smp ID: PBLK01
Inj Date : 27-FEB-2010 00:27
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202054045|1|
Misc Info : |ECD81A_1L|957867|SVP|MB|WATER|MB|||
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 33 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.877	2.879	-0.002	88865264	108.806	0.544	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.101	8.102	-0.001	69727684	117.210	0.586	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/033f3301.d

Date : 27-FEB-2010 00:27

Client ID: PBLK01

Sample Info: |1202054045|1|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

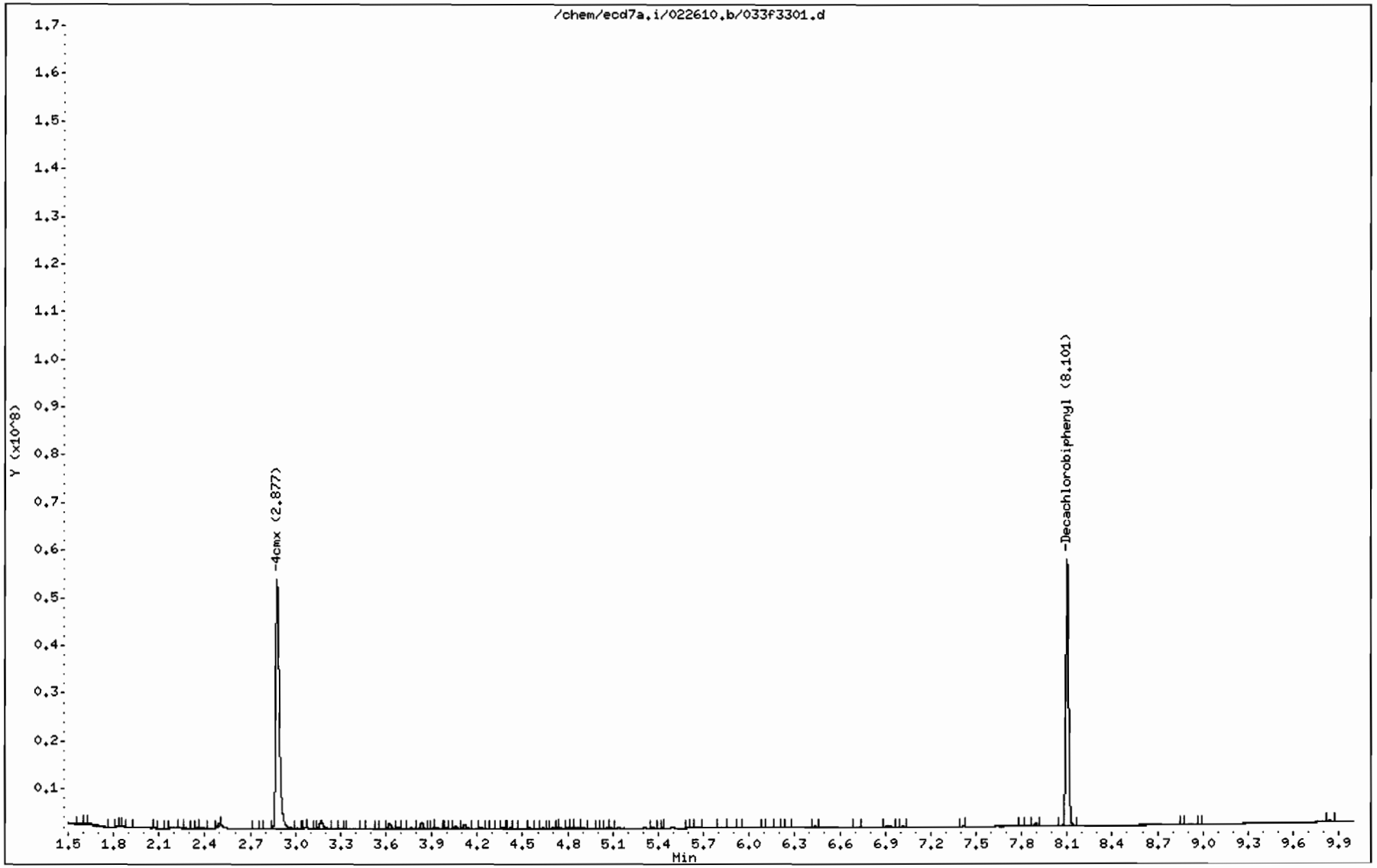

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022610.b/033b3301.d
Lab Smp Id: 1202054045 Client Smp ID: PBLK01
Inj Date : 27-FEB-2010 00:27
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202054045|1|
Misc Info : |ECD81A_1L|957867|SVP|MB|WATER|MB|||
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 33 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.193	3.195	-0.002	67504688	112.743	0.564	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.299	9.300	-0.001	42394352	113.211	0.566	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/033b3301.d

Page 1

Date : 27-FEB-2010 00:27

Client ID: PBLK01

Instrument: ecd7a.i

Sample Info: |120205404511|

Volume Injected (uL): 1.0

Operator: HXJ1

Column phase: CLP-2

Column diameter: 0.25

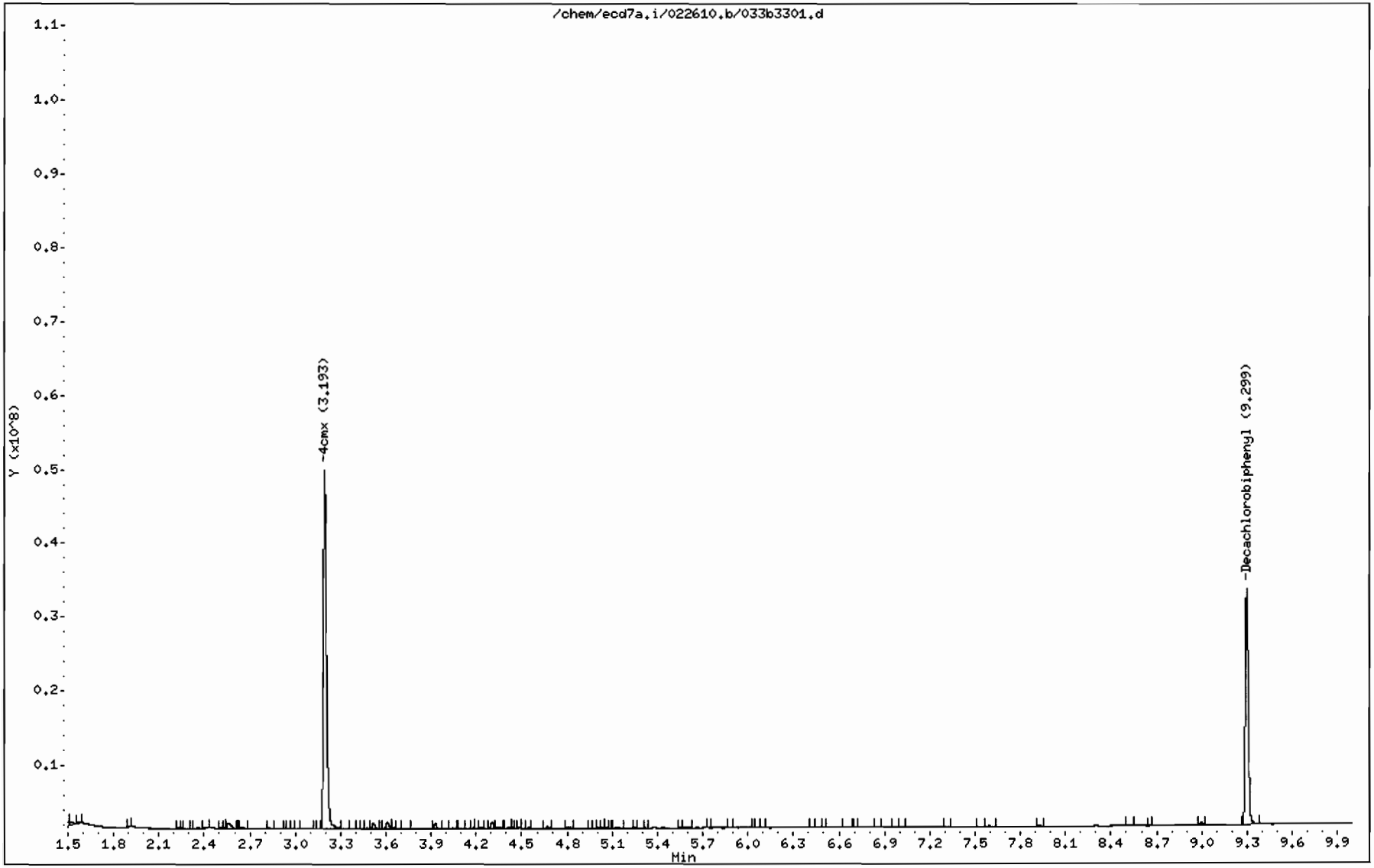

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2005**			**Matrix:**	**WATER**
Lab Sample ID:	**1202054046**				
Client Sample:	**QC for batch 957866**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 957866**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**957867**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 00:44**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/26/2010 14:34**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**034f3401.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	034b3401.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC		0.387	ug/L	0.005	0.020	1
58–89–9	gamma–BHC (Lindane)		0.393	ug/L	0.005	0.020	1
319–85–7	beta–BHC		0.376	ug/L	0.006	0.020	1
319–86–8	delta–BHC		0.391	ug/L	0.005	0.020	1
76–44–8	Heptachlor		0.327	ug/L	0.005	0.020	1
309–00–2	Aldrin		0.277	ug/L	0.005	0.020	1
1024–57–3	Heptachlor epoxide		0.369	ug/L	0.005	0.020	2
5103–74–2	gamma–Chlordane		0.339	ug/L	0.005	0.020	1
5103–71–9	alpha–Chlordane		0.353	ug/L	0.005	0.020	1
959–98–8	Endosulfan I		0.372	ug/L	0.005	0.020	1
72–55–9	4,4'–DDE		0.890	ug/L	0.005	0.040	1
60–57–1	Dieldrin		0.893	ug/L	0.010	0.040	1
72–20–8	Endrin		1.04	ug/L	0.010	0.040	2
72–54–8	4,4'–DDD		1.02	ug/L	0.010	0.040	2
33213–65–9	Endosulfan II		0.935	ug/L	0.010	0.040	1
7421–93–4	Endrin aldehyde		0.863	ug/L	0.005	0.040	1
50–29–3	4,4'–DDT		0.976	ug/L	0.010	0.040	1
1031–07–8	Endosulfan sulfate		0.955	ug/L	0.010	0.040	2
72–43–5	Methoxychlor		3.79	ug/L	0.050	0.200	1
53494–70–5	Endrin ketone		0.903	ug/L	0.010	0.040	2
8001–35–2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.449	1.00	ug/L	44.9	(30%–105%)
Decachlorobiphenyl	0.679	1.00	ug/L	67.9	(30%–126%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022610.b/034f3401.d
Lab Smp Id: 1202054046 Client Smp ID: PBLK01LCS
Inj Date : 27-FEB-2010 00:44
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202054046|1|
Misc Info : |ECD81A_1L|957867|SVP|LCS|WATER|LCS|||
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 34 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.877	2.879	-0.002	73326138	89.7804	0.449	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.101	8.102	-0.001	83665130	140.638	0.703	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.296	3.298	-0.002	90117062	77.4572	0.387	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.548	3.549	-0.001	82199280	78.5991	0.393	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.613	3.614	-0.001	35399356	75.2134	0.376	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.767	3.768	-0.001	81877445	78.2849	0.391	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.943	3.945	-0.002	54673163	65.4926	0.327	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.208	4.210	-0.002	54925178	55.3446	0.277	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.755	4.757	-0.002	65300936	74.1156	0.370	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.872	4.874	-0.002	59458072	67.8940	0.339	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.997	4.999	-0.002	61639567	70.5249	0.353	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.134	5.135	-0.001	59192473	74.3832	0.372	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.060	5.062	-0.002	143175758	177.924	0.890	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.365	5.367	-0.002	151528691	178.673	0.893	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.598	5.600	-0.002	140991538	207.923	1.04	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.650	5.653	-0.003	130035651	204.659	1.02	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.824	5.826	-0.002	136802807	187.067	0.935	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.252	6.255	-0.003	107603559	172.692	0.863	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.934	5.937	-0.003	116256125	195.210	0.976	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.708	6.711	-0.003	124583655	192.756	0.964	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.435	6.438	-0.003	202043863	757.102	3.78	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.012	7.014	-0.002	150511485	181.897	0.909	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/034f3401.d
Date : 27-FEB-2010 00:44
Client ID: PBLK01LCS
Sample Info: |1202054046|1|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

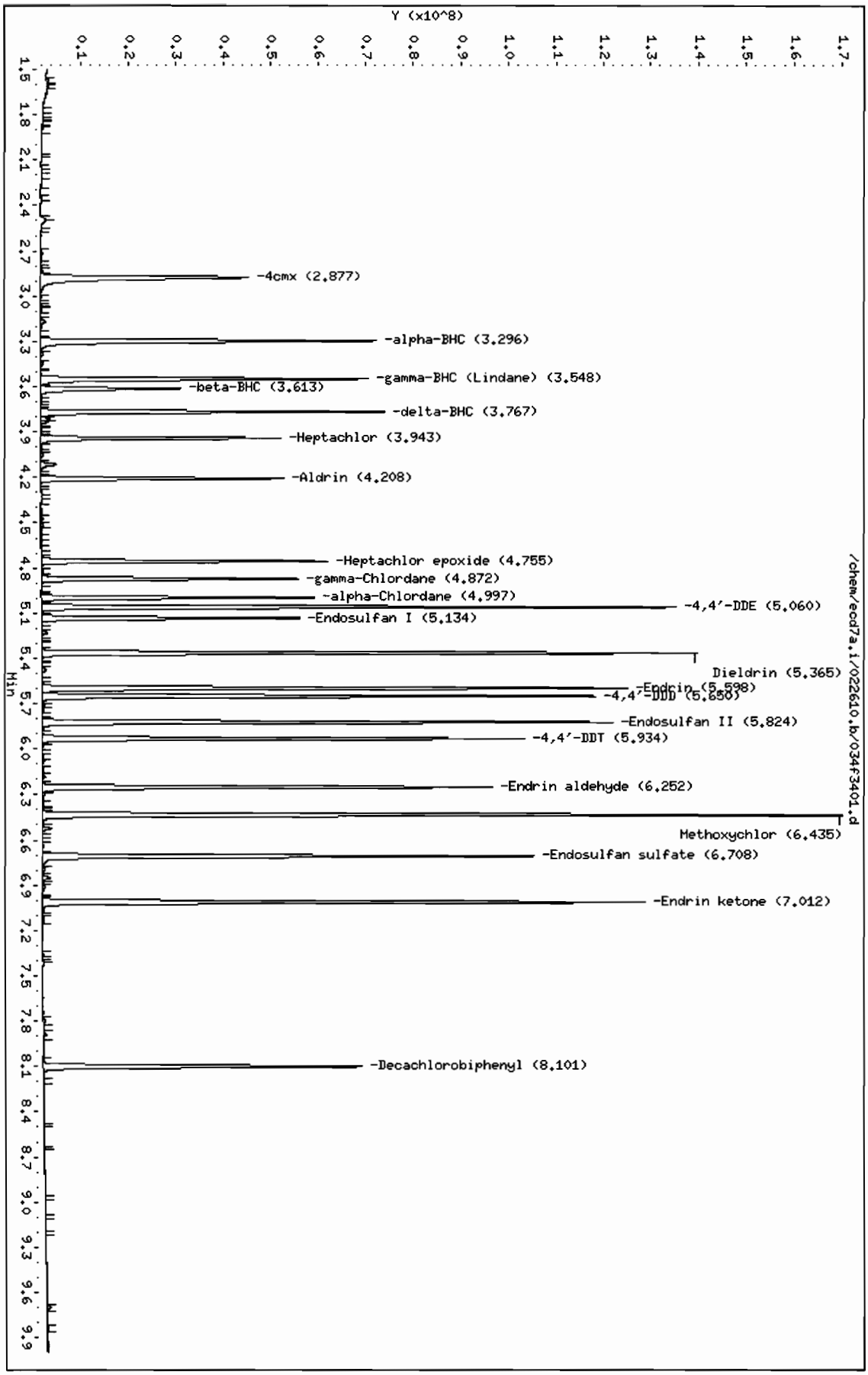

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CLP-2

Data file : /chem/ecd7a.i/022610.b/034b3401.d
Lab Smp Id: 1202054046 Client Smp ID: PBLK01LCS
Inj Date : 27-FEB-2010 00:44
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202054046|1|
Misc Info : |ECD81A_1L|957867|SVP|LCS|WATER|LCS|||
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 34 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.193	3.195	-0.002	56160143	93.7962	0.469	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.299	9.300	-0.001	50821786	135.716	0.678	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.720	3.721	-0.001	62241147	79.2221	0.396	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.049	4.050	-0.001	55057785	80.0158	0.400	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
4.113	4.114	-0.001	24869437	76.7723	0.384	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.403	4.404	-0.001	56150326	81.5138	0.408	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.485	4.486	-0.001	33027514	66.1719	0.331	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.816	4.817	-0.001	37362733	55.5169	0.278	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.385	5.386	-0.001	42328029	73.7551	0.369	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.582	5.583	-0.001	40874785	69.5067	0.348	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.732	5.734	-0.002	41691045	70.8948	0.354	80.00- 120.00	100.00
16 Endosulfan 1					CAS #: 959-98-8		
5.802	5.804	-0.002	39378298	74.5584	0.373	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.883	5.884	-0.001	95413083	182.995	0.915	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.091	6.092	-0.001	94500771	182.462	0.912	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.421	6.422	-0.001	83693936	207.356	1.04	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.503	6.504	-0.001	77270233	203.544	1.02	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.646	6.647	-0.001	89572359	187.890	0.939	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.007	7.008	-0.001	67932028	177.000	0.885	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.849	6.850	-0.001	62983279	197.325	0.987	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.313	7.313	0.000	79647320	191.055	0.955	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.594	7.596	-0.002	109478029	806.948	4.03	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.924	7.924	0.000	90669375	180.532	0.903	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/034b3401.d
Date : 27-FEB-2010 00:44
Client ID: PBLK01LCS
Sample Info: 1420205404611
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

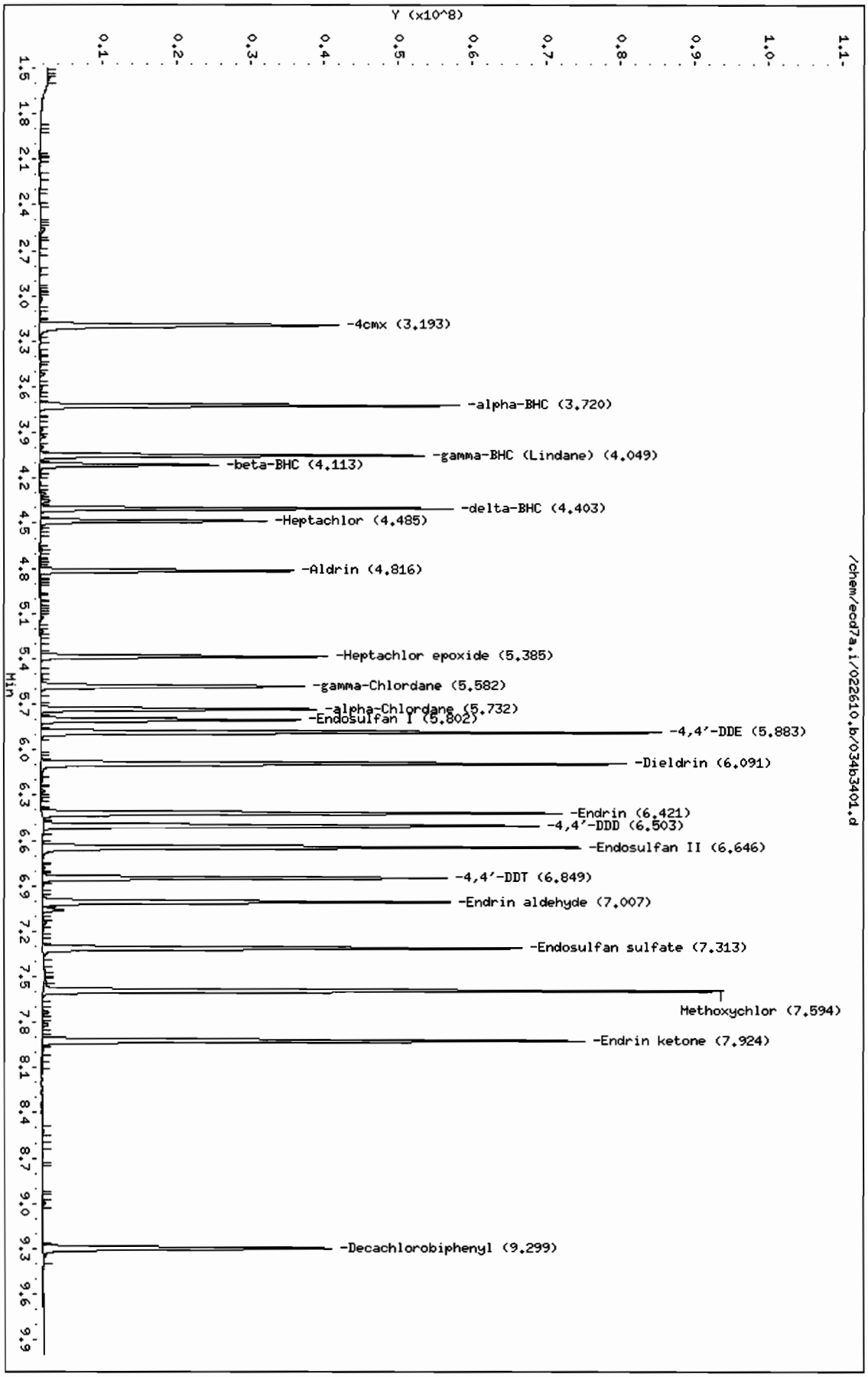

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Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2005**			**Matrix:**	**WATER**
Lab Sample ID:	**1202054049**				
Client Sample:	**QC for batch 957866**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 957866**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**957867**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**02/27/2010 01:01**	**Analyst:**	**HXJ1**	**Inj. Vol:**	**1 uL**
Prep Date:	**02/26/2010 14:34**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**035f3501.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	035b3501.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.020	ug/L	0.005	0.020	1
58–89–9	gamma–BHC (Lindane)	U	0.020	ug/L	0.005	0.020	1
319–85–7	beta–BHC	U	0.020	ug/L	0.006	0.020	1
319–86–8	delta–BHC	U	0.020	ug/L	0.005	0.020	1
76–44–8	Heptachlor	U	0.020	ug/L	0.005	0.020	1
309–00–2	Aldrin	U	0.020	ug/L	0.005	0.020	1
1024–57–3	Heptachlor epoxide	U	0.020	ug/L	0.005	0.020	1
5103–74–2	gamma–Chlordane	U	0.020	ug/L	0.005	0.020	1
5103–71–9	alpha–Chlordane	U	0.020	ug/L	0.005	0.020	1
959–98–8	Endosulfan I	U	0.020	ug/L	0.005	0.020	1
72–55–9	4,4'–DDE	U	0.040	ug/L	0.005	0.040	1
60–57–1	Dieldrin	U	0.040	ug/L	0.010	0.040	1
72–20–8	Endrin	U	0.040	ug/L	0.010	0.040	1
72–54–8	4,4'–DDD	U	0.040	ug/L	0.010	0.040	1
33213–65–9	Endosulfan II	U	0.040	ug/L	0.010	0.040	1
7421–93–4	Endrin aldehyde	U	0.040	ug/L	0.005	0.040	1
50–29–3	4,4'–DDT	U	0.040	ug/L	0.010	0.040	1
1031–07–8	Endosulfan sulfate	U	0.040	ug/L	0.010	0.040	1
72–43–5	Methoxychlor	U	0.200	ug/L	0.050	0.200	1
53494–70–5	Endrin ketone	U	0.040	ug/L	0.010	0.040	1
8001–35–2	Toxaphene		1.95	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.452	1.00	ug/L	45.2	(30%–105%)
Decachlorobiphenyl	0.594	1.00	ug/L	59.4	(30%–126%)

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CLP-1

Data file : /chem/ecd7a.i/022610.b/035f3501.d
Lab Smp Id: 1202054049 Client Smp ID: PBLK01TLCS
Inj Date : 27-FEB-2010 01:01
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202054049|1|
Misc Info : |ECD81A_1L|957867|SVP|TLCS|WATER|TLCS|||
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 35 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.876	2.879	-0.003	73907243	90.4919	0.452	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.100	8.102	-0.002	72255756	121.460	0.607	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.265	5.266	-0.001	2539928	346.289	1.73	80.00- 120.00	100.00
5.370	5.371	-0.001	4206124	403.240	2.02	127.30- 167.30	165.60
5.458	5.459	-0.001	4675841	384.120	1.92	151.29- 191.29	184.09
5.520	5.519	0.001	6435127	404.933	2.02	202.81- 242.81	253.36
5.618	5.621	-0.003	6342807	408.133	2.04	171.97- 211.97	249.72

Average of Peak Concentrations = 1.95

Data File: /chem/ecd7a.i/022610.b/035f3501.d

Date : 27-FEB-2010 01:01

Client ID: PBLK01TLCS

Sample Info: |120205404911|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

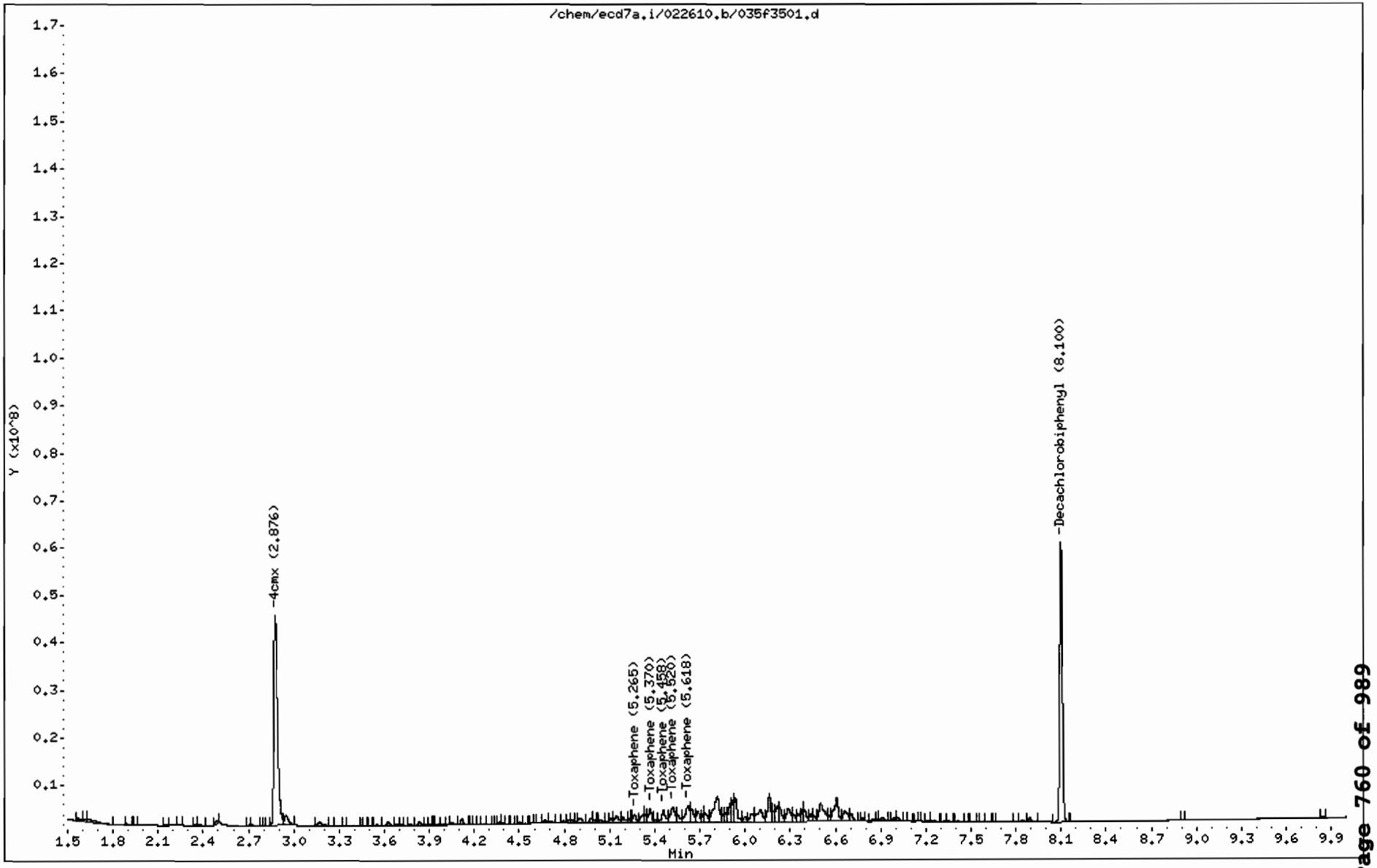

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022610.b/035b3501.d
Lab Smp Id: 1202054049 Client Smp ID: PBLK01TLCS
Inj Date : 27-FEB-2010 01:01
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202054049|1|
Misc Info : |ECD81A_1L|957867|SVP|TLCS|WATER|TLCS|||
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 35 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.193	3.195	-0.002	57140829	95.4341	0.477	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.299	9.300	-0.001	44451932	118.706	0.594	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
6.057	6.054	0.003	5694038	584.906	2.92	80.00- 120.00	100.00(M)
6.123	6.123	0.000	2116915	481.849	2.41	18.22- 58.22	37.18
6.186	6.187	-0.001	2551923	511.304	2.56	32.72- 72.72	44.82
6.249	6.249	0.000	2604671	453.773	2.27	36.53- 76.53	45.74
6.380	6.381	-0.001	3773728	489.085	2.44	57.58- 97.58	66.28

Average of Peak Concentrations = 2.52

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/022610.b/035b3501.d

Date : 27-FEB-2010 01:01

Client ID: PBLK01TLCS

Sample Info: |1202054049|1|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

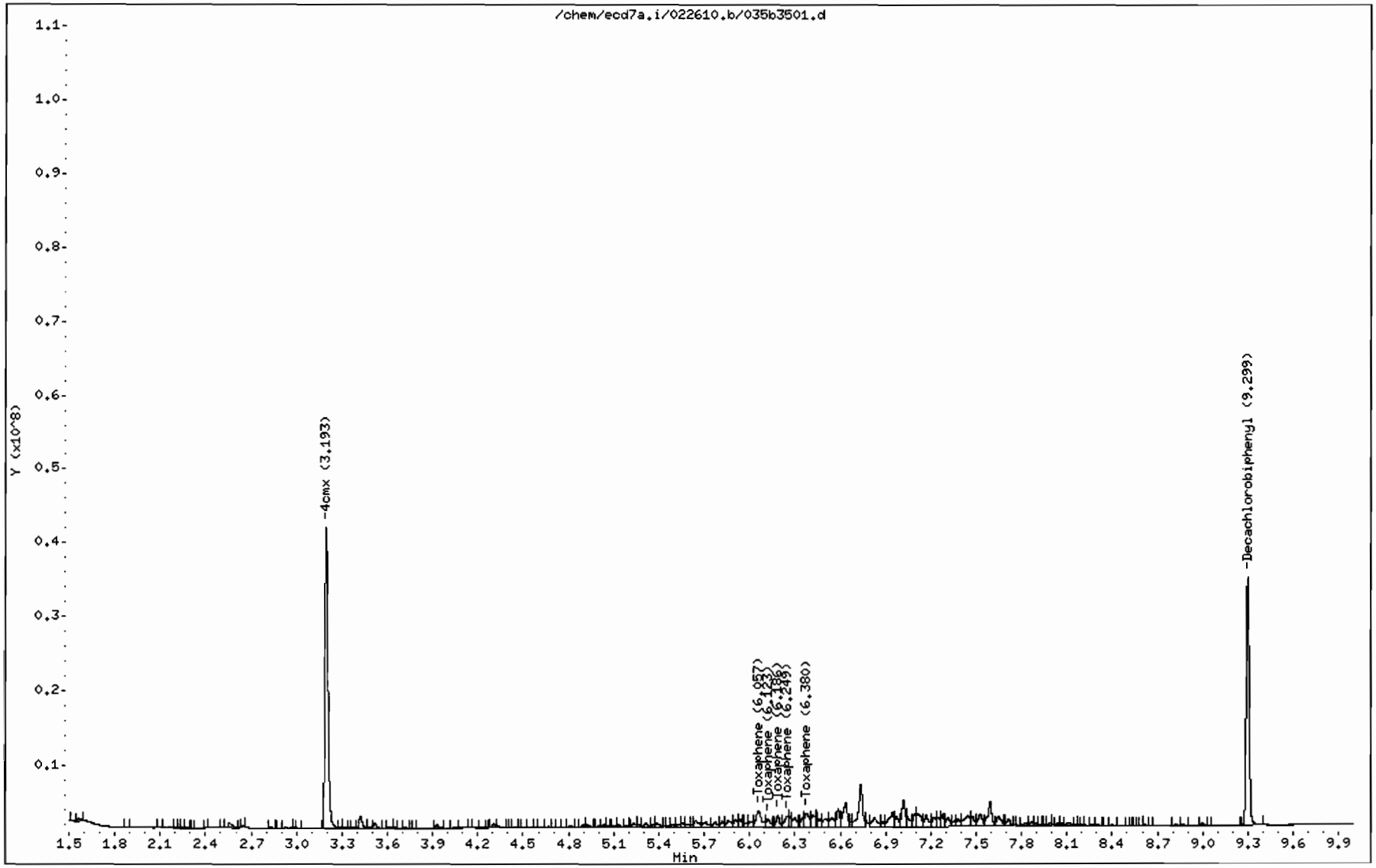

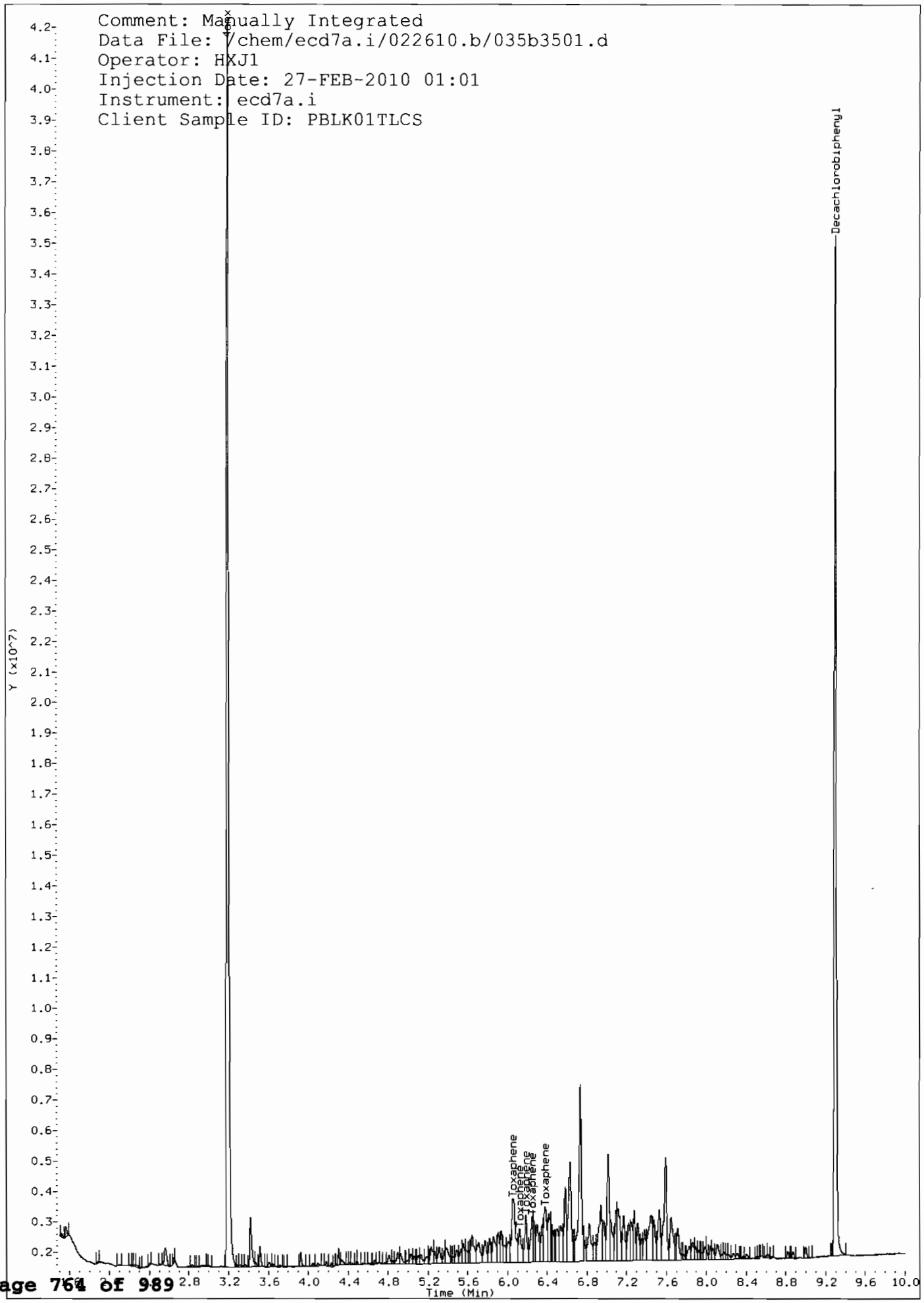
Comment: Manually Integrated
Data File: /chem/ecd7a.i/022610.b/035b3501.d
Operator: HXJ1
Injection Date: 27-FEB-2010 01:01
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

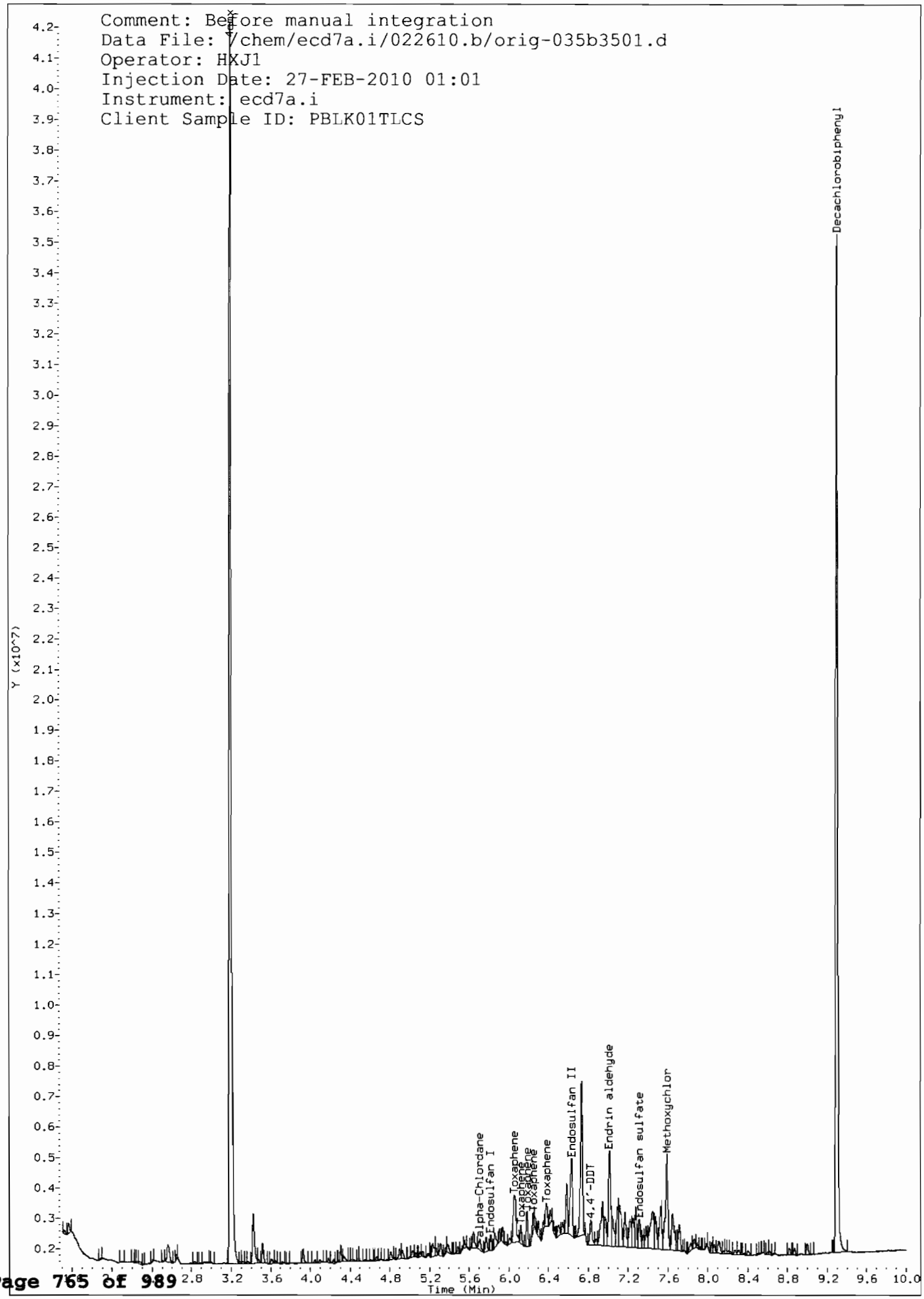
Comment: Before manual integration
Data File: /chem/ecd7a.i/022610.b/orig-035b3501.d
Operator: HXJ1
Injection Date: 27-FEB-2010 01:01
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS
Decachlorobiphenyl
alpha-Chlordane
Endosulfan I
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Methoxychlor
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD7

DATE: 02/24/2010 METHOD: ECD7-B-8081-022310.m OPERATOR:JXM REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT
MERCURY LOT

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-041 Organochlorine Pesticides and Chlorinated Hydrocarbons: EPA 8081
8121
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, BD-Percent Endrin and 4,4'-DDT Breakdown, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd7a.i/022410.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR100219-99IB	JXM	24-FEB-2010 13:59		022410	1.0		CLEAN
002b0201.d	WPE100211-99DG	JXM	24-FEB-2010 14:16		022410	1.0		(B)DDT 5.2, ENDRIN 5.8 (F)DDT 2.7, ENDRIN 4.9
003b0301.d	WPE100211-10AB	JXM	24-FEB-2010 14:33		022410	1.0		DUSE
004b0401.d	WPE100125-52TX	JXM	24-FEB-2010 14:50		022410	1.0		DUSE
005b0501.d	WPE100114-05GA	JXM	24-FEB-2010 15:07		022410	1.0		PASSES FOR CARE
006b0601.d	WPE100116-00CL	JXM	24-FEB-2010 15:24		022410	1.0		DUSE
007b0701.d	WPE100224-01AB	JXM	24-FEB-2010 15:41		022410	1.0		INDAB LEVEL 1
008b0801.d	WPE100224-02AB	JXM	24-FEB-2010 15:58		022410	1.0		INDAB LEVEL 2
009b0901.d	WPE100224-03AB	JXM	24-FEB-2010 16:15		022410	1.0		INDAB LEVEL 3
010b1001.d	WPE100224-04AB	JXM	24-FEB-2010 16:32		022410	1.0		INDAB LEVEL 4
011b1101.d	IPE100204-02AB	JXM	24-FEB-2010 16:49		022410	1.0		INDAB LEVEL 5
012b1201.d	WPE100211-10AB	JXM	24-FEB-2010 17:06		022410	1.0		PASSES BOTH COLUMNS
013b1301.d	WPE100224-11TX	JXM	24-FEB-2010 17:24		022410	1.0		TOXAPH LEVEL 1
014b1401.d	WPE100224-12TX	JXM	24-FEB-2010 17:41		022410	1.0		TOXAPH LEVEL 2
015b1501.d	WPE100224-13TX	JXM	24-FEB-2010 17:58		022410	1.0		TOXAPH LEVEL 3

Instrument Batch: /chem/ecd7a.i/022410.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016b1601.d	WPE100224-14TX	JXM	24-FEB-2010 18:15		022410		1.0		TOXAPH LEVEL 4
017b1701.d	IPE100204-40TX	JXM	24-FEB-2010 18:32		022410		1.0		TOXAPH LEVEL 5
018b1801.d	WPE100125-52TX	JXM	24-FEB-2010 18:49		022410		1.0		PASSES BOTH COLUMNS
019b1901.d	WPE100224-21CL	JXM	24-FEB-2010 19:06		022410		1.0		CHLOR LEVEL 1
020b2001.d	WPE100224-22CL	JXM	24-FEB-2010 19:23		022410		1.0		CHLOR LEVEL 2
021b2101.d	WPE100224-23CL	JXM	24-FEB-2010 19:40		022410		1.0		CHLOR LEVEL 3
022b2201.d	WPE100224-24CL	JXM	24-FEB-2010 19:57		022410		1.0		CHLOR LEVEL 4
023b2301.d	IPE100116-06CL	JXM	24-FEB-2010 20:14		022410		1.0		CHLOR LEVEL 5
024b2401.d	WPE100116-00CL	JXM	24-FEB-2010 20:31		022410		1.0		PASSES BOTH COLUMNS
025b2501.d	WAR100219-99IB	JXM	24-FEB-2010 20:48		022410		1.0		CLEAN
026b2601.d	WPE100211-99DG	JXM	24-FEB-2010 21:05		022410		1.0		(B)DDT 8.0, ENDRIN 7.7 (F)DDT 6.0, ENDRIN 6.5
027b2701.d	1202050661	JXM	24-FEB-2010 21:22	956349	EUI-7516		1.0	MB	USE: HIGHER
028b2801.d	1202050662	JXM	24-FEB-2010 21:39	956349	EUI-7516		1.0	LCS	USE: HIGHER
029b2901.d	1202050663	JXM	24-FEB-2010 21:56	956349	EUI-7516		1.0	LCSD	USE: HIGHER
030b3001.d	247409001	JXM	24-FEB-2010 22:14	956349	EUI-7516		1.0	CARE	USE: HIGHER
031b3101.d	WAR100219-99IB	JXM	24-FEB-2010 22:31		022410		1.0		CLEAN
032b3201.d	WPE100211-10AB	JXM	24-FEB-2010 22:48		022410		1.0		PASSES BOTH COLUMNS
033b3301.d	WAR100219-99IB	JXM	24-FEB-2010 23:05		022410		1.0		CLEAN
034b3401.d	1202048141	JXM	24-FEB-2010 23:22	955272	247009		1.0	MB	USE: HIGHER
035b3501.d	1202048142	JXM	24-FEB-2010 23:39	955272	247009		1.0	LCS	USE: HIGHER

Instrument Batch: /chem/ecd7a.i/022410.b Page: 2

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	247009002	JXM	24-FEB-2010 23:56	955272	247009	1.0	CLSS	USE: HIGHER
037b3701.d	1202048143	JXM	25-FEB-2010 00:13	955272	247009	1.0	MS	USE: HIGHER
038b3801.d	1202048144	JXM	25-FEB-2010 00:30	955272	247009	1.0	MSD	USE: HIGHER
039b3901.d	247009003	JXM	25-FEB-2010 00:47	955272	247009	1.0	CLSS	USE: HIGHER
040b4001.d	WAR100219-99IB	JXM	25-FEB-2010 01:04		022410	1.0		MATRIX CARRYOVER

041b4101.d	WPE100211-10AB	JXM	25-FEB-2010 01:21		022410	1.0		PASSES BOTH COLUMNS
042b4201.d	WAR100219-99IB	JXM	25-FEB-2010 01:38		022410	1.0		SLIGHT MATRIX CARRYOVER
043b4301.d	245420001	JXM	25-FEB-2010 01:55	955536	NY-330_SHW	5.0	PTQA	USE: HIGHER
044b4401.d	1202048594	JXM	25-FEB-2010 02:12	955536	NY-330_SHW	5.0	DUP	USE: HIGHER
045b4501.d	WAR100219-99IB	JXM	25-FEB-2010 02:29		022410	1.0		SLIGHT MATRIX CARRYOVER
046b4601.d	245420001	JXM	25-FEB-2010 02:46	955536	NY-330_SHW	10.0	SVP	DUSE: WRONG SAMPLE DILUTED AND ANALYZED
047b4701.d	1202048594	JXM	25-FEB-2010 03:03	955536	NY-330_SHW	10.0	SVP	DUSE: WRONG SAMPLE DILUTED AND ANALYZED
048b4801.d	WAR100219-99IB	JXM	25-FEB-2010 03:20		022410	1.0		MATRIX CARRYOVER
049b4901.d	WPE100211-10AB	JXM	25-FEB-2010 03:37		022410	1.0		DDT AND METH. LOW ON FRONT
050b5001.d	WAR100219-99IB	JXM	25-FEB-2010 03:54		022410	1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD7

DATE: 02/25/2010 METHOD: ECD7-B-8081-022310.m OPERATOR:JXM REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT
MERCURY LOT

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-041 Organochlorine Pesticides and Chlorinated Hydrocarbons: EPA 8081
8121
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, BD-Percent Endrin and 4,4'-DDT Breakdown, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd7a.i/022510.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR100219-99IB	JXM	25-FEB-2010 09:58		022510	1.0		CLEAN
002b0201.d	WPE100211-99DG	JXM	25-FEB-2010 10:15		022510	1.0		(B)DDT 4.8, ENDRIN 4.8 (F)DDT 2.3, ENDRIN 3.8
003b0301.d	WPE100211-10AB	JXM	25-FEB-2010 10:32		022510	1.0		DUSE
004b0401.d	WPE100125-52TX	JXM	25-FEB-2010 10:49		022510	1.0		PASSES BOTH COLUMNS
005b0501.d	WPE100116-00CL	JXM	25-FEB-2010 11:06		022510	1.0		PASSES AVERAGE
006b0601.d	WPE100114-05GA	JXM	25-FEB-2010 11:23		022510	1.0		DUSE
007b0701.d	WPE100225-01AB	JXM	25-FEB-2010 11:40		022510	1.0		INDAB LEVEL 1
008b0801.d	WPE100225-02AB	JXM	25-FEB-2010 11:57		022510	1.0		INDAB LEVEL 2
009b0901.d	WPE100225-03AB	JXM	25-FEB-2010 12:14		022510	1.0		INDAB LEVEL 3
010b1001.d	WPE100225-04AB	JXM	25-FEB-2010 12:31		022510	1.0		INDAB LEVEL 4
011b1101.d	IPE100204-02AB	JXM	25-FEB-2010 12:48		022510	1.0		INDAB LEVEL 5
012b1201.d	WPE100211-10AB	JXM	25-FEB-2010 13:05		022510	1.0		PASSES BOTH COLUMNS
013b1301.d	WAR100219-99IB	JXM	25-FEB-2010 13:22		022510	1.0		CLEAN
014b1401.d	1202051332	JXM	25-FEB-2010 13:39	956713	10-1926	1.0	MB	USE: LOWER
015b1501.d	1202051333	JXM	25-FEB-2010 13:56	956713	10-1926	1.0	LCS	USE: LOWER

Instrument Batch: /chem/ecd7a.i/022510.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016b1601.d	1202051336	JXM	25-FEB-2010 14:13	956713	10-1926		1.0	TLCS	USE: LOWER
017b1701.d	247429001	JXM	25-FEB-2010 14:30	956713	10-1926		1.0	LANL	USE: LOWER
018b1801.d	1202051334	JXM	25-FEB-2010 14:47	956713	10-1926		1.0	MS	USE: LOWER
019b1901.d	1202051335	JXM	25-FEB-2010 15:04	956713	10-1926		1.0	MSD	USE: LOWER
020b2001.d	247432002	JXM	25-FEB-2010 15:21	956713	10-1928		1.0	LANL	USE: LOWER, SURR. FAILURE CONFIRMS IN PCB BATCH 956749
021b2101.d	247437002	JXM	25-FEB-2010 15:38	956713	10-1931		1.0	LANL	USE: LOWER
022b2201.d	247440002	JXM	25-FEB-2010 15:55	956713	10-1933		1.0	LANL	USE: LOWER, SURR. FAILS, REEXTRACTED
023b2301.d	247443002	JXM	25-FEB-2010 16:12	956713	10-1935		1.0	LANL	USE: LOWER, SURR. FAILS, REEXTRACTED
024b2401.d	WPE100211-10AB	JXM	25-FEB-2010 16:29		022510		1.0		ALPHA-CHL., ALDEHYDE AND KETONE FAILS BOTH COLUMNS
025b2501.d	WAR100219-99IB	JXM	25-FEB-2010 16:46		022510		1.0		CLEAN
026b2601.d	1202045739	JXM	25-FEB-2010 17:03	956706	10-1706-1		1.0	TB	USE: LOWER
027b2701.d	1202048692	JXM	25-FEB-2010 17:20	956706	10-1706-1		1.0	TB	USE: LOWER
028b2801.d	1202051309	JXM	25-FEB-2010 17:38	956706	10-1706-1		1.0	MB	USE: LOWER
029b2901.d	1202051316	JXM	25-FEB-2010 17:55	956706	10-1706-1		1.0	LCS	USE: LOWER
030b3001.d	1202051317	JXM	25-FEB-2010 18:12	956706	10-1706-1		1.0	TLCS	USE: LOWER
031b3101.d	1202051318	JXM	25-FEB-2010 18:29	956706	10-1706-1		1.0	CLCS	USE: LOWER
032b3201.d	WAR100219-99IB	JXM	25-FEB-2010 18:46		022510		1.0		CLEAN
033b3301.d	WPE100211-10AB	JXM	25-FEB-2010 19:03		022510		1.0		PASSES BOTH COLUMNS
034b3401.d	WAR100219-99IB	JXM	25-FEB-2010 19:20		022510		1.0		CLEAN
035b3501.d	WPE100211-99DG	JXM	25-FEB-2010 19:37		022510		1.0		(B)DDT 8.5, ENDRIN 5.4 (F)DDT 7.0, ENDRIN 4.5

Instrument Batch: /chem/ecd7a.i/022510.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	246683001	JXM	25-FEB-2010 19:54	956706	10-1706-1	1.0	LANL	USE: LOWER
037b3701.d	1202051310	JXM	25-FEB-2010 20:11	956706	10-1706-1	1.0	MS	USE: LOWER
038b3801.d	1202051313	JXM	25-FEB-2010 20:28	956706	10-1706-1	1.0	MSD	USE: LOWER
039b3901.d	1202051311	JXM	25-FEB-2010 20:45	956706	10-1706-1	1.0	TMS	USE: LOWER
040b4001.d	1202051314	JXM	25-FEB-2010 21:02	956706	10-1706-1	1.0	TMSD	USE: LOWER

041b4101.d	1202051312	JXM	25-FEB-2010 21:19	956706	10-1706-1	1.0	CMS	USE: LOWER	
042b4201.d	1202051315	JXM	25-FEB-2010 21:36	956706	10-1706-1	1.0	CMSD	USE: LOWER	
043b4301.d	246683002	JXM	25-FEB-2010 21:53	956706	10-1706-1	1.0	LANL	USE: LOWER	
044b4401.d	246683003	JXM	25-FEB-2010 22:10	956706	10-1706-1	1.0	LANL	USE: LOWER	
045b4501.d	246683004	JXM	25-FEB-2010 22:27	956706	10-1706-1	1.0	LANL	USE: LOWER	
046b4601.d	WAR100219-99IB	JXM	25-FEB-2010 22:44		022510	1.0		CLEAN	
047b4701.d	WPE100211-10AB	JXM	25-FEB-2010 23:01		022510	1.0		PASSES BOTH COLUMNS	
048b4801.d	WAR100219-99IB	JXM	25-FEB-2010 23:18		022510	1.0		CLEAN	
049b4901.d	246683005	JXM	25-FEB-2010 23:35	956706	10-1706-1	1.0	LANL	USE: LOWER	
050b5001.d	246683006	JXM	25-FEB-2010 23:52	956706	10-1706-1	1.0	LANL	USE: LOWER	
051b5101.d	246683007	JXM	26-FEB-2010 00:09	956706	10-1706-1	1.0	LANL	USE: LOWER	
052b5201.d	246683008	JXM	26-FEB-2010 00:26	956706	10-1706-1	1.0	LANL	USE: LOWER	
053b5301.d	WAR100219-99IB	JXM	26-FEB-2010 00:43		022510	1.0		CLEAN	
054b5401.d	WPE100211-10AB	JXM	26-FEB-2010 01:00		022510	1.0		PASSES BOTH COLUMNS	
055b5501.d	WAR100219-99IB	JXM	26-FEB-2010 01:17		022510	1.0		CLEAN	

Instrument Batch: /chem/ecd7a.i/022510.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056b5601.d	1202051535	JXM	26-FEB-2010 01:34	956820	247311	1.0	MB	USE: HIGHER
057b5701.d	1202051536	JXM	26-FEB-2010 01:51	956820	247311	1.0	LCS	USE: HIGHER
058b5801.d	1202051539	JXM	26-FEB-2010 02:08	956820	247311	1.0	TLCS	USE: HIGHER
059b5901.d	247311005	JXM	26-FEB-2010 02:25	956820	247311	10.0	BY12	USE: HIGHER
060b6001.d	247311006	JXM	26-FEB-2010 02:42	956820	247311	10.0	BY12	USE: HIGHER
061b6101.d	247311010	JXM	26-FEB-2010 02:59	956820	247311	10.0	BY12	USE: HIGHER
062b6201.d	247311014	JXM	26-FEB-2010 03:16	956820	247311	10.0	BY12	USE: HIGHER
063b6301.d	247311019	JXM	26-FEB-2010 03:33	956820	247311	10.0	BY12	USE: HIGHER
064b6401.d	247311020	JXM	26-FEB-2010 03:50	956820	247311	10.0	BY12	USE: HIGHER

065b6501.d	247311024	JXM	26-FEB-2010 04:07	956820	247311		10.0	BY12	USE: HIGHER
066b6601.d	WAR100219-99IB	JXM	26-FEB-2010 04:24		022510		1.0		MATRIX CARRYOVER
067b6701.d	WPE100211-10AB	JXM	26-FEB-2010 04:41		022510		1.0		PASSES BOTH COLUMNS
068b6801.d	WAR100219-99IB	JXM	26-FEB-2010 04:58		022510		1.0		CLEAN
069b6901.d	247311027	JXM	26-FEB-2010 05:15	956820	247311		10.0	BY12	USE: HIGHER
070b7001.d	247311031	JXM	26-FEB-2010 05:32	956820	247311		10.0	BY12	USE: HIGHER
071b7101.d	1202051544	JXM	26-FEB-2010 05:49	956820	247311		10.0	MS	USE: HIGHER
072b7201.d	1202051545	JXM	26-FEB-2010 06:06	956820	247311		10.0	MSD	USE: HIGHER
073b7301.d	WAR100219-99IB	JXM	26-FEB-2010 06:23		022510		1.0		CLEAN
074b7401.d	WPE100211-10AB	JXM	26-FEB-2010 06:40		022510		1.0		PASSES BOTH COLUMNS
075b7501.d	WAR100219-99IB	JXM	26-FEB-2010 06:57		022510		1.0		CLEAN

Instrument Batch: /chem/ecd7a.i/022510.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076b7601.d	245420001	JXM	26-FEB-2010 07:14	955536	NY-330_SHW	10.0	SVP	USE: HIGHER
077b7701.d	1202048594	JXM	26-FEB-2010 07:31	955536	NY-330_SHW	10.0	SVP	USE: HIGHER
078b7801.d	WAR100219-99IB	JXM	26-FEB-2010 07:48		022510	1.0		CLEAN
079b7901.d	WPE100211-10AB	JXM	26-FEB-2010 08:05		022510	1.0		PASSES BOTH COLUMNS
080b8001.d	WAR100219-99IB	JXM	26-FEB-2010 08:22		022510	1.0		CLEAN
081b8101.d	247429001	JXM	26-FEB-2010 09:24	956713	10-1926	1.0	LANL	DUSE: CONFIRMS CHECK FAILURE
082b8201.d	1202051334	JXM	26-FEB-2010 09:41	956713	10-1926	1.0	MS	DUSE: CONFIRMS CHECK FAILURE
083b8301.d	1202051335	JXM	26-FEB-2010 09:58	956713	10-1926	1.0	MSD	DUSE: CONFIRMS CHECK FAILURE
084b8401.d	247432002	JXM	26-FEB-2010 10:15	956713	10-1928	1.0	LANL	DUSE: CONFIRMS CHECK FAILURE
085b8501.d	247437002	JXM	26-FEB-2010 10:32	956713	10-1931	1.0	LANL	DUSE: CONFIRMS CHECK FAILURE
086b8601.d	247440002	JXM	26-FEB-2010 10:49	956713	10-1933	1.0	LANL	DUSE: CONFIRMS CHECK FAILURE
087b8701.d	247443002	JXM	26-FEB-2010 11:23	956713	10-1935	1.0	LANL	DUSE: CONFIRMS CHECK FAILURE
088b8801.d	WPE100211-10AB	JXM	26-FEB-2010 11:40		022510	1.0		ALPHA-CHL. LOW ON BOTH COLUMNS, CONFIRMS CHECK FAILURE

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD7

DATE: 02/28/2010 METHOD: ECD7-B-8081-022310.m OPERATOR:HXJ1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA936
COPPER LOT 1016110

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-041 Organochlorine Pesticides and Chlorinated Hydrocarbons: EPA 8081
8121
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, BD-Percent Endrin and 4,4'-DDT Breakdown, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd7a.i/022610.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR100219-99IB	HXJ1	26-FEB-2010 15:21		022610	1.0		Clean
002b0201.d	WPE100211-99DG	HXJ1	26-FEB-2010 15:38		022610	1.0		(b) DDT 5.3%, Endrin 5.2%; (f) DDT 4.3%, Endrin 4.6%
003b0301.d	WPE100211-10AB	HXJ1	26-FEB-2010 15:55		022610	1.0		All okay
004b0401.d	WPE100125-52TX	HXJ1	26-FEB-2010 16:12		022610	1.0		All okay
005b0501.d	WPE100116-00CL	HXJ1	26-FEB-2010 16:29		022610	1.0		(b) All okay; (f) Passes on average
006b0601.d	WPE100114-05GA	HXJ1	26-FEB-2010 16:46		022610	1.0		DUSE - not target
007b0701.d	WAR100219-99IB	HXJ1	26-FEB-2010 17:03		022610	1.0		Clean
008b0801.d	1202049878	HXJ1	26-FEB-2010 17:20	957780	247381	1.0	TB	USE, uploaded both columns, reporting higher result
009b0901.d	1202052739	HXJ1	26-FEB-2010 17:37	957780	247840	1.0	TB	USE, uploaded both columns, reporting higher result
010b1001.d	1202053797	HXJ1	26-FEB-2010 17:54	957780	247840	1.0	MB	USE, uploaded both columns, reporting higher result
011b1101.d	1202053804	HXJ1	26-FEB-2010 18:11	957780	247840	1.0	LCS	USE, uploaded both columns, reporting higher result
012b1201.d	1202053805	HXJ1	26-FEB-2010 18:28	957780	247840	1.0	TLCS	USE, uploaded both columns, reporting higher result
013b1301.d	1202053806	HXJ1	26-FEB-2010 18:46	957780	247840	1.0	CLCS	USE, uploaded both columns, reporting higher result
014b1401.d	247842001	HXJ1	26-FEB-2010 19:03	957780	247842	1.0	MECP	USE, uploaded both columns, reporting higher result
015b1501.d	247842002	HXJ1	26-FEB-2010 19:20	957780	247842	1.0	MECP	USE, uploaded both columns, reporting higher result

Instrument Batch: /chem/ecd7a.i/022610.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016b1601.d	247842003	HXJ1	26-FEB-2010 19:37	957780	247842		1.0	MECP	USE, uploaded both columns, reporting higher result
017b1701.d	247842004	HXJ1	26-FEB-2010 19:54	957780	247842		1.0	MECP	USE, uploaded both columns, reporting higher result
018b1801.d	WPE100211-10AB	HXJ1	26-FEB-2010 20:11		022610		1.0		All okay
019b1901.d	WAR100219-99IB	HXJ1	26-FEB-2010 20:28		022610		1.0		Clean
020b2001.d	247381001	HXJ1	26-FEB-2010 20:45	957780	247381		1.0	MECP	USE, uploaded both columns, reporting higher result DER - DCB low - matrix interference - confirmed in MS/MSD
021b2101.d	1202053798	HXJ1	26-FEB-2010 21:02	957780	247381		1.0	MS	USE, uploaded both columns, reporting higher result DER - spike, DCB low - matrix - confirmed in sample/MSD
022b2201.d	1202053801	HXJ1	26-FEB-2010 21:19	957780	247381		1.0	MSD	USE, uploaded both columns, reporting higher result DER - spike, DCB low - matrix - confirmed in sample/MS
023b2301.d	1202053799	HXJ1	26-FEB-2010 21:36	957780	247381		1.0	TMS	USE, uploaded both columns, reporting higher result
024b2401.d	1202053802	HXJ1	26-FEB-2010 21:53	957780	247381		1.0	TMSD	USE, uploaded both columns, reporting higher result DER - DCB low - matrix interference - confirmed in parent
025b2501.d	1202053800	HXJ1	26-FEB-2010 22:10	957780	247381		1.0	CMS	USE, uploaded both columns, reporting higher result DER - DCB low - matrix interference - confirmed in parent
026b2601.d	1202053803	HXJ1	26-FEB-2010 22:27	957780	247381		1.0	CMSD	USE, uploaded both columns, reporting higher result DER - DCB low - matrix interference - confirmed in parent
027b2701.d	247840001	HXJ1	26-FEB-2010 22:44	957780	247840		1.0	MECP	USE, uploaded both columns, reporting higher result
028b2801.d	247840002	HXJ1	26-FEB-2010 23:01	957780	247840		1.0	MECP	USE, uploaded both columns, reporting higher result
029b2901.d	247840003	HXJ1	26-FEB-2010 23:18	957780	247840		1.0	MECP	USE, uploaded both columns, reporting higher result
030b3001.d	WPE100211-10AB	HXJ1	26-FEB-2010 23:35		022610		1.0		All okay
031b3101.d	WAR100219-99IB	HXJ1	26-FEB-2010 23:53		022610		1.0		Clean
032b3201.d	WPE100211-99DG	HXJ1	27-FEB-2010 00:10		022610		1.0		(b) DDT 9.3%, Endrin 7.2%; (f) DDT 8.4%, Endrin 6.7%
033b3301.d	1202054045	HXJ1	27-FEB-2010 00:27	957867	10-2005		1.0	MB	USE, uploaded both columns, reporting lower result
034b3401.d	1202054046	HXJ1	27-FEB-2010 00:44	957867	10-2005		1.0	LCS	USE, uploaded both columns, reporting lower result
035b3501.d	1202054049	HXJ1	27-FEB-2010 01:01	957867	10-2005		1.0	TLCS	USE, uploaded both columns, reporting lower result

Instrument Batch: /chem/ecd7a.i/022610.b Page: 2

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	247440002	HXJ1	27-FEB-2010 01:18	957867	10-1933	1.0	LANL	DUSE - surrogate failure confirmed - see original extraction
037b3701.d	247443002	HXJ1	27-FEB-2010 01:35	957867	10-1935	1.0	LANL	DUSE - surrogate failure confirmed - see original extraction

038b3801.d	247824004	HXJ1	27-FEB-2010 01:52	957867	10-2005	1.0	LANL	USE, uploaded both columns, reporting lower result
039b3901.d	247828004	HXJ1	27-FEB-2010 02:09	957867	10-2000	1.0	LANL	USE, uploaded both columns, reporting lower result
040b4001.d	247922002	HXJ1	27-FEB-2010 02:26	957867	10-2022	1.0	LANL	USE, uploaded both columns, reporting lower result DER - DCB low - matrix interference - confirmed in MS/MSD
041b4101.d	1202054047	HXJ1	27-FEB-2010 02:43	957867	10-2022	1.0	MS	USE, uploaded both columns, reporting lower result DER - spike low - matrix - confirmed in sample/MSD
042b4201.d	1202054048	HXJ1	27-FEB-2010 03:00	957867	10-2022	1.0	MSD	USE, uploaded both columns, reporting lower result DER - spike, DCB low - matrix - confirmed in sample/MS
043b4301.d	WAR100219-99IB	HXJ1	27-FEB-2010 03:17		022610	1.0		Clean
044b4401.d	WPE100211-10AB	HXJ1	27-FEB-2010 03:34		022610	1.0		(b) alpha-CHL low; (f) All okay
045b4501.d	WAR100219-99IB	HXJ1	27-FEB-2010 03:51		022610	1.0		Clean
046b4601.d	1202054035	HXJ1	27-FEB-2010 04:08	957861	10-1818	1.0	MB	USE, uploaded both columns, reporting lower result
047b4701.d	1202054036	HXJ1	27-FEB-2010 04:25	957861	10-1818	1.0	LCS	USE, uploaded both columns, reporting lower result
048b4801.d	1202054043	HXJ1	27-FEB-2010 04:42	957861	10-1818	1.0	TLCS	USE, uploaded both columns, reporting lower result
049b4901.d	247043003	HXJ1	27-FEB-2010 04:59	957861	10-1818	10.0	LANL	USE, uploaded both columns, reporting lower result
050b5001.d	1202054037	HXJ1	27-FEB-2010 05:16	957861	10-1818	10.0	MS	USE, uploaded both columns, reporting lower result
051b5101.d	1202054038	HXJ1	27-FEB-2010 05:33	957861	10-1818	10.0	MSD	USE, uploaded both columns, reporting lower result
052b5201.d	WPE100211-10AB	HXJ1	27-FEB-2010 05:50		022610	1.0		All okay
053b5301.d	WAR100219-99IB	HXJ1	27-FEB-2010 06:07		022610	1.0		Clean
054b5401.d	247043004	HXJ1	27-FEB-2010 06:24	957861	10-1818	10.0	LANL	USE, uploaded both columns, reporting lower result
055b5501.d	247043005	HXJ1	27-FEB-2010 06:41	957861	10-1818	10.0	LANL	USE, uploaded both columns, reporting lower result

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056b5601.d	247043006	HXJ1	27-FEB-2010 06:58	957861	10-1818	10.0	LANL	USE, uploaded both columns, reporting lower result
057b5701.d	247043007	HXJ1	27-FEB-2010 07:15	957861	10-1818	10.0	LANL	USE, uploaded both columns, reporting lower result
058b5801.d	247043008	HXJ1	27-FEB-2010 07:32	957861	10-1818	10.0	LANL	USE, uploaded both columns, reporting lower result
059b5901.d	247043009	HXJ1	27-FEB-2010 07:49	957861	10-1818	10.0	LANL	USE, uploaded both columns, reporting lower result
060b6001.d	WPE100211-10AB	HXJ1	27-FEB-2010 08:06		022610	1.0		All okay

061b6101.d	WAR100219-99IB	HXJ1	27-FEB-2010 08:23		022610		1.0		Clean
062b6201.d	247043010	HXJ1	27-FEB-2010 08:40	957861	10-1818		10.0	LANL	USE, uploaded both columns, reporting lower result
063b6301.d	247043011	HXJ1	27-FEB-2010 08:57	957861	10-1818		10.0	LANL	USE, uploaded both columns, reporting lower result
064b6401.d	247043012	HXJ1	27-FEB-2010 09:14	957861	10-1818		10.0	LANL	USE, uploaded both columns, reporting lower result
065b6501.d	247043013	HXJ1	27-FEB-2010 09:31	957861	10-1818		10.0	LANL	USE, uploaded both columns, reporting lower result
066b6601.d	247043014	HXJ1	27-FEB-2010 09:48	957861	10-1818		10.0	LANL	USE, uploaded both columns, reporting lower result
067b6701.d	247043015	HXJ1	27-FEB-2010 10:05	957861	10-1818		10.0	LANL	USE, uploaded both columns, reporting lower result
068b6801.d	247043016	HXJ1	27-FEB-2010 10:22	957861	10-1818		10.0	LANL	USE, uploaded both columns, reporting lower result
069b6901.d	247043017	HXJ1	27-FEB-2010 10:39	957861	10-1818		10.0	LANL	USE, uploaded both columns, reporting lower result
070b7001.d	247043018	HXJ1	27-FEB-2010 10:57	957861	10-1818		10.0	LANL	USE, uploaded both columns, reporting lower result
071b7101.d	WPE100211-10AB	HXJ1	27-FEB-2010 11:14		022610		1.0		All okay
072b7201.d	WAR100219-99IB	HXJ1	27-FEB-2010 11:31		022610		1.0		Clean

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022610.b/001b0101.d
Lab Smp Id: WAR100219-99IB Client Smp ID: PIBLK01
Inj Date : 26-FEB-2010 15:21
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WAR100219-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.199	3.195	0.004	116674011	194.864	195	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.300	9.300	0.000	70622606	188.593	188	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/022610.b/001b0101.d

Date : 26-FEB-2010 15:21

Client ID: PIBLK01

Sample Info: IWAR100219-99IB

Column phase: CLP-2

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

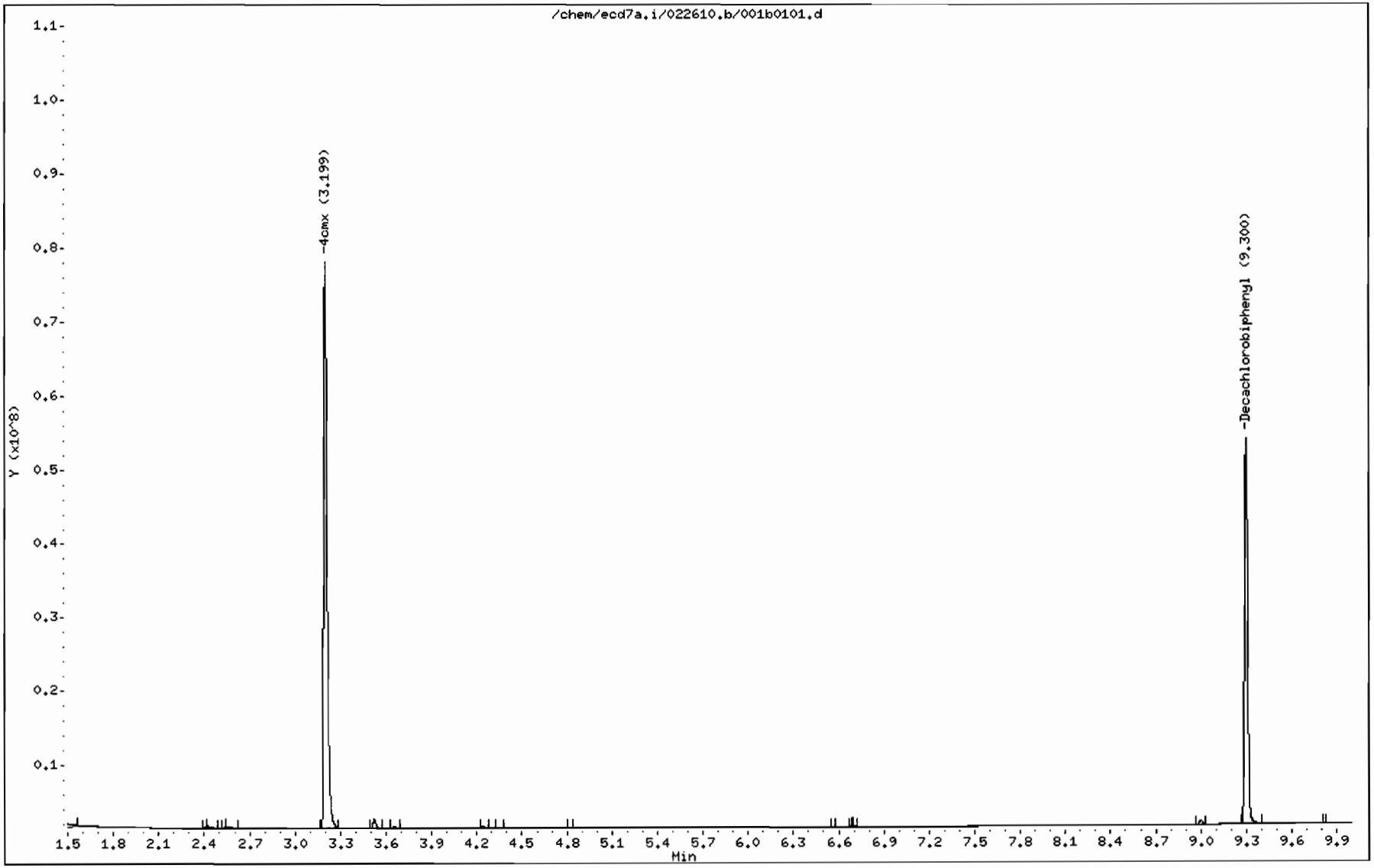

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CLP-1

Data file : /chem/ecd7a.i/022610.b/001f0101.d
Lab Smp Id: WAR100219-99IB Client Smp ID: PIBLK01
Inj Date : 26-FEB-2010 15:21
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WAR100219-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.884	2.879	0.005	157690879	193.076	193	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.105	8.102	0.003	115365983	193.927	194	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/022610.b/001f0101.d

Date : 26-FEB-2010 15:21

Client ID: PIBLK01

Sample Info: IWAR100219-99IB

Column phase: CLP-1

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

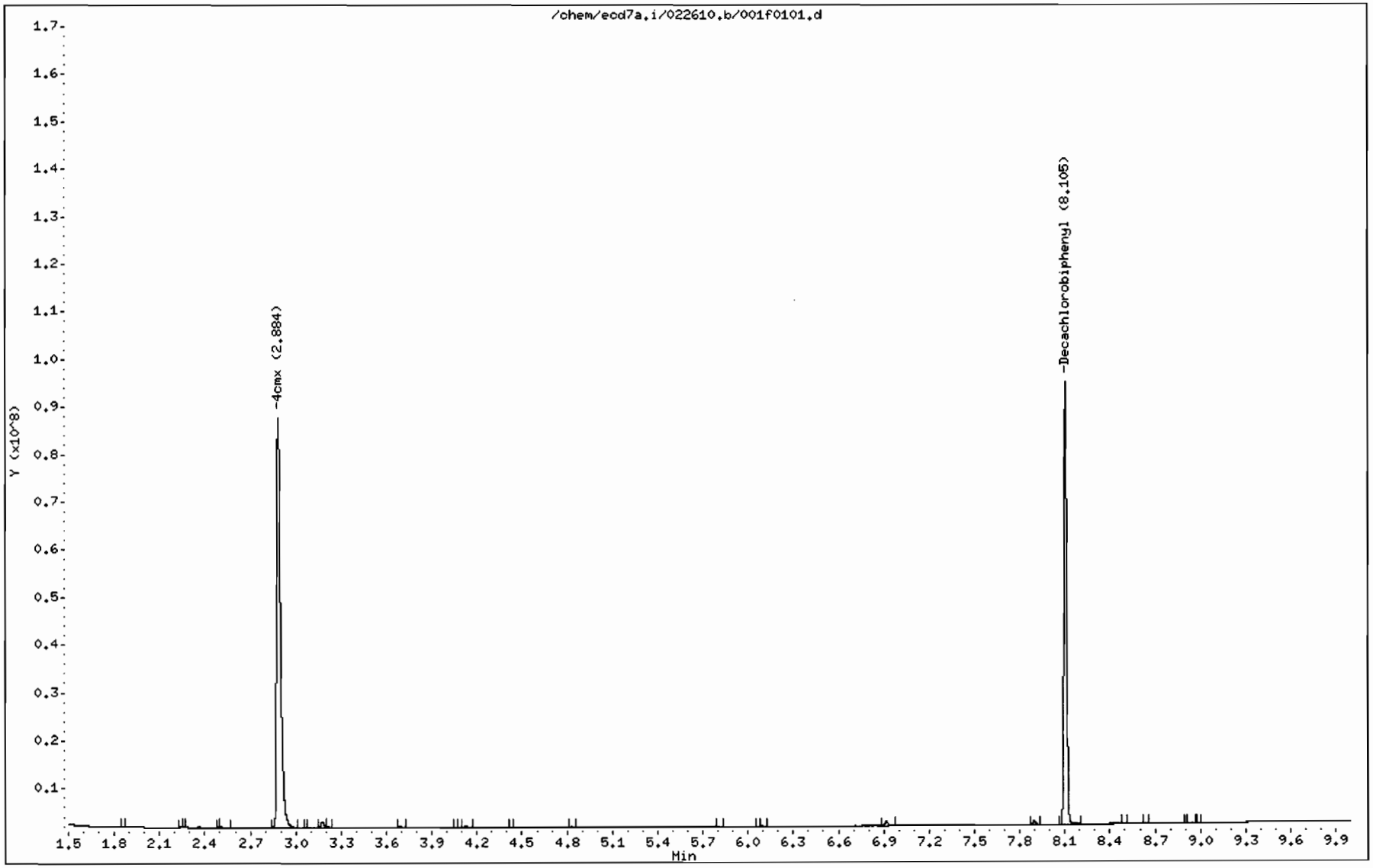

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022610.b/031b3101.d
Lab Smp Id: WAR100219-99IB Client Smp ID: PIBLK04
Inj Date : 26-FEB-2010 23:53
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WAR100219-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 31 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.194	3.195	-0.001	117343686	195.982	196	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.298	9.300	-0.002	67327229	179.793	180	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/022610.b/031b3101.d

Date : 26-FEB-2010 23:53

Client ID: PIBLK04

Sample Info: IWAR100219-99IB

Column phase: CLP-2

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

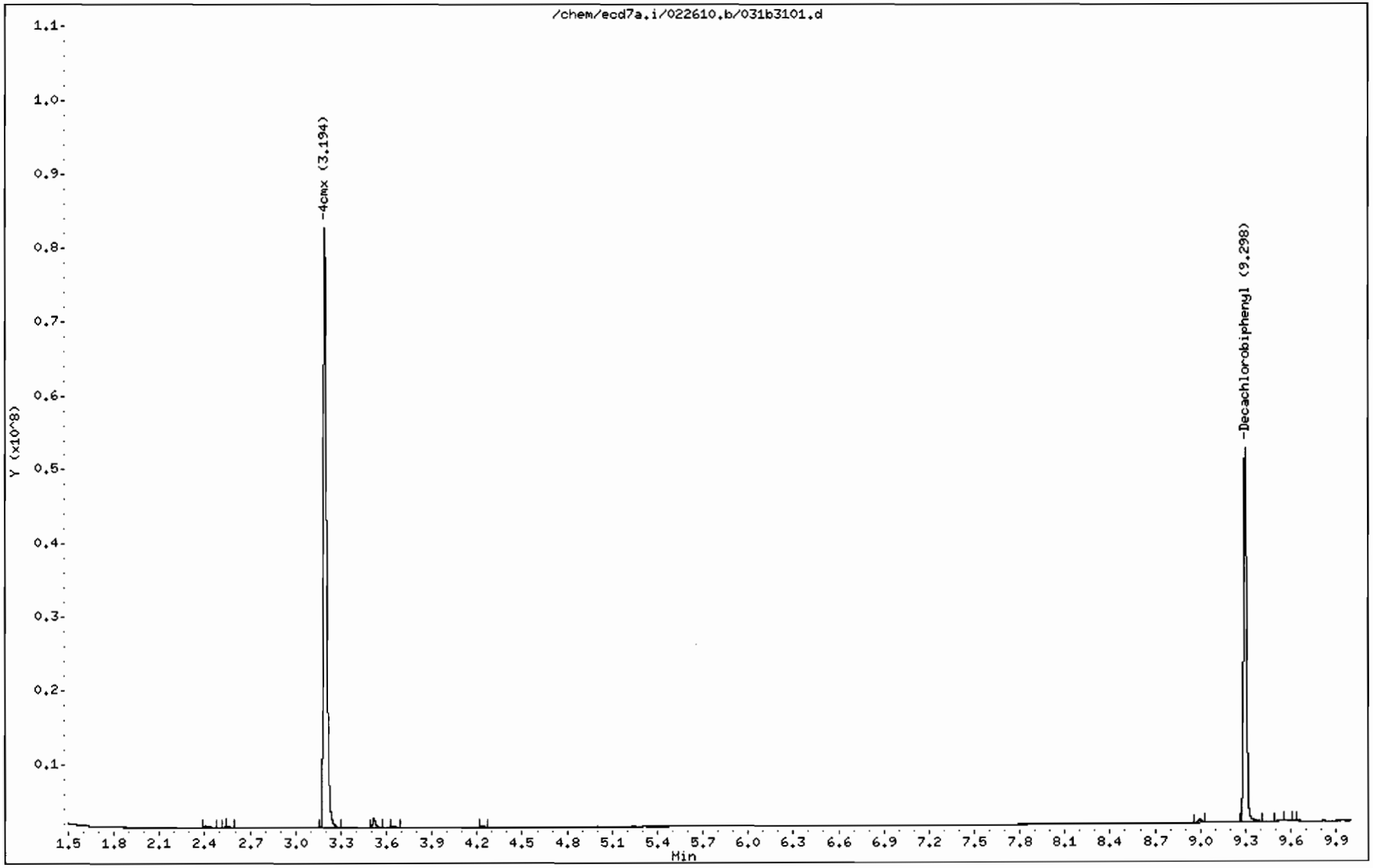

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022610.b/031f3101.d
Lab Smp Id: WAR100219-99IB Client Smp ID: PIBLK04
Inj Date : 26-FEB-2010 23:53
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |WAR100219-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 31 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.876	2.879	-0.003	160357601	196.342	196	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.101	8.102	-0.001	111297861	187.088	187	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/022610.b/031f3101.d

Date : 26-FEB-2010 23:53

Client ID: PIBLK04

Sample Info: IWAR100219-99IB

Column phase: CLP-1

Instrument: ecd7a.i

Operator: HXJ1

Column diameter: 0.25

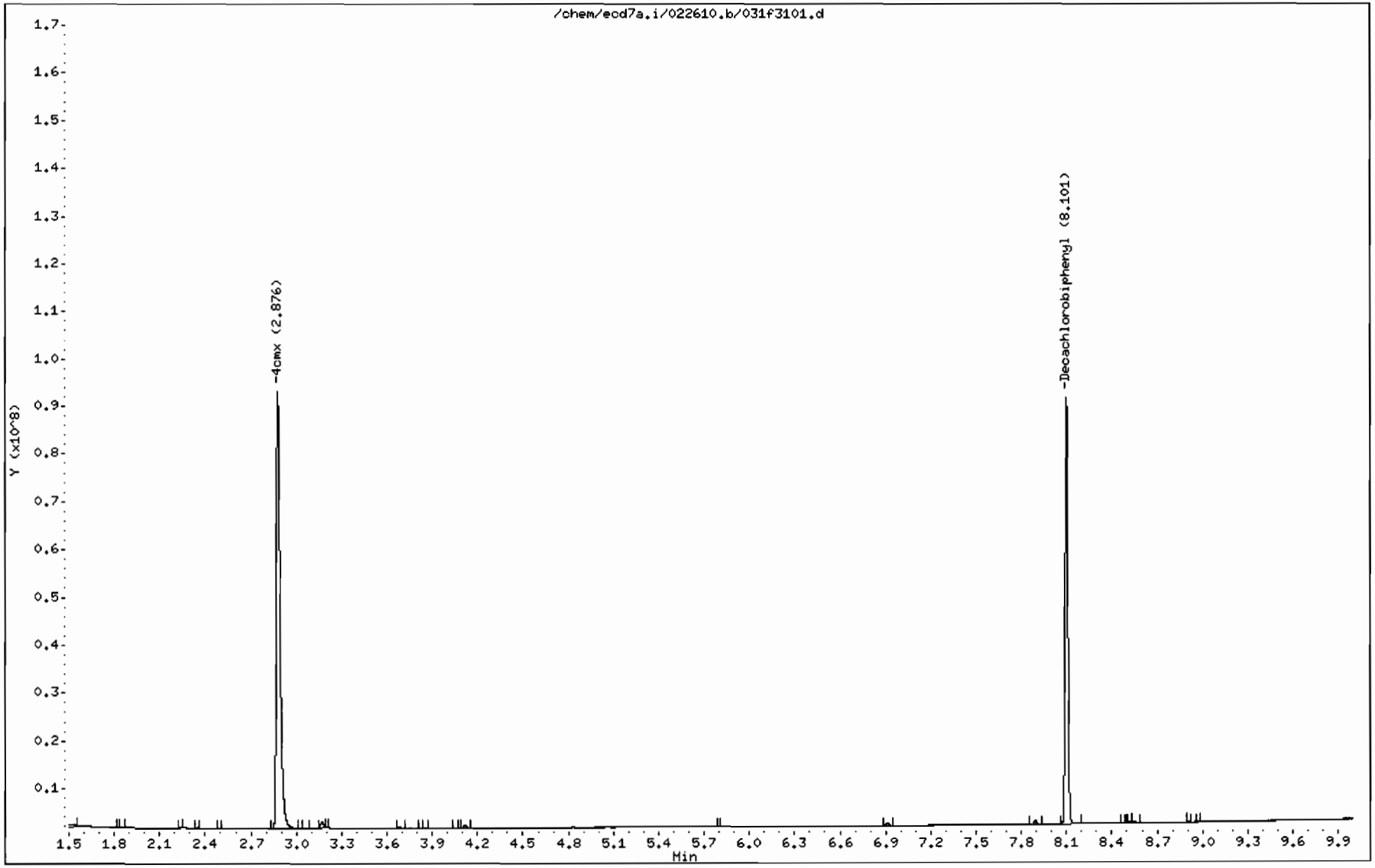

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/022610.b/041b4101.d
Lab Smp Id: 1202054047 Client Smp ID: WST29-10-13281MS
Inj Date : 27-FEB-2010 02:43
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202054047|1|
Misc Info : |ECD81A_1L|957867|SVP|MS|WATER|MS|||
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 41 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2022.sub
Target Version: 3.50 Sample Matrix: Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.198	3.195	0.003	66184122	110.538	0.553	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.306	9.300	0.006	24792202	66.2059	0.331	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.723	3.721	0.002	46441808	59.1123	0.296	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.052	4.050	0.002	41227772	59.9166	0.300	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.116	4.114	0.002	17356807	53.5807	0.268	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
13 delta-BHC					CAS #: 319-86-8		
4.407	4.404	0.003	40115008	58.2352	0.291	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.489	4.486	0.003	30067759	60.2419	0.301	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.819	4.817	0.002	36055599	53.5747	0.268	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.389	5.386	0.003	30983492	53.9877	0.270	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.585	5.583	0.002	31822124	54.1128	0.270	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.736	5.734	0.002	30546030	51.9429	0.260	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.806	5.804	0.002	29261339	55.4030	0.277	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.887	5.884	0.003	77956913	149.515	0.748	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.094	6.092	0.002	73742622	142.382	0.712	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.424	6.422	0.002	68591523	169.939	0.850	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.507	6.504	0.003	62549844	164.768	0.824	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.649	6.647	0.002	67902893	142.436	0.712	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.009	7.008	0.001	49177142	128.133	0.641	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.853	6.850	0.003	52140429	163.355	0.817	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.316	7.313	0.003	62193378	149.187	0.746	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.600	7.596	0.004	108057494	796.477	3.98	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.926	7.924	0.002	72739573	144.832	0.724	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/041b4101.d
Date : 27-FEB-2010 02:43
Client ID: WST29-10-13281MS
Sample Info: 1120205404711
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

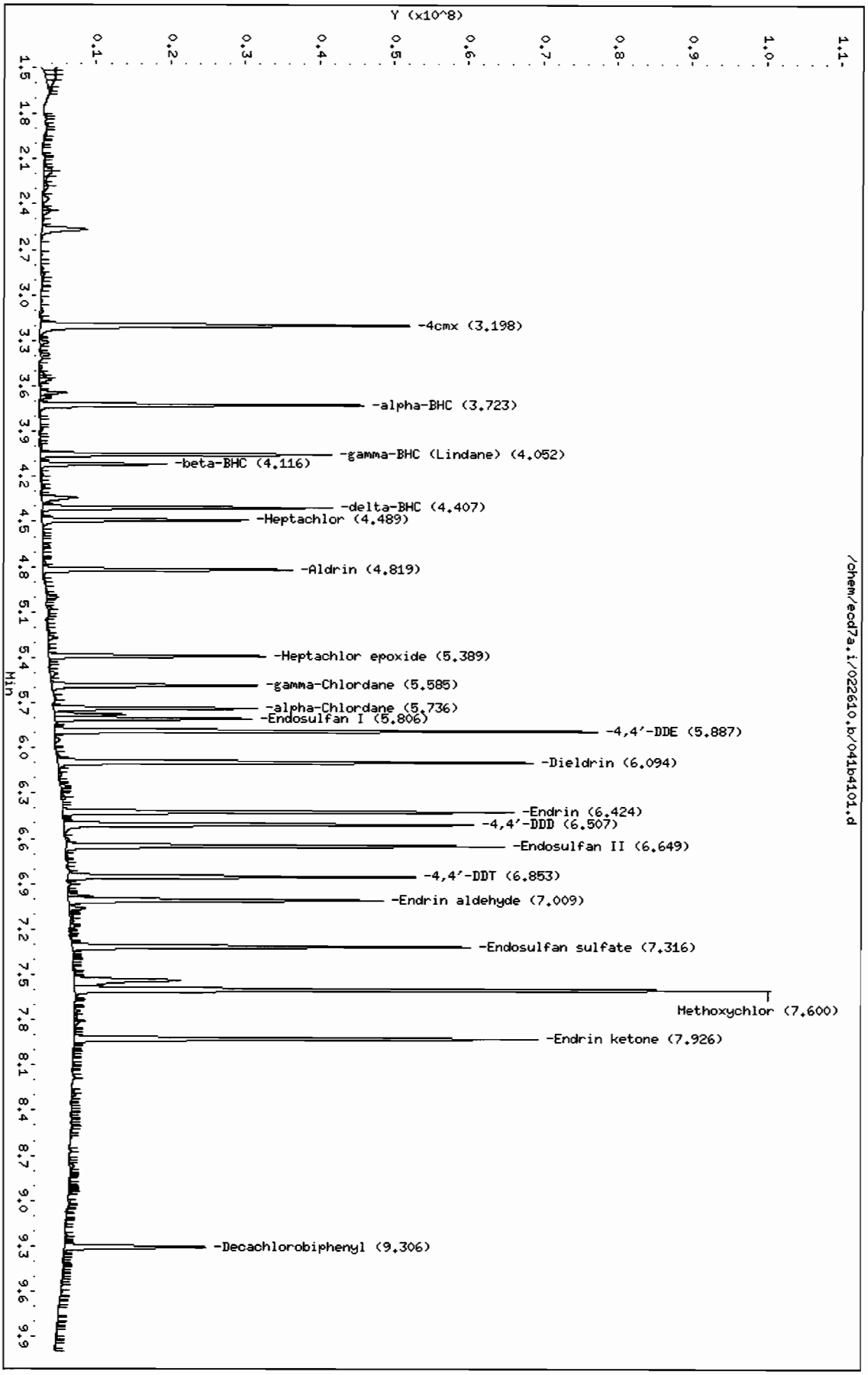

Page 1

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022610.b/041f4101.d
Lab Smp Id: 1202054047 Client Smp ID: WST29-10-13281MS
Inj Date : 27-FEB-2010 02:43
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202054047|1|
Misc Info : |ECD81A_1L|957867|SVP|MS|WATER|MS|||
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 41 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2022.sub
Target Version: 3.50 Sample Matrix: Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.883	2.879	0.004	92541427	113.308	0.566	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.112	8.102	0.010	41377015	69.5534	0.348	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.300	3.298	0.002	79764073	68.5587	0.343	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.551	3.549	0.002	61811352	59.1041	0.296	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.617	3.614	0.003	25036357	53.1950	0.266	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
13 delta-BHC					CAS #: 319-86-8		
3.771	3.768	0.003	59369485	56.7646	0.284	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.946	3.945	0.001	49784933	59.6370	0.298	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.212	4.210	0.002	52796933	53.2001	0.266	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.759	4.757	0.002	48985109	55.5973	0.278	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.876	4.874	0.002	48146172	54.9772	0.275	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.002	4.999	0.003	46629165	53.3508	0.267	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.138	5.135	0.003	59713796	75.0383	0.375	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.065	5.062	0.003	121312342	150.754	0.754	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.369	5.367	0.002	119809636	141.272	0.706	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.603	5.600	0.003	116114458	171.237	0.856	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.656	5.653	0.003	104212281	164.016	0.820	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.827	5.826	0.001	105878794	144.781	0.724	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.254	6.255	-0.001	80239060	128.775	0.644	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.940	5.937	0.003	96901930	162.712	0.814	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.711	6.711	0.000	98387774	152.226	0.761	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.440	6.438	0.002	195974163	734.357	3.67	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.015	7.014	0.001	121732482	147.116	0.736	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/041f4101.d
Date : 27-FEB-2010 02:43
Client ID: WST29-10-13281MS
Sample Info: |1202054047|1|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd7a.i

Operator: HXJ1
Column diameter: 0.25

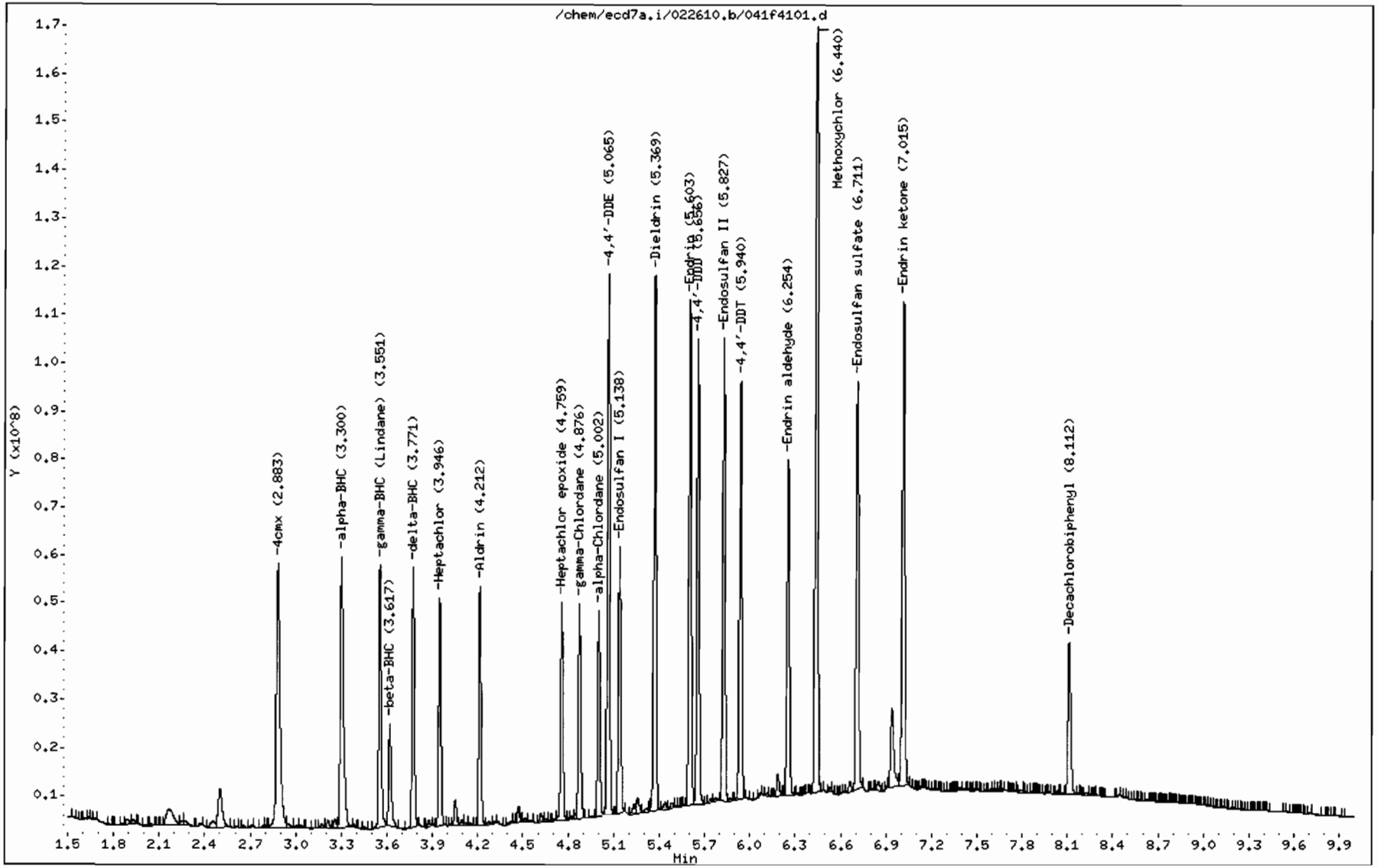

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CLP-2

Data file : /chem/ecd7a.i/022610.b/042b4201.d
Lab Smp Id: 1202054048 Client Smp ID: WST29-10-13281MSD
Inj Date : 27-FEB-2010 03:00
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202054048|1|
Misc Info : |ECD81A_1L|957867|SVP|MSD|WATER|MSD|||
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-B-8081-022310.m
Meth Date : 28-Feb-2010 18:49 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 42 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2022.sub
Target Version: 3.50 Sample Matrix: Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.195	0.002	59573944	99.4978	0.497	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.305	9.300	0.005	22070585	58.9380	0.295	80.00- 120.00	100.00(R)
5 alpha-BHC					CAS #: 319-84-6		
3.722	3.721	0.001	41588867	52.9354	0.265	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.052	4.050	0.002	36918594	53.6540	0.268	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.116	4.114	0.002	15613789	48.2000	0.241	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
13 delta-BHC					CAS #: 319-86-8		
4.406	4.404	0.002	36035982	52.3137	0.262	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.489	4.486	0.003	26517793	53.1294	0.266	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.819	4.817	0.002	31559194	46.8935	0.234	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.388	5.386	0.002	27297864	47.5656	0.238	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.585	5.583	0.002	28136007	47.8447	0.239	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.736	5.734	0.002	26887020	45.7209	0.229	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.806	5.804	0.002	26289950	49.7771	0.249	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.886	5.884	0.002	68551956	131.477	0.657	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.094	6.092	0.002	64802873	125.121	0.626	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.423	6.422	0.001	60614641	150.176	0.751	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.506	6.504	0.002	55634237	146.551	0.733	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.648	6.647	0.001	61196311	128.368	0.642	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.009	7.008	0.001	44101390	114.908	0.574	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.853	6.850	0.003	46582028	145.940	0.730	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.315	7.313	0.002	56565848	135.688	0.678	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.598	7.596	0.002	96366662	710.305	3.55	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.925	7.924	0.001	65906909	131.227	0.656	80.00- 120.00	100.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/022610.b/042b4201.d
Date : 27-FEB-2010 03:00
Client ID: WST29-10-13281MSD
Sample Info: 1120205404811
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

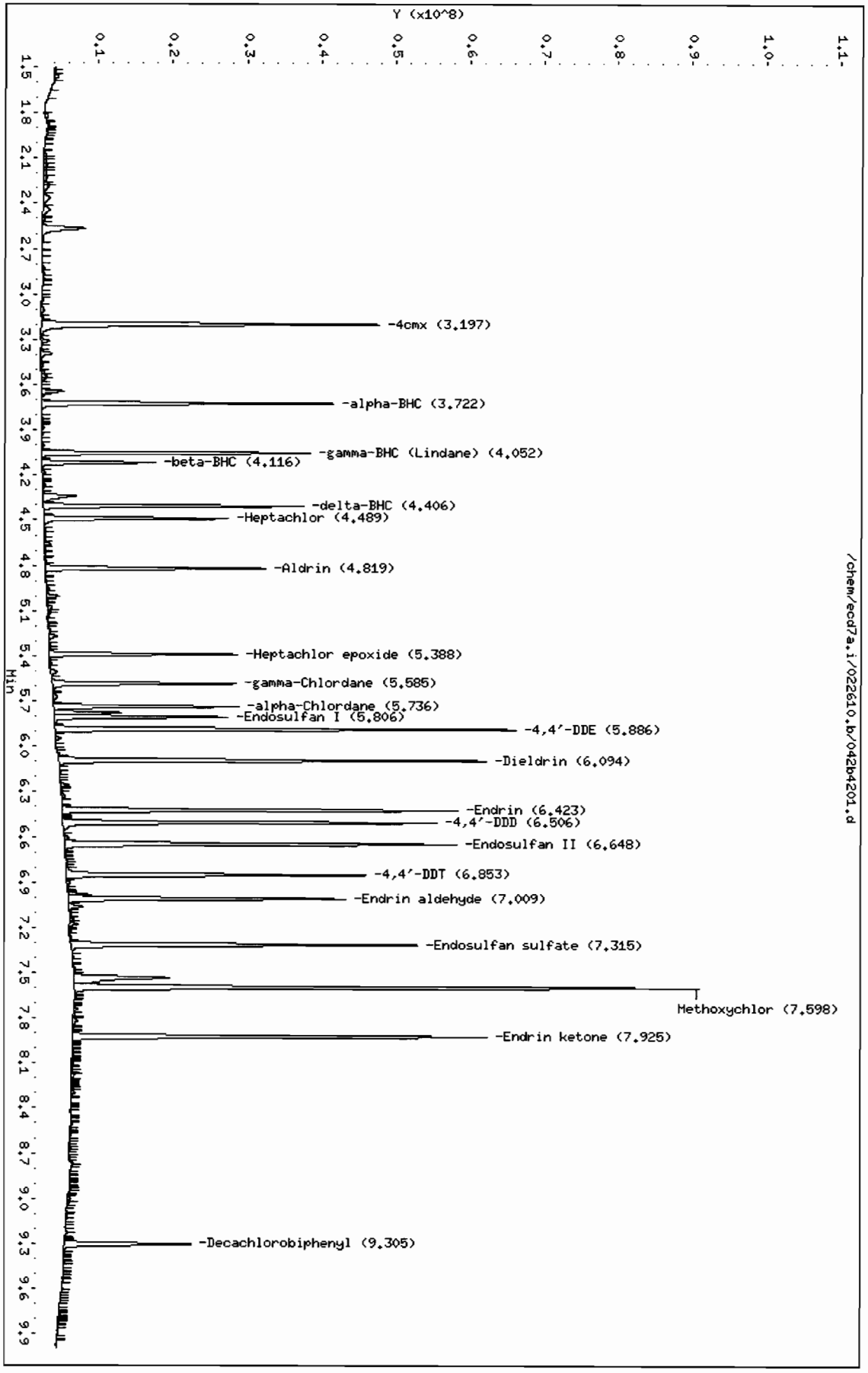

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GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/022610.b/042f4201.d
Lab Smp Id: 1202054048 Client Smp ID: WST29-10-13281MSD
Inj Date : 27-FEB-2010 03:00
Operator : HXJ1 Inst ID: ecd7a.i
Smp Info : |1202054048|1|
Misc Info : |ECD81A_1L|957867|SVP|MSD|WATER|MSD|||
Comment :
Method : /chem/ecd7a.i/022610.b/ECD7-F-8081-022310.m
Meth Date : 28-Feb-2010 18:32 hea01125 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 42 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2022.sub
Target Version: 3.50 Sample Matrix: Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.882	2.879	0.003	82481533	100.990	0.505	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.111	8.102	0.009	35785692	60.1546	0.301	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.299	3.298	0.001	66912515	57.5125	0.288	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.552	3.549	0.003	55717660	53.2773	0.266	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.617	3.614	0.003	23864259	50.7047	0.254	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
13 delta-BHC					CAS #: 319-86-8		
3.771	3.768	0.003	53816983	51.4557	0.257	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.947	3.945	0.002	44399371	53.1857	0.266	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.212	4.210	0.002	46227955	46.5809	0.233	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.758	4.757	0.001	42666819	48.4262	0.242	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.876	4.874	0.002	41488080	47.3744	0.237	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.002	4.999	0.003	41111846	47.0381	0.235	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.138	5.135	0.003	55057439	69.1870	0.346	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.065	5.062	0.003	106689776	132.583	0.663	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.369	5.367	0.002	104981135	123.787	0.619	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.602	5.600	0.002	102683727	151.430	0.757	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.655	5.653	0.002	92567555	145.689	0.728	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.827	5.826	0.001	94495445	129.215	0.646	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.254	6.255	-0.001	71702656	115.075	0.575	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.939	5.937	0.002	86586431	145.391	0.727	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.711	6.711	0.000	91112690	140.970	0.705	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.439	6.438	0.001	176440467	661.160	3.30	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.015	7.014	0.001	112750386	136.261	0.681	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/022610.b/042f4201.d
Date : 27-FEB-2010 03:00
Client ID: WST29-10-13281MSD
Sample Info: 1120205404811
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd7a.i
Operator: HXJ1
Column diameter: 0.25

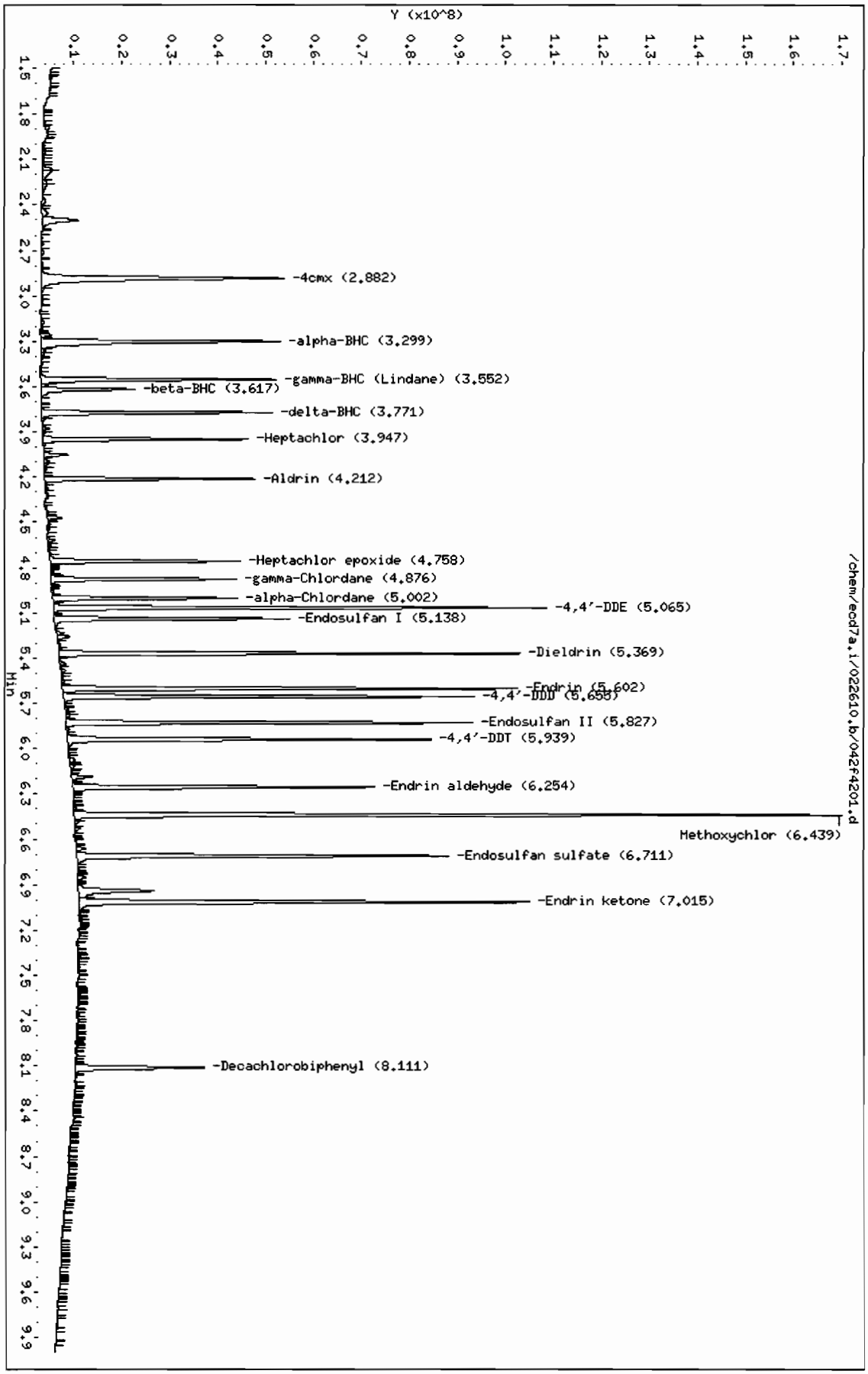

Page 1

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 957866 **Verified by:** _____

Analyst: Terry Allison

Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202054045 MB	26-FEB-2010 14:34:00	1000	5	5	Florisil	5	1	10	5	0.005
1202054046 LCS	26-FEB-2010 14:34:00	1000	5	5	Florisil	5	1	10	5	0.005
1202054049 LCS	26-FEB-2010 14:34:00	1000	5	5	Florisil	5	1	10	5	0.005
247440002 - 2	26-FEB-2010 14:34:00	950	5	5	Florisil	5	1	10	5	0.00526
247443002 - 2	26-FEB-2010 14:34:00	920	6	6	Florisil	5	1	10	5	0.00543
247824004	26-FEB-2010 14:34:00	930	5	5	Florisil	5	1	10	5	0.00538
247828004	26-FEB-2010 14:34:00	900	5	5	Florisil	5	1	10	5	0.00556
247922002	26-FEB-2010 14:34:00	920	6	6	Florisil	5	1	10	5	0.00543
1202054047 MS (247922002)	26-FEB-2010 14:34:00	500	6	6	Florisil	2.5	1	10	2.5	0.005
1202054048 MSD (247922002)	26-FEB-2010 14:34:00	500	6	6	Florisil	2.5	1	10	2.5	0.005

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202054046	PESTSPIKE	UE100218-04	1	mL
LCS	1202054049	Toxaphene TCLP LCS	WE100206-11	2	mL
MS	1202054047	PESTSPIKE	UE100218-04	.5	mL
MSD	1202054048	PESTSPIKE	UE100218-04	.5	mL
SURR	All	PEST SURROGATE 1000 UG/L	UE100217-08	.5	mL
SURR	All	PEST SURROGATE 1000 UG/L	UE100217-08	1	mL
REGNT	All	Hexane	1256896-B2	5	mL
REGNT	All	Methylene Chloride	1269262-D	180	mL
REGNT	All	Florisil cartridge 1000mg per cartridge	1269340-28	1	g
SOURC	All	SODIUM SULFATE	1269268	30	g

Comments:

Samples '0002 and '3002 were emulsive during the extraction. Sample '3002 took an additional 480mL of CH2Cl2 to break the emulsion.

Clean up Date: 2-26-10

Clean up Initials: TA

Verified By: SCC

Final Solvent: Hexane

Clean Up SOP: GL-OA-E-036

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2005

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3510C
Analytical Batch Number:	961887
Prep Batch Number:	961885

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
247824001	CAPA-10-13498
1202063177	Method Blank (MB)
1202063178	Laboratory Control Sample (LCS)
1202064344	247824001(CAPA-10-13498) Matrix Spike (MS)
1202064345	247824001(CAPA-10-13498) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 247824001 (CAPA-10-13498) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries for this SDG were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this SDG were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports (DERs) are for documentation of any procedural anomalies that may deviate from referenced

SOP or contractual document. A DER was not required for this SDG.

Manual Integrations
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Andy Whittock Date: 3-23-2010

Roadmap for LANL 10-2005 PCB

This roadmap was analyzed by yip00818 on 03-10-2010, 06:56.
This roadmap was reviewed by jim01140 on 03-10-2010, 11:38.
This roadmap was packaged by yml on 03-23-2010, 12:57.
This roadmap was validated by rob01090 on 03-23-2010, 17:11.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/030910.b/029f2901.d	247824001	sample	09-MAR-2010	11:03	10-2005.sub	CAPA-10-13498	1.00000	961887	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/030910.b/029b2901.d	247824001	sample	09-MAR-2010	11:03	10-2005.sub	CAPA-10-13498	1.00000	961887	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/030910.b/027f2701-1.d	1202063177	mb	09-MAR-2010	10:42	10-2005.sub	PBLK01	1.00000	961887	
☐	N	/chem/ecd1a.i/030910.b/028f2801-1.d	1202063178	lcs	09-MAR-2010	10:53	10-2005.sub	PBLK01LCS	1.00000	961887	
☐	N	/chem/ecd1a.i/030910.b/030f3001.d	1202064344	ms	09-MAR-2010	11:14	10-2005.sub	CAPA-10-13498MS	1.00000	961887	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/030910.b/031f3101.d	1202064345	msd	09-MAR-2010	11:24	10-2005.sub	CAPA-10-13498MSD	1.00000	961887	UPLOAD BOTH COLUMNS, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/030910.b/027b2701-1.d	1202063177	mb	09-MAR-2010	10:42	10-2005.sub	PBLK01	1.00000	961887	
☐	N	/chem/ecd1a.i/030910.b/028b2801-1.d	1202063178	lcs	09-MAR-2010	10:53	10-2005.sub	PBLK01LCS	1.00000	961887	
☐	N	/chem/ecd1a.i/030910.b/030b3001.d	1202064344	ms	09-MAR-2010	11.14	10-2005.sub	CAPA-10-13498MS	1.00000	961887	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/030910.b/031b3101.d	1202064345	msd	09-MAR-2010	11:24	10-2005.sub	CAPA-10-134980MSD	1.00000	961887	UPLOAD BOTH COLUMNS, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2005**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247824001**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA–10–13498**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**961887**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 11:03**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/08/2010 14:29**	**Aliquot:**	**900 mL**	**Final Volume:**	**1 mL**
Data File:	**029f2901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	029b2901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	0.111	ug/L	0.037	0.111	1
11104–28–2	Aroclor–1221	U	0.111	ug/L	0.037	0.111	1
11141–16–5	Aroclor–1232	U	0.111	ug/L	0.037	0.111	1
53469–21–9	Aroclor–1242	U	0.111	ug/L	0.037	0.111	1
12672–29–6	Aroclor–1248	U	0.111	ug/L	0.037	0.111	1
11097–69–1	Aroclor–1254	U	0.111	ug/L	0.037	0.111	1
11096–82–5	Aroclor–1260	U	0.111	ug/L	0.037	0.111	1
37324–23–5	Aroclor–1262	U	0.111	ug/L	0.037	0.111	1

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
4cmx	0.108	0.222	ug/L	48.8	(30%–105%)
Decachlorobiphenyl	0.099	0.222	ug/L	44.6	(30%–126%)

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10–2005

Matrix Type: LIQUID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202063177	MB for batch 961885	48	47	64	59
1202063178	LCS for batch 961885	48	47	67	63
247824001	CAPA–10–13498	49	48	45	43
1202064344	CAPA–10–13498MS	55	54	54	54
1202064345	CAPA–10–13498MSD	51	50	53	50

Surrogate	Acceptance Limits
4CMX = 4cmx	(30%–105%)
DCB = Decachlorobiphenyl	(30%–126%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2005
Client ID: LCS for batch 961885
Lab Sample ID: 1202063178
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: WATER
Analysis Date: 03/09/2010 10:53
Dilution: 1
Prep Batch ID: 961885
Batch ID: 961887

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
12674–11–2	LCS	Aroclor–1016	1.00	0.0	0.660	66	40–110
11096–82–5	LCS	Aroclor–1260	1.00	0.0	0.840	84	48–110

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2005
Client ID: CAPA–10–13498MS
Lab Sample ID: 1202064344
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 03/09/2010 11:14
Prep Batch ID: 961885
Batch ID: 961887
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
12674–11–2	MS	Aroclor–1016	1.00	0.00	U	0.690	69	25–116
11096–82–5	MS	Aroclor–1260	1.00	0.00	U	0.880	88	34–116

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2005
Client ID: CAPA–10–13498MSD
Lab Sample ID: 1202064345
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 03/09/2010 11:24
Prep Batch ID: 961885
Batch ID: 961887
Dilution: 1

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674–11–2	MSD Aroclor–1016	1.00	0.00	U	0.660	66	25–116	4	0–31
11096–82–5	MSD Aroclor–1260	1.00	0.00	U	0.840	84	34–116	5	0–29

Method Blank Summary

SDG Number:	10–2005	Client:	LANL010	Matrix:	WATER
Client ID:	MB for batch 961885	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	027b2701–1.d 027f2701–1.d
Lab Sample ID:	1202063177				
Column:	CLP2 CLP1	Prep Date:	03/08/2010 14:29	Analyzed:	03/09/10 10:42
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 961885	1202063178	028f2801–1.d 028b2801–1.d	03/09/10	1053
02 CAPA–10–13498	247824001	029f2901.d 029b2901.d	03/09/10	1103
03 CAPA–10–13498MS	1202064344	030f3001.d 030b3001.d	03/09/10	1114
04 CAPA–10–13498MSD	1202064345	031f3101.d 031b3101.d	03/09/10	1124

SAMPLE
DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**247824001**	**Date Received:**	**02/23/2010 08:50**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13498**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**961887**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 11:03**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/08/2010 14:29**	**Aliquot:**	**900 mL**	**Final Volume:**	**1 mL**
Data File:	**029f2901.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	029b2901.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.111	ug/L	0.037	0.111	1
11104-28-2	Aroclor-1221	U	0.111	ug/L	0.037	0.111	1
11141-16-5	Aroclor-1232	U	0.111	ug/L	0.037	0.111	1
53469-21-9	Aroclor-1242	U	0.111	ug/L	0.037	0.111	1
12672-29-6	Aroclor-1248	U	0.111	ug/L	0.037	0.111	1
11097-69-1	Aroclor-1254	U	0.111	ug/L	0.037	0.111	1
11096-82-5	Aroclor-1260	U	0.111	ug/L	0.037	0.111	1
37324-23-5	Aroclor-1262	U	0.111	ug/L	0.037	0.111	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.108	0.222	ug/L	48.8	(30%-105%)
Decachlorobiphenyl	0.099	0.222	ug/L	44.6	(30%-126%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/029f2901.d
Lab Smp Id: 247824001 Client Smp ID: CAPA-10-13498
Inj Date : 09-MAR-2010 11:03
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |247824001|1|
Misc Info : |ECD82P_1L|961887|SVA|LANL|GROUND WATER|CAPA-10-13498||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 10:55 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 29
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	900.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.918	1.916	0.002	42026176	97.5907	0.11	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.221	5.223	-0.002	27379970	89.1016	0.099	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/029f2901.d

Date : 09-MAR-2010 11:03

Client ID: CAPA-10-13498

Sample Info: |24782400|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

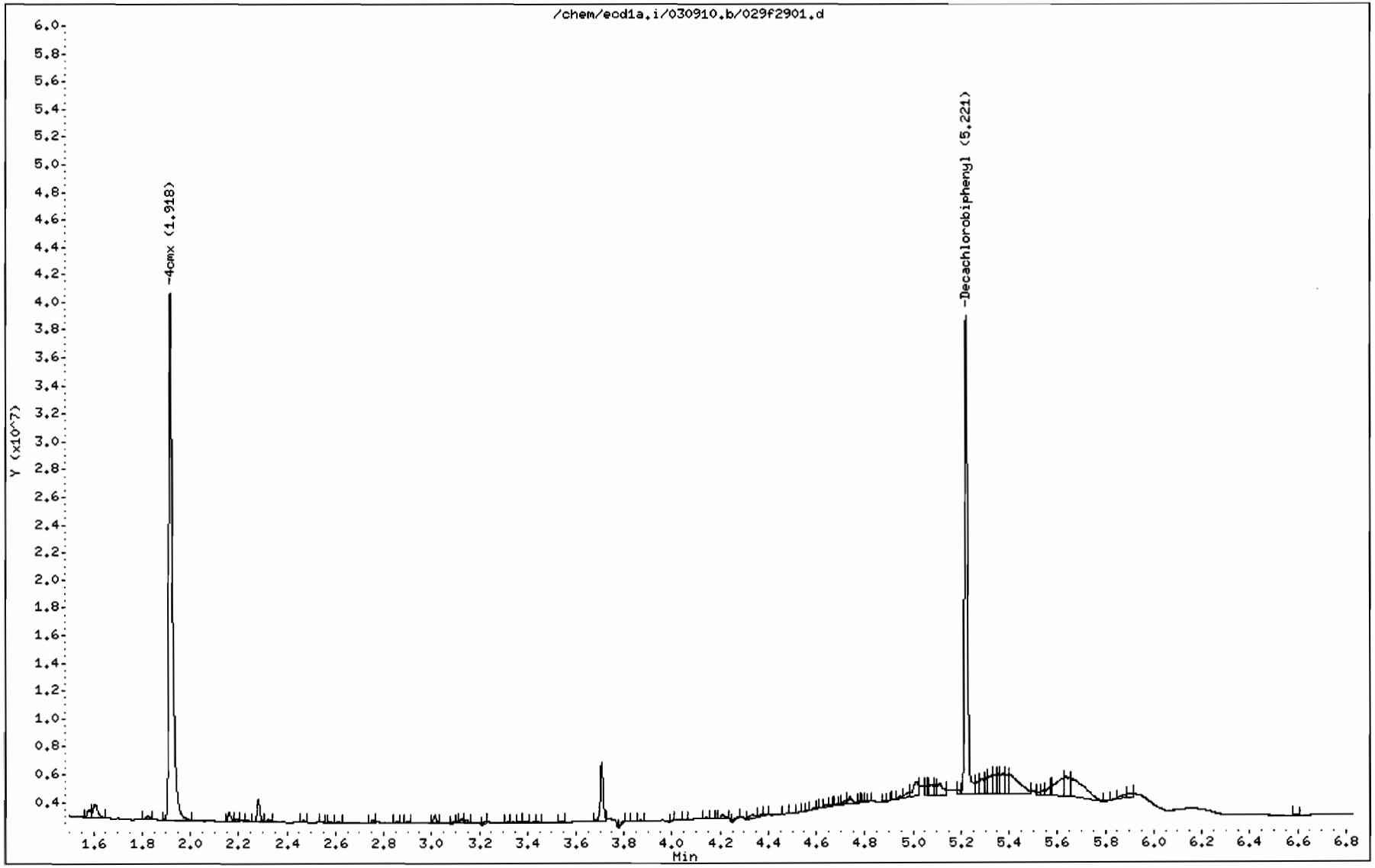

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/029b2901.d
Lab Smp Id: 247824001 Client Smp ID: CAPA-10-13498
Inj Date : 09-MAR-2010 11:03
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |247824001|1|
Misc Info : |ECD82P_1L|961887|SVA|LANL|GROUND WATER|CAPA-10-13498||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 10:54 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 29
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	900.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.275	2.276	-0.001	28670007	96.4032	0.11	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.916	5.918	-0.002	18082515	85.4972	0.095	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/029b2901.d

Date : 09-MAR-2010 11:03

Client ID: CAPA-10-13498

Sample Info: |24782400|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

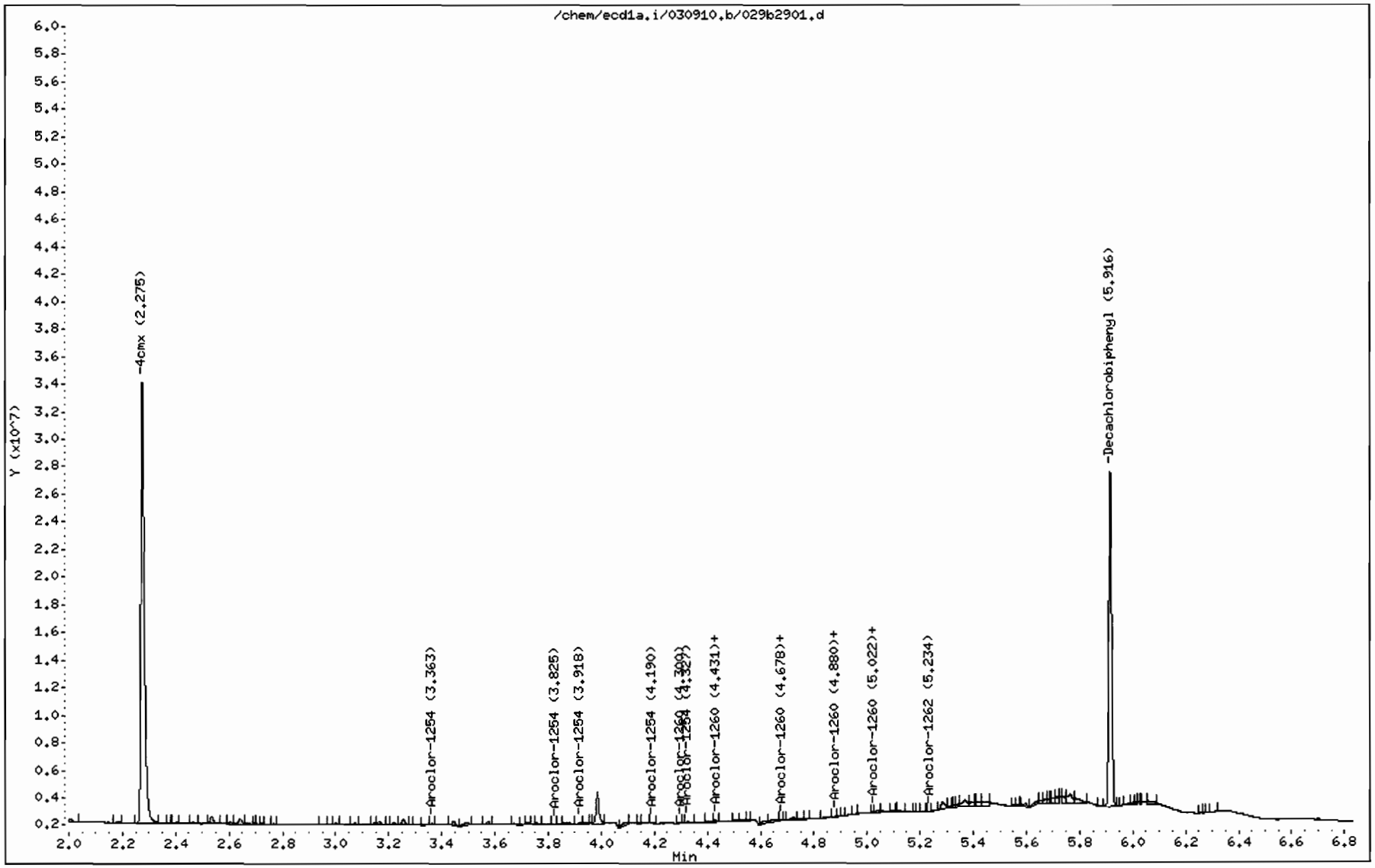

STANDARDS DATA

Report Date: 09-Mar-2010 14:38

Calibration History

Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032f3201.d
22-FEB-2010 10:23	AR1248	/chem/ecd1a.i/022210.b/026f2601.d
22-FEB-2010 09:20	AR1242	/chem/ecd1a.i/022210.b/020f2001.d
22-FEB-2010 08:16	AR1254	/chem/ecd1a.i/022210.b/014f1401.d
22-FEB-2010 07:13	AR1660	/chem/ecd1a.i/022210.b/008f0801.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033f3301.d
22-FEB-2010 10:33	AR1248	/chem/ecd1a.i/022210.b/027f2701.d
22-FEB-2010 09:30	AR1242	/chem/ecd1a.i/022210.b/021f2101.d
22-FEB-2010 08:27	AR1254	/chem/ecd1a.i/022210.b/015f1501.d
22-FEB-2010 07:24	AR1660	/chem/ecd1a.i/022210.b/009f0901.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034f3401.d
22-FEB-2010 10:44	AR1248	/chem/ecd1a.i/022210.b/028f2801.d
22-FEB-2010 09:41	AR1242	/chem/ecd1a.i/022210.b/022f2201.d
22-FEB-2010 08:37	AR1254	/chem/ecd1a.i/022210.b/016f1601.d
22-FEB-2010 07:34	AR1660	/chem/ecd1a.i/022210.b/010f1001.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035f3501.d
22-FEB-2010 11:05	AR1248	/chem/ecd1a.i/022210.b/030f3001.d
22-FEB-2010 09:51	AR1242	/chem/ecd1a.i/022210.b/023f2301.d
22-FEB-2010 08:48	AR1254	/chem/ecd1a.i/022210.b/017f1701.d
22-FEB-2010 07:45	AR1660	/chem/ecd1a.i/022210.b/011f1101.d
22-FEB-2010 07:03	AR1262	/chem/ecd1a.i/022210.b/007f0701.d
22-FEB-2010 06:52	AR1221	/chem/ecd1a.i/022210.b/006f0601.d
22-FEB-2010 06:41	AR1232	/chem/ecd1a.i/022210.b/005f0501.d
22-FEB-2010 06:31	DDTANALOGSTD	/chem/ecd1a.i/022210.b/004f0401.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036f3601.d
22-FEB-2010 10:54	AR1248	/chem/ecd1a.i/022210.b/029f2901.d
22-FEB-2010 10:02	AR1242	/chem/ecd1a.i/022210.b/024f2401.d
22-FEB-2010 08:59	AR1254	/chem/ecd1a.i/022210.b/018f1801.d
22-FEB-2010 07:55	AR1660	/chem/ecd1a.i/022210.b/012f1201.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:58	AR1232	/chem/ecd1a.i/030910.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 13:35	AR1660	/chem/ecd1a.i/030910.b/042f4201.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 12:23	AR1660	/chem/ecd1a.i/030910.b/036f3601.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 10:21	AR1660	/chem/ecd1a.i/030910.b/025f2501.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 09:12	AR1660	/chem/ecd1a.i/030910.b/019f1901.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 07:19	AR1262	/chem/ecd1a.i/030910.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 07:08	AR1221	/chem/ecd1a.i/030910.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:47	AR1268	/chem/ecd1a.i/030910.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:37	AR1248	/chem/ecd1a.i/030910.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:26	AR1242	/chem/ecd1a.i/030910.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:16	AR1254	/chem/ecd1a.i/030910.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:05	AR1660	/chem/ecd1a.i/030910.b/002f0201.d

Report Date: 09-Mar-2010 14:37

Calibration History

Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032b3201.d
22-FEB-2010 10:23	AR1248	/chem/ecd1a.i/022210.b/026b2601.d
22-FEB-2010 09:20	AR1242	/chem/ecd1a.i/022210.b/020b2001.d
22-FEB-2010 08:16	AR1254	/chem/ecd1a.i/022210.b/014b1401.d
22-FEB-2010 07:13	AR1660	/chem/ecd1a.i/022210.b/008b0801.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033b3301.d
22-FEB-2010 10:33	AR1248	/chem/ecd1a.i/022210.b/027b2701.d
22-FEB-2010 09:30	AR1242	/chem/ecd1a.i/022210.b/021b2101.d
22-FEB-2010 08:27	AR1254	/chem/ecd1a.i/022210.b/015b1501.d
22-FEB-2010 07:24	AR1660	/chem/ecd1a.i/022210.b/009b0901.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034b3401.d
22-FEB-2010 10:44	AR1248	/chem/ecd1a.i/022210.b/028b2801.d
22-FEB-2010 09:41	AR1242	/chem/ecd1a.i/022210.b/022b2201.d
22-FEB-2010 08:37	AR1254	/chem/ecd1a.i/022210.b/016b1601.d
22-FEB-2010 07:34	AR1660	/chem/ecd1a.i/022210.b/010b1001.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035b3501.d
22-FEB-2010 11:05	AR1248	/chem/ecd1a.i/022210.b/030b3001.d
22-FEB-2010 09:51	AR1242	/chem/ecd1a.i/022210.b/023b2301.d
22-FEB-2010 08:48	AR1254	/chem/ecd1a.i/022210.b/017b1701.d
22-FEB-2010 07:45	AR1660	/chem/ecd1a.i/022210.b/011b1101.d
22-FEB-2010 07:03	AR1262	/chem/ecd1a.i/022210.b/007b0701.d
22-FEB-2010 06:52	AR1221	/chem/ecd1a.i/022210.b/006b0601.d
22-FEB-2010 06:41	AR1232	/chem/ecd1a.i/022210.b/005b0501.d
22-FEB-2010 06:31	DDTANALOGSTD	/chem/ecd1a.i/022210.b/004b0401.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036b3601.d
22-FEB-2010 10:54	AR1248	/chem/ecd1a.i/022210.b/029b2901.d
22-FEB-2010 10:02	AR1242	/chem/ecd1a.i/022210.b/024b2401.d
22-FEB-2010 08:59	AR1254	/chem/ecd1a.i/022210.b/018b1801.d
22-FEB-2010 07:55	AR1660	/chem/ecd1a.i/022210.b/012b1201.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

| Ccal Level: 4 , Ccal Amount: 1000 |

09-MAR-2010 13:35	AR1660	/chem/ecd1a.i/030910.b/042b4201.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 12:23	AR1660	/chem/ecd1a.i/030910.b/036b3601.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 10:21	AR1660	/chem/ecd1a.i/030910.b/025b2501.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 09:12	AR1660	/chem/ecd1a.i/030910.b/019b1901.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 07:19	AR1262	/chem/ecd1a.i/030910.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 07:08	AR1221	/chem/ecd1a.i/030910.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:58	AR1232	/chem/ecd1a.i/030910.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:47	AR1268	/chem/ecd1a.i/030910.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:37	AR1248	/chem/ecd1a.i/030910.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:26	AR1242	/chem/ecd1a.i/030910.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:16	AR1254	/chem/ecd1a.i/030910.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:05	AR1660	/chem/ecd1a.i/030910.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Quant Method : ESTD Target Version : 3.50
Last Update : 09-Mar-2010 14:23 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.370	2.340-2.400	1.538e+04
	2.656	2.626-2.686	1.824e+04
	2.736	2.706-2.766	1.207e+04
	2.774	2.744-2.804	7.096e+03
	2.984	2.954-3.014	8.912e+03
63 4,4-DDD	3.900	3.880-3.920	3.060e+05
64 4,4-DDE	3.551	3.531-3.571	3.552e+05
62 4,4-DDT	4.064	4.044-4.084	2.080e+05
2 Aroclor-1221	2.030	2.000-2.060	4.398e+03
	2.123	2.093-2.153	2.431e+03
	2.148	2.118-2.178	1.042e+04
3 Aroclor-1232	2.370	2.340-2.400	6.218e+03
	2.656	2.626-2.686	7.488e+03
	2.737	2.707-2.767	4.887e+03
	2.851	2.821-2.881	2.191e+03
	3.238	3.208-3.268	2.731e+03
4 Aroclor-1242	2.370	2.340-2.400	1.256e+04
	2.658	2.628-2.688	1.461e+04
	2.775	2.745-2.805	5.629e+03
	2.985	2.955-3.015	7.310e+03
	3.238	3.208-3.268	6.183e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m

Compound	RT	RT Window	RF
5 Aroclor-1248	2.851	2.821-2.881	9.301e+03
	2.985	2.955-3.015	1.241e+04
	3.238	3.208-3.268	1.220e+04
	3.370	3.340-3.400	1.042e+04
	3.603	3.573-3.633	6.820e+03
6 Aroclor-1254	3.213	3.183-3.243	1.201e+04
	3.368	3.338-3.398	1.583e+04
	3.602	3.572-3.632	1.952e+04
	3.764	3.734-3.794	1.381e+04
	3.874	3.844-3.904	1.428e+04
7 Aroclor-1260	3.710	3.680-3.740	1.707e+04
	3.873	3.843-3.903	2.364e+04
	4.035	4.005-4.065	2.497e+04
	4.102	4.072-4.132	1.441e+04
	4.246	4.216-4.276	1.443e+04
8 Aroclor-1262	3.711	3.681-3.741	1.261e+04
	3.874	3.844-3.904	1.569e+04
	4.104	4.074-4.134	1.995e+04
	4.246	4.216-4.276	1.798e+04
	4.425	4.395-4.455	3.725e+04
9 Aroclor-1268	4.609	4.579-4.639	4.848e+04
	4.632	4.602-4.662	5.448e+04
	4.745	4.715-4.775	3.862e+04
	4.947	4.917-4.977	1.635e+04
	5.113	5.083-5.143	1.121e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.916	1.886-1.946	4.306e+05
$ 12 Decachlorobiphenyl	5.223	5.193-5.253	3.073e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Quant Method : ESTD Target Version : 3.50
Last Update : 09-Mar-2010 14:09 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.170	3.140-3.200	1.279e+04
	3.253	3.223-3.283	8.918e+03
	3.316	3.286-3.346	5.406e+03
	3.544	3.514-3.574	6.916e+03
	3.619	3.589-3.649	6.425e+03
62 4,4-DDT	4.660	4.640-4.680	1.000e+05
63 4,4-DDE	4.128	4.108-4.148	2.505e+05
64 4,4-DDD	4.473	4.453-4.493	2.085e+05
2 Aroclor-1221	2.473	2.443-2.503	3.431e+03
	2.567	2.537-2.597	2.152e+03
	2.607	2.577-2.637	7.328e+03
3 Aroclor-1232	2.873	2.843-2.903	4.920e+03
	3.171	3.141-3.201	5.252e+03
	3.254	3.224-3.284	3.768e+03
	3.544	3.514-3.574	2.699e+03
	3.778	3.748-3.808	2.631e+03
4 Aroclor-1242	3.171	3.141-3.201	1.035e+04
	3.254	3.224-3.284	7.279e+03
	3.544	3.514-3.574	5.768e+03
	3.778	3.748-3.808	5.788e+03
	3.805	3.775-3.835	6.641e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.380	3.350-3.410	7.602e+03
	3.545	3.515-3.575	9.360e+03
	3.778	3.748-3.808	1.065e+04
	3.805	3.775-3.835	1.210e+04
	3.942	3.912-3.972	1.150e+04
6 Aroclor-1254	3.378	3.348-3.408	6.068e+03
	3.801	3.771-3.831	1.074e+04
	3.918	3.888-3.948	1.164e+04
	4.193	4.163-4.223	1.590e+04
	4.329	4.299-4.359	1.198e+04
7 Aroclor-1260	4.309	4.279-4.339	1.321e+04
	4.435	4.405-4.465	1.557e+04
	4.700	4.670-4.730	1.184e+04
	4.873	4.843-4.903	1.220e+04
	5.021	4.991-5.051	2.653e+04
8 Aroclor-1262	4.434	4.404-4.464	1.126e+04
	4.700	4.670-4.730	1.550e+04
	4.874	4.844-4.904	1.407e+04
	5.020	4.990-5.050	2.845e+04
	5.234	5.204-5.264	1.972e+04
9 Aroclor-1268	5.231	5.201-5.261	3.730e+04
	5.260	5.230-5.290	3.492e+04
	5.409	5.379-5.439	2.658e+04
	5.574	5.544-5.604	1.223e+04
	5.766	5.736-5.796	7.433e+04
10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.276	2.246-2.306	2.974e+05
$ 12 Decachlorobiphenyl	5.918	5.888-5.948	2.115e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Cal Date : 09-Mar-2010 14:23 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032f3201.d
Level 2: /chem/ecd1a.i/022210.b/033f3301.d
Level 3: /chem/ecd1a.i/022210.b/034f3401.d
Level 4: /chem/ecd1a.i/022210.b/035f3501.d
Level 5: /chem/ecd1a.i/022210.b/036f3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	18473	16312	15150	14238	12749	15384	14.060
(2)	20194	18537	17759	17625	17070	18237	6.651
(3)	14170	12473	11875	11163	10646	12065	11.317
(4)	8163	7198	6933	6624	6564	7096	9.135
(5)	10345	9178	8623	8273	8142	8912	10.051
63 4,4-DDD	+++++	+++++	+++++	305990	+++++	305990	0.000
64 4,4-DDE	+++++	+++++	+++++	355239	+++++	355239	0.000
62 4,4-DDT	+++++	+++++	+++++	208015	+++++	208015	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4398	+++++	4398	0.000
(2)	+++++	+++++	+++++	2431	+++++	2431	0.000
(3)	+++++	+++++	+++++	10418	+++++	10418	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6218	+++++	6218	0.000
(2)	+++++	+++++	+++++	7488	+++++	7488	0.000
(3)	+++++	+++++	+++++	4887	+++++	4887	0.000
(4)	+++++	+++++	+++++	2191	+++++	2191	0.000
(5)	+++++	+++++	+++++	2731	+++++	2731	0.000
4 Aroclor-1242(1)	14895	13406	12308	11554	10624	12557	13.200
(2)	15940	15326	14418	13613	13761	14612	6.870
(3)	6066	5934	5542	5337	5267	5629	6.326
(4)	8523	7616	7127	6725	6562	7310	10.814
(5)	6824	6256	5999	5817	6020	6183	6.317
5 Aroclor-1248(1)	10594	9810	9017	8885	8199	9301	9.911
(2)	14228	12736	11895	11712	11476	12409	9.043
(3)	12841	12156	11815	11785	12410	12201	3.615
(4)	11297	10503	10013	9956	10333	10420	5.179
(5)	7445	6917	6453	6460	6824	6820	5.977

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Cal Date : 09-Mar-2010 14:23 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	___ RRF	% RSD
6 Aroclor-1254(1)	13496	12213	11744	11466	11117	12007	7.694
(2)	16789	15969	15727	15423	15253	15832	3.802
(3)	20267	19353	19208	19481	19310	19524	2.185
(4)	14142	13669	13487	13772	13976	13809	1.858
(5)	15228	14234	13851	14228	13864	14281	3.932
7 Aroclor-1260(1)	19445	17307	16758	16208	15645	17072	8.574
(2)	25625	23757	23316	22992	22528	23643	5.056
(3)	27164	24948	24176	24127	24442	24971	5.079
(4)	16166	14596	13941	13551	13775	14406	7.345
(5)	15672	14437	13986	13647	14411	14431	5.316
8 Aroclor-1262(1)	+++++	+++++	+++++	12612	+++++	12612	0.000
(2)	+++++	+++++	+++++	15693	+++++	15693	0.000
(3)	+++++	+++++	+++++	19946	+++++	19946	0.000
(4)	+++++	+++++	+++++	17981	+++++	17981	0.000
(5)	+++++	+++++	+++++	37250	+++++	37250	0.000
9 Aroclor-1268(1)	49163	48928	48151	48132	48019	48478	1.086
(2)	55254	54719	54718	54649	53075	54483	1.512
(3)	39937	38826	38121	38191	38006	38616	2.083
(4)	16234	16191	16152	16347	16815	16348	1.657
(5)	114910	115297	111446	111050	107804	112101	2.753
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	457836	439032	431646	423676	400995	430637	4.841
$ 12 Decachlorobiphenyl	331580	312081	303953	298909	289924	307289	5.135

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Cal Date : 09-Mar-2010 14:09 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032b3201.d
Level 2: /chem/ecd1a.i/022210.b/033b3301.d
Level 3: /chem/ecd1a.i/022210.b/034b3401.d
Level 4: /chem/ecd1a.i/022210.b/035b3501.d
Level 5: /chem/ecd1a.i/022210.b/036b3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14790	13406	12599	11956	11198	12790	10.807
(2)	11020	9550	8735	8081	7204	8918	16.336
(3)	6667	5702	5261	4923	4477	5406	15.464
(4)	8469	7466	6811	6206	5627	6916	15.991
(5)	7861	6755	6366	5845	5300	6425	15.123
62 4,4-DDT	+++++	+++++	+++++	100019	+++++	100019	0.000
63 4,4-DDE	+++++	+++++	+++++	250510	+++++	250510	0.000
64 4,4-DDD	+++++	+++++	+++++	208527	+++++	208527	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3431	+++++	3431	0.000
(2)	+++++	+++++	+++++	2152	+++++	2152	0.000
(3)	+++++	+++++	+++++	7328	+++++	7328	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	4920	+++++	4920	0.000
(2)	+++++	+++++	+++++	5252	+++++	5252	0.000
(3)	+++++	+++++	+++++	3768	+++++	3768	0.000
(4)	+++++	+++++	+++++	2699	+++++	2699	0.000
(5)	+++++	+++++	+++++	2631	+++++	2631	0.000
4 Aroclor-1242(1)	12162	10602	10267	9852	8873	10351	11.615
(2)	8972	7860	7095	6551	5917	7279	16.286
(3)	7172	6222	5595	5138	4714	5768	16.707
(4)	7092	6149	5608	5215	4876	5788	15.018
(5)	8262	7049	6439	5944	5512	6641	16.138
5 Aroclor-1248(1)	9375	8130	7334	6873	6297	7602	15.743
(2)	11273	9902	9059	8609	7955	9360	13.704
(3)	12356	11118	10348	9982	9432	10647	10.657
(4)	14147	12783	11698	11327	10532	12097	11.596
(5)	13387	12032	11069	10719	10286	11499	10.750

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Cal Date : 09-Mar-2010 14:09 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7593	6474	5915	5463	4897	6068	16.986
(2)	13079	11278	10543	9836	8978	10743	14.511
(3)	14023	12144	11373	10769	9907	11643	13.419
(4)	18579	16173	15683	15087	13972	15899	10.745
(5)	14693	12059	11530	11303	10291	11975	13.772
7 Aroclor-1260(1)	16156	14478	12627	11898	10869	13206	15.988
(2)	18308	16389	15401	14483	13254	15567	12.332
(3)	14169	12468	11644	10875	10061	11844	13.319
(4)	14677	12787	11930	11182	10430	12201	13.416
(5)	30570	27429	26347	25126	23163	26527	10.405
8 Aroclor-1262(1)	+++++	+++++	+++++	11265	+++++	11265	0.000
(2)	+++++	+++++	+++++	15504	+++++	15504	0.000
(3)	+++++	+++++	+++++	14070	+++++	14070	0.000
(4)	+++++	+++++	+++++	28448	+++++	28448	0.000
(5)	+++++	+++++	+++++	19723	+++++	19723	0.000
9 Aroclor-1268(1)	41829	39003	36612	35751	33294	37298	8.721
(2)	39747	36378	33891	33096	31474	34917	9.246
(3)	30202	27679	25801	25188	24032	26580	9.093
(4)	14370	12834	11677	11309	10971	12232	11.329
(5)	81955	77588	73073	71224	67792	74326	7.452
10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	335261	308362	295849	285028	262485	297397	9.098
$ 12 Decachlorobiphenyl	252219	220293	206273	196840	181867	211498	12.633

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

Instrument ID: ECD1A Calibration Date: 03/09/10 Time: 0605

Lab File ID: 002F0201 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15384.345	13476.079	0.01	-12.4	15.0
(2)	18237.012	17118.774	0.01	-6.1	15.0
(3)	12065.482	10856.453	0.01	-10.0	15.0
(4)	7096.105	6531.897	0.01	-8.0	15.0
(5)	8912.192	8268.348	0.01	-7.2	15.0
Aroclor-1260	17072.421	16301.721	0.01	-4.5	15.0
(2)	23643.449	24329.087	0.01	2.9	15.0
(3)	24971.335	26072.574	0.01	4.4	15.0
(4)	14405.675	14699.904	0.01	2.0	15.0
(5)	14430.527	15333.852	0.01	6.2	15.0
4cmx	430636.91	381155.79	0.01	-11.5	15.0
Decachlorobiphenyl	307289.35	296054.84	0.01	-3.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

Instrument ID: ECD1A Calibration Date: 03/09/10 Time: 0605

Lab File ID: 002B0201 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	12184.528	0.01	-4.7	15.0
(2)	8917.926	7823.059	0.01	-12.3	15.0
(3)	5406.011	4862.200	0.01	-10.0	15.0
(4)	6915.638	6333.733	0.01	-8.4	15.0
(5)	6425.213	5855.276	0.01	-8.9	15.0
Aroclor-1260	13205.642	11874.381	0.01	-10.1	15.0
(2)	15566.814	14523.516	0.01	-6.7	15.0
(3)	11843.501	10940.143	0.01	-7.6	15.0
(4)	12201.193	11358.948	0.01	-6.9	15.0
(5)	26527.172	25417.207	0.01	-4.2	15.0
4cmx	297396.93	265127.64	0.01	-10.8	15.0
Decachlorobiphenyl	211498.34	189933.73	0.01	-10.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

Instrument ID: ECD1A Calibration Date: 03/09/10 Time: 1021

Lab File ID: 025F2501 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15384.345	14060.684	0.01	-8.6	15.0
(2)	18237.012	17777.120	0.01	-2.5	15.0
(3)	12065.482	11271.847	0.01	-6.6	15.0
(4)	7096.105	6815.126	0.01	-4.0	15.0
(5)	8912.192	8730.276	0.01	-2.0	15.0
Aroclor-1260	17072.421	17016.414	0.01	-0.3	15.0
(2)	23643.449	25400.273	0.01	7.4	15.0
(3)	24971.335	27114.496	0.01	8.6	15.0
(4)	14405.675	15286.706	0.01	6.1	15.0
(5)	14430.527	15918.474	0.01	10.3	15.0
4cmx	430636.91	396802.26	0.01	-7.8	15.0
Decachlorobiphenyl	307289.35	309415.76	0.01	0.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

Instrument ID: ECD1A Calibration Date: 03/09/10 Time: 1021

Lab File ID: 025B2501 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	12193.531	0.01	-4.7	15.0
(2)	8917.926	7901.532	0.01	-11.4	15.0
(3)	5406.011	4934.564	0.01	-8.7	15.0
(4)	6915.638	6203.624	0.01	-10.3	15.0
(5)	6425.213	5825.015	0.01	-9.3	15.0
Aroclor-1260	13205.642	11974.228	0.01	-9.3	15.0
(2)	15566.814	14696.750	0.01	-5.6	15.0
(3)	11843.501	11082.986	0.01	-6.4	15.0
(4)	12201.193	11537.123	0.01	-5.4	15.0
(5)	26527.172	25747.290	0.01	-2.9	15.0
4cmx	297396.93	267436.61	0.01	-10.1	15.0
Decachlorobiphenyl	211498.34	193873.52	0.01	-8.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

Instrument ID: ECD1A Calibration Date: 03/09/10 Time: 1223

Lab File ID: 036F3601 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15384.345	14278.137	0.01	-7.2	15.0
(2)	18237.012	18701.586	0.01	2.5	15.0
(3)	12065.482	11479.585	0.01	-4.8	15.0
(4)	7096.105	6956.938	0.01	-2.0	15.0
(5)	8912.192	8887.593	0.01	-0.3	15.0
Aroclor-1260	17072.421	17231.278	0.01	0.9	15.0
(2)	23643.449	25747.342	0.01	8.9	15.0
(3)	24971.335	27594.766	0.01	10.5	15.0
(4)	14405.675	15539.148	0.01	7.9	15.0
(5)	14430.527	16196.327	0.01	12.2	15.0
4cmx	430636.91	404714.44	0.01	-6.0	15.0
Decachlorobiphenyl	307289.35	318067.20	0.01	3.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

Instrument ID: ECD1A Calibration Date: 03/09/10 Time: 1223

Lab File ID: 036B3601 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	12542.512	0.01	-1.9	15.0
(2)	8917.926	8094.605	0.01	-9.2	15.0
(3)	5406.011	5066.938	0.01	-6.3	15.0
(4)	6915.638	6566.448	0.01	-5.0	15.0
(5)	6425.213	6086.252	0.01	-5.3	15.0
Aroclor-1260	13205.642	12295.985	0.01	-6.9	15.0
(2)	15566.814	15078.122	0.01	-3.1	15.0
(3)	11843.501	11370.329	0.01	-4.0	15.0
(4)	12201.193	11877.501	0.01	-2.6	15.0
(5)	26527.172	26534.899	0.01	0.0	15.0
4cmx	297396.93	275451.91	0.01	-7.4	15.0
Decachlorobiphenyl	211498.34	199844.80	0.01	-5.5	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/002f0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 09-MAR-2010 06:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.916	1.916	0.000	38115579	100.000	88.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.223	5.223	0.000	29605484	100.000	96.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.370	2.370	0.000	13476078	1000.00	876	80.00- 120.00	100.00
2.656	2.656	0.000	17118773	1000.00	939	107.03- 147.03	127.03
2.736	2.736	0.000	10856452	1000.00	900	60.56- 100.56	80.56
2.774	2.774	0.000	6531897	1000.00	920	28.47- 68.47	48.47
2.984	2.984	0.000	8268347	1000.00	928	41.36- 81.36	61.36
Average of Peak Amounts =					913		
7 Aroclor-1260					CAS #: 11096-82-5		
3.710	3.710	0.000	16301721	1000.00	955	80.00- 120.00	100.00
3.873	3.873	0.000	24329086	1000.00	1030	129.24- 169.24	149.24
4.035	4.035	0.000	26072574	1000.00	1040	139.94- 179.94	159.94
4.102	4.102	0.000	14699904	1000.00	1020	70.17- 110.17	90.17
4.246	4.246	0.000	15333852	1000.00	1060	74.06- 114.06	94.06
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecdia.i/030910.b/002f0201.d
Date : 09-MAR-2010 06:05
Client ID: AR166001
Sample Info: IWAR100222-60 01

Column phase: CLP1

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

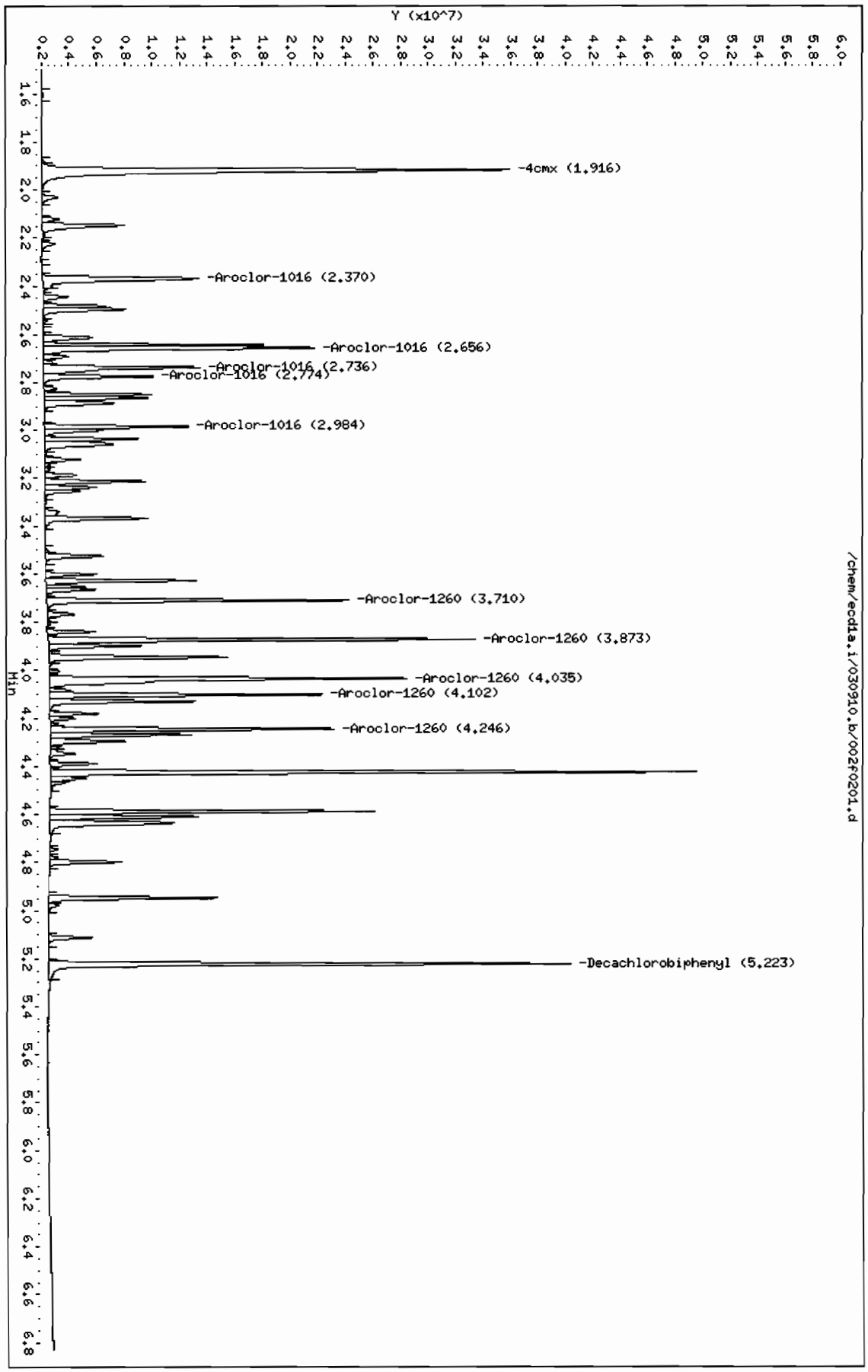

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/002b0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 09-MAR-2010 06:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.276	2.276	0.000	26512764	100.000	89.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.918	5.918	0.000	18993373	100.000	89.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.170	3.170	0.000	12184528	1000.00	953	80.00- 120.00	100.00
3.253	3.253	0.000	7823059	1000.00	877	44.20- 84.20	64.20
3.316	3.316	0.000	4862199	1000.00	899	19.90- 59.90	39.90
3.544	3.544	0.000	6333733	1000.00	916	31.98- 71.98	51.98
3.619	3.619	0.000	5855276	1000.00	911	28.06- 68.06	48.06
Average of Peak Amounts =					911		
7 Aroclor-1260					CAS #: 11096-82-5		
4.309	4.309	0.000	11874381	1000.00	899	80.00- 120.00	100.00
4.435	4.435	0.000	14523516	1000.00	933	102.31- 142.31	122.31
4.700	4.700	0.000	10940143	1000.00	924	72.13- 112.13	92.13
4.873	4.873	0.000	11358947	1000.00	931	75.66- 115.66	95.66
5.021	5.021	0.000	25417206	1000.00	958	194.05- 234.05	214.05
Average of Peak Amounts =					929		

Data File: /chem/ecd1a.i/030910.b/002b0201.d

Date : 09-MAR-2010 06:05

Client ID: AR166001

Sample Info: IWAR100222-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

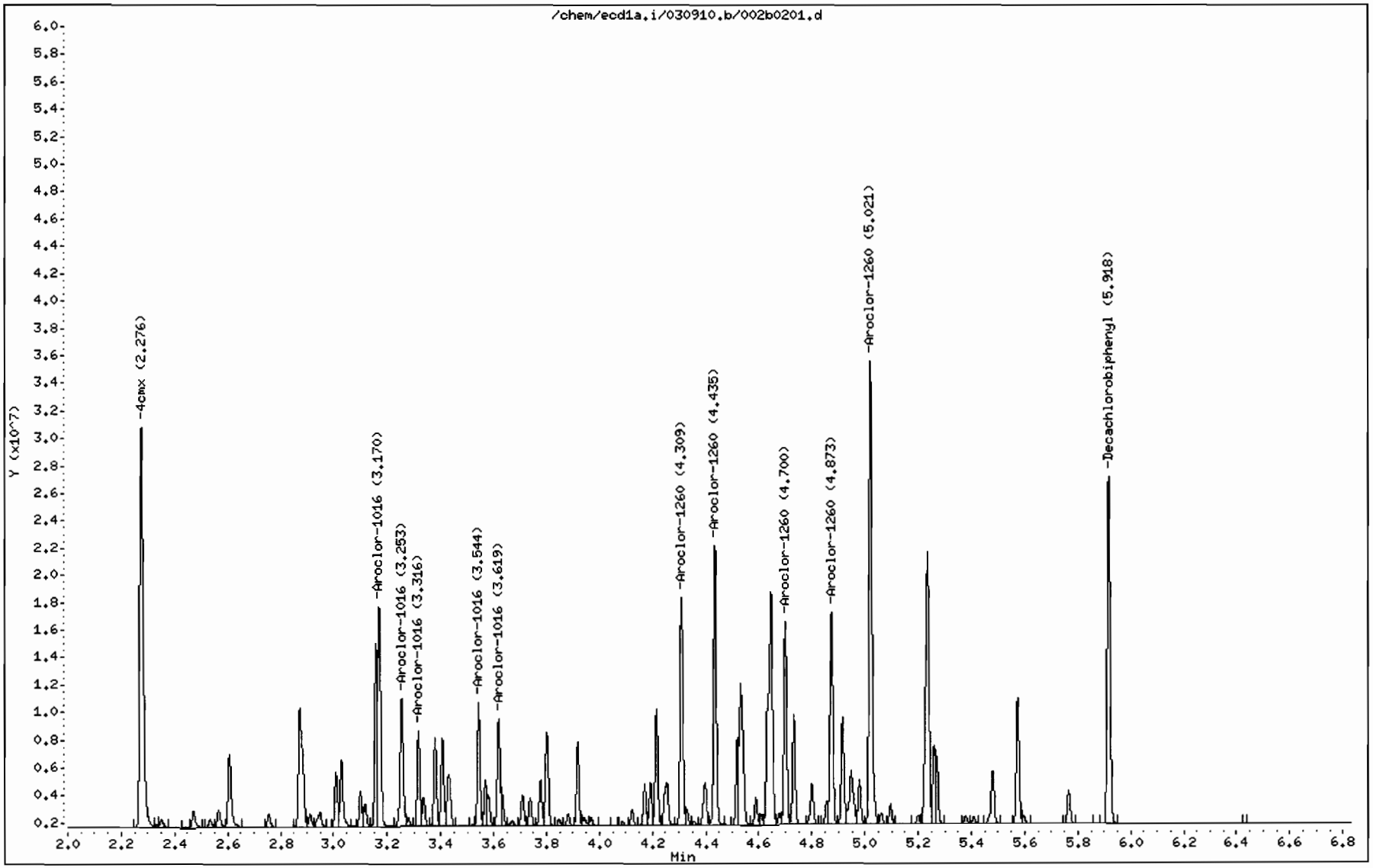

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/003f0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 09-MAR-2010 06:16
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.213	3.213	0.000	11735254	1000.00	977	80.00- 120.00	100.00
3.368	3.368	0.000	15987053	1000.00	1010	116.23- 156.23	136.23
3.602	3.602	0.000	20709681	1000.00	1060	156.47- 196.47	176.47
3.764	3.764	0.000	15509457	1000.00	1120	112.16- 152.16	132.16
3.874	3.874	0.000	15125872	1000.00	1060	108.89- 148.89	128.89

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/030910.b/003f0301.d

Date : 09-MAR-2010 06:16

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

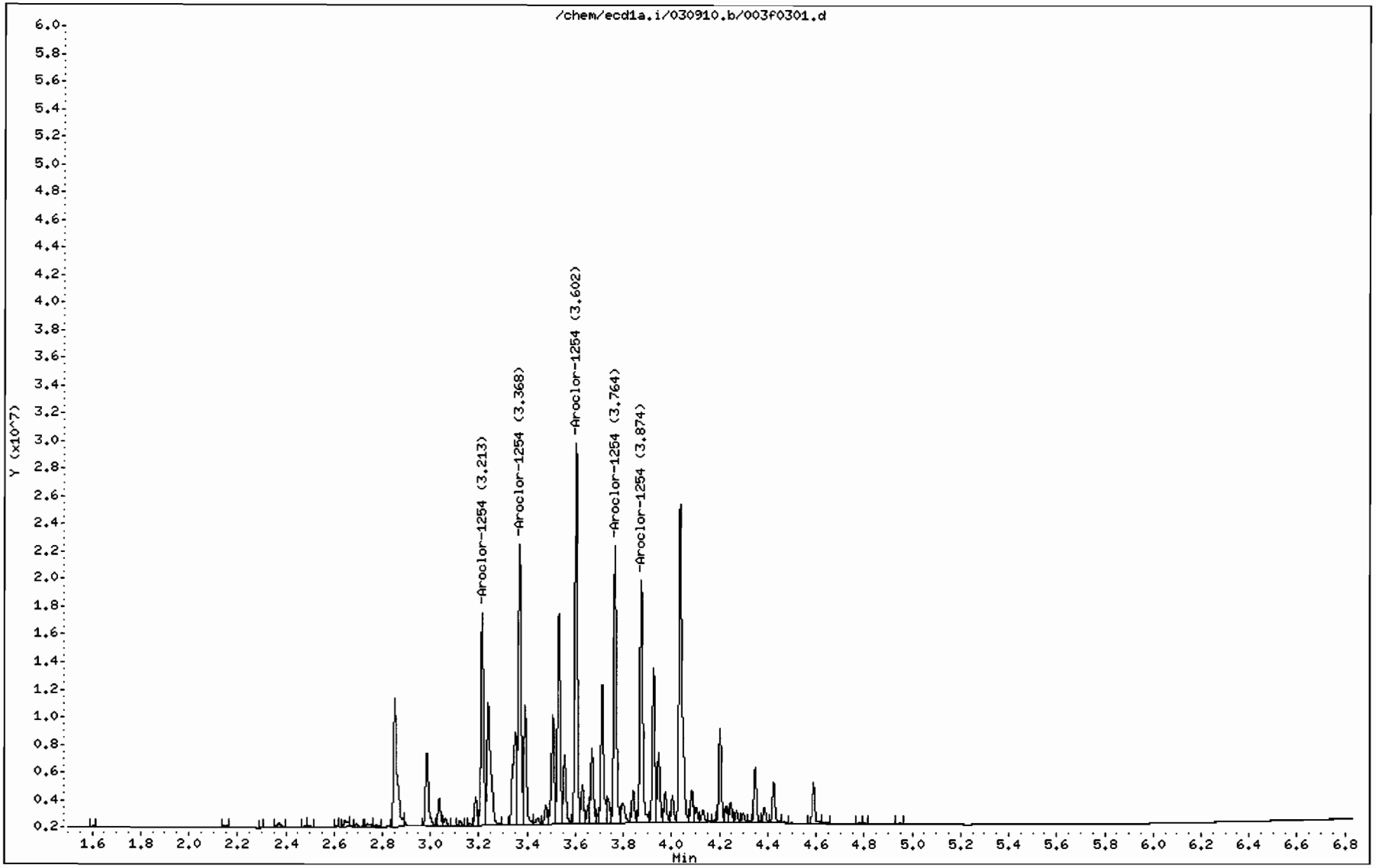

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/003b0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 09-MAR-2010 06:16
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.378	3.378	0.000	5407963	1000.00	891	80.00- 120.00	100.00
3.801	3.801	0.000	9772511	1000.00	910	160.71- 200.71	180.71
3.918	3.918	0.000	10919160	1000.00	938	181.91- 221.91	201.91
4.193	4.193	0.000	15360930	1000.00	966	264.04- 304.04	284.04
4.329	4.329	0.000	11283940	1000.00	942	188.65- 228.65	208.65
Average of Peak Amounts =					929		

Data File: /chem/ecd1a.i/030910.b/003b0301.d

Date : 09-MAR-2010 06:16

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

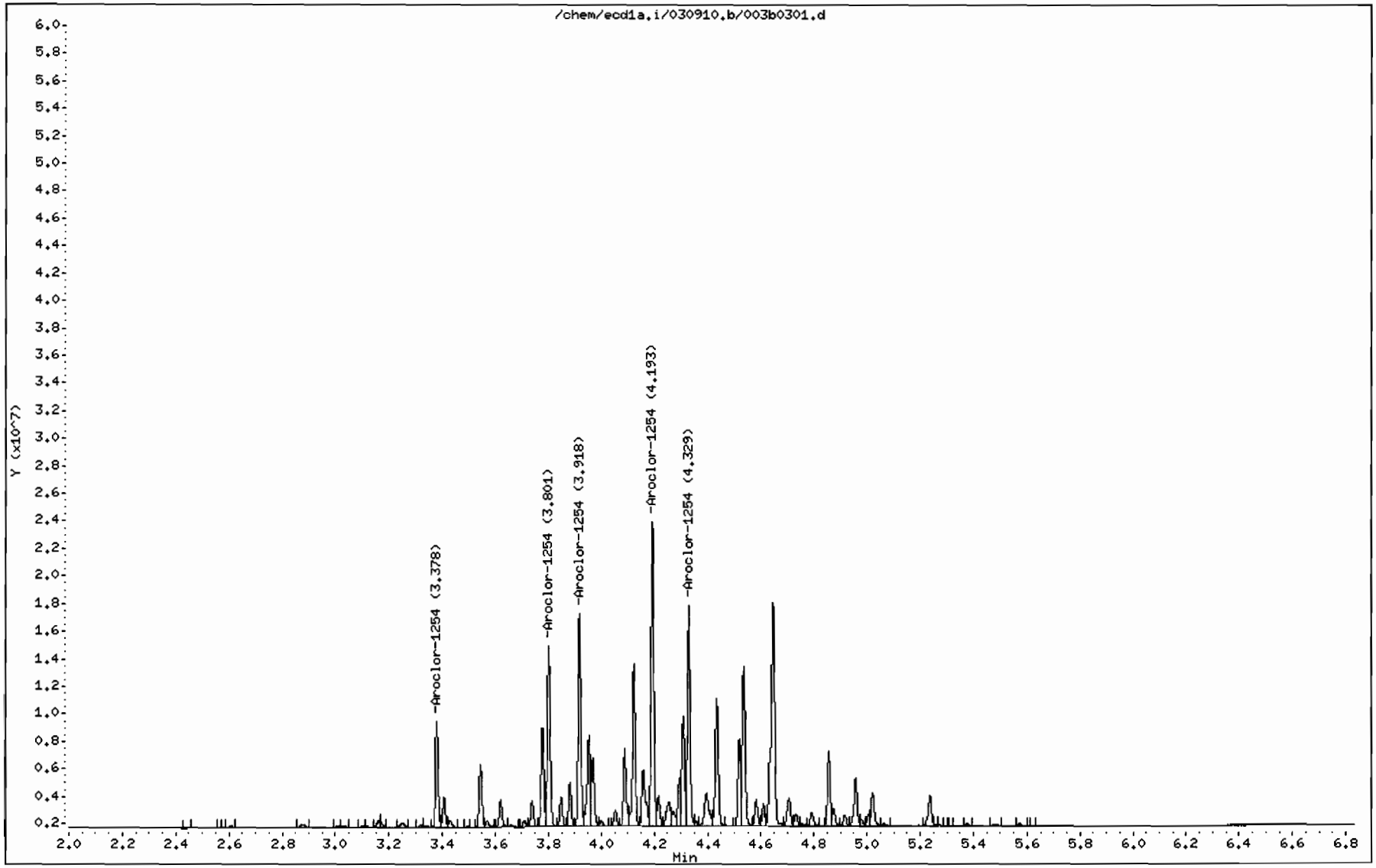

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/004f0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 09-MAR-2010 06:26
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.370	2.370	0.000	11459185	1000.00	912	80.00- 120.00	100.00
2.658	2.658	0.000	14227469	1000.00	974	104.16- 144.16	124.16
2.775	2.775	0.000	5440640	1000.00	966	27.48- 67.48	47.48
2.985	2.985	0.000	7044792	1000.00	964	41.48- 81.48	61.48
3.238	3.238	0.000	6798015	1000.00	1100	39.32- 79.32	59.32
			Average of Peak Amounts =		983		

Data File: /chem/ecd1a.i/030910.b/004f0401.d

Date : 09-MAR-2010 06:26

Client ID: AR124201

Sample Info: IWAR100219-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

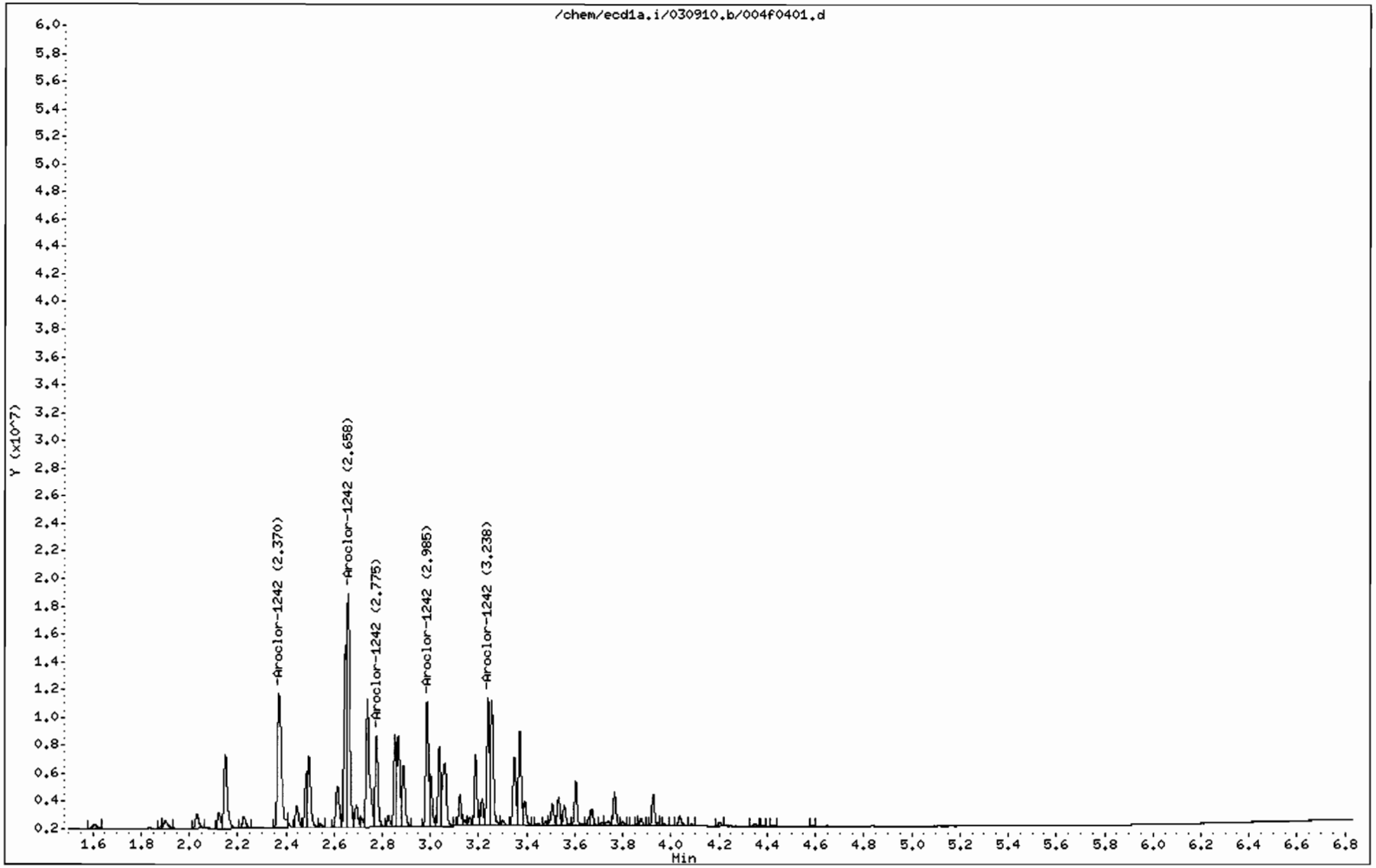

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/004b0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 09-MAR-2010 06:26
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.171	3.171	0.000	9957580	1000.00	962	80.00- 120.00	100.00
3.254	3.254	0.000	6501639	1000.00	893	45.29- 85.29	65.29
3.544	3.544	0.000	5151963	1000.00	893	31.74- 71.74	51.74
3.778	3.778	0.000	5458701	1000.00	943	34.82- 74.82	54.82
3.805	3.805	0.000	6051465	1000.00	911	40.77- 80.77	60.77
			Average of Peak Amounts =		921		

Data File: /chem/ecd1a.i/030910.b/004b0401.d

Date : 09-MAR-2010 06:26

Client ID: AR124201

Sample Info: IWAR100219-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

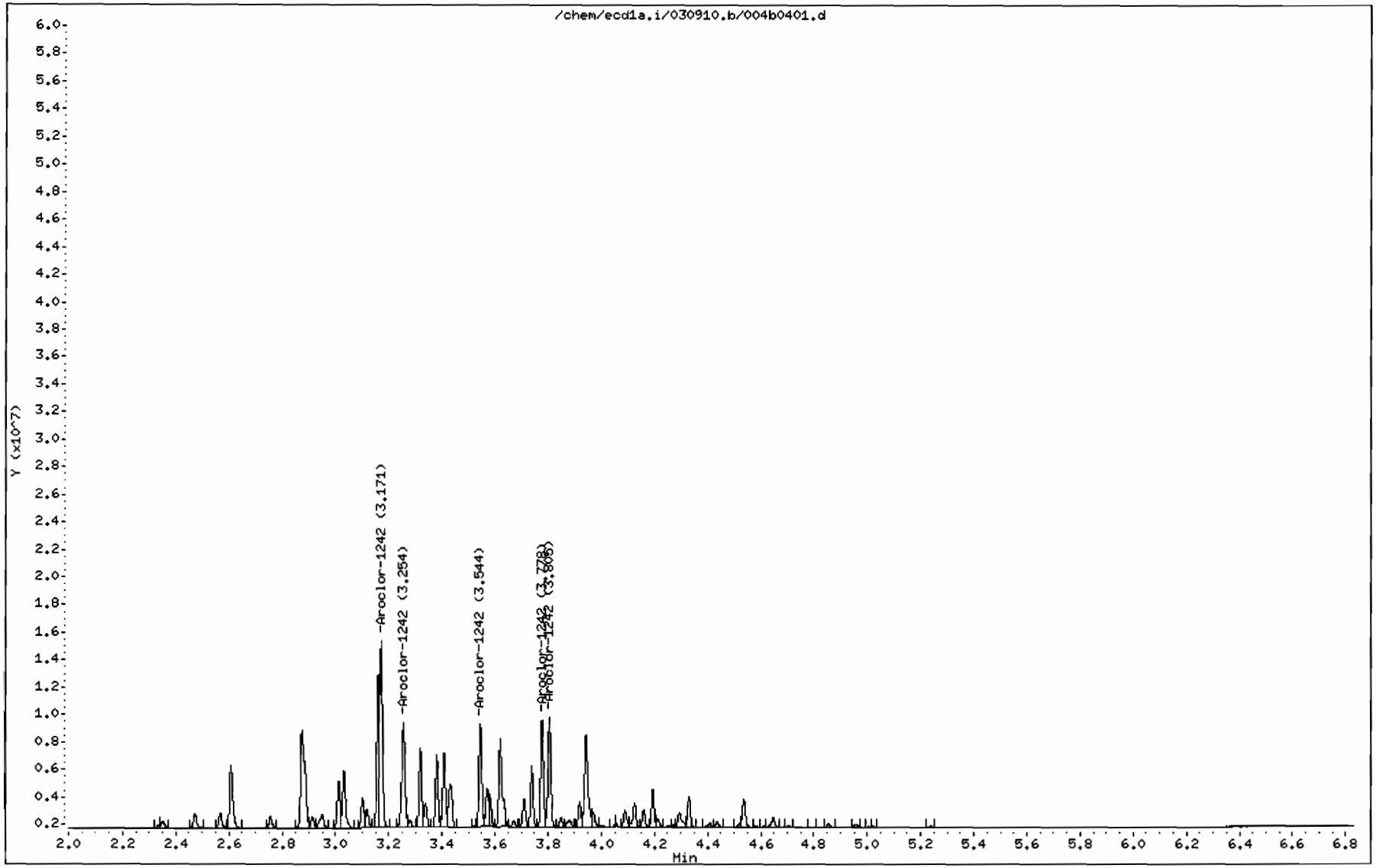

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/005f0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 09-MAR-2010 06:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
2.851	2.851	0.000	9046016	1000.00	972	80.00- 120.00	100.00
2.985	2.985	0.000	12081884	1000.00	974	113.56- 153.56	133.56
3.238	3.238	0.000	13581353	1000.00	1110	130.14- 170.14	150.14
3.370	3.370	0.000	10896732	1000.00	1040	100.46- 140.46	120.46
3.603	3.603	0.000	7304707	1000.00	1070	60.75- 100.75	80.75

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd1a.i/030910.b/005f0501.d

Date : 09-MAR-2010 06:37

Client ID: AR124801

Sample Info: IWAR100223-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

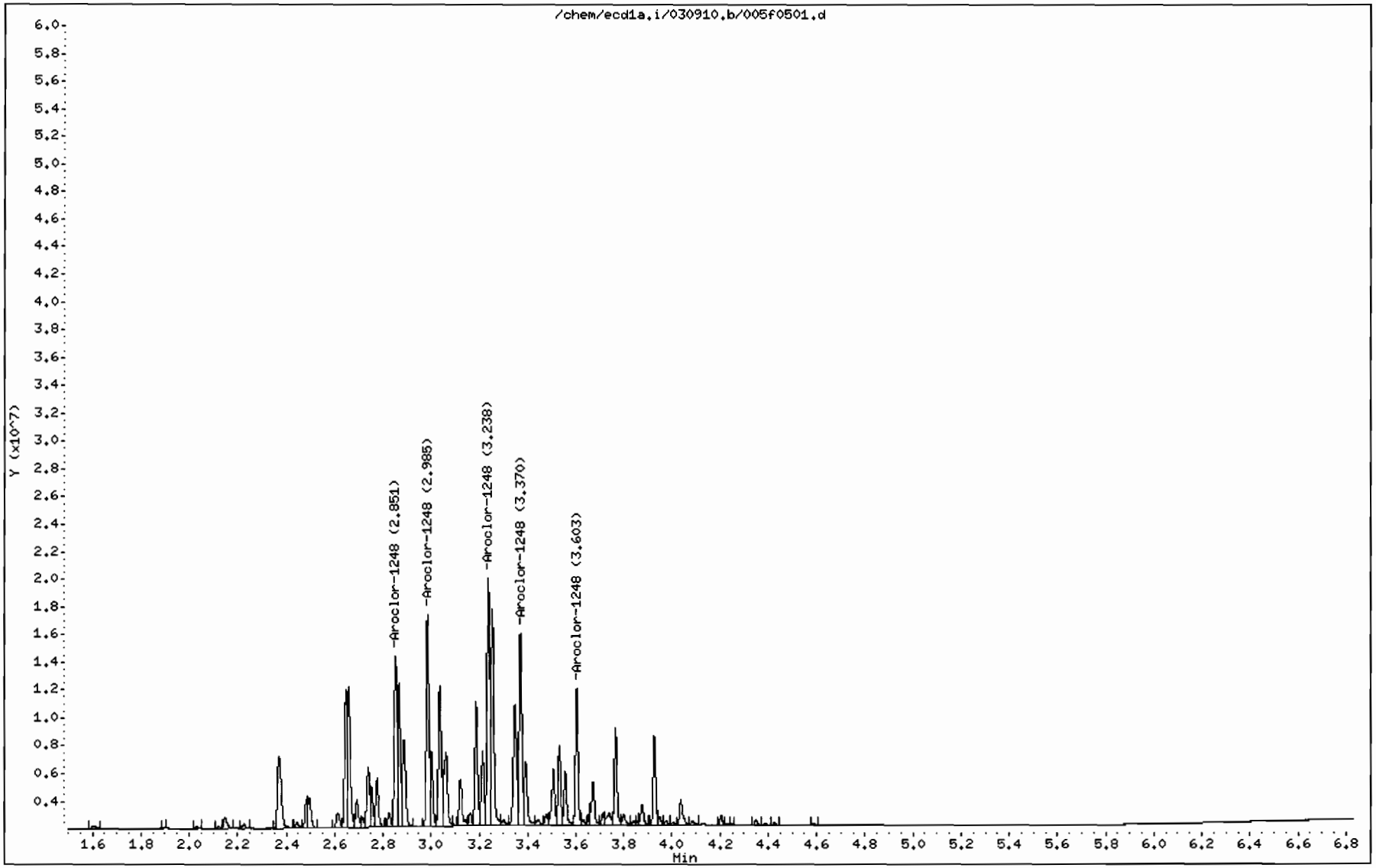

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/005b0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 09-MAR-2010 06:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.380	3.380	0.000	6929850	1000.00	912	80.00- 120.00	100.00
3.545	3.545	0.000	8715802	1000.00	931	105.77- 145.77	125.77
3.778	3.778	0.000	10291134	1000.00	966	128.50- 168.50	148.50
3.805	3.805	0.000	11463962	1000.00	948	145.43- 185.43	165.43
3.942	3.942	0.000	11102138	1000.00	966	140.21- 180.21	160.21
Average of Peak Amounts =					945		

Data File: /chem/ecd1a.i/030910.b/005b0501.d

Date : 09-MAR-2010 06:37

Client ID: AR124801

Sample Info: IWAR100223-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

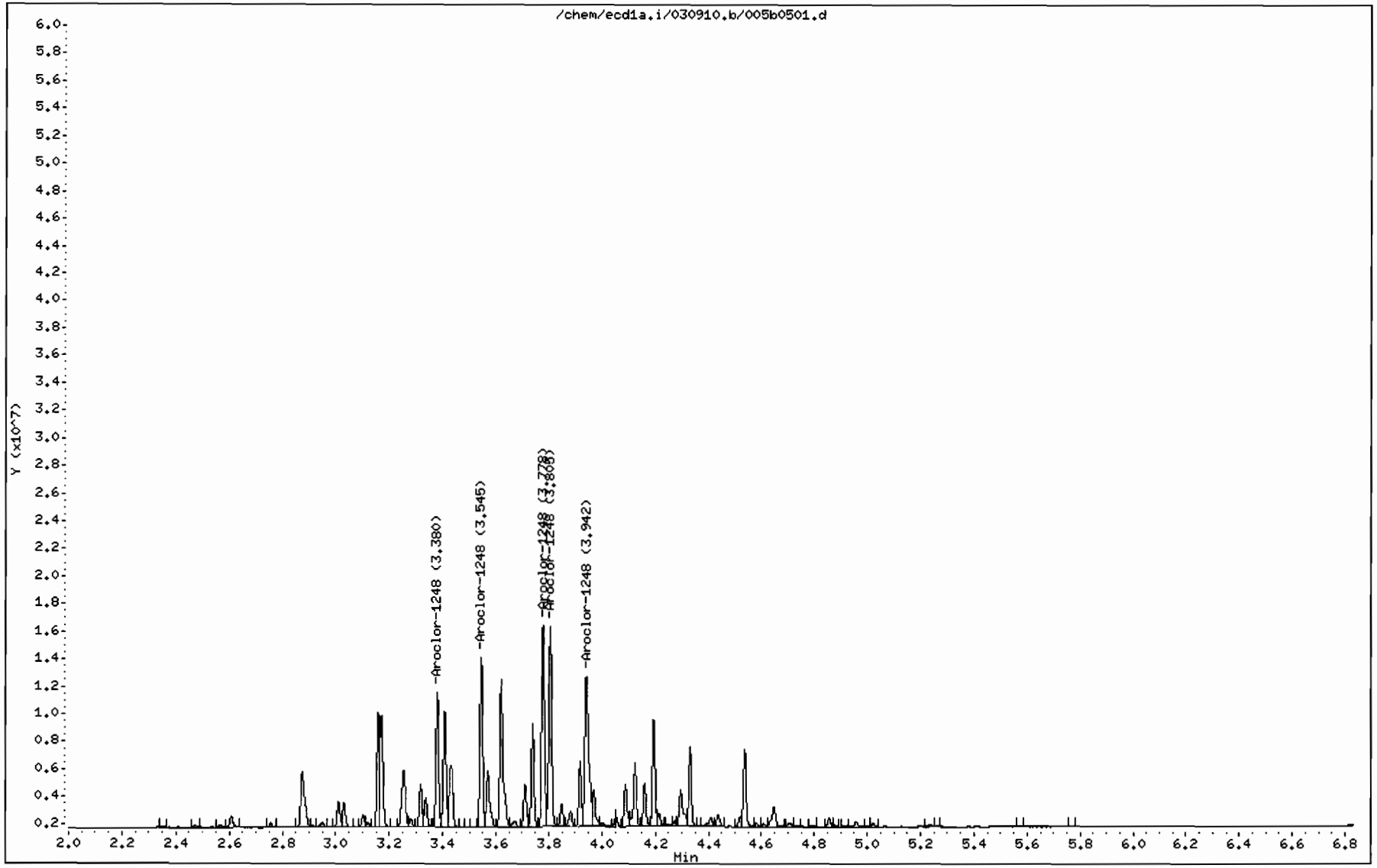

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/007f0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 09-MAR-2010 06:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 14:23 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.370	2.370	0.000	7033576	1000.00	1130	80.00- 120.00	100.00
2.656	2.656	0.000	9006580	1000.00	1200	108.05- 148.05	128.05
2.737	2.737	0.000	5844017	1000.00	1200	63.09- 103.09	83.09
2.851	2.851	0.000	2829786	1000.00	1290	20.23- 60.23	40.23
3.238	3.238	0.000	3889364	1000.00	1420	35.30- 75.30	55.30

Average of Peak Amounts = 1.25e+03

Data File: /chem/ecd1a.i/030910.b/007f0701.d

Date : 09-MAR-2010 06:58

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

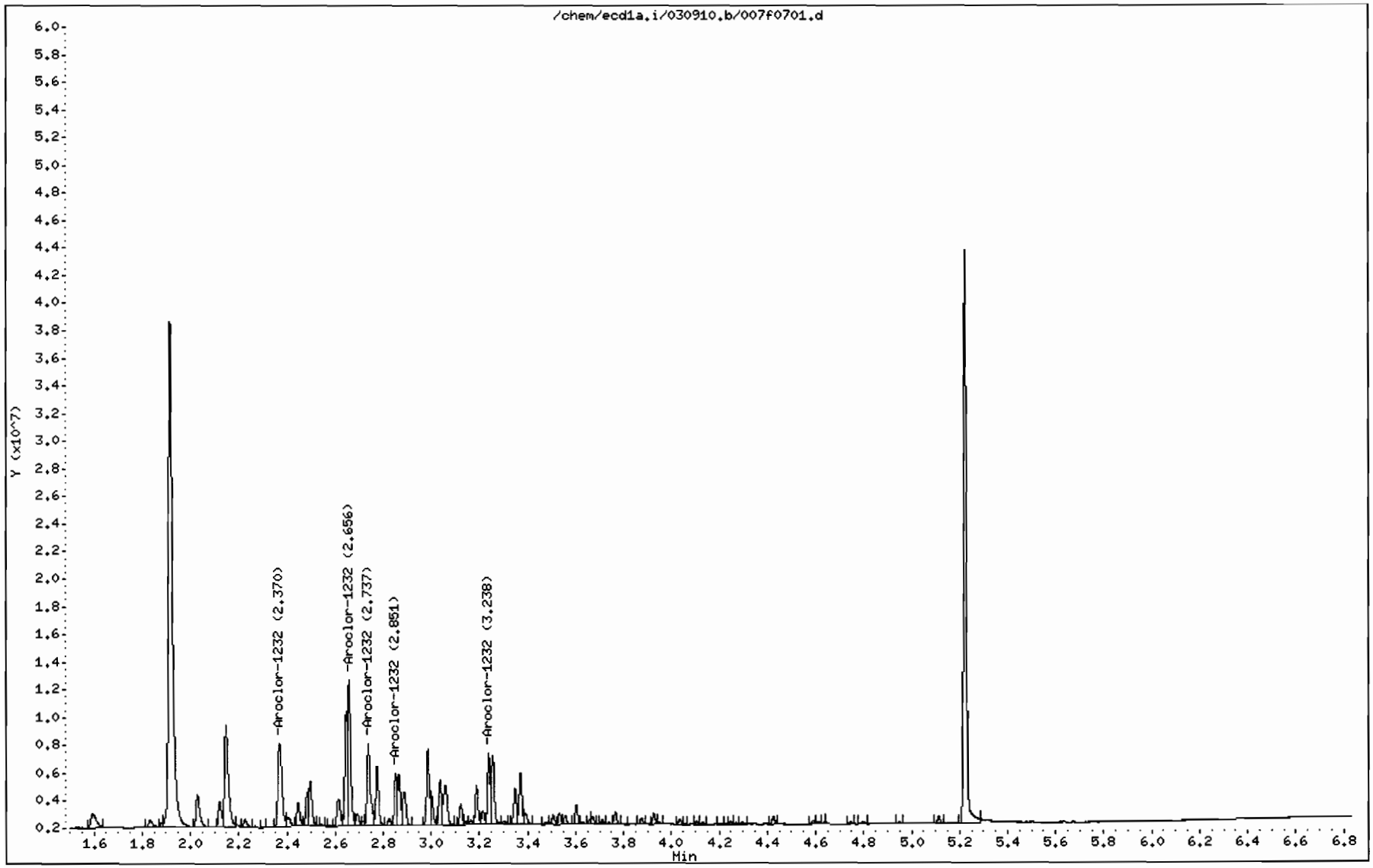

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/007b0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 09-MAR-2010 06:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.873	2.873	0.000	5540248	1000.00	1120	80.00- 120.00	100.00
3.171	3.171	0.000	6241262	1000.00	1190	92.65- 132.65	112.65
3.254	3.254	0.000	4271702	1000.00	1130	57.10- 97.10	77.10
3.544	3.544	0.000	3194463	1000.00	1180	37.66- 77.66	57.66
3.778	3.778	0.000	3209215	1000.00	1220	37.93- 77.93	57.93

Average of Peak Amounts = 1.17e+03

Data File: /chem/ecd1a.i/030910.b/007b0701.d

Date : 09-MAR-2010 06:58

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

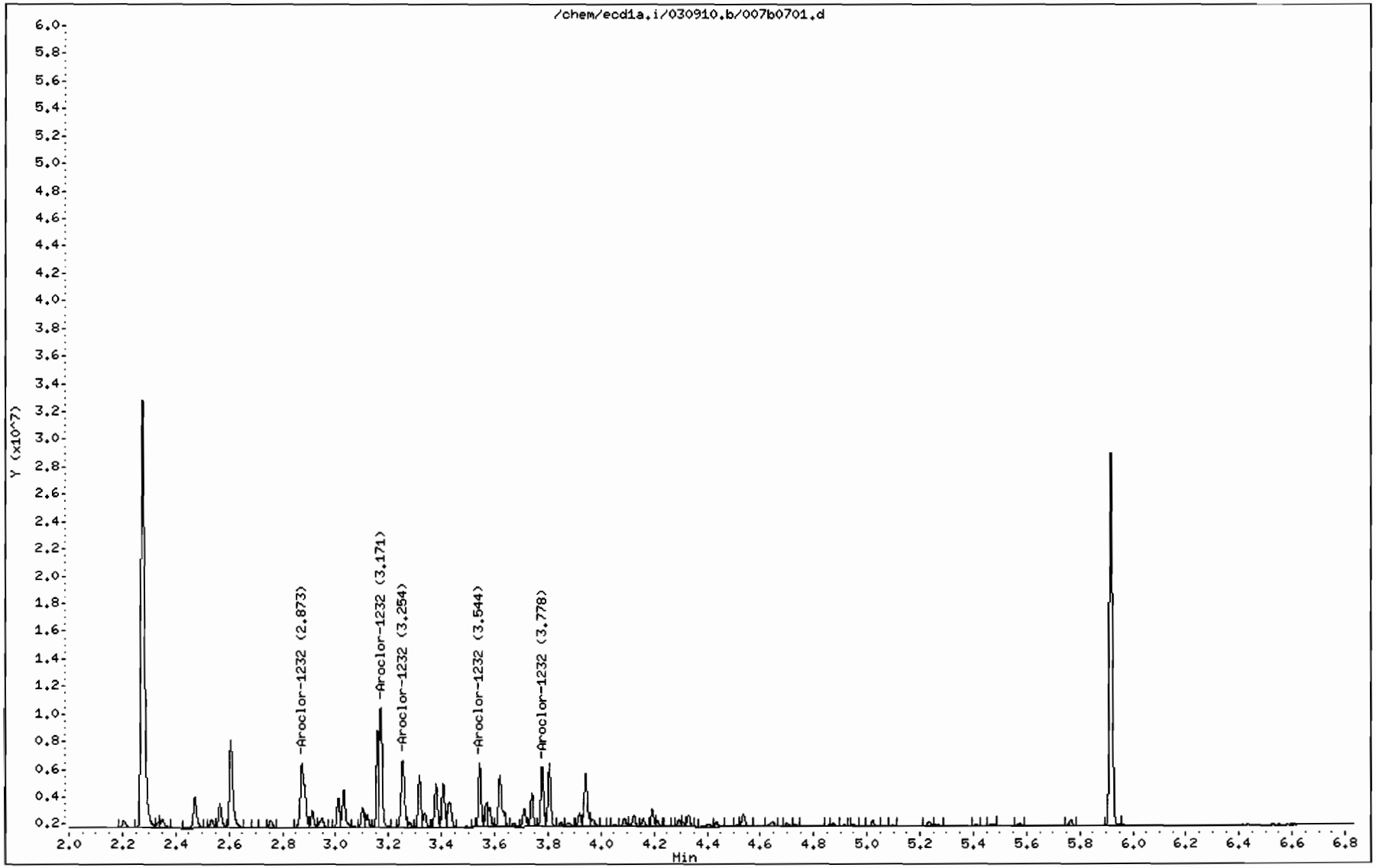

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/008f0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 09-MAR-2010 07:08
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.030	2.030	0.000	4834593	1000.00	1100	80.00- 120.00	100.00
2.123	2.123	0.000	2705775	1000.00	1110	35.97- 75.97	55.97
2.148	2.148	0.000	11738563	1000.00	1130	222.80- 262.80	242.80

Average of Peak Amounts = 1.11e+03

Data File: /chem/ecd1a.i/030910.b/008f0801.d

Page 1

Date : 09-MAR-2010 07:08

Client ID: AR122101

Instrument: ecd1a.i

Sample Info: IWAR100104-21

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

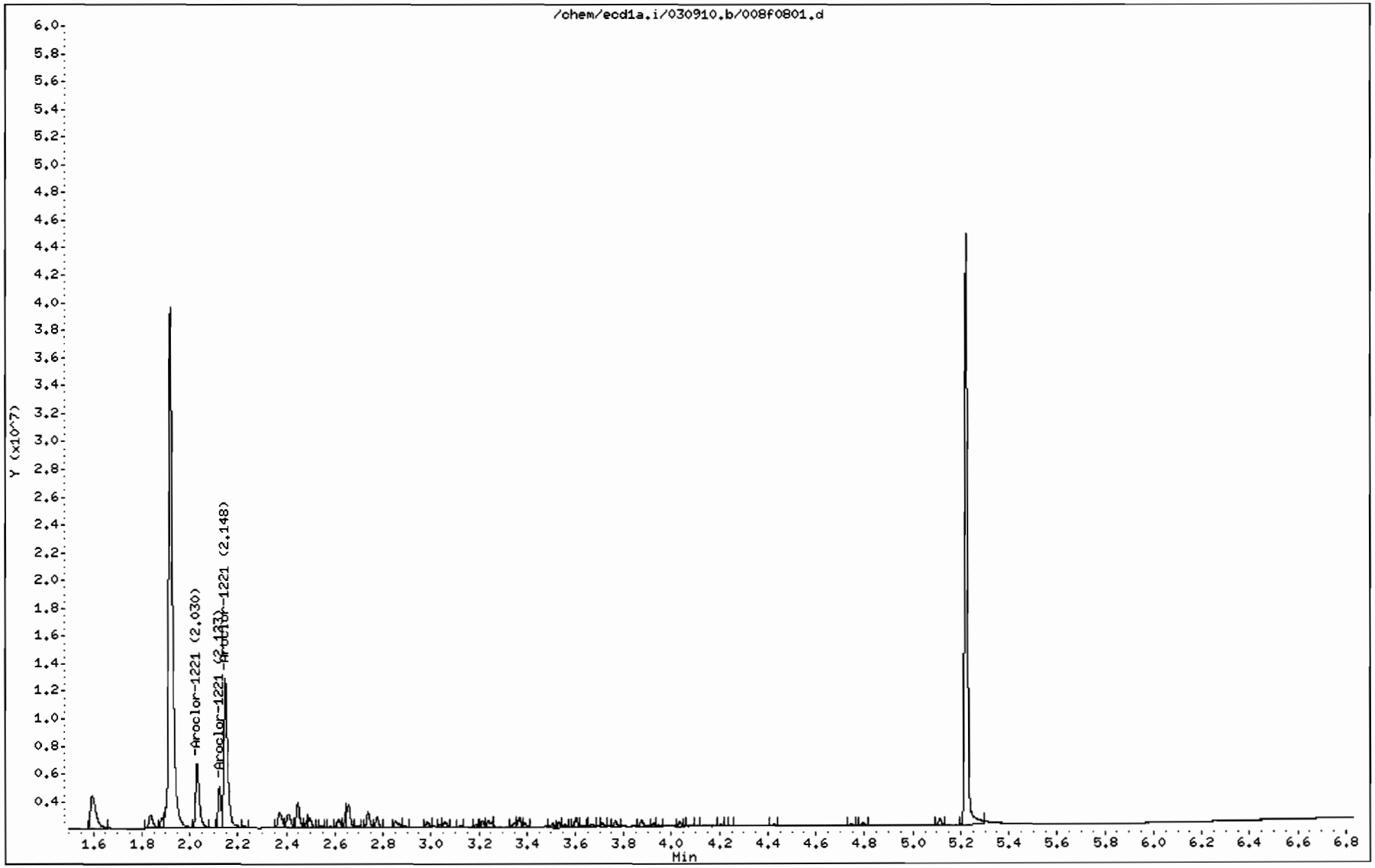

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/008b0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 09-MAR-2010 07:08
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.473	2.473	0.000	3800281	1000.00	1110	80.00- 120.00	100.00
2.567	2.567	0.000	2374760	1000.00	1100	42.49- 82.49	62.49
2.607	2.607	0.000	8102035	1000.00	1100	193.20- 233.20	213.20

Average of Peak Amounts = 1.11e+03

Data File: /chem/ecd1a.i/030910.b/008b0801.d

Page 1

Date : 09-MAR-2010 07:08

Client ID: AR122101

Instrument: ecd1a.i

Sample Info: IWAR100104-21

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

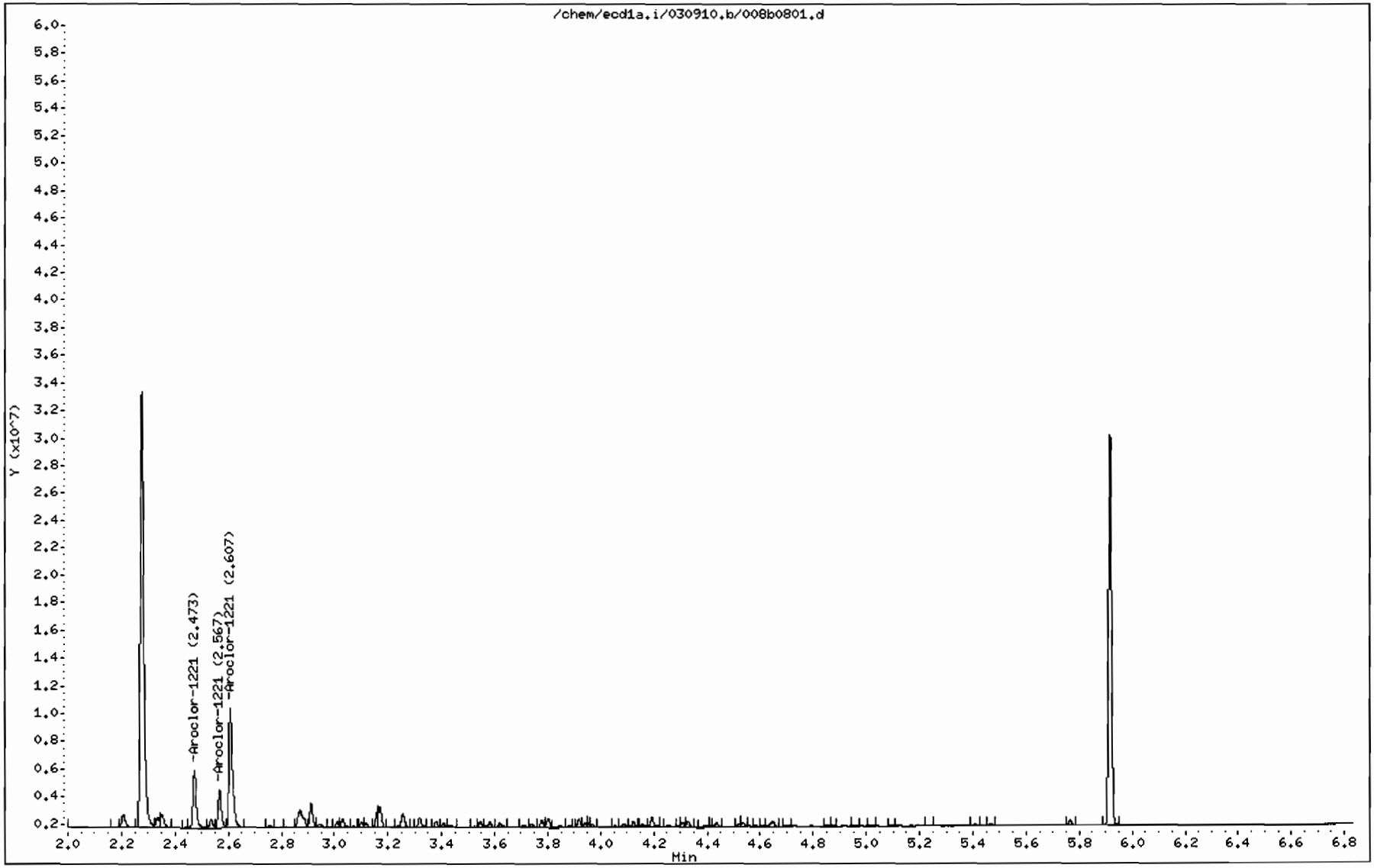

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/009f0901.d
Lab Smp Id: WAR100104-62 Client Smp ID: AR126201
Inj Date : 09-MAR-2010 07:19
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-62
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1262.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
8 Aroclor-1262					CAS #: 37324-23-5		
3.711	3.711	0.000	15005429	1000.00	1190	80.00- 120.00	100.00
3.874	3.874	0.000	19920997	1000.00	1270	112.76- 152.76	132.76
4.104	4.104	0.000	24923261	1000.00	1250	146.09- 186.09	166.09
4.246	4.246	0.000	22573182	1000.00	1260	130.43- 170.43	150.43
4.425	4.425	0.000	46923136	1000.00	1260	292.71- 332.71	312.71

Average of Peak Amounts = 1.24e+03

Data File: /chem/ecd1a.i/030910.b/009f0901.d
Date : 09-MAR-2010 07:19
Client ID: AR126201
Sample Info: IWAR100104-62

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

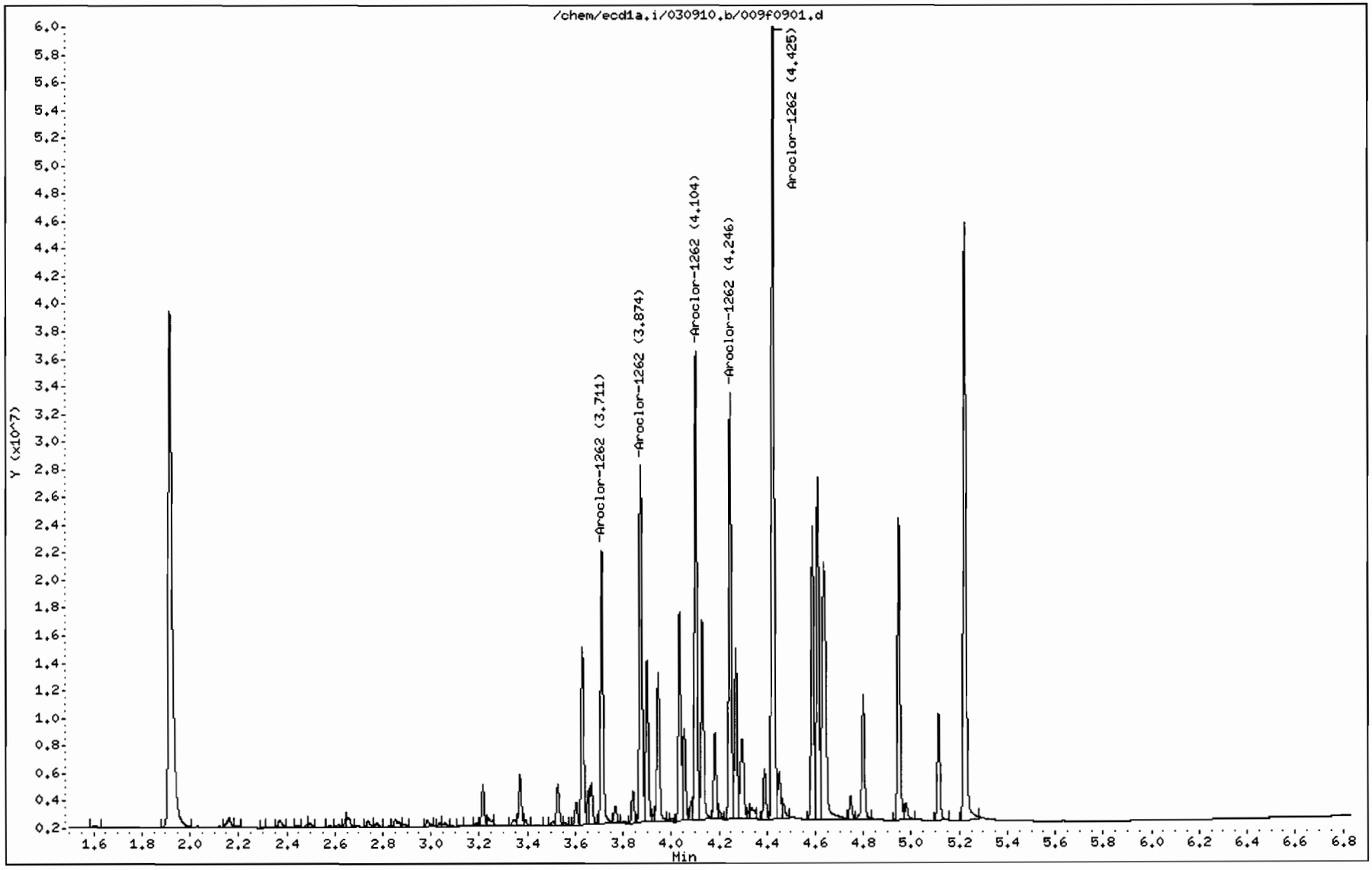

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/009b0901.d
Lab Smp Id: WAR100104-62 Client Smp ID: AR126201
Inj Date : 09-MAR-2010 07:19
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-62
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1262.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
8 Aroclor-1262					CAS #: 37324-23-5		
4.434	4.434	0.000	12789626	1000.00	1140	80.00- 120.00	100.00
4.700	4.700	0.000	17676136	1000.00	1140	118.21- 158.21	138.21
4.874	4.874	0.000	16181286	1000.00	1150	106.52- 146.52	126.52
5.020	5.020	0.000	32756762	1000.00	1150	236.12- 276.12	256.12
5.234	5.234	0.000	23091642	1000.00	1170	160.55- 200.55	180.55

Average of Peak Amounts = 1.15e+03

Data File: /chem/ecd1a.i/030910.b/009b0901.d

Date : 09-MAR-2010 07:19

Client ID: AR126201

Sample Info: IWAR100104-62

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

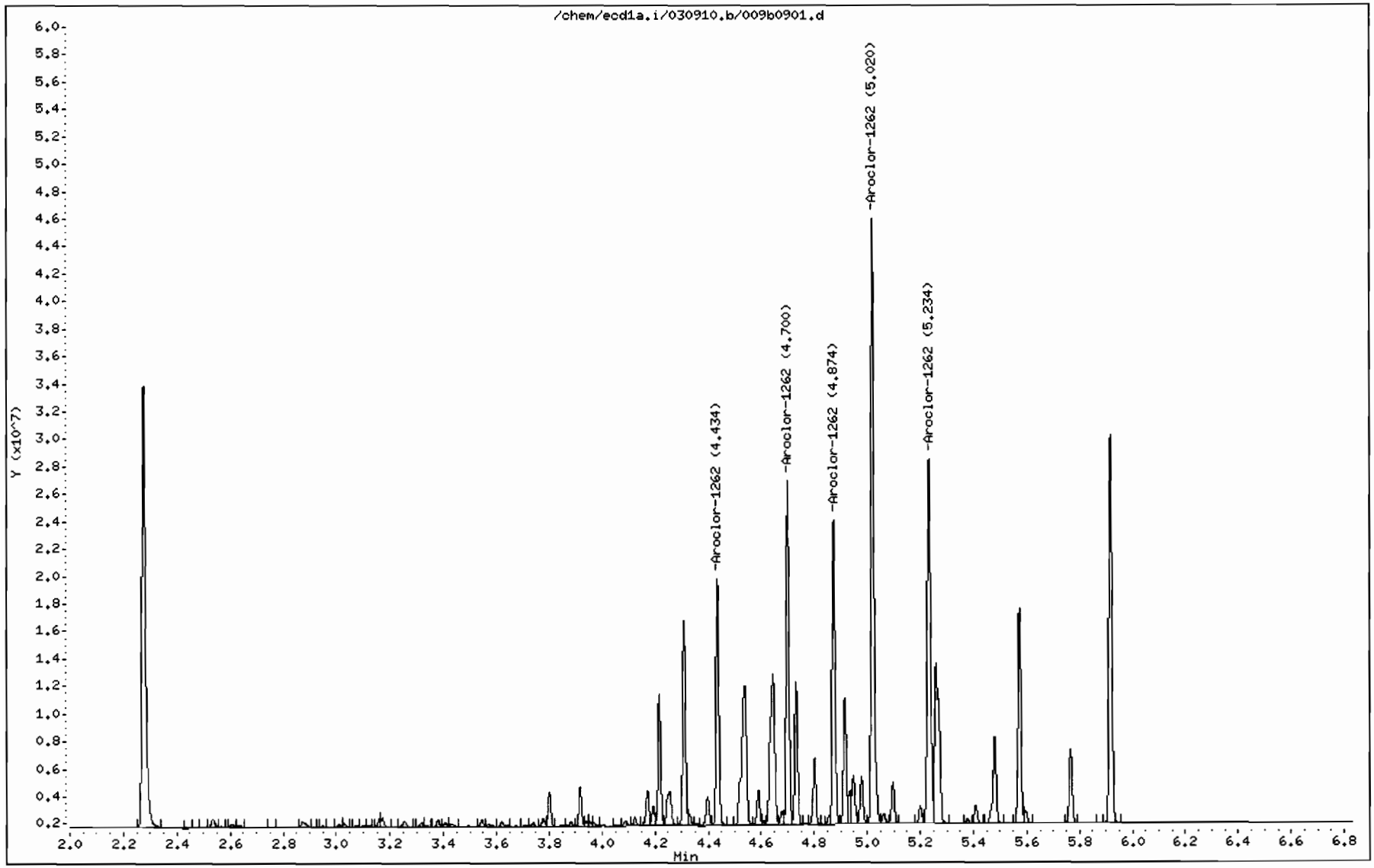

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/025f2501.d
Lab Smp Id: WAR100222-60 03 Client Smp ID: AR166003
Inj Date : 09-MAR-2010 10:21
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 10:55 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.917	1.916	0.001	39680226	100.000	92.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.220	5.223	-0.003	30941576	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.369	2.370	-0.001	14060683	1000.00	914	80.00- 120.00	100.00
2.656	2.656	0.000	17777120	1000.00	975	106.43- 146.43	126.43
2.736	2.736	0.000	11271846	1000.00	934	60.17- 100.17	80.17
2.773	2.774	-0.001	6815125	1000.00	960	28.47- 68.47	48.47
2.983	2.984	-0.001	8730275	1000.00	980	42.09- 82.09	62.09
Average of Peak Amounts =					953		
7 Aroclor-1260					CAS #: 11096-82-5		
3.708	3.710	-0.002	17016413	1000.00	997	80.00- 120.00	100.00
3.871	3.873	-0.002	25400273	1000.00	1070	129.27- 169.27	149.27
4.033	4.035	-0.002	27114495	1000.00	1080	139.34- 179.34	159.34
4.102	4.102	0.000	15286706	1000.00	1060	69.84- 109.84	89.84
4.244	4.246	-0.002	15918473	1000.00	1100	73.55- 113.55	93.55
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecd1a.i/030910.b/025f2501.d

Date : 09-MAR-2010 10:21

Client ID: AR166003

Sample Info: IWAR100222-60 03

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

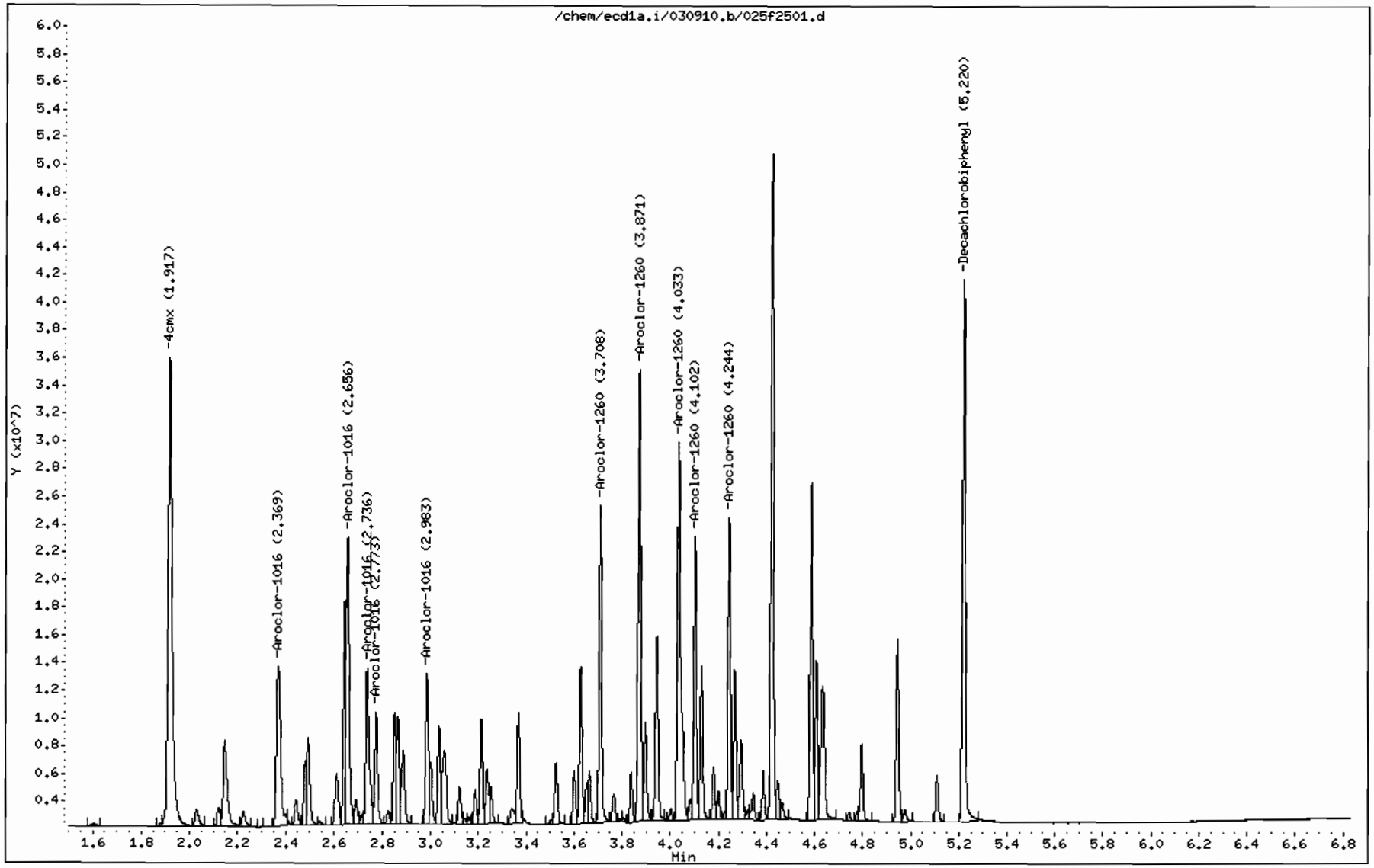

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/025b2501.d
Lab Smp Id: WAR100222-60 03 Client Smp ID: AR166003
Inj Date : 09-MAR-2010 10:21
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 10:54 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.275	2.276	-0.001	26743661	100.000	89.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.916	5.918	-0.002	19387352	100.000	91.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.169	3.170	-0.001	12193531	1000.00	953	80.00- 120.00	100.00(M)
3.252	3.253	-0.001	7901532	1000.00	886	44.80- 84.80	64.80
3.316	3.316	0.000	4934564	1000.00	913	20.47- 60.47	40.47
3.542	3.544	-0.002	6203624	1000.00	897	30.88- 70.88	50.88
3.617	3.619	-0.002	5825015	1000.00	906	37.60- 77.60	57.60
Average of Peak Amounts =					911		
7 Aroclor-1260					CAS #: 11096-82-5		
4.307	4.309	-0.002	11974228	1000.00	907	80.00- 120.00	100.00
4.432	4.435	-0.003	14696750	1000.00	944	102.74- 142.74	122.74
4.697	4.700	-0.003	11082986	1000.00	936	72.56- 112.56	92.56
4.871	4.873	-0.002	11537123	1000.00	946	76.35- 116.35	96.35
5.018	5.021	-0.003	25747290	1000.00	971	195.02- 235.02	215.02
Average of Peak Amounts =					941		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/030910.b/025b2501.d
Date : 09-MAR-2010 10:21
Client ID: AR166003
Sample Info: IWAR100222-60 03

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

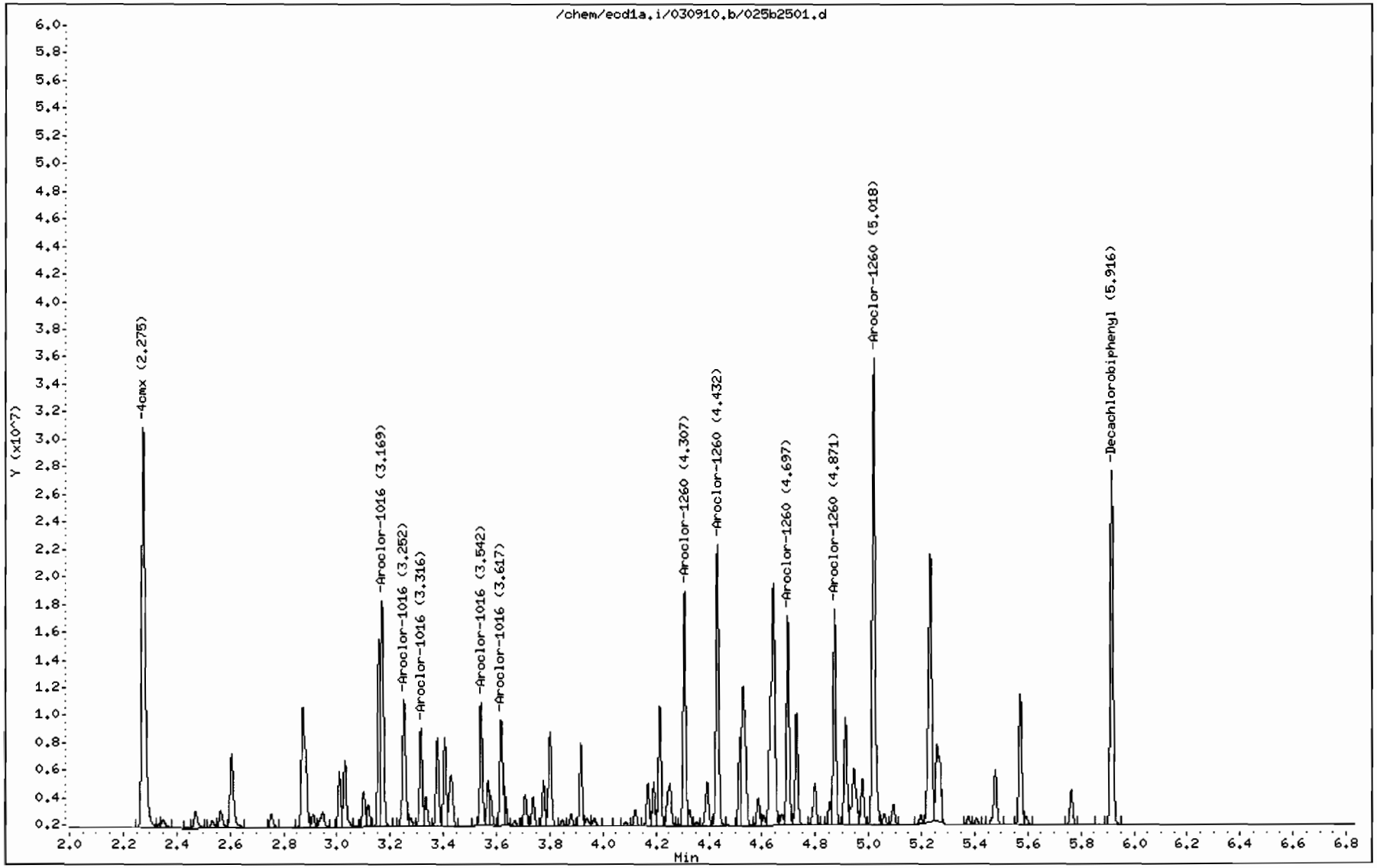

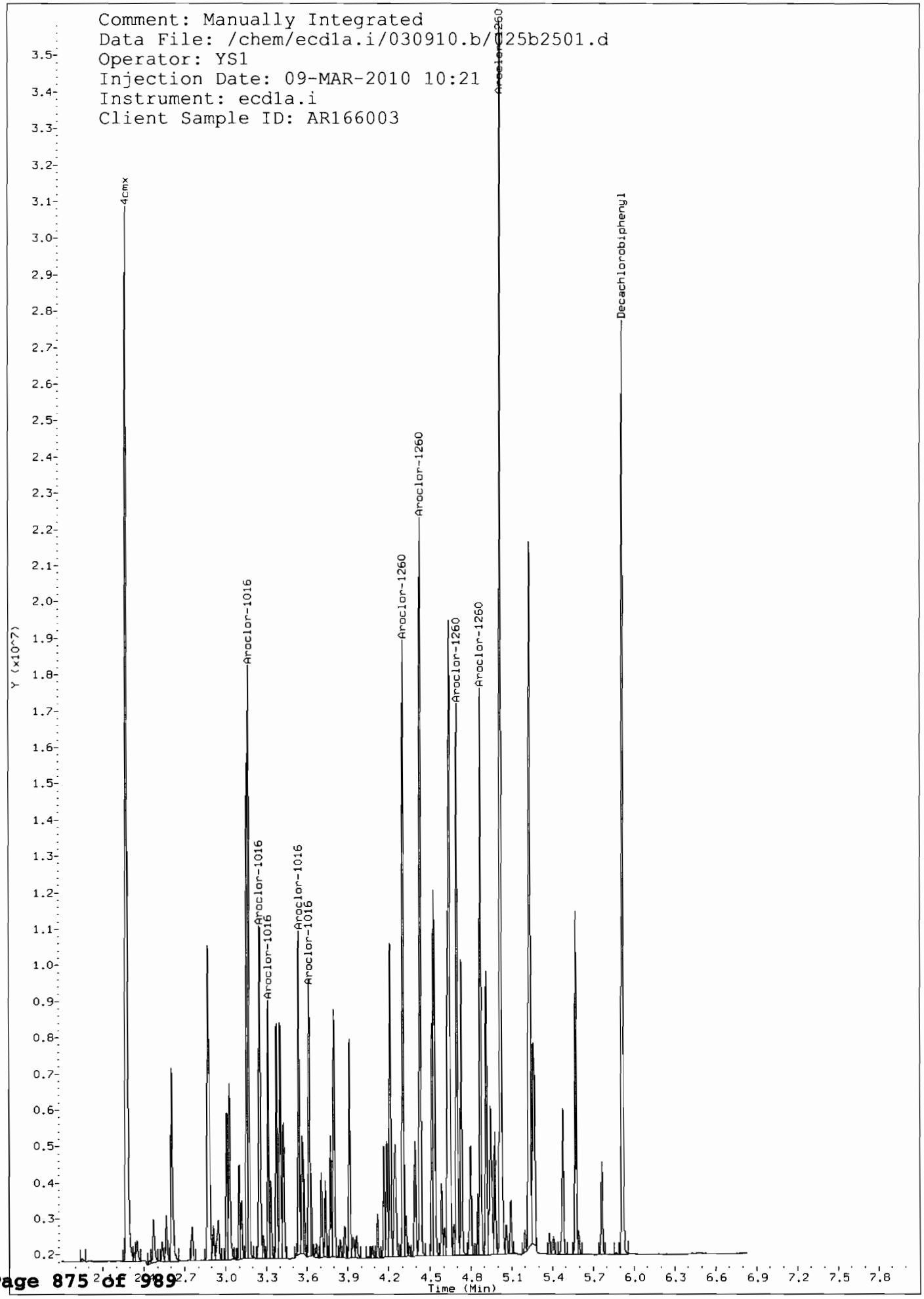
Comment: Manually Integrated
Data File: /chem/ecd1a.i/030910.b/025b2501.d
Operator: YS1
Injection Date: 09-MAR-2010 10:21
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

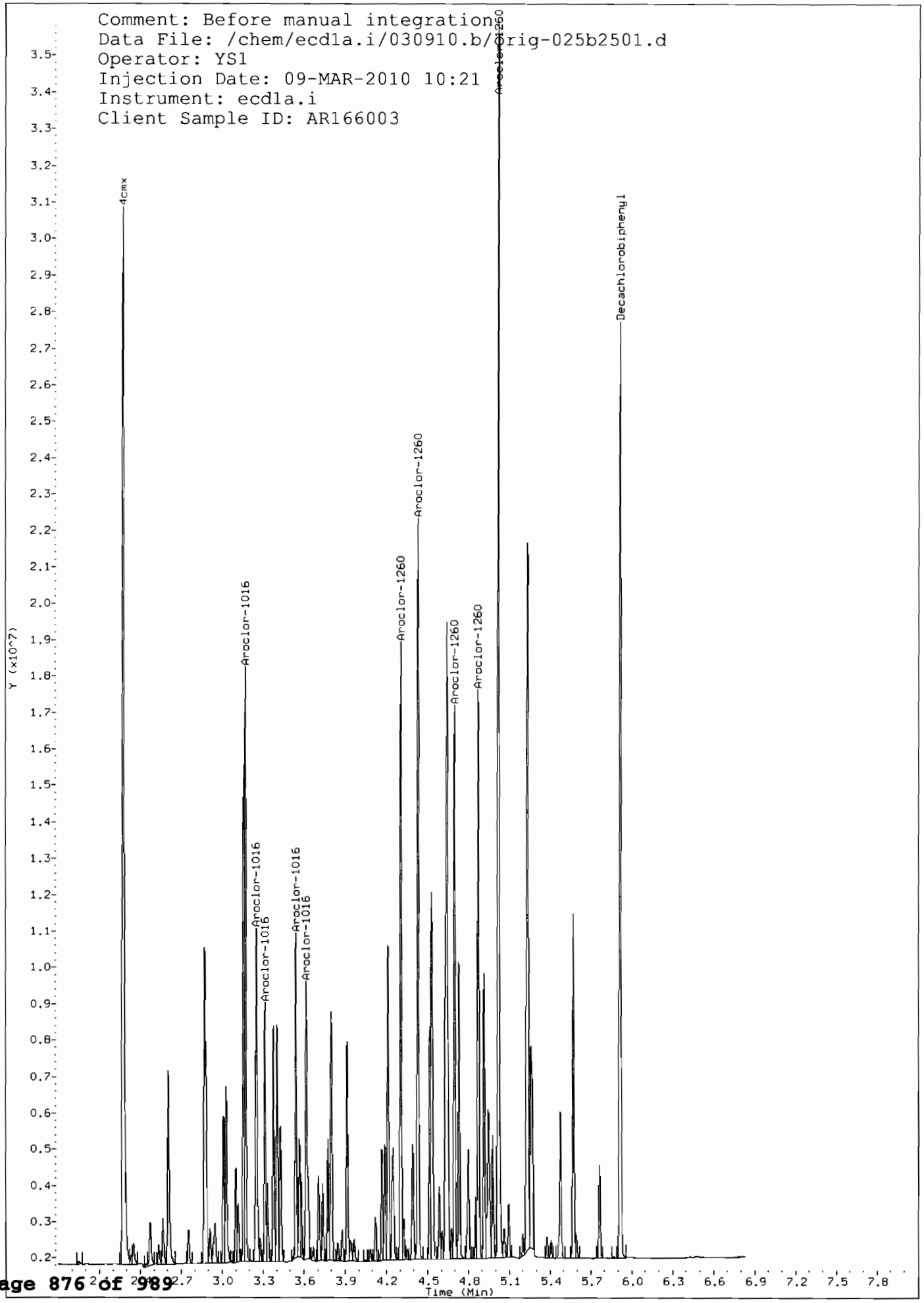
Comment: Before manual integration
Data File: /chem/ecd1a.i/030910.b/orig-025b2501.d
Operator: YS1
Injection Date: 09-MAR-2010 10:21
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^2)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/036f3601.d
Lab Smp Id: WAR100222-60 04 Client Smp ID: AR166004
Inj Date : 09-MAR-2010 12:23
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 36 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.916	1.916	0.000	40471444	100.000	94.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.220	5.223	-0.003	31806720	100.000	104	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.368	2.370	-0.002	14278137	1000.00	928	80.00- 120.00	100.00
2.656	2.656	0.000	18701586	1000.00	1020	110.98- 150.98	130.98
2.736	2.736	0.000	11479585	1000.00	951	60.40- 100.40	80.40
2.773	2.774	-0.001	6956937	1000.00	980	28.72- 68.72	48.72
2.983	2.984	-0.001	8887592	1000.00	997	42.25- 82.25	62.25
Average of Peak Amounts =					977		
7 Aroclor-1260					CAS #: 11096-82-5		
3.708	3.710	-0.002	17231278	1000.00	1010	80.00- 120.00	100.00
3.871	3.873	-0.002	25747341	1000.00	1090	129.42- 169.42	149.42
4.032	4.035	-0.003	27594765	1000.00	1100	140.14- 180.14	160.14
4.101	4.102	-0.001	15539147	1000.00	1080	70.18- 110.18	90.18
4.243	4.246	-0.003	16196326	1000.00	1120	73.99- 113.99	93.99
Average of Peak Amounts =					1.08e+03		

Data File: /chem/ecd1a.i/030910.b/036f3601.d

Date : 09-MAR-2010 12:23

Client ID: AR166004

Sample Info: IWAR100222-60 04

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

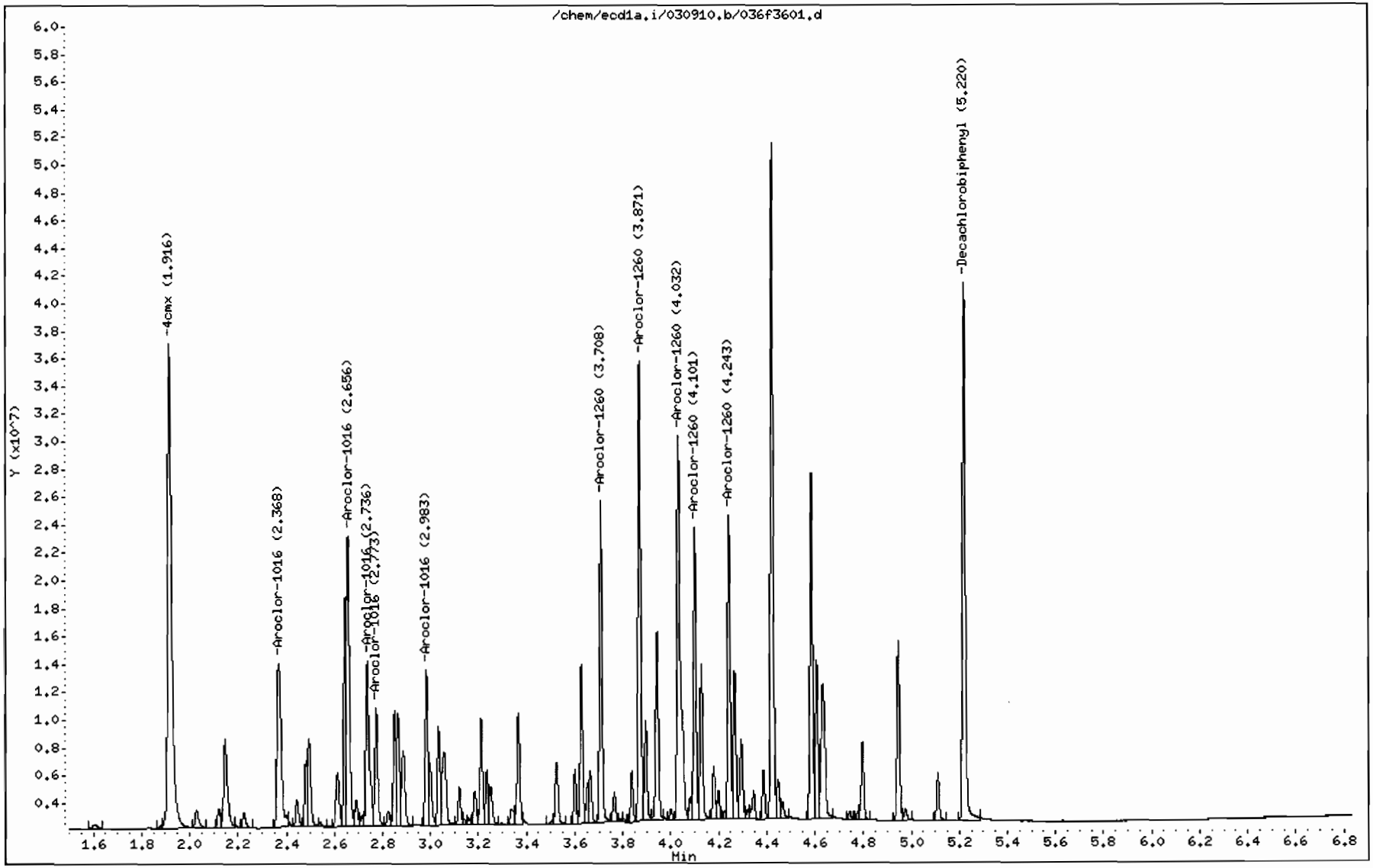

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/036b3601.d
Lab Smp Id: WAR100222-60 04 Client Smp ID: AR166004
Inj Date : 09-MAR-2010 12:23
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 36 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.275	2.276	-0.001	27545191	100.000	92.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.915	5.918	-0.003	19984480	100.000	94.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.169	3.170	-0.001	12542512	1000.00	981	80.00- 120.00	100.00(M)
3.252	3.253	-0.001	8094605	1000.00	908	44.54- 84.54	64.54
3.316	3.316	0.000	5066938	1000.00	937	20.40- 60.40	40.40
3.542	3.544	-0.002	6566448	1000.00	950	30.67- 70.67	52.35
3.617	3.619	-0.002	6086252	1000.00	947	37.45- 77.45	48.52
Average of Peak Amounts =					944		
7 Aroclor-1260					CAS #: 11096-82-5		
4.307	4.309	-0.002	12295985	1000.00	931	80.00- 120.00	100.00
4.432	4.435	-0.003	15078122	1000.00	969	102.63- 142.63	122.63
4.697	4.700	-0.003	11370329	1000.00	960	72.47- 112.47	92.47
4.871	4.873	-0.002	11877501	1000.00	973	76.60- 116.60	96.60
5.018	5.021	-0.003	26534899	1000.00	1000	195.80- 235.80	215.80
Average of Peak Amounts =					967		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/030910.b/036b3601.d
Date : 09-MAR-2010 12:23
Client ID: AR166004
Sample Info: IWAR100222-60 04

Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

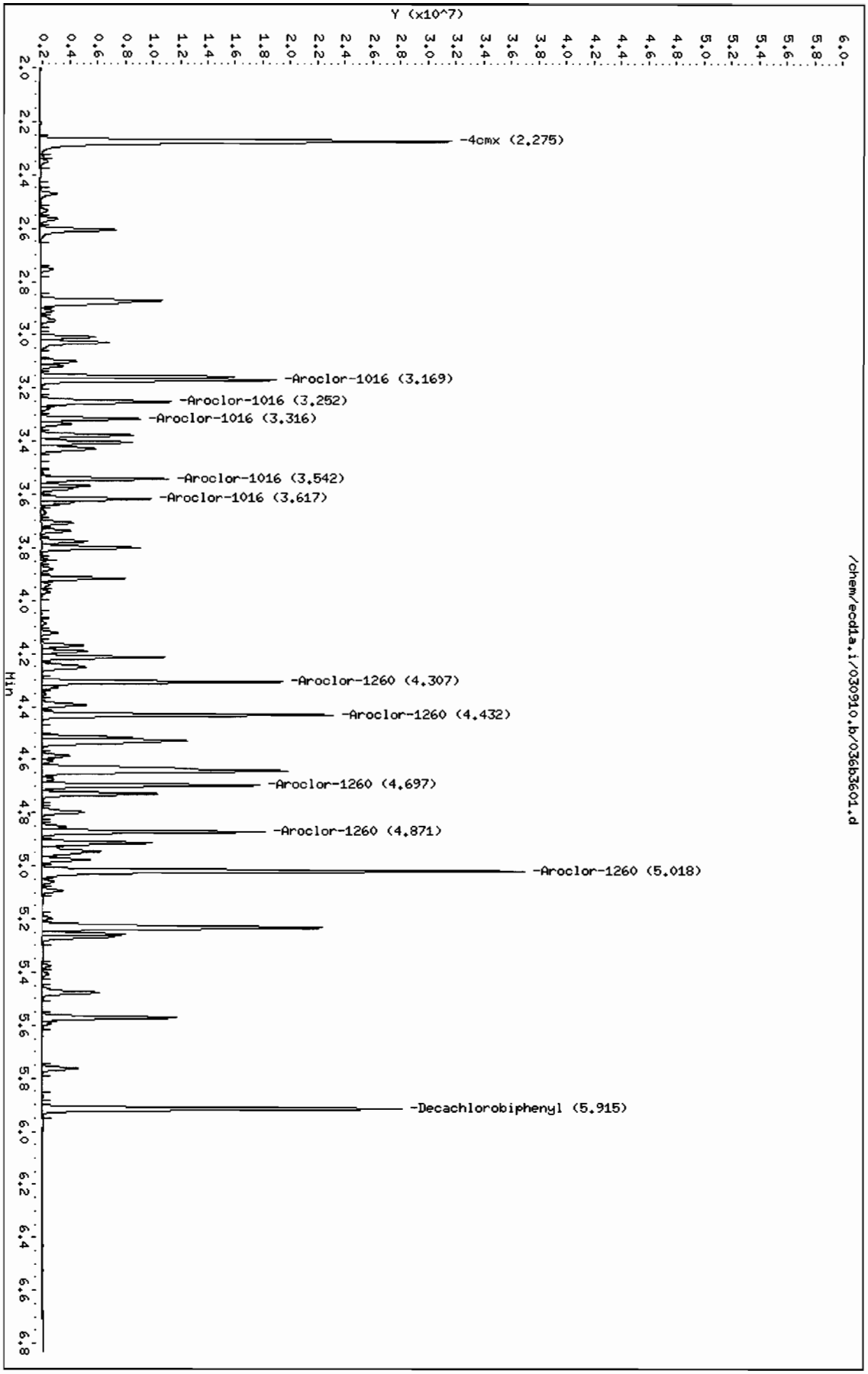

Page 1

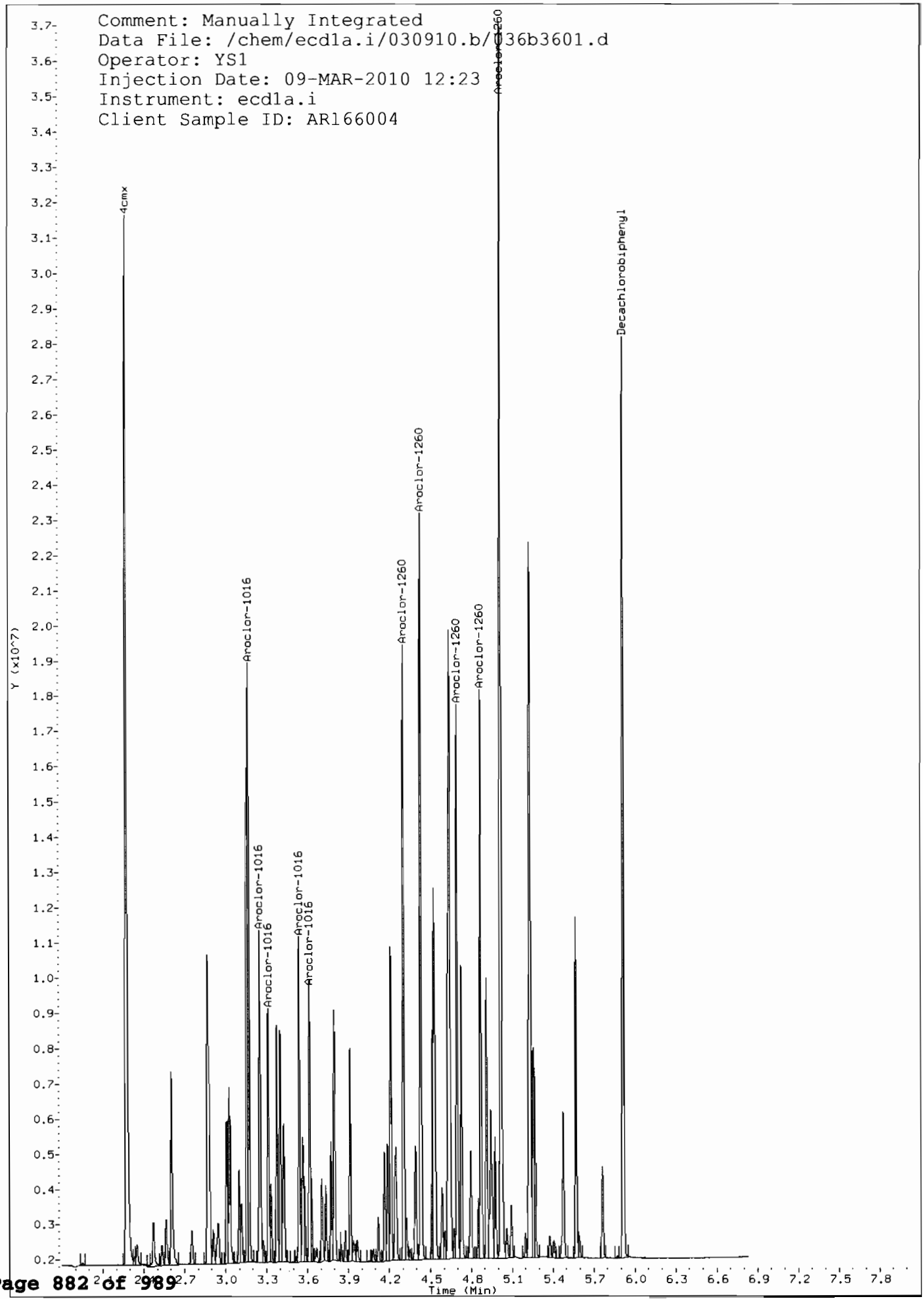
Comment: Manually Integrated
Data File: /chem/ecd1a.i/030910.b/036b3601.d
Operator: YS1
Injection Date: 09-MAR-2010 12:23
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

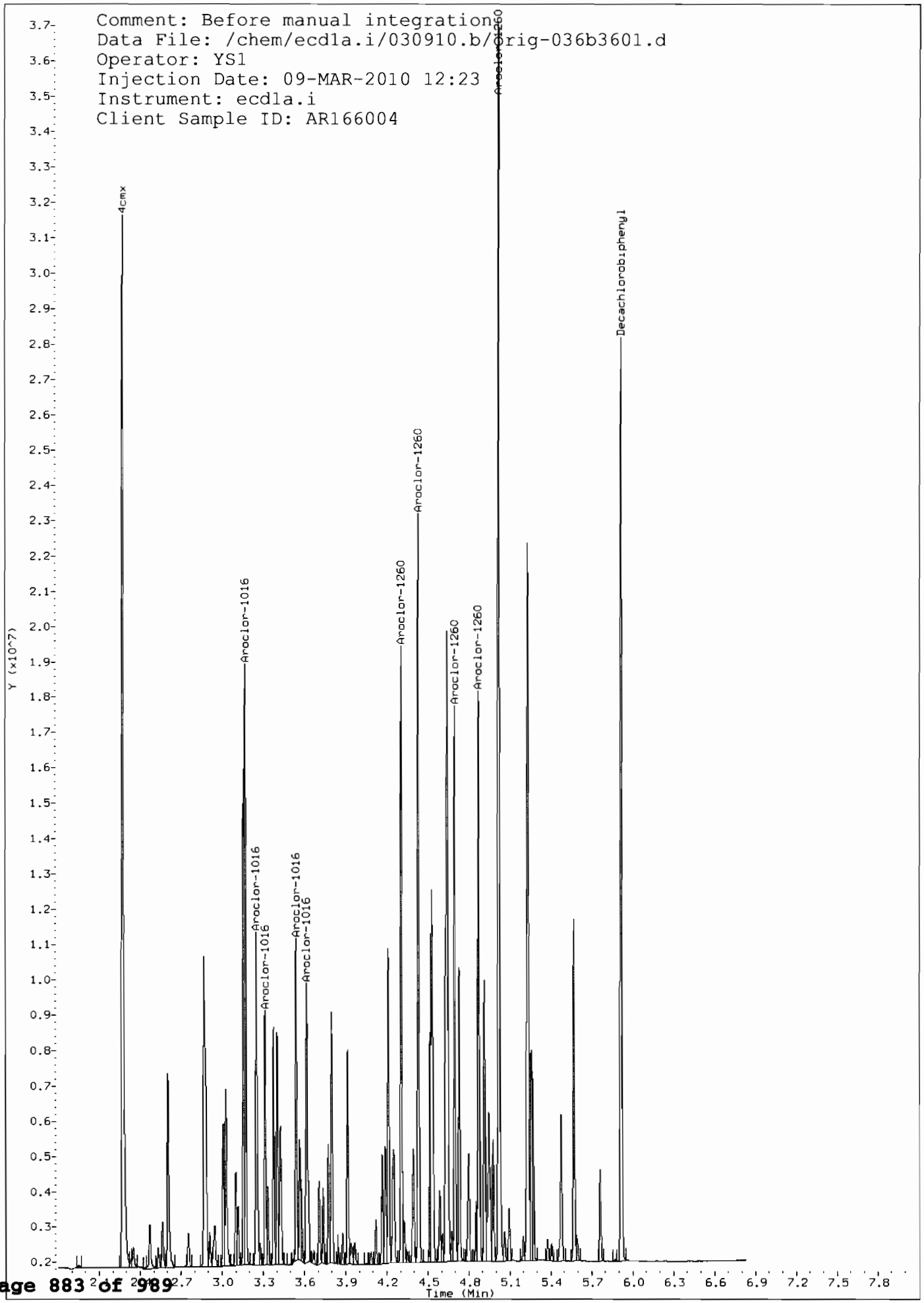
Comment: Before manual integration
Data File: /chem/ecd1a.i/030910.b/Orig-036b3601.d
Operator: YS1
Injection Date: 09-MAR-2010 12:23
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.92 DCB: 5.23

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/22/10	0559	1.92	5.23
02	ZZZZZ	ZZZZZ	02/22/10	0610	1.92	5.23
03	ZZZZZ	ZZZZZ	02/22/10	0620	1.92	5.23
04	DDTANALOGSTD	WAR091219-DD	02/22/10	0631		
05	AR123201	WAR100104-32	02/22/10	0641		
06	AR122101	WAR100104-21	02/22/10	0652		
07	AR126201	WAR100104-62	02/22/10	0703		
08	AR166001	WAR100222-01	02/22/10	0713	1.92	5.23
09	AR166002	WAR100222-02	02/22/10	0724	1.92	5.23
10	AR166003	WAR100222-03	02/22/10	0734	1.92	5.23
11	AR166004	WAR100222-04	02/22/10	0745	1.92	5.23
12	AR166005	IAR100104-01	02/22/10	0755	1.92	5.23
13	AR166001	WAR100203-60	02/22/10	0806	1.92	5.23
14	AR125401	WAR100222-05	02/22/10	0816		
15	AR125402	WAR100222-06	02/22/10	0827		
16	AR125403	WAR100222-07	02/22/10	0837		
17	AR125404	WAR100222-08	02/22/10	0848		
18	AR125405	IAR100219-02	02/22/10	0859		
19	AR125401	WAR100219-54	02/22/10	0909		
20	AR124201	WAR100222-09	02/22/10	0920		
21	AR124202	WAR100222-10	02/22/10	0930		
22	AR124203	WAR100222-11	02/22/10	0941		
23	AR124204	WAR100222-12	02/22/10	0951		
24	AR124205	IAR100219-01	02/22/10	1002		
25	AR124201	WAR100219-42	02/22/10	1012		
26	AR124801	WAR100222-13	02/22/10	1023		
27	AR124802	WAR100222-14	02/22/10	1033		
28	AR124803	WAR100222-15	02/22/10	1044		
29	AR124805	IAR100211-01	02/22/10	1054		
30	AR124804	WAR100222-16	02/22/10	1105		
31	AR124801	WAR091217-48	02/22/10	1116		
32	AR126801	WAR100222-17	02/22/10	1126		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.92 DCB: 5.23

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR126802	WAR100222-18	02/22/10	1137		
02	AR126803	WAR100222-19	02/22/10	1147		
03	AR126804	WAR100222-20	02/22/10	1158		
04	AR126805	IAR100104-05	02/22/10	1208		
05	AR126801	WAR100107-68	02/22/10	1219		
06	PIBLK02	WAR100219-99	02/22/10	1229	1.92	5.23
07	ZZZZZ	ZZZZZ	02/22/10	1240	1.92	5.23
08	ZZZZZ	ZZZZZ	02/22/10	1250	1.93	5.23
09	ZZZZZ	ZZZZZ	02/22/10	1301	1.92	5.23
10	ZZZZZ	ZZZZZ	02/22/10	1314	1.92	5.23
11	ZZZZZ	ZZZZZ	02/22/10	1326	1.92	5.23
12	ZZZZZ	ZZZZZ	02/22/10	1339	1.92	5.23
13	ZZZZZ	ZZZZZ	02/22/10	1351	1.92	5.23
14	ZZZZZ	ZZZZZ	02/22/10	1404	1.92	5.23
15	ZZZZZ	ZZZZZ	02/22/10	1417	1.92	5.23
16	ZZZZZ	ZZZZZ	02/22/10	1430	1.92	5.23
17	AR166002	WAR100203-60	02/22/10	1442	1.92	5.23
18	PIBLK03	WAR100219-99	02/22/10	1453	1.92	5.23
19	ZZZZZ	ZZZZZ	02/22/10	1503	1.92	5.23
20	ZZZZZ	ZZZZZ	02/22/10	1516	1.92	5.23
21	ZZZZZ	ZZZZZ	02/22/10	1528	1.92	5.23
22	ZZZZZ	ZZZZZ	02/22/10	1541	1.92	5.23
23	ZZZZZ	ZZZZZ	02/22/10	1554	1.92	5.23
24	ZZZZZ	ZZZZZ	02/22/10	1606	1.92	5.23
25	ZZZZZ	ZZZZZ	02/22/10	1619	1.92	5.23
26	ZZZZZ	ZZZZZ	02/22/10	1632	1.92	5.23
27	ZZZZZ	ZZZZZ	02/22/10	1644	1.92	5.23
28	ZZZZZ	ZZZZZ	02/22/10	1657	1.92	5.23
29	AR166003	WAR100203-60	02/22/10	1710	1.92	5.23
30	PIBLK04	WAR100219-99	02/22/10	1722	1.92	5.23
31	ZZZZZ	ZZZZZ	02/22/10	1735	1.92	5.23
32	ZZZZZ	ZZZZZ	02/22/10	1748	1.92	5.23

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/22/10	0559	2.29	5.93
02	ZZZZZ	ZZZZZ	02/22/10	0610	2.29	5.94
03	ZZZZZ	ZZZZZ	02/22/10	0620	2.29	5.94
04	DDTANALOGSTD	WAR091219-DD	02/22/10	0631		
05	AR123201	WAR100104-32	02/22/10	0641		
06	AR122101	WAR100104-21	02/22/10	0652		
07	AR126201	WAR100104-62	02/22/10	0703		
08	AR166001	WAR100222-01	02/22/10	0713	2.29	5.94
09	AR166002	WAR100222-02	02/22/10	0724	2.29	5.94
10	AR166003	WAR100222-03	02/22/10	0734	2.29	5.94
11	AR166004	WAR100222-04	02/22/10	0745	2.29	5.94
12	AR166005	IAR100104-01	02/22/10	0755	2.29	5.94
13	AR166001	WAR100203-60	02/22/10	0806	2.29	5.94
14	AR125401	WAR100222-05	02/22/10	0816		
15	AR125402	WAR100222-06	02/22/10	0827		
16	AR125403	WAR100222-07	02/22/10	0837		
17	AR125404	WAR100222-08	02/22/10	0848		
18	AR125405	IAR100219-02	02/22/10	0859		
19	AR125401	WAR100219-54	02/22/10	0909		
20	AR124201	WAR100222-09	02/22/10	0920		
21	AR124202	WAR100222-10	02/22/10	0930		
22	AR124203	WAR100222-11	02/22/10	0941		
23	AR124204	WAR100222-12	02/22/10	0951		
24	AR124205	IAR100219-01	02/22/10	1002		
25	AR124201	WAR100219-42	02/22/10	1012		
26	AR124801	WAR100222-13	02/22/10	1023		
27	AR124802	WAR100222-14	02/22/10	1033		
28	AR124803	WAR100222-15	02/22/10	1044		
29	AR124805	IAR100211-01	02/22/10	1054		
30	AR124804	WAR100222-16	02/22/10	1105		
31	AR124801	WAR091217-48	02/22/10	1116		
32	AR126801	WAR100222-17	02/22/10	1126		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR126802	WAR100222-18	02/22/10	1137		
02	AR126803	WAR100222-19	02/22/10	1147		
03	AR126804	WAR100222-20	02/22/10	1158		
04	AR126805	IAR100104-05	02/22/10	1208		
05	AR126801	WAR100107-68	02/22/10	1219		
06	PIBLK02	WAR100219-99	02/22/10	1229	2.29	5.94
07	ZZZZZ	ZZZZZ	02/22/10	1240	2.29	5.94
08	ZZZZZ	ZZZZZ	02/22/10	1250	2.29	5.94
09	ZZZZZ	ZZZZZ	02/22/10	1301	2.29	5.94
10	ZZZZZ	ZZZZZ	02/22/10	1314	2.29	5.94
11	ZZZZZ	ZZZZZ	02/22/10	1326	2.29	5.94
12	ZZZZZ	ZZZZZ	02/22/10	1339	2.29	5.93
13	ZZZZZ	ZZZZZ	02/22/10	1351	2.29	5.93
14	ZZZZZ	ZZZZZ	02/22/10	1404	2.29	5.94
15	ZZZZZ	ZZZZZ	02/22/10	1417	2.29	5.93
16	ZZZZZ	ZZZZZ	02/22/10	1430	2.29	5.93
17	AR166002	WAR100203-60	02/22/10	1442	2.29	5.94
18	PIBLK03	WAR100219-99	02/22/10	1453	2.29	5.94
19	ZZZZZ	ZZZZZ	02/22/10	1503	2.29	5.94
20	ZZZZZ	ZZZZZ	02/22/10	1516	2.29	5.93
21	ZZZZZ	ZZZZZ	02/22/10	1528	2.29	5.93
22	ZZZZZ	ZZZZZ	02/22/10	1541	2.29	5.94
23	ZZZZZ	ZZZZZ	02/22/10	1554	2.29	5.93
24	ZZZZZ	ZZZZZ	02/22/10	1606	2.29	5.93
25	ZZZZZ	ZZZZZ	02/22/10	1619	2.29	5.94
26	ZZZZZ	ZZZZZ	02/22/10	1632	2.29	5.93
27	ZZZZZ	ZZZZZ	02/22/10	1644	2.29	5.93
28	ZZZZZ	ZZZZZ	02/22/10	1657	2.29	5.93
29	AR166003	WAR100203-60	02/22/10	1710	2.29	5.93
30	PIBLK04	WAR100219-99	02/22/10	1722	2.29	5.93
31	ZZZZZ	ZZZZZ	02/22/10	1735	2.29	5.93
32	ZZZZZ	ZZZZZ	02/22/10	1748	2.29	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.92 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/09/10	0555	1.91	5.22
02	AR166001	WAR100222-60	03/09/10	0605	1.92	5.22
03	AR125401	WAR100219-54	03/09/10	0616		
04	AR124201	WAR100219-42	03/09/10	0626		
05	AR124801	WAR100223-48	03/09/10	0637		
06	AR126801	WAR100107-68	03/09/10	0647		
07	AR123201	WAR100104-32	03/09/10	0658		
08	AR122101	WAR100104-21	03/09/10	0708		
09	AR126201	WAR100104-62	03/09/10	0719		
10	DDTANALOGSTD	WAR091219-DD	03/09/10	0729		
11	PIBLK02	WAR100219-99	03/09/10	0740	1.92	5.22
12	ZZZZZ	ZZZZZ	03/09/10	0750	1.92	5.22
13	ZZZZZ	ZZZZZ	03/09/10	0801	1.92	5.22
14	ZZZZZ	ZZZZZ	03/09/10	0811	1.92	5.22
15	ZZZZZ	ZZZZZ	03/09/10	0822	1.92	5.22
16	ZZZZZ	ZZZZZ	03/09/10	0834	1.92	5.22
17	ZZZZZ	ZZZZZ	03/09/10	0847	1.92	5.22
18	ZZZZZ	ZZZZZ	03/09/10	0859	1.92	5.22
19	AR166002	WAR100222-60	03/09/10	0912	1.92	5.22
20	PIBLK03	WAR100219-99	03/09/10	0923	1.92	5.22
21	ZZZZZ	ZZZZZ	03/09/10	0933	1.92	5.22
22	ZZZZZ	ZZZZZ	03/09/10	0944	1.92	5.22
23	ZZZZZ	ZZZZZ	03/09/10	0956	1.92	5.22
24	ZZZZZ	ZZZZZ	03/09/10	1009	1.92	5.22
25	AR166003	WAR100222-60	03/09/10	1021	1.92	5.22
26	PIBLK04	WAR100219-99	03/09/10	1032	1.92	5.22
27	PBLK01	1202063177	03/09/10	1042	1.92	5.22
28	PBLK01LCS	1202063178	03/09/10	1053	1.92	5.22
29	CAPA-10-13498	247824001	03/09/10	1103	1.92	5.22
30	CAPA-10-13498MS	1202064344	03/09/10	1114	1.92	5.22
31	CAPA-10-13498MSD	1202064345	03/09/10	1124	1.92	5.22
32	ZZZZZ	ZZZZZ	03/09/10	1135	1.92	5.22

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D

PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.92 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/09/10	1146	1.92	5.22
02	ZZZZZ	ZZZZZ	03/09/10	1158	1.92	5.22
03	ZZZZZ	ZZZZZ	03/09/10	1211	1.92	5.22
04	AR166004	WAR100222-60	03/09/10	1223	1.92	5.22
05	PIBLK05	WAR100219-99	03/09/10	1234	1.92	5.22
06	ZZZZZ	ZZZZZ	03/09/10	1244	1.92	5.22
07	ZZZZZ	ZZZZZ	03/09/10	1257	1.92	5.22
08	ZZZZZ	ZZZZZ	03/09/10	1309	1.92	5.22
09	ZZZZZ	ZZZZZ	03/09/10	1322	1.92	5.22
10	AR166005	WAR100222-60	03/09/10	1335	1.92	5.22
11	PIBLK06	WAR100219-99	03/09/10	1345	1.92	5.22
12	ZZZZZ	ZZZZZ	03/09/10	1404	1.92	5.23
13	ZZZZZ	ZZZZZ	03/09/10	1431	1.92	5.23
14	ZZZZZ	ZZZZZ	03/09/10	1442	1.92	5.22
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	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.28 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/09/10	0555	2.27	5.92
02	AR166001	WAR100222-60	03/09/10	0605	2.28	5.92
03	AR125401	WAR100219-54	03/09/10	0616		
04	AR124201	WAR100219-42	03/09/10	0626		
05	AR124801	WAR100223-48	03/09/10	0637		
06	AR126801	WAR100107-68	03/09/10	0647		
07	AR123201	WAR100104-32	03/09/10	0658		
08	AR122101	WAR100104-21	03/09/10	0708		
09	AR126201	WAR100104-62	03/09/10	0719		
10	DDTANALOGSTD	WAR091219-DD	03/09/10	0729		
11	PIBLK02	WAR100219-99	03/09/10	0740	2.28	5.92
12	ZZZZZ	ZZZZZ	03/09/10	0750	2.28	5.92
13	ZZZZZ	ZZZZZ	03/09/10	0801	2.27	5.92
14	ZZZZZ	ZZZZZ	03/09/10	0811	2.28	5.92
15	ZZZZZ	ZZZZZ	03/09/10	0822	2.28	5.92
16	ZZZZZ	ZZZZZ	03/09/10	0834	2.28	5.92
17	ZZZZZ	ZZZZZ	03/09/10	0847	2.27	5.92
18	ZZZZZ	ZZZZZ	03/09/10	0859	2.27	5.92
19	AR166002	WAR100222-60	03/09/10	0912	2.28	5.92
20	PIBLK03	WAR100219-99	03/09/10	0923	2.28	5.92
21	ZZZZZ	ZZZZZ	03/09/10	0933	2.28	5.92
22	ZZZZZ	ZZZZZ	03/09/10	0944	2.28	5.92
23	ZZZZZ	ZZZZZ	03/09/10	0956	2.28	5.91
24	ZZZZZ	ZZZZZ	03/09/10	1009	2.27	5.91
25	AR166003	WAR100222-60	03/09/10	1021	2.27	5.92
26	PIBLK04	WAR100219-99	03/09/10	1032	2.28	5.92
27	PBLK01	1202063177	03/09/10	1042	2.28	5.92
28	PBLK01LCS	1202063178	03/09/10	1053	2.28	5.92
29	CAPA-10-13498	247824001	03/09/10	1103	2.28	5.92
30	CAPA-10-13498MS	1202064344	03/09/10	1114	2.28	5.92
31	CAPA-10-13498MSD	1202064345	03/09/10	1124	2.28	5.92
32	ZZZZZ	ZZZZZ	03/09/10	1135	2.28	5.92

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2005

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.28 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/09/10	1146	2.28	5.92
02	ZZZZZ	ZZZZZ	03/09/10	1158	2.28	5.92
03	ZZZZZ	ZZZZZ	03/09/10	1211	2.28	5.92
04	AR166004	WAR100222-60	03/09/10	1223	2.27	5.91
05	PIBLK05	WAR100219-99	03/09/10	1234	2.28	5.92
06	ZZZZZ	ZZZZZ	03/09/10	1244	2.28	5.92
07	ZZZZZ	ZZZZZ	03/09/10	1257	2.28	5.92
08	ZZZZZ	ZZZZZ	03/09/10	1309	2.28	5.92
09	ZZZZZ	ZZZZZ	03/09/10	1322	2.27	5.92
10	AR166005	WAR100222-60	03/09/10	1335	2.27	5.91
11	PIBLK06	WAR100219-99	03/09/10	1345	2.28	5.92
12	ZZZZZ	ZZZZZ	03/09/10	1404	2.27	5.92
13	ZZZZZ	ZZZZZ	03/09/10	1431	2.28	5.92
14	ZZZZZ	ZZZZZ	03/09/10	1442	2.28	5.92
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	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10–2005 **Client ID:** CAPA–10–13498MS

Lab Sample ID: 1202064344

Data File:	030f3001.d	**Data File:**	030b3001.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	09–MAR–10 11:14	**Analyzed:**	09–MAR–10 11:14

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							2.19
Column 1	1	2.37	2.34 – 2.4	.643		ug/L	
	2	2.66	2.63 – 2.69	.699		ug/L	
	3	2.74	2.71 – 2.77	.688		ug/L	
	4	2.77	2.74 – 2.8	.712		ug/L	
	5	2.98	2.95 – 3.01	.716		ug/L	
					.692		
Column 2	1	3.17	3.14 – 3.2	.719		ug/L	
	2	3.25	3.22 – 3.28	.676		ug/L	
	3	3.32	3.29 – 3.35	.64		ug/L	
	4	3.54	3.51 – 3.57	.674		ug/L	
	5	3.62	3.59 – 3.65	.673		ug/L	
					.677		
Aroclor–1260							21.1
Column 1	1	3.71	3.68 – 3.74	1.04		ug/L	
	2	3.87	3.84 – 3.9	.868		ug/L	
	3	4.03	4 – 4.06	.874		ug/L	
	4	4.1	4.07 – 4.13	.819		ug/L	
	5	4.25	4.22 – 4.28	.862		ug/L	
					.893		
Column 2	1	4.31	4.28 – 4.34	.709		ug/L	
	2	4.43	4.4 – 4.46	.735		ug/L	
	3	4.7	4.67 – 4.73	.695		ug/L	
	4	4.87	4.84 – 4.9	.716		ug/L	
	5	5.02	4.99 – 5.05	.759		ug/L	
					.723		

Identification Summary

SDG Number: 10–2005 **Client ID:** CAPA–10–13498MSD

Lab Sample ID: 1202064345

Data File: 031f3101.d **Data File:** 031b3101.d

Inst: ECD1A.I_1 **Inst:** ECD1A.I_2

Column: CLP1 **Column:** CLP2

Analyzed: 09–MAR–10 11:24 **Analyzed:** 09–MAR–10 11:24

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							4.09
Column 1	1	2.37	2.34 – 2.4	.616		ug/L	
	2	2.66	2.63 – 2.69	.661		ug/L	
	3	2.74	2.71 – 2.77	.669		ug/L	
	4	2.77	2.74 – 2.8	.686		ug/L	
	5	2.98	2.95 – 3.01	.688		ug/L	
					.664		
Column 2	1	3.17	3.14 – 3.2	.666		ug/L	
	2	3.25	3.22 – 3.28	.636		ug/L	
	3	3.32	3.29 – 3.35	.597		ug/L	
	4	3.54	3.51 – 3.57	.653		ug/L	
	5	3.62	3.59 – 3.65	.635		ug/L	
					.637		
Aroclor–1260							20.6
Column 1	1	3.71	3.68 – 3.74	.963		ug/L	
	2	3.87	3.84 – 3.9	.83		ug/L	
	3	4.03	4 – 4.06	.831		ug/L	
	4	4.1	4.07 – 4.13	.779		ug/L	
	5	4.24	4.22 – 4.28	.792		ug/L	
					.839		
Column 2	1	4.31	4.28 – 4.34	.686		ug/L	
	2	4.43	4.4 – 4.46	.71		ug/L	
	3	4.7	4.67 – 4.73	.644		ug/L	
	4	4.87	4.84 – 4.9	.66		ug/L	
	5	5.02	4.99 – 5.05	.709		ug/L	
					.682		

Identification Summary

SDG Number: 10–2005 **Client ID:** LCS for batch 961885

Lab Sample ID: 1202063178

Data File: 028f2801.d **Data File:** 028b2801.d

Inst: ECD1A.I_1 **Inst:** ECD1A.I_2

Column: CLP1 **Column:** CLP2

Analyzed: 09–MAR–10 10:53 **Analyzed:** 09–MAR–10 10:53

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							2.7
Column 1	1	2.37	2.34 – 2.4	.604		ug/L	
	2	2.66	2.63 – 2.69	.671		ug/L	
	3	2.74	2.71 – 2.77	.648		ug/L	
	4	2.77	2.74 – 2.8	.694		ug/L	
	5	2.98	2.95 – 3.01	.674		ug/L	
					.658		
Column 2	1	3.17	3.14 – 3.2	.64		ug/L	
	2	3.25	3.22 – 3.28	.607		ug/L	
	3	3.32	3.29 – 3.35	.609		ug/L	
	4	3.54	3.51 – 3.57	.672		ug/L	
	5	3.62	3.59 – 3.65	.675		ug/L	
					.641		
Aroclor–1260							9.9
Column 1	1	3.71	3.68 – 3.74	.78		ug/L	
	2	3.87	3.84 – 3.9	.859		ug/L	
	3	4.03	4 – 4.06	.879		ug/L	
	4	4.1	4.07 – 4.13	.856		ug/L	
	5	4.24	4.22 – 4.28	.803		ug/L	
					.835		
Column 2	1	4.31	4.28 – 4.34	.725		ug/L	
	2	4.43	4.4 – 4.46	.761		ug/L	
	3	4.7	4.67 – 4.73	.75		ug/L	
	4	4.87	4.84 – 4.9	.758		ug/L	
	5	5.02	4.99 – 5.05	.789		ug/L	
					.757		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**			**Matrix:**	**WATER**
Lab Sample ID:	**1202063177**				
Client Sample:	**QC for batch 961885**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 961885**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**961887**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 10:42**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/08/2010 14:29**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**027f2701-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	027b2701-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.100	ug/L	0.0333	0.100	1
11104-28-2	Aroclor-1221	U	0.100	ug/L	0.0333	0.100	1
11141-16-5	Aroclor-1232	U	0.100	ug/L	0.0333	0.100	1
53469-21-9	Aroclor-1242	U	0.100	ug/L	0.0333	0.100	1
12672-29-6	Aroclor-1248	U	0.100	ug/L	0.0333	0.100	1
11097-69-1	Aroclor-1254	U	0.100	ug/L	0.0333	0.100	1
11096-82-5	Aroclor-1260	U	0.100	ug/L	0.0333	0.100	1
37324-23-5	Aroclor-1262	U	0.100	ug/L	0.0333	0.100	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.096	0.200	ug/L	48.0	(30%-105%)
Decachlorobiphenyl	0.127	0.200	ug/L	63.6	(30%-126%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/027f2701-1.d
Lab Smp Id: 1202063177 Client Smp ID: PBLK01
Inj Date : 09-MAR-2010 10:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202063177|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|WATER|MB|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 14:23 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 27 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.918	1.916	0.002	41338476	95.9938	0.096	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.222	5.223	-0.001	39087168	127.200	0.13	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/027f2701-1.d

Page 1

Date : 09-MAR-2010 10:42

Client ID: PBLK01

Instrument: ecd1a.i

Sample Info: |120206317|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

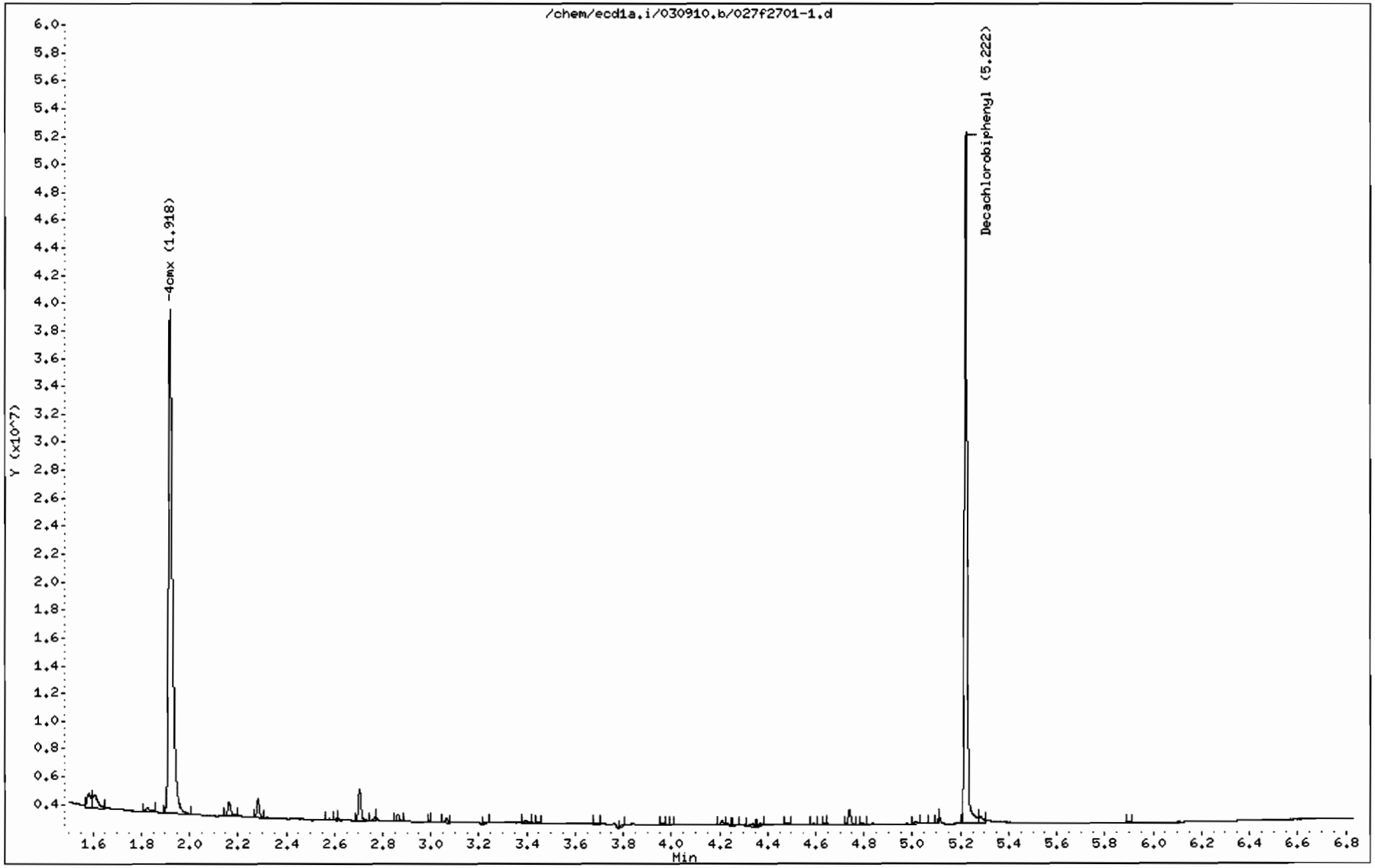

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/027b2701-1.d
Lab Smp Id: 1202063177 Client Smp ID: PBLK01
Inj Date : 09-MAR-2010 10:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202063177|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|WATER|MB|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 14:09 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 27 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.277	2.276	0.001	27948784	93.9781	0.094	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.917	5.918	-0.001	25157063	118.947	0.12	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/027b2701-1.d

Page 1

Date : 09-MAR-2010 10:42

Client ID: PBLK01

Instrument: ecd1a.i

Sample Info: |1202063177|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

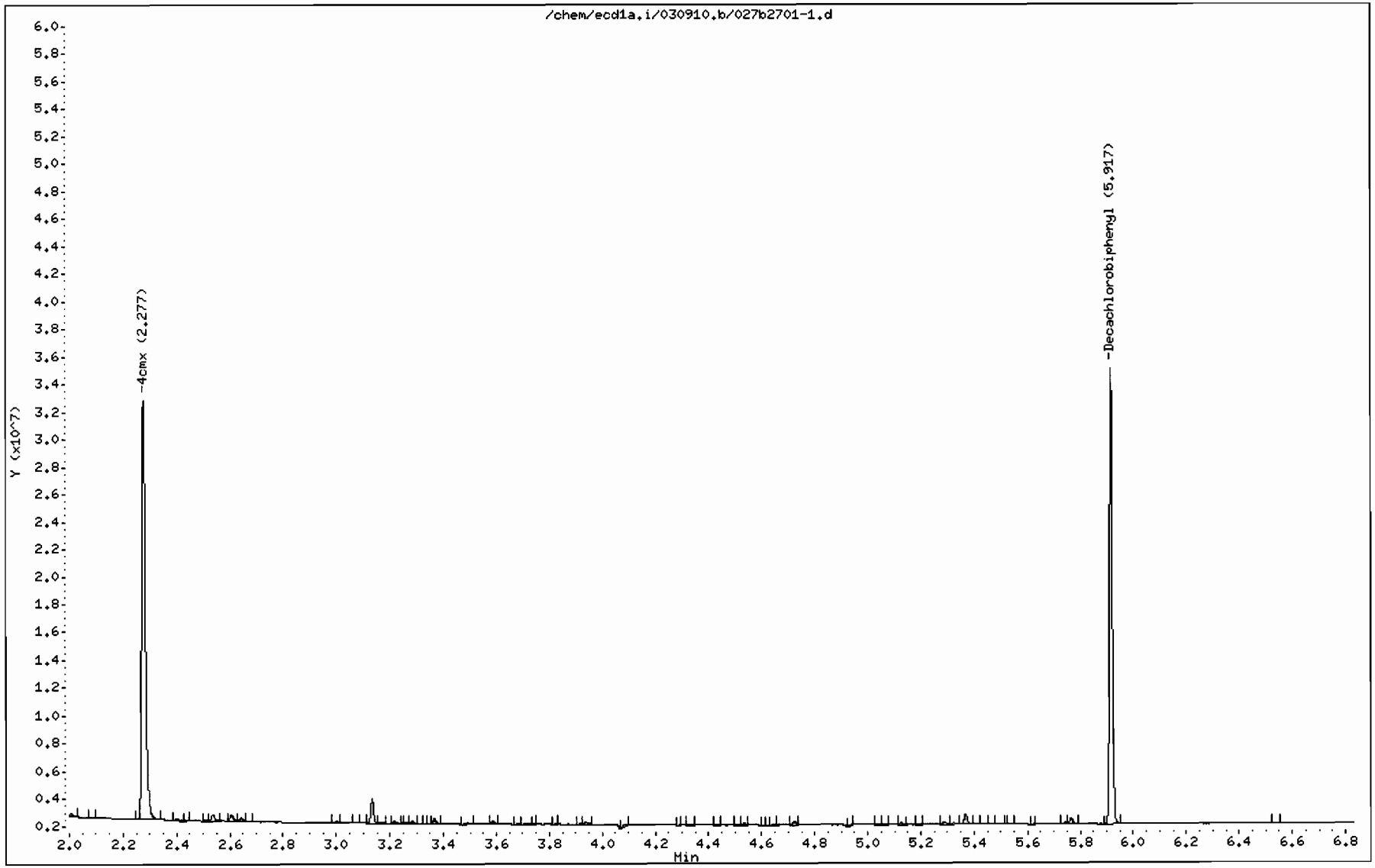

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2005**			**Matrix:**	**WATER**
Lab Sample ID:	**1202063178**				
Client Sample:	**QC for batch 961885**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961885**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**961887**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 10:53**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/08/2010 14:29**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**028f2801–1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	028b2801–1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		0.660	ug/L	0.0333	0.100	1
11104–28–2	Aroclor–1221	U	0.100	ug/L	0.0333	0.100	1
11141–16–5	Aroclor–1232	U	0.100	ug/L	0.0333	0.100	1
53469–21–9	Aroclor–1242	U	0.100	ug/L	0.0333	0.100	1
12672–29–6	Aroclor–1248	U	0.100	ug/L	0.0333	0.100	1
11097–69–1	Aroclor–1254	U	0.100	ug/L	0.0333	0.100	1
11096–82–5	Aroclor–1260		0.840	ug/L	0.0333	0.100	1
37324–23–5	Aroclor–1262	U	0.100	ug/L	0.0333	0.100	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.0958	0.200	ug/L	47.9	(30%–105%)
Decachlorobiphenyl	0.133	0.200	ug/L	66.6	(30%–126%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/028f2801-1.d
Lab Smp Id: 1202063178 Client Smp ID: PBLK01LCS
Inj Date : 09-MAR-2010 10:53
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202063178|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|WATER|LCS|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 14:23 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 28 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.918	1.916	0.002	41264077	95.8210	0.096	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.221	5.223	-0.002	40956540	133.283	0.13	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.371	2.370	0.001	9296537	604.286	0.60	80.00- 120.00	100.00
2.657	2.656	0.001	12229349	670.579	0.67	106.89- 146.89	131.55
2.737	2.736	0.001	7813553	647.596	0.65	60.41- 100.41	84.05
2.775	2.774	0.001	4924710	694.002	0.69	28.38- 68.38	52.97
2.985	2.984	0.001	6007674	674.096	0.67	42.93- 82.93	64.62

Average of Peak Concentrations = 0.66

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.711	3.710	0.001	13319133	780.155	0.78	80.00- 120.00	100.00
3.872	3.873	-0.001	20308318	858.941	0.86	123.18- 163.18	152.47
4.035	4.035	0.000	21944681	878.795	0.88	125.08- 165.08	164.76
4.102	4.102	0.000	12330186	855.926	0.86	68.08- 108.08	92.57
4.245	4.246	-0.001	11594596	803.477	0.80	72.42- 112.42	87.05
			Average of Peak Concentrations =		0.84		

Data File: /chem/ecd1a.i/030910.b/028f2801-1.d

Date : 09-MAR-2010 10:53

Client ID: PBLK01LCS

Sample Info: |1202063178|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

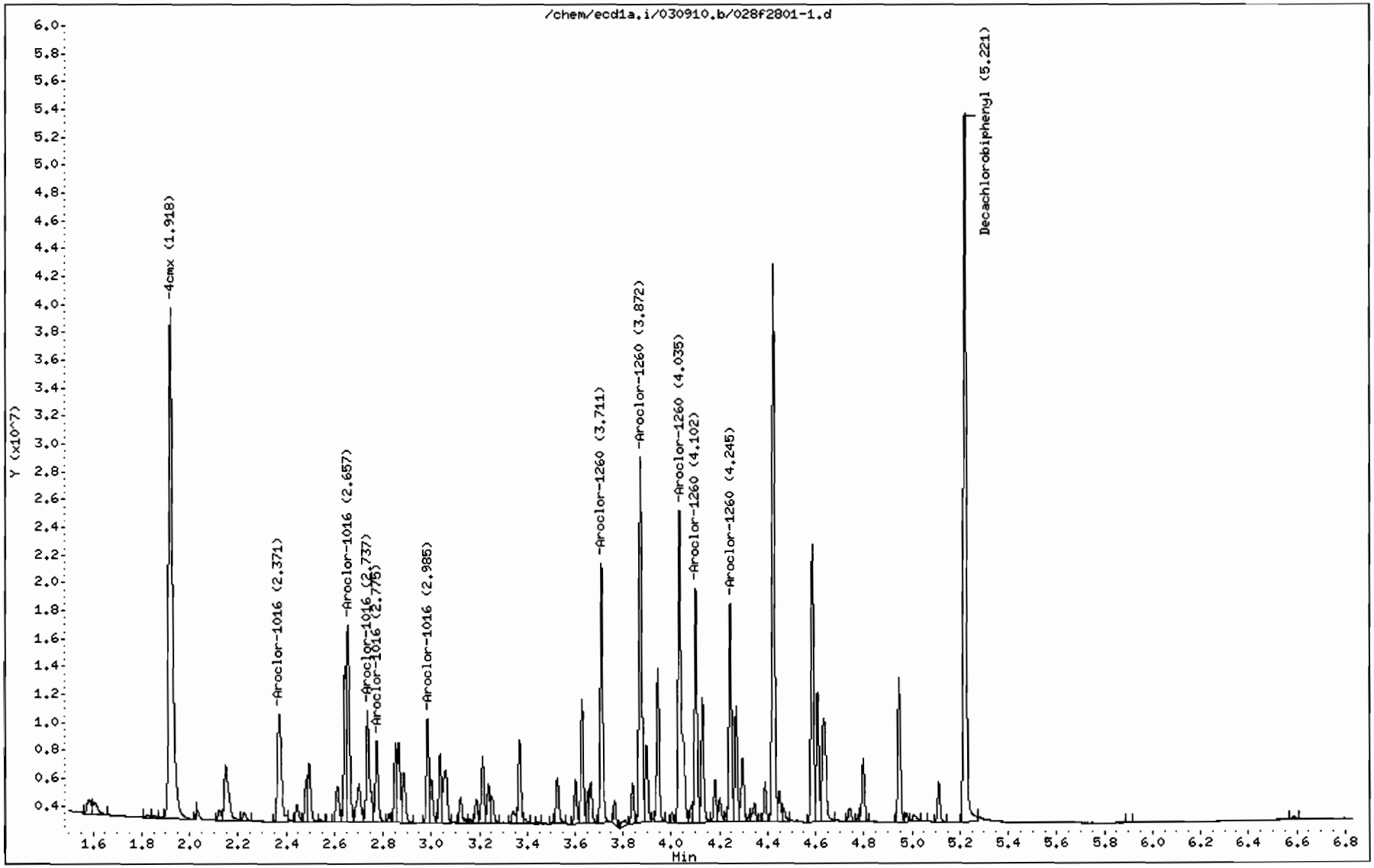

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/028b2801-1.d
Lab Smp Id: 1202063178 Client Smp ID: PBLK01LCS
Inj Date : 09-MAR-2010 10:53
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202063178|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|WATER|LCS|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 14:09 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 28 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.276	2.276	0.000	27998758	94.1461	0.094	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.916	5.918	-0.002	26852663	126.964	0.13	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.171	3.170	0.001	8185562	640.008	0.64	80.00- 120.00	100.00(M)
3.253	3.253	0.000	5415527	607.263	0.61	46.14- 86.14	66.16
3.316	3.316	0.000	3290453	608.666	0.61	21.09- 61.09	40.20
3.544	3.544	0.000	4644758	671.631	0.67	31.66- 71.66	56.74
3.619	3.619	0.000	4340137	675.485	0.68	29.28- 69.28	53.02

Average of Peak Concentrations = 0.64

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.309	4.309	0.000	9579346	725.398	0.72	80.00- 120.00	100.00
4.433	4.435	-0.002	11851829	761.352	0.76	102.28- 142.28	123.72
4.699	4.700	-0.001	8879850	749.766	0.75	71.92- 111.92	92.70
4.872	4.873	-0.001	9243424	757.584	0.76	75.56- 115.56	96.49
5.020	5.021	-0.001	20935579	789.213	0.79	194.53- 234.53	218.55
		Average of Peak Concentrations =			0.76		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/030910.b/028b2801-1.d
Date : 09-MAR-2010 10:53
Client ID: PBLK01LCS
Sample Info: 1120206317811
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

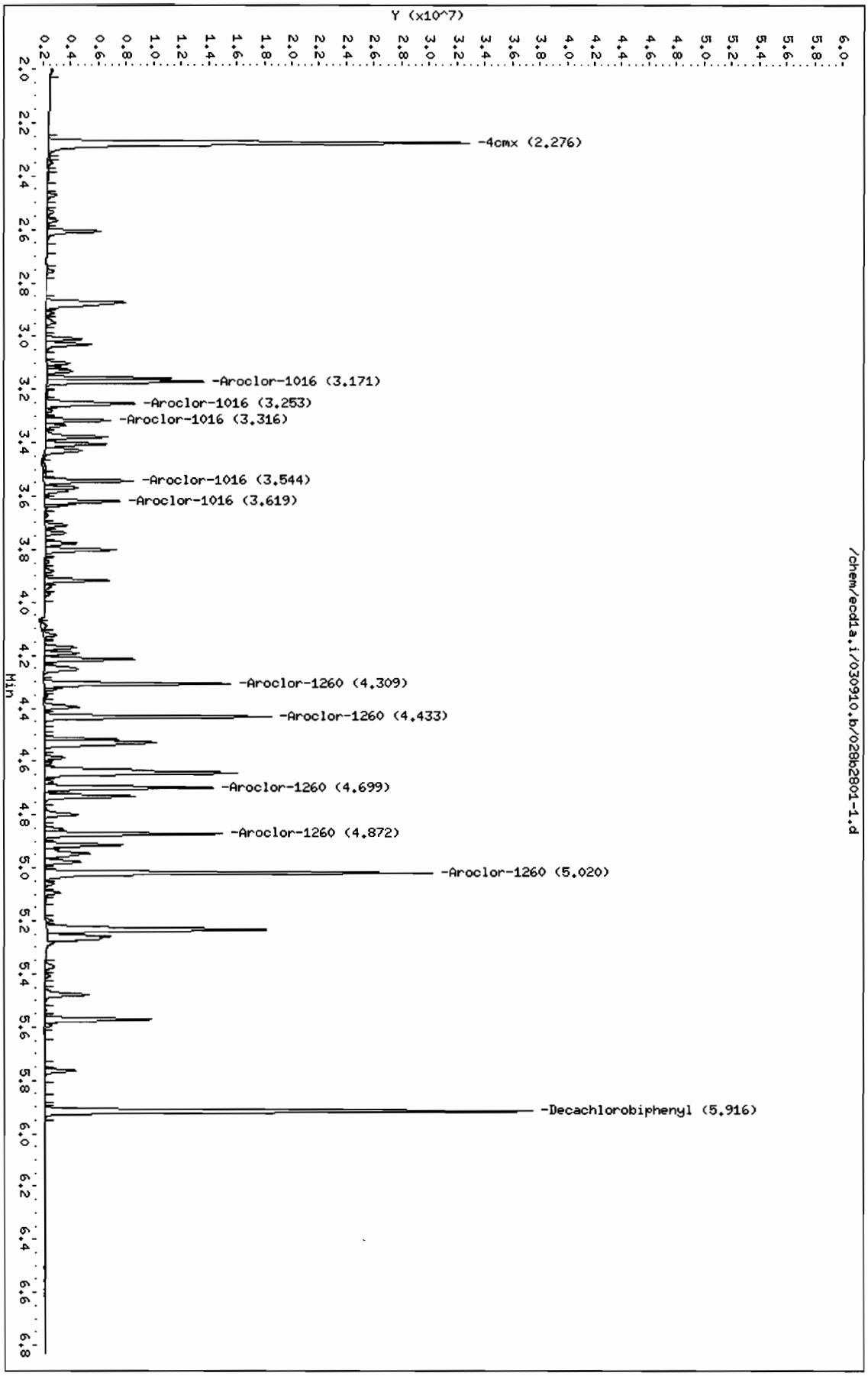

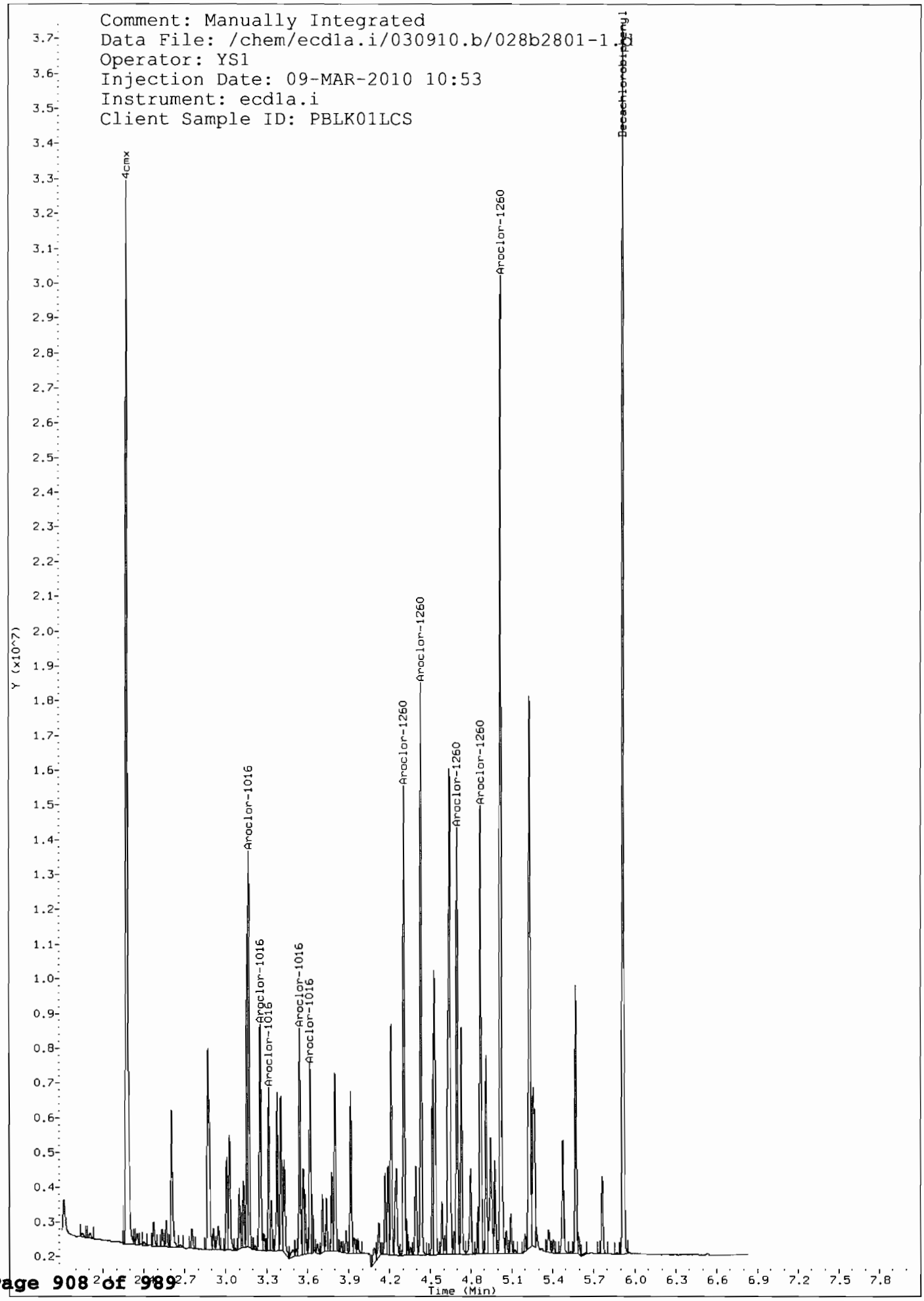
Comment: Manually Integrated
Data File: /chem/ecd1a.i/030910.b/028b2801-1.D
Operator: YS1
Injection Date: 09-MAR-2010 10:53
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

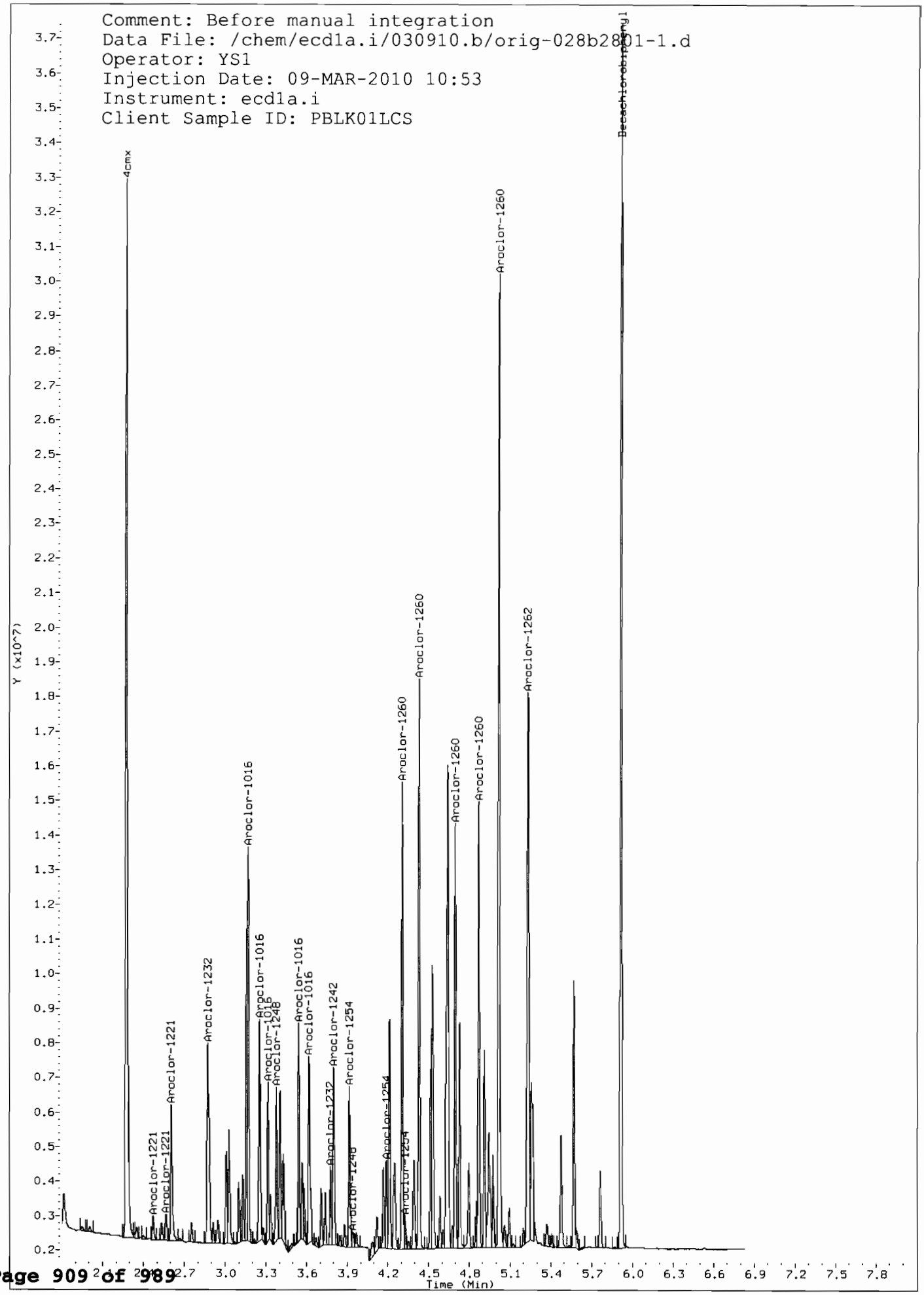
Comment: Before manual integration
Data File: /chem/ecd1a.i/030910.b/orig-028b28801-1.d
Operator: YS1
Injection Date: 09-MAR-2010 10:53
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
4cmx
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1232
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1016
Aroclor-1016
Aroclor-1232
Aroclor-1242
Aroclor-1254
Aroclor-1248
Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1262
Decachlorobiphenyl
Y (x10^7)
Time (Min)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2005**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202064344**	**Date Received:**	**02/23/2010 08:50**		
Client Sample:	**QC for batch 961885**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-13498MS**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**961887**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 11:14**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/08/2010 14:29**	**Aliquot:**	**500 mL**	**Final Volume:**	**.5 mL**
Data File:	**030f3001.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	030b3001.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		0.690	ug/L	0.0333	0.100	1
11104-28-2	Aroclor-1221	U	0.100	ug/L	0.0333	0.100	1
11141-16-5	Aroclor-1232	U	0.100	ug/L	0.0333	0.100	1
53469-21-9	Aroclor-1242	U	0.100	ug/L	0.0333	0.100	1
12672-29-6	Aroclor-1248	U	0.100	ug/L	0.0333	0.100	1
11097-69-1	Aroclor-1254	U	0.100	ug/L	0.0333	0.100	1
11096-82-5	Aroclor-1260		0.880	ug/L	0.0333	0.100	1
37324-23-5	Aroclor-1262	U	0.100	ug/L	0.0333	0.100	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.111	0.200	ug/L	55.3	(30%-105%)
Decachlorobiphenyl	0.109	0.200	ug/L	54.3	(30%-126%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/030f3001.d
Lab Smp Id: 1202064344 Client Smp ID: CAPA-10-13498MS
Inj Date : 09-MAR-2010 11:14
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202064344|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|GROUND WATER|MS|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 30 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.917	1.916	0.001	47591284	110.514	0.11	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.222	5.223	-0.001	33398484	108.687	0.11	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.370	2.370	0.000	9893183	643.068	0.64	80.00- 120.00	100.00
2.657	2.656	0.001	12749305	699.090	0.70	110.98- 150.98	128.87
2.737	2.736	0.001	8295359	687.528	0.69	60.40- 100.40	83.85
2.774	2.774	0.000	5055397	712.419	0.71	28.72- 68.72	51.10
2.984	2.984	0.000	6380526	715.932	0.72	42.25- 82.25	64.49

Average of Peak Concentrations = 0.69

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.709	3.710	-0.001	17819358	1043.75	1.0	80.00- 120.00	100.00
3.873	3.873	0.000	20518802	867.843	0.87	129.42- 169.42	115.15
4.034	4.035	-0.001	21815926	873.639	0.87	140.14- 180.14	122.43
4.103	4.102	0.001	11791923	818.561	0.82	70.18- 110.18	66.17
4.245	4.246	-0.001	12434935	861.710	0.86	73.99- 113.99	69.78
Average of Peak Concentrations =					0.88		

Data File: /chem/ecd1a.i/030910.b/030f3001.d

Date : 09-MAR-2010 11:14

Client ID: CAPA-10-13498MS

Sample Info: |1202064344|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

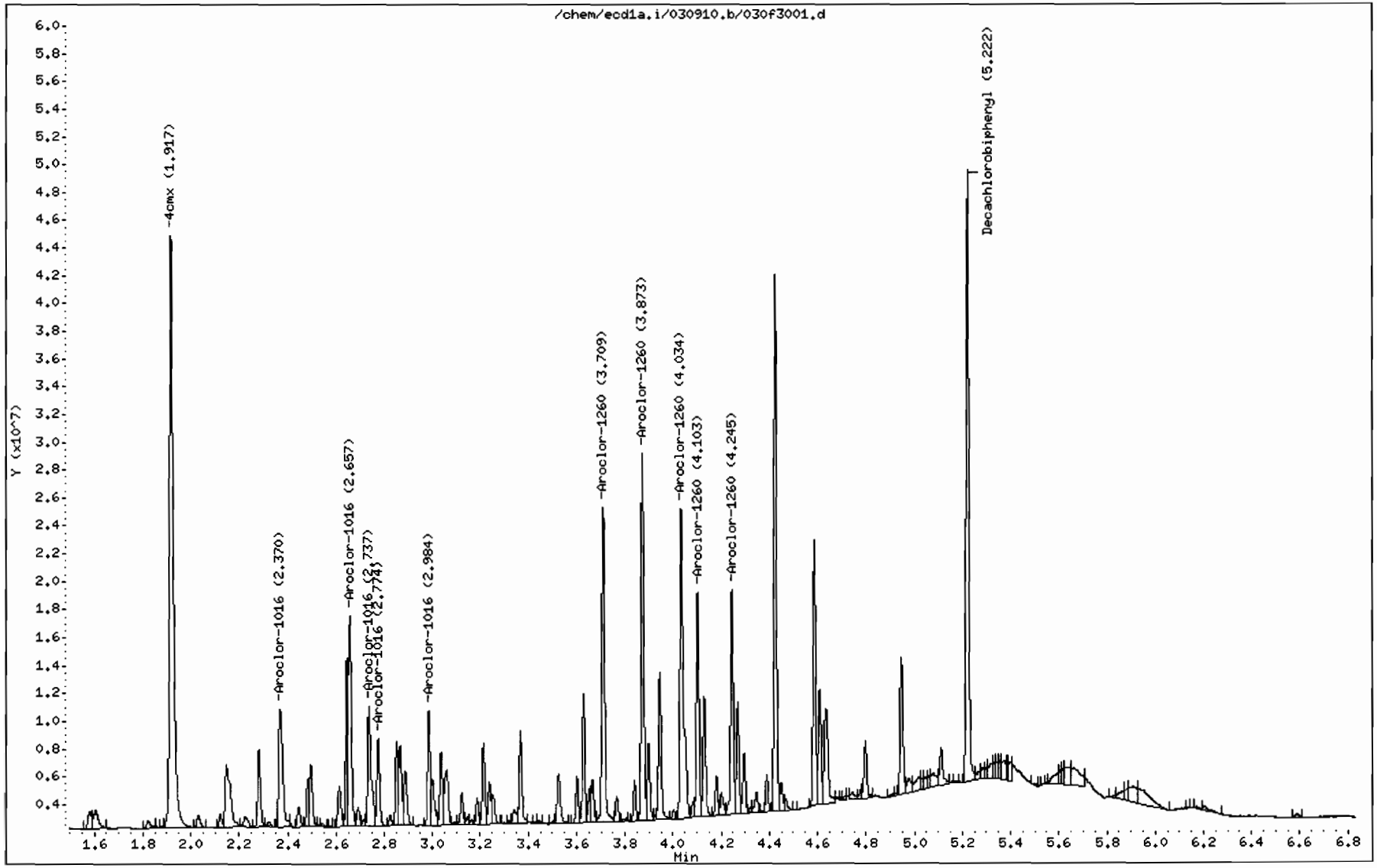

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/030b3001.d
Lab Smp Id: 1202064344 Client Smp ID: CAPA-10-13498MS
Inj Date : 09-MAR-2010 11:14
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202064344|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|GROUND WATER|MS|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 30 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.275	2.276	-0.001	32057930	107.795	0.11	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.918	5.918	0.000	22696873	107.315	0.11	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.170	3.170	0.000	9193222	718.794	0.72	80.00- 120.00	100.00(M)
3.254	3.253	0.001	6030752	676.251	0.68	44.54- 84.54	65.60
3.316	3.316	0.000	3462212	640.438	0.64	20.40- 60.40	37.66
3.544	3.544	0.000	4661986	674.122	0.67	30.67- 70.67	50.71
3.619	3.619	0.000	4326553	673.371	0.67	37.45- 77.45	56.81
			Average of Peak Concentrations =		0.68		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.309	4.309	0.000	9367882	709.385	0.71	80.00- 120.00	100.00
4.434	4.435	-0.001	11434085	734.517	0.73	102.63- 142.63	122.06
4.699	4.700	-0.001	8226890	694.633	0.69	72.47- 112.47	87.82
4.873	4.873	0.000	8742121	716.497	0.72	76.60- 116.60	93.32
5.019	5.021	-0.002	20141504	759.278	0.76	195.80- 235.80	215.01
			Average of Peak Concentrations =		0.72		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/030910.b/030b3001.d

Page 1

Date : 09-MAR-2010 11:14

Client ID: CAPA-10-13498MS

Instrument: ecd1a.i

Sample Info: |1202064344|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

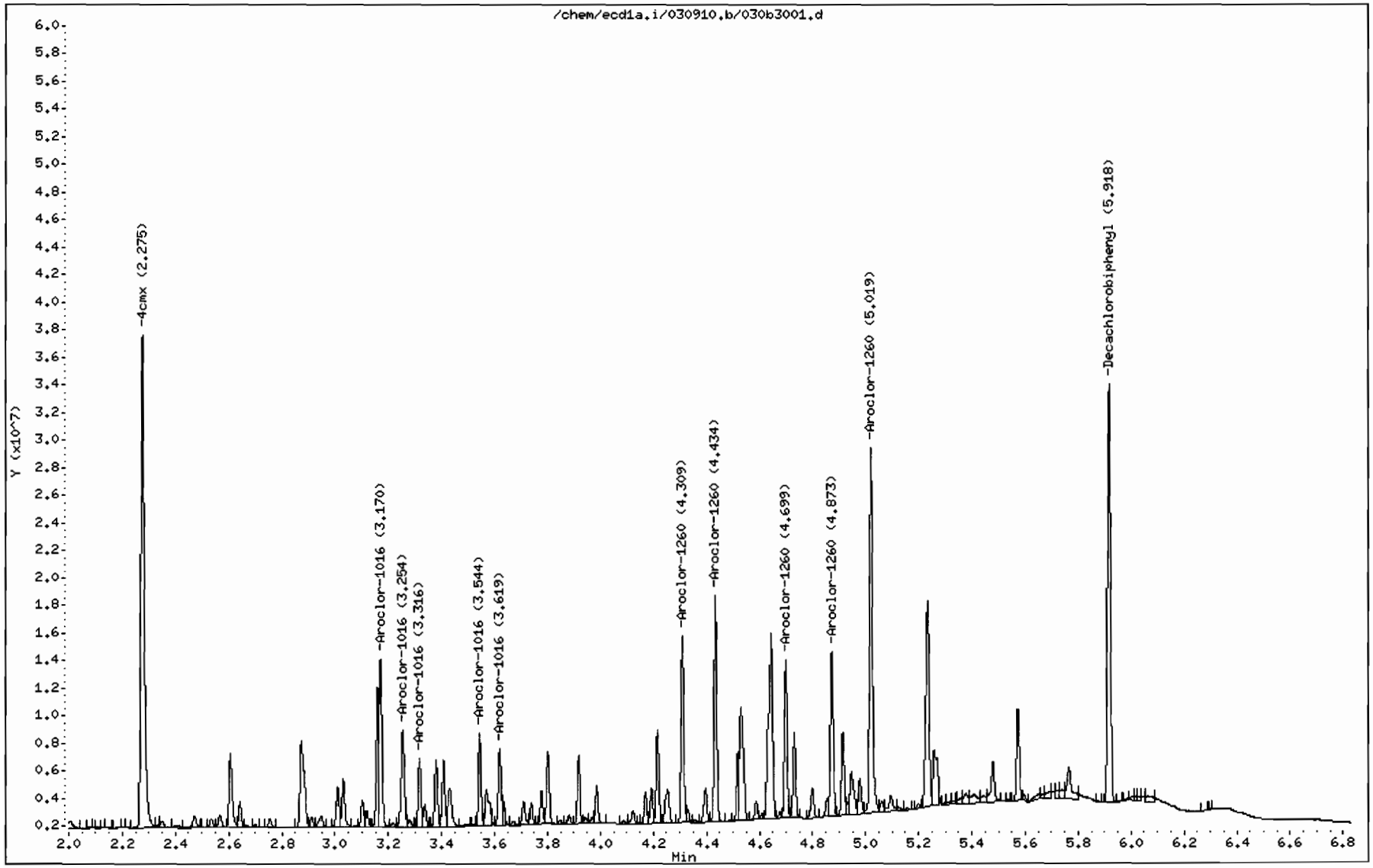

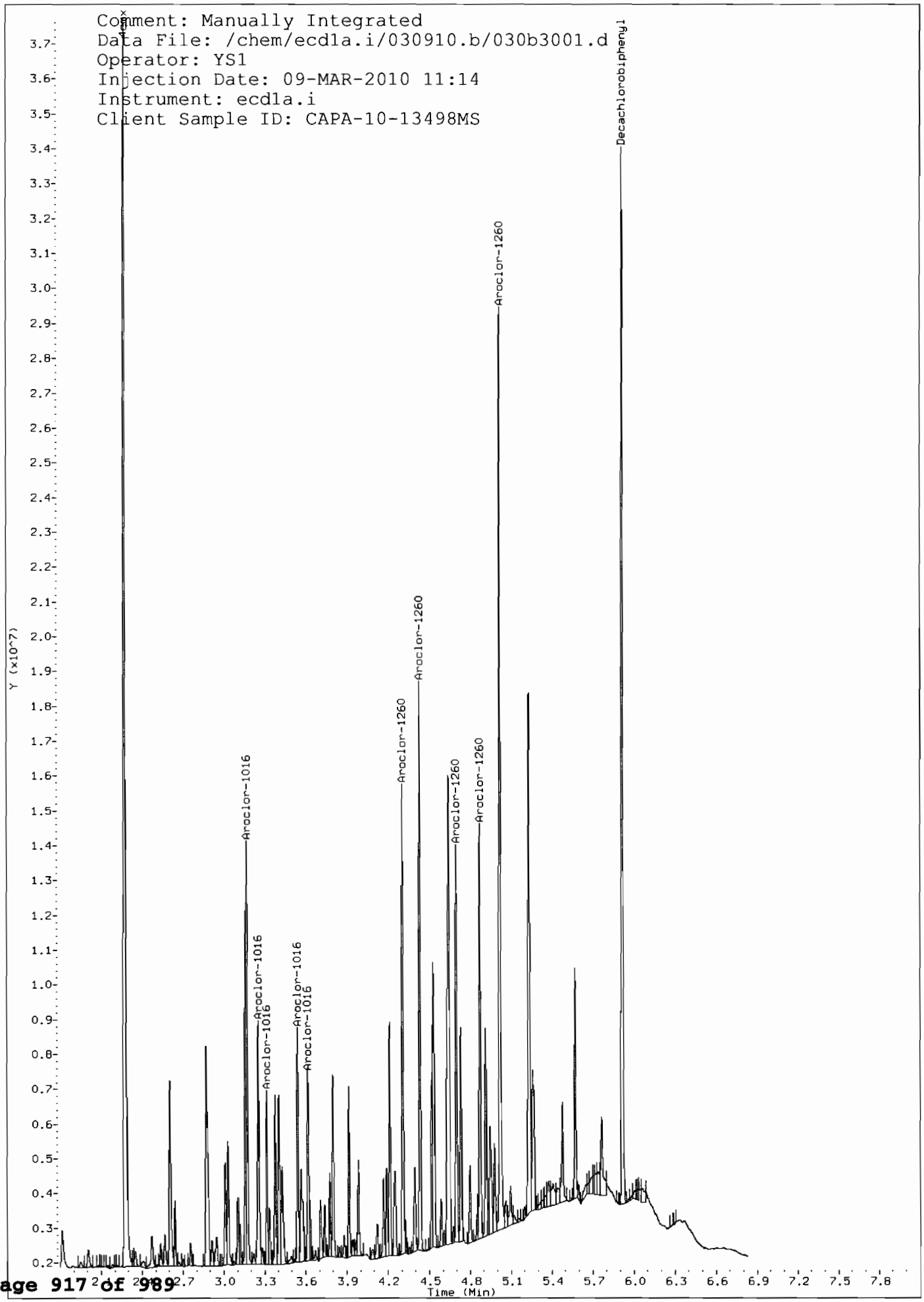
Comment: Manually Integrated
Data File: /chem/ecd1a.i/030910.b/030b3001.d
Operator: YS1
Injection Date: 09-MAR-2010 11:14
Instrument: ecd1a.i
Client Sample ID: CAPA-10-13498MS
Tetrachlorodibutylchlorendate
Decachlorobiphenyl
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Y (x10^7)
Time (Min)

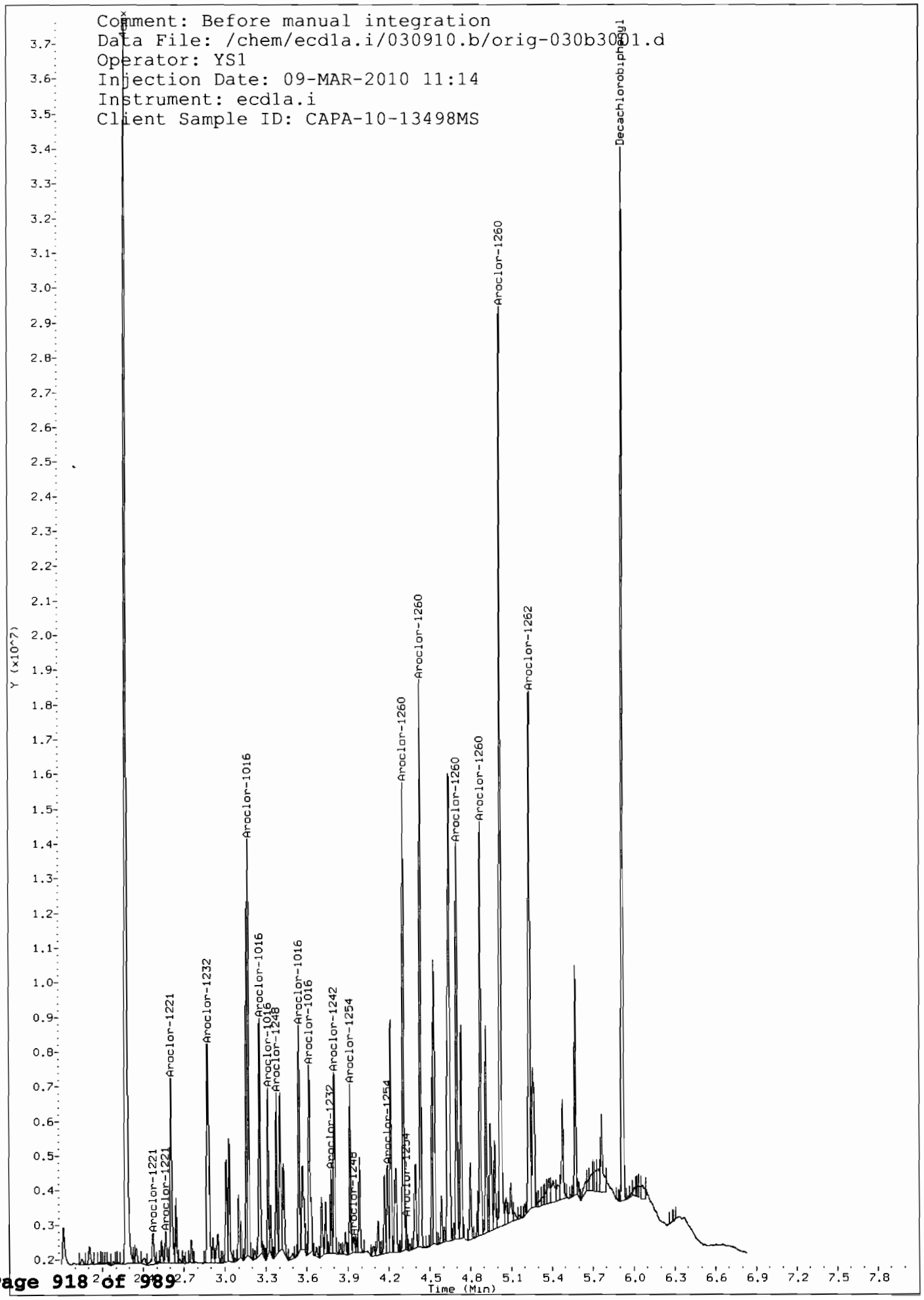
Comment: Before manual integration
Data File: /chem/ecd1a.i/030910.b/orig-030b30001.d
Operator: YS1
Injection Date: 09-MAR-2010 11:14
Instrument: ecd1a.i
Client Sample ID: CAPA-10-13498MS
Y (x10^7)
Time (Min)
Decachlorobiphenyl
Aroclor-1260
Aroclor-1262
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1016
Aroclor-1232
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1016
Aroclor-1016
Aroclor-1248
Aroclor-1016
Aroclor-1016
Aroclor-1242
Aroclor-1254
Aroclor-1232
Aroclor-1254
Aroclor-1254
Aroclor-1248

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2005**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202064345**	**Date Received:**	**02/23/2010 08:50**		
Client Sample:	**QC for batch 961885**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA–10–13498MSD**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**961887**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 11:24**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/08/2010 14:29**	**Aliquot:**	**500 mL**	**Final Volume:**	**.5 mL**
Data File:	**031f3101.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	031b3101.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016		0.660	ug/L	0.0333	0.100	1
11104–28–2	Aroclor–1221	U	0.100	ug/L	0.0333	0.100	1
11141–16–5	Aroclor–1232	U	0.100	ug/L	0.0333	0.100	1
53469–21–9	Aroclor–1242	U	0.100	ug/L	0.0333	0.100	1
12672–29–6	Aroclor–1248	U	0.100	ug/L	0.0333	0.100	1
11097–69–1	Aroclor–1254	U	0.100	ug/L	0.0333	0.100	1
11096–82–5	Aroclor–1260		0.840	ug/L	0.0333	0.100	1
37324–23–5	Aroclor–1262	U	0.100	ug/L	0.0333	0.100	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.102	0.200	ug/L	51.2	(30%–105%)
Decachlorobiphenyl	0.106	0.200	ug/L	53.0	(30%–126%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/031f3101.d
Lab Smp Id: 1202064345 Client Smp ID: CAPA-10-13498MSD
Inj Date : 09-MAR-2010 11:24
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202064345|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|GROUND WATER|MSD|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 31 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.917	1.916	0.001	44063297	102.321	0.10	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.221	5.223	-0.002	32570646	105.993	0.10	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.370	2.370	0.000	9475701	615.931	0.62	80.00- 120.00	100.00
2.656	2.656	0.000	12057560	661.159	0.66	110.98- 150.98	127.25
2.737	2.736	0.001	8070058	668.855	0.67	60.40- 100.40	85.17
2.774	2.774	0.000	4866560	685.807	0.68	28.72- 68.72	51.36
2.985	2.984	0.001	6133904	688.260	0.69	42.25- 82.25	64.73

Average of Peak Concentrations = 0.66

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.709	3.710	-0.001	16433416	962.571	0.96	80.00- 120.00	100.00
3.872	3.873	-0.001	19617120	829.706	0.83	129.42- 169.42	119.37
4.034	4.035	-0.001	20750712	830.981	0.83	140.14- 180.14	126.27
4.102	4.102	0.000	11220565	778.899	0.78	70.18- 110.18	68.28
4.244	4.246	-0.002	11430386	792.098	0.79	73.99- 113.99	69.56
Average of Peak Concentrations =					0.84		

Data File: /chem/ecd1a.i/030910.b/031f3101.d

Date : 09-MAR-2010 11:24

Client ID: CAPA-10-13498MSD

Sample Info: |1202064345|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

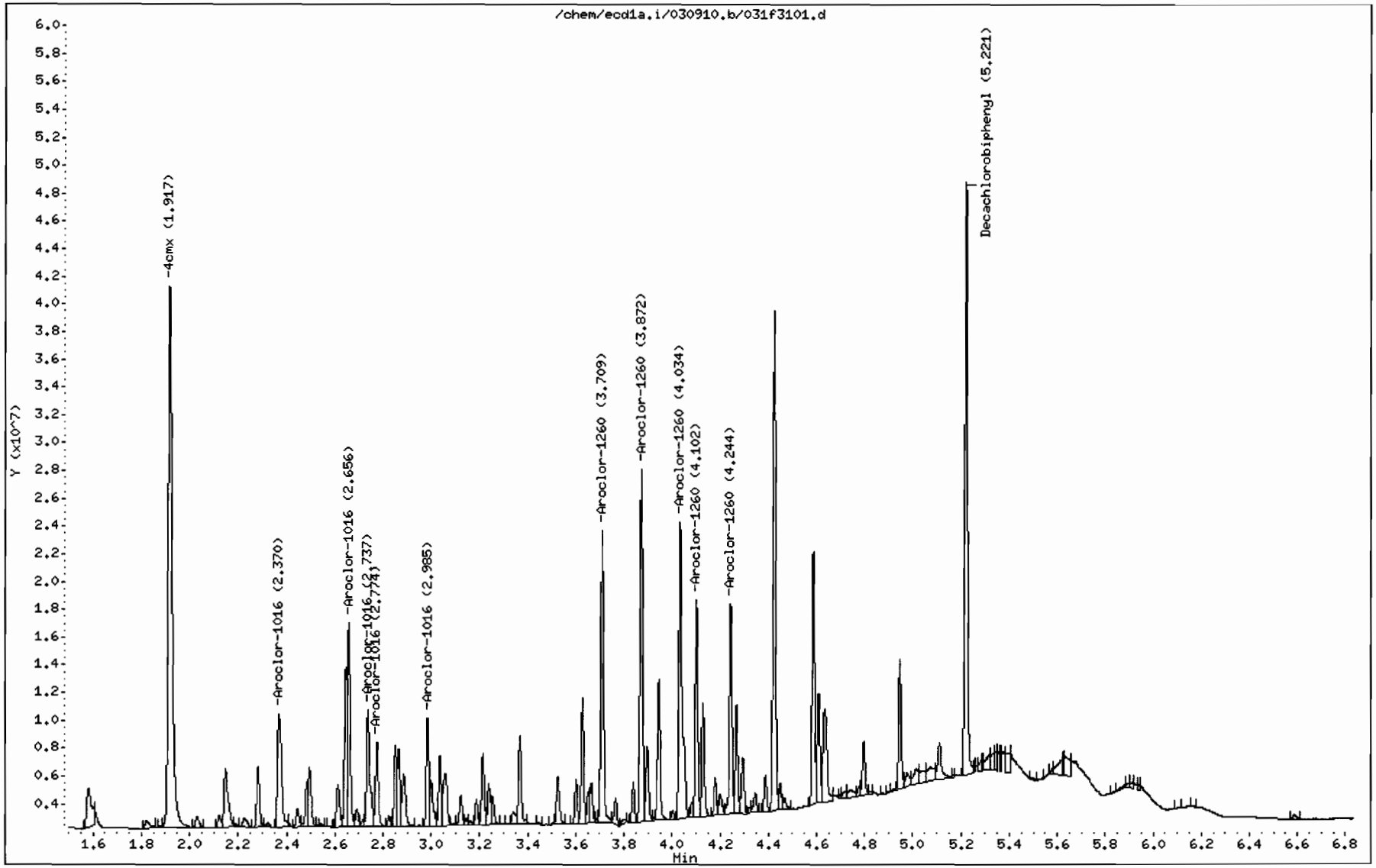

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 02/23/2010 METHOD: ECD1-F-8082-022210.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/022210.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	22-FEB-2010 05:59		022210	1.0		CLEAN
002f0201.d	WAR100203-60 01	YS1	22-FEB-2010 06:10		022210	1.0		DUSE RE-ICAL
003f0301.d	AR1660-4	YS1	22-FEB-2010 06:20		022210	1.0		DUSE SCREEN
004f0401.d	WAR091219-DDT	YS1	22-FEB-2010 06:31		022210	1.0		DDT ANALOG STANDARD
005f0501.d	WAR100104-32	YS1	22-FEB-2010 06:41		022210	1.0		PATTERN ONLY
006f0601.d	WAR100104-21	YS1	22-FEB-2010 06:52		022210	1.0		PATTERN ONLY
007f0701.d	WAR100104-62	YS1	22-FEB-2010 07:03		022210	1.0		PATTERN ONLY
008f0801.d	WAR100222-01 60	YS1	22-FEB-2010 07:13		022210	1.0		AR1660 I-CAL LEVEL 1
009f0901.d	WAR100222-02 60	YS1	22-FEB-2010 07:24		022210	1.0		AR1660 I-CAL LEVEL 2
010f1001.d	WAR100222-03 60	YS1	22-FEB-2010 07:34		022210	1.0		AR1660 I-CAL LEVEL 3
011f1101.d	WAR100222-04 60	YS1	22-FEB-2010 07:45		022210	1.0		AR1660 I-CAL LEVEL 4
012f1201.d	IAR100104-01	YS1	22-FEB-2010 07:55		022210	1.0		AR1660 I-CAL LEVEL 5
013f1301.d	WAR100203-60 01	YS1	22-FEB-2010 08:06		022210	1.0		PASSED ON BOTH COLUMNS
014f1401.d	WAR100222-05 54	YS1	22-FEB-2010 08:16		022210	1.0		AR1254 I-CAL LEVEL 1
015f1501.d	WAR100222-06 54	YS1	22-FEB-2010 08:27		022210	1.0		AR1254 I-CAL LEVEL 2

Instrument Batch: /chem/ecd1a.i/022210.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR100222-07 54	YS1	22-FEB-2010 08:37		022210		1.0	AR1254 I-CAL LEVEL 3
017f1701.d	WAR100222-08 54	YS1	22-FEB-2010 08:48		022210		1.0	AR1254 I-CAL LEVEL 4
018f1801.d	IAR100219-02	YS1	22-FEB-2010 08:59		022210		1.0	AR1254 I-CAL LEVEL 5
019f1901.d	WAR100219-54	YS1	22-FEB-2010 09:09		022210		1.0	PASSED ON BOTH COLUMNS
020f2001.d	WAR100222-09 42	YS1	22-FEB-2010 09:20		022210		1.0	AR1242 I-CAL LEVEL 1
021f2101.d	WAR100222-10 42	YS1	22-FEB-2010 09:30		022210		1.0	AR1242 I-CAL LEVEL 2
022f2201.d	WAR100222-11 42	YS1	22-FEB-2010 09:41		022210		1.0	AR1242 I-CAL LEVEL 3
023f2301.d	WAR100222-12 42	YS1	22-FEB-2010 09:51		022210		1.0	AR1242 I-CAL LEVEL 4
024f2401.d	IAR100219-01	YS1	22-FEB-2010 10:02		022210		1.0	AR1242 I-CAL LEVEL 5
025f2501.d	WAR100219-42	YS1	22-FEB-2010 10:12		022210		1.0	PASSED ON BOTH COLUMNS
026f2601.d	WAR100222-13 48	YS1	22-FEB-2010 10:23		022210		1.0	AR1248 I-CAL LEVEL 1
027f2701.d	WAR100222-14 48	YS1	22-FEB-2010 10:33		022210		1.0	AR1248 I-CAL LEVEL 2
028f2801.d	WAR100222-15 48	YS1	22-FEB-2010 10:44		022210		1.0	AR1248 I-CAL LEVEL 3
029f2901.d	IAR100211-01	YS1	22-FEB-2010 10:54		022210		1.0	AR1248 I-CAL LEVEL 5
030f3001.d	WAR100222-16	YS1	22-FEB-2010 11:05		022210		1.0	AR1248 I-CAL LEVEL 4
031f3101.d	WAR091217-48	YS1	22-FEB-2010 11:16		022210		1.0	PASSED ON BOTH COLUMNS
032f3201.d	WAR100222-17 68	YS1	22-FEB-2010 11:26		022210		1.0	AR1268 I-CAL LEVEL 1
033f3301.d	WAR100222-18 68	YS1	22-FEB-2010 11:37		022210		1.0	AR1268 I-CAL LEVEL 2
034f3401.d	WAR100222-19 68	YS1	22-FEB-2010 11:47		022210		1.0	AR1268 I-CAL LEVEL 3
035f3501.d	WAR100222-20 68	YS1	22-FEB-2010 11:58		022210		1.0	AR1268 I-CAL LEVEL 4

Instrument Batch: /chem/ecd1a.i/022210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	IAR100104-05	YS1	22-FEB-2010 12:08		022210	1.0		AR1268 I-CAL LEVEL 5
037f3701.d	WAR100107-68	YS1	22-FEB-2010 12:19		022210	1.0		PASSED ON BOTH COLUMNS
038f3801.d	WAR100219-99 02	YS1	22-FEB-2010 12:29		022210	1.0		CLEAN
039f3901-1.d	1202046866	YS1	22-FEB-2010 12:40	954781	10-1846	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901-2.d	1202046866	YS1	22-FEB-2010 12:40	954781	10-1848	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

039f3901.d	1202046866	YS1	22-FEB-2010 12:40	954781	10-1808		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001-1.d	1202046867	YS1	22-FEB-2010 12:50	954781	10-1846		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001-2.d	1202046867	YS1	22-FEB-2010 12:50	954781	10-1848		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	1202046867	YS1	22-FEB-2010 12:50	954781	10-1808		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
041f4101.d	246968001	YS1	22-FEB-2010 13:01	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
042f4201.d	246968002	YS1	22-FEB-2010 13:14	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
043f4301.d	246968003	YS1	22-FEB-2010 13:26	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
044f4401.d	246968004	YS1	22-FEB-2010 13:39	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	246968005	YS1	22-FEB-2010 13:51	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
046f4601.d	246968006	YS1	22-FEB-2010 14:04	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
047f4701.d	246968007	YS1	22-FEB-2010 14:17	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
048f4801.d	246968008	YS1	22-FEB-2010 14:30	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	WAR100203-60 02	YS1	22-FEB-2010 14:42		022210		1.0		PASSED ON BOTH COLUMNS
050f5001.d	WAR100219-99 03	YS1	22-FEB-2010 14:53		022210		1.0		CLEAN
051f5101.d	246968009	YS1	22-FEB-2010 15:03	954781	10-1808		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
052f5201.d	246968010	YS1	22-FEB-2010 15:16	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	246968011	YS1	22-FEB-2010 15:28	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	246968012	YS1	22-FEB-2010 15:41	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	246968013	YS1	22-FEB-2010 15:54	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
056f5601.d	246968014	YS1	22-FEB-2010 16:06	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	246968015	YS1	22-FEB-2010 16:19	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	246968016	YS1	22-FEB-2010 16:32	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	246968017	YS1	22-FEB-2010 16:44	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
060f6001.d	247121002	YS1	22-FEB-2010 16:57	954781	10-1846	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

061f6101.d	WAR100203-60 03	YS1	22-FEB-2010 17:10		022210		1.0		PASSED ON BOTH COLUMNS
062f6201.d	WAR100219-99 04	YS1	22-FEB-2010 17:22		022210		1.0		CLEAN
063f6301.d	247123001	YS1	22-FEB-2010 17:35	954781	10-1848		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	1202046868	YS1	22-FEB-2010 17:48	954781	10-1848		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
065f6501.d	1202046869	YS1	22-FEB-2010 18:00	954781	10-1848		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	WAR100203-60 04	YS1	22-FEB-2010 18:13		022210		1.0		PASSED ON BOTH COLUMNS
067f6701.d	WAR100219-99 05	YS1	22-FEB-2010 18:26		022210		1.0		CLEAN
068f6801.d	1202048527	YS1	22-FEB-2010 18:38	955479	10-1818		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	1202048528	YS1	22-FEB-2010 18:51	955479	10-1818		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	247043003	YS1	22-FEB-2010 19:04	955479	10-1818		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
071f7101.d	1202048529	YS1	22-FEB-2010 19:16	955479	10-1818		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/022210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
072f7201.d	1202048530	YS1	22-FEB-2010 19:29	955479	10-1818	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	247043004	YS1	22-FEB-2010 19:42	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	247043005	YS1	22-FEB-2010 19:54	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	247043006	YS1	22-FEB-2010 20:07	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
076f7601.d	247043007	YS1	22-FEB-2010 20:20	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	247043008	YS1	22-FEB-2010 20:32	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	WAR100203-60 05	YS1	22-FEB-2010 20:45		022210	1.0		PASSED ON BOTH COLUMNS
079f7901.d	WAR100219-99 06	YS1	22-FEB-2010 20:58		022210	1.0		CLEAN
080f8001.d	247043009	YS1	22-FEB-2010 21:10	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
081f8101.d	247043010	YS1	22-FEB-2010 21:23	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
082f8201.d	247043011	YS1	22-FEB-2010 21:35	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
083f8301.d	247043012	YS1	22-FEB-2010 21:48	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
084f8401.d	247043013	YS1	22-FEB-2010 22:01	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
085f8501.d	247043014	YS1	22-FEB-2010 22:13	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

086f8601.d	247043015	YS1	22-FEB-2010 22:26	955479	10-1818		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	247043016	YS1	22-FEB-2010 22:39	955479	10-1818		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
088f8801.d	247043017	YS1	22-FEB-2010 22:51	955479	10-1818		1.0	LANL	SURROGATE LOW RE
089f8901.d	247043018	YS1	22-FEB-2010 23:04	955479	10-1818		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
090f9001.d	WAR100203-60 06	YS1	22-FEB-2010 23:17		022210		1.0		PASSED ON BOTH COLUMNS
091f9101.d	WAR100219-99 07	YS1	22-FEB-2010 23:29		022210		1.0		CLEAN

Instrument Batch: /chem/ecd1a.i/022210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
092f9201.d	1660	YS1	22-FEB-2010 23:42		022210	1.0		DUSE SCREEN
093f9301.d	1660-4	YS1	22-FEB-2010 23:55		022210	1.0		DUSE SCREEN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 03/09/2010 METHOD: ECD1-F-8082-022210.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA936
ALUMINA LOT 1273992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/030910.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	09-MAR-2010 05:55		030910	1.0		CLEAN
002f0201.d	WAR100222-60 01	YS1	09-MAR-2010 06:05		030910	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR100219-54	YS1	09-MAR-2010 06:16		030910	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR100219-42	YS1	09-MAR-2010 06:26		030910	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR100223-48	YS1	09-MAR-2010 06:37		030910	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100107-68	YS1	09-MAR-2010 06:47		030910	1.0		PASSED ON BOTH COLUMNS
007f0701.d	WAR100104-32	YS1	09-MAR-2010 06:58		030910	1.0		PATTERN ONLY
008f0801.d	WAR100104-21	YS1	09-MAR-2010 07:08		030910	1.0		PATTERN ONLY
009f0901.d	WAR100104-62	YS1	09-MAR-2010 07:19		030910	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	YS1	09-MAR-2010 07:29		030910	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100219-99 02	YS1	09-MAR-2010 07:40		030910	1.0		CLEAN
012f1201.d	1202065484	YS1	09-MAR-2010 07:50	962782	EUI-7541	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
013f1301.d	1202065485	YS1	09-MAR-2010 08:01	962782	EUI-7541	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
014f1401.d	1202065498	YS1	09-MAR-2010 08:11	962782	EUI-7541	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
015f1501.d	248721001	YS1	09-MAR-2010 08:22	962782	EUI-7541	1.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
016f1601.d	1202065486	YS1	09-MAR-2010 08:34	962782	EUI-7541	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/030910.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
017f1701.d	1202065487	YS1	09-MAR-2010 08:47	962782	EUI-7541	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
018f1801.d	248721002	YS1	09-MAR-2010 08:59	962782	EUI-7541	1.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
019f1901.d	WAR100222-60 02	YS1	09-MAR-2010 09:12		030910	1.0		PASSED ON BOTH COLUMNS
020f2001.d	WAR100219-99 03	YS1	09-MAR-2010 09:23		030910	1.0		CLEAN
021f2101.d	018004	YS1	09-MAR-2010 09:33		030910	1.0		DUSE SCERRN
022f2201.d	018005	YS1	09-MAR-2010 09:44		030910	1.0		DUSE SCERRN
023f2301.d	018007	YS1	09-MAR-2010 09:56		030910	1.0		DUSE SCERRN
024f2401.d	018008	YS1	09-MAR-2010 10:09		030910	1.0		DUSE SCERRN
025f2501.d	WAR100222-60 03	YS1	09-MAR-2010 10:21		030910	1.0		PASSED ON BOTH COLUMNS
026f2601.d	WAR100219-99 04	YS1	09-MAR-2010 10:32		030910	1.0		CLEAN
027f2701.d	1202063177	YS1	09-MAR-2010 10:42	961887	10-2057	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	1202063178	YS1	09-MAR-2010 10:53	961887	10-2057	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	247824001	YS1	09-MAR-2010 11:03	961887	10-2005	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
030f3001.d	1202064344	YS1	09-MAR-2010 11:14	961887	10-2005	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
031f3101.d	1202064345	YS1	09-MAR-2010 11:24	961887	10-2005	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	247828001	YS1	09-MAR-2010 11:35	961887	10-2000	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	248017005	YS1	09-MAR-2010 11:46	961887	10-2039	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	248042004	YS1	09-MAR-2010 11:58	961887	10-2057	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	248042012	YS1	09-MAR-2010 12:11	961887	10-2057	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
036f3601.d	WAR100222-60 04	YS1	09-MAR-2010 12:23		030910	1.0		PASSED ON BOTH COLUMNS

Instrument Batch: /chem/ecd1a.i/030910.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
037f3701.d	WAR100219-99 05	YS1	09-MAR-2010 12:34		030910	1.0		CLEAN
038f3801.d	248047005	YS1	09-MAR-2010 12:44	961887	10-2045	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	248047009	YS1	09-MAR-2010 12:57	961887	10-2045	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	248047011	YS1	09-MAR-2010 13:09	961887	10-2045	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

041f4101.d	248254001	YS1	09-MAR-2010 13:22	961887	10-2144		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
042f4201.d	WAR100222-60 05	YS1	09-MAR-2010 13:35		030910		1.0		PASSED ON BOTH COLUMNS
043f4301.d	WAR100219-99 06	YS1	09-MAR-2010 13:45		030910		1.0		CLEAN

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/001b0101.d
Lab Smp Id: WAR100219-99 01 Client Smp ID: PIBLK01
Inj Date : 09-MAR-2010 05:55
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-99 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.273	2.276	-0.003	56445477	189.798	190	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.915	5.918	-0.003	40227061	190.200	190	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/001b0101.d

Date : 09-MAR-2010 05:55

Client ID: PIBLK01

Sample Info: IWAR100219-99 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

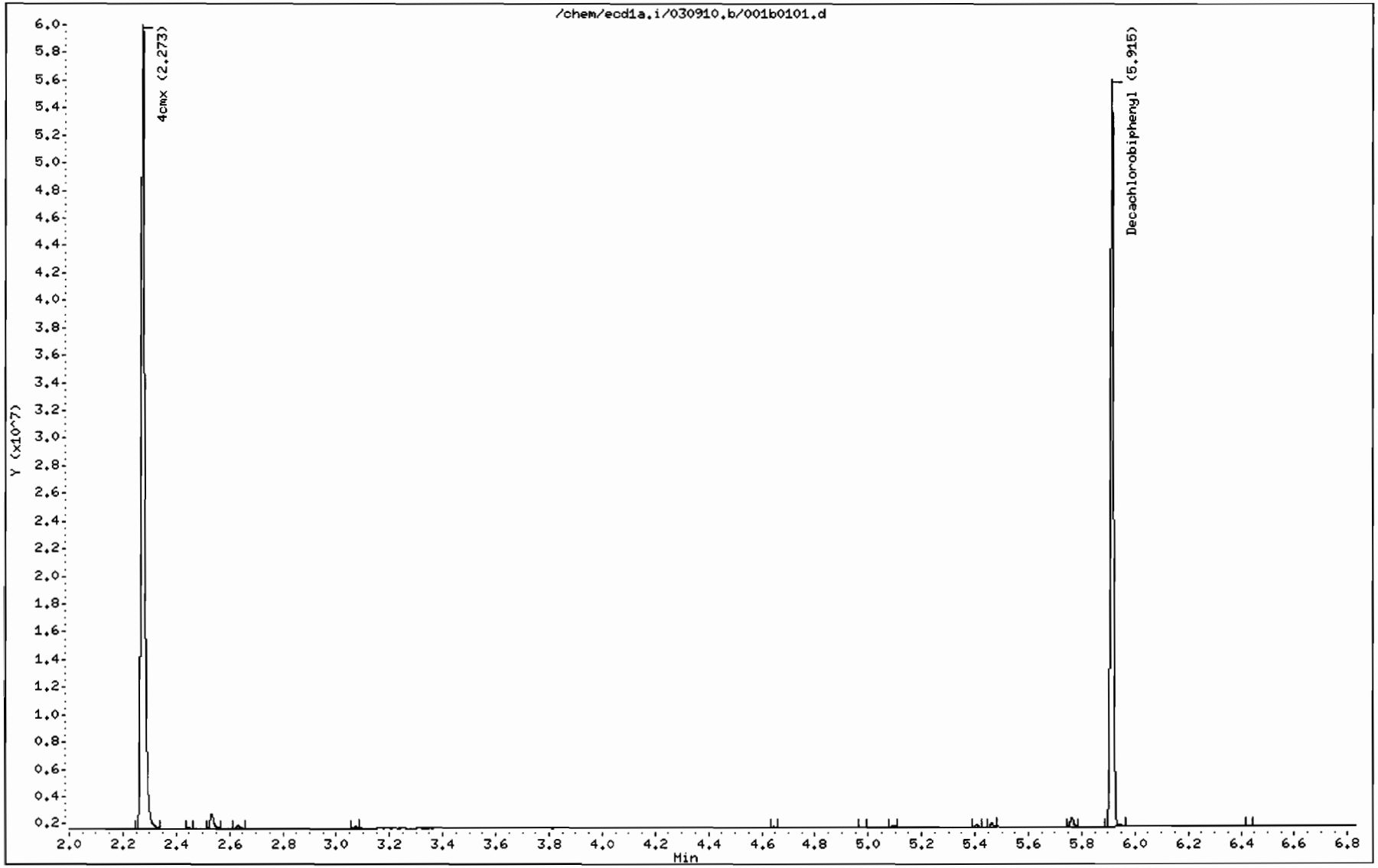

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/001f0101.d
Lab Smp Id: WAR100219-99 01 Client Smp ID: PIBLK01
Inj Date : 09-MAR-2010 05:55
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-99 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.914	1.916	-0.002	81368399	188.949	189	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.218	5.223	-0.005	63194167	205.650	206	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/001f0101.d

Date : 09-MAR-2010 05:55

Client ID: PIBLK01

Sample Info: IWAR100219-99 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

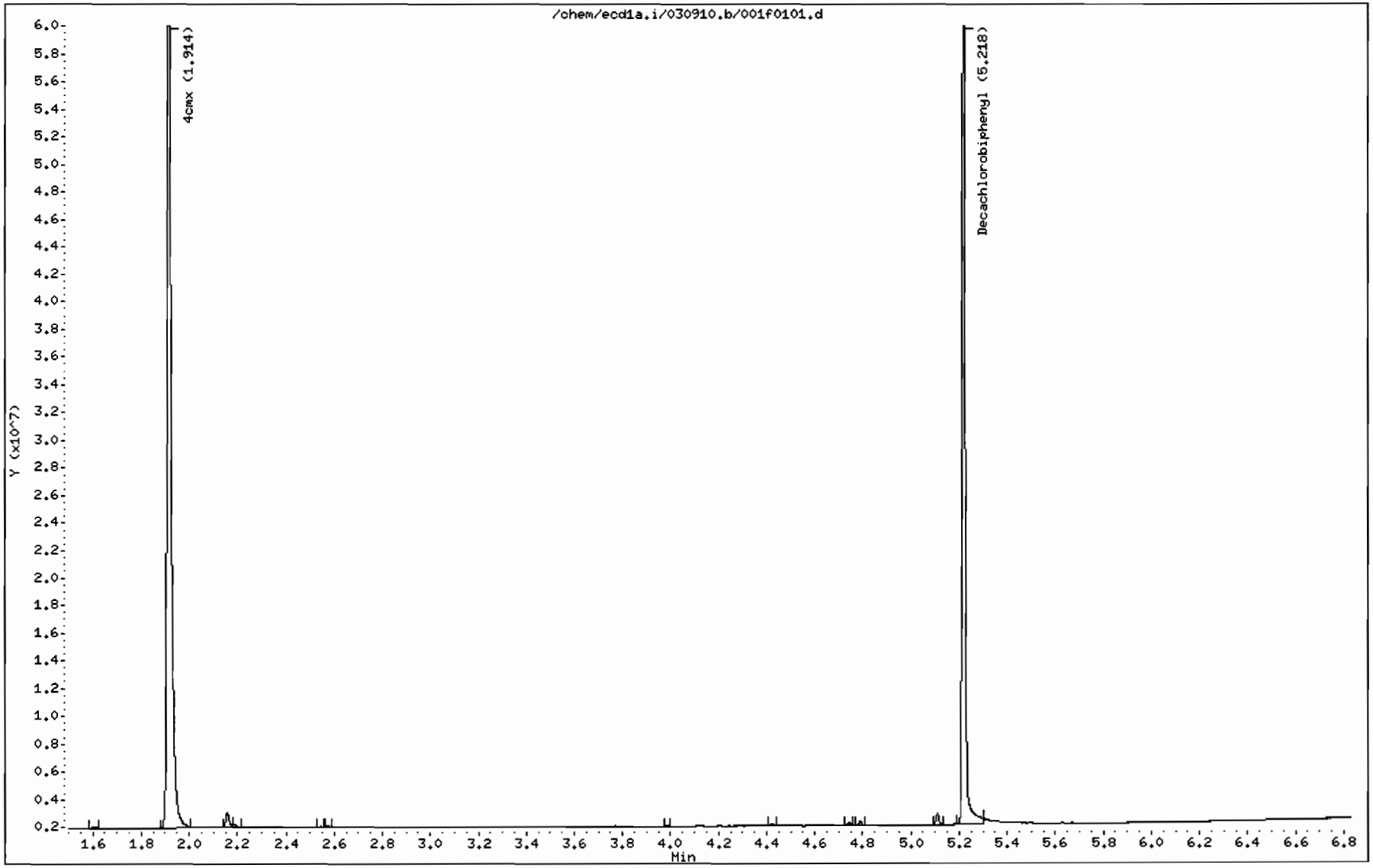

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/026b2601.d
Lab Smp Id: WAR100219-99 04 Client Smp ID: PIBLK04
Inj Date : 09-MAR-2010 10:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-99 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 10:54 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 26 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.275	2.276	-0.001	57829684	194.453	194	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.916	5.918	-0.002	42028829	198.719	199	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd1a.i/030910.b/026b2601.d

Date : 09-MAR-2010 10:32

Client ID: PIBLK04

Sample Info: IWAR100219-99 04

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

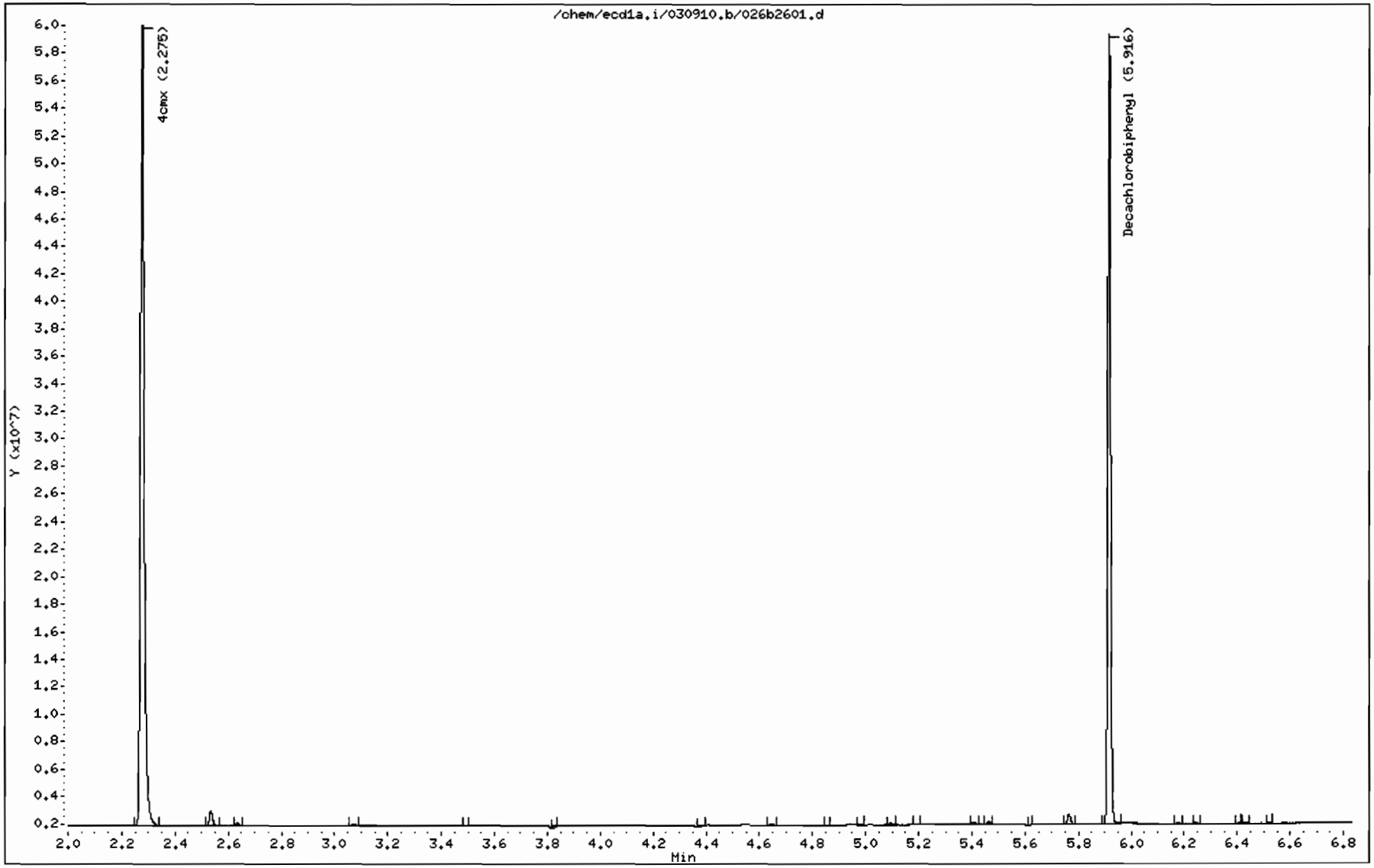

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/026f2601.d
Lab Smp Id: WAR100219-99 04 Client Smp ID: PIBLK04
Inj Date : 09-MAR-2010 10:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-99 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 10:55 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 26 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.917	1.916	0.001	86693797	201.315	201	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.221	5.223	-0.002	65245841	212.327	212	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd1a.i/030910.b/026f2601.d

Date : 09-MAR-2010 10:32

Client ID: PIBLK04

Sample Info: IWAR100219-99 04

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

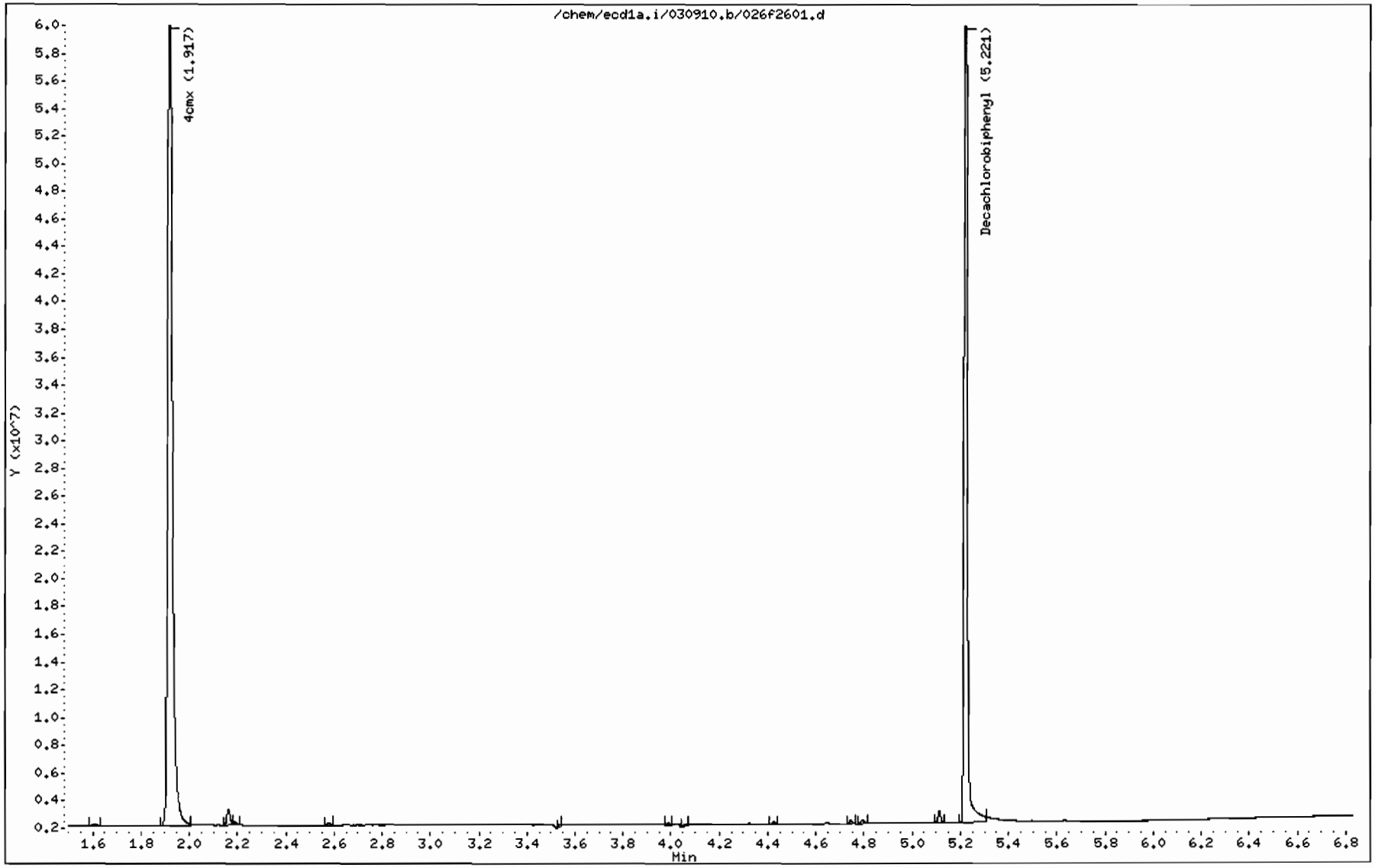

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 961885 **Verified by:** _____

Analyst: Sophia Cox

Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202063177 MB	08-MAR-2010 14:29:00	1000	5	5	H2SO4/KMi2		2	8	1	0.001
1202063178 LCS	08-MAR-2010 14:29:00	1000	5	5	H2SO4/KMi2		2	8	1	0.001
247824001	08-MAR-2010 14:29:00	900	5	5	H2SO4/KMi2		2	8	1	0.00111
1202064344 MS (247824001)	08-MAR-2010 14:29:00	500	5	5	H2SO4/KMi2		2	8	0.5	0.001
1202064345 MSD (247824001)	08-MAR-2010 14:29:00	500	5	5	H2SO4/KMi2		2	8	0.5	0.001
247828001	08-MAR-2010 14:29:00	920	5	5	H2SO4/KMi2		2	8	1	0.00109
248017005	08-MAR-2010 14:29:00	940	5	5	H2SO4/KMi2		2	8	1	0.00106
248042004	08-MAR-2010 14:29:00	860	5	5	H2SO4/KMi2		2	8	1	0.00116
248042012	08-MAR-2010 14:29:00	870	5	5	H2SO4/KMi2		2	8	1	0.00115
248047005	08-MAR-2010 14:29:00	860	5	5	H2SO4/KMi2		2	8	1	0.00116
248047009	08-MAR-2010 14:29:00	920	6	6	H2SO4/KMi2		2	8	1	0.00109
248047011	08-MAR-2010 14:29:00	850	5	5	H2SO4/KMi2		2	8	1	0.00118
248254001	08-MAR-2010 14:29:00	980	5	5	H2SO4/KMi2		2	8	1	0.00102

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202063178	PCB Laboratory Control	WE100224-07	1	mL
MS	1202064344	PCB Laboratory Control	WE100224-07	.5	mL
MSD	1202064345	PCB Laboratory Control	WE100224-07	.5	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100222-15	.5	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100222-15	1	mL
REGNT	All	Hexane	100211-B2	5	mL
REGNT	All	Methylene Chloride	100301-D	180	mL
REGNT	All	Sulfuric Acid Sol., 1:1	1271216	5	mL
REGNT	All	5% Potassium Permanganate	B1275177-F	5	mL
SOURC	All	SODIUM SULFATE	1269268	30	g

Comments:

Clean up Date: 03-08-10

Clean up Initials: SCC

Verified By: JAC

Final Solvent: HEXANE

Clean Up SOP: GL-OA-E-037

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2005

Method/Analysis Information

Product: **Carbon, Total Organic**

Analytical Batch: 959246 **Method:** SW 9060 Total Organic Carbon

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9060:

Sample ID	Client ID
247824003	CAPA-10-13498
1202057266	Method Blank (MB)
1202057267	246959005(CAMO-10-9370) Sample Duplicate (DUP)
1202057268	248126003(WSTPU-10-13398) Sample Duplicate (DUP)
1202057269	246959005(CAMO-10-9370) Post Spike (PS)
1202057270	248126003(WSTPU-10-13398) Post Spike (PS)
1202057271	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-093 REV# 9.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Carbon analysis was performed on a O-I Analytical Model 1010 Total Organic Carbon Analyzer.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 246959005 (CAMO-10-9370) and 248126003 (WSTPU-10-13398).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202057267 (CAMO-10-9370).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1202057268 (WSTPU-10-13398) and 1202057270 (WSTPU-10-13398).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
A 15 mg/L Total Inorganic Carbon check standard is analyzed with each analytical run to prove that the instrument is effectively sparging away the inorganic carbon.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will

always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Total Kjeldahl Nitrogen**		
Analytical Batch:	956923	**Method:**	Nitrogen and Total Kjeldahl (TKN)
Prep Batch :	956922	**Method:**	EEPA 351.2 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 351.2:

Sample ID	Client ID
247824003	CAPA-10-13498
1202051770	Method Blank (MB)
1202051771	247824003(CAPA-10-13498) Sample Duplicate (DUP)
1202051772	247824003(CAPA-10-13498) Matrix Spike (MS)
1202051773	247824003(CAPA-10-13498) Matrix Spike Duplicate (MSD)
1202051774	Laboratory Control Sample (LCS)
1202053335	247913001(50FWC-10-9942) Sample Duplicate (DUP)
1202053336	247913001(50FWC-10-9942) Matrix Spike (MS)
1202053337	247913001(50FWC-10-9942) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-104 REV# 8.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 247824003 (CAPA-10-13498) and 247913001 (50FWC-10-9942).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202053336 (50FWC-10-9942).

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202051773 (CAPA-10-13498) and 1202053337 (50FWC-10-9942).

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following samples were re-analyzed to verify the results: 1202051771 (CAPA-10-13498), 1202051772 (CAPA-10-13498), 1202051773 (CAPA-10-13498), 1202053335 (50FWC-10-9942), 1202053336 (50FWC-10-9942), 1202053337 (50FWC-10-9942) and 247824003 (CAPA-10-13498).

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 797199 1202051773 (CAPA-10-13498), 1202053336 (50FWC-10-9942) and 1202053337 (50FWC-10-9942).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer:_____ **Date:** 03/23/10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2005 GEL Work Order: 247824

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 23, 2010

Client SDG: 10-2005

Client Sample ID: CAPA-10-13498
Sample ID: 247824003
Matrix: Ground Water
Collect Date: 22-FEB-10 12:00
Receive Date: 23-FEB-10
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis											
SW 9060 Total Organic Carbon "As Received"											
Total Organic Carbon Average	J	0.953	0.330	1.00	mg/L	1	TSM	03/02/10	1713	959246	1
Nutrient Analysis											
Nitrogen, Total Kjeldahl (TKN) "As Received"											
Nitrogen, Total Kjeldahl	U	ND	0.033	0.100	mg/L	1	AXH3	03/01/10	1011	956923	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 351.2 Prep	EPA 351.2 Total Kjeldahl Nitrogen Prep	SXJ1	02/25/10	1330	956922

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9060	
2	EPA 351.2	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: March 23, 2010

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 247824

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Carbon Analysis											
Batch 959246											
QC1202057267 246959005 DUP											
Total Organic Carbon Average		J	0.346	J	0.491	mg/L	34.6 ^		(+/-1.00)	TSM	03/02/10 16:11
QC1202057268 248126003 DUP											
Total Organic Carbon Average			28.5		27.7	mg/L	2.67		(0%-20%)		03/03/10 15:00
QC1202057271 LCS											
Total Organic Carbon Average	10.0				9.94	mg/L		99.4	(85%-115%)		03/02/10 15:29
QC1202057266 MB											
Total Organic Carbon Average				U	ND	mg/L					03/02/10 15:20
QC1202057269 246959005 PS											
Total Organic Carbon Average	10.0	J	0.346		10.0	mg/L		96.8	(65%-121%)		03/02/10 16:31
QC1202057270 248126003 PS											
Total Organic Carbon Average	10.0		14.2		22.6	mg/L		84.2	(65%-121%)		03/03/10 15:20
Nutrient Analysis											
Batch 956923											
QC1202051771 247824003 DUP											
Nitrogen, Total Kjeldahl		U	ND	U	ND	mg/L	N/A			AXH3	03/01/10 10:11
QC1202053335 247913001 DUP											
Nitrogen, Total Kjeldahl			1.01		0.996	mg/L	1.49		(0%-20%)		03/01/10 10:15
QC1202051774 LCS											
Nitrogen, Total Kjeldahl	1.00				0.932	mg/L		93.2	(90%-110%)		03/01/10 09:56
QC1202051770 MB											
Nitrogen, Total Kjeldahl				U	ND	mg/L					03/01/10 09:55
QC1202051772 247824003 MS											
Nitrogen, Total Kjeldahl	1.00	U	ND		1.03	mg/L		103	(90%-110%)		03/01/10 10:12
QC1202053336 247913001 MS											
Nitrogen, Total Kjeldahl	1.00		1.01		1.89	mg/L		87.6*	(90%-110%)		03/01/10 10:19
QC1202051773 247824003 MSD											
Nitrogen, Total Kjeldahl	1.00	U	ND		1.14	mg/L	10.0	114*	(0%-20%)		03/01/10 10:13
QC1202053337 247913001 MSD											
Nitrogen, Total Kjeldahl	1.00		1.01		1.86	mg/L	1.60	84.6*	(0%-20%)		03/01/10 10:20

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

QC Summary

Workorder: 247824

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
JNX	Non Calibrated Compound
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UJ	Compound cannot be extracted
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 23-MAR-2010 12:54

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-2005

Carbon Analysis

Method: SW846 9060 Concentration Units:mg/L

Instrument: O-I Analytical Model 1010 Total Organic Carbon Analyzer

Parmname: Total Organic Carbon
Average

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**02-MAR-2010 11:24:00**	**XQ054.rlt**	**9.934**	**10**	**99.3**	**(90%-110%)**	**Yes**
CCV	02-MAR-2010 15:02:00	XQ063.rlt	9.939	10	99.4	(90%-110%)	Yes
CCV	02-MAR-2010 19:28:00	XQ075.rlt	10.244	10	102	(90%-110%)	Yes
CCV	03-MAR-2010 00:09:00	XQ086.rlt	10.78	10	108	(90%-110%)	Yes
ICV	**03-MAR-2010 12:17:00**	**XQ111.rlt**	**9.898**	**10**	**99**	**(90%-110%)**	**Yes**
CCV	03-MAR-2010 13:35:00	XQ114.rlt	10.333	10	103	(90%-110%)	Yes
CCV	03-MAR-2010 15:29:00	XQ120.rlt	10.662	10	107	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**02-MAR-2010 11:33:00**	**XQ055.rlt**	**0.084**	**1**	**Yes**
CCB	02-MAR-2010 15:11:00	XQ064.rlt	0.023	1	Yes
CCB	02-MAR-2010 19:37:00	XQ076.rlt	0.054	1	Yes
CCB	03-MAR-2010 00:18:00	XQ087.rlt	0.053	1	Yes
ICB	**03-MAR-2010 12:26:00**	**XQ112.rlt**	**0.186**	**1**	**Yes**
CCB	03-MAR-2010 13:44:00	XQ115.rlt	0.167	1	Yes
CCB	03-MAR-2010 15:38:00	XQ121.rlt	0.256	1	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 23-MAR-2010 12:54

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-2005

Nutrient Analysis

Method: EPA 351.2 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Nitrogen, Total Kjeldahl

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**01-MAR-2010 09:51:54**	**OM_3-1-2010_09-44-53**	**1.022**	**1**	**102**	**(90%-110%)**	**Yes**
CCV	01-MAR-2010 10:04:00	OM_3-1-2010_09-44-53	1.052	1	105	(90%-110%)	Yes
CCV	01-MAR-2010 10:16:03	OM_3-1-2010_09-44-53	1.047	1	105	(90%-110%)	Yes
CCV	01-MAR-2010 10:28:10	OM_3-1-2010_09-44-53	1.076	1	108	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**01-MAR-2010 09:53:50**	**OM_3-1-2010_09-44-53**	**-0.026**	**0.1**	**Yes**
CCB	01-MAR-2010 10:05:56	OM_3-1-2010_09-44-53	-0.026	0.1	Yes
CCB	01-MAR-2010 10:17:59	OM_3-1-2010_09-44-53	-0.026	0.1	Yes
CCB	01-MAR-2010 10:30:05	OM_3-1-2010_09-44-53	-0.049	0.1	Yes

Carbon, Total Organic

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
ICAL-01		1	TSM	2-Mar-10 10:39	XQ049.rlt
ICAL-02		1	TSM	2-Mar-10 10:48	XQ050.rlt
ICAL-03		1	TSM	2-Mar-10 10:57	XQ051.rlt
ICAL-04		1	TSM	2-Mar-10 11:06	XQ052.rlt
ICAL-05		1	TSM	2-Mar-10 11:15	XQ053.rlt
ICV		1	TSM	2-Mar-10 11:24	XQ054.rlt
ICB		1	TSM	2-Mar-10 11:33	XQ055.rlt
TIC	959246	1	TSM	2-Mar-10 11:43	XQ056.rlt
CCV		1	TSM	2-Mar-10 15:02	XQ063.rlt
CCB		1	TSM	2-Mar-10 15:11	XQ064.rlt
1202057266	959246	1	TSM	2-Mar-10 15:20	XQ065.rlt
1202057271	959246	1	TSM	2-Mar-10 15:29	XQ066.rlt
246959005	959246	1	TSM	2-Mar-10 15:38	XQ067.rlt
1202057267	959246	1	TSM	2-Mar-10 16:11	XQ068.rlt
1202057269	959246	1	TSM	2-Mar-10 16:31	XQ069.rlt
246959010	959246	1	TSM	2-Mar-10 16:40	XQ070.rlt
247824003	959246	1	TSM	2-Mar-10 17:13	XQ071.rlt
247828003	959246	1	TSM	2-Mar-10 17:47	XQ072.rlt
24817003	959246	1	TSM	2-Mar-10 18:20	XQ073.rlt
248042002	959246	1	TSM	2-Mar-10 18:54	XQ074.rlt
CCV		1	TSM	2-Mar-10 19:28	XQ075.rlt
CCB		1	TSM	2-Mar-10 19:37	XQ076.rlt
248042010	959246	1	TSM	2-Mar-10 19:45	XQ077.rlt
248042013	959246	1	TSM	2-Mar-10 20:19	XQ078.rlt
248047003	959246	1	TSM	2-Mar-10 20:52	XQ079.rlt
248047007	959246	1	TSM	2-Mar-10 21:26	XQ080.rlt
248126003	959246	1	TSM	2-Mar-10 21:59	XQ081.rlt
1202057268	959246	1	TSM	2-Mar-10 22:33	XQ082.rlt
1202057270	959246	1	TSM	2-Mar-10 22:53	XQ083.rlt
248170003	959246	1	TSM	2-Mar-10 23:01	XQ084.rlt
248170004	959246	1	TSM	2-Mar-10 23:35	XQ085.rlt
CCV		1	TSM	3-Mar-10 0:09	XQ086.rlt
CCB		1	TSM	3-Mar-10 0:18	XQ087.rlt
CCV		1	TSM	3-Mar-10 0:27	XQ088.rlt
CCB		1	TSM	3-Mar-10 0:36	XQ089.rlt
1202058021	959561	1	TSM	3-Mar-10 0:45	XQ090.rlt
1202058024	959561	1	TSM	3-Mar-10 0:53	XQ091.rlt
248133001	959561	1	TSM	3-Mar-10 1:02	XQ092.rlt
1202058022	959561	1	TSM	3-Mar-10 1:35	XQ093.rlt
1202058023	959561	1	TSM	3-Mar-10 1:55	XQ094.rlt
248133004	959561	1	TSM	3-Mar-10 2:04	XQ095.rlt
248133005	959561	1	TSM	3-Mar-10 2:37	XQ096.rlt
248139001	959561	1	TSM	3-Mar-10 3:11	XQ097.rlt
248139002	959561	1	TSM	3-Mar-10 3:44	XQ098.rlt
248139003	959561	1	TSM	3-Mar-10 4:18	XQ099.rlt
CCV		1	TSM	3-Mar-10 4:52	XQ100.rlt
CCB		1	TSM	3-Mar-10 5:01	XQ101.rlt
248139004	959561	1	TSM	3-Mar-10 5:09	XQ102.rlt
CCV		1	TSM	3-Mar-10 5:43	XQ103.rlt
CCB		1	TSM	3-Mar-10 5:52	XQ104.rlt

```
*********************************************************************
**                          CONFIGURATION                          **
*********************************************************************

Analysis Mode:  TOC         Spl Intro:  Autosampler 53
Remote Start :  OFF

Loop Size:  5 mL        Actual Volume  1mL   5mL   10mL   25mL
                        -------------  ----  ----  -----  -----
                         Loop A (uL):  1000  4900  10000  25000
                         Loop B (uL):  1000  4900  10000  25000

Tray Type:              53 Vial  Vial Option:                 Neither
Needle Depth:           97 %     Preacid Volume (uL):             200
Wash Needle Depth:      94 %     Preacid Purge Time (min:sec):   0:30

            TIC    TOC    TC
Blank      ----   ----   ----            Linearization Coeff:  53000
 Average:   141    788   2269

                          Sample Transfer Times (sec)
          Initial Fill       |        Loop Fill        | Sample Inject
     Non-AS    AS  AS w/Sep | Non-AS    AS  AS w/Sep |    (all)
     ------  ----- -------- | ------  ----- -------- | -------------
1mL:    6.0    4.5      3.5 |    1.2    1.2      1.0 |      4.5
5mL:    8.1    7.0      8.0 |    5.1    3.0      5.5 |     10.3
10mL:  14.2   12.2     11.0 |   10.5   10.5     11.0 |     16.5
25mL:  35.0   35.0     32.0 |    n/a    n/a      n/a |     38.0

Analog Concentration Signal indicates TOC
Analog Conc. Signal Timer is OFF, Timer duration (h:m:s): 00:00:00
Min Signal Range:   0.000 ppmC,  Max Signal Range:   0.000 ppmC

Alarms DISABLED
Alarm Relay Timer is OFF, Timer duration (h:m:s): 00:00:00
       Conc. Alarm Setpoints (ppm C)
          Low      |    High
      ----------   | ----------
TIC:     0.000          0.000
TOC:     0.000          0.000
TC:      0.000          0.000
```

```
*********************************************************************
**                          CALIBRATION                            **
*********************************************************************
```

03/02/10 Tue Mar 02 11:15:21 2010

Std. #	Used	Conc. (ppm)	Volume (mL)
1	Yes	20.000	5.000
2	Yes	10.000	5.000
3	Yes	1.000	5.000
4	Yes	0.200	5.000
5	Yes	0.000	5.000

RF (ugC/k-cts):	1.156
R-Squared:	0.9998
Offset (cts):	1069
Offset (ugC):	-1.237
Calibration Mode:	TOC
Allow Editing:	No

Rep	Std. 1	Std. 2	Std. 3	Std. 4	Std. 5
1	86301	42467	5320	2063	1420
2	-	-	-	-	-
3	-	-	-	-	-
4	-	-	-	-	-
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	-
9	-	-	-	-	-
10	-	-	-	-	-

(* = unused)

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
1	Blk	1	02Mar2010	10:08	-	-	-	590	-	-	-	-	-
1	Blk	2	02Mar2010	10:15	-	-	-	974	-	-	-	-	-
1	Blk	3	02Mar2010	10:21	-	-	-	1016	-	-	-	-	-
1	Blk	4	02Mar2010	10:30	-	-	-	615	-	-	-	-	-

** Std1 Name: ICAL-01 Data File: XQ049
Remarks: 959246|1|1| WTC100302-01 ID:TOC267

1	Std1	1	02Mar2010	10:39	-	-	-	86301	98.000	20.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.147
R-Squared: 1.0000
Offset (cts): 0
Offset (ugC): 0.000

** Std2 Name: ICAL-02 Data File: XQ050
Remarks: 959246|1|1| WTC100302-02 ID:TOC267

2	Std2	1	02Mar2010	10:48	-	-	-	42467	49.000	10.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.118
R-Squared: 1.0000
Offset (cts): -1367
Offset (ugC): 1.528

** Std3 Name: ICAL-03 Data File: XQ051
Remarks: 959246|1|1| WTC100302-03 ID:TOC267

3	Std3	1	02Mar2010	10:57	-	-	-	5320	4.900	1.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.149
R-Squared: 0.9997
Offset (cts): 617
Offset (ugC): -0.709

** Std4 Name: ICAL-04 Data File: XQ052
Remarks: 959246|1|1| WTC100302-04 ID:TOC267

4	Std4	1	02Mar2010	11:06	-	-	-	2063	0.980	0.200	-	-	-

** Calibration: RF (ugC/k-cts): 1.153
R-Squared: 0.9998
Offset (cts): 900
Offset (ugC): -1.039

** Std5 Name: ICAL-05 Data File: XQ053
Remarks: 959246|1|1| ID:TOC267

5	Std5	1	02Mar2010	11:15	-	-	-	1420	0.000	0.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.156
R-Squared: 0.9998
Offset (cts): 1069
Offset (ugC): -1.237

```
** Chk2      Name:    ICV                          Data File: XQ054
             Remarks: 959246|1|1| WTC100302-05 ID:TOC267

6    Chk2    1 02Mar2010 11:24      -       -          -    43167  48.674      9.934      -       -          -

** Chk5      Name:    ICB                          Data File: XQ055
             Remarks: 959246|1|1| ID:TOC267

7    Chk5    1 02Mar2010 11:33      -       -          -     1424   0.410      0.084      -       -          -

** Spl       Name:    TIC                          Data File: XQ056
             Remarks: 959246|1|1| WIC100302-01 ID:TOC267

8    Spl     1 02Mar2010 11:43      -       -          -     1892   1.184      0.242      -       -          -
```

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
9	Blk	1	02Mar2010	14:54	-	-	-	465	-	-	-	-	-
** Chk2	Name: CCV						Data File: XQ063						
	Remarks: 959246|1|1| WTC100302-02 ID:TOC267												
9	Chk2	1	02Mar2010	15:02	-	-	-	43189	48.700	9.939	-	-	-
** Chk5	Name: CCB						Data File: XQ064						
	Remarks: 959246|1|1| ID:TOC267												
10	Chk5	1	02Mar2010	15:11	-	-	-	1168	0.114	0.023	-	-	-
** Chk5	Name: 1202057266						Data File: XQ065						
	Remarks: 959246|1|1| MB ID:TOC267												
11	Chk5	1	02Mar2010	15:20	-	-	-	1249	0.207	0.042	-	-	-
** Chk2	Name: 1202057271						Data File: XQ066						
	Remarks: 959246|1|1| WTC100302-05:LCS ID:TOC267												
12	Chk2	1	02Mar2010	15:29	-	-	-	43186	48.696	9.938	-	-	-
** Spl	Name: 246959005						Data File: XQ067						
	Remarks: 959246|1|1| ID:TOC267												
13	Spl	1	02Mar2010	15:38	-	-	-	2158	1.688	0.345	-	-	-
13	Spl	2	02Mar2010	15:46	-	-	-	2164	1.695	0.346	-	-	-
13	Spl	3	02Mar2010	15:53	-	-	-	2131	1.657	0.338	-	-	-
13	Spl	4	02Mar2010	16:03	-	-	-	2207	1.745	0.356	-	-	-
13	Spl	Avg						2165	1.696	0.346			
13	Spl	SDev						31.464					
13	Spl	%RSD						1.45					
** Spl	Name: 1202057267						Data File: XQ068						
	Remarks: 959246|1|1| 246959005:DUP ID:TOC267												
14	Spl	1	02Mar2010	16:11	-	-	-	2723	2.341	0.478	-	-	-
14	Spl	2	02Mar2010	16:21	-	-	-	2834	2.470	0.504	-	-	-
14	Spl	Avg						2778	2.406	0.491			
14	Spl	SDev						78.489					
14	Spl	%RSD						2.82					
** Spl	Name: 1202057269						Data File: XQ069						
	Remarks: 959246|1|1| 246959005:PS ID:TOC267												
15	Spl	1	02Mar2010	16:31	-	-	-	43192	49.133	10.027	-	-	-
** Spl	Name: 246959010						Data File: XQ070						
	Remarks: 959246|1|1| ID:TOC267												
16	Spl	1	02Mar2010	16:40	-	-	-	3328	3.041	0.621	-	-	-
16	Spl	2	02Mar2010	16:47	-	-	-	3561	3.310	0.676	-	-	-
16	Spl	3	02Mar2010	16:55	-	-	-	3373	3.093	0.631	-	-	-

16	Spl	4	02Mar2010 17:05	-	-	-	3339	3.054	0.623	-	-	-
16	Spl	Avg					3400	3.124	0.638			
16	Spl	SDev					108.865					
16	Spl	%RSD					3.20					

** Spl Name: 247824003 Data File: XQ071
Remarks: 959246|1|1| ID:TOC267

17	Spl	1	02Mar2010 17:13	-	-	-	4436	4.322	0.882	-	-	-
17	Spl	2	02Mar2010 17:21	-	-	-	4801	4.744	0.968	-	-	-
17	Spl	3	02Mar2010 17:29	-	-	-	4840	4.789	0.977	-	-	-
17	Spl	4	02Mar2010 17:38	-	-	-	4876	4.831	0.986	-	-	-
17	Spl	Avg					4738	4.671	0.953			
17	Spl	SDev					203.814					
17	Spl	%RSD					4.30					

** Spl Name: 247828003 Data File: XQ072
Remarks: 959246|1|1| ID:TOC267

18	Spl	1	02Mar2010 17:47	-	-	-	3737	3.514	0.717	-	-	-
18	Spl	2	02Mar2010 17:54	-	-	-	4117	3.953	0.807	-	-	-
18	Spl	3	02Mar2010 18:02	-	-	-	3974	3.788	0.773	-	-	-
18	Spl	4	02Mar2010 18:12	-	-	-	3940	3.748	0.765	-	-	-
18	Spl	Avg					3942	3.751	0.766			
18	Spl	SDev					156.714					
18	Spl	%RSD					3.98					

** Spl Name: 24817003 Data File: XQ073
Remarks: 959246|1|1| ID:TOC267

19	Spl	1	02Mar2010 18:20	-	-	-	4667	4.589	0.937	-	-	-
19	Spl	2	02Mar2010 18:28	-	-	-	5120	5.113	1.043	-	-	-
19	Spl	3	02Mar2010 18:36	-	-	-	4870	4.824	0.984	-	-	-
19	Spl	4	02Mar2010 18:45	-	-	-	4985	4.957	1.012	-	-	-
19	Spl	Avg					4910	4.871	0.994			
19	Spl	SDev					191.810					
19	Spl	%RSD					3.91					

** Spl Name: 248042002 Data File: XQ074
Remarks: 959246|1|1| ID:TOC267

20	Spl	1	02Mar2010 18:54	-	-	-	8401	8.906	1.818	-	-	-
20	Spl	2	02Mar2010 19:01	-	-	-	9249	9.887	2.018	-	-	-
20	Spl	3	02Mar2010 19:09	-	-	-	9185	9.813	2.003	-	-	-
20	Spl	4	02Mar2010 19:19	-	-	-	9324	9.974	2.035	-	-	-
20	Spl	Avg					9039	9.645	1.968			
20	Spl	SDev					429.606					
20	Spl	%RSD					4.75					

** Chk2 Name: CCV Data File: XQ075
Remarks: 959246|1|1| WTC100302-02 ID:TOC267

21	Chk2	1	02Mar2010 19:28	-	-	-	44483	50.196	10.244	-	-	-

** Chk5 Name: CCB Data File: XQ076
Remarks: 959246|1|1| ID:TOC267

22	Chk5	1	02Mar2010 19:37	-	-	-	1300	0.266	0.054	-	-	-

```
** Spl      Name:    248042010                    Data File: XQ077
            Remarks: 959246|1|1| ID:TOC267

23   Spl    1 02Mar2010 19:45      -       -          -     4053   3.879      0.792      -       -          -
23   Spl    2 02Mar2010 19:53      -       -          -     4437   4.323      0.882      -       -          -
23   Spl    3 02Mar2010 20:01      -       -          -     4379   4.256      0.869      -       -          -
23   Spl    4 02Mar2010 20:10      -       -          -     4376   4.253      0.868      -       -          -
23   Spl  Avg                                            4311   4.178      0.853
23   Spl  SDev                                        174.441
23   Spl  %RSD                                          4.05

** Spl      Name:    248042013                    Data File: XQ078
            Remarks: 959246|1|1| ID:TOC267

24   Spl    1 02Mar2010 20:19      -       -          -     3952   3.762      0.768      -       -          -
24   Spl    2 02Mar2010 20:26      -       -          -     3951   3.761      0.768      -       -          -
24   Spl    3 02Mar2010 20:34      -       -          -     4122   3.959      0.808      -       -          -
24   Spl    4 02Mar2010 20:44      -       -          -     4004   3.822      0.780      -       -          -
24   Spl  Avg                                            4007   3.826      0.781
24   Spl  SDev                                         80.405
24   Spl  %RSD                                          2.01

** Spl      Name:    248047003                    Data File: XQ079
            Remarks: 959246|1|1| ID:TOC267

25   Spl    1 02Mar2010 20:52      -       -          -     8014   8.459      1.726      -       -          -
25   Spl    2 02Mar2010 21:00      -       -          -     8665   9.212      1.880      -       -          -
25   Spl    3 02Mar2010 21:08      -       -          -     8638   9.180      1.874      -       -          -
25   Spl    4 02Mar2010 21:17      -       -          -     8637   9.179      1.873      -       -          -
25   Spl  Avg                                            8488   9.008      1.838
25   Spl  SDev                                        316.599
25   Spl  %RSD                                          3.73

** Spl      Name:    248047007                    Data File: XQ080
            Remarks: 959246|1|1| ID:TOC267

26   Spl    1 02Mar2010 21:26      -       -          -     7428   7.781      1.588      -       -          -
26   Spl    2 02Mar2010 21:34      -       -          -     8195   8.668      1.769      -       -          -
26   Spl    3 02Mar2010 21:41      -       -          -     8062   8.514      1.738      -       -          -
26   Spl    4 02Mar2010 21:51      -       -          -     8059   8.511      1.737      -       -          -
26   Spl  Avg                                            7936   8.369      1.708
26   Spl  SDev                                        344.553
26   Spl  %RSD                                          4.34

** Spl      Name:    248126003                    Data File: XQ081
            Remarks: 959246|1|1| ID:TOC267

27   Spl    1 02Mar2010 21:59      -       -          -   102842 118.102     24.102      -       -          -
27   Spl    2 02Mar2010 22:07      -       -          -   121676 139.878     28.547      -       -          -
27   Spl    3 02Mar2010 22:15      -       -          -   122928 141.326     28.842      -       -          -
27   Spl    4 02Mar2010 22:24      -       -          -   123832 142.371     29.055      -       -          -
27   Spl  Avg                                          117819 135.419     27.637
27   Spl  SDev                                       10024.055
27   Spl  %RSD                                          8.51

** Spl      Name:    1202057268                   Data File: XQ082
            Remarks: 959246|1|1| 248126003:DUP ID:TOC267

28   Spl    1 02Mar2010 22:33      -       -          -   106870 122.759     25.053      -       -          -
```

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28   Spl    2 02Mar2010 22:42      -       -          -   122243 140.534     28.680      -       -          -
28   Spl  Avg                                            114556 131.646     26.867
28   Spl  SDev                                         10870.353
28   Spl  %RSD                                              9.49


** Spl      Name:    1202057270                    Data File: XQ083
            Remarks: 959246|1|1| 248126003:PS 1D:TOC267

29   Spl    1 02Mar2010 22:53      -       -          -   158372 182.307     37.206      -       -          -


** Spl      Name:    248170003                     Data File: XQ084
            Remarks: 959246|1|1|  1D:TOC267

30   Spl    1 02Mar2010 23:01      -       -          -     9913  10.655      2.174      -       -          -
30   Spl    2 02Mar2010 23:09      -       -          -    10393  11.210      2.288      -       -          -
30   Spl    3 02Mar2010 23:17      -       -          -    10007  10.763      2.197      -       -          -
30   Spl    4 02Mar2010 23:26      -       -          -    10092  10.862      2.217      -       -          -
30   Spl  Avg                                             10101  10.872      2.219
30   Spl  SDev                                           207.786
30   Spl  %RSD                                              2.06


** Spl      Name:    248170004                     Data File: XQ085
            Remarks: 959246|1|1|  1D:TOC267

31   Spl    1 02Mar2010 23:35      -       -          -     9442  10.110      2.063      -       -          -
31   Spl    2 02Mar2010 23:42      -       -          -    10397  11.214      2.289      -       -          -
31   Spl    3 02Mar2010 23:50      -       -          -    10365  11.177      2.281      -       -          -
31   Spl    4 03Mar2010 00:00      -       -          -    10415  11.235      2.293      -       -          -
31   Spl  Avg                                             10154  10.934      2.231
31   Spl  SDev                                           475.616
31   Spl  %RSD                                              4.68


** Chk2     Name:    CCV                           Data File: XQ086
            Remarks: 959246|1|1| WTC100302-02  ID:TOC267

32   Chk2   1 03Mar2010 00:09      -       -          -    46755  52.823     10.780      -       -          -


** Chk5     Name:    CCB                           Data File: XQ087
            Remarks: 959246|1|1|  ID:TOC267

33   Chk5   1 03Mar2010 00:18      -       -          -     1295   0.261      0.053      -       -          -


** Chk2     Name:    CCV                           Data File: XQ088
            Remarks: 959561|1|1| WTC100302-02  ID:TOC267

34   Chk2   1 03Mar2010 00:27      -       -          -    46162  52.137     10.640      -       -          -


** Chk5     Name:    CCB                           Data File: XQ089
            Remarks: 959561|1|1|  ID:TOC267

35   Chk5   1 03Mar2010 00:36      -       -          -     1291   0.256      0.052      -       -          -


** Chk5     Name:    1202058021                    Data File: XQ090
            Remarks: 959561|1|1| MB ID:TOC267

36   Chk5   1 03Mar2010 00:45      -       -          -     1176   0.123      0.025      -       -          -
```

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** Chk2     Name:    1202058024                    Data File: XQ091
            Remarks: 959561|1|1| WTC100302-05:LCS ID:TOC267

37   Chk2   1 03Mar2010 00:53      -       -          -    45800  51.719     10.555      -       -          -


** Spl      Name:    248133001                     Data File: XQ092
            Remarks: 959561|1|1|  ID:TOC267

38   Spl    1 03Mar2010 01:02      -       -          -     7480   7.842      1.600      -       -          -
38   Spl    2 03Mar2010 01:10      -       -          -     9683  10.389      2.120      -       -          -
38   Spl    3 03Mar2010 01:17      -       -          -     9732  10.445      2.132      -       -          -
38   Spl    4 03Mar2010 01:27      -       -          -     9545  10.229      2.088      -       -          -
38   Spl  Avg                                           9110   9.726      1.985
38   Spl  SDev                                       1089.547
38   Spl  %RSD                                          11.96


** Spl      Name:    1202058022                    Data File: XQ093
            Remarks: 959561|1|1| 248133001:DUP ID:TOC267

39   Spl    1 03Mar2010 01:35      -       -          -     7746   8.149      1.663      -       -          -
39   Spl    2 03Mar2010 01:45      -       -          -     9965  10.715      2.187      -       -          -
39   Spl  Avg                                           8855   9.432      1.925
39   Spl  SDev                                       1569.070
39   Spl  %RSD                                          17.72


** Spl      Name:    1202058023                    Data File: XQ094
            Remarks: 959561|1|1| 248133001:PS ID:TOC267

40   Spl    1 03Mar2010 01:55      -       -          -    49264  56.153     11.460      -       -          -


** Spl      Name:    248133004                     Data File: XQ095
            Remarks: 959561|1|1| ID:TOC267

41   Spl    1 03Mar2010 02:04      -       -          -    24806  27.874      5.689      -       -          -
41   Spl    2 03Mar2010 02:11      -       -          -    30691  34.679      7.077      -       -          -
41   Spl    3 03Mar2010 02:19      -       -          -    30709  34.700      7.082      -       -          -
41   Spl    4 03Mar2010 02:29      -       -          -    30703  34.693      7.080      -       -          -
41   Spl  Avg                                          29227  32.986      6.732
41   Spl  SDev                                       2947.509
41   Spl  %RSD                                          10.08


** Spl      Name:    248133005                     Data File: XQ096
            Remarks: 959561|1|1| ID:TOC267

42   Spl    1 03Mar2010 02:37      -       -          -    13693  15.025      3.066      -       -          -
42   Spl    2 03Mar2010 02:45      -       -          -    17344  19.247      3.928      -       -          -
42   Spl    3 03Mar2010 02:53      -       -          -    16857  18.684      3.813      -       -          -
42   Spl    4 03Mar2010 03:02      -       -          -    16419  18.177      3.710      -       -          -
42   Spl  Avg                                          16078  17.783      3.629
42   Spl  SDev                                       1634.432
42   Spl  %RSD                                          10.17


** Spl      Name:    248139001                     Data File: XQ097
            Remarks: 959561|1|1| ID:TOC267

43   Spl    1 03Mar2010 03:11      -       -          -    70702  80.941     16.518      -       -          -
43   Spl    2 03Mar2010 03:18      -       -          -    84712  97.139     19.824      -       -          -
43   Spl    3 03Mar2010 03:26      -       -          -    85989  98.616     20.126      -       -          -
```

```
43   Spl    4 03Mar2010 03:36      -       -          -    87955 100.889     20.590      -       -          -
43   Spl  Avg                                             82339  94.396     19.264
43   Spl  SDev                                          7872.163
43   Spl  %RSD                                             9.56

** Spl      Name:    248139002                    Data File: XQ098
            Remarks: 959561|1|1| ID:TOC267

44   Spl    1 03Mar2010 03:44      -       -          -    12982  14.203      2.899      -       -          -
44   Spl    2 03Mar2010 03:52      -       -          -    13647  14.972      3.056      -       -          -
44   Spl    3 03Mar2010 04:00      -       -          -    13377  14.660      2.992      -       -          -
44   Spl    4 03Mar2010 04:09      -       -          -    13397  14.683      2.997      -       -          -
44   Spl  Avg                                             13350  14.629      2.986
44   Spl  SDev                                           274.814
44   Spl  %RSD                                              2.06

** Spl      Name:    248139003                    Data File: XQ099
            Remarks: 959561|1|1| ID:TOC267

45   Spl    1 03Mar2010 04:18      -       -          -     9371  10.028      2.046      -       -          -
45   Spl    2 03Mar2010 04:26      -       -          -    10393  11.210      2.288      -       -          -
45   Spl    3 03Mar2010 04:33      -       -          -    10243  11.036      2.252      -       -          -
45   Spl    4 03Mar2010 04:43      -       -          -    10309  11.113      2.268      -       -          -
45   Spl  Avg                                             10079  10.847      2.214
45   Spl  SDev                                           475.975
45   Spl  %RSD                                              4.72

** Chk2     Name:    CCV                          Data File: XQ100
            Remarks: 959561|1|1| WTC100302-02 ID:TOC267

46   Chk2   1 03Mar2010 04:52      -       -          -    45520  51.395     10.489      -       -          -

** Chk5     Name:    CCB                          Data File: XQ101
            Remarks: 959561|1|1| ID:TOC267

47   Chk5   1 03Mar2010 05:01      -       -          -     1397   0.379      0.077      -       -          -

** Spl      Name:    248139004                    Data File: XQ102
            Remarks: 959561|1|1| ID:TOC267

48   Spl    1 03Mar2010 05:09      -       -          -    21982  24.609      5.022      -       -          -
48   Spl    2 03Mar2010 05:17      -       -          -    26719  30.086      6.140      -       -          -
48   Spl    3 03Mar2010 05:25      -       -          -    27225  30.671      6.259      -       -          -
48   Spl    4 03Mar2010 05:34      -       -          -    27179  30.618      6.249      -       -          -
48   Spl  Avg                                             25776  28.996      5.918
48   Spl  SDev                                          2539.796
48   Spl  %RSD                                              9.85

** Chk2     Name:    CCV                          Data File: XQ103
            Remarks: 959561|1|1| WTC100302-02 ID:TOC267

49   Chk2   1 03Mar2010 05:43      -       -          -    47890  54.135     11.048      -       -          -

** Chk5     Name:    CCB                          Data File: XQ104
            Remarks: 959561|1|1| ID:TOC267

50   Chk5   1 03Mar2010 05:52      -       -          -     1615   0.631      0.129      -       -          -
```

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
ICAL-01		1	TSM	3-Mar-10 11:32	XQ106.rlt
ICAL-02		1	TSM	3-Mar-10 11:41	XQ107.rlt
ICAL-03		1	TSM	3-Mar-10 11:50	XQ108.rlt
ICAL-04		1	TSM	3-Mar-10 11:59	XQ109.rlt
ICAL-05		1	TSM	3-Mar-10 12:08	XQ110.rlt
ICV		1	TSM	3-Mar-10 12:17	XQ111.rlt
ICB		1	TSM	3-Mar-10 12:26	XQ112.rlt
TIC	960019	1	TSM	3-Mar-10 12:36	XQ113.rlt
CCV		1	TSM	3-Mar-10 13:35	XQ114.rlt
CCB		1	TSM	3-Mar-10 13:44	XQ115.rlt
248139001	959561	2	TSM	3-Mar-10 13:53	XQ116.rlt
248126003	959246	2	TSM	3-Mar-10 14:26	XQ117.rlt
1202057268	959246	2	TSM	3-Mar-10 15:00	XQ118.rlt
1202057270	959246	2	TSM	3-Mar-10 15:20	XQ119.rlt
CCV		1	TSM	3-Mar-10 15:29	XQ120.rlt
CCB		1	TSM	3-Mar-10 15:38	XQ121.rlt
CCV		1	TSM	3-Mar-10 15:47	XQ122.rlt
CCB		1	TSM	3-Mar-10 15:55	XQ123.rlt
1202059114	960019	1	TSM	3-Mar-10 16:04	XQ124.rlt
1202059117	960019	1	TSM	3-Mar-10 16:13	XQ125.rlt
248157002	960019	1	TSM	3-Mar-10 16:22	XQ126.rlt
248157003	960019	1	TSM	3-Mar-10 16:55	XQ127.rlt
248157004	960019	1	TSM	3-Mar-10 17:29	XQ128.rlt
248157005	960019	1	TSM	3-Mar-10 18:02	XQ129.rlt
248157006	960019	1	TSM	3-Mar-10 18:36	XQ130.rlt
248157007	960019	1	TSM	3-Mar-10 19:09	XQ131.rlt
248268003	960019	1	TSM	3-Mar-10 19:43	XQ132.rlt
248298001	960019	1	TSM	3-Mar-10 20:16	XQ133.rlt
CCV		1	TSM	3-Mar-10 20:51	XQ134.rlt
CCB		1	TSM	3-Mar-10 20:59	XQ135.rlt
248298002	960019	1	TSM	3-Mar-10 21:08	XQ136.rlt
248298003	960019	1	TSM	3-Mar-10 21:41	XQ137.rlt
1202059115	960019	1	TSM	3-Mar-10 22:15	XQ138.rlt
1202059116	960019	1	TSM	3-Mar-10 22:35	XQ139.rlt
CCV		1	TSM	3-Mar-10 22:44	XQ140.rlt
CCB		1	TSM	3-Mar-10 22:53	XQ141.rlt

```
*********************************************************************
**                          CALIBRATION                            **
*********************************************************************
```

03/03/10 Wed Mar 03 12:08:15 2010

Std. #	Used	Conc. (ppm)	Volume (mL)
1	Yes	20.000	5.000
2	Yes	10.000	5.000
3	Yes	1.000	5.000
4	Yes	0.200	5.000
5	Yes	0.000	5.000

RF (ugC/k-cts):	1.186
R-Squared:	0.9977
Offset (cts):	555
Offset (ugC):	-0.660
Calibration Mode:	TOC
Allow Editing:	No

Rep	Std. 1	Std. 2	Std. 3	Std. 4	Std. 5
1	84504	38786	5246	1950	1143
2	-	-	-	-	-
3	-	-	-	-	-
4	-	-	-	-	-
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	-
9	-	-	-	-	-
10	-	-	-	-	-

(* = unused)

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
1	Blk	1	03Mar2010	10:48	-	-	-	659	-	-	-	-	-
1	Blk	2	03Mar2010	10:54	-	-	-	545	-	-	-	-	-
1	Blk	3	03Mar2010	11:01	-	-	-	1019	-	-	-	-	-
1	Blk	4	03Mar2010	11:08	-	-	-	518	-	-	-	-	-
1	Blk	5	03Mar2010	11:14	-	-	-	411	-	-	-	-	-
1	Blk	6	03Mar2010	11:23	-	-	-	405	-	-	-	-	-

** Std1 Name: ICAL-01 Data File: XQ106
Remarks: 960019|1|1| WTC100303-01 ID:TOC267

1	Std1	1	03Mar2010	11:32	-	-	-	84504	98.000	20.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.166
R-Squared: 1.0000
Offset (cts): 0
Offset (ugC): 0.000

** Std2 Name: ICAL-02 Data File: XQ107
Remarks: 960019|1|1| WTC100303-02 ID:TOC267

2	Std2	1	03Mar2010	11:41	-	-	-	38786	49.000	10.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.072
R-Squared: 1.0000
Offset (cts): -6932
Offset (ugC): 7.430

** Std3 Name: ICAL-03 Data File: XQ108
Remarks: 960019|1|1| WTC100303-03 ID:TOC267

3	Std3	1	03Mar2010	11:50	-	-	-	5246	4.900	1.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.169
R-Squared: 0.9966
Offset (cts): -482
Offset (ugC): 0.564

** Std4 Name: ICAL-04 Data File: XQ109
Remarks: 960019|1|1| WTC100303-04 ID:TOC267

4	Std4	1	03Mar2010	11:59	-	-	-	1950	0.980	0.200	-	-	-

** Calibration: RF (ugC/k-cts): 1.182
R-Squared: 0.9973
Offset (cts): 273
Offset (ugC): -0.324

** Std5 Name: ICAL-05 Data File: XQ110
Remarks: 960019|1|1| WTC100303-05 ID:TOC267

5	Std5	1	03Mar2010	12:08	-	-	-	1143	0.000	0.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.186
R-Squared: 0.9977
Offset (cts): 555
Offset (ugC): -0.660

```
** Chk2      Name:    ICV                          Data File: XQ111
             Remarks: 960019|1|1| WTC100303-05 ID:TOC267

6    Chk2    1 03Mar2010 12:17      -       -          -     41433  48.501      9.898      -       -          -

** Chk5      Name:    ICB                          Data File: XQ112
             Remarks: 960019|1|1| ID:TOC267

7    Chk5    1 03Mar2010 12:26      -       -          -      1325   0.913      0.186      -       -          -

** Spl       Name:    TIC                          Data File: XQ113
             Remarks: 960019|1|1| WIC100303-01 ID:TOC267

8    Spl     1 03Mar2010 12:36      -       -          -      1281   0.993      0.203      -       -          -
```

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Chk2		Name:	CCV				Data File: XQ114						
		Remarks:	959561|1|2| WTC100303-02 ID:TOC267										
9	Chk2	1	03Mar2010	13:35	-	-	-	43228	50.630	10.333	-	-	-
** Chk5		Name:	CCB				Data File: XQ115						
		Remarks:	959561|1|2| ID:TOC267										
10	Chk5	1	03Mar2010	13:44	-	-	-	1244	0.816	0.167	-	-	-
** Spl		Name:	248139001				Data File: XQ116						
		Remarks:	959561|2|2| ID:TOC267										
11	Spl	1	03Mar2010	13:53	-	-	-	35336	41.399	8.449	-	-	-
11	Spl	2	03Mar2010	14:00	-	-	-	41116	48.257	9.848	-	-	-
11	Spl	3	03Mar2010	14:08	-	-	-	41760	49.021	10.004	-	-	-
11	Spl	4	03Mar2010	14:18	-	-	-	42168	49.506	10.103	-	-	-
11	Spl	Avg						40095	47.046	9.601			
11	Spl	SDev						3202.087					
11	Spl	%RSD						7.99					
** Spl		Name:	248126003				Data File: XQ117						
		Remarks:	959246|2|2| ID:TOC267										
12	Spl	1	03Mar2010	14:26	-	-	-	53261	62.667	12.789	-	-	-
12	Spl	2	03Mar2010	14:34	-	-	-	61591	72.551	14.806	-	-	-
12	Spl	3	03Mar2010	14:42	-	-	-	61016	71.869	14.667	-	-	-
12	Spl	4	03Mar2010	14:51	-	-	-	60945	71.784	14.650	-	-	-
12	Spl	Avg						59203	69.718	14.228			
12	Spl	SDev						3972.046					
12	Spl	%RSD						6.71					
** Spl		Name:	1202057268				Data File: XQ118						
		Remarks:	959246|2|2| 248126003:DUP ID:TOC267										
13	Spl	1	03Mar2010	15:00	-	-	-	53909	63.436	12.946	-	-	-
13	Spl	2	03Mar2010	15:09	-	-	-	61397	72.321	14.759	-	-	-
13	Spl	Avg						57653	67.878	13.853			
13	Spl	SDev						5294.816					
13	Spl	%RSD						9.18					
** Spl		Name:	1202057270				Data File: XQ119						
		Remarks:	959246|2|2| 248126003:PS ID:TOC267										
14	Spl	1	03Mar2010	15:20	-	-	-	93980	110.980	22.649	-	-	-
** Chk2		Name:	CCV				Data File: XQ120						
		Remarks:	959246|1|2| WTC100303-02 ID:TOC267										
15	Chk2	1	03Mar2010	15:29	-	-	-	44589	52.245	10.662	-	-	-
** Chk5		Name:	CCB				Data File: XQ121						
		Remarks:	959246|1|2| ID:TOC267										

```
16   Chk5   1 03Mar2010 15:38      -       -          -     1613   1.254      0.256      -       -          -

** Chk2     Name:    CCV                          Data File: XQ122
            Remarks: 960019|1|1| WTC100303-02 ID:TOC267

17   Chk2   1 03Mar2010 15:47      -       -          -    42982  50.339     10.273      -       -          -

** Chk5     Name:    CCB                          Data File: XQ123
            Remarks: 960019|1|1| ID:TOC267

18   Chk5   1 03Mar2010 15:55      -       -          -     1257   0.832      0.170      -       -          -

** Chk5     Name:    1202059114                   Data File: XQ124
            Remarks: 960019|1|1| MB ID:TOC267

19   Chk5   1 03Mar2010 16:04      -       -          -     1360   0.954      0.195      -       -          -

** Chk2     Name:    1202059117                   Data File: XQ125
            Remarks: 960019|1|1| WTC100303-05:LCS ID:TOC267

20   Chk2   1 03Mar2010 16:13      -       -          -    42389  49.635     10.130      -       -          -

** Spl      Name:    248157002                    Data File: XQ126
            Remarks: 960019|1|1| ID:TOC267

21   Spl    1 03Mar2010 16:22      -       -          -    85357 100.749     20.561      -       -          -
21   Spl    2 03Mar2010 16:29      -       -          -   104991 124.045     25.315      -       -          -
21   Spl    3 03Mar2010 16:37      -       -          -   102889 121.551     24.806      -       -          -
21   Spl    4 03Mar2010 16:47      -       -          -   106367 125.678     25.649      -       -          -
21   Spl  Avg                                          99901 118.006     24.083
21   Spl  SDev                                      9800.907
21   Spl  %RSD                                          9.81

** Spl      Name:    248157003                    Data File: XQ127
            Remarks: 960019|1|1| ID:TOC267

22   Spl    1 03Mar2010 16:55      -       -          -     8699   9.795      1.999      -       -          -
22   Spl    2 03Mar2010 17:03      -       -          -     9627  10.896      2.224      -       -          -
22   Spl    3 03Mar2010 17:11      -       -          -     9203  10.393      2.121      -       -          -
22   Spl    4 03Mar2010 17:20      -       -          -     9306  10.515      2.146      -       -          -
22   Spl  Avg                                           9208  10.399      2.122
22   Spl  SDev                                        384.824
22   Spl  %RSD                                           4.18

** Spl      Name:    248157004                    Data File: XQ128
            Remarks: 960019|1|1| ID:TOC267

23   Spl    1 03Mar2010 17:29      -       -          -    12729  14.576      2.975      -       -          -
23   Spl    2 03Mar2010 17:37      -       -          -    14436  16.602      3.388      -       -          -
23   Spl    3 03Mar2010 17:44      -       -          -    14492  16.668      3.402      -       -          -
23   Spl    4 03Mar2010 17:54      -       -          -    14379  16.534      3.374      -       -          -
23   Spl  Avg                                          14009  16.095      3.285
23   Spl  SDev                                        854.579
23   Spl  %RSD                                           6.10

** Spl      Name:    248157005                    Data File: XQ129
```

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            Remarks: 960019|1|1| ID:TOC267

24   Spl    1 03Mar2010 18:02      -       -          -    10666  12.128      2.475      -       -          -
24   Spl    2 03Mar2010 18:10      -       -          -    11929  13.627      2.781      -       -          -
24   Spl    3 03Mar2010 18:18      -       -          -    11664  13.313      2.717      -       -          -
24   Spl    4 03Mar2010 18:28      -       -          -    11571  13.202      2.694      -       -          -
24   Spl  Avg                                            11457  13.068      2.667
24   Spl  SDev                                         549.032
24   Spl  %RSD                                            4.79


** Spl      Name:    248157006                   Data File: XQ130
            Remarks: 960019|1|1| ID:TOC267

25   Spl    1 03Mar2010 18:36      -       -          -    15997  18.454      3.766      -       -          -
25   Spl    2 03Mar2010 18:44      -       -          -    18532  21.461      4.380      -       -          -
25   Spl    3 03Mar2010 18:51      -       -          -    18173  21.035      4.293      -       -          -
25   Spl    4 03Mar2010 19:01      -       -          -    18060  20.901      4.266      -       -          -
25   Spl  Avg                                            17690  20.463      4.176
25   Spl  SDev                                        1146.793
25   Spl  %RSD                                            6.48


** Spl      Name:    248157007                   Data File: XQ131
            Remarks: 960019|1|1| ID:TOC267

26   Spl    1 03Mar2010 19:09      -       -          -    19688  22.833      4.660      -       -          -
26   Spl    2 03Mar2010 19:17      -       -          -    22501  26.171      5.341      -       -          -
26   Spl    3 03Mar2010 19:25      -       -          -    21733  25.259      5.155      -       -          -
26   Spl    4 03Mar2010 19:35      -       -          -    21926  25.488      5.202      -       -          -
26   Spl  Avg                                            21462  24.938      5.089
26   Spl  SDev                                        1226.830
26   Spl  %RSD                                            5.72


** Spl      Name:    248268003                   Data File: XQ132
            Remarks: 960019|1|1| ID:TOC267

27   Spl    1 03Mar2010 19:43      -       -          -     5501   6.000      1.224      -       -          -
27   Spl    2 03Mar2010 19:51      -       -          -     5928   6.507      1.328      -       -          -
27   Spl    3 03Mar2010 19:58      -       -          -     5763   6.311      1.288      -       -          -
27   Spl    4 03Mar2010 20:08      -       -          -     5695   6.230      1.271      -       -          -
27   Spl  Avg                                             5721   6.262      1.278
27   Spl  SDev                                          176.717
27   Spl  %RSD                                            3.09


** Spl      Name:    248298001                   Data File: XQ133
            Remarks: 960019|1|1| ID:TOC267

28   Spl    1 03Mar2010 20:16      -       -          -     3194   3.263      0.666      -       -          -
28   Spl    2 03Mar2010 20:24      -       -          -     3344   3.441      0.702      -       -          -
28   Spl    3 03Mar2010 20:32      -       -          -     3131   3.188      0.651      -       -          -
28   Spl    4 03Mar2010 20:42      -       -          -     3210   3.282      0.670      -       -          -
28   Spl  Avg                                             3219   3.293      0.672
28   Spl  SDev                                           89.578
28   Spl  %RSD                                            2.78


** Chk2     Name:    CCV                         Data File: XQ134
            Remarks: 960019|1|1| WTC100303-02 ID:TOC267

29   Chk2   1 03Mar2010 20:51      -       -          -    44961  52.687     10.752      -       -          -
```

```
** Chk5     Name:    CCB                          Data File: XQ135
            Remarks: 960019|1|1| ID:TOC267

30   Chk5   1 03Mar2010 20:59      -       -          -     1208   0.774      0.158      -       -          -

** Spl      Name:    248298002                    Data File: XQ136
            Remarks: 960019|1|1| ID:TOC267

31   Spl    1 03Mar2010 21:08      -       -          -     4413   4.709      0.961      -       -          -
31   Spl    2 03Mar2010 21:16      -       -          -     4399   4.693      0.958      -       -          -
31   Spl    3 03Mar2010 21:23      -       -          -     4489   4.799      0.979      -       -          -
31   Spl    4 03Mar2010 21:33      -       -          -     4639   4.977      1.016      -       -          -
31   Spl  Avg                                           4485   4.795      0.979
31   Spl  SDev                                       110.018
31   Spl  %RSD                                          2.45

** Spl      Name:    248298003                    Data File: XQ137
            Remarks: 960019|1|1| ID:TOC267

32   Spl    1 03Mar2010 21:41      -       -          -     3180   3.246      0.663      -       -          -
32   Spl    2 03Mar2010 21:49      -       -          -     3475   3.596      0.734      -       -          -
32   Spl    3 03Mar2010 21:57      -       -          -     3271   3.354      0.684      -       -          -
32   Spl    4 03Mar2010 22:06      -       -          -     3472   3.593      0.733      -       -          -
32   Spl  Avg                                           3349   3.447      0.703
32   Spl  SDev                                       147.929
32   Spl  %RSD                                          4.42

** Spl      Name:    1202059115                   Data File: XQ138
            Remarks: 960019|1|1| 248298003:DUP ID:TOC267

33   Spl    1 03Mar2010 22:15      -       -          -     3470   3.590      0.733      -       -          -
33   Spl    2 03Mar2010 22:24      -       -          -     3725   3.893      0.794      -       -          -
33   Spl  Avg                                           3597   3.742      0.764
33   Spl  SDev                                       180.312
33   Spl  %RSD                                          5.01

** Spl      Name:    1202059116                   Data File: XQ139
            Remarks: 960019|1|1| 248298003:PS ID:TOC267

34   Spl    1 03Mar2010 22:35      -       -          -    44281  52.013     10.615      -       -          -

** Chk2     Name:    CCV                          Data File: XQ140
            Remarks: 960019|1|1| WTC100303-02 ID:TOC267

35   Chk2   1 03Mar2010 22:44      -       -          -    47858  56.124     11.454      -       -          -

** Chk5     Name:    CCB                          Data File: XQ141
            Remarks: 960019|1|1|  ID:TOC267

36   Chk5   1 03Mar2010 22:53      -       -          -     1192   0.755      0.154      -       -          -
```

Total Kjeldahl Nitrogen

Prep Logbook

Total Phosphorous and Total Kjeldahl Nitrogen Sample Preparation

Batch ID: **956922.0** Verified by:
Analyst: Stephanie Jackson
Method: EPA 351.2 Prep
Lab SOP: GL-GC-E-071 REV# 10
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202051774	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202051772	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202053336	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202051773	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202053337	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202051770 MB	25-FEB-2010 13:30:00	Storm Water	20	20	1	<2
1202051774 LCS	25-FEB-2010 13:30:00	Storm Water	20	20	1	<2
247824003	25-FEB-2010 13:30:00	Ground Water	20	20	1	<2
1202051771 DUP (247824003)	25-FEB-2010 13:30:00	Ground Water	20	20	1	<2
1202051772 MS (247824003)	25-FEB-2010 13:30:00	Ground Water	20	20	1	<2
1202051773 MSD (247824003)	25-FEB-2010 13:30:00	Ground Water	20	20	1	<2
247828003	25-FEB-2010 13:30:00	Ground Water	20	20	1	<2
247852013	25-FEB-2010 13:30:00	Storm Water	20	20	1	<2
247852014	25-FEB-2010 13:30:00	Storm Water	20	20	1	<2
247913001	25-FEB-2010 13:30:00	Waste Water	20	20	1	<2
1202053335 DUP (247913001)	25-FEB-2010 13:30:00	Waste Water	20	20	1	<2
1202053336 MS (247913001)	25-FEB-2010 13:30:00	Waste Water	20	20	1	<2
1202053337 MSD (247913001)	25-FEB-2010 13:30:00	Waste Water	20	20	1	<2
247913002	25-FEB-2010 13:30:00	Waste Water	20	20	1	<2

Reagent/Solvent Lot ID	Description	Amount
1269276-C	TKN/PO4 Digestion Solution	4 mL

Comments:

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
5.0 ppm Std.		1	axh3	3/1/2010 9:45:51	OM_3-1-2010_09-44-53
3.0 ppm Std.		1	axh3	3/1/2010 9:46:39	OM_3-1-2010_09-44-53
1.0 ppm Std.		1	axh3	3/1/2010 9:47:27	OM_3-1-2010_09-44-53
0.5 ppm Std		1	axh3	3/1/2010 9:48:16	OM_3-1-2010_09-44-53
0.1 ppm Std		1	axh3	3/1/2010 9:49:07	OM_3-1-2010_09-44-53
ICAL-00		1	axh3	3/1/2010 9:49:58	OM_3-1-2010_09-44-53
ICV		1	axh3	3/1/2010 9:51:54	OM_3-1-2010_09-44-53
ICB		1	axh3	3/1/2010 9:53:50	OM_3-1-2010_09-44-53
1202051770	956923	1	axh3	3/1/2010 9:55:45	OM_3-1-2010_09-44-53
1202051774	956923	1	axh3	3/1/2010 9:56:35	OM_3-1-2010_09-44-53
247824003*	956923	1	axh3	3/1/2010 9:57:26	OM_3-1-2010_09-44-53
1202051771*	956923	1	axh3	3/1/2010 9:58:17	OM_3-1-2010_09-44-53
1202051772*	956923	1	axh3	3/1/2010 9:59:08	OM_3-1-2010_09-44-53
1202051773*	956923	1	axh3	3/1/2010 9:59:57	OM_3-1-2010_09-44-53
247913001*	956923	1	axh3	3/1/2010 10:00:47	OM_3-1-2010_09-44-53
1202053335*	956923	1	axh3	3/1/2010 10:01:35	OM_3-1-2010_09-44-53
1202053336*	956923	1	axh3	3/1/2010 10:02:24	OM_3-1-2010_09-44-53
1202053337*	956923	1	axh3	3/1/2010 10:03:12	OM_3-1-2010_09-44-53
CCV		1	axh3	3/1/2010 10:04:00	OM_3-1-2010_09-44-53
CCB		1	axh3	3/1/2010 10:05:56	OM_3-1-2010_09-44-53
247913002	956923	1	axh3	3/1/2010 10:07:49	OM_3-1-2010_09-44-53
247828003	956923	1	axh3	3/1/2010 10:08:38	OM_3-1-2010_09-44-53
247852013	956923	1	axh3	3/1/2010 10:09:27	OM_3-1-2010_09-44-53
247852014	956923	1	axh3	3/1/2010 10:10:16	OM_3-1-2010_09-44-53
247824003	956923	1	axh3	3/1/2010 10:11:06	OM_3-1-2010_09-44-53
1202051771	956923	1	axh3	3/1/2010 10:11:56	OM_3-1-2010_09-44-53
1202051772	956923	1	axh3	3/1/2010 10:12:47	OM_3-1-2010_09-44-53
1202051773	956923	1	axh3	3/1/2010 10:13:37	OM_3-1-2010_09-44-53
247913001	956923	1	axh3	3/1/2010 10:14:26	OM_3-1-2010_09-44-53
1202053335	956923	1	axh3	3/1/2010 10:15:15	OM_3-1-2010_09-44-53
CCV		1	axh3	3/1/2010 10:16:03	OM_3-1-2010_09-44-53
CCB		1	axh3	3/1/2010 10:17:59	OM_3-1-2010_09-44-53
1202053336	956923	1	axh3	3/1/2010 10:19:53	OM_3-1-2010_09-44-53
1202053337	956923	1	axh3	3/1/2010 10:20:40	OM_3-1-2010_09-44-53
1202042793	953065	1	axh3	3/1/2010 10:21:28	OM_3-1-2010_09-44-53
1202042797	953065	1	axh3	3/1/2010 10:22:17	OM_3-1-2010_09-44-53
246859003*	953065	1	axh3	3/1/2010 10:23:09	OM_3-1-2010_09-44-53
1202042794	953065	1	axh3	3/1/2010 10:24:00	OM_3-1-2010_09-44-53
1202042795	953065	1	axh3	3/1/2010 10:24:51	OM_3-1-2010_09-44-53
1202042796	953065	1	axh3	3/1/2010 10:25:42	OM_3-1-2010_09-44-53
246965002	953065	1	axh3	3/1/2010 10:26:32	OM_3-1-2010_09-44-53
1202043618	953065	1	axh3	3/1/2010 10:27:21	OM_3-1-2010_09-44-53
CCV		1	axh3	3/1/2010 10:28:10	OM_3-1-2010_09-44-53
CCB		1	axh3	3/1/2010 10:30:05	OM_3-1-2010_09-44-53
1202043619	953065	1	axh3	3/1/2010 10:31:59	OM_3-1-2010_09-44-53
1202043620	953065	1	axh3	3/1/2010 10:32:48	OM_3-1-2010_09-44-53
246859003	953065	1	axh3	3/1/2010 10:33:38	OM_3-1-2010_09-44-53
246879003	953065	1	axh3	3/1/2010 10:34:28	OM_3-1-2010_09-44-53
246879010*	953065	1	axh3	3/1/2010 10:35:19	OM_3-1-2010_09-44-53
246888004	953065	1	axh3	3/1/2010 10:36:08	OM_3-1-2010_09-44-53
246888008	953065	1	axh3	3/1/2010 10:36:58	OM_3-1-2010_09-44-53
246965011	953065	1	axh3	3/1/2010 10:37:46	OM_3-1-2010_09-44-53
247035003	953065	1	axh3	3/1/2010 10:38:34	OM_3-1-2010_09-44-53
247035009	953065	1	axh3	3/1/2010 10:39:24	OM_3-1-2010_09-44-53
CCV		1	axh3	3/1/2010 10:40:15	OM_3-1-2010_09-44-53
CCB		1	axh3	3/1/2010 10:42:11	OM_3-1-2010_09-44-53
247035012	953065	1	axh3	3/1/2010 10:44:06	OM_3-1-2010_09-44-53
247037002	953065	1	axh3	3/1/2010 10:44:57	OM_3-1-2010_09-44-53

247041001	953065	1	axh3	3/1/2010	10:45:48	OM_3-1-2010_09-44-53
247041008	953065	1	axh3	3/1/2010	10:46:39	OM_3-1-2010_09-44-53
247041013	953065	1	axh3	3/1/2010	10:47:30	OM_3-1-2010_09-44-53
246879010	953065	1	axh3	3/1/2010	10:48:20	OM_3-1-2010_09-44-53
1202050861	956485	1	axh3	3/1/2010	10:49:10	OM_3-1-2010_09-44-53
1202050865	956485	1	axh3	3/1/2010	10:50:00	OM_3-1-2010_09-44-53
247763001*	956485	1	axh3	3/1/2010	10:50:50	OM_3-1-2010_09-44-53
1202050862*	956485	1	axh3	3/1/2010	10:51:39	OM_3-1-2010_09-44-53
CCV		1	axh3	3/1/2010	10:52:28	OM_3-1-2010_09-44-53
CCB		1	axh3	3/1/2010	10:54:24	OM_3-1-2010_09-44-53
1202050863*	956485	1	axh3	3/1/2010	10:56:18	OM_3-1-2010_09-44-53
1202050864*	956485	1	axh3	3/1/2010	10:57:07	OM_3-1-2010_09-44-53
247850001	956485	1	axh3	3/1/2010	10:57:55	OM_3-1-2010_09-44-53
1202051751	956485	1	axh3	3/1/2010	10:58:43	OM_3-1-2010_09-44-53
1202051752	956485	1	axh3	3/1/2010	10:59:33	OM_3-1-2010_09-44-53
1202051753	956485	1	axh3	3/1/2010	11:00:26	OM_3-1-2010_09-44-53
247763002	956485	1	axh3	3/1/2010	11:01:16	OM_3-1-2010_09-44-53
247850002	956485	1	axh3	3/1/2010	11:02:06	OM_3-1-2010_09-44-53
247850003	956485	1	axh3	3/1/2010	11:02:57	OM_3-1-2010_09-44-53
247850004	956485	1	axh3	3/1/2010	11:03:48	OM_3-1-2010_09-44-53
CCV		1	axh3	3/1/2010	11:04:38	OM_3-1-2010_09-44-53
CCB		1	axh3	3/1/2010	11:06:34	OM_3-1-2010_09-44-53
247850005	956485	1	axh3	3/1/2010	11:08:29	OM_3-1-2010_09-44-53
247850006	956485	1	axh3	3/1/2010	11:09:20	OM_3-1-2010_09-44-53
247850007	956485	1	axh3	3/1/2010	11:10:10	OM_3-1-2010_09-44-53
247850008	956485	1	axh3	3/1/2010	11:11:00	OM_3-1-2010_09-44-53
247852001	956485	1	axh3	3/1/2010	11:11:50	OM_3-1-2010_09-44-53
247852002	956485	1	axh3	3/1/2010	11:12:40	OM_3-1-2010_09-44-53
247852003	956485	1	axh3	3/1/2010	11:13:29	OM_3-1-2010_09-44-53
247852004	956485	1	axh3	3/1/2010	11:14:18	OM_3-1-2010_09-44-53
247852005	956485	1	axh3	3/1/2010	11:15:07	OM_3-1-2010_09-44-53
247852006	956485	1	axh3	3/1/2010	11:15:55	OM_3-1-2010_09-44-53
CCV		1	axh3	3/1/2010	11:16:44	OM_3-1-2010_09-44-53
CCB		1	axh3	3/1/2010	11:18:39	OM_3-1-2010_09-44-53
247852007	956485	1	axh3	3/1/2010	11:20:35	OM_3-1-2010_09-44-53
247852008	956485	1	axh3	3/1/2010	11:21:27	OM_3-1-2010_09-44-53
247852009	956485	1	axh3	3/1/2010	11:22:19	OM_3-1-2010_09-44-53
247852010	956485	1	axh3	3/1/2010	11:23:11	OM_3-1-2010_09-44-53
247763001	956485	1	axh3	3/1/2010	11:24:02	OM_3-1-2010_09-44-53
1202050862	956485	1	axh3	3/1/2010	11:24:51	OM_3-1-2010_09-44-53
1202050863	956485	1	axh3	3/1/2010	11:25:40	OM_3-1-2010_09-44-53
1202050864	956485	1	axh3	3/1/2010	11:26:28	OM_3-1-2010_09-44-53
CCV		1	axh3	3/1/2010	11:28:22	OM_3-1-2010_09-44-53
CCB		1	axh3	3/1/2010	11:30:18	OM_3-1-2010_09-44-53

Author: axh3 Date : 3/1/2010

Original Run Filename: OM_3-1-2010_09-44-53.OMN created 3/1/2010 9:44:53
Original Run Author's Signature: [axh3]
Current Run Filename: OM_3-1-2010_09-44-53.OMN last modified 3/1/2010 11:31:28
Current Run Author's Signature: [axh3]
Description: TKN EPA Method 351.2 GEL SOP: GL-GC-E-104
Detection 660 nM
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TKN Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100301-12	1	S1	5.000	7.682	3/1/2010@9:45:51			5.0 ppm Std.
WTR100301-13	1	S2	3.000	4.703	3/1/2010@9:46:39			3.0 ppm Std.
WTR100301-14	1	S3	1.000	1.554	3/1/2010@9:47:27			1.0 ppm Std.
WTR100301-15	1	S4	0.500	0.824	3/1/2010@9:48:16			0.5 ppm Std
WTR100301-16	1	S5	0.100	0.176	3/1/2010@9:49:07			0.1 ppm Std
WTR100301-19 0.0 ppm	1	S7	0.000	0.036	3/1/2010@9:49:58			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99994 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR100301-18 ICV	1	S8	1.022	1.609	3/1/2010@9:51:54			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.022 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.022 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR100301-19 ICB	1	S7	-0.026	-3.082e-4	3/1/2010@9:53:50			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.026 < 0.100					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.026 > -0.100					
		Message	ICB Passed					
		Action	Continue					
1202051770|956923|MB	1	1	-0.005	0.032	3/1/2010@9:55:45			
1202051774||LCS	1	2	0.932	1.470	3/1/2010@9:56:35			
247824003	1	3	-0.107	-0.125	3/1/2010@9:57:26			
1202051771||DUP	1	4	-0.106	-0.123	3/1/2010@9:58:17			
1202051772||MS	1	5	0.107	0.204	3/1/2010@9:59:08			
1202051773||MSD	1	6	0.141	0.257	3/1/2010@9:59:57			
247913001	1	10	1.655	2.580	3/1/2010@10:00:47			
1202053335||DUP	1	11	0.998	1.572	3/1/2010@10:01:35			
1202053336||MS	1	12	1.491	2.328	3/1/2010@10:02:24			
1202053337||MSD	1	13	1.827	2.844	3/1/2010@10:03:12			
WTR100301-14 CCV	1	S3	1.052	1.654	3/1/2010@10:04:00			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.052 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.052 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-19 CCB	1	S7	-0.026	-4.225e-5	3/1/2010@10:05:56			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.026 < 0.099					
		Message	CCB Passed					

		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.026 > -0.100					
		Message	CCB Passed					
		Action	Continue					
247913002	1	14	1.216	1.907	3/1/2010@10:07:49			
247828003	1	7	0.009	0.053	3/1/2010@10:08:38			
247852013	1	8	0.824	1.305	3/1/2010@10:09:27			
247852014	1	9	0.691	1.100	3/1/2010@10:10:16			
247824003	1	3	-0.034	-0.012	3/1/2010@10:11:06			
1202051771||DUP	1	4	-0.030	-0.006	3/1/2010@10:11:56			
1202051772||MS	1	5	1.032	1.625	3/1/2010@10:12:47			
1202051773||MSD	1	6	1.141	1.791	3/1/2010@10:13:37			
247913001	1	10	1.011	1.591	3/1/2010@10:14:26			
1202053335||DUP	1	11	0.996	1.569	3/1/2010@10:15:15			
WTR100301-14 CCV	1	S3	1.047	1.646	3/1/2010@10:16:03			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.047 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.047 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-19 CCB	1	S7	-0.026	-1.129e-4	3/1/2010@10:17:59			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.026 < 0.099					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.026 > -0.100					
		Message	CCB Passed					
		Action	Continue					
1202053336||MS	1	12	1.887	2.937	3/1/2010@10:19:53			
1202053337||MSD	1	13	1.857	2.891	3/1/2010@10:20:40			
1202042793|953065|MB	1	15	0.004	0.047	3/1/2010@10:21:28			
1202042797||LCS	1	16	1.094	1.719	3/1/2010@10:22:17			
246859003	1	17	-0.108	-0.126	3/1/2010@10:23:09			
1202042794||DUP	1	18	-0.093	-0.103	3/1/2010@10:24:00			
1202042795||MS	1	19	0.551	0.886	3/1/2010@10:24:51			
1202042796||MSD	1	20	0.552	0.887	3/1/2010@10:25:42			
246965002	1	25	-0.096	-0.107	3/1/2010@10:26:32			
1202043618||DUP	1	26	0.002	0.043	3/1/2010@10:27:21			
WTR100301-14 CCV	1	S3	1.076	1.691	3/1/2010@10:28:10			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.076 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.076 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-19 CCB	1	S7	-0.049	-0.036	3/1/2010@10:30:05			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.049 < 0.099					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.049 > -0.100					
		Message	CCB Passed					
		Action	Continue					
1202043619||MS	1	27	0.660	1.053	3/1/2010@10:31:59			
1202043620||MSD	1	28	0.655	1.045	3/1/2010@10:32:48			
246859003	1	17	-0.052	-0.040	3/1/2010@10:33:38			

246879003	1	21	-0.088	-0.095	3/1/2010@10:34:28			
246879010	1	22	-0.115	-0.136	3/1/2010@10:35:19			
246888004	1	23	0.045	0.108	3/1/2010@10:36:08			
246888008	1	24	-0.086	-0.092	3/1/2010@10:36:58			
246965011	1	29	0.345	0.570	3/1/2010@10:37:46			
247035003	1	30	-0.056	-0.045	3/1/2010@10:38:34			
247035009	1	31	-0.069	-0.065	3/1/2010@10:39:24			
WTR100301-14 CCV	1	S3	1.063	1.671	3/1/2010@10:40:15			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.063 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.063 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-19 CCB	1	S7	-0.026	-4.06e-5	3/1/2010@10:42:11			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.026 < 0.099					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.026 > -0.100					
		Message	CCB Passed					
		Action	Continue					
247035012	1	32	-0.086	-0.091	3/1/2010@10:44:06			
247037002	1	33	-0.052	-0.039	3/1/2010@10:44:57			
247041001	1	34	-0.091	-0.100	3/1/2010@10:45:48			
247041008	1	35	-0.054	-0.042	3/1/2010@10:46:39			
247041013	1	36	-0.063	-0.057	3/1/2010@10:47:30			
246879010	1	22	-0.018	0.013	3/1/2010@10:48:20			
1202050861|956485|MB	1	37	-0.075	-0.076	3/1/2010@10:49:10			
1202050865||LCS	1	38	0.919	1.450	3/1/2010@10:50:00			
247763001	1	39	0.093	0.183	3/1/2010@10:50:50			
1202050862||DUP	1	40	0.417	0.680	3/1/2010@10:51:39			
WTR100301-14 CCV	1	S3	1.042	1.639	3/1/2010@10:52:28			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.042 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.042 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-19 CCB	1	S7	-0.026	-1.348e-4	3/1/2010@10:54:24			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.026 < 0.099					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.026 > -0.100					
		Message	CCB Passed					
		Action	Continue					
1202050863||MS	1	41	0.157	0.280	3/1/2010@10:56:18			
1202050864||MSD	1	42	0.470	0.762	3/1/2010@10:57:07			
247850001	1	44	0.070	0.147	3/1/2010@10:57:55			
1202051751||DUP	1	45	0.387	0.634	3/1/2010@10:58:43			
1202051752||MS	1	46	1.085	1.705	3/1/2010@10:59:33			
1202051753||MSD	1	47	1.372	2.145	3/1/2010@11:00:26			
247763002	1	43	0.214	0.368	3/1/2010@11:01:16			
247850002	1	48	0.531	0.855	3/1/2010@11:02:06			
247850003	1	49	0.354	0.583	3/1/2010@11:02:57			
247850004	1	50	0.548	0.881	3/1/2010@11:03:48			
WTR100301-14 CCV	1	S3	1.057	1.662	3/1/2010@11:04:38			CCV

		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.057 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.057 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-19 CCB	1	S7	-0.025	8.996e-4	3/1/2010@11:06:34			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.025 < 0.099					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.025 > -0.100					
		Message	CCB Passed					
		Action	Continue					
247850005	1	51	2.299	3.568	3/1/2010@11:08:29			
247850006	1	52	2.095	3.255	3/1/2010@11:09:20			
247850007	1	53	0.520	0.837	3/1/2010@11:10:10			
247850008	1	54	0.545	0.876	3/1/2010@11:11:00			
247852001	1	55	0.472	0.765	3/1/2010@11:11:50			
247852002	1	56	0.309	0.514	3/1/2010@11:12:40			
247852003	1	57	0.479	0.776	3/1/2010@11:13:29			
247852004	1	58	0.551	0.886	3/1/2010@11:14:18			
247852005	1	59	1.523	2.378	3/1/2010@11:15:07			
247852006	1	60	2.057	3.198	3/1/2010@11:15:55			
WTR100301-14 CCV	1	S3	1.061	1.668	3/1/2010@11:16:44			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.061 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.061 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-19 CCB	1	S7	-0.026	-1.225e-4	3/1/2010@11:18:39			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.026 < 0.099					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.026 > -0.100					
		Message	CCB Passed					
		Action	Continue					
247852007	1	61	1.640	2.557	3/1/2010@11:20:35			
247852008	1	62	0.637	1.017	3/1/2010@11:21:27			
247852009	1	63	0.418	0.681	3/1/2010@11:22:19			
247852010	1	64	0.455	0.739	3/1/2010@11:23:11			
247763001	1	39	0.092	0.182	3/1/2010@11:24:02			
1202050862||DUP	1	40	-0.058	-0.049	3/1/2010@11:24:51			
1202050863||MS	1	41	0.411	0.670	3/1/2010@11:25:40			
1202050864||MSD	1	42	0.463	0.750	3/1/2010@11:26:28			
WTR100301-14 CCV	1	S3	1.041	1.637	3/1/2010@11:28:22			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.041 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.041 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-19 CCB	1	S7	-0.027	-0.002	3/1/2010@11:30:18			CCB

Author: axh3 Date : 3/1/2010

Known Conc:	0.000					
DQM Test: > + Concentration Limit						
Result:	-0.027 < 0.099					
Message	CCB Passed					
Action	Continue					
DQM Test: < - Concentration Limit						
Result:	-0.027 > -0.100					
Message	CCB Passed					
Action	Continue					

Channel 1 (TKN) : Current View

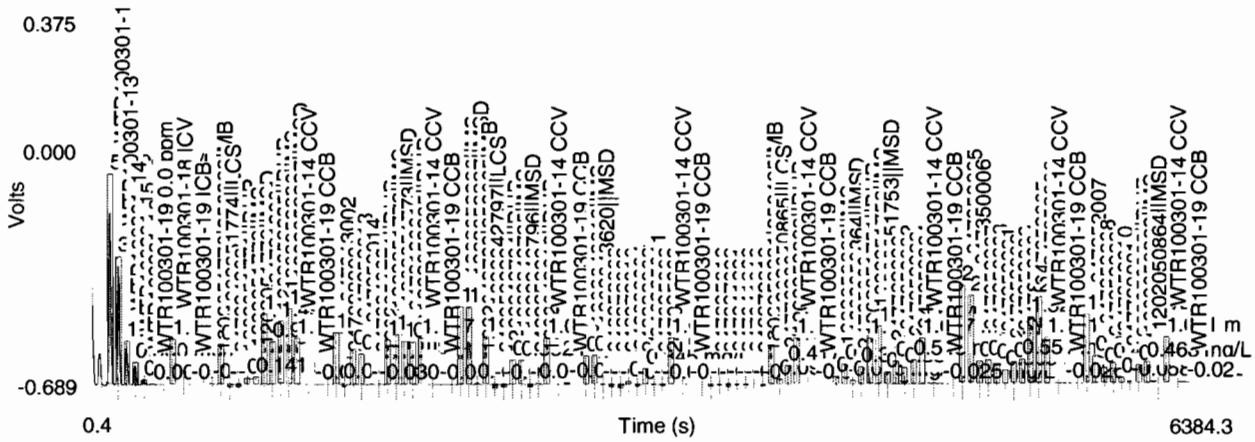

Table 1: TKN

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	5.000	1	7.682	0.614	0.4	3/1/2010	9:46:59
2	3.000	1	4.703	0.374	-1.3	3/1/2010	9:47:47
3	1.000	1	1.554	0.125	1.3	3/1/2010	9:48:35
4	0.500	1	0.824	0.064	-2.0	3/1/2010	9:49:24
5	0.100	1	0.176	0.014	9.0	3/1/2010	9:50:15
6	0.000	1	0.036	6.499e-4		3/1/2010	9:51:06

Figure 1: TKN

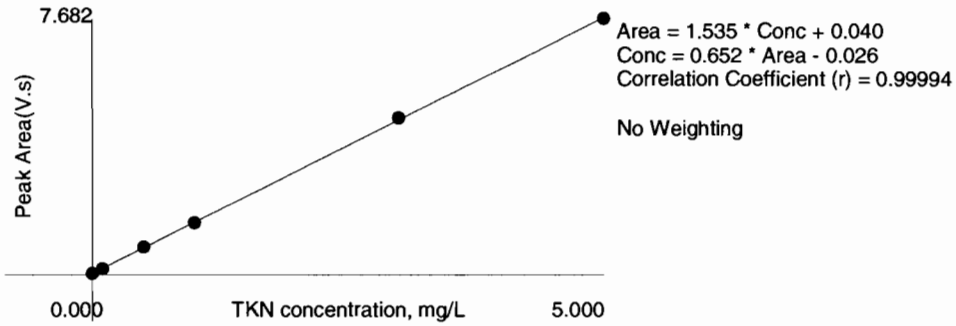

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
01-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 351.2	Liquid	BECY, ESHL
Batch ID:	**Sample Numbers:**		
956923	See Below		

Potentially affected work order(s)(SDG): 247824(10-2005),247828(10-2000),247852,247913(10-2019)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS: QC 1202053336MS	1. The spike recoveries fall outside of the GEL acceptance limits but within the client specified limits.
2.Failed Recovery for MSD: 202051773MSD,1202053337MSD	2.The spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits.

Originator's Name:

Aubrey Kingsbury 01-MAR-10

Data Validator/Group Leader:

Elzbieta Szulc 02-MAR-10

Monday, February 22, 2010

REQUEST NUMBER: 10-2004

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Martha Maier

Alta Analytical Lab Incorporated
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

These Samples are on:
LANL Request Number:10-2004
Per Agreement Number:176450010
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/22/2010
TURNAROUND/REPORT DUE: 3/24/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8290	1	CAPA-10-13498	WG	2/22/2010	
		2	CAPA-10-13498	WG	2/22/2010	

Final Page of REQUEST NUMBER 10-2004

Monday, February 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2004

REQUEST NUMBER: 10-2004

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Martha Maier

Alta Analytical Lab Incorporated

5070 Robert J. Mathews Parkway

El Dorado Hills, CA 95762

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-13498	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-13498	2	AMBER GLASS	WSP-8290-D/F	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		2/22/10	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2662 **EVENT NAME:** R-51 Characterization Sampling

SAMPLE ID: CAPA-10-13497 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		2/22/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0612	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-51		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
TOP DEPTH:		1024.84 ft bgs	SAMPLE USAGE:	INV	
BOTTOM DEPTH:		1045.59 ft bgs	SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — **COMPOSITE TIME INTERVAL:** — **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** — **BOREHOLE DIRECTION:** —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	

SAMPLE DESC:

SAMPLE COMMENTS: Collect sample from lower screen.

See CAPA 1013498

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

samples filtered @ TA-59 stormwater lab

COLLECTED BY (PRINT) D. Woody **REVIEWED BY (PRINT)** H. Wershow

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Hal Wershow (Signature)	2/22/10 0915	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	2/22/10 0915
RELINQUISHED BY (Printed Name) (Signature)	**Date/Time**	**RECEIVED BY** (Printed Name) (Signature)	**Date/Time**

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2662 **EVENT NAME:** R-51 Characterization Sampling

SAMPLE ID: CAPA-10-13498 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		2/22/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0612	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-51		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
TOP DEPTH:		1024.84 ftbgs	SAMPLE USAGE:	INV	
BOTTOM DEPTH:		1045.59 ftbgs	SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	
2		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice	Y	
2		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	
2		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	

AK 02/19/10 AK 02/19/10 AK 02/19/10 AK 02/19/10 AK 02/19/10

SAMPLE DESC:

SAMPLE COMMENTS: Collect sample from lower screen.

Samples collected directly from stainless steel tubing, no sample tree/spigot setup available

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2662 **EVENT NAME:** R-51 Characterization Sampling

FIELD SCREENING/MEASUREMENT RESULTS:

Time	pH	T°C	SC mS/cm	DO mg/L	ORP mV	Turb NTU	Q gpm	Notes
0640	9.52	20.51	134	1.10	-36.3	19.0	21.1	Turbid

COLLECTED BY (PRINT) D. Woody **REVIEWED BY (PRINT)** H. Wershow

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Hal Wershow (Signature) Hal Wershow	2/22/10 0915	(Printed Name) Sherri Sherwood (Signature) Sherri Sherwood	2/22/10 0915
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2662 **EVENT NAME:** R-51 Characterization Sampling

SAMPLE ID: CAPA-10-13499 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		2/22/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		0612	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	NA	
LOCATION ID:	R-51		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
TOP DEPTH:		1024.84 ft bgs	SAMPLE USAGE:	QC	
BOTTOM DEPTH:		1045.54 ft bgs	SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: — COMPOSITE TIME INTERVAL: — WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: — BOREHOLE DIRECTION: —

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
WG 18 1 2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	X	

SAMPLE DESC: QC Sample of CAPA-10-13498

SAMPLE COMMENTS: Collect sample from lower screen.

See CAPA 10 13498

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D. Woody **REVIEWED BY (PRINT)** H. Wershaw

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Hal Wershaw	2/22/10	(Printed Name) Sherri Sherwood	2/22/10
(Signature) Hal	0915	(Signature) Sherri Sherwood	0915
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5123-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2004 VALIDATION DATE: 03/30/10 LAB CODE: ALTC

CONTRACT LABORATORY NAME: Vista Analytical Laboratory

VALIDATOR: Maryann Jordan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☒ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. OCDD was detected in the MB. The result for OCDD in the sample was a detect ≤5X the blank concentration and, thus, was qualified U,DF4.
2. It should be noted that laboratory ion abundance limits were used for evaluation of the PeCDD compounds since the laboratory uses an alternate ion for these masses due to interferences.
3. MS/MSD analyses were not performed with the sample from this RN. No sample results were qualified.
4. Precision analysis was not performed with the sample from this RN. No sample results were qualified.

   The sample was received by the laboratory at a temperature of 1.6° C. No sample results were qualified.

   Reviewed by: Allison Felix Level: 1 Date: 3/31/10

VALIDATOR'S SIGNATURE: Maryann Jordan DATE: 03/30/10

DIOXIN/FURAN ANALYTICAL DATA VALIDATION CHECKLIST

5123-2

Dioxin/Furan Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time and qualitative criteria for target compound identification were not met.	R, DF0	R, DF0
☐	☒	☐	2. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF0b	R, DF0b
☐	☒	☐	3. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF1d	R, DF1d
☒	☐	☐	4. The sample result is ≤5 times the concentration of the related analyte in the method blank.	N/A	U, DF4
☐	☒	☐	5. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, DF4a
☐	☐	☒	6. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	N/A	U, DF4d
☐	☒	☐	7. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF4e	R, DF4e
☐	☒	☐	8. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, DF7	J, DF7
☐	☒	☐	9. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria.	UJ, R, DF7a	J, DF7a
☐	☒	☐	10. The affected analytes were analyzed with an out of range ion abundance in the initial calibration and/or CCV.	R, DF7b	R, DF7b
☐	☒	☐	11. The ICV and/or CCV were recovered outside the method specific limits.	UJ, R, DF7c	J, R, DF7c
☐	☒	☐	12. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, DF7d	J, DF7d

DIOXIN/FURAN ANALYTICAL DATA VALIDATION CHECKLIST

5123-2

Dioxin/Furan Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, DF7f	R, DF7f
☐	☒	☐	14. The affected analyte is considered rejected because the ion abundances did not meet specifications.	N/A	R, DF8
☐	☒	☐	15. The ion abundance documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF8a	R, DF8a
☐	☒	☐	16. If GC column performance was not evaluated at the required frequency or if method criteria were not met, qualify all associated detects as J and all associated non-detects as UJ.	UJ, DF8b	J, DF8b
☐	☐	☒	17. If 2, 3, 7, 8-TCDF was detected in a sample and the result was not confirmed on a second column with successful analysis of the GC column performance mix, qualify all associated detects as U.	N/A	U, DF8c
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, DF9	J-, DF9
☐	☒	☐	19. The holding time was >2 times the applicable holding time requirement.	R, DF9a	J-, DF9a
☐	☒	☐	20. The LCS percent recovery was <10%.	R, DF12	J-, DF12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, DF12a	J-, DF12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, DF12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF12c	R, DF12c

DIOXIN/FURAN ANALYTICAL DATA VALIDATION CHECKLIST

5123-2

Dioxin/Furan Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	24. The MS/MSD percent recovery was <10%.	R, DF12d	R, DF12d
☐	☐	☒	25. The MS/MSD percent recovery was >10% but <70%.	UJ, DF12e	J, DF12e
☐	☐	☒	26. The MS/MSD percent recovery was >70%	N/A	J+, DF12f
☐	☐	☒	27. The MS/MSD relative percent difference was >30%.	UJ, DF12g	J, DF12g
☐	☒	☐	28. The fortification sample percent recovery was <10%.	R, DF12h	J-, DF12h
☐	☒	☐	29. The fortification sample percent recovery was <40% but >10%	UJ, DF12i	J-, DF12i
☐	☒	☐	30. The fortification sample percent recovery was >135%.	N/A	J+, DF12j
☐	☒	☐	31. The fortification sample documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, DF12k	R, DF12k
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytes identified due to matrix interference.	R, DF15	UJ, DF15
☐	☐	☒	33. Sample clean-up was not performed. If run log notations, spectral data and/or internal standard or labeled compound recoveries indicate interferences and extract cleanup was not performed, qualify all associated detects as J and all non-detects as UJ.	RJ, DF15a	J, DF15a
☐	☐	☒	34. The instrument performance sample did not pass method acceptance criteria.	R, DF16	R, DF16
☐	☐	☒	35. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, DF16c	R, DF16c

DIOXIN/FURAN ANALYTICAL DATA VALIDATION CHECKLIST	
5123-2 **Dioxin/Furan Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	**36. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.**	**UJ, R, DF19**	**J, R, DR19**
☐	☒	☐	**37. Duplicate, dilution, or reanalysis.**	**UJ, DF88**	**J, DF88**

Sample ID: CAPA-10-13498 **EPA Method 8290**

Client Data		Sample Data		Laboratory Data			
Name:	Los Alamos National Laboratory	Matrix:	Aqueous	Lab Sample:	32455-001	Date Received:	23-Feb-10
Project:	10-2004	Sample Size:	0.930 L	QC Batch No.:	2836	Date Extracted:	27-Feb-10
Date Collected:	22-Feb-10			Date Analyzed DB-5:	2-Mar-10	Date Analyzed DB-225:	NA
Time Collected:	0612						

Analyte	Conc. (pg/L)		DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND		0.254		
1,2,3,7,8-PeCDD	ND		0.301		
1,2,3,4,7,8-HxCDD	ND		0.289		
1,2,3,6,7,8-HxCDD	ND		0.286		
1,2,3,7,8,9-HxCDD	ND		0.281		
1,2,3,4,6,7,8-HpCDD	ND			0.588	
OCDD	2.15	U.DF4			J,B
2,3,7,8-TCDF	ND		0.165		
1,2,3,7,8-PeCDF	ND		0.218		
2,3,4,7,8-PeCDF	ND		0.212		
1,2,3,4,7,8-HxCDF	ND		0.170		
1,2,3,6,7,8-HxCDF	ND		0.179		
2,3,4,6,7,8-HxCDF	ND		0.199		
1,2,3,7,8,9-HxCDF	ND		0.237		
1,2,3,4,6,7,8-HpCDF	ND		0.272		
1,2,3,4,7,8,9-HpCDF	ND		0.253		
OCDF	0.618				J

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	78.1	40 - 135	
	13C-1,2,3,7,8-PeCDD	62.6	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	79.4	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	80.3	40 - 135	
	13C-1,2,3,7,8,9-HxCDD	77.4	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	79.9	40 - 135	
	13C-OCDD	70.7	40 - 135	
	13C-2,3,7,8-TCDF	76.9	40 - 135	
	13C-1,2,3,7,8-PeCDF	61.9	40 - 135	
	13C-2,3,4,7,8-PeCDF	56.5	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	67.3	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	73.5	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	75.9	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	75.1	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	77.2	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	78.0	40 - 135	
	13C-OCDF	70.0	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	84.2	40 - 135	

Totals			
Total TCDD	ND	0.254	
Total PeCDD	ND	0.301	
Total HxCDD	ND	0.285	
Total HpCDD	1.01		1.60
Total TCDF	ND	0.165	
Total PeCDF	ND	0.215	
Total HxCDF	ND	0.196	
Total HpCDF	ND	0.262	

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): **0.00277**

a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Method detection limit.
d. Lower control limit - upper control limit.
e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: JMH

Approved By: Martha M. Maier 06-Mar-2010 12:00

MJ
03/30/10

Monday, February 22, 2010

REQUEST NUMBER: 10-2004

32455

1.6°C

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Martha Maier
Alta Analytical Lab Incorporated
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

These Samples are on:
LANL Request Number:10-2004
Per Agreement Number:176450010
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/22/2010
TURNAROUND/REPORT DUE: 3/24/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8290	1	CAPA-10-13498	WG	2/22/2010	
		2	CAPA-10-13498	WG	2/22/2010	

Final Page of REQUEST NUMBER 10-2004

Monday, February 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2004

LOS ALAMOS

NATIONAL LABORATORY

REQUEST NUMBER: 10-2004

32455

ATTN: Martha Maier

Alta Analytical Lab Incorporated

5070 Robert J. Mathews Parkway

El Dorado Hills, CA 95762

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-13498	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-13498	2	AMBER GLASS	WSP-8290-D/F	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		2/22/10	1400	B. Benedict	Bethnia L Benedict	2/22/10	0853
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Vista
Analytical Laboratory

March 06, 2010

Vista Project I.D.: 32455

Mr. Keith Greene
Los Alamos National Laboratory
ER Sample Management Office
TA-3, Building 271, DP O1-U
Los Alamos, NM 87545

Dear Mr. Greene,

Enclosed are the results for the one aqueous sample received at Vista Analytical Laboratory on February 23, 2010 under your Project Name "10-2004". This sample was extracted and analyzed using EPA Method 8290 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

The following report consists of a Sample Inventory (Section I), Analytical Results (Section II) and the Appendix, which contains the chain-of-custody, a list of data qualifiers and abbreviations, Vista's current certifications, and copies of the raw data (if requested).

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com. Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha M. Maier
Laboratory Director

Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAC for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista Analytical Laboratory.

Vista

Section I: Sample Inventory Report

Date Received: **2/23/2010**

Vista Lab. ID	Client Sample ID
32455-001	CAPA-10-13498

SECTION II

Vista

Method Blank **EPA Method 8290**

Matrix:	Aqueous	QC Batch No.:	2836	Lab Sample:	0-MB001
Sample Size:	1.00 L	Date Extracted:	27-Feb-10	Date Analyzed DB-5:	2-Mar-10
				Date Analyzed DB-225:	NA

Analyte	Conc. (pg/L)	DL [a]	EMPC [b]	Qualifiers
2,3,7,8-TCDD	ND	0.191		
1,2,3,7,8-PeCDD	ND	0.258		
1,2,3,4,7,8-HxCDD	ND	0.312		
1,2,3,6,7,8-HxCDD	ND	0.320		
1,2,3,7,8,9-HxCDD	ND	0.309		
1,2,3,4,6,7,8-HpCDD	ND	0.267		
OCDD	1.73			J
2,3,7,8-TCDF	ND	0.173		
1,2,3,7,8-PeCDF	ND	0.230		
2,3,4,7,8-PeCDF	ND	0.212		
1,2,3,4,7,8-HxCDF	ND	0.185		
1,2,3,6,7,8-HxCDF	ND	0.194		
2,3,4,6,7,8-HxCDF	ND	0.221		
1,2,3,7,8,9-HxCDF	ND	0.273		
1,2,3,4,6,7,8-HpCDF	ND	0.345		
1,2,3,4,7,8,9-HpCDF	ND	0.338		
OCDF	ND		0.639	

	Labeled Standard	%R	LCL-UCL [d]	Qualifiers
IS	13C-2,3,7,8-TCDD	78.5	40 - 135	
	13C-1,2,3,7,8-PeCDD	60.6	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	76.3	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	77.8	40 - 135	
	13C-1,2,3,7,8,9-HxCDD	74.4	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	76.3	40 - 135	
	13C-OCDD	65.4	40 - 135	
	13C-2,3,7,8-TCDF	79.4	40 - 135	
	13C-1,2,3,7,8-PeCDF	58.8	40 - 135	
	13C-2,3,4,7,8-PeCDF	55.2	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	66.2	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	71.0	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	72.6	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	72.8	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	75.9	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	73.1	40 - 135	
	13C-OCDF	65.8	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	84.1	40 - 135	

Totals			
Total TCDD	ND	0.191	
Total PeCDD	ND	0.258	
Total HxCDD	ND	0.314	
Total HpCDD	ND		0.938
Total TCDF	ND	0.173	
Total PeCDF	ND	0.221	
Total HxCDF	ND	0.218	
Total HpCDF	ND	0.342	

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): 0.00173

a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Method detection limit.
d. Lower control limit - upper control limit.
e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: JMH

Approved By: Martha M. Maier 06-Mar-2010 12:00

Vista

OPR Results **EPA Method 8290**

Matrix:	Aqueous	QC Batch No.:	2836	Lab Sample:	0-OPR001		
Sample Size:	1.00 L	Date Extracted:	27-Feb-10	Date Analyzed DB-5:	2-Mar-10	Date Analyzed DB-225:	NA

Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits		Labeled Standard	%R	LCL-UCL	Qualifier
2,3,7,8-TCDD	10.0	10.1	7 - 13	IS	13C-2,3,7,8-TCDD	72.0	40 - 135	
1,2,3,7,8-PeCDD	50.0	49.4	35 - 65		13C-1,2,3,7,8-PeCDD	55.6	40 - 135	
1,2,3,4,7,8-HxCDD	50.0	50.2	35 - 65		13C-1,2,3,4,7,8-HxCDD	71.4	40 - 135	
1,2,3,6,7,8-HxCDD	50.0	49.1	35 - 65		13C-1,2,3,6,7,8-HxCDD	72.3	40 - 135	
1,2,3,7,8,9-HxCDD	50.0	50.1	35 - 65		13C-1,2,3,7,8,9-HxCDD	69.8	40 - 135	
1,2,3,4,6,7,8-HpCDD	50.0	49.5	35 - 65		13C-1,2,3,4,6,7,8-HpCDD	70.0	40 - 135	
OCDD	100	97.5	70 - 130		13C-OCDD	62.5	40 - 135	
2,3,7,8-TCDF	10.0	10.4	7 - 13		13C-2,3,7,8-TCDF	73.3	40 - 135	
1,2,3,7,8-PeCDF	50.0	51.6	35 - 65		13C-1,2,3,7,8-PeCDF	54.0	40 - 135	
2,3,4,7,8-PeCDF	50.0	51.2	35 - 65		13C-2,3,4,7,8-PeCDF	51.1	40 - 135	
1,2,3,4,7,8-HxCDF	50.0	51.8	35 - 65		13C-1,2,3,4,7,8-HxCDF	63.8	40 - 135	
1,2,3,6,7,8-HxCDF	50.0	50.9	35 - 65		13C-1,2,3,6,7,8-HxCDF	68.4	40 - 135	
2,3,4,6,7,8-HxCDF	50.0	51.6	35 - 65		13C-2,3,4,6,7,8-HxCDF	68.4	40 - 135	
1,2,3,7,8,9-HxCDF	50.0	52.0	35 - 65		13C-1,2,3,7,8,9-HxCDF	70.2	40 - 135	
1,2,3,4,6,7,8-HpCDF	50.0	50.6	35 - 65		13C-1,2,3,4,6,7,8-HpCDF	67.9	40 - 135	
1,2,3,4,7,8,9-HpCDF	50.0	51.2	35 - 65		13C-1,2,3,4,7,8,9-HpCDF	70.2	40 - 135	
OCDF	100	99.3	70 - 130		13C-OCDF	62.9	40 - 135	
				CRS	37Cl-2,3,7,8-TCDD	84.6	40 - 135	

Analyst: JMH

Approved By: Martha M. Maier 06-Mar-2010 12:00

Vista

Sample ID: **CAPA-10-13498** **EPA Method 8290**

Client Data		Sample Data		Laboratory Data			
Name:	Los Alamos National Laboratory	Matrix:	Aqueous	Lab Sample:	32455-001	Date Received:	23-Feb-10
Project:	10-2004	Sample Size:	0.930 L	QC Batch No.:	2836	Date Extracted:	27-Feb-10
Date Collected:	22-Feb-10			Date Analyzed DB-5:	2-Mar-10	Date Analyzed DB-225:	NA
Time Collected:	0612						

Analyte	Conc. (pg/L)	DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND	0.254		
1,2,3,7,8-PeCDD	ND	0.301		
1,2,3,4,7,8-HxCDD	ND	0.289		
1,2,3,6,7,8-HxCDD	ND	0.286		
1,2,3,7,8,9-HxCDD	ND	0.281		
1,2,3,4,6,7,8-HpCDD	ND		0.588	
OCDD	2.15			J,B
2,3,7,8-TCDF	ND	0.165		
1,2,3,7,8-PeCDF	ND	0.218		
2,3,4,7,8-PeCDF	ND	0.212		
1,2,3,4,7,8-HxCDF	ND	0.170		
1,2,3,6,7,8-HxCDF	ND	0.179		
2,3,4,6,7,8-HxCDF	ND	0.199		
1,2,3,7,8,9-HxCDF	ND	0.237		
1,2,3,4,6,7,8-HpCDF	ND	0.272		
1,2,3,4,7,8,9-HpCDF	ND	0.253		
OCDF	0.618			J

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	78.1	40 - 135	
	13C-1,2,3,7,8-PeCDD	62.6	40 - 135	
	13C-1,2,3,4,7,8-HxCDD	79.4	40 - 135	
	13C-1,2,3,6,7,8-HxCDD	80.3	40 - 135	
	13C-1,2,3,7,8,9-HxCDD	77.4	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDD	79.9	40 - 135	
	13C-OCDD	70.7	40 - 135	
	13C-2,3,7,8-TCDF	76.9	40 - 135	
	13C-1,2,3,7,8-PeCDF	61.9	40 - 135	
	13C-2,3,4,7,8-PeCDF	56.5	40 - 135	
	13C-1,2,3,4,7,8-HxCDF	67.3	40 - 135	
	13C-1,2,3,6,7,8-HxCDF	73.5	40 - 135	
	13C-2,3,4,6,7,8-HxCDF	75.9	40 - 135	
	13C-1,2,3,7,8,9-HxCDF	75.1	40 - 135	
	13C-1,2,3,4,6,7,8-HpCDF	77.2	40 - 135	
	13C-1,2,3,4,7,8,9-HpCDF	78.0	40 - 135	
	13C-OCDF	70.0	40 - 135	
CRS	37Cl-2,3,7,8-TCDD	84.2	40 - 135	

Totals			
Total TCDD	ND	0.254	
Total PeCDD	ND	0.301	
Total HxCDD	ND	0.285	
Total HpCDD	1.01		1.60
Total TCDF	ND	0.165	
Total PeCDF	ND	0.215	
Total HxCDF	ND	0.196	
Total HpCDF	ND	0.262	

Toxic Equivalent Quotient (TEQ) Data [e]

TEQ (Min): **0.00277**

a. Sample specific estimated detection limit.

b. Estimated maximum possible concentration.

c. Method detection limit.

d. Lower control limit - upper control limit.

e. TEQ based on (1989) International Toxic Equivalent Factors (ITEF).

Analyst: JMH

Approved By: Martha M. Maier 06-Mar-2010 12:00

APPENDIX

DATA QUALIFIERS & ABBREVIATIONS

B	**This compound was also detected in the method blank.**
D	**Dilution**
E	**The amount detected is above the High Calibration Limit.**
P	**The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.**
H	**Recovery was outside laboratory acceptance limits.**
I	**Chemical Interference**
J	**The amount detected is below the Low Calibration Limit.**
*****	**See Cover Letter**
Conc.	**Concentration**
DL	**Sample-specific estimated detection limit**
MDL	**The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in the matrix tested.**
EMPC	**Estimated Maximum Possible Concentration**
NA	**Not applicable**
RL	**Reporting Limit – concentrations that correspond to low calibration point**
ND	**Not Detected**
TEQ	**Toxic Equivalency**

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
State of Alaska, DEC	CA413-2008
State of Arizona	AZ0639
State of Arkansas, DEQ	08-043-0
State of Arkansas, DOH	Reciprocity through CA
State of California – NELAP Primary AA	02102CA
State of Colorado	N/A
State of Connecticut	PH-0182
State of Florida, DEP	E87777
State of Indiana Department of Health	C-CA-02
Commonwealth of Kentucky	90063
State of Louisiana, Health and Hospitals	LA08000
State of Louisiana, DEQ	01977
State of Maine	2008024
State of Michigan	9932
State of Mississippi	Reciprocity through CA
Naval Facilities Engineering Service Center	NFESC413
State of Nevada	CA004132007A
State of New Jersey	CA003
State of New Mexico	Reciprocity through CA
State of New York, DOH	11411
State of North Carolina	06700
State of North Dakota, DOH	R-078
State of Oklahoma	D9919
State of Oregon	CA200001-006
State of Pennsylvania	68-00490
State of South Carolina	87002001
State of Tennessee	TN02996
State of Texas	T104704189-08-TX
U.S. Army Corps of Engineers	N/A
State of Utah	CA16400
Commonwealth of Virginia	00013
State of Washington	C1285
State of Wisconsin	998036160
State of Wyoming	8TMS-Q

Monday, February 22, 2010

REQUEST NUMBER: 10-2004

32455

1.6°C

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Martha Maier
Alta Analytical Lab Incorporated
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

These Samples are on:
LANL Request Number:10-2004
Per Agreement Number:176450010
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/22/2010
TURNAROUND/REPORT DUE: 3/24/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8290	1	CAPA-10-13498	WG	2/22/2010	
		2	CAPA-10-13498	WG	2/22/2010	

Final Page of REQUEST NUMBER 10-2004

Monday, February 22, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2004

REQUEST NUMBER: 10-2004

32455

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Martha Maier

Alta Analytical Lab Incorporated
5070 Robert J. Mathews Parkway
El Dorado Hills, CA 95762

TURNAROUND/REPORT DUE: 3/24/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-13498	1	AMBER GLASS	WSP-8290-D/F	Ice	WG
CAPA-10-13498	2	AMBER GLASS	WSP-8290-D/F	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		2/22/10	1400	B. Benedict	Bethina L Benedict	2/23/10	0953
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Printed Name	Signature		

SAMPLE LOG-IN CHECKLIST

Vista Analytical Laboratory

Vista Project #: 32455 **TAT** 30

Samples Arrival:	**Date/Time** 2/23/10 0915	**Initials:** UBDB	**Location:** WR-2 **Shelf/Rack:** N/A
Logged In:	**Date/Time** 2/23/10 0953	**Initials:** UBDB	**Location:** WR-2 **Shelf/Rack:** B3

Delivered By:	FedEx	UPS	Cal	DHL	Hand Delivered	Other
Preservation:	Ice	Blue Ice	Dry Ice	None		
Temp °C 1.6°C	**Time:** 0916	**Thermometer ID:** IR-1				

		YES	NO	NA
Adequate Sample Volume Received?	A & B bottle	✓		
Holding Time Acceptable?		✓		
Shipping Container(s) Intact?		✓		
Shipping Custody Seals Intact?		✓		
Shipping Documentation Present?		✓		
Airbill	Trk # 7209 7850 1551	✓		
Sample Container Intact?		✓		
Sample Custody Seals Intact?		✓		
Chain of Custody / Sample Documentation Present?		✓		
COC Anomaly/Sample Acceptance Form completed?			✓	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?				✓

$Na_2S_2O_3$ Preservation Documented?		COC	Sample Container	None	
Shipping Container	Vista	Client	Retain	Return	Dispose

Comments:

	date	time
CAPA - 10 - 13498	2/22/10	0612

Sample Login 3/2007 rmh

EXTRACTION INFORMATION

PROCESS SHEET

Project No.-AR: 32455-1 of 1

Prep Due: 3/5/2010

Hold Due: 3/24/2010

Client: Los Alamos National Laboratory(LOANM01F

Client Manager: Rose Harrelson

Method: EPA Method 8290 | PCDD/F

Project Due: 3/23/2010

TAT: 28

Split Type:

Matrix: Aqueous

2836

LabID	Recon	Client-ID	Description	Date Received	SLoc	Shelf
001	☑	CAPA-10-13498 "A Bottle"		2/23/2010	WR-2	B-3

Instructions:

Report Options

Report Level:

EDD Type:

Report Group: Dioxins NoMDL

Vial Box ID: pleather

TEQ Type: EPA(Default) : Min

Samples Reconciled By: 2/27/10

Date Requested

Percent Solids

Vista Analytical Laboratory

Project: 32455-1

Sample ID	Chemist/Date FEB 2/27/10		Chemist/Date CI 2/28/10	Chemist/Date FEB 2/27/10		
	Boat Wt.	Sample + Boat Wt.	Residue + Boat Wt.	pH before	pH* after	Cl
001	1.31	12.39	1.32	6	N/A	0

Procedure:

- Tare the balance.
- Record Boat Weight.
- Add 2 - 10 g of sample.
- Record Wet Wt. + Boat Wt.
- Dry in oven overnight at 107°C.
- Tare the balance.
- Record Residue + Boat Wt.

Notes:

- *Methods 8280, 613, 1613, 8290, 1614 – pH <9*
- *Methods 1668/PCN – pH 2-3*
- *NCASI 551 – pH 1*

%Solids rmh 10/2009

Aqueous Sample Size Determination

Vista Analytical Laboratory

Project: 32455-1

	Chemist/Date	Chemist/Date	
	FEB 2/27/10	CJ 2/28/10	
Sample ID	**Container Weight (g)**		**Sample Wt (g)**
	Full	***Empty***	
001	1317.54	387.66	929.88

Procedure:

- Tare the balance.
- Record weight of bottle/cap and sample.
- If all of the sample is used, drain overnight.
- Tare the balance.
- Record weight of empty bottle/cap.
- Enter Sample Weight in HALs and on the Extraction Sheet*.

* *Record in 'Liters', rounded to 3 decimal places; assumes density of 1 g/mL*

Notes:

AqWt 3/2007 rmh

Project: 32455

Extraction Set: 2836

Chemist: F. Bishop 2/27/10

Method(s): EPA Method 8290 | PCDD/F (Tetra - Octa)

C	ALTA Sample ID	G Eqv	Sample Amt. (L)	IS/NS CHEM/ WIT DATE	CRS CHEM/WIT DATE	AP CHEM/Date	ABSG CHEM/Date	AA CHEM/Date	Florisil CHEM/Date	RS CHEM/WIT DATE
☐	0_2836_MB001	N/A	(1.000)	FEB MLZ 2/27/10	C/ N/A 2/28/10	N/A	C/ 2/28/10	C/ 2/28/10	C/ 3/2/10	C/ FEB 3/2/10
☐	0_2836_OPR001	↓	↓	↓	↓	↓	↓	↓	↓	↓
☐	32455_2836_001	↓	0.930	↓	↓	↓	↓	↓	↓	↓

IS Name (V18)	NS Name (V4)	CRS Name (V7)	RS Name (V8)
PCDD/F 081104A, 10ul	PCDD/F 090922A, 10ul	PCDD/F 100127A 10, L	PCDD/F 100127B 10, L
PCB	PCB	PCB	PCB
PAH	PAH	PAH	PAH

Cycle Time
2/27 Start: 1640
2/28 Stop: 0940

APP.: SEFUN SOX (SDS)
SOLV: TOL
Other: SPE
Final Volume(s): 70ul C14

Check Out:
Chemist: FEB 2/27/10

Check-In:
Chemist: Empty

Comments:

SAMPLE DATA

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 10:16:06 Pacific Standard Time
Printed: Wednesday, March 03, 2010 10:16:20 Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

1	2,3,7,8-TCDD			NO	1.04	1.000					0.191		
2	1,2,3,7,8-PeCDD			NO	0.935	1.000					0.258		
3	1,2,3,4,7,8-HxCDD			NO	0.907	1.000					0.312		
4	1,2,3,6,7,8-HxCDD			NO	0.995	1.000					0.320		
5	1,2,3,7,8,9-HxCDD			NO	0.930	1.000					0.309		
6	1,2,3,4,6,7,8-HpCDD			NO	1.00	1.000					0.267		
7	OCDD	8.01e2	0.81	NO	1.10	1.000	41.15	1.000	1.7299		0.456	~~1.7299~~	
8	2,3,7,8-TCDF			NO	0.956	1.000					0.173		
9	1,2,3,7,8-PeCDF			NO	0.941	1.000					0.230		
10	2,3,4,7,8-PeCDF			NO	0.926	1.000					0.212		
11	1,2,3,4,7,8-HxCDF			NO	1.22	1.000					0.185		
12	1,2,3,6,7,8-HxCDF			NO	1.08	1.000					0.194		
13	2,3,4,6,7,8-HxCDF			NO	1.13	1.000					0.221		
14	1,2,3,7,8,9-HxCDF			NO	1.13	1.000					0.273		
15	1,2,3,4,6,7,8-HpCDF			NO	1.44	1.000					0.345		
16	1,2,3,4,7,8,9-HpCDF			NO	1.38	1.000					0.338		
17	OCDF	4.04e2	1.10	YES	1.01	1.000	41.38	1.000	~~0.70894~~	ND	0.369	0.63926	
18	13C-2,3,7,8-TCDD	2.14e6	0.78	NO	1.10	1.000	26.01	1.022	1570.2	78.5	0.909		
19	13C-1,2,3,7,8-PeCDD	1.64e6	0.62	NO	1.09	1.000	30.55	1.200	1212.4	60.6	0.943		
20	13C-1,2,3,4,7,8-HxCDD	1.39e6	1.26	NO	1.01	1.000	33.90	1.014	1525.1	76.3	1.49		
21	13C-1,2,3,6,7,8-HxCDD	1.25e6	1.23	NO	0.889	1.000	34.01	1.017	1555.9	77.8	1.70		
22	13C-1,2,3,7,8,9-HxCDD	1.44e6	1.24	NO	1.07	1.000	34.31	1.026	1488.8	74.4	1.41		
23	13C-1,2,3,4,6,7,8-HpCDD	1.15e6	1.05	NO	0.837	1.000	37.81	1.131	1525.9	76.3	2.44		
24	13C-OCDD	1.68e6	0.88	NO	0.712	1.000	41.14	1.230	2615.9	65.4	1.09		
25	13C-2,3,7,8-TCDF	3.15e6	0.78	NO	1.05	1.000	25.25	0.992	1587.2	79.4	1.19		
26	13C-1,2,3,7,8-PeCDF	2.26e6	1.57	NO	1.02	1.000	29.37	1.153	1176.6	58.8	1.52		
27	13C-2,3,4,7,8-PeCDF	2.24e6	1.55	NO	1.08	1.000	30.27	1.189	1103.6	55.2	1.44		
28	13C-1,2,3,4,7,8-HxCDF	1.63e6	0.52	NO	1.37	1.000	33.02	0.988	1323.2	66.2	1.92		
29	13C-1,2,3,6,7,8-HxCDF	1.75e6	0.51	NO	1.37	1.000	33.14	0.991	1419.1	71.0	1.92		
30	13C-2,3,4,6,7,8-HxCDF	1.55e6	0.52	NO	1.18	1.000	33.74	1.009	1452.5	72.6	2.22		

3/5/10

3/5/10

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	13C-1,2,3,7,8,9-HxCDF	1.38e6	0.51	NO	1.05	1.000	34.71	1.038	1456.1	72.8	2.49	
	13C-1,2,3,4,6,7,8-HpCDF	1.17e6	0.46	NO	0.858	1.000	36.57	1.094	1517.1	75.9	2.77	
	13C-1,2,3,4,7,8,9-HpCDF	1.05e6	0.45	NO	0.794	1.000	38.37	1.148	1461.3	73.1	2.99	
	13C-OCDF	2.25e6	0.88	NO	0.948	1.000	41.38	1.238	2630.0	65.8	0.951	
	37Cl-2,3,7,8-TCDD	5.54e5			0.665	1.000	26.03	1.022	673.15	84.1	0.281	
	13C-1,2,3,4-TCDD	2.48e6	0.79	NO	1.00	1.000	25.47	0.000	2000.0	100	1.00	
	13C-1,2,3,4-TCDF	3.76e6	0.78	NO	1.00	1.000	24.07	0.000	2000.0	100	1.25	
	13C-1,2,3,4,6,9-HxCDF	1.80e6	0.52	NO	1.00	1.000	33.43	0.000	2000.0	100	2.62	
	Total Tetra-Dioxins				1.04	1.000					0.0888	
	Total Penta-Dioxins				0.935	1.000					0.0920	
	Total Hexa-Dioxins				0.995	1.000					0.149	
	Total Hepta-Dioxins				1.00	1.000			~~0.00000~~		0.130	0.93772
	Total Tetra-Furans				0.956	1.000					0.0830	
	1st Func. Penta-Furans				0.941	1.000					0.0760	
	Total Penta-Furans				0.941	1.000					0.105	
	Total Hexa-Furans				1.13	1.000					0.124	
	Total Hepta-Furans				1.44	1.000					0.144	

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Tetra-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IsY	Resp	Conc	EMPC	DL

Penta-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IsY	Resp	Conc	EMPC	DL

Hexa-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IsY	Resp	Conc	EMPC	DL

Hepta-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IsY	Resp	Conc	EMPC	DL
Total Hepta-Dioxins	36.98	7.075e3	5.518e3	3.198e2	2.651e2	1.21	YES	0.000e0	0.00000	0.93772	0.267

Tetra-Furans

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IsY	Resp	Conc	EMPC	DL

Penta-Furans function 1

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IsY	Resp	Conc	EMPC	DL

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Penta-Furans

Hexa-Furans

Hepta-Furans

Vista Analytical Laboratory VG-10

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Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

2,3,7,8-TCDD

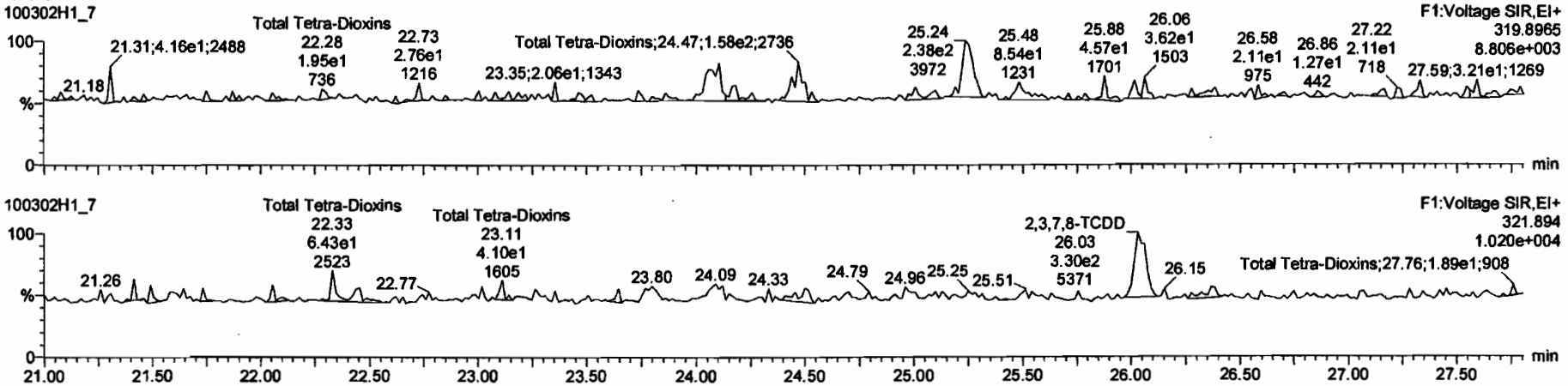

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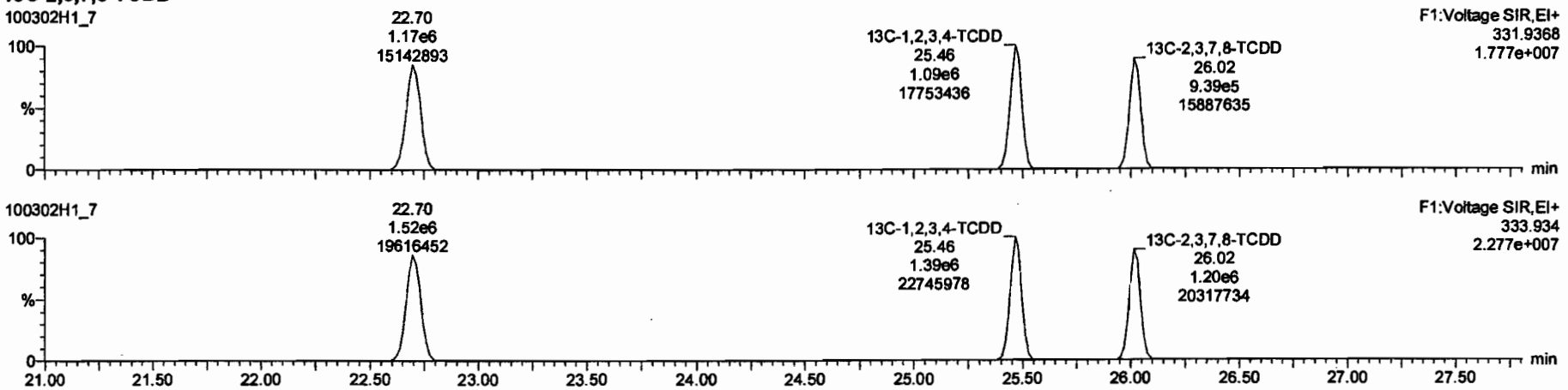

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37Cl-2,3,7,8-TCDD

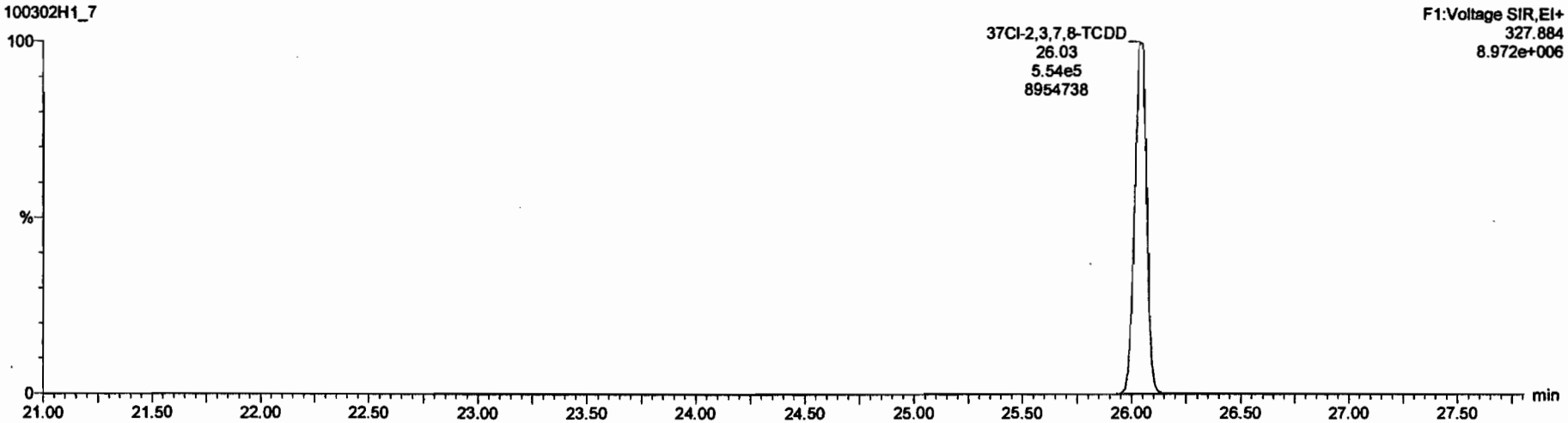

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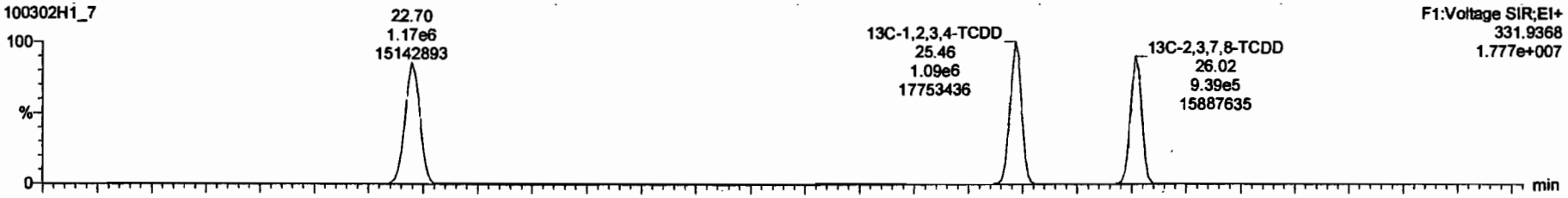

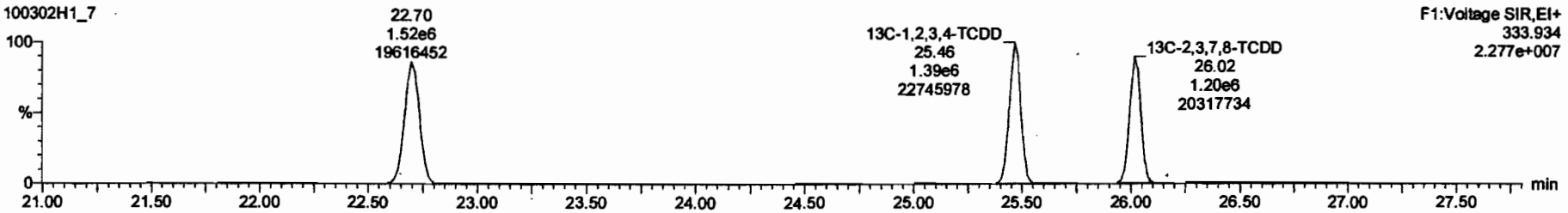

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1,2,3,7,8-PeCDD

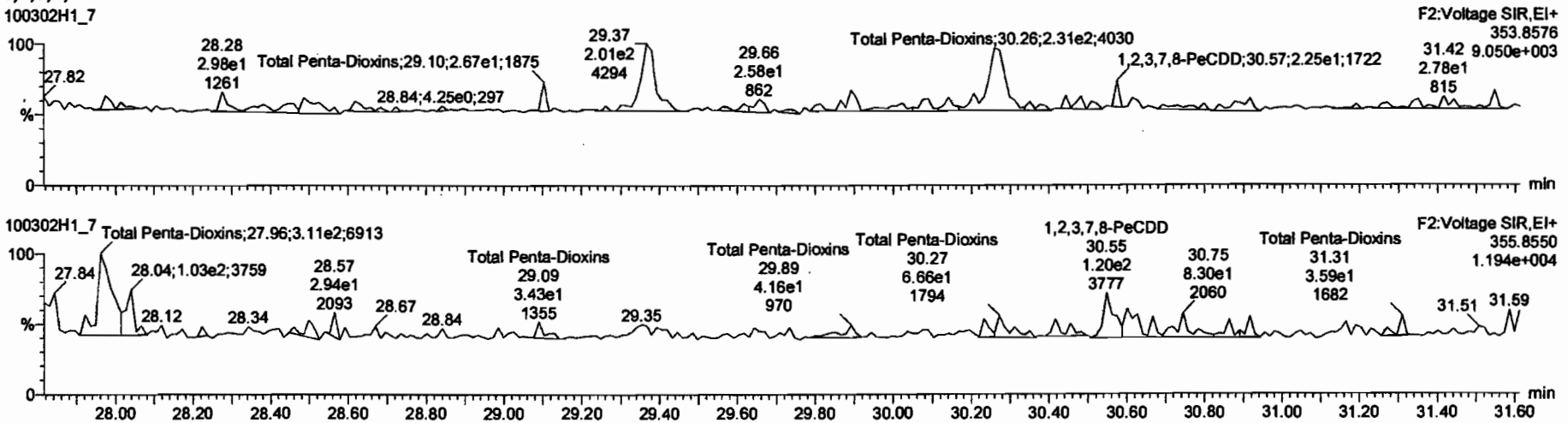

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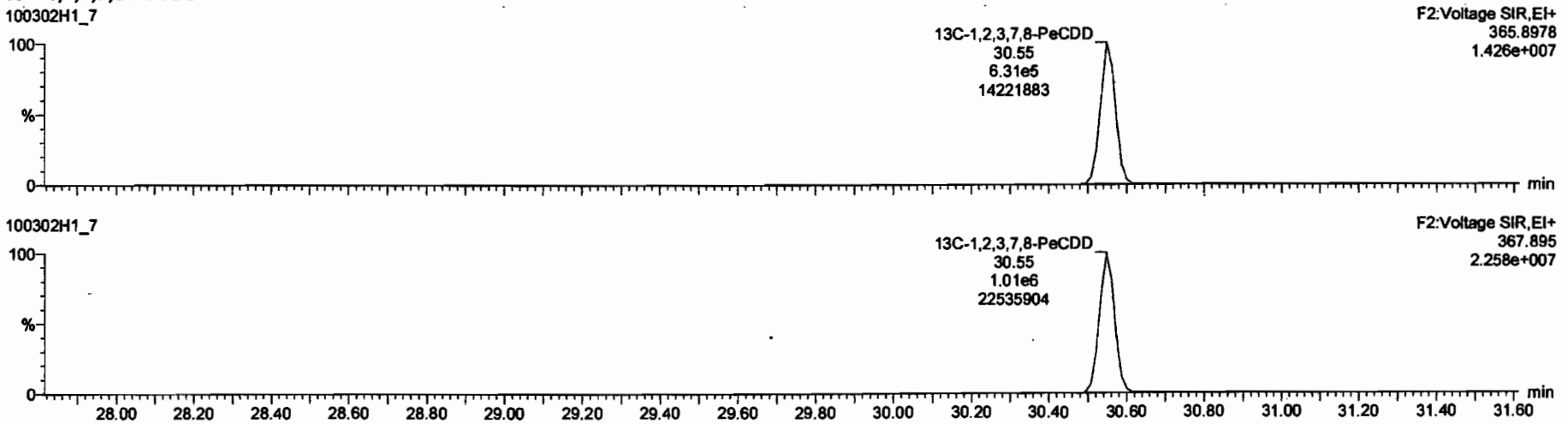

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1,2,3,4,7,8-HxCDD

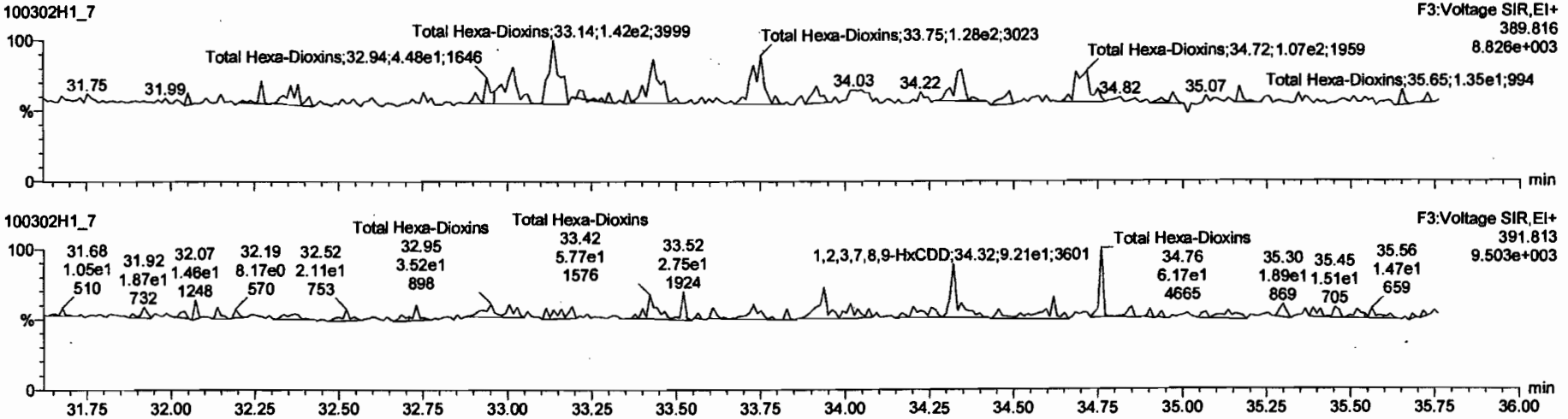

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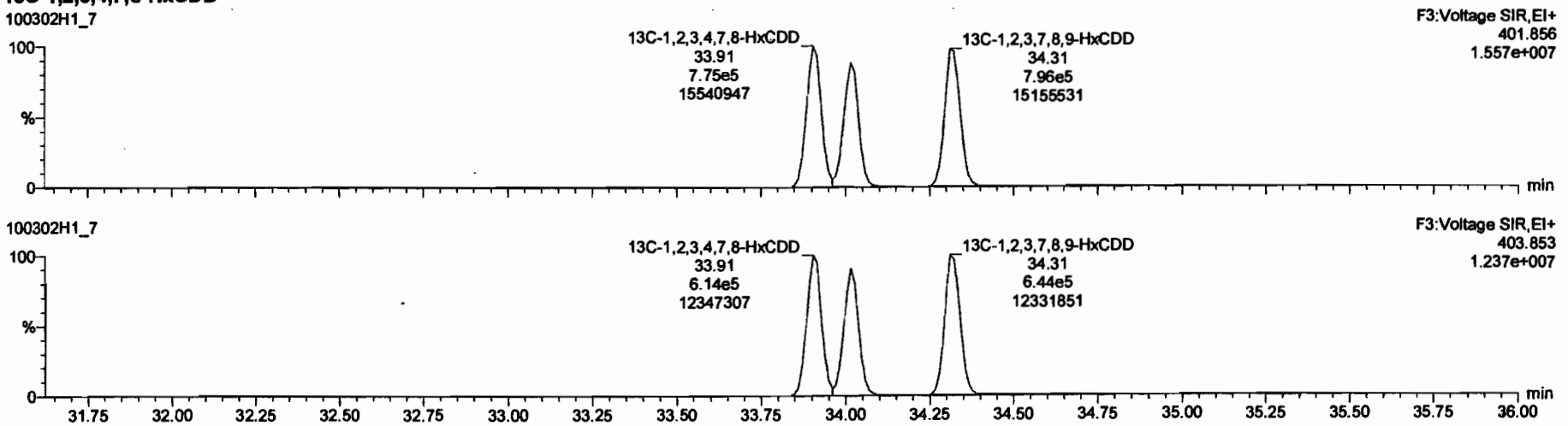

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1,2,3,4,6,7,8-HpCDD

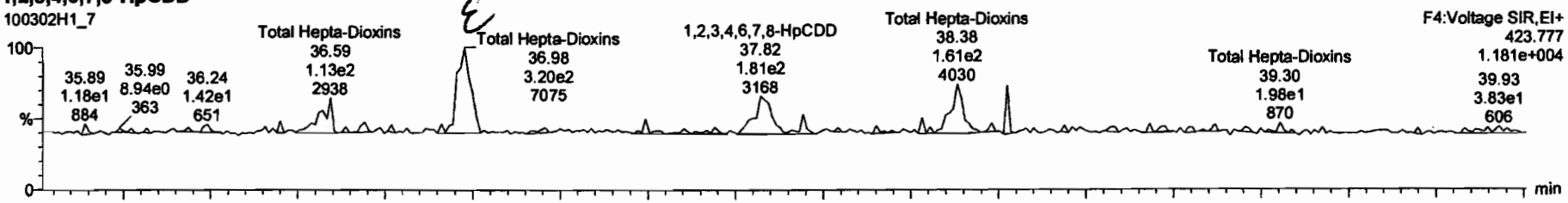

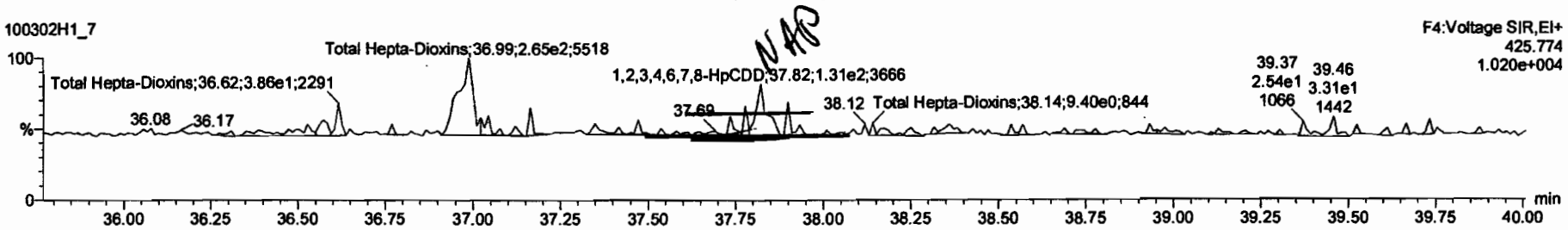

13C-1,2,3,4,6,7,8-HpCDD

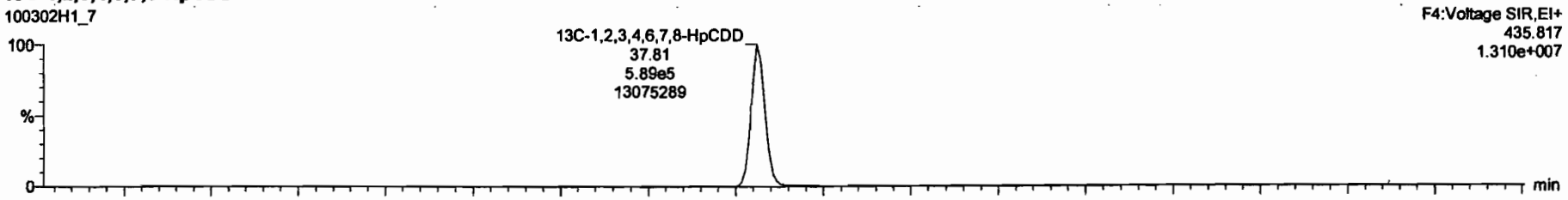

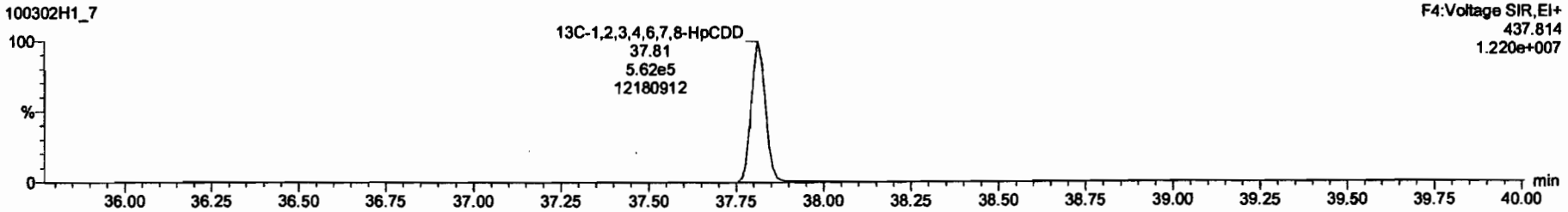

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OCDD

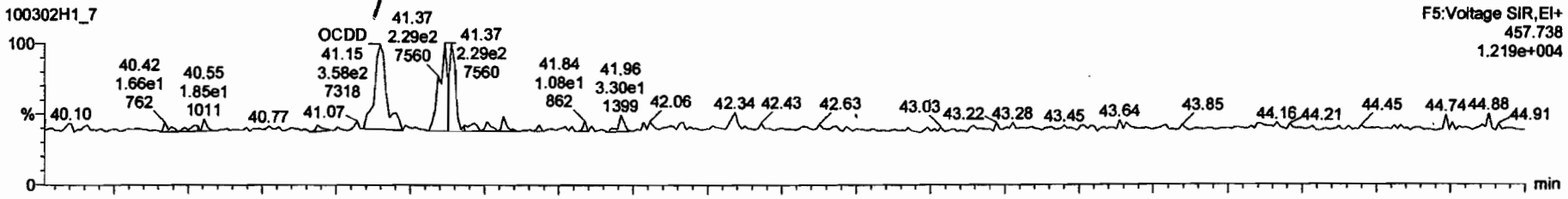

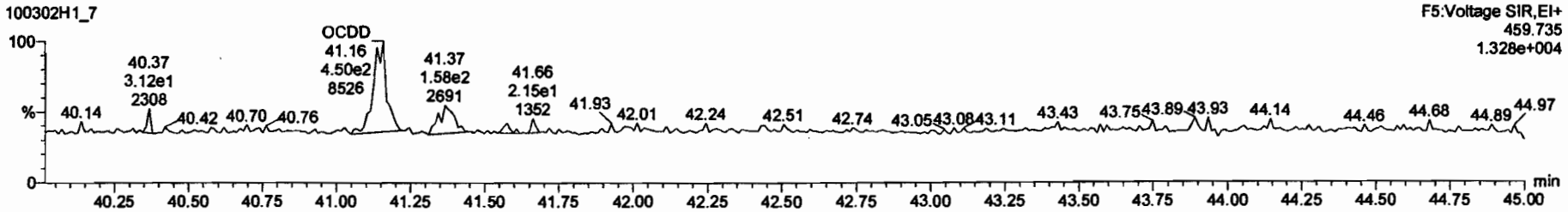

13C-OCDD

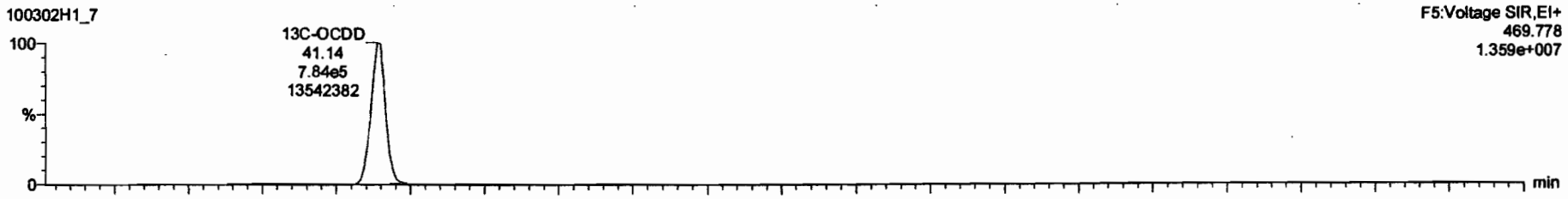

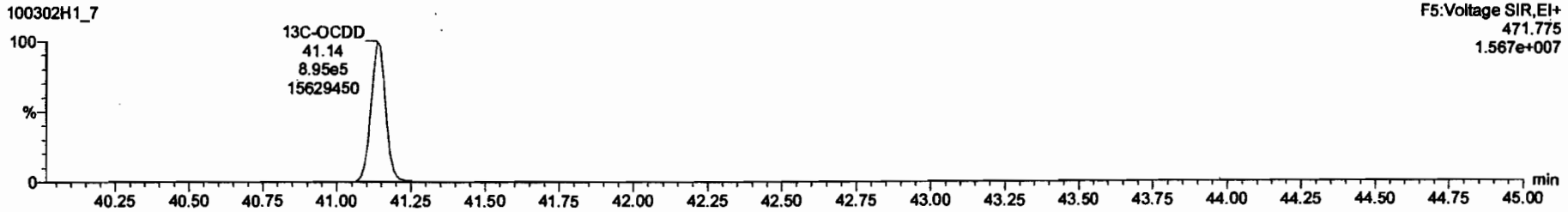

TargetLynx - 100302h1-7.qld * - [Chromatogram]

File Edit View Display Processing Window Help

100302H1_7 - 0_2836_MB001 - 0_2836_MB001

	Name		RA	QY	RW	Vol	RT	RRT	Conc		DL	
8	2,3,7,8-TCDF	9.10e1	0.47	YES	0.96	1.000	25.31	1.002	0.0605		0.173	0.0447
9	1,2,3,7,8-PeCDF	1.78e2	1.85	YES	0.94	1.000	29.42	1.002	0.168		0.230	0.150
10	2,3,4,7,8-PeCDF	1.97e2	1.32	NO	0.93	1.000	30.30	1.001	0.190		0.212	0.190
11	1,2,3,4,7,8-HxCDF	1.27e2	9.33	YES	1.22	1.000	33.02	1.000	0.128		0.185	0.0277

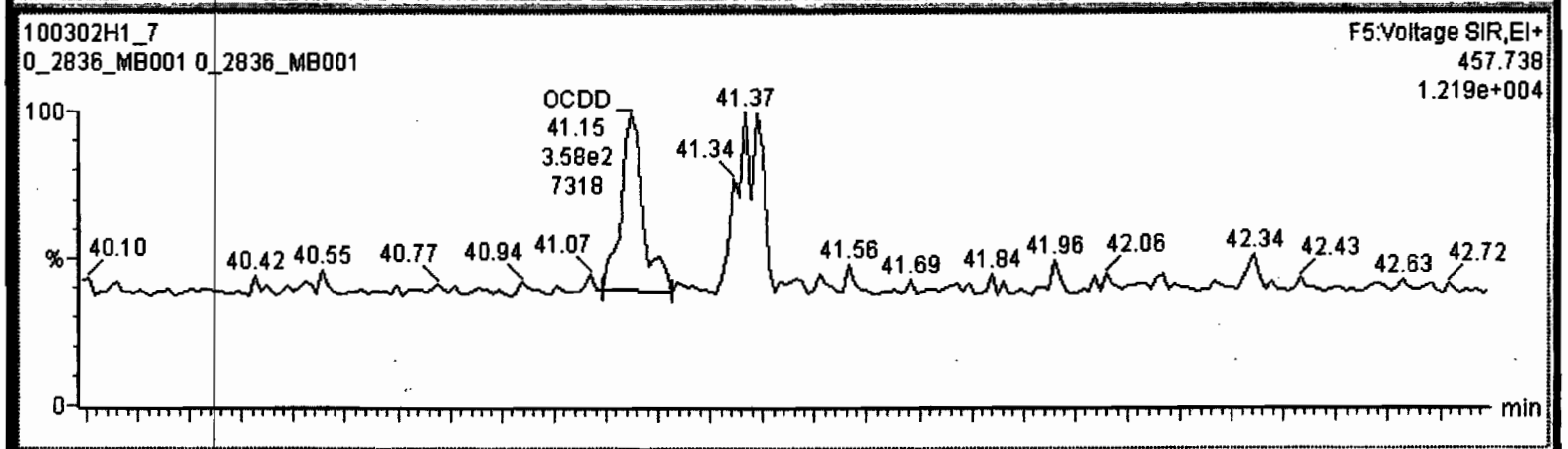

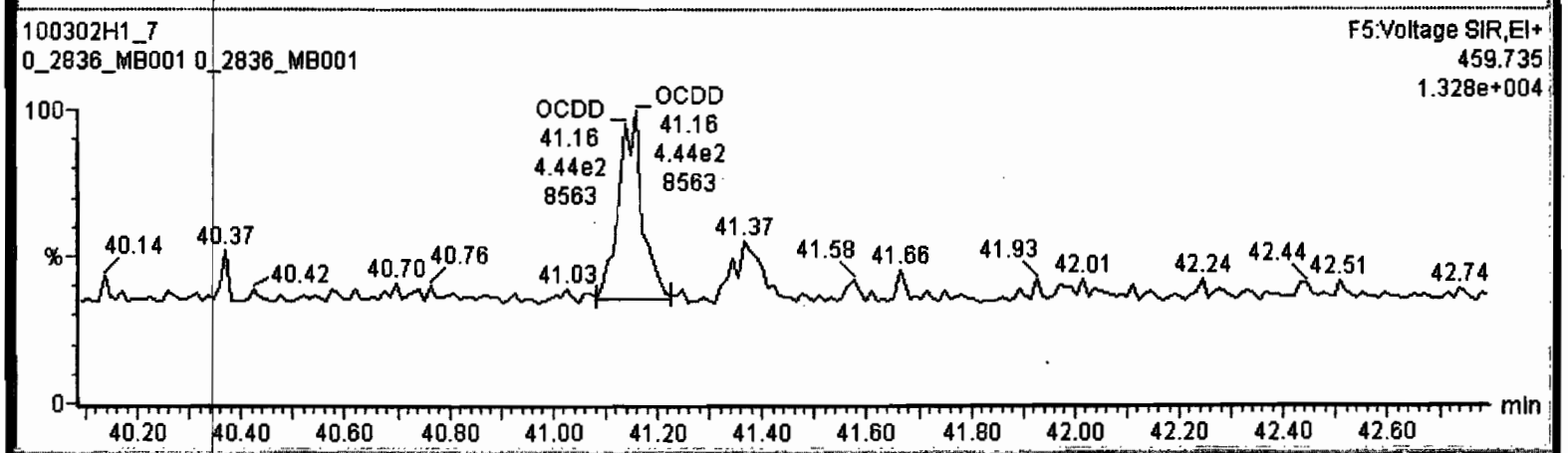

Ready

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

2,3,7,8-TCDF

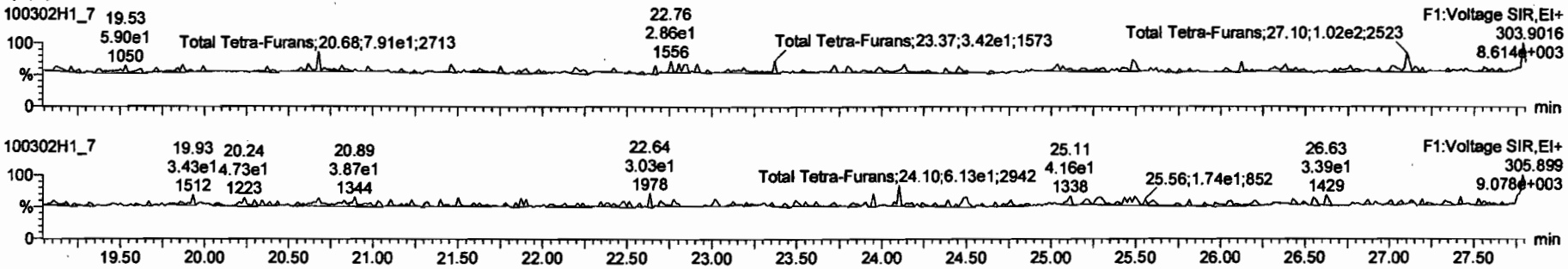

13C-2,3,7,8-TCDF

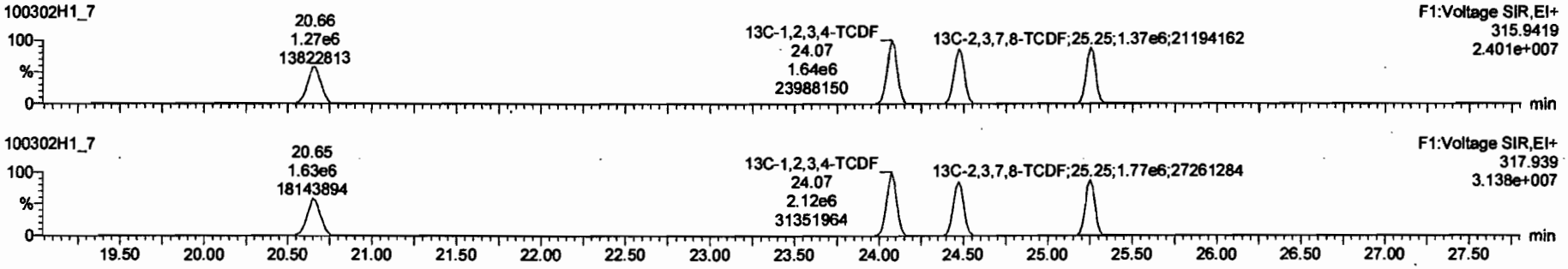

DPE1

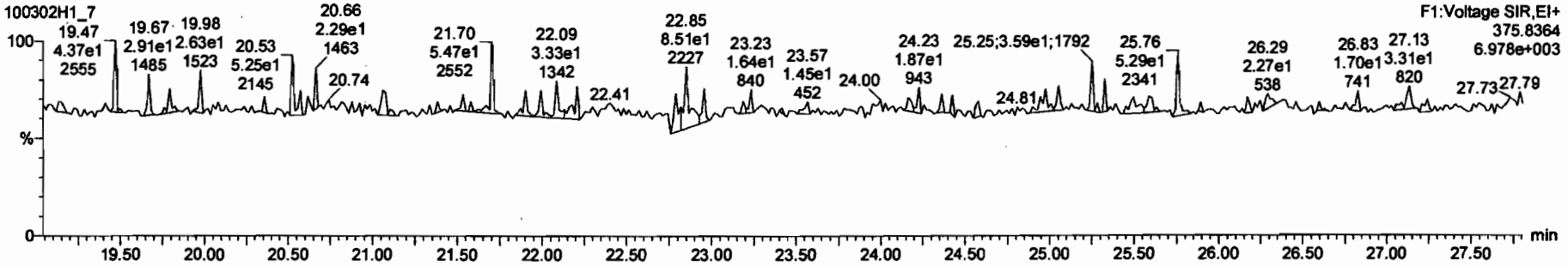

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

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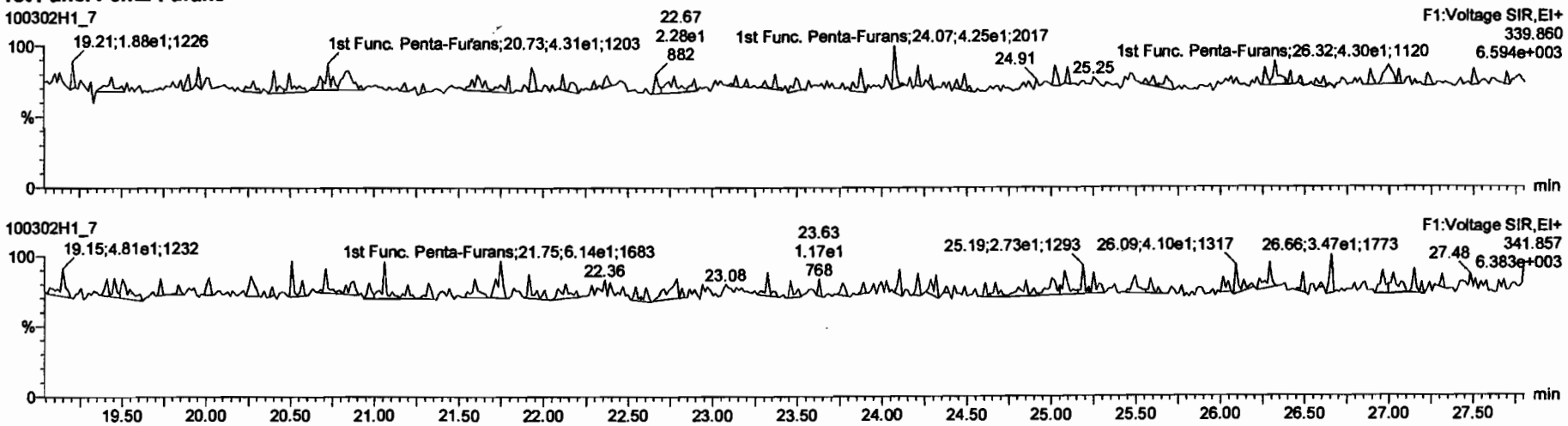

DPE6

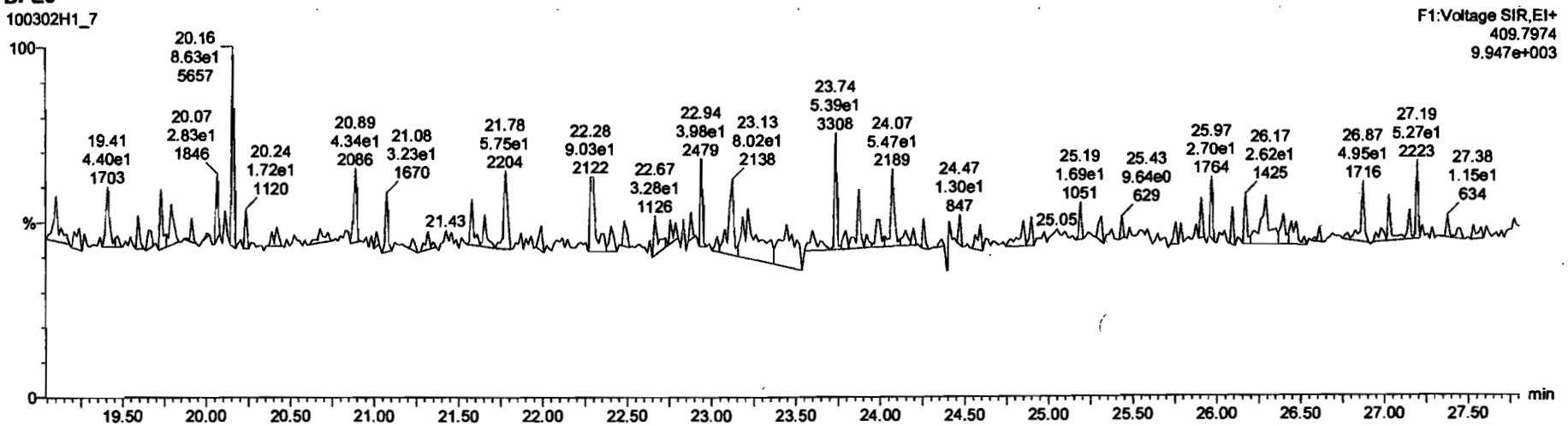

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

1,2,3,7,8-PeCDF

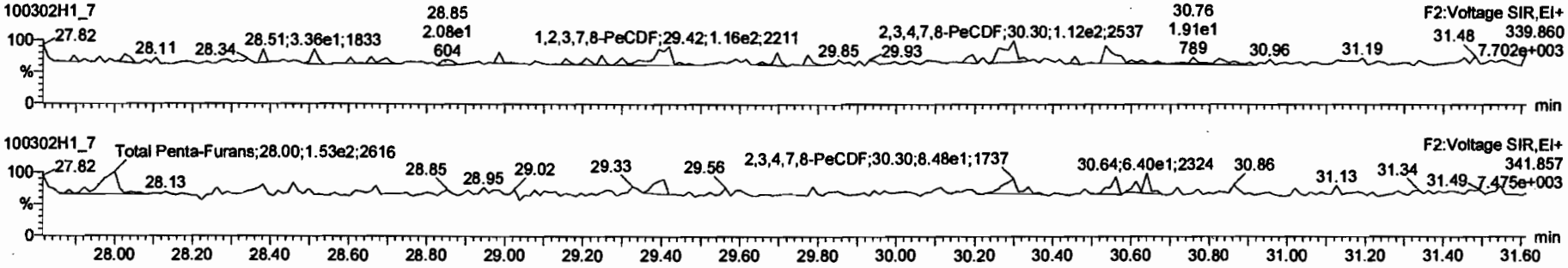

13C-1,2,3,7,8-PeCDF

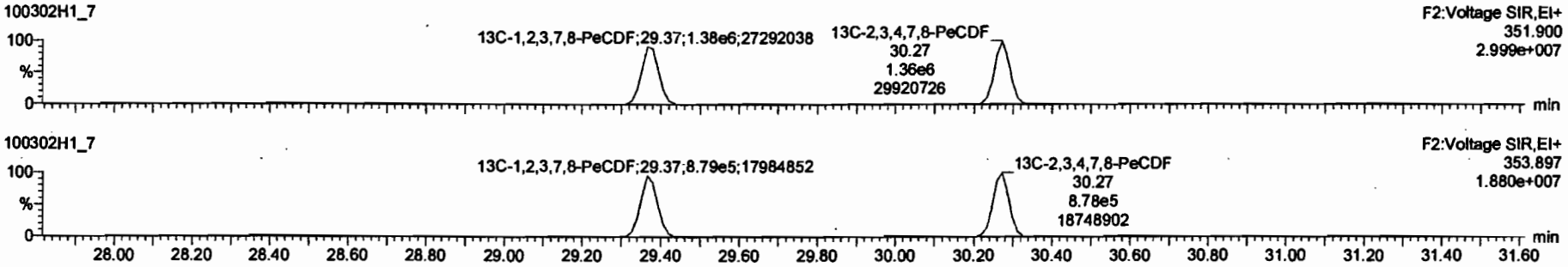

DPE2

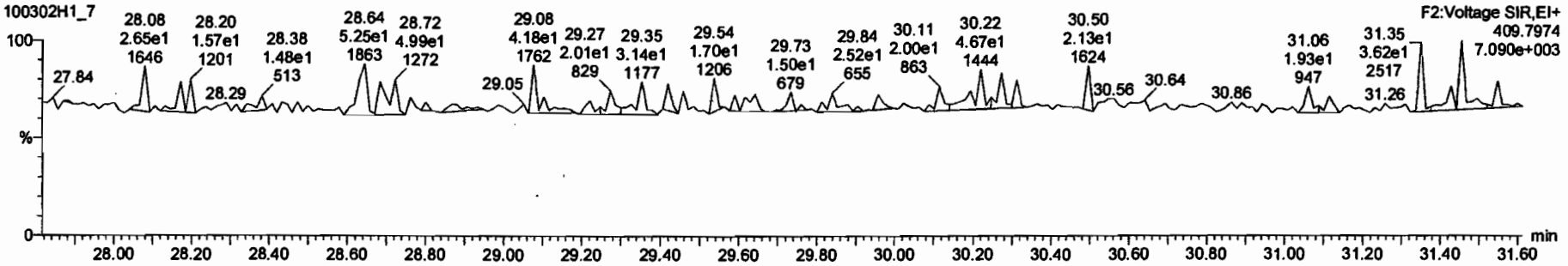

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

1,2,3,4,7,8-HxCDF

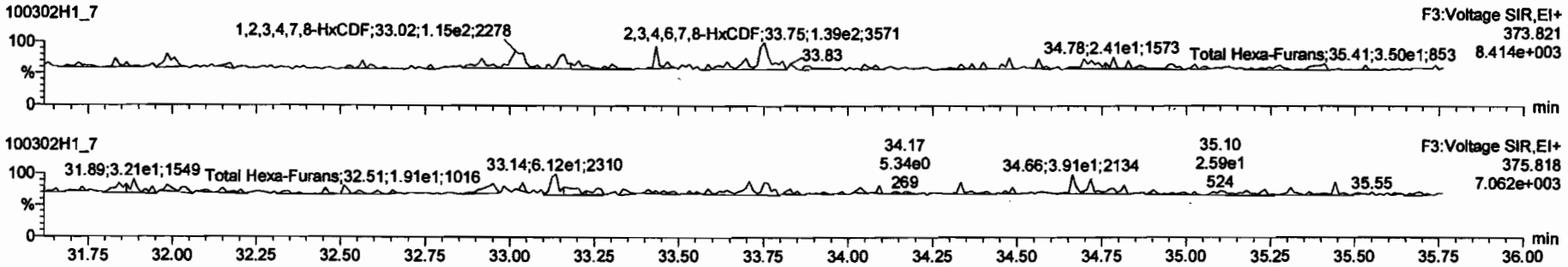

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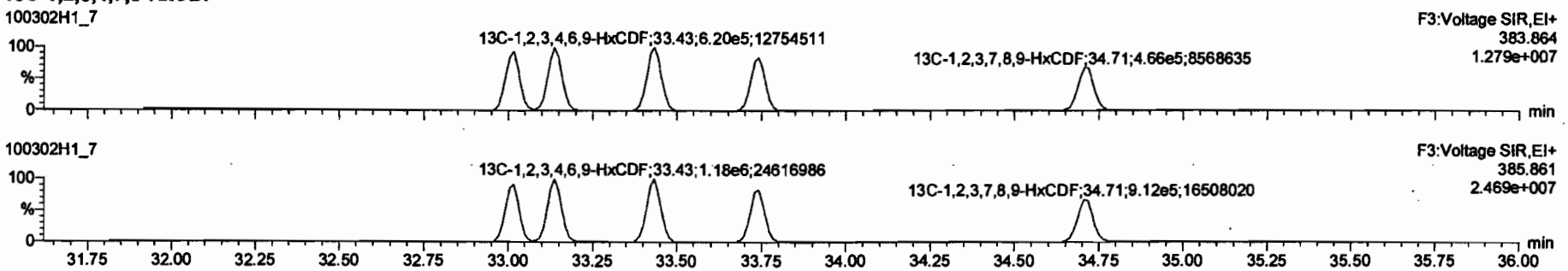

DPE3

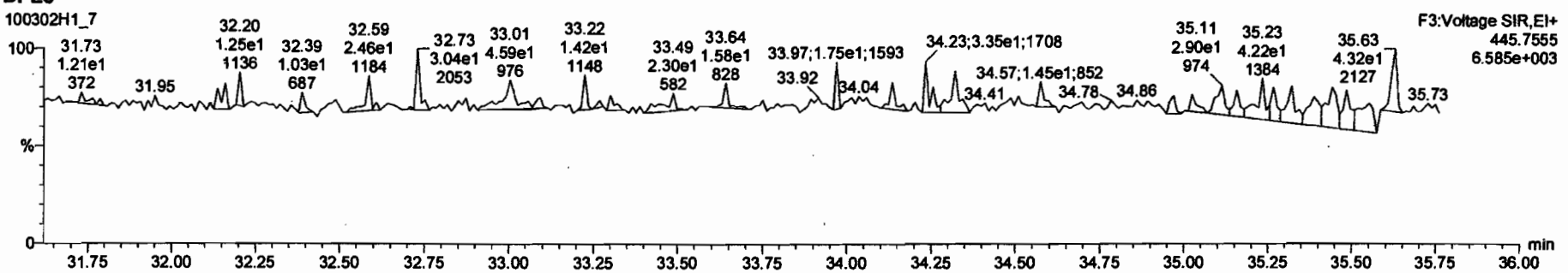

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

1,2,3,4,6,7,8-HpCDF

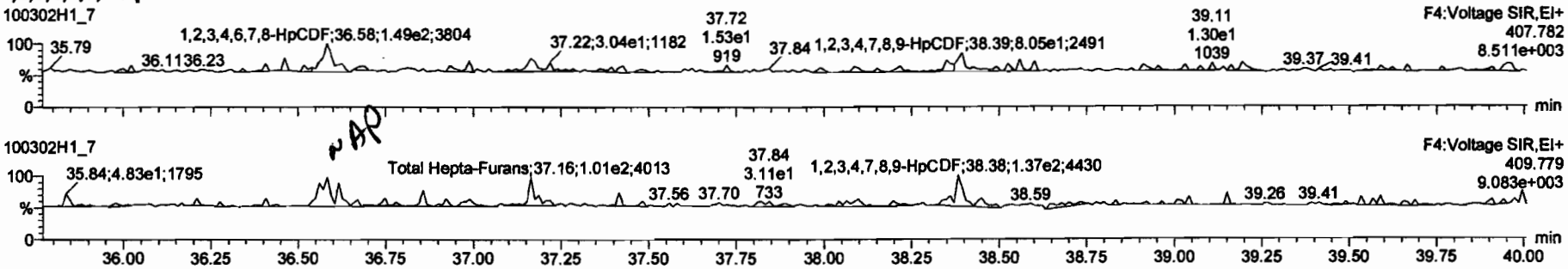

13C-1,2,3,4,6,7,8-HpCDF

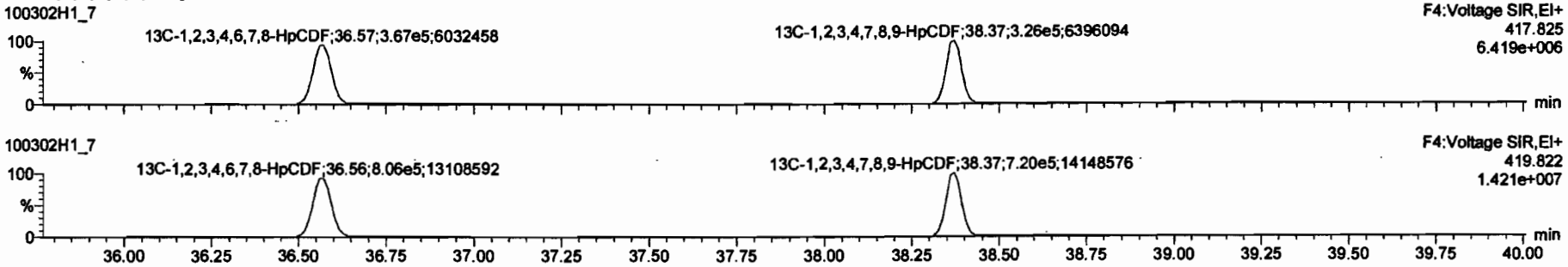

DPE4

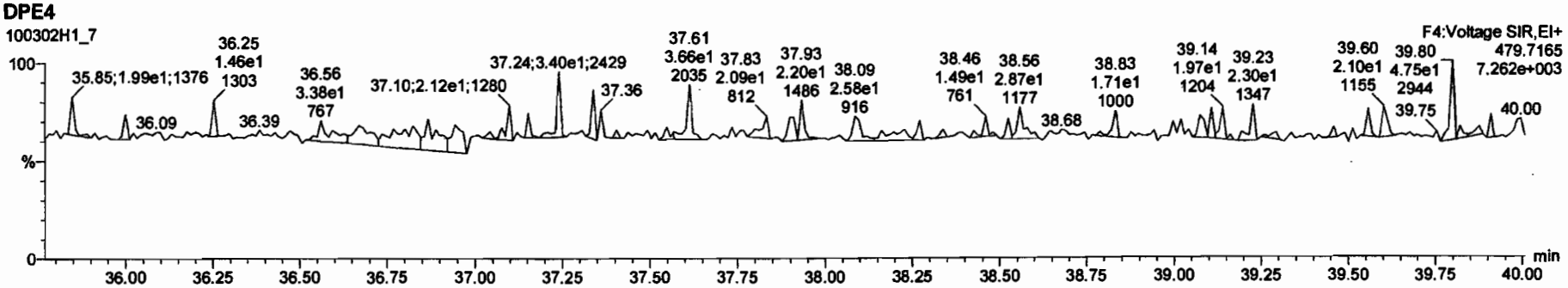

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

OCDF

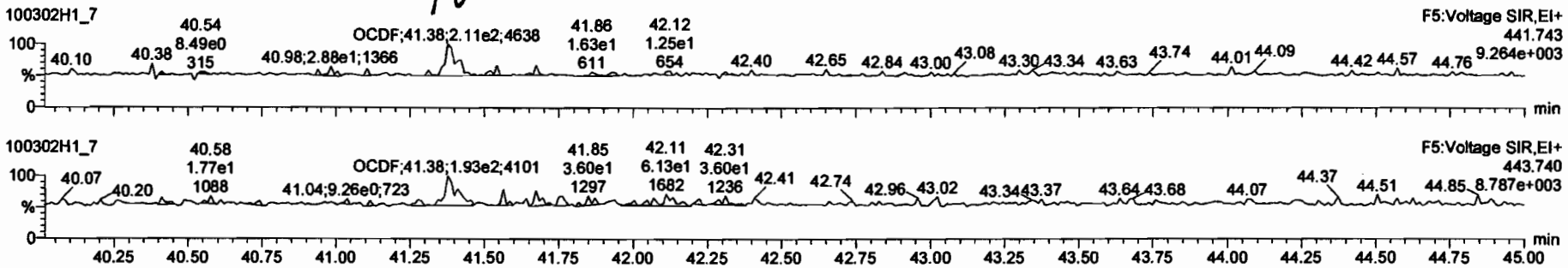

13C-OCDF

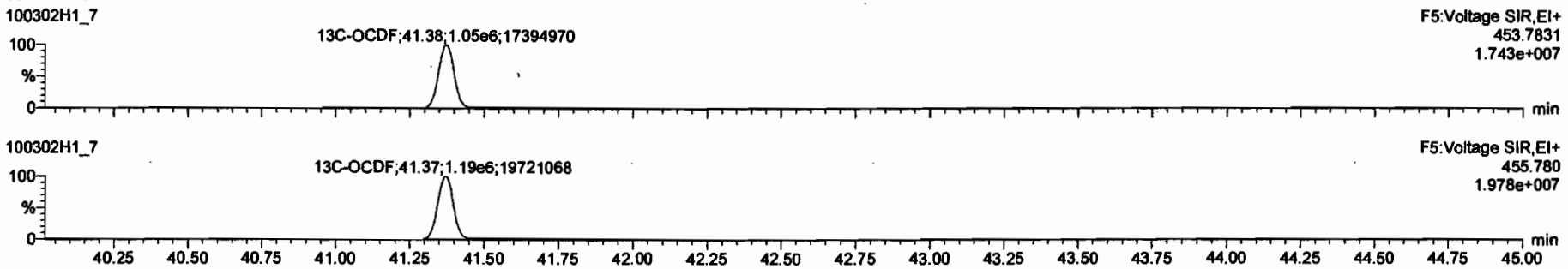

DPE5

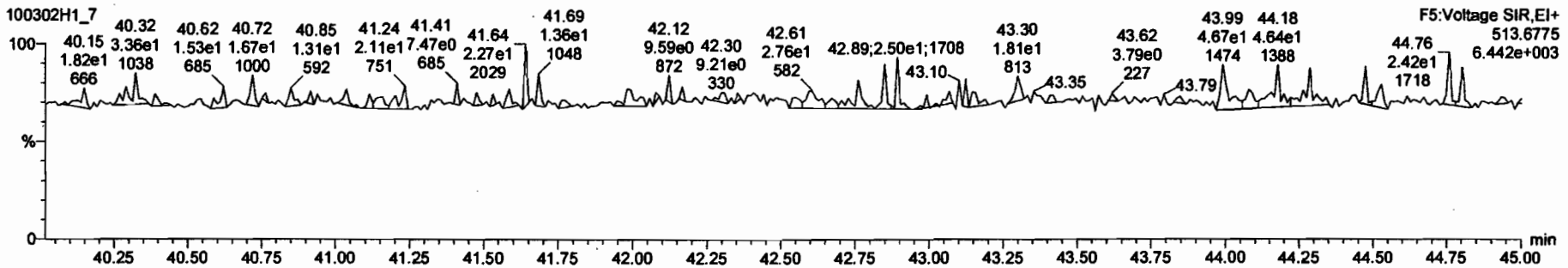

TargetLynx - 100302h1-7.qld * - [Chromatogram]

File Edit View Display Processing Window Help

100302H1_7 - 0_2836_MB001 - 0_2836_MB001

	Name	Resp	RA	Int	S/N	Width	RT	ERT	Conc	%Rec	DL	ENRC
18	13C-2,3,7,8-TCDD	2.14e6	0.78	NO	1.10	1.000	26.01	1.022	1570	78.5	0.909	
19	13C-1,2,3,7,8-PeCDD	1.64e6	0.62	NO	1.09	1.000	30.55	1.200	1210	60.6	0.943	
20	13C-1,2,3,4,7,8-HxCDD	1.39e6	1.26	NO	1.01	1.000	33.90	1.014	1530	76.3	1.49	
21	13C-1,2,3,6,7,8-HxCDD	1.25e6	1.23	NO	0.89	1.000	34.01	1.017	1560	77.8	1.70	

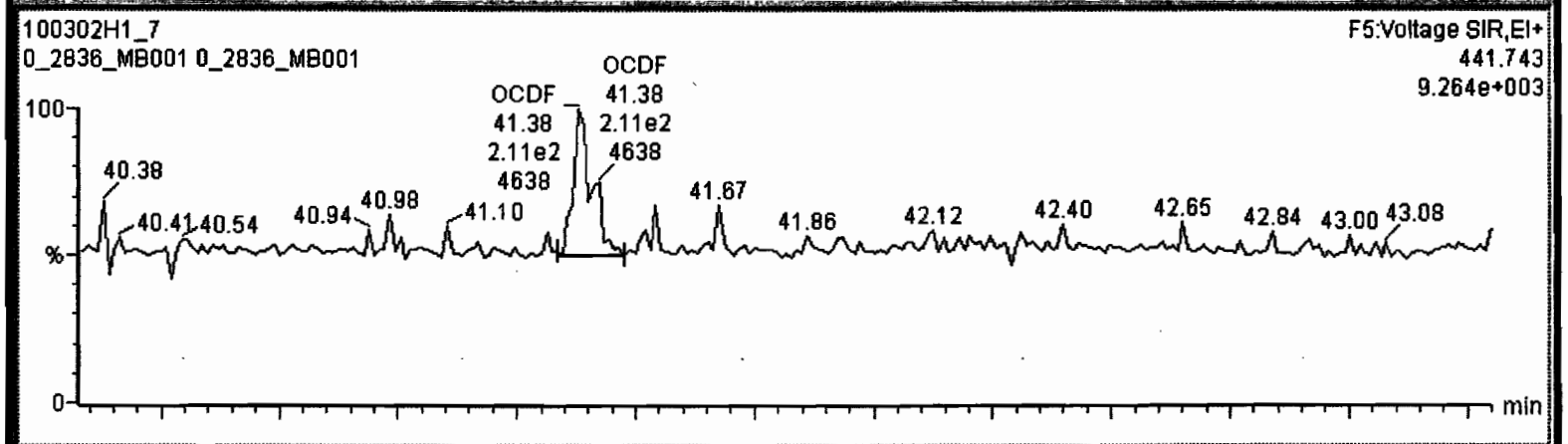

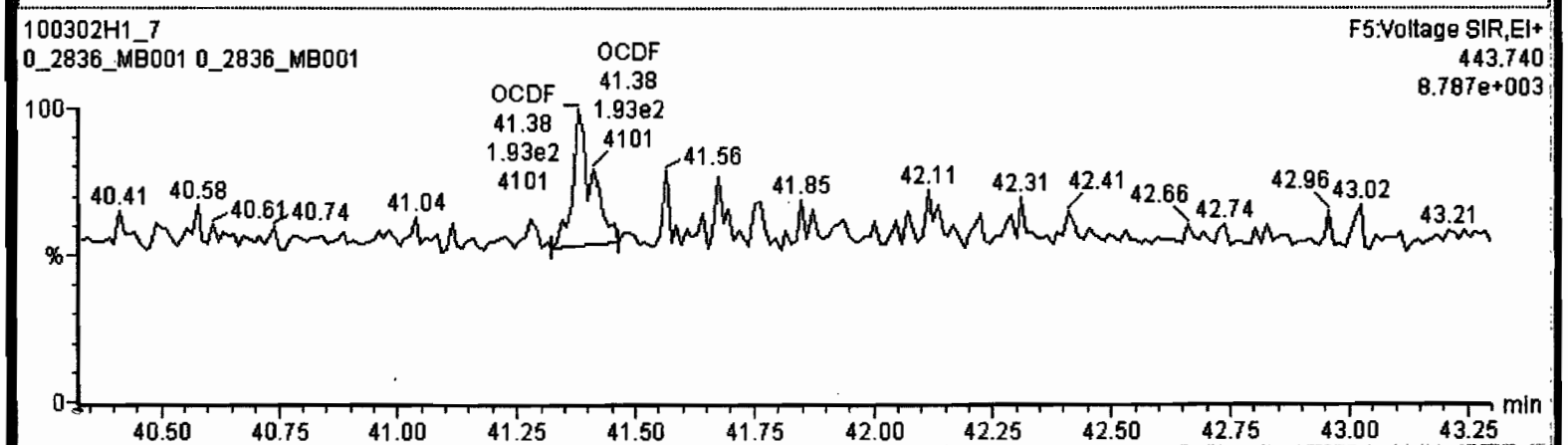

Ready 100302H1_7 NUM

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-7.qld

Last Altered: Wednesday, March 03, 2010 08:20:10 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:20:42 Pacific Standard Time

Name: 100302H1_7, Date: 02-Mar-2010, Time: 15:50:57, ID: 0_2836_MB001, Description: 0_2836_MB001

PFK1

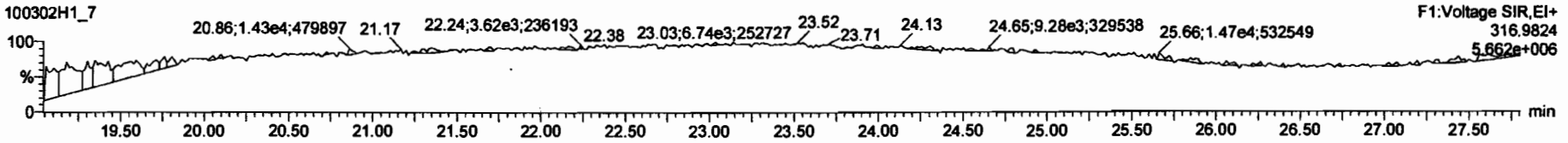

PFK2

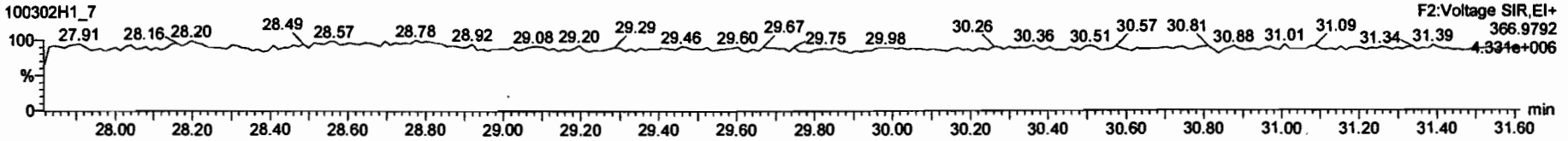

PFK3

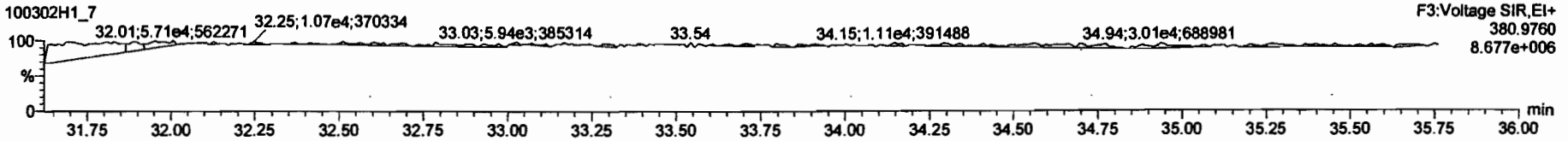

PFK4

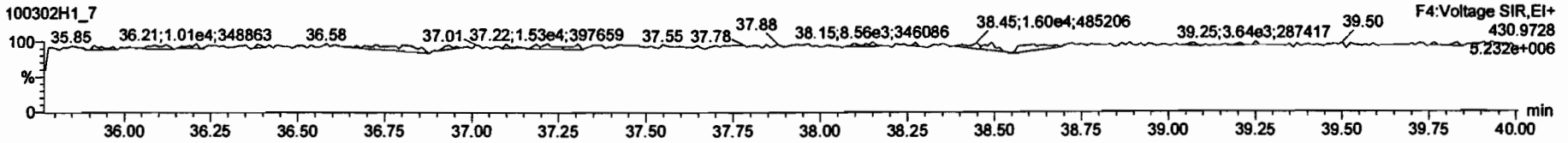

PFK5

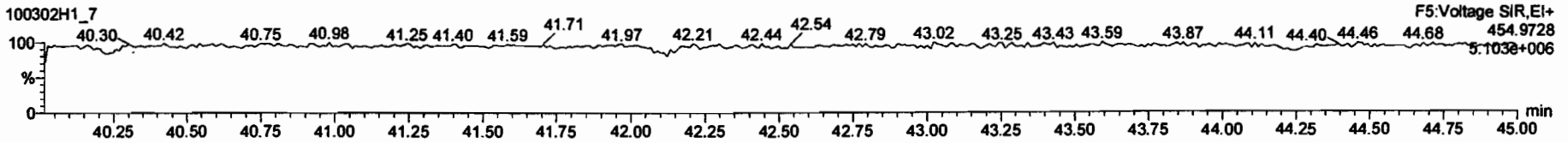

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-5.qld

Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:31:11 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

	Name	Area	RA	IM	RRF	MWt	RT	RRT	Conc	%Rec	DL	Conc
1	2,3,7,8-TCDD	1.97e5	0.75	NO	1.04	1.000	26.03	1.001	10.108	101	0.0147	10.108
2	1,2,3,7,8-PeCDD	6.67e5	0.61	NO	0.935	1.000	30.56	1.001	49.366	98.7	0.0321	49.366
3	1,2,3,4,7,8-HxCDD	5.60e5	1.26	NO	0.907	1.000	33.92	1.001	50.203	100	0.0512	50.203
4	1,2,3,6,7,8-HxCDD	5.36e5	1.23	NO	0.995	1.000	34.02	1.000	49.126	98.3	0.0522	49.126
5	1,2,3,7,8,9-HxCDD	5.94e5	1.24	NO	0.930	1.000	34.32	1.009	50.082	100	0.0511	50.082
6	1,2,3,4,6,7,8-HpCDD	4.95e5	1.05	NO	1.00	1.000	37.82	1.001	49.504	99.0	0.0777	49.504
7	OCDD	8.15e5	0.88	NO	1.10	1.000	41.15	1.001	97.511	97.5	0.0720	97.511
8	2,3,7,8-TCDF	2.75e5	0.77	NO	0.956	1.000	25.25	1.001	10.379	104	0.0115	10.379
9	1,2,3,7,8-PeCDF	9.59e5	1.59	NO	0.941	1.000	29.38	1.000	51.568	103	0.0358	51.568
10	2,3,4,7,8-PeCDF	9.37e5	1.58	NO	0.926	1.000	30.27	1.000	51.211	102	0.0335	51.211
11	1,2,3,4,7,8-HxCDF	9.40e5	1.26	NO	1.22	1.000	33.02	1.001	51.759	104	0.0597	51.759
12	1,2,3,6,7,8-HxCDF	8.73e5	1.26	NO	1.08	1.000	33.14	1.000	50.921	102	0.0608	50.921
13	2,3,4,6,7,8-HxCDF	8.00e5	1.26	NO	1.13	1.000	33.74	1.000	51.615	103	0.0692	51.615
14	1,2,3,7,8,9-HxCDF	7.36e5	1.28	NO	1.13	1.000	34.72	1.001	51.959	104	0.0859	51.959
15	1,2,3,4,6,7,8-HpCDF	7.22e5	1.07	NO	1.44	1.000	36.57	1.000	50.576	101	0.102	50.576
16	1,2,3,4,7,8,9-HpCDF	6.69e5	1.06	NO	1.38	1.000	38.37	1.000	51.164	102	0.0885	51.164
17	OCDF	1.02e6	0.91	NO	1.01	1.000	41.38	1.000	99.296	99.3	0.0381	99.296
18	13C-2,3,7,8-TCDD	1.88e6	0.78	NO	1.10	1.000	26.02	1.022	72.018	72.0	0.0516	
19	13C-1,2,3,7,8-PeCDD	1.44e6	0.63	NO	1.09	1.000	30.54	1.200	55.613	55.6	0.0346	
20	13C-1,2,3,4,7,8-HxCDD	1.23e6	1.27	NO	1.01	1.000	33.89	1.014	71.441	71.4	0.0803	
21	13C-1,2,3,6,7,8-HxCDD	1.10e6	1.25	NO	0.889	1.000	34.00	1.017	72.328	72.3	0.0912	
22	13C-1,2,3,7,8,9-HxCDD	1.28e6	1.25	NO	1.07	1.000	34.31	1.027	69.806	69.8	0.0756	
23	13C-1,2,3,4,6,7,8-HpCDD	9.98e5	1.05	NO	0.837	1.000	37.80	1.131	70.027	70.0	0.140	
24	13C-OCDD	1.51e6	0.91	NO	0.712	1.000	41.13	1.230	124.96	62.5	0.0644	
25	13C-2,3,7,8-TCDF	2.77e6	0.79	NO	1.05	1.000	25.24	0.992	73.328	73.3	0.0493	
26	13C-1,2,3,7,8-PeCDF	1.98e6	1.56	NO	1.02	1.000	29.37	1.154	54.004	54.0	0.0621	
27	13C-2,3,4,7,8-PeCDF	1.98e6	1.55	NO	1.08	1.000	30.26	1.189	51.127	51.1	0.0588	
28	13C-1,2,3,4,7,8-HxCDF	1.48e6	0.52	NO	1.37	1.000	32.99	0.987	63.828	63.8	0.0820	
29	13C-1,2,3,6,7,8-HxCDF	1.59e6	0.52	NO	1.37	1.000	33.13	0.991	68.359	68.4	0.0820	
30	13C-2,3,4,6,7,8-HxCDF	1.38e6	0.52	NO	1.18	1.000	33.73	1.009	68.435	68.4	0.0948	

3/2/10

3/5/10

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-5.qld

Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:31:11 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

31	13C-1,2,3,7,8,9-HxCDF	1.26e6	0.53	NO	1.05	1.000	34.70	1.038	70.211	70.2	0.107
32	13C-1,2,3,4,6,7,8-HpCDF	9.92e5	0.45	NO	0.858	1.000	36.56	1.094	67.939	67.9	0.127
33	13C-1,2,3,4,7,8,9-HpCDF	9.48e5	0.45	NO	0.794	1.000	38.36	1.148	70.159	70.2	0.137
34	13C-OCDF	2.03e6	0.88	NO	0.948	1.000	41.37	1.238	125.75	62.9	0.0565
35	37Cl-2,3,7,8-TCDD	5.34e5			0.665	1.000	26.03	1.023	33.854	84.6	0.0198
36	13C-1,2,3,4-TCDD	2.37e6	0.81	NO	1.00	1.000	25.45	0.000	100.00	100	0.0567
37	13C-1,2,3,4-TCDF	3.59e6	0.78	NO	1.00	1.000	24.06	0.000	100.00	100	0.0519
38	13C-1,2,3,4,6,9-HxCDF	1.70e6	0.52	NO	1.00	1.000	33.42	0.000	100.00	100	0.112

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-5.qld

Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

2,3,7,8-TCDD

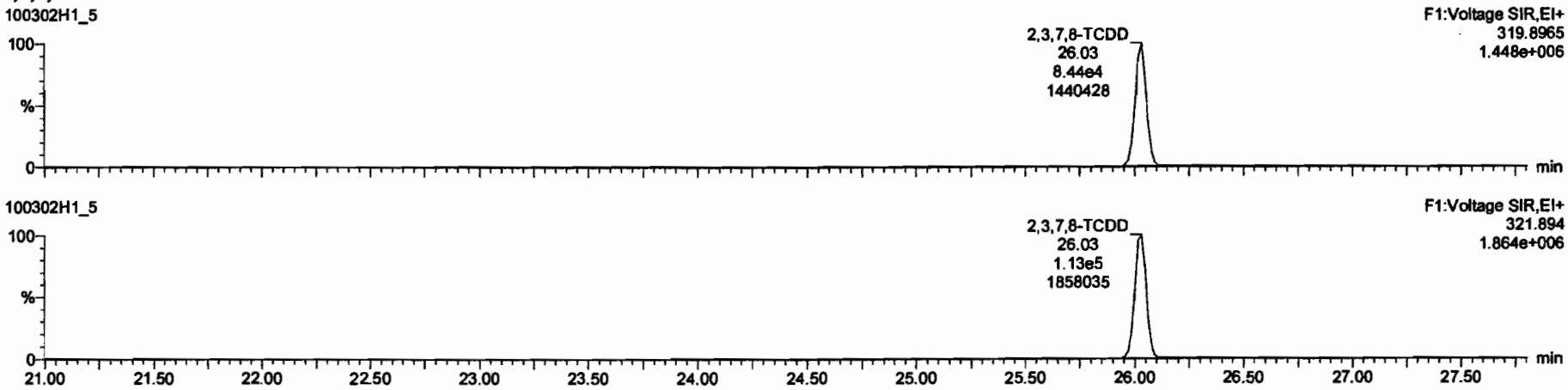

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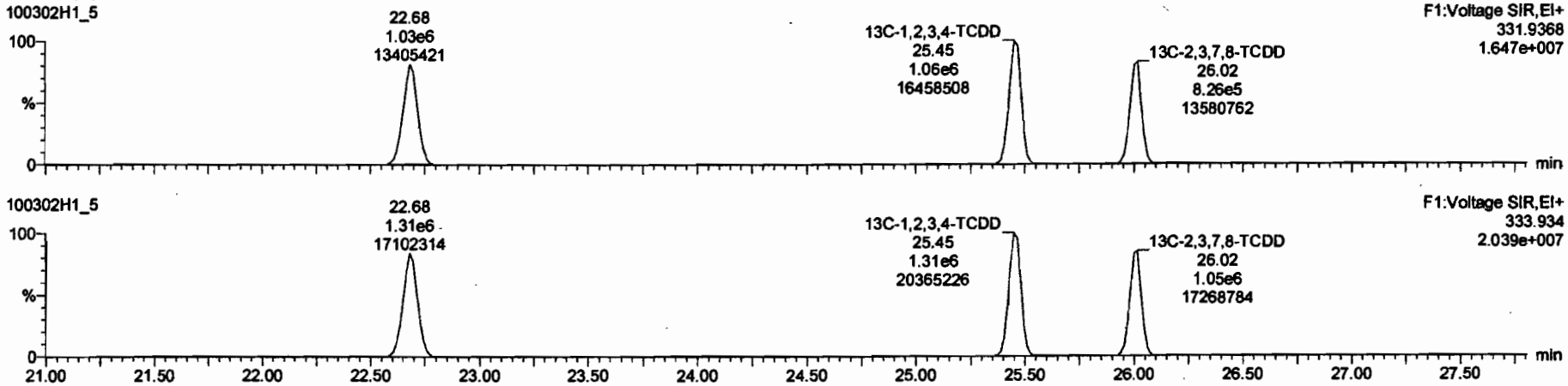

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-5.qld

Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

37Cl-2,3,7,8-TCDD

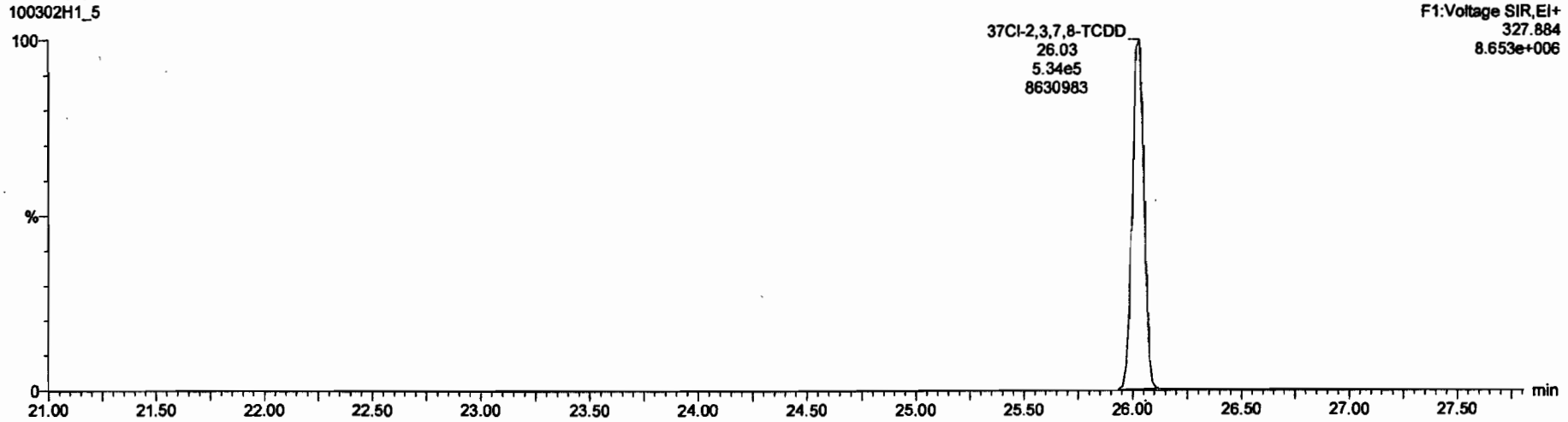

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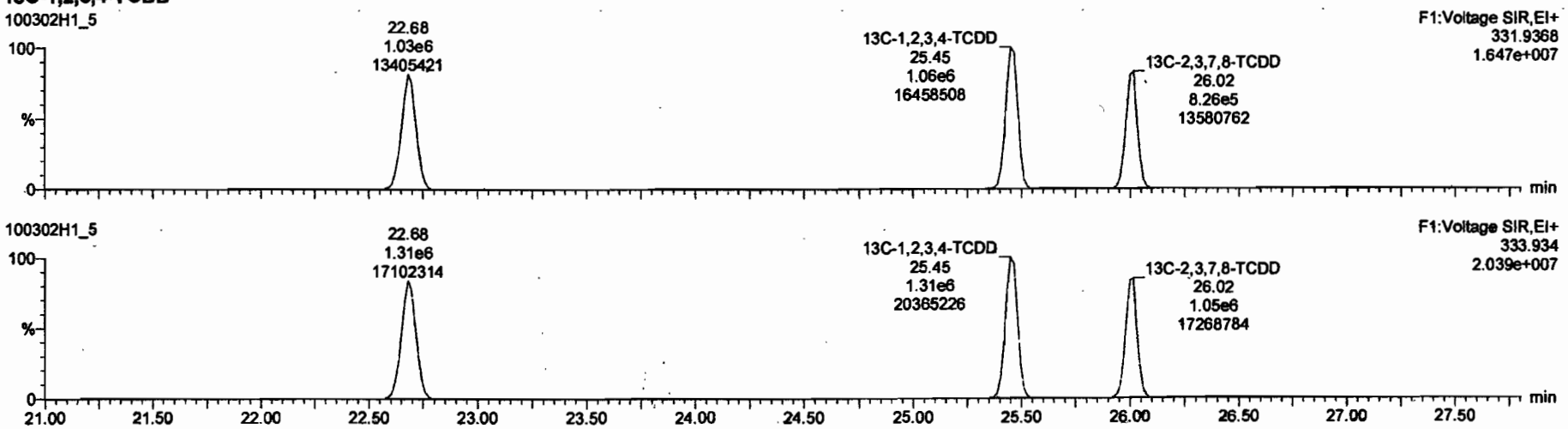

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Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

1,2,3,7,8-PeCDD

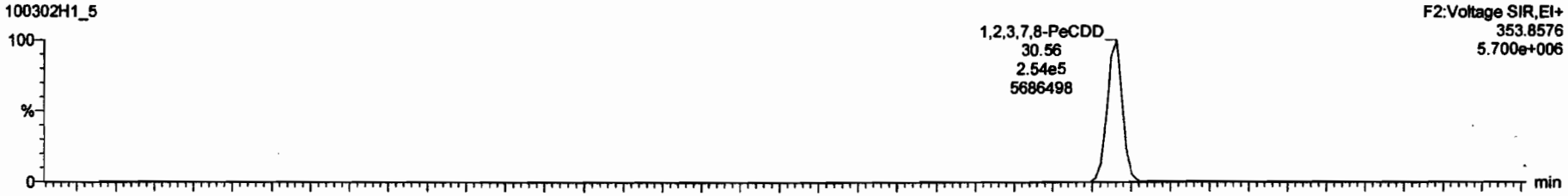

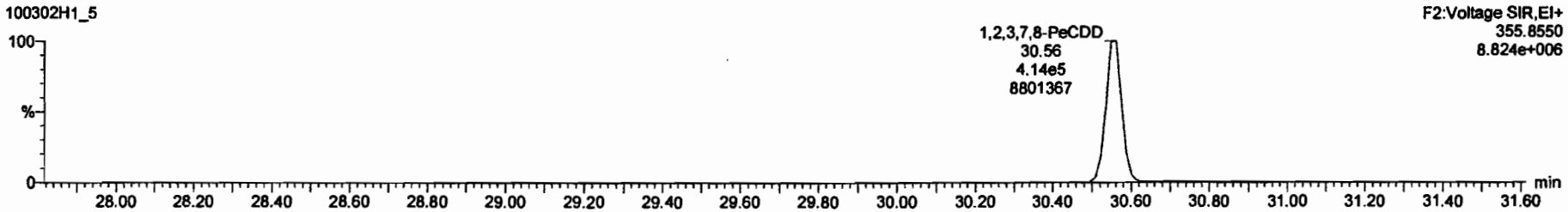

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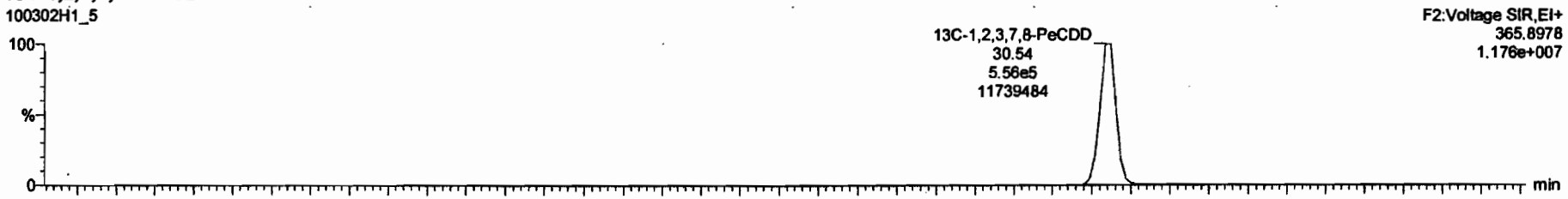

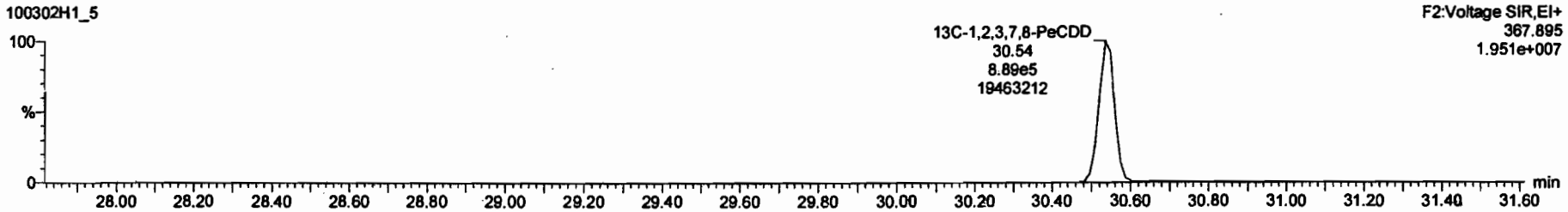

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Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

1,2,3,4,7,8-HxCDD

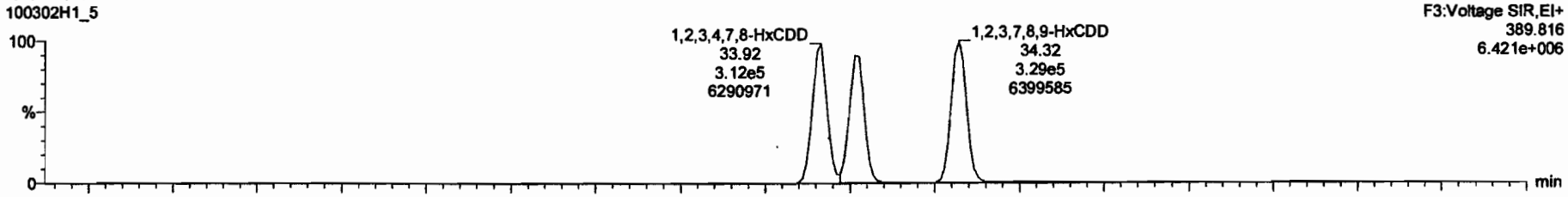

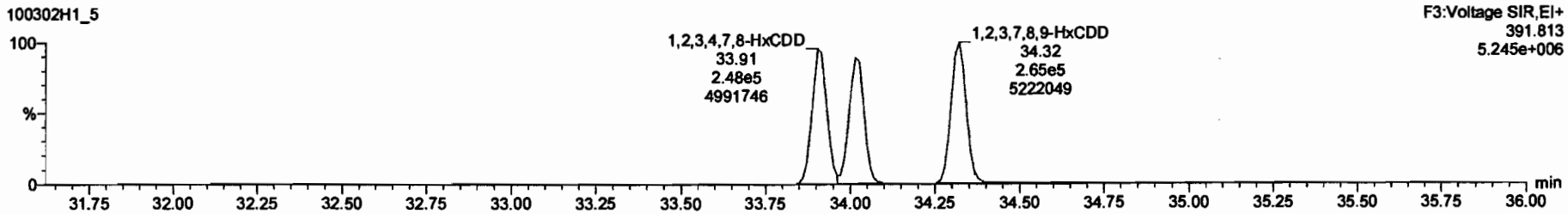

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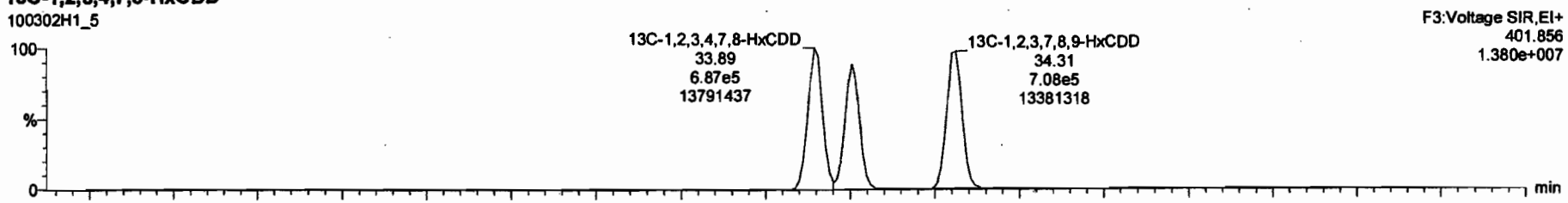

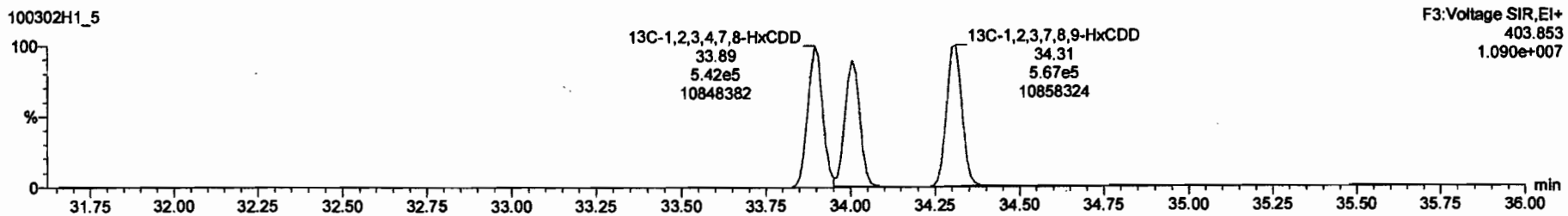

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Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

1,2,3,4,6,7,8-HpCDD

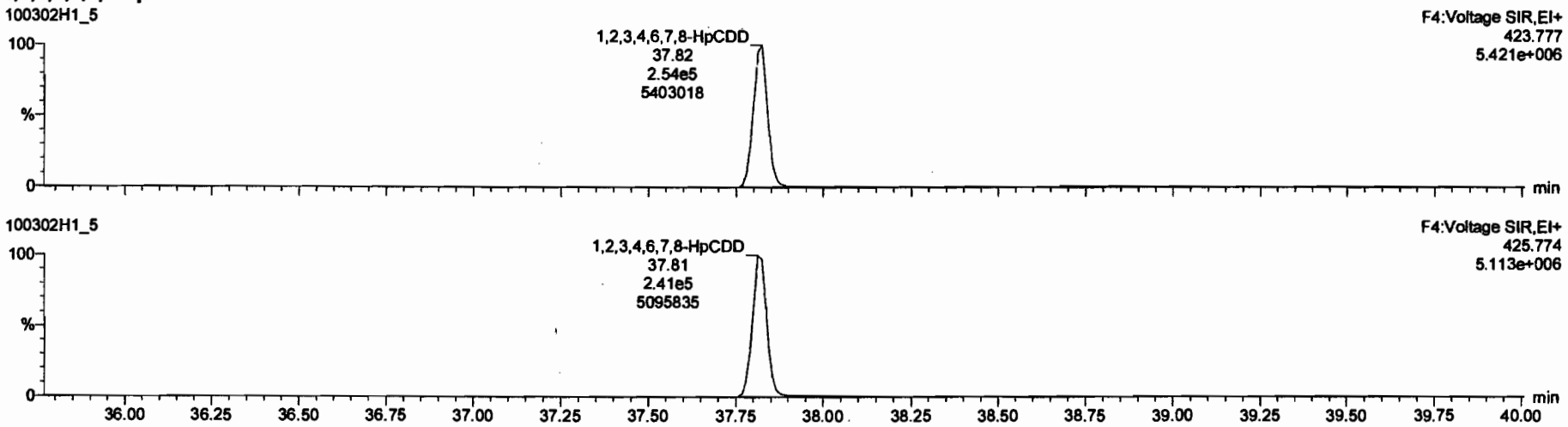

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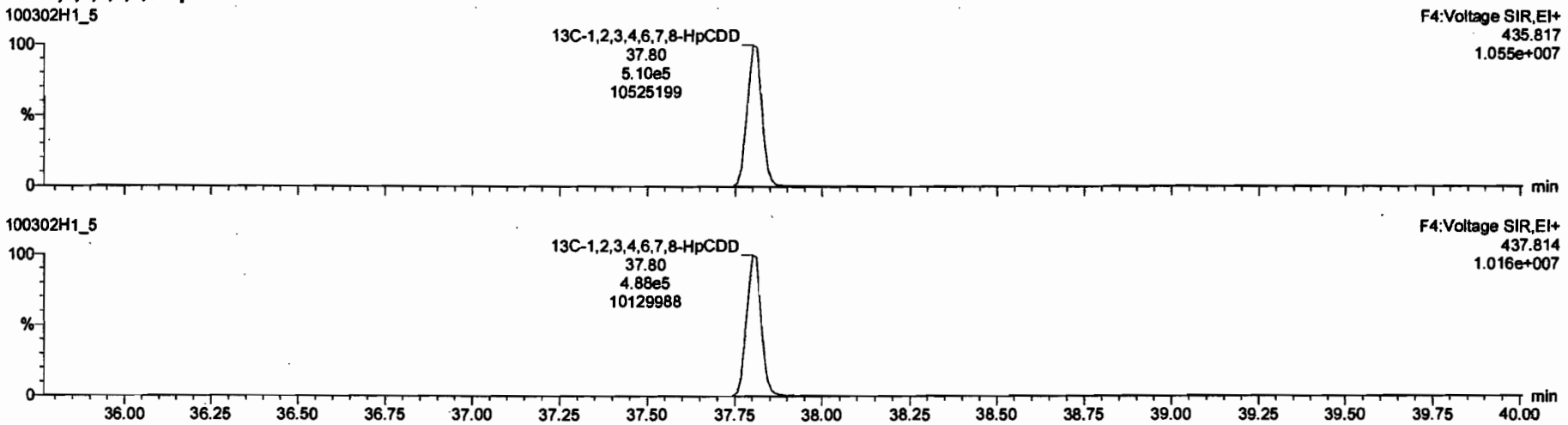

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Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

OCDD

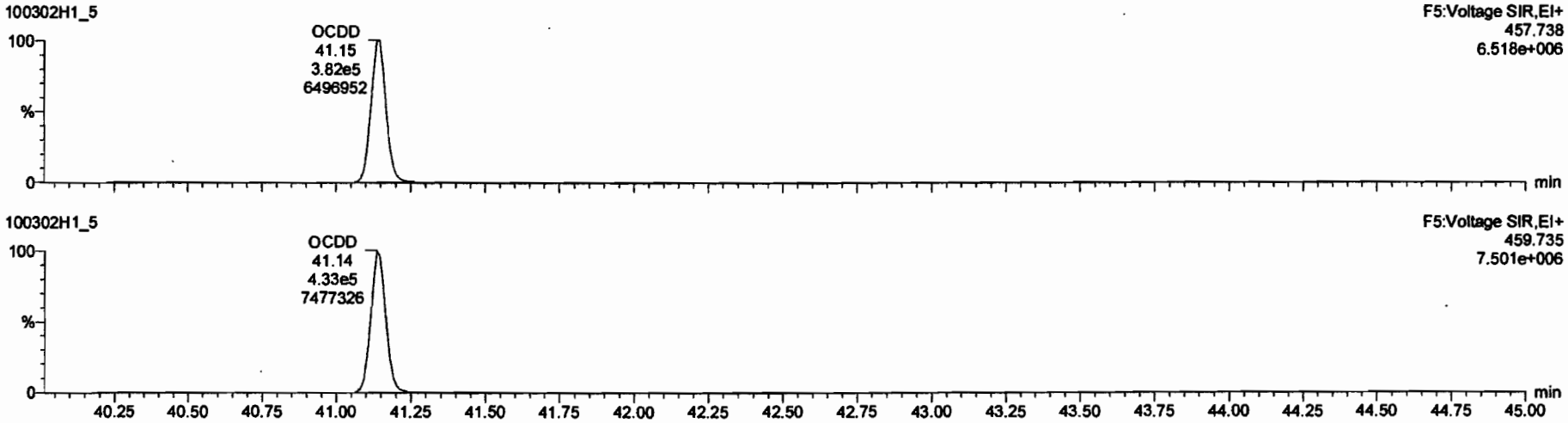

13C-OCDD

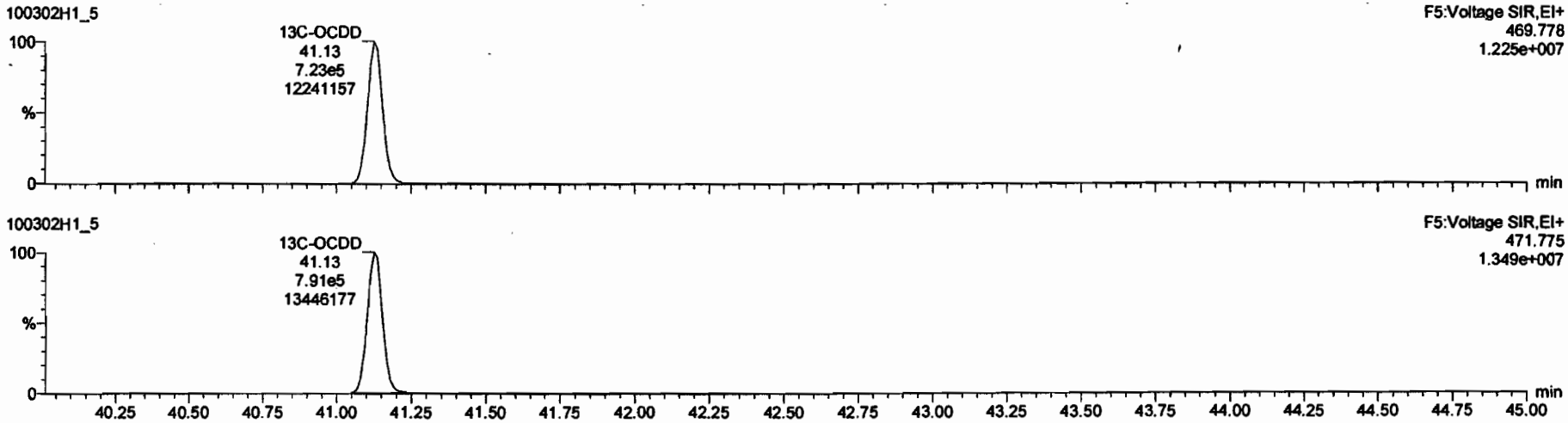

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Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

2,3,7,8-TCDF

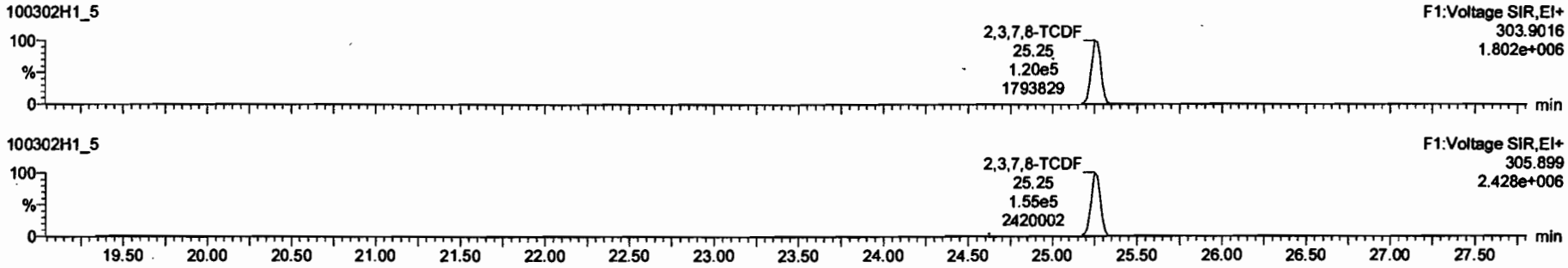

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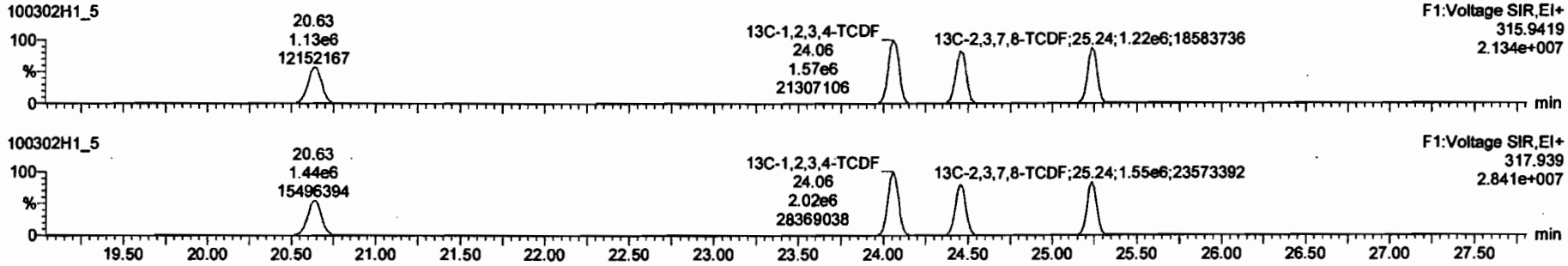

DPE1

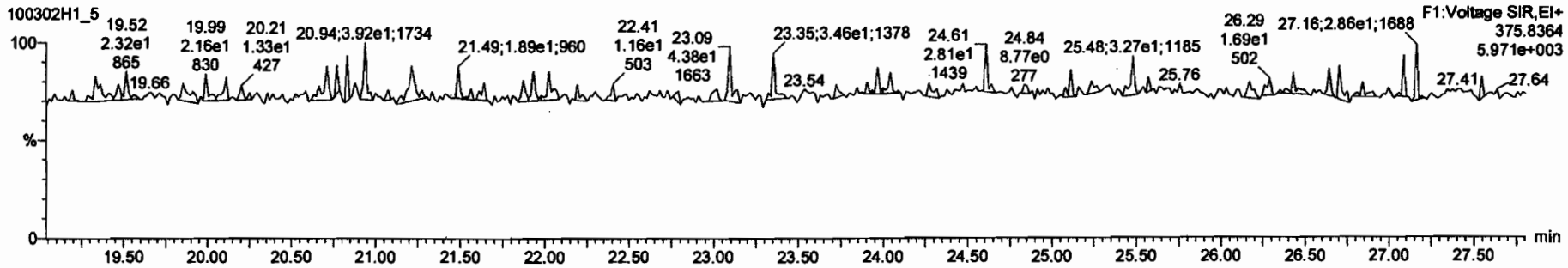

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Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

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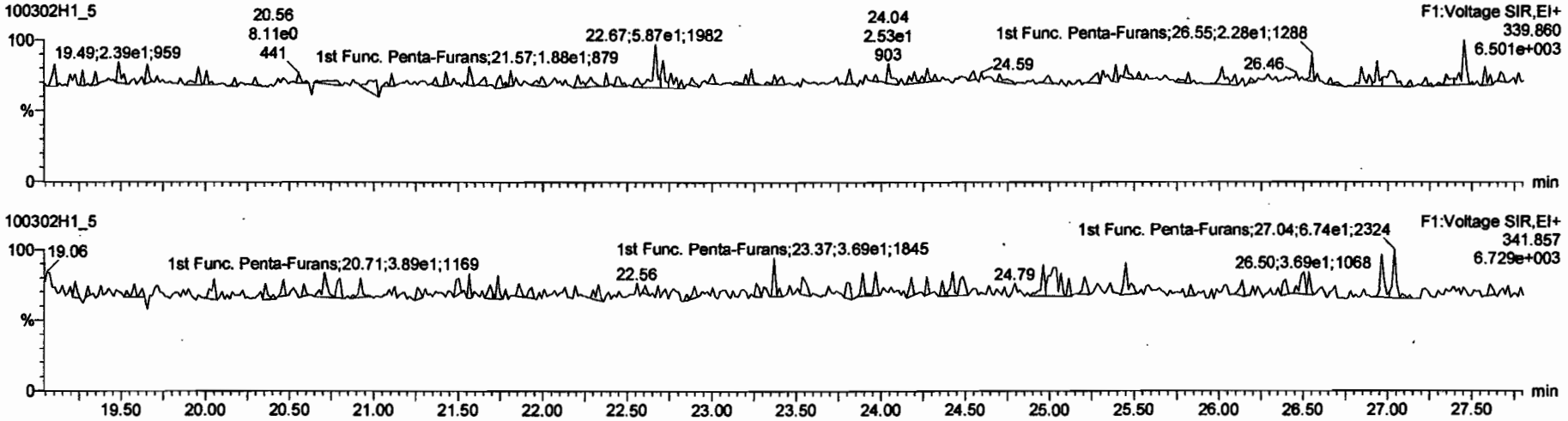

DPE6

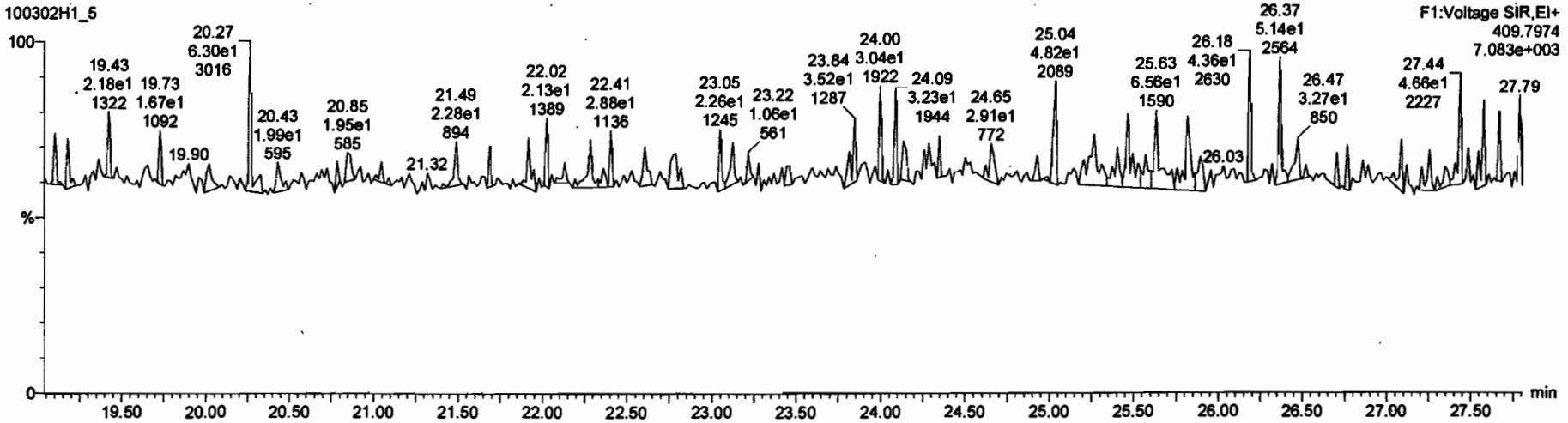

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-5.qld

Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
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Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

1,2,3,7,8-PeCDF

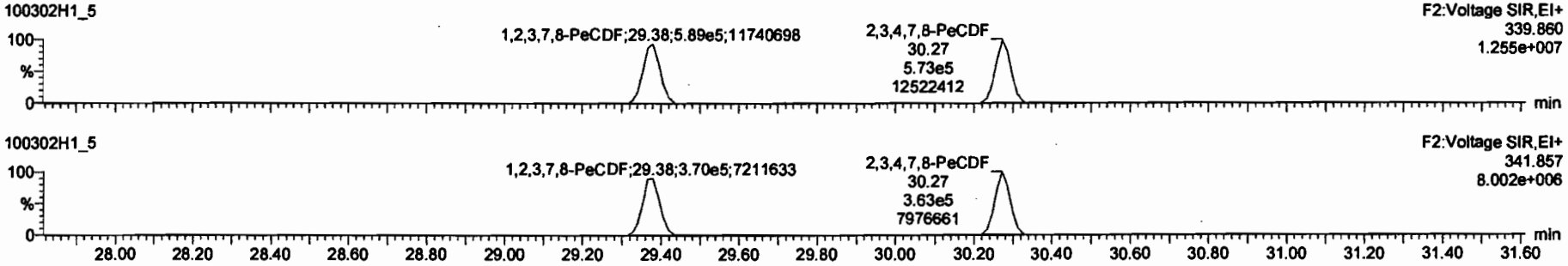

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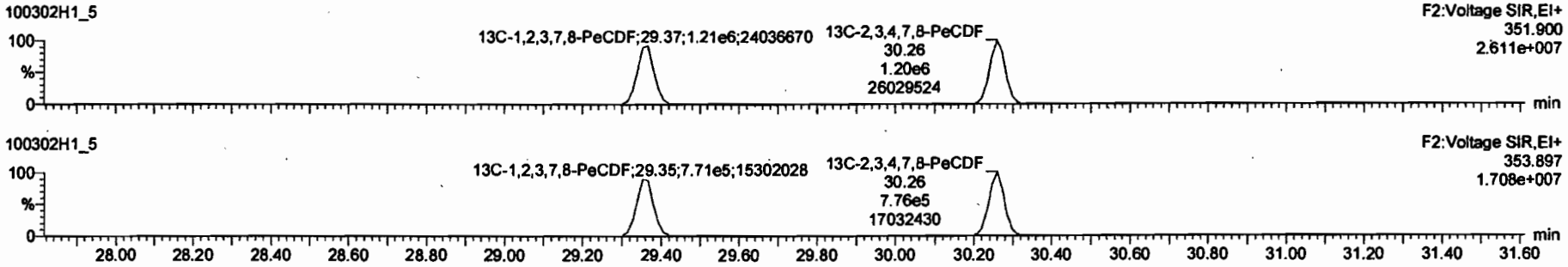

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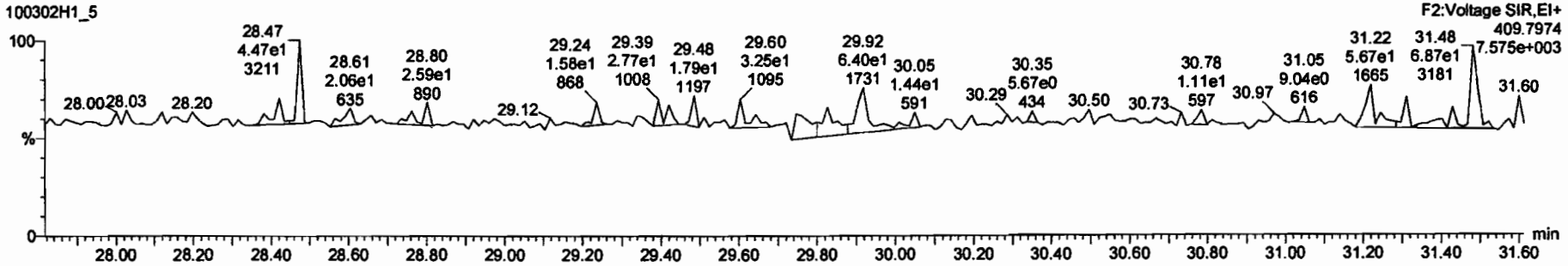

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Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
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Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

1,2,3,4,7,8-HxCDF

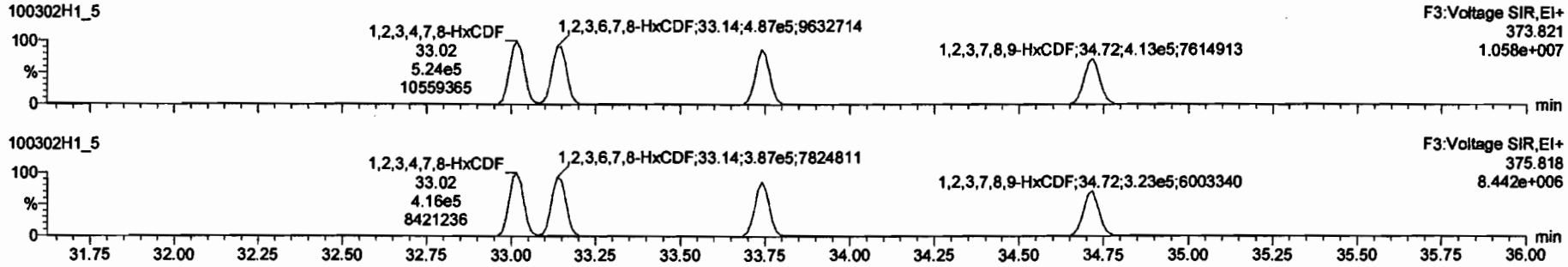

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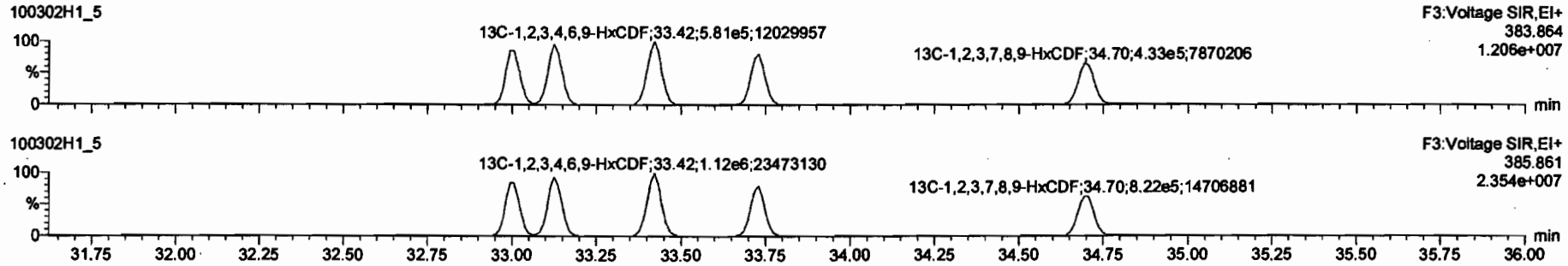

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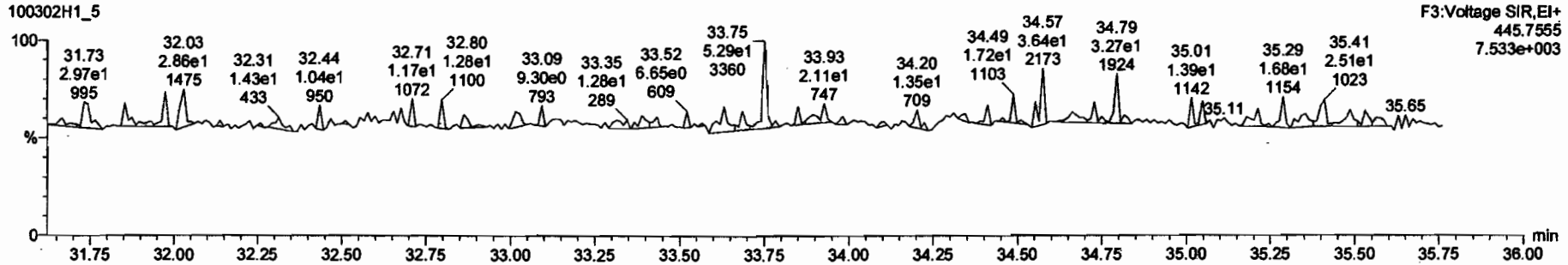

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Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
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Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

1,2,3,4,6,7,8-HpCDF

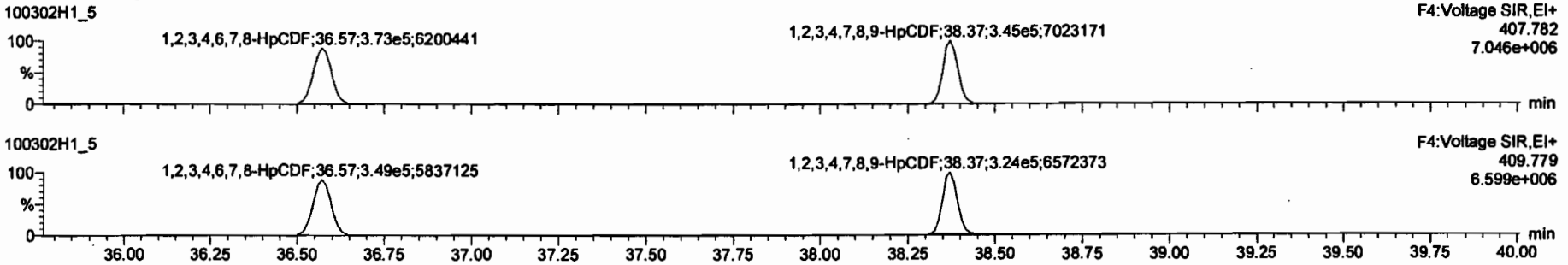

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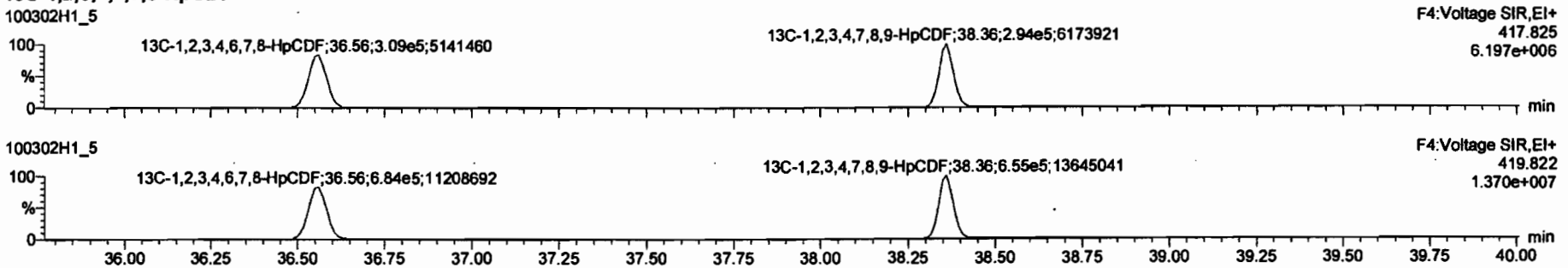

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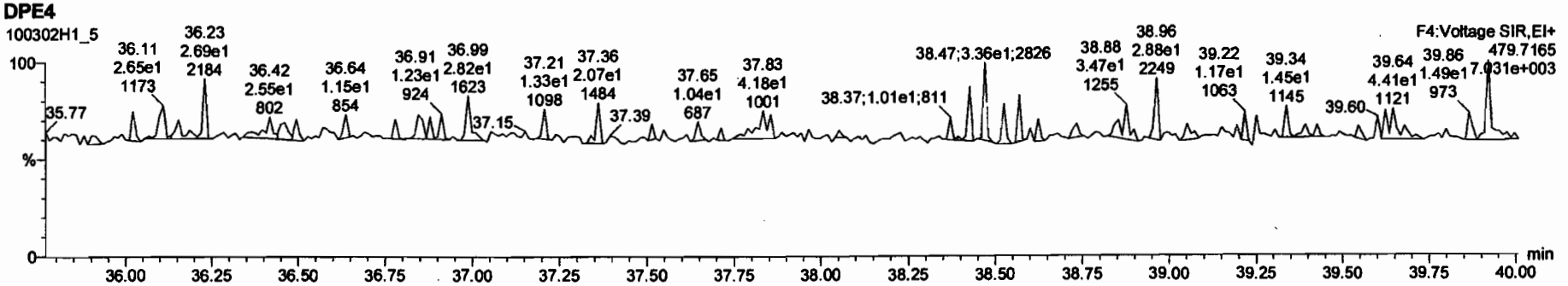

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OCDF

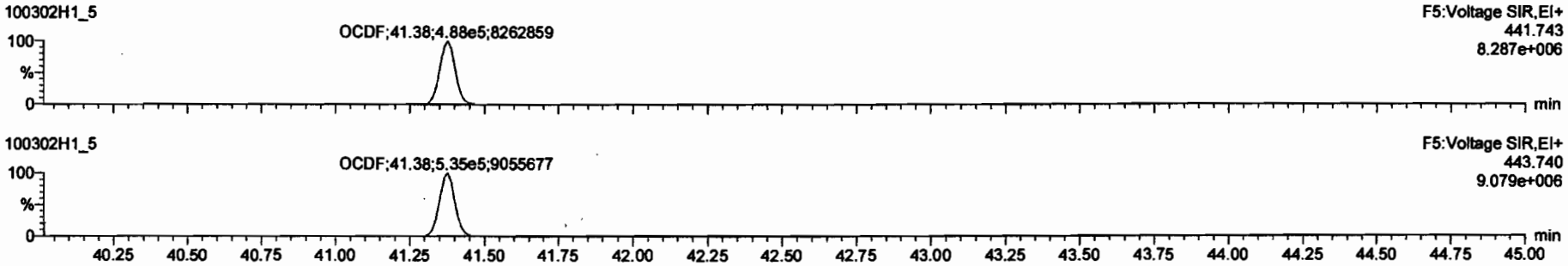

13C-OCDF

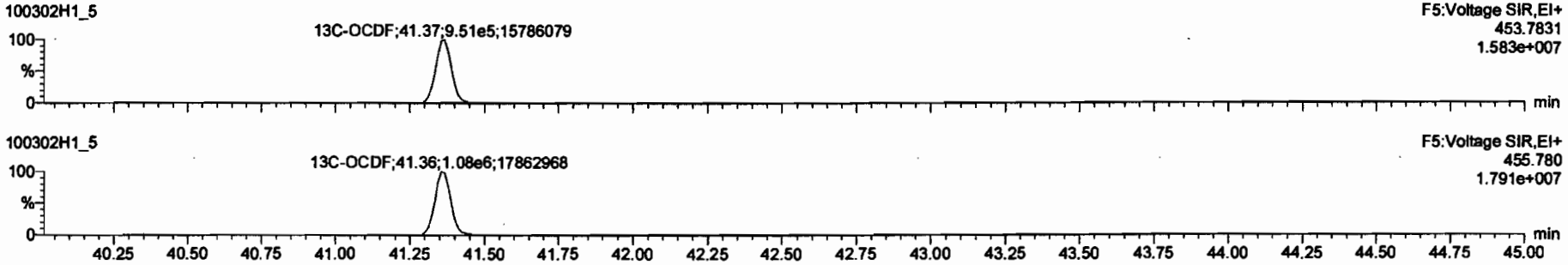

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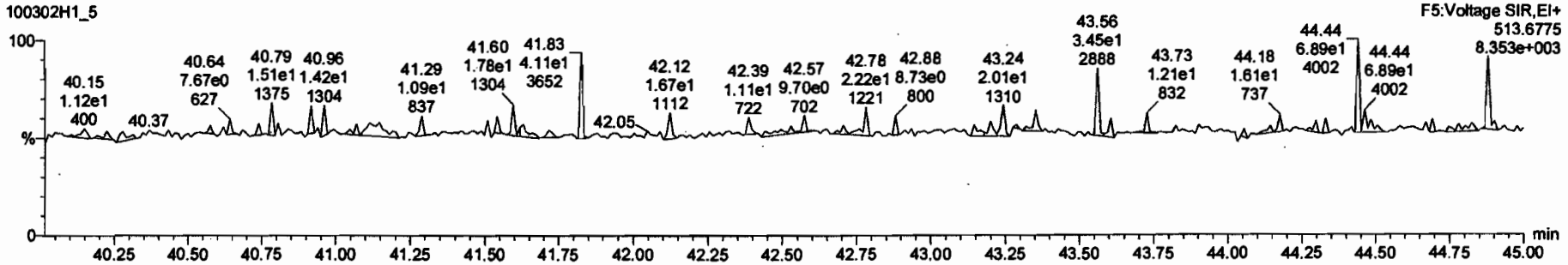

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-5.qld

Last Altered: Tuesday, March 02, 2010 15:30:26 Pacific Standard Time
Printed: Tuesday, March 02, 2010 15:30:58 Pacific Standard Time

Name: 100302H1_5, Date: 02-Mar-2010, Time: 14:11:13, ID: 0_2836_OPR001, Description: 0_2836_OPR001

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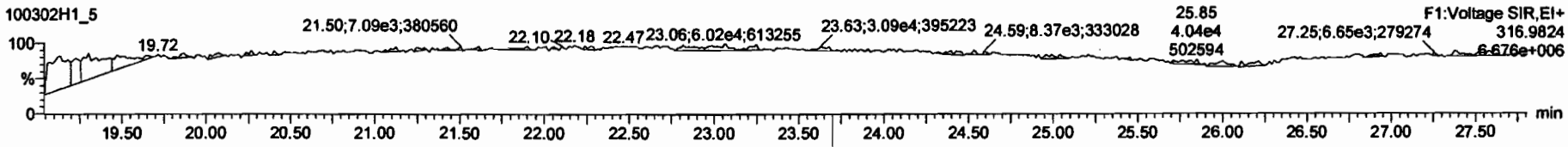

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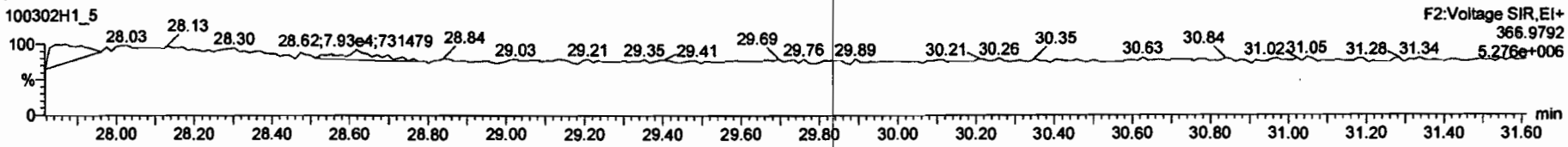

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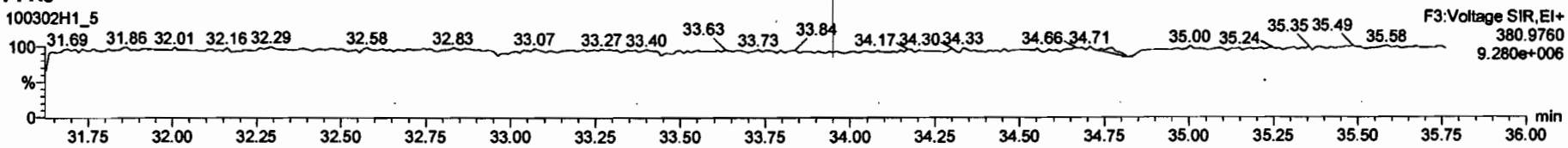

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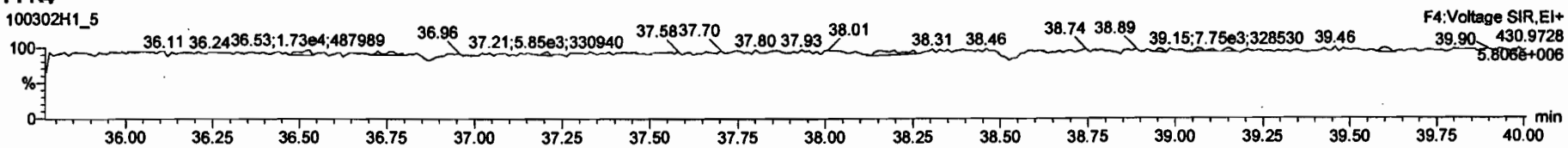

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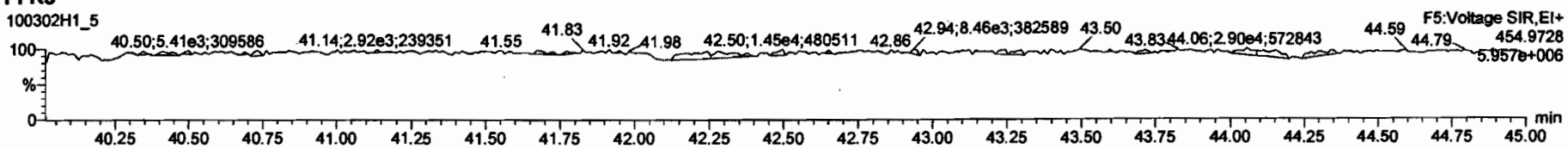

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-14.qld

Last Altered: Wednesday, March 03, 2010 1:58:00 PM Pacific Standard Time
Printed: Wednesday, March 03, 2010 1:58:11 PM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_14, Date: 02-Mar-2010, Time: 21:37:47, ID: 32455_2836_001 CAPA-10-13498 .93, Description: CAPA-10-13498

	Name	Resp	RA	Inv	RRF	W/Wt	RT	RRT	Conc	%Rec	DL	EMPC
1	2,3,7,8-TCDD			NO	1.04	0.930					0.254	
2	1,2,3,7,8-PeCDD			NO	0.935	0.930					0.301	
3	1,2,3,4,7,8-HxCDD			NO	0.907	0.930					0.289	
4	1,2,3,6,7,8-HxCDD			NO	0.995	0.930					0.286	
5	1,2,3,7,8,9-HxCDD			NO	0.930	0.930					0.281	
6	1,2,3,4,6,7,8-HpCDD	4.19e2	0.87	YES	1.00	0.930	37.83	1.001	~~0.64352~~ ND		0.328	0.58772 ✓
7	OCDD	1.16e3	0.97	NO	1.10	0.930	41.14	1.000	2.1545		0.392	~~2.1545~~
8	2,3,7,8-TCDF			NO	0.956	0.930					0.165	
9	1,2,3,7,8-PeCDF			NO	0.941	0.930					0.218	
10	2,3,4,7,8-PeCDF			NO	0.926	0.930					0.212	
11	1,2,3,4,7,8-HxCDF			NO	1.22	0.930					0.170	
12	1,2,3,6,7,8-HxCDF			NO	1.08	0.930					0.179	
13	2,3,4,6,7,8-HxCDF			NO	1.13	0.930					0.199	
14	1,2,3,7,8,9-HxCDF			NO	1.13	0.930					0.237	
15	1,2,3,4,6,7,8-HpCDF			NO	1.44	0.930					0.272	
16	1,2,3,4,7,8,9-HpCDF			NO	1.38	0.930					0.253	
17	OCDF	4.05e2	0.88	NO	1.01	0.930	41.39	1.001	0.61843		0.331	~~0.61843~~
18	13C-2,3,7,8-TCDD	2.33e6	0.78	NO	1.10	0.930	25.99	1.021	1679.5	78.1	1.02	
19	13C-1,2,3,7,8-PeCDD	1.86e6	0.63	NO	1.09	0.930	30.53	1.200	1345.6	62.6	1.15	
20	13C-1,2,3,4,7,8-HxCDD	1.68e6	1.26	NO	1.01	0.930	33.88	1.014	1707.5	79.4	1.38	
21	13C-1,2,3,6,7,8-HxCDD	1.49e6	1.25	NO	0.889	0.930	33.99	1.017	1727.6	80.3	1.57	
22	13C-1,2,3,7,8,9-HxCDD	1.74e6	1.24	NO	1.07	0.930	34.30	1.027	1664.5	77.4	1.30	
23	13C-1,2,3,4,6,7,8-HpCDD	1.40e6	1.04	NO	0.837	0.930	37.80	1.131	1717.5	79.9	2.49	
24	13C-OCDD	2.10e6	0.89	NO	0.712	0.930	41.13	1.231	3040.3	70.7	1.71	
25	13C-2,3,7,8-TCDF	3.35e6	0.78	NO	1.05	0.930	25.22	0.991	1654.2	76.9	1.12	
26	13C-1,2,3,7,8-PeCDF	2.61e6	1.54	NO	1.02	0.930	29.34	1.153	1331.6	61.9	1.42	
27	13C-2,3,4,7,8-PeCDF	2.52e6	1.57	NO	1.08	0.930	30.25	1.188	1215.5	56.5	1.34	
28	13C-1,2,3,4,7,8-HxCDF	1.92e6	0.52	NO	1.37	0.930	32.99	0.988	1446.5	67.3	1.86	
29	13C-1,2,3,6,7,8-HxCDF	2.10e6	0.53	NO	1.37	0.930	33.12	0.991	1580.8	73.5	1.86	
30	13C-2,3,4,6,7,8-HxCDF	1.87e6	0.52	NO	1.18	0.930	33.72	1.009	1632.9	75.9	2.15	

3/3/10

3/5/10

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-14.qld

Last Altered: Wednesday, March 03, 2010 1:58:00 PM Pacific Standard Time
Printed: Wednesday, March 03, 2010 1:58:11 PM Pacific Standard Time

Name: 100302H1_14, Date: 02-Mar-2010, Time: 21:37:47, ID: 32455_2836_001 CAPA-10-13498 .93, Description: CAPA-10-13498

	Name	Resp	RA	Int	RF	W/Vol	RT	RR1	Conc	%Rec	IDL	EMPC
31	13C-1,2,3,7,8,9-HxCDF	1.65e6	0.52	NO	1.05	0.930	34.68	1.038	1615.8	75.1	2.42	
32	13C-1,2,3,4,6,7,8-HpCDF	1.38e6	0.45	NO	0.858	0.930	36.54	1.094	1660.5	77.2	3.10	
33	13C-1,2,3,4,7,8,9-HpCDF	1.29e6	0.45	NO	0.794	0.930	38.36	1.148	1678.2	78.0	3.35	
34	13C-OCDF	2.77e6	0.89	NO	0.948	0.930	41.36	1.238	3010.6	70.0	1.04	
35	37Cl-2,3,7,8-TCDD	6.08e5			0.665	0.930	26.01	1.022	724.36	84.2	0.445	
36	13C-1,2,3,4-TCDD	2.72e6	0.79	NO	1.00	0.930	25.45	0.000	2150.5	100	1.12	
37	13C-1,2,3,4-TCDF	4.14e6	0.78	NO	1.00	0.930	24.06	0.000	2150.5	100	1.18	
38	13C-1,2,3,4,6,9-HxCDF	2.09e6	0.52	NO	1.00	0.930	33.41	0.000	2150.5	100	2.54	
39	Total Tetra-Dioxins				1.04	0.930					0.149	
40	Total Penta-Dioxins				0.935	0.930					0.123	
41	Total Hexa-Dioxins				0.995	0.930					0.139	
42	Total Hepta-Dioxins				1.00	0.930			1.0144		0.328	1.6021
43	Total Tetra-Furans				0.956	0.930					0.0741	
44	1st Func. Penta-Furans				0.941	0.930					0.0670	
45	Total Penta-Furans				0.941	0.930					0.107	
46	Total Hexa-Furans				1.13	0.930					0.115	
47	Total Hepta-Furans				1.44	0.930					0.143	

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-14.qld

Last Altered: Wednesday, March 03, 2010 1:58:00 PM Pacific Standard Time
Printed: Wednesday, March 03, 2010 1:58:11 PM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_14, Date: 02-Mar-2010, Time: 21:37:47, ID: 32455_2836_001 CAPA-10-13498 .93, Description: CAPA-10-13498

Tetra-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IntV	Resp	Conc	EMPC	DL

Penta-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IntV	Resp	Conc	EMPC	DL

Hexa-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IntV	Resp	Conc	EMPC	DL

Hepta-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IntV	Resp	Conc	EMPC	DL
1	Total Hepta-Dioxins	36.96	6.090e3	5.762e3	3.190e2	3.410e2	0.94	NO	6.600e2	1.0144	1.0144	0.328
2	1,2,3,4,6,7,8-HpCDD	37.83	5.120e3	5.603e3	1.950e2	2.238e2	0.87	YES	4.187e2	0.00000	0.58772	0.328

Tetra-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IntV	Resp	Conc	EMPC	DL

Penta-Furans function 1

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	IntV	Resp	Conc	EMPC	DL

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-14.qld

Last Altered: Wednesday, March 03, 2010 1:58:00 PM Pacific Standard Time
Printed: Wednesday, March 03, 2010 1:58:11 PM Pacific Standard Time

Name: 100302H1_14, Date: 02-Mar-2010, Time: 21:37:47, ID: 32455_2836_001 CAPA-10-13498 .93, Description: CAPA-10-13498

Penta-Furans

	Name		RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc	EMPC	DL
1													

Hexa-Furans

	Name		RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc	EMPC	DL
1													

Hepta-Furans

	Name		RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc	EMPC	DL
1													

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-14.qld

Last Altered: Wednesday, March 03, 2010 08:23:43 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:00 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_14, Date: 02-Mar-2010, Time: 21:37:47, ID: 32455_2836_001 CAPA-10-13498 .93, Description: CAPA-10-13498

2,3,7,8-TCDD

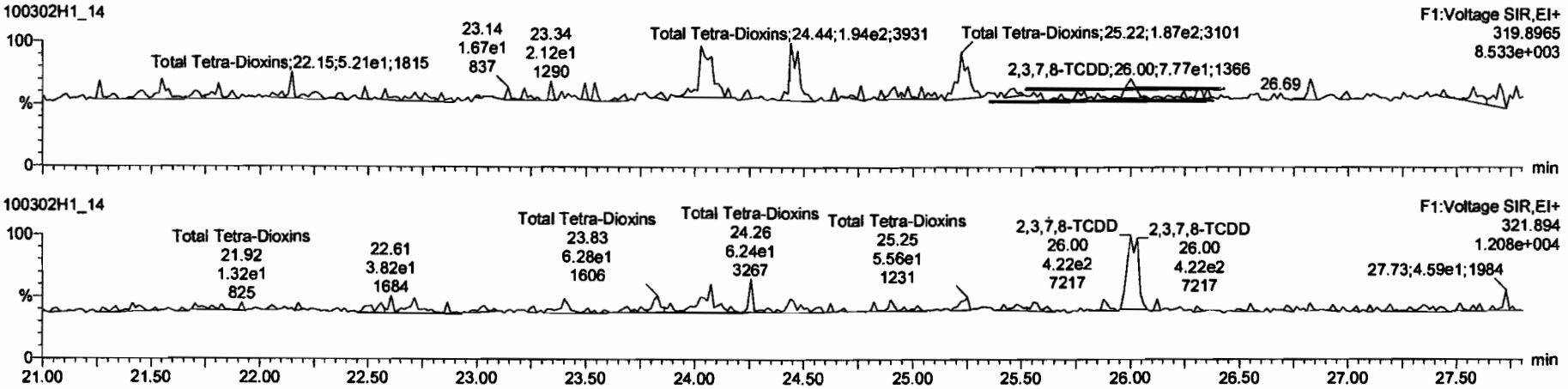

13C-2,3,7,8-TCDD

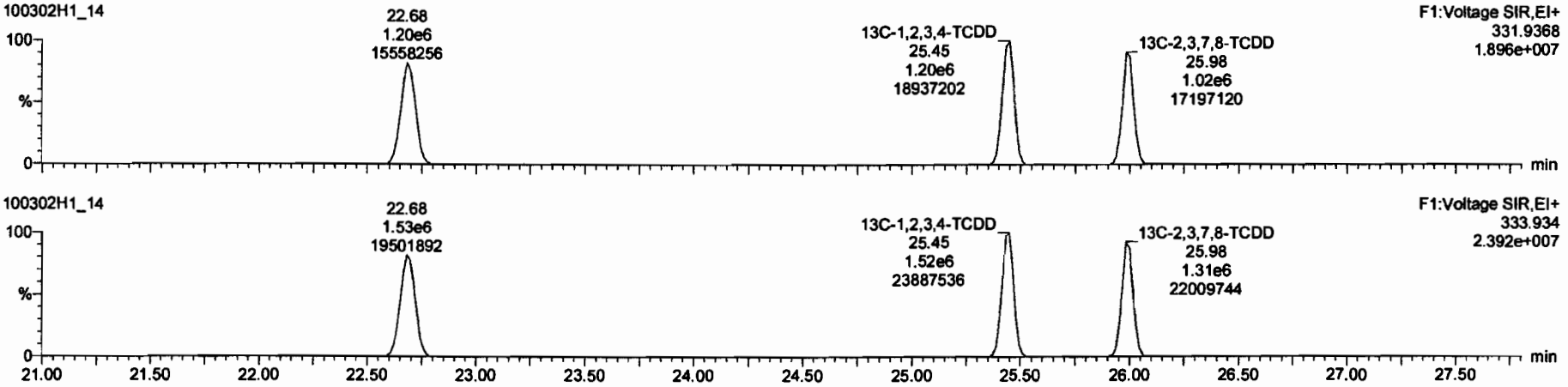

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-14.qld

Last Altered: Wednesday, March 03, 2010 08:23:43 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:00 Pacific Standard Time

Name: 100302H1_14, Date: 02-Mar-2010, Time: 21:37:47, ID: 32455_2836_001 CAPA-10-13498 .93, Description: CAPA-10-13498

37Cl-2,3,7,8-TCDD

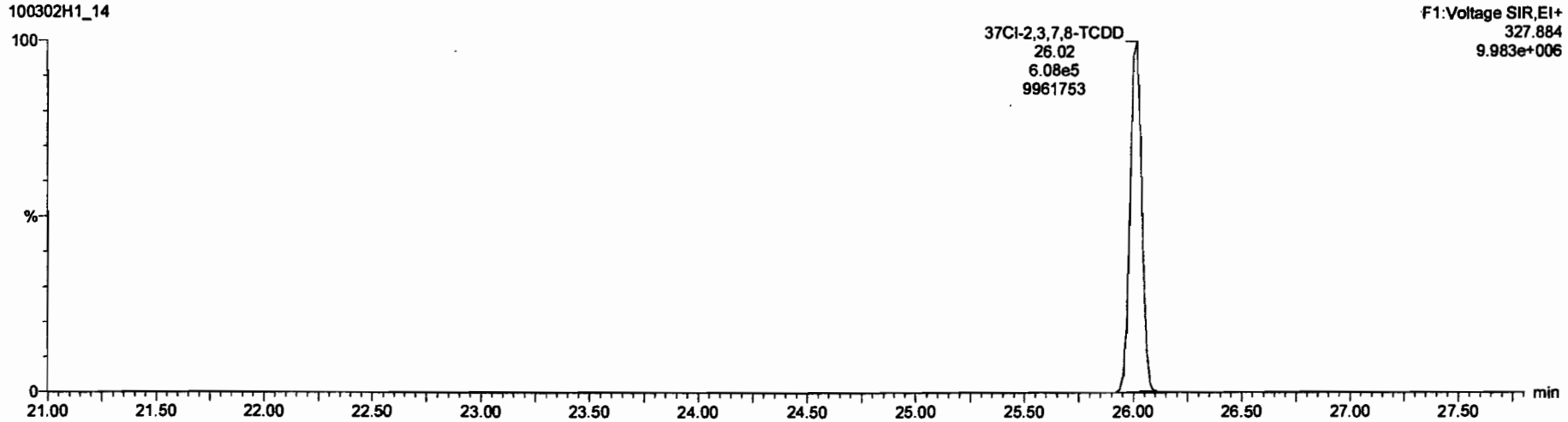

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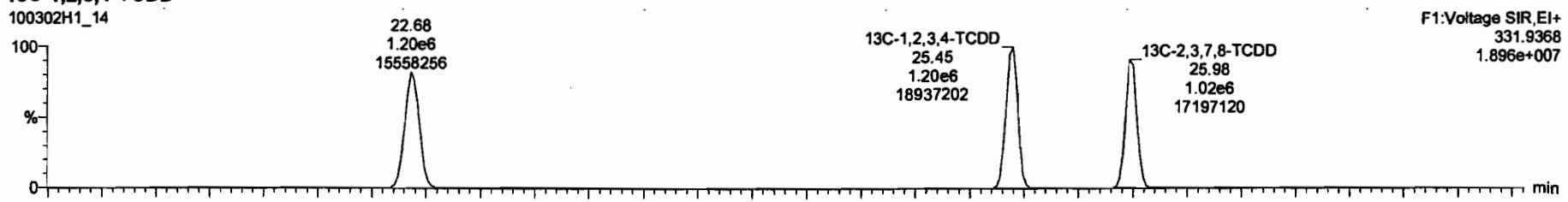

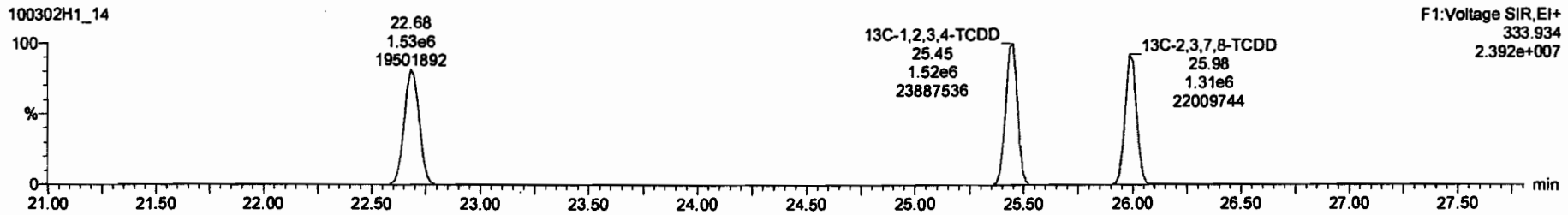

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-14.qld

Last Altered: Wednesday, March 03, 2010 08:23:43 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:00 Pacific Standard Time

Name: 100302H1_14, Date: 02-Mar-2010, Time: 21:37:47, ID: 32455_2836_001 CAPA-10-13498 .93, Description: CAPA-10-13498

1,2,3,7,8-PeCDD

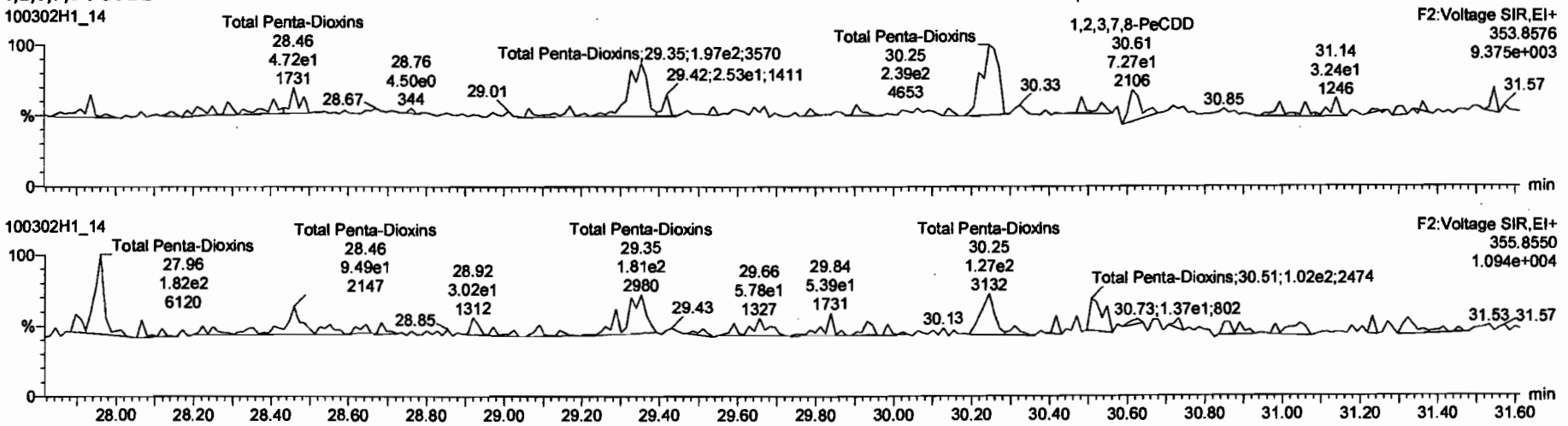

13C-1,2,3,7,8-PeCDD

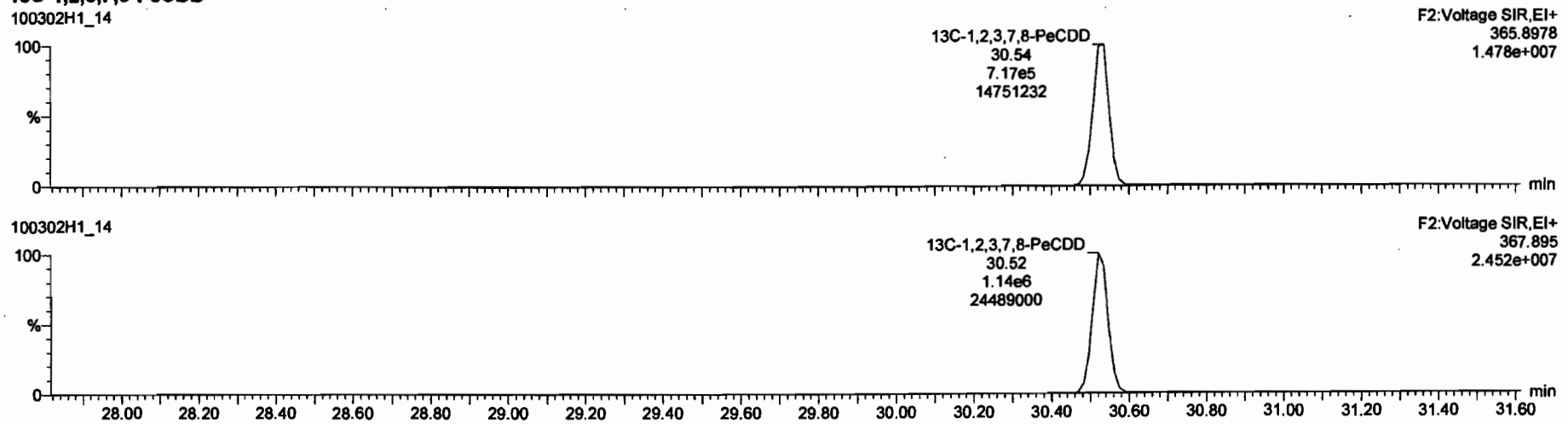

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-14.qld

Last Altered: Wednesday, March 03, 2010 08:23:43 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:00 Pacific Standard Time

Name: 100302H1_14, Date: 02-Mar-2010, Time: 21:37:47, ID: 32455_2836_001 CAPA-10-13498 .93, Description: CAPA-10-13498

1,2,3,4,7,8-HxCDD

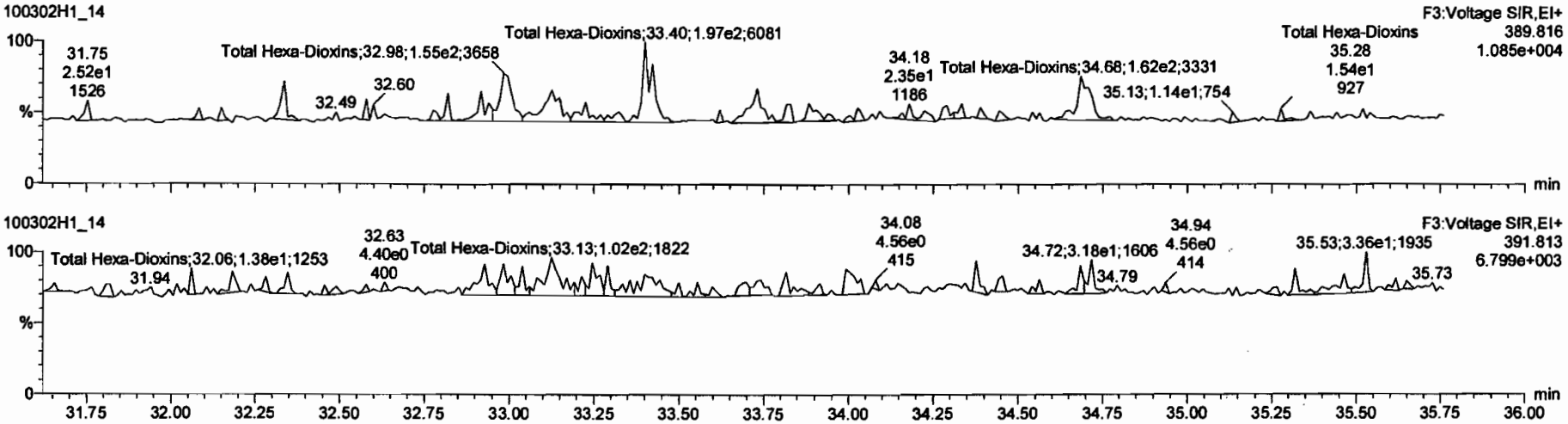

13C-1,2,3,4,7,8-HxCDD

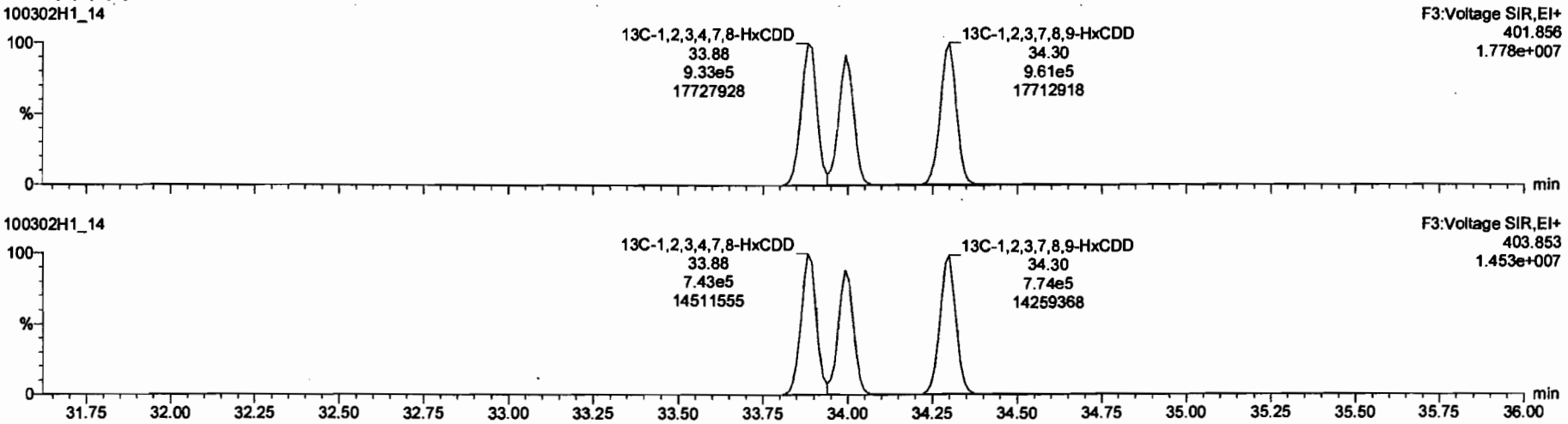

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Last Altered: Wednesday, March 03, 2010 08:23:43 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:00 Pacific Standard Time

Name: 100302H1_14, Date: 02-Mar-2010, Time: 21:37:47, ID: 32455_2836_001 CAPA-10-13498 .93, Description: CAPA-10-13498

1,2,3,4,6,7,8-HpCDD

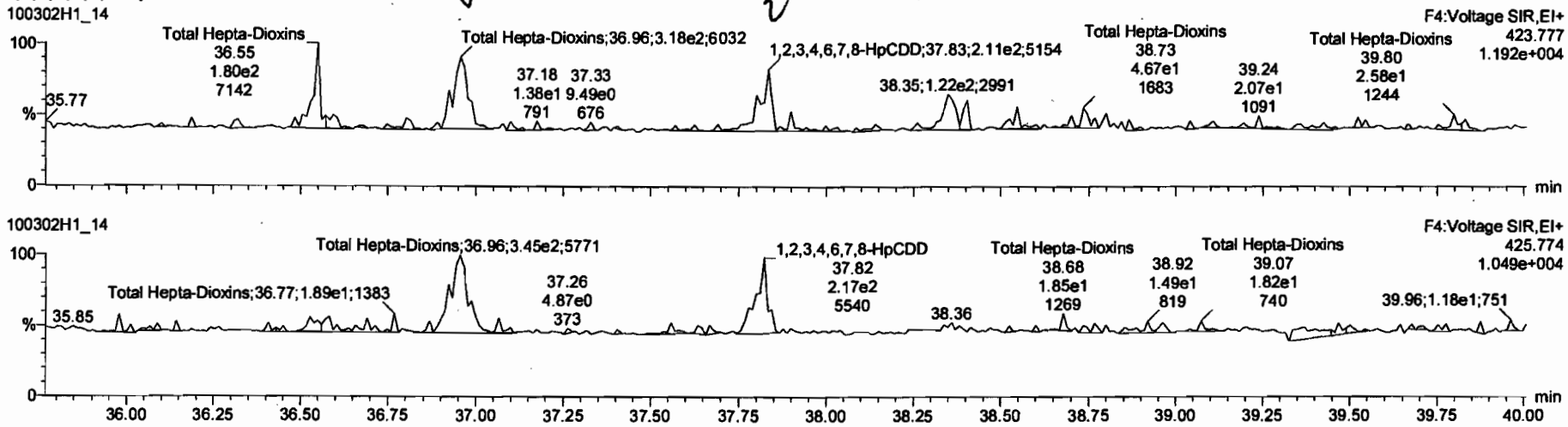

13C-1,2,3,4,6,7,8-HpCDD

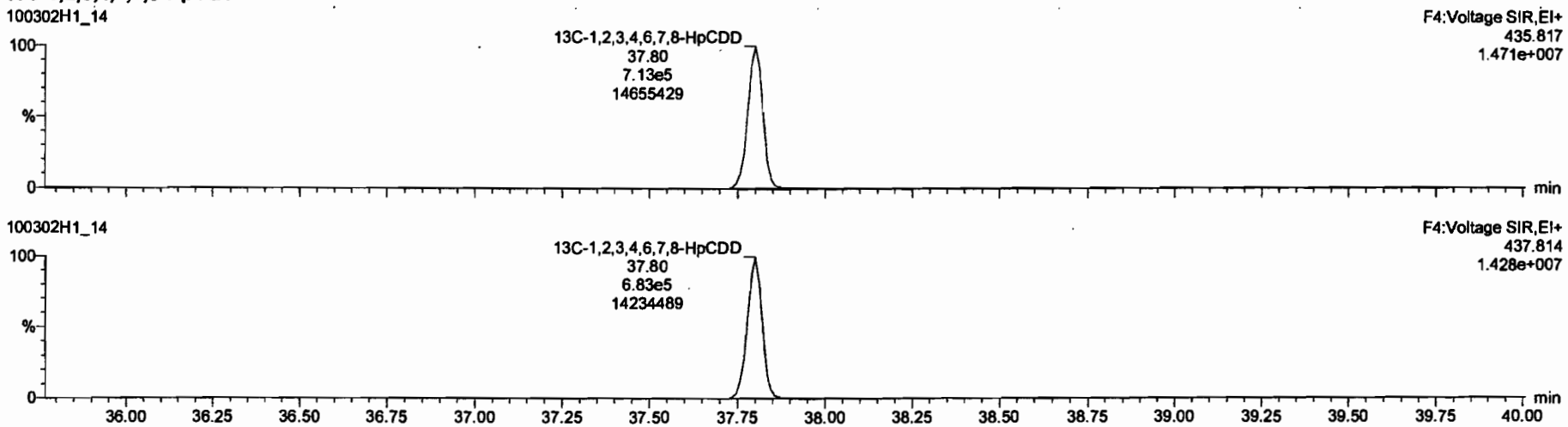

TargetLynx - 100302h1-14.qld * - [Chromatogram]

File Edit View Display Processing Window Help

100302H1_14 - 32455_2836_001 CAPA-10-13498 .93 - CAPA-10-13498

	Name	RT	m1 Resp	m2 Resp	RA	fdy	EMPC	Conc.
1	Total Hepta-Dioxins	36.96	3.190e2	3.410e2	0.94	NO	1.0144	1.0144
2	1,2,3,4,6,7,8-HpCDD	37.83	1.950e2	2.238e2	0.87	YES	0.58772	0.00000

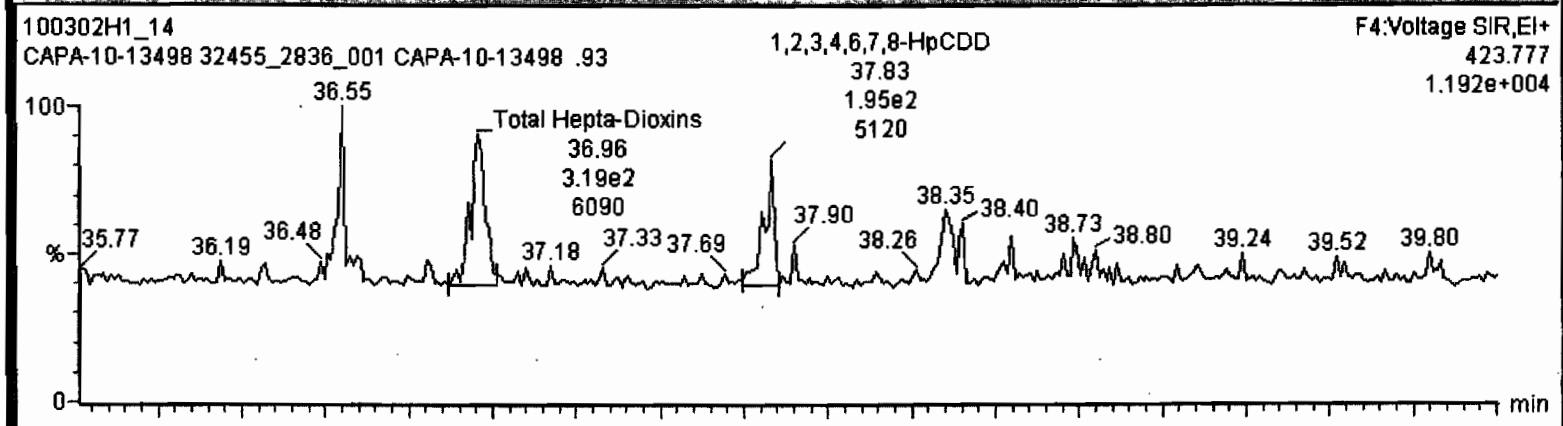

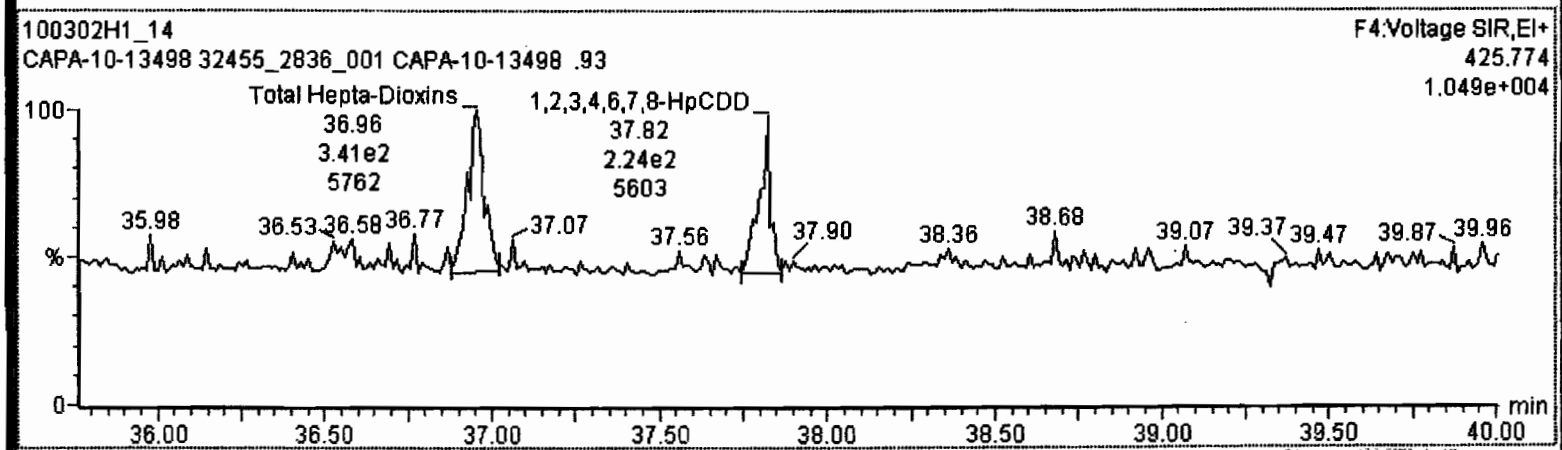

Ready 100302H1_14 NUM

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-14.qld

Last Altered: Wednesday, March 03, 2010 08:23:43 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:00 Pacific Standard Time

Name: 100302H1_14, Date: 02-Mar-2010, Time: 21:37:47, ID: 32455_2836_001 CAPA-10-13498 .93, Description: CAPA-10-13498

OCDD

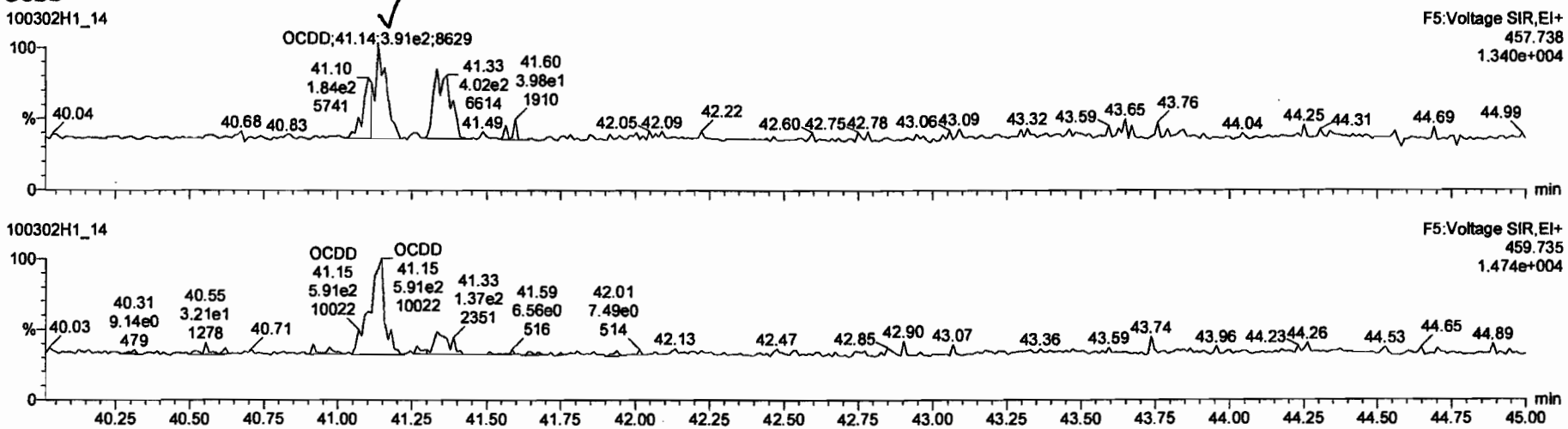

13C-OCDD

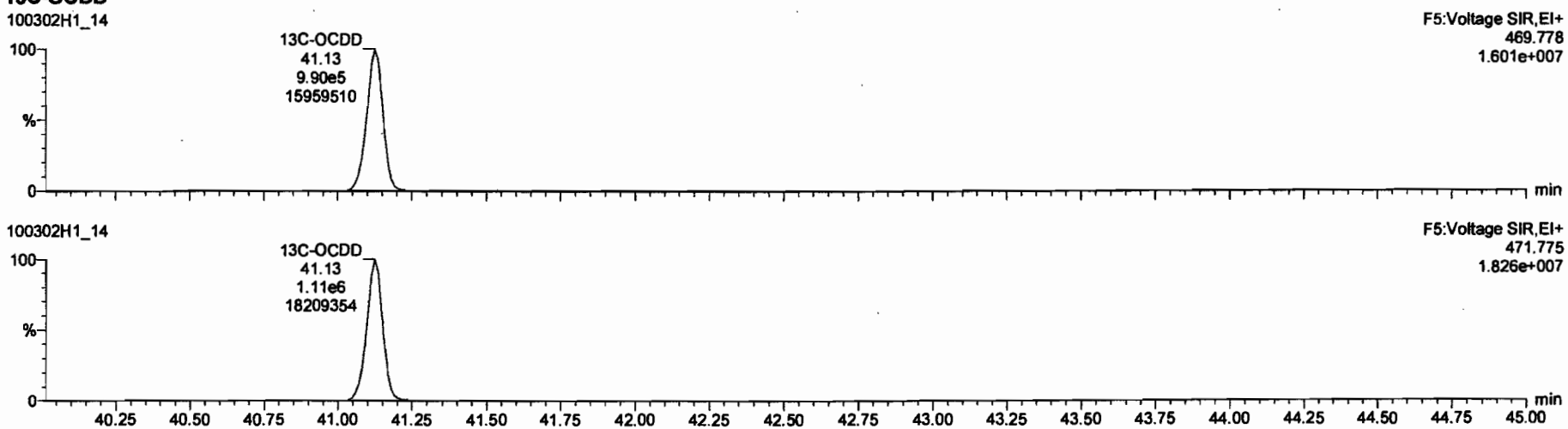

TargetLynx - 100302h1-14.qld * - [Chromatogram]

File Edit View Display Processing Window Help

100302H1_14 - 32455_2836_001 CAPA-10-13498 .93 - CAPA-10-13498

	Name	Resp	RA	HW	RRF	wt/vol	RT	RR1	Conc	%Rec	DL	EMPC
7	OCDD											
8	2,3,7,8-TCDF			NO	0.96	0.930					0.165	
9	1,2,3,7,8-PeCDF	1.22e2	0.87	YES	0.94	0.930	29.35	1.000	0.107		0.218	0.0818
10	2,3,4,7,8-PeCDF	1.46e2	2.79	YES	0.93	0.930	30.26	1.000	0.134		0.212	0.0906
11	1,2,3,4,7,8-HxCDF	9.51e1	2.38	YES	1.22	0.930	33.02	1.001	0.0871		0.170	0.0578

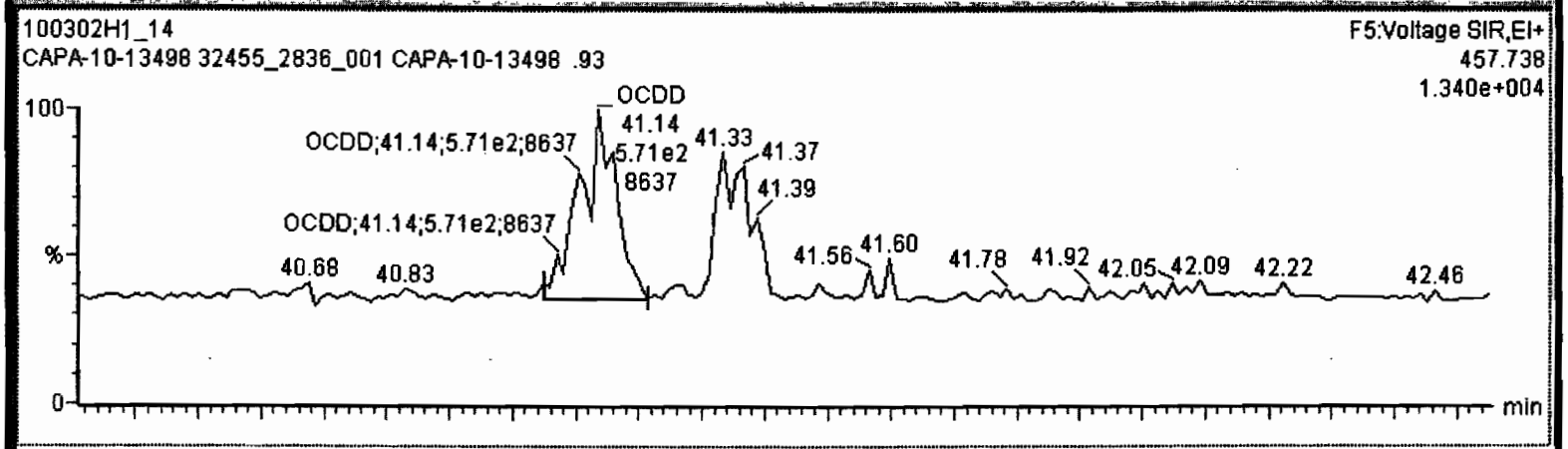

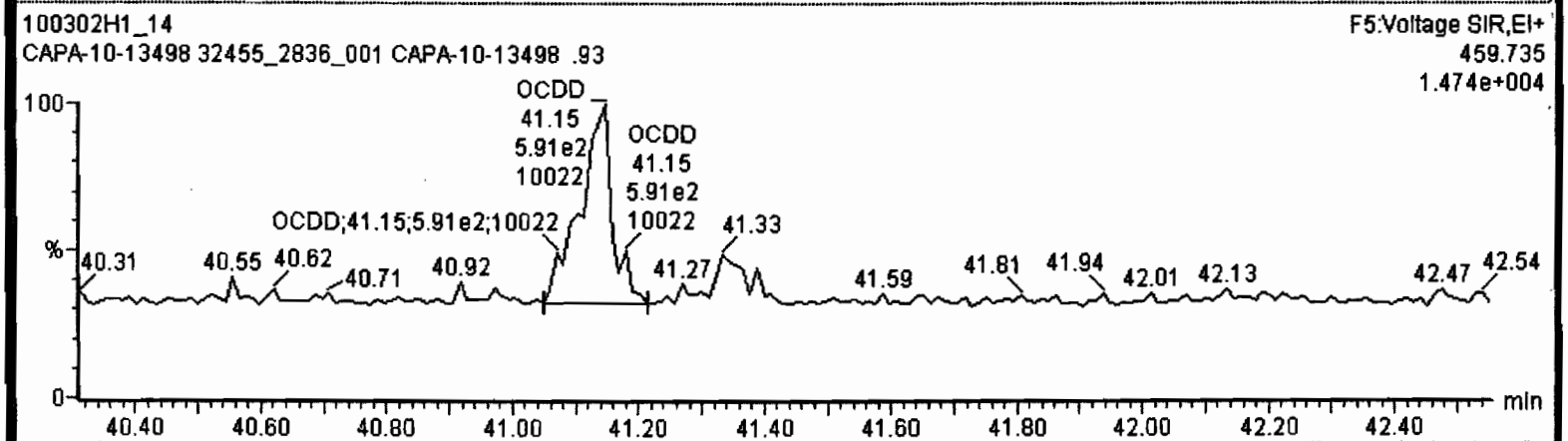

Ready 100302H1_14 NUM

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-14.qld

Last Altered: Wednesday, March 03, 2010 08:23:43 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:00 Pacific Standard Time

Name: 100302H1_14, Date: 02-Mar-2010, Time: 21:37:47, ID: 32455_2836_001 CAPA-10-13498 .93, Description: CAPA-10-13498

2,3,7,8-TCDF

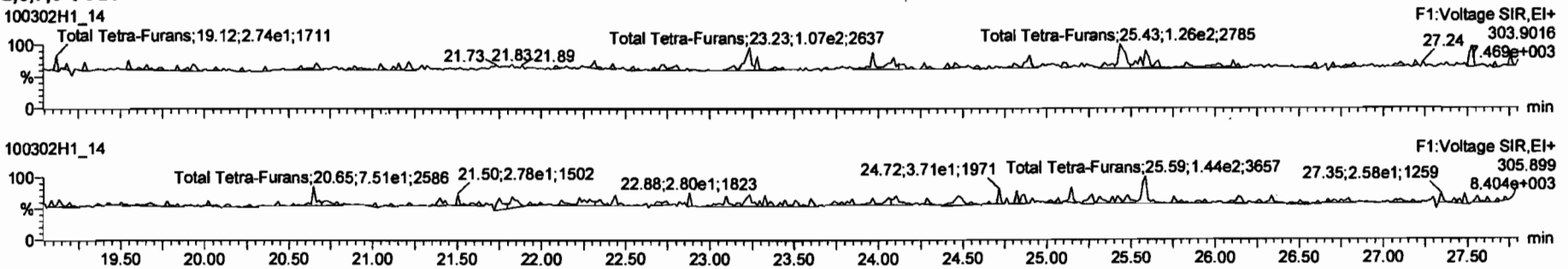

13C-2,3,7,8-TCDF

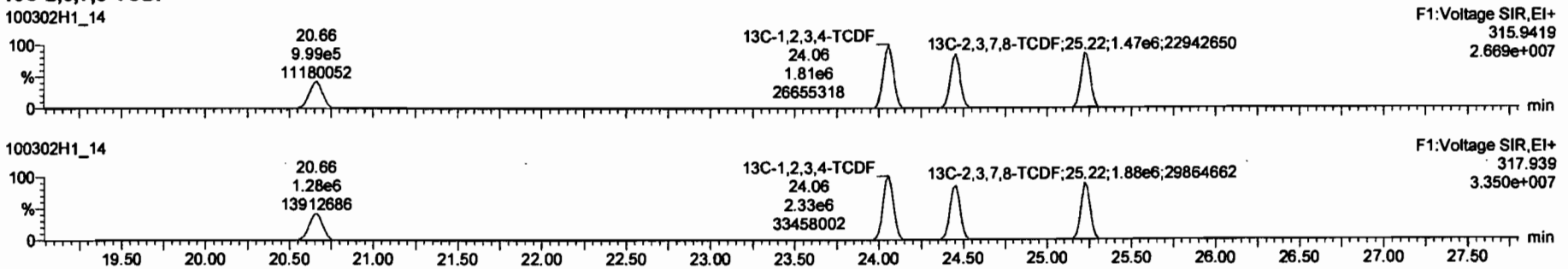

DPE1

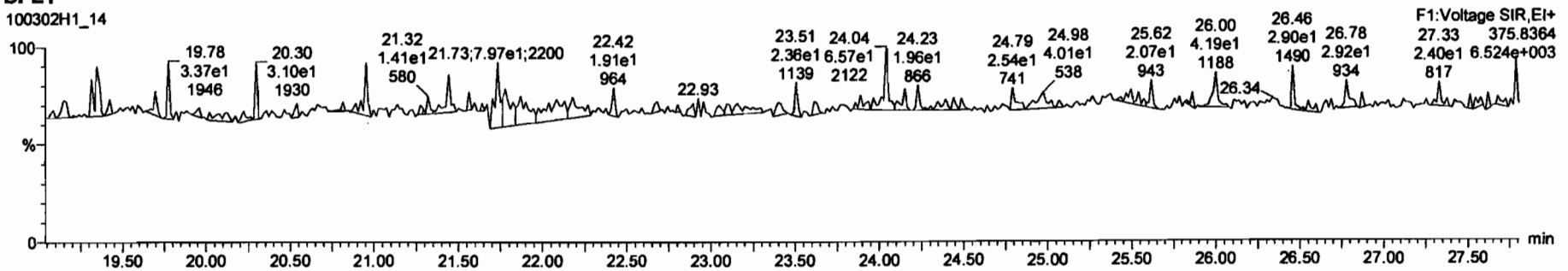

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-14.qld

Last Altered: Wednesday, March 03, 2010 08:23:43 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:00 Pacific Standard Time

Name: 100302H1_14, Date: 02-Mar-2010, Time: 21:37:47, ID: 32455_2836_001 CAPA-10-13498 .93, Description: CAPA-10-13498

1st Func. Penta-Furans

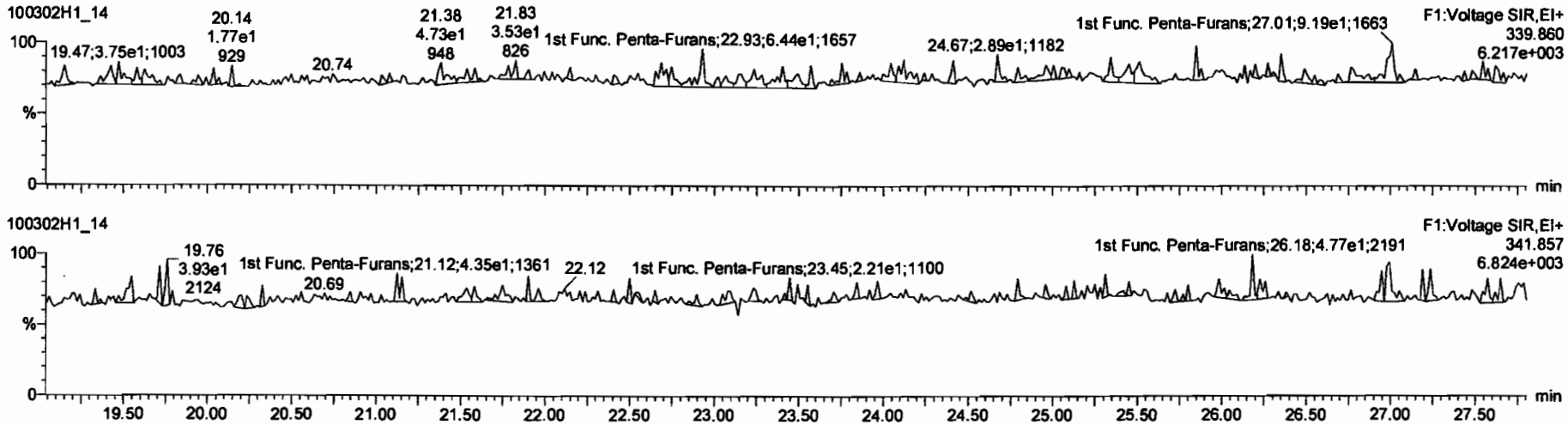

DPE6

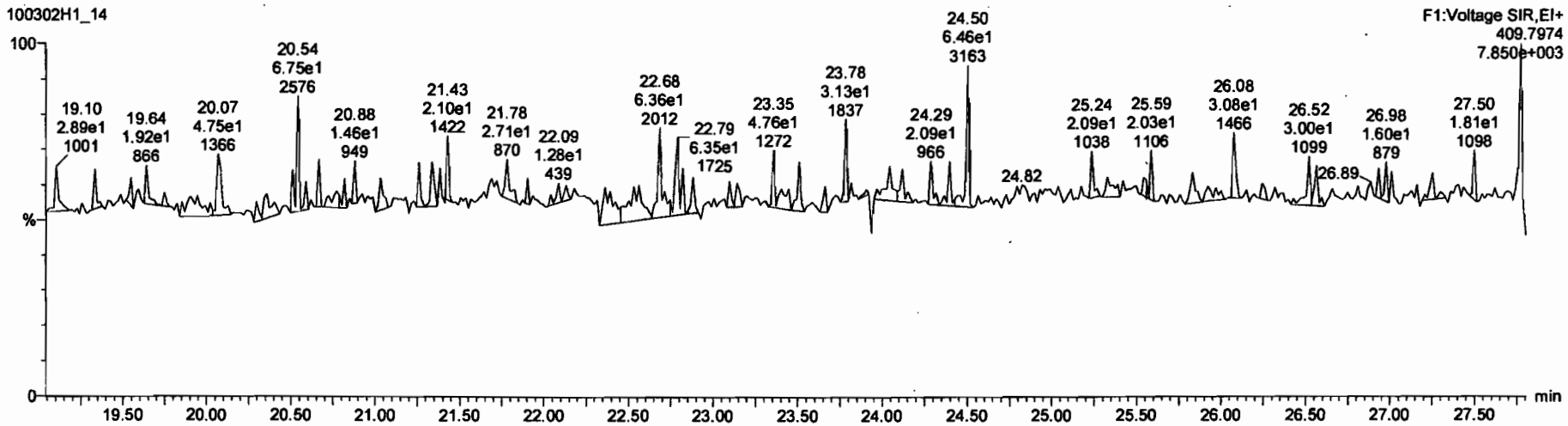

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-14.qld

Last Altered: Wednesday, March 03, 2010 08:23:43 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:00 Pacific Standard Time

Name: 100302H1_14, Date: 02-Mar-2010, Time: 21:37:47, ID: 32455_2836_001 CAPA-10-13498 .93, Description: CAPA-10-13498

1,2,3,7,8-PeCDF

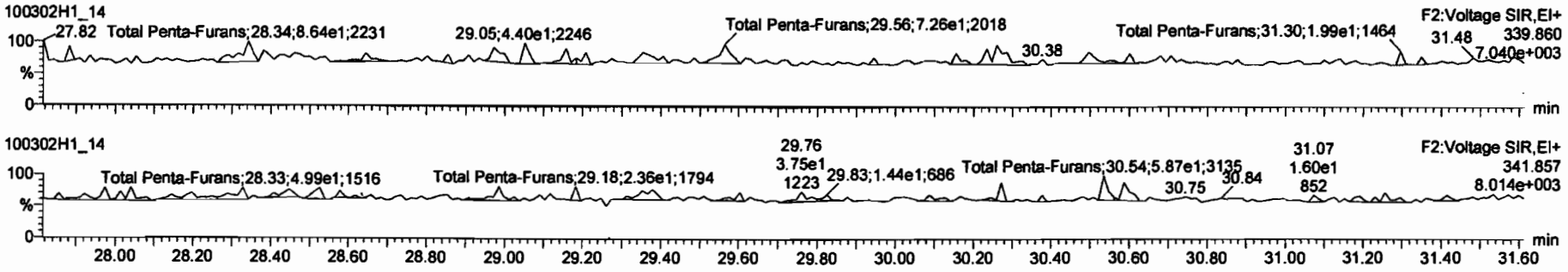

13C-1,2,3,7,8-PeCDF

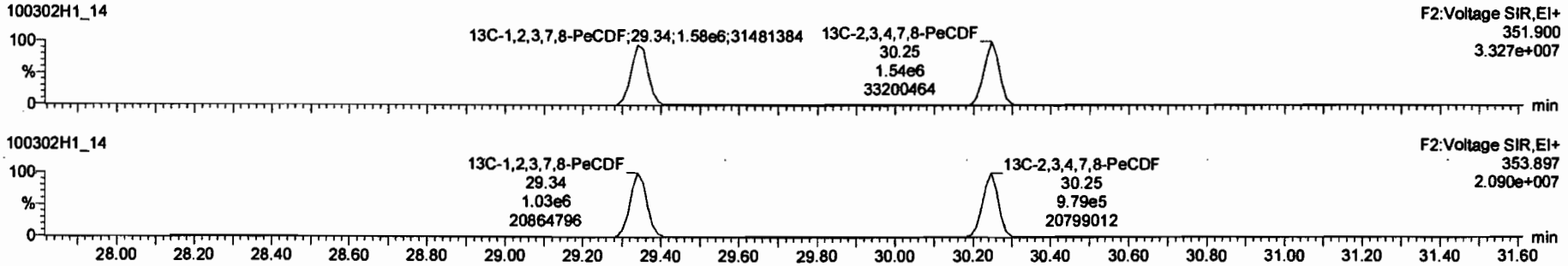

DPE2

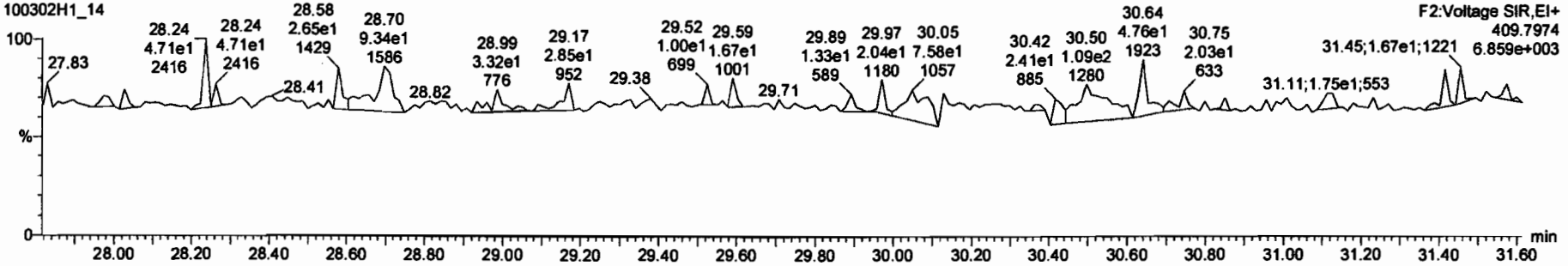

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-14.qld

Last Altered: Wednesday, March 03, 2010 08:23:43 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:00 Pacific Standard Time

Name: 100302H1_14, Date: 02-Mar-2010, Time: 21:37:47, ID: 32455_2836_001 CAPA-10-13498 .93, Description: CAPA-10-13498

1,2,3,4,7,8-HxCDF

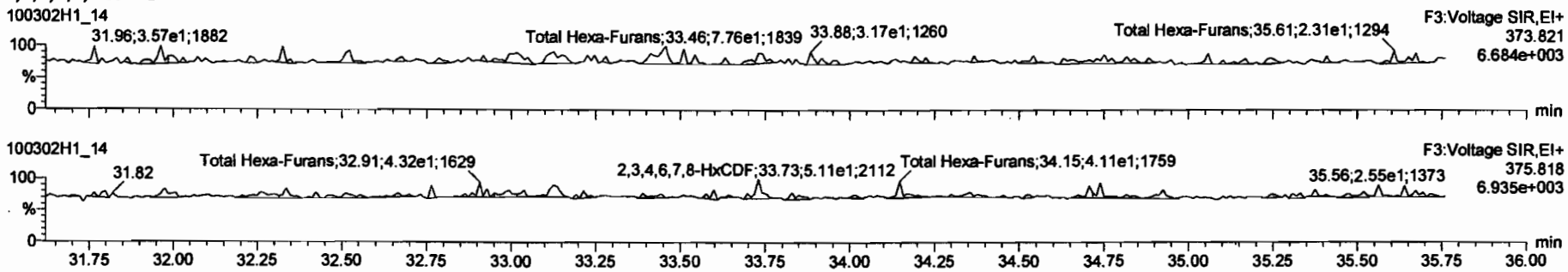

13C-1,2,3,4,7,8-HxCDF

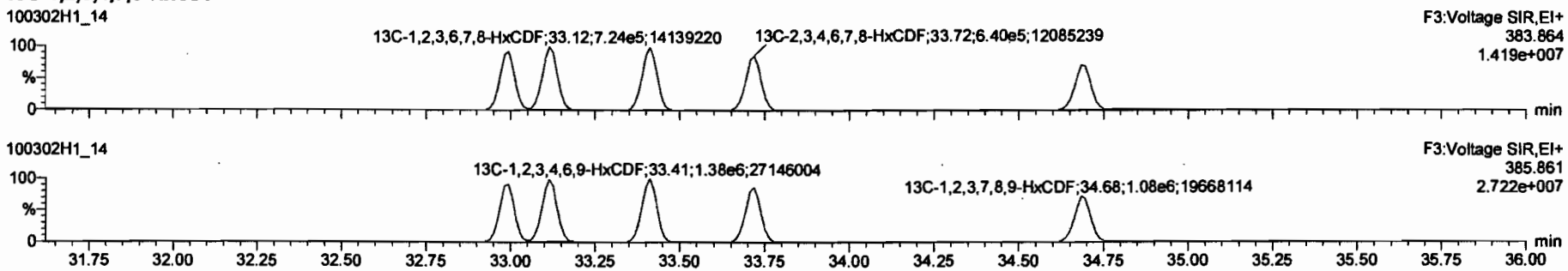

DPE3

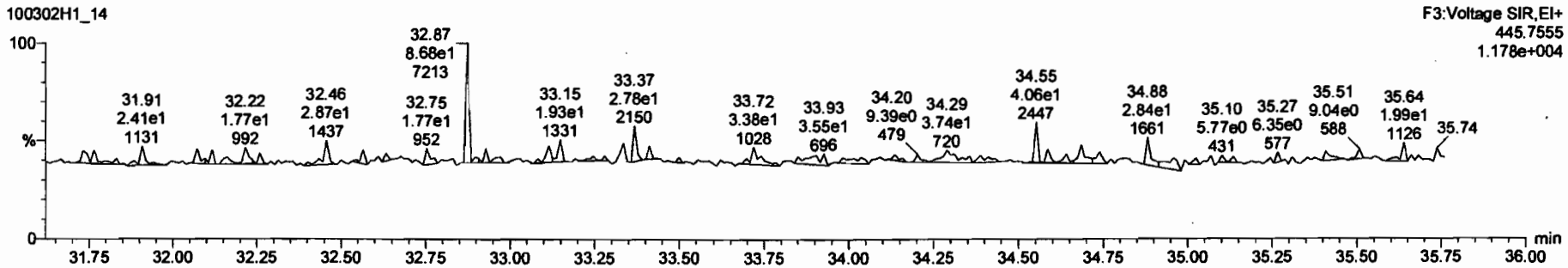

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Last Altered: Wednesday, March 03, 2010 08:23:43 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:00 Pacific Standard Time

Name: 100302H1_14, Date: 02-Mar-2010, Time: 21:37:47, ID: 32455_2836_001 CAPA-10-13498 .93, Description: CAPA-10-13498

1,2,3,4,6,7,8-HpCDF

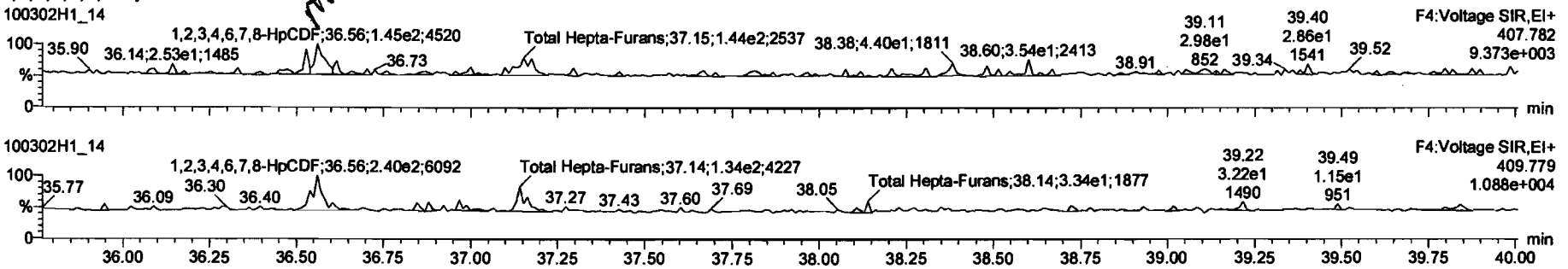

13C-1,2,3,4,6,7,8-HpCDF

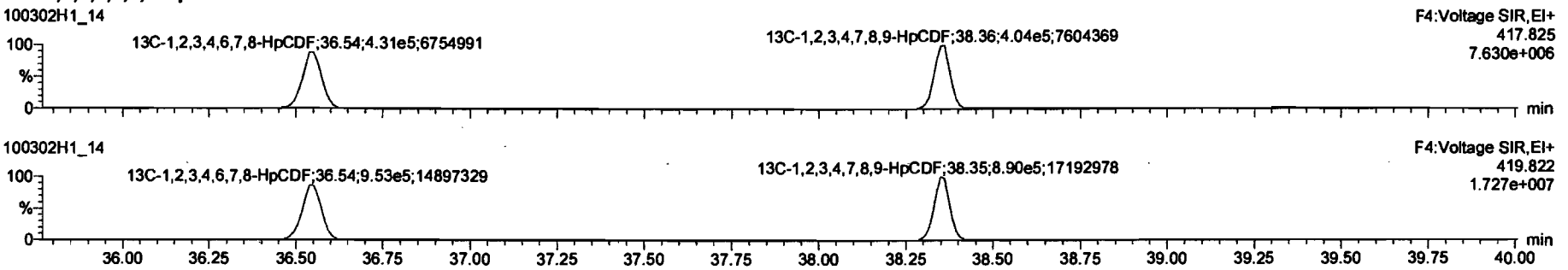

DPE4

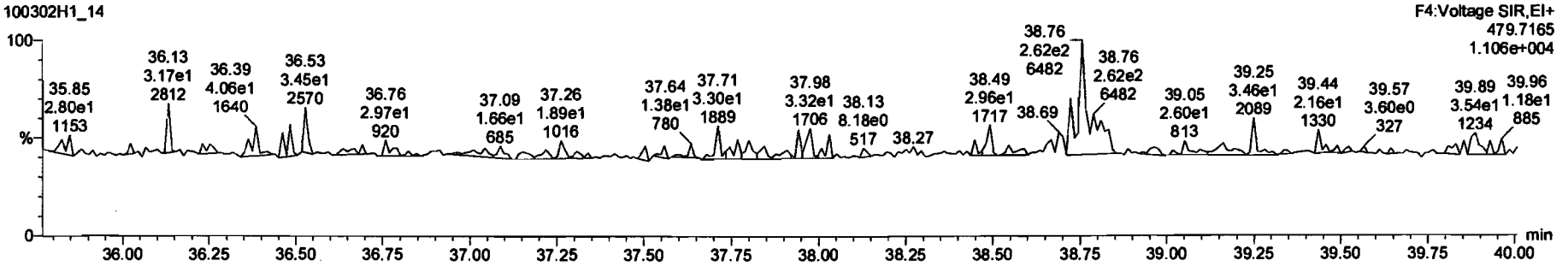

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-14.qld

Last Altered: Wednesday, March 03, 2010 08:23:43 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:00 Pacific Standard Time

Name: 100302H1_14, Date: 02-Mar-2010, Time: 21:37:47, ID: 32455_2836_001 CAPA-10-13498 .93, Description: CAPA-10-13498

OCDF

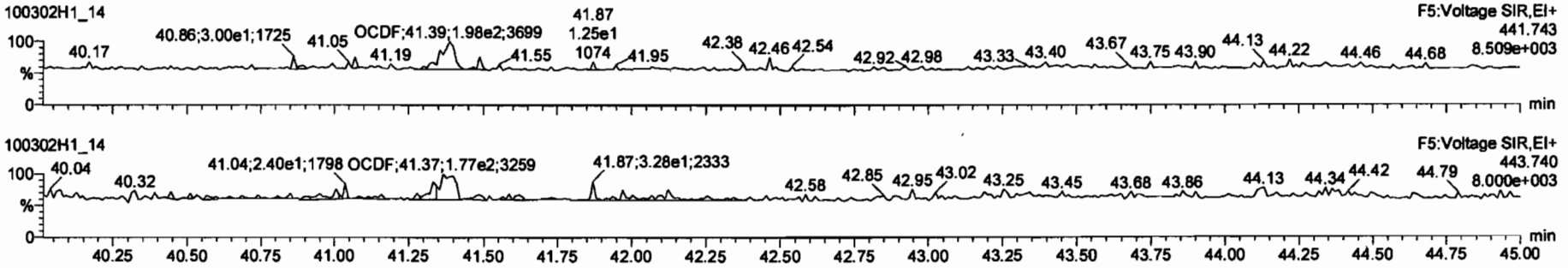

13C-OCDF

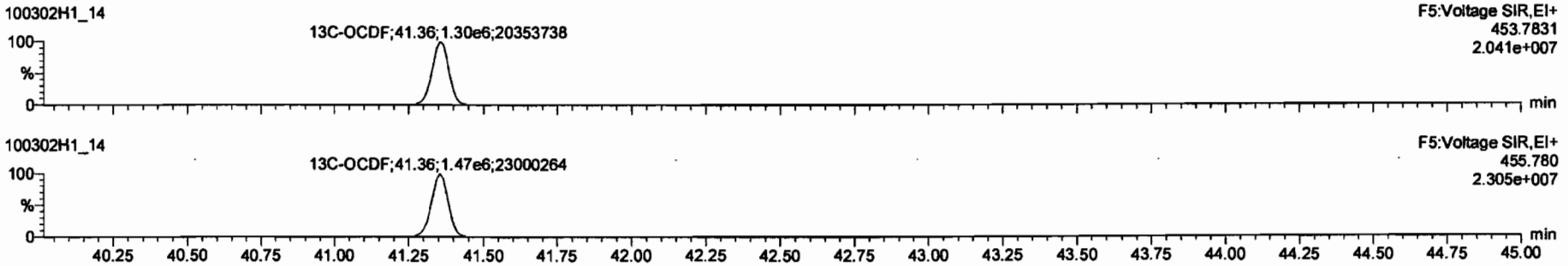

DPE5

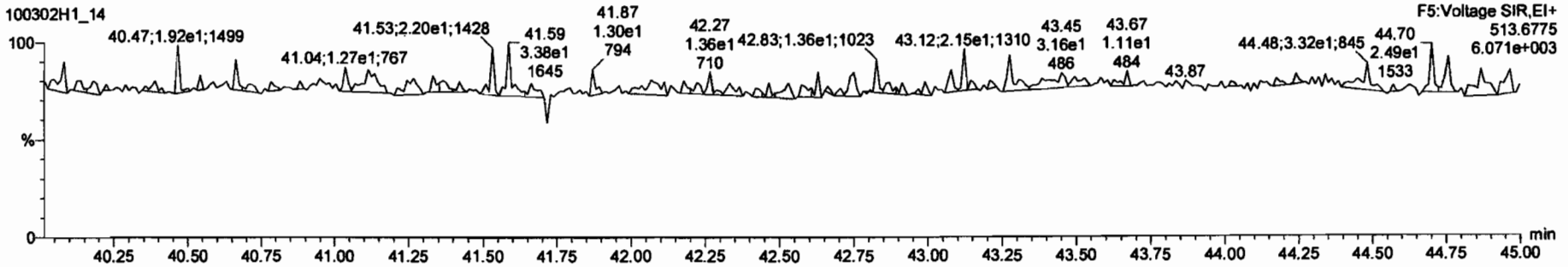

TargetLynx - 100302h1-14.qld * - [Chromatogram]

File Edit View Display Processing Window Help

100302H1_14 - 32455_2836_001 CAPA-10-13498 .93 - CAPA-10-13498

	Name	Resp	%RA	IntV	RRF	w/vol	RT	RRT	Conc	%Rec	HDL	EMPC
18	13C-2,3,7,8-TCDD	2.33e6	0.78	NO	1.10	0.930	25.99	1.021	1680	78.1	1.02	
19	13C-1,2,3,7,8-PeCDD	1.86e6	0.63	NO	1.09	0.930	30.53	1.200	1350	62.6	1.15	
20	13C-1,2,3,4,7,8-HxCDD	1.68e6	1.26	NO	1.01	0.930	33.88	1.014	1710	79.4	1.38	
21	13C-1,2,3,6,7,8-HxCDD	1.49e6	1.25	NO	0.89	0.930	33.99	1.017	1730	80.3	1.57	

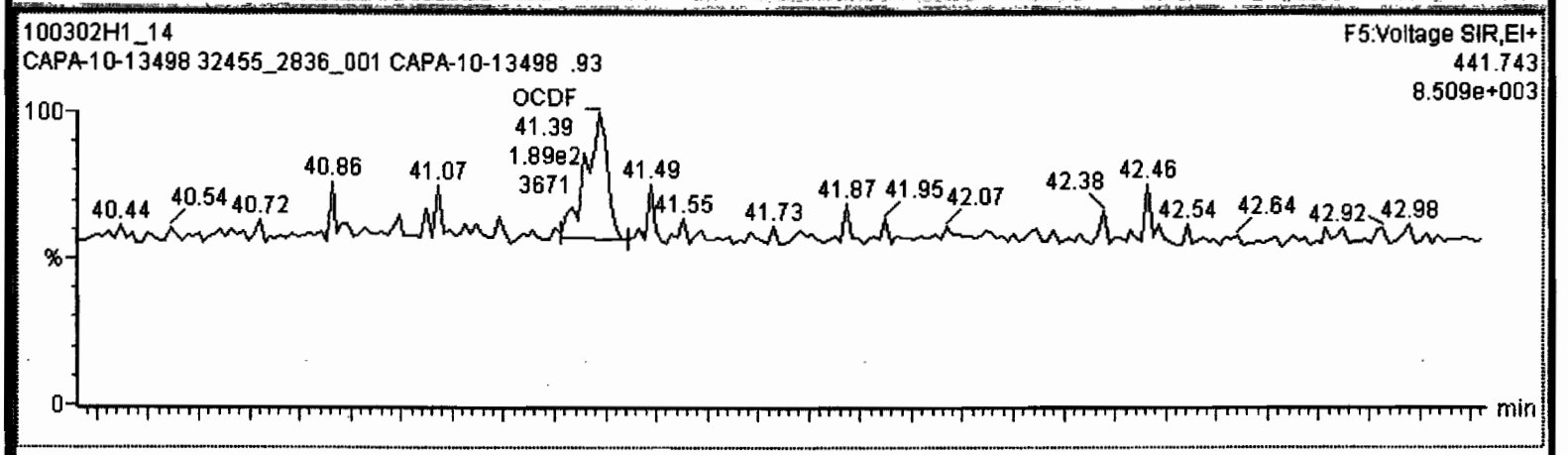

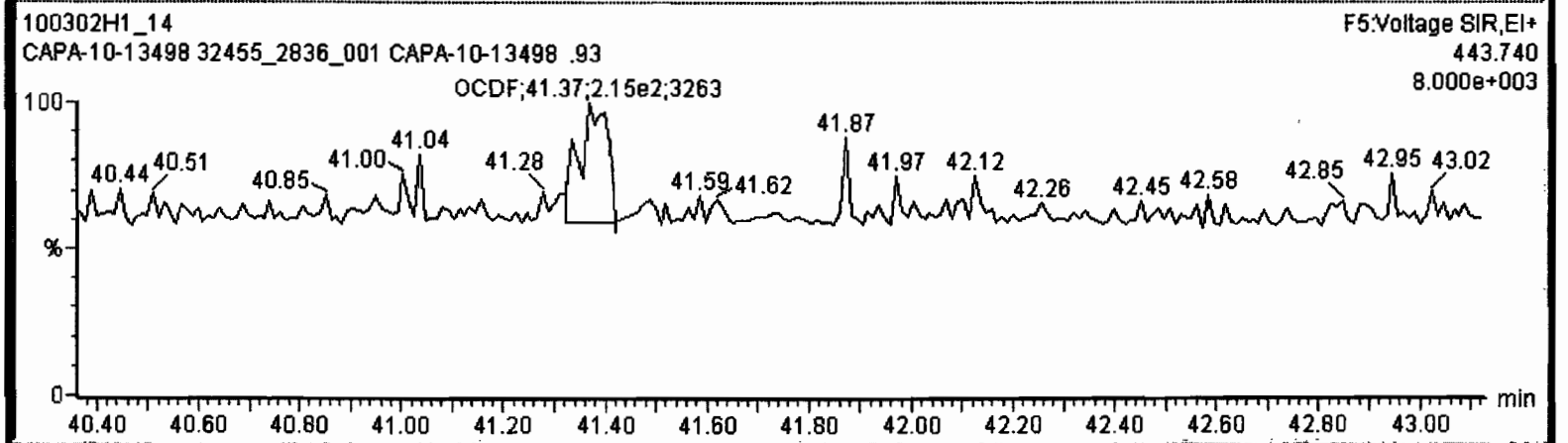

Ready 100302H1_14 NUM

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-14.qld

Last Altered: Wednesday, March 03, 2010 08:23:43 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:24:00 Pacific Standard Time

Name: 100302H1_14, Date: 02-Mar-2010, Time: 21:37:47, ID: 32455_2836_001 CAPA-10-13498 .93, Description: CAPA-10-13498

PFK1

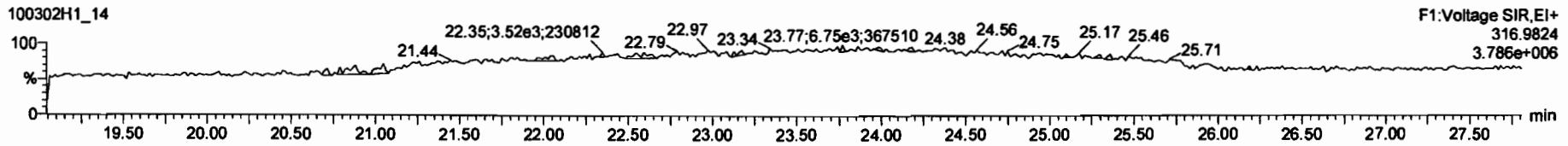

PFK2

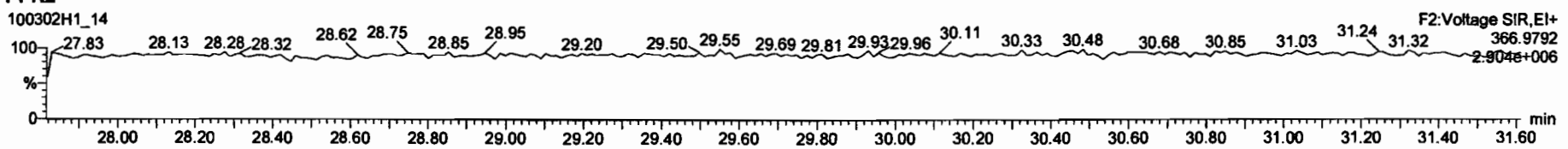

PFK3

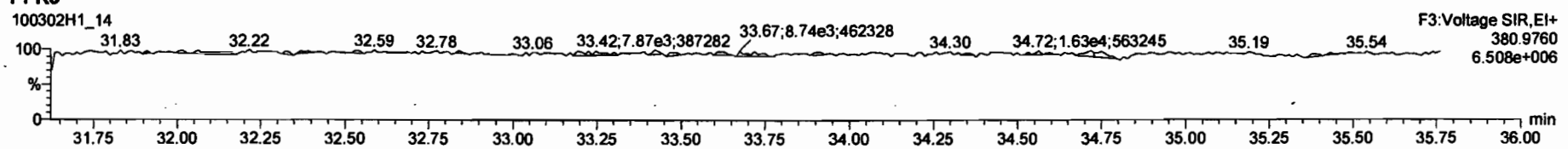

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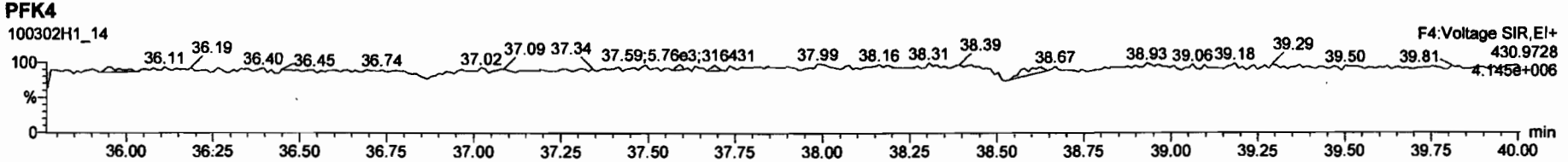

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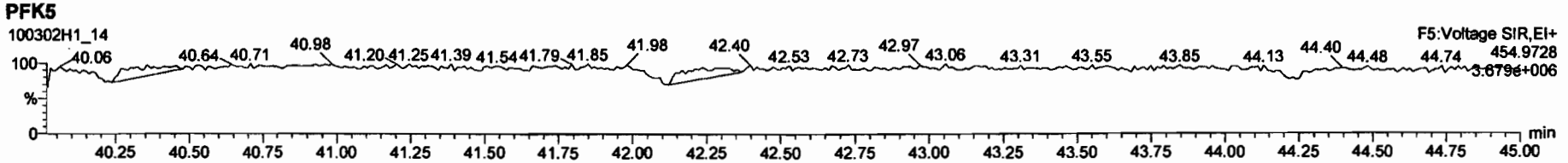

CALIBRATION DATA

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Vista Analytical Laboratory
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
VER Data file name: 100302H1_1

CCAL ID: ST100302H1-1

GC Column ID: DB-5
Analysis Date: 02-Mar-10 Analysis Time: 10:53:04

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
2,3,7,8-TCDD	M/M+2	0.78	0.65-0.89	NO	9.98	7.8	12.9	Yes	8.00	12.0	Yes
						8.2	12.3 (4)				
1,2,3,7,8-PeCDD	M/M+2	0.61	0.54-0.72	NO	48.7	39.0	65.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	48.4	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	48.8	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDD	M+2/M+4	1.22	1.05-1.43	NO	48.5	41.0	61.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	NO	47.5	43.0	58.0	Yes	40.0	60.0	Yes
OCDD	M+2/M+4	0.88	0.76-1.02	NO	95.2	79.0	126.0	Yes	80.0	120.0	Yes
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	NO	10.3	8.4	12.0	Yes	8.00	12.0	Yes
						8.6	11.6 (4)				
1,2,3,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	NO	50.2	41.0	60.0	Yes	40.0	60.0	Yes
2,3,4,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	NO	49.4	41.0	60.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDF	M+2/M+4	1.28	1.05-1.43	NO	51.0	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	NO	50.5	44.0	57.0	Yes	40.0	60.0	Yes
2,3,4,6,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	NO	50.9	44.0	57.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDF	M+2/M+4	1.27	1.05-1.43	NO	49.8	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.05	0.88-1.20	NO	49.1	45.0	55.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.06	0.88-1.20	NO	50.3	43.0	58.0	Yes	40.0	60.0	Yes
OCDF	M+2/M+4	0.91	0.76-1.02	NO	96.3	63.0	159.0	Yes	80.0	120.0	Yes

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [signature]
Date: 3/2/10

8290 only

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Vista Analytical Laboratory
CCAL ID: ST100302H1-1
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
GC Column ID: DB-5
VER Data file name: 100302H1_1
Analysis Date: 02-Mar-10
Analysis Time: 10:53:04

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
13C-2,3,7,8-TCDD	M+2/M+4	0.78	0.65-0.89	NO	102	82.0	121.0	Yes	70.0	130.0	Yes
						85.0	117.0 (5)				
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	NO	81.6	62.0	160.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	105	85.0	117.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	106	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	104	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.04	0.88-1.20	NO	106	72.0	138.0	Yes	70.0	130.0	Yes
13C-OCDD	M+2/M+4	0.90	0.76-1.02	NO	193	96.0	415.0	Yes	140.0	260.0	Yes
13C-2,3,7,8-TCDF	M/M+2	0.79	0.65-0.89	NO	98.7	71.0	140.0	Yes	70.0	130.0	Yes
						76.0	131.0 (5)				
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	NO	85.7	76.0	130.0	Yes	70.0	130.0	Yes
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.55	1.32-1.78	NO	76.8	77.0	130.0	No	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	89.8	76.0	131.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	97.0	70.0	143.0	Yes	70.0	130.0	Yes
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.53	0.43-0.59	NO	99.4	73.0	137.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.50	0.43-0.59	NO	105	74.0	135.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.45	0.37-0.51	NO	105	78.0	129.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	NO	104	77.0	129.0	Yes	70.0	130.0	Yes
13C-OCDF	M+2/M+4	0.88	0.76-1.02	NO	186	96.0	415.0	Yes	140.0	260.0	Yes
CLEANUP STANDARD (4)											
37Cl-2,3,7,8-TCDD					9.64	7.9	12.7	Yes	7.0	13.0	Yes
						8.3	12.1 (5)				

8290 only

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) No ion abundance ratio; report concentration found
(5) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [signature]
Date: 3/2/10

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Tuesday, March 02, 2010 12:37:07 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:37:52 Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

	Name	RT
1	1,3,6,8-TCDD (First)	22.73
2	1,2,8,9-TCDD (Last)	26.89
3	1,2,4,7,9-PeCDD (First)	28.49
4	1,2,3,8,9-PeCDD (Last)	30.92
5	12,4,6,7,9-HxCDD (First)	32.36
6	1,2,3,7,8,9-HxCDD (Last)	34.32
7	1,2,3,4,6,7,9-HpCDD (First)	36.96
8	1,2,3,4,6,7,8-HpCDD (Last)	37.82
9	1,3,6,8-TCDF (First)	20.69
10	1,2,8,9-TCDF (Last)	27.04
11	1,3,4,6,8-PeCDF (First)	26.98
12	1,2,3,8,9-PeCDF (Last)	31.17
13	1,2,3,4,6,8-HxCDF (First)	31.81
14	1,2,3,4,8,9-HxCDF (Last)	34.72
15	1,2,3,4,6,7,8-HpCDF (First)	36.57
16	1,2,3,4,7,8,9-HpCDF (Last)	38.37

3/2/10

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
VER Data file name: 100302H1_1

CCAL ID: ST100302H1-1
GC Column ID: DB-5
Analysis Date: 02-Mar-10
Analysis Time: 10:53:04

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999	1.002	Yes
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.000	0.999	1.002	Yes
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999	1.003	Yes
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999	1.002	Yes
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999	1.002	Yes
LABELED COMPOUNDS					
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.976	1.043	Yes
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.200	1.000	1.567	Yes
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.992	0.923	1.103	Yes
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.153	1.000	1.425	Yes
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.189	1.011	1.526	Yes
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.023	0.989	1.052	Yes

Analyst: _____

Date: 3/2/10

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
VER Data file name: 100302H1_1

CCAL ID: ST100302H1-1
GC Column ID: DB-5
Analysis Date: 02-Mar-10
Analysis Time: 10:53:04

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999	1.001	Yes
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998	1.004	Yes
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.009	0.998	1.004	No
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.001	0.999	1.001	Yes
OCDD	13C-OCDD	1.001	0.999	1.001	Yes
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.001	0.999	1.001	Yes
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	0.997	1.005	Yes
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.000	0.999	1.001	Yes
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999	1.001	Yes
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.000	0.999	1.001	Yes
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999	1.001	Yes
OCDF	13C-OCDF	1.000	0.999	1.001	Yes
LABELED COMPOUNDS					
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.014	1.002	1.026	Yes
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.017	1.007	1.029	Yes
13C-1,2,3,7,8,9-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.027	1.014	1.038	Yes
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,9-HxCDF	1.131	1.117	1.141	Yes
13C-OCDD	13C-1,2,3,4,6,9-HxCDF	1.230	1.085	1.365	Yes
13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.987	0.975	1.001	Yes
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.991	0.979	1.005	Yes
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.009	1.001	1.020	Yes
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.038	1.002	1.072	Yes
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.094	1.069	1.111	Yes
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.148	1.098	1.192	Yes
13C-OCDF	13C-1,2,3,4,6,9-HxCDF	1.238	1.091	1.371	Yes

Analyst: _____

Date: 3/2/10

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:49 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

	Name	RF	RA	IW	RRF	RRT	RT	FRT	Conc	%Rec	DL	EMPC
1	2,3,7,8-TCDD	1.98e5	0.78	NO	1.04	1.000	26.03	1.001	9.9778	99.8	0.0229	9.9778
2	1,2,3,7,8-PeCDD	6.94e5	0.61	NO	0.935	1.000	30.55	1.000	48.734	97.5	0.0566	48.734
3	1,2,3,4,7,8-HxCDD	6.47e5	1.24	NO	0.907	1.000	33.91	1.000	48.434	96.9	0.0704	48.434
4	1,2,3,6,7,8-HxCDD	6.40e5	1.24	NO	0.995	1.000	34.01	1.000	48.803	97.6	0.0708	48.803
5	1,2,3,7,8,9-HxCDD	7.05e5	1.22	NO	0.930	1.000	34.32	1.009	48.539	97.1	0.0696	48.539
6	1,2,3,4,6,7,8-HpCDD	5.86e5	1.05	NO	1.00	1.000	37.82	1.001	47.456	94.9	0.0855	47.456
7	OCDD	1.01e6	0.88	NO	1.10	1.000	41.15	1.001	95.223	95.2	0.0506	95.223
8	2,3,7,8-TCDF	2.63e5	0.77	NO	0.956	1.000	25.27	1.001	10.252	103	0.0175	10.252
9	1,2,3,7,8-PeCDF	1.06e6	1.56	NO	0.941	1.000	29.37	1.000	50.224	100	0.0437	50.224
10	2,3,4,7,8-PeCDF	9.74e5	1.55	NO	0.926	1.000	30.27	1.000	49.365	98.7	0.0440	49.365
11	1,2,3,4,7,8-HxCDF	1.07e6	1.28	NO	1.22	1.000	33.02	1.001	51.044	102	0.0678	51.044
12	1,2,3,6,7,8-HxCDF	1.00e6	1.26	NO	1.08	1.000	33.14	1.000	50.465	101	0.0694	50.465
13	2,3,4,6,7,8-HxCDF	9.37e5	1.26	NO	1.13	1.000	33.74	1.000	50.885	102	0.0798	50.885
14	1,2,3,7,8,9-HxCDF	8.63e5	1.27	NO	1.13	1.000	34.72	1.001	49.825	99.6	0.0901	49.825
15	1,2,3,4,6,7,8-HpCDF	8.83e5	1.05	NO	1.44	1.000	36.57	1.000	49.095	98.2	0.0901	49.095
16	1,2,3,4,7,8,9-HpCDF	7.95e5	1.06	NO	1.38	1.000	38.37	1.000	50.281	101	0.0850	50.281
17	OCDF	1.20e6	0.91	NO	1.01	1.000	41.38	1.000	96.275	96.3	0.0444	96.275
18	13C-2,3,7,8-TCDD	1.91e6	0.78	NO	1.10	1.000	26.00	1.022	101.96	102	0.0780	
19	13C-1,2,3,7,8-PeCDD	1.52e6	0.62	NO	1.09	1.000	30.54	1.200	81.621	81.6	0.0678	
20	13C-1,2,3,4,7,8-HxCDD	1.47e6	1.24	NO	1.01	1.000	33.89	1.014	104.59	105	0.104	
21	13C-1,2,3,6,7,8-HxCDD	1.32e6	1.24	NO	0.889	1.000	34.00	1.017	106.34	106	0.118	
22	13C-1,2,3,7,8,9-HxCDD	1.56e6	1.24	NO	1.07	1.000	34.31	1.027	104.44	104	0.0976	
23	13C-1,2,3,4,6,7,8-HpCDD	1.23e6	1.04	NO	0.837	1.000	37.80	1.131	105.66	106	0.173	
24	13C-OCDD	1.91e6	0.90	NO	0.712	1.000	41.13	1.230	193.05	96.5	0.0760	
25	13C-2,3,7,8-TCDF	2.68e6	0.79	NO	1.05	1.000	25.24	0.992	98.679	98.7	0.0598	
26	13C-1,2,3,7,8-PeCDF	2.25e6	1.56	NO	1.02	1.000	29.35	1.153	85.664	85.7	0.104	
27	13C-2,3,4,7,8-PeCDF	2.13e6	1.55	NO	1.08	1.000	30.26	1.189	76.803	76.8	0.0985	
28	13C-1,2,3,4,7,8-HxCDF	1.71e6	0.52	NO	1.37	1.000	32.99	0.987	89.836	89.8	0.104	
29	13C-1,2,3,6,7,8-HxCDF	1.85e6	0.52	NO	1.37	1.000	33.13	0.991	96.990	97.0	0.104	
30	13C-2,3,4,6,7,8-HxCDF	1.64e6	0.53	NO	1.18	1.000	33.73	1.009	99.435	99.4	0.120	

3/2/10

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:49 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

31	13C-1,2,3,7,8,9-HxCDF	1.53e6	0.50	NO	1.05	1.000	34.70	1.038	104.92	105	0.135
32	13C-1,2,3,4,6,7,8-HpCDF	1.25e6	0.45	NO	0.858	1.000	36.56	1.094	104.62	105	0.196
33	13C-1,2,3,4,7,8,9-HpCDF	1.15e6	0.44	NO	0.794	1.000	38.36	1.148	103.71	104	0.211
34	13C-OCDF	2.46e6	0.88	NO	0.948	1.000	41.37	1.238	186.23	93.1	0.0538
35	37Cl-2,3,7,8-TCDD	1.09e5			0.665	1.000	26.03	1.023	9.6403	96.4	0.0528
36	13C-1,2,3,4-TCDD	1.70e6	0.79	NO	1.00	1.000	25.45	0.000	100.00	100	0.0857
37	13C-1,2,3,4-TCDF	2.58e6	0.77	NO	1.00	1.000	24.07	0.000	100.00	100	0.0629
38	13C-1,2,3,4,6,9-HxCDF	1.39e6	0.52	NO	1.00	1.000	33.42	0.000	100.00	100	0.142

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, March 03, 2010 8:06:52 AM Pacific Standard Time
Printed: Wednesday, March 03, 2010 8:07:08 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Compound name: 1,3,6,8-TCDD (First)

	ID	Acq Date	Acq Time
100302H1_1	ST100302H1-1 1613 CS3 100127F	02-Mar-10	10:53:04
100302H1_2	solvent blank	02-Mar-10	11:42:34
100302H1_3	solvent blank	02-Mar-10	12:32:05
100302H1_4	solvent blank	02-Mar-10	13:21:39
100302H1_5	0_2836_OPR001	02-Mar-10	14:11:13
100302H1_6	solvent blank	02-Mar-10	15:01:15
100302H1_7	0_2836_MB001	02-Mar-10	15:50:57
100302H1_8	32447_2836_001 CAMO-10-9357 .896	02-Mar-10	16:40:37
100302H1_9	32448_2836_001 CAMO-10-9370 .903	02-Mar-10	17:30:08
100302H1_10	32448_2836_002 CAMO-10-9373 .87	02-Mar-10	18:19:40
100302H1_11	32448_2836_003 CAMO-10-10133 .825	02-Mar-10	19:09:11
100302H1_12	32449_2836_001 CAPA-10-12691 .918	02-Mar-10	19:58:44
100302H1_13	32453_2836_001 CAWA-10-13090 .91	02-Mar-10	20:48:17
100302H1_14	32455_2836_001 CAPA-10-13498 .93	02-Mar-10	21:37:47
100302H1_15	32458_2836_001 CAPA-10-12917 .905	02-Mar-10	22:26:20
100302H1_16	solvent blank	02-Mar-10	23:15:51
100302H1_17	ST100302H1-2 1613 CS3 100127F	03-Mar-10	00:05:17

CALIBRATION STANDARDS REVIEW CHECKLIST

Vista Analytical Laboratory

Beg. Calibration ID: ST100302H1-1 End Calibration ID: ST100302H1-2

	Beg.	End
Ion abundance within QC limits?	✓	✓
Concentration within range?	✓	✓
First and last eluters present?	✓	✓
Retention Times within criteria?	✓	✓
Verification Std. named correctly? (ST-Year-Month-Day-VG ID)	✓	✓
Forms signed and dated? *	✓	✓
Correct ICAL referenced?	✓	✓
Run Log:		
-Data file matches Conc Cal ID?	✓	✓
-Correct instrument listed?	✓	✓
-Samples within 12-hour clock?	(y)	n

	Beg.	End
Mass resolution > 10,000? ▪ Method 1614 > 5,000; CARB 429 > 8,000	✓	✓
TCDD/TCDF valleys < 25%?	✓	✓
Peaks integrated correctly?	✓	✓
Manual integrations included?	✓	✓
8280 CS1 Ending Standard		
-Ratios within limits	NA	
-S/N > 2.5:1		
-CS1 within 12-hour clock	✓	

Comments: *8290 only

Reviewed by: JMS 3/3/10
Initials & Date

* *Ending standard criteria applicable to 8290 only.*

Vista Analytical Laboratory
El Dorado Hills, CA 95762

Calib.Stds.Review 12/2009 rmh

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed: Tuesday, March 02, 2010 10:50:33 Pacific Standard Time

M 292.9824 R 13298

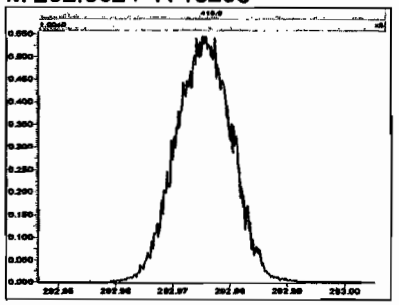

M 304.9824 R 13438

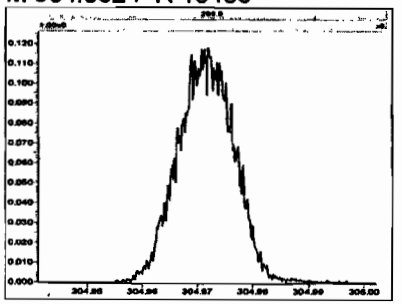

M 318.9792 R 14047

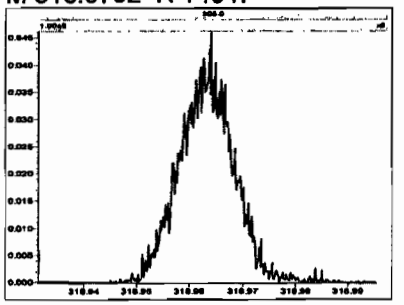

M 330.9792 R 13888

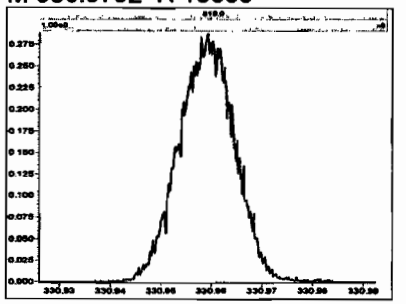

M 342.9792 R 13590

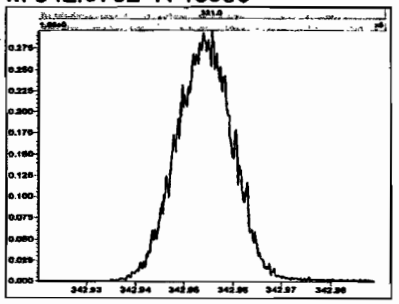

M 354.9792 R 12691

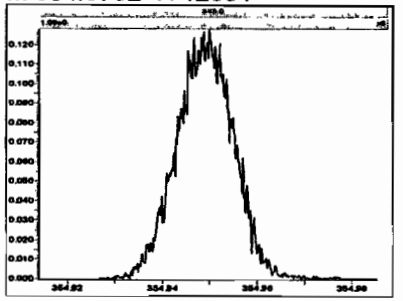

M 366.9792 R 12885

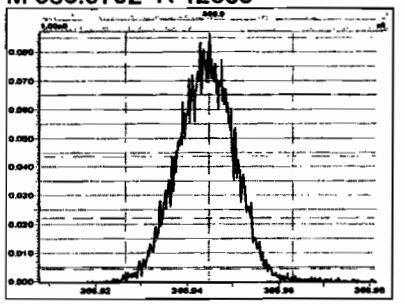

M 380.9760 R 12817

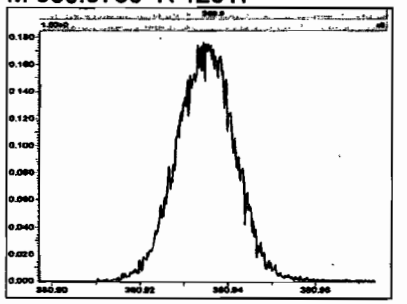

M 392.9760 R 12438

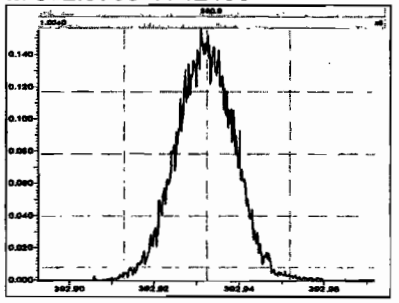

M 404.9760 R 12754

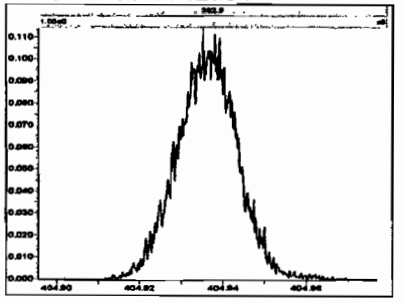

M 416.9760 R 12888

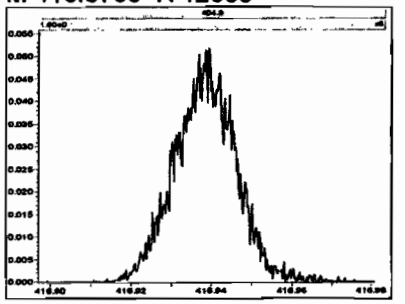

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed: Tuesday, March 02, 2010 10:51:18 Pacific Standard Time

M 330.9792 R 14205

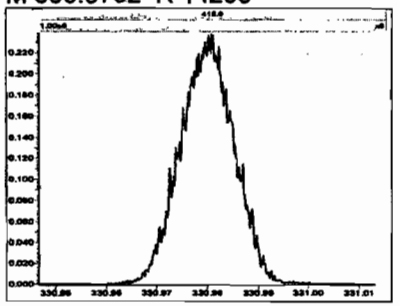

M 342.9792 R 13511

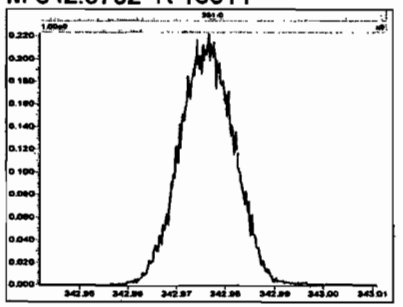

M 354.9792 R 13657

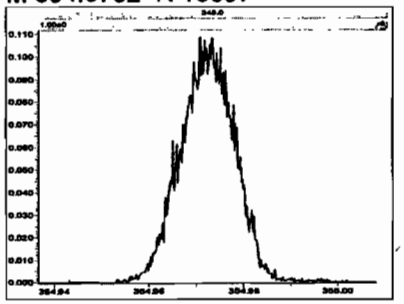

M 366.9792 R 13888

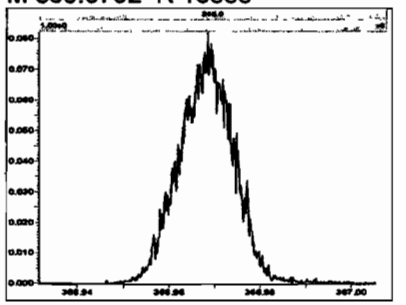

M 380.9760 R 13156

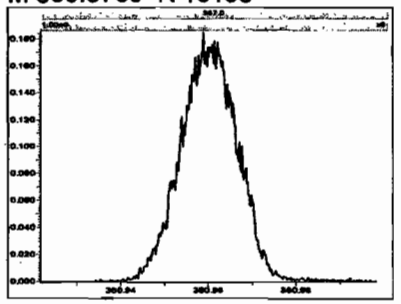

M 392.9760 R 13442

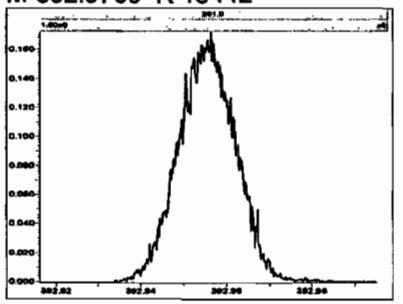

M 404.9760 R 13157

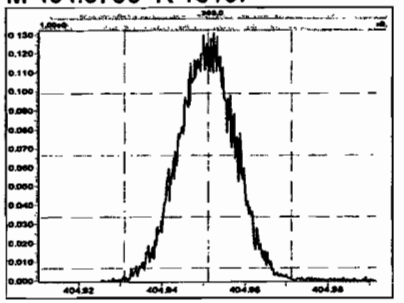

M 416.9760 R 13155

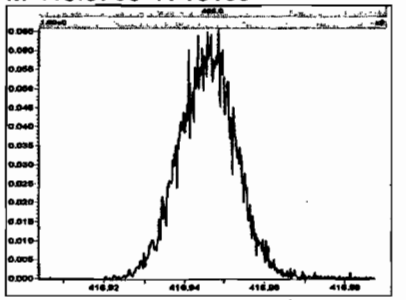

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed: Tuesday, March 02, 2010 10:51:48 Pacific Standard Time

M 366.9792 R 14536

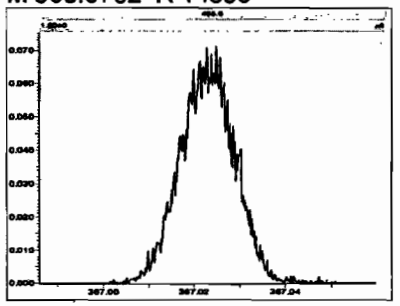

M 380.9760 R 14535

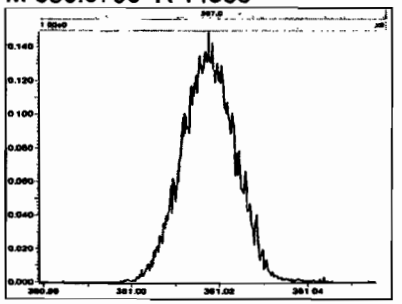

M 392.9760 R 13887

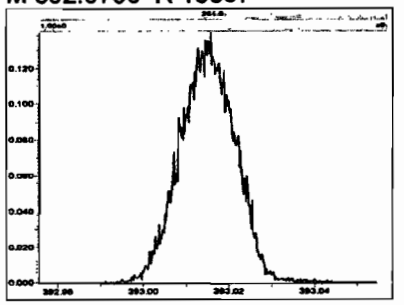

M 404.9760 R 13299

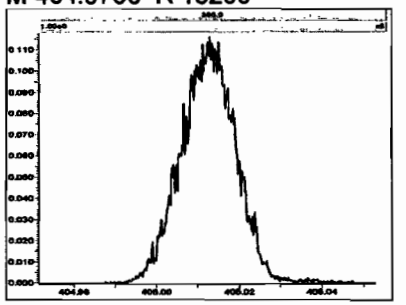

M 416.9760 R 13888

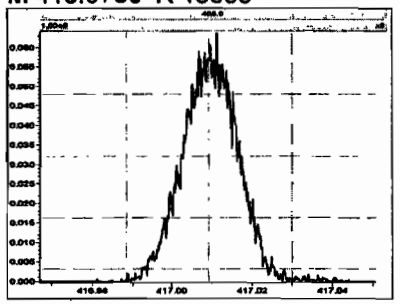

M 430.9728 R 12753

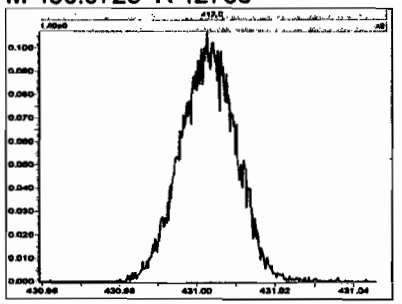

M 442.9728 R 13090

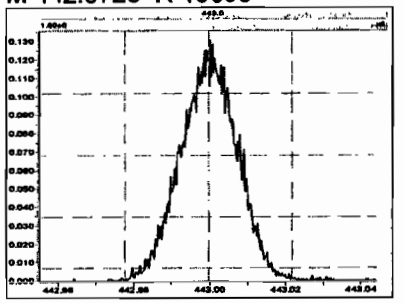

M 454.9728 R 13368

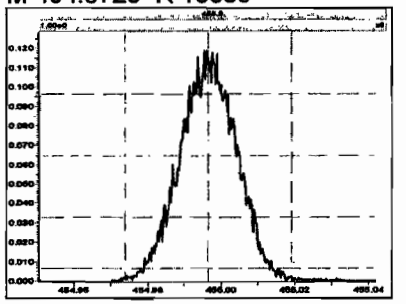

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed: Tuesday, March 02, 2010 10:52:15 Pacific Standard Time

M 404.9760 R 13366

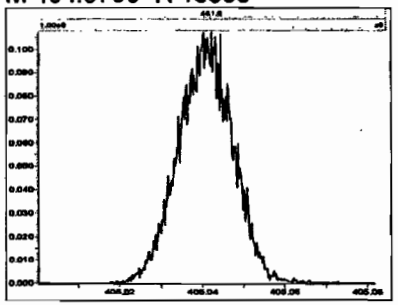

M 416.9760 R 13889

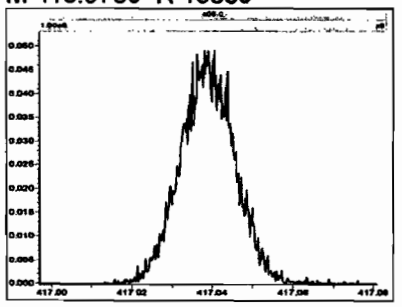

M 430.9728 R 13965

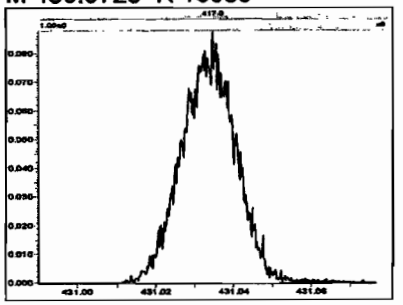

M 442.9728 R 13658

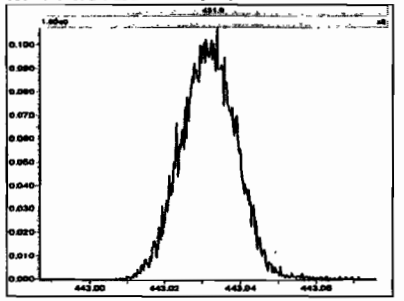

M 454.9728 R 13587

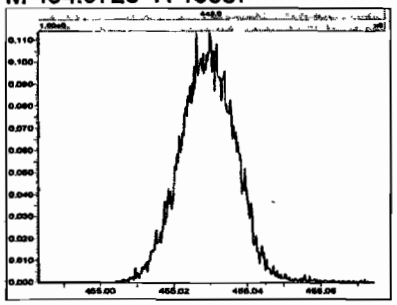

M 466.9728 R 13585

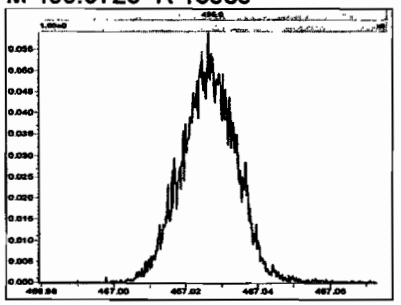

M 480.9696 R 13968

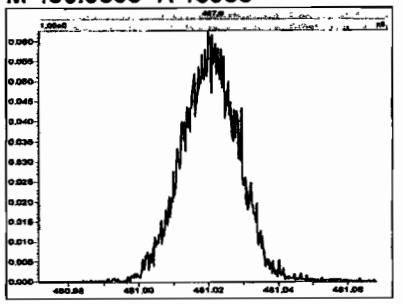

File: Experiment: ocdd_db5.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed: Tuesday, March 02, 2010 10:52:39 Pacific Standard Time

M 430.9728 R 13437

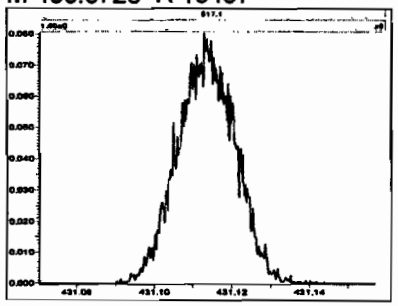

M 442.9728 R 12376

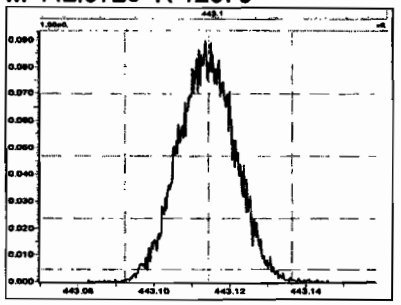

M 454.9728 R 13225

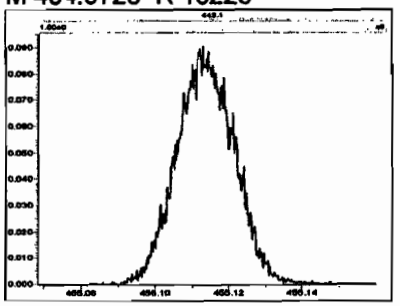

M 466.9728 R 13299

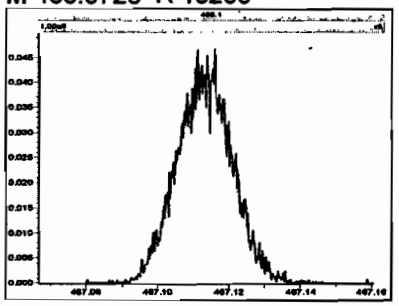

M 480.9696 R 12690

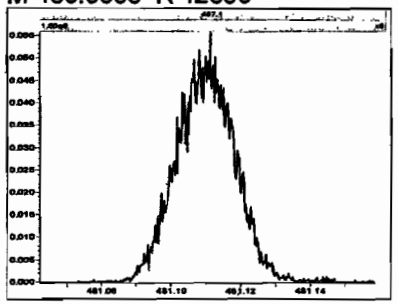

M 492.9696 R 12624

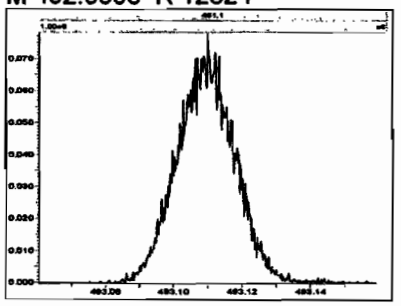

M 504.9696 R 12623

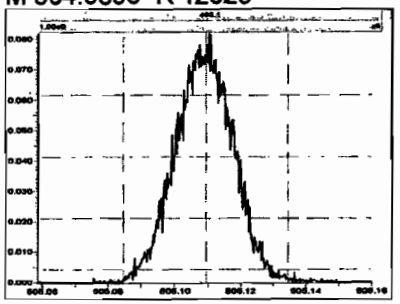

M 516.9697 R 12503

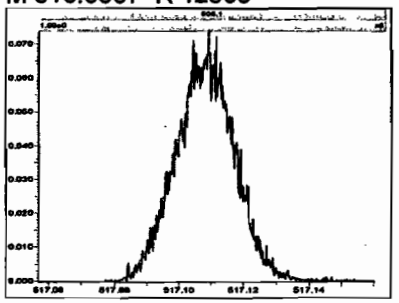

Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Tuesday, March 02, 2010 12:37:07 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:37:52 Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1,3,6,8-TCDD (First)

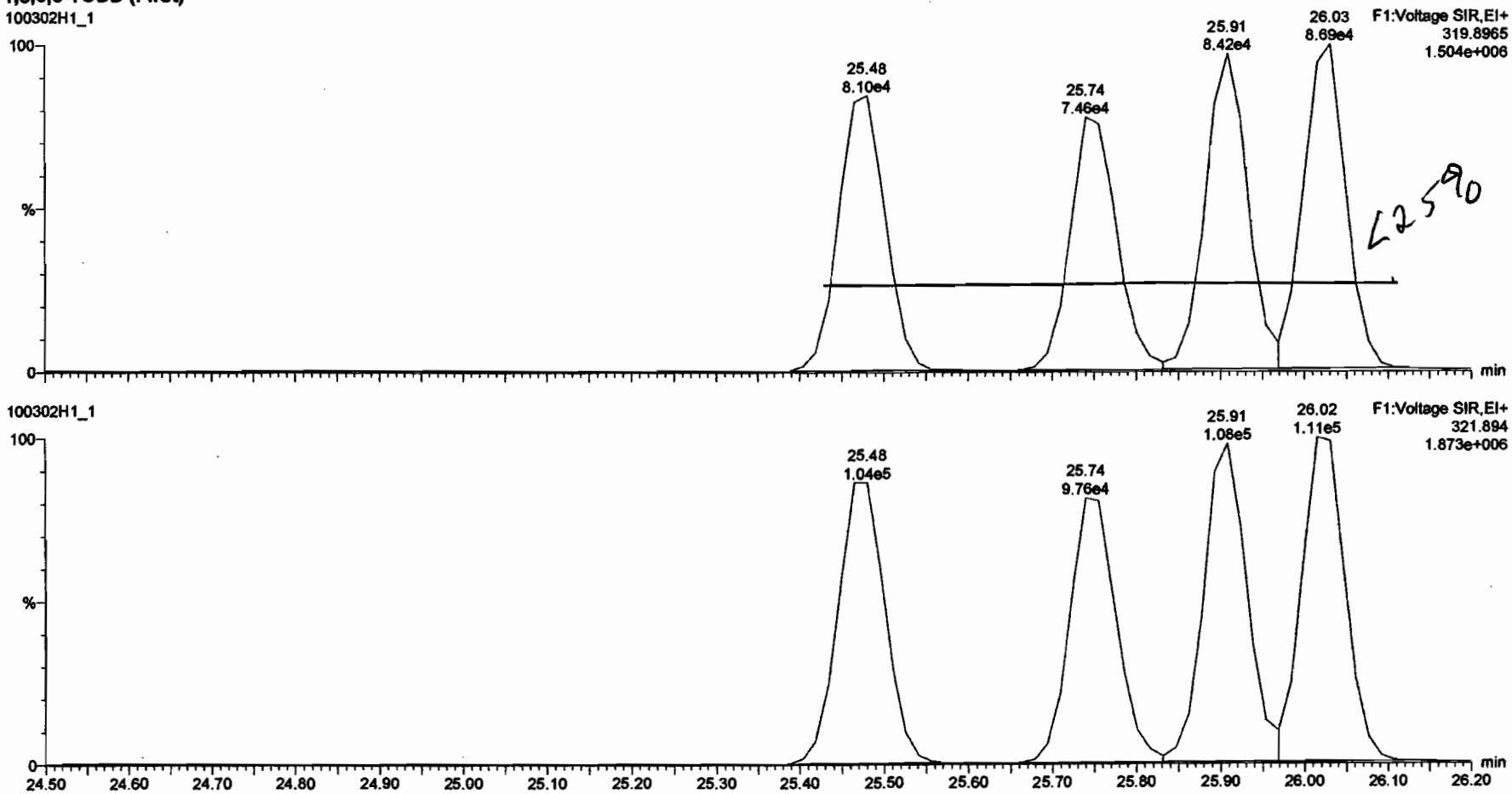

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
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Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

2,3,7,8-TCDD

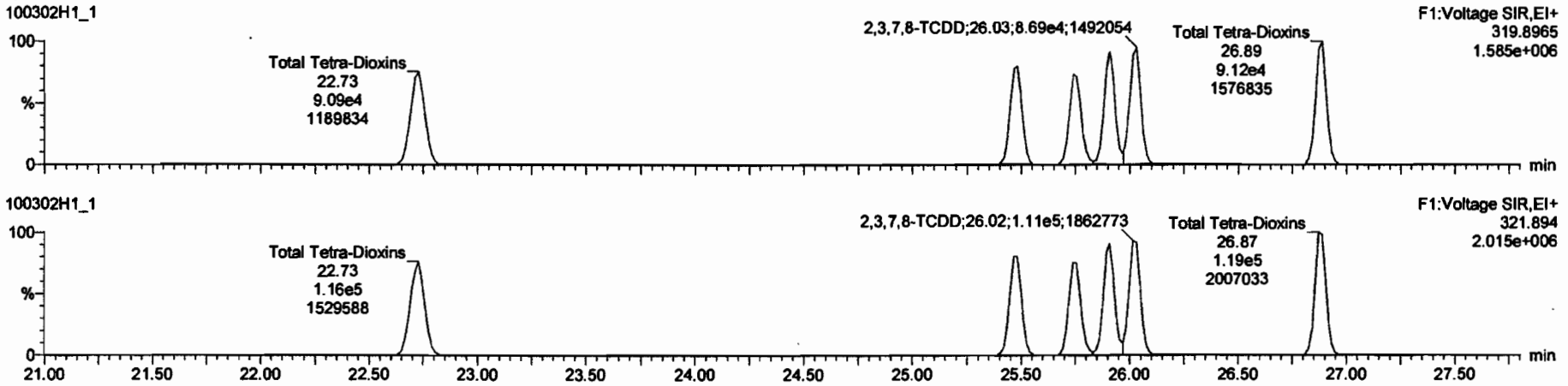

13C-2,3,7,8-TCDD

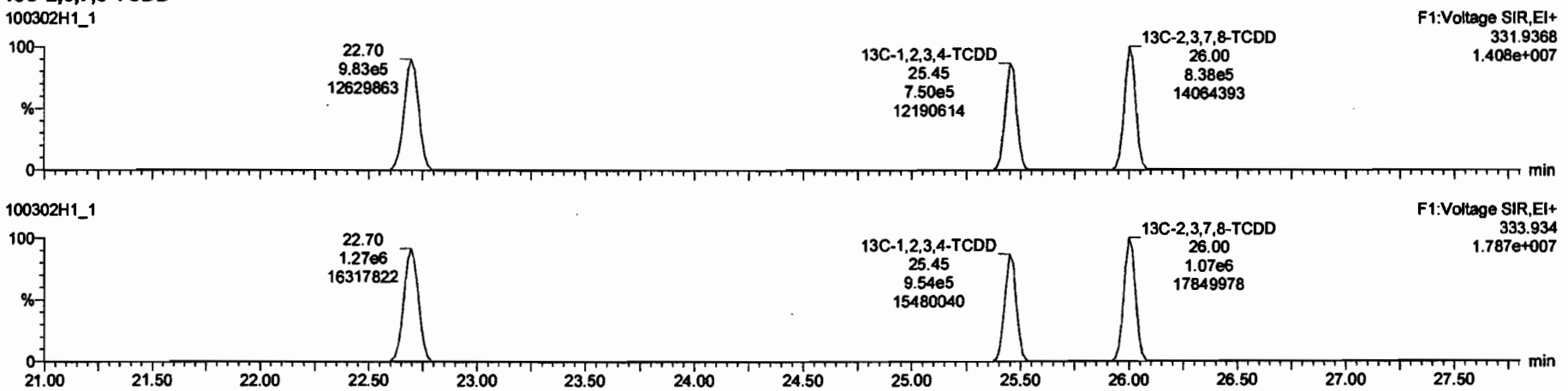

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

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37Cl-2,3,7,8-TCDD

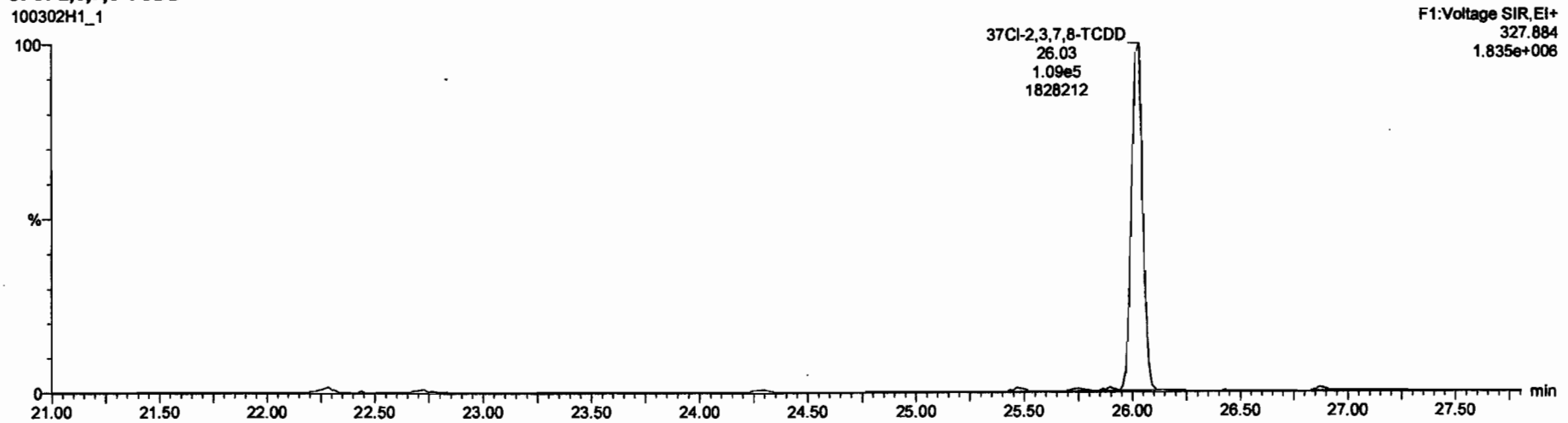

13C-1,2,3,4-TCDD

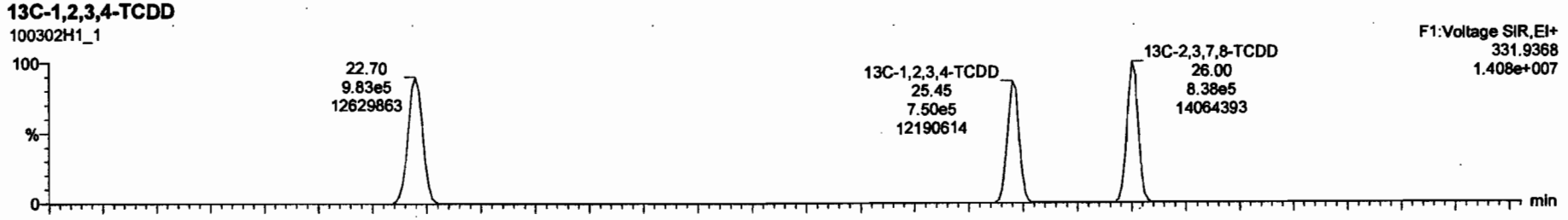

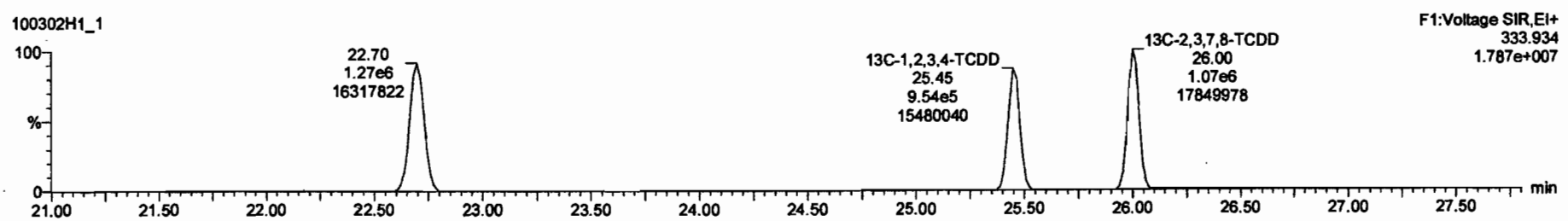

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Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,7,8-PeCDD

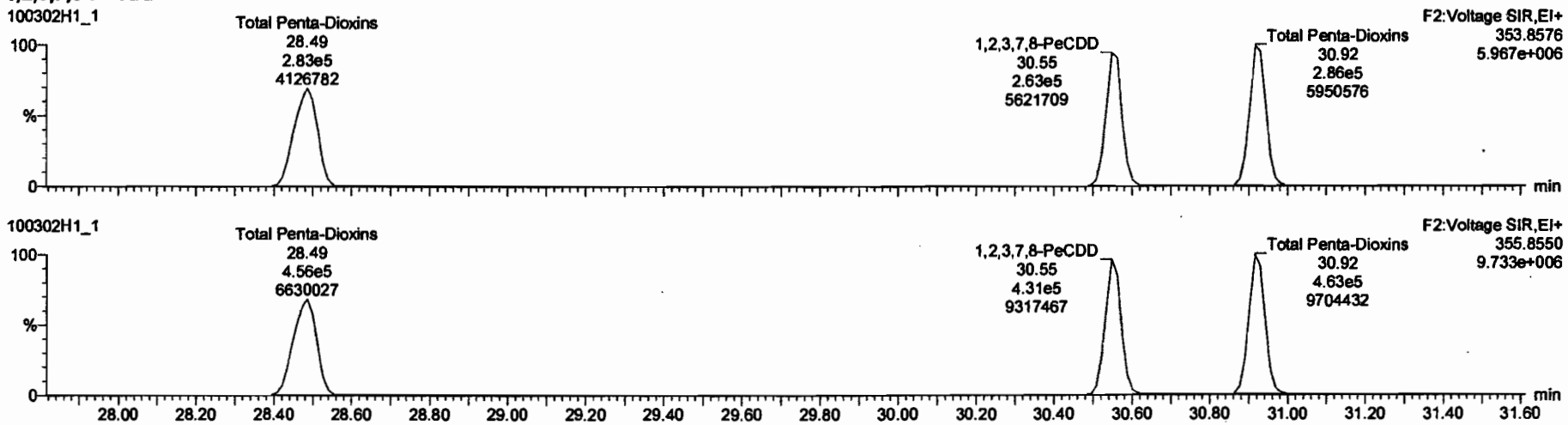

13C-1,2,3,7,8-PeCDD

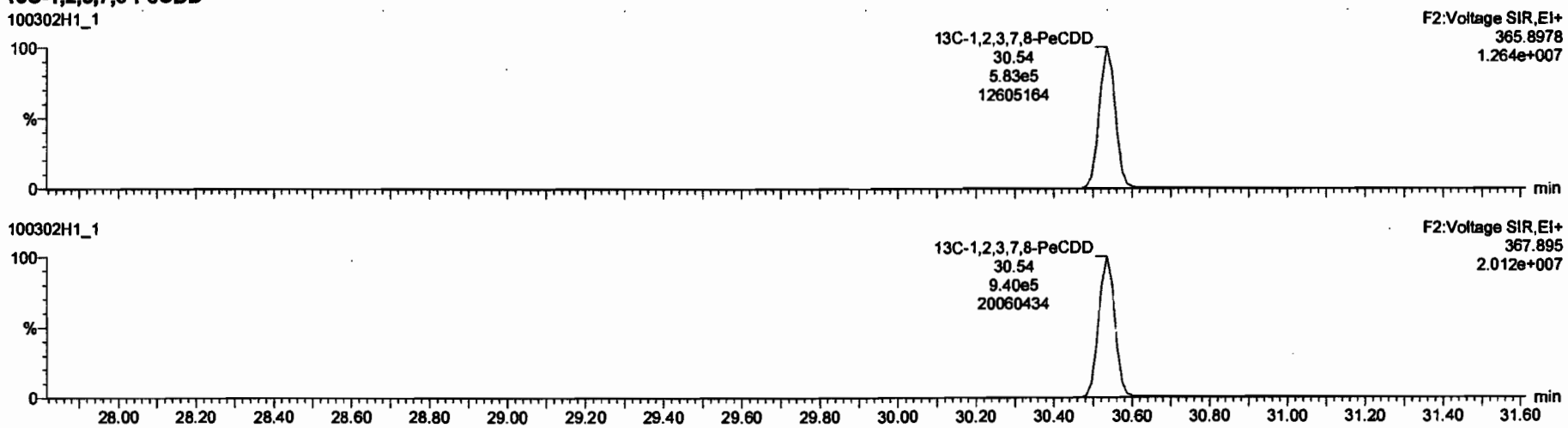

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Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,4,7,8-HxCDD

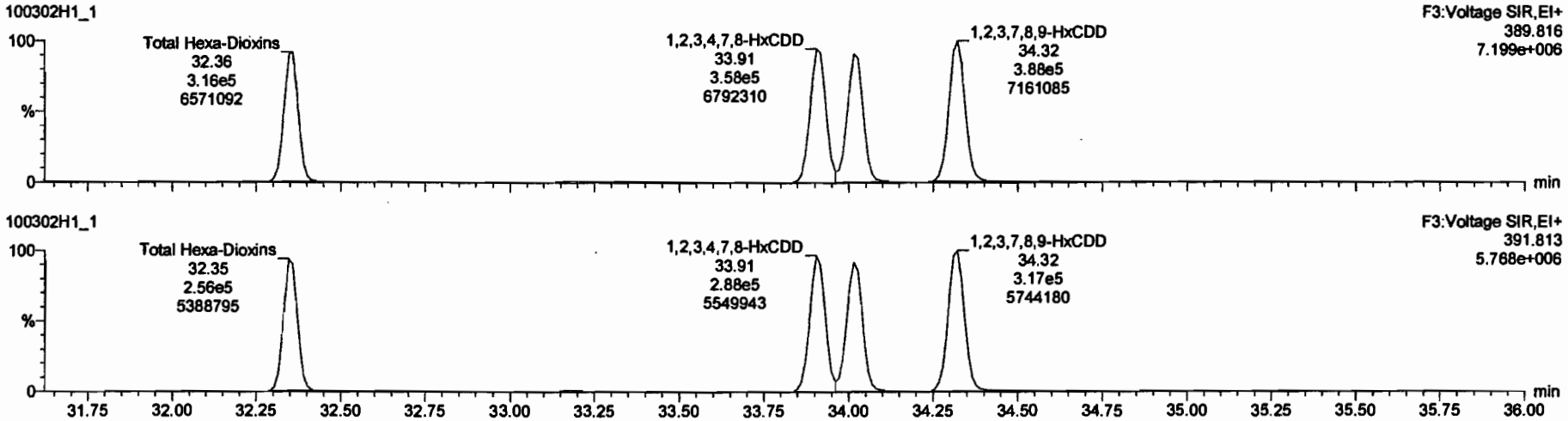

13C-1,2,3,4,7,8-HxCDD

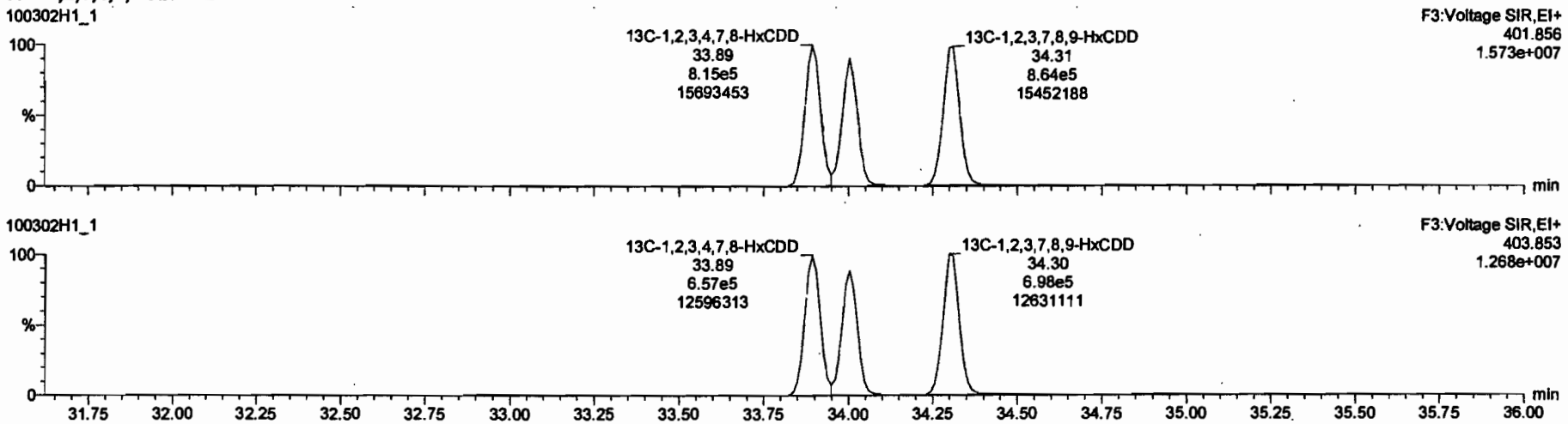

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Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,4,6,7,8-HpCDD

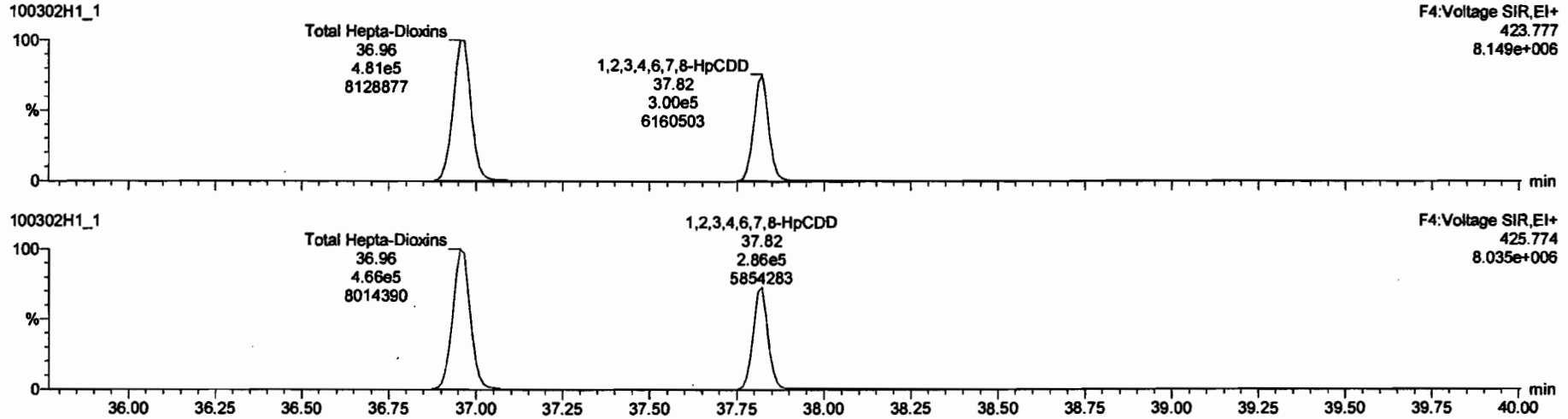

13C-1,2,3,4,6,7,8-HpCDD

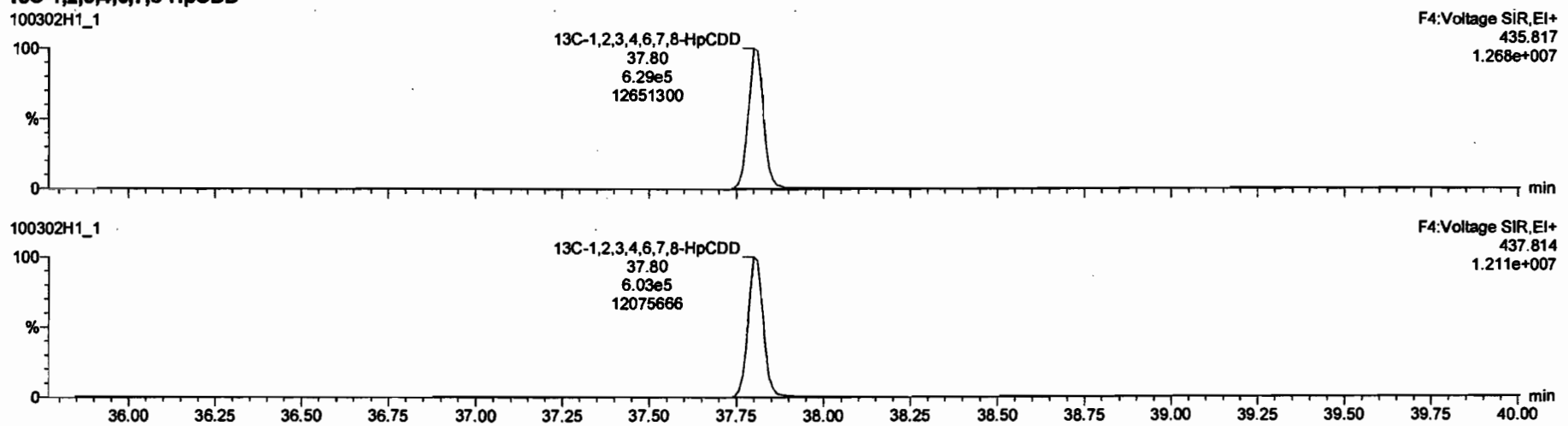

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Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

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OCDD

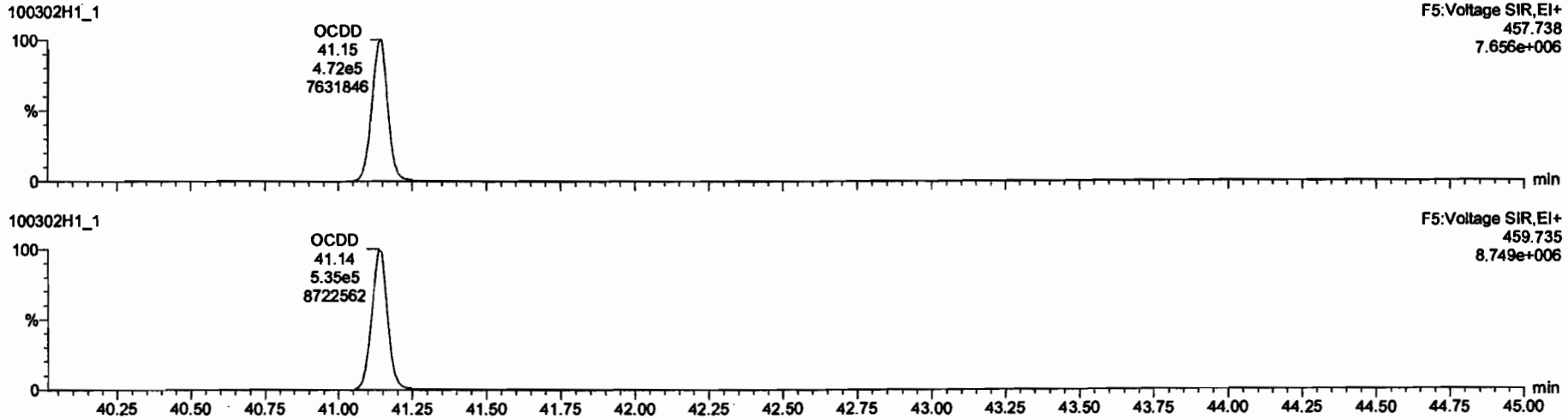

13C-OCDD

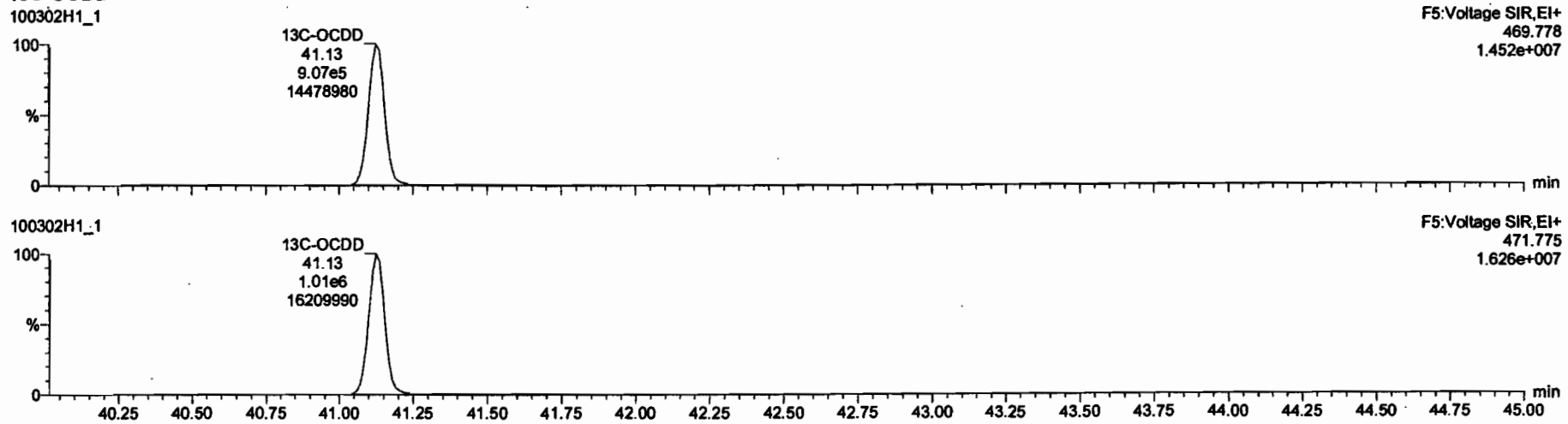

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Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

2,3,7,8-TCDF

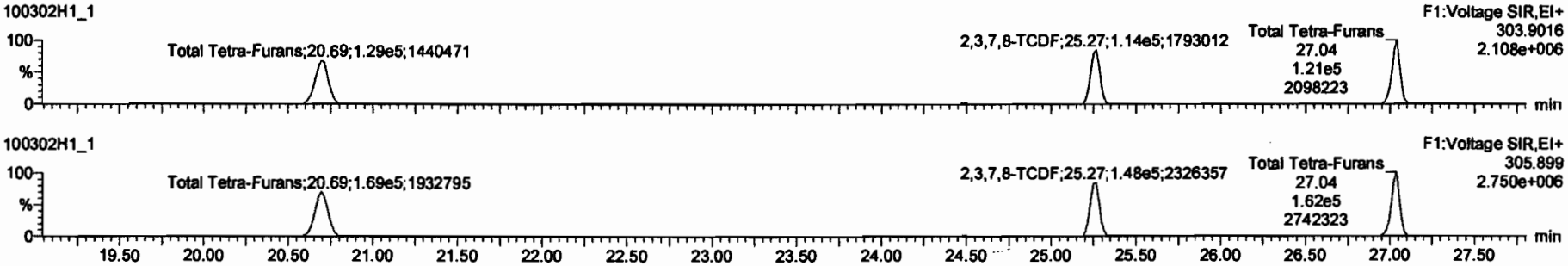

13C-2,3,7,8-TCDF

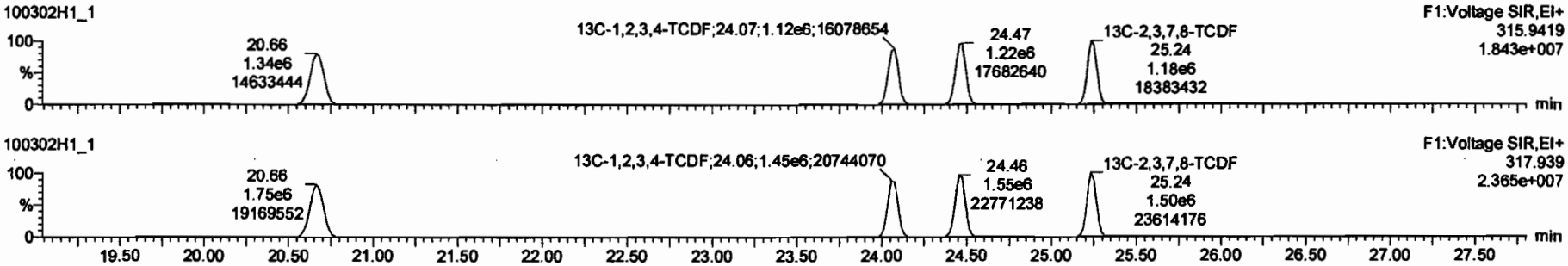

DPE1

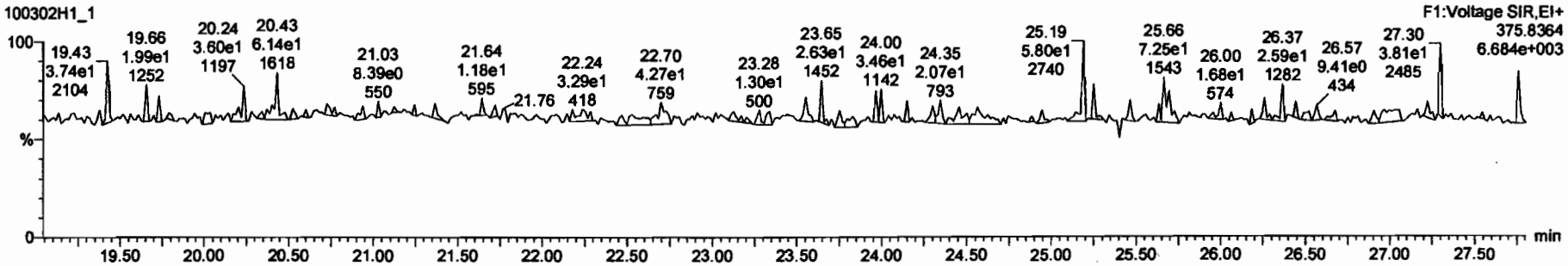

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Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1st Func. Penta-Furans

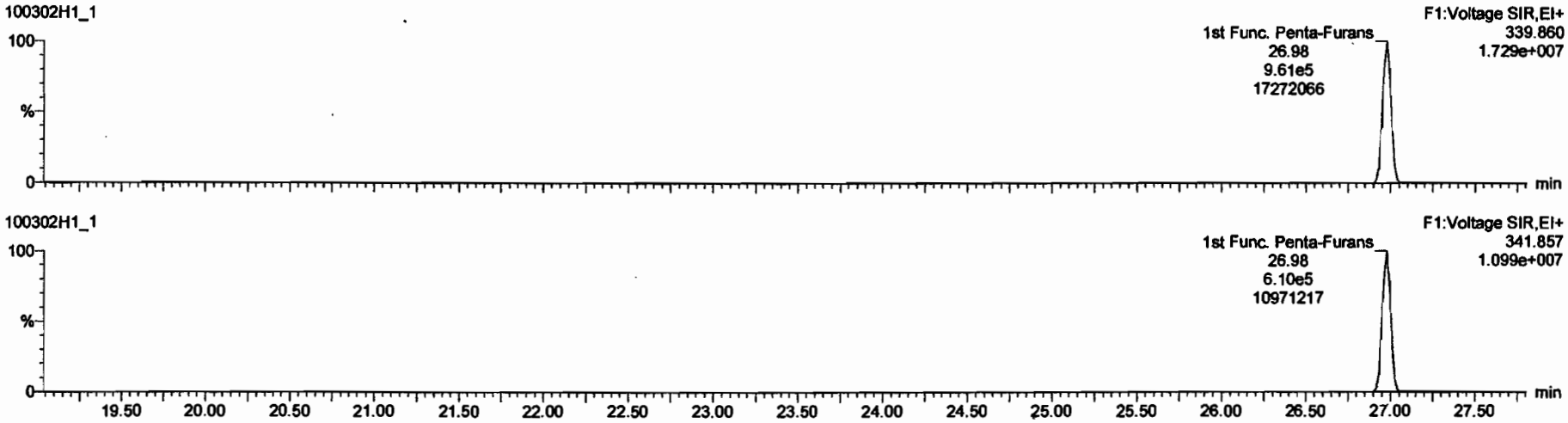

DPE6

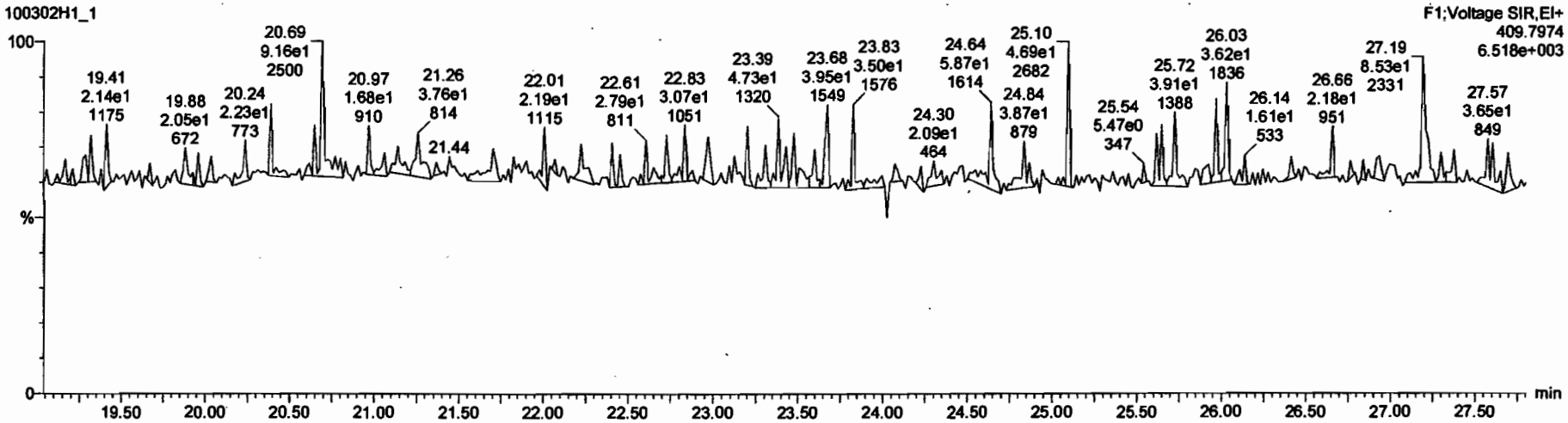

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,7,8-PeCDF

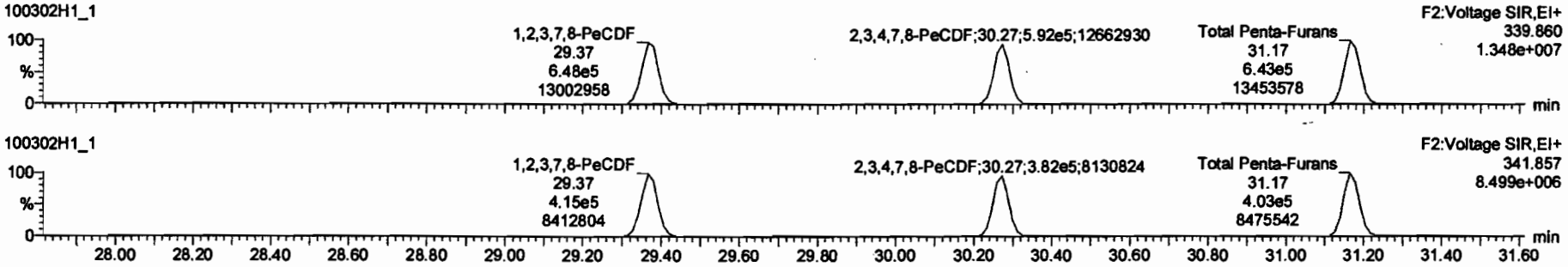

13C-1,2,3,7,8-PeCDF

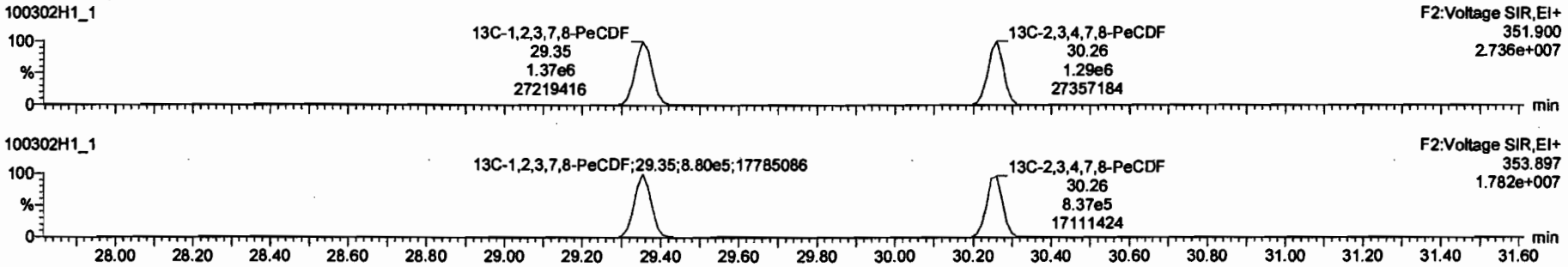

DPE2

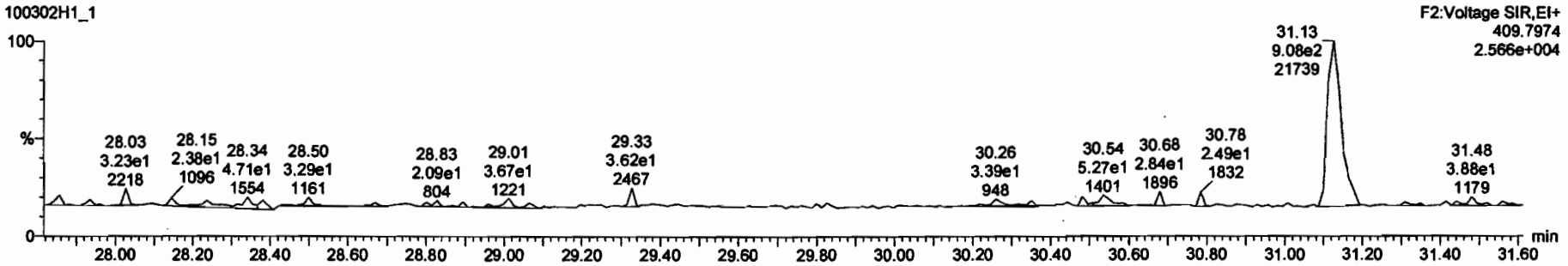

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Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,4,7,8-HxCDF

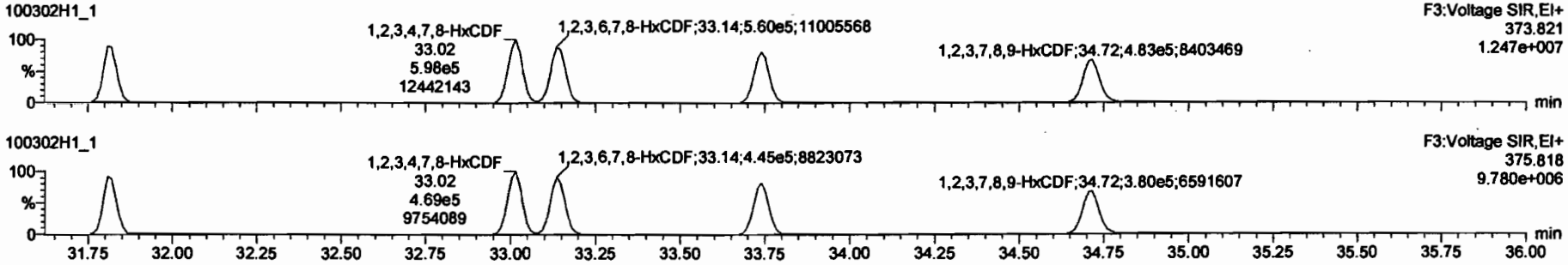

13C-1,2,3,4,7,8-HxCDF

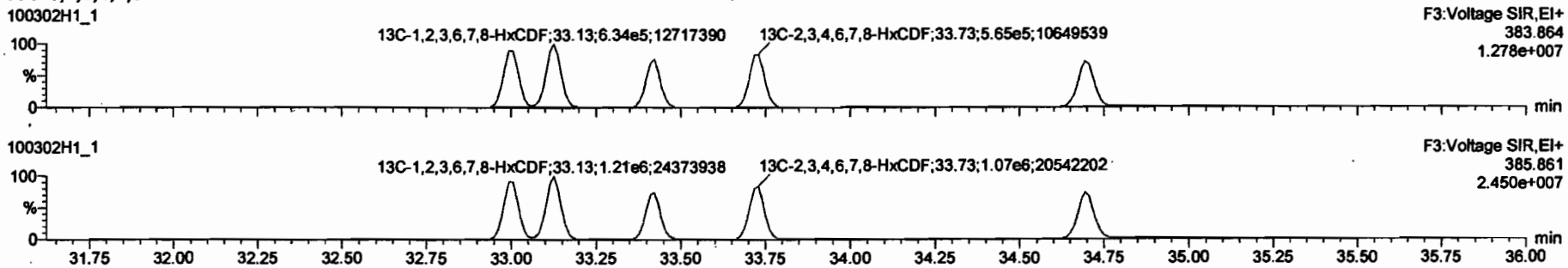

DPE3

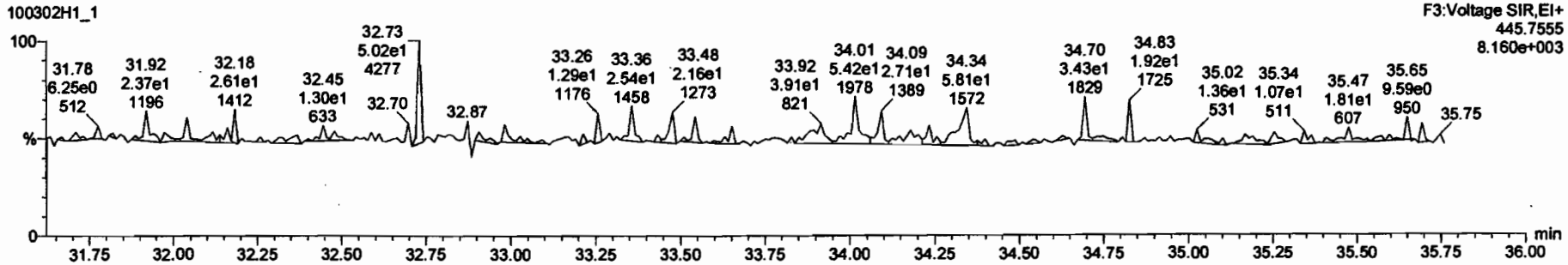

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,4,6,7,8-HpCDF

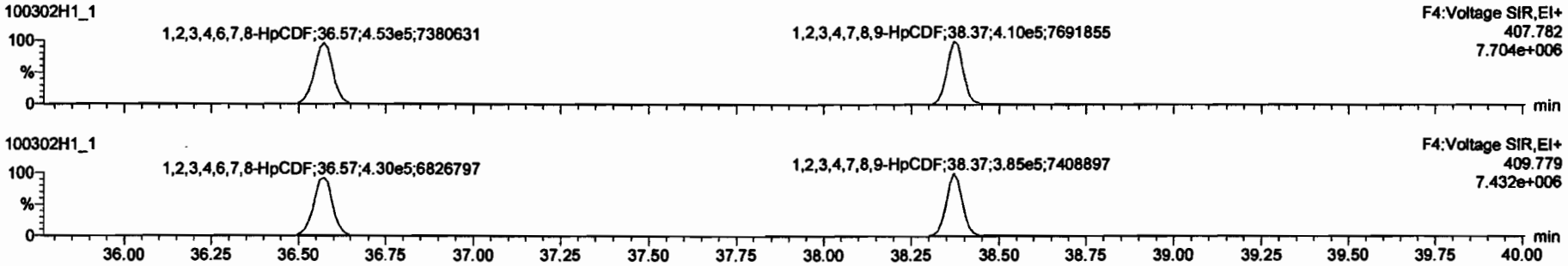

13C-1,2,3,4,6,7,8-HpCDF

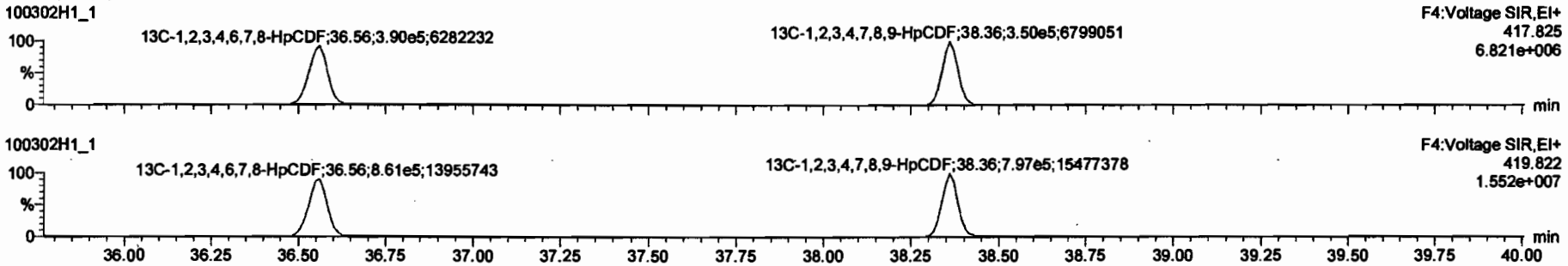

DPE4

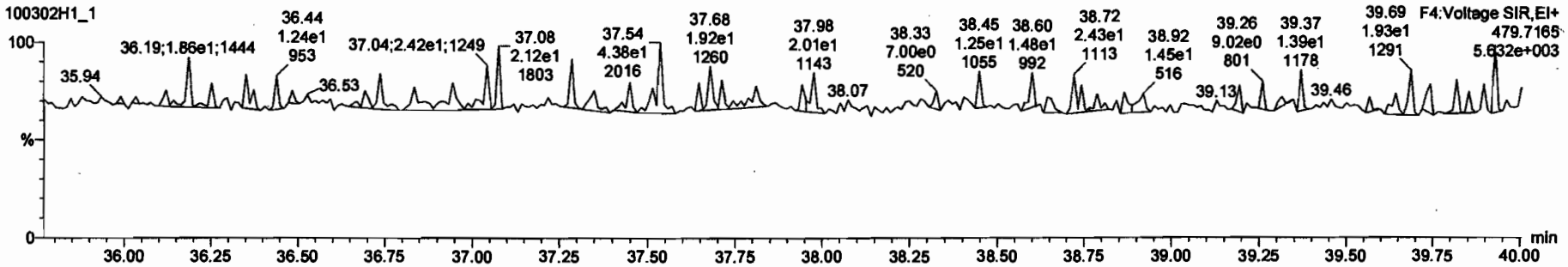

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

OCDF

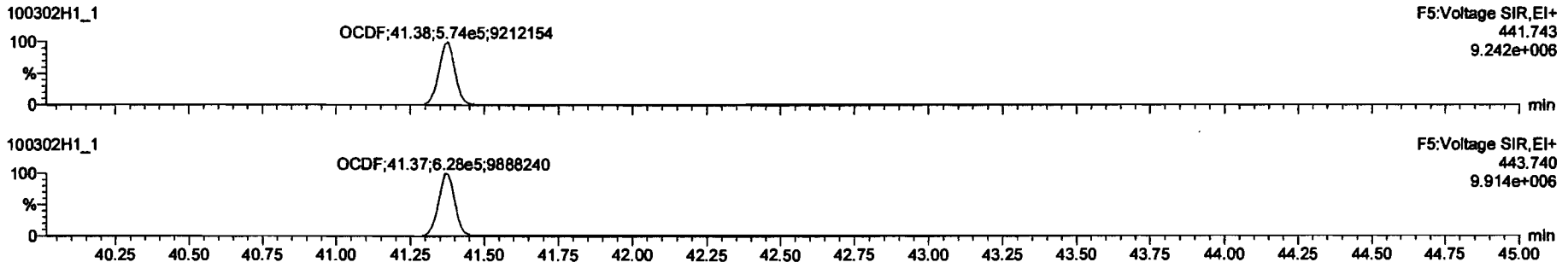

13C-OCDF

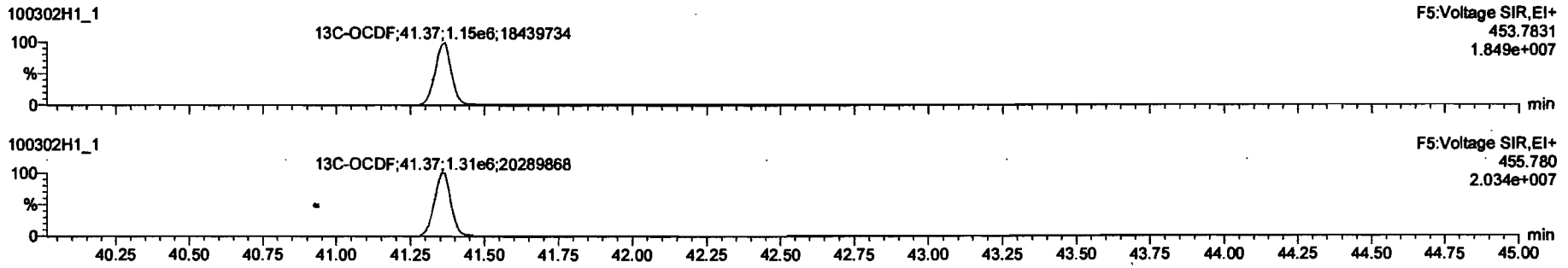

DPE5

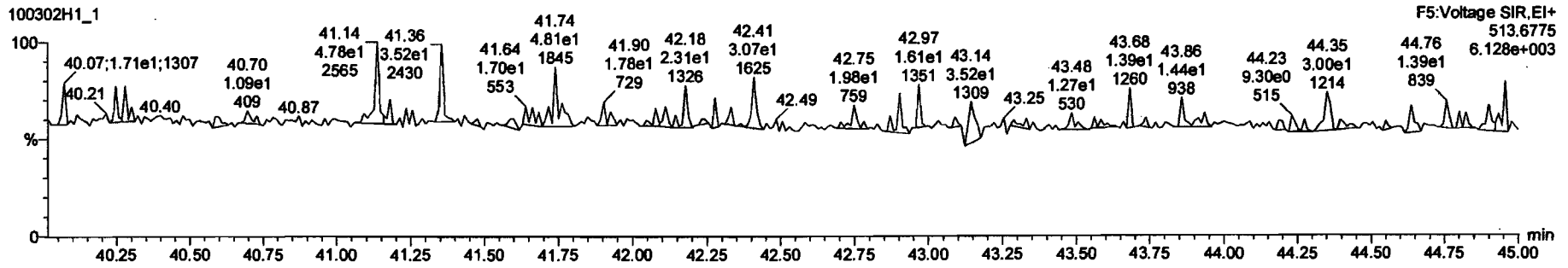

Dataset: C:\MassLynx\Default.pro\Results\New Folder\100302h1-1.qld

Last Altered: Tuesday, March 02, 2010 12:31:36 Pacific Standard Time
Printed: Tuesday, March 02, 2010 12:35:56 Pacific Standard Time

Name: 100302H1_1, Date: 02-Mar-2010, Time: 10:53:04, ID: ST100302H1-1 1613 CS3 100127F, Description: 1613 CS3 100127F

PFK1

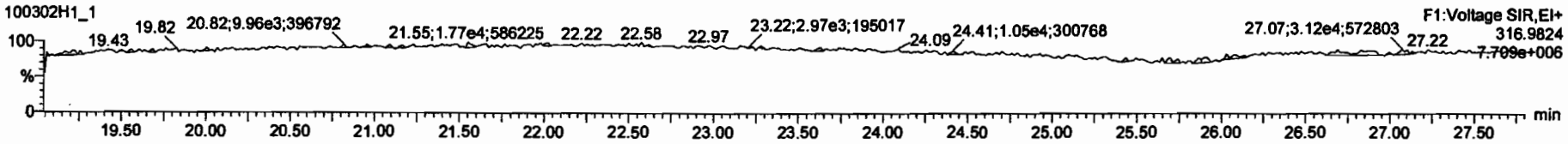

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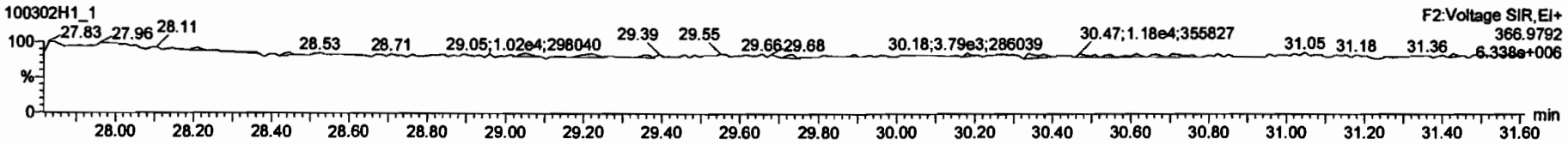

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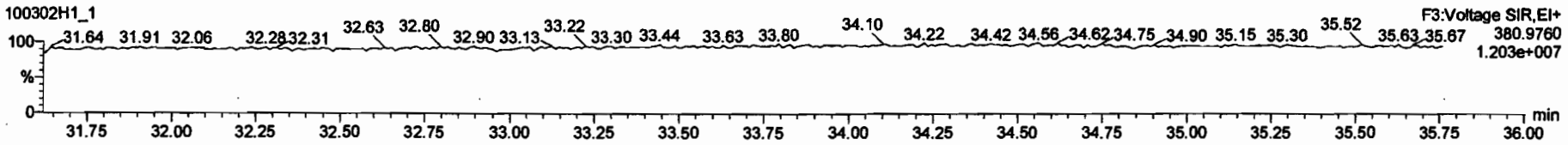

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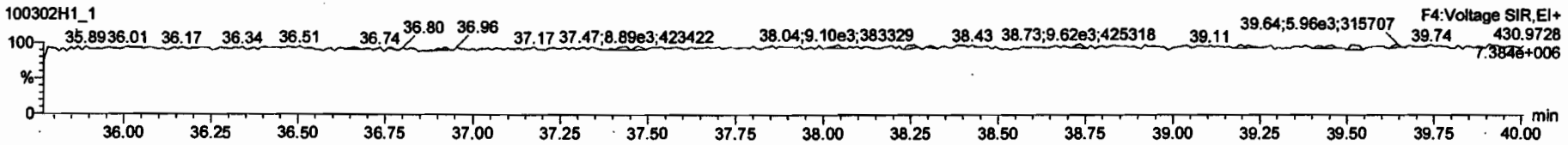

PFK5

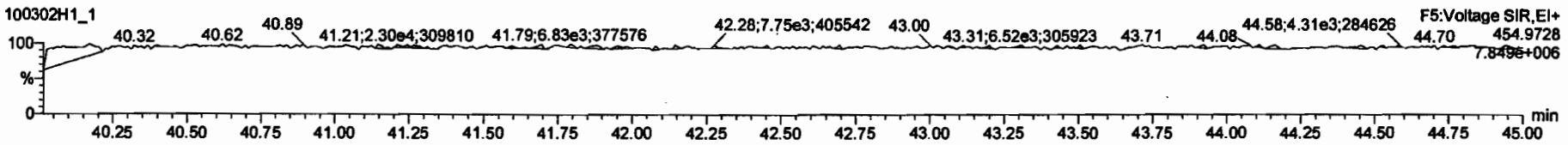

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Vista Analytical Laboratory
CCAL ID: ST100302H1-2
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
GC Column ID: DB-5
VER Data file name: 100302H1_17
Analysis Date: 03-Mar-10
Analysis Time: 00:05:17

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
2,3,7,8-TCDD	M/M+2	0.74	0.65-0.89	NO	9.48	7.8	12.9	Yes	8.00	12.0	Yes
						8.2	12.3 (4)				
1,2,3,7,8-PeCDD	M/M+2	0.61	0.54-0.72	NO	48.5	39.0	65.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	49.4	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	48.6	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	49.0	41.0	61.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.04	0.88-1.20	NO	47.8	43.0	58.0	Yes	40.0	60.0	Yes
OCDD	M+2/M+4	0.88	0.76-1.02	NO	95.5	79.0	126.0	Yes	80.0	120.0	Yes
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	NO	10.9	8.4	12.0	Yes	8.00	12.0	Yes
						8.6	11.6 (4)				
1,2,3,7,8-PeCDF	M+2/M+4	1.59	1.32-1.78	NO	51.5	41.0	60.0	Yes	40.0	60.0	Yes
2,3,4,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	NO	50.3	41.0	60.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDF	M+2/M+4	1.28	1.05-1.43	NO	50.9	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	NO	50.4	44.0	57.0	Yes	40.0	60.0	Yes
2,3,4,6,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	NO	50.4	44.0	57.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDF	M+2/M+4	1.27	1.05-1.43	NO	50.6	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.06	0.88-1.20	NO	49.3	45.0	55.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.05	0.88-1.20	NO	50.2	43.0	58.0	Yes	40.0	60.0	Yes
OCDF	M+2/M+4	0.91	0.76-1.02	NO	96.7	63.0	159.0	Yes	80.0	120.0	Yes

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [illegible]
Date: 3/3/10

8250 only

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Vista Analytical Laboratory
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
VER Data file name: 100302H1_17

CCAL ID: ST100302H1-2
GC Column ID: DB-5
Analysis Date: 03-Mar-10 Analysis Time: 00:05:17

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
13C-2,3,7,8-TCDD	M+2/M+4	0.78	0.65-0.89	NO	96.8	82.0	121.0	Yes	70.0	130.0	Yes
						85.0	117.0 (5)				
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	NO	78.2	62.0	160.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	101	85.0	117.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	102	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.23	1.05-1.43	NO	99.0	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	NO	99.8	72.0	138.0	Yes	70.0	130.0	Yes
13C-OCDD	M+2/M+4	0.89	0.76-1.02	NO	181	96.0	415.0	Yes	140.0	260.0	Yes
13C-2,3,7,8-TCDF	M/M+2	0.80	0.65-0.89	NO	89.2	71.0	140.0	Yes	70.0	130.0	Yes
						76.0	131.0 (5)				
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	NO	76.7	76.0	130.0	Yes	70.0	130.0	Yes
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.56	1.32-1.78	NO	71.0	77.0	130.0	No	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	85.4	76.0	131.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	93.7	70.0	143.0	Yes	70.0	130.0	Yes
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	95.4	73.0	137.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.52	0.43-0.59	NO	94.2	74.0	135.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.45	0.37-0.51	NO	97.2	78.0	129.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	NO	94.5	77.0	129.0	Yes	70.0	130.0	Yes
13C-OCDF	M+2/M+4	0.89	0.76-1.02	NO	173	96.0	415.0	Yes	140.0	260.0	Yes
CLEANUP STANDARD (4)											
37Cl-2,3,7,8-TCDD					9.23	7.9	12.7	Yes	7.0	13.0	Yes
						8.3	12.1 (5)				

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) No ion abundance ratio; report concentration found
(5) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: [signature]
Date: 3/3/10

8250 ON Sy

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, March 03, 2010 08:06:13 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:06:37 Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

	Name	RT
1	1,3,6,8-TCDD (First)	22.71
2	1,2,8,9-TCDD (Last)	26.89
3	1,2,4,7,9-PeCDD (First)	28.49
4	1,2,3,8,9-PeCDD (Last)	30.92
5	12,4,6,7,9-HxCDD (First)	32.35
6	1,2,3,7,8,9-HxCDD (Last)	34.32
7	1,2,3,4,6,7,9-HpCDD (First)	36.96
8	1,2,3,4,6,7,8-HpCDD (Last)	37.81
9	1,3,6,8-TCDF (First)	20.68
10	1,2,8,9-TCDF (Last)	27.04
11	1,3,4,6,8-PeCDF (First)	26.98
12	1,2,3,8,9-PeCDF (Last)	31.17
13	1,2,3,4,6,8-HxCDF (First)	31.82
14	1,2,3,4,8,9-HxCDF (Last)	34.72
15	1,2,3,4,6,7,8-HpCDF (First)	36.57
16	1,2,3,4,7,8,9-HpCDF (Last)	38.37

J 3/3/10

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
VER Data file name: 100302H1_17

CCAL ID: ST100302H1-2
GC Column ID: DB-5
Analysis Date: 03-Mar-10
Analysis Time: 00:05:17

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999	1.002	Yes
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.000	0.999	1.002	Yes
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999	1.003	Yes
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999	1.002	Yes
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999	1.002	Yes
LABELED COMPOUNDS					
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.976	1.043	Yes
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.200	1.000	1.567	Yes
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.992	0.923	1.103	Yes
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.153	1.000	1.425	Yes
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.189	1.011	1.526	Yes
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.989	1.052	Yes

Analyst: [signature]
Date: 3/3/10

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
VER Data file name: 100302H1_17

CCAL ID: ST100302H1-2
GC Column ID: DB-5
Analysis Date: 03-Mar-10
Analysis Time: 00:05:17

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999	1.001	Yes
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998	1.004	Yes
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.009	0.998	1.004	No
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999	1.001	Yes
OCDD	13C-OCDD	1.000	0.999	1.001	Yes
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.001	0.999	1.001	Yes
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.000	0.997	1.005	Yes
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.001	0.999	1.001	Yes
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.001	0.999	1.001	Yes
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.001	0.999	1.001	Yes
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999	1.001	Yes
OCDF	13C-OCDF	1.000	0.999	1.001	Yes
LABELED COMPOUNDS					
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.014	1.002	1.026	Yes
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.017	1.007	1.029	Yes
13C-1,2,3,7,8,9-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.026	1.014	1.038	Yes
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,9-HxCDF	1.131	1.117	1.141	Yes
13C-OCDD	13C-1,2,3,4,6,9-HxCDF	1.230	1.085	1.365	Yes
13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.987	0.975	1.001	Yes
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.991	0.979	1.005	Yes
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.009	1.001	1.020	Yes
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.038	1.002	1.072	Yes
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.094	1.069	1.111	Yes
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.148	1.098	1.192	Yes
13C-OCDF	13C-1,2,3,4,6,9-HxCDF	1.237	1.091	1.371	Yes

Analyst: [illegible]
Date: 3/3/10

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-17.qld

Last Altered: Wednesday, March 03, 2010 07:59:44 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:04:56 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

1	2,3,7,8-TCDD	2.15e5	0.74	NO	1.04	1.000	26.02	1.001	9.4805	94.8	0.0170	9.4805
2	1,2,3,7,8-PeCDD	7.97e5	0.61	NO	0.935	1.000	30.55	1.000	48.522	97.0	0.0487	48.522
3	1,2,3,4,7,8-HxCDD	7.04e5	1.24	NO	0.907	1.000	33.91	1.000	49.359	98.7	0.0682	49.359
4	1,2,3,6,7,8-HxCDD	6.74e5	1.25	NO	0.995	1.000	34.02	1.000	48.570	97.1	0.0723	48.570
5	1,2,3,7,8,9-HxCDD	7.47e5	1.24	NO	0.930	1.000	34.32	1.009	48.953	97.9	0.0670	48.953
6	1,2,3,4,6,7,8-HpCDD	6.18e5	1.04	NO	1.00	1.000	37.81	1.000	47.815	95.6	0.0823	47.815
7	OCDD	1.05e6	0.88	NO	1.10	1.000	41.14	1.000	95.518	95.5	0.0389	95.518
8	2,3,7,8-TCDF	3.05e5	0.77	NO	0.956	1.000	25.25	1.001	10.902	109	0.0164	10.902
9	1,2,3,7,8-PeCDF	1.18e6	1.59	NO	0.941	1.000	29.37	1.000	51.501	103	0.0390	51.501
10	2,3,4,7,8-PeCDF	1.11e6	1.57	NO	0.926	1.000	30.27	1.000	50.262	101	0.0408	50.262
11	1,2,3,4,7,8-HxCDF	1.12e6	1.28	NO	1.22	1.000	33.02	1.001	50.871	102	0.0434	50.871
12	1,2,3,6,7,8-HxCDF	1.08e6	1.25	NO	1.08	1.000	33.14	1.000	50.444	101	0.0433	50.444
13	2,3,4,6,7,8-HxCDF	9.88e5	1.26	NO	1.13	1.000	33.74	1.001	50.417	101	0.0516	50.417
14	1,2,3,7,8,9-HxCDF	8.72e5	1.27	NO	1.13	1.000	34.72	1.001	50.623	101	0.0607	50.623
15	1,2,3,4,6,7,8-HpCDF	9.13e5	1.06	NO	1.44	1.000	36.57	1.001	49.287	98.6	0.0884	49.287
16	1,2,3,4,7,8,9-HpCDF	8.01e5	1.05	NO	1.38	1.000	38.37	1.000	50.197	100	0.0825	50.197
17	OCDF	1.25e6	0.91	NO	1.01	1.000	41.37	1.000	96.690	96.7	0.0326	96.690
18	13C-2,3,7,8-TCDD	2.18e6	0.78	NO	1.10	1.000	26.00	1.022	96.807	96.8	0.0546	
19	13C-1,2,3,7,8-PeCDD	1.76e6	0.62	NO	1.09	1.000	30.54	1.200	78.159	78.2	0.0383	
20	13C-1,2,3,4,7,8-HxCDD	1.57e6	1.25	NO	1.01	1.000	33.89	1.014	100.87	101	0.0932	
21	13C-1,2,3,6,7,8-HxCDD	1.39e6	1.25	NO	0.889	1.000	34.00	1.017	101.52	102	0.106	
22	13C-1,2,3,7,8,9-HxCDD	1.64e6	1.23	NO	1.07	1.000	34.30	1.026	99.007	99.0	0.0877	
23	13C-1,2,3,4,6,7,8-HpCDD	1.29e6	1.05	NO	0.837	1.000	37.80	1.131	99.805	99.8	0.179	
24	13C-OCDD	1.99e6	0.89	NO	0.712	1.000	41.13	1.230	181.36	90.7	0.0469	
25	13C-2,3,7,8-TCDF	2.92e6	0.80	NO	1.05	1.000	25.24	0.992	89.231	89.2	0.0666	
26	13C-1,2,3,7,8-PeCDF	2.43e6	1.57	NO	1.02	1.000	29.35	1.153	76.696	76.7	0.116	
27	13C-2,3,4,7,8-PeCDF	2.38e6	1.56	NO	1.08	1.000	30.26	1.189	71.002	71.0	0.110	
28	13C-1,2,3,4,7,8-HxCDF	1.80e6	0.52	NO	1.37	1.000	32.99	0.987	85.393	85.4	0.0957	
29	13C-1,2,3,6,7,8-HxCDF	1.98e6	0.52	NO	1.37	1.000	33.13	0.991	93.736	93.7	0.0957	
30	13C-2,3,4,6,7,8-HxCDF	1.74e6	0.52	NO	1.18	1.000	33.72	1.009	95.413	95.4	0.111	

J 3/3/10

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-17.qld

Last Altered: Wednesday, March 03, 2010 07:59:44 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:04:56 Pacific Standard Time

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

31	13C-1,2,3,7,8,9-HxCDF	1.53e6	0.52	NO	1.05	1.000	34.70	1.038	94.150	94.2	0.124
32	13C-1,2,3,4,6,7,8-HpCDF	1.29e6	0.45	NO	0.858	1.000	36.55	1.094	97.227	97.2	0.170
33	13C-1,2,3,4,7,8,9-HpCDF	1.16e6	0.44	NO	0.794	1.000	38.36	1.148	94.473	94.5	0.184
34	13C-OCDF	2.54e6	0.89	NO	0.948	1.000	41.36	1.237	173.43	86.7	0.0469
35	37Cl-2,3,7,8-TCDD	1.26e5			0.665	1.000	26.02	1.022	9.2301	92.3	0.0226
36	13C-1,2,3,4-TCDD	2.05e6	0.79	NO	1.00	1.000	25.45	0.000	100.00	100	0.0601
37	13C-1,2,3,4-TCDF	3.11e6	0.78	NO	1.00	1.000	24.06	0.000	100.00	100	0.0702
38	13C-1,2,3,4,6,9-HxCDF	1.54e6	0.51	NO	1.00	1.000	33.42	0.000	100.00	100	0.131

Quantify Compound Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, March 03, 2010 8:06:52 AM Pacific Standard Time
Printed: Wednesday, March 03, 2010 8:07:08 AM Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Compound name: 1,3,6,8-TCDD (First)

	ID	Acq Date	Acq Time
100302H1_1	ST100302H1-1 1613 CS3 100127F	02-Mar-10	10:53:04
100302H1_2	solvent blank	02-Mar-10	11:42:34
100302H1_3	solvent blank	02-Mar-10	12:32:05
100302H1_4	solvent blank	02-Mar-10	13:21:39
100302H1_5	0_2836_OPR001	02-Mar-10	14:11:13
100302H1_6	solvent blank	02-Mar-10	15:01:15
100302H1_7	0_2836_MB001	02-Mar-10	15:50:57
100302H1_8	32447_2836_001 CAMO-10-9357 .896	02-Mar-10	16:40:37
100302H1_9	32448_2836_001 CAMO-10-9370 .903	02-Mar-10	17:30:08
100302H1_10	32448_2836_002 CAMO-10-9373 .87	02-Mar-10	18:19:40
100302H1_11	32448_2836_003 CAMO-10-10133 .825	02-Mar-10	19:09:11
100302H1_12	32449_2836_001 CAPA-10-12691 .918	02-Mar-10	19:58:44
100302H1_13	32453_2836_001 CAWA-10-13090 .91	02-Mar-10	20:48:17
100302H1_14	32455_2836_001 CAPA-10-13498 .93	02-Mar-10	21:37:47
100302H1_15	32458_2836_001 CAPA-10-12917 .905	02-Mar-10	22:26:20
100302H1_16	solvent blank	02-Mar-10	23:15:51
100302H1_17	ST100302H1-2 1613 CS3 100127F	03-Mar-10	00:05:17

Dataset: Untitled

Last Altered: Wednesday, March 03, 2010 08:06:13 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:06:37 Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

1,3,6,8-TCDD (First)

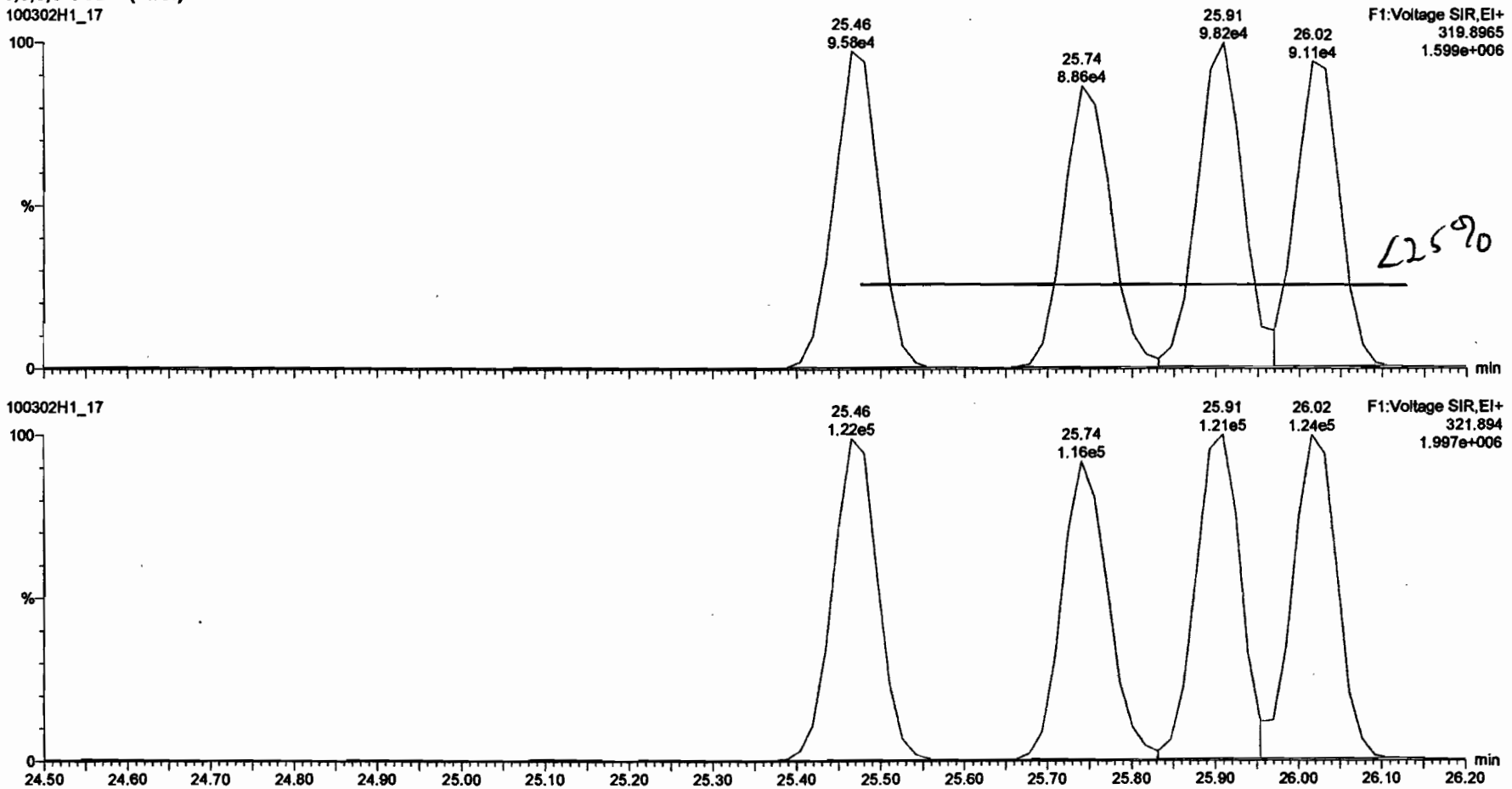

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-17.qld

Last Altered: Wednesday, March 03, 2010 07:59:44 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:05:05 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 02 Mar 2010 12:27:33
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

2,3,7,8-TCDD

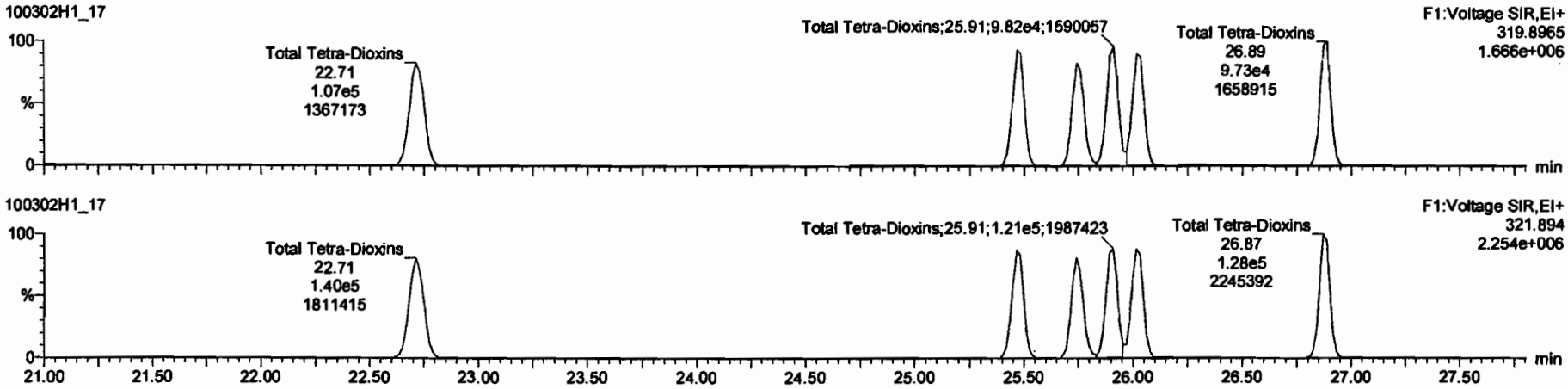

13C-2,3,7,8-TCDD

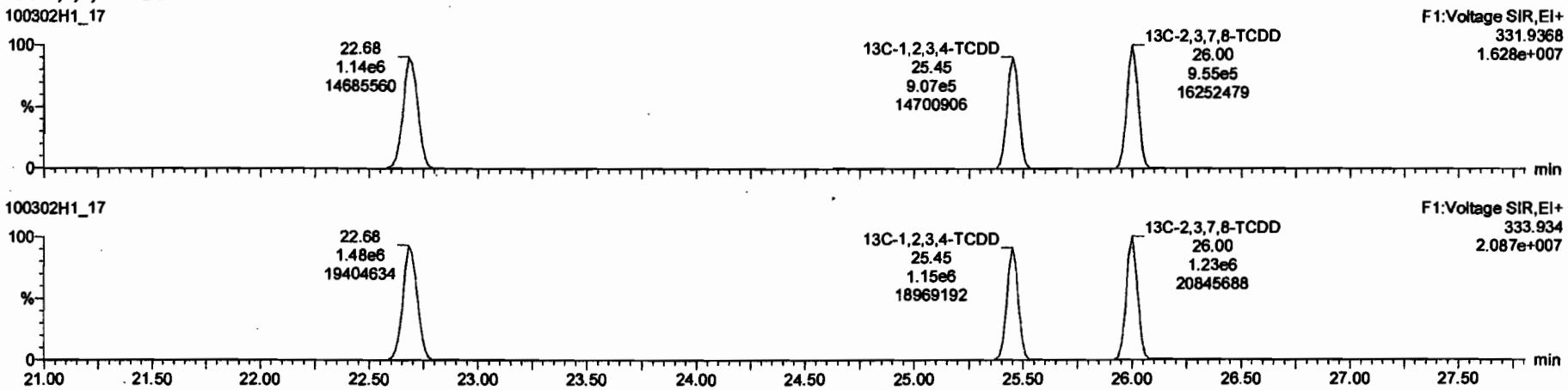

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-17.qld

Last Altered: Wednesday, March 03, 2010 07:59:44 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:05:05 Pacific Standard Time

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

37Cl-2,3,7,8-TCDD

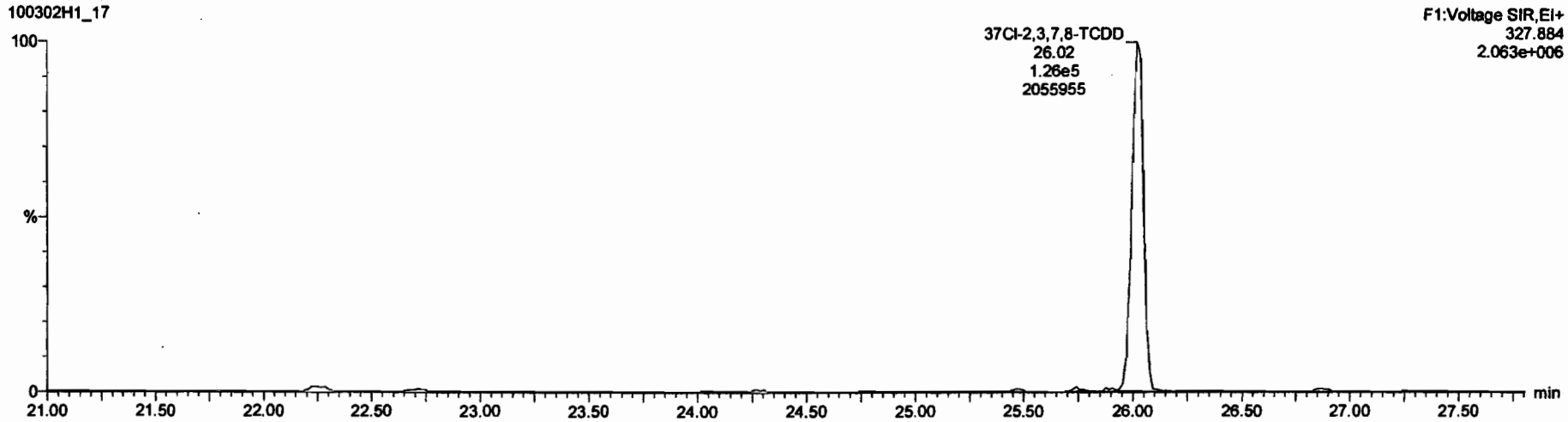

13C-1,2,3,4-TCDD

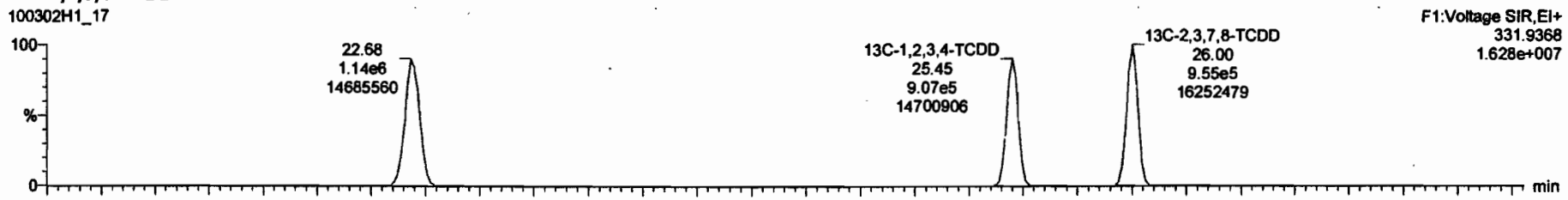

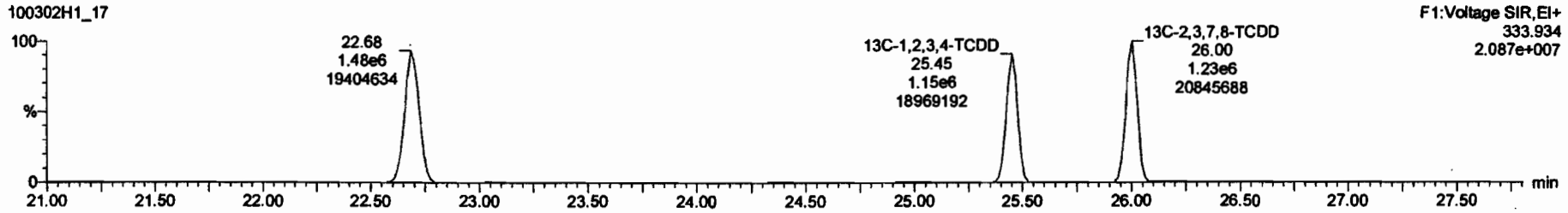

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-17.qld

Last Altered: Wednesday, March 03, 2010 07:59:44 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:05:05 Pacific Standard Time

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,7,8-PeCDD

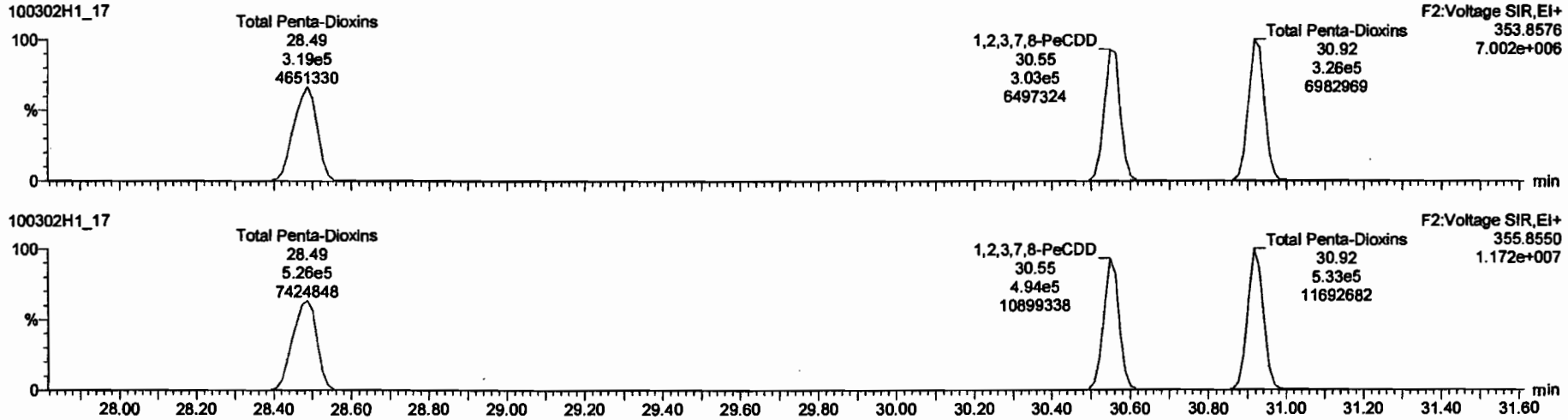

13C-1,2,3,7,8-PeCDD

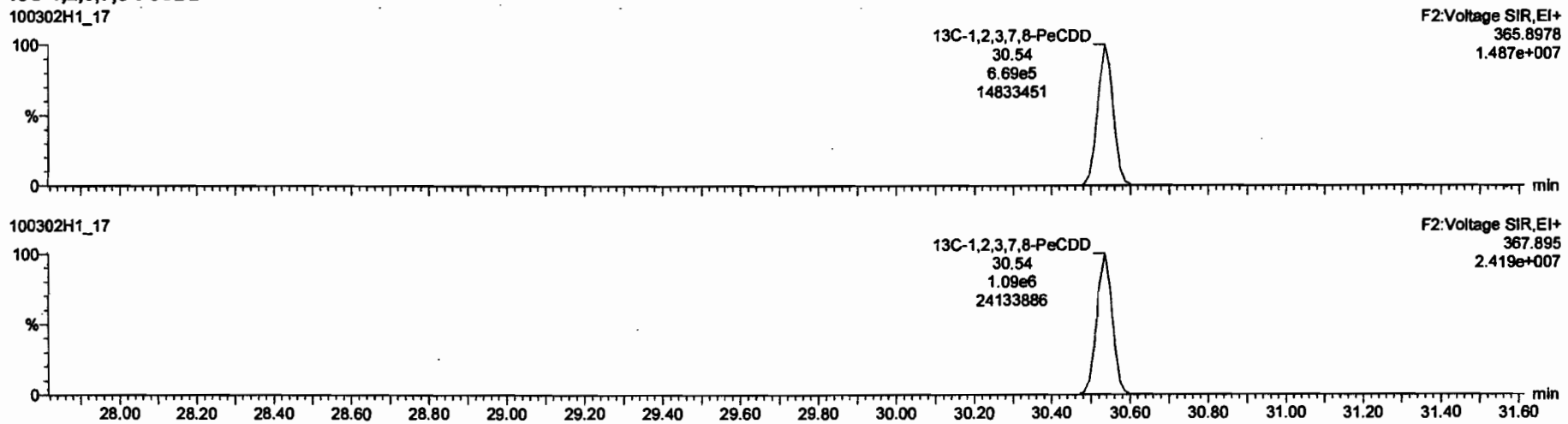

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-17.qld

Last Altered: Wednesday, March 03, 2010 07:59:44 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:05:05 Pacific Standard Time

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,4,7,8-HxCDD

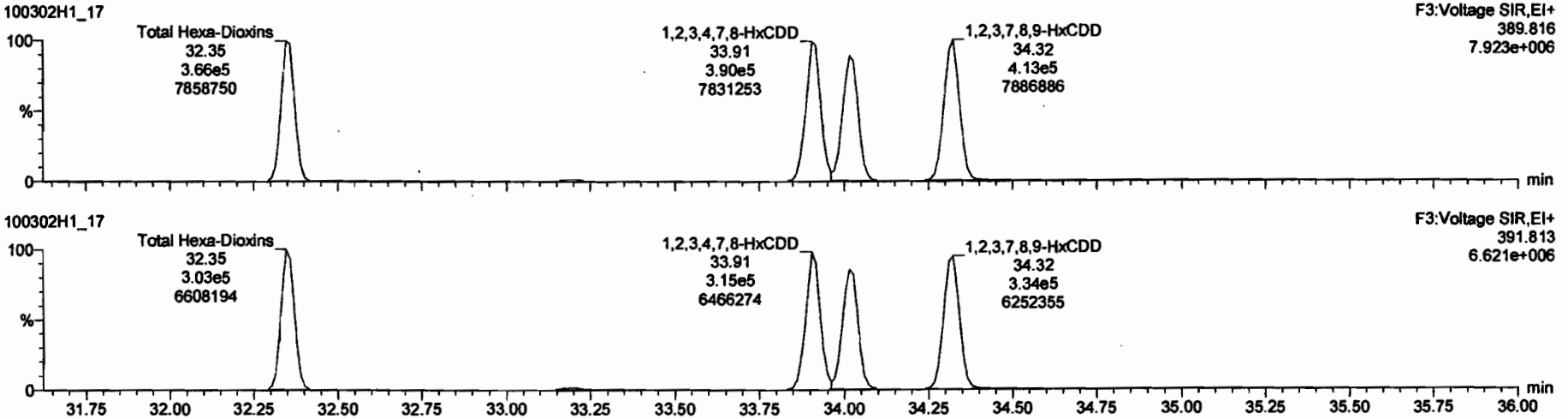

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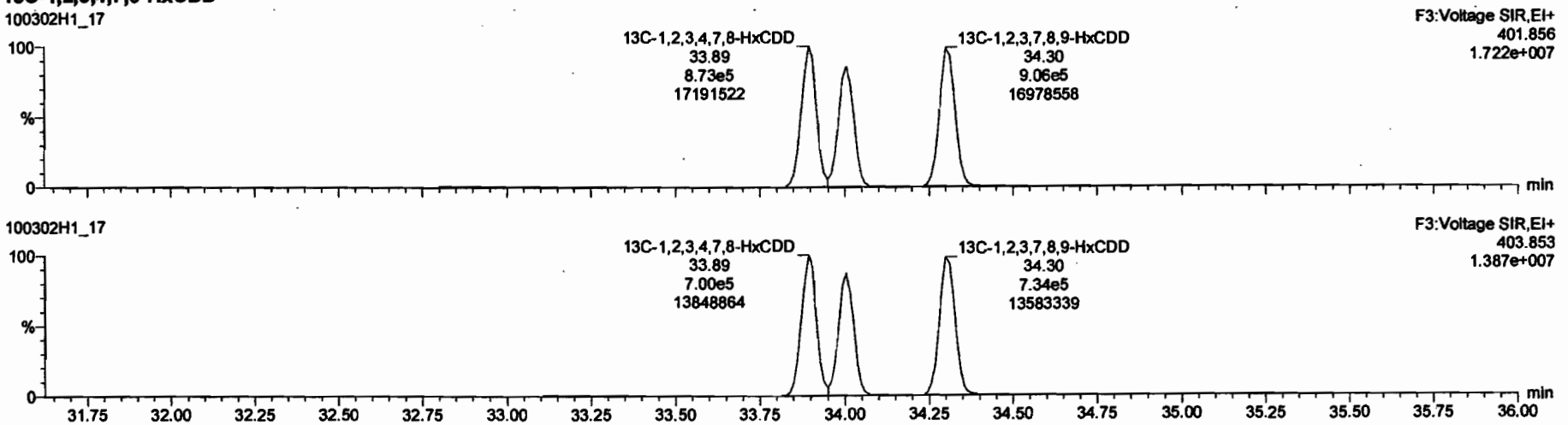

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-17.qld

Last Altered: Wednesday, March 03, 2010 07:59:44 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:05:05 Pacific Standard Time

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,4,6,7,8-HpCDD

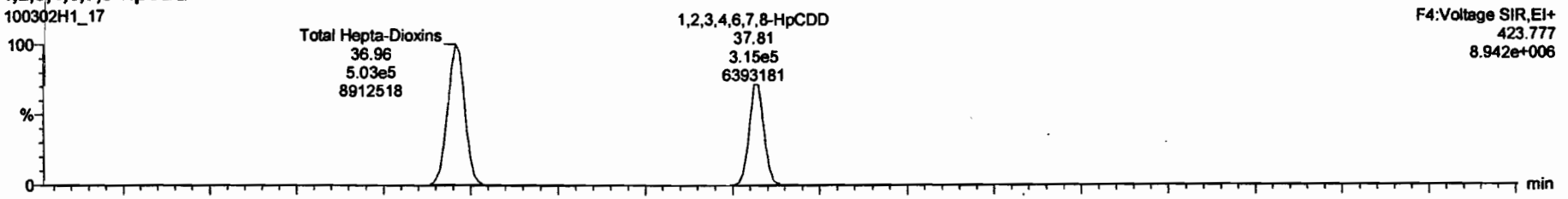

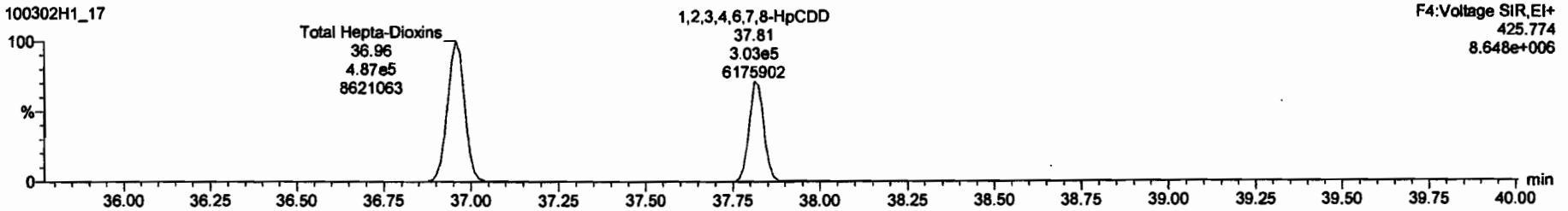

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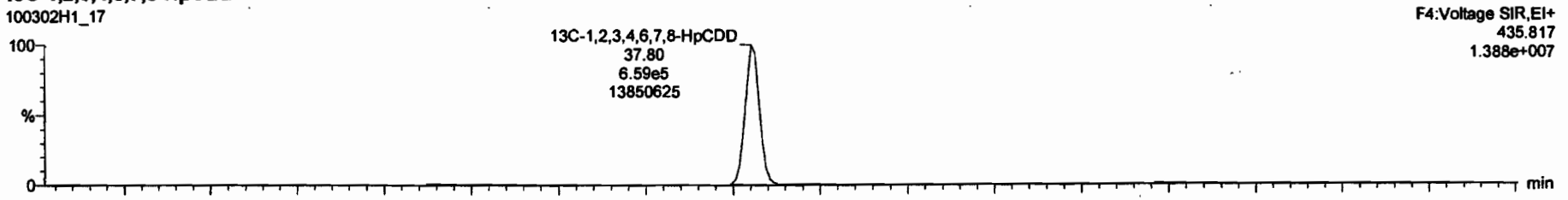

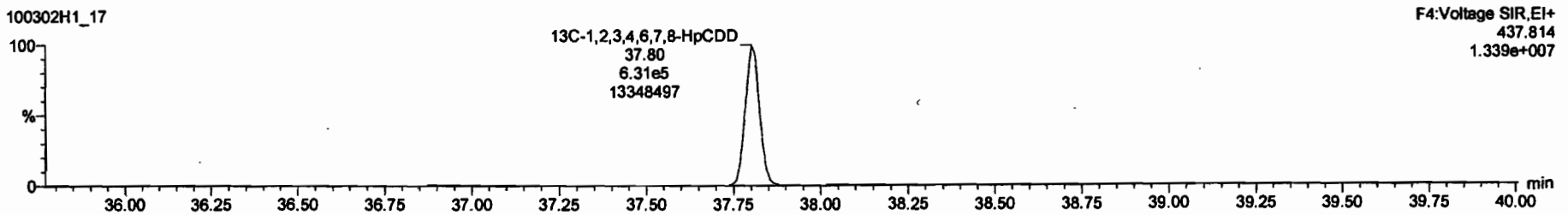

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-17.qld

Last Altered: Wednesday, March 03, 2010 07:59:44 Pacific Standard Time
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Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

OCDD

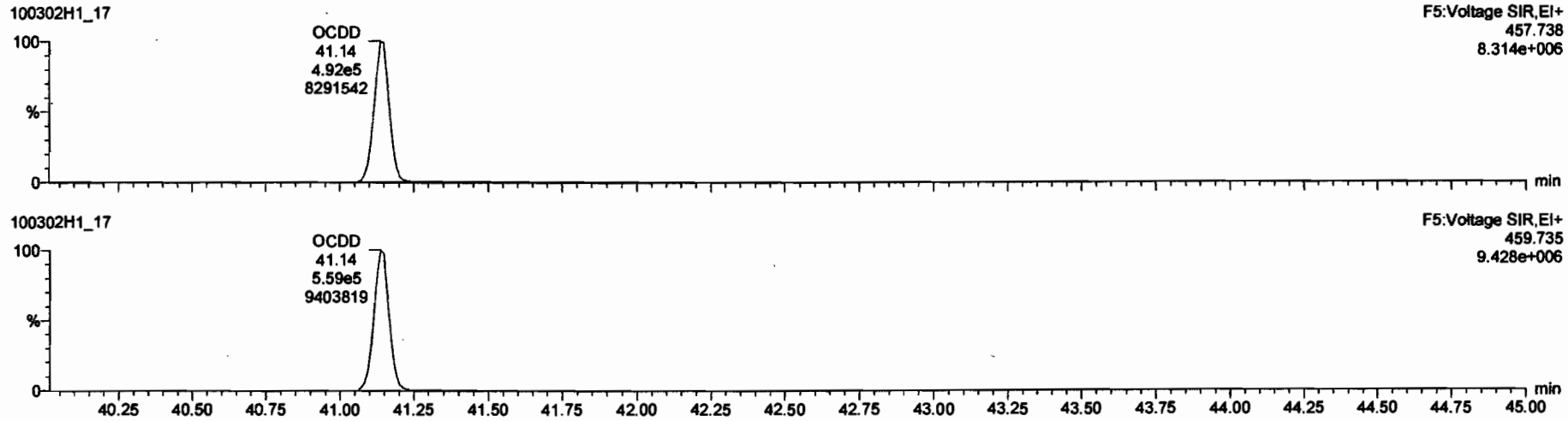

13C-OCDD

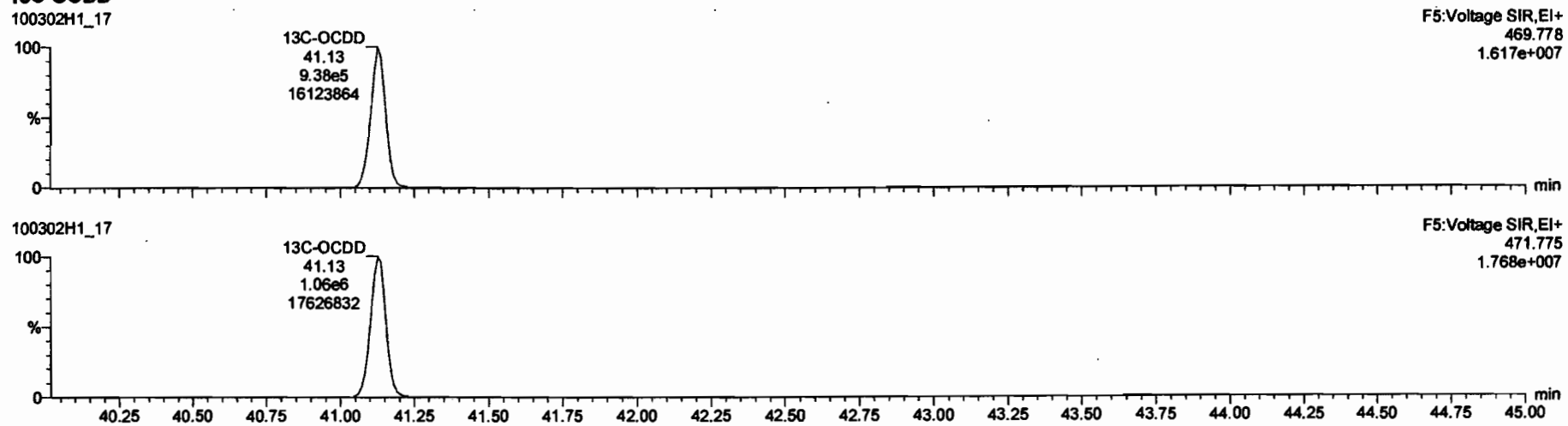

Dataset: C:\MassLynx\Default.pro\Results\100302h1\100302h1-17.qld

Last Altered: Wednesday, March 03, 2010 07:59:44 Pacific Standard Time
Printed: Wednesday, March 03, 2010 08:05:05 Pacific Standard Time

Name: 100302H1_17, Date: 03-Mar-2010, Time: 00:05:17, ID: ST100302H1-2 1613 CS3 100127F, Description: 1613 CS3 100127F

2,3,7,8-TCDF

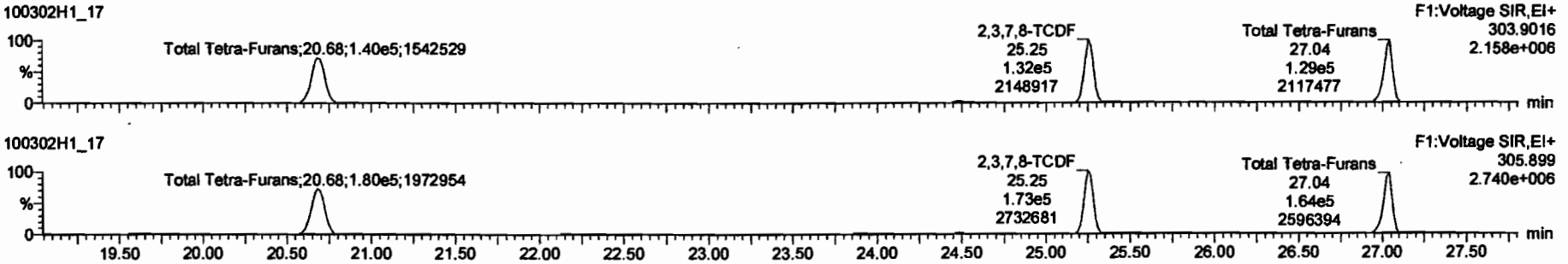

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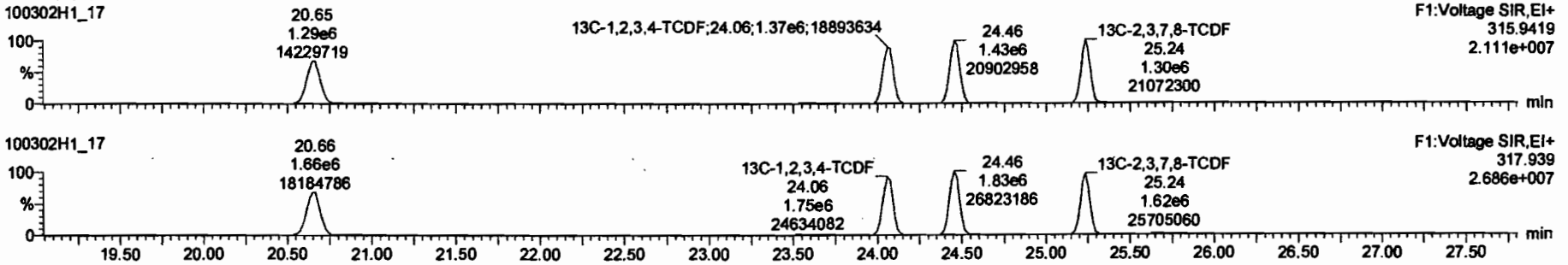

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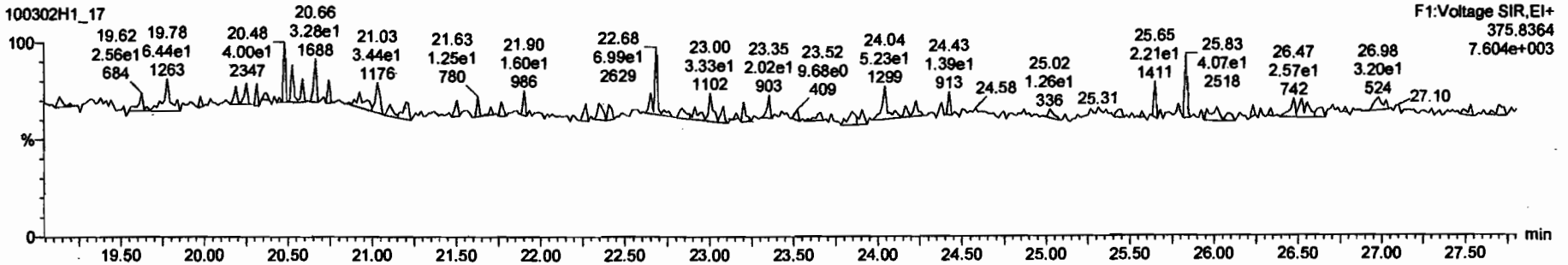

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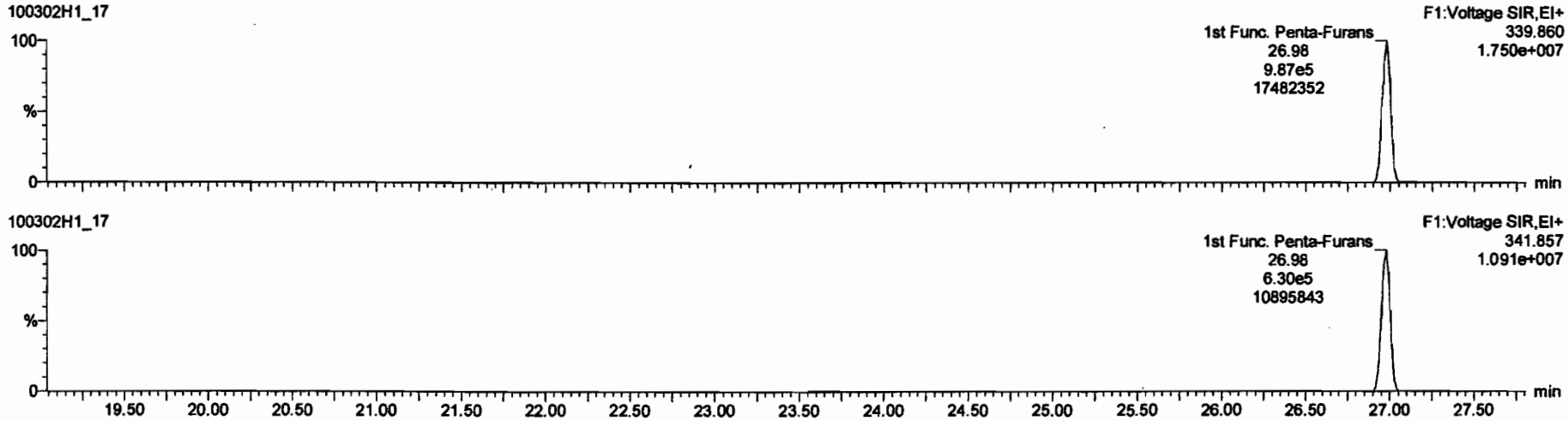

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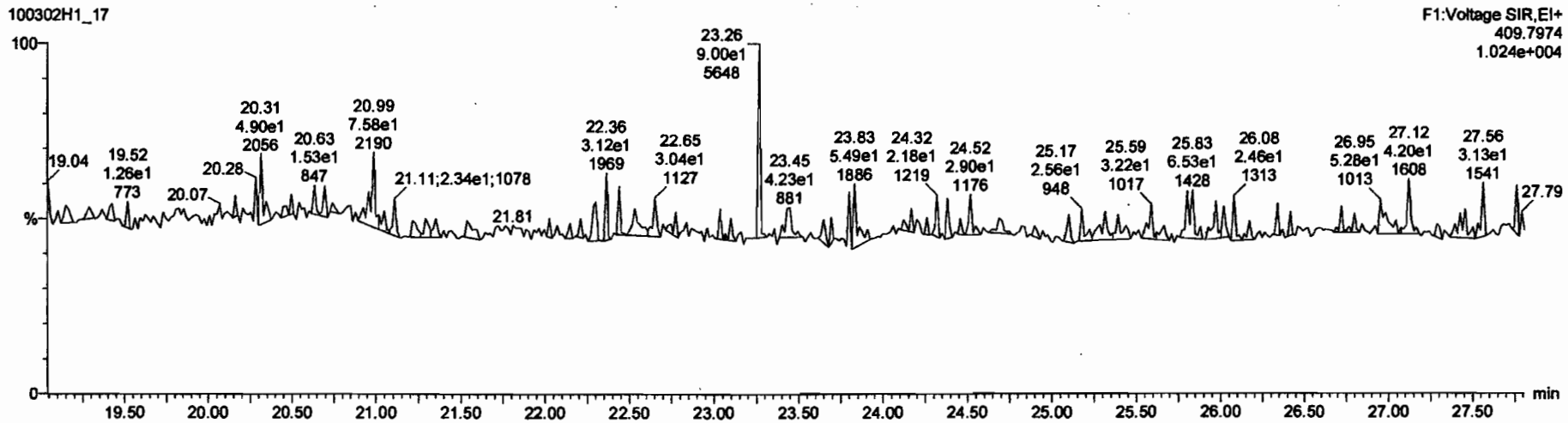

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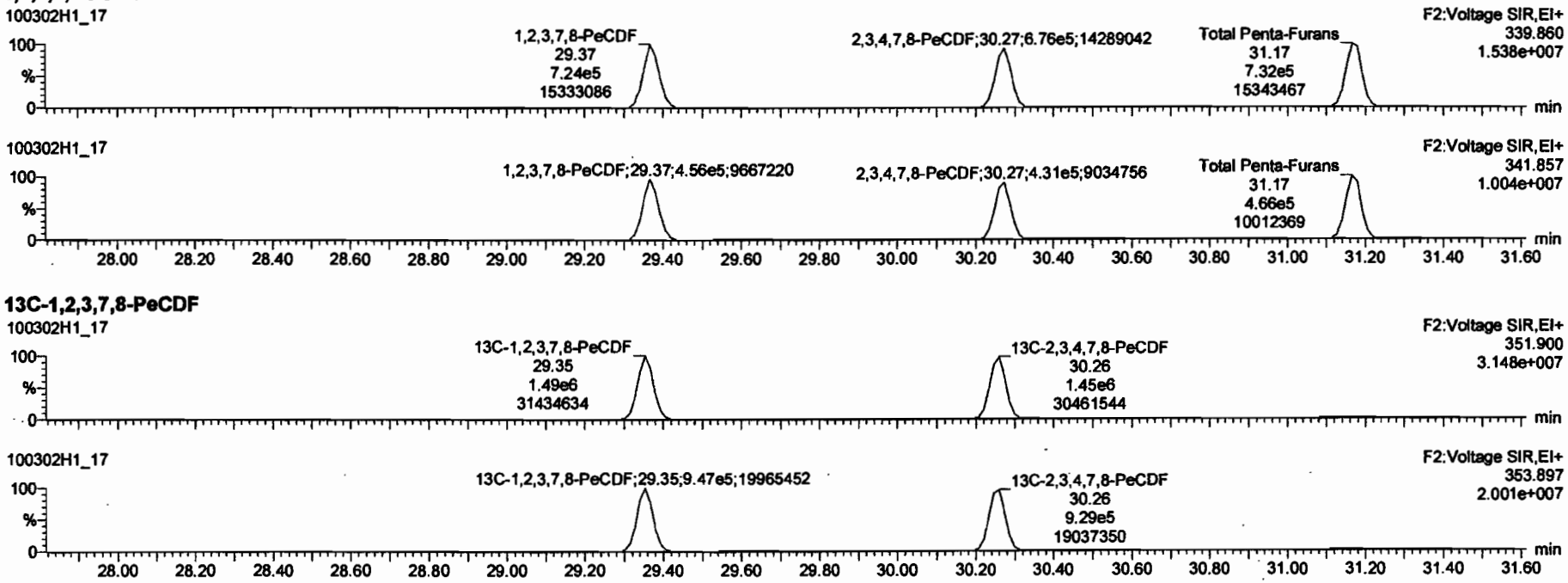

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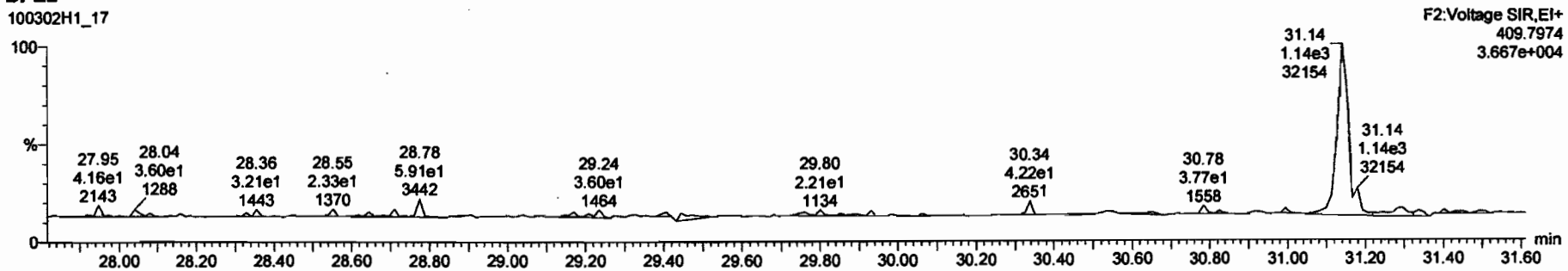

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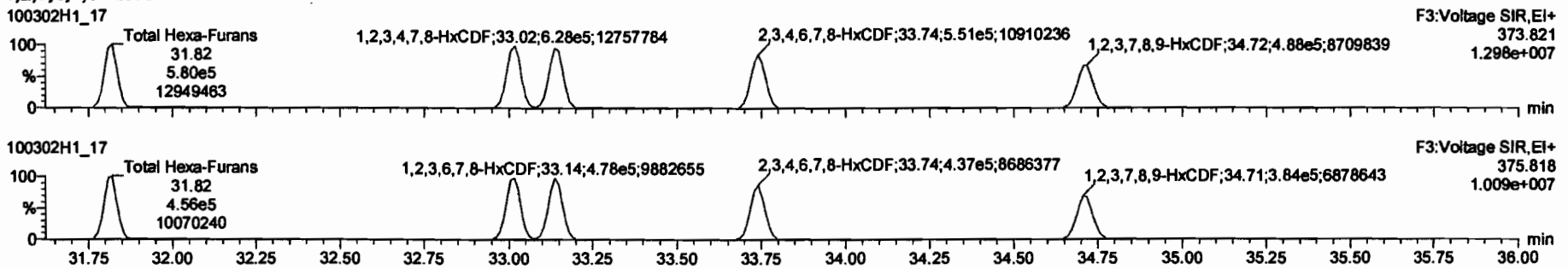

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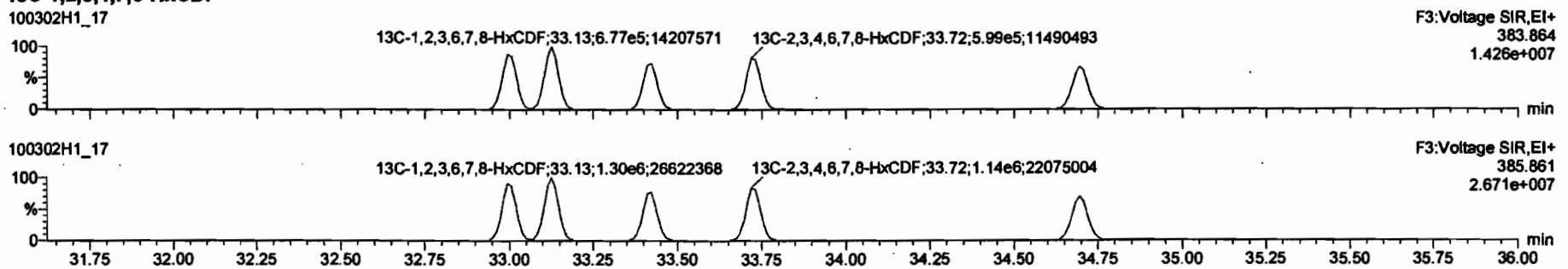

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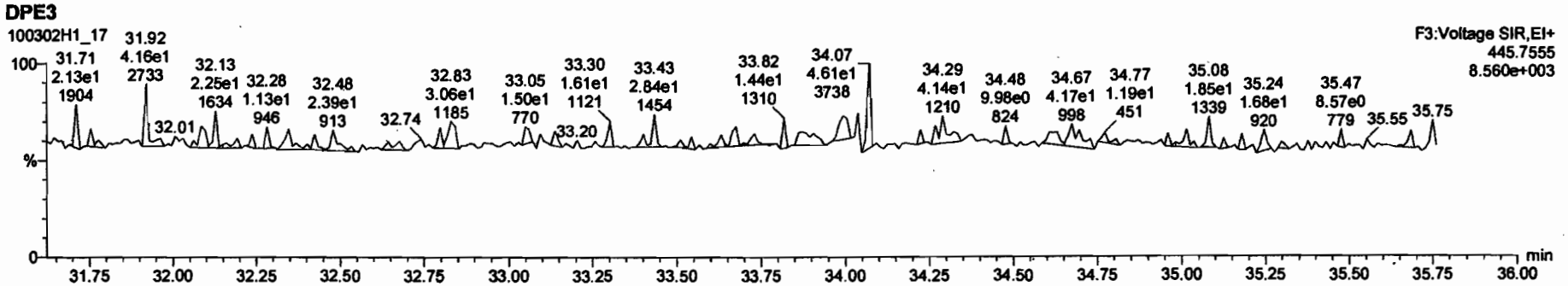

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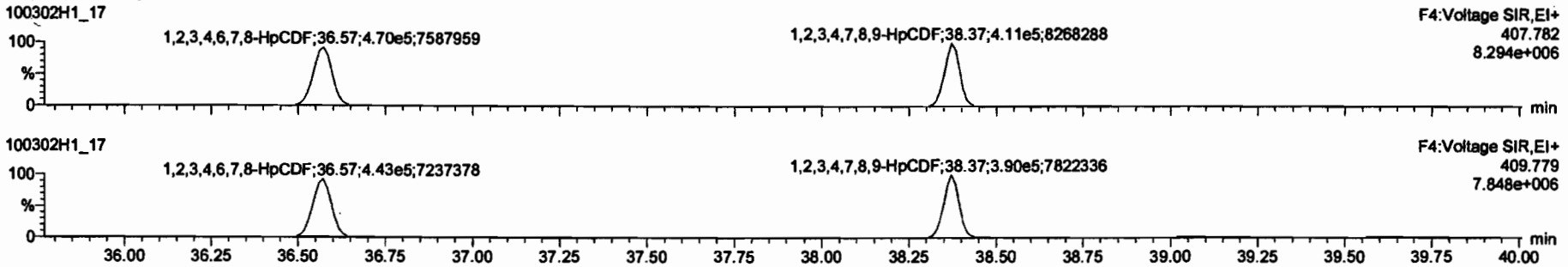

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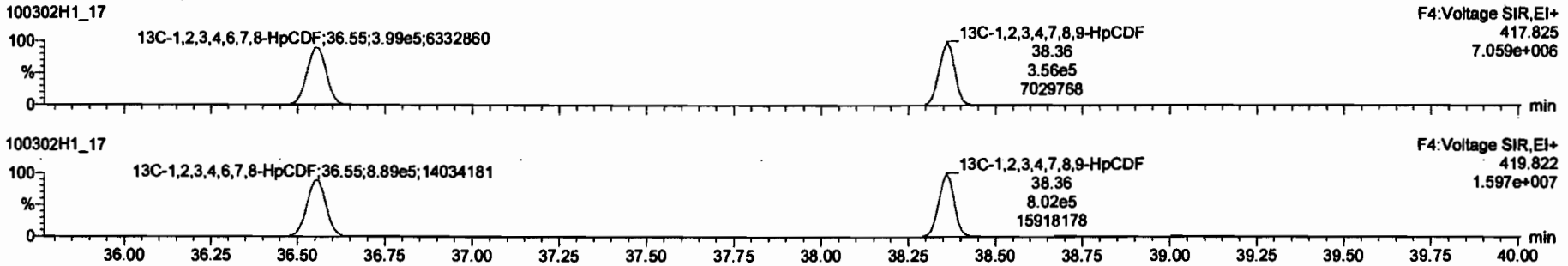

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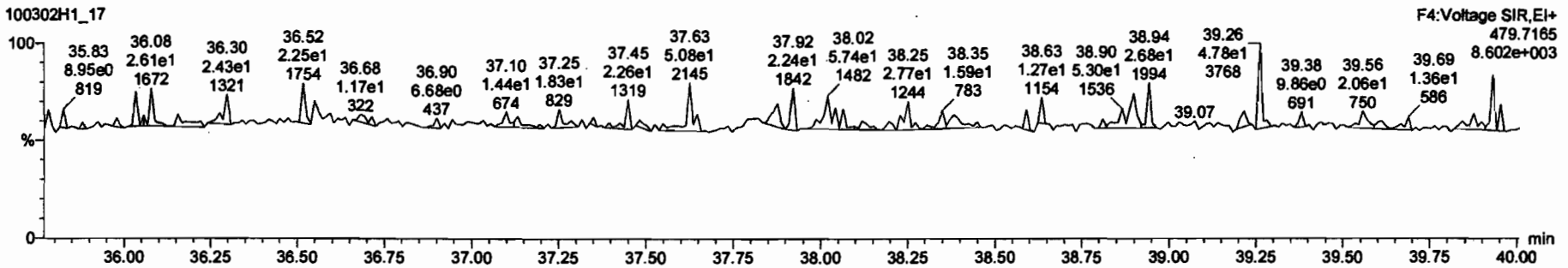

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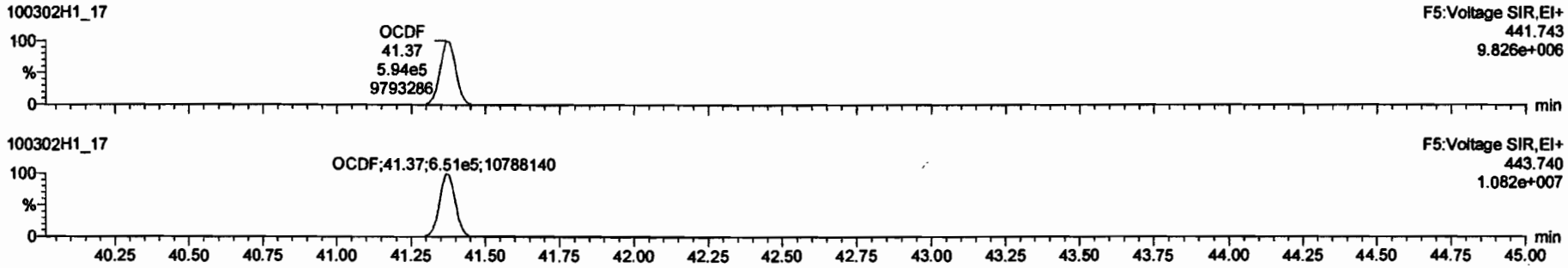

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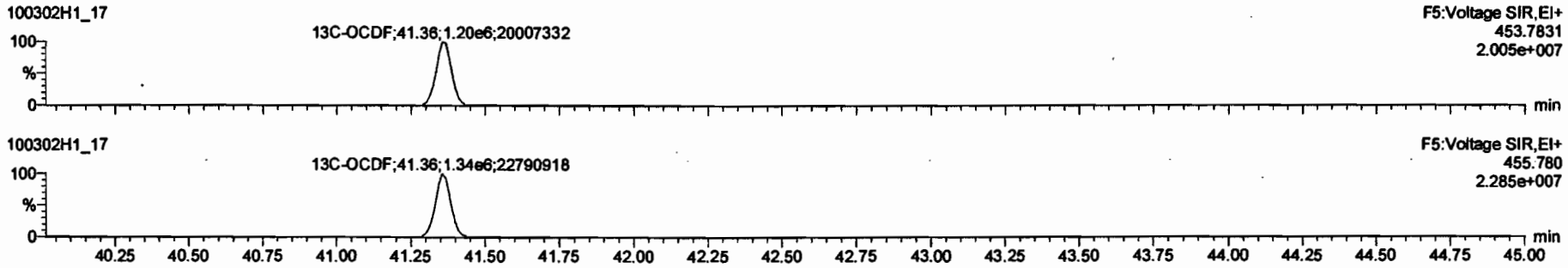

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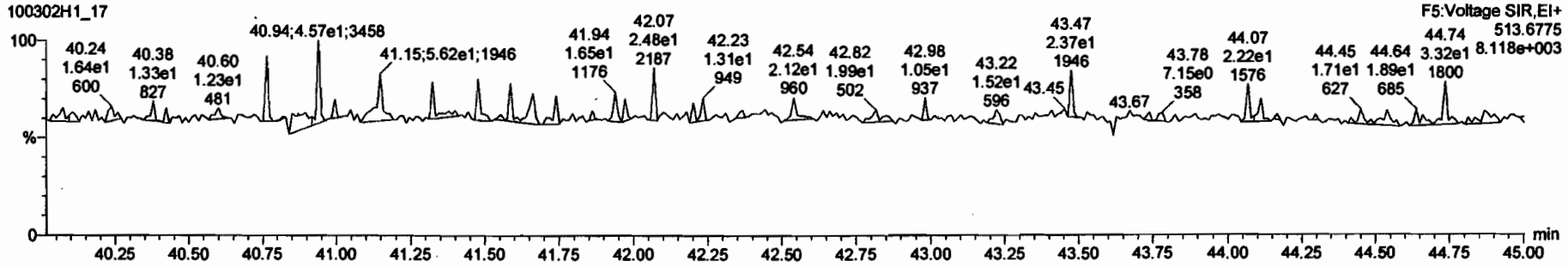

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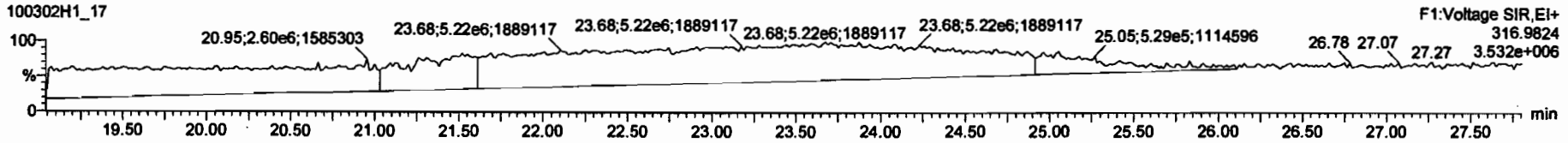

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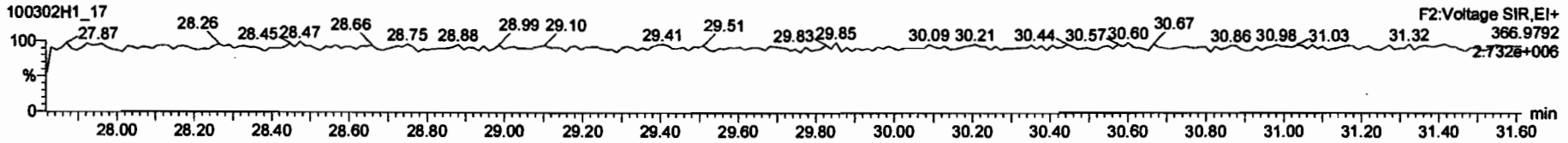

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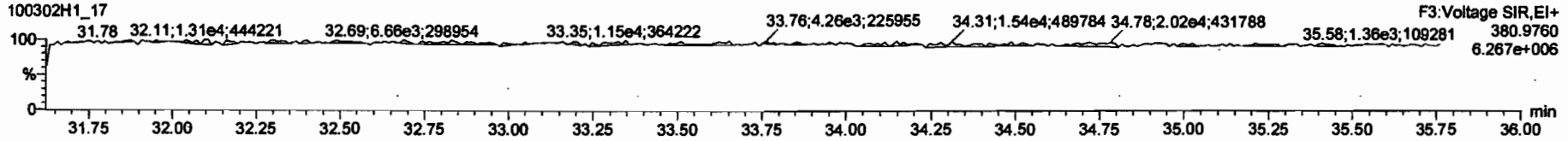

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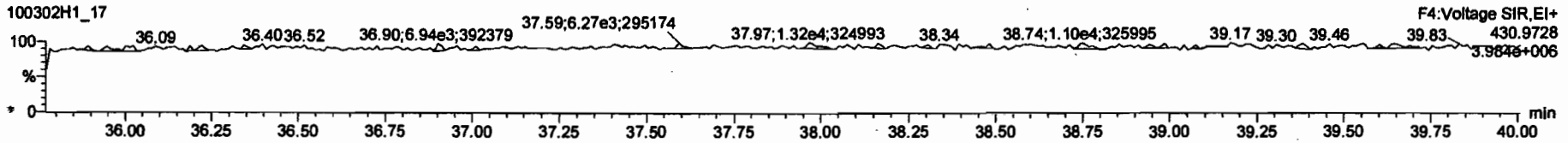

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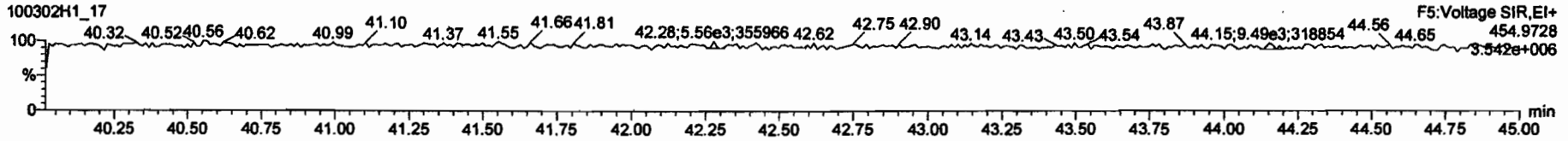

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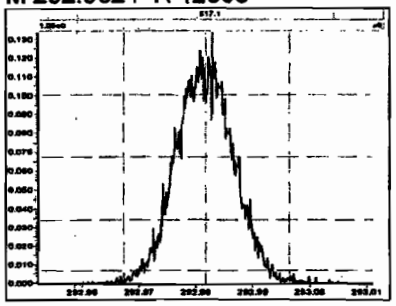

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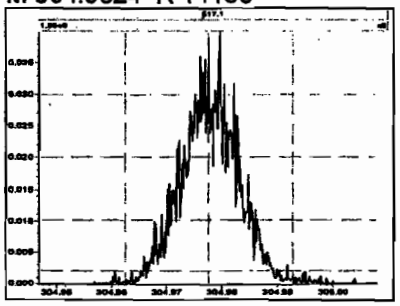

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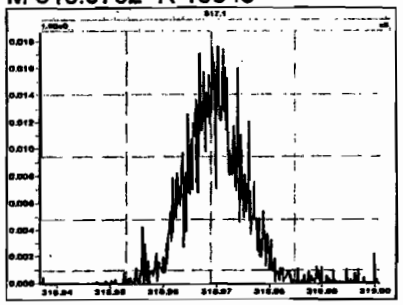

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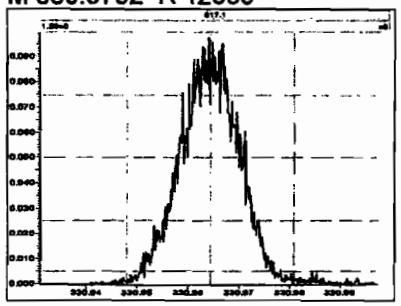

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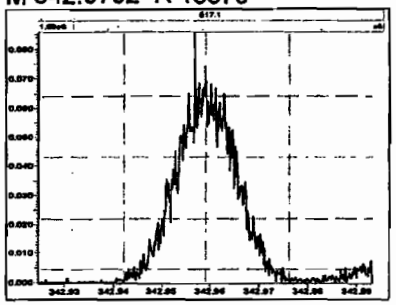

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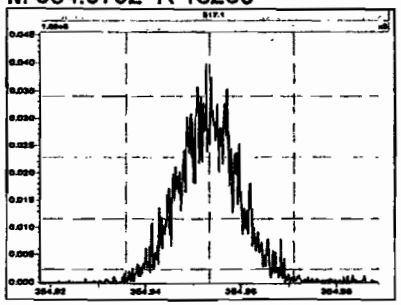

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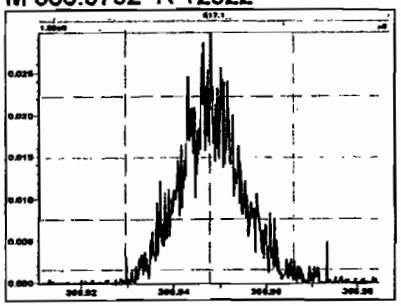

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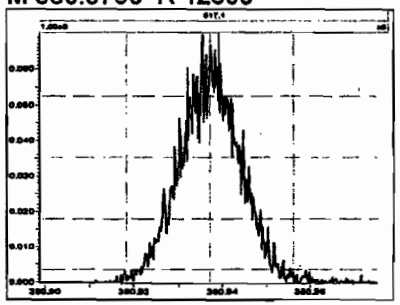

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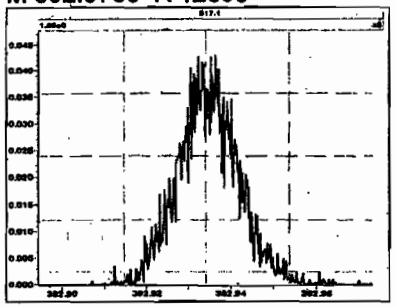

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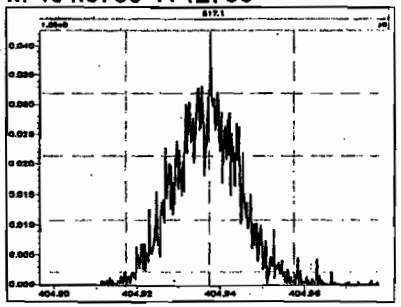

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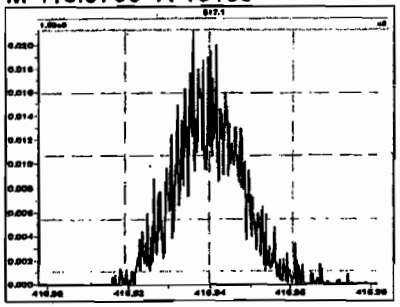

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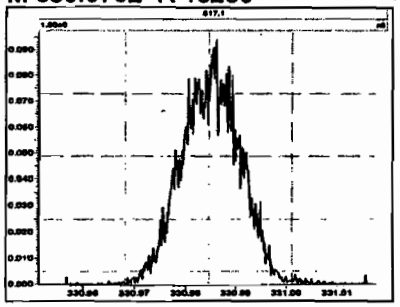

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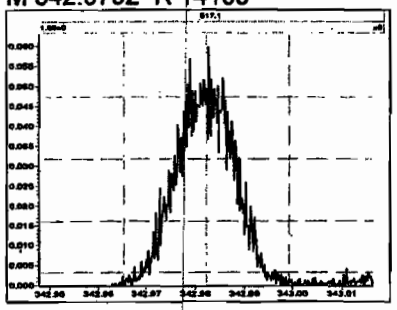

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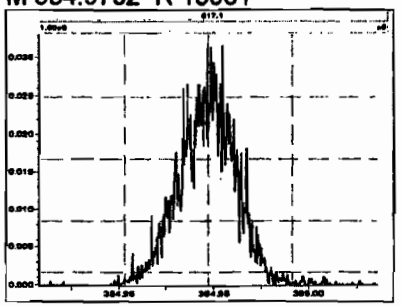

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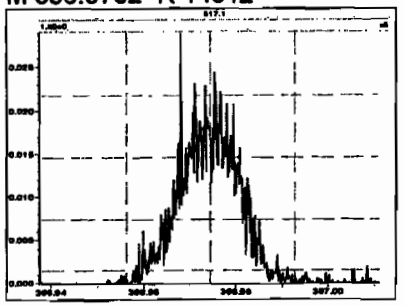

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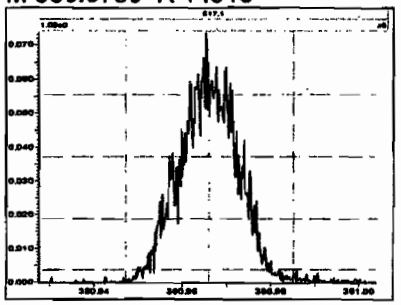

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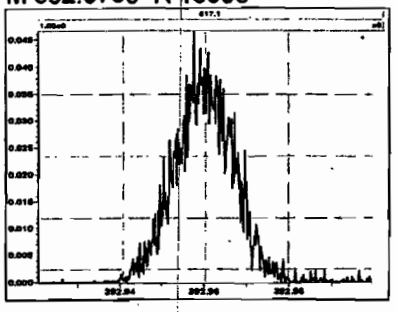

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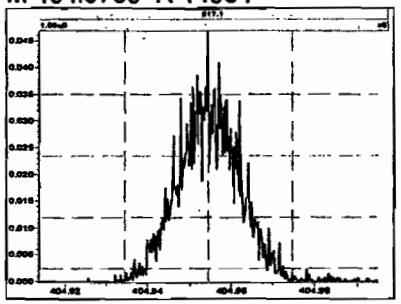

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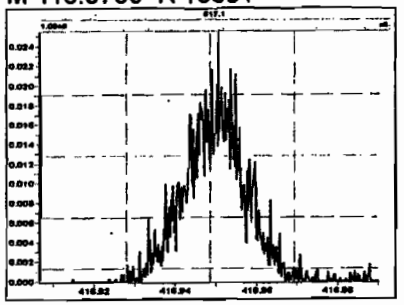

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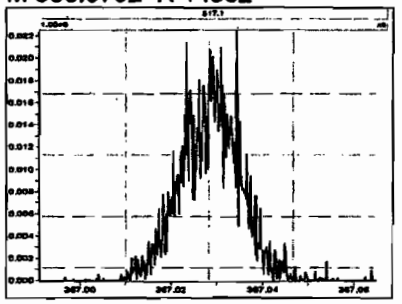

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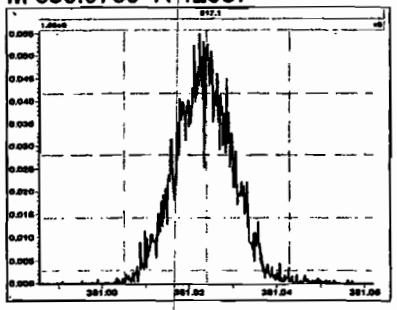

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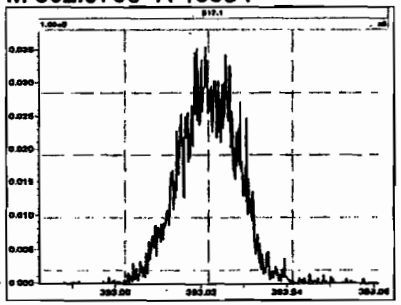

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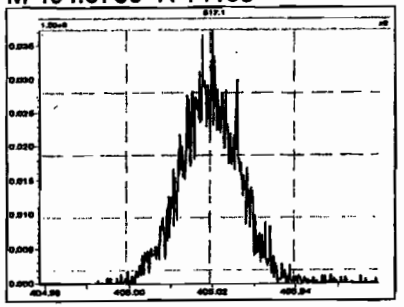

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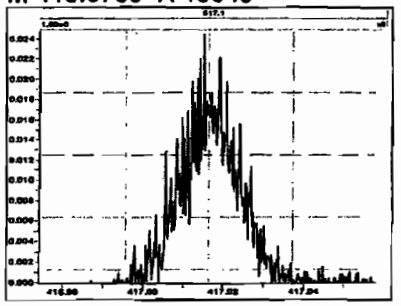

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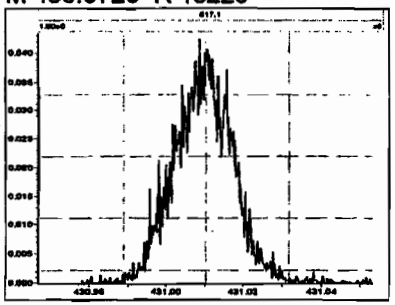

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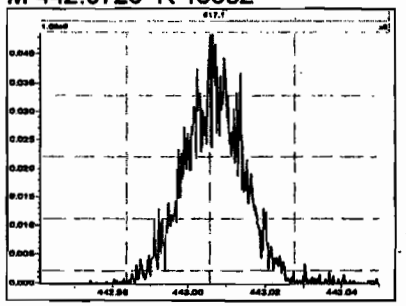

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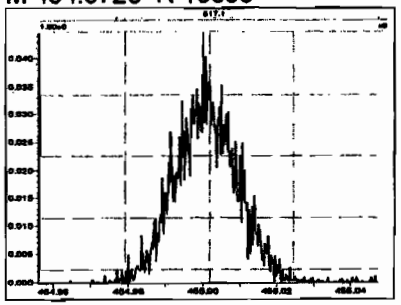

M 404.9760 R 14764

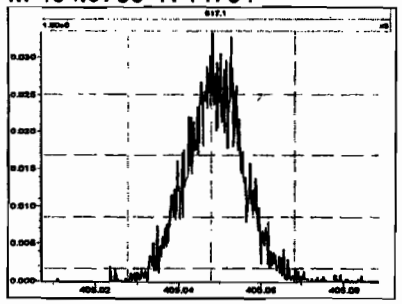

M 416.9760 R 14315

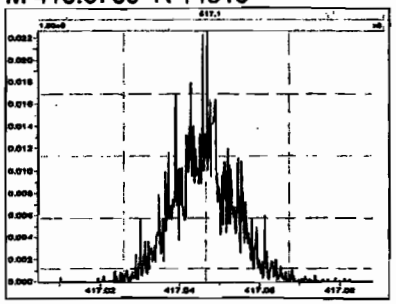

M 430.9728 R 13640

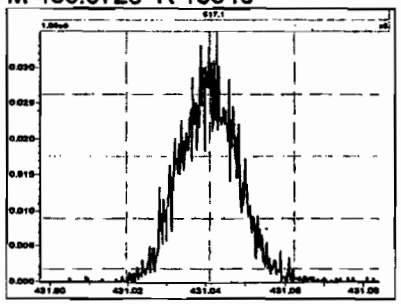

M 442.9728 R 14881

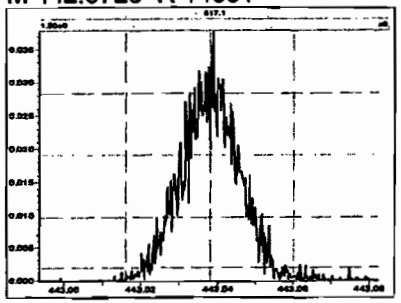

M 454.9728 R 14247

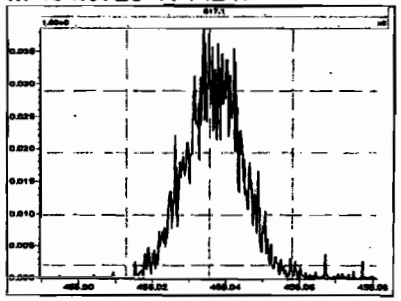

M 466.9728 R 14668

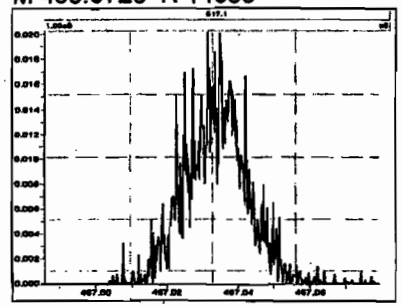

M 480.9696 R 13606

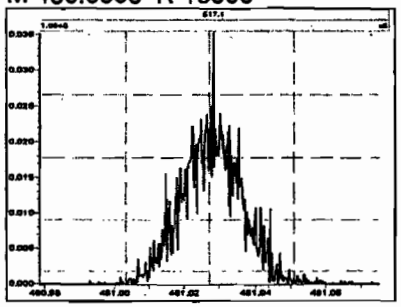

M 430.9728 R 13706

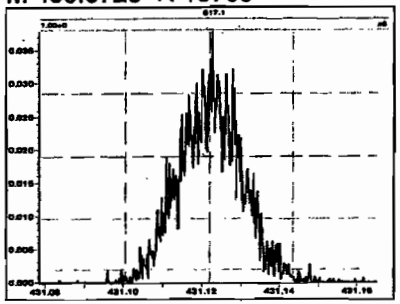

M 442.9728 R 13071

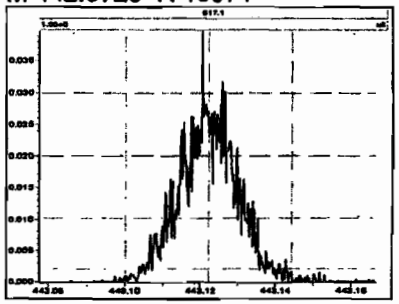

Printed: Wednesday, March 03, 2010 01:03:21 Pacific Standard Time

M 454.9728 R 13446

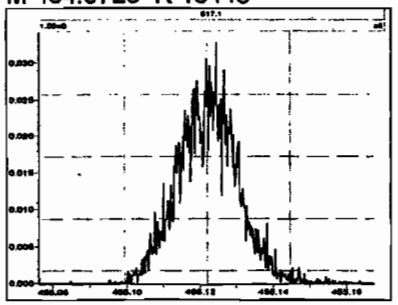

M 466.9728 R 13945

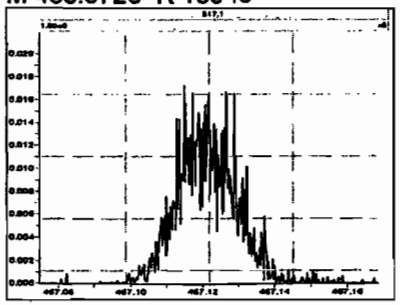

M 480.9696 R 14204

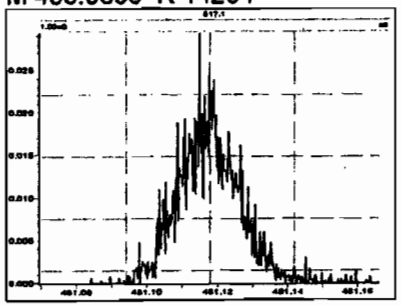

M 492.9696 R 13852

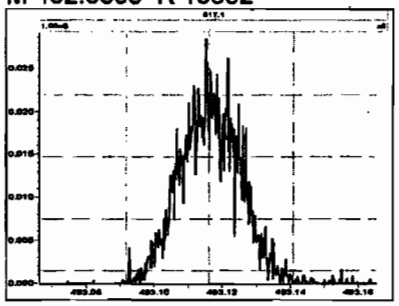

M 504.9696 R 12754

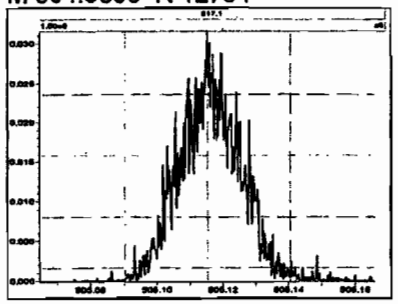

M 516.9697 R 13349

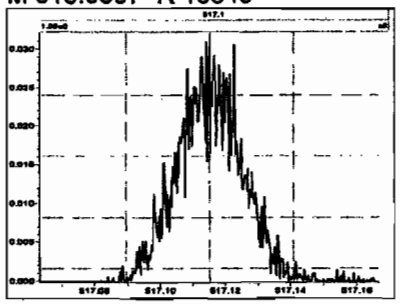

ICAL

Quantify Compound Summary Report **MassLynx 4.1**
Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Compound name: 2,3,7,8-TCDD
Response Factor: 1.03775
RRF SD: 0.0438689, Relative SD: 4.22731
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std Conc.	RA	OK	RT	Rel. RT	Resp.	IS Resp.	Conc.	% Dev.	RRF
1	100129H2_1	10.0	0.77	NO	25.98	1.001	1.10e5	1.11e6	9.62	-3.8	0.998
2	100129H2_3	0.250	0.88	NO	25.98	1.001	3.18e3	1.16e6	0.264	5.5	1.10
3	100129H2_4	0.500	0.74	NO	25.98	1.001	5.55e3	1.05e6	0.509	1.7	1.06
4	100129H2_5	2.00	0.80	NO	25.98	1.001	2.13e4	1.09e6	1.88	-6.1	0.974
5	100129H2_6	40.0	0.78	NO	25.97	1.001	4.69e5	1.11e6	40.7	1.6	1.05
6	100129H2_7	200	0.77	NO	25.97	1.001	2.48e6	1.18e6	202	1.1	1.05

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2/2/10

Compound name: 1,2,3,7,8-PeCDD
Response Factor: 0.935366
RRF SD: 0.0328605, Relative SD: 3.51311
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: RF

	Name	Std Conc.	RA	OK	RT	Rel. RT	Resp.	IS Resp.	Conc.	% Dev.	RRF
1	100129H2_1	50.0	0.61	NO	30.57	1.000	5.12e5	1.11e6	49.3	-1.5	0.922
2	100129H2_3	1.25	0.61	NO	30.57	1.000	1.31e4	1.10e6	1.28	2.1	0.955
3	100129H2_4	2.50	0.61	NO	30.57	1.000	2.51e4	1.04e6	2.57	3.0	0.963
4	100129H2_5	10.0	0.61	NO	30.57	1.000	9.60e4	1.10e6	9.35	-6.5	0.875
5	100129H2_6	200	0.62	NO	30.57	1.001	2.11e6	1.11e6	203	1.6	0.950
6	100129H2_7	1000	0.62	NO	30.56	1.000	1.15e7	1.21e6	1010	1.3	0.948

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Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

Compound name: 1,2,3,4,7,8-HxCDD
Response Factor: 0.907043
RRF SD: 0.0305119, Relative SD: 3.36389
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.25	NO	33.95	1.000	4.35e5	9.70e5	49.4	-1.1	0.897
	100129H2_3	1.25	1.22	NO	33.95	1.000	1.03e4	8.97e5	1.27	1.4	0.920
	100129H2_4	2.50	1.16	NO	33.95	1.000	1.97e4	8.52e5	2.55	2.0	0.925
	100129H2_5	10.0	1.26	NO	33.95	1.001	7.35e4	8.65e5	9.36	-6.4	0.849
	100129H2_6	200	1.24	NO	33.94	1.000	1.68e6	9.03e5	205	2.5	0.930
	100129H2_7	1000	1.24	NO	33.94	1.000	9.76e6	1.06e6	1020	1.5	0.921

Compound name: 1,2,3,6,7,8-HxCDD
Response Factor: 0.995415
RRF SD: 0.0268992, Relative SD: 2.70231
Response type: Internal Std (Ref 21), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.24	NO	34.06	1.000	4.14e5	8.54e5	48.7	-2.6	0.970
	100129H2_3	1.25	1.32	NO	34.06	1.001	1.02e4	7.97e5	1.28	2.7	1.02
	100129H2_4	2.50	1.18	NO	34.06	1.001	1.88e4	7.53e5	2.51	0.5	1.00
	100129H2_5	10.0	1.22	NO	34.05	1.000	7.43e4	7.78e5	9.60	-4.0	0.956
	100129H2_6	200	1.25	NO	34.05	1.000	1.61e6	7.92e5	205	2.3	1.02
	100129H2_7	1000	1.25	NO	34.05	1.000	9.16e6	9.11e5	1010	1.0	1.01

Compound name: 1,2,3,7,8,9-HxCDD
Response Factor: 0.930343
RRF SD: 0.0275408, Relative SD: 2.96028
Response type: Internal Std (Ref 22), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.25	NO	34.35	1.000	4.72e5	1.03e6	49.3	-1.3	0.918
	100129H2_3	1.25	1.21	NO	34.35	1.000	1.14e4	9.53e5	1.28	2.7	0.956

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

Compound name: 1,2,3,7,8,9-HxCDD

100129H2_4	2.50	1.22	NO	34.36	1.000	2.15e4	8.99e5	2.56	2.6	0.954
100129H2_5	10.0	1.27	NO	34.36	1.001	8.11e4	9.18e5	9.49	-5.1	0.883
100129H2_6	200	1.25	NO	34.36	1.001	1.80e6	9.55e5	203	1.5	0.944
100129H2_7	1000	1.24	NO	34.34	1.000	1.05e7	1.14e6	996	-0.4	0.926

Compound name: 1,2,3,4,6,7,8-HpCDD
Response Factor: 1.00215
RRF SD: 0.0343299, Relative SD: 3.42564
Response type: Internal Std (Ref 23), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	50.0	1.04	NO	37.89	1.000	3.99e5	8.21e5	48.4	-3.1	0.971
100129H2_3	1.25	1.02	NO	37.89	1.000	9.76e3	7.53e5	1.29	3.5	1.04
100129H2_4	2.50	1.11	NO	37.89	1.000	1.87e4	7.16e5	2.60	3.9	1.04
100129H2_5	10.0	1.03	NO	37.88	1.000	6.72e4	7.03e5	9.54	-4.6	0.956
100129H2_6	200	1.04	NO	37.88	1.000	1.45e6	7.20e5	200	0.2	1.00
100129H2_7	1000	1.04	NO	37.88	1.000	8.88e6	8.85e5	1000	0.2	1.00

Compound name: OCDD
Response Factor: 1.10393
RRF SD: 0.0568185, Relative SD: 5.14694
Response type: Internal Std (Ref 24), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	0.88	NO	41.19	1.000	7.54e5	1.40e6	97.7	-2.3	1.08
100129H2_3	2.50	0.82	NO	41.20	1.001	2.02e4	1.33e6	2.75	10.0	1.21
100129H2_4	5.00	0.88	NO	41.19	1.001	3.24e4	1.18e6	4.97	-0.5	1.10
100129H2_5	20.0	0.89	NO	41.18	1.000	1.18e5	1.12e6	19.0	-5.0	1.05
100129H2_6	400	0.88	NO	41.18	1.000	2.63e6	1.20e6	396	-0.9	1.09
100129H2_7	2000	0.88	NO	41.19	1.000	1.74e7	1.59e6	1980	-1.2	1.09

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

Compound name: 2,3,7,8-TCDF
Response Factor: 0.956401
RRF SD: 0.0341554, Relative SD: 3.57124
Response type: Internal Std (Ref 25), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	10.0	0.77	NO	25.20	1.001	1.31e5	1.43e6	9.56	-4.4	0.914
	100129H2_3	0.250	0.72	NO	25.22	1.002	3.66e3	1.52e6	0.252	0.9	0.965
	100129H2_4	0.500	0.82	NO	25.20	1.001	6.82e3	1.40e6	0.510	2.0	0.976
	100129H2_5	2.00	0.79	NO	25.19	1.001	2.68e4	1.47e6	1.91	-4.6	0.913
	100129H2_6	40.0	0.77	NO	25.19	1.001	5.79e5	1.47e6	41.1	2.7	0.982
	100129H2_7	200	0.76	NO	25.19	1.001	3.05e6	1.54e6	207	3.4	0.988

Compound name: 1,2,3,7,8-PeCDF
Response Factor: 0.940869
RRF SD: 0.0353031, Relative SD: 3.75219
Response type: Internal Std (Ref 26), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.57	NO	29.37	1.000	6.41e5	1.39e6	49.1	-1.9	0.923
	100129H2_3	1.25	1.50	NO	29.37	1.000	1.71e4	1.50e6	1.21	-3.4	0.909
	100129H2_4	2.50	1.55	NO	29.38	1.000	3.21e4	1.29e6	2.65	6.0	0.997
	100129H2_5	10.0	1.60	NO	29.37	1.000	1.20e5	1.31e6	9.67	-3.3	0.910
	100129H2_6	200	1.55	NO	29.37	1.000	2.65e6	1.37e6	206	2.9	0.968
	100129H2_7	1000	1.55	NO	29.37	1.001	1.59e7	1.69e6	996	-0.4	0.937

Compound name: 2,3,4,7,8-PeCDF
Response Factor: 0.925817
RRF SD: 0.0235693, Relative SD: 2.54579
Response type: Internal Std (Ref 27), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.57	NO	30.29	1.000	6.79e5	1.47e6	49.8	-0.3	0.923
	100129H2_3	1.25	1.62	NO	30.29	1.000	1.67e4	1.48e6	1.22	-2.4	0.904

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

Compound name: 2,3,4,7,8-PeCDF

	100129H2_4	2.50	1.63	NO	30.29	1.000	3.38e4	1.42e6	2.57	2.9	0.953
	100129H2_5	10.0	1.54	NO	30.29	1.000	1.32e5	1.47e6	9.65	-3.5	0.894
	100129H2_6	200	1.53	NO	30.29	1.000	2.84e6	1.50e6	204	2.2	0.946
	100129H2_7	1000	1.55	NO	30.27	1.000	1.57e7	1.68e6	1010	1.0	0.935

Compound name: 1,2,3,4,7,8-HxCDF
Response Factor: 1.22412
RRF SD: 0.0293526, Relative SD: 2.39786
Response type: Internal Std (Ref 28), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.25	NO	33.05	1.000	7.77e5	1.29e6	49.4	-1.2	1.21
	100129H2_3	1.25	1.27	NO	33.05	1.001	2.21e4	1.48e6	1.22	-2.4	1.19
	100129H2_4	2.50	1.22	NO	33.05	1.000	3.36e4	1.07e6	2.56	2.3	1.25
	100129H2_5	10.0	1.25	NO	33.05	1.000	1.30e5	1.09e6	9.73	-2.7	1.19
	100129H2_6	200	1.25	NO	33.05	1.001	2.87e6	1.15e6	204	2.1	1.25
	100129H2_7	1000	1.25	NO	33.04	1.000	1.79e7	1.43e6	1020	2.0	1.25

Compound name: 1,2,3,6,7,8-HxCDF
Response Factor: 1.07862
RRF SD: 0.0221276, Relative SD: 2.05147
Response type: Internal Std (Ref 29), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.26	NO	33.18	1.001	6.73e5	1.28e6	48.9	-2.3	1.05
	100129H2_3	1.25	1.21	NO	33.18	1.001	1.71e4	1.27e6	1.25	0.3	1.08
	100129H2_4	2.50	1.24	NO	33.18	1.000	3.13e4	1.14e6	2.54	1.6	1.10
	100129H2_5	10.0	1.24	NO	33.17	1.000	1.24e5	1.18e6	9.74	-2.6	1.05
	100129H2_6	200	1.26	NO	33.17	1.000	2.67e6	1.21e6	205	2.4	1.10
	100129H2_7	1000	1.26	NO	33.17	1.000	1.55e7	1.42e6	1010	0.7	1.09

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
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Compound name: 2,3,4,6,7,8-HxCDF
Response Factor: 1.12508
RRF SD: 0.0298329, Relative SD: 2.65161
Response type: Internal Std (Ref 30), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.25	NO	33.78	1.001	6.18e5	1.12e6	49.2	-1.7	1.11
	100129H2_3	1.25	1.24	NO	33.77	1.000	1.49e4	1.06e6	1.25	-0.1	1.12
	100129H2_4	2.50	1.28	NO	33.77	1.000	2.88e4	1.00e6	2.55	2.0	1.15
	100129H2_5	10.0	1.24	NO	33.77	1.000	1.11e5	1.03e6	9.56	-4.4	1.08
	100129H2_6	200	1.25	NO	33.77	1.000	2.42e6	1.05e6	205	2.4	1.15
	100129H2_7	1000	1.25	NO	33.77	1.000	1.40e7	1.23e6	1020	1.8	1.15

Compound name: 1,2,3,7,8,9-HxCDF
Response Factor: 1.12896
RRF SD: 0.0335341, Relative SD: 2.97035
Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.23	NO	34.75	1.000	5.61e5	1.01e6	49.1	-1.8	1.11
	100129H2_3	1.25	1.23	NO	34.75	1.000	1.32e4	9.57e5	1.22	-2.4	1.10
	100129H2_4	2.50	1.26	NO	34.75	1.000	2.56e4	8.74e5	2.59	3.8	1.17
	100129H2_5	10.0	1.29	NO	34.74	1.000	9.63e4	8.84e5	9.64	-3.6	1.09
	100129H2_6	200	1.26	NO	34.74	1.000	2.14e6	9.28e5	205	2.4	1.16
	100129H2_7	1000	1.25	NO	34.74	1.000	1.28e7	1.11e6	1020	1.6	1.15

Compound name: 1,2,3,4,6,7,8-HpCDF
Response Factor: 1.43855
RRF SD: 0.0764869, Relative SD: 5.31694
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	1.05	NO	36.59	1.000	5.82e5	8.38e5	48.3	-3.4	1.39
	100129H2_3	1.25	1.01	NO	36.60	1.001	1.49e4	7.68e5	1.35	7.7	1.55

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: 1,2,3,4,6,7,8-HpCDF

100129H2_4	2.50	1.01	NO	36.60	1.001	2.70e4	7.25e5	2.59	3.6	1.49
100129H2_5	10.0	1.06	NO	36.59	1.000	1.01e5	7.56e5	9.25	-7.5	1.33
100129H2_6	200	1.05	NO	36.59	1.001	2.15e6	7.44e5	201	0.5	1.45
100129H2_7	1000	1.05	NO	36.59	1.001	1.26e7	8.83e5	990	-1.0	1.42

Compound name: 1,2,3,4,7,8,9-HpCDF
Response Factor: 1.37871
RRF SD: 0.0397747, Relative SD: 2.88492
Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	50.0	1.06	NO	38.44	1.000	5.34e5	7.91e5	49.0	-2.0	1.35
100129H2_3	1.25	1.00	NO	38.45	1.001	1.24e4	7.13e5	1.26	0.7	1.39
100129H2_4	2.50	1.06	NO	38.44	1.000	2.38e4	6.61e5	2.61	4.4	1.44
100129H2_5	10.0	1.04	NO	38.43	1.000	8.79e4	6.64e5	9.60	-4.0	1.32
100129H2_6	200	1.05	NO	38.43	1.000	1.92e6	6.87e5	203	1.3	1.40
100129H2_7	1000	1.05	NO	38.43	1.000	1.16e7	8.46e5	995	-0.5	1.37

Compound name: OCDF
Response Factor: 1.01488
RRF SD: 0.071672, Relative SD: 7.06212
Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	0.90	NO	41.42	1.000	8.89e5	1.83e6	95.9	-4.1	0.973
100129H2_3	2.50	0.87	NO	41.42	1.000	2.66e4	1.85e6	2.84	13.4	1.15
100129H2_4	5.00	0.89	NO	41.42	1.001	3.91e4	1.52e6	5.08	1.5	1.03
100129H2_5	20.0	0.89	NO	41.41	1.000	1.40e5	1.47e6	18.8	-6.2	0.952
100129H2_6	400	0.90	NO	41.41	1.000	3.18e6	1.59e6	393	-1.7	0.997
100129H2_7	2000	0.91	NO	41.42	1.000	2.13e7	2.16e6	1940	-2.9	0.986

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: 13C-2,3,7,8-TCDD
Response Factor: 1.09945
RRF SD: 0.0353239, Relative SD: 3.21288
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.80	NO	25.97	1.022	1.11e6	9.95e5	101	1.0	1.11
	100129H2_3	100	0.79	NO	25.97	1.022	1.16e6	1.07e6	99.3	-0.7	1.09
	100129H2_4	100	0.81	NO	25.97	1.022	1.05e6	9.84e5	97.2	-2.8	1.07
	100129H2_5	100	0.78	NO	25.95	1.022	1.09e6	1.02e6	97.3	-2.7	1.07
	100129H2_6	100	0.78	NO	25.95	1.022	1.11e6	1.02e6	99.4	-0.6	1.09
	100129H2_7	100	0.80	NO	25.95	1.022	1.18e6	1.02e6	106	5.9	1.16

Compound name: 13C-1,2,3,7,8-PeCDD
Response Factor: 1.09441
RRF SD: 0.0562219, Relative SD: 5.13717
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.62	NO	30.56	1.203	1.11e6	9.95e5	102	2.1	1.12
	100129H2_3	100	0.64	NO	30.56	1.203	1.10e6	1.07e6	94.1	-5.9	1.03
	100129H2_4	100	0.63	NO	30.56	1.203	1.04e6	9.84e5	96.8	-3.2	1.06
	100129H2_5	100	0.64	NO	30.56	1.204	1.10e6	1.02e6	98.3	-1.7	1.08
	100129H2_6	100	0.62	NO	30.55	1.203	1.11e6	1.02e6	99.7	-0.3	1.09
	100129H2_7	100	0.62	NO	30.55	1.203	1.21e6	1.02e6	109	8.9	1.19

Compound name: 13C-1,2,3,4,7,8-HxCDD
Response Factor: 1.01044
RRF SD: 0.0969506, Relative SD: 9.59486
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	1.26	NO	33.94	1.014	9.70e5	9.64e5	99.6	-0.4	1.01
	100129H2_3	100	1.26	NO	33.94	1.014	8.97e5	9.50e5	93.5	-6.5	0.945

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: 13C-1,2,3,4,7,8-HxCDD

100129H2_4	100	1.25	NO	33.94	1.014	8.52e5	9.14e5	92.2	-7.8	0.932
100129H2_5	100	1.26	NO	33.93	1.014	8.65e5	9.05e5	94.6	-5.4	0.956
100129H2_6	100	1.25	NO	33.93	1.014	9.03e5	8.76e5	102	2.0	1.03
100129H2_7	100	1.27	NO	33.93	1.014	1.06e6	8.89e5	118	18.0	1.19

Compound name: 13C-1,2,3,6,7,8-HxCDD
Response Factor: 0.889467
RRF SD: 0.0721499, Relative SD: 8.11159
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	1.23	NO	34.05	1.018	8.54e5	9.64e5	99.6	-0.4	0.886
100129H2_3	100	1.26	NO	34.04	1.017	7.97e5	9.50e5	94.4	-5.6	0.840
100129H2_4	100	1.27	NO	34.04	1.017	7.53e5	9.14e5	92.6	-7.4	0.824
100129H2_5	100	1.25	NO	34.04	1.017	7.78e5	9.05e5	96.6	-3.4	0.859
100129H2_6	100	1.26	NO	34.04	1.017	7.92e5	8.76e5	102	1.6	0.904
100129H2_7	100	1.28	NO	34.04	1.018	9.11e5	8.89e5	115	15.1	1.02

Compound name: 13C-1,2,3,7,8,9-HxCDD
Response Factor: 1.07336
RRF SD: 0.108723, Relative SD: 10.1293
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	1.25	NO	34.34	1.027	1.03e6	9.64e5	99.5	-0.5	1.07
100129H2_3	100	1.24	NO	34.34	1.027	9.53e5	9.50e5	93.5	-6.5	1.00
100129H2_4	100	1.25	NO	34.34	1.027	8.99e5	9.14e5	91.7	-8.3	0.984
100129H2_5	100	1.24	NO	34.33	1.026	9.18e5	9.05e5	94.5	-5.5	1.01
100129H2_6	100	1.23	NO	34.33	1.026	9.55e5	8.76e5	102	1.6	1.09
100129H2_7	100	1.24	NO	34.33	1.027	1.14e6	8.89e5	119	19.2	1.28

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: 13C-1,2,3,4,6,7,8-HpCDD
Response Factor: 0.837123
RRF SD: 0.0823436, Relative SD: 9.83651
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	1.05	NO	37.88	1.132	8.21e5	9.64e5	102	1.8	0.852
	100129H2_3	100	1.06	NO	37.88	1.132	7.53e5	9.50e5	94.7	-5.3	0.793
	100129H2_4	100	1.03	NO	37.88	1.132	7.16e5	9.14e5	93.6	-6.4	0.784
	100129H2_5	100	1.06	NO	37.87	1.132	7.03e5	9.05e5	92.8	-7.2	0.777
	100129H2_6	100	1.04	NO	37.87	1.132	7.20e5	8.76e5	98.2	-1.8	0.822
	100129H2_7	100	1.05	NO	37.87	1.132	8.85e5	8.89e5	119	18.9	0.995

Compound name: 13C-OCDD
Response Factor: 0.712032
RRF SD: 0.0975244, Relative SD: 13.6966
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	200	0.91	NO	41.18	1.231	1.40e6	9.64e5	204	1.9	0.725
	100129H2_3	200	0.90	NO	41.18	1.231	1.33e6	9.50e5	197	-1.7	0.700
	100129H2_4	200	0.89	NO	41.17	1.231	1.18e6	9.14e5	181	-9.3	0.646
	100129H2_5	200	0.90	NO	41.17	1.231	1.12e6	9.05e5	174	-12.9	0.620
	100129H2_6	200	0.91	NO	41.17	1.231	1.20e6	8.76e5	193	-3.7	0.686
	100129H2_7	200	0.89	NO	41.18	1.231	1.59e6	8.89e5	252	25.8	0.896

Compound name: 13C-2,3,7,8-TCDF
Response Factor: 1.05298
RRF SD: 0.0213546, Relative SD: 2.02801
Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.79	NO	25.19	0.992	1.43e6	1.35e6	101	1.1	1.06
	100129H2_3	100	0.79	NO	25.17	0.991	1.52e6	1.45e6	98.9	-1.1	1.04

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: 13C-2,3,7,8-TCDF

100129H2_4	100	0.79	NO	25.19	0.992	1.40e6	1.35e6	98.1	-1.9	1.03
100129H2_5	100	0.80	NO	25.17	0.992	1.47e6	1.41e6	98.7	-1.3	1.04
100129H2_6	100	0.78	NO	25.17	0.992	1.47e6	1.40e6	99.7	-0.3	1.05
100129H2_7	100	0.78	NO	25.17	0.992	1.54e6	1.41e6	104	3.6	1.09

Compound name: 13C-1,2,3,7,8-PeCDF
Response Factor: 1.01963
RRF SD: 0.0964477, Relative SD: 9.45911
Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	1.58	NO	29.35	1.155	1.39e6	1.35e6	101	1.1	1.03
100129H2_3	100	1.56	NO	29.35	1.155	1.50e6	1.45e6	101	1.4	1.03
100129H2_4	100	1.56	NO	29.37	1.156	1.29e6	1.35e6	93.3	-6.7	0.951
100129H2_5	100	1.59	NO	29.35	1.156	1.31e6	1.41e6	91.3	-8.7	0.931
100129H2_6	100	1.57	NO	29.35	1.156	1.37e6	1.40e6	95.5	-4.5	0.974
100129H2_7	100	1.57	NO	29.34	1.156	1.69e6	1.41e6	117	17.4	1.20

Compound name: 13C-2,3,4,7,8-PeCDF
Response Factor: 1.07622
RRF SD: 0.0621874, Relative SD: 5.77833
Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	1.57	NO	30.27	1.192	1.47e6	1.35e6	102	1.6	1.09
100129H2_3	100	1.56	NO	30.27	1.192	1.48e6	1.45e6	94.3	-5.7	1.01
100129H2_4	100	1.57	NO	30.27	1.192	1.42e6	1.35e6	97.3	-2.7	1.05
100129H2_5	100	1.58	NO	30.27	1.192	1.47e6	1.41e6	97.0	-3.0	1.04
100129H2_6	100	1.57	NO	30.27	1.192	1.50e6	1.40e6	99.2	-0.8	1.07
100129H2_7	100	1.57	NO	30.26	1.192	1.68e6	1.41e6	111	10.7	1.19

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: 13C-1,2,3,4,7,8-HxCDF
Response Factor: 1.36545
RRF SD: 0.181436, Relative SD: 13.2877
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.53	NO	33.04	0.988	1.29e6	9.64e5	97.7	-2.3	1.33
	100129H2_3	100	0.52	NO	33.03	0.987	1.48e6	9.50e5	114	14.1	1.56
	100129H2_4	100	0.52	NO	33.04	0.988	1.07e6	9.14e5	85.9	-14.1	1.17
	100129H2_5	100	0.52	NO	33.04	0.988	1.09e6	9.05e5	88.3	-11.7	1.21
	100129H2_6	100	0.52	NO	33.03	0.987	1.15e6	8.76e5	95.9	-4.1	1.31
	100129H2_7	100	0.52	NO	33.03	0.988	1.43e6	8.89e5	118	18.1	1.61

Compound name: 13C-1,2,3,6,7,8-HxCDF
Response Factor: 1.36637
RRF SD: 0.122392, Relative SD: 8.95746
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.52	NO	33.16	0.991	1.28e6	9.64e5	96.9	-3.1	1.32
	100129H2_3	100	0.52	NO	33.16	0.991	1.27e6	9.50e5	97.7	-2.3	1.33
	100129H2_4	100	0.53	NO	33.17	0.991	1.14e6	9.14e5	91.6	-8.4	1.25
	100129H2_5	100	0.52	NO	33.16	0.991	1.18e6	9.05e5	95.6	-4.4	1.31
	100129H2_6	100	0.52	NO	33.16	0.991	1.21e6	8.76e5	101	1.1	1.38
	100129H2_7	100	0.53	NO	33.16	0.991	1.42e6	8.89e5	117	17.2	1.60

Compound name: 13C-2,3,4,6,7,8-HxCDF
Response Factor: 1.18231
RRF SD: 0.102145, Relative SD: 8.63946
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.52	NO	33.76	1.009	1.12e6	9.64e5	98.0	-2.0	1.16
	100129H2_3	100	0.51	NO	33.76	1.009	1.06e6	9.50e5	94.7	-5.3	1.12

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: 13C-2,3,4,6,7,8-HxCDF

	100129H2_4	100	0.53	NO	33.76	1.009	1.00e6	9.14e5	92.9	-7.1	1.10
	100129H2_5	100	0.52	NO	33.76	1.009	1.03e6	9.05e5	96.4	-3.6	1.14
	100129H2_6	100	0.52	NO	33.76	1.009	1.05e6	8.76e5	101	1.5	1.20
	100129H2_7	100	0.52	NO	33.76	1.010	1.23e6	8.89e5	117	16.6	1.38

Compound name: 13C-1,2,3,7,8,9-HxCDF
Response Factor: 1.05009
RRF SD: 0.106244, Relative SD: 10.1176
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.51	NO	34.74	1.038	1.01e6	9.64e5	99.9	-0.1	1.05
	100129H2_3	100	0.52	NO	34.74	1.038	9.57e5	9.50e5	96.0	-4.0	1.01
	100129H2_4	100	0.52	NO	34.74	1.038	8.74e5	9.14e5	91.0	-9.0	0.956
	100129H2_5	100	0.52	NO	34.73	1.038	8.84e5	9.05e5	93.0	-7.0	0.977
	100129H2_6	100	0.53	NO	34.73	1.038	9.28e5	8.76e5	101	0.9	1.06
	100129H2_7	100	0.52	NO	34.73	1.038	1.11e6	8.89e5	119	19.1	1.25

Compound name: 13C-1,2,3,4,6,7,8-HpCDF
Response Factor: 0.858149
RRF SD: 0.0715157, Relative SD: 8.33371
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.44	NO	36.58	1.093	8.38e5	9.64e5	101	1.3	0.870
	100129H2_3	100	0.45	NO	36.58	1.093	7.68e5	9.50e5	94.2	-5.8	0.809
	100129H2_4	100	0.45	NO	36.58	1.093	7.25e5	9.14e5	92.4	-7.6	0.793
	100129H2_5	100	0.44	NO	36.58	1.093	7.56e5	9.05e5	97.3	-2.7	0.835
	100129H2_6	100	0.45	NO	36.57	1.093	7.44e5	8.76e5	99.0	-1.0	0.849
	100129H2_7	100	0.45	NO	36.57	1.094	8.83e5	8.89e5	116	15.7	0.993

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: 13C-1,2,3,4,7,8,9-HpCDF
Response Factor: 0.79411
RRF SD: 0.0852395, Relative SD: 10.734
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	100	0.44	NO	38.43	1.149	7.91e5	9.64e5	103	3.3	0.821
	100129H2_3	100	0.44	NO	38.43	1.149	7.13e5	9.50e5	94.5	-5.5	0.751
	100129H2_4	100	0.44	NO	38.43	1.149	6.61e5	9.14e5	91.0	-9.0	0.723
	100129H2_5	100	0.44	NO	38.42	1.148	6.64e5	9.05e5	92.4	-7.6	0.734
	100129H2_6	100	0.45	NO	38.42	1.148	6.87e5	8.76e5	98.9	-1.1	0.785
	100129H2_7	100	0.45	NO	38.42	1.149	8.46e5	8.89e5	120	19.9	0.952

Compound name: 13C-OCDF
Response Factor: 0.948096
RRF SD: 0.14562, Relative SD: 15.3592
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	200	0.90	NO	41.41	1.238	1.83e6	9.64e5	200	0.0	0.948
	100129H2_3	200	0.90	NO	41.41	1.238	1.85e6	9.50e5	205	2.5	0.972
	100129H2_4	200	0.90	NO	41.40	1.237	1.52e6	9.14e5	175	-12.4	0.831
	100129H2_5	200	0.91	NO	41.40	1.237	1.47e6	9.05e5	171	-14.3	0.812
	100129H2_6	200	0.90	NO	41.40	1.237	1.59e6	8.76e5	192	-4.0	0.910
	100129H2_7	200	0.90	NO	41.41	1.238	2.16e6	8.89e5	256	28.2	1.22

Compound name: 37Cl-2,3,7,8-TCDD
Response Factor: 0.664789
RRF SD: 0.0381685, Relative SD: 5.74144
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	10.0			25.98	1.023	6.27e4	9.95e5	9.49	-5.1	0.631
	100129H2_3	0.250			25.98	1.023	1.82e3	1.07e6	0.257	2.6	0.682

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: 37Cl-2,3,7,8-TCDD

100129H2_4	0.500			25.98	1.023	3.04e3	9.84e5	0.465	-7.0	0.618
100129H2_5	2.00			25.98	1.023	1.37e4	1.02e6	2.02	0.8	0.670
100129H2_6	40.0			25.97	1.023	2.70e5	1.02e6	39.9	-0.3	0.663
100129H2_7	200			25.97	1.023	1.47e6	1.02e6	218	9.0	0.725

Compound name: 13C-1,2,3,4-TCDD
Response Factor: 1
RRF SD: 9.93014e-017, Relative SD: 9.93014e-015
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	0.80	NO	25.40	0.000	9.95e5	9.95e5	100	0.0	1.00
100129H2_3	100	0.79	NO	25.40	0.000	1.07e6	1.07e6	100	0.0	1.00
100129H2_4	100	0.79	NO	25.40	0.000	9.84e5	9.84e5	100	0.0	1.00
100129H2_5	100	0.80	NO	25.39	0.000	1.02e6	1.02e6	100	0.0	1.00
100129H2_6	100	0.79	NO	25.39	0.000	1.02e6	1.02e6	100	0.0	1.00
100129H2_7	100	0.79	NO	25.39	0.000	1.02e6	1.02e6	100	0.0	1.00

Compound name: 13C-1,2,3,4-TCDF
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	0.78	NO	23.98	0.000	1.35e6	1.35e6	100	0.0	1.00
100129H2_3	100	0.78	NO	23.98	0.000	1.45e6	1.45e6	100	0.0	1.00
100129H2_4	100	0.78	NO	23.98	0.000	1.35e6	1.35e6	100	0.0	1.00
100129H2_5	100	0.78	NO	23.97	0.000	1.41e6	1.41e6	100	0.0	1.00
100129H2_6	100	0.79	NO	23.97	0.000	1.40e6	1.40e6	100	0.0	1.00
100129H2_7	100	0.78	NO	23.97	0.000	1.41e6	1.41e6	100	0.0	1.00

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: 13C-1,2,3,4,6,9-HxCDF
Response Factor: 1
RRF SD: 1.40433e-016, Relative SD: 1.40433e-014
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	100	0.52	NO	33.46	0.000	9.64e5	9.64e5	100	0.0	1.00
100129H2_3	100	0.52	NO	33.46	0.000	9.50e5	9.50e5	100	0.0	1.00
100129H2_4	100	0.50	NO	33.46	0.000	9.14e5	9.14e5	100	0.0	1.00
100129H2_5	100	0.51	NO	33.46	0.000	9.05e5	9.05e5	100	0.0	1.00
100129H2_6	100	0.52	NO	33.46	0.000	8.76e5	8.76e5	100	0.0	1.00
100129H2_7	100	0.52	NO	33.44	0.000	8.89e5	8.89e5	100	0.0	1.00

Compound name: Total Tetra-Dioxins
Response Factor: 1.03775
RRF SD: 0.0438689, Relative SD: 4.22731
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	10.0	1.11e6	55.5
100129H2_3	0.250	1.16e6	0.270
100129H2_4	0.500	1.05e6	0.512
100129H2_5	2.00	1.09e6	1.88
100129H2_6	40.0	1.11e6	40.8
100129H2_7	200	1.18e6	203

Compound name: Total Penta-Dioxins
Response Factor: 0.935366
RRF SD: 0.0328605, Relative SD: 3.51311
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: RF

100129H2_1	50.0	1.11e6	146
100129H2_3	1.25	1.10e6	1.29

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: Total Penta-Dioxins

	100129H2_4	2.50	1.04e6	2.57
	100129H2_5	10.0	1.10e6	9.35
	100129H2_6	200	1.11e6	204
	100129H2_7	1000	1.21e6	1010

Compound name: Total Hexa-Dioxins
Response Factor: 0.995415
RRF SD: 0.0268992, Relative SD: 2.70231
Response type: Internal Std (Ref 21), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	0.00e0	191
	100129H2_3	1.25	0.00e0	3.84
	100129H2_4	2.50	0.00e0	7.63
	100129H2_5	10.0	0.00e0	28.5
	100129H2_6	200	0.00e0	613
	100129H2_7	1000	0.00e0	3020

Compound name: Total Hepta-Dioxins
Response Factor: 1.00215
RRF SD: 0.0343299, Relative SD: 3.42564
Response type: Internal Std (Ref 23), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	8.21e5	129
	100129H2_3	1.25	7.53e5	1.32
	100129H2_4	2.50	7.16e5	2.61
	100129H2_5	10.0	7.03e5	9.58
	100129H2_6	200	7.20e5	202
	100129H2_7	1000	8.85e5	1010

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: Total Tetra-Furans
Response Factor: 0.956401
RRF SD: 0.0341554, Relative SD: 3.57124
Response type: Internal Std (Ref 25), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	10.0	1.43e6	31.2
	100129H2_3	0.250	1.52e6	0.264
	100129H2_4	0.500	1.40e6	0.510
	100129H2_5	2.00	1.47e6	1.91
	100129H2_6	40.0	1.47e6	41.7
	100129H2_7	200	1.54e6	210

Compound name: 1st Func. Penta-Furans
Response Factor: 0.940869
RRF SD: 0.0353031, Relative SD: 3.75219
Response type: Internal Std (Ref 26), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	0.00e0	60.7
	100129H2_3	1.25	0.00e0	0.00956
	100129H2_4	2.50	0.00e0	0.0104
	100129H2_5	10.0	0.00e0	0.00898
	100129H2_6	200	0.00e0	0.0373
	100129H2_7	1000	0.00e0	0.0131

Compound name: Total Penta-Furans
Response Factor: 0.940869
RRF SD: 0.0353031, Relative SD: 3.75219
Response type: Internal Std (Ref 26), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	0.00e0	162
	100129H2_3	1.25	0.00e0	2.43

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: Total Penta-Furans

	100129H2_4	2.50	0.00e0	5.22
	100129H2_5	10.0	0.00e0	19.5
	100129H2_6	200	0.00e0	415
	100129H2_7	1000	0.00e0	2030

Compound name: Total Hexa-Furans
Response Factor: 1.12508
RRF SD: 0.0298329, Relative SD: 2.65161
Response type: Internal Std (Ref 30), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	0.00e0	245
	100129H2_3	1.25	0.00e0	4.94
	100129H2_4	2.50	0.00e0	10.2
	100129H2_5	10.0	0.00e0	38.7
	100129H2_6	200	0.00e0	819
	100129H2_7	1000	0.00e0	4070

Compound name: Total Hepta-Furans
Response Factor: 1.43855
RRF SD: 0.0764869, Relative SD: 5.31694
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: RF

	100129H2_1	50.0	0.00e0	97.3
	100129H2_3	1.25	0.00e0	2.61
	100129H2_4	2.50	0.00e0	5.21
	100129H2_5	10.0	0.00e0	18.9
	100129H2_6	200	0.00e0	404
	100129H2_7	1000	0.00e0	1990

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: PFK1
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00
	100129H2_3	1.00
	100129H2_4	1.00
	100129H2_5	1.00
	100129H2_6	1.00
	100129H2_7	1.00

Compound name: PFK2
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00
	100129H2_3	1.00
	100129H2_4	1.00
	100129H2_5	1.00
	100129H2_6	1.00
	100129H2_7	1.00

Compound name: PFK3
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00
	100129H2_3	1.00
	100129H2_4	1.00
	100129H2_5	1.00

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: PFK3

	100129H2_6	1.00
	100129H2_7	1.00

Compound name: PFK4
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00
	100129H2_3	1.00
	100129H2_4	1.00
	100129H2_5	1.00
	100129H2_6	1.00
	100129H2_7	1.00

Compound name: PFK5
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00
	100129H2_3	1.00
	100129H2_4	1.00
	100129H2_5	1.00
	100129H2_6	1.00
	100129H2_7	1.00

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: DPE1
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00							
	100129H2_3	1.00							
	100129H2_4	1.00							
	100129H2_5	1.00							
	100129H2_6	1.00							
	100129H2_7	1.00							

Compound name: DPE2
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00							
	100129H2_3	1.00							
	100129H2_4	1.00							
	100129H2_5	1.00							
	100129H2_6	1.00							
	100129H2_7	1.00							

Compound name: DPE3
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00							
	100129H2_3	1.00							
	100129H2_4	1.00							
	100129H2_5	1.00							

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: DPE3

	100129H2_6	1.00
	100129H2_7	1.00

Compound name: DPE4
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00
	100129H2_3	1.00
	100129H2_4	1.00
	100129H2_5	1.00
	100129H2_6	1.00
	100129H2_7	1.00

Compound name: DPE5
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00
	100129H2_3	1.00
	100129H2_4	1.00
	100129H2_5	1.00
	100129H2_6	1.00
	100129H2_7	1.00

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Compound name: DPE6
No Calibration
Response type: External Std, Area
Curve type: RF

	100129H2_1	1.00
	100129H2_3	1.00
	100129H2_4	1.00
	100129H2_5	1.00
	100129H2_6	1.00
	100129H2_7	1.00

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
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Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_3, Date: 30-Jan-2010, Time: 03:53:20, ID: ST100129H2-2 1613 CS0 100127C, Description: 1613 CS0 100127C

1	2,3,7,8-TCDD	3.18e3	0.88	NO	1.04	1.000	25.98	1.001	0.26382	106	0.0185	0.26382
2	1,2,3,7,8-PeCDD	1.31e4	0.61	NO	0.935	1.000	30.57	1.000	1.2763	102	0.0191	1.2763
3	1,2,3,4,7,8-HxCDD	1.03e4	1.22	NO	0.907	1.000	33.95	1.000	1.2676	101	0.0409	1.2676
4	1,2,3,6,7,8-HxCDD	1.02e4	1.32	NO	0.995	1.000	34.06	1.001	1.2843	103	0.0433	1.2843
5	1,2,3,7,8,9-HxCDD	1.14e4	1.21	NO	0.930	1.000	34.35	1.000	1.2842	103	0.0388	1.2842
6	1,2,3,4,6,7,8-HpCDD	9.76e3	1.02	NO	1.00	1.000	37.89	1.000	1.2931	103	0.0367	1.2931
7	OCDD	2.02e4	0.82	NO	1.10	1.000	41.20	1.001	2.7492	110	0.0369	2.7492
8	2,3,7,8-TCDF	3.66e3	0.72	NO	0.956	1.000	25.22	1.002	0.25226	101	0.0196	0.25226
9	1,2,3,7,8-PeCDF	1.71e4	1.50	NO	0.941	1.000	29.37	1.000	1.2076	96.6	0.0275	1.2076
10	2,3,4,7,8-PeCDF	1.67e4	1.62	NO	0.926	1.000	30.29	1.000	1.2202	97.6	0.0283	1.2202
11	1,2,3,4,7,8-HxCDF	2.21e4	1.27	NO	1.22	1.000	33.05	1.001	1.2195	97.6	0.0237	1.2195
12	1,2,3,6,7,8-HxCDF	1.71e4	1.21	NO	1.08	1.000	33.18	1.001	1.2533	100	0.0329	1.2533
13	2,3,4,6,7,8-HxCDF	1.49e4	1.24	NO	1.13	1.000	33.77	1.000	1.2484	99.9	0.0370	1.2484
14	1,2,3,7,8,9-HxCDF	1.32e4	1.23	NO	1.13	1.000	34.75	1.000	1.2201	97.6	0.0513	1.2201
15	1,2,3,4,6,7,8-HpCDF	1.49e4	1.01	NO	1.44	1.000	36.60	1.001	1.3466	108	0.0517	1.3466
16	1,2,3,4,7,8,9-HpCDF	1.24e4	1.00	NO	1.38	1.000	38.45	1.001	1.2592	101	0.0502	1.2592
17	OCDF	2.66e4	0.87	NO	1.01	1.000	41.42	1.000	2.8354	113	0.0391	2.8354
18	13C-2,3,7,8-TCDD	1.16e6	0.79	NO	1.10	1.000	25.97	1.022	99.282	99.3	0.138	
19	13C-1,2,3,7,8-PeCDD	1.10e6	0.64	NO	1.09	1.000	30.56	1.203	94.078	94.1	0.143	
20	13C-1,2,3,4,7,8-HxCDD	8.97e5	1.26	NO	1.01	1.000	33.94	1.014	93.499	93.5	0.130	
21	13C-1,2,3,6,7,8-HxCDD	7.97e5	1.26	NO	0.889	1.000	34.04	1.017	94.391	94.4	0.148	
22	13C-1,2,3,7,8,9-HxCDD	9.53e5	1.24	NO	1.07	1.000	34.34	1.027	93.537	93.5	0.123	
23	13C-1,2,3,4,6,7,8-HpCDD	7.53e5	1.06	NO	0.837	1.000	37.88	1.132	94.701	94.7	0.295	
24	13C-OCDD	1.33e6	0.90	NO	0.712	1.000	41.18	1.231	196.56	98.3	0.119	
25	13C-2,3,7,8-TCDF	1.52e6	0.79	NO	1.05	1.000	25.17	0.991	98.898	98.9	0.165	
26	13C-1,2,3,7,8-PeCDF	1.50e6	1.56	NO	1.02	1.000	29.35	1.155	101.39	101	0.176	
27	13C-2,3,4,7,8-PeCDF	1.48e6	1.56	NO	1.08	1.000	30.27	1.192	94.281	94.3	0.167	
28	13C-1,2,3,4,7,8-HxCDF	1.48e6	0.52	NO	1.37	1.000	33.03	0.987	114.06	114	0.183	
29	13C-1,2,3,6,7,8-HxCDF	1.27e6	0.52	NO	1.37	1.000	33.16	0.991	97.681	97.7	0.183	
30	13C-2,3,4,6,7,8-HxCDF	1.06e6	0.51	NO	1.18	1.000	33.76	1.009	94.685	94.7	0.211	

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Name: 100129H2_3, Date: 30-Jan-2010, Time: 03:53:20, ID: ST100129H2-2 1613 CS0 100127C, Description: 1613 CS0 100127C

31	13C-1,2,3,7,8,9-HxCDF	9.57e5	0.52	NO	1.05	1.000	34.74	1.038	96.003	96.0	0.238
32	13C-1,2,3,4,6,7,8-HpCDF	7.68e5	0.45	NO	0.858	1.000	36.58	1.093	94.233	94.2	0.300
33	13C-1,2,3,4,7,8,9-HpCDF	7.13e5	0.44	NO	0.794	1.000	38.43	1.149	94.547	94.5	0.324
34	13C-OCDF	1.85e6	0.90	NO	0.948	1.000	41.41	1.238	204.97	102	0.102
35	37Cl-2,3,7,8-TCDD	1.82e3			0.665	1.000	25.98	1.023	0.25660	103	0.0244
36	13C-1,2,3,4-TCDD	1.07e6	0.79	NO	1.00	1.000	25.40	0.000	100.00	100	0.152
37	13C-1,2,3,4-TCDF	1.45e6	0.78	NO	1.00	1.000	23.98	0.000	100.00	100	0.173
38	13C-1,2,3,4,6,9-HxCDF	9.50e5	0.52	NO	1.00	1.000	33.46	0.000	100.00	100	0.250

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:05 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_4, Date: 30-Jan-2010, Time: 04:42:54, ID: ST100129H2-3 1613 CS1 100127D, Description: 1613 CS1 100127D

1	2,3,7,8-TCDD	5.55e3	0.74	NO	1.04	1.000	25.98	1.001	0.50858	102	0.0233	0.50858
2	1,2,3,7,8-PeCDD	2.51e4	0.61	NO	0.935	1.000	30.57	1.000	2.5738	103	0.0188	2.5738
3	1,2,3,4,7,8-HxCDD	1.97e4	1.16	NO	0.907	1.000	33.95	1.000	2.5505	102	0.0376	2.5505
4	1,2,3,6,7,8-HxCDD	1.88e4	1.18	NO	0.995	1.000	34.06	1.001	2.5131	101	0.0422	2.5131
5	1,2,3,7,8,9-HxCDD	2.15e4	1.22	NO	0.930	1.000	34.36	1.000	2.5647	103	0.0372	2.5647
6	1,2,3,4,6,7,8-HpCDD	1.87e4	1.11	NO	1.00	1.000	37.89	1.000	2.5983	104	0.0422	2.5983
7	OCDD	3.24e4	0.88	NO	1.10	1.000	41.19	1.001	4.9748	99.5	0.0391	4.9748
8	2,3,7,8-TCDF	6.82e3	0.82	NO	0.956	1.000	25.20	1.001	0.51002	102	0.0193	0.51002
9	1,2,3,7,8-PeCDF	3.21e4	1.55	NO	0.941	1.000	29.38	1.000	2.6502	106	0.0293	2.6502
10	2,3,4,7,8-PeCDF	3.38e4	1.63	NO	0.926	1.000	30.29	1.000	2.5731	103	0.0255	2.5731
11	1,2,3,4,7,8-HxCDF	3.36e4	1.22	NO	1.22	1.000	33.05	1.000	2.5586	102	0.0268	2.5586
12	1,2,3,6,7,8-HxCDF	3.13e4	1.24	NO	1.08	1.000	33.18	1.000	2.5402	102	0.0314	2.5402
13	2,3,4,6,7,8-HxCDF	2.88e4	1.28	NO	1.13	1.000	33.77	1.000	2.5492	102	0.0352	2.5492
14	1,2,3,7,8,9-HxCDF	2.56e4	1.26	NO	1.13	1.000	34.75	1.000	2.5950	104	0.0483	2.5950
15	1,2,3,4,6,7,8-HpCDF	2.70e4	1.01	NO	1.44	1.000	36.60	1.001	2.5902	104	0.0582	2.5902
16	1,2,3,4,7,8,9-HpCDF	2.38e4	1.06	NO	1.38	1.000	38.44	1.000	2.6106	104	0.0572	2.6106
17	OCDF	3.91e4	0.89	NO	1.01	1.000	41.42	1.001	5.0770	102	0.0413	5.0770
18	13C-2,3,7,8-TCDD	1.05e6	0.81	NO	1.10	1.000	25.97	1.022	97.187	97.2	0.151	
19	13C-1,2,3,7,8-PeCDD	1.04e6	0.63	NO	1.09	1.000	30.56	1.203	96.836	96.8	0.123	
20	13C-1,2,3,4,7,8-HxCDD	8.52e5	1.25	NO	1.01	1.000	33.94	1.014	92.221	92.2	0.131	
21	13C-1,2,3,6,7,8-HxCDD	7.53e5	1.27	NO	0.889	1.000	34.04	1.017	92.647	92.6	0.149	
22	13C-1,2,3,7,8,9-HxCDD	8.99e5	1.25	NO	1.07	1.000	34.34	1.027	91.653	91.7	0.123	
23	13C-1,2,3,4,6,7,8-HpCDD	7.16e5	1.03	NO	0.837	1.000	37.88	1.132	93.600	93.6	0.231	
24	13C-OCDD	1.18e6	0.89	NO	0.712	1.000	41.17	1.231	181.33	90.7	0.114	
25	13C-2,3,7,8-TCDF	1.40e6	0.79	NO	1.05	1.000	25.19	0.992	98.093	98.1	0.198	
26	13C-1,2,3,7,8-PeCDF	1.29e6	1.56	NO	1.02	1.000	29.37	1.156	93.273	93.3	0.245	
27	13C-2,3,4,7,8-PeCDF	1.42e6	1.57	NO	1.08	1.000	30.27	1.192	97.313	97.3	0.232	
28	13C-1,2,3,4,7,8-HxCDF	1.07e6	0.52	NO	1.37	1.000	33.04	0.988	85.920	85.9	0.173	
29	13C-1,2,3,6,7,8-HxCDF	1.14e6	0.53	NO	1.37	1.000	33.17	0.991	91.555	91.6	0.173	
30	13C-2,3,4,6,7,8-HxCDF	1.00e6	0.53	NO	1.18	1.000	33.76	1.009	92.886	92.9	0.199	

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:05 Pacific Standard Time

Name: 100129H2_4, Date: 30-Jan-2010, Time: 04:42:54, ID: ST100129H2-3 1613 CS1 100127D, Description: 1613 CS1 100127D

31	13C-1,2,3,7,8,9-HxCDF	8.74e5	0.52	NO	1.05	1.000	34.74	1.038	91.031	91.0	0.225
32	13C-1,2,3,4,6,7,8-HpCDF	7.25e5	0.45	NO	0.858	1.000	36.58	1.093	92.409	92.4	0.262
33	13C-1,2,3,4,7,8,9-HpCDF	6.61e5	0.44	NO	0.794	1.000	38.43	1.149	91.003	91.0	0.284
34	13C-OCDF	1.52e6	0.90	NO	0.948	1.000	41.40	1.237	175.19	87.6	0.106
35	37Cl-2,3,7,8-TCDD	3.04e3			0.665	1.000	25.98	1.023	0.46480	93.0	0.0344
36	13C-1,2,3,4-TCDD	9.84e5	0.79	NO	1.00	1.000	25.40	0.000	100.00	100	0.166
37	13C-1,2,3,4-TCDF	1.35e6	0.78	NO	1.00	1.000	23.98	0.000	100.00	100	0.208
38	13C-1,2,3,4,6,9-HxCDF	9.14e5	0.50	NO	1.00	1.000	33.46	0.000	100.00	100	0.236

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:12 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_5, Date: 30-Jan-2010, Time: 05:32:29, ID: ST100129H2-4 1613 CS2 100127E, Description: 1613 CS2 100127E

		RF	RA	IS	RRF	WT	RT	RR	Conc	Resp	DL	
1	2,3,7,8-TCDD	2.13e4	0.80	NO	1.04	1.000	25.98	1.001	1.8779	93.9	0.0224	1.8779
2	1,2,3,7,8-PeCDD	9.60e4	0.61	NO	0.935	1.000	30.57	1.000	9.3506	93.5	0.0239	9.3506
3	1,2,3,4,7,8-HxCDD	7.35e4	1.26	NO	0.907	1.000	33.95	1.001	9.3640	93.6	0.0464	9.3640
4	1,2,3,6,7,8-HxCDD	7.43e4	1.22	NO	0.995	1.000	34.05	1.000	9.6008	96.0	0.0459	9.6008
5	1,2,3,7,8,9-HxCDD	8.11e4	1.27	NO	0.930	1.000	34.36	1.001	9.4950	94.9	0.0438	9.4950
6	1,2,3,4,6,7,8-HpCDD	6.72e4	1.03	NO	1.00	1.000	37.88	1.000	9.5384	95.4	0.0547	9.5384
7	OCDD	1.18e5	0.89	NO	1.10	1.000	41.18	1.000	18.995	95.0	0.0418	18.995
8	2,3,7,8-TCDF	2.68e4	0.79	NO	0.956	1.000	25.19	1.001	1.9084	95.4	0.0196	1.9084
9	1,2,3,7,8-PeCDF	1.20e5	1.60	NO	0.941	1.000	29.37	1.000	9.6733	96.7	0.0551	9.6733
10	2,3,4,7,8-PeCDF	1.32e5	1.54	NO	0.926	1.000	30.29	1.000	9.6528	96.5	0.0473	9.6528
11	1,2,3,4,7,8-HxCDF	1.30e5	1.25	NO	1.22	1.000	33.05	1.000	9.7261	97.3	0.0425	9.7261
12	1,2,3,6,7,8-HxCDF	1.24e5	1.24	NO	1.08	1.000	33.17	1.000	9.7351	97.4	0.0465	9.7351
13	2,3,4,6,7,8-HxCDF	1.11e5	1.24	NO	1.13	1.000	33.77	1.000	9.5609	95.6	0.0503	9.5609
14	1,2,3,7,8,9-HxCDF	9.63e4	1.29	NO	1.13	1.000	34.74	1.000	9.6440	96.4	0.0695	9.6440
15	1,2,3,4,6,7,8-HpCDF	1.01e5	1.06	NO	1.44	1.000	36.59	1.000	9.2519	92.5	0.0626	9.2519
16	1,2,3,4,7,8,9-HpCDF	8.79e4	1.04	NO	1.38	1.000	38.43	1.000	9.6036	96.0	0.0638	9.6036
17	OCDF	1.40e5	0.89	NO	1.01	1.000	41.41	1.000	18.755	93.8	0.0439	18.755
18	13C-2,3,7,8-TCDD	1.09e6	0.78	NO	1.10	1.000	25.95	1.022	97.270	97.3	0.139	
19	13C-1,2,3,7,8-PeCDD	1.10e6	0.64	NO	1.09	1.000	30.56	1.204	98.325	98.3	0.103	
20	13C-1,2,3,4,7,8-HxCDD	8.65e5	1.26	NO	1.01	1.000	33.93	1.014	94.630	94.6	0.152	
21	13C-1,2,3,6,7,8-HxCDD	7.78e5	1.25	NO	0.889	1.000	34.04	1.017	96.606	96.6	0.173	
22	13C-1,2,3,7,8,9-HxCDD	9.18e5	1.24	NO	1.07	1.000	34.33	1.026	94.511	94.5	0.143	
23	13C-1,2,3,4,6,7,8-HpCDD	7.03e5	1.06	NO	0.837	1.000	37.87	1.132	92.826	92.8	0.233	
24	13C-OCDD	1.12e6	0.90	NO	0.712	1.000	41.17	1.231	174.23	87.1	0.106	
25	13C-2,3,7,8-TCDF	1.47e6	0.80	NO	1.05	1.000	25.17	0.992	98.662	98.7	0.169	
26	13C-1,2,3,7,8-PeCDF	1.31e6	1.59	NO	1.02	1.000	29.35	1.156	91.349	91.3	0.289	
27	13C-2,3,4,7,8-PeCDF	1.47e6	1.58	NO	1.08	1.000	30.27	1.192	96.957	97.0	0.274	
28	13C-1,2,3,4,7,8-HxCDF	1.09e6	0.52	NO	1.37	1.000	33.04	0.988	88.292	88.3	0.177	
29	13C-1,2,3,6,7,8-HxCDF	1.18e6	0.52	NO	1.37	1.000	33.16	0.991	95.614	95.6	0.177	
30	13C-2,3,4,6,7,8-HxCDF	1.03e6	0.52	NO	1.18	1.000	33.76	1.009	96.370	96.4	0.204	

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:12 Pacific Standard Time

Name: 100129H2_5, Date: 30-Jan-2010, Time: 05:32:29, ID: ST100129H2-4 1613 CS2 100127E, Description: 1613 CS2 100127E

31	13C-1,2,3,7,8,9-HxCDF	8.84e5	0.52	NO	1.05	1.000	34.73	1.038	93.027	93.0	0.230
32	13C-1,2,3,4,6,7,8-HpCDF	7.56e5	0.44	NO	0.858	1.000	36.58	1.093	97.336	97.3	0.278
33	13C-1,2,3,4,7,8,9-HpCDF	6.64e5	0.44	NO	0.794	1.000	38.42	1.148	92.376	92.4	0.301
34	13C-OCDF	1.47e6	0.91	NO	0.948	1.000	41.40	1.237	171.30	85.7	0.104
35	37Cl-2,3,7,8-TCDD	1.37e4			0.665	1.000	25.98	1.023	2.0166	101	0.0287
36	13C-1,2,3,4-TCDD	1.02e6	0.80	NO	1.00	1.000	25.39	0.000	100.00	100	0.152
37	13C-1,2,3,4-TCDF	1.41e6	0.78	NO	1.00	1.000	23.97	0.000	100.00	100	0.178
38	13C-1,2,3,4,6,9-HxCDF	9.05e5	0.51	NO	1.00	1.000	33.46	0.000	100.00	100	0.242

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:42:53 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_1, Date: 30-Jan-2010, Time: 02:14:11, ID: ST100129H2-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1	2,3,7,8-TCDD	1.10e5	0.77	NO	1.04	1.000	25.98	1.001	9.6157	96.2	0.0492	9.6157
2	1,2,3,7,8-PeCDD	5.12e5	0.61	NO	0.935	1.000	30.57	1.000	49.266	98.5	0.0848	49.266
3	1,2,3,4,7,8-HxCDD	4.35e5	1.25	NO	0.907	1.000	33.95	1.000	49.433	98.9	0.103	49.433
4	1,2,3,6,7,8-HxCDD	4.14e5	1.24	NO	0.995	1.000	34.06	1.000	48.716	97.4	0.108	48.716
5	1,2,3,7,8,9-HxCDD	4.72e5	1.25	NO	0.930	1.000	34.35	1.000	49.335	98.7	0.0952	49.335
6	1,2,3,4,6,7,8-HpCDD	3.99e5	1.04	NO	1.00	1.000	37.89	1.000	48.425	96.9	0.107	48.425
7	OCDD	7.54e5	0.88	NO	1.10	1.000	41.19	1.000	97.695	97.7	0.0523	97.695
8	2,3,7,8-TCDF	1.31e5	0.77	NO	0.956	1.000	25.20	1.001	9.5601	95.6	0.0398	9.5601
9	1,2,3,7,8-PeCDF	6.41e5	1.57	NO	0.941	1.000	29.37	1.000	49.054	98.1	0.0785	49.054
10	2,3,4,7,8-PeCDF	6.79e5	1.57	NO	0.926	1.000	30.29	1.000	49.832	99.7	0.0718	49.832
11	1,2,3,4,7,8-HxCDF	7.77e5	1.25	NO	1.22	1.000	33.05	1.000	49.381	98.8	0.0829	49.381
12	1,2,3,6,7,8-HxCDF	6.73e5	1.26	NO	1.08	1.000	33.18	1.001	48.860	97.7	0.105	48.860
13	2,3,4,6,7,8-HxCDF	6.18e5	1.25	NO	1.13	1.000	33.78	1.001	49.159	98.3	0.121	49.159
14	1,2,3,7,8,9-HxCDF	5.61e5	1.23	NO	1.13	1.000	34.75	1.000	49.107	98.2	0.154	49.107
15	1,2,3,4,6,7,8-HpCDF	5.82e5	1.05	NO	1.44	1.000	36.59	1.000	48.304	96.6	0.113	48.304
16	1,2,3,4,7,8,9-HpCDF	5.34e5	1.06	NO	1.38	1.000	38.44	1.000	49.003	98.0	0.106	49.003
17	OCDF	8.89e5	0.90	NO	1.01	1.000	41.42	1.000	95.868	95.9	0.0655	95.868
18	13C-2,3,7,8-TCDD	1.11e6	0.80	NO	1.10	1.000	25.97	1.022	101.02	101	0.138	
19	13C-1,2,3,7,8-PeCDD	1.11e6	0.62	NO	1.09	1.000	30.56	1.203	102.09	102	0.118	
20	13C-1,2,3,4,7,8-HxCDD	9.70e5	1.26	NO	1.01	1.000	33.94	1.014	99.633	99.6	0.173	
21	13C-1,2,3,6,7,8-HxCDD	8.54e5	1.23	NO	0.889	1.000	34.05	1.018	99.593	99.6	0.196	
22	13C-1,2,3,7,8,9-HxCDD	1.03e6	1.25	NO	1.07	1.000	34.34	1.027	99.501	99.5	0.163	
23	13C-1,2,3,4,6,7,8-HpCDD	8.21e5	1.05	NO	0.837	1.000	37.88	1.132	101.80	102	0.224	
24	13C-OCDD	1.40e6	0.91	NO	0.712	1.000	41.18	1.231	203.76	102	0.176	
25	13C-2,3,7,8-TCDF	1.43e6	0.79	NO	1.05	1.000	25.19	0.992	101.08	101	0.175	
26	13C-1,2,3,7,8-PeCDF	1.39e6	1.58	NO	1.02	1.000	29.35	1.155	101.05	101	0.254	
27	13C-2,3,4,7,8-PeCDF	1.47e6	1.57	NO	1.08	1.000	30.27	1.192	101.56	102	0.241	
28	13C-1,2,3,4,7,8-HxCDF	1.29e6	0.53	NO	1.37	1.000	33.04	0.988	97.715	97.7	0.189	
29	13C-1,2,3,6,7,8-HxCDF	1.28e6	0.52	NO	1.37	1.000	33.16	0.991	96.918	96.9	0.189	
30	13C-2,3,4,6,7,8-HxCDF	1.12e6	0.52	NO	1.18	1.000	33.76	1.009	98.002	98.0	0.218	

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

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Printed: Monday, February 01, 2010 13:42:53 Pacific Standard Time

Name: 100129H2_1, Date: 30-Jan-2010, Time: 02:14:11, ID: ST100129H2-1 1613 CS3 100127F, Description: 1613 CS3 100127F

31	13C-1,2,3,7,8,9-HxCDF	1.01e6	0.51	NO	1.05	1.000	34.74	1.038	99.912	99.9	0.246
32	13C-1,2,3,4,6,7,8-HpCDF	8.38e5	0.44	NO	0.858	1.000	36.58	1.093	101.34	101	0.305
33	13C-1,2,3,4,7,8,9-HpCDF	7.91e5	0.44	NO	0.794	1.000	38.43	1.149	103.34	103	0.330
34	13C-OCDF	1.83e6	0.90	NO	0.948	1.000	41.41	1.238	200.04	100	0.0816
35	37Cl-2,3,7,8-TCDD	6.27e4			0.665	1.000	25.98	1.023	9.4867	94.9	0.0609
36	13C-1,2,3,4-TCDD	9.95e5	0.80	NO	1.00	1.000	25.40	0.000	100.00	100	0.151
37	13C-1,2,3,4-TCDF	1.35e6	0.78	NO	1.00	1.000	23.98	0.000	100.00	100	0.184
38	13C-1,2,3,4,6,9-HxCDF	9.64e5	0.52	NO	1.00	1.000	33.46	0.000	100.00	100	0.258

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:18 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

1	2,3,7,8-TCDD	4.69e5	0.78	NO	1.04	1.000	25.97	1.001	40.650	102	0.0338	40.650
2	1,2,3,7,8-PeCDD	2.11e6	0.62	NO	0.935	1.000	30.57	1.001	203.16	102	0.0768	203.16
3	1,2,3,4,7,8-HxCDD	1.68e6	1.24	NO	0.907	1.000	33.94	1.000	205.07	103	0.0917	205.07
4	1,2,3,6,7,8-HxCDD	1.61e6	1.25	NO	0.995	1.000	34.05	1.000	204.52	102	0.0978	204.52
5	1,2,3,7,8,9-HxCDD	1.80e6	1.25	NO	0.930	1.000	34.36	1.001	202.96	101	0.0896	202.96
6	1,2,3,4,6,7,8-HpCDD	1.45e6	1.04	NO	1.00	1.000	37.88	1.000	200.41	100	0.178	200.41
7	OCDD	2.63e6	0.88	NO	1.10	1.000	41.18	1.000	396.32	99.1	0.0605	396.32
8	2,3,7,8-TCDF	5.79e5	0.77	NO	0.956	1.000	25.19	1.001	41.085	103	0.0451	41.085
9	1,2,3,7,8-PeCDF	2.65e6	1.55	NO	0.941	1.000	29.37	1.000	205.80	103	0.0936	205.80
10	2,3,4,7,8-PeCDF	2.84e6	1.53	NO	0.926	1.000	30.29	1.000	204.45	102	0.0897	204.45
11	1,2,3,4,7,8-HxCDF	2.87e6	1.25	NO	1.22	1.000	33.05	1.001	204.14	102	0.120	204.14
12	1,2,3,6,7,8-HxCDF	2.67e6	1.26	NO	1.08	1.000	33.17	1.000	204.79	102	0.132	204.79
13	2,3,4,6,7,8-HxCDF	2.42e6	1.25	NO	1.13	1.000	33.77	1.000	204.84	102	0.152	204.84
14	1,2,3,7,8,9-HxCDF	2.14e6	1.26	NO	1.13	1.000	34.74	1.000	204.76	102	0.187	204.76
15	1,2,3,4,6,7,8-HpCDF	2.15e6	1.05	NO	1.44	1.000	36.59	1.001	201.03	101	0.174	201.03
16	1,2,3,4,7,8,9-HpCDF	1.92e6	1.05	NO	1.38	1.000	38.43	1.000	202.53	101	0.162	202.53
17	OCDF	3.18e6	0.90	NO	1.01	1.000	41.41	1.000	393.02	98.3	0.0847	393.02
18	13C-2,3,7,8-TCDD	1.11e6	0.78	NO	1.10	1.000	25.95	1.022	99.383	99.4	0.155	
19	13C-1,2,3,7,8-PeCDD	1.11e6	0.62	NO	1.09	1.000	30.55	1.203	99.746	99.7	0.128	
20	13C-1,2,3,4,7,8-HxCDD	9.03e5	1.25	NO	1.01	1.000	33.93	1.014	102.00	102	0.148	
21	13C-1,2,3,6,7,8-HxCDD	7.92e5	1.26	NO	0.889	1.000	34.04	1.017	101.63	102	0.168	
22	13C-1,2,3,7,8,9-HxCDD	9.55e5	1.23	NO	1.07	1.000	34.33	1.026	101.60	102	0.139	
23	13C-1,2,3,4,6,7,8-HpCDD	7.20e5	1.04	NO	0.837	1.000	37.87	1.132	98.182	98.2	0.195	
24	13C-OCDD	1.20e6	0.91	NO	0.712	1.000	41.17	1.231	192.57	96.3	0.130	
25	13C-2,3,7,8-TCDF	1.47e6	0.78	NO	1.05	1.000	25.17	0.992	99.704	99.7	0.170	
26	13C-1,2,3,7,8-PeCDF	1.37e6	1.57	NO	1.02	1.000	29.35	1.156	95.501	95.5	0.183	
27	13C-2,3,4,7,8-PeCDF	1.50e6	1.57	NO	1.08	1.000	30.27	1.192	99.183	99.2	0.173	
28	13C-1,2,3,4,7,8-HxCDF	1.15e6	0.52	NO	1.37	1.000	33.03	0.987	95.907	95.9	0.146	
29	13C-1,2,3,6,7,8-HxCDF	1.21e6	0.52	NO	1.37	1.000	33.16	0.991	101.07	101	0.146	
30	13C-2,3,4,6,7,8-HxCDF	1.05e6	0.52	NO	1.18	1.000	33.76	1.009	101.47	101	0.168	

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:18 Pacific Standard Time

Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

31	13C-1,2,3,7,8,9-HxCDF	9.28e5	0.53	NO	1.05	1.000	34.73	1.038	100.90	101	0.189
32	13C-1,2,3,4,6,7,8-HpCDF	7.44e5	0.45	NO	0.858	1.000	36.57	1.093	98.988	99.0	0.267
33	13C-1,2,3,4,7,8,9-HpCDF	6.87e5	0.45	NO	0.794	1.000	38.42	1.148	98.865	98.9	0.289
34	13C-OCDF	1.59e6	0.90	NO	0.948	1.000	41.40	1.237	192.01	96.0	0.101
35	37Cl-2,3,7,8-TCDD	2.70e5			0.665	1.000	25.97	1.023	39.878	99.7	0.0564
36	13C-1,2,3,4-TCDD	1.02e6	0.79	NO	1.00	1.000	25.39	0.000	100.00	100	0.171
37	13C-1,2,3,4-TCDF	1.40e6	0.79	NO	1.00	1.000	23.97	0.000	100.00	100	0.179
38	13C-1,2,3,4,6,9-HxCDF	8.76e5	0.52	NO	1.00	1.000	33.46	0.000	100.00	100	0.199

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:24 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_7, Date: 30-Jan-2010, Time: 07:11:38, ID: ST100129H2-6 1613 CS5 100127H, Description: 1613 CS5 100127H

1	2,3,7,8-TCDD	2.48e6	0.77	NO	1.04	1.000	25.97	1.001	202.16	101	0.0420	202.16
2	1,2,3,7,8-PeCDD	1.15e7	0.62	NO	0.935	1.000	30.56	1.000	1013.3	101	0.0698	1013.3
3	1,2,3,4,7,8-HxCDD	9.76e6	1.24	NO	0.907	1.000	33.94	1.000	1015.3	102	0.144	1015.3
4	1,2,3,6,7,8-HxCDD	9.16e6	1.25	NO	0.995	1.000	34.05	1.000	1010.3	101	0.157	1010.3
5	1,2,3,7,8,9-HxCDD	1.05e7	1.24	NO	0.930	1.000	34.34	1.000	995.79	99.6	0.135	995.79
6	1,2,3,4,6,7,8-HpCDD	8.88e6	1.04	NO	1.00	1.000	37.88	1.000	1001.8	100	0.269	1001.8
7	OCDD	1.74e7	0.88	NO	1.10	1.000	41.19	1.000	1975.7	98.8	0.111	1975.7
8	2,3,7,8-TCDF	3.05e6	0.76	NO	0.956	1.000	25.19	1.001	206.71	103	0.0552	206.71
9	1,2,3,7,8-PeCDF	1.59e7	1.55	NO	0.941	1.000	29.37	1.001	996.40	99.6	0.133	996.40
10	2,3,4,7,8-PeCDF	1.57e7	1.55	NO	0.926	1.000	30.27	1.000	1010.4	101	0.126	1010.4
11	1,2,3,4,7,8-HxCDF	1.79e7	1.25	NO	1.22	1.000	33.04	1.000	1020.0	102	0.120	1020.0
12	1,2,3,6,7,8-HxCDF	1.55e7	1.26	NO	1.08	1.000	33.17	1.000	1006.6	101	0.146	1006.6
13	2,3,4,6,7,8-HxCDF	1.40e7	1.25	NO	1.13	1.000	33.77	1.000	1018.1	102	0.167	1018.1
14	1,2,3,7,8,9-HxCDF	1.28e7	1.25	NO	1.13	1.000	34.74	1.000	1015.6	102	0.198	1015.6
15	1,2,3,4,6,7,8-HpCDF	1.26e7	1.05	NO	1.44	1.000	36.59	1.001	990.26	99.0	0.385	990.26
16	1,2,3,4,7,8,9-HpCDF	1.16e7	1.05	NO	1.38	1.000	38.43	1.000	995.32	99.5	0.327	995.32
17	OCDF	2.13e7	0.91	NO	1.01	1.000	41.42	1.000	1943.0	97.1	0.0953	1943.0
18	13C-2,3,7,8-TCDD	1.18e6	0.80	NO	1.10	1.000	25.95	1.022	105.86	106	0.106	
19	13C-1,2,3,7,8-PeCDD	1.21e6	0.62	NO	1.09	1.000	30.55	1.203	108.92	109	0.0721	
20	13C-1,2,3,4,7,8-HxCDD	1.06e6	1.27	NO	1.01	1.000	33.93	1.014	118.01	118	0.0946	
21	13C-1,2,3,6,7,8-HxCDD	9.11e5	1.28	NO	0.889	1.000	34.04	1.018	115.14	115	0.107	
22	13C-1,2,3,7,8,9-HxCDD	1.14e6	1.24	NO	1.07	1.000	34.33	1.027	119.20	119	0.0891	
23	13C-1,2,3,4,6,7,8-HpCDD	8.85e5	1.05	NO	0.837	1.000	37.87	1.132	118.89	119	0.211	
24	13C-OCDD	1.59e6	0.89	NO	0.712	1.000	41.18	1.231	251.56	126	0.0850	
25	13C-2,3,7,8-TCDF	1.54e6	0.78	NO	1.05	1.000	25.17	0.992	103.56	104	0.147	
26	13C-1,2,3,7,8-PeCDF	1.69e6	1.57	NO	1.02	1.000	29.34	1.156	117.44	117	0.193	
27	13C-2,3,4,7,8-PeCDF	1.68e6	1.57	NO	1.08	1.000	30.26	1.192	110.71	111	0.183	
28	13C-1,2,3,4,7,8-HxCDF	1.43e6	0.52	NO	1.37	1.000	33.03	0.988	118.11	118	0.156	
29	13C-1,2,3,6,7,8-HxCDF	1.42e6	0.53	NO	1.37	1.000	33.16	0.991	117.16	117	0.156	
30	13C-2,3,4,6,7,8-HxCDF	1.23e6	0.52	NO	1.18	1.000	33.76	1.010	116.58	117	0.180	

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:24 Pacific Standard Time

Name: 100129H2_7, Date: 30-Jan-2010, Time: 07:11:38, ID: ST100129H2-6 1613 CS5 100127H, Description: 1613 CS5 100127H

31	13C-1,2,3,7,8,9-HxCDF	1.11e6	0.52	NO	1.05	1.000	34.73	1.038	119.13	119	0.202
32	13C-1,2,3,4,6,7,8-HpCDF	8.83e5	0.45	NO	0.858	1.000	36.57	1.094	115.70	116	0.254
33	13C-1,2,3,4,7,8,9-HpCDF	8.46e5	0.45	NO	0.794	1.000	38.42	1.149	119.87	120	0.274
34	13C-OCDF	2.16e6	0.90	NO	0.948	1.000	41.41	1.238	256.49	128	0.0641
35	37Cl-2,3,7,8-TCDD	1.47e6			0.665	1.000	25.97	1.023	218.02	109	0.0648
36	13C-1,2,3,4-TCDD	1.02e6	0.79	NO	1.00	1.000	25.39	0.000	100.00	100	0.117
37	13C-1,2,3,4-TCDF	1.41e6	0.78	NO	1.00	1.000	23.97	0.000	100.00	100	0.155
38	13C-1,2,3,4,6,9-HxCDF	8.89e5	0.52	NO	1.00	1.000	33.44	0.000	100.00	100	0.213

FORM 4A
PCDD/PCDF CALIBRATION VERIFICATION

Vista Analytical Laboratory
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
VER Data file name: 100129H2_1

CCAL ID: ST100129H2-1

GC Column ID: DB-5
Analysis Date: 30-Jan-10 Analysis Time: 02:14:11

NATIVE ANALYTES	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
2,3,7,8-TCDD	M/M+2	0.77	0.65-0.89	NO	9.62	7.8	12.9	Yes	8.00	12.0	Yes
						8.2	12.3 (4)				
1,2,3,7,8-PeCDD	M/M+2	0.61	0.54-0.72	NO	49.3	39.0	65.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	49.4	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDD	M+2/M+4	1.24	1.05-1.43	NO	48.7	39.0	64.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	49.3	41.0	61.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.04	0.88-1.20	NO	48.4	43.0	58.0	Yes	40.0	60.0	Yes
OCDD	M+2/M+4	0.88	0.76-1.02	NO	97.7	79.0	126.0	Yes	80.0	120.0	Yes
2,3,7,8-TCDF	M/M+2	0.77	0.65-0.89	NO	9.56	8.4	12.0	Yes	8.00	12.0	Yes
						8.6	11.6 (4)				
1,2,3,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	NO	49.1	41.0	60.0	Yes	40.0	60.0	Yes
2,3,4,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	NO	49.8	41.0	60.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	NO	49.4	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,6,7,8-HxCDF	M+2/M+4	1.26	1.05-1.43	NO	48.9	44.0	57.0	Yes	40.0	60.0	Yes
2,3,4,6,7,8-HxCDF	M+2/M+4	1.25	1.05-1.43	NO	49.2	44.0	57.0	Yes	40.0	60.0	Yes
1,2,3,7,8,9-HxCDF	M+2/M+4	1.23	1.05-1.43	NO	49.1	45.0	56.0	Yes	40.0	60.0	Yes
1,2,3,4,6,7,8-HpCDF	M+2/M+4	1.05	0.88-1.20	NO	48.3	45.0	55.0	Yes	40.0	60.0	Yes
1,2,3,4,7,8,9-HpCDF	M+2/M+4	1.06	0.88-1.20	NO	49.0	43.0	58.0	Yes	40.0	60.0	Yes
OCDF	M+2/M+4	0.90	0.76-1.02	NO	95.9	63.0	159.0	Yes	80.0	120.0	Yes

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: _____
Date: 2/1/10

FORM 4B
PCDD/PCDF CALIBRATION VERIFICATION

Vista Analytical Laboratory
CCAL ID: ST100129H2-1
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
GC Column ID: DB-5
VER Data file name: 100129H2_1
Analysis Date: 30-Jan-10
Analysis Time: 02:14:11

LABELED COMPOUNDS	M/Z'S FORMING RATIO (1)	ION ABOUND. RATIO	QC LIMITS (2)	Flag	CONC. FOUND	CONC. RANGE (3) (ng/ml) 1613 Min	CONC. RANGE (3) (ng/ml) 1613 Max		CONC. RANGE (ng/ml) 8290 Min	CONC. RANGE (ng/ml) 8290 Max	
13C-2,3,7,8-TCDD	M+2/M+4	0.80	0.65-0.89	NO	101	82.0	121.0	Yes	70.0	130.0	Yes
						85.0	117.0 (5)				
13C-1,2,3,7,8-PeCDD	M/M+2	0.62	0.54-0.72	NO	102	62.0	160.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDD	M+2/M+4	1.26	1.05-1.43	NO	99.6	85.0	117.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDD	M+2/M+4	1.23	1.05-1.43	NO	99.6	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDD	M+2/M+4	1.25	1.05-1.43	NO	99.5	85.0	118.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDD	M+2/M+4	1.05	0.88-1.20	NO	102	72.0	138.0	Yes	70.0	130.0	Yes
13C-OCDD	M+2/M+4	0.91	0.76-1.02	NO	204	96.0	415.0	Yes	140.0	260.0	Yes
13C-2,3,7,8-TCDF	M/M+2	0.79	0.65-0.89	NO	101	71.0	140.0	Yes	70.0	130.0	Yes
						76.0	131.0 (5)				
13C-1,2,3,7,8-PeCDF	M+2/M+4	1.58	1.32-1.78	NO	101	76.0	130.0	Yes	70.0	130.0	Yes
13C-2,3,4,7,8-PeCDF	M+2/M+4	1.57	1.32-1.78	NO	102	77.0	130.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8-HxCDF	M/M+2	0.53	0.43-0.59	NO	97.7	76.0	131.0	Yes	70.0	130.0	Yes
13C-1,2,3,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	96.9	70.0	143.0	Yes	70.0	130.0	Yes
13C-2,3,4,6,7,8-HxCDF	M/M+2	0.52	0.43-0.59	NO	98.0	73.0	137.0	Yes	70.0	130.0	Yes
13C-1,2,3,7,8,9-HxCDF	M/M+2	0.51	0.43-0.59	NO	99.9	74.0	135.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,6,7,8-HpCDF	M/M+2	0.44	0.37-0.51	NO	101	78.0	129.0	Yes	70.0	130.0	Yes
13C-1,2,3,4,7,8,9-HpCDF	M/M+2	0.44	0.37-0.51	NO	103	77.0	129.0	Yes	70.0	130.0	Yes
13C-OCDF	M+2/M+4	0.90	0.76-1.02	NO	200	96.0	415.0	Yes	140.0	260.0	Yes
CLEANUP STANDARD (4)											
37Cl-2,3,7,8-TCDD					9.49	7.9	12.7	Yes	7.0	13.0	Yes
						8.3	12.1 (5)				

(1) See Table 8. Method 1613, for m/z specifications
(2) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613
(3) Contract required concentration range as specified in Table 6, Method 1613
(4) No ion abundance ratio; report concentration found
(5) Contract required concentration range as specified in Table 6a, Method 1613, for tetras only

Analyst: _____
Date: 2/1/10

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Monday, February 01, 2010 13:46:58 Pacific Standard Time
Printed: Monday, February 01, 2010 13:47:20 Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\cpsm.mdb 13 Jan 2010 15:03:08
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_1, Date: 30-Jan-2010, Time: 02:14:11, ID: ST100129H2-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1	1,3,6,8-TCDD (First)	22.61
2	1,2,8,9-TCDD (Last)	26.86
3	1,2,4,7,9-PeCDD (First)	28.49
4	1,2,3,8,9-PeCDD (Last)	30.96
5	12,4,6,7,9-HxCDD (First)	32.39
6	1,2,3,7,8,9-HxCDD (Last)	34.35
7	1,2,3,4,6,7,9-HpCDD (First)	37.00
8	1,2,3,4,6,7,8-HpCDD (Last)	37.89
9	1,3,6,8-TCDF (First)	20.53
10	1,2,8,9-TCDF (Last)	27.01
11	1,3,4,6,8-PeCDF (First)	26.95
12	1,2,3,8,9-PeCDF (Last)	31.20
13	1,2,3,4,6,8-HxCDF (First)	31.85
14	1,2,3,4,8,9-HxCDF (Last)	34.75
15	1,2,3,4,6,7,8-HpCDF (First)	36.59
16	1,2,3,4,7,8,9-HpCDF (Last)	38.44

2/1/10

FORM 6A
PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
VER Data file name: 100129H2_1

CCAL ID: ST100129H2-1

GC Column ID: DB-5
Analysis Date: 30-Jan-10

Analysis Time: 02:14:11

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
2,3,7,8-TCDD	13C-2,3,7,8-TCDD	1.001	0.999	1.002	Yes
1,2,3,7,8-PeCDD	13C-1,2,3,7,8-PeCDD	1.000	0.999	1.002	Yes
2,3,7,8-TCDF	13C-2,3,7,8-TCDF	1.001	0.999	1.003	Yes
1,2,3,7,8-PeCDF	13C-1,2,3,7,8-PeCDF	1.000	0.999	1.002	Yes
2,3,4,7,8-PeCDF	13C-2,3,4,7,8-PeCDF	1.000	0.999	1.002	Yes
LABELED COMPOUNDS					
13C-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.022	0.976	1.043	Yes
13C-1,2,3,7,8-PeCDD	13C-1,2,3,4-TCDD	1.203	1.000	1.567	Yes
13C-2,3,7,8-TCDF	13C-1,2,3,4-TCDD	0.992	0.923	1.103	Yes
13C-1,2,3,7,8-PeCDF	13C-1,2,3,4-TCDD	1.155	1.000	1.425	Yes
13C-2,3,4,7,8-PeCDF	13C-1,2,3,4-TCDD	1.192	1.011	1.526	Yes
37Cl-2,3,7,8-TCDD	13C-1,2,3,4-TCDD	1.023	0.989	1.052	Yes

Analyst: _____

Date: 2/1/10

FORM 6B
PCDD/PCDF RELATIVE RETENTION TIMES

Vista Analytical Laboratory
Initial Calibration Date: 01/29/2010
Instrument ID: VG10
VER Data file name: 100129H2_1

CCAL ID: ST100129H2-1

GC Column ID: DB-5
Analysis Date: 30-Jan-10

Analysis Time: 02:14:11

NATIVE ANALYTES	RETENTION TIME REFERENCE	RRT	RRT QC Limit Min	RRT QC Limit Max	
1,2,3,4,7,8-HxCDD	13C-1,2,3,4,7,8-HxCDD	1.000	0.999	1.001	Yes
1,2,3,6,7,8-HxCDD	13C-1,2,3,6,7,8-HxCDD	1.000	0.998	1.004	Yes
1,2,3,7,8,9-HxCDD	13C-1,2,3,7,8,9-HxCDD	1.000	0.998	1.004	Yes
1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,7,8-HpCDD	1.000	0.999	1.001	Yes
OCDD	13C-OCDD	1.000	0.999	1.001	Yes
1,2,3,4,7,8-HxCDF	13C-1,2,3,4,7,8-HxCDF	1.000	0.999	1.001	Yes
1,2,3,6,7,8-HxCDF	13C-1,2,3,6,7,8-HxCDF	1.001	0.997	1.005	Yes
2,3,4,6,7,8-HxCDF	13C-2,3,4,6,7,8-HxCDF	1.001	0.999	1.001	Yes
1,2,3,7,8,9-HxCDF	13C-1,2,3,7,8,9-HxCDF	1.000	0.999	1.001	Yes
1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,7,8-HpCDF	1.000	0.999	1.001	Yes
1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,7,8,9-HpCDF	1.000	0.999	1.001	Yes
OCDF	13C-OCDF	1.000	0.999	1.001	Yes
LABELED COMPOUNDS					
13C-1,2,3,4,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.014	1.002	1.026	Yes
13C-1,2,3,6,7,8-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.018	1.007	1.029	Yes
13C-1,2,3,7,8,9-HxCDD	13C-1,2,3,4,6,9-HxCDF	1.027	1.014	1.038	Yes
13C-1,2,3,4,6,7,8-HpCDD	13C-1,2,3,4,6,9-HxCDF	1.132	1.117	1.141	Yes
13C-OCDD	13C-1,2,3,4,6,9-HxCDF	1.231	1.085	1.365	Yes
13C-1,2,3,4,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.988	0.975	1.001	Yes
13C-1,2,3,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	0.991	0.979	1.005	Yes
13C-2,3,4,6,7,8-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.009	1.001	1.020	Yes
13C-1,2,3,7,8,9-HxCDF	13C-1,2,3,4,6,9-HxCDF	1.038	1.002	1.072	Yes
13C-1,2,3,4,6,7,8-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.093	1.069	1.111	Yes
13C-1,2,3,4,7,8,9-HpCDF	13C-1,2,3,4,6,9-HxCDF	1.149	1.098	1.192	Yes
13C-OCDF	13C-1,2,3,4,6,9-HxCDF	1.238	1.091	1.371	Yes

Analyst: _____

Date: 2/1/10

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:49 Pacific Standard Time

Method: C:\MassLynx\DEFAULT.PRO\MethDB\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_1, Date: 30-Jan-2010, Time: 02:14:11, ID: ST100129H2-1 1613 CS3 100127F, Description: 1613 CS3 100127F

			RA				RT	RRT				
1	2,3,7,8-TCDD	1.10e5	0.77	NO	1.04	1.000	25.98	1.001	9.6157	96.2	0.0492	9.6157
2	1,2,3,7,8-PeCDD	5.12e5	0.61	NO	0.935	1.000	30.57	1.000	49.266	98.5	0.0848	49.266
3	1,2,3,4,7,8-HxCDD	4.35e5	1.25	NO	0.907	1.000	33.95	1.000	49.433	98.9	0.103	49.433
4	1,2,3,6,7,8-HxCDD	4.14e5	1.24	NO	0.995	1.000	34.06	1.000	48.716	97.4	0.108	48.716
5	1,2,3,7,8,9-HxCDD	4.72e5	1.25	NO	0.930	1.000	34.35	1.000	49.335	98.7	0.0952	49.335
6	1,2,3,4,6,7,8-HpCDD	3.99e5	1.04	NO	1.00	1.000	37.89	1.000	48.425	96.9	0.107	48.425
7	OCDD	7.54e5	0.88	NO	1.10	1.000	41.19	1.000	97.695	97.7	0.0523	97.695
8	2,3,7,8-TCDF	1.31e5	0.77	NO	0.956	1.000	25.20	1.001	9.5601	95.6	0.0398	9.5601
9	1,2,3,7,8-PeCDF	6.41e5	1.57	NO	0.941	1.000	29.37	1.000	49.054	98.1	0.0785	49.054
10	2,3,4,7,8-PeCDF	6.79e5	1.57	NO	0.926	1.000	30.29	1.000	49.832	99.7	0.0718	49.832
11	1,2,3,4,7,8-HxCDF	7.77e5	1.25	NO	1.22	1.000	33.05	1.000	49.381	98.8	0.0829	49.381
12	1,2,3,6,7,8-HxCDF	6.73e5	1.26	NO	1.08	1.000	33.18	1.001	48.860	97.7	0.105	48.860
13	2,3,4,6,7,8-HxCDF	6.18e5	1.25	NO	1.13	1.000	33.78	1.001	49.159	98.3	0.121	49.159
14	1,2,3,7,8,9-HxCDF	5.61e5	1.23	NO	1.13	1.000	34.75	1.000	49.107	98.2	0.154	49.107
15	1,2,3,4,6,7,8-HpCDF	5.82e5	1.05	NO	1.44	1.000	36.59	1.000	48.304	96.6	0.113	48.304
16	1,2,3,4,7,8,9-HpCDF	5.34e5	1.06	NO	1.38	1.000	38.44	1.000	49.003	98.0	0.106	49.003
17	OCDF	8.89e5	0.90	NO	1.01	1.000	41.42	1.000	95.868	95.9	0.0655	95.868
18	13C-2,3,7,8-TCDD	1.11e6	0.80	NO	1.10	1.000	25.97	1.022	101.02	101	0.138	
19	13C-1,2,3,7,8-PeCDD	1.11e6	0.62	NO	1.09	1.000	30.56	1.203	102.09	102	0.118	
20	13C-1,2,3,4,7,8-HxCDD	9.70e5	1.26	NO	1.01	1.000	33.94	1.014	99.633	99.6	0.173	
21	13C-1,2,3,6,7,8-HxCDD	8.54e5	1.23	NO	0.889	1.000	34.05	1.018	99.593	99.6	0.196	
22	13C-1,2,3,7,8,9-HxCDD	1.03e6	1.25	NO	1.07	1.000	34.34	1.027	99.501	99.5	0.163	
23	13C-1,2,3,4,6,7,8-HpCDD	8.21e5	1.05	NO	0.837	1.000	37.88	1.132	101.80	102	0.224	
24	13C-OCDD	1.40e6	0.91	NO	0.712	1.000	41.18	1.231	203.76	102	0.176	
25	13C-2,3,7,8-TCDF	1.43e6	0.79	NO	1.05	1.000	25.19	0.992	101.08	101	0.175	
26	13C-1,2,3,7,8-PeCDF	1.39e6	1.58	NO	1.02	1.000	29.35	1.155	101.05	101	0.254	
27	13C-2,3,4,7,8-PeCDF	1.47e6	1.57	NO	1.08	1.000	30.27	1.192	101.56	102	0.241	
28	13C-1,2,3,4,7,8-HxCDF	1.29e6	0.53	NO	1.37	1.000	33.04	0.988	97.715	97.7	0.189	
29	13C-1,2,3,6,7,8-HxCDF	1.28e6	0.52	NO	1.37	1.000	33.16	0.991	96.918	96.9	0.189	
30	13C-2,3,4,6,7,8-HxCDF	1.12e6	0.52	NO	1.18	1.000	33.76	1.009	98.002	98.0	0.218	

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Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-crv.qld

Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:43:49 Pacific Standard Time

Name: 100129H2_1, Date: 30-Jan-2010, Time: 02:14:11, ID: ST100129H2-1 1613 CS3 100127F, Description: 1613 CS3 100127F

31	13C-1,2,3,7,8,9-HxCDF	1.01e6	0.51	NO	1.05	1.000	34.74	1.038	99.912	99.9	0.246
32	13C-1,2,3,4,6,7,8-HpCDF	8.38e5	0.44	NO	0.858	1.000	36.58	1.093	101.34	101	0.305
33	13C-1,2,3,4,7,8,9-HpCDF	7.91e5	0.44	NO	0.794	1.000	38.43	1.149	103.34	103	0.330
34	13C-OCDF	1.83e6	0.90	NO	0.948	1.000	41.41	1.238	200.04	100	0.0816
35	37Cl-2,3,7,8-TCDD	6.27e4			0.665	1.000	25.98	1.023	9.4867	94.9	0.0609
36	13C-1,2,3,4-TCDD	9.95e5	0.80	NO	1.00	1.000	25.40	0.000	100.00	100	0.151
37	13C-1,2,3,4-TCDF	1.35e6	0.78	NO	1.00	1.000	23.98	0.000	100.00	100	0.184
38	13C-1,2,3,4,6,9-HxCDF	9.64e5	0.52	NO	1.00	1.000	33.46	0.000	100.00	100	0.258

Quantify Compound Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Monday, February 01, 2010 1:29:29 PM Pacific Standard Time
Printed: Monday, February 01, 2010 1:29:50 PM Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\Default.pro\Curvedb\db-5_1613vg10-10-29-09.cdb 30 Oct 2009 07:35:54

Compound name: 2,3,7,8-TCDD

100129H2_1	ST100129H2-1 1613 CS3 100127F	30-Jan-10	02:14:11
100129H2_2	SOLVENT BLANK	30-Jan-10	03:03:45
100129H2_3	ST100129H2-2 1613 CS0 100127C	30-Jan-10	03:53:20
100129H2_4	ST100129H2-3 1613 CS1 100127D	30-Jan-10	04:42:54
100129H2_5	ST100129H2-4 1613 CS2 100127E	30-Jan-10	05:32:29
100129H2_6	ST100129H2-5 1613 CS4 100127G	30-Jan-10	06:22:04
100129H2_7	ST100129H2-6 1613 CS5 100127H	30-Jan-10	07:11:38
100129H2_8	SOLVENT BLANK	30-Jan-10	08:01:10
100129H2_9	SOLVENT BLANK	30-Jan-10	08:50:42
100129H2_10	ST100129H2-7 SSS 090219C	30-Jan-10	09:40:15

Printed: Saturday, January 30, 2010 02:14:09 Pacific Standard Time

M 292.9824 R 12448

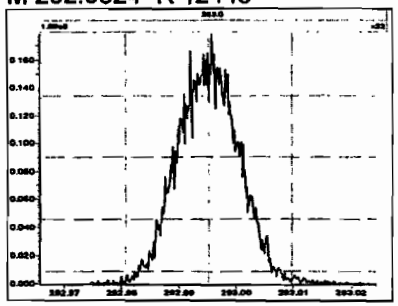

M 304.9824 R 12519

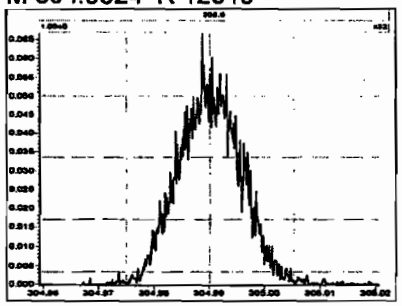

M 318.9792 R 13735

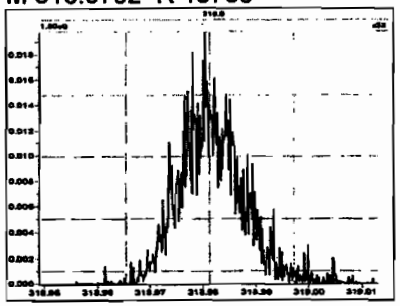

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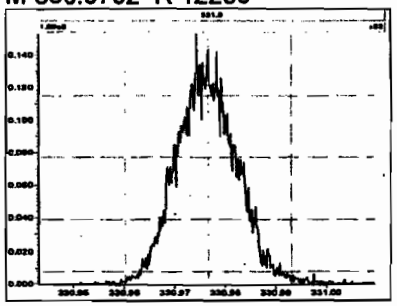

M 342.9792 R 12165

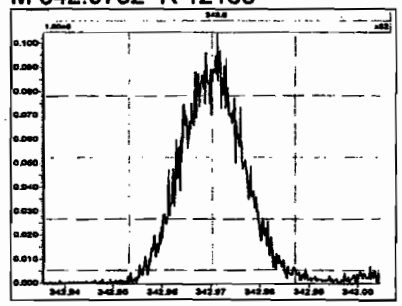

M 354.9792 R 13138

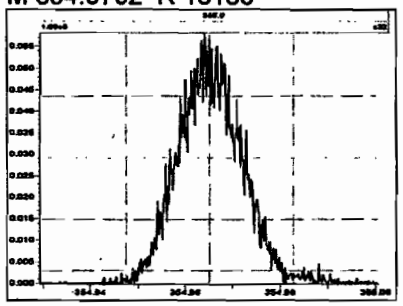

M 366.9792 R 12787

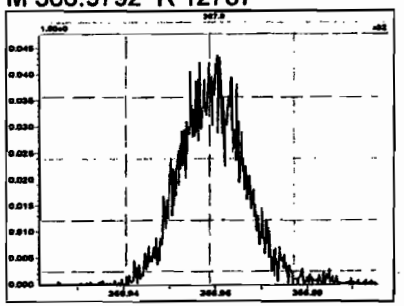

M 380.9760 R 11966

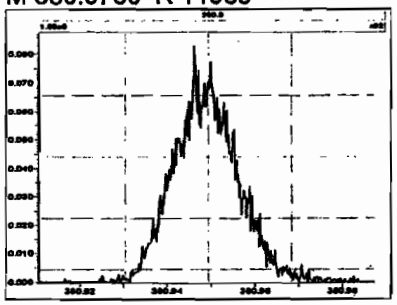

M 392.9760 R 12563

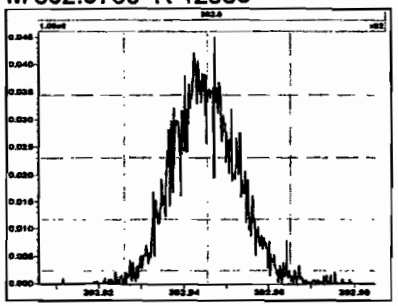

M 404.9760 R 12470

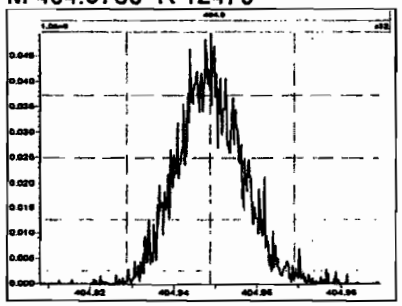

M 416.9760 R 12953

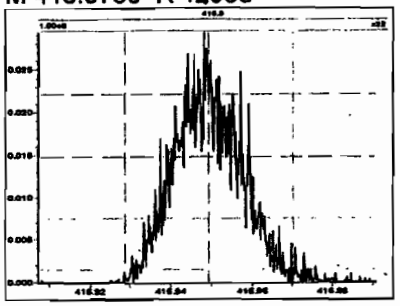

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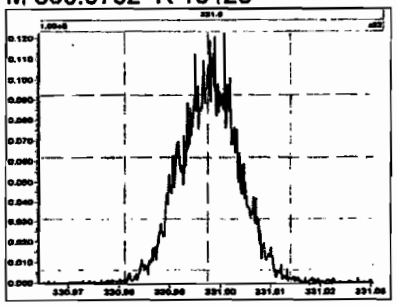

Printed: Saturday, January 30, 2010 02:14:09 Pacific Standard Time

M 342.9792 R 13006

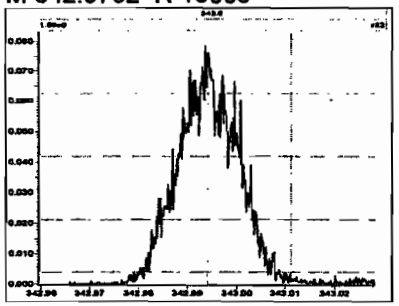

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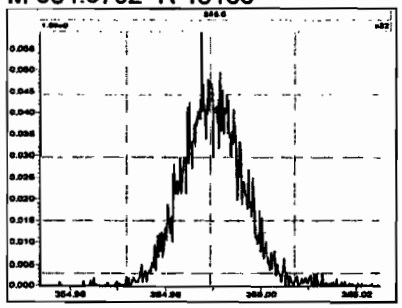

M 366.9792 R 14111

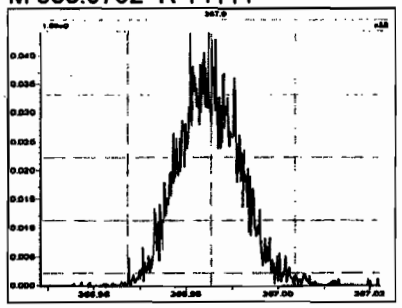

M 380.9760 R 12468

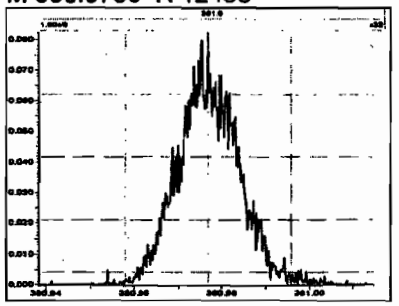

M 392.9760 R 13566

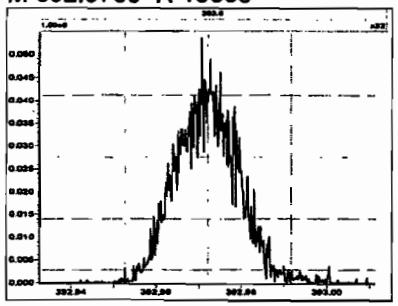

M 404.9760 R 12676

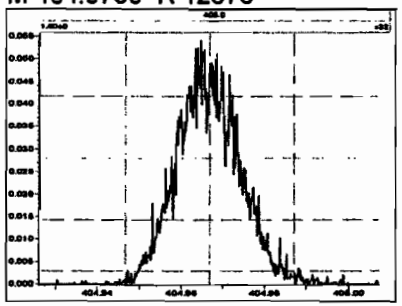

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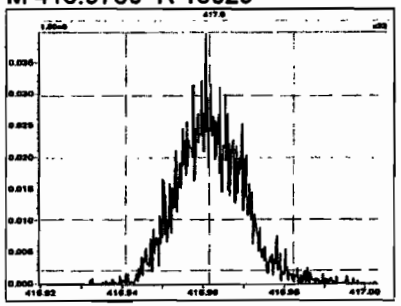

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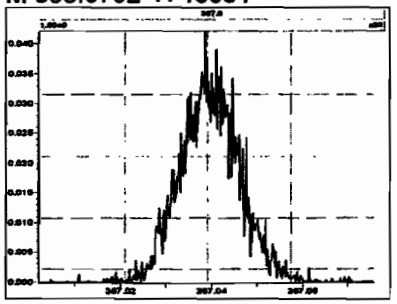

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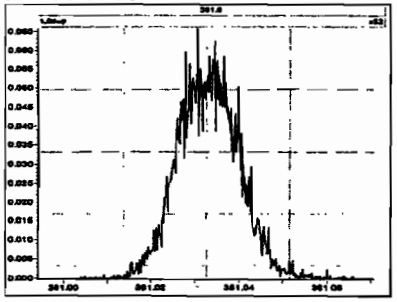

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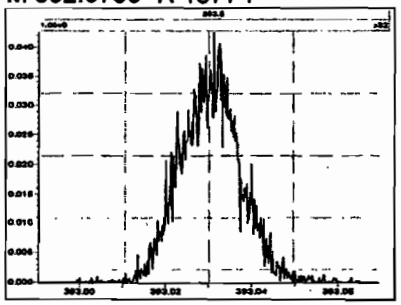

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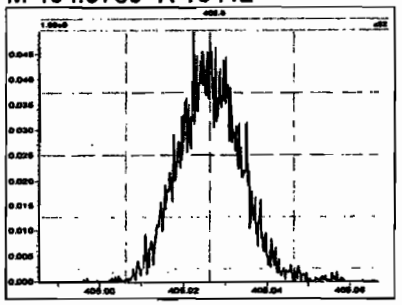

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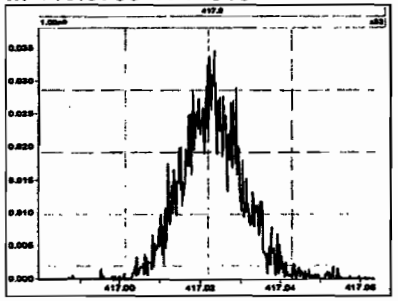

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M 430.9728 R 13163

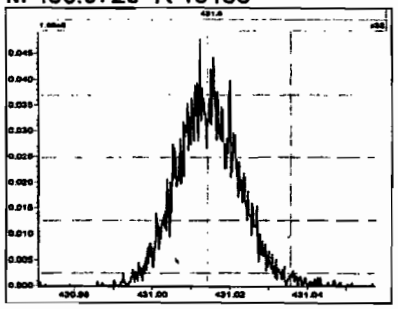

M 442.9728 R 13063

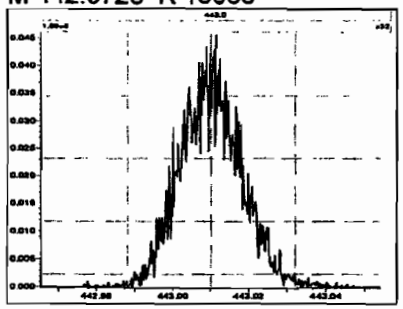

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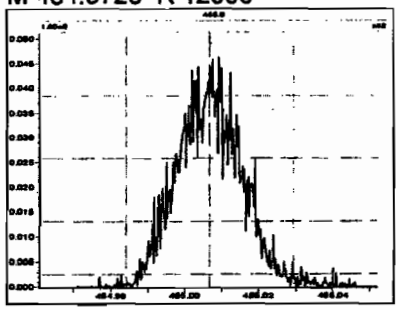

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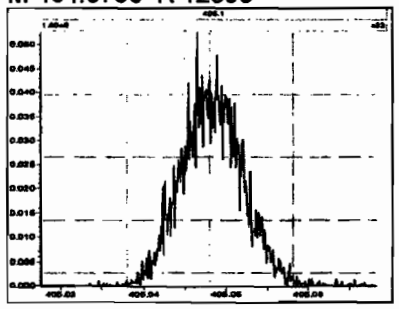

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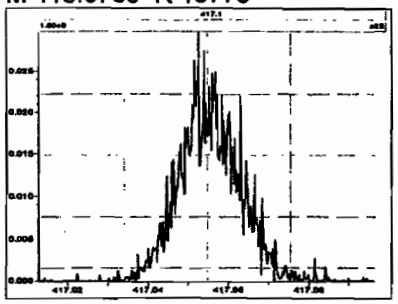

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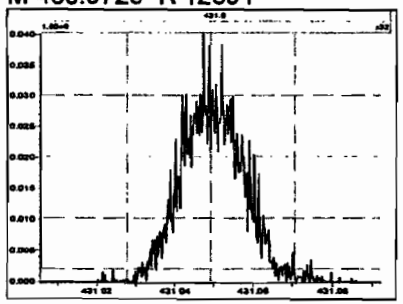

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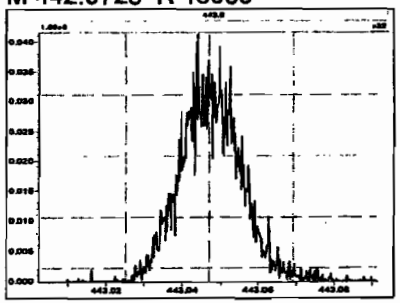

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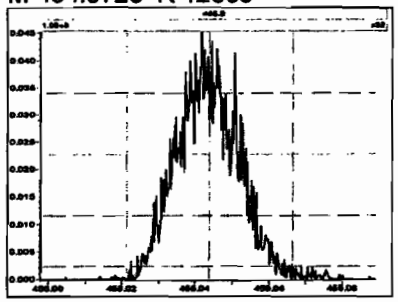

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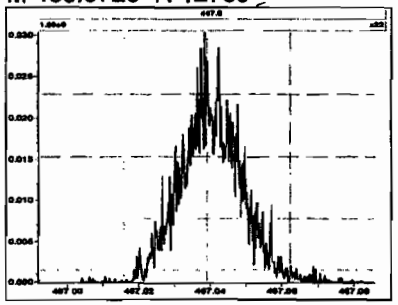

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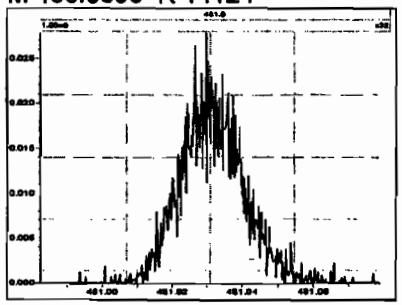

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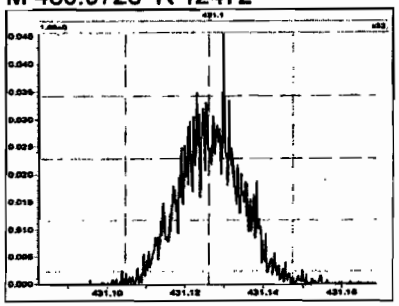

M 442.9728 R 13393

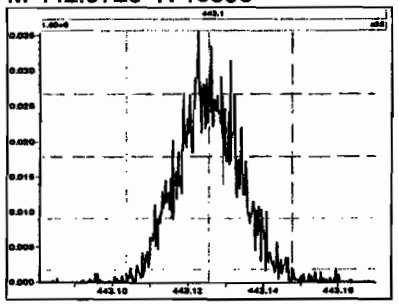

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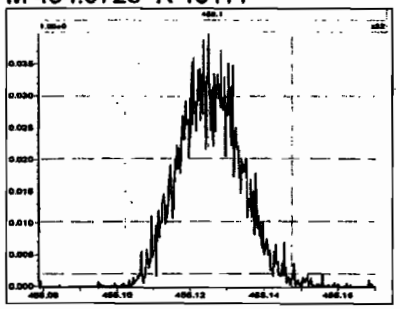

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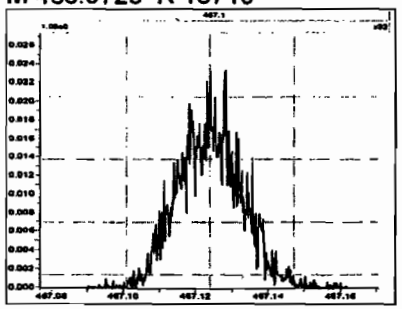

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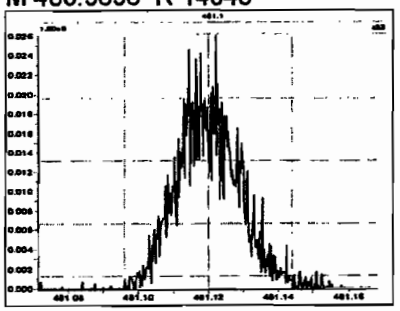

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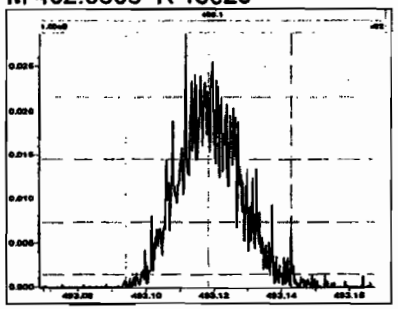

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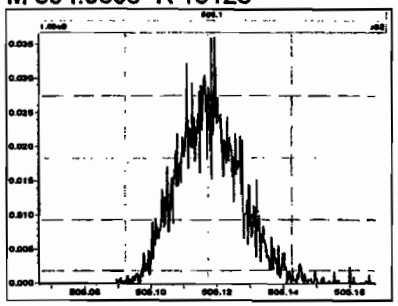

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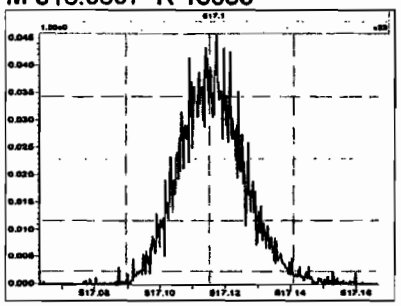

Quantify Sample Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: Untitled

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Printed: Monday, February 01, 2010 13:47:20 Pacific Standard Time

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Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_1, Date: 30-Jan-2010, Time: 02:14:11, ID: ST100129H2-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1,3,6,8-TCDD (First)

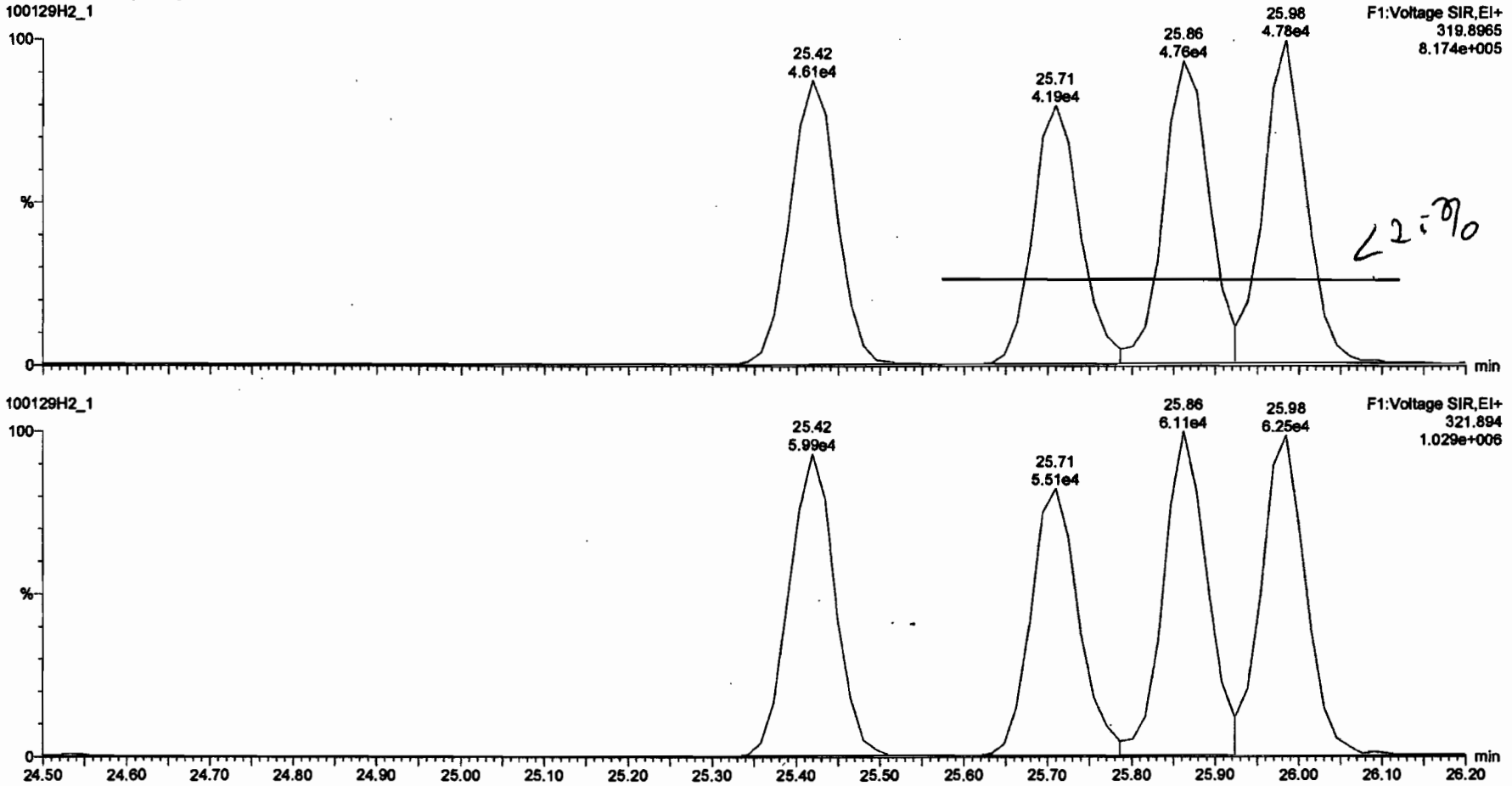

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Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

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2,3,7,8-TCDD

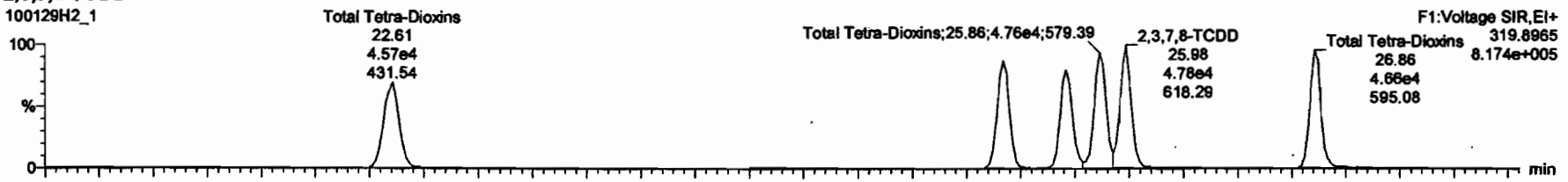

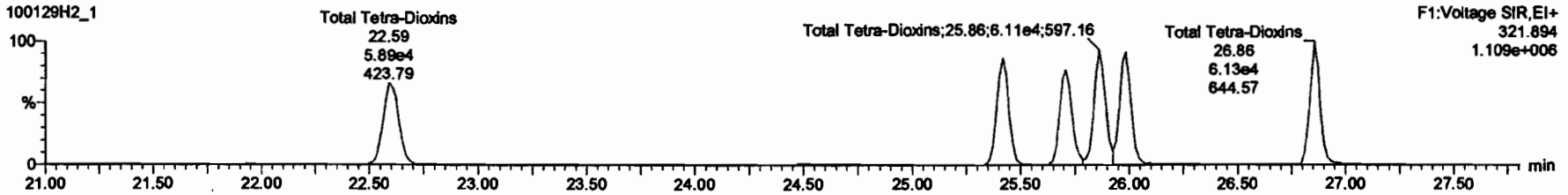

13C-2,3,7,8-TCDD

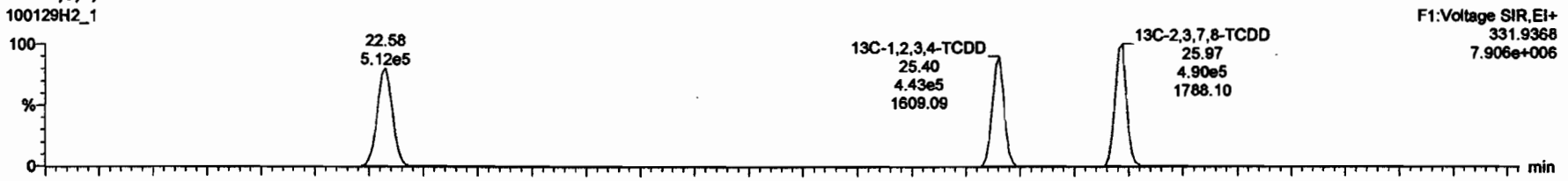

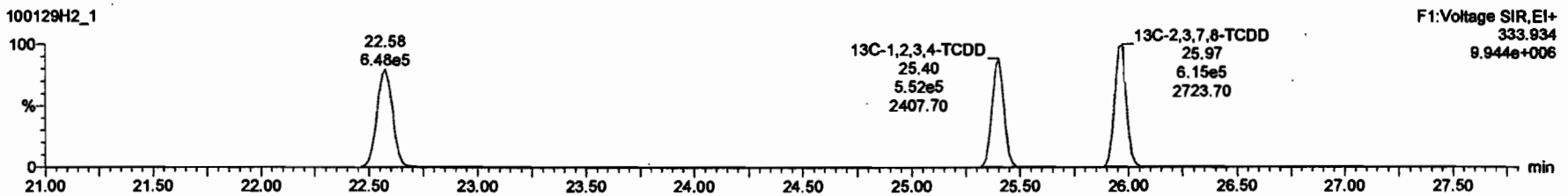

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37Cl-2,3,7,8-TCDD

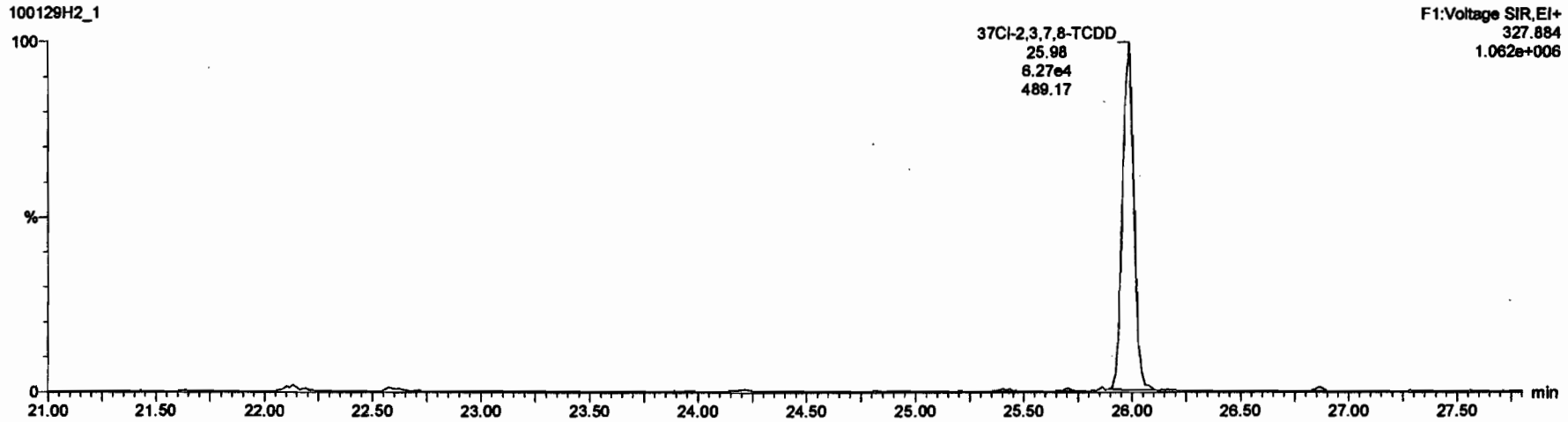

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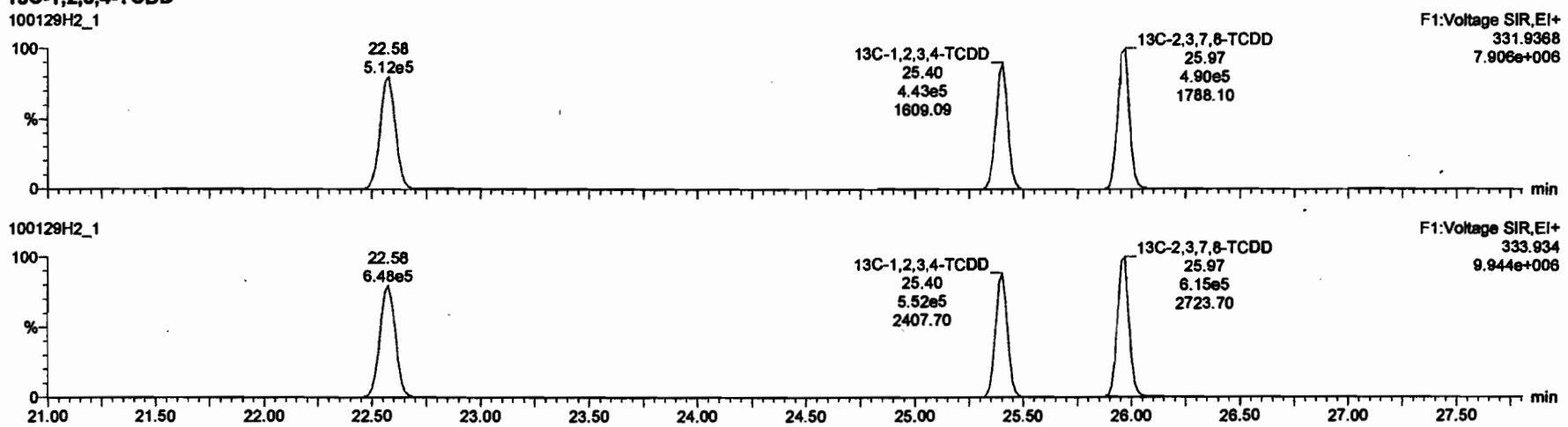

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1,2,3,7,8-PeCDD

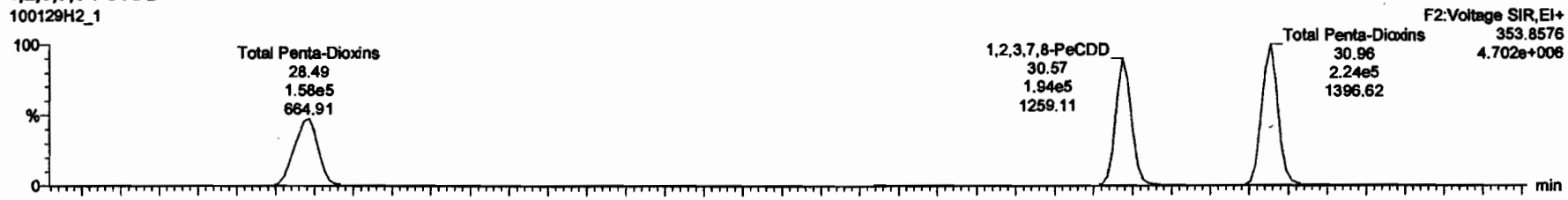

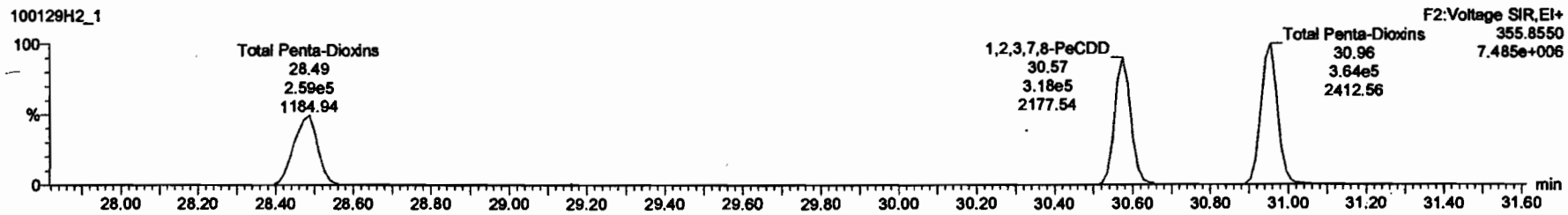

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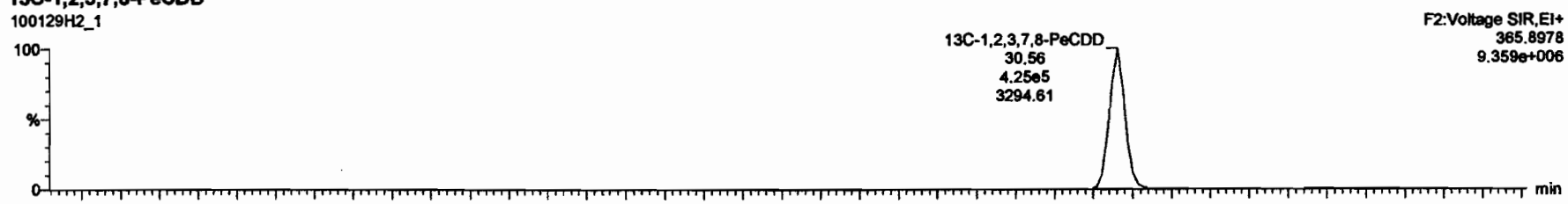

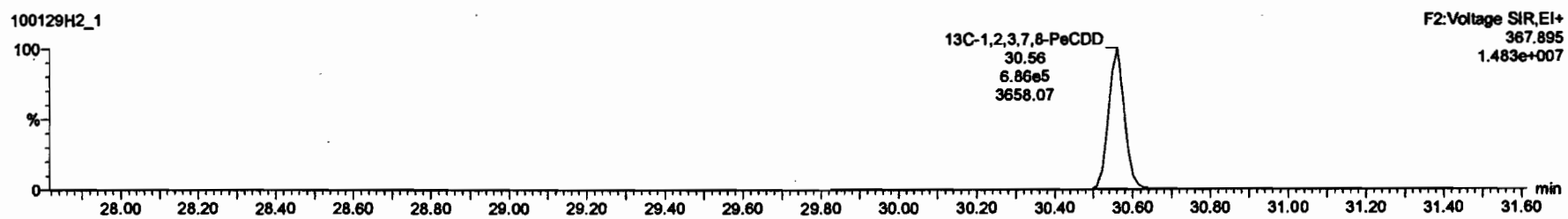

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1,2,3,4,7,8-HxCDD

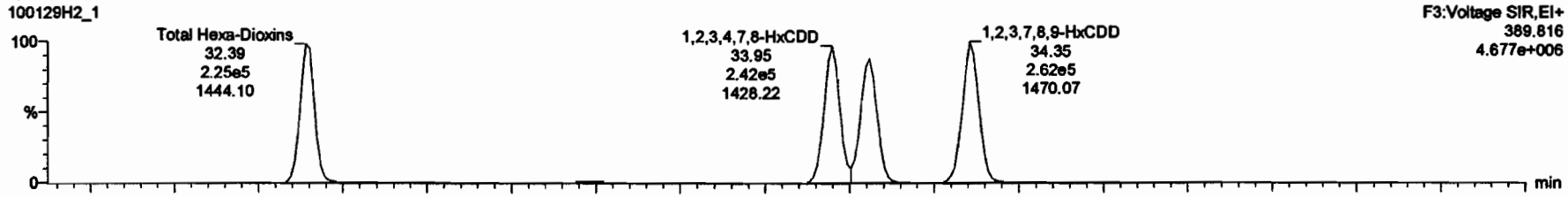

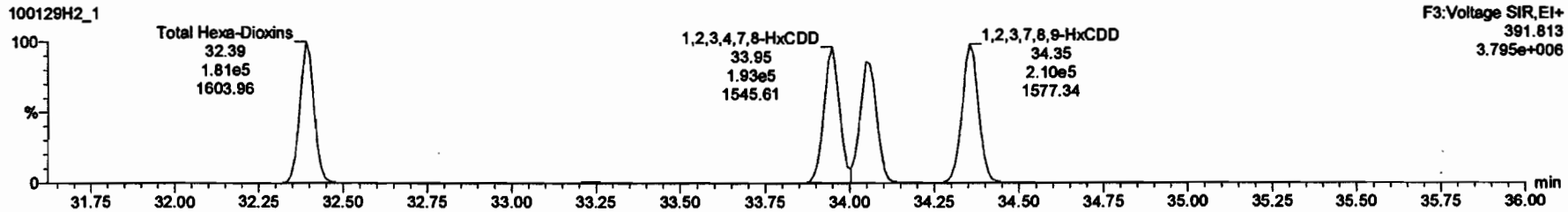

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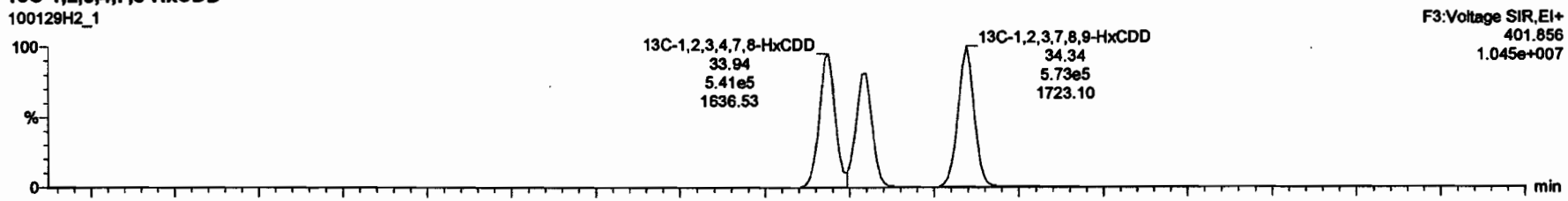

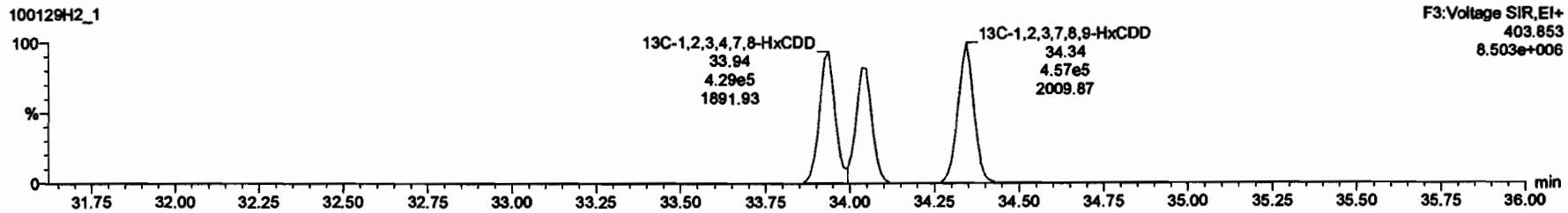

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1,2,3,4,6,7,8-HpCDD

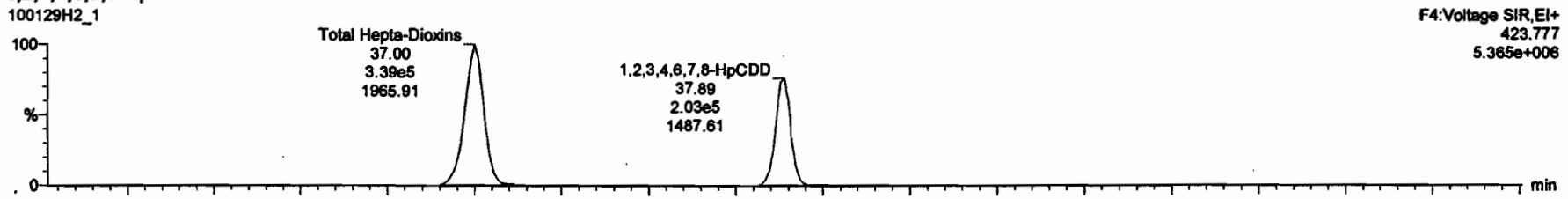

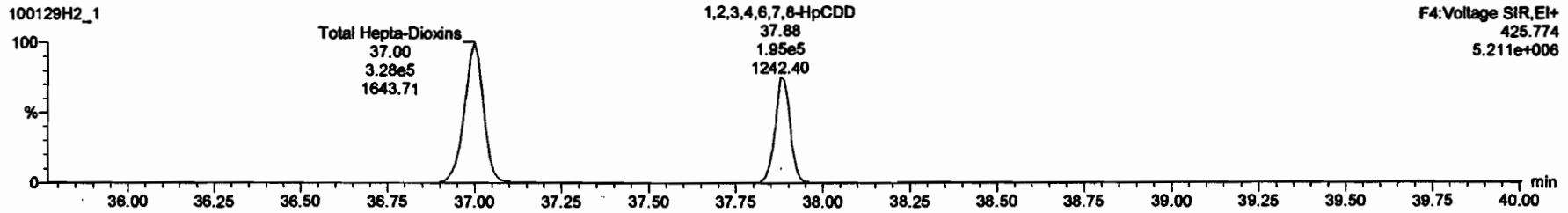

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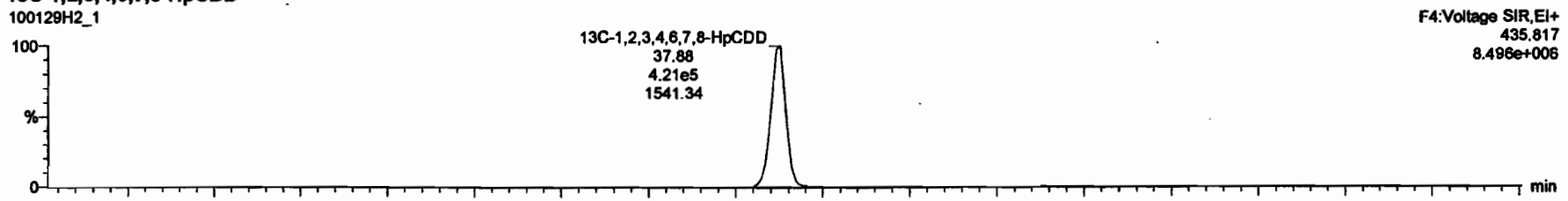

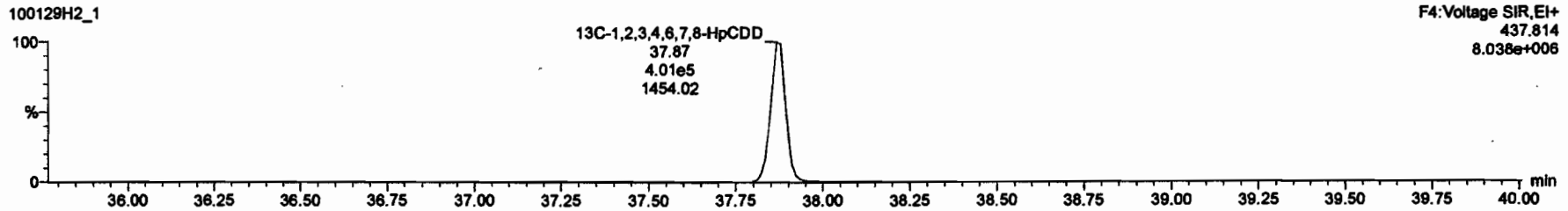

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Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

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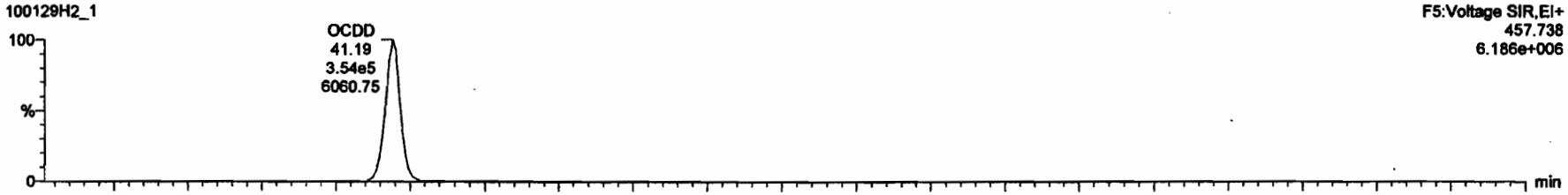

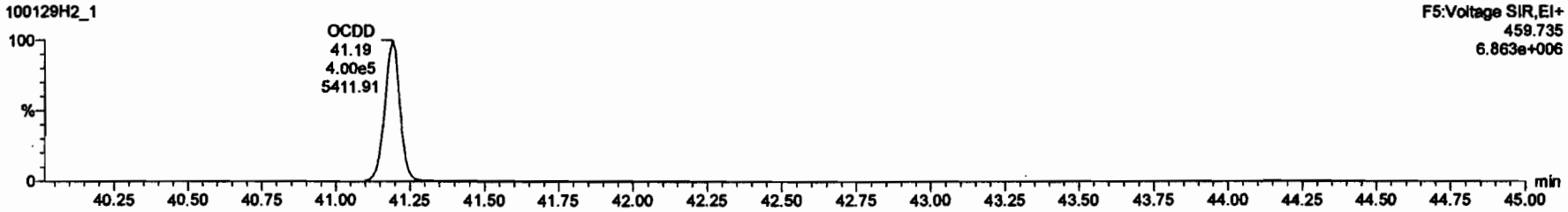

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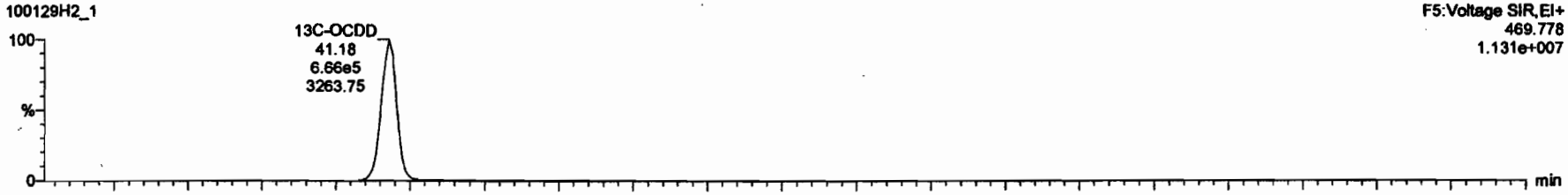

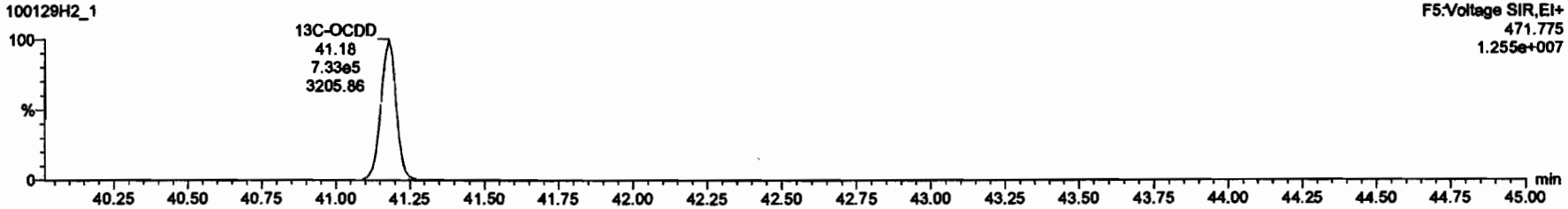

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Name: 100129H2_1, Date: 30-Jan-2010, Time: 02:14:11, ID: ST100129H2-1 1613 CS3 100127F, Description: 1613 CS3 100127F

2,3,7,8-TCDF

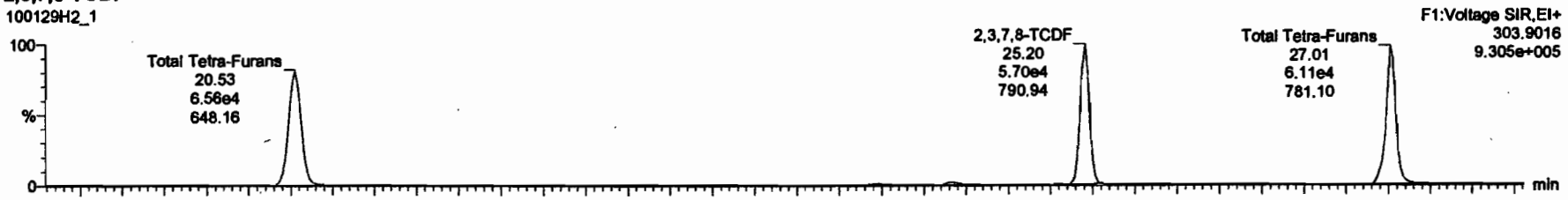

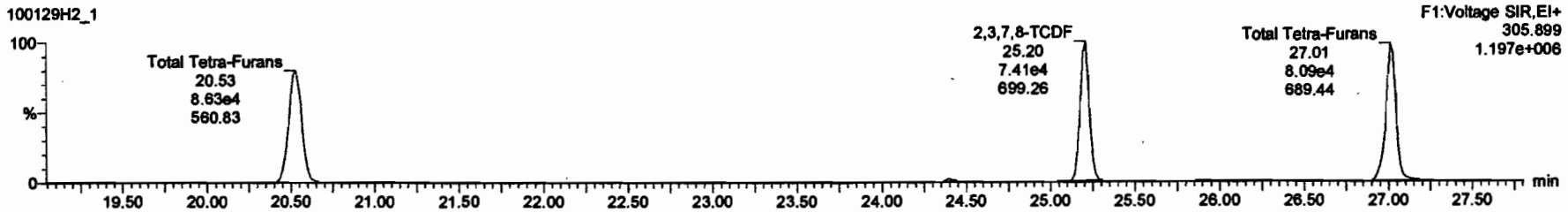

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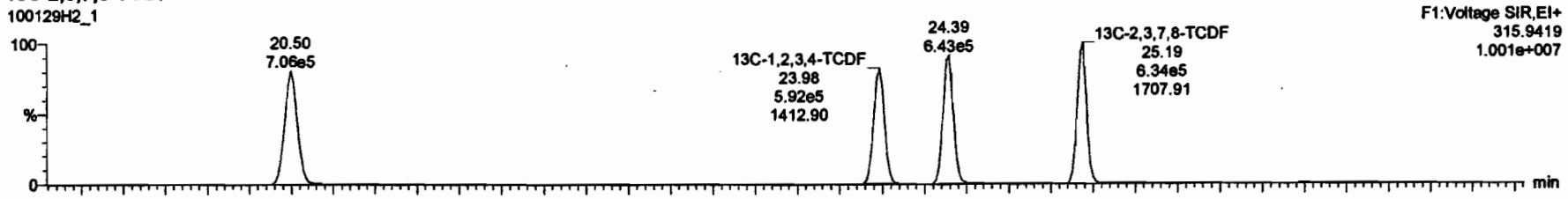

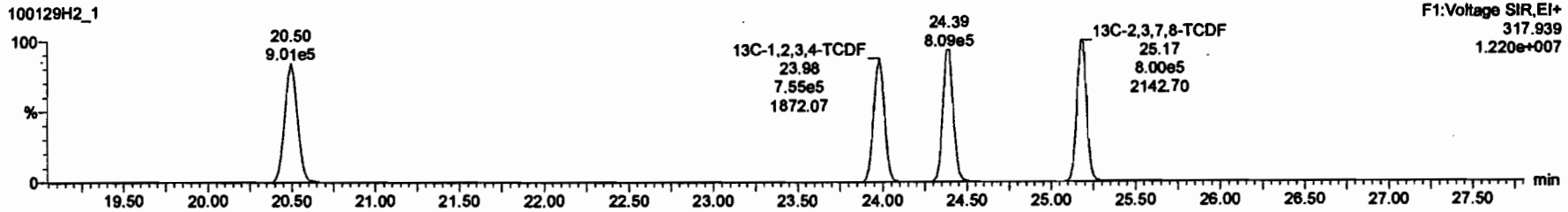

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Name: 100129H2_1, Date: 30-Jan-2010, Time: 02:14:11, ID: ST100129H2-1 1613 CS3 100127F, Description: 1613 CS3 100127F

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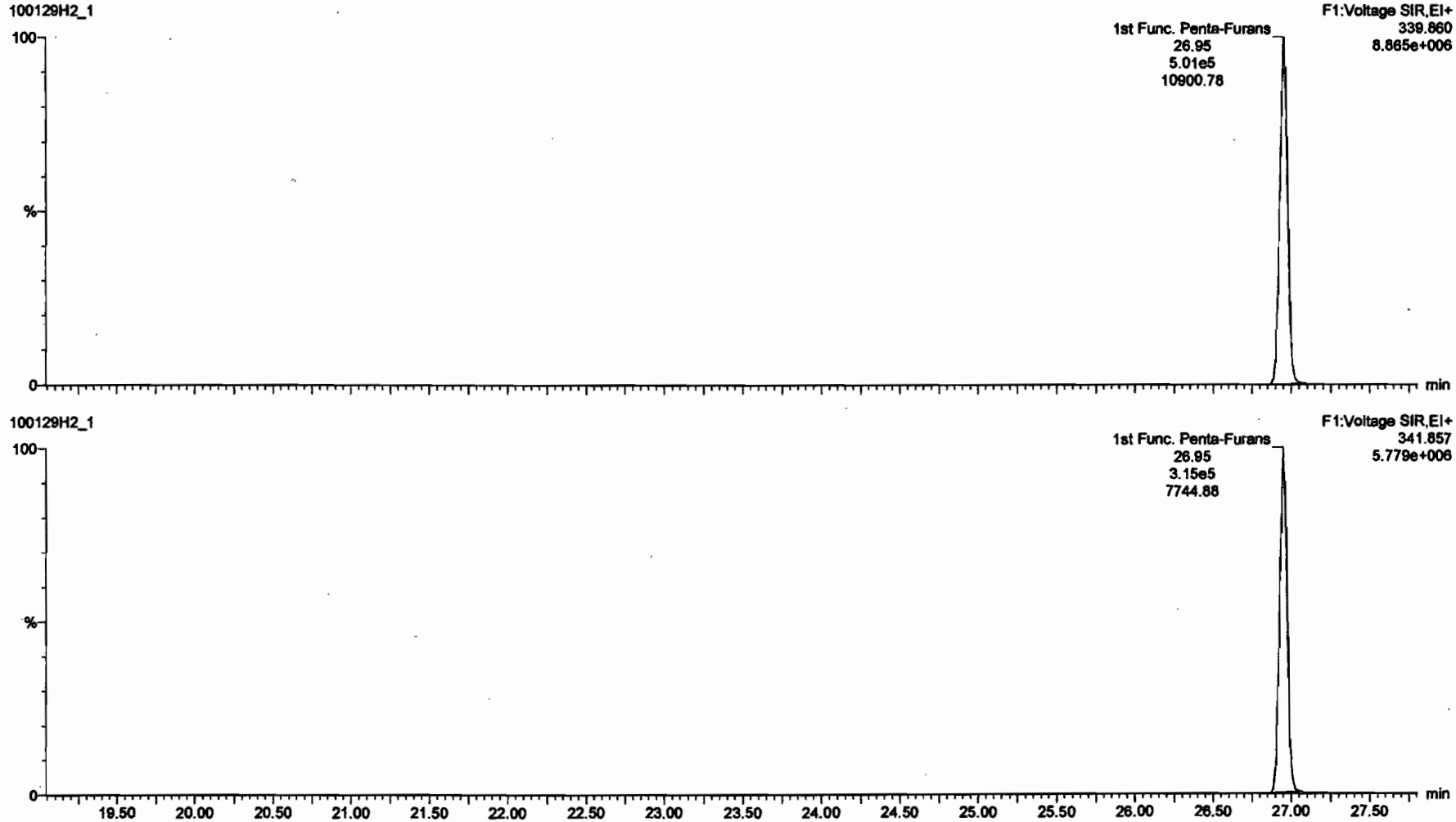

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Name: 100129H2_1, Date: 30-Jan-2010, Time: 02:14:11, ID: ST100129H2-1 1613 CS3 100127F, Description: 1613 CS3 100127F

1,2,3,7,8-PeCDF

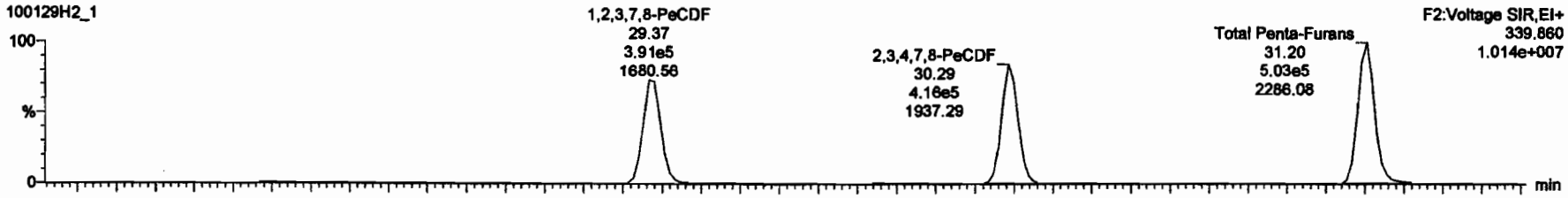

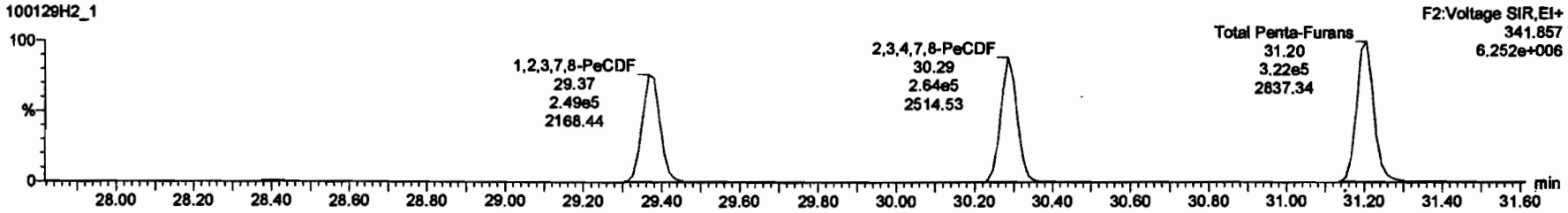

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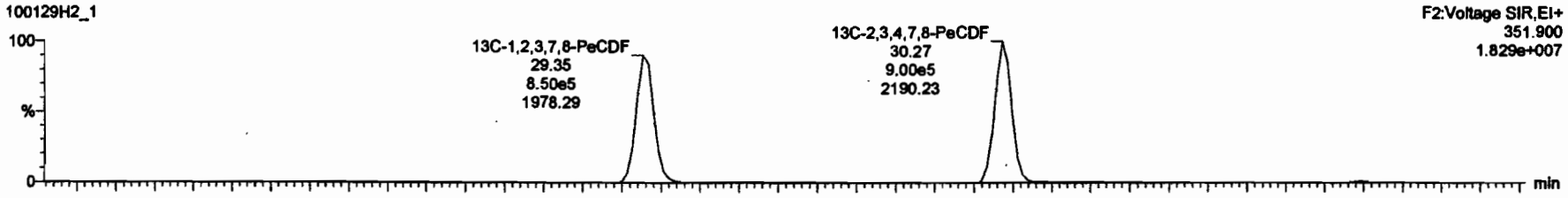

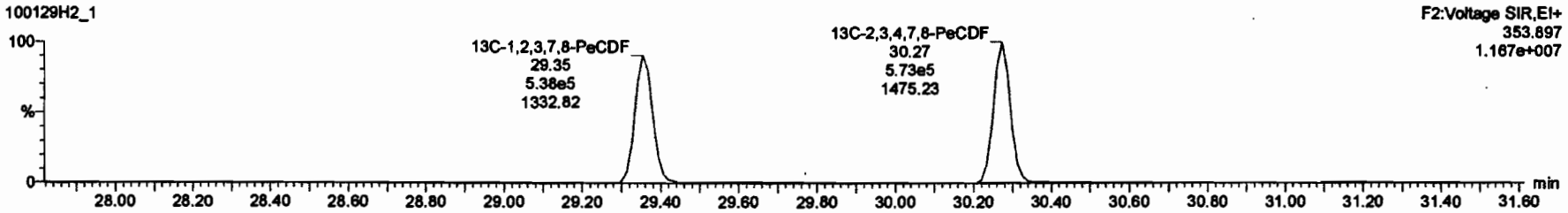

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1,2,3,4,7,8-HxCDF

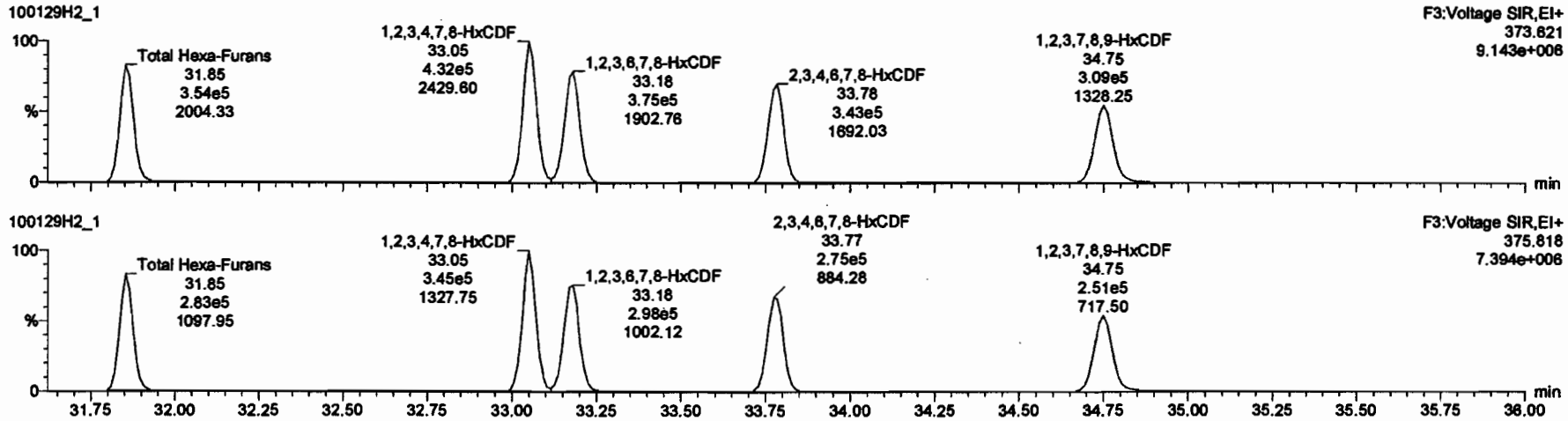

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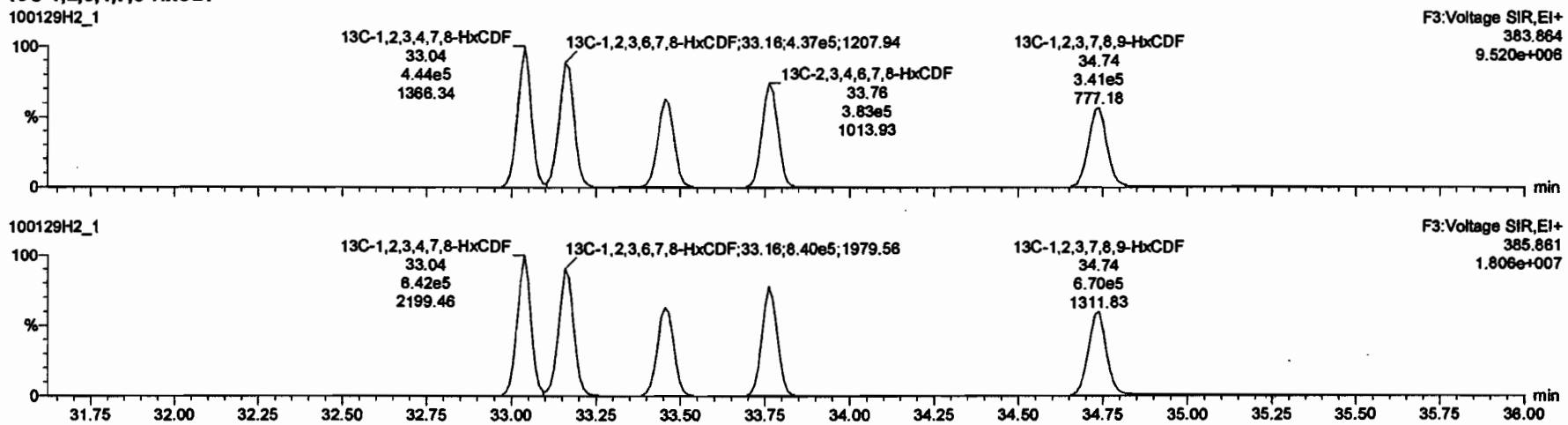

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1,2,3,4,6,7,8-HpCDF

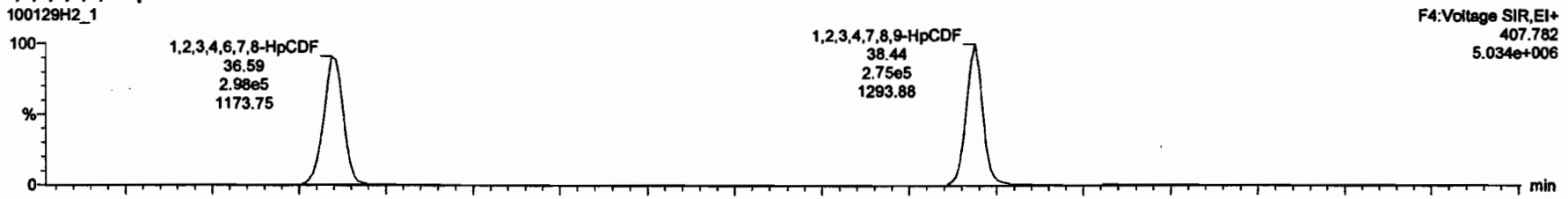

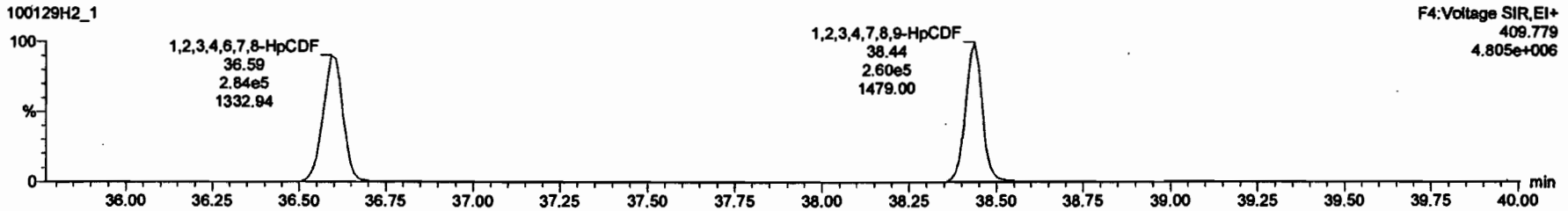

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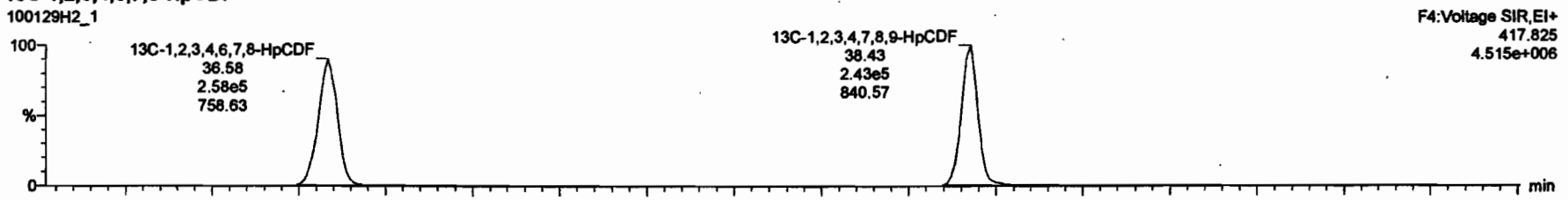

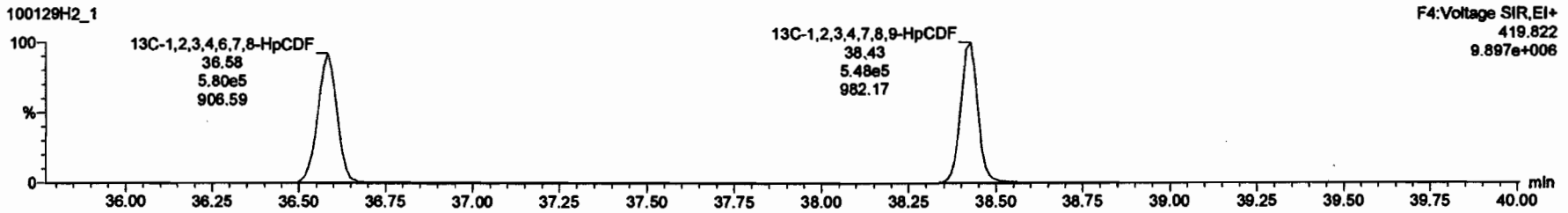

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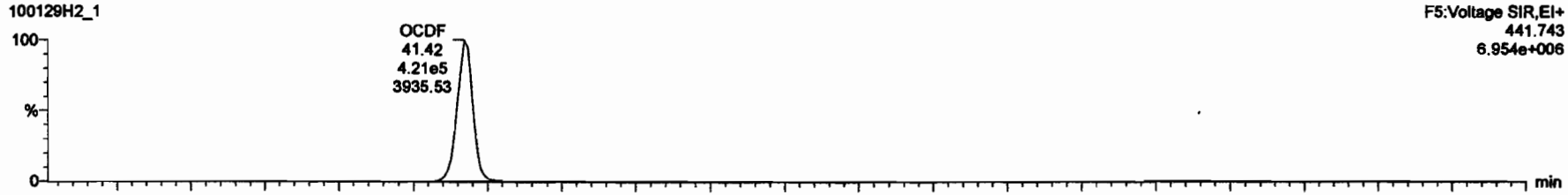

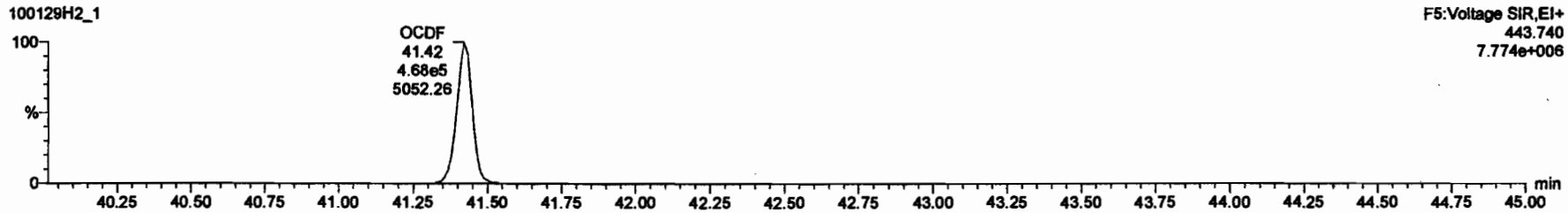

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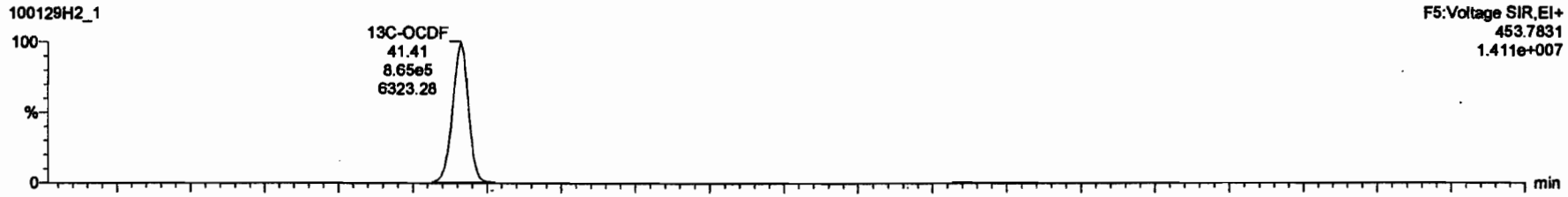

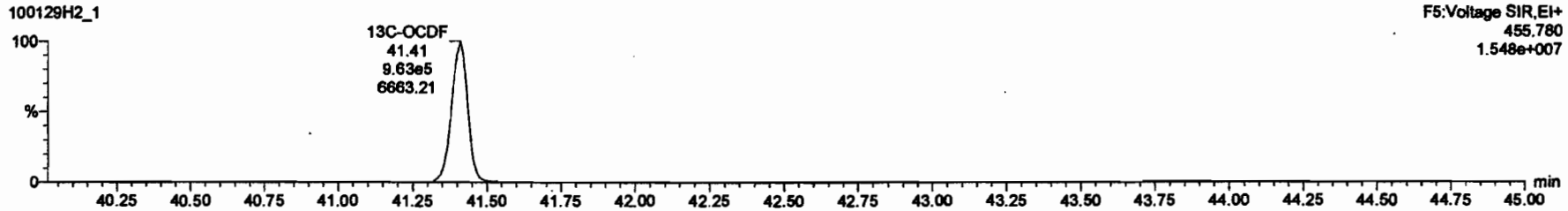

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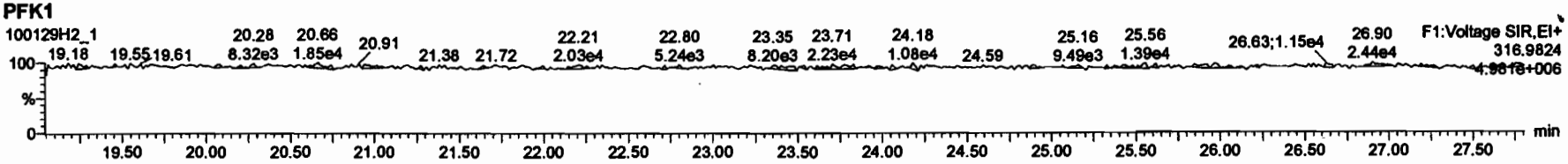

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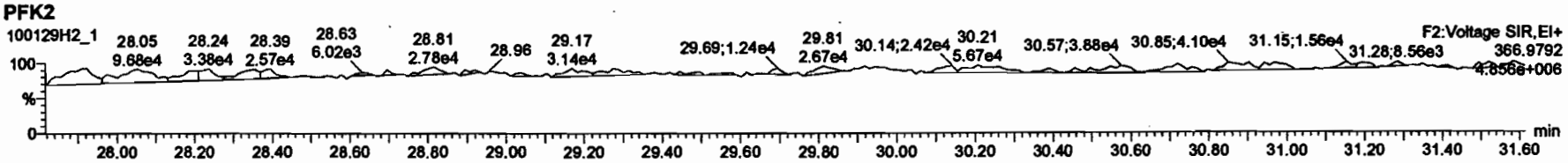

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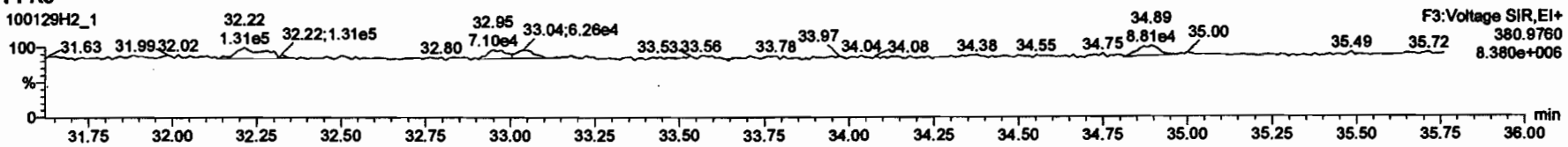

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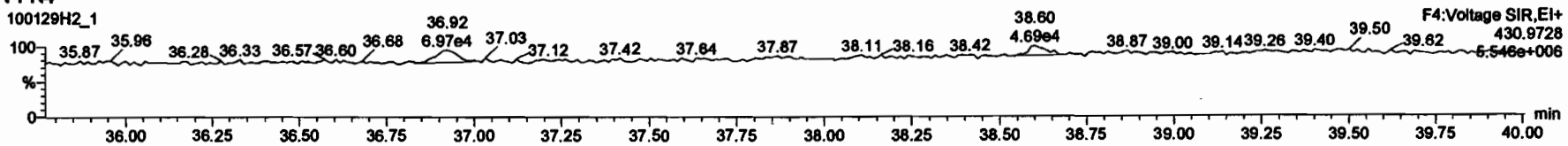

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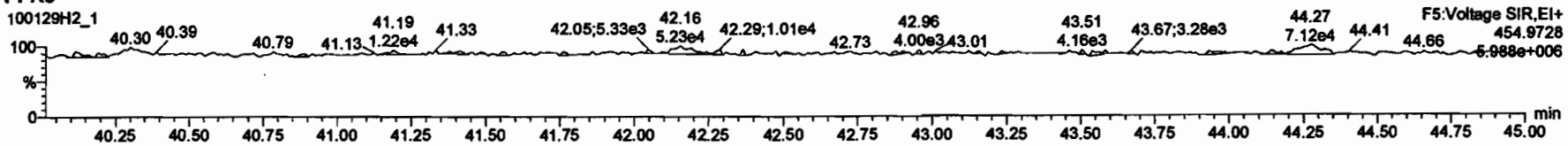

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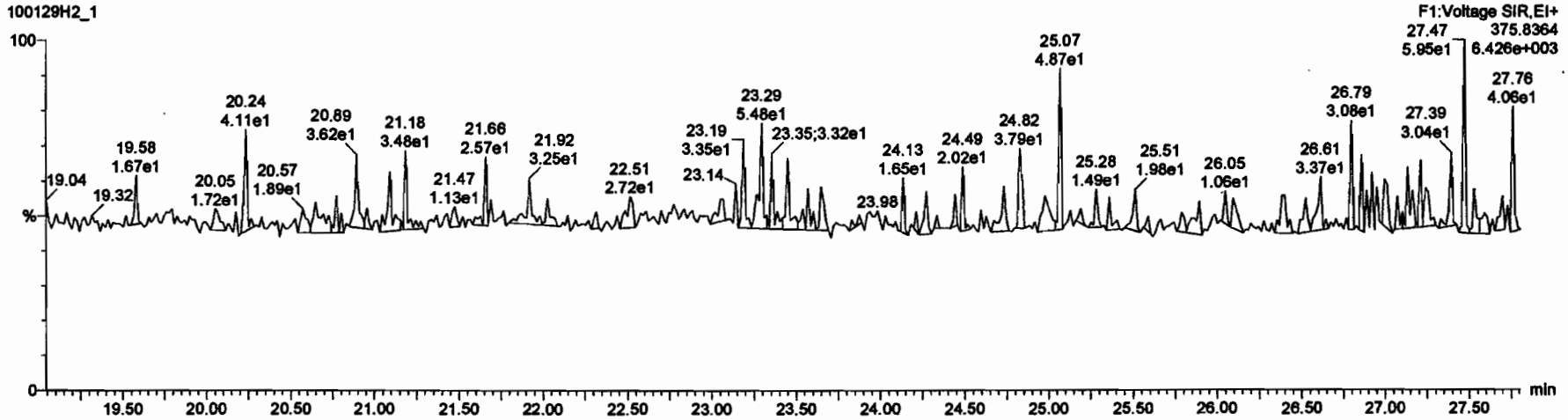

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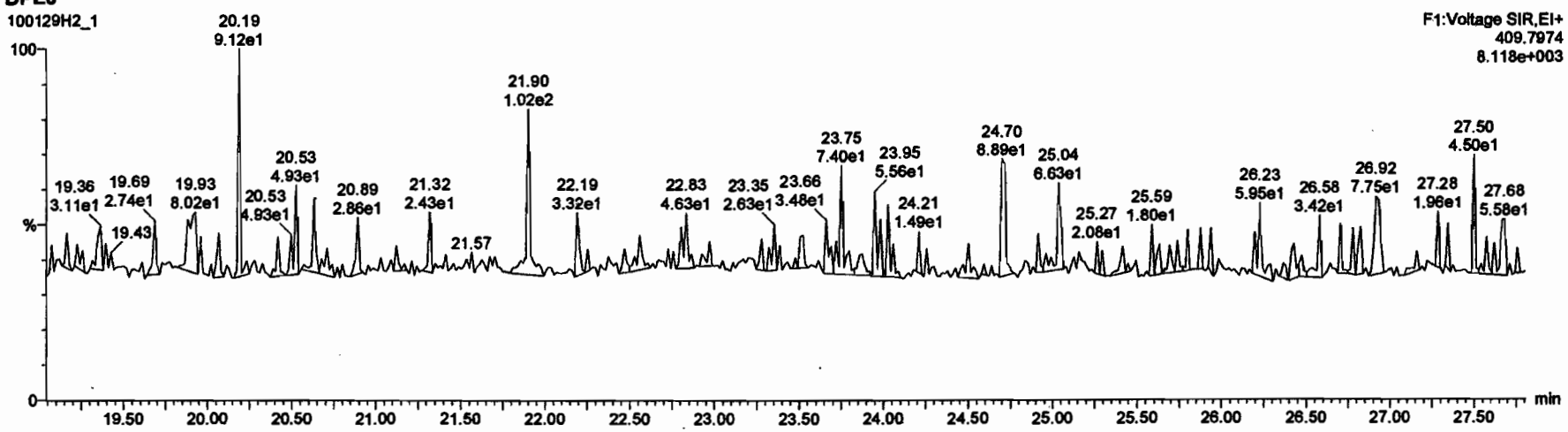

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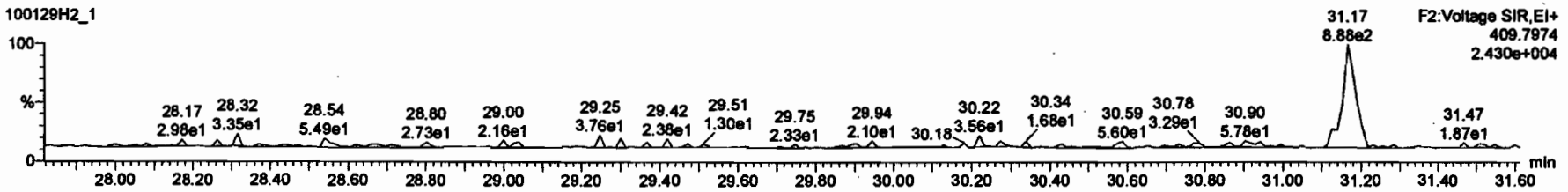

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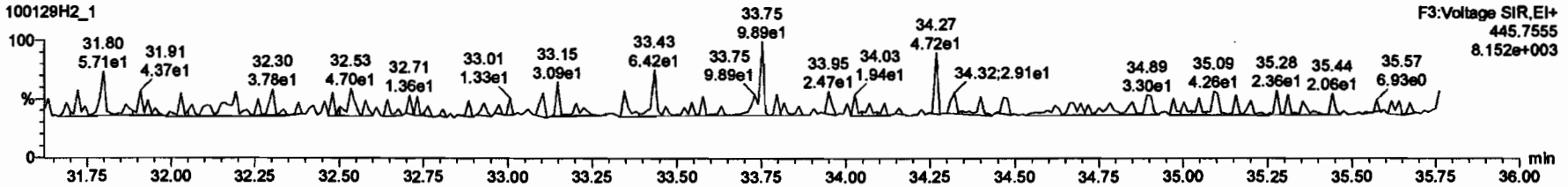

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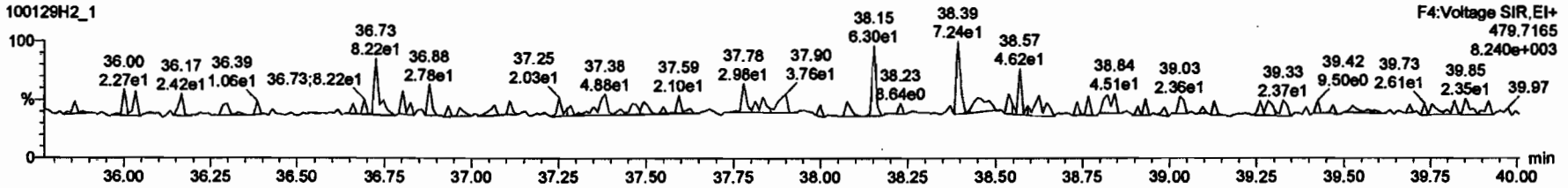

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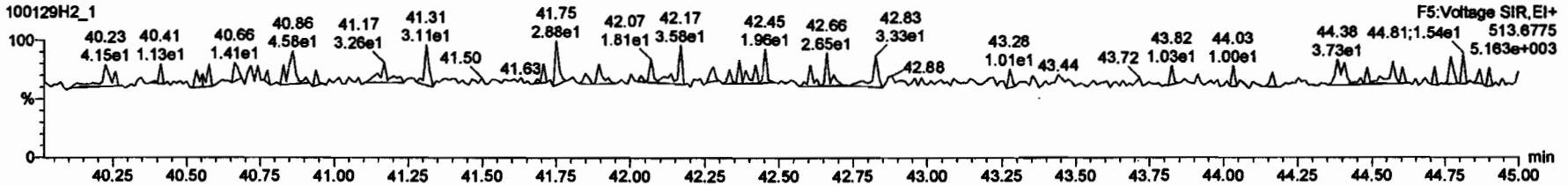

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2,3,7,8-TCDD

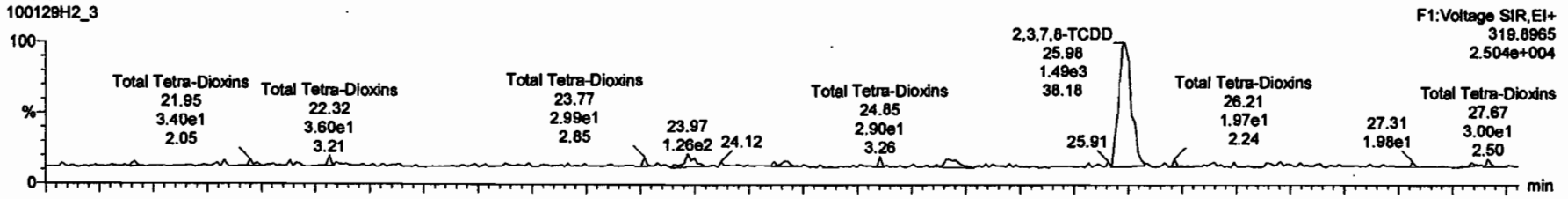

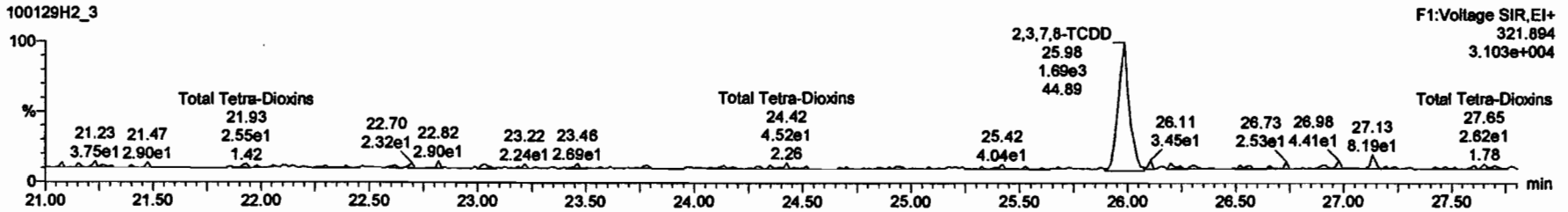

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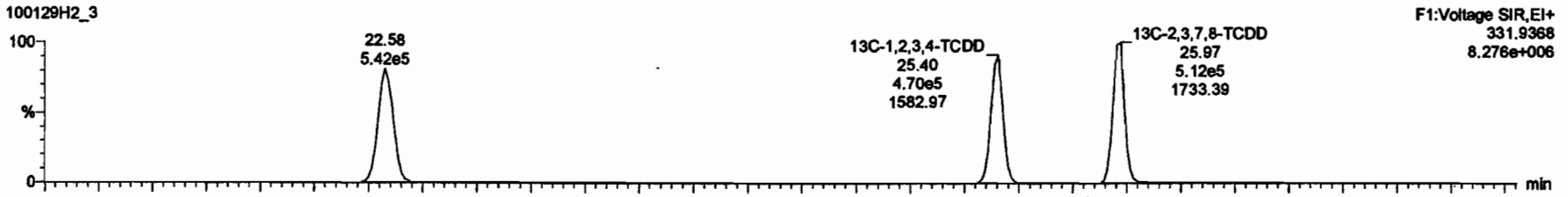

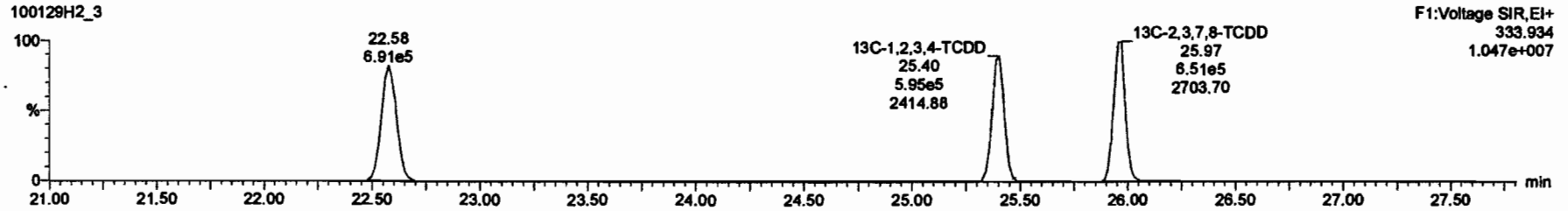

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37Cl-2,3,7,8-TCDD

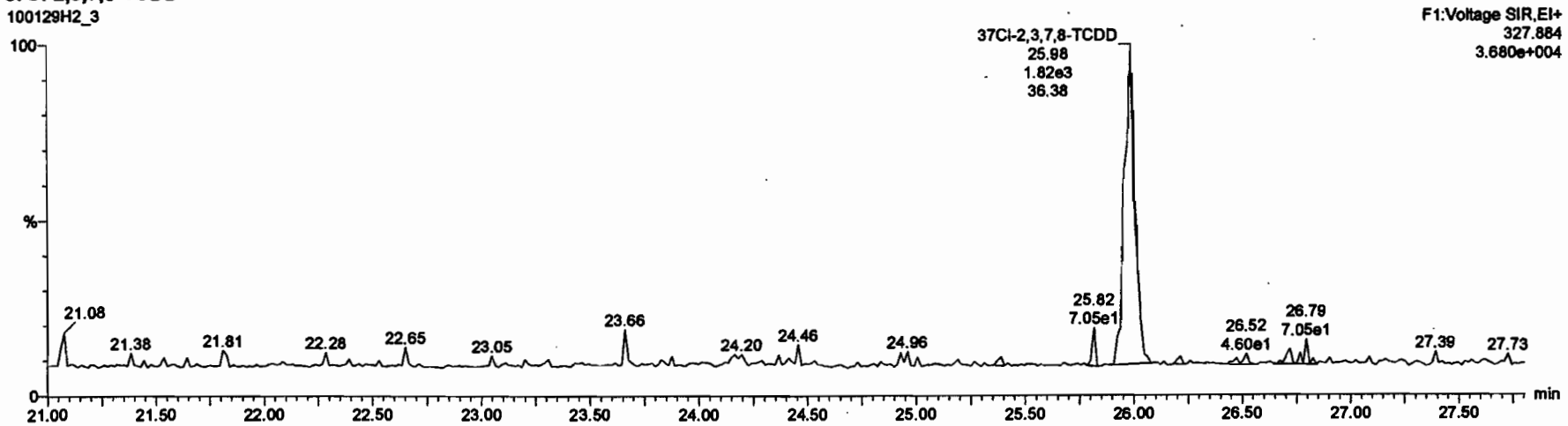

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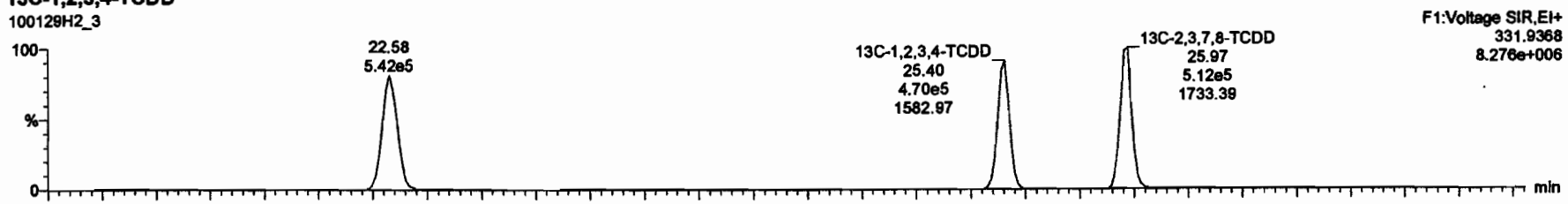

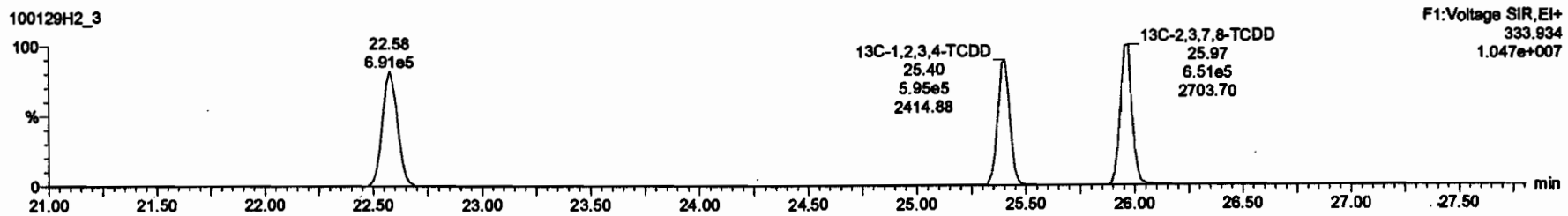

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1,2,3,7,8-PeCDD

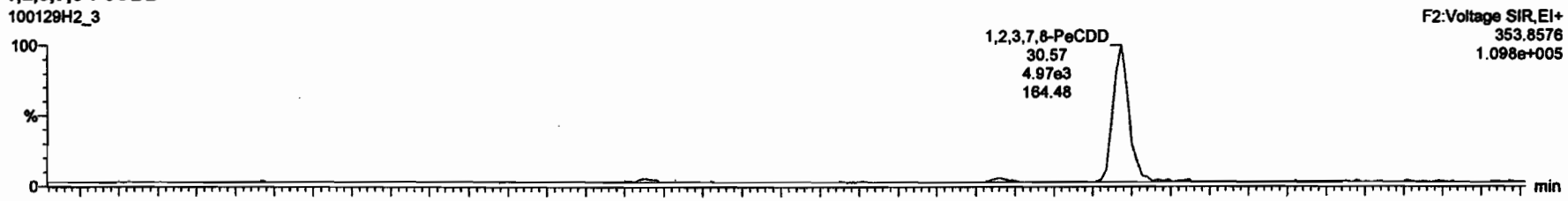

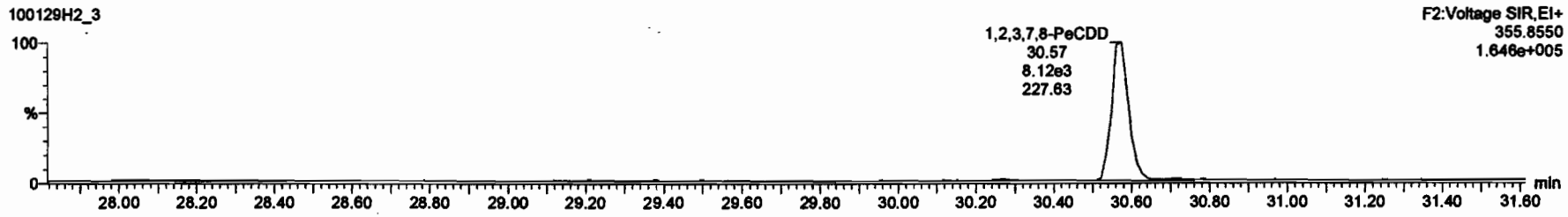

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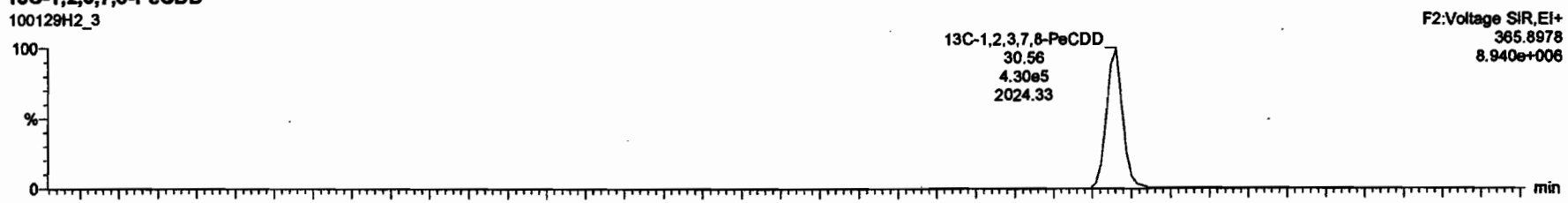

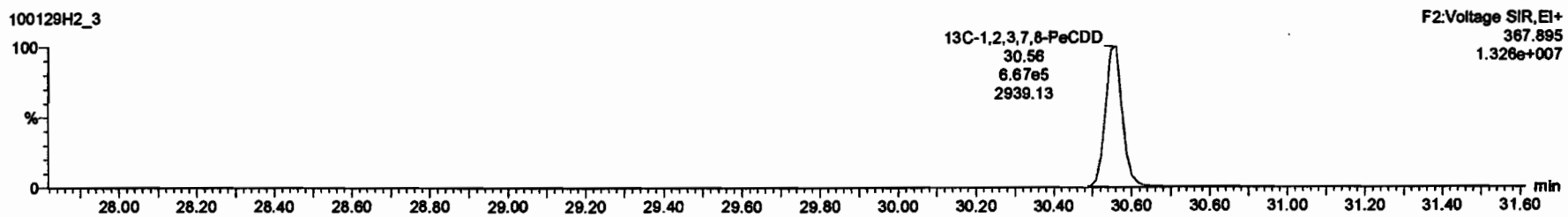

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Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

Name: 100129H2_3, Date: 30-Jan-2010, Time: 03:53:20, ID: ST100129H2-2 1613 CS0 100127C, Description: 1613 CS0 100127C

1,2,3,4,7,8-HxCDD

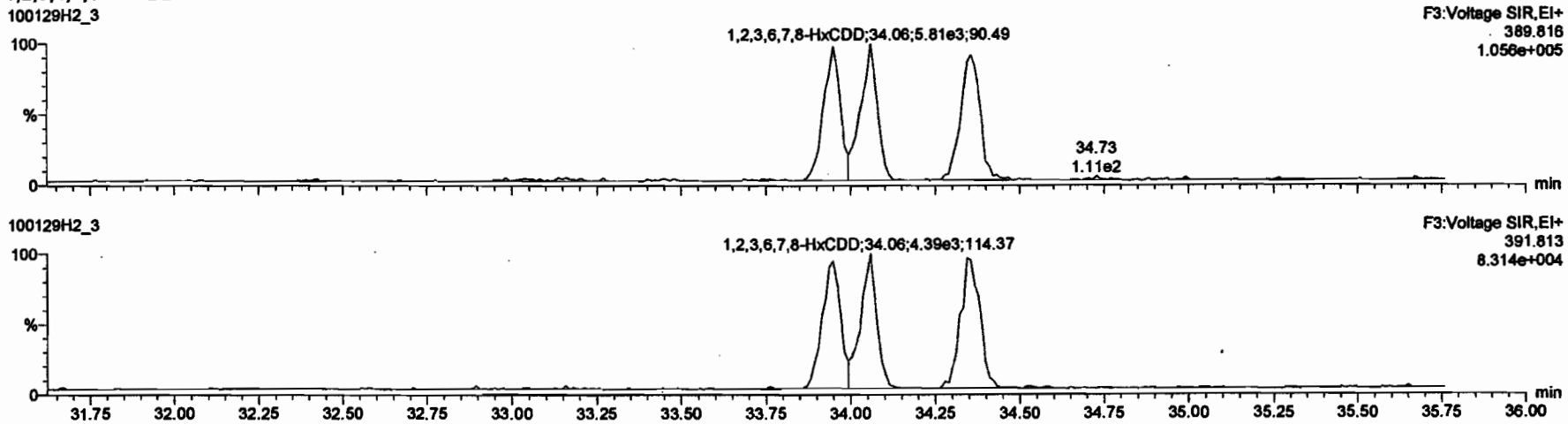

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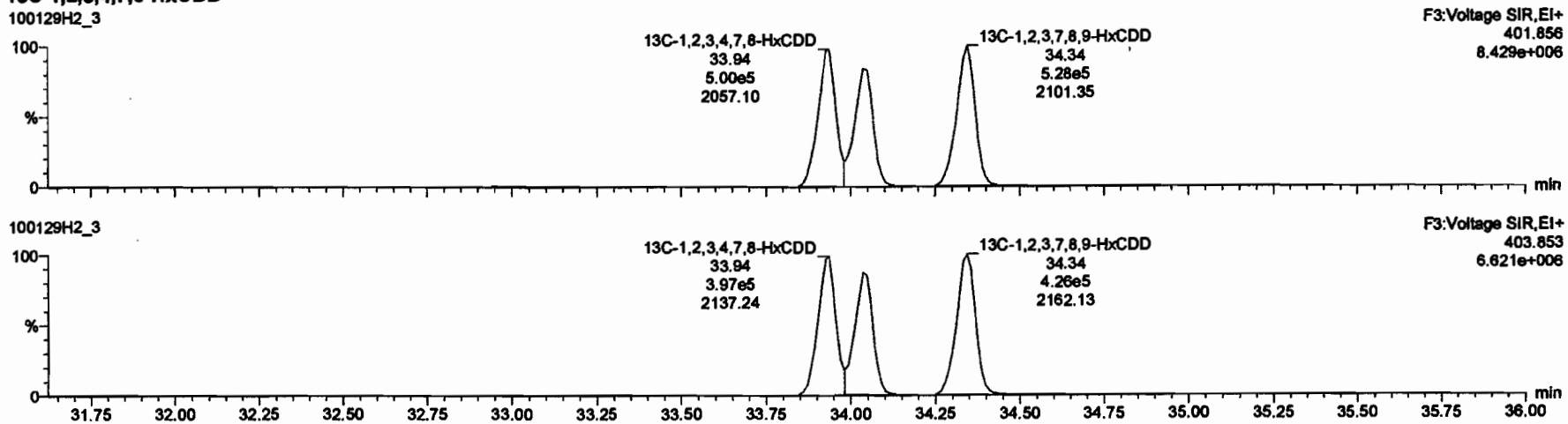

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1,2,3,4,6,7,8-HpCDD

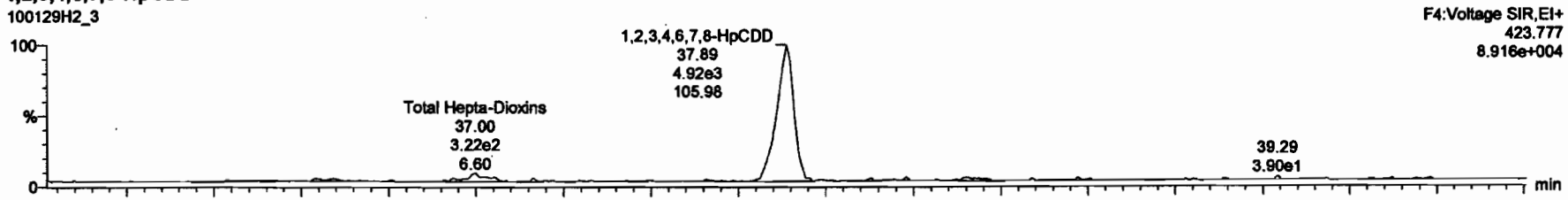

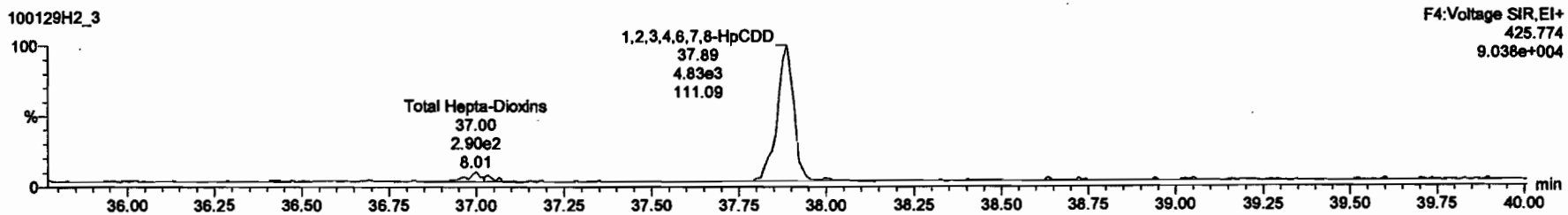

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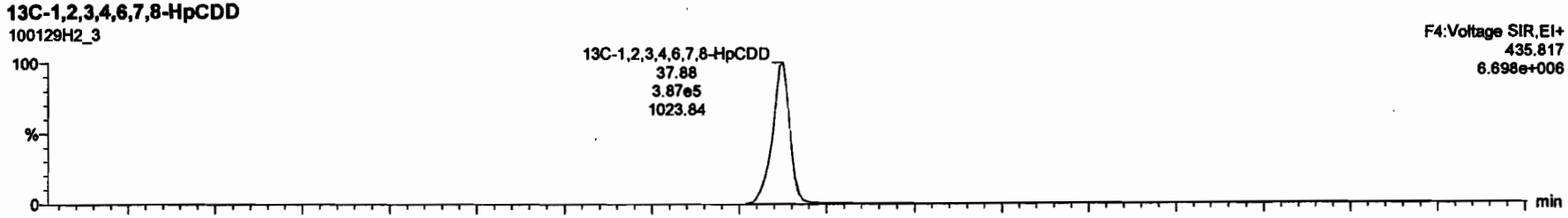

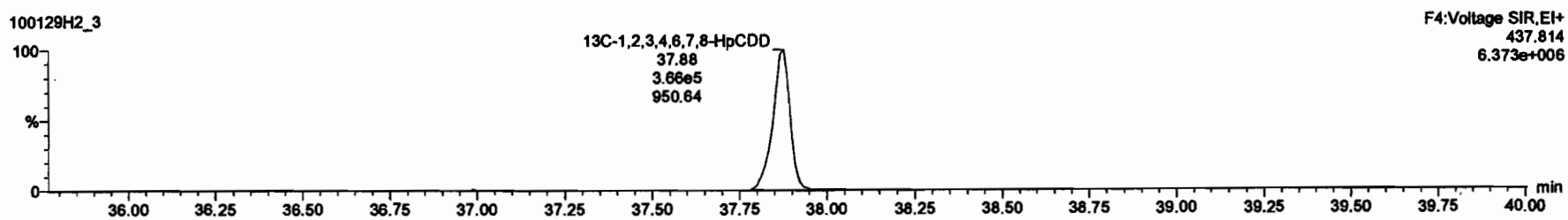

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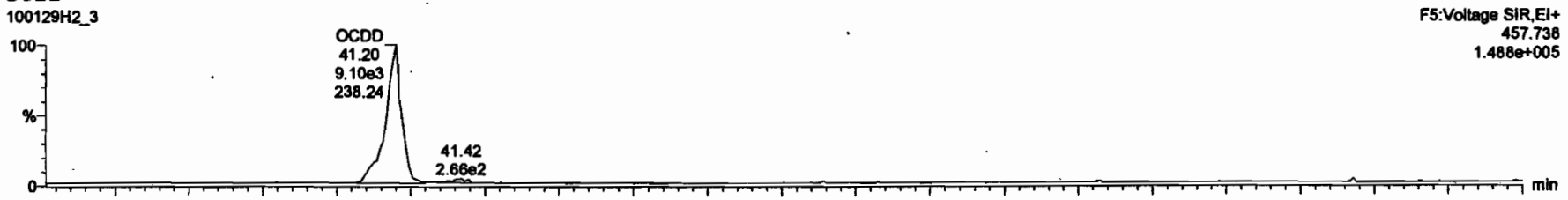

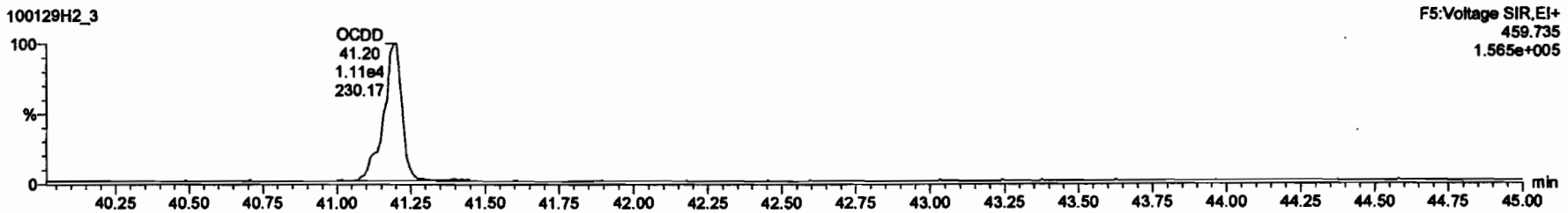

13C-OCDD

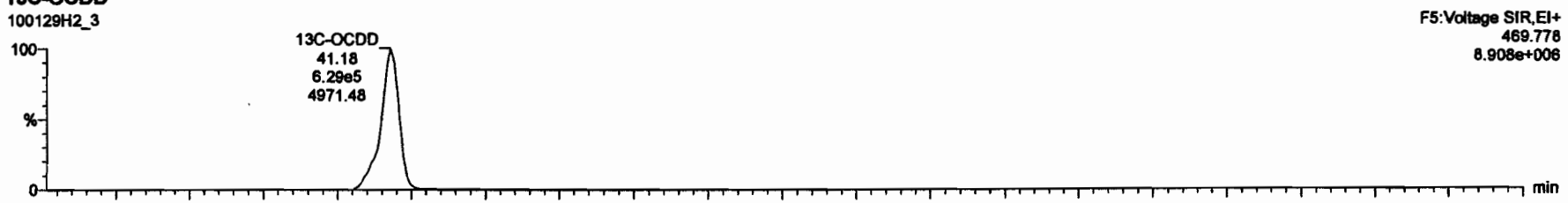

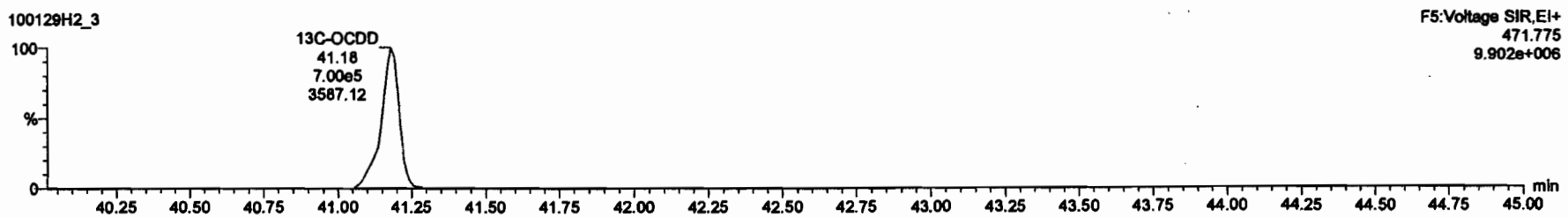

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2,3,7,8-TCDF

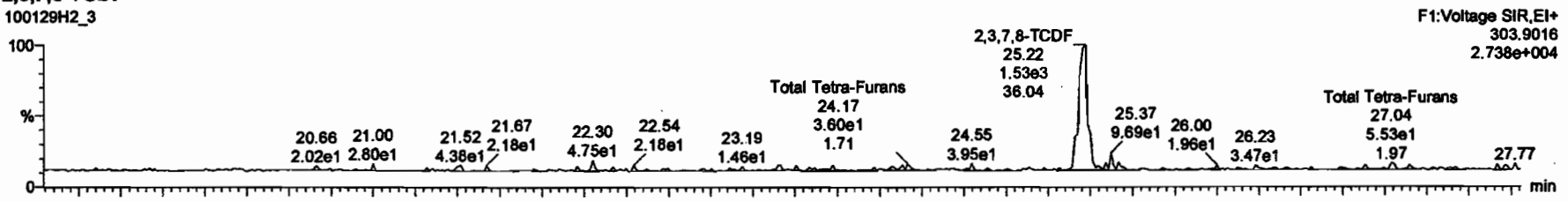

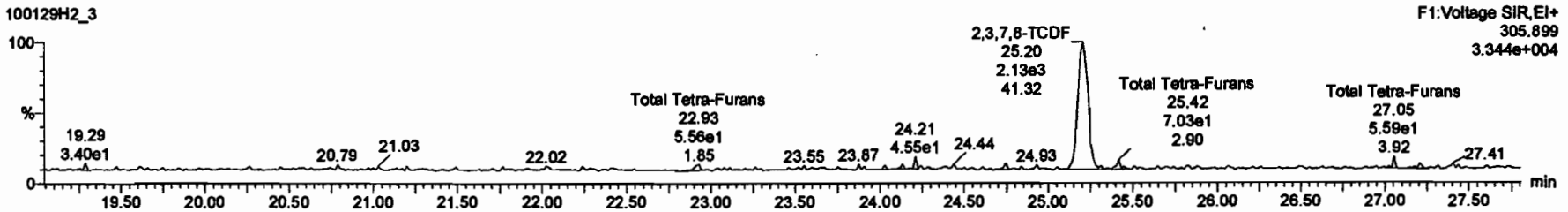

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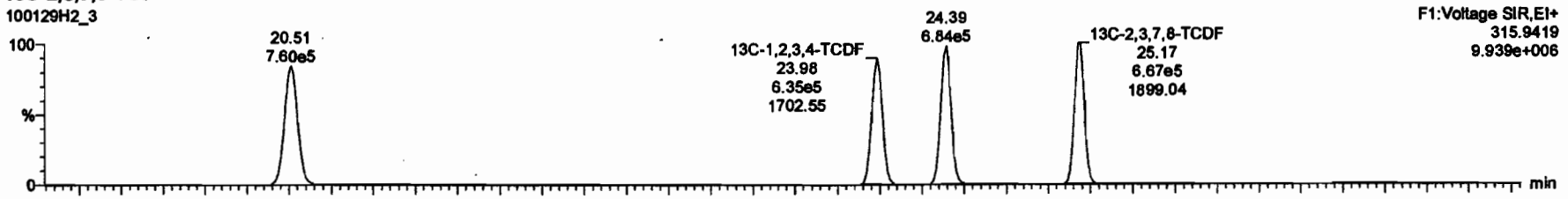

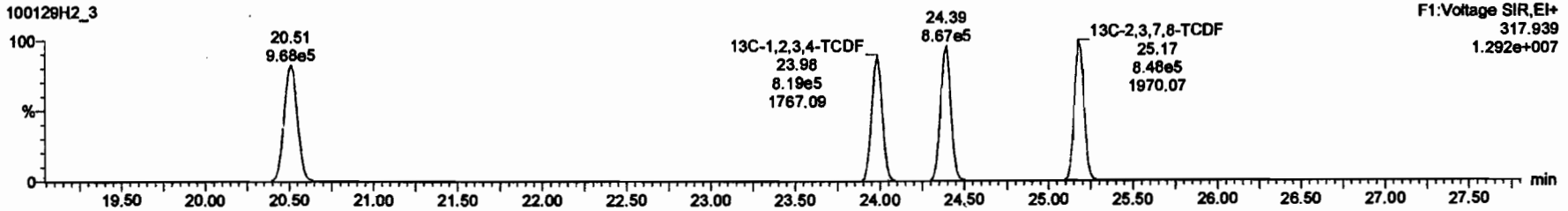

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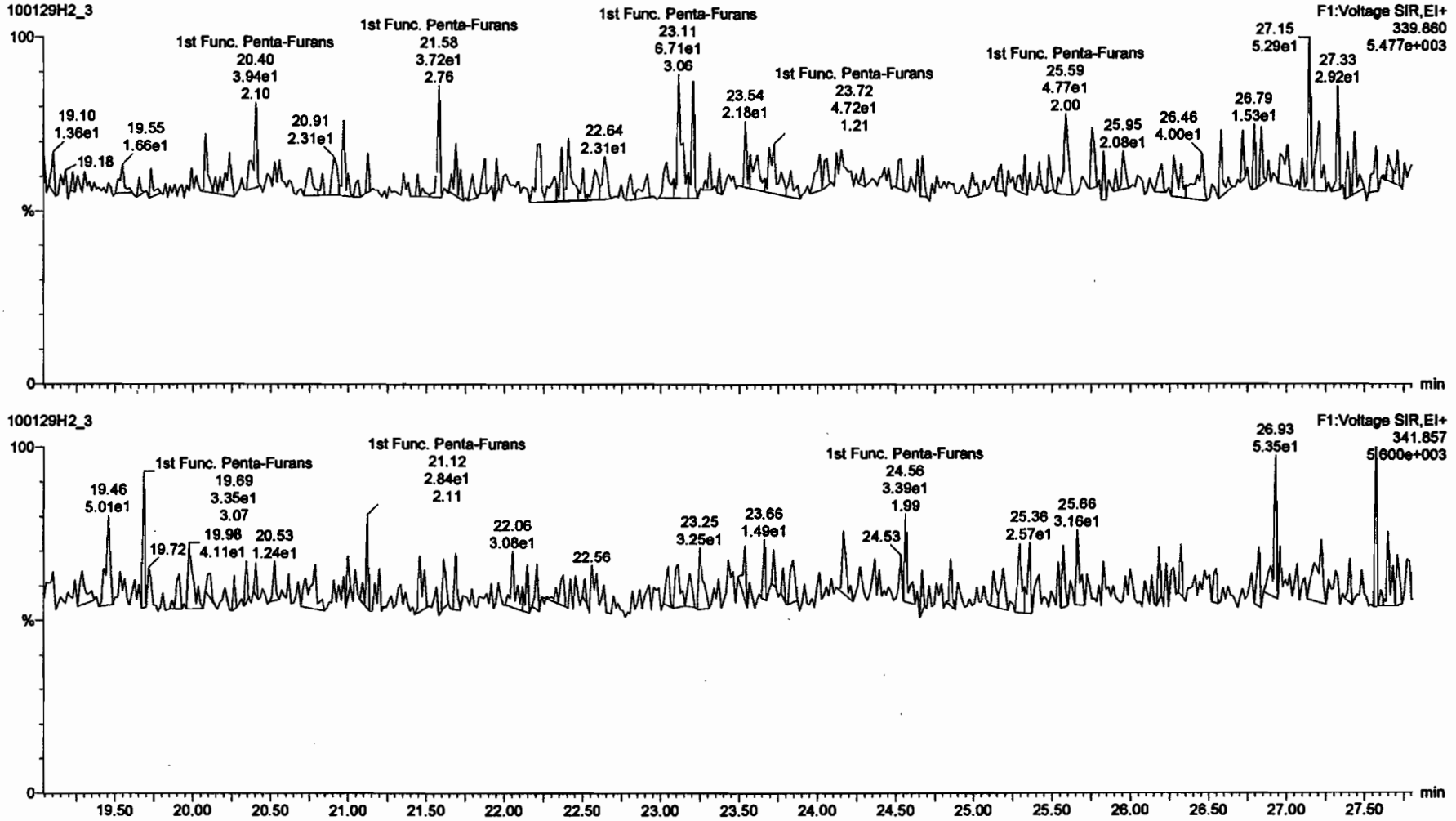

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1,2,3,7,8-PeCDF

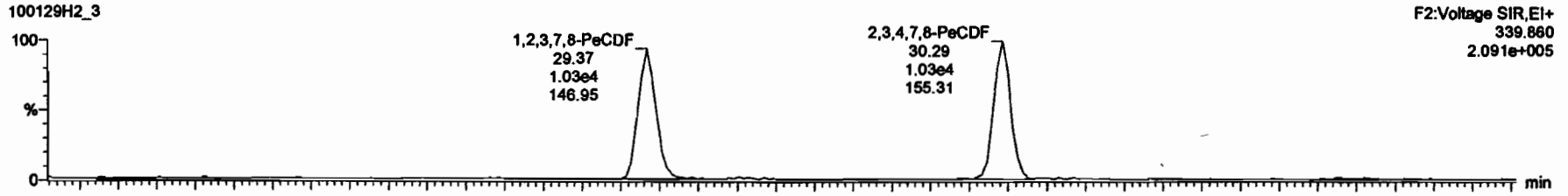

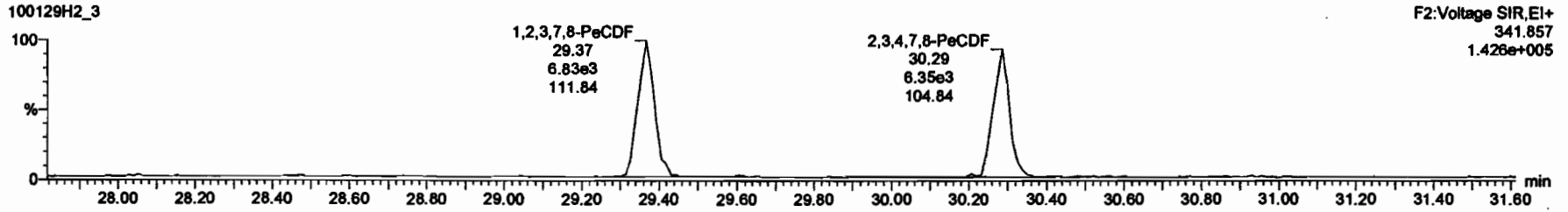

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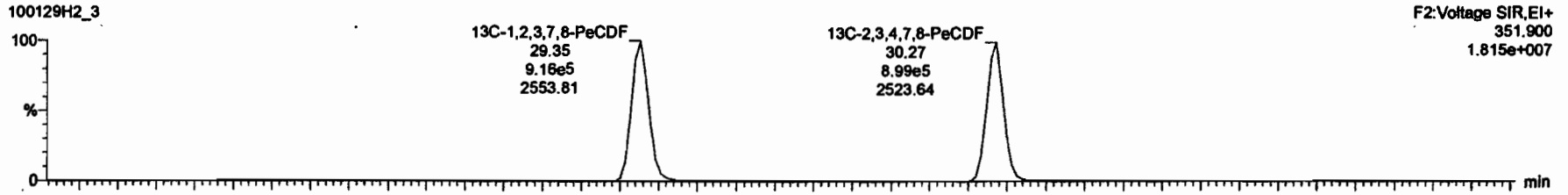

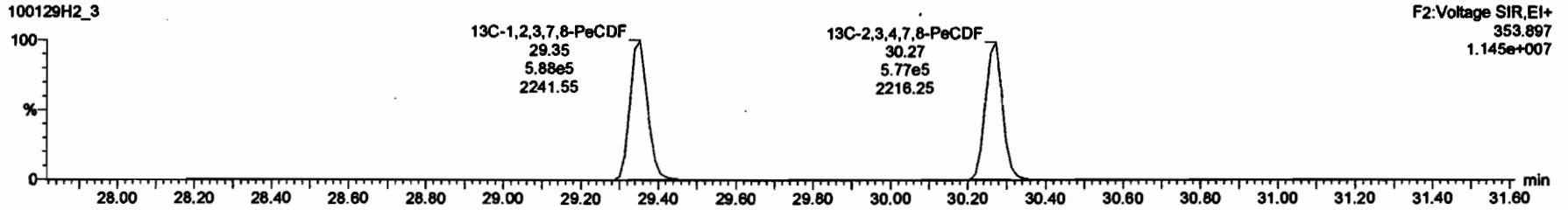

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1,2,3,4,7,8-HxCDF

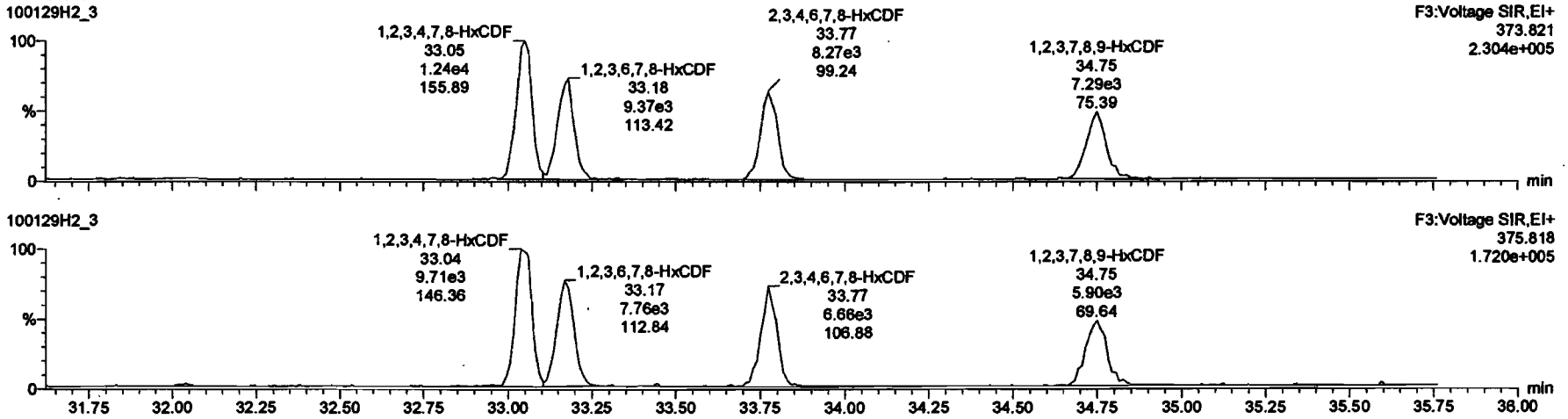

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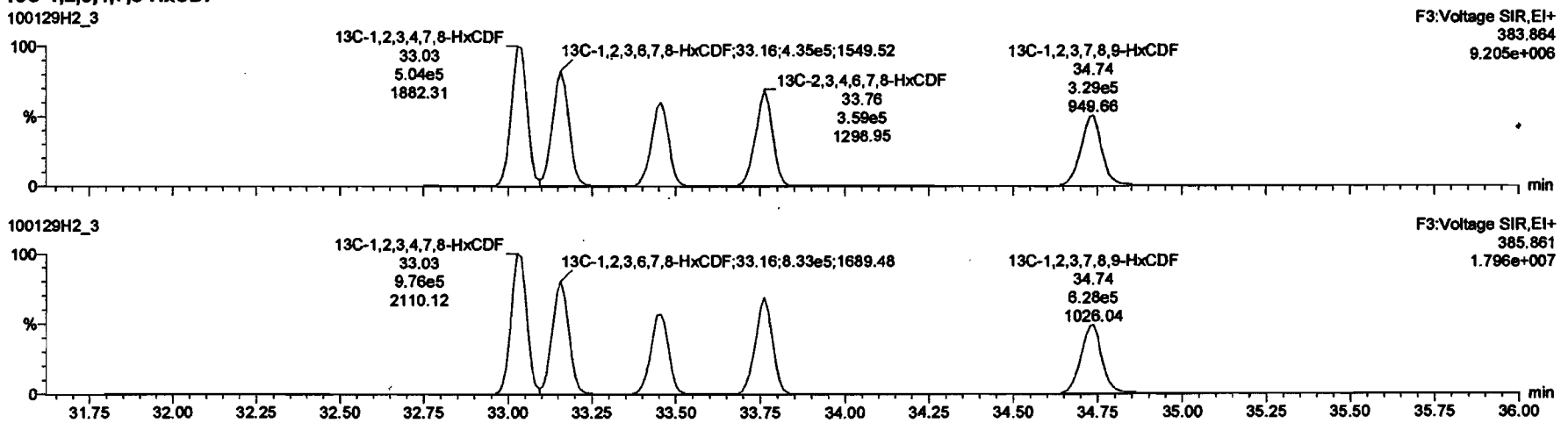

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1,2,3,4,6,7,8-HpCDF

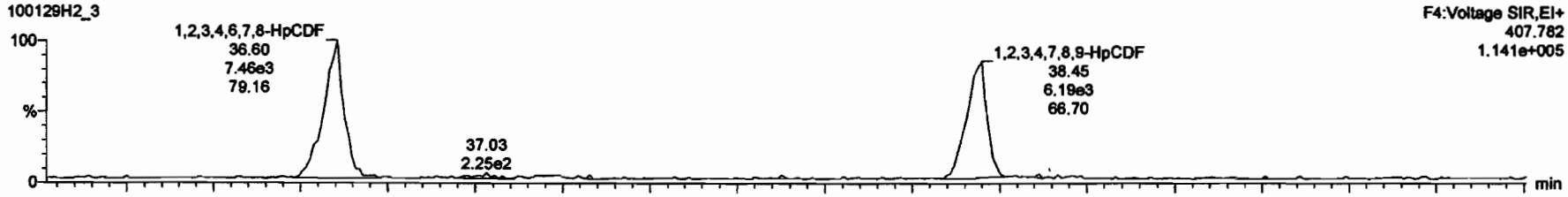

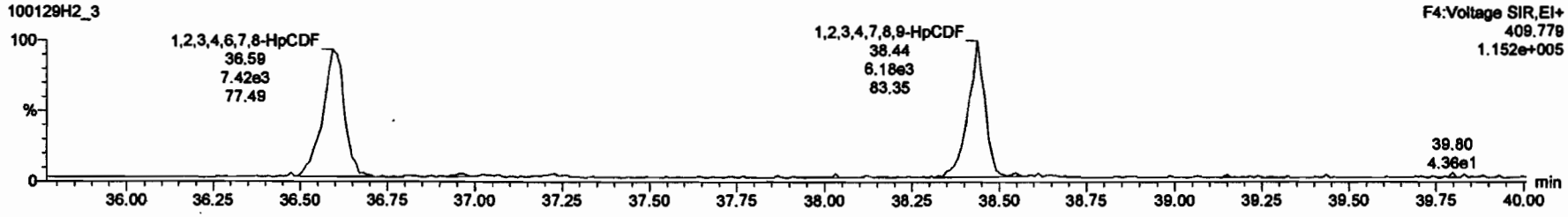

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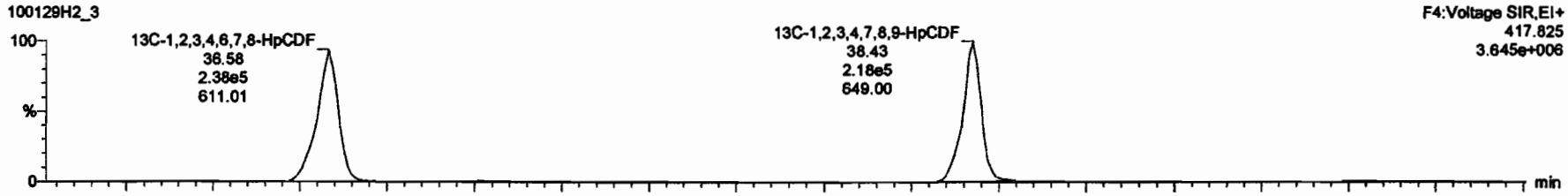

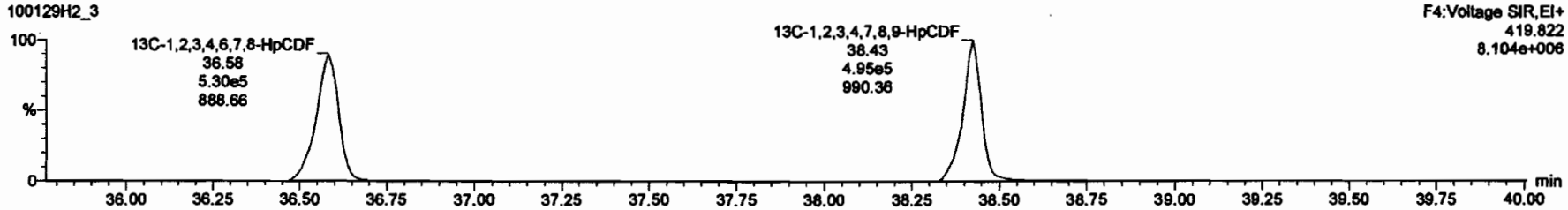

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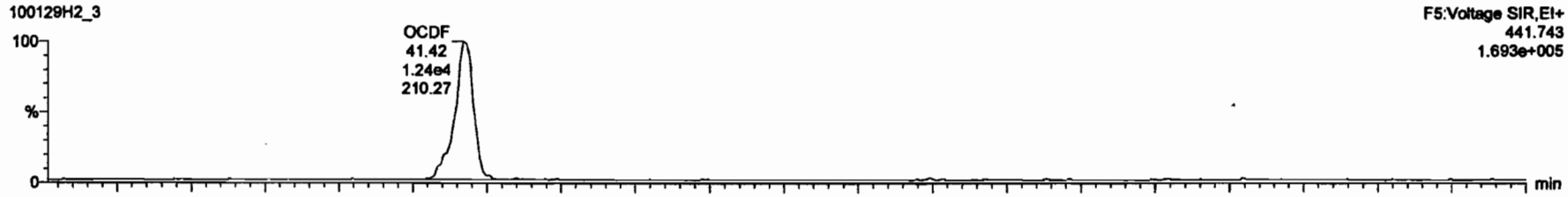

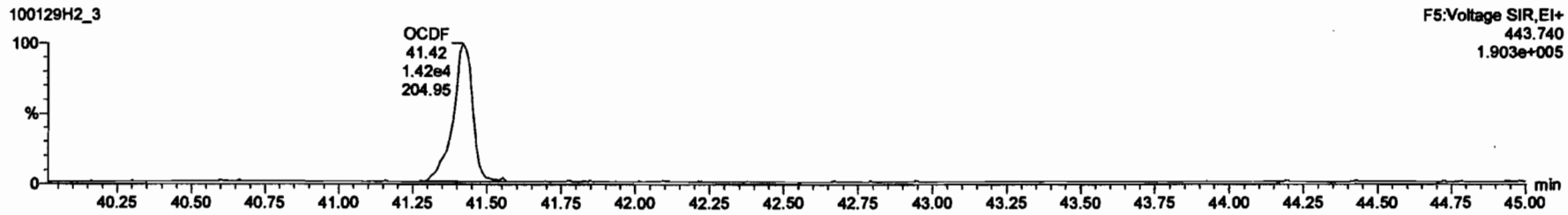

13C-OCDF

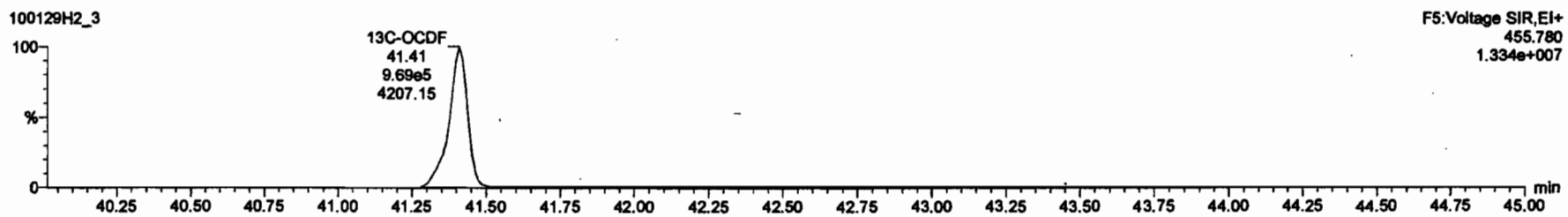

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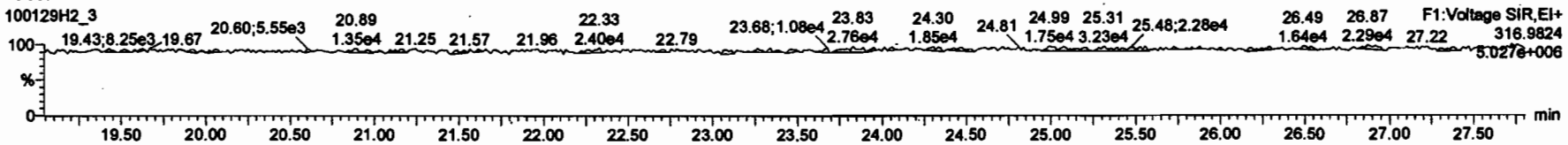

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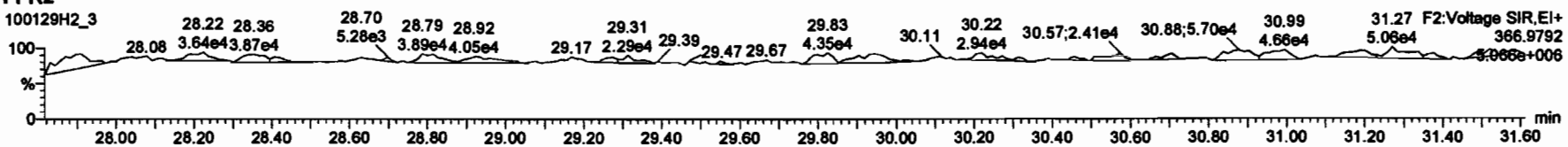

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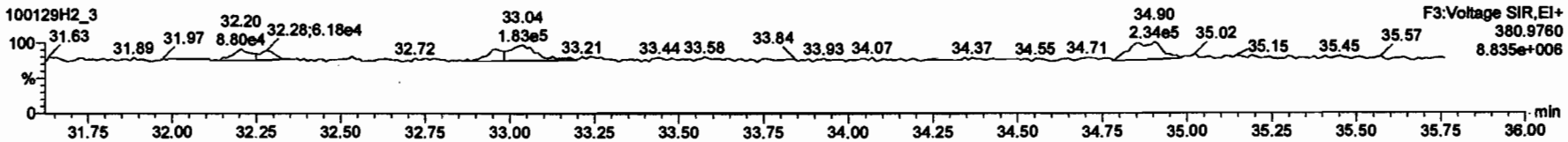

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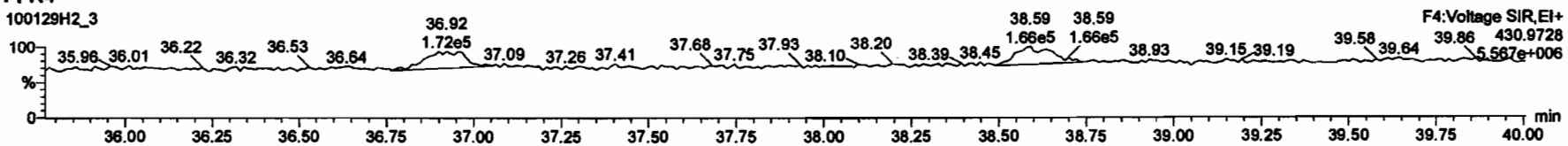

PFK5

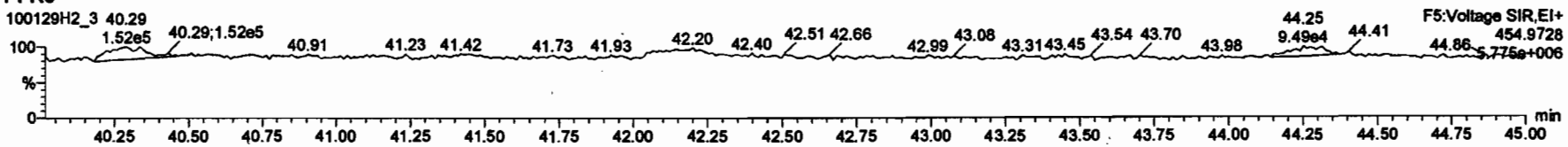

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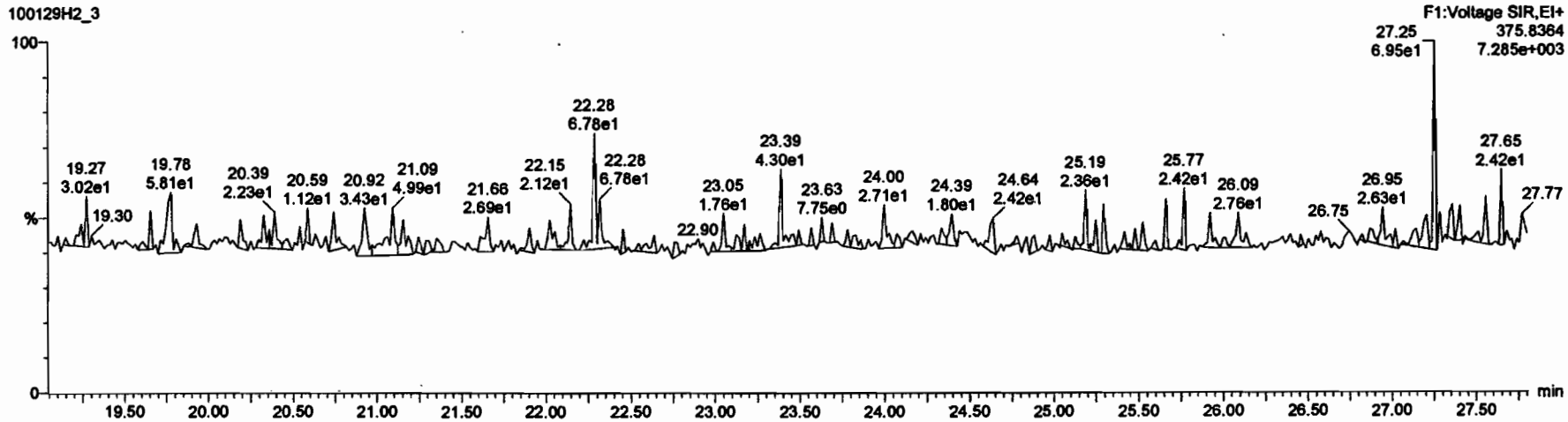

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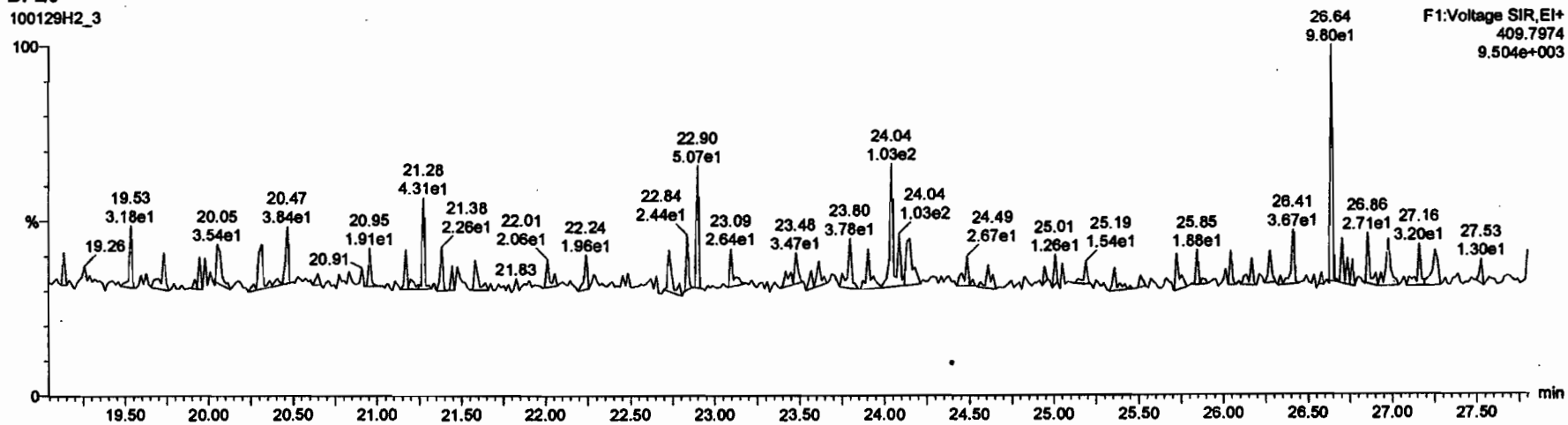

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DPE2

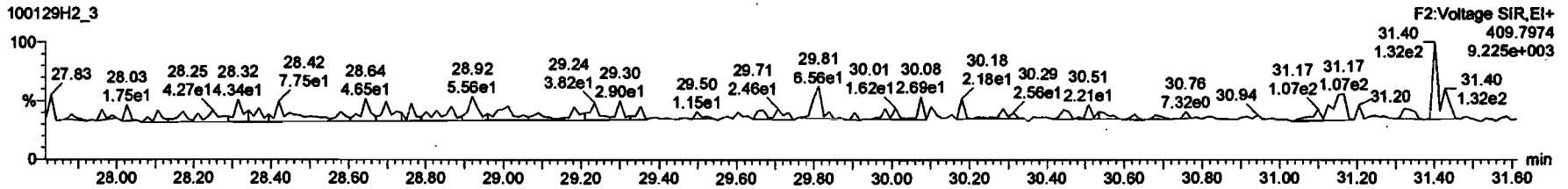

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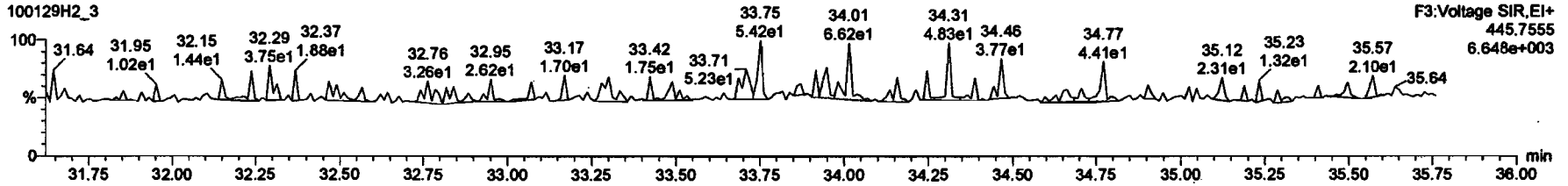

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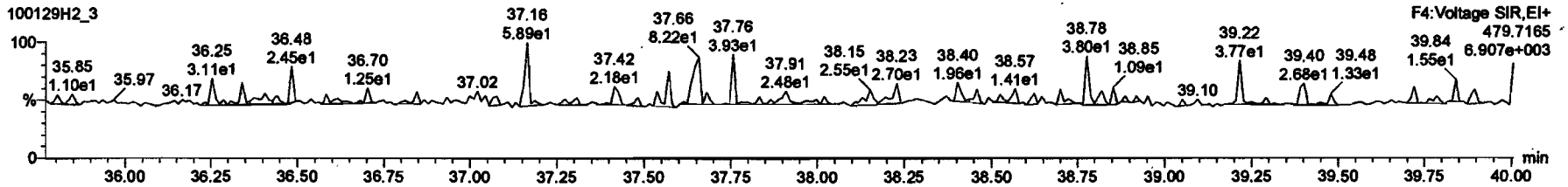

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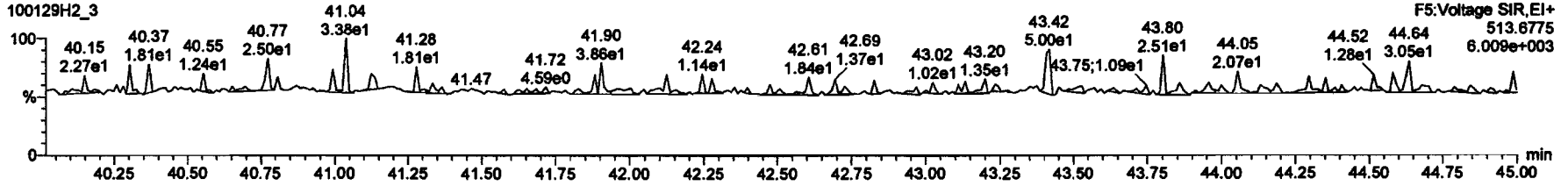

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Name: 100129H2_4, Date: 30-Jan-2010, Time: 04:42:54, ID: ST100129H2-3 1613 CS1 100127D, Description: 1613 CS1 100127D

2,3,7,8-TCDD

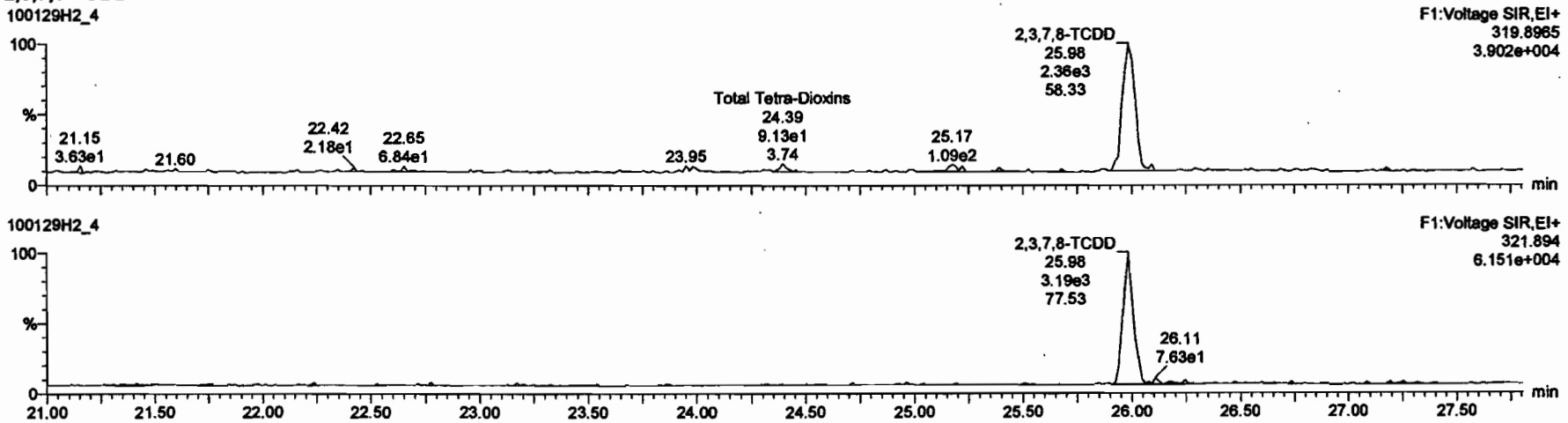

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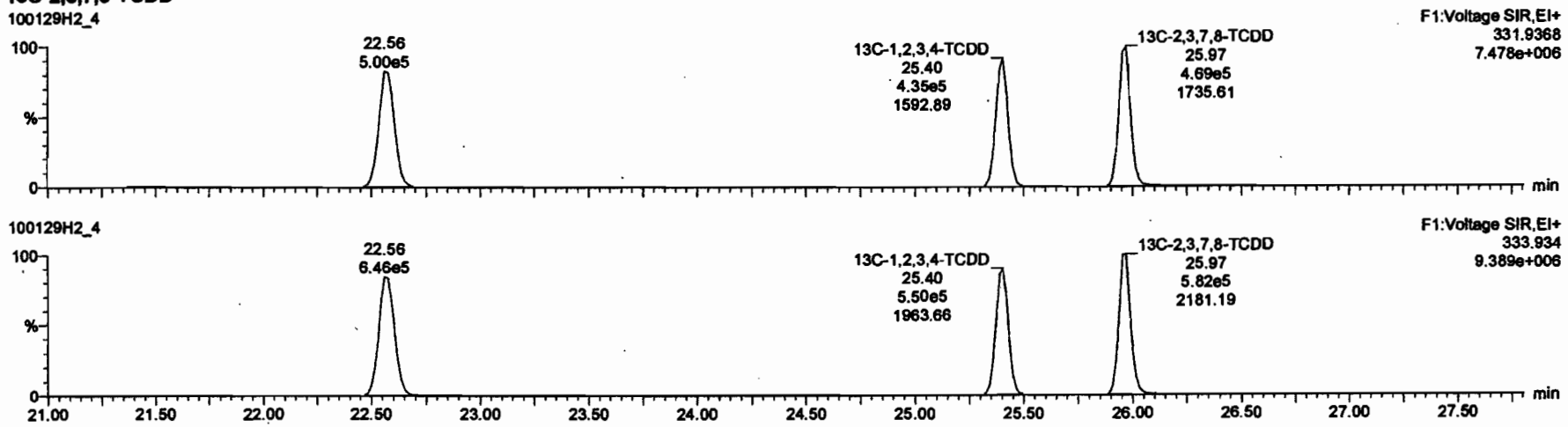

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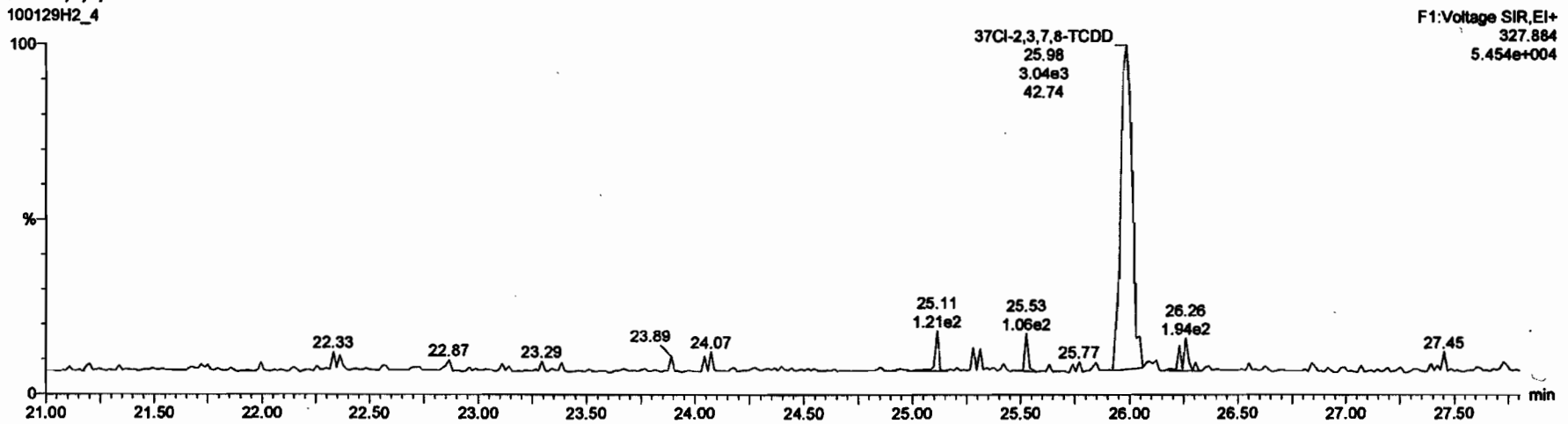

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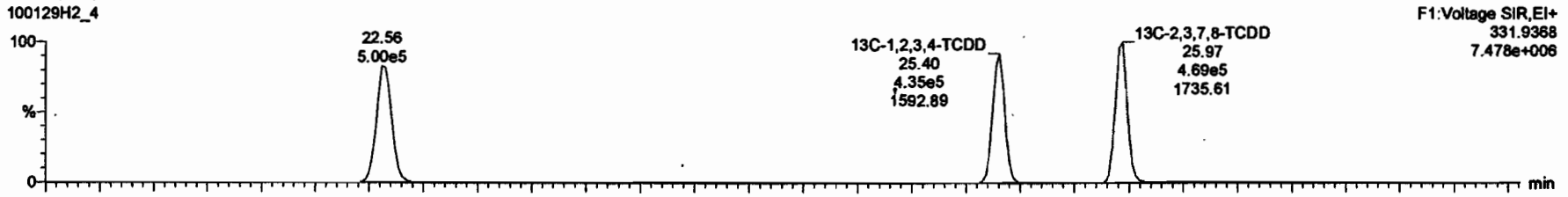

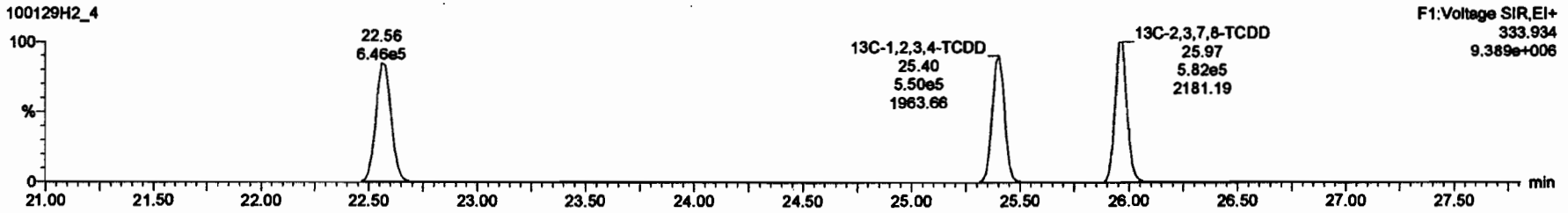

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1,2,3,7,8-PeCDD

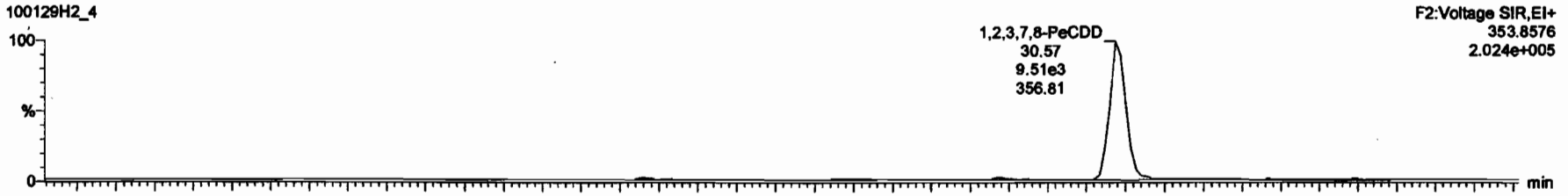

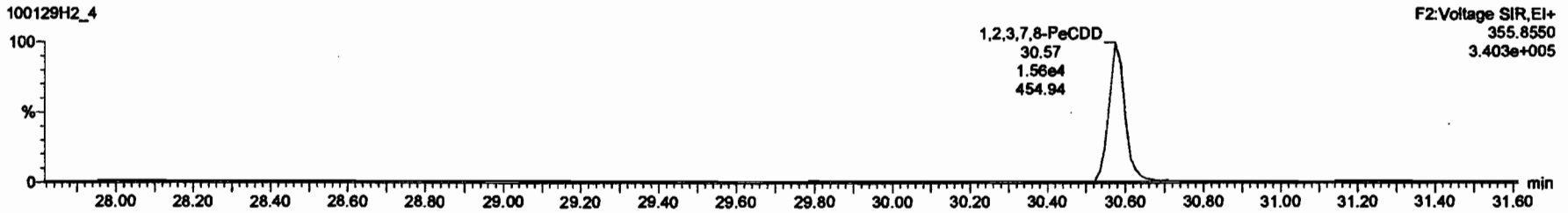

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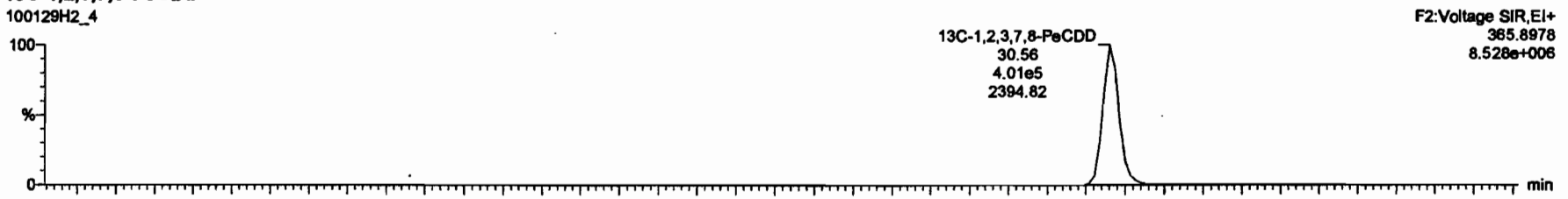

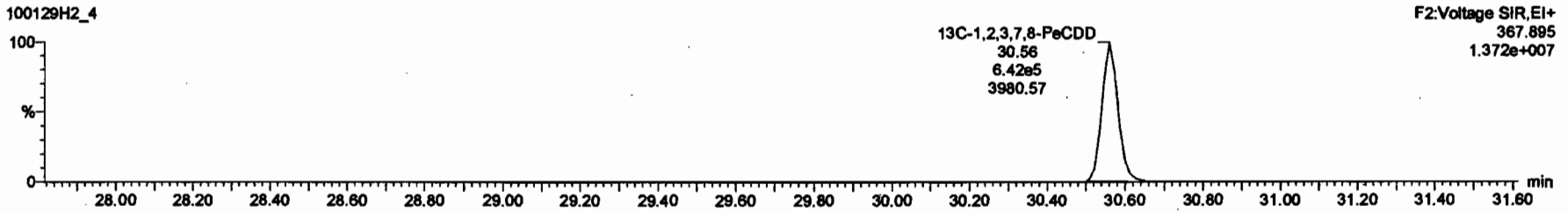

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1,2,3,4,7,8-HxCDD

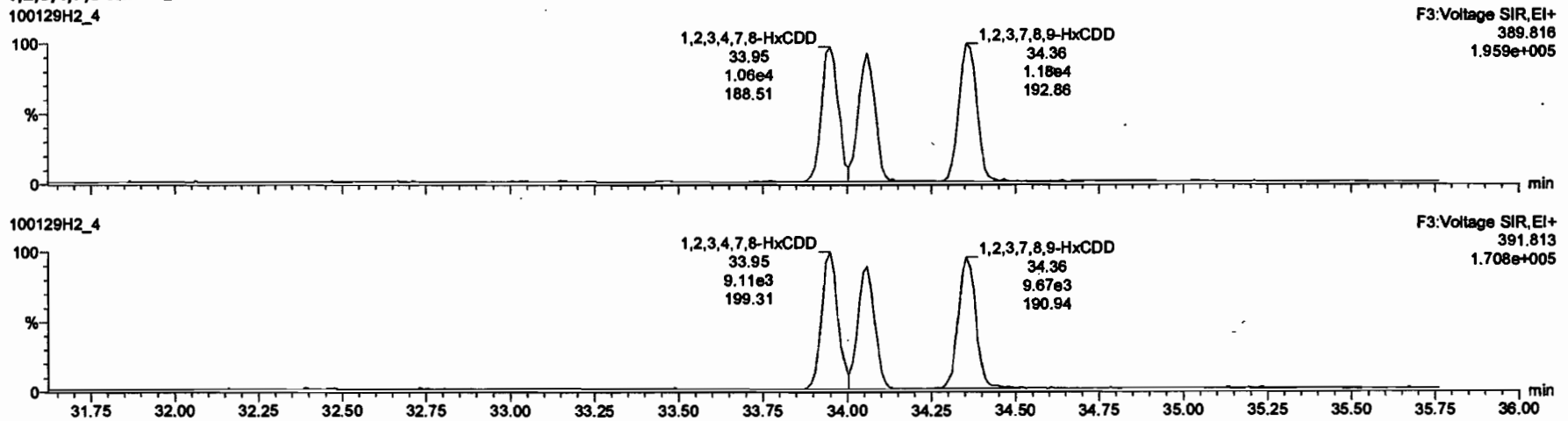

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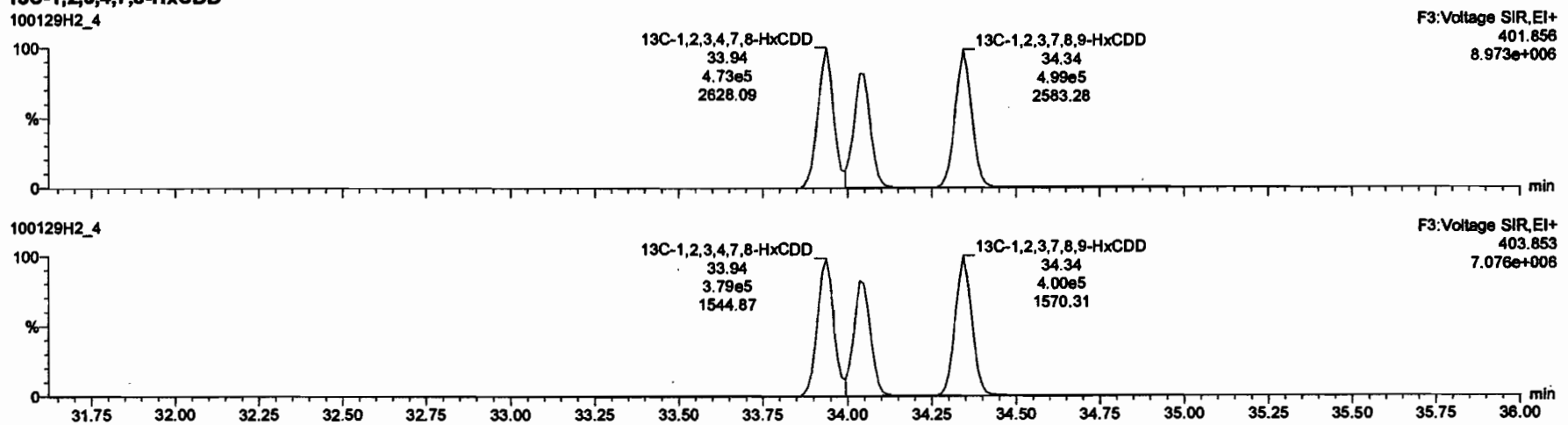

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1,2,3,4,6,7,8-HpCDD

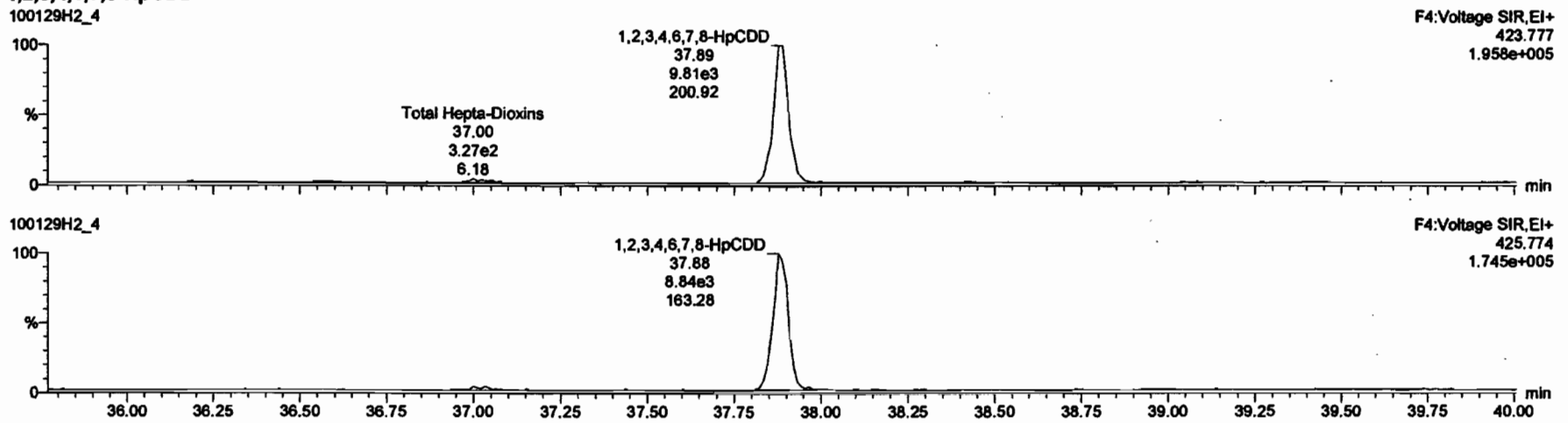

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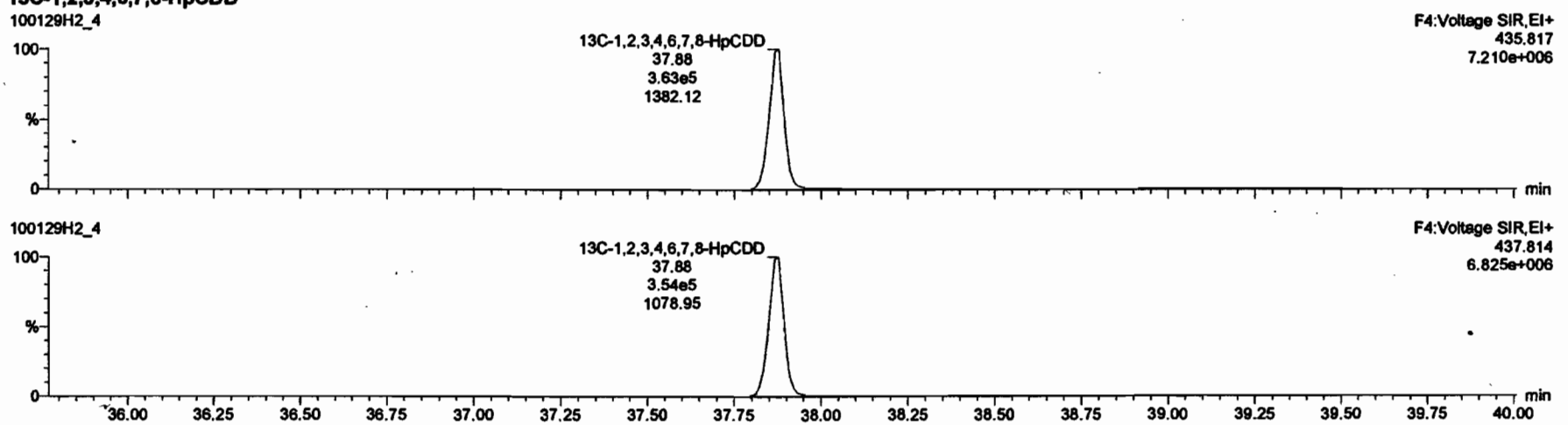

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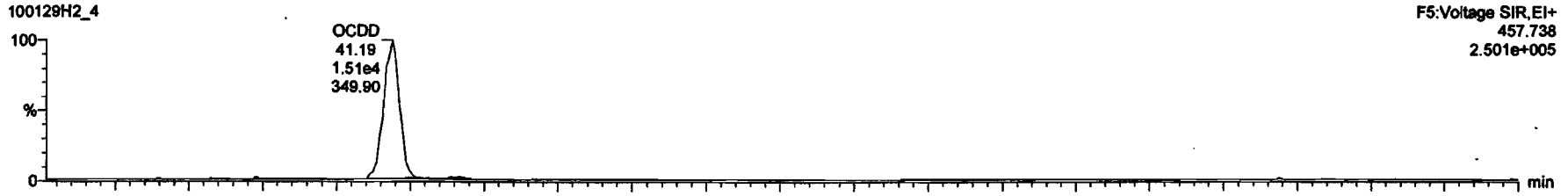

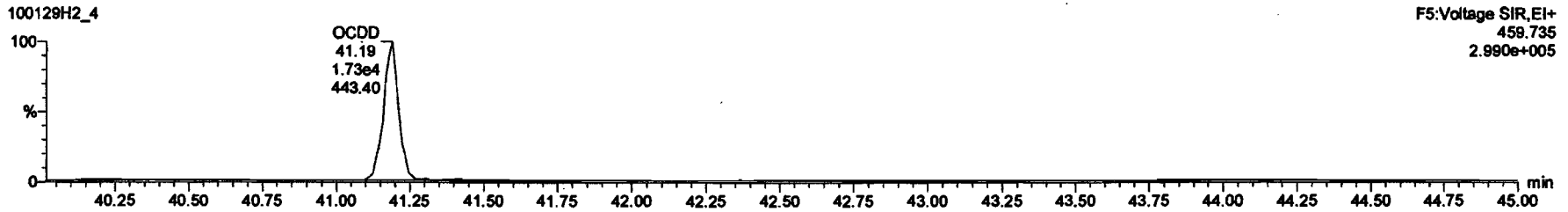

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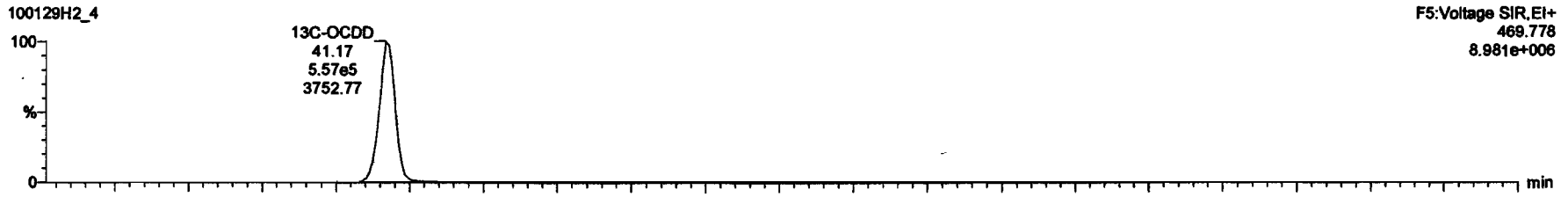

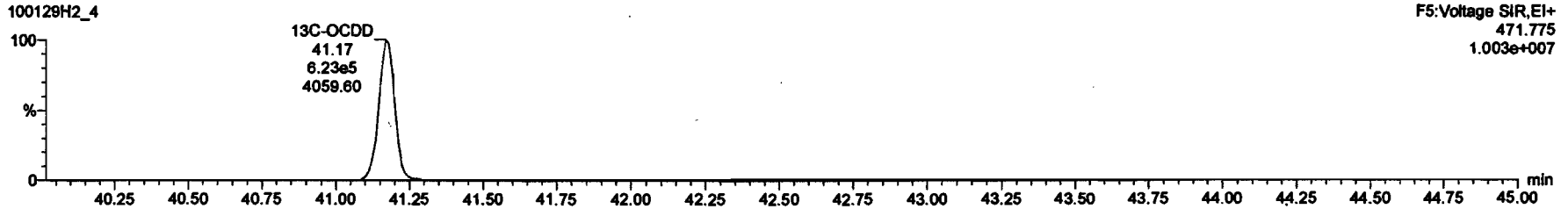

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2,3,7,8-TCDF

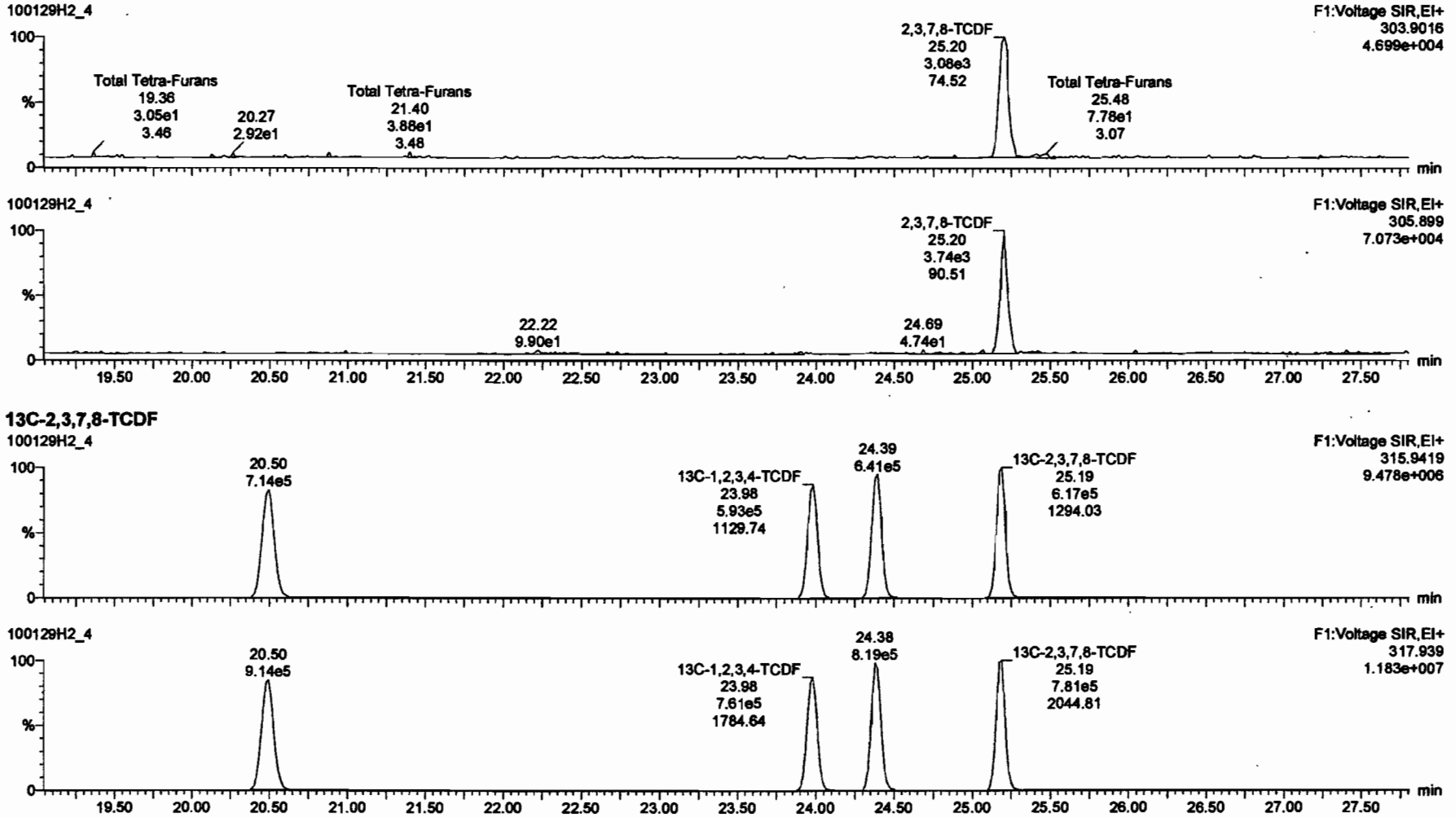

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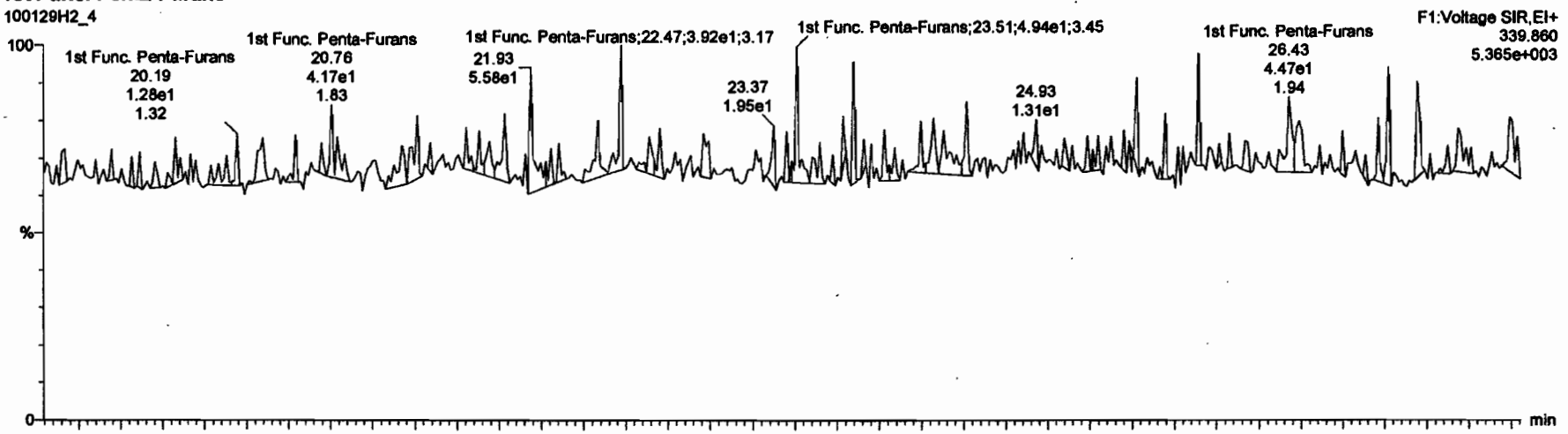

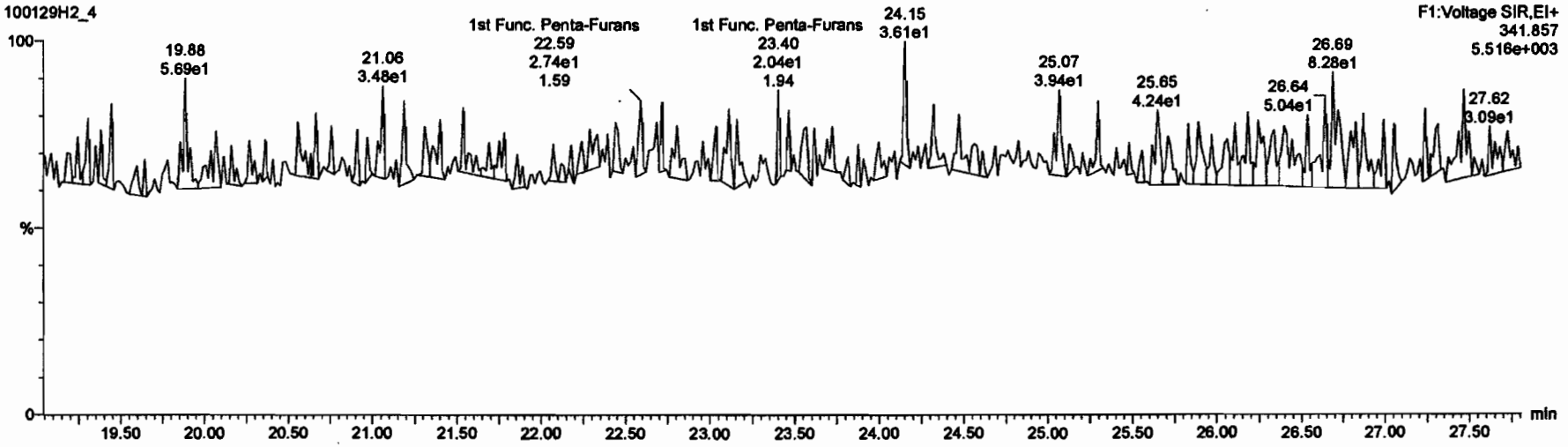

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1,2,3,7,8-PeCDF

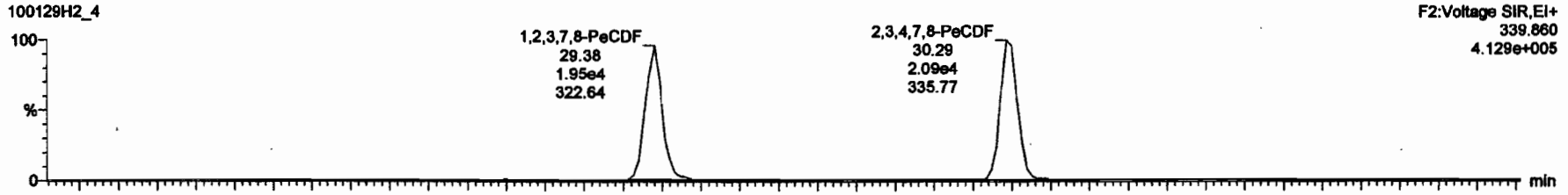

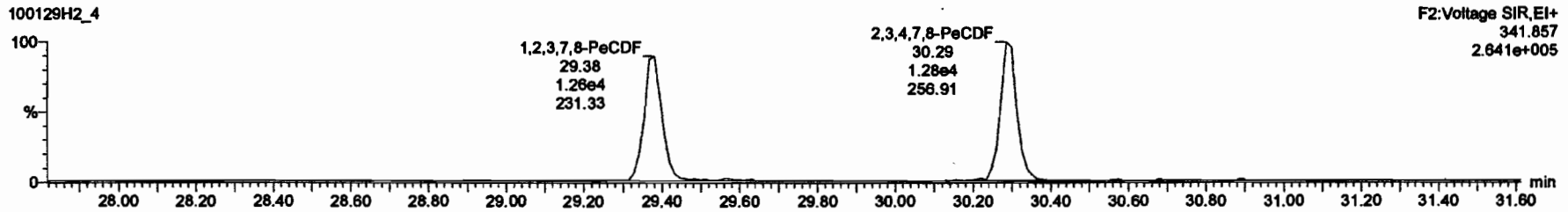

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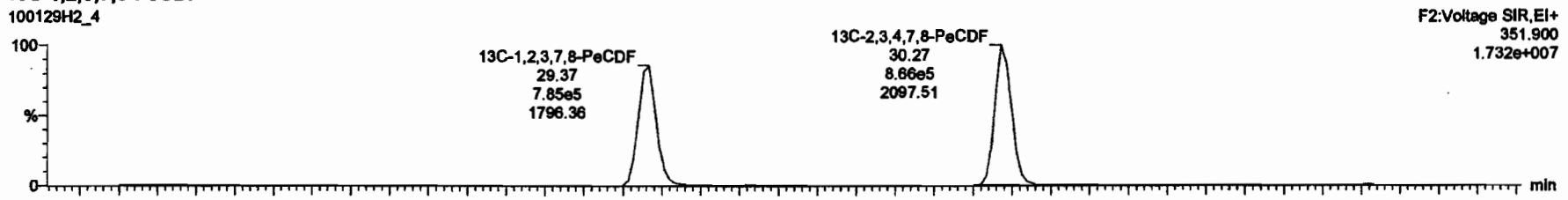

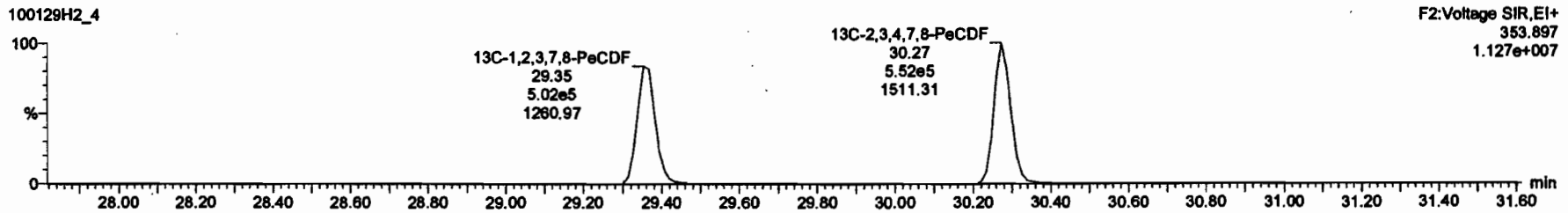

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1,2,3,4,7,8-HxCDF

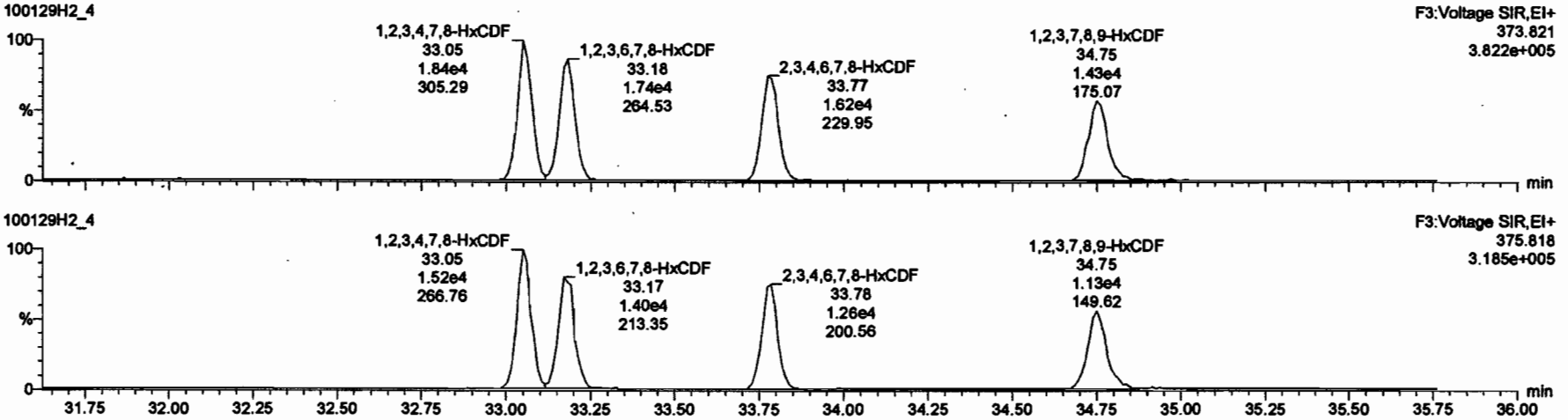

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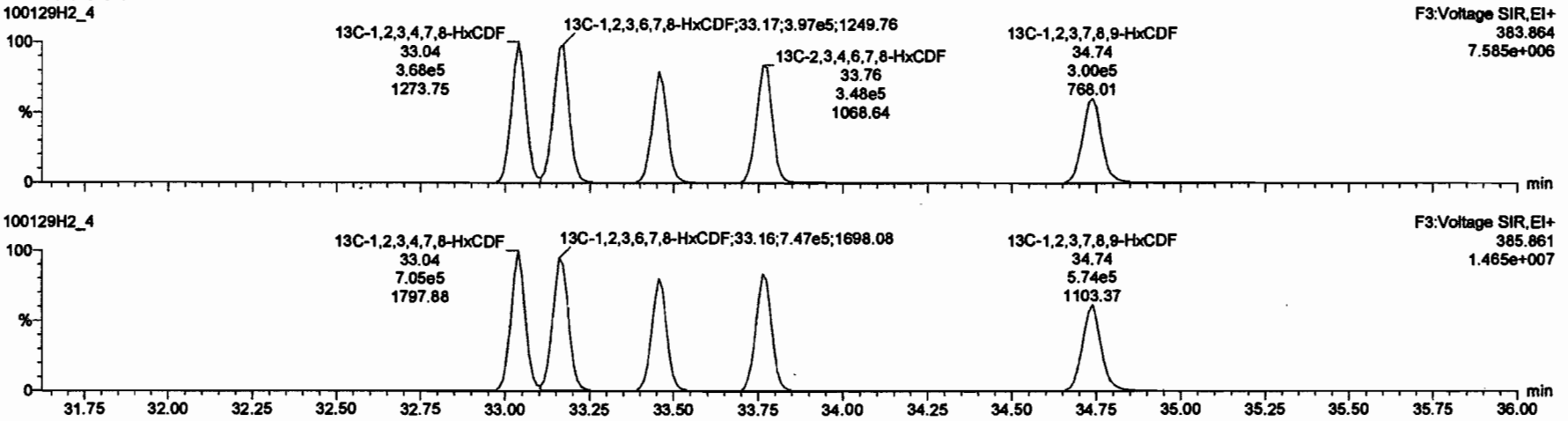

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1,2,3,4,6,7,8-HpCDF

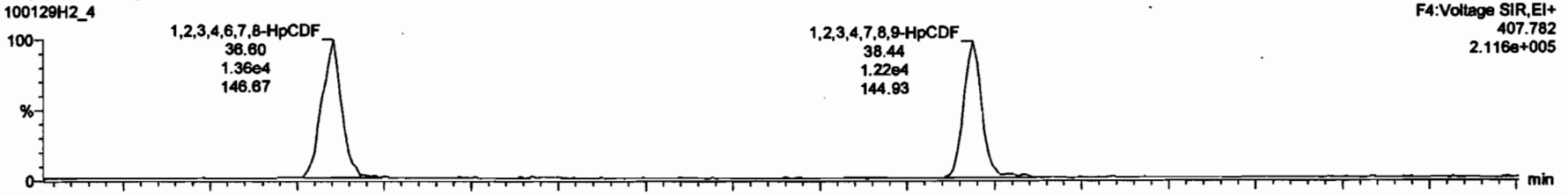

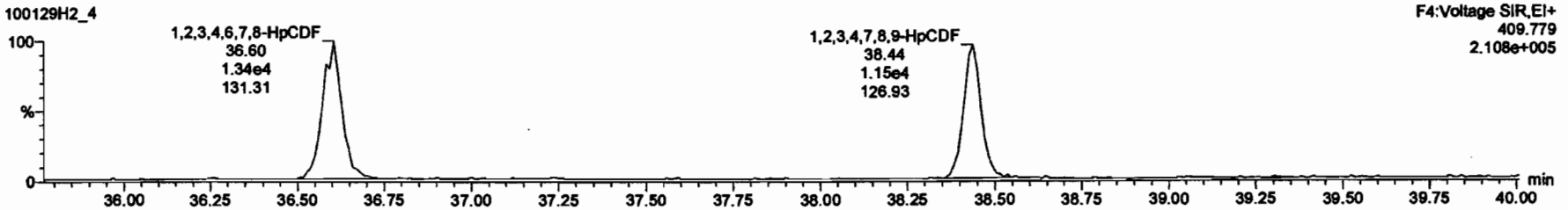

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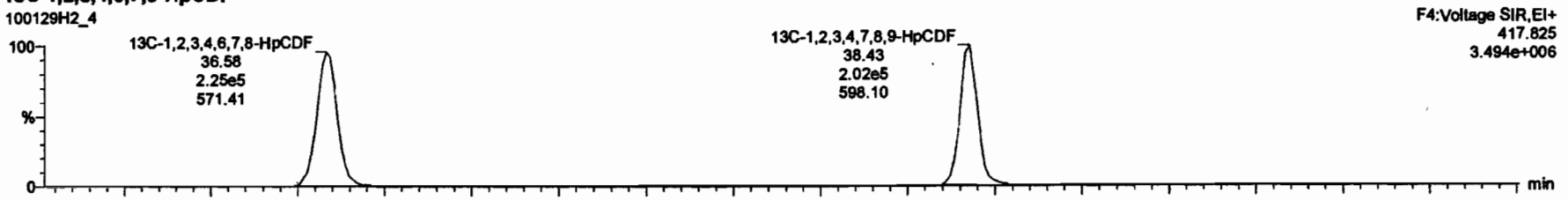

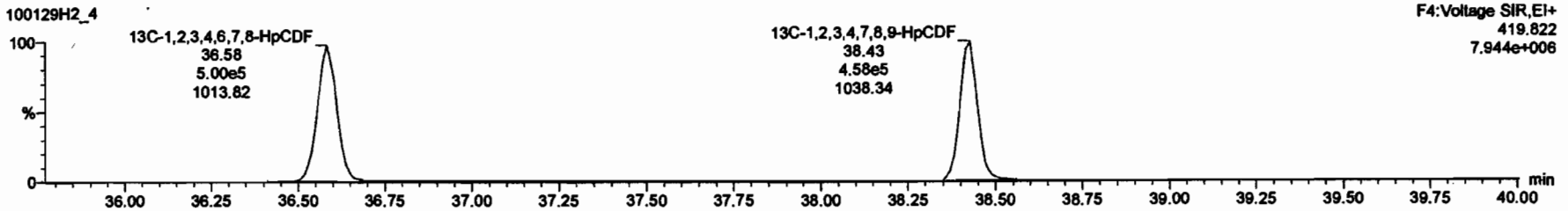

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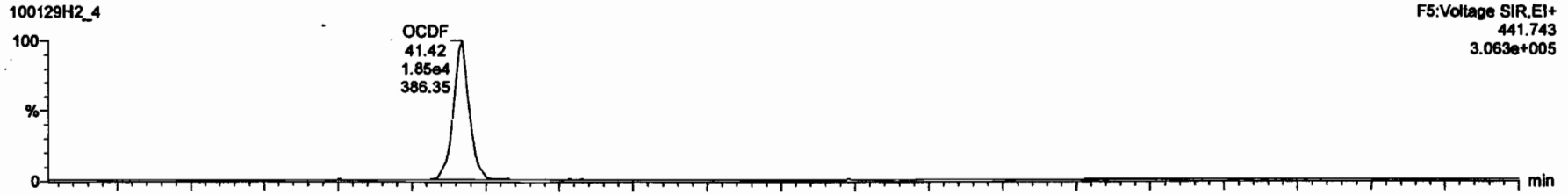

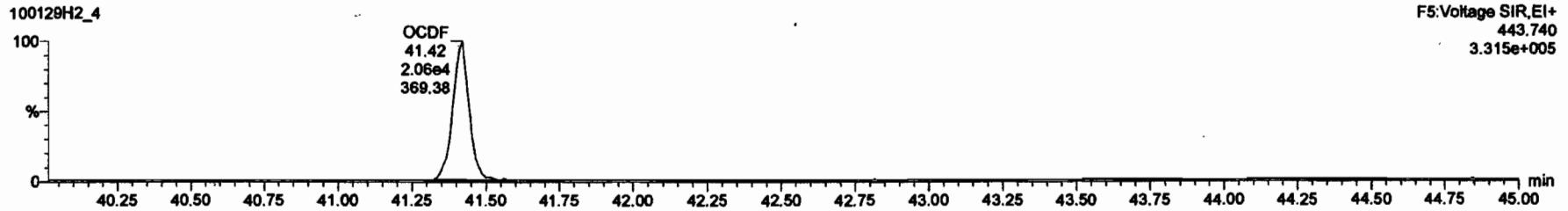

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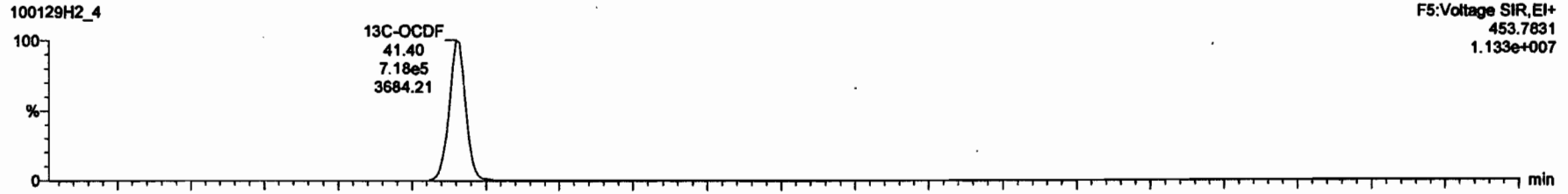

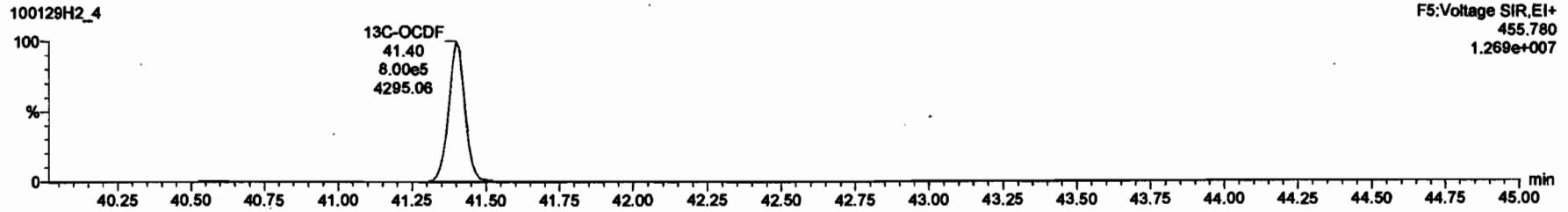

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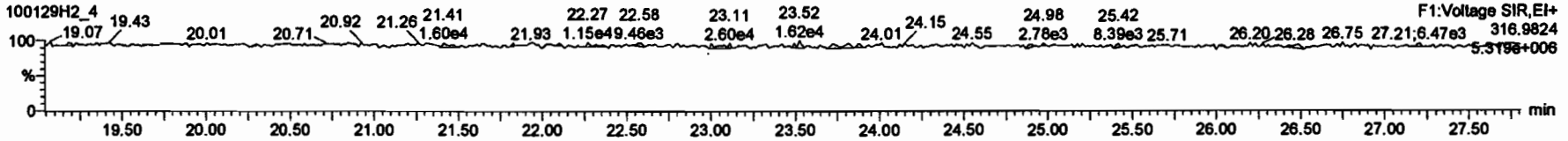

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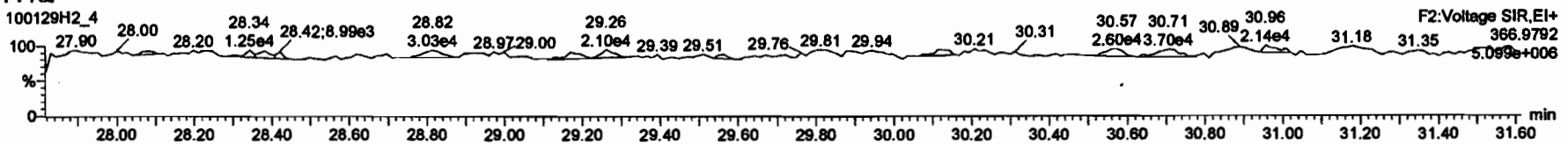

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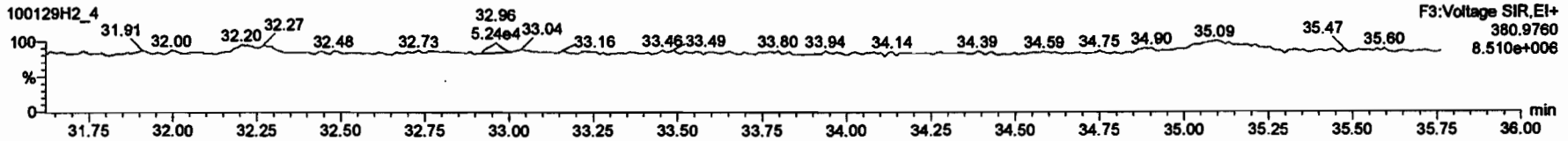

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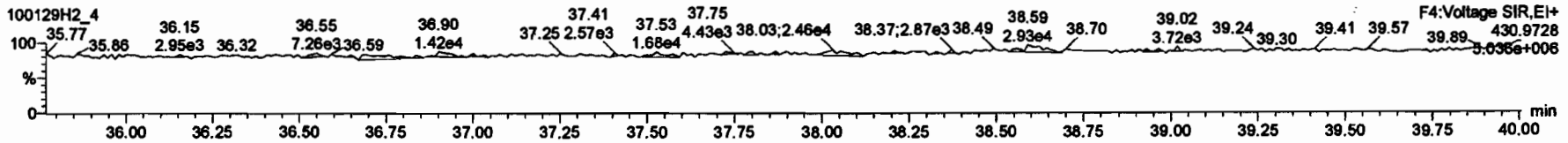

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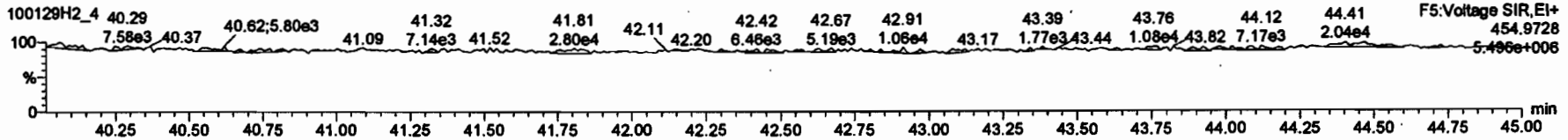

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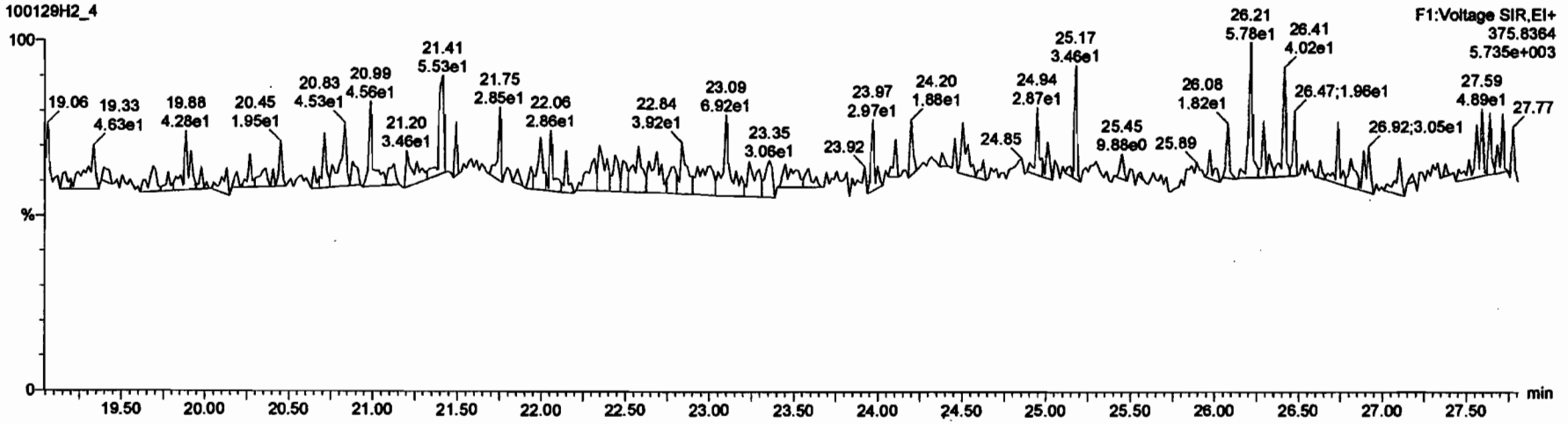

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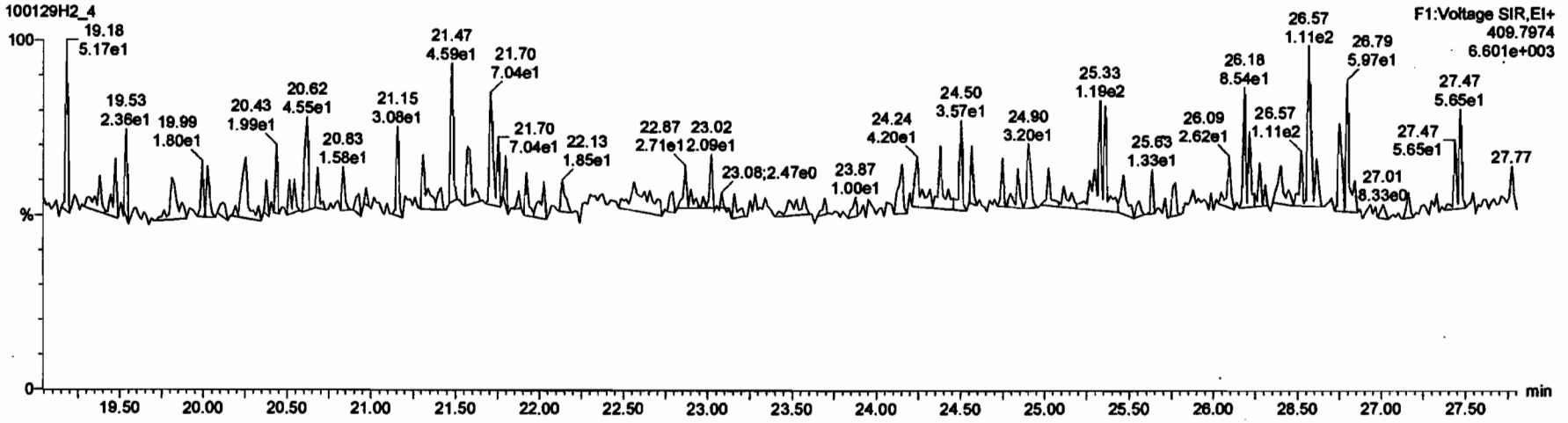

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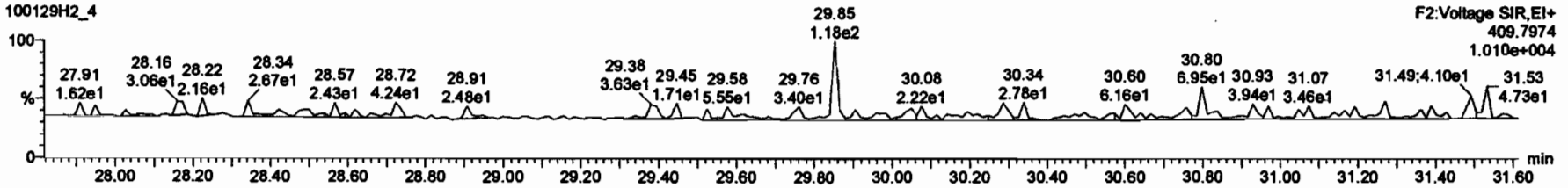

DPE3

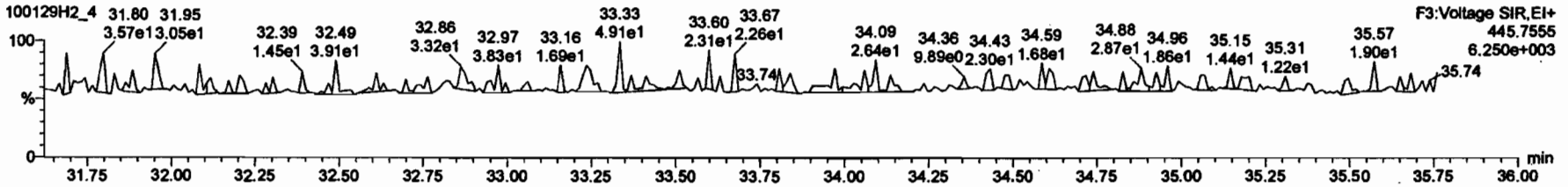

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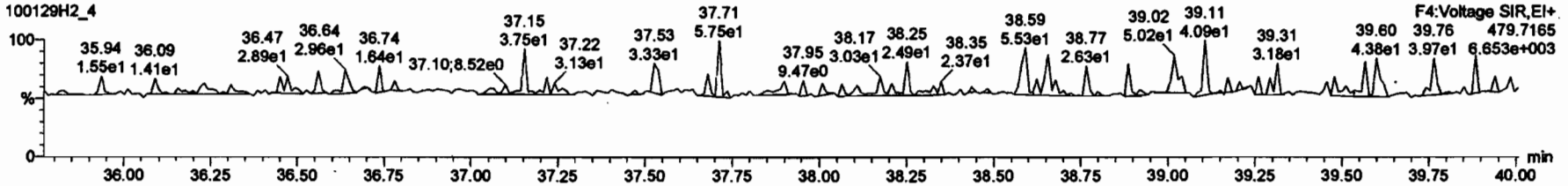

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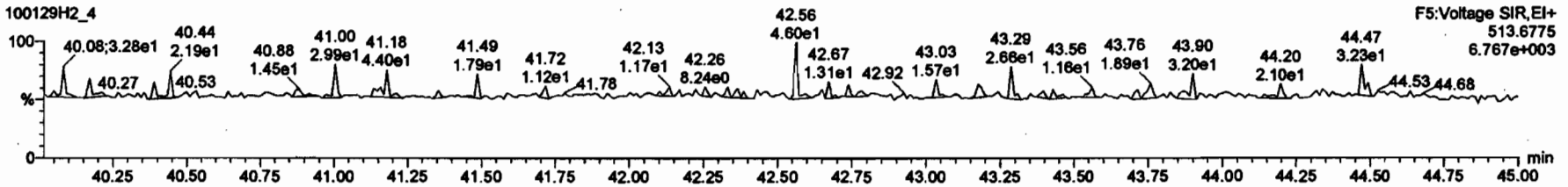

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Last Altered: Monday, February 01, 2010 13:32:31 Pacific Standard Time
Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

Name: 100129H2_5, Date: 30-Jan-2010, Time: 05:32:29, ID: ST100129H2-4 1613 CS2 100127E, Description: 1613 CS2 100127E

2,3,7,8-TCDD

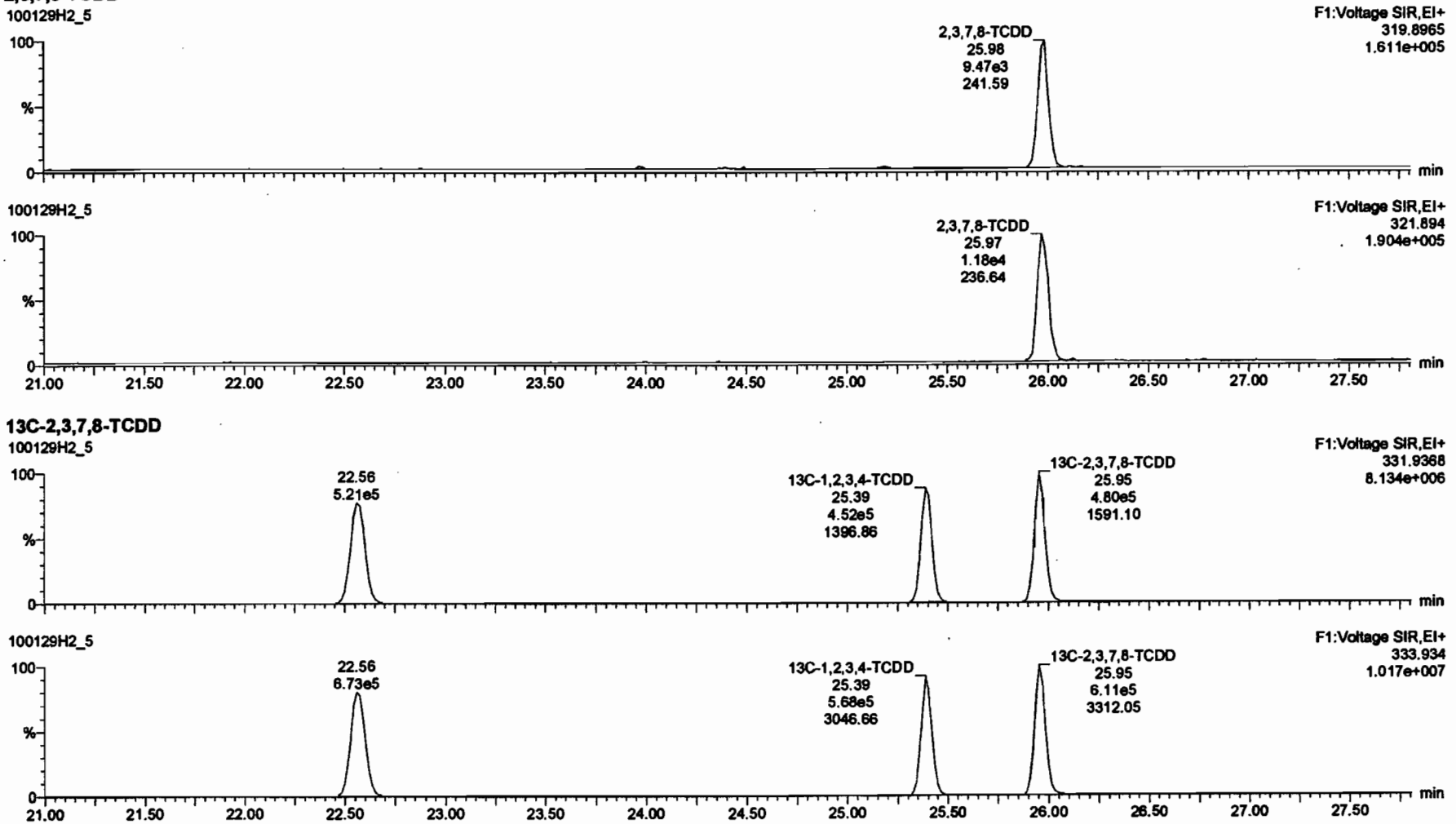

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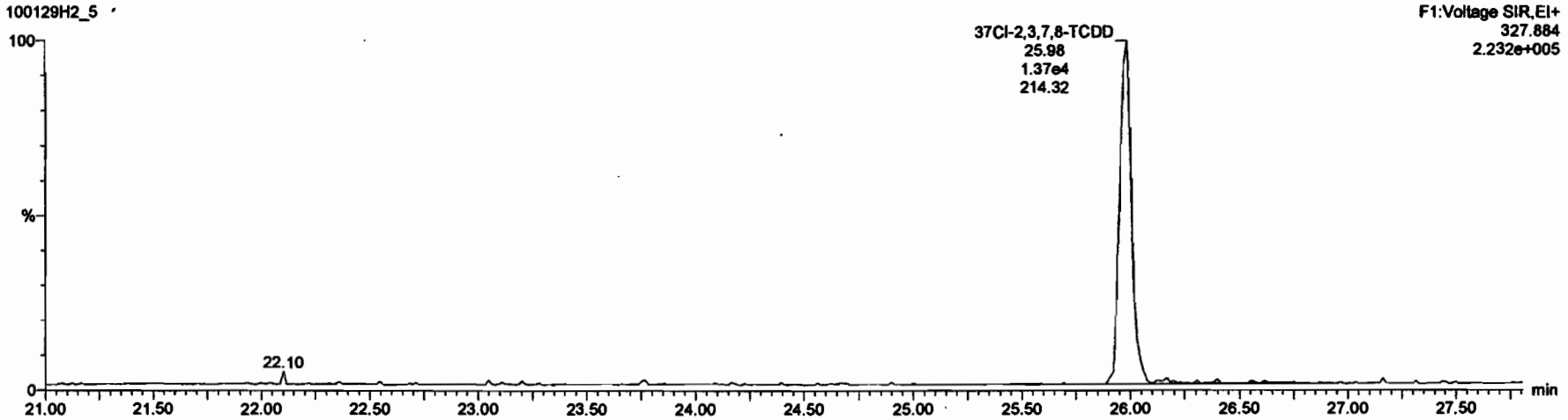

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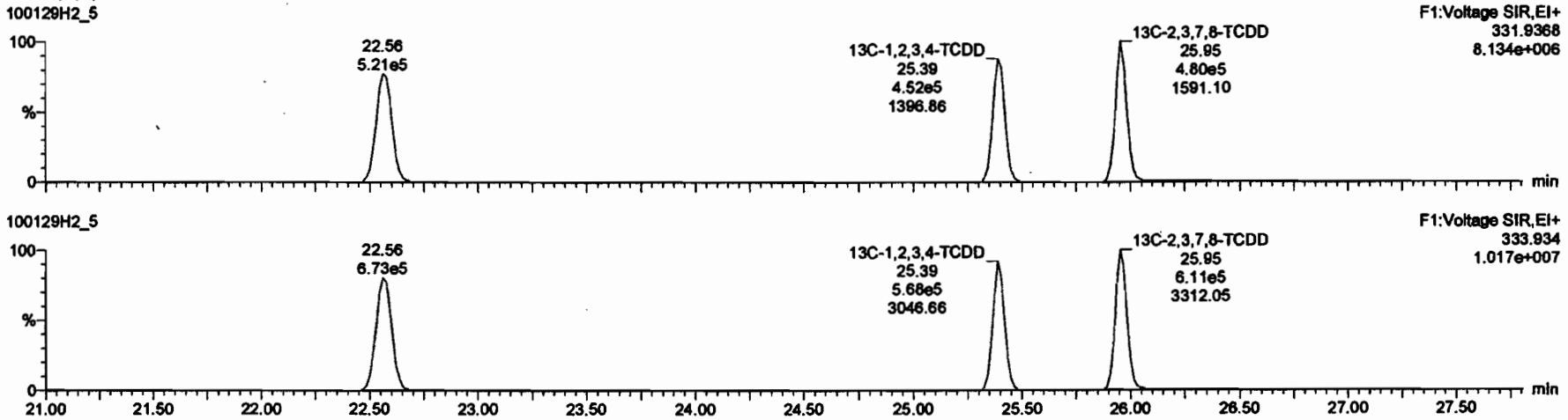

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1,2,3,7,8-PeCDD

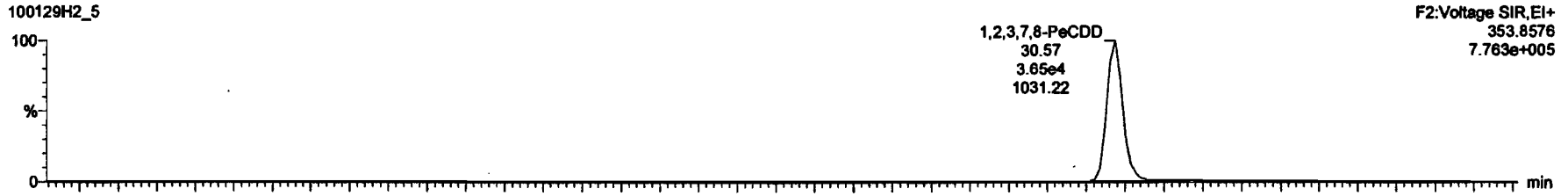

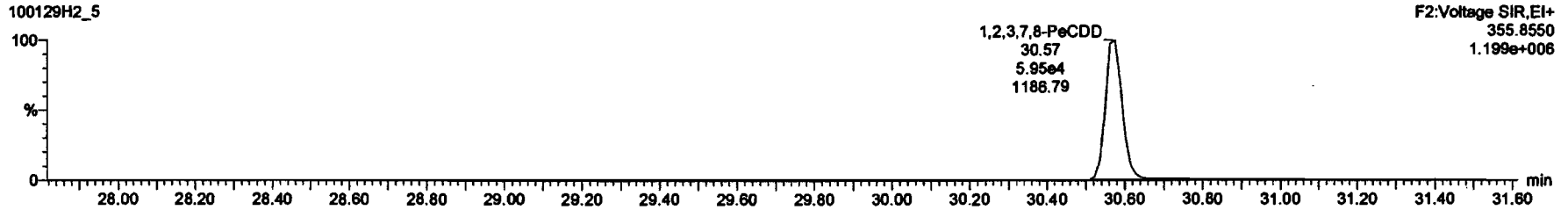

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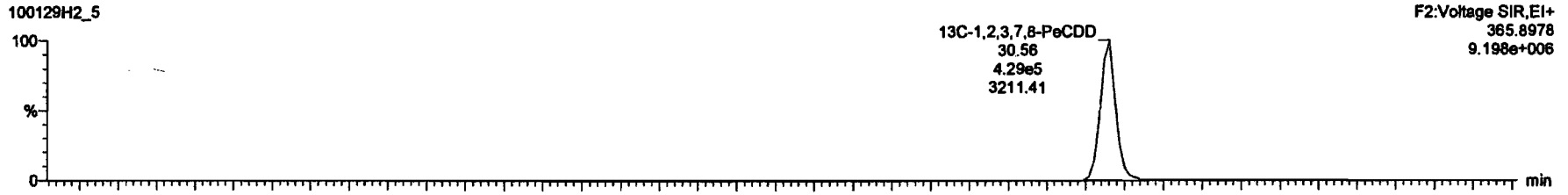

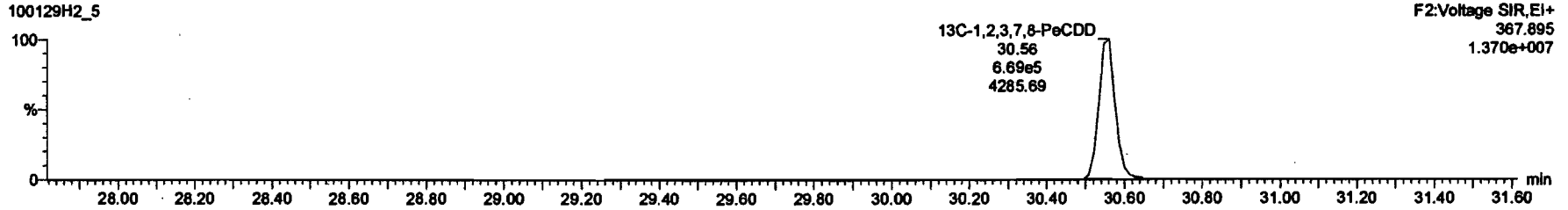

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1,2,3,4,7,8-HxCDD

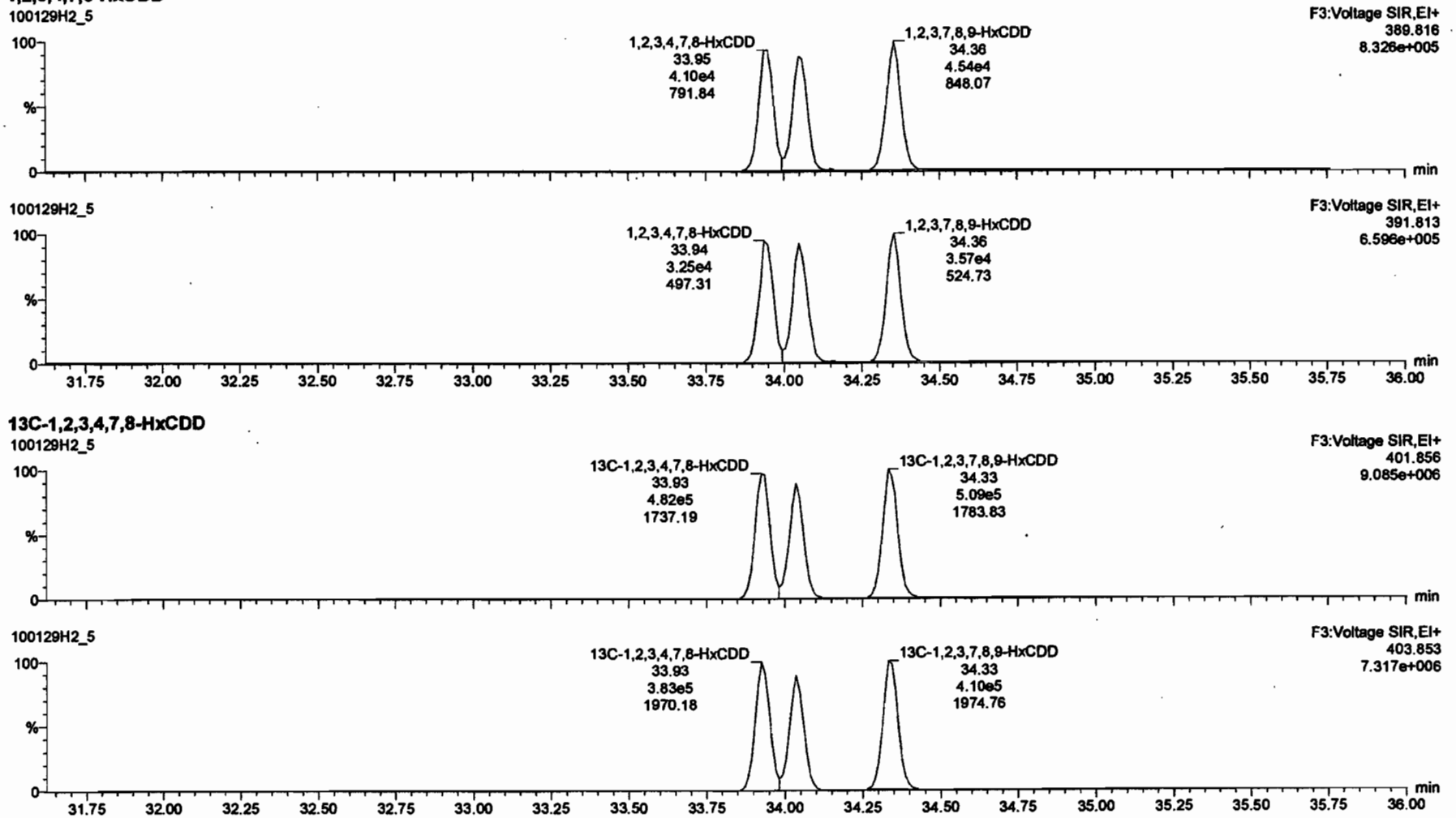

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1,2,3,4,6,7,8-HpCDD

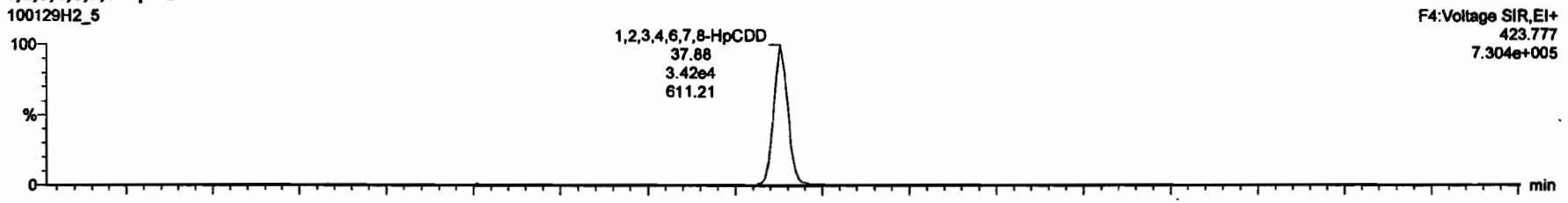

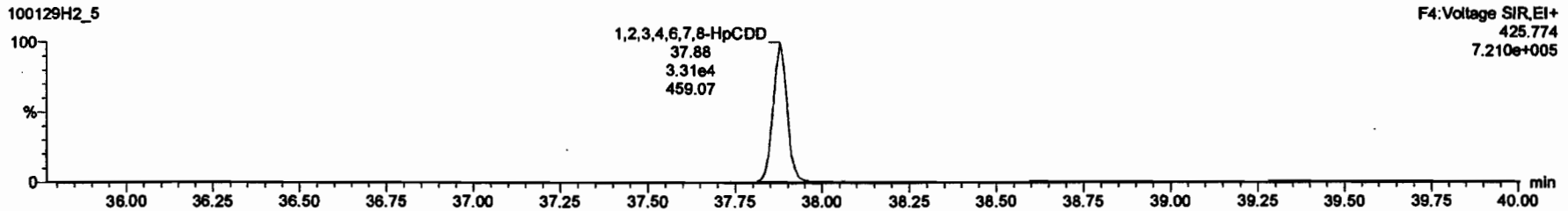

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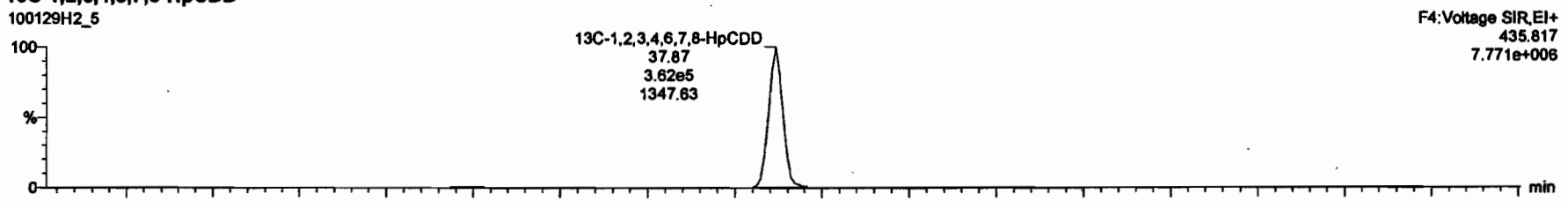

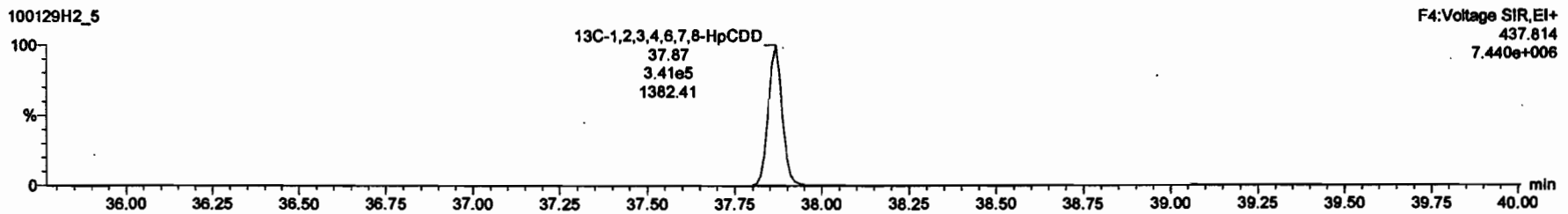

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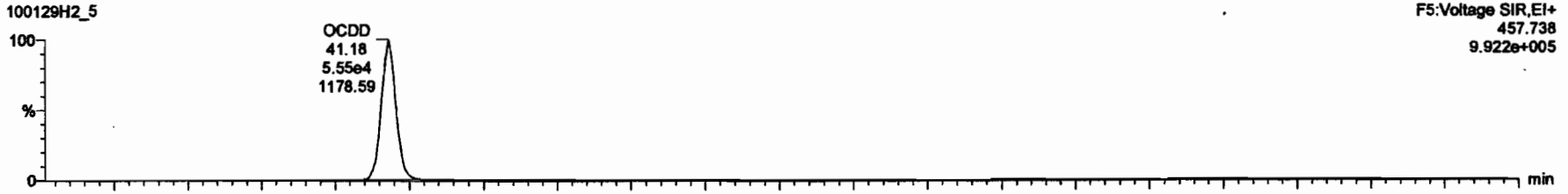

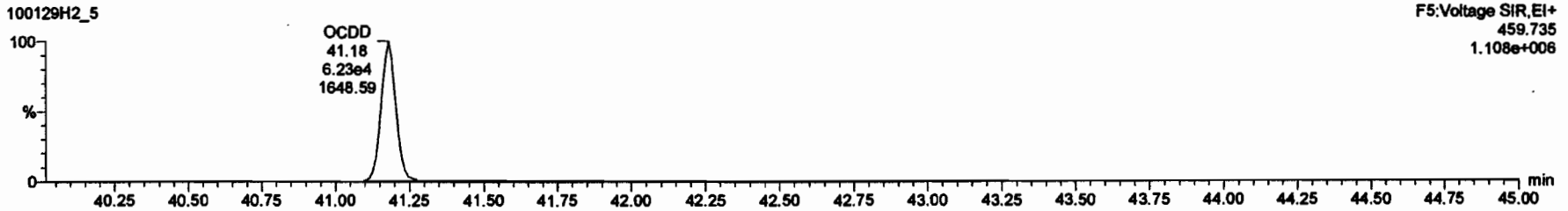

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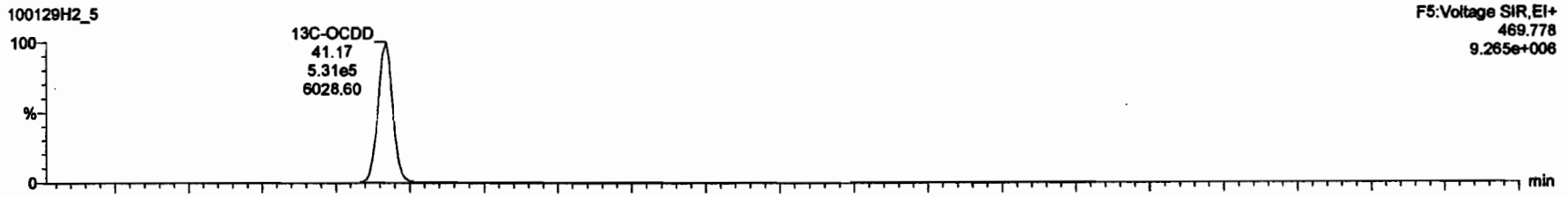

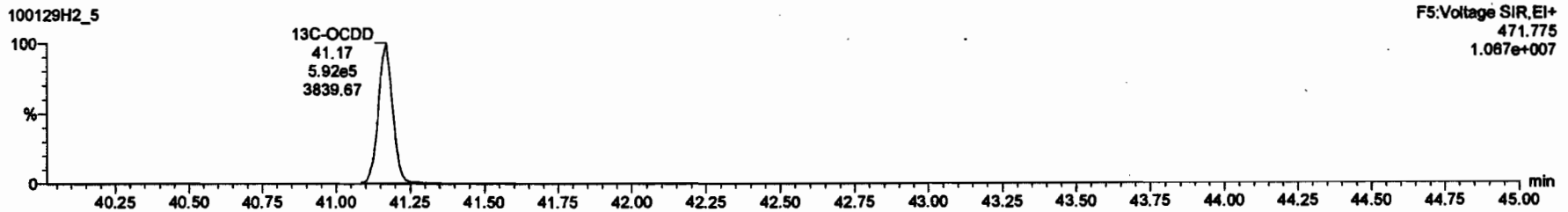

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2,3,7,8-TCDF

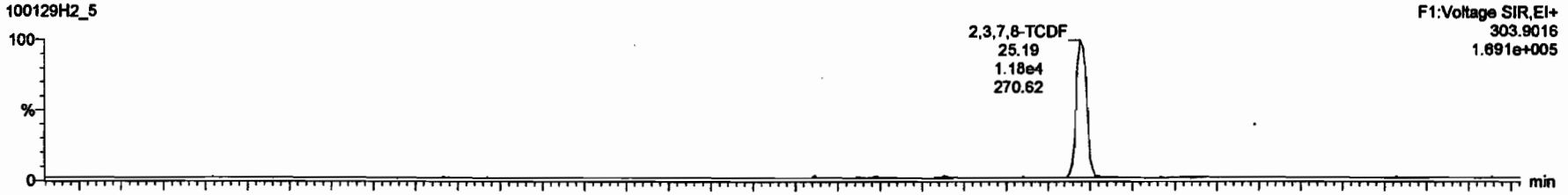

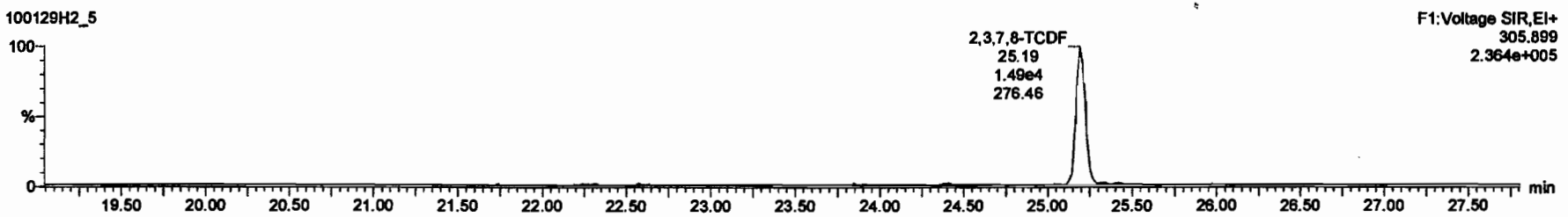

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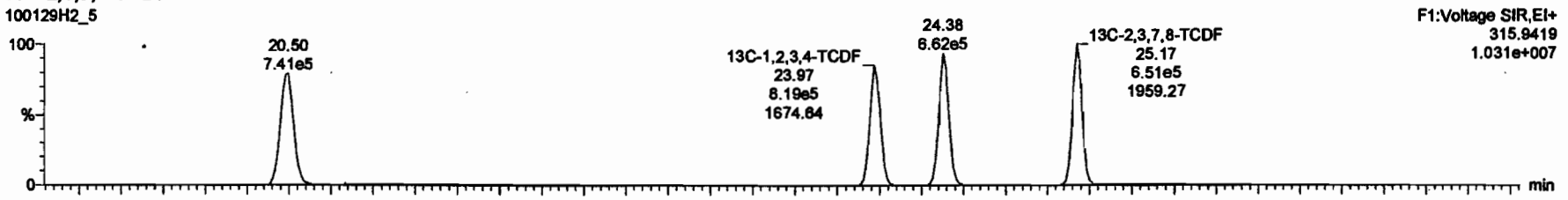

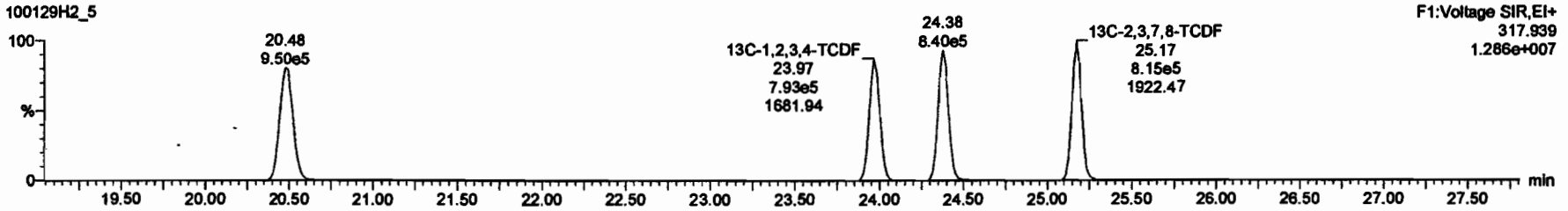

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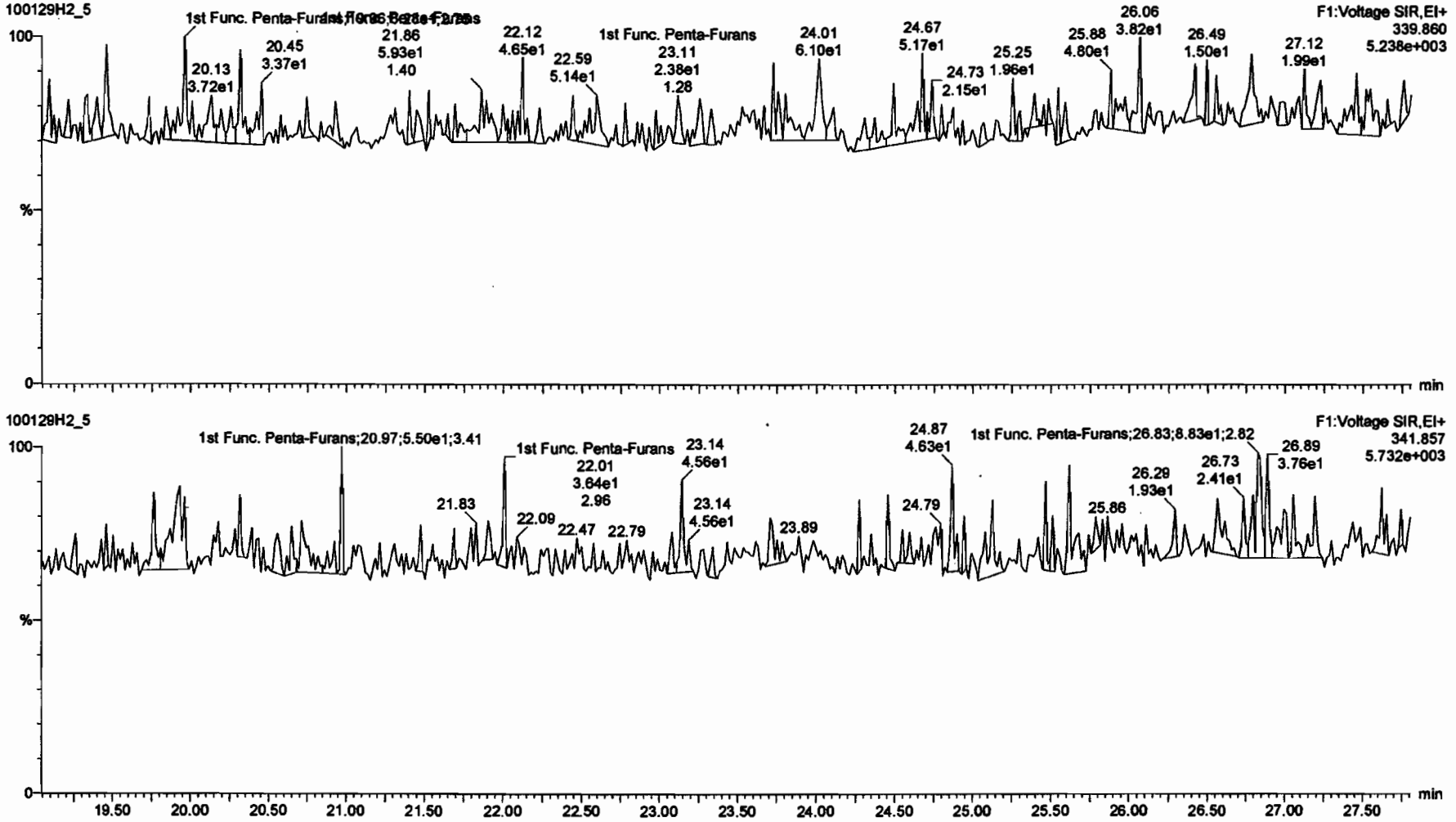

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1,2,3,7,8-PeCDF

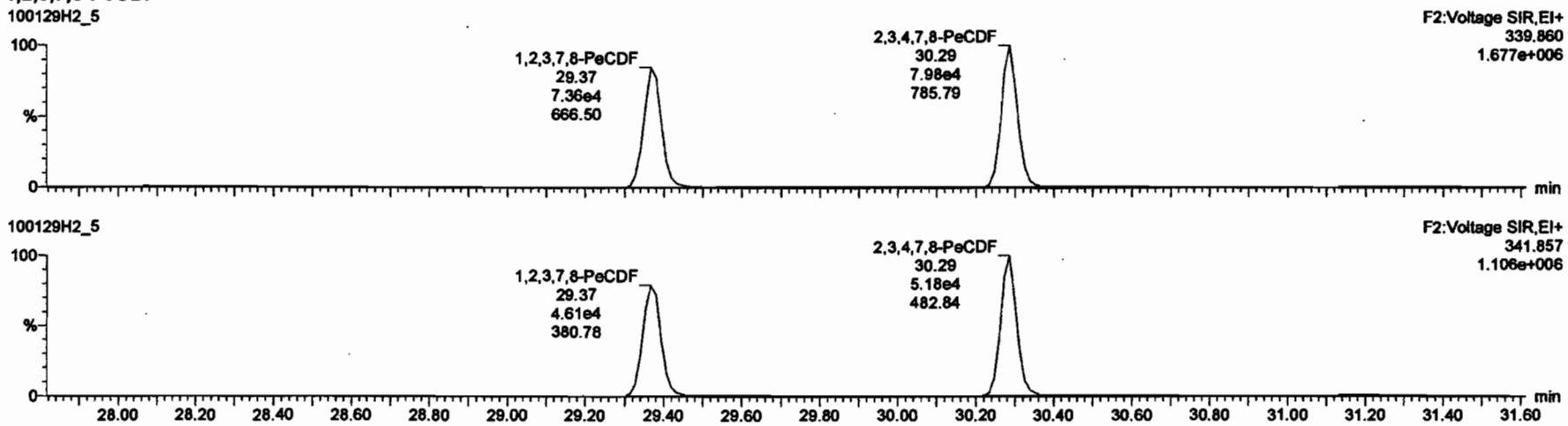

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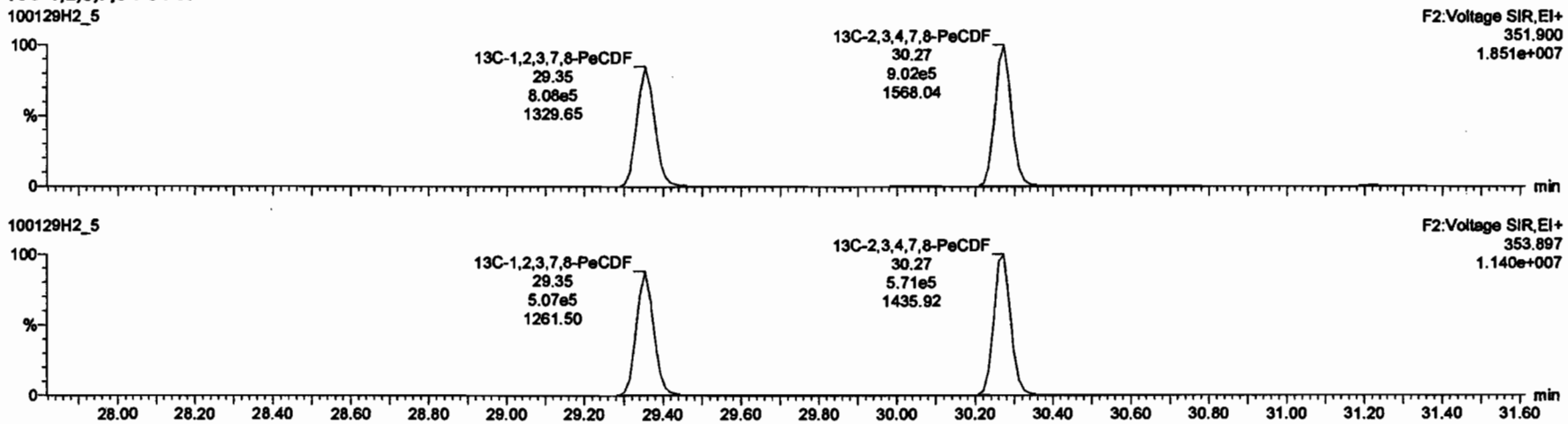

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1,2,3,4,7,8-HxCDF

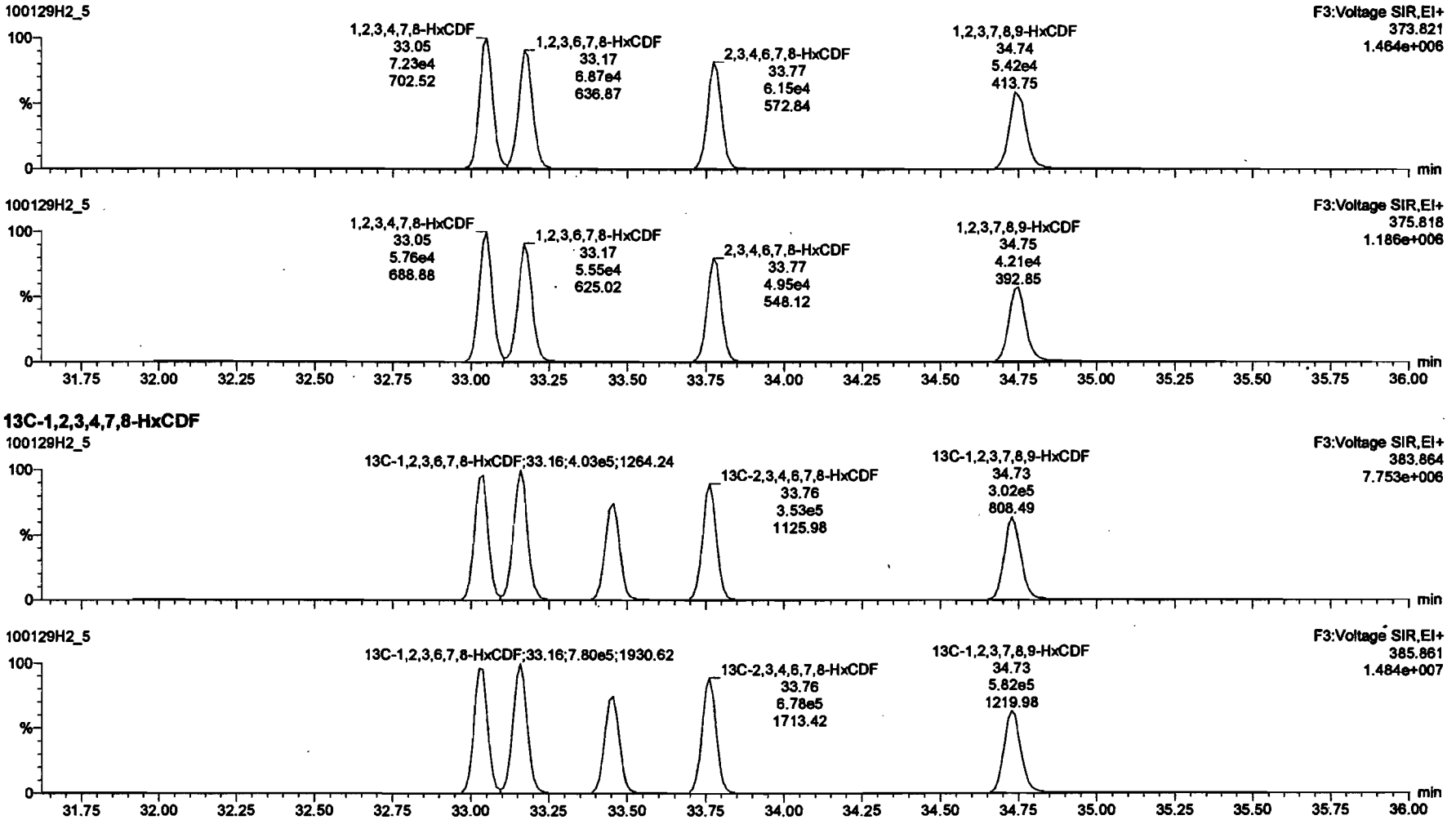

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1,2,3,4,6,7,8-HpCDF

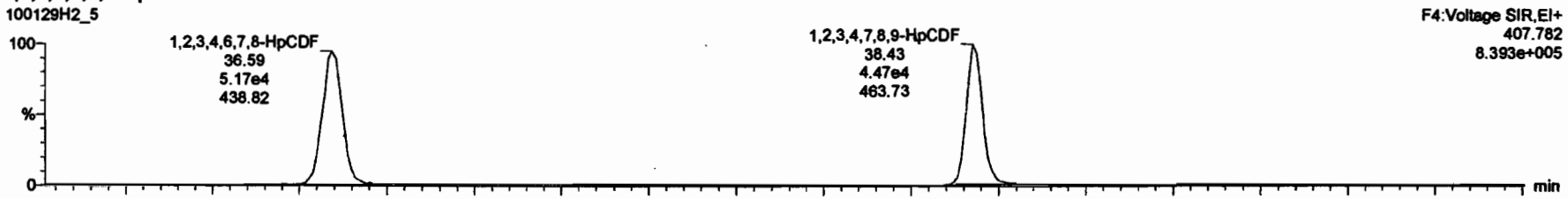

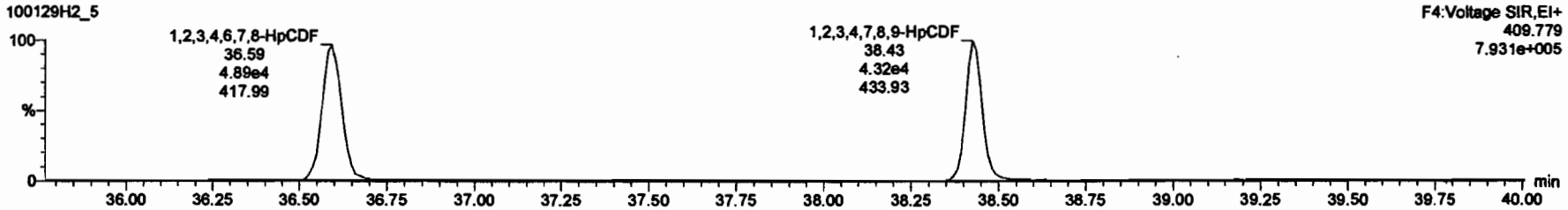

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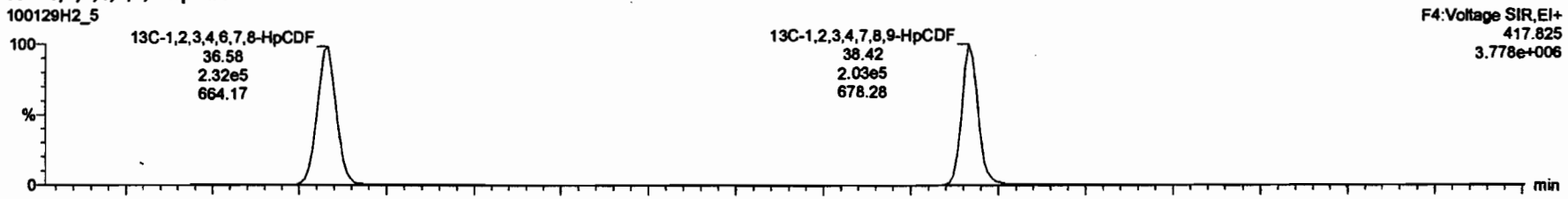

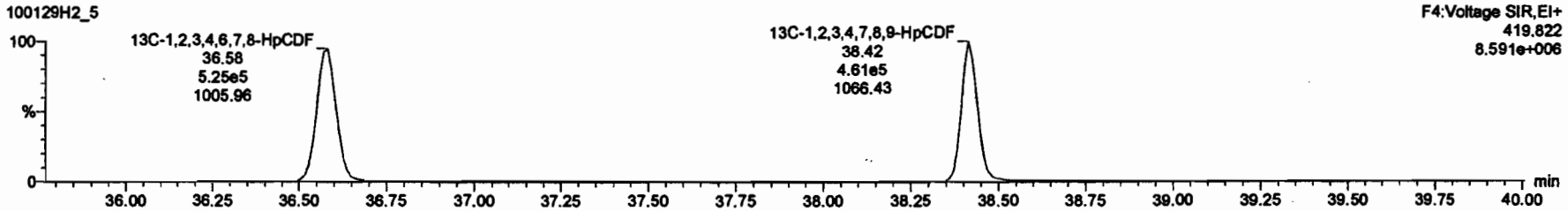

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OCDF

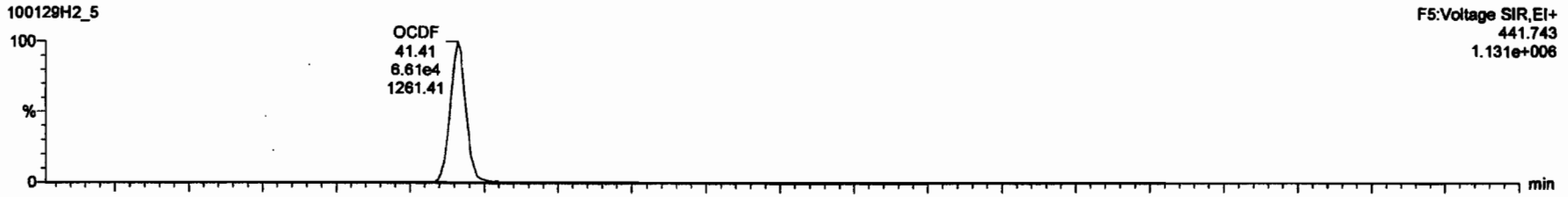

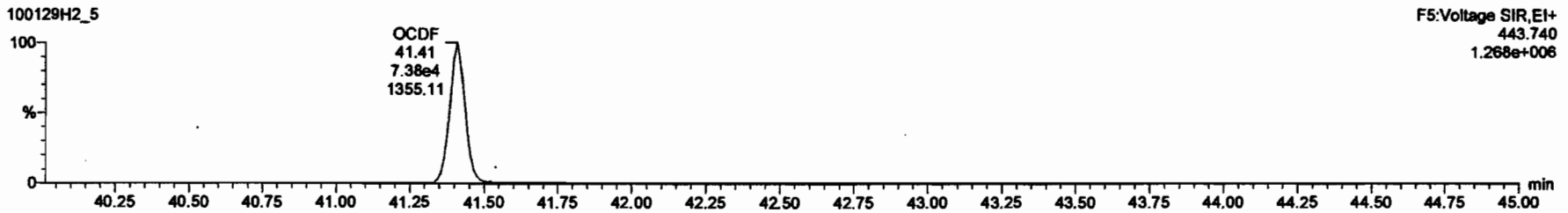

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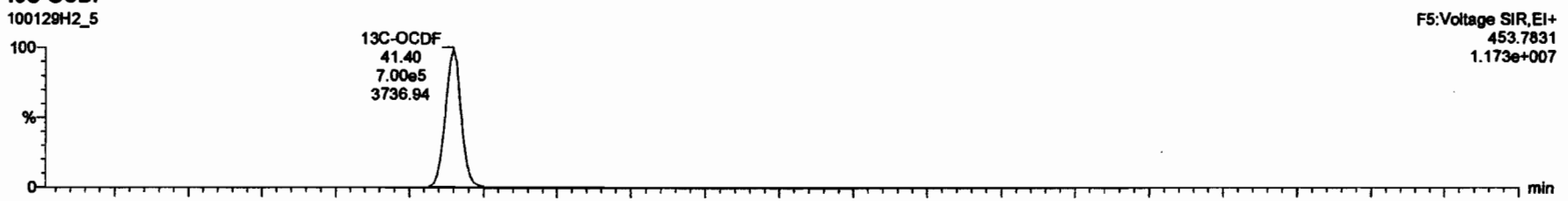

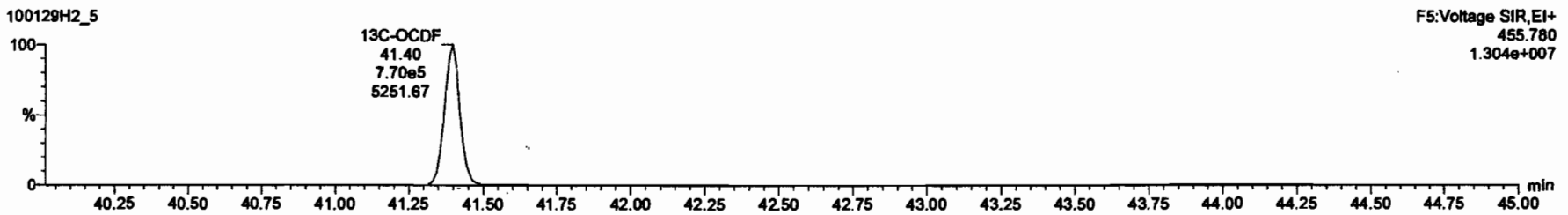

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PFK1

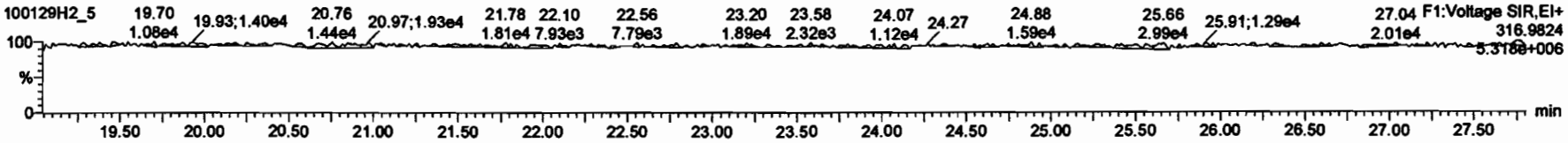

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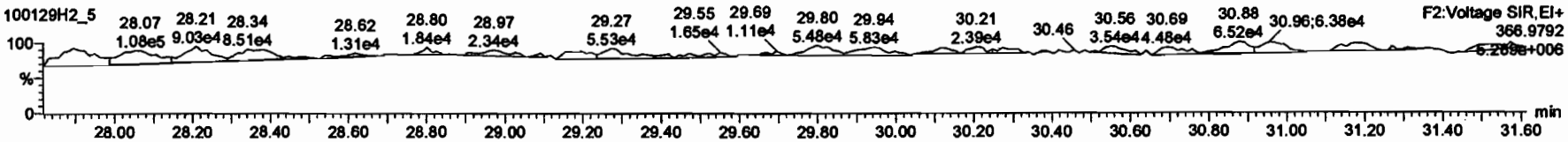

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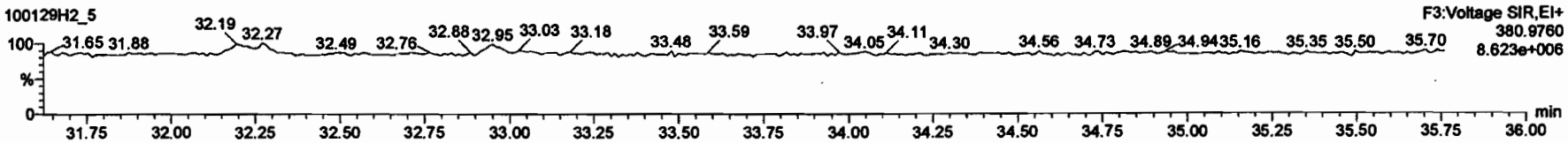

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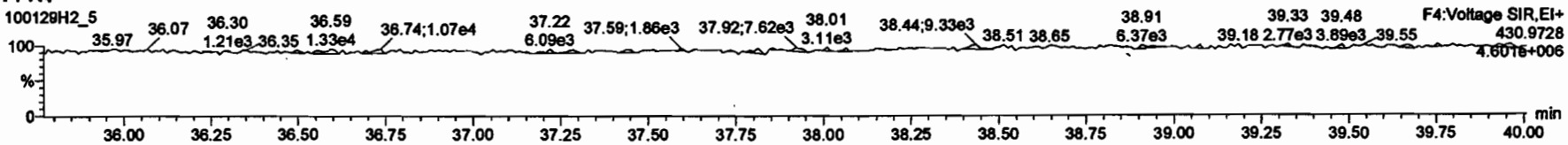

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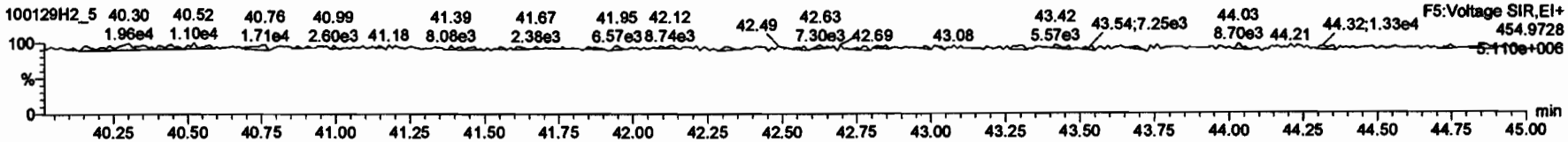

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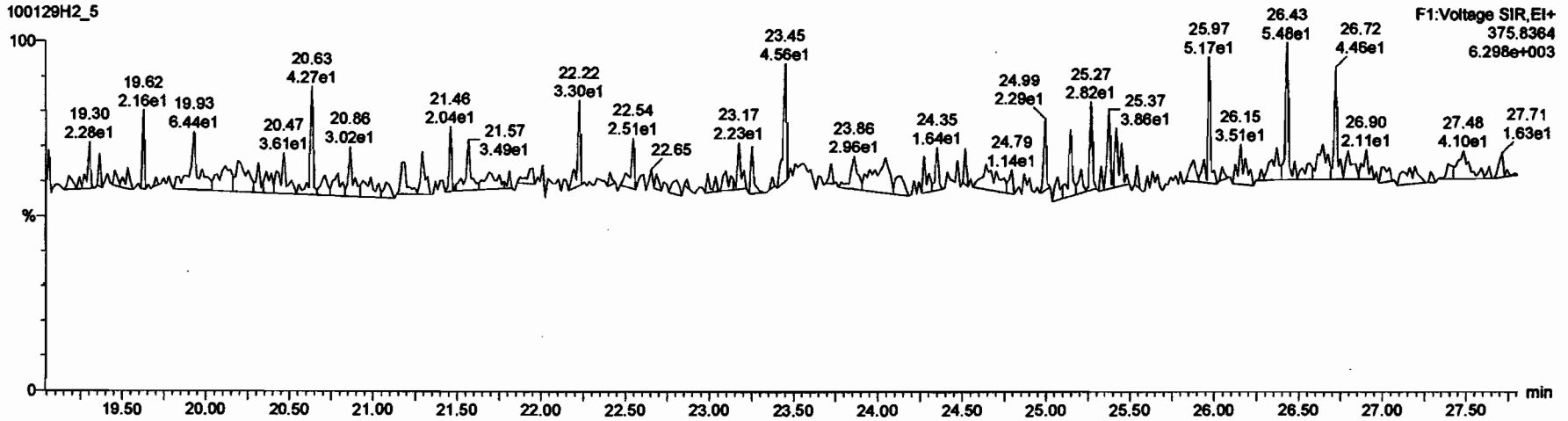

DPE6

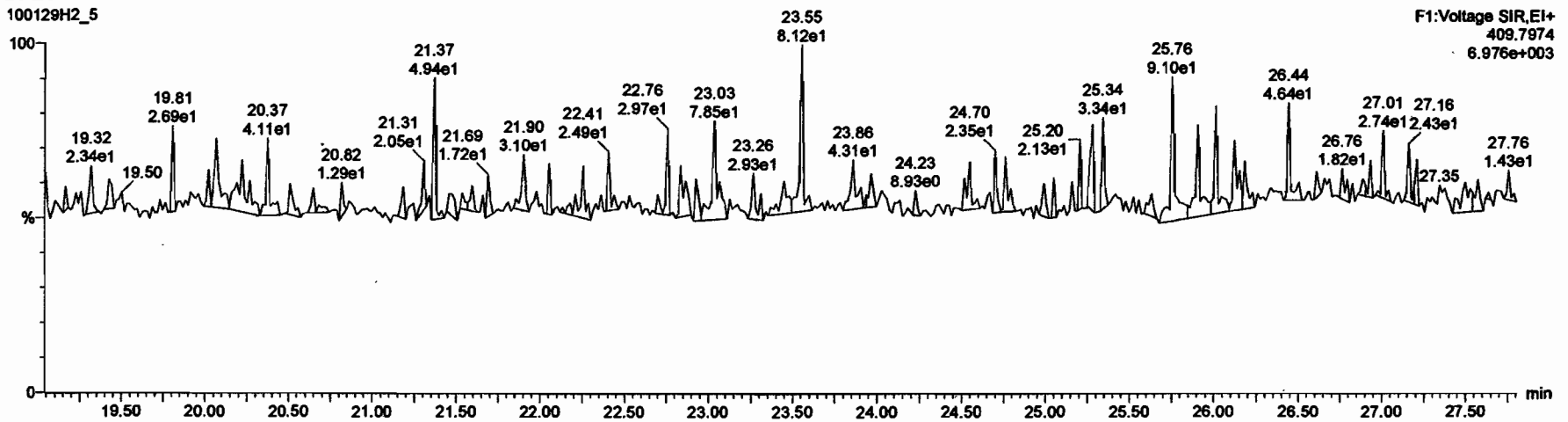

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Name: 100129H2_5, Date: 30-Jan-2010, Time: 05:32:29, ID: ST100129H2-4 1613 CS2 100127E, Description: 1613 CS2 100127E

DPE2

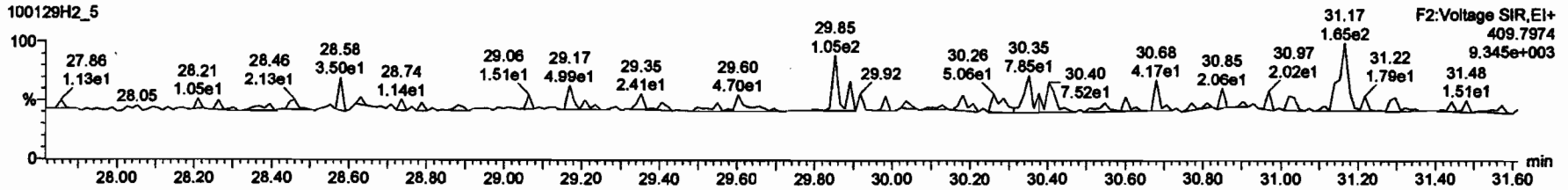

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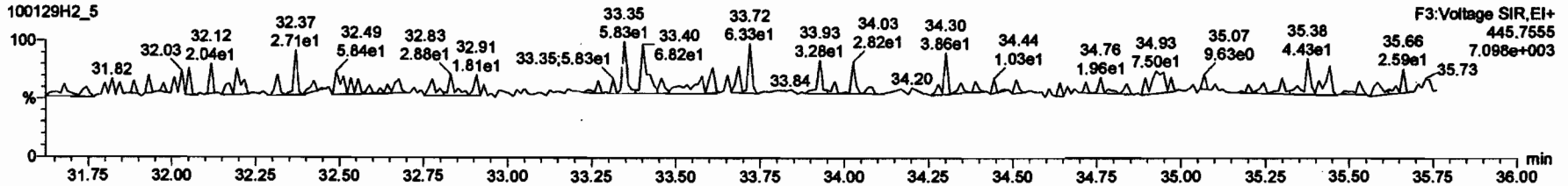

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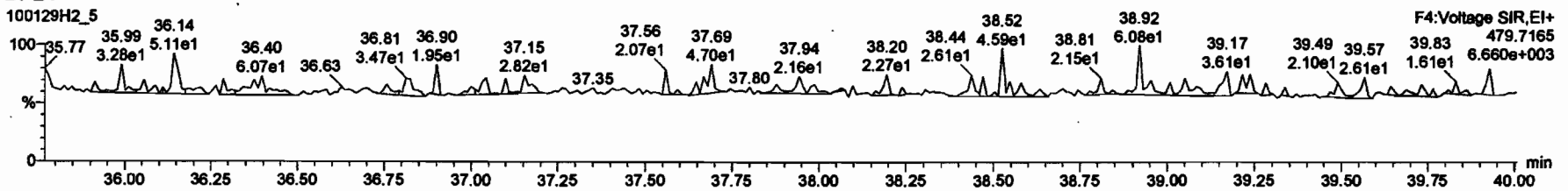

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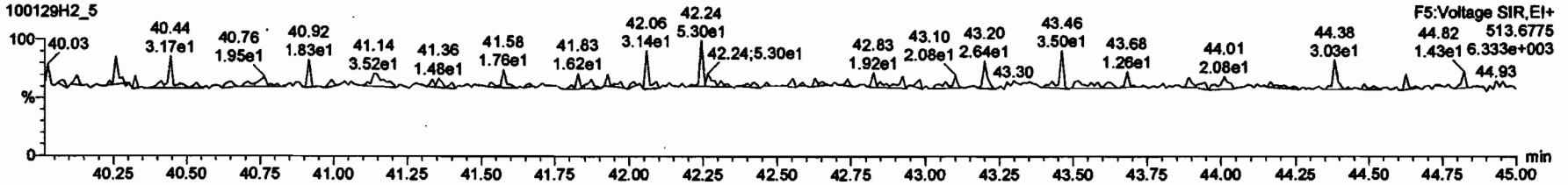

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Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

2,3,7,8-TCDD

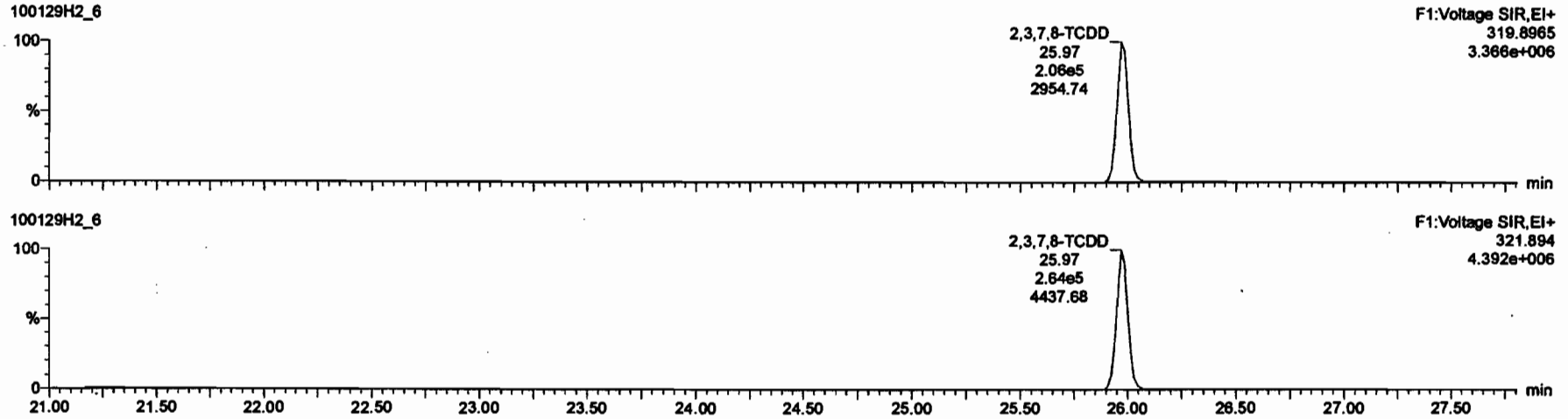

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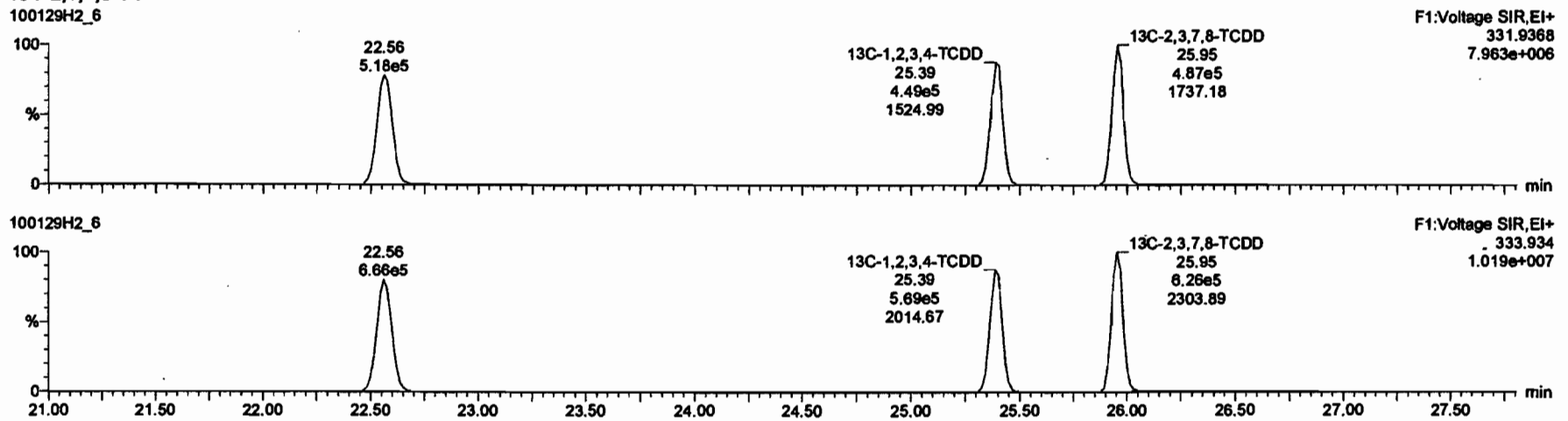

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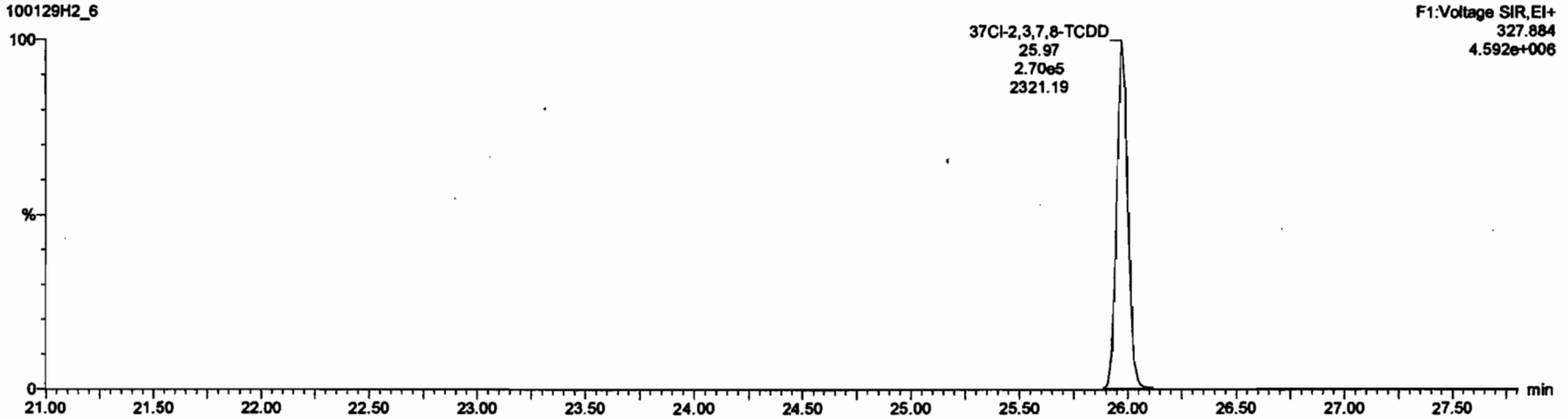

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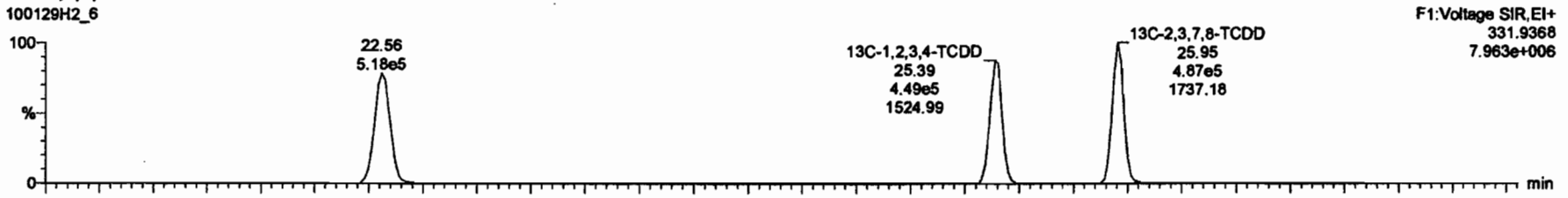

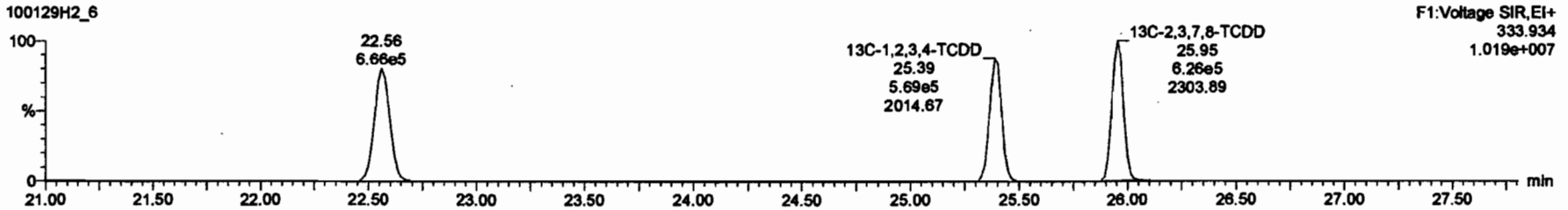

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Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

1,2,3,7,8-PeCDD

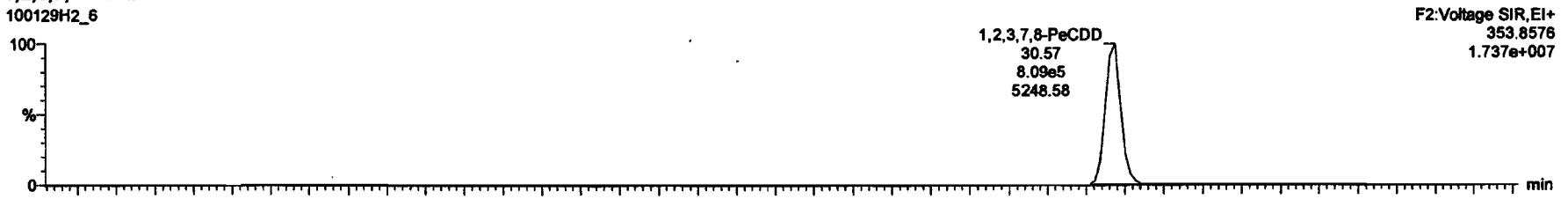

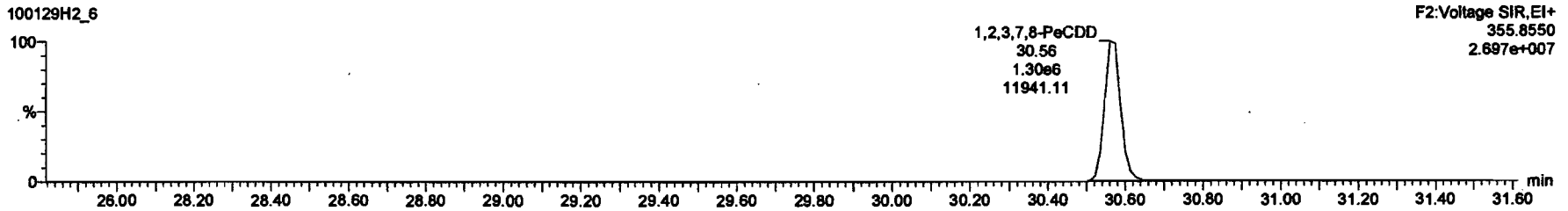

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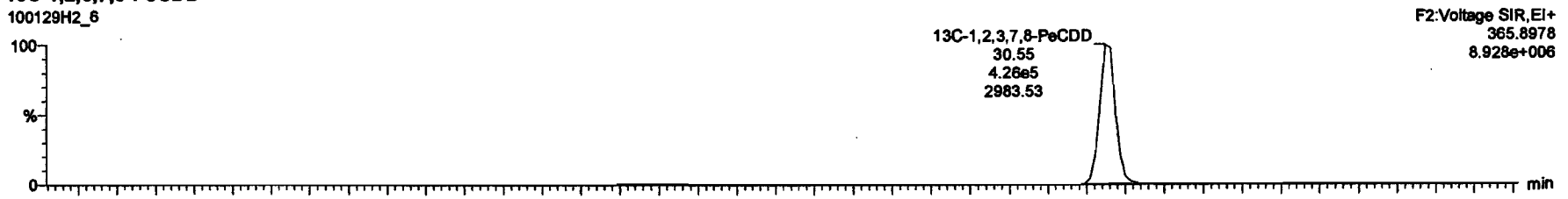

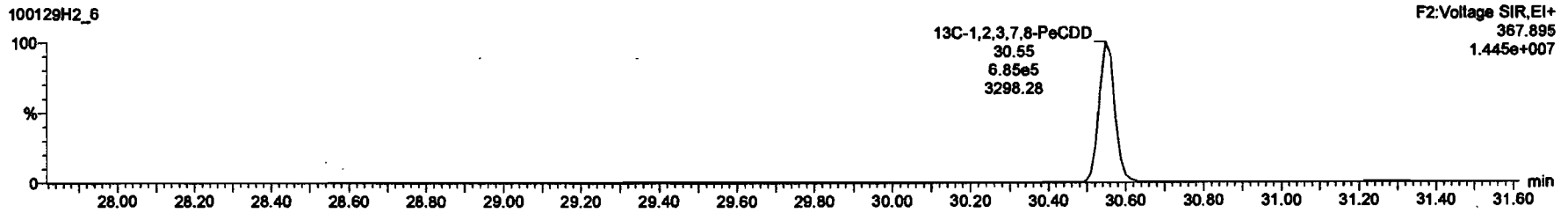

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Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

1,2,3,4,7,8-HxCDD

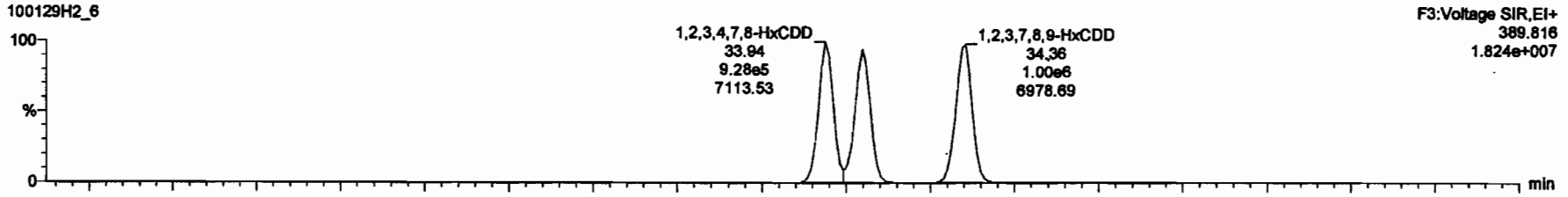

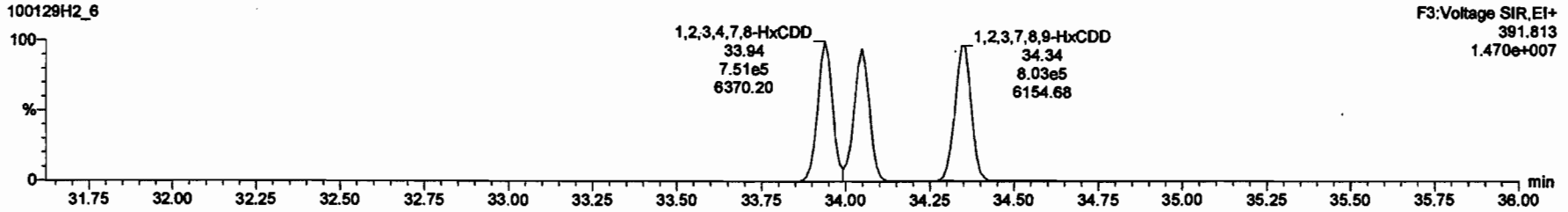

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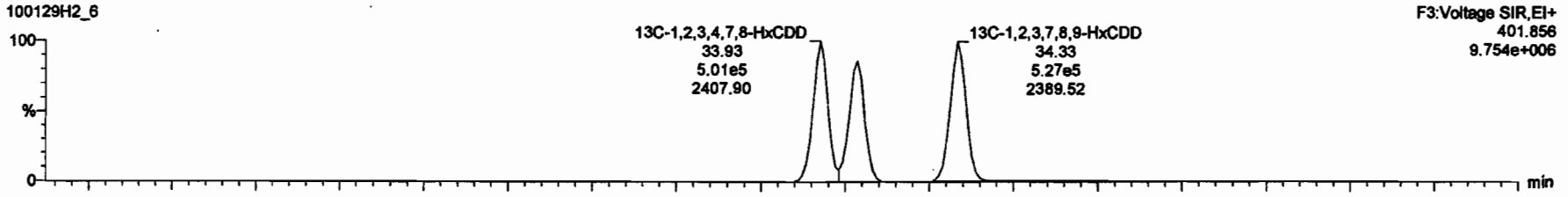

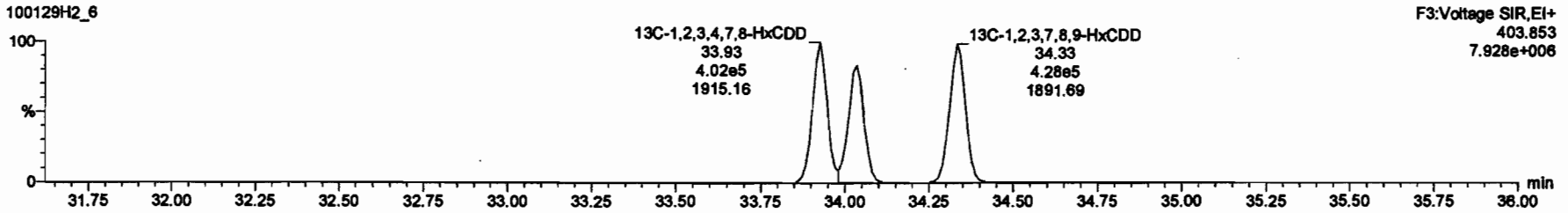

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1,2,3,4,6,7,8-HpCDD

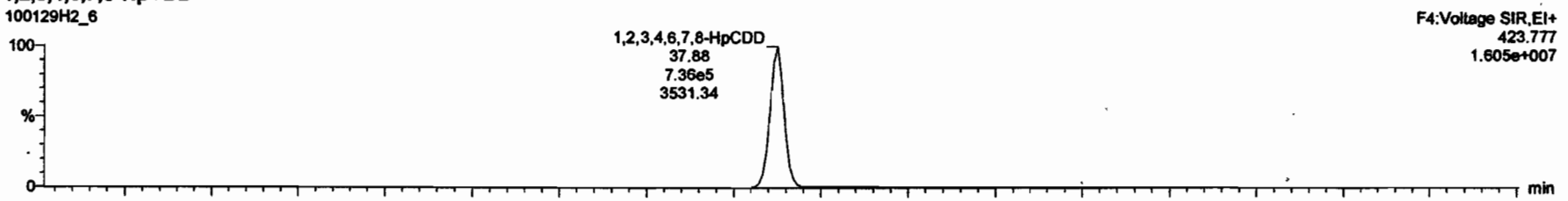

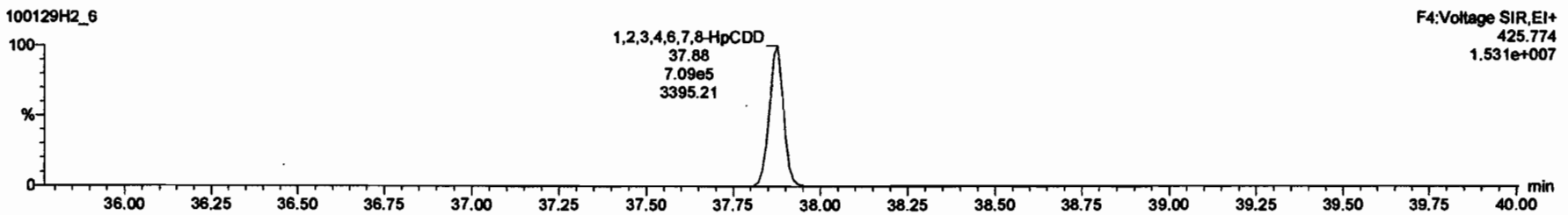

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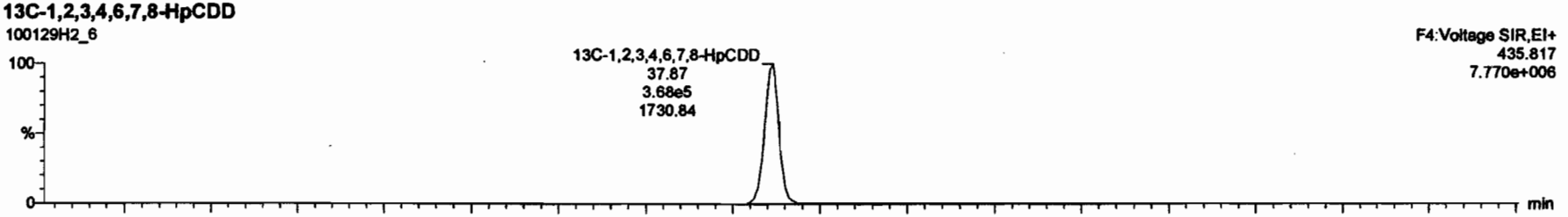

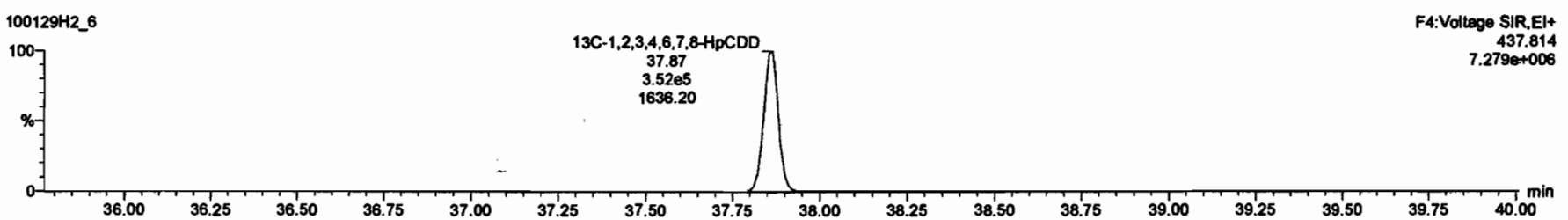

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OCDD

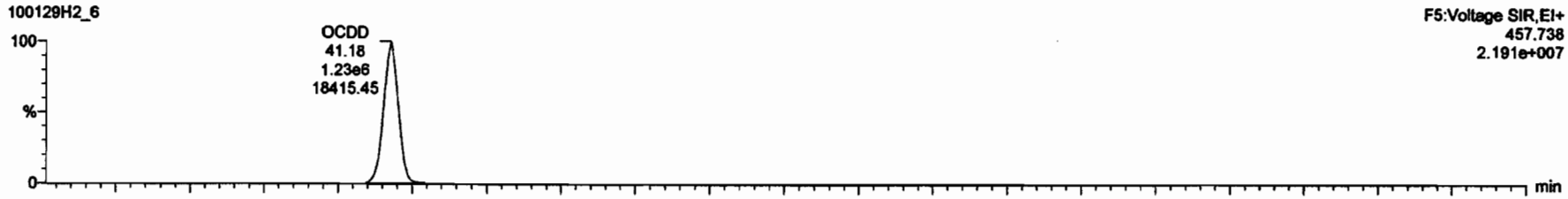

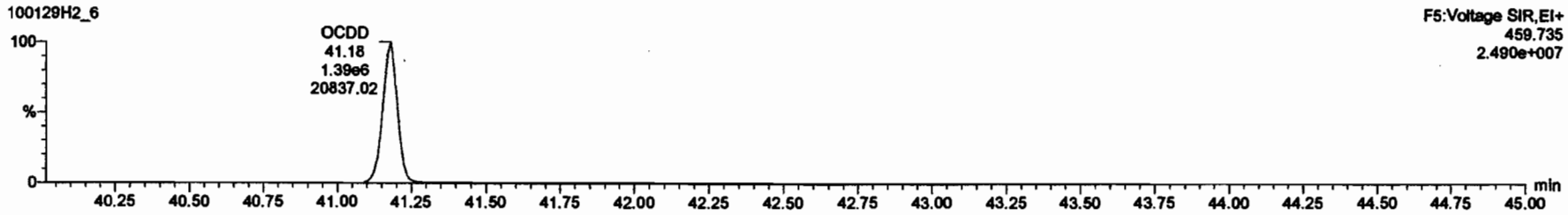

13C-OCDD

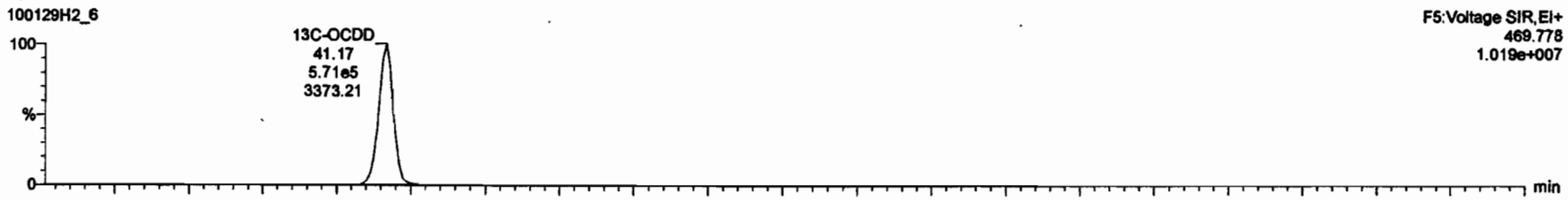

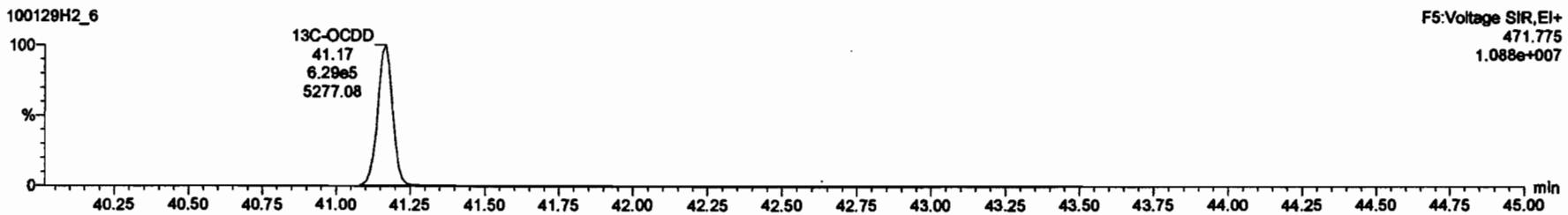

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2,3,7,8-TCDF

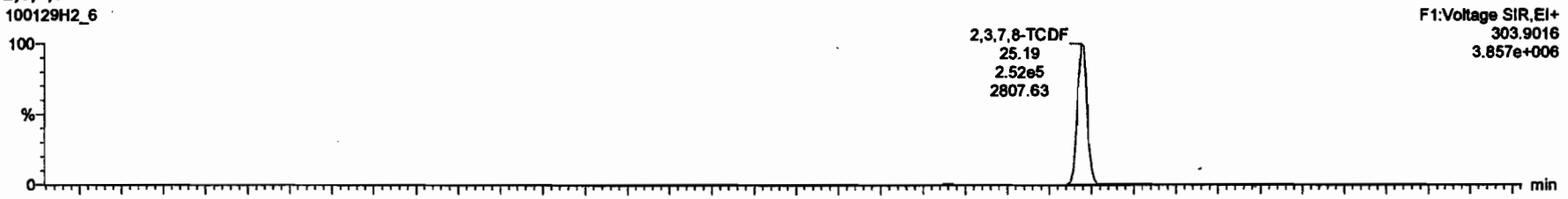

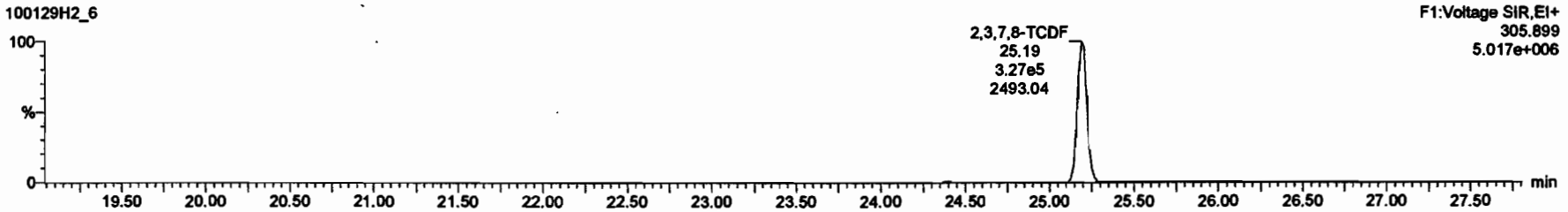

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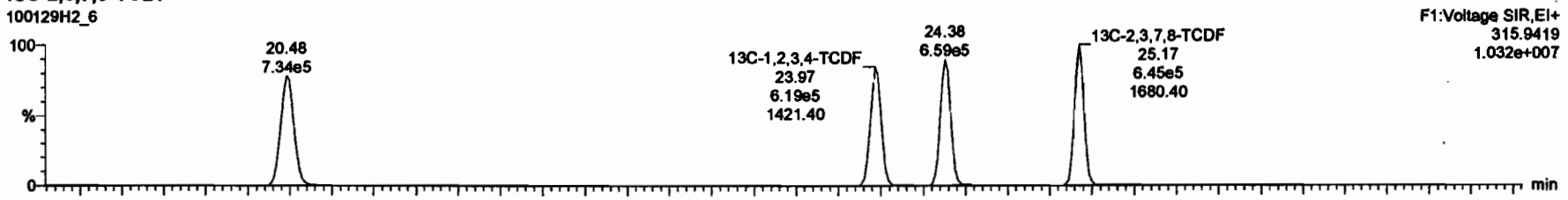

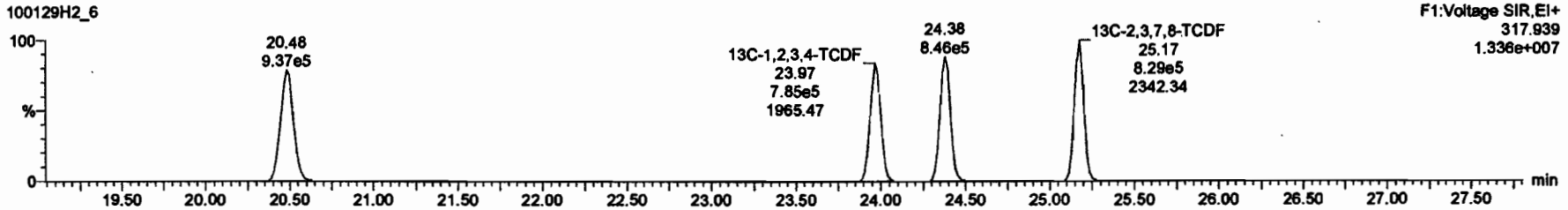

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Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

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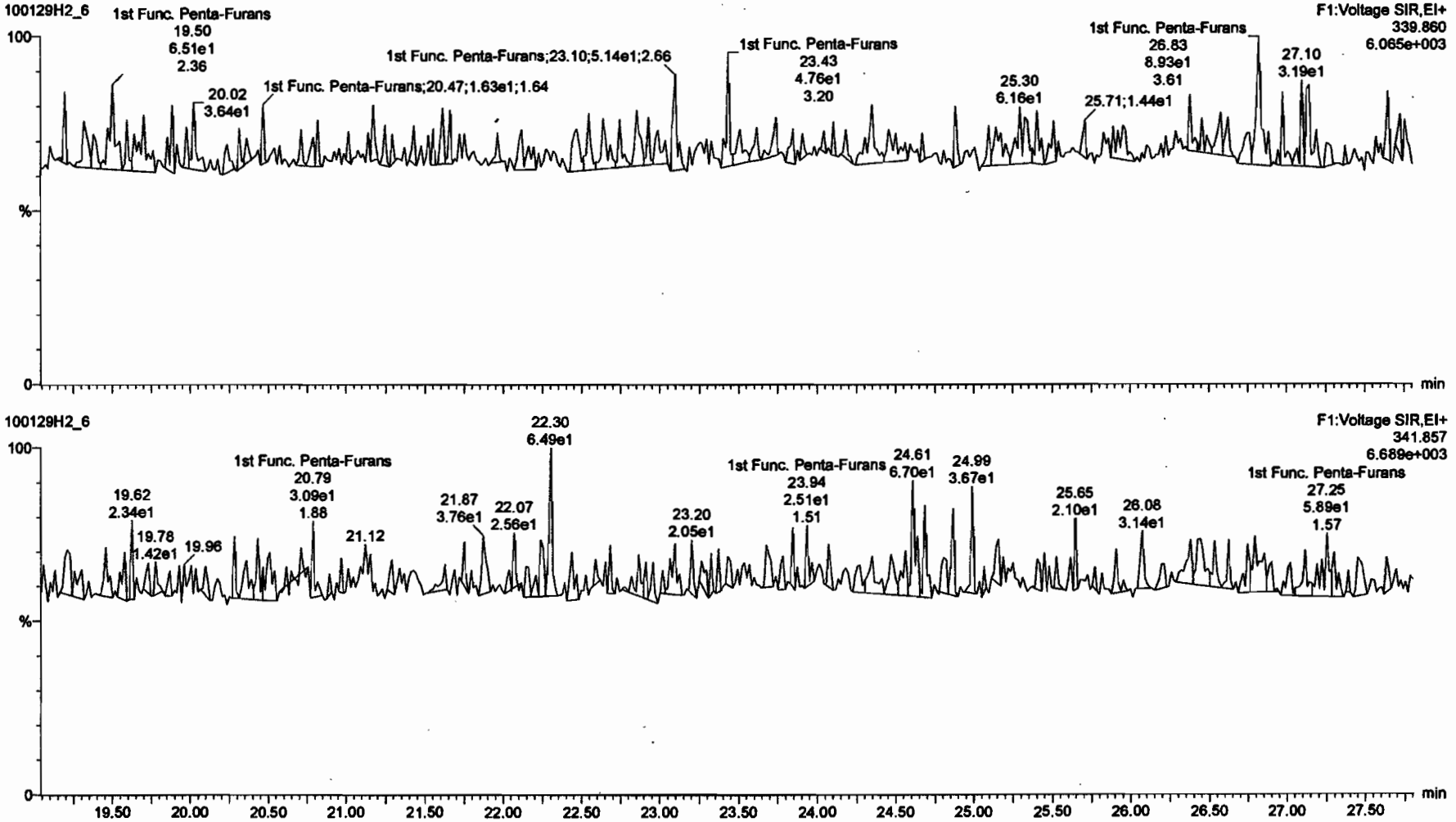

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Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

1,2,3,7,8-PeCDF

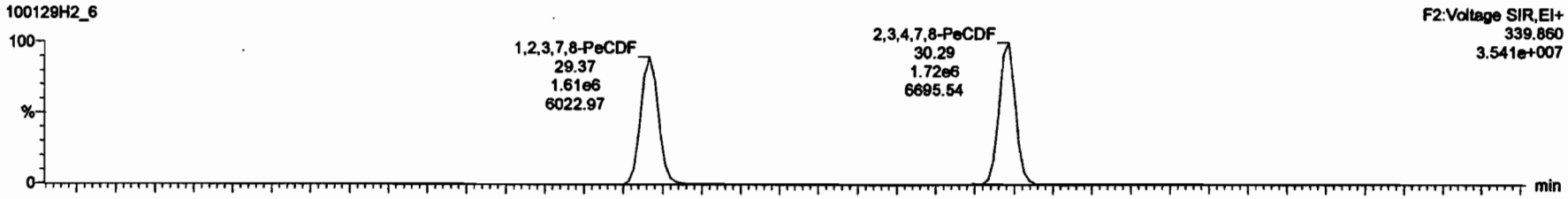

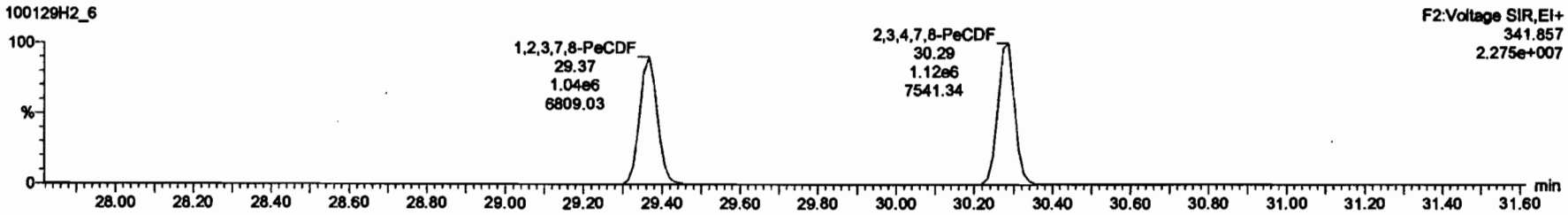

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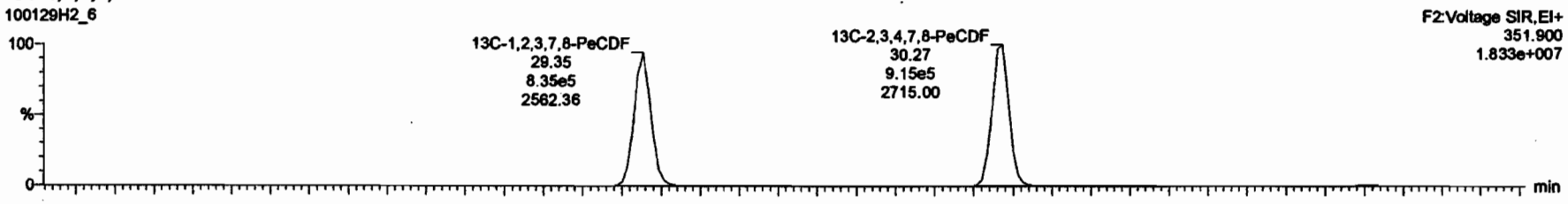

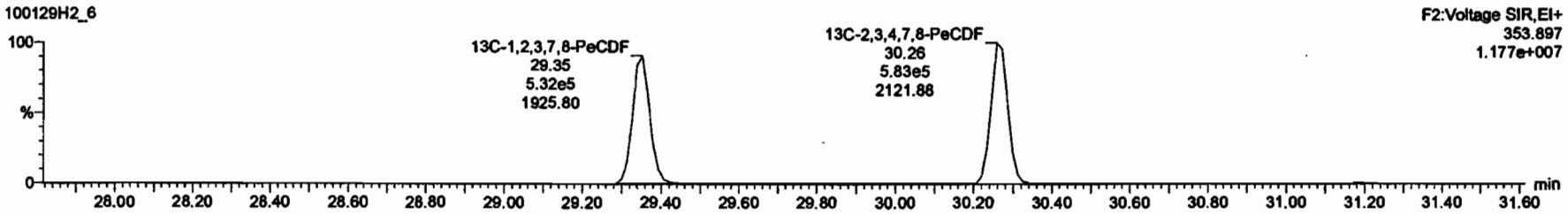

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Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

1,2,3,4,7,8-HxCDF

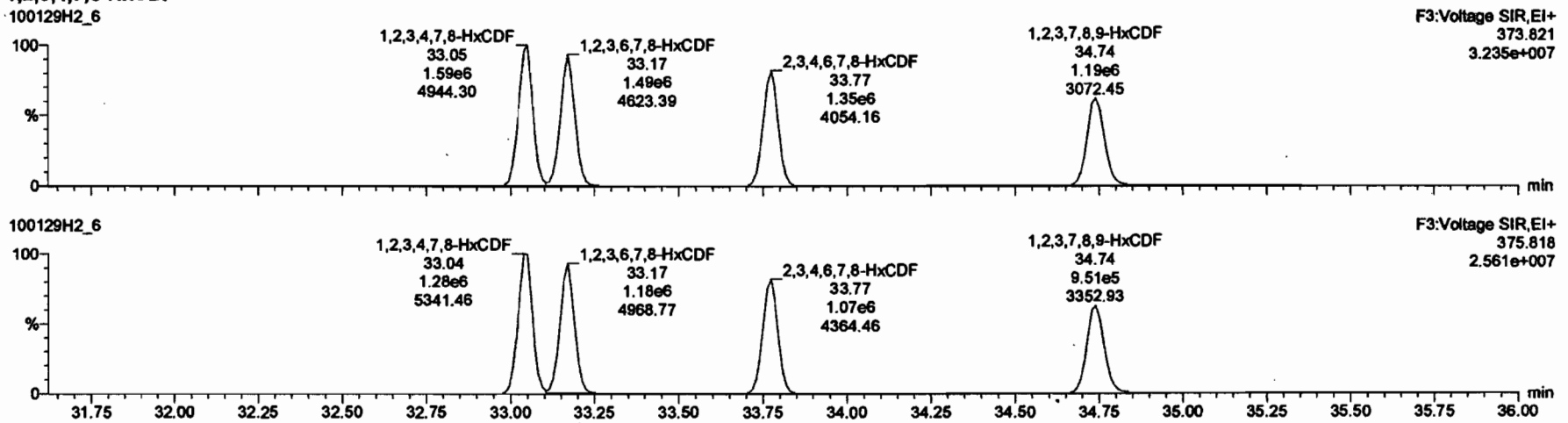

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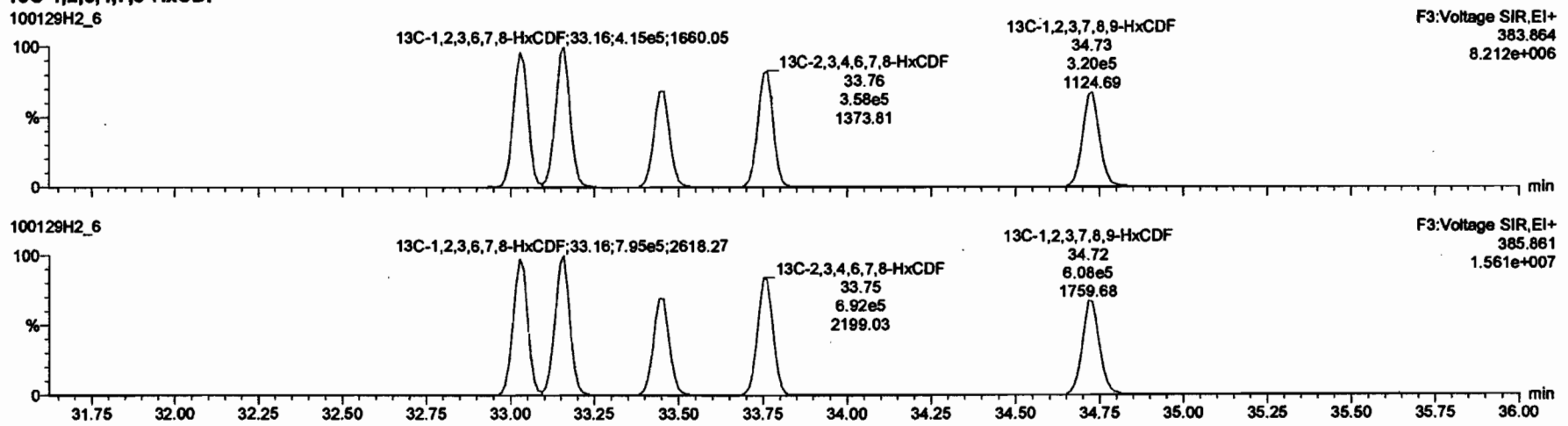

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1,2,3,4,6,7,8-HpCDF

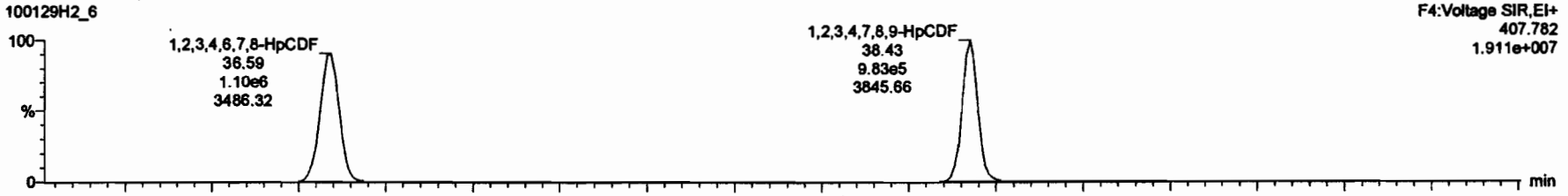

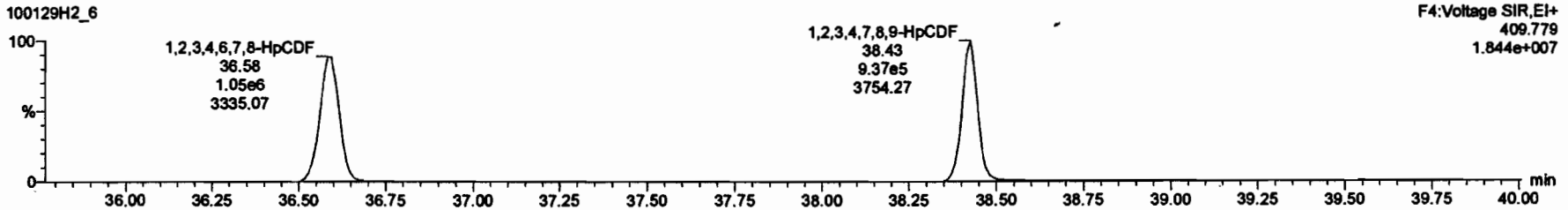

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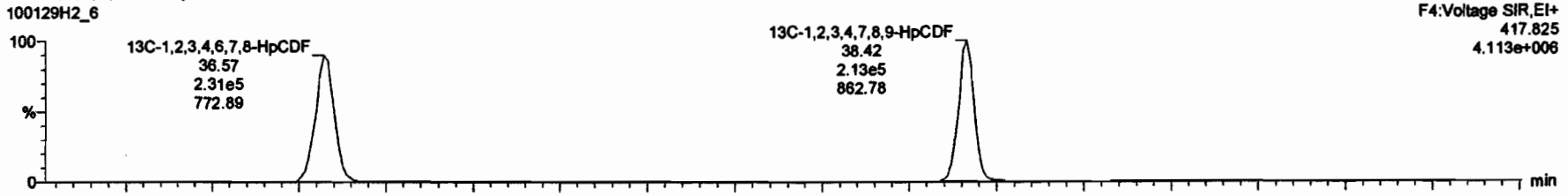

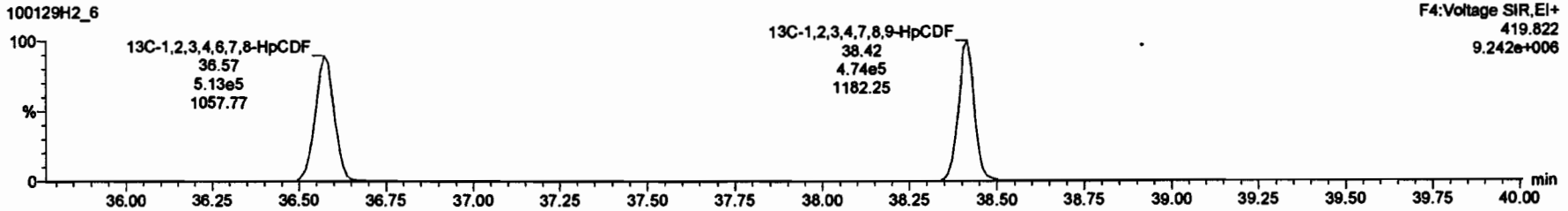

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OCDF

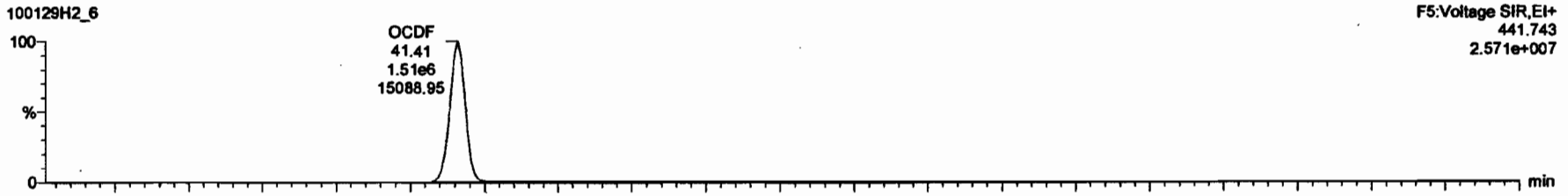

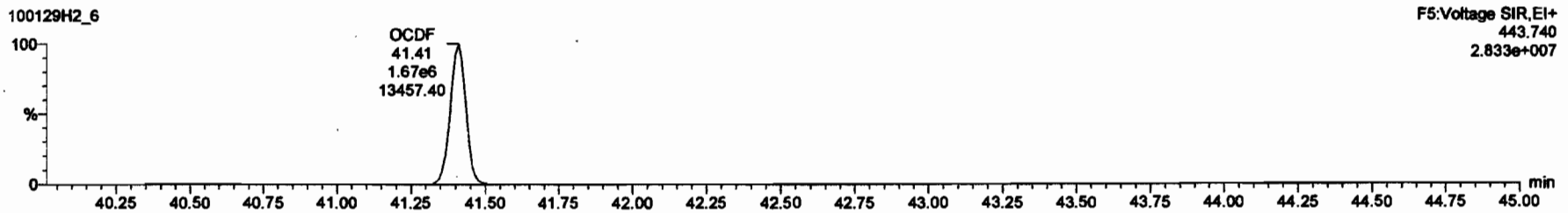

13C-OCDF

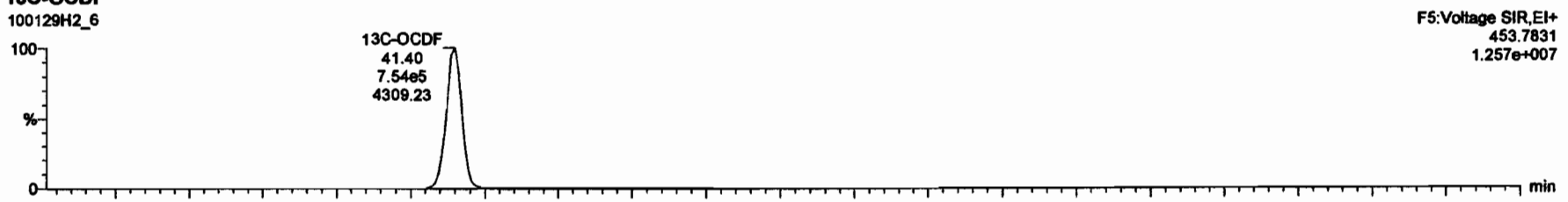

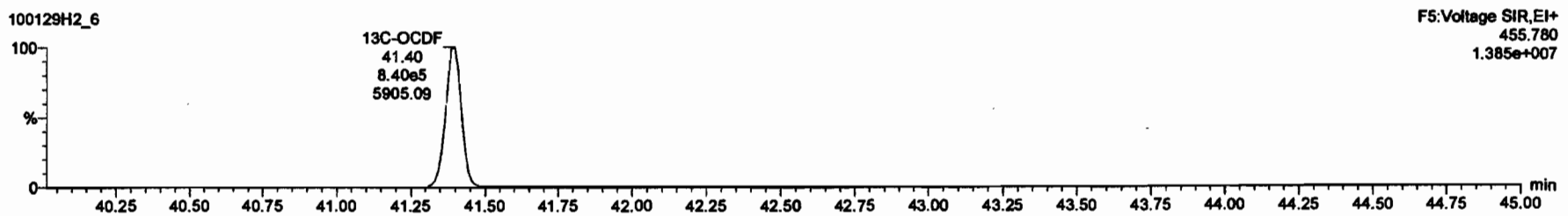

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Name: 100129H2_6, Date: 30-Jan-2010, Time: 06:22:04, ID: ST100129H2-5 1613 CS4 100127G, Description: 1613 CS4 100127G

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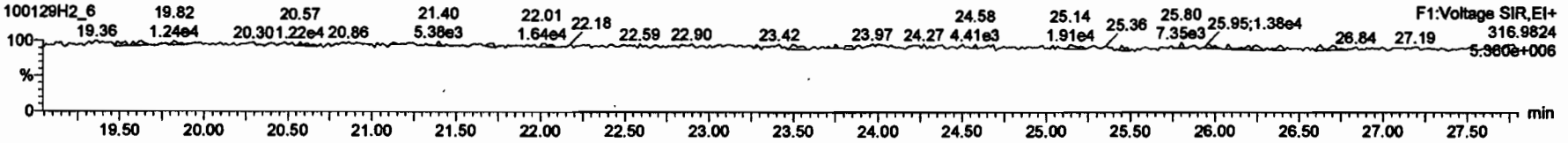

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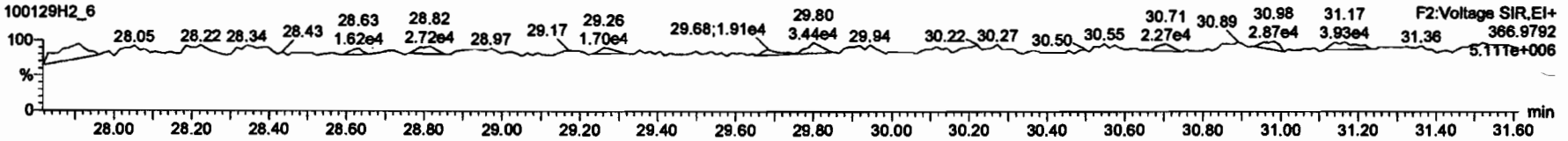

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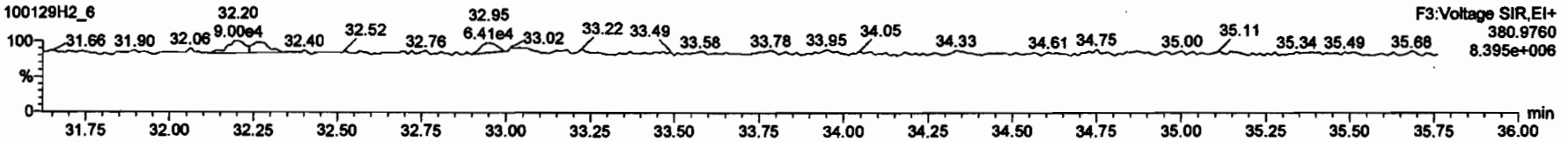

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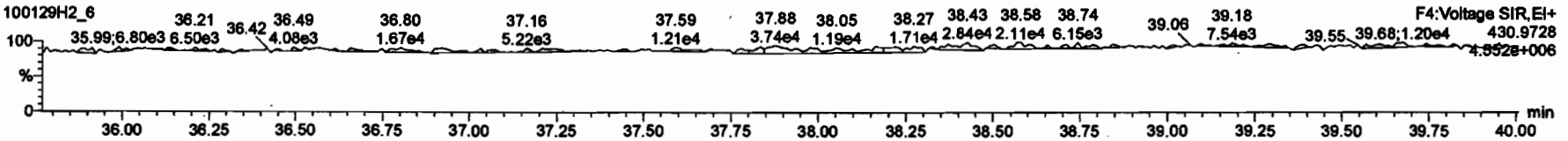

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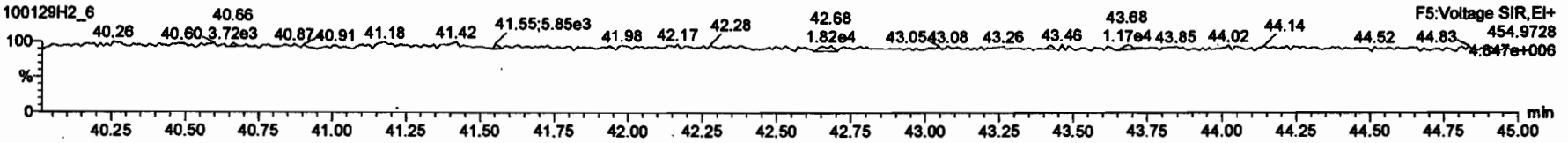

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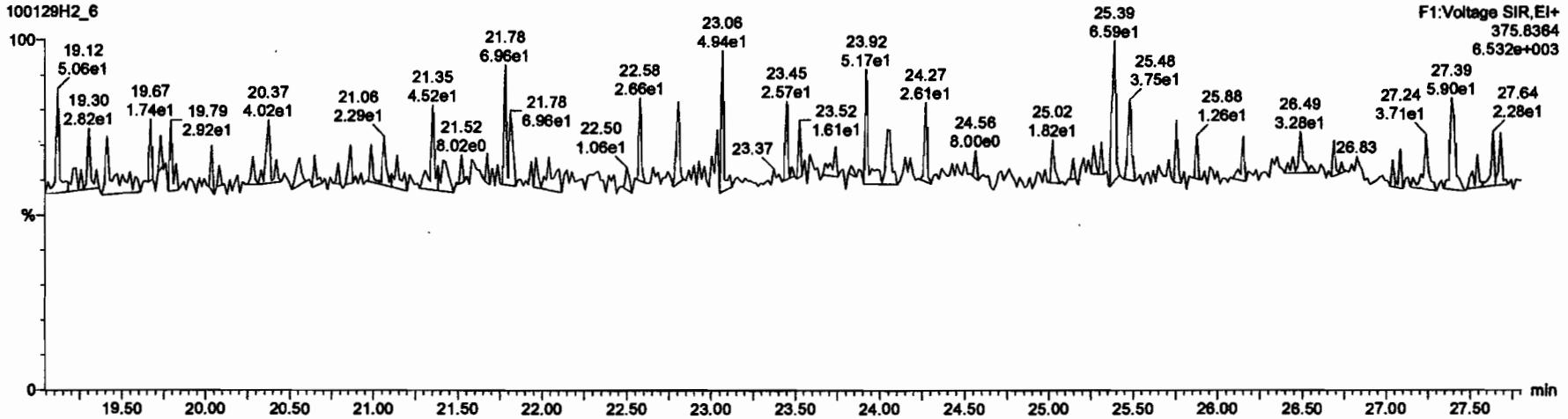

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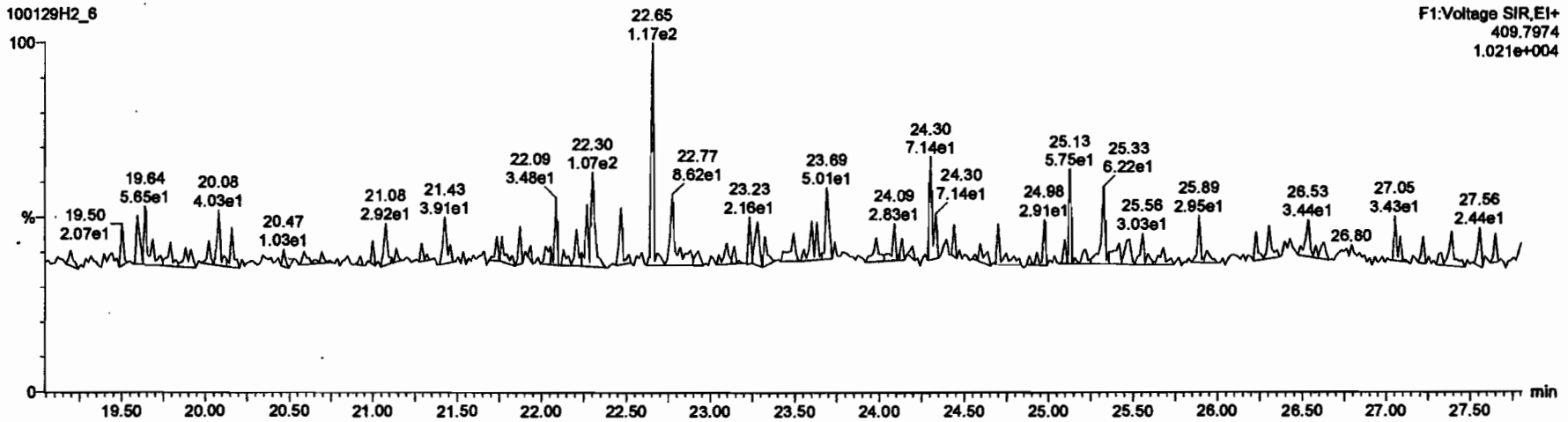

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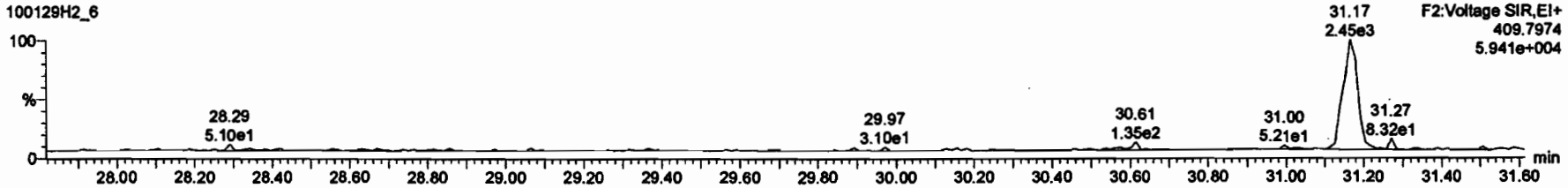

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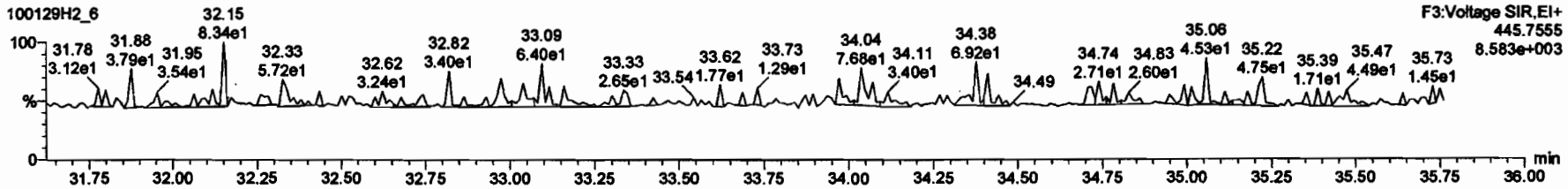

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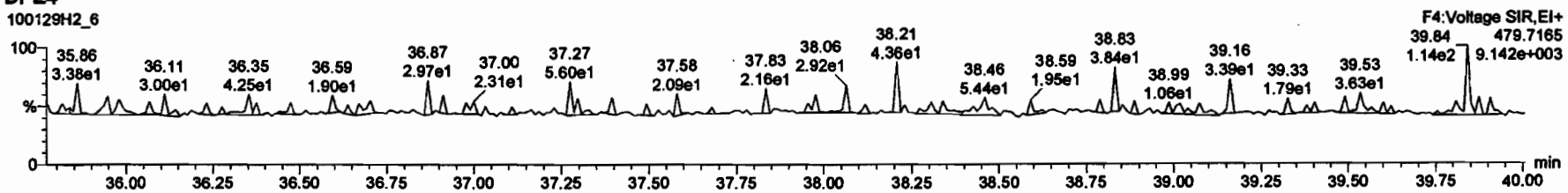

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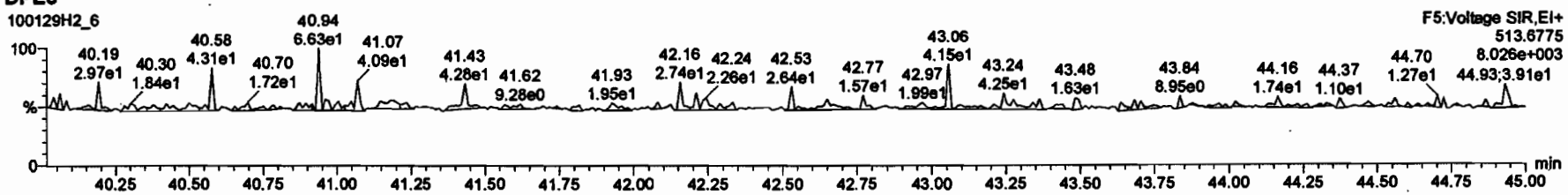

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Name: 100129H2_7, Date: 30-Jan-2010, Time: 07:11:38, ID: ST100129H2-6 1613 CS5 100127H, Description: 1613 CS5 100127H

2,3,7,8-TCDD

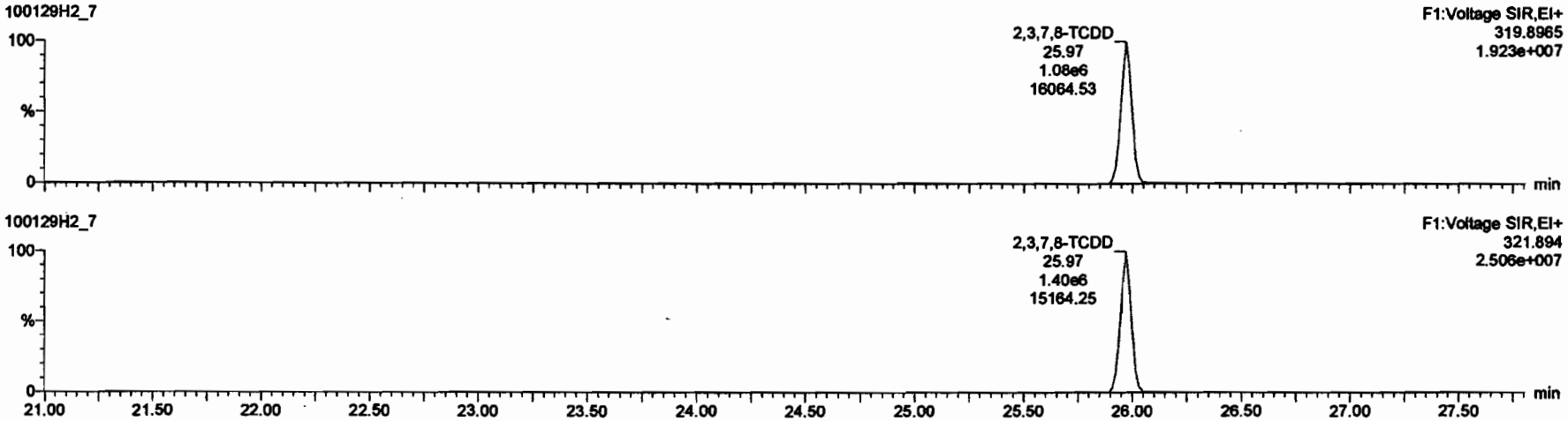

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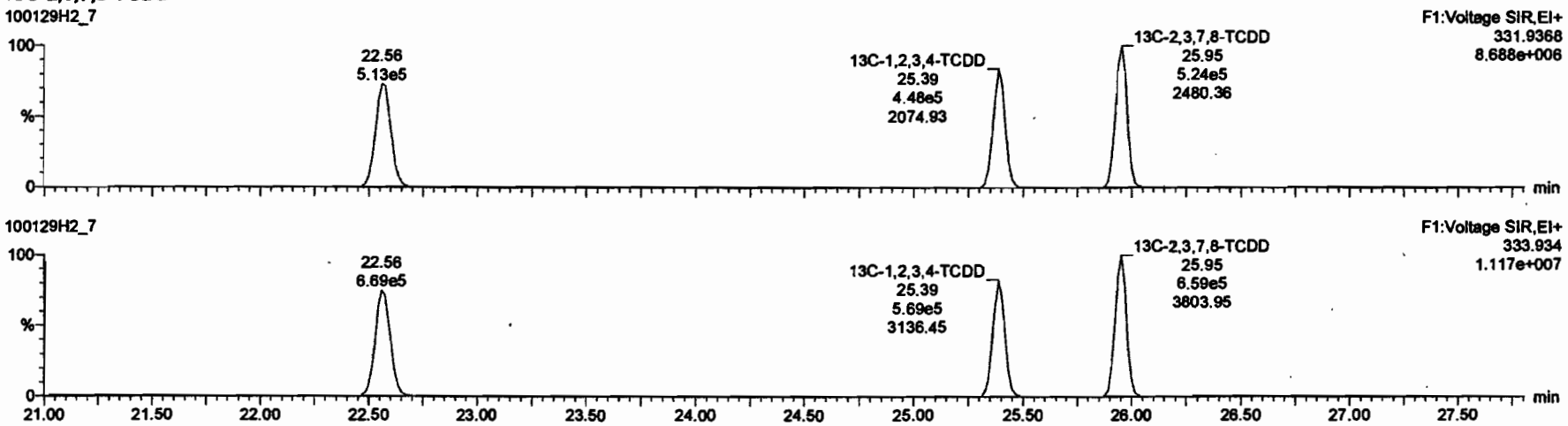

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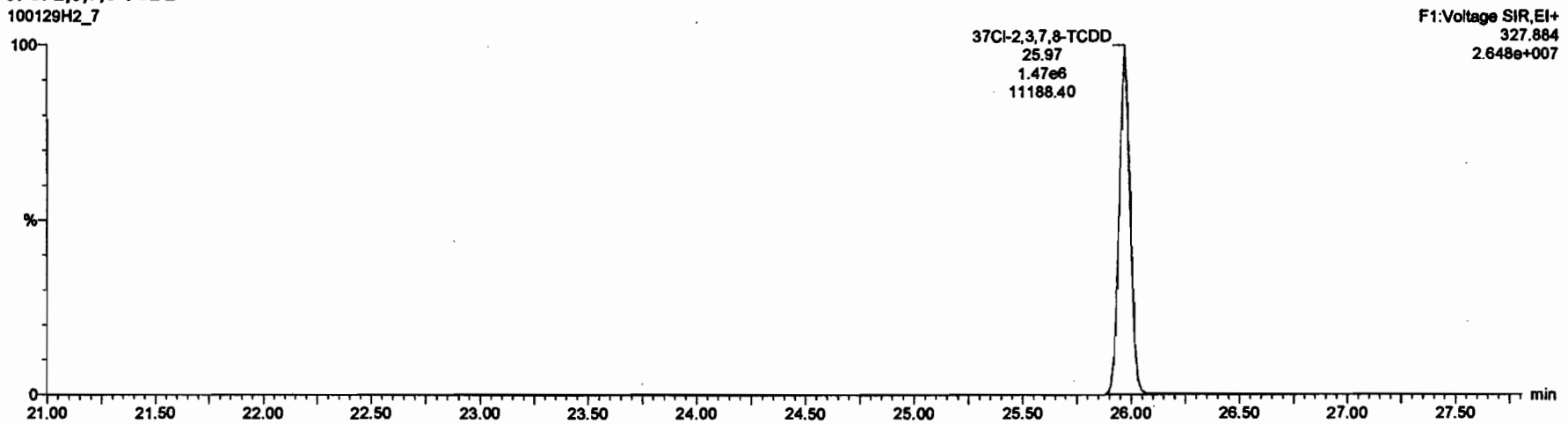

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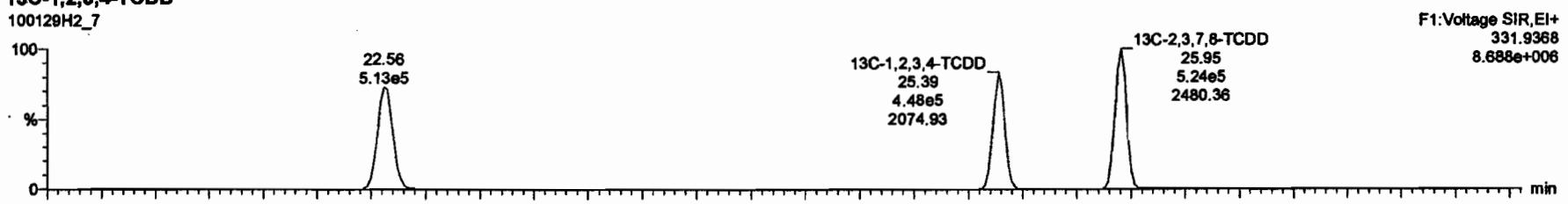

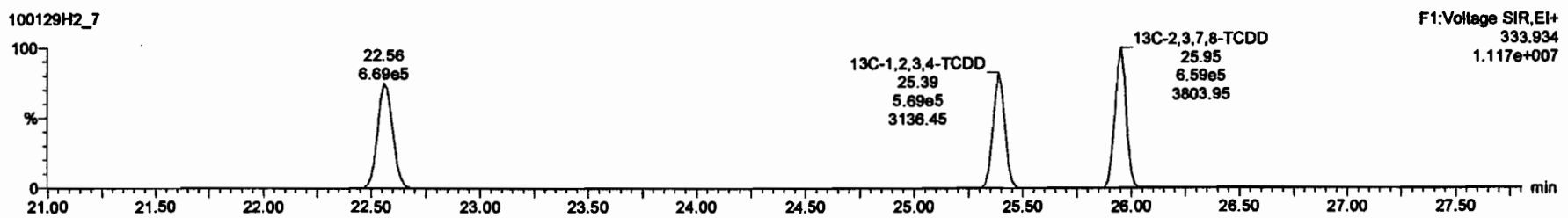

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1,2,3,7,8-PeCDD

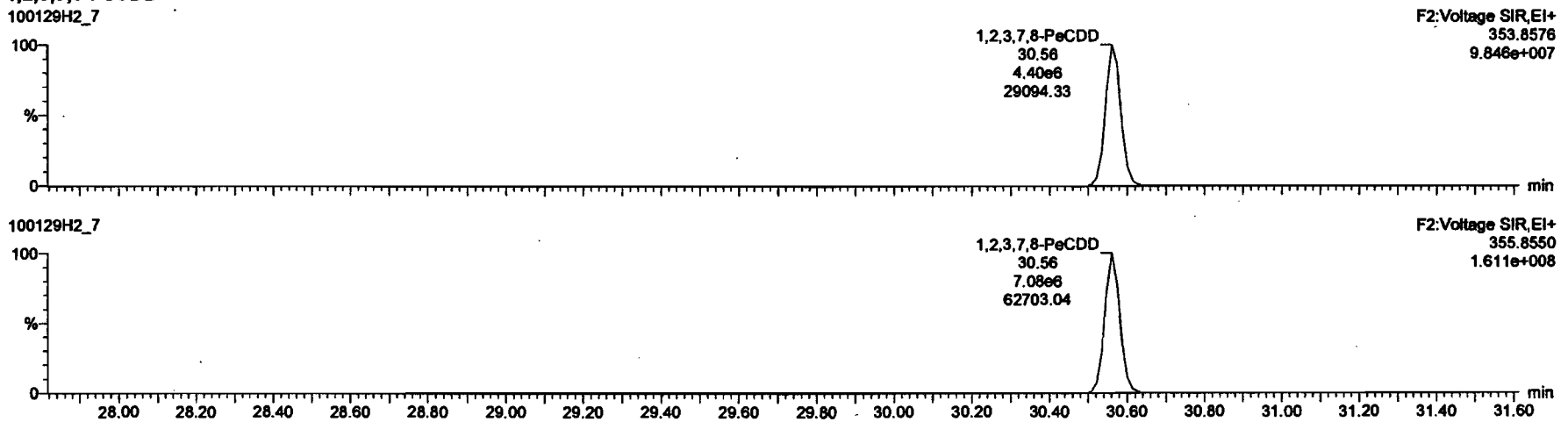

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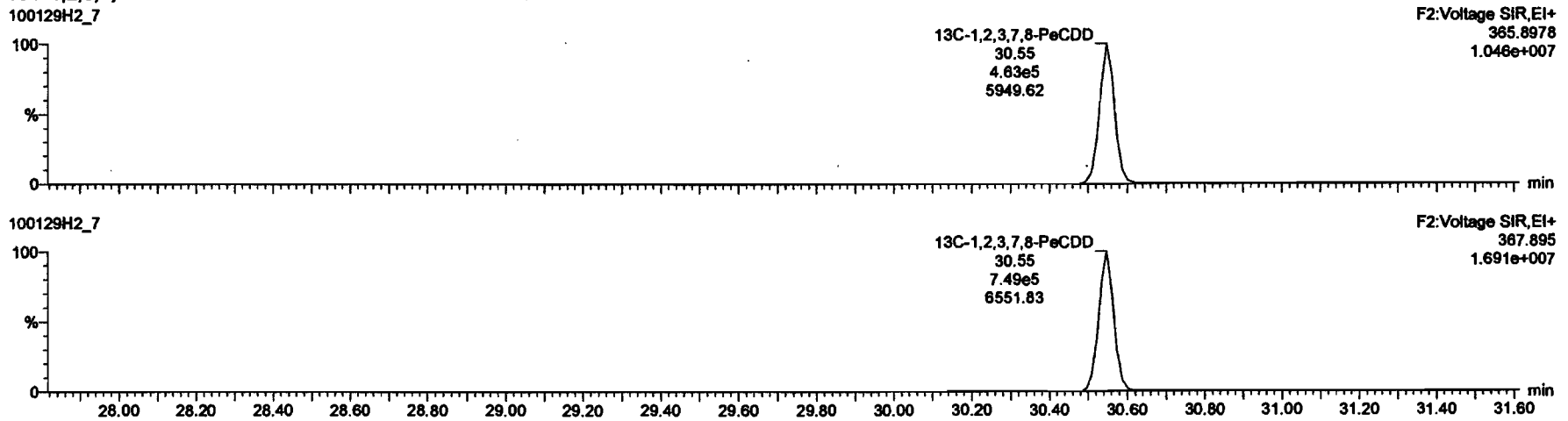

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1,2,3,4,7,8-HxCDD

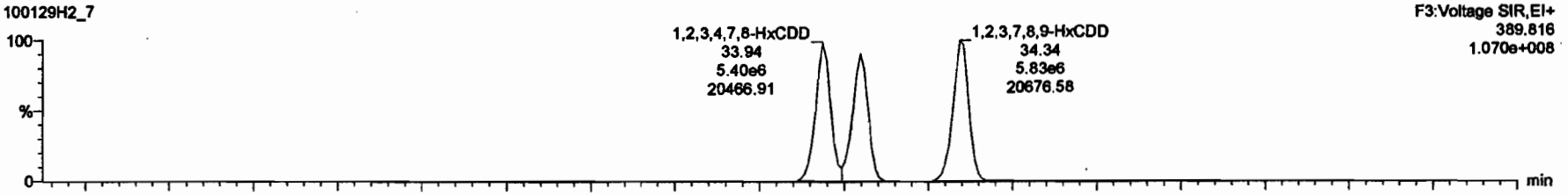

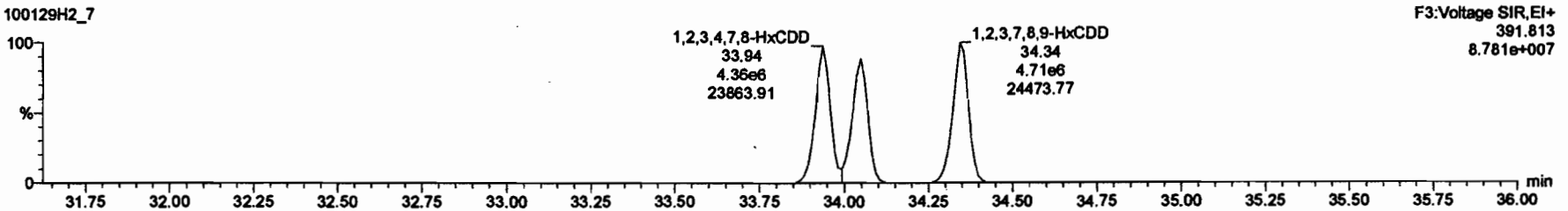

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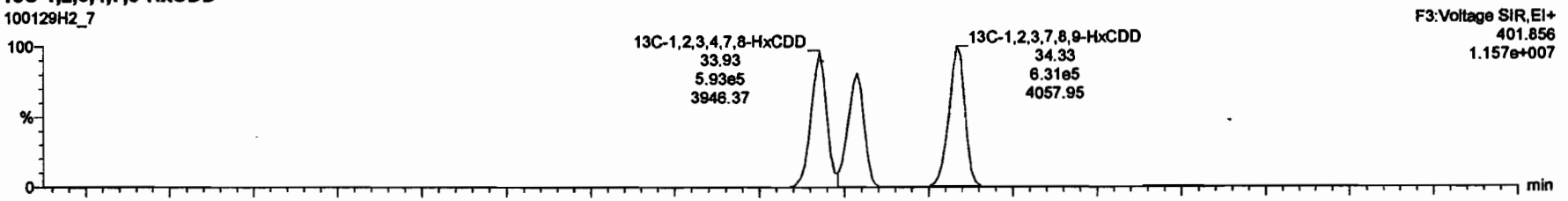

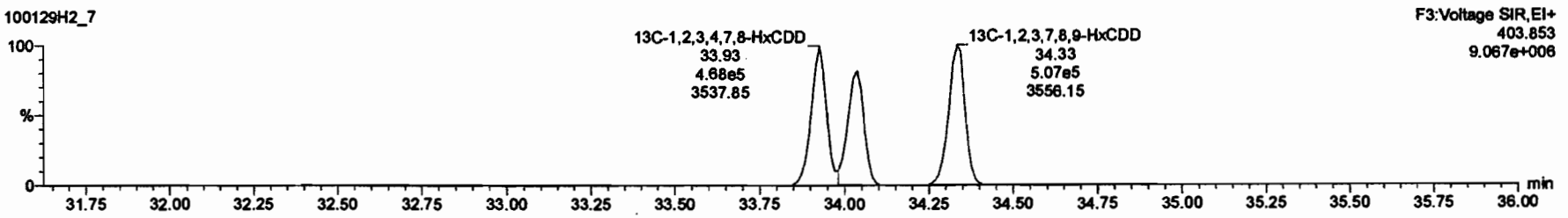

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1,2,3,4,6,7,8-HpCDD

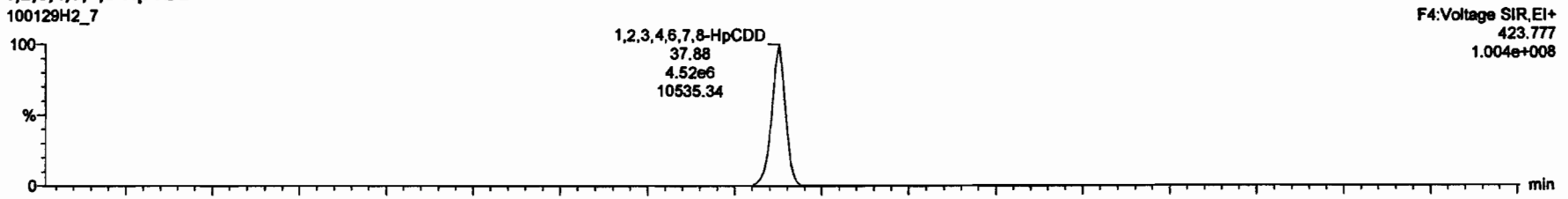

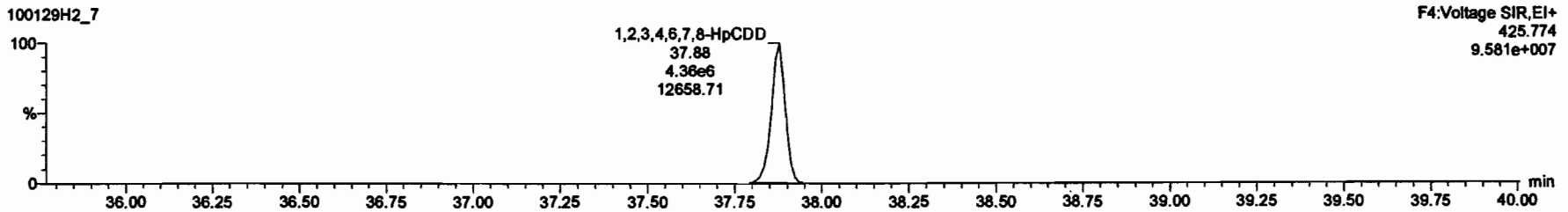

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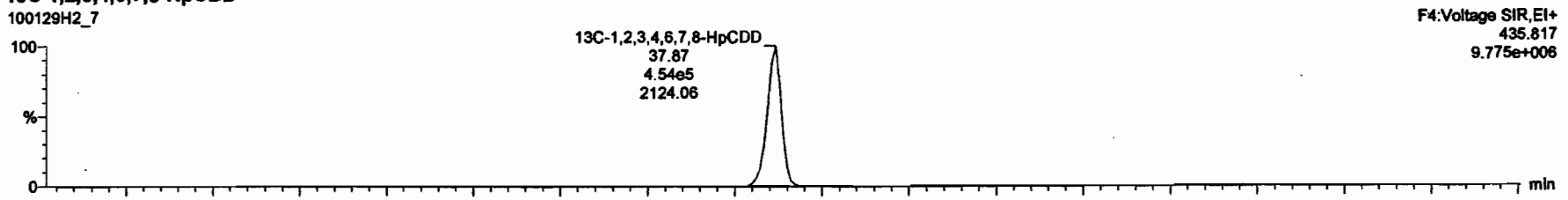

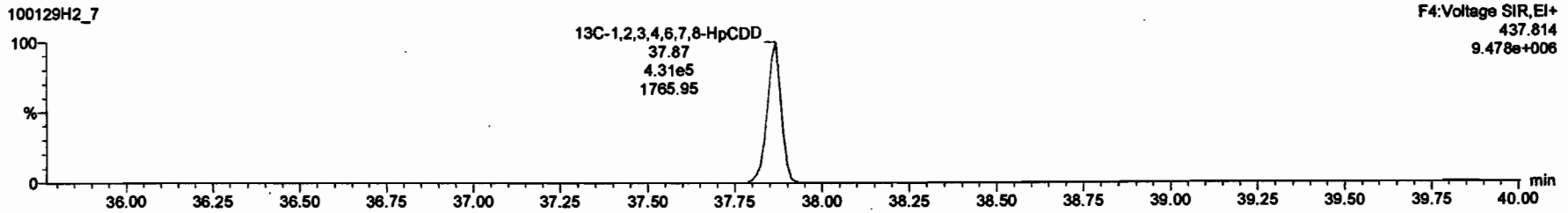

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OCDD

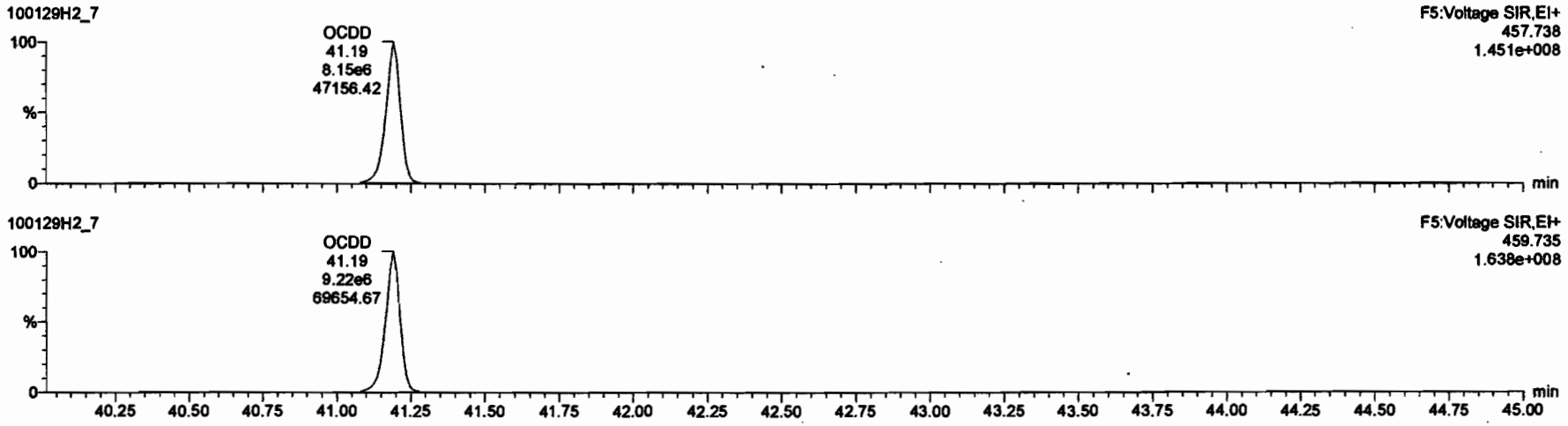

13C-OCDD

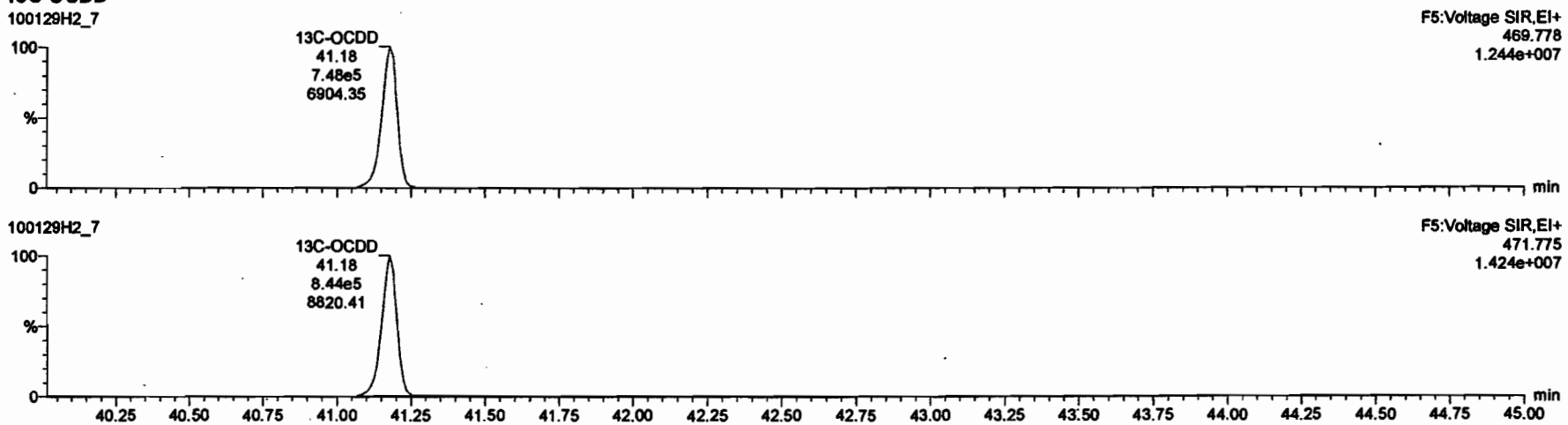

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2,3,7,8-TCDF

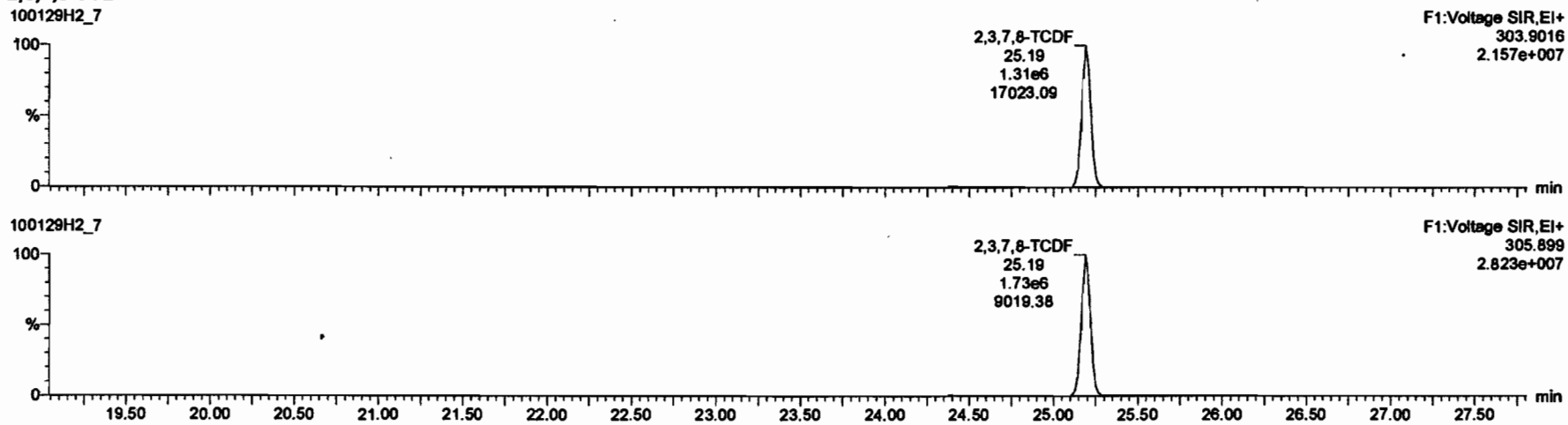

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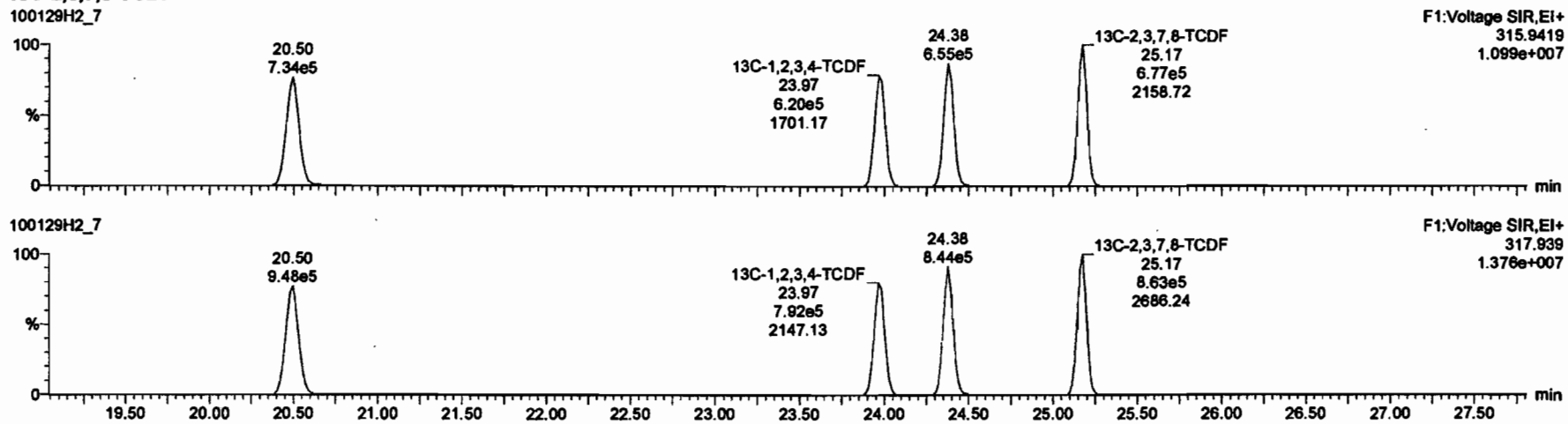

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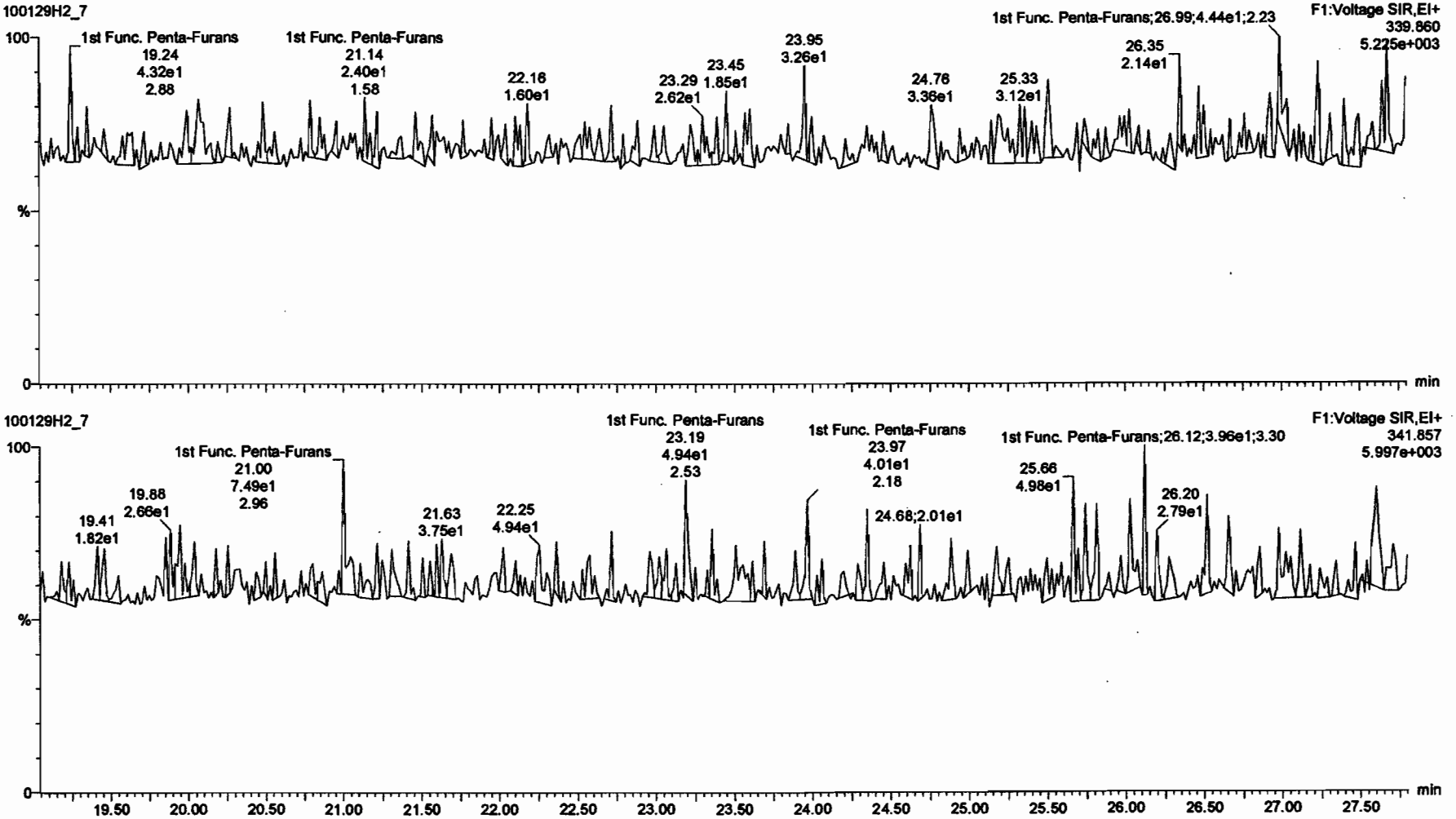

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1,2,3,7,8-PeCDF

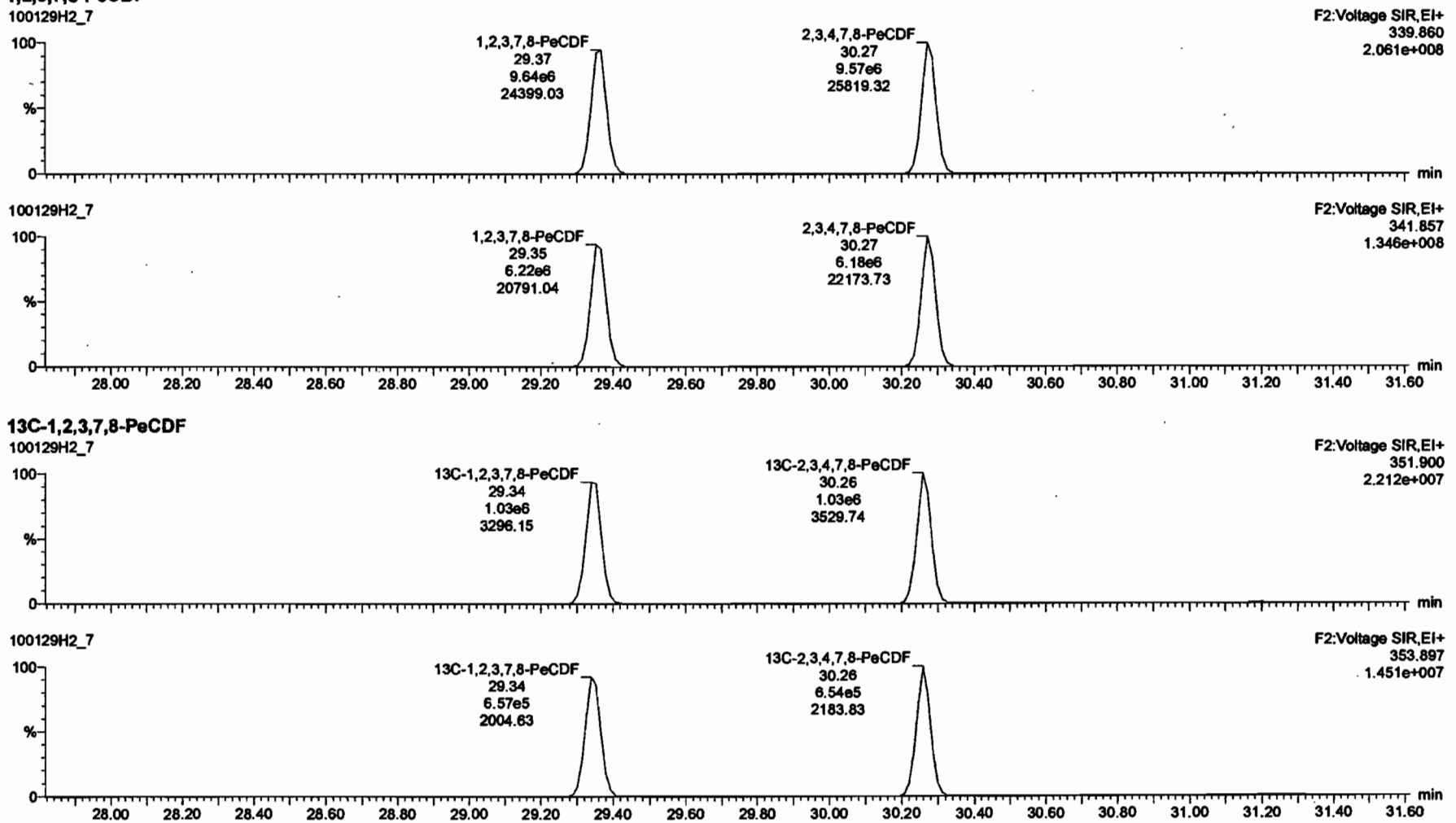

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1,2,3,4,7,8-HxCDF

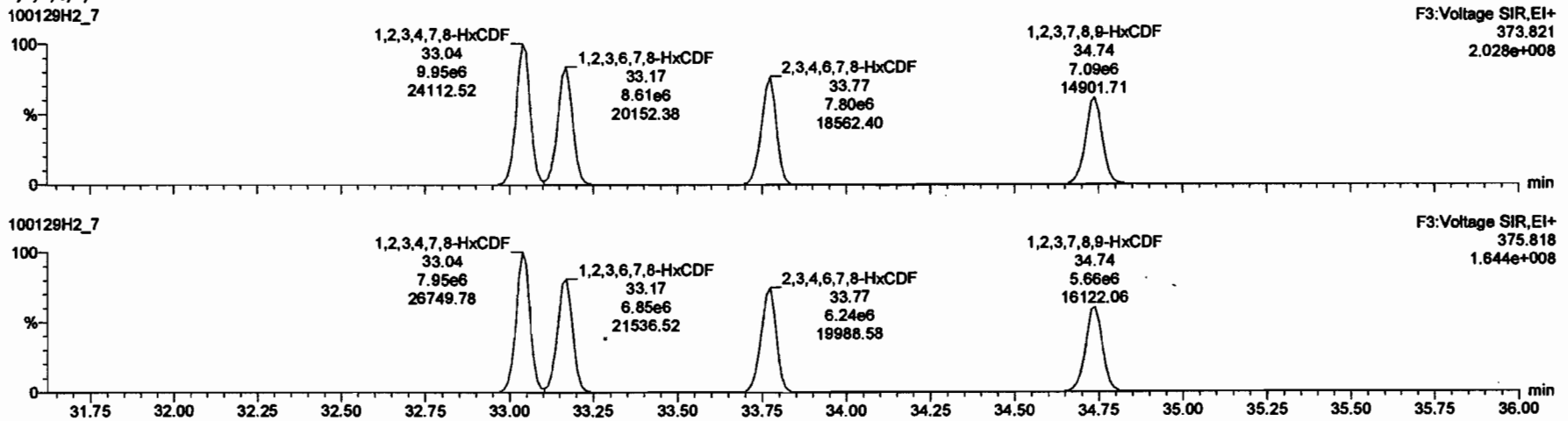

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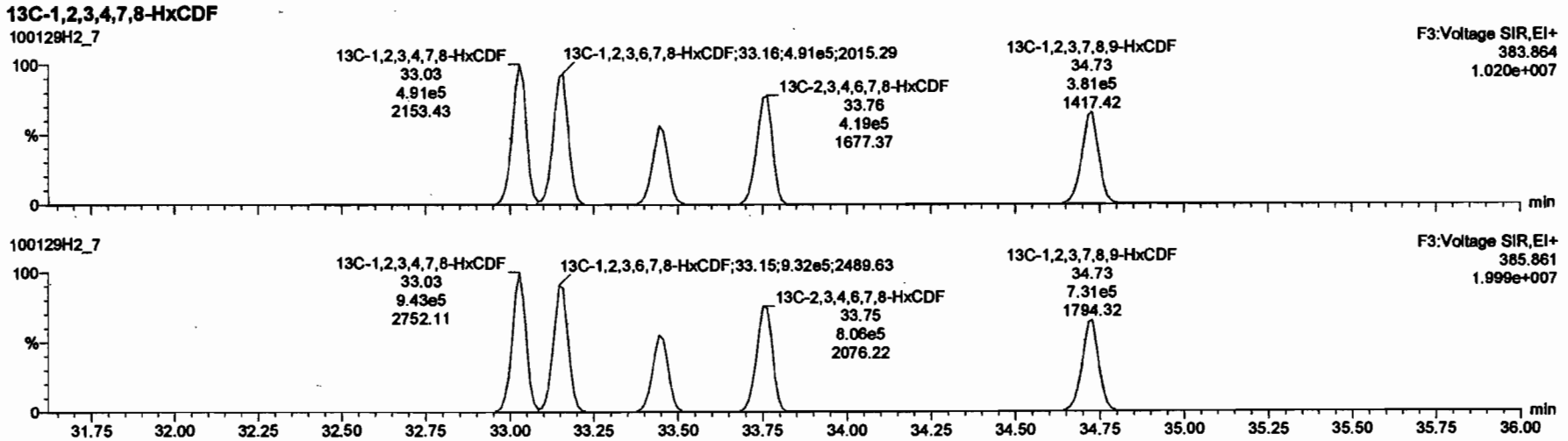

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1,2,3,4,6,7,8-HpCDF

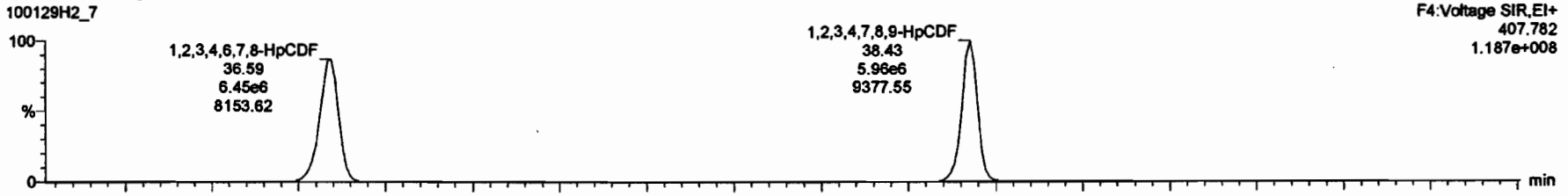

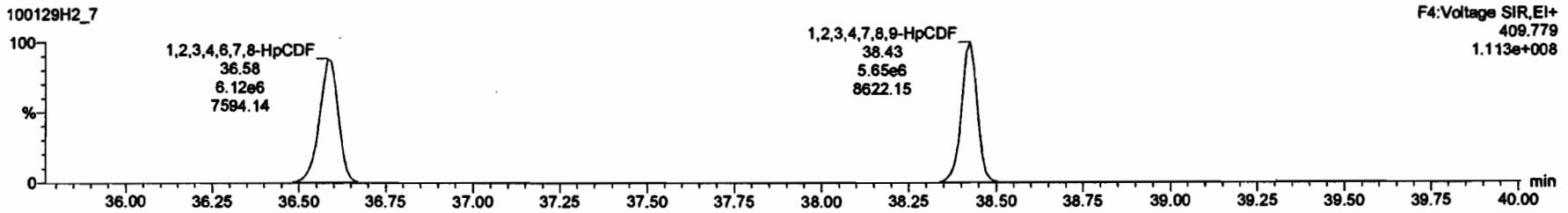

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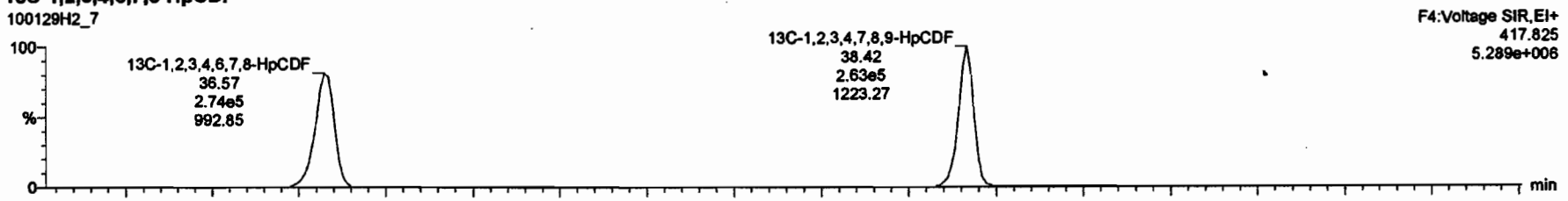

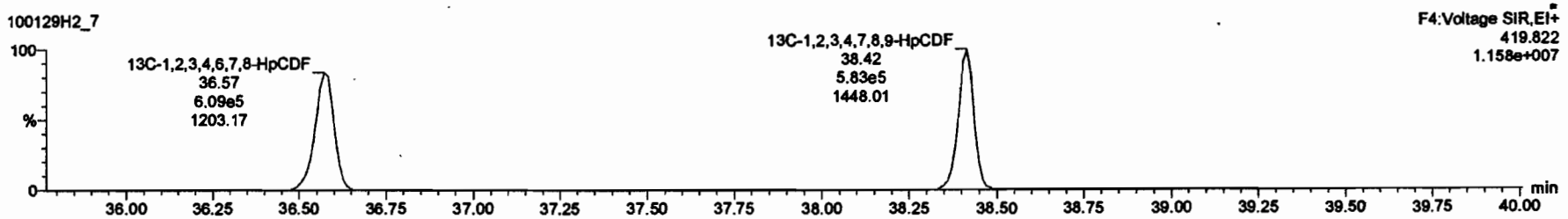

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Printed: Monday, February 01, 2010 13:38:03 Pacific Standard Time

Name: 100129H2_7, Date: 30-Jan-2010, Time: 07:11:38, ID: ST100129H2-6 1613 CS5 100127H, Description: 1613 CS5 100127H

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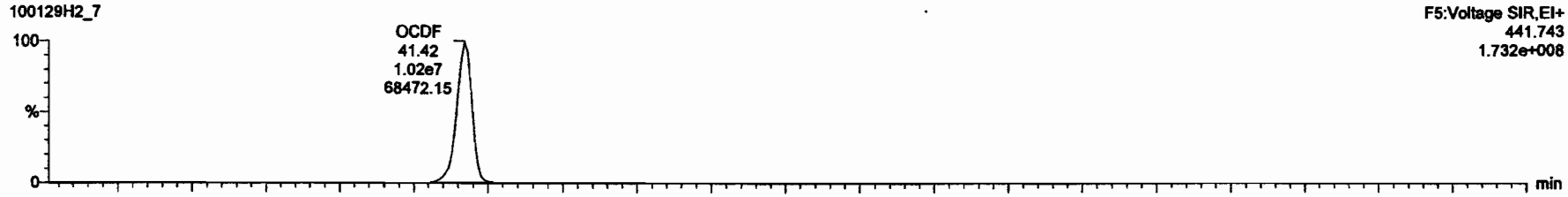

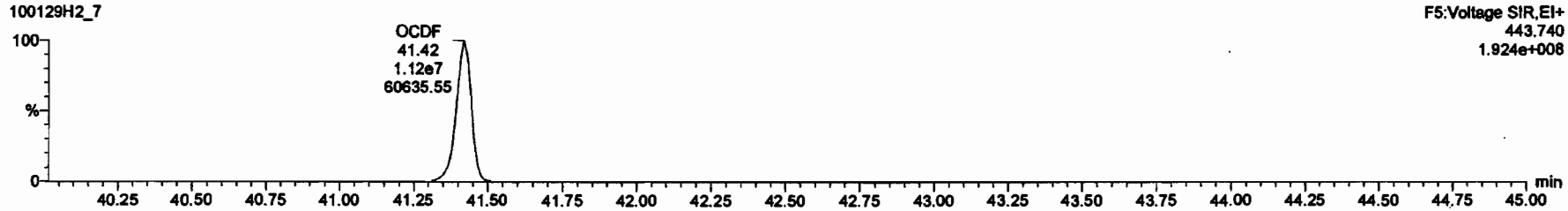

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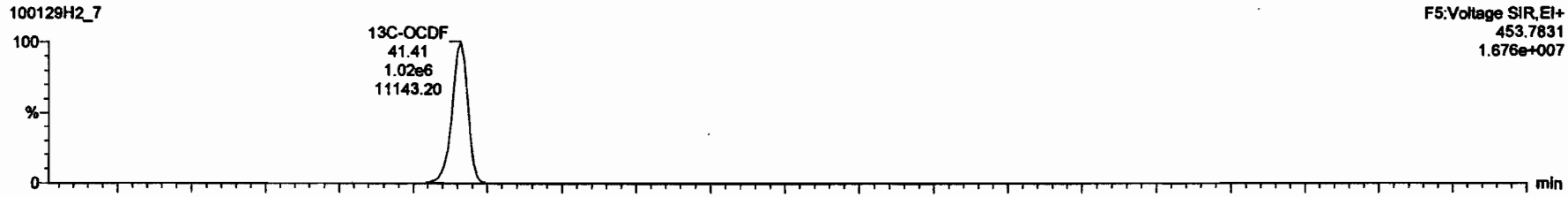

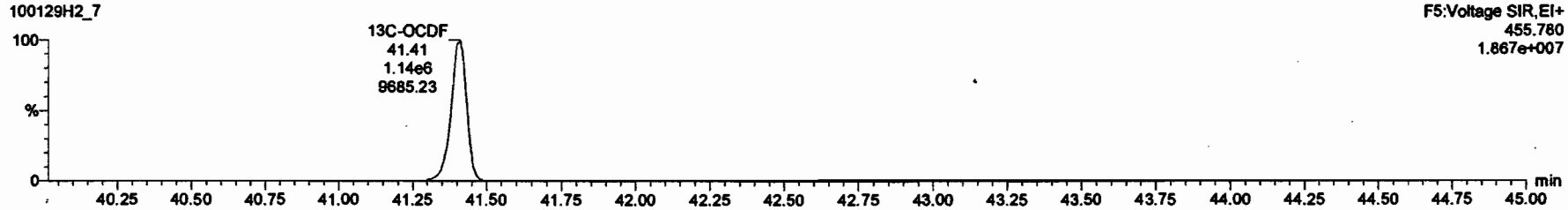

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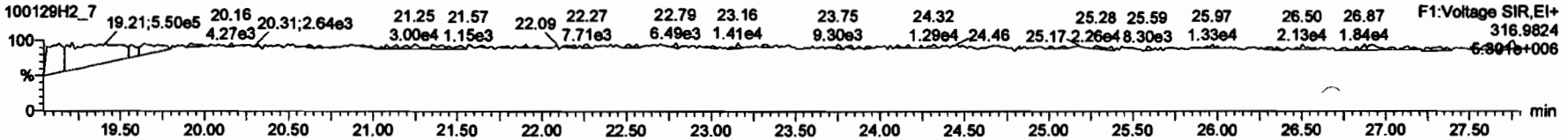

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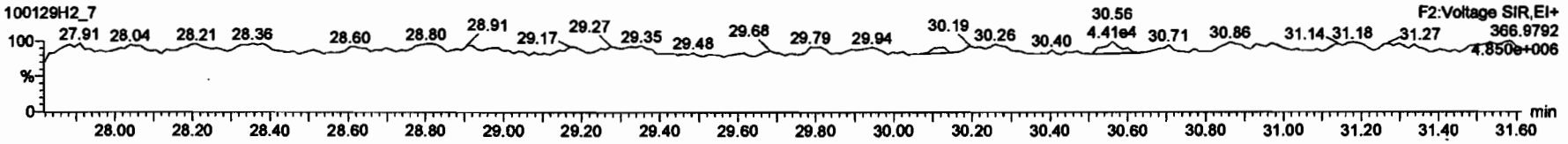

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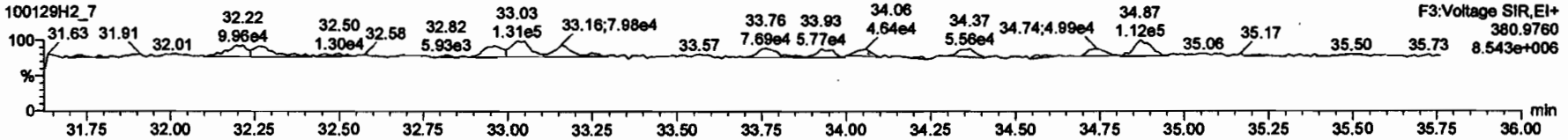

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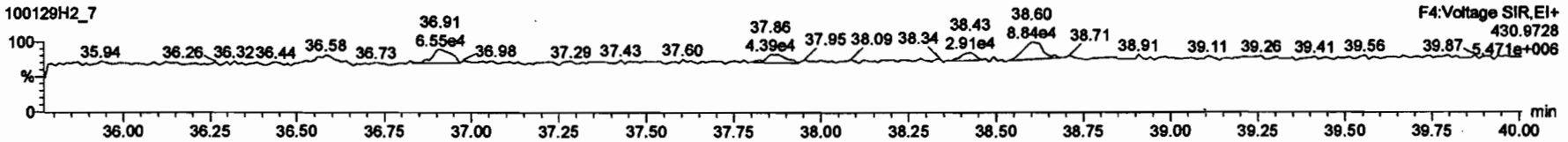

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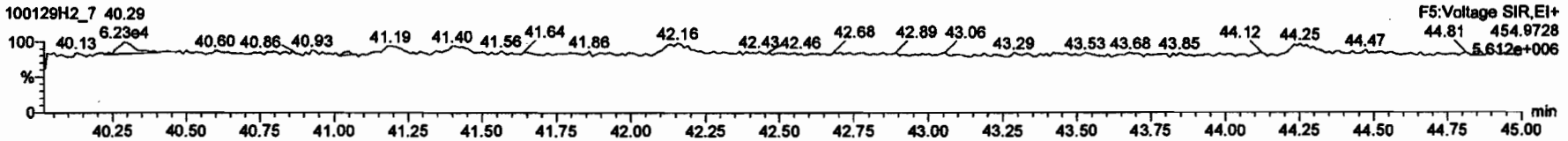

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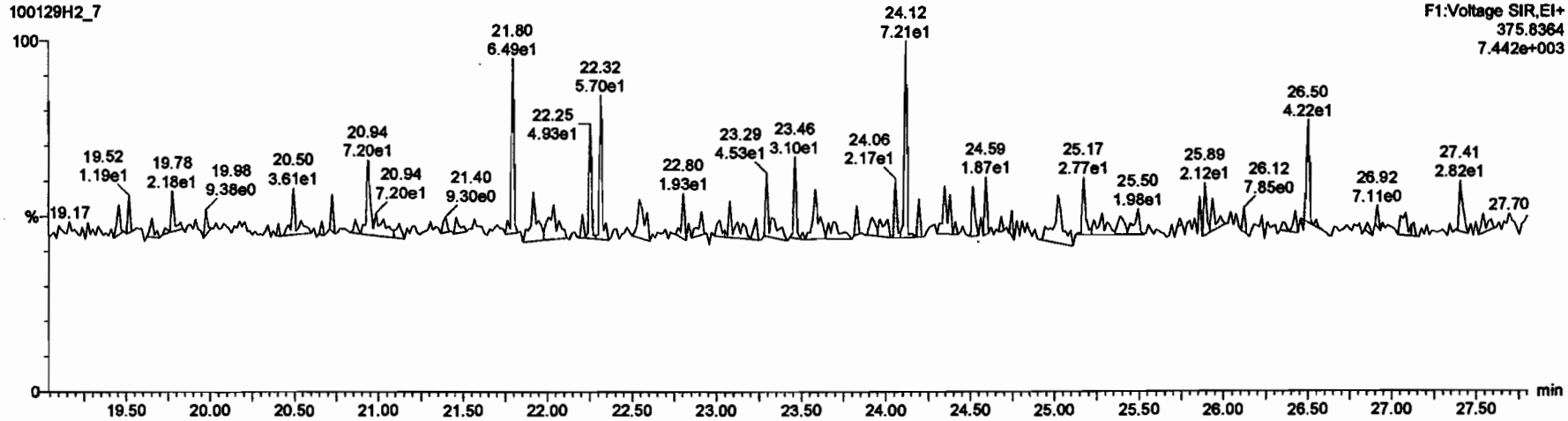

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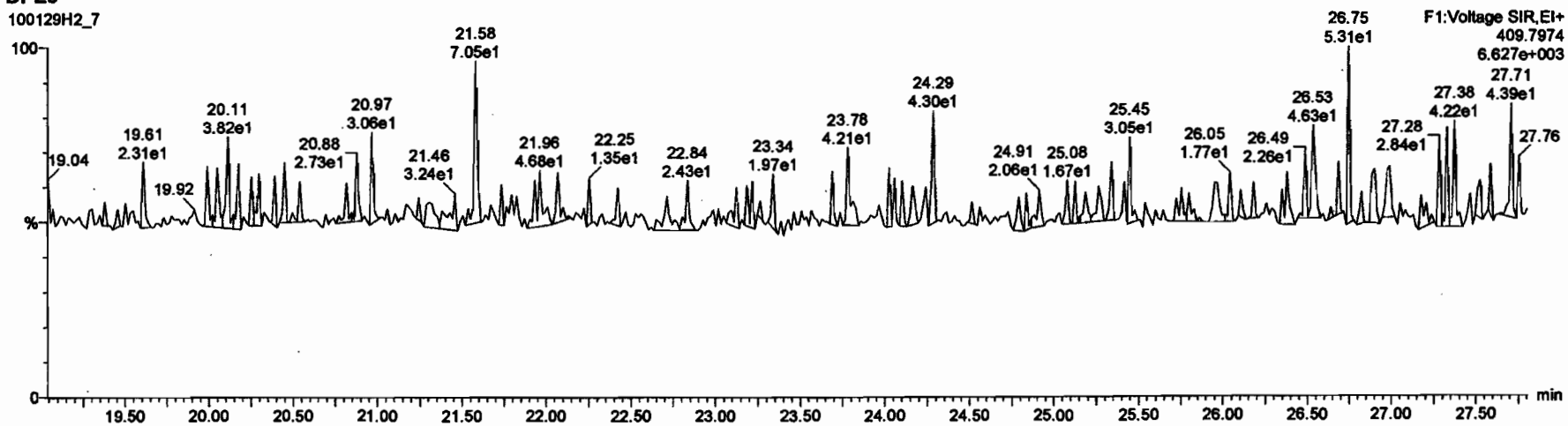

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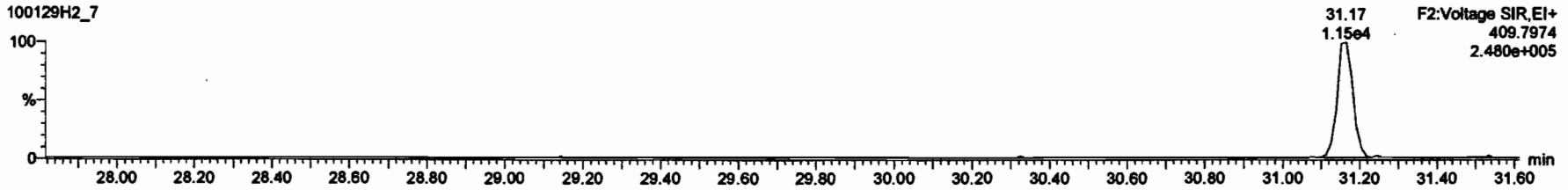

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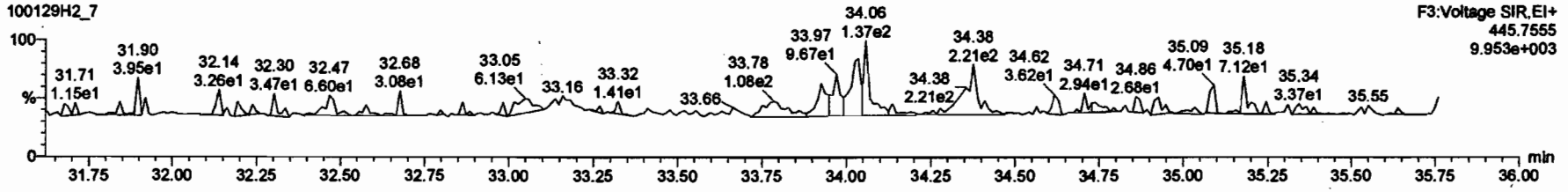

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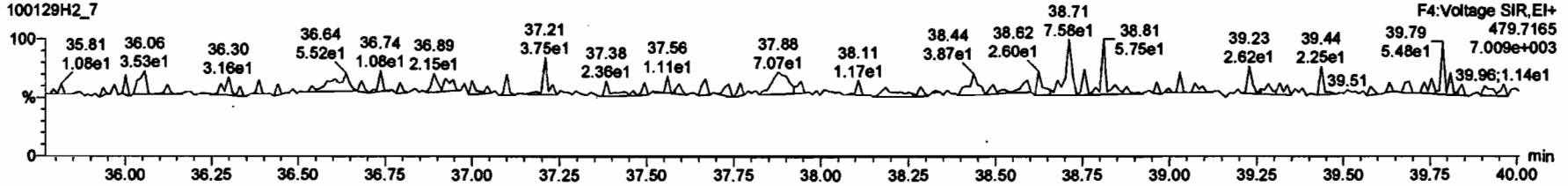

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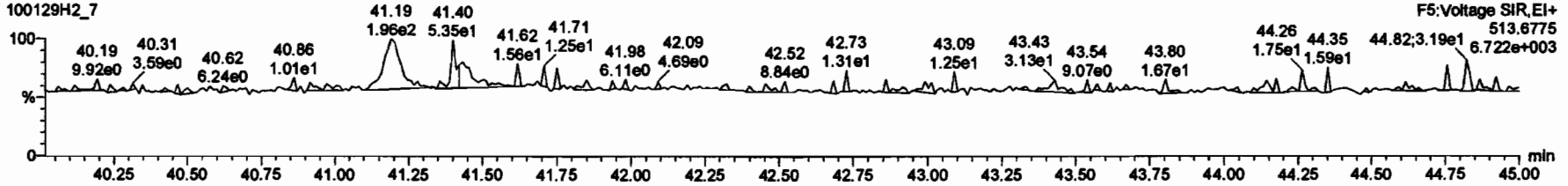

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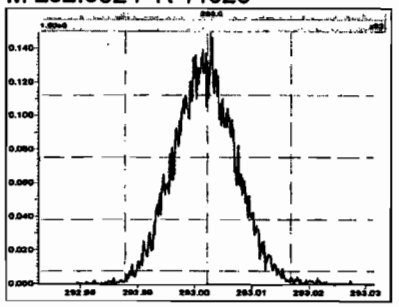

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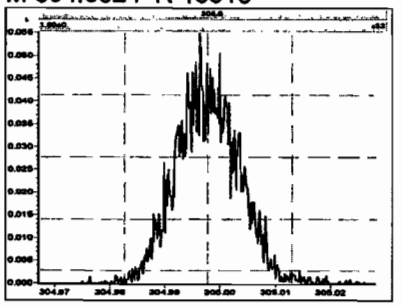

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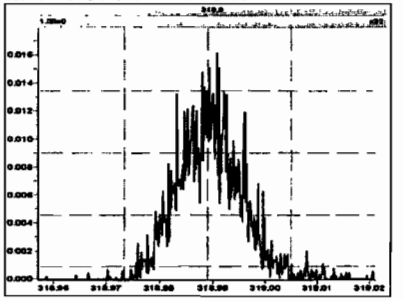

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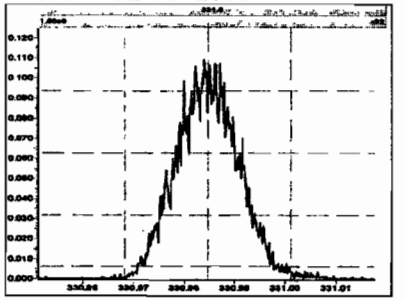

M 342.9792 R 12565

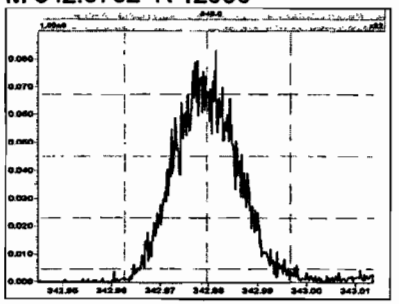

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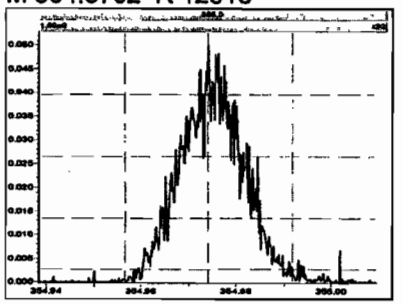

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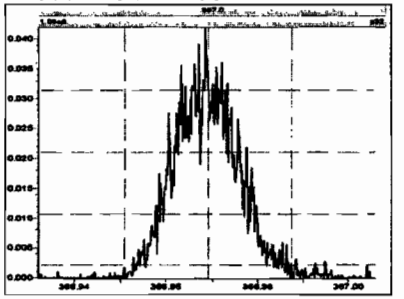

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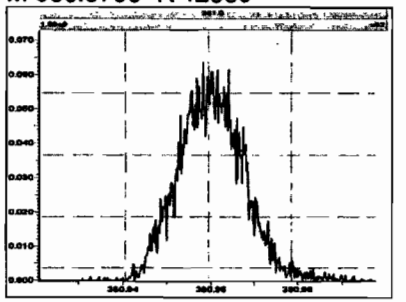

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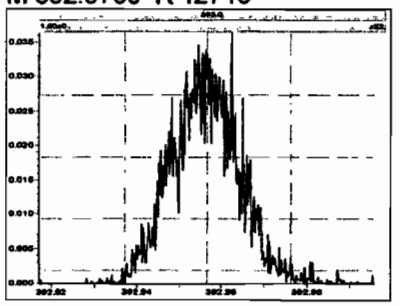

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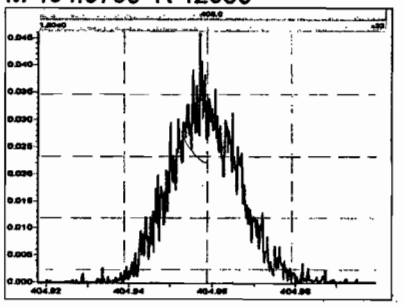

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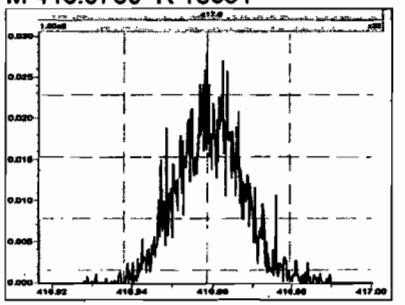

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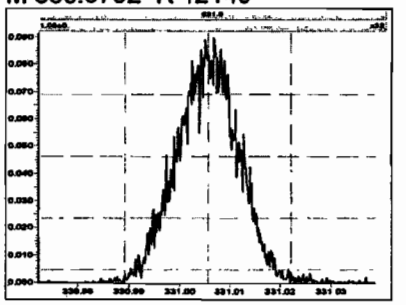

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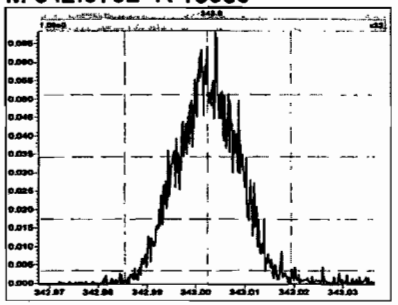

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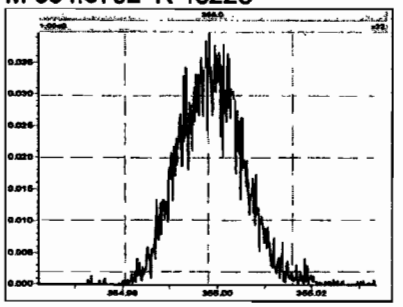

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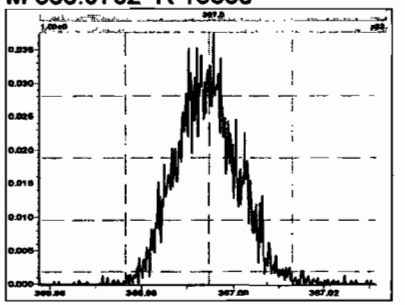

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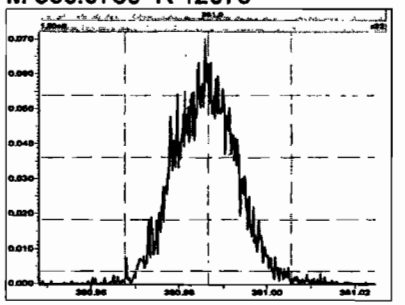

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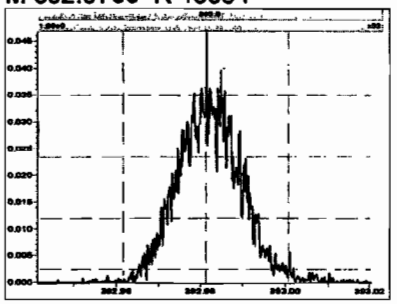

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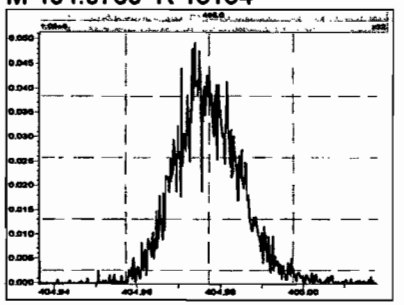

M 416.9760 R 14429

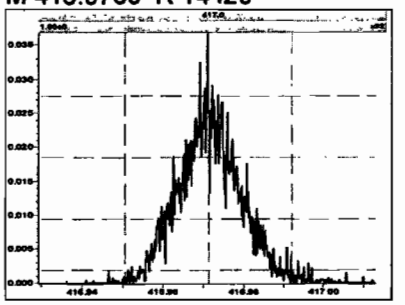

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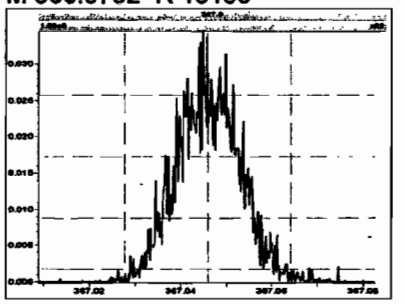

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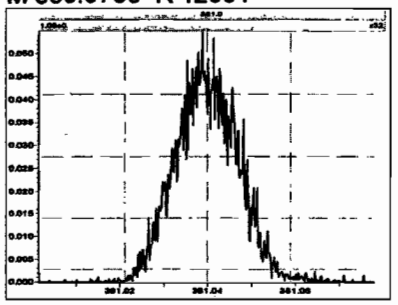

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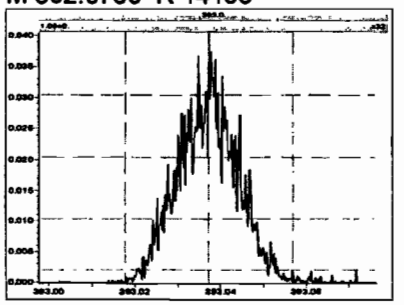

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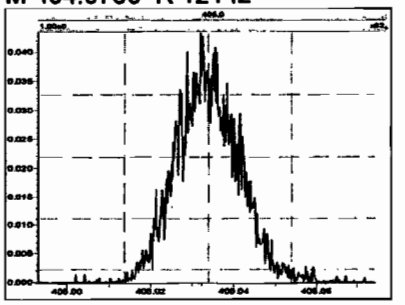

M 416.9760 R 13140

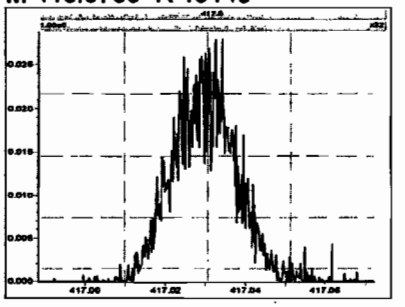

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M 430.9728 R 12452

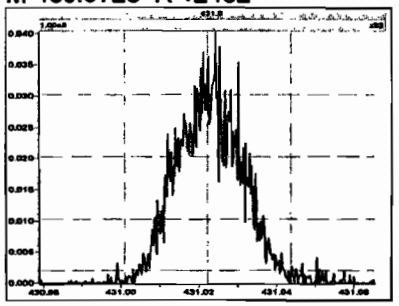

M 442.9728 R 12820

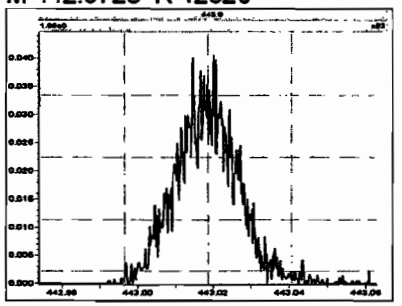

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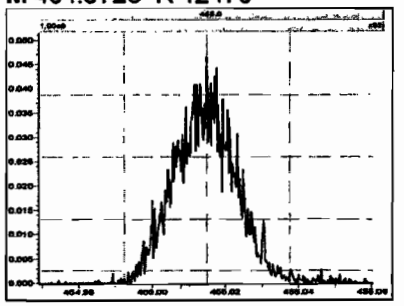

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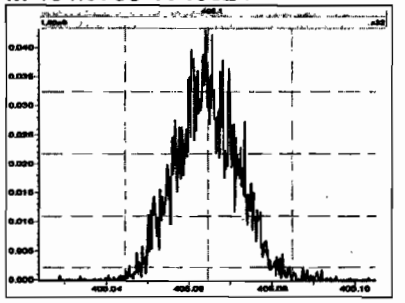

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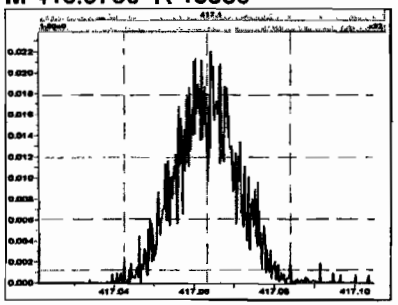

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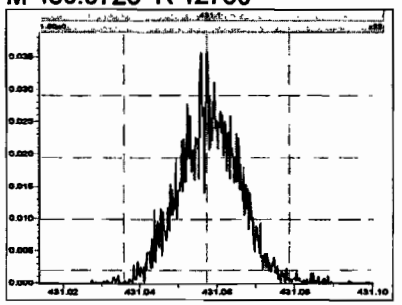

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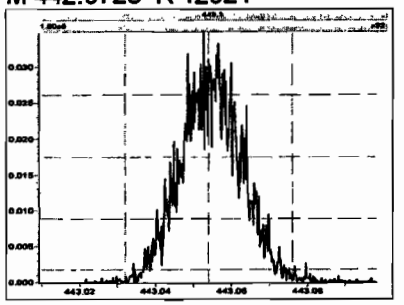

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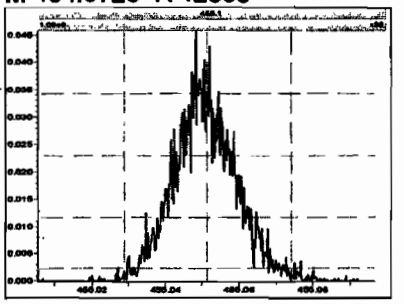

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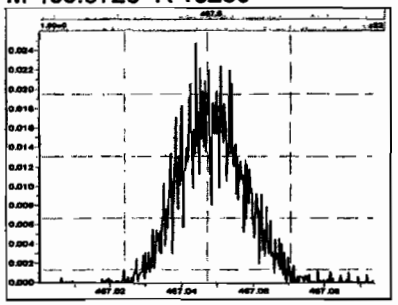

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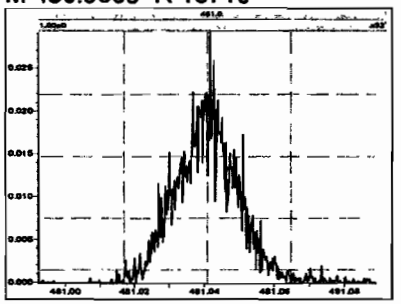

M 430.9728 R 13426

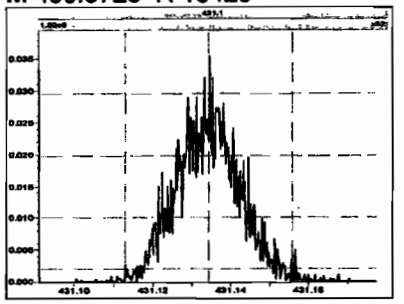

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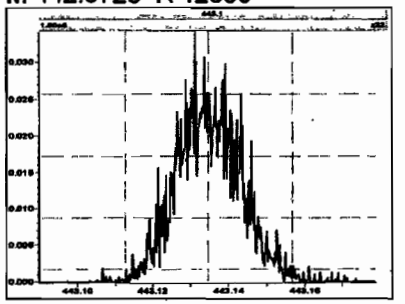

Printed: Saturday, January 30, 2010 11:27:55 Pacific Standard Time

M 454.9728 R 12135

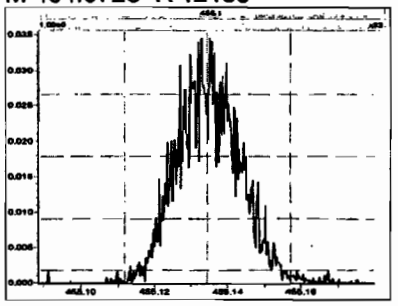

M 466.9728 R 13192

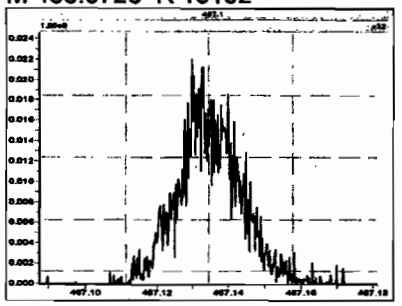

M 480.9696 R 13459

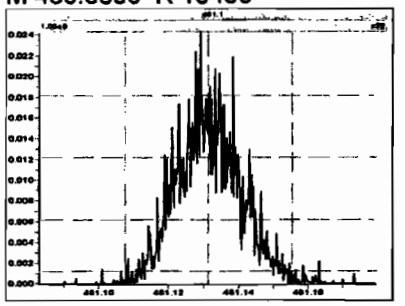

M 492.9696 R 14006

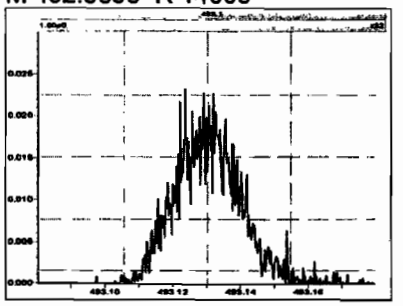

M 504.9696 R 12825

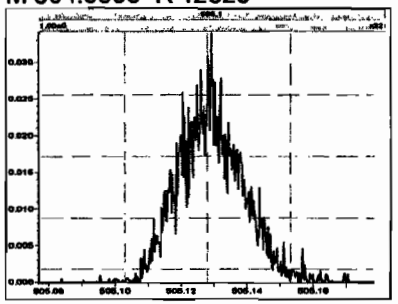

M 516.9697 R 11290

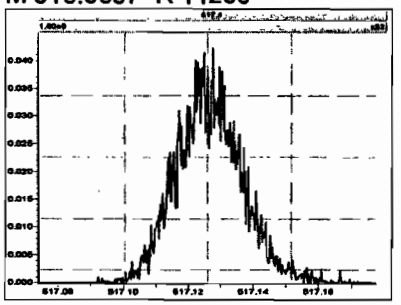

Quantify Sample Summary Report **MassLynx 4.1**
Vista Analytical Laboratory

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-sss.qld

Last Altered: Monday, February 01, 2010 14:25:40 Pacific Standard Time
Printed: Monday, February 01, 2010 14:26:33 Pacific Standard Time

Method: C:\MassLynx\Default.pro\Methdb\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

1	2,3,7,8-TCDD	7.74e4	0.76	NO	1.04	1.000	25.98	1.001	8.5220	85.2	0.0319	8.5220
2	1,2,3,7,8-PeCDD	3.95e5	0.62	NO	0.935	1.000	30.57	1.001	51.810	104	0.0544	51.810
3	1,2,3,4,7,8-HxCDD	3.13e5	1.23	NO	0.907	1.000	33.95	1.001	52.960	106	0.0758	52.960
4	1,2,3,6,7,8-HxCDD	3.06e5	1.23	NO	0.995	1.000	34.05	1.000	44.937	89.9	0.0686	44.937
5	1,2,3,7,8,9-HxCDD	3.11e5	1.22	NO	0.930	1.000	34.36	1.000	49.513	99.0	0.0794	49.513
6	1,2,3,4,6,7,8-HpCDD	2.59e5	1.04	NO	1.00	1.000	37.88	1.000	50.208	100	0.107	50.208
7	OCDD	4.40e5	0.89	NO	1.10	1.000	41.18	1.000	88.747	88.7	0.0698	88.747
8	2,3,7,8-TCDF	1.08e5	0.75	NO	0.956	1.000	25.19	1.001	9.1772	91.8	0.0413	9.1772
9	1,2,3,7,8-PeCDF	4.92e5	1.57	NO	0.941	1.000	29.37	1.000	47.879	95.8	0.0962	47.879
10	2,3,4,7,8-PeCDF	5.37e5	1.56	NO	0.926	1.000	30.29	1.000	50.400	101	0.0897	50.400
11	1,2,3,4,7,8-HxCDF	5.09e5	1.27	NO	1.22	1.000	33.05	1.001	46.659	93.3	0.0837	46.659
12	1,2,3,6,7,8-HxCDF	4.89e5	1.26	NO	1.08	1.000	33.17	1.000	51.154	102	0.0974	51.154
13	2,3,4,6,7,8-HxCDF	4.56e5	1.26	NO	1.13	1.000	33.77	1.000	49.390	98.8	0.104	49.390
14	1,2,3,7,8,9-HxCDF	3.74e5	1.29	NO	1.13	1.000	34.74	1.000	48.195	96.4	0.148	48.195
15	1,2,3,4,6,7,8-HpCDF	4.20e5	1.09	NO	1.44	1.000	36.59	1.001	48.107	96.2	0.127	48.107
16	1,2,3,4,7,8,9-HpCDF	3.33e5	1.06	NO	1.38	1.000	38.43	1.000	49.183	98.4	0.132	49.183
17	OCDF	5.31e5	0.88	NO	1.01	1.000	41.41	1.000	91.700	91.7	0.0803	91.700
18	13C-2,3,7,8-TCDD	8.75e5	0.78	NO	1.10	1.000	25.95	1.022	103.09	103	0.180	
19	13C-1,2,3,7,8-PeCDD	8.16e5	0.62	NO	1.09	1.000	30.55	1.203	96.490	96.5	0.149	
20	13C-1,2,3,4,7,8-HxCDD	6.51e5	1.25	NO	1.01	1.000	33.93	1.014	82.714	82.7	0.143	
21	13C-1,2,3,6,7,8-HxCDD	6.84e5	1.24	NO	0.889	1.000	34.04	1.017	98.732	98.7	0.163	
22	13C-1,2,3,7,8,9-HxCDD	6.75e5	1.24	NO	1.07	1.000	34.34	1.027	80.742	80.7	0.135	
23	13C-1,2,3,4,6,7,8-HpCDD	5.15e5	1.07	NO	0.837	1.000	37.87	1.132	78.954	79.0	0.227	
24	13C-OCDD	8.98e5	0.89	NO	0.712	1.000	41.17	1.231	161.94	81.0	0.141	
25	13C-2,3,7,8-TCDF	1.23e6	0.79	NO	1.05	1.000	25.17	0.992	100.12	100	0.227	
26	13C-1,2,3,7,8-PeCDF	1.09e6	1.56	NO	1.02	1.000	29.35	1.156	91.755	91.8	0.238	
27	13C-2,3,4,7,8-PeCDF	1.15e6	1.56	NO	1.08	1.000	30.27	1.192	91.534	91.5	0.225	
28	13C-1,2,3,4,7,8-HxCDF	8.91e5	0.52	NO	1.37	1.000	33.03	0.987	83.799	83.8	0.205	
29	13C-1,2,3,6,7,8-HxCDF	8.86e5	0.52	NO	1.37	1.000	33.16	0.991	83.270	83.3	0.205	
30	13C-2,3,4,6,7,8-HxCDF	8.20e5	0.52	NO	1.18	1.000	33.76	1.009	89.093	89.1	0.237	

J 2/1/10

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-sss.qld

Last Altered: Monday, February 01, 2010 14:25:40 Pacific Standard Time
Printed: Monday, February 01, 2010 14:26:33 Pacific Standard Time

Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

31	13C-1,2,3,7,8,9-HxCDF	6.87e5	0.53	NO	1.05	1.000	34.73	1.038	84.040	84.0	0.266
32	13C-1,2,3,4,6,7,8-HpCDF	6.07e5	0.45	NO	0.858	1.000	36.57	1.093	90.751	90.8	0.264
33	13C-1,2,3,4,7,8,9-HpCDF	4.91e5	0.46	NO	0.794	1.000	38.42	1.148	79.433	79.4	0.285
34	13C-OCDF	1.14e6	0.88	NO	0.948	1.000	41.40	1.237	154.51	77.3	0.101
35	37Cl-2,3,7,8-TCDD	8.76e4			0.665	1.000	25.97	1.023	17.069	171	0.0439
36	13C-1,2,3,4-TCDD	7.72e5	0.77	NO	1.00	1.000	25.39	0.000	100.00	100	0.198
37	13C-1,2,3,4-TCDF	1.17e6	0.79	NO	1.00	1.000	23.97	0.000	100.00	100	0.239
38	13C-1,2,3,4,6,9-HxCDF	7.79e5	0.53	NO	1.00	1.000	33.46	0.000	100.00	100	0.280

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-sss.qld

Last Altered: Monday, February 01, 2010 14:25:40 Pacific Standard Time
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Method: C:\MassLynx\Default.pro\Methdb\1613_new.mdb 13 Jan 2010 14:58:01
Calibration: C:\MassLynx\DEFAULT.PRO\CurveDB\db-5_1613vg10-01-29-10.cdb 01 Feb 2010 13:32:31

Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

2,3,7,8-TCDD

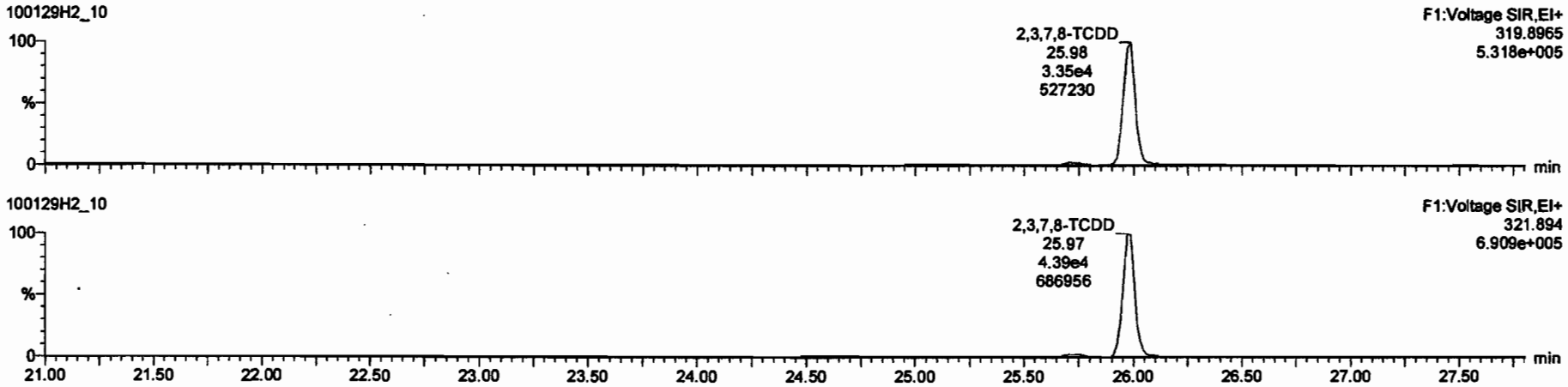

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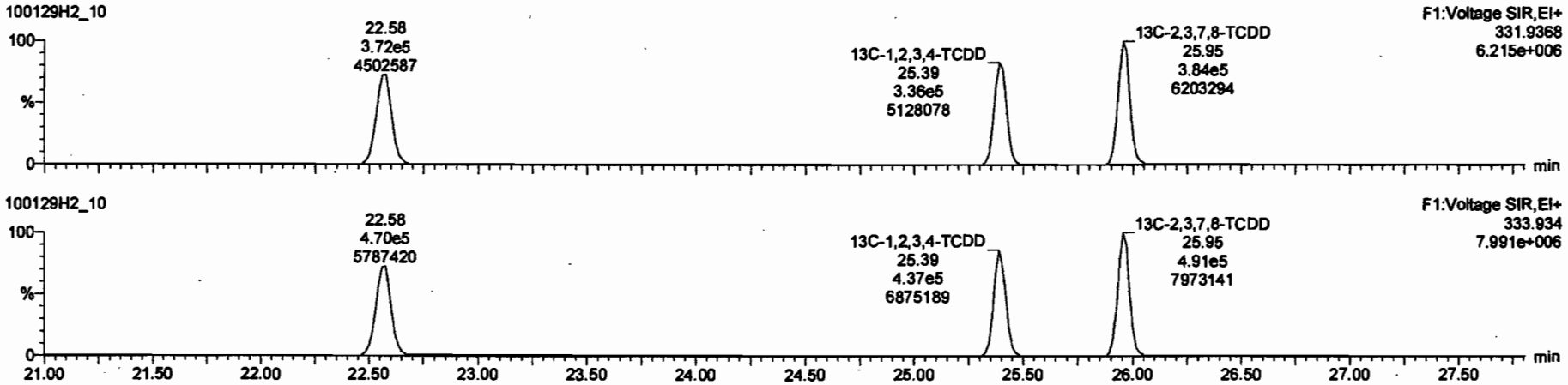

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37Cl-2,3,7,8-TCDD

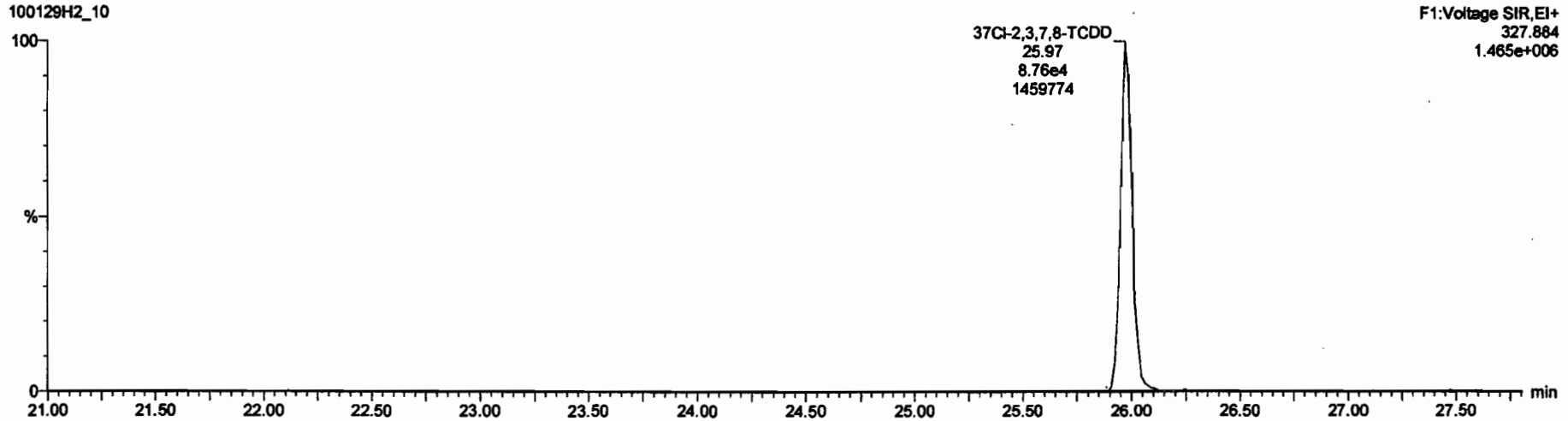

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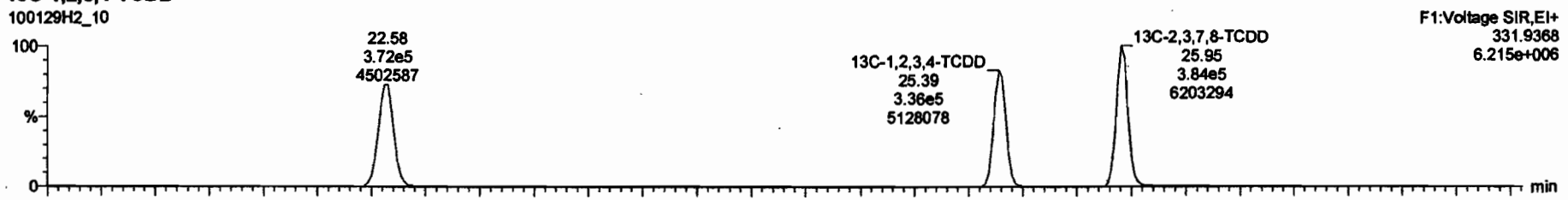

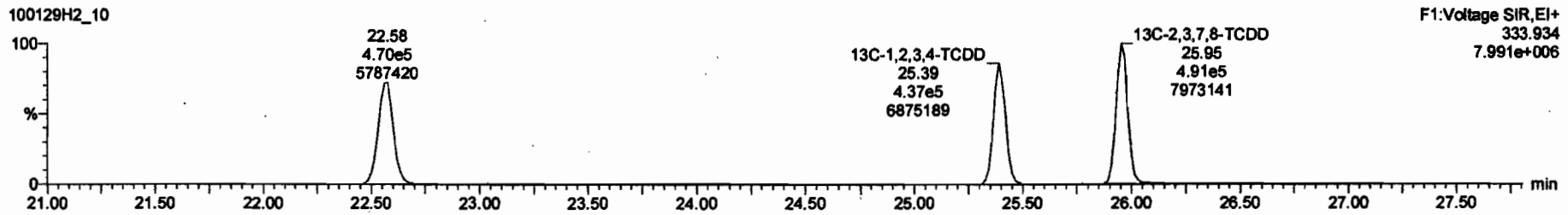

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1,2,3,7,8-PeCDD

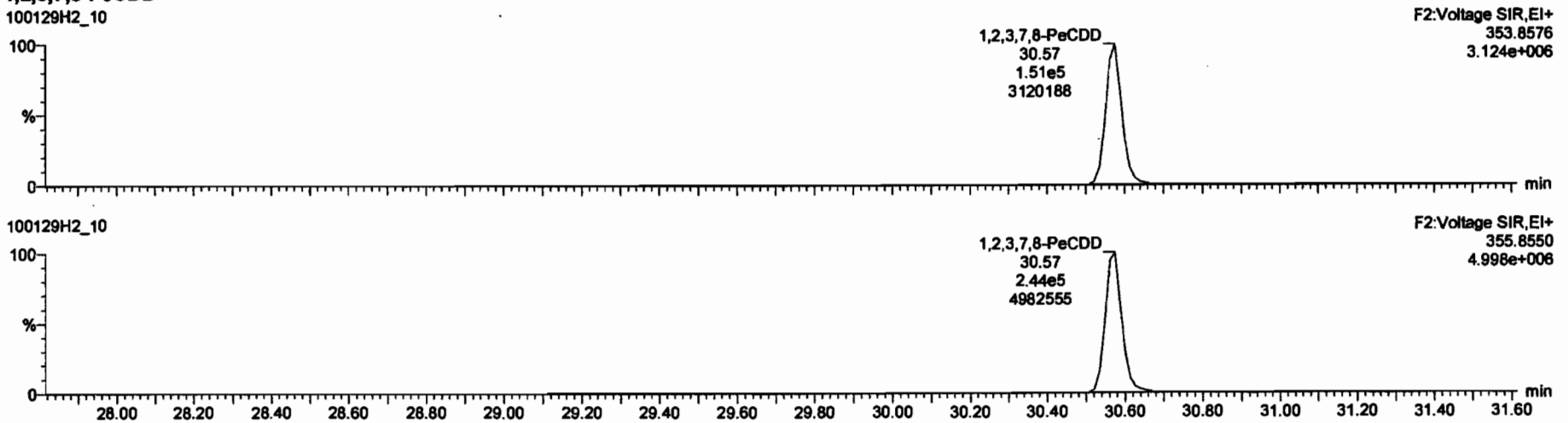

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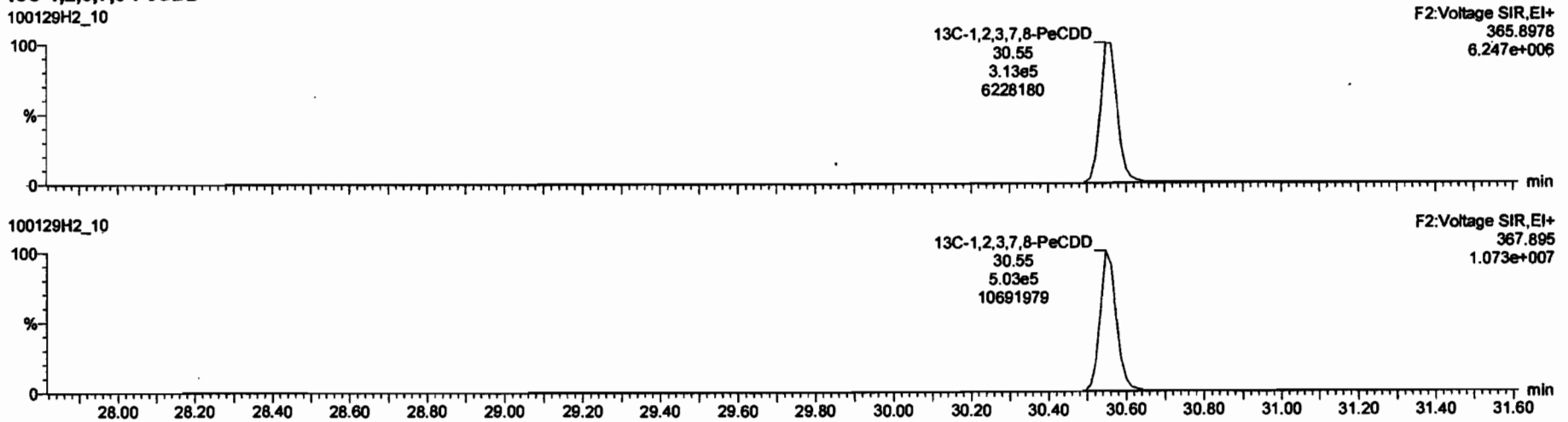

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Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

1,2,3,4,7,8-HxCDD

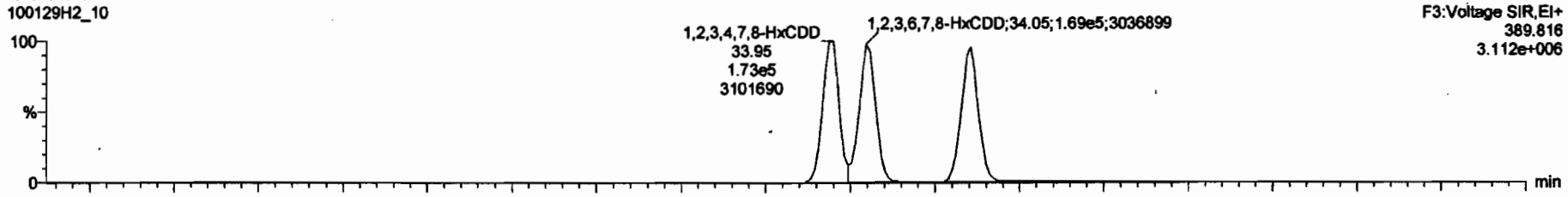

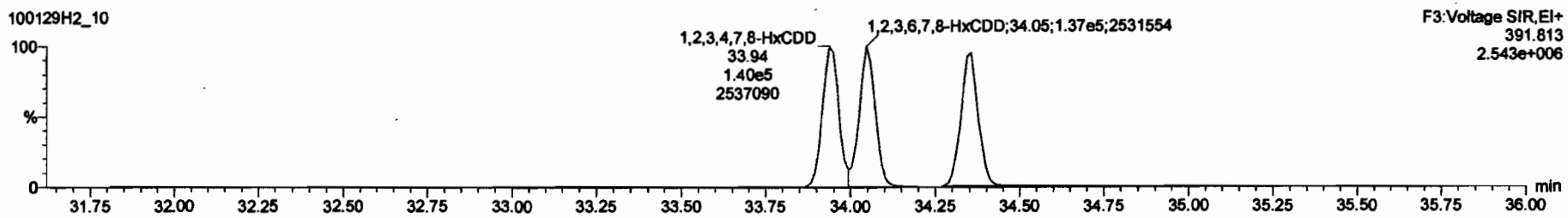

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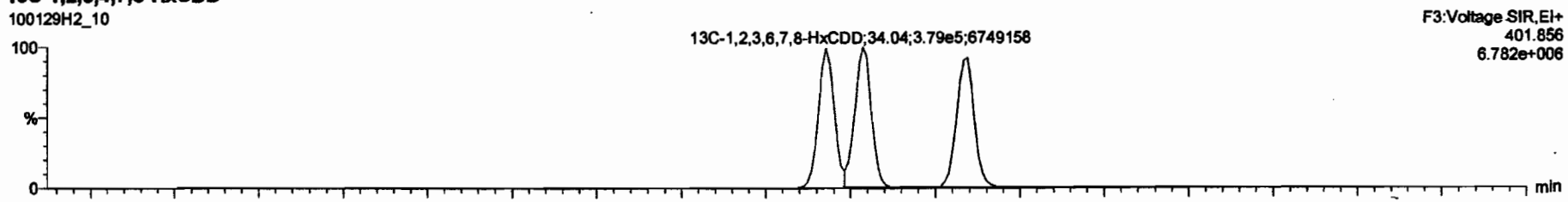

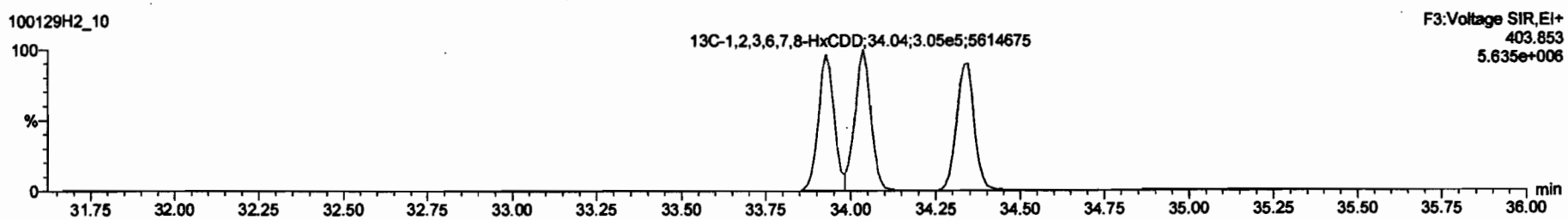

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Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

1,2,3,4,6,7,8-HpCDD

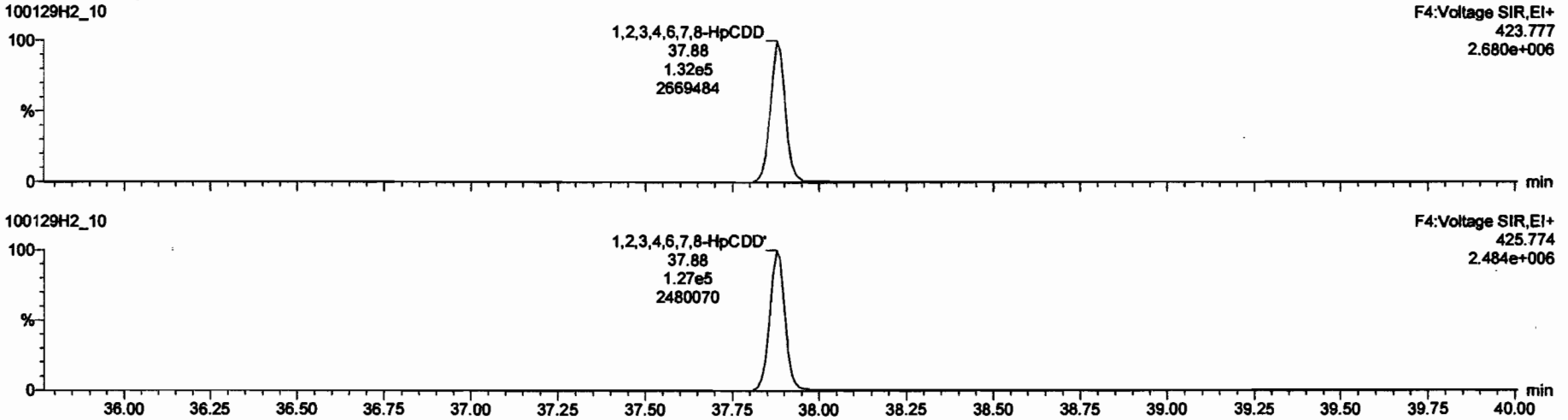

13C-1,2,3,4,6,7,8-HpCDD

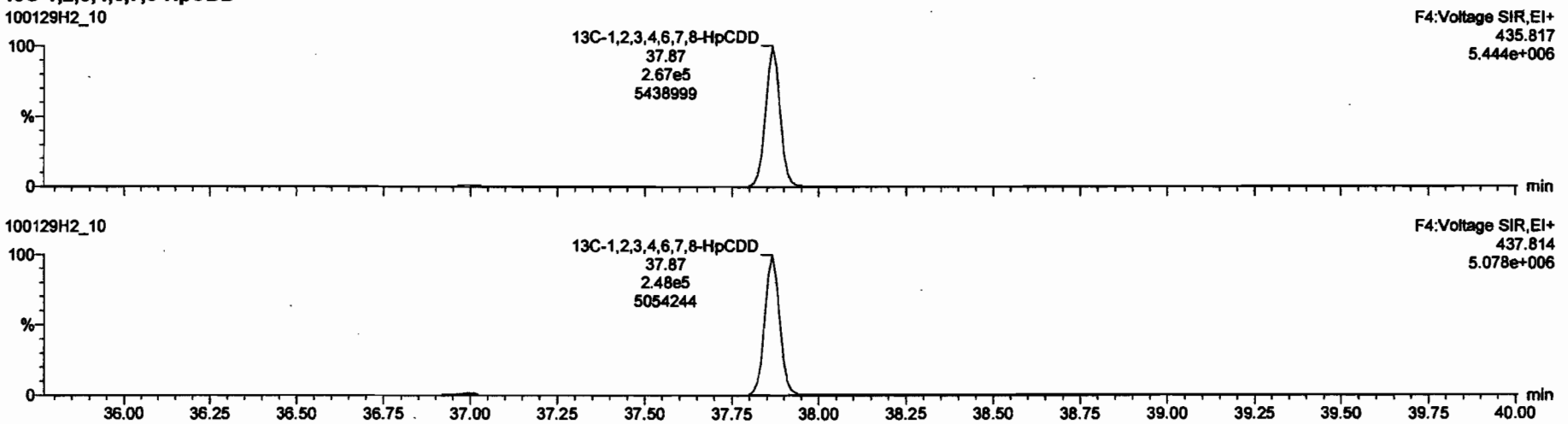

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Last Altered: Monday, February 01, 2010 14:25:40 Pacific Standard Time
Printed: Monday, February 01, 2010 14:26:14 Pacific Standard Time

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OCDD

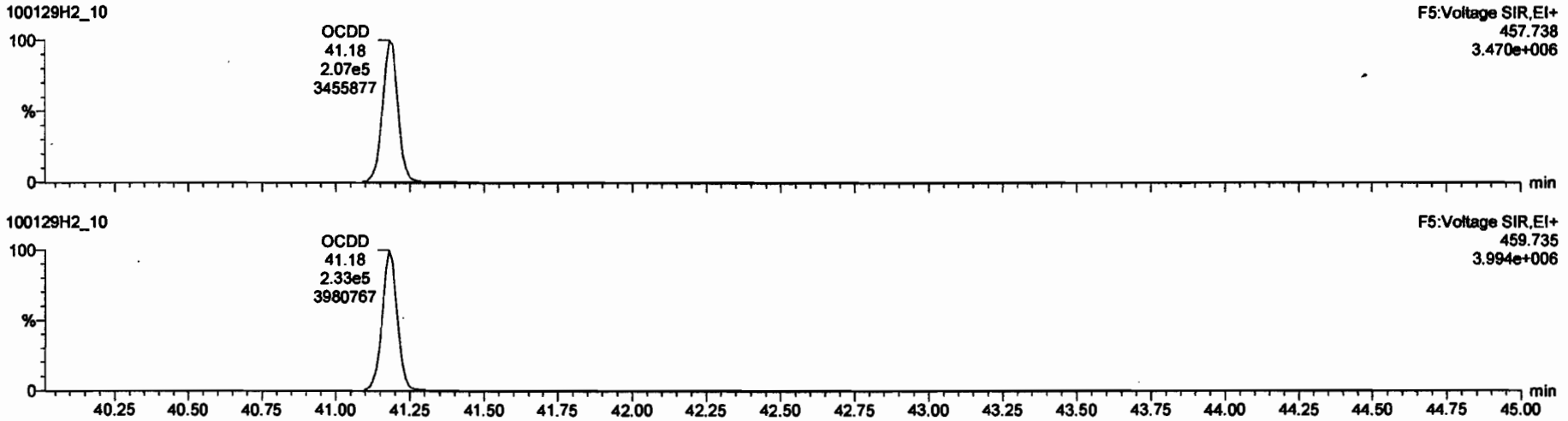

13C-OCDD

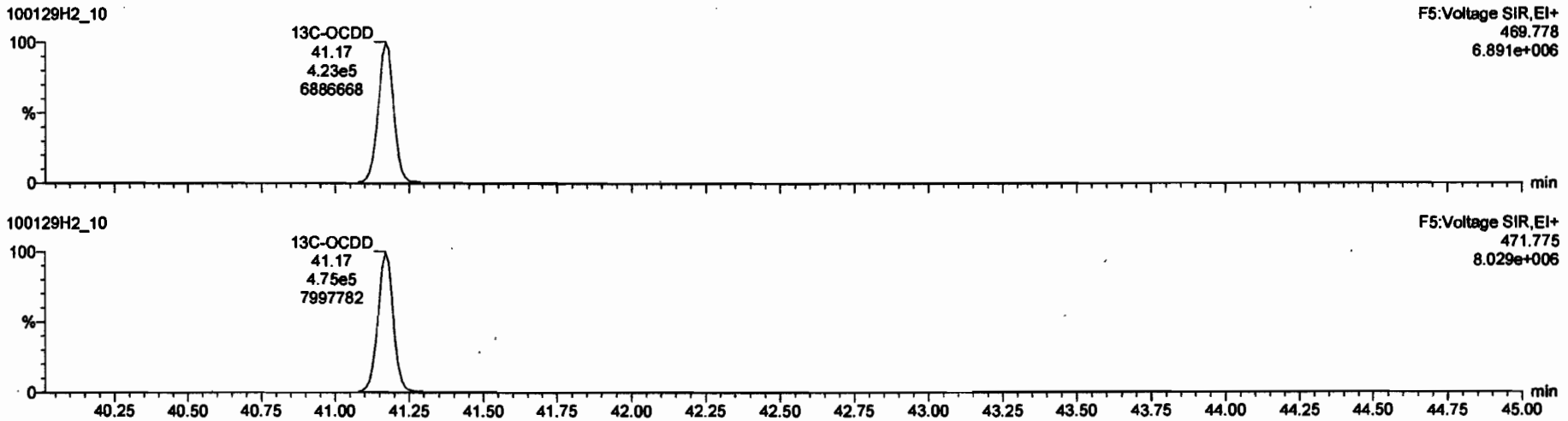

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Printed: Monday, February 01, 2010 14:26:14 Pacific Standard Time

Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

2,3,7,8-TCDF

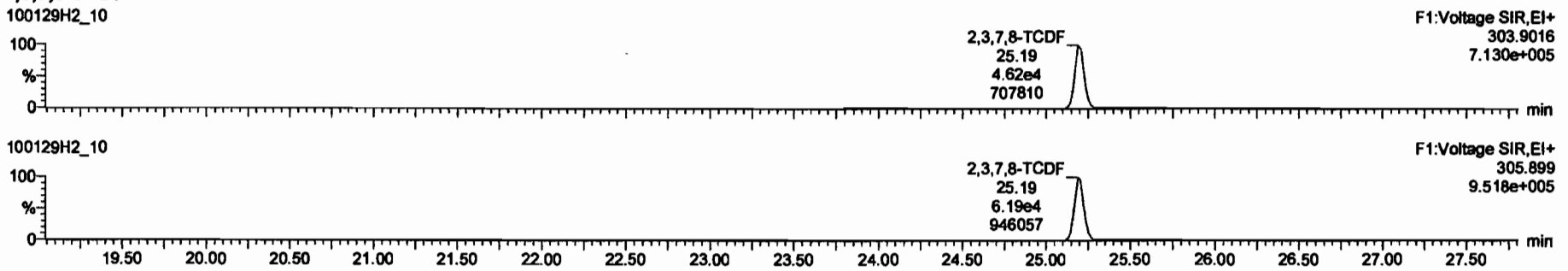

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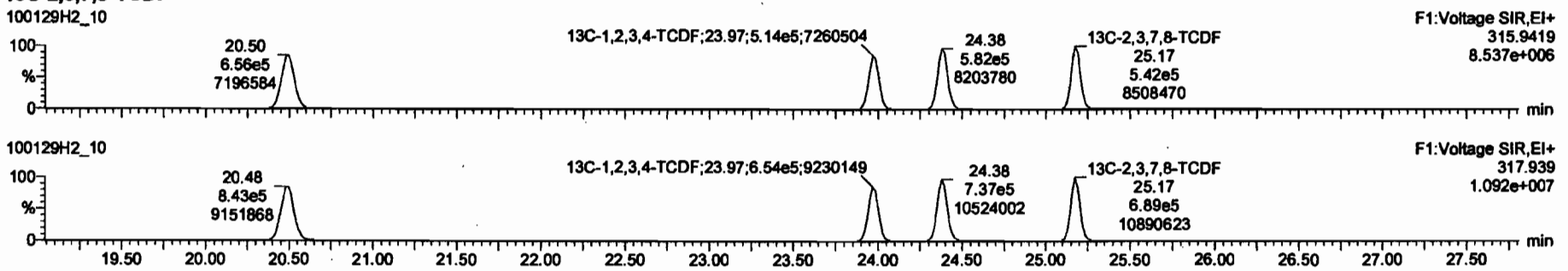

DPE1

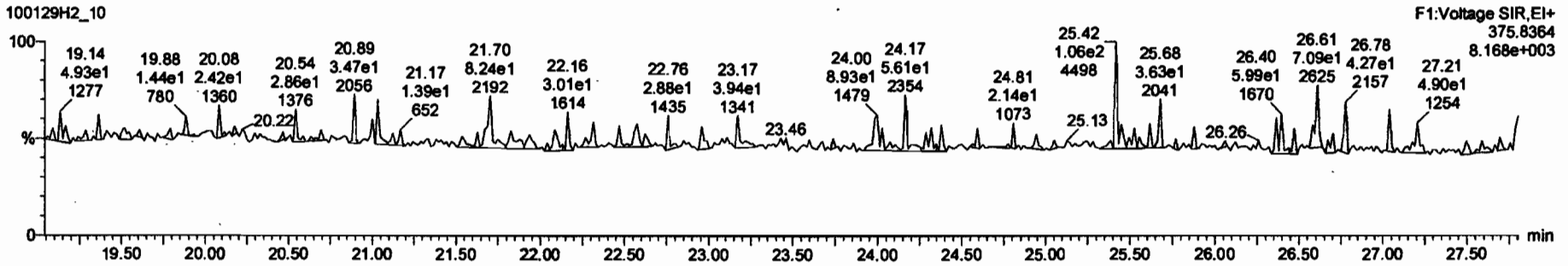

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Last Altered: Monday, February 01, 2010 14:25:40 Pacific Standard Time
Printed: Monday, February 01, 2010 14:26:14 Pacific Standard Time

Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

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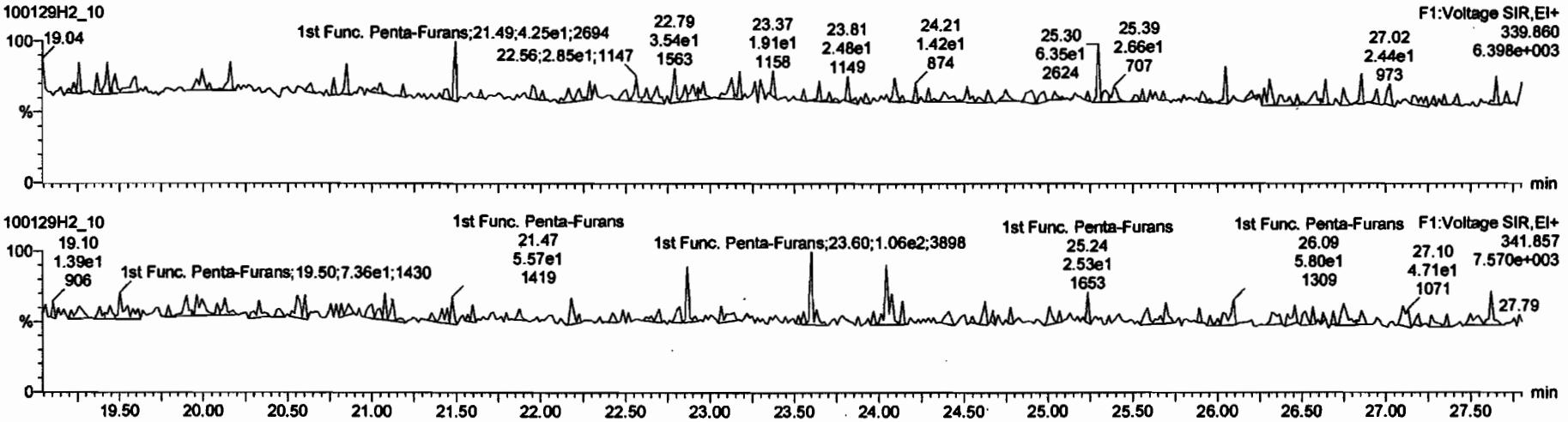

DPE6

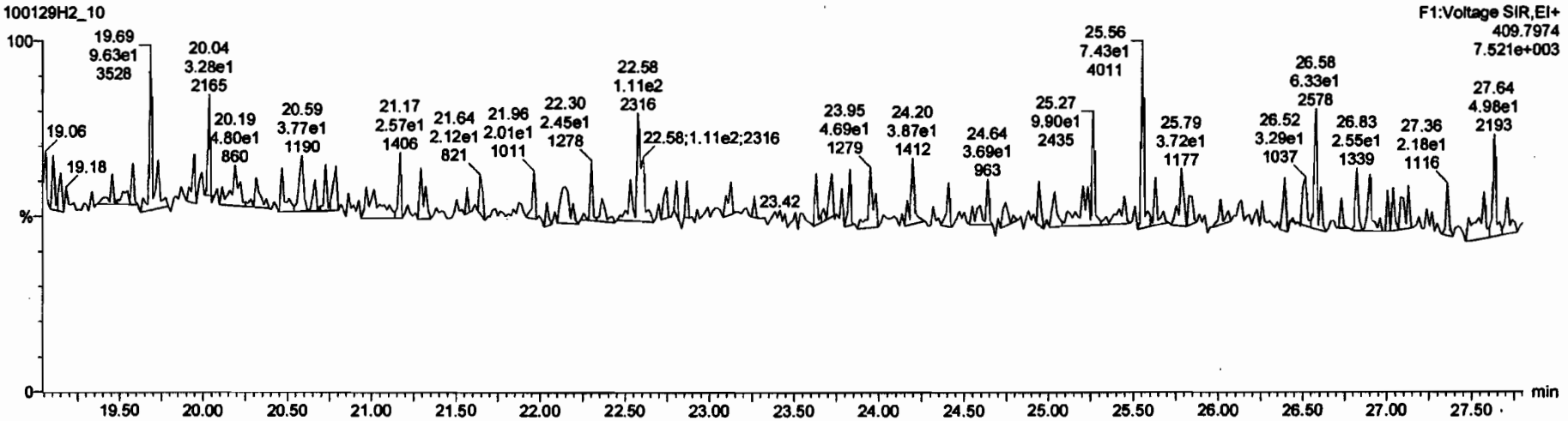

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-sss.qld

Last Altered: Monday, February 01, 2010 14:25:40 Pacific Standard Time
Printed: Monday, February 01, 2010 14:26:14 Pacific Standard Time

Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

1,2,3,7,8-PeCDF

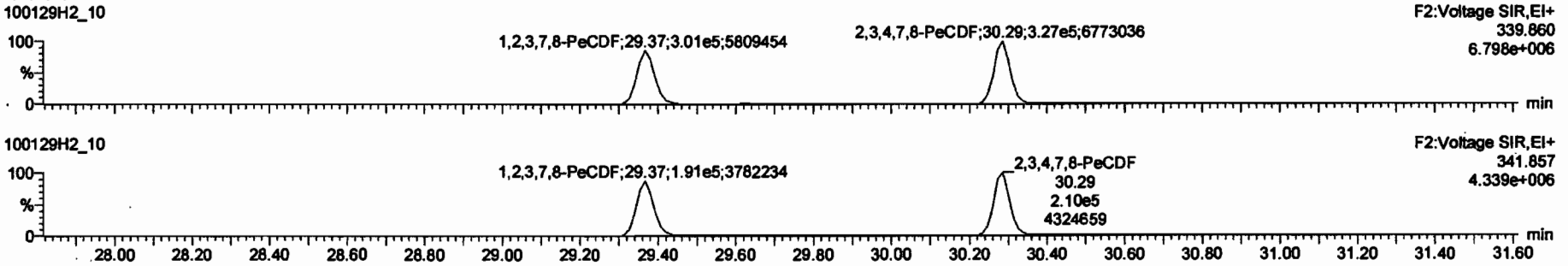

13C-1,2,3,7,8-PeCDF

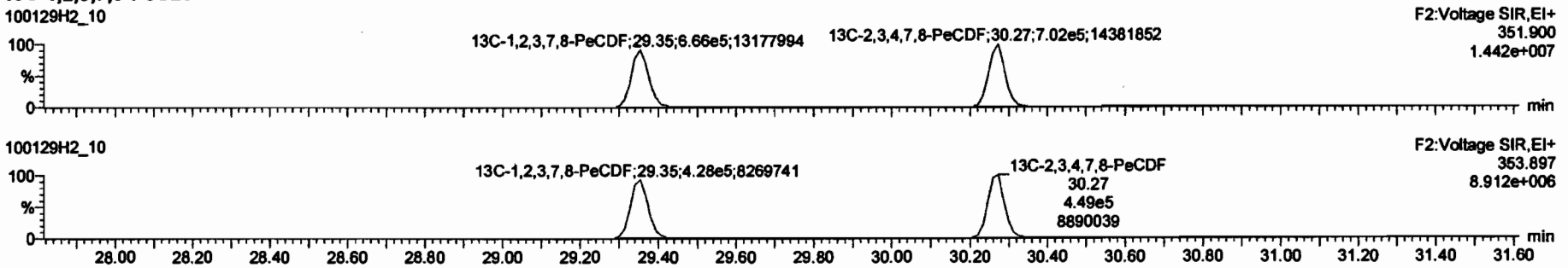

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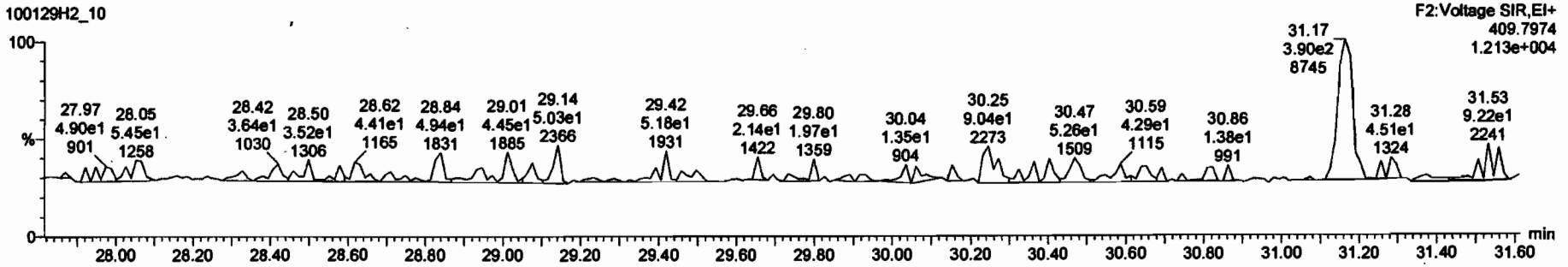

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Last Altered: Monday, February 01, 2010 14:25:40 Pacific Standard Time
Printed: Monday, February 01, 2010 14:26:14 Pacific Standard Time

Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

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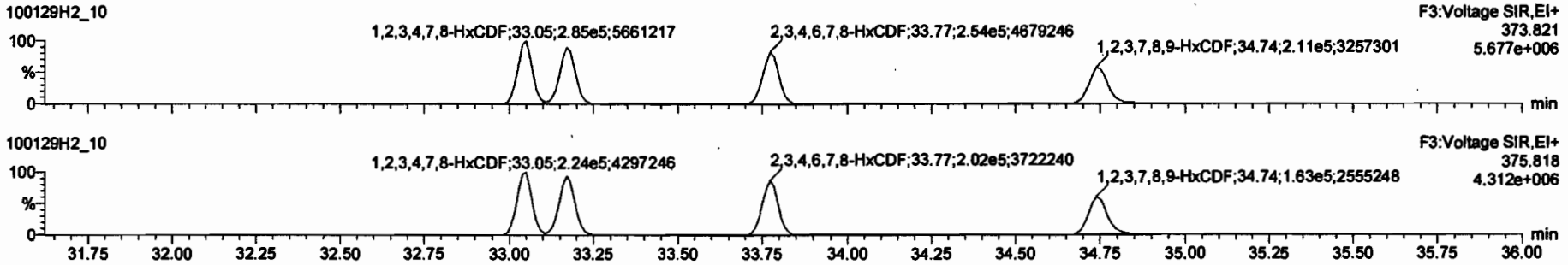

13C-1,2,3,4,7,8-HxCDF

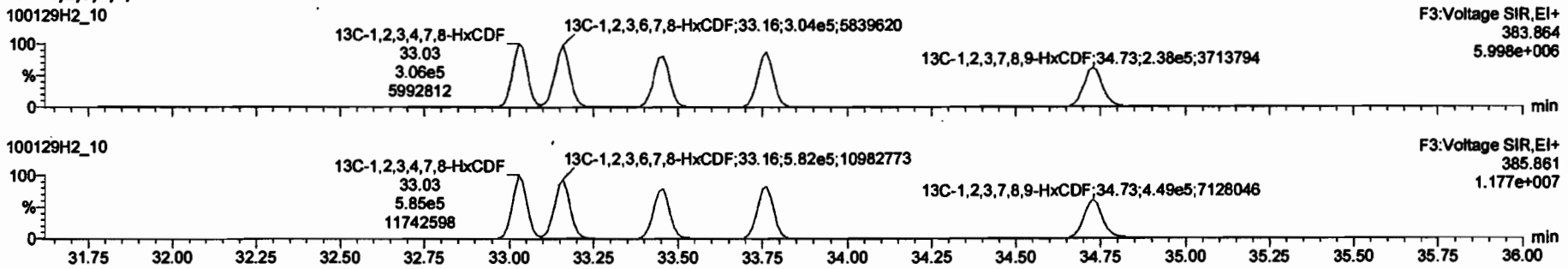

DPE3

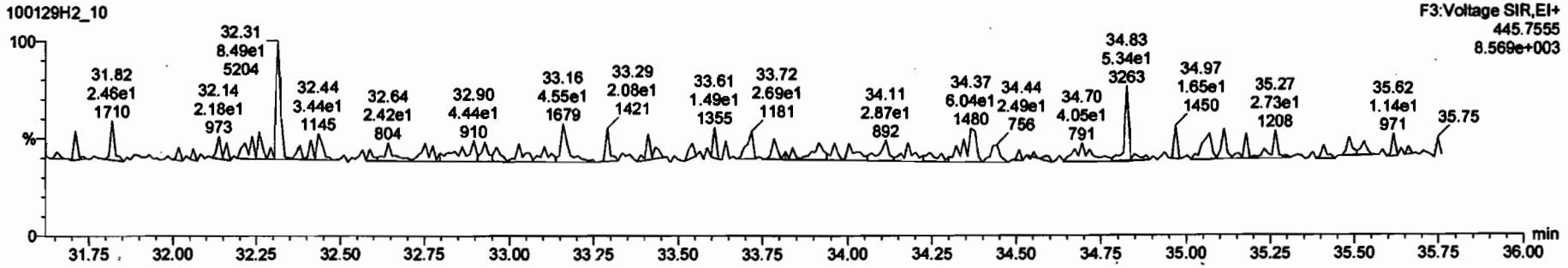

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-sss.qld

Last Altered: Monday, February 01, 2010 14:25:40 Pacific Standard Time
Printed: Monday, February 01, 2010 14:26:14 Pacific Standard Time

Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

1,2,3,4,6,7,8-HpCDF

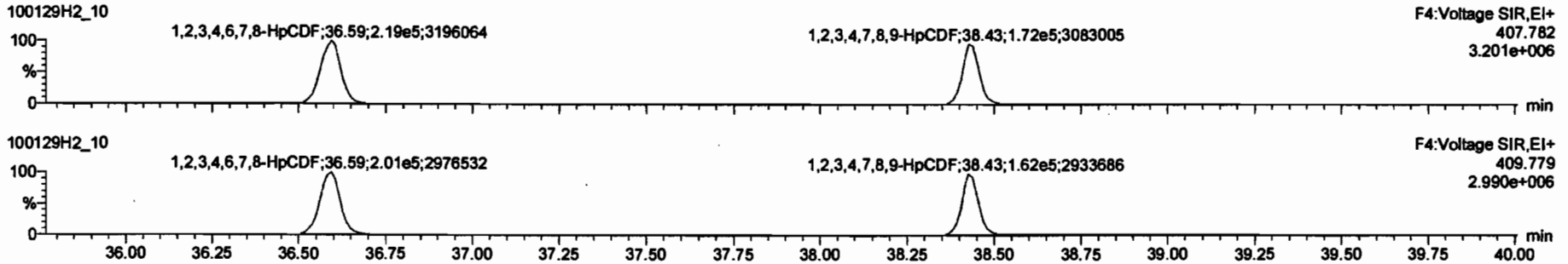

13C-1,2,3,4,6,7,8-HpCDF

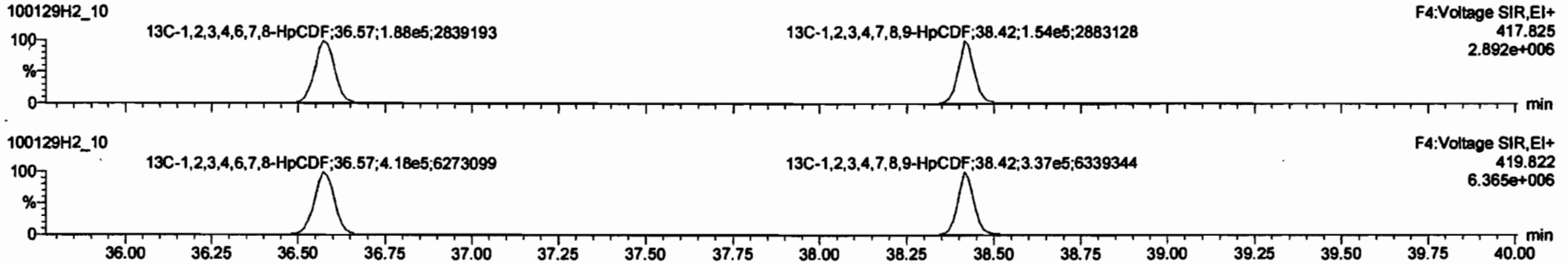

DPE4

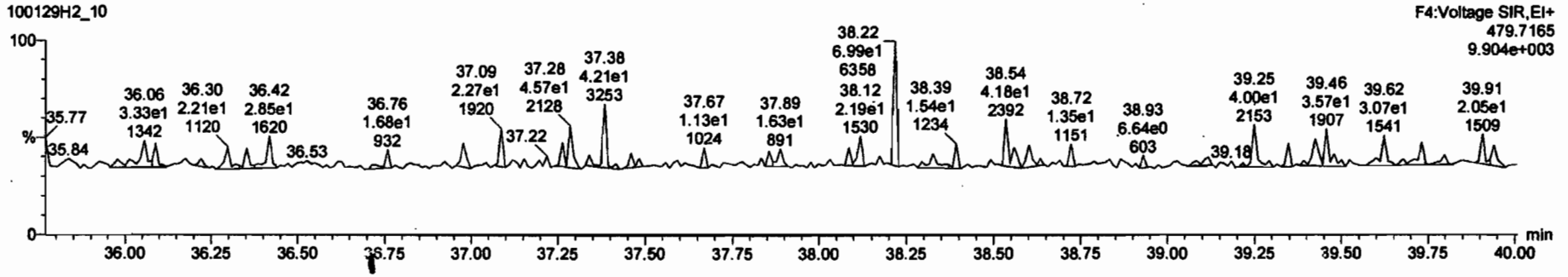

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Last Altered: Monday, February 01, 2010 14:25:40 Pacific Standard Time
Printed: Monday, February 01, 2010 14:26:14 Pacific Standard Time

Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

OCDF

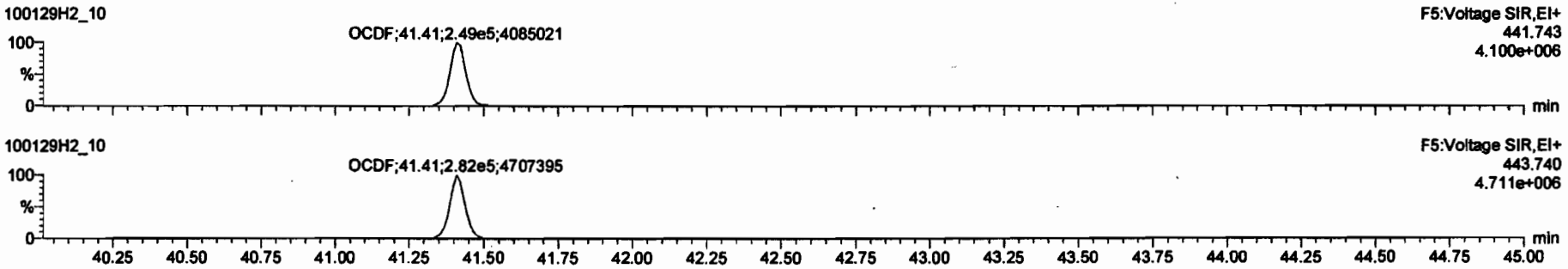

13C-OCDF

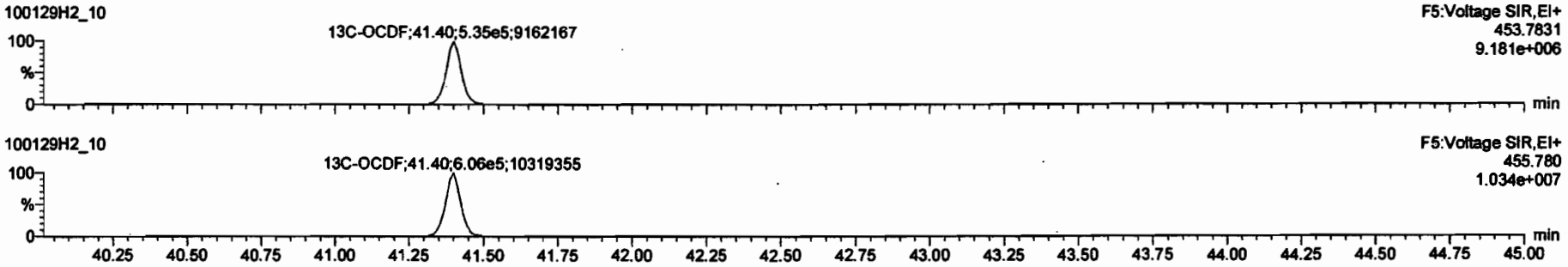

DPE5

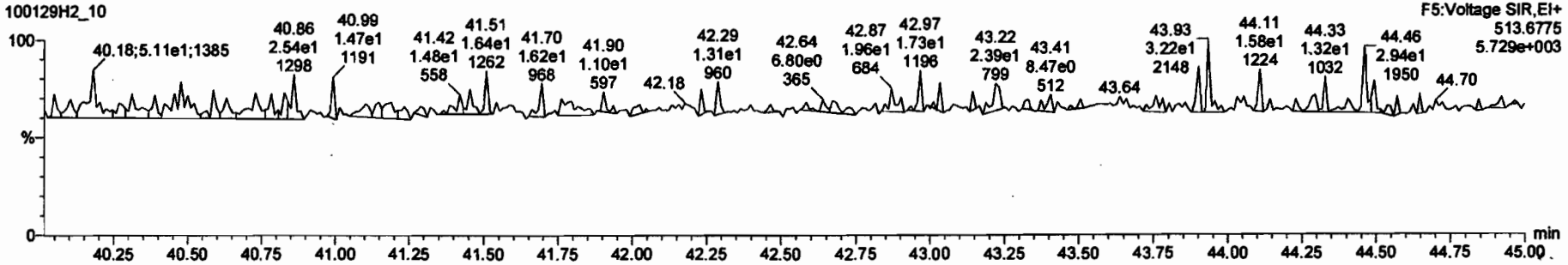

Vista Analytical Laboratory VG-10

Dataset: C:\MassLynx\Default.pro\Results\100129h2\100129h2-sss.qld

Last Altered: Monday, February 01, 2010 14:25:40 Pacific Standard Time
Printed: Monday, February 01, 2010 14:26:14 Pacific Standard Time

Name: 100129H2_10, Date: 30-Jan-2010, Time: 09:40:15, ID: ST100129H2-7 SSS 090219C, Description: SSS 090219C

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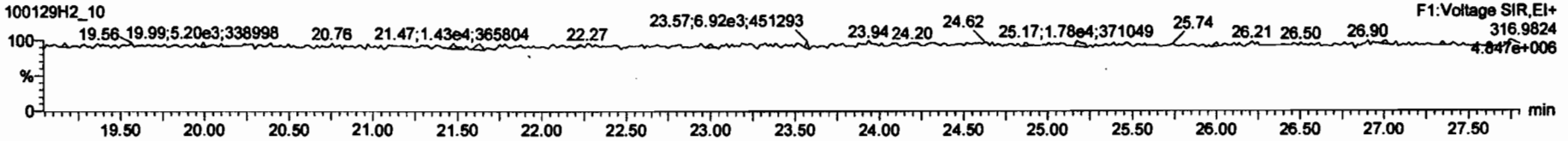

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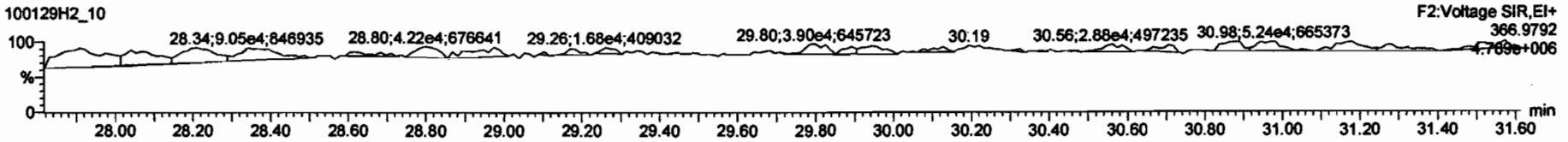

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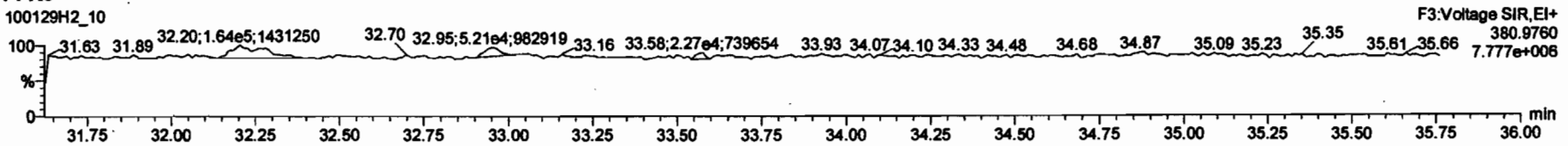

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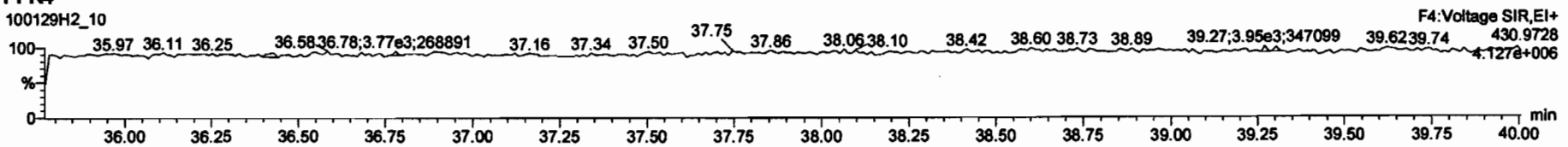

PFK5

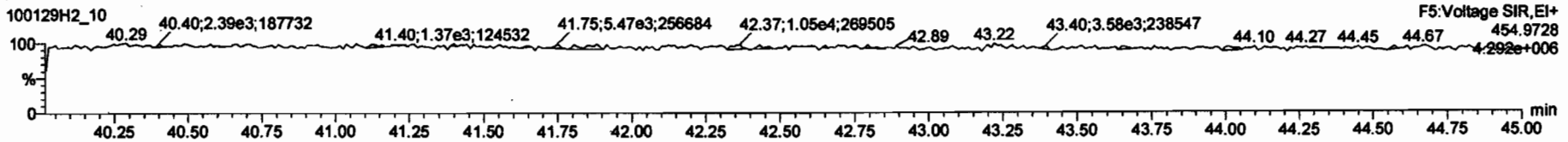

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2039

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2039

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/24/2010

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:351.2	1	CAPA-10-12917	WG	2/23/2010	
	SW-846:8081A	1	CAPA-10-12917	WG	2/23/2010	
		2	CAPA-10-12917	WG	2/23/2010	
		3	CAPA-10-12917	WG	2/23/2010	
	SW-846:8082	1	CAPA-10-12917	WG	2/23/2010	
		2	CAPA-10-12917	WG	2/23/2010	
		3	CAPA-10-12917	WG	2/23/2010	
	SW-846:8260B	1	CAPA-10-12915	WG	2/23/2010	
		2	CAPA-10-12915	WG	2/23/2010	

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2039

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	CAPA-10-12917	WG	2/23/2010	
		2	CAPA-10-12917	WG	2/23/2010	
		1	CAPA-10-12918	WG	2/23/2010	
	SW-846:8270C	1	CAPA-10-12915	WG	2/23/2010	
		2	CAPA-10-12915	WG	2/23/2010	
		3	CAPA-10-12915	WG	2/23/2010	
		1	CAPA-10-12917	WG	2/23/2010	
		2	CAPA-10-12917	WG	2/23/2010	
		3	CAPA-10-12917	WG	2/23/2010	
	SW-846:8321A_MOD	1	CAPA-10-12917	WG	2/23/2010	
		2	CAPA-10-12917	WG	2/23/2010	
		3	CAPA-10-12917	WG	2/23/2010	
	SW-846:9060	1	CAPA-10-12917	WG	2/23/2010	

Final Page of REQUEST NUMBER 10-2039

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2039

REQUEST NUMBER: 10-2039

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12915	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12915	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12915	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12915	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12915	3	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12917	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12917	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12917	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12917	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12917	3	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12917	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-12917	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-12917	3	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-12917	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-12917	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-12917	2	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-12917	3	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-12917	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-12917	2	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-12917	3	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-12918	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	2/24/10	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-12915 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/23/2010	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		15:06	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-40		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of CAPA-10-12917

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) M Green, D Wooly **REVIEWED BY (PRINT)** M Green

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Wooly	02/23/10	(Printed Name) Sherri Sherwood	02/23/10
(Signature) D. Wooly	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-12916 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/23/10	MEDIA:	WGR	OV
TIME COLLECTED (HH:MM)		1506	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OV	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-40		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: NA WATER FLOWING: YES / NO / (NA)

BOREHOLE: YES / NO / (NA) BOREHOLE DECLINATION: NA BOREHOLE DIRECTION: NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid		pH <2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		pH <2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice		

SAMPLE DESC:

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D Worly, M. Green **REVIEWED BY (PRINT)** M Green

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D Worly	02/23/10	(Printed Name) Sherri Sherwood	02/23/10
(Signature) D. Worly	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-12917 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/23/10	MEDIA:	WGR	ok
TIME COLLECTED (HH:MM)		1506	SUB-MEDIA:	UA	
PRS ID:	C-00-011	ok	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-40		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH <2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice		
3		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice		
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide		pH >12
1		WSP-GrossA/B	1 LITER POLY	None		
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice		
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid		pH <2
1		WSP-RAD	1 GAL POLY	Nitric Acid		pH <2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		pH <2
1		WSP-LL-H-3	1 LITER POLY	None		
3		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice		
3		WSP-8082-PCB	1 LITER AMBER GLASS	Ice		
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice		
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice		
1		Ra226+228	1 GAL POLY	Nitric Acid		pH <2

SAMPLE DESC:

SAMPLE COMMENTS: 4th full suite sample.
Collected 50' from Pajarito Rd.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH (SU)	T (°C)	SC (µS/cm)	DO (mg/L)	Turb (NTU)	ORP (mV)	Q (gpm)
7.31	15.48	105	6.77	1.83	63.6	2.1

COLLECTED BY (PRINT) D. Woody, M Green

REVIEWED BY (PRINT) M Green

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Woody	02/23/10	(Printed Name) Sherri Sherwood	02/23/10
(Signature) D. Woody	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-12918 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/23/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1506	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	~~GST~~ NA DW 02/23/10	
LOCATION ID:	R-40		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / (NA)		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / (NA)

BOREHOLE: YES / NO / (NA) **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1-2	DW 02/23/10	WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	1H2 2

SAMPLE DESC: QC Sample of CAPA-10-12917

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) M. Green, J. Wooly **REVIEWED BY (PRINT)** M Green

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Wooly	02/23/10	(Printed Name) Sherri Sherwood	02/23/10
(Signature) J. Wooly	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-2039 VALIDATION DATE: 4/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ HIGH EXPLOSIVES
- ☐ DIOXIN FURANS
- ☐ LCMSMS PERCHLORATES
- ☐ TPH-DRO
- ☐ METALS
- ☐ PCB CONGENERS
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ GENERAL CHEMISTRY
- ☐ RADIOCHEMISTRY
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ OTHER (DESCRIBE): VOC

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICAL and/or ICV/CCV RRFs associated with samples CAPA-10-12915 and -12917 for isobutyl alcohol and n-butyl alcohol were <0.05. The ICAL and/or ICV/CCV RRFs associated with sample -12918 for isobutyl alcohol and propionitrile were < 0.05. All associated sample results were ND and were qualified R,V7b.
2. The ICV/CCV %Ds associated with samples CAPA-10-12915 and -12917 for dichlorodifluoromethane, acetone, and 2-chloro-1,3-butadiene were > 20%. The ICV/CCV %Ds associated with sample -12918 for vinyl acetate, acrolein, and 2-chloro-1,3-butadiene were > 20%. All associated sample results were ND and were qualified UJ,V7c.
3. It should be noted that ten target analytes were not present in the MS/MSD spiking solution. No sample results were qualified.

Reviewed by: Allison Felix Level: 1 Date: 4/28/10

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

VALIDATOR'S SIGNATURE: _____ DATE: 4/27/10

Form 5114-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☒	☐	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☐	☒	☐	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2 Volatile Organic Compound (VOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☒	☐	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☒	☐	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12915**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/06/2010 04:46**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/06/2010 04:46**				
Data File:	**030510V4\4A536.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00	UJ,V7c
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00	
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00	
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00	
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0	UJ,V7c
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0	
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00	
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0	
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00	
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00	
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0	R,V7b
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00	
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00	
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
108-88-3	Toluene	J	0.270	ug/L	0.250	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00	
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00	

MLH
4/27/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2039	**Date Collected:**	02/23/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	248017001	**Date Received:**	02/25/2010 08:45		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-12915	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	961925	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/06/2010 04:46	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/06/2010 04:46				
Data File:	030510V4\4A536.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00	
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00	
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00	
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00	
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00	
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00	
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00	
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00	
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00	
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00	
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00	
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00	UJ,V7c
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00	
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00	
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0	R,V7b
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00	

MLH
4/27/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2039	**Date Collected:**	02/23/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	248017001	**Date Received:**	02/25/2010 08:45		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-12915	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	961925	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/06/2010 04:46	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/06/2010 04:46				
Data File:	030510V4\4A536.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	42.8	50.0	ug/L	85.6	(72%-132%)
Bromofluorobenzene	61.4	50.0	ug/L	123	(77%-123%)
Toluene-d8	47.0	50.0	ug/L	93.9	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	11.8	ug/L	0	J

MLH
4/27/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017002**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12917**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/06/2010 05:13**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/06/2010 05:13**				
Data File:	**030510V4\4A537.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00	UJ,V7c
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00	
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00	
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00	
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0	UJ,V7c
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0	
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00	
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0	
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00	
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00	
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0	R,V7b
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00	
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00	
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
108-88-3	Toluene	J	0.290	ug/L	0.250	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00	
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00	

MLH
4/27/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017002**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12917**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/06/2010 05:13**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/06/2010 05:13**				
Data File:	**030510V4\4A537.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00	
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00	
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00	
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00	
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00	
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00	
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00	
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00	
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00	
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00	
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00	
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00	UJ,V7c
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00	
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00	
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0	R,V7b
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00	

MLH
4/27/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017002**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12917**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/06/2010 05:13**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/06/2010 05:13**				
Data File:	**030510V4\4A537.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	43.1	50.0	ug/L	86.2	(72%-132%)
Bromofluorobenzene	60.8	50.0	ug/L	122	(77%-123%)
Toluene-d8	47.1	50.0	ug/L	94.3	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	unknown hydrocarbon	4.47	9.2	ug/L	0	J

MLH
4/27/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017006**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12918**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/08/2010 19:23**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/08/2010 19:23**				
Data File:	**030810V4\4B108.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00	
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00	
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00	
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00	
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0	
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0	
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00	
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0	
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00	
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00	UJ,V7c
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00	
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0	
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00	
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00	
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00	
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00	

MLH
4/27/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2039	**Date Collected:**	02/23/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	248017006	**Date Received:**	02/25/2010 08:45		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-12918	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	961925	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/08/2010 19:23	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/08/2010 19:23				
Data File:	030810V4\4B108.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00	
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00	
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00	
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00	
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00	
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00	
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00	
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00	UJ,V7c
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00	
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00	
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00	
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00	UJ,V7c
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00	R,V7b
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00	
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0	R,V7b
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00	

MLH
4/27/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2039	**Date Collected:**	02/23/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	248017006	**Date Received:**	02/25/2010 08:45		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-12918	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	961925	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/08/2010 19:23	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/08/2010 19:23				
Data File:	030810V4\4B108.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	48.0	50.0	ug/L	96.1	(72%-132%)
Bromofluorobenzene	54.0	50.0	ug/L	108	(77%-123%)
Toluene-d8	50.4	50.0	ug/L	101	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	unknown hydrocarbon	4.48	6.74	ug/L	0	J

MLH
4/27/10

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-2039 VALIDATION DATE: 04/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☐ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☒ OTHER (DESCRIBE): SVOC

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV /CCV %Ds for pyridine, hexachlorocyclopentadiene, benzyl alcohol, benzoic acid, butylbenzylphthalate, p-nitroaniline, m-nitroaniline, and 2-methyl-4,6-dinitrophenol were >20%. The associated sample results were ND and were qualified UJ,SV7c.
2. The MS/MSD RPD for benzidine was not within the laboratory's QC limit. However, MS/MSD analyses are not required for SVOCs and, thus, no sample data were qualified.

   It should be noted that 6 target analytes were not included in the LCS/MS/MSD spiking solutions. No sample data were qualified.

   Reviewed by: Allison Felix Level: 1 Date: 4/28/10

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

VALIDATOR'S SIGNATURE: _____ DATE: 04/27/10

Form 5115-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☐	☒	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☐	☒	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☐	☒	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2039	Date Collected:	02/23/2010 12:00	Matrix:	GROUND WATER
Lab Sample ID:	248017001	Date Received:	02/25/2010 08:45		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-12915	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	959852	Inst:	MSD2.I	Dilution:	1
Run Date:	03/04/2010 03:14	Analyst:	AGS1	Inj. Vol:	.5 uL
Prep Date:	03/02/2010 17:51	Aliquot:	920 mL	Final Volume:	1 mL
Data File:	s2c0326.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.9	ug/L	2.17	10.9	
108-95-2	Phenol	U	10.9	ug/L	1.09	10.9	
95-57-8	2-Chlorophenol	U	10.9	ug/L	2.17	10.9	
106-46-7	1,4-Dichlorobenzene	U	10.9	ug/L	2.17	10.9	
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	10.9	ug/L	2.17	10.9	
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	10.9	ug/L	2.17	10.9	
83-32-9	Acenaphthene	U	1.09	ug/L	0.337	1.09	
121-14-2	2,4-Dinitrotoluene	U	10.9	ug/L	2.17	10.9	
100-02-7	4-Nitrophenol	U	10.9	ug/L	2.17	10.9	
87-86-5	Pentachlorophenol	U	10.9	ug/L	2.17	10.9	
129-00-0	Pyrene	U	1.09	ug/L	0.326	1.09	
110-86-1	Pyridine	U	10.9	ug/L	3.26	10.9	UJ,SV7c
62-53-3	Aniline	U	10.9	ug/L	2.72	10.9	
111-44-4	bis(2-Chloroethyl) ether	U	10.9	ug/L	2.17	10.9	
541-73-1	1,3-Dichlorobenzene	U	10.9	ug/L	2.17	10.9	
100-51-6	Benzyl alcohol	U	10.9	ug/L	2.17	10.9	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	10.9	ug/L	2.17	10.9	
108-60-1	bis(2-Chloroisopropyl)ether	U	10.9	ug/L	2.17	10.9	
95-48-7	o-Cresol	U	10.9	ug/L	2.17	10.9	
65794-96-9	m,p-Cresols	U	10.9	ug/L	3.26	10.9	
67-72-1	Hexachloroethane	U	10.9	ug/L	2.17	10.9	
98-95-3	Nitrobenzene	U	10.9	ug/L	3.26	10.9	
78-59-1	Isophorone	U	10.9	ug/L	3.26	10.9	
88-75-5	2-Nitrophenol	U	10.9	ug/L	2.17	10.9	
105-67-9	2,4-Dimethylphenol	U	10.9	ug/L	2.17	10.9	
111-91-1	bis(2-Chloroethoxy)methane	U	10.9	ug/L	3.26	10.9	
120-83-2	2,4-Dichlorophenol	U	10.9	ug/L	2.17	10.9	
65-85-0	Benzoic acid	U	21.7	ug/L	6.52	21.7	UJ,SV7c
91-20-3	Naphthalene	U	1.09	ug/L	0.326	1.09	
106-47-8	4-Chloroaniline	U	10.9	ug/L	2.17	10.9	
87-68-3	Hexachlorobutadiene	U	10.9	ug/L	2.17	10.9	
91-57-6	2-Methylnaphthalene	U	1.09	ug/L	0.326	1.09	
90-12-0	1-Methylnaphthalene	U	1.09	ug/L	0.326	1.09	
77-47-4	Hexachlorocyclopentadiene	U	10.9	ug/L	3.26	10.9	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	10.9	ug/L	2.17	10.9	
95-95-4	2,4,5-Trichlorophenol	U	10.9	ug/L	2.17	10.9	
91-58-7	2-Chloronaphthalene	U	1.09	ug/L	0.326	1.09	

MLH
4/27/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12915**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 03:14**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**920 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0326.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
88-74-4	2-Nitroaniline	U	10.9	ug/L	2.17	10.9	
	o-Nitroaniline						
99-09-2	3-Nitroaniline	U	10.9	ug/L	2.17	10.9	UJ,SV7c
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	10.9	ug/L	2.17	10.9	
606-20-2	2,6-Dinitrotoluene	U	10.9	ug/L	2.17	10.9	
208-96-8	Acenaphthylene	U	1.09	ug/L	0.217	1.09	
51-28-5	2,4-Dinitrophenol	U	21.7	ug/L	5.43	21.7	
132-64-9	Dibenzofuran	U	10.9	ug/L	2.17	10.9	
84-66-2	Diethylphthalate	U	10.9	ug/L	2.17	10.9	
86-73-7	Fluorene	U	1.09	ug/L	0.217	1.09	
7005-72-3	4-Chlorophenylphenylether	U	10.9	ug/L	2.17	10.9	
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.9	ug/L	3.26	10.9	UJ,SV7c
100-01-6	4-Nitroaniline	U	10.9	ug/L	3.26	10.9	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	10.9	ug/L	3.26	10.9	
122-66-7	Azobenzene	U	10.9	ug/L	2.17	10.9	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	10.9	ug/L	2.17	10.9	
118-74-1	Hexachlorobenzene	U	10.9	ug/L	2.17	10.9	
1912-24-9	Atrazine	U	10.9	ug/L	3.26	10.9	
85-01-8	Phenanthrene	U	1.09	ug/L	0.217	1.09	
120-12-7	Anthracene	U	1.09	ug/L	0.217	1.09	
84-74-2	Di-n-butylphthalate	U	10.9	ug/L	2.17	10.9	
206-44-0	Fluoranthene	U	1.09	ug/L	0.217	1.09	
92-87-5	Benzidine	U	10.9	ug/L	3.26	10.9	
85-68-7	Butylbenzylphthalate	U	10.9	ug/L	2.17	10.9	UJ,SV7c
56-55-3	Benzo(a)anthracene	U	1.09	ug/L	0.217	1.09	
91-94-1	3,3'-Dichlorobenzidine	U	10.9	ug/L	2.17	10.9	
218-01-9	Chrysene	U	1.09	ug/L	0.217	1.09	
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.9	ug/L	2.17	10.9	
117-84-0	Di-n-octylphthalate	U	10.9	ug/L	3.26	10.9	
205-99-2	Benzo(b)fluoranthene	U	1.09	ug/L	0.217	1.09	
207-08-9	Benzo(k)fluoranthene	U	1.09	ug/L	0.217	1.09	
50-32-8	Benzo(a)pyrene	U	1.09	ug/L	0.217	1.09	
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.09	ug/L	0.217	1.09	
53-70-3	Dibenzo(a,h)anthracene	U	1.09	ug/L	0.217	1.09	
191-24-2	Benzo(ghi)perylene	U	1.09	ug/L	0.217	1.09	
123-91-1	1,4-Dioxane	U	10.9	ug/L	2.17	10.9	
55-18-5	N-Nitrosodiethylamine	U	10.9	ug/L	2.17	10.9	

MLH
4/27/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12915**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 03:14**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**920 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0326.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.9	ug/L	2.17	10.9
924-16-3	N-Nitrosodi-n-butylamine	U	10.9	ug/L	3.26	10.9
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.9	ug/L	3.26	10.9
608-93-5	Pentachlorobenzene	U	10.9	ug/L	3.26	10.9
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.9	ug/L	2.17	10.9
88-85-7	Dinoseb	U	10.9	ug/L	2.17	10.9
120-82-1	1,2,4-Trichlorobenzene	U	10.9	ug/L	2.17	10.9

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	73.3	109	ug/L	67.4	(39%-120%)
2-Fluorobiphenyl	33.6	54.3	ug/L	61.9	(38%-108%)
2-Fluorophenol	41.4	109	ug/L	38.1	(19%-98%)
Nitrobenzene-d5	35.3	54.3	ug/L	65.0	(31%-122%)
Phenol-d5	26.7	109	ug/L	24.6	(15%-83%)
p-Terphenyl-d14	52.2	54.3	ug/L	96.1	(40%-138%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

MLH
4/27/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017002**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12917**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 03:34**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**880 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0327.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	11.4	ug/L	2.27	11.4	
108-95-2	Phenol	U	11.4	ug/L	1.14	11.4	
95-57-8	2-Chlorophenol	U	11.4	ug/L	2.27	11.4	
106-46-7	1,4-Dichlorobenzene	U	11.4	ug/L	2.27	11.4	
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	11.4	ug/L	2.27	11.4	
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	11.4	ug/L	2.27	11.4	
83-32-9	Acenaphthene	U	1.14	ug/L	0.352	1.14	
121-14-2	2,4-Dinitrotoluene	U	11.4	ug/L	2.27	11.4	
100-02-7	4-Nitrophenol	U	11.4	ug/L	2.27	11.4	
87-86-5	Pentachlorophenol	U	11.4	ug/L	2.27	11.4	
129-00-0	Pyrene	U	1.14	ug/L	0.341	1.14	
110-86-1	Pyridine	U	11.4	ug/L	3.41	11.4	UJ,SV7c
62-53-3	Aniline	U	11.4	ug/L	2.84	11.4	
111-44-4	bis(2-Chloroethyl) ether	U	11.4	ug/L	2.27	11.4	
541-73-1	1,3-Dichlorobenzene	U	11.4	ug/L	2.27	11.4	
100-51-6	Benzyl alcohol	U	11.4	ug/L	2.27	11.4	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	11.4	ug/L	2.27	11.4	
108-60-1	bis(2-Chloroisopropyl)ether	U	11.4	ug/L	2.27	11.4	
95-48-7	o-Cresol	U	11.4	ug/L	2.27	11.4	
65794-96-9	m,p-Cresols	U	11.4	ug/L	3.41	11.4	
67-72-1	Hexachloroethane	U	11.4	ug/L	2.27	11.4	
98-95-3	Nitrobenzene	U	11.4	ug/L	3.41	11.4	
78-59-1	Isophorone	U	11.4	ug/L	3.41	11.4	
88-75-5	2-Nitrophenol	U	11.4	ug/L	2.27	11.4	
105-67-9	2,4-Dimethylphenol	U	11.4	ug/L	2.27	11.4	
111-91-1	bis(2-Chloroethoxy)methane	U	11.4	ug/L	3.41	11.4	
120-83-2	2,4-Dichlorophenol	U	11.4	ug/L	2.27	11.4	
65-85-0	Benzoic acid	U	22.7	ug/L	6.82	22.7	UJ,SV7c
91-20-3	Naphthalene	U	1.14	ug/L	0.341	1.14	
106-47-8	4-Chloroaniline	U	11.4	ug/L	2.27	11.4	
87-68-3	Hexachlorobutadiene	U	11.4	ug/L	2.27	11.4	
91-57-6	2-Methylnaphthalene	U	1.14	ug/L	0.341	1.14	
90-12-0	1-Methylnaphthalene	U	1.14	ug/L	0.341	1.14	
77-47-4	Hexachlorocyclopentadiene	U	11.4	ug/L	3.41	11.4	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	11.4	ug/L	2.27	11.4	
95-95-4	2,4,5-Trichlorophenol	U	11.4	ug/L	2.27	11.4	
91-58-7	2-Chloronaphthalene	U	1.14	ug/L	0.341	1.14	

MLH
4/27/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017002**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12917**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 03:34**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**880 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0327.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
88-74-4	2-Nitroaniline	U	11.4	ug/L	2.27	11.4	
	o-Nitroaniline						
99-09-2	3-Nitroaniline	U	11.4	ug/L	2.27	11.4	UJ,SV7c
	m-Nitroaniline						
131-11-3	Dimethylphthalate	U	11.4	ug/L	2.27	11.4	
606-20-2	2,6-Dinitrotoluene	U	11.4	ug/L	2.27	11.4	
208-96-8	Acenaphthylene	U	1.14	ug/L	0.227	1.14	
51-28-5	2,4-Dinitrophenol	U	22.7	ug/L	5.68	22.7	
132-64-9	Dibenzofuran	U	11.4	ug/L	2.27	11.4	
84-66-2	Diethylphthalate	U	11.4	ug/L	2.27	11.4	
86-73-7	Fluorene	U	1.14	ug/L	0.227	1.14	
7005-72-3	4-Chlorophenylphenylether	U	11.4	ug/L	2.27	11.4	
534-52-1	2-Methyl-4,6-dinitrophenol	U	11.4	ug/L	3.41	11.4	UJ,SV7c
100-01-6	4-Nitroaniline	U	11.4	ug/L	3.41	11.4	UJ,SV7c
	p-Nitroaniline						
122-39-4	Diphenylamine	U	11.4	ug/L	3.41	11.4	
122-66-7	Azobenzene	U	11.4	ug/L	2.27	11.4	
	1,2-Diphenylhydrazine						
101-55-3	4-Bromophenylphenylether	U	11.4	ug/L	2.27	11.4	
118-74-1	Hexachlorobenzene	U	11.4	ug/L	2.27	11.4	
1912-24-9	Atrazine	U	11.4	ug/L	3.41	11.4	
85-01-8	Phenanthrene	U	1.14	ug/L	0.227	1.14	
120-12-7	Anthracene	U	1.14	ug/L	0.227	1.14	
84-74-2	Di-n-butylphthalate	U	11.4	ug/L	2.27	11.4	
206-44-0	Fluoranthene	U	1.14	ug/L	0.227	1.14	
92-87-5	Benzidine	U	11.4	ug/L	3.41	11.4	
85-68-7	Butylbenzylphthalate	U	11.4	ug/L	2.27	11.4	UJ,SV7c
56-55-3	Benzo(a)anthracene	U	1.14	ug/L	0.227	1.14	
91-94-1	3,3'-Dichlorobenzidine	U	11.4	ug/L	2.27	11.4	
218-01-9	Chrysene	U	1.14	ug/L	0.227	1.14	
117-81-7	bis(2-Ethylhexyl)phthalate	U	11.4	ug/L	2.27	11.4	
117-84-0	Di-n-octylphthalate	U	11.4	ug/L	3.41	11.4	
205-99-2	Benzo(b)fluoranthene	U	1.14	ug/L	0.227	1.14	
207-08-9	Benzo(k)fluoranthene	U	1.14	ug/L	0.227	1.14	
50-32-8	Benzo(a)pyrene	U	1.14	ug/L	0.227	1.14	
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.14	ug/L	0.227	1.14	
53-70-3	Dibenzo(a,h)anthracene	U	1.14	ug/L	0.227	1.14	
191-24-2	Benzo(ghi)perylene	U	1.14	ug/L	0.227	1.14	
123-91-1	1,4-Dioxane	U	11.4	ug/L	2.27	11.4	
55-18-5	N-Nitrosodiethylamine	U	11.4	ug/L	2.27	11.4	

MLH
4/27/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017002**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12917**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 03:34**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**880 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0327.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	11.4	ug/L	2.27	11.4
924-16-3	N-Nitrosodi-n-butylamine	U	11.4	ug/L	3.41	11.4
95-94-3	1,2,4,5-Tetrachlorobenzene	U	11.4	ug/L	3.41	11.4
608-93-5	Pentachlorobenzene	U	11.4	ug/L	3.41	11.4
58-90-2	2,3,4,6-Tetrachlorophenol	U	11.4	ug/L	2.27	11.4
88-85-7	Dinoseb	U	11.4	ug/L	2.27	11.4
120-82-1	1,2,4-Trichlorobenzene	U	11.4	ug/L	2.27	11.4

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	82.3	114	ug/L	72.4	(39%-120%)
2-Fluorobiphenyl	38.9	56.8	ug/L	68.4	(38%-108%)
2-Fluorophenol	46.9	114	ug/L	41.3	(19%-98%)
Nitrobenzene-d5	40.7	56.8	ug/L	71.7	(31%-122%)
Phenol-d5	30.3	114	ug/L	26.7	(15%-83%)
p-Terphenyl-d14	57.5	56.8	ug/L	101	(40%-138%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	No Tentatively Identified Compounds Found			ug/L		

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4/27/10

DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-2039 VALIDATION DATE: 04/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ HIGH EXPLOSIVES
- ☐ DIOXIN FURANS
- ☐ LCMSMS PERCHLORATES
- ☐ TPH-DRO
- ☐ METALS
- ☐ PCB CONGENERS
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ GENERAL CHEMISTRY
- ☐ RADIOCHEMISTRY
- ☒ LCMSMS HIGH EXPLOSIVES
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The analysis for the primary analytes was performed past the method specified holding time but ≤2X past the specified holding time. The associated sample results were ND and were qualified UJ,HE9.
2. The ICAL RRF value for p–nitrotoluene was < 0.05 but ≥0.01. The associated sample result was ND and was qualified UJ,HE7b.
3. The ICV and/or CCV %D for RDX was >20% with positive bias. The associated sample result was ND and was not qualified.

   The ICV and/or CCV %Ds for m-nitrotoluene and 1,3,5-trinitrobenzene were > 20% but ≤40% with negative bias. The associated sample results were ND and were qualified UJ,HE7c.
4. The MS/MSD RPD was > 30% for tetryl. The associated sample result was ND and was qualified UJ,HE12g.

DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Reviewed by: Allison Felix Level: 1 Date: 4/28/10

VALIDATOR'S SIGNATURE: _____ DATE: 4/27/10

Form 5122-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
☐	☐	☒	3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
☐	☐	☒	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
☐	☐	☒	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
☐	☒	☐	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
☐	☒	☐	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
☐	☒	☐	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
☐	☐	☒	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	11. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE3d	R, HE3d
☐	☒	☐	12. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, HE4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, HE4a
☐	☐	☒	14. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, HE4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE4e	R, HE4e
☐	☒	☐	16. The absence of sample carry-over must be determined and verified.	N/A	R, N, HE4f
☐	☒	☐	17. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, HE7	J, HE7
☐	☒	☐	18. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less < 0.99.	UJ, R, HE7a	J, HE7a
☒	☐	☐	19. The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV.	UJ, R, HE7b	J, HE7b
☒	☐	☐	20. The ICV and/or CCV were recovered outside the method limits.	UJ, R, HE7c	J, HE7c
☐	☒	☐	21. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, HE7d	J, HE7d
☐	☒	☐	22. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, HE7f	R, HE7f

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
☒	☐	☐	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
☐	☒	☐	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
☐	☒	☐	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
☐	☒	☐	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
☐	☒	☐	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
☐	☒	☐	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
☐	☒	☐	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
☐	☒	☐	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
☐	☒	☐	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
☒	☐	☐	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
☐	☐	☒	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, HE15	R, HE15
☐	☐	☒	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
☐	☐	☒	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12917

Lab Code: GEL

GEL Job No (SDG) 10-2039

Matrix: GROUND WATER

GEL Sample ID: 248017003

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412065a

Date Analyzed: 13-APR-10 23:08

Units: ug/L

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	UJ,HE9	0.325	HU
121-14-2	2,4-Dinitrotoluene		0.325	HU
121-82-4	RDX		0.325	HU
19406-51-0	4-Amino-2,6-dinitrotoluene		0.325	HU
2691-41-0	HMX		0.325	HU
35572-78-2	2-Amino-4,6-dinitrotoluene		0.325	HU
479-45-8	Tetryl		0.649	HU
606-20-2	2,6-Dinitrotoluene		0.325	HU
78-11-5	PETN		1.3	HU
88-72-2	o-Nitrotoluene		0.325	HU
98-95-3	Nitrobenzene		0.325	HU
99-08-1	m-Nitrotoluene		0.325	HU
99-35-4	1,3,5-Trinitrobenzene		0.325	HU
99-65-0	m-Dinitrobenzene		0.325	HU
99-99-0	p-Nitrotoluene		0.649	HU

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MLH
4/27/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12917

Lab Code: GEL

GEL Job No (SDG) 10-2039

Matrix: GROUND WATER

GEL Sample ID: 248017003

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050076.wiff

Date Analyzed: 06-APR-10 08:24

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MLH
4/27/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-2039 VALIDATION DATE: 4/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☐ METALS	☐ PCB CONGENERS	☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☐ OTHER (DESCRIBE): pesticides

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The CCV %Ds for endrin and 4,4'-DDT were >15% on one column only. The associated sample results were ND and were not qualified.
2. The LCS %R for toxaphene was > the laboratory UAL. The associated sample result was ND and was not qualified.
3. The MS and MSD %Rs for beta-BHC were > the laboratory UAL. Since MS/MSD analyses are not required for pesticide analysis, no sample results were qualified.

Reviewed by: Allison Felix Level: 1 Date: 4/28/10

DATA VALIDATION COVER SHEET

5116-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

VALIDATOR'S SIGNATURE: _____ DATE: 04/27/10

Form 5116-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☒	☐	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☒	☐	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST	
5116-2 **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–2039	**Date Collected:**	02/23/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	248017004	**Date Received:**	02/25/2010 08:45		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA–10–12917	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	958413	**Inst:**	ECD7A.I	**Dilution:**	1
Run Date:	03/03/2010 12:35	**Analyst:**	JXM	**Inj. Vol:**	1 uL
Prep Date:	03/01/2010 18:08	**Aliquot:**	800 mL	**Final Volume:**	5 mL
Data File:	012f1201.d	**Column:**	1 CLP–1	**Level:**	LOW
	012b1201.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.025	ug/L	0.00625	0.025	1
58–89–9	gamma–BHC (Lindane)	U	0.025	ug/L	0.00625	0.025	1
319–85–7	beta–BHC	U	0.025	ug/L	0.0075	0.025	1
319–86–8	delta–BHC	U	0.025	ug/L	0.00625	0.025	1
76–44–8	Heptachlor	U	0.025	ug/L	0.00625	0.025	1
309–00–2	Aldrin	U	0.025	ug/L	0.00625	0.025	1
1024–57–3	Heptachlor epoxide	U	0.025	ug/L	0.00625	0.025	1
5103–74–2	gamma–Chlordane	U	0.025	ug/L	0.00625	0.025	1
5103–71–9	alpha–Chlordane	U	0.025	ug/L	0.00625	0.025	1
959–98–8	Endosulfan I	U	0.025	ug/L	0.00625	0.025	1
72–55–9	4,4'–DDE	U	0.050	ug/L	0.00625	0.050	1
60–57–1	Dieldrin	U	0.050	ug/L	0.0125	0.050	1
72–20–8	Endrin	U	0.050	ug/L	0.0125	0.050	1
72–54–8	4,4'–DDD	U	0.050	ug/L	0.0125	0.050	1
33213–65–9	Endosulfan II	U	0.050	ug/L	0.0125	0.050	1
7421–93–4	Endrin aldehyde	U	0.050	ug/L	0.00625	0.050	1
50–29–3	4,4'–DDT	U	0.050	ug/L	0.0125	0.050	1
1031–07–8	Endosulfan sulfate	U	0.050	ug/L	0.0125	0.050	1
72–43–5	Methoxychlor	U	0.250	ug/L	0.0625	0.250	1
53494–70–5	Endrin ketone	U	0.050	ug/L	0.0125	0.050	1
8001–35–2	Toxaphene	U	0.625	ug/L	0.188	0.625	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	1.18	1.25	ug/L	94.6	(30%–105%)
Decachlorobiphenyl	1.19	1.25	ug/L	95.1	(30%–126%)

MLH
4/27/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-2039 VALIDATION DATE: 04/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCB

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN and that the raw data for the parent sample was not included in the data package. No sample results were qualified.

Reviewed by: Allison Felix Level: 1 Date: 4/28/10

VALIDATOR'S SIGNATURE:	DATE: 04/27/10
Form 5116-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☐	☒	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	**32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.**	**UJ, R, P15**	**R, P15**
☒	☐	☐	**33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.**	**U, U_LAB**	**J, J_LAB, NQ, NQ**
☐	☒	☐	**34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.**	**UJ, R, P19**	**J, R, P19**

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017005**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA–10–12917**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**961887**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 11:46**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/08/2010 14:29**	**Aliquot:**	**940 mL**	**Final Volume:**	**1 mL**
Data File:	**033f3301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	033b3301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	0.106	ug/L	0.0354	0.106	1
11104–28–2	Aroclor–1221	U	0.106	ug/L	0.0354	0.106	1
11141–16–5	Aroclor–1232	U	0.106	ug/L	0.0354	0.106	1
53469–21–9	Aroclor–1242	U	0.106	ug/L	0.0354	0.106	1
12672–29–6	Aroclor–1248	U	0.106	ug/L	0.0354	0.106	1
11097–69–1	Aroclor–1254	U	0.106	ug/L	0.0354	0.106	1
11096–82–5	Aroclor–1260	U	0.106	ug/L	0.0354	0.106	1
37324–23–5	Aroclor–1262	U	0.106	ug/L	0.0354	0.106	1

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
4cmx	0.108	0.213	ug/L	50.5	(30%–105%)
Decachlorobiphenyl	0.110	0.213	ug/L	51.7	(30%–126%)

MLH
4/27/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2039 VALIDATION DATE: 04/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☐ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☒ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. TKN was detected in the MB. The associated sample result was ND and was not qualified.
2. The MS %R for TKN was < the laboratory LAL but > 10%. The associated sample result was ND and was qualified UJ,I6a.
3. It should be noted that the matrix QC analyses for TKN and TOC were performed on LANL samples from other RNs. No sample results were qualified.

Reviewed by: Allison Felix Level: 1 Date: 4/28/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos
NATIONAL LABORATORY
EST. 1943

VALIDATOR'S SIGNATURE _____ DATE: 04/27/10

Form 5120-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 17, 2010

Client SDG: 10-2039

Client Sample ID:	CAPA-10-12917	Project:	ESHL01000
Sample ID:	248017003	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	23-FEB-10 12:00		
Receive Date:	25-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
SW 9060 Total Organic Carbon "As Received"												
Total Organic Carbon Average	J	0.994		0.330	1.00	mg/L	1	TSM	03/02/10	1820	959246	1
Nutrient Analysis												
Nitrogen, Total Kjeldahl (TKN) "As Received"												
Nitrogen, Total Kjeldahl	U	ND	UJ,I6a	0.033	0.100	mg/L	1	AXH3	03/03/10	1433	958135	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 351.2 Prep	EPA 351.2 Total Kjeldahl Nitrogen Prep	SXJ1	03/01/10	1100	958133

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9060	
2	EPA 351.2	

MLH
4/27/10

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2039

REQUEST NUMBER: 10-2039

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 248017

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12915	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12915	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12915	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12915	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12915	3	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12917	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12917	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12917	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12917	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12917	3	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12917	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-12917	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-12917	3	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-12917	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-12917	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-12917	2	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-12917	3	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-12917	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-12917	2	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-12917	3	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-12918	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	2/24/10	1400	Dionne Francis	[illegible]	2/25/10	0845
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2039

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2039

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/24/2010

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:351.2	1	CAPA-10-12917	WG	2/23/2010	
	SW-846:8081A	1	CAPA-10-12917	WG	2/23/2010	
		2	CAPA-10-12917	WG	2/23/2010	
		3	CAPA-10-12917	WG	2/23/2010	
	SW-846:8082	1	CAPA-10-12917	WG	2/23/2010	
		2	CAPA-10-12917	WG	2/23/2010	
		3	CAPA-10-12917	WG	2/23/2010	
	SW-846:8260B	1	CAPA-10-12915	WG	2/23/2010	
		2	CAPA-10-12915	WG	2/23/2010	

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2039

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	CAPA-10-12917	WG	2/23/2010	
		2	CAPA-10-12917	WG	2/23/2010	
		1	CAPA-10-12918	WG	2/23/2010	
	SW-846:8270C	1	CAPA-10-12915	WG	2/23/2010	
		2	CAPA-10-12915	WG	2/23/2010	
		3	CAPA-10-12915	WG	2/23/2010	
		1	CAPA-10-12917	WG	2/23/2010	
		2	CAPA-10-12917	WG	2/23/2010	
		3	CAPA-10-12917	WG	2/23/2010	
	SW-846:8321A_MOD	1	CAPA-10-12917	WG	2/23/2010	
		2	CAPA-10-12917	WG	2/23/2010	
		3	CAPA-10-12917	WG	2/23/2010	
	SW-846:9060	1	CAPA-10-12917	WG	2/23/2010	

Final Page of REQUEST NUMBER 10-2039

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

March 04, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL-WQH Water Samples
Work Order: 248017
SDG: 10-2039

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 25, 2010, and analyzed for Explosives by LCMSMS, GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile, GC/MS Volatile and General Chemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2039
Enclosures

Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 248017
SDG # : 10-2039

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Sample Data Summary.....1206
Quality Control Summary.....1209
Instrument QC Data Summary.....1212
Carbon, Total Organic.....1215
Total Kjeldahl Nitrogen.....1236
Miscellaneous.....1242

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 248017
SDG # : 10-2039

March 04, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 25, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
248017001	CAPA-10-12915
248017002	CAPA-10-12917
248017003	CAPA-10-12917
248017004	CAPA-10-12917
248017005	CAPA-10-12917
248017006	CAPA-10-12918

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Explosives by LCMSMS, GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile, GC/MS Volatile and General Chemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 04 March 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California - NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida - NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois - NELAP	200029
Indiana	C-SC-01
Kansas - NELAP	E-10332
Kentucky	90129
Louisiana - NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey - NELAP	SC002
New Mexico	FL NELAP E87156
New York - NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania - NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas - NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah - NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2039

LOS ALAMOS

NATIONAL LABORATORY

REQUEST NUMBER: 10-2039

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 248017

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12915	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12915	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12915	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12915	2	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12915	3	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12917	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12917	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
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CAPA-10-12917	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-12917	2	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-12917	3	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-12917	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-12917	2	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-12917	3	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-12918	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG

Relinquished By:		Date	Time	Received By:		Date	Time
Printed Name	Signature	2/24/10	1400	Dionne Francis	Signature	2/25/10	0845
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2039

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2039
Per Agreement Number:126310011
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/24/2010
TURNAROUND/REPORT DUE: 3/26/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:351.2	1	CAPA-10-12917	WG	2/23/2010	
	SW-846:8081A	1	CAPA-10-12917	WG	2/23/2010	
		2	CAPA-10-12917	WG	2/23/2010	
		3	CAPA-10-12917	WG	2/23/2010	
	SW-846:8082	1	CAPA-10-12917	WG	2/23/2010	
		2	CAPA-10-12917	WG	2/23/2010	
		3	CAPA-10-12917	WG	2/23/2010	
	SW-846:8260B	1	CAPA-10-12915	WG	2/23/2010	
		2	CAPA-10-12915	WG	2/23/2010	

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2039

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	1	CAPA-10-12917	WG	2/23/2010	
		2	CAPA-10-12917	WG	2/23/2010	
		1	CAPA-10-12918	WG	2/23/2010	
	SW-846:8270C	1	CAPA-10-12915	WG	2/23/2010	
		2	CAPA-10-12915	WG	2/23/2010	
		3	CAPA-10-12915	WG	2/23/2010	
		1	CAPA-10-12917	WG	2/23/2010	
		2	CAPA-10-12917	WG	2/23/2010	
		3	CAPA-10-12917	WG	2/23/2010	
	SW-846:8321A_MOD	1	CAPA-10-12917	WG	2/23/2010	
		2	CAPA-10-12917	WG	2/23/2010	
		3	CAPA-10-12917	WG	2/23/2010	
	SW-846:9060	1	CAPA-10-12917	WG	2/23/2010	

Final Page of REQUEST NUMBER 10-2039

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-2039**
Received By: Dionne Francis	**Date Received: 2/25/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **80CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe) **0-6C** **12-14C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?	X			Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **time not listed on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#s

7209 7850 1919 0C	**7209 7850 2076 2C**	**7209 7850 2238 3C**	**7209 7850 1893 12C**
7209 7850 2146 1C	**7209 7850 2065 2C**	**7209 7850 2124 3C**	**7209 7850 1849 12C**
7209 7850 1952 1C	**7209 7850 1996 3C**	**7209 7850 1974 4C**	**7209 7850 1838 13C**
7209 7850 2054 1C	**7209 7850 2135 3C**	**7209 7850 1985 4C**	**7209 7850 1860 13C**
7209 7850 1963 1C	**7209 7850 2032 3C**	**7209 7850 2000 4C**	**7209 7850 1850 13C**
7209 7850 2021 2C	**7209 7850 2249 3C**	**7209 7850 2087 4C**	**7209 7850 2098 13C**
7209 7850 2113 2C	**7209 7850 2168 3C**	**7209 7850 2010 5C**	**7209 7850 1908 14C**
7209 7850 2102 2C	**7209 7850 1941 3C**	**7209 7850 2157 6C**	
7209 7850 1882 2C	**7209 7850 2043 3C**	**7209 7850 1871 12C**	

PM (or PMA) review: Initials JAR Date 2-26-10

LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 49.0 LB MA
CAD: 0014176/CAFE2

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VAC0

D

FedEx

2 of 2
MPS# 7209 7850 1919
Mstr# 7209 7850 1908 0201

THU - 25FEB
PRIORITY OVERI

29

X CHSA

JOYLENE VALDEZ (505) 665-9968
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2460

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

1C

FedEx
Express

2 of 2
MPS# 7209 7850 2146
0263
Mstr# 7209 7850 2135 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

LOS ALAMOS, NM 87545
UNITED STATES US

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

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2 of 3
MPS# 7209 7850 1952
0263
Mstr# 7209 7850 1941 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

29407
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XX CHSA

UNITED STATES US

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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1 of 2
TRK# 7209 7850 2054
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THU - 25FEB A1
PRIORITY OVERNIGHT

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SC-US
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ALAMOS NATL LAB
3 BLDG 1237 DPU 03

ALAMOS, NM 87545
ED STATES US

ACTWGT: 49.0 LB MAN
CAD: 0014178/CAFE2450

BILL SENDER

LERIE DAVIS
NERAL ENGINEERING LAB
40 SAVAGE RD

ARLESTON SC 29407
) 556-8171
: 6B010AMR3A05529E00

1C

FedEx Express

3 of 3
7209 7850 1963
7209 7850 1941 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

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SC-US
CHS

ALAMOS, NM 87
ED STATES US

BILL SENDER

LERIE DAVIS
NERAL ENGINEERING LAB
40 SAVAGE RD

ARLESTON SC 29407
) 556-8171
: 6B010AMR1A015AGWM0

2C

FedEx Express

1 of 2
7209 7850 2113
MASTER ##

THU - 25FEB A1
PRIORITY OVERNIGHT

X CHSA

29407
SC-US
CHS

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
IA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 49.0 LB MAN
CAD 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

2C

FedEx Express

TRK# 0201 7209 7850 2021

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

2C

FedEx Express

2 of 2
MPS# 0263 7209 7850 2102
Mstr# 7209 7850 2098 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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FedEx Express

2 of 3
MPS# 0263 7209 7850 1882
Mstr# 7209 7850 1871 0201

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LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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1 of 2
TRK# 0201 7209 7850 2076
** MASTER **

THU - 25FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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2 of 2
MPS# 0263 7209 7850 2065
Mstr# 7209 7850 2054 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

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CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

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7209 7850 1996
7209 7850 1985 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

29407
SC-US
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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014178/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWMO

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FedEx Express

1 of 2
TRK# 0201 7209 7850 2135
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THU - 25FEB
PRIORITY OVERN

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XX CHSA

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 60.0 LB MAN
CAD: 0014178/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWMO

3c

FedEx Express

2 of 2
MPS# 0263 7209 7850 2249
Mstr# 7209 7850 2238 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 61.0 LB MAN
CAD: 0014178/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0223KY10

3c

FedEx Express

1 of 2
TRK# 0201 7209 7850 2032
MM MASTER MM

THU - 25FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AAREW0140T500

3c

FedEx Express

2 of 2
TRK# 0201 7209 7850 2168

THU - 25FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

3c

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1 of 3
TRK# 0201 7209 7850 1941
MASTER

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0223KY10

3c

FedEx Express

2 of 2
MPS# 0263 7209 7850 2043
Mstr# 7209 7850 2032 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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FedEx Express

1 of 2
TRK# 0201 7209 7850 2238
MASTER

THU - 25FEB A
PRIORITY OVERNIGH

XX CHSA

2940
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 67.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

3c

FedEx Express

2 of 2
MPS# 0263 7209 7850 2124
Mstr# 7209 7850 2113 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

4c

FedEx Express

TRK# 0201 7209 7850 1974

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

4c

FedEx Express

1 of 2
TRK# 0201 7209 7850 1985
MASTER

THU - 25FEB A1
PRIORITY OVERNIGH

XX CHSA

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LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

4c

FedEx Express

1 of 2
TRK# 0201 7209 7850 2000
MASTER

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

4c

FedEx Express

2 of 2
MPS# 0263 7209 7850 2087
Matr# 7209 7850 2076 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
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JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE24

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

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FedEx Express

2 of 2
MPS# 0263 7209 7850 2010
Mstr# 7209 7850 2000 0201

THU - 25FEB
PRIORITY OVERNIG

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XX CHSA

JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AWESL11570000

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FedEx Express

TRK# 0201 7209 7850 2157

THU - 25FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

12C

FedEx Express

1 of 3
TRK# 0201 7209 7850 1871
MASTER

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PRIORITY OVERNI

294

XX CHSA

JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

12C

FedEx Express

3 of 3
MPS# 0263 7209 7850 1893
Mstr# 7209 7850 1871 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

12c

FedEx Express

3 of 3
MPS# 0263 7209 7850 1849
Mstr# 7209 7850 1827 0201

THU - 25FEB A
PRIORITY OVERNIGH

XX CHSA

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

13c

FedEx Express

2 of 2
MPS# 0263 7209 7850 1860
Mstr# 7209 7850 1850 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

13c

FedEx Express

2 of 3
MPS# 0263 7209 7850 1838
Mstr# 7209 7850 1827 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 66.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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1 of 2
TRK# 0201 7209 7850 1850
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THU - 25FEB A1
PRIORITY OVERNIGHT

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CHS

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

13c

FedEx Express

1 of 2
TRK# 0201 7209 7850 2098
THU - 25FEB A1
PRIORITY OVERNIGHT

MASTER

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CHS

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

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1 of 2
TRK# 0201 7209 7850 1908
THU - 25FEB A1
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MASTER

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DATA REVIEW QUALIFIER FLAG DEFINITION SHEET

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

Case Narrative

ChemStation Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2039

Method/Analysis Information

Procedure: Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method: SW846 8260B DOE-AL
Prep Method: SW846 5030B
Analytical Batch Number: 961925

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
248017001	CAPA-10-12915
248017002	CAPA-10-12917
248017006	CAPA-10-12918
1202063270	Method Blank (MB)
1202063273	Laboratory Control Sample (LCS)
1202063274	Laboratory Control Sample (LCS)
1202067782	Method Blank (MB)
1202067783	Laboratory Control Sample (LCS)
1202067784	Laboratory Control Sample (LCS)
1202063271	248017001(CAPA-10-12915) Post Spike (PS)
1202063272	248017001(CAPA-10-12915) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a 'd' qualifier.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 248017001 (CAPA-10-12915) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Sample 248017006 (CAPA-10-12918) was re-analyzed due to unacceptable recoveries in the initial analysis.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
A Data Exception Document was not required for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA4.I	Gas Chromatograph/Mass Spectrometer	HP6890/HP5973	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2039 GEL Work Order: 248017

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Erin Haubert **Name: Erin Haubert**

Date: 20 MAR 2010 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12915**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/06/2010 04:46**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/06/2010 04:46**				
Data File:	**030510V4\4A536.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	J	0.270	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12915**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/06/2010 04:46**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/06/2010 04:46**				
Data File:	**030510V4\4A536.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12915**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/06/2010 04:46**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/06/2010 04:46**				
Data File:	**030510V4\4A536.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	42.8	50.0	ug/L	85.6	(72%-132%)
Bromofluorobenzene	61.4	50.0	ug/L	123	(77%-123%)
Toluene-d8	47.0	50.0	ug/L	93.9	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	11.8	ug/L	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017002**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12917**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/06/2010 05:13**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/06/2010 05:13**				
Data File:	**030510V4\4A537.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	J	0.290	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017002**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12917**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/06/2010 05:13**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/06/2010 05:13**				
Data File:	**030510V4\4A537.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017002**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12917**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/06/2010 05:13**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/06/2010 05:13**				
Data File:	**030510V4\4A537.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	43.1	50.0	ug/L	86.2	(72%-132%)
Bromofluorobenzene	60.8	50.0	ug/L	122	(77%-123%)
Toluene-d8	47.1	50.0	ug/L	94.3	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.47	9.2	ug/L	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017006**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12918**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/08/2010 19:23**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/08/2010 19:23**				
Data File:	**030810V4\4B108.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017006**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12918**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/08/2010 19:23**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/08/2010 19:23**				
Data File:	**030810V4\4B108.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017006**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12918**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/08/2010 19:23**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/08/2010 19:23**				
Data File:	**030810V4\4B108.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	48.0	50.0	ug/L	96.1	(72%-132%)
Bromofluorobenzene	54.0	50.0	ug/L	108	(77%-123%)
Toluene-d8	50.4	50.0	ug/L	101	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	6.74	ug/L	0	J

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-2039

Matrix Type: LIQUID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202063273	LCS for batch 961925	85	90	107
1202063274	LCS for batch 961925	86	92	113
1202063270	MB for batch 961925	87	96	122
248017001	CAPA-10-12915	86	94	123
248017002	CAPA-10-12917	86	94	122
1202067783	LCS for batch 961925	97	97	95
1202067784	LCS for batch 961925	95	96	102
1202067782	MB for batch 961925	99	100	105
248017006	CAPA-10-12918	96	101	108
1202063271	CAPA-10-12915PS	93	99	98
1202063272	CAPA-10-12915PSD	92	99	97

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(72%-132%)
TOL	= Toluene-d8	(76%-122%)
BFB	= Bromofluorobenzene	(77%-123%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: CAPA-10-12915PS
Lab Sample ID: 1202063271
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: GROUND WATER
Analysis Date: 03/09/2010 01:47
Dilution: 1
Prep Batch ID: 961925
Batch ID: 961925

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	42.2	84	36-136
74-87-3	PS	Chloromethane	50.0	0.00	U	42.5	85	47-135
75-01-4	PS	Vinyl chloride	50.0	0.00	U	47.0	94	51-136
74-83-9	PS	Bromomethane	50.0	0.00	U	45.5	91	50-140
75-00-3	PS	Chloroethane	50.0	0.00	U	46.6	93	60-125
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	48.8	98	54-146
60-29-7	PS	Ethyl ether	50.0	0.00	U	46.3	93	61-112
67-64-1	PS	Acetone	250	0.00	U	81.3	33	15-142
75-05-8	PS	Acetonitrile	1250	0.00	U	1160	93	53-129
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	45.0	90	59-128
74-88-4	PS	Iodomethane	250	0.00	U	245	98	57-133
75-09-2	PS	Methylene chloride	50.0	0.00	U	49.1	98	63-122
75-15-0	PS	Carbon disulfide	250	0.00	U	248	99	62-135
1634-04-4	PS	tert-Butyl methyl ether	50.0	0.00	U	45.3	91	65-120
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	46.4	93	64-120
108-05-4	PS	Vinyl acetate	250	0.00	U	282	113	56-151
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	47.8	96	58-132
78-93-3	PS	2-Butanone	250	0.00	U	124	50	11-118
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	47.9	96	63-132
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	45.3	91	56-136
67-66-3	PS	Chloroform	50.0	0.00	U	47.6	95	68-130
74-97-5	PS	Bromochloromethane	50.0	0.00	U	48.7	97	70-124

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039 **Sample Type:** Post Spike
Client ID: CAPA-10-12915PS **Matrix:** GROUND WATER
Lab Sample ID: 1202063271
Instrument: VOA4.I **Analysis Date:** 03/09/2010 01:47 **Dilution:** 1
Analyst: ACJ **Prep Batch ID** 961925
Purge Vol: 5 mL **Batch ID:** 961925

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	48.1	96	66-132
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	48.2	96	64-130
71-36-3	PS	n-Butyl alcohol	5000	0.00	U	4770	95	52-149
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	49.5	99	61-137
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	47.1	94	60-127
71-43-2	PS	Benzene	50.0	0.00	U	47.7	95	65-119
79-01-6	PS	Trichloroethylene	50.0	0.00	U	48.0	96	68-121
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	49.4	99	69-122
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	51.8	104	67-134
74-95-3	PS	Dibromomethane	50.0	0.00	U	48.0	96	70-122
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	233	93	52-130
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	49.9	100	64-133
108-88-3	PS	Toluene	50.0	0.270	J	54.1	108	64-116
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	51.0	102	63-133
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	49.7	99	66-123
591-78-6	PS	2-Hexanone	250	0.00	U	155	62	25-125
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	49.4	99	70-119
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	48.1	96	63-121
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	53.5	107	66-132
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	50.4	101	72-122
108-90-7	PS	Chlorobenzene	50.0	0.00	U	49.1	98	74-116
100-41-4	PS	Ethylbenzene	50.0	0.00	U	49.3	99	59-125

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: CAPA-10-12915PS
Lab Sample ID: 1202063271
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike
Matrix: GROUND WATER
Analysis Date: 03/09/2010 01:47
Dilution: 1
Prep Batch ID: 961925
Batch ID: 961925

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	PS	m,p-Xylenes	100	0.00	U	101	101	48-140
95-47-6	PS	o-Xylene	50.0	0.00	U	52.8	106	59-134
100-42-5	PS	Styrene	50.0	0.00	U	55.0	110	54-138
75-25-2	PS	Bromoform	50.0	0.00	U	52.8	106	59-140
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	47.2	94	65-124
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	45.9	92	61-137
108-86-1	PS	Bromobenzene	50.0	0.00	U	49.0	98	64-125
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	47.0	94	56-128
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	50.5	101	62-125
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	47.3	95	44-134
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	49.5	99	55-133
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	48.2	96	62-126
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	49.5	99	62-130
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	48.8	98	66-123
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	48.3	97	61-121
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	49.2	98	60-136
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	48.8	98	66-122
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	47.7	95	75-120
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	48.6	97	57-133
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	53.2	106	58-138
87-68-3	PS	Hexachlorobutadiene	50.0	0.00	U	46.5	93	48-136
91-20-3	PS	Naphthalene	50.0	0.00	U	48.3	97	63-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2039**
Client ID: **CAPA-10-12915PS**
Lab Sample ID: **1202063271**
Instrument: **VOA4.I**
Analyst: **ACJ**
Purge Vol: **5 mL**

Sample Type: **Post Spike**
Matrix: **GROUND WATER**
Analysis Date: **03/09/2010 01:47**
Dilution: 1
Prep Batch ID **961925**
Batch ID: **961925**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
87-61-6	PS	1,2,3-Trichlorobenzene	50.0	0.00	U	49.6	99	65-129
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	51.8	104	69-128
120-82-1	PS	1,2,4-Trichlorobenzene	50.0	0.00	U	48.6	97	56-130
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	49.5	99	67-123

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: CAPA-10-12915PSD
Lab Sample ID: 1202063272
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 03/09/2010 02:15
Dilution: 1
Prep Batch ID: 961925
Batch ID: 961925

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	43.2	86	36-136	2	0-20
74-87-3	PSD	Chloromethane	50.0	0.00	U	41.0	82	47-135	4	0-20
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	46.9	94	51-136	0	0-20
74-83-9	PSD	Bromomethane	50.0	0.00	U	44.8	90	50-140	2	0-20
75-00-3	PSD	Chloroethane	50.0	0.00	U	46.7	93	60-125	0	0-20
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	49.6	99	54-146	2	0-20
60-29-7	PSD	Ethyl ether	50.0	0.00	U	47.0	94	61-112	2	0-20
67-64-1	PSD	Acetone	250	0.00	U	83.3	33	15-142	2	0-20
75-05-8	PSD	Acetonitrile	1250	0.00	U	1170	94	53-129	1	0-20
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	43.8	88	59-128	3	0-20
74-88-4	PSD	Iodomethane	250	0.00	U	245	98	57-133	0	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	45.6	91	63-122	7	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	242	97	62-135	2	0-20
1634-04-4	PSD	tert-Butyl methyl ether	50.0	0.00	U	47.0	94	65-120	4	0-20
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	45.5	91	64-120	2	0-20
108-05-4	PSD	Vinyl acetate	250	0.00	U	281	112	56-151	0	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	47.6	95	58-132	1	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	127	51	11-118	2	0-20
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	47.0	94	63-132	2	0-20
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	46.8	94	56-136	3	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	46.4	93	68-130	3	0-20
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	49.6	99	70-124	2	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039 **Sample Type:** Post Spike Duplicate

Client ID: CAPA-10-12915PSD **Matrix:** GROUND WATER

Lab Sample ID: 1202063272

Instrument: VOA4.I **Analysis Date:** 03/09/2010 02:15 **Dilution:** 1

Analyst: ACJ **Prep Batch ID** 961925

Purge Vol: 5 mL **Batch ID:** 961925

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	48.5	97	66-132	1	0-20
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	47.5	95	64-130	1	0-29
71-36-3	PSD	n-Butyl alcohol	5000	0.00	U	4900	98	52-149	3	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	49.3	99	61-137	0	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	46.6	93	60-127	1	0-20
71-43-2	PSD	Benzene	50.0	0.00	U	47.0	94	65-119	1	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	46.6	93	68-121	3	0-20
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	48.4	97	69-122	2	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	51.8	104	67-134	0	0-20
74-95-3	PSD	Dibromomethane	50.0	0.00	U	47.7	95	70-122	1	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	237	95	52-130	2	0-20
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	49.4	99	64-133	1	0-20
108-88-3	PSD	Toluene	50.0	0.270	J	52.5	104	64-116	3	0-20
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	50.7	101	63-133	1	0-20
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	49.1	98	66-123	1	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	159	64	25-125	2	0-20
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	49.0	98	70-119	1	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	48.2	96	63-121	0	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	53.6	107	66-132	0	0-20
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	49.8	100	72-122	1	0-20
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	47.4	95	74-116	4	0-20
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	47.4	95	59-125	4	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039 **Sample Type:** Post Spike Duplicate

Client ID: CAPA-10-12915PSD **Matrix:** GROUND WATER

Lab Sample ID: 1202063272

Instrument: VOA4.I **Analysis Date:** 03/09/2010 02:15 **Dilution:** 1

Analyst: ACJ **Prep Batch ID:** 961925

Purge Vol: 5 mL **Batch ID:** 961925

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	97.6	98	48-140	4	0-20
95-47-6	PSD	o-Xylene	50.0	0.00	U	50.1	100	59-134	5	0-20
100-42-5	PSD	Styrene	50.0	0.00	U	52.8	106	54-138	4	0-20
75-25-2	PSD	Bromoform	50.0	0.00	U	53.6	107	59-140	2	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	47.1	94	65-124	0	0-20
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	45.4	91	61-137	1	0-20
108-86-1	PSD	Bromobenzene	50.0	0.00	U	47.1	94	64-125	4	0-20
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	45.3	91	56-128	4	0-20
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	47.9	96	62-125	5	0-20
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	46.2	92	44-134	2	0-20
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	47.7	95	55-133	4	0-20
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	45.8	92	62-126	5	0-20
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	47.2	94	62-130	5	0-20
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	46.4	93	66-123	5	0-20
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	46.3	93	61-121	4	0-20
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	47.0	94	60-136	5	0-20
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	46.6	93	66-122	5	0-20
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	46.0	92	75-120	4	0-20
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	46.2	92	57-133	5	0-20
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	52.7	105	58-138	1	0-20
87-68-3	PSD	Hexachlorobutadiene	50.0	0.00	U	42.8	86	48-136	8	0-20
91-20-3	PSD	Naphthalene	50.0	0.00	U	48.0	96	63-129	1	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: CAPA-10-12915PSD
Lab Sample ID: 1202063272
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 03/09/2010 02:15
Dilution: 1
Prep Batch ID: 961925
Batch ID: 961925

CAS No	Parmname		Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
87-61-6	PSD	1,2,3-Trichlorobenzene	50.0	0.00	U	48.0	96	65-129	3	0-24
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	50.8	102	69-128	2	0-20
120-82-1	PSD	1,2,4-Trichlorobenzene	50.0	0.00	U	47.0	94	56-130	3	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	46.5	93	67-123	6	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: LCS for batch 961925
Lab Sample ID: 1202063273
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/06/2010 00:39
Dilution: 1
Prep Batch ID: 961925
Batch ID: 961925

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	46.6	93	58-147
74-87-3	LCS	Chloromethane	50.0	0.0	51.4	103	57-131
75-01-4	LCS	Vinyl chloride	50.0	0.0	53.6	107	68-129
74-83-9	LCS	Bromomethane	50.0	0.0	54.9	110	70-129
75-00-3	LCS	Chloroethane	50.0	0.0	52.0	104	69-128
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	52.0	104	70-150
60-29-7	LCS	Ethyl ether	50.0	0.0	48.5	97	68-122
67-64-1	LCS	Acetone	250	0.0	209	83	30-152
75-05-8	LCS	Acetonitrile	1250	0.0	1250	100	60-121
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	49.8	100	71-130
74-88-4	LCS	Iodomethane	250	0.0	236	94	71-129
75-09-2	LCS	Methylene chloride	50.0	0.0	45.2	90	70-124
75-15-0	LCS	Carbon disulfide	250	0.0	283	113	74-137
1634-04-4	LCS	tert-Butyl methyl ether	50.0	0.0	44.8	90	70-120
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	50.5	101	73-122
108-05-4	LCS	Vinyl acetate	250	0.0	260	104	62-143
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	51.3	103	75-121
78-93-3	LCS	2-Butanone	250	0.0	211	84	30-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	50.7	101	76-125
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	46.3	93	74-138
67-66-3	LCS	Chloroform	50.0	0.0	49.7	99	75-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	47.0	94	74-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: LCS for batch 961925
Lab Sample ID: 1202063273
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/06/2010 00:39
Dilution: 1
Prep Batch ID: 961925
Batch ID: 961925

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	48.1	96	73-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	50.5	101	79-130
71-36-3	LCS	n-Butyl alcohol	5000	0.0	4790	96	60-141
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	48.3	97	73-139
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	49.6	99	66-123
71-43-2	LCS	Benzene	50.0	0.0	48.9	98	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	49.8	100	78-123
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	51.6	103	75-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	51.1	102	76-129
74-95-3	LCS	Dibromomethane	50.0	0.0	47.9	96	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	228	91	57-132
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	50.5	101	78-129
108-88-3	LCS	Toluene	50.0	0.0	47.3	95	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	48.9	98	77-126
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	48.2	96	74-120
591-78-6	LCS	2-Hexanone	250	0.0	219	88	30-149
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	48.3	97	74-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	46.8	94	73-124
124-48-1	LCS	Dibromochloromethane	50.0	0.0	48.1	96	74-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	47.1	94	77-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	48.8	98	77-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	49.6	99	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: LCS for batch 961925
Lab Sample ID: 1202063273
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/06/2010 00:39
Dilution: 1
Prep Batch ID: 961925
Batch ID: 961925

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	LCS	m,p-Xylenes	100	0.0	101	101	75-121
95-47-6	LCS	o-Xylene	50.0	0.0	51.5	103	76-123
100-42-5	LCS	Styrene	50.0	0.0	53.6	107	74-128
75-25-2	LCS	Bromoform	50.0	0.0	48.3	97	67-134
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	46.2	92	69-120
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	44.4	89	72-134
108-86-1	LCS	Bromobenzene	50.0	0.0	49.9	100	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	51.7	103	70-123
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	52.0	104	72-121
98-82-8	LCS	Isopropylbenzene	50.0	0.0	49.8	100	58-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	52.6	105	71-125
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	51.3	103	73-122
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	49.9	100	75-127
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	51.4	103	74-123
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	51.0	102	74-126
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	51.7	103	76-129
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	50.1	100	76-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	49.4	99	75-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	52.6	105	75-130
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	43.5	87	66-130
87-68-3	LCS	Hexachlorobutadiene	50.0	0.0	46.6	93	67-132
91-20-3	LCS	Naphthalene	50.0	0.0	42.0	84	66-126

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: LCS for batch 961925
Lab Sample ID: 1202063273
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/06/2010 00:39
Dilution: 1
Prep Batch ID: 961925
Batch ID: 961925

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
87-61-6	LCS	1,2,3-Trichlorobenzene	50.0	0.0	47.2	94	71-130
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	49.9	100	76-125
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	46.4	93	73-127
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	48.2	96	76-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: LCS for batch 961925
Lab Sample ID: 1202063274
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/06/2010 01:34
Dilution: 1
Prep Batch ID: 961925
Batch ID: 961925

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
107-02-8	LCS	Acrolein	250	0.0	265	106	43-147
76-13-1	LCS	Trichlorotrifluoroethane	250	0.0	274	110	66-142
107-05-1	LCS	Allyl chloride	250	0.0	300	120	61-137
107-13-1	LCS	Acrylonitrile	250	0.0	250	100	55-137
126-99-8	LCS	2-Chloro-1,3-butadiene	50.0	0.0	63.3	127	71-143
107-12-0	LCS	Propionitrile	250	0.0	244	98	68-131
126-98-7	LCS	Methacrylonitrile	250	0.0	253	101	54-134
78-83-1	LCS	Isobutyl alcohol	2500	0.0	2430	97	50-143
80-62-6	LCS	Methyl methacrylate	250	0.0	256	102	63-133
97-63-2	LCS	Ethyl methacrylate	250	0.0	268	107	66-128

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: LCS for batch 961925
Lab Sample ID: 1202067783
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/08/2010 16:19
Dilution: 1
Prep Batch ID: 961925
Batch ID: 961925

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	47.3	95	58-147
74-87-3	LCS	Chloromethane	50.0	0.0	43.4	87	57-131
75-01-4	LCS	Vinyl chloride	50.0	0.0	49.5	99	68-129
74-83-9	LCS	Bromomethane	50.0	0.0	48.7	97	70-129
75-00-3	LCS	Chloroethane	50.0	0.0	51.5	103	69-128
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	56.5	113	70-150
60-29-7	LCS	Ethyl ether	50.0	0.0	49.3	99	68-122
67-64-1	LCS	Acetone	250	0.0	214	85	30-152
75-05-8	LCS	Acetonitrile	1250	0.0	1310	105	60-121
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	49.8	100	71-130
74-88-4	LCS	Iodomethane	250	0.0	264	106	71-129
75-09-2	LCS	Methylene chloride	50.0	0.0	49.9	100	70-124
75-15-0	LCS	Carbon disulfide	250	0.0	268	107	74-137
1634-04-4	LCS	tert-Butyl methyl ether	50.0	0.0	50.3	101	70-120
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	49.0	98	73-122
108-05-4	LCS	Vinyl acetate	250	0.0	302	121	62-143
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	50.5	101	75-121
78-93-3	LCS	2-Butanone	250	0.0	224	90	30-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	49.9	100	76-125
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	55.4	111	74-138
67-66-3	LCS	Chloroform	50.0	0.0	49.9	100	75-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	51.1	102	74-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: LCS for batch 961925
Lab Sample ID: 1202067783
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/08/2010 16:19
Dilution: 1
Prep Batch ID: 961925
Batch ID: 961925

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	53.7	107	73-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	52.1	104	79-130
71-36-3	LCS	n-Butyl alcohol	5000	0.0	5780	116	60-141
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	54.4	109	73-139
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	49.0	98	66-123
71-43-2	LCS	Benzene	50.0	0.0	49.6	99	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	51.2	102	78-123
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	50.4	101	75-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	54.9	110	76-129
74-95-3	LCS	Dibromomethane	50.0	0.0	51.1	102	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	269	107	57-132
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	54.4	109	78-129
108-88-3	LCS	Toluene	50.0	0.0	54.1	108	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	54.2	108	77-126
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	50.6	101	74-120
591-78-6	LCS	2-Hexanone	250	0.0	237	95	30-149
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	50.3	101	74-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	52.7	105	73-124
124-48-1	LCS	Dibromochloromethane	50.0	0.0	56.3	113	74-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	53.0	106	77-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	51.2	102	77-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	51.1	102	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: LCS for batch 961925
Lab Sample ID: 1202067783
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/08/2010 16:19
Dilution: 1
Prep Batch ID: 961925
Batch ID: 961925

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	LCS	m,p-Xylenes	100	0.0	106	106	75-121
95-47-6	LCS	o-Xylene	50.0	0.0	54.3	109	76-123
100-42-5	LCS	Styrene	50.0	0.0	57.0	114	74-128
75-25-2	LCS	Bromoform	50.0	0.0	56.1	112	67-134
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	47.9	96	69-120
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	48.8	98	72-134
108-86-1	LCS	Bromobenzene	50.0	0.0	49.5	99	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	47.4	95	70-123
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	50.7	101	72-121
98-82-8	LCS	Isopropylbenzene	50.0	0.0	47.2	94	58-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	49.9	100	71-125
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	48.6	97	73-122
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	50.2	100	75-127
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	49.1	98	74-123
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	48.9	98	74-126
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	50.9	102	76-129
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	50.3	101	76-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	50.1	100	75-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	51.3	103	75-130
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	59.8	120	66-130
87-68-3	LCS	Hexachlorobutadiene	50.0	0.0	50.0	100	67-132
91-20-3	LCS	Naphthalene	50.0	0.0	52.3	105	66-126

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2039**
Client ID: **LCS for batch 961925**
Lab Sample ID: **1202067783**
Instrument: **VOA4.I**
Analyst: **ACJ**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **GROUND WATER**
Analysis Date: **03/08/2010 16:19**
Dilution: 1
Prep Batch ID **961925**
Batch ID: **961925**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
87-61-6	LCS	1,2,3-Trichlorobenzene	50.0	0.0	53.8	108	71-130
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	53.9	108	76-125
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	56.0	112	73-127
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	49.7	99	76-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: LCS for batch 961925
Lab Sample ID: 1202067784
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/08/2010 17:33
Dilution: 1
Prep Batch ID: 961925
Batch ID: 961925

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
107-02-8	LCS	Acrolein	250	0.0	308	123	43-147
76-13-1	LCS	Trichlorotrifluoroethane	250	0.0	258	103	66-142
107-05-1	LCS	Allyl chloride	250	0.0	289	116	61-137
107-13-1	LCS	Acrylonitrile	250	0.0	274	109	55-137
126-99-8	LCS	2-Chloro-1,3-butadiene	50.0	0.0	62.4	125	71-143
107-12-0	LCS	Propionitrile	250	0.0	265	106	68-131
126-98-7	LCS	Methacrylonitrile	250	0.0	266	106	54-134
78-83-1	LCS	Isobutyl alcohol	2500	0.0	2640	106	50-143
80-62-6	LCS	Methyl methacrylate	250	0.0	292	117	63-133
97-63-2	LCS	Ethyl methacrylate	250	0.0	288	115	66-128

Method Blank Summary

SDG Number:	10-2039	Client:	LANL010	Matrix:	GROUND WATER
Client ID:	MB for batch 961925	Instrument ID:	VOA4.I	Data File:	030510V4\4A532BL.D
Lab Sample ID:	1202063270	Prep Date:	03/06/2010 02:56	Analyzed:	03/06/10 02:56
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 961925	1202063273	030510V4\4A527LL.D	03/06/10	0039
02	LCS for batch 961925	1202063274	030510V4\4A529SL.D	03/06/10	0134
03	CAPA-10-12915	248017001	030510V4\4A536.D	03/06/10	0446
04	CAPA-10-12917	248017002	030510V4\4A537.D	03/06/10	0513

Method Blank Summary

SDG Number:	10-2039	Client:	LANL010	Matrix:	GROUND WATER
Client ID:	MB for batch 961925	Instrument ID:	VOA4.I	Data File:	030810V4\4B107BL.D
Lab Sample ID:	1202067782	Prep Date:	03/08/2010 18:55	Analyzed:	03/08/10 18:55
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 961925	1202067783	030810V4\4B102LL.D	03/08/10	1619
02	LCS for batch 961925	1202067784	030810V4\4B104SL.D	03/08/10	1733
03	CAPA-10-12918	248017006	030810V4\4B108.D	03/08/10	1923
04	CAPA-10-12915PS	1202063271	030810V4\4B122.D	03/09/10	0147
05	CAPA-10-12915PSD	1202063272	030810V4\4B123.D	03/09/10	0215

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2039

Instrument ID: VOA4.I **Injection Date/Time:** 01-MAR-10 19:08

Column Description: DB-624 **Lab File ID** 030110V4\4A101.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	19.1
75	30.0 - 60.0% of mass 95	49.8
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	82.3
175	5.0 -9.0% of mass 174	7
176	95.0 - 101.0% of mass 174	95.5
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W4VM100301-01	030110V4\4A103.D	01-MAR-10 20:03
ICALMIX[A]	W4VM100301-02	030110V4\4A104.D	01-MAR-10 20:30
ICALMIX[A]	W4VM100301-04	030110V4\4A106.D	01-MAR-10 21:26
ICALMIX[A]	W4VM100301-05	030110V4\4A107.D	01-MAR-10 21:54
ICALMIX[A]	W4VM100301-06	030110V4\4A108.D	01-MAR-10 22:21
ICALMIX[A]	W4VM100301-08	030110V4\4A110.D	01-MAR-10 23:16
ICALMIX[A]	W4VM100301-09	030110V4\4A111.D	01-MAR-10 23:44
ICALMIX[B]	W4VM100301-10	030110V4\4A113.D	02-MAR-10 00:39
ICALMIX[B]	W4VM100301-11	030110V4\4A114.D	02-MAR-10 01:06
ICALMIX[B]	W4VM100301-12	030110V4\4A115.D	02-MAR-10 01:34
ICALMIX[B]	W4VM100301-13	030110V4\4A116.D	02-MAR-10 02:01
ICALMIX[B]	W4VM100301-14	030110V4\4A117.D	02-MAR-10 02:28
ICALMIX[B]	W4VM100301-15	030110V4\4A118.D	02-MAR-10 02:56
ICALMIX[B]	W4VM100301-16	030110V4\4A119.D	02-MAR-10 03:23
ICVMIX[A]01	W4VM100301-18	030110V4\4A122.D	02-MAR-10 04:45
ICVMIX[B]02	W4VM100301-19	030110V4\4A123.D	02-MAR-10 05:13

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2039

Instrument ID: VOA4.I **Injection Date/Time:** 05-MAR-10 23:44

Column Description: DB-624 **Lab File ID** 030510V4\4A525.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	22.2
75	30.0 - 60.0% of mass 95	54.3
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	79
175	5.0 -9.0% of mass 174	7.3
176	95.0 - 101.0% of mass 174	95.8
177	5.0 - 9.0% of mass 176	6.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]02	W4VM100305-05	030510V4\4A526.D	06-MAR-10 00:11
BLK01LCS	1202063273	030510V4\4A527LL.D	06-MAR-10 00:39
CCVMIX[B]03	W4VM100305-08	030510V4\4A529.D	06-MAR-10 01:34
BLK01SLCS	1202063274	030510V4\4A529SL.D	06-MAR-10 01:34
BLK01	1202063270	030510V4\4A532BL.D	06-MAR-10 02:56
CAPA-10-12915	248017001	030510V4\4A536.D	06-MAR-10 04:46
CAPA-10-12917	248017002	030510V4\4A537.D	06-MAR-10 05:13

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2039

Instrument ID: VOA4.I **Injection Date/Time:** 07-MAR-10 19:02

Column Description: DB-624 **Lab File ID** 030710V4\4A701.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20.2
75	30.0 - 60.0% of mass 95	51.3
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	81.9
175	5.0 -9.0% of mass 174	6.8
176	95.0 - 101.0% of mass 174	96.2
177	5.0 - 9.0% of mass 176	6.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W4VM100307-01	030710V4\4A703.D	07-MAR-10 19:57
ICALMIX[A]	W4VM100307-02	030710V4\4A704.D	07-MAR-10 20:24
ICALMIX[A]	W4VM100307-04	030710V4\4A706.D	07-MAR-10 21:20
ICALMIX[A]	W4VM100307-05	030710V4\4A707.D	07-MAR-10 21:47
ICALMIX[A]	W4VM100307-06	030710V4\4A708.D	07-MAR-10 22:14
ICALMIX[A]	W4VM100307-07	030710V4\4A709.D	07-MAR-10 22:41
ICALMIX[A]	W4VM100307-08	030710V4\4A710.D	07-MAR-10 23:09
ICALMIX[A]	W4VM100307-09	030710V4\4A711.D	07-MAR-10 23:36
ICALMIX[B]	W4VM100307-10	030710V4\4A713.D	08-MAR-10 00:32
ICALMIX[B]	W4VM100307-11	030710V4\4A714.D	08-MAR-10 00:59
ICALMIX[B]	W4VM100307-12	030710V4\4A715.D	08-MAR-10 01:26
ICALMIX[B]	W4VM100307-13	030710V4\4A716.D	08-MAR-10 01:53
ICALMIX[B]	W4VM100307-14	030710V4\4A717.D	08-MAR-10 02:20
ICALMIX[B]	W4VM100307-16	030710V4\4A719.D	08-MAR-10 03:16
ICVMIX[B]03	W4VM100307-18	030710V4\4A722.D	08-MAR-10 04:38

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2039

Instrument ID: VOA4.I **Injection Date/Time:** 08-MAR-10 15:51

Column Description: DB-624 **Lab File ID** 030810V4\4B101.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20.2
75	30.0 - 60.0% of mass 95	50.8
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	82
175	5.0 -9.0% of mass 174	7.1
176	95.0 - 101.0% of mass 174	96.2
177	5.0 - 9.0% of mass 176	6.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICVMIX[A]04	W4VM100308-01	030810V4\4B102.D	08-MAR-10 16:19
BLK02LCS	1202067783	030810V4\4B102LL.D	08-MAR-10 16:19
CCVMIX[B]04	W4VM100308-03	030810V4\4B104.D	08-MAR-10 17:33
BLK02SLCS	1202067784	030810V4\4B104SL.D	08-MAR-10 17:33
BLK02	1202067782	030810V4\4B107BL.D	08-MAR-10 18:55
CAPA-10-12918	248017006	030810V4\4B108.D	08-MAR-10 19:23
CAPA-10-12915MS	1202063271	030810V4\4B122.D	09-MAR-10 01:47
CAPA-10-12915MSD	1202063272	030810V4\4B123.D	09-MAR-10 02:15

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA4.I

GC Column: DB-624

Client SDG: 10-2039

STD Analysis Time: 06-MAR-10 00:11

Data File: C:\msdchem\1\DATA\030510V4\4A526.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1047809		10.6	905417		13.8	630270		16.2
Upper Limit	2095618		11.1	1810834		14.3	1260540		16.7
Lower Limit	523905		10.1	452709		13.3	315135		15.7
Sample ID									
BLK01LCS	1128661		10.6	977635		13.8	662811		16.2
BLK01SLCS	1245643		10.6	1025306		13.8	641103		16.2
BLK01	1127041		10.6	904267		13.8	500635		16.2
CAPA-10-12915	1013719		10.6	808365		13.8	446184		16.2
CAPA-10-12917	994473		10.6	791597		13.8	439222		16.2

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12915**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/06/2010 04:46**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/06/2010 04:46**				
Data File:	**030510V4\4A536.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	J	0.270	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12915**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/06/2010 04:46**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/06/2010 04:46**				
Data File:	**030510V4\4A536.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12915**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/06/2010 04:46**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/06/2010 04:46**				
Data File:	**030510V4\4A536.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	42.8	50.0	ug/L	85.6	(72%-132%)
Bromofluorobenzene	61.4	50.0	ug/L	123	(77%-123%)
Toluene-d8	47.0	50.0	ug/L	93.9	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	11.8	ug/L	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A536.D
Acq On : 6 Mar 2010 4:46 am
Operator : ACJ
InstName : VOA4
Sample : |248017001|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Mar 10 22:18:30 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.613	10.620	1.000	96	1013719	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.764	13.771	1.000	117	808349	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.172	16.180	1.000	152	446184	50.00	ug/L	0.00
82) B Fluorobenzene	10.613	10.619	1.000	96	1013719	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.764	13.771	1.000	117	808365	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.172	16.179	1.000	152	446184	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.967	65	179563	42.82	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 85.64%					
43) Toluene-d8	12.246	12.247	0.890	98	704083	46.96	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 93.92%					
61) Bromofluorobenzene	14.953	14.954	0.925	95	535960	61.40	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 122.80%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.911	0.000		0	N.D.		
3) Chloromethane	5.291	5.291	0.499	50	1710	N.D.		
4) Vinyl chloride	0.000	5.521	0.000		0	N.D.		
5) Bromomethane	0.000	6.137	0.000		0	N.D.		
6) Chloroethane	0.000	6.295	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.669	0.000		0	N.D.		
8) Ethyl ether	0.000	6.998	0.000		0	N.D.		
9) Acetone	7.375	7.352	0.695	43	3926	N.D.		
10) 1,1-Dichloroethylene	0.000	7.389	0.000		0	N.D.		
11) Iodomethane	0.000	7.663	0.000		0	N.D.		
12) Acetonitrile	7.680	7.699	0.724	41	121	N.D.		
13) Methyl acetate	7.747	7.748	0.730	43	134	N.D.		
14) Carbon disulfide	7.802	7.773	0.735	76	1502	N.D.		
15) Methylene chloride	7.942	7.931	0.748	84	17497	N.D.		
16) tert-Butyl methyl ether	0.000	8.242	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.285	0.000		0	N.D.		
18) Vinyl acetate	8.729	8.705	0.822	43	193	N.D.		
19) 1,1-Dichloroethane	0.000	8.760	0.000		0	N.D.		
20) 2-Butanone	9.320	9.327	0.878	43	1306	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.388	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.419	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	0.000	9.687	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.979	0.000		0	N.D.		
26) Cyclohexane	10.088	10.083	0.951	56	1620	N.D.		
27) 1,1-Dichloropropene	0.000	10.132	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.175	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.339	0.000		0	N.D.		
31) Benzene	10.369	10.370	0.977	78	557	N.D.		
32) Cyclohexene	10.625	10.492	1.001	67	421	N.D.		
33) n-Butyl alcohol	10.673	10.693	1.006	56	143	N.D.		
34) Trichloroethylene	11.161	11.004	1.052	95	708	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	11.265	11.260	1.061	83	194	N.D.		
37) Dibromomethane	0.000	11.376	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.485	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.699	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A536.D
Acq On : 6 Mar 2010 4:46 am
Operator : ACJ
InstName : VOA4
Sample : |248017001|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Mar 10 22:18:30 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.		
42) 4-Methyl-2-pentanone	0.000	12.016	0.000		0	N.D.		
44) Toluene	12.319	12.320	0.895	91	7357	0.27	ug/L	93
45) trans-1,3-Dichloroprop...	12.454	12.461	0.905	75	775	N.D.		
46) 1,1,2-Trichloroethane	0.000	12.680	0.000		0	N.D.		
47) 2-Hexanone	12.856	12.857	0.934	43	313	N.D.		
48) 1,3-Dichloropropane	0.000	12.875	0.000		0	N.D.		
49) Tetrachloroethylene	0.000	12.918	0.000		0	N.D.		
50) Dibromochloromethane	0.000	13.144	0.000		0	N.D.		
51) 1,2-Dibromoethane	0.000	13.320	0.000		0	N.D.		
52) Chlorobenzene	13.807	13.802	1.003	112	211	N.D.		
53) 1,1,1,2-Tetrachloroethane	0.000	13.851	0.000		0	N.D.		
54) Ethylbenzene	13.862	13.863	1.007	91	959	N.D.		
55) m,p-Xylenes	13.966	13.973	1.015	106	769	N.D.		
56) o-Xylene	14.404	14.399	1.047	106	159	N.D.		
57) Styrene	14.417	14.399	1.047	104	471	N.D.		
59) Bromoform	0.000	14.655	0.000		0	N.D.		
60) Isopropylbenzene	14.752	14.759	0.912	105	387	N.D.		
62) 1,1,2,2-Tetrachloroethane	0.000	15.015	0.000		0	N.D.		
63) 1,2,3-Trichloropropane	0.000	15.107	0.000		0	N.D.		
64) Bromobenzene	0.000	15.168	0.000		0	N.D.		
65) n-Propylbenzene	15.185	15.180	0.939	91	911	N.D.		
66) 1,3,5-Trimethylbenzene	15.325	15.332	0.948	105	827	N.D.		
67) 2-Chlorotoluene	0.000	15.332	0.000		0	N.D.		
68) 4-Chlorotoluene	15.435	15.430	0.954	91	333	N.D.		
69) tert-Butylbenzene	0.000	15.704	0.000		0	N.D.		
70) 1,2,4-Trimethylbenzene	15.740	15.741	0.973	105	400	N.D.		
71) sec-Butylbenzene	15.929	15.930	0.985	105	445	N.D.		
72) 4-Isopropyltoluene	16.057	16.051	0.993	119	391	N.D.		
73) 1,3-Dichlorobenzene	16.118	16.119	0.997	146	121	N.D.		
74) 1,4-Dichlorobenzene	16.203	16.204	1.002	146	612	N.D.		
75) n-Butylbenzene	16.496	16.503	1.020	91	178	N.D.		
76) 1,2-Dichlorobenzene	16.636	16.643	1.029	146	207	N.D.		
77) 1,2-Dibromo-3-chloropr...	0.000	17.527	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	18.617	18.630	1.151	180	136	N.D.		
79) Hexachlorobutadiene	0.000	18.819	0.000		0	N.D.		
80) Naphthalene	19.026	19.026	1.176	128	2505	N.D.		
81) 1,2,3-Trichlorobenzene	0.000	19.386	0.000		0	N.D.		
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85) Acrolein	0.000	7.180	0.000		0	N.D.		
86) Trichlorotrifluoroethane	0.000	7.369	0.000		0	N.D.		
87) Isopropyl Alcohol	7.558	7.430	0.712	45	231	N.D.		
88) Allyl chloride	7.851	7.796	0.740	41	215	N.D.		
89) tert-Butyl Alcohol	0.000	7.924	0.000		0	N.D.		
90) Acrylonitrile	0.000	8.174	0.000		0	N.D.		
91) Isopropyl ether	0.000	8.741	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	0.000	8.869	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	9.143	0.000		0	N.D.		
94) Ethyl acetate	9.320	9.338	0.878	43	1306	N.D.		
95) Propionitrile	0.000	9.393	0.000		0	N.D.		
96) Methacrylonitrile	9.570	9.576	0.902	41	117	N.D.		
97) Tetrahydrofuran	9.704	9.710	0.914	42	467	N.D.		
98) Isobutyl alcohol	10.039	10.009	0.946	41	402	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A536.D
Acq On : 6 Mar 2010 4:46 am
Operator : ACJ
InstName : VOA4
Sample : |248017001|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Mar 10 22:18:30 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	0.000	10.387	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	11.204	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102)	2-Nitropropane	11.661	11.673	1.099	43	128	N.D.	
104)	Ethyl methacrylate	0.000	12.466	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	0.000	14.783	0.000		0	N.D.	
108)	Cyclohexanone	0.000	14.904	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	15.063	0.000		0	N.D.	
110)	Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111)	Benzyl chloride	16.300	16.319	1.008	91	135	N.D.	
112)	bis(2-Chloroisopropyl)...	16.794	16.721	1.038	45	4634	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A536.D
Acq On : 6 Mar 2010 4:46 am
Operator : ACJ
InstName : VOA4
Sample : |248017001|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 36 Sample Multiplier: 1

Quant Time: Mar 10 22:18:30 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

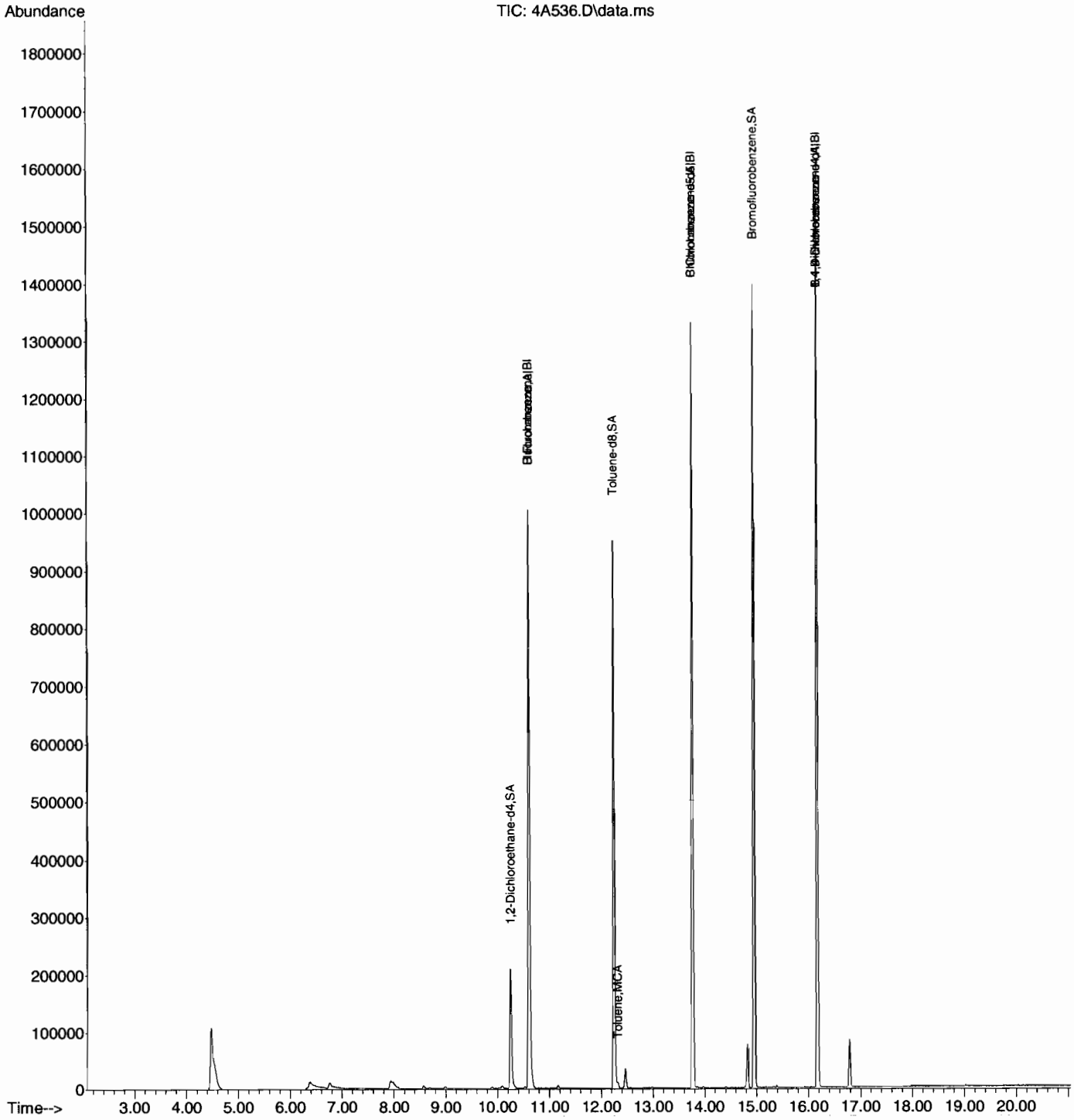

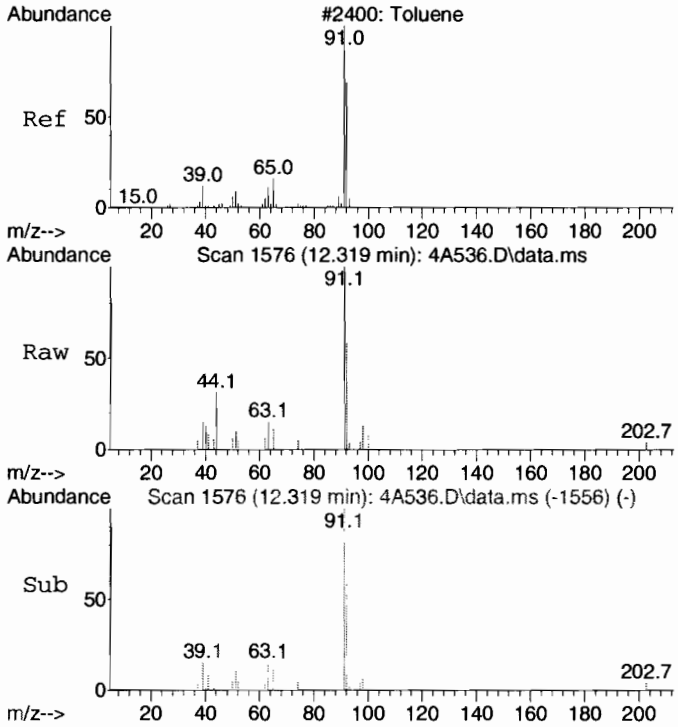

#44
Toluene
Concen: 0.27 ug/L
RT: 12.319 min Scan# 1576
Delta R.T. -0.001 min
Lab File: 4A536.D
Acq: 6 Mar 2010 4:46 am

Tgt Ion: 91 Resp: 7357

Ion	Ratio	Lower	Upper
91	100		
92	55.3	30.5	90.5

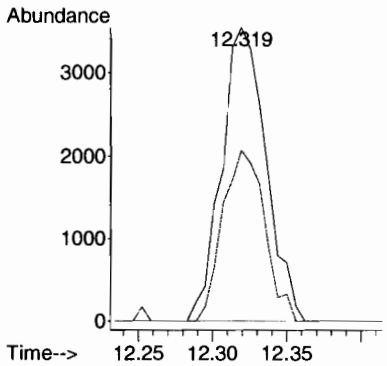

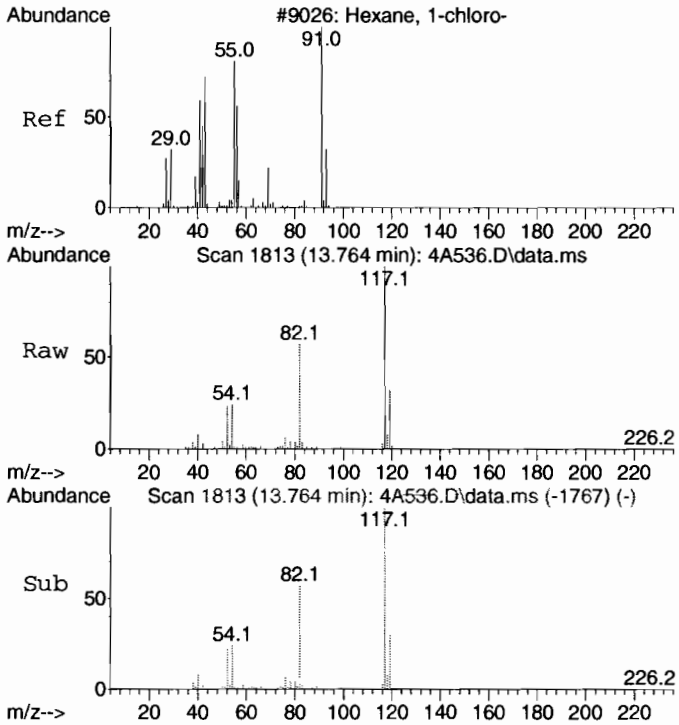

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.73 ug/L
RT: 13.764 min Scan# 1813
Delta R.T. 0.104 min
Lab File: 4A536.D
Acq: 6 Mar 2010 4:46 am

Tgt Ion: 55 Resp: 8882

Ion	Ratio	Lower	Upper
55	100		
91	19.5	112.1	172.1#
56	59.6	28.5	88.5

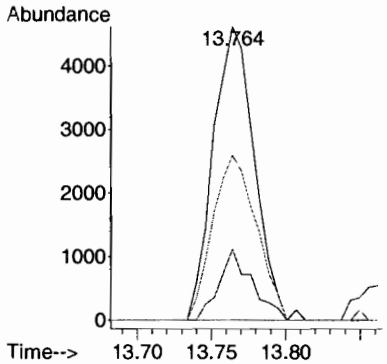

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A536.D
Acq On : 6 Mar 2010 4:46 am
Operator : ACJ
Sample : |248017001|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	11.77 ug/L	523621	Fluorobenzene	10.613

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Dimethyl ether	46	C2H6O	000115-10-6	2

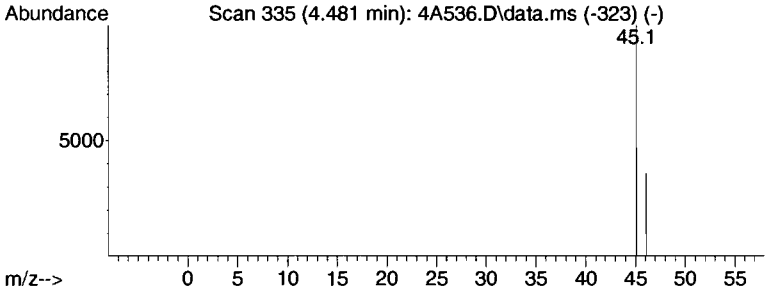

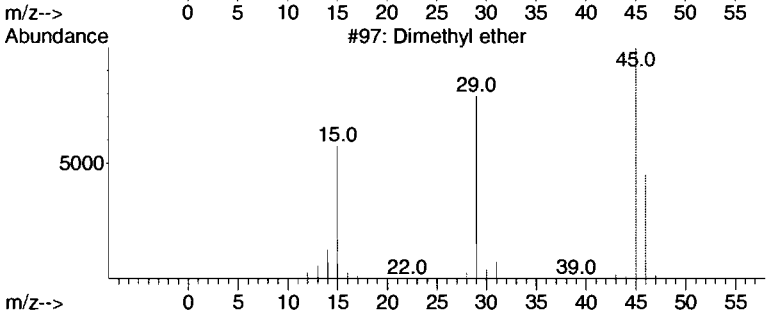

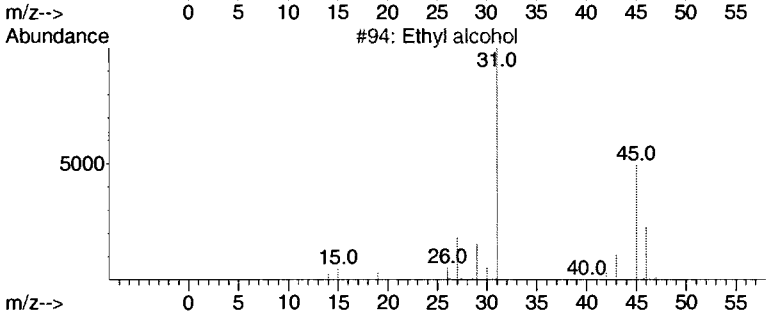

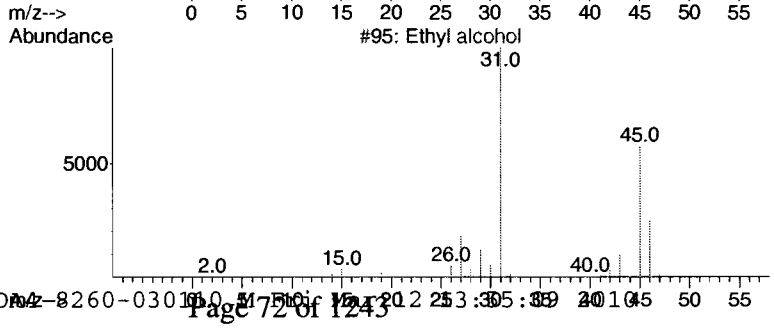

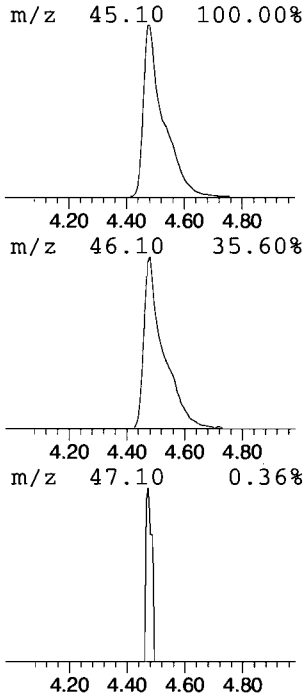

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A536.D
Acq On : 6 Mar 2010 4:46 am
Operator : ACJ
Sample : |248017001|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown hydroca...	4.481	11.8	ug/L	523621	1	10.613	2224510	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017002**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12917**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/06/2010 05:13**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/06/2010 05:13**				
Data File:	**030510V4\4A537.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	J	0.290	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017002**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12917**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/06/2010 05:13**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/06/2010 05:13**				
Data File:	**030510V4\4A537.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017002**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12917**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/06/2010 05:13**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/06/2010 05:13**				
Data File:	**030510V4\4A537.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	43.1	50.0	ug/L	86.2	(72%-132%)
Bromofluorobenzene	60.8	50.0	ug/L	122	(77%-123%)
Toluene-d8	47.1	50.0	ug/L	94.3	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.47	9.2	ug/L	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A537.D
Acq On : 6 Mar 2010 5:13 am
Operator : ACJ
InstName : VOA4
Sample : |248017002|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 10 22:19:06 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.613	10.620	1.000	96	994551	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.765	13.771	1.000	117	791580	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	439210	50.00	ug/L	0.00
82) B Fluorobenzene	10.613	10.619	1.000	96	994473	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.765	13.771	1.000	117	791597	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	439222	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.254	10.260	0.966	65	177239	43.08	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 86.16%					
43) Toluene-d8	12.247	12.247	0.890	98	692139	47.14	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 94.28%					
61) Bromofluorobenzene	14.948	14.954	0.924	95	522440	60.80	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 121.60%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.911	0.000		0	N.D.		
3) Chloromethane	5.306	5.291	0.500	50	2351	N.D.		
4) Vinyl chloride	0.000	5.521	0.000		0	N.D.		
5) Bromomethane	0.000	6.137	0.000		0	N.D.		
6) Chloroethane	0.000	6.295	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.669	0.000		0	N.D.		
8) Ethyl ether	0.000	6.998	0.000		0	N.D.		
9) Acetone	7.370	7.352	0.694	43	3463	N.D.		
10) 1,1-Dichloroethylene	0.000	7.389	0.000		0	N.D.		
11) Iodomethane	0.000	7.663	0.000		0	N.D.		
12) Acetonitrile	7.687	7.699	0.724	41	221	N.D.		
13) Methyl acetate	7.712	7.748	0.727	43	142	N.D.		
14) Carbon disulfide	7.766	7.773	0.732	76	1297	N.D.		
15) Methylene chloride	7.931	7.931	0.747	84	17547	N.D.		
16) tert-Butyl methyl ether	0.000	8.242	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.285	0.000		0	N.D.		
18) Vinyl acetate	8.657	8.705	0.816	43	153	N.D.		
19) 1,1-Dichloroethane	0.000	8.760	0.000		0	N.D.		
20) 2-Butanone	9.333	9.327	0.879	43	1089	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.388	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.419	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.723	9.687	0.916	83	116	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.979	0.000		0	N.D.		
26) Cyclohexane	10.071	10.083	0.949	56	1745	N.D.		
27) 1,1-Dichloropropene	0.000	10.132	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.175	0.000		0	N.D.		
30) 1,2-Dichloroethane	10.327	10.339	0.973	62	154	N.D.		
31) Benzene	10.357	10.370	0.976	78	172	N.D.		
32) Cyclohexene	10.601	10.492	0.999	67	137	N.D.		
33) n-Butyl alcohol	0.000	10.693	0.000		0m	N.D.	d	
34) Trichloroethylene	11.162	11.004	1.052	95	891	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	11.254	11.260	1.060	83	202	N.D.		
37) Dibromomethane	0.000	11.376	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.485	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.699	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A537.D
Acq On : 6 Mar 2010 5:13 am
Operator : ACJ
InstName : VOA4
Sample : |248017002|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 10 22:19:06 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40)	cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.		
42)	4-Methyl-2-pentanone	0.000	12.016	0.000		0	N.D.		
44)	Toluene	12.327	12.320	0.895	91	7515	0.29	ug/L	94
45)	trans-1,3-Dichloroprop...	12.455	12.461	0.905	75	638	N.D.		
46)	1,1,2-Trichloroethane	0.000	12.680	0.000		0	N.D.		
47)	2-Hexanone	0.000	12.857	0.000		0	N.D.		
48)	1,3-Dichloropropane	0.000	12.875	0.000		0	N.D.		
49)	Tetrachloroethylene	0.000	12.918	0.000		0	N.D.		
50)	Dibromochloromethane	0.000	13.144	0.000		0	N.D.		
51)	1,2-Dibromoethane	0.000	13.320	0.000		0	N.D.		
52)	Chlorobenzene	13.796	13.802	1.002	112	342	N.D.		
53)	1,1,1,2-Tetrachloroethane	0.000	13.851	0.000		0	N.D.		
54)	Ethylbenzene	13.863	13.863	1.007	91	915	N.D.		
55)	m,p-Xylenes	13.966	13.973	1.015	106	627	N.D.		
56)	o-Xylene	14.405	14.399	1.047	106	237	N.D.		
57)	Styrene	14.405	14.399	1.047	104	261	N.D.		
59)	Bromoform	0.000	14.655	0.000		0	N.D.		
60)	Isopropylbenzene	14.753	14.759	0.912	105	585	N.D.		
62)	1,1,2,2-Tetrachloroethane	14.960	15.015	0.925	83	237	N.D.		
63)	1,2,3-Trichloropropane	0.000	15.107	0.000		0	N.D.		
64)	Bromobenzene	0.000	15.168	0.000		0	N.D.		
65)	n-Propylbenzene	15.186	15.180	0.939	91	634	N.D.		
66)	1,3,5-Trimethylbenzene	15.326	15.332	0.947	105	954	N.D.		
67)	2-Chlorotoluene	0.000	15.332	0.000		0	N.D.		
68)	4-Chlorotoluene	15.424	15.430	0.953	91	516	N.D.		
69)	tert-Butylbenzene	0.000	15.704	0.000		0	N.D.		
70)	1,2,4-Trimethylbenzene	15.734	15.741	0.972	105	348	N.D.		
71)	sec-Butylbenzene	15.930	15.930	0.985	105	231	N.D.		
72)	4-Isopropyltoluene	16.045	16.051	0.992	119	215	N.D.		
73)	1,3-Dichlorobenzene	16.112	16.119	0.996	146	212	N.D.		
74)	1,4-Dichlorobenzene	16.192	16.204	1.001	146	627	N.D.		
75)	n-Butylbenzene	16.503	16.503	1.020	91	222	N.D.		
76)	1,2-Dichlorobenzene	0.000	16.643	0.000		0	N.D.		
77)	1,2-Dibromo-3-chloropr...	0.000	17.527	0.000		0	N.D.		
78)	1,2,4-Trichlorobenzene	0.000	18.630	0.000		0	N.D.		
79)	Hexachlorobutadiene	0.000	18.819	0.000		0	N.D.		
80)	Naphthalene	19.020	19.026	1.176	128	2154	N.D.		
81)	1,2,3-Trichlorobenzene	19.386	19.386	1.198	180	152	N.D.		
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85)	Acrolein	0.000	7.180	0.000		0	N.D.		
86)	Trichlorotrifluoroethane	0.000	7.369	0.000		0	N.D.		
87)	Isopropyl Alcohol	7.486	7.430	0.705	45	136	N.D.		
88)	Allyl chloride	7.846	7.796	0.739	41	118	N.D.		
89)	tert-Butyl Alcohol	7.925	7.924	0.747	59	245	N.D.		
90)	Acrylonitrile	0.000	8.174	0.000		0	N.D.		
91)	Isopropyl ether	0.000	8.741	0.000		0	N.D.		
92)	2-Chloro-1,3-butadiene	0.000	8.869	0.000		0	N.D.		
93)	Ethyl tert-butyl ether	0.000	9.143	0.000		0	N.D.		
94)	Ethyl acetate	9.333	9.338	0.879	43	1089	N.D.		
95)	Propionitrile	0.000	9.393	0.000		0	N.D.		
96)	Methacrylonitrile	9.577	9.576	0.902	41	139	N.D.		
97)	Tetrahydrofuran	9.705	9.710	0.914	42	436	N.D.		
98)	Isobutyl alcohol	10.010	10.009	0.943	41	533	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A537.D
Acq On : 6 Mar 2010 5:13 am
Operator : ACJ
InstName : VOA4
Sample : |248017002|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 10 22:19:06 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	10.309	10.387	0.971	73	115	N.D.	
100)	Methyl methacrylate	0.000	11.204	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102)	2-Nitropropane	11.680	11.673	1.101	43	108	N.D.	
104)	Ethyl methacrylate	0.000	12.466	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	14.777	14.783	0.913	53	132	N.D.	
108)	Cyclohexanone	14.911	14.904	0.922	42	338	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	15.063	0.000		0	N.D.	
110)	Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111)	Benzyl chloride	16.320	16.319	1.009	91	412	N.D.	
112)	bis(2-Chloroisopropyl)...	0.000	16.721	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A537.D
Acq On : 6 Mar 2010 5:13 am
Operator : ACJ
InstName : VOA4
Sample : |248017002|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 37 Sample Multiplier: 1

Quant Time: Mar 10 22:19:06 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

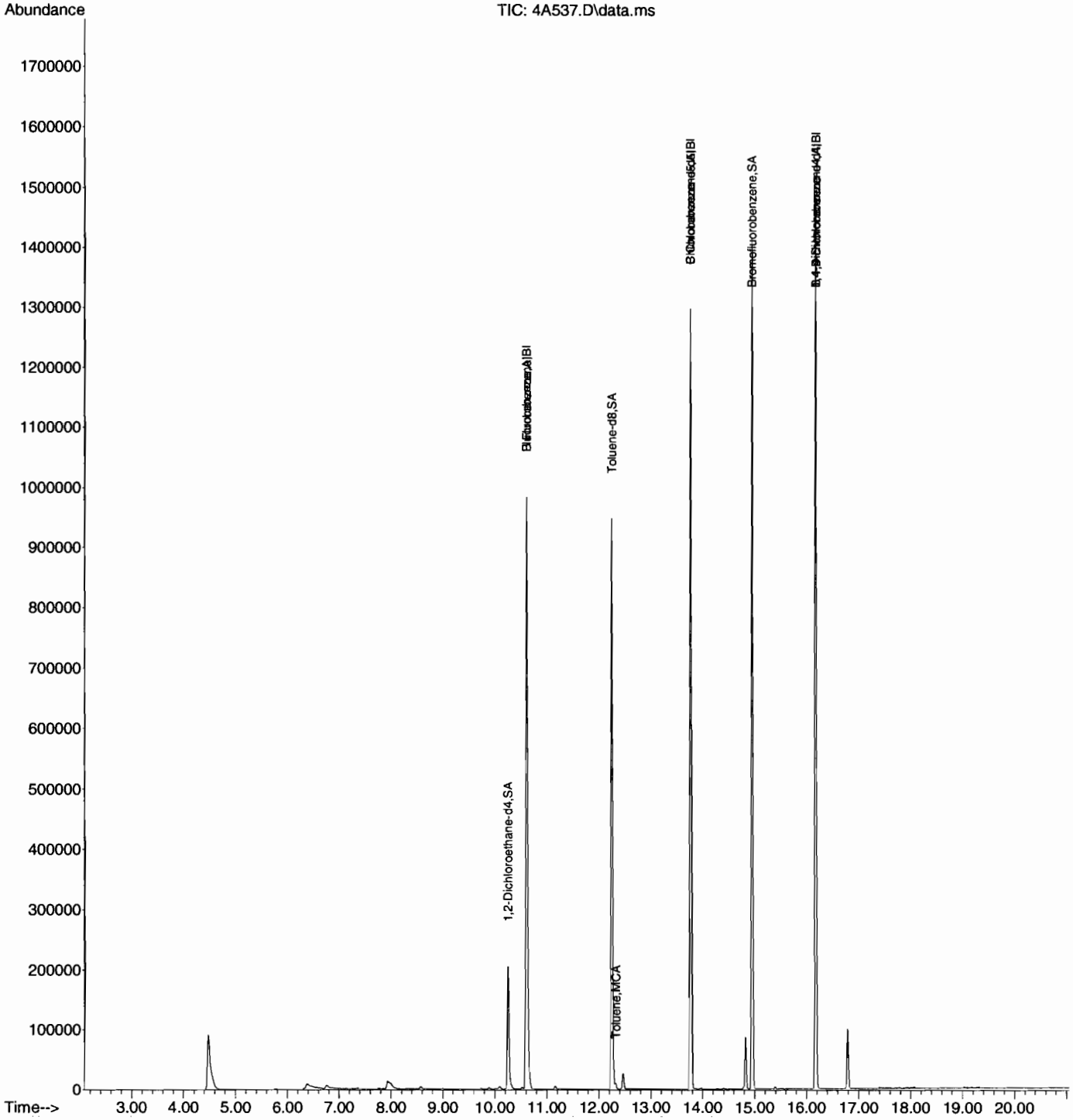

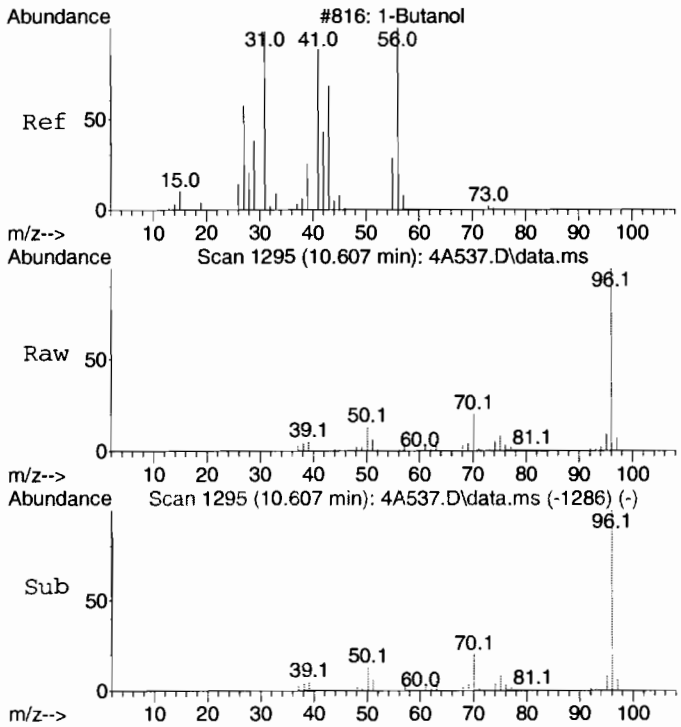

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 26.29 ug/L
RT: 10.607 min Scan# 1295
Delta R.T. -0.085 min
Lab File: 4A537.D
Acq: 6 Mar 2010 5:13 am

Tgt Ion: 56 Resp: 6879

Ion	Ratio	Lower	Upper
56	100		
41	2.1	44.5	104.5#
43	0.0	28.5	88.5#

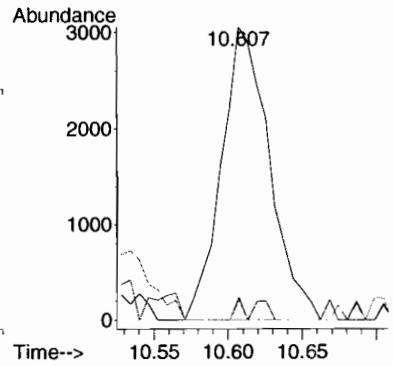

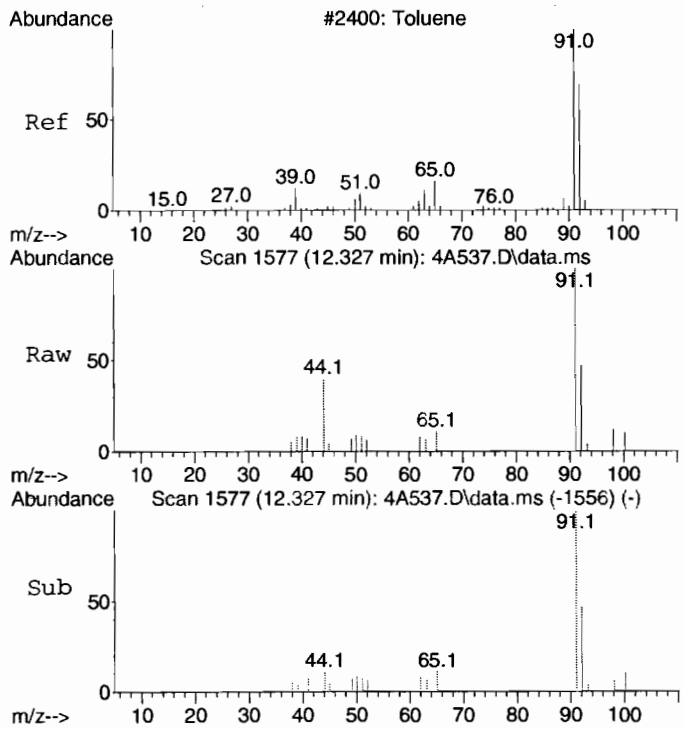

#44
Toluene
Concen: 0.29 ug/L
RT: 12.327 min Scan# 1577
Delta R.T. 0.006 min
Lab File: 4A537.D
Acq: 6 Mar 2010 5:13 am

Tgt Ion: 91 Resp: 7515

Ion	Ratio	Lower	Upper
91	100		
92	56.1	30.5	90.5

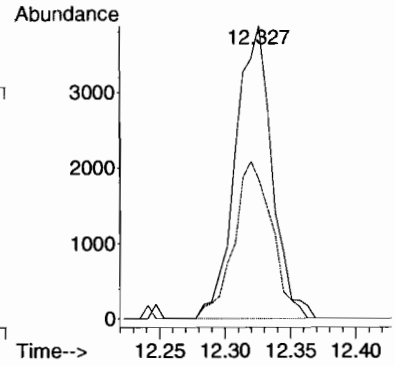

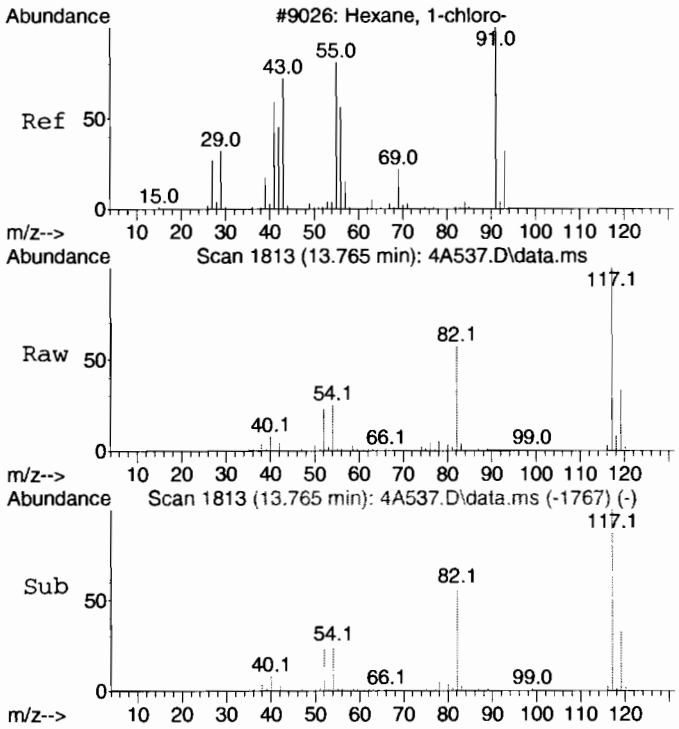

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.82 ug/L
RT: 13.765 min Scan# 1813
Delta R.T. 0.105 min
Lab File: 4A537.D
Acq: 6 Mar 2010 5:13 am

Tgt Ion: 55 Resp: 9225

Ion	Ratio	Lower	Upper
55	100		
91	18.2	112.1	172.1#
56	60.6	28.5	88.5

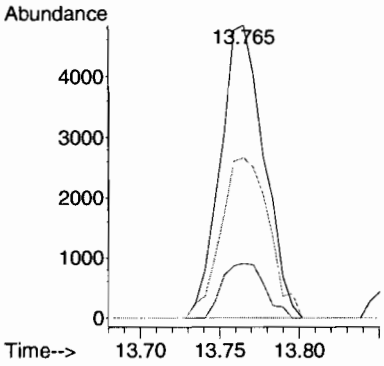

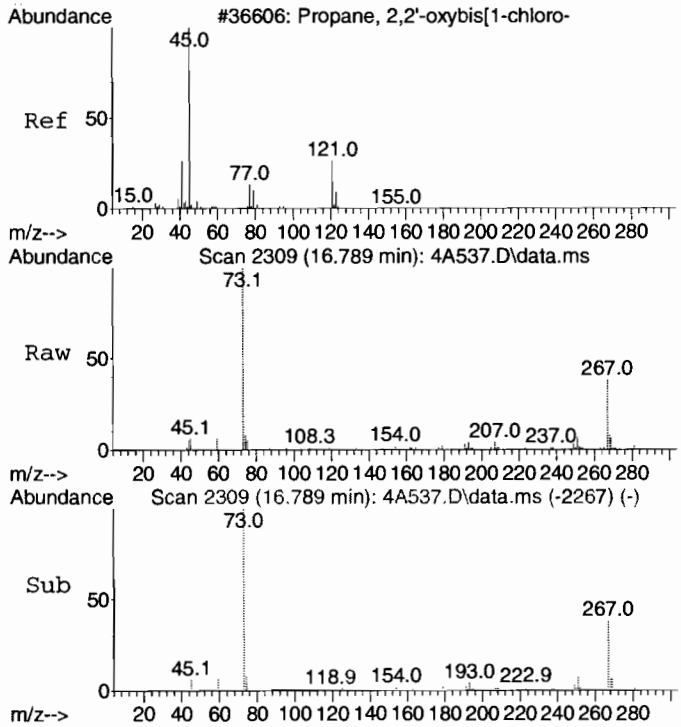

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 1.55 ug/L
RT: 16.789 min Scan# 2309
Delta R.T. 0.068 min
Lab File: 4A537.D
Acq: 6 Mar 2010 5:13 am

Tgt Ion: 45 Resp: 5430

Ion	Ratio	Lower	Upper
45	100		
121	0.0	0.0	56.0

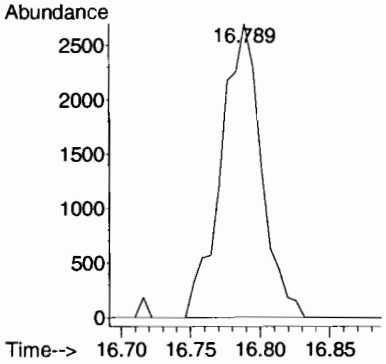

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A537.D
Acq On : 6 Mar 2010 5:13 am
Operator : ACJ
Sample : |248017002|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.474	9.20 ug/L	400700	Fluorobenzene	10.614

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Dimethyl ether	46	C2H6O	000115-10-6	2

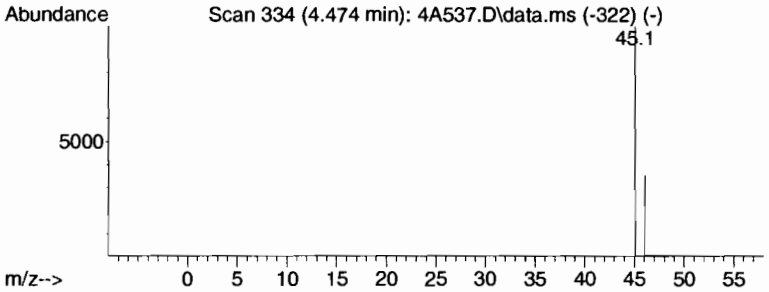

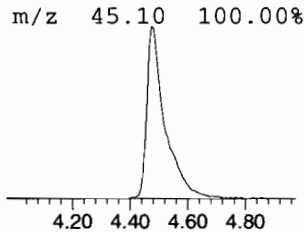

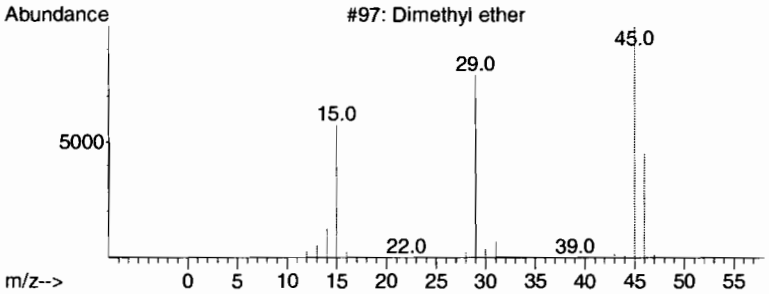

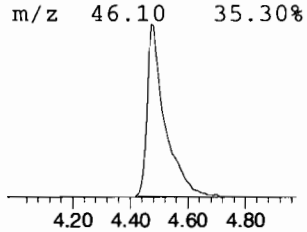

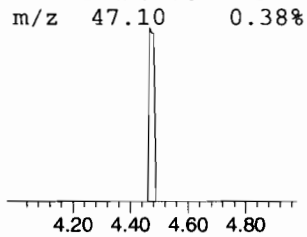

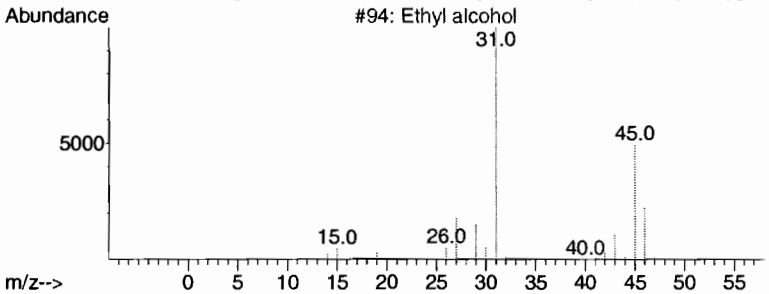

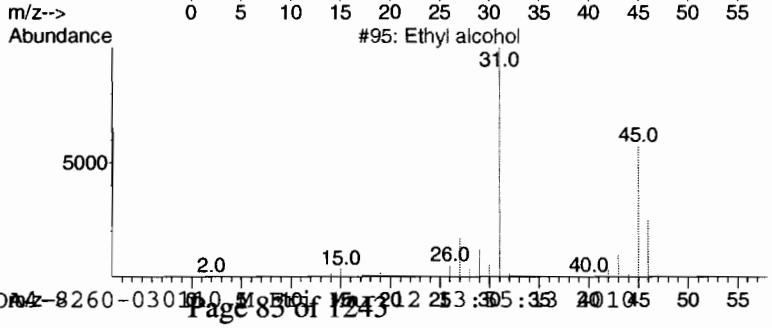

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A537.D
Acq On : 6 Mar 2010 5:13 am
Operator : ACJ
Sample : |248017002|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown hydroca...	4.474	9.2	ug/L	400700	1	10.614	2176800	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017006**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12918**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/08/2010 19:23**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/08/2010 19:23**				
Data File:	**030810V4\4B108.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017006**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12918**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/08/2010 19:23**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/08/2010 19:23**				
Data File:	**030810V4\4B108.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017006**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12918**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/08/2010 19:23**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/08/2010 19:23**				
Data File:	**030810V4\4B108.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	48.0	50.0	ug/L	96.1	(72%-132%)
Bromofluorobenzene	54.0	50.0	ug/L	108	(77%-123%)
Toluene-d8	50.4	50.0	ug/L	101	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	6.74	ug/L	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B108.D
Acq On : 8 Mar 2010 7:23 pm
Operator : ACJ
InstName : VOA4
Sample : |248017006|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 10 22:30:12 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.613	10.613	1.000	96	1614095	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.770	13.765	1.000	117	1209085	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	665948	50.00	ug/L	0.00
82) B Fluorobenzene	10.613	10.613	1.000	96	1613697	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.770	13.764	1.000	117	1209085	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	665980	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.259	0.967	65	418582	48.03	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 96.06%					
43) Toluene-d8	12.252	12.247	0.890	98	1386282	50.36	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 100.72%					
61) Bromofluorobenzene	14.953	14.947	0.924	95	697606	54.02	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 108.04%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	5.284	5.299	0.498	50	1445	N.D.		
4) Vinyl chloride	0.000	5.521	0.000		0	N.D.		
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	0.000	6.991	0.000		0	N.D.		
9) Acetone	7.375	7.351	0.695	43	8964	N.D.		
10) 1,1-Dichloroethylene	0.000	7.394	0.000		0	N.D.		
11) Iodomethane	7.662	7.662	0.722	142	115	N.D.		
12) Acetonitrile	7.656	7.693	0.721	41	145	N.D.		
13) Methyl acetate	7.747	7.747	0.730	43	326	N.D.		
14) Carbon disulfide	7.766	7.778	0.732	76	1133	N.D.		
15) Methylene chloride	7.942	7.967	0.748	84	43319	N.D.		
16) tert-Butyl methyl ether	0.000	8.235	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	8.704	8.705	0.820	43	1011	N.D.		
19) 1,1-Dichloroethane	0.000	8.753	0.000		0	N.D.		
20) 2-Butanone	9.332	9.320	0.879	43	1887	N.D.		
21) cis-1,2-Dichloroethylene	9.393	9.381	0.885	61	189	N.D.		
22) 2,2-Dichloropropane	0.000	9.412	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.680	9.686	0.912	83	724	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.973	0.000		0	N.D.		
26) Cyclohexane	10.064	10.076	0.948	56	180	N.D.		
27) 1,1-Dichloropropene	0.000	10.131	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.338	0.000		0	N.D.		
31) Benzene	10.363	10.369	0.976	78	547	N.D.		
32) Cyclohexene	10.613	10.491	1.000	67	518	N.D.		
33) n-Butyl alcohol	0.000	10.686	0.000		0m	N.D.	d	
34) Trichloroethylene	11.003	11.003	1.037	95	118	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	11.247	11.259	1.060	83	335	N.D.		
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	11.484	11.478	1.082	83	124	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B108.D
Acq On : 8 Mar 2010 7:23 pm
Operator : ACJ
InstName : VOA4
Sample : |248017006|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 10 22:30:12 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	11.923	11.930	1.124	75	200	N.D.		
42) 4-Methyl-2-pentanone	12.027	12.015	0.873	58	201	N.D.		
44) Toluene	12.320	12.320	0.895	91	4376	Below Cal		99
45) trans-1,3-Dichloroprop...	12.472	12.460	0.906	75	1435	N.D.		
46) 1,1,2-Trichloroethane	0.000	12.679	0.000		0	N.D.		
47) 2-Hexanone	12.862	12.856	0.934	43	1061	N.D.		
48) 1,3-Dichloropropane	0.000	12.874	0.000		0	N.D.		
49) Tetrachloroethylene	12.911	12.917	0.938	164	419	N.D.		
50) Dibromochloromethane	0.000	13.143	0.000		0	N.D.		
51) 1,2-Dibromoethane	0.000	13.313	0.000		0	N.D.		
52) Chlorobenzene	13.807	13.801	1.003	112	1067	N.D.		
53) 1,1,1,2-Tetrachloroethane	0.000	13.850	0.000		0	N.D.		
54) Ethylbenzene	13.856	13.862	1.006	91	1888	N.D.		
55) m,p-Xylenes	13.972	13.966	1.015	106	1246	N.D.		
56) o-Xylene	14.398	14.399	1.046	106	1066	N.D.		
57) Styrene	14.404	14.399	1.046	104	695	N.D.		
59) Bromoform	0.000	14.655	0.000		0	N.D.		
60) Isopropylbenzene	14.752	14.758	0.912	105	1746	N.D.		
62) 1,1,2,2-Tetrachloroethane	15.026	15.014	0.929	83	269	N.D.		
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.		
64) Bromobenzene	15.173	15.167	0.938	156	445	N.D.		
65) n-Propylbenzene	15.191	15.179	0.939	91	1829	N.D.		
66) 1,3,5-Trimethylbenzene	15.331	15.325	0.948	105	1945	N.D.		
67) 2-Chlorotoluene	15.313	15.331	0.946	126	124	N.D.		
68) 4-Chlorotoluene	15.435	15.429	0.954	91	1394	N.D.		
69) tert-Butylbenzene	0.000	15.703	0.000		0	N.D.		
70) 1,2,4-Trimethylbenzene	15.746	15.740	0.973	105	1312	N.D.		
71) sec-Butylbenzene	15.922	15.929	0.984	105	1300	N.D.		
72) 4-Isopropyltoluene	16.063	16.051	0.993	119	1155	N.D.		
73) 1,3-Dichlorobenzene	16.124	16.118	0.997	146	823	N.D.		
74) 1,4-Dichlorobenzene	16.209	16.203	1.002	146	1234	N.D.		
75) n-Butylbenzene	16.508	16.502	1.020	91	1183	N.D.		
76) 1,2-Dichlorobenzene	16.654	16.642	1.029	146	854	N.D.		
77) 1,2-Dibromo-3-chloropr...	0.000	17.526	0.000		0	N.D.		
78) 1,2,4-Trichlorobenzene	18.635	18.629	1.152	180	798	N.D.		
79) Hexachlorobutadiene	0.000	18.818	0.000		0	N.D.		
80) Naphthalene	19.038	19.026	1.177	128	5142	N.D.		
81) 1,2,3-Trichlorobenzene	19.385	19.385	1.198	180	568	N.D.		
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85) Acrolein	7.162	7.174	0.675	56	159	N.D.		
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.		
87) Isopropyl Alcohol	7.418	7.430	0.699	45	1664	N.D.		
88) Allyl chloride	7.778	7.796	0.733	41	345	N.D.		
89) tert-Butyl Alcohol	7.936	7.924	0.748	59	991	N.D.		
90) Acrylonitrile	8.156	8.168	0.768	53	112	N.D.		
91) Isopropyl ether	0.000	8.735	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	9.034	8.863	0.851	53	129	N.D.		
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.		
94) Ethyl acetate	9.332	9.339	0.879	43	1887	N.D.		
95) Propionitrile	9.393	9.387	0.885	54	198	N.D.		
96) Methacrylonitrile	9.558	9.570	0.901	41	795	N.D.		
97) Tetrahydrofuran	9.716	9.710	0.916	42	1040	N.D.		
98) Isobutyl alcohol	9.991	10.003	0.941	41	326	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B108.D
Acq On : 8 Mar 2010 7:23 pm
Operator : ACJ
InstName : VOA4
Sample : |248017006|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 10 22:30:12 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	10.381	10.381	0.978	73	121	N.D.	
100)	Methyl methacrylate	11.179	11.204	1.053	69	103	N.D.	
101)	1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102)	2-Nitropropane	0.000	11.667	0.000		0m	N.D.	d
104)	Ethyl methacrylate	12.466	12.460	0.905	69	950	N.D.	
106)	1-Chlorohexane	13.691	13.661	0.846	55	165	N.D.	
107)	cis-1,4-Dichloro-2-butene	14.776	14.783	0.913	53	676	N.D.	
108)	Cyclohexanone	14.898	14.905	0.921	42	788	N.D.	
109)	trans-1,4-Dichloro-2-b...	15.063	15.063	0.931	53	650	N.D.	
110)	Pentachloroethane	0.000	15.770	0.000		0m	N.D.	d
111)	Benzyl chloride	16.325	16.319	1.009	91	3236	N.D.	
112)	bis(2-Chloroisopropyl)...	16.721	16.715	1.034	45	1189	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B108.D
Acq On : 8 Mar 2010 7:23 pm
Operator : ACJ
InstName : VOA4
Sample : |248017006|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 10 22:30:12 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

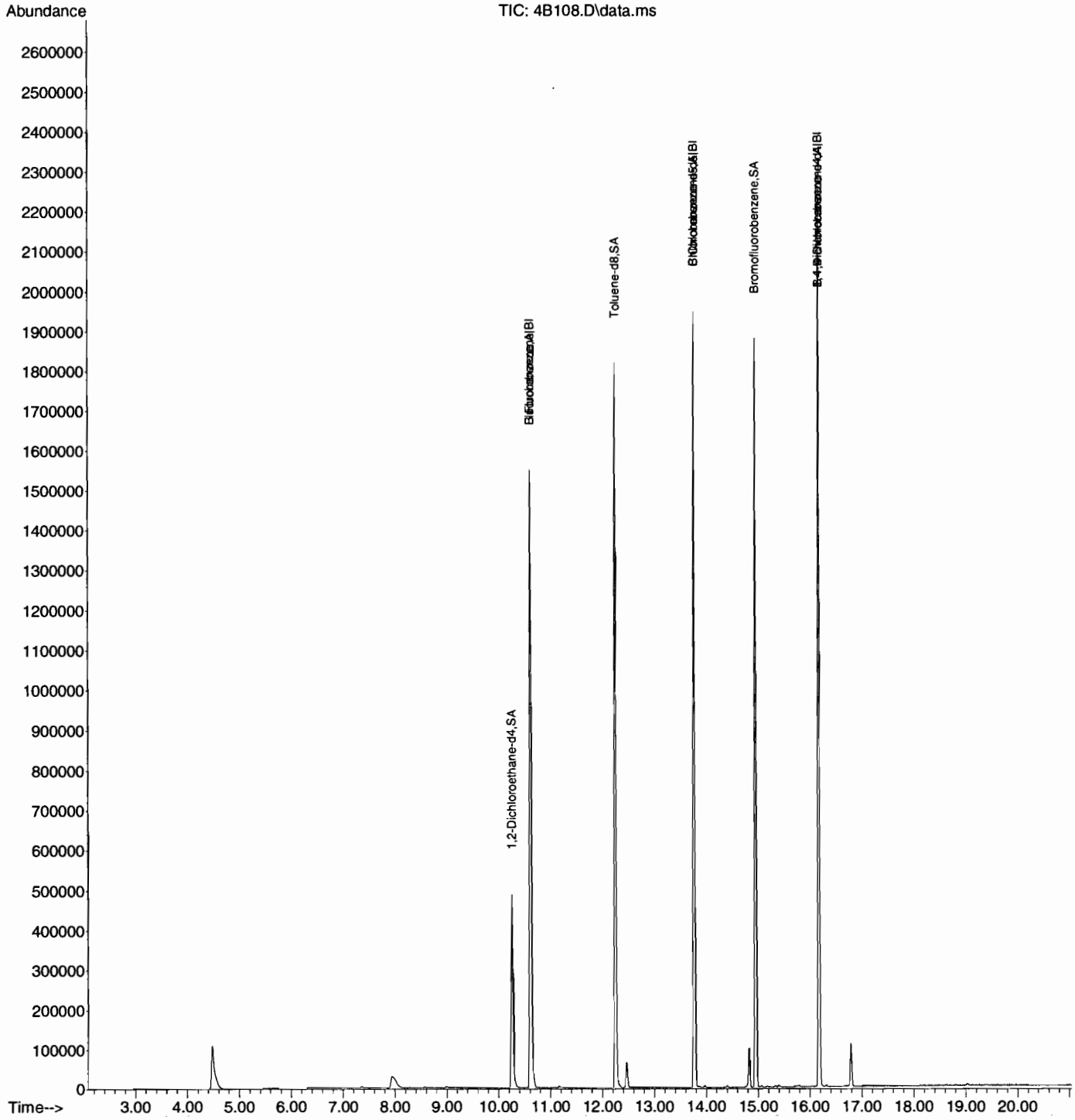

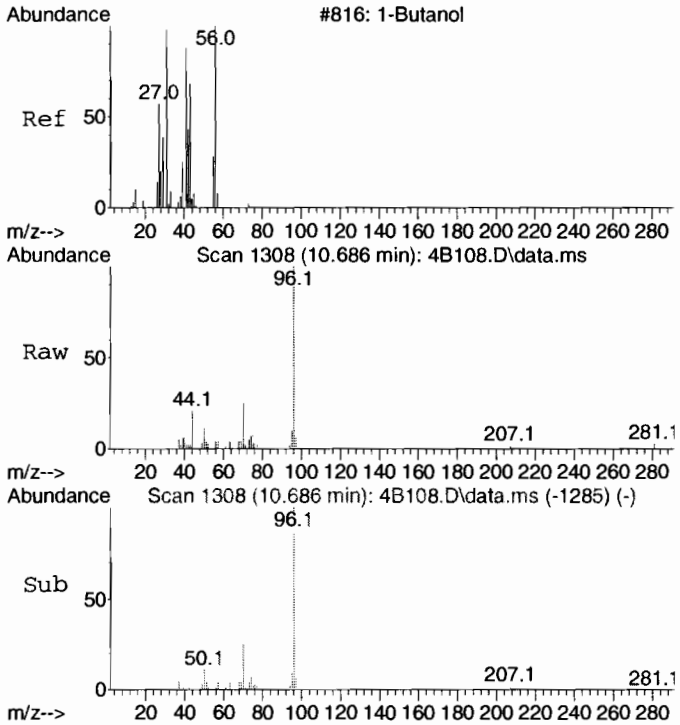

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 181.25 ug/L
RT: 10.686 min Scan# 1308
Delta R.T. -0.000 min
Lab File: 4B108.D
Acq: 8 Mar 2010 7:23 pm

Tgt Ion: 56 Resp: 237

Ion	Ratio	Lower	Upper
56	100		
41	346.0	49.2	109.2#
43	67.1	30.5	90.5

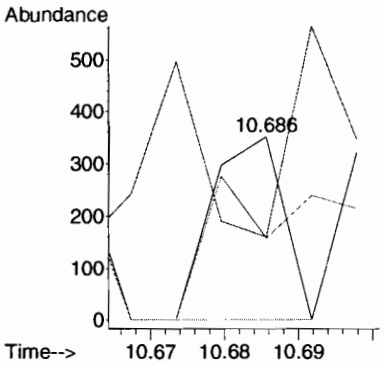

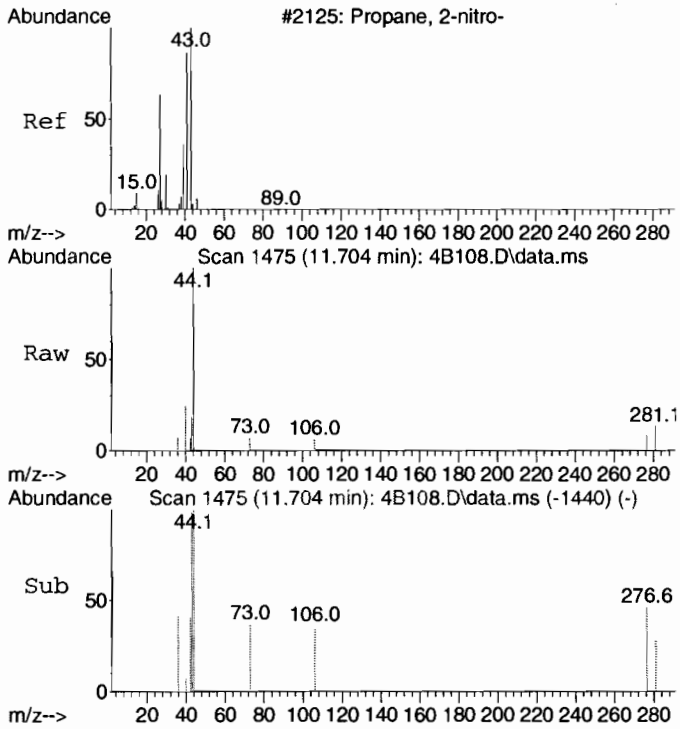

#102 BEFORE analyst DELETION
2-Nitropropane
Concen: 6.28 ug/L
RT: 11.704 min Scan# 1475
Delta R.T. 0.037 min
Lab File: 4B108.D
Acq: 8 Mar 2010 7:23 pm

Tgt Ion: 43 Resp: 228

Ion	Ratio	Lower	Upper
43	100		
41	190.4	57.4	117.4#

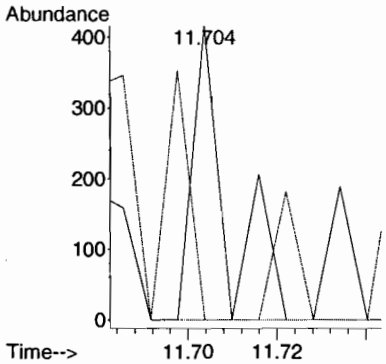

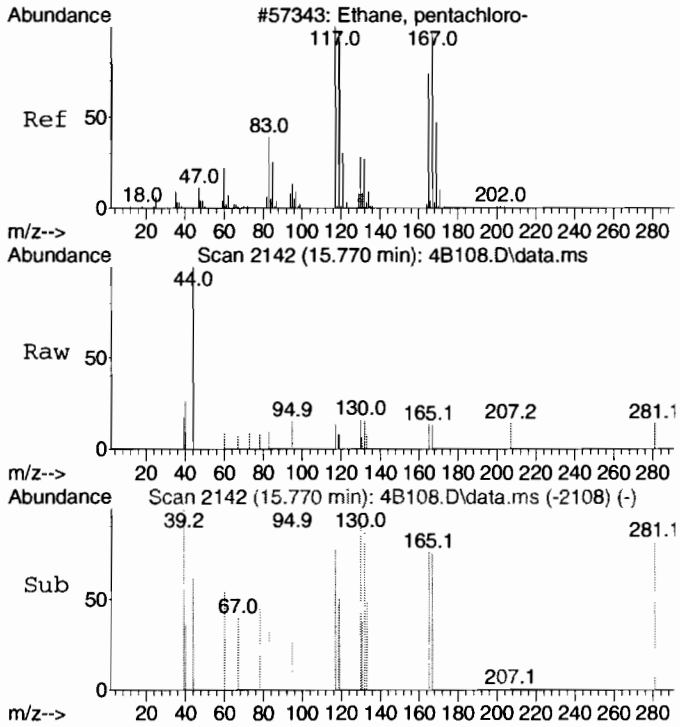

#110 BEFORE analyst DELETION
Pentachloroethane
Concen: 2.52 ug/L
RT: 15.770 min Scan# 2142
Delta R.T. 0.000 min
Lab File: 4B108.D
Acq: 8 Mar 2010 7:23 pm

Tgt Ion:167 Resp: 460

Ion	Ratio	Lower	Upper
167	100		
130	96.7	11.5	71.5#
132	90.7	9.9	69.9#

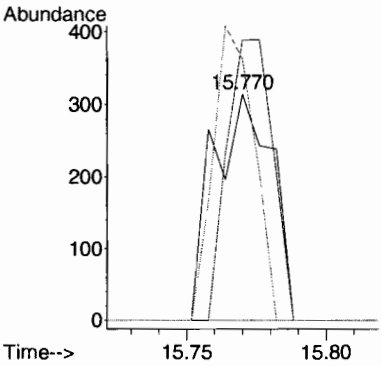

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B108.D
Acq On : 8 Mar 2010 7:23 pm
Operator : ACJ
Sample : |248017006|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	6.74 ug/L	470580	Fluorobenzene	10.613

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	2

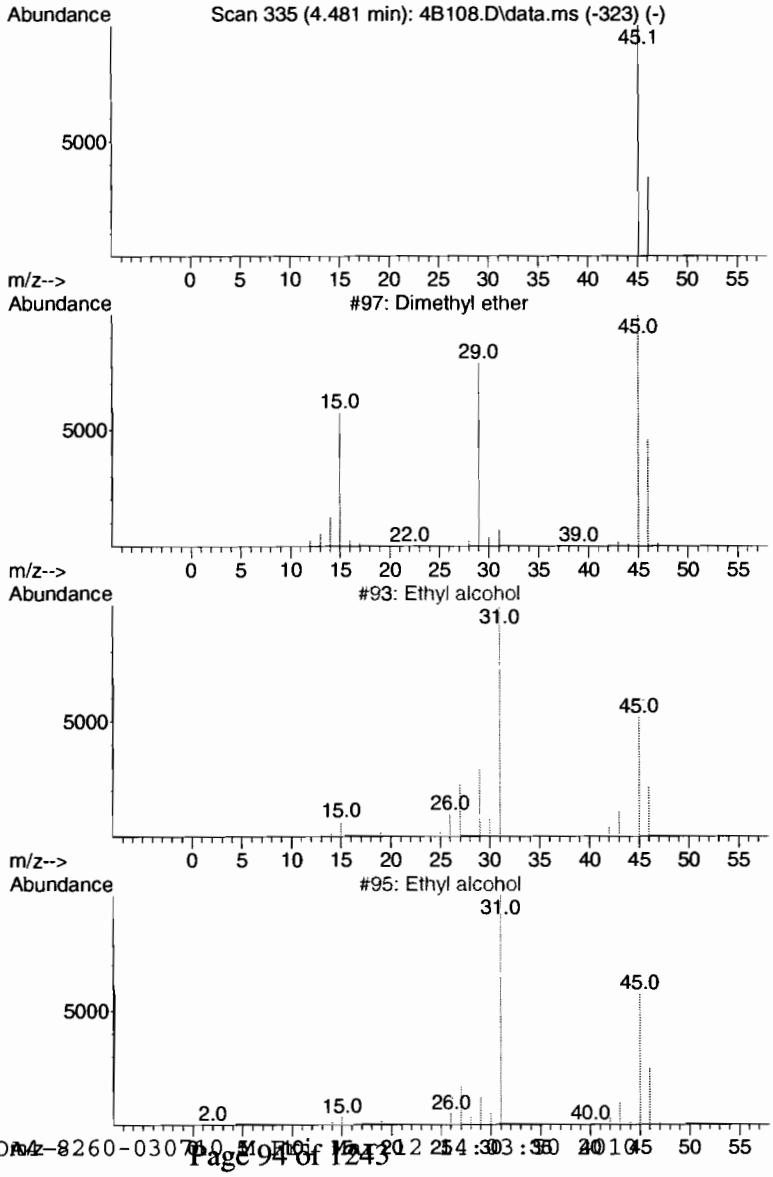

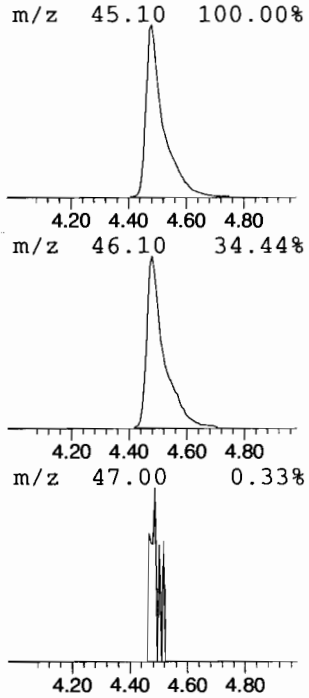

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B108.D
Acq On : 8 Mar 2010 7:23 pm
Operator : ACJ
Sample : |248017006|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown hydroca...	4.481	6.7	ug/L	470580	1	10.613	3489550	50.0

Standards

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOA4
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Last Update : Tue Mar 02 15:03:40 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\030110V4\4A103.D

Injection Date	Mix	Calibration File
1 Mar 2010 8:03 pm	A	C:\msdchem\1\DATA\030110V4\4A103.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\030110V4\4A104.D

Injection Date	Mix	Calibration File
1 Mar 2010 8:30 pm	A	C:\msdchem\1\DATA\030110V4\4A104.D
2 Mar 2010 12:39 am	B	C:\msdchem\1\DATA\030110V4\4A113.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\030110V4\4A114.D

Injection Date	Mix	Calibration File
1 Mar 2010 9:26 pm	A	C:\msdchem\1\DATA\030110V4\4A106.D
2 Mar 2010 1:06 am	B	C:\msdchem\1\DATA\030110V4\4A114.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\030110V4\4A115.D

Injection Date	Mix	Calibration File
1 Mar 2010 9:54 pm	A	C:\msdchem\1\DATA\030110V4\4A107.D
2 Mar 2010 1:34 am	B	C:\msdchem\1\DATA\030110V4\4A115.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\030110V4\4A116.D

Injection Date	Mix	Calibration File
1 Mar 2010 10:21 pm	A	C:\msdchem\1\DATA\030110V4\4A108.D
2 Mar 2010 2:01 am	B	C:\msdchem\1\DATA\030110V4\4A116.D

Cal Lvl:5 Amt:-1 Last Updated with: C:\msdchem\1\DATA\030110V4\4A117.D

Injection Date	Mix	Calibration File
1 Mar 2010 10:49 pm	A	C:\msdchem\1\DATA\030110V4\4A109.D
2 Mar 2010 2:28 am	B	C:\msdchem\1\DATA\030110V4\4A117.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\030110V4\4A118.D

Injection Date	Mix	Calibration File
1 Mar 2010 11:16 pm	A	C:\msdchem\1\DATA\030110V4\4A110.D
2 Mar 2010 2:56 am	B	C:\msdchem\1\DATA\030110V4\4A118.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\030110V4\4A119.D

Injection Date	Mix	Calibration File
1 Mar 2010 11:44 pm	A	C:\msdchem\1\DATA\030110V4\4A111.D
2 Mar 2010 3:23 am	B	C:\msdchem\1\DATA\030110V4\4A119.D

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Response Factor Report VOA4
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Method File : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Last Update : Tue Mar 02 15:03:40 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane		0.3094751	0.3280031	0.3612408	0.3086181					
	0.2908561	0.3031216					0.3169	AVRG		7.8338
3)MPA Chloromethane		0.5729365	0.5257676	0.5300317	0.5087671					
	0.4893066	0.4852403					0.5187	AVRG		6.2189
4)MCA Vinyl chloride		0.5556015	0.5350749	0.5133625	0.5104256					
	0.4896654	0.4800115					0.5140	AVRG		5.4579
5)MA Bromomethane		0.2891901	0.3068545	0.2985733	0.3159442					
	0.3113689	0.3122806					0.3057	AVRG		3.2877
6)MA Chloroethane		0.2722809	0.2615291	0.2661486	0.2656411					
	0.2619117	0.2612404					0.2648	AVRG		1.6040
7)MA Trichlorofluoromethane		0.5030491	0.5264847	0.5272128	0.5275867					
	0.5258166	0.5349635					0.5242	AVRG		2.0751
8)MA Ethyl ether		0.2415341	0.2378465	0.2480119	0.2617549					
	0.2548761	0.2540043					0.2497	AVRG		3.5854
9)MA Acetone		0.3705916	0.3197349	0.3077369	0.3139688					
	0.3032708	0.2752399					0.3151	AVRG		9.9201
10)MCA 1,1-Dichloroethylene		0.5794751	0.5416569	0.6102438	0.6071555					
	0.5519492	0.6065546					0.5828	AVRG		5.1849
11)MA Iodomethane		0.5734048	0.5471266	0.6082113	0.6470482					
	0.5910160	0.6450650					0.6020	AVRG		6.5914
12)MA Acetonitrile		0.0504308	0.0513643	0.0552385	0.0552876					
	0.0510683	0.0504136					0.0523	AVRG		4.4436
13)MA Methyl acetate		0.2702859	0.2639834	0.2673019	0.2855392					
	0.2611160	0.2577124					0.2677	AVRG		3.6682
14)MA Carbon disulfide		0.9801140	0.9486797	1.1622919	1.1922855					
	1.0876449	1.1334287					1.0841	AVRG		9.1704
15)MA Methylene chloride			0.5413222	0.4788783	0.4500774					
	0.3791125	0.4118045					0.4522	AVRG		13.8235
16)MA tert-Butyl methyl ether		0.9693907	0.9709886	0.9531098	1.0246243					
	0.9092717	0.9481439					0.9626	AVRG		3.9165

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
17)MA trans-1,2-Dichloroethyle		0.4568833	0.4331088	0.4667206	0.4691201					
	0.4278390	0.4394880					0.4489	AVRG		3.9499
18)MA Vinyl acetate		0.6003014	0.6013608	0.6048363	0.5853654					
	0.5871409	0.5211594					0.5834	AVRG		5.3988
19)MPA 1,1-Dichloroethane		0.5785324	0.5298634	0.5778642	0.5939291					
	0.5386702	0.5580868					0.5628	AVRG		4.4474
20)MA 2-Butanone		0.3516691	0.3325229	0.3247048	0.3275315					
	0.3481286	0.2989724					0.3306	AVRG		5.7383
21)MA cis-1,2-Dichloroethylene		0.5066074	0.4842512	0.5084067	0.5131511					
	0.4630022	0.4767585					0.4920	AVRG		4.1285
22)MA 2,2-Dichloropropane		0.3345652	0.2947900	0.3049192	0.3192840					
	0.2817542	0.2754918					0.3018	AVRG		7.4565
23)MA Bromochloromethane		0.1665375	0.1772055	0.1857821	0.1886328					
	0.1690604	0.1826083					0.1783	AVRG		5.0552
24)MCA Chloroform		0.6050823	0.6010229	0.5945464	0.6059334					
	0.5562893	0.5831481					0.5910	AVRG		3.2112
25)MA 1,1,1-Trichloroethane		0.4648209	0.4513728	0.4789040	0.4849944					
	0.4386245	0.4451256					0.4606	AVRG		4.0677
26)MA Cyclohexane		0.5588252	0.5202214	0.5216520	0.5277387					
	0.4630114	0.4789281					0.5117	AVRG		6.8224
27)MA 1,1-Dichloropropene		0.4624488	0.4115936	0.4524134	0.4394794					
	0.4060724	0.4217200					0.4323	AVRG		5.2686
28)MA Carbon tetrachloride		0.4498581	0.4242158	0.4397280	0.4587258					
	0.4179535	0.4380206					0.4381	AVRG		3.4843
29)SA 1,2-Dichloroethane-d4		0.2043679	0.2090512	0.2098656	0.2123324					
	0.2034892	0.2019789					0.2068	AVRG		1.9954
30)MA 1,2-Dichloroethane		0.5074893	0.4854465	0.4863183	0.4981336					
	0.4503800	0.4655985					0.4822	AVRG		4.3588
31)MA Benzene		1.3318439	1.2441519	1.3096329	1.3356057					
	1.2030885	1.2240879					1.2747	AVRG		4.5497

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene		0.6395393	0.5860420	0.6494392	0.6392113					
	0.6007305	0.6137152					0.6214	AVRG		4.0511
33)MA n-Butyl alcohol	0.0152149	0.0108964	0.0112719	0.0124979	0.0135854					
	0.0142691	0.0143615					0.0132	AVRG		12.4909
34)MA Trichloroethylene		0.3437801	0.3200982	0.3470815	0.3477155					
	0.3248326	0.3388240					0.3371	AVRG		3.5091
35)MCA 1,2-Dichloropropane		0.3333792	0.3186002	0.3302578	0.3490766					
	0.3141259	0.3337969					0.3299	AVRG		3.7660
36)MA Methylcyclohexane		0.5498840	0.5176396	0.5554798	0.5485111					
	0.5032676	0.5212290					0.5327	AVRG		4.0167
37)MA Dibromomethane		0.2116389	0.2197578	0.2208584	0.2244713					
	0.2076497	0.2218045					0.2177	AVRG		3.0098
38)MA Bromodichloromethane		0.4181989	0.4146854	0.4276733	0.4597959					
	0.4357536	0.4678536					0.4373	AVRG		5.0211
39)MA 2-Chloroethylvinyl ether		0.1693963	0.1682743	0.2063950	0.1768768					
	0.1882166	0.1873501					0.1828	AVRG		7.8632
40)MA cis-1,3-Dichloropropylen		0.4961760	0.4860043	0.5009409	0.5342986					
	0.5042918	0.5407149					0.5104	AVRG		4.3053
42)MA 4-Methyl-2-pentanone		0.1812431	0.1913755	0.1812924	0.1814015					
	0.1874330	0.1710181					0.1823	AVRG		3.7921
43)SA Toluene-d8		0.9571065	0.9493994	0.9489777	0.9189842					
	0.9087348	0.8817669					0.9275	AVRG		3.1741
44)MCA Toluene		1.8581648	1.6886550	1.7535024	1.6503380					
	1.5066037	1.4729560					1.6550	AVRG		8.8511
45)MA trans-1,3-Dichloropropyl		0.5744260	0.5816789	0.5737143	0.5981879					
	0.5688252	0.5899924					0.5811	AVRG		1.9180
46)MA 1,1,2-Trichloroethane		0.2905339	0.3038670	0.3013148	0.3068866					
	0.2863925	0.2982854					0.2979	AVRG		2.6640
47)MA 2-Hexanone		0.5036428	0.5363755	0.5159977	0.5061352					
	0.5382292	0.4346162					0.5058	AVRG		7.4823

Response Factor Report VOA4
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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane		0.6286995	0.6273240	0.6290113	0.6310176					
	0.5849931	0.6121944					0.6189	AVRG		2.9002
49)MA Tetrachloroethylene		0.3642776	0.3253014	0.3419562	0.3310143					
	0.3132361	0.3223346					0.3330	AVRG		5.4152
50)MA Dibromochloromethane		0.4089868	0.4098351	0.4043078	0.4264329					
	0.4309932	0.4648053					0.4242	AVRG		5.3060
51)MA 1,2-Dibromoethane		0.3814705	0.3843430	0.3784487	0.3896992					
	0.3774139	0.3926663					0.3840	AVRG		1.5981
52)MPA Chlorobenzene		1.1723073	1.1582322	1.1598989	1.1365570					
	1.0469242	1.0892324					1.1272	AVRG		4.3535
53)MA 1,1,1,2-Tetrachloroethan		0.4198035	0.4188438	0.4138090	0.4265661					
	0.4215505	0.4667464					0.4279	AVRG		4.5525
54)MCA Ethylbenzene		2.0840260	2.0164027	2.0203991	1.9648385					
	1.8396323	1.8349551					1.9600	AVRG		5.2209
55)MA m,p-Xylenes		0.7968904	0.7843637	0.7812839	0.7687025					
	0.7500114	0.7838288					0.7775	AVRG		2.0822
56)MA o-Xylene		0.7644591	0.7952265	0.8048390	0.7930166					
	0.8014504	0.8757789					0.8058	AVRG		4.6105
57)MA Styrene		1.2443810	1.2117404	1.2744438	1.3143277					
	1.3579431	1.4472582					1.3083	AVRG		6.5184
59)MPA Bromoform		0.3902477	0.4141142	0.4242333	0.4566677					
	0.4801735	0.5461896					0.4519	AVRG		12.4017
60)MA Isopropylbenzene		3.3175209	3.3494916	3.3243159	3.1363524					
	2.8963725	2.9600744					3.1640	AVRG		6.2838
61)SA Bromofluorobenzene		0.9826198	1.0053785	0.9728582	0.9665938					
	0.9564305	0.9856607					0.9783	AVRG		1.7414
62)MPA 1,1,2,2-Tetrachloroethan		0.9195561	0.9683729	0.9026073	0.9198707					
	0.8567728	0.8818222					0.9082	AVRG		4.1952
63)MA 1,2,3-Trichloropropane		0.2432967	0.2801066	0.2441238	0.2472761					
	0.2288957	0.2413168					0.2475	AVRG		6.9435

Response Factor Report VOA4
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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA Bromobenzene		0.8647386	0.8752875	0.8519557	0.8635659					
	0.8331826	0.9351452					0.8706	AVRG		3.9852
65)MA n-Propylbenzene		4.0498435	4.1369496	4.0588436	3.8552049					
	3.5743302	3.5017307					3.8628	AVRG		6.9678
66)MA 1,3,5-Trimethylbenzene		2.8354956	3.0146701	2.9763206	2.9065436					
	2.7813114	2.8437041					2.8930	AVRG		3.0971
67)MA 2-Chlorotoluene		0.8688915	0.8524719	0.8724659	0.8294085					
	0.8241385	0.9261661					0.8623	AVRG		4.2959
68)MA 4-Chlorotoluene		2.4844031	2.5612741	2.5152706	2.3978939					
	2.2460486	2.2714761					2.4127	AVRG		5.4253
69)MA tert-Butylbenzene		0.6320613	0.6437287	0.6497004	0.6155296					
	0.5991326	0.6650760					0.6342	AVRG		3.7759
70)MA 1,2,4-Trimethylbenzene		2.8841431	3.0892537	3.0875822	3.0143936					
	2.8235529	2.8025765					2.9503	AVRG		4.4071
71)MA sec-Butylbenzene		4.0143071	4.0846347	4.1051946	3.9152029					
	3.6420766	3.5181276					3.8799	AVRG		6.3072
72)MA 4-Isopropyltoluene		3.0338824	3.2694698	3.3123587	3.1719621					
	3.0102983	2.9278625					3.1210	AVRG		4.9307
73)MA 1,3-Dichlorobenzene		1.7733193	1.7685299	1.7969645	1.7342003					
	1.6369787	1.6738737					1.7306	AVRG		3.6236
74)MA 1,4-Dichlorobenzene		1.7771756	1.9012008	1.8477494	1.7442019					
	1.6703842	1.6822429					1.7705	AVRG		5.1518
75)MA n-Butylbenzene		2.9574109	3.0426503	3.2663712	3.0010450					
	2.8332954	2.6704491					2.9619	AVRG		6.7905
76)MA 1,2-Dichlorobenzene		1.6923391	1.8190827	1.7229194	1.6964463					
	1.5724597	1.6033986					1.6844	AVRG		5.2380
77)MA 1,2-Dibromo-3-chloroprop		0.1427388	0.1601043	0.1552744	0.1568820					
	0.1724465	0.1820974					0.1616	AVRG		8.5663
78)MA 1,2,4-Trichlorobenzene		0.8213712	0.8237018	0.8975434	0.8897582					
	0.8820654	0.8549721					0.8616	AVRG		3.8851

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
79)MA Hexachlorobutadiene	0.5423204	0.5620564 0.5524787	0.5490636	0.6013384	0.5418709		0.5582	AVRG		4.0146
80)MA Naphthalene	2.0444053	2.3970157 1.9772015	2.2199511	2.0905527	2.1315508		2.1434	AVRG		6.9367
81)MA 1,2,3-Trichlorobenzene	0.7056849	0.7105499 0.7041686	0.7076489	0.7426567	0.7348618		0.7176	AVRG		2.3293
83)B Chlorotrifluoroethylene	0.1651545	0.1928176 0.1795403	0.1589189	0.1461446	0.1735227	0.2114385	0.1754	AVRG		12.4398
84)B 2-Chloro-1,1,1-trifluoro	0.5904177	0.5721523 0.5501506	0.5400354	0.5501283	0.5962120	0.5535334	0.5647	AVRG		3.8712
85)B Acrolein -0.0135 | 0.0505 | 0.00	321964	6504 773364	9876	23934	49064	109086		LINR		0.9943
86)B Trichlorotrifluoroethane	0.1023600	0.1461689 0.1060014	0.1221725	0.1222409	0.1237840	0.1087334	0.1188	AVRG		12.5463
87)B Isopropyl Alcohol	0.0315174	0.0309507 0.0328078	0.0289400	0.0295944	0.0321518	0.0309392	0.0310	AVRG		4.3869
88)B Allyl chloride	0.4247044	0.4410914 0.3890080	0.4144177	0.4329829	0.4237283	0.4390746	0.4236	AVRG		4.2184
89)B tert-Butyl Alcohol	0.0499952	0.0493194 0.0515867	0.0465802	0.0486116	0.0516194	0.0492098	0.0496	AVRG		3.5428
90)B Acrylonitrile	0.1226476	0.1354744 0.1210012	0.1169982	0.1192240	0.1172877	0.1199926	0.1218	AVRG		5.2104
91)B Isopropyl ether	1.0893456	1.0359445 1.0610693	1.0095069	1.0621565	1.1182501	1.0699375	1.0637	AVRG		3.2990
92)B 2-Chloro-1,3-butadiene	0.4396326	0.4432562 0.3923863	0.4025100	0.4251441	0.4110593	0.4255095	0.4199	AVRG		4.4883
93)B Ethyl tert-butyl ether	1.0232943	0.9724237 1.0210297	0.9454935	0.9877587	1.0437350	1.0062867	1.0000	AVRG		3.3710
94)B Ethyl acetate	0.3335166	0.4207751 0.3226695	0.3344995	0.3419534	0.3318285	0.3437715	0.3470	AVRG		9.5860

Response Factor Report VOA4
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Last Update : Tue Mar 02 15:03:40 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile	0.0516971	0.0579700 0.0529726	0.0471239	0.0497289	0.0512108	0.0510792	0.0517	AVRG		6.4357
96)B Methacrylonitrile	0.2106405	0.2375600 0.2040929	0.1961336	0.2113702	0.2065848	0.2121764	0.2112	AVRG		6.0965
97)B Tetrahydrofuran	0.1086713	0.1362498 0.1103988	0.1128471	0.1112702	0.1073795	0.1101952	0.1139	AVRG		8.8074
98)B Isobutyl alcohol	0.0170587	0.0152586 0.0160889	0.0143983	0.0161756	0.0155977	0.0159383	0.0158	AVRG		5.2524
99)B Methyl tert-amyl ether	0.9699206	0.9092583 0.9951498	0.9103189	0.9127399	0.9686898	0.9431764	0.9442	AVRG		3.6732
100)B Methyl methacrylate	0.2372493	0.2366812 0.2371432	0.2151339	0.2261493	0.2218900	0.2322491	0.2295	AVRG		3.7866
101)B 1,4-Dioxane	0.0045308	0.0045376 0.0043816	0.0041314	0.0041319	0.0042340	0.0043051	0.0043	AVRG	#	3.9414
102)B 2-Nitropropane	0.1188684	0.1281983 0.1221423	0.0945526	0.1031010	0.1109235	0.1179372	0.1137	AVRG		10.2389
104)B Ethyl methacrylate	0.5410113	0.5301747 0.4985569	0.4853177	0.5128271	0.5124319	0.5436019	0.5177	AVRG		4.1999
106)B 1-Chlorohexane	0.6049091	0.5706431 0.4412334	0.5950303	0.5938594	0.6226543	0.6078436	0.5766	AVRG		10.7135
107)B cis-1,4-Dichloro-2-buten	0.2753507	0.2562164 0.2528613	0.2433071	0.2543648	0.2476176	0.2715778	0.2573	AVRG		4.6219
108)B Cyclohexanone		0.0319960	0.0244636	0.0253938	0.0259780	0.0283148	0.0272	AVRG		11.0914
109)B trans-1,4-Dichloro-2-but	0.2676538	0.2448200 0.2425929	0.2333204	0.2463157	0.2452294	0.2638413	0.2491	AVRG		4.8999
110)B Pentachloroethane	0.2405564	0.2773251 0.2477113	0.2448282	0.2417607	0.3144067	0.3343024	0.2716	AVRG		14.2132
111)B Benzyl chloride	1.3187502	1.2135141 1.0882205	1.1462821	1.2503052	1.2578961	1.3440856	1.2313	AVRG		7.3732

Response Factor Report VOA4
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Last Update : Tue Mar 02 15:03:40 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
12)B bis(2-Chloroisopropy1)et	0.4143469	0.4102831 0.4031629	0.3581670	0.3914475	0.3940309	0.4206244	0.3989	AVRG		5.2157

(#) = Out of Range

Calibration History Report VOA4
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030810V4\Methods\VOA4-8260-030710.M
Last Update : Mon Mar 08 15:37:50 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\030710V4\4A703.D

Injection Date	Mix	Calibration File
7 Mar 2010 7:57 pm	A	C:\msdchem\1\DATA\030710V4\4A703.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\030710V4\4A713.D

Injection Date	Mix	Calibration File
7 Mar 2010 8:24 pm	A	C:\msdchem\1\DATA\030710V4\4A704.D
8 Mar 2010 12:32 am	B	C:\msdchem\1\DATA\030710V4\4A713.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\030710V4\4A714.D

Injection Date	Mix	Calibration File
7 Mar 2010 9:20 pm	A	C:\msdchem\1\DATA\030710V4\4A706.D
8 Mar 2010 12:59 am	B	C:\msdchem\1\DATA\030710V4\4A714.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\030710V4\4A715.D

Injection Date	Mix	Calibration File
7 Mar 2010 9:47 pm	A	C:\msdchem\1\DATA\030710V4\4A707.D
8 Mar 2010 1:26 am	B	C:\msdchem\1\DATA\030710V4\4A715.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\030710V4\4A716.D

Injection Date	Mix	Calibration File
7 Mar 2010 10:14 pm	A	C:\msdchem\1\DATA\030710V4\4A708.D
8 Mar 2010 1:53 am	B	C:\msdchem\1\DATA\030710V4\4A716.D

Cal Lvl:5 Amt:20 Last Updated with: C:\msdchem\1\DATA\030710V4\4A709.D

Injection Date	Mix	Calibration File
7 Mar 2010 10:41 pm	A	C:\msdchem\1\DATA\030710V4\4A709.D
8 Mar 2010 2:20 am	B	C:\msdchem\1\DATA\030710V4\4A717.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\030710V4\4A718.D

Injection Date	Mix	Calibration File
7 Mar 2010 11:09 pm	A	C:\msdchem\1\DATA\030710V4\4A710.D
8 Mar 2010 2:48 am	B	C:\msdchem\1\DATA\030710V4\4A718.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\030710V4\4A719.D

Injection Date	Mix	Calibration File
7 Mar 2010 11:36 pm	A	C:\msdchem\1\DATA\030710V4\4A711.D
8 Mar 2010 3:16 am	B	C:\msdchem\1\DATA\030710V4\4A719.D

Response Factor Report VOA4
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030810V4\Methods\VOA4-8260-030710.M
Last Update : Mon Mar 08 15:37:50 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane	0.2781171	0.3847111 0.2836120	0.3173665	0.4009280	0.3168993	0.3046980	0.3266	AVRG		14.6615
3)MPA Chloromethane	0.5169886	0.7174981 0.4868842	0.5902273	0.6297628	0.5700034	0.5723330	0.5834	AVRG		12.9426
4)MCA Vinyl chloride	0.5016885	0.6386742 0.4877397	0.5446101	0.5928368	0.5463737	0.5482180	0.5514	AVRG		9.3466
5)MA Bromomethane	0.3108270	0.3798938 0.3062157	0.3446964	0.3606783	0.3312143	0.3337987	0.3382	AVRG		7.7543
6)MA Chloroethane	0.2563908	0.2952502 0.2476539	0.2529569	0.2802255	0.2705414	0.2757087	0.2684	AVRG		6.3302
7)MA Trichlorofluoromethane	0.4972104	0.4920190 0.4755355	0.4500754	0.5599192	0.5245043	0.5217503	0.5030	AVRG		7.1511
8)MA Ethyl ether	0.2446414	0.2784379 0.2466757	0.2300558	0.2569265	0.2480025	0.2524600	0.2510	AVRG		5.8566
9)MA Acetone	0.2690210	0.3731688 0.2942279	0.3178043	0.3129916	0.2935766	0.2805258	0.3059	AVRG		11.1731
10)MCA 1,1-Dichloroethylene	0.5325221	0.6831621 0.5669228	0.5227698	0.5878646	0.6143364	0.5686178	0.5823	AVRG		9.3209
11)MA Iodomethane	0.5138970	0.5793073 0.5952628	0.5171523	0.5274416	0.5596984	0.5310291	0.5463	AVRG		5.8632
12)MA Acetonitrile	0.0447346	0.0591755 0.0472539	0.0509342	0.0498766	0.0489982	0.0479929	0.0499	AVRG		9.1639
13)MA Methyl acetate	0.2372110	0.3139830 0.2528477	0.2712274	0.2600721	0.2502574	0.2584180	0.2634	AVRG		9.3316
14)MA Carbon disulfide	0.9952956	1.2567985 1.0941721	1.0908907	1.1600388	1.1811299	1.0081920	1.1124	AVRG		8.4661
15)MA Methylene chloride 0.0129 | 0.3806 | 0.00	593698	1345154	50981	71081	143455	258098		LINR		0.9987
16)MA tert-Butyl methyl ether	0.7998450	0.9441411 0.8745498	1.0254338	0.8304927	0.8794366	0.8648654	0.8884	AVRG		8.4618

Response Factor Report VOA4
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030810V4\Methods\VOA4-8260-030710.M
Last Update : Mon Mar 08 15:37:50 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
17)MA trans-1,2-Dichloroethyle		0.5055012	0.4684469	0.4473065	0.4639979	0.4467301				
	0.4103411	0.4418471					0.4549	AVRG		6.4137
18)MA Vinyl acetate		0.6275069	0.5142661	0.6196775	0.6249895	0.5794282				
	0.5795520	0.5440209					0.5842	AVRG		7.4440
19)MPA 1,1-Dichloroethane		0.5942832	0.5751394	0.5594937	0.5732302	0.5695642				
	0.5207180	0.5521234					0.5635	AVRG		4.0921
20)MA 2-Butanone		0.3626935	0.3096475	0.3195724	0.3029926	0.2983251				
	0.2953734	0.3353735					0.3177	AVRG		7.5968
21)MA cis-1,2-Dichloroethylene		0.5410334	0.4876940	0.4908067	0.5063158	0.4885038				
	0.4486693	0.4735443					0.4909	AVRG		5.7922
22)MA 2,2-Dichloropropane		0.3309117	0.2883864	0.2856896	0.2879068	0.2820780				
	0.2549203	0.2643745					0.2849	AVRG		8.4375
23)MA Bromochloromethane		0.1737489	0.1561153	0.1604204	0.1676648	0.1631981				
	0.1562085	0.1695852					0.1638	AVRG		4.1382
24)MCA Chloroform		0.6433622	0.5846198	0.5765907	0.5826429	0.5808521				
	0.5379497	0.5654810					0.5816	AVRG		5.4439
25)MA 1,1,1-Trichloroethane		0.4451385	0.4251367	0.4396288	0.4364882	0.4312489				
	0.4006757	0.4228686					0.4287	AVRG		3.4185
26)MA Cyclohexane		0.5984539	0.5053077	0.4989431	0.4822191	0.4471476				
	0.4252655	0.4523892					0.4871	AVRG		11.7096
27)MA 1,1-Dichloropropene		0.4720382	0.4150501	0.4153461	0.4161441	0.4109867				
	0.3826385	0.4160467					0.4183	AVRG		6.3563
28)MA Carbon tetrachloride		0.3998746	0.3979753	0.3964144	0.4029689	0.3971773				
	0.3760889	0.4117864					0.3975	AVRG		2.7167
29)SA 1,2-Dichloroethane-d4		0.2729946	0.2696950	0.2753822	0.2782786	0.2696187				
	0.2628378	0.2609598					0.2700	AVRG		2.3414
30)MA 1,2-Dichloroethane		0.5299437	0.4795439	0.4637786	0.4857889	0.4662702				
	0.4348277	0.4613404					0.4745	AVRG		6.1783
31)MA Benzene		1.3635761	1.2584869	1.2370111	1.2636422	1.2275306				
	1.1196144	1.1953915					1.2379	AVRG		5.9717

Response Factor Report VOA4
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Last Update : Mon Mar 08 15:37:50 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene		0.6247717	0.5874825	0.5944920	0.6052830	0.5997258				
	0.5550972	0.6064626					0.5962	AVRG		3.6137
33)MA n-Butyl alcohol	15243	31642	50152	152593	313637	648858				
-0.0442 | 0.0122 | 0.00	1817490	4210137						LINR	#	0.9945
34)MA Trichloroethylene		0.3498256	0.3230581	0.3186538	0.3204397	0.3276930				
	0.3038723	0.3288030					0.3246	AVRG		4.2615
35)MCA 1,2-Dichloropropane		0.3274523	0.3247589	0.3214457	0.3288171	0.3273066				
	0.3109818	0.3284172					0.3242	AVRG		1.9589
36)MA Methylcyclohexane		0.5244474	0.4945812	0.5136736	0.4998067	0.4859004				
	0.4557694	0.4988980					0.4962	AVRG		4.4057
37)MA Dibromomethane		0.2194008	0.2008568	0.1930323	0.1958049	0.2044823				
	0.1921356	0.2114116					0.2024	AVRG		4.9950
38)MA Bromodichloromethane		0.3905631	0.3581340	0.3937954	0.4166177	0.4190965				
	0.4154906	0.4461295					0.4057	AVRG		6.8713
39)MA 2-Chloroethylvinyl ether		0.1357207	0.1308297	0.1765485	0.1485729	0.1516427				
	0.1530252	0.1699701					0.1523	AVRG		10.8893
40)MA cis-1,3-Dichloropropylen		0.4740751	0.4276458	0.4523119	0.4764872	0.4983328				
	0.4801397	0.5240658					0.4762	AVRG		6.4898
42)MA 4-Methyl-2-pentanone		0.1845889	0.1645122	0.1801401	0.1726628	0.1763825				
	0.1745778	0.1923990					0.1779	AVRG		5.0278
43)SA Toluene-d8		1.1701998	1.1701288	1.1632434	1.1582600	1.1332419				
	1.1175534	1.0554783					1.1383	AVRG		3.6516
44)MCA Toluene		54765	86496	203113	414206	808277				
0.0388 | 1.5118 | 0.00	1944367	4385624						LINR		0.9995
45)MA trans-1,3-Dichloropropyl		0.6215373	0.5378195	0.5598573	0.5903803	0.5963173				
	0.5823623	0.6079108					0.5852	AVRG		4.8745
46)MA 1,1,2-Trichloroethane		0.3390283	0.3008131	0.3107452	0.3174639	0.3122011				
	0.2974039	0.3022775					0.3114	AVRG		4.5267
47)MA 2-Hexanone		0.5542854	0.4852104	0.5227900	0.5166987	0.5188626				
	0.5105521	0.5246310					0.5190	AVRG		3.9405

Response Factor Report VOA4
GEL Laboratories, LLC

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Last Update : Mon Mar 08 15:37:50 2010
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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane	0.6070960	0.6654871 0.6390218	0.6369703	0.6420110	0.6487584	0.6359485	0.6393	AVRG		2.7364
49)MA Tetrachloroethylene	0.3025804	0.3591134 0.3298787	0.3430385	0.3552496	0.3269767	0.3320369	0.3356	AVRG		5.7122
50)MA Dibromochloromethane	0.4221683	0.3795061 0.4605393	0.3454847	0.3710752	0.4080888	0.4218100	0.4012	AVRG		9.6071
51)MA 1,2-Dibromoethane	0.3717620	0.4026236 0.3948117	0.3462392	0.3578560	0.3829128	0.3865654	0.3775	AVRG		5.3397
52)MPA Chlorobenzene	1.0635166	1.3151522 1.1202207	1.1275120	1.1544095	1.1712305	1.1404912	1.1561	AVRG		6.7419
53)MA 1,1,1,2-Tetrachloroethan	0.4302094	0.4188411 0.4768172	0.3814461	0.4024139	0.4250356	0.4394185	0.4249	AVRG		7.0378
54)MCA Ethylbenzene	1.8596546	2.2230221 1.9228476	2.0151143	2.0362140	2.0536048	2.0492525	2.0228	AVRG		5.6576
55)MA m,p-Xylenes	0.7546313	0.8326279 0.8188063	0.7620920	0.7748637	0.7909865	0.8006870	0.7907	AVRG		3.6575
56)MA o-Xylene	0.8019055	0.8182124 0.9063242	0.7709165	0.7957502	0.8037171	0.8256684	0.8175	AVRG		5.2455
57)MA Styrene	1.3519245	1.2162213 1.4994308	1.1495049	1.2283693	1.3164776	1.3736727	1.3051	AVRG		9.0004
59)MPA Bromoform	0.4847114	0.3894464 0.5431002	0.3849307	0.3856385	0.3993084	0.4373476	0.4321	AVRG		14.1398
60)MA Isopropylbenzene	3.1576656	3.6796482 3.1883776	3.5287924	3.4070584	3.4028001	3.3579154	3.3889	AVRG		5.3775
61)SA Bromofluorobenzene	0.9696546	0.9792003 0.9544998	1.0213783	0.9602071	0.9636617	0.9386677	0.9696	AVRG		2.6899
62)MPA 1,1,2,2-Tetrachloroethan	0.9190226	1.0584058 0.9069823	0.9664858	0.9128922	0.9282457	0.9150681	0.9439	AVRG		5.7448
63)MA 1,2,3-Trichloropropane	0.2376888	0.2587891 0.2446558	0.2616034	0.2458426	0.2367747	0.2444322	0.2471	AVRG		3.8985

Response Factor Report VOA4
GEL Laboratories, LLC

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Last Update : Mon Mar 08 15:37:50 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA Bromobenzene		1.0127983	0.9316456	0.8864343	0.8788781	0.8946019				
	0.8902987	0.9882940					0.9261	AVRG		5.8301
65)MA n-Propylbenzene		4.6944521	4.4973277	4.2656595	4.2340849	4.2164293				
	3.8894181	3.8412630					4.2341	AVRG		7.1873
66)MA 1,3,5-Trimethylbenzene		3.2233504	3.1723930	3.0369767	3.0943374	3.1024601				
	2.9875201	3.0952337					3.1018	AVRG		2.5358
67)MA 2-Chlorotoluene		0.9385190	0.9067711	0.8532866	0.9042933	0.9057034				
	0.8838398	1.0083540					0.9144	AVRG		5.3416
68)MA 4-Chlorotoluene		2.8848596	2.6975286	2.5646730	2.6550744	2.5413117				
	2.4003206	2.4798382					2.6034	AVRG		6.1261
69)MA tert-Butylbenzene		0.7160525	0.6448463	0.6376121	0.6556203	0.6632992				
	0.6422286	0.6878192					0.6639	AVRG		4.2976
70)MA 1,2,4-Trimethylbenzene		3.3803026	3.2040185	3.2629221	3.2348014	3.1859306				
	3.0069188	3.0263306					3.1859	AVRG		4.1313
71)MA sec-Butylbenzene		4.6297548	4.3369500	4.2342166	4.2727189	4.2055077				
	3.8997074	3.7621381					4.1916	AVRG		6.8271
72)MA 4-Isopropyltoluene		3.5365120	3.3394816	3.3438716	3.4128971	3.3983700				
	3.1190339	3.1619611					3.3303	AVRG		4.3724
73)MA 1,3-Dichlorobenzene		2.0494403	1.8295359	1.7810337	1.8113698	1.8211607				
	1.7281918	1.7855972					1.8295	AVRG		5.6149
74)MA 1,4-Dichlorobenzene		2.1102008	1.9125980	1.8874671	1.8633311	1.8273689				
	1.7272033	1.8009802					1.8756	AVRG		6.4059
75)MA n-Butylbenzene		3.4450742	3.1272252	3.2914428	3.2954375	3.2749747				
	2.9116181	2.9713171					3.1882	AVRG		6.0460
76)MA 1,2-Dichlorobenzene		1.9128407	1.7650392	1.7304957	1.7764062	1.7499921				
	1.6505886	1.6914570					1.7538	AVRG		4.7150
77)MA 1,2-Dibromo-3-chloroprop		0.1231551	0.1178220	0.1307426	0.1326626	0.1412774				
	0.1495461	0.1666594					0.1374	AVRG		12.1473
78)MA 1,2,4-Trichlorobenzene		0.9554547	0.7467953	0.8131055	0.8648602	0.8679244				
	0.7792801	0.8799772					0.8439	AVRG		8.2828

Response Factor Report VOA4
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030810V4\Methods\VOA4-8260-030710.M
Last Update : Mon Mar 08 15:37:50 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
79)MA Hexachlorobutadiene		0.6419960	0.5191079	0.5681081	0.5838917	0.5777124				
	0.4892986	0.5489906					0.5613	AVRG		8.7442
80)MA Naphthalene		2.1685843	1.6321479	1.8303827	1.8858072	1.9472545				
	1.7544075	1.8732739					1.8703	AVRG		8.9172
81)MA 1,2,3-Trichlorobenzene		0.7195436	0.5922041	0.6967020	0.7202315	0.7228298				
	0.6184219	0.6769220					0.6781	AVRG		7.7986
83)B Chlorotrifluoroethylene		0.1683476	0.1482966	0.1397416	0.1432537	0.1507096				
		0.1072131					0.1429	AVRG		14.0676
84)B 2-Chloro-1,1,1-trifluoro		0.5629955	0.5434168	0.5262020	0.5195977	0.5549552				
		0.5217692					0.5382	AVRG		3.4089
85)B Acrolein		0.0539173	0.0495124	0.0509074	0.0515214	0.0545229				
		0.0574869					0.0530	AVRG		5.4719
86)B Trichlorotrifluoroethane		0.1458583	0.1324321	0.1191455	0.1218517	0.1380722				
		0.1213442					0.1298	AVRG		8.3088
87)B Isopropyl Alcohol		0.0250166	0.0253024	0.0243876	0.0262973	0.0262986				
		0.0283925					0.0259	AVRG		5.4334
88)B Allyl chloride		0.4264231	0.3964279	0.4193791	0.4367967	0.4721968				
		0.4210418					0.4287	AVRG		5.8545
89)B tert-Butyl Alcohol		0.0385567	0.0397228	0.0378918	0.0409592	0.0409698				
		0.0445530					0.0404	AVRG		5.8536
90)B Acrylonitrile		0.1101592	0.1032081	0.1044850	0.1072665	0.1098708				
		0.1129537					0.1080	AVRG		3.4289
91)B Isopropyl ether		1.0257189	1.0336584	1.0233618	1.0227375	1.0881826				
		1.1016160					1.0492	AVRG		3.4173
92)B 2-Chloro-1,3-butadiene		0.4394654	0.3970330	0.4010895	0.4048753	0.4497988				
		0.4381146					0.4217	AVRG		5.5009
93)B Ethyl tert-butyl ether		0.9285834	0.9010864	0.9134736	0.9140355	0.9801407				
		1.0288499					0.9444	AVRG		5.2763
94)B Ethyl acetate		0.3463033	0.3167351	0.3067502	0.3125539	0.3165222				
		0.3105102					0.3182	AVRG		4.4813

Response Factor Report VOA4
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030810V4\Methods\VOA4-8260-030710.M
Last Update : Mon Mar 08 15:37:50 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile		0.0460015 0.0486726	0.0433417	0.0464698	0.0468178	0.0466295	0.0463	AVRG		3.7233
96)B Methacrylonitrile		0.1971969 0.1984142	0.1868467	0.1834326	0.1917006	0.1959005	0.1922	AVRG		3.1472
97)B Tetrahydrofuran		0.1082128 0.1037325	0.1008595	0.0977016	0.0996182	0.1014744	0.1019	AVRG		3.5992
98)B Isobutyl alcohol		0.0132494 0.0152197	0.0143189	0.0127632	0.0142503	0.0149279	0.0141	AVRG		6.7310
99)B Methyl tert-amyl ether		0.8206619 0.9712837	0.8318321	0.8146796	0.8330675	0.9035866	0.8625	AVRG		7.2155
100)B Methyl methacrylate		0.1745898 0.2250656	0.1747622	0.1796936	0.1928783	0.2069370	0.1923	AVRG		10.5754
101)B 1,4-Dioxane		0.0035302 0.0036044	0.0031556	0.0032354	0.0034546	0.0035279	0.0034	AVRG	#	5.2817
102)B 2-Nitropropane -0.0147 | 0.1184 | 0.00		14535 1899119	23402	65158	146420	323303		LINR		0.9996
104)B Ethyl methacrylate		0.4261441 0.5177196	0.4466172	0.4679576	0.4909274	0.5318005	0.4802	AVRG		8.5281
106)B 1-Chlorohexane		0.6781509 0.5090774	0.6132403	0.6279815	0.5736578	0.6751180	0.6129	AVRG		10.4924
107)B cis-1,4-Dichloro-2-buten		0.2311115 0.2924000	0.2406969	0.2553496	0.2653700	0.2845497	0.2616	AVRG		9.1990
108)B Cyclohexanone		0.0276994 0.0336296	0.0281730	0.0269267	0.0306219	0.0309377	0.0297	AVRG		8.5069
109)B trans-1,4-Dichloro-2-but		0.2242976 0.2709381	0.2302755	0.2467778	0.2512143	0.2747401	0.2497	AVRG		8.2296
110)B Pentachloroethane -0.0179 | 0.3698 | 0.00		24828 2894562	43330	98874	143704	610798		LINR		0.9957
111)B Benzyl chloride		1.1010175 1.2744811	1.1610713	1.2712102	1.3303209	1.5084334	1.2744	AVRG		11.1420

Response Factor Report VOA4
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030810V4\Methods\VOA4-8260-030710.M
Last Update : Mon Mar 08 15:37:50 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
12)B bis(2-Chloroisopropyl)et		0.3487777 0.3834011	0.3499675	0.3294410	0.3837311	0.3885983	0.3640	AVRG		6.7226

= Out of Range

Continuing Calibration Summary

Client SDG: 10-2039

Instrument ID: VOA4.I **Injection Date** 02-MAR-10 04:45

Data File: 030110V4\4A122.D **Init. Cal. Date(s)** 01-MAR-10 20:03 - 08-MAR-10 03:1

Lab Sample ID W4VM100301-18 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.2068	0.20039		.01		-3.09961	30		Averaged	
S	Toluene-d8	0.9275	0.92786		.01		0.03881	30		Averaged	
S	Bromofluorobenzene	0.9783	0.9522		.01		-2.66789	30		Averaged	
	Dichlorodifluoromethane	0.3169	0.20881		.01		-34.10855	30	*	Averaged	
	Chloromethane	0.5187	0.39141		.1		-24.5402	30		Averaged	spcc
	Vinyl chloride	0.514	0.435		.01		-15.36965	20		Averaged	ccc
	Bromomethane	0.3057	0.27503		.01		-10.03271	30		Averaged	
	Chloroethane	0.2648	0.23859		.01		-9.89804	30		Averaged	
	Trichlorofluoromethane	0.5242	0.48534		.01		-7.4132	30		Averaged	
	Ethyl ether	0.2497	0.23194		.01		-7.11254	30		Averaged	
	Acetone	0.3151	0.2404		.01		-23.70676	40		Averaged	
	1,1-Dichloroethylene	0.5828	0.49891		.01		-14.3943	20		Averaged	ccc
	Iodomethane	0.602	0.55263		.01		-8.201	30		Averaged	
	Acetonitrile	0.0523	0.0479		.01		-8.413	30		Averaged	
	Methyl acetate	0.2677	0.23983		.01		-10.41091	40		Averaged	
	Carbon disulfide	1.0841	1.0305		.01		-4.94419	30		Averaged	
	Methylene chloride	0.4522	0.36418		.01		-19.46484	30		Averaged	
	tert-Butyl methyl ether	0.9626	0.86175		.01		-10.47683	30		Averaged	
	trans-1,2-Dichloroethylene	0.4489	0.40435		.01		-9.92426	30		Averaged	
	Vinyl acetate	0.5834	0.47195		.01		-19.10353	40		Averaged	
	1,1-Dichloroethane	0.5628	0.522		.1		-7.24947	30		Averaged	spcc
	2-Butanone	0.3306	0.2659		.01		-19.57048	40		Averaged	
	cis-1,2-Dichloroethylene	0.492	0.45017		.01		-8.50203	30		Averaged	
	2,2-Dichloropropane	0.3018	0.26297		.01		-12.86614	30		Averaged	
	Bromochloromethane	0.1783	0.16596		.01		-6.92092	30		Averaged	
	Chloroform	0.591	0.55389		.01		-6.27919	20		Averaged	ccc
	1,1,1-Trichloroethane	0.4606	0.42347		.01		-8.06122	30		Averaged	
	Cyclohexane	0.5117	0.44897		.01		-12.25914	30		Averaged	
	1,1-Dichloropropene	0.4323	0.39451		.01		-8.74161	30		Averaged	
	Carbon tetrachloride	0.4381	0.40412		.01		-7.75622	30		Averaged	
	1,2-Dichloroethane	0.4822	0.43255		.01		-10.29656	30		Averaged	
	Benzene	1.2747	1.16072		.01		-8.94171	30		Averaged	
	Cyclohexene	0.6214	0.55044		.01		-11.41938	30		Averaged	
	n-Butyl alcohol	0.0132	0.01316		.01		-0.30303	40		Averaged	
	Trichloroethylene	0.3371	0.32002		.01		-5.06675	30		Averaged	
	1,2-Dichloropropane	0.3299	0.31032		.01		-5.93513	20		Averaged	ccc
	Methylcyclohexane	0.5327	0.47592		.01		-10.65891	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA4.I **Injection Dat** 02-MAR-10 04:45

Data File: 030110V4\4A122.D **Init. Cal. Date(s)** 01-MAR-10 20:03 08-MAR-10 03:1

Lab Sample ID W4VM100301-18 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.2177	0.19691		.01		-9.54984	30		Averaged	
Bromodichloromethane	0.4373	0.42638		.01		-2.49714	30		Averaged	
2-Chloroethylvinyl ether	0.1828	0.18686		.01		2.22101	30		Averaged	
cis-1,3-Dichloropropylene	0.5104	0.48153		.01		-5.65635	30		Averaged	
4-Methyl-2-pentanone	0.1823	0.16376		.01		-10.17005	40		Averaged	
Toluene	1.655	1.48911		.01		-10.02356	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.5811	0.55064		.01		-5.24178	30		Averaged	
1,1,2-Trichloroethane	0.2979	0.28433		.01		-4.55522	30		Averaged	
2-Hexanone	0.5058	0.41646		.01		-17.66311	40		Averaged	
1,3-Dichloropropane	0.6189	0.57199		.01		-7.57958	30		Averaged	
Tetrachloroethylene	0.333	0.30484		.01		-8.45646	30		Averaged	
Dibromochloromethane	0.4242	0.4208		.01		-0.80151	30		Averaged	
1,2-Dibromoethane	0.384	0.36883		.01		-3.95052	30		Averaged	
Chlorobenzene	1.1272	1.05319		.3		-6.56583	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.4279	0.41668		.01		-2.62211	30		Averaged	
Ethylbenzene	1.96	1.801		.01		-8.11224	20		Averaged	ccc
m,p-Xylenes	0.7775	0.73062		.01		-6.02958	30		Averaged	
o-Xylene	0.8058	0.78154		.01		-3.01067	30		Averaged	
Styrene	1.3083	1.32658		.01		1.39723	30		Averaged	
Bromoform	0.4519	0.44567		.1		-1.37862	30		Averaged	spcc
Isopropylbenzene	3.164	2.79156		.01		-11.77118	30		Averaged	
1,1,2,2-Tetrachloroethane	0.9082	0.79153		.3		-12.84629	30		Averaged	spcc
1,2,3-Trichloropropane	0.2475	0.2197		.01		-11.23232	30		Averaged	
Bromobenzene	0.8706	0.81417		.01		-6.48174	30		Averaged	
n-Propylbenzene	3.8628	3.45672		.01		-10.51258	30		Averaged	
2-Chlorotoluene	0.8623	0.8077		.01		-6.3319	30		Averaged	
1,3,5-Trimethylbenzene	2.893	2.69152		.01		-6.9644	30		Averaged	
4-Chlorotoluene	2.4127	2.1839		.01		-9.48315	30		Averaged	
tert-Butylbenzene	0.6342	0.587		.01		-7.44245	30		Averaged	
1,2,4-Trimethylbenzene	2.9503	2.72034		.01		-7.79446	30		Averaged	
sec-Butylbenzene	3.8799	3.52828		.01		-9.0626	30		Averaged	
4-Isopropyltoluene	3.121	2.92624		.01		-6.24031	30		Averaged	
1,3-Dichlorobenzene	1.7306	1.604		.01		-7.31538	30		Averaged	
1,4-Dichlorobenzene	1.7705	1.63632		.01		-7.57865	30		Averaged	
n-Butylbenzene	2.9619	2.76611		.01		-6.61028	30		Averaged	
1,2-Dichlorobenzene	1.6844	1.58047		.01		-6.17015	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1616	0.16175		.01		0.09282	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA4.I **Injection Dat** 02-MAR-10 04:45

Data File: 030110V4\4A122.D **Init. Cal. Date(s)** 01-MAR-10 20:03 08-MAR-10 03:1

Lab Sample ID W4VM100301-18 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8616	0.84001		.01		-2.5058	30		Averaged
Hexachlorobutadiene	0.5582	0.5327		.01		-4.56826	30		Averaged
Naphthalene	2.1434	1.99062		.01		-7.12793	30		Averaged
1,2,3-Trichlorobenzene	0.7176	0.70968		.01		-1.10368	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A122.D
Acq On : 2 Mar 2010 4:45 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-18|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[A] 0220-01B+0301-01
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 02 15:05:11 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
Internal Standards									Dev(Min)
1) Fluorobenzene	10.619	10.620	1.000	96	1540174	50.00	ug/L		0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	1292531	50.00	ug/L		0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	911427	50.00	ug/L		0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1539787	50.00	ug/L		0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	1292531	50.00	ug/L		0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	913350	50.00	ug/L		0.00
System Monitoring Compounds									Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	308637	48.44	ug/L		0.00
43) Toluene-d8	12.253	12.247	0.890	98	1199290	50.02	ug/L		0.00
61) Bromofluorobenzene	14.953	14.954	0.924	95	867862	48.67	ug/L		0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		QValue
2) Dichlorodifluoromethane	4.904	4.911	0.462	85	321604	32.95	ug/L		100
3) Chloromethane	5.292	5.291	0.498	50	602837	37.73	ug/L		99
4) Vinyl chloride	5.521	5.521	0.520	62	669968	42.31	ug/L		100
5) Bromomethane	6.130	6.137	0.577	94	423599	44.98	ug/L		99
6) Chloroethane	6.295	6.295	0.593	64	367464	45.05	ug/L		100
7) Trichlorofluoromethane	6.668	6.669	0.628	101	747504	46.29	ug/L		100
8) Ethyl ether	6.997	6.998	0.659	59	357225	46.45	ug/L		98
9) Acetone	7.357	7.352	0.693	43	1851300	190.74	ug/L		100
10) 1,1-Dichloroethylene	7.394	7.389	0.696	61	768401	42.80	ug/L		100
11) Iodomethane	7.662	7.663	0.722	142	4255710	229.50	ug/L		100
12) Acetonitrile	7.699	7.699	0.725	41	1844276	1144.77	ug/L		99
13) Methyl acetate	7.753	7.748	0.730	43	1846931	224.01	ug/L		99
14) Carbon disulfide	7.772	7.773	0.732	76	7935717	237.64	ug/L		100
15) Methylene chloride	7.936	7.931	0.747	84	560901	40.26	ug/L		100
16) tert-Butyl methyl ether	8.241	8.242	0.776	73	1327244	44.76	ug/L		99
17) trans-1,2-Dichloroethy...	8.284	8.285	0.780	61	622773	45.04	ug/L		100
18) Vinyl acetate	8.711	8.705	0.820	43	3634425	202.25	ug/L		99
19) 1,1-Dichloroethane	8.759	8.760	0.825	63	803966	46.37	ug/L		100
20) 2-Butanone	9.326	9.327	0.878	43	2047670	201.08	ug/L		99
21) cis-1,2-Dichloroethylene	9.387	9.388	0.884	61	693341	45.75	ug/L		100
22) 2,2-Dichloropropane	9.418	9.419	0.887	77	405016	43.57	ug/L		98
23) Bromochloromethane	9.656	9.656	0.909	128	255613	46.54	ug/L		98
24) Chloroform	9.692	9.687	0.913	83	853090	46.86	ug/L		98
25) 1,1,1-Trichloroethane	9.979	9.979	0.940	97	652222	45.97	ug/L		100
26) Cyclohexane	10.082	10.083	0.949	56	691497	43.87	ug/L		99
27) 1,1-Dichloropropene	10.137	10.132	0.955	75	607607	45.63	ug/L	#	79
28) Carbon tetrachloride	10.174	10.175	0.958	117	622408	46.12	ug/L		100
30) 1,2-Dichloroethane	10.338	10.339	0.974	62	666203	44.85	ug/L		99
31) Benzene	10.375	10.370	0.977	78	1787715	45.53	ug/L		100
32) Cyclohexene	10.497	10.492	0.989	67	847777	44.29	ug/L		98
33) n-Butyl alcohol	10.692	10.693	1.007	56	2026999	5001.56	ug/L		100
34) Trichloroethylene	11.009	11.004	1.037	95	492892	47.47	ug/L		99
35) 1,2-Dichloropropane	11.241	11.241	1.059	63	477950	47.04	ug/L		100
36) Methylcyclohexane	11.265	11.260	1.061	83	733004	44.67	ug/L		99
37) Dibromomethane	11.375	11.376	1.071	93	303275	45.23	ug/L		100
38) Bromodichloromethane	11.484	11.485	1.082	83	656694	48.75	ug/L		100
39) 2-Chloroethylvinyl ether	11.698	11.699	1.102	63	1438998	255.62	ug/L		100
40) cis-1,3-Dichloropropylene	11.929	11.930	1.123	75	741641	47.17	ug/L		100
42) 4-Methyl-2-pentanone	12.021	12.016	0.873	58	1058321	224.58	ug/L		98
44) Toluene	12.326	12.320	0.895	91	1924727	44.99	ug/L		99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A122.D
Acq On : 2 Mar 2010 4:45 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-18|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[A] 0220-01B+0301-01
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 02 15:05:11 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
45)	trans-1,3-Dichloroprop...	12.466	12.461	0.905	75	711716	47.38	ug/L	99
46)	1,1,2-Trichloroethane	12.685	12.680	0.921	83	367506	47.73	ug/L	100
47)	2-Hexanone	12.856	12.857	0.934	43	2691452	205.83	ug/L	98
48)	1,3-Dichloropropane	12.874	12.875	0.935	76	739318	46.21	ug/L	89
49)	Tetrachloroethylene	12.923	12.918	0.938	164	394013	45.77	ug/L	99
50)	Dibromochloromethane	13.149	13.144	0.955	129	543899	49.60	ug/L	100
51)	1,2-Dibromoethane	13.319	13.320	0.967	107	476721	48.02	ug/L	100
52)	Chlorobenzene	13.801	13.802	1.002	112	1361279	46.72	ug/L	100
53)	1,1,1,2-Tetrachloroethane	13.850	13.851	1.006	131	538577	48.69	ug/L	99
54)	Ethylbenzene	13.862	13.863	1.007	91	2327846	45.94	ug/L	100
55)	m,p-Xylenes	13.972	13.973	1.015	106	1888702	93.97	ug/L	100
56)	o-Xylene	14.405	14.399	1.046	106	1010170	48.50	ug/L	98
57)	Styrene	14.405	14.399	1.046	104	1714651	50.70	ug/L	100
59)	Bromoform	14.661	14.655	0.906	173	406192	49.31	ug/L	99
60)	Isopropylbenzene	14.758	14.759	0.912	105	2544300	44.11	ug/L	100
62)	1,1,2,2-Tetrachloroethane	15.020	15.015	0.928	83	721422	43.58	ug/L	99
63)	1,2,3-Trichloropropane	15.112	15.107	0.934	110	200239	44.38	ug/L	97
64)	Bromobenzene	15.167	15.168	0.937	156	742061	46.76	ug/L	99
65)	n-Propylbenzene	15.185	15.180	0.939	91	3150549	44.74	ug/L	99
66)	1,3,5-Trimethylbenzene	15.331	15.332	0.948	105	2453122	46.52	ug/L	100
67)	2-Chlorotoluene	15.331	15.332	0.948	126	736161	46.84	ug/L	99
68)	4-Chlorotoluene	15.429	15.430	0.954	91	1990465	45.26	ug/L	100
69)	tert-Butylbenzene	15.703	15.704	0.971	134	535011	46.28	ug/L	99
70)	1,2,4-Trimethylbenzene	15.746	15.741	0.973	105	2479390	46.10	ug/L	99
71)	sec-Butylbenzene	15.935	15.930	0.985	105	3215773	45.47	ug/L	100
72)	4-Isopropyltoluene	16.051	16.051	0.992	119	2667056	46.88	ug/L	100
73)	1,3-Dichlorobenzene	16.124	16.119	0.997	146	1461933	46.34	ug/L	100
74)	1,4-Dichlorobenzene	16.209	16.204	1.002	146	1491390	46.21	ug/L	99
75)	n-Butylbenzene	16.508	16.503	1.020	91	2521109	46.70	ug/L	100
76)	1,2-Dichlorobenzene	16.642	16.643	1.029	146	1440483	46.91	ug/L	100
77)	1,2-Dibromo-3-chloropr...	17.532	17.527	1.084	157	147425	50.05	ug/L	100
78)	1,2,4-Trichlorobenzene	18.635	18.630	1.152	180	765605	48.75	ug/L	99
79)	Hexachlorobutadiene	18.818	18.819	1.163	225	485516	47.72	ug/L	100
80)	Naphthalene	19.032	19.026	1.176	128	1814309	46.44	ug/L	99
81)	1,2,3-Trichlorobenzene	19.385	19.386	1.198	180	646822	49.45	ug/L	99
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85)	Acrolein	7.241	7.180	0.682		0m	N.D.	d	
86)	Trichlorotrifluoroethane	0.000	7.369	0.000		0	N.D.		
87)	Isopropyl Alcohol	7.351	7.430	0.692		0m	N.D.	d	
88)	Allyl chloride	7.699	7.796	0.725		0m	N.D.	d	
89)	tert-Butyl Alcohol	0.000	7.924	0.000		0	N.D.		
90)	Acrylonitrile	8.241	8.174	0.776		0m	N.D.	d	
91)	Isopropyl ether	8.711	8.741	0.820		0m	N.D.	d	
92)	2-Chloro-1,3-butadiene	8.875	8.869	0.836		0m	N.D.	d	
93)	Ethyl tert-butyl ether	9.131	9.143	0.860		0m	N.D.	d	
94)	Ethyl acetate	9.326	9.338	0.878		0m	N.D.	d	
95)	Propionitrile	9.442	9.393	0.889		0m	N.D.	d	
96)	Methacrylonitrile	0.000	9.576	0.000		0	N.D.		
97)	Tetrahydrofuran	9.716	9.710	0.915		0m	N.D.	d	
98)	Isobutyl alcohol	9.997	10.009	0.941		0m	N.D.	d	
99)	Methyl tert-amyl ether	10.375	10.387	0.977		0m	N.D.	d	
100)	Methyl methacrylate	11.167	11.204	1.052		0m	N.D.	d	
101)	1,4-Dioxane	11.344	11.326	1.068		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A122.D
Acq On : 2 Mar 2010 4:45 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-18|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[A] 0220-01B+0301-01
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 02 15:05:11 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
102) 2-Nitropropane	11.698	11.673	1.102		0m	N.D.	d
104) Ethyl methacrylate	12.466	12.466	0.905		0m	N.D.	d
106) 1-Chlorohexane	13.667	13.661	0.845		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.764	14.783	0.913		0m	N.D.	d
108) Cyclohexanone	14.911	14.904	0.922		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.069	15.063	0.931		0m	N.D.	d
110) Pentachloroethane	15.770	15.770	0.975		0m	N.D.	d
111) Benzyl chloride	16.313	16.319	1.008		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.721	16.721	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A122.D
Acq On : 2 Mar 2010 4:45 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-18|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[A] 0220-01B+0301-01
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 02 15:05:11 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

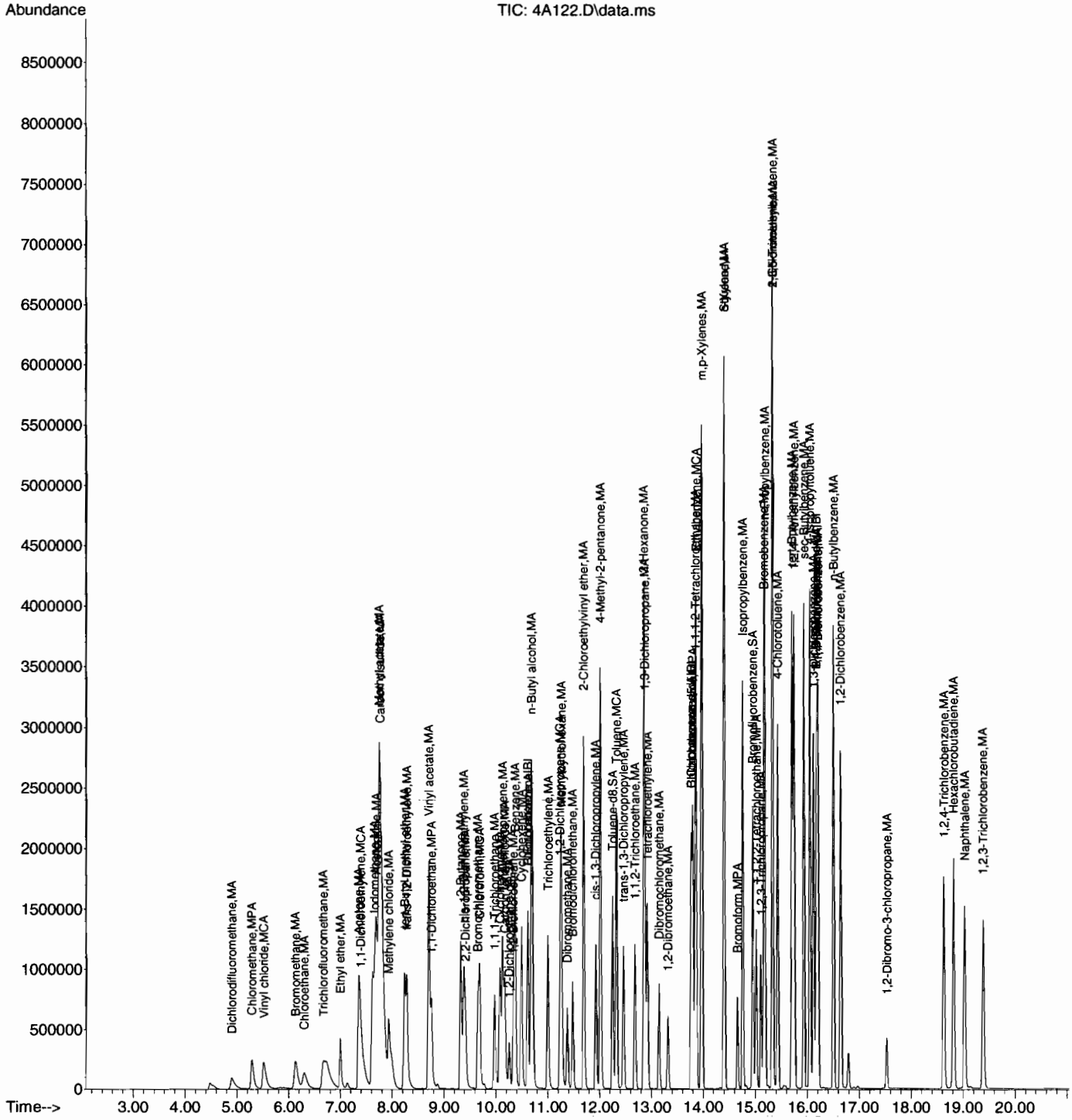

Continuing Calibration Summary

Client SDG: 10-2039

Instrument ID: VOA4.I **Injection Dat** 02-MAR-10 05:13

Data File: 030110V4\4A123.D **Init. Cal. Date(s)** 01-MAR-10 20:03 - 08-MAR-10 03:1

Lab Sample ID W4VM100301-19 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.2068	0.19926		.01		-3.64603	30		Averaged
S	Toluene-d8	0.9275	0.92876		.01		0.13585	30		Averaged
S	Bromofluorobenzene	0.9783	0.99852		.01		2.06685	30		Averaged
	Chlorotrifluoroethylene	0.1754	0.18522		.01		5.59863	30		Averaged
	2-Chloro-1,1,1-trifluoroethane	0.5647	0.54723		.01		-3.09368	30		Averaged
	Acrolein	250	210.71	250			-15.716	30		Linear
	Trichlorotrifluoroethane	0.1188	0.11301		.01		-4.87374	30		Averaged
	Isopropyl Alcohol	0.031	0.02807		.01		-9.45161	40		Averaged
	Allyl chloride	0.4236	0.39588		.01		-6.54391	30		Averaged
	tert-Butyl Alcohol	0.0496	0.04432		.01		-10.64516	40		Averaged
	Acrylonitrile	0.1218	0.10925		.01		-10.30378	30		Averaged
	Isopropyl ether	1.0637	1.00324		.01		-5.68393	30		Averaged
	2-Chloro-1,3-butadiene	0.4199	0.43689		.01		4.0462	30		Averaged
	Ethyl tert-butyl ether	1	0.94464		.01		-5.536	30		Averaged
	Ethyl acetate	0.347	0.27896		.01		-19.60807	40		Averaged
	Propionitrile	0.0517	0.04585		.01		-11.31528	30		Averaged
	Methacrylonitrile	0.2112	0.18555		.01		-12.14489	30		Averaged
	Tetrahydrofuran	0.1139	0.09806		.01		-13.90694	30		Averaged
	Isobutyl alcohol	0.0158	0.01386		.01		-12.27848	40		Averaged
	Methyl tert-amyl ether	0.9442	0.9056		.01		-4.08812	30		Averaged
	Methyl methacrylate	0.2295	0.20869		.01		-9.06754	30		Averaged
	1,4-Dioxane	0.0043	0.00376		.01		-12.55814	40		Averaged
	2-Nitropropane	0.1137	0.10782		.01		-5.1715	30		Averaged
	Ethyl methacrylate	0.5177	0.48191		.01		-6.91327	30		Averaged
	1-Chlorohexane	0.5766	0.55415		.01		-3.89351	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2573	0.25096		.01		-2.46405	30		Averaged
	Cyclohexanone	0.0272	0.05136		.01		88.82353	40	*	Averaged
	trans-1,4-Dichloro-2-butene	0.2491	0.23734		.01		-4.721	30		Averaged
	Pentachloroethane	0.2716	0.16088		.01		-40.76583	30	*	Averaged
	Benzyl chloride	1.2313	1.05586		.01		-14.24836	30		Averaged
	bis(2-Chloroisopropyl)ether	0.3989	0.35372		.01		-11.32615	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A123.D
Acq On : 2 Mar 2010 5:13 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-19|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[B] 0215-08A+0125-08E
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 02 15:05:20 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.619	10.620	1.000	96	1591342	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	1313113	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	848630	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1590834	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	1313113	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	848653	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	317090	48.17	ug/L	0.00
43) Toluene-d8	12.253	12.247	0.890	98	1219563	50.07	ug/L	0.00
61) Bromofluorobenzene	14.953	14.954	0.924	95	847377	51.04	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.818	4.911	0.454		0m	N.D.	d	
3) Chloromethane	5.292	5.291	0.498		0m	N.D.	d	
4) Vinyl chloride	5.521	5.521	0.520		0m	N.D.	d	
5) Bromomethane	6.130	6.137	0.577		0m	N.D.	d	
6) Chloroethane	6.321	6.295	0.595		0m	N.D.	d	
7) Trichlorofluoromethane	6.680	6.669	0.629		0m	N.D.	d	
8) Ethyl ether	6.991	6.998	0.658		0m	N.D.	d	
9) Acetone	7.430	7.352	0.700		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.375	7.389	0.695		0m	N.D.	d	
11) Iodomethane	7.619	7.663	0.718		0m	N.D.	d	
12) Acetonitrile	7.692	7.699	0.724		0m	N.D.	d	
13) Methyl acetate	7.753	7.748	0.730		0m	N.D.	d	
14) Carbon disulfide	7.802	7.773	0.735		0m	N.D.	d	
15) Methylene chloride	7.942	7.931	0.748		0m	N.D.	d	
16) tert-Butyl methyl ether	8.247	8.242	0.777		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.284	8.285	0.780		0m	N.D.	d	
18) Vinyl acetate	8.741	8.705	0.823		0m	N.D.	d	
19) 1,1-Dichloroethane	8.759	8.760	0.825		0m	N.D.	d	
20) 2-Butanone	9.338	9.327	0.879		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.338	9.388	0.879		0m	N.D.	d	
22) 2,2-Dichloropropane	9.558	9.419	0.900		0m	N.D.	d	
23) Bromochloromethane	9.655	9.656	0.909		0m	N.D.	d	
24) Chloroform	9.692	9.687	0.913		0m	N.D.	d	
25) 1,1,1-Trichloroethane	9.979	9.979	0.940		0m	N.D.	d	
26) Cyclohexane	10.009	10.083	0.943		0m	N.D.	d	
27) 1,1-Dichloropropene	10.125	10.132	0.953		0m	N.D.	d	
28) Carbon tetrachloride	10.174	10.175	0.958		0m	N.D.	d	
30) 1,2-Dichloroethane	10.357	10.339	0.975		0m	N.D.	d	
31) Benzene	10.375	10.370	0.977		0m	N.D.	d	
32) Cyclohexene	10.497	10.492	0.989		0m	N.D.	d	
33) n-Butyl alcohol	10.686	10.693	1.006		0m	N.D.	d	
34) Trichloroethylene	11.003	11.004	1.036		0m	N.D.	d	
35) 1,2-Dichloropropane	11.247	11.241	1.059		0m	N.D.	d	
36) Methylcyclohexane	11.210	11.260	1.056		0m	N.D.	d	
37) Dibromomethane	11.369	11.376	1.071		0m	N.D.	d	
38) Bromodichloromethane	11.478	11.485	1.081		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.692	11.699	1.101		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	11.935	11.930	1.124		0m	N.D.	d	
42) 4-Methyl-2-pentanone	12.015	12.016	0.872		0m	N.D.	d	
44) Toluene	12.326	12.320	0.895		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A123.D
Acq On : 2 Mar 2010 5:13 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-19|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[B] 0215-08A+0125-08E
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 02 15:05:20 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
45)	trans-1,3-Dichloroprop...	12.460	12.461	0.905		0m	N.D.	d		
46)	1,1,2-Trichloroethane	12.685	12.680	0.921		0m	N.D.	d		
47)	2-Hexanone	12.862	12.857	0.934		0m	N.D.	d		
48)	1,3-Dichloropropane	12.880	12.875	0.935		0m	N.D.	d		
49)	Tetrachloroethylene	12.923	12.918	0.938		0m	N.D.	d		
50)	Dibromochloromethane	13.136	13.144	0.954		0m	N.D.	d		
51)	1,2-Dibromoethane	13.313	13.320	0.967		0m	N.D.	d		
52)	Chlorobenzene	13.801	13.802	1.002		0m	N.D.	d		
53)	1,1,1,2-Tetrachloroethane	13.850	13.851	1.006		0m	N.D.	d		
54)	Ethylbenzene	13.862	13.863	1.007		0m	N.D.	d		
55)	m,p-Xylenes	13.972	13.973	1.015		0m	N.D.	d		
56)	o-Xylene	14.405	14.399	1.046		0m	N.D.	d		
57)	Styrene	14.405	14.399	1.046		0m	N.D.	d		
59)	Bromoform	14.654	14.655	0.906		0m	N.D.	d		
60)	Isopropylbenzene	14.764	14.759	0.913		0m	N.D.	d		
62)	1,1,2,2-Tetrachloroethane	15.008	15.015	0.928		0m	N.D.	d		
63)	1,2,3-Trichloropropane	15.112	15.107	0.934		0m	N.D.	d		
64)	Bromobenzene	15.167	15.168	0.937		0m	N.D.	d		
65)	n-Propylbenzene	15.185	15.180	0.939		0m	N.D.	d		
66)	1,3,5-Trimethylbenzene	15.331	15.332	0.948		0m	N.D.	d		
67)	2-Chlorotoluene	15.331	15.332	0.948		0m	N.D.	d		
68)	4-Chlorotoluene	15.435	15.430	0.954		0m	N.D.	d		
69)	tert-Butylbenzene	15.703	15.704	0.971		0m	N.D.	d		
70)	1,2,4-Trimethylbenzene	15.740	15.741	0.973		0m	N.D.	d		
71)	sec-Butylbenzene	15.935	15.930	0.985		0m	N.D.	d		
72)	4-Isopropyltoluene	16.057	16.051	0.992		0m	N.D.	d		
73)	1,3-Dichlorobenzene	16.118	16.119	0.996		0m	N.D.	d		
74)	1,4-Dichlorobenzene	16.209	16.204	1.002		0m	N.D.	d		
75)	n-Butylbenzene	16.502	16.503	1.020		0m	N.D.	d		
76)	1,2-Dichlorobenzene	16.648	16.643	1.029		0m	N.D.	d		
77)	1,2-Dibromo-3-chloropr...	17.532	17.527	1.084		0m	N.D.	d		
78)	1,2,4-Trichlorobenzene	18.635	18.630	1.152		0m	N.D.	d		
79)	Hexachlorobutadiene	18.812	18.819	1.163		0m	N.D.	d		
80)	Naphthalene	19.038	19.026	1.177		0m	N.D.	d		
81)	1,2,3-Trichlorobenzene	19.385	19.386	1.198		0m	N.D.	d		
83)	Chlorotrifluoroethylene	4.826	4.826	0.454	116	883966	158.43	ug/L		100
84)	2-Chloro-1,1,1-trifluo...	5.657	5.657	0.533	118	2611674	145.37	ug/L	#	99
85)	Acrolein	7.180	7.180	0.676	56	317143	210.71	ug/L		100
86)	Trichlorotrifluoroethane	7.363	7.369	0.693	85	898867	237.85	ug/L		98
87)	Isopropyl Alcohol	7.436	7.430	0.700	45	2232769	2264.77	ug/L		99
88)	Allyl chloride	7.802	7.796	0.735	41	3148934	233.66	ug/L		99
89)	tert-Butyl Alcohol	7.930	7.924	0.747	59	3525465	2235.77	ug/L	#	100
90)	Acrylonitrile	8.174	8.174	0.770	53	869015	224.24	ug/L		99
91)	Isopropyl ether	8.741	8.741	0.823	45	1595996	47.16	ug/L		100
92)	2-Chloro-1,3-butadiene	8.869	8.869	0.835	53	695018	52.02	ug/L		100
93)	Ethyl tert-butyl ether	9.143	9.143	0.861	59	1502758	47.23	ug/L		99
94)	Ethyl acetate	9.338	9.338	0.879	43	2218913	200.98	ug/L		100
95)	Propionitrile	9.393	9.393	0.885	54	364674	221.77	ug/L		100
96)	Methacrylonitrile	9.576	9.576	0.902	41	1475866	219.61	ug/L		99
97)	Tetrahydrofuran	9.716	9.710	0.915	42	780014	215.32	ug/L		99
98)	Isobutyl alcohol	10.009	10.009	0.943	41	1102186	2194.18	ug/L		100
99)	Methyl tert-amyl ether	10.387	10.387	0.978	73	1440665	47.96	ug/L		99
100)	Methyl methacrylate	11.210	11.204	1.056	69	1659968	227.33	ug/L		99
101)	1,4-Dioxane	11.332	11.326	1.067	88	299443	2177.71	ug/L		99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A123.D
Acq On : 2 Mar 2010 5:13 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-19|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[B] 0215-08A+0125-08E
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 02 15:05:20 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
102) 2-Nitropropane	11.673	11.673	1.099	43	857630	237.13	ug/L	99	
104) Ethyl methacrylate	12.466	12.466	0.905	69	3164038	232.72	ug/L	100	
106) 1-Chlorohexane	13.661	13.661	0.844	55	470278	48.05	ug/L	97	
107) cis-1,4-Dichloro-2-butene	14.782	14.783	0.914	53	1064876	243.81	ug/L	99	
108) Cyclohexanone	14.904	14.904	0.921	42	1089625	2357.66	ug/L	98	E
109) trans-1,4-Dichloro-2-b...	15.063	15.063	0.931	53	1007110	238.19	ug/L	99	
110) Pentachloroethane	15.776	15.770	0.975	167	682676	148.11	ug/L	100	
111) Benzyl chloride	16.319	16.319	1.009	91	4480303	214.38	ug/L	99	
112) bis(2-Chloroisopropyl)...	16.721	16.721	1.034	45	1500940	221.71	ug/L	99	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A123.D
Acq On : 2 Mar 2010 5:13 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-19|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[B] 0215-08A+0125-08E
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 02 15:05:20 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

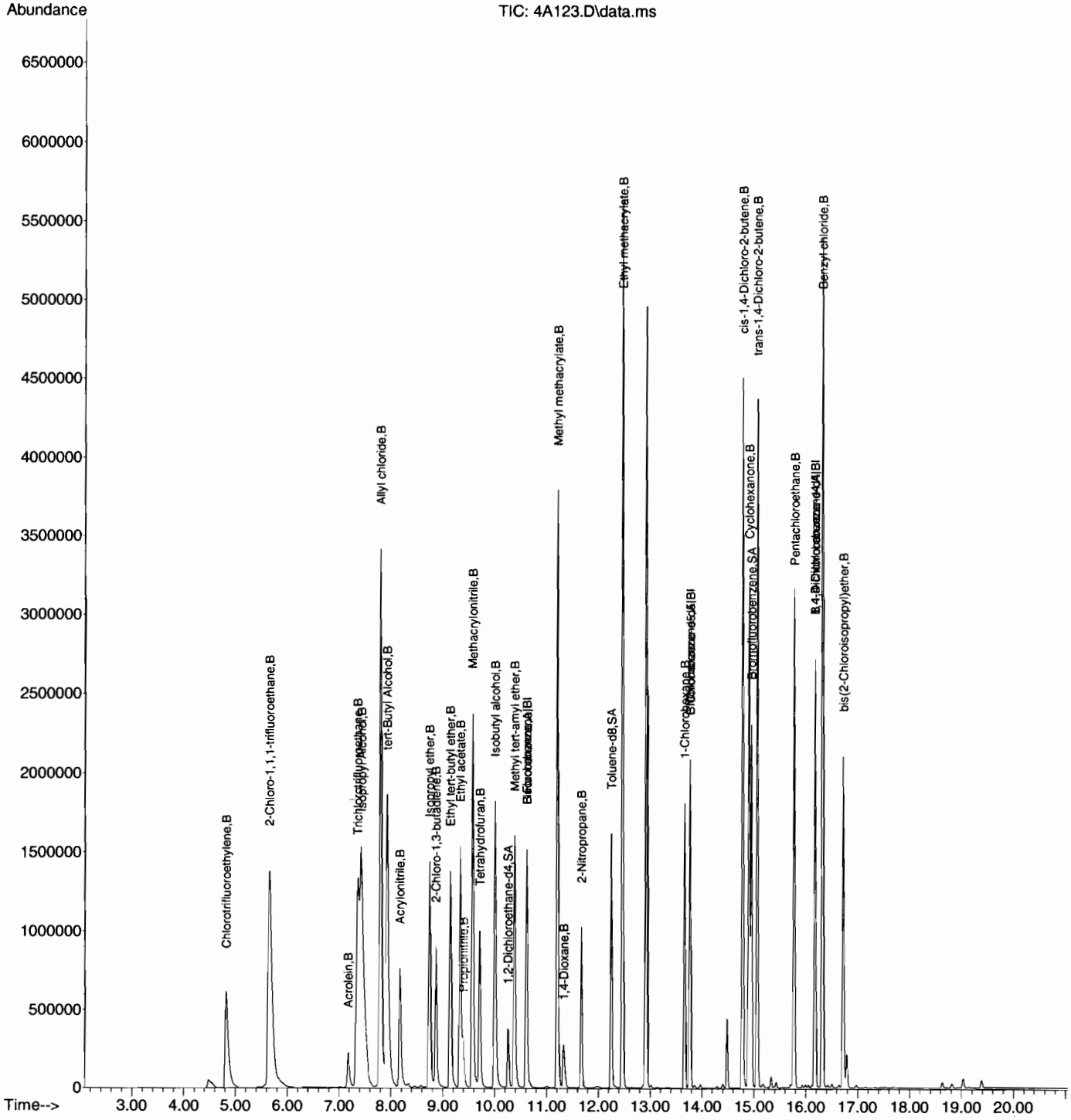

Continuing Calibration Summary

Client SDG: 10-2039

Instrument ID: VOA4.I **Injection Date** 08-MAR-10 04:38

Data File: 030710V4\4A722.D **Init. Cal. Date(s)** 01-MAR-10 20:03 - 08-MAR-10 03:1

Lab Sample ID W4VM100307-18 **Quant Type** ISTD **Method:** 030710V4\VOA4-8260-030710.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.27	0.27105		.01		0.38889	30		Averaged
S	Toluene-d8	1.1383	1.12844		.01		-0.8662	30		Averaged
S	Bromofluorobenzene	0.9696	1.00214		.01		3.35602	30		Averaged
	Chlorotrifluoroethylene	0.1429	0.16556		.01		15.85724	30		Averaged
	2-Chloro-1,1,1-trifluoroethane	0.5382	0.53523		.01		-0.55184	30		Averaged
	Acrolein	0.053	0.05443		.01		2.69811	30		Averaged
	Trichlorotrifluoroethane	0.1298	0.1214		.01		-6.47149	30		Averaged
	Isopropyl Alcohol	0.0259	0.02575		.01		-0.57915	40		Averaged
	Allyl chloride	0.4287	0.45662		.01		6.51271	30		Averaged
	tert-Butyl Alcohol	0.0404	0.04012		.01		-0.69307	40		Averaged
	Acrylonitrile	0.108	0.11038		.01		2.2037	30		Averaged
	Isopropyl ether	1.0492	1.04145		.01		-0.73866	30		Averaged
	2-Chloro-1,3-butadiene	0.4217	0.47638		.01		12.96656	30		Averaged
	Ethyl tert-butyl ether	0.9444	0.95363		.01		0.97734	30		Averaged
	Ethyl acetate	0.3182	0.28288		.01		-11.09994	40		Averaged
	Propionitrile	0.0463	0.04436		.01		-4.19006	30		Averaged
	Methacrylonitrile	0.1922	0.19368		.01		0.77003	30		Averaged
	Tetrahydrofuran	0.1019	0.09598		.01		-5.80962	30		Averaged
	Isobutyl alcohol	0.0141	0.01338		.01		-5.10638	40		Averaged
	Methyl tert-amyl ether	0.8625	0.88601		.01		2.7258	30		Averaged
	Methyl methacrylate	0.1923	0.20995		.01		9.17837	30		Averaged
	1,4-Dioxane	0.0034	0.00325		.01		-4.41176	40		Averaged
	2-Nitropropane	250	230.02	250			-7.992	30		Linear
	Ethyl methacrylate	0.4802	0.53438		.01		11.2828	30		Averaged
	1-Chlorohexane	0.6129	0.62105		.01		1.32974	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2616	0.30039		.01		14.82798	30		Averaged
	Cyclohexanone	0.0297	0.02199		.01		-25.9596	40		Averaged
	trans-1,4-Dichloro-2-butene	0.2497	0.28657		.01		14.76572	30		Averaged
	Pentachloroethane	250	268.34	250			7.336	30		Linear
	Benzyl chloride	1.2744	1.31502		.01		3.18738	30		Averaged
	bis(2-Chloroisopropyl)ether	0.364	0.37375		.01		2.67857	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030710V4\
Data File : 4A722.D
Acq On : 8 Mar 2010 4:38 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100307-18|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[B] 0304-08A+0125-08E
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 08 17:09:03 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.613	10.613	1.000	96	1619577	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.764	13.765	1.000	117	1247772	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	767843	50.00	ug/L	0.00
82) B Fluorobenzene	10.613	10.613	1.000	96	1618950	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.764	13.764	1.000	117	1247772	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	768078	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.259	0.967	65	438984	50.20	ug/L	0.00
43) Toluene-d8	12.246	12.247	0.890	98	1408039	49.57	ug/L	0.00
61) Bromofluorobenzene	14.953	14.947	0.924	95	769490	51.68	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.818	4.897	0.454		0m	N.D.	d	
3) Chloromethane	5.284	5.299	0.498		0m	N.D.	d	
4) Vinyl chloride	5.514	5.521	0.520		0m	N.D.	d	
5) Bromomethane	6.016	6.130	0.567		0m	N.D.	d	
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	6.668	6.668	0.628		0m	N.D.	d	
8) Ethyl ether	6.997	6.991	0.659		0m	N.D.	d	
9) Acetone	7.357	7.351	0.693		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.357	7.394	0.693		0m	N.D.	d	
11) Iodomethane	7.650	7.662	0.721		0m	N.D.	d	
12) Acetonitrile	7.686	7.693	0.724		0m	N.D.	d	
13) Methyl acetate	7.747	7.747	0.730		0m	N.D.	d	
14) Carbon disulfide	7.796	7.778	0.735		0m	N.D.	d	
15) Methylene chloride	7.930	7.967	0.747		0m	N.D.	d	
16) tert-Butyl methyl ether	8.235	8.235	0.776		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.278	8.278	0.780		0m	N.D.	d	
18) Vinyl acetate	8.735	8.705	0.823		0m	N.D.	d	
19) 1,1-Dichloroethane	8.765	8.753	0.826		0m	N.D.	d	
20) 2-Butanone	9.338	9.320	0.880		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.338	9.381	0.880		0m	N.D.	d	
22) 2,2-Dichloropropane	9.418	9.412	0.887		0m	N.D.	d	
23) Bromochloromethane	9.662	9.656	0.910		0m	N.D.	d	
24) Chloroform	9.698	9.686	0.914		0m	N.D.	d	
25) 1,1,1-Trichloroethane	9.972	9.973	0.940		0m	N.D.	d	
26) Cyclohexane	10.003	10.076	0.943		0m	N.D.	d	
27) 1,1-Dichloropropene	10.143	10.131	0.956		0m	N.D.	d	
28) Carbon tetrachloride	10.168	10.168	0.958		0m	N.D.	d	
30) 1,2-Dichloroethane	10.338	10.338	0.974		0m	N.D.	d	
31) Benzene	10.375	10.369	0.978		0m	N.D.	d	
32) Cyclohexene	10.497	10.491	0.989		0m	N.D.	d	
33) n-Butyl alcohol	10.692	10.686	1.007		0m	N.D.	d	
34) Trichloroethylene	11.003	11.003	1.037		0m	N.D.	d	
35) 1,2-Dichloropropane	11.241	11.241	1.059		0m	N.D.	d	
36) Methylcyclohexane	11.204	11.259	1.056		0m	N.D.	d	
37) Dibromomethane	11.369	11.369	1.071		0m	N.D.	d	
38) Bromodichloromethane	11.484	11.478	1.082		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.692	11.692	1.102		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	11.942	11.930	1.125		0m	N.D.	d	
42) 4-Methyl-2-pentanone	12.009	12.015	0.872		0m	N.D.	d	
44) Toluene	12.326	12.320	0.895		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030710V4\
Data File : 4A722.D
Acq On : 8 Mar 2010 4:38 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100307-18|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[B] 0304-08A+0125-08E
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 08 17:09:03 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
45)	trans-1,3-Dichloroprop...	12.460	12.460	0.905		0m	N.D.	d		
46)	1,1,2-Trichloroethane	12.679	12.679	0.921		0m	N.D.	d		
47)	2-Hexanone	12.862	12.856	0.934		0m	N.D.	d		
48)	1,3-Dichloropropane	12.880	12.874	0.936		0m	N.D.	d		
49)	Tetrachloroethylene	12.917	12.917	0.938		0m	N.D.	d		
50)	Dibromochloromethane	13.137	13.143	0.954		0m	N.D.	d		
51)	1,2-Dibromoethane	13.313	13.313	0.967		0m	N.D.	d		
52)	Chlorobenzene	13.807	13.801	1.003		0m	N.D.	d		
53)	1,1,1,2-Tetrachloroethane	13.850	13.850	1.006		0m	N.D.	d		
54)	Ethylbenzene	13.862	13.862	1.007		0m	N.D.	d		
55)	m,p-Xylenes	13.972	13.966	1.015		0m	N.D.	d		
56)	o-Xylene	14.405	14.399	1.047		0m	N.D.	d		
57)	Styrene	14.398	14.399	1.046		0m	N.D.	d		
59)	Bromoform	14.655	14.655	0.906		0m	N.D.	d		
60)	Isopropylbenzene	14.758	14.758	0.912		0m	N.D.	d		
62)	1,1,2,2-Tetrachloroethane	15.020	15.014	0.928		0m	N.D.	d		
63)	1,2,3-Trichloropropane	15.112	15.106	0.934		0m	N.D.	d		
64)	Bromobenzene	15.167	15.167	0.937		0m	N.D.	d		
65)	n-Propylbenzene	15.179	15.179	0.938		0m	N.D.	d		
66)	1,3,5-Trimethylbenzene	15.337	15.325	0.948		0m	N.D.	d		
67)	2-Chlorotoluene	15.331	15.331	0.948		0m	N.D.	d		
68)	4-Chlorotoluene	15.429	15.429	0.954		0m	N.D.	d		
69)	tert-Butylbenzene	15.703	15.703	0.971		0m	N.D.	d		
70)	1,2,4-Trimethylbenzene	15.740	15.740	0.973		0m	N.D.	d		
71)	sec-Butylbenzene	15.929	15.929	0.985		0m	N.D.	d		
72)	4-Isopropyltoluene	16.051	16.051	0.992		0m	N.D.	d		
73)	1,3-Dichlorobenzene	16.124	16.118	0.997		0m	N.D.	d		
74)	1,4-Dichlorobenzene	16.209	16.203	1.002		0m	N.D.	d		
75)	n-Butylbenzene	16.502	16.502	1.020		0m	N.D.	d		
76)	1,2-Dichlorobenzene	16.648	16.642	1.029		0m	N.D.	d		
77)	1,2-Dibromo-3-chloropr...	17.526	17.526	1.083		0m	N.D.	d		
78)	1,2,4-Trichlorobenzene	18.629	18.629	1.151		0m	N.D.	d		
79)	Hexachlorobutadiene	18.812	18.818	1.163		0m	N.D.	d		
80)	Naphthalene	19.032	19.026	1.176		0m	N.D.	d		
81)	1,2,3-Trichlorobenzene	19.385	19.385	1.198		0m	N.D.	d		
83)	Chlorotrifluoroethylene	4.818	4.826	0.454	116	804090	173.75	ug/L		100
84)	2-Chloro-1,1,1-trifluo...	5.657	5.657	0.533	118	2599534	149.18	ug/L	#	99
85)	Acrolein	7.180	7.174	0.677	56	440559	256.83	ug/L		99
86)	Trichlorotrifluoroethane	7.363	7.363	0.694	85	982740	233.86	ug/L		99
87)	Isopropyl Alcohol	7.430	7.430	0.700	45	2084345	2480.75	ug/L		96
88)	Allyl chloride	7.796	7.796	0.735	41	3696261	266.28	ug/L		99
89)	tert-Butyl Alcohol	7.924	7.924	0.747	59	3247570	2480.05	ug/L	#	100
90)	Acrylonitrile	8.174	8.168	0.770	53	893519	255.54	ug/L		99
91)	Isopropyl ether	8.741	8.735	0.824	45	1686051	49.63	ug/L		99
92)	2-Chloro-1,3-butadiene	8.863	8.863	0.835	53	771230	56.48	ug/L		98
93)	Ethyl tert-butyl ether	9.143	9.137	0.862	59	1543875	50.49	ug/L		99
94)	Ethyl acetate	9.338	9.339	0.880	43	2289835	222.23	ug/L		100
95)	Propionitrile	9.393	9.387	0.885	54	359063	239.40	ug/L		99
96)	Methacrylonitrile	9.576	9.570	0.902	41	1567819	251.87	ug/L		99
97)	Tetrahydrofuran	9.710	9.710	0.915	42	776929	235.40	ug/L		99
98)	Isobutyl alcohol	10.003	10.003	0.943	41	1083034	2368.62	ug/L		98
99)	Methyl tert-amyl ether	10.387	10.381	0.979	73	1434411	51.36	ug/L		100
100)	Methyl methacrylate	11.204	11.204	1.056	69	1699461	272.91	ug/L		100
101)	1,4-Dioxane	11.326	11.326	1.067	88	263043	2376.77	ug/L		99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030710V4\
Data File : 4A722.D
Acq On : 8 Mar 2010 4:38 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100307-18|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[B] 0304-08A+0125-08E
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 08 17:09:03 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
102) 2-Nitropropane	11.673	11.667	1.100	43	858154	230.02	ug/L	100
104) Ethyl methacrylate	12.460	12.460	0.905	69	3333938	278.21	ug/L	99
106) 1-Chlorohexane	13.661	13.661	0.844	55	477018	50.67	ug/L	98
107) cis-1,4-Dichloro-2-butene	14.783	14.783	0.914	53	1153607	287.09	ug/L	98
108) Cyclohexanone	14.904	14.905	0.921	42	422271	926.65	ug/L	99
109) trans-1,4-Dichloro-2-b...	15.063	15.063	0.931	53	1100536	286.90	ug/L	98
110) Pentachloroethane	15.770	15.770	0.975	167	1510607	268.34	ug/L	100
111) Benzyl chloride	16.319	16.319	1.009	91	5050204	257.96	ug/L	100
112) bis(2-Chloroisopropyl)...	16.715	16.715	1.033	45	1435362	256.71	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030710V4\
Data File : 4A722.D
Acq On : 8 Mar 2010 4:38 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100307-18|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[B] 0304-08A+0125-08E
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 08 17:09:03 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

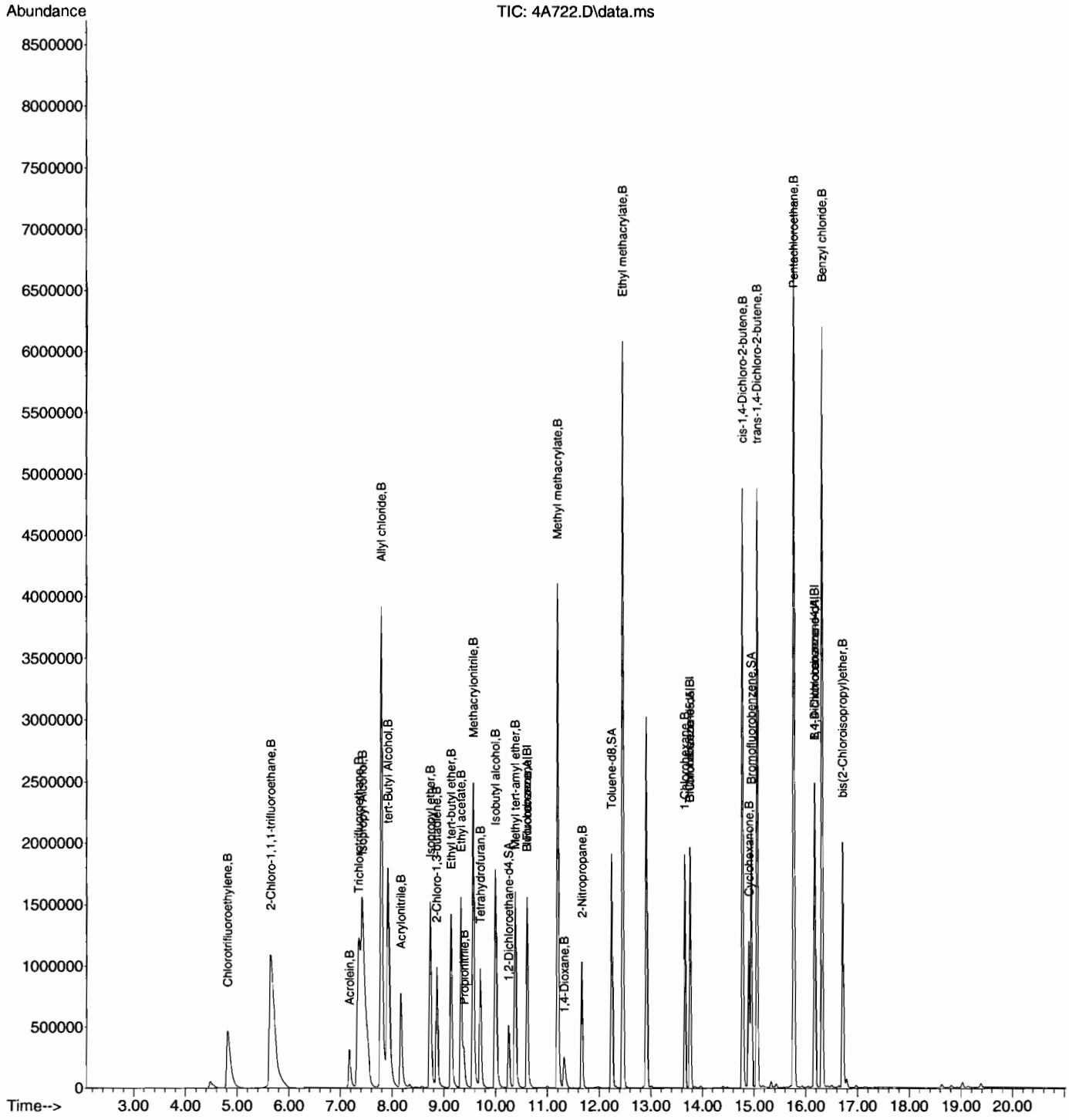

Continuing Calibration Summary

Client SDG: 10-2039

Instrument ID: VOA4.I **Injection Date** 08-MAR-10 16:19

Data File: 030810V4\4B102.D **Init. Cal. Date(s)** 01-MAR-10 20:03 - 08-MAR-10 03:1

Lab Sample ID W4VM100308-01 **Quant Type** ISTD **Method:** 030710V4\VOA4-8260-030710.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.27	0.2613		.01		-3.22222	30		Averaged	
S	Toluene-d8	1.1383	1.1019		.01		-3.19775	30		Averaged	
S	Bromofluorobenzene	0.9696	0.92099		.01		-5.01341	30		Averaged	
	Dichlorodifluoromethane	0.3266	0.3088		.01		-5.45009	30		Averaged	
	Chloromethane	0.5834	0.50681		.1		-13.12821	30		Averaged	spcc
	Vinyl chloride	0.5514	0.54591		.01		-0.99565	20		Averaged	ccc
	Bromomethane	0.3382	0.32927		.01		-2.64045	30		Averaged	
	Chloroethane	0.2684	0.27646		.01		3.00298	30		Averaged	
	Trichlorofluoromethane	0.503	0.56846		.01		13.01392	30		Averaged	
	Ethyl ether	0.251	0.24745		.01		-1.41434	30		Averaged	
	Acetone	0.3059	0.26135		.01		-14.56358	40		Averaged	
	1,1-Dichloroethylene	0.5823	0.57999		.01		-0.3967	20		Averaged	ccc
	Iodomethane	0.5463	0.57785		.01		5.77522	30		Averaged	
	Acetonitrile	0.0499	0.05212		.01		4.4489	30		Averaged	
	Methyl acetate	0.2634	0.2621		.01		-0.49355	40		Averaged	
	Carbon disulfide	1.1124	1.19166		.01		7.12513	30		Averaged	
	Methylene chloride	50	49.89	50			-0.22	30		Linear	
	tert-Butyl methyl ether	0.8884	0.8941		.01		0.6416	30		Averaged	
	trans-1,2-Dichloroethylene	0.4549	0.44546		.01		-2.07518	30		Averaged	
	Vinyl acetate	0.5842	0.70538		.01		20.7429	40		Averaged	
	1,1-Dichloroethane	0.5635	0.5693		.1		1.02928	30		Averaged	spcc
	2-Butanone	0.3177	0.28489		.01		-10.32735	40		Averaged	
	cis-1,2-Dichloroethylene	0.4909	0.49019		.01		-0.14463	30		Averaged	
	2,2-Dichloropropane	0.2849	0.31542		.01		10.71253	30		Averaged	
	Bromochloromethane	0.1638	0.16753		.01		2.27717	30		Averaged	
	Chloroform	0.5816	0.58045		.01		-0.19773	20		Averaged	ccc
	1,1,1-Trichloroethane	0.4287	0.46005		.01		7.31281	30		Averaged	
	Cyclohexane	0.4871	0.50927		.01		4.55143	30		Averaged	
	1,1-Dichloropropene	0.4183	0.43573		.01		4.16687	30		Averaged	
	Carbon tetrachloride	0.3975	0.4324		.01		8.77987	30		Averaged	
	1,2-Dichloroethane	0.4745	0.46459		.01		-2.08851	30		Averaged	
	Benzene	1.2379	1.22834		.01		-0.77228	30		Averaged	
	Cyclohexene	0.5962	0.61906		.01		3.83428	30		Averaged	
	n-Butyl alcohol	5000	5775.34	5000			15.5068	40		Linear	
	Trichloroethylene	0.3246	0.33255		.01		2.44917	30		Averaged	
	1,2-Dichloropropane	0.3242	0.3269		.01		0.83282	20		Averaged	ccc
	Methylcyclohexane	0.4962	0.53584		.01		7.98871	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA4.I **Injection Dat** 08-MAR-10 16:19

Data File: 030810V4\4B102.D **Init. Cal. Date(s)** 01-MAR-10 20:03 08-MAR-10 03:1

Lab Sample ID W4VM100308-01 **Quant Type** ISTD **Method:** 030710V4\VOA4-8260-030710.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.2024	0.2069		.01		2.22332	30		Averaged	
Bromodichloromethane	0.4057	0.44525		.01		9.74858	30		Averaged	
2-Chloroethylvinyl ether	0.1523	0.16724		.01		9.80959	30		Averaged	
cis-1,3-Dichloropropylene	0.4762	0.51754		.01		8.68123	30		Averaged	
4-Methyl-2-pentanone	0.1779	0.19114		.01		7.44238	40		Averaged	
Toluene	50	54.13	50			8.26	20		Linear	ccc
trans-1,3-Dichloropropylene	0.5852	0.63375		.01		8.29631	30		Averaged	
1,1,2-Trichloroethane	0.3114	0.3151		.01		1.18818	30		Averaged	
2-Hexanone	0.519	0.49097		.01		-5.40077	40		Averaged	
1,3-Dichloropropane	0.6393	0.64246		.01		0.49429	30		Averaged	
Tetrachloroethylene	0.3356	0.35357		.01		5.35459	30		Averaged	
Dibromochloromethane	0.4012	0.45191		.01		12.63958	30		Averaged	
1,2-Dibromoethane	0.3775	0.40005		.01		5.97351	30		Averaged	
Chlorobenzene	1.1561	1.18462		.3		2.46691	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.4249	0.45826		.01		7.85126	30		Averaged	
Ethylbenzene	2.0228	2.06614		.01		2.14257	20		Averaged	ccc
m,p-Xylenes	0.7907	0.83972		.01		6.19957	30		Averaged	
o-Xylene	0.8175	0.88727		.01		8.53456	30		Averaged	
Styrene	1.3051	1.48762		.01		13.98514	30		Averaged	
Bromoform	0.4321	0.48452		.1		12.13145	30		Averaged	spcc
Isopropylbenzene	3.3889	3.19829		.01		-5.62454	30		Averaged	
1,1,2,2-Tetrachloroethane	0.9439	0.905		.3		-4.1212	30		Averaged	spcc
1,2,3-Trichloropropane	0.2471	0.24103		.01		-2.4565	30		Averaged	
Bromobenzene	0.9261	0.91628		.01		-1.06036	30		Averaged	
n-Propylbenzene	4.2341	4.00933		.01		-5.30857	30		Averaged	
2-Chlorotoluene	0.9144	0.92679		.01		1.35499	30		Averaged	
1,3,5-Trimethylbenzene	3.1018	3.09566		.01		-0.19795	30		Averaged	
4-Chlorotoluene	2.6034	2.52846		.01		-2.87854	30		Averaged	
tert-Butylbenzene	0.6639	0.66716		.01		0.49104	30		Averaged	
1,2,4-Trimethylbenzene	3.1859	3.12968		.01		-1.76465	30		Averaged	
sec-Butylbenzene	4.1916	4.10304		.01		-2.1128	30		Averaged	
4-Isopropyltoluene	3.3303	3.38662		.01		1.69114	30		Averaged	
1,3-Dichlorobenzene	1.8295	1.8401		.01		0.57939	30		Averaged	
1,4-Dichlorobenzene	1.8756	1.88038		.01		0.25485	30		Averaged	
n-Butylbenzene	3.1882	3.26771		.01		2.49388	30		Averaged	
1,2-Dichlorobenzene	1.7538	1.74372		.01		-0.57475	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1374	0.16435		.01		19.61426	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA4.I **Injection Dat** 08-MAR-10 16:19

Data File: 030810V4\4B102.D **Init. Cal. Date(s)** 01-MAR-10 20:03 08-MAR-10 03:1

Lab Sample ID W4VM100308-01 **Quant Type** ISTD **Method:** 030710V4\VOA4-8260-030710.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8439	0.9446		.01		11.93269	30		Averaged
Hexachlorobutadiene	0.5613	0.56082		.01		-0.08552	30		Averaged
Naphthalene	1.8703	1.95603		.01		4.58376	30		Averaged
1,2,3-Trichlorobenzene	0.6781	0.72966		.01		7.6036	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B102.D
Acq On : 8 Mar 2010 4:19 pm
Operator : ACJ
InstName : VOA4
Sample : |W4VM100308-01|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[A] 0220-01E+0308-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 08 20:28:35 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.619	10.613	1.000	96	1626598	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.765	1.000	117	1299226	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	928000	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.613	1.000	96	1626038	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.764	1.000	117	1299226	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	930060	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.259	0.966	65	425037	48.40	ug/L	0.00
43) Toluene-d8	12.253	12.247	0.890	98	1431615	48.40	ug/L	0.00
61) Bromofluorobenzene	14.953	14.947	0.924	95	854682	47.49	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.904	4.897	0.462	85	502296	47.27	ug/L	100
3) Chloromethane	5.292	5.299	0.498	50	824374	43.44	ug/L	100
4) Vinyl chloride	5.521	5.521	0.520	62	887981	49.50	ug/L	99
5) Bromomethane	6.138	6.130	0.578	94	535590	48.68	ug/L	99
6) Chloroethane	6.295	6.288	0.593	64	449684	51.50	ug/L	100
7) Trichlorofluoromethane	6.662	6.668	0.627	101	924648	56.51	ug/L	99
8) Ethyl ether	6.997	6.991	0.659	59	402505	49.29	ug/L	98
9) Acetone	7.351	7.351	0.692	43	2125578	213.59	ug/L	100
10) 1,1-Dichloroethylene	7.388	7.394	0.696	61	943413	49.80	ug/L	98
11) Iodomethane	7.656	7.662	0.721	142	4699622	264.46	ug/L	99
12) Acetonitrile	7.699	7.693	0.725	41	2119334	1306.78	ug/L	100
13) Methyl acetate	7.747	7.747	0.730	43	2131691	248.74	ug/L	100
14) Carbon disulfide	7.772	7.778	0.732	76	9691789	267.82	ug/L	100
15) Methylene chloride	7.936	7.967	0.747	84	638675	49.89	ug/L	98
16) tert-Butyl methyl ether	8.235	8.235	0.776	73	1454341	50.32	ug/L	100
17) trans-1,2-Dichloroethy...	8.284	8.278	0.780	61	724588	48.96	ug/L	99
18) Vinyl acetate	8.704	8.705	0.820	43	5736862	301.85	ug/L	100
19) 1,1-Dichloroethane	8.753	8.753	0.824	63	926016	50.51	ug/L	100
20) 2-Butanone	9.326	9.320	0.878	43	2316994	224.17	ug/L	99
21) cis-1,2-Dichloroethylene	9.387	9.381	0.884	61	797350	49.92	ug/L	100
22) 2,2-Dichloropropane	9.418	9.412	0.887	77	513069	55.36	ug/L	98
23) Bromochloromethane	9.656	9.656	0.909	128	272501	51.12	ug/L	99
24) Chloroform	9.686	9.686	0.912	83	944155	49.90	ug/L	100
25) 1,1,1-Trichloroethane	9.979	9.973	0.940	97	748321	53.65	ug/L	100
26) Cyclohexane	10.082	10.076	0.949	56	828381	52.28	ug/L	100
27) 1,1-Dichloropropene	10.131	10.131	0.954	75	708752	52.08	ug/L #	99
28) Carbon tetrachloride	10.174	10.168	0.958	117	703333	54.39	ug/L	98
30) 1,2-Dichloroethane	10.338	10.338	0.974	62	755701	48.96	ug/L	99
31) Benzene	10.369	10.369	0.976	78	1998013	49.61	ug/L	100
32) Cyclohexene	10.491	10.491	0.988	67	1006956	51.92	ug/L	99
33) n-Butyl alcohol	10.692	10.686	1.007	56	2224385	5775.34	ug/L	99
34) Trichloroethylene	11.003	11.003	1.036	95	540924	51.22	ug/L	97
35) 1,2-Dichloropropane	11.241	11.241	1.059	63	531739	50.42	ug/L	98
36) Methylcyclohexane	11.265	11.259	1.061	83	871591	54.00	ug/L	99
37) Dibromomethane	11.375	11.369	1.071	93	336542	51.10	ug/L	98
38) Bromodichloromethane	11.484	11.478	1.082	83	724245	54.88	ug/L	100
39) 2-Chloroethylvinyl ether	11.698	11.692	1.102	63	1360200	274.48	ug/L	100
40) cis-1,3-Dichloropropylene	11.929	11.930	1.123	75	841830	54.35	ug/L	99
42) 4-Methyl-2-pentanone	12.015	12.015	0.872	58	1241676	268.62	ug/L	98
44) Toluene	12.326	12.320	0.895	91	2176686	54.13	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B102.D
Acq On : 8 Mar 2010 4:19 pm
Operator : ACJ
InstName : VOA4
Sample : |W4VM100308-01|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[A] 0220-01E+0308-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 08 20:28:35 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
45)	trans-1,3-Dichloroprop...	12.460	12.460	0.905	75	823380	54.15	ug/L	100
46)	1,1,2-Trichloroethane	12.685	12.679	0.921	83	409392	50.59	ug/L	99
47)	2-Hexanone	12.856	12.856	0.934	43	3189401	236.50	ug/L	99
48)	1,3-Dichloropropane	12.874	12.874	0.935	76	834702	50.25	ug/L	95
49)	Tetrachloroethylene	12.917	12.917	0.938	164	459369	52.68	ug/L	98
50)	Dibromochloromethane	13.143	13.143	0.954	129	587134	56.31	ug/L	99
51)	1,2-Dibromoethane	13.313	13.313	0.967	107	519761	52.98	ug/L	99
52)	Chlorobenzene	13.801	13.801	1.002	112	1539094	51.23	ug/L	100
53)	1,1,1,2-Tetrachloroethane	13.850	13.850	1.006	131	595387	53.93	ug/L	99
54)	Ethylbenzene	13.862	13.862	1.007	91	2684387	51.07	ug/L	100
55)	m,p-Xylenes	13.972	13.966	1.015	106	2181983	106.20	ug/L	100
56)	o-Xylene	14.405	14.399	1.046	106	1152764	54.27	ug/L	98
57)	Styrene	14.405	14.399	1.046	104	1932760	56.99	ug/L	100
59)	Bromoform	14.655	14.655	0.906	173	449630	56.07	ug/L	100
60)	Isopropylbenzene	14.758	14.758	0.912	105	2968011	47.19	ug/L	99
62)	1,1,2,2-Tetrachloroethane	15.020	15.014	0.928	83	839836	47.94	ug/L	98
63)	1,2,3-Trichloropropane	15.112	15.106	0.934	110	223679	48.77	ug/L	97
64)	Bromobenzene	15.167	15.167	0.937	156	850311	49.47	ug/L	98
65)	n-Propylbenzene	15.179	15.179	0.938	91	3720654	47.35	ug/L	99
66)	1,3,5-Trimethylbenzene	15.331	15.325	0.948	105	2872769	49.90	ug/L	99
67)	2-Chlorotoluene	15.331	15.331	0.948	126	860063	50.68	ug/L	98
68)	4-Chlorotoluene	15.429	15.429	0.954	91	2346415	48.56	ug/L	99
69)	tert-Butylbenzene	15.703	15.703	0.971	134	619129	50.24	ug/L	98
70)	1,2,4-Trimethylbenzene	15.740	15.740	0.973	105	2904345	49.12	ug/L	99
71)	sec-Butylbenzene	15.929	15.929	0.985	105	3807623	48.94	ug/L	99
72)	4-Isopropyltoluene	16.051	16.051	0.992	119	3142787	50.85	ug/L	99
73)	1,3-Dichlorobenzene	16.124	16.118	0.997	146	1707617	50.29	ug/L	99
74)	1,4-Dichlorobenzene	16.209	16.203	1.002	146	1744992	50.13	ug/L	100
75)	n-Butylbenzene	16.502	16.502	1.020	91	3032434	51.25	ug/L	99
76)	1,2-Dichlorobenzene	16.642	16.642	1.029	146	1618169	49.71	ug/L	99
77)	1,2-Dibromo-3-chloropr...	17.526	17.526	1.083	157	152515	59.80	ug/L	99
78)	1,2,4-Trichlorobenzene	18.635	18.629	1.152	180	876585	55.97	ug/L	99
79)	Hexachlorobutadiene	18.818	18.818	1.163	225	520439	49.96	ug/L	99
80)	Naphthalene	19.032	19.026	1.176	128	1815198	52.29	ug/L	99
81)	1,2,3-Trichlorobenzene	19.385	19.385	1.198	180	677122	53.80	ug/L	99
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85)	Acrolein	7.138	7.174	0.672		0m	N.D.	d	
86)	Trichlorotrifluoroethane	7.357	7.363	0.693		0m	N.D.	d	
87)	Isopropyl Alcohol	7.351	7.430	0.692		0m	N.D.	d	
88)	Allyl chloride	7.699	7.796	0.725		0m	N.D.	d	
89)	tert-Butyl Alcohol	0.000	7.924	0.000		0	N.D.		
90)	Acrylonitrile	8.174	8.168	0.770		0m	N.D.	d	
91)	Isopropyl ether	8.704	8.735	0.820		0m	N.D.	d	
92)	2-Chloro-1,3-butadiene	8.863	8.863	0.835		0m	N.D.	d	
93)	Ethyl tert-butyl ether	9.149	9.137	0.862		0m	N.D.	d	
94)	Ethyl acetate	9.326	9.339	0.878		0m	N.D.	d	
95)	Propionitrile	9.430	9.387	0.888		0m	N.D.	d	
96)	Methacrylonitrile	0.000	9.570	0.000		0	N.D.		
97)	Tetrahydrofuran	9.686	9.710	0.912		0m	N.D.	d	
98)	Isobutyl alcohol	10.082	10.003	0.949		0m	N.D.	d	
99)	Methyl tert-amyl ether	10.369	10.381	0.976		0m	N.D.	d	
100)	Methyl methacrylate	11.180	11.204	1.053		0m	N.D.	d	
101)	1,4-Dioxane	11.369	11.326	1.071		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B102.D
Acq On : 8 Mar 2010 4:19 pm
Operator : ACJ
InstName : VOA4
Sample : |W4VM100308-01|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[A] 0220-01E+0308-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 08 20:28:35 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
102) 2-Nitropropane	11.698	11.667	1.102		0m	N.D.	d
104) Ethyl methacrylate	12.472	12.460	0.906		0m	N.D.	d
106) 1-Chlorohexane	13.667	13.661	0.845		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.758	14.783	0.912		0m	N.D.	d
108) Cyclohexanone	14.911	14.905	0.922		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.075	15.063	0.932		0m	N.D.	d
110) Pentachloroethane	15.770	15.770	0.975		0m	N.D.	d
111) Benzyl chloride	16.319	16.319	1.009		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.721	16.715	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B102.D
Acq On : 8 Mar 2010 4:19 pm
Operator : ACJ
InstName : VOA4
Sample : |W4VM100308-01|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[A] 0220-01E+0308-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 08 20:28:35 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

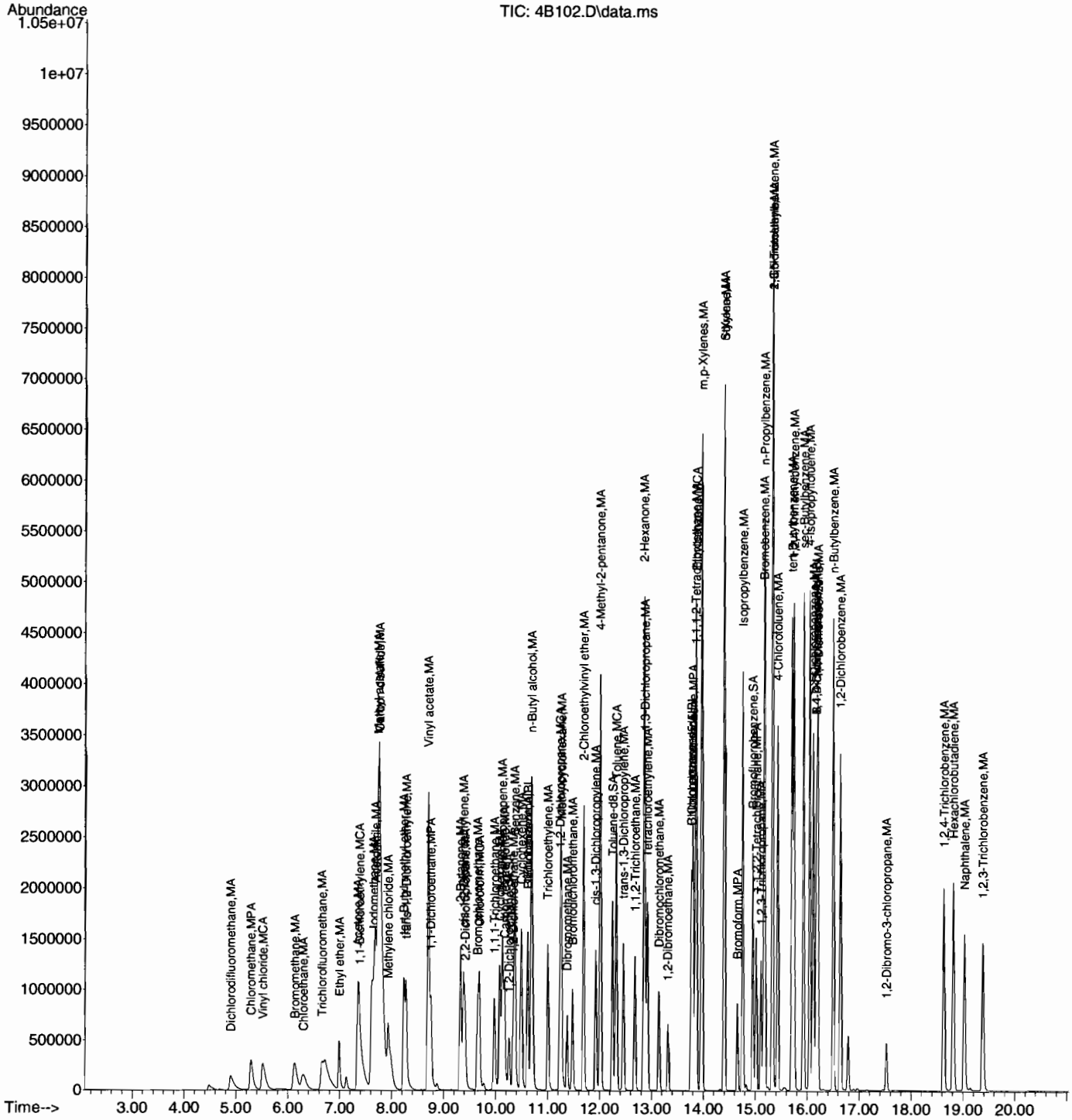

Continuing Calibration Summary

Client SDG: 10-2039

Instrument ID: VOA4.1 **Injection Dat** 06-MAR-10 00:11

Data File: 030510V4\4A526.D **Init. Cal. Date(s)** 01-MAR-10 20:03 - 08-MAR-10 03:1

Lab Sample ID W4VM100305-05 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.2068	0.1744		.01		-15.66731	30		Averaged	
S	Toluene-d8	0.9275	0.82189		.01		-11.38652	30		Averaged	
S	Bromofluorobenzene	0.9783	1.02244		.01		4.51191	30		Averaged	
	Dichlorodifluoromethane	0.3169	0.26062		.01		-17.75955	30		Averaged	
	Chloromethane	0.5187	0.53311		.1		2.7781	30		Averaged	spcc
	Vinyl chloride	0.514	0.52096		.01		1.35409	20		Averaged	ccc
	Bromomethane	0.3057	0.32673		.01		6.87929	30		Averaged	
	Chloroethane	0.2648	0.26335		.01		-0.54758	30		Averaged	
	Trichlorofluoromethane	0.5242	0.51231		.01		-2.26822	30		Averaged	
	Ethyl ether	0.2497	0.23983		.01		-3.95274	30		Averaged	
	Acetone	0.3151	0.27726		.01		-12.00889	40		Averaged	
	1,1-Dichloroethylene	0.5828	0.55358		.01		-5.01373	20		Averaged	ccc
	Iodomethane	0.602	0.52483		.01		-12.81894	30		Averaged	
	Acetonitrile	0.0523	0.04883		.01		-6.6348	30		Averaged	
	Methyl acetate	0.2677	0.2561		.01		-4.33321	40		Averaged	
	Carbon disulfide	1.0841	1.07132		.01		-1.17886	30		Averaged	
	Methylene chloride	0.4522	0.38119		.01		-15.70323	30		Averaged	
	tert-Butyl methyl ether	0.9626	0.81311		.01		-15.52982	30		Averaged	
	trans-1,2-Dichloroethylene	0.4489	0.43924		.01		-2.15193	30		Averaged	
	Vinyl acetate	0.5834	0.58107		.01		-0.39938	40		Averaged	
	1,1-Dichloroethane	0.5628	0.5588		.1		-0.71073	30		Averaged	spcc
	2-Butanone	0.3306	0.31176		.01		-5.69873	40		Averaged	
	cis-1,2-Dichloroethylene	0.492	0.48883		.01		-0.64431	30		Averaged	
	2,2-Dichloropropane	0.3018	0.27868		.01		-7.6607	30		Averaged	
	Bromochloromethane	0.1783	0.16001		.01		-10.25799	30		Averaged	
	Chloroform	0.591	0.57913		.01		-2.00846	20		Averaged	ccc
	1,1,1-Trichloroethane	0.4606	0.4297		.01		-6.70864	30		Averaged	
	Cyclohexane	0.5117	0.45807		.01		-10.48075	30		Averaged	
	1,1-Dichloropropene	0.4323	0.41209		.01		-4.67499	30		Averaged	
	Carbon tetrachloride	0.4381	0.40067		.01		-8.54371	30		Averaged	
	1,2-Dichloroethane	0.4822	0.46757		.01		-3.03401	30		Averaged	
	Benzene	1.2747	1.20993		.01		-5.0812	30		Averaged	
	Cyclohexene	0.6214	0.59579		.01		-4.12134	30		Averaged	
	n-Butyl alcohol	0.0132	0.0124		.01		-6.06061	40		Averaged	
	Trichloroethylene	0.3371	0.3205		.01		-4.92435	30		Averaged	
	1,2-Dichloropropane	0.3299	0.33583		.01		1.79751	20		Averaged	ccc
	Methylcyclohexane	0.5327	0.5005		.01		-6.04468	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA4.I **Injection Dat** 06-MAR-10 00:11

Data File: 030510V4\4A526.D **Init. Cal. Date(s)** 01-MAR-10 20:03 08-MAR-10 03:1

Lab Sample ID W4VM100305-05 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.2177	0.20348		.01		-6.53192	30		Averaged	
Bromodichloromethane	0.4373	0.44269		.01		1.23256	30		Averaged	
2-Chloroethylvinyl ether	0.1828	0.17697		.01		-3.18928	30		Averaged	
cis-1,3-Dichloropropylene	0.5104	0.51215		.01		0.34287	30		Averaged	
4-Methyl-2-pentanone	0.1823	0.16835		.01		-7.65222	40		Averaged	
Toluene	1.655	1.56672		.01		-5.33414	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.5811	0.57413		.01		-1.19945	30		Averaged	
1,1,2-Trichloroethane	0.2979	0.29329		.01		-1.5475	30		Averaged	
2-Hexanone	0.5058	0.51542		.01		1.90194	40		Averaged	
1,3-Dichloropropane	0.6189	0.61158		.01		-1.18274	30		Averaged	
Tetrachloroethylene	0.333	0.30422		.01		-8.64264	30		Averaged	
Dibromochloromethane	0.4242	0.41955		.01		-1.09618	30		Averaged	
1,2-Dibromoethane	0.384	0.3637		.01		-5.28646	30		Averaged	
Chlorobenzene	1.1272	1.07297		.3		-4.81104	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.4279	0.43052		.01		0.61229	30		Averaged	
Ethylbenzene	1.96	1.93105		.01		-1.47704	20		Averaged	ccc
m,p-Xylenes	0.7775	0.77983		.01		0.29968	30		Averaged	
o-Xylene	0.8058	0.83586		.01		3.73045	30		Averaged	
Styrene	1.3083	1.41378		.01		8.06237	30		Averaged	
Bromoform	0.4519	0.44381		.1		-1.79022	30		Averaged	spcc
Isopropylbenzene	3.164	3.11573		.01		-1.5256	30		Averaged	
1,1,2,2-Tetrachloroethane	0.9082	0.86741		.3		-4.4913	30		Averaged	spcc
1,2,3-Trichloropropane	0.2475	0.22162		.01		-10.45657	30		Averaged	
Bromobenzene	0.8706	0.84589		.01		-2.83827	30		Averaged	
n-Propylbenzene	3.8628	3.94891		.01		2.22921	30		Averaged	
2-Chlorotoluene	0.8623	0.88486		.01		2.61626	30		Averaged	
1,3,5-Trimethylbenzene	2.893	3.01795		.01		4.31905	30		Averaged	
4-Chlorotoluene	2.4127	2.40611		.01		-0.27314	30		Averaged	
tert-Butylbenzene	0.6342	0.62998		.01		-0.66541	30		Averaged	
1,2,4-Trimethylbenzene	2.9503	3.0279		.01		2.63024	30		Averaged	
sec-Butylbenzene	3.8799	3.9753		.01		2.45883	30		Averaged	
4-Isopropyltoluene	3.121	3.22978		.01		3.48542	30		Averaged	
1,3-Dichlorobenzene	1.7306	1.71421		.01		-0.94707	30		Averaged	
1,4-Dichlorobenzene	1.7705	1.73024		.01		-2.27393	30		Averaged	
n-Butylbenzene	2.9619	3.10384		.01		4.79219	30		Averaged	
1,2-Dichlorobenzene	1.6844	1.65495		.01		-1.7484	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1616	0.14197		.01		-12.14728	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA4.I **Injection Dat** 06-MAR-10 00:11

Data File: 030510V4\4A526.D **Init. Cal. Date(s)** 01-MAR-10 20:03 08-MAR-10 03:1

Lab Sample ID W4VM100305-05 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8616	0.80154		.01		-6.97075	30		Averaged
Hexachlorobutadiene	0.5582	0.51096		.01		-8.46292	30		Averaged
Naphthalene	2.1434	1.79323		.01		-16.33713	30		Averaged
1,2,3-Trichlorobenzene	0.7176	0.63967		.01		-10.85981	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A526.D
Acq On : 6 Mar 2010 12:11 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100305-05|CCV|1|VOAF|1|
Misc : GEL 5ML - MIX[A] 0106-07D+0222-07A
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 06 11:41:33 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
Internal Standards									Dev(Min)
1) Fluorobenzene	10.613	10.620	1.000	96	1047847	50.00	ug/L		0.00
41) Chlorobenzene-d5	13.764	13.771	1.000	117	905417	50.00	ug/L		0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	630309	50.00	ug/L		0.00
82) B Fluorobenzene	10.613	10.619	1.000	96	1047809	50.00	ug/L		0.00
103) B Chlorobenzene-d5	13.764	13.771	1.000	117	905417	50.00	ug/L		0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	630270	50.00	ug/L		0.00
System Monitoring Compounds									Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.967	65	182741	42.16	ug/L		0.00
43) Toluene-d8	12.246	12.247	0.890	98	744153	44.31	ug/L		0.00
61) Bromofluorobenzene	14.953	14.954	0.924	95	644450	52.26	ug/L		0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		QValue
2) Dichlorodifluoromethane	4.904	4.911	0.462	85	273091	41.12	ug/L		100
3) Chloromethane	5.292	5.291	0.499	50	558622	51.39	ug/L		99
4) Vinyl chloride	5.521	5.521	0.520	62	545886	50.67	ug/L		99
5) Bromomethane	6.123	6.137	0.577	94	342365	53.44	ug/L		100
6) Chloroethane	6.288	6.295	0.593	64	275950	49.73	ug/L		99
7) Trichlorofluoromethane	6.662	6.669	0.628	101	536818	48.87	ug/L		99
8) Ethyl ether	6.991	6.998	0.659	59	251306	48.03	ug/L		95
9) Acetone	7.351	7.352	0.693	43	1452638	219.99	ug/L		96
10) 1,1-Dichloroethylene	7.394	7.389	0.697	61	580065	47.49	ug/L		96
11) Iodomethane	7.656	7.663	0.721	142	2749708	217.96	ug/L		97
12) Acetonitrile	7.692	7.699	0.725	41	1279054	1166.96	ug/L		99
13) Methyl acetate	7.741	7.748	0.729	43	1341780	239.21	ug/L		96
14) Carbon disulfide	7.778	7.773	0.733	76	5612901	247.06	ug/L		99
15) Methylene chloride	7.936	7.931	0.748	84	399428	42.14	ug/L		93
16) tert-Butyl methyl ether	8.235	8.242	0.776	73	852011	42.24	ug/L		97
17) trans-1,2-Dichloroethy...	8.278	8.285	0.780	61	460254	48.93	ug/L		97
18) Vinyl acetate	8.704	8.705	0.820	43	3044354	249.02	ug/L		97
19) 1,1-Dichloroethane	8.753	8.760	0.825	63	585536	49.64	ug/L		100
20) 2-Butanone	9.320	9.327	0.878	43	1633405	235.76	ug/L		94
21) cis-1,2-Dichloroethylene	9.381	9.388	0.884	61	512214	49.67	ug/L		95
22) 2,2-Dichloropropane	9.412	9.419	0.887	77	292016	46.17	ug/L		92
23) Bromochloromethane	9.655	9.656	0.910	128	167667	44.87	ug/L		89
24) Chloroform	9.686	9.687	0.913	83	606835	49.00	ug/L		97
25) 1,1,1-Trichloroethane	9.972	9.979	0.940	97	450260	46.64	ug/L		97
26) Cyclohexane	10.076	10.083	0.949	56	479991	44.76	ug/L		96
27) 1,1-Dichloropropene	10.131	10.132	0.955	75	431807	47.66	ug/L	#	77
28) Carbon tetrachloride	10.174	10.175	0.959	117	419838	45.73	ug/L		99
30) 1,2-Dichloroethane	10.338	10.339	0.974	62	489946	48.48	ug/L		100
31) Benzene	10.369	10.370	0.977	78	1267817	47.46	ug/L		98
32) Cyclohexene	10.491	10.492	0.989	67	624302	47.94	ug/L		95
33) n-Butyl alcohol	10.686	10.693	1.007	56	1299431	4712.78	ug/L		94
34) Trichloroethylene	11.003	11.004	1.037	95	335833	47.54	ug/L		98
35) 1,2-Dichloropropane	11.240	11.241	1.059	63	351898	50.90	ug/L		99
36) Methylcyclohexane	11.259	11.260	1.061	83	524443	46.98	ug/L		96
37) Dibromomethane	11.368	11.376	1.071	93	213213	46.73	ug/L		94
38) Bromodichloromethane	11.478	11.485	1.082	83	463867	50.61	ug/L		100
39) 2-Chloroethylvinyl ether	11.692	11.699	1.102	63	927182	242.09	ug/L		98
40) cis-1,3-Dichloropropylene	11.929	11.930	1.124	75	536659	50.17	ug/L		95
42) 4-Methyl-2-pentanone	12.015	12.016	0.873	58	762141	230.88	ug/L		88
44) Toluene	12.320	12.320	0.895	91	1418535	47.33	ug/L		98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A526.D
Acq On : 6 Mar 2010 12:11 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100305-05|CCV|1|VOAF|1|
Misc : GEL 5ML - MIX[A] 0106-07D+0222-07A
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 06 11:41:33 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
45)	trans-1,3-Dichloroprop...	12.460	12.461	0.905	75	519827	49.40	ug/L	96
46)	1,1,2-Trichloroethane	12.679	12.680	0.921	83	265548	49.23	ug/L	99
47)	2-Hexanone	12.856	12.857	0.934	43	2333347	254.74	ug/L	94
48)	1,3-Dichloropropane	12.874	12.875	0.935	76	553737	49.41	ug/L	100
49)	Tetrachloroethylene	12.917	12.918	0.938	164	275443	45.68	ug/L	98
50)	Dibromochloromethane	13.143	13.144	0.955	129	379864	49.45	ug/L	100
51)	1,2-Dibromoethane	13.313	13.320	0.967	107	329296	47.36	ug/L	98
52)	Chlorobenzene	13.801	13.802	1.003	112	971487	47.59	ug/L	98
53)	1,1,1,2-Tetrachloroethane	13.850	13.851	1.006	131	389799	50.31	ug/L	100
54)	Ethylbenzene	13.862	13.863	1.007	91	1748402	49.26	ug/L	98
55)	m,p-Xylenes	13.966	13.973	1.015	106	1412139	100.30	ug/L	96
56)	o-Xylene	14.398	14.399	1.046	106	756799	51.87	ug/L	94
57)	Styrene	14.398	14.399	1.046	104	1280061	54.03	ug/L	98
59)	Bromoform	14.654	14.655	0.906	173	279736	49.10	ug/L	99
60)	Isopropylbenzene	14.758	14.759	0.912	105	1963870	49.24	ug/L	99
62)	1,1,2,2-Tetrachloroethane	15.014	15.015	0.928	83	546739	47.76	ug/L	99
63)	1,2,3-Trichloropropane	15.106	15.107	0.934	110	139686	44.77	ug/L	93
64)	Bromobenzene	15.167	15.168	0.937	156	533169	48.58	ug/L	95
65)	n-Propylbenzene	15.179	15.180	0.938	91	2489035	51.11	ug/L	97
66)	1,3,5-Trimethylbenzene	15.331	15.332	0.948	105	1902243	52.16	ug/L	98
67)	2-Chlorotoluene	15.331	15.332	0.948	126	557738	51.31	ug/L	94
68)	4-Chlorotoluene	15.429	15.430	0.954	91	1516590	49.86	ug/L	99
69)	tert-Butylbenzene	15.703	15.704	0.971	134	397084	49.67	ug/L	94
70)	1,2,4-Trimethylbenzene	15.740	15.741	0.973	105	1908511	51.32	ug/L	99
71)	sec-Butylbenzene	15.929	15.930	0.985	105	2505668	51.23	ug/L	98
72)	4-Isopropyltoluene	16.050	16.051	0.992	119	2035761	51.74	ug/L	99
73)	1,3-Dichlorobenzene	16.118	16.119	0.996	146	1080483	49.53	ug/L	99
74)	1,4-Dichlorobenzene	16.203	16.204	1.002	146	1090587	48.86	ug/L	99
75)	n-Butylbenzene	16.502	16.503	1.020	91	1956376	52.40	ug/L	98
76)	1,2-Dichlorobenzene	16.642	16.643	1.029	146	1043129	49.12	ug/L	100
77)	1,2-Dibromo-3-chloropr...	17.526	17.527	1.083	157	89483	43.93	ug/L	96
78)	1,2,4-Trichlorobenzene	18.629	18.630	1.151	180	505218	46.52	ug/L	99
79)	Hexachlorobutadiene	18.812	18.819	1.163	225	322063	45.77	ug/L	100
80)	Naphthalene	19.026	19.026	1.176	128	1130287	41.83	ug/L	100
81)	1,2,3-Trichlorobenzene	19.385	19.386	1.198	180	403190	44.57	ug/L	99
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85)	Acrolein	7.199	7.180	0.678		0m	N.D.	d	
86)	Trichlorotrifluoroethane	7.381	7.369	0.696		0m	N.D.	d	
87)	Isopropyl Alcohol	7.351	7.430	0.693		0m	N.D.	d	
88)	Allyl chloride	7.692	7.796	0.725		0m	N.D.	d	
89)	tert-Butyl Alcohol	7.985	7.924	0.752		0m	N.D.	d	
90)	Acrylonitrile	8.235	8.174	0.776		0m	N.D.	d	
91)	Isopropyl ether	8.704	8.741	0.820		0m	N.D.	d	
92)	2-Chloro-1,3-butadiene	8.863	8.869	0.835		0m	N.D.	d	
93)	Ethyl tert-butyl ether	0.000	9.143	0.000		0	N.D.		
94)	Ethyl acetate	9.320	9.338	0.878		0m	N.D.	d	
95)	Propionitrile	9.326	9.393	0.879		0m	N.D.	d	
96)	Methacrylonitrile	9.631	9.576	0.908		0m	N.D.	d	
97)	Tetrahydrofuran	9.668	9.710	0.911		0m	N.D.	d	
98)	Isobutyl alcohol	10.009	10.009	0.943		0m	N.D.	d	
99)	Methyl tert-amyl ether	10.363	10.387	0.976		0m	N.D.	d	
100)	Methyl methacrylate	11.259	11.204	1.061		0m	N.D.	d	
101)	1,4-Dioxane	11.332	11.326	1.068		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A526.D
Acq On : 6 Mar 2010 12:11 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100305-05|CCV|1|VOAF|1|
Misc : GEL 5ML - MIX[A] 0106-07D+0222-07A
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 06 11:41:33 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
102) 2-Nitropropane	11.692	11.673	1.102		0m	N.D.	d
104) Ethyl methacrylate	12.454	12.466	0.905		0m	N.D.	d
106) 1-Chlorohexane	13.764	13.661	0.851		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.758	14.783	0.912		0m	N.D.	d
108) Cyclohexanone	14.910	14.904	0.922		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.057	15.063	0.931		0m	N.D.	d
110) Pentachloroethane	15.770	15.770	0.975		0m	N.D.	d
111) Benzyl chloride	16.307	16.319	1.008		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.721	16.721	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A526.D
Acq On : 6 Mar 2010 12:11 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100305-05|CCV|1|VOAF|1|
Misc : GEL 5ML - MIX[A] 0106-07D+0222-07A
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 06 11:41:33 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

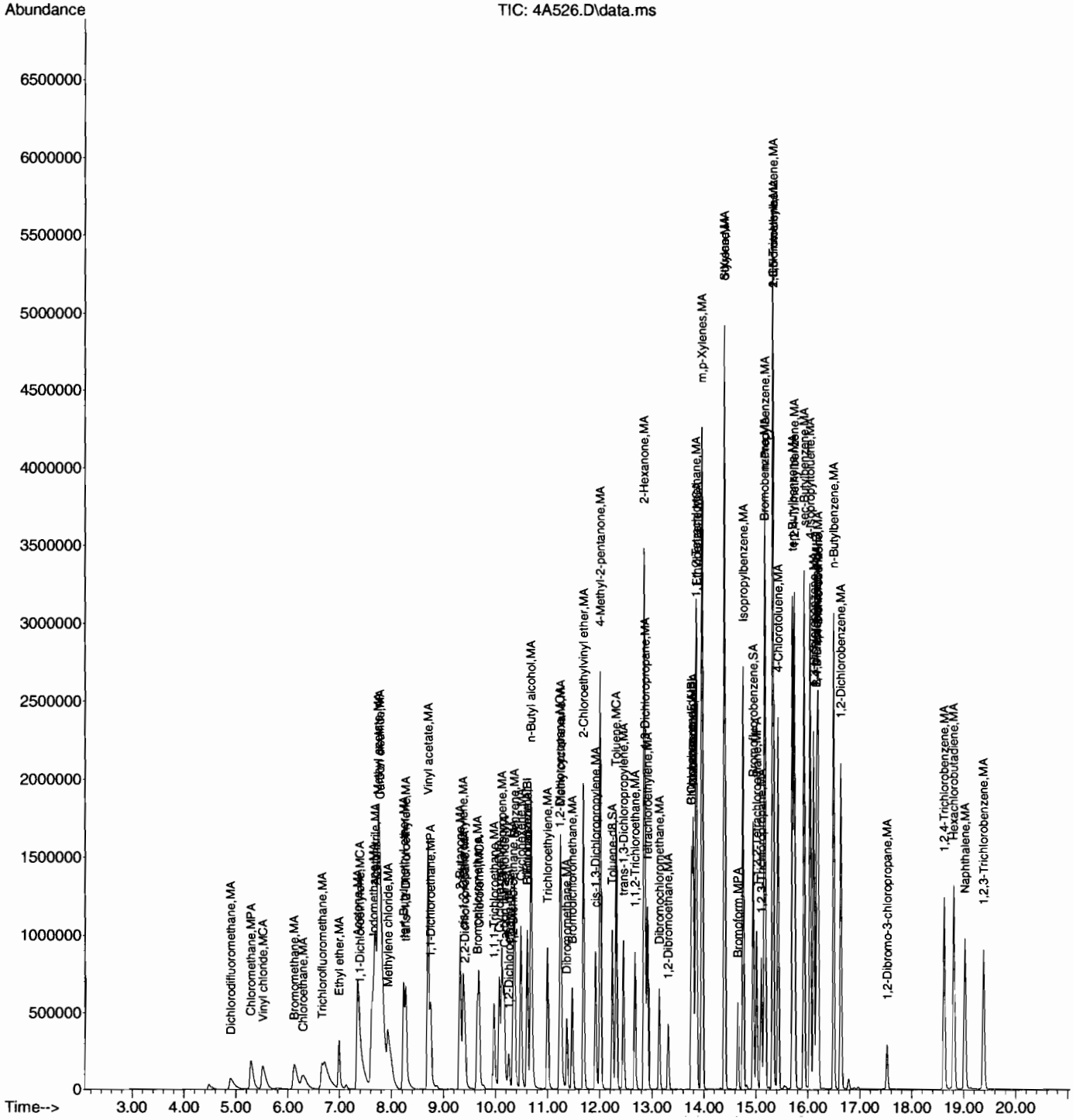

Continuing Calibration Summary

Client SDG: 10-2039

Instrument ID: VOA4.I **Injection Date** 06-MAR-10 01:34

Data File: 030510V4\4A529.D **Init. Cal. Date(s)** 01-MAR-10 20:03 - 08-MAR-10 03:1

Lab Sample ID W4VM100305-08 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.2068	0.17756		.01		-14.13926	30		Averaged
S	Toluene-d8	0.9275	0.85501		.01		-7.81563	30		Averaged
S	Bromofluorobenzene	0.9783	1.10969		.01		13.43044	30		Averaged
	Acrolein	250	265.17	250			6.068	30		Linear
	Trichlorotrifluoroethane	0.1188	0.13011		.01		9.5202	30		Averaged
	Allyl chloride	0.4236	0.50816		.01		19.96223	30		Averaged
	Acrylonitrile	0.1218	0.12184		.01		0.03284	30		Averaged
	2-Chloro-1,3-butadiene	0.4199	0.53139		.01		26.55156	30		Averaged
	Ethyl acetate	0.347	0.32092		.01		-7.51585	40		Averaged
	Propionitrile	0.0517	0.05044		.01		-2.43714	30		Averaged
	Methacrylonitrile	0.2112	0.21414		.01		1.39205	30		Averaged
	Tetrahydrofuran	0.1139	0.10868		.01		-4.58297	30		Averaged
	Isobutyl alcohol	0.0158	0.01537		.01		-2.72152	40		Averaged
	Methyl methacrylate	0.2295	0.23469		.01		2.26144	30		Averaged
	1,4-Dioxane	0.0043	0.00391		.01		-9.06977	40		Averaged
	2-Nitropropane	0.1137	0.12317		.01		8.32894	30		Averaged
	Ethyl methacrylate	0.5177	0.55457		.01		7.12189	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2573	0.31257		.01		21.48076	30		Averaged
	Cyclohexanone	0.0272	0.09301		.01		241.94853	40	*	Averaged
	trans-1,4-Dichloro-2-butene	0.2491	0.29817		.01		19.69892	30		Averaged
	Pentachloroethane	0.2716	0.41504		.01		52.81296	30	*	Averaged
	Benzyl chloride	1.2313	1.51114		.01		22.7272	30		Averaged
	bis(2-Chloroisopropyl)ether	0.3989	0.38562		.01		-3.32916	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A529.D
Acq On : 6 Mar 2010 1:34 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100305-08|CCV|1|VOAF|1|VOA8260BL|
Misc : GEL 5ML - MIX[B] 0215-08B
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 06 11:46:05 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.613	10.620	1.000	96	1245821	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.764	13.771	1.000	117	1025306	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	641087	50.00	ug/L	0.00
82) B Fluorobenzene	10.613	10.619	1.000	96	1245643	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.764	13.771	1.000	117	1025306	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	641103	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.967	65	221208	42.92	ug/L	0.00
43) Toluene-d8	12.246	12.247	0.890	98	876643	46.09	ug/L	0.00
61) Bromofluorobenzene	14.947	14.954	0.924	95	711411	56.72	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.911	0.000		0	N.D.		
3) Chloromethane	5.284	5.291	0.498		0m	N.D.	d	
4) Vinyl chloride	5.550	5.521	0.523		0m	N.D.	d	
5) Bromomethane	0.000	6.137	0.000		0	N.D.		
6) Chloroethane	0.000	6.295	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.669	0.000		0	N.D.		
8) Ethyl ether	6.991	6.998	0.659		0m	N.D.	d	
9) Acetone	7.363	7.352	0.694		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.394	7.389	0.697		0m	N.D.	d	
11) Iodomethane	7.619	7.663	0.718		0m	N.D.	d	
12) Acetonitrile	7.705	7.699	0.726		0m	N.D.	d	
13) Methyl acetate	7.741	7.748	0.729		0m	N.D.	d	
14) Carbon disulfide	7.796	7.773	0.735		0m	N.D.	d	
15) Methylene chloride	7.948	7.931	0.749		0m	N.D.	d	
16) tert-Butyl methyl ether	8.241	8.242	0.777		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.284	8.285	0.781		0m	N.D.	d	
18) Vinyl acetate	8.704	8.705	0.820		0m	N.D.	d	
19) 1,1-Dichloroethane	8.759	8.760	0.825		0m	N.D.	d	
20) 2-Butanone	9.338	9.327	0.880		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.338	9.388	0.880		0m	N.D.	d	
22) 2,2-Dichloropropane	9.412	9.419	0.887		0m	N.D.	d	
23) Bromochloromethane	9.649	9.656	0.909		0m	N.D.	d	
24) Chloroform	9.692	9.687	0.913		0m	N.D.	d	
25) 1,1,1-Trichloroethane	9.979	9.979	0.940		0m	N.D.	d	
26) Cyclohexane	10.003	10.083	0.943		0m	N.D.	d	
27) 1,1-Dichloropropene	10.125	10.132	0.954		0m	N.D.	d	
28) Carbon tetrachloride	10.174	10.175	0.959		0m	N.D.	d	
30) 1,2-Dichloroethane	10.332	10.339	0.974		0m	N.D.	d	
31) Benzene	10.381	10.370	0.978		0m	N.D.	d	
32) Cyclohexene	10.497	10.492	0.989		0m	N.D.	d	
33) n-Butyl alcohol	10.692	10.693	1.007		0m	N.D.	d	
34) Trichloroethylene	11.003	11.004	1.037		0m	N.D.	d	
35) 1,2-Dichloropropane	11.253	11.241	1.060		0m	N.D.	d	
36) Methylcyclohexane	11.204	11.260	1.056		0m	N.D.	d	
37) Dibromomethane	11.375	11.376	1.072		0m	N.D.	d	
38) Bromodichloromethane	11.472	11.485	1.081		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.692	11.699	1.102		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	11.935	11.930	1.125		0m	N.D.	d	
42) 4-Methyl-2-pentanone	12.015	12.016	0.873		0m	N.D.	d	
44) Toluene	12.326	12.320	0.895		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A529.D
Acq On : 6 Mar 2010 1:34 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100305-08|CCV|1|VOAF|1|VOA8260BL|
Misc : GEL 5ML - MIX[B] 0215-08B
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 06 11:46:05 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
45)	trans-1,3-Dichloroprop...	12.454	12.461	0.905		0m	N.D.	d	
46)	1,1,2-Trichloroethane	12.685	12.680	0.922		0m	N.D.	d	
47)	2-Hexanone	12.856	12.857	0.934		0m	N.D.	d	
48)	1,3-Dichloropropane	12.862	12.875	0.934		0m	N.D.	d	
49)	Tetrachloroethylene	12.917	12.918	0.938		0m	N.D.	d	
50)	Dibromochloromethane	13.149	13.144	0.955		0m	N.D.	d	
51)	1,2-Dibromoethane	13.313	13.320	0.967		0m	N.D.	d	
52)	Chlorobenzene	13.801	13.802	1.003		0m	N.D.	d	
53)	1,1,1,2-Tetrachloroethane	13.844	13.851	1.006		0m	N.D.	d	
54)	Ethylbenzene	13.868	13.863	1.008		0m	N.D.	d	
55)	m,p-Xylenes	13.966	13.973	1.015		0m	N.D.	d	
56)	o-Xylene	14.398	14.399	1.046		0m	N.D.	d	
57)	Styrene	14.398	14.399	1.046		0m	N.D.	d	
59)	Bromoform	14.648	14.655	0.905		0m	N.D.	d	
60)	Isopropylbenzene	14.758	14.759	0.912		0m	N.D.	d	
62)	1,1,2,2-Tetrachloroethane	15.008	15.015	0.928		0m	N.D.	d	
63)	1,2,3-Trichloropropane	15.112	15.107	0.934		0m	N.D.	d	
64)	Bromobenzene	15.167	15.168	0.937		0m	N.D.	d	
65)	n-Propylbenzene	15.179	15.180	0.938		0m	N.D.	d	
66)	1,3,5-Trimethylbenzene	15.331	15.332	0.948		0m	N.D.	d	
67)	2-Chlorotoluene	15.331	15.332	0.948		0m	N.D.	d	
68)	4-Chlorotoluene	15.429	15.430	0.954		0m	N.D.	d	
69)	tert-Butylbenzene	15.697	15.704	0.970		0m	N.D.	d	
70)	1,2,4-Trimethylbenzene	15.740	15.741	0.973		0m	N.D.	d	
71)	sec-Butylbenzene	15.929	15.930	0.985		0m	N.D.	d	
72)	4-Isopropyltoluene	16.051	16.051	0.992		0m	N.D.	d	
73)	1,3-Dichlorobenzene	16.111	16.119	0.996		0m	N.D.	d	
74)	1,4-Dichlorobenzene	16.203	16.204	1.002		0m	N.D.	d	
75)	n-Butylbenzene	16.496	16.503	1.020		0m	N.D.	d	
76)	1,2-Dichlorobenzene	16.642	16.643	1.029		0m	N.D.	d	
77)	1,2-Dibromo-3-chloropr...	17.526	17.527	1.083		0m	N.D.	d	
78)	1,2,4-Trichlorobenzene	18.629	18.630	1.151		0m	N.D.	d	
79)	Hexachlorobutadiene	18.818	18.819	1.163		0m	N.D.	d	
80)	Naphthalene	19.026	19.026	1.176		0m	N.D.	d	
81)	1,2,3-Trichlorobenzene	19.385	19.386	1.198		0m	N.D.	d	
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85)	Acrolein	7.174	7.180	0.676	56	316863	265.17	ug/L	98
86)	Trichlorotrifluoroethane	7.357	7.369	0.693	85	810360	273.85	ug/L	98
87)	Isopropyl Alcohol	0.000	7.430	0.000		0m	N.D.	d	
88)	Allyl chloride	7.796	7.796	0.735	41	3164903	299.92	ug/L	98
89)	tert-Butyl Alcohol	7.936	7.924	0.748	59	634	N.D.		
90)	Acrylonitrile	8.168	8.174	0.770	53	758869	250.08	ug/L	99
91)	Isopropyl ether	8.869	8.741	0.836	45	305	N.D.		
92)	2-Chloro-1,3-butadiene	8.863	8.869	0.835	53	661922	63.27	ug/L	98
93)	Ethyl tert-butyl ether	0.000	9.143	0.000		0	N.D.		
94)	Ethyl acetate	9.338	9.338	0.880	43	1998751	231.21	ug/L	98
95)	Propionitrile	9.387	9.393	0.885	54	314132	243.97	ug/L	98
96)	Methacrylonitrile	9.570	9.576	0.902	41	1333729	253.46	ug/L	100
97)	Tetrahydrofuran	9.710	9.710	0.915	42	676897	238.63	ug/L	98
98)	Isobutyl alcohol	10.003	10.009	0.943	41	957164	2433.52	ug/L	98
99)	Methyl tert-amyl ether	10.375	10.387	0.978	73	1188	N.D.		
100)	Methyl methacrylate	11.204	11.204	1.056	69	1461698	255.65	ug/L	96
101)	1,4-Dioxane	11.326	11.326	1.067	88	243584	2262.38	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A529.D
Acq On : 6 Mar 2010 1:34 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100305-08|CCV|1|VOAF|1|VOA8260BL|
Misc : GEL 5ML - MIX[B] 0215-08B
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 06 11:46:05 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
102) 2-Nitropropane	11.667	11.673	1.099	43	767107	270.87	ug/L	99	
104) Ethyl methacrylate	12.460	12.466	0.905	69	2842999	267.80	ug/L	96	
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d		
107) cis-1,4-Dichloro-2-butene	14.782	14.783	0.914	53	1001946	303.67	ug/L	97	
108) Cyclohexanone	14.904	14.904	0.921	42	1490750	4269.84	ug/L	97	E
109) trans-1,4-Dichloro-2-b...	15.063	15.063	0.931	53	955803	299.24	ug/L	98	
110) Pentachloroethane	15.770	15.770	0.975	167	1330415	382.09	ug/L	99	
111) Benzyl chloride	16.319	16.319	1.009	91	4843969	306.82	ug/L	99	
112) bis(2-Chloroisopropyl)...	16.715	16.721	1.033	45	1236100	241.70	ug/L	97	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A529.D
Acq On : 6 Mar 2010 1:34 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100305-08|CCV|1|VOAF|1|VOA8260BL|
Misc : GEL 5ML - MIX[B] 0215-08B
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 06 11:46:05 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

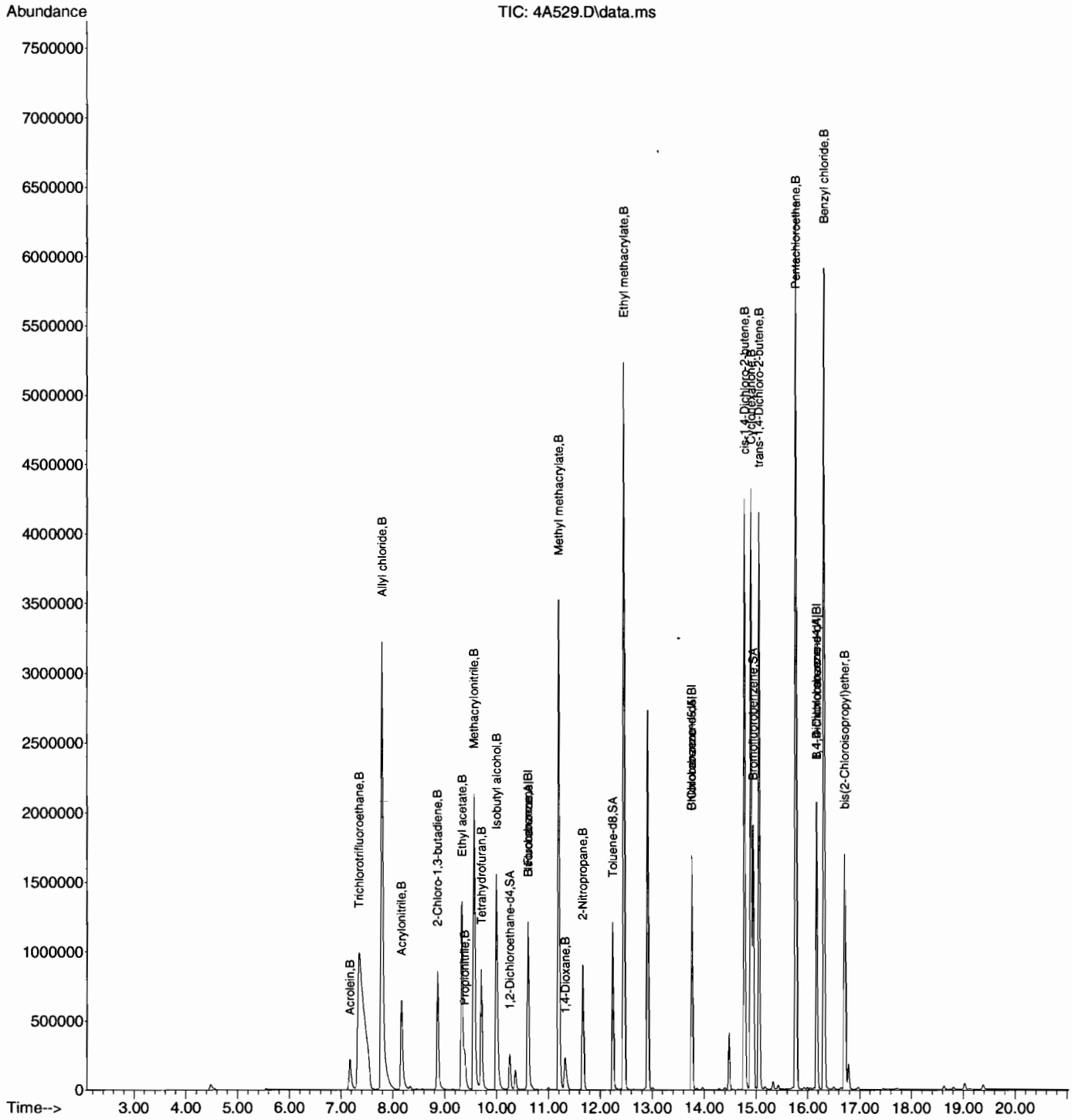

Continuing Calibration Summary

Client SDG: 10-2039

Instrument ID: VOA4.I **Injection Date** 08-MAR-10 17:33

Data File: 030810V4\4B104.D **Init. Cal. Date(s)** 01-MAR-10 20:03 - 08-MAR-10 03:1

Lab Sample ID W4VM100308-03 **Quant Type** ISTD **Method:** 030710V4\VOA4-8260-030710.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.27	0.25745		.01		-4.64815	30		Averaged
S	Toluene-d8	1.1383	1.09507		.01		-3.79777	30		Averaged
S	Bromofluorobenzene	0.9696	0.99271		.01		2.38346	30		Averaged
	Acrolein	0.053	0.06521		.01		23.03774	30		Averaged
	Trichlorotrifluoroethane	0.1298	0.13375		.01		3.04314	30		Averaged
	Allyl chloride	0.4287	0.4959		.01		15.6753	30		Averaged
	Acrylonitrile	0.108	0.11815		.01		9.39815	30		Averaged
	2-Chloro-1,3-butadiene	0.4217	0.52666		.01		24.88973	30		Averaged
	Ethyl acetate	0.3182	0.3042		.01		-4.39975	40		Averaged
	Propionitrile	0.0463	0.04902		.01		5.87473	30		Averaged
	Methacrylonitrile	0.1922	0.2045		.01		6.39958	30		Averaged
	Tetrahydrofuran	0.1019	0.10457		.01		2.62022	30		Averaged
	Isobutyl alcohol	0.0141	0.01492		.01		5.8156	40		Averaged
	Methyl methacrylate	0.1923	0.22426		.01		16.61986	30		Averaged
	1,4-Dioxane	0.0034	0.00355		.01		4.41176	40		Averaged
	2-Nitropropane	250	249.31	250			-0.276	30		Linear
	Ethyl methacrylate	0.4802	0.55317		.01		15.19575	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2616	0.33051		.01		26.34174	30		Averaged
	Cyclohexanone	0.0297	0.02305		.01		-22.39057	40		Averaged
	trans-1,4-Dichloro-2-butene	0.2497	0.31362		.01		25.59872	30		Averaged
	Pentachloroethane	250	370.36	250			48.144	30	*	Linear
	Benzyl chloride	1.2744	1.76223		.01		38.27919	30	*	Averaged
	bis(2-Chloroisopropyl)ether	0.364	0.4066		.01		11.7033	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B104.D
Acq On : 8 Mar 2010 5:33 pm
Operator : ACJ
InstName : VOA4
Sample : |W4VM100308-03|CCV|1|VOAF|1|
Misc : GEL 5ML - MIX[B] 0304-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 08 17:56:57 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.614	10.613	1.000	96	1802901	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.765	13.765	1.000	117	1396313	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	893198	50.00	ug/L	0.00
82) B Fluorobenzene	10.614	10.613	1.000	96	1802624	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.765	13.764	1.000	117	1396313	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	895232	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.260	10.259	0.967	65	464151	47.68	ug/L	0.00
43) Toluene-d8	12.247	12.247	0.890	98	1529059	48.10	ug/L	0.00
61) Bromofluorobenzene	14.948	14.947	0.924	95	886690	51.19	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	5.291	5.299	0.499		0m	N.D.	d	
4) Vinyl chloride	0.000	5.521	0.000		0	N.D.		
5) Bromomethane	6.123	6.130	0.577		0m	N.D.	d	
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	6.663	6.668	0.628		0m	N.D.	d	
8) Ethyl ether	7.011	6.991	0.661		0m	N.D.	d	
9) Acetone	7.364	7.351	0.694		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.328	7.394	0.690		0m	N.D.	d	
11) Iodomethane	7.626	7.662	0.719		0m	N.D.	d	
12) Acetonitrile	7.687	7.693	0.724		0m	N.D.	d	
13) Methyl acetate	7.748	7.747	0.730		0m	N.D.	d	
14) Carbon disulfide	7.797	7.778	0.735		0m	N.D.	d	
15) Methylene chloride	7.937	7.967	0.748		0m	N.D.	d	
16) tert-Butyl methyl ether	8.236	8.235	0.776		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.279	8.278	0.780		0m	N.D.	d	
18) Vinyl acetate	8.705	8.705	0.820		0m	N.D.	d	
19) 1,1-Dichloroethane	8.760	8.753	0.825		0m	N.D.	d	
20) 2-Butanone	9.339	9.320	0.880		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.339	9.381	0.880		0m	N.D.	d	
22) 2,2-Dichloropropane	9.413	9.412	0.887		0m	N.D.	d	
23) Bromochloromethane	9.644	9.656	0.909		0m	N.D.	d	
24) Chloroform	9.693	9.686	0.913		0m	N.D.	d	
25) 1,1,1-Trichloroethane	9.967	9.973	0.939		0m	N.D.	d	
26) Cyclohexane	10.010	10.076	0.943		0m	N.D.	d	
27) 1,1-Dichloropropene	10.132	10.131	0.955		0m	N.D.	d	
28) Carbon tetrachloride	10.181	10.168	0.959		0m	N.D.	d	
30) 1,2-Dichloroethane	10.327	10.338	0.973		0m	N.D.	d	
31) Benzene	10.376	10.369	0.978		0m	N.D.	d	
32) Cyclohexene	10.492	10.491	0.989		0m	N.D.	d	
33) n-Butyl alcohol	10.693	10.686	1.007		0m	N.D.	d	
34) Trichloroethylene	11.004	11.003	1.037		0m	N.D.	d	
35) 1,2-Dichloropropane	11.241	11.241	1.059		0m	N.D.	d	
36) Methylcyclohexane	11.205	11.259	1.056		0m	N.D.	d	
37) Dibromomethane	11.363	11.369	1.071		0m	N.D.	d	
38) Bromodichloromethane	11.473	11.478	1.081		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.699	11.692	1.102		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	11.936	11.930	1.125		0m	N.D.	d	
42) 4-Methyl-2-pentanone	12.028	12.015	0.874		0m	N.D.	d	
44) Toluene	12.321	12.320	0.895		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B104.D
Acq On : 8 Mar 2010 5:33 pm
Operator : ACJ
InstName : VOA4
Sample : |W4VM100308-03|CCV|1|VOAF|1|
Misc : GEL 5ML - MIX[B] 0304-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 08 17:56:57 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
45)	trans-1,3-Dichloroprop...	12.467	12.460	0.906		0m	N.D.	d	
46)	1,1,2-Trichloroethane	12.680	12.679	0.921		0m	N.D.	d	
47)	2-Hexanone	12.857	12.856	0.934		0m	N.D.	d	
48)	1,3-Dichloropropane	12.869	12.874	0.935		0m	N.D.	d	
49)	Tetrachloroethylene	12.918	12.917	0.938		0m	N.D.	d	
50)	Dibromochloromethane	13.137	13.143	0.954		0m	N.D.	d	
51)	1,2-Dibromoethane	13.320	13.313	0.968		0m	N.D.	d	
52)	Chlorobenzene	13.796	13.801	1.002		0m	N.D.	d	
53)	1,1,1,2-Tetrachloroethane	13.851	13.850	1.006		0m	N.D.	d	
54)	Ethylbenzene	13.857	13.862	1.007		0m	N.D.	d	
55)	m,p-Xylenes	13.967	13.966	1.015		0m	N.D.	d	
56)	o-Xylene	14.405	14.399	1.047		0m	N.D.	d	
57)	Styrene	14.405	14.399	1.047		0m	N.D.	d	
59)	Bromoform	14.649	14.655	0.905		0m	N.D.	d	
60)	Isopropylbenzene	14.759	14.758	0.912		0m	N.D.	d	
62)	1,1,2,2-Tetrachloroethane	15.009	15.014	0.928		0m	N.D.	d	
63)	1,2,3-Trichloropropane	15.113	15.106	0.934		0m	N.D.	d	
64)	Bromobenzene	15.168	15.167	0.937		0m	N.D.	d	
65)	n-Propylbenzene	15.180	15.179	0.938		0m	N.D.	d	
66)	1,3,5-Trimethylbenzene	15.332	15.325	0.948		0m	N.D.	d	
67)	2-Chlorotoluene	15.332	15.331	0.948		0m	N.D.	d	
68)	4-Chlorotoluene	15.430	15.429	0.954		0m	N.D.	d	
69)	tert-Butylbenzene	15.698	15.703	0.970		0m	N.D.	d	
70)	1,2,4-Trimethylbenzene	15.747	15.740	0.973		0m	N.D.	d	
71)	sec-Butylbenzene	15.936	15.929	0.985		0m	N.D.	d	
72)	4-Isopropyltoluene	16.051	16.051	0.992		0m	N.D.	d	
73)	1,3-Dichlorobenzene	16.119	16.118	0.996		0m	N.D.	d	
74)	1,4-Dichlorobenzene	16.204	16.203	1.002		0m	N.D.	d	
75)	n-Butylbenzene	16.503	16.502	1.020		0m	N.D.	d	
76)	1,2-Dichlorobenzene	16.643	16.642	1.029		0m	N.D.	d	
77)	1,2-Dibromo-3-chloropr...	17.521	17.526	1.083		0m	N.D.	d	
78)	1,2,4-Trichlorobenzene	18.630	18.629	1.151		0m	N.D.	d	
79)	Hexachlorobutadiene	18.813	18.818	1.163		0m	N.D.	d	
80)	Naphthalene	19.027	19.026	1.176		0m	N.D.	d	
81)	1,2,3-Trichlorobenzene	19.380	19.385	1.198		0m	N.D.	d	
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85)	Acrolein	7.181	7.174	0.677	56	587716	307.71	ug/L	100
86)	Trichlorotrifluoroethane	7.364	7.363	0.694	85	1205499	257.64	ug/L	98
87)	Isopropyl Alcohol	0.000	7.430	0.000		0m	N.D.	d	
88)	Allyl chloride	7.797	7.796	0.735	41	4469593	289.18	ug/L	98
89)	tert-Butyl Alcohol	7.937	7.924	0.748	59	1340	N.D.		
90)	Acrylonitrile	8.175	8.168	0.770	53	1064928	273.53	ug/L	99
91)	Isopropyl ether	8.718	8.735	0.821	45	150	N.D.		
92)	2-Chloro-1,3-butadiene	8.870	8.863	0.836	53	949374	62.44	ug/L	97
93)	Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.		
94)	Ethyl acetate	9.339	9.339	0.880	43	2741754	238.98	ug/L	99
95)	Propionitrile	9.388	9.387	0.885	54	441788	264.54	ug/L	99
96)	Methacrylonitrile	9.577	9.570	0.902	41	1843199	265.93	ug/L	98
97)	Tetrahydrofuran	9.711	9.710	0.915	42	942528	256.47	ug/L	98
98)	Isobutyl alcohol	10.004	10.003	0.943	41	1345153	2642.13	ug/L	97
99)	Methyl tert-amyl ether	10.339	10.381	0.974	73	252	N.D.		
100)	Methyl methacrylate	11.205	11.204	1.056	69	2021251	291.51	ug/L	96
101)	1,4-Dioxane	11.327	11.326	1.067	88	319826	2595.39	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B104.D
Acq On : 8 Mar 2010 5:33 pm
Operator : ACJ
InstName : VOA4
Sample : |W4VM100308-03|CCV|1|VOAF|1|
Misc : GEL 5ML - MIX[B] 0304-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 08 17:56:57 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
102) 2-Nitropropane	11.674	11.667	1.100	43	1037871	249.31	ug/L	98
104) Ethyl methacrylate	12.461	12.460	0.905	69	3861972	287.99	ug/L	97
106) 1-Chlorohexane	13.619	13.661	0.842	55	191	N.D.		
107) cis-1,4-Dichloro-2-butene	14.783	14.783	0.914	53	1479416	315.88	ug/L	95
108) Cyclohexanone	14.905	14.905	0.921	42	515948	971.41	ug/L	97
109) trans-1,4-Dichloro-2-b...	15.064	15.063	0.931	53	1403819	313.99	ug/L	96
110) Pentachloroethane	15.771	15.770	0.975	167	2436123	370.36	ug/L	97
111) Benzyl chloride	16.314	16.319	1.008	91	7888020	345.69	ug/L	97
112) bis(2-Chloroisopropyl)...	16.716	16.715	1.033	45	1819986	279.27	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B104.D
Acq On : 8 Mar 2010 5:33 pm
Operator : ACJ
InstName : VOA4
Sample : |W4VM100308-03|CCV|1|VOAF|1|
Misc : GEL 5ML - MIX[B] 0304-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 08 17:56:57 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

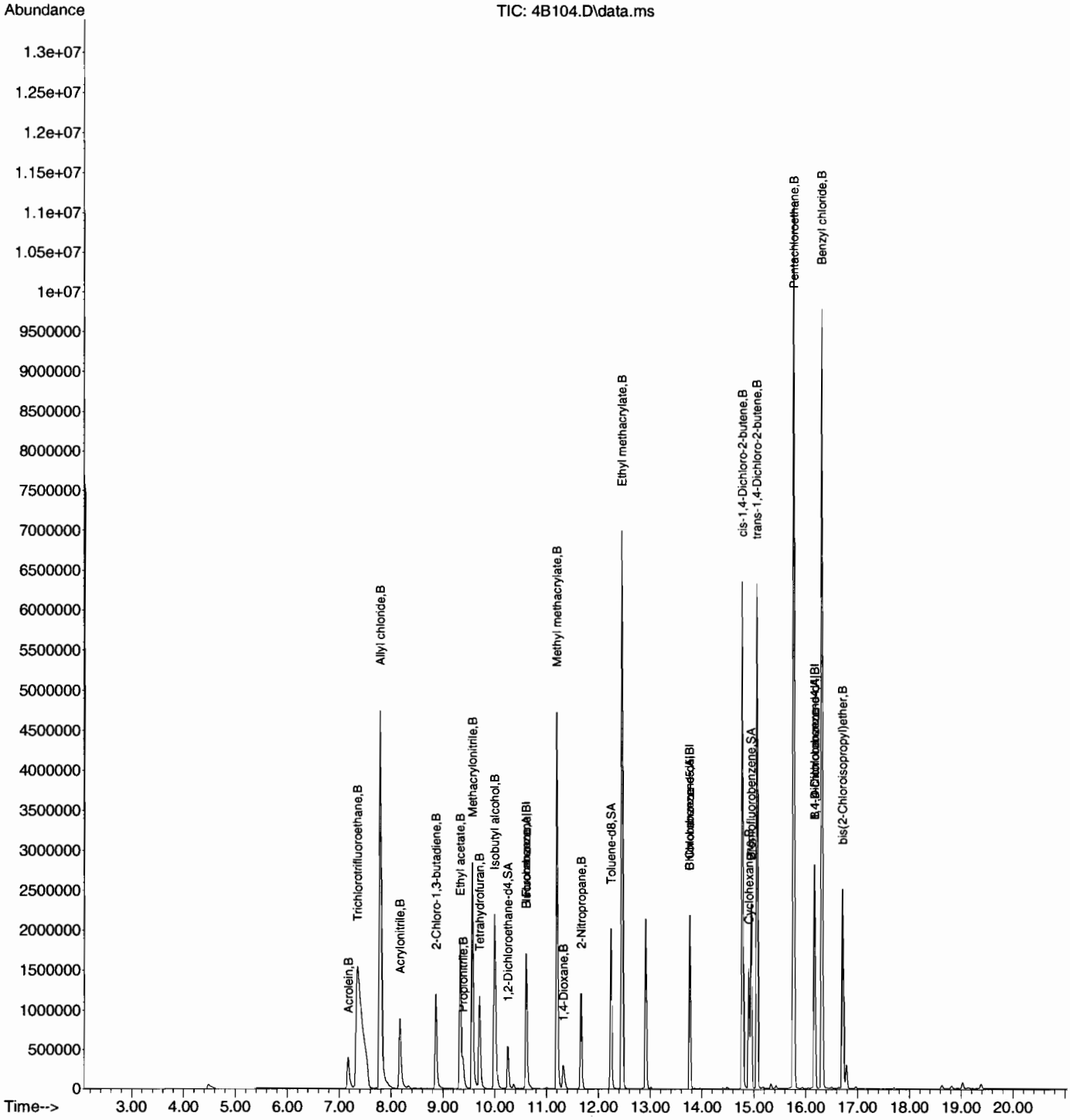

Quality Control Data

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A101.D
Acq On : 1 Mar 2010 7:08 pm
Operator : ACJ
Sample : |UVM091216-10|BFB1|1|VOAF|1|
Misc : GEL 5ML N/A
ALS Vial : 1 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Title : Volatile Organics 8260B SubList :
Last Update : Tue Mar 02 15:03:40 2010

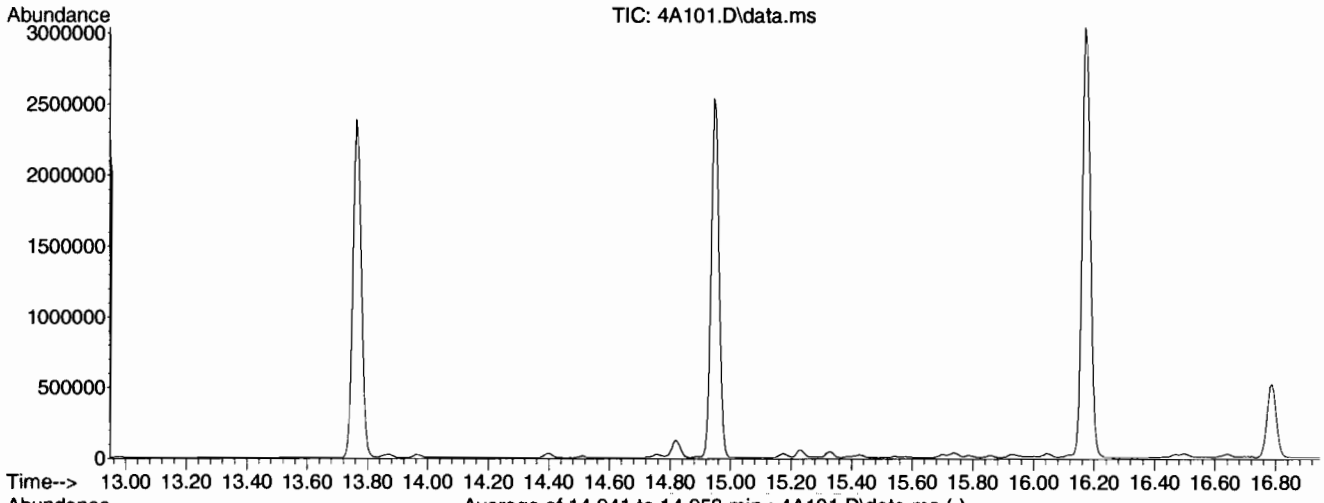

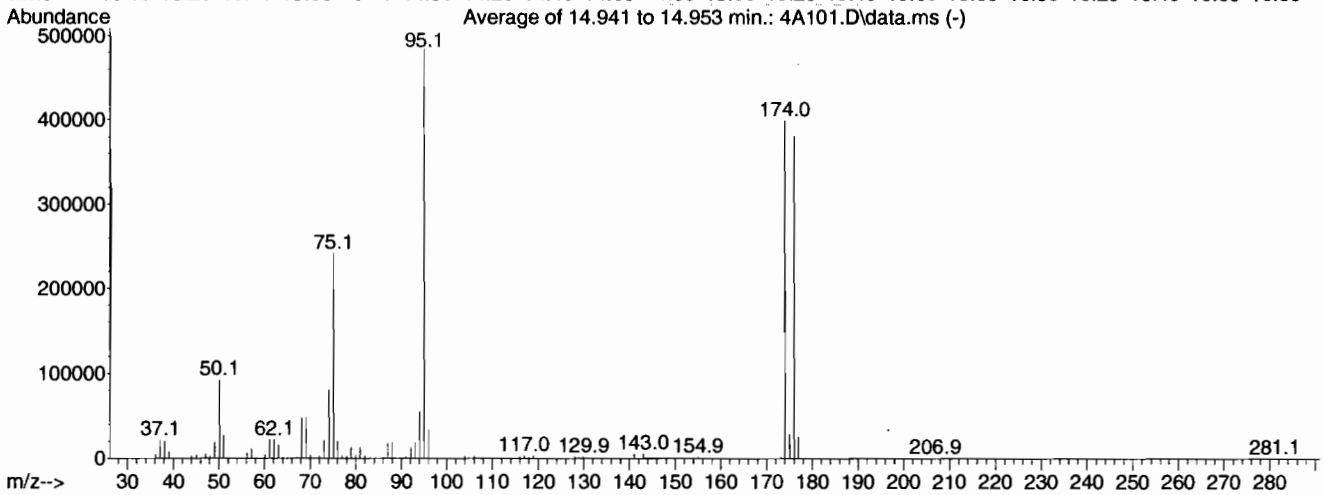

AutoFind: Scans 2006, 2007, 2008; Background Corrected with Scan 1996

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.1	92460	PASS
75	95	30	60	49.8	241152	PASS
95	95	100	100	100.0	484629	PASS
96	95	5	9	7.0	33893	PASS
173	174	0.00	2	0.5	1986	PASS
174	95	50	100	82.3	398848	PASS
175	174	5	9	7.0	27931	PASS
176	174	95	101	95.5	381035	PASS
177	176	5	9	6.7	25547	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030710V4\
Data File : 4A701.D
Acq On : 7 Mar 2010 7:02 pm
Operator : ACJ
Sample : |UVM100217-02|BFB1|1|VOAF|1|
Misc : GEL 5ML N/A
ALS Vial : 1 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\031110V4\Methods\VOA4-8260-030710.M
Title : Volatile Organics 8260B SubList :
Last Update : Mon Mar 08 17:08:49 2010

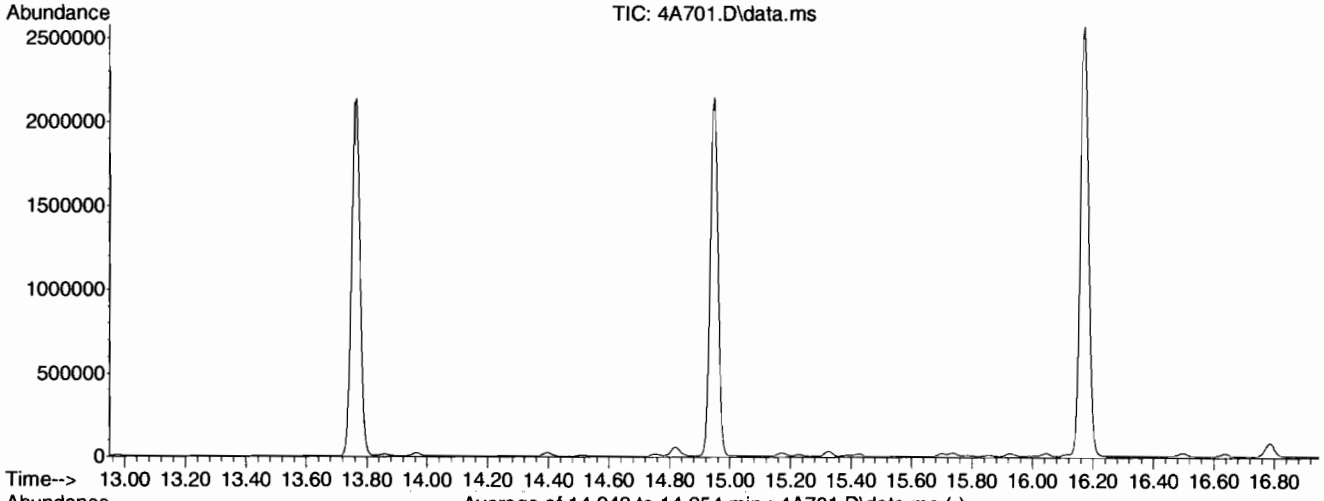

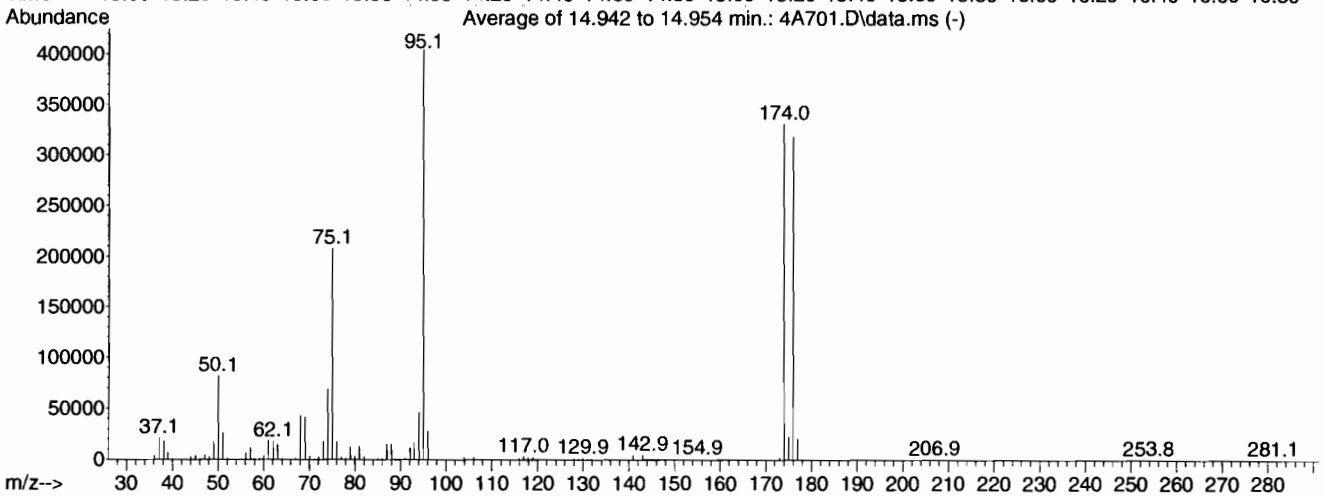

AutoFind: Scans 2006, 2007, 2008; Background Corrected with Scan 1996

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	81539	PASS
75	95	30	60	51.3	207573	PASS
95	95	100	100	100.0	404309	PASS
96	95	5	9	6.9	27867	PASS
173	174	0.00	2	0.6	1959	PASS
174	95	50	100	81.9	331221	PASS
175	174	5	9	6.8	22475	PASS
176	174	95	101	96.2	318549	PASS
177	176	5	9	6.5	20803	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B101.D
Acq On : 8 Mar 2010 3:51 pm
Operator : ACJ
Sample : |UVM100217-02|BFB1|1|VOAF|1|
Misc : GEL 5ML N/A
ALS Vial : 1 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\030810V4\Methods\VOA4-8260-030710.M
Title : Volatile Organics 8260B SubList :
Last Update : Mon Mar 08 15:37:50 2010

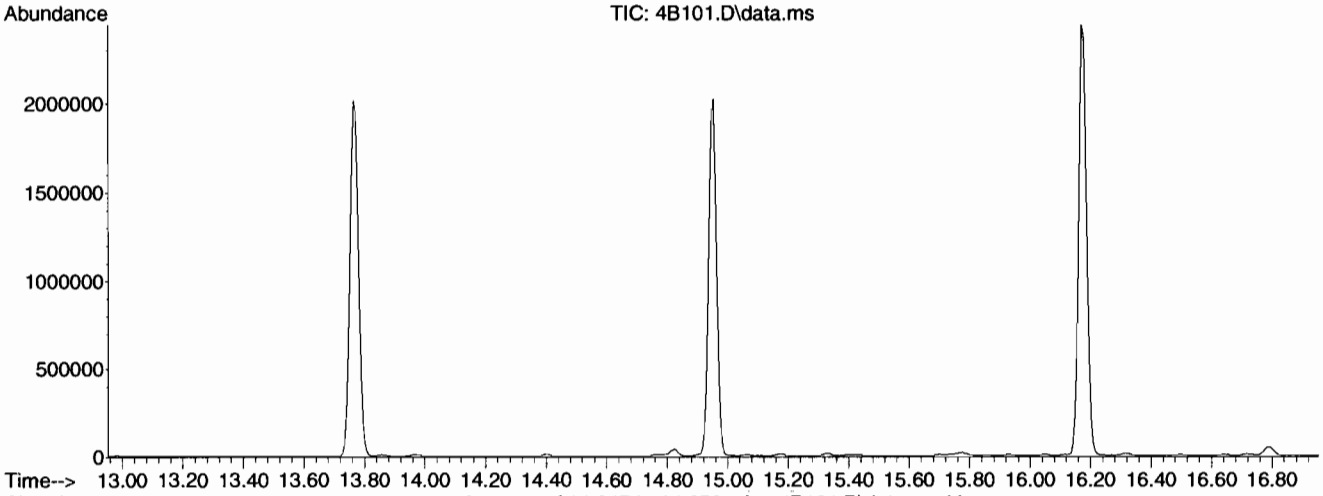

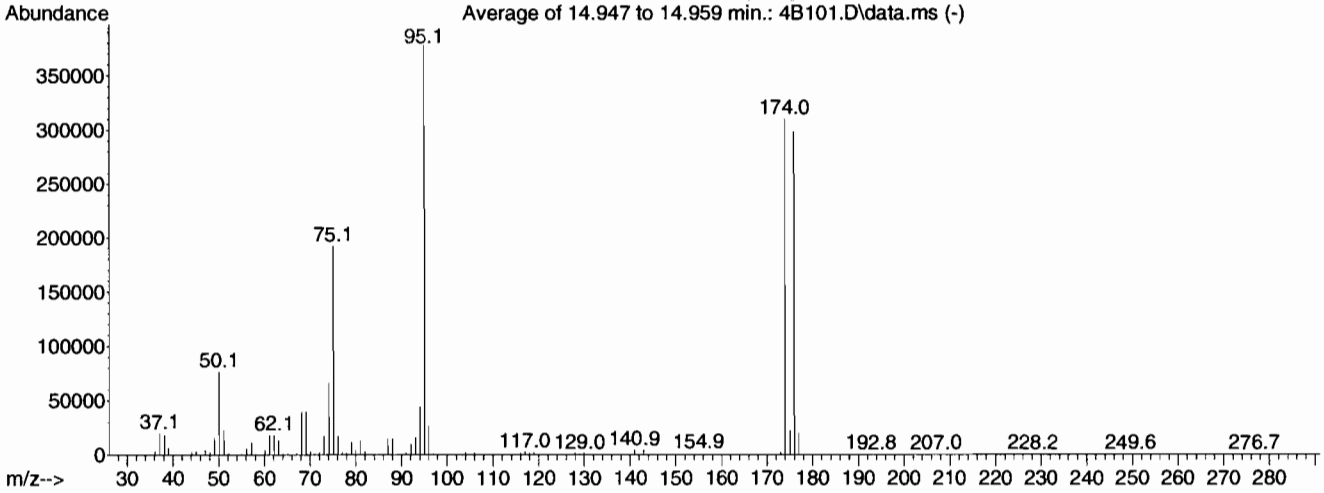

AutoFind: Scans 2007, 2008, 2009; Background Corrected with Scan 1996

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.2	76429	PASS
75	95	30	60	50.8	192021	PASS
95	95	100	100	100.0	377899	PASS
96	95	5	9	6.9	26224	PASS
173	174	0.00	2	0.6	1744	PASS
174	95	50	100	82.0	309824	PASS
175	174	5	9	7.1	22000	PASS
176	174	95	101	96.2	298091	PASS
177	176	5	9	6.4	19187	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A525.D
Acq On : 5 Mar 2010 11:44 pm
Operator : ACJ
Sample : |UVM091216-10|BFB2|1|VOAF|1|
Misc : GEL 5ML N/A
ALS Vial : 25 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\030210V4\Methods\VOA4-8260-030110.M
Title : Volatile Organics 8260B SubList :
Last Update : Tue Mar 02 15:03:40 2010

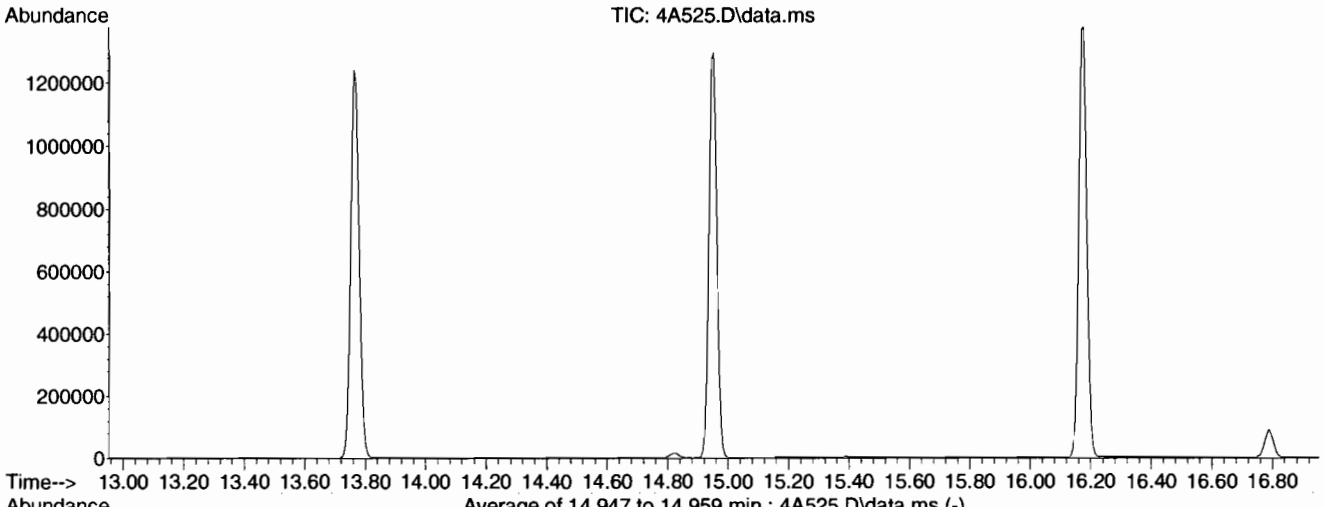

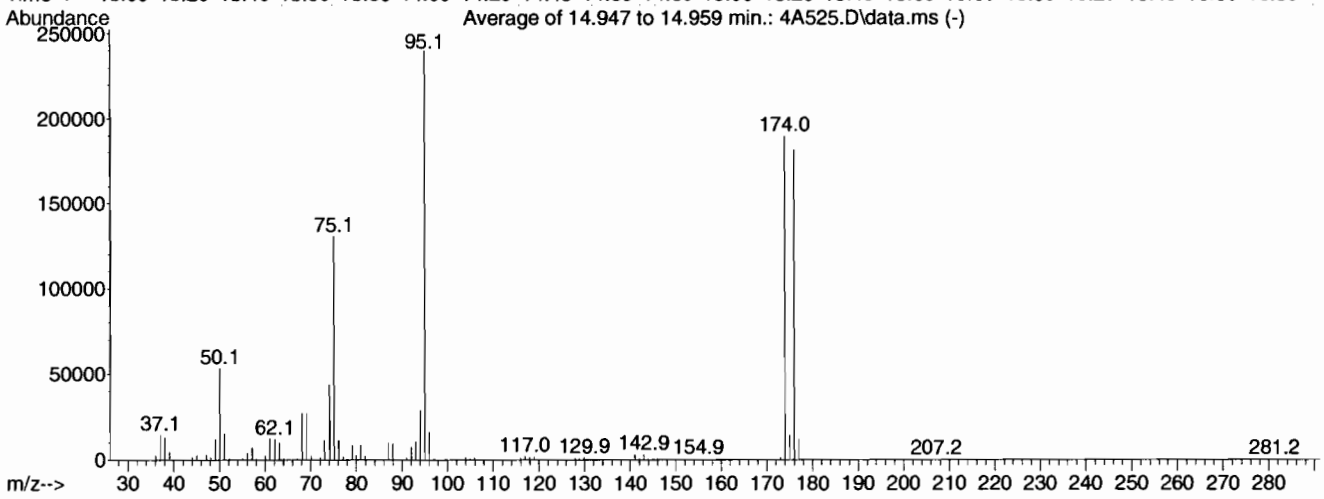

AutoFind: Scans 2007, 2008, 2009; Background Corrected with Scan 1997

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.2	53248	PASS
75	95	30	60	54.3	130624	PASS
95	95	100	100	100.0	240341	PASS
96	95	5	9	6.7	16112	PASS
173	174	0.00	2	0.6	1183	PASS
174	95	50	100	79.0	189781	PASS
175	174	5	9	7.3	13845	PASS
176	174	95	101	95.8	181760	PASS
177	176	5	9	6.5	11833	PASS

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202063270**				
Client Sample:	**QC for batch 961925**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 961925**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/06/2010 02:56**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/06/2010 02:56**				
Data File:	**030510V4\4A532BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202063270**				
Client Sample:	**QC for batch 961925**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 961925**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/06/2010 02:56**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/06/2010 02:56**				
Data File:	**030510V4\4A532BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202063270**				
Client Sample:	**QC for batch 961925**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 961925**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/06/2010 02:56**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/06/2010 02:56**				
Data File:	**030510V4\4A532BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	43.6	50.0	ug/L	87.2	(72%-132%)
Bromofluorobenzene	60.9	50.0	ug/L	122	(77%-123%)
Toluene-d8	48.2	50.0	ug/L	96.3	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.79	5.02	ug/L	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A532BL.D
Acq On : 6 Mar 2010 2:56 am
Operator : ACJ
InstName : VOA4
Sample : |1202063270|961925|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML -
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 06 11:49:11 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.613	10.620	1.000	96	1127232	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.765	13.771	1.000	117	904267	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	500590	50.00	ug/L	0.00
82) B Fluorobenzene	10.613	10.619	1.000	96	1127041	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.765	13.771	1.000	117	904267	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	500635	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.967	65	203425	43.62	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 87.24%					
43) Toluene-d8	12.247	12.247	0.890	98	807865	48.16	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 96.32%					
61) Bromofluorobenzene	14.947	14.954	0.924	95	596213	60.87	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 121.74%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.911	0.000		0	N.D.		
3) Chloromethane	5.292	5.291	0.499	50	110	N.D.		
4) Vinyl chloride	0.000	5.521	0.000		0	N.D.		
5) Bromomethane	0.000	6.137	0.000		0	N.D.		
6) Chloroethane	0.000	6.295	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.669	0.000		0	N.D.		
8) Ethyl ether	0.000	6.998	0.000		0	N.D.		
9) Acetone	7.357	7.352	0.693	43	2814	N.D.		
10) 1,1-Dichloroethylene	0.000	7.389	0.000		0	N.D.		
11) Iodomethane	7.601	7.663	0.716	142	124	N.D.		
12) Acetonitrile	7.717	7.699	0.727	41	365	N.D.		
13) Methyl acetate	7.717	7.748	0.727	43	246	N.D.		
14) Carbon disulfide	7.766	7.773	0.732	76	1146	N.D.		
15) Methylene chloride	7.949	7.931	0.749	84	8550	N.D.		
16) tert-Butyl methyl ether	0.000	8.242	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.285	0.000		0	N.D.		
18) Vinyl acetate	8.711	8.705	0.821	43	659	N.D.		
19) 1,1-Dichloroethane	0.000	8.760	0.000		0	N.D.		
20) 2-Butanone	9.339	9.327	0.880	43	1530	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.388	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.419	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.680	9.687	0.912	83	265	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.979	0.000		0	N.D.		
26) Cyclohexane	10.095	10.083	0.951	56	975	N.D.		
27) 1,1-Dichloropropene	0.000	10.132	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.175	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.339	0.000		0	N.D.		
31) Benzene	10.369	10.370	0.977	78	844	N.D.		
32) Cyclohexene	10.497	10.492	0.989	67	125	N.D.		
33) n-Butyl alcohol	10.692	10.693	1.007	56	491	N.D.		
34) Trichloroethylene	0.000	11.004	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.260	0.000		0	N.D.		
37) Dibromomethane	0.000	11.376	0.000		0	N.D.		
38) Bromodichloromethane	11.478	11.485	1.082	83	124	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.699	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A532BL.D
Acq On : 6 Mar 2010 2:56 am
Operator : ACJ
InstName : VOA4
Sample : |1202063270|961925|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML -
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 06 11:49:11 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	11.930	11.930	1.124	75	182	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.016	0.000		0	N.D.	
44) Toluene	12.320	12.320	0.895	91	4211	N.D.	
45) trans-1,3-Dichloroprop...	12.472	12.461	0.906	75	459	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.680	0.000		0	N.D.	
47) 2-Hexanone	12.874	12.857	0.935	43	826	N.D.	
48) 1,3-Dichloropropane	0.000	12.875	0.000		0	N.D.	
49) Tetrachloroethylene	12.905	12.918	0.938	164	919	N.D.	
50) Dibromochloromethane	0.000	13.144	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.320	0.000		0	N.D.	
52) Chlorobenzene	13.807	13.802	1.003	112	981	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.851	0.000		0	N.D.	
54) Ethylbenzene	13.862	13.863	1.007	91	1920	N.D.	
55) m,p-Xylenes	13.966	13.973	1.015	106	1210	N.D.	
56) o-Xylene	14.405	14.399	1.047	106	555	N.D.	
57) Styrene	14.392	14.399	1.046	104	758	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	14.758	14.759	0.912	105	1428	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	15.015	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.107	0.000		0	N.D.	
64) Bromobenzene	0.000	15.168	0.000		0	N.D.	
65) n-Propylbenzene	15.331	15.180	0.948	91	1004	N.D.	
66) 1,3,5-Trimethylbenzene	15.325	15.332	0.947	105	1156	N.D.	
67) 2-Chlorotoluene	15.429	15.332	0.954	126	244	N.D.	
68) 4-Chlorotoluene	15.435	15.430	0.954	91	1024	N.D.	
69) tert-Butylbenzene	0.000	15.704	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.734	15.741	0.972	105	999	N.D.	
71) sec-Butylbenzene	15.935	15.930	0.985	105	1190	N.D.	
72) 4-Isopropyltoluene	16.051	16.051	0.992	119	684	N.D.	
73) 1,3-Dichlorobenzene	16.112	16.119	0.996	146	603	N.D.	
74) 1,4-Dichlorobenzene	16.197	16.204	1.001	146	1170	N.D.	
75) n-Butylbenzene	16.508	16.503	1.020	91	967	N.D.	
76) 1,2-Dichlorobenzene	16.636	16.643	1.028	146	508	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.527	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	18.636	18.630	1.152	180	483	N.D.	
79) Hexachlorobutadiene	0.000	18.819	0.000		0	N.D.	
80) Naphthalene	19.032	19.026	1.176	128	3972	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.386	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	0.000	7.180	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.369	0.000		0	N.D.	
87) Isopropyl Alcohol	0.000	7.430	0.000		0	N.D.	
88) Allyl chloride	7.717	7.796	0.727	41	365	N.D.	
89) tert-Butyl Alcohol	7.912	7.924	0.746	59	215	N.D.	
90) Acrylonitrile	8.180	8.174	0.771	53	255	N.D.	
91) Isopropyl ether	0.000	8.741	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.869	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.143	0.000		0	N.D.	
94) Ethyl acetate	9.339	9.338	0.880	43	1530	N.D.	
95) Propionitrile	0.000	9.393	0.000		0	N.D.	
96) Methacrylonitrile	9.576	9.576	0.902	41	523	N.D.	
97) Tetrahydrofuran	9.704	9.710	0.914	42	837	N.D.	
98) Isobutyl alcohol	10.040	10.009	0.946	41	709	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A532BL.D
Acq On : 6 Mar 2010 2:56 am
Operator : ACJ
InstName : VOA4
Sample : |1202063270|961925|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML -
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 06 11:49:11 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	0.000	10.387	0.000		0	N.D.	
100)	Methyl methacrylate	11.198	11.204	1.055	69	487	N.D.	
101)	1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102)	2-Nitropropane	11.661	11.673	1.099	43	295	N.D.	
104)	Ethyl methacrylate	12.460	12.466	0.905	69	820	N.D.	
106)	1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	14.783	14.783	0.914	53	290	N.D.	
108)	Cyclohexanone	14.905	14.904	0.921	42	1919	N.D.	
109)	trans-1,4-Dichloro-2-b...	15.075	15.063	0.932	53	754	N.D.	
110)	Pentachloroethane	15.776	15.770	0.975	167	325	N.D.	
111)	Benzyl chloride	16.319	16.319	1.009	91	2507	N.D.	
112)	bis(2-Chloroisopropyl)...	16.709	16.721	1.033	45	1288	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A532BL.D
Acq On : 6 Mar 2010 2:56 am
Operator : ACJ
InstName : VOA4
Sample : |1202063270|961925|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML -
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Mar 06 11:49:11 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

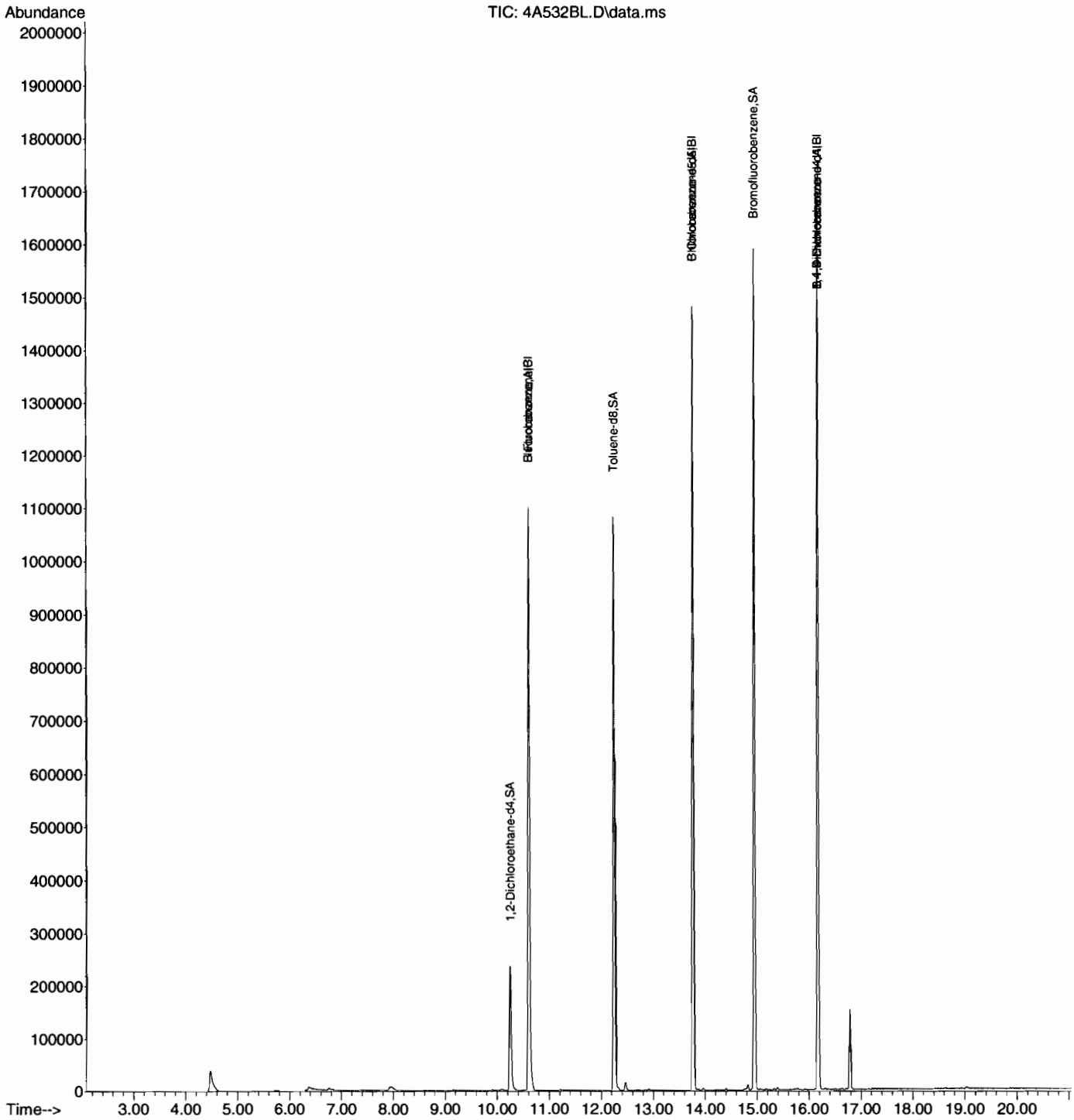

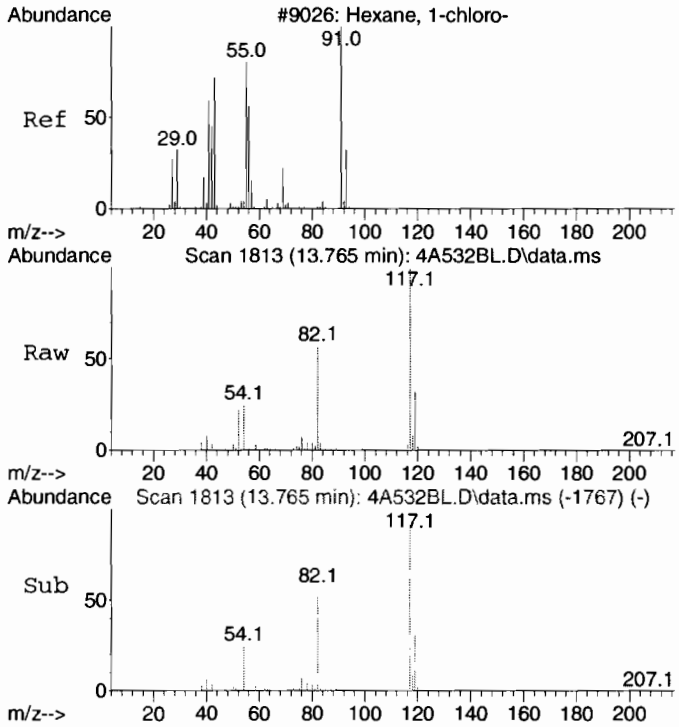

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.81 ug/L
RT: 13.765 min Scan# 1813
Delta R.T. 0.104 min
Lab File: 4A532BL.D
Acq: 6 Mar 2010 2:56 am

Tgt Ion: 55 Resp: 10440

Ion	Ratio	Lower	Upper
55	100		
91	20.7	112.1	172.1#
56	57.7	28.5	88.5

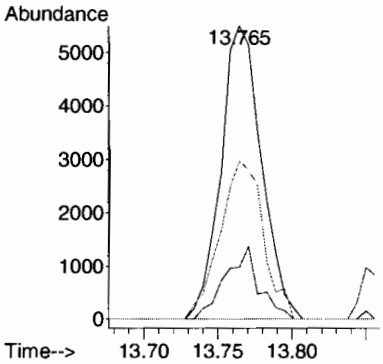

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A532BL.D
Acq On : 6 Mar 2010 2:56 am
Operator : ACJ
Sample : |1202063270|961925|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML -
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.788	5.02 ug/L	314215	B 1,4-Dichlorobenzene-d4	16.179

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	45
2	11H-Dibenzo[b,e][1,4]diazepin-11...	267	C16H17N3O	013450-73-2	43
3	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	40
4	1-Boraindane, 3-methyl-1-[1-(tri...	266	C17H23BSi	190316-36-0	14
5	Tetrasiloxane, 1,1,3,3,5,5,7,7-o...	282	C8H26O3Si4	001000-05-1	12

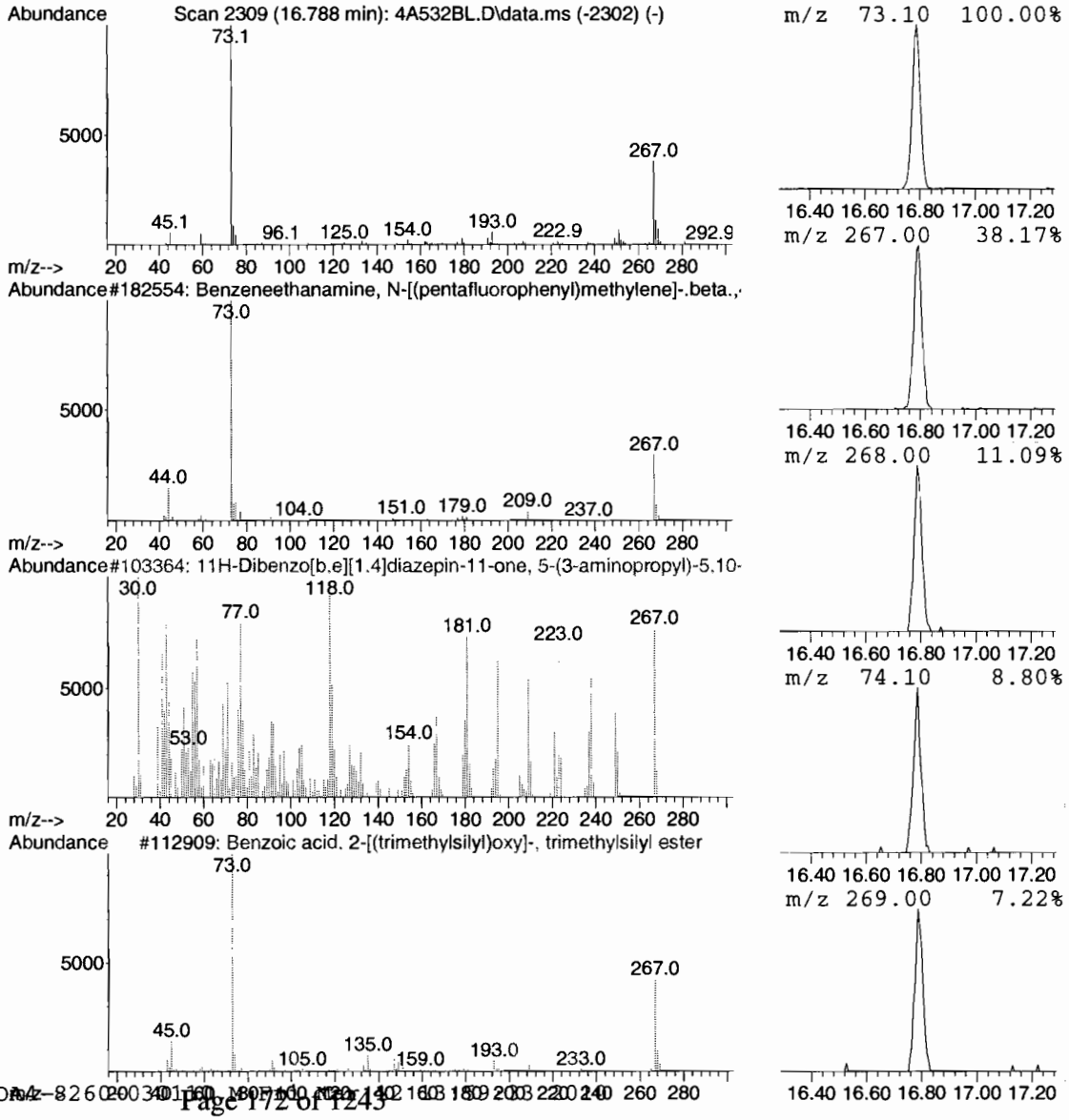

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A532BL.D
Acq On : 6 Mar 2010 2:56 am
Operator : ACJ
Sample : |1202063270|961925|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML -
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown siloxane	16.788	5.0	ug/L	314215	6	16.179	3128930	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202067782**				
Client Sample:	**QC for batch 961925**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 961925**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/08/2010 18:55**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/08/2010 18:55**				
Data File:	**030810V4\4B107BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202067782**				
Client Sample:	**QC for batch 961925**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 961925**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/08/2010 18:55**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/08/2010 18:55**				
Data File:	**030810V4\4B107BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202067782**				
Client Sample:	**QC for batch 961925**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 961925**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/08/2010 18:55**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/08/2010 18:55**				
Data File:	**030810V4\4B107BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	49.7	50.0	ug/L	99.3	(72%-132%)
Bromofluorobenzene	52.3	50.0	ug/L	105	(77%-123%)
Toluene-d8	49.9	50.0	ug/L	99.7	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown siloxane	16.79	14.7	ug/L	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B107BL.D
Acq On : 8 Mar 2010 6:55 pm
Operator : ACJ
InstName : VOA4
Sample : |1202067782|961925|1|VOAF|1|VOA8260LFD|
Misc : BLANK 5ML N/A
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 08 20:26:29 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.614	10.613	1.000	96	1640185	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.765	13.765	1.000	117	1238749	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	726009	50.00	ug/L	0.00
82) B Fluorobenzene	10.614	10.613	1.000	96	1640143	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.765	13.764	1.000	117	1238749	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	725944	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.260	10.259	0.967	65	439815	49.66	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 99.32%					
43) Toluene-d8	12.254	12.247	0.890	98	1406300	49.87	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 99.74%					
61) Bromofluorobenzene	14.954	14.947	0.924	95	736788	52.33	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 104.66%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	5.306	5.299	0.500	50	244	N.D.		
4) Vinyl chloride	0.000	5.521	0.000		0	N.D.		
5) Bromomethane	0.000	6.130	0.000		0	N.D.		
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.668	0.000		0	N.D.		
8) Ethyl ether	7.011	6.991	0.661	59	692	N.D.		
9) Acetone	7.364	7.351	0.694	43	5174	N.D.		
10) 1,1-Dichloroethylene	0.000	7.394	0.000		0	N.D.		
11) Iodomethane	7.620	7.662	0.718	142	150	N.D.		
12) Acetonitrile	7.669	7.693	0.723	41	331	N.D.		
13) Methyl acetate	7.754	7.747	0.731	43	632	N.D.		
14) Carbon disulfide	7.767	7.778	0.732	76	2306	N.D.		
15) Methylene chloride	7.937	7.967	0.748	84	15407	Below Cal #		80
16) tert-Butyl methyl ether	0.000	8.235	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.278	0.000		0	N.D.		
18) Vinyl acetate	8.718	8.705	0.821	43	1054	N.D.		
19) 1,1-Dichloroethane	0.000	8.753	0.000		0	N.D.		
20) 2-Butanone	9.346	9.320	0.881	43	2392	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.381	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.412	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.693	9.686	0.913	83	345	N.D.		
25) 1,1,1-Trichloroethane	9.973	9.973	0.940	97	122	N.D.		
26) Cyclohexane	10.083	10.076	0.950	56	464	N.D.		
27) 1,1-Dichloropropene	0.000	10.131	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.168	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.338	0.000		0	N.D.		
31) Benzene	10.370	10.369	0.977	78	1290	N.D.		
32) Cyclohexene	10.486	10.491	0.988	67	106	N.D.		
33) n-Butyl alcohol	0.000	10.686	0.000		0m	N.D.	d	
34) Trichloroethylene	0.000	11.003	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.259	0.000		0	N.D.		
37) Dibromomethane	0.000	11.369	0.000		0	N.D.		
38) Bromodichloromethane	11.491	11.478	1.083	83	126	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B107BL.D
Acq On : 8 Mar 2010 6:55 pm
Operator : ACJ
InstName : VOA4
Sample : |1202067782|961925|1|VOAF|1|VOA8260LFD|
Misc : BLANK 5ML N/A
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 08 20:26:29 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	11.924	11.930	1.123	75	165	N.D.		
42) 4-Methyl-2-pentanone	12.022	12.015	0.873	58	265	N.D.		
44) Toluene	12.321	12.320	0.895	91	3841	Below Cal		84
45) trans-1,3-Dichloroprop...	12.467	12.460	0.906	75	913	N.D.		
46) 1,1,2-Trichloroethane	0.000	12.679	0.000		0	N.D.		
47) 2-Hexanone	12.863	12.856	0.934	43	1205	N.D.		
48) 1,3-Dichloropropane	0.000	12.874	0.000		0	N.D.		
49) Tetrachloroethylene	12.924	12.917	0.939	164	301	N.D.		
50) Dibromochloromethane	0.000	13.143	0.000		0	N.D.		
51) 1,2-Dibromoethane	0.000	13.313	0.000		0	N.D.		
52) Chlorobenzene	13.802	13.801	1.003	112	939	N.D.		
53) 1,1,1,2-Tetrachloroethane	0.000	13.850	0.000		0	N.D.		
54) Ethylbenzene	13.875	13.862	1.008	91	1742	N.D.		
55) m,p-Xylenes	13.973	13.966	1.015	106	1364	N.D.		
56) o-Xylene	14.412	14.399	1.047	106	437	N.D.		
57) Styrene	14.393	14.399	1.046	104	844	N.D.		
59) Bromoform	0.000	14.655	0.000		0	N.D.		
60) Isopropylbenzene	14.759	14.758	0.912	105	1414	N.D.		
62) 1,1,2,2-Tetrachloroethane	15.027	15.014	0.929	83	263	N.D.		
63) 1,2,3-Trichloropropane	0.000	15.106	0.000		0	N.D.		
64) Bromobenzene	15.174	15.167	0.938	156	311	N.D.		
65) n-Propylbenzene	15.186	15.179	0.939	91	1628	N.D.		
66) 1,3,5-Trimethylbenzene	15.332	15.325	0.948	105	964	N.D.		
67) 2-Chlorotoluene	15.338	15.331	0.948	126	102	N.D.		
68) 4-Chlorotoluene	15.424	15.429	0.953	91	1726	N.D.		
69) tert-Butylbenzene	15.704	15.703	0.971	134	118	N.D.		
70) 1,2,4-Trimethylbenzene	15.735	15.740	0.972	105	1360	N.D.		
71) sec-Butylbenzene	15.936	15.929	0.985	105	972	N.D.		
72) 4-Isopropyltoluene	16.058	16.051	0.992	119	1090	N.D.		
73) 1,3-Dichlorobenzene	16.119	16.118	0.996	146	1096	N.D.		
74) 1,4-Dichlorobenzene	16.204	16.203	1.002	146	1807	N.D.		
75) n-Butylbenzene	16.503	16.502	1.020	91	973	N.D.		
76) 1,2-Dichlorobenzene	16.637	16.642	1.028	146	948	N.D.		
77) 1,2-Dibromo-3-chloropr...	17.545	17.526	1.084	157	169	N.D.		
78) 1,2,4-Trichlorobenzene	18.643	18.629	1.152	180	1087	N.D.		
79) Hexachlorobutadiene	0.000	18.818	0.000		0	N.D.		
80) Naphthalene	19.027	19.026	1.176	128	6327	N.D.		
81) 1,2,3-Trichlorobenzene	19.386	19.385	1.198	180	1061	N.D.		
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85) Acrolein	7.285	7.174	0.686	56	270	N.D.		
86) Trichlorotrifluoroethane	0.000	7.363	0.000		0	N.D.		
87) Isopropyl Alcohol	7.450	7.430	0.702	45	2053	N.D.		
88) Allyl chloride	7.767	7.796	0.732	41	306	N.D.		
89) tert-Butyl Alcohol	7.919	7.924	0.746	59	885	N.D.		
90) Acrylonitrile	8.175	8.168	0.770	53	554	N.D.		
91) Isopropyl ether	0.000	8.735	0.000		0	N.D.		
92) 2-Chloro-1,3-butadiene	0.000	8.863	0.000		0	N.D.		
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.		
94) Ethyl acetate	9.346	9.339	0.881	43	2392	N.D.		
95) Propionitrile	9.419	9.387	0.887	54	153	N.D.		
96) Methacrylonitrile	9.565	9.570	0.901	41	435	N.D.		
97) Tetrahydrofuran	9.724	9.710	0.916	42	1686	N.D.		
98) Isobutyl alcohol	10.144	10.003	0.956	41	133	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B107BL.D
Acq On : 8 Mar 2010 6:55 pm
Operator : ACJ
InstName : VOA4
Sample : |1202067782|961925|1|VOAF|1|VOA8260LFD|
Misc : BLANK 5ML N/A
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 08 20:26:29 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
99)	Methyl tert-amyl ether	0.000	10.381	0.000		0	N.D.		
100)	Methyl methacrylate	11.193	11.204	1.055	69	685	N.D.		
101)	1,4-Dioxane	11.327	11.326	1.067	88	223	N.D.		
102)	2-Nitropropane	0.000	11.667	0.000		0m	N.D.		d
104)	Ethyl methacrylate	12.461	12.460	0.905	69	1517	N.D.		
106)	1-Chlorohexane	13.668	13.661	0.845	55	158	N.D.		
107)	cis-1,4-Dichloro-2-butene	14.771	14.783	0.913	53	1005	N.D.		
108)	Cyclohexanone	14.905	14.905	0.921	42	1109	N.D.		
109)	trans-1,4-Dichloro-2-b...	15.064	15.063	0.931	53	988	N.D.		
110)	Pentachloroethane	0.000	15.770	0.000		0m	N.D.		d
111)	Benzyl chloride	16.314	16.319	1.008	91	6177	N.D.		
112)	bis(2-Chloroisopropyl)...	16.716	16.715	1.033	45	2503	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B107BL.D
Acq On : 8 Mar 2010 6:55 pm
Operator : ACJ
InstName : VOA4
Sample : |1202067782|961925|1|VOAF|1|VOA8260LFD|
Misc : BLANK 5ML N/A
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 08 20:26:29 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

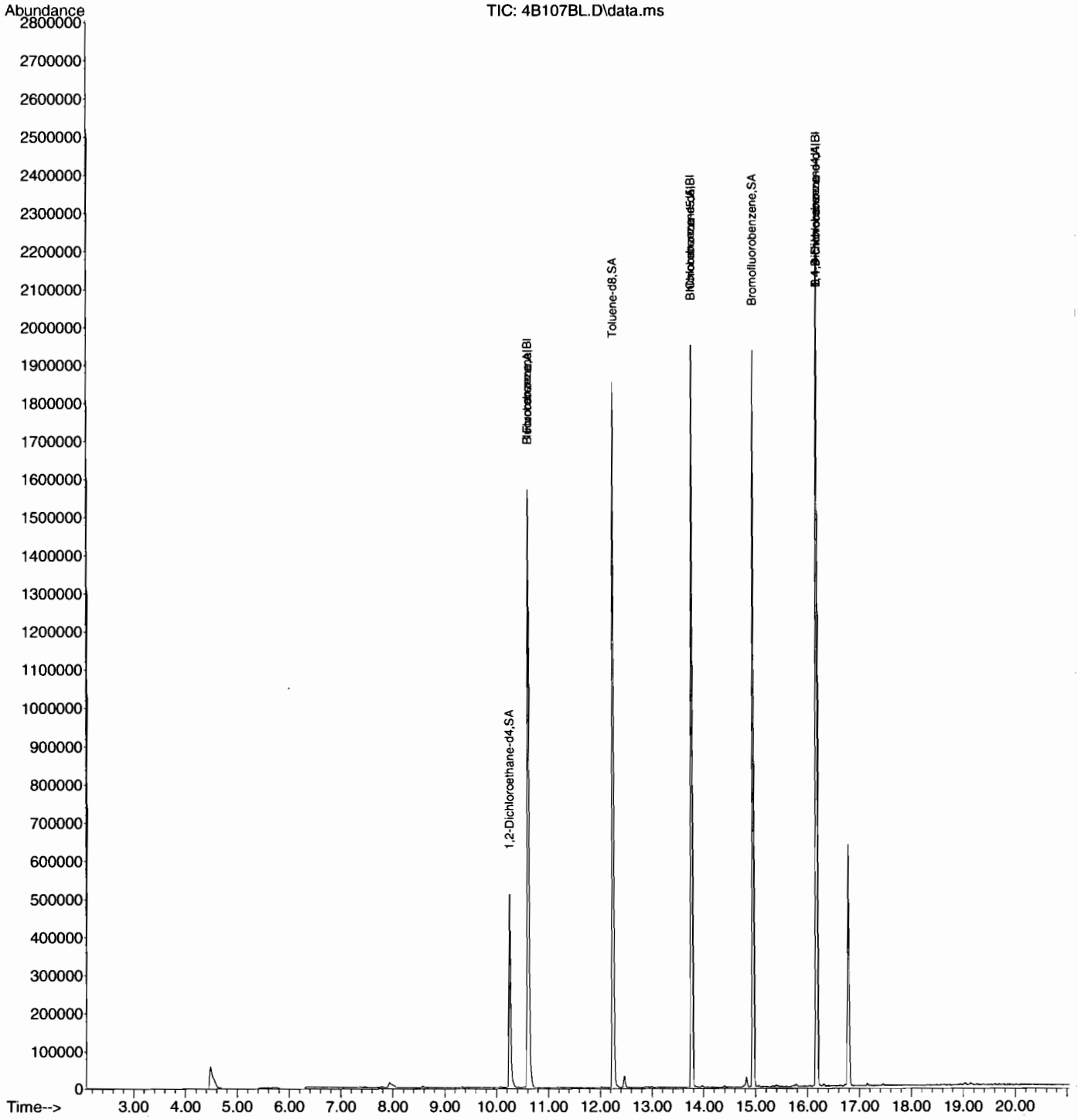

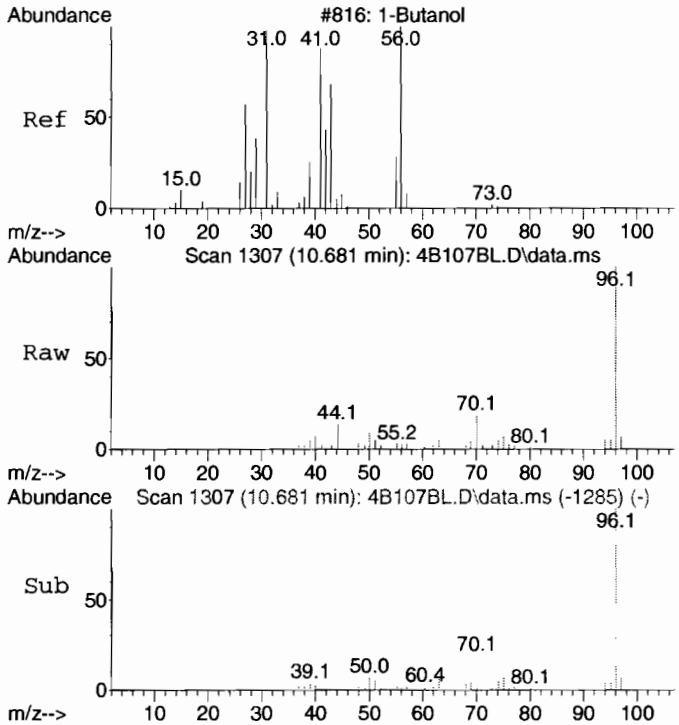

#33 BEFORE analyst DELETION
n-Butyl alcohol
Concen: 181.64 ug/L
RT: 10.681 min Scan# 1307
Delta R.T. -0.005 min
Lab File: 4B107BL.D
Acq: 8 Mar 2010 6:55 pm

Tgt Ion: 56 Resp: 395

Ion	Ratio	Lower	Upper
56	100		
41	67.6	49.2	109.2
43	62.3	30.5	90.5

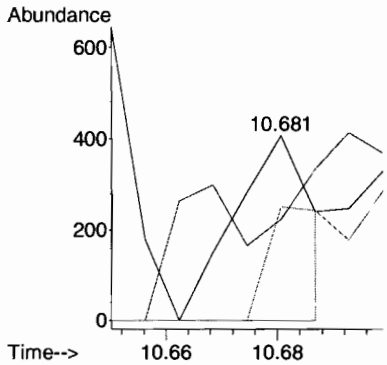

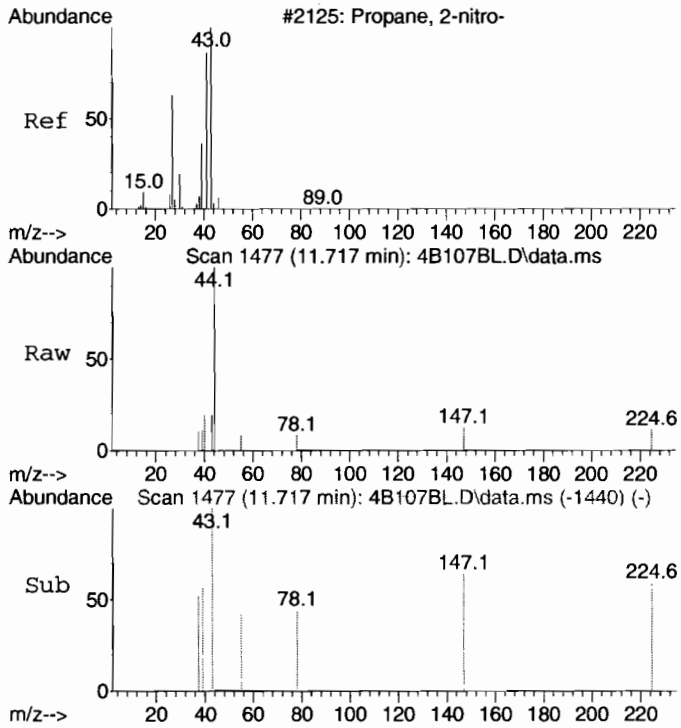

#102 BEFORE analyst DELETION
2-Nitropropane
Concen: 6.25 ug/L
RT: 11.717 min Scan# 1477
Delta R.T. 0.050 min
Lab File: 4B107BL.D
Acq: 8 Mar 2010 6:55 pm

Tgt Ion: 43 Resp: 128

Ion	Ratio	Lower	Upper
43	100		
41	96.1	57.4	117.4

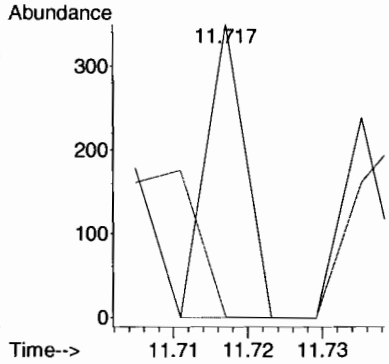

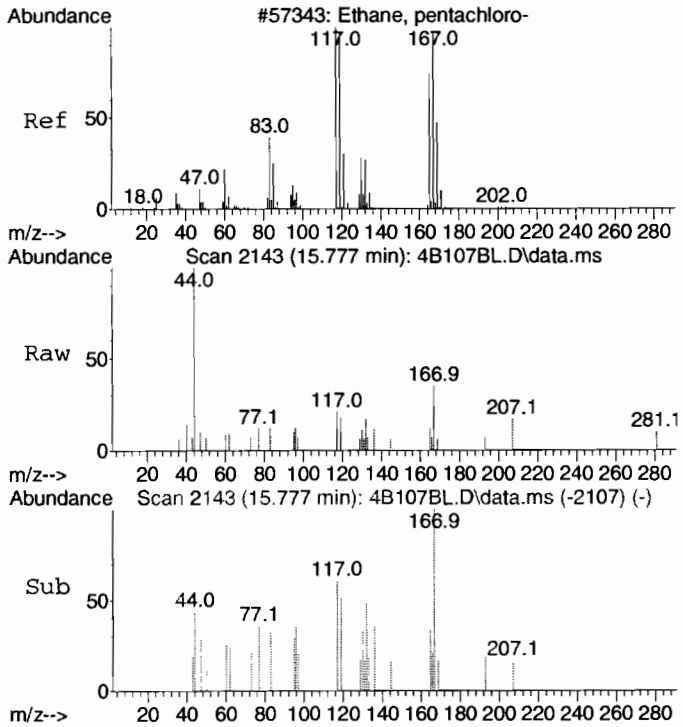

#110 BEFORE analyst DELETION
Pentachloroethane
Concen: 2.59 ug/L
RT: 15.777 min Scan# 2143
Delta R.T. 0.007 min
Lab File: 4B107BL.D
Acq: 8 Mar 2010 6:55 pm

Tgt Ion:167 Resp: 874

Ion	Ratio	Lower	Upper
167	100		
130	52.5	11.5	71.5
132	88.3	9.9	69.9#

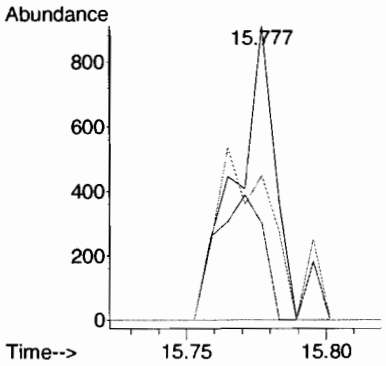

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B107BL.D
Acq On : 8 Mar 2010 6:55 pm
Operator : ACJ
Sample : |1202067782|961925|1|VOAF|1|VOA8260LFD|
Misc : BLANK 5ML N/A
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.789	14.65 ug/L	1289290	B 1,4-Dichlorobenzene-d4	16.180

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	45
2	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	39
3	1-Boraindane, 3-methyl-1-[1-(tri...	266	C17H23BSi	190316-36-0	10
4	Tetrasiloxane, 1,1,3,3,5,5,7,7-o...	282	C8H26O3Si4	001000-05-1	9
5	11H-Dibenzo[b,e][1,4]diazepin-11...	267	C16H17N3O	013450-73-2	9

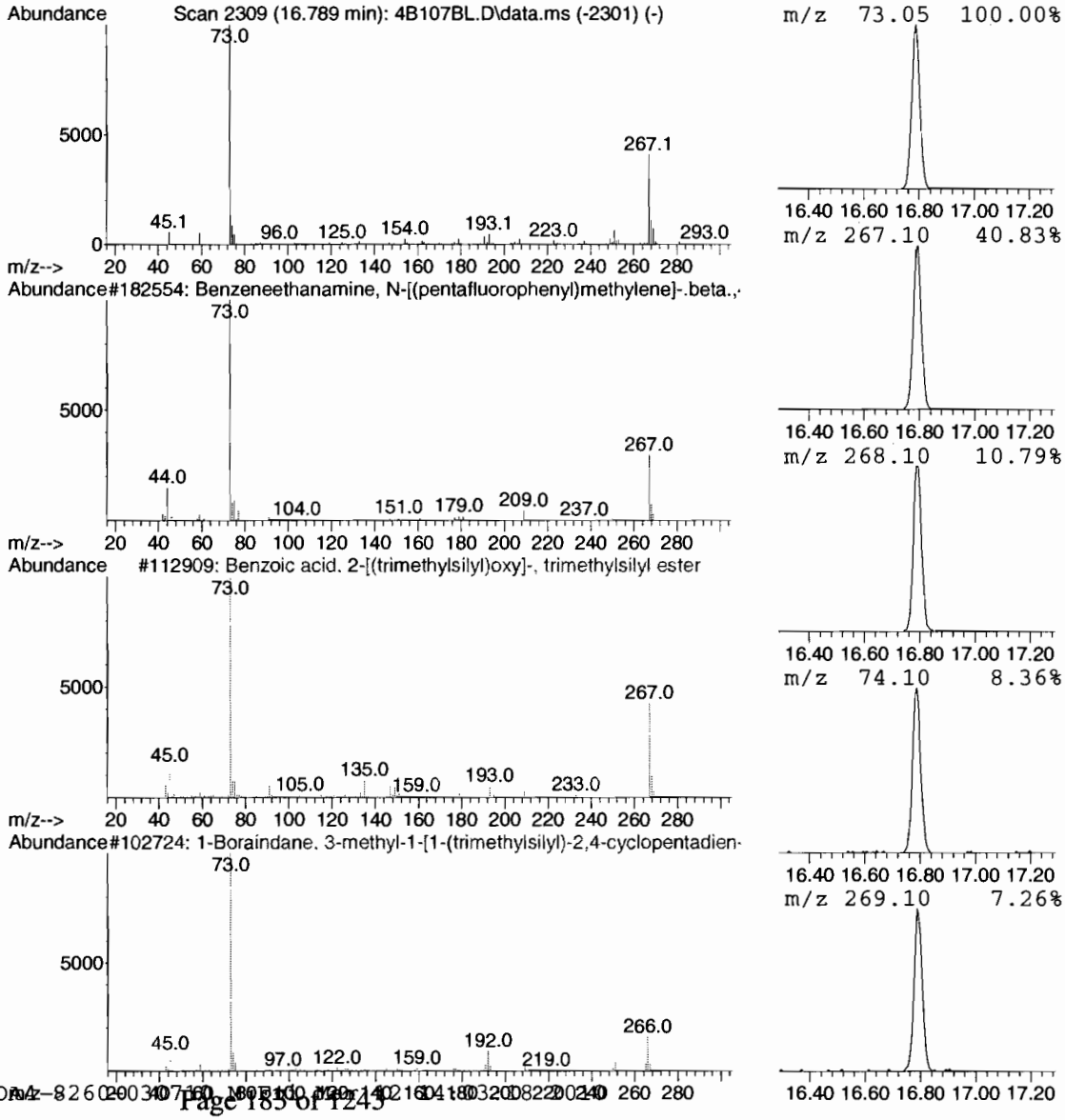

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B107BL.D
Acq On : 8 Mar 2010 6:55 pm
Operator : ACJ
Sample : |1202067782|961925|1|VOAF|1|VOA8260LFD|
Misc : BLANK 5ML N/A
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown siloxane	16.789	14.7	ug/L	1289290	6	16.180	4401700	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202063273**				
Client Sample:	**QC for batch 961925**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961925**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/06/2010 00:39**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/06/2010 00:39**				
Data File:	**030510V4\4A527LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		46.6	ug/L	0.300	1.00
74-87-3	Chloromethane		51.4	ug/L	0.300	1.00
75-01-4	Vinyl chloride		53.6	ug/L	0.500	1.00
74-83-9	Bromomethane		54.9	ug/L	0.300	1.00
75-00-3	Chloroethane		52.0	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		52.0	ug/L	0.300	1.00
60-29-7	Ethyl ether		48.5	ug/L	0.300	1.00
67-64-1	Acetone		209	ug/L	3.50	10.0
75-05-8	Acetonitrile		1250	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		49.8	ug/L	0.300	1.00
74-88-4	Iodomethane		236	ug/L	1.25	5.00
75-09-2	Methylene chloride		45.2	ug/L	3.00	10.0
75-15-0	Carbon disulfide		283	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		44.8	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		50.5	ug/L	0.300	1.00
108-05-4	Vinyl acetate		260	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		51.3	ug/L	0.300	1.00
78-93-3	2-Butanone		211	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		50.7	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		46.3	ug/L	0.300	1.00
67-66-3	Chloroform		49.7	ug/L	0.250	1.00
74-97-5	Bromochloromethane		47.0	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		48.1	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		50.5	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		4790	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		48.3	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		49.6	ug/L	0.250	1.00
71-43-2	Benzene		48.9	ug/L	0.300	1.00
79-01-6	Trichloroethylene		49.8	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		51.6	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		51.1	ug/L	0.250	1.00
74-95-3	Dibromomethane		47.9	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		228	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		50.5	ug/L	0.250	1.00
108-88-3	Toluene		47.3	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		48.9	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		48.2	ug/L	0.250	1.00
591-78-6	2-Hexanone		219	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202063273**				
Client Sample:	**QC for batch 961925**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961925**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/06/2010 00:39**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/06/2010 00:39**				
Data File:	**030510V4\4A527LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		48.3	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		46.8	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		48.1	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		47.1	ug/L	0.250	1.00
108-90-7	Chlorobenzene		48.8	ug/L	0.250	1.00
100-41-4	Ethylbenzene		49.6	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		101	ug/L	0.500	2.00
95-47-6	o-Xylene		51.5	ug/L	0.300	1.00
100-42-5	Styrene		53.6	ug/L	0.250	1.00
75-25-2	Bromoform		48.3	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		46.2	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		44.4	ug/L	0.300	1.00
108-86-1	Bromobenzene		49.9	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		51.7	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		52.0	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		49.8	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		52.6	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		51.3	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		49.9	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		51.4	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		51.0	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		51.7	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		50.1	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		49.4	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		52.6	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		43.5	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		46.6	ug/L	0.300	1.00
91-20-3	Naphthalene		42.0	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		47.2	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202063273**				
Client Sample:	**QC for batch 961925**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961925**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/06/2010 00:39**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/06/2010 00:39**				
Data File:	**030510V4\4A527LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		49.9	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		46.4	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		48.2	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	42.7	50.0	ug/L	85.4	(72%-132%)
Bromofluorobenzene	53.6	50.0	ug/L	107	(77%-123%)
Toluene-d8	44.8	50.0	ug/L	89.7	(76%-122%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A527LL.D
Acq On : 6 Mar 2010 12:39 am
Operator : ACJ
InstName : VOA4
Sample : |1202063273|961925|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[A] 0220-01D+0304-01
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 06 11:43:39 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.613	10.620	1.000	96	1128704	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.764	13.771	1.000	117	977635	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	662789	50.00	ug/L	0.00
82) B Fluorobenzene	10.613	10.619	1.000	96	1128661	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.764	13.771	1.000	117	977635	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	662811	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.967	65	199426	42.71	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 85.42%					
43) Toluene-d8	12.246	12.247	0.890	98	813036	44.83	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 89.66%					
61) Bromofluorobenzene	14.953	14.954	0.924	95	695544	53.64	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 107.28%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.897	4.911	0.461	85	333212	46.58	ug/L	100
3) Chloromethane	5.292	5.291	0.499	50	601872	51.40	ug/L	99
4) Vinyl chloride	5.514	5.521	0.520	62	621616	53.57	ug/L	100
5) Bromomethane	6.130	6.137	0.578	94	378506	54.85	ug/L	99
6) Chloroethane	6.288	6.295	0.593	64	310828	52.00	ug/L	99
7) Trichlorofluoromethane	6.656	6.669	0.627	101	615840	52.04	ug/L	99
8) Ethyl ether	6.991	6.998	0.659	59	273603	48.54	ug/L	97
9) Acetone	7.351	7.352	0.693	43	1483291	208.54	ug/L	97
10) 1,1-Dichloroethylene	7.400	7.389	0.697	61	654982	49.78	ug/L	97
11) Iodomethane	7.650	7.663	0.721	142	3208884	236.14	ug/L	98
12) Acetonitrile	7.692	7.699	0.725	41	1470676	1245.66	ug/L	99
13) Methyl acetate	7.747	7.748	0.730	43	1475521	244.21	ug/L	97
14) Carbon disulfide	7.772	7.773	0.732	76	6913854	282.52	ug/L	99
15) Methylene chloride	7.936	7.931	0.748	84	461230	45.18	ug/L	95
16) tert-Butyl methyl ether	8.235	8.242	0.776	73	973531	44.80	ug/L	98
17) trans-1,2-Dichloroethy...	8.278	8.285	0.780	61	511370	50.47	ug/L	97
18) Vinyl acetate	8.704	8.705	0.820	43	3421730	259.84	ug/L	97
19) 1,1-Dichloroethane	8.753	8.760	0.825	63	652258	51.34	ug/L	100
20) 2-Butanone	9.320	9.327	0.878	43	1576169	211.21	ug/L	95
21) cis-1,2-Dichloroethylene	9.381	9.388	0.884	61	563205	50.71	ug/L	96
22) 2,2-Dichloropropane	9.418	9.419	0.887	77	315369	46.29	ug/L	92
23) Bromochloromethane	9.655	9.656	0.910	128	189128	46.99	ug/L	91
24) Chloroform	9.686	9.687	0.913	83	662806	49.68	ug/L	98
25) 1,1,1-Trichloroethane	9.972	9.979	0.940	97	500003	48.08	ug/L	97
26) Cyclohexane	10.076	10.083	0.949	56	559987	48.48	ug/L	97
27) 1,1-Dichloropropene	10.131	10.132	0.955	75	493055	50.53	ug/L #	78
28) Carbon tetrachloride	10.168	10.175	0.958	117	477169	48.25	ug/L	99
30) 1,2-Dichloroethane	10.338	10.339	0.974	62	539576	49.57	ug/L	99
31) Benzene	10.369	10.370	0.977	78	1405773	48.85	ug/L	99
32) Cyclohexene	10.491	10.492	0.989	67	683572	48.73	ug/L	97
33) n-Butyl alcohol	10.686	10.693	1.007	56	1422225	4788.61	ug/L	95
34) Trichloroethylene	10.997	11.004	1.036	95	378809	49.79	ug/L	98
35) 1,2-Dichloropropane	11.241	11.241	1.059	63	384261	51.60	ug/L	99
36) Methylcyclohexane	11.259	11.260	1.061	83	586400	48.77	ug/L	97
37) Dibromomethane	11.369	11.376	1.071	93	235572	47.94	ug/L	94
38) Bromodichloromethane	11.478	11.485	1.082	83	504555	51.11	ug/L	99
39) 2-Chloroethylvinyl ether	11.692	11.699	1.102	63	811791	196.78	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A527LL.D
Acq On : 6 Mar 2010 12:39 am
Operator : ACJ
InstName : VOA4
Sample : |1202063273|961925|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[A] 0220-01D+0304-01
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 06 11:43:39 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40)	cis-1,3-Dichloropropylene	11.929	11.930	1.124	75	582215	50.53	ug/L	95
42)	4-Methyl-2-pentanone	12.015	12.016	0.873	58	812626	227.99	ug/L	91
44)	Toluene	12.320	12.320	0.895	91	1530357	47.29	ug/L	99
45)	trans-1,3-Dichloroprop...	12.460	12.461	0.905	75	555582	48.89	ug/L	96
46)	1,1,2-Trichloroethane	12.679	12.680	0.921	83	280652	48.19	ug/L	99
47)	2-Hexanone	12.856	12.857	0.934	43	2164062	218.80	ug/L	95
48)	1,3-Dichloropropane	12.868	12.875	0.935	76	584391	48.29	ug/L	93
49)	Tetrachloroethylene	12.917	12.918	0.938	164	304759	46.80	ug/L	98
50)	Dibromochloromethane	13.143	13.144	0.955	129	399201	48.13	ug/L	100
51)	1,2-Dibromoethane	13.313	13.320	0.967	107	353369	47.06	ug/L	99
52)	Chlorobenzene	13.801	13.802	1.003	112	1075865	48.81	ug/L	99
53)	1,1,1,2-Tetrachloroethane	13.850	13.851	1.006	131	417538	49.91	ug/L	100
54)	Ethylbenzene	13.862	13.863	1.007	91	1899407	49.56	ug/L	99
55)	m,p-Xylenes	13.966	13.973	1.015	106	1534617	100.95	ug/L	96
56)	o-Xylene	14.398	14.399	1.046	106	811533	51.51	ug/L	95
57)	Styrene	14.398	14.399	1.046	104	1369893	53.55	ug/L	98
59)	Bromoform	14.654	14.655	0.906	173	289242	48.28	ug/L	100
60)	Isopropylbenzene	14.758	14.759	0.912	105	2089984	49.83	ug/L	99
62)	1,1,2,2-Tetrachloroethane	15.014	15.015	0.928	83	556415	46.22	ug/L	100
63)	1,2,3-Trichloropropane	15.106	15.107	0.934	110	145529	44.36	ug/L	93
64)	Bromobenzene	15.167	15.168	0.937	156	575556	49.87	ug/L	94
65)	n-Propylbenzene	15.179	15.180	0.938	91	2648636	51.73	ug/L	98
66)	1,3,5-Trimethylbenzene	15.325	15.332	0.947	105	2015257	52.55	ug/L	98
67)	2-Chlorotoluene	15.331	15.332	0.948	126	594195	51.99	ug/L	94
68)	4-Chlorotoluene	15.429	15.430	0.954	91	1639153	51.25	ug/L	98
69)	tert-Butylbenzene	15.703	15.704	0.971	134	419403	49.89	ug/L	95
70)	1,2,4-Trimethylbenzene	15.740	15.741	0.973	105	2009352	51.38	ug/L	99
71)	sec-Butylbenzene	15.929	15.930	0.985	105	2623080	51.00	ug/L	98
72)	4-Isopropyltoluene	16.051	16.051	0.992	119	2137045	51.66	ug/L	99
73)	1,3-Dichlorobenzene	16.118	16.119	0.996	146	1148626	50.07	ug/L	99
74)	1,4-Dichlorobenzene	16.203	16.204	1.002	146	1160183	49.43	ug/L	100
75)	n-Butylbenzene	16.502	16.503	1.020	91	2063891	52.57	ug/L	98
76)	1,2-Dichlorobenzene	16.642	16.643	1.029	146	1077128	48.24	ug/L	100
77)	1,2-Dibromo-3-chloropr...	17.526	17.527	1.083	157	93144	43.48	ug/L	96
78)	1,2,4-Trichlorobenzene	18.629	18.630	1.151	180	530245	46.43	ug/L	100
79)	Hexachlorobutadiene	18.818	18.819	1.163	225	344988	46.62	ug/L	99
80)	Naphthalene	19.026	19.026	1.176	128	1191915	41.95	ug/L	100
81)	1,2,3-Trichlorobenzene	19.385	19.386	1.198	180	448778	47.18	ug/L	99
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85)	Acrolein	7.156	7.180	0.674		0m	N.D.	d	
86)	Trichlorotrifluoroethane	7.333	7.369	0.691		0m	N.D.	d	
87)	Isopropyl Alcohol	7.339	7.430	0.692		0m	N.D.	d	
88)	Allyl chloride	7.692	7.796	0.725		0m	N.D.	d	
89)	tert-Butyl Alcohol	0.000	7.924	0.000		0	N.D.		
90)	Acrylonitrile	8.186	8.174	0.771		0m	N.D.	d	
91)	Isopropyl ether	8.698	8.741	0.820		0m	N.D.	d	
92)	2-Chloro-1,3-butadiene	8.863	8.869	0.835		0m	N.D.	d	
93)	Ethyl tert-butyl ether	9.131	9.143	0.860		0m	N.D.	d	
94)	Ethyl acetate	9.320	9.338	0.878		0m	N.D.	d	
95)	Propionitrile	9.314	9.393	0.878		0m	N.D.	d	
96)	Methacrylonitrile	0.000	9.576	0.000		0	N.D.		
97)	Tetrahydrofuran	9.680	9.710	0.912		0m	N.D.	d	
98)	Isobutyl alcohol	10.015	10.009	0.944		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A527LL.D
Acq On : 6 Mar 2010 12:39 am
Operator : ACJ
InstName : VOA4
Sample : |1202063273|961925|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[A] 0220-01D+0304-01
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 06 11:43:39 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	10.369	10.387	0.977		0m	N.D.	d
100)	Methyl methacrylate	11.259	11.204	1.061		0m	N.D.	d
101)	1,4-Dioxane	11.332	11.326	1.068		0m	N.D.	d
102)	2-Nitropropane	11.692	11.673	1.102		0m	N.D.	d
104)	Ethyl methacrylate	12.460	12.466	0.905		0m	N.D.	d
106)	1-Chlorohexane	13.649	13.661	0.844		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	14.758	14.783	0.912		0m	N.D.	d
108)	Cyclohexanone	14.911	14.904	0.922		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	15.057	15.063	0.931		0m	N.D.	d
110)	Pentachloroethane	15.770	15.770	0.975		0m	N.D.	d
111)	Benzyl chloride	16.313	16.319	1.008		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.727	16.721	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A527LL.D
Acq On : 6 Mar 2010 12:39 am
Operator : ACJ
InstName : VOA4
Sample : |1202063273|961925|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[A] 0220-01D+0304-01
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 06 11:43:39 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

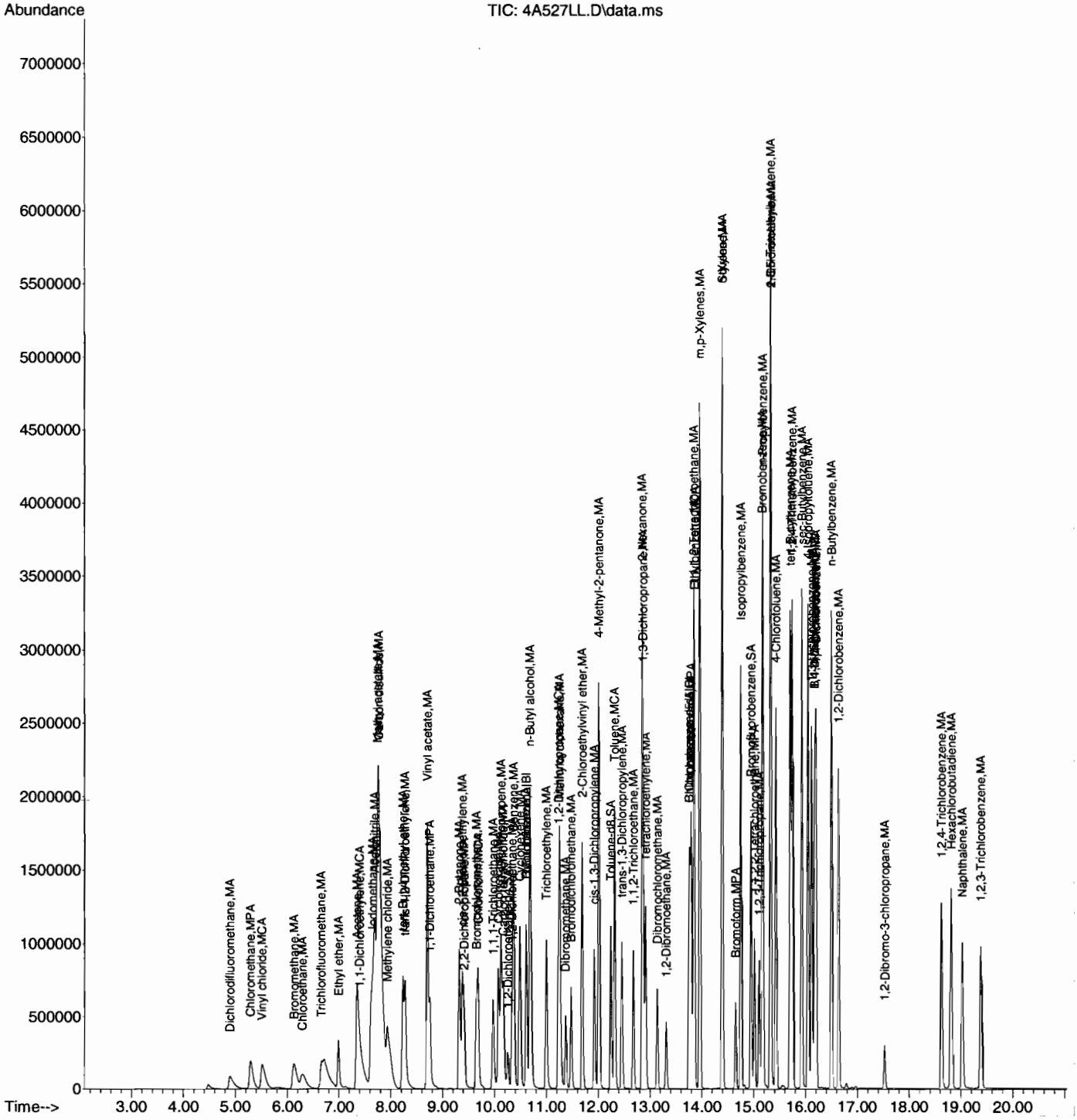

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202063274**				
Client Sample:	**QC for batch 961925**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961925**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/06/2010 01:34**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/06/2010 01:34**				
Data File:	**030510V4\4A529SL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202063274**				
Client Sample:	**QC for batch 961925**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961925**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/06/2010 01:34**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/06/2010 01:34**				
Data File:	**030510V4\4A529SL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein		265	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane		274	ug/L	1.00	5.00
107-05-1	Allyl chloride		300	ug/L	1.50	5.00
107-13-1	Acrylonitrile		250	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene		63.3	ug/L	0.300	1.00
107-12-0	Propionitrile		244	ug/L	1.50	5.00
126-98-7	Methacrylonitrile		253	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol		2430	ug/L	12.5	50.0
80-62-6	Methyl methacrylate		256	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202063274**				
Client Sample:	**QC for batch 961925**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961925**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/06/2010 01:34**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/06/2010 01:34**				
Data File:	**030510V4\4A529SL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate		268	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	42.9	50.0	ug/L	85.8	(72%-132%)
Bromofluorobenzene	56.7	50.0	ug/L	113	(77%-123%)
Toluene-d8	46.1	50.0	ug/L	92.2	(76%-122%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A529SL.D
Acq On : 6 Mar 2010 1:34 am
Operator : ACJ
InstName : VOA4
Sample : |1202063274|961925|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[B] 0215-08B
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 06 11:46:05 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.613	10.620	1.000	96	1245821	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.764	13.771	1.000	117	1025306	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	641087	50.00	ug/L	0.00
82) B Fluorobenzene	10.613	10.619	1.000	96	1245643	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.764	13.771	1.000	117	1025306	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	641103	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.967	65	221208	42.92	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 85.84%					
43) Toluene-d8	12.246	12.247	0.890	98	876643	46.09	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 92.18%					
61) Bromofluorobenzene	14.947	14.954	0.924	95	711411	56.72	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 113.44%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.911	0.000		0	N.D.		
3) Chloromethane	5.284	5.291	0.498		0m	N.D.	d	
4) Vinyl chloride	5.550	5.521	0.523		0m	N.D.	d	
5) Bromomethane	0.000	6.137	0.000		0	N.D.		
6) Chloroethane	0.000	6.295	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.669	0.000		0	N.D.		
8) Ethyl ether	6.991	6.998	0.659		0m	N.D.	d	
9) Acetone	7.363	7.352	0.694		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.394	7.389	0.697		0m	N.D.	d	
11) Iodomethane	7.619	7.663	0.718		0m	N.D.	d	
12) Acetonitrile	7.705	7.699	0.726		0m	N.D.	d	
13) Methyl acetate	7.741	7.748	0.729		0m	N.D.	d	
14) Carbon disulfide	7.796	7.773	0.735		0m	N.D.	d	
15) Methylene chloride	7.948	7.931	0.749		0m	N.D.	d	
16) tert-Butyl methyl ether	8.241	8.242	0.777		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.284	8.285	0.781		0m	N.D.	d	
18) Vinyl acetate	8.704	8.705	0.820		0m	N.D.	d	
19) 1,1-Dichloroethane	8.759	8.760	0.825		0m	N.D.	d	
20) 2-Butanone	9.338	9.327	0.880		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.338	9.388	0.880		0m	N.D.	d	
22) 2,2-Dichloropropane	9.412	9.419	0.887		0m	N.D.	d	
23) Bromochloromethane	9.649	9.656	0.909		0m	N.D.	d	
24) Chloroform	9.692	9.687	0.913		0m	N.D.	d	
25) 1,1,1-Trichloroethane	9.979	9.979	0.940		0m	N.D.	d	
26) Cyclohexane	10.003	10.083	0.943		0m	N.D.	d	
27) 1,1-Dichloropropene	10.125	10.132	0.954		0m	N.D.	d	
28) Carbon tetrachloride	10.174	10.175	0.959		0m	N.D.	d	
30) 1,2-Dichloroethane	10.332	10.339	0.974		0m	N.D.	d	
31) Benzene	10.381	10.370	0.978		0m	N.D.	d	
32) Cyclohexene	10.497	10.492	0.989		0m	N.D.	d	
33) n-Butyl alcohol	10.692	10.693	1.007		0m	N.D.	d	
34) Trichloroethylene	11.003	11.004	1.037		0m	N.D.	d	
35) 1,2-Dichloropropane	11.253	11.241	1.060		0m	N.D.	d	
36) Methylcyclohexane	11.204	11.260	1.056		0m	N.D.	d	
37) Dibromomethane	11.375	11.376	1.072		0m	N.D.	d	
38) Bromodichloromethane	11.472	11.485	1.081		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.692	11.699	1.102		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A529SL.D
Acq On : 6 Mar 2010 1:34 am
Operator : ACJ
InstName : VOA4
Sample : |1202063274|961925|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[B] 0215-08B
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 06 11:46:05 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	11.935	11.930	1.125		0m	N.D.	d	
42) 4-Methyl-2-pentanone	12.015	12.016	0.873		0m	N.D.	d	
44) Toluene	12.326	12.320	0.895		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	12.454	12.461	0.905		0m	N.D.	d	
46) 1,1,2-Trichloroethane	12.685	12.680	0.922		0m	N.D.	d	
47) 2-Hexanone	12.856	12.857	0.934		0m	N.D.	d	
48) 1,3-Dichloropropane	12.862	12.875	0.934		0m	N.D.	d	
49) Tetrachloroethylene	12.917	12.918	0.938		0m	N.D.	d	
50) Dibromochloromethane	13.149	13.144	0.955		0m	N.D.	d	
51) 1,2-Dibromoethane	13.313	13.320	0.967		0m	N.D.	d	
52) Chlorobenzene	13.801	13.802	1.003		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	13.844	13.851	1.006		0m	N.D.	d	
54) Ethylbenzene	13.868	13.863	1.008		0m	N.D.	d	
55) m,p-Xylenes	13.966	13.973	1.015		0m	N.D.	d	
56) o-Xylene	14.398	14.399	1.046		0m	N.D.	d	
57) Styrene	14.398	14.399	1.046		0m	N.D.	d	
59) Bromoform	14.648	14.655	0.905		0m	N.D.	d	
60) Isopropylbenzene	14.758	14.759	0.912		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	15.008	15.015	0.928		0m	N.D.	d	
63) 1,2,3-Trichloropropane	15.112	15.107	0.934		0m	N.D.	d	
64) Bromobenzene	15.167	15.168	0.937		0m	N.D.	d	
65) n-Propylbenzene	15.179	15.180	0.938		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	15.331	15.332	0.948		0m	N.D.	d	
67) 2-Chlorotoluene	15.331	15.332	0.948		0m	N.D.	d	
68) 4-Chlorotoluene	15.429	15.430	0.954		0m	N.D.	d	
69) tert-Butylbenzene	15.697	15.704	0.970		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	15.740	15.741	0.973		0m	N.D.	d	
71) sec-Butylbenzene	15.929	15.930	0.985		0m	N.D.	d	
72) 4-Isopropyltoluene	16.051	16.051	0.992		0m	N.D.	d	
73) 1,3-Dichlorobenzene	16.111	16.119	0.996		0m	N.D.	d	
74) 1,4-Dichlorobenzene	16.203	16.204	1.002		0m	N.D.	d	
75) n-Butylbenzene	16.496	16.503	1.020		0m	N.D.	d	
76) 1,2-Dichlorobenzene	16.642	16.643	1.029		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	17.526	17.527	1.083		0m	N.D.	d	
78) 1,2,4-Trichlorobenzene	18.629	18.630	1.151		0m	N.D.	d	
79) Hexachlorobutadiene	18.818	18.819	1.163		0m	N.D.	d	
80) Naphthalene	19.026	19.026	1.176		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	19.385	19.386	1.198		0m	N.D.	d	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85) Acrolein	7.174	7.180	0.676	56	316863	265.17	ug/L	98
86) Trichlorotrifluoroethane	7.357	7.369	0.693	85	810360	273.85	ug/L	98
87) Isopropyl Alcohol	0.000	7.430	0.000		0m	N.D.	d	
88) Allyl chloride	7.796	7.796	0.735	41	3164903	299.92	ug/L	98
89) tert-Butyl Alcohol	7.936	7.924	0.748	59	634	N.D.		
90) Acrylonitrile	8.168	8.174	0.770	53	758869	250.08	ug/L	99
91) Isopropyl ether	8.869	8.741	0.836	45	305	N.D.		
92) 2-Chloro-1,3-butadiene	8.863	8.869	0.835	53	661922	63.27	ug/L	98
93) Ethyl tert-butyl ether	0.000	9.143	0.000		0	N.D.		
94) Ethyl acetate	9.338	9.338	0.880	43	1998751	231.21	ug/L	98
95) Propionitrile	9.387	9.393	0.885	54	314132	243.97	ug/L	98
96) Methacrylonitrile	9.570	9.576	0.902	41	1333729	253.46	ug/L	100
97) Tetrahydrofuran	9.710	9.710	0.915	42	676897	238.63	ug/L	98
98) Isobutyl alcohol	10.003	10.009	0.943	41	957164	2433.52	ug/L	98

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A529SL.D
Acq On : 6 Mar 2010 1:34 am
Operator : ACJ
InstName : VOA4
Sample : |1202063274|961925|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[B] 0215-08B
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 06 11:46:05 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
99)	Methyl tert-amyl ether	10.375	10.387	0.978	73	1188	N.D.			
100)	Methyl methacrylate	11.204	11.204	1.056	69	1461698	255.65	ug/L	96	
101)	1,4-Dioxane	11.326	11.326	1.067	88	243584	2262.38	ug/L	100	
102)	2-Nitropropane	11.667	11.673	1.099	43	767107	270.87	ug/L	99	
104)	Ethyl methacrylate	12.460	12.466	0.905	69	2842999	267.80	ug/L	96	
106)	1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d		
107)	cis-1,4-Dichloro-2-butene	14.782	14.783	0.914	53	1001946	303.67	ug/L	97	
108)	Cyclohexanone	14.904	14.904	0.921	42	1490750	4269.84	ug/L	97	E
109)	trans-1,4-Dichloro-2-b...	15.063	15.063	0.931	53	955803	299.24	ug/L	98	
110)	Pentachloroethane	15.770	15.770	0.975	167	1330415	382.09	ug/L	99	
111)	Benzyl chloride	16.319	16.319	1.009	91	4843969	306.82	ug/L	99	
112)	bis(2-Chloroisopropyl)...	16.715	16.721	1.033	45	1236100	241.70	ug/L	97	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030510V4\
Data File : 4A529SL.D
Acq On : 6 Mar 2010 1:34 am
Operator : ACJ
InstName : VOA4
Sample : |1202063274|961925|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[B] 0215-08B
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Mar 06 11:46:05 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

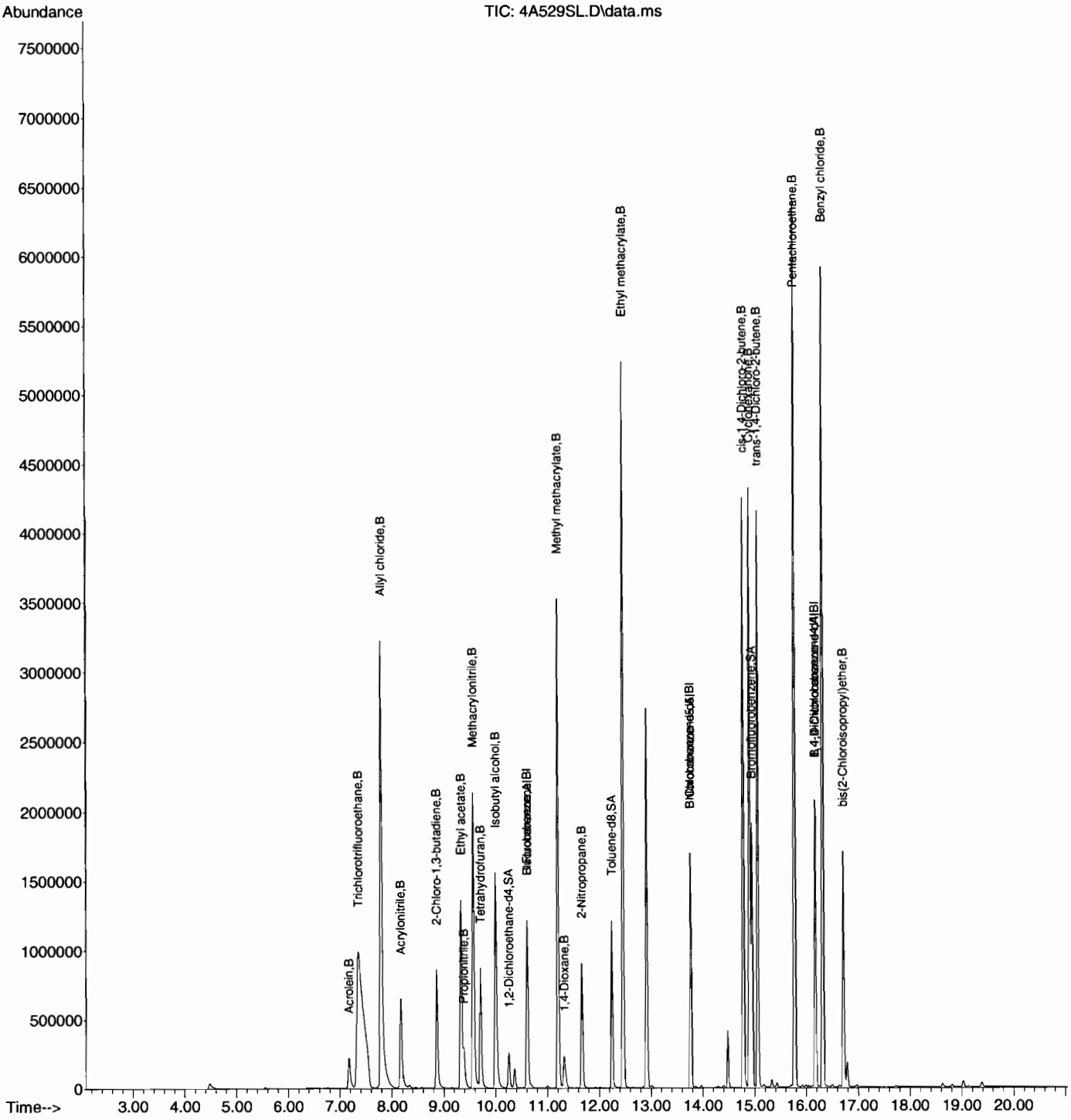

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202067783**				
Client Sample:	**QC for batch 961925**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961925**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/08/2010 16:19**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/08/2010 16:19**				
Data File:	**030810V4\4B102LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		47.3	ug/L	0.300	1.00
74-87-3	Chloromethane		43.4	ug/L	0.300	1.00
75-01-4	Vinyl chloride		49.5	ug/L	0.500	1.00
74-83-9	Bromomethane		48.7	ug/L	0.300	1.00
75-00-3	Chloroethane		51.5	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		56.5	ug/L	0.300	1.00
60-29-7	Ethyl ether		49.3	ug/L	0.300	1.00
67-64-1	Acetone		214	ug/L	3.50	10.0
75-05-8	Acetonitrile		1310	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		49.8	ug/L	0.300	1.00
74-88-4	Iodomethane		264	ug/L	1.25	5.00
75-09-2	Methylene chloride		49.9	ug/L	3.00	10.0
75-15-0	Carbon disulfide		268	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		50.3	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		49.0	ug/L	0.300	1.00
108-05-4	Vinyl acetate		302	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		50.5	ug/L	0.300	1.00
78-93-3	2-Butanone		224	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		49.9	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		55.4	ug/L	0.300	1.00
67-66-3	Chloroform		49.9	ug/L	0.250	1.00
74-97-5	Bromochloromethane		51.1	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		53.7	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		52.1	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		5780	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		54.4	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		49.0	ug/L	0.250	1.00
71-43-2	Benzene		49.6	ug/L	0.300	1.00
79-01-6	Trichloroethylene		51.2	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		50.4	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		54.9	ug/L	0.250	1.00
74-95-3	Dibromomethane		51.1	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		269	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		54.4	ug/L	0.250	1.00
108-88-3	Toluene		54.1	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		54.2	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		50.6	ug/L	0.250	1.00
591-78-6	2-Hexanone		237	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202067783**				
Client Sample:	**QC for batch 961925**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961925**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/08/2010 16:19**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/08/2010 16:19**				
Data File:	**030810V4\4B102LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		50.3	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		52.7	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		56.3	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		53.0	ug/L	0.250	1.00
108-90-7	Chlorobenzene		51.2	ug/L	0.250	1.00
100-41-4	Ethylbenzene		51.1	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		106	ug/L	0.500	2.00
95-47-6	o-Xylene		54.3	ug/L	0.300	1.00
100-42-5	Styrene		57.0	ug/L	0.250	1.00
75-25-2	Bromoform		56.1	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		47.9	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		48.8	ug/L	0.300	1.00
108-86-1	Bromobenzene		49.5	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		47.4	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		50.7	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		47.2	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		49.9	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		48.6	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		50.2	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		49.1	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		48.9	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		50.9	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		50.3	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		50.1	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		51.3	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		59.8	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		50.0	ug/L	0.300	1.00
91-20-3	Naphthalene		52.3	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		53.8	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202067783**				
Client Sample:	**QC for batch 961925**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961925**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/08/2010 16:19**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/08/2010 16:19**				
Data File:	**030810V4\4B102LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		53.9	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		56.0	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		49.7	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	48.4	50.0	ug/L	96.8	(72%-132%)
Bromofluorobenzene	47.5	50.0	ug/L	95.0	(77%-123%)
Toluene-d8	48.4	50.0	ug/L	96.8	(76%-122%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B102LL.D
Acq On : 8 Mar 2010 4:19 pm
Operator : ACJ
InstName : VOA4
Sample : |1202067783|961925|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[A] 0220-01E+0308-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 08 17:09:32 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.619	10.613	1.000	96	1626598	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.765	1.000	117	1299226	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	928000	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.613	1.000	96	1626038	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.764	1.000	117	1299226	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	930060	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.259	0.966	65	425037	48.40	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 96.80%					
43) Toluene-d8	12.253	12.247	0.890	98	1431615	48.40	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 96.80%					
61) Bromofluorobenzene	14.953	14.947	0.924	95	854682	47.49	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 94.98%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.904	4.897	0.462	85	502296	47.27	ug/L	100
3) Chloromethane	5.292	5.299	0.498	50	824374	43.44	ug/L	100
4) Vinyl chloride	5.521	5.521	0.520	62	887981	49.50	ug/L	99
5) Bromomethane	6.138	6.130	0.578	94	535590	48.68	ug/L	99
6) Chloroethane	6.295	6.288	0.593	64	449684	51.50	ug/L	100
7) Trichlorofluoromethane	6.662	6.668	0.627	101	924648	56.51	ug/L	99
8) Ethyl ether	6.997	6.991	0.659	59	402505	49.29	ug/L	98
9) Acetone	7.351	7.351	0.692	43	2125578	213.59	ug/L	100
10) 1,1-Dichloroethylene	7.388	7.394	0.696	61	943413	49.80	ug/L	98
11) Iodomethane	7.656	7.662	0.721	142	4699622	264.46	ug/L	99
12) Acetonitrile	7.699	7.693	0.725	41	2119334	1306.78	ug/L	100
13) Methyl acetate	7.747	7.747	0.730	43	2131691	248.74	ug/L	100
14) Carbon disulfide	7.772	7.778	0.732	76	9691789	267.82	ug/L	100
15) Methylene chloride	7.936	7.967	0.747	84	638675	49.89	ug/L	98
16) tert-Butyl methyl ether	8.235	8.235	0.776	73	1454341	50.32	ug/L	100
17) trans-1,2-Dichloroethy...	8.284	8.278	0.780	61	724588	48.96	ug/L	99
18) Vinyl acetate	8.704	8.705	0.820	43	5736862	301.85	ug/L	100
19) 1,1-Dichloroethane	8.753	8.753	0.824	63	926016	50.51	ug/L	100
20) 2-Butanone	9.326	9.320	0.878	43	2316994	224.17	ug/L	99
21) cis-1,2-Dichloroethylene	9.387	9.381	0.884	61	797350	49.92	ug/L	100
22) 2,2-Dichloropropane	9.418	9.412	0.887	77	513069	55.36	ug/L	98
23) Bromochloromethane	9.656	9.656	0.909	128	272501	51.12	ug/L	99
24) Chloroform	9.686	9.686	0.912	83	944155	49.90	ug/L	100
25) 1,1,1-Trichloroethane	9.979	9.973	0.940	97	748321	53.65	ug/L	100
26) Cyclohexane	10.082	10.076	0.949	56	828381	52.28	ug/L	100
27) 1,1-Dichloropropene	10.131	10.131	0.954	75	708752	52.08	ug/L #	99
28) Carbon tetrachloride	10.174	10.168	0.958	117	703333	54.39	ug/L	98
30) 1,2-Dichloroethane	10.338	10.338	0.974	62	755701	48.96	ug/L	99
31) Benzene	10.369	10.369	0.976	78	1998013	49.61	ug/L	100
32) Cyclohexene	10.491	10.491	0.988	67	1006956	51.92	ug/L	99
33) n-Butyl alcohol	10.692	10.686	1.007	56	2224385	5775.34	ug/L	99
34) Trichloroethylene	11.003	11.003	1.036	95	540924	51.22	ug/L	97
35) 1,2-Dichloropropane	11.241	11.241	1.059	63	531739	50.42	ug/L	98
36) Methylcyclohexane	11.265	11.259	1.061	83	871591	54.00	ug/L	99
37) Dibromomethane	11.375	11.369	1.071	93	336542	51.10	ug/L	98
38) Bromodichloromethane	11.484	11.478	1.082	83	724245	54.88	ug/L	100
39) 2-Chloroethylvinyl ether	11.698	11.692	1.102	63	1360200	274.48	ug/L	100

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B102LL.D
Acq On : 8 Mar 2010 4:19 pm
Operator : ACJ
InstName : VOA4
Sample : |1202067783|961925|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[A] 0220-01E+0308-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 08 17:09:32 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40)	cis-1,3-Dichloropropylene	11.929	11.930	1.123	75	841830	54.35	ug/L	99
42)	4-Methyl-2-pentanone	12.015	12.015	0.872	58	1241676	268.62	ug/L	98
44)	Toluene	12.326	12.320	0.895	91	2176686	54.13	ug/L	99
45)	trans-1,3-Dichloroprop...	12.460	12.460	0.905	75	823380	54.15	ug/L	100
46)	1,1,2-Trichloroethane	12.685	12.679	0.921	83	409392	50.59	ug/L	99
47)	2-Hexanone	12.856	12.856	0.934	43	3189401	236.50	ug/L	99
48)	1,3-Dichloropropane	12.874	12.874	0.935	76	834702	50.25	ug/L	95
49)	Tetrachloroethylene	12.917	12.917	0.938	164	459369	52.68	ug/L	98
50)	Dibromochloromethane	13.143	13.143	0.954	129	587134	56.31	ug/L	99
51)	1,2-Dibromoethane	13.313	13.313	0.967	107	519761	52.98	ug/L	99
52)	Chlorobenzene	13.801	13.801	1.002	112	1539094	51.23	ug/L	100
53)	1,1,1,2-Tetrachloroethane	13.850	13.850	1.006	131	595387	53.93	ug/L	99
54)	Ethylbenzene	13.862	13.862	1.007	91	2684387	51.07	ug/L	100
55)	m,p-Xylenes	13.972	13.966	1.015	106	2181983	106.20	ug/L	100
56)	o-Xylene	14.405	14.399	1.046	106	1152764	54.27	ug/L	98
57)	Styrene	14.405	14.399	1.046	104	1932760	56.99	ug/L	100
59)	Bromoform	14.655	14.655	0.906	173	449630	56.07	ug/L	100
60)	Isopropylbenzene	14.758	14.758	0.912	105	2968011	47.19	ug/L	99
62)	1,1,2,2-Tetrachloroethane	15.020	15.014	0.928	83	839836	47.94	ug/L	98
63)	1,2,3-Trichloropropane	15.112	15.106	0.934	110	223679	48.77	ug/L	97
64)	Bromobenzene	15.167	15.167	0.937	156	850311	49.47	ug/L	98
65)	n-Propylbenzene	15.179	15.179	0.938	91	3720654	47.35	ug/L	99
66)	1,3,5-Trimethylbenzene	15.331	15.325	0.948	105	2872769	49.90	ug/L	99
67)	2-Chlorotoluene	15.331	15.331	0.948	126	860063	50.68	ug/L	98
68)	4-Chlorotoluene	15.429	15.429	0.954	91	2346415	48.56	ug/L	99
69)	tert-Butylbenzene	15.703	15.703	0.971	134	619129	50.24	ug/L	98
70)	1,2,4-Trimethylbenzene	15.740	15.740	0.973	105	2904345	49.12	ug/L	99
71)	sec-Butylbenzene	15.929	15.929	0.985	105	3807623	48.94	ug/L	99
72)	4-Isopropyltoluene	16.051	16.051	0.992	119	3142787	50.85	ug/L	99
73)	1,3-Dichlorobenzene	16.124	16.118	0.997	146	1707617	50.29	ug/L	99
74)	1,4-Dichlorobenzene	16.209	16.203	1.002	146	1744992	50.13	ug/L	100
75)	n-Butylbenzene	16.502	16.502	1.020	91	3032434	51.25	ug/L	99
76)	1,2-Dichlorobenzene	16.642	16.642	1.029	146	1618169	49.71	ug/L	99
77)	1,2-Dibromo-3-chloropr...	17.526	17.526	1.083	157	152515	59.80	ug/L	99
78)	1,2,4-Trichlorobenzene	18.635	18.629	1.152	180	876585	55.97	ug/L	99
79)	Hexachlorobutadiene	18.818	18.818	1.163	225	520439	49.96	ug/L	99
80)	Naphthalene	19.032	19.026	1.176	128	1815198	52.29	ug/L	99
81)	1,2,3-Trichlorobenzene	19.385	19.385	1.198	180	677122	53.80	ug/L	99
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85)	Acrolein	7.138	7.174	0.672		0m	N.D.	d	
86)	Trichlorotrifluoroethane	7.357	7.363	0.693		0m	N.D.	d	
87)	Isopropyl Alcohol	7.351	7.430	0.692		0m	N.D.	d	
88)	Allyl chloride	7.699	7.796	0.725		0m	N.D.	d	
89)	tert-Butyl Alcohol	0.000	7.924	0.000		0	N.D.		
90)	Acrylonitrile	8.174	8.168	0.770		0m	N.D.	d	
91)	Isopropyl ether	8.704	8.735	0.820		0m	N.D.	d	
92)	2-Chloro-1,3-butadiene	8.863	8.863	0.835		0m	N.D.	d	
93)	Ethyl tert-butyl ether	9.149	9.137	0.862		0m	N.D.	d	
94)	Ethyl acetate	9.326	9.339	0.878		0m	N.D.	d	
95)	Propionitrile	9.430	9.387	0.888		0m	N.D.	d	
96)	Methacrylonitrile	0.000	9.570	0.000		0	N.D.		
97)	Tetrahydrofuran	9.686	9.710	0.912		0m	N.D.	d	
98)	Isobutyl alcohol	10.082	10.003	0.949		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B102LL.D
Acq On : 8 Mar 2010 4:19 pm
Operator : ACJ
InstName : VOA4
Sample : |1202067783|961925|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[A] 0220-01E+0308-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 08 17:09:32 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	10.369	10.381	0.976		0m	N.D.	d
100) Methyl methacrylate	11.180	11.204	1.053		0m	N.D.	d
101) 1,4-Dioxane	11.369	11.326	1.071		0m	N.D.	d
102) 2-Nitropropane	11.698	11.667	1.102		0m	N.D.	d
104) Ethyl methacrylate	12.472	12.460	0.906		0m	N.D.	d
106) 1-Chlorohexane	13.667	13.661	0.845		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.758	14.783	0.912		0m	N.D.	d
108) Cyclohexanone	14.911	14.905	0.922		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.075	15.063	0.932		0m	N.D.	d
110) Pentachloroethane	15.770	15.770	0.975		0m	N.D.	d
111) Benzyl chloride	16.319	16.319	1.009		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.721	16.715	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B102LL.D
Acq On : 8 Mar 2010 4:19 pm
Operator : ACJ
InstName : VOA4
Sample : |1202067783|961925|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[A] 0220-01E+0308-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 08 17:09:32 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

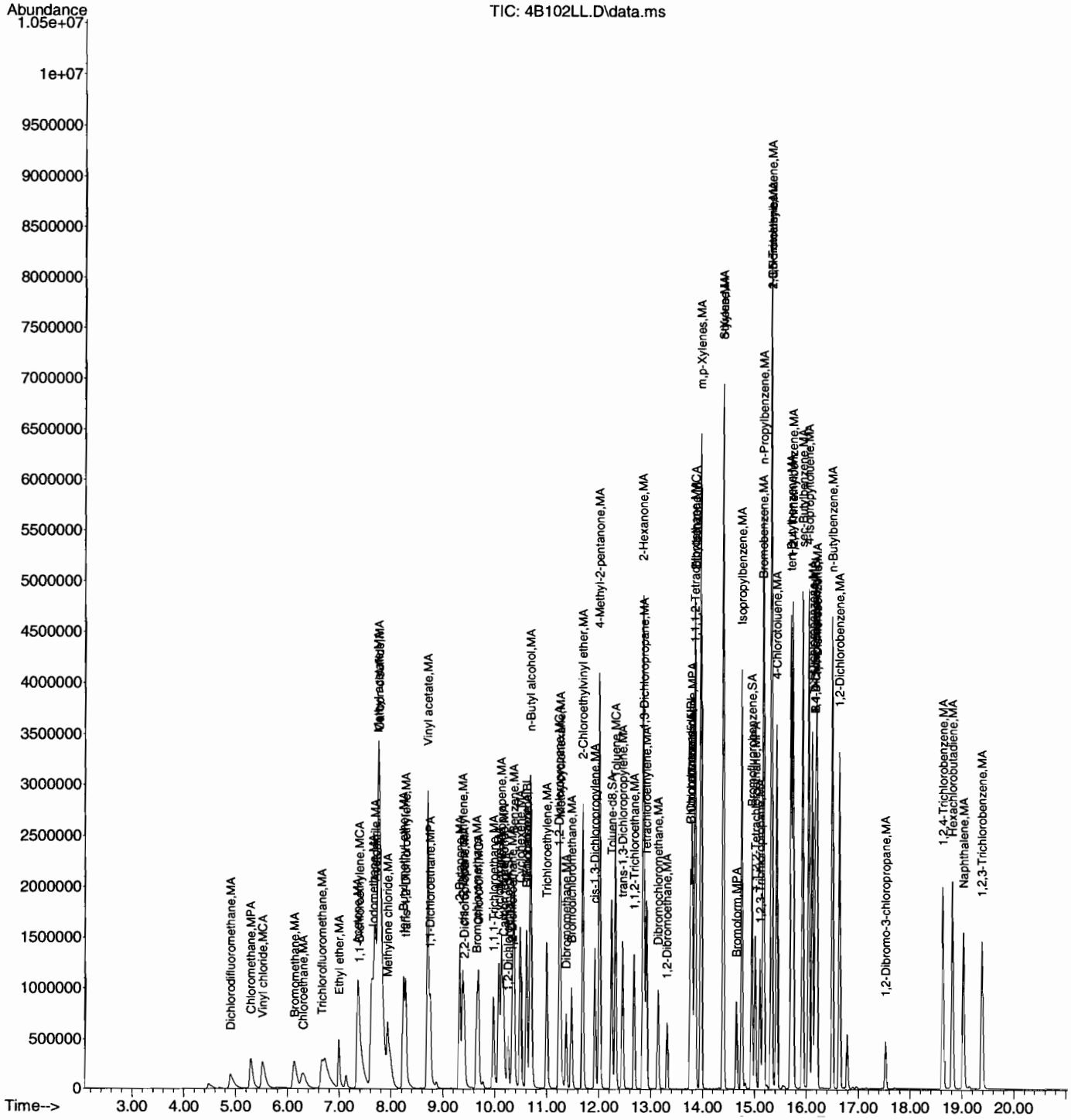

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202067784**				
Client Sample:	**QC for batch 961925**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961925**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/08/2010 17:33**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/08/2010 17:33**				
Data File:	**030810V4\4B104SL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202067784**				
Client Sample:	**QC for batch 961925**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961925**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/08/2010 17:33**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/08/2010 17:33**				
Data File:	**030810V4\4B104SL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein		308	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane		258	ug/L	1.00	5.00
107-05-1	Allyl chloride		289	ug/L	1.50	5.00
107-13-1	Acrylonitrile		274	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene		62.4	ug/L	0.300	1.00
107-12-0	Propionitrile		265	ug/L	1.50	5.00
126-98-7	Methacrylonitrile		266	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol		2640	ug/L	12.5	50.0
80-62-6	Methyl methacrylate		292	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202067784**				
Client Sample:	**QC for batch 961925**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961925**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/08/2010 17:33**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/08/2010 17:33**				
Data File:	**030810V4\4B104SL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate		288	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	47.7	50.0	ug/L	95.4	(72%-132%)
Bromofluorobenzene	51.2	50.0	ug/L	102	(77%-123%)
Toluene-d8	48.1	50.0	ug/L	96.2	(76%-122%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B104SL.D
Acq On : 8 Mar 2010 5:33 pm
Operator : ACJ
InstName : VOA4
Sample : |1202067784|961925|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[B] 0304-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 08 17:56:57 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.614	10.613	1.000	96	1802901	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.765	13.765	1.000	117	1396313	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	893198	50.00	ug/L	0.00
82) B Fluorobenzene	10.614	10.613	1.000	96	1802624	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.765	13.764	1.000	117	1396313	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	895232	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.260	10.259	0.967	65	464151	47.68	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 95.36%					
43) Toluene-d8	12.247	12.247	0.890	98	1529059	48.10	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 96.20%					
61) Bromofluorobenzene	14.948	14.947	0.924	95	886690	51.19	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 102.38%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.897	0.000		0	N.D.		
3) Chloromethane	5.291	5.299	0.499		0m	N.D.	d	
4) Vinyl chloride	0.000	5.521	0.000		0	N.D.		
5) Bromomethane	6.123	6.130	0.577		0m	N.D.	d	
6) Chloroethane	0.000	6.288	0.000		0	N.D.		
7) Trichlorofluoromethane	6.663	6.668	0.628		0m	N.D.	d	
8) Ethyl ether	7.011	6.991	0.661		0m	N.D.	d	
9) Acetone	7.364	7.351	0.694		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.328	7.394	0.690		0m	N.D.	d	
11) Iodomethane	7.626	7.662	0.719		0m	N.D.	d	
12) Acetonitrile	7.687	7.693	0.724		0m	N.D.	d	
13) Methyl acetate	7.748	7.747	0.730		0m	N.D.	d	
14) Carbon disulfide	7.797	7.778	0.735		0m	N.D.	d	
15) Methylene chloride	7.937	7.967	0.748		0m	N.D.	d	
16) tert-Butyl methyl ether	8.236	8.235	0.776		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.279	8.278	0.780		0m	N.D.	d	
18) Vinyl acetate	8.705	8.705	0.820		0m	N.D.	d	
19) 1,1-Dichloroethane	8.760	8.753	0.825		0m	N.D.	d	
20) 2-Butanone	9.339	9.320	0.880		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.339	9.381	0.880		0m	N.D.	d	
22) 2,2-Dichloropropane	9.413	9.412	0.887		0m	N.D.	d	
23) Bromochloromethane	9.644	9.656	0.909		0m	N.D.	d	
24) Chloroform	9.693	9.686	0.913		0m	N.D.	d	
25) 1,1,1-Trichloroethane	9.967	9.973	0.939		0m	N.D.	d	
26) Cyclohexane	10.010	10.076	0.943		0m	N.D.	d	
27) 1,1-Dichloropropene	10.132	10.131	0.955		0m	N.D.	d	
28) Carbon tetrachloride	10.181	10.168	0.959		0m	N.D.	d	
30) 1,2-Dichloroethane	10.327	10.338	0.973		0m	N.D.	d	
31) Benzene	10.376	10.369	0.978		0m	N.D.	d	
32) Cyclohexene	10.492	10.491	0.989		0m	N.D.	d	
33) n-Butyl alcohol	10.693	10.686	1.007		0m	N.D.	d	
34) Trichloroethylene	11.004	11.003	1.037		0m	N.D.	d	
35) 1,2-Dichloropropane	11.241	11.241	1.059		0m	N.D.	d	
36) Methylcyclohexane	11.205	11.259	1.056		0m	N.D.	d	
37) Dibromomethane	11.363	11.369	1.071		0m	N.D.	d	
38) Bromodichloromethane	11.473	11.478	1.081		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.699	11.692	1.102		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B104SL.D
Acq On : 8 Mar 2010 5:33 pm
Operator : ACJ
InstName : VOA4
Sample : |1202067784|961925|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[B] 0304-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 08 17:56:57 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	11.936	11.930	1.125		0m	N.D.	d	
42) 4-Methyl-2-pentanone	12.028	12.015	0.874		0m	N.D.	d	
44) Toluene	12.321	12.320	0.895		0m	N.D.	d	
45) trans-1,3-Dichloroprop...	12.467	12.460	0.906		0m	N.D.	d	
46) 1,1,2-Trichloroethane	12.680	12.679	0.921		0m	N.D.	d	
47) 2-Hexanone	12.857	12.856	0.934		0m	N.D.	d	
48) 1,3-Dichloropropane	12.869	12.874	0.935		0m	N.D.	d	
49) Tetrachloroethylene	12.918	12.917	0.938		0m	N.D.	d	
50) Dibromochloromethane	13.137	13.143	0.954		0m	N.D.	d	
51) 1,2-Dibromoethane	13.320	13.313	0.968		0m	N.D.	d	
52) Chlorobenzene	13.796	13.801	1.002		0m	N.D.	d	
53) 1,1,1,2-Tetrachloroethane	13.851	13.850	1.006		0m	N.D.	d	
54) Ethylbenzene	13.857	13.862	1.007		0m	N.D.	d	
55) m,p-Xylenes	13.967	13.966	1.015		0m	N.D.	d	
56) o-Xylene	14.405	14.399	1.047		0m	N.D.	d	
57) Styrene	14.405	14.399	1.047		0m	N.D.	d	
59) Bromoform	14.649	14.655	0.905		0m	N.D.	d	
60) Isopropylbenzene	14.759	14.758	0.912		0m	N.D.	d	
62) 1,1,2,2-Tetrachloroethane	15.009	15.014	0.928		0m	N.D.	d	
63) 1,2,3-Trichloropropane	15.113	15.106	0.934		0m	N.D.	d	
64) Bromobenzene	15.168	15.167	0.937		0m	N.D.	d	
65) n-Propylbenzene	15.180	15.179	0.938		0m	N.D.	d	
66) 1,3,5-Trimethylbenzene	15.332	15.325	0.948		0m	N.D.	d	
67) 2-Chlorotoluene	15.332	15.331	0.948		0m	N.D.	d	
68) 4-Chlorotoluene	15.430	15.429	0.954		0m	N.D.	d	
69) tert-Butylbenzene	15.698	15.703	0.970		0m	N.D.	d	
70) 1,2,4-Trimethylbenzene	15.747	15.740	0.973		0m	N.D.	d	
71) sec-Butylbenzene	15.936	15.929	0.985		0m	N.D.	d	
72) 4-Isopropyltoluene	16.051	16.051	0.992		0m	N.D.	d	
73) 1,3-Dichlorobenzene	16.119	16.118	0.996		0m	N.D.	d	
74) 1,4-Dichlorobenzene	16.204	16.203	1.002		0m	N.D.	d	
75) n-Butylbenzene	16.503	16.502	1.020		0m	N.D.	d	
76) 1,2-Dichlorobenzene	16.643	16.642	1.029		0m	N.D.	d	
77) 1,2-Dibromo-3-chloropr...	17.521	17.526	1.083		0m	N.D.	d	
78) 1,2,4-Trichlorobenzene	18.630	18.629	1.151		0m	N.D.	d	
79) Hexachlorobutadiene	18.813	18.818	1.163		0m	N.D.	d	
80) Naphthalene	19.027	19.026	1.176		0m	N.D.	d	
81) 1,2,3-Trichlorobenzene	19.380	19.385	1.198		0m	N.D.	d	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85) Acrolein	7.181	7.174	0.677	56	587716	307.71	ug/L	100
86) Trichlorotrifluoroethane	7.364	7.363	0.694	85	1205499	257.64	ug/L	98
87) Isopropyl Alcohol	0.000	7.430	0.000		0m	N.D.	d	
88) Allyl chloride	7.797	7.796	0.735	41	4469593	289.18	ug/L	98
89) tert-Butyl Alcohol	7.937	7.924	0.748	59	1340	N.D.		
90) Acrylonitrile	8.175	8.168	0.770	53	1064928	273.53	ug/L	99
91) Isopropyl ether	8.718	8.735	0.821	45	150	N.D.		
92) 2-Chloro-1,3-butadiene	8.870	8.863	0.836	53	949374	62.44	ug/L	97
93) Ethyl tert-butyl ether	0.000	9.137	0.000		0	N.D.		
94) Ethyl acetate	9.339	9.339	0.880	43	2741754	238.98	ug/L	99
95) Propionitrile	9.388	9.387	0.885	54	441788	264.54	ug/L	99
96) Methacrylonitrile	9.577	9.570	0.902	41	1843199	265.93	ug/L	98
97) Tetrahydrofuran	9.711	9.710	0.915	42	942528	256.47	ug/L	98
98) Isobutyl alcohol	10.004	10.003	0.943	41	1345153	2642.13	ug/L	97

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B104SL.D
Acq On : 8 Mar 2010 5:33 pm
Operator : ACJ
InstName : VOA4
Sample : |1202067784|961925|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[B] 0304-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 08 17:56:57 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
99)	Methyl tert-amyl ether	10.339	10.381	0.974	73	252	N.D.		
100)	Methyl methacrylate	11.205	11.204	1.056	69	2021251	291.51	ug/L	96
101)	1,4-Dioxane	11.327	11.326	1.067	88	319826	2595.39	ug/L	99
102)	2-Nitropropane	11.674	11.667	1.100	43	1037871	249.31	ug/L	98
104)	Ethyl methacrylate	12.461	12.460	0.905	69	3861972	287.99	ug/L	97
106)	1-Chlorohexane	13.619	13.661	0.842	55	191	N.D.		
107)	cis-1,4-Dichloro-2-butene	14.783	14.783	0.914	53	1479416	315.88	ug/L	95
108)	Cyclohexanone	14.905	14.905	0.921	42	515948	971.41	ug/L	97
109)	trans-1,4-Dichloro-2-b...	15.064	15.063	0.931	53	1403819	313.99	ug/L	96
110)	Pentachloroethane	15.771	15.770	0.975	167	2436123	370.36	ug/L	97
111)	Benzyl chloride	16.314	16.319	1.008	91	7888020	345.69	ug/L	97
112)	bis(2-Chloroisopropyl)...	16.716	16.715	1.033	45	1819986	279.27	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B104SL.D
Acq On : 8 Mar 2010 5:33 pm
Operator : ACJ
InstName : VOA4
Sample : |1202067784|961925|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[B] 0304-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 08 17:56:57 2010
Quant Method : C:\msdchem\1\DATA\030710V4\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 17:08:49 2010
Response via : Initial Calibration
Integrator: RTE

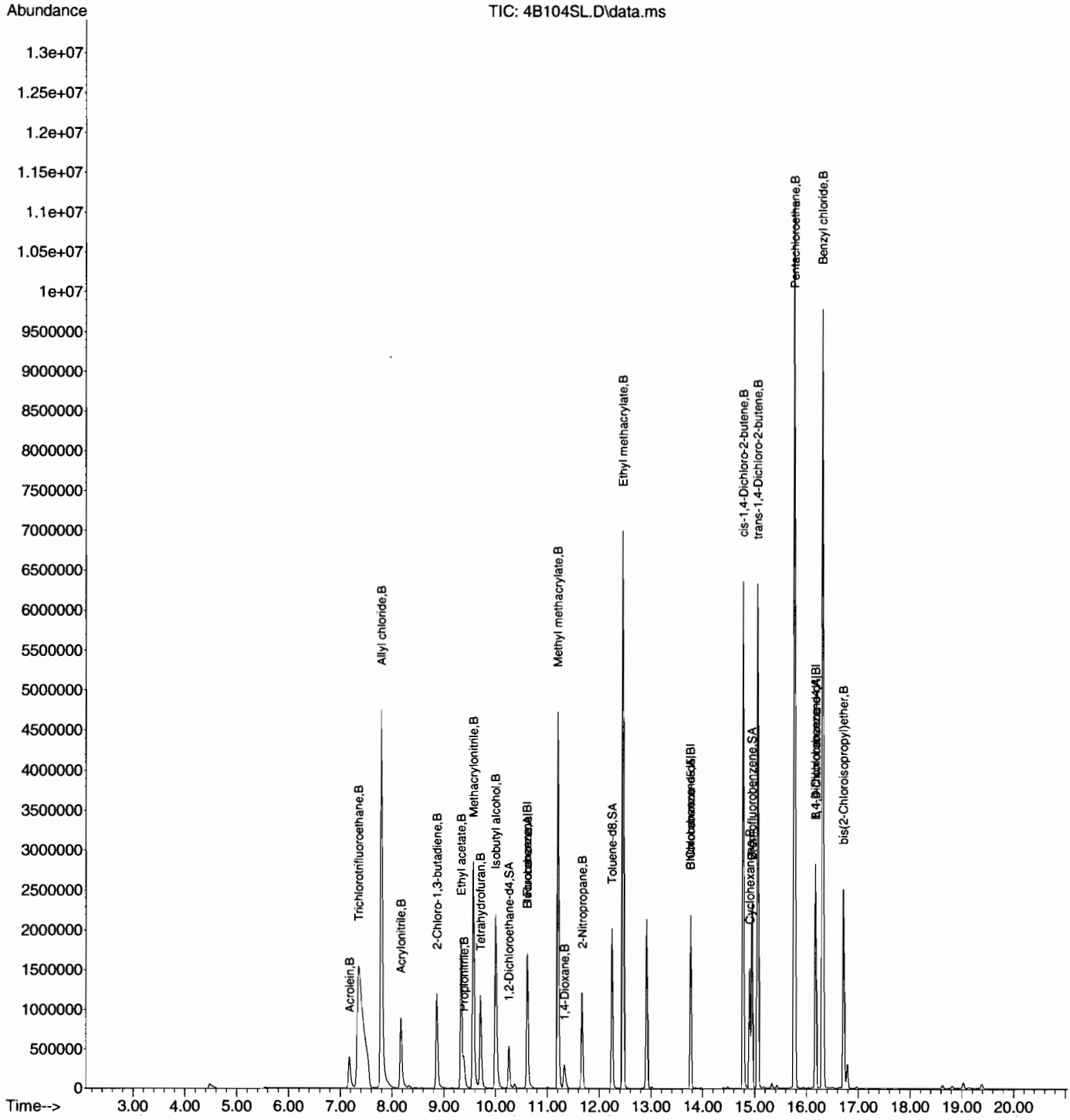

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202063271**	**Date Received:**	**02/25/2010 08:45**		
Client Sample:	**QC for batch 961925**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12915PS**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 01:47**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/09/2010 01:47**				
Data File:	**030810V4\4B122.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		42.2	ug/L	0.300	1.00
74-87-3	Chloromethane		42.5	ug/L	0.300	1.00
75-01-4	Vinyl chloride		47.0	ug/L	0.500	1.00
74-83-9	Bromomethane		45.5	ug/L	0.300	1.00
75-00-3	Chloroethane		46.6	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		48.8	ug/L	0.300	1.00
60-29-7	Ethyl ether		46.3	ug/L	0.300	1.00
67-64-1	Acetone		81.3	ug/L	3.50	10.0
75-05-8	Acetonitrile		1160	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		45.0	ug/L	0.300	1.00
74-88-4	Iodomethane		245	ug/L	1.25	5.00
75-09-2	Methylene chloride		49.1	ug/L	3.00	10.0
75-15-0	Carbon disulfide		248	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		45.3	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		46.4	ug/L	0.300	1.00
108-05-4	Vinyl acetate		282	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		47.8	ug/L	0.300	1.00
78-93-3	2-Butanone		124	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		47.9	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		45.3	ug/L	0.300	1.00
67-66-3	Chloroform		47.6	ug/L	0.250	1.00
74-97-5	Bromochloromethane		48.7	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		48.1	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		48.2	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		4770	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		49.5	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		47.1	ug/L	0.250	1.00
71-43-2	Benzene		47.7	ug/L	0.300	1.00
79-01-6	Trichloroethylene		48.0	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		49.4	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		51.8	ug/L	0.250	1.00
74-95-3	Dibromomethane		48.0	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		233	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		49.9	ug/L	0.250	1.00
108-88-3	Toluene		54.1	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		51.0	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		49.7	ug/L	0.250	1.00
591-78-6	2-Hexanone		155	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202063271**	**Date Received:**	**02/25/2010 08:45**		
Client Sample:	**QC for batch 961925**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12915PS**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 01:47**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/09/2010 01:47**				
Data File:	**030810V4\4B122.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		49.4	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		48.1	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		53.5	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		50.4	ug/L	0.250	1.00
108-90-7	Chlorobenzene		49.1	ug/L	0.250	1.00
100-41-4	Ethylbenzene		49.3	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		101	ug/L	0.500	2.00
95-47-6	o-Xylene		52.8	ug/L	0.300	1.00
100-42-5	Styrene		55.0	ug/L	0.250	1.00
75-25-2	Bromoform		52.8	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		47.2	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		45.9	ug/L	0.300	1.00
108-86-1	Bromobenzene		49.0	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		47.0	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		50.5	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		47.3	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		49.5	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		48.2	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		49.5	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		48.8	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		48.3	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		49.2	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		48.8	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		47.7	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		48.6	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		53.2	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		46.5	ug/L	0.300	1.00
91-20-3	Naphthalene		48.3	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		49.6	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202063271**	**Date Received:**	**02/25/2010 08:45**		
Client Sample:	**QC for batch 961925**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12915PS**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 01:47**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/09/2010 01:47**				
Data File:	**030810V4\4B122.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		51.8	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		48.6	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		49.5	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	46.3	50.0	ug/L	92.6	(72%-132%)
Bromofluorobenzene	48.9	50.0	ug/L	97.8	(77%-123%)
Toluene-d8	49.3	50.0	ug/L	98.6	(76%-122%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B122.D
Acq On : 9 Mar 2010 1:47 am
Operator : ACJ
InstName : VOA4
Sample : |1202063271|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MIX[A] MS 248017001
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 09 16:34:19 2010
Quant Method : C:\msdchem\1\DATA\030810V4\Methods\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 15:37:50 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.613	10.613	1.000	96	1480439	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.764	13.765	1.000	117	1119531	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	757049	50.00	ug/L	0.00
82) B Fluorobenzene	10.613	10.613	1.000	96	1480090	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.764	13.764	1.000	117	1119531	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	758781	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.259	0.967	65	370084	46.30	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 92.60%					
43) Toluene-d8	12.246	12.247	0.890	98	1256906	49.32	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 98.64%					
61) Bromofluorobenzene	14.953	14.947	0.924	95	717715	48.89	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 97.78%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.904	4.897	0.462	85	408136	42.20	ug/L	100
3) Chloromethane	5.292	5.299	0.499	50	733765	42.48	ug/L	100
4) Vinyl chloride	5.521	5.521	0.520	62	767620	47.01	ug/L	100
5) Bromomethane	6.138	6.130	0.578	94	455733	45.51	ug/L	100
6) Chloroethane	6.288	6.288	0.593	64	370343	46.60	ug/L	100
7) Trichlorofluoromethane	6.668	6.668	0.628	101	726223	48.76	ug/L	98
8) Ethyl ether	6.991	6.991	0.659	59	344236	46.31	ug/L	99
9) Acetone	7.351	7.351	0.693	43	736218	81.28	ug/L	99
10) 1,1-Dichloroethylene	7.388	7.394	0.696	61	776131	45.02	ug/L	99
11) Iodomethane	7.650	7.662	0.721	142	3955519	244.56	ug/L	100
12) Acetonitrile	7.698	7.693	0.725	41	1719355	1164.82	ug/L	100
13) Methyl acetate	7.747	7.747	0.730	43	1699264	217.86	ug/L	99
14) Carbon disulfide	7.772	7.778	0.732	76	8162989	247.85	ug/L	100
15) Methylene chloride	7.936	7.967	0.748	84	572188	49.08	ug/L	99
16) tert-Butyl methyl ether	8.235	8.235	0.776	73	1191932	45.31	ug/L	100
17) trans-1,2-Dichloroethy...	8.284	8.278	0.781	61	625510	46.44	ug/L	99
18) Vinyl acetate	8.704	8.705	0.820	43	4874422	281.80	ug/L	100
19) 1,1-Dichloroethane	8.753	8.753	0.825	63	798157	47.84	ug/L	100
20) 2-Butanone	9.326	9.320	0.879	43	1165228	123.87	ug/L	99
21) cis-1,2-Dichloroethylene	9.387	9.381	0.885	61	696836	47.94	ug/L	100
22) 2,2-Dichloropropane	9.418	9.412	0.887	77	381855	45.27	ug/L	97
23) Bromochloromethane	9.655	9.656	0.910	128	236467	48.74	ug/L	97
24) Chloroform	9.692	9.686	0.913	83	820263	47.63	ug/L	99
25) 1,1,1-Trichloroethane	9.972	9.973	0.940	97	610875	48.12	ug/L	99
26) Cyclohexane	10.082	10.076	0.950	56	671730	46.57	ug/L	99
27) 1,1-Dichloropropene	10.131	10.131	0.955	75	597289	48.22	ug/L	99
28) Carbon tetrachloride	10.174	10.168	0.959	117	582078	49.46	ug/L	99
30) 1,2-Dichloroethane	10.338	10.338	0.974	62	661179	47.06	ug/L	99
31) Benzene	10.369	10.369	0.977	78	1747792	47.69	ug/L	99
32) Cyclohexene	10.491	10.491	0.989	67	843715	47.80	ug/L	99
33) n-Butyl alcohol	10.686	10.686	1.007	56	1659063	4765.43	ug/L	99
34) Trichloroethylene	11.003	11.003	1.037	95	461515	48.02	ug/L	100
35) 1,2-Dichloropropane	11.240	11.241	1.059	63	473703	49.35	ug/L	99
36) Methylcyclohexane	11.259	11.259	1.061	83	706909	48.12	ug/L	99
37) Dibromomethane	11.375	11.369	1.072	93	287722	48.00	ug/L	100
38) Bromodichloromethane	11.484	11.478	1.082	83	622038	51.78	ug/L	99
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B122.D
Acq On : 9 Mar 2010 1:47 am
Operator : ACJ
InstName : VOA4
Sample : |1202063271|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MIX[A] MS 248017001
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 09 16:34:19 2010
Quant Method : C:\msdchem\1\DATA\030810V4\Methods\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 15:37:50 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
40) cis-1,3-Dichloropropylene	11.929	11.930	1.124	75	702879	49.86	ug/L		99
42) 4-Methyl-2-pentanone	12.015	12.015	0.873	58	929199	233.28	ug/L		99
44) Toluene	12.326	12.320	0.895	91	1873742	54.07	ug/L		100
45) trans-1,3-Dichloroprop...	12.460	12.460	0.905	75	668257	51.00	ug/L		100
46) 1,1,2-Trichloroethane	12.679	12.679	0.921	83	346353	49.67	ug/L		99
47) 2-Hexanone	12.856	12.856	0.934	43	1802442	155.10	ug/L		99
48) 1,3-Dichloropropane	12.874	12.874	0.935	76	707251	49.41	ug/L	#	80
49) Tetrachloroethylene	12.917	12.917	0.938	164	361621	48.13	ug/L		99
50) Dibromochloromethane	13.143	13.143	0.955	129	480466	53.48	ug/L		98
51) 1,2-Dibromoethane	13.319	13.313	0.968	107	425753	50.37	ug/L		99
52) Chlorobenzene	13.801	13.801	1.003	112	1271988	49.14	ug/L		100
53) 1,1,1,2-Tetrachloroethane	13.850	13.850	1.006	131	492773	51.80	ug/L		99
54) Ethylbenzene	13.862	13.862	1.007	91	2232173	49.28	ug/L		100
55) m,p-Xylenes	13.972	13.966	1.015	106	1791540	101.20	ug/L		99
56) o-Xylene	14.405	14.399	1.047	106	966492	52.80	ug/L		98
57) Styrene	14.398	14.399	1.046	104	1606728	54.98	ug/L		99
59) Bromoform	14.654	14.655	0.906	173	345331	52.79	ug/L		99
60) Isopropylbenzene	14.758	14.758	0.912	105	2424557	47.25	ug/L		99
62) 1,1,2,2-Tetrachloroethane	15.014	15.014	0.928	83	674626	47.21	ug/L		99
63) 1,2,3-Trichloropropane	15.106	15.106	0.934	110	171553	45.85	ug/L		98
64) Bromobenzene	15.167	15.167	0.937	156	687049	49.00	ug/L		100
65) n-Propylbenzene	15.179	15.179	0.938	91	3014281	47.02	ug/L		100
66) 1,3,5-Trimethylbenzene	15.331	15.325	0.948	105	2323953	49.48	ug/L		100
67) 2-Chlorotoluene	15.331	15.331	0.948	126	698850	50.48	ug/L		100
68) 4-Chlorotoluene	15.429	15.429	0.954	91	1899238	48.18	ug/L		100
69) tert-Butylbenzene	15.703	15.703	0.971	134	497255	49.47	ug/L		100
70) 1,2,4-Trimethylbenzene	15.740	15.740	0.973	105	2352547	48.77	ug/L		99
71) sec-Butylbenzene	15.929	15.929	0.985	105	3063244	48.27	ug/L		99
72) 4-Isopropyltoluene	16.051	16.051	0.992	119	2480264	49.19	ug/L		100
73) 1,3-Dichlorobenzene	16.118	16.118	0.996	146	1352760	48.84	ug/L		100
74) 1,4-Dichlorobenzene	16.203	16.203	1.002	146	1353814	47.67	ug/L		100
75) n-Butylbenzene	16.502	16.502	1.020	91	2348099	48.64	ug/L		100
76) 1,2-Dichlorobenzene	16.642	16.642	1.029	146	1313152	49.45	ug/L		99
77) 1,2-Dibromo-3-chloropr...	17.532	17.526	1.084	157	110595	53.16	ug/L		99
78) 1,2,4-Trichlorobenzene	18.629	18.629	1.151	180	620845	48.59	ug/L		100
79) Hexachlorobutadiene	18.818	18.818	1.163	225	395483	46.53	ug/L		99
80) Naphthalene	19.026	19.026	1.176	128	1366393	48.25	ug/L		100
81) 1,2,3-Trichlorobenzene	19.385	19.385	1.198	180	509465	49.62	ug/L		99
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.			
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.			
85) Acrolein	7.174	7.174	0.676		0m	N.D.	d		
86) Trichlorotrifluoroethane	7.406	7.363	0.698		0m	N.D.	d		
87) Isopropyl Alcohol	7.424	7.430	0.700		0m	N.D.	d		
88) Allyl chloride	7.698	7.796	0.725		0m	N.D.	d		
89) tert-Butyl Alcohol	8.022	7.924	0.756		0m	N.D.	d		
90) Acrylonitrile	8.241	8.168	0.777		0m	N.D.	d		
91) Isopropyl ether	8.704	8.735	0.820		0m	N.D.	d		
92) 2-Chloro-1,3-butadiene	8.765	8.863	0.826		0m	N.D.	d		
93) Ethyl tert-butyl ether	9.137	9.137	0.861		0m	N.D.	d		
94) Ethyl acetate	9.326	9.339	0.879		0m	N.D.	d		
95) Propionitrile	9.332	9.387	0.879		0m	N.D.	d		
96) Methacrylonitrile	9.631	9.570	0.908		0m	N.D.	d		
97) Tetrahydrofuran	9.674	9.710	0.912		0m	N.D.	d		
98) Isobutyl alcohol	10.082	10.003	0.950		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B122.D
Acq On : 9 Mar 2010 1:47 am
Operator : ACJ
InstName : VOA4
Sample : |1202063271|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MIX[A] MS 248017001
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 09 16:34:19 2010
Quant Method : C:\msdchem\1\DATA\030810V4\Methods\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 15:37:50 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	10.369	10.381	0.977		0m	N.D.	d
100)	Methyl methacrylate	11.265	11.204	1.061		0m	N.D.	d
101)	1,4-Dioxane	11.381	11.326	1.072		0m	N.D.	d
102)	2-Nitropropane	0.000	11.667	0.000		0	N.D.	
104)	Ethyl methacrylate	12.460	12.460	0.905		0m	N.D.	d
106)	1-Chlorohexane	13.770	13.661	0.851		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	14.758	14.783	0.912		0m	N.D.	d
108)	Cyclohexanone	14.886	14.905	0.920		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	15.179	15.063	0.938		0m	N.D.	d
110)	Pentachloroethane	15.770	15.770	0.975		0m	N.D.	d
111)	Benzyl chloride	16.179	16.319	1.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.782	16.715	1.037		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B122.D
Acq On : 9 Mar 2010 1:47 am
Operator : ACJ
InstName : VOA4
Sample : |1202063271|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MIX[A] MS 248017001
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 09 16:34:19 2010
Quant Method : C:\msdchem\1\DATA\030810V4\Methods\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 15:37:50 2010
Response via : Initial Calibration
Integrator: RTE

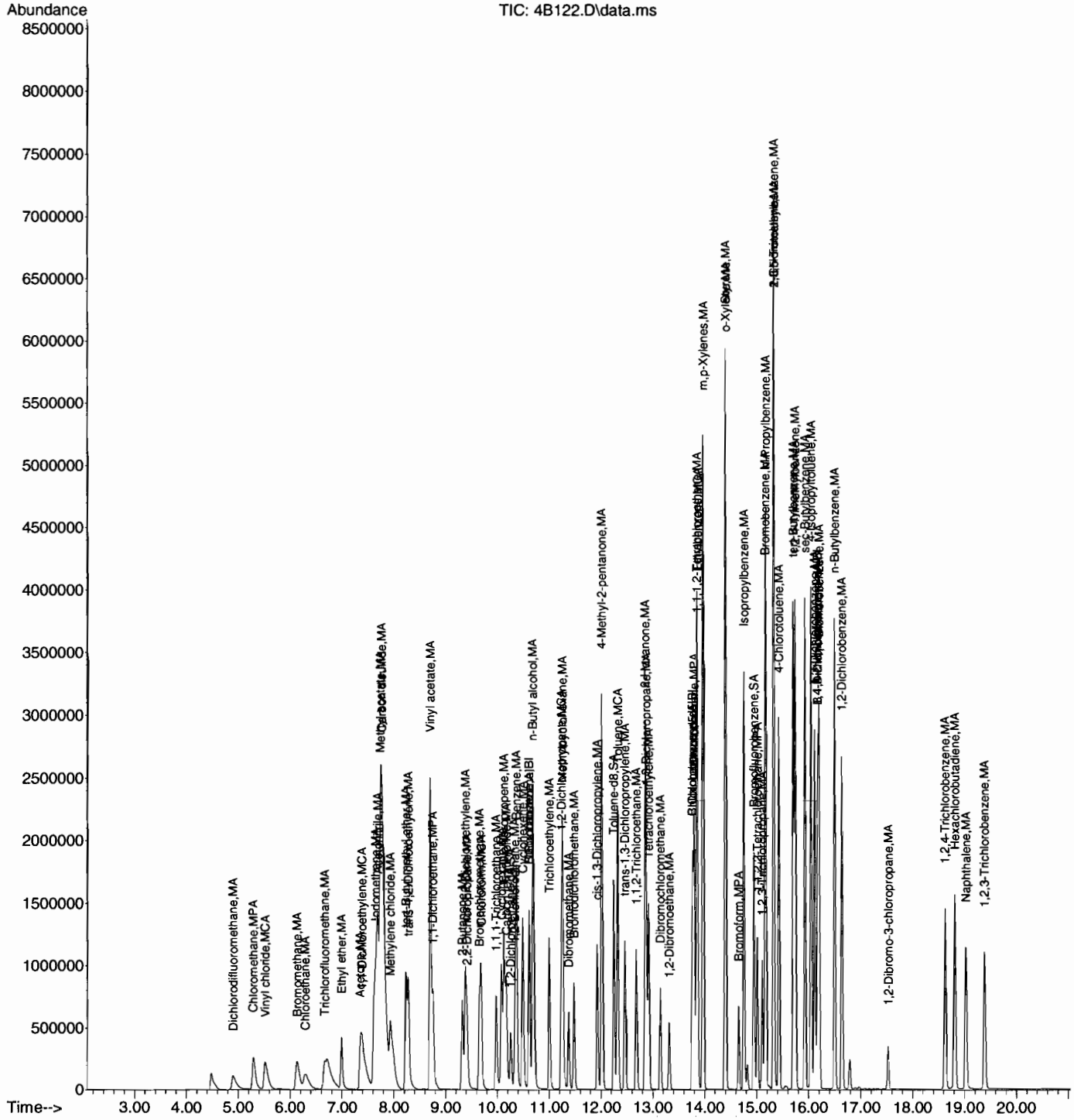

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202063272**	**Date Received:**	**02/25/2010 08:45**		
Client Sample:	**QC for batch 961925**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12915PSD**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 02:15**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/09/2010 02:15**				
Data File:	**030810V4\4B123.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		43.2	ug/L	0.300	1.00
74-87-3	Chloromethane		41.0	ug/L	0.300	1.00
75-01-4	Vinyl chloride		46.9	ug/L	0.500	1.00
74-83-9	Bromomethane		44.8	ug/L	0.300	1.00
75-00-3	Chloroethane		46.7	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		49.6	ug/L	0.300	1.00
60-29-7	Ethyl ether		47.0	ug/L	0.300	1.00
67-64-1	Acetone		83.3	ug/L	3.50	10.0
75-05-8	Acetonitrile		1170	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		43.8	ug/L	0.300	1.00
74-88-4	Iodomethane		245	ug/L	1.25	5.00
75-09-2	Methylene chloride		45.6	ug/L	3.00	10.0
75-15-0	Carbon disulfide		242	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		47.0	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		45.5	ug/L	0.300	1.00
108-05-4	Vinyl acetate		281	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		47.6	ug/L	0.300	1.00
78-93-3	2-Butanone		127	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		47.0	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		46.8	ug/L	0.300	1.00
67-66-3	Chloroform		46.4	ug/L	0.250	1.00
74-97-5	Bromochloromethane		49.6	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		48.5	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		47.5	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		4900	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		49.3	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		46.6	ug/L	0.250	1.00
71-43-2	Benzene		47.0	ug/L	0.300	1.00
79-01-6	Trichloroethylene		46.6	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		48.4	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		51.8	ug/L	0.250	1.00
74-95-3	Dibromomethane		47.7	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		237	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		49.4	ug/L	0.250	1.00
108-88-3	Toluene		52.5	ug/L	0.250	1.00
10061-02-6	trans-I,3-Dichloropropylene		50.7	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		49.1	ug/L	0.250	1.00
591-78-6	2-Hexanone		159	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202063272**	**Date Received:**	**02/25/2010 08:45**		
Client Sample:	**QC for batch 961925**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12915PSD**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 02:15**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/09/2010 02:15**				
Data File:	**030810V4\4B123.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		49.0	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		48.2	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		53.6	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		49.8	ug/L	0.250	1.00
108-90-7	Chlorobenzene		47.4	ug/L	0.250	1.00
100-41-4	Ethylbenzene		47.4	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		97.6	ug/L	0.500	2.00
95-47-6	o-Xylene		50.1	ug/L	0.300	1.00
100-42-5	Styrene		52.8	ug/L	0.250	1.00
75-25-2	Bromoform		53.6	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		47.1	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		45.4	ug/L	0.300	1.00
108-86-1	Bromobenzene		47.1	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		45.3	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		47.9	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		46.2	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		47.7	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		45.8	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		47.2	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		46.4	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		46.3	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		47.0	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		46.6	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		46.0	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		46.2	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		52.7	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		42.8	ug/L	0.300	1.00
91-20-3	Naphthalene		48.0	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		48.0	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202063272**	**Date Received:**	**02/25/2010 08:45**		
Client Sample:	**QC for batch 961925**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12915PSD**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961925**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 02:15**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/09/2010 02:15**				
Data File:	**030810V4\4B123.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		50.8	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		47.0	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		46.5	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	46.0	50.0	ug/L	92.0	(72%-132%)
Bromofluorobenzene	48.3	50.0	ug/L	96.5	(77%-123%)
Toluene-d8	49.5	50.0	ug/L	99.0	(76%-122%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B123.D
Acq On : 9 Mar 2010 2:15 am
Operator : ACJ
InstName : VOA4
Sample : |1202063272|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MIX[A] MSD 248017001
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 09 16:34:21 2010
Quant Method : C:\msdchem\1\DATA\030810V4\Methods\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 15:37:50 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.619	10.613	1.000	96	1542592	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.765	1.000	117	1165748	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	779602	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.613	1.000	96	1542485	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.764	1.000	117	1165748	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	779859	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.259	0.966	65	383291	46.02	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 92.04%					
43) Toluene-d8	12.253	12.247	0.890	98	1314013	49.51	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 99.02%					
61) Bromofluorobenzene	14.953	14.947	0.924	95	729551	48.26	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 96.52%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.904	4.897	0.462	85	435168	43.19	ug/L	99
3) Chloromethane	5.292	5.299	0.498	50	738071	41.01	ug/L	99
4) Vinyl chloride	5.521	5.521	0.520	62	797858	46.90	ug/L	100
5) Bromomethane	6.138	6.130	0.578	94	467696	44.83	ug/L	100
6) Chloroethane	6.295	6.288	0.593	64	386855	46.72	ug/L	100
7) Trichlorofluoromethane	6.662	6.668	0.627	101	769469	49.58	ug/L	100
8) Ethyl ether	6.997	6.991	0.659	59	364077	47.01	ug/L	97
9) Acetone	7.357	7.351	0.693	43	786313	83.32	ug/L	100
10) 1,1-Dichloroethylene	7.388	7.394	0.696	61	787123	43.81	ug/L	99
11) Iodomethane	7.625	7.662	0.718	142	4121848	244.58	ug/L	100
12) Acetonitrile	7.699	7.693	0.725	41	1801997	1171.62	ug/L	100
13) Methyl acetate	7.747	7.747	0.730	43	1784396	219.56	ug/L	100
14) Carbon disulfide	7.772	7.778	0.732	76	8308928	242.11	ug/L	100
15) Methylene chloride	7.936	7.967	0.747	84	555260	45.60	ug/L	98
16) tert-Butyl methyl ether	8.241	8.235	0.776	73	1289238	47.04	ug/L	100
17) trans-1,2-Dichloroethy...	8.284	8.278	0.780	61	638370	45.49	ug/L	99
18) Vinyl acetate	8.704	8.705	0.820	43	5059645	280.72	ug/L	100
19) 1,1-Dichloroethane	8.759	8.753	0.825	63	827594	47.60	ug/L	100
20) 2-Butanone	9.326	9.320	0.878	43	1240629	126.57	ug/L	100
21) cis-1,2-Dichloroethylene	9.387	9.381	0.884	61	711076	46.95	ug/L	99
22) 2,2-Dichloropropane	9.418	9.412	0.887	77	410891	46.75	ug/L	97
23) Bromochloromethane	9.655	9.656	0.909	128	250571	49.57	ug/L	98
24) Chloroform	9.686	9.686	0.912	83	833157	46.43	ug/L	100
25) 1,1,1-Trichloroethane	9.979	9.973	0.940	97	641470	48.50	ug/L	99
26) Cyclohexane	10.082	10.076	0.949	56	701759	46.70	ug/L	100
27) 1,1-Dichloropropene	10.131	10.131	0.954	75	613478	47.53	ug/L	100
28) Carbon tetrachloride	10.174	10.168	0.958	117	604696	49.31	ug/L	98
30) 1,2-Dichloroethane	10.338	10.338	0.974	62	682358	46.61	ug/L	100
31) Benzene	10.369	10.369	0.976	78	1795415	47.01	ug/L	99
32) Cyclohexene	10.491	10.491	0.988	67	862410	46.89	ug/L	100
33) n-Butyl alcohol	10.686	10.686	1.006	56	1779500	4900.12	ug/L	99
34) Trichloroethylene	11.003	11.003	1.036	95	467127	46.64	ug/L	99
35) 1,2-Dichloropropane	11.241	11.241	1.059	63	484286	48.42	ug/L	100
36) Methylcyclohexane	11.265	11.259	1.061	83	745678	48.71	ug/L	100
37) Dibromomethane	11.375	11.369	1.071	93	297691	47.66	ug/L	99
38) Bromodichloromethane	11.484	11.478	1.082	83	648272	51.79	ug/L	99
39) 2-Chloroethylvinyl ether	0.000	11.692	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B123.D
Acq On : 9 Mar 2010 2:15 am
Operator : ACJ
InstName : VOA4
Sample : |1202063272|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MIX[A] MSD 248017001
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 09 16:34:21 2010
Quant Method : C:\msdchem\1\DATA\030810V4\Methods\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 15:37:50 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
40) cis-1,3-Dichloropropylene	11.929	11.930	1.123	75	724894	49.35	ug/L		99
42) 4-Methyl-2-pentanone	12.015	12.015	0.872	58	982873	236.97	ug/L		100
44) Toluene	12.326	12.320	0.895	91	1894434	52.46	ug/L		99
45) trans-1,3-Dichloroprop...	12.460	12.460	0.905	75	691200	50.66	ug/L		99
46) 1,1,2-Trichloroethane	12.679	12.679	0.921	83	356172	49.05	ug/L		99
47) 2-Hexanone	12.856	12.856	0.934	43	1920952	158.75	ug/L		98
48) 1,3-Dichloropropane	12.874	12.874	0.935	76	729644	48.95	ug/L	#	80
49) Tetrachloroethylene	12.917	12.917	0.938	164	376659	48.15	ug/L		99
50) Dibromochloromethane	13.143	13.143	0.954	129	501407	53.60	ug/L		99
51) 1,2-Dibromoethane	13.319	13.313	0.967	107	438125	49.77	ug/L		99
52) Chlorobenzene	13.801	13.801	1.002	112	1278709	47.44	ug/L		100
53) 1,1,1,2-Tetrachloroethane	13.850	13.850	1.006	131	503005	50.78	ug/L		99
54) Ethylbenzene	13.862	13.862	1.007	91	2233746	47.36	ug/L		100
55) m,p-Xylenes	13.972	13.966	1.015	106	1798720	97.57	ug/L		99
56) o-Xylene	14.398	14.399	1.046	106	954207	50.06	ug/L		100
57) Styrene	14.398	14.399	1.046	104	1605500	52.76	ug/L		99
59) Bromoform	14.654	14.655	0.906	173	361115	53.60	ug/L		98
60) Isopropylbenzene	14.758	14.758	0.912	105	2439279	46.16	ug/L		100
62) 1,1,2,2-Tetrachloroethane	15.014	15.014	0.928	83	692386	47.05	ug/L		100
63) 1,2,3-Trichloropropane	15.106	15.106	0.934	110	174893	45.39	ug/L		100
64) Bromobenzene	15.167	15.167	0.937	156	680295	47.11	ug/L		100
65) n-Propylbenzene	15.179	15.179	0.938	91	2990465	45.30	ug/L		100
66) 1,3,5-Trimethylbenzene	15.331	15.325	0.948	105	2306051	47.68	ug/L		100
67) 2-Chlorotoluene	15.331	15.331	0.948	126	683157	47.92	ug/L		98
68) 4-Chlorotoluene	15.429	15.429	0.954	91	1860779	45.84	ug/L		100
69) tert-Butylbenzene	15.703	15.703	0.971	134	488568	47.20	ug/L		100
70) 1,2,4-Trimethylbenzene	15.740	15.740	0.973	105	2304562	46.39	ug/L		99
71) sec-Butylbenzene	15.929	15.929	0.985	105	3025665	46.30	ug/L		100
72) 4-Isopropyltoluene	16.051	16.051	0.992	119	2441342	47.02	ug/L		100
73) 1,3-Dichlorobenzene	16.118	16.118	0.996	146	1327744	46.55	ug/L		100
74) 1,4-Dichlorobenzene	16.203	16.203	1.002	146	1345206	46.00	ug/L		99
75) n-Butylbenzene	16.502	16.502	1.020	91	2294302	46.15	ug/L		100
76) 1,2-Dichlorobenzene	16.642	16.642	1.029	146	1271352	46.49	ug/L		100
77) 1,2-Dibromo-3-chloropr...	17.526	17.526	1.083	157	112999	52.74	ug/L		97
78) 1,2,4-Trichlorobenzene	18.629	18.629	1.151	180	618276	46.99	ug/L		100
79) Hexachlorobutadiene	18.818	18.818	1.163	225	374590	42.80	ug/L		99
80) Naphthalene	19.032	19.026	1.176	128	1398477	47.96	ug/L		100
81) 1,2,3-Trichlorobenzene	19.385	19.385	1.198	180	506987	47.95	ug/L		100
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.			
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.			
85) Acrolein	7.162	7.174	0.674		0m	N.D.	d		
86) Trichlorotrifluoroethane	7.375	7.363	0.695		0m	N.D.	d		
87) Isopropyl Alcohol	7.345	7.430	0.692		0m	N.D.	d		
88) Allyl chloride	7.699	7.796	0.725		0m	N.D.	d		
89) tert-Butyl Alcohol	0.000	7.924	0.000		0	N.D.			
90) Acrylonitrile	8.241	8.168	0.776		0m	N.D.	d		
91) Isopropyl ether	8.704	8.735	0.820		0m	N.D.	d		
92) 2-Chloro-1,3-butadiene	8.753	8.863	0.824		0m	N.D.	d		
93) Ethyl tert-butyl ether	9.143	9.137	0.861		0m	N.D.	d		
94) Ethyl acetate	9.326	9.339	0.878		0m	N.D.	d		
95) Propionitrile	9.320	9.387	0.878		0m	N.D.	d		
96) Methacrylonitrile	0.000	9.570	0.000		0	N.D.			
97) Tetrahydrofuran	9.692	9.710	0.913		0m	N.D.	d		
98) Isobutyl alcohol	9.979	10.003	0.940		0m	N.D.	d		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B123.D
Acq On : 9 Mar 2010 2:15 am
Operator : ACJ
InstName : VOA4
Sample : |1202063272|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MIX[A] MSD 248017001
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 09 16:34:21 2010
Quant Method : C:\msdchem\1\DATA\030810V4\Methods\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 15:37:50 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	10.369	10.381	0.976		0m	N.D.	d
100)	Methyl methacrylate	11.186	11.204	1.053		0m	N.D.	d
101)	1,4-Dioxane	11.369	11.326	1.071		0m	N.D.	d
102)	2-Nitropropane	11.673	11.667	1.099		0m	N.D.	d
104)	Ethyl methacrylate	12.454	12.460	0.904		0m	N.D.	d
106)	1-Chlorohexane	13.624	13.661	0.842		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	14.758	14.783	0.912		0m	N.D.	d
108)	Cyclohexanone	14.941	14.905	0.924		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	15.185	15.063	0.939		0m	N.D.	d
110)	Pentachloroethane	15.764	15.770	0.974		0m	N.D.	d
111)	Benzyl chloride	16.185	16.319	1.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.709	16.715	1.033		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030810V4\
Data File : 4B123.D
Acq On : 9 Mar 2010 2:15 am
Operator : ACJ
InstName : VOA4
Sample : |1202063272|961925|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MIX[A] MSD 248017001
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 09 16:34:21 2010
Quant Method : C:\msdchem\1\DATA\030810V4\Methods\VOA4-8260-030710.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Mon Mar 08 15:37:50 2010
Response via : Initial Calibration
Integrator: RTE

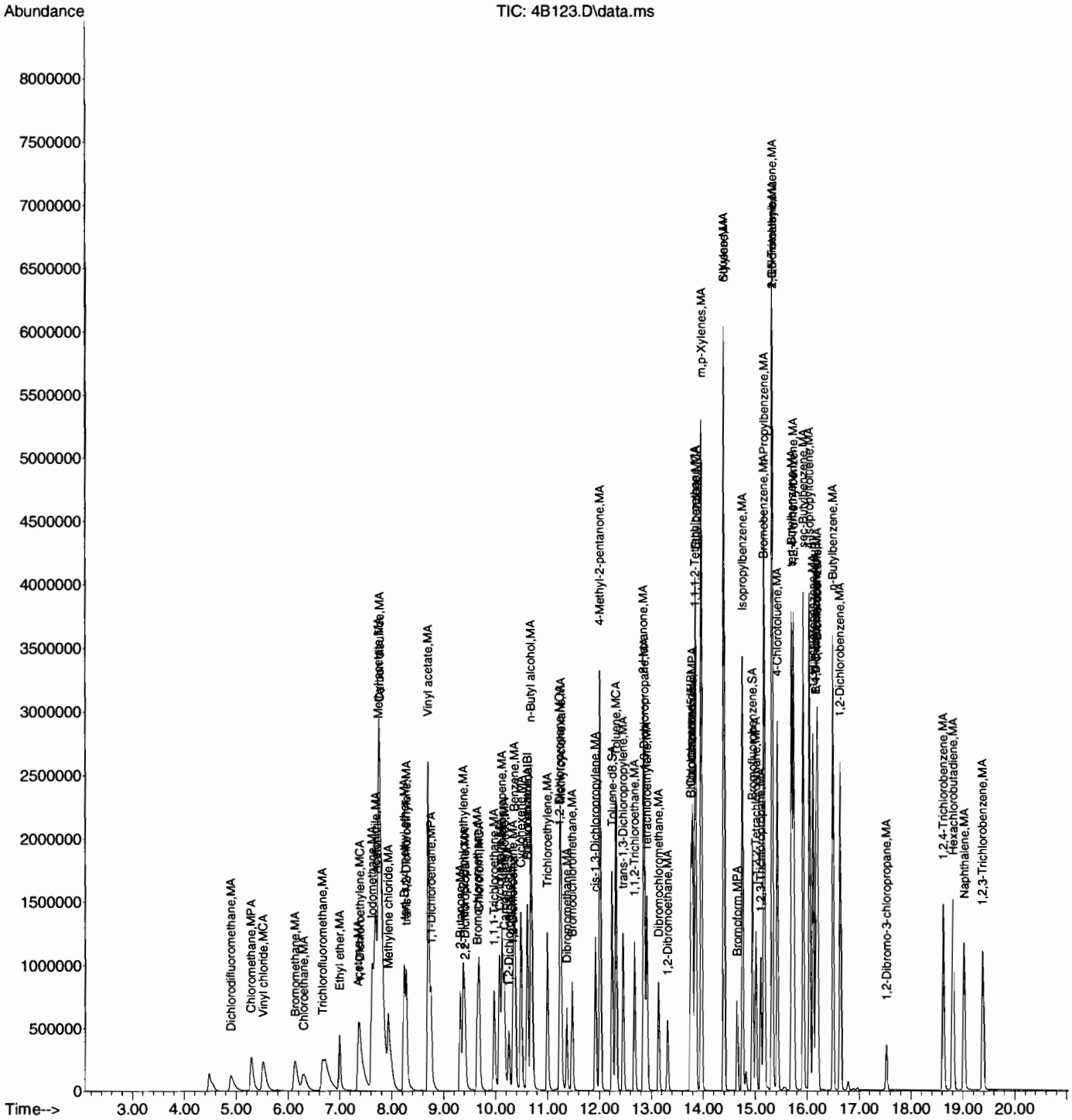

Miscellaneous

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA4

Date: 3/1/2010 Method 8260B/624 Operator: ACJ

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1671

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/1/2010

(See pg. 63 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot #

Sequence Number: 030110V4

Daily Standard	Solution ID#	Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV					
IS	UVM100114-01	1	1	1	
SS	UVM091216-10	1	1	1	
LCS/MS					
BFB	UVM091216-10				1
SHORT					
DHEC					

Purge Amount	
5	Water Purge Vol:
N/A	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
1 Mar 2010 19:08	4A101.D	UVM091216-10	GEL	BFB	1UL	1	N/A	1	W	ACJ	N/A	O	
1 Mar 2010 19:35	4A102.D	120256-----	GEL	BLANK	5ML	1	N/A	2	w	ACJ	N/A	X	
1 Mar 2010 20:03	4A103.D	W4VM100301-01	GEL	ICAL	5+5UL	1	N/A	3	w	ACJ	N/A	O	UVM100126-01C+UVM100222-01A
1 Mar 2010 20:30	4A104.D	W4VM100301-02	GEL	ICAL	5+5UL	1	N/A	4	w	ACJ	N/A	O	UVM100126-02C+UVM100222-02A
1 Mar 2010 20:58	4A105.D	W4VM100301-03	GEL	ICAL	5+5UL	1	N/A	5	w	ACJ	N/A	X	UVM100126-02C+UVM100222-02A
1 Mar 2010 21:26	4A106.D	W4VM100301-04	GEL	ICAL	5+5UL	1	N/A	6	w	ACJ	N/A	O	UVM100126-03C+UVM100222-03A
1 Mar 2010 21:54	4A107.D	W4VM100301-05	GEL	ICAL	5+5UL	1	N/A	7	w	ACJ	N/A	O	UVM100126-04C+UVM100222-04A
1 Mar 2010 22:21	4A108.D	W4VM100301-06	GEL	ICAL	5+5UL	1	N/A	8	w	ACJ	N/A	O	UVM100126-05C+UVM100222-05A
1 Mar 2010 22:49	4A109.D	W4VM100301-07	GEL	ICAL	5+5UL	1	N/A	9	w	ACJ	N/A	X	UVM100126-06C+UVM100222-06A
1 Mar 2010 23:16	4A110.D	W4VM100301-08	GEL	ICAL	2.5+5UL	1	N/A	10	w	ACJ	N/A	O	UVM100126-07C+UVM100222-07A
1 Mar 2010 23:44	4A111.D	W4VM100301-09	GEL	ICAL	5+5UL	1	N/A	11	w	ACJ	N/A	O	UVM100126-08C+UVM100222-08A
2 Mar 2010 00:12	4A112.D	120256-----	GEL	BLANK	5ML	1	N/A	12	w	ACJ	N/A	X	
2 Mar 2010 00:39	4A113.D	W4VM100301-10	GEL	ICAL	5+5UL	1	N/A	13	w	ACJ	N/A	O	UVM100215-01+UVM100227-01A
2 Mar 2010 01:06	4A114.D	W4VM100301-11	GEL	ICAL	5+5UL	1	N/A	14	w	ACJ	N/A	O	UVM100215-02+UVM100227-02A
2 Mar 2010 01:34	4A115.D	W4VM100301-12	GEL	ICAL	5+5UL	1	N/A	15	w	ACJ	N/A	O	UVM100215-03+UVM100227-03A
2 Mar 2010 02:01	4A116.D	W4VM100301-13	GEL	ICAL	5+5UL	1	N/A	16	w	ACJ	N/A	O	UVM100215-04+UVM100227-04A
2 Mar 2010 02:28	4A117.D	W4VM100301-14	GEL	ICAL	5+5UL	1	N/A	17	w	ACJ	N/A	O	UVM100215-05+UVM100227-05A
2 Mar 2010 02:56	4A118.D	W4VM100301-15	GEL	ICAL	5+5UL	1	N/A	18	w	ACJ	N/A	O	UVM100215-06+UVM100227-06A
2 Mar 2010 03:23	4A119.D	W4VM100301-16	GEL	ICAL	5+5UL	1	N/A	19	w	ACJ	N/A	O	UVM100215-07+UVM100227-07A
2 Mar 2010 03:50	4A120.D	120256-----	GEL	BLANK	5ML	1	N/A	20	w	ACJ	N/A	X	
2 Mar 2010 04:18	4A121.D	W4VM100301-17	GEL	ICV	5+5UL	1	N/A	21	w	ACJ	N/A	X	UVM100126-02E+IVM100301-01
2 Mar 2010 04:45	4A122.D	W4VM100301-18	GEL	ICV	5+5UL	1	N/A	22	w	ACJ	N/A	O	UVM100220-01B+IVM100301-01
2 Mar 2010 05:13	4A123.D	W4VM100301-19	GEL	ICV	5+5UL	1	N/A	23	w	ACJ	N/A	O	UVM100215-08A+UVM100125-08E
2 Mar 2010 05:41	4A124.D	120256-----	GEL	BLANK	5ML	1	N/A	24	w	ACJ	N/A	X	
2 Mar 2010 06:08	4A125.D	W4VM100301-20	GEL	TEST	5UL	1	N/A	25	w	ACJ	N/A	X	UVM100106-07C/UVM100222-07A

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA4

Date: 3/5/2010 Method 8260B/624 Operator: ACJ

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1671

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/1/2010

(See pg. 63 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 81710

Sequence Number: 030510V4PM

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W4VM100305-05		5+5		
IS	UVM100114-01	1	1	1	
SS	UVM091216-10	1	1	1	
LCS/MS	W4VM100305-06/07			5+5	
BFB	UVM091216-10				1
SHORT	W4VM100305-08/09		5	5	
DHEC	N/A			5	

Purge Amount	
5	Water Purge Vol:
5G	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
5 Mar 2010 23:44	4A525.D	UVM091216-10	GEL	BFB2	5ML	1	N/A	25	W	ACJ	N/A	O	
6 Mar 2010 00:11	4A526.D	W4VM100305-05	GEL	CCV	5ML	1	N/A	26	W	ACJ	N/A	O	UVM100106-07D+UVM100222-07A
6 Mar 2010 00:39	4A527.D	W4VM100305-06	GEL	LCS	5ML	1	N/A	27	W	ACJ	N/A	O	UVM100220-01D+IVM100304-01
6 Mar 2010 01:06	4A528.D	W4VM100305-07	GEL	LCS	5G	1	N/A	28	S	ACJ	N/A	O	UVM100220-01D+IVM100304-01
6 Mar 2010 01:34	4A529.D	W4VM100305-08	GEL	CCV	5ML	1	N/A	29	W	ACJ	N/A	O	UVM100215-08B
6 Mar 2010 02:01	4A530.D	W4VM100305-09	GEL	LCS	5G	1	N/A	30	S	ACJ	N/A	O	UVM100215-08B
6 Mar 2010 02:28	4A531.D	12020-----	GEL	BLANK	5G	1	N/A	31	S	ACJ	N/A	O	
6 Mar 2010 02:56	4A532.D	12020-----	GEL	BLANK	5ML	1	N/A	32	W	ACJ	N/A	O	
6 Mar 2010 03:23	4A533.D	248232018	LANL	961802	5G	1	N/A	33	S	ACJ	N/A	O	
6 Mar 2010 03:51	4A534.D	248232019	LANL	961802	5G	1	N/A	34	S	ACJ	N/A	O	CONFIRMED BY 4B519
6 Mar 2010 04:18	4A535.D	248232020	LANL	961802	5G	1	N/A	35	S	ACJ	N/A	X	IS LOW; SEE 4B119
6 Mar 2010 04:46	4A536.D	248017001	LANL	961925	5ML	1	PH2	36	W	ACJ	N	O	
6 Mar 2010 05:13	4A537.D	248017002	LANL	961925	5ML	1	PH2	37	W	ACJ	N	O	
6 Mar 2010 05:41	4A538.D	248017006	LANL	961925	5ML	1	PH2	38	W	ACJ	N	X	SS HIGH;SEE 4B108
6 Mar 2010 06:08	4A539.D	248047001	LANL	961925	5ML	1	PH2	39	W	ACJ	N	O	
6 Mar 2010 06:35	4A540.D	248047002	LANL	961925	5ML	1	PH2	40	W	ACJ	N	O	
6 Mar 2010 07:02	4A541.D	248047006	LANL	961925	5ML	1	PH2	41	W	ACJ	N	O	
6 Mar 2010 07:29	4A542.D	248047010	LANL	961925	5ML	1	PH2	42	W	ACJ	N	X	SS HIGH;SEE 4B109
6 Mar 2010 07:56	4A543.D	248170001	LANL	961925	5ML	1	PH2	43	W	ACJ	N	O	
6 Mar 2010 08:24	4A544.D	248170002	LANL	961925	5ML	1	PH2	44	W	ACJ	N	X	SS HIGH;SEE 4B110
6 Mar 2010 08:52	4A545.D	248170003	LANL	961925	5ML	1	PH2	45	W	ACJ	N	X	SS HIGH;SEE 4B111
6 Mar 2010 09:20	4A546.D	248170004	LANL	961925	5ML	1	PH2	46	W	ACJ	N	O	
6 Mar 2010 09:47	4A547.D	248235001	LANL	961925	5ML	1	PH2	47	W	ACJ	N	O	
6 Mar 2010 10:15	4A548.D	248235002	LANL	961925	5ML	1	PH2	48	W	ACJ	N	O	
6 Mar 2010 10:43	4A549.D	1202062980	LANL	961802	5G	1	N/A	49	S	ACJ	N/A	X	MS 248232020
	4A550.D	No MS or GC data present											

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA4

Date: 3/7/2010 Method 8260B/624 Operator: ACJ

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1706

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/7/2010

(See pg. 72 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 81710

Sequence Number: 030710V4

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV			5+5		
IS	UVM100217-01	1	1	1	
SS	UVM100217-02	1	1	1	
LCS/MS				5+5	
BFB	UVM100217-02				1
SHORT			5+5	5+5	
DHEC				5	

Purge Amount	
5	Water Purge Vol:
	Soil Purge Wt.
	Mid level ext. MeOH Vol:
	ul
	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
7 Mar 2010 19:02	4A701.D	UVM100217-02	GEL	BFB1	5ML	1	N/A	1	W	ACJ	N/A	O	
7 Mar 2010 19:29	4A702.D	12020-----	GEL	BLANK	5ML	1	N/A	2	w	ACJ	N/A	X	
7 Mar 2010 19:57	4A703.D	W4VM100307-01	GEL	ICAL	5UL+5UL	1	N/A	3	w	ACJ	N/A	O	UVM100106-01D+UVM100222-01B
7 Mar 2010 20:24	4A704.D	W4VM100307-02	GEL	ICAL	5UL+5UL	1	N/A	4	w	ACJ	N/A	O	UVM100106-02D+UVM100222-02B
7 Mar 2010 20:52	4A705.D	W4VM100307-03	GEL	ICAL	5UL+5UL	1	N/A	5	w	ACJ	N/A	X	UVM100106-02D+UVM100222-02B
7 Mar 2010 21:20	4A706.D	W4VM100307-04	GEL	ICAL	5UL+5UL	1	N/A	6	w	ACJ	N/A	O	UVM100106-03D+UVM100222-03B
7 Mar 2010 21:47	4A707.D	W4VM100307-05	GEL	ICAL	5UL+5UL	1	N/A	7	w	ACJ	N/A	O	UVM100106-04D+UVM100222-04B
7 Mar 2010 22:14	4A708.D	W4VM100307-06	GEL	ICAL	5UL+5UL	1	N/A	8	w	ACJ	N/A	O	UVM100106-05D+UVM100222-05B
7 Mar 2010 22:41	4A709.D	W4VM100307-07	GEL	ICAL	5UL+5UL	1	N/A	9	w	ACJ	N/A	O	UVM100106-06D+UVM100222-06B
7 Mar 2010 23:09	4A710.D	W4VM100307-08	GEL	ICAL	5UL+5UL	1	N/A	10	w	ACJ	N/A	O	UVM100106-07D+UVM100222-07B
7 Mar 2010 23:36	4A711.D	W4VM100307-09	GEL	ICAL	5UL+5UL	1	N/A	11	w	ACJ	N/A	O	UVM100106-08D+UVM100222-08B
8 Mar 2010 00:04	4A712.D	120256-----	GEL	BLANK	5ML	1	N/A	12	w	ACJ	N/A	X	
8 Mar 2010 00:32	4A713.D	W4VM100307-10	GEL	ICAL	5UL+5UL	1	N/A	13	w	ACJ	N/A	O	UVM100304-01+UVM100227-01A
8 Mar 2010 00:59	4A714.D	W4VM100307-11	GEL	ICAL	5UL+5UL	1	N/A	14	w	ACJ	N/A	O	UVM100304-02+UVM100227-02A
8 Mar 2010 01:26	4A715.D	W4VM100307-12	GEL	ICAL	5UL+5UL	1	N/A	15	w	ACJ	N/A	O	UVM100304-03+UVM100227-03A
8 Mar 2010 01:53	4A716.D	W4VM100307-13	GEL	ICAL	5UL+5UL	1	N/A	16	w	ACJ	N/A	O	UVM100304-04+UVM100227-04A
8 Mar 2010 02:20	4A717.D	W4VM100307-14	GEL	ICAL	5UL+5UL	1	N/A	17	w	ACJ	N/A	O	UVM100304-05+UVM100227-05A
8 Mar 2010 02:48	4A718.D	W4VM100307-15	GEL	ICAL	5UL+5UL	1	N/A	18	w	ACJ	N/A	X	UVM100304-06+UVM100227-06A
8 Mar 2010 03:16	4A719.D	W4VM100307-16	GEL	ICAL	5UL+5UL	1	N/A	19	w	ACJ	N/A	O	UVM100304-07+UVM100227-07A
8 Mar 2010 03:43	4A720.D	120256-----	GEL	BLANK	5ML	1	N/A	20	w	ACJ	N/A	X	
8 Mar 2010 04:10	4A721.D	W4VM100307-17	GEL	ICV	5UL+5UL	1	N/A	21	w	ACJ	N/A	X	UVM100220-01D+IVM100304-01
8 Mar 2010 04:38	4A722.D	W4VM100307-18	GEL	ICV	5UL+5UL	1	N/A	22	w	ACJ	N/A	O	UVM100304-08A+UVM100125-08E

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA4

Date: 3/8/2010 Method 8260B/624 Operator: ACJ

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1706

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/7/2010

(See pg. 72 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 81710

Sequence Number: 030810V4

Daily Standard — Volume Added for Purge (ul)

	Solution ID#	Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W4VM100308-01		5+5		
IS	UVM100217-01	1	1	1	
SS	UVM100217-01/02	1	1	1	
LCS/MS	W4VM100308-04			5+5	
BFB	UVM100217-02				1
SHORT	W4VM100308-03/04		5	5	
DHEC	N/A			5	

Purge Amount

5	Water Purge Vol:
5G	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date	Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
8 Mar 2010	15:51	4B101.D	UVM100217-02	GEL	BFB	5ML	1	N/A	1	W	ACJ	N/A	O	
8 Mar 2010	16:19	4B102.D	W4VM100308-01	GEL	ICV/LCS	5ML	1	N/A	2	W	ACJ	N/A	O	UVM100220-01E+IVM100308-01
8 Mar 2010	17:06	4B103.D	W4VM100308-02	GEL	LCS	5G	1	N/A	3	S	ACJ	N/A	O	UVM100220-01E+IVM100308-01
8 Mar 2010	17:33	4B104.D	W4VM100308-03	GEL	CCV	5ML	1	N/A	4	W	ACJ	N/A	O	UVM100304-08A
8 Mar 2010	18:01	4B105.D	W4VM100308-04	GEL	LCS	5G	1	N/A	5	S	ACJ	N/A	O	UVM100304-08A
8 Mar 2010	18:28	4B106.D	12020-----	BLANK	BLANK	5G	1	N/A	6	S	ACJ	N/A	O	
8 Mar 2010	18:55	4B107.D	12020-----	BLANK	BLANK	5ML	1	N/A	7	W	ACJ	N/A	O	
8 Mar 2010	19:23	4B108.D	248017006	LANL	961925	5ML	1	PH2	8	w	ACJ	N	O	
8 Mar 2010	19:51	4B109.D	248047010	LANL	961925	5ML	1	PH2	9	w	ACJ	N	O	
8 Mar 2010	20:18	4B110.D	248170002	LANL	961925	5ML	1	PH2	10	w	ACJ	N	O	
8 Mar 2010	20:46	4B111.D	248170003	LANL	961925	5ML	1	PH2	11	w	ACJ	N	O	
8 Mar 2010	21:13	4B112.D	248232001	LANL	961802	5G	1	N/A	12	s	ACJ	N/A	X	CONFIRMS 4A508
8 Mar 2010	21:41	4B113.D	248232003	LANL	961802	5G	1	N/A	13	s	ACJ	N/A	O	CONFIRMED BY 4B113
8 Mar 2010	22:08	4B114.D	248232006	LANL	961802	5G	1	N/A	14	s	ACJ	N/A	X	CONFIRMED 4A513
8 Mar 2010	22:36	4B115.D	248232007	LANL	961802	5G	1	N/A	15	s	ACJ	N/A	X	CONFIRMED 4A514
8 Mar 2010	23:03	4B116.D	248232011	LANL	961802	5G	1	N/A	16	s	ACJ	N/A	O	CONFIRMED BY 4B116
8 Mar 2010	23:31	4B117.D	248232012	LANL	961802	5G	1	N/A	17	s	ACJ	N/A	X	CONFIRMS 4A519
8 Mar 2010	23:58	4B118.D	248232019	LANL	961802	5G	1	N/A	18	s	ACJ	N/A	X	CONFIRMS 4A534
9 Mar 2010	00:25	4B119.D	248232020	LANL	961802	5G	1	N/A	19	s	ACJ	N/A	O	CONFIRMED BY 4A535
9 Mar 2010	00:53	4B120.D	1202062980	LANL	961802	5G	1	N/A	20	s	ACJ	N/A	O	MS 248232001
9 Mar 2010	01:20	4B121.D	1202062981	LANL	961802	5G	1	N/A	21	s	ACJ	N/A	O	MSD 248232001
9 Mar 2010	01:47	4B122.D	1202063271	LANL	961925	5ML	1	PH2	22	w	ACJ	N	O	MS 248017001
9 Mar 2010	02:15	4B123.D	1202063272	LANL	961925	5ML	1	PH2	23	w	ACJ	N	O	MSD 248017001

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2039

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3510C
Analytical Batch Number:	959852
Prep Batch Number:	959838

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
248017001	CAPA-10-12915
248017002	CAPA-10-12917
1202058722	Method Blank (MB)
1202058723	Laboratory Control Sample (LCS)
1202058724	248017002(CAPA-10-12917) Matrix Spike (MS)
1202058725	248017002(CAPA-10-12917) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various

calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

Initial calibration and continuing calibration requirements may not be satisfied for all requested target analytes analyzed according to Method 8270D. However, the method allows for a designated number of outliers dependent on the requested analyte list. Please see the Initial Calibration and/or CCV Requirements Section of the case narrative for any samples impacted by calibration failures.

When calibrations are performed for Appendix IX compounds some of the compounds may not be calibrated exactly according to the criteria in Method 8270C. If the %RSD is greater than 15% or the correlation coefficient is less than 0.99 then the analyte is quantitated using the response factor. If the analyte is detected then the sample is re-analyzed for that analyte on an instrument that is compliant with the criteria of the method.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 248017002 (CAPA-10-12917) was selected for analysis as the matrix spike and matrix spike duplicate.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The MS(1202058724)/MSD(1202058725) RPD value for Benzidine was 50% (limit: 25%). Since the individual spike recoveries in the MS and MSD were within recovery limits and no target analytes were detected in the parent sample, the data were reported un-qualified for the RPD value failure.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information:

Holding Time Specifications
All samples in this SDG met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for confirmations and/or dilutions.

Miscellaneous Information:

Data Exception (DER) Documentation
The following DER was generated for this SDG: 799679. It is located in the Miscellaneous Section of the data report.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this SDG.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this SDG were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD2.I	Agilent 5975 Mass Spectrometer	HP7890A/HP5975C	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: Dan Benchmy **Date:** 3-26-10

Roadmap for LANL 10-2039 SVOA

This roadmap was analyzed by ANN00964 on 03-04-2010, 18:00.
This roadmap was reviewed by dan01134 on 03-08-2010, 15:28.
This roadmap was packaged by dan01134 on 03-24-2010, 11:34.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD2.i/s030310a.b/s2c0326.d	248017001	04-MAR-2010	03:14	10-2039.sub	CAPA-10-12915	1	959852	
☐	N	/chem/MSD2.i/s030310a.b/s2c0327.d	248017002	04-MAR-2010	03:34	10-2039.sub	CAPA-10-12917	1	959852	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	Y	/chem/MSD2.i/s030310a.b/s2c0316.d	1202058722	mb	03-MAR-2010	23:02	10-2039.sub	SBLK01	1.00000	959852	
☐	Y	/chem/MSD2.i/s030310a.b/s2c0317.d	1202058723	lcs	03-MAR-2010	23:22	10-2039.sub	SBLK01LCS	1.00000	959852	
☐	Y	/chem/MSD2.i/s030310a.b/s2c0328.d	1202058724	ms	04-MAR-2010	03:54	10-2039.sub	CAPA-10-12917MS	1.00000	959852	
☐	Y	/chem/MSD2.i/s030310a.b/s2c0329.d	1202058725	msd	04-MAR-2010	04:13	10-2039.sub	CAPA-10-12917MSD	1.00000	959852	

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12915**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 03:14**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**920 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0326.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.9	ug/L	2.17	10.9
108-95-2	Phenol	U	10.9	ug/L	1.09	10.9
95-57-8	2-Chlorophenol	U	10.9	ug/L	2.17	10.9
106-46-7	1,4-Dichlorobenzene	U	10.9	ug/L	2.17	10.9
621-64-7	N-Nitrosodi--n-propylamine	U	10.9	ug/L	2.17	10.9
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol	U	10.9	ug/L	2.17	10.9
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene	U	1.09	ug/L	0.337	1.09
121-14-2	2,4-Dinitrotoluene	U	10.9	ug/L	2.17	10.9
100-02-7	4-Nitrophenol	U	10.9	ug/L	2.17	10.9
87-86-5	Pentachlorophenol	U	10.9	ug/L	2.17	10.9
129-00-0	Pyrene	U	1.09	ug/L	0.326	1.09
110-86-1	Pyridine	U	10.9	ug/L	3.26	10.9
62-53-3	Aniline	U	10.9	ug/L	2.72	10.9
111-44-4	bis(2-Chloroethyl) ether	U	10.9	ug/L	2.17	10.9
541-73-1	1,3-Dichlorobenzene	U	10.9	ug/L	2.17	10.9
100-51-6	Benzyl alcohol	U	10.9	ug/L	2.17	10.9
95-50-1	1,2-Dichlorobenzene	U	10.9	ug/L	2.17	10.9
108-60-1	bis(2-Chloroisopropyl)ether	U	10.9	ug/L	2.17	10.9
95-48-7	o-Cresol	U	10.9	ug/L	2.17	10.9
65794-96-9	m,p-Cresols	U	10.9	ug/L	3.26	10.9
67-72-1	Hexachloroethane	U	10.9	ug/L	2.17	10.9
98-95-3	Nitrobenzene	U	10.9	ug/L	3.26	10.9
78-59-1	Isophorone	U	10.9	ug/L	3.26	10.9
88-75-5	2-Nitrophenol	U	10.9	ug/L	2.17	10.9
105-67-9	2,4-Dimethylphenol	U	10.9	ug/L	2.17	10.9
111-91-1	bis(2-Chloroethoxy)methane	U	10.9	ug/L	3.26	10.9
120-83-2	2,4-Dichlorophenol	U	10.9	ug/L	2.17	10.9
65-85-0	Benzoic acid	U	21.7	ug/L	6.52	21.7
91-20-3	Naphthalene	U	1.09	ug/L	0.326	1.09
106-47-8	4-Chloroaniline	U	10.9	ug/L	2.17	10.9
87-68-3	Hexachlorobutadiene	U	10.9	ug/L	2.17	10.9
91-57-6	2-Methylnaphthalene	U	1.09	ug/L	0.326	1.09
90-12-0	1-Methylnaphthalene	U	1.09	ug/L	0.326	1.09
77-47-4	Hexachlorocyclopentadiene	U	10.9	ug/L	3.26	10.9
88-06-2	2,4,6-Trichlorophenol	U	10.9	ug/L	2.17	10.9
95-95-4	2,4,5-Trichlorophenol	U	10.9	ug/L	2.17	10.9
91-58-7	2-Chloronaphthalene	U	1.09	ug/L	0.326	1.09

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12915**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 03:14**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**920 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0326.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.9	ug/L	2.17	10.9
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.9	ug/L	2.17	10.9
131-11-3	Dimethylphthalate	U	10.9	ug/L	2.17	10.9
606-20-2	2,6-Dinitrotoluene	U	10.9	ug/L	2.17	10.9
208-96-8	Acenaphthylene	U	1.09	ug/L	0.217	1.09
51-28-5	2,4-Dinitrophenol	U	21.7	ug/L	5.43	21.7
132-64-9	Dibenzofuran	U	10.9	ug/L	2.17	10.9
84-66-2	Diethylphthalate	U	10.9	ug/L	2.17	10.9
86-73-7	Fluorene	U	1.09	ug/L	0.217	1.09
7005-72-3	4-Chlorophenylphenylether	U	10.9	ug/L	2.17	10.9
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.9	ug/L	3.26	10.9
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.9	ug/L	3.26	10.9
122-39-4	Diphenylamine	U	10.9	ug/L	3.26	10.9
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	10.9	ug/L	2.17	10.9
101-55-3	4-Bromophenylphenylether	U	10.9	ug/L	2.17	10.9
118-74-1	Hexachlorobenzene	U	10.9	ug/L	2.17	10.9
1912-24-9	Atrazine	U	10.9	ug/L	3.26	10.9
85-01-8	Phenanthrene	U	1.09	ug/L	0.217	1.09
120-12-7	Anthracene	U	1.09	ug/L	0.217	1.09
84-74-2	Di-n-butylphthalate	U	10.9	ug/L	2.17	10.9
206-44-0	Fluoranthene	U	1.09	ug/L	0.217	1.09
92-87-5	Benzidine	U	10.9	ug/L	3.26	10.9
85-68-7	Butylbenzylphthalate	U	10.9	ug/L	2.17	10.9
56-55-3	Benzo(a)anthracene	U	1.09	ug/L	0.217	1.09
91-94-1	3,3'-Dichlorobenzidine	U	10.9	ug/L	2.17	10.9
218-01-9	Chrysene	U	1.09	ug/L	0.217	1.09
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.9	ug/L	2.17	10.9
117-84-0	Di-n-octylphthalate	U	10.9	ug/L	3.26	10.9
205-99-2	Benzo(b)fluoranthene	U	1.09	ug/L	0.217	1.09
207-08-9	Benzo(k)fluoranthene	U	1.09	ug/L	0.217	1.09
50-32-8	Benzo(a)pyrene	U	1.09	ug/L	0.217	1.09
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.09	ug/L	0.217	1.09
53-70-3	Dibenzo(a,h)anthracene	U	1.09	ug/L	0.217	1.09
191-24-2	Benzo(ghi)perylene	U	1.09	ug/L	0.217	1.09
123-91-1	1,4-Dioxane	U	10.9	ug/L	2.17	10.9
55-18-5	N-Nitrosodiethylamine	U	10.9	ug/L	2.17	10.9

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12915**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 03:14**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**920 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0326.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.9	ug/L	2.17	10.9
924-16-3	N-Nitrosodi-n-butylamine	U	10.9	ug/L	3.26	10.9
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.9	ug/L	3.26	10.9
608-93-5	Pentachlorobenzene	U	10.9	ug/L	3.26	10.9
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.9	ug/L	2.17	10.9
88-85-7	Dinoseb	U	10.9	ug/L	2.17	10.9
120-82-1	1,2,4-Trichlorobenzene	U	10.9	ug/L	2.17	10.9

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	73.3	109	ug/L	67.4	(39%-120%)
2-Fluorobiphenyl	33.6	54.3	ug/L	61.9	(38%-108%)
2-Fluorophenol	41.4	109	ug/L	38.1	(19%-98%)
Nitrobenzene-d5	35.3	54.3	ug/L	65.0	(31%-122%)
Phenol-d5	26.7	109	ug/L	24.6	(15%-83%)
p-Terphenyl-d14	52.2	54.3	ug/L	96.1	(40%-138%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017002**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12917**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 03:34**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**880 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0327.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	11.4	ug/L	2.27	11.4
108-95-2	Phenol	U	11.4	ug/L	1.14	11.4
95-57-8	2-Chlorophenol	U	11.4	ug/L	2.27	11.4
106-46-7	1,4-Dichlorobenzene	U	11.4	ug/L	2.27	11.4
621-64-7	N-Nitrosodi--n-propylamine	U	11.4	ug/L	2.27	11.4
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol	U	11.4	ug/L	2.27	11.4
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene	U	1.14	ug/L	0.352	1.14
121-14-2	2,4-Dinitrotoluene	U	11.4	ug/L	2.27	11.4
100-02-7	4-Nitrophenol	U	11.4	ug/L	2.27	11.4
87-86-5	Pentachlorophenol	U	11.4	ug/L	2.27	11.4
129-00-0	Pyrene	U	1.14	ug/L	0.341	1.14
110-86-1	Pyridine	U	11.4	ug/L	3.41	11.4
62-53-3	Aniline	U	11.4	ug/L	2.84	11.4
111-44-4	bis(2-Chloroethyl) ether	U	11.4	ug/L	2.27	11.4
541-73-1	1,3-Dichlorobenzene	U	11.4	ug/L	2.27	11.4
100-51-6	Benzyl alcohol	U	11.4	ug/L	2.27	11.4
95-50-1	1,2-Dichlorobenzene	U	11.4	ug/L	2.27	11.4
108-60-1	bis(2-Chloroisopropyl)ether	U	11.4	ug/L	2.27	11.4
95-48-7	o-Cresol	U	11.4	ug/L	2.27	11.4
65794-96-9	m,p-Cresols	U	11.4	ug/L	3.41	11.4
67-72-1	Hexachloroethane	U	11.4	ug/L	2.27	11.4
98-95-3	Nitrobenzene	U	11.4	ug/L	3.41	11.4
78-59-1	Isophorone	U	11.4	ug/L	3.41	11.4
88-75-5	2-Nitrophenol	U	11.4	ug/L	2.27	11.4
105-67-9	2,4-Dimethylphenol	U	11.4	ug/L	2.27	11.4
111-91-1	bis(2-Chloroethoxy)methane	U	11.4	ug/L	3.41	11.4
120-83-2	2,4-Dichlorophenol	U	11.4	ug/L	2.27	11.4
65-85-0	Benzoic acid	U	22.7	ug/L	6.82	22.7
91-20-3	Naphthalene	U	1.14	ug/L	0.341	1.14
106-47-8	4-Chloroaniline	U	11.4	ug/L	2.27	11.4
87-68-3	Hexachlorobutadiene	U	11.4	ug/L	2.27	11.4
91-57-6	2-Methylnaphthalene	U	1.14	ug/L	0.341	1.14
90-12-0	1-Methylnaphthalene	U	1.14	ug/L	0.341	1.14
77-47-4	Hexachlorocyclopentadiene	U	11.4	ug/L	3.41	11.4
88-06-2	2,4,6-Trichlorophenol	U	11.4	ug/L	2.27	11.4
95-95-4	2,4,5-Trichlorophenol	U	11.4	ug/L	2.27	11.4
91-58-7	2-Chloronaphthalene	U	1.14	ug/L	0.341	1.14

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017002**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12917**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 03:34**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**880 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0327.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	11.4	ug/L	2.27	11.4
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	11.4	ug/L	2.27	11.4
131-11-3	Dimethylphthalate	U	11.4	ug/L	2.27	11.4
606-20-2	2,6-Dinitrotoluene	U	11.4	ug/L	2.27	11.4
208-96-8	Acenaphthylene	U	1.14	ug/L	0.227	1.14
51-28-5	2,4-Dinitrophenol	U	22.7	ug/L	5.68	22.7
132-64-9	Dibenzofuran	U	11.4	ug/L	2.27	11.4
84-66-2	Diethylphthalate	U	11.4	ug/L	2.27	11.4
86-73-7	Fluorene	U	1.14	ug/L	0.227	1.14
7005-72-3	4-Chlorophenylphenylether	U	11.4	ug/L	2.27	11.4
534-52-1	2-Methyl-4,6-dinitrophenol	U	11.4	ug/L	3.41	11.4
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	11.4	ug/L	3.41	11.4
122-39-4	Diphenylamine	U	11.4	ug/L	3.41	11.4
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	11.4	ug/L	2.27	11.4
101-55-3	4-Bromophenylphenylether	U	11.4	ug/L	2.27	11.4
118-74-1	Hexachlorobenzene	U	11.4	ug/L	2.27	11.4
1912-24-9	Atrazine	U	11.4	ug/L	3.41	11.4
85-01-8	Phenanthrene	U	1.14	ug/L	0.227	1.14
120-12-7	Anthracene	U	1.14	ug/L	0.227	1.14
84-74-2	Di-n-butylphthalate	U	11.4	ug/L	2.27	11.4
206-44-0	Fluoranthene	U	1.14	ug/L	0.227	1.14
92-87-5	Benzidine	U	11.4	ug/L	3.41	11.4
85-68-7	Butylbenzylphthalate	U	11.4	ug/L	2.27	11.4
56-55-3	Benzo(a)anthracene	U	1.14	ug/L	0.227	1.14
91-94-1	3,3'-Dichlorobenzidine	U	11.4	ug/L	2.27	11.4
218-01-9	Chrysene	U	1.14	ug/L	0.227	1.14
117-81-7	bis(2-Ethylhexyl)phthalate	U	11.4	ug/L	2.27	11.4
117-84-0	Di-n-octylphthalate	U	11.4	ug/L	3.41	11.4
205-99-2	Benzo(b)fluoranthene	U	1.14	ug/L	0.227	1.14
207-08-9	Benzo(k)fluoranthene	U	1.14	ug/L	0.227	1.14
50-32-8	Benzo(a)pyrene	U	1.14	ug/L	0.227	1.14
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.14	ug/L	0.227	1.14
53-70-3	Dibenzo(a,h)anthracene	U	1.14	ug/L	0.227	1.14
191-24-2	Benzo(ghi)perylene	U	1.14	ug/L	0.227	1.14
123-91-1	1,4-Dioxane	U	11.4	ug/L	2.27	11.4
55-18-5	N-Nitrosodiethylamine	U	11.4	ug/L	2.27	11.4

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017002**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12917**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 03:34**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**880 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0327.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	11.4	ug/L	2.27	11.4
924-16-3	N-Nitrosodi-n-butylamine	U	11.4	ug/L	3.41	11.4
95-94-3	1,2,4,5-Tetrachlorobenzene	U	11.4	ug/L	3.41	11.4
608-93-5	Pentachlorobenzene	U	11.4	ug/L	3.41	11.4
58-90-2	2,3,4,6-Tetrachlorophenol	U	11.4	ug/L	2.27	11.4
88-85-7	Dinoseb	U	11.4	ug/L	2.27	11.4
120-82-1	1,2,4-Trichlorobenzene	U	11.4	ug/L	2.27	11.4

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	82.3	114	ug/L	72.4	(39%-120%)
2-Fluorobiphenyl	38.9	56.8	ug/L	68.4	(38%-108%)
2-Fluorophenol	46.9	114	ug/L	41.3	(19%-98%)
Nitrobenzene-d5	40.7	56.8	ug/L	71.7	(31%-122%)
Phenol-d5	30.3	114	ug/L	26.7	(15%-83%)
p-Terphenyl-d14	57.5	56.8	ug/L	101	(40%-138%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-2039

Matrix Type: LIQUID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202058722	MB for batch 959838	43	27	77	71	74	97
1202058723	LCS for batch 959838	42	26	74	70	83	96
248017001	CAPA-10-12915	38	25	65	62	67	96
248017002	CAPA-10-12917	41	27	72	68	72	101
1202058724	CAPA-10-12917MS	61	45	79	75	86	99
1202058725	CAPA-10-12917MSD	61	46	82	78	90	95

Surrogate		Acceptance Limits
2FP	= 2-Fluorophenol	(19%-98%)
PHL	= Phenol-d5	(15%-83%)
NBZ	= Nitrobenzene-d5	(31%-122%)
FBP	= 2-Fluorobiphenyl	(38%-108%)
TBP	= 2,4,6-Tribromophenol	(39%-120%)
TPH	= p-Terphenyl-d14	(40%-138%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: LCS for batch 959838
Lab Sample ID: 1202058723
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/03/2010 23:22
Dilution: 1
Prep Batch ID: 959838
Batch ID: 959852

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	50.0	0.0	21.7	43	29-86
108-95-2	LCS	Phenol	50.0	0.0	14.1	28	15-50
95-57-8	LCS	2-Chlorophenol	50.0	0.0	34.0	68	43-103
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	29.0	58	35-90
621-64-7	LCS	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	50.0	0.0	37.7	75	51-111
59-50-7	LCS	Parachlorometa cresol *4-Chloro-3-methylphenol*	50.0	0.0	40.1	80	57-105
83-32-9	LCS	Acenaphthene	50.0	0.0	38.1	76	49-99
121-14-2	LCS	2,4-Dinitrotoluene	50.0	0.0	39.6	79	49-117
100-02-7	LCS	4-Nitrophenol	50.0	0.0	15.6	31	18-60
87-86-5	LCS	Pentachlorophenol	50.0	0.0	40.8	82	32-125
129-00-0	LCS	Pyrene	50.0	0.0	42.8	86	53-114
110-86-1	LCS	Pyridine	50.0	0.0	27.1	54	18-108
62-53-3	LCS	Aniline	50.0	0.0	42.1	84	48-120
111-44-4	LCS	bis(2-Chloroethyl) ether	50.0	0.0	35.0	70	49-99
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	28.5	57	21-88
100-51-6	LCS	Benzyl alcohol	50.0	0.0	30.0	60	33-97
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	30.8	62	24-93
108-60-1	LCS	bis(2-Chloroisopropyl)ether	50.0	0.0	43.2	86	36-117
95-48-7	LCS	o-Cresol	50.0	0.0	32.3	65	32-100
65794-96-9	LCS	m,p-Cresols	50.0	0.0	32.2	64	23-110
67-72-1	LCS	Hexachloroethane	50.0	0.0	27.3	55	10-91
98-95-3	LCS	Nitrobenzene	50.0	0.0	37.6	75	47-112

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: LCS for batch 959838
Lab Sample ID: 1202058723
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/03/2010 23:22
Dilution: 1
Prep Batch ID 959838
Batch ID: 959852

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	50.0	0.0	38.5	77	55-109
88-75-5	LCS	2-Nitrophenol	50.0	0.0	35.9	72	51-108
105-67-9	LCS	2,4-Dimethylphenol	50.0	0.0	34.5	69	37-106
111-91-1	LCS	bis(2-Chloroethoxy)methane	50.0	0.0	35.5	71	51-106
120-83-2	LCS	2,4-Dichlorophenol	50.0	0.0	36.9	74	53-102
65-85-0	LCS	Benzoic acid	100	0.0	23.7	24	10-130
91-20-3	LCS	Naphthalene	50.0	0.0	31.9	64	39-90
106-47-8	LCS	4-Chloroaniline	50.0	0.0	40.5	81	54-123
87-68-3	LCS	Hexachlorobutadiene	50.0	0.0	28.9	58	16-93
91-57-6	LCS	2-Methylnaphthalene	50.0	0.0	32.4	65	44-98
90-12-0	LCS	1-Methylnaphthalene	50.0	0.0	32.2	64	29-104
77-47-4	LCS	Hexachlorocyclopentadiene	50.0	0.0	24.9	50	10-112
88-06-2	LCS	2,4,6-Trichlorophenol	50.0	0.0	41.4	83	47-115
95-95-4	LCS	2,4,5-Trichlorophenol	50.0	0.0	37.5	75	52-113
91-58-7	LCS	2-Chloronaphthalene	50.0	0.0	33.1	66	41-104
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	50.0	0.0	40.4	81	54-118
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	50.0	0.0	41.3	83	45-143
131-11-3	LCS	Dimethylphthalate	50.0	0.0	42.9	86	62-121
606-20-2	LCS	2,6-Dinitrotoluene	50.0	0.0	40.3	81	52-115
208-96-8	LCS	Acenaphthylene	50.0	0.0	37.3	75	46-111
51-28-5	LCS	2,4-Dinitrophenol	50.0	0.0	43.0	86	30-135
132-64-9	LCS	Dibenzofuran	50.0	0.0	37.4	75	59-106

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: LCS for batch 959838
Lab Sample ID: 1202058723
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/03/2010 23:22
Dilution: 1
Prep Batch ID: 959838
Batch ID: 959852

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
84-66-2	LCS	Diethylphthalate	50.0	0.0	45.8	92	63-124
86-73-7	LCS	Fluorene	50.0	0.0	39.2	78	49-108
7005-72-3	LCS	4-Chlorophenylphenylether	50.0	0.0	37.8	76	56-107
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	50.0	0.0	44.5	89	45-126
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	50.0	0.0	40.1	80	43-146
122-39-4	LCS	Diphenylamine	50.0	0.0	45.4	91	60-111
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	50.0	0.0	44.7	89	47-122
101-55-3	LCS	4-Bromophenylphenylether	50.0	0.0	38.4	77	53-113
118-74-1	LCS	Hexachlorobenzene	50.0	0.0	38.9	78	53-111
1912-24-9	LCS	Atrazine	50.0	0.0	44.5	89	42-133
85-01-8	LCS	Phenanthrene	50.0	0.0	38.9	78	55-105
120-12-7	LCS	Anthracene	50.0	0.0	41.3	83	54-111
84-74-2	LCS	Di-n-butylphthalate	50.0	0.0	48.0	96	56-130
206-44-0	LCS	Fluoranthene	50.0	0.0	41.2	82	58-115
92-87-5	LCS	Benzidine	100	0.0	41.9	42	10-151
85-68-7	LCS	Butylbenzylphthalate	50.0	0.0	54.9	110	54-139
56-55-3	LCS	Benzo(a)anthracene	50.0	0.0	39.5	79	58-109
91-94-1	LCS	3,3'-Dichlorobenzidine	50.0	0.0	41.0	82	44-110
218-01-9	LCS	Chrysene	50.0	0.0	39.9	80	58-112
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	50.0	0.0	50.5	101	54-138
117-84-0	LCS	Di-n-octylphthalate	50.0	0.0	56.2	112	46-145
205-99-2	LCS	Benzo(b)fluoranthene	50.0	0.0	42.1	84	55-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: LCS for batch 959838
Lab Sample ID: 1202058723
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/03/2010 23:22
Prep Batch ID: 959838
Batch ID: 959852
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
207-08-9	LCS	Benzo(k)fluoranthene	50.0	0.0	41.8	84	57-119
50-32-8	LCS	Benzo(a)pyrene	50.0	0.0	40.7	81	60-118
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	50.0	0.0	36.6	73	52-124
53-70-3	LCS	Dibenzo(a,h)anthracene	50.0	0.0	36.6	73	53-125
191-24-2	LCS	Benzo(ghi)perylene	50.0	0.0	35.1	70	49-125
123-91-1	LCS	1,4-Dioxane	50.0	0.0	28.4	57	27-93
930-55-2	LCS	N-Nitrosopyrrolidine	50.0	0.0	35.5	71	46-101
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	29.7	59	23-94

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: CAPA-10-12917MS
Lab Sample ID: 1202058724
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 03/04/2010 03:54
Dilution: 1
Prep Batch ID: 959838
Batch ID: 959852

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	100	0.00	U	60.5	61	28-111
108-95-2	MS	Phenol	100	0.00	U	47.8	48	20-71
95-57-8	MS	2-Chlorophenol	100	0.00	U	76.5	77	47-99
106-46-7	MS	1,4-Dichlorobenzene	100	0.00	U	67.1	67	40-83
621-64-7	MS	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	100	0.00	U	81.2	81	35-125
59-50-7	MS	Parachlorometa cresol *4-Chloro-3-methylphenol*	100	0.00	U	83.3	83	52-112
83-32-9	MS	Acenaphthene	100	0.00	U	80.8	81	44-102
121-14-2	MS	2,4-Dinitrotoluene	100	0.00	U	82.6	83	52-111
100-02-7	MS	4-Nitrophenol	100	0.00	U	51.2	51	27-91
87-86-5	MS	Pentachlorophenol	100	0.00	U	85.3	85	20-140
129-00-0	MS	Pyrene	100	0.00	U	90.4	90	28-131
110-86-1	MS	Pyridine	100	0.00	U	70.1	70	22-113
62-53-3	MS	Aniline	100	0.00	U	92.5	92	45-126
111-44-4	MS	bis(2-Chloroethyl) ether	100	0.00	U	75.7	76	32-109
541-73-1	MS	1,3-Dichlorobenzene	100	0.00	U	65.3	65	37-83
100-51-6	MS	Benzyl alcohol	100	0.00	U	67.0	67	37-111
95-50-1	MS	1,2-Dichlorobenzene	100	0.00	U	71.0	71	35-88
108-60-1	MS	bis(2-Chloroisopropyl)ether	100	0.00	U	93.6	94	25-122
95-48-7	MS	o-Cresol	100	0.00	U	75.9	76	29-107
65794-96-9	MS	m,p-Cresols	100	0.00	U	78.6	79	22-116
67-72-1	MS	Hexachloroethane	100	0.00	U	64.3	64	4-98
98-95-3	MS	Nitrobenzene	100	0.00	U	80.7	81	21-138

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039 **Sample Type:** Matrix Spike
Client ID: CAPA-10-12917MS **Matrix:** GROUND WATER
Lab Sample ID: 1202058724
Instrument: MSD2.I **Analysis Date:** 03/04/2010 03:54 **Dilution:** 1
Analyst: AGS1 **Prep Batch ID** 959838
Inj. Vol: .5 uL **Batch ID:** 959852

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	100	0.00	U	80.3	80	24-136
88-75-5	MS	2-Nitrophenol	100	0.00	U	77.9	78	47-110
105-67-9	MS	2,4-Dimethylphenol	100	0.00	U	73.2	73	43-103
111-91-1	MS	bis(2-Chloroethoxy)methane	100	0.00	U	74.7	75	37-116
120-83-2	MS	2,4-Dichlorophenol	100	0.00	U	79.3	79	48-106
65-85-0	MS	Benzoic acid	200	0.00	U	101	50	30-100
91-20-3	MS	Naphthalene	100	0.00	U	70.6	71	32-94
106-47-8	MS	4-Chloroaniline	100	0.00	U	85.0	85	46-123
87-68-3	MS	Hexachlorobutadiene	100	0.00	U	66.9	67	18-90
91-57-6	MS	2-Methylnaphthalene	100	0.00	U	71.2	71	40-103
90-12-0	MS	1-Methylnaphthalene	100	0.00	U	69.4	69	16-113
77-47-4	MS	Hexachlorocyclopentadiene	100	0.00	U	54.3	54	10-101
88-06-2	MS	2,4,6-Trichlorophenol	100	0.00	U	85.3	85	50-111
95-95-4	MS	2,4,5-Trichlorophenol	100	0.00	U	80.1	80	52-115
91-58-7	MS	2-Chloronaphthalene	100	0.00	U	72.3	72	44-97
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	100	0.00	U	85.1	85	31-133
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	100	0.00	U	85.7	86	25-150
131-11-3	MS	Dimethylphthalate	100	0.00	U	87.3	87	49-128
606-20-2	MS	2,6-Dinitrotoluene	100	0.00	U	81.7	82	55-110
208-96-8	MS	Acenaphthylene	100	0.00	U	79.2	79	22-127
51-28-5	MS	2,4-Dinitrophenol	100	0.00	U	95.2	95	33-135
132-64-9	MS	Dibenzofuran	100	0.00	U	78.6	79	39-119

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: CAPA-10-12917MS
Lab Sample ID: 1202058724
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 03/04/2010 03:54
Prep Batch ID: 959838
Batch ID: 959852
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
84-66-2	MS	Diethylphthalate	100	0.00	U	90.3	90	50-130
86-73-7	MS	Fluorene	100	0.00	U	81.4	81	37-118
7005-72-3	MS	4-Chlorophenylphenylether	100	0.00	U	80.0	80	50-111
534-52-1	MS	2-Methyl-4,6-dinitrophenol	100	0.00	U	93.1	93	41-126
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	100	0.00	U	94.1	94	23-156
122-39-4	MS	Diphenylamine	100	0.00	U	93.7	94	26-130
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	100	0.00	U	92.0	92	48-117
101-55-3	MS	4-Bromophenylphenylether	100	0.00	U	81.8	82	48-114
118-74-1	MS	Hexachlorobenzene	100	0.00	U	81.9	82	25-134
1912-24-9	MS	Atrazine	100	0.00	U	86.3	86	25-136
85-01-8	MS	Phenanthrene	100	0.00	U	80.2	80	33-120
120-12-7	MS	Anthracene	100	0.00	U	85.8	86	27-131
84-74-2	MS	Di-n-butylphthalate	100	0.00	U	92.6	93	38-140
206-44-0	MS	Fluoranthene	100	0.00	U	81.7	82	46-121
92-87-5	MS	Benzidine	200	0.00	U	114	57	13-138
85-68-7	MS	Butylbenzylphthalate	100	0.00	U	110	110	35-149
56-55-3	MS	Benzo(a)anthracene	100	0.00	U	82.2	82	33-127
91-94-1	MS	3,3'-Dichlorobenzidine	100	0.00	U	84.7	85	40-111
218-01-9	MS	Chrysene	100	0.00	U	80.1	80	36-125
117-81-7	MS	bis(2-Ethylhexyl)phthalate	100	0.00	U	98.0	98	35-148
117-84-0	MS	Di-n-octylphthalate	100	0.00	U	110	110	27-159
205-99-2	MS	Benzo(b)fluoranthene	100	0.00	U	90.6	91	32-134

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039 **Sample Type:** Matrix Spike

Client ID: CAPA-10-12917MS **Matrix:** GROUND WATER

Lab Sample ID: 1202058724

Instrument: MSD2.I **Analysis Date:** 03/04/2010 03:54 **Dilution:** 1

Analyst: AGS1 **Prep Batch ID:** 959838

Inj. Vol: .5 uL **Batch ID:** 959852

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
207-08-9	MS	Benzo(k)fluoranthene	100	0.00	U	83.1	83	33-136
50-32-8	MS	Benzo(a)pyrene	100	0.00	U	83.6	84	35-134
193-39-5	MS	Indeno(1,2,3-cd)pyrene	100	0.00	U	78.8	79	28-138
53-70-3	MS	Dibenzo(a,h)anthracene	100	0.00	U	80.2	80	28-140
191-24-2	MS	Benzo(ghi)perylene	100	0.00	U	75.4	75	24-138
123-91-1	MS	1,4-Dioxane	100	0.00	U	79.2	79	44-102
930-55-2	MS	N-Nitrosopyrrolidine	100	0.00	U	78.5	79	29-117
120-82-1	MS	1,2,4-Trichlorobenzene	100	0.00	U	67.3	67	34-88

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: CAPA-10-12917MSD
Lab Sample ID: 1202058725
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 03/04/2010 04:13
Prep Batch ID: 959838
Batch ID: 959852
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD	N-Methyl-N-nitrosomethylam	100	0.00	U	61.6	62	28-111	2	0-25
108-95-2	MSD	Phenol	100	0.00	U	49.9	50	20-71	4	0-25
95-57-8	MSD	2-Chlorophenol	100	0.00	U	78.7	79	47-99	3	0-25
106-46-7	MSD	1,4-Dichlorobenzene	100	0.00	U	68.7	69	40-83	2	0-25
621-64-7	MSD	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	100	0.00	U	85.6	86	35-125	5	0-25
59-50-7	MSD	Parachlorometa cresol *4-Chloro-3-methylphenol*	100	0.00	U	87.5	87	52-112	5	0-25
83-32-9	MSD	Acenaphthene	100	0.00	U	85.8	86	44-102	6	0-25
121-14-2	MSD	2,4-Dinitrotoluene	100	0.00	U	87.1	87	52-111	5	0-25
100-02-7	MSD	4-Nitrophenol	100	0.00	U	56.5	56	27-91	10	0-25
87-86-5	MSD	Pentachlorophenol	100	0.00	U	89.6	90	20-140	5	0-25
129-00-0	MSD	Pyrene	100	0.00	U	87.0	87	28-131	4	0-25
110-86-1	MSD	Pyridine	100	0.00	U	64.1	64	22-113	9	0-25
62-53-3	MSD	Aniline	100	0.00	U	87.2	87	45-126	6	0-25
111-44-4	MSD	bis(2-Chloroethyl) ether	100	0.00	U	77.5	77	32-109	2	0-25
541-73-1	MSD	1,3-Dichlorobenzene	100	0.00	U	67.6	68	37-83	3	0-25
100-51-6	MSD	Benzyl alcohol	100	0.00	U	69.1	69	37-111	3	0-25
95-50-1	MSD	1,2-Dichlorobenzene	100	0.00	U	72.5	73	35-88	2	0-25
108-60-1	MSD	bis(2-Chloroisopropyl)ether	100	0.00	U	97.0	97	25-122	4	0-25
95-48-7	MSD	o-Cresol	100	0.00	U	78.2	78	29-107	3	0-25
65794-96-9	MSD	m,p-Cresols	100	0.00	U	82.8	83	22-116	5	0-25
67-72-1	MSD	Hexachloroethane	100	0.00	U	64.0	64	4-98	0	0-25
98-95-3	MSD	Nitrobenzene	100	0.00	U	83.9	84	21-138	4	0-25

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039 **Sample Type:** Matrix Spike Duplicate
Client ID: CAPA-10-12917MSD **Matrix:** GROUND WATER
Lab Sample ID: 1202058725
Instrument: MSD2.I **Analysis Date:** 03/04/2010 04:13 **Dilution:** 1
Analyst: AGS1 **Prep Batch ID** 959838
Inj. Vol: .5 uL **Batch ID:** 959852

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	100	0.00	U	83.6	84	24-136	4	0-25
88-75-5	MSD 2-Nitrophenol	100	0.00	U	81.7	82	47-110	5	0-25
105-67-9	MSD 2,4-Dimethylphenol	100	0.00	U	77.2	77	43-103	5	0-25
111-91-1	MSD bis(2-Chloroethoxy)methane	100	0.00	U	78.7	79	37-116	5	0-25
120-83-2	MSD 2,4-Dichlorophenol	100	0.00	U	82.1	82	48-106	3	0-25
65-85-0	MSD Benzoic acid	200	0.00	U	115	57	30-100	13	0-25
91-20-3	MSD Naphthalene	100	0.00	U	74.1	74	32-94	5	0-25
106-47-8	MSD 4-Chloroaniline	100	0.00	U	83.1	83	46-123	2	0-25
87-68-3	MSD Hexachlorobutadiene	100	0.00	U	66.8	67	18-90	0	0-25
91-57-6	MSD 2-Methylnaphthalene	100	0.00	U	75.7	76	40-103	6	0-25
90-12-0	MSD 1-Methylnaphthalene	100	0.00	U	73.4	73	16-113	6	0-25
77-47-4	MSD Hexachlorocyclopentadiene	100	0.00	U	58.7	59	10-101	8	0-25
88-06-2	MSD 2,4,6-Trichlorophenol	100	0.00	U	88.1	88	50-111	3	0-25
95-95-4	MSD 2,4,5-Trichlorophenol	100	0.00	U	85.2	85	52-115	6	0-25
91-58-7	MSD 2-Chloronaphthalene	100	0.00	U	76.6	77	44-97	6	0-25
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	100	0.00	U	88.4	88	31-133	4	0-25
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	100	0.00	U	89.6	90	25-150	4	0-25
131-11-3	MSD Dimethylphthalate	100	0.00	U	91.1	91	49-128	4	0-25
606-20-2	MSD 2,6-Dinitrotoluene	100	0.00	U	86.4	86	55-110	6	0-25
208-96-8	MSD Acenaphthylene	100	0.00	U	83.7	84	22-127	6	0-25
51-28-5	MSD 2,4-Dinitrophenol	100	0.00	U	108	108	33-135	12	0-25
132-64-9	MSD Dibenzofuran	100	0.00	U	83.8	84	39-119	6	0-25

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: CAPA-10-12917MSD
Lab Sample ID: 1202058725
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 03/04/2010 04:13
Dilution: 1
Prep Batch ID 959838
Batch ID: 959852

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
84-66-2	MSD	Diethylphthalate	100	0.00	U	94.1	94	50-130	4	0-25
86-73-7	MSD	Fluorene	100	0.00	U	85.5	85	37-118	5	0-25
7005-72-3	MSD	4-Chlorophenylphenylether	100	0.00	U	85.6	86	50-111	7	0-25
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	100	0.00	U	104	104	41-126	11	0-25
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	100	0.00	U	95.8	96	23-156	2	0-25
122-39-4	MSD	Diphenylamine	100	0.00	U	96.0	96	26-130	2	0-25
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	100	0.00	U	94.0	94	48-117	2	0-25
101-55-3	MSD	4-Bromophenylphenylether	100	0.00	U	84.1	84	48-114	3	0-25
118-74-1	MSD	Hexachlorobenzene	100	0.00	U	84.4	84	25-134	3	0-25
1912-24-9	MSD	Atrazine	100	0.00	U	88.7	89	25-136	3	0-25
85-01-8	MSD	Phenanthrene	100	0.00	U	82.0	82	33-120	2	0-25
120-12-7	MSD	Anthracene	100	0.00	U	87.6	88	27-131	2	0-25
84-74-2	MSD	Di-n-butylphthalate	100	0.00	U	95.6	96	38-140	3	0-25
206-44-0	MSD	Fluoranthene	100	0.00	U	85.5	86	46-121	5	0-25
92-87-5	MSD	Benzidine	200	0.00	U	68.9	34	13-138	50 *	0-25
85-68-7	MSD	Butylbenzylphthalate	100	0.00	U	108	108	35-149	1	0-25
56-55-3	MSD	Benzo(a)anthracene	100	0.00	U	77.9	78	33-127	5	0-25
91-94-1	MSD	3,3'-Dichlorobenzidine	100	0.00	U	90.0	90	40-111	6	0-25
218-01-9	MSD	Chrysene	100	0.00	U	85.8	86	36-125	7	0-25
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	100	0.00	U	99.2	99	35-148	1	0-25
117-84-0	MSD	Di-n-octylphthalate	100	0.00	U	110	110	27-159	0	0-25
205-99-2	MSD	Benzo(b)fluoranthene	100	0.00	U	92.2	92	32-134	2	0-25

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: CAPA-10-12917MSD
Lab Sample ID: 1202058725
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 03/04/2010 04:13
Dilution: 1
Prep Batch ID: 959838
Batch ID: 959852

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
207-08-9	MSD Benzo(k)fluoranthene	100	0.00	U	81.8	82	33-136	2	0-25
50-32-8	MSD Benzo(a)pyrene	100	0.00	U	85.3	85	35-134	2	0-25
193-39-5	MSD Indeno(1,2,3-cd)pyrene	100	0.00	U	82.1	82	28-138	4	0-25
53-70-3	MSD Dibenzo(a,h)anthracene	100	0.00	U	82.9	83	28-140	3	0-25
191-24-2	MSD Benzo(ghi)perylene	100	0.00	U	78.4	78	24-138	4	0-25
123-91-1	MSD 1,4-Dioxane	100	0.00	U	77.5	78	44-102	2	0-25
930-55-2	MSD N-Nitrosopyrrolidine	100	0.00	U	83.6	84	29-117	6	0-25
120-82-1	MSD 1,2,4-Trichlorobenzene	100	0.00	U	69.7	70	34-88	4	0-25

Method Blank Summary

SDG Number:	10-2039	**Client:**	LANL010	**Matrix:**	GROUND WATER
Client ID:	MB for batch 959838	**Instrument ID:**	MSD2.I	**Data File:**	s2c0316-1.d
Lab Sample ID:	1202058722	**Prep Date:**	03/02/2010 17:51	**Analyzed:**	03/03/10 23:02
Column:	J&W DB-5MS	**Level:**	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 959838	1202058723	s2c0317-1.d	03/03/10	2322
02	CAPA-10-12915	248017001	s2c0326.d	03/04/10	0314
03	CAPA-10-12917	248017002	s2c0327.d	03/04/10	0334
04	CAPA-10-12917MS	1202058724	s2c0328.d	03/04/10	0354
05	CAPA-10-12917MSD	1202058725	s2c0329.d	03/04/10	0413

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2039

Instrument ID: MSD2.I **Injection Date/Time:** 03-MAR-10 19:28

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD2.i/s030310a.b/s2c0307.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	47.1
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43.1
70	Less than 2% of mass 69	0.4
127	40 - 60% of mass 198	52.6
197	0 - 1% of mass 198	0.6
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	22.5
365	Greater than 1% of mass 198	2.8
441	Present, but less than mass 443	69.4
442	Greater than 40% of mass 198	86.3
443	17 - 23% of mass 442	21.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100225-09.4	s2c0308.d	03-MAR-10 19:41
APCVS	WBN100218-08.1	s2c0310.d	03-MAR-10 20:35
SBLK02	1202058722	s2c0316-1.d	03-MAR-10 23:02
SBLK02LCS	1202058723	s2c0317-1.d	03-MAR-10 23:22
CAPA-10-12915	248017001	s2c0326.d	04-MAR-10 03:14
CAPA-10-12917	248017002	s2c0327.d	04-MAR-10 03:34
CAPA-10-12917MS	1202058724	s2c0328.d	04-MAR-10 03:54
CAPA-10-12917MSD	1202058725	s2c0329.d	04-MAR-10 04:13

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2039

Instrument ID: MSD2.I **Injection Date/Time:** 25-FEB-10 18:56

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD2.i/s022510.b/s2b2510.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	55
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	53.7
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	57.4
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	22.2
365	Greater than 1% of mass 198	2.8
441	Present, but less than mass 443	68.8
442	Greater than 40% of mass 198	81.7
443	17 - 23% of mass 442	21.8

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP010	WBN100218-01	s2b2522.d	25-FEB-10 23:33
AP020	WBN100218-02	s2b2523.d	25-FEB-10 23:52
AP040	WBN100218-03.1	s2b2524.d	26-FEB-10 00:12
AP050	WBN100218-04	s2b2525.d	26-FEB-10 00:32
AP080	WBN100218-05	s2b2526.d	26-FEB-10 00:51
AP100	WBN100218-06	s2b2527.d	26-FEB-10 01:11
AP120	WBN100218-07	s2b2528.d	26-FEB-10 01:31
APICV	WBN100218-08.1	s2b2537.d	26-FEB-10 04:31

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2039

Instrument ID: MSD2.I **Injection Date/Time:** 26-FEB-10 14:01

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD2.i/s022510a.b/s2b2539.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	51.5
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	50.4
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	54
197	0 - 1% of mass 198	0.2
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	22.6
365	Greater than 1% of mass 198	3
441	Present, but less than mass 443	69.3
442	Greater than 40% of mass 198	88
443	17 - 23% of mass 442	21.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN100225-08	s2b2541.d	26-FEB-10 14:34
MEGA010	WBN100225-07	s2b2542.d	26-FEB-10 14:58
MEGA020	WBN100225-06	s2b2543.d	26-FEB-10 15:23
MEGA040	WBN100225-05.1	s2b2544.d	26-FEB-10 15:48
MEGA050	WBN100225-04	s2b2545.d	26-FEB-10 16:13
MEGA080	WBN100225-03	s2b2550.d	26-FEB-10 18:12
MEGA100	WBN100225-02	s2b2551.d	26-FEB-10 18:36
MEGA120	WBN100225-01	s2b2552.d	26-FEB-10 19:01
MEGAICV	WBN100225-09.1	s2b2554.d	26-FEB-10 19:46

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2039

Instrument: MSD2.I

STD Analysis Time: 03-MAR-10 19:41

GC Column: J&W DB-5MS

Data File: s2c0308.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	453255		4.01		1938135		4.88		963661		6.12		1523873		7.1		1023929		8.81		755419		10.4	
Upper Limit	906510		4.51		3876270		5.38		1927322		6.62		3047746		7.6		2047858		9.31		1510838		10.9	
Lower Limit	226628		3.51		969068		4.38		481831		5.62		761937		6.6		511965		8.31		377710		9.86	
Sample ID																								
BLK01	345053		4		1359001		4.87		768084		6.12		1250714		7.09		910091		8.8		662243		10.4	
BLK01LCS	326332		4.01		1407415		4.88		726776		6.12		1183933		7.09		877238		8.8		594480		10.4	
CAPA-10-12915	377621		4		1501376		4.87		856337		6.12		1326723		7.09		839460		8.79		537977		10.4	
CAPA-10-12917	359549		4		1402742		4.87		787039		6.12		1255777		7.09		816523		8.79		487376		10.3	
CAPA-10-12917MS	367413		4.01		1597006		4.88		816380		6.12		1314990		7.09		923616		8.8		609778		10.4	
CAPA-10-12917MSD	378930		4.01		1673329		4.88		870445		6.12		1443336		7.09		1101371		8.8		760843		10.4	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12915**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 03:14**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**920 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0326.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.9	ug/L	2.17	10.9
108-95-2	Phenol	U	10.9	ug/L	1.09	10.9
95-57-8	2-Chlorophenol	U	10.9	ug/L	2.17	10.9
106-46-7	1,4-Dichlorobenzene	U	10.9	ug/L	2.17	10.9
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	10.9	ug/L	2.17	10.9
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	10.9	ug/L	2.17	10.9
83-32-9	Acenaphthene	U	1.09	ug/L	0.337	1.09
121-14-2	2,4-Dinitrotoluene	U	10.9	ug/L	2.17	10.9
100-02-7	4-Nitrophenol	U	10.9	ug/L	2.17	10.9
87-86-5	Pentachlorophenol	U	10.9	ug/L	2.17	10.9
129-00-0	Pyrene	U	1.09	ug/L	0.326	1.09
110-86-1	Pyridine	U	10.9	ug/L	3.26	10.9
62-53-3	Aniline	U	10.9	ug/L	2.72	10.9
111-44-4	bis(2-Chloroethyl) ether	U	10.9	ug/L	2.17	10.9
541-73-1	1,3-Dichlorobenzene	U	10.9	ug/L	2.17	10.9
100-51-6	Benzyl alcohol	U	10.9	ug/L	2.17	10.9
95-50-1	1,2-Dichlorobenzene	U	10.9	ug/L	2.17	10.9
108-60-1	bis(2-Chloroisopropyl)ether	U	10.9	ug/L	2.17	10.9
95-48-7	o-Cresol	U	10.9	ug/L	2.17	10.9
65794-96-9	m,p-Cresols	U	10.9	ug/L	3.26	10.9
67-72-1	Hexachloroethane	U	10.9	ug/L	2.17	10.9
98-95-3	Nitrobenzene	U	10.9	ug/L	3.26	10.9
78-59-1	Isophorone	U	10.9	ug/L	3.26	10.9
88-75-5	2-Nitrophenol	U	10.9	ug/L	2.17	10.9
105-67-9	2,4-Dimethylphenol	U	10.9	ug/L	2.17	10.9
111-91-1	bis(2-Chloroethoxy)methane	U	10.9	ug/L	3.26	10.9
120-83-2	2,4-Dichlorophenol	U	10.9	ug/L	2.17	10.9
65-85-0	Benzoic acid	U	21.7	ug/L	6.52	21.7
91-20-3	Naphthalene	U	1.09	ug/L	0.326	1.09
106-47-8	4-Chloroaniline	U	10.9	ug/L	2.17	10.9
87-68-3	Hexachlorobutadiene	U	10.9	ug/L	2.17	10.9
91-57-6	2-Methylnaphthalene	U	1.09	ug/L	0.326	1.09
90-12-0	1-Methylnaphthalene	U	1.09	ug/L	0.326	1.09
77-47-4	Hexachlorocyclopentadiene	U	10.9	ug/L	3.26	10.9
88-06-2	2,4,6-Trichlorophenol	U	10.9	ug/L	2.17	10.9
95-95-4	2,4,5-Trichlorophenol	U	10.9	ug/L	2.17	10.9
91-58-7	2-Chloronaphthalene	U	1.09	ug/L	0.326	1.09

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12915**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 03:14**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**920 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0326.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.9	ug/L	2.17	10.9
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.9	ug/L	2.17	10.9
131-11-3	Dimethylphthalate	U	10.9	ug/L	2.17	10.9
606-20-2	2,6-Dinitrotoluene	U	10.9	ug/L	2.17	10.9
208-96-8	Acenaphthylene	U	1.09	ug/L	0.217	1.09
51-28-5	2,4-Dinitrophenol	U	21.7	ug/L	5.43	21.7
132-64-9	Dibenzofuran	U	10.9	ug/L	2.17	10.9
84-66-2	Diethylphthalate	U	10.9	ug/L	2.17	10.9
86-73-7	Fluorene	U	1.09	ug/L	0.217	1.09
7005-72-3	4-Chlorophenylphenylether	U	10.9	ug/L	2.17	10.9
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.9	ug/L	3.26	10.9
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.9	ug/L	3.26	10.9
122-39-4	Diphenylamine	U	10.9	ug/L	3.26	10.9
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	10.9	ug/L	2.17	10.9
101-55-3	4-Bromophenylphenylether	U	10.9	ug/L	2.17	10.9
118-74-1	Hexachlorobenzene	U	10.9	ug/L	2.17	10.9
1912-24-9	Atrazine	U	10.9	ug/L	3.26	10.9
85-01-8	Phenanthrene	U	1.09	ug/L	0.217	1.09
120-12-7	Anthracene	U	1.09	ug/L	0.217	1.09
84-74-2	Di-n-butylphthalate	U	10.9	ug/L	2.17	10.9
206-44-0	Fluoranthene	U	1.09	ug/L	0.217	1.09
92-87-5	Benzidine	U	10.9	ug/L	3.26	10.9
85-68-7	Butylbenzylphthalate	U	10.9	ug/L	2.17	10.9
56-55-3	Benzo(a)anthracene	U	1.09	ug/L	0.217	1.09
91-94-1	3,3'-Dichlorobenzidine	U	10.9	ug/L	2.17	10.9
218-01-9	Chrysene	U	1.09	ug/L	0.217	1.09
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.9	ug/L	2.17	10.9
117-84-0	Di-n-octylphthalate	U	10.9	ug/L	3.26	10.9
205-99-2	Benzo(b)fluoranthene	U	1.09	ug/L	0.217	1.09
207-08-9	Benzo(k)fluoranthene	U	1.09	ug/L	0.217	1.09
50-32-8	Benzo(a)pyrene	U	1.09	ug/L	0.217	1.09
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.09	ug/L	0.217	1.09
53-70-3	Dibenzo(a,h)anthracene	U	1.09	ug/L	0.217	1.09
191-24-2	Benzo(ghi)perylene	U	1.09	ug/L	0.217	1.09
123-91-1	1,4-Dioxane	U	10.9	ug/L	2.17	10.9
55-18-5	N-Nitrosodiethylamine	U	10.9	ug/L	2.17	10.9

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12915**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 03:14**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**920 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0326.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.9	ug/L	2.17	10.9
924-16-3	N-Nitrosodi-n-butylamine	U	10.9	ug/L	3.26	10.9
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.9	ug/L	3.26	10.9
608-93-5	Pentachlorobenzene	U	10.9	ug/L	3.26	10.9
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.9	ug/L	2.17	10.9
88-85-7	Dinoseb	U	10.9	ug/L	2.17	10.9
120-82-1	1,2,4-Trichlorobenzene	U	10.9	ug/L	2.17	10.9

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	73.3	109	ug/L	67.4	(39%-120%)
2-Fluorobiphenyl	33.6	54.3	ug/L	61.9	(38%-108%)
2-Fluorophenol	41.4	109	ug/L	38.1	(19%-98%)
Nitrobenzene-d5	35.3	54.3	ug/L	65.0	(31%-122%)
Phenol-d5	26.7	109	ug/L	24.6	(15%-83%)
p-Terphenyl-d14	52.2	54.3	ug/L	96.1	(40%-138%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s030310a.b/s2c0326.d
Lab Smp Id: 248017001 Client Smp ID: CAPA-10-12915
Inj Date : 04-MAR-2010 03:14
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248017001|959852|1|SVM|1|LANL
Misc Info : |MSD82709L|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Meth Date : 03-Mar-2010 22:22 ann00964 Quant Type: ISTD
Cal Date : 27-FEB-2010 17:29 Cal File: s2b2568.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2039.sub
Target Version: 3.50
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	920.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.003	4.009	(1.000)	377621	40.0000	
* 29 Naphthalene-d8	136	4.870	4.875	(1.000)	1501376	40.0000	
* 46 Acenaphthene-d10	164	6.116	6.121	(1.000)	856337	40.0000	
* 67 Phenanthrene-d10	188	7.095	7.100	(1.000)	1326723	40.0000	
* 91 Chrysene-d12	240	8.790	8.806	(1.000)	839460	40.0000	
* 98 Perylene-d12	264	10.347	10.358	(1.000)	537977	40.0000	
$ 3 2-Fluorophenol	112	3.190	3.190	(0.797)	454019	38.1073	41.4
$ 5 Phenol-d5	99	3.709	3.715	(0.926)	384271	24.5653	26.7
$ 20 Nitrobenzene-d5	82	4.367	4.372	(0.897)	467009	32.5029	35.3
$ 39 2-Fluorobiphenyl	172	5.608	5.613	(0.917)	733882	30.9444	33.6
$ 60 2,4,6-Tribromophenol	329	6.645	6.646	(1.087)	209724	67.4206	73.3
$ 81 p-Terphenyl-d14	244	8.009	8.015	(0.911)	716806	48.0492	52.2

ION RATIO REPORT

SV REPORT

Data file: s2c0326.d
Report Date: 03/04/2010 12:52
Lab. ID: 248017001 SampleType: SAMPLE
Injection Date: 04-MAR-2010 03:14
Operator: AGS1 Instrument: MSD2.i
Sample Info: |248017001|959852|1|SVM|1|LANL
Miscellaneous Info: |MSD82709L|WBN100227-01|
Comment:
Method used: /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2039
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	66776	4.37	4.24	80-120	100	(T)
42	44427	4.37	4.24	59-119	67	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	151979	6.12	5.89	80-120	100	(T)
164	856337	6.12	5.89	0- 40	563	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	109698	6.12	5.94	80-120	100	(T)
63	1854	6.12	5.94	71-131	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	109698	6.12	6.22	80-120	100	(T)
89	1700	6.12	6.22	48-108	2	(QT)
63	1854	6.12	6.22	30- 90	2	(QT)
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	12809	6.65	6.79	80-120	100	(T)
141	98569	6.64	6.79	60-120	770	(QT)
250	26591	6.65	6.79	67-127	208	(QT)
121 N-Nitrosodi-n-butylamine				CAS#: 924-16-3		
84	46548	4.87	5.12	80-120	100	(T)
57	1953	4.87	5.12	79-139	4	(QT)
41	1656	4.87	5.12	63-123	4	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD2.i/s030310a.b/s2c0326.d
Lab Smp Id: 248017001 Client Smp ID: CAPA-10-12915
Inj Date : 04-MAR-2010 03:14
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248017001|959852|1|SVM|1|LANL
Misc Info : |MSD82709L|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Meth Date : 03-Mar-2010 22:22 ann00964 Quant Type: ISTD
Cal Date : 27-FEB-2010 17:29 Cal File: s2b2568.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2039.sub
Target Version: 3.50
Processing Host: hpclp1

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/MSD2.i/s030310a.b/s2c0326.d
Date : 04-MAR-2010 03:14
Client ID: CAPA-10-12915
Sample Info: 1248017001|959852|1|SVMI1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i

Operator: ACS1
Column diameter: 0.20

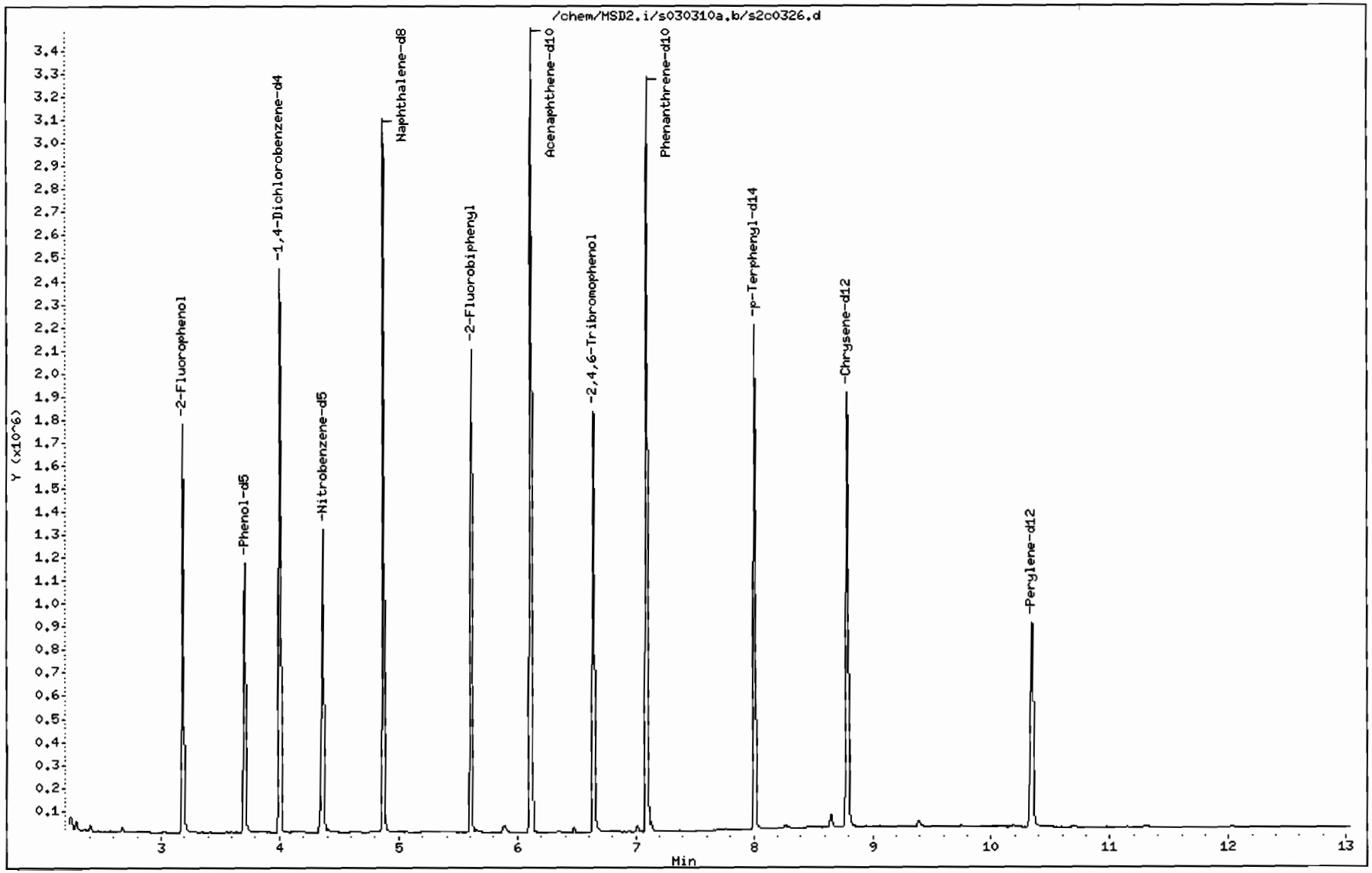

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017002**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12917**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 03:34**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**880 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0327.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	11.4	ug/L	2.27	11.4
108-95-2	Phenol	U	11.4	ug/L	1.14	11.4
95-57-8	2-Chlorophenol	U	11.4	ug/L	2.27	11.4
106-46-7	1,4-Dichlorobenzene	U	11.4	ug/L	2.27	11.4
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	11.4	ug/L	2.27	11.4
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	11.4	ug/L	2.27	11.4
83-32-9	Acenaphthene	U	1.14	ug/L	0.352	1.14
121-14-2	2,4-Dinitrotoluene	U	11.4	ug/L	2.27	11.4
100-02-7	4-Nitrophenol	U	11.4	ug/L	2.27	11.4
87-86-5	Pentachlorophenol	U	11.4	ug/L	2.27	11.4
129-00-0	Pyrene	U	1.14	ug/L	0.341	1.14
110-86-1	Pyridine	U	11.4	ug/L	3.41	11.4
62-53-3	Aniline	U	11.4	ug/L	2.84	11.4
111-44-4	bis(2-Chloroethyl) ether	U	11.4	ug/L	2.27	11.4
541-73-1	1,3-Dichlorobenzene	U	11.4	ug/L	2.27	11.4
100-51-6	Benzyl alcohol	U	11.4	ug/L	2.27	11.4
95-50-1	1,2-Dichlorobenzene	U	11.4	ug/L	2.27	11.4
108-60-1	bis(2-Chloroisopropyl)ether	U	11.4	ug/L	2.27	11.4
95-48-7	o-Cresol	U	11.4	ug/L	2.27	11.4
65794-96-9	m,p-Cresols	U	11.4	ug/L	3.41	11.4
67-72-1	Hexachloroethane	U	11.4	ug/L	2.27	11.4
98-95-3	Nitrobenzene	U	11.4	ug/L	3.41	11.4
78-59-1	Isophorone	U	11.4	ug/L	3.41	11.4
88-75-5	2-Nitrophenol	U	11.4	ug/L	2.27	11.4
105-67-9	2,4-Dimethylphenol	U	11.4	ug/L	2.27	11.4
111-91-1	bis(2-Chloroethoxy)methane	U	11.4	ug/L	3.41	11.4
120-83-2	2,4-Dichlorophenol	U	11.4	ug/L	2.27	11.4
65-85-0	Benzoic acid	U	22.7	ug/L	6.82	22.7
91-20-3	Naphthalene	U	1.14	ug/L	0.341	1.14
106-47-8	4-Chloroaniline	U	11.4	ug/L	2.27	11.4
87-68-3	Hexachlorobutadiene	U	11.4	ug/L	2.27	11.4
91-57-6	2-Methylnaphthalene	U	1.14	ug/L	0.341	1.14
90-12-0	1-Methylnaphthalene	U	1.14	ug/L	0.341	1.14
77-47-4	Hexachlorocyclopentadiene	U	11.4	ug/L	3.41	11.4
88-06-2	2,4,6-Trichlorophenol	U	11.4	ug/L	2.27	11.4
95-95-4	2,4,5-Trichlorophenol	U	11.4	ug/L	2.27	11.4
91-58-7	2-Chloronaphthalene	U	1.14	ug/L	0.341	1.14

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017002**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12917**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 03:34**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**880 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0327.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	11.4	ug/L	2.27	11.4
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	11.4	ug/L	2.27	11.4
131-11-3	Dimethylphthalate	U	11.4	ug/L	2.27	11.4
606-20-2	2,6-Dinitrotoluene	U	11.4	ug/L	2.27	11.4
208-96-8	Acenaphthylene	U	1.14	ug/L	0.227	1.14
51-28-5	2,4-Dinitrophenol	U	22.7	ug/L	5.68	22.7
132-64-9	Dibenzofuran	U	11.4	ug/L	2.27	11.4
84-66-2	Diethylphthalate	U	11.4	ug/L	2.27	11.4
86-73-7	Fluorene	U	1.14	ug/L	0.227	1.14
7005-72-3	4-Chlorophenylphenylether	U	11.4	ug/L	2.27	11.4
534-52-1	2-Methyl-4,6-dinitrophenol	U	11.4	ug/L	3.41	11.4
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	11.4	ug/L	3.41	11.4
122-39-4	Diphenylamine	U	11.4	ug/L	3.41	11.4
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	11.4	ug/L	2.27	11.4
101-55-3	4-Bromophenylphenylether	U	11.4	ug/L	2.27	11.4
118-74-1	Hexachlorobenzene	U	11.4	ug/L	2.27	11.4
1912-24-9	Atrazine	U	11.4	ug/L	3.41	11.4
85-01-8	Phenanthrene	U	1.14	ug/L	0.227	1.14
120-12-7	Anthracene	U	1.14	ug/L	0.227	1.14
84-74-2	Di-n-butylphthalate	U	11.4	ug/L	2.27	11.4
206-44-0	Fluoranthene	U	1.14	ug/L	0.227	1.14
92-87-5	Benzidine	U	11.4	ug/L	3.41	11.4
85-68-7	Butylbenzylphthalate	U	11.4	ug/L	2.27	11.4
56-55-3	Benzo(a)anthracene	U	1.14	ug/L	0.227	1.14
91-94-1	3,3'-Dichlorobenzidine	U	11.4	ug/L	2.27	11.4
218-01-9	Chrysene	U	1.14	ug/L	0.227	1.14
117-81-7	bis(2-Ethylhexyl)phthalate	U	11.4	ug/L	2.27	11.4
117-84-0	Di-n-octylphthalate	U	11.4	ug/L	3.41	11.4
205-99-2	Benzo(b)fluoranthene	U	1.14	ug/L	0.227	1.14
207-08-9	Benzo(k)fluoranthene	U	1.14	ug/L	0.227	1.14
50-32-8	Benzo(a)pyrene	U	1.14	ug/L	0.227	1.14
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.14	ug/L	0.227	1.14
53-70-3	Dibenzo(a,h)anthracene	U	1.14	ug/L	0.227	1.14
191-24-2	Benzo(ghi)perylene	U	1.14	ug/L	0.227	1.14
123-91-1	1,4-Dioxane	U	11.4	ug/L	2.27	11.4
55-18-5	N-Nitrosodiethylamine	U	11.4	ug/L	2.27	11.4

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017002**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12917**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 03:34**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**880 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0327.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	11.4	ug/L	2.27	11.4
924-16-3	N-Nitrosodi-n-butylamine	U	11.4	ug/L	3.41	11.4
95-94-3	1,2,4,5-Tetrachlorobenzene	U	11.4	ug/L	3.41	11.4
608-93-5	Pentachlorobenzene	U	11.4	ug/L	3.41	11.4
58-90-2	2,3,4,6-Tetrachlorophenol	U	11.4	ug/L	2.27	11.4
88-85-7	Dinoseb	U	11.4	ug/L	2.27	11.4
120-82-1	1,2,4-Trichlorobenzene	U	11.4	ug/L	2.27	11.4

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	82.3	114	ug/L	72.4	(39%-120%)
2-Fluorobiphenyl	38.9	56.8	ug/L	68.4	(38%-108%)
2-Fluorophenol	46.9	114	ug/L	41.3	(19%-98%)
Nitrobenzene-d5	40.7	56.8	ug/L	71.7	(31%-122%)
Phenol-d5	30.3	114	ug/L	26.7	(15%-83%)
p-Terphenyl-d14	57.5	56.8	ug/L	101	(40%-138%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

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Data file : /chem/MSD2.i/s030310a.b/s2c0327.d
Lab Smp Id: 248017002 Client Smp ID: CAPA-10-12917
Inj Date : 04-MAR-2010 03:34
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248017002|959852|1|SVM|1|LANL
Misc Info : |MSD82709L|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Meth Date : 03-Mar-2010 22:22 ann00964 Quant Type: ISTD
Cal Date : 27-FEB-2010 17:29 Cal File: s2b2568.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2039.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	880.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.003	4.009	(1.000)	359549	40.0000	
* 29 Naphthalene-d8	136	4.870	4.875	(1.000)	1402742	40.0000	
* 46 Acenaphthene-d10	164	6.116	6.121	(1.000)	787039	40.0000	
* 67 Phenanthrene-d10	188	7.095	7.100	(1.000)	1255777	40.0000	
* 91 Chrysene-d12	240	8.790	8.806	(1.000)	816523	40.0000	
* 98 Perylene-d12	264	10.341	10.358	(1.000)	487376	40.0000	
$ 3 2-Fluorophenol	112	3.190	3.190	(0.797)	468291	41.2808	46.9
$ 5 Phenol-d5	99	3.709	3.715	(0.926)	397019	26.6560	30.3
$ 20 Nitrobenzene-d5	82	4.367	4.372	(0.897)	480971	35.8284	40.7
$ 39 2-Fluorobiphenyl	172	5.608	5.613	(0.917)	745767	34.2142	38.9
$ 60 2,4,6-Tribromophenol	329	6.645	6.646	(1.087)	207111	72.4430	82.3
$ 81 p-Terphenyl-d14	244	8.009	8.015	(0.911)	733826	50.5719	57.5

ION RATIO REPORT

SV REPORT

Data file: s2c0327.d
Report Date: 03/04/2010 12:52
Lab. ID: 248017002 SampleType: SAMPLE
Injection Date: 04-MAR-2010 03:34
Operator: AGS1 Instrument: MSD2.i
Sample Info: |248017002|959852|1|SVM|1|LANL
Miscellaneous Info: |MSD82709L|WBN100227-01|
Comment:
Method used: /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2039
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	68917	4.37	4.24	80-120	100	(T)
42	45791	4.36	4.24	59-119	66	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	140723	6.12	5.89	80-120	100	(T)
164	787039	6.12	5.89	0- 40	559	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	100417	6.12	5.94	80-120	100	(T)
63	1738	6.12	5.94	71-131	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	100417	6.12	6.22	80-120	100	(T)
89	1665	6.12	6.22	48-108	2	(QT)
63	1738	6.12	6.22	30- 90	2	(QT)
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	12783	6.65	6.79	80-120	100	(T)
141	99678	6.64	6.79	60-120	780	(QT)
250	25695	6.65	6.79	67-127	201	(QT)
121 N-Nitrosodi-n-butylamine				CAS#: 924-16-3		
84	43892	4.87	5.12	80-120	100	(T)
57	1876	4.87	5.12	79-139	4	(QT)
41	1609	4.87	5.12	63-123	4	(QT)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD2.i/s030310a.b/s2c0327.d
Lab Smp Id: 248017002 Client Smp ID: CAPA-10-12917
Inj Date : 04-MAR-2010 03:34
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248017002|959852|1|SVM|1|LANL
Misc Info : |MSD82709L|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Meth Date : 03-Mar-2010 22:22 ann00964 Quant Type: ISTD
Cal Date : 27-FEB-2010 17:29 Cal File: s2b2568.d
Als bottle: 27
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2039.sub
Target Version: 3.50
Processing Host: hpclp1

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/MSD2.i/s030310a.b/s2c0327.d
Date : 04-MAR-2010 03:34
Client ID: CAPA-10-12917
Sample Info: |2480170021959852|1|SVM|1|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i

Operator: ACS1
Column diameter: 0.20

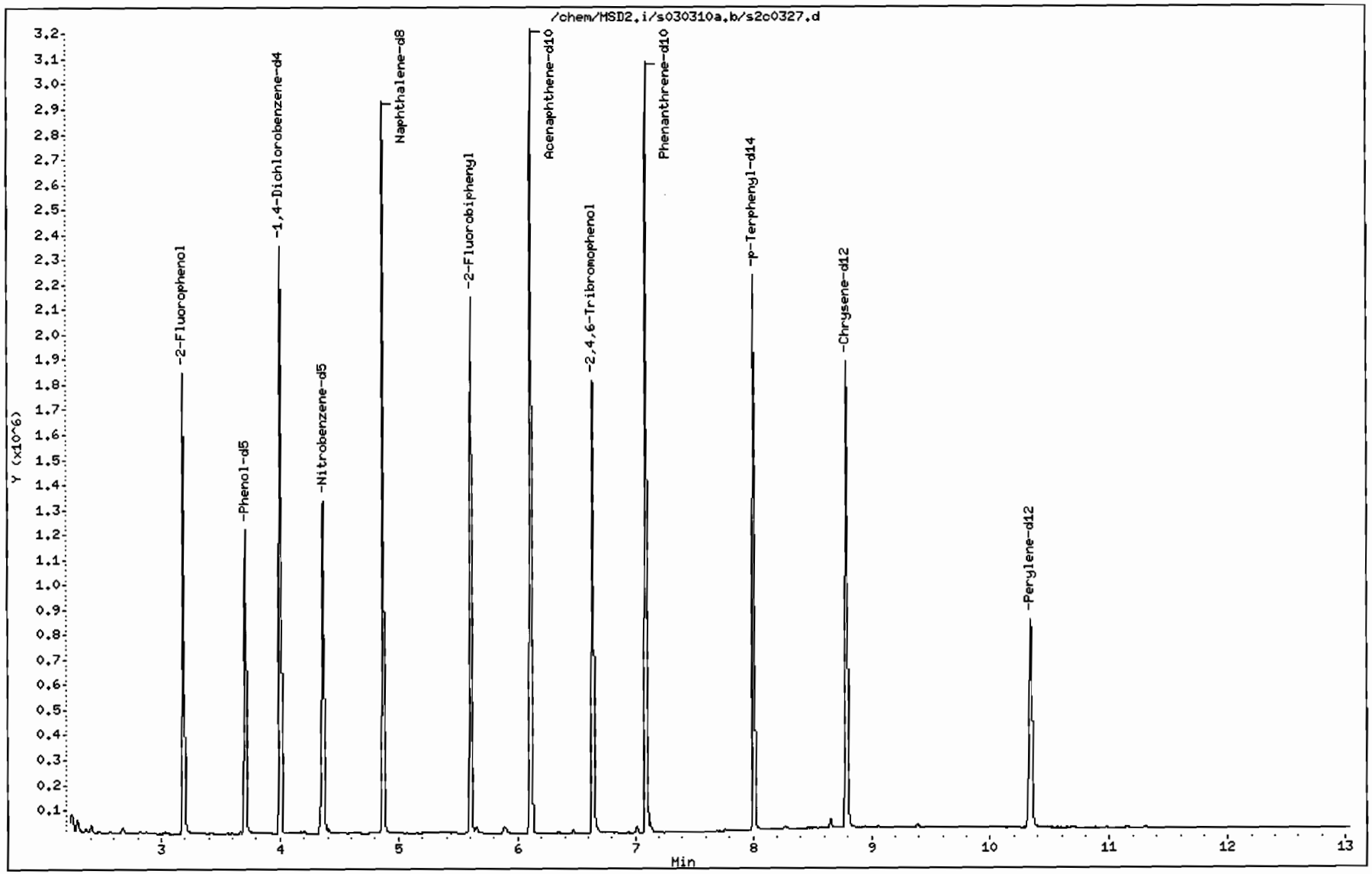

Standard Data

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate		10	20	40	50	80	100	120
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
4-Aminobiphenyl		10	20	40	50	80	100	120

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothioanisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120

SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.
(0210/Full list)

Report Date: 03-Mar-2010 22:06

Calibration History

Method : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Start Cal Date: 25-FEB-2010 19:29
End Cal Date : 27-FEB-2010 19:19

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
26-FEB-2010 14:34	MEGAII	/chem/MSD2.i/s022510a.b/s2b2541.d
Cal Level: 2 , Cal Amount: 10.00000		
27-FEB-2010 16:33	BJCO	/chem/MSD2.i/s022510a.b/s2b2566.d
26-FEB-2010 20:10	HEX	/chem/MSD2.i/s022510a.b/s2b2555.d
26-FEB-2010 14:58	MEGAII	/chem/MSD2.i/s022510a.b/s2b2542.d
26-FEB-2010 01:50	PEST	/chem/MSD2.i/s022510a.b/s2b2529.d
25-FEB-2010 23:33	AP12	/chem/MSD2.i/s022510a.b/s2b2522.d
Cal Level: 3 , Cal Amount: 20.00000		
27-FEB-2010 17:01	BJCO	/chem/MSD2.i/s022510a.b/s2b2567.d
26-FEB-2010 20:30	HEX	/chem/MSD2.i/s022510a.b/s2b2556.d
26-FEB-2010 15:23	MEGAII	/chem/MSD2.i/s022510a.b/s2b2543.d
26-FEB-2010 02:10	PEST	/chem/MSD2.i/s022510a.b/s2b2530.d
25-FEB-2010 23:52	AP12	/chem/MSD2.i/s022510a.b/s2b2523.d
Cal Level: 4 , Cal Amount: 40.00000		
27-FEB-2010 17:29	BJCO	/chem/MSD2.i/s022510a.b/s2b2568.d
26-FEB-2010 20:50	HEX	/chem/MSD2.i/s022510a.b/s2b2557.d
26-FEB-2010 02:29	PEST	/chem/MSD2.i/s022510a.b/s2b2531.d
26-FEB-2010 00:12	AP12	/chem/MSD2.i/s022510a.b/s2b2524.d
26-FEB-2010 15:48	MEGAII	/chem/MSD2.i/s022510a.b/s2b2544.d
Cal Level: 5 , Cal Amount: 50.00000		
27-FEB-2010 17:56	BJCO	/chem/MSD2.i/s022510a.b/s2b2569.d
26-FEB-2010 21:10	HEX	/chem/MSD2.i/s022510a.b/s2b2558.d
26-FEB-2010 02:49	PEST	/chem/MSD2.i/s022510a.b/s2b2532.d
26-FEB-2010 00:32	AP12	/chem/MSD2.i/s022510a.b/s2b2525.d
26-FEB-2010 16:13	MEGAII	/chem/MSD2.i/s022510a.b/s2b2545.d
Cal Level: 6 , Cal Amount: 80.00000		
27-FEB-2010 18:24	BJCO	/chem/MSD2.i/s022510a.b/s2b2570.d
26-FEB-2010 21:31	HEX	/chem/MSD2.i/s022510a.b/s2b2559.d
26-FEB-2010 03:09	PEST	/chem/MSD2.i/s022510a.b/s2b2533.d
26-FEB-2010 00:51	AP12	/chem/MSD2.i/s022510a.b/s2b2526.d
26-FEB-2010 18:12	MEGAII	/chem/MSD2.i/s022510a.b/s2b2550.d
Cal Level: 7 , Cal Amount: 100.00000		

27-FEB-2010 18:51	BJCO	/chem/MSD2.i/s022510a.b/s2b2571.d
26-FEB-2010 21:51	HEX	/chem/MSD2.i/s022510a.b/s2b2560.d
26-FEB-2010 03:28	PEST	/chem/MSD2.i/s022510a.b/s2b2534.d
26-FEB-2010 01:11	AP12	/chem/MSD2.i/s022510a.b/s2b2527.d
26-FEB-2010 18:36	MEGAII	/chem/MSD2.i/s022510a.b/s2b2551.d

Cal Level: 8 , Cal Amount: 120.00000

27-FEB-2010 19:19	BJCO	/chem/MSD2.i/s022510a.b/s2b2572.d
26-FEB-2010 21:51	HEX	/chem/MSD2.i/s022510a.b/s2b2560.d
26-FEB-2010 03:48	PEST	/chem/MSD2.i/s022510a.b/s2b2535.d
26-FEB-2010 01:31	AP12	/chem/MSD2.i/s022510a.b/s2b2528.d
26-FEB-2010 19:01	MEGAII	/chem/MSD2.i/s022510a.b/s2b2552.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0

03-MAR-2010 19:41	MEGAII	/chem/MSD2.i/s030310a.b/s2c0308.d

Ccal Level: 4 , Ccal Amount: 40.0

03-MAR-2010 20:55	PEST	/chem/MSD2.i/s030310a.b/s2c0311.d

Ccal Level: 4 , Ccal Amount: 40.0

03-MAR-2010 20:35	AP12	/chem/MSD2.i/s030310a.b/s2c0310.d

Ccal Level: 4 , Ccal Amount: 40.0

03-MAR-2010 20:08	BJCO	/chem/MSD2.i/s030310a.b/s2c0309.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 25-FEB-2010 19:29
End Cal Date : 27-FEB-2010 19:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Calibration File Names:
Level 1: /chem/MSD2.i/s022510a.b/s2b2541.d
Level 2: /chem/MSD2.i/s022510a.b/s2b2566.d
Level 3: /chem/MSD2.i/s022510a.b/s2b2567.d
Level 4: /chem/MSD2.i/s022510a.b/s2b2568.d
Level 5: /chem/MSD2.i/s022510a.b/s2b2569.d
Level 6: /chem/MSD2.i/s022510a.b/s2b2570.d
Level 7: /chem/MSD2.i/s022510a.b/s2b2571.d
Level 8: /chem/MSD2.i/s022510a.b/s2b2572.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.96083	0.93470	0.90169	0.88235	+++++					
	0.90612	0.87826					AVRG		0.91066		3.48859
2 Pyridine	+++++	1.32941	1.29922	1.29607	1.27296	+++++					
	1.36923	1.32750					AVRG		1.31573		2.56102
4 Aniline	+++++	0.87209	0.83930	0.83203	0.80787	+++++					
	0.84081	0.80247					AVRG		0.83243		3.03486
209 Benzaldehyde	+++++	1.27706	1.28551	1.18516	1.14807	1.05102					
	0.98759	0.97107					AVRG		1.12935		11.48569
6 Phenol	+++++	1.78590	1.72703	1.68515	1.63270	+++++					
	1.66865	1.60464					AVRG		1.68401		3.88523

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 25-FEB-2010 19:29
End Cal Date : 27-FEB-2010 19:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	1.99289	1.58752	1.53320	1.45484	1.39911	++++++					
	1.40492	1.31186					AVRG		1.52634		14.73520
8 2-Chlorophenol	++++++	1.41341	1.37632	1.34113	1.29916	++++++					
	1.32947	1.26500					AVRG		1.33741		3.96680
203 n-Decane	++++++	166695	282749	510384	619845	++++++					
	781419	++++++					WLINR	-0.11232	1.62556		0.99134
9 1,3-Dichlorobenzene	++++++	1.56159	1.47898	1.40282	1.32950	++++++					
	1.34156	1.27304					AVRG		1.39791		7.62686
11 1,4-Dichlorobenzene	++++++	1.55616	1.48367	1.39006	1.33194	++++++					
	1.35979	1.27116					AVRG		1.39880		7.45174
12 Benzyl alcohol	++++++	0.94046	0.94896	0.95662	0.92717	++++++					
	0.95371	0.93596					AVRG		0.94381		1.19697
13 1,2-Dichlorobenzene	++++++	1.44658	1.36644	1.24699	1.17284	++++++					
	1.15172	1.07781					AVRG		1.24373		11.21244
14 bis(2-Chloroisopropyl)ether	++++++	3.34348	3.18518	2.98716	2.81798	++++++					
	2.75071	2.47789					AVRG		2.92707		10.67746
15 o-Cresol	++++++	1.18315	1.13337	1.08279	1.04231	++++++					
	1.03320	0.96867					AVRG		1.07392		7.12554

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INITIAL CALIBRATION DATA

Start Cal Date : 25-FEB-2010 19:29
End Cal Date : 27-FEB-2010 19:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.72238	1.73346	1.57923	1.52211	1.44651					
	1.38847	1.34220					AVRG		1.53348		10.07011
17 N-Nitrosodipropylamine	1.30882	1.13901	1.11608	1.11579	1.07894	+++++					
	1.08279	1.05112					AVRG		1.12751		7.54884
18 m,p-Cresols	+++++	1.49869	1.49197	1.48742	1.44830	+++++					
	1.50369	1.44021					AVRG		1.47838		1.83546
19 Hexachloroethane	+++++	0.65780	0.62900	0.61006	0.58654	+++++					
	0.59555	0.55978					AVRG		0.60646		5.64141
21 Nitrobenzene	+++++	0.40771	0.39351	0.36823	0.35428	+++++					
	0.33286	0.31725					AVRG		0.36231		9.58687
22 Isophorone	+++++	0.79009	0.76424	0.71625	0.69192	+++++					
	0.64886	0.63240					AVRG		0.70729		8.81531
23 2-Nitrophenol	+++++	0.17683	0.16467	0.15174	0.14396	+++++					
	0.13446	0.12583					AVRG		0.14958		12.68219
24 2,4-Dimethylphenol	+++++	114467	172656	356450	457974	+++++					
	590799	+++++					WLINR	-0.13682	0.25061		0.99445
25 bis(2-Chloroethoxy)methane	+++++	0.45195	0.42405	0.39728	0.37196	+++++					
	0.33855	0.32615					AVRG		0.38499		12.69803

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INITIAL CALIBRATION DATA

Start Cal Date : 25-FEB-2010 19:29
End Cal Date : 27-FEB-2010 19:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	++++++	0.25955	0.25011	0.23895	0.22966	++++++					
	0.21021	0.20045					AVRG		0.23149		9.86834
27 Benzoic acid	++++++	++++++	0.14558	0.19372	0.19239	++++++					
	0.20025	0.20792					AVRG		0.18797		13.02716
28 1,2,4-Trichlorobenzene	++++++	0.31851	0.29678	0.27143	0.25816	++++++					
	0.23125	0.22241					AVRG		0.26642		13.94629
30 Naphthalene	38495	315438	545995	1066679	1330641	++++++					
	++++++	++++++					WLINR	-0.01441	0.92412		0.99298
204 alpha-Terpineol	++++++	0.40883	0.38699	0.34941	0.32671	++++++					
	0.29355	++++++					AVRG		0.35310		13.06251
31 4-Chloroaniline	++++++	0.46451	0.45750	0.44279	0.42526	++++++					
	0.39549	0.37174					AVRG		0.42621		8.54476
189 Caprolactam	++++++	0.10360	0.11245	0.10321	0.10118	0.09706					
	0.09212	0.09205					AVRG		0.10024		7.20867
32 Hexachlorobutadiene	++++++	0.17453	0.16498	0.15132	0.14325	++++++					
	0.13075	0.12396					AVRG		0.14813		13.16380
33 4-Chloro-3-methylphenol	++++++	0.31352	0.30864	0.29541	0.28173	++++++					
	0.26432	0.25391					AVRG		0.28625		8.37778

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INITIAL CALIBRATION DATA

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End Cal Date : 27-FEB-2010 19:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	23164	191546	332069	649464	804813	++++++					
	++++++	++++++					WLINR	-0.01401	0.56180		0.99273
35 1-Methylnaphthalene	22629	186777	324061	635503	792726	++++++					
	++++++	++++++					WLINR	-0.01397	0.54938		0.99335
36 Hexachlorocyclopentadiene	++++++	0.24213	0.22878	0.24332	0.23286	++++++					
	0.20305	0.20531					AVRG		0.22591		7.84269
208 1,1'-Biphenyl	++++++	1.53667	1.50580	1.32567	1.29020	1.17269					
	1.12831	1.07153					AVRG		1.29012		14.02106
205 2,3-Dichloroaniline	++++++	0.64661	0.60773	0.57105	0.54205	++++++					
	0.53045	0.50907					AVRG		0.56783		9.09052
37 2,4,6-Trichlorophenol	++++++	0.32075	0.31355	0.28978	0.27727	++++++					
	0.28613	0.26835					AVRG		0.29264		7.00977
38 2,4,5-Trichlorophenol	++++++	0.33898	0.33430	0.35332	0.34815	++++++					
	0.33584	0.33964					AVRG		0.34170		2.18034
40 2-Chloronaphthalene	21416	180003	317486	629647	786247	++++++					
	1084538	1379520					WLINR	-0.01178	1.00831		0.99536
42 o-Nitroaniline	++++++	0.41541	0.41858	0.42225	0.41659	++++++					
	0.42962	0.42517					AVRG		0.42127		1.29708

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.21635	0.20907	0.27874	0.27487	+++++					
	0.28018	0.28342					AVRG		0.25711		13.44685
43 Dimethylphthalate	+++++	1.34025	1.27848	1.21438	1.18560	+++++					
	1.18009	1.14200					AVRG		1.22347		5.97277
44 2,6-Dinitrotoluene	+++++	0.30043	0.29494	0.28033	0.27851	+++++					
	0.27232	0.26106					AVRG		0.28126		5.15496
45 Acenaphthylene	31286	272877	476988	945755	1177310	+++++					
	1642487	2083884					WLINR	-0.01061	1.52251		0.99506
47 Acenaphthene	24284	184933	317034	617566	765915	+++++					
	1056115	1344850					WLINR	-0.01743	0.99160		0.99324
48 2,4-Dinitrophenol	+++++	+++++	17380	52977	71347	+++++					
	105646	155427					LINR	0.24037	0.10967		0.99396
49 Dibenzofuran	+++++	1.57349	1.45423	1.36613	1.30200	+++++					
	1.27451	1.22965					AVRG		1.36667		9.36431
50 2,4-Dinitrotoluene	+++++	0.37294	0.36957	0.37082	0.36079	+++++					
	0.36631	0.35902					AVRG		0.36658		1.53366
51 Diethylphthalate	+++++	1.31997	1.24157	1.18099	1.13762	+++++					
	1.12180	1.05849					AVRG		1.17674		7.90526

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Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
52 4-Nitrophenol	+++++	0.15881	0.16491	0.18627	0.18800	+++++					
	0.20229	0.20510					AVRG		0.18423		10.29687
53 Fluorene	24699	200404	346401	672796	825439	+++++					
	1157522	1472042					WLINR	-0.01449	1.08430		0.99299
54 4-Chlorophenylphenylether	+++++	0.62874	0.58262	0.54608	0.52122	+++++					
	0.52120	0.49669					AVRG		0.54943		8.83341
55 2-Methyl-4,6-dinitrophenol	+++++	0.07313	0.08177	0.09724	0.09798	+++++					
	0.10130	0.10654					AVRG		0.09299		13.73729
56 p-Nitroaniline	+++++	0.23293	0.18512	0.21076	0.23706	+++++					
	0.24110	0.23015					AVRG		0.22285		9.54048
133 Diphenylamine	+++++	0.63947	0.56141	0.52963	0.51717	+++++					
	0.50268	0.50639					AVRG		0.54279		9.55781
58 1,2-Diphenylhydrazine	+++++	0.97333	0.93806	0.87542	0.84710	+++++					
	0.81902	0.79694					AVRG		0.87498		7.86059
59 Tributylphosphate	+++++	1.67040	1.60774	1.45365	1.47617	1.28671					
	1.28017	1.21678					AVRG		1.42737		12.15038
61 4-Bromophenylphenylether	+++++	0.19909	0.19128	0.17857	0.17267	+++++					
	0.17027	0.16980					AVRG		0.18028		6.77333

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
63 Hexachlorobenzene	+++++	0.21670	0.20548	0.19384	0.18635	+++++					
	0.18566	0.18742					AVRG		0.19591		6.44255
207 Atrazine	+++++	0.05747	0.05299	0.04839	0.04578	0.04075					
	+++++	+++++					AVRG		0.04908		13.14274
65 Pentachlorophenol	+++++	0.08661	0.09538	0.10459	0.10176	+++++					
	0.10321	0.10404					AVRG		0.09927		7.09600
206 n-Octadecane	+++++	215273	367617	675252	792565	+++++					
	1040486	1226791					LINR	-0.30806	0.47366		0.99094
68 Phenanthrene	37096	291327	497385	1018008	1223062	+++++					
	+++++	+++++					WLINR	-0.01445	1.00999		0.99581
69 Anthracene	34490	294500	506024	995816	1244001	+++++					
	1740919	2128824					WLINR	-0.01300	0.97994		0.99207
72 Di-n-butylphthalate	+++++	1.31815	1.23152	1.15243	1.09535	+++++					
	1.05114	0.99722					AVRG		1.14097		10.41023
76 Fluoranthene	31840	282347	496526	983639	1182349	+++++					
	1664894	2102108					WLINR	-0.01107	0.95328		0.99198
77 Benzidine	+++++	0.37773	0.36443	0.32941	0.31637	0.39377					
	0.37177	0.44003					AVRG		0.37050		11.06586

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Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
79 Pyrene	34279	304145	524002	1043035	1252934	+++++					
	1760030	2215154					WLINR	-0.01109	1.26152		0.99844
85 Butylbenzylphthalate	+++++	0.60155	0.58125	0.53971	0.52541	+++++					
	0.51027	0.48160					AVRG		0.53997		8.28139
89 Benzo(a)anthracene	1.37202	1.09869	1.03669	1.03526	0.98977	+++++					
	1.05045	1.03932					AVRG		1.08888		11.83350
90 3,3'-Dichlorobenzidine	+++++	0.26337	0.31394	0.29436	0.27766	0.27165					
	0.26556	0.26917					AVRG		0.27939		6.58910
92 Chrysene	27731	245863	430266	833657	1014169	+++++					
	1399291	1734450					WLINR	-0.01137	1.01358		0.99731
93 bis(2-Ethylhexyl)phthalate	0.85374	0.83474	0.83862	0.79683	0.77348	+++++					
	0.76393	0.73822					AVRG		0.79994		5.45344
94 Di-n-octylphthalate	+++++	1.44504	1.56647	1.59402	1.55617	+++++					
	1.61191	1.59783					AVRG		1.56191		3.89803
95 Benzo(b)fluoranthene	1.27325	1.06033	1.12561	1.06318	1.09841	+++++					
	1.15709	1.08147					AVRG		1.12276		6.66288
96 Benzo(k)fluoranthene	1.38580	1.23216	1.12886	1.13962	1.05896	+++++					
	1.07765	1.08074					AVRG		1.15768		10.02475

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Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	1.00791	0.96983	0.94985	0.94533	0.93731	+++++					
	0.97222	0.93026					AVRG		0.95896		2.77596
99 Indeno(1,2,3-cd)pyrene	0.89796	0.95120	0.86697	0.87540	0.85146	+++++					
	0.91499	0.85649					AVRG		0.88778		4.04847
100 Dibenzo(a,h)anthracene	0.72254	0.77392	0.70084	0.71287	0.69517	+++++					
	0.75888	0.70200					AVRG		0.72374		4.25327
101 Benzo(ghi)perylene	0.80112	0.80434	0.73496	0.72690	0.70998	+++++					
	0.76848	0.69769					AVRG		0.74907		5.71606
102 1,4-Dioxane	+++++	0.53925	0.54287	0.49126	0.47875	0.45236					
	0.44091	0.41878					AVRG		0.48060		9.91660
103 Methyl methacrylate	+++++	0.28748	0.28411	0.26047	0.25489	0.23988					
	0.23454	0.22008					AVRG		0.25449		9.88524
104 Ethyl methacrylate	+++++	1.13169	1.14952	1.05163	1.02602	0.97733					
	0.96306	0.90304					AVRG		1.02890		8.73600
105 2-Picoline	+++++	1.70882	1.71902	1.56231	1.50264	1.41322					
	1.38047	1.31115					AVRG		1.51395		10.49891
106 N-Nitrosomethylethylamine	+++++	0.71911	0.75131	0.70235	0.68847	0.66792					
	0.65742	0.63076					AVRG		0.68819		5.87137

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Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.74841	0.78829	0.73180	0.70739	0.67551					
	0.63152	0.64066					AVRG		0.70337		8.19526
108 N-Nitrosodiethylamine	+++++	0.73409	0.74350	0.67924	0.65820	0.63736					
	0.61687	0.59155					AVRG		0.66583		8.59612
109 Ethyl Methanesulfonate	+++++	0.93756	0.95056	0.88809	0.86832	0.84160					
	0.81265	0.79993					AVRG		0.87125		6.68893
110 Pentachloroethane	+++++	0.39829	0.40278	0.36588	0.36182	0.34351					
	0.33484	0.31276					AVRG		0.35998		9.12256
111 N-Nitrosopyrrolidine	+++++	0.72207	0.74269	0.70922	0.69255	0.66024					
	0.61752	0.60823					AVRG		0.67893		7.64165
113 N-Nitrosomorpholine	+++++	1.07046	1.07648	1.00314	0.97823	0.93918					
	0.88057	0.85296					AVRG		0.97157		8.93592
114 o-Toluidine	+++++	2.48598	2.51646	2.29083	2.22932	2.11994					
	1.99763	1.93245					AVRG		2.22466		10.14687
115 N-Nitrosopiperidine	+++++	0.17888	0.18198	0.16546	0.16269	0.15404					
	0.14941	0.14580					AVRG		0.16261		8.61837
116 a,a-Dimethylphenethylamine	+++++	1.08032	1.18250	1.15839	1.13380	1.10310					
	1.09780	1.05963					AVRG		1.11650		3.91820

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.15680	0.14989	0.14183	0.13840	0.12487					
	0.12241	0.12071					AVRG		0.13642		10.39468
118 2,6-Dichlorophenol	+++++	0.22968	0.24767	0.23019	0.22824	0.21994					
	0.20722	0.20384					AVRG		0.22383		6.70943
119 Hexachloropropene	+++++	0.09643	0.12071	0.10810	0.10830	0.10566					
	0.10396	0.10222					AVRG		0.10648		7.01238
120 p-Phenylenediamine	+++++	0.27853	0.35439	0.32961	0.32052	0.29301					
	0.23989	0.26763					AVRG		0.29765		13.28967
121 N-Nitrosodi-n-butylamine	+++++	0.32657	0.33644	0.27079	0.26330	0.24730					
	+++++	+++++					AVRG		0.28888		13.83925
122 Safrole	+++++	0.23357	0.23152	0.20679	0.19987	0.18624					
	0.17835	0.17213					AVRG		0.20121		12.15719
123 1,2,4,5-Tetrachlorobenzene	+++++	0.49828	0.47823	0.42902	0.41697	0.38308					
	0.37806	0.35650					AVRG		0.42002		12.58385
124 Isosafrole	+++++	0.42619	0.42314	0.38749	0.37541	0.35479					
	0.34277	0.33324					AVRG		0.37758		9.81458
125 1,4-Naphthoquinone	+++++	0.43969	0.46304	0.42102	0.40805	0.36256					
	0.32446	0.31769					AVRG		0.39093		14.53134

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.19632	0.20285	0.20695	0.20411	+++++					
	0.20519	0.19977					AVRG		0.20253		1.91634
127 Pentachlorobenzene	+++++	0.42915	0.42256	0.37734	0.36900	0.34893					
	0.33929	0.32545					AVRG		0.37310		10.73227
128 1-Naphthylamine	+++++	1.01824	1.02797	0.96063	0.92496	0.86385					
	0.78852	0.81833					AVRG		0.91464		10.32976
129 2-Naphthylamine	+++++	1.18449	1.20191	1.06848	1.02397	0.97839					
	0.87863	0.91493					AVRG		1.03583		12.05275
130 2,3,4,6-Tetrachlorophenol	+++++	0.27570	0.27851	0.29233	0.25662	+++++					
	0.28091	0.28573					AVRG		0.27830		4.35824
131 5-Nitro-o-toluidine	+++++	0.27926	0.31877	0.29625	0.29174	0.28793					
	0.26479	0.27930					AVRG		0.28829		5.87162
132 Thionazin	+++++	0.21837	0.21310	0.20787	0.20291	0.18443					
	0.18151	0.17878					AVRG		0.19814		8.21521
134 Sulfotepp	+++++	0.11576	0.11273	0.10759	0.11050	0.10349					
	0.10498	0.10334					AVRG		0.10834		4.44813
135 Phorate	+++++	0.54395	0.53764	0.50127	0.50410	0.43441					
	0.42913	0.41424					AVRG		0.48068		11.21388

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 25-FEB-2010 19:29
End Cal Date : 27-FEB-2010 19:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	0.09902	0.13795	0.14185	0.14437	0.15552					
	0.14250	0.15346					AVRG		0.13924		13.53210
137 Phenacetin	+++++	0.36668	0.38290	0.36495	0.36255	0.35934					
	0.33744	0.34833					AVRG		0.36031		3.99768
138 Diallate	+++++	0.41072	0.38101	0.34947	0.34396	0.31724					
	0.31143	0.28849					AVRG		0.34319		12.30726
139 Dimethoate	+++++	0.30985	0.31438	0.31158	0.31433	0.28790					
	0.29351	0.28516					AVRG		0.30239		4.29471
140 4-Aminobiphenyl	+++++	0.62717	0.56633	0.52337	0.53442	0.53467					
	0.49789	0.49805					AVRG		0.54027		8.33257
141 Pentachloronitrobenzene	+++++	0.08305	0.08211	0.07650	0.07385	0.06634					
	0.06431	0.05917					AVRG		0.07219		12.69107
142 Pronamide	+++++	0.33308	0.30964	0.27184	0.26209	0.22641					
	+++++	+++++					AVRG		0.28061		14.85845
143 Dinoseb	+++++	0.10204	0.11901	0.14040	0.13703	+++++					
	0.13681	0.14379					AVRG		0.12985		12.40127
144 Disulfoton	+++++	0.43145	0.42298	0.39104	0.39568	0.33598					
	0.33444	0.32672					AVRG		0.37690		11.68975

GEL Laboratories LLC

INITIAL CALIBRATION DATA

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Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
145 Methyl parathion	+++++	0.22147	0.22330	0.22848	0.23357	0.22035					
	0.22015	0.21498					AVRG		0.22319		2.73426
146 4-Nitroquinoline-1-oxide	+++++	0.02862	0.03367	0.02762	0.02834	0.02191					
	+++++	+++++					AVRG		0.02803		14.90672
147 Methapyrilene	+++++	0.67380	0.65416	0.60002	0.56011	0.47272					
	+++++	+++++					AVRG		0.59216		13.57942
148 Isodrin	+++++	0.12395	0.11205	0.10954	0.09773	0.08713					
	+++++	+++++					AVRG		0.10608		13.29500
149 Aramite	+++++	0.06101	0.06312	0.05720	0.05442	0.04866					
	0.04375	0.04685					AVRG		0.05357		13.76359
150 Kepone	+++++	0.08590	0.08785	0.07852	0.07442	0.06805					
	0.06062	0.07046					AVRG		0.07512		13.00110
151 p-(Dimethylamino)azobenzene	+++++	0.43965	0.42302	0.37955	0.38382	0.35586					
	0.36266	0.31984					AVRG		0.38063		10.68466
152 Chlorobenzilate	+++++	0.31965	0.30681	0.28694	0.29640	0.27825					
	0.29353	0.26489					AVRG		0.29235		6.17308
153 3,3'-Dimethylbenzidine	+++++	0.58668	0.57470	0.51215	0.49457	0.49848					
	0.47976	0.50114					AVRG		0.52107		8.05789

GEL Laboratories LLC

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Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
154 Famphur	+++++	0.36131	0.38113	0.37483	0.37752	0.34625						
	0.35078	0.35083					AVRG		0.36323		3.98923	
155 2-Acetylaminofluorene	+++++	0.28795	0.35817	0.35446	0.32877	0.33220						
	0.32731	0.33122					AVRG		0.33144		6.92488	
157 7,12Dimethylbenz(a)anthracene	+++++	0.55020	0.53822	0.49882	0.52345	0.49124						
	0.48675	0.46414					AVRG		0.50755		6.05771	
158 3-Methylcholanthrene	+++++	0.42576	0.44495	0.43942	0.43727	0.42343						
	0.41779	0.41039					AVRG		0.42843		2.92537	
26 Phthalic anhydride	+++++	19674	43662	149139	198258	+++++						
	303292	390870					LINR	0.10709	0.12908		0.99568	
173 Carbazole	26652	231943	285485	742895	969476	+++++						
	1360936	1784176					LINR	-0.00713	0.72308		0.99840	
174 Hexachlorophene	+++++	0.04145	0.05155	0.05326	0.05594	0.05389						
	0.05958	+++++					AVRG		0.05261		11.63508	
179 Dibenzo(a,e)pyrene	+++++	0.35625	0.30196	0.33296	0.31351	+++++						
	0.41993	0.31979					AVRG		0.34073		12.62818	
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

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Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
184 p-Benzoquinone	+++++	0.11909	0.19949	0.26236	0.26927	+++++						
	0.39002	0.34759					AVRG		0.26464		37.04598	<-
191 Parathion	+++++	0.05838	0.06156	0.06139	0.06391	0.05967						
	0.06086	0.06070					AVRG		0.06092		2.81439	
192 Methoxychlor	+++++	0.55793	0.56118	0.58128	0.56300	+++++						
	0.56663	0.56646					AVRG		0.56608		1.43825	
210 m-Toluidine	+++++	1.79529	1.85187	1.92101	1.96359	+++++						
	2.24576	1.99048					AVRG		1.96133		7.99456	
211 p-Toluidine	+++++	1.79858	1.60866	1.82813	1.72433	+++++						
	1.42696	1.55800					AVRG		1.65744		9.30464	
212 Cis Diallate	+++++	0.43087	0.42200	0.40125	0.40045	0.38358						
	0.38382	0.35836					AVRG		0.39719		6.20814	
213 Trans Diallate	+++++	0.48319	0.44824	0.41114	0.40466	0.37323						
	0.36639	0.33940					AVRG		0.40375		12.30726	
214 1,4-Dinitrobenzene	+++++	0.25326	0.26920	0.28341	0.28173	+++++						
	0.29614	0.29228					AVRG		0.27934		5.67123	
215 2-Ethoxyethanol	+++++	1.13332	1.11090	1.08871	1.05848	+++++						
	1.12963	1.06800					AVRG		1.09817		2.86878	

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Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
216 Methylenebis(2-chloroaniline)	+++++	23181	35172	100539	129618	+++++						
	217340	306992					LINR	0.24172	0.17592		0.99230	
226 2,2'-Dichlorobenzil	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
227 4-Chlorothioanisole	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
228 4-Chlorothiophenol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
229 bis(p-Chlorophenyl)sulfone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
230 bis(p-Chlorophenyl)disulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
231 Diphenyl disulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
232 Diphenyl sulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
233 Phenyl sulfone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

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Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
234 Hydroxymethyl phthalimide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
235 Phthalic acid	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
236 Thiophenol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
237 bis(Chloromethyl)ether	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
238 Octachlorostyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
239 Dibenzo(a,h)pyrene	+++++	16214	54354	114214	189671	366515						
	+++++	551083					LINR	0.20987	0.31941		0.99436	<-
240 Benzo(j)fluoranthene	+++++	0.85390	0.86463	0.84299	0.86658	0.80083						
	+++++	0.79743					AVRG		0.83773		3.71012	<-
241 Dibenzo(a,j)acridine	+++++	0.39881	0.49972	0.51254	0.54964	0.54659						
	+++++	0.56420					AVRG		0.51192		11.81878	<-
242 Dibenz(a,h)acridine	+++++	0.39192	0.48760	0.50053	0.53690	0.53811						
	+++++	0.55086					AVRG		0.50099		11.71717	<-

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 25-FEB-2010 19:29
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Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
243 Quinoline	+++++	0.54164	0.56122	0.53067	0.54908	0.50806						
	+++++	0.49772					AVRG		0.53140		4.59869	<-
244 2,4-Toluene Diisocyanate	+++++	0.32809	0.35001	0.33585	0.35120	0.32214						
	+++++	0.29887					AVRG		0.33102		5.90763	<-
245 Dibenzo(a,i)pyrene	+++++	8071	32130	70192	111587	237153						
	+++++	358959					LINR	0.26072	0.21122		0.99228	<-
246 1-Nitropyrene	+++++	10513	34383	92176	166425	330067						
	+++++	464207					LINR	0.24032	0.19779		0.99701	<-
247 5-Methylchrysene	+++++	0.49419	0.51030	0.49396	0.49924	0.46951						
	+++++	0.45770					AVRG		0.48748		4.05701	<-
248 Dibenzo(a,l)pyrene	+++++	18888	56203	115537	184365	347484						
	+++++	506374					LINR	0.15039	0.28934		0.99695	<-
249 7H-Dibenzo(c,g)carbazole	+++++	28751	75053	159553	261485	490297						
	+++++	687536					LINR	0.13062	0.39411		0.99858	<-
250 1-Hexanol	+++++	1.51040	1.63222	1.64202	1.62617	1.49305						
	+++++	1.42232					AVRG		1.55436		5.89845	<-
M 222 Trichlorophenols	+++++	0.32987	0.32392	0.32155	0.31271	+++++						
	0.31098	0.30400					AVRG		0.31717		3.01656	

GEL Laboratories LLC

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Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
M 223 Tetrachlorophenols	+++++	0.27570	0.27851	0.29233	0.25662	+++++						
	0.28091	0.28573					AVRG		0.27830		4.35824	
M 224 Benzo(b,k)fluoranthene	1.32952	1.14624	1.12724	1.10140	1.07868	+++++						
	1.11737	1.08111					AVRG		1.14022		7.62477	
M 225 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 3 2-Fluorophenol	+++++	1.30930	1.29737	1.26180	1.22844	+++++						
	1.27000	1.20528					AVRG		1.26203		3.14876	
$ 5 Phenol-d5	+++++	1.75157	1.70055	1.66377	1.60913	+++++						
	1.63501	1.58190					AVRG		1.65699		3.74957	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.41938	0.41391	0.38967	0.37644	+++++						
	0.35598	0.34143					AVRG		0.38280		8.11486	
$ 39 2-Fluorobiphenyl	+++++	1.28100	1.19764	1.09965	1.05644	+++++						
	1.02519	0.98685					AVRG		1.10780		10.07044	

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
$ 60 2,4,6-Tribromophenol	+++++	0.14103	0.14257	0.14751	0.14295	+++++					
	0.14866	0.14909					AVRG		0.14530		2.41925
$ 81 p-Terphenyl-d14	+++++	0.74776	0.71990	0.68728	0.68533	+++++					
	0.71130	0.71350					AVRG		0.71085		3.24359

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response
Wt Linear	Amt = b + Rsp/m1	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 26-FEB-2010 04:31
Lab File ID: s2b2537.d Init. Cal. Date(s): 25-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 19:29 15:23
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s022510a.b/MSD2-M8270AQA-022510a.m

COMPOUND	RRF / AMOUNT	RF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	1.12935	1.11132	0.000	-1.59676	60.00000	Averaged
16 Acetophenone	1.53348	1.58998	0.000	3.68452	60.00000	Averaged
189 Caprolactam	0.10024	0.10624	0.000	5.98808	60.00000	Averaged
208 1,1'-Biphenyl	1.29012	1.34651	0.000	4.37036	60.00000	Averaged
207 Atrazine	0.04908	0.04896	0.000	-0.24831	60.00000	Averaged
77 Benzidine	0.37050	0.34999	0.000	-5.53741	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.27939	0.31522	0.000	12.82599	60.00000	Averaged
102 1,4-Dioxane	0.48060	0.54672	0.000	13.75779	60.00000	Averaged
103 Methyl methacrylate	0.25449	0.29122	0.000	14.43340	60.00000	Averaged
104 Ethyl methacrylate	1.02890	1.16551	0.000	13.27727	60.00000	Averaged
105 2-Picoline	1.51395	1.58183	0.000	4.48423	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.68819	0.73371	0.000	6.61486	60.00000	Averaged
107 Methyl methanesulfonate	0.70337	0.78285	0.000	11.30019	60.00000	Averaged
108 N-Nitrosodiethylamine	0.66583	0.70452	0.000	5.81048	60.00000	Averaged
109 Ethyl Methanesulfonate	0.87125	1.00485	0.000	15.33533	60.00000	Averaged
110 Pentachloroethane	0.35998	0.43945	0.000	22.07455	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.67893	0.72930	0.000	7.41885	60.00000	Averaged
113 N-Nitrosomorpholine	0.97157	1.09282	0.000	12.47940	60.00000	Averaged
114 o-Toluidine	2.22466	2.36540	0.000	6.32642	60.00000	Averaged
115 N-Nitrosopiperidine	0.16261	0.17212	0.000	5.85027	60.00000	Averaged
116 a,a-Dimethylphenethylamine	1.11650	1.23278	0.000	10.41386	60.00000	Averaged
118 2,6-Dichlorophenol	0.22383	0.23824	0.000	6.44008	60.00000	Averaged
119 Hexachloropropene	0.10648	0.14600	0.000	37.11406	60.00000	Averaged
120 p-Phenylenediamine	0.29765	0.34493	0.000	15.88186	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.28888	0.28356	0.000	-1.84037	60.00000	Averaged
122 Safrole	0.20121	0.22439	0.000	11.52110	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42002	0.44518	0.000	5.99050	60.00000	Averaged
124 Isosafrole	0.37758	0.45233	0.000	19.79893	60.00000	Averaged
125 1,4-Naphthoquinone	0.39093	0.41107	0.000	5.15139	60.00000	Averaged
127 Pentachlorobenzene	0.37310	0.38817	0.000	4.03737	60.00000	Averaged
128 1-Naphthylamine	0.91464	1.01319	0.000	10.77501	60.00000	Averaged
129 2-Naphthylamine	1.03583	1.13513	0.000	9.58690	60.00000	Averaged
131 5-Nitro-o-toluidine	0.28829	0.30645	0.000	6.29771	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.13924	0.15671	0.000	12.54378	60.00000	Averaged
137 Phenacetin	0.36031	0.38228	0.000	6.09761	60.00000	Averaged
138 Diallate	0.34319	0.33408	0.000	-2.65264	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 26-FEB-2010 04:31
Lab File ID: s2b2537.d Init. Cal. Date(s): 25-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 19:29 15:23
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s022510a.b/MSD2-M8270AQA-022510a.m

COMPOUND	RRF / AMOUNT	RF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.39719	0.43961	0.000	10.67876	60.00000	Averaged
213 Trans Diallate	0.40375	0.39304	0.000	-2.65264	60.00000	Averaged
140 4-Aminobiphenyl	0.54027	0.59867	0.000	10.80905	60.00000	Averaged
141 Pentachloronitrobenzene	0.07219	0.07812	0.000	8.21775	60.00000	Averaged
142 Pronamide	0.28061	0.27532	0.000	-1.88577	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02803	0.03018	0.000	7.66867	60.00000	Averaged
147 Methapyrilene	0.59216	0.64123	0.000	8.28598	60.00000	Averaged
148 Isodrin	0.10608	0.09917	0.000	-6.50880	60.00000	Averaged
149 Aramite	0.05357	0.05556	0.000	3.70790	60.00000	Averaged
150 Kepone	0.07512	0.07502	0.000	-0.12732	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.38063	0.39321	0.000	3.30610	60.00000	Averaged
152 Chlorobenzilate	0.29235	0.28940	0.000	-1.00892	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52107	0.55119	0.000	5.78091	60.00000	Averaged
155 2-Acetylaminofluorene	0.33144	0.36840	0.000	11.15022	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.50755	0.50417	0.000	-0.66473	60.00000	Averaged
158 3-Methylcholanthrene	0.42843	0.46320	0.000	8.11646	60.00000	Averaged

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GEL Laboratories, LLC
Data file : /chem/MSD2.i/s022510a.b/s2b2537.d
Lab Smp Id: WBN100218-08.1 Client Smp ID: APICV
Inj Date : 26-FEB-2010 04:31
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100218-08.1|40 PPM|1|SVMF|1|APICV
Misc Info : |MSD8270|WBN100217-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s022510a.b/MSD2-M8270AQA-022510a.m
Meth Date : 26-Feb-2010 17:02 ann00964 Quant Type: ISTD
Cal Date : 26-FEB-2010 01:31 Cal File: s2b2528.d
Als bottle: 27 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.030	4.030	(1.000)	302469	40.0000	
* 29 Naphthalene-d8	136	4.897	4.897	(1.000)	1191005	40.0000	
* 46 Acenaphthene-d10	164	6.143	6.143	(1.000)	647150	40.0000	
* 67 Phenanthrene-d10	188	7.116	7.116	(1.000)	1057338	40.0000	
* 91 Chrysene-d12	240	8.822	8.822	(1.000)	879230	40.0000	
* 98 Perylene-d12	264	10.400	10.400	(1.000)	680784	40.0000	
209 Benzaldehyde	77	3.752	3.752	(0.931)	336140	40.0000	39.4
16 Acetophenone	105	4.276	4.276	(1.061)	480920	40.0000	41.5
189 Caprolactam	113	5.169	5.169	(1.056)	126532	40.0000	42.4
208 1,1'-Biphenyl	154	5.715	5.715	(0.930)	871391	40.0000	41.7
207 Atrazine	173	6.881	6.881	(0.967)	51763	40.0000	39.9
77 Benzidine	184	7.892	7.892	(0.894)	307718	40.0000	37.8
90 3,3'-Dichlorobenzidine	252	8.748	8.748	(0.992)	277153	40.0000	45.1
102 1,4-Dioxane	88	2.367	2.367	(0.587)	165365	40.0000	45.5
103 Methyl methacrylate	100	2.361	2.361	(0.586)	88086	40.0000	45.8
104 Ethyl methacrylate	69	2.730	2.730	(0.677)	352530	40.0000	45.3
105 2-Picoline	93	2.923	2.923	(0.725)	478456	40.0000	41.8
106 N-Nitrosomethylethylamine	88	2.966	2.966	(0.736)	221926	40.0000	42.6
107 Methyl methanesulfonate	80	3.121	3.121	(0.774)	236788	40.0000	44.5
108 N-Nitrosodiethylamine	102	3.356	3.356	(0.833)	213095	40.0000	42.3
109 Ethyl Methanesulfonate	79	3.506	3.506	(0.870)	303937	40.0000	46.1
110 Pentachloroethane	167	3.854	3.854	(0.956)	132919	40.0000	48.8
111 N-Nitrosopyrrolidine	100	4.265	4.265	(1.058)	220591	40.0000	43.0(Q)
113 N-Nitrosomorpholine	56	4.287	4.287	(1.064)	330544	40.0000	45.0
114 o-Toluidine	106	4.303	4.303	(1.068)	715460	40.0000	42.5
115 N-Nitrosopiperidine	114	4.506	4.506	(0.920)	204996	40.0000	42.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.752	4.752	(0.970)	1468242	40.0000	44.2
118 2,6-Dichlorophenol	162	4.939	4.939	(1.009)	283746	40.0000	42.6
119 Hexachloropropene	213	4.966	4.966	(1.014)	173891	40.0000	54.8
120 p-Phenylenediamine	108	5.169	5.169	(1.056)	410811	40.0000	46.4
121 N-Nitrosodi-n-butylamine	84	5.137	5.137	(1.049)	337724	40.0000	39.3
122 Safrole	162	5.303	5.303	(1.083)	267252	40.0000	44.6
123 1,2,4,5-Tetrachlorobenzene	216	5.512	5.512	(0.897)	288099	40.0000	42.4
124 Isosafrole	162	5.672	5.672	(0.923)	292727	40.0000	47.9
125 1,4-Naphthoquinone	158	5.865	5.865	(0.955)	266022	40.0000	42.1
127 Pentachlorobenzene	250	6.250	6.250	(1.017)	251201	40.0000	41.6
128 1-Naphthylamine	143	6.330	6.330	(1.030)	655689	40.0000	44.3
129 2-Naphthylamine	143	6.378	6.378	(1.038)	734601	40.0000	43.8
131 5-Nitro-o-toluidine	152	6.501	6.501	(1.058)	198318	40.0000	42.5
136 1,3,5-Trinitrobenzene	75	6.704	6.704	(0.942)	165691	40.0000	45.0
137 Phenacetin	108	6.742	6.742	(0.947)	404202	40.0000	42.4(Q)
138 Diallate	86	6.737	6.737	(0.947)	353240	40.0000	38.9
212 Cis Diallate	86	6.795	6.795	(0.955)	69722	6.00000	6.6
213 Trans Diallate	86	6.737	6.737	(0.947)	353240	34.0000	33.1
140 4-Aminobiphenyl	169	6.977	6.977	(0.980)	632998	40.0000	44.3
141 Pentachloronitrobenzene	237	6.993	6.993	(0.983)	82603	40.0000	43.3
142 Pronamide	173	6.983	6.983	(0.981)	291104	40.0000	39.2
146 4-Nitroquinoline-1-oxide	101	7.582	7.582	(1.065)	31913	40.0000	43.1
147 Methapyrilene	58	7.592	7.592	(1.067)	677995	40.0000	43.3
148 Isodrin	193	7.758	7.758	(1.090)	104861	40.0000	37.4
149 Aramite	185	7.983	7.983	(1.122)	58745	40.0000	41.5
150 Kepone	272	8.432	8.432	(1.185)	79323	40.0000	39.9
151 p-(Dimethylamino)azobenzene	120	8.111	8.111	(0.919)	345724	40.0000	41.3
152 Chlorobenzilate	251	8.127	8.127	(0.921)	254453	40.0000	39.6
153 3,3'-Dimethylbenzidine	212	8.330	8.330	(0.944)	484626	40.0000	42.3
155 2-Acetylaminofluorene	181	8.523	8.523	(0.966)	323904	40.0000	44.5
157 7,12Dimethylbenz(a)anthracene	256	9.860	9.860	(0.948)	343233	40.0000	39.7
158 3-Methylcholanthrene	268	10.796	10.796	(1.038)	315341	40.0000	43.2(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s022510a.b/s2b2537.d
Date : 26-FEB-2010 04:31
Client ID: APICV
Sample Info: IWBN100218-08.1|40 PPM|1|SVMF|1|APICV
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

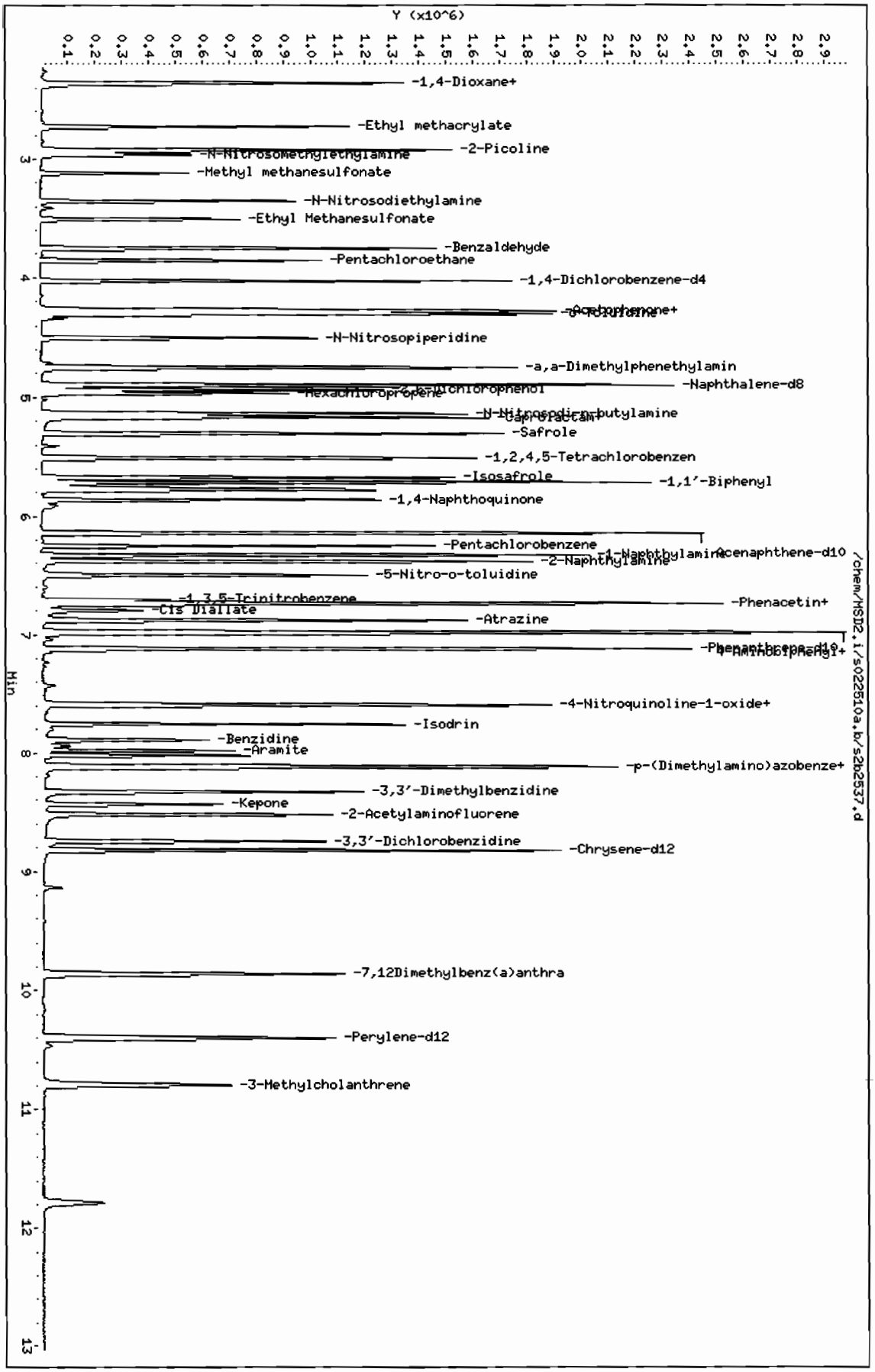

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 26-FEB-2010 19:46
Lab File ID: s2b2554.d Init. Cal. Date(s): 25-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 19:29 19:01
Lab Sample ID: WBN100225-09.l Quant Type: ISTD
Method: /chem/MSD2.i/s022510a.b/MSD2-M8270AQA-022510a.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3	2-Fluorophenol	1.26203	1.19888	1.19888	0.000	-5.00402	60.00000	Averaged
$ 5	Phenol-d5	1.65699	1.50537	1.50537	0.000	-9.15010	60.00000	Averaged
$ 20	Nitrobenzene-d5	0.38280	0.38070	0.38070	0.000	-0.54842	60.00000	Averaged
$ 39	2-Fluorobiphenyl	1.10780	1.06494	1.06494	0.000	-3.86905	60.00000	Averaged
$ 60	2,4,6-Tribromophenol	0.14530	0.13429	0.13429	0.000	-7.57517	60.00000	Averaged
$ 81	p-Terphenyl-d14	0.71085	0.73511	0.73511	0.000	3.41318	60.00000	Averaged
1	N-Methyl-N-nitrosomethylami	0.91066	0.81995	0.81995	0.000	-9.96029	60.00000	Averaged
2	Pyridine	1.31573	0.95835	0.95835	0.000	-27.16218	60.00000	Averaged
4	Aniline	0.83243	0.73205	0.73205	0.000	-12.05789	60.00000	Averaged
6	Phenol	1.68401	1.57691	1.57691	0.001	-6.35979	20.00000	Averaged ccc
7	bis(2-Chloroethyl) ether	1.52634	1.26446	1.26446	0.000	-17.15692	60.00000	Averaged
8	2-Chlorophenol	1.33741	1.24734	1.24734	0.000	-6.73514	60.00000	Averaged
203	n-Decane	36.80406	40.00000	1.67826	0.000	-7.98986	60.00000	Wt Linear
9	1,3-Dichlorobenzene	1.39791	1.33344	1.33344	0.000	-4.61233	60.00000	Averaged
11	1,4-Dichlorobenzene	1.39880	1.30290	1.30290	0.001	-6.85561	20.00000	Averaged ccc
13	1,2-Dichlorobenzene	1.24373	1.15460	1.15460	0.000	-7.16618	60.00000	Averaged
14	bis(2-Chloroisopropyl)ether	2.92707	2.79275	2.79275	0.000	-4.58875	60.00000	Averaged
12	Benzyl alcohol	0.94381	0.88097	0.88097	0.000	-6.65862	60.00000	Averaged
15	o-Cresol	1.07392	0.96224	0.96224	0.000	-10.39894	60.00000	Averaged
18	m,p-Cresols	1.47838	1.41115	1.41115	0.000	-4.54732	60.00000	Averaged
17	N-Nitrosodipropylamine	1.12751	1.01922	1.01922	0.050	-9.60373	60.00000	Averaged spcc
19	Hexachloroethane	0.60646	0.56139	0.56139	0.000	-7.43015	60.00000	Averaged
21	Nitrobenzene	0.36231	0.34676	0.34676	0.000	-4.29057	60.00000	Averaged
22	Isophorone	0.70729	0.64553	0.64553	0.000	-8.73170	60.00000	Averaged
23	2-Nitrophenol	0.14958	0.14834	0.14834	0.001	-0.82944	20.00000	Averaged ccc
24	2,4-Dimethylphenol	41.27351	40.00000	0.28806	0.000	3.18379	60.00000	Wt Linear
25	bis(2-Chloroethoxy)methane	0.38499	0.34455	0.34455	0.000	-10.50465	60.00000	Averaged
26	2,4-Dichlorophenol	0.23149	0.22853	0.22853	0.001	-1.27968	20.00000	Averaged ccc
27	Benzoic acid	0.18797	0.20310	0.20310	0.000	8.04739	60.00000	Averaged
28	1,2,4-Trichlorobenzene	0.26642	0.25127	0.25127	0.000	-5.68834	60.00000	Averaged
30	Naphthalene	34.34163	40.00000	0.80672	0.000	-14.14592	60.00000	Wt Linear
204	alpha-Terpineol	0.35310	0.30562	0.30562	0.000	-13.44479	60.00000	Averaged
31	4-Chloroaniline	0.42621	0.39749	0.39749	0.000	-6.73958	60.00000	Averaged
32	Hexachlorobutadiene	0.14813	0.14336	0.14336	0.001	-3.22291	20.00000	Averaged ccc
33	4-Chloro-3-methylphenol	0.28625	0.28258	0.28258	0.001	-1.28365	20.00000	Averaged ccc
34	2-Methylnaphthalene	36.33751	40.00000	0.51823	0.000	-9.15623	60.00000	Wt Linear

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 26-FEB-2010 19:46
Lab File ID: s2b2554.d Init. Cal. Date(s): 25-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 19:29 19:01
Lab Sample ID: WBN100225-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s022510a.b/MSD2-M8270AQA-022510a.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35	1-Methylnaphthalene	34.91145	40.00000	0.48717	0.000	-12.72138	60.00000	Wt Linear	
36	Hexachlorocyclopentadiene	0.22591	0.16942	0.16942	0.050	-25.00436	60.00000	Averaged	spcc
205	2,3-Dichloroaniline	0.56783	0.52160	0.52160	0.000	-8.14030	60.00000	Averaged	
37	2,4,6-Trichlorophenol	0.29264	0.28473	0.28473	0.001	-2.70384	20.00000	Averaged	ccc
38	2,4,5-Trichlorophenol	0.34170	0.33799	0.33799	0.000	-1.08704	60.00000	Averaged	
40	2-Chloronaphthalene	37.87923	40.00000	0.96673	0.000	-5.30193	60.00000	Wt Linear	
42	o-Nitroaniline	0.42127	0.39551	0.39551	0.000	-6.11580	60.00000	Averaged	
41	m-Nitroaniline	0.25711	0.25188	0.25188	0.000	-2.03314	60.00000	Averaged	
43	Dimethylphthalate	1.22347	1.11708	1.11708	0.000	-8.69559	60.00000	Averaged	
44	2,6-Dinitrotoluene	0.28126	0.26299	0.26299	0.000	-6.49689	60.00000	Averaged	
50	2,4-Dinitrotoluene	0.36658	0.34224	0.34224	0.000	-6.63839	60.00000	Averaged	
45	Acenaphthylene	37.83614	40.00000	1.45631	0.000	-5.40964	60.00000	Wt Linear	
47	Acenaphthene	35.77252	40.00000	0.90408	0.001	-10.56869	20.00000	Wt Linear	ccc
48	2,4-Dinitrophenol	39.23044	40.00000	0.08120	0.050	-1.92391	60.00000	Linear	spcc
49	Dibenzofuran	1.36667	1.26730	1.26730	0.000	-7.27118	60.00000	Averaged	
51	Diethylphthalate	1.17674	1.07383	1.07383	0.000	-8.74521	60.00000	Averaged	
52	4-Nitrophenol	0.18423	0.17246	0.17246	0.050	-6.38900	60.00000	Averaged	spcc
53	Fluorene	35.99551	40.00000	0.99147	0.000	-10.01123	60.00000	Wt Linear	
54	4-Chlorophenylphenylether	0.54943	0.49146	0.49146	0.000	-10.54961	60.00000	Averaged	
55	2-Methyl-4,6-dinitrophenol	0.09299	0.11575	0.11575	0.000	24.47626	60.00000	Averaged	
56	p-Nitroaniline	0.22606	0.21174	0.21174	0.000	-6.33344	60.00000	Averaged	
133	Diphenylamine	0.54279	0.50815	0.50815	0.001	-6.38295	20.00000	Averaged	ccc
58	1,2-Diphenylhydrazine	0.87498	0.84132	0.84132	0.000	-3.84700	60.00000	Averaged	
61	4-Bromophenylphenylether	0.18028	0.16151	0.16151	0.000	-10.40874	60.00000	Averaged	
63	Hexachlorobenzene	0.19591	0.17941	0.17941	0.000	-8.42255	60.00000	Averaged	
65	Pentachlorophenol	0.09927	0.09628	0.09628	0.001	-3.01413	20.00000	Averaged	ccc
206	n-Octadecane	41.99228	40.00000	0.64317	0.000	4.98069	60.00000	Linear	
68	Phenanthrene	37.84938	40.00000	0.93515	0.000	-5.37656	60.00000	Wt Linear	
69	Anthracene	35.76576	40.00000	0.88895	0.000	-10.58560	60.00000	Wt Linear	
72	Di-n-butylphthalate	1.14097	1.06078	1.06078	0.000	-7.02804	60.00000	Averaged	
76	Fluoranthene	36.46608	40.00000	0.87962	0.001	-8.83479	20.00000	Wt Linear	ccc
79	Pyrene	35.87699	40.00000	1.14548	0.000	-10.30751	60.00000	Wt Linear	
85	Butylbenzylphthalate	0.53997	0.56587	0.56587	0.000	4.79698	60.00000	Averaged	
89	Benzo(a)anthracene	1.08888	0.90305	0.90305	0.000	-17.06645	60.00000	Averaged	
92	Chrysene	36.38660	40.00000	0.93354	0.000	-9.03350	60.00000	Wt Linear	
93	bis(2-Ethylhexyl)phthalate	0.79994	0.72588	0.72588	0.000	-9.25836	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 26-FEB-2010 19:46
Lab File ID: s2b2554.d Init. Cal. Date(s): 25-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 19:29 19:01
Lab Sample ID: WBN100225-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s022510a.b/MSD2-M8270AQA-022510a.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.56106	1.46863	1.46863	0.001	-5.92078	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.12276	0.96169	0.96169	0.000	-14.34631	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.15768	1.06325	1.06325	0.000	-8.15690	60.00000	Averaged	
	97 Benzo(a)pyrene	0.95896	0.85880	0.85880	0.001	-10.44462	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.88778	0.75994	0.75994	0.000	-14.40040	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.72374	0.61499	0.61499	0.000	-15.02689	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.74907	0.62768	0.62768	0.000	-16.20553	60.00000	Averaged	
	126 m-Dinitrobenzene	0.20253	0.19276	0.19276	0.000	-4.82304	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.27830	0.24217	0.24217	0.000	-12.98351	60.00000	Averaged	
	143 Dinoseb	0.12985	0.12606	0.12606	0.000	-2.91935	60.00000	Averaged	
	173 Carbazole	39.85048	40.00000	0.72553	0.000	-0.37380	60.00000	Linear	
	184 p-Benzoquinone	0.26464	0.18701	0.18701	0.000	-29.33148	60.00000	Averaged	
	192 Methoxychlor	0.56608	0.52183	0.52183	0.000	-7.81635	60.00000	Averaged	
	211 p-Toluidine	1.65744	1.24815	1.24815	0.000	-24.69391	60.00000	Averaged	
	210 m-Toluidine	1.96133	1.92915	1.92915	0.000	-1.64097	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.27934	0.27375	0.27375	0.000	-1.99834	60.00000	Averaged	
	215 2-Ethoxyethanol	1.09817	1.07910	1.07910	0.000	-1.73647	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	38.42290	40.00000	0.12646	0.000	-3.94275	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	0.34073	0.20393	0.20393	0.000	-40.14986	60.00000	Averaged	
	26 Phthalic anhydride	56.62888	40.00000	0.16892	0.000	41.57219	60.00000	Linear	
M	222 Trichlorophenols	0.31717	0.31136	0.31136	0.000	-1.83291	60.00000	Averaged	
M	223 Tetrachlorophenols	0.27830	0.24217	0.24217	0.000	-12.98351	60.00000	Averaged	
M	224 Benzo(b,k)fluoranthene	1.14022	1.01247	1.01247	0.000	-11.20422	60.00000	Averaged	

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Data file : /chem/MSD2.i/s022510a.b/s2b2554.d
Lab Smp Id: WBN100225-09.1 Client Smp ID: MEGAICV
Inj Date : 26-FEB-2010 19:46
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100225-09.1|40PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN100217-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s022510a.b/MSD2-M8270AQA-022510a.m
Meth Date : 26-Feb-2010 21:20 ann00964 Quant Type: ISTD
Cal Date : 26-FEB-2010 01:31 Cal File: s2b2528.d
Als bottle: 16 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAII.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.030	4.030	(1.000)	286572	40.0000	
* 29 Naphthalene-d8	136	4.897	4.897	(1.000)	1223068	40.0000	
* 46 Acenaphthene-d10	164	6.143	6.143	(1.000)	623494	40.0000	
* 67 Phenanthrene-d10	188	7.122	7.122	(1.000)	999696	40.0000	
* 91 Chrysene-d12	240	8.833	8.833	(1.000)	782318	40.0000	
* 98 Perylene-d12	264	10.406	10.406	(1.000)	593549	40.0000	
$ 3 2-Fluorophenol	112	3.206	3.206	(0.796)	343565	40.0000	38.0
$ 5 Phenol-d5	99	3.736	3.736	(0.927)	431397	40.0000	36.3
$ 20 Nitrobenzene-d5	82	4.394	4.394	(0.897)	465625	40.0000	39.8
$ 39 2-Fluorobiphenyl	172	5.635	5.635	(0.917)	663981	40.0000	38.4
$ 60 2,4,6-Tribromophenol	329	6.672	6.672	(1.086)	83732	40.0000	37.0
$ 81 p-Terphenyl-d14	244	8.036	8.036	(0.910)	575088	40.0000	41.4
1 N-Methyl-N-nitrosomethylamine	74	2.516	2.516	(0.624)	234976	40.0000	36.0
2 Pyridine	79	2.554	2.554	(0.634)	274636	40.0000	29.1
4 Aniline	66	3.811	3.811	(0.946)	209786	40.0000	35.2
6 Phenol	94	3.741	3.741	(0.928)	451899	40.0000	37.4(Q)
7 bis(2-Chloroethyl) ether	63	3.827	3.827	(0.950)	362360	40.0000	33.1
8 2-Chlorophenol	128	3.891	3.891	(0.965)	357452	40.0000	37.3
203 n-Decane	43	3.875	3.875	(0.962)	480943	40.0000	36.8
9 1,3-Dichlorobenzene	146	3.998	3.998	(0.992)	382126	40.0000	38.2
11 1,4-Dichlorobenzene	146	4.041	4.041	(1.003)	373375	40.0000	37.2
13 1,2-Dichlorobenzene	146	4.148	4.148	(1.029)	330876	40.0000	37.1
14 bis(2-Chloroisopropyl)ether	45	4.169	4.169	(1.034)	800324	40.0000	38.2
12 Benzyl alcohol	108	4.094	4.094	(1.016)	252461	40.0000	37.3
15 o-Cresol	107	4.142	4.142	(1.028)	275751	40.0000	35.8
18 m,p-Cresols	107	4.244	4.244	(1.053)	404397	40.0000	38.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.265	4.265	(1.058)	292081	40.0000	36.2
19 Hexachloroethane	117	4.378	4.378	(1.086)	160880	40.0000	37.0
21 Nitrobenzene	77	4.404	4.404	(0.900)	424112	40.0000	38.3
22 Isophorone	82	4.560	4.560	(0.931)	789532	40.0000	36.5
23 2-Nitrophenol	139	4.618	4.618	(0.943)	181430	40.0000	39.7
24 2,4-Dimethylphenol	122	4.608	4.608	(0.941)	352315	40.0000	41.3
25 bis(2-Chloroethoxy)methane	93	4.677	4.677	(0.955)	421405	40.0000	35.8
26 2,4-Dichlorophenol	162	4.779	4.779	(0.976)	279502	40.0000	39.5
27 Benzoic acid	105	4.661	4.661	(0.952)	248405	40.0000	43.2
28 1,2,4-Trichlorobenzene	180	4.848	4.848	(0.990)	307317	40.0000	37.7
30 Naphthalene	128	4.913	4.913	(1.003)	986668	40.0000	34.3(Q)
204 alpha-Terpineol	59	4.886	4.886	(0.998)	373798	40.0000	34.6
31 4-Chloroaniline	127	4.923	4.923	(1.005)	486156	40.0000	37.3
32 Hexachlorobutadiene	225	4.977	4.977	(1.016)	175336	40.0000	38.7
33 4-Chloro-3-methylphenol	107	5.234	5.234	(1.069)	345614	40.0000	39.5
34 2-Methylnaphthalene	142	5.394	5.394	(1.102)	633832	40.0000	36.3
35 1-Methylnaphthalene	142	5.469	5.469	(1.117)	595836	40.0000	34.9
36 Hexachlorocyclopentadiene	237	5.496	5.496	(0.895)	105632	40.0000	30.0
205 2,3-Dichloroaniline	161	5.587	5.587	(0.909)	325217	40.0000	36.7
37 2,4,6-Trichlorophenol	196	5.581	5.581	(0.909)	177525	40.0000	38.9
38 2,4,5-Trichlorophenol	196	5.608	5.608	(0.913)	210735	40.0000	39.6
40 2-Chloronaphthalene	162	5.747	5.747	(0.936)	602752	40.0000	37.9
42 o-Nitroaniline	65	5.800	5.800	(0.944)	246595	40.0000	37.6
41 m-Nitroaniline	138	6.089	6.089	(0.991)	157045	40.0000	39.2
43 Dimethylphthalate	163	5.907	5.907	(0.962)	696492	40.0000	36.5
44 2,6-Dinitrotoluene	165	5.961	5.961	(0.970)	163973	40.0000	37.4
50 2,4-Dinitrotoluene	165	6.244	6.244	(1.017)	213385	40.0000	37.3
45 Acenaphthylene	152	6.052	6.052	(0.985)	907999	40.0000	37.8
47 Acenaphthene	154	6.170	6.170	(1.004)	563690	40.0000	35.8
48 2,4-Dinitrophenol	184	6.159	6.159	(1.003)	50625	40.0000	39.2
49 Dibenzofuran	168	6.282	6.282	(1.023)	790151	40.0000	37.1
51 Diethylphthalate	149	6.383	6.383	(1.039)	669528	40.0000	36.5
52 4-Nitrophenol	139	6.170	6.170	(1.004)	107527	40.0000	37.4
53 Fluorene	166	6.512	6.512	(1.060)	618174	40.0000	36.0
54 4-Chlorophenylphenylether	204	6.490	6.490	(1.057)	306425	40.0000	35.8
55 2-Methyl-4,6-dinitrophenol	198	6.523	6.523	(0.916)	115719	40.0000	49.8
56 p-Nitroaniline	138	6.506	6.506	(1.059)	132021	40.0000	37.5
133 Diphenylamine	169	6.565	6.565	(0.922)	507992	40.0000	37.4
58 1,2-Diphenylhydrazine	77	6.597	6.597	(0.926)	841062	40.0000	38.5
61 4-Bromophenylphenylether	248	6.811	6.811	(0.956)	161465	40.0000	35.8
63 Hexachlorobenzene	284	6.870	6.870	(0.965)	179353	40.0000	36.6
65 Pentachlorophenol	266	6.988	6.988	(0.981)	96246	40.0000	38.8
206 n-Octadecane	57	6.966	6.966	(0.978)	642974	40.0000	42.0
68 Phenanthrene	178	7.138	7.138	(1.002)	934866	40.0000	37.8
69 Anthracene	178	7.164	7.164	(1.006)	888680	40.0000	35.8
72 Di-n-butylphthalate	149	7.400	7.400	(1.039)	1060458	40.0000	37.2
76 Fluoranthene	202	7.844	7.844	(1.101)	879349	40.0000	36.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.988	7.988	(0.904)	896132	40.0000	35.9
85 Butylbenzylphthalate	149	8.309	8.309	(0.941)	442688	40.0000	41.9
89 Benzo(a)anthracene	228	8.817	8.817	(0.998)	706473	40.0000	33.2
92 Chrysene	228	8.855	8.855	(1.002)	730327	40.0000	36.4
93 bis(2-Ethylhexyl)phthalate	149	8.689	8.689	(0.984)	567866	40.0000	36.3
94 Di-n-octylphthalate	149	9.261	9.261	(0.890)	871705	40.0000	37.6
95 Benzo(b)fluoranthene	252	9.898	9.898	(0.951)	570808	40.0000	34.3(H)
96 Benzo(k)fluoranthene	252	9.935	9.935	(0.955)	631092	40.0000	36.7
97 Benzo(a)pyrene	252	10.331	10.331	(0.993)	509739	40.0000	35.8
99 Indeno(1,2,3-cd)pyrene	276	12.192	12.192	(1.172)	451059	40.0000	34.2
100 Dibenzo(a,h)anthracene	278	12.197	12.197	(1.172)	365025	40.0000	34.0
101 Benzo(ghi)perylene	276	12.748	12.748	(1.225)	372558	40.0000	33.5
126 m-Dinitrobenzene	168	5.950	5.950	(0.969)	120186	40.0000	38.1
130 2,3,4,6-Tetrachlorophenol	232	6.351	6.351	(1.034)	150990	40.0000	34.8
143 Dinoseb	211	7.073	7.073	(0.993)	126017	40.0000	38.8
173 Carbazole	167	7.250	7.250	(1.018)	725305	40.0000	39.8
184 p-Benzoquinone	54	3.511	3.511	(0.871)	53593	40.0000	28.3
192 Methoxychlor	227	8.673	8.673	(0.982)	408240	40.0000	36.9
211 p-Toluidine	106	4.303	4.303	(1.068)	357686	40.0000	30.1(H)
210 m-Toluidine	106	4.324	4.324	(1.073)	552840	40.0000	39.3
214 1,4-Dinitrobenzene	75	5.891	5.891	(0.959)	170684	40.0000	39.2
215 2-Ethoxyethanol	59	2.361	2.361	(0.586)	309241	40.0000	39.3
216 Methylenebis(2-chloroaniline)	231	8.742	8.742	(0.990)	98932	40.0000	38.4(Q)
179 Dibenzo(a,e)pyrene	302	17.017	17.017	(1.635)	121042	40.0000	23.9
26 Phthalic anhydride	104	5.431	5.431	(1.109)	206599	40.0000	56.6
M 222 Trichlorophenols	196				388260	80.0000	78.5
M 223 Tetrachlorophenols	232				150990	40.0000	34.8
M 224 Benzo(b,k)fluoranthene	252				1201900	80.0000	71.0

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD2.i/s022510a.b/s2b2554.d
Date : 26-FEB-2010 19:46
Client ID: MEGAICV
Sample Info: IWBN100225-09.1|40PPM|1|SVMF|1|MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

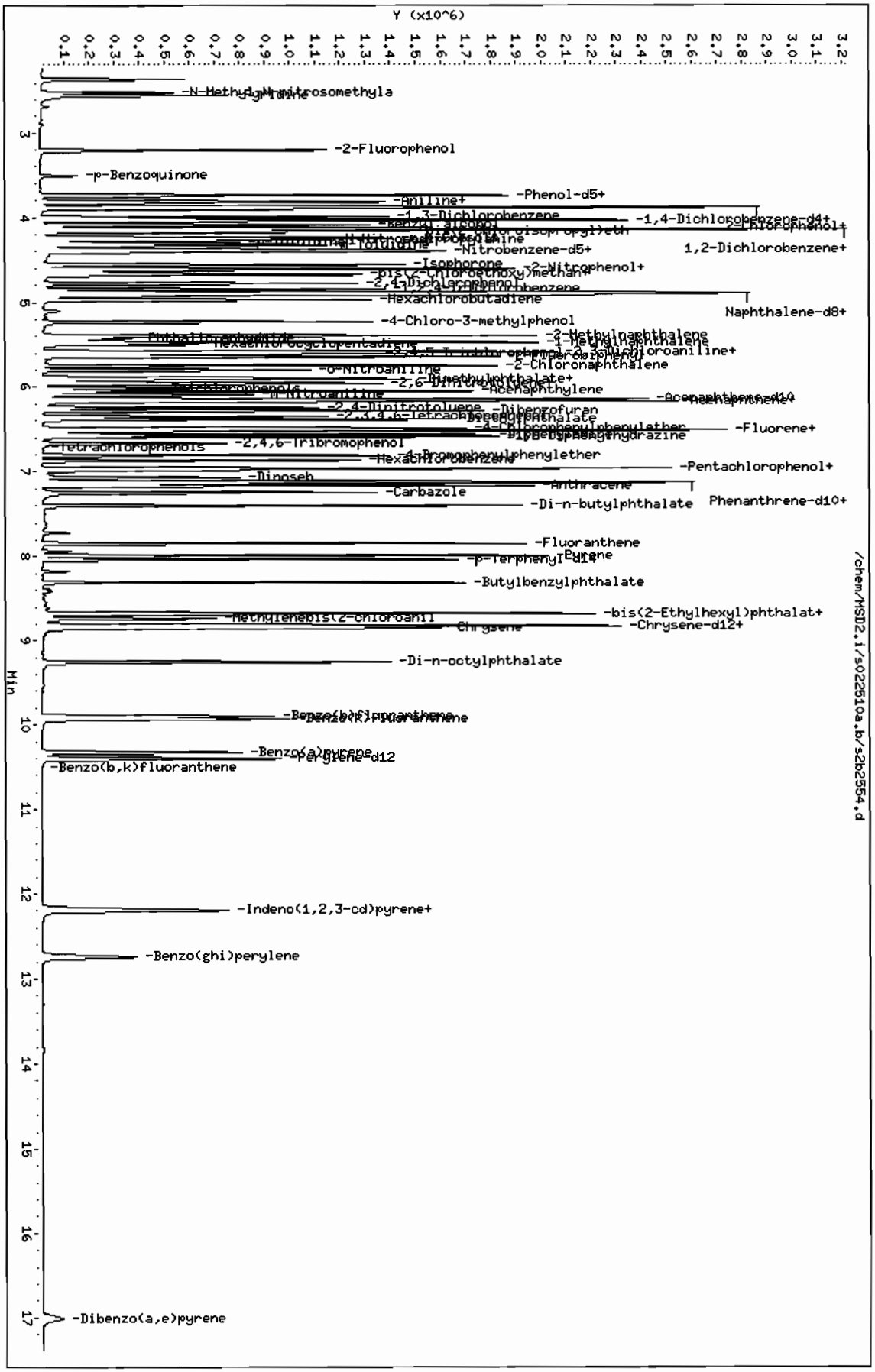

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 03-MAR-2010 19:41
Lab File ID: s2c0308.d Init. Cal. Date(s): 25-FEB-2010 27-FEB-2010
Analysis Type: Init. Cal. Times: 19:29 19:19
Lab Sample ID: WBN100225-09.4 Quant Type: ISTD
Method: /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3 2-Fluorophenol	1.26203	1.12914	1.12914	0.000	-10.53014	60.00000	Averaged
$ 5 Phenol-d5	1.65699	1.38597	1.38597	0.000	-16.35582	60.00000	Averaged
$ 20 Nitrobenzene-d5	0.38280	0.33715	0.33715	0.000	-11.92574	60.00000	Averaged
$ 39 2-Fluorobiphenyl	1.10780	1.13966	1.13966	0.000	2.87618	60.00000	Averaged
$ 60 2,4,6-Tribromophenol	0.14530	0.16671	0.16671	0.000	14.73235	60.00000	Averaged
$ 81 p-Terphenyl-d14	0.71085	0.84363	0.84363	0.000	18.68048	60.00000	Averaged
1 N-Methyl-N-nitrosomethylami	0.91066	0.67533	0.67533	0.000	-25.84128	60.00000	Averaged
2 Pyridine	1.31573	0.93704	0.93704	0.000	-28.78175	60.00000	Averaged
4 Aniline	0.83243	0.69073	0.69073	0.000	-17.02258	60.00000	Averaged
6 Phenol	1.68401	1.41159	1.41159	0.001	-16.17675	20.00000	Averaged ccc
7 bis(2-Chloroethyl) ether	1.52634	1.26733	1.26733	0.000	-16.96940	60.00000	Averaged
8 2-Chlorophenol	1.33741	1.26014	1.26014	0.000	-5.77784	60.00000	Averaged
203 n-Decane	45.81025	40.00000	2.04426	0.000	14.52563	60.00000	Wt Linear
9 1,3-Dichlorobenzene	1.39791	1.36655	1.36655	0.000	-2.24360	60.00000	Averaged
11 1,4-Dichlorobenzene	1.39880	1.40520	1.40520	0.001	0.45806	20.00000	Averaged ccc
13 1,2-Dichlorobenzene	1.24373	1.28482	1.28482	0.000	3.30430	60.00000	Averaged
14 bis(2-Chloroisopropyl)ether	2.92707	2.97249	2.97249	0.000	1.55179	60.00000	Averaged
12 Benzyl alcohol	0.94381	0.73037	0.73037	0.000	-22.61453	60.00000	Averaged
15 o-Cresol	1.07392	0.94710	0.94710	0.000	-11.80828	60.00000	Averaged
18 m,p-Cresols	1.47838	1.22272	1.22272	0.000	-17.29354	60.00000	Averaged
17 N-Nitrosodipropylamine	1.12751	0.90032	0.90032	0.050	-20.14937	60.00000	Averaged spcc
19 Hexachloroethane	0.60646	0.61095	0.61095	0.000	0.74037	60.00000	Averaged
21 Nitrobenzene	0.36231	0.31489	0.31489	0.000	-13.08741	60.00000	Averaged
22 Isophorone	0.70729	0.59054	0.59054	0.000	-16.50634	60.00000	Averaged
23 2-Nitrophenol	0.14958	0.14677	0.14677	0.001	-1.87773	20.00000	Averaged ccc
24 2,4-Dimethylphenol	37.78567	40.00000	0.27102	0.000	-5.53581	60.00000	Wt Linear
25 bis(2-Chloroethoxy)methane	0.38499	0.34170	0.34170	0.000	-11.24371	60.00000	Averaged
26 2,4-Dichlorophenol	0.23149	0.22519	0.22519	0.001	-2.72153	20.00000	Averaged ccc
27 Benzoic acid	0.18797	0.12613	0.12613	0.000	-32.89856	60.00000	Averaged
28 1,2,4-Trichlorobenzene	0.26642	0.26647	0.26647	0.000	0.01793	60.00000	Averaged
30 Naphthalene	38.19794	40.00000	0.89581	0.000	-4.50516	60.00000	Wt Linear
204 alpha-Terpineol	0.35310	0.32721	0.32721	0.000	-7.33125	60.00000	Averaged
31 4-Chloroaniline	0.42621	0.40652	0.40652	0.000	-4.62136	60.00000	Averaged
32 Hexachlorobutadiene	0.14813	0.15626	0.15626	0.001	5.48481	20.00000	Averaged ccc
33 4-Chloro-3-methylphenol	0.28625	0.25550	0.25550	0.001	-10.74191	20.00000	Averaged ccc
34 2-Methylnaphthalene	37.91070	40.00000	0.54033	0.000	-5.22324	60.00000	Wt Linear

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 03-MAR-2010 19:41
Lab File ID: s2c0308.d Init. Cal. Date(s): 25-FEB-2010 27-FEB-2010
Analysis Type: Init. Cal. Times: 19:29 19:19
Lab Sample ID: WBN100225-09.4 Quant Type: ISTD
Method: /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	37.86413	40.00000	0.52772	0.000	-5.33967	60.00000	Wt Linear
36 Hexachlorocyclopentadiene	0.22591	0.22365	0.22365	0.050	-1.00025	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.56783	0.57800	0.57800	0.000	1.79139	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.29264	0.31671	0.31671	0.001	8.22421	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.34170	0.32612	0.32612	0.000	-4.56217	60.00000	Averaged
40 2-Chloronaphthalene	39.45073	40.00000	1.00635	0.000	-1.37318	60.00000	Wt Linear
42 o-Nitroaniline	0.42127	0.35945	0.35945	0.000	-14.67519	60.00000	Averaged
41 m-Nitroaniline	0.25711	0.17167	0.17167	0.000	-33.23102	60.00000	Averaged
43 Dimethylphthalate	1.22347	1.21859	1.21859	0.000	-0.39881	60.00000	Averaged
44 2,6-Dinitrotoluene	0.28126	0.27597	0.27597	0.000	-1.88164	60.00000	Averaged
50 2,4-Dinitrotoluene	0.36658	0.34021	0.34021	0.000	-7.19153	60.00000	Averaged
45 Acenaphthylene	40.46695	40.00000	1.55644	0.000	1.16738	60.00000	Wt Linear
47 Acenaphthene	43.37378	40.00000	1.09252	0.001	8.43446	60.00000	Wt Linear ccc
48 2,4-Dinitrophenol	45.27201	40.00000	0.09776	0.050	13.18003	60.00000	Linear spcc
49 Dibenzofuran	1.36667	1.35121	1.35121	0.000	-1.13119	60.00000	Averaged
51 Diethylphthalate	1.17674	1.20797	1.20797	0.000	2.65418	60.00000	Averaged
52 4-Nitrophenol	0.18423	0.16663	0.16663	0.050	-9.55389	60.00000	Averaged spcc
53 Fluorene	42.04774	40.00000	1.15553	0.000	5.11935	60.00000	Wt Linear
54 4-Chlorophenylphenylether	0.54943	0.55542	0.55542	0.000	1.09017	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	0.09299	0.10112	0.10112	0.000	8.73724	60.00000	Averaged
56 p-Nitroaniline	0.22285	0.13540	0.13540	0.000	-39.24435	60.00000	Averaged
133 Diphenylamine	0.54279	0.54902	0.54902	0.001	1.14816	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.87498	0.78198	0.78198	0.000	-10.62901	60.00000	Averaged
61 4-Bromophenylphenylether	0.18028	0.19987	0.19987	0.000	10.86768	60.00000	Averaged
63 Hexachlorobenzene	0.19591	0.21728	0.21728	0.000	10.90817	60.00000	Averaged
65 Pentachlorophenol	0.09927	0.11244	0.11244	0.001	13.26577	20.00000	Averaged ccc
206 n-Octadecane	48.01175	40.00000	0.71445	0.000	20.02937	60.00000	Linear
68 Phenanthrene	38.56862	40.00000	0.98844	0.000	-3.57844	60.00000	Wt Linear
69 Anthracene	42.07226	40.00000	1.04345	0.000	5.18064	60.00000	Wt Linear
72 Di-n-butylphthalate	1.14097	1.21404	1.21404	0.000	6.40473	60.00000	Averaged
76 Fluoranthene	38.07137	40.00000	0.91787	0.001	-4.82157	60.00000	Wt Linear ccc
79 Pyrene	45.12268	40.00000	1.43707	0.000	12.80670	60.00000	Wt Linear
85 Butylbenzylphthalate	0.53997	0.65984	0.65984	0.000	22.20098	60.00000	Averaged
89 Benzo(a)anthracene	1.08888	1.07123	1.07123	0.000	-1.62160	60.00000	Averaged
92 Chrysene	38.28972	40.00000	0.98177	0.000	-4.27570	60.00000	Wt Linear
93 bis(2-Ethylhexyl)phthalate	0.79994	0.93107	0.93107	0.000	16.39293	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 03-MAR-2010 19:41
Lab File ID: s2c0308.d Init. Cal. Date(s): 25-FEB-2010 27-FEB-2010
Analysis Type: Init. Cal. Times: 19:29 19:19
Lab Sample ID: WBN100225-09.4 Quant Type: ISTD
Method: /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.56191	1.87200	1.87200	0.001	19.85356	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.12276	1.16752	1.16752	0.000	3.98675	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.15768	1.15241	1.15241	0.000	-0.45528	60.00000	Averaged	
	97 Benzo(a)pyrene	0.95896	0.95117	0.95117	0.001	-0.81185	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.88778	0.82026	0.82026	0.000	-7.60557	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.72374	0.66165	0.66165	0.000	-8.57890	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.74907	0.66606	0.66606	0.000	-11.08189	60.00000	Averaged	
	126 m-Dinitrobenzene	0.20253	0.18436	0.18436	0.000	-8.97034	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.27830	0.27200	0.27200	0.000	-2.26430	60.00000	Averaged	
	143 Dinoseb	0.12985	0.14248	0.14248	0.000	9.72626	60.00000	Averaged	
	173 Carbazole	25.21130	40.00000	0.46089	0.000	-36.97174	60.00000	Linear	
	184 p-Benzoquinone	0.26464	0.27988	0.27988	0.000	5.75967	60.00000	Averaged	
	192 Methoxychlor	0.56608	0.61674	0.61674	0.000	8.94897	60.00000	Averaged	
	211 p-Toluidine	1.65744	1.26045	1.26045	0.000	-23.95222	60.00000	Averaged	
	210 m-Toluidine	1.96133	1.73790	1.73790	0.000	-11.39168	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.27934	0.24034	0.24034	0.000	-13.95854	60.00000	Averaged	
	215 2-Ethoxyethanol	1.09817	0.89013	0.89013	0.000	-18.94448	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	28.78261	40.00000	0.08406	0.000	-28.04346	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	0.34073	0.31102	0.31102	0.000	-8.72129	60.00000	Averaged	
	26 Phthalic anhydride	36.20514	40.00000	0.10301	0.000	-9.48715	60.00000	Linear	
M	222 Trichlorophenols	0.31717	0.32141	0.32141	0.000	1.33651	60.00000	Averaged	
M	223 Tetrachlorophenols	0.27830	0.27200	0.27200	0.000	-2.26430	60.00000	Averaged	
M	224 Benzo(b,k)fluoranthene	1.14022	1.15997	1.15997	0.000	1.73173	60.00000	Averaged	

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GEL Laboratories, LLC
Data file : /chem/MSD2.i/s030310a.b/s2c0308.d
Lab Smp Id: WBN100225-09.4 Client Smp ID: MEGACVS
Inj Date : 03-MAR-2010 19:41
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100225-09.4|40PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Meth Date : 03-Mar-2010 22:02 ann00964 Quant Type: ISTD
Cal Date : 27-FEB-2010 17:29 Cal File: s2b2568.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAII.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.009	4.009	(1.000)	453255	40.0000	
* 29 Naphthalene-d8	136	4.875	4.875	(1.000)	1938135	40.0000	
* 46 Acenaphthene-d10	164	6.121	6.121	(1.000)	963661	40.0000	
* 67 Phenanthrene-d10	188	7.100	7.100	(1.000)	1523873	40.0000	
* 91 Chrysene-d12	240	8.806	8.806	(1.000)	1023929	40.0000	
* 98 Perylene-d12	264	10.358	10.358	(1.000)	755419	40.0000	
$ 3 2-Fluorophenol	112	3.190	3.190	(0.796)	511787	40.0000	35.8
$ 5 Phenol-d5	99	3.715	3.715	(0.927)	628199	40.0000	33.4
$ 20 Nitrobenzene-d5	82	4.372	4.372	(0.897)	653442	40.0000	35.2
$ 39 2-Fluorobiphenyl	172	5.613	5.613	(0.917)	1098245	40.0000	41.2
$ 60 2,4,6-Tribromophenol	329	6.646	6.646	(1.086)	160650	40.0000	45.9
$ 81 p-Terphenyl-d14	244	8.015	8.015	(0.910)	863822	40.0000	47.5
1 N-Methyl-N-nitrosomethylamine	74	2.506	2.506	(0.625)	306098	40.0000	29.7
2 Pyridine	79	2.543	2.543	(0.634)	424718	40.0000	28.5
4 Aniline	66	3.789	3.789	(0.945)	313075	40.0000	33.2
6 Phenol	94	3.725	3.725	(0.929)	639812	40.0000	33.5
7 bis(2-Chloroethyl) ether	63	3.805	3.805	(0.949)	574422	40.0000	33.2
8 2-Chlorophenol	128	3.870	3.870	(0.965)	571165	40.0000	37.7
203 n-Decane	43	3.854	3.854	(0.961)	926573	40.0000	45.8
9 1,3-Dichlorobenzene	146	3.977	3.977	(0.992)	619396	40.0000	39.1
11 1,4-Dichlorobenzene	146	4.019	4.019	(1.003)	636916	40.0000	40.2
13 1,2-Dichlorobenzene	146	4.121	4.121	(1.028)	582353	40.0000	41.3
14 bis(2-Chloroisopropyl)ether	45	4.148	4.148	(1.035)	1347295	40.0000	40.6
12 Benzyl alcohol	108	4.073	4.073	(1.016)	331046	40.0000	31.0
15 o-Cresol	107	4.121	4.121	(1.028)	429280	40.0000	35.3
18 m,p-Cresols	107	4.223	4.223	(1.053)	554202	40.0000	33.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.244	4.244	(1.059)	408075	40.0000	31.9
19 Hexachloroethane	117	4.351	4.351	(1.085)	276914	40.0000	40.3
21 Nitrobenzene	77	4.383	4.383	(0.899)	610298	40.0000	34.8
22 Isophorone	82	4.538	4.538	(0.931)	1144555	40.0000	33.4
23 2-Nitrophenol	139	4.597	4.597	(0.943)	284464	40.0000	39.2
24 2,4-Dimethylphenol	122	4.586	4.586	(0.941)	525275	40.0000	37.8
25 bis(2-Chloroethoxy)methane	93	4.656	4.656	(0.955)	662265	40.0000	35.5
26 2,4-Dichlorophenol	162	4.758	4.758	(0.976)	436444	40.0000	38.9
27 Benzoic acid	105	4.635	4.635	(0.951)	244462	40.0000	26.8
28 1,2,4-Trichlorobenzene	180	4.822	4.822	(0.989)	516455	40.0000	40.0
30 Naphthalene	128	4.891	4.891	(1.003)	1736197	40.0000	38.2
204 alpha-Terpineol	59	4.864	4.864	(0.998)	634177	40.0000	37.1
31 4-Chloroaniline	127	4.902	4.902	(1.005)	787885	40.0000	38.2
32 Hexachlorobutadiene	225	4.955	4.955	(1.016)	302846	40.0000	42.2
33 4-Chloro-3-methylphenol	107	5.212	5.212	(1.069)	495203	40.0000	35.7
34 2-Methylnaphthalene	142	5.373	5.373	(1.102)	1047226	40.0000	37.9
35 1-Methylnaphthalene	142	5.442	5.442	(1.116)	1022790	40.0000	37.9
36 Hexachlorocyclopentadiene	237	5.474	5.474	(0.894)	215519	40.0000	39.6
205 2,3-Dichloroaniline	161	5.565	5.565	(0.909)	556995	40.0000	40.7
37 2,4,6-Trichlorophenol	196	5.554	5.554	(0.907)	305197	40.0000	43.3
38 2,4,5-Trichlorophenol	196	5.581	5.581	(0.912)	314265	40.0000	38.2
40 2-Chloronaphthalene	162	5.726	5.726	(0.935)	969777	40.0000	39.4
42 o-Nitroaniline	65	5.779	5.779	(0.944)	346385	40.0000	34.1
41 m-Nitroaniline	138	6.068	6.068	(0.991)	165429	40.0000	26.7
43 Dimethylphthalate	163	5.886	5.886	(0.962)	1174305	40.0000	39.8
44 2,6-Dinitrotoluene	165	5.940	5.940	(0.970)	265943	40.0000	39.2
50 2,4-Dinitrotoluene	165	6.223	6.223	(1.017)	327850	40.0000	37.1
45 Acenaphthylene	152	6.025	6.025	(0.984)	1499884	40.0000	40.5
47 Acenaphthene	154	6.143	6.143	(1.003)	1052816	40.0000	43.4
48 2,4-Dinitrophenol	184	6.132	6.132	(1.002)	94207	40.0000	45.3
49 Dibenzofuran	168	6.261	6.261	(1.023)	1302107	40.0000	39.5
51 Diethylphthalate	149	6.362	6.362	(1.039)	1164077	40.0000	41.1
52 4-Nitrophenol	139	6.148	6.148	(1.004)	160573	40.0000	36.2
53 Fluorene	166	6.490	6.490	(1.060)	1113538	40.0000	42.0
54 4-Chlorophenylphenylether	204	6.469	6.469	(1.057)	535233	40.0000	40.4
55 2-Methyl-4,6-dinitrophenol	198	6.501	6.501	(0.916)	154091	40.0000	43.5
56 p-Nitroaniline	138	6.485	6.485	(1.059)	130476	40.0000	24.3
133 Diphenylamine	169	6.544	6.544	(0.922)	836644	40.0000	40.4
58 1,2-Diphenylhydrazine	77	6.576	6.576	(0.926)	1191633	40.0000	35.7
61 4-Bromophenylphenylether	248	6.790	6.790	(0.956)	304578	40.0000	44.3
63 Hexachlorobenzene	284	6.849	6.849	(0.965)	331104	40.0000	44.4
65 Pentachlorophenol	266	6.967	6.967	(0.981)	171338	40.0000	45.3
206 n-Octadecane	57	6.945	6.945	(0.978)	1088730	40.0000	48.0
68 Phenanthrene	178	7.116	7.116	(1.002)	1506259	40.0000	38.6
69 Anthracene	178	7.143	7.143	(1.006)	1590086	40.0000	42.1
72 Di-n-butylphthalate	149	7.378	7.378	(1.039)	1850049	40.0000	42.6
76 Fluoranthene	202	7.822	7.822	(1.102)	1398723	40.0000	38.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.972	7.972	(0.905)	1471462	40.0000	45.1
85 Butylbenzylphthalate	149	8.288	8.288	(0.941)	675632	40.0000	48.9
89 Benzo(a)anthracene	228	8.790	8.790	(0.998)	1096861	40.0000	39.4
92 Chrysene	228	8.828	8.828	(1.002)	1005259	40.0000	38.3
93 bis(2-Ethylhexyl)phthalate	149	8.662	8.662	(0.984)	953350	40.0000	46.6
94 Di-n-octylphthalate	149	9.229	9.229	(0.891)	1414145	40.0000	47.9
95 Benzo(b)fluoranthene	252	9.860	9.860	(0.952)	881969	40.0000	41.6
96 Benzo(k)fluoranthene	252	9.892	9.892	(0.955)	870554	40.0000	39.8
97 Benzo(a)pyrene	252	10.288	10.288	(0.993)	718534	40.0000	39.7
99 Indeno(1,2,3-cd)pyrene	276	12.117	12.117	(1.170)	619639	40.0000	37.0
100 Dibenzo(a,h)anthracene	278	12.123	12.123	(1.170)	499826	40.0000	36.6
101 Benzo(ghi)perylene	276	12.663	12.663	(1.223)	503153	40.0000	35.6
126 m-Dinitrobenzene	168	5.924	5.924	(0.968)	177663	40.0000	36.4
130 2,3,4,6-Tetrachlorophenol	232	6.330	6.330	(1.034)	262115	40.0000	39.1
143 Dinoseb	211	7.052	7.052	(0.993)	217114	40.0000	43.9
173 Carbazole	167	7.229	7.229	(1.018)	702345	40.0000	25.2
184 p-Benzoquinone	54	3.490	3.490	(0.871)	126856	40.0000	42.3
192 Methoxychlor	227	8.651	8.651	(0.982)	631497	40.0000	43.6
211 p-Toluidine	106	4.282	4.282	(1.068)	571304	40.0000	30.4
210 m-Toluidine	106	4.303	4.303	(1.073)	787714	40.0000	35.4
214 1,4-Dinitrobenzene	75	5.870	5.870	(0.959)	231611	40.0000	34.4
215 2-Ethoxyethanol	59	2.356	2.356	(0.588)	403456	40.0000	32.4
216 Methylenebis(2-chloroaniline)	231	8.716	8.716	(0.990)	86074	40.0000	28.8
179 Dibenzo(a,e)pyrene	302	16.872	16.872	(1.629)	234948	40.0000	36.5
26 Phthalic anhydride	104	5.405	5.405	(1.109)	199649	40.0000	36.2
M 222 Trichlorophenols	196				619462	80.0000	81.1
M 223 Tetrachlorophenols	232				262115	40.0000	39.1
M 224 Benzo(b,k)fluoranthene	252				1752523	80.0000	81.4

Data File: /chem/MSD2.i/s030310a.b/s2c0308.d

Date : 03-MAR-2010 19:41

Client ID: MEGACVS

Sample Info: IWBN100225-09.4|40PPM|1|SVMF|1|MEGACVS

Column phase: J&W DB-5MS

Instrument: MSD2.i

Operator: AGS1

Column diameter: 0.20

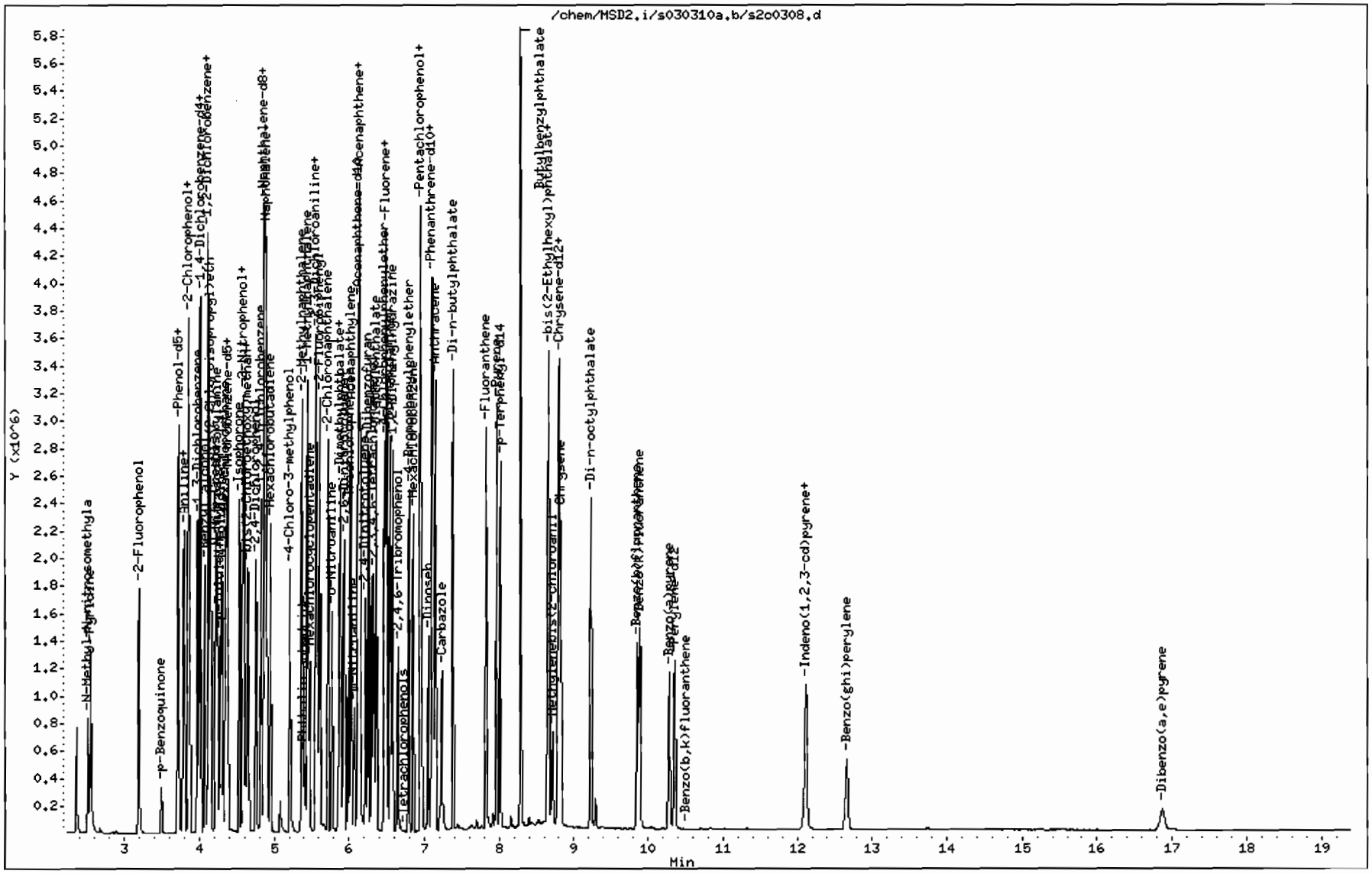

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 03-MAR-2010 20:35
Lab File ID: s2c0310.d Init. Cal. Date(s): 25-FEB-2010 27-FEB-2010
Analysis Type: Init. Cal. Times: 19:29 19:19
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	1.12935	1.13273	1.13273	0.000	0.29878	60.00000	Averaged
16 Acetophenone	1.53348	1.56410	1.56410	0.000	1.99693	60.00000	Averaged
189 Caprolactam	0.10024	0.09479	0.09479	0.000	-5.43403	60.00000	Averaged
208 1,1'-Biphenyl	1.29012	1.32500	1.32500	0.000	2.70304	60.00000	Averaged
207 Atrazine	0.04908	0.04695	0.04695	0.000	-4.32667	60.00000	Averaged
77 Benzidine	0.37050	0.30199	0.30199	0.000	-18.49288	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.27939	0.27890	0.27890	0.000	-0.17442	60.00000	Averaged
102 1,4-Dioxane	0.48060	0.43326	0.43326	0.000	-9.85064	60.00000	Averaged
103 Methyl methacrylate	0.25449	0.23386	0.23386	0.000	-8.10756	60.00000	Averaged
104 Ethyl methacrylate	1.02890	0.97147	0.97147	0.000	-5.58138	60.00000	Averaged
105 2-Picoline	1.51395	1.39018	1.39018	0.000	-8.17507	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.68819	0.60161	0.60161	0.000	-12.58148	60.00000	Averaged
107 Methyl methanesulfonate	0.70337	0.73885	0.73885	0.000	5.04495	60.00000	Averaged
108 N-Nitrosodiethylamine	0.66583	0.60631	0.60631	0.000	-8.93855	60.00000	Averaged
109 Ethyl Methanesulfonate	0.87125	0.82283	0.82283	0.000	-5.55737	60.00000	Averaged
110 Pentachloroethane	0.35998	0.37073	0.37073	0.000	2.98428	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.67893	0.63792	0.63792	0.000	-6.04077	60.00000	Averaged
113 N-Nitrosomorpholine	0.97157	1.21316	1.21316	0.000	24.86517	60.00000	Averaged
114 o-Toluidine	2.22466	2.20028	2.20028	0.000	-1.09580	60.00000	Averaged
115 N-Nitrosopiperidine	0.16261	0.15008	0.15008	0.000	-7.70469	60.00000	Averaged
116 a,a-Dimethylphenethylamine	1.11650	1.24807	1.24807	0.000	11.78358	60.00000	Averaged
118 2,6-Dichlorophenol	0.22383	0.23112	0.23112	0.000	3.25723	60.00000	Averaged
119 Hexachloropropene	0.10648	0.12617	0.12617	0.000	18.48773	60.00000	Averaged
120 p-Phenylenediamine	0.29765	0.28391	0.28391	0.000	-4.61751	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.28888	0.26639	0.26639	0.000	-7.78369	60.00000	Averaged
122 Safrole	0.20121	0.20637	0.20637	0.000	2.56605	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42002	0.42729	0.42729	0.000	1.73201	60.00000	Averaged
124 Isosafrole	0.37758	0.35521	0.35521	0.000	-5.92306	60.00000	Averaged
125 1,4-Naphthoquinone	0.39093	0.36596	0.36596	0.000	-6.38607	60.00000	Averaged
127 Pentachlorobenzene	0.37310	0.37930	0.37930	0.000	1.66236	60.00000	Averaged
128 1-Naphthylamine	0.91464	0.91743	0.91743	0.000	0.30505	60.00000	Averaged
129 2-Naphthylamine	1.03583	1.00849	1.00849	0.000	-2.63921	60.00000	Averaged
131 5-Nitro-o-toluidine	0.28829	0.27104	0.27104	0.000	-5.98571	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.13924	0.18465	0.18465	0.000	32.61125	60.00000	Averaged
137 Phenacetin	0.36031	0.35686	0.35686	0.000	-0.95928	60.00000	Averaged
138 Diallate	0.34319	0.35197	0.35197	0.000	2.56008	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 03-MAR-2010 20:35
Lab File ID: s2c0310.d Init. Cal. Date(s): 25-FEB-2010 27-FEB-2010
Analysis Type: Init. Cal. Times: 19:29 19:19
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.39719	0.35182	0.35182	0.000	-11.42427	60.00000	Averaged
213 Trans Diallate	0.40375	0.41409	0.41409	0.000	2.56008	60.00000	Averaged
140 4-Aminobiphenyl	0.54027	0.52326	0.52326	0.000	-3.14967	60.00000	Averaged
141 Pentachloronitrobenzene	0.07219	0.08317	0.08317	0.000	15.21458	60.00000	Averaged
142 Pronamide	0.28061	0.29871	0.29871	0.000	6.44956	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02803	0.03124	0.03124	0.000	11.44641	60.00000	Averaged
147 Methapyrilene	0.59216	0.60312	0.60312	0.000	1.84996	60.00000	Averaged
148 Isodrin	0.10608	0.10249	0.10249	0.000	-3.38079	60.00000	Averaged
149 Aramite	0.05357	0.05618	0.05618	0.000	4.86370	60.00000	Averaged
150 Kepone	0.07512	0.06842	0.06842	0.000	-8.90921	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.38063	0.40104	0.40104	0.000	5.36271	60.00000	Averaged
152 Chlorobenzilate	0.29235	0.32964	0.32964	0.000	12.75389	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52107	0.49468	0.49468	0.000	-5.06527	60.00000	Averaged
155 2-Acetylaminofluorene	0.33144	0.34564	0.34564	0.000	4.28433	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.50755	0.53456	0.53456	0.000	5.32225	60.00000	Averaged
158 3-Methylcholanthrene	0.42843	0.44308	0.44308	0.000	3.42024	60.00000	Averaged

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s030310a.b/s2c0310.d
Lab Smp Id: WBN100218-08.1 Client Smp ID: APCVS
Inj Date : 03-MAR-2010 20:35
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100218-08.1|40 PPM|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Meth Date : 03-Mar-2010 22:01 ann00964 Quant Type: ISTD
Cal Date : 27-FEB-2010 17:29 Cal File: s2b2568.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.003	4.003	(1.000)	400828	40.0000	
* 29 Naphthalene-d8	136	4.875	4.875	(1.000)	1556222	40.0000	
* 46 Acenaphthene-d10	164	6.116	6.116	(1.000)	880355	40.0000	
* 67 Phenanthrene-d10	188	7.095	7.095	(1.000)	1468212	40.0000	
* 91 Chrysene-d12	240	8.796	8.796	(1.000)	1146992	40.0000	
* 98 Perylene-d12	264	10.347	10.347	(1.000)	846966	40.0000	
209 Benzaldehyde	77	3.731	3.731	(0.932)	454029	40.0000	40.1
16 Acetophenone	105	4.255	4.255	(1.063)	626936	40.0000	40.8
189 Caprolactam	113	5.148	5.148	(1.056)	147515	40.0000	37.8
208 1,1'-Biphenyl	154	5.694	5.694	(0.931)	1166466	40.0000	41.1
207 Atrazine	173	6.860	6.860	(0.967)	68939	40.0000	38.3
77 Benzidine	184	7.865	7.865	(0.894)	346375	40.0000	32.6
90 3,3'-Dichlorobenzidine	252	8.716	8.716	(0.991)	319897	40.0000	39.9
102 1,4-Dioxane	88	2.361	2.361	(0.590)	173661	40.0000	36.0
103 Methyl methacrylate	100	2.351	2.351	(0.587)	93737	40.0000	36.8
104 Ethyl methacrylate	69	2.714	2.714	(0.678)	389393	40.0000	37.8
105 2-Picoline	93	2.912	2.912	(0.727)	557223	40.0000	36.7
106 N-Nitrosomethylethylamine	88	2.950	2.950	(0.737)	241141	40.0000	35.0
107 Methyl methanesulfonate	80	3.099	3.099	(0.774)	296153	40.0000	42.0
108 N-Nitrosodiethylamine	102	3.335	3.335	(0.833)	243028	40.0000	36.4
109 Ethyl Methanesulfonate	79	3.490	3.490	(0.872)	329812	40.0000	37.8
110 Pentachloroethane	167	3.832	3.832	(0.957)	148597	40.0000	41.2
111 N-Nitrosopyrrolidine	100	4.244	4.244	(1.060)	255696	40.0000	37.6(Q)
113 N-Nitrosomorpholine	56	4.266	4.266	(1.065)	486267	40.0000	49.9
114 o-Toluidine	106	4.282	4.282	(1.069)	881934	40.0000	39.6
115 N-Nitrosopiperidine	114	4.485	4.485	(0.920)	233556	40.0000	36.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.726	4.726	(0.969)	1942272	40.0000	44.7
118 2,6-Dichlorophenol	162	4.913	4.913	(1.008)	359669	40.0000	41.3
119 Hexachloropropene	213	4.945	4.945	(1.014)	196348	40.0000	47.4
120 p-Phenylenediamine	108	5.148	5.148	(1.056)	441828	40.0000	38.2
121 N-Nitrosodi-n-butylamine	84	5.116	5.116	(1.049)	414567	40.0000	36.9
122 Safrole	162	5.282	5.282	(1.083)	321163	40.0000	41.0
123 1,2,4,5-Tetrachlorobenzene	216	5.485	5.485	(0.897)	376171	40.0000	40.7
124 Isosafrole	162	5.651	5.651	(0.924)	312713	40.0000	37.6
125 1,4-Naphthoquinone	158	5.838	5.838	(0.955)	322178	40.0000	37.4
127 Pentachlorobenzene	250	6.228	6.228	(1.018)	333922	40.0000	40.7
128 1-Naphthylamine	143	6.309	6.309	(1.031)	807666	40.0000	40.1
129 2-Naphthylamine	143	6.357	6.357	(1.039)	887830	40.0000	38.9
131 5-Nitro-o-toluidine	152	6.480	6.480	(1.059)	238608	40.0000	37.6
136 1,3,5-Trinitrobenzene	75	6.688	6.688	(0.943)	271102	40.0000	53.0
137 Phenacetin	108	6.721	6.721	(0.947)	523940	40.0000	39.6(Q)
138 Diallate	86	6.715	6.715	(0.946)	516772	40.0000	41.0
212 Cis Diallate	86	6.774	6.774	(0.955)	77481	6.00000	5.3
213 Trans Diallate	86	6.715	6.715	(0.946)	516772	34.0000	34.9
140 4-Aminobiphenyl	169	6.956	6.956	(0.980)	768251	40.0000	38.7
141 Pentachloronitrobenzene	237	6.972	6.972	(0.983)	122118	40.0000	46.1
142 Pronamide	173	6.961	6.961	(0.981)	438566	40.0000	42.6
146 4-Nitroquinoline-1-oxide	101	7.560	7.560	(1.066)	45869	40.0000	44.6
147 Methapyrilene	58	7.571	7.571	(1.067)	885503	40.0000	40.7
148 Isodrin	193	7.737	7.737	(1.090)	150481	40.0000	38.6
149 Aramite	185	7.961	7.961	(1.122)	82482	40.0000	41.9
150 Kepone	272	8.405	8.405	(1.185)	100462	40.0000	36.4
151 p-(Dimethylamino)azobenzene	120	8.090	8.090	(0.920)	459990	40.0000	42.1
152 Chlorobenzilate	251	8.106	8.106	(0.922)	378095	40.0000	45.1
153 3,3'-Dimethylbenzidine	212	8.309	8.309	(0.945)	567391	40.0000	38.0
155 2-Acetylaminofluorene	181	8.491	8.491	(0.965)	396445	40.0000	41.7
157 7,12Dimethylbenz(a)anthracene	256	9.817	9.817	(0.949)	452754	40.0000	42.1
158 3-Methylcholanthrene	268	10.737	10.737	(1.038)	375276	40.0000	41.4(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s030310a.b/s2c0310.d
Date : 03-MAR-2010 20:35
Client ID: APCVS
Sample Info: IWBN100218-08,1140 PPM!1!SVMF!1!APCVS
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

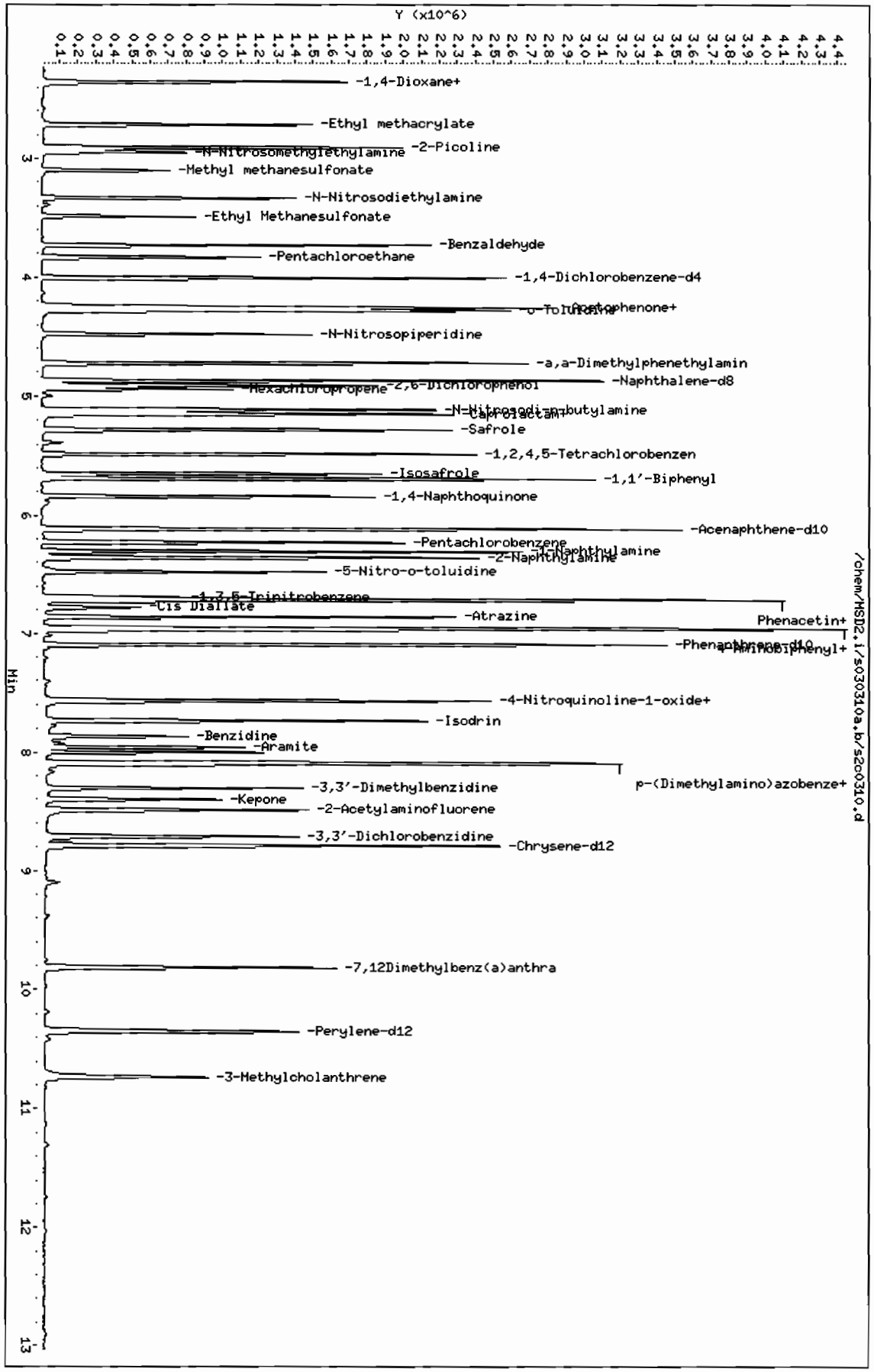

Page 1

QC Data

Data File: /chem/MSD2.i/s022510a.b/s2b2510.d

Date : 25-FEB-2010 18:56

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

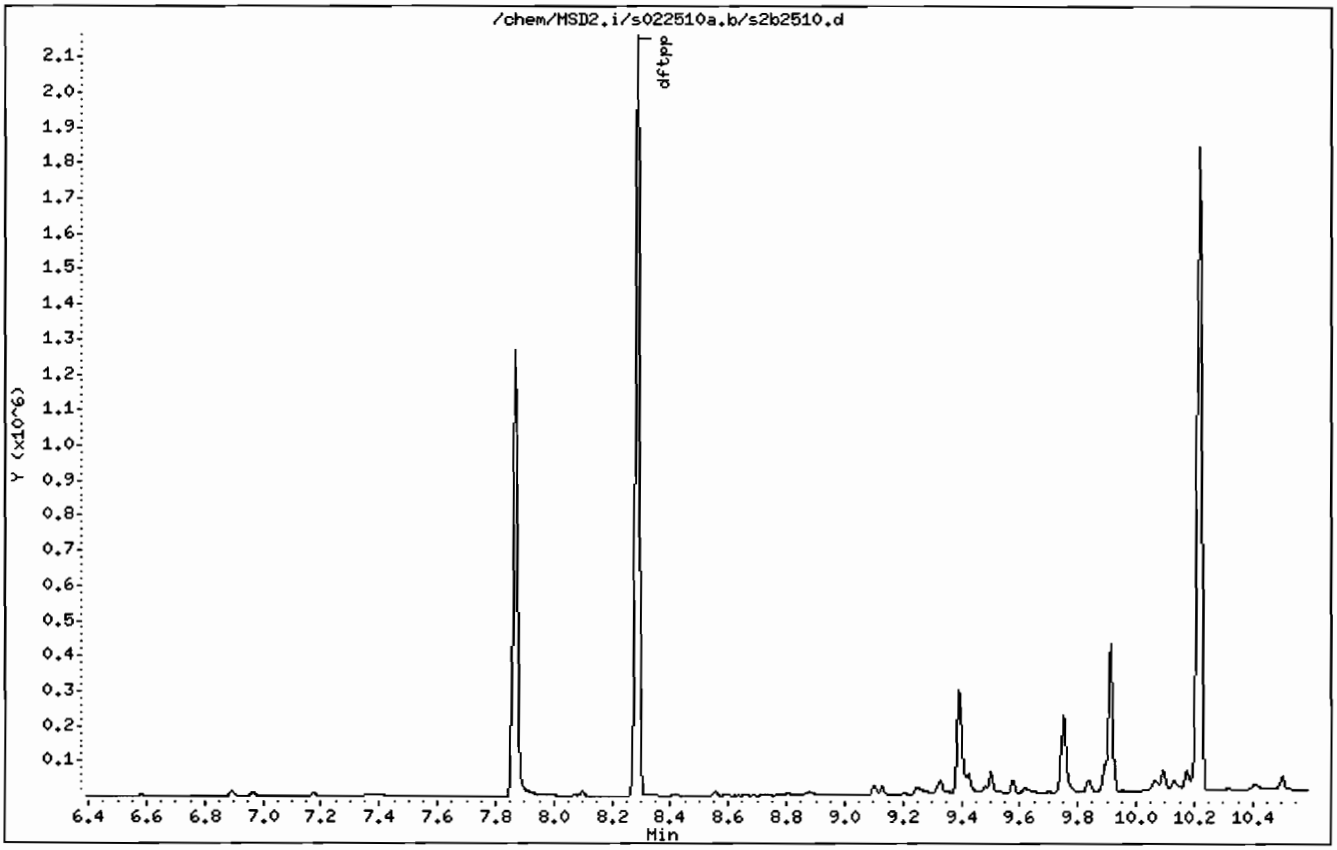

Data File: /chem/MSD2.i/s022510a.b/s2b2510.d

Date : 25-FEB-2010 18:56

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

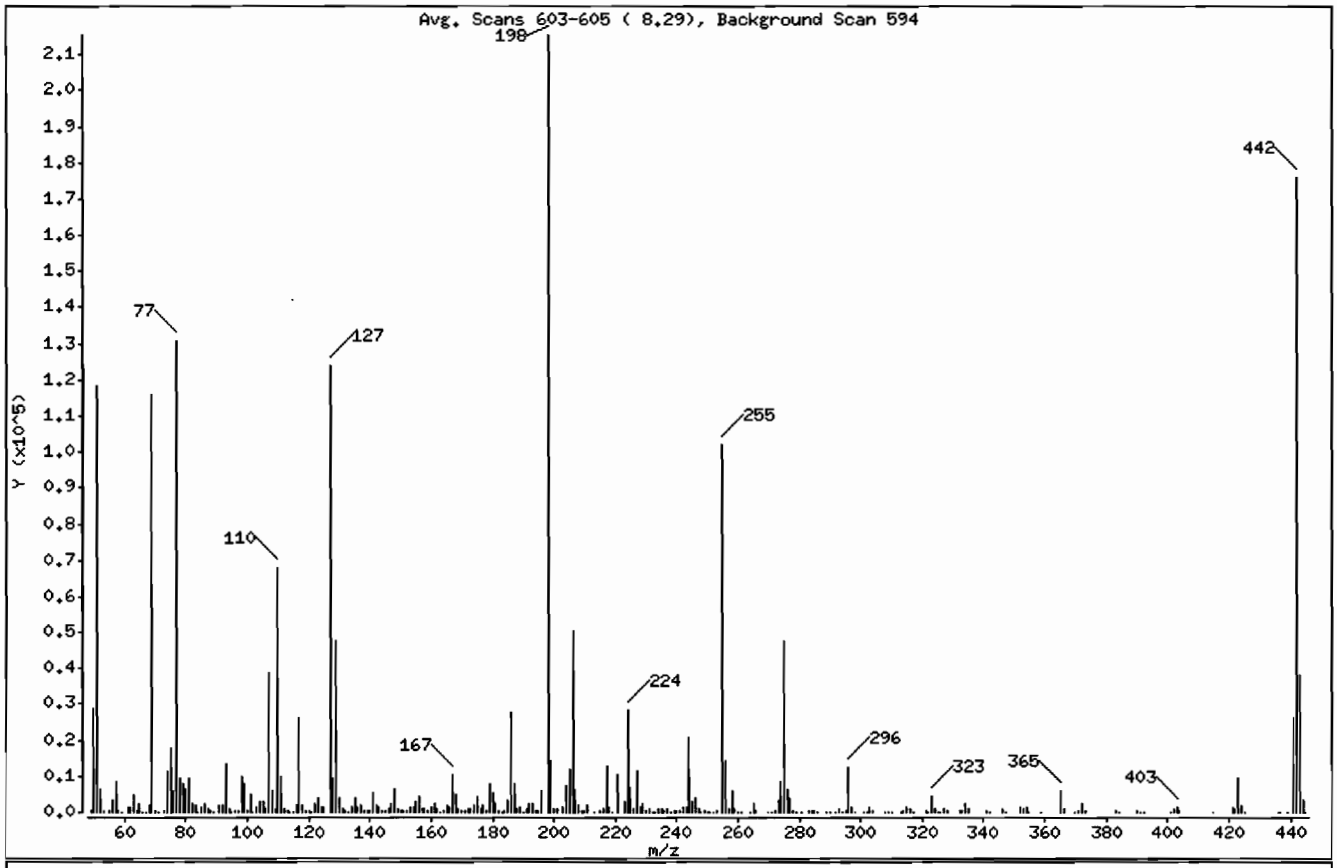

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	54.99
68	Less than 2.00% of mass 69	0.88 (1.63)
69	Mass 69 relative abundance	53.68
70	Less than 2.00% of mass 69	0.27 (0.50)
127	40.00 - 60.00% of mass 198	57.35
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.78
275	10.00 - 30.00% of mass 198	22.16
365	Greater than 1.00% of mass 198	2.84
441	Present, but less than mass 443	12.24
442	Greater than 40.00% of mass 198	81.67
443	17.00 - 23.00% of mass 442	17.79 (21.78)

Data File: /chem/MSD2.i/s022510a.b/s2b2510.d

Date : 25-FEB-2010 18:56

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s2b2510.d

Spectrum: Avg. Scans 603-605 (8.29), Background Scan 594

Location of Maximum: 198.00

Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
49.00	654	127.00	123648	201.00	917	289.00	134
50.00	28728	128.00	9398	203.00	1595	290.00	76
51.00	118560	129.00	47776	204.00	7280	292.00	153
52.00	6218	130.00	4187	205.00	12102	293.00	852
53.00	278	131.00	783	206.00	50304	294.00	194
55.00	391	132.00	436	207.00	6518	295.00	258
56.00	3486	133.00	211	208.00	1735	296.00	12194
57.00	8571	134.00	1283	209.00	546	297.00	1625
58.00	411	135.00	3777	210.00	577	298.00	145
59.00	129	136.00	1381	211.00	1936	301.00	170
61.00	1525	137.00	1859	213.00	137	302.00	200
62.00	1631	138.00	409	215.00	522	303.00	1521
63.00	4954	139.00	275	216.00	1094	304.00	426
64.00	637	140.00	532	217.00	13024	308.00	151
65.00	2476	141.00	5640	218.00	1683	309.00	120
66.00	173	142.00	1779	219.00	151	310.00	140
67.00	174	143.00	1339	221.00	10531	313.00	121
68.00	1892	144.00	274	223.00	3058	314.00	550
69.00	115720	145.00	303	224.00	28216	315.00	1295
70.00	583	146.00	892	225.00	7166	316.00	778
71.00	75	147.00	2666	226.00	756	317.00	140
73.00	715	148.00	6262	227.00	11486	321.00	474
74.00	11306	149.00	1144	228.00	1676	322.00	192
75.00	17880	150.00	338	229.00	2386	323.00	4335
76.00	6138	151.00	617	230.00	303	324.00	857
77.00	130672	152.00	421	231.00	1079	325.00	33
78.00	9235	153.00	1697	232.00	182	326.00	36
79.00	7928	154.00	1393	233.00	182	327.00	843
80.00	6331	155.00	3066	234.00	747	328.00	409
81.00	9384	156.00	4627	235.00	810	332.00	273
82.00	2293	157.00	925	236.00	479	333.00	421
83.00	2127	158.00	949	237.00	885	334.00	2694
84.00	115	159.00	702	238.00	82	335.00	756
85.00	1481	160.00	1683	239.00	427	341.00	545
86.00	2485	161.00	2557	240.00	340	342.00	149

Date : 25-FEB-2010 18:56

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2b2510.d
Spectrum: Avg. Scans 603-605 (8.29), Background Scan 594
Location of Maximum: 198.00
Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
87.00	1184	162.00	793	241.00	589	346.00	871
88.00	419	163.00	213	242.00	1456	347.00	149
89.00	229	164.00	341	243.00	1446	352.00	1326
91.00	2046	165.00	1914	244.00	20776	353.00	958
92.00	2075	166.00	1600	245.00	2801	354.00	1304
93.00	13397	167.00	10397	246.00	3987	355.00	241
94.00	891	168.00	4861	247.00	748	359.00	76
95.00	168	169.00	813	248.00	181	365.00	6133
96.00	614	170.00	316	249.00	700	366.00	829
97.00	254	171.00	352	250.00	100	370.00	117
98.00	10028	172.00	884	251.00	203	371.00	350
99.00	8154	173.00	1177	252.00	243	372.00	2415
100.00	658	174.00	2018	253.00	522	373.00	618
101.00	5054	175.00	4264	255.00	102112	383.00	676
102.00	232	176.00	1178	256.00	14579	384.00	150
103.00	1592	177.00	1837	257.00	1213	390.00	326
104.00	3123	178.00	622	258.00	5800	391.00	229
105.00	3017	179.00	7930	259.00	845	392.00	112
106.00	918	180.00	5463	260.00	156	401.00	131
107.00	38536	181.00	2587	261.00	177	402.00	1044
108.00	6004	182.00	423	264.00	196	403.00	1340
109.00	1062	183.00	212	265.00	2292	404.00	512
110.00	67936	184.00	615	266.00	354	415.00	34
111.00	9940	185.00	3688	270.00	144	421.00	1431
112.00	1230	186.00	27888	271.00	222	422.00	1230
113.00	469	187.00	7782	272.00	328	423.00	9590
114.00	80	188.00	811	273.00	3312	424.00	1962
115.00	147	189.00	1680	274.00	8281	425.00	207
116.00	1866	190.00	235	275.00	47776	436.00	70
117.00	26168	191.00	804	276.00	6604	437.00	70
118.00	1869	192.00	2349	277.00	3902	439.00	142
119.00	304	193.00	2586	278.00	588	441.00	26384
120.00	451	194.00	564	279.00	89	442.00	176064
121.00	145	195.00	366	281.00	69	443.00	38352
122.00	2282	196.00	5777	283.00	450	444.00	3711

Date : 25-FEB-2010 18:56

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2b2510.d
Spectrum: Avg. Scans 603-605 (8.29), Background Scan 594
Location of Maximum: 198.00
Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	3739	198.00	215552	284.00	302	445.00	189
124.00	1549	199.00	14612	285.00	645		
125.00	1528	200.00	1070	286.00	81		

Data File: /chem/MSD2.i/s022510a.b/s2b2539.d

Page 1

Date : 26-FEB-2010 14:01

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

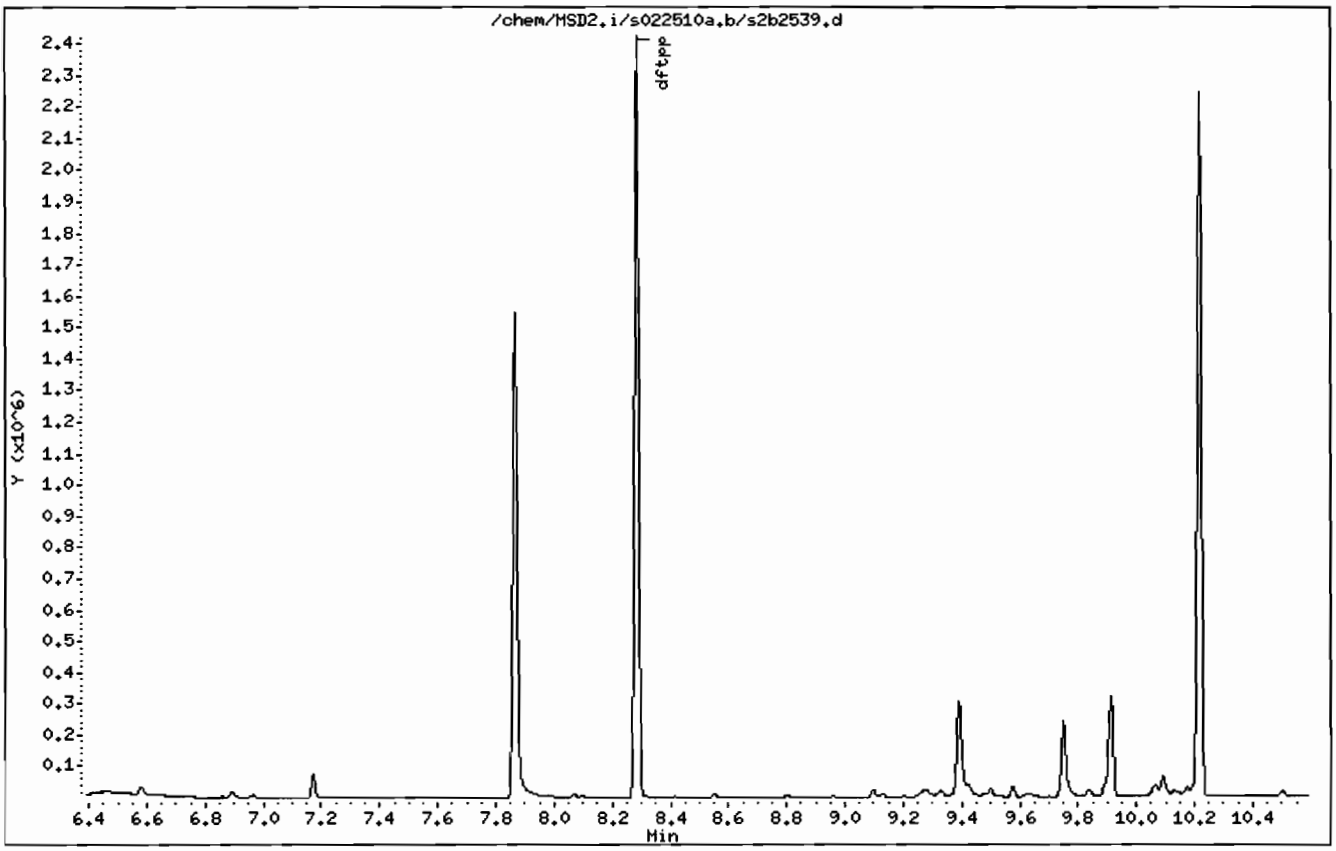

Data File: /chem/MSD2.i/s022510a.b/s2b2539.d

Date : 26-FEB-2010 14:01

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

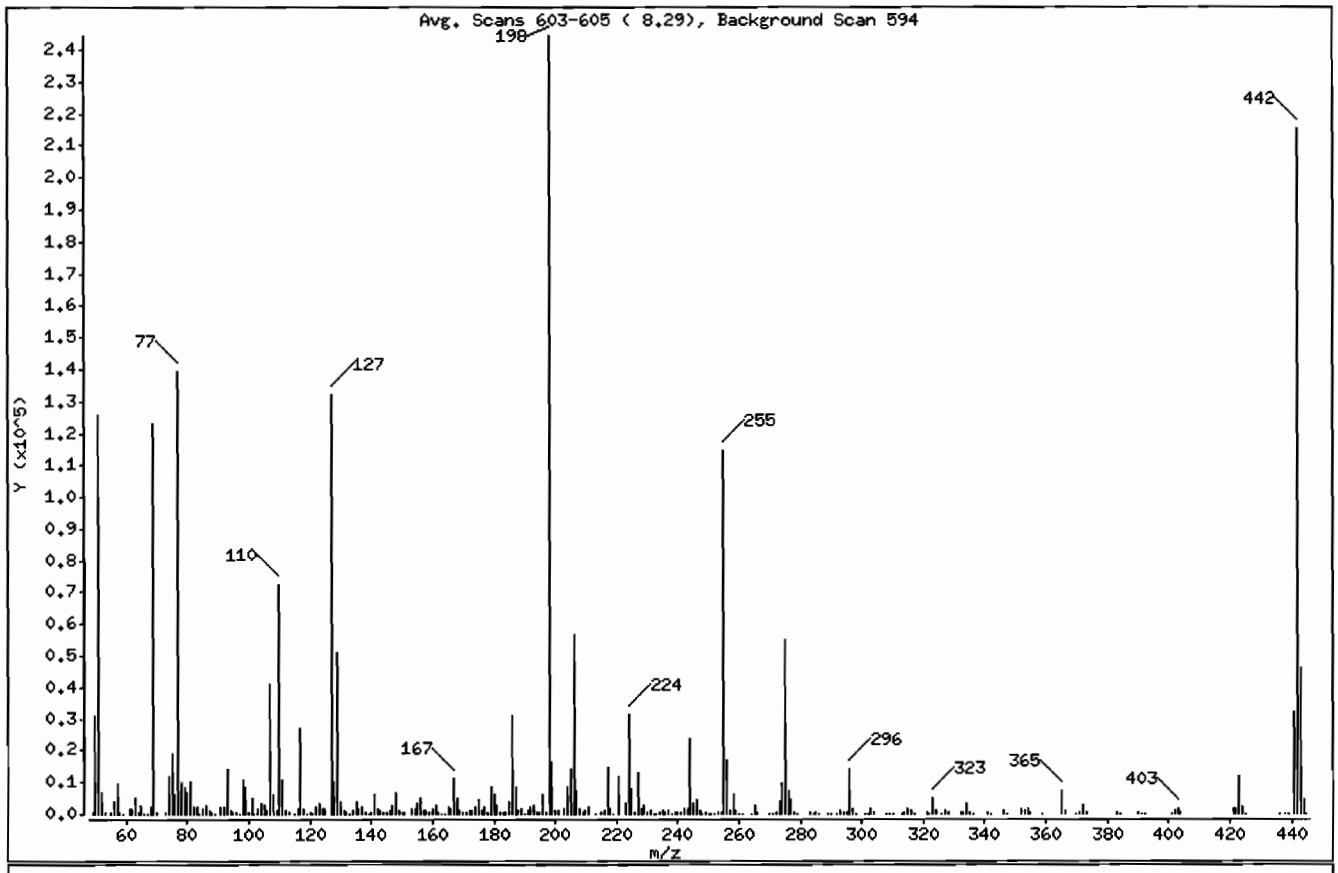

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	51.54
68	Less than 2.00% of mass 69	0.82 (1.64)
69	Mass 69 relative abundance	50.36
70	Less than 2.00% of mass 69	0.25 (0.49)
127	40.00 - 60.00% of mass 198	54.04
197	Less than 1.00% of mass 198	0.23
199	5.00 - 9.00% of mass 198	6.69
275	10.00 - 30.00% of mass 198	22.63
365	Greater than 1.00% of mass 198	2.95
441	Present, but less than mass 443	13.09
442	Greater than 40.00% of mass 198	88.00
443	17.00 - 23.00% of mass 442	18.90 (21.47)

Data File: /chem/MSD2.i/s022510a.b/s2b2539.d

Date : 26-FEB-2010 14:01

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s2b2539.d
Spectrum: Avg. Scans 603-605 (8.29), Background Scan 594
Location of Maximum: 198.00
Number of points: 287

m/z	Y	m/z	Y	m/z	Y	m/z	Y
49.00	788	128.00	10018	201.00	1125	286.00	135
50.00	30728	129.00	50992	203.00	1526	289.00	140
51.00	126048	130.00	4119	204.00	8246	290.00	121
52.00	6481	131.00	854	205.00	13813	292.00	203
53.00	287	132.00	470	206.00	56840	293.00	1095
55.00	501	133.00	169	207.00	7561	294.00	288
56.00	4044	134.00	1269	208.00	1896	295.00	295
57.00	9301	135.00	4092	209.00	494	296.00	13903
58.00	427	136.00	1622	210.00	1012	297.00	1956
59.00	133	137.00	1987	211.00	2219	298.00	110
61.00	1571	138.00	455	213.00	155	301.00	190
62.00	1717	139.00	267	215.00	599	302.00	262
63.00	5206	140.00	596	216.00	1075	303.00	1752
64.00	672	141.00	5984	217.00	14571	304.00	441
65.00	2576	142.00	1920	218.00	1810	308.00	164
66.00	169	143.00	1378	219.00	222	309.00	69
67.00	143	144.00	375	221.00	12024	310.00	172
68.00	2017	145.00	311	223.00	3502	313.00	160
69.00	123152	146.00	1065	224.00	31720	314.00	589
70.00	606	147.00	3006	225.00	8022	315.00	1460
73.00	814	148.00	6592	226.00	829	316.00	889
74.00	11948	149.00	1301	227.00	12837	317.00	181
75.00	19384	150.00	356	228.00	1812	321.00	479
76.00	6356	151.00	696	229.00	2801	322.00	275
77.00	139328	153.00	1869	230.00	361	323.00	5082
78.00	9324	154.00	1461	231.00	1144	324.00	907
79.00	8452	155.00	3332	232.00	150	326.00	72
80.00	6927	156.00	5096	233.00	218	327.00	955
81.00	10009	157.00	1008	234.00	789	328.00	464
82.00	2443	158.00	1095	235.00	891	332.00	343
83.00	2388	159.00	818	236.00	631	333.00	473
84.00	279	160.00	1888	237.00	963	334.00	3121
85.00	1703	161.00	2732	238.00	116	335.00	794
86.00	2624	162.00	753	239.00	509	336.00	110
87.00	1333	163.00	190	240.00	396	341.00	531

Date : 26-FEB-2010 14:01

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2b2539.d
Spectrum: Avg. Scans 603-605 (8.29), Background Scan 594
Location of Maximum: 198.00
Number of points: 287

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	486	164.00	277	241.00	644	342.00	171
89.00	230	165.00	2144	242.00	1643	346.00	1027
91.00	2183	166.00	1821	243.00	1767	347.00	184
92.00	2432	167.00	11213	244.00	23712	352.00	1434
93.00	14191	168.00	5281	245.00	3246	353.00	1133
94.00	970	169.00	985	246.00	4470	354.00	1552
95.00	306	170.00	386	247.00	973	355.00	289
96.00	673	171.00	438	248.00	234	359.00	72
97.00	184	172.00	1064	249.00	769	365.00	7222
98.00	10491	173.00	1248	250.00	200	366.00	1021
99.00	8498	174.00	2309	251.00	194	370.00	180
100.00	726	175.00	4616	252.00	235	371.00	359
101.00	5318	176.00	1191	253.00	527	372.00	2997
102.00	269	177.00	2227	254.00	290	373.00	747
103.00	1704	178.00	636	255.00	114712	383.00	714
104.00	3261	179.00	8620	256.00	16608	384.00	233
105.00	3052	180.00	6131	257.00	1369	390.00	336
106.00	1017	181.00	2798	258.00	6338	391.00	264
107.00	40816	182.00	392	259.00	1012	392.00	182
108.00	6423	183.00	304	260.00	189	401.00	173
109.00	1068	184.00	687	261.00	188	402.00	1255
110.00	72512	185.00	4077	264.00	197	403.00	1638
111.00	10757	186.00	30760	265.00	2606	404.00	572
112.00	1322	187.00	8598	266.00	394	421.00	1558
113.00	369	188.00	925	270.00	184	422.00	1439
115.00	125	189.00	1888	271.00	242	423.00	11831
116.00	1953	190.00	270	272.00	397	424.00	2385
117.00	27176	191.00	864	273.00	3781	425.00	229
118.00	1956	192.00	2467	274.00	9822	436.00	72
119.00	253	193.00	2867	275.00	55352	438.00	168
120.00	452	194.00	571	276.00	7358	439.00	95
121.00	131	195.00	406	277.00	4240	441.00	32008
122.00	2333	196.00	6295	278.00	656	442.00	215168
123.00	3627	197.00	558	279.00	151	443.00	46208
124.00	1775	198.00	244544	283.00	490	444.00	4233

Date : 26-FEB-2010 14:01

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2b2539.d
Spectrum: Avg. Scans 603-605 (8.29), Background Scan 594
Location of Maximum: 198.00
Number of points: 287

m/z	Y	m/z	Y	m/z	Y	m/z	Y
125.00	1595	199.00	16361	284.00	277	445.00	227
127.00	132096	200.00	1283	285.00	840		

Data File: /chem/MSD2.i/s030310a.b/s2c0307.d

Date : 03-MAR-2010 19:28

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

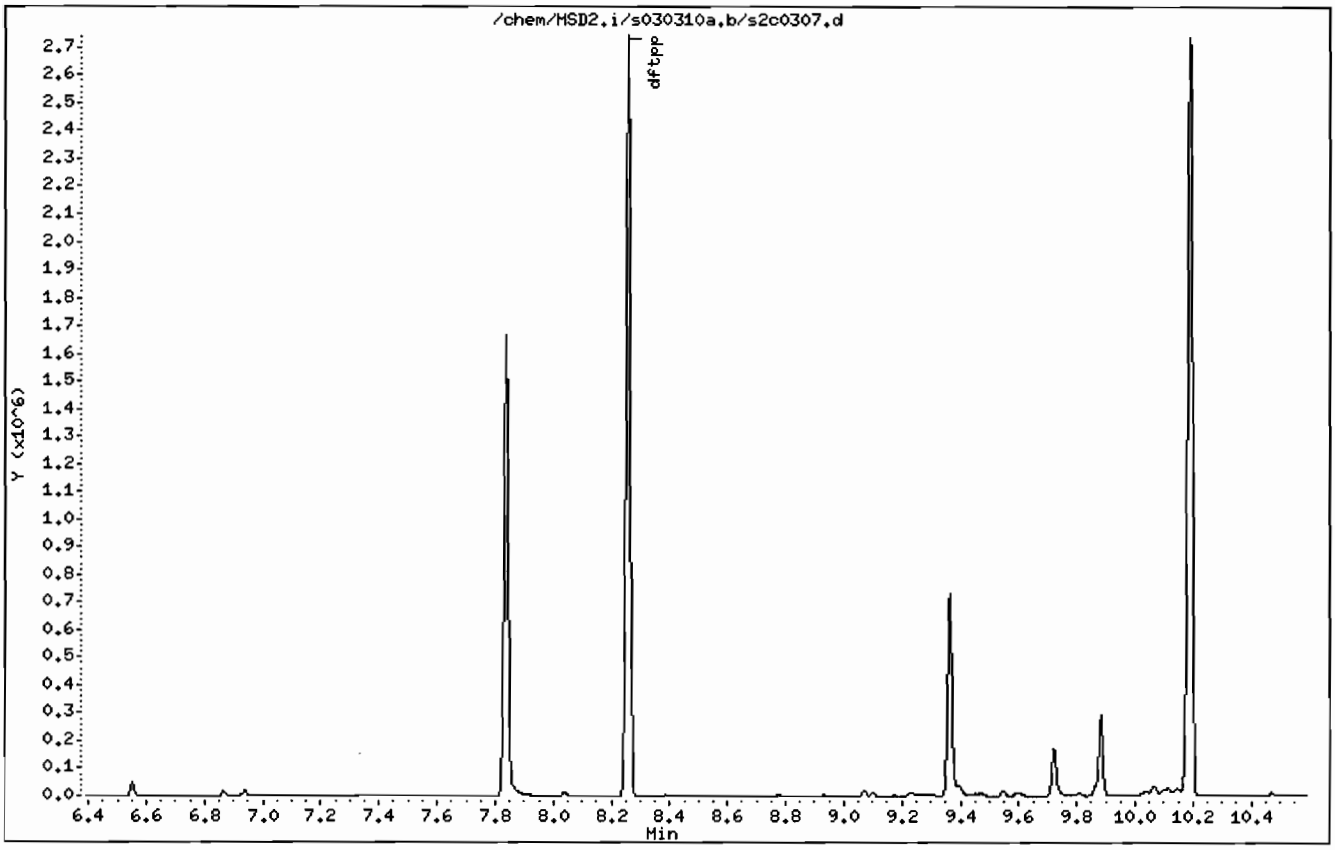

Data File: /chem/HSD2.i/s030310a.b/s2c0307.d

Date : 03-MAR-2010 19:28

Client ID: DFTPP

Instrument: HSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

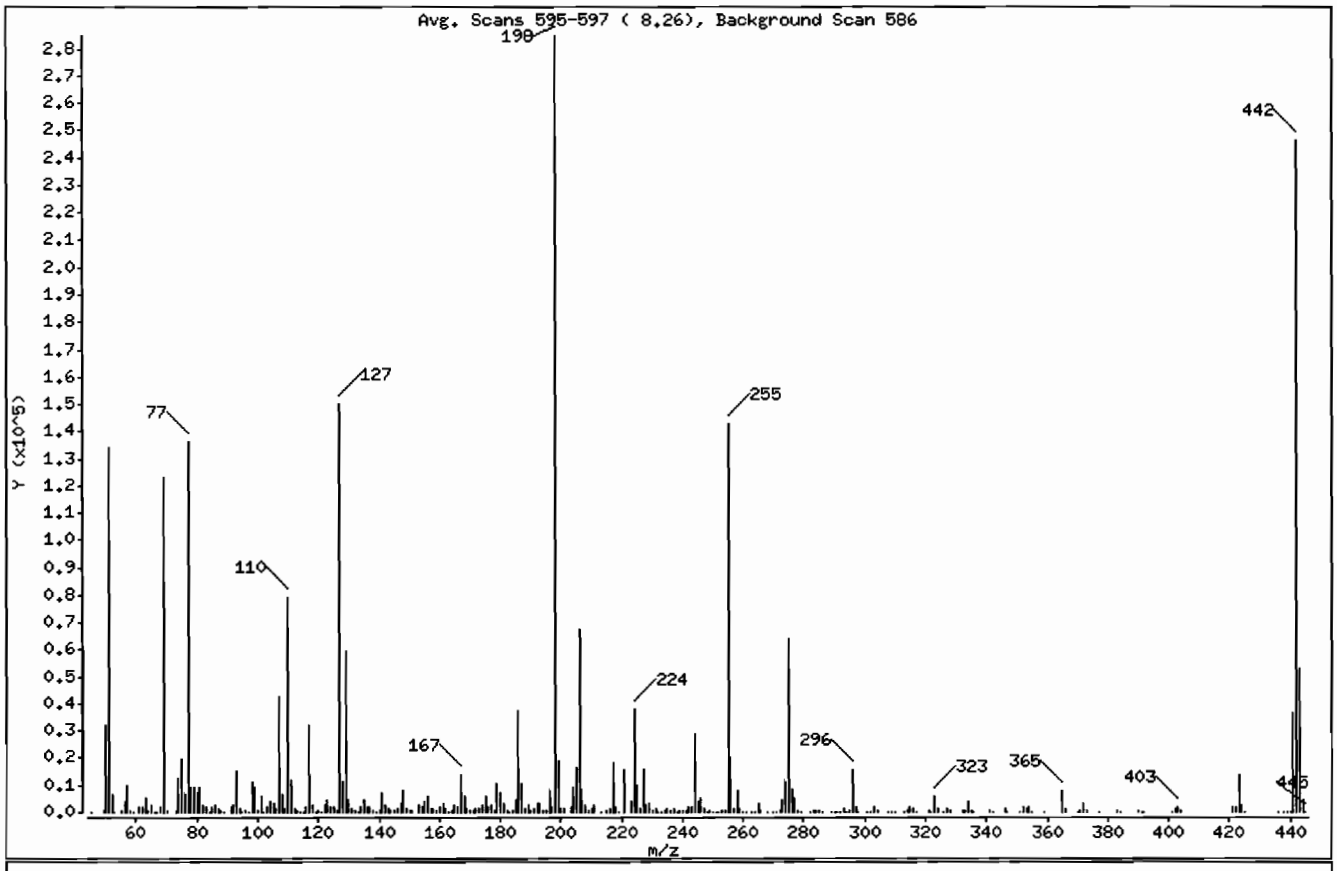

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	47.06
68	Less than 2.00% of mass 69	0.67 (1.56)
69	Mass 69 relative abundance	43.14
70	Less than 2.00% of mass 69	0.19 (0.45)
127	40.00 - 60.00% of mass 198	52.65
197	Less than 1.00% of mass 198	0.59
199	5.00 - 9.00% of mass 198	6.70
275	10.00 - 30.00% of mass 198	22.49
365	Greater than 1.00% of mass 198	2.77
441	Present, but less than mass 443	12.85
442	Greater than 40.00% of mass 198	86.32
443	17.00 - 23.00% of mass 442	18.51 (21.45)

Date : 03-MAR-2010 19:28

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2c0307.d
Spectrum: Avg. Scans 595-597 (8.26), Background Scan 586
Location of Maximum: 198.00
Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
45.00	169	128.00	11166	205.00	16185	291.00	34
49.00	694	129.00	59600	206.00	67640	292.00	216
50.00	32352	130.00	4877	207.00	8821	293.00	1106
51.00	134080	131.00	985	208.00	2443	294.00	302
52.00	6661	132.00	540	209.00	683	295.00	381
53.00	273	133.00	203	210.00	1122	296.00	15947
55.00	592	134.00	1728	211.00	2695	297.00	2244
56.00	4110	135.00	4681	213.00	201	298.00	153
57.00	9644	136.00	1829	215.00	617	301.00	224
58.00	408	137.00	2264	216.00	1442	302.00	278
59.00	113	138.00	491	217.00	18080	303.00	2069
61.00	1698	139.00	280	218.00	2092	304.00	401
62.00	1808	140.00	760	219.00	211	308.00	184
63.00	5144	141.00	7210	221.00	15594	309.00	146
64.00	742	142.00	2298	223.00	4072	310.00	204
65.00	2665	143.00	1611	224.00	38320	313.00	99
66.00	233	144.00	399	225.00	9506	314.00	881
67.00	143	145.00	369	226.00	1047	315.00	1798
68.00	1920	146.00	1208	227.00	15972	316.00	1063
69.00	122936	147.00	3432	228.00	2365	317.00	179
70.00	551	148.00	7782	229.00	3215	321.00	625
73.00	881	149.00	1505	230.00	416	322.00	285
74.00	12210	150.00	422	231.00	1405	323.00	5838
75.00	19800	151.00	939	232.00	222	324.00	1022
76.00	6422	153.00	2300	233.00	250	326.00	116
77.00	136256	154.00	1745	234.00	952	327.00	1005
78.00	9111	155.00	3946	235.00	1131	328.00	614
79.00	8900	156.00	5944	236.00	686	332.00	455
80.00	6992	157.00	1381	237.00	1340	333.00	512
81.00	9481	158.00	1304	238.00	216	334.00	3853
82.00	2517	159.00	975	239.00	533	335.00	930
83.00	2203	160.00	2202	240.00	455	336.00	69
84.00	188	161.00	3407	241.00	910	341.00	630
85.00	1873	162.00	1002	242.00	1923	342.00	226
86.00	2503	163.00	271	243.00	2096	346.00	1112

Data File: /chem/MSD2.i/s030310a.b/s2c0307.d

Date : 03-MAR-2010 19:28

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s2c0307.d
Spectrum: Avg. Scans 595-597 (8.26), Background Scan 586
Location of Maximum: 198.00
Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
87.00	1303	164.00	340	244.00	28712	347.00	203
88.00	516	165.00	2498	245.00	3664	351.00	69
89.00	243	166.00	2071	246.00	5328	352.00	1716
91.00	2285	167.00	13664	247.00	1162	353.00	1187
92.00	2312	168.00	6109	248.00	229	354.00	1952
93.00	15192	169.00	1067	249.00	917	355.00	316
94.00	1045	170.00	476	250.00	185	359.00	35
95.00	306	171.00	633	251.00	241	365.00	7899
96.00	759	172.00	1325	252.00	268	366.00	1111
97.00	260	173.00	1472	253.00	552	370.00	186
98.00	11433	174.00	2766	254.00	389	371.00	411
99.00	9199	175.00	5611	255.00	142784	372.00	3239
100.00	796	176.00	1785	256.00	20024	373.00	789
101.00	5624	177.00	2592	257.00	1601	377.00	74
102.00	321	178.00	944	258.00	7999	383.00	844
103.00	1891	179.00	10467	259.00	1364	384.00	187
104.00	3617	180.00	7219	260.00	222	390.00	425
105.00	3456	181.00	3132	261.00	229	391.00	282
106.00	1030	182.00	587	263.00	72	392.00	281
107.00	42864	183.00	254	264.00	295	401.00	144
108.00	6874	184.00	795	265.00	3316	402.00	1171
109.00	1163	185.00	4774	266.00	510	403.00	1697
110.00	79520	186.00	37368	268.00	123	404.00	566
111.00	11683	187.00	10475	270.00	208	421.00	1722
112.00	1437	188.00	1032	271.00	243	422.00	1672
113.00	525	189.00	2343	272.00	421	423.00	13446
114.00	87	190.00	413	273.00	4444	424.00	2732
115.00	166	191.00	1065	274.00	11120	425.00	322
116.00	2279	192.00	3012	275.00	64088	436.00	70
117.00	32072	193.00	3448	276.00	8458	438.00	102
118.00	2364	194.00	702	277.00	5183	439.00	174
119.00	268	195.00	501	278.00	892	440.00	63
120.00	526	196.00	8051	279.00	177	441.00	36608
121.00	157	197.00	1682	282.00	121	442.00	246016
122.00	2820	198.00	284992	283.00	600	443.00	52760

Data File: /chem/MSD2.i/s030310a.b/s2c0307.d

Date : 03-MAR-2010 19:28

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s2c0307.d
Spectrum: Avg. Scans 595-597 (8.26), Background Scan 586
Location of Maximum: 198.00
Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	4284	199.00	19096	284.00	381	444.00	4845
124.00	1887	200.00	1332	285.00	887	445.00	287
125.00	1951	201.00	1450	286.00	156		
126.00	434	203.00	1955	289.00	177		
127.00	150016	204.00	9408	290.00	139		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202058722**				
Client Sample:	**QC for batch 959838**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 959838**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 23:02**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0316-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.0	ug/L	2.00	10.0
108-95-2	Phenol	U	10.0	ug/L	1.00	10.0
95-57-8	2-Chlorophenol	U	10.0	ug/L	2.00	10.0
106-46-7	1,4-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	10.0	ug/L	2.00	10.0
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	10.0	ug/L	2.00	10.0
83-32-9	Acenaphthene	U	1.00	ug/L	0.310	1.00
121-14-2	2,4-Dinitrotoluene	U	10.0	ug/L	2.00	10.0
100-02-7	4-Nitrophenol	U	10.0	ug/L	2.00	10.0
87-86-5	Pentachlorophenol	U	10.0	ug/L	2.00	10.0
129-00-0	Pyrene	U	1.00	ug/L	0.300	1.00
110-86-1	Pyridine	U	10.0	ug/L	3.00	10.0
62-53-3	Aniline	U	10.0	ug/L	2.50	10.0
111-44-4	bis(2-Chloroethyl) ether	U	10.0	ug/L	2.00	10.0
541-73-1	1,3-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
100-51-6	Benzyl alcohol	U	10.0	ug/L	2.00	10.0
95-50-1	1,2-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
108-60-1	bis(2-Chloroisopropyl)ether	U	10.0	ug/L	2.00	10.0
95-48-7	o-Cresol	U	10.0	ug/L	2.00	10.0
65794-96-9	m,p-Cresols	U	10.0	ug/L	3.00	10.0
67-72-1	Hexachloroethane	U	10.0	ug/L	2.00	10.0
98-95-3	Nitrobenzene	U	10.0	ug/L	3.00	10.0
78-59-1	Isophorone	U	10.0	ug/L	3.00	10.0
88-75-5	2-Nitrophenol	U	10.0	ug/L	2.00	10.0
105-67-9	2,4-Dimethylphenol	U	10.0	ug/L	2.00	10.0
111-91-1	bis(2-Chloroethoxy)methane	U	10.0	ug/L	3.00	10.0
120-83-2	2,4-Dichlorophenol	U	10.0	ug/L	2.00	10.0
65-85-0	Benzoic acid	U	20.0	ug/L	6.00	20.0
91-20-3	Naphthalene	U	1.00	ug/L	0.300	1.00
106-47-8	4-Chloroaniline	U	10.0	ug/L	2.00	10.0
87-68-3	Hexachlorobutadiene	U	10.0	ug/L	2.00	10.0
91-57-6	2-Methylnaphthalene	U	1.00	ug/L	0.300	1.00
90-12-0	1-Methylnaphthalene	U	1.00	ug/L	0.300	1.00
77-47-4	Hexachlorocyclopentadiene	U	10.0	ug/L	3.00	10.0
88-06-2	2,4,6-Trichlorophenol	U	10.0	ug/L	2.00	10.0
95-95-4	2,4,5-Trichlorophenol	U	10.0	ug/L	2.00	10.0
91-58-7	2-Chloronaphthalene	U	1.00	ug/L	0.300	1.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202058722**				
Client Sample:	**QC for batch 959838**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 959838**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 23:02**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0316-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.0	ug/L	2.00	10.0
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.0	ug/L	2.00	10.0
131-11-3	Dimethylphthalate	U	10.0	ug/L	2.00	10.0
606-20-2	2,6-Dinitrotoluene	U	10.0	ug/L	2.00	10.0
208-96-8	Acenaphthylene	U	1.00	ug/L	0.200	1.00
51-28-5	2,4-Dinitrophenol	U	20.0	ug/L	5.00	20.0
132-64-9	Dibenzofuran	U	10.0	ug/L	2.00	10.0
84-66-2	Diethylphthalate	U	10.0	ug/L	2.00	10.0
86-73-7	Fluorene	U	1.00	ug/L	0.200	1.00
7005-72-3	4-Chlorophenylphenylether	U	10.0	ug/L	2.00	10.0
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.0	ug/L	3.00	10.0
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.0	ug/L	3.00	10.0
122-39-4	Diphenylamine	U	10.0	ug/L	3.00	10.0
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	10.0	ug/L	2.00	10.0
101-55-3	4-Bromophenylphenylether	U	10.0	ug/L	2.00	10.0
118-74-1	Hexachlorobenzene	U	10.0	ug/L	2.00	10.0
1912-24-9	Atrazine	U	10.0	ug/L	3.00	10.0
85-01-8	Phenanthrene	U	1.00	ug/L	0.200	1.00
120-12-7	Anthracene	U	1.00	ug/L	0.200	1.00
84-74-2	Di-n-butylphthalate	U	10.0	ug/L	2.00	10.0
206-44-0	Fluoranthene	U	1.00	ug/L	0.200	1.00
92-87-5	Benzidine	U	10.0	ug/L	3.00	10.0
85-68-7	Butylbenzylphthalate	U	10.0	ug/L	2.00	10.0
56-55-3	Benzo(a)anthracene	U	1.00	ug/L	0.200	1.00
91-94-1	3,3'-Dichlorobenzidine	U	10.0	ug/L	2.00	10.0
218-01-9	Chrysene	U	1.00	ug/L	0.200	1.00
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.0	ug/L	2.00	10.0
117-84-0	Di-n-octylphthalate	U	10.0	ug/L	3.00	10.0
205-99-2	Benzo(b)fluoranthene	U	1.00	ug/L	0.200	1.00
207-08-9	Benzo(k)fluoranthene	U	1.00	ug/L	0.200	1.00
50-32-8	Benzo(a)pyrene	U	1.00	ug/L	0.200	1.00
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.00	ug/L	0.200	1.00
53-70-3	Dibenzo(a,h)anthracene	U	1.00	ug/L	0.200	1.00
191-24-2	Benzo(ghi)perylene	U	1.00	ug/L	0.200	1.00
123-91-1	1,4-Dioxane	U	10.0	ug/L	2.00	10.0
55-18-5	N-Nitrosodiethylamine	U	10.0	ug/L	2.00	10.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202058722**				
Client Sample:	**QC for batch 959838**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 959838**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 23:02**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0316-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.0	ug/L	2.00	10.0
924-16-3	N-Nitrosodi-n-butylamine	U	10.0	ug/L	3.00	10.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.0	ug/L	3.00	10.0
608-93-5	Pentachlorobenzene	U	10.0	ug/L	3.00	10.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.0	ug/L	2.00	10.0
88-85-7	Dinoseb	U	10.0	ug/L	2.00	10.0
120-82-1	1,2,4-Trichlorobenzene	U	10.0	ug/L	2.00	10.0

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	73.5	100	ug/L	73.5	(39%-120%)
2-Fluorobiphenyl	35.6	50.0	ug/L	71.3	(38%-108%)
2-Fluorophenol	42.8	100	ug/L	42.8	(19%-98%)
Nitrobenzene-d5	38.4	50.0	ug/L	76.7	(31%-122%)
Phenol-d5	26.8	100	ug/L	26.8	(15%-83%)
p-Terphenyl-d14	48.5	50.0	ug/L	97.1	(40%-138%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

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Data file : /chem/MSD2.i/s030310a.b/s2c0316.d
Lab Smp Id: 1202058722 Client Smp ID: SBLK01
Inj Date : 03-MAR-2010 23:02
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202058722|959852|1|SVM|1|MB
Misc Info : |MSD82709L|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Meth Date : 03-Mar-2010 22:22 ann00964 Quant Type: ISTD
Cal Date : 27-FEB-2010 17:29 Cal File: s2b2568.d
Als bottle: 16 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2039.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.003	4.009	(1.000)	345053	40.0000	
* 29 Naphthalene-d8	136	4.870	4.875	(1.000)	1359001	40.0000	
* 46 Acenaphthene-d10	164	6.116	6.121	(1.000)	768084	40.0000	
* 67 Phenanthrene-d10	188	7.095	7.100	(1.000)	1250714	40.0000	
* 91 Chrysene-d12	240	8.796	8.806	(1.000)	910091	40.0000	
* 98 Perylene-d12	264	10.347	10.358	(1.000)	662243	40.0000	
$ 3 2-Fluorophenol	112	3.190	3.190	(0.797)	465624	42.7700	42.8
$ 5 Phenol-d5	99	3.709	3.715	(0.927)	382552	26.7637	26.8
$ 20 Nitrobenzene-d5	82	4.367	4.372	(0.897)	499047	38.3714	38.4
$ 39 2-Fluorobiphenyl	172	5.613	5.613	(0.918)	758204	35.6432	35.6
$ 60 2,4,6-Tribromophenol	329	6.646	6.646	(1.087)	205087	73.5053	73.5
$ 81 p-Terphenyl-d14	244	8.009	8.015	(0.911)	785029	48.5384	48.5

GEL Laboratories LLC

GEL Laboratories, LLC

Data file : /chem/MSD2.i/s030310a.b/s2c0316.d
Lab Smp Id: 1202058722 Client Smp ID: SBLK01
Inj Date : 03-MAR-2010 23:02
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202058722|959852|1|SVM|1|MB
Misc Info : |MSD82709L|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Meth Date : 03-Mar-2010 22:22 ann00964 Quant Type: ISTD
Cal Date : 27-FEB-2010 17:29 Cal File: s2b2568.d
Als bottle: 16 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2039.sub
Target Version: 3.50
Processing Host: hpclp1

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/MSD2.i/s030310a.b/s2c0316.d
Date : 03-MAR-2010 23:02
Client ID: SBLK01
Sample Info: 1120205872219598521 1|SVMI1|MB
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i

Operator: AGS1
Column diameter: 0.20

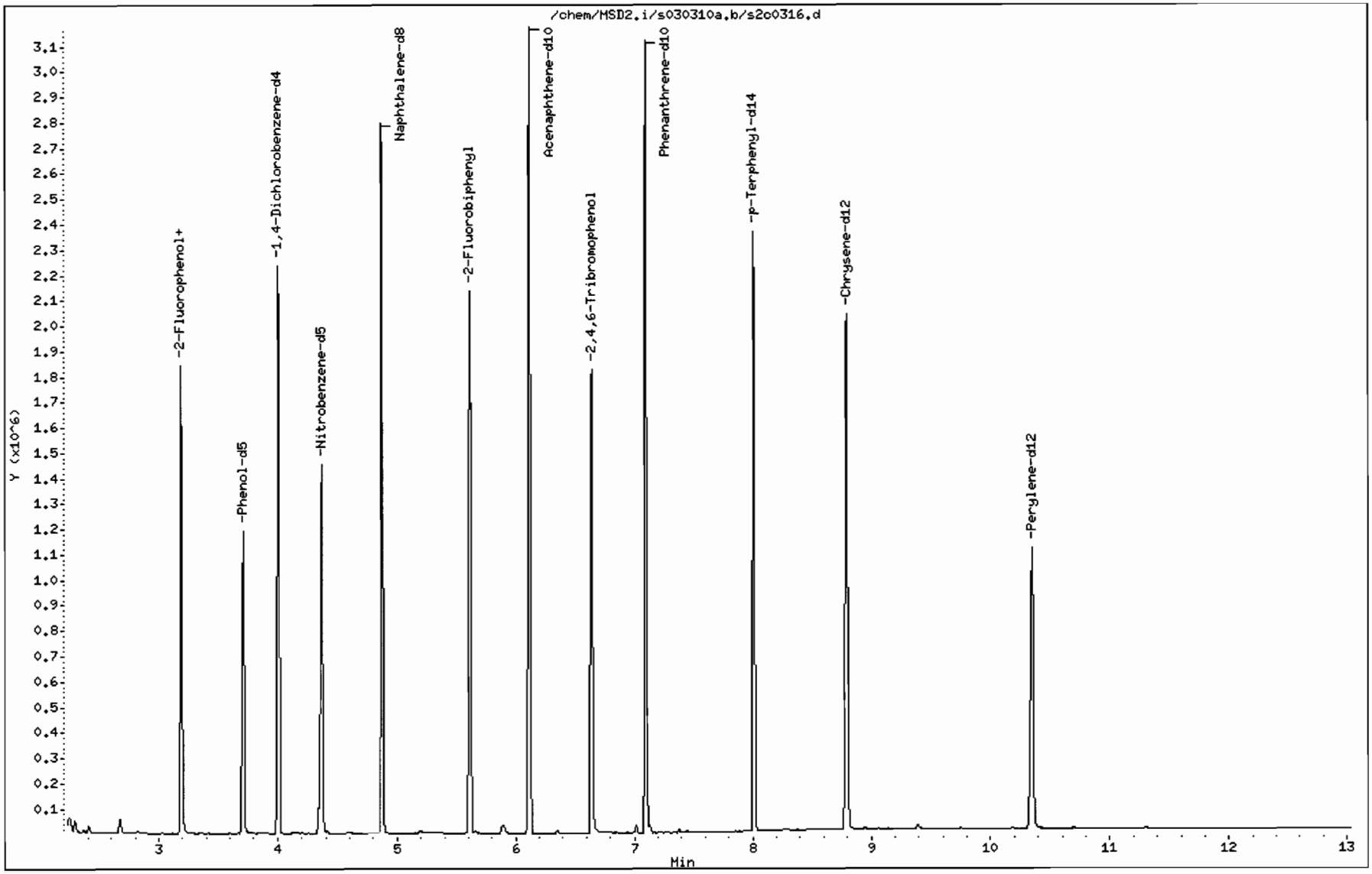

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202058723**				
Client Sample:	**QC for batch 959838**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 959838**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 23:22**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0317-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		21.7	ug/L	2.00	10.0
108-95-2	Phenol		14.1	ug/L	1.00	10.0
95-57-8	2-Chlorophenol		34.0	ug/L	2.00	10.0
106-46-7	1,4-Dichlorobenzene		29.0	ug/L	2.00	10.0
621-64-7	N-Nitrosodi--n-propylamine		37.7	ug/L	2.00	10.0
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol		40.1	ug/L	2.00	10.0
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene		38.1	ug/L	0.310	1.00
121-14-2	2,4-Dinitrotoluene		39.6	ug/L	2.00	10.0
100-02-7	4-Nitrophenol		15.6	ug/L	2.00	10.0
87-86-5	Pentachlorophenol		40.8	ug/L	2.00	10.0
129-00-0	Pyrene		42.8	ug/L	0.300	1.00
110-86-1	Pyridine		27.1	ug/L	3.00	10.0
62-53-3	Aniline		42.1	ug/L	2.50	10.0
111-44-4	bis(2-Chloroethyl) ether		35.0	ug/L	2.00	10.0
541-73-1	1,3-Dichlorobenzene		28.5	ug/L	2.00	10.0
100-51-6	Benzyl alcohol		30.0	ug/L	2.00	10.0
95-50-1	1,2-Dichlorobenzene		30.8	ug/L	2.00	10.0
108-60-1	bis(2-Chloroisopropyl)ether		43.2	ug/L	2.00	10.0
95-48-7	o-Cresol		32.3	ug/L	2.00	10.0
65794-96-9	m,p-Cresols		32.2	ug/L	3.00	10.0
67-72-1	Hexachloroethane		27.3	ug/L	2.00	10.0
98-95-3	Nitrobenzene		37.6	ug/L	3.00	10.0
78-59-1	Isophorone		38.5	ug/L	3.00	10.0
88-75-5	2-Nitrophenol		35.9	ug/L	2.00	10.0
105-67-9	2,4-Dimethylphenol		34.5	ug/L	2.00	10.0
111-91-1	bis(2-Chloroethoxy)methane		35.5	ug/L	3.00	10.0
120-83-2	2,4-Dichlorophenol		36.9	ug/L	2.00	10.0
65-85-0	Benzoic acid		23.7	ug/L	6.00	20.0
91-20-3	Naphthalene		31.9	ug/L	0.300	1.00
106-47-8	4-Chloroaniline		40.5	ug/L	2.00	10.0
87-68-3	Hexachlorobutadiene		28.9	ug/L	2.00	10.0
91-57-6	2-Methylnaphthalene		32.4	ug/L	0.300	1.00
90-12-0	1-Methylnaphthalene		32.2	ug/L	0.300	1.00
77-47-4	Hexachlorocyclopentadiene		24.9	ug/L	3.00	10.0
88-06-2	2,4,6-Trichlorophenol		41.4	ug/L	2.00	10.0
95-95-4	2,4,5-Trichlorophenol		37.5	ug/L	2.00	10.0
91-58-7	2-Chloronaphthalene		33.1	ug/L	0.300	1.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202058723**				
Client Sample:	**QC for batch 959838**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 959838**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 23:22**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0317-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*		40.4	ug/L	2.00	10.0
99-09-2	3-Nitroaniline *m-Nitroaniline*		41.3	ug/L	2.00	10.0
131-11-3	Dimethylphthalate		42.9	ug/L	2.00	10.0
606-20-2	2,6-Dinitrotoluene		40.3	ug/L	2.00	10.0
208-96-8	Acenaphthylene		37.3	ug/L	0.200	1.00
51-28-5	2,4-Dinitrophenol		43.0	ug/L	5.00	20.0
132-64-9	Dibenzofuran		37.4	ug/L	2.00	10.0
84-66-2	Diethylphthalate		45.8	ug/L	2.00	10.0
86-73-7	Fluorene		39.2	ug/L	0.200	1.00
7005-72-3	4-Chlorophenylphenylether		37.8	ug/L	2.00	10.0
534-52-1	2-Methyl-4,6-dinitrophenol		44.5	ug/L	3.00	10.0
100-01-6	4-Nitroaniline *p-Nitroaniline*		40.1	ug/L	3.00	10.0
122-39-4	Diphenylamine		45.4	ug/L	3.00	10.0
122-66-7	Azobenzene *1,2-Diphenylhydrazine*		44.7	ug/L	2.00	10.0
101-55-3	4-Bromophenylphenylether		38.4	ug/L	2.00	10.0
118-74-1	Hexachlorobenzene		38.9	ug/L	2.00	10.0
1912-24-9	Atrazine		44.5	ug/L	3.00	10.0
85-01-8	Phenanthrene		38.9	ug/L	0.200	1.00
120-12-7	Anthracene		41.3	ug/L	0.200	1.00
84-74-2	Di-n-butylphthalate		48.0	ug/L	2.00	10.0
206-44-0	Fluoranthene		41.2	ug/L	0.200	1.00
92-87-5	Benzidine		41.9	ug/L	3.00	10.0
85-68-7	Butylbenzylphthalate		54.9	ug/L	2.00	10.0
56-55-3	Benzo(a)anthracene		39.5	ug/L	0.200	1.00
91-94-1	3,3'-Dichlorobenzidine		41.0	ug/L	2.00	10.0
218-01-9	Chrysene		39.9	ug/L	0.200	1.00
117-81-7	bis(2-Ethylhexyl)phthalate		50.5	ug/L	2.00	10.0
117-84-0	Di-n-octylphthalate		56.2	ug/L	3.00	10.0
205-99-2	Benzo(b)fluoranthene		42.1	ug/L	0.200	1.00
207-08-9	Benzo(k)fluoranthene		41.8	ug/L	0.200	1.00
50-32-8	Benzo(a)pyrene		40.7	ug/L	0.200	1.00
193-39-5	Indeno(1,2,3-cd)pyrene		36.6	ug/L	0.200	1.00
53-70-3	Dibenzo(a,h)anthracene		36.6	ug/L	0.200	1.00
191-24-2	Benzo(ghi)perylene		35.1	ug/L	0.200	1.00
123-91-1	1,4-Dioxane		28.4	ug/L	2.00	10.0
55-18-5	N-Nitrosodiethylamine	U	10.0	ug/L	2.00	10.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202058723**				
Client Sample:	**QC for batch 959838**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 959838**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 23:22**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0317-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine		35.5	ug/L	2.00	10.0
924-16-3	N-Nitrosodi-n-butylamine	U	10.0	ug/L	3.00	10.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.0	ug/L	3.00	10.0
608-93-5	Pentachlorobenzene	U	10.0	ug/L	3.00	10.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.0	ug/L	2.00	10.0
88-85-7	Dinoseb	U	10.0	ug/L	2.00	10.0
120-82-1	1,2,4-Trichlorobenzene		29.7	ug/L	2.00	10.0

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	82.8	100	ug/L	82.8	(39%-120%)
2-Fluorobiphenyl	35.1	50.0	ug/L	70.2	(38%-108%)
2-Fluorophenol	41.9	100	ug/L	41.9	(19%-98%)
Nitrobenzene-d5	36.9	50.0	ug/L	73.8	(31%-122%)
Phenol-d5	26.3	100	ug/L	26.3	(15%-83%)
p-Terphenyl-d14	47.9	50.0	ug/L	95.8	(40%-138%)

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GEL Laboratories, LLC
Data file : /chem/MSD2.i/s030310a.b/s2c0317.d
Lab Smp Id: 1202058723 Client Smp ID: SBLK01LCS
Inj Date : 03-MAR-2010 23:22
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202058723|959852|1|SVM|1|LCS
Misc Info : |MSD82709L|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Meth Date : 03-Mar-2010 22:22 ann00964 Quant Type: ISTD
Cal Date : 27-FEB-2010 17:29 Cal File: s2b2568.d
Als bottle: 17 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2039.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.009	4.009	(1.000)	326332	40.0000	
* 29 Naphthalene-d8	136	4.875	4.875	(1.000)	1407415	40.0000	
* 46 Acenaphthene-d10	164	6.116	6.121	(1.000)	726776	40.0000	
* 67 Phenanthrene-d10	188	7.095	7.100	(1.000)	1183933	40.0000	
* 91 Chrysene-d12	240	8.801	8.806	(1.000)	877238	40.0000	
* 98 Perylene-d12	264	10.352	10.358	(1.000)	594480	40.0000	
$ 3 2-Fluorophenol	112	3.190	3.190	(0.796)	431020	41.8628	41.9
$ 5 Phenol-d5	99	3.715	3.715	(0.927)	354868	26.2511	26.2
$ 20 Nitrobenzene-d5	82	4.367	4.372	(0.896)	496998	36.8993	36.9
$ 39 2-Fluorobiphenyl	172	5.613	5.613	(0.918)	706459	35.0983	35.1
$ 60 2,4,6-Tribromophenol	329	6.651	6.646	(1.087)	218487	82.7589	82.8
$ 81 p-Terphenyl-d14	244	8.015	8.015	(0.911)	746422	47.8798	47.9
6 Phenol	94	3.725	3.725	(0.929)	193891	14.1128	14.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	3.870	3.870	(0.965)	371409	34.0398	34.0
11 1,4-Dichlorobenzene	146	4.019	4.019	(1.003)	331146	29.0178	29.0
17 N-Nitrosodipropylamine	70	4.244	4.244	(1.059)	346951	37.7181	37.7(Q)
28 1,2,4-Trichlorobenzene	180	4.822	4.822	(0.989)	278015	29.6576	29.6
33 4-Chloro-3-methylphenol	107	5.212	5.212	(1.069)	404169	40.1282	40.1
47 Acenaphthene	154	6.143	6.143	(1.004)	698639	38.0800	38.1
50 2,4-Dinitrotoluene	165	6.218	6.223	(1.017)	263527	39.5659	39.6
52 4-Nitrophenol	139	6.154	6.148	(1.006)	52085	15.5601	15.6
65 Pentachlorophenol	266	6.967	6.967	(0.982)	119931	40.8186	40.8
79 Pyrene	202	7.967	7.972	(0.905)	1196022	42.7865	42.8
2 Pyridine	79	2.543	2.543	(0.634)	290778	27.0891	27.1
4 Aniline	66	3.789	3.789	(0.945)	286038	42.1190	42.1(Q)
7 bis(2-Chloroethyl) ether	63	3.800	3.805	(0.948)	436040	35.0168	35.0
9 1,3-Dichlorobenzene	146	3.971	3.977	(0.991)	324544	28.4573	28.4
12 Benzyl alcohol	108	4.068	4.073	(1.015)	231359	30.0469	30.0
13 1,2-Dichlorobenzene	146	4.121	4.121	(1.028)	312326	30.7810	30.8
14 bis(2-Chloroisopropyl)ether	45	4.148	4.148	(1.035)	1032474	43.2361	43.2
15 o-Cresol	107	4.121	4.121	(1.028)	283369	32.3432	32.3
18 m,p-Cresols	107	4.223	4.223	(1.053)	388305	32.1949	32.2
19 Hexachloroethane	117	4.351	4.351	(1.085)	135201	27.3263	27.3
21 Nitrobenzene	77	4.383	4.383	(0.899)	479294	37.5980	37.6
22 Isophorone	82	4.533	4.538	(0.930)	957000	38.4548	38.4
23 2-Nitrophenol	139	4.597	4.597	(0.943)	188860	35.8841	35.9
24 2,4-Dimethylphenol	122	4.586	4.586	(0.941)	352281	34.4789	34.5
25 bis(2-Chloroethoxy)methane	93	4.651	4.656	(0.954)	481189	35.5226	35.5
26 2,4-Dichlorophenol	162	4.758	4.758	(0.976)	300168	36.8531	36.8
27 Benzoic acid	105	4.635	4.635	(0.951)	156846	23.7146	23.7
30 Naphthalene	128	4.891	4.891	(1.003)	1055159	31.8744	31.9
31 4-Chloroaniline	127	4.902	4.902	(1.005)	607474	40.5077	40.5
32 Hexachlorobutadiene	225	4.955	4.955	(1.016)	150537	28.8824	28.9
34 2-Methylnaphthalene	142	5.367	5.373	(1.101)	652363	32.4420	32.4
35 1-Methylnaphthalene	142	5.442	5.442	(1.116)	632844	32.1800	32.2
36 Hexachlorocyclopentadiene	237	5.474	5.474	(0.895)	102088	24.8718	24.9
37 2,4,6-Trichlorophenol	196	5.555	5.554	(0.908)	220046	41.3848	41.4
38 2,4,5-Trichlorophenol	196	5.587	5.581	(0.913)	233066	37.5394	37.5
40 2-Chloronaphthalene	162	5.726	5.726	(0.936)	614623	33.0772	33.1
42 o-Nitroaniline	65	5.774	5.779	(0.944)	309017	40.3722	40.4
41 m-Nitroaniline	138	6.063	6.068	(0.991)	193132	41.3429	41.3
43 Dimethylphthalate	163	5.881	5.886	(0.962)	954434	42.9352	42.9
44 2,6-Dinitrotoluene	165	5.940	5.940	(0.971)	205837	40.2781	40.3
45 Acenaphthylene	152	6.025	6.025	(0.985)	1043338	37.2913	37.3
48 2,4-Dinitrophenol	184	6.132	6.132	(1.003)	66469	42.9733	43.0(Q)
49 Dibenzofuran	168	6.255	6.261	(1.023)	928853	37.4062	37.4
51 Diethylphthalate	149	6.362	6.362	(1.040)	979172	45.7971	45.8
53 Fluorene	166	6.491	6.490	(1.061)	782845	39.1563	39.2
54 4-Chlorophenylphenylether	204	6.464	6.469	(1.057)	377666	37.8319	37.8
55 2-Methyl-4,6-dinitrophenol	198	6.501	6.501	(0.916)	122392	44.4668	44.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
56 p-Nitroaniline	138	6.485	6.485	(1.060)	162509	40.1344	40.1
133 Diphenylamine	169	6.544	6.544	(0.922)	729995	45.4380	45.4
58 1,2-Diphenylhydrazine	77	6.571	6.576	(0.926)	1157803	44.7065	44.7
61 4-Bromophenylphenylether	248	6.790	6.790	(0.957)	204863	38.3930	38.4
63 Hexachlorobenzene	284	6.849	6.849	(0.965)	225727	38.9282	38.9
207 Atrazine	173	6.860	6.860	(0.967)	64612	44.4796	44.5
68 Phenanthrene	178	7.111	7.116	(1.002)	1180902	38.9250	38.9
69 Anthracene	178	7.143	7.143	(1.007)	1214227	41.3431	41.3
72 Di-n-butylphthalate	149	7.378	7.378	(1.040)	1621241	48.0073	48.0
76 Fluoranthene	202	7.822	7.822	(1.103)	1175486	41.2180	41.2
77 Benzidine	184	7.870	7.865	(0.894)	340215	41.8702	41.9
85 Butylbenzylphthalate	149	8.282	8.288	(0.941)	650638	54.9435	54.9
89 Benzo(a)anthracene	228	8.790	8.790	(0.999)	943214	39.4976	39.5
90 3,3'-Dichlorobenzidine	252	8.721	8.716	(0.991)	251316	41.0161	41.0
92 Chrysene	228	8.823	8.828	(1.002)	897251	39.9096	39.9
93 bis(2-Ethylhexyl)phthalate	149	8.662	8.662	(0.984)	886144	50.5116	50.5
94 Di-n-octylphthalate	149	9.224	9.229	(0.891)	1303955	56.1733	56.2
95 Benzo(b)fluoranthene	252	9.855	9.860	(0.952)	701955	42.0673	42.1
96 Benzo(k)fluoranthene	252	9.887	9.892	(0.955)	718771	41.7757	41.8
97 Benzo(a)pyrene	252	10.283	10.288	(0.993)	580638	40.7407	40.7
99 Indeno(1,2,3-cd)pyrene	276	12.112	12.117	(1.170)	483397	36.6371	36.6
100 Dibenzo(a,h)anthracene	278	12.117	12.123	(1.170)	393883	36.6189	36.6
101 Benzo(ghi)perylene	276	12.658	12.663	(1.223)	391309	35.1496	35.1
102 1,4-Dioxane	88	2.356	2.361	(0.588)	111427	28.4190	28.4
111 N-Nitrosopyrrolidine	100	4.249	4.244	(1.060)	196812	35.5325	35.5(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.506	2.506	(0.625)	161074	21.6805	21.7

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s030310a.b/s2c0317.d
Date : 03-MAR-2010 23:22
Client ID: SBLK01LCS
Sample Info: 1120058723|959852|1|SVM11|LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: AGS1
Column diameter: 0.20

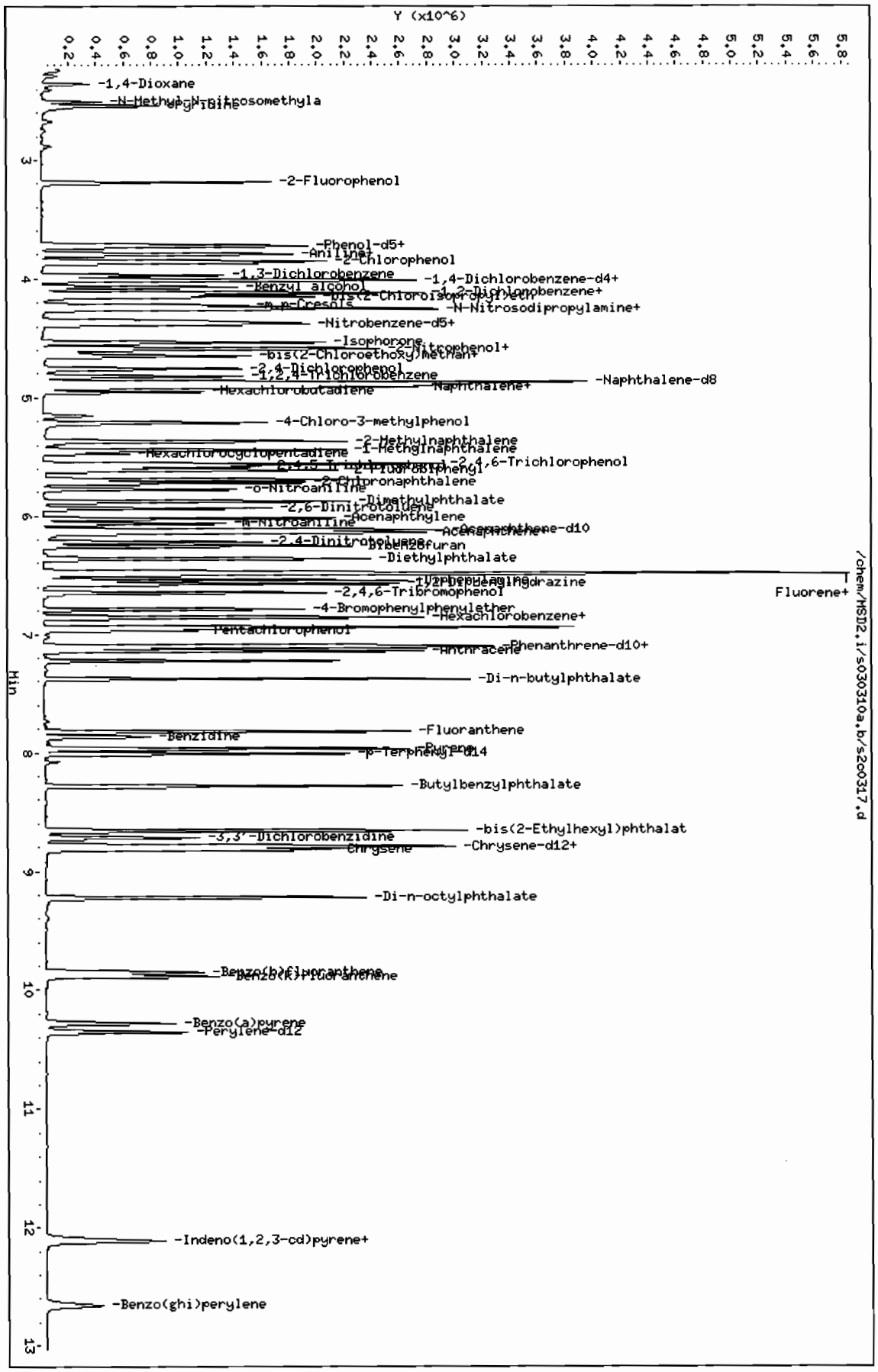

Page 1

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202058724**	**Date Received:**	**02/25/2010 08:45**		
Client Sample:	**QC for batch 959838**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12917MS**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 03:54**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**500 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0328.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		60.5	ug/L	4.00	20.0
108-95-2	Phenol		47.8	ug/L	2.00	20.0
95-57-8	2-Chlorophenol		76.5	ug/L	4.00	20.0
106-46-7	1,4-Dichlorobenzene		67.1	ug/L	4.00	20.0
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*		81.2	ug/L	4.00	20.0
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*		83.3	ug/L	4.00	20.0
83-32-9	Acenaphthene		80.8	ug/L	0.620	2.00
121-14-2	2,4-Dinitrotoluene		82.6	ug/L	4.00	20.0
100-02-7	4-Nitrophenol		51.2	ug/L	4.00	20.0
87-86-5	Pentachlorophenol		85.3	ug/L	4.00	20.0
129-00-0	Pyrene		90.4	ug/L	0.600	2.00
110-86-1	Pyridine		70.1	ug/L	6.00	20.0
62-53-3	Aniline		92.5	ug/L	5.00	20.0
111-44-4	bis(2-Chloroethyl) ether		75.7	ug/L	4.00	20.0
541-73-1	1,3-Dichlorobenzene		65.3	ug/L	4.00	20.0
100-51-6	Benzyl alcohol		67.0	ug/L	4.00	20.0
95-50-1	1,2-Dichlorobenzene		71.0	ug/L	4.00	20.0
108-60-1	bis(2-Chloroisopropyl)ether		93.6	ug/L	4.00	20.0
95-48-7	o-Cresol		75.9	ug/L	4.00	20.0
65794-96-9	m,p-Cresols		78.6	ug/L	6.00	20.0
67-72-1	Hexachloroethane		64.3	ug/L	4.00	20.0
98-95-3	Nitrobenzene		80.7	ug/L	6.00	20.0
78-59-1	Isophorone		80.3	ug/L	6.00	20.0
88-75-5	2-Nitrophenol		77.9	ug/L	4.00	20.0
105-67-9	2,4-Dimethylphenol		73.2	ug/L	4.00	20.0
111-91-1	bis(2-Chloroethoxy)methane		74.7	ug/L	6.00	20.0
120-83-2	2,4-Dichlorophenol		79.3	ug/L	4.00	20.0
65-85-0	Benzoic acid		101	ug/L	12.0	40.0
91-20-3	Naphthalene		70.6	ug/L	0.600	2.00
106-47-8	4-Chloroaniline		85.0	ug/L	4.00	20.0
87-68-3	Hexachlorobutadiene		66.9	ug/L	4.00	20.0
91-57-6	2-Methylnaphthalene		71.2	ug/L	0.600	2.00
90-12-0	1-Methylnaphthalene		69.4	ug/L	0.600	2.00
77-47-4	Hexachlorocyclopentadiene		54.3	ug/L	6.00	20.0
88-06-2	2,4,6-Trichlorophenol		85.3	ug/L	4.00	20.0
95-95-4	2,4,5-Trichlorophenol		80.1	ug/L	4.00	20.0
91-58-7	2-Chloronaphthalene		72.3	ug/L	0.600	2.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202058724**	**Date Received:**	**02/25/2010 08:45**		
Client Sample:	**QC for batch 959838**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12917MS**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 03:54**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**500 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0328.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline		85.1	ug/L	4.00	20.0
	o-Nitroaniline					
99-09-2	3-Nitroaniline		85.7	ug/L	4.00	20.0
	m-Nitroaniline					
131-11-3	Dimethylphthalate		87.3	ug/L	4.00	20.0
606-20-2	2,6-Dinitrotoluene		81.7	ug/L	4.00	20.0
208-96-8	Acenaphthylene		79.2	ug/L	0.400	2.00
51-28-5	2,4-Dinitrophenol		95.2	ug/L	10.0	40.0
132-64-9	Dibenzofuran		78.6	ug/L	4.00	20.0
84-66-2	Diethylphthalate		90.3	ug/L	4.00	20.0
86-73-7	Fluorene		81.4	ug/L	0.400	2.00
7005-72-3	4-Chlorophenylphenylether		80.0	ug/L	4.00	20.0
534-52-1	2-Methyl-4,6-dinitrophenol		93.1	ug/L	6.00	20.0
100-01-6	4-Nitroaniline		94.1	ug/L	6.00	20.0
	p-Nitroaniline					
122-39-4	Diphenylamine		93.7	ug/L	6.00	20.0
122-66-7	Azobenzene		92.0	ug/L	4.00	20.0
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether		81.8	ug/L	4.00	20.0
118-74-1	Hexachlorobenzene		81.9	ug/L	4.00	20.0
1912-24-9	Atrazine		86.3	ug/L	6.00	20.0
85-01-8	Phenanthrene		80.2	ug/L	0.400	2.00
120-12-7	Anthracene		85.8	ug/L	0.400	2.00
84-74-2	Di-n-butylphthalate		92.6	ug/L	4.00	20.0
206-44-0	Fluoranthene		81.7	ug/L	0.400	2.00
92-87-5	Benzidine		114	ug/L	6.00	20.0
85-68-7	Butylbenzylphthalate		110	ug/L	4.00	20.0
56-55-3	Benzo(a)anthracene		82.2	ug/L	0.400	2.00
91-94-1	3,3'-Dichlorobenzidine		84.7	ug/L	4.00	20.0
218-01-9	Chrysene		80.1	ug/L	0.400	2.00
117-81-7	bis(2-Ethylhexyl)phthalate		98.0	ug/L	4.00	20.0
117-84-0	Di-n-octylphthalate		110	ug/L	6.00	20.0
205-99-2	Benzo(b)fluoranthene		90.6	ug/L	0.400	2.00
207-08-9	Benzo(k)fluoranthene		83.1	ug/L	0.400	2.00
50-32-8	Benzo(a)pyrene		83.6	ug/L	0.400	2.00
193-39-5	Indeno(1,2,3-cd)pyrene		78.8	ug/L	0.400	2.00
53-70-3	Dibenzo(a,h)anthracene		80.2	ug/L	0.400	2.00
191-24-2	Benzo(ghi)perylene		75.4	ug/L	0.400	2.00
123-91-1	1,4-Dioxane		79.2	ug/L	4.00	20.0
55-18-5	N-Nitrosodiethylamine	U	20.0	ug/L	4.00	20.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202058724**	**Date Received:**	**02/25/2010 08:45**		
Client Sample:	**QC for batch 959838**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12917MS**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 03:54**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**500 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0328.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine		78.5	ug/L	4.00	20.0
924-16-3	N-Nitrosodi-n-butylamine	U	20.0	ug/L	6.00	20.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	20.0	ug/L	6.00	20.0
608-93-5	Pentachlorobenzene	U	20.0	ug/L	6.00	20.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	20.0	ug/L	4.00	20.0
88-85-7	Dinoseb	U	20.0	ug/L	4.00	20.0
120-82-1	1,2,4-Trichlorobenzene		67.3	ug/L	4.00	20.0

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	172	200	ug/L	86.0	(39%-120%)
2-Fluorobiphenyl	74.9	100	ug/L	74.9	(38%-108%)
2-Fluorophenol	122	200	ug/L	60.9	(19%-98%)
Nitrobenzene-d5	79.3	100	ug/L	79.3	(31%-122%)
Phenol-d5	89.6	200	ug/L	44.8	(15%-83%)
p-Terphenyl-d14	98.8	100	ug/L	98.8	(40%-138%)

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s030310a.b/s2c0328.d
Lab Smp Id: 1202058724 Client Smp ID: CAPA-10-12917MS
Inj Date : 04-MAR-2010 03:54
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202058724|959852|1|SVM|1|MS
Misc Info : |MSD82709L|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Meth Date : 03-Mar-2010 22:22 ann00964 Quant Type: ISTD
Cal Date : 27-FEB-2010 17:29 Cal File: s2b2568.d
Als bottle: 28 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2039.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	500.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.009	4.009	(1.000)	367413	40.0000	
* 29 Naphthalene-d8	136	4.875	4.875	(1.000)	1597006	40.0000	
* 46 Acenaphthene-d10	164	6.116	6.121	(1.000)	816380	40.0000	
* 67 Phenanthrene-d10	188	7.095	7.100	(1.000)	1314990	40.0000	
* 91 Chrysene-d12	240	8.796	8.806	(1.000)	923616	40.0000	
* 98 Perylene-d12	264	10.352	10.358	(1.000)	609778	40.0000	
$ 3 2-Fluorophenol	112	3.190	3.190	(0.796)	705777	60.8840	122
$ 5 Phenol-d5	99	3.715	3.715	(0.927)	681789	44.7957	89.6
$ 20 Nitrobenzene-d5	82	4.367	4.372	(0.896)	605732	39.6333	79.3
$ 39 2-Fluorobiphenyl	172	5.613	5.613	(0.918)	847210	37.4713	74.9
$ 60 2,4,6-Tribromophenol	329	6.651	6.646	(1.087)	254888	85.9501	172
$ 81 p-Terphenyl-d14	244	8.009	8.015	(0.911)	810489	49.3788	98.8
6 Phenol	94	3.725	3.725	(0.929)	369338	23.8772	47.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	3.870	3.870	(0.965)	470149	38.2715	76.5
11 1,4-Dichlorobenzene	146	4.019	4.019	(1.003)	430949	33.5410	67.1
17 N-Nitrosodipropylamine	70	4.244	4.244	(1.059)	420362	40.5891	81.2(Q)
28 1,2,4-Trichlorobenzene	180	4.822	4.822	(0.989)	357912	33.6480	67.3
33 4-Chloro-3-methylphenol	107	5.212	5.212	(1.069)	476263	41.6724	83.3
47 Acenaphthene	154	6.143	6.143	(1.004)	832200	40.4234	80.8
50 2,4-Dinitrotoluene	165	6.218	6.223	(1.017)	308868	41.2836	82.6
52 4-Nitrophenol	139	6.148	6.148	(1.005)	96221	25.5905	51.2
65 Pentachlorophenol	266	6.966	6.967	(0.982)	139130	42.6336	85.3
79 Pyrene	202	7.967	7.972	(0.906)	1330046	45.2168	90.4
2 Pyridine	79	2.543	2.543	(0.634)	423700	35.0588	70.1
4 Aniline	66	3.789	3.789	(0.945)	353487	46.2310	92.5(Q)
7 bis(2-Chloroethyl) ether	63	3.805	3.805	(0.949)	530624	37.8479	75.7
9 1,3-Dichlorobenzene	146	3.971	3.977	(0.991)	419523	32.6724	65.3
12 Benzyl alcohol	108	4.073	4.073	(1.016)	290214	33.4763	67.0
13 1,2-Dichlorobenzene	146	4.121	4.121	(1.028)	405622	35.5060	71.0
14 bis(2-Chloroisopropyl)ether	45	4.148	4.148	(1.035)	1258760	46.8183	93.6
15 o-Cresol	107	4.121	4.121	(1.028)	374576	37.9730	75.9
18 m,p-Cresols	107	4.223	4.223	(1.053)	533683	39.3009	78.6
19 Hexachloroethane	117	4.351	4.351	(1.085)	179010	32.1354	64.3
21 Nitrobenzene	77	4.383	4.383	(0.899)	583773	40.3573	80.7
22 Isophorone	82	4.533	4.538	(0.930)	1134387	40.1713	80.3
23 2-Nitrophenol	139	4.597	4.597	(0.943)	232617	38.9511	77.9
24 2,4-Dimethylphenol	122	4.586	4.586	(0.941)	420788	36.5829	73.2
25 bis(2-Chloroethoxy)methane	93	4.651	4.656	(0.954)	574426	37.3714	74.7
26 2,4-Dichlorophenol	162	4.758	4.758	(0.976)	366633	39.6695	79.3
27 Benzoic acid	105	4.651	4.635	(0.954)	377456	50.2949	100
30 Naphthalene	128	4.891	4.891	(1.003)	1323208	35.2870	70.6
31 4-Chloroaniline	127	4.902	4.902	(1.005)	723046	42.4905	85.0
32 Hexachlorobutadiene	225	4.955	4.955	(1.016)	197779	33.4415	66.9
34 2-Methylnaphthalene	142	5.367	5.373	(1.101)	810876	35.5911	71.2
35 1-Methylnaphthalene	142	5.442	5.442	(1.116)	773427	34.7027	69.4
36 Hexachlorocyclopentadiene	237	5.474	5.474	(0.895)	125182	27.1508	54.3
37 2,4,6-Trichlorophenol	196	5.554	5.554	(0.908)	254761	42.6549	85.3
38 2,4,5-Trichlorophenol	196	5.587	5.581	(0.913)	279466	40.0724	80.1
40 2-Chloronaphthalene	162	5.726	5.726	(0.936)	754101	36.1726	72.3
42 o-Nitroaniline	65	5.774	5.779	(0.944)	365844	42.5504	85.1
41 m-Nitroaniline	138	6.068	6.068	(0.992)	224881	42.8556	85.7
43 Dimethylphthalate	163	5.881	5.886	(0.962)	1089966	43.6504	87.3
44 2,6-Dinitrotoluene	165	5.940	5.940	(0.971)	234408	40.8344	81.7
45 Acenaphthylene	152	6.025	6.025	(0.985)	1242934	39.5750	79.2
48 2,4-Dinitrophenol	184	6.132	6.132	(1.003)	85013	47.5971	95.2(Q)
49 Dibenzofuran	168	6.255	6.261	(1.023)	1096006	39.2932	78.6
51 Diethylphthalate	149	6.362	6.362	(1.040)	1084582	45.1595	90.3
53 Fluorene	166	6.490	6.490	(1.061)	913669	40.7065	81.4
54 4-Chlorophenylphenylether	204	6.464	6.469	(1.057)	448763	40.0198	80.0
55 2-Methyl-4,6-dinitrophenol	198	6.501	6.501	(0.916)	142355	46.5650	93.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
56 p-Nitroaniline	138	6.485	6.485	(1.060)	213990	47.0480	94.1
133 Diphenylamine	169	6.544	6.544	(0.922)	836443	46.8749	93.7
58 1,2-Diphenylhydrazine	77	6.571	6.576	(0.926)	1323378	46.0070	92.0
61 4-Bromophenylphenylether	248	6.790	6.790	(0.957)	242493	40.9159	81.8
63 Hexachlorobenzene	284	6.849	6.849	(0.965)	263577	40.9254	81.8
207 Atrazine	173	6.860	6.860	(0.967)	69585	43.1288	86.2
68 Phenanthrene	178	7.111	7.116	(1.002)	1350213	40.0872	80.2
69 Anthracene	178	7.143	7.143	(1.007)	1398662	42.8959	85.8
72 Di-n-butylphthalate	149	7.378	7.378	(1.040)	1737263	46.3158	92.6
76 Fluoranthene	202	7.822	7.822	(1.103)	1293632	40.8359	81.7
77 Benzidine	184	7.865	7.865	(0.894)	489594	57.2287	114
85 Butylbenzylphthalate	149	8.282	8.288	(0.942)	683029	54.7825	110
89 Benzo(a)anthracene	228	8.785	8.790	(0.999)	1033523	41.1061	82.2
90 3,3'-Dichlorobenzidine	252	8.721	8.716	(0.991)	273079	42.3301	84.7
92 Chrysene	228	8.822	8.828	(1.003)	947790	40.0422	80.1
93 bis(2-Ethylhexyl)phthalate	149	8.657	8.662	(0.984)	905073	49.0000	98.0
94 Di-n-octylphthalate	149	9.224	9.229	(0.891)	1313553	55.1672	110
95 Benzo(b)fluoranthene	252	9.855	9.860	(0.952)	775661	45.3182	90.6
96 Benzo(k)fluoranthene	252	9.887	9.892	(0.955)	733388	41.5559	83.1
97 Benzo(a)pyrene	252	10.277	10.288	(0.993)	611407	41.8234	83.6
99 Indeno(1,2,3-cd)pyrene	276	12.107	12.117	(1.169)	533341	39.4083	78.8
100 Dibenzo(a,h)anthracene	278	12.112	12.123	(1.170)	442440	40.1013	80.2
101 Benzo(ghi)perylene	276	12.657	12.663	(1.223)	430765	37.7230	75.4
102 1,4-Dioxane	88	2.361	2.361	(0.589)	174853	39.6093	79.2
111 N-Nitrosopyrrolidine	100	4.249	4.244	(1.060)	244915	39.2730	78.5(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.506	2.506	(0.625)	253218	30.2722	60.5

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s030310a.b/s2c0328.d
Date : 04-MAR-2010 03:54
Client ID: CAPA-10-12917MS
Sample Info: 1120205872419598521|SVM11|MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: AGS1
Column diameter: 0.20

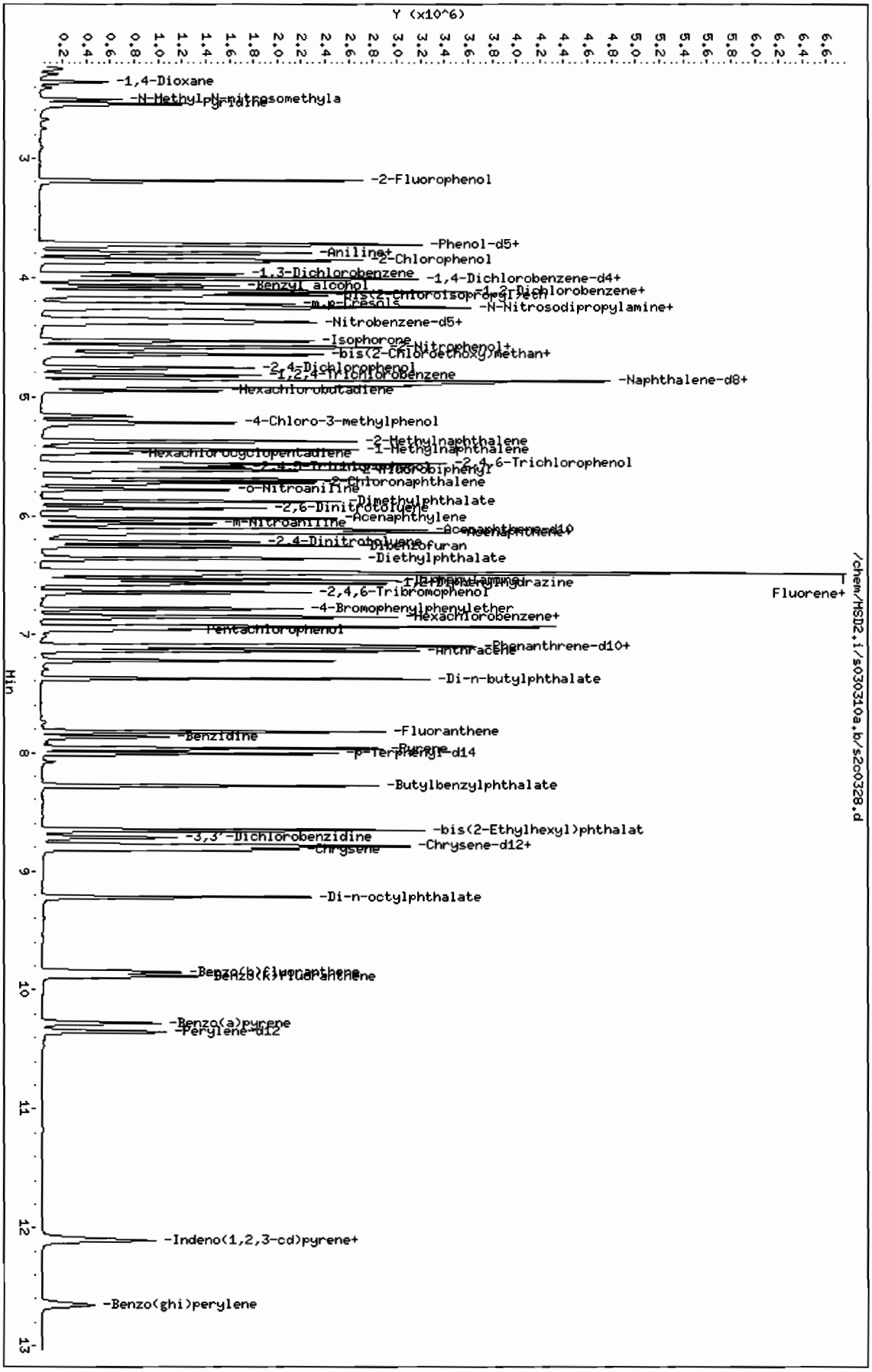

Page 1

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202058725**	**Date Received:**	**02/25/2010 08:45**		
Client Sample:	**QC for batch 959838**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12917MSD**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 04:13**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**500 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0329.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		61.6	ug/L	4.00	20.0
108-95-2	Phenol		49.9	ug/L	2.00	20.0
95-57-8	2-Chlorophenol		78.7	ug/L	4.00	20.0
106-46-7	1,4-Dichlorobenzene		68.7	ug/L	4.00	20.0
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*		85.6	ug/L	4.00	20.0
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*		87.5	ug/L	4.00	20.0
83-32-9	Acenaphthene		85.8	ug/L	0.620	2.00
121-14-2	2,4-Dinitrotoluene		87.1	ug/L	4.00	20.0
100-02-7	4-Nitrophenol		56.5	ug/L	4.00	20.0
87-86-5	Pentachlorophenol		89.6	ug/L	4.00	20.0
129-00-0	Pyrene		87.0	ug/L	0.600	2.00
110-86-1	Pyridine		64.1	ug/L	6.00	20.0
62-53-3	Aniline		87.2	ug/L	5.00	20.0
111-44-4	bis(2-Chloroethyl) ether		77.5	ug/L	4.00	20.0
541-73-1	1,3-Dichlorobenzene		67.6	ug/L	4.00	20.0
100-51-6	Benzyl alcohol		69.1	ug/L	4.00	20.0
95-50-1	1,2-Dichlorobenzene		72.5	ug/L	4.00	20.0
108-60-1	bis(2-Chloroisopropyl)ether		97.0	ug/L	4.00	20.0
95-48-7	o-Cresol		78.2	ug/L	4.00	20.0
65794-96-9	m,p-Cresols		82.8	ug/L	6.00	20.0
67-72-1	Hexachloroethane		64.0	ug/L	4.00	20.0
98-95-3	Nitrobenzene		83.9	ug/L	6.00	20.0
78-59-1	Isophorone		83.6	ug/L	6.00	20.0
88-75-5	2-Nitrophenol		81.7	ug/L	4.00	20.0
105-67-9	2,4-Dimethylphenol		77.2	ug/L	4.00	20.0
111-91-1	bis(2-Chloroethoxy)methane		78.7	ug/L	6.00	20.0
120-83-2	2,4-Dichlorophenol		82.1	ug/L	4.00	20.0
65-85-0	Benzoic acid		115	ug/L	12.0	40.0
91-20-3	Naphthalene		74.1	ug/L	0.600	2.00
106-47-8	4-Chloroaniline		83.1	ug/L	4.00	20.0
87-68-3	Hexachlorobutadiene		66.8	ug/L	4.00	20.0
91-57-6	2-Methylnaphthalene		75.7	ug/L	0.600	2.00
90-12-0	1-Methylnaphthalene		73.4	ug/L	0.600	2.00
77-47-4	Hexachlorocyclopentadiene		58.7	ug/L	6.00	20.0
88-06-2	2,4,6-Trichlorophenol		88.1	ug/L	4.00	20.0
95-95-4	2,4,5-Trichlorophenol		85.2	ug/L	4.00	20.0
91-58-7	2-Chloronaphthalene		76.6	ug/L	0.600	2.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202058725**	**Date Received:**	**02/25/2010 08:45**		
Client Sample:	**QC for batch 959838**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12917MSD**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.1**	**Dilution:**	**1**
Run Date:	**03/04/2010 04:13**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**500 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0329.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*		88.4	ug/L	4.00	20.0
99-09-2	3-Nitroaniline *m-Nitroaniline*		89.6	ug/L	4.00	20.0
131-11-3	Dimethylphthalate		91.1	ug/L	4.00	20.0
606-20-2	2,6-Dinitrotoluene		86.4	ug/L	4.00	20.0
208-96-8	Acenaphthylene		83.7	ug/L	0.400	2.00
51-28-5	2,4-Dinitrophenol		108	ug/L	10.0	40.0
132-64-9	Dibenzofuran		83.8	ug/L	4.00	20.0
84-66-2	Diethylphthalate		94.1	ug/L	4.00	20.0
86-73-7	Fluorene		85.5	ug/L	0.400	2.00
7005-72-3	4-Chlorophenylphenylether		85.6	ug/L	4.00	20.0
534-52-1	2-Methyl-4,6-dinitrophenol		104	ug/L	6.00	20.0
100-01-6	4-Nitroaniline *p-Nitroaniline*		95.8	ug/L	6.00	20.0
122-39-4	Diphenylamine		96.0	ug/L	6.00	20.0
122-66-7	Azobenzene *1,2-Diphenylhydrazine*		94.0	ug/L	4.00	20.0
101-55-3	4-Bromophenylphenylether		84.1	ug/L	4.00	20.0
118-74-1	Hexachlorobenzene		84.4	ug/L	4.00	20.0
1912-24-9	Atrazine		88.7	ug/L	6.00	20.0
85-01-8	Phenanthrene		82.0	ug/L	0.400	2.00
120-12-7	Anthracene		87.6	ug/L	0.400	2.00
84-74-2	Di-n-butylphthalate		95.6	ug/L	4.00	20.0
206-44-0	Fluoranthene		85.5	ug/L	0.400	2.00
92-87-5	Benzidine		68.9	ug/L	6.00	20.0
85-68-7	Butylbenzylphthalate		108	ug/L	4.00	20.0
56-55-3	Benzo(a)anthracene		77.9	ug/L	0.400	2.00
91-94-1	3,3'-Dichlorobenzidine		90.0	ug/L	4.00	20.0
218-01-9	Chrysene		85.8	ug/L	0.400	2.00
117-81-7	bis(2-Ethylhexyl)phthalate		99.2	ug/L	4.00	20.0
117-84-0	Di-n-octylphthalate		110	ug/L	6.00	20.0
205-99-2	Benzo(b)fluoranthene		92.2	ug/L	0.400	2.00
207-08-9	Benzo(k)fluoranthene		81.8	ug/L	0.400	2.00
50-32-8	Benzo(a)pyrene		85.3	ug/L	0.400	2.00
193-39-5	Indeno(1,2,3-cd)pyrene		82.1	ug/L	0.400	2.00
53-70-3	Dibenzo(a,h)anthracene		82.9	ug/L	0.400	2.00
191-24-2	Benzo(ghi)perylene		78.4	ug/L	0.400	2.00
123-91-1	1,4-Dioxane		77.5	ug/L	4.00	20.0
55-18-5	N-Nitrosodiethylamine	U	20.0	ug/L	4.00	20.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202058725**	**Date Received:**	**02/25/2010 08:45**		
Client Sample:	**QC for batch 959838**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12917MSD**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 04:13**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**500 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0329.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine		83.6	ug/L	4.00	20.0
924-16-3	N-Nitrosodi-n-butylamine	U	20.0	ug/L	6.00	20.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	20.0	ug/L	6.00	20.0
608-93-5	Pentachlorobenzene	U	20.0	ug/L	6.00	20.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	20.0	ug/L	4.00	20.0
88-85-7	Dinoseb	U	20.0	ug/L	4.00	20.0
120-82-1	1,2,4-Trichlorobenzene		69.7	ug/L	4.00	20.0

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	179	200	ug/L	89.7	(39%-120%)
2-Fluorobiphenyl	77.8	100	ug/L	77.8	(38%-108%)
2-Fluorophenol	121	200	ug/L	60.7	(19%-98%)
Nitrobenzene-d5	81.8	100	ug/L	81.8	(31%-122%)
Phenol-d5	92.1	200	ug/L	46.1	(15%-83%)
p-Terphenyl-d14	94.9	100	ug/L	94.9	(40%-138%)

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s030310a.b/s2c0329.d
Lab Smp Id: 1202058725 Client Smp ID: CAPA-10-12917MSD
Inj Date : 04-MAR-2010 04:13
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202058725|959852|1|SVM|1|MSD
Misc Info : |MSD82709L|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Meth Date : 03-Mar-2010 22:22 ann00964 Quant Type: ISTD
Cal Date : 27-FEB-2010 17:29 Cal File: s2b2568.d
Als bottle: 29 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2039.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	500.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.009	4.009	(1.000)	378930	40.0000	
* 29 Naphthalene-d8	136	4.875	4.875	(1.000)	1673329	40.0000	
* 46 Acenaphthene-d10	164	6.121	6.121	(1.000)	870445	40.0000	
* 67 Phenanthrene-d10	188	7.095	7.100	(1.000)	1443336	40.0000	
* 91 Chrysene-d12	240	8.796	8.806	(1.000)	1101371	40.0000	
* 98 Perylene-d12	264	10.352	10.358	(1.000)	760843	40.0000	
$ 3 2-Fluorophenol	112	3.190	3.190	(0.796)	725143	60.6533	121
$ 5 Phenol-d5	99	3.714	3.715	(0.927)	723067	46.0639	92.1
$ 20 Nitrobenzene-d5	82	4.367	4.372	(0.896)	654574	40.8755	81.8
$ 39 2-Fluorobiphenyl	172	5.613	5.613	(0.917)	938091	38.9138	77.8
$ 60 2,4,6-Tribromophenol	329	6.651	6.646	(1.087)	283606	89.6940	179
$ 81 p-Terphenyl-d14	244	8.009	8.015	(0.911)	928981	47.4633	94.9
6 Phenol	94	3.725	3.725	(0.929)	397788	24.9349	49.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	3.869	3.870	(0.965)	498540	39.3491	78.7
11 1,4-Dichlorobenzene	146	4.019	4.019	(1.003)	455200	34.3517	68.7
17 N-Nitrosodipropylamine	70	4.244	4.244	(1.059)	457257	42.8097	85.6(Q)
28 1,2,4-Trichlorobenzene	180	4.822	4.822	(0.989)	388574	34.8644	69.7
33 4-Chloro-3-methylphenol	107	5.217	5.212	(1.070)	523777	43.7395	87.5
47 Acenaphthene	154	6.143	6.143	(1.003)	940571	42.8916	85.8
50 2,4-Dinitrotoluene	165	6.218	6.223	(1.016)	347361	43.5448	87.1
52 4-Nitrophenol	139	6.153	6.148	(1.005)	113173	28.2295	56.4
65 Pentachlorophenol	266	6.966	6.967	(0.982)	160521	44.8145	89.6
79 Pyrene	202	7.967	7.972	(0.906)	1526846	43.5132	87.0
2 Pyridine	79	2.543	2.543	(0.634)	399519	32.0532	64.1
4 Aniline	66	3.789	3.789	(0.945)	343709	43.5859	87.2(Q)
7 bis(2-Chloroethyl) ether	63	3.805	3.805	(0.949)	560112	38.7370	77.5
9 1,3-Dichlorobenzene	146	3.971	3.977	(0.991)	447702	33.8072	67.6
12 Benzyl alcohol	108	4.073	4.073	(1.016)	309048	34.5653	69.1
13 1,2-Dichlorobenzene	146	4.121	4.121	(1.028)	427159	36.2548	72.5
14 bis(2-Chloroisopropyl)ether	45	4.148	4.148	(1.035)	1344482	48.4868	97.0
15 o-Cresol	107	4.121	4.121	(1.028)	397621	39.0841	78.2
18 m,p-Cresols	107	4.222	4.223	(1.053)	579638	41.3877	82.8
19 Hexachloroethane	117	4.351	4.351	(1.085)	183766	31.9866	64.0
21 Nitrobenzene	77	4.383	4.383	(0.899)	635493	41.9290	83.8
22 Isophorone	82	4.538	4.538	(0.931)	1236930	41.8047	83.6
23 2-Nitrophenol	139	4.597	4.597	(0.943)	255690	40.8617	81.7
24 2,4-Dimethylphenol	122	4.586	4.586	(0.941)	461863	38.5827	77.2
25 bis(2-Chloroethoxy)methane	93	4.650	4.656	(0.954)	633389	39.3279	78.6
26 2,4-Dichlorophenol	162	4.757	4.758	(0.976)	397340	41.0311	82.1
27 Benzoic acid	105	4.656	4.635	(0.955)	450695	57.3147	115
30 Naphthalene	128	4.891	4.891	(1.003)	1453754	37.0280	74.0
31 4-Chloroaniline	127	4.902	4.902	(1.005)	741251	41.5735	83.1
32 Hexachlorobutadiene	225	4.955	4.955	(1.016)	206857	33.3811	66.8
34 2-Methylnaphthalene	142	5.367	5.373	(1.101)	902305	37.8324	75.7
35 1-Methylnaphthalene	142	5.442	5.442	(1.116)	855917	36.6837	73.4
36 Hexachlorocyclopentadiene	237	5.474	5.474	(0.894)	144187	29.3304	58.7
37 2,4,6-Trichlorophenol	196	5.554	5.554	(0.907)	280390	44.0301	88.1
38 2,4,5-Trichlorophenol	196	5.586	5.581	(0.913)	316623	42.5804	85.2
40 2-Chloronaphthalene	162	5.725	5.726	(0.935)	851104	38.3175	76.6
42 o-Nitroaniline	65	5.779	5.779	(0.944)	405285	44.2099	88.4
41 m-Nitroaniline	138	6.068	6.068	(0.991)	250733	44.8144	89.6
43 Dimethylphthalate	163	5.881	5.886	(0.961)	1212163	45.5289	91.0
44 2,6-Dinitrotoluene	165	5.939	5.940	(0.970)	264531	43.2196	86.4
45 Acenaphthylene	152	6.025	6.025	(0.984)	1400788	41.8550	83.7
48 2,4-Dinitrophenol	184	6.132	6.132	(1.002)	105447	53.8005	108(Q)
49 Dibenzofuran	168	6.255	6.261	(1.022)	1246294	41.9060	83.8
51 Diethylphthalate	149	6.362	6.362	(1.039)	1205310	47.0692	94.1
53 Fluorene	166	6.490	6.490	(1.060)	1022289	42.7455	85.5
54 4-Chlorophenylphenylether	204	6.464	6.469	(1.056)	511583	42.7883	85.6
55 2-Methyl-4,6-dinitrophenol	198	6.501	6.501	(0.916)	173974	51.8474	104

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
56 p-Nitroaniline	138	6.485	6.485	(1.059)	232399	47.9218	95.8
133 Diphenylamine	169	6.544	6.544	(0.922)	940486	48.0188	96.0
58 1,2-Diphenylhydrazine	77	6.576	6.576	(0.927)	1483232	46.9791	94.0
61 4-Bromophenylphenylether	248	6.790	6.790	(0.957)	273422	42.0321	84.1
63 Hexachlorobenzene	284	6.849	6.849	(0.965)	298315	42.2003	84.4
207 Atrazine	173	6.865	6.860	(0.968)	78581	44.3736	88.7
68 Phenanthrene	178	7.111	7.116	(1.002)	1514829	40.9881	82.0
69 Anthracene	178	7.143	7.143	(1.007)	1567683	43.8153	87.6
72 Di-n-butylphthalate	149	7.378	7.378	(1.040)	1967529	47.7903	95.6
76 Fluoranthene	202	7.822	7.822	(1.103)	1485959	42.7565	85.5
77 Benzidine	184	7.865	7.865	(0.894)	351551	34.4607	68.9
85 Butylbenzylphthalate	149	8.282	8.288	(0.942)	804755	54.1283	108
89 Benzo(a)anthracene	228	8.785	8.790	(0.999)	1168124	38.9613	77.9
90 3,3'-Dichlorobenzidine	252	8.721	8.716	(0.991)	346041	44.9827	90.0
92 Chrysene	228	8.822	8.828	(1.003)	1210599	42.9231	85.8
93 bis(2-Ethylhexyl)phthalate	149	8.656	8.662	(0.984)	1092285	49.5914	99.2
94 Di-n-octylphthalate	149	9.218	9.229	(0.890)	1634458	55.0153	110
95 Benzo(b)fluoranthene	252	9.855	9.860	(0.952)	984986	46.1219	92.2
96 Benzo(k)fluoranthene	252	9.887	9.892	(0.955)	900348	40.8870	81.8
97 Benzo(a)pyrene	252	10.277	10.288	(0.993)	777705	42.6364	85.3
99 Indeno(1,2,3-cd)pyrene	276	12.112	12.117	(1.170)	692986	41.0378	82.1
100 Dibenzo(a,h)anthracene	278	12.112	12.123	(1.170)	570802	41.4635	82.9
101 Benzo(ghi)perylene	276	12.657	12.663	(1.223)	558617	39.2064	78.4
102 1,4-Dioxane	88	2.361	2.361	(0.589)	176483	38.7634	77.5
111 N-Nitrosopyrrolidine	100	4.249	4.244	(1.060)	268962	41.8182	83.6(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.506	2.506	(0.625)	265604	30.7879	61.6

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s030310a.b/s2o0329.d
Date : 04-MAR-2010 04:13
Client ID: CAPA-10-12917MSD
Sample Info: 1120208725195995211SVM11MSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: AGS1
Column diameter: 0.20

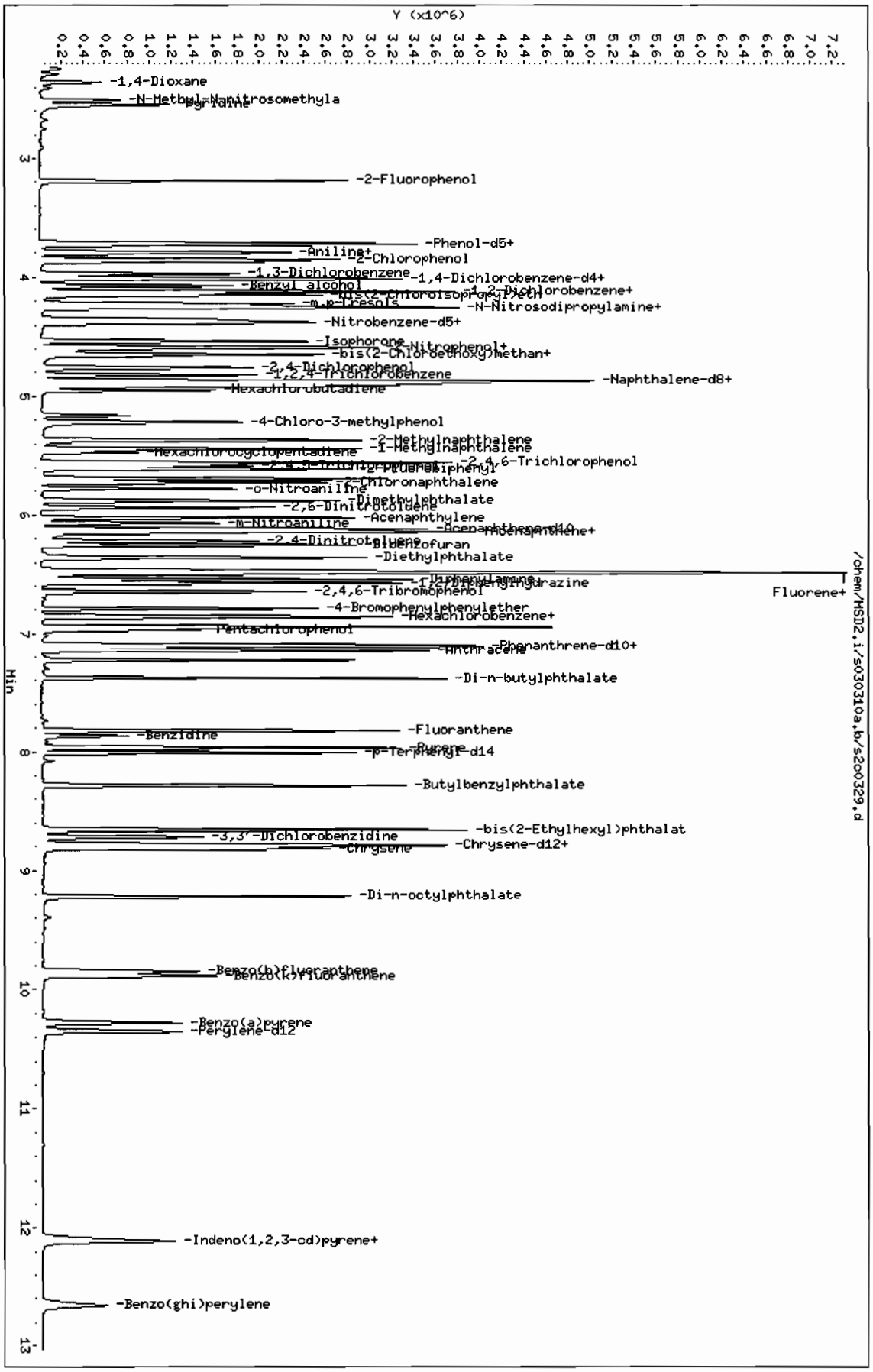

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 959838 **Verified by:** _____

Analyst: Sequan Smalls

Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Sec Ext pH	Final Volume (mL)	Prepped Factor (mL/mL)
1202058722 MB	02-MAR-2010 17:51:00	1000	5	1	13	1	0.001
1202058723 LCS	02-MAR-2010 17:51:00	1000	5	1	13	1	0.001
248017001	02-MAR-2010 17:51:00	920	5	1	13	1	0.00109
248017002	02-MAR-2010 17:51:00	880	5	1	13	1	0.00114
1202058724 MS (248017002)	02-MAR-2010 17:51:00	500	5	1	13	1	0.002
1202058725 MSD (248017002)	02-MAR-2010 17:51:00	500	5	1	13	1	0.002
248040002	02-MAR-2010 17:51:00	920	6	1	13	1	0.00109
248040006	02-MAR-2010 17:51:00	900	6	1	13	1	0.00111
248042009	02-MAR-2010 17:51:00	800	6	1	13	1	0.00125
248042013	02-MAR-2010 17:51:00	940	6	1	13	1	0.00106
248047002	02-MAR-2010 17:51:00	820	6	1	13	1	0.00122
248047006	02-MAR-2010 17:51:00	860	6	1	13	1	0.00116
248047012	02-MAR-2010 17:51:00	830	6	1	13	1	0.0012

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202058723	BNA LCS w/o Benzidine 50ppm	UE100217-14	1	mL
LCS	1202058723	BENZIDINE LCS	UE100222-22	1	mL
MS	1202058724	BNA LCS w/o Benzidine 50ppm	UE100217-14	1	mL
MS	1202058724	BENZIDINE LCS	UE100222-22	1	mL
MSD	1202058725	BNA LCS w/o Benzidine 50ppm	UE100217-14	1	mL
MSD	1202058725	BENZIDINE LCS	UE100222-22	1	mL
SURR	All	BNA for all Surrogate	UE100301-10	1	mL
REGNT	All	Methylene Chloride	100301-D	360	mL
REGNT	All	Sulfuric Acid Sol., 1:1	1271216	2	mL
REGNT	All	10 N Sodium Hydroxide Solution	1277863	10	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Verified By: MJS

Final Solvent: CH2CL2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD2

DATE: 03/04/2010 METHOD:8270C MSD2-DFTPP.m OPERATOR:AGS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1106 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100227-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
SOP: GL-OA-E-009 Rev. 23

Sequence Number: /chem/MSD2.i/s030310a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s2c0307.d	WBN100207-01	AGS1	03-MAR-2010 19:28	50PPM	DFTPP	1.0	DFTPP	8270C TUNE
s2c0308.d	WBN100225-09.4	AGS1	03-MAR-2010 19:41	40PPM	CVS	1.0	MEGACVS	8270C 453255
s2c0309.d	WBN100121-05.4	AGS1	03-MAR-2010 20:08	40PPM	CVS	1.0	BJCVS	8270C
s2c0310.d	WBN100218-08.1	AGS1	03-MAR-2010 20:35	40 PPM	CVS	1.0	APCVS	8270C
s2c0311.d	WBN100205-26.1	AGS1	03-MAR-2010 20:55	40 PPM	CVS	1.0	PESTCVS	8270C
s2c0312.d	1202059202	AGS1	03-MAR-2010 21:15	960061	247974	1.0	MB	
s2c0313.d	1202059203	AGS1	03-MAR-2010 21:42	960061	247974	1.0	LCS	
s2c0314.d	1202055380	AGS1	03-MAR-2010 22:08	958421	247974	1.0	MB	
s2c0315.d	1202055381	AGS1	03-MAR-2010 22:35	958421	247974	1.0	LCS	
s2c0316.d	1202058722	AGS1	03-MAR-2010 23:02	959852	10-2039	1.0	MB	
s2c0316-1.d	1202058722	AGS1	03-MAR-2010 23:02	959852	10-2051	1.0	MB	
s2c0316-2.d	1202058722	AGS1	03-MAR-2010 23:02	959852	10-2057	1.0	MB	
s2c0316-3.d	1202058722	AGS1	03-MAR-2010 23:02	959852	10-2045	1.0	MB	
s2c0317.d	1202058723	AGS1	03-MAR-2010 23:22	959852	10-2039	1.0	LCS	
s2c0317-1.d	1202058723	AGS1	03-MAR-2010 23:22	959852	10-2051	1.0	LCS	
s2c0317-2.d	1202058723	AGS1	03-MAR-2010 23:22	959852	10-2057	1.0	LCS	
s2c0317-3.d	1202058723	AGS1	03-MAR-2010 23:22	959852	10-2045	1.0	LCS	
s2c0318.d	247974002	AGS1	03-MAR-2010 23:42	958421	247974	1.0	BY12	
s2c0319.d	1202055382	AGS1	04-MAR-2010 00:08	958421	247974	1.0	MS	

s2c0320.d	1202055383	AGS1	04-MAR-2010 00:35	958421	247974	1.0	MSD	
s2c0321.d	247974011	AGS1	04-MAR-2010 01:01	960061	247974	1.0	BY12	
s2c0322.d	247974016	AGS1	04-MAR-2010 01:28	960061	247974	1.0	BY12	
s2c0323.d	1202059204	AGS1	04-MAR-2010 01:55	960061	247974	1.0	MS	
s2c0324.d	1202059205	AGS1	04-MAR-2010 02:21	960061	247974	1.0	MSD	
s2c0325.d	247974020	AGS1	04-MAR-2010 02:48	960061	247974	10.0	BY12	DUSE ISTD low RR / dil. 8000X C93 O.R.s2c0413.d /s2c0411.d
s2c0326.d	248017001	AGS1	04-MAR-2010 03:14	959852	10-2039	1.0	LANL	
s2c0327.d	248017002	AGS1	04-MAR-2010 03:34	959852	10-2039	1.0	LANL	
s2c0328.d	1202058724	AGS1	04-MAR-2010 03:54	959852	10-2039	1.0	MS	
s2c0329.d	1202058725	AGS1	04-MAR-2010 04:13	959852	10-2039	1.0	MSD	
s2c0330.d	248040002	AGS1	04-MAR-2010 04:33	959852	10-2051	1.0	LANL	
s2c0331.d	248040006	AGS1	04-MAR-2010 04:53	959852	10-2051	1.0	LANL	
s2c0332.d	248042009	AGS1	04-MAR-2010 05:12	959852	10-2057	1.0	LANL	
s2c0333.d	248042013	AGS1	04-MAR-2010 05:32	959852	10-2057	1.0	LANL	
s2c0334.d	248047002	AGS1	04-MAR-2010 05:52	959852	10-2045	1.0	LANL	
s2c0335.d	248047006	AGS1	04-MAR-2010 06:12	959852	10-2045	1.0	LANL	
s2c0336.d	248047012	AGS1	04-MAR-2010 06:32	959852	10-2045	1.0	LANL	

Instrument Batch: /chem/MSD2.i/s030310a.b

Page: 1

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD2

DATE: 02/25/2010 METHOD:8270C MSD2-DFTPP.m OPERATOR:AGS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1106 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100217-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
SOP: GL-OA-E-009 Rev. 23

Sequence Number: /chem/MSD2.i/s022510a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s2b2510.d	WBN100207-01	AGS1	25-FEB-2010 18:56	50PPM	DFTPP	1.0	DFTPP	8270C TUNE (AP-PEST)
s2b2510D.d	WBN100207-01	AGS1	25-FEB-2010 18:56	50PPM	DFTPP	1.0	DFTPP	8270D
s2b2511.d	INSTBLK	AGS1	25-FEB-2010 19:09	40 PPM	s022510a	1.0	INSTBLK	
s2b2512.d	WBN100215-08	AGS1	25-FEB-2010 19:29	1PPM		1.0	MEGA001	DUSE
s2b2513.d	WBN100215-07	AGS1	25-FEB-2010 19:53	10PPM		1.0	MEGA010	DUSE
s2b2514.d	WBN100215-06	AGS1	25-FEB-2010 20:18	20PPM		1.0	MEGA020	DUSE
s2b2515.d	WBN100215-05.1	AGS1	25-FEB-2010 20:42	40PPM	s022510a	1.0	MEGA040	DUSE
s2b2516.d	WBN100215-05.2	AGS1	25-FEB-2010 21:06	40PPM	s022510a	1.0	MEGA040	DUSE
s2b2517.d	WBN100215-04	AGS1	25-FEB-2010 21:31	50PPM		1.0	MEGA050	DUSE
s2b2518.d	WBN100215-08	AGS1	25-FEB-2010 21:55	1PPM	s022510a	1.0	MEGA001	DUSE
s2b2519.d	WBN100215-03	AGS1	25-FEB-2010 22:20	80PPM	s022510a	1.0	MEGA080	DUSE
s2b2520.d	WBN100215-02	AGS1	25-FEB-2010 22:44	100PPM	s022510a	1.0	MEGA100	DUSE
s2b2521.d	WBN100215-01	AGS1	25-FEB-2010 23:08	120PPM	s022510a	1.0	MEGA120	DUSE
s2b2522.d	WBN100218-01	AGS1	25-FEB-2010 23:33	10 PPM	CAL	1.0	AP010	
s2b2523.d	WBN100218-02	AGS1	25-FEB-2010 23:52	20 PPM	CAL	1.0	AP020	
s2b2524.d	WBN100218-03.1	AGS1	26-FEB-2010 00:12	40 PPM	CAL	1.0	AP040	
s2b2525.d	WBN100218-04	AGS1	26-FEB-2010 00:32	50 PPM	CAL	1.0	AP050	
s2b2526.d	WBN100218-05	AGS1	26-FEB-2010 00:51	80 PPM	CAL	1.0	AP080	
s2b2527.d	WBN100218-06	AGS1	26-FEB-2010 01:11	100 PPM	CAL	1.0	AP100	

s2b2528.d	WBN100218-07	AGS1	26-FEB-2010 01:31	120 PPM	CAL		1.0	AP120	
s2b2529.d	WBN100205-25	AGS1	26-FEB-2010 01:50	10 PPM	CAL		1.0	PEST010	
s2b2530.d	WBN100205-24	AGS1	26-FEB-2010 02:10	20 PPM	CAL		1.0	PEST020	
s2b2531.d	WBN100205-23.1	AGS1	26-FEB-2010 02:29	40 PPM	CAL		1.0	PEST040	
s2b2532.d	WBN100205-22	AGS1	26-FEB-2010 02:49	50 PPM	CAL		1.0	PEST050	
s2b2533.d	WBN100205-21	AGS1	26-FEB-2010 03:09	80 PPM	CAL		1.0	PEST080	
s2b2534.d	WBN100205-20	AGS1	26-FEB-2010 03:28	100 PPM	CAL		1.0	PEST100	
s2b2535.d	WBN100205-19	AGS1	26-FEB-2010 03:48	120 PPM	CAL		1.0	PEST120	
s2b2536.d	WBN100215-09.1	AGS1	26-FEB-2010 04:07	40PPM	s022510a		1.0	MEGAICV	DUSE
s2b2537.d	WBN100218-08.1	AGS1	26-FEB-2010 04:31	40 PPM	ICV		1.0	APICV	8270C
s2b2538.d	WBN100205-26.1	AGS1	26-FEB-2010 04:51	40 PPM	ICV		1.0	PESTICV	8270C
s2b2539.d	WBN100207-01	AGS1	26-FEB-2010 14:01	50PPM	DFTPP		1.0	DFTPP	8270C TUNE (MEGA-HEX)
s2b2539D.d	WBN100207-01	AGS1	26-FEB-2010 14:01	50PPM	DFTPP		1.0	DFTPP	8270D
s2b2540.d	INSTBLK	AGS1	26-FEB-2010 14:14	40 PPM	s022510a		1.0	INSTBLK	
s2b2541.d	WBN100225-08	AGS1	26-FEB-2010 14:34	1PPM	CAL		1.0	MEGA001	
s2b2542.d	WBN100225-07	AGS1	26-FEB-2010 14:58	10PPM	CAL		1.0	MEGA010	
s2b2543.d	WBN100225-06	AGS1	26-FEB-2010 15:23	20PPM	CAL		1.0	MEGA020	
s2b2544.d	WBN100225-05.1	AGS1	26-FEB-2010 15:48	40PPM	CAL		1.0	MEGA040	
s2b2545.d	WBN100225-04	AGS1	26-FEB-2010 16:13	50PPM	CAL		1.0	MEGA050	
s2b2546.d	WBN100225-03	AGS1	26-FEB-2010 16:38	80PPM	s022510a		1.0	MEGA080	DUSE
s2b2547.d	WBN100225-02	AGS1	26-FEB-2010 17:02	100PPM	s022510a		1.0	MEGA100	DUSE
s2b2548.d	WBN100225-01	AGS1	26-FEB-2010 17:27	120PPM	s022510a		1.0	MEGA120	DUSE

Instrument Batch: /chem/MSD2.i/s022510a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s2b2549.d	INSTBLK	AGS1	26-FEB-2010 17:52	40 PPM	s022510a		1.0	INSTBLK
s2b2550.d	WBN100225-03	AGS1	26-FEB-2010 18:12	80PPM	CAL		1.0	MEGA080

s2b2551.d	WBN100225-02	AGS1	26-FEB-2010 18:36	100PPM	CAL	1.0	MEGA100		
s2b2552.d	WBN100225-01	AGS1	26-FEB-2010 19:01	120PPM	CAL	1.0	MEGA120		
s2b2553.d	INSTBLK	AGS1	26-FEB-2010 19:26	40 PPM	s022510a	1.0	INSTBLK		
s2b2554.d	WBN100225-09.1	AGS1	26-FEB-2010 19:46	40PPM	ICV	1.0	MEGAICV	8270C	286572
s2b2555.d	WBN100120-16	AGS1	26-FEB-2010 20:10	500 PPM	s022510a	1.0	HEX0500		
s2b2556.d	WBN100120-15	AGS1	26-FEB-2010 20:30	1000 PPM	s022510a	1.0	HEX1000		
s2b2557.d	WBN100120-14	AGS1	26-FEB-2010 20:50	1250 PPM	s022510a	1.0	HEX1250		
s2b2558.d	WBN100120-13	AGS1	26-FEB-2010 21:10	1500 PPM	s022510a	1.0	HEX1500		
s2b2559.d	WBN100120-12	AGS1	26-FEB-2010 21:31	1750 PPM	s022510a	1.0	HEX1750		
s2b2560.d	UBN090828-02.10	AGS1	26-FEB-2010 21:51	2000 PPM	s022510a	1.0	HEX2000		
s2b2561.d	INSTBLK	AGS1	26-FEB-2010 22:11	40 PPM	s022510a	1.0	INSTBLK		
s2b2562.d	WBN091016-10.1	AGS1	26-FEB-2010 22:31	1250 PPM	s022510a	1.0	HEXICV	DUSE see s3b2573	
s2b2563.d	WBN100207-01	AGS1	26-FEB-2010 22:53	50PPM	s022510a	1.0	DFTPP	DUSE FAILED	
s2b2564-D.d	WBN100207-01	AGS1	27-FEB-2010 16:01	50PPM	s022510a	1.0	DFTPP		
s2b2564.d	WBN100207-01	AGS1	27-FEB-2010 16:01	50PPM	s022510a	1.0	DFTPP	TUNE (BJCO-HEXICV)	
s2b2565.d	INSTBLK	AGS1	27-FEB-2010 16:13	40 PPM	s022510a	1.0	INSTBLK		
s2b2566.d	WBN100121-07	AGS1	27-FEB-2010 16:33	10PPM	s022510a	1.0	BJCO010		
s2b2567.d	WBN100121-06	AGS1	27-FEB-2010 17:01	20PPM	s022510a	1.0	BJCO020		
s2b2568.d	WBN100121-05.1	AGS1	27-FEB-2010 17:29	40PPM	s022510a	1.0	BJCO040		
s2b2569.d	WBN100121-04	AGS1	27-FEB-2010 17:56	50PPM	s022510a	1.0	BJCO050		
s2b2570.d	WBN100121-03	AGS1	27-FEB-2010 18:24	80PPM	s022510a	1.0	BJCO080		
s2b2571.d	WBN100121-02	AGS1	27-FEB-2010 18:51	100PPM	s022510a	1.0	BJCO100	DUSE	
s2b2572.d	WBN100121-01	AGS1	27-FEB-2010 19:19	120PPM	s022510a	1.0	BJCO120		
s2b2573-D.d	WBN091016-10.3	AGS1	27-FEB-2010 19:46	1250 PPM	s022510a	1.0	HEXICV		
s2b2573.d	WBN091016-10.3	AGS1	27-FEB-2010 19:46	1250 PPM	s022510a	1.0	HEXICV		
s2b2574.d	WBN100121-05.4	AGS1	27-FEB-2010 20:06	40PPM	s022510a	1.0	BJCOICV		
s2b2575.d	245886003	AGS1	27-FEB-2010 20:34	947655	2010MDLV_BJCOList-S	1.0	QCQA	BJ MDLV	

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
04-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
SEMIVOA GC/MS	SW846 8270C	Liquid	ESHL, LANL
Batch ID:	**Sample Numbers:**		
959852	See Below		

Potentially affected work order(s)(SDG): 248017(10-2039),248040(10-2051),248042(10-2057),248047(10-2045)

Application Issues:

Failed RPD for MS/MSD, or PS/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The MS(1202058724)/MSD(1202058725) RPD value for Benzidine was 50% (limit: 25.00%).	1. As the individual spike recoveries in the MS and MSD were within recovery limits and no target analytes were detected in the parent sample, the data were reported un-qualified for the RPD value failure.

Originator's Name:

Anne Salter 08-MAR-10

Data Validator/Group Leader:

Daniel Beacham 08-MAR-10

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LC/MS/MS EXPLOSIVES ANALYSIS

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LC/MS/MS Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2039

Method/Analysis Information

Procedure:	**Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)**
Analytical Method:	SW846 3535/8321A Modified
Prep Method:	SW846 Method 3535
Analytical Batch Number:	958282
Prep Batch Number:	958278

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 3535/8321A Modified :

Sample ID	Client ID
248017003	CAPA-10-12917
1202055078	Method Blank (MB)
1202055079	Laboratory Control Sample (LCS)
1202055080	248017003(CAPA-10-12917) Matrix Spike (MS)
1202055081	248017003(CAPA-10-12917) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

Primary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

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CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Sample 248017003 (CAPA-10-12917) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The MS/MSD RPD for Tetryl was 39.2%. The acceptance limits are 0-30%. Since all other RPD recoveries met acceptance criteria, the noted exceptions are attributed to vagaries in the analytical and/or extraction process. The data are reported. Please see data exception report 817080.

Internal Standard (ISTD) Acceptance
Samples 1202055078 (MB), 1202055081 (CAPA-10-12917MSD) and 248017003 (CAPA-10-12917) failed ISTD acceptance criteria. Please see the Form 8 in the data package for the exact recoveries. The samples were re-analyzed and similar recoveries were observed. The re-analysis data are reported. The confirmation raw data are in the Miscellaneous Section. Please see data exception report 817080.

Technical Information

Holding Time Specifications
Samples 248017003(CAPA-10-12917), 1202055080 (CAPA-10-12917MS) and 1202055081 (CAPA-10-12917MSD) were analyzed out of holding for the Primary analyte analysis. The analytical holding times for the samples in this batch were exceeded due to limitations of instrument capacity. However, these samples were analyzed within two times the analytical holding time of the method. The client was notified of this situation and is in agreement to receive these qualified data. The data are reported. Please see data exception report 817080. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

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Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Samples 1202055078 (MB), 1202055081 (CAPA-10-12917MSD) and 248017003 (CAPA-10-12917) failed ISTD acceptance criteria. Please see the Form 8 in the data package for the exact recoveries. The samples were re-analyzed and similar recoveries were observed. The re-analysis data are reported. The confirmation raw data are in the Miscellaneous Section. Please see data exception report 817080.

Secondary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Sample 248017003 (CAPA-10-12917) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

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Internal Standard (ISTD) Acceptance
The internal standards were not added to the secondary analyte extracts.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch for this analysis met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report 817080 was generated fort his SDG.

The MS/MSD RPD for Tetryl was 39.2%. The acceptance limits are 0-30%. Since all other RPD recoveries met acceptance criteria, the noted exceptions are attributed to vagaries in the analytical and/or extraction process. The data are reported.

Samples 1202055078 (MB), 1202055081 (CAPA-10-12917MSD) and 248017003 (CAPA-10-12917) failed ISTD acceptance criteria. Please see the Form 8 in the data package for the exact recoveries. The samples were re-analyzed and similar recoveries were observed. The re-analysis data are reported. The confirmation raw data are in the Miscellaneous Section.

Samples 248017003(CAPA-10-12917), 1202055080 (CAPA-10-12917MS) and 1202055081 (CAPA-10-12917MSD) were analyzed out of holding for the Primary analyte analysis. The analytical holding times for the samples in this batch were exceeded due to limitations of instrument capacity. However, these samples were analyzed within two times the analytical holding time of the method. The client was notified of this situation and is in agreement to receive these qualified data. The data are reported.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

Flagging Convention
The sample was not originally analyzed using SW-846 Method 8330.

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Additional Comments
Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert M Mauer **Date:** 04/15/10

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SAMPLE DATA SUMMARY

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12917

Lab Code: GEL

GEL Job No (SDG) 10-2039

Matrix: GROUND WATER

GEL Sample ID: 248017003

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412065a

Date Analyzed: 13-APR-10 23:08

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	HU
121-14-2	2,4-Dinitrotoluene	0.325	HU
121-82-4	RDX	0.325	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	HU
2691-41-0	HMX	0.325	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	HU
479-45-8	Tetryl	0.649	HU
606-20-2	2,6-Dinitrotoluene	0.325	HU
78-11-5	PETN	1.3	HU
88-72-2	o-Nitrotoluene	0.325	HU
98-95-3	Nitrobenzene	0.325	HU
99-08-1	m-Nitrotoluene	0.325	HU
99-35-4	1,3,5-Trinitrobenzene	0.325	HU
99-65-0	m-Dinitrobenzene	0.325	HU
99-99-0	p-Nitrotoluene	0.649	HU

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12917

Lab Code: GEL

GEL Job No (SDG) 10-2039

Matrix: GROUND WATER

GEL Sample ID: 248017003

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050076.wiff

Date Analyzed: 06-APR-10 08:24

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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QUALITY CONTROL SUMMARY

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2

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–2039

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
248017003	CAPA–10–12917	95.4	67 – 134	
248017003	CAPA–10–12917	92.8	67 – 134	
1202055078	MB for batch 958278	95.4	67 – 134	
1202055078	MB for batch 958278	96	67 – 134	
1202055079	LCS for batch 958278	103	67 – 134	
1202055079	LCS for batch 958278	94.4	67 – 134	
1202055080	CAPA–10–12917(248017003MS)	95.2	67 – 134	
1202055080	CAPA–10–12917(248017003MS)	94	67 – 134	
1202055081	CAPA–10–12917(248017003MSD)	93.6	67 – 134	
1202055081	CAPA–10–12917(248017003MSD)	90.4	67 – 134	

DNT = 3,4–Dinitrotoluene

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10–2039

Extract Batch Code: 958278

Date Extracted: 01–MAR–10

GEL LCS ID: 1202055079

GEL LCSDUP ID:

Analysis Date/Time: 11–APR–10 03:40

DUP Analysis Date/Time:

Reporting Units: ug/L

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
1,3,5–Trinitrobenzene	6.49351	5.95	91.7					64 – 129
2,4,6–Trinitrotoluene	6.49351	6.9	106					67 – 150
2,4–Dinitrotoluene	6.49351	6.28	96.7					76.9 – 126
2,6–Dinitrotoluene	6.49351	5.79	89.2					73 – 123
2–Amino–4,6–dinitrotoluene	6.49351	6.56	101					66 – 143
4–Amino–2,6–dinitrotoluene	6.49351	6.21	95.6					68 – 141
HMX	6.49351	6.26	96.3					57 – 129
Nitrobenzene	6.49351	5.12	78.8					56 – 125
PETN	6.49351	6.83	105					59 – 142
RDX	6.49351	6.77	104					66 – 150
Tetryl	6.49351	6.22	95.8					53 – 123
m–Dinitrobenzene	6.49351	5.57	85.8					70 – 128
m–Nitrotoluene	6.49351	4.59	70.7					55 – 119
o–Nitrotoluene	6.49351	4.97	76.5					54 – 121
p–Nitrotoluene	6.49351	5.03	77.5					56 – 129

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10–2039

Extract Batch Code: 958278

Date Extracted: 01–MAR–10

GEL LCS ID: 1202055079

GEL LCSDUP ID:

Analysis Date/Time: 06–APR–10 08:08

DUP Analysis Date/Time:

Reporting Units: ug/L

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
2,4–Diamino–6–nitrotoluene	6.49351	5.35	82.4					38 – 114
2,6–Diamino–4–nitrotoluene	6.49351	5.27	81.2					59.1 – 123
3,5–Dinitroaniline	6.49351	5.88	90.6					64 – 117
tris(o–cresyl) phosphate	6.49351	1.17	18					17 – 73
TATB	6.49351	5.78	89					27 – 141

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: CAPA-10-12917

Lab Code: GEL

GEL Job No (SDG) 10-2039

Extract Batch Code: 958278

Date Extracted: 01-MAR-10

GEL Spike ID: 1202055080

GEL SpikeDup ID: 1202055081

Analysis Date/Time: 11-APR-10 04:39

MSD Analysis Date/Time:

Reporting Units: ug/L

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
m-Nitrotoluene	6.49351	0	4.81	74.1	5.23	80.6	8.4	30	66 – 111
2,6-Dinitrotoluene	6.49351	0	5.95	91.6	6.02	92.8	1.26	30	83 – 114
4-Amino-2,6-dinitrotoluene	6.49351	0	6.34	97.7	5.57	85.8	13	30	73 – 140
Nitrobenzene	6.49351	0	4.86	74.8	5.51	84.8	12.5	30	65 – 114
m-Dinitrobenzene	6.49351	0	5.72	88.2	6.11	94.2	6.57	30	79 – 117
Tetryl	6.49351	0	6.47	99.7	2.55	39.2	87.1 *	30	26 – 116
RDX	6.49351	0	7.07	109	6.95	107	1.65	30	63 – 156
PETN	6.49351	0	6.72	104	5.86	90.3	13.7	30	47 – 145
HMX	6.49351	0	6.54	101	6.16	94.8	6.04	30	53 – 150
2-Amino-4,6-dinitrotoluene	6.49351	0	6.42	98.8	6	92.3	6.78	30	70 – 149
2,4-Dinitrotoluene	6.49351	0	5.82	89.7	6.73	104	14.5	30	77.5 – 131
o-Nitrotoluene	6.49351	0	4.63	71.3	4.82	74.2	4.06	30	65 – 115
1,3,5-Trinitrobenzene	6.49351	0	6.13	94.4	5.57	85.7	9.6	30	28 – 140
2,4,6-Trinitrotoluene	6.49351	0	8.35	129	6.41	98.7	26.3	30	68 – 147
p-Nitrotoluene	6.49351	0	5.44	83.8	5.4	83.1	.806	30	66 – 121

#Column to be used to flag recovery and RPD values with an asterisk

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3

High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: CAPA-10-12917

Lab Code: GEL

GEL Job No (SDG) 10-2039

Extract Batch Code: 958278

Date Extracted: 01-MAR-10

GEL Spike ID: 1202055080

GEL SpikeDup ID: 1202055081

Analysis Date/Time: 06-APR-10 08:39

MSD Analysis Date/Time:

Reporting Units: ug/L

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
2,4-Diamino-6-nitrotoluene	6.49351	0	5.49	84.6	5.79	89.2	5.29	30	31 – 125
2,6-Diamino-4-nitrotoluene	6.49351	0	5.75	88.6	5.6	86.2	2.75	30	50.3 – 136
TATB	6.49351	0	5.29	81.4	5.43	83.6	2.67	30	21 – 150
3,5-Dinitroaniline	6.49351	0	5.27	81.2	6.14	94.6	15.2	30	60 – 128
tris(o-cresyl) phosphate	6.49351	0	2.61	40.2	3.03	46.6	14.7	30	14 – 78

#Column to be used to flag recovery and RPD values with an asterisk

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 08–APR–10 21:32

GEL Data File: EXP0408001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	505.174
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	503.22
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\040810expa.mdb, Time: Fri Apr 09 10:24:44 2010
Calibration: Untitled, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408001a
Date: 08-Apr-2010
Time: 21:32:51
ID: XIBLK01
Vial: 1:1,A

MMT 4/10/10

HMX

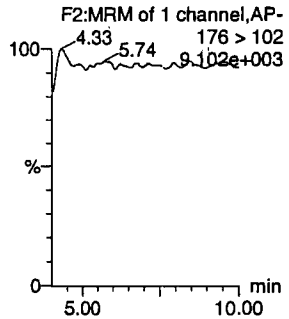

RDX

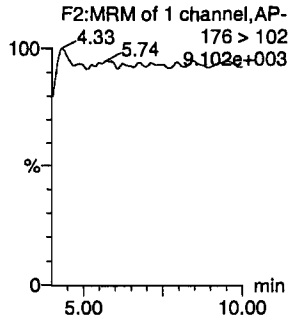

135-Trinitrobenzene

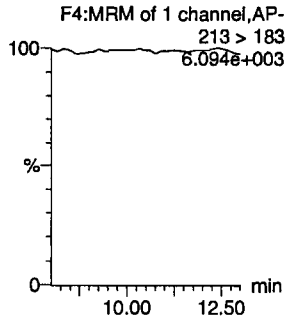

13-Dinitrobenzene-d4

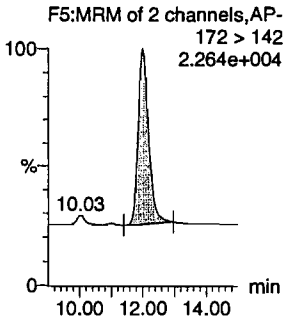

13-Dinitrobenzene

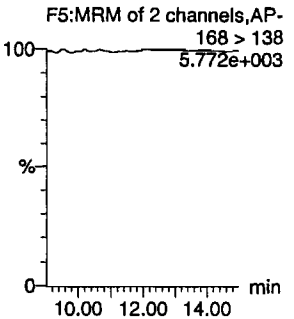

Tetryl

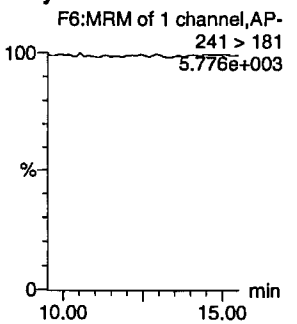

Nitrobenzene

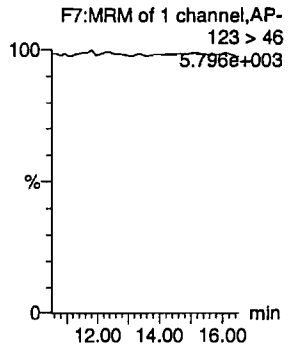

4-Amino-26-dinitrotoluene

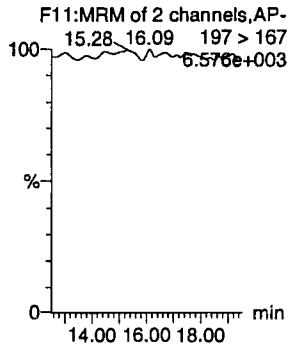

2-Amino-46-dinitrotoluene

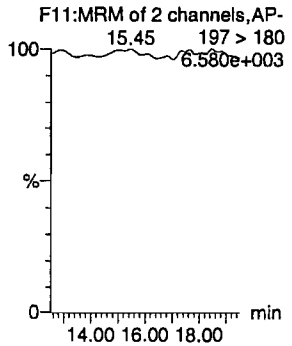

246-Trinitrotoluene

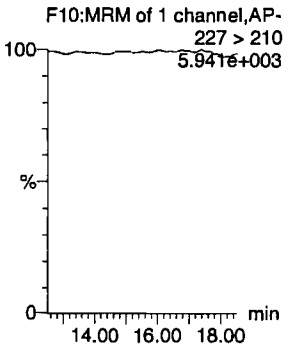

34-dinitrotoluene

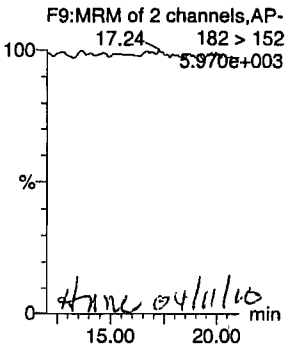

HMM 04/11/10

26-dinitrotoluene

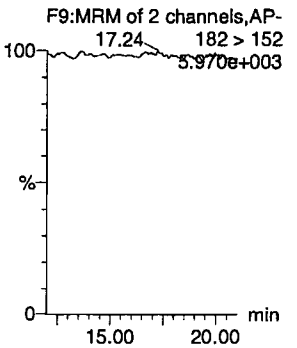

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

24-dinitrotoluene

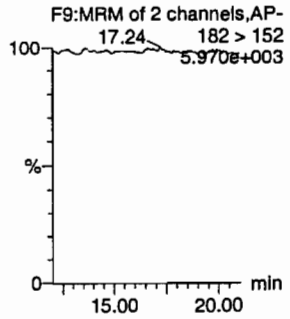

26-dinitrotoluene-d3

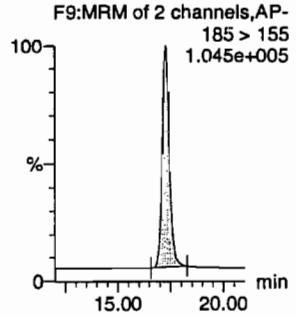

2-Nitrotoluene

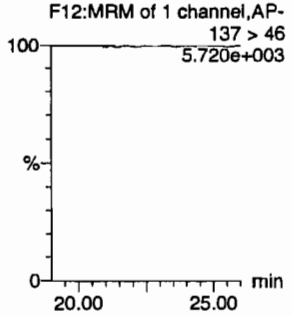

4-Nitrotoluene

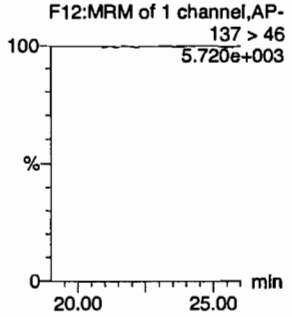

3-Nitrotoluene

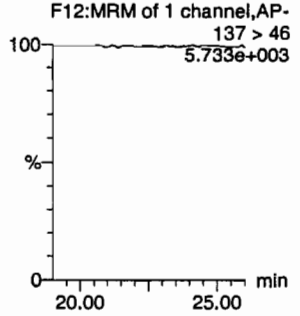

PETN

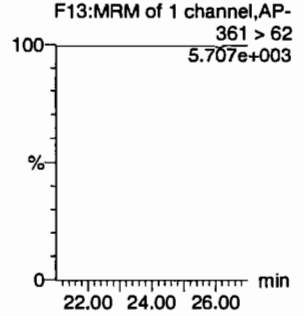

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			6565.287									
XIBLK01	RDX	176 > 102			6565.287									
XIBLK01	135-Trinitrobenzene	213 > 183			6565.287									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.00	6565.287		6565.287	6565.287	bb			505.1737	101.0	1.0	289.2
XIBLK01	13-Dinitrobenzene	168 > 138			6565.287									
XIBLK01	Tetryl	241 > 181			6565.287									
XIBLK01	Nitrobenzene	123 > 46			6565.287									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			39732.852									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			39732.852									
XIBLK01	246-Trinitrotoluene	227 > 210			39732.852									
XIBLK01	34-dinitrotoluene	182 > 152			39732.852									
XIBLK01	26-dinitrotoluene	182 > 152			39732.852									
XIBLK01	24-dinitrotoluene	182 > 152			39732.852									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.28	39732.852		39732.852	39732.852	bb			503.2203	100.6	0.6	2525.4
XIBLK01	2-Nitrotoluene	137 > 46			39732.852									
XIBLK01	4-Nitrotoluene	137 > 46			39732.852									
XIBLK01	3-Nitrotoluene	137 > 46			39732.852									
XIBLK01	PETN	361 > 62			39732.852									

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 08–APR–10 22:02

GEL Data File: EXP0408002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
1,3–Dinitrobenzene–d4	500	589.589
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	523.733
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408002a
Date: 08-Apr-2010
Time: 22:02:20
ID: XIBLK01
Vial: 1:1,A

LMT 4/10/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
9.535e+003

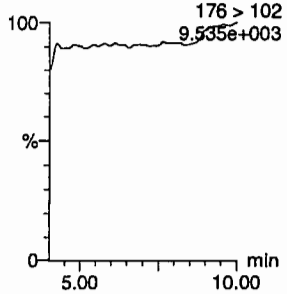

RDX
F2:MRM of 1 channel,AP-
176 > 102
9.535e+003

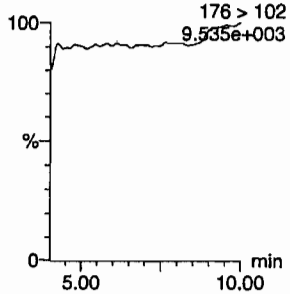

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.626e+003

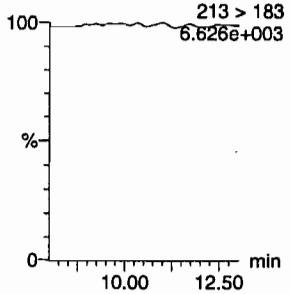

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.607e+004

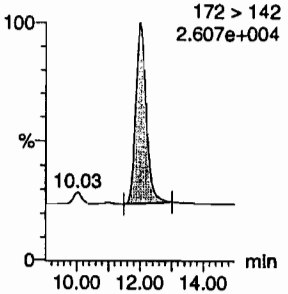

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.313e+003

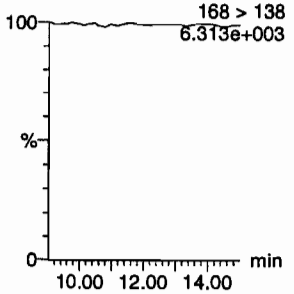

Tetryl
F6:MRM of 1 channel,AP-
9.94
241 > 181
6.393e+003

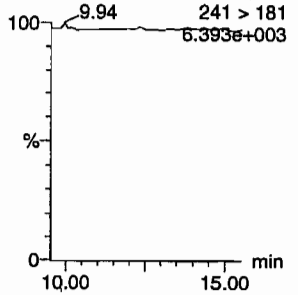

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.255e+003

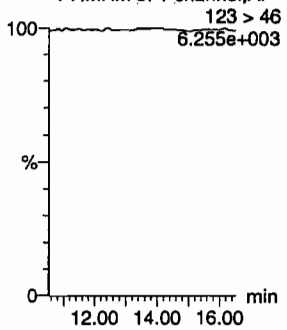

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
12.80
197 > 167
6.968e+003

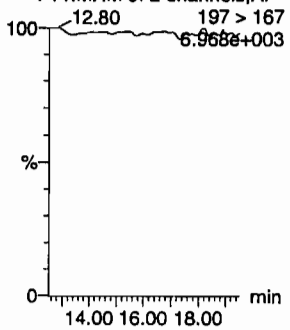

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
12.76
197 > 180
7.085e+003

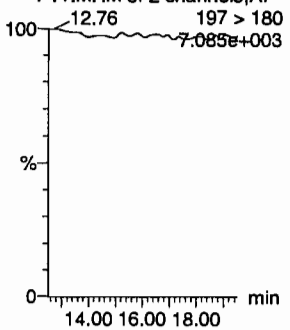

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.423e+003

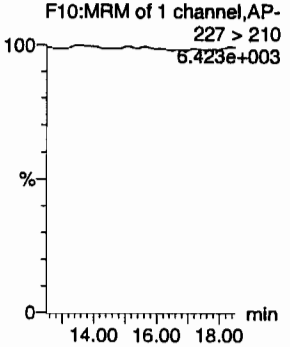

34-dinitrotoluene
F9:MRM of 2 channels,AP-
14.12
182 > 152
6.483e+003

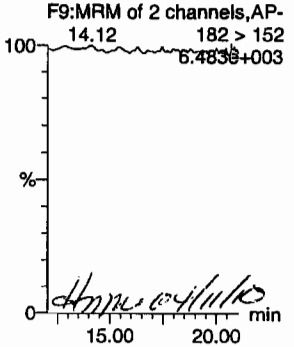

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.12
182 > 152
6.483e+003

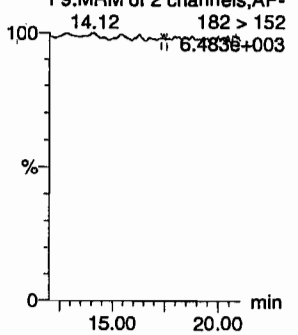

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

24-dinitrotoluene

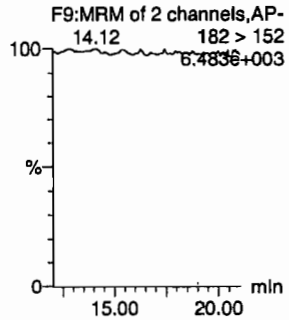

26-dinitrotoluene-d3

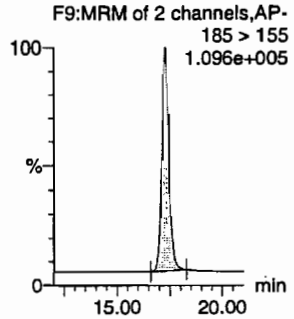

2-Nitrotoluene

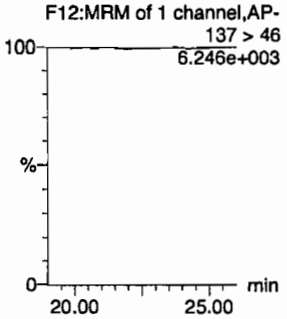

4-Nitrotoluene

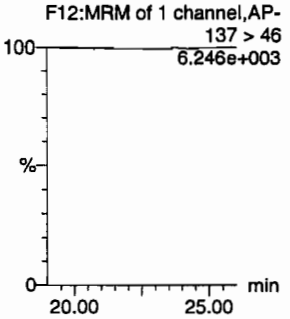

3-Nitrotoluene

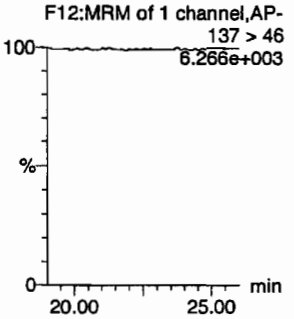

PETN

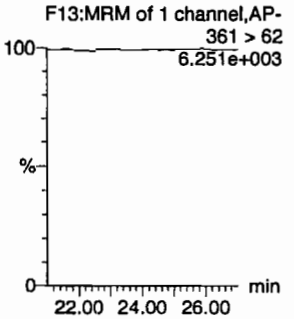

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			7662.359									
XIBLK01	RDX	176 > 102			7662.359									
XIBLK01	135-Trinitrobenzene	213 > 183			7662.359									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.00	7662.359		7662.359	7662.359	bb			589.5891	117.9	17.9	617.0
XIBLK01	13-Dinitrobenzene	168 > 138			7662.359									
XIBLK01	Tetryl	241 > 181			7662.359									
XIBLK01	Nitrobenzene	123 > 46			7662.359									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			41352.492									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			41352.492									
XIBLK01	246-Trinitrotoluene	227 > 210			41352.492									
XIBLK01	34-dinitrotoluene	182 > 152			41352.492									
XIBLK01	26-dinitrotoluene	182 > 152			41352.492			MM-	09-Apr-10	10:45:40				
XIBLK01	24-dinitrotoluene	182 > 152			41352.492									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.29	41352.492		41352.492	41352.492	bb			523.7332	104.7	4.7	3147.8
XIBLK01	2-Nitrotoluene	137 > 46			41352.492									
XIBLK01	4-Nitrotoluene	137 > 46			41352.492									
XIBLK01	3-Nitrotoluene	137 > 46			41352.492									
XIBLK01	PETN	361 > 62			41352.492									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 12–APR–10 15:40

GEL Data File: EXP0412001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	440.355
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	475.584
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\041210expa.mdb, Time: Tue Apr 13 09:03:30 2010
Calibration: Untitled, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412001a
Date: 12-Apr-2010
Time: 15:40:40
ID: XIBLK01
Vial: 1:1,A

MMT 4/13/10

HMX

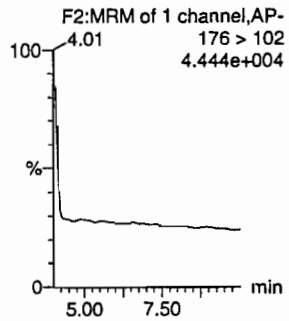

RDX

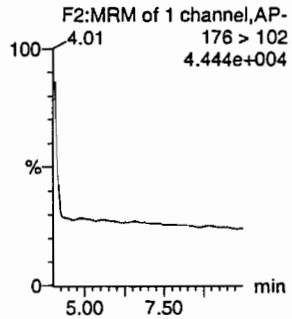

135-Trinitrobenzene

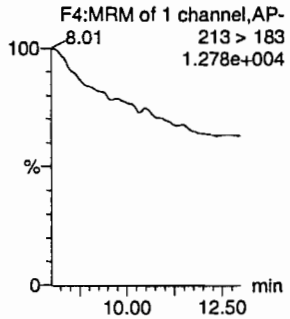

13-Dinitrobenzene-d4

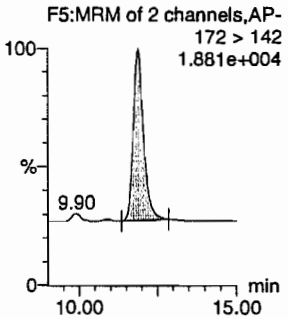

13-Dinitrobenzene

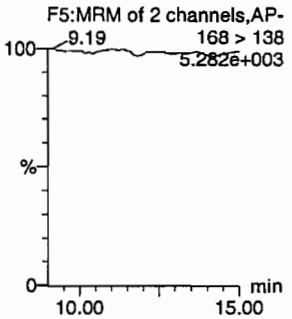

Tetryl

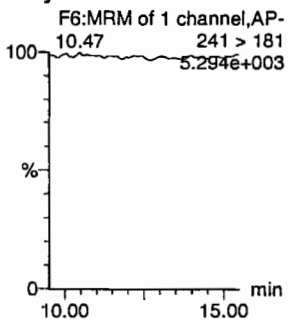

Nitrobenzene

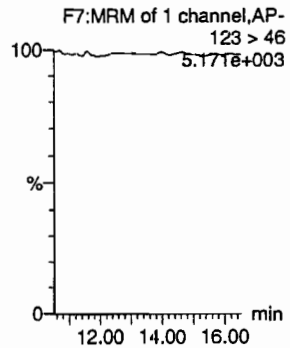

4-Amino-26-dinitrotoluene

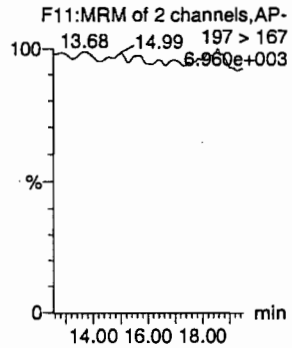

2-Amino-46-dinitrotoluene

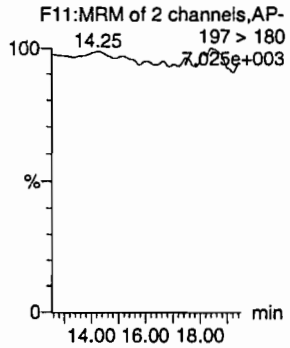

246-Trinitrotoluene

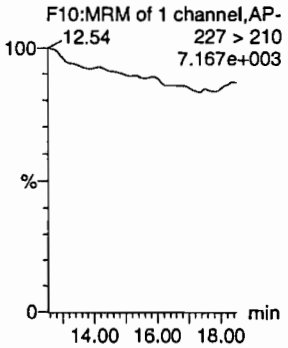

34-dinitrotoluene

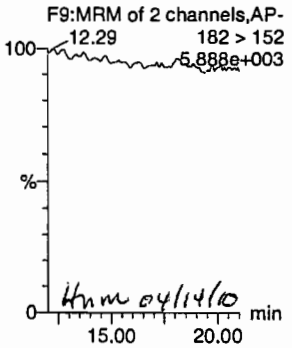

Hnm 04/14/10

26-dinitrotoluene

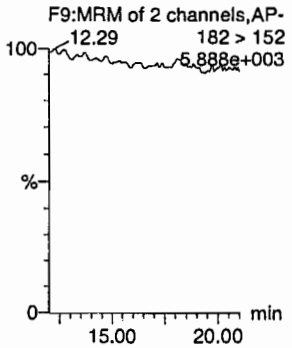

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

24-dinitrotoluene

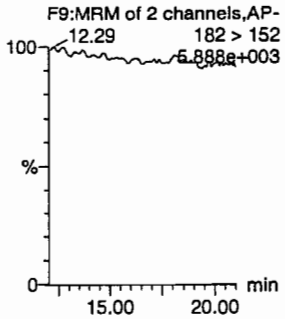

26-dinitrotoluene-d3

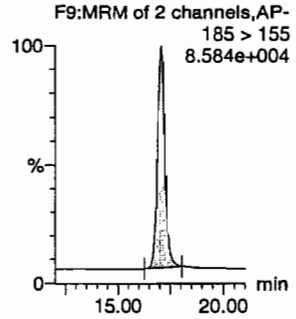

2-Nitrotoluene

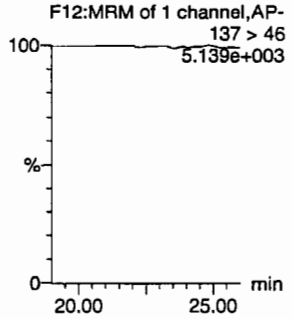

4-Nitrotoluene

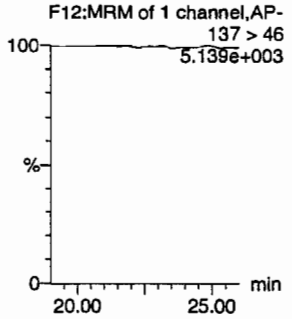

3-Nitrotoluene

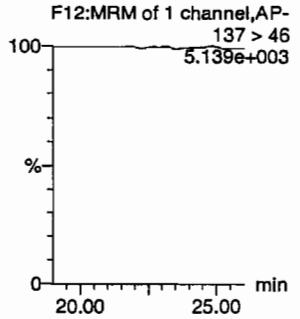

PETN

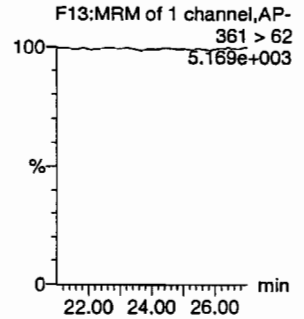

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			5178.896									
XIBLK01	RDX	176 > 102			5178.896									
XIBLK01	135-Trinitrobenzene	213 > 183			5178.896									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	11.87	5178.896		5178.896	5178.896	bb			440.3551	88.1	-11.9	715.5
XIBLK01	13-Dinitrobenzene	168 > 138			5178.896									
XIBLK01	Tetryl	241 > 181			5178.896									
XIBLK01	Nitrobenzene	123 > 46			5178.896									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			33274.848									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			33274.848									
XIBLK01	246-Trinitrotoluene	227 > 210			33274.848									
XIBLK01	34-dinitrotoluene	182 > 152			33274.848									
XIBLK01	26-dinitrotoluene	182 > 152			33274.848									
XIBLK01	24-dinitrotoluene	182 > 152			33274.848									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.06	33274.848		33274.848	33274.848	bb			475.5835	95.1	-4.9	2809.6
XIBLK01	2-Nitrotoluene	137 > 46			33274.848									
XIBLK01	4-Nitrotoluene	137 > 46			33274.848									
XIBLK01	3-Nitrotoluene	137 > 46			33274.848									
XIBLK01	PETN	361 > 62			33274.848									

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 12–APR–10 16:10

GEL Data File: EXP0412002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	473.054
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	498.176
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412002a
Date: 12-Apr-2010
Time: 16:10:12
ID: XIBLK01
Vial: 1:1,A

MJP 4/13/10

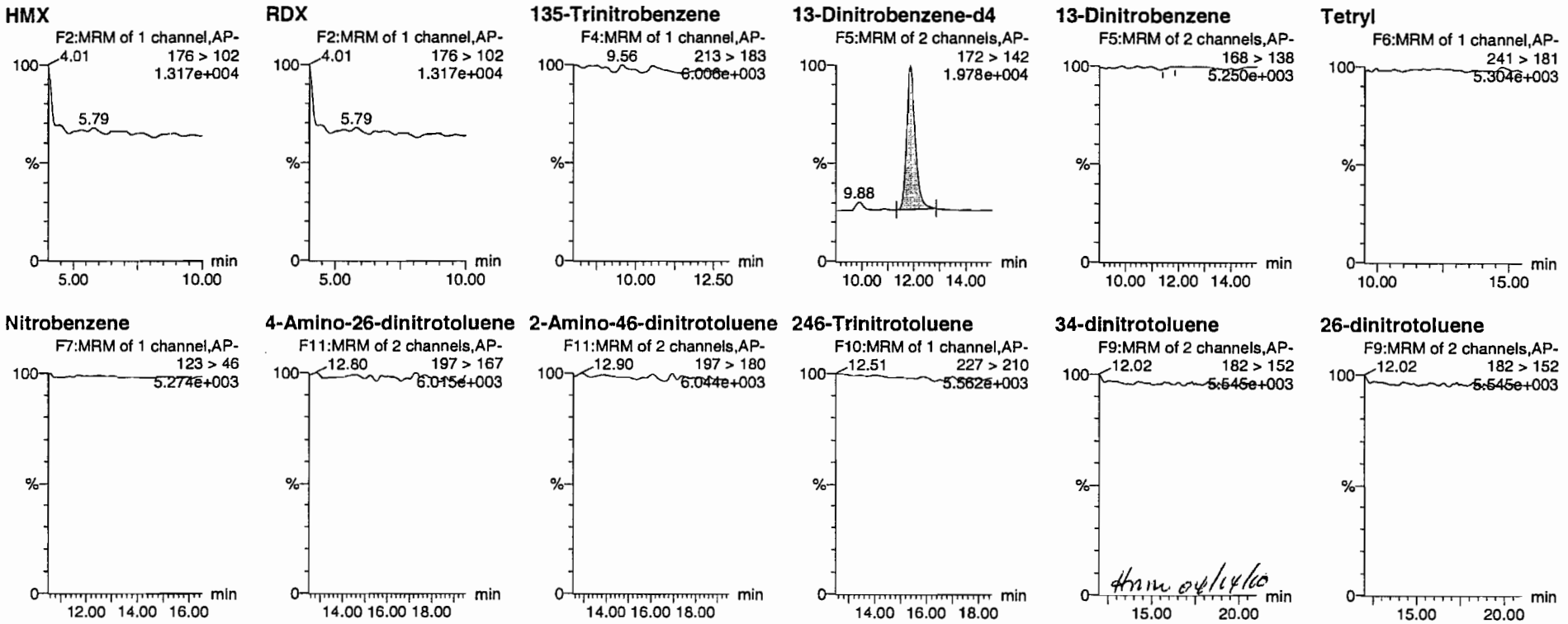

HMM 04/14/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

24-dinitrotoluene

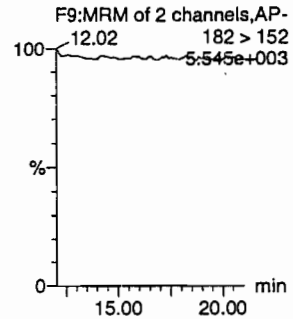

26-dinitrotoluene-d3

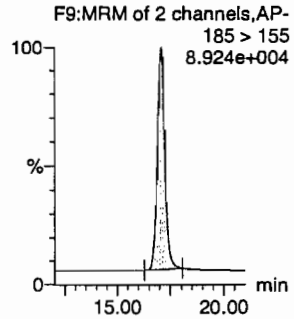

2-Nitrotoluene

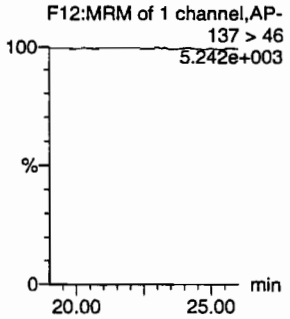

4-Nitrotoluene

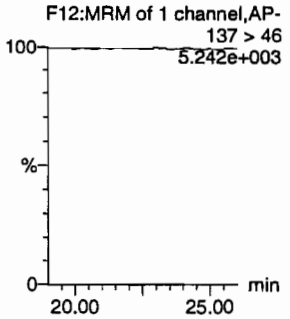

3-Nitrotoluene

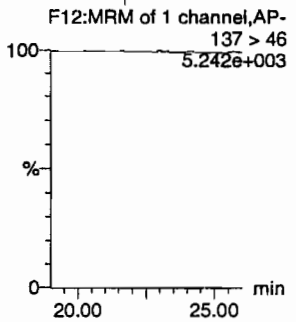

PETN

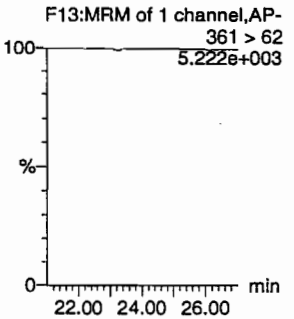

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			5563.454									
XIBLK01	RDX	176 > 102			5563.454									
XIBLK01	135-Trinitrobenzene	213 > 183			5563.454									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	11.87	5563.454		5563.454	5563.454	bb			473.0536	94.6	-5.4	108.0
XIBLK01	13-Dinitrobenzene	168 > 138			5563.454			MM-	13-Apr-10	10:59:24				
XIBLK01	Tetryl	241 > 181			5563.454									
XIBLK01	Nitrobenzene	123 > 46			5563.454									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			34855.578									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			34855.578									
XIBLK01	246-Trinitrotoluene	227 > 210			34855.578									
XIBLK01	34-dinitrotoluene	182 > 152			34855.578									
XIBLK01	26-dinitrotoluene	182 > 152			34855.578									
XIBLK01	24-dinitrotoluene	182 > 152			34855.578									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.05	34855.578		34855.578	34855.578	bb			498.1763	99.6	-0.4	2742.7
XIBLK01	2-Nitrotoluene	137 > 46			34855.578									
XIBLK01	4-Nitrotoluene	137 > 46			34855.578									
XIBLK01	3-Nitrotoluene	137 > 46			34855.578									
XIBLK01	PETN	361 > 62			34855.578									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 05–APR–10 12:43

GEL Data File: EXS04050001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	2.85
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	27.2
2,6–Diamino–4–nitrotoluene	0	0

LER 4/7/10

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS04050001.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 12:43:45 PM

Modified: No

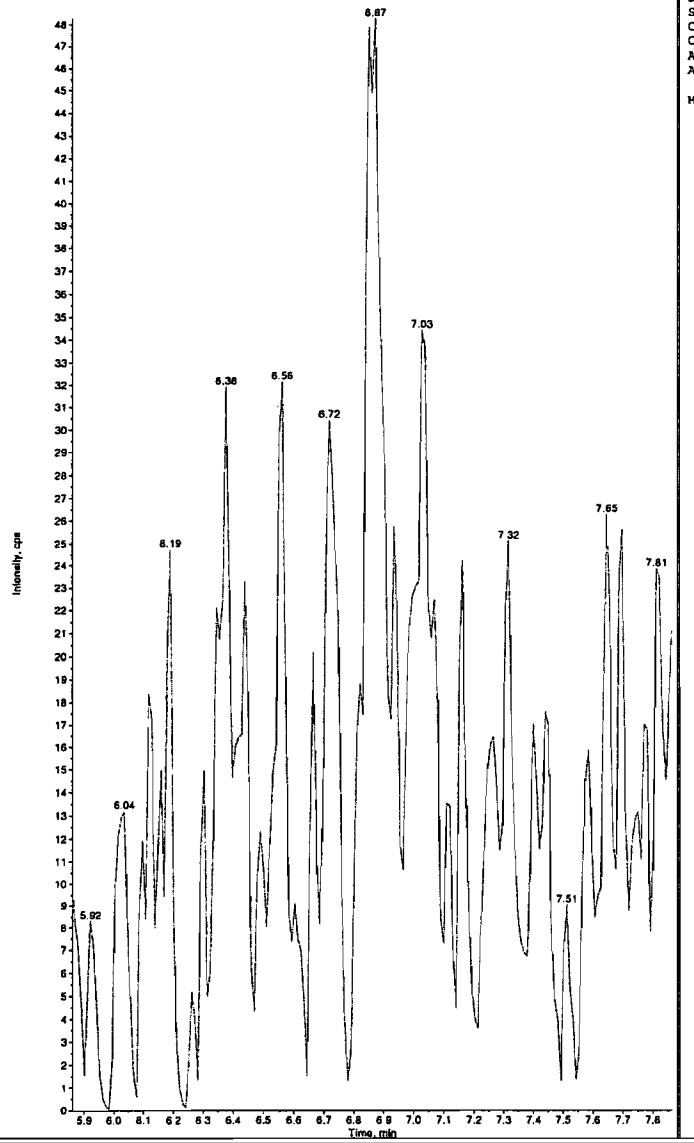

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS04050001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 12:43:45 PM

Modified: No

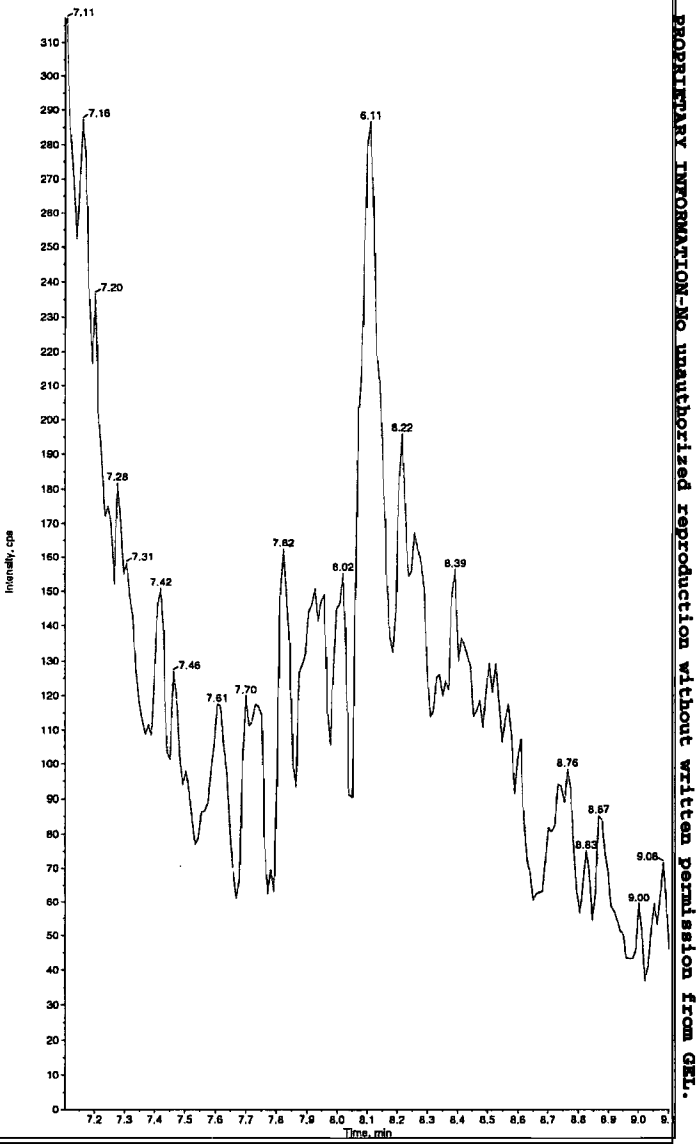

Hrm 04/08/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS04050001.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 4/5/2010
. Time: 12:43:45 PM

ified: No

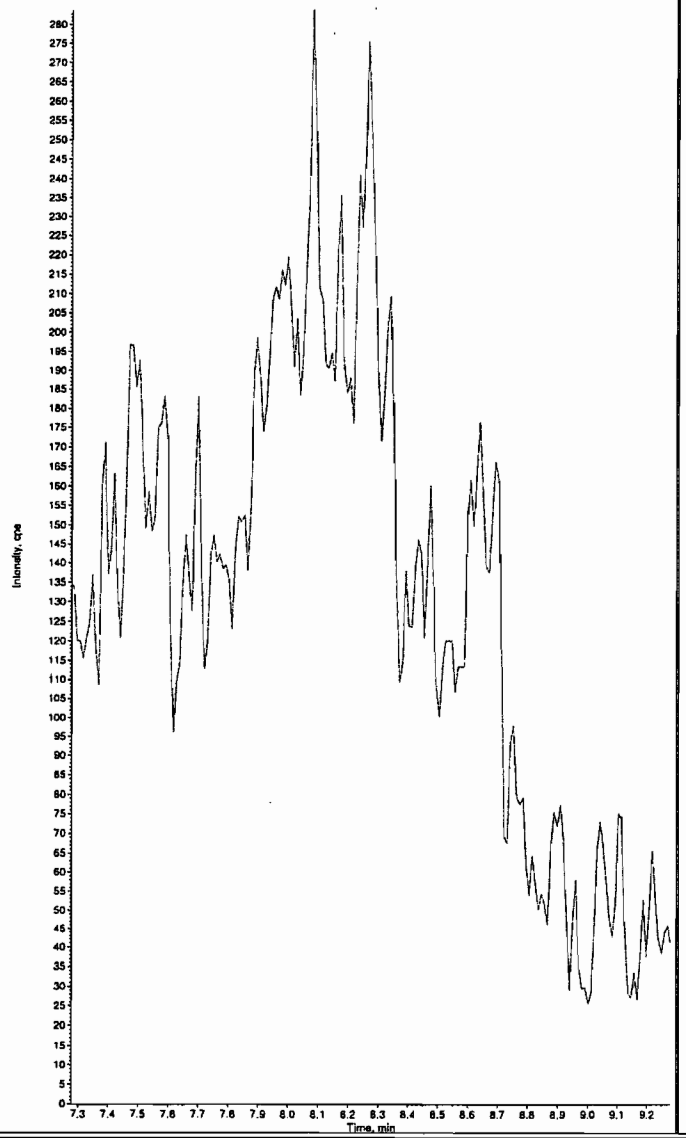

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS04050001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 12:43:45 PM

Modified: No

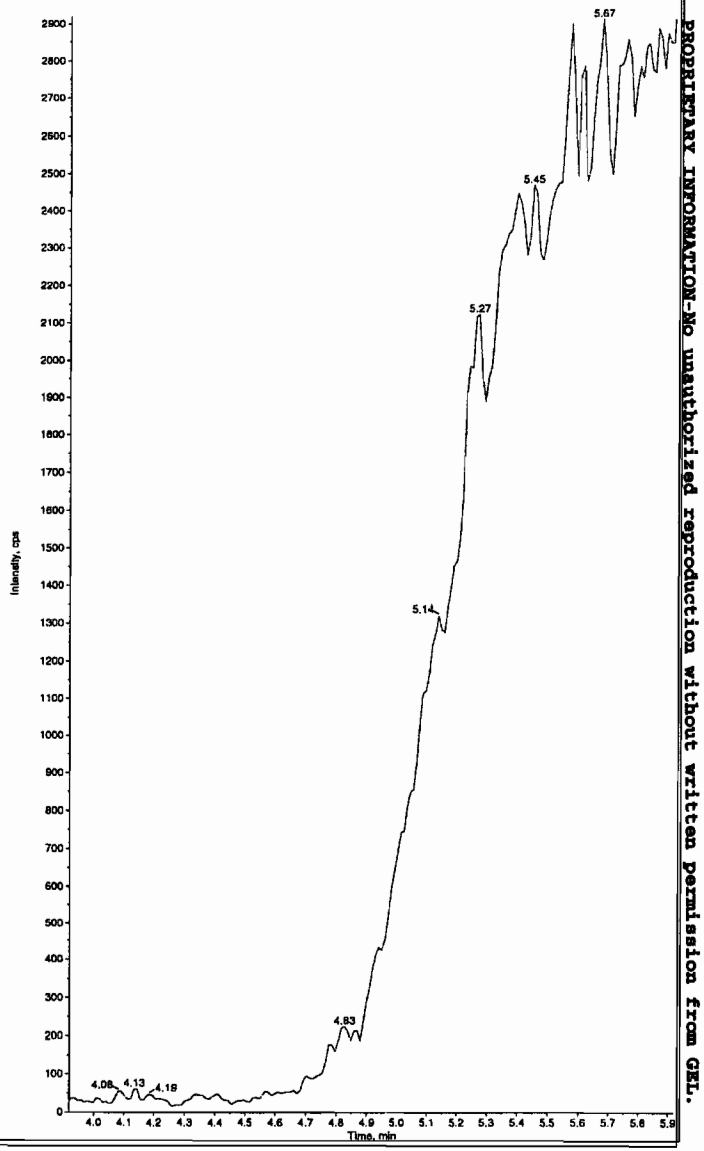

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS04050001.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
mple Index:        1
mple Type:      Unknown
ncentration:       N/A
lculated Conc:     27.2     ng/mL
q. Date:        4/5/2010
q. Time:        12:43:45 PM

dified:            No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 350.00    cps
n. Peak Width:    0.00    sec
oothing Width:  3         points
 Window:         30.0     sec
pected RT:        5.37    min
e Relative RT:    No

t. Type:        Valley
tention Time:     5.57    min
ea:          9.32e+003    counts
ight:          557.000    cps
art Time:         5.16    min
d Time:           5.62    min
```

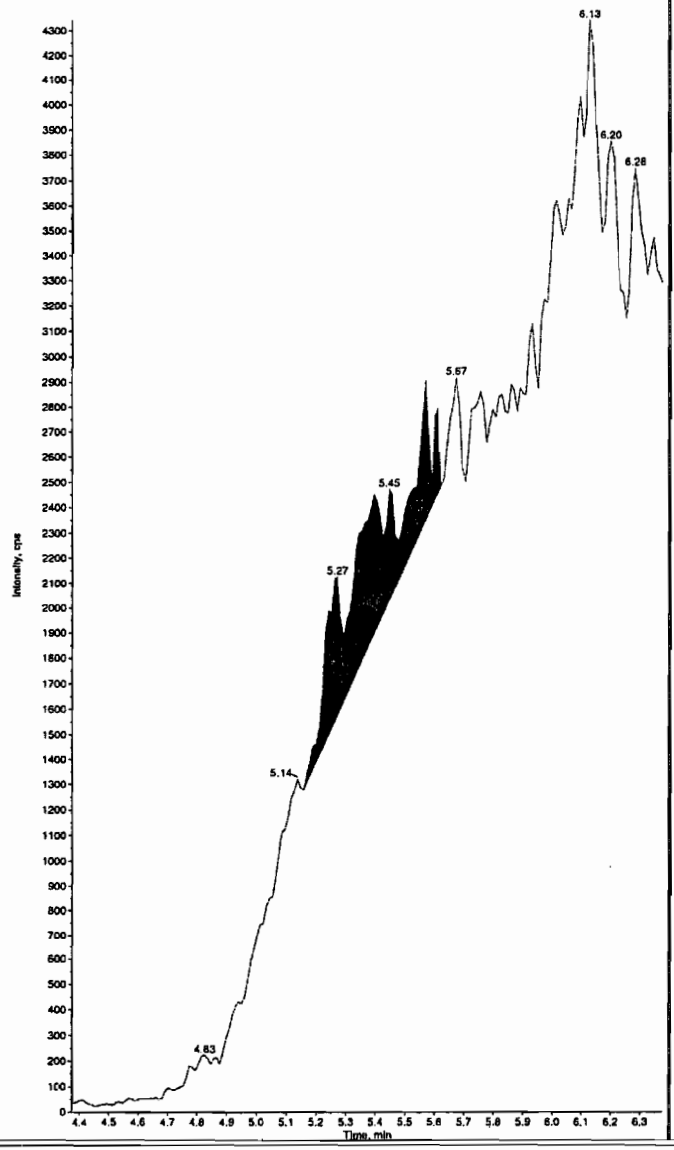

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS04050001.wiff"
Peak Neme: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:       N/A
Calculated Conc:     2.85     ng/mL
Acq. Date:        4/5/2010
Acq. Time:        12:43:45 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:       10.8     min
Use Relative RT:   No

Int. Type:        Valley
Retention Time:    10.8     min
Area:        5.14e+004     counts
Height:        11831.752   cps
Start Time:        10.7     min
End Time:          10.9     min
```

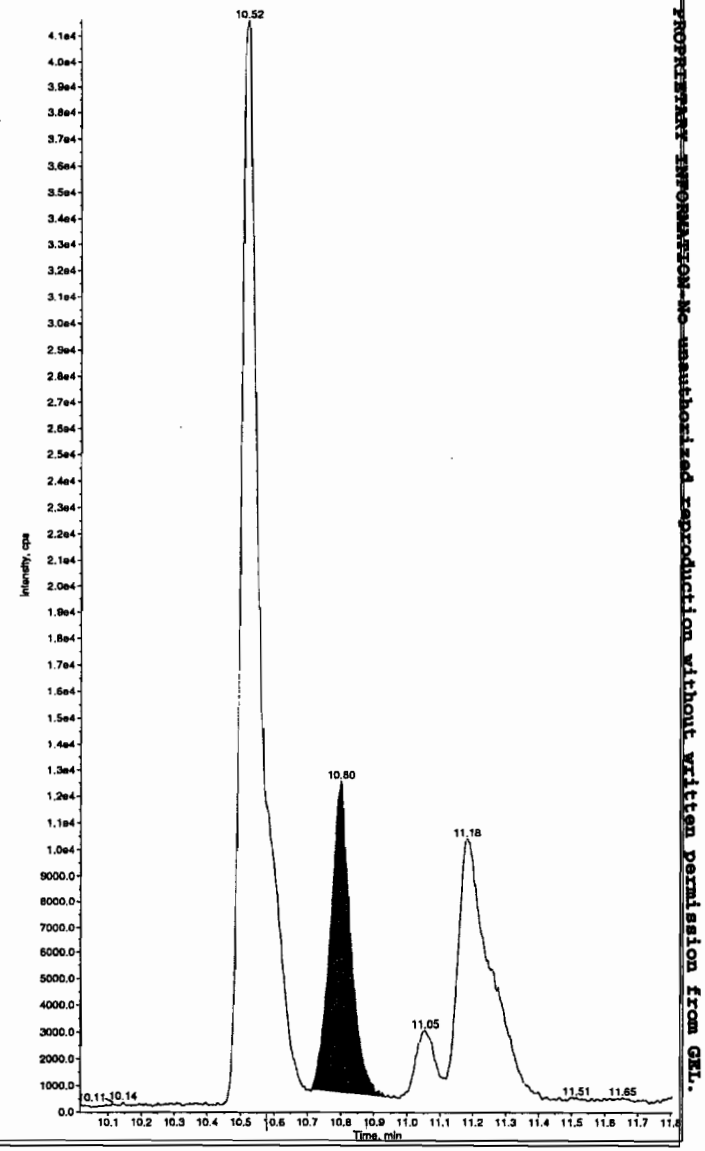

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 05–APR–10 12:59

GEL Data File: EXS04050002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

ÖCER 4/7/10

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS04050002.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
mple Index: 1
mple Type: Unknown
ncentration: N/A
lculated Conc: 0.00 ng/mL
q. Date: 4/5/2010
q. Time: 12:59:32 PM

dified: No

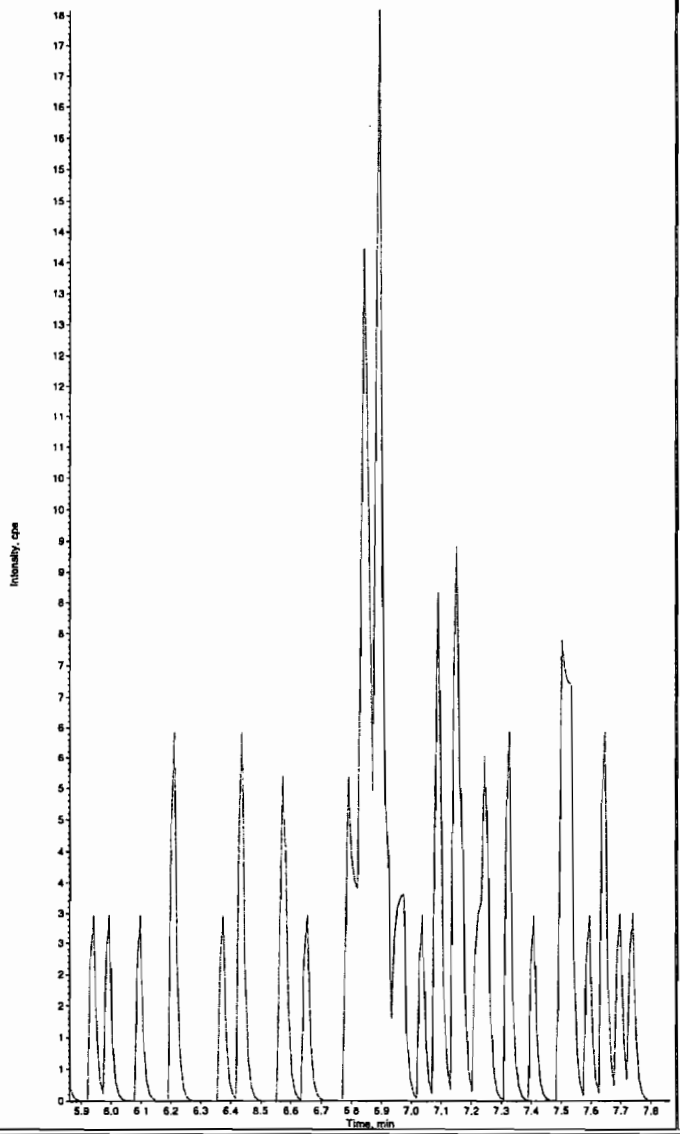

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS04050002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 12:59:32 PM

Modified: No

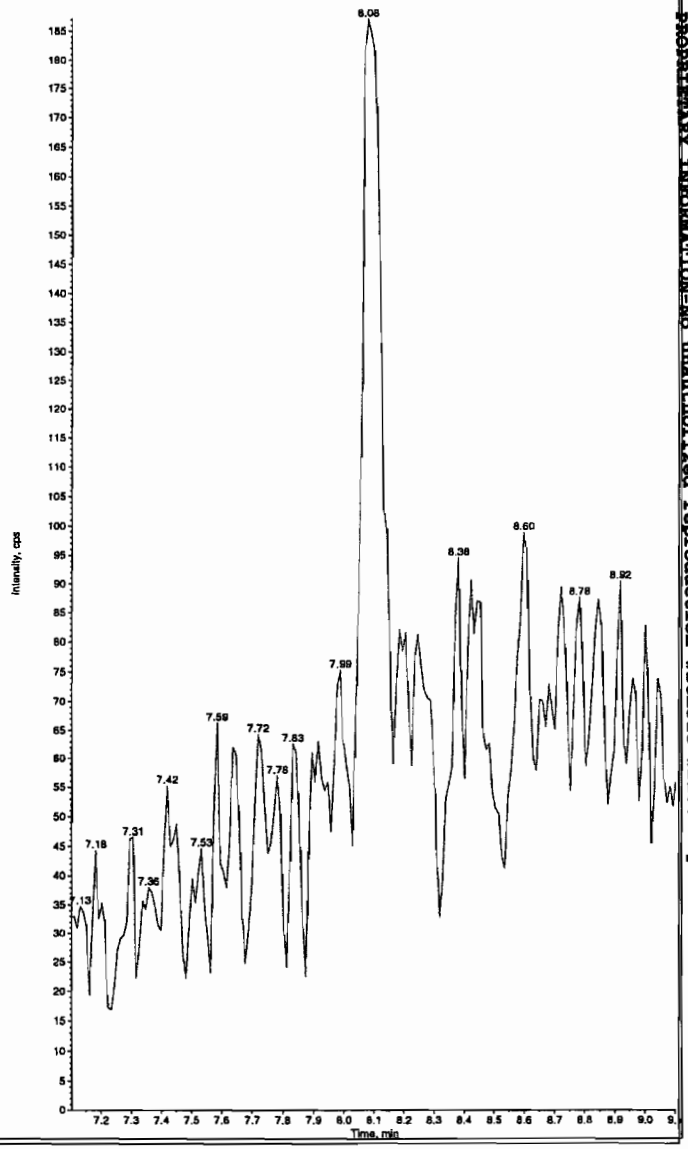

HMK 04/08/10

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Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS04050002.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 12:59:32 PM
Modified: No

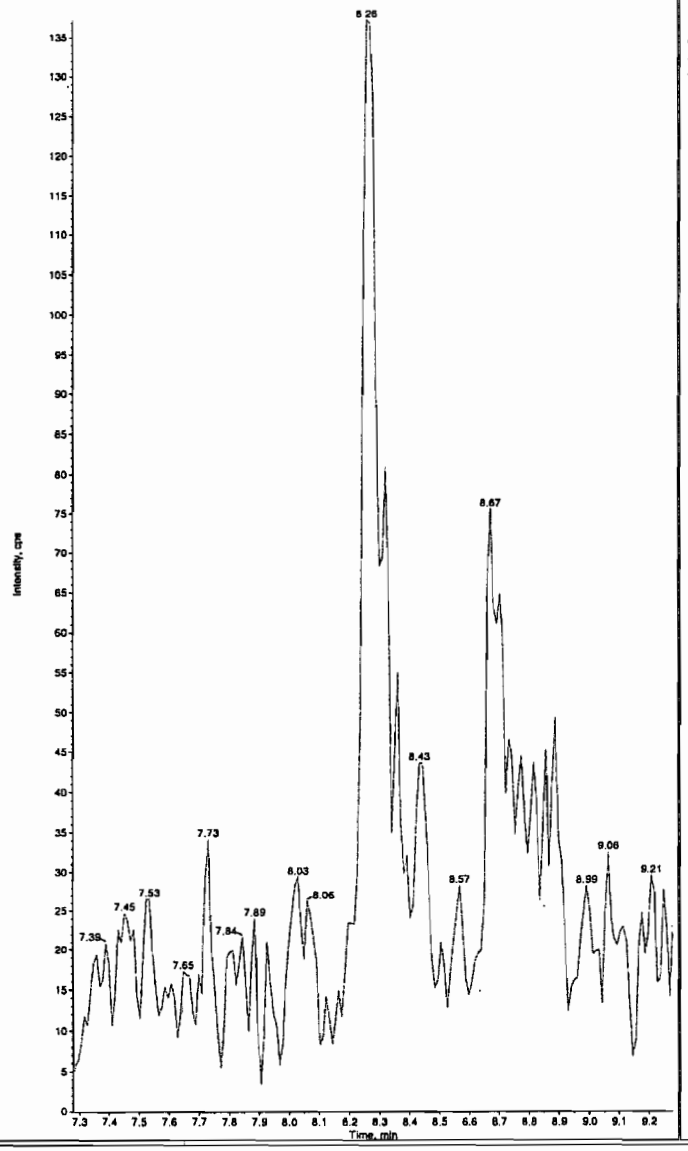

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS04050002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 12:59:32 PM
Modified: No

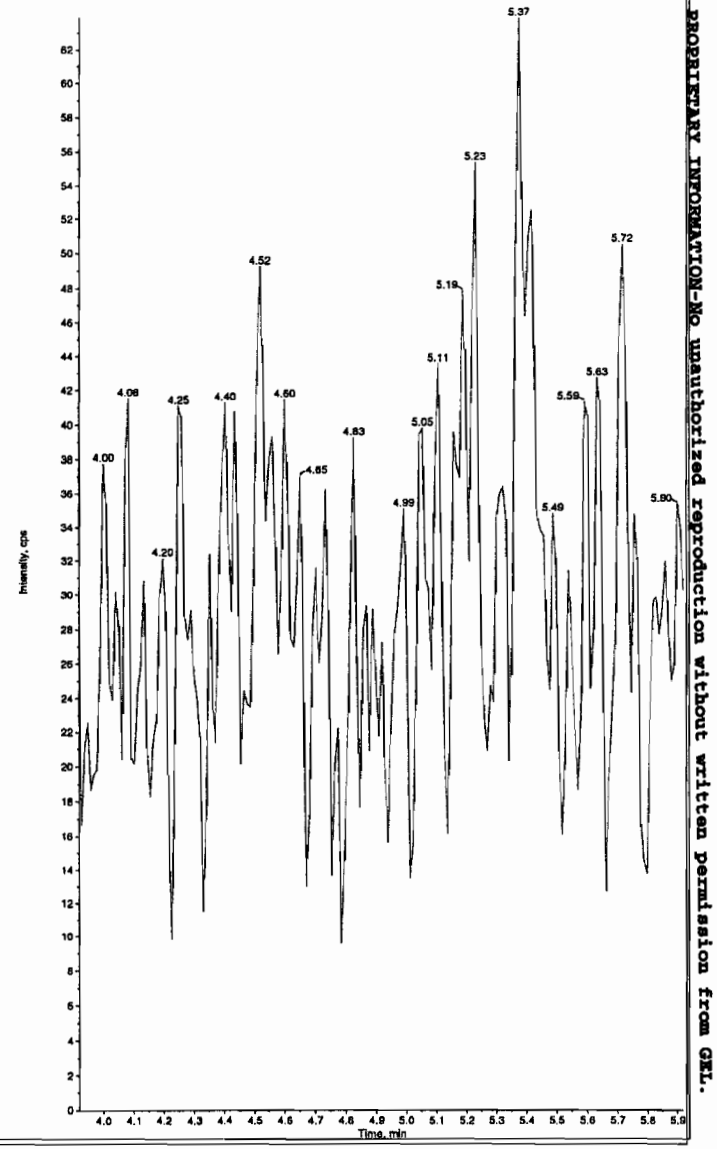

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ample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS04050002.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""

ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 4/5/2010
. Time: 12:59:32 PM

ified: No

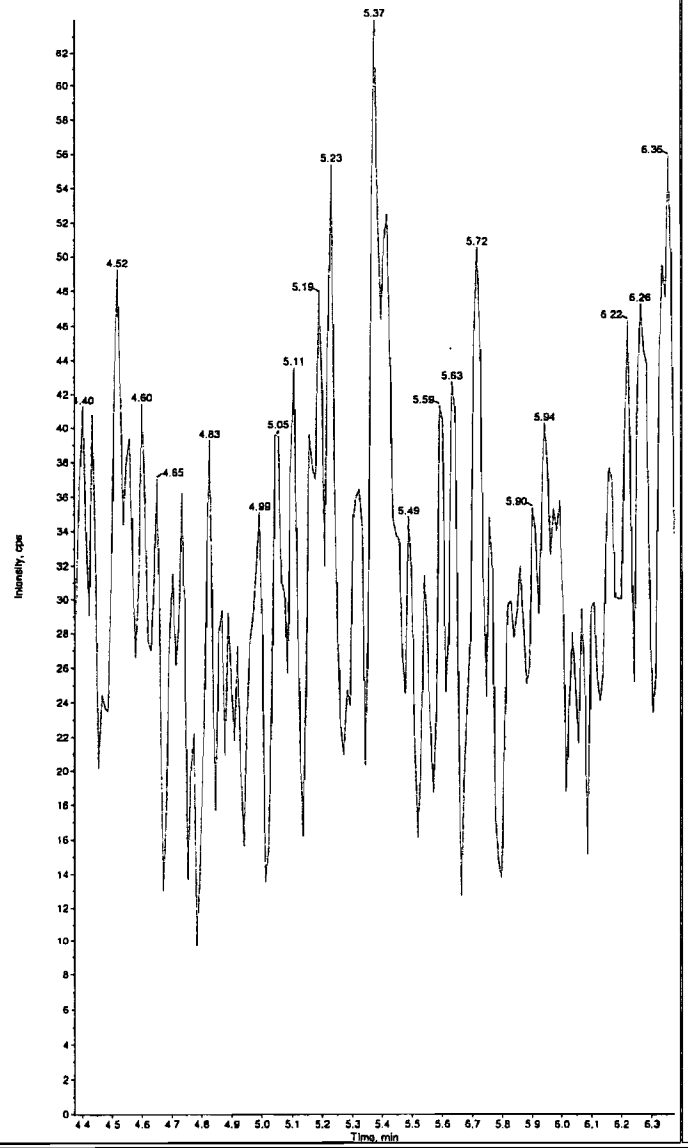

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS04050002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 12:59:32 PM

Modified: No

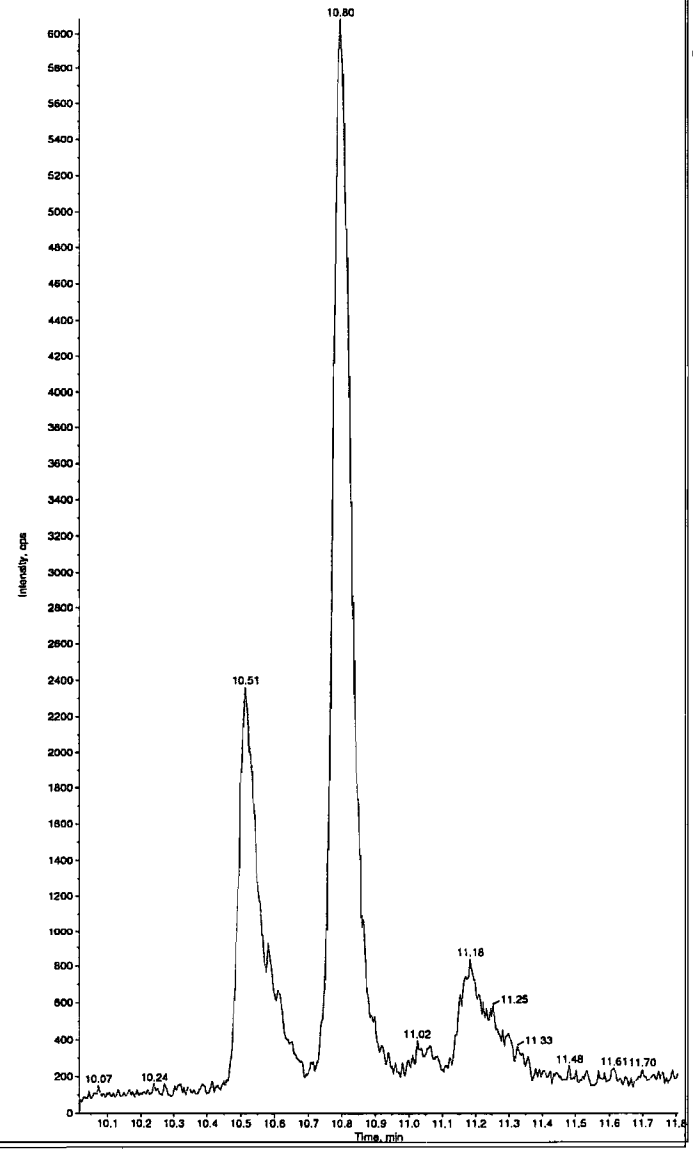

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 09–APR–10 01:28

GEL Data File: EXP0408009a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	582.512
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	582.151
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408009a
Date: 09-Apr-2010
Time: 01:28:39
ID: XIBLK02
Vial: 1:1,A

MM 4/12/10

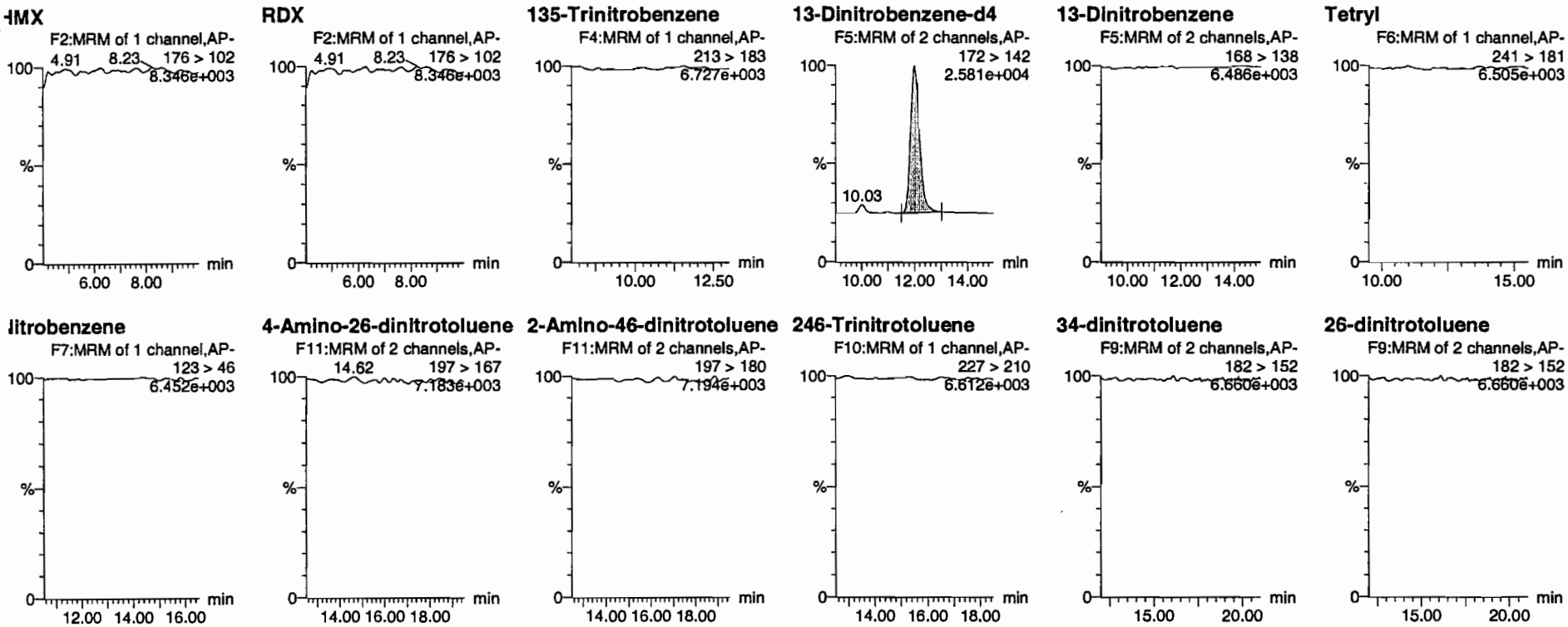

Anne 04/11/10

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Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

24-dinitrotoluene

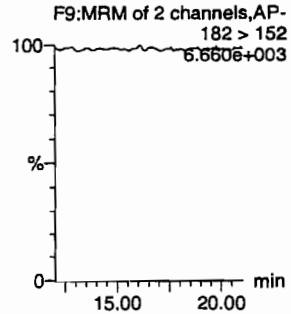

26-dinitrotoluene-d3

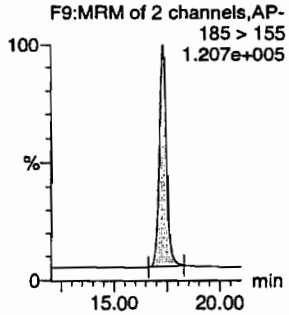

2-Nitrotoluene

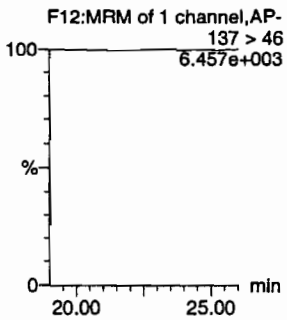

4-Nitrotoluene

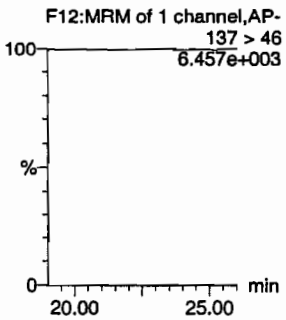

3-Nitrotoluene

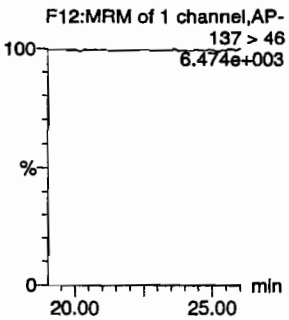

PETN

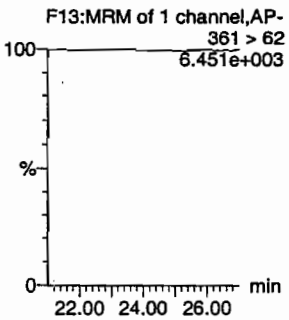

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK02	HMX	176 > 102			7570.382									
XIBLK02	RDX	176 > 102			7570.382									
XIBLK02	135-Trinitrobenzene	213 > 183			7570.382									
XIBLK02	13-Dinitrobenzene-d4	172 > 142	12.00	7570.382		7570.382	7570.382	bb			582.5119	116.5	16.5	406.2
XIBLK02	13-Dinitrobenzene	168 > 138			7570.382									
XIBLK02	Tetryl	241 > 181			7570.382									
XIBLK02	Nitrobenzene	123 > 46			7570.382									
XIBLK02	4-Amino-26-dinitrotoluene	197 > 167			45964.992									
XIBLK02	2-Amino-46-dinitrotoluene	197 > 180			45964.992									
XIBLK02	246-Trinitrotoluene	227 > 210			45964.992									
XIBLK02	34-dinitrotoluene	182 > 152			45964.992									
XIBLK02	26-dinitrotoluene	182 > 152			45964.992									
XIBLK02	24-dinitrotoluene	182 > 152			45964.992									
XIBLK02	26-dinitrotoluene-d3	185 > 155	17.29	45964.992		45964.992	45964.992	bb			582.1510	116.4	16.4	2006.3
XIBLK02	2-Nitrotoluene	137 > 46			45964.992									
XIBLK02	4-Nitrotoluene	137 > 46			45964.992									
XIBLK02	3-Nitrotoluene	137 > 46			45964.992									
XIBLK02	PETN	361 > 62			45964.992									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 09–APR–10 02:27

GEL Data File: EXP0408011a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	614.27
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	618.135
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408011a
Date: 09-Apr-2010
Time: 02:27:37
ID: XIBLK03
Vial: 1:1,A

MM 4/12/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.59
8.070e+003

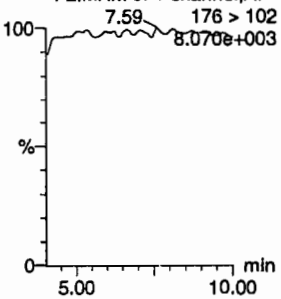

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.59
8.070e+003

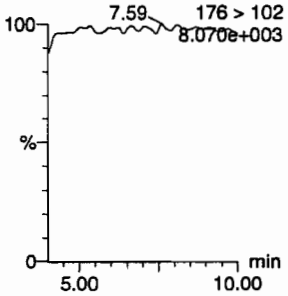

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.620e+003

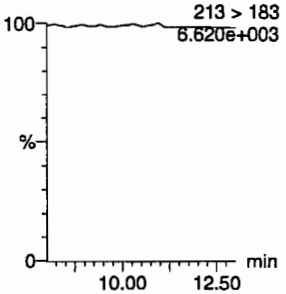

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.666e+004

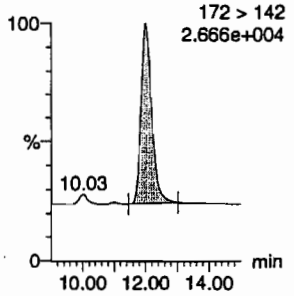

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.441e+003

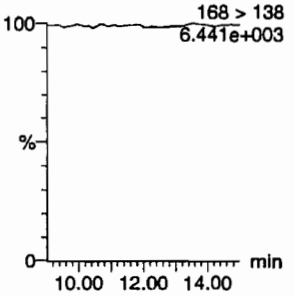

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.460e+003

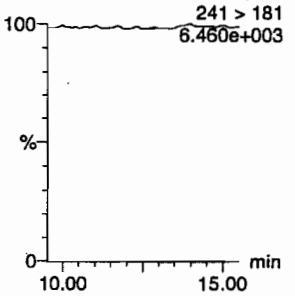

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.429e+003

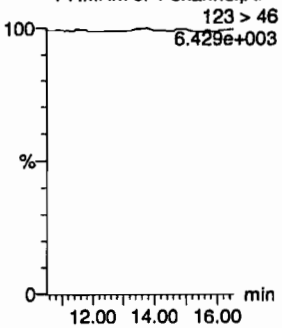

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
16.35
197 > 167
7.005e+003

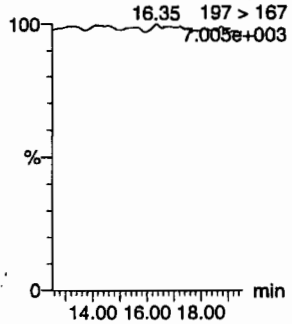

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.984e+003

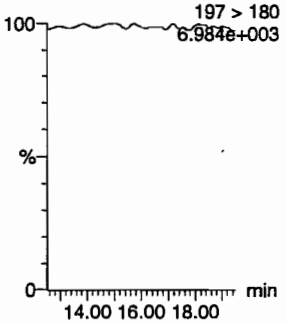

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.548e+003

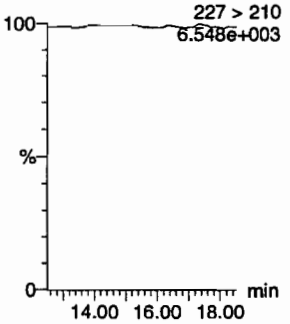

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.584e+003

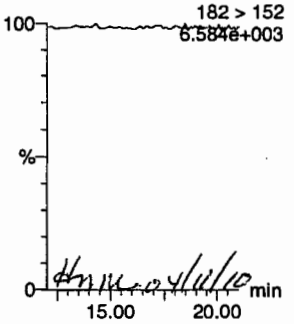

HMM 04/12/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.584e+003

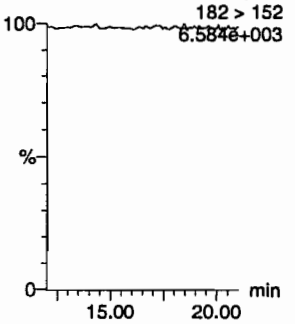

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Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

24-dinitrotoluene

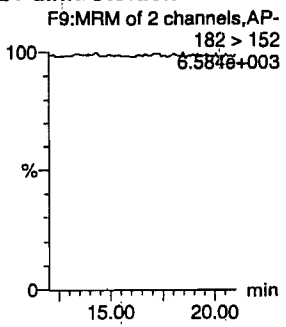

26-dinitrotoluene-d3

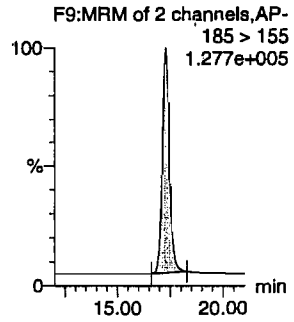

2-Nitrotoluene

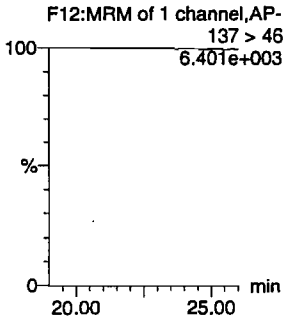

4-Nitrotoluene

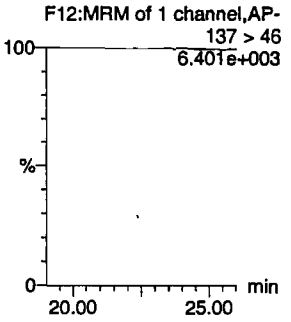

3-Nitrotoluene

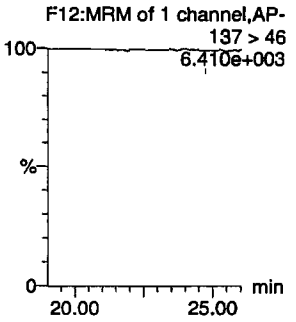

PETN

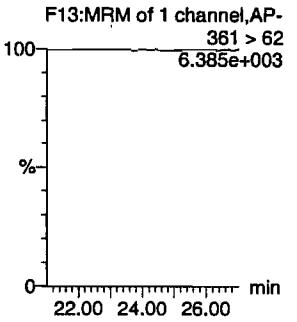

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK03	HMX	176 > 102			7983.108									
XIBLK03	RDX	176 > 102			7983.108									
XIBLK03	135-Trinitrobenzene	213 > 183			7983.108									
XIBLK03	13-Dinitrobenzene-d4	172 > 142	12.00	7983.108		7983.108	7983.108	bb			614.2695	122.9	22.9	696.9
XIBLK03	13-Dinitrobenzene	168 > 138			7983.108									
XIBLK03	Tetryl	241 > 181			7983.108									
XIBLK03	Nitrobenzene	123 > 46			7983.108									
XIBLK03	4-Amino-26-dinitrotoluene	197 > 167			48806.199									
XIBLK03	2-Amino-46-dinitrotoluene	197 > 180			48806.199									
XIBLK03	246-Trinitrotoluene	227 > 210			48806.199									
XIBLK03	34-dinitrotoluene	182 > 152			48806.199									
XIBLK03	26-dinitrotoluene	182 > 152			48806.199									
XIBLK03	24-dinitrotoluene	182 > 152			48806.199									
XIBLK03	26-dinitrotoluene-d3	185 > 155	17.29	48806.199		48806.199	48806.199	bb			618.1351	123.6	23.6	4573.9
XIBLK03	2-Nitrotoluene	137 > 46			48806.199									
XIBLK03	4-Nitrotoluene	137 > 46			48806.199									
XIBLK03	3-Nitrotoluene	137 > 46			48806.199									
XIBLK03	PETN	361 > 62			48806.199									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 09–APR–10 08:50

GEL Data File: EXP0408024a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
1,3–Dinitrobenzene–d4	500	626.188
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	634.417
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408024a
Date: 09-Apr-2010
Time: 08:50:59
D: XIBLK04
Vial: 1:1,A

MM 4/10/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.136e+003

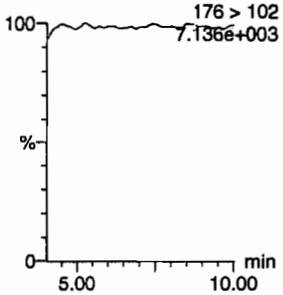

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.136e+003

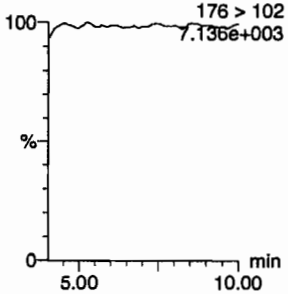

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.479e+003

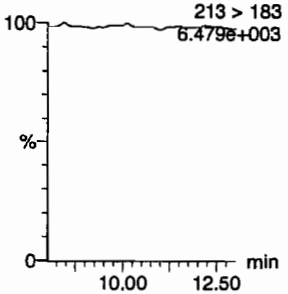

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.721e+004

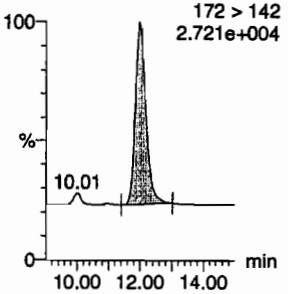

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.296e+003

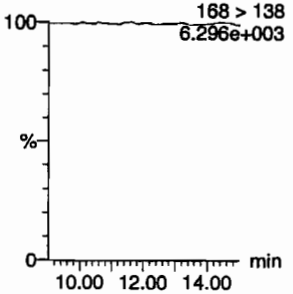

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.392e+003

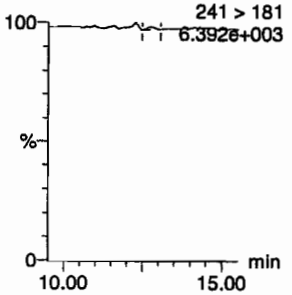

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.291e+003

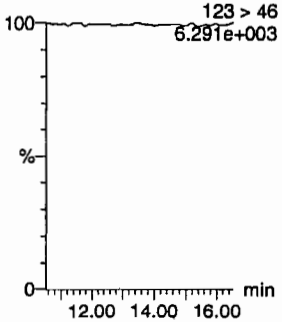

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.608e+003

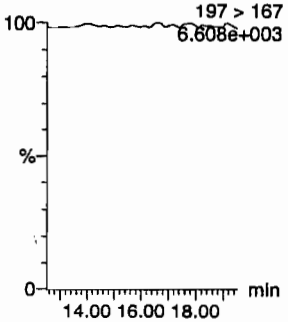

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.621e+003

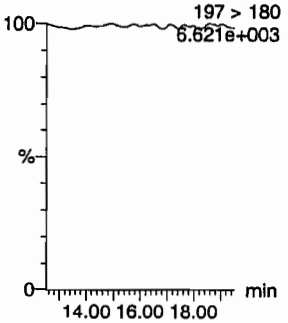

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.402e+003

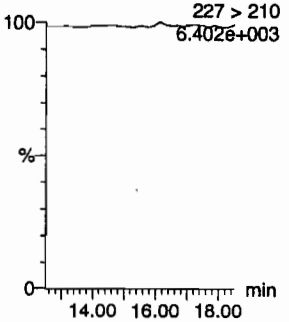

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.423e+003

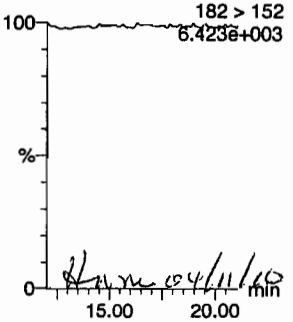

HM 04/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.423e+003

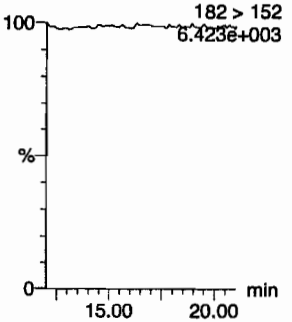

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Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

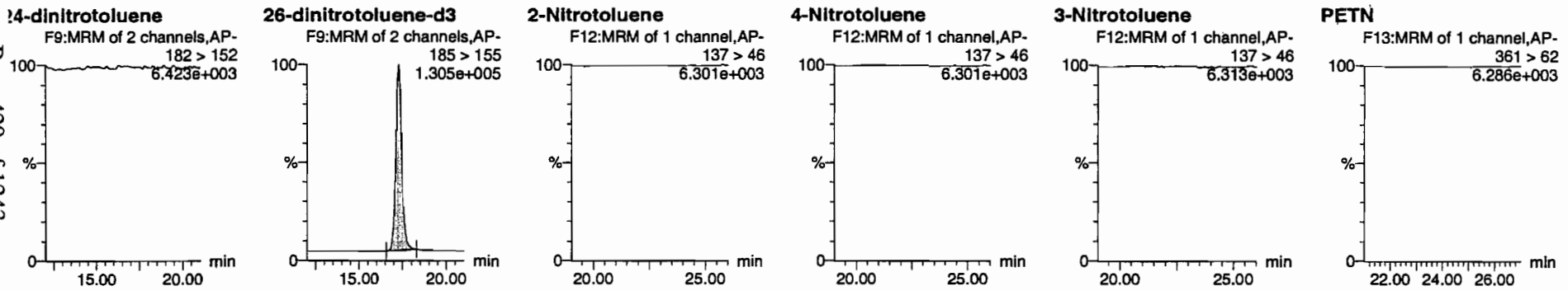

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
CIBLK04	HMX	176 > 102			8137.999									
CIBLK04	RDX	176 > 102			8137.999									
CIBLK04	135-Trinitrobenzene	213 > 183			8137.999									
CIBLK04	13-Dinitrobenzene-d4	172 > 142	11.97	8137.999		8137.999	8137.999	bb			626.1878	125.2	25.2	456.2
CIBLK04	13-Dinitrobenzene	168 > 138			8137.999									
CIBLK04	Tetryl	241 > 181			8137.999			MM-	09-Apr-10	10:42:51				
CIBLK04	Nitrobenzene	123 > 46			8137.999									
CIBLK04	4-Amino-26-dinitrotoluene	197 > 167			50091.766									
CIBLK04	2-Amino-46-dinitrotoluene	197 > 180			50091.766									
CIBLK04	246-Trinitrotoluene	227 > 210			50091.766									
CIBLK04	34-dinitrotoluene	182 > 152			50091.766									
CIBLK04	26-dinitrotoluene	182 > 152			50091.766									
CIBLK04	24-dinitrotoluene	182 > 152			50091.766									
CIBLK04	26-dinitrotoluene-d3	185 > 155	17.27	50091.766		50091.766	50091.766	bb			634.4169	126.9	26.9	5991.7
CIBLK04	2-Nitrotoluene	137 > 46			50091.766									
CIBLK04	4-Nitrotoluene	137 > 46			50091.766									
CIBLK04	3-Nitrotoluene	137 > 46			50091.766									
CIBLK04	PETN	361 > 62			50091.766									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 09–APR–10 15:14

GEL Data File: EXP0408037a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	537.089
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	518.05

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408037a
Date: 09-Apr-2010
Time: 15:14:23
ID: XIBLK05
Vial: 1:1,A

MM 4/10/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.101e+003

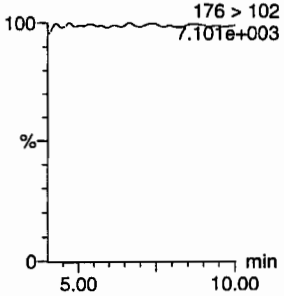

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.101e+003

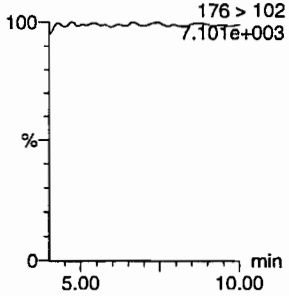

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.609e+003

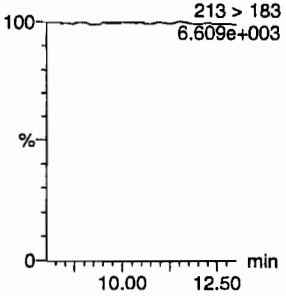

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.418e+004

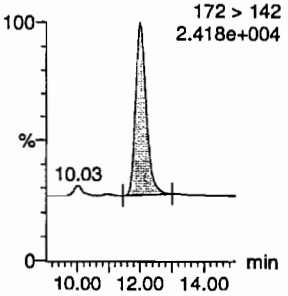

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.516e+003

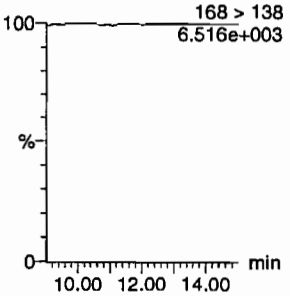

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.542e+003

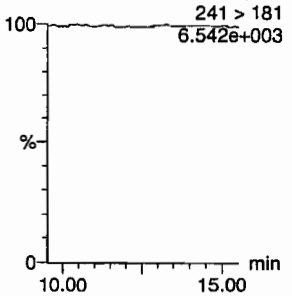

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.530e+003

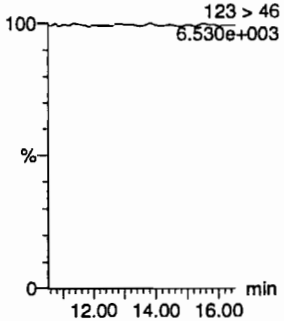

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.753e+003

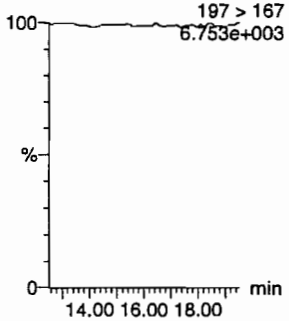

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
12.76
197 > 180
6.834e+003

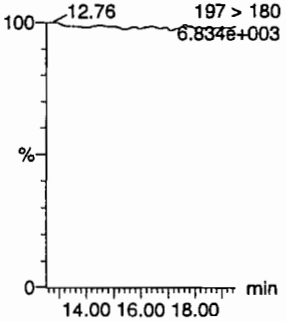

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.581e+003

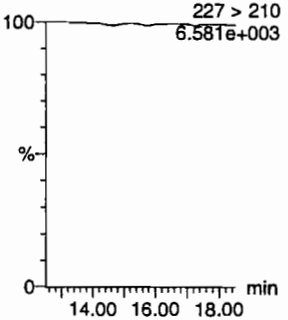

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.636e+003

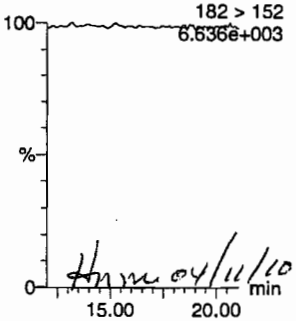

HM 04/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.636e+003

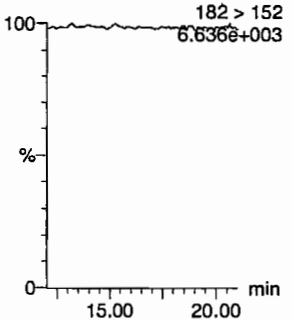

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

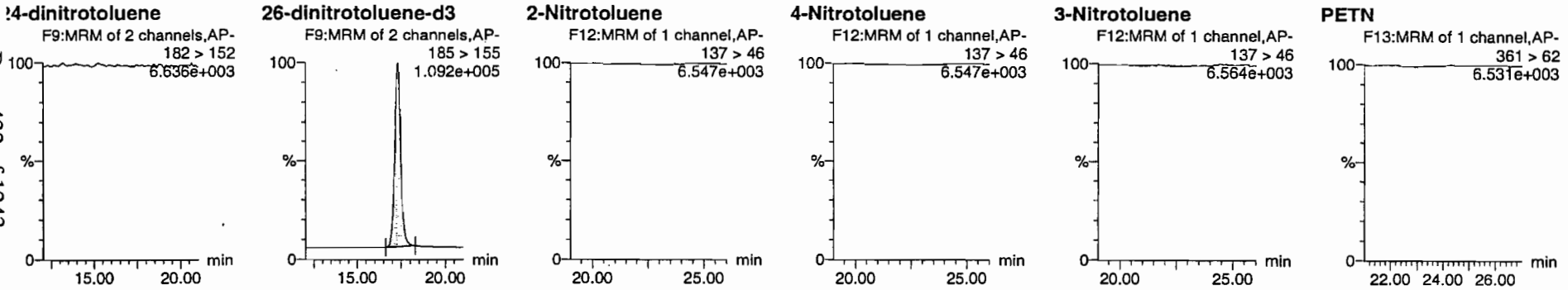

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
IBLK05	HMX	176 > 102			6980.063									
IBLK05	RDX	176 > 102			6980.063									
IBLK05	135-Trinitrobenzene	213 > 183			6980.063									
IBLK05	13-Dinitrobenzene-d4	172 > 142	12.00	6980.063		6980.063	6980.063	bb			537.0891	107.4	7.4	999.9
IBLK05	13-Dinitrobenzene	168 > 138			6980.063									
IBLK05	Tetryl	241 > 181			6980.063									
IBLK05	Nitrobenzene	123 > 46			6980.063									
IBLK05	4-Amino-26-dinitrotoluene	197 > 167			40903.723									
IBLK05	2-Amino-46-dinitrotoluene	197 > 180			40903.723									
IBLK05	246-Trinitrotoluene	227 > 210			40903.723									
IBLK05	34-dinitrotoluene	182 > 152			40903.723									
IBLK05	26-dinitrotoluene	182 > 152			40903.723									
IBLK05	24-dinitrotoluene	182 > 152			40903.723									
IBLK05	26-dinitrotoluene-d3	185 > 155	17.29	40903.723		40903.723	40903.723	bb			518.0495	103.6	3.6	2372.7
IBLK05	2-Nitrotoluene	137 > 46			40903.723									
IBLK05	4-Nitrotoluene	137 > 46			40903.723									
IBLK05	3-Nitrotoluene	137 > 46			40903.723									
IBLK05	PETN	361 > 62			40903.723									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 09–APR–10 20:12

GEL Data File: EXP0408047a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	429.443
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	435.902
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408047a
Date: 09-Apr-2010
Time: 20:12:37
ID: XIBLK06
Vial: 1:1,A

MATT 4/10/10

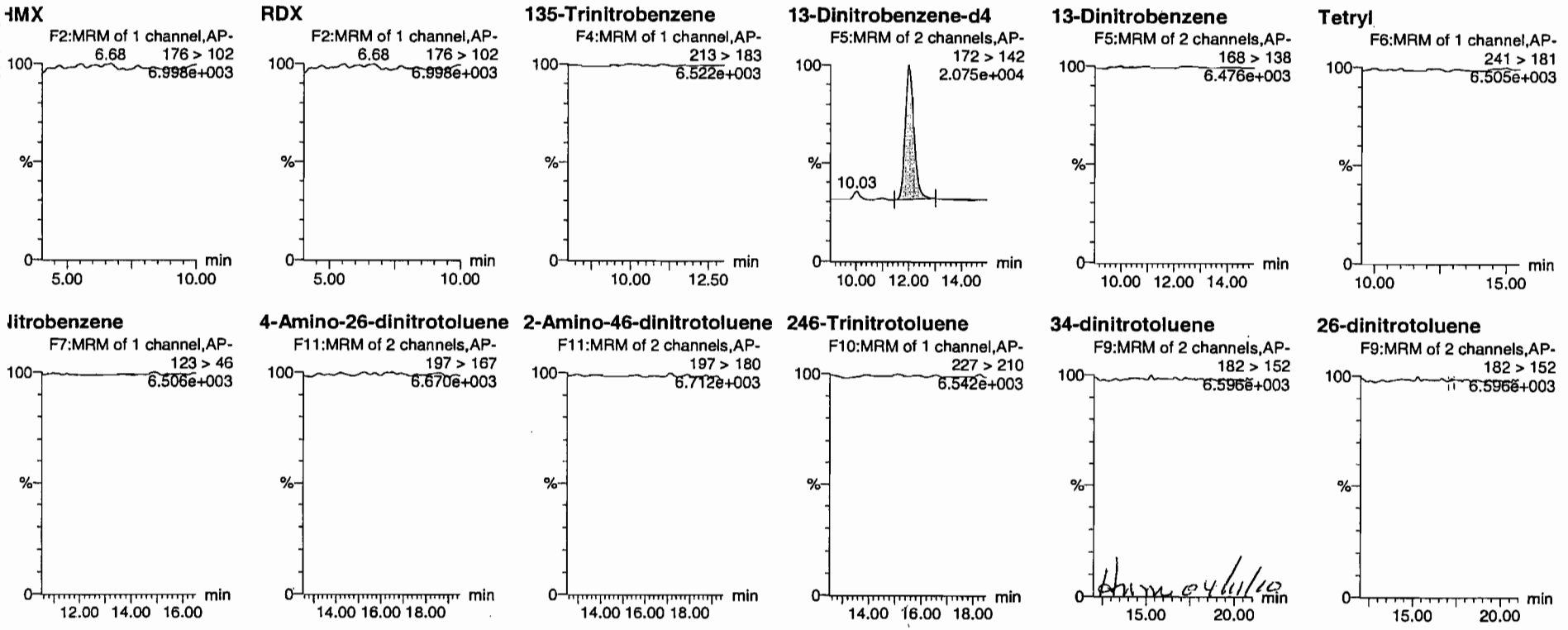

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Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

24-dinitrotoluene

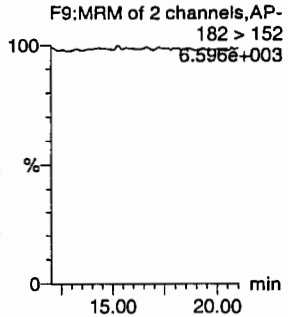

26-dinitrotoluene-d3

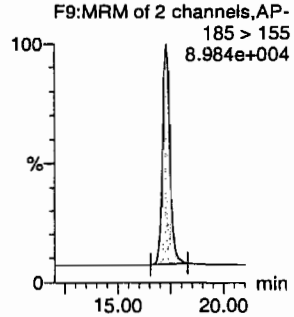

2-Nitrotoluene

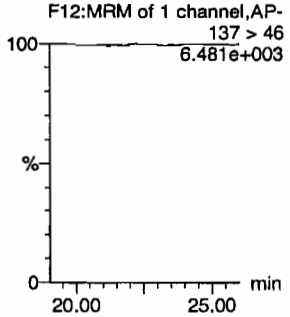

4-Nitrotoluene

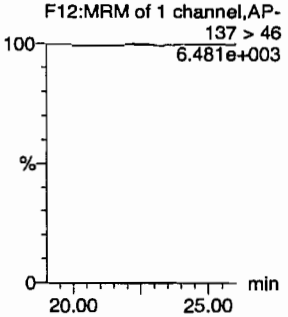

3-Nitrotoluene

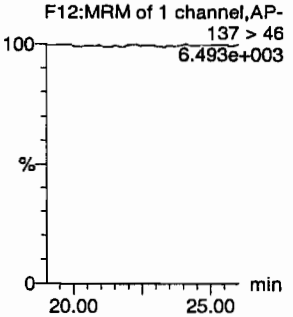

PETN

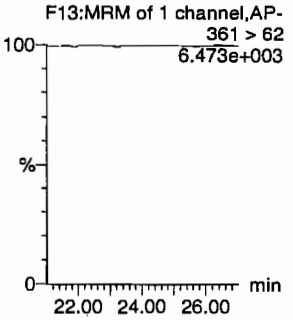

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK06	HMX	176 > 102			5581.087									
XIBLK06	RDX	176 > 102			5581.087									
XIBLK06	135-Trinitrobenzene	213 > 183			5581.087									
XIBLK06	13-Dinitrobenzene-d4	172 > 142	12.00	5581.087		5581.087	5581.087	bb			429.4432	85.9	-14.1	248.3
XIBLK06	13-Dinitrobenzene	168 > 138			5581.087									
XIBLK06	Tetryl	241 > 181			5581.087									
XIBLK06	Nitrobenzene	123 > 46			5581.087									
XIBLK06	4-Amino-26-dinitrotoluene	197 > 167			34417.574									
XIBLK06	2-Amino-46-dinitrotoluene	197 > 180			34417.574									
XIBLK06	246-Trinitrotoluene	227 > 210			34417.574									
XIBLK06	34-dinitrotoluene	182 > 152			34417.574									
XIBLK06	26-dinitrotoluene	182 > 152			34417.574			MM-	10-Apr-10	11:35:24				
XIBLK06	24-dinitrotoluene	182 > 152			34417.574									
XIBLK06	26-dinitrotoluene-d3	185 > 155	17.29	34417.574		34417.574	34417.574	bb			435.9018	87.2	-12.8	2532.7
XIBLK06	2-Nitrotoluene	137 > 46			34417.574									
XIBLK06	4-Nitrotoluene	137 > 46			34417.574									
XIBLK06	3-Nitrotoluene	137 > 46			34417.574									
XIBLK06	PETN	361 > 62			34417.574									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 10–APR–10 02:36

GEL Data File: EXP0408060a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	468.862
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	454.011
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408060a
Date: 10-Apr-2010
Time: 02:36:11
ID: XIBLK07
Vial: 1:1,A

MTP 4/10/10

HMX
F2:MRM of 1 channel,AP-
6.81 176 > 102
6.463e+003

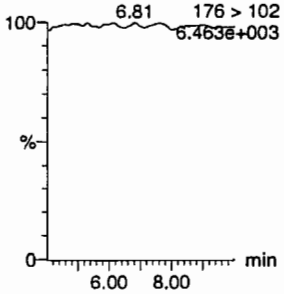

RDX
F2:MRM of 1 channel,AP-
6.81 176 > 102
6.463e+003

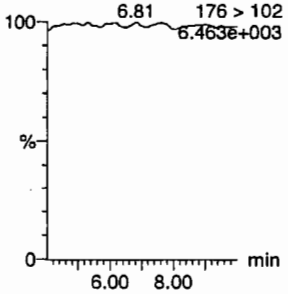

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.078e+003

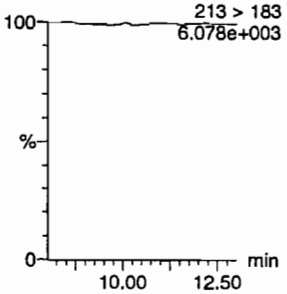

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.148e+004

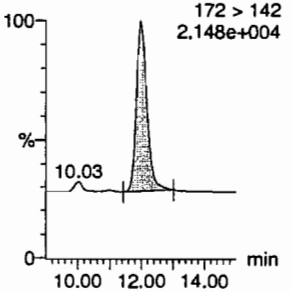

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.033e+003

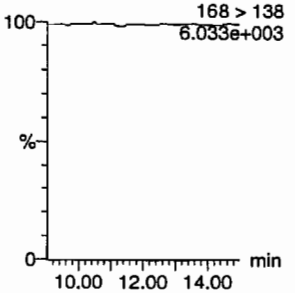

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.051e+003

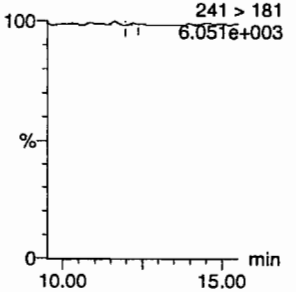

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.058e+003

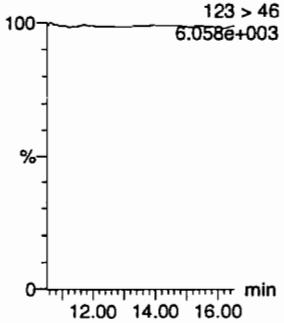

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.199e+003

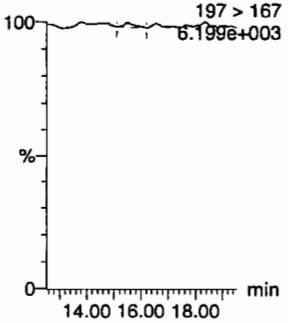

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.223e+003

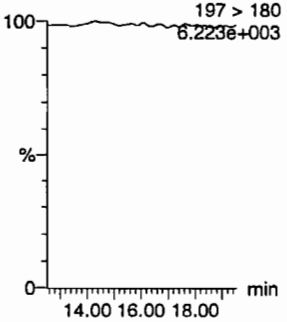

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.021e+003

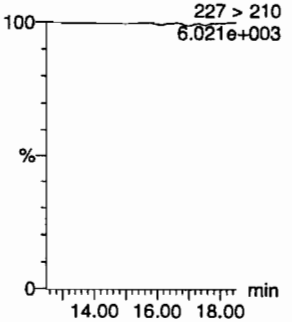

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.158e+003

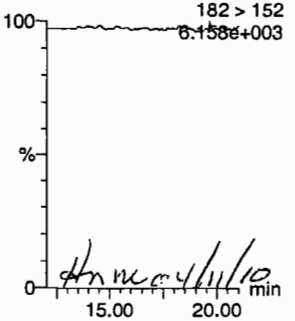

HM 4/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.158e+003

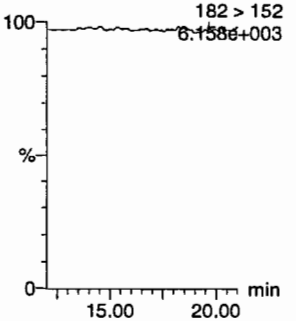

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Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

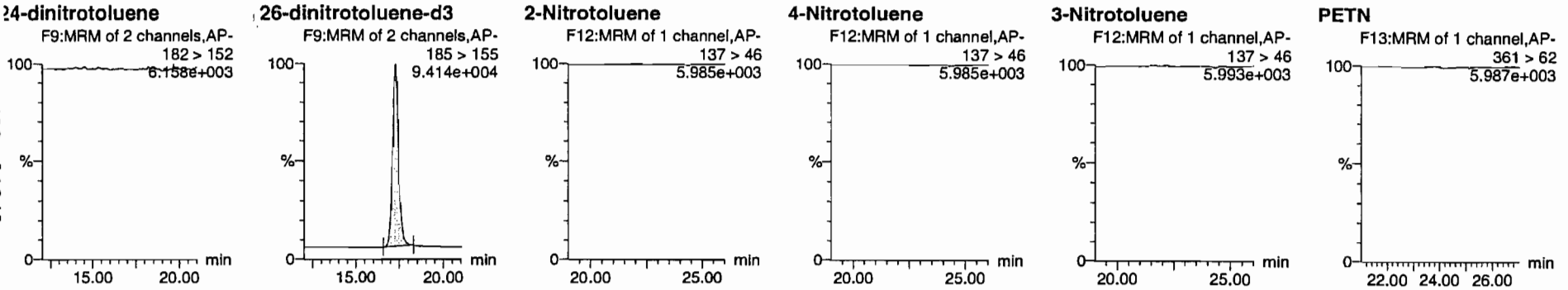

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
IBLK07	HMX	176 > 102			6093.372									
IBLK07	RDX	176 > 102			6093.372									
IBLK07	135-Trinitrobenzene	213 > 183			6093.372									
IBLK07	13-Dinitrobenzene-d4	172 > 142	11.97	6093.372		6093.372	6093.372	bb			468.8616	93.8	-6.2	691.4
IBLK07	13-Dinitrobenzene	168 > 138			6093.372									
IBLK07	Tetryl	241 > 181			6093.372			MM-	10-Apr-10	11:39:49				
IBLK07	Nitrobenzene	123 > 46			6093.372									
IBLK07	4-Amino-26-dinitrotoluene	197 > 167			35847.441			MM-	10-Apr-10	11:37:30				
IBLK07	2-Amino-46-dinitrotoluene	197 > 180			35847.441									
IBLK07	246-Trinitrotoluene	227 > 210			35847.441									
IBLK07	34-dinitrotoluene	182 > 152			35847.441									
IBLK07	26-dinitrotoluene	182 > 152			35847.441									
IBLK07	24-dinitrotoluene	182 > 152			35847.441									
IBLK07	26-dinitrotoluene-d3	185 > 155	17.27	35847.441		35847.441	35847.441	bb			454.0112	90.8	-9.2	2465.3
IBLK07	2-Nitrotoluene	137 > 46			35847.441									
IBLK07	4-Nitrotoluene	137 > 46			35847.441									
IBLK07	3-Nitrotoluene	137 > 46			35847.441									
IBLK07	PETN	361 > 62			35847.441									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 10–APR–10 08:59

GEL Data File: EXP0408073a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	505.982
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	463.163
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408073a
Date: 10-Apr-2010
Time: 08:59:47
ID: XIBLK08
Vial: 1:1,A

MMT 4/10/10

HMX
F2:MRM of 1 channel,AP-
5.86 176 > 102
6.318e+003

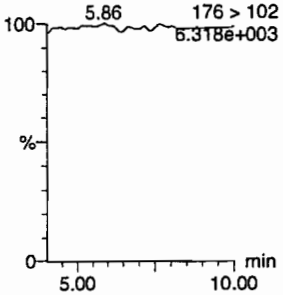

RDX
F2:MRM of 1 channel,AP-
5.86 176 > 102
6.318e+003

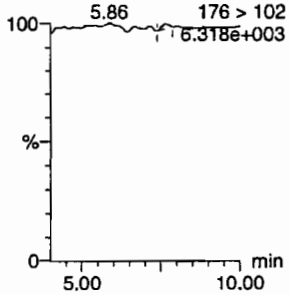

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.994e+003

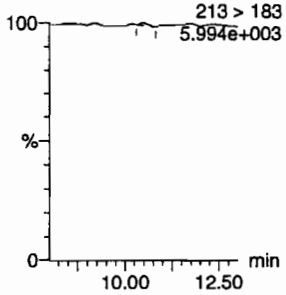

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.277e+004

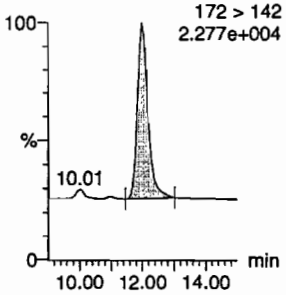

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.923e+003

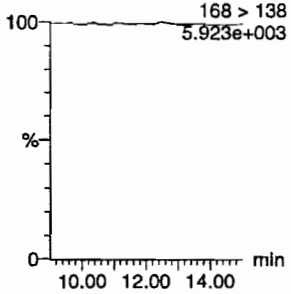

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.952e+003

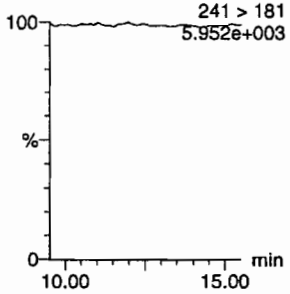

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.919e+003

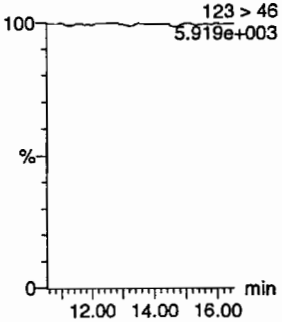

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.081e+003

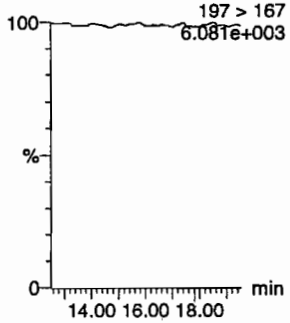

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.145e+003

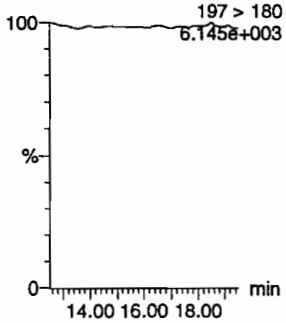

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.943e+003

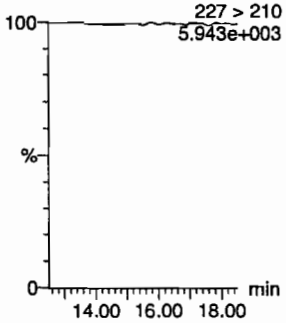

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.979e+003

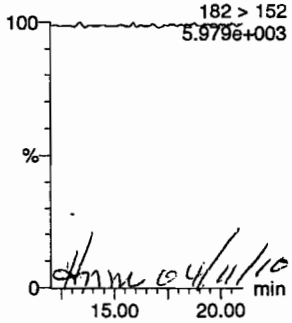

dmm 04/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.979e+003

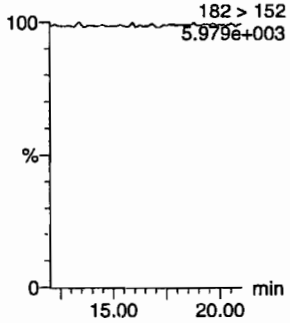

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

24-dinitrotoluene

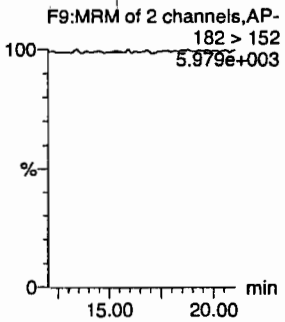

26-dinitrotoluene-d3

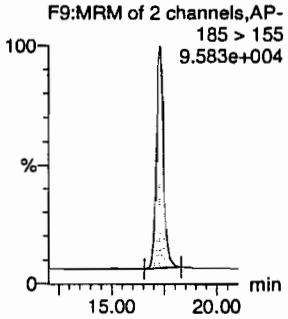

2-Nitrotoluene

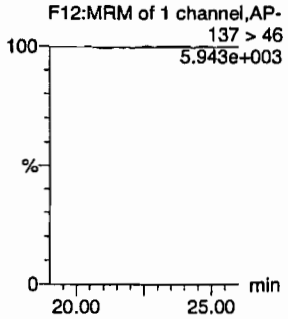

4-Nitrotoluene

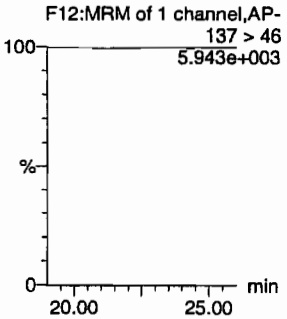

3-Nitrotoluene

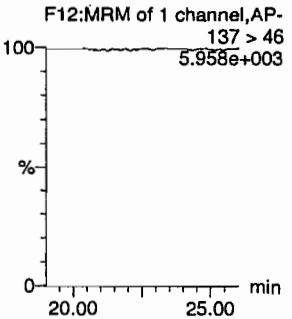

PETN

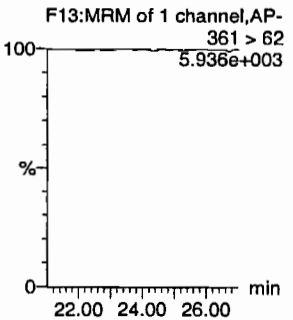

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK08	HMX	176 > 102			6575.798									
XIBLK08	RDX	176 > 102			6575.798			MM-	10-Apr-10	11:40:20				
XIBLK08	135-Trinitrobenzene	213 > 183			6575.798			MM-	10-Apr-10	11:40:06				
XIBLK08	13-Dinitrobenzene-d4	172 > 142	11.97	6575.798		6575.798	6575.798	bb			505.9824	101.2	1.2	928.8
XIBLK08	13-Dinitrobenzene	168 > 138			6575.798									
XIBLK08	Tetryl	241 > 181			6575.798									
XIBLK08	Nitrobenzene	123 > 46			6575.798									
XIBLK08	4-Amino-26-dinitrotoluene	197 > 167			36570.039									
XIBLK08	2-Amino-46-dinitrotoluene	197 > 180			36570.039									
XIBLK08	246-Trinitrotoluene	227 > 210			36570.039									
XIBLK08	34-dinitrotoluene	182 > 152			36570.039									
XIBLK08	26-dinitrotoluene	182 > 152			36570.039									
XIBLK08	24-dinitrotoluene	182 > 152			36570.039									
XIBLK08	26-dinitrotoluene-d3	185 > 155	17.27	36570.039		36570.039	36570.039	bb			463.1630	92.6	-7.4	3298.5
XIBLK08	2-Nitrotoluene	137 > 46			36570.039									
XIBLK08	4-Nitrotoluene	137 > 46			36570.039									
XIBLK08	3-Nitrotoluene	137 > 46			36570.039									
XIBLK08	PETN	361 > 62			36570.039									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 10–APR–10 10:28

GEL Data File: EXP0408076a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	465.147
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	447.611
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408076a
Date: 10-Apr-2010
Time: 10:28:20
ID: XIBLK09
Vial: 1:1,A

MM 4/11/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.541e+003

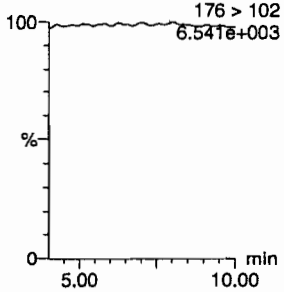

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.541e+003

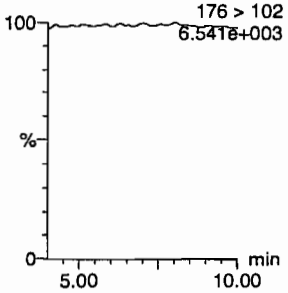

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.335e+003

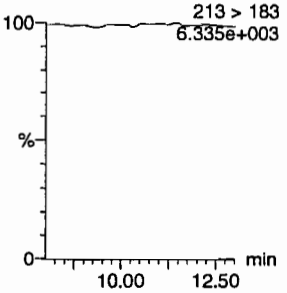

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.161e+004

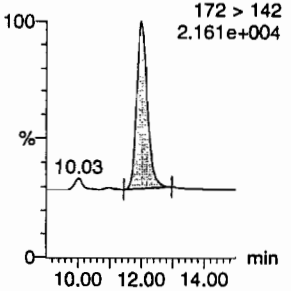

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.321e+003

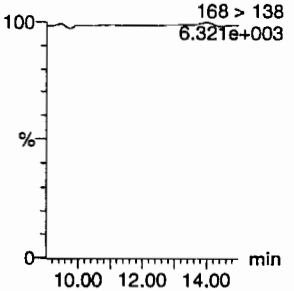

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.288e+003

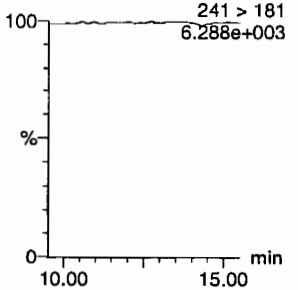

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.290e+003

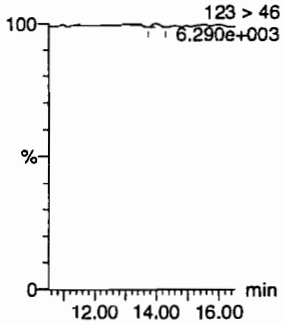

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.387e+003

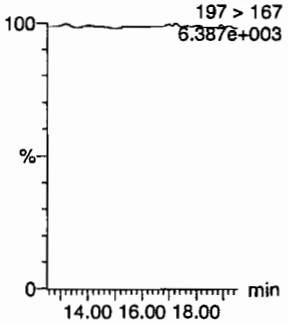

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.391e+003

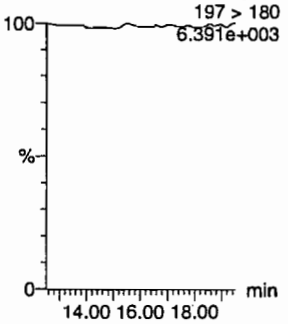

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.319e+003

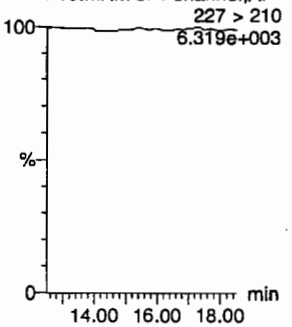

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.349e+003

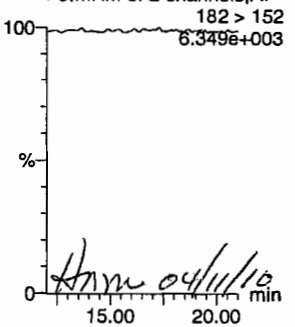

HMM 04/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.349e+003

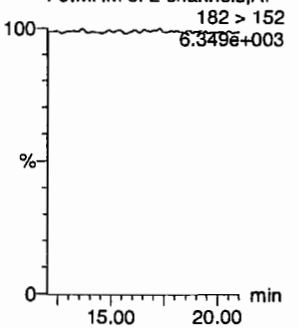

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

24-dinitrotoluene

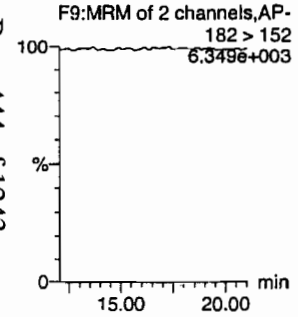

26-dinitrotoluene-d3

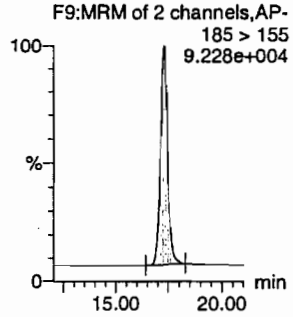

2-Nitrotoluene

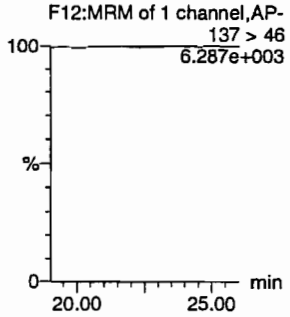

4-Nitrotoluene

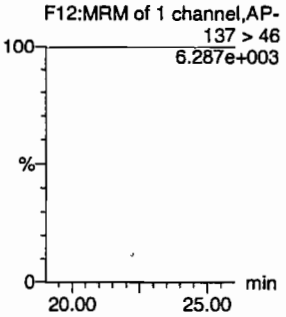

3-Nitrotoluene

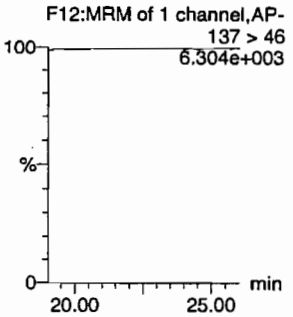

PETN

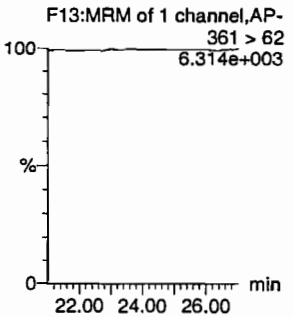

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK09	HMX	176 > 102			6045.094									
XIBLK09	RDX	176 > 102			6045.094									
XIBLK09	135-Trinitrobenzene	213 > 183			6045.094									
XIBLK09	13-Dinitrobenzene-d4	172 > 142	12.00	6045.094		6045.094	6045.094	bb			465.1468	93.0	-7.0	703.9
XIBLK09	13-Dinitrobenzene	168 > 138			6045.094									
XIBLK09	Tetryl	241 > 181			6045.094									
XIBLK09	Nitrobenzene	123 > 46			6045.094			MM-	11-Apr-10	11:33:23				
XIBLK09	4-Amino-26-dinitrotoluene	197 > 167			35342.066									
XIBLK09	2-Amino-46-dinitrotoluene	197 > 180			35342.066									
XIBLK09	246-Trinitrotoluene	227 > 210			35342.066									
XIBLK09	34-dinitrotoluene	182 > 152			35342.066									
XIBLK09	26-dinitrotoluene	182 > 152			35342.066									
XIBLK09	24-dinitrotoluene	182 > 152			35342.066									
XIBLK09	26-dinitrotoluene-d3	185 > 155	17.29	35342.066		35342.066	35342.066	bb			447.6106	89.5	-10.5	1834.9
XIBLK09	2-Nitrotoluene	137 > 46			35342.066									
XIBLK09	4-Nitrotoluene	137 > 46			35342.066									
XIBLK09	3-Nitrotoluene	137 > 46			35342.066									
XIBLK09	PETN	361 > 62			35342.066									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 10–APR–10 15:23

GEL Data File: EXP0408086a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	453.275
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	429.682
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408086a
Date: 10-Apr-2010
Time: 15:23:25
ID: XIBLK10
Vial: 1:1,A

MM 4/11/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.163e+003

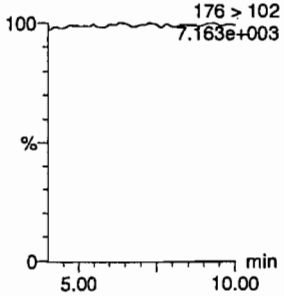

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.163e+003

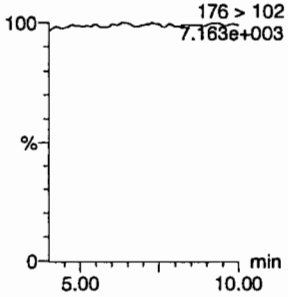

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.883e+003

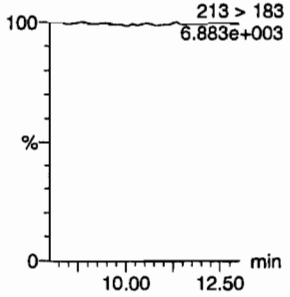

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.239e+004

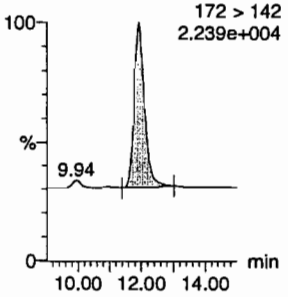

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.858e+003

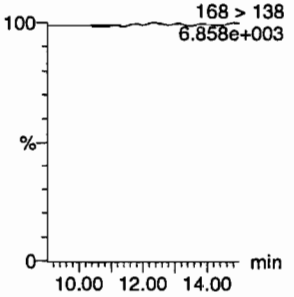

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.870e+003

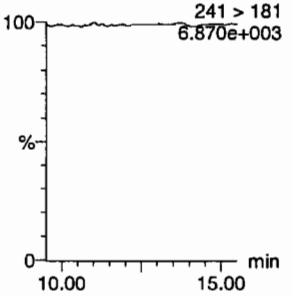

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.837e+003

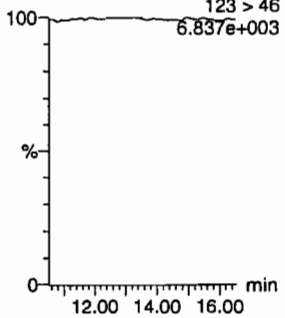

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.977e+003

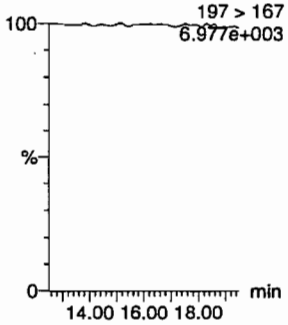

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.056e+003

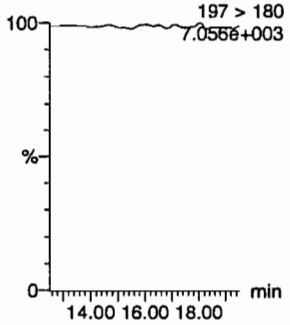

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.862e+003

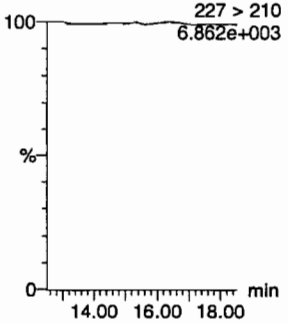

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.891e+003

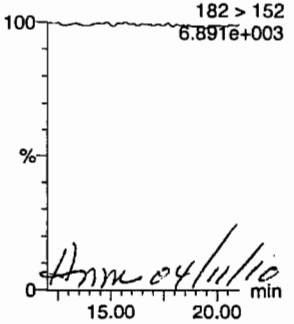

Hmm 04/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.891e+003

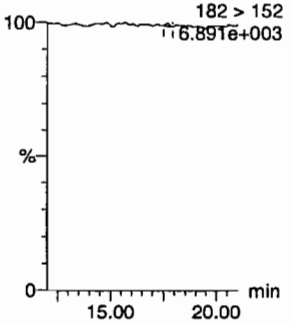

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

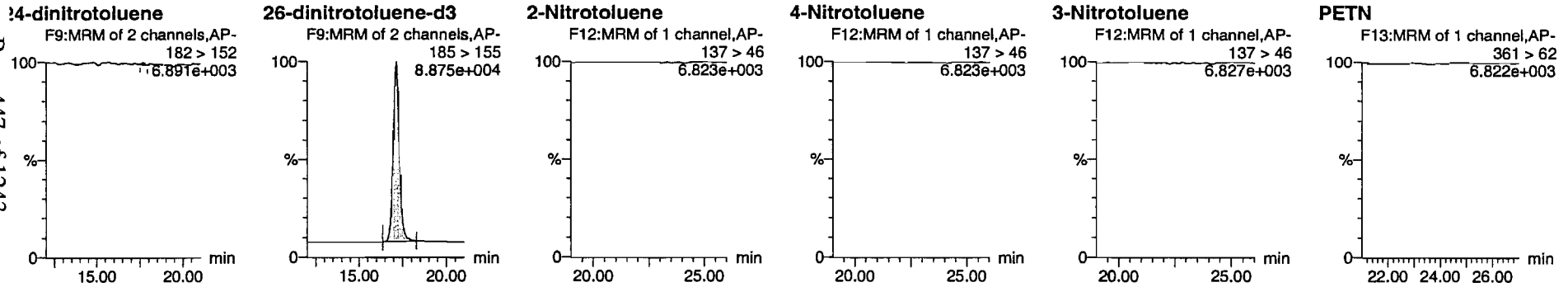

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
IBLK10	HMX	176 > 102			5890.806									
IBLK10	RDX	176 > 102			5890.806									
IBLK10	135-Trinitrobenzene	213 > 183			5890.806									
IBLK10	13-Dinitrobenzene-d4	172 > 142	11.92	5890.806		5890.806	5890.806	bb			453.2749	90.7	-9.3	263.8
IBLK10	13-Dinitrobenzene	168 > 138			5890.806									
IBLK10	Tetryl	241 > 181			5890.806									
IBLK10	Nitrobenzene	123 > 46			5890.806									
IBLK10	4-Amino-26-dinitrotoluene	197 > 167			33926.508									
IBLK10	2-Amino-46-dinitrotoluene	197 > 180			33926.508									
IBLK10	246-Trinitrotoluene	227 > 210			33926.508									
IBLK10	34-dinitrotoluene	182 > 152			33926.508									
IBLK10	26-dinitrotoluene	182 > 152			33926.508			MM-	11-Apr-10	11:40:49				
IBLK10	24-dinitrotoluene	182 > 152			33926.508			MM-	11-Apr-10	11:42:27				
IBLK10	26-dinitrotoluene-d3	185 > 155	17.14	33926.508		33926.508	33926.508	bb			429.6824	85.9	-14.1	1188.7
IBLK10	2-Nitrotoluene	137 > 46			33926.508									
IBLK10	4-Nitrotoluene	137 > 46			33926.508									
IBLK10	3-Nitrotoluene	137 > 46			33926.508									
IBLK10	PETN	361 > 62			33926.508									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10-2039
Lab Code: GEL
Lab Sample ID: XIBLK11
Analysis Date: 10-APR-10 21:46
GEL Data File: EXP0408099a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	574.264
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	468.42
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408099a
Date: 10-Apr-2010
Time: 21:46:53
ID: XIBLK11
Vial: 1:1,A

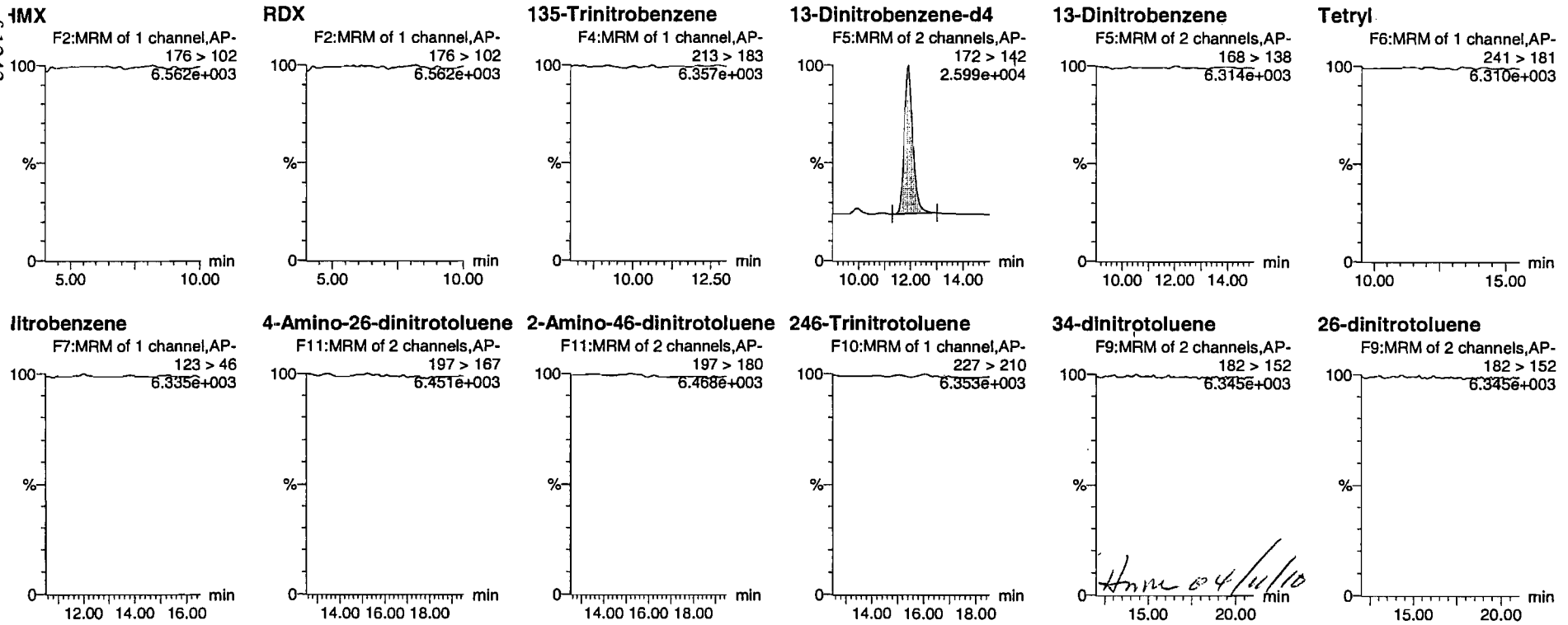

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Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

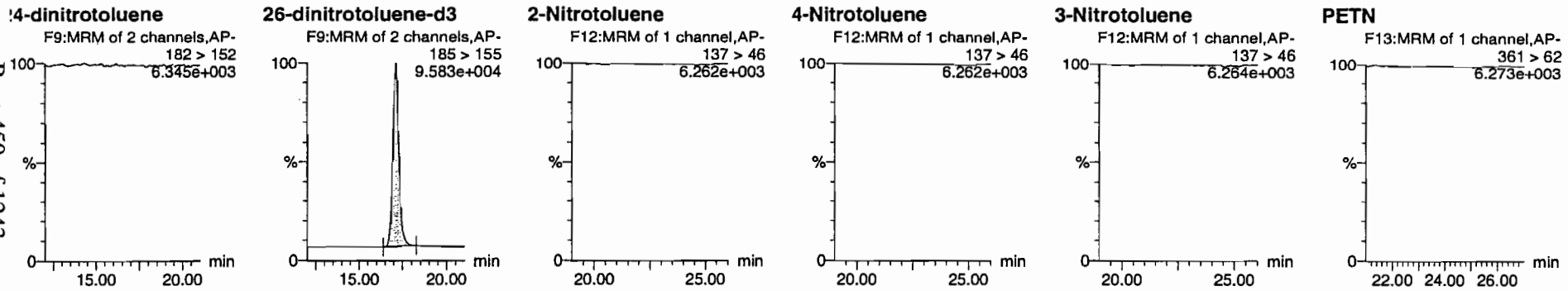

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK11	HMX	176 > 102			7463.190									
XIBLK11	RDX	176 > 102			7463.190									
XIBLK11	135-Trinitrobenzene	213 > 183			7463.190									
XIBLK11	13-Dinitrobenzene-d4	172 > 142	11.92	7463.190		7463.190	7463.190	bb			574.2638	114.9	14.9	301.0
XIBLK11	13-Dinitrobenzene	168 > 138			7463.190									
XIBLK11	Tetryl	241 > 181			7463.190									
XIBLK11	Nitrobenzene	123 > 46			7463.190									
XIBLK11	4-Amino-26-dinitrotoluene	197 > 167			36985.094									
XIBLK11	2-Amino-46-dinitrotoluene	197 > 180			36985.094									
XIBLK11	246-Trinitrotoluene	227 > 210			36985.094									
XIBLK11	34-dinitrotoluene	182 > 152			36985.094									
XIBLK11	26-dinitrotoluene	182 > 152			36985.094									
XIBLK11	24-dinitrotoluene	182 > 152			36985.094									
XIBLK11	26-dinitrotoluene-d3	185 > 155	17.12	36985.094		36985.094	36985.094	bb			468.4197	93.7	-6.3	1366.7
XIBLK11	2-Nitrotoluene	137 > 46			36985.094									
XIBLK11	4-Nitrotoluene	137 > 46			36985.094									
XIBLK11	3-Nitrotoluene	137 > 46			36985.094									
XIBLK11	PETN	361 > 62			36985.094									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 11–APR–10 02:12

GEL Data File: EXP0408108a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
1,3–Dinitrobenzene–d4	500	478.469
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	458.517
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
3,4–Dinitrotoluene	0	0

ataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408108a
ate: 11-Apr-2010
ime: 02:12:26
): XIBLK12
ial: 1:1,A

MM 4/11/10

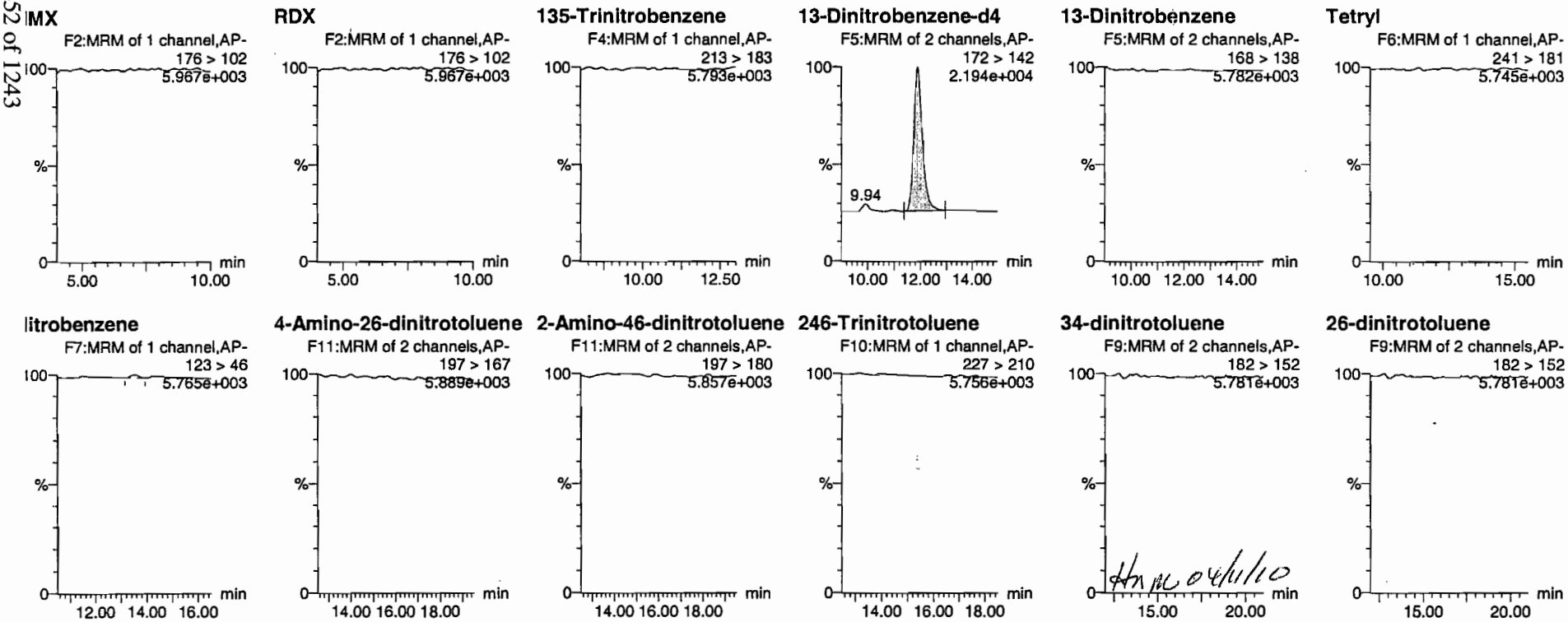

HM 04/11/10

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Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

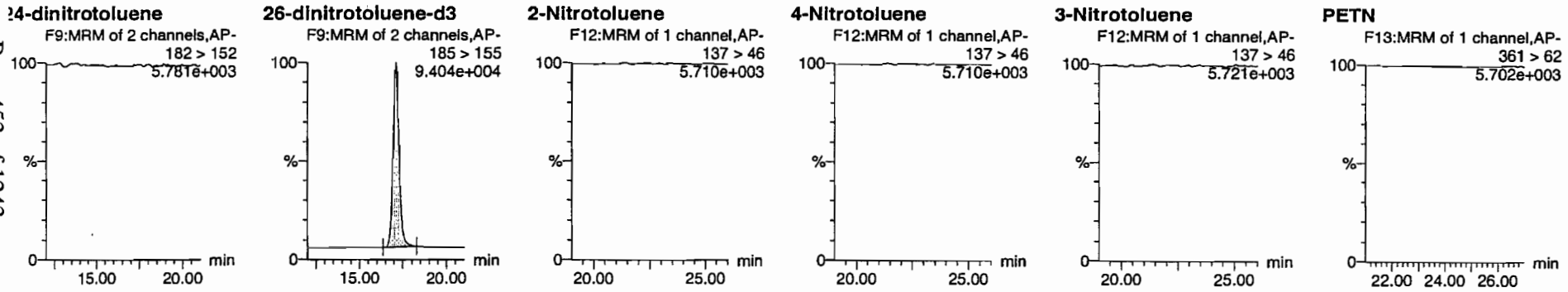

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK12	HMX	176 > 102			6218.233									
XIBLK12	RDX	176 > 102			6218.233									
XIBLK12	135-Trinitrobenzene	213 > 183			6218.233									
XIBLK12	13-Dinitrobenzene-d4	172 > 142	11.90	6218.233		6218.233	6218.233	bb			478.4692	95.7	-4.3	1367.7
XIBLK12	13-Dinitrobenzene	168 > 138			6218.233									
XIBLK12	Tetryl	241 > 181			6218.233									
XIBLK12	Nitrobenzene	123 > 46			6218.233			MM-	11-Apr-10	11:34:03				
XIBLK12	4-Amino-26-dinitrotoluene	197 > 167			36203.238									
XIBLK12	2-Amino-46-dinitrotoluene	197 > 180			36203.238									
XIBLK12	246-Trinitrotoluene	227 > 210			36203.238									
XIBLK12	34-dinitrotoluene	182 > 152			36203.238									
XIBLK12	26-dinitrotoluene	182 > 152			36203.238									
XIBLK12	24-dinitrotoluene	182 > 152			36203.238									
XIBLK12	26-dinitrotoluene-d3	185 > 155	17.11	36203.238		36203.238	36203.238	bb			458.5174	91.7	-8.3	1716.9
XIBLK12	2-Nitrotoluene	137 > 46			36203.238									
XIBLK12	4-Nitrotoluene	137 > 46			36203.238									
XIBLK12	3-Nitrotoluene	137 > 46			36203.238									
XIBLK12	PETN	361 > 62			36203.238									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 11–APR–10 08:35

GEL Data File: EXP0408121a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	533.075
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	526.463
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408121a
Date: 11-Apr-2010
Time: 08:35:47
ID: XIBLK13
Vial: 1:1,A

MAP 4/11/10

HMX
F2:MRM of 1 channel,AP-
5.08 7.04 176 > 102
6.054e+003

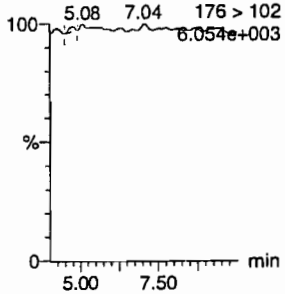

RDX
F2:MRM of 1 channel,AP-
5.08 7.04 176 > 102
6.054e+003

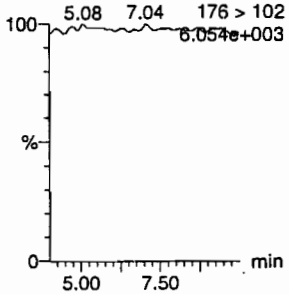

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.703e+003

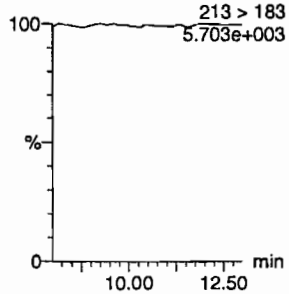

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.378e+004

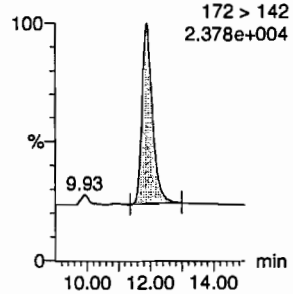

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.651e+003

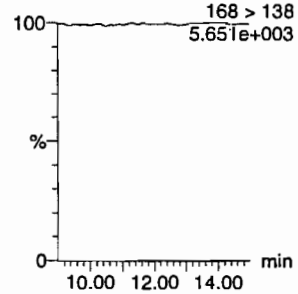

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.666e+003

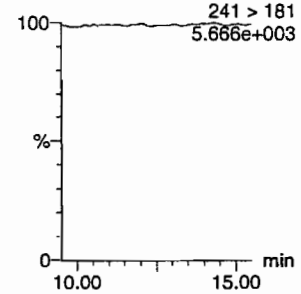

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.658e+003

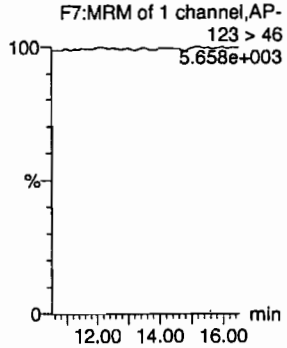

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
13.55 197 > 167
5.879e+003

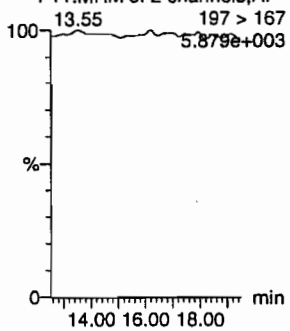

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.855e+003

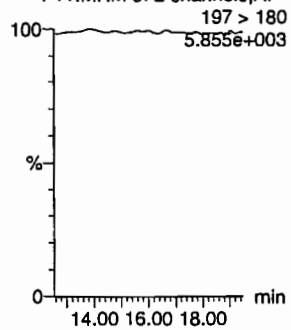

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.685e+003

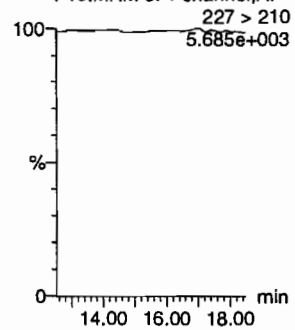

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.732e+003

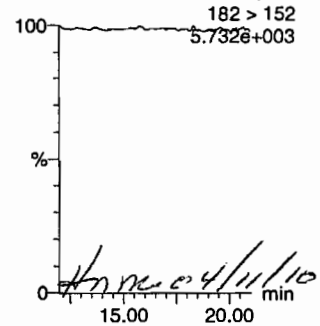

Hmc 4/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.732e+003

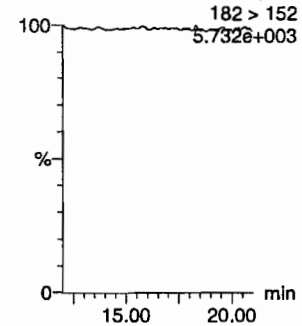

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

24-dinitrotoluene

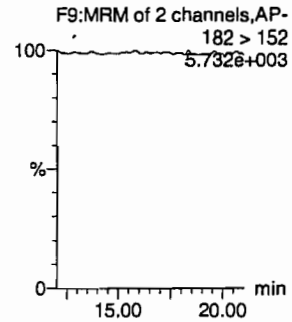

26-dinitrotoluene-d3

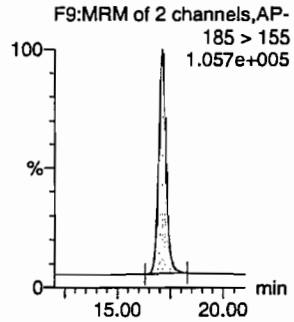

2-Nitrotoluene

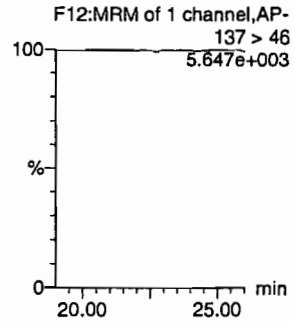

4-Nitrotoluene

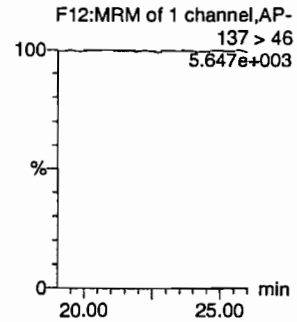

3-Nitrotoluene

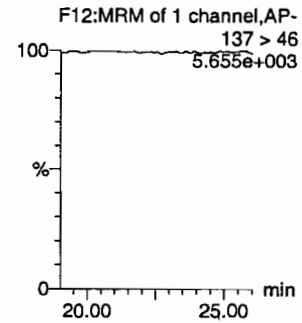

PETN

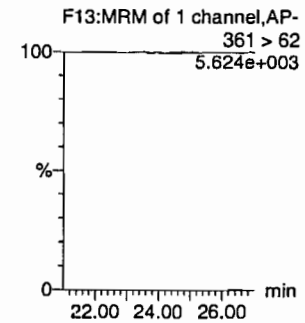

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK13	HMX	176 > 102			6927.902			MM-	11-Apr-10	11:31:50				
XIBLK13	RDX	176 > 102			6927.902									
XIBLK13	135-Trinitrobenzene	213 > 183			6927.902									
XIBLK13	13-Dinitrobenzene-d4	172 > 142	11.89	6927.902		6927.902	6927.902	bb			533.0755	106.6	6.6	429.5
XIBLK13	13-Dinitrobenzene	168 > 138			6927.902									
XIBLK13	Tetryl	241 > 181			6927.902									
XIBLK13	Nitrobenzene	123 > 46			6927.902									
XIBLK13	4-Amino-26-dinitrotoluene	197 > 167			41568.000									
XIBLK13	2-Amino-46-dinitrotoluene	197 > 180			41568.000									
XIBLK13	246-Trinitrotoluene	227 > 210			41568.000									
XIBLK13	34-dinitrotoluene	182 > 152			41568.000									
XIBLK13	26-dinitrotoluene	182 > 152			41568.000									
XIBLK13	24-dinitrotoluene	182 > 152			41568.000			MM-	11-Apr-10	11:44:55				
XIBLK13	26-dinitrotoluene-d3	185 > 155	17.11	41568.000		41568.000	41568.000	bb			526.4626	105.3	5.3	3997.7
XIBLK13	2-Nitrotoluene	137 > 46			41568.000									
XIBLK13	4-Nitrotoluene	137 > 46			41568.000									
XIBLK13	3-Nitrotoluene	137 > 46			41568.000									
XIBLK13	PETN	361 > 62			41568.000									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 12–APR–10 19:36

GEL Data File: EXP0412009a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	566.025
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	597.817
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412009a
Date: 12-Apr-2010
Time: 19:36:32
ID: XIBLK02
Vial: 1:1,A

MAP 4/13/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
4.01
8.827e+003

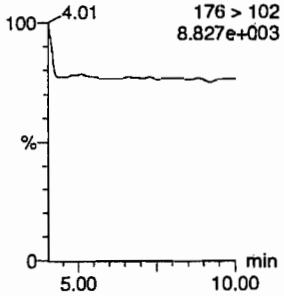

RDX
F2:MRM of 1 channel,AP-
176 > 102
4.01
8.827e+003

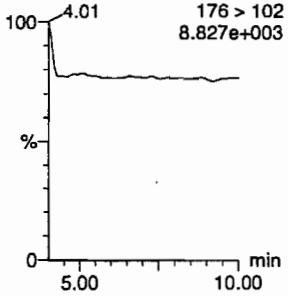

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.818e+003

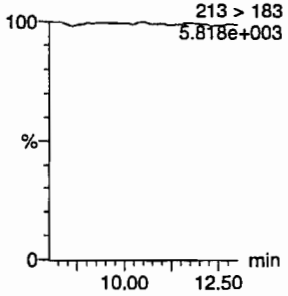

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.328e+004

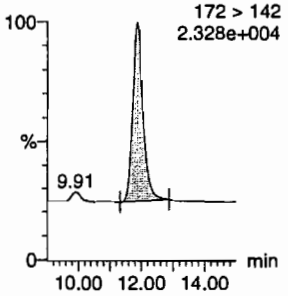

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.715e+003

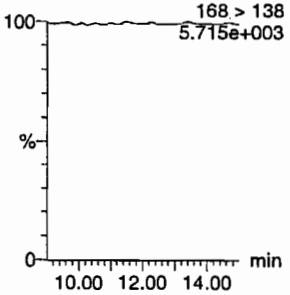

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.709e+003

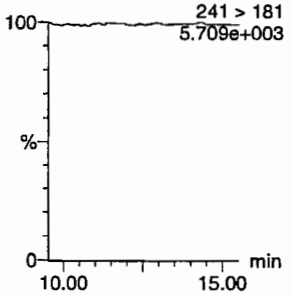

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.736e+003

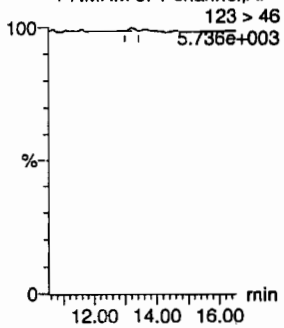

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
13.39
6.117e+003

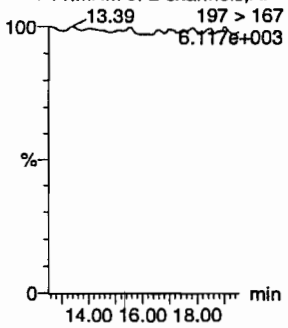

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.123e+003

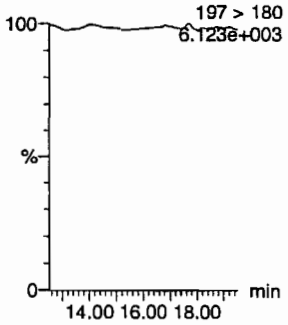

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.768e+003

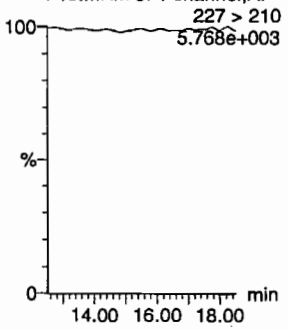

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.794e+003

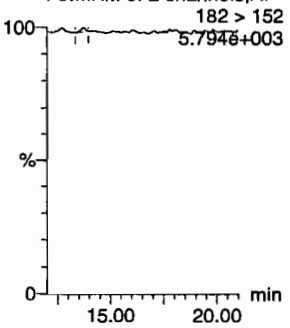

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.794e+003

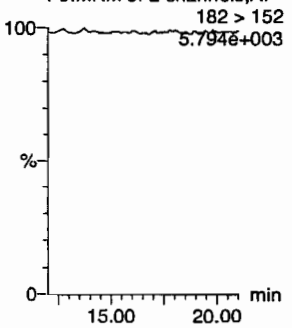

Hmm 04/14/10

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24-dinitrotoluene

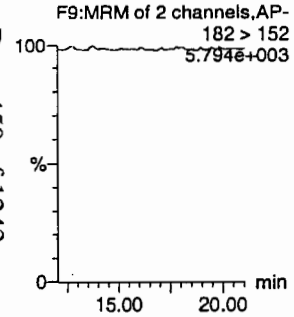

26-dinitrotoluene-d3

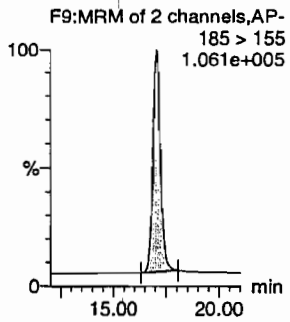

2-Nitrotoluene

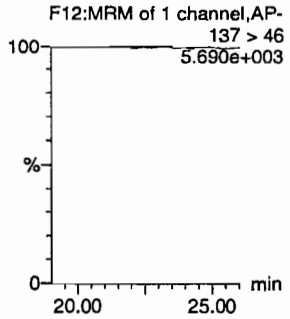

4-Nitrotoluene

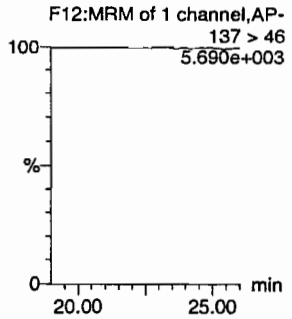

3-Nitrotoluene

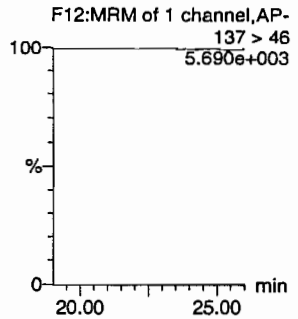

PETN

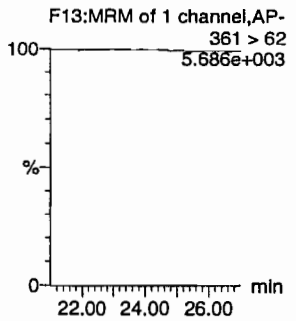

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK02	HMX	176 > 102			6656.868									
XIBLK02	RDX	176 > 102			6656.868									
XIBLK02	135-Trinitrobenzene	213 > 183			6656.868									
XIBLK02	13-Dinitrobenzene-d4	172 > 142	11.87	6656.868		6656.868	6656.868	bb			566.0252	113.2	13.2	258.0
XIBLK02	13-Dinitrobenzene	168 > 138			6656.868									
XIBLK02	Tetryl	241 > 181			6656.868									
XIBLK02	Nitrobenzene	123 > 46			6656.868			MM-	13-Apr-10	11:00:12				
XIBLK02	4-Amino-26-dinitrotoluene	197 > 167			41827.098									
XIBLK02	2-Amino-46-dinitrotoluene	197 > 180			41827.098									
XIBLK02	246-Trinitrotoluene	227 > 210			41827.098									
XIBLK02	34-dinitrotoluene	182 > 152			41827.098			MM-	13-Apr-10	11:04:01				
XIBLK02	26-dinitrotoluene	182 > 152			41827.098									
XIBLK02	24-dinitrotoluene	182 > 152			41827.098									
XIBLK02	26-dinitrotoluene-d3	185 > 155	17.05	41827.098		41827.098	41827.098	bb			597.8173	119.6	19.6	1486.5
XIBLK02	2-Nitrotoluene	137 > 46			41827.098									
XIBLK02	4-Nitrotoluene	137 > 46			41827.098									
XIBLK02	3-Nitrotoluene	137 > 46			41827.098									
XIBLK02	PETN	361 > 62			41827.098									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 12–APR–10 20:35

GEL Data File: EXP0412011a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	547.706
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	578.822
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412011a
Date: 12-Apr-2010
Time: 20:35:28
ID: XIBLK03
Vial: 1:1,A

MM 4/13/10

HMX
F2:MRM of 1 channel,AP-
4.01 176 > 102
6.462e+003

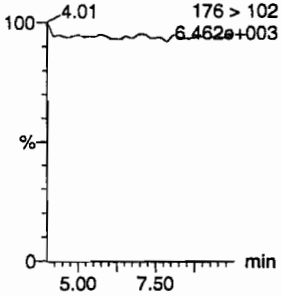

RDX
F2:MRM of 1 channel,AP-
4.01 176 > 102
6.462e+003

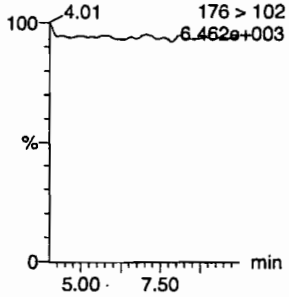

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.406e+003

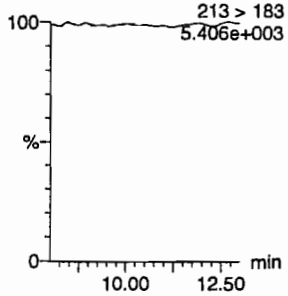

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.215e+004

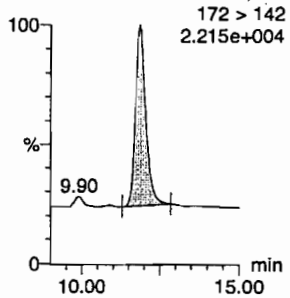

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.374e+003

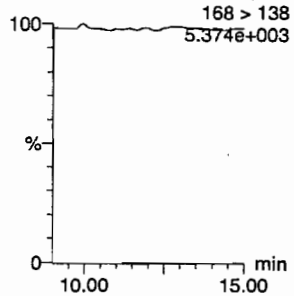

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.343e+003

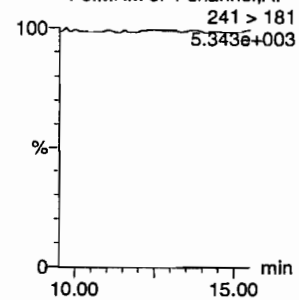

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.312e+003

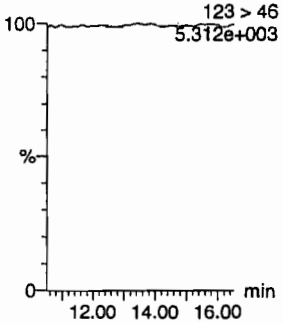

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.589e+003

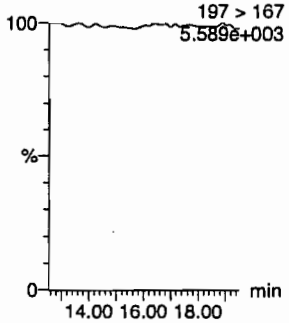

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.642e+003

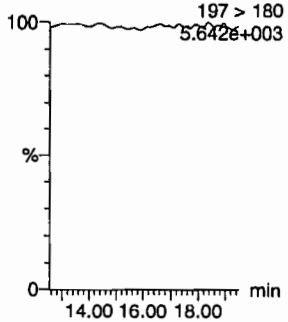

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.359e+003

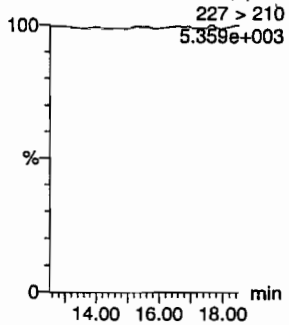

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.377e+003

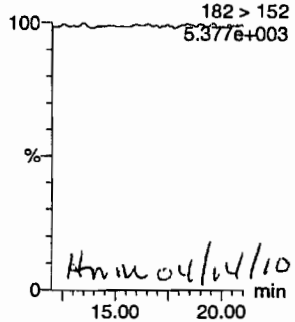

Hmm 04/14/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.377e+003

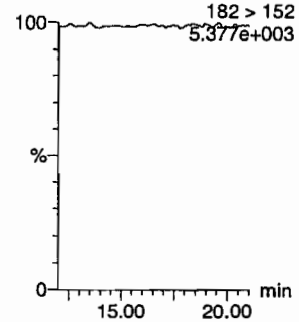

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Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

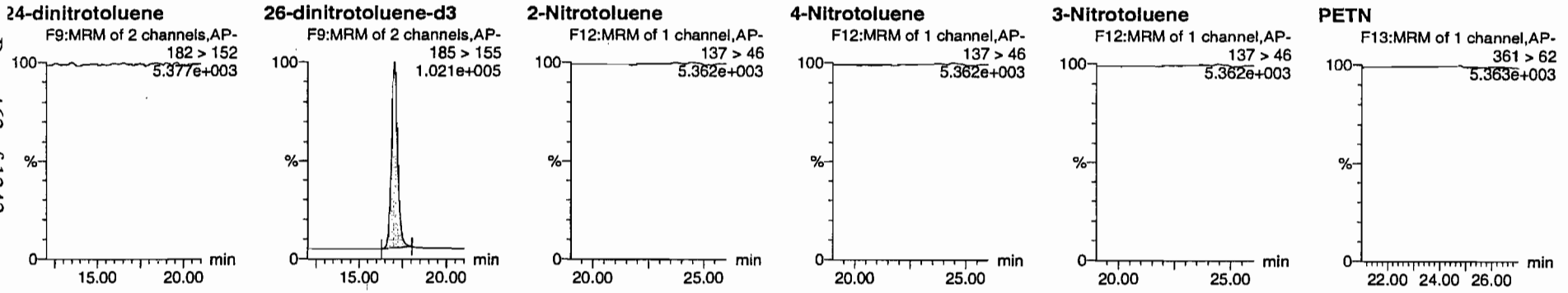

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK03	HMX	176 > 102			6441.423									
XIBLK03	RDX	176 > 102			6441.423									
XIBLK03	135-Trinitrobenzene	213 > 183			6441.423									
XIBLK03	13-Dinitrobenzene-d4	172 > 142	11.87	6441.423		6441.423	6441.423	bb			547.7062	109.5	9.5	345.7
XIBLK03	13-Dinitrobenzene	168 > 138			6441.423									
XIBLK03	Tetryl	241 > 181			6441.423									
XIBLK03	Nitrobenzene	123 > 46			6441.423									
XIBLK03	4-Amino-26-dinitrotoluene	197 > 167			40498.094									
XIBLK03	2-Amino-46-dinitrotoluene	197 > 180			40498.094									
XIBLK03	246-Trinitrotoluene	227 > 210			40498.094									
XIBLK03	34-dinitrotoluene	182 > 152			40498.094									
XIBLK03	26-dinitrotoluene	182 > 152			40498.094									
XIBLK03	24-dinitrotoluene	182 > 152			40498.094									
XIBLK03	26-dinitrotoluene-d3	185 > 155	17.06	40498.094		40498.094	40498.094	bb			578.8224	115.8	15.8	2241.2
XIBLK03	2-Nitrotoluene	137 > 46			40498.094									
XIBLK03	4-Nitrotoluene	137 > 46			40498.094									
XIBLK03	3-Nitrotoluene	137 > 46			40498.094									
XIBLK03	PETN	361 > 62			40498.094									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 13–APR–10 02:58

GEL Data File: EXP0412024a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	493.141
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	499.061
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412024a
Date: 13-Apr-2010
Time: 02:58:51
ID: XIBLK04
Vial: 1:1,A

MTT 4/13/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.016e+003

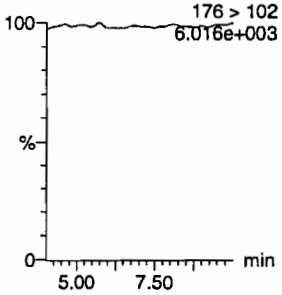

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.016e+003

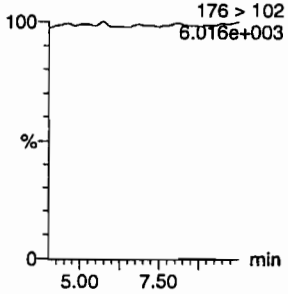

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.674e+003

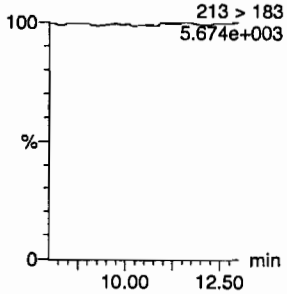

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.094e+004

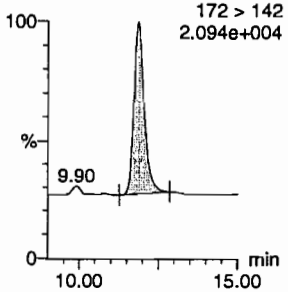

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.606e+003

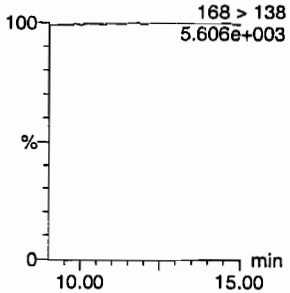

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.626e+003

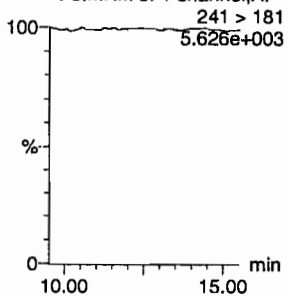

Nitrobenzene
F7:MRM of 1 channel,AP-
12.66
123 > 46
5.718e+003

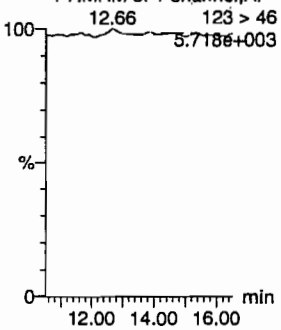

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.791e+003

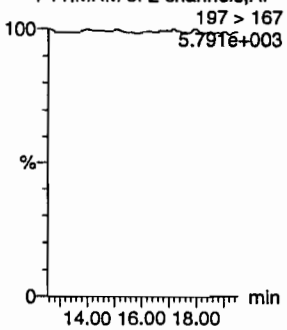

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.812e+003

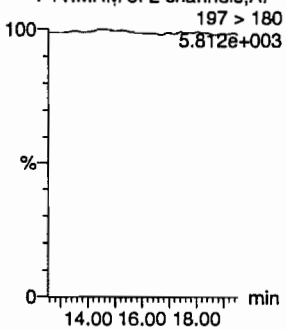

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.658e+003

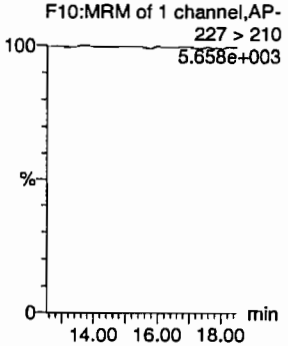

34-dinitrotoluene
F9:MRM of 2 channels,AP-
15.09
182 > 152
5.749e+003

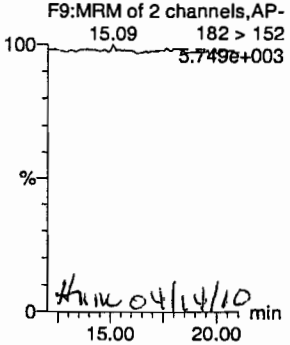

HMK 04/14/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
15.09
182 > 152
5.749e+003

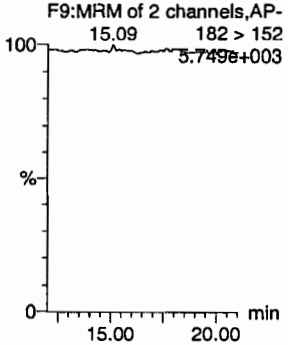

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

24-dinitrotoluene

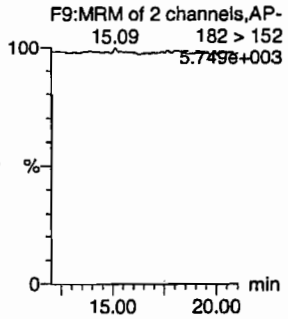

26-dinitrotoluene-d3

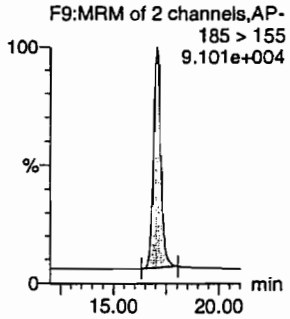

2-Nitrotoluene

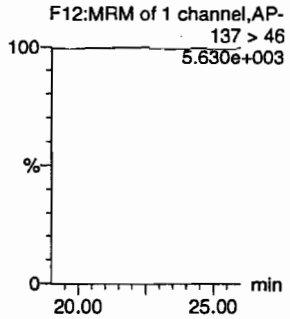

4-Nitrotoluene

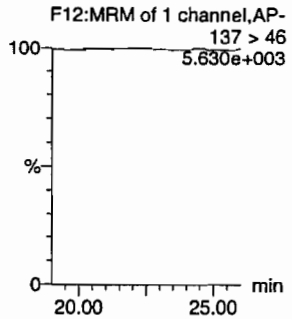

3-Nitrotoluene

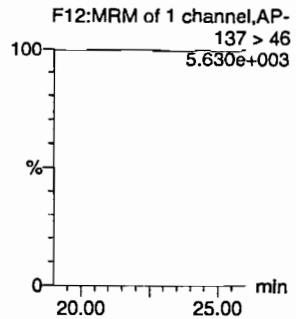

PETN

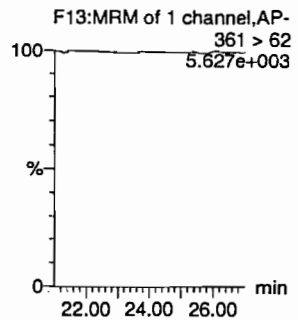

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK04	HMX	176 > 102			5799.697									
XIBLK04	RDX	176 > 102			5799.697									
XIBLK04	135-Trinitrobenzene	213 > 183			5799.697									
XIBLK04	13-Dinitrobenzene-d4	172 > 142	11.86	5799.697		5799.697	5799.697	bb			493.1410	98.6	-1.4	818.6
XIBLK04	13-Dinitrobenzene	168 > 138			5799.697									
XIBLK04	Tetryl	241 > 181			5799.697									
XIBLK04	Nitrobenzene	123 > 46			5799.697									
XIBLK04	4-Amino-26-dinitrotoluene	197 > 167			34917.508									
XIBLK04	2-Amino-46-dinitrotoluene	197 > 180			34917.508									
XIBLK04	246-Trinitrotoluene	227 > 210			34917.508									
XIBLK04	34-dinitrotoluene	182 > 152			34917.508									
XIBLK04	26-dinitrotoluene	182 > 152			34917.508									
XIBLK04	24-dinitrotoluene	182 > 152			34917.508									
XIBLK04	26-dinitrotoluene-d3	185 > 155	17.06	34917.508		34917.508	34917.508	bb			499.0614	99.8	-0.2	4328.2
XIBLK04	2-Nitrotoluene	137 > 46			34917.508									
XIBLK04	4-Nitrotoluene	137 > 46			34917.508									
XIBLK04	3-Nitrotoluene	137 > 46			34917.508									
XIBLK04	PETN	361 > 62			34917.508									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 13–APR–10 09:22

GEL Data File: EXP0412037a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	510.743
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	501.204
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412037a
Date: 13-Apr-2010
Time: 09:22:18
ID: XIBLK05
Vial: 1:1,A

MATT 4/13/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.049e+003

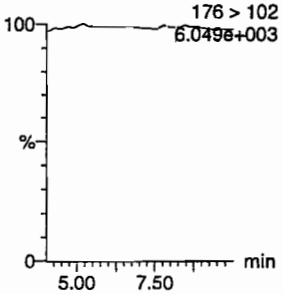

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.049e+003

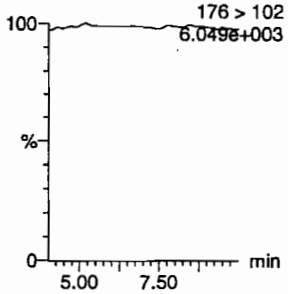

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.818e+003

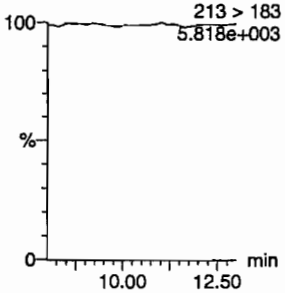

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.190e+004

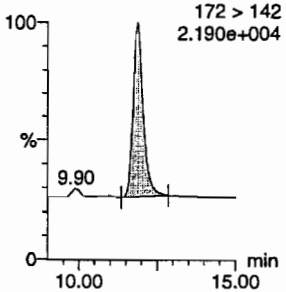

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.750e+003

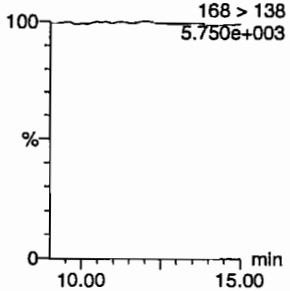

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.808e+003

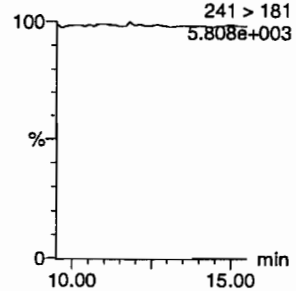

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.764e+003

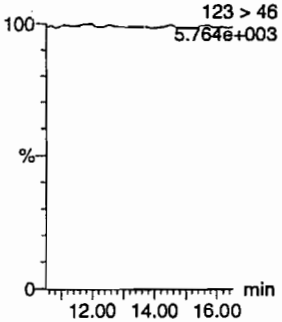

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.886e+003

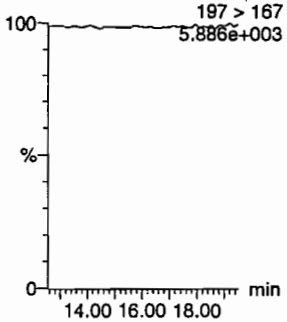

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.935e+003

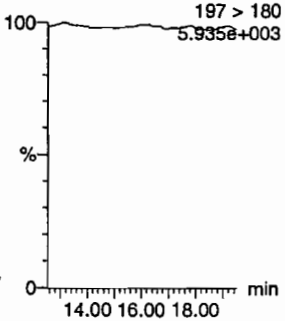

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.761e+003

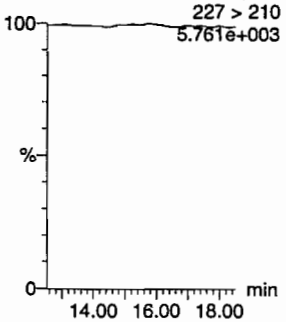

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.806e+003

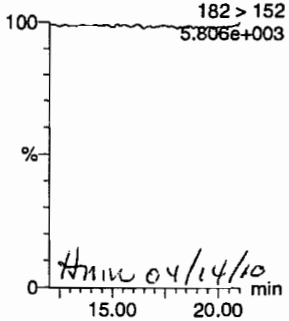

HMW 04/14/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.806e+003

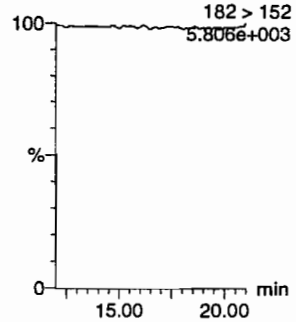

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

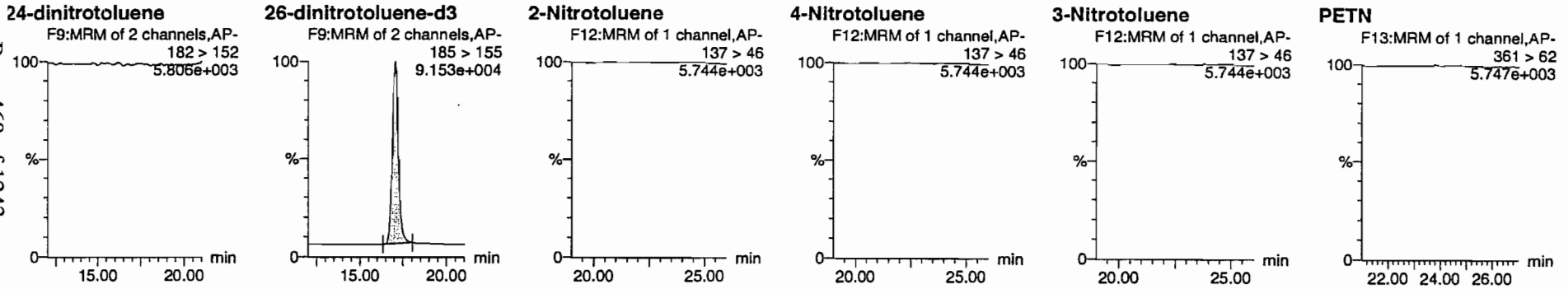

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK05	HMX	176 > 102			6006.704									
XIBLK05	RDX	176 > 102			6006.704									
XIBLK05	135-Trinitrobenzene	213 > 183			6006.704									
XIBLK05	13-Dinitrobenzene-d4	172 > 142	11.87	6006.704		6006.704	6006.704	bb			510.7425	102.1	2.1	513.6
XIBLK05	13-Dinitrobenzene	168 > 138			6006.704									
XIBLK05	Tetryl	241 > 181			6006.704									
XIBLK05	Nitrobenzene	123 > 46			6006.704									
XIBLK05	4-Amino-26-dinitrotoluene	197 > 167			35067.418									
XIBLK05	2-Amino-46-dinitrotoluene	197 > 180			35067.418									
XIBLK05	246-Trinitrotoluene	227 > 210			35067.418									
XIBLK05	34-dinitrotoluene	182 > 152			35067.418									
XIBLK05	26-dinitrotoluene	182 > 152			35067.418									
XIBLK05	24-dinitrotoluene	182 > 152			35067.418									
XIBLK05	26-dinitrotoluene-d3	185 > 155	17.06	35067.418		35067.418	35067.418	bb			501.2040	100.2	0.2	3209.3
XIBLK05	2-Nitrotoluene	137 > 46			35067.418									
XIBLK05	4-Nitrotoluene	137 > 46			35067.418									
XIBLK05	3-Nitrotoluene	137 > 46			35067.418									
XIBLK05	PETN	361 > 62			35067.418									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2039

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 13-APR-10 11:20

GEL Data File: EXP0412041a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	648.08
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	519.054
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412041a
Date: 13-Apr-2010
Time: 11:20:19
ID: XIBLK06
Vial: 1:1,A

HMX

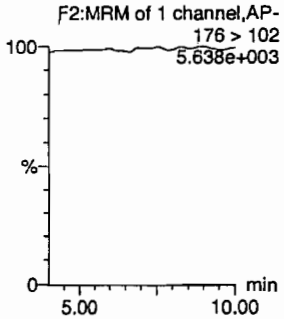

RDX

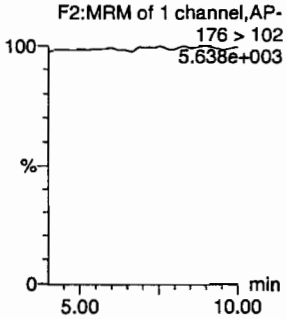

135-Trinitrobenzene

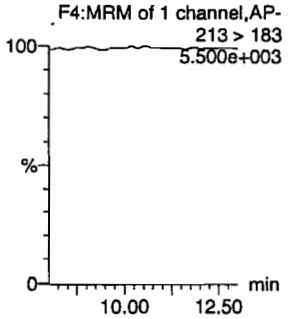

13-Dinitrobenzene-d4

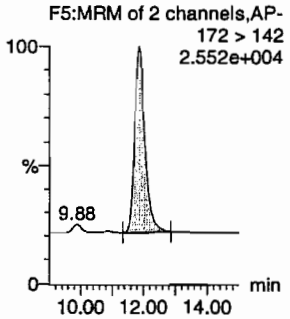

13-Dinitrobenzene

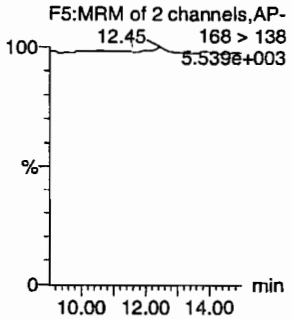

Tetryl

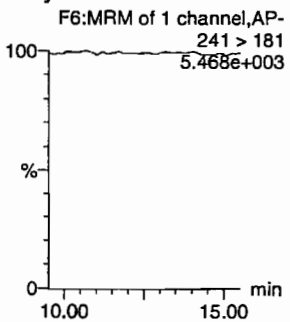

Nitrobenzene

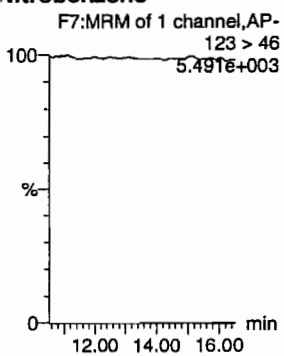

4-Amino-26-dinitrotoluene

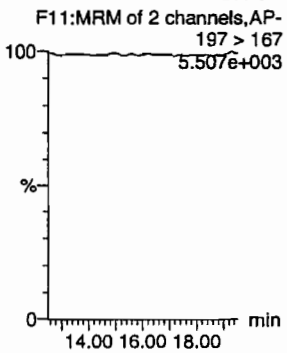

2-Amino-46-dinitrotoluene

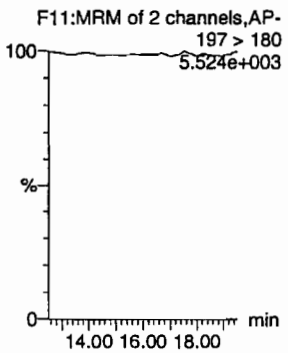

246-Trinitrotoluene

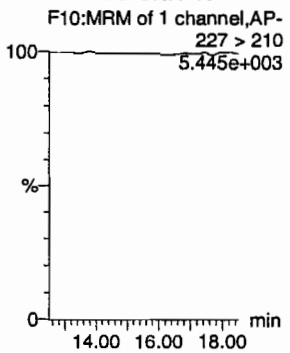

34-dinitrotoluene

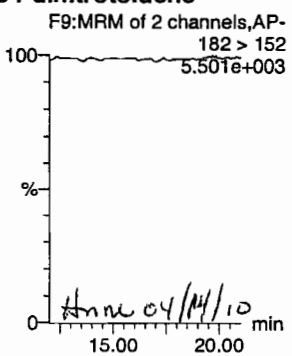

26-dinitrotoluene

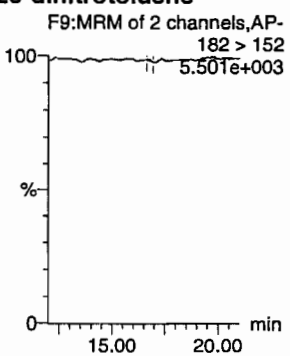

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

24-dinitrotoluene

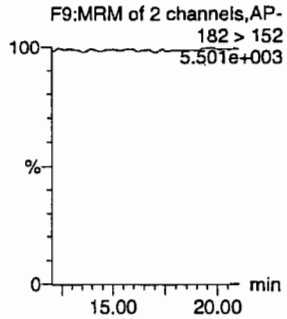

26-dinitrotoluene-d3

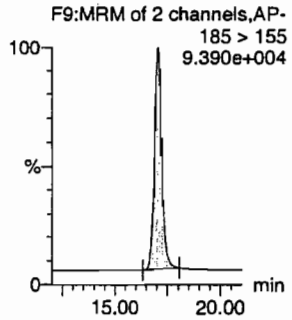

2-Nitrotoluene

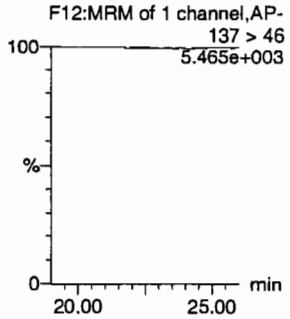

4-Nitrotoluene

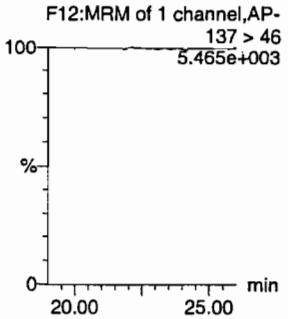

3-Nitrotoluene

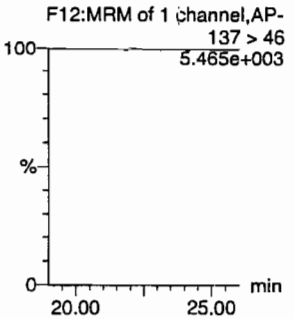

PETN

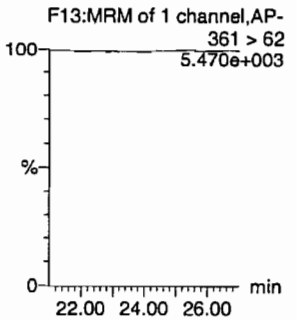

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK06	HMX	176 > 102			7621.890									
XIBLK06	RDX	176 > 102			7621.890									
XIBLK06	135-Trinitrobenzene	213 > 183			7621.890									
XIBLK06	13-Dinitrobenzene-d4	172 > 142	11.87	7621.890		7621.890	7621.890	bb			648.0798	129.6	29.6	880.4
XIBLK06	13-Dinitrobenzene	168 > 138			7621.890									
XIBLK06	Tetryl	241 > 181			7621.890									
XIBLK06	Nitrobenzene	123 > 46			7621.890									
XIBLK06	4-Amino-26-dinitrotoluene	197 > 167			36316.328									
XIBLK06	2-Amino-46-dinitrotoluene	197 > 180			36316.328									
XIBLK06	246-Trinitrotoluene	227 > 210			36316.328									
XIBLK06	34-dinitrotoluene	182 > 152			36316.328									
XIBLK06	26-dinitrotoluene	182 > 152			36316.328			MM-	14-Apr-10	09:11:01				
XIBLK06	24-dinitrotoluene	182 > 152			36316.328									
XIBLK06	26-dinitrotoluene-d3	185 > 155	17.05	36316.328		36316.328	36316.328	bb			519.0541	103.8	3.8	1500.7
XIBLK06	2-Nitrotoluene	137 > 46			36316.328									
XIBLK06	4-Nitrotoluene	137 > 46			36316.328									
XIBLK06	3-Nitrotoluene	137 > 46			36316.328									
XIBLK06	PETN	361 > 62			36316.328									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2039

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 13-APR-10 15:46

GEL Data File: EXP0412050a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	555.622
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	595.796
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412050a
Date: 13-Apr-2010
Time: 15:46:11
ID: XIBLK07
Vial: 1:1,A

MM 4/14/10

HMX
F2:MRM of 1 channel,AP-
6.77 176 > 102
5.495e+003

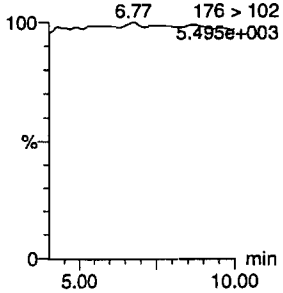

RDX
F2:MRM of 1 channel,AP-
6.77 176 > 102
5.495e+003

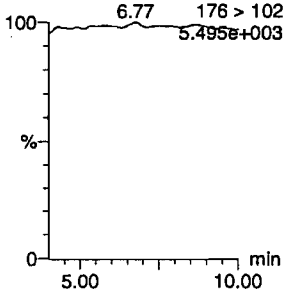

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.181e+003

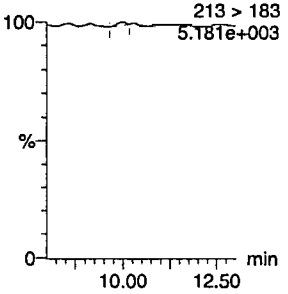

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.208e+004

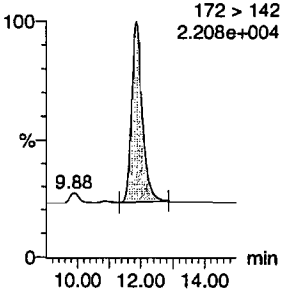

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.116e+003

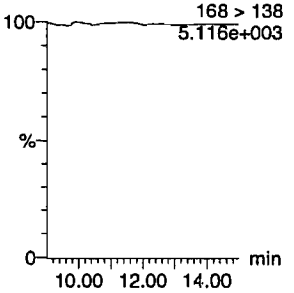

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.109e+003

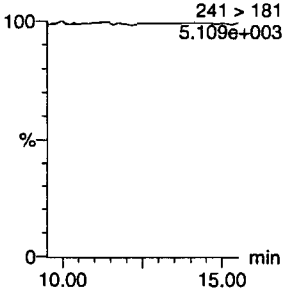

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.103e+003

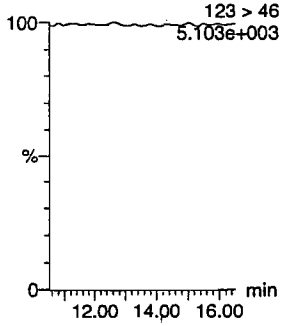

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.288e+003

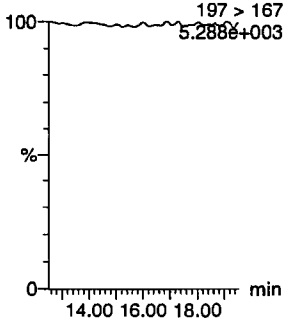

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.301e+003

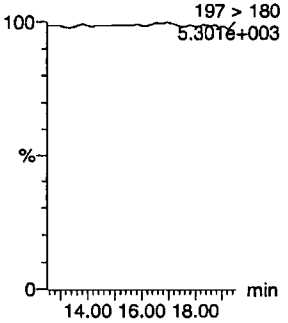

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.123e+003

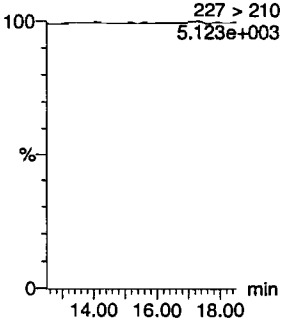

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.176e+003

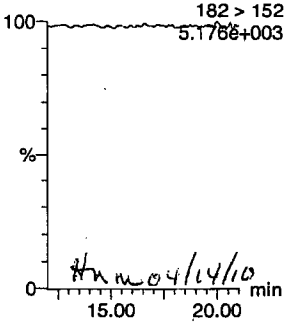

HM 04/14/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.176e+003

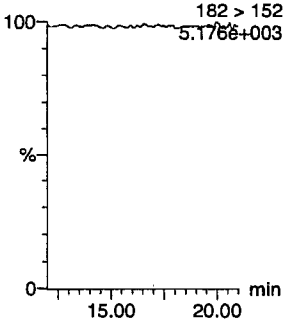

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Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

24-dinitrotoluene

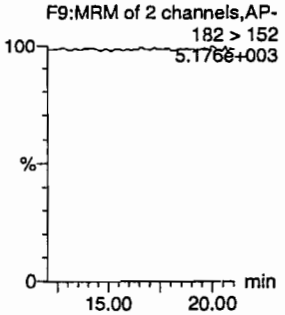

26-dinitrotoluene-d3

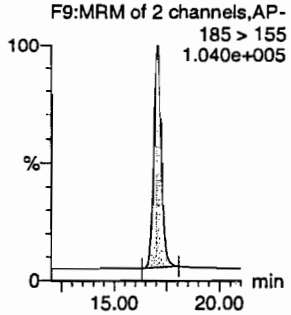

2-Nitrotoluene

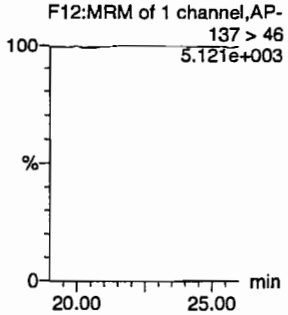

4-Nitrotoluene

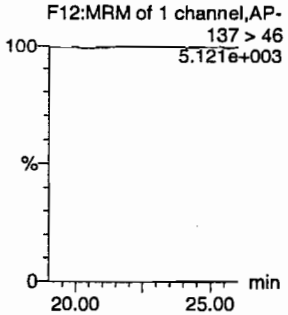

3-Nitrotoluene

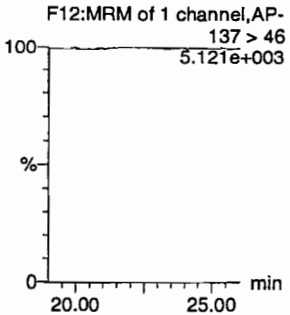

PETN

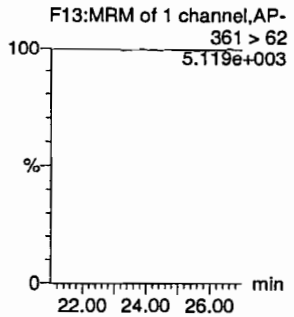

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK07	HMX	176 > 102			6534.515									
XIBLK07	RDX	176 > 102			6534.515									
XIBLK07	135-Trinitrobenzene	213 > 183			6534.515			MM-	14-Apr-10	09:05:01				
XIBLK07	13-Dinitrobenzene-d4	172 > 142	11.87	6534.515		6534.515	6534.515	bb			555.6217	111.1	11.1	831.9
XIBLK07	13-Dinitrobenzene	168 > 138			6534.515									
XIBLK07	Tetryl	241 > 181			6534.515									
XIBLK07	Nitrobenzene	123 > 46			6534.515									
XIBLK07	4-Amino-26-dinitrotoluene	197 > 167			41685.668									
XIBLK07	2-Amino-46-dinitrotoluene	197 > 180			41685.668									
XIBLK07	246-Trinitrotoluene	227 > 210			41685.668									
XIBLK07	34-dinitrotoluene	182 > 152			41685.668									
XIBLK07	26-dinitrotoluene	182 > 152			41685.668									
XIBLK07	24-dinitrotoluene	182 > 152			41685.668									
XIBLK07	26-dinitrotoluene-d3	185 > 155	17.05	41685.668		41685.668	41685.668	bb			595.7959	119.2	19.2	3775.0
XIBLK07	2-Nitrotoluene	137 > 46			41685.668									
XIBLK07	4-Nitrotoluene	137 > 46			41685.668									
XIBLK07	3-Nitrotoluene	137 > 46			41685.668									
XIBLK07	PETN	361 > 62			41685.668									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 13–APR–10 21:10

GEL Data File: EXP0412061a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	531.786
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	563.322

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412061a
Date: 13-Apr-2010
Time: 21:10:49
ID: XIBLK08
Vial: 1:1,A

MTT 4/14/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.685e+003

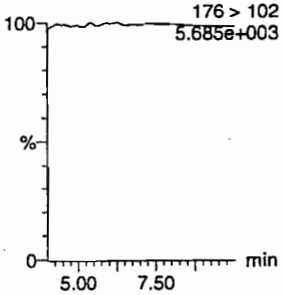

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.685e+003

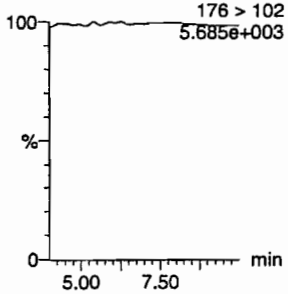

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.472e+003

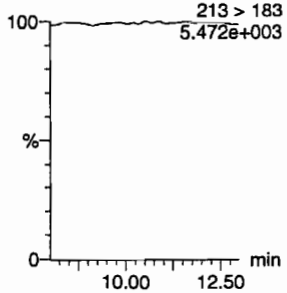

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.191e+004

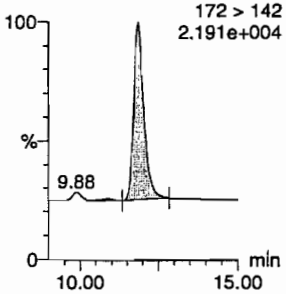

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.438e+003

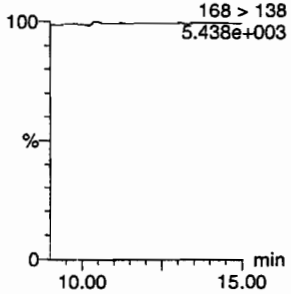

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.439e+003

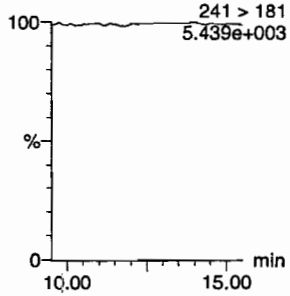

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.446e+003

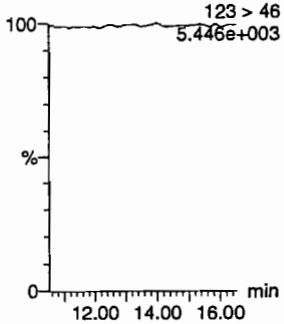

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
17.64 197 > 167
5.665e+003

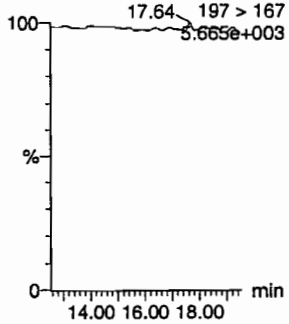

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.619e+003

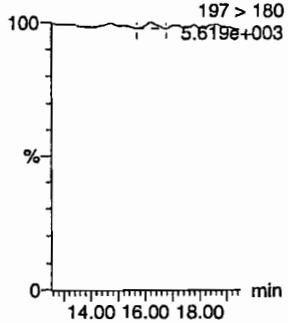

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.461e+003

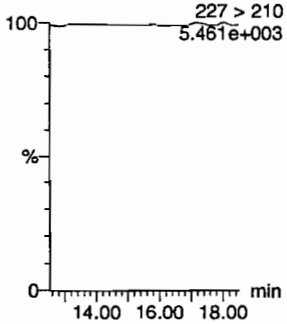

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.503e+003

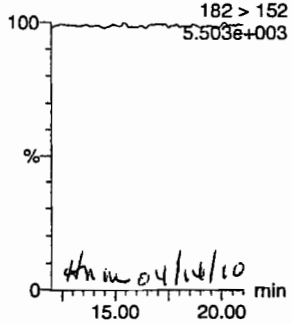

MM 04/14/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.503e+003

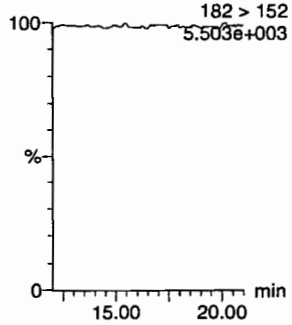

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Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

24-dinitrotoluene

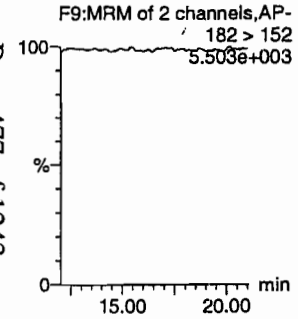

26-dinitrotoluene-d3

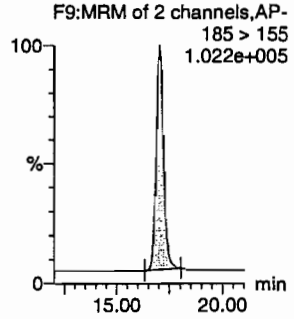

2-Nitrotoluene

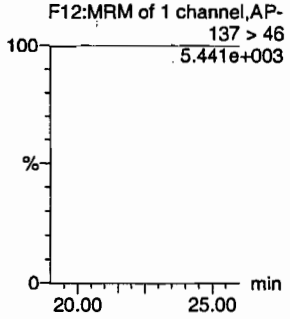

4-Nitrotoluene

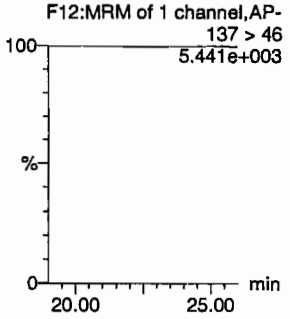

3-Nitrotoluene

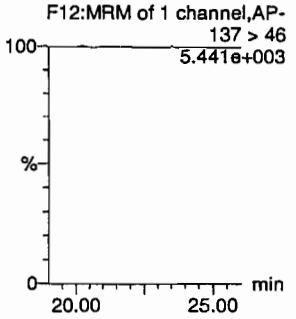

PETN

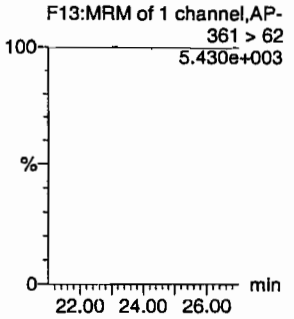

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK08	HMX	176 > 102			6254.194									
XIBLK08	RDX	176 > 102			6254.194									
XIBLK08	135-Trinitrobenzene	213 > 183			6254.194									
XIBLK08	13-Dinitrobenzene-d4	172 > 142	11.87	6254.194		6254.194	6254.194	bb			531.7863	106.4	6.4	504.3
XIBLK08	13-Dinitrobenzene	168 > 138			6254.194									
XIBLK08	Tetryl	241 > 181			6254.194									
XIBLK08	Nitrobenzene	123 > 46			6254.194									
XIBLK08	4-Amino-26-dinitrotoluene	197 > 167			39413.598									
XIBLK08	2-Amino-46-dinitrotoluene	197 > 180			39413.598			MM-	14-Apr-10	09:02:14				
XIBLK08	246-Trinitrotoluene	227 > 210			39413.598									
XIBLK08	34-dinitrotoluene	182 > 152			39413.598									
XIBLK08	26-dinitrotoluene	182 > 152			39413.598									
XIBLK08	24-dinitrotoluene	182 > 152			39413.598									
XIBLK08	26-dinitrotoluene-d3	185 > 155	17.04	39413.598		39413.598	39413.598	bb			563.3221	112.7	12.7	3089.3
XIBLK08	2-Nitrotoluene	137 > 46			39413.598									
XIBLK08	4-Nitrotoluene	137 > 46			39413.598									
XIBLK08	3-Nitrotoluene	137 > 46			39413.598									
XIBLK08	PETN	361 > 62			39413.598									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2039

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 14-APR-10 03:34

GEL Data File: EXP0412074a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	496.797
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	587.81
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412074a
Date: 14-Apr-2010
Time: 03:34:13
ID: XIBLK09
Vial: 1:1,A

MATT 4/14/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.800e+003

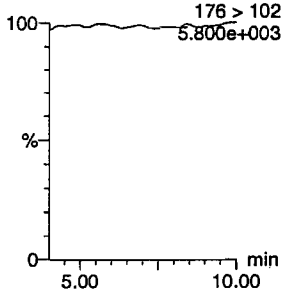

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.800e+003

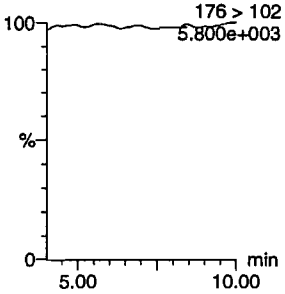

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.556e+003

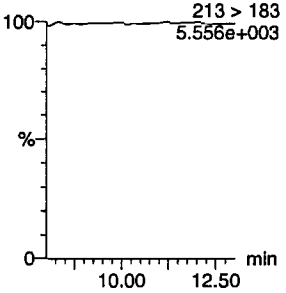

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.107e+004

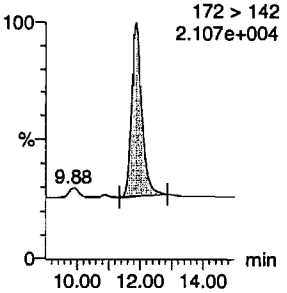

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.518e+003

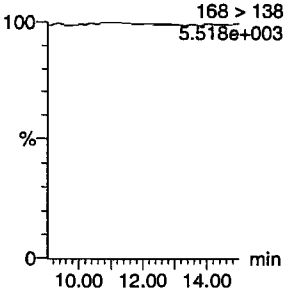

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.516e+003

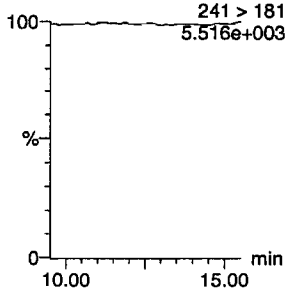

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.511e+003

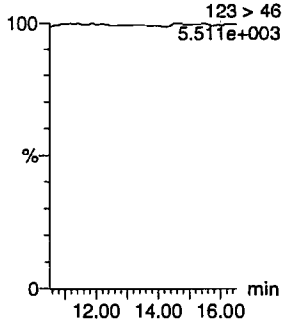

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.654e+003

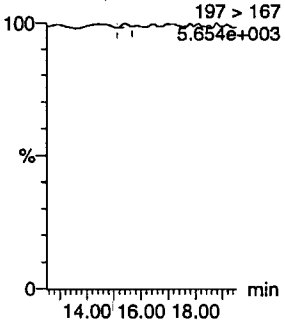

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.691e+003

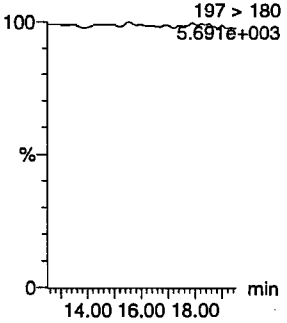

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.513e+003

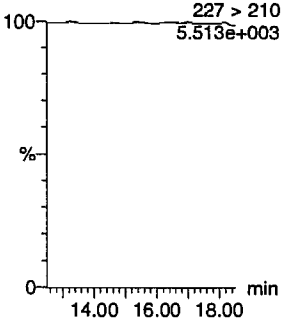

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.554e+003

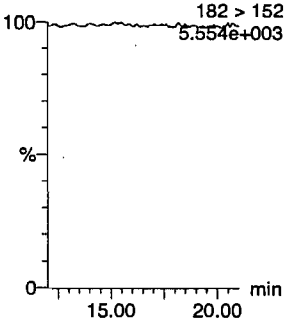

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.554e+003

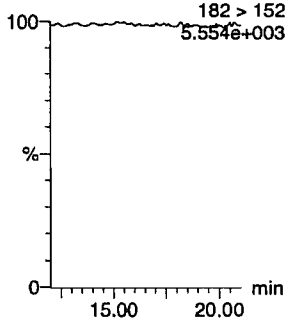

HMM 04/14/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.554e+003

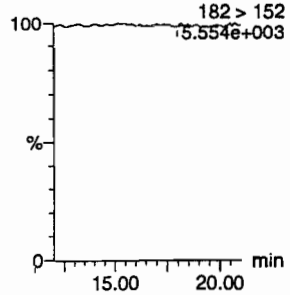

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
1.074e+005

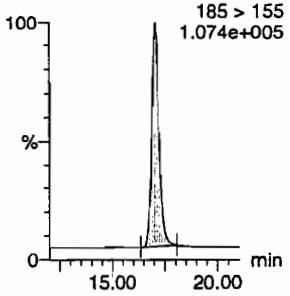

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.506e+003

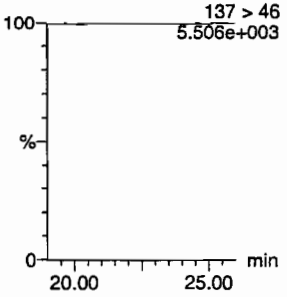

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.506e+003

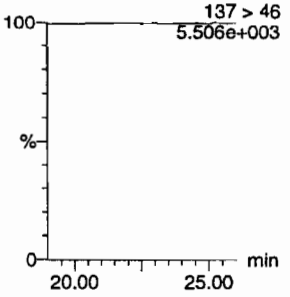

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.506e+003

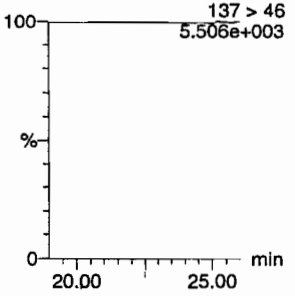

PETN
F13:MRM of 1 channel,AP-
361 > 62
5.508e+003

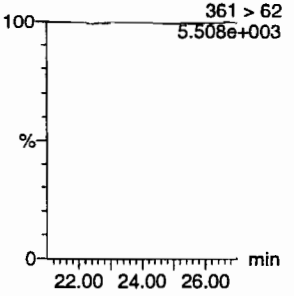

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK09	HMX	176 > 102			5842.696									
XIBLK09	RDX	176 > 102			5842.696									
XIBLK09	135-Trinitrobenzene	213 > 183			5842.696									
XIBLK09	13-Dinitrobenzene-d4	172 > 142	11.87	5842.696		5842.696	5842.696	bb			496.7972	99.4	-0.6	724.2
XIBLK09	13-Dinitrobenzene	168 > 138			5842.696									
XIBLK09	Tetryl	241 > 181			5842.696									
XIBLK09	Nitrobenzene	123 > 46			5842.696									
XIBLK09	4-Amino-26-dinitrotoluene	197 > 167			41126.906			MM-	14-Apr-10	09:09:05				
XIBLK09	2-Amino-46-dinitrotoluene	197 > 180			41126.906									
XIBLK09	246-Trinitrotoluene	227 > 210			41126.906									
XIBLK09	34-dinitrotoluene	182 > 152			41126.906									
XIBLK09	26-dinitrotoluene	182 > 152			41126.906									
XIBLK09	24-dinitrotoluene	182 > 152			41126.906			MM-	14-Apr-10	09:13:30				
XIBLK09	26-dinitrotoluene-d3	185 > 155	17.05	41126.906		41126.906	41126.906	bb			587.8097	117.6	17.6	1849.8
XIBLK09	2-Nitrotoluene	137 > 46			41126.906									
XIBLK09	4-Nitrotoluene	137 > 46			41126.906									
XIBLK09	3-Nitrotoluene	137 > 46			41126.906									
XIBLK09	PETN	361 > 62			41126.906									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 05–APR–10 15:07

GEL Data File: EXS04050010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	11.1
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Ken 4/7/10

ample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS04050010.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 4/5/2010
. Time: 3:07:10 PM

ified: No

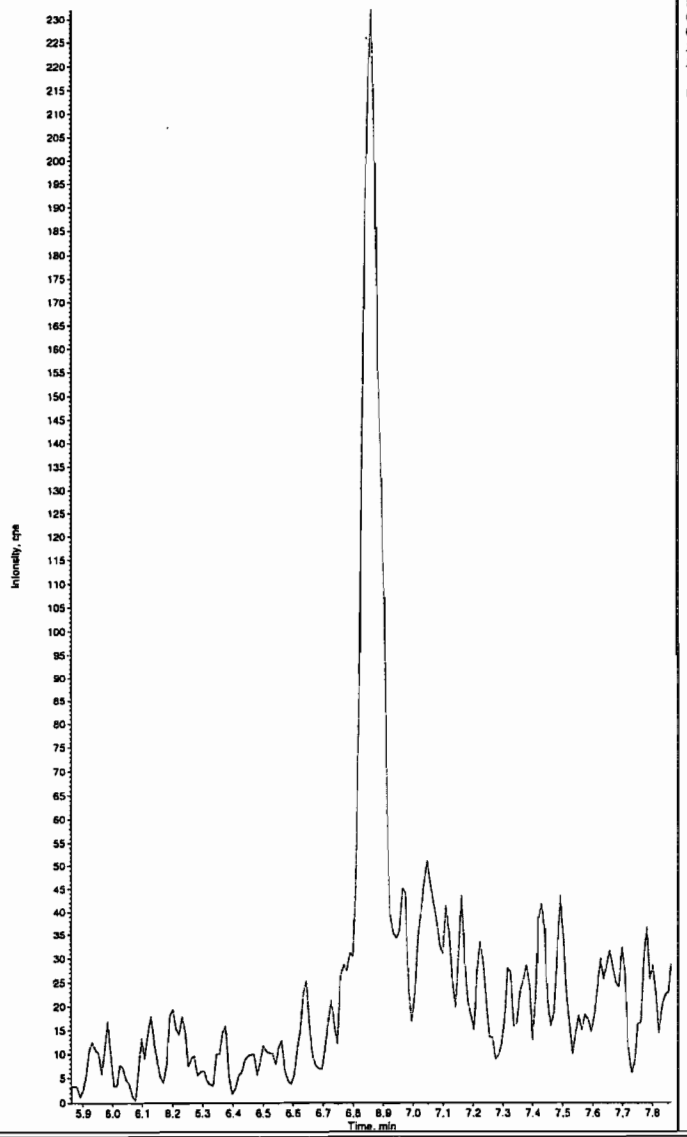

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS04050010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 3:07:10 PM

Modified: No

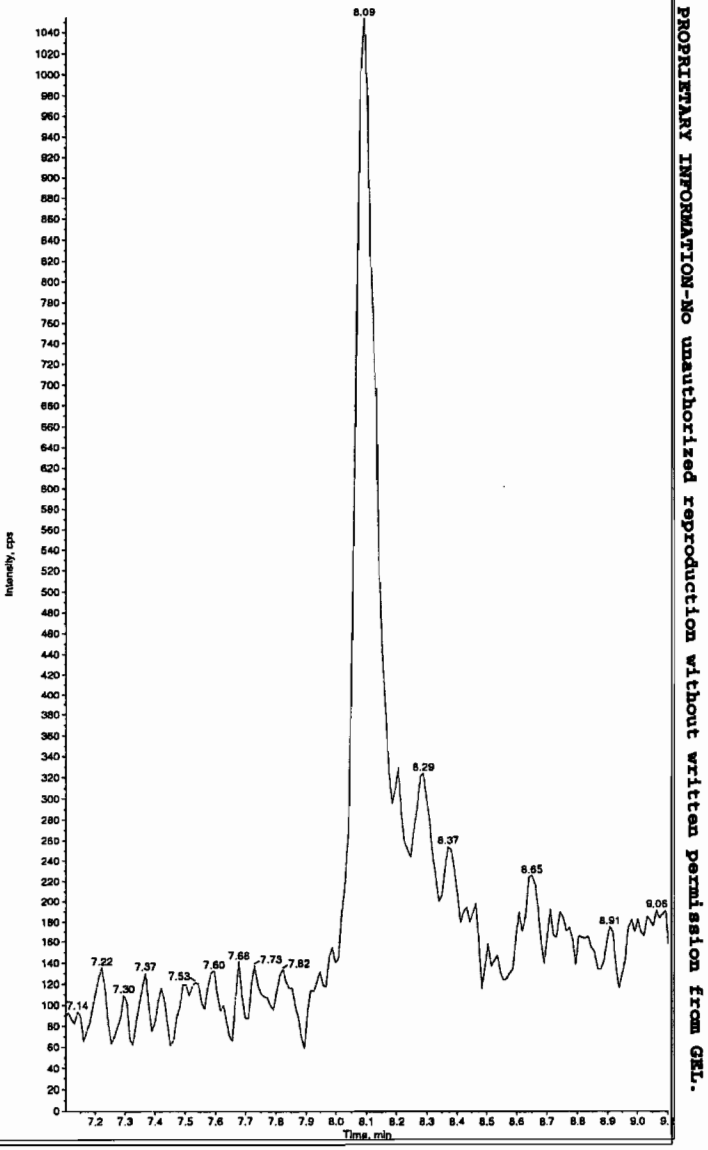

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS04050010.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 4/5/2010
. Time: 3:07:10 PM

ified: No

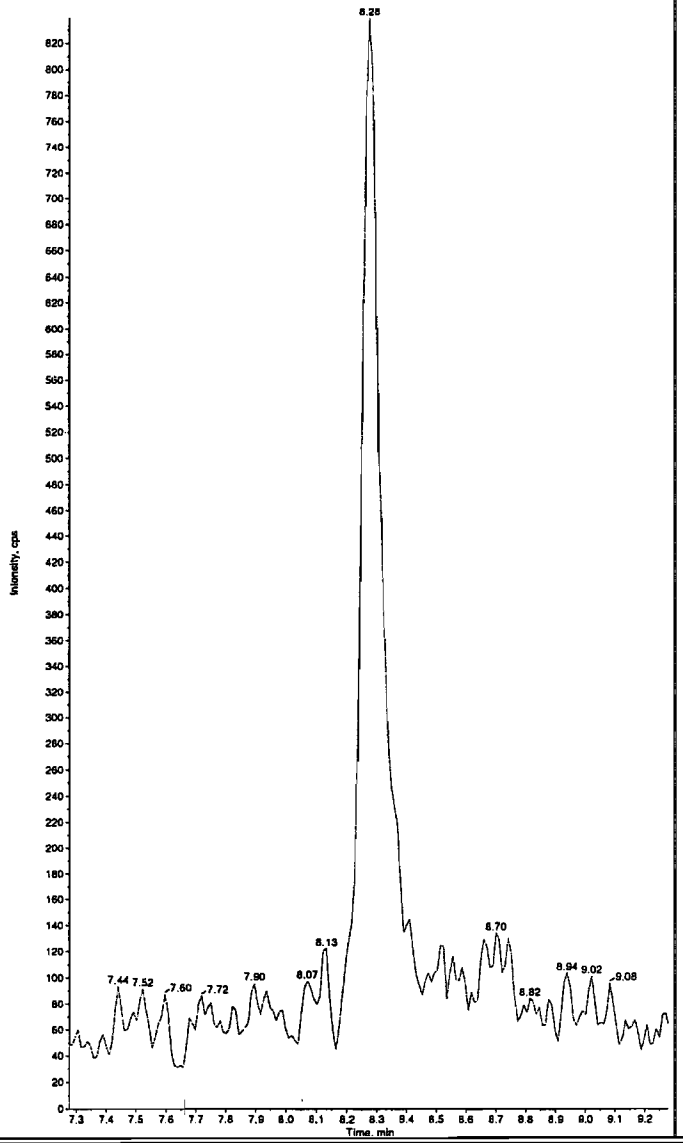

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS04050010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 3:07:10 PM

Modified: No

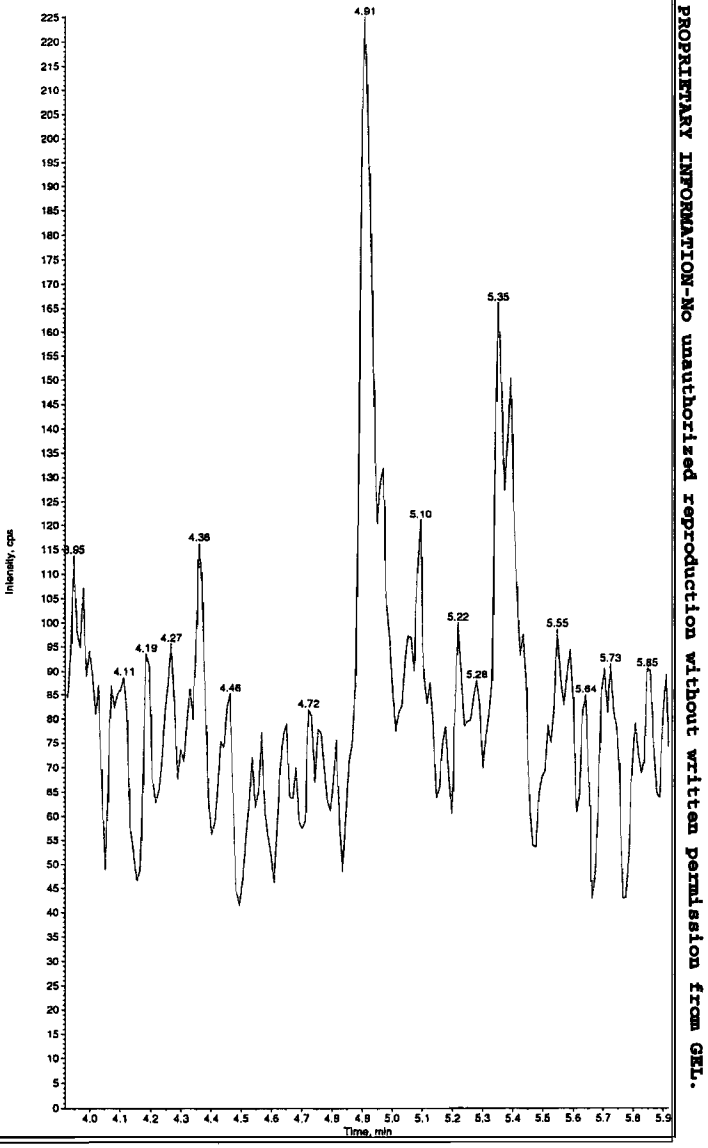

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS04050010.wiff"
'eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
:omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
icentration: N/A
culated Conc: 0.00 ng/mL
:. Date: 4/5/2010
:. Time: 3:07:10 PM

ified: No

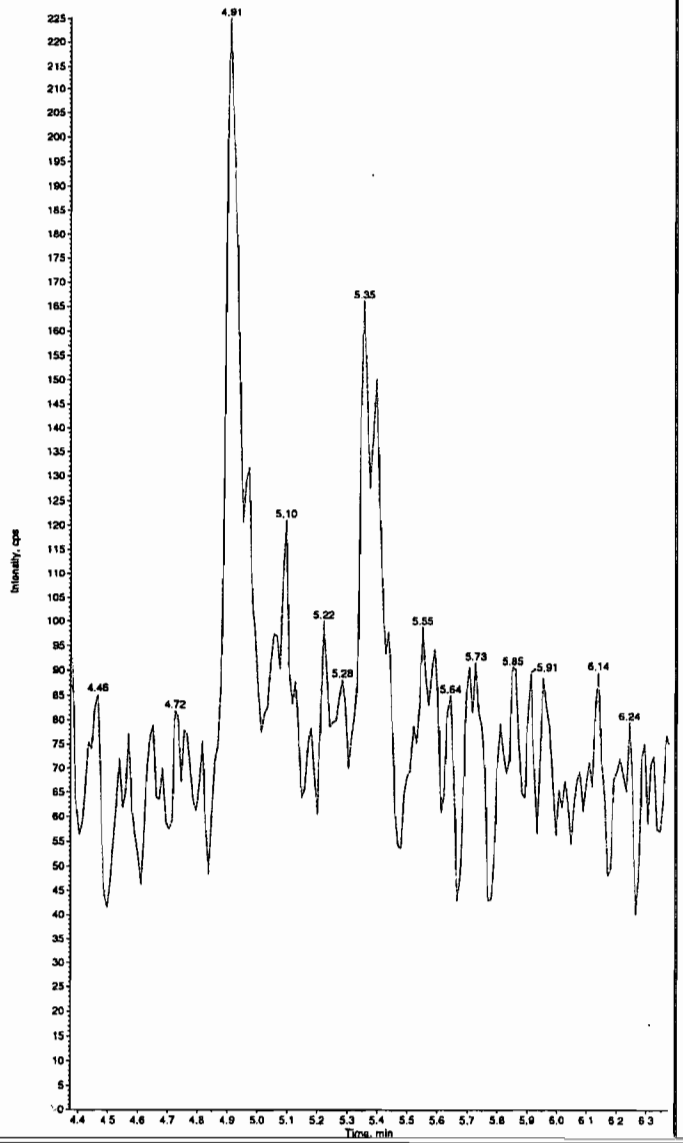

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS04050010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 11.1 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 3:07:10 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 2.00e+005 counts
Height: 46951.988 cps
Start Time: 10.7 min
End Time: 11.1 min

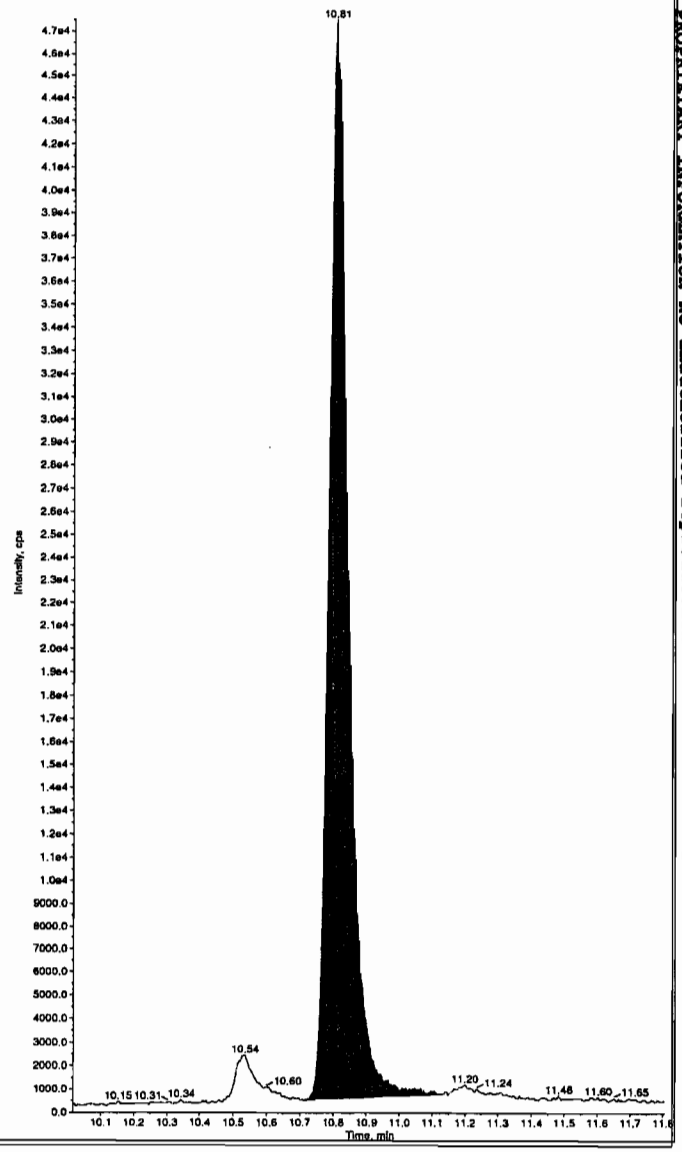

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 05–APR–10 15:38

GEL Data File: EXS04050012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	4.92
TATB	0	0

LCM 4/7/10

ample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS04050012.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 4/5/2010
. Time: 3:38:35 PM
ified: No

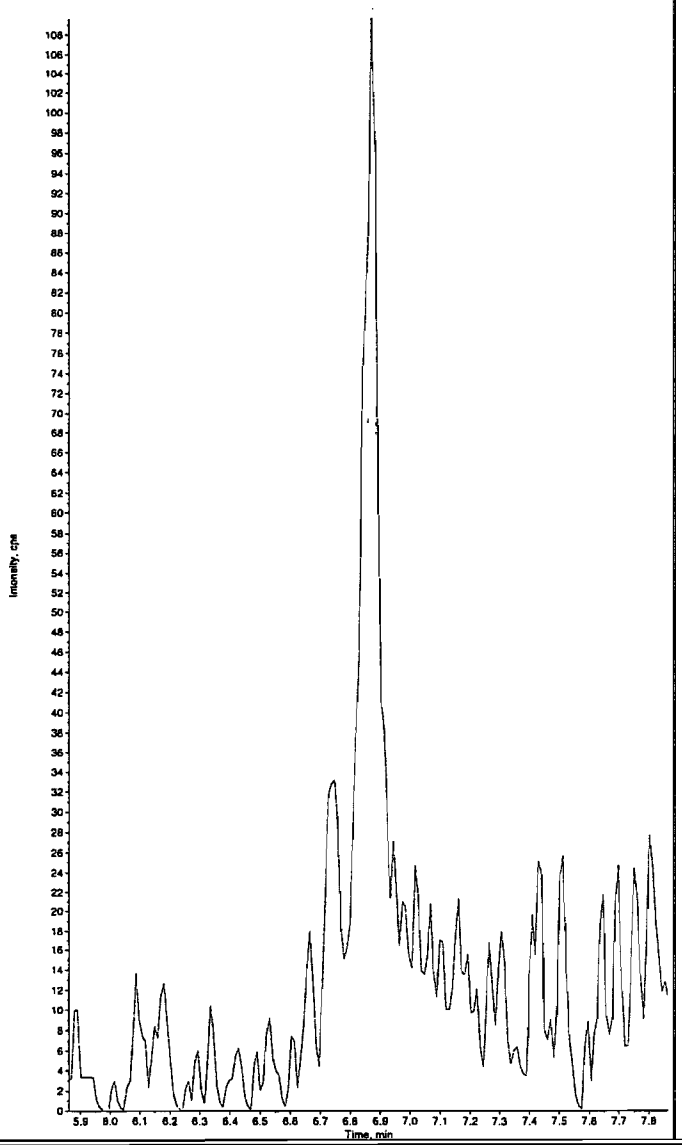

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS04050012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 3:38:35 PM

Modified: No

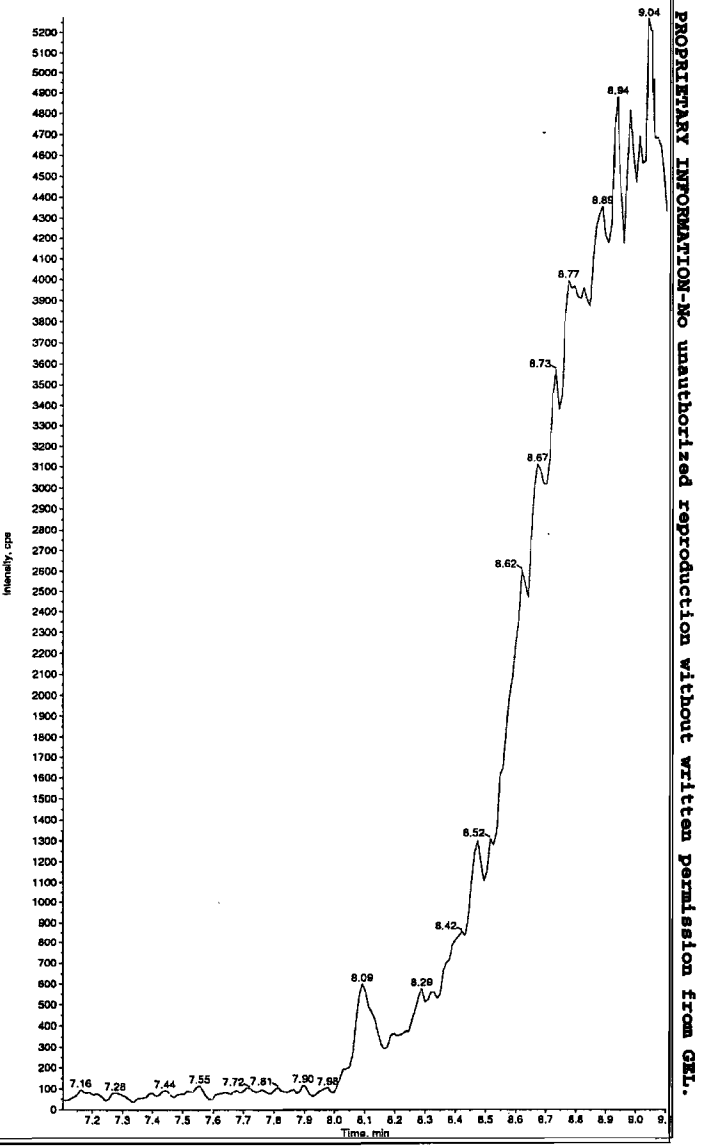

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ample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS04050012.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 4/5/2010
. Time: 3:38:35 PM

ified: No

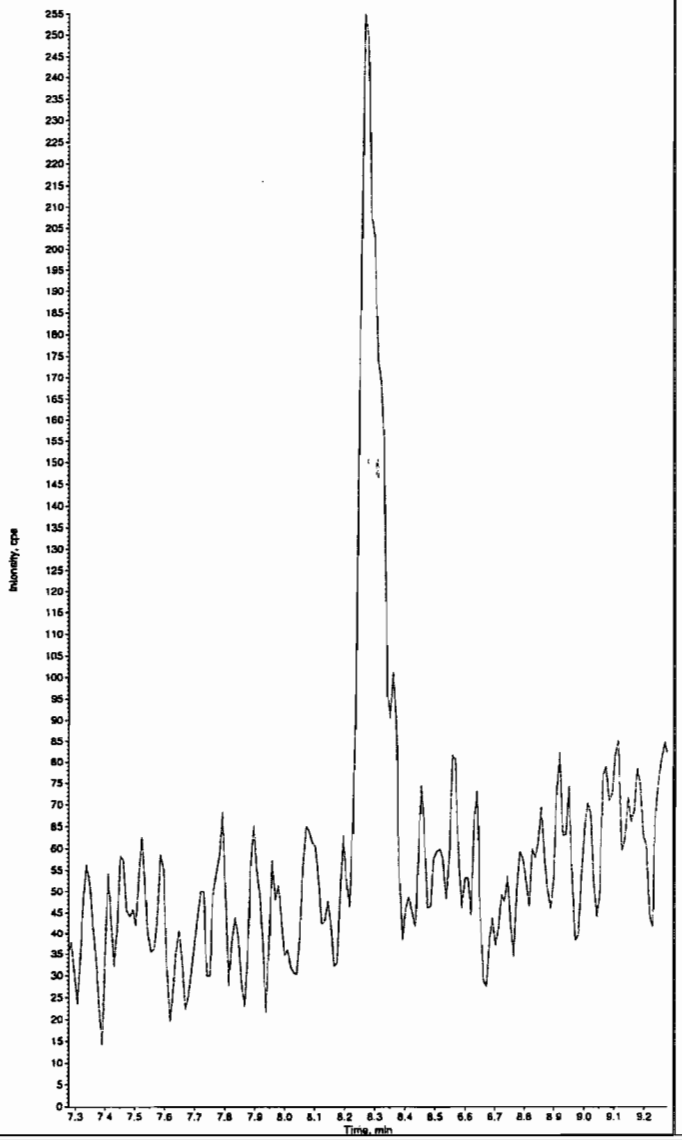

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS04050012.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 3:38:35 PM

Modified: No

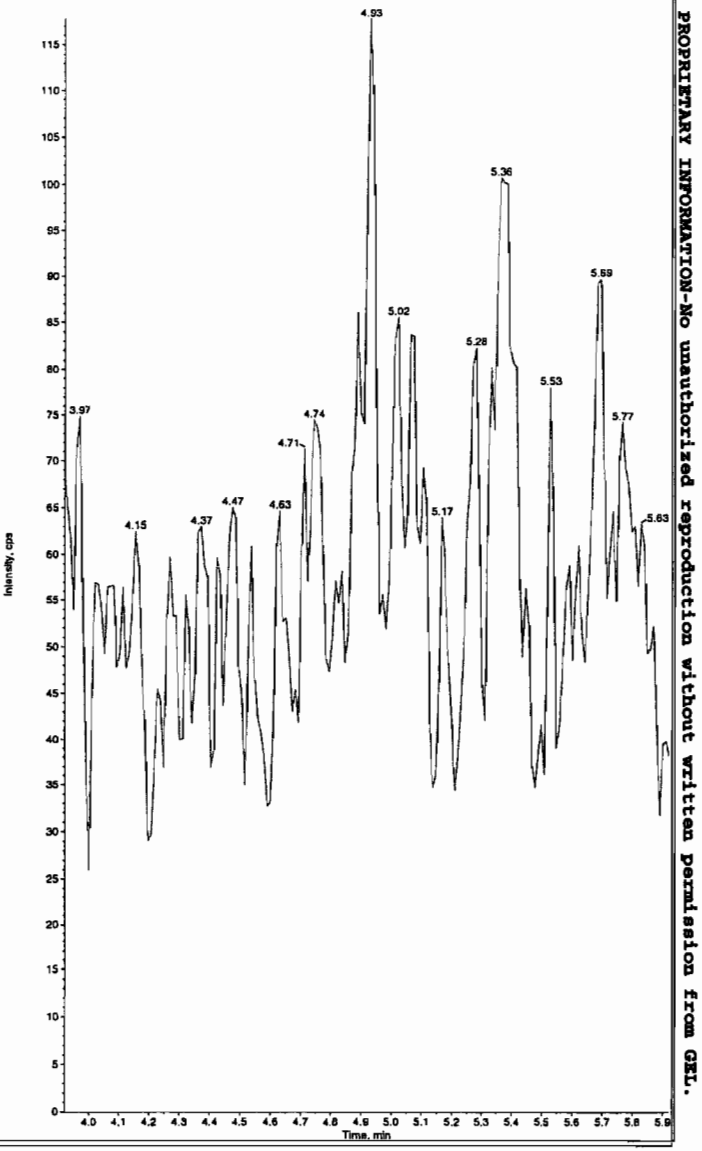

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

ample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS04050012.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 4/5/2010
. Time: 3:38:35 PM

ified: No

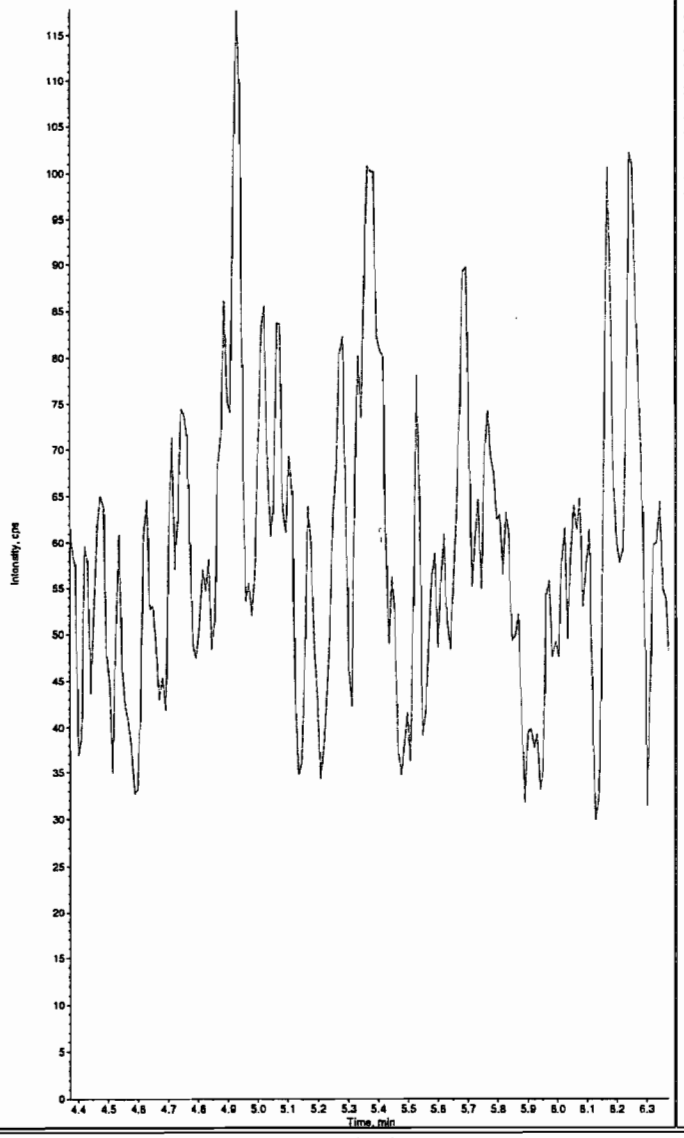

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS04050012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 4.92 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 3:38:35 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 8.86e+004 counts
Height: 21737.801 cps
Start Time: 10.7 min
End Time: 11.0 min

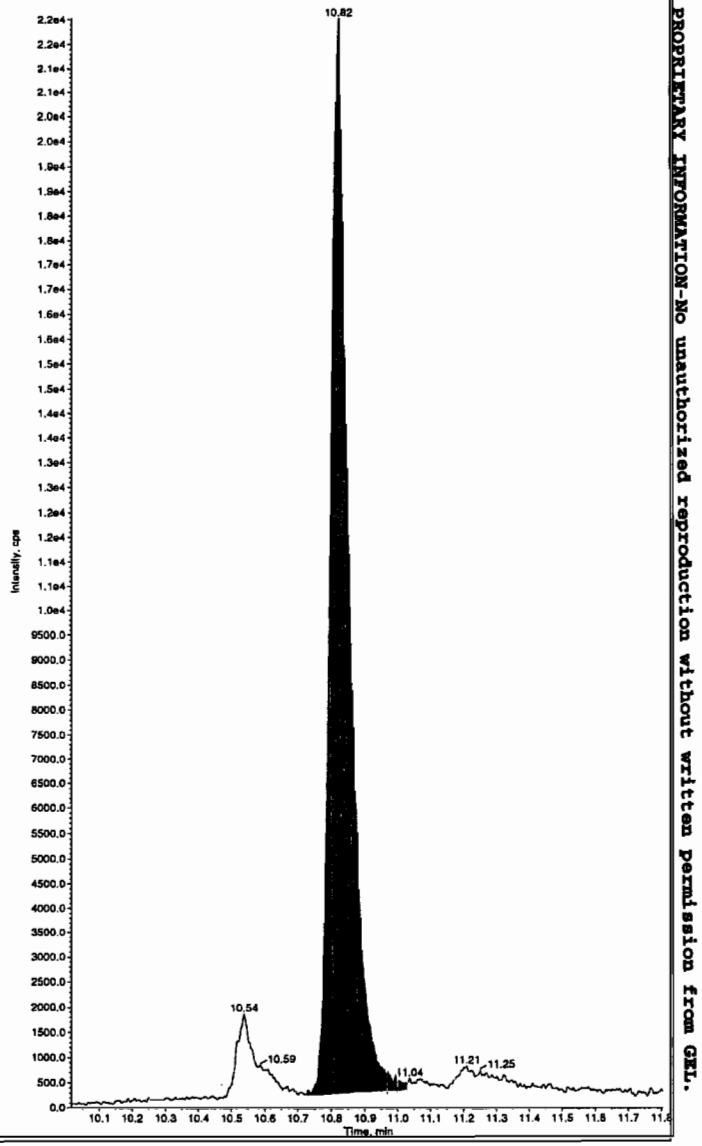

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 05–APR–10 19:02

GEL Data File: EXS04050025.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	4.08
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

JLer 4/7/10

mple Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS04050025.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
Date: 4/5/2010
Time: 7:02:45 PM

fied: No

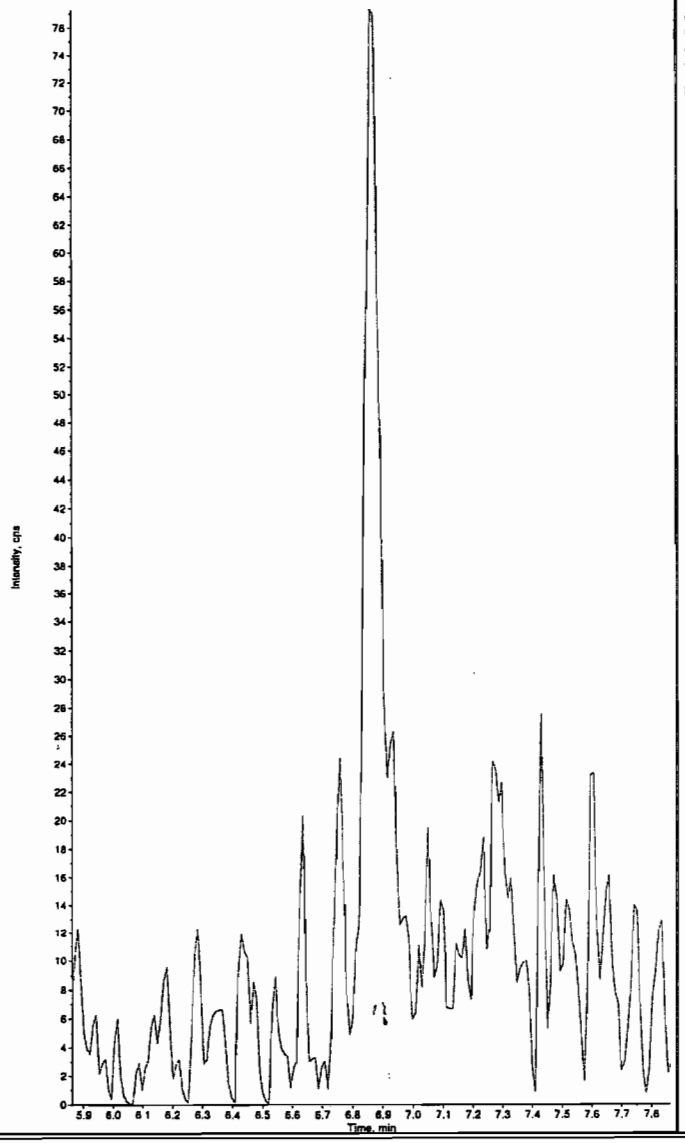

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS04050025.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 7:02:45 PM

Modified: No

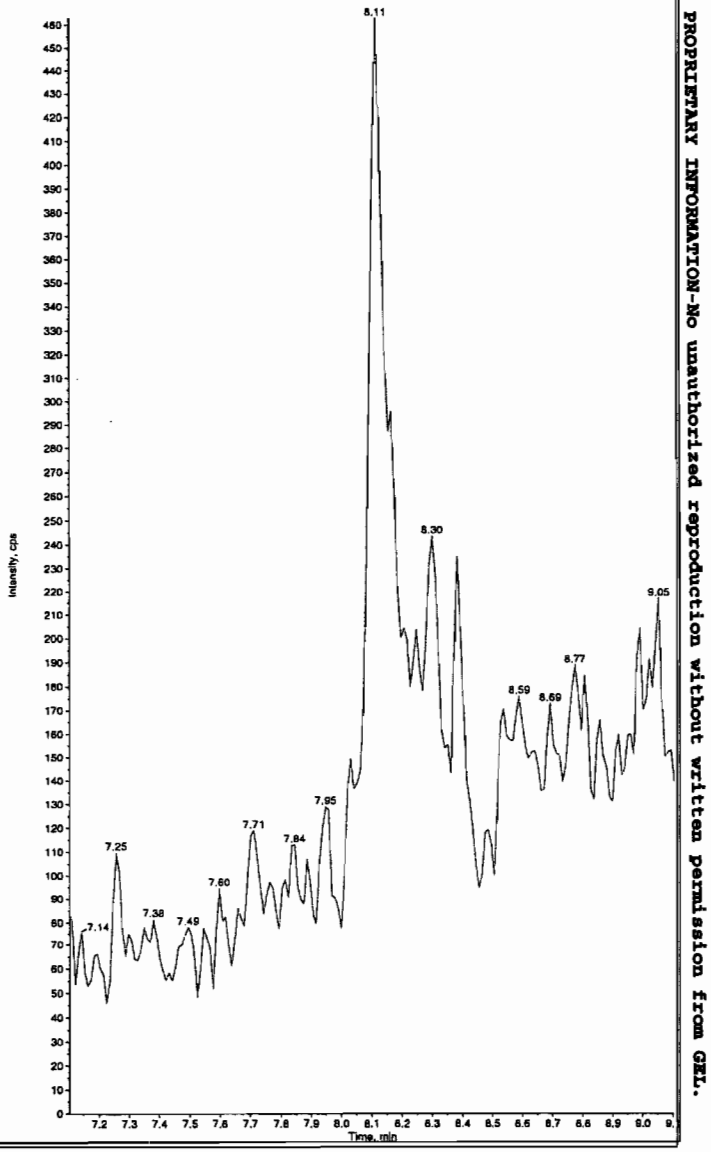

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ample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS04050025.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 4/5/2010
. Time: 7:02:45 PM

ified: No

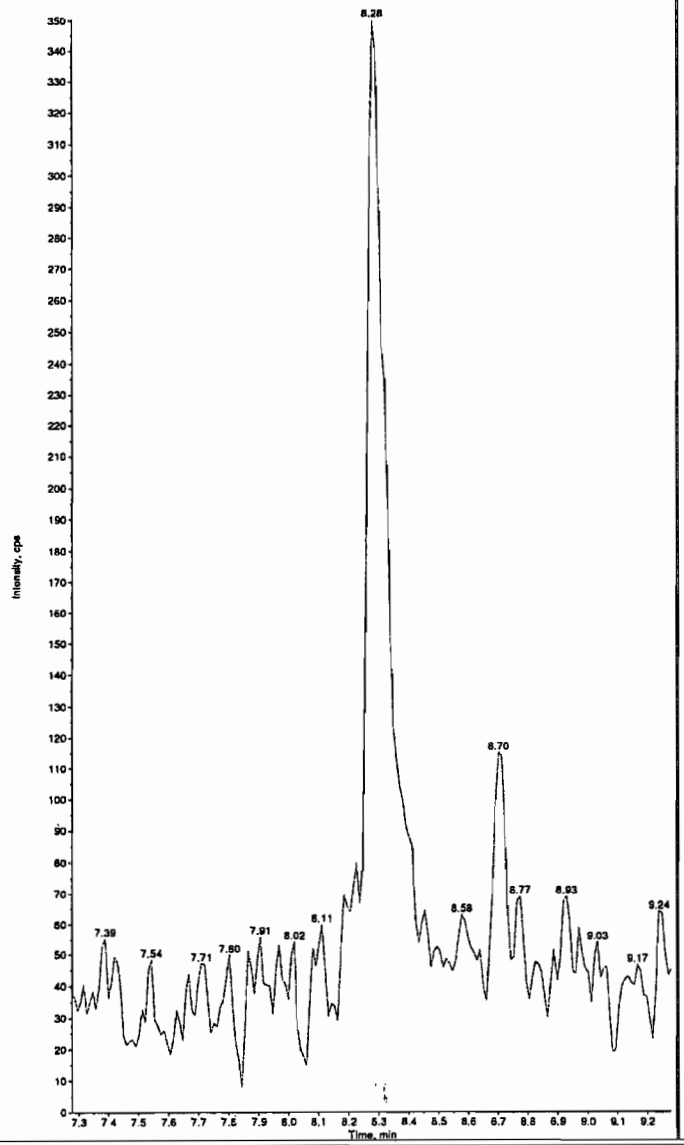

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS04050025.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 7:02:45 PM

Modified: No

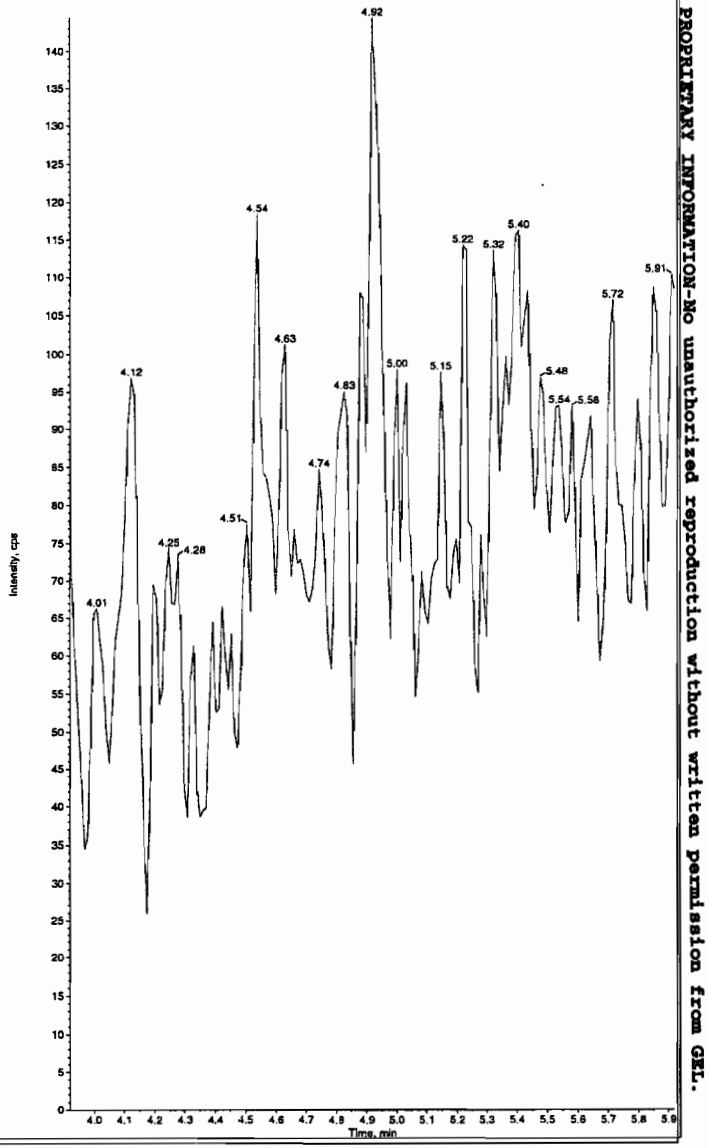

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS04050025.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 4/5/2010
. Time: 7:02:45 PM

fied: No

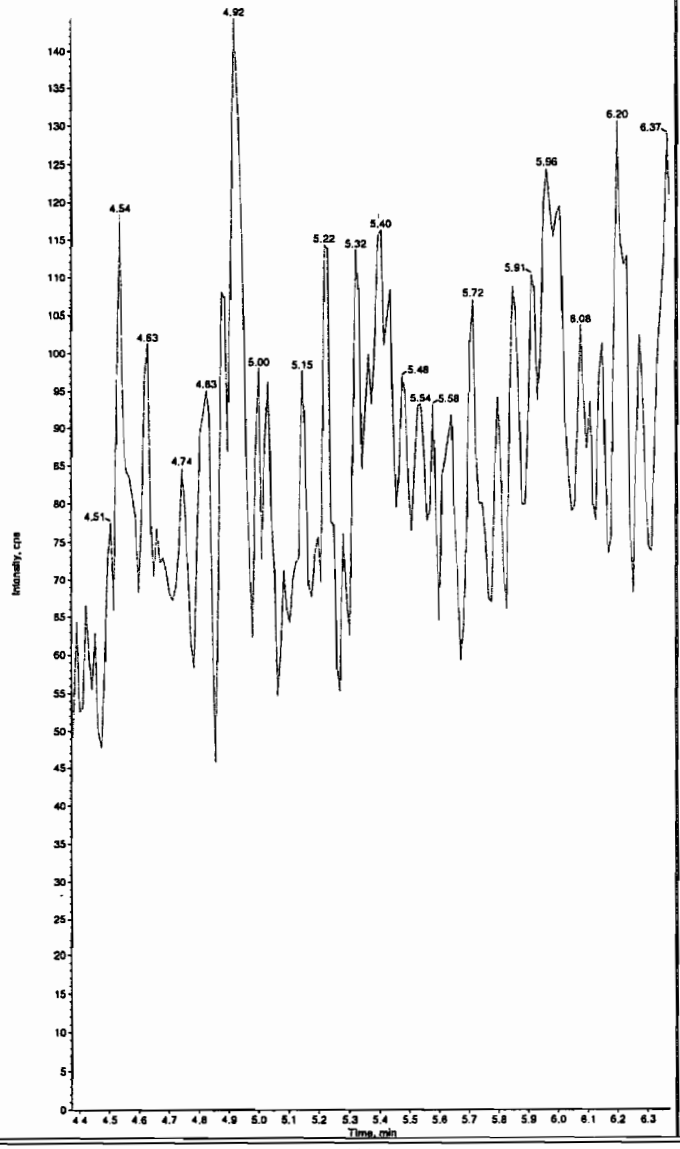

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS04050025.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	4.08	ng/mL
Acq. Date:	4/5/2010	
Acq. Time:	7:02:45 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.8	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.8	min
Area:	7.36e+004	counts
Height:	17743.299	cps
Start Time:	10.7	min
End Time:	11.0	min

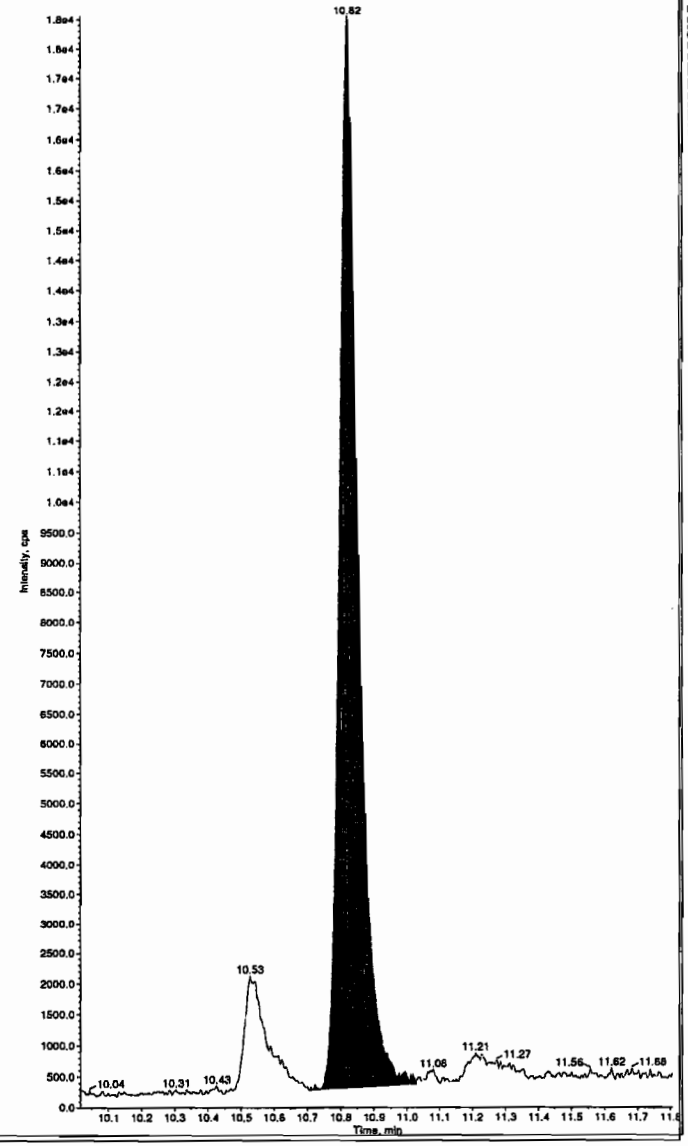

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 05–APR–10 22:27

GEL Data File: EXS04050038.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	3.57
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Dan 4/7/10

mple Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS04050038.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
entration: N/A
culated Conc: 0.00 ng/mL
Date: 4/5/2010
Time: 10:27:02 PM

fied: No

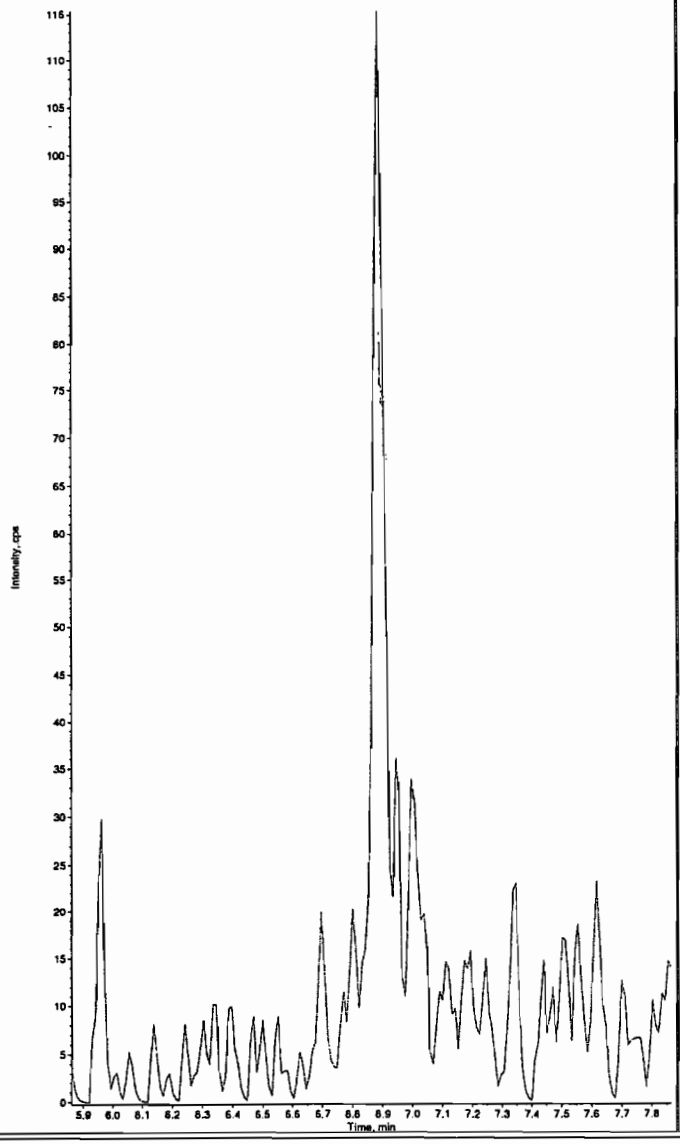

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS04050038.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 10:27:02 PM

Modified: No

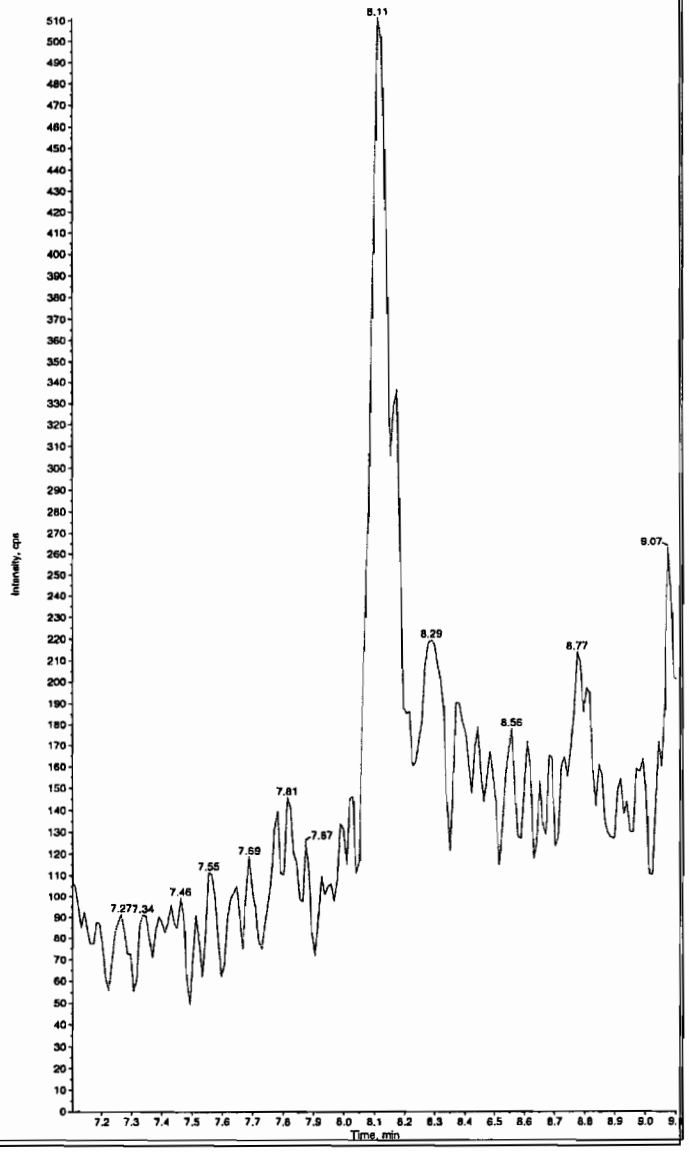

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS04050038.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 4/5/2010
. Time: 10:27:02 PM

ified: No

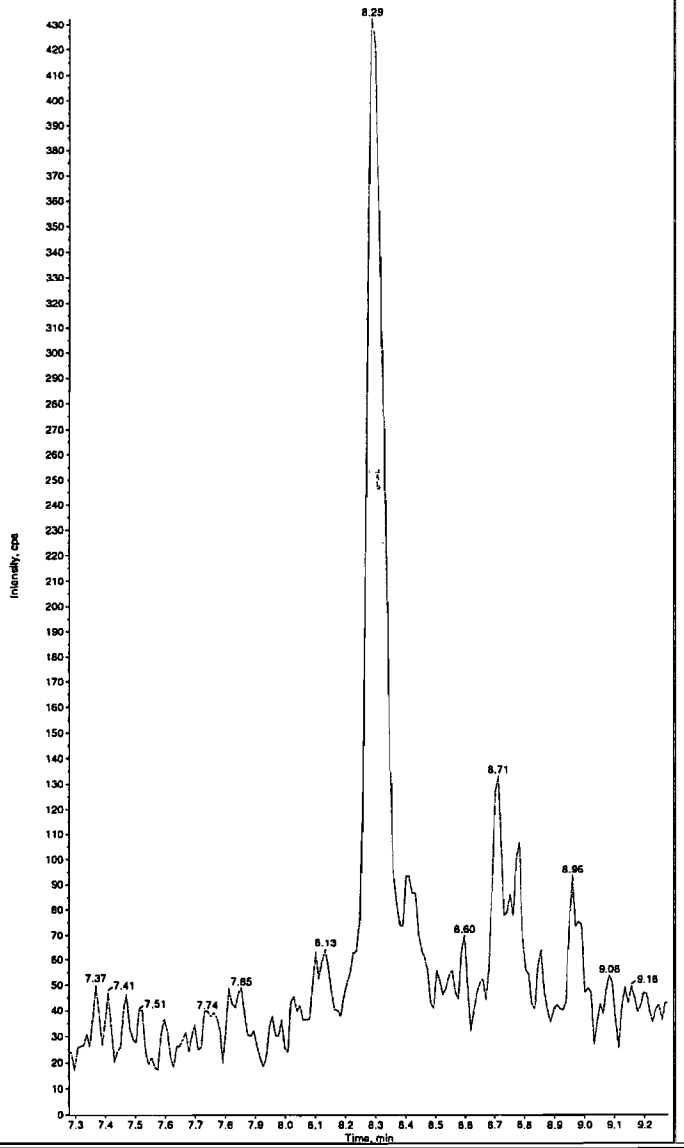

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS04050038.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 10:27:02 PM

Modified: No

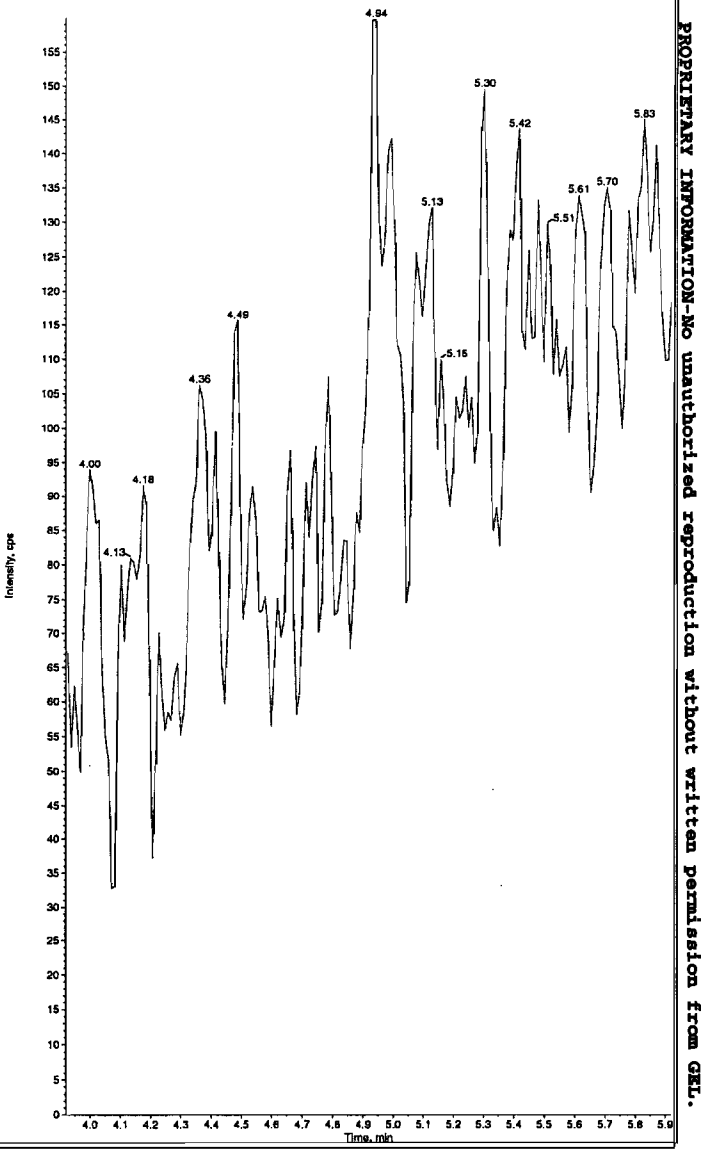

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS04050038.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
Date: 4/5/2010
Time: 10:27:02 PM

fied: No

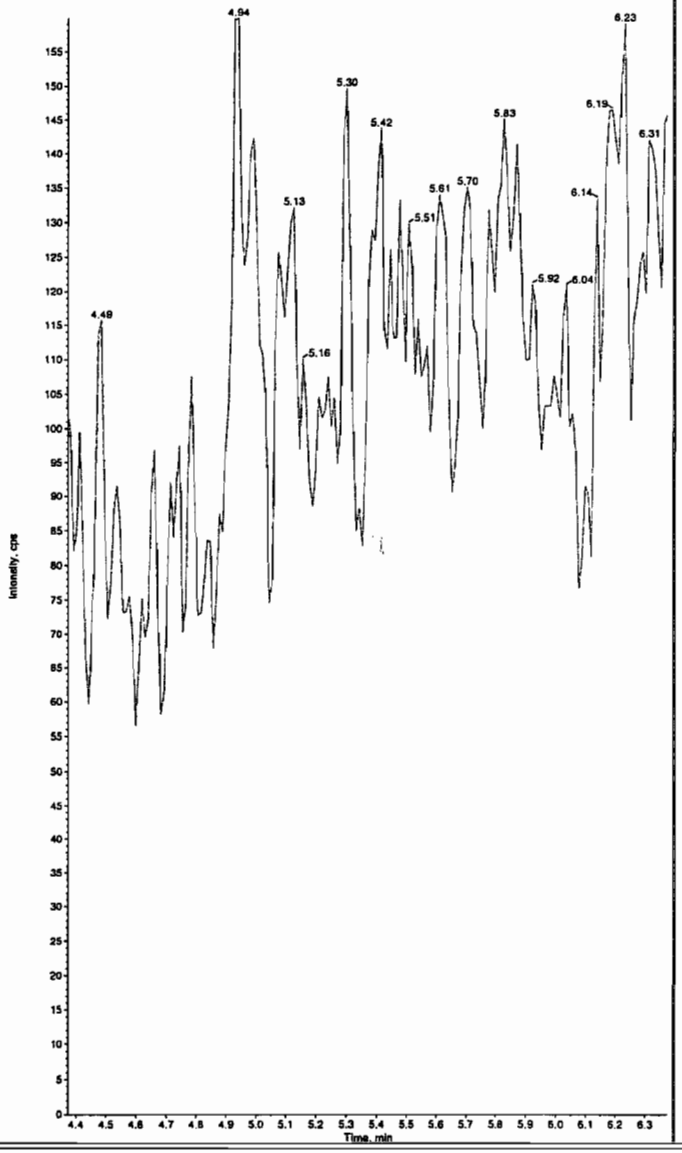

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS04050038.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "359.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	3.57	ng/mL
Acq. Date:	4/5/2010	
Acq. Time:	10:27:02 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.8	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.8	min
Area:	6.43e+004	counts
Height:	15462.545	cps
Start Time:	10.7	min
End Time:	11.0	min

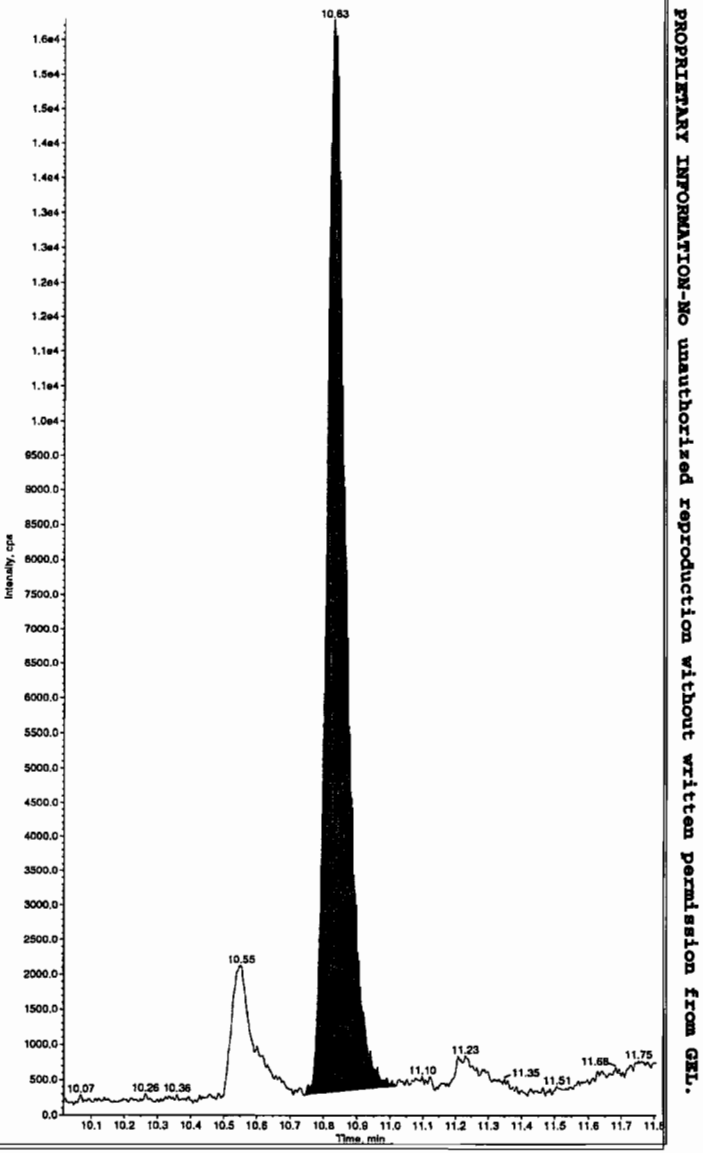

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 06–APR–10 00:01

GEL Data File: EXS04050044.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Dan 4/7/10

ample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS04050044.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 4/6/2010
. Time: 12:01:19 AM

ified: No

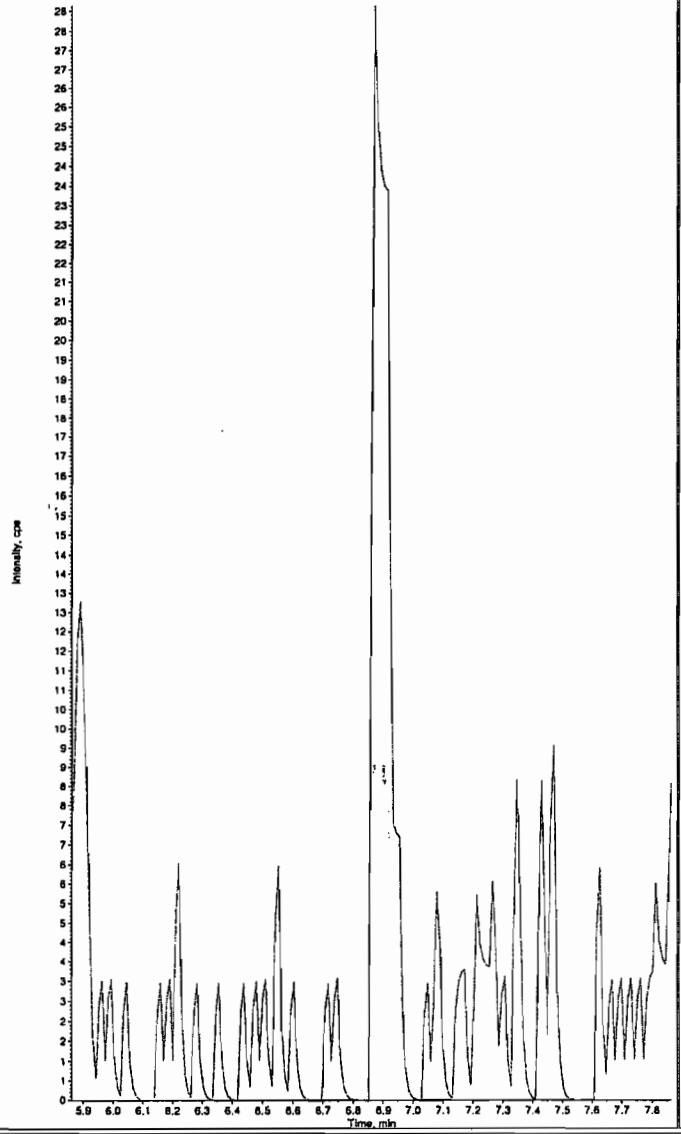

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS04050044.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 12:01:19 AM

Modified: No

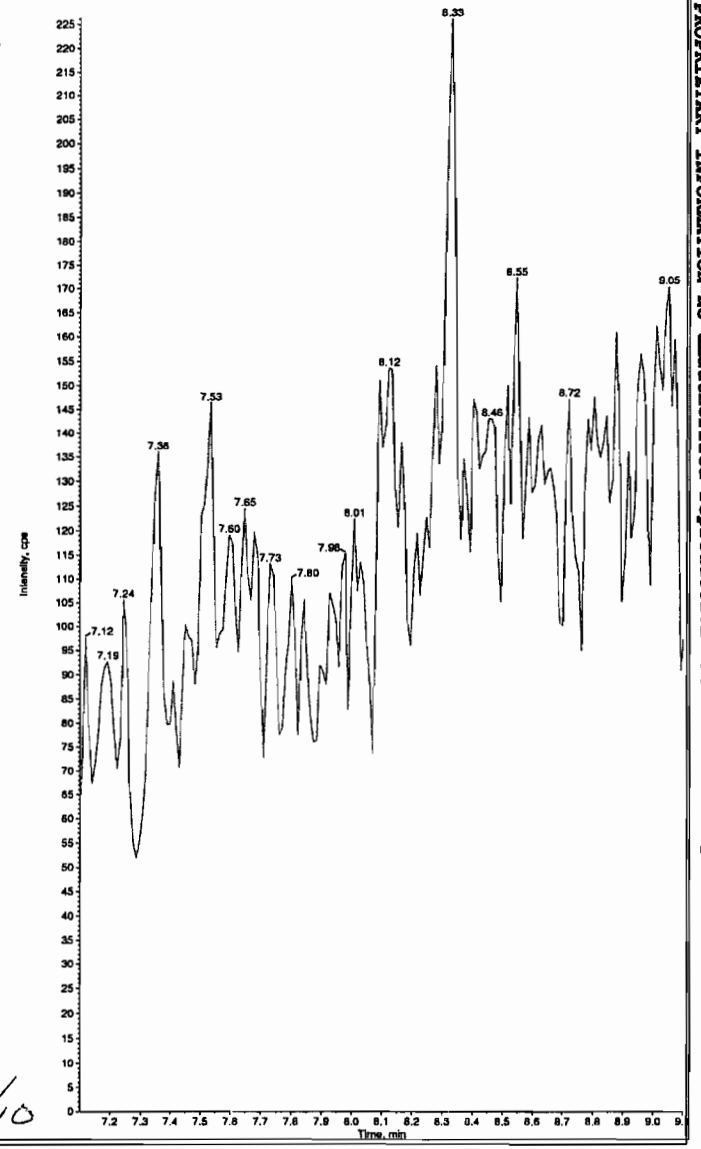

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS04050044.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 12:01:19 AM
fied: No

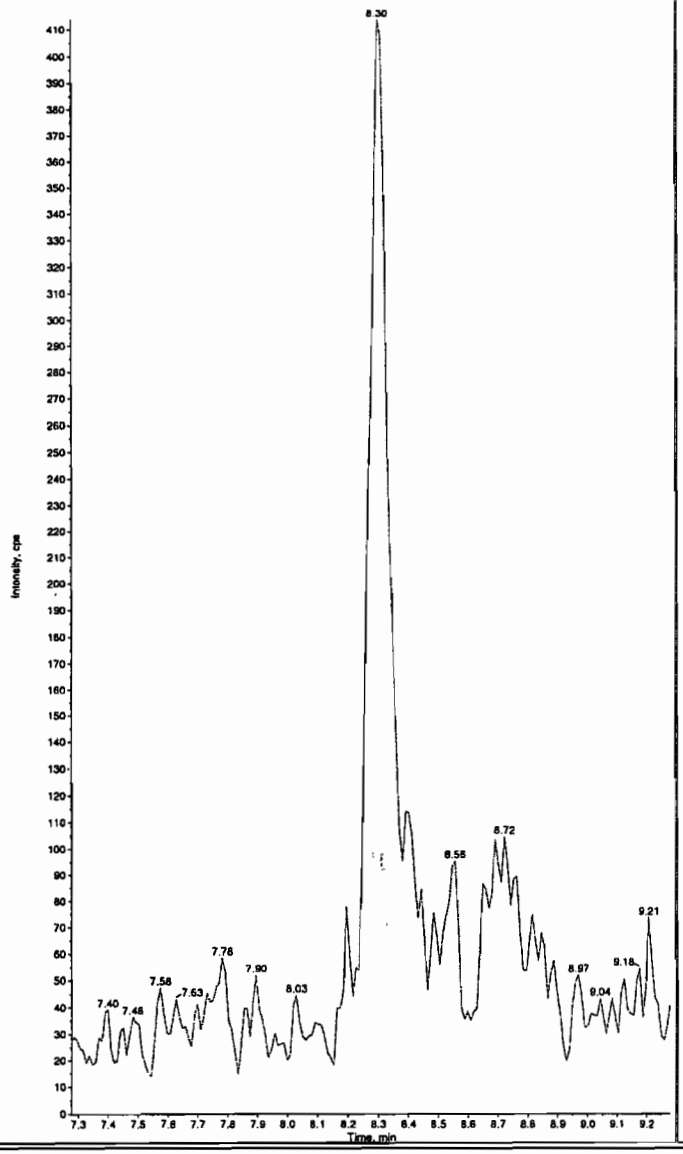

Sample Name: "XIBLK06" Sample ID: "[1]LER" File: "EXS04050044.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 12:01:19 AM

Modified: No

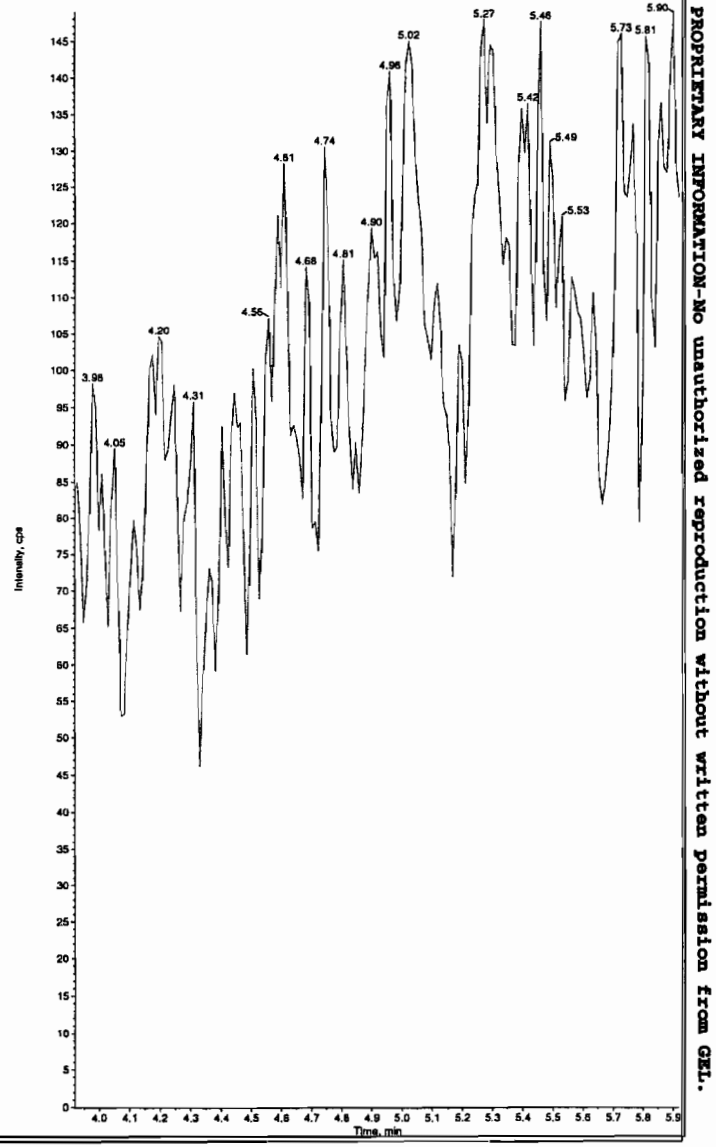

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS04050044.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 12:01:19 AM

fied: No

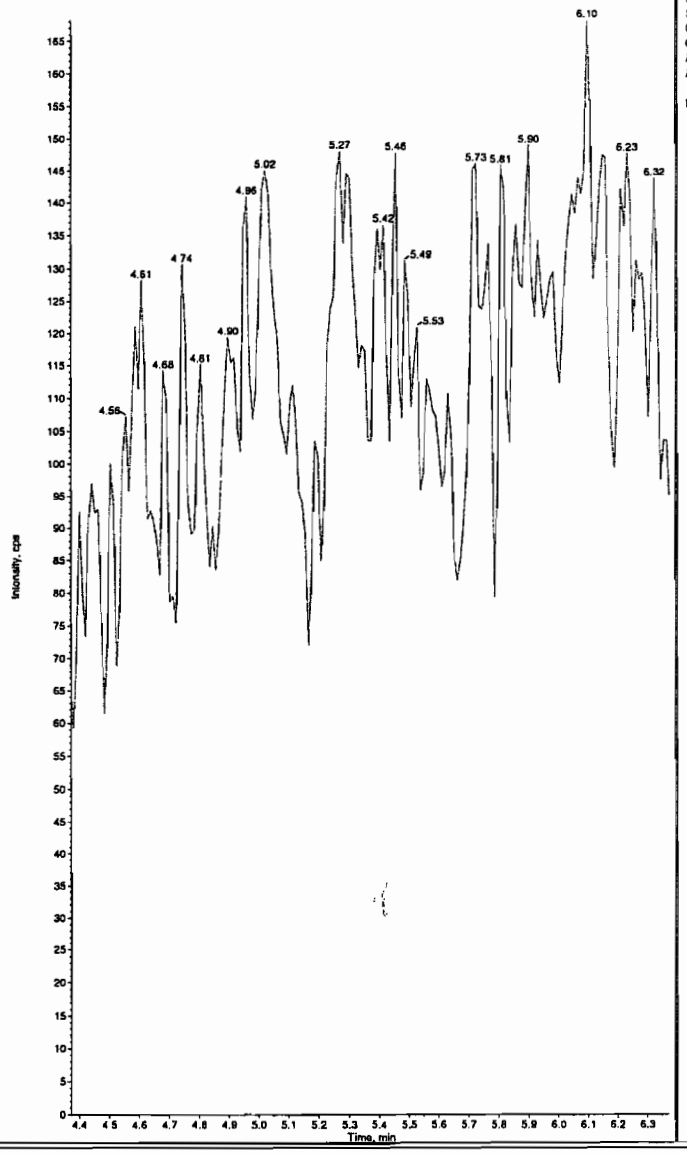

Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS04050044.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 12:01:19 AM

Modified: No

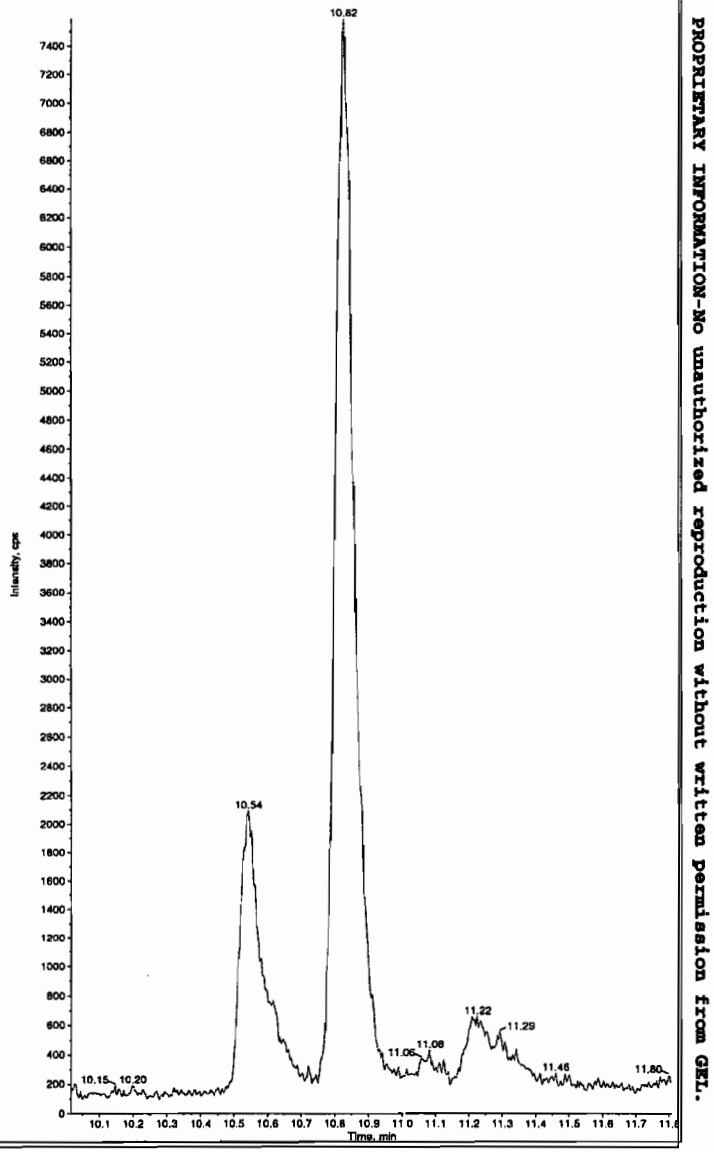

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 06–APR–10 01:51

GEL Data File: EXS04050051.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	5.78
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lan 4/7/10

ample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS04050051.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 4/6/2010
. Time: 1:51:17 AM

ified: No

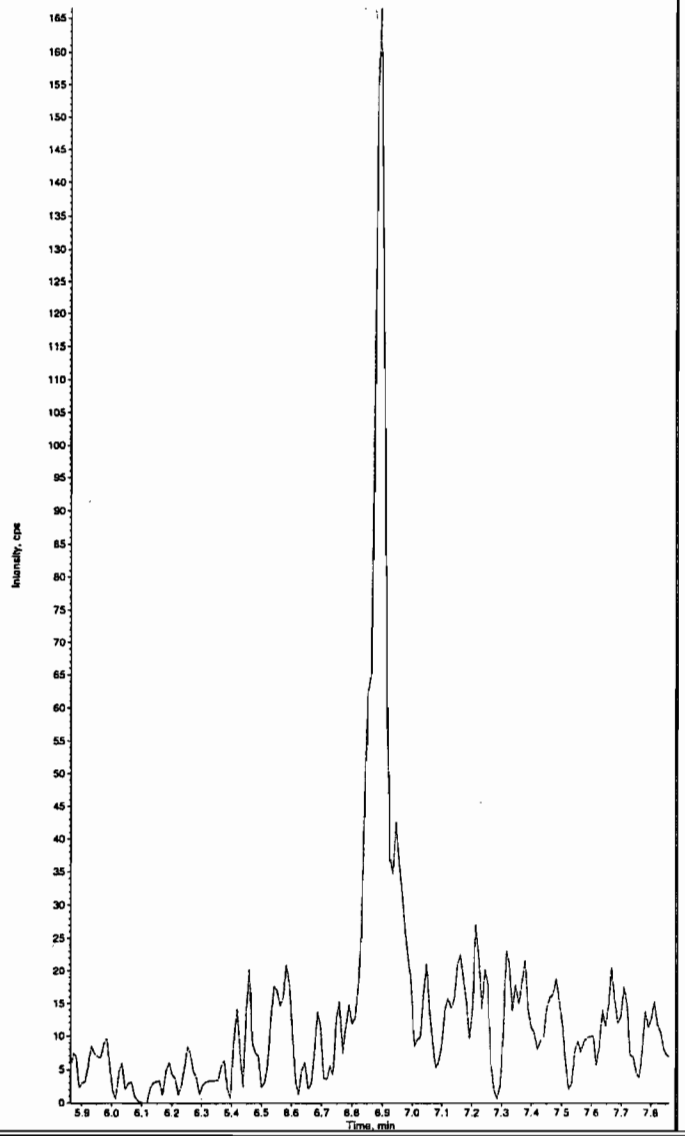

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS04050051.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 1:51:17 AM

Modified: No

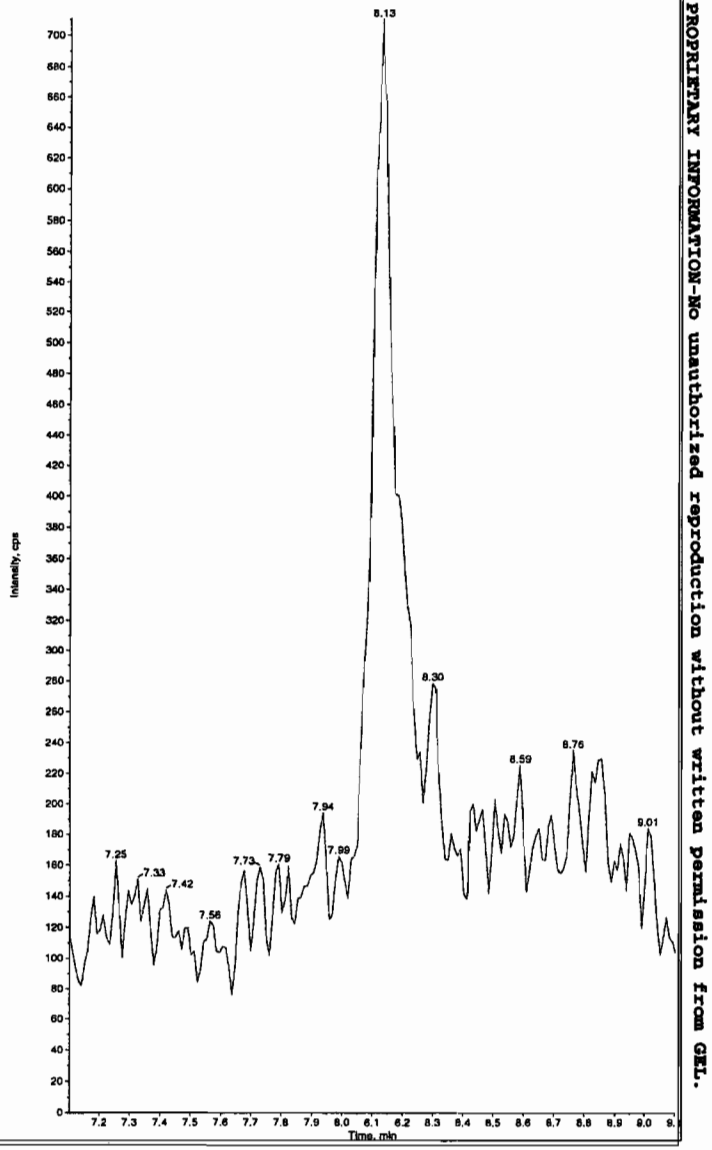

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:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS04050051.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 1:51:17 AM

fied: No

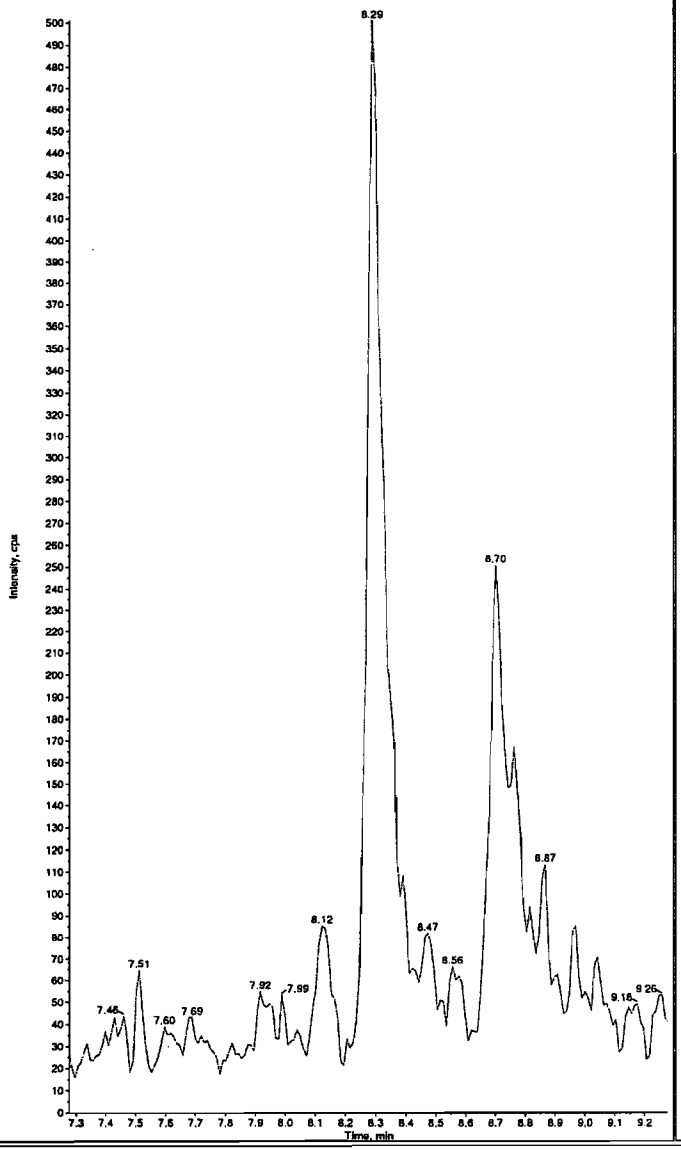

Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS04050051.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 1:51:17 AM

Modified: No

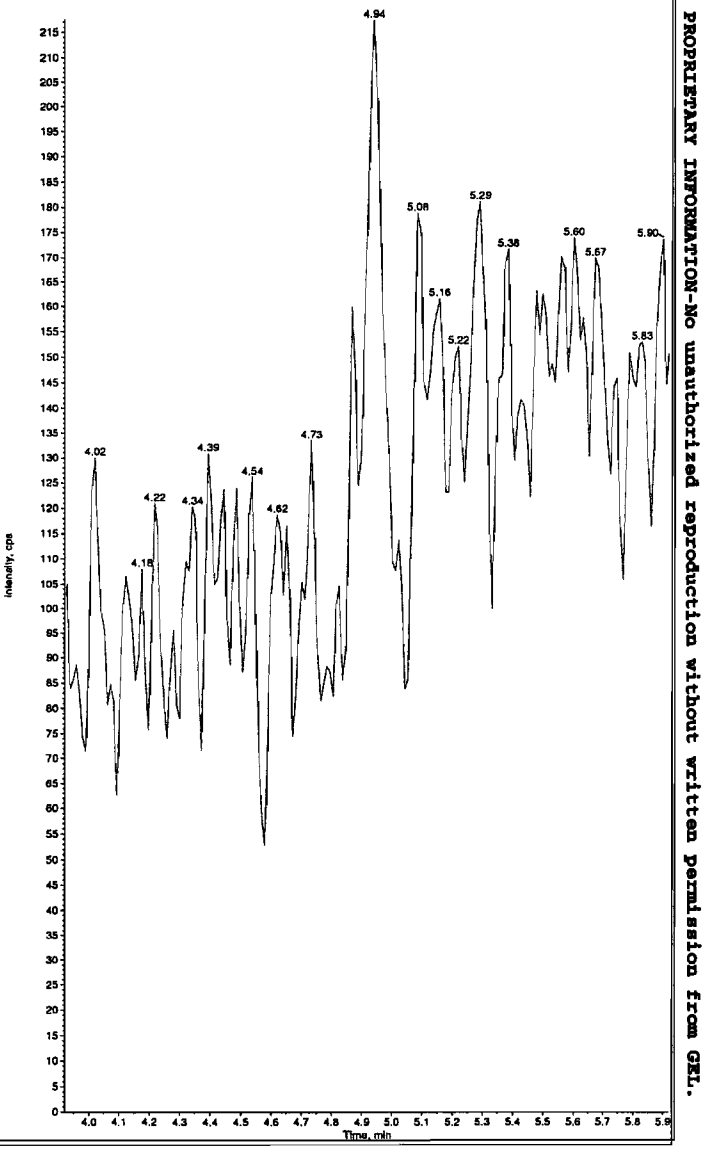

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS04050051.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 4/6/2010
. Time: 1:51:17 AM

ified: No

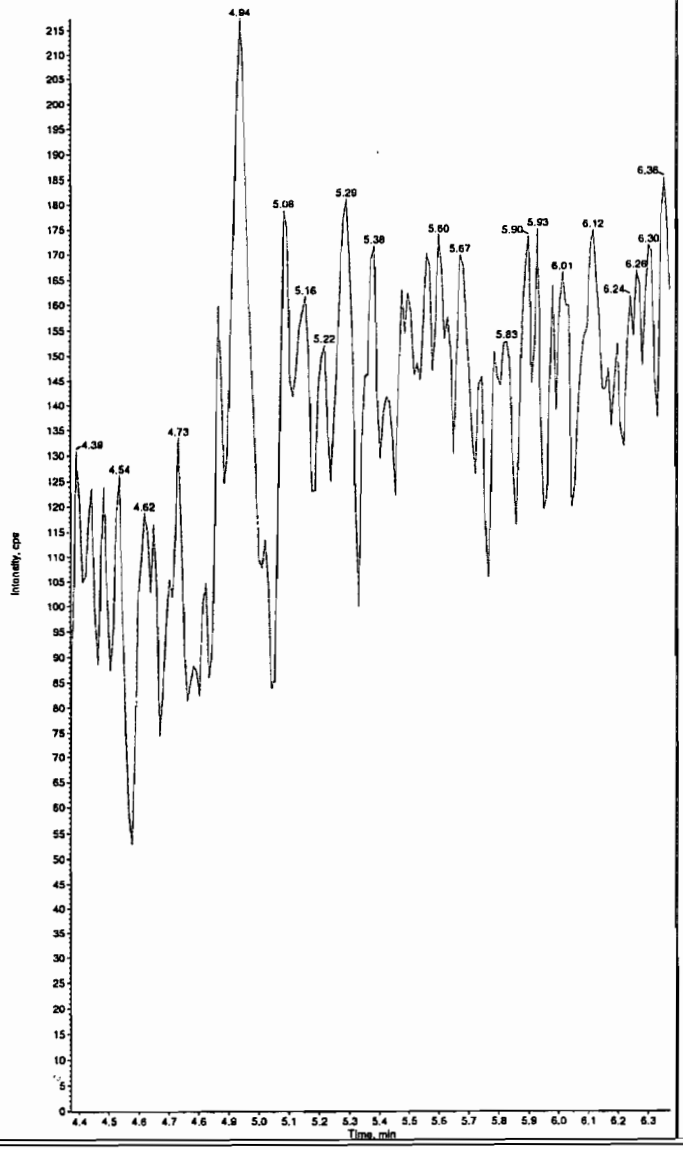

Sample Name: "XIBLK07" Sample ID: "[1]LER" File: "EXS04050051.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	5.78	ng/mL
Acq. Date:	4/6/2010	
Acq. Time:	1:51:17 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.8	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.8	min
Area:	1.04e+005	counts
Height:	25001.743	cps
Start Time:	10.7	min
End Time:	11.0	min

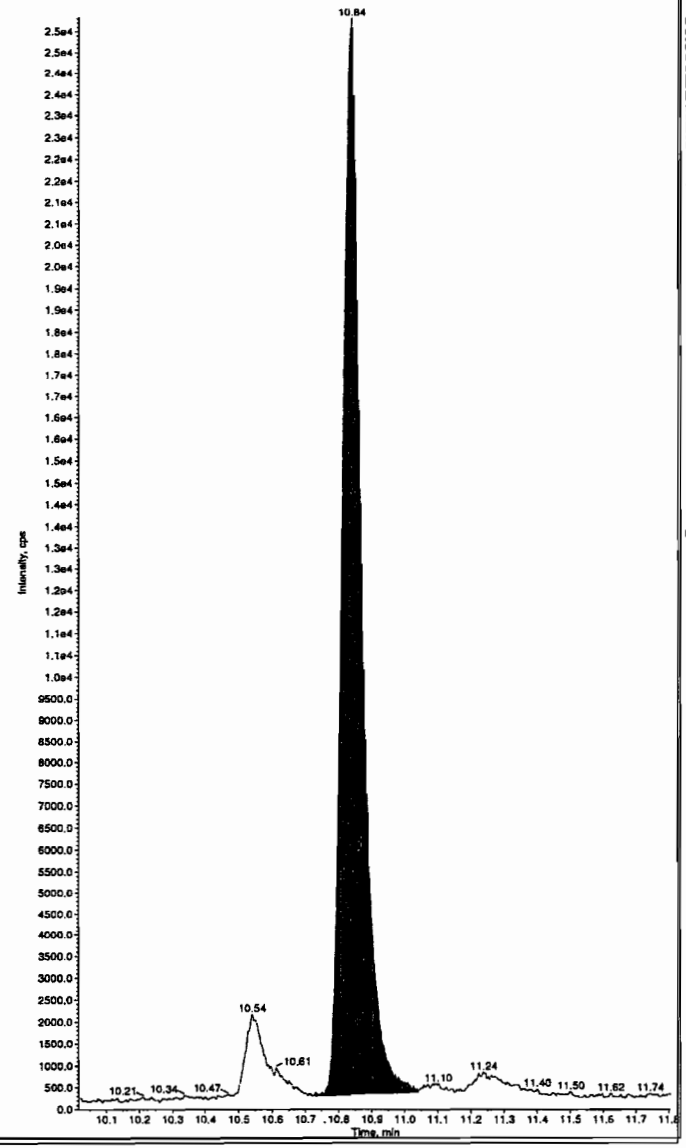

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 06–APR–10 05:15

GEL Data File: EXS04050064.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	4.46
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lan 4/7/10

ample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS04050064.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_B" Annotation: **
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 4/6/2010
. Time: 5:15:36 AM

ified: No

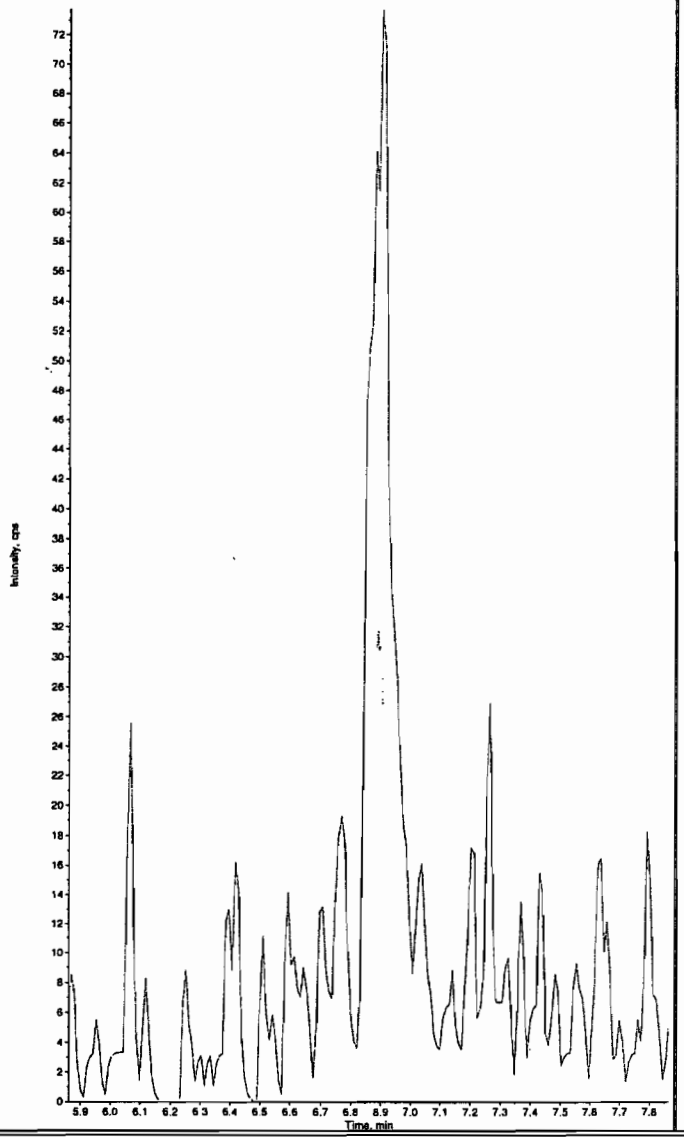

Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS04050064.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: **
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 5:15:36 AM

Modified: No

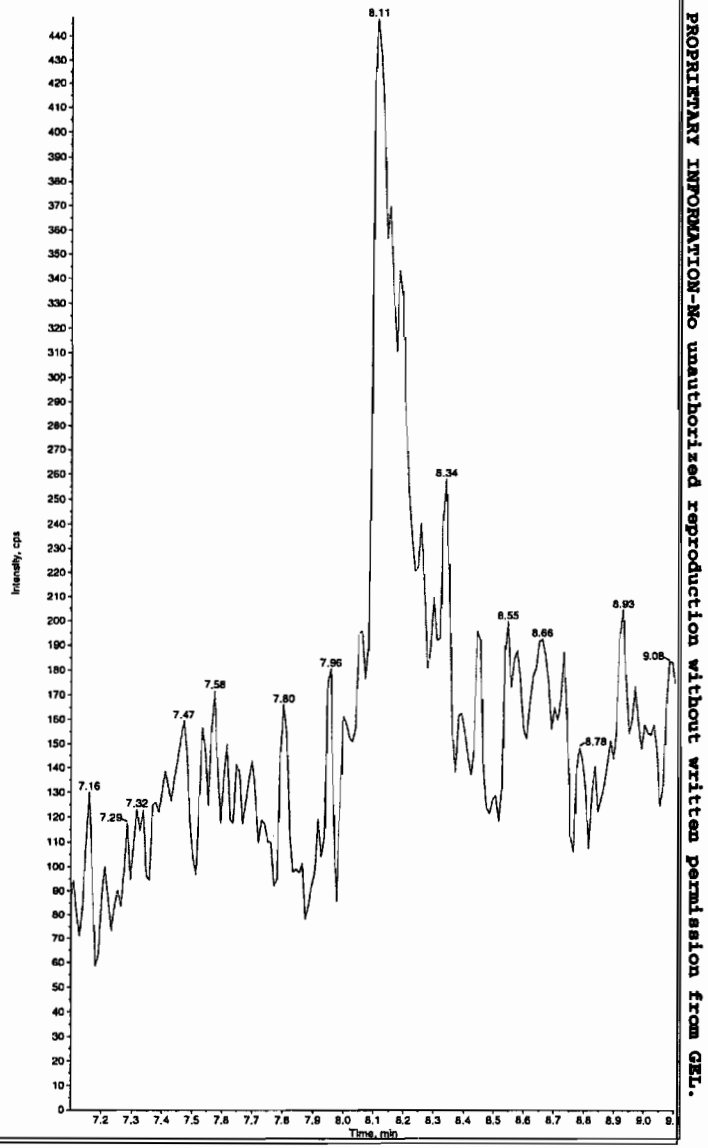

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS04050064.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 4/6/2010
. Time: 5:15:36 AM

ified: No

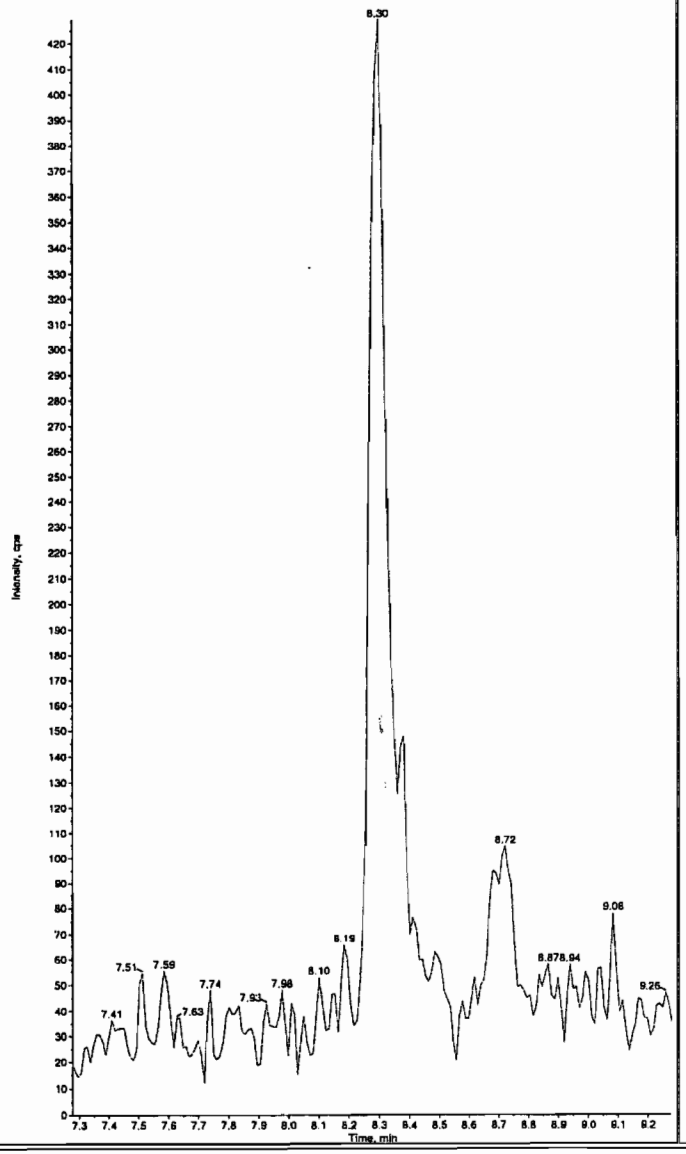

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS04050064.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 5:15:36 AM

Modified: No

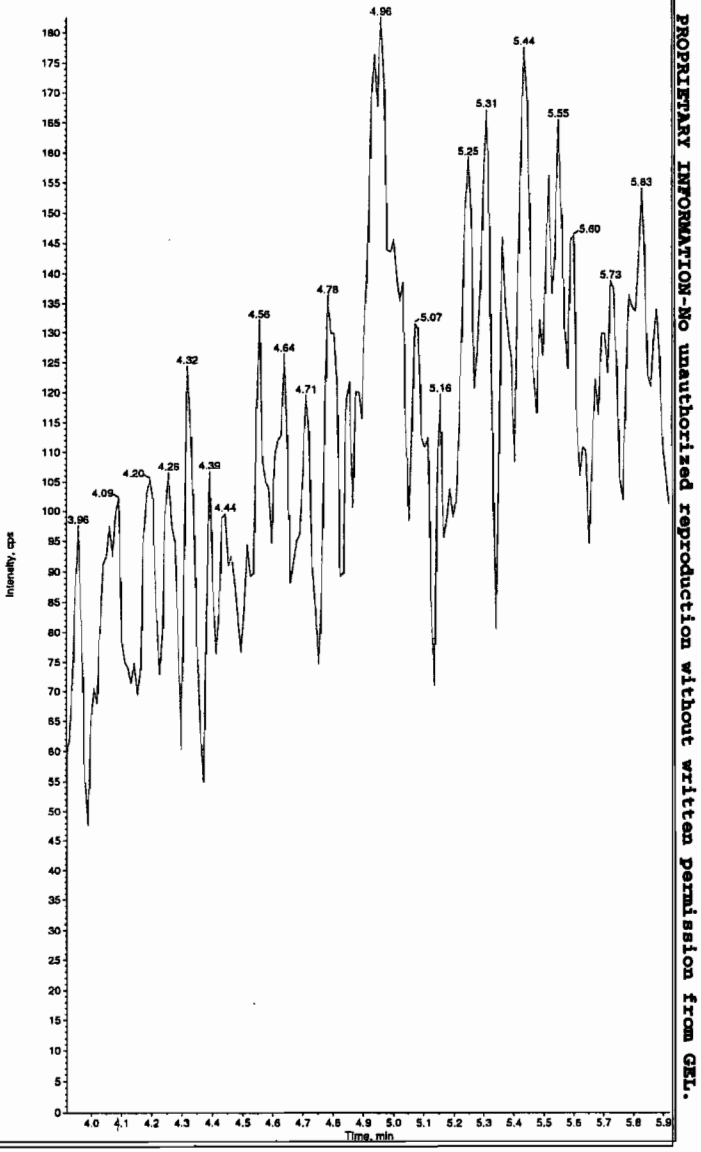

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS04050064.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 4/6/2010
. Time: 5:15:36 AM

ified: No

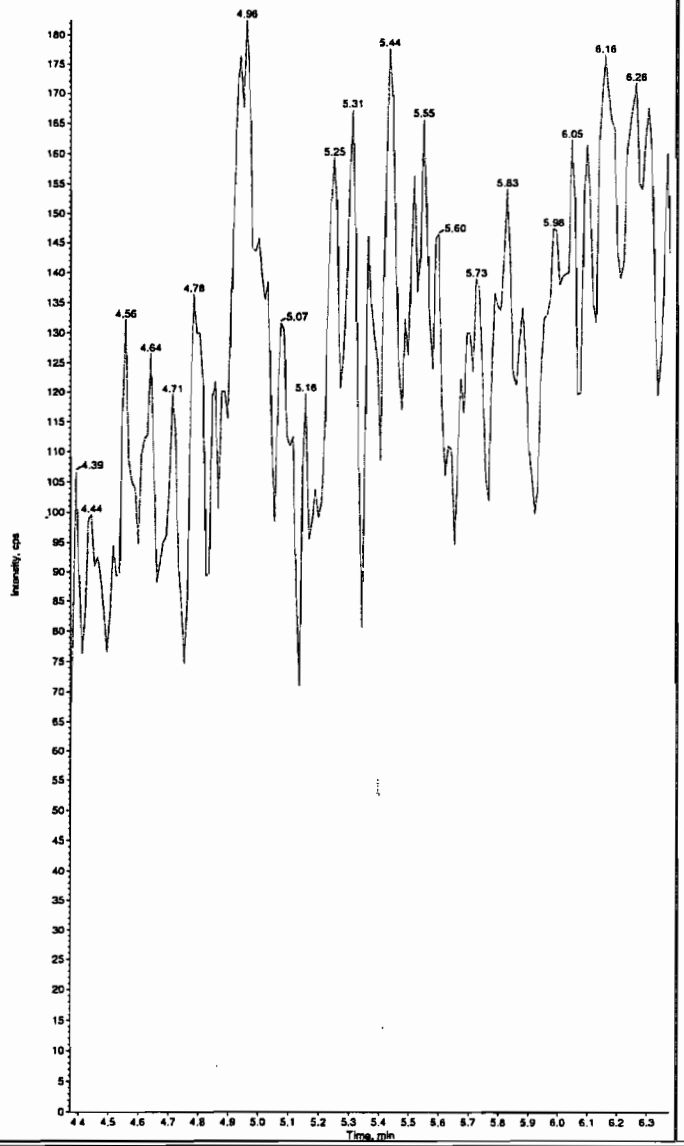

Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS04050064.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	4.46	ng/mL
Acq. Date:	4/6/2010	
Acq. Time:	5:15:36 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.8	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.8	min
Area:	8.03e+004	counts
Height:	19608.795	cps
Start Time:	10.7	min
End Time:	11.0	min

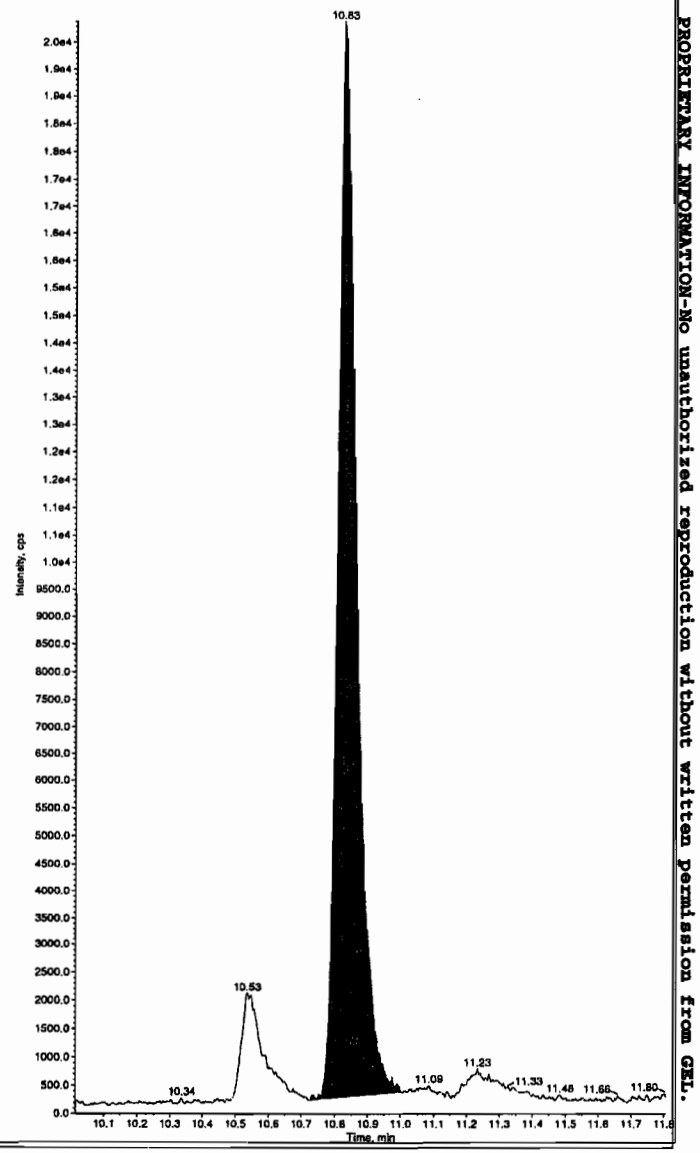

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 06–APR–10 07:21

GEL Data File: EXS04050072.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	4.38
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Rar 4/7/10

mple Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS04050072.wiff"
sk Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 7:21:17 AM

fied: No

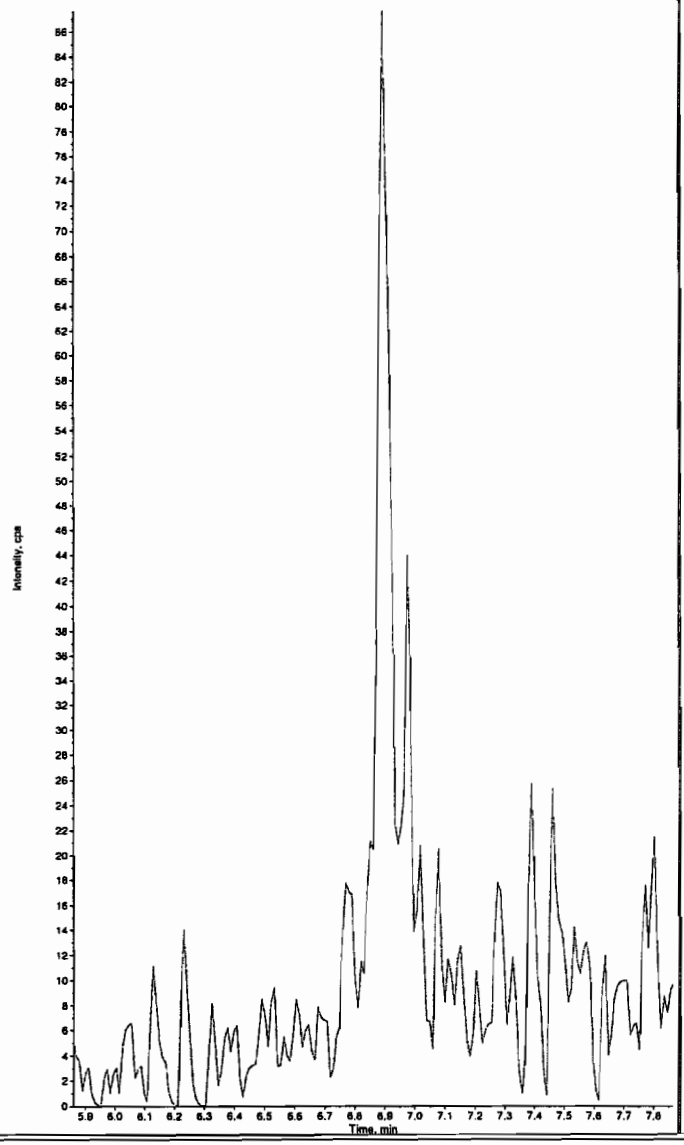

Sample Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS04050072.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 7:21:17 AM

Modified: No

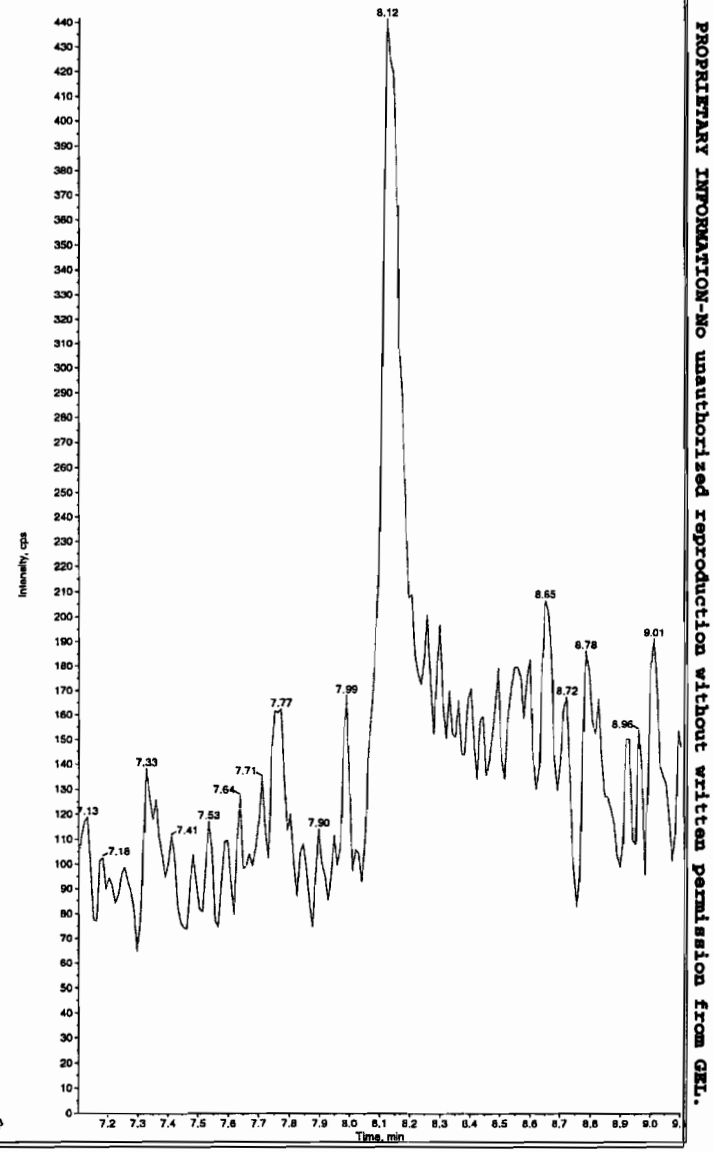

Hmm 04/08/10

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS04050072.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 7:21:17 AM

fied: No

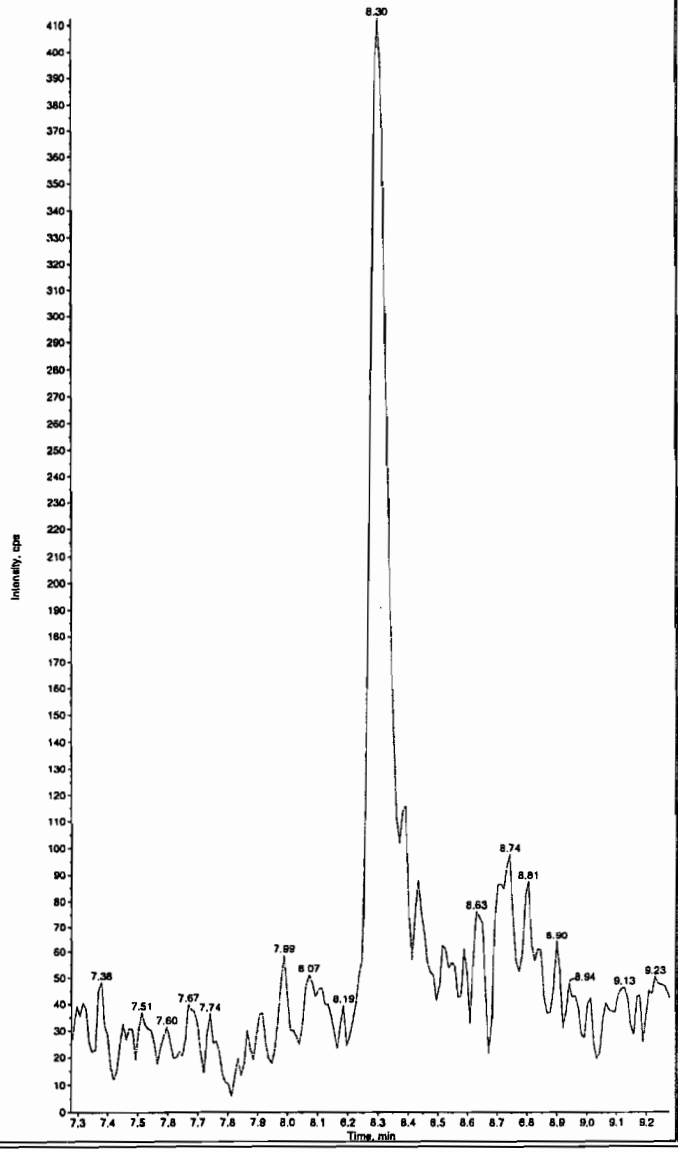

Sample Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS04050072.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 7:21:17 AM

Modified: No

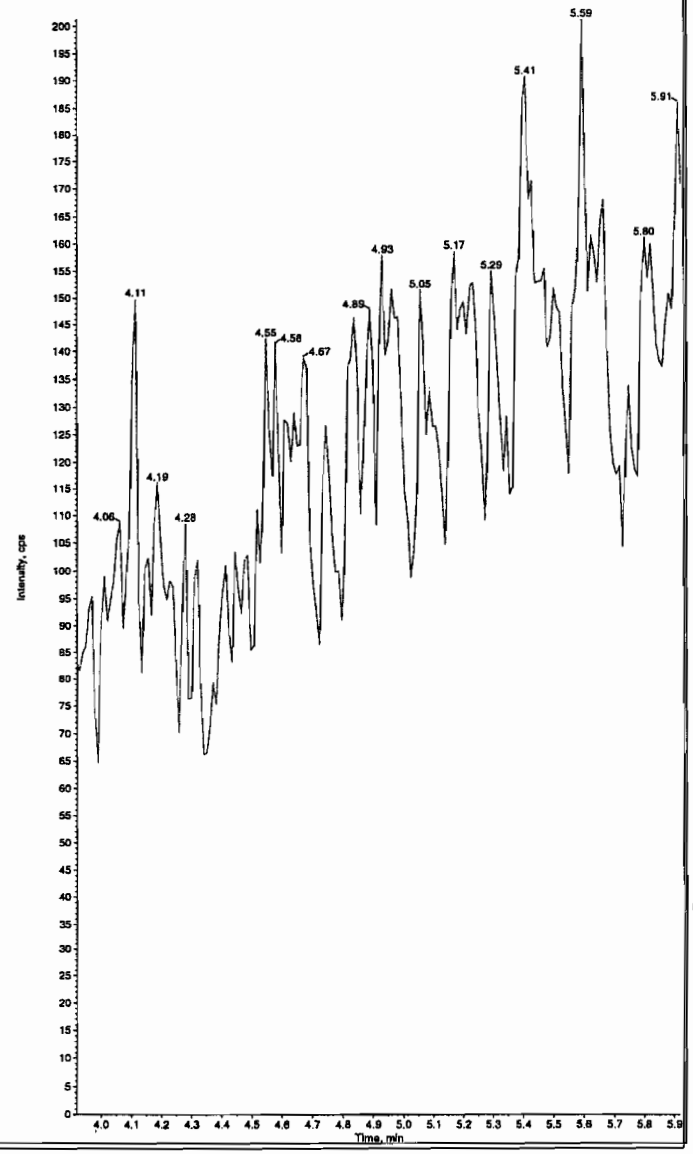

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS04050072.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): ",166.0/46.0 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 7:21:17 AM

fied: No

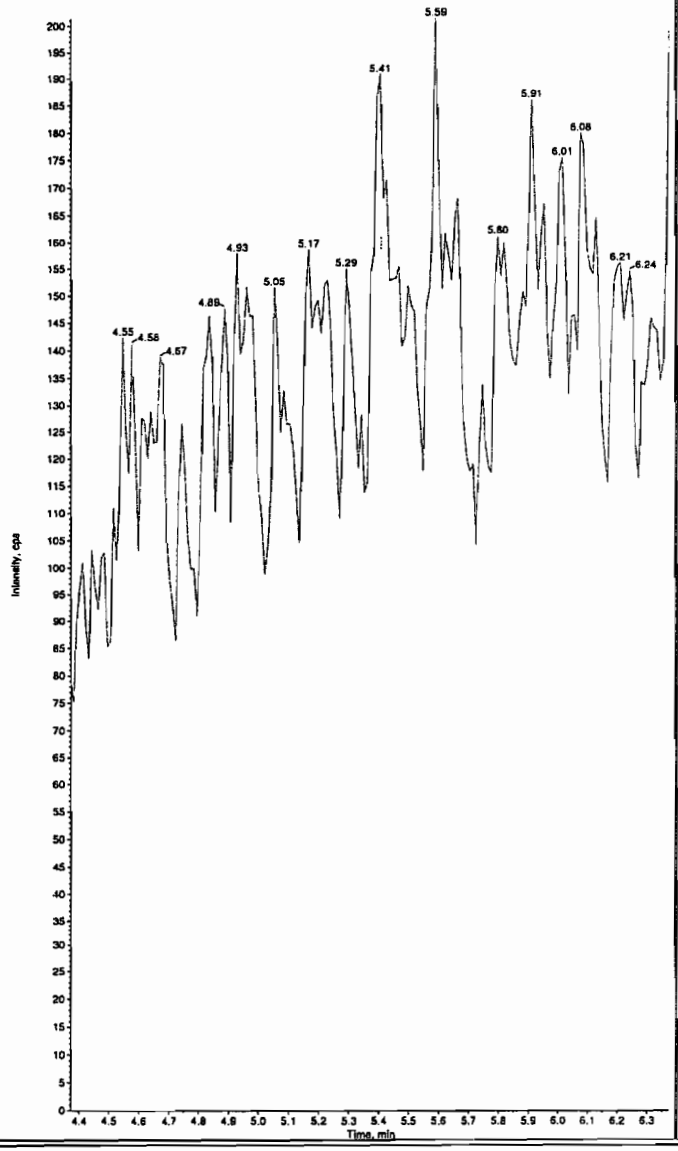

Sample Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS04050072.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	4.38	ng/mL
Acq. Date:	4/6/2010	
Acq. Time:	7:21:17 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.8	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.8	min
Area:	7.89e+004	counts
Height:	19134.485	cps
Start Time:	10.7	min
End Time:	11.0	min

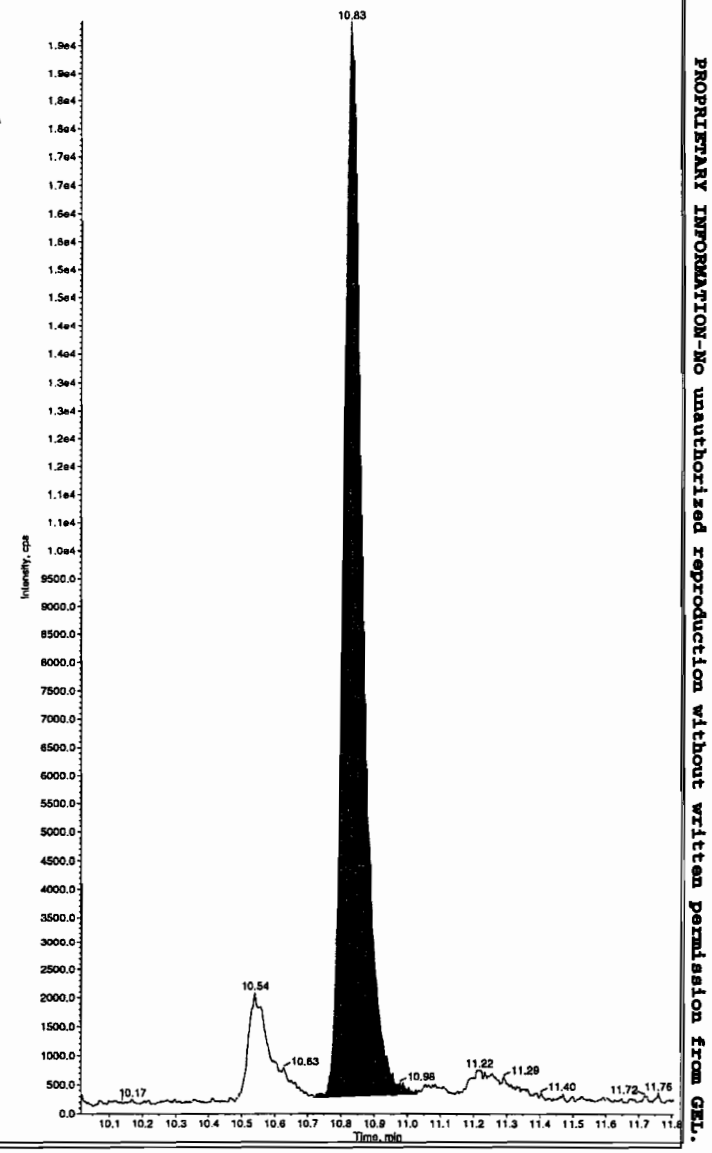

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2039

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 06–APR–10 10:45

GEL Data File: EXS04050085.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	4.12
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Scan 4/7/10

mple Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS04050085.wiff"
ak Name: "TATB" Mass(as): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 10:45:27 AM

fied: No

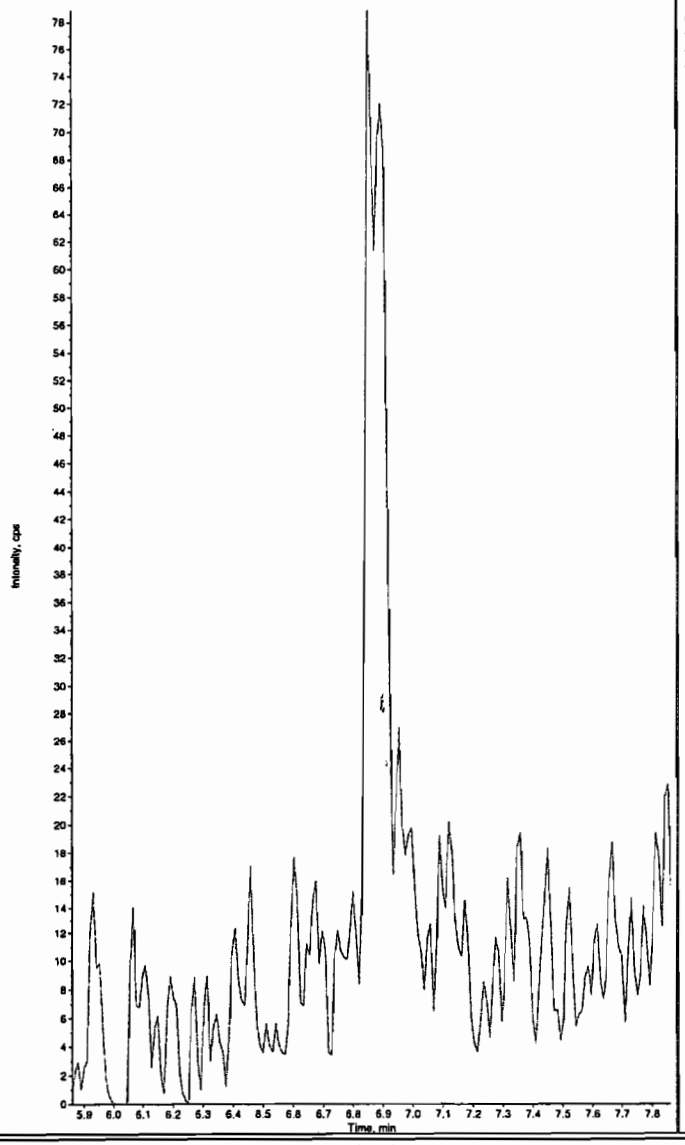

Sample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS04050085.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 10:45:27 AM

Modified: No

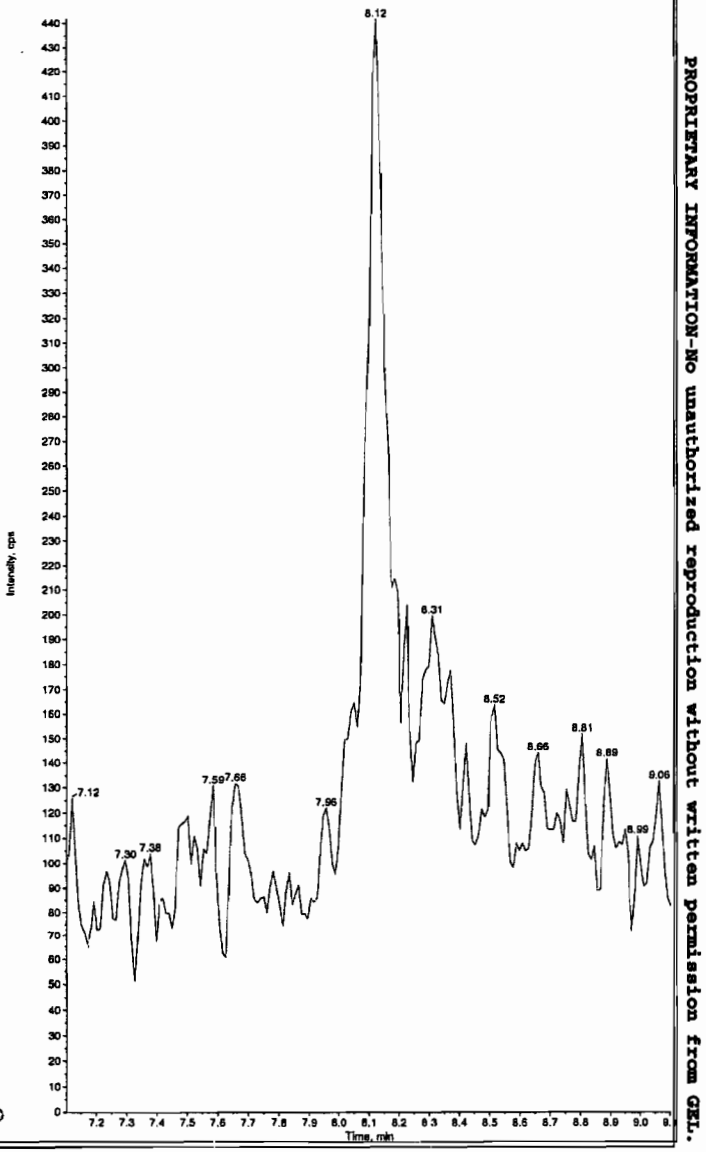

Hmm 04/08/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "XIBLK10" Sample ID: "|1|LER" File: "EXS04050085.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 4/6/2010
. Time: 10:45:27 AM

ified: No

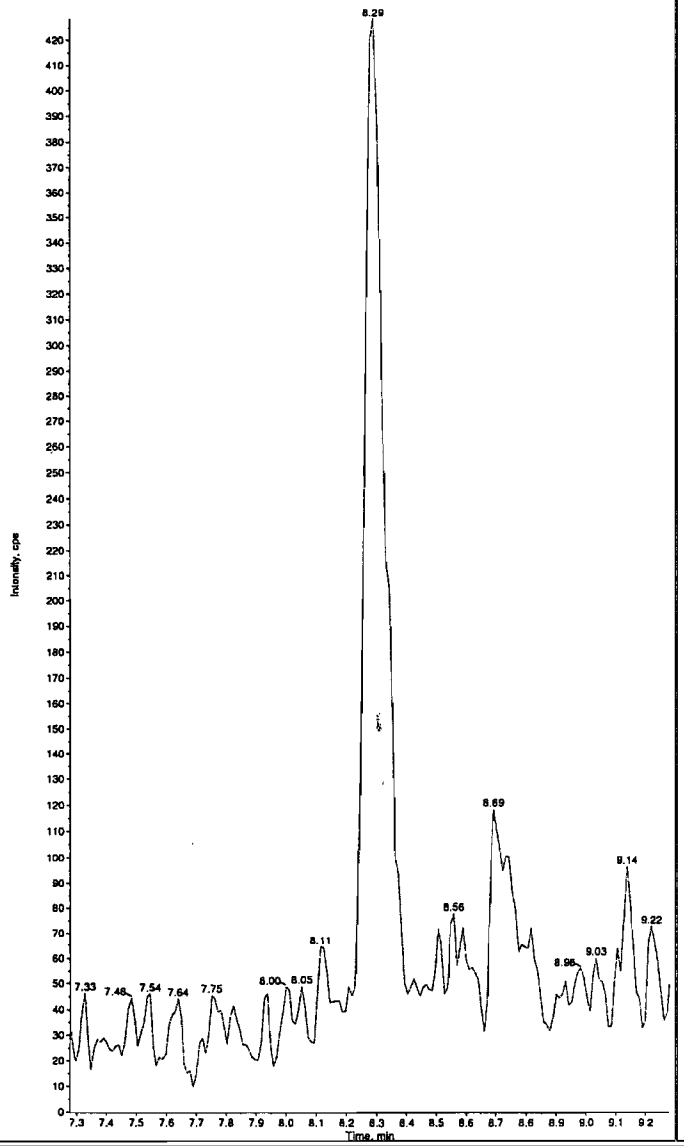

Sample Name: "XIBLK10" Sample ID: "|1|LER" File: "EXS04050085.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 10:45:27 AM

Modified: No

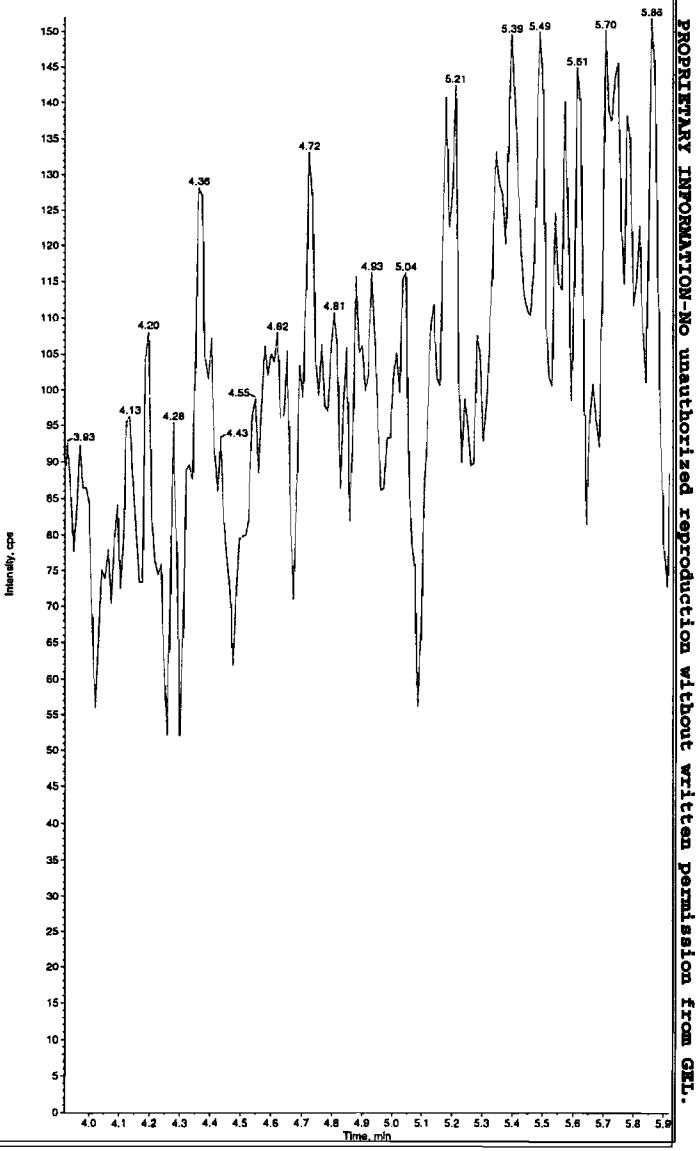

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

ple Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS04050085.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 10:45:27 AM

fied: No

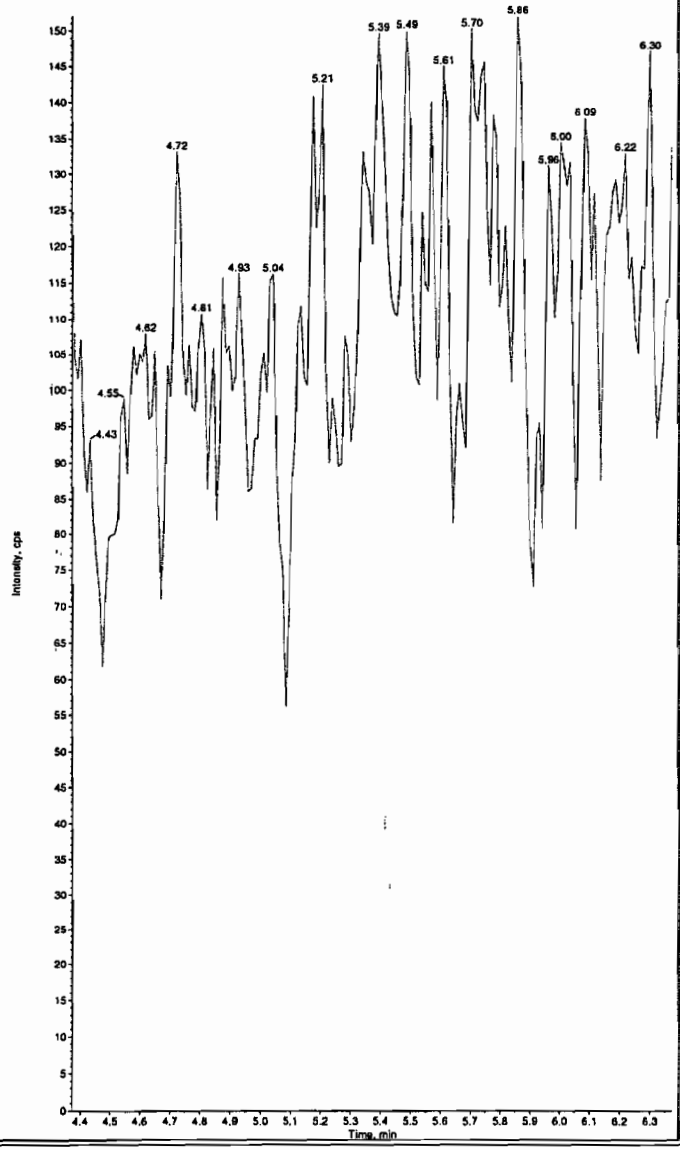

Sample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS04050085.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 4.12 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 10:45:27 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 7.43e+004 counts
Height: 17629.286 cps
Start Time: 10.7 min
End Time: 11.0 min

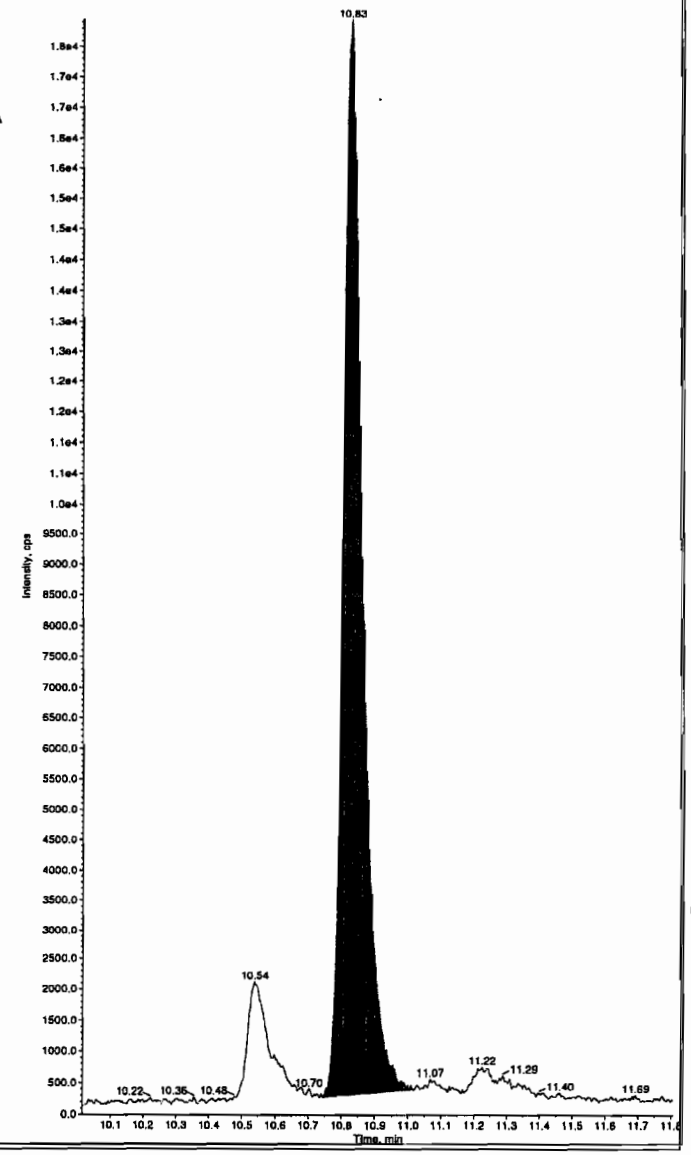

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/RbI (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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Calibration Report - MS1 Static

Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

15 matches of 15 tested references

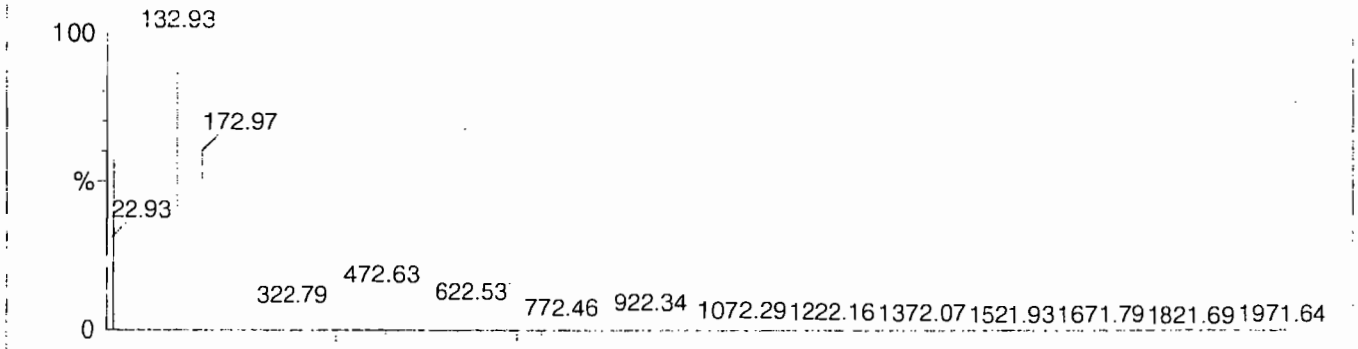

Reference file: Naics2

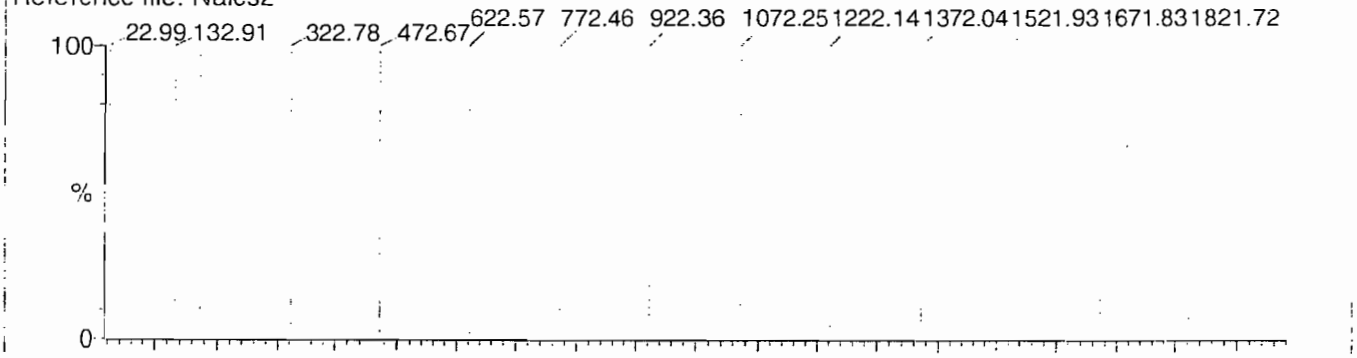

Mass difference (Raw - Ref mass)

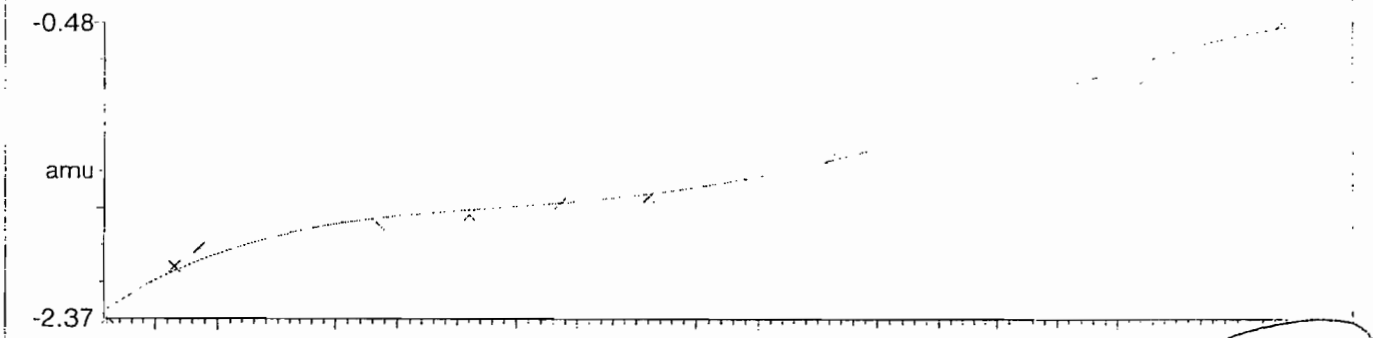

Residuals

Mean residual = -1.673470e-9 ± 0.036953

ok
hm

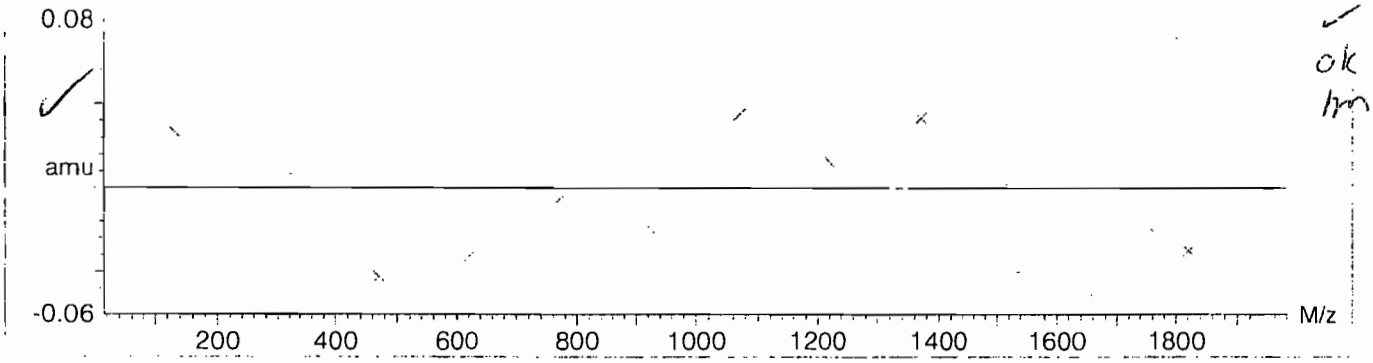

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scanning

Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

15 matches of 15 tested references

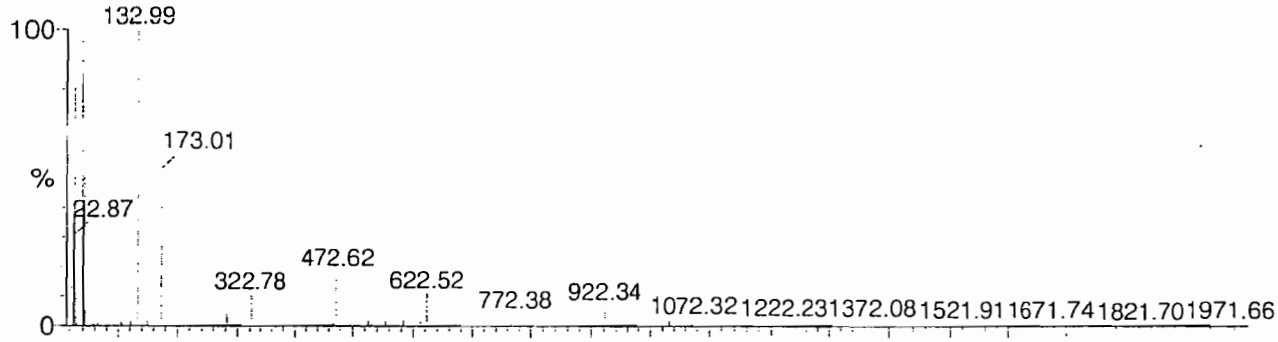

Reference file: Naics2

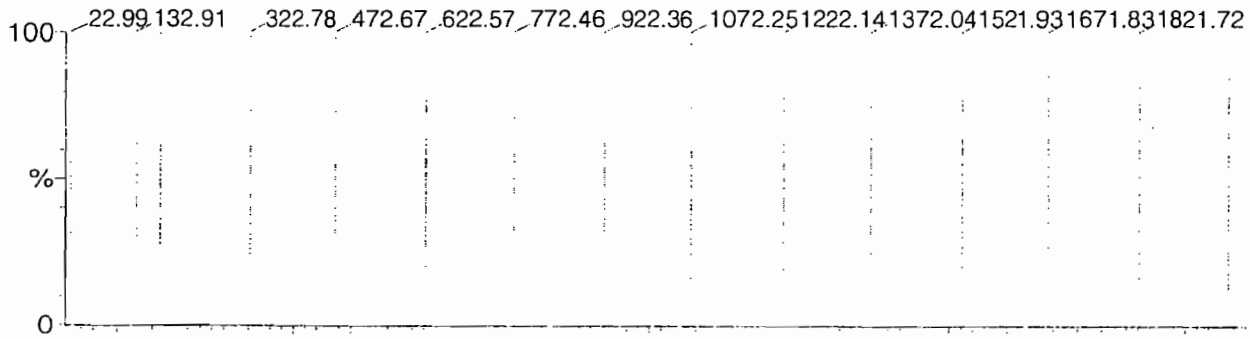

Mass difference (Raw - Ref mass)

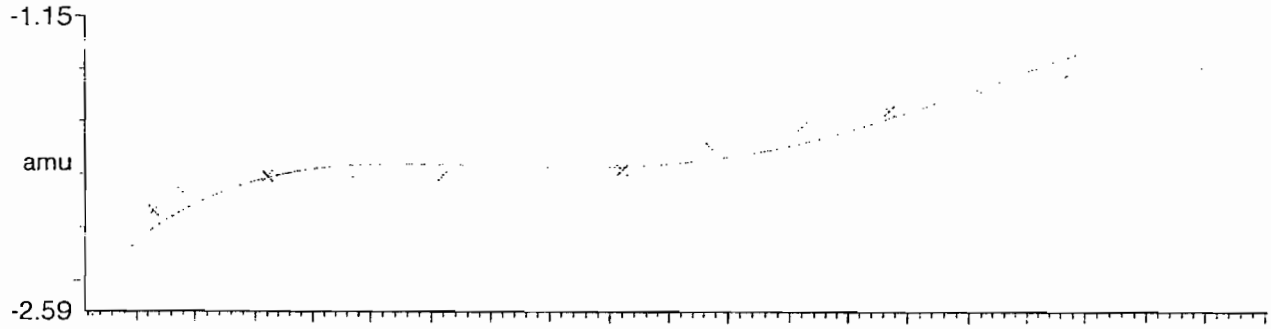

Residuals

Mean residual = -5.432715e-9 ± 0.069858

ok
mm

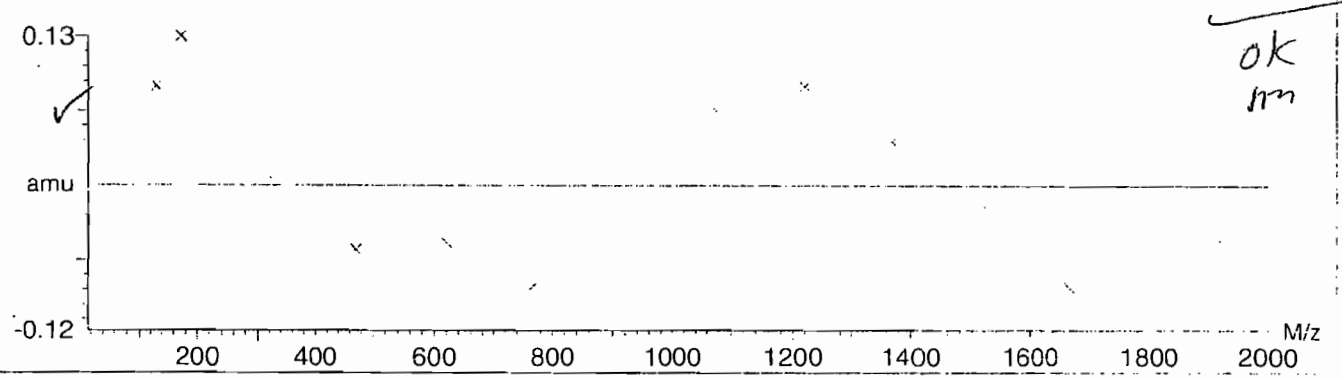

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Calibration Report - MS1 Scan Speed Compensation

Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

15 matches of 15 tested references

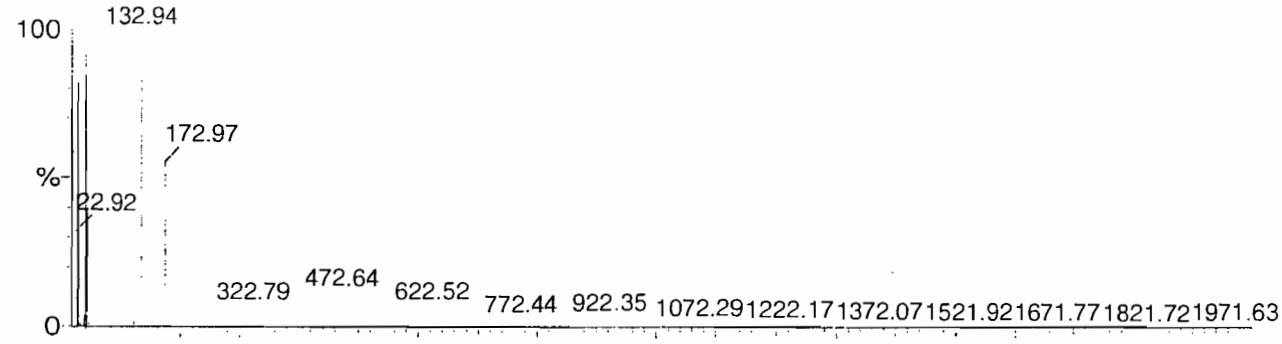

Reference file: Naics2

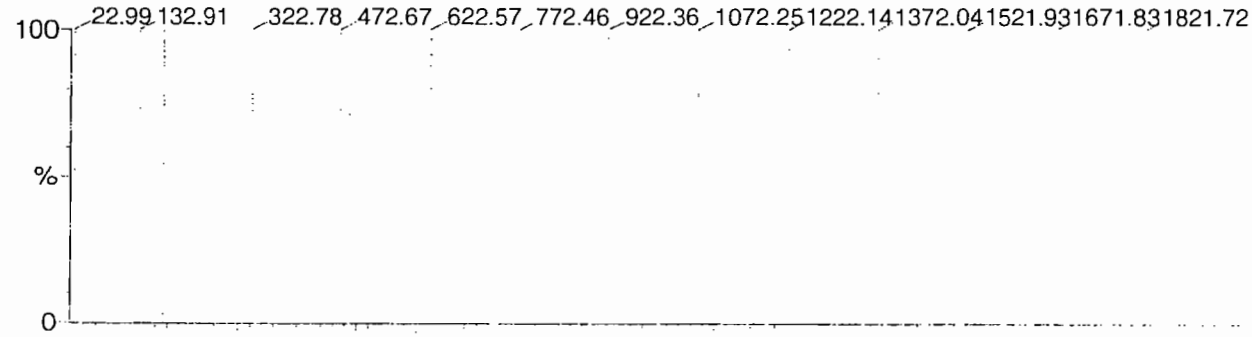

Mass difference (Raw - Ref mass)

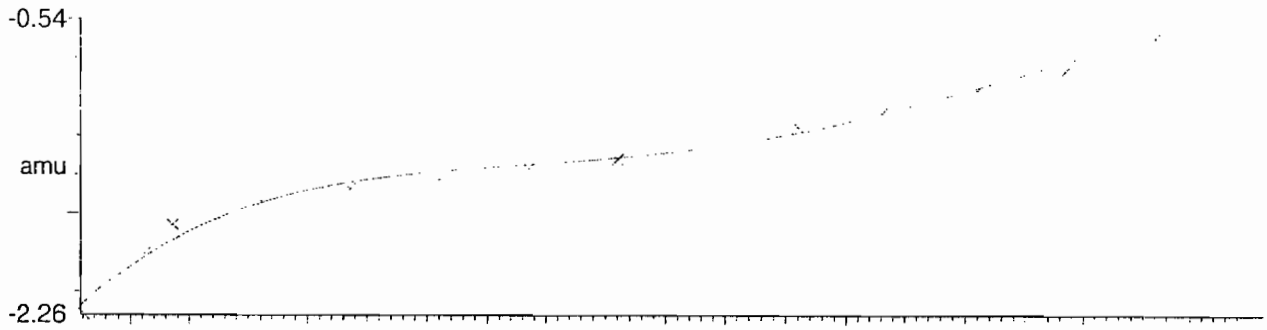

Residuals

Mean residual = 3.486639e-9 ± 0.040487

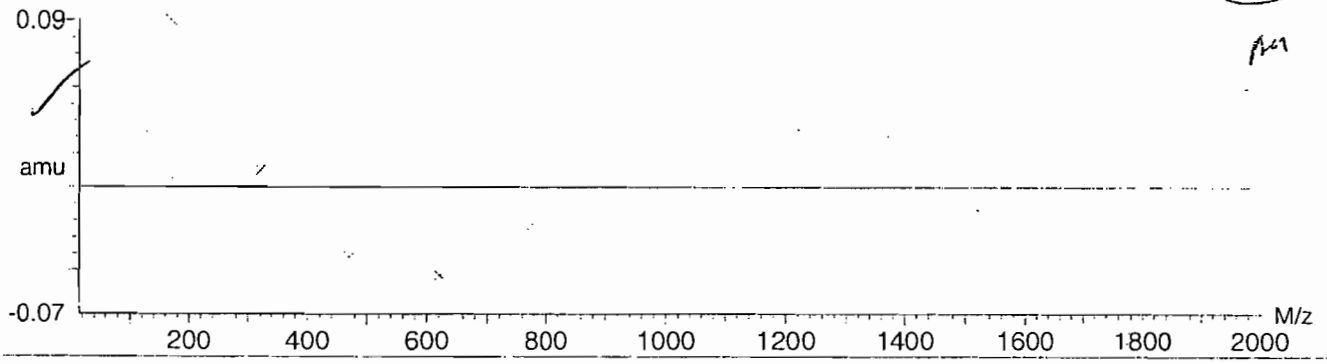

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

15 matches of 15 tested references

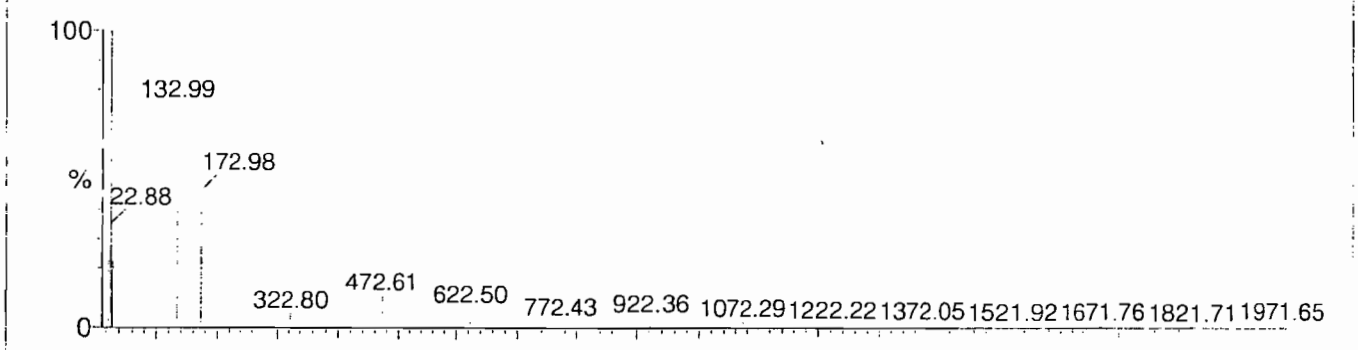

Reference file: Naics2

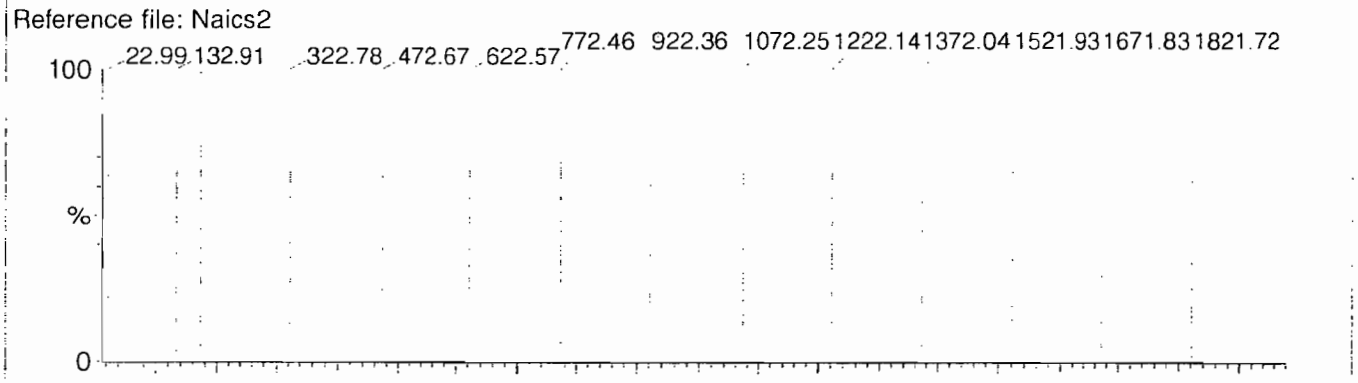

Mass difference (Raw - Ref mass)

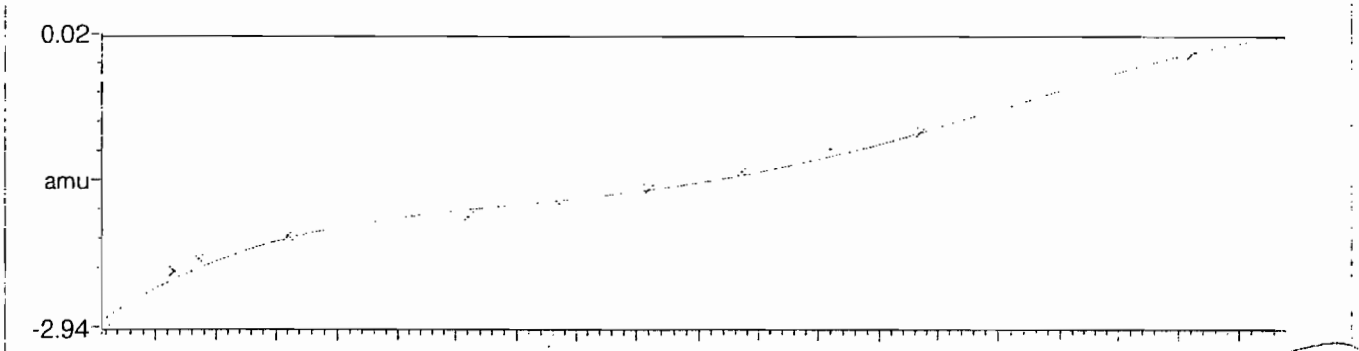

Residuals

Mean residual = 2.048910e-9 ± 0.057803

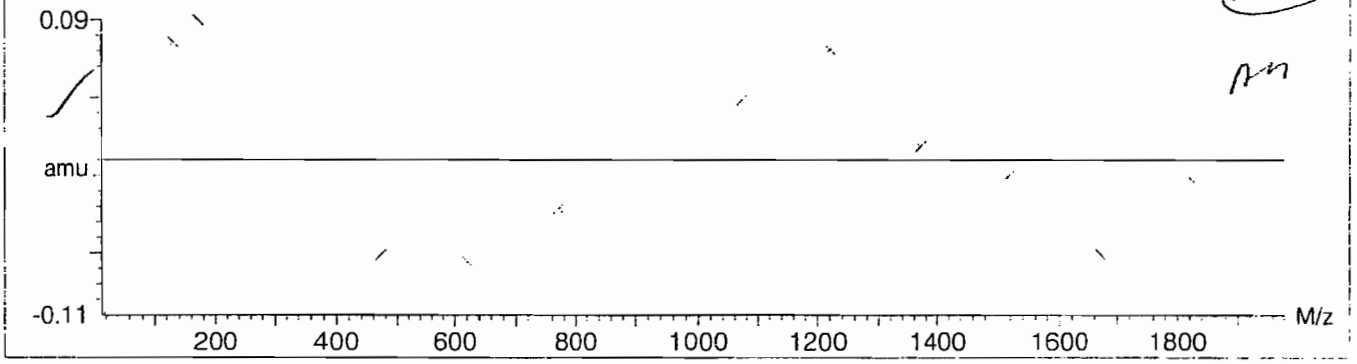

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Calibration Report - MS2 Scanning

Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

14 matches of 15 tested references

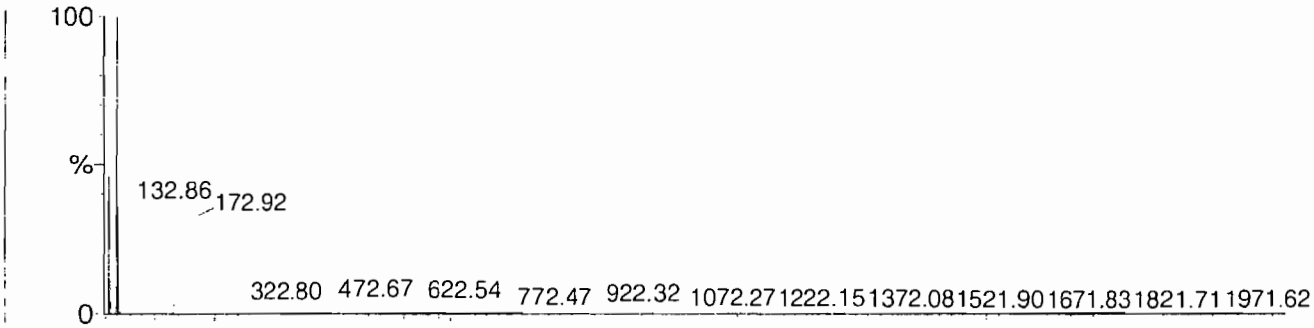

Reference file: Naics2

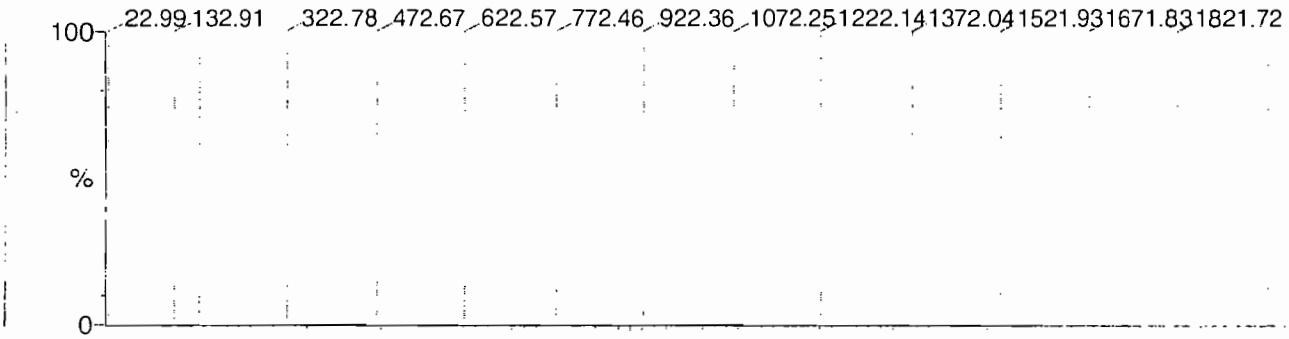

Mass difference (Raw - Ref mass)

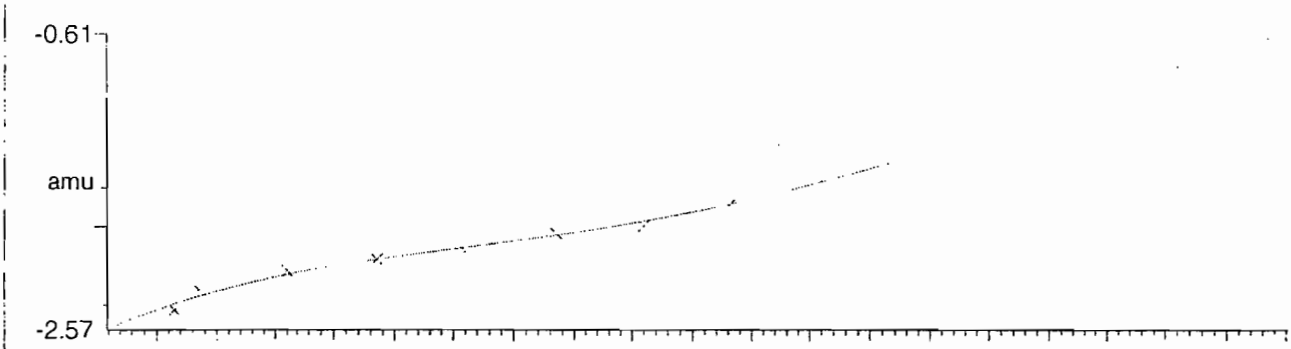

Residuals

Mean residual = -2.623502e-9 ± 0.025622

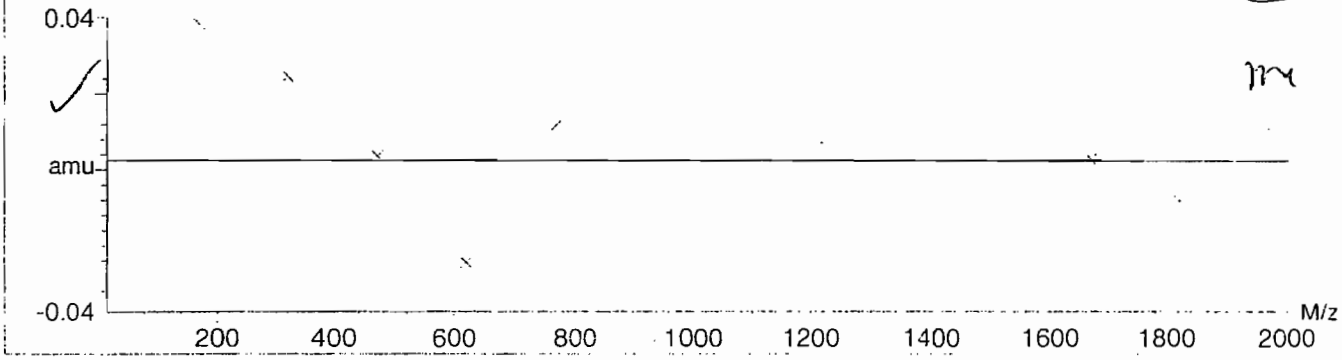

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Calibration Report - MS2 Scan Speed Compensation

Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated

14 matches of 15 tested references

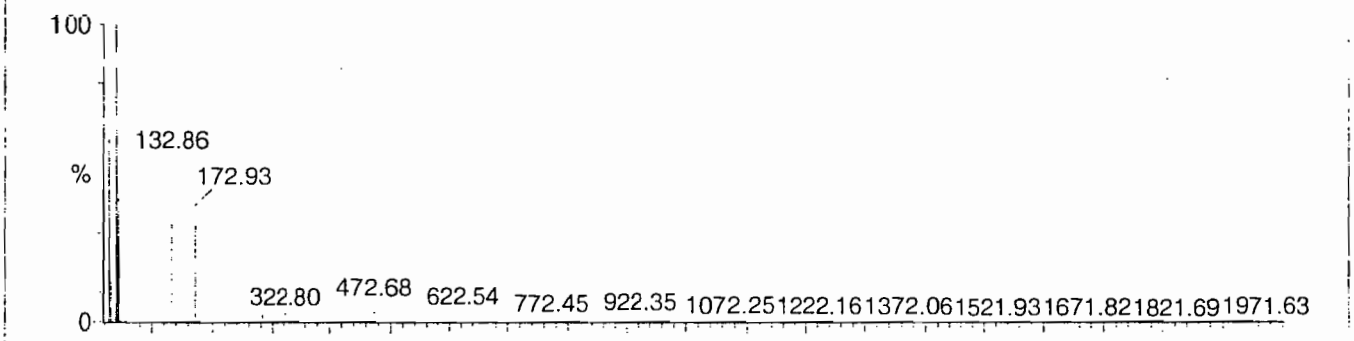

Reference file: Naics2

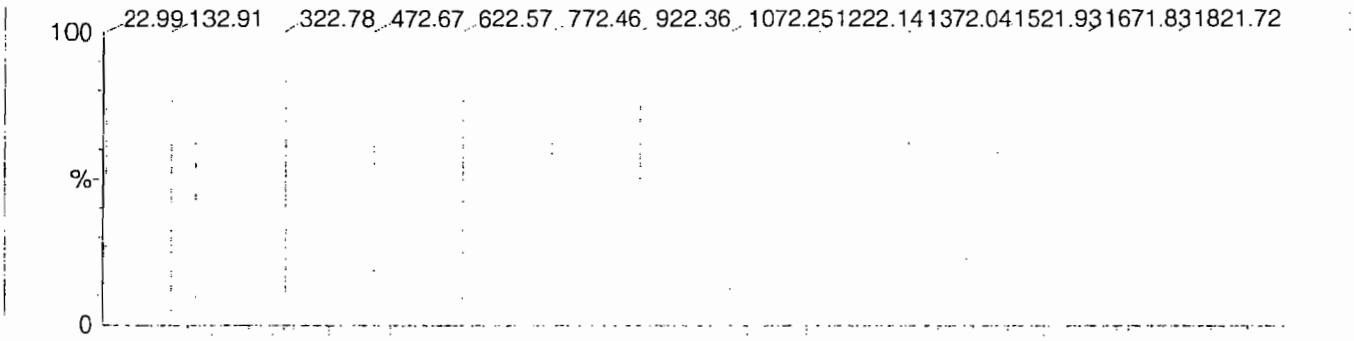

Mass difference (Raw - Ref mass)

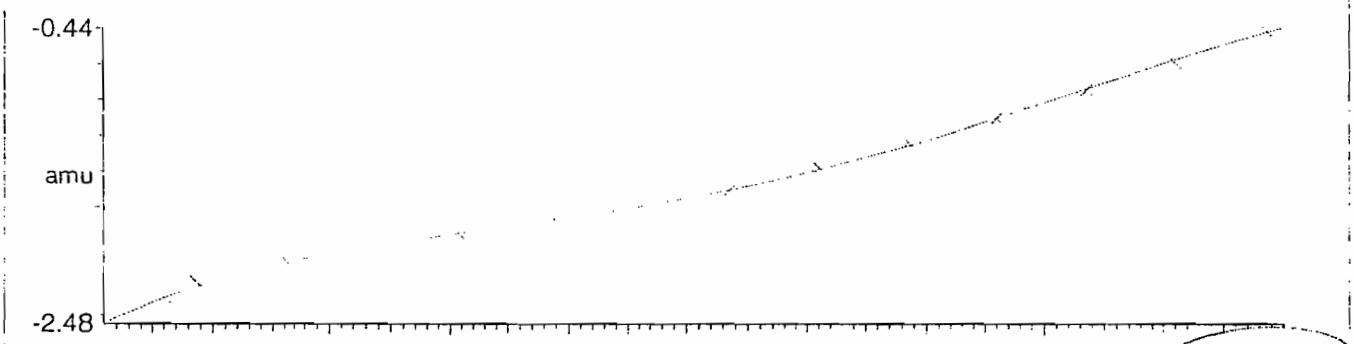

Residuals

Mean residual = -6.785350e-9 ± 0.023134

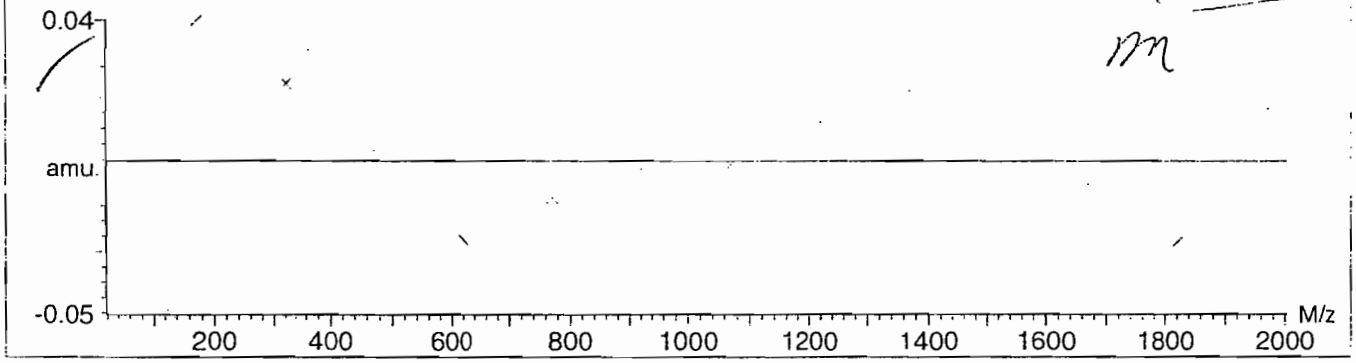

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Quattro Micro Tune Parameters

Parameter File: C:\MASSLYNX\New_Exp.PRO\ACQUDB\explosives04.ipr

Printed : Thu Apr 08 15:35:33 2010

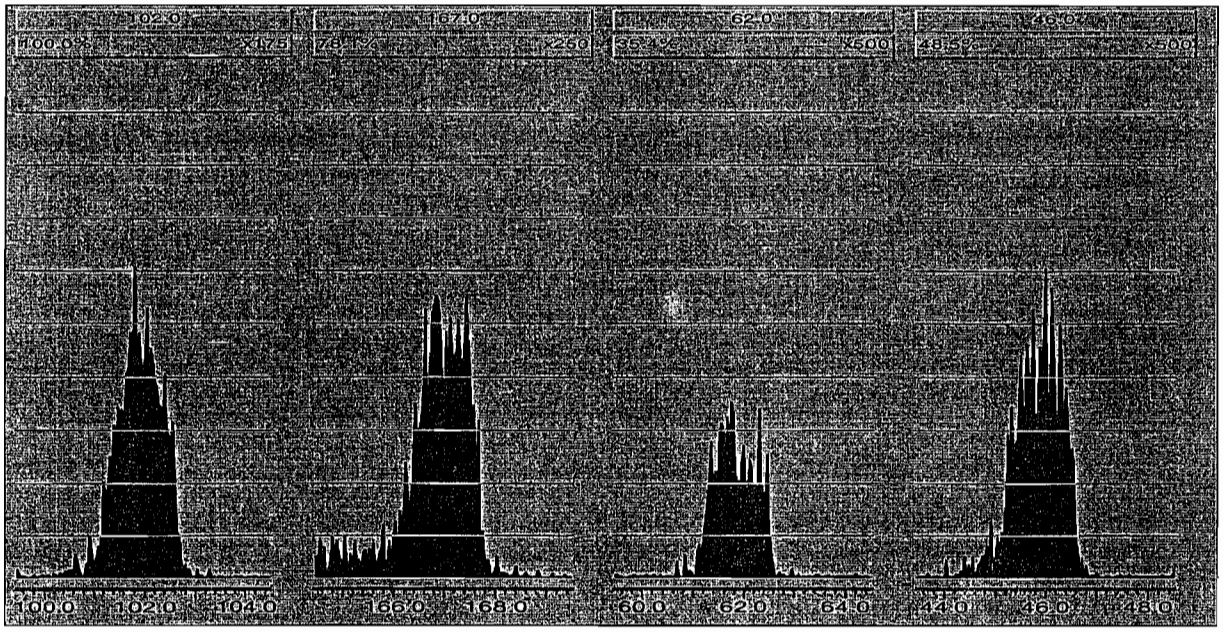

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Quattro Micro Tune Parameters

Parameter File: C:\MASSLYNX\NEW_EXP.PRO\ACQUDB\explosives04.IPR

Printed : Mon Apr 12 14:40:37 2010

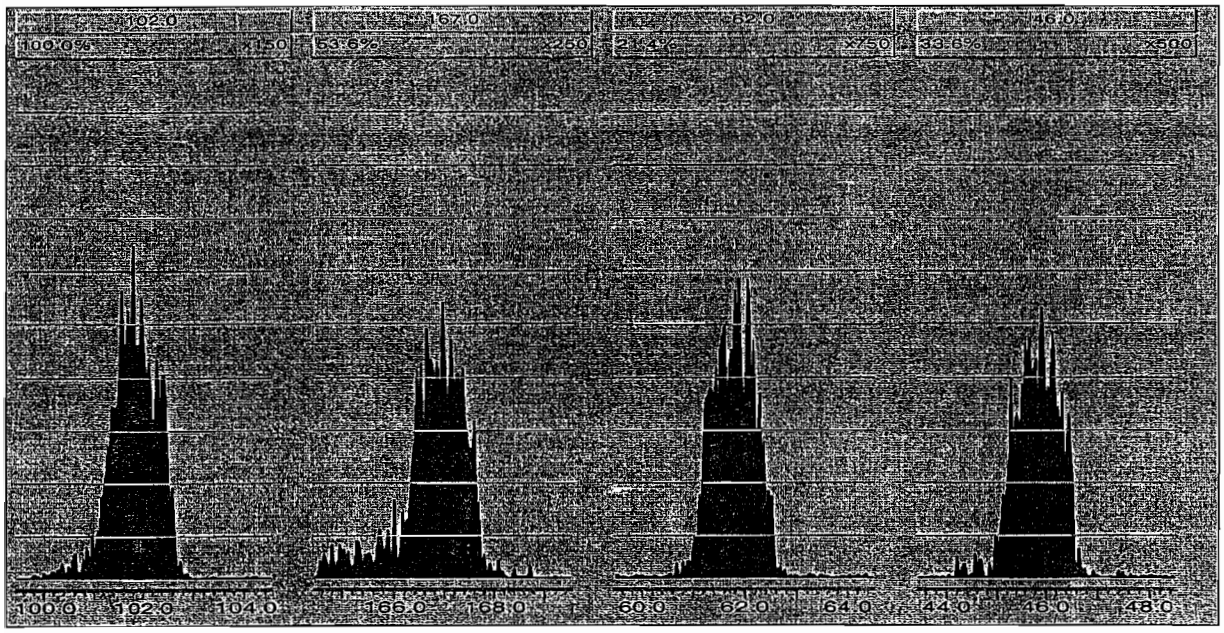

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–2039

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			6498.048	11.995	39478.583	17.288
Upper Limit			8447.4624	12.495	51322.1579	17.788
Lower Limit			4548.6336	11.495	27635.0081	16.788
LCS for batch 958278	11–apr–10 03:40	EXP0408111a	7542.35	11.896	42973.7	17.115
CAPA–10–12917(248017003MS	11–apr–10 04:39	EXP0408113a	7736.04	11.895	46381.9	17.113

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			5880.363	11.868	34983.183	17.054
Upper Limit			7644.4719	12.368	45478.1379	17.554
Lower Limit			4116.2541	11.368	24488.2281	16.554
MB for batch 958278	13–apr–10 22:09	EXP0412063a	7603.26	11.867	49087.6 *	17.072
CAPA–10–12917	13–apr–10 23:08	EXP0412065a	8103.64 *	11.867	48986.1 *	17.072
CAPA–10–12917(248017003MS	14–apr–10 00:07	EXP0412067a	7934.13 *	11.867	49730 *	17.05

IS1 (DNB) = 1,3–Dinitrobenzene–d4
IS2 (DNT) = 2,6–Dinitrotoluene–d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = – 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = –0.5 of average multipoint RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits

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SAMPLE
DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12917

Lab Code: GEL

GEL Job No (SDG) 10-2039

Matrix: GROUND WATER

GEL Sample ID: 248017003

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412065a

Date Analyzed: 13-APR-10 23:08

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	HU
121-14-2	2,4-Dinitrotoluene	0.325	HU
121-82-4	RDX	0.325	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	HU
2691-41-0	HMX	0.325	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	HU
479-45-8	Tetryl	0.649	HU
606-20-2	2,6-Dinitrotoluene	0.325	HU
78-11-5	PETN	1.3	HU
88-72-2	o-Nitrotoluene	0.325	HU
98-95-3	Nitrobenzene	0.325	HU
99-08-1	m-Nitrotoluene	0.325	HU
99-35-4	1,3,5-Trinitrobenzene	0.325	HU
99-65-0	m-Dinitrobenzene	0.325	HU
99-99-0	p-Nitrotoluene	0.649	HU

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412065a
Date: 13-Apr-2010
Time: 23:08:49
ID: 248017003 | LANL | 958282 | LAB | 2 |
Vial: 1:4,C

MA 4/14/10

P28

XQ: EXP0408112a

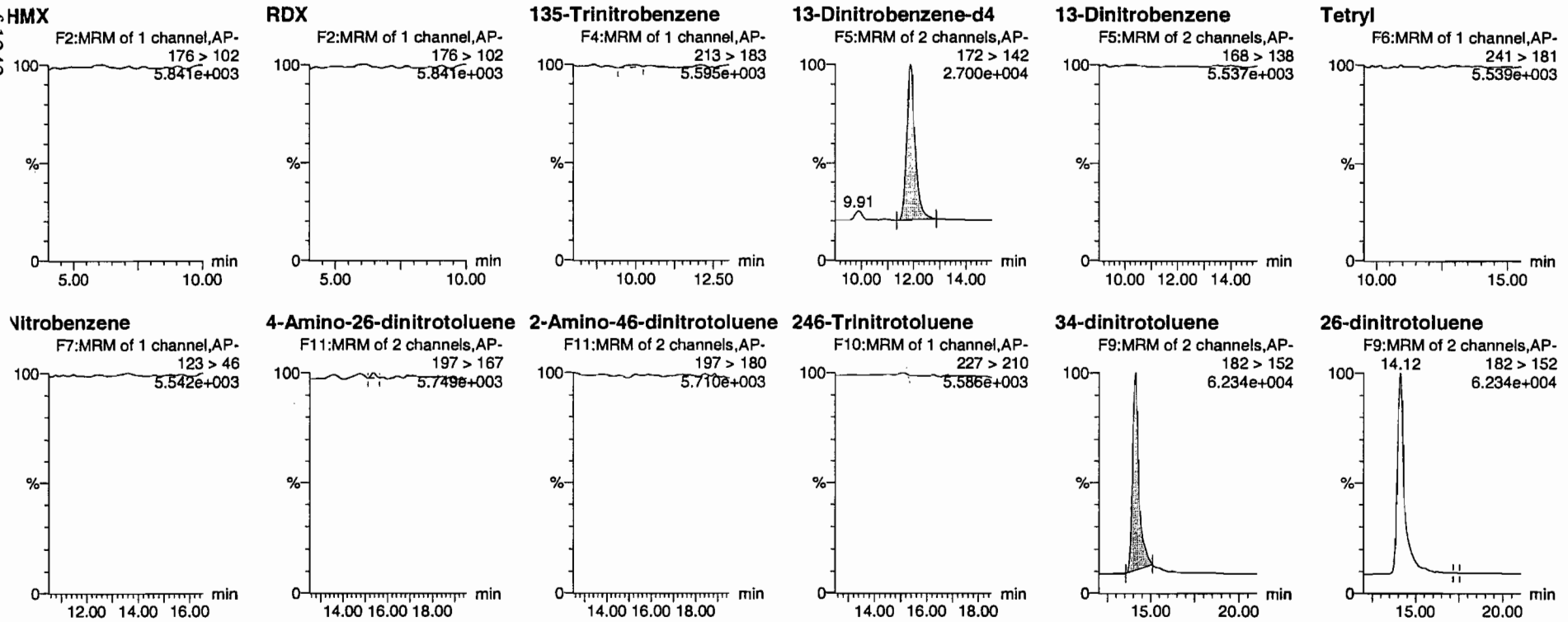

dmm 04/14/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

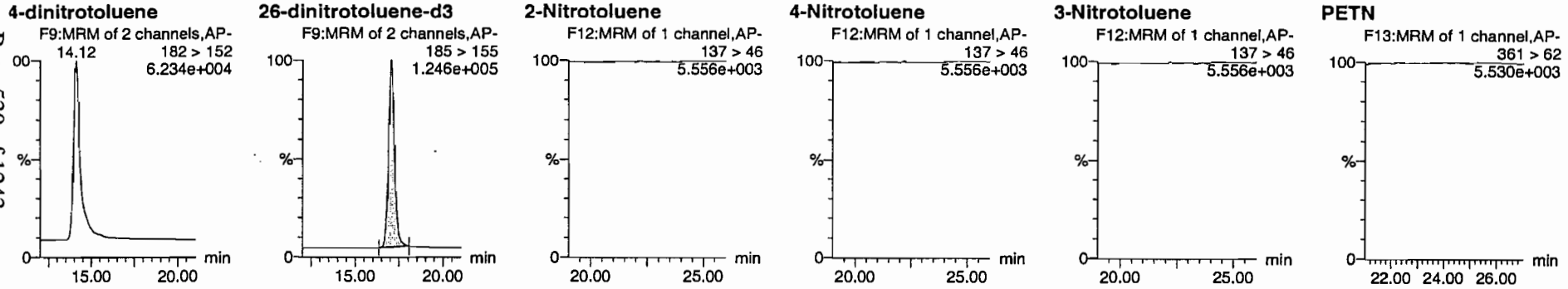

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
48017003	HMX	176 > 102			8103.641									
48017003	RDX	176 > 102			8103.641									
48017003	135-Trinitrobenzene	213 > 183			8103.641			MM-	14-Apr-10	09:05:09				
48017003	13-Dinitrobenzene-d4	172 > 142	11.87	8103.641		8103.641	8103.641	bb			689.0425	137.8	37.8	769.3
48017003	13-Dinitrobenzene	168 > 138			8103.641									
48017003	Tetryl	241 > 181			8103.641									
48017003	Nitrobenzene	123 > 46			8103.641									
48017003	4-Amino-26-dinitrotoluene	197 > 167			48986.090			MM-	14-Apr-10	09:09:36				
48017003	2-Amino-46-dinitrotoluene	197 > 180			48986.090									
48017003	246-Trinitrotoluene	227 > 210			48986.090									
48017003	34-dinitrotoluene	182 > 152	14.12	24097.135	48986.090	24097.135	245.959	bb			238.5339	95.4	-4.6	848.3
48017003	26-dinitrotoluene	182 > 152			48986.090			MM-	14-Apr-10	09:12:22				
48017003	24-dinitrotoluene	182 > 152			48986.090									
48017003	26-dinitrotoluene-d3	185 > 155	17.07	48986.090		48986.090	48986.090	bb			700.1378	140.0	40.0	3982.0
48017003	2-Nitrotoluene	137 > 46			48986.090									
48017003	4-Nitrotoluene	137 > 46			48986.090									
48017003	3-Nitrotoluene	137 > 46			48986.090									
48017003	PETN	361 > 62			48986.090									

3.09

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12917

Lab Code: GEL

GEL Job No (SDG) 10-2039

Matrix: GROUND WATER

GEL Sample ID: 248017003

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050076.wiff

Date Analyzed: 06-APR-10 08:24

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

LCW 4/7/10

ple Name: "248017003" Sample ID: "958282|2|LER" File: "EXS04050076.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCX83212L" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
lated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 8:24:12 AM

fied: No

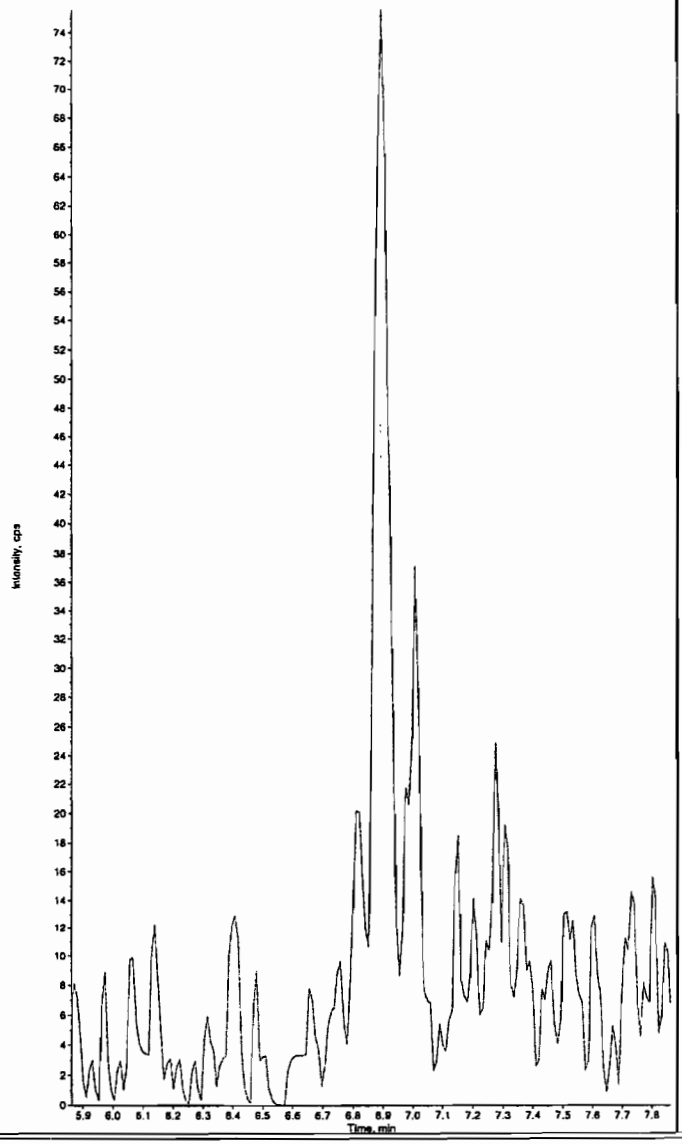

Sample Name: "248017003" Sample ID: "958282|2|LER" File: "EXS04050076.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 8:24:12 AM

Modified: No

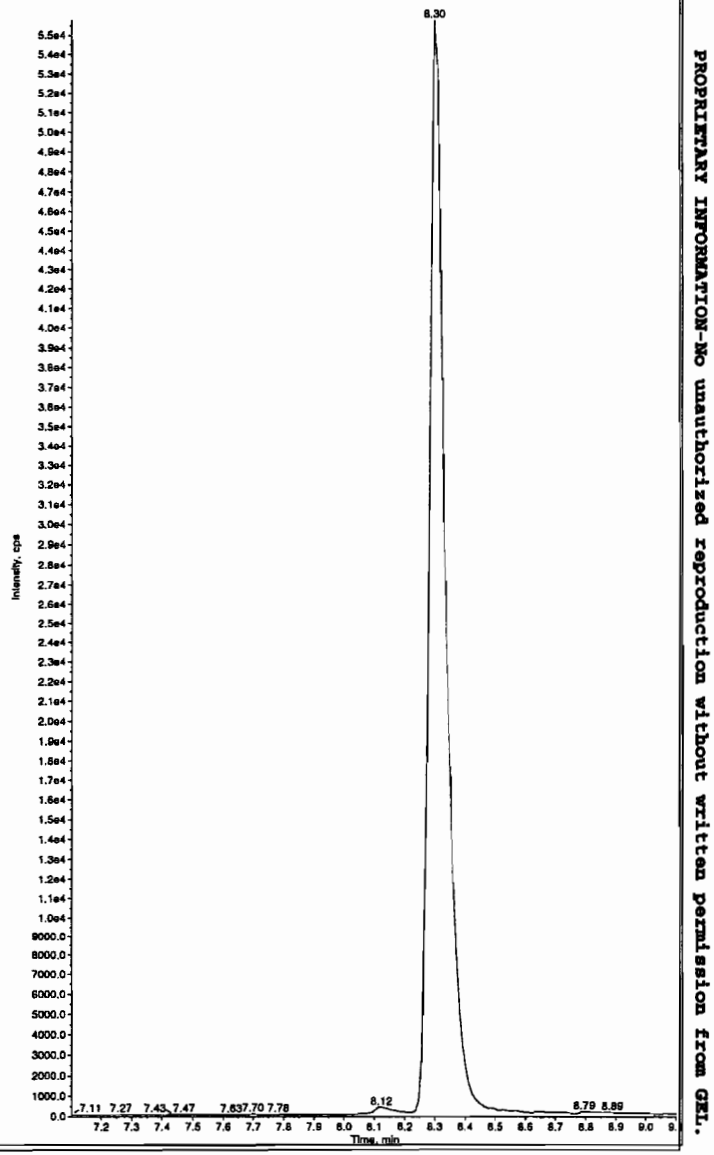

Hnm 04/08/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "248017003" Sample ID: "958282|2|LER" File: "EXS04050076.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212L" Annotation: ""

3.01

```
ple Index:        1
ple Type:       Unknown
centration:       N/A
culated Conc:     232.      ng/mL
. Date:        4/6/2010
. Time:        8:24:12 AM

ified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00    cps
. Peak Width:     0.00    sec
othing Width:  3         points
Window:          15.0     sec
ected RT:         8.28    min
Relative RT:      No

. Type:        Valley
ention Time:      8.30    min
a:          1.98e+006    counts
ght:        508479.156   cps
ct Time:          8.16    min
Time:             8.68    min
```

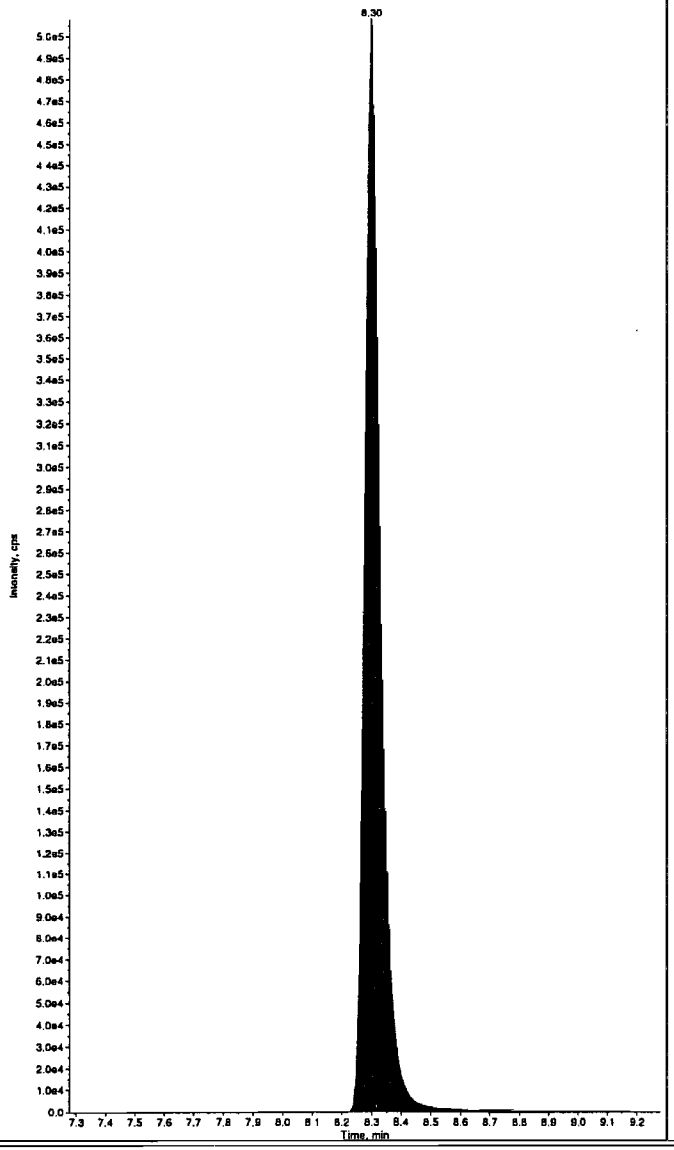

Sample Name: "248017003" Sample ID: "958282|2|LER" File: "EXS04050076.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

```
Sample Index:        1
Sample Type:       Unknown
Concentration:       N/A
Calculated Conc:     0.00      ng/mL
Acq. Date:        4/6/2010
Acq. Time:        8:24:12 AM

Modified:            No
```

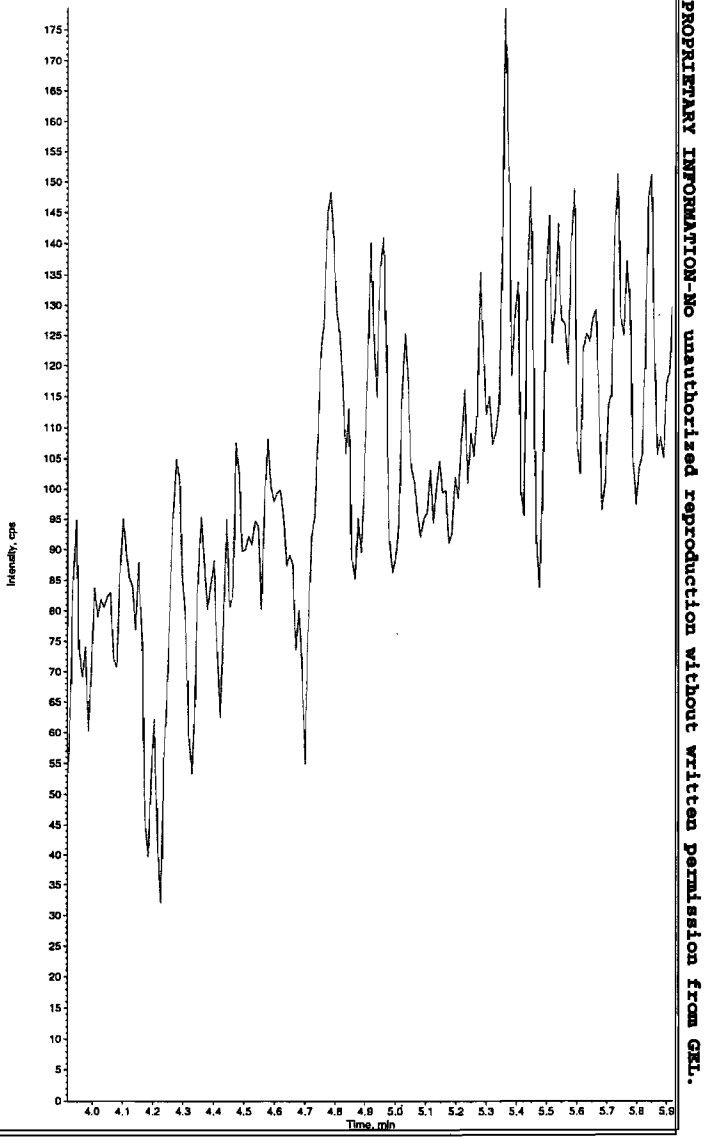

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ple Name: "248017003" Sample ID: "958282|2|LER" File: "EXS04050076.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCX83212L" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 8:24:12 AM

ied: No

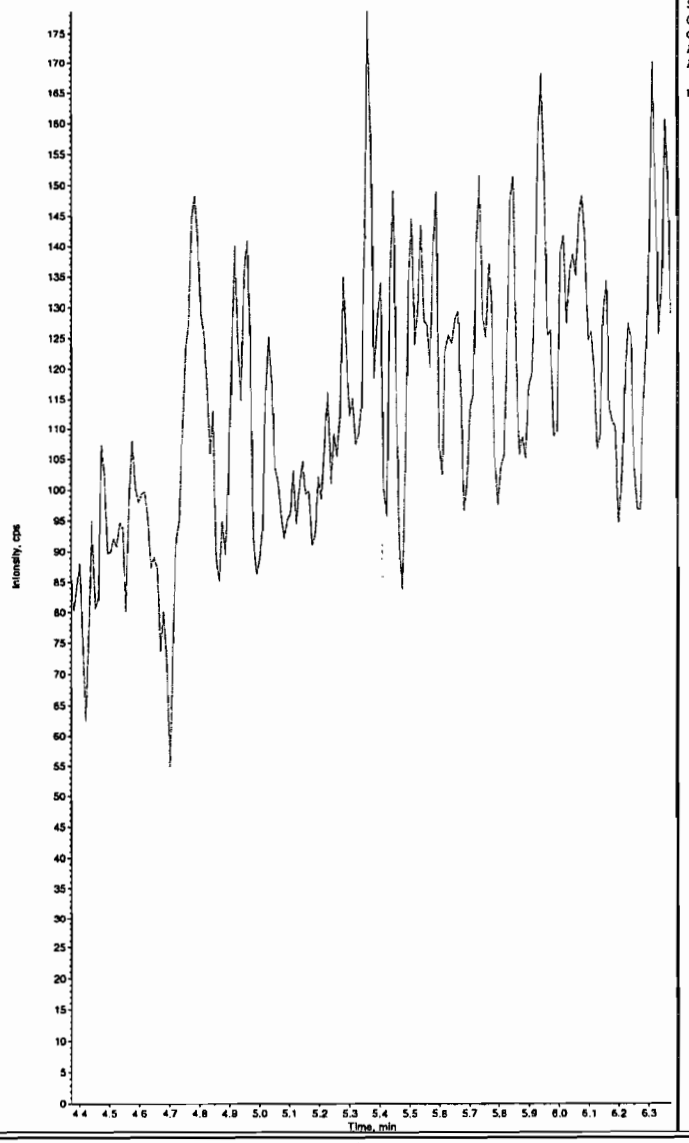

Sample Name: "248017003" Sample ID: "958282|2|LER" File: "EXS04050076.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 8:24:12 AM

Modified: No

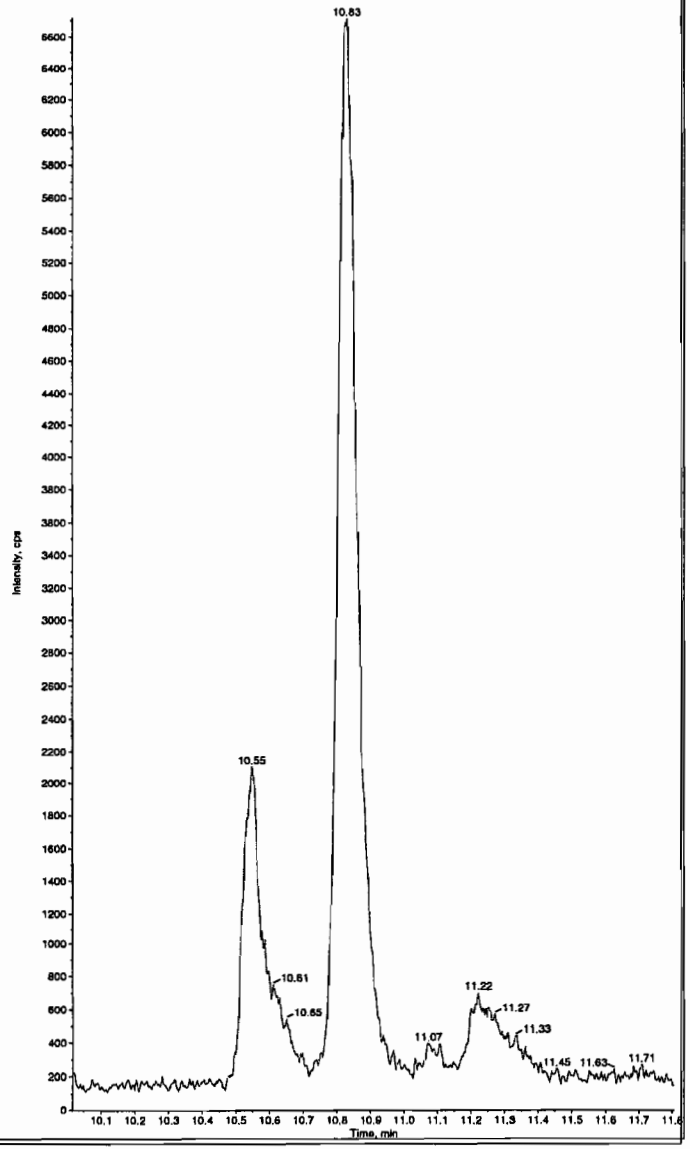

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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STANDARDS DATA

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SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MNX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2039

Lab Code: GEL

Run Date: 05-APR-10,08-APR-10,09-APR-10,12-APR-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	1	2	3	4	5	6	Ave RF	RSD	Q
Data File:	EXP0408003a	EXP0408004a	EXP0408005a	EXP0408006a	EXP0408007a	EXP0408008a			
Parmname									
1,3,5-Trinitrobenzene	4.687	4.464	3.962	4.008	4.099	4.121	4.224	6.807	
1,3-Dinitrobenzene-d4	13.523	13.591	13.387	13.023	12.673	11.779	12.996	5.301	
2,4,6-Trinitrotoluene	.332	.381	.371	.383	.429	.412	0.385	8.792	
2,4-Dinitrotoluene	.302	.264	.237	.241	.272	.273	0.265	9.006	
2,6-Dinitrotoluene	1.178	1.135	1.114	1.112	1.154	1.132	1.138	2.211	
2,6-Dinitrotoluene-d3	82.492	84.272	82.213	78.859	74.94	70.968	78.957	6.49	
2-Amino-4,6-dinitrotoluene	.404	.418	.456	.474	.496	.493	0.457	8.404	
3,4-Dinitrotoluene	.965	1.047	1.023	1.004	1.066	1.048	1.026	3.585	
4-Amino-2,6-dinitrotoluene	.311	.305	.298	.303	.328	.321	0.311	3.669	
HMX	3.229	3.048	3.107	3.23	3.277	3.275	3.194	2.968	
Nitrobenzene	.708	.557	.552	.603	.597	.59	0.601	9.362	
RDX	2.156	2.344	2.394	2.481	2.636	2.61	2.437	7.364	
Tetryl	.912	1.015	.955	1.05	1.137	1.108	1.030	8.455	
m-Dinitrobenzene	1.273	1.293	1.249	1.293	1.314	1.306	1.288	1.832	
m-Nitrotoluene	.063	.061	.049	.049	.049	.057	0.055	11.935	
o-Nitrotoluene	.089	.079	.071	.074	.076	.073	0.077	8.462	
p-Nitrotoluene	.038	.043	.037	.038	.039	.038	0.039	5.09	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2039

Lab Code: GEL

Run Date: 05-APR-10,08-APR-10,09-APR-10,12-APR-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	1	2	3	4	5	6	X	X^2	Intercept	COD	Q
Data File:	EXP0408003a	EXP0408004a	EXP0408005a	EXP0408006a	EXP0408007a	EXP0408008a					
Parmname:											
PETN	1630.9	3370.45	12155.9	21436.3	37797.5	42677.4	.732	-.0001338	3.275	.9999	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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ataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

ethod: C:\MASSLYNX\New_Exp.PRO\MethDB\040810expa.mdb, Time: Fri Apr 09 10:24:44 2010
alibration: Untitled, Time: Fri Apr 09 10:54:52 2010

ompound name: HMX
esponse Factor: 3.19424
RF SD: 0.0948173, % Relative SD: 2.96839
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

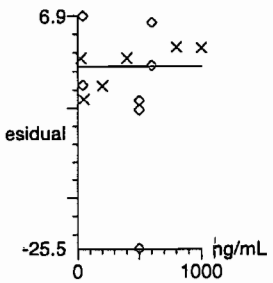

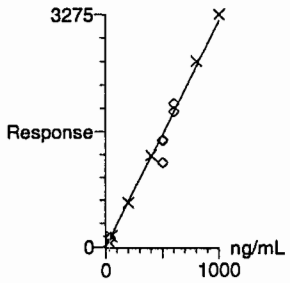

MM
4/10/10

ompound name: RDX
esponse Factor: 2.43687
RF SD: 0.179446, % Relative SD: 7.36382
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

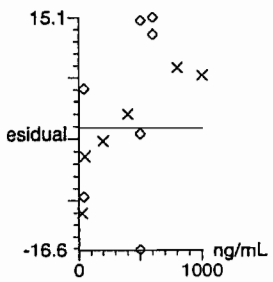

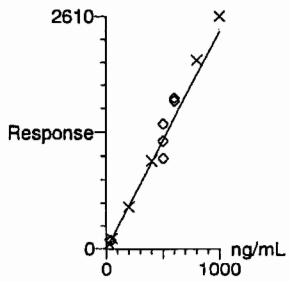

MM
04/11/10

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Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Compound name: 135-Trinitrobenzene
Response Factor: 4.22335
RRF SD: 0.287497, % Relative SD: 6.80733
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

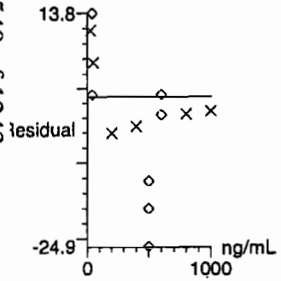

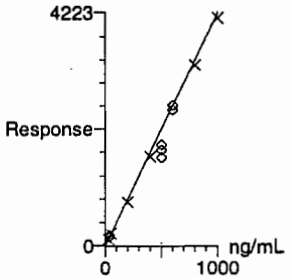

Compound name: 13-Dinitrobenzene-d4
Response Factor: 12.9961
RRF SD: 0.688911, % Relative SD: 5.30091
Response type: External Std, Area
Curve type: RF

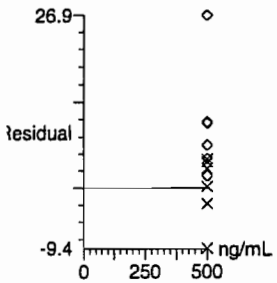

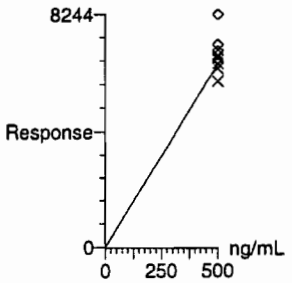

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ataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

ompound name: 13-Dinitrobenzene
esponse Factor: 1.28787
RF SD: 0.0235993, % Relative SD: 1.83243
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

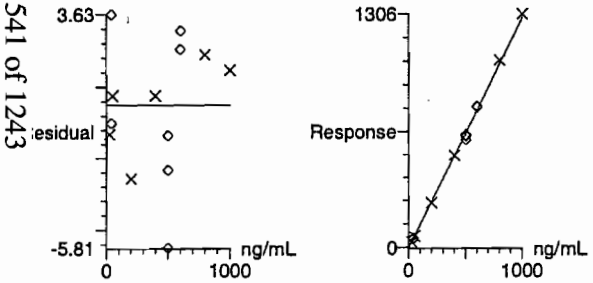

ompound name: Tetryl
esponse Factor: 1.02957
RF SD: 0.0870508, % Relative SD: 8.45507
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

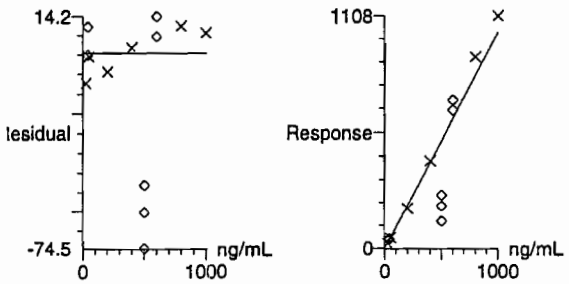

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ataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

ompound name: Nitrobenzene
esponse Factor: 0.601003
RF SD: 0.0562669, % Relative SD: 9.36216
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

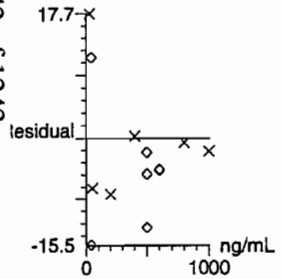

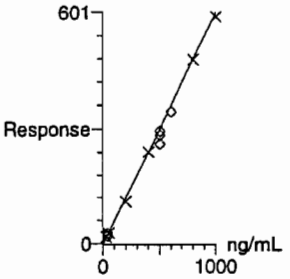

ompound name: 4-Amino-26-dinitrotoluene
esponse Factor: 0.311292
RF SD: 0.0114211, % Relative SD: 3.66892
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

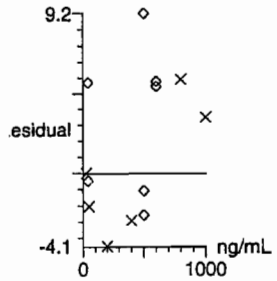

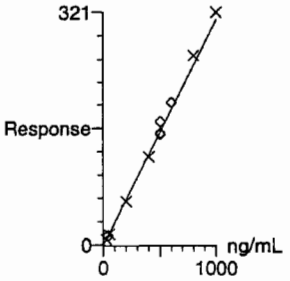

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ataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

ompound name: 2-Amino-46-dinitrotoluene
esponse Factor: 0.45683
RF SD: 0.0383897, % Relative SD: 8.4035
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

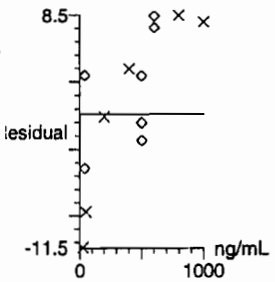

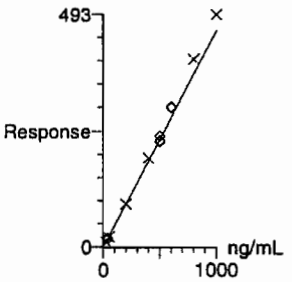

ompound name: 246-Trinitrotoluene
esponse Factor: 0.384794
RF SD: 0.0338323, % Relative SD: 8.79231
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

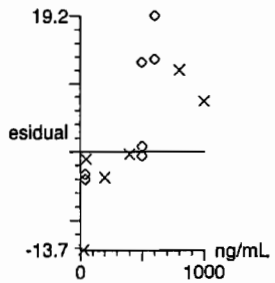

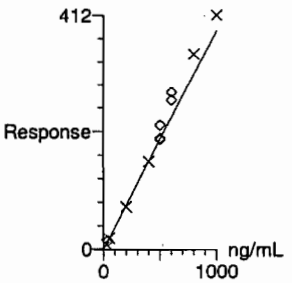

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Quantify Calibration Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Compound name: 34-dinitrotoluene
Response Factor: 1.02558
RF SD: 0.0367625, % Relative SD: 3.58456
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

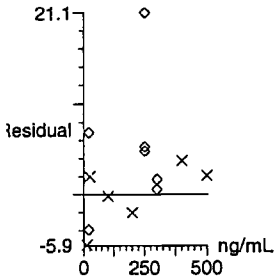

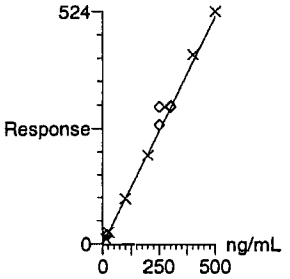

Compound name: 26-dinitrotoluene
Response Factor: 1.13734
RF SD: 0.0251449, % Relative SD: 2.21085
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

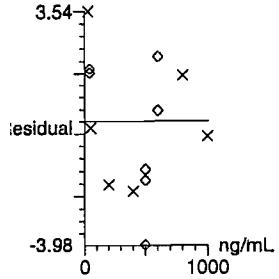

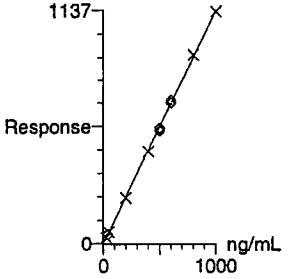

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uantify Calibration Report

EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

ompound name: 24-dinitrotoluene
esponse Factor: 0.264734
RF SD: 0.0238421, % Relative SD: 9.00607
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

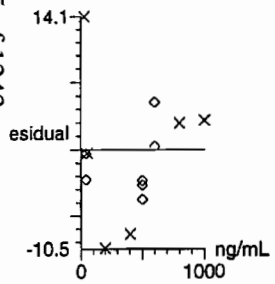

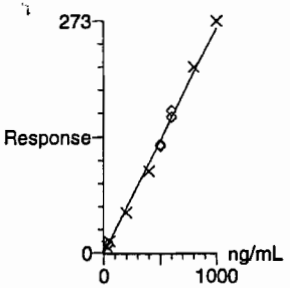

ompound name: 26-dinitrotoluene-d3
esponse Factor: 78.9572
RF SD: 5.12457, % Relative SD: 6.49031
esponse type: External Std, Area
urve type: RF

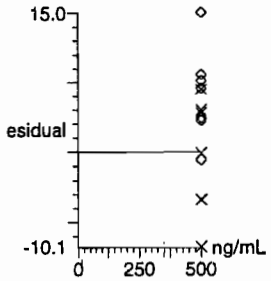

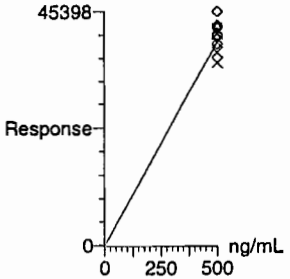

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ataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

ompound name: 2-Nitrotoluene
esponse Factor: 0.0767614
RF SD: 0.00649593, % Relative SD: 8.46249
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

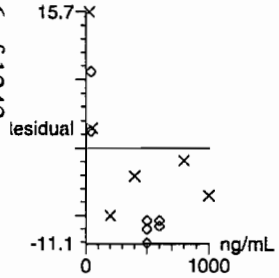

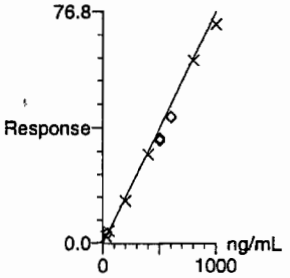

ompound name: 4-Nitrotoluene
esponse Factor: 0.0388638
RF SD: 0.00197819, % Relative SD: 5.09006
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

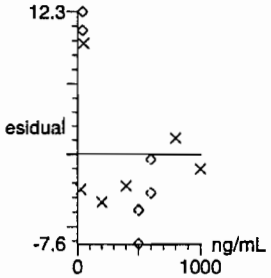

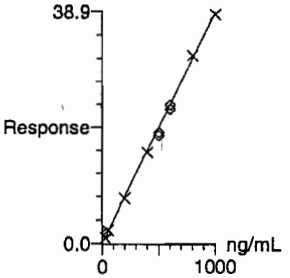

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ataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

ompound name: 3-Nitrotoluene
esponse Factor: 0.0545972
RF SD: 0.00651612, % Relative SD: 11.9349
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

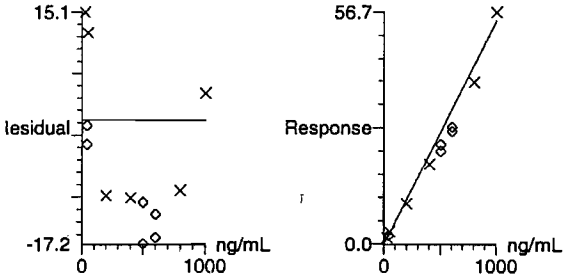

ompound name: PETN
oefficient of Determination: 0.999915
alibration curve: -0.000133771 * x^2 + 0.732159 * x + 3.27481
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None

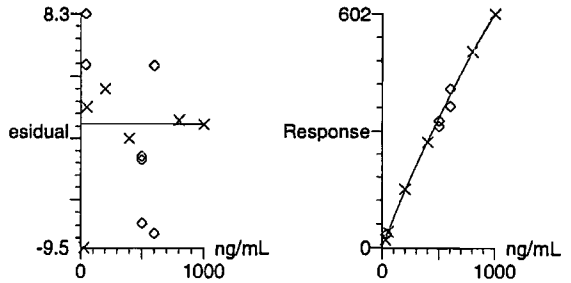

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ataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408003a
ate: 08-Apr-2010
me: 22:31:48
l: WXX100408-01
ial: 1:2,A

MHT 4/10/10

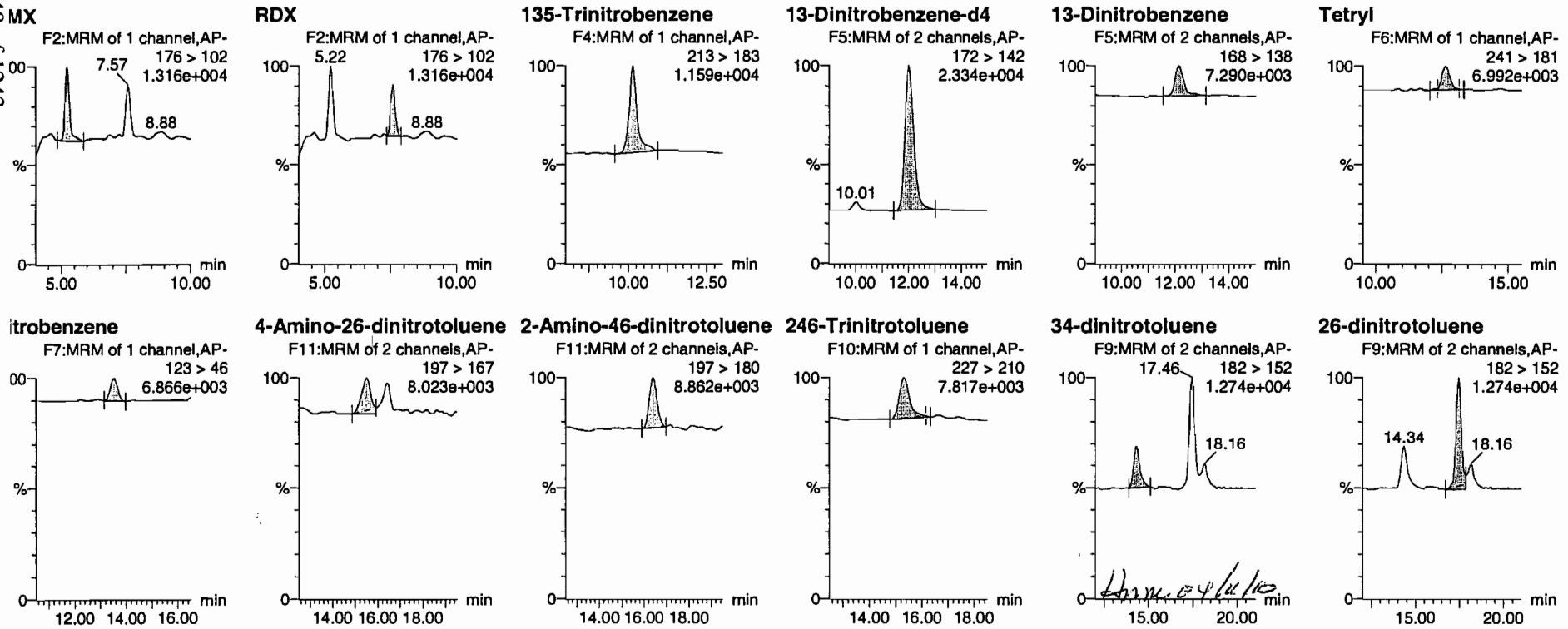

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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ataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

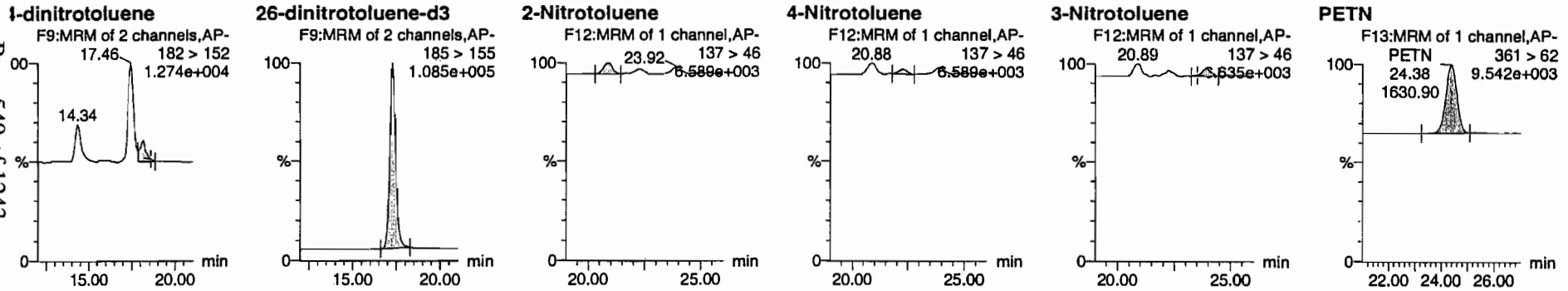

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
'XX100408-01	HMX	176 > 102	5.22	1091.802	6761.654	1091.802	80.735	bb			25.2752	101.1	1.1	30.2
'XX100408-01	RDX	176 > 102	7.57	728.995	6761.654	728.995	53.907	bb			22.1213	88.5	-11.5	21.0
'XX100408-01	135-Trinitrobenzene	213 > 183	10.14	1584.537	6761.654	1584.537	117.171	bb			27.7436	111.0	11.0	118.4
'XX100408-01	13-Dinitrobenzene-d4	172 > 142	12.00	6761.654		6761.654	6761.654	bb			520.2833	104.1	4.1	962.2
'XX100408-01	13-Dinitrobenzene	168 > 138	12.14	430.248	6761.654	430.248	31.815	bb			24.7038	98.8	-1.2	45.5
'XX100408-01	Tetryl	241 > 181	12.63	308.314	6761.654	308.314	22.799	MM	09-Apr-10	10:42:36	22.1439	88.6	-11.4	17.1
'XX100408-01	Nitrobenzene	123 > 46	13.54	239.200	6761.654	239.200	17.688	bb			29.4307	117.7	17.7	28.3
'XX100408-01	4-Amino-26-dinitrotoluene	197 > 167	15.49	642.043	41245.910	642.043	7.783	MM	09-Apr-10	10:43:25	25.0026	100.0	0.0	8.6
'XX100408-01	2-Amino-46-dinitrotoluene	197 > 180	16.41	833.536	41245.910	833.536	10.104	bb			22.1187	88.5	-11.5	23.8
'XX100408-01	246-Trinitrotoluene	227 > 210	15.31	684.811	41245.910	684.811	8.302	MM	09-Apr-10	10:53:43	21.5741	86.3	-13.7	43.8
'XX100408-01	34-dinitrotoluene	182 > 152	14.34	995.111	41245.910	995.111	12.063	bb			11.7623	94.1	-5.9	18.4
'XX100408-01	26-dinitrotoluene	182 > 152	17.46	2428.607	41245.910	2428.607	29.441	MM	09-Apr-10	10:45:48	25.8855	103.5	3.5	49.6
'XX100408-01	24-dinitrotoluene	182 > 152	18.16	622.780	41245.910	622.780	7.550	MM	09-Apr-10	10:48:21	28.5176	114.1	14.1	10.8
'XX100408-01	26-dinitrotoluene-d3	185 > 155	17.29	41245.910		41245.910	41245.910	bb			522.3833	104.5	4.5	4709.0
'XX100408-01	2-Nitrotoluene	137 > 46	20.88	183.226	41245.910	183.226	2.221	bb			28.9356	115.7	15.7	32.8
'XX100408-01	4-Nitrotoluene	137 > 46	22.26	77.736	41245.910	77.736	0.942	bb			24.2474	97.0	-3.0	14.5
'XX100408-01	3-Nitrotoluene	137 > 46	23.95	129.573	41245.910	129.573	1.571	MM	09-Apr-10	10:52:52	28.7695	115.1	15.1	15.8
'XX100408-01	PETN	361 > 62	24.38	1630.897	41245.910	1630.897	19.770	bb			22.6236	90.5	-9.5	53.8

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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MM 4/10/10

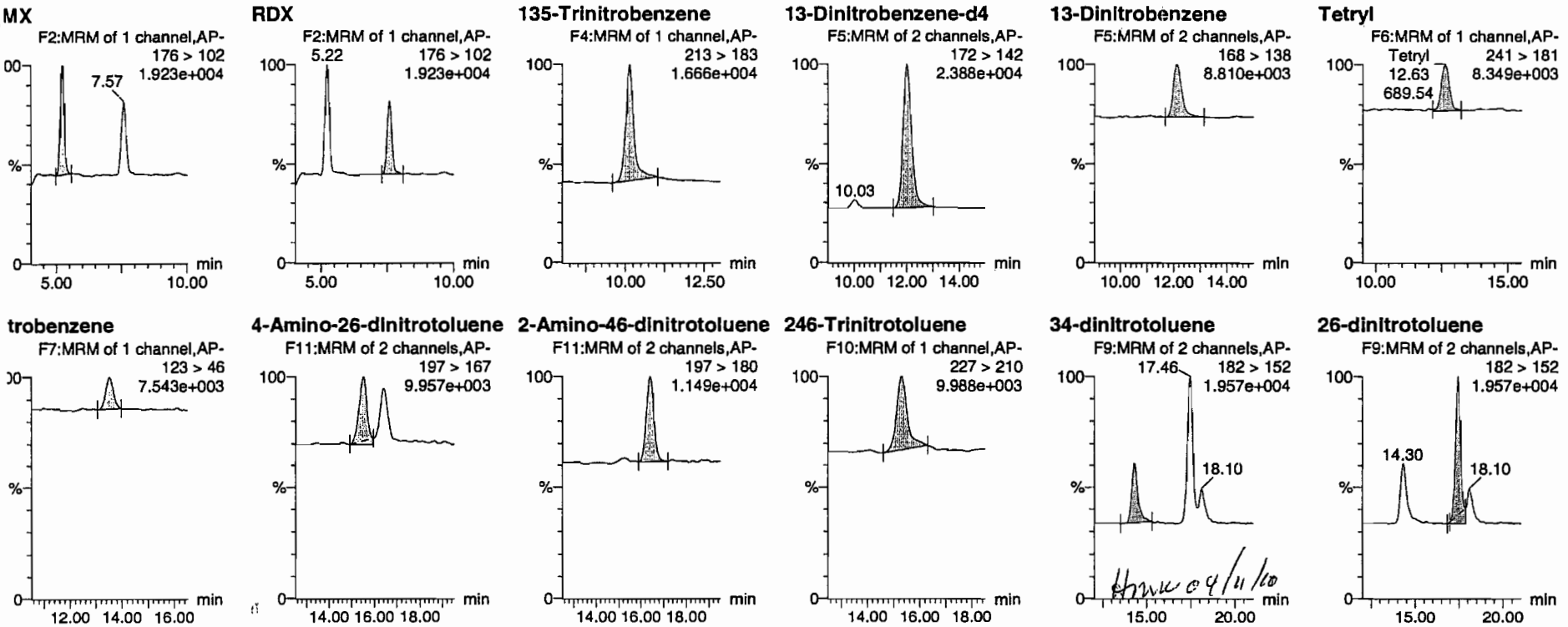

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EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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l-dinitrotoluene

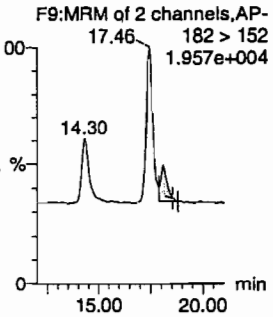

26-dinitrotoluene-d3

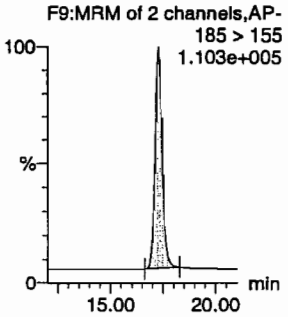

2-Nitrotoluene

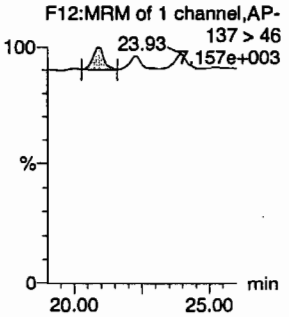

4-Nitrotoluene

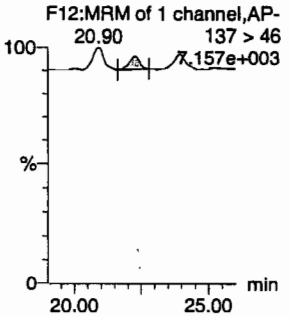

3-Nitrotoluene

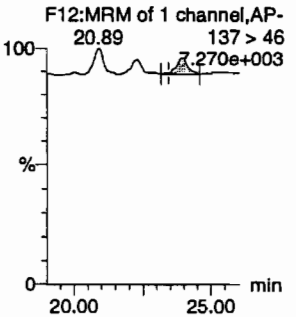

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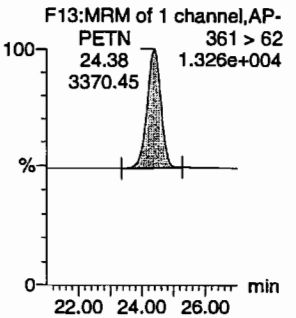

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'XX100408-02	HMX	176 > 102	5.22	2071.210	6795.654	2071.210	152.392	bb			47.7085	95.4	-4.6	162.3
'XX100408-02	RDX	176 > 102	7.57	1592.856	6795.654	1592.856	117.197	bb			48.0932	96.2	-3.8	108.8
'XX100408-02	135-Trinitrobenzene	213 > 183	10.14	3033.288	6795.654	3033.288	223.179	bb			52.8440	105.7	5.7	186.2
'XX100408-02	13-Dinitrobenzene-d4	172 > 142	12.00	6795.654		6795.654	6795.654	bb			522.8995	104.6	4.6	543.0
'XX100408-02	13-Dinitrobenzene	168 > 138	12.10	878.481	6795.654	878.481	64.636	bb			50.1878	100.4	0.4	121.0
'XX100408-02	Tetryl	241 > 181	12.63	689.543	6795.654	689.543	50.734	db			49.2770	98.6	-1.4	59.0
XX100408-02	Nitrobenzene	123 > 46	13.54	378.812	6795.654	378.812	27.872	bb			46.3752	92.8	-7.2	26.4
XX100408-02	4-Amino-26-dinitrotoluene	197 > 167	15.53	1287.167	42135.762	1287.167	15.274	MM	09-Apr-10	10:43:14	49.0665	98.1	-1.9	35.2
XX100408-02	2-Amino-46-dinitrotoluene	197 > 180	16.41	1762.401	42135.762	1762.401	20.913	bb			45.7793	91.6	-8.4	133.5
XX100408-02	246-Trinitrotoluene	227 > 210	15.31	1604.706	42135.762	1604.706	19.042	bb			49.4865	99.0	-1.0	171.1
XX100408-02	34-dinitrotoluene	182 > 152	14.30	2206.385	42135.762	2206.385	26.182	bb			25.5288	102.1	2.1	76.6
XX100408-02	26-dinitrotoluene	182 > 152	17.46	4780.886	42135.762	4780.886	56.732	MM	09-Apr-10	10:45:58	49.8812	99.8	-0.2	189.4
XX100408-02	24-dinitrotoluene	182 > 152	18.10	1111.143	42135.762	1111.143	13.185	MM	09-Apr-10	10:48:35	49.8057	99.6	-0.4	42.8
XX100408-02	26-dinitrotoluene-d3	185 > 155	17.29	42135.762		42135.762	42135.762	bb			533.6534	106.7	6.7	3979.8
XX100408-02	2-Nitrotoluene	137 > 46	20.90	330.889	42135.762	330.889	3.926	bb			51.1515	102.3	2.3	64.1
XX100408-02	4-Nitrotoluene	137 > 46	22.26	179.532	42135.762	179.532	2.130	bb			54.8170	109.6	9.6	37.1
XX100408-02	3-Nitrotoluene	137 > 46	23.96	258.094	42135.762	258.094	3.063	MM	09-Apr-10	10:52:23	56.0953	112.2	12.2	23.4
XX100408-02	PETN	361 > 62	24.38	3370.452	42135.762	3370.452	39.995	bb			50.6217	101.2	1.2	875.1

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MM 4/10/10

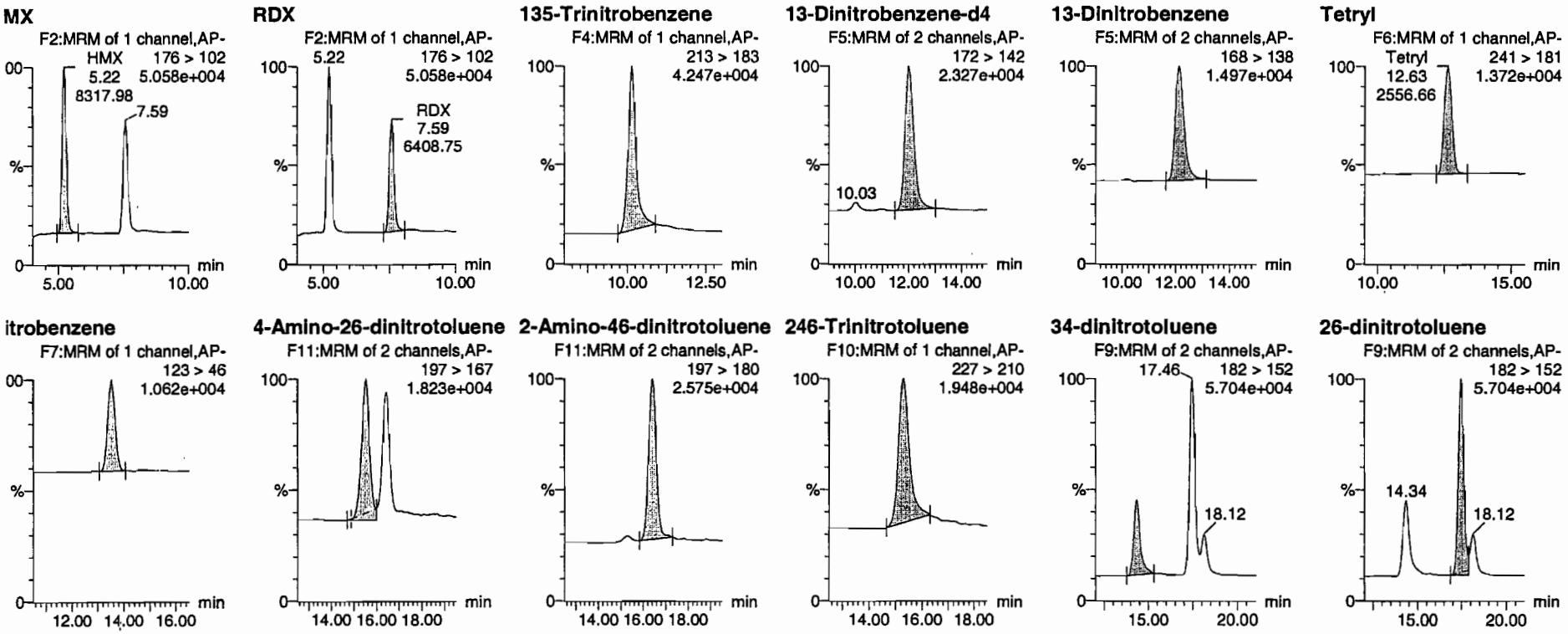

HMM 04/11/10

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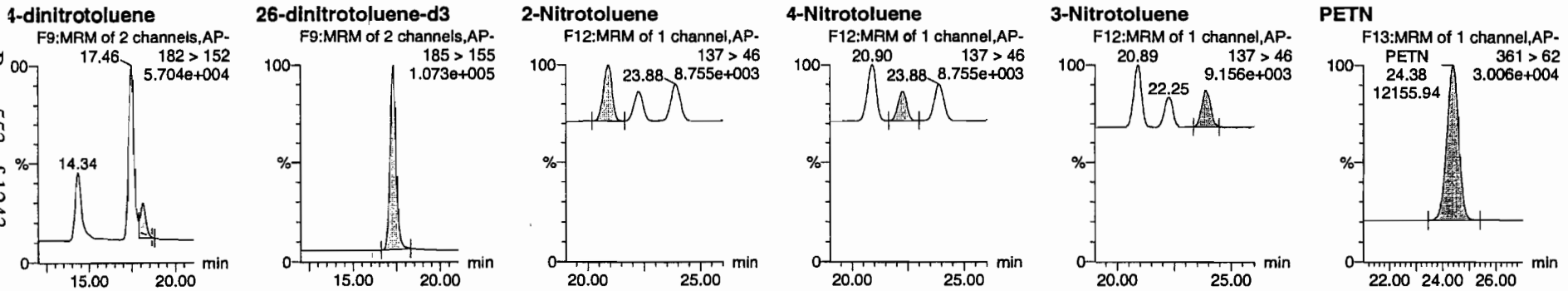

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XX100408-03	HMX	176 > 102	5.22	8317.981	6693.685	8317.981	621.330	bb			194.5161	97.3	-2.7	417.3
XX100408-03	RDX	176 > 102	7.59	6408.748	6693.685	6408.748	478.716	bb			196.4475	98.2	-1.8	283.8
XX100408-03	135-Trinitrobenzene	213 > 183	10.14	10606.825	6693.685	10606.825	792.301	bb			187.6001	93.8	-6.2	364.7
XX100408-03	13-Dinitrobenzene-d4	172 > 142	12.00	6693.685		6693.685	6693.685	bb			515.0534	103.0	3.0	361.2
XX100408-03	13-Dinitrobenzene	168 > 138	12.14	3344.546	6693.685	3344.546	249.828	bb			193.9855	97.0	-3.0	122.8
XX100408-03	Tetryl	241 > 181	12.63	2556.659	6693.685	2556.659	190.975	bb			185.4906	92.7	-7.3	242.9
XX100408-03	Nitrobenzene	123 > 46	13.54	1476.995	6693.685	1476.995	110.327	bb			183.5721	91.8	-8.2	164.0
XX100408-03	4-Amino-26-dinitrotoluene	197 > 167	15.53	4907.719	41106.352	4907.719	59.695	MM	09-Apr-10	10:43:38	191.7662	95.9	-4.1	159.0
XX100408-03	2-Amino-46-dinitrotoluene	197 > 180	16.41	7493.107	41106.352	7493.107	91.143	bb			199.5118	99.8	-0.2	583.4
XX100408-03	246-Trinitrotoluene	227 > 210	15.31	6098.811	41106.352	6098.811	74.183	bb			192.7873	96.4	-3.6	191.9
XX100408-03	34-dinitrotoluene	182 > 152	14.34	8414.092	41106.352	8414.092	102.345	bb			99.7927	99.8	-0.2	188.1
XX100408-03	26-dinitrotoluene	182 > 152	17.46	18316.104	41106.352	18316.104	222.789	MM	09-Apr-10	10:46:18	195.8861	97.9	-2.1	491.3
XX100408-03	24-dinitrotoluene	182 > 152	18.12	3897.868	41106.352	3897.868	47.412	MM	09-Apr-10	10:48:43	179.0928	89.5	-10.5	98.3
XX100408-03	26-dinitrotoluene-d3	185 > 155	17.29	41106.352		41106.352	41106.352	bb			520.6158	104.1	4.1	3476.9
XX100408-03	2-Nitrotoluene	137 > 46	20.90	1162.897	41106.352	1162.897	14.145	bb			184.2720	92.1	-7.9	88.0
XX100408-03	4-Nitrotoluene	137 > 46	22.26	612.866	41106.352	612.866	7.455	bb			191.8144	95.9	-4.1	46.6
XX100408-03	3-Nitrotoluene	137 > 46	23.86	803.310	41106.352	803.310	9.771	bb			178.9672	89.5	-10.5	43.9
XX100408-03	PETN	361 > 62	24.38	12155.943	41106.352	12155.943	147.860	bb			205.1684	102.6	2.6	7461.6

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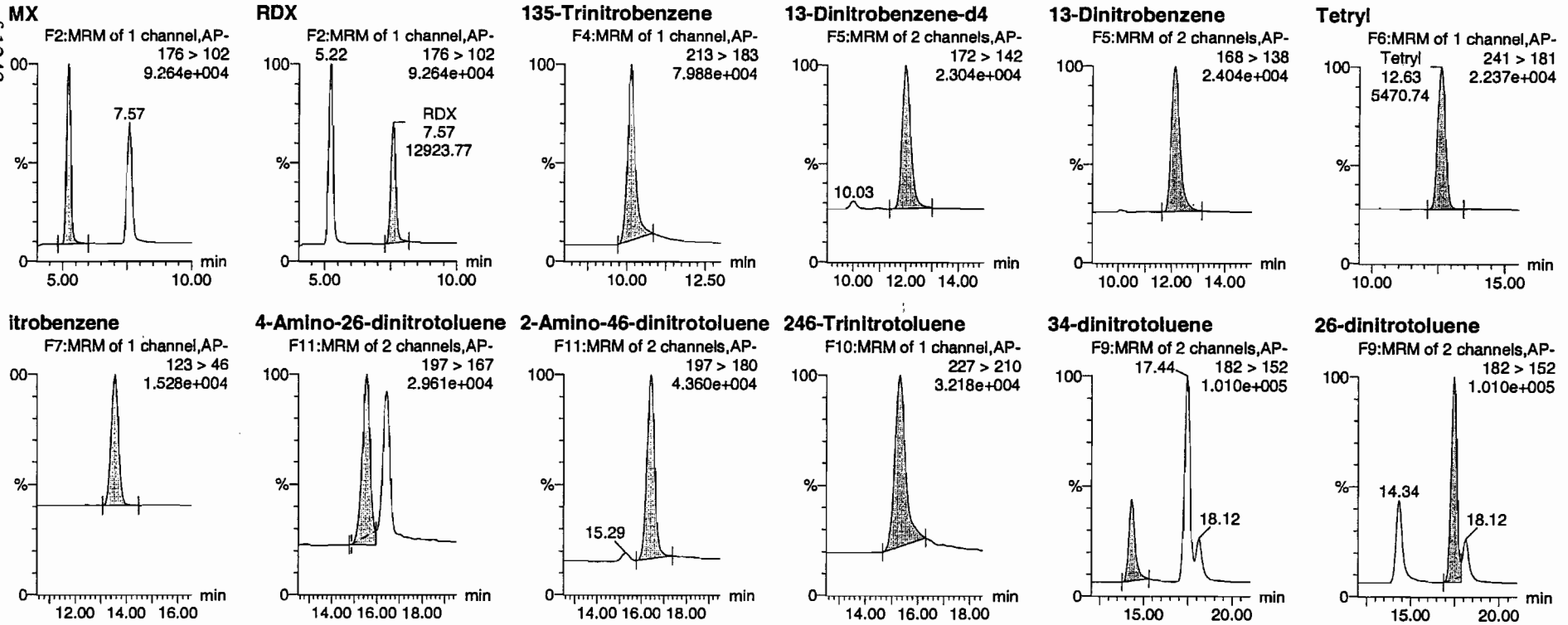

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

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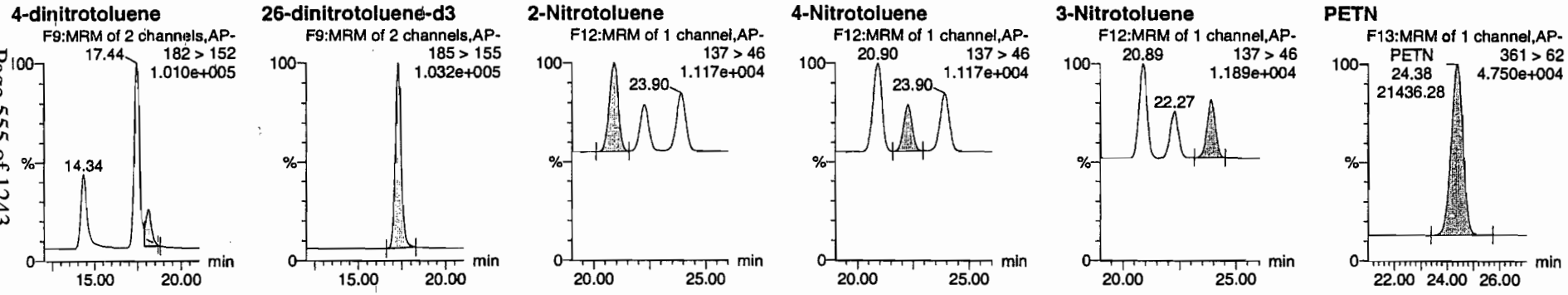

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/XX100408-04	RDX	176 > 102	7.57	12923.769	6511.661	12923.769	992.356	bb			407.2264	101.8	1.8	601.0
/XX100408-04	135-Trinitrobenzene	213 > 183	10.14	20881.182	6511.661	20881.182	1603.368	bb			379.6438	94.9	-5.1	3254.8
/XX100408-04	13-Dinitrobenzene-d4	172 > 142	11.97	6511.661		6511.661	6511.661	bb			501.0473	100.2	0.2	193.6
/XX100408-04	13-Dinitrobenzene	168 > 138	12.14	6735.461	6511.661	6735.461	517.185	bb			401.5809	100.4	0.4	567.0
/XX100408-04	Tetryl	241 > 181	12.63	5470.739	6511.661	5470.739	420.072	bb			408.0080	102.0	2.0	455.2
/XX100408-04	Nitrobenzene	123 > 46	13.54	3139.621	6511.661	3139.621	241.077	bb			401.1238	100.3	0.3	229.0
/XX100408-04	4-Amino-26-dinitrotoluene	197 > 167	15.53	9557.234	39429.430	9557.234	121.194	MM	09-Apr-10	10:43:46	389.3257	97.3	-2.7	352.4
/XX100408-04	2-Amino-46-dinitrotoluene	197 > 180	16.41	14963.298	39429.430	14963.298	189.748	bb			415.3578	103.8	3.8	532.2
/XX100408-04	246-Trinitrotoluene	227 > 210	15.31	12096.198	39429.430	12096.198	153.390	bb			398.6305	99.7	-0.3	84.0
/XX100408-04	34-dinitrotoluene	182 > 152	14.34	15829.145	39429.430	15829.145	200.728	bb			195.7210	97.9	-2.1	359.7
/XX100408-04	26-dinitrotoluene	182 > 152	17.44	35065.902	39429.430	35065.902	444.667	MM	09-Apr-10	10:46:28	390.9704	97.7	-2.3	907.9
/XX100408-04	24-dinitrotoluene	182 > 152	18.12	7597.563	39429.430	7597.563	96.344	MM	09-Apr-10	10:48:55	363.9266	91.0	-9.0	183.0
/XX100408-04	26-dinitrotoluene-d3	185 > 155	17.29	39429.430		39429.430	39429.430	bb			499.3774	99.9	-0.1	1540.4
/XX100408-04	2-Nitrotoluene	137 > 46	20.90	2343.453	39429.430	2343.453	29.717	bb			387.1352	96.8	-3.2	397.6
/XX100408-04	4-Nitrotoluene	137 > 46	22.26	1192.846	39429.430	1192.846	15.126	bb			389.2141	97.3	-2.7	208.2
/XX100408-04	3-Nitrotoluene	137 > 46	23.89	1536.785	39429.430	1536.785	19.488	bb			356.9373	89.2	-10.8	139.5
/XX100408-04	PETN	361 > 62	24.38	21436.277	39429.430	21436.277	271.831	bb			395.3591	98.8	-1.2	7379.9

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uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

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MM 4/10/10

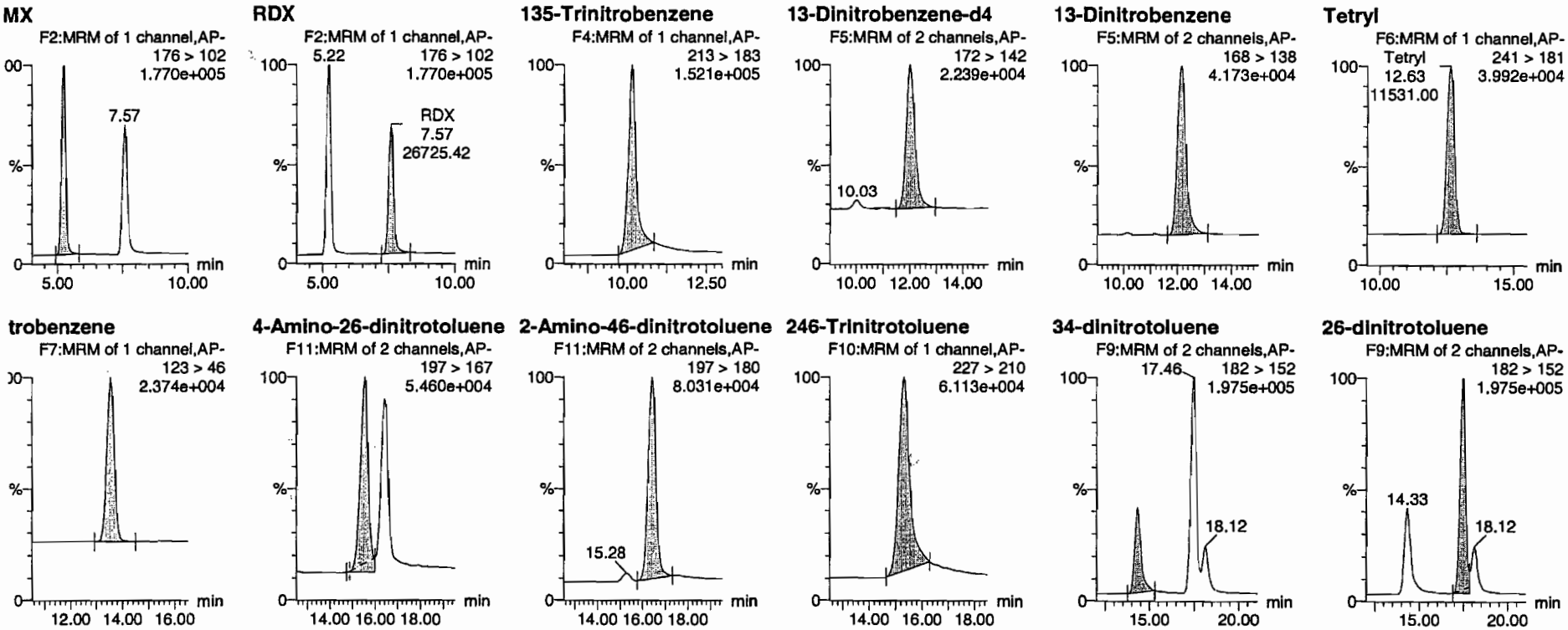

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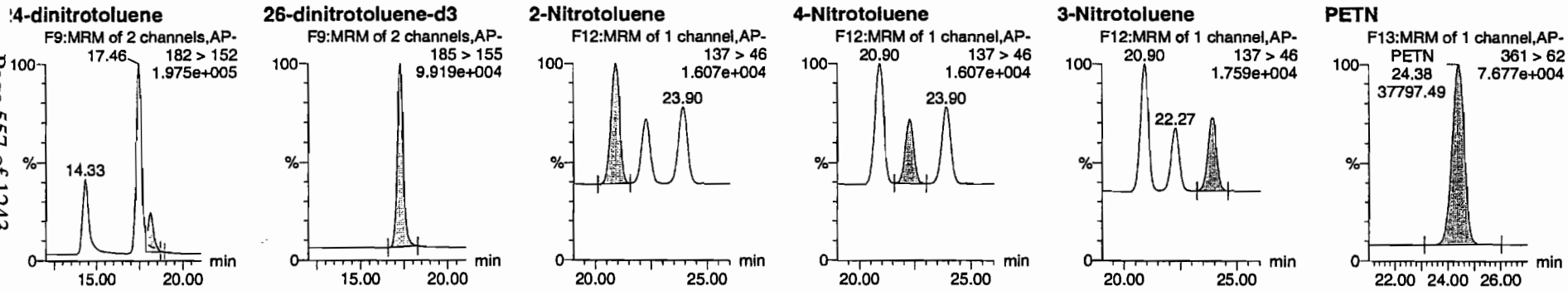

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VXX100408-05	HMX	176 > 102	5.22	33223.695	6336.354	33223.695	2621.673	bb			820.7510	102.6	2.6	782.1
VXX100408-05	RDX	176 > 102	7.57	26725.416	6336.354	26725.416	2108.895	bb			865.4132	108.2	8.2	535.4
VXX100408-05	135-Trinitrobenzene	213 > 183	10.14	41554.766	6336.354	41554.766	3279.075	bb			776.4160	97.1	-2.9	4664.7
VXX100408-05	13-Dinitrobenzene-d4	172 > 142	12.00	6336.354		6336.354	6336.354	bb			487.5581	97.5	-2.5	429.2
VXX100408-05	13-Dinitrobenzene	168 > 138	12.14	13320.454	6336.354	13320.454	1051.113	bb			816.1633	102.0	2.0	1094.4
VXX100408-05	Tetryl	241 > 181	12.63	11530.997	6336.354	11530.997	909.908	bb			883.7754	110.5	10.5	1331.3
VXX100408-05	Nitrobenzene	123 > 46	13.53	6054.559	6336.354	6054.559	477.764	bb			794.9432	99.4	-0.6	573.4
VXX100408-05	4-Amino-26-dinitrotoluene	197 > 167	15.52	19673.686	37469.934	19673.686	262.526	MM	09-Apr-10	10:43:55	843.3428	105.4	5.4	438.1
VXX100408-05	2-Amino-46-dinitrotoluene	197 > 180	16.40	29715.199	37469.934	29715.199	396.521	bb			867.9832	108.5	8.5	1024.2
VXX100408-05	246-Trinitrotoluene	227 > 210	15.30	25741.932	37469.934	25741.932	343.501	bb			892.6894	111.6	11.6	911.6
VXX100408-05	34-dinitrotoluene	182 > 152	14.33	31952.576	37469.934	31952.576	426.376	bb			415.7415	103.9	3.9	866.7
VXX100408-05	26-dinitrotoluene	182 > 152	17.46	69212.203	37469.934	69212.203	923.570	MM	09-Apr-10	10:46:35	812.0432	101.5	1.5	2202.9
VXX100408-05	24-dinitrotoluene	182 > 152	18.12	16307.411	37469.934	16307.411	217.607	MM	09-Apr-10	10:49:04	821.9815	102.7	2.7	459.7
VXX100408-05	26-dinitrotoluene-d3	185 > 155	17.29	37469.934		37469.934	37469.934	bb			474.5602	94.9	-5.1	2805.2
VXX100408-05	2-Nitrotoluene	137 > 46	20.90	4536.544	37469.934	4536.544	60.536	bb			788.6224	98.6	-1.4	774.9
VXX100408-05	4-Nitrotoluene	137 > 46	22.26	2363.277	37469.934	2363.277	31.536	bb			811.4399	101.4	1.4	411.7
VXX100408-05	3-Nitrotoluene	137 > 46	23.89	2953.433	37469.934	2953.433	39.411	bb			721.8442	90.2	-9.8	176.1
VXX100408-05	PETN	361 > 62	24.38	37797.492	37469.934	37797.492	504.371	bb			801.8968	100.2	0.2	12301.0

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408008a
Date: 09-Apr-2010
Time: 00:59:12
ID: WXX100408-06
Vial: 1:2,F

AMT 4/10/10

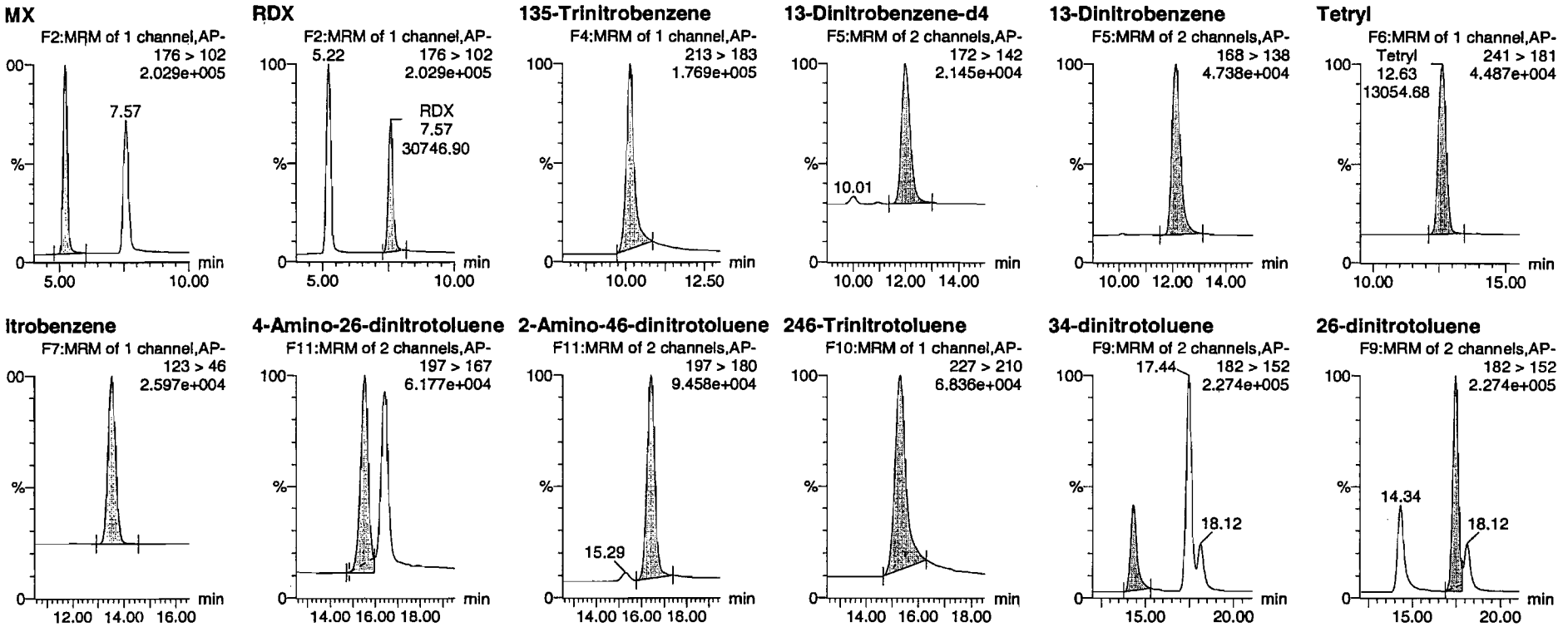

HMM 04/11/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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ataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

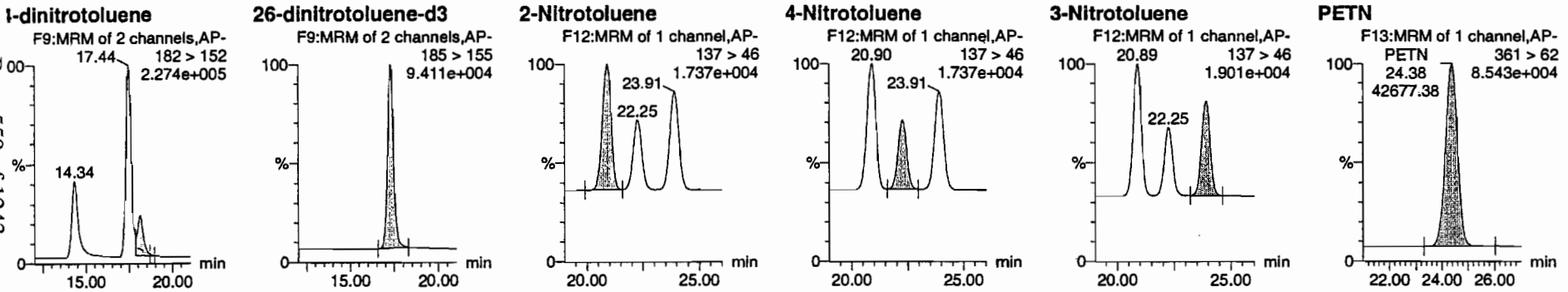

	Name	Trace lb	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XX100408-06	HMX	176 > 102	5.22	38573.215	5889.290	38573.215	3274.861	bb			1025.2...	102.5	2.5	1478.1
XX100408-06	RDX	176 > 102	7.57	30746.896	5889.290	30746.896	2610.408	bb			1071.2...	107.1	7.1	1030.1
XX100408-06	135-Trinitrobenzene	213 > 183	10.14	48538.594	5889.290	48538.594	4120.921	bb			975.7472	97.6	-2.4	2752.3
XX100408-06	13-Dinitrobenzene-d4	172 > 142	12.00	5889.290		5889.290	5889.290	bb			453.1583	90.6	-9.4	654.8
XX100408-06	13-Dinitrobenzene	168 > 138	12.14	15381.786	5889.290	15381.786	1305.912	bb			1014.0...	101.4	1.4	831.8
XX100408-06	Tetryl	241 > 181	12.63	13054.682	5889.290	13054.682	1108.341	bb			1076.5...	107.7	7.7	930.4
XX100408-06	Nitrobenzene	123 > 46	13.54	6943.883	5889.290	6943.883	589.535	bb			980.9175	98.1	-1.9	780.0
XX100408-06	4-Amino-26-dinitrotoluene	197 > 167	15.53	22804.184	35484.121	22804.184	321.329	MM	09-Apr-10	10:44:03	1032.2...	103.2	3.2	255.8
XX100408-06	2-Amino-46-dinitrotoluene	197 > 180	16.41	34972.992	35484.121	34972.992	492.798	bb			1078.7...	107.9	7.9	696.5
XX100408-06	246-Trinitrotoluene	227 > 210	15.31	29245.158	35484.121	29245.158	412.088	bb			1070.9...	107.1	7.1	518.0
XX100408-06	34-dinitrotoluene	182 > 152	14.34	37191.707	35484.121	37191.707	524.061	bb			510.9901	102.2	2.2	683.1
XX100408-06	26-dinitrotoluene	182 > 152	17.44	80315.352	35484.121	80315.352	1131.708	MM	09-Apr-10	10:46:43	995.0477	99.5	-0.5	1732.4
XX100408-06	24-dinitrotoluene	182 > 152	18.12	19359.293	35484.121	19359.293	272.788	MM	09-Apr-10	10:49:15	1030.4...	103.0	3.0	367.5
XX100408-06	26-dinitrotoluene-d3	185 > 155	17.29	35484.121		35484.121	35484.121	bb			449.4097	89.9	-10.1	1432.4
XX100408-06	2-Nitrotoluene	137 > 46	20.90	5145.653	35484.121	5145.653	72.506	bb			944.5683	94.5	-5.5	381.0
XX100408-06	4-Nitrotoluene	137 > 46	22.25	2723.218	35484.121	2723.218	38.372	bb			987.3542	98.7	-1.3	207.6
XX100408-06	3-Nitrotoluene	137 > 46	23.92	4021.241	35484.121	4021.241	56.663	bb			1037.8...	103.8	3.8	126.8
XX100408-06	PETN	361 > 62	24.38	42677.375	35484.121	42677.375	601.359	bb			999.3454	99.9	-0.1	16487.7

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0408010a

Analysis Date: 09–APR–10 01:58

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
4–Amino–2,6–dinitrotoluene	600	631.912	105	
HMX	600	600.63	100	
Nitrobenzene	600	573.106	96	
PETN	600	549.302	92	
RDX	600	676.458	113	
Tetryl	600	637.74	106	
m–Dinitrobenzene	600	613.434	102	
m–Nitrotoluene	600	502.386	84	
o–Nitrotoluene	600	545.024	91	
p–Nitrotoluene	600	597.413	100	
1,3,5–Trinitrobenzene	600	581.429	97	
1,3–Dinitrobenzene–d4	500	523.283	105	
2,4,6–Trinitrotoluene	600	678.465	113	
2,4–Dinitrotoluene	600	629.676	105	
2,6–Dinitrotoluene	600	612.703	102	
2,6–Dinitrotoluene–d3	500	516.716	103	
2–Amino–4,6–dinitrotoluene	600	650.562	108	
3,4–Dinitrotoluene	300	305.309	102	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408010a
Date: 09-Apr-2010
Time: 01:58:08
ID: WXX100408-07ICV
Vial: 1:1,B

MH 4/10/10

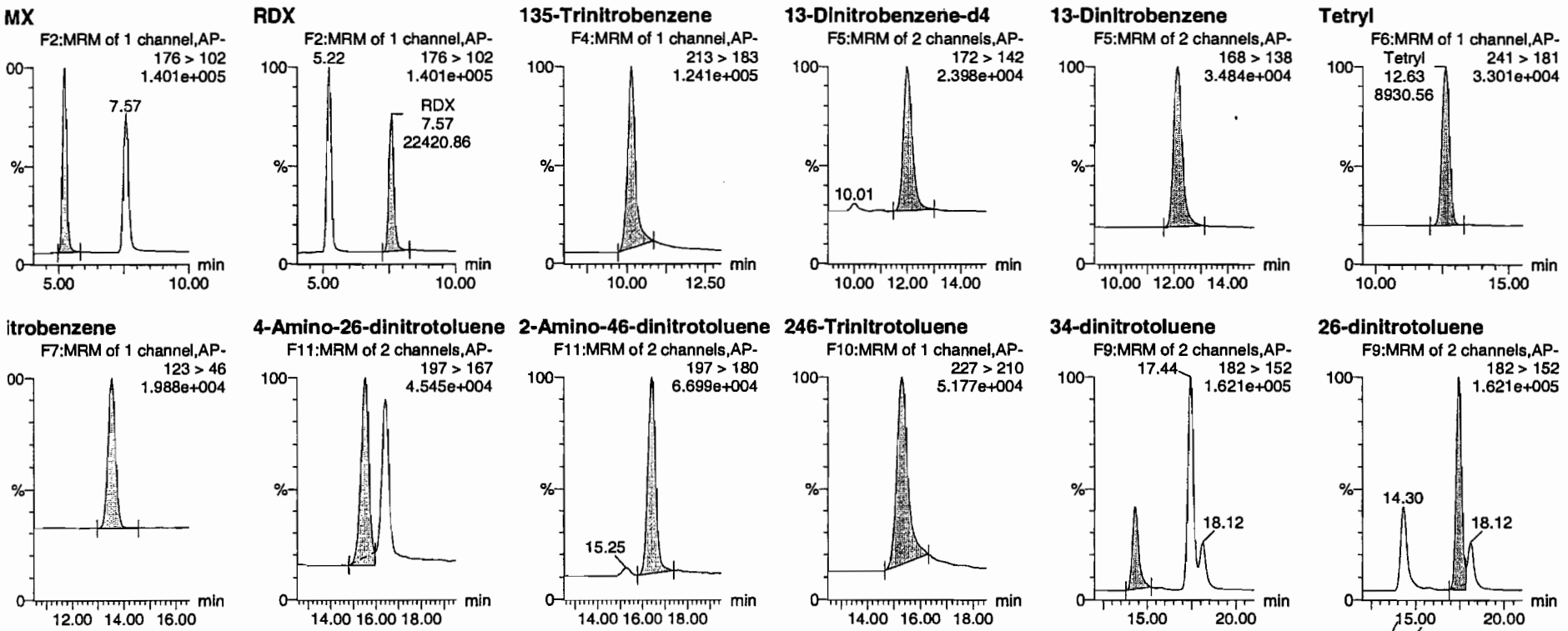

dhm 04/11/10

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uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

4-dinitrotoluene

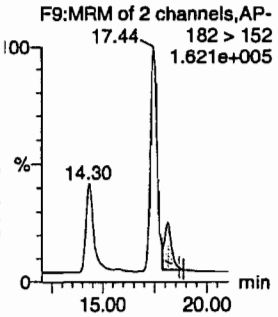

26-dinitrotoluene-d3

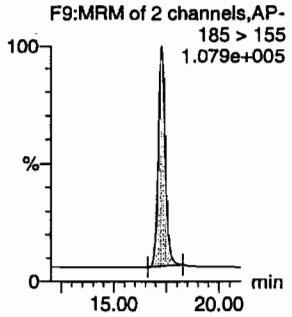

2-Nitrotoluene

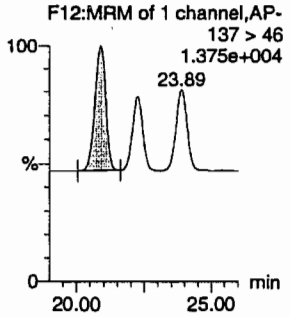

4-Nitrotoluene

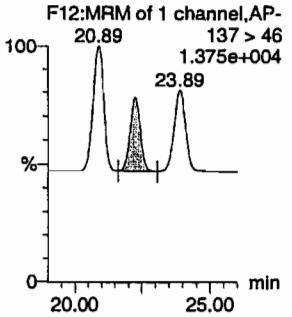

3-Nitrotoluene

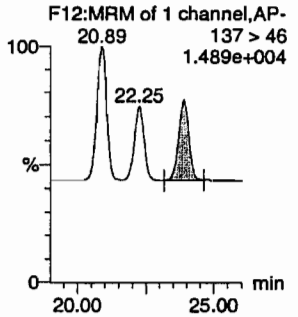

PETN

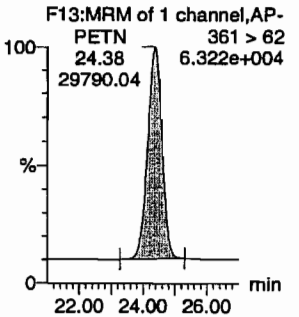

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
/XX100408-07ICV	HMX	176 > 102	5.22	26094.779	6800.638	26094.779	1918.554	db			600.6298	100.1	0.1	1169.6
/XX100408-07ICV	RDX	176 > 102	7.57	22420.859	6800.638	22420.859	1648.438	bb			676.4583	112.7	12.7	866.4
/XX100408-07ICV	135-Trinitrobenzene	213 > 183	10.14	33398.980	6800.638	33398.980	2455.577	bb			581.4289	96.9	-3.1	2909.4
/XX100408-07ICV	13-Dinitrobenzene-d4	172 > 142	11.97	6800.638		6800.638	6800.638	bb			523.2830	104.7	4.7	477.0
/XX100408-07ICV	13-Dinitrobenzene	168 > 138	12.14	10745.340	6800.638	10745.340	790.024	bb			613.4342	102.2	2.2	1774.4
/XX100408-07ICV	Tetryl	241 > 181	12.63	8930.563	6800.638	8930.563	656.597	bb			637.7400	106.3	6.3	644.7
/XX100408-07ICV	Nitrobenzene	123 > 46	13.54	4684.807	6800.638	4684.807	344.439	bb			573.1062	95.5	-4.5	471.2
/XX100408-07ICV	4-Amino-26-dinitrotoluene	197 > 167	15.53	16050.857	40798.398	16050.857	196.709	MM	09-Apr-10	10:44:14	631.9118	105.3	5.3	489.6
/XX100408-07ICV	2-Amino-46-dinitrotoluene	197 > 180	16.41	24250.242	40798.398	24250.242	297.196	bb			650.5618	108.4	8.4	710.9
/XX100408-07ICV	246-Trinitrotoluene	227 > 210	15.31	21302.396	40798.398	21302.396	261.069	bb			678.4651	113.1	13.1	447.7
/XX100408-07ICV	34-dinitrotoluene	182 > 152	14.30	25549.520	40798.398	25549.520	313.119	bb			305.3093	101.8	1.8	603.7
/XX100408-07ICV	26-dinitrotoluene	182 > 152	17.44	56860.898	40798.398	56860.898	696.852	MM	09-Apr-10	10:46:50	612.7030	102.1	2.1	1549.3
/XX100408-07ICV	24-dinitrotoluene	182 > 152	18.12	13601.919	40798.398	13601.919	166.697	MM	09-Apr-10	10:49:28	629.6758	104.9	4.9	329.9
/XX100408-07ICV	26-dinitrotoluene-d3	185 > 155	17.29	40798.398		40798.398	40798.398	bb			516.7156	103.3	3.3	5037.6
/XX100408-07ICV	2-Nitrotoluene	137 > 46	20.89	3413.753	40798.398	3413.753	41.837	bb			545.0244	90.8	-9.2	41.5
/XX100408-07ICV	4-Nitrotoluene	137 > 46	22.26	1894.492	40798.398	1894.492	23.218	bb			597.4125	99.6	-0.4	24.1
/XX100408-07ICV	3-Nitrotoluene	137 > 46	23.89	2238.110	40798.398	2238.110	27.429	bb			502.3861	83.7	-16.3	73.3
/XX100408-07ICV	PETN	361 > 62	24.38	29790.043	40798.398	29790.043	365.088	bb			549.3025	91.6	-8.4	7925.2

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/09/10
Time of Injection: 0158
Standard Number: WXX100408-07ICV
Data File: EXP0408010a

HMX		100.1
RDX		112.7
135-TNB		96.9
13-DNB		102.2
Tetryl		106.3
Nitrobenzene		95.5
4A-26-DNT		105.3
2A-46-DNT		108.4
246-TNT		113.1
34-DNT(surr)		101.8
26-DNT		102.1
24-DNT		104.9
2-NT		90.8
4-NT		99.6
3-NT		83.7
PETN		91.6
Total		1615.0
Average		100.9

MJT 4/10/10

4/12/10 04/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2039

Lab Code: GEL

Run Date: 05-APR-10,08-APR-10,09-APR-10,12-APR-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	1	2	3	4	5	6	Ave RF	RSD	Q
Data File:	EXP0412003a	EXP0412004a	EXP0412005a	EXP0412006a	EXP0412007a	EXP0412008a			
Parmname									
1,3,5-Trinitrobenzene	4.711	4.33	4.184	4.118	4.135	4.46	4.323	5.342	
1,3-Dinitrobenzene-d4	11.467	12.345	11.86	12.536	12.341	10.015	11.761	7.996	
2,4,6-Trinitrotoluene	.41	.394	.427	.449	.461	.469	0.435	6.752	
2,4-Dinitrotoluene	.262	.241	.266	.256	.262	.279	0.261	4.785	
2,6-Dinitrotoluene	1.228	1.123	1.137	1.19	1.203	1.22	1.184	3.683	
2,6-Dinitrotoluene-d3	63.991	74.817	73.595	74.921	70.943	61.531	69.966	8.311	
2-Amino-4,6-dinitrotoluene	.484	.481	.503	.515	.535	.556	0.512	5.686	
3,4-Dinitrotoluene	1.117	.974	.984	1.041	1.027	1.044	1.031	4.983	
4-Amino-2,6-dinitrotoluene	.361	.326	.32	.335	.34	.344	0.338	4.22	
HMX	3.896	4.064	4.283	4.375	4.325	4.489	4.239	5.149	
Nitrobenzene	.565	.604	.633	.662	.625	.674	0.627	6.339	
RDX	2.18	2.427	3.051	3.081	3.073	3.36	2.862	15.868	
Tetryl	1.226	1.243	1.421	1.278	1.24	1.37	1.296	6.198	
m-Dinitrobenzene	1.304	1.349	1.33	1.336	1.312	1.391	1.337	2.342	
m-Nitrotoluene	.055	.071	.054	.053	.061	.056	0.058	11.551	
o-Nitrotoluene	.105	.086	.078	.084	.079	.088	0.087	11.254	
p-Nitrotoluene	.042	.041	.038	.043	.042	.044	0.042	5.194	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2039

Lab Code: GEL

Run Date: 05-APR-10,08-APR-10,09-APR-10,12-APR-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	1	2	3	4	5	6	X	X^2	Intercept	COD	Q
Data File:	EXP0412003a	EXP0412004a	EXP0412005a	EXP0412006a	EXP0412007a	EXP0412008a					
Parmname:											
PETN	2009.76	4470.27	14910.6	28870.8	46927.1	49397.1	1.007	-.00022	9.637	.9994	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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lethod: C:\MASSLYNX\New_Exp.PRO\MethDB\041210expa.mdb, Time: Tue Apr 13 09:03:30 2010
alibration: Untitled, Time: Tue Apr 13 11:12:22 2010

ompound name: HMX
esponse Factor: 4.23867
RF SD: 0.218263, % Relative SD: 5.14933
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

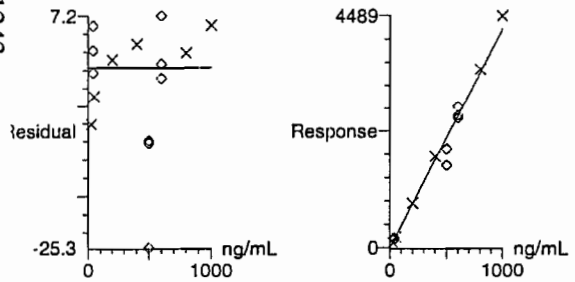

MMT
4/13/10

ompound name: RDX
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RF SD: 0.454164, % Relative SD: 15.8676
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

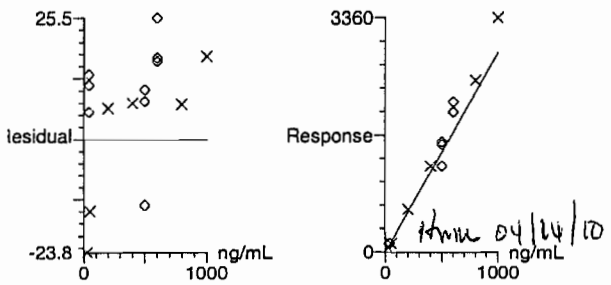

HMM 04/14/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

ompound name: 135-Trinitrobenzene
esponse Factor: 4.32298
RF SD: 0.230915, % Relative SD: 5.34157
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

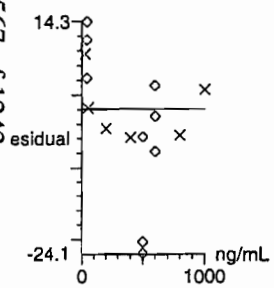

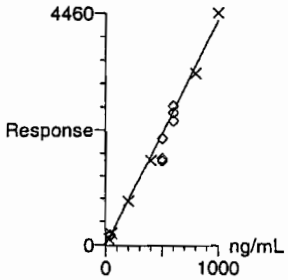

ompound name: 13-Dinitrobenzene-d4
esponse Factor: 11.7607
RF SD: 0.940441, % Relative SD: 7.99645
esponse type: External Std, Area
urve type: RF

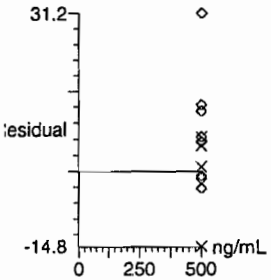

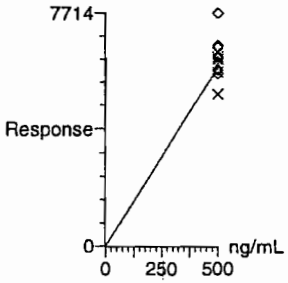

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ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

ompound name: 13-Dinitrobenzene
esponse Factor: 1.33707
RF SD: 0.0313205, % Relative SD: 2.34247
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

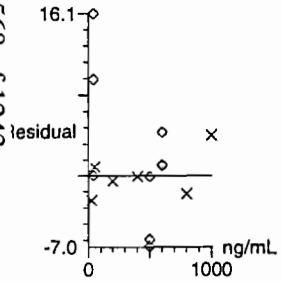

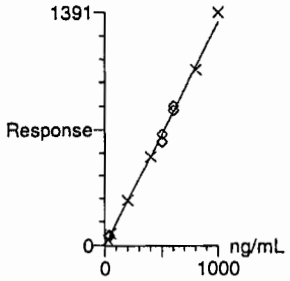

ompound name: Tetryl
esponse Factor: 1.29627
RF SD: 0.0803478, % Relative SD: 6.19837
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

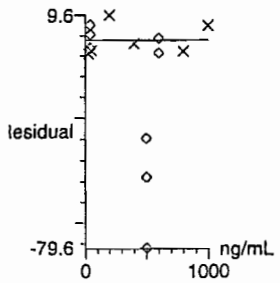

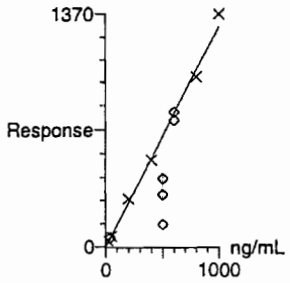

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ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

ompound name: Nitrobenzene
esponse Factor: 0.627297
RF SD: 0.0397666, % Relative SD: 6.33936
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

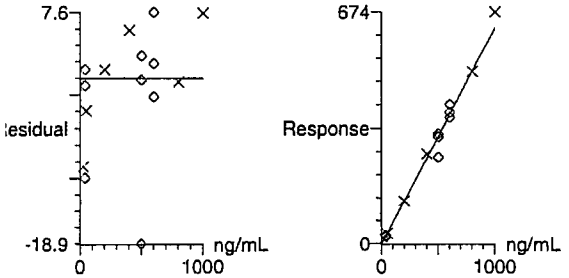

ompound name: 4-Amino-26-dinitrotoluene
esponse Factor: 0.337763
RF SD: 0.014254, % Relative SD: 4.22013
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

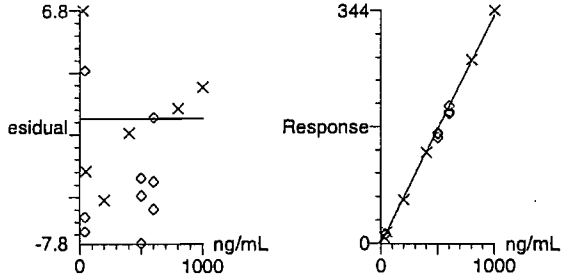

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ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

ompound name: 2-Amino-46-dinitrotoluene
esponse Factor: 0.512197
RF SD: 0.0291218, % Relative SD: 5.68567
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

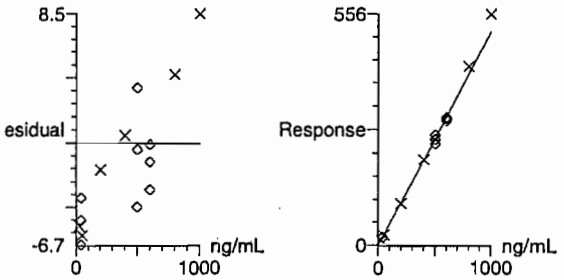

ompound name: 246-Trinitrotoluene
esponse Factor: 0.435033
RF SD: 0.0293746, % Relative SD: 6.75226
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

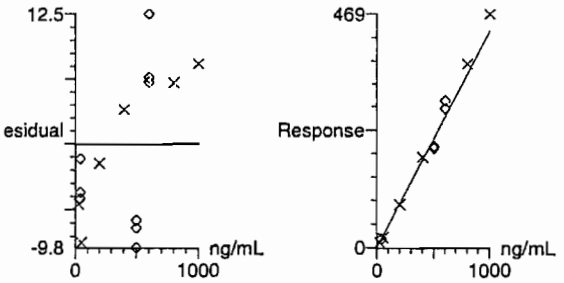

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ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

ompound name: 34-dinitrotoluene
esponse Factor: 1.03113
RF SD: 0.0513762, % Relative SD: 4.98253
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

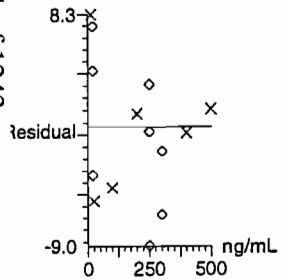

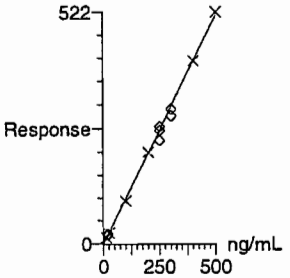

ompound name: 26-dinitrotoluene
esponse Factor: 1.18354
RF SD: 0.0435946, % Relative SD: 3.68342
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

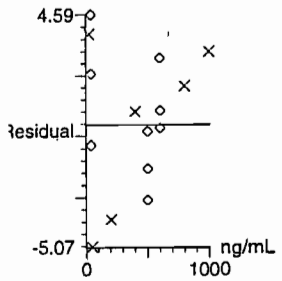

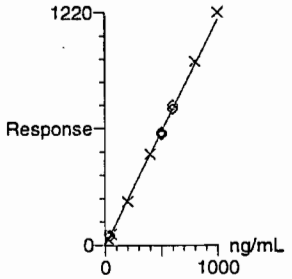

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Quantify Calibration Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Compound name: 24-dinitrotoluene
Response Factor: 0.261004
IRF SD: 0.0124888, % Relative SD: 4.7849
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

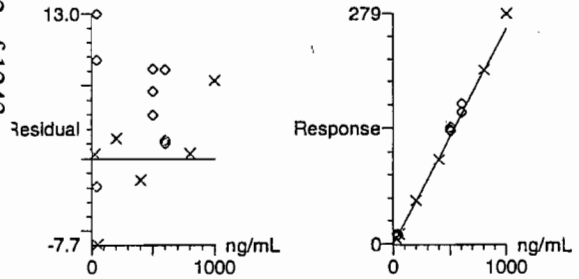

Compound name: 26-dinitrotoluene-d3
Response Factor: 69.9664
IRF SD: 5.81467, % Relative SD: 8.31066
Response type: External Std, Area
Curve type: RF

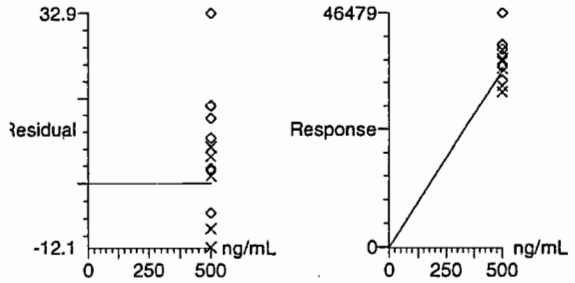

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Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Compound name: 2-Nitrotoluene
Response Factor: 0.0865882
RRF SD: 0.00974436, % Relative SD: 11.2537
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

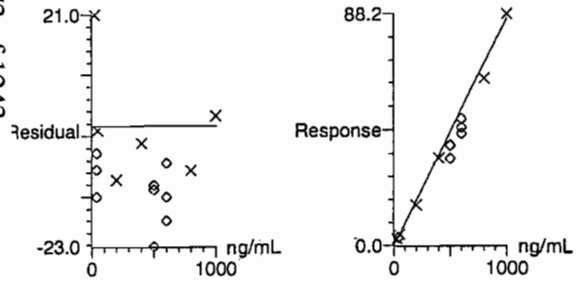

Compound name: 4-Nitrotoluene
Response Factor: 0.0414794
RRF SD: 0.00215463, % Relative SD: 5.19445
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

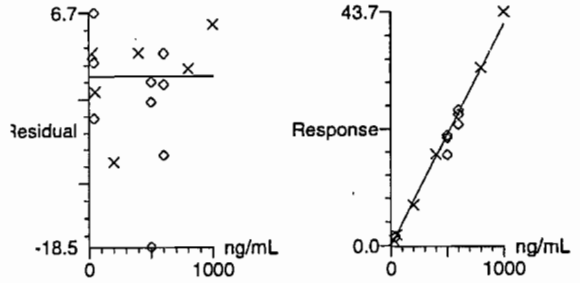

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Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Compound name: 3-Nitrotoluene
Response Factor: 0.058302
RRF SD: 0.00673426, % Relative SD: 11.5507
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

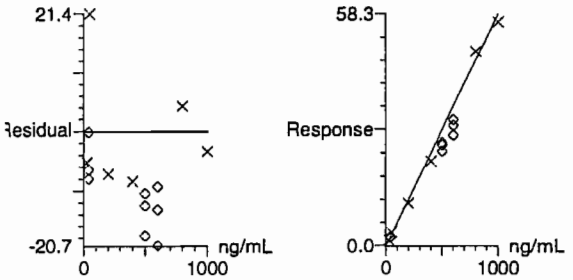

Compound name: PETN
Coefficient of Determination: 0.999447
Calibration curve: -0.000220026 * x^2 + 1.0065 * x + 9.6373
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None

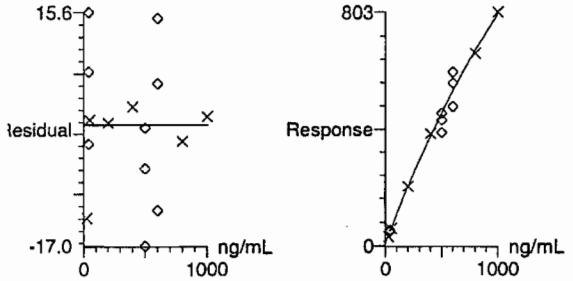

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ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412003a
ate: 12-Apr-2010
ime: 16:39:41
): WXX100412-01
ial: 1:2,A

MM 4/13/10

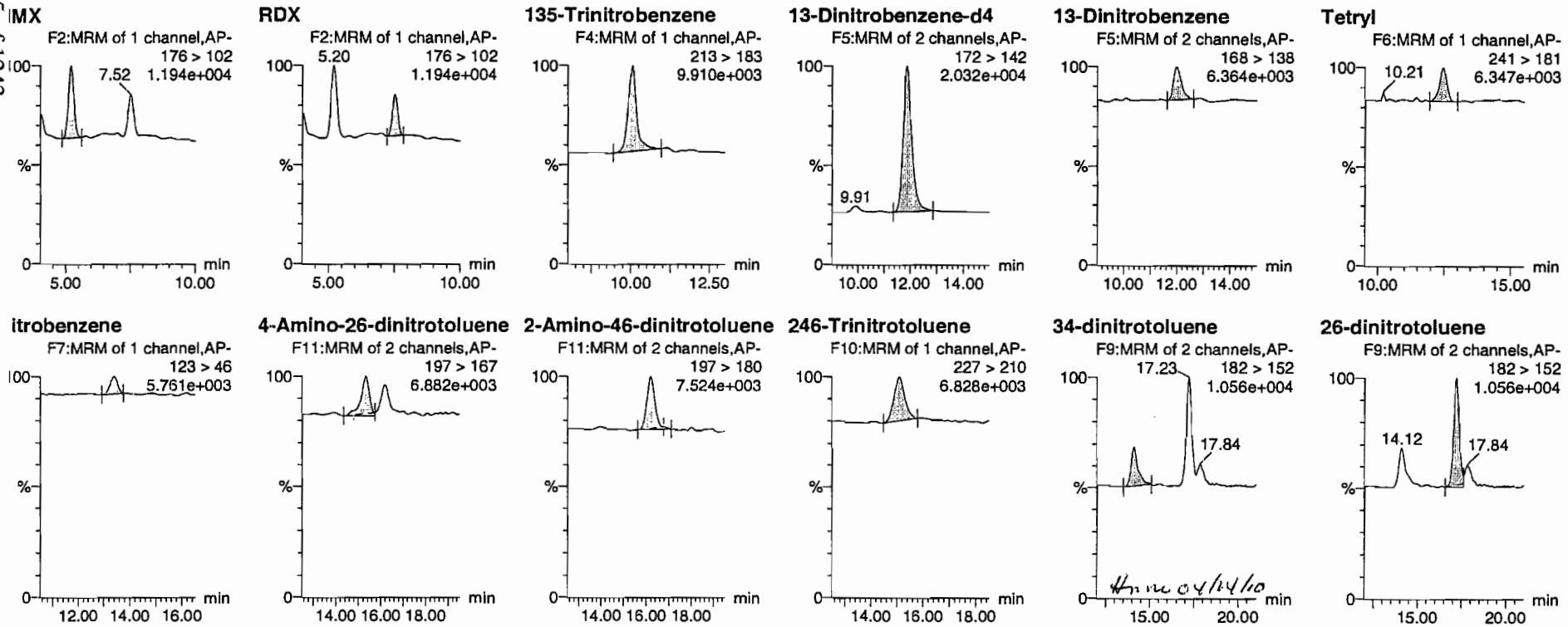

HMM 04/14/10

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

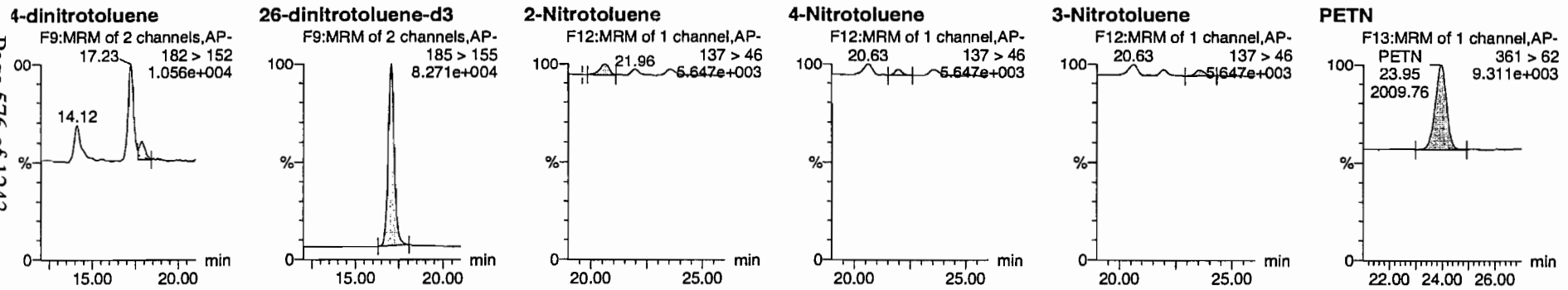

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
/XX100412-01	HMX	176 > 102	5.20	1116.955	5733.373	1116.955	97.408	bb			22.9809	91.9	-8.1	101.4
/XX100412-01	RDX	176 > 102	7.52	624.912	5733.373	624.912	54.498	bb			19.0405	76.2	-23.8	58.2
/XX100412-01	135-Trinitrobenzene	213 > 183	10.05	1350.600	5733.373	1350.600	117.784	bb			27.2460	109.0	9.0	56.3
/XX100412-01	13-Dinitrobenzene-d4	172 > 142	11.87	5733.373		5733.373	5733.373	bb			487.5016	97.5	-2.5	311.2
/XX100412-01	13-Dinitrobenzene	168 > 138	11.97	373.729	5733.373	373.729	32.592	bb			24.3760	97.5	-2.5	81.9
/XX100412-01	Tetryl	241 > 181	12.45	351.472	5733.373	351.472	30.651	bb			23.6458	94.6	-5.4	39.4
/XX100412-01	Nitrobenzene	123 > 46	13.41	161.898	5733.373	161.898	14.119	bb			22.5076	90.0	-10.0	13.2
/XX100412-01	4-Amino-26-dinitrotoluene	197 > 167	15.32	577.114	31995.521	577.114	9.019	MM	13-Apr-10	11:00:41	26.7012	106.8	6.8	20.3
/XX100412-01	2-Amino-46-dinitrotoluene	197 > 180	16.19	774.429	31995.521	774.429	12.102	MM	13-Apr-10	11:03:35	23.6279	94.5	-5.5	21.0
/XX100412-01	246-Trinitrotoluene	227 > 210	15.10	656.316	31995.521	656.316	10.256	bb			23.5761	94.3	-5.7	51.9
/XX100412-01	34-dinitrotoluene	182 > 152	14.12	893.652	31995.521	893.652	13.965	bb			13.5437	108.3	8.3	23.1
/XX100412-01	26-dinitrotoluene	182 > 152	17.23	1965.124	31995.521	1965.124	30.709	MM	13-Apr-10	11:06:05	25.9471	103.8	3.8	63.7
/XX100412-01	24-dinitrotoluene	182 > 152	17.84	419.446	31995.521	419.446	6.555	MM	13-Apr-10	11:08:57	25.1137	100.5	0.5	12.4
/XX100412-01	26-dinitrotoluene-d3	185 > 155	17.05	31995.521		31995.521	31995.521	bb			457.2987	91.5	-8.5	1382.8
/XX100412-01	2-Nitrotoluene	137 > 46	20.63	167.658	31995.521	167.658	2.620	MM	13-Apr-10	11:11:38	30.2584	121.0	21.0	21.6
/XX100412-01	4-Nitrotoluene	137 > 46	21.96	67.965	31995.521	67.965	1.062	bb			25.6055	102.4	2.4	10.9
/XX100412-01	3-Nitrotoluene	137 > 46	23.54	88.020	31995.521	88.020	1.376	bb			23.5927	94.4	-5.6	11.0
/XX100412-01	PETN	361 > 62	23.95	2009.763	31995.521	2009.763	31.407	bb			21.7322	86.9	-13.1	161.7

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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luantify Sample Report
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ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

lame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412004a
late: 12-Apr-2010
ime: 17:09:11
): WXX100412-02
ial: 1:2,B

MMP 4/13/10

IMX

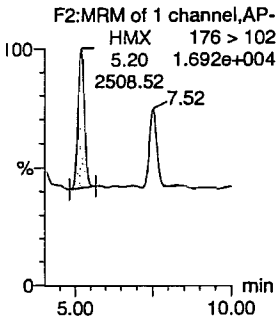

RDX

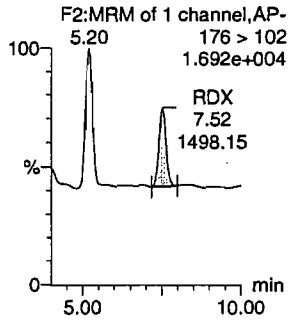

135-Trinitrobenzene

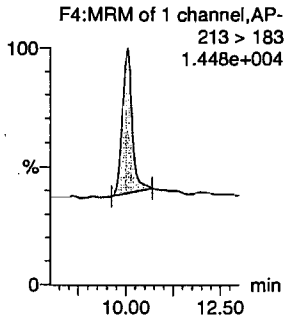

13-Dinitrobenzene-d4

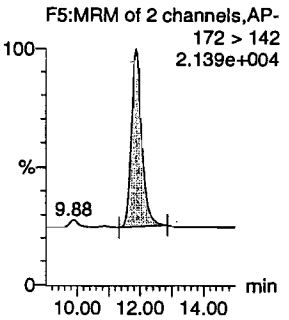

13-Dinitrobenzene

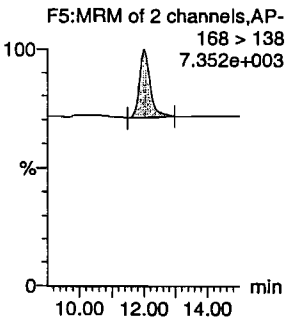

Tetryl

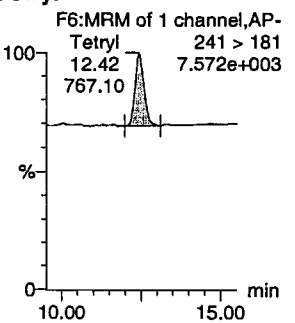

itrobenzene

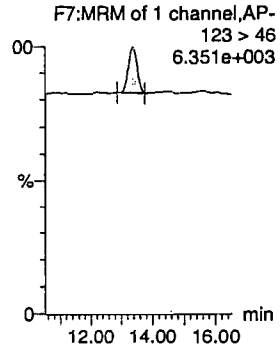

4-Amino-26-dinitrotoluene

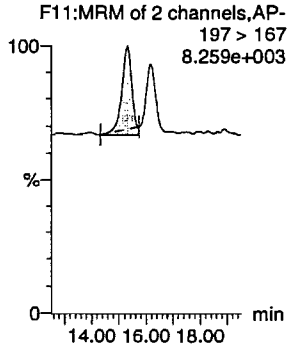

2-Amino-46-dinitrotoluene

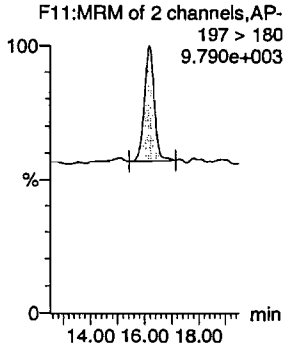

246-Trinitrotoluene

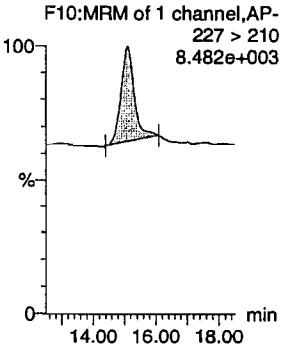

34-dinitrotoluene

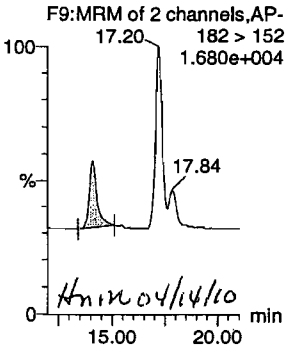

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26-dinitrotoluene

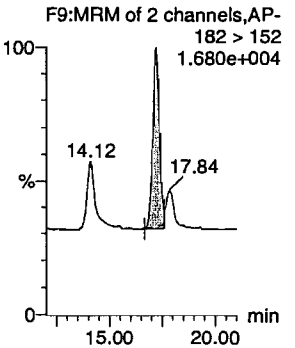

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ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

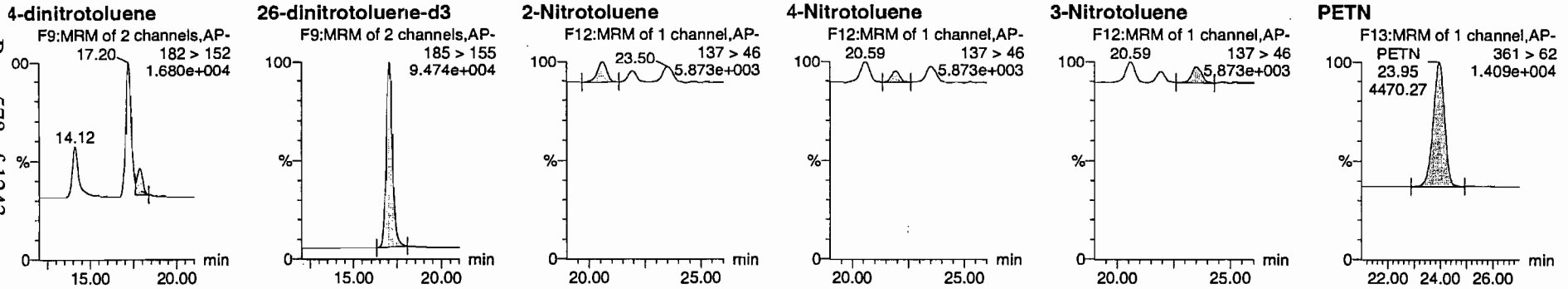

)	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
/XX100412-02	HMX	176 > 102	5.20	2508.523	6172.583	2508.523	203.199	bb			47.9393	95.9	-4.1	94.2
/XX100412-02	RDX	176 > 102	7.52	1498.154	6172.583	1498.154	121.356	bb			42.3994	84.8	-15.2	52.5
/XX100412-02	135-Trinitrobenzene	213 > 183	10.05	2672.564	6172.583	2672.564	216.487	bb			50.0781	100.2	0.2	226.3
/XX100412-02	13-Dinitrobenzene-d4	172 > 142	11.87	6172.583		6172.583	6172.583	bb			524.8470	105.0	5.0	433.6
/XX100412-02	13-Dinitrobenzene	168 > 138	12.00	832.984	6172.583	832.984	67.475	bb			50.4645	100.9	0.9	170.4
/XX100412-02	Tetryl	241 > 181	12.42	767.095	6172.583	767.095	62.137	bb			47.9353	95.9	-4.1	84.6
/XX100412-02	Nitrobenzene	123 > 46	13.37	373.028	6172.583	373.028	30.217	bb			48.1694	96.3	-3.7	25.8
/XX100412-02	4-Amino-26-dinitrotoluene	197 > 167	15.32	1221.271	37408.676	1221.271	16.323	MM	13-Apr-10	11:00:51	48.3279	96.7	-3.3	28.2
/XX100412-02	2-Amino-46-dinitrotoluene	197 > 180	16.19	1799.165	37408.676	1799.165	24.047	bb			46.9495	93.9	-6.1	82.9
/XX100412-02	246-Trinitrotoluene	227 > 210	15.10	1475.637	37408.676	1475.637	19.723	bb			45.3372	90.7	-9.3	59.1
/XX100412-02	34-dinitrotoluene	182 > 152	14.12	1821.743	37408.676	1821.743	24.349	bb			23.6141	94.5	-5.5	71.9
/XX100412-02	26-dinitrotoluene	182 > 152	17.20	4202.803	37408.676	4202.803	56.174	MM	13-Apr-10	11:06:14	47.4629	94.9	-5.1	193.6
/XX100412-02	24-dinitrotoluene	182 > 152	17.84	901.139	37408.676	901.139	12.045	MM	13-Apr-10	11:09:05	46.1469	92.3	-7.7	38.4
/XX100412-02	26-dinitrotoluene-d3	185 > 155	17.05	37408.676		37408.676	37408.676	bb			534.6666	106.9	6.9	2743.6
/XX100412-02	2-Nitrotoluene	137 > 46	20.59	321.040	37408.676	321.040	4.291	bb			49.5562	99.1	-0.9	55.8
/XX100412-02	4-Nitrotoluene	137 > 46	21.94	152.504	37408.676	152.504	2.038	bb			49.1413	98.3	-1.7	28.9
/XX100412-02	3-Nitrotoluene	137 > 46	23.50	264.859	37408.676	264.859	3.540	bb			60.7196	121.4	21.4	42.1
/XX100412-02	PETN	361 > 62	23.95	4470.270	37408.676	4470.270	59.749	bb			50.3420	100.7	0.7	1477.3

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MM 4/13/10

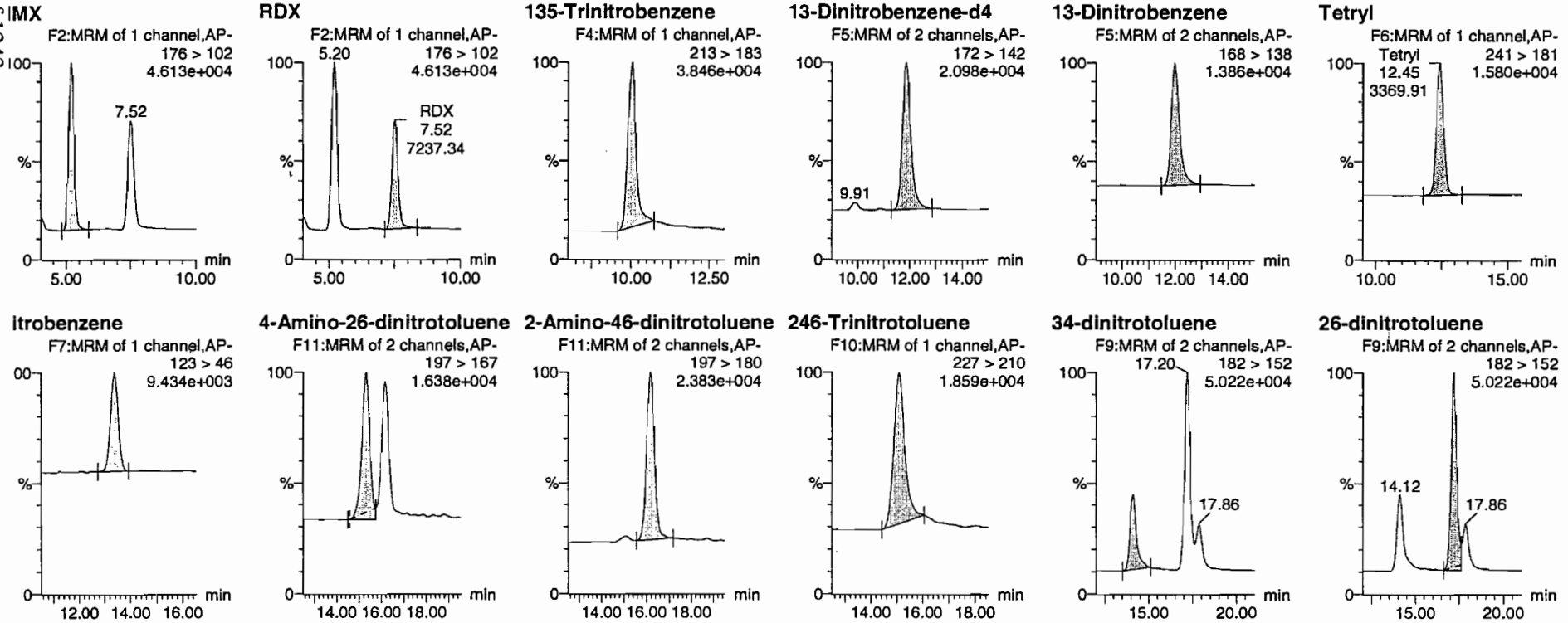

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ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

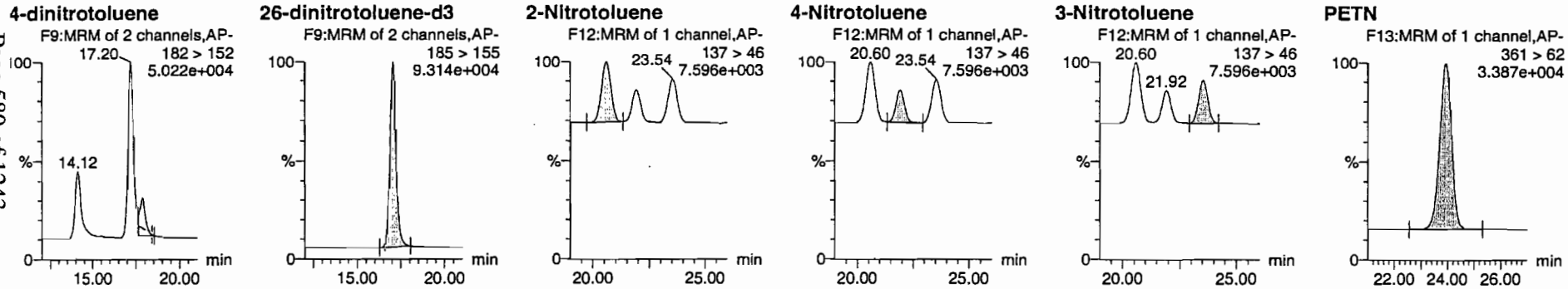

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VXX100412-03	HMX	176 > 102	5.20	10159.616	5929.922	10159.616	856.640	bb			202.1013	101.1	1.1	310.8
VXX100412-03	RDX	176 > 102	7.52	7237.344	5929.922	7237.344	610.239	bb			213.2063	106.6	6.6	201.2
VXX100412-03	135-Trinitrobenzene	213 > 183	10.05	9923.623	5929.922	9923.623	836.741	bb			193.5566	96.8	-3.2	749.0
VXX100412-03	13-Dinitrobenzene-d4	172 > 142	11.87	5929.922		5929.922	5929.922	bb			504.2139	100.8	0.8	148.1
VXX100412-03	13-Dinitrobenzene	168 > 138	11.97	3154.276	5929.922	3154.276	265.963	bb			198.9146	99.5	-0.5	568.4
VXX100412-03	Tetryl	241 > 181	12.45	3369.913	5929.922	3369.913	284.145	bb			219.2013	109.6	9.6	256.1
VXX100412-03	Nitrobenzene	123 > 46	13.37	1502.609	5929.922	1502.609	126.697	bb			201.9734	101.0	1.0	170.5
VXX100412-03	4-Amino-26-dinitrotoluene	197 > 167	15.32	4715.967	36797.332	4715.967	64.080	MM	13-Apr-10	11:01:08	189.7199	94.9	-5.1	168.8
VXX100412-03	2-Amino-46-dinitrotoluene	197 > 180	16.19	7406.561	36797.332	7406.561	100.640	bb			196.4866	98.2	-1.8	186.9
VXX100412-03	246-Trinitrotoluene	227 > 210	15.10	6284.198	36797.332	6284.198	85.389	bb			196.2824	98.1	-1.9	319.2
VXX100412-03	34-dinitrotoluene	182 > 152	14.12	7241.057	36797.332	7241.057	98.391	bb			95.4208	95.4	-4.6	211.8
VXX100412-03	26-dinitrotoluene	182 > 152	17.20	16735.250	36797.332	16735.250	227.398	MM	13-Apr-10	11:06:20	192.1337	96.1	-3.9	560.0
VXX100412-03	24-dinitrotoluene	182 > 152	17.86	3910.226	36797.332	3910.226	53.132	MM	13-Apr-10	11:09:14	203.5676	101.8	1.8	123.0
VXX100412-03	26-dinitrotoluene-d3	185 > 155	17.05	36797.332		36797.332	36797.332	bb			525.9289	105.2	5.2	2510.2
VXX100412-03	2-Nitrotoluene	137 > 46	20.60	1144.344	36797.332	1144.344	15.549	bb			179.5773	89.8	-10.2	170.4
VXX100412-03	4-Nitrotoluene	137 > 46	21.92	552.792	36797.332	552.792	7.511	bb			181.0853	90.5	-9.5	89.7
VXX100412-03	3-Nitrotoluene	137 > 46	23.54	791.513	36797.332	791.513	10.755	bb			184.4710	92.2	-7.8	120.3
VXX100412-03	PETN	361 > 62	23.94	14910.624	36797.332	14910.624	202.605	bb			200.5093	100.3	0.3	4112.1

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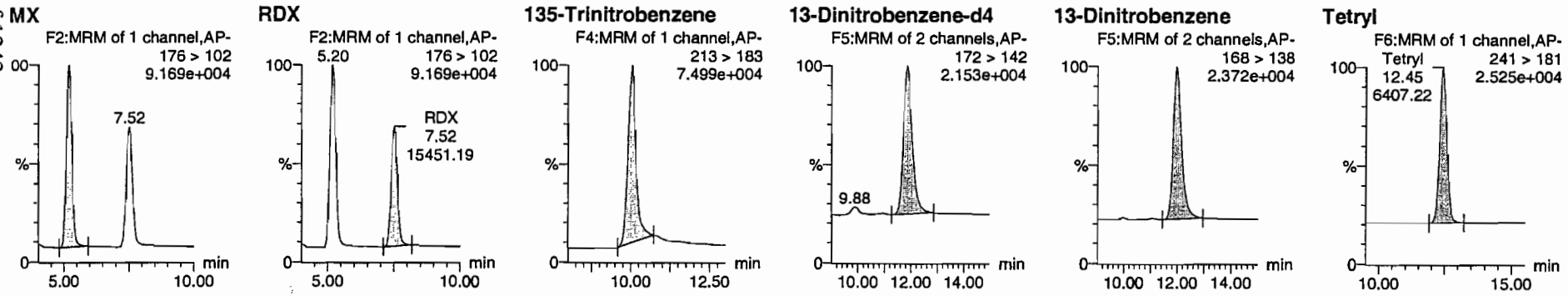

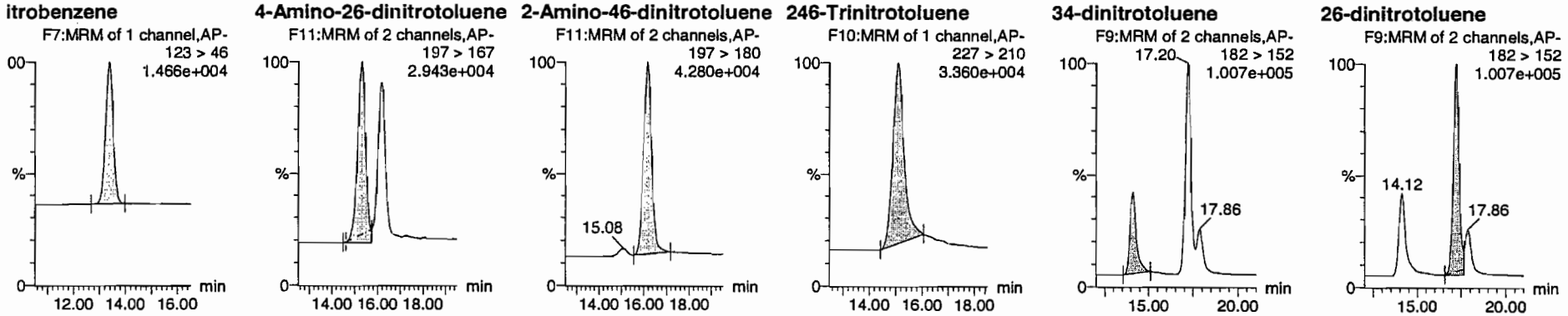

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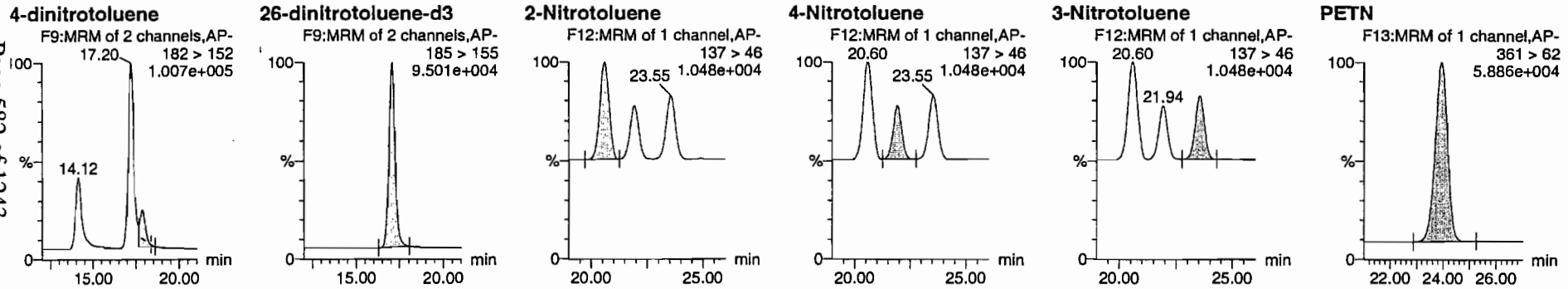

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VXX100412-04	HMX	176 > 102	5.20	21938.941	6268.085	21938.941	1750.051	bb			412.8779	103.2	3.2	1181.1
VXX100412-04	RDX	176 > 102	7.52	15451.193	6268.085	15451.193	1232.529	bb			430.6228	107.7	7.7	774.0
VXX100412-04	135-Trinitrobenzene	213 > 183	10.05	20647.080	6268.085	20647.080	1647.001	bb			380.9874	95.2	-4.8	633.9
VXX100412-04	13-Dinitrobenzene-d4	172 > 142	11.87	6268.085		6268.085	6268.085	bb			532.9674	106.6	6.6	295.2
VXX100412-04	13-Dinitrobenzene	168 > 138	11.97	6698.587	6268.085	6698.587	534.341	bb			399.6358	99.9	-0.1	215.0
VXX100412-04	Tetryl	241 > 181	12.45	6407.221	6268.085	6407.221	511.099	bb			394.2832	98.6	-1.4	634.9
VXX100412-04	Nitrobenzene	123 > 46	13.37	3319.640	6268.085	3319.640	264.805	bb			422.1368	105.5	5.5	348.9
VXX100412-04	4-Amino-26-dinitrotoluene	197 > 167	15.32	10028.896	37460.551	10028.896	133.859	MM	13-Apr-10	11:01:17	396.3123	99.1	-0.9	209.8
VXX100412-04	2-Amino-46-dinitrotoluene	197 > 180	16.16	15422.835	37460.551	15422.835	205.854	bb			401.9043	100.5	0.5	648.1
VXX100412-04	246-Trinitrotoluene	227 > 210	15.10	13461.486	37460.551	13461.486	179.675	bb			413.0159	103.3	3.3	442.8
VXX100412-04	34-dinitrotoluene	182 > 152	14.12	15596.024	37460.551	15596.024	208.166	bb			201.8818	100.9	0.9	470.0
VXX100412-04	26-dinitrotoluene	182 > 152	17.20	35659.953	37460.551	35659.953	475.967	MM	13-Apr-10	11:06:27	402.1558	100.5	0.5	1229.6
VXX100412-04	24-dinitrotoluene	182 > 152	17.86	7671.085	37460.551	7671.085	102.389	MM	13-Apr-10	11:09:25	392.2886	98.1	-1.9	246.0
VXX100412-04	26-dinitrotoluene-d3	185 > 155	17.05	37460.551		37460.551	37460.551	bb			535.4081	107.1	7.1	2261.8
VXX100412-04	2-Nitrotoluene	137 > 46	20.60	2509.765	37460.551	2509.765	33.499	bb			386.8746	96.7	-3.3	348.5
VXX100412-04	4-Nitrotoluene	137 > 46	21.94	1274.233	37460.551	1274.233	17.008	bb			410.0270	102.5	2.5	188.4
VXX100412-04	3-Nitrotoluene	137 > 46	23.55	1589.720	37460.551	1589.720	21.219	bb			363.9425	91.0	-9.0	224.0
VXX100412-04	PETN	361 > 62	23.94	28870.779	37460.551	28870.779	385.349	bb			410.0384	102.5	2.5	7754.2

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MT 4/13/10

MX
F2:MRM of 1 channel,AP-
176 > 102
1.711e+005

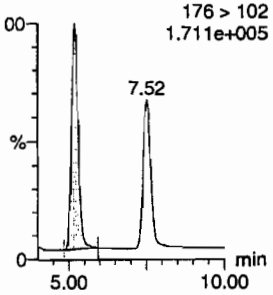

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.711e+005

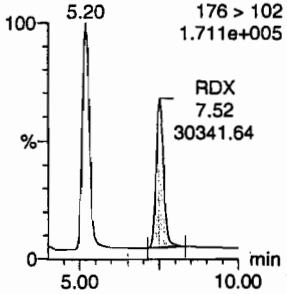

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.448e+005

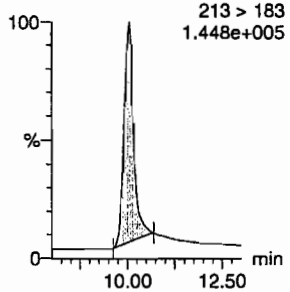

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.147e+004

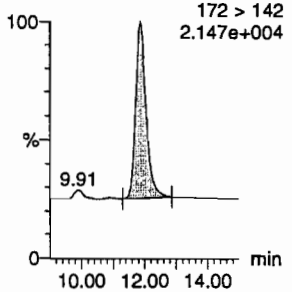

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
4.102e+004

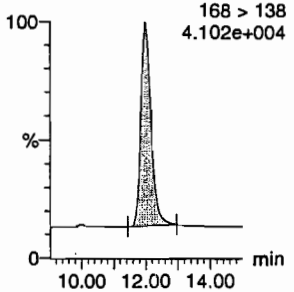

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
4.313e+004

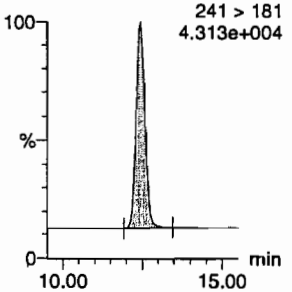

itrobenzene
F7:MRM of 1 channel,AP-
123 > 46
2.274e+004

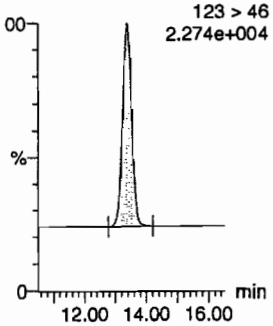

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.148e+004

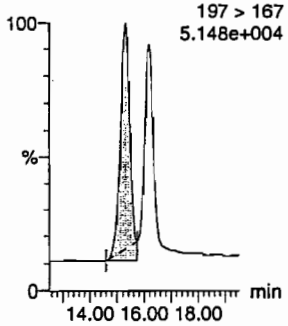

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.937e+004

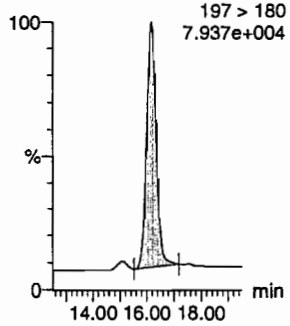

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.076e+004

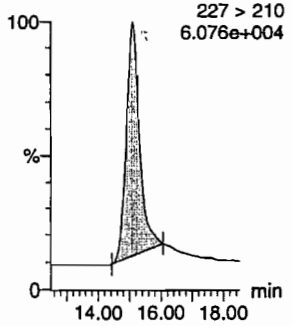

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.856e+005

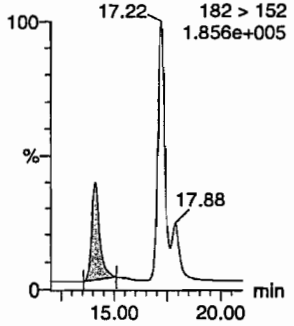

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.856e+005

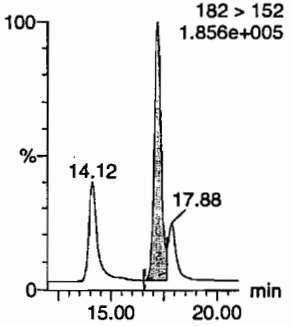

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4-dinitrotoluene

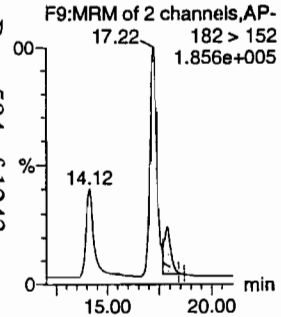

26-dinitrotoluene-d3

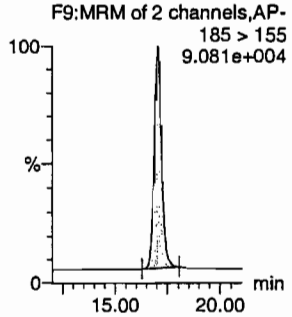

2-Nitrotoluene

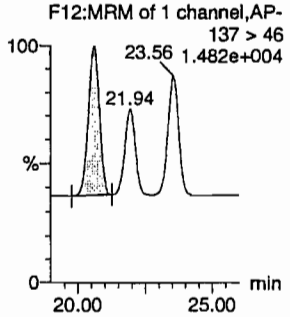

4-Nitrotoluene

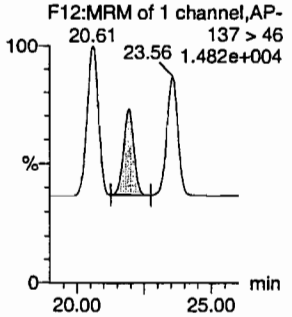

3-Nitrotoluene

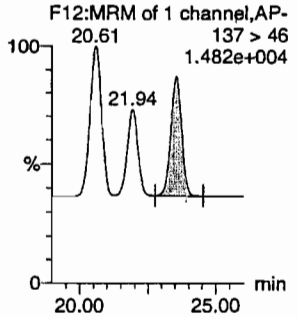

PETN

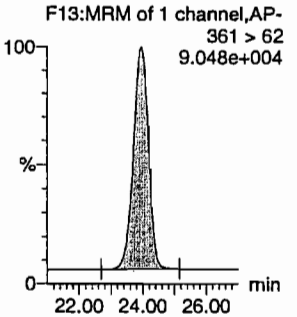

)	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
/XX100412-05	HMX	176 > 102	5.20	42697.836	6170.529	42697.836	3459.820	bb			816.2521	102.0	2.0	1570.9
/XX100412-05	RDX	176 > 102	7.52	30341.643	6170.529	30341.643	2458.593	bb			858.9869	107.4	7.4	1029.6
/XX100412-05	135-Trinitrobenzene	213 > 183	10.05	40826.719	6170.529	40826.719	3308.203	bb			765.2598	95.7	-4.3	2677.4
/XX100412-05	13-Dinitrobenzene-d4	172 > 142	11.87	6170.529		6170.529	6170.529	bb			524.6724	104.9	4.9	557.9
/XX100412-05	13-Dinitrobenzene	168 > 138	11.97	12954.135	6170.529	12954.135	1049.678	bb			785.0586	98.1	-1.9	1128.1
/XX100412-05	Tetryl	241 > 181	12.45	12242.499	6170.529	12242.499	992.014	bb			765.2813	95.7	-4.3	1109.0
/XX100412-05	Nitrobenzene	123 > 46	13.37	6168.525	6170.529	6168.525	499.838	bb			796.8123	99.6	-0.4	488.0
/XX100412-05	4-Amino-26-dinitrotoluene	197 > 167	15.32	19289.736	35471.285	19289.736	271.906	MM	13-Apr-10	11:01:25	805.0223	100.6	0.6	817.7
/XX100412-05	2-Amino-46-dinitrotoluene	197 > 180	16.19	30352.727	35471.285	30352.727	427.849	bb			835.3211	104.4	4.4	513.9
/XX100412-05	246-Trinitrotoluene	227 > 210	15.10	26145.549	35471.285	26145.549	368.545	bb			847.1664	105.9	5.9	539.0
/XX100412-05	34-dinitrotoluene	182 > 152	14.12	29129.992	35471.285	29129.992	410.614	bb			398.2181	99.6	-0.4	595.3
/XX100412-05	26-dinitrotoluene	182 > 152	17.22	68260.867	35471.285	68260.867	962.199	MM	13-Apr-10	11:06:37	812.9851	101.6	1.6	1572.2
/XX100412-05	24-dinitrotoluene	182 > 152	17.88	14884.956	35471.285	14884.956	209.817	MM	13-Apr-10	11:09:33	803.8845	100.5	0.5	325.6
/XX100412-05	26-dinitrotoluene-d3	185 > 155	17.05	35471.285		35471.285	35471.285	bb			506.9763	101.4	1.4	2145.4
/XX100412-05	2-Nitrotoluene	137 > 46	20.61	4498.135	35471.285	4498.135	63.405	bb			732.2626	91.5	-8.5	1331.5
/XX100412-05	4-Nitrotoluene	137 > 46	21.94	2372.772	35471.285	2372.772	33.446	bb			806.3375	100.8	0.8	756.5
/XX100412-05	3-Nitrotoluene	137 > 46	23.56	3460.828	35471.285	3460.828	48.784	bb			836.7379	104.6	4.6	1057.7
/XX100412-05	PETN	361 > 62	23.94	46927.074	35471.285	46927.074	661.480	bb			780.9557	97.6	-2.4	3923.5

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412008a
Date: 12-Apr-2010
Time: 19:07:04
ID: WXX100412-06
Vial: 1:2,F

MAP 4/13/10

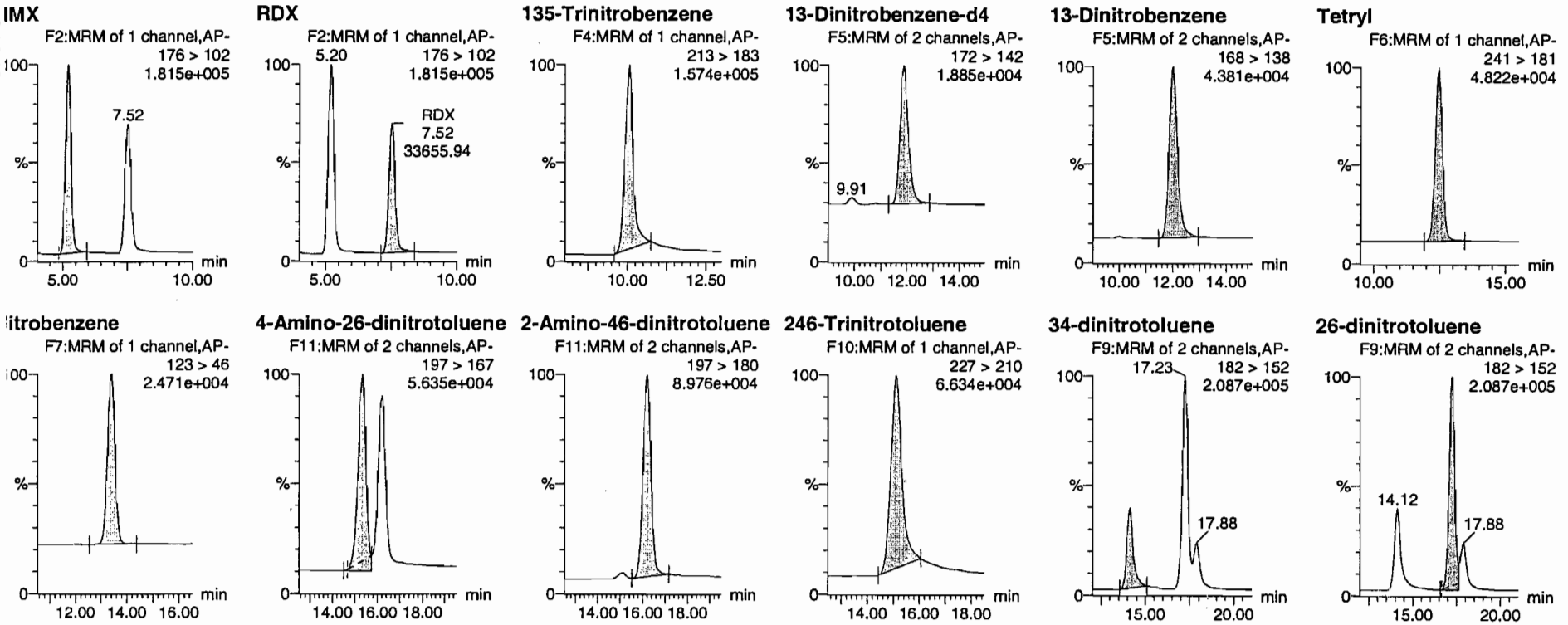

Hnm 04/14/10

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

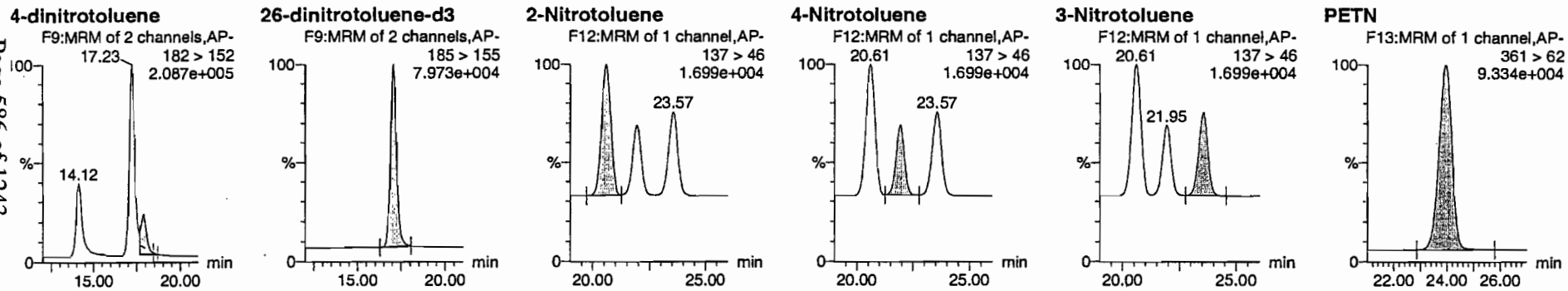

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
VXX100412-06	HMX	176 > 102	5.20	44954.926	5007.691	44954.926	4488.588	bb			1058.9...	105.9	5.9	1055.8
VXX100412-06	RDX	176 > 102	7.52	33655.938	5007.691	33655.938	3360.425	bb			1174.0...	117.4	17.4	721.1
VXX100412-06	135-Trinitrobenzene	213 > 183	10.05	44671.801	5007.691	44671.801	4460.319	bb			1031.7...	103.2	3.2	2013.0
VXX100412-06	13-Dinitrobenzene-d4	172 > 142	11.87	5007.691		5007.691	5007.691	bb			425.7977	85.2	-14.8	577.2
VXX100412-06	13-Dinitrobenzene	168 > 138	12.00	13936.076	5007.691	13936.076	1391.467	bb			1040.6...	104.1	4.1	1057.3
VXX100412-06	Tetryl	241 > 181	12.45	13724.574	5007.691	13724.574	1370.350	bb			1057.1...	105.7	5.7	1759.7
VXX100412-06	Nitrobenzene	123 > 46	13.41	6754.345	5007.691	6754.345	674.397	bb			1075.0...	107.5	7.5	711.0
VXX100412-06	4-Amino-26-dinitrotoluene	197 > 167	15.32	21193.145	30765.707	21193.145	344.428	MM	13-Apr-10	11:01:37	1019.7...	102.0	2.0	333.9
VXX100412-06	2-Amino-46-dinitrotoluene	197 > 180	16.19	34180.871	30765.707	34180.871	555.503	bb			1084.5...	108.5	8.5	1989.8
VXX100412-06	246-Trinitrotoluene	227 > 210	15.10	28837.420	30765.707	28837.420	468.662	bb			1077.3...	107.7	7.7	1377.4
VXX100412-06	34-dinitrotoluene	182 > 152	14.12	32128.707	30765.707	32128.707	522.151	bb			506.3885	101.3	1.3	816.7
VXX100412-06	26-dinitrotoluene	182 > 152	17.23	75050.953	30765.707	75050.953	1219.718	MM	13-Apr-10	11:06:46	1030.5...	103.1	3.1	2179.3
VXX100412-06	24-dinitrotoluene	182 > 152	17.88	17169.697	30765.707	17169.697	279.040	MM	13-Apr-10	11:09:44	1069.1...	106.9	6.9	453.0
VXX100412-06	26-dinitrotoluene-d3	185 > 155	17.07	30765.707		30765.707	30765.707	bb			439.7214	87.9	-12.1	2457.3
VXX100412-06	2-Nitrotoluene	137 > 46	20.61	5424.529	30765.707	5424.529	88.159	bb			1018.1...	101.8	1.8	733.5
VXX100412-06	4-Nitrotoluene	137 > 46	21.95	2691.478	30765.707	2691.478	43.742	bb			1054.5...	105.5	5.5	393.4
VXX100412-06	3-Nitrotoluene	137 > 46	23.57	3457.417	30765.707	3457.417	56.189	bb			963.7651	96.4	-3.6	468.2
VXX100412-06	PETN	361 > 62	23.96	49397.086	30765.707	49397.086	802.795	bb			1011.8...	101.2	1.2	8899.2

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0412010a

Analysis Date: 12–APR–10 20:06

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	593.013	99	
1,3–Dinitrobenzene–d4	500	528.009	106	
2,4,6–Trinitrotoluene	600	674.734	112	
2,4–Dinitrotoluene	600	608.204	101	
2,6–Dinitrotoluene	600	599.148	100	
2,6–Dinitrotoluene–d3	500	574.331	115	
2–Amino–4,6–dinitrotoluene	600	592.511	99	
3,4–Dinitrotoluene	300	280.228	93	
4–Amino–2,6–dinitrotoluene	600	600.345	100	
HMX	600	642.971	107	
Nitrobenzene	600	610.074	102	
PETN	600	527.609	88	
RDX	600	753.124	126	*
Tetryl	600	604.19	101	
m–Dinitrobenzene	600	606.979	101	
m–Nitrotoluene	600	475.553	79	*
o–Nitrotoluene	600	492.414	82	
p–Nitrotoluene	600	547.628	91	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412010a
ate: 12-Apr-2010
ime: 20:06:00
): WXX100412-07ICV
ial: 1:1,B

MM 4/13/10

MX

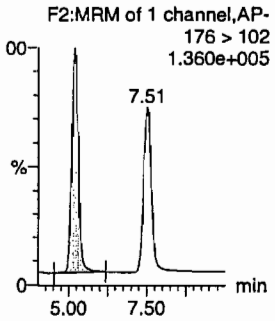

RDX

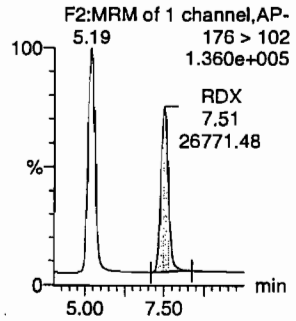

135-Trinitrobenzene

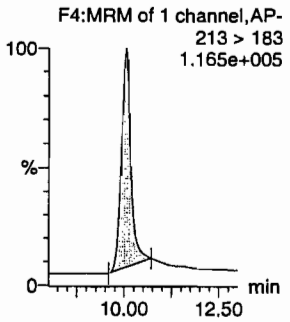

13-Dinitrobenzene-d4

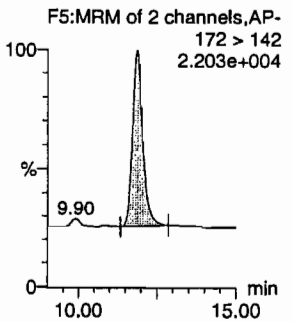

13-Dinitrobenzene

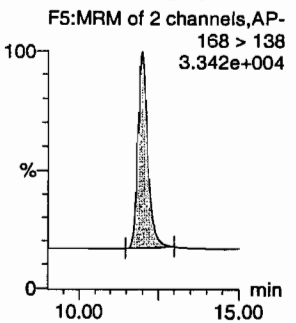

Tetryl

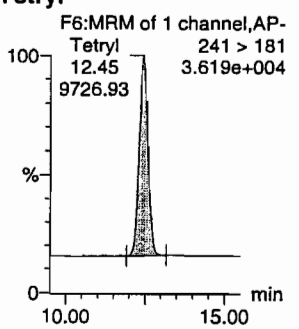

itrobenzene

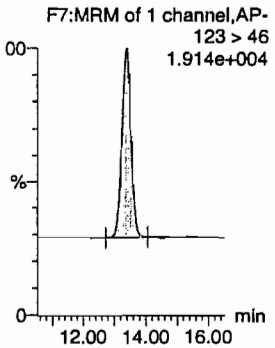

4-Amino-26-dinitrotoluene

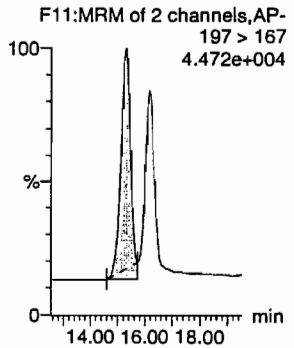

2-Amino-46-dinitrotoluene

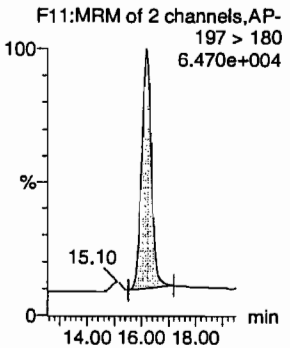

246-Trinitrotoluene

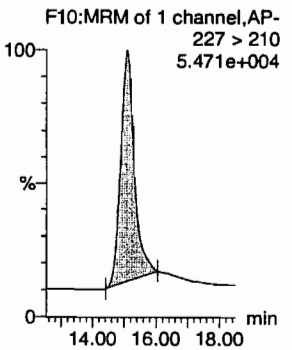

34-dinitrotoluene

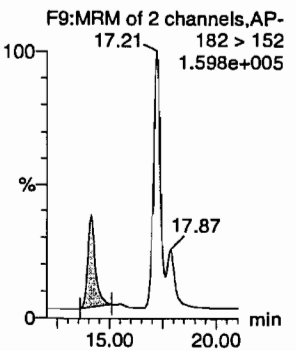

26-dinitrotoluene

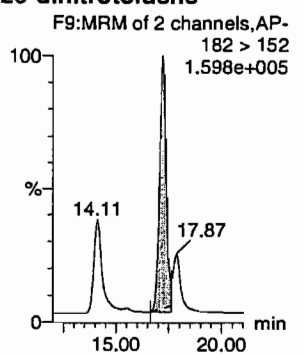

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ıataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

4-dinitrotoluene

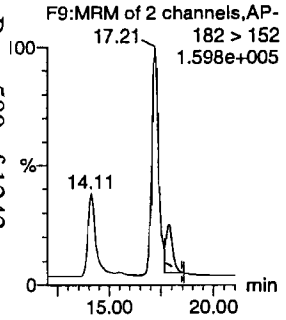

26-dinitrotoluene-d3

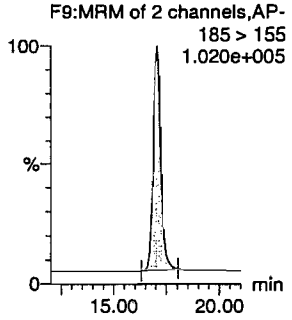

2-Nitrotoluene

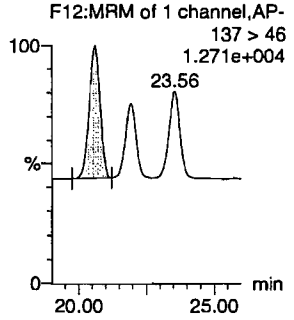

4-Nitrotoluene

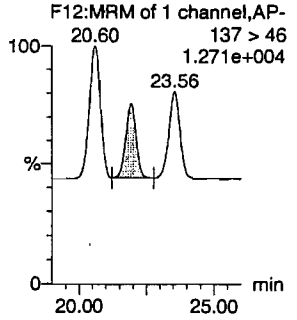

3-Nitrotoluene

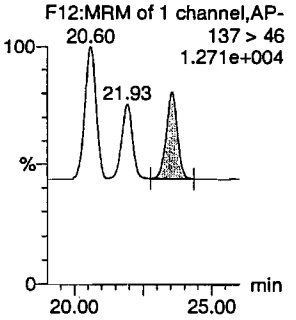

PETN

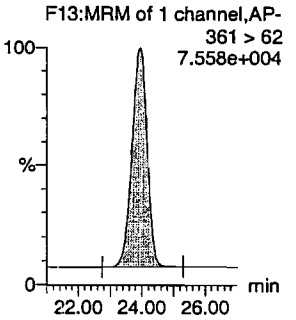

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
/XX100412-07ICV	HMX	176 > 102	5.19	33847.480	6209.775	33847.480	2725.339	bb			642.9709	107.2	7.2	3326.4
/XX100412-07ICV	RDX	176 > 102	7.51	26771.480	6209.775	26771.480	2155.592	bb			753.1238	125.5	25.5	2433.7
/XX100412-07ICV	135-Trinitrobenzene	213 > 183	10.03	31838.539	6209.775	31838.539	2563.582	bb			593.0128	98.8	-1.2	1379.9
/XX100412-07ICV	13-Dinitrobenzene-d4	172 > 142	11.86	6209.775		6209.775	6209.775	bb			528.0094	105.6	5.6	836.0
/XX100412-07ICV	13-Dinitrobenzene	168 > 138	11.97	10079.378	6209.775	10079.378	811.574	bb			606.9793	101.2	1.2	1025.2
/XX100412-07ICV	Tetryl	241 > 181	12.45	9726.927	6209.775	9726.927	783.195	bb			604.1896	100.7	0.7	1063.3
/XX100412-07ICV	Nitrobenzene	123 > 46	13.39	4752.931	6209.775	4752.931	382.698	bb			610.0743	101.7	1.7	361.4
/XX100412-07ICV	4-Amino-26-dinitrotoluene	197 > 167	15.31	16296.482	40183.859	16296.482	202.774	MM	13-Apr-10	11:01:46	600.3448	100.1	0.1	397.8
/XX100412-07ICV	2-Amino-46-dinitrotoluene	197 > 180	16.18	24390.191	40183.859	24390.191	303.482	bb			592.5107	98.8	-1.2	968.8
/XX100412-07ICV	246-Trinitrotoluene	227 > 210	15.09	23590.451	40183.859	23590.451	293.531	bb			674.7339	112.5	12.5	1164.7
/XX100412-07ICV	34-dinitrotoluene	182 > 152	14.11	23222.357	40183.859	23222.357	288.951	bb			280.2284	93.4	-6.6	253.4
/XX100412-07ICV	26-dinitrotoluene	182 > 152	17.21	56989.934	40183.859	56989.934	709.115	MM	13-Apr-10	11:06:55	599.1482	99.9	-0.1	713.0
/XX100412-07ICV	24-dinitrotoluene	182 > 152	17.87	12757.857	40183.859	12757.857	158.744	MM	13-Apr-10	11:09:56	608.2038	101.4	1.4	150.4
/XX100412-07ICV	26-dinitrotoluene-d3	185 > 155	17.06	40183.859		40183.859	40183.859	bb			574.3312	114.9	14.9	5693.5
/XX100412-07ICV	2-Nitrotoluene	137 > 46	20.60	3426.659	40183.859	3426.659	42.637	bb			492.4141	82.1	-17.9	1017.5
/XX100412-07ICV	4-Nitrotoluene	137 > 46	21.93	1825.573	40183.859	1825.573	22.715	bb			547.6276	91.3	-8.7	574.9
/XX100412-07ICV	3-Nitrotoluene	137 > 46	23.56	2228.251	40183.859	2228.251	27.726	bb			475.5529	79.3	-20.7	669.8
/XX100412-07ICV	PETN	361 > 62	23.94	38530.590	40183.859	38530.590	479.429	bb			527.6090	87.9	-12.1	6724.3

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/12/10
Time of Injection: 2006
Standard Number: WXX100412-07ICV
Data File: EXP0412010a

HMX		107.2
RDX		125.5
135-TNB		98.8
13-DNB		101.2
Tetryl		100.7
Nitrobenzene		101.7
4A-26-DNT		100.1
2A-46-DNT		98.8
246-TNT		112.5
34-DNT(surr)		93.4
26-DNT		99.9
24-DNT		101.4
2-NT		82.1
4-NT		91.3
3-NT		79.3
PETN		87.9
Total		1581.8
Average		98.9

MPT 4/13/10

Hmc 04/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2039

Lab Code: GEL

Run Date: 05-APR-10,08-APR-10,09-APR-10,12-APR-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8Q

Calibration Type: Average RF

Calibration Level:	19	20	21	22	23	24	25	Ave RF	RSD	Q
Data File:	EXS04050003.w	EXS04050004.w	EXS04050005.w	EXS04050006.w	EXS04050007.w	EXS04050008.w	EXS04050009.w			
Parmname										
tris(o-cresyl) phosphate	20900	20400	18800	18100	17100	17000	13900	18028.571	13	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2039

Lab Code: GEL

Run Date: 05-APR-10,08-APR-10,09-APR-10,12-APR-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8O

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS04050003.wifl	EXS04050004.wifl	EXS04050005.wifl	EXS04050006.wifl	EXS04050007.wifl	EXS04050008.wifl	EXS04050009.wifl					
Parmname:												
2,4-Diamino-6-nitrotoluene	107000	194000	514000	984000	1450000	2300000	3930000	-53800	2320	-.159	.9969	
2,6-Diamino-4-nitrotoluene	135000	256000	636000	1310000	1840000	3070000	4880000	-99700	3190	-.339	.9946	
3,4-Dinitrotoluene	217000	415000	947000	1910000	2920000	4200000	7540000	-91400	9310	-1.66	.9988	
3,5-Dinitroaniline	375000	679000	1590000	3210000	4580000	6550000	10500000	-89200	7310	-1.01	.9987	
TATB	35600	73300	184000	399000	594000	809000	1570000	-12100	830	-.019	.9999	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.21e+004			
a1	830			
a2	-0.0188			

Correlation coefficient 0.9999
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-8.92e+004			
a1	7.31e+003			
a2	-1.01			

Correlation coefficient 0.9987
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-9.14e+004			
a1	9.31e+003			
a2	-1.66			

Correlation coefficient 0.9988
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-9.97e+004			
a1	3.19e+003			
a2	-0.339			

Correlation coefficient 0.9946
Use Area

Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Kan 4/7/10

Hnne 04/08/10

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Fit Quadratic Weighting None Iterate No
a0 -5.38e+004
a1 2.32e+003
a2 -0.159
Correlation coefficient 0.9969
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.8e+004
Standard deviation 2.35e+003
%RSD 13
Use Area

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040510.rdb (TATB): "Quadratic" Regression ("No" weighting): y = -0.0188 x^2 + 830 x + -1.21e+004 (r = 0.9999)

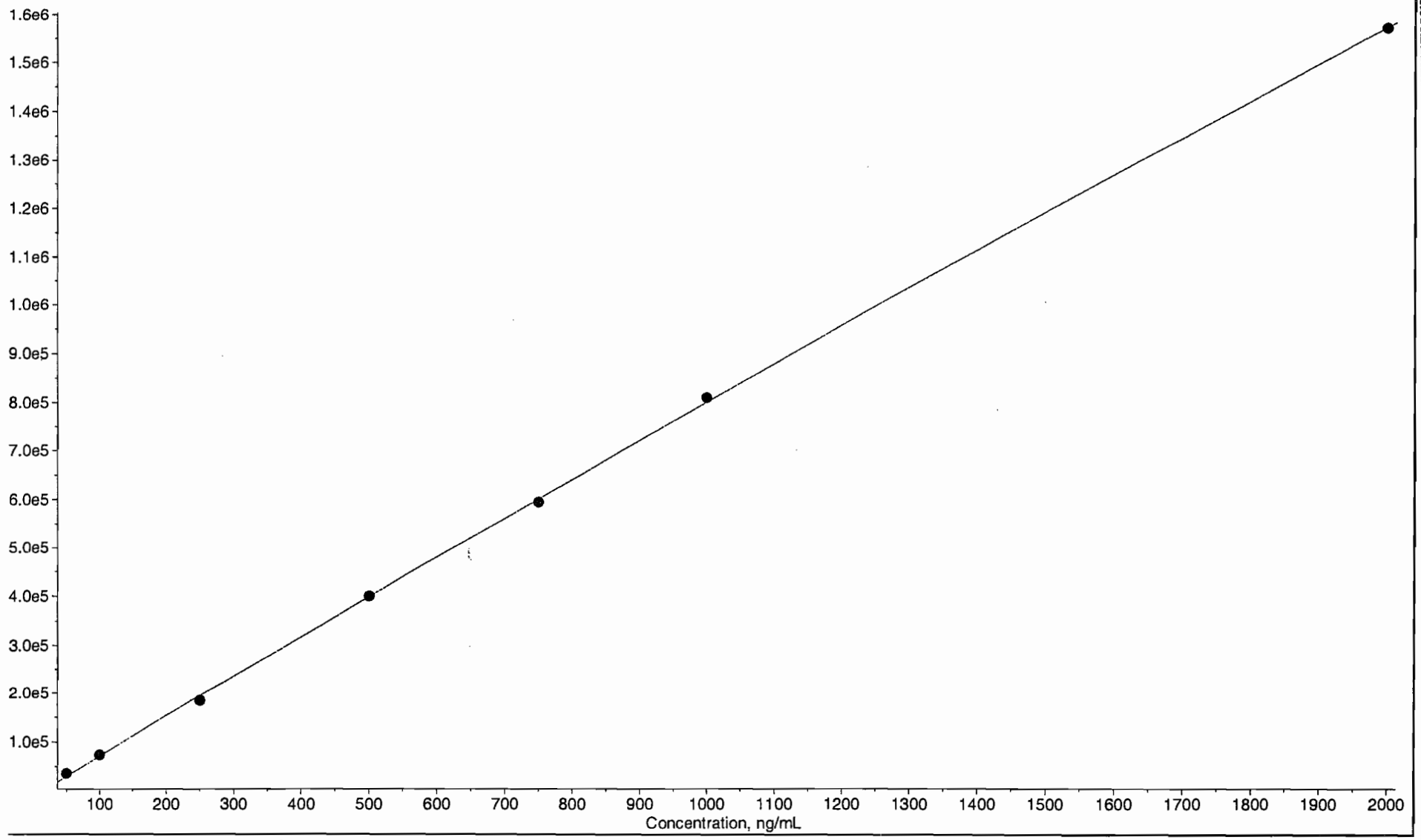

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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040510.rdb (35-Dinitroaniline): "Quadratic" Regression ("No" weighting): y = -1.01 x^2 + 7.31e+003 x + -8.92e+004 (r = 0.9987)

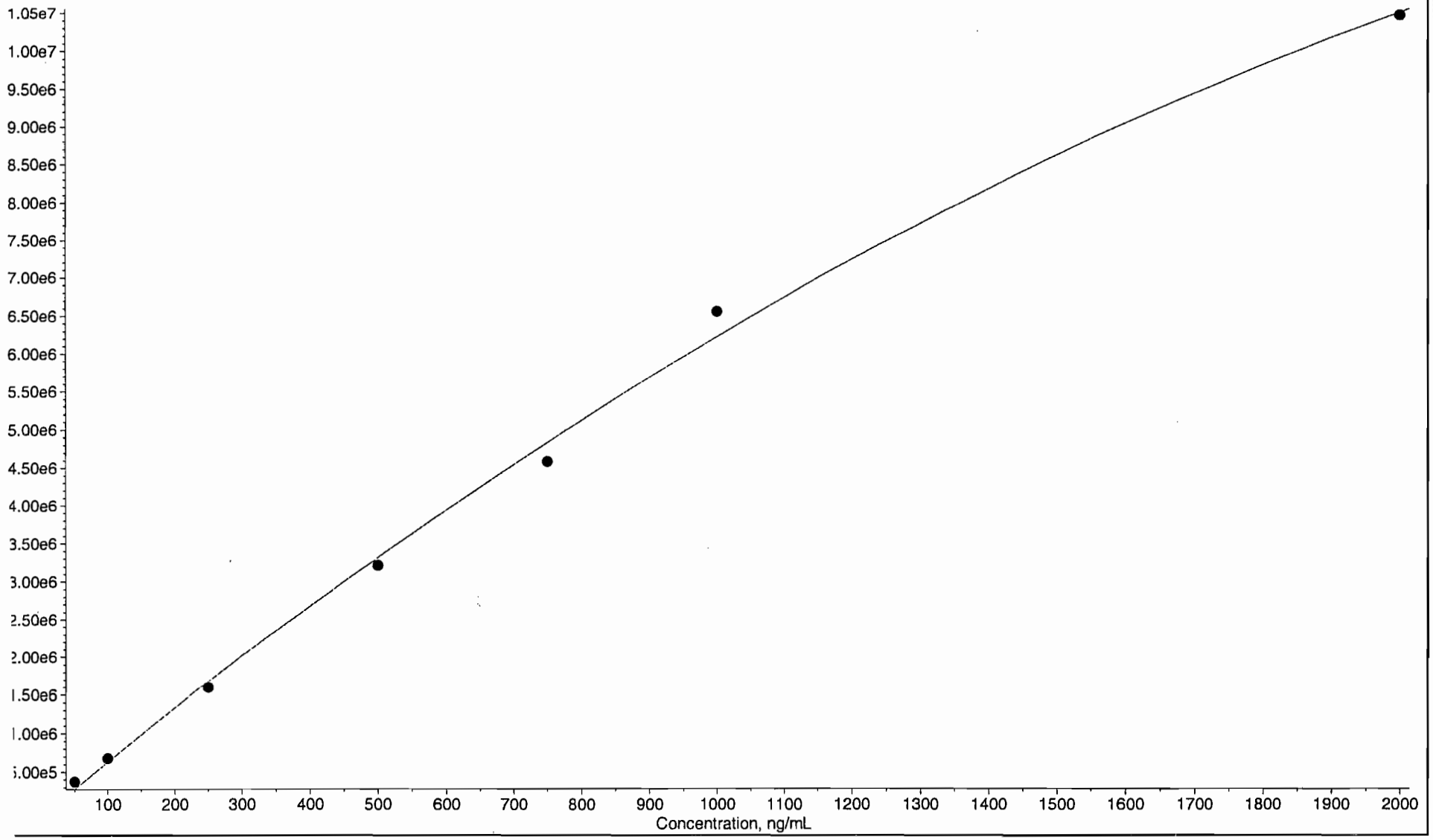

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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040510.rdb (34-Dinitrotoluene): "Quadratic" Regression ("No" weighting): y = -1.66 x^2 + 9.31e+003 x + -9.14e+004 (r = 0.9988)

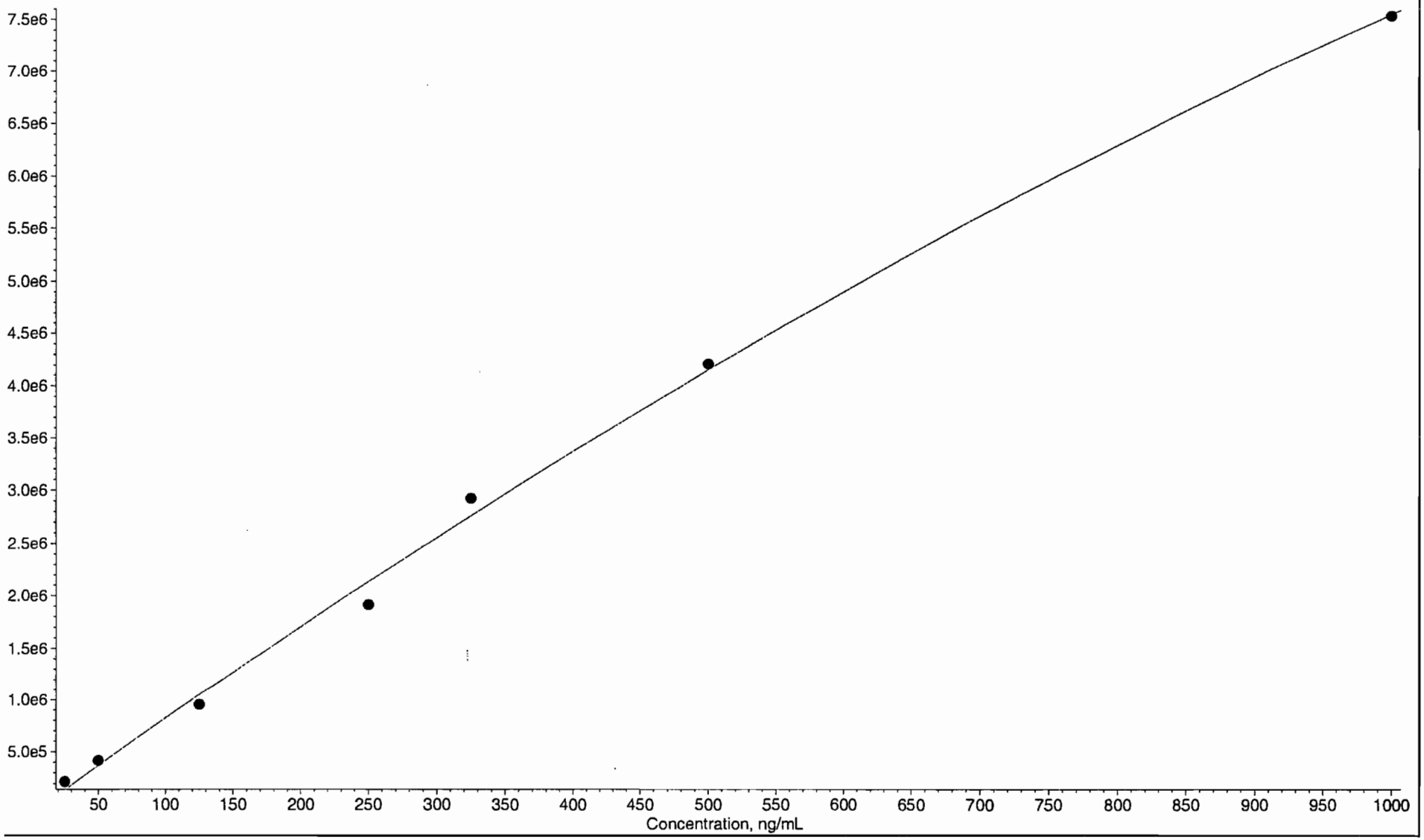

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

040510.rdb (26-Diamino-4-nitrotoluene): "Quadratic" Regression ("No" weighting): y = -0.339 x^2 + 3.19e+003 x + -9.97e+004 (r = 0.9946)

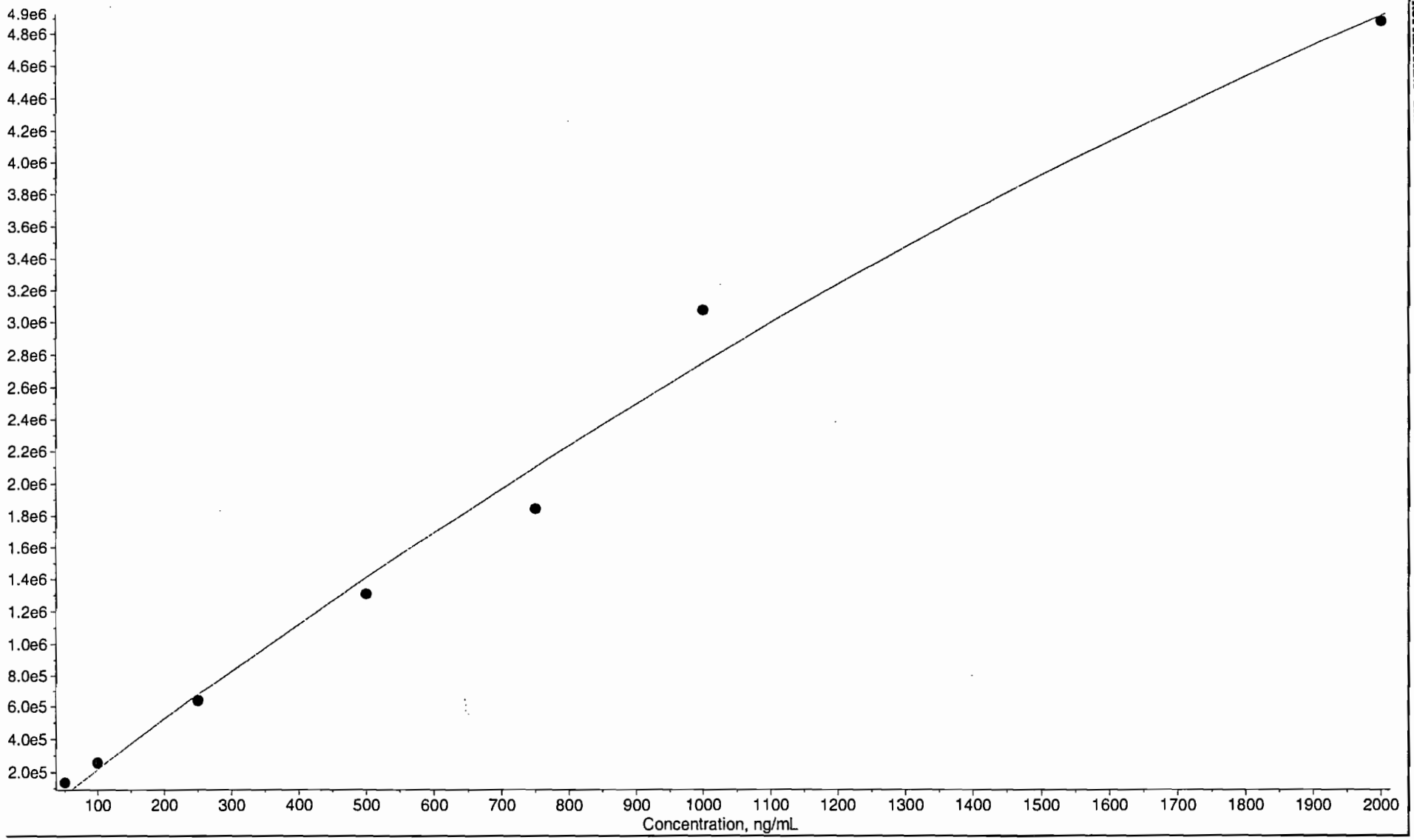

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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040510.rdb (24-Diamino-6-nitrotoluene): "Quadratic" Regression ("No" weighting): y = -0.159 x^2 + 2.32e+003 x + -5.38e+004 (r = 0.9969)

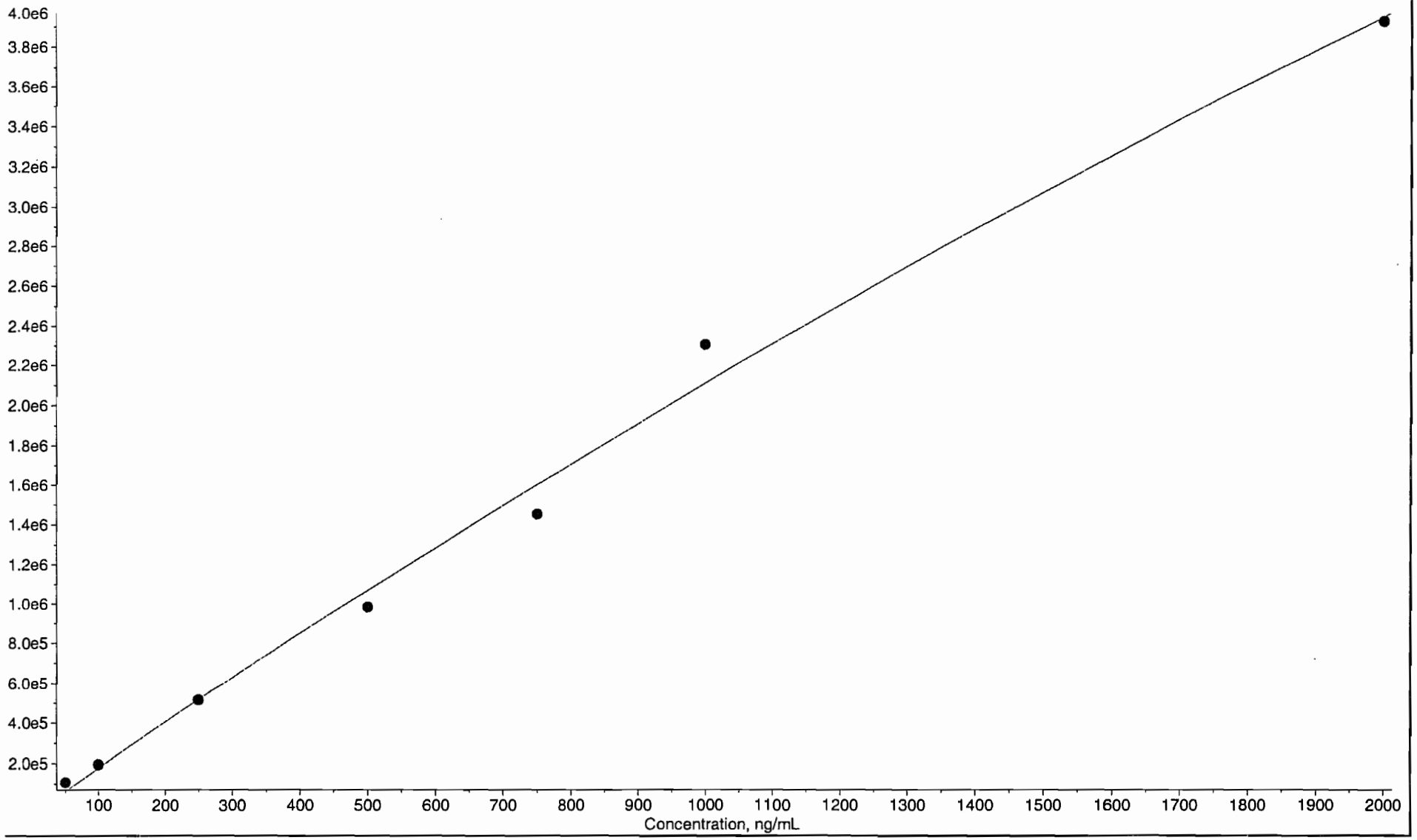

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

040510.rdb (tris(o-cresyl) phosphate): "Mean Response Factor" Regression ("No" weighting): y = 1.8e+004 x (std. dev. = 2.35e+003)

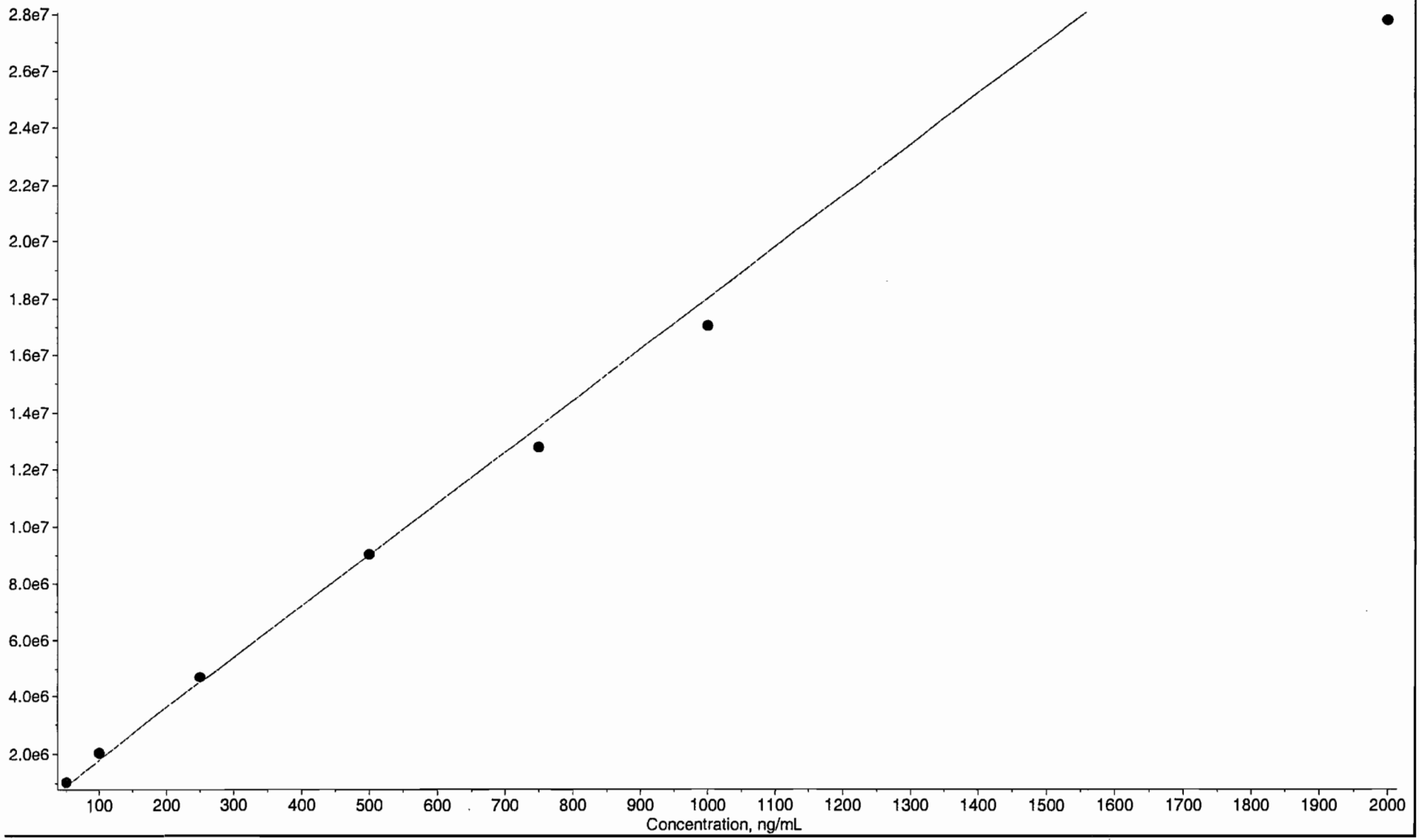

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Lcu 4/7/10

nple Name: "WXX100405-19" Sample ID: "j1|LER" File: "EXS04050003.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_I" Annotation: ""

le Index: 1
le Type: Standard
entration: 50.0 ng/mL
ulated Conc: 57.5 ng/mL
Date: 4/5/2010
Time: 1:15:16 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.86 min
Relative RT: No

Type: Valley
ation Time: 6.85 min
: 3.56e+004 counts
nt: 8351.204 cps
t Time: 6.76 min
Time: 7.35 min

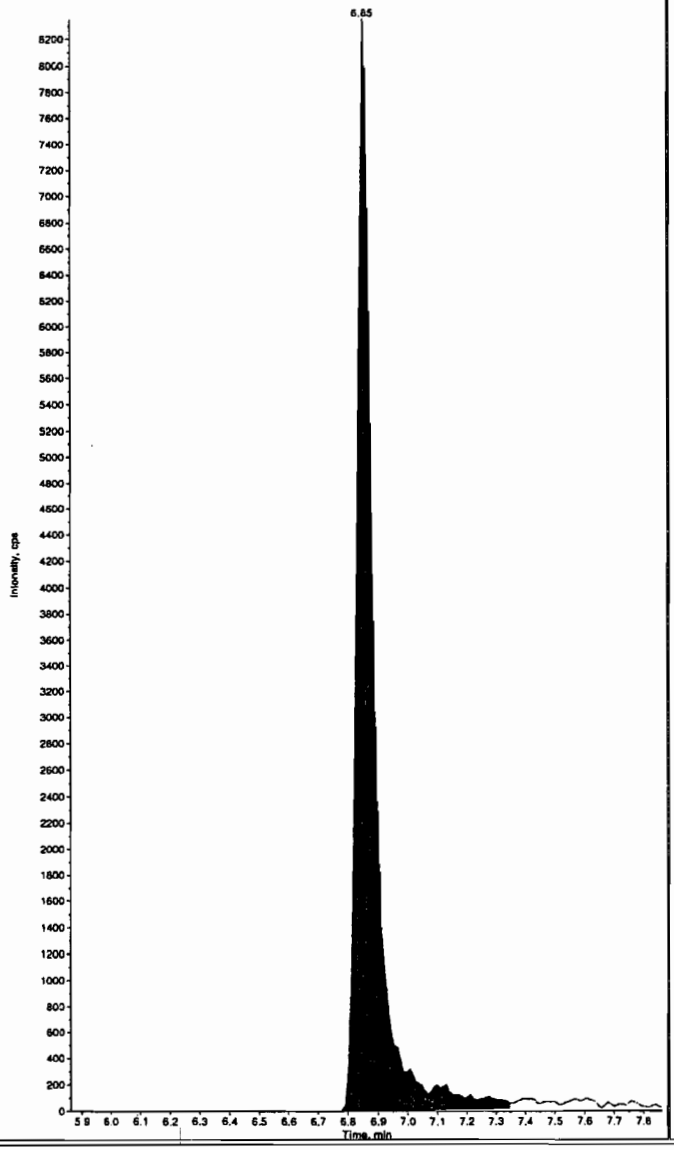

Sample Name: "WXX100405-19" Sample ID: "j1|LER" File: "EXS04050003.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 50.0 ng/mL
Calculated Conc: 64.1 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 1:15:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.08 min
Area: 3.75e+005 counts
Height: 97419.548 cps
Start Time: 7.91 min
End Time: 8.21 min

Hmm 04/08/10

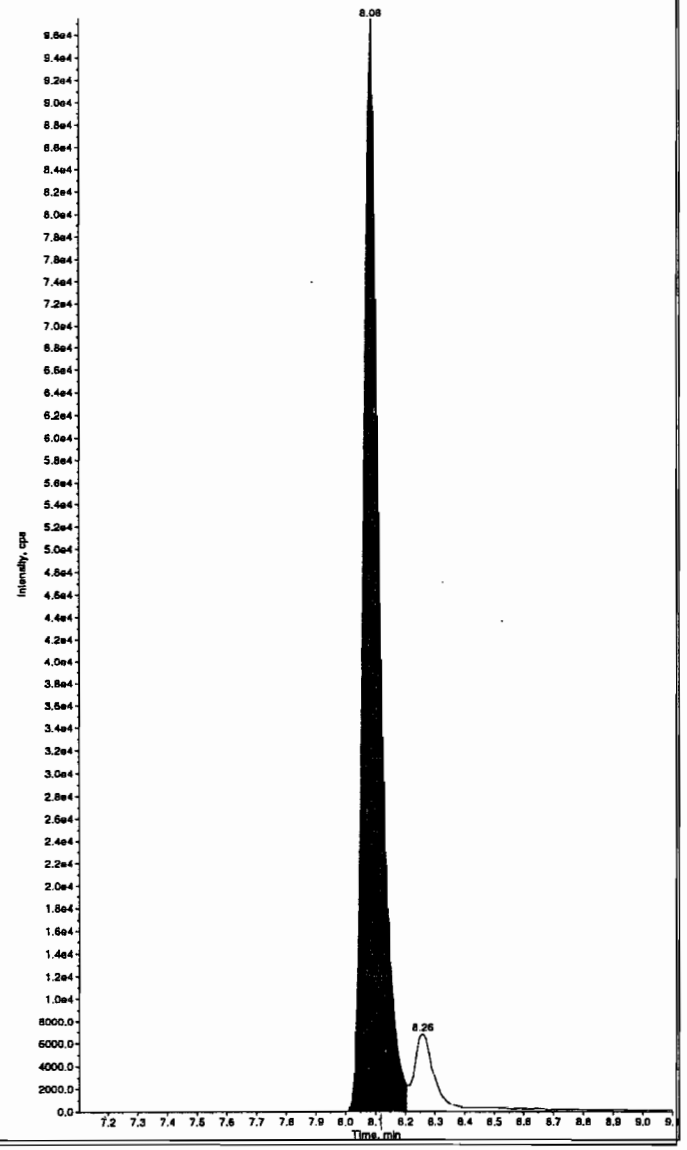

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "WXX100405-19" Sample ID: "|1|LER" File: "EXS04050003.wiff"
sk Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_I" Annotation: ""

le Index: 1
le Type: Standard
entration: 25.0 ng/mL
ulated Conc: 33.4 ng/mL
Date: 4/5/2010
Time: 1:15:16 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.28 min
Relative RT: No

Type: Valley
ntion Time: 8.25 min
: 2.17e+005 counts
nt: 56255.928 cps
t Time: 8.19 min
Time: 8.61 min

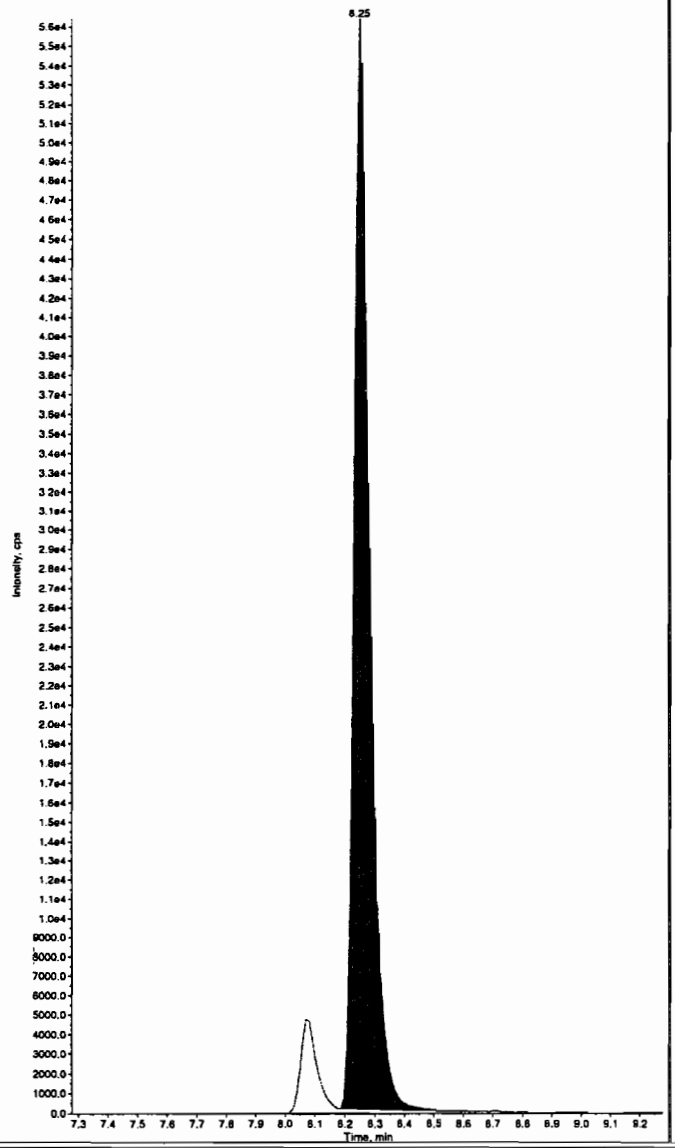

Sample Name: "WXX100405-19" Sample ID: "|1|LER" File: "EXS04050003.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 50.0 ng/mL
Calculated Conc: 74.3 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 1:15:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.93 min
Area: 1.35e+005 counts
Height: 30302.437 cps
Start Time: 4.83 min
End Time: 5.22 min

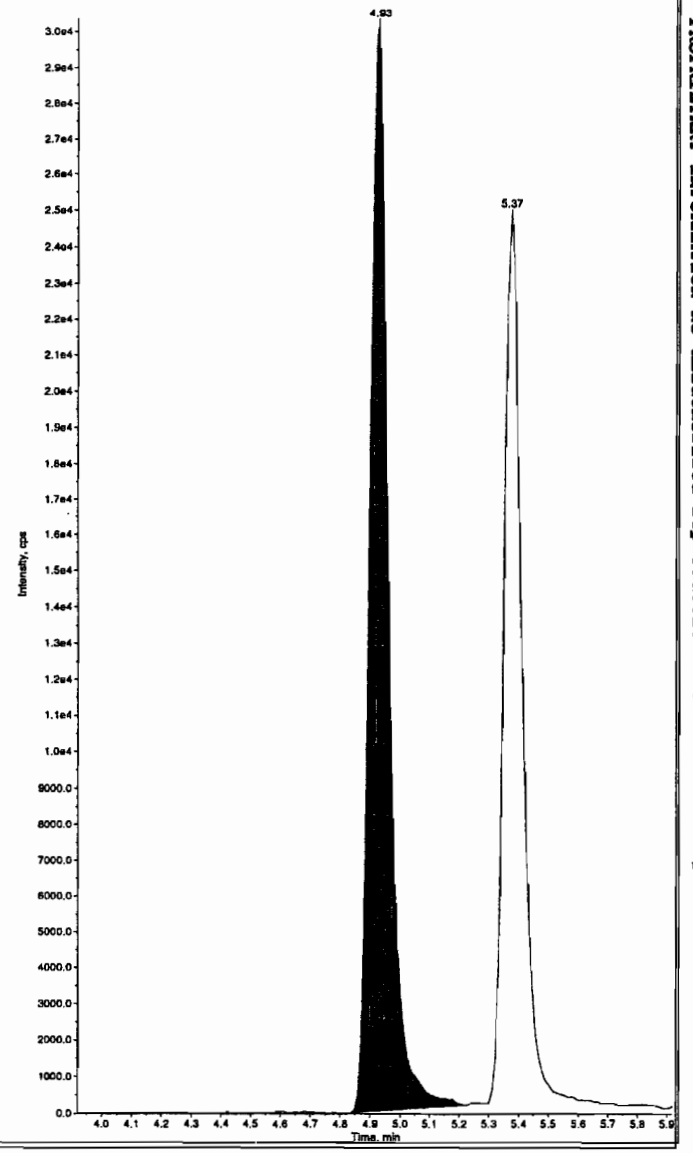

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ple Name: "WXX100405-19" Sample ID: "|1|LER" File: "EXS04050003.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_I" Annotation: ""

```
e Index:        1
e Type:       Standard
ntration:       50.0     ng/mL
lated Conc:     69.5     ng/mL
Date:         4/5/2010
Time:         1:15:16 PM

ied:            No
Algorithm: IntelliQuan - IQA
Peak Height: 350.00    cps
Peak Width:    0.00    sec
ning Width:  3        points
ndow:         30.0     sec
ted RT:        5.37    min
elative RT:    No

Type:         Valley
tion Time:     5.37    min
        1.07e+005    counts
:          24765.348  cps
Time:          5.29    min
ime:           5.77    min
```

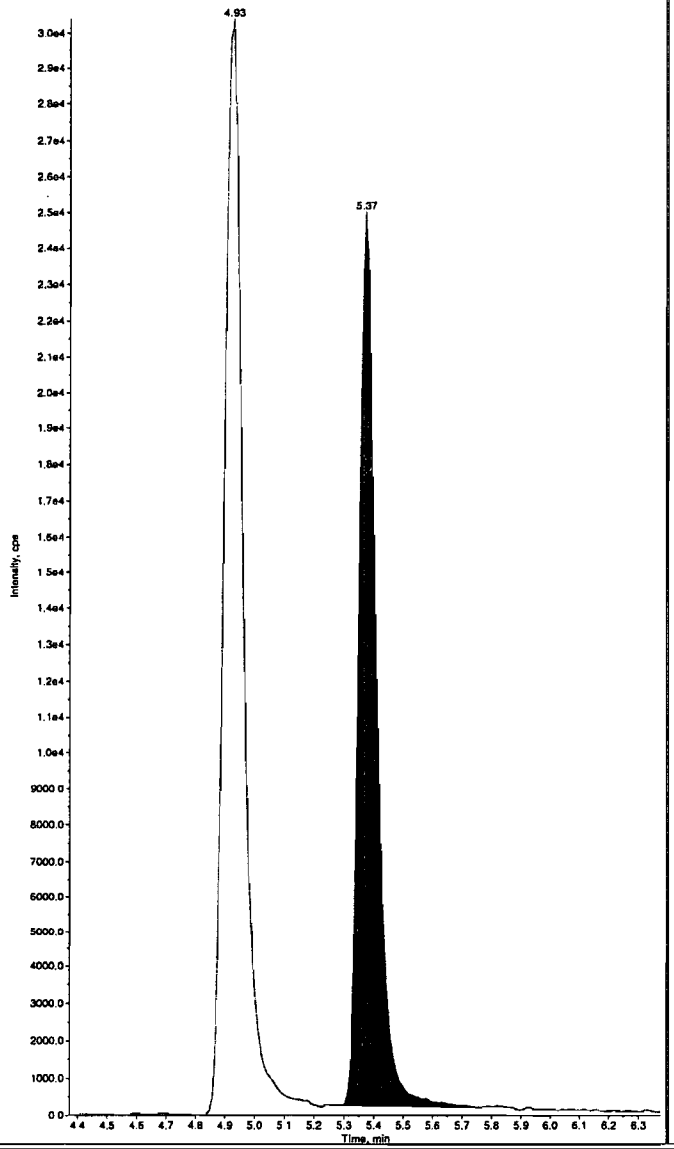

Sample Name: "WXX100405-19" Sample ID: "|1|LER" File: "EXS04050003.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:       Standard
Concentration:       50.0     ng/mL
Calculated Conc:     57.9     ng/mL
Acq. Date:         4/5/2010
Acq. Time:         1:15:16 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:       10.8     min
Use Relative RT:   No

Int. Type:         Valley
Retention Time:    10.8     min
Area:        1.04e+006    counts
Height:        265380.920  cps
Start Time:        10.7     min
End Time:          11.1     min
```

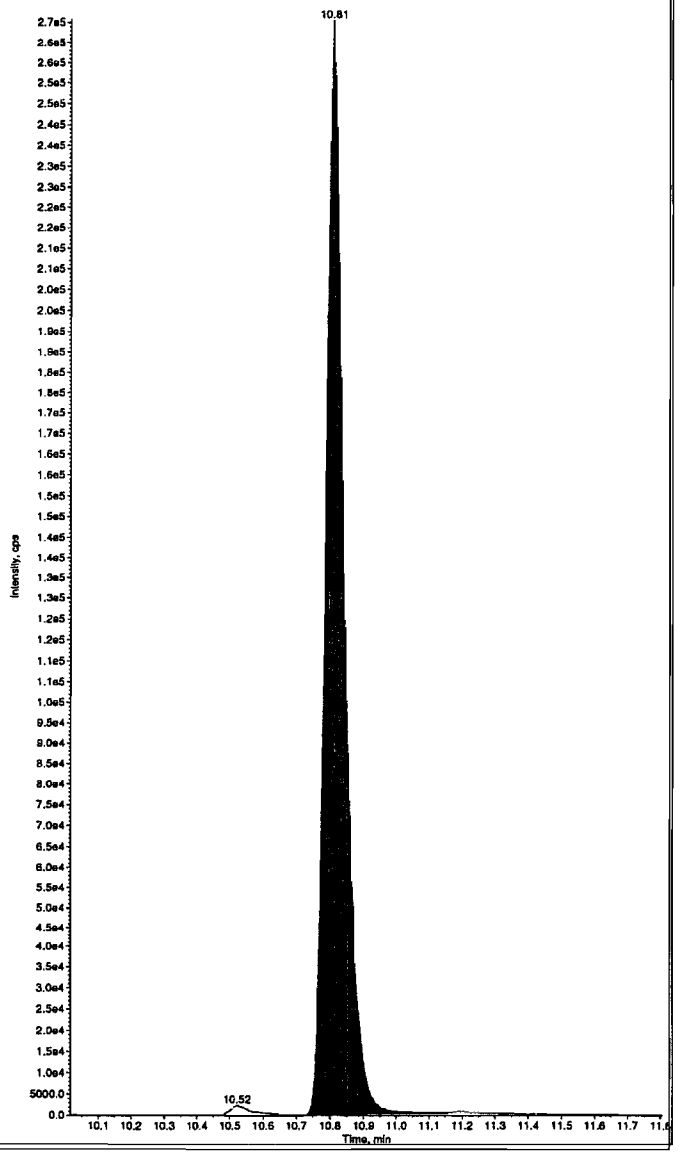

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Before LER 4/7/10

nple Name: "WXX100405-20" Sample ID: "|1|LER" File: "EXS04050004.wiff"
sk Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_I" Annotation: ""

le Index: 1
le Type: Standard
entration: 100. ng/mL
ulated Conc: 103. ng/mL
Date: 4/5/2010
Time: 1:30:59 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.86 min
Relative RT: No

Type: Valley
ntion Time: 6.85 min
: 7.33e+004 counts
ht: 16754.704 cps
t Time: 6.76 min
Time: 7.38 min

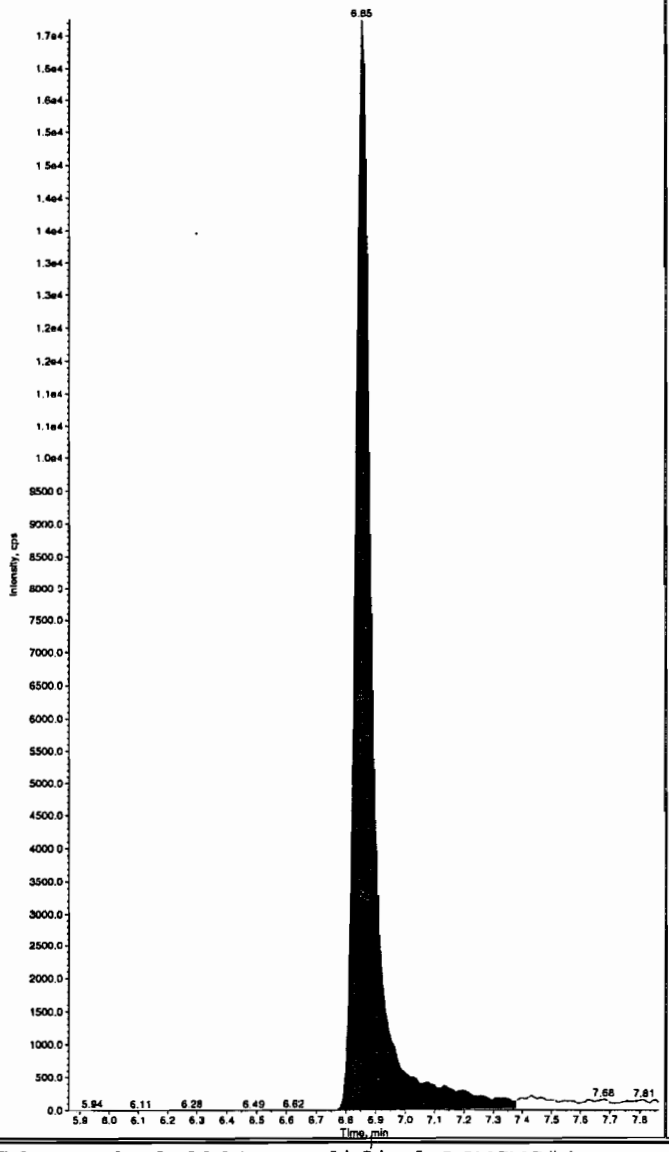

Sample Name: "WXX100405-20" Sample ID: "|1|LER" File: "EXS04050004.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 1:30:59 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.09 min
Area: 6.57e+005 counts
Height: 169749.405 cps
Start Time: 8.02 min
End Time: 8.22 min

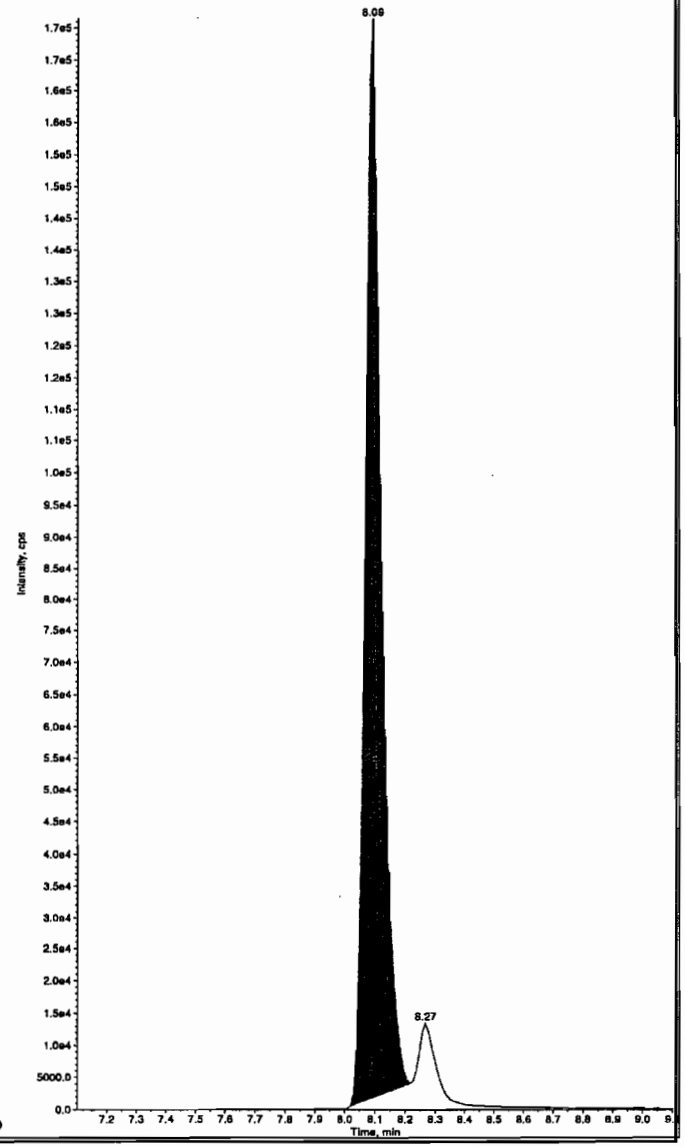

HMM 04/08/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Lab 4/7/10

mple Name: "WXX100405-20" Sample ID: "|1|LER" File: "EXS04050004.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_I" Annotation: ""

```
le Index:        1
le Type:      Standard
entration:      100.     ng/mL
ulated Conc:    103.     ng/mL
 Date:       4/5/2010
 Time:       1:30:59 PM

fied:            No
. Algorithm: IntelliQuan - IQA
 Peak Height:2500.00   cps
 Peak Width:    0.00   sec
thing Width:  3       points
indow:         30.0   sec
cted RT:        6.86  min
Relative RT:    No

 Type:        Valley
ction Time:     6.85  min
:          7.33e+004  counts
at:         16754.704  cps
 Time:          6.76  min
Time:           7.38  min
```

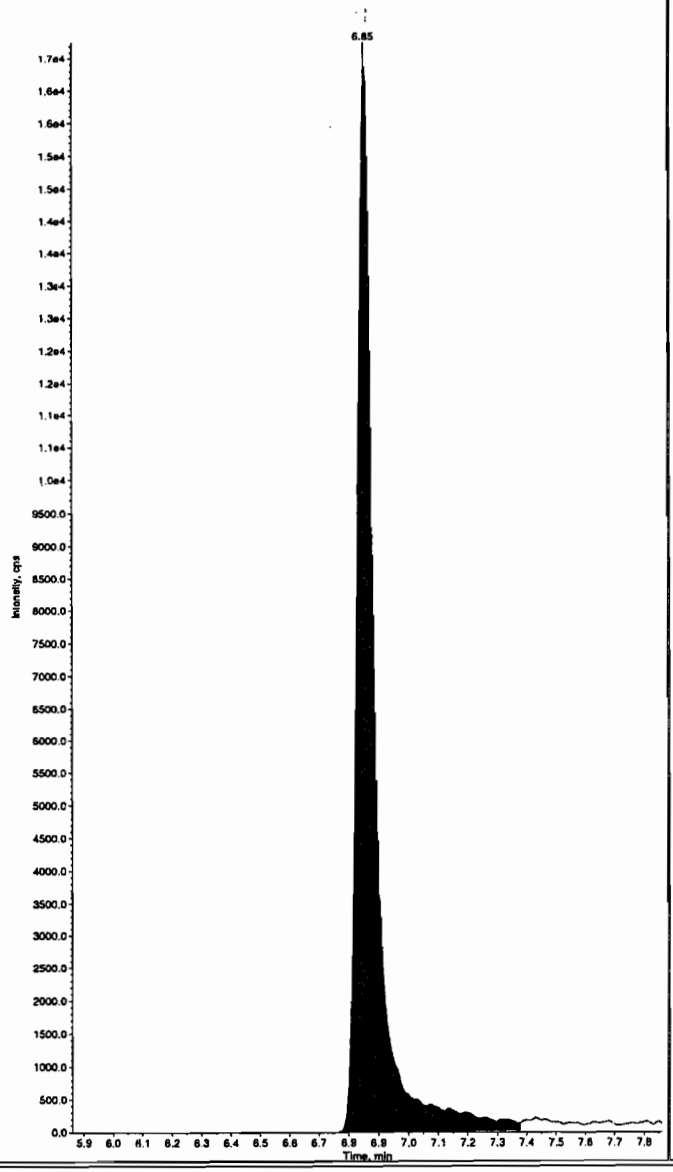

Sample Name: "WXX100405-20" Sample ID: "|1|LER" File: "EXS04050004.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:      100.     ng/mL
Calculated Conc:    107.     ng/mL
Acq. Date:       4/5/2010
Acq. Time:       1:30:59 PM

Modified:           Yes
RT Window:         15.0    sec
Expected RT:        8.10   min
Use Relative RT:    No

Int. Type:        Manual
Retention Time:     8.09   min
Area:         6.79e+005   counts
Height:       171641.745  cps
Start Time:         8.01   min
End Time:           8.22   min
```

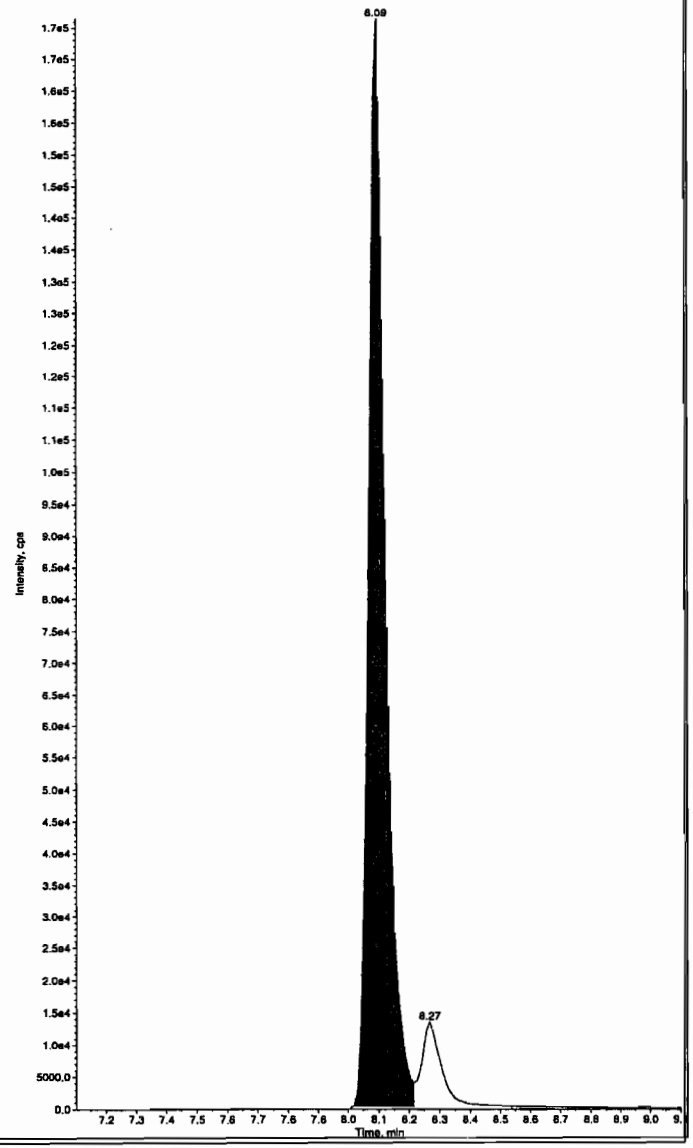

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ımple Name: "WXX100405-20" Sample ID: "[1]LER" File: "EXS04050004.wiff"
ıak Name: "34-Dinitrotoluene" Masa(es): "182.1/151.9 amu"
ɔmment: "LCMSEXP_I" Annotation: ""

ɔle Index: 1
ɔle Type: Standard
ɔentration: 50.0 ng/mL
ɔulated Conc: 53.0 ng/mL
. Date: 4/5/2010
. Time: 1:30:59 PM

.fied: No
:. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
ɔthing Width: 3 points
/indow: 15.0 sec
ɔcted RT: 8.28 min
Relative RT: No

Type: Valley
ɔntion Time: 8.27 min
:: 4.15e+005 counts
ıht: 103014.786 cps
't Time: 8.20 min
Time: 8.59 min

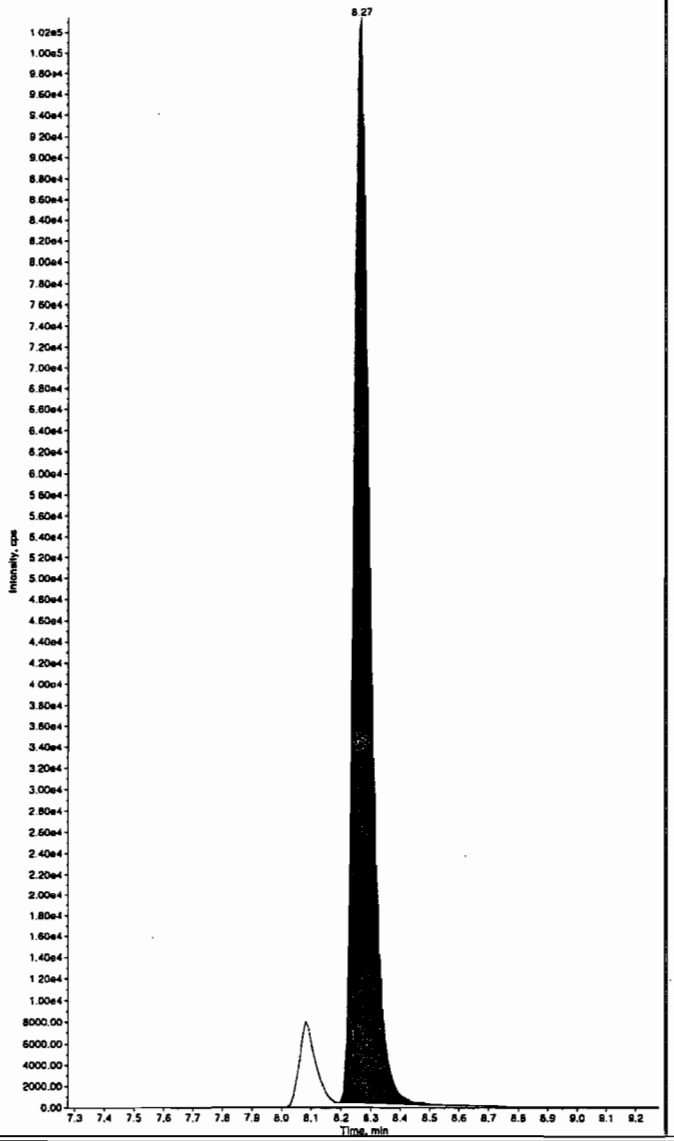

Sample Name: "WXX100405-20" Sample ID: "[1]LER" File: "EXS04050004.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 100. ng/mL
Calculated Conc: 113. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 1:30:59 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.92 min
Area: 2.56e+005 counts
Height: 61762.894 cps
Start Time: 4.84 min
End Time: 5.22 min

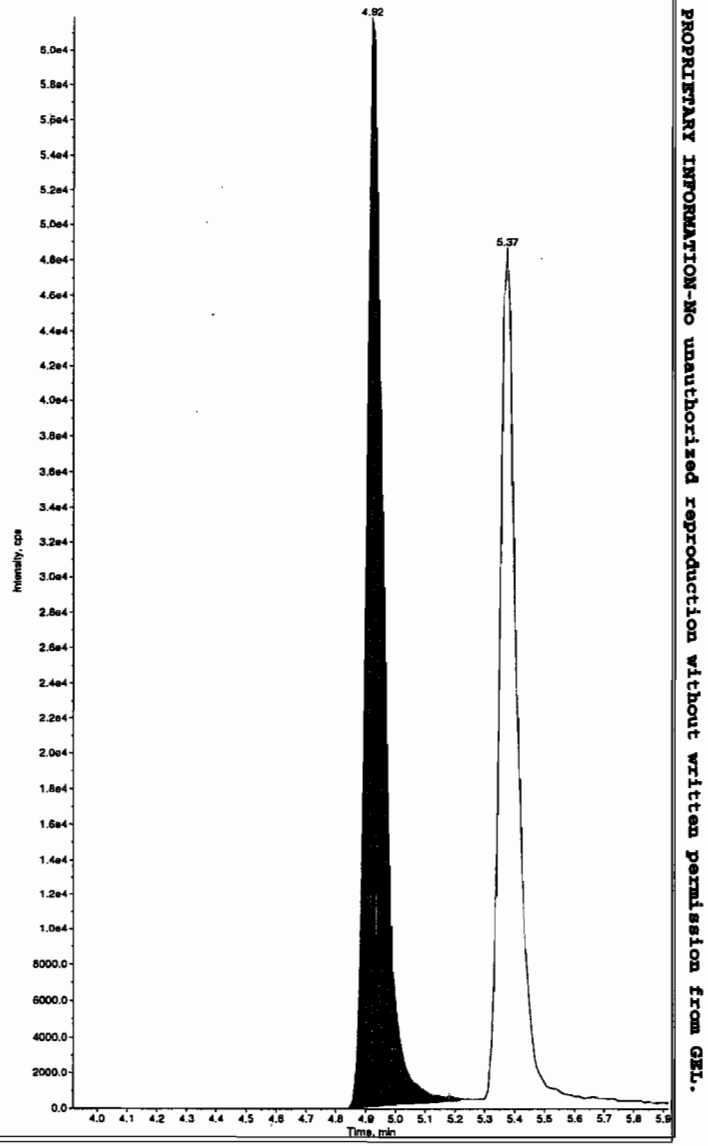

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100405-20" Sample ID: "|1|LER" File: "EXS04050004.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_I" Annotation: ""

le Index: 1
le Type: Standard
encration: 100. ng/mL
ulated Conc: 108. ng/mL
Date: 4/5/2010
Time: 1:30:59 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.37 min
Relative RT: No

Type: Valley
ntion Time: 5.37 min
: 1.94e+005 counts
nt: 48113.998 cps
t Time: 5.26 min
Time: 5.62 min

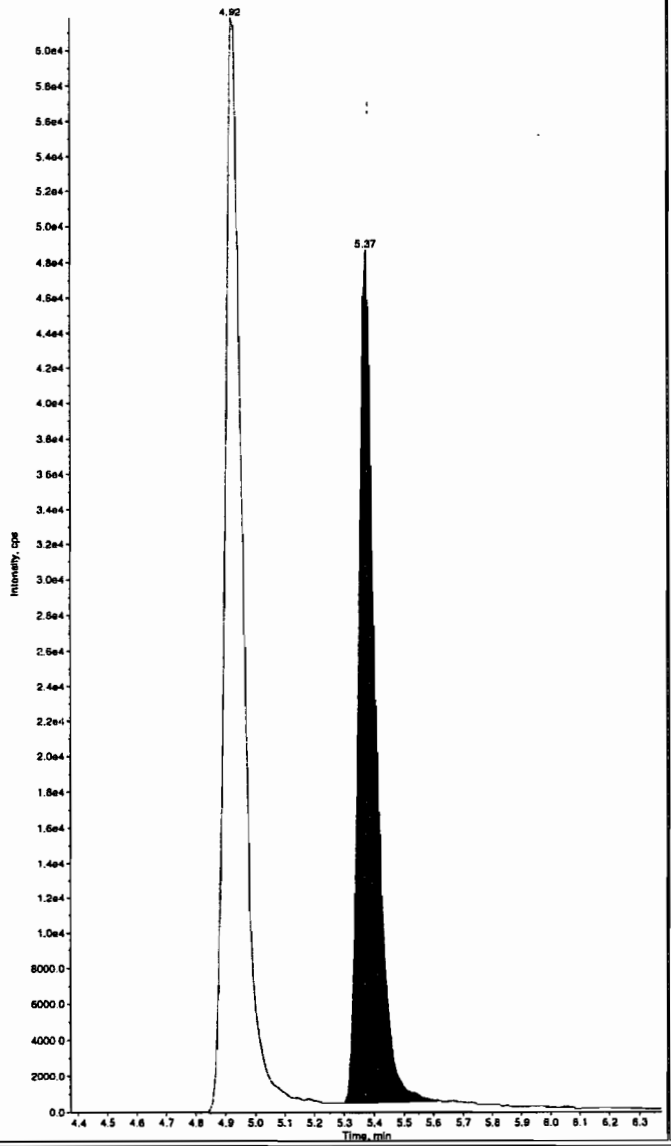

Sample Name: "WXX100405-20" Sample ID: "|1|LER" File: "EXS04050004.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 100. ng/mL
Calculated Conc: 113. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 1:30:59 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 2.04e+006 counts
Height: 508941.681 cps
Start Time: 10.7 min
End Time: 11.1 min

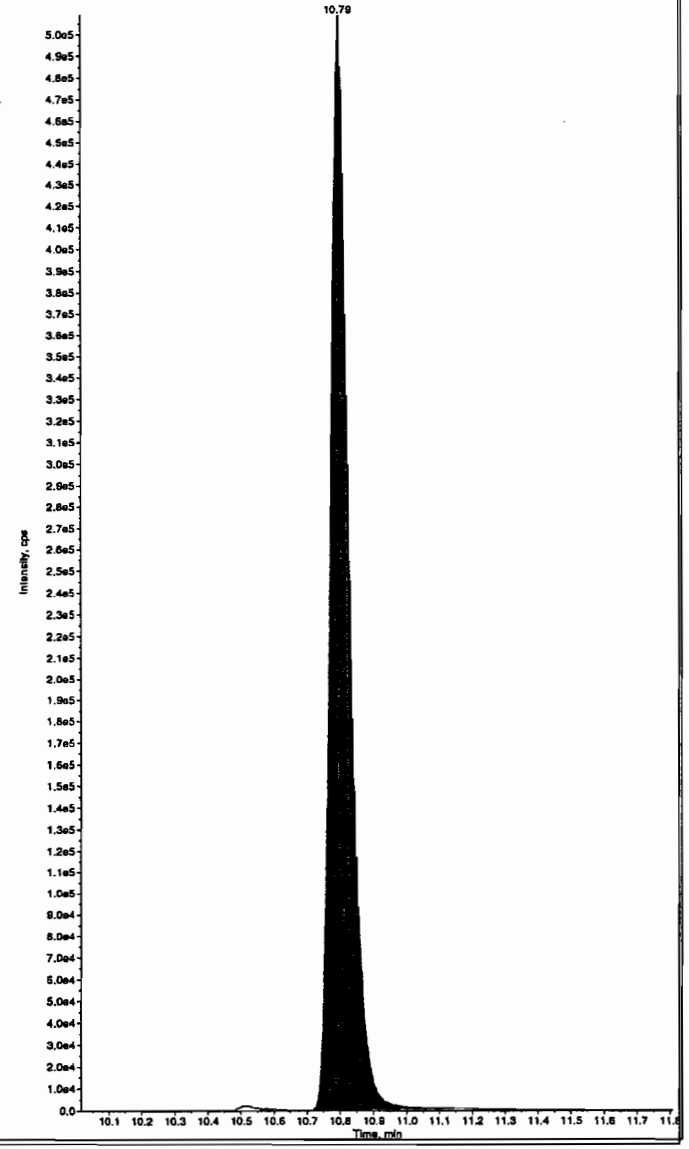

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

LCR 4/7/10

nple Name: "WXX100405-21" Sample ID: "|1|LER" File: "EXS04050005.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_I" Annotation: ""

le Index: 1
le Type: Standard
entration: 250. ng/mL
ulated Conc: 237. ng/mL
Date: 4/5/2010
Time: 1:46:41 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.86 min
Relative RT: No

Type: Valley
ction Time: 6.86 min
: 1.84e+005 counts
ht: 40719.627 cps
: Time: 6.76 min
Time: 7.50 min

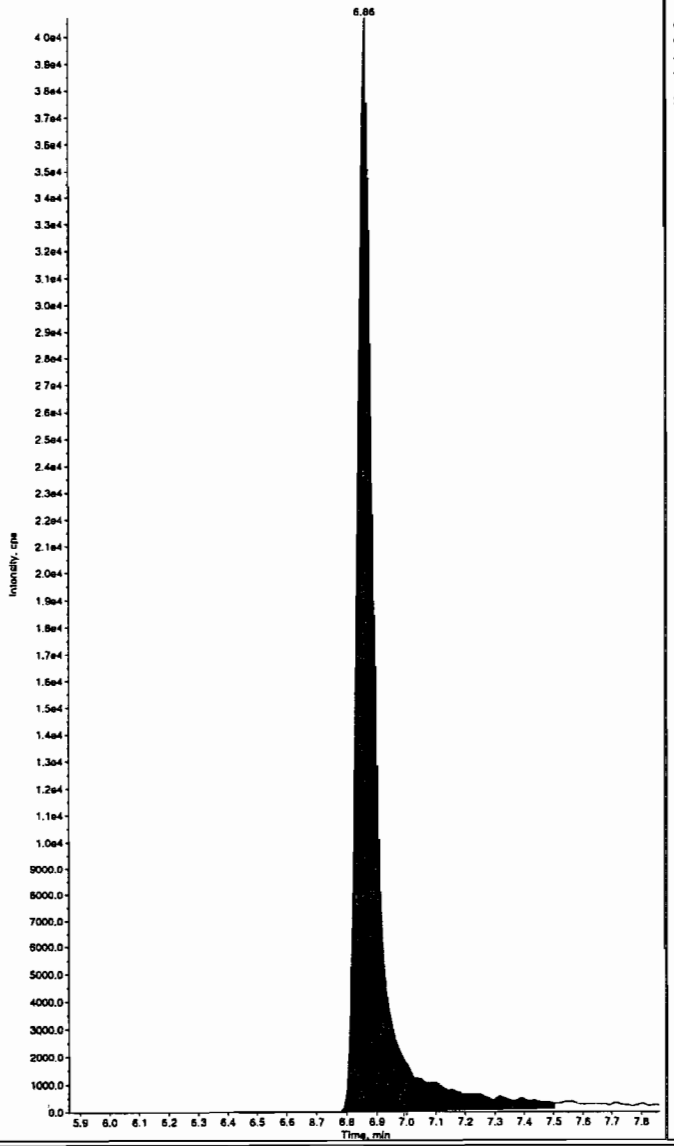

Sample Name: "WXX100405-21" Sample ID: "|1|LER" File: "EXS04050005.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 250. ng/mL
Calculated Conc: 238. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 1:46:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.10 min
Area: 1.59e+006 counts
Height: 390353.088 cps
Start Time: 8.01 min
End Time: 8.23 min

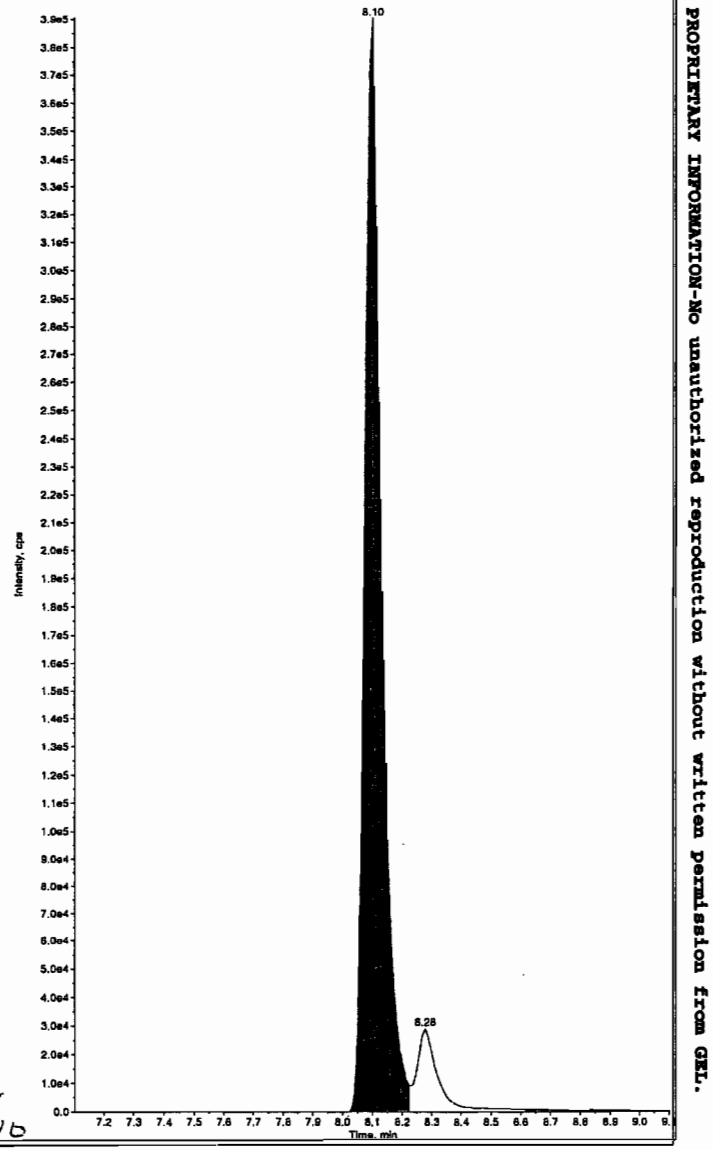

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100405-21" Sample ID: "|1|LER" File: "EXS04050005.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_I" Annotation: ""

le Index: 1
le Type: Standard
entration: 125. ng/mL
ulated Conc: 114. ng/mL
Date: 4/5/2010
Time: 1:46:41 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.28 min
Relative RT: No

Type: Valley
ntion Time: 8.27 min
: 9.47e+005 counts
nt: 235964.630 cps
t Time: 8.20 min
Time: 8.65 min

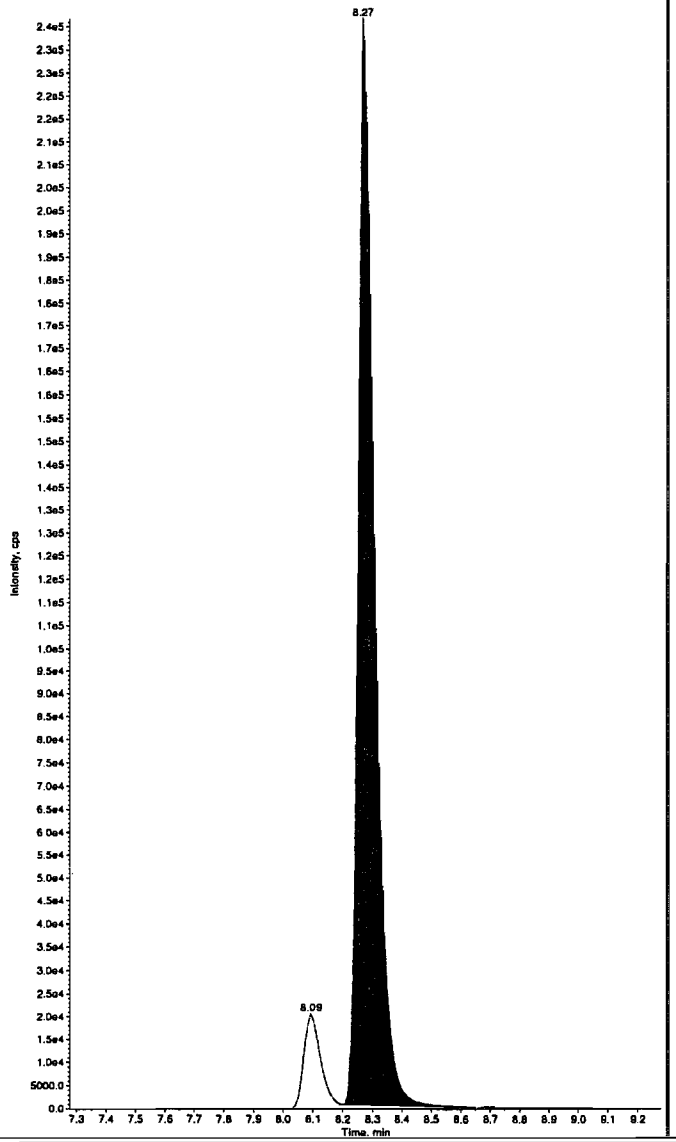

Sample Name: "WXX100405-21" Sample ID: "|1|LER" File: "EXS04050005.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 250. ng/mL
Calculated Conc: 237. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 1:46:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.92 min
Area: 6.36e+005 counts
Height: 150953.735 cps
Start Time: 4.83 min
End Time: 5.22 min

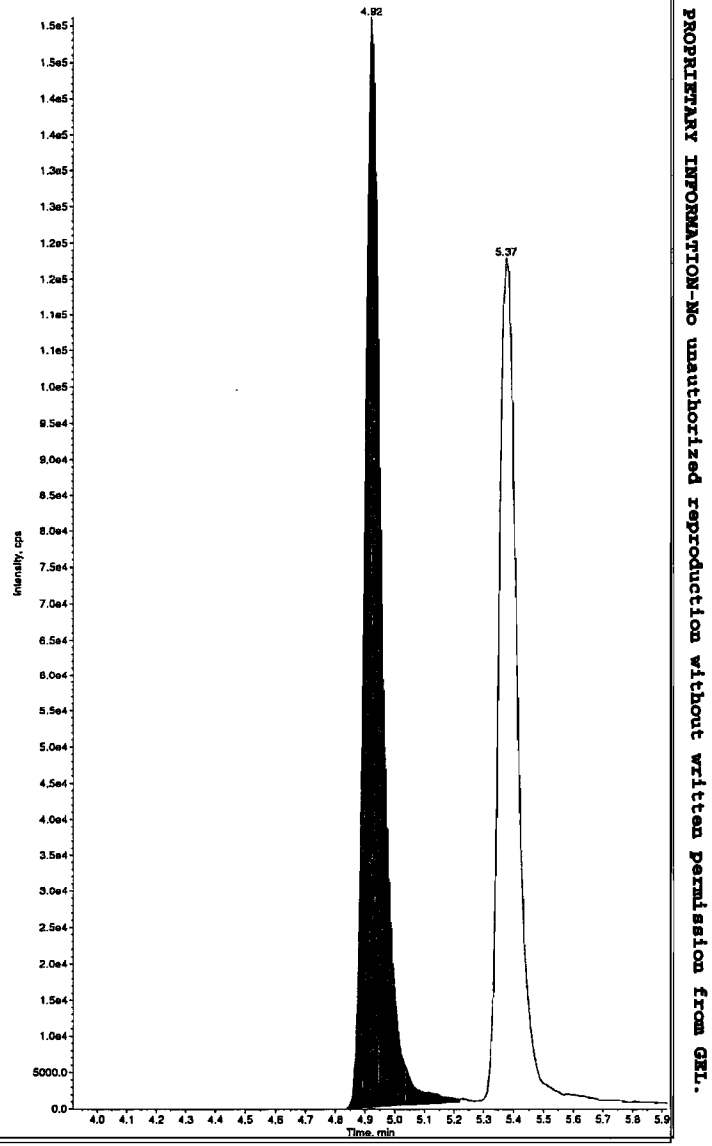

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ımple Name: "WXX100405-21" Sample ID: "|1|LER" File: "EXS04050005.wiff"
:ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ımment: "LCMSEXP_I" Annotation: ""
ıle Index: 1
ıle Type: Standard
:entration: 250. ng/mL
:ulated Conc: 249. ng/mL
Date: 4/5/2010
Time: 1:46:41 PM

.fied: No
:. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
ıthing Width: 3 points
ıindow: 30.0 sec
ɔcted RT: 5.37 min
Relative RT: No

Type: Valley
ntion Time: 5.37 min
: 5.14e+005 counts
ht: 117008.331 cps
t Time: 5.27 min
Time: 5.83 min

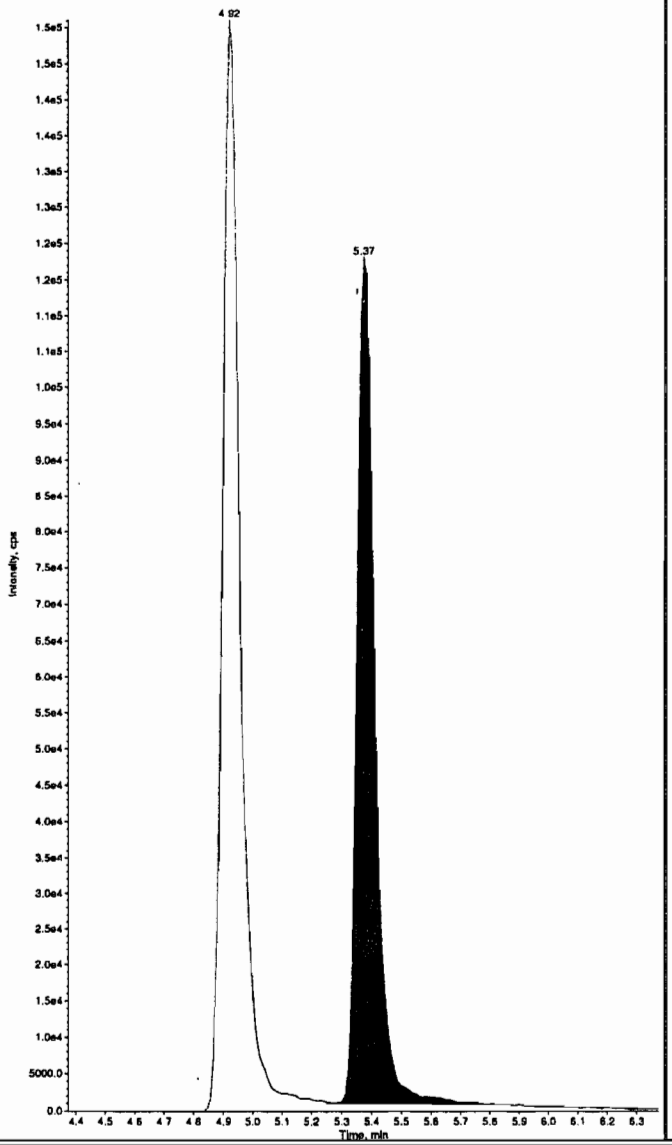

Sample Name: "WXX100405-21" Sample ID: "|1|LER" File: "EXS04050005.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 250. ng/mL
Calculated Conc: 261. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 1:46:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 4.70e+006 counts
Height: 1154838.867 cps
Start Time: 10.7 min
End Time: 11.1 min

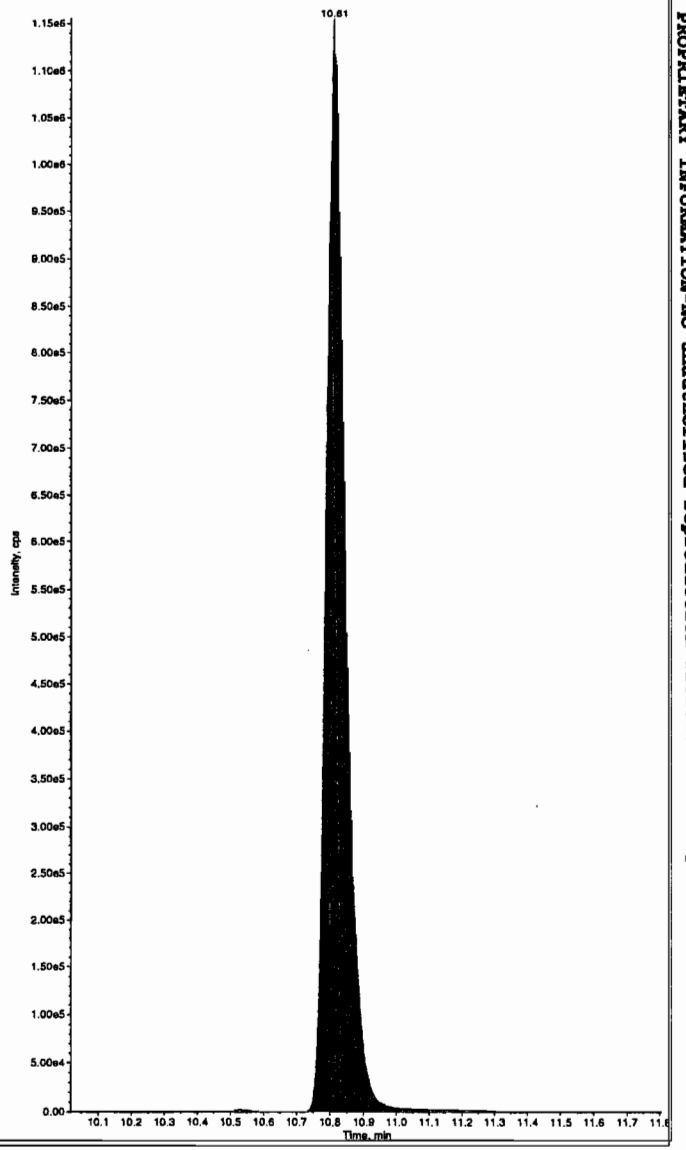

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

LER 4/7/10

ample Name: "WXX100405-22" Sample ID: "|1|LER" File: "EXS04050006.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_I" Annotation: ""
ple Index: 1
ple Type: Standard
centration: 500. ng/mL
culated Conc: 501. ng/mL
. Date: 4/5/2010
. Time: 2:02:24 PM

ified: No
. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 6.86 min
Relative RT: No

. Type: Valley
ention Time: 6.85 min
: 3.99e+005 counts
ght: 85503.746 cps
t Time: 6.75 min
Time: 7.52 min

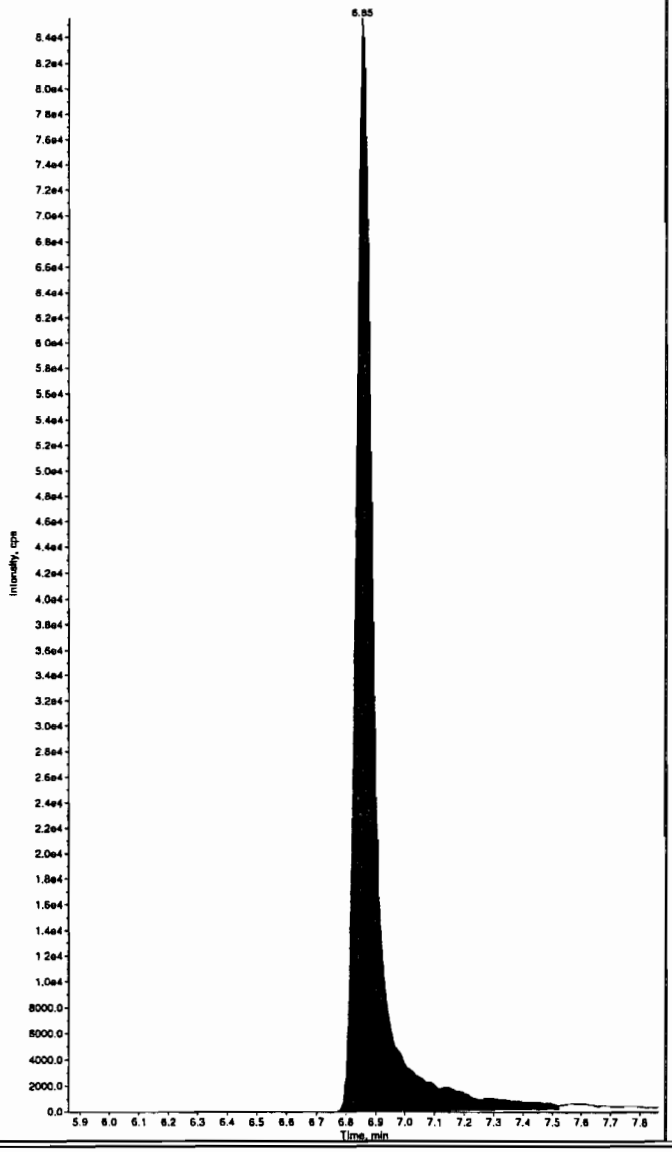

Sample Name: "WXX100405-22" Sample ID: "|1|LER" File: "EXS04050006.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 500. ng/mL
Calculated Conc: 483. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 2:02:24 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.09 min
Area: 3.21e+006 counts
Height: 773351.685 cps
Start Time: 7.99 min
End Time: 8.23 min

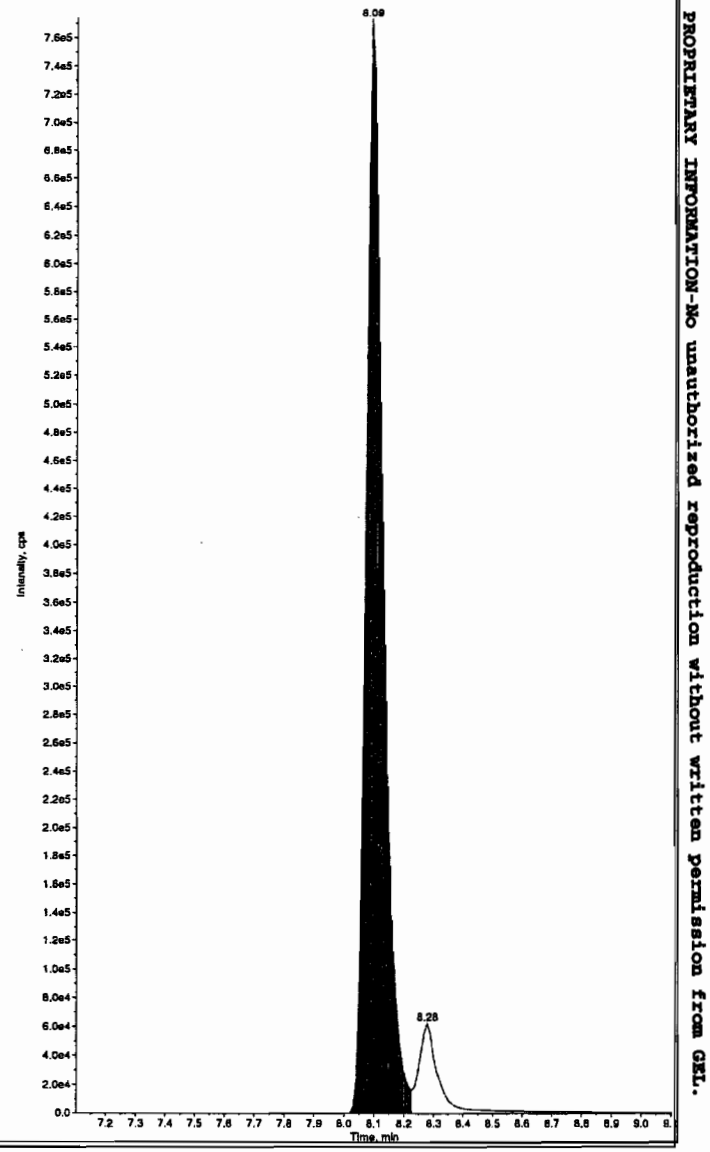

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100405-22" Sample ID: "[1]LER" File: "EXS04050006.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_I" Annotation: ""

```
ple Index:        1
ple Type:      Standard
centration:      250.     ng/mL
culated Conc:    224.     ng/mL
 Date:        4/5/2010
 Time:        2:02:24 PM

fied:            No
. Algorithm: IntelliQuan - IQA
 Peak Height:1460.00    cps
 Peak Width:    0.00    sec
othing Width:  3       points
Window:         15.0    sec
cted RT:         8.28   min
 Relative RT:    No

 Type:         Valley
ntion Time:      8.27   min
:          1.91e+006   counts
ht:          490479.004  cps
t Time:          8.20   min
Time:            8.62   min
```

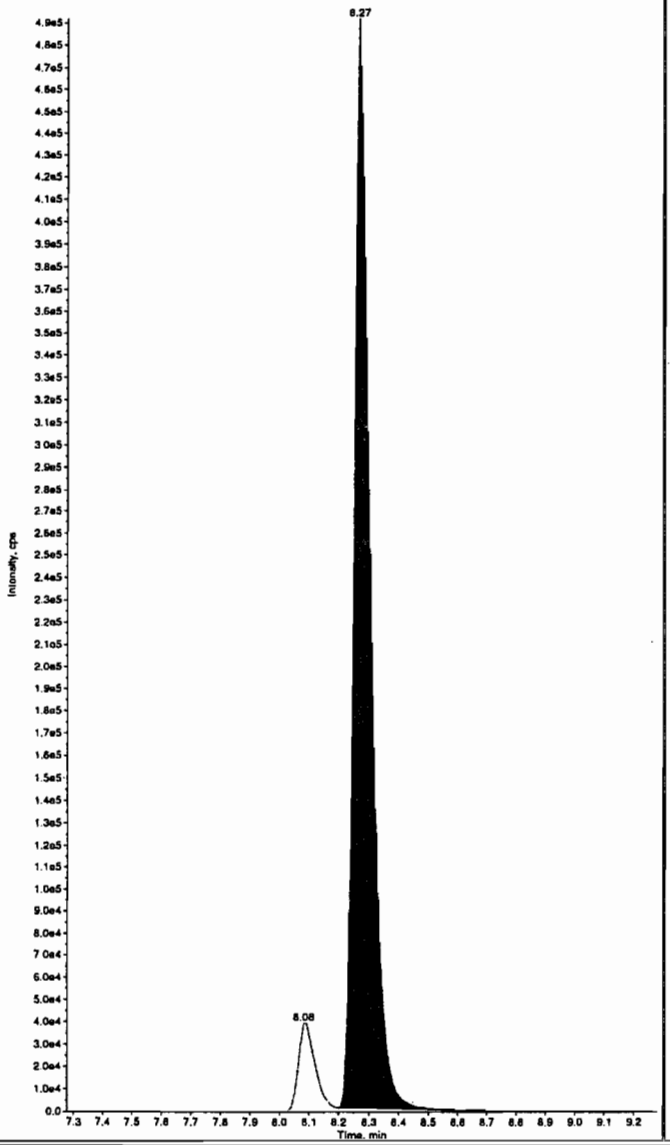

Sample Name: "WXX100405-22" Sample ID: "[1]LER" File: "EXS04050006.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:      500.     ng/mL
Calculated Conc:    464.     ng/mL
Acq. Date:        4/5/2010
Acq. Time:        2:02:24 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3       points
RT Window:         30.0     sec
Expected RT:        4.92    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     4.92    min
Area:          1.31e+006   counts
Height:         301903.534  cps
Start Time:         4.83    min
End Time:           5.23    min
```

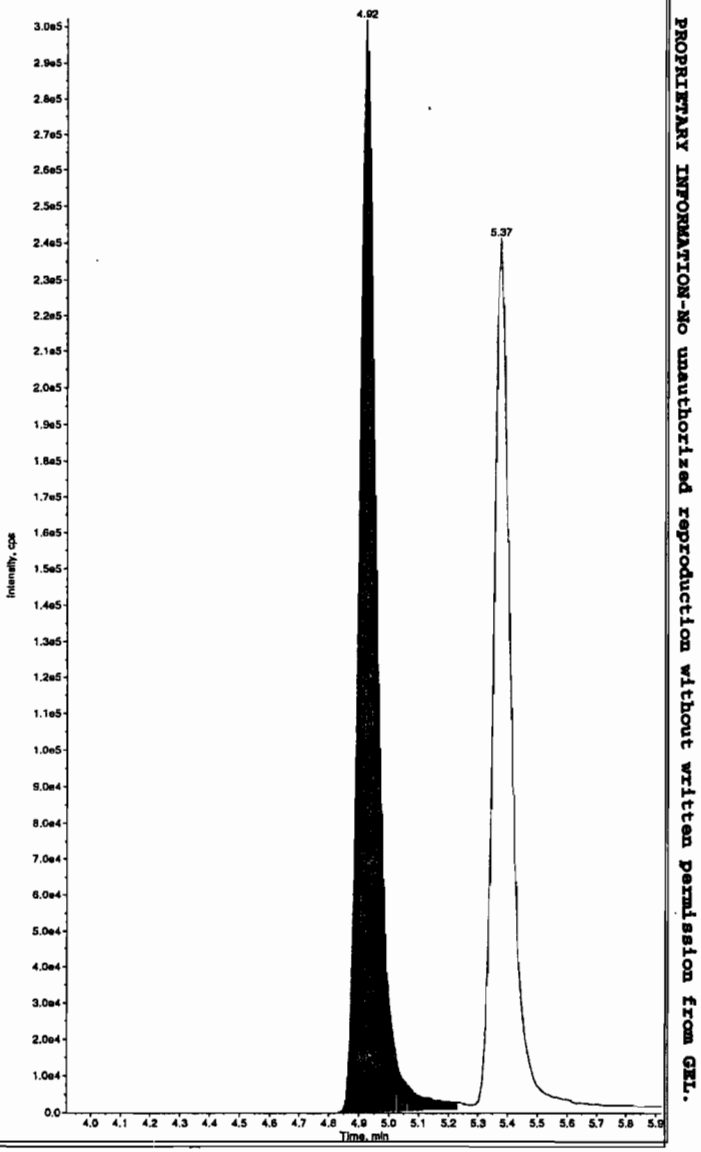

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100405-22" Sample ID: "|1|LER" File: "EXS04050006.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_I" Annotation: ""

```
le Index:        1
le Type:      Standard
entration:       500.     ng/mL
ulated Conc:     461.     ng/mL
 Date:        4/5/2010
 Time:        2:02:24 PM

fied:            No
. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00    cps
 Peak Width:    0.00    sec
ching Width:  3        points
Window:        30.0     sec
cted RT:        5.37    min
Relative RT:    No

 Type:        Valley
ation Time:     5.37    min
:          9.84e+005   counts
a:        239447.601   cps
: Time:         5.28    min
Time:           5.73    min
```

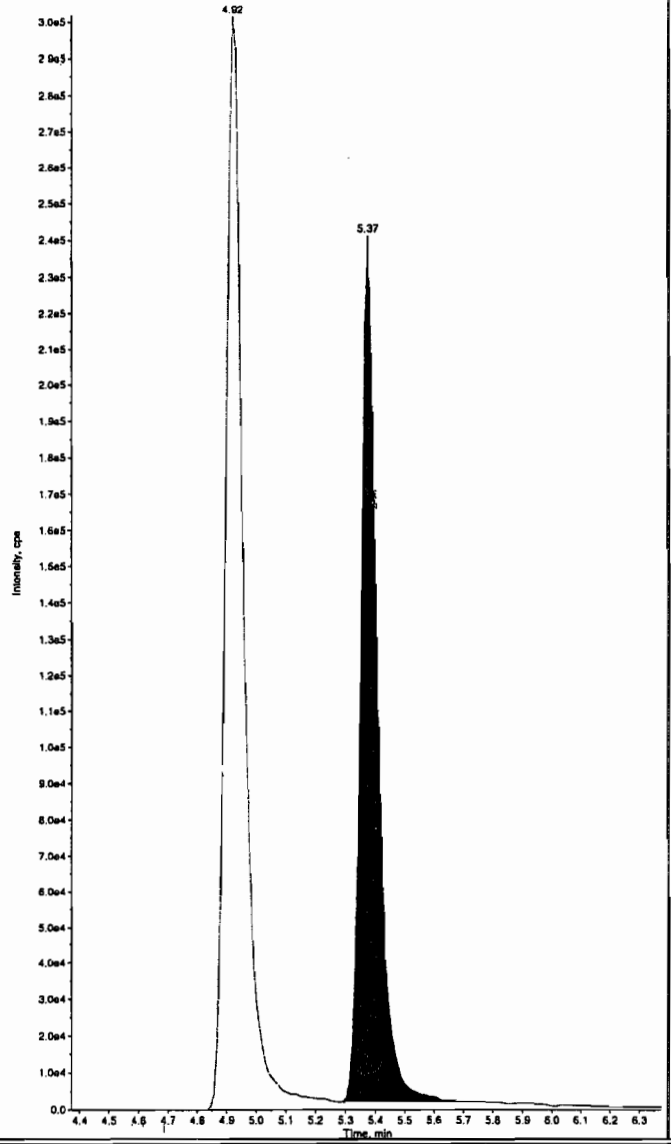

Sample Name: "WXX100405-22" Sample ID: "|1|LER" File: "EXS04050006.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:       500.     ng/mL
Calculated Conc:     501.     ng/mL
Acq. Date:        4/5/2010
Acq. Time:        2:02:24 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:        10.8    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.8    min
Area:          9.03e+006   counts
Height:        2142805.908  cps
Start Time:         10.7    min
End Time:           11.2    min
```

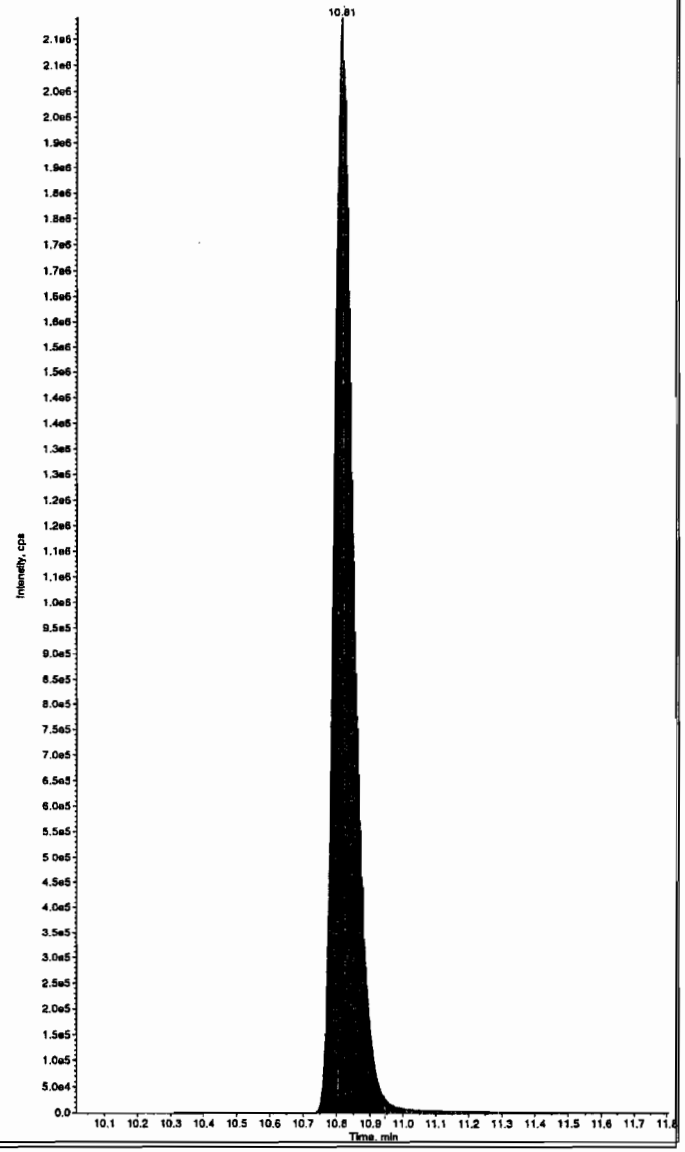

Lan 4/7/10

mple Name: "WXX100405-23" Sample ID: "|1|LER" File: "EXS04050007.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_I" Annotation: ""

```
ıle Index:        1
ıle Type:      Standard
:entration:      750.     ng/mL
:ulated Conc:    742.     ng/mL
 Date:       4/5/2010
 Time:       2:18:08 PM

.fied:            No
:. Algorithm: IntelliQuan - IQA
 Peak Height:2500.00    cps
 Peak Width:    0.00    sec
ıthing Width:  3       points
ıindow:         30.0    sec
:cted RT:        6.86   min
 Relative RT:    No

 Type:         Valley
ntion Time:      6.86   min
:          5.94e+005   counts
ht:          126529.671  cps
t Time:          6.77   min
Time:            7.56   min
```

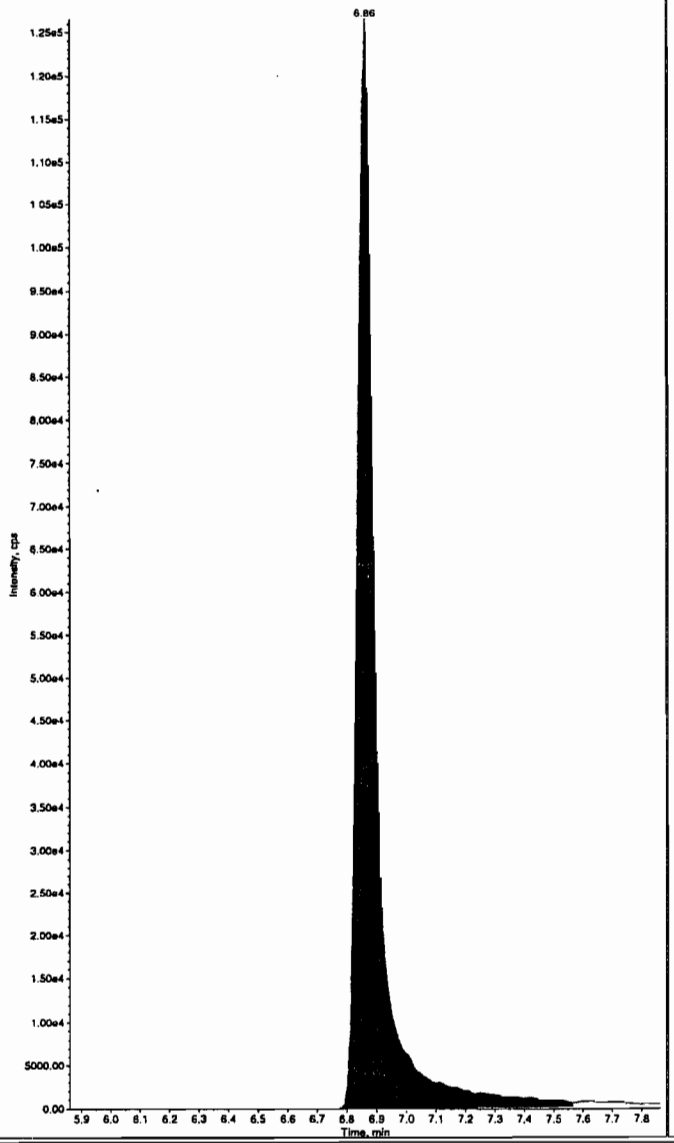

Sample Name: "WXX100405-23" Sample ID: "|1|LER" File: "EXS04050007.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/45.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:      750.     ng/mL
Calculated Conc:    707.     ng/mL
Acq. Date:       4/5/2010
Acq. Time:       2:18:08 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3       points
RT Window:          15.0    sec
Expected RT:         8.10   min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      8.10   min
Area:          4.58e+006   counts
Height:        1059052.368  cps
Start Time:          8.00   min
End Time:            8.23   min
```

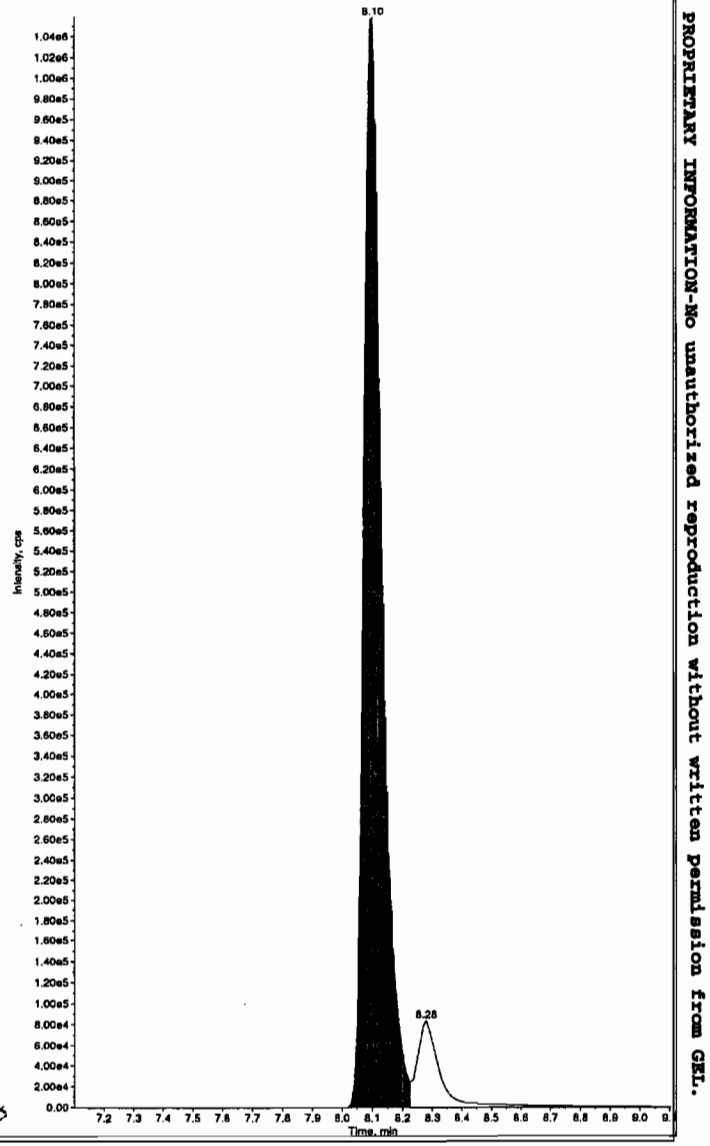

Hnm 04/08/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ımple Name: "WXX100405-23" Sample ID: "[1]LER" File: "EXS04050007.wiff"
ıak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ɔmment: "LCMSEXP_I" Annotation: ""

ɔle Index: 1
ɔle Type: Standard
ɔentration: 325. ng/mL
ɔulated Conc: 345. ng/mL
. Date: 4/5/2010
. Time: 2:18:08 PM

ɪfied: No
:. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
ɔthing Width: 3 points
ɪindow: 15.0 sec
ɔcted RT: 8.28 min
Relative RT: No

Type: Valley
ɪntion Time: 8.23 min
ı: 2.92e+006 counts
ıht: 691066.833 cps
't Time: 8.20 min
Time: 8.76 min

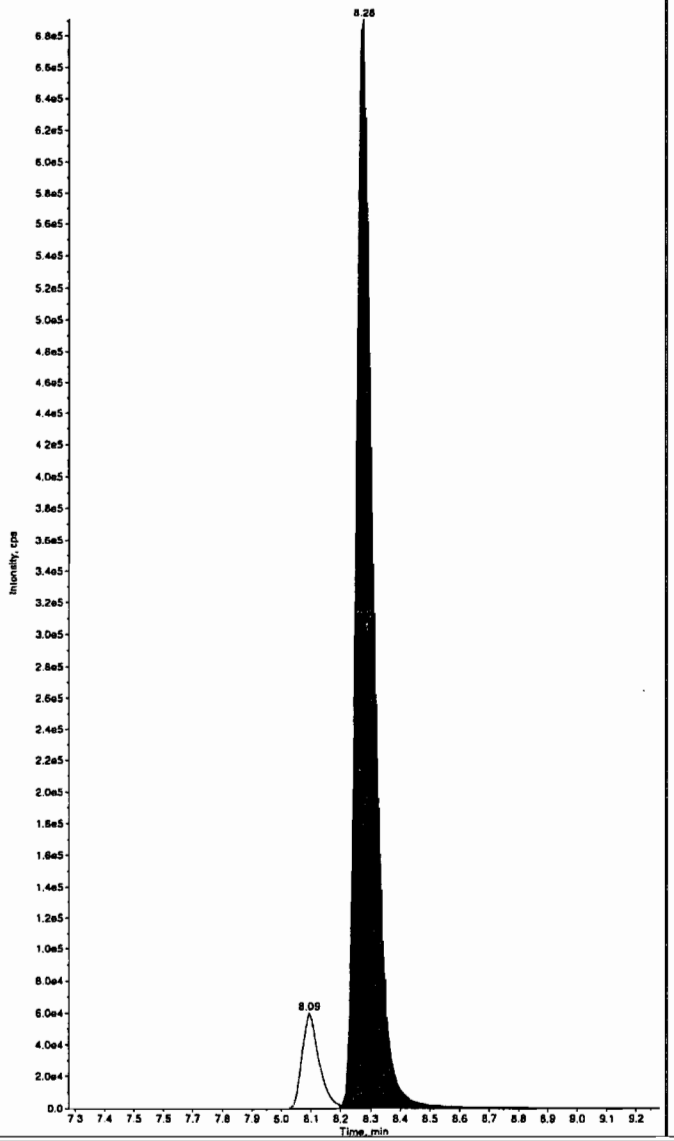

Sample Name: "WXX100405-23" Sample ID: "[1]LER" File: "EXS04050007.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 750. ng/mL
Calculated Conc: 654. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 2:18:08 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.92 min
Area: 1.84e+006 counts
Height: 424109.924 cps
Start Time: 4.84 min
End Time: 5.21 min

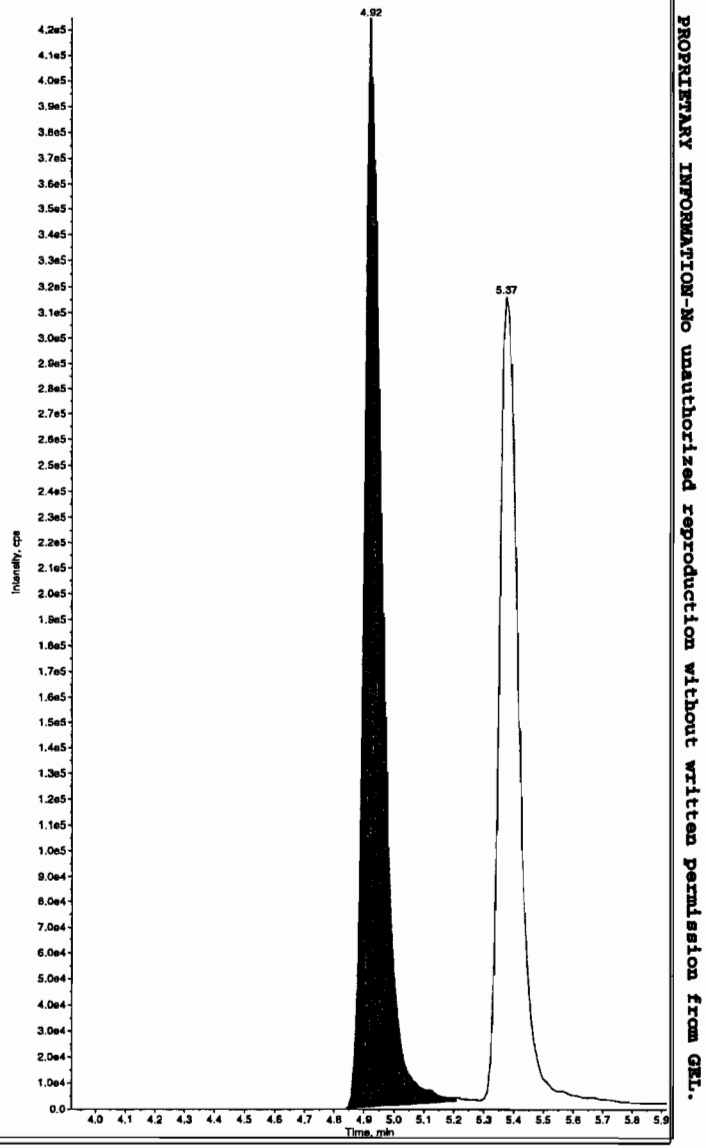

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100405-23" Sample ID: "[1]LER" File: "EXS04050007.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_I" Annotation: ""

```
le Index:        1
le Type:      Standard
entration:       750.     ng/mL
ulated Conc:     580.     ng/mL
 Date:        4/5/2010
 Time:        2:18:08 PM

fied:            No
. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00    cps
 Peak Width:    0.00    sec
thing Width:  3        points
indow:         30.0     sec
cted RT:        5.37    min
Relative RT:    No

 Type:         Valley
ntion Time:     5.37    min
:          1.45e+006   counts
ht:        313016.113  cps
t Time:         5.28    min
Time:           5.80    min
```

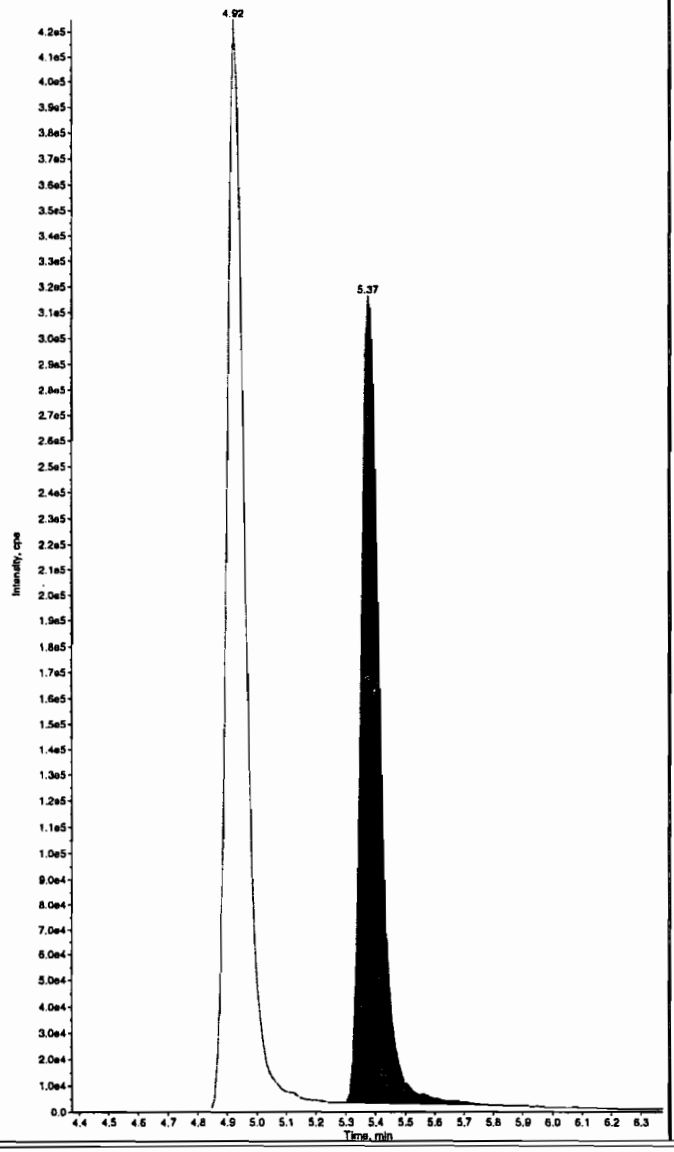

Sample Name: "WXX100405-23" Sample ID: "[1]LER" File: "EXS04050007.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:       750.     ng/mL
Calculated Conc:     710.     ng/mL
Acq. Date:        4/5/2010
Acq. Time:        2:18:08 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:        10.8    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.8    min
Area:          1.28e+007   counts
Height:        2974220.215 cps
Start Time:         10.7    min
End Time:           11.2    min
```

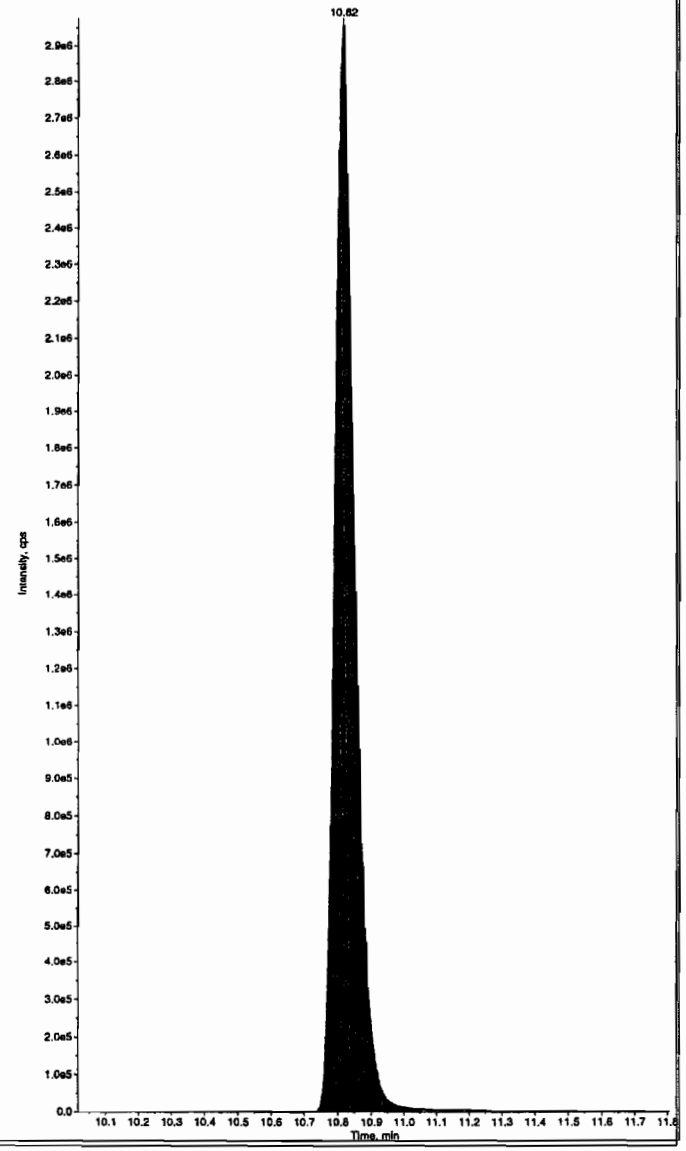

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Before Dar 4/7/10

mple Name: "WXX100405-24" Sample ID: "|1|LER" File: "EXS04050008.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_I" Annotation: ""
le Index: 1
le Type: Standard
entration: 1000. ng/mL
ulated Conc: 1010. ng/mL
Date: 4/5/2010
Time: 2:33:50 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.86 min
Relative RT: No

Type: Valley
ntion Time: 6.86 min
: 8.09e+005 counts
ht: 170960.968 cps
t Time: 6.75 min
Time: 7.77 min

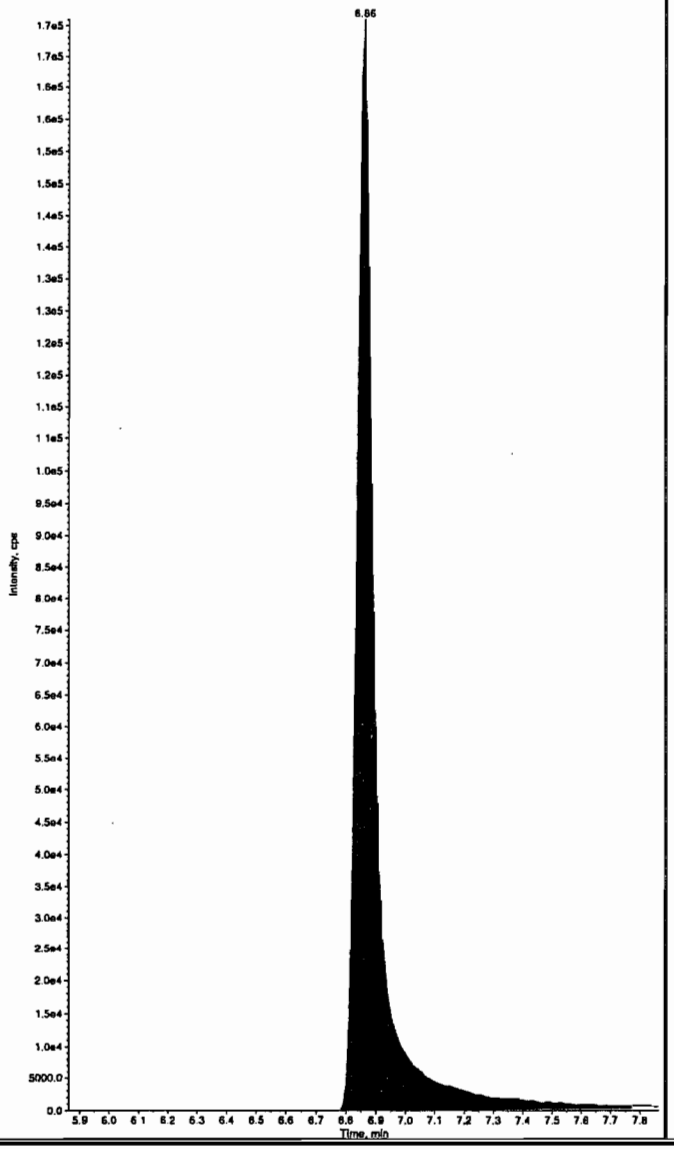

Sample Name: "WXX100405-24" Sample ID: "|1|LER" File: "EXS04050008.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 1000. ng/mL
Calculated Conc: 1050. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 2:33:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.09 min
Area: 6.36e+006 counts
Height: 1572094.727 cps
Start Time: 8.02 min
End Time: 8.23 min

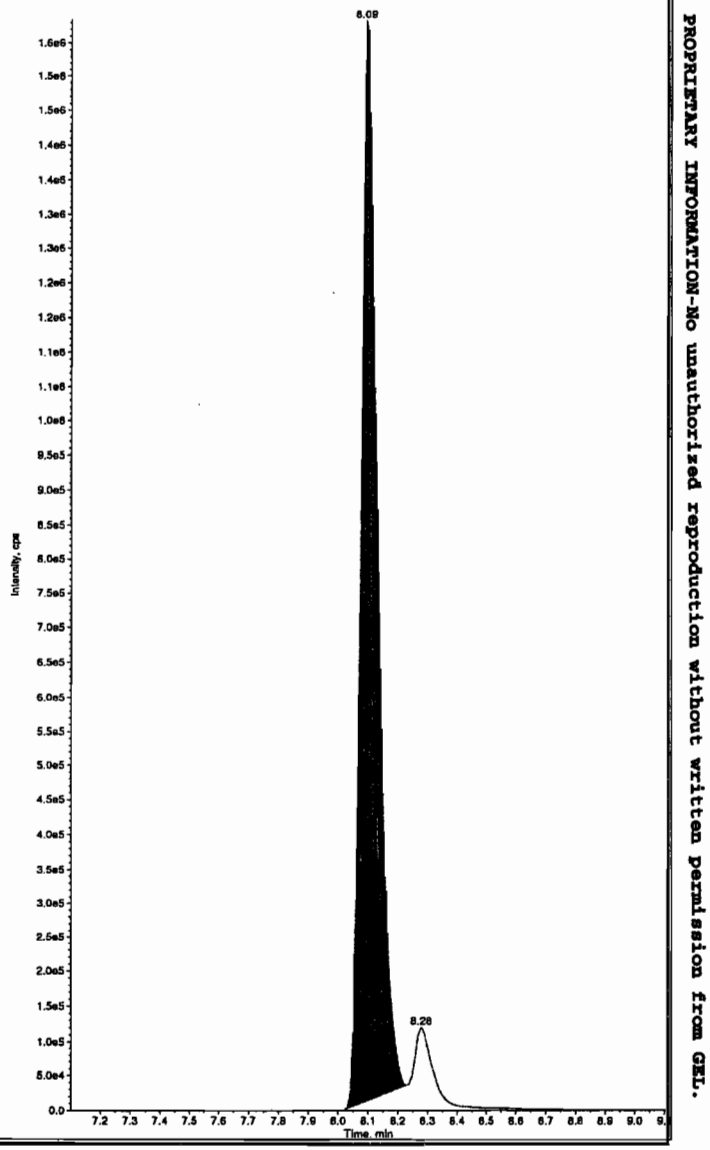

Hmm 04/08/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Lan 4/7/10

mple Name: "WXX100405-24" Sample ID: "|1|LER" File: "EXS04050008.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_I" Annotation: ""
ple Index: 1
ple Type: Standard
centration: 1000. ng/mL
culated Conc: 1010. ng/mL
Date: 4/5/2010
Time: 2:33:50 PM

fied: No
:. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 30.0 sec
cted RT: 6.86 min
Relative RT: No

Type: Valley
ntion Time: 6.86 min
: 8.09e+005 counts
ht: 170960.968 cps
t Time: 6.75 min
Time: 7.77 min

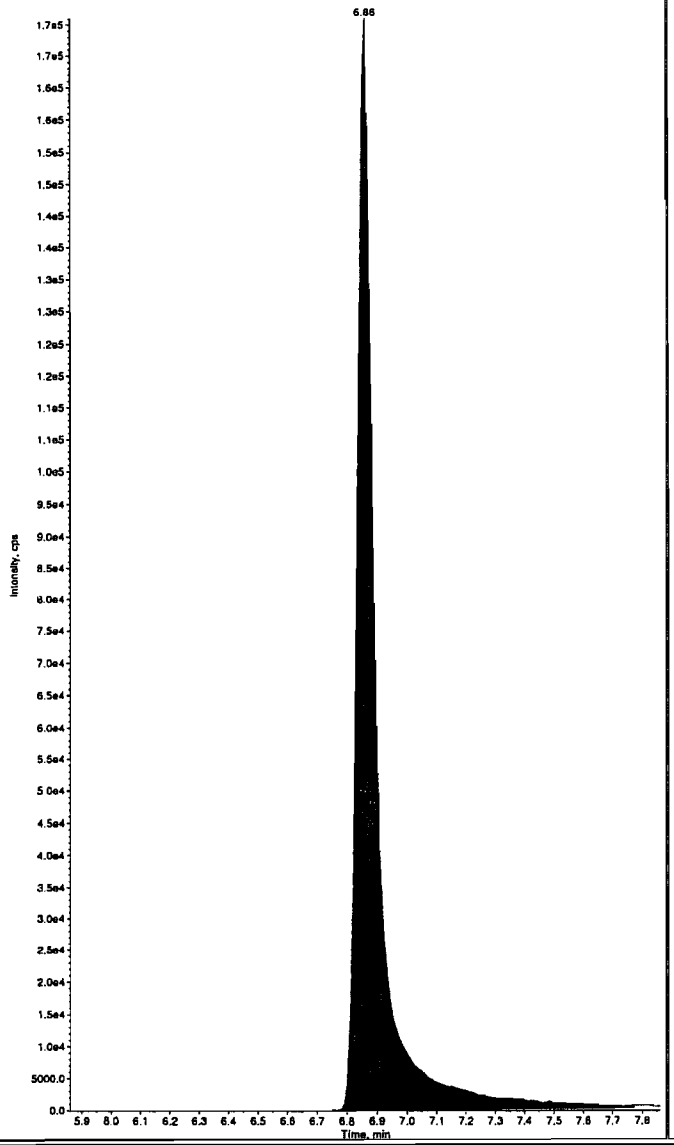

Sample Name: "WXX100405-24" Sample ID: "|1|LER" File: "EXS04050008.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 1000. ng/mL
Calculated Conc: 1060. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 2:33:50 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.10 min
Area: 6.55e+006 counts
Height: 1619094.293 cps
Start Time: 8.02 min
End Time: 8.23 min

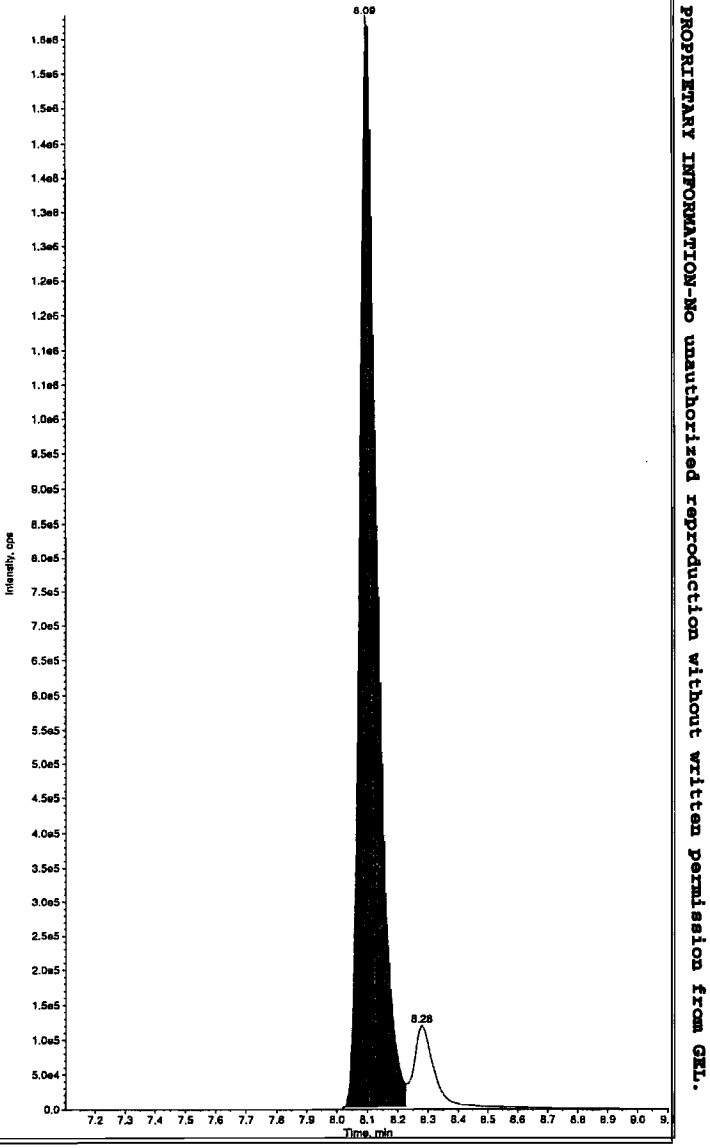

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ample Name: "WXX100405-24" Sample ID: "[1]LER" File: "EXS04050008.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_I" Annotation: ""

ple Index: 1
ple Type: Standard
centration: 500. ng/mL
culated Conc: 507. ng/mL
. Date: 4/5/2010
. Time: 2:33:50 PM

ified: No
:. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
/indow: 15.0 sec
cted RT: 8.28 min
Relative RT: No

Type: Valley
ntion Time: 8.28 min
: 4.20e+006 counts
ht: 1054543.091 cps
t Time: 8.20 min
Time: 8.63 min

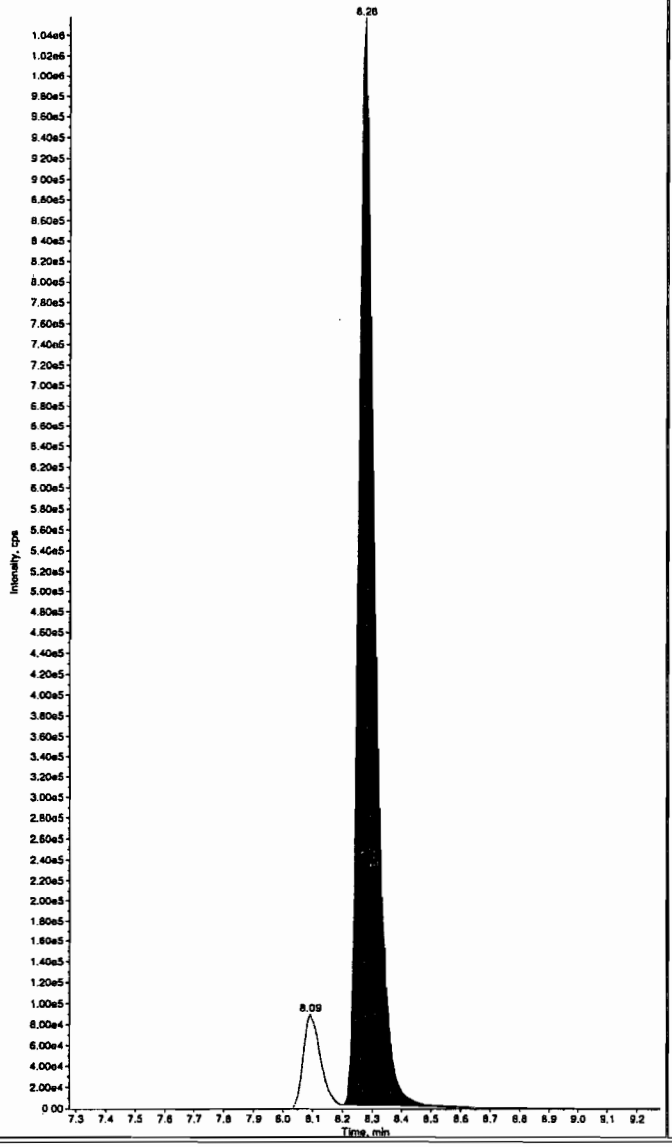

Sample Name: "WXX100405-24" Sample ID: "[1]LER" File: "EXS04050008.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 1000. ng/mL
Calculated Conc: 1130. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 2:33:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.92 min
Area: 3.07e+006 counts
Height: 724911.865 cps
Start Time: 4.84 min
End Time: 5.22 min

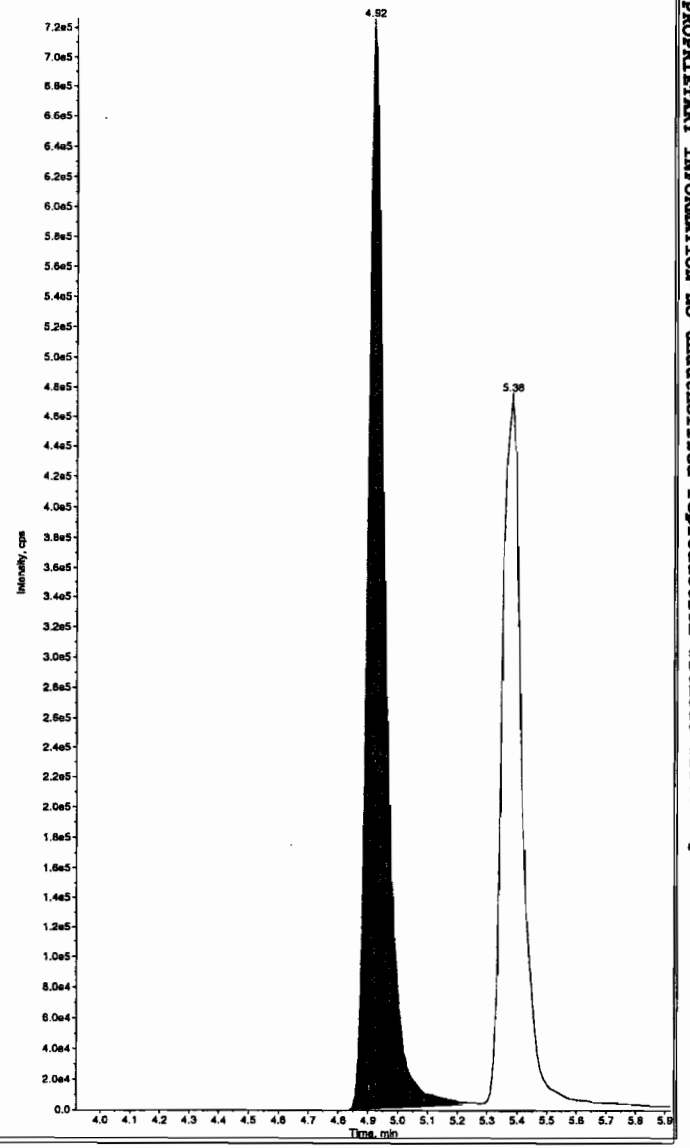

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100405-24" Sample ID: "|1|LER" File: "EXS04050008.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_I" Annotation: ""

```
ple Index:        1
ple Type:      Standard
centration:      1000.     ng/mL
culated Conc:    1100.     ng/mL
. Date:        4/5/2010
. Time:        2:33:50 PM

ified:            No
:. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00    cps
. Peak Width:    0.00    sec
othing Width:  3        points
Window:          30.0    sec
ected RT:         5.37   min
Relative RT:     No

Type:         Valley
ention Time:      5.38   min
:          2.30e+006   counts
ht:          475367.523  cps
t Time:           5.28   min
Time:             6.14   min
```

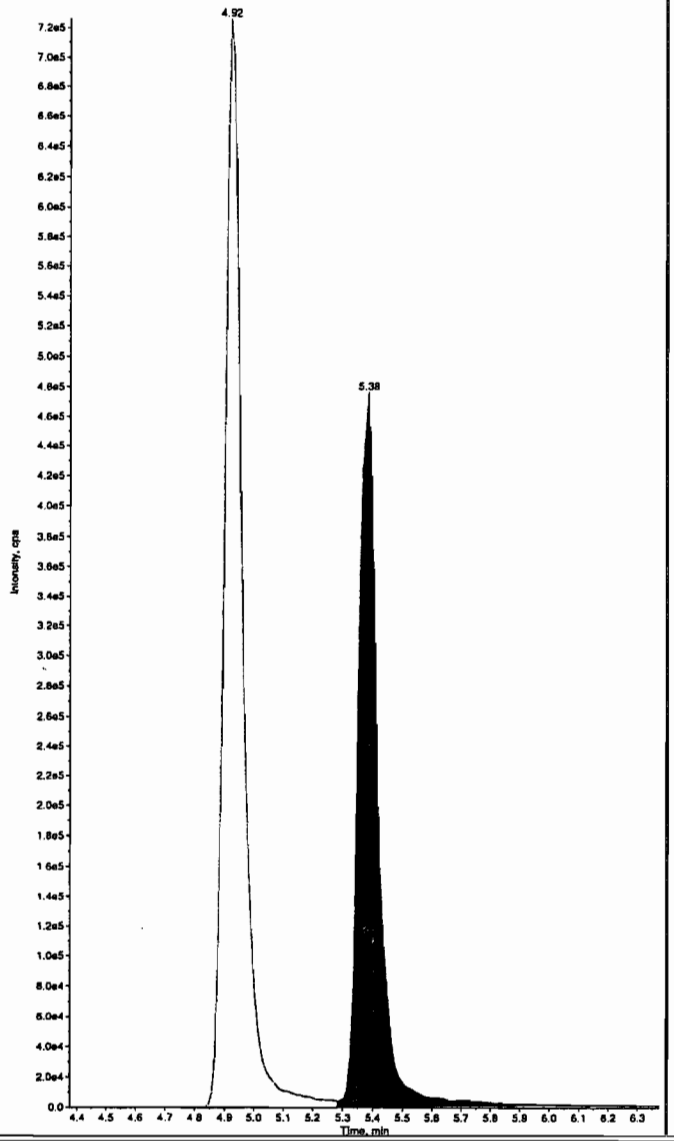

Sample Name: "WXX100405-24" Sample ID: "|1|LER" File: "EXS04050008.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:      1000.     ng/mL
Calculated Conc:     946.     ng/mL
Acq. Date:        4/5/2010
Acq. Time:        2:33:50 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:         10.8   min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      10.8   min
Area:          1.70e+007   counts
Height:        3861770.508  cps
Start Time:          10.7   min
End Time:            11.2   min
```

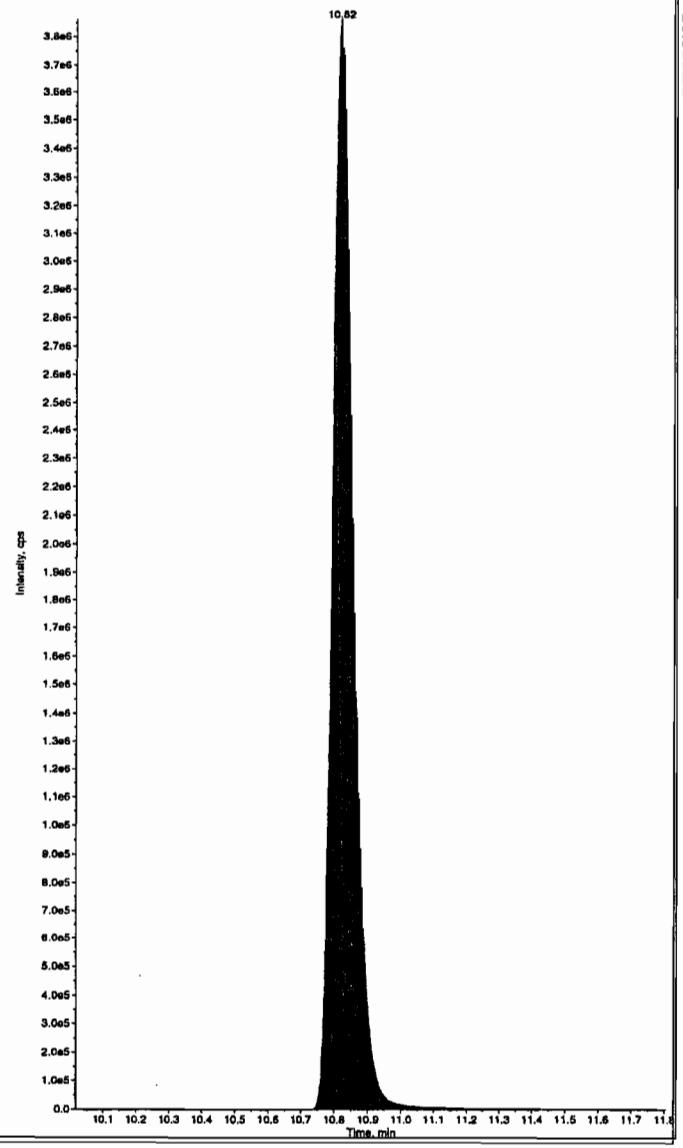

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Before LCM 4/7/10

nple Name: "WXX100405-25" Sample ID: "]1|LER" File: "EXS04050009.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_I" Annotation: ""

le Index: 1
le Type: Standard
entration: 2000. ng/mL
ulated Conc: 2000. ng/mL
Date: 4/5/2010
Time: 2:51:27 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.86 min
Relative RT: No

Type: Valley
ntion Time: 6.86 min
: 1.57e+006 counts
ht: 329989.990 cps
t Time: 6.76 min
Time: 7.90 min

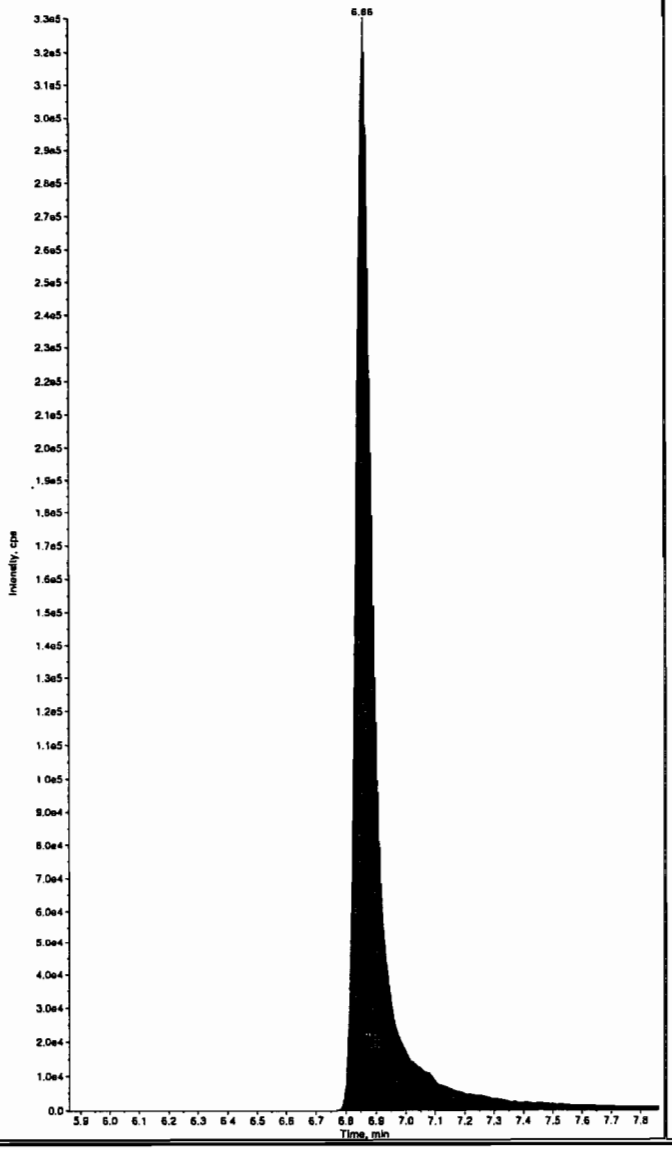

Sample Name: "WXX100405-25" Sample ID: "]1|LER" File: "EXS04050009.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 2000. ng/mL
Calculated Conc: 1980. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 2:51:27 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.10 min
Area: 1.01e+007 counts
Height: 2287882.813 cps
Start Time: 8.02 min
End Time: 8.24 min

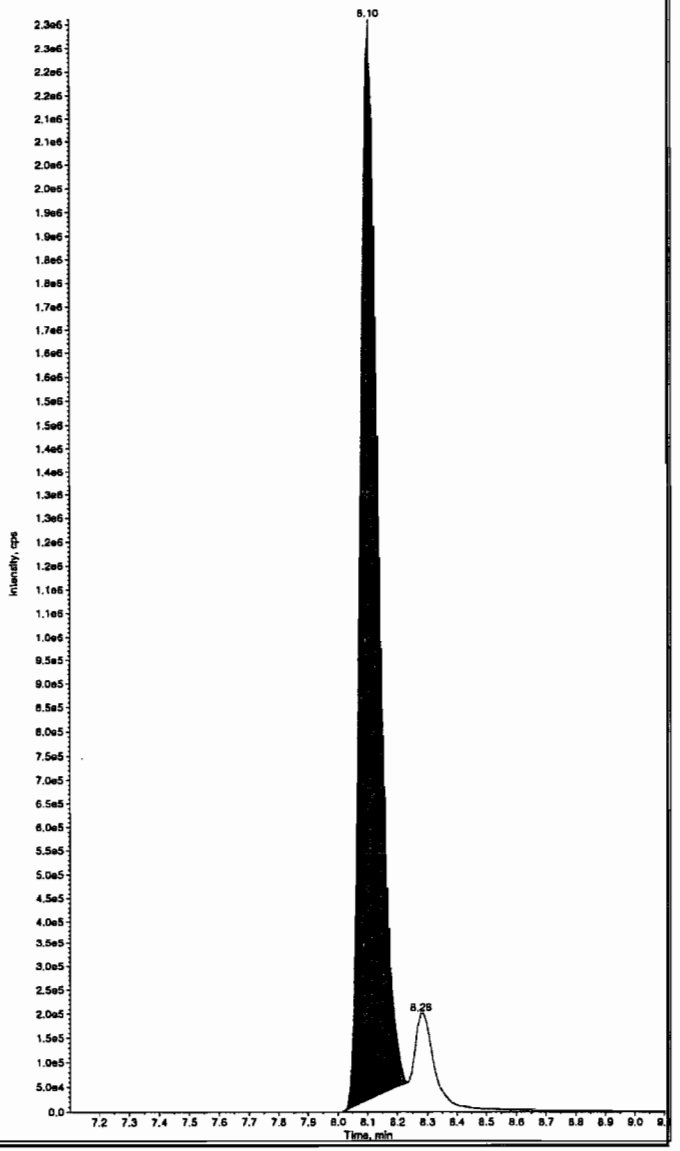

Hmm 04/08/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

after Ran 4/7/10

mple Name: "WXX100405-25" Sample ID: "|1|LER" File: "EXS04050009.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_I" Annotation: ""
ple Index: 1
ple Type: Standard
entration: 2000. ng/mL
culated Conc: 2000. ng/mL
Date: 4/5/2010
Time: 2:51:27 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 30.0 sec
cted RT: 6.86 min
Relative RT: No

Type: Valley
ntion Time: 6.86 min
: 1.57e+006 counts
ht: 329989.990 cps
t Time: 6.76 min
Time: 7.90 min

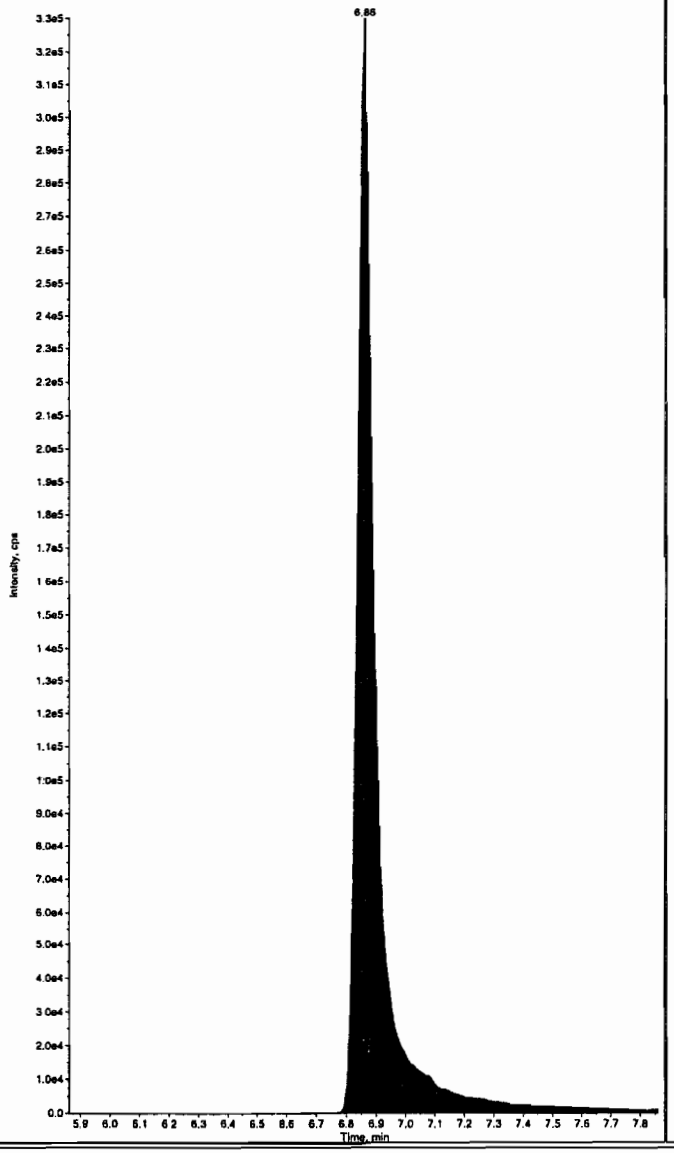

Sample Name: "WXX100405-25" Sample ID: "|1|LER" File: "EXS04050009.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 2000. ng/mL
Calculated Conc: 1990. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 2:51:27 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.10 min
Area: 1.05e+007 counts
Height: 2308394.985 cps
Start Time: 8.02 min
End Time: 8.24 min

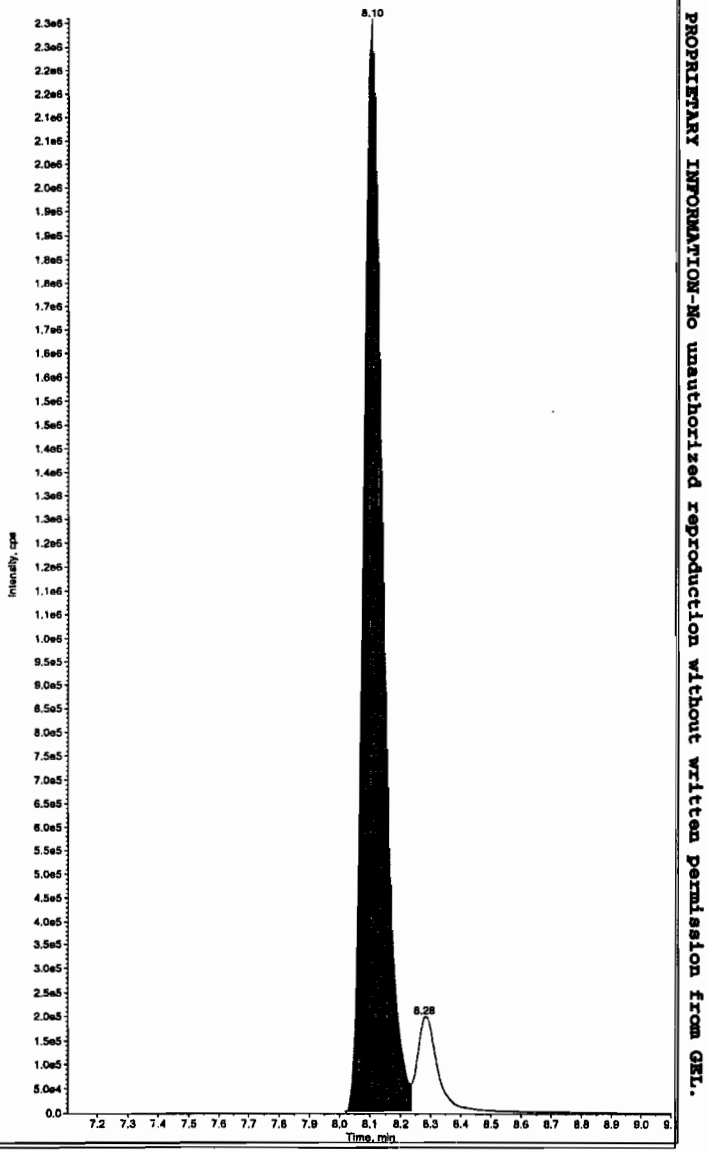

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100405-25" Sample ID: "|1|LER" File: "EXS04050009.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_I" Annotation: ""

```
ple Index:        1
ple Type:      Standard
entration:      1000.     ng/mL
culated Conc:    997.     ng/mL
 Date:        4/5/2010
 Time:        2:51:27 PM

fied:            No
. Algorithm: IntelliQuan - IQA
 Peak Height:1460.00    cps
 Peak Width:    0.00    sec
thing Width:  3        points
Window:         15.0    sec
cted RT:         8.28   min
 Relative RT:    No

 Type:         Valley
ntion Time:      8.28   min
:          7.54e+006   counts
ht:          1863350.342  cps
t Time:          8.21   min
Time:            8.74   min
```

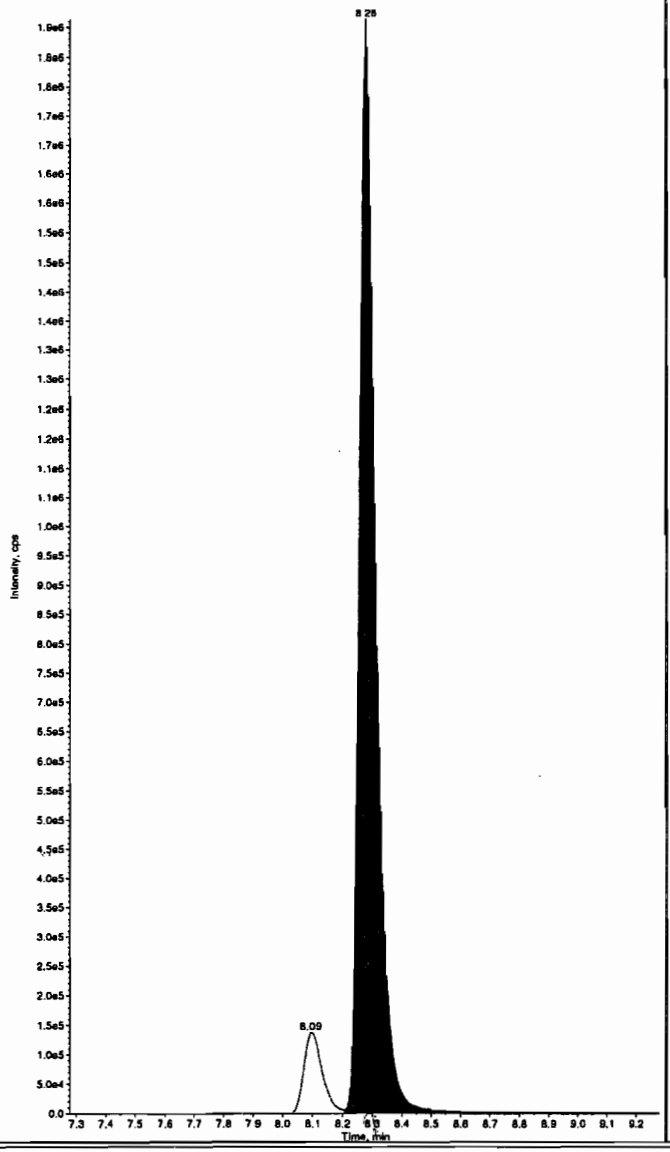

Sample Name: "WXX100405-25" Sample ID: "|1|LER" File: "EXS04050009.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:     2000.     ng/mL
Calculated Conc:   1980.     ng/mL
Acq. Date:        4/5/2010
Acq. Time:        2:51:27 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:   0.00     sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:        4.92    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     4.92    min
Area:         4.88e+006   counts
Height:       1169048.340  cps
Start Time:         4.83    min
End Time:           5.22    min
```

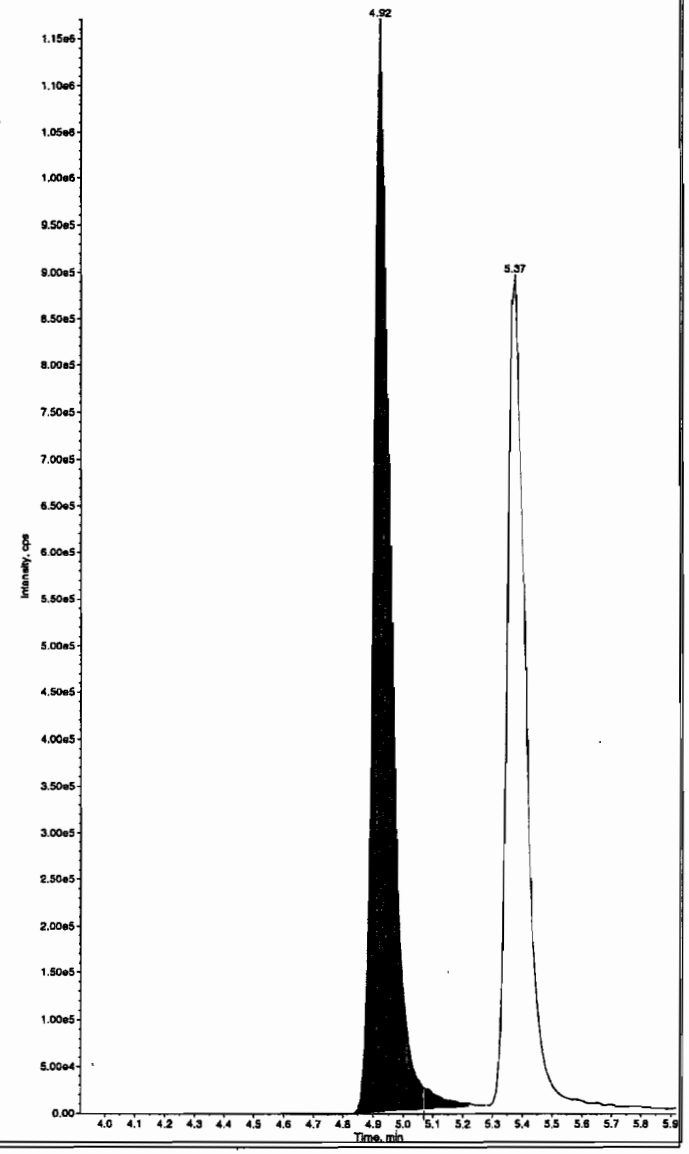

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100405-25" Sample ID: "|1|LER" File: "EXS04050009.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_I" Annotation: ""

```
ple Index:        1
ple Type:      Standard
entration:       2000.     ng/mL
culated Conc:    1990.     ng/mL
  Date:        4/5/2010
  Time:        2:51:27 PM

fied:            No
:. Algorithm: IntelliQuan - IQA
  Peak Height: 350.00    cps
  Peak Width:    0.00    sec
thing Width:  3        points
Window:         30.0     sec
cted RT:         5.37    min
 Relative RT:    No

  Type:        Valley
ntion Time:      5.37    min
:          3.93e+006    counts
ht:          889730.042  cps
t Time:          5.27    min
 Time:           5.73    min
```

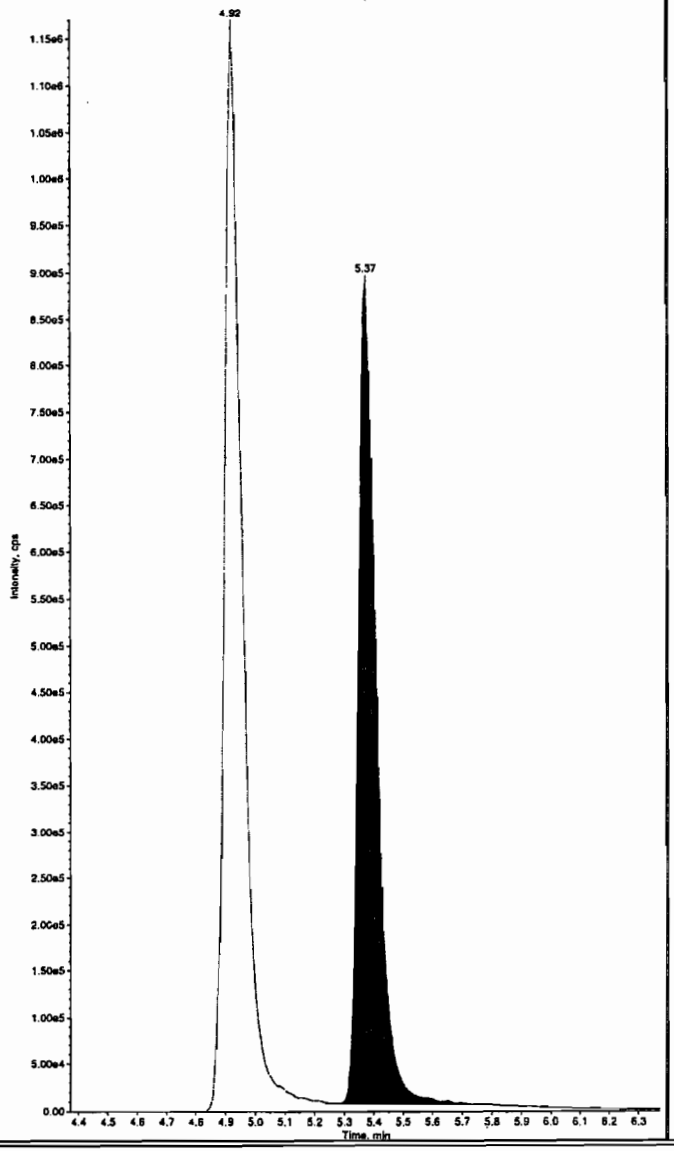

Sample Name: "WXX100405-25" Sample ID: "|1|LER" File: "EXS04050009.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:       2000.     ng/mL
Calculated Conc:     1540.     ng/mL
Acq. Date:        4/5/2010
Acq. Time:        2:51:27 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:         10.8   min
Use Relative RT:     No

Int. Type:        Valley
Retention Time:      10.8   min
Area:          2.78e+007   counts
Height:        5625722.656 cps
Start Time:          10.7   min
End Time:            11.2   min
```

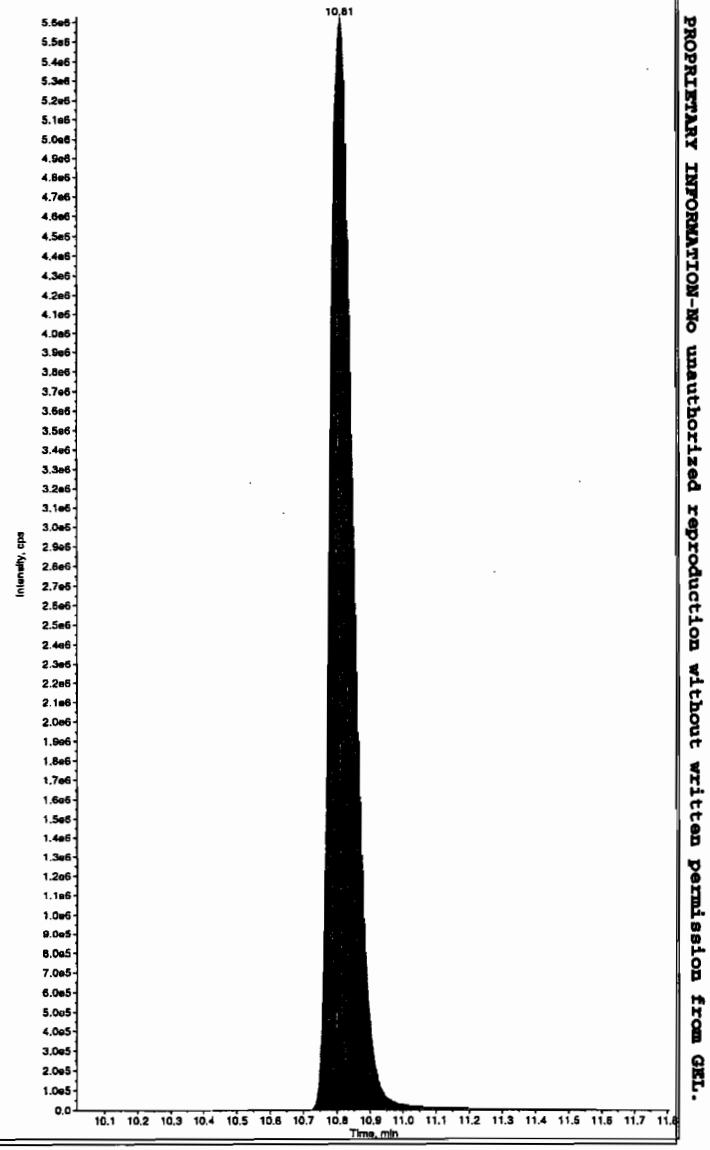

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS04050011.wiff

Analysis Date: 05–APR–10 15:22

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	461	92	
2,6–Diamino–4–nitrotoluene	500	436	87	
3,4–Dinitrotoluene	250	235	94	
3,5–Dinitroaniline	500	445	89	
TATB	500	483	97	
tris(o–cresyl) phosphate	500	502	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lar 4/7/10

mple Name: "WXX100405-26ICV" Sample ID: "[1]LER" File: "EXS04050011.wiff"
ak Name: "TATB" Mass(as): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:        1
ple Type:          QC
entration:       500.     ng/mL
ulated Conc:     483.     ng/mL
 Date:        4/5/2010
 Time:        3:22:54 PM

fied:              No
:. Algorithm: IntelliQuan - IQA
 Peak Height:2500.00   cps
 Peak Width:    0.00   sec
thing Width:  3        points
indow:        30.0     sec
cted RT:       6.86    min
Relative RT:   No

 Type:        Valley
ntion Time:    6.86    min
:          3.85e+005   counts
ht:          80153.030 cps
t Time:        6.74    min
Time:          8.08    min
```

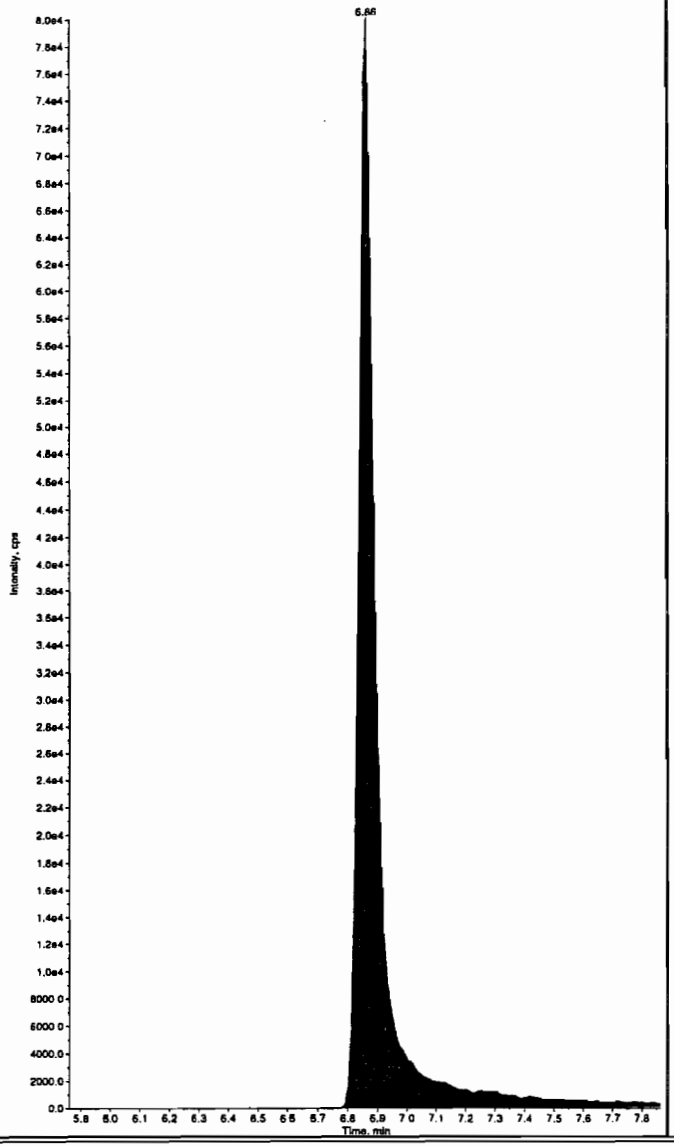

Sample Name: "WXX100405-26ICV" Sample ID: "[1]LER" File: "EXS04050011.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:          QC
Concentration:       500.     ng/mL
Calculated Conc:     445.     ng/mL
Acq. Date:        4/5/2010
Acq. Time:        3:22:54 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         15.0    sec
Expected RT:        8.10   min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     8.10   min
Area:          2.97e+006   counts
Height:          675177.673  cps
Start Time:         7.98   min
End Time:           8.23   min
```

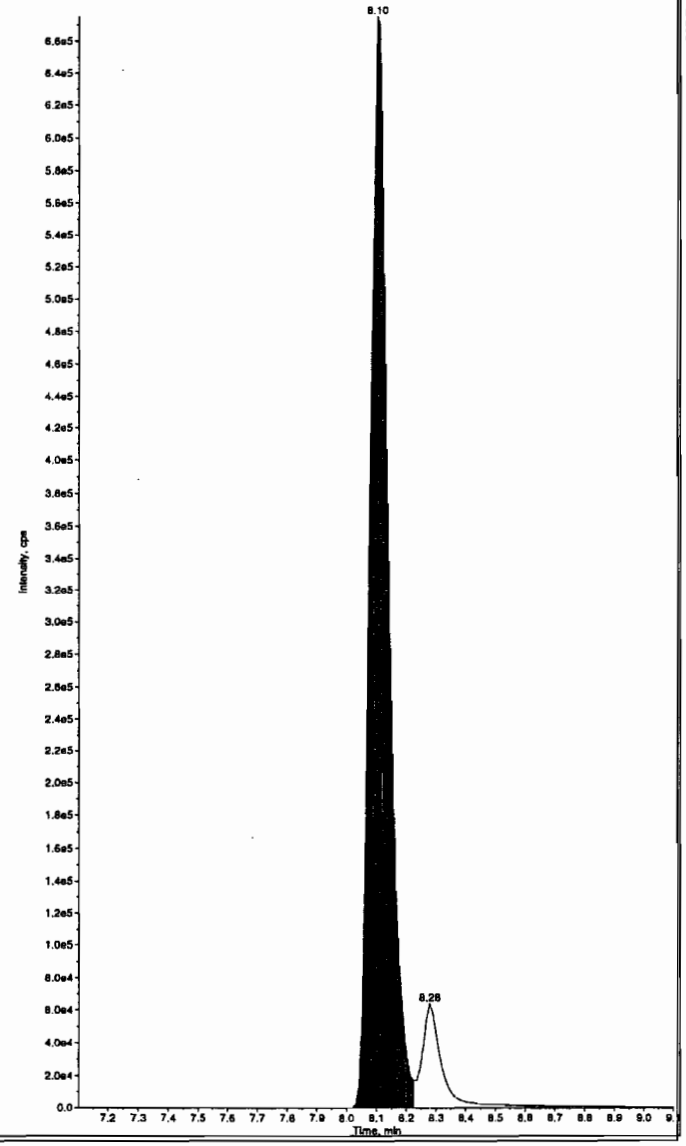

HMM 04/08/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "WXX100405-26ICV" Sample ID: "|1|LER" File: "EXS04050011.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:        1
ple Type:        QC
entration:      250.     ng/mL
ulated Conc:    235.     ng/mL
 Date:       4/5/2010
 Time:       3:22:54 PM

fied:            No
. Algorithm: IntelliQuan - IQA
 Peak Height:1460.00   cps
 Peak Width:    0.00   sec
thing Width:  3        points
Window:        15.0    sec
cted RT:        8.28   min
Relative RT:    No

 Type:        Valley
ntion Time:     8.28   min
:          2.00e+006   counts
ht:         514956.970  cps
t Time:         8.21   min
Time:           8.64   min
```

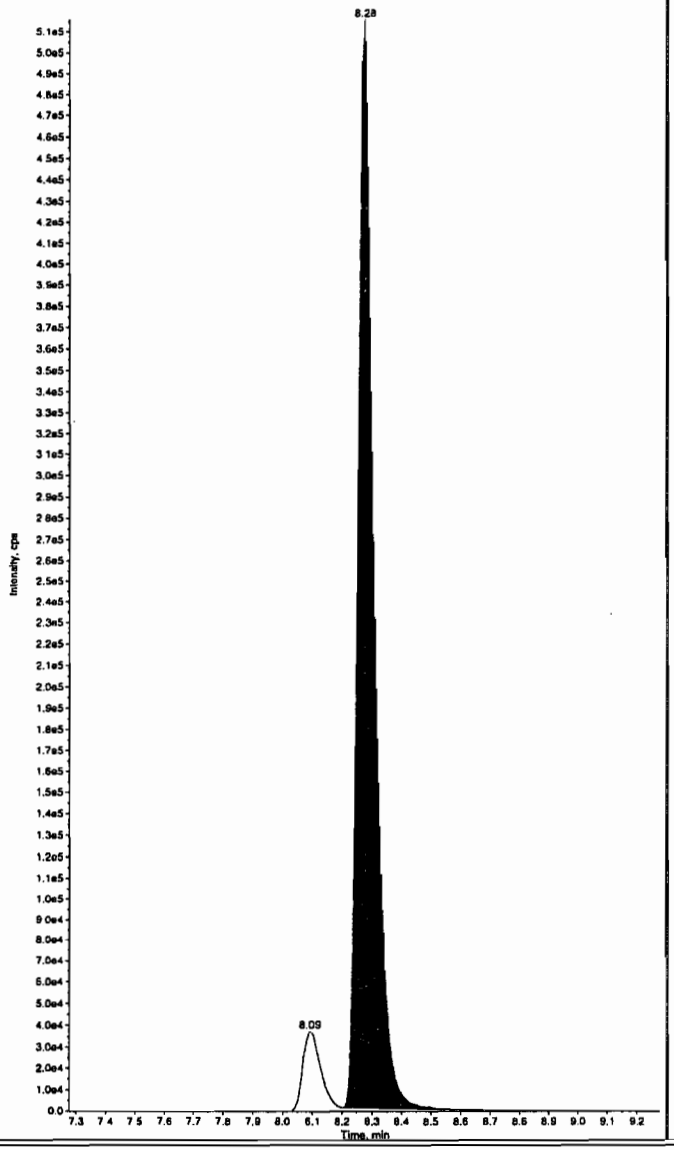

Sample Name: "WXX100405-26ICV" Sample ID: "|1|LER" File: "EXS04050011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:      500.     ng/mL
Calculated Conc:    436.     ng/mL
Acq. Date:       4/5/2010
Acq. Time:       3:22:54 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:        4.92   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     4.92   min
Area:         1.23e+006   counts
Height:        282532.837  cps
Start Time:         4.84   min
End Time:           5.22   min
```

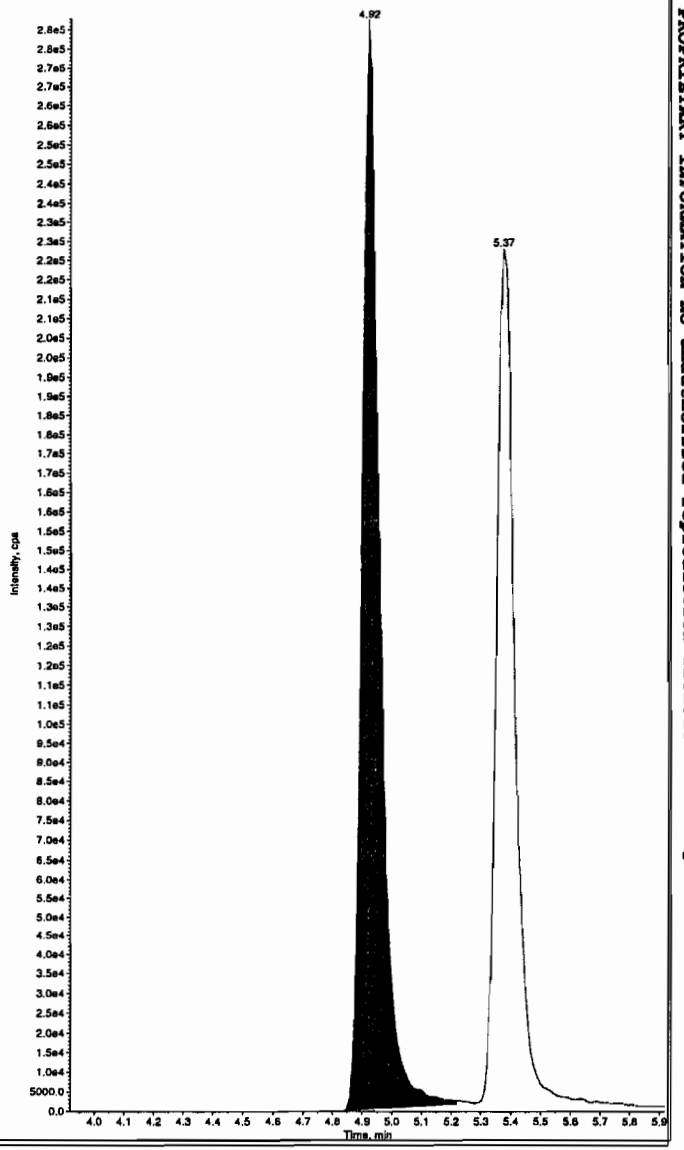

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "WXX100405-26ICV" Sample ID: "|1|LER" File: "EXS04050011.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
le Index:        1
le Type:         QC
entration:       500.    ng/mL
ulated Conc:     461.    ng/mL
 Date:        4/5/2010
 Time:        3:22:54 PM

fied:            No
. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00   cps
 Peak Width:    0.00   sec
thing Width:  3        points
indow:         30.0    sec
cted RT:        5.37   min
Relative RT:    No

 Type:         Valley
ntion Time:     5.37   min
:          9.82e+005   counts
ht:         221252.670  cps
t Time:         5.28   min
Time:           5.84   min
```

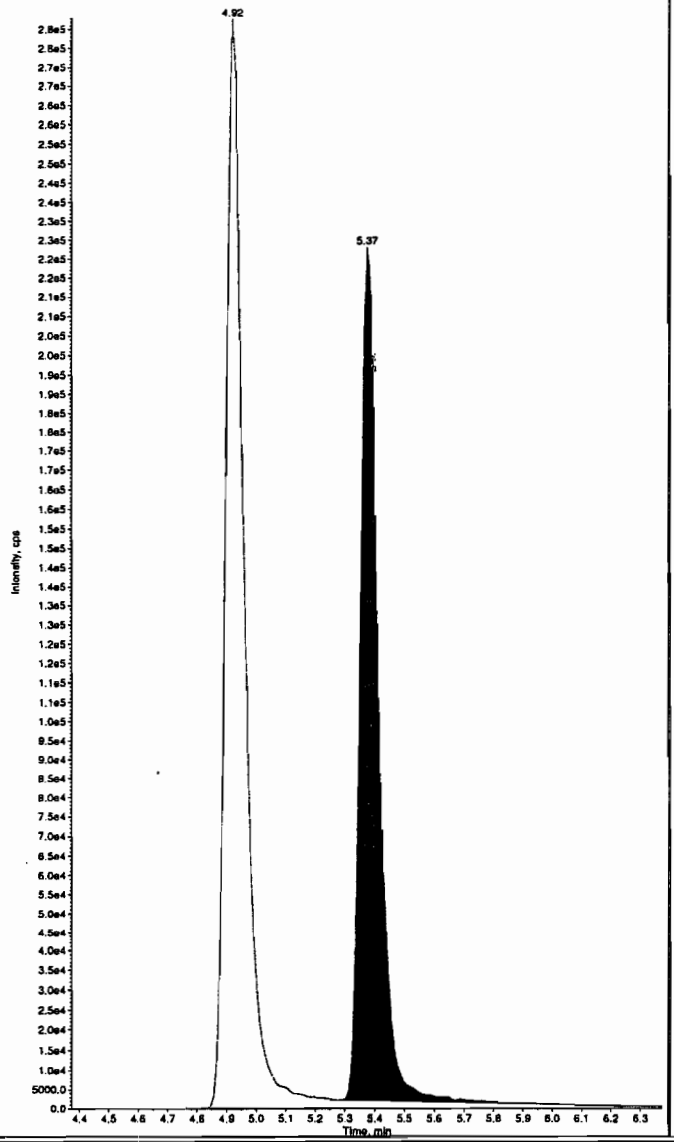

Sample Name: "WXX100405-26ICV" Sample ID: "|1|LER" File: "EXS04050011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:         QC
Concentration:       500.    ng/mL
Calculated Conc:     502.    ng/mL
Acq. Date:        4/5/2010
Acq. Time:        3:22:54 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:       10.8    min
Use Relative RT:   No

Int. Type:        Valley
Retention Time:    10.8    min
Area:         9.04e+006   counts
Height:       2144218.262  cps
Start Time:        10.7    min
End Time:          11.2    min
```

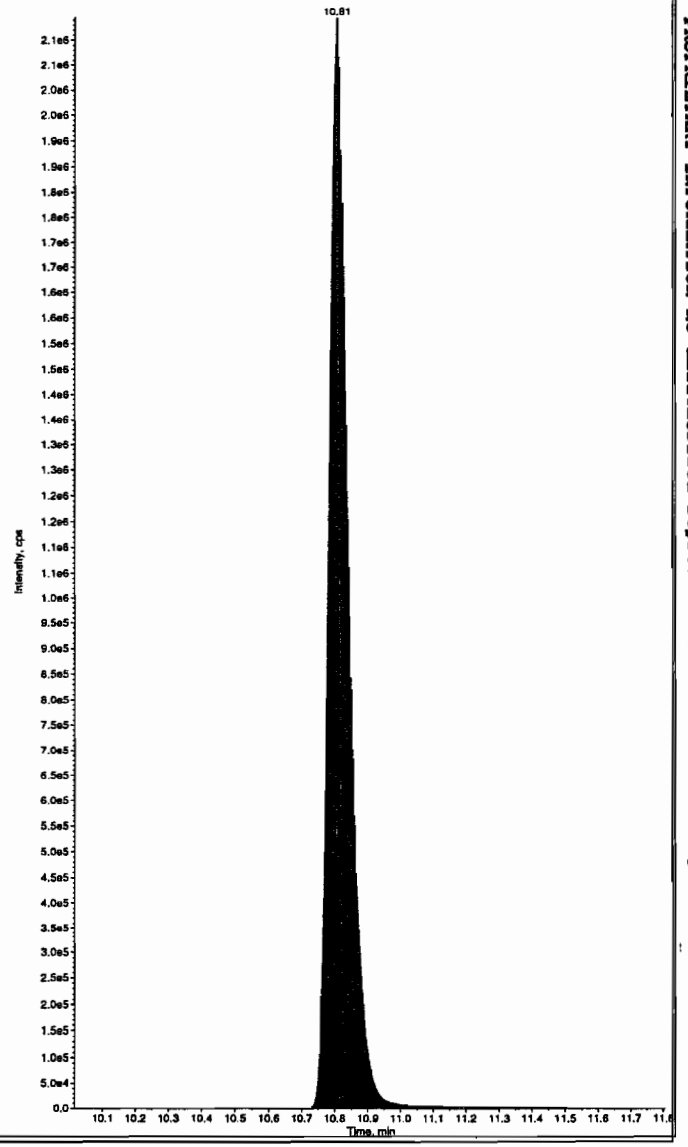

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2039

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0408012a

Analysis Date: 09-APR-10 02:57

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
o-Nitrotoluene	40	40.786	102	
p-Nitrotoluene	40	44.935	112	
1,3,5-Trinitrobenzene	40	40.125	100	
1,3-Dinitrobenzene-d4	500	550.578	110	
2,4,6-Trinitrotoluene	40	38.456	96	
2,4-Dinitrotoluene	40	38.733	97	
2,6-Dinitrotoluene	40	40.684	102	
2,6-Dinitrotoluene-d3	500	538.431	108	
2-Amino-4,6-dinitrotoluene	40	38.144	95	
3,4-Dinitrotoluene	20	21.449	107	
4-Amino-2,6-dinitrotoluene	40	42.093	105	
HMX	40	42.773	107	
Nitrobenzene	40	44.561	111	
PETN	40	43.336	108	
RDX	40	42.104	105	
Tetryl	40	39.686	99	
m-Dinitrobenzene	40	41.454	104	
m-Nitrotoluene	40	38.638	97	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408012a
Date: 09-Apr-2010
Time: 02:57:06
ID: WXX100408-08CRI
Vial: 1:1,C

MATT 4/10/10

HMX

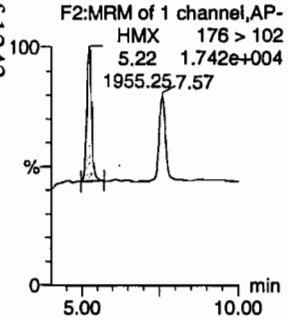

RDX

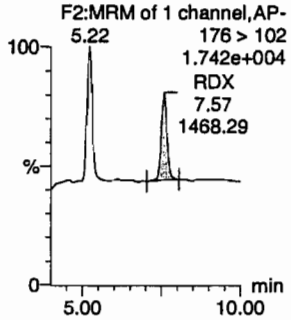

135-Trinitrobenzene

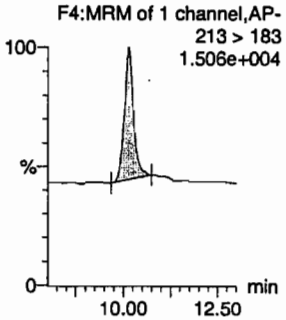

13-Dinitrobenzene-d4

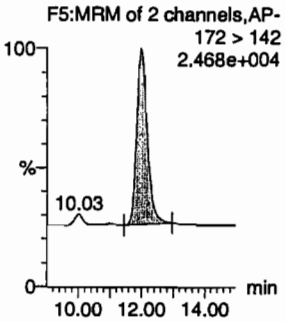

13-Dinitrobenzene

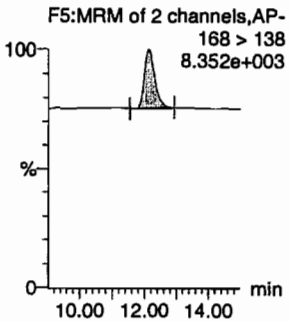

Tetryl

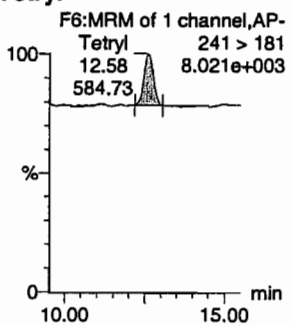

itrobenzene

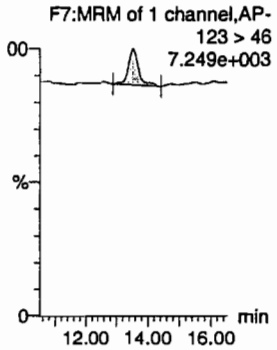

4-Amino-26-dinitrotoluene

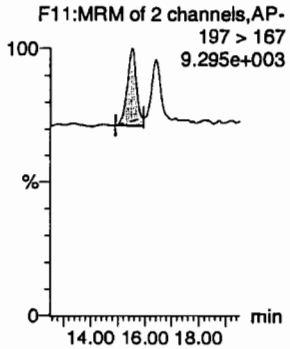

2-Amino-46-dinitrotoluene

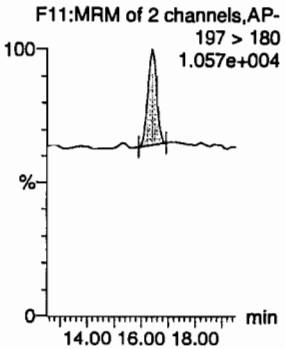

246-Trinitrotoluene

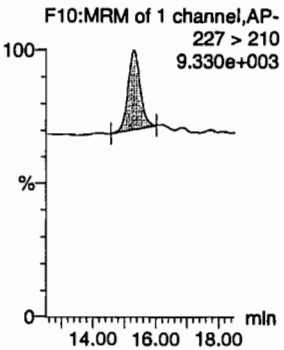

34-dinitrotoluene

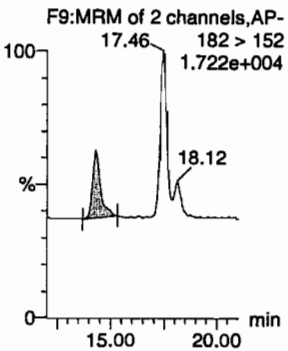

26-dinitrotoluene

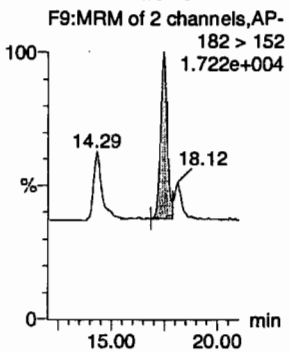

HM 04/11/10

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Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

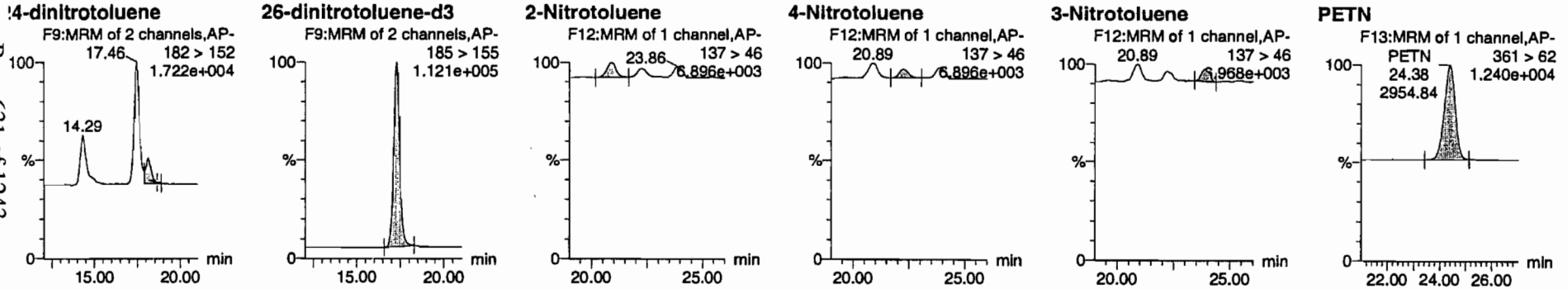

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
VXX100408-08CRI	HMX	176 > 102	5.22	1955.254	7155.368	1955.254	136.628	bb			42.7734	106.9	6.9	205.0
VXX100408-08CRI	RDX	176 > 102	7.57	1468.288	7155.368	1468.288	102.600	bb			42.1035	105.3	5.3	134.3
VXX100408-08CRI	135-Trinitrobenzene	213 > 183	10.13	2425.125	7155.368	2425.125	169.462	bb			40.1250	100.3	0.3	134.0
VXX100408-08CRI	13-Dinitrobenzene-d4	172 > 142	11.97	7155.368		7155.368	7155.368	bb			550.5781	110.1	10.1	503.1
VXX100408-08CRI	13-Dinitrobenzene	168 > 138	12.10	764.006	7155.368	764.006	53.387	bb			41.4536	103.6	3.6	129.7
VXX100408-08CRI	Tetryl	241 > 181	12.58	584.727	7155.368	584.727	40.859	bb			39.6858	99.2	-0.8	63.7
VXX100408-08CRI	Nitrobenzene	123 > 46	13.53	383.258	7155.368	383.258	26.781	bb			44.5607	111.4	11.4	21.5
VXX100408-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.52	1114.118	42512.996	1114.118	13.103	MM	09-Apr-10	10:44:22	42.0931	105.2	5.2	45.7
VXX100408-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.40	1481.604	42512.996	1481.604	17.425	bb			38.1440	95.4	-4.6	61.2
VXX100408-08CRI	246-Trinitrotoluene	227 > 210	15.30	1258.172	42512.996	1258.172	14.797	bb			38.4557	96.1	-3.9	102.4
VXX100408-08CRI	34-dinitrotoluene	182 > 152	14.29	1870.371	42512.996	1870.371	21.998	bb			21.4490	107.2	7.2	70.8
VXX100408-08CRI	26-dinitrotoluene	182 > 152	17.46	3934.310	42512.996	3934.310	46.272	MM	09-Apr-10	10:46:56	40.6842	101.7	1.7	174.3
VXX100408-08CRI	24-dinitrotoluene	182 > 152	18.12	871.853	42512.996	871.853	10.254	MM	09-Apr-10	10:51:02	38.7330	96.8	-3.2	36.8
VXX100408-08CRI	26-dinitrotoluene-d3	185 > 155	17.29	42512.996		42512.996	42512.996	bb			538.4311	107.7	7.7	2811.2
VXX100408-08CRI	2-Nitrotoluene	137 > 46	20.89	266.200	42512.996	266.200	3.131	bb			40.7862	102.0	2.0	57.8
VXX100408-08CRI	4-Nitrotoluene	137 > 46	22.23	148.485	42512.996	148.485	1.746	bb			44.9351	112.3	12.3	33.1
VXX100408-08CRI	3-Nitrotoluene	137 > 46	23.86	179.365	42512.996	179.365	2.110	bb			38.6381	96.6	-3.4	34.4
VXX100408-08CRI	PETN	361 > 62	24.38	2954.841	42512.996	2954.841	34.752	bb			43.3357	108.3	8.3	1075.4

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/09/10
Time of Injection	0257
Standard Number	WXX100408-08CRI
Data File	EXP0408012a

HMX	106.9
RDX	105.3
135-TNB	100.3
13-DNB	103.6
Tetryl	99.2
Nitrobenzene	111.4
4A-26-DNT	105.2
2A-46-DNT	95.4
246-TNT	96.1
34-DNT(surr)	107.2
26-DNT	101.7
24-DNT	96.8
2-NT	102.0
4-NT	112.3
3-NT	96.6
PETN	108.3
Total	1648.3
Average	103.0

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0408023a

Analysis Date: 09–APR–10 08:21

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3–Dinitrobenzene–d4	500	509.39	102	
2,4,6–Trinitrotoluene	600	715.187	119	
2,4–Dinitrotoluene	600	602.1	100	
2,6–Dinitrotoluene	600	602.02	100	
2,6–Dinitrotoluene–d3	500	495.787	99	
2–Amino–4,6–dinitrotoluene	600	644.303	107	
3,4–Dinitrotoluene	300	301.84	101	
4–Amino–2,6–dinitrotoluene	600	630.065	105	
HMX	600	635.768	106	
Nitrobenzene	600	572.021	95	
PETN	600	626.401	104	
RDX	600	690.522	115	
Tetryl	600	685.312	114	
m–Dinitrobenzene	600	617.8	103	
m–Nitrotoluene	600	521.623	87	
o–Nitrotoluene	600	549.165	92	
p–Nitrotoluene	600	580.011	97	
1,3,5–Trinitrobenzene	600	602.085	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408023a
Date: 09-Apr-2010
Time: 08:21:23
ID: WXX100408-07CCV
Vial: 1:1,B

MM 4/12/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.432e+005
7.57

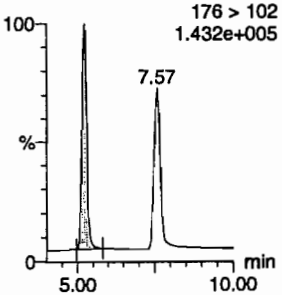

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.432e+005
5.22
RDX
7.57
22279.36

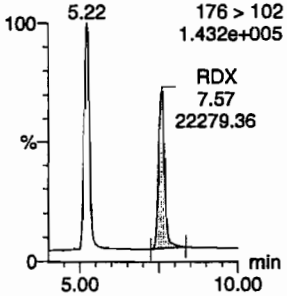

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.241e+005

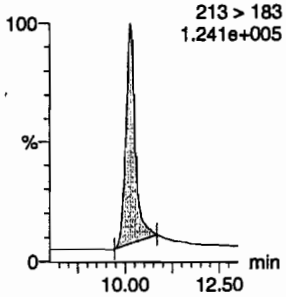

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.307e+004
10.01

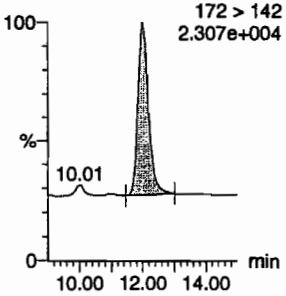

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
3.374e+004

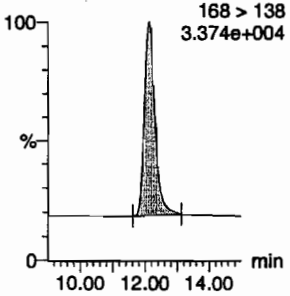

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
3.351e+004
Tetryl
12.63
9341.95

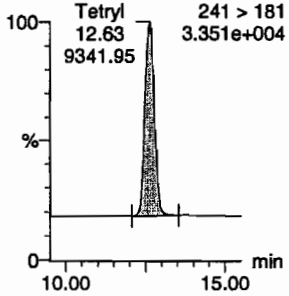

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.946e+004

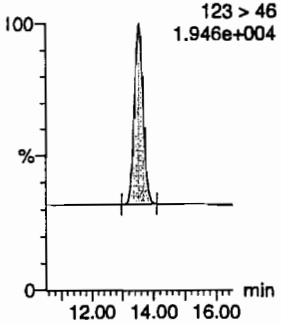

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
4.344e+004

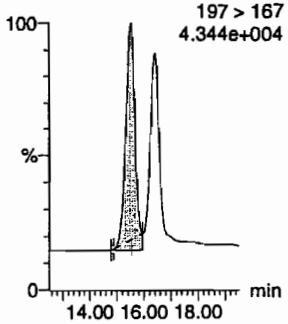

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.359e+004
15.29

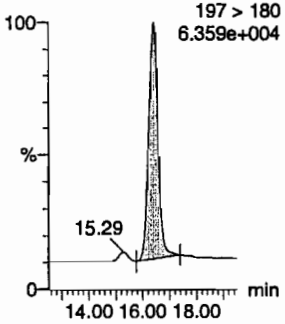

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.126e+004

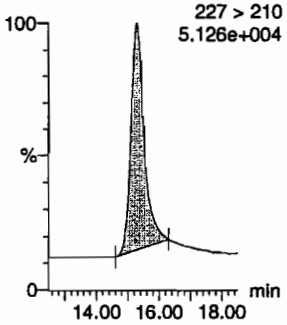

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.528e+005
17.46
18.12

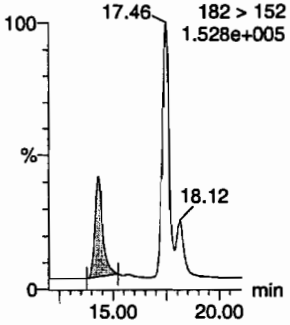

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.528e+005
14.30
18.12

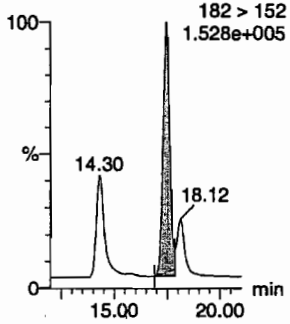

HNM 04/11/10

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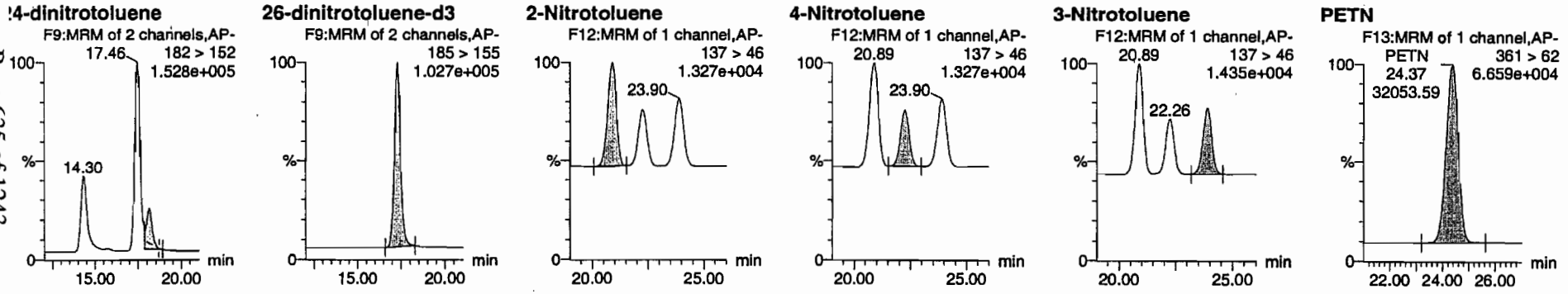

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
VXX100408-07CCV	HMX	176 > 102	5.22	26888.053	6620.083	26888.053	2030.794	db			635.7683	106.0	6.0	1389.4
VXX100408-07CCV	RDX	176 > 102	7.57	22279.355	6620.083	22279.355	1682.710	bb			690.5222	115.1	15.1	990.2
VXX100408-07CCV	135-Trinitrobenzene	213 > 183	10.14	33667.313	6620.083	33667.313	2542.817	bb			602.0854	100.3	0.3	1443.6
VXX100408-07CCV	13-Dinitrobenzene-d4	172 > 142	11.97	6620.083		6620.083	6620.083	bb			509.3900	101.9	1.9	394.9
VXX100408-07CCV	13-Dinitrobenzene	168 > 138	12.14	10534.502	6620.083	10534.502	795.647	bb			617.8002	103.0	3.0	1362.8
VXX100408-07CCV	Tetryl	241 > 181	12.63	9341.951	6620.083	9341.951	705.577	bb			685.3125	114.2	14.2	879.0
VXX100408-07CCV	Nitrobenzene	123 > 46	13.54	4551.790	6620.083	4551.790	343.786	bb			572.0208	95.3	-4.7	352.5
VXX100408-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.53	15355.744	39145.949	15355.744	196.135	MM	09-Apr-10	10:45:05	630.0651	105.0	5.0	341.5
VXX100408-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.41	23044.184	39145.949	23044.184	294.337	bb			644.3029	107.4	7.4	825.3
VXX100408-07CCV	246-Trinitrotoluene	227 > 210	15.31	21545.883	39145.949	21545.883	275.199	bb			715.1871	119.2	19.2	461.9
VXX100408-07CCV	34-dinitrotoluene	182 > 152	14.30	24236.105	39145.949	24236.105	309.561	bb			301.8397	100.6	0.6	485.9
VXX100408-07CCV	26-dinitrotoluene	182 > 152	17.46	53606.605	39145.949	53606.605	684.702	MM	09-Apr-10	10:47:53	602.0199	100.3	0.3	1241.1
VXX100408-07CCV	24-dinitrotoluene	182 > 152	18.12	12479.443	39145.949	12479.443	159.396	MM	09-Apr-10	10:50:30	602.0996	100.3	0.3	264.8
VXX100408-07CCV	26-dinitrotoluene-d3	185 > 155	17.29	39145.949		39145.949	39145.949	bb			495.7871	99.2	-0.8	2624.1
VXX100408-07CCV	2-Nitrotoluene	137 > 46	20.89	3300.370	39145.949	3300.370	42.155	bb			549.1649	91.5	-8.5	193.1
VXX100408-07CCV	4-Nitrotoluene	137 > 46	22.26	1764.813	39145.949	1764.813	22.541	bb			580.0114	96.7	-3.3	105.3
VXX100408-07CCV	3-Nitrotoluene	137 > 46	23.90	2229.690	39145.949	2229.690	28.479	bb			521.6233	86.9	-13.1	145.6
VXX100408-07CCV	PETN	361 > 62	24.37	32053.586	39145.949	32053.586	409.411	bb			626.4013	104.4	4.4	14663.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/09/10
Time of Injection: 0821
Standard Number: WXX100408-07CCV
Data File: EXP0408023a

HMX	106.0
RDX	115.1
135-TNB	100.3
13-DNB	103.0
Tetryl	114.2
Nitrobenzene	95.3
4A-26-DNT	105.0
2A-46-DNT	107.4
246-TNT	119.2
34-DNT(surr)	100.6
26-DNT	100.3
24-DNT	100.3
2-NT	91.5
4-NT	96.7
3-NT	86.9
PETN	104.4
Total	1646.2
Average	102.9

MJP 4/10/10

dmm 04/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0408025a

Analysis Date: 09–APR–10 09:20

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	45.5	114	
1,3–Dinitrobenzene–d4	500	551.868	110	
2,4,6–Trinitrotoluene	40	38.744	97	
2,4–Dinitrotoluene	40	39.839	100	
2,6–Dinitrotoluene	40	40.632	102	
2,6–Dinitrotoluene–d3	500	534.081	107	
2–Amino–4,6–dinitrotoluene	40	41.315	103	
3,4–Dinitrotoluene	20	19.176	96	
4–Amino–2,6–dinitrotoluene	40	39.827	100	
HMX	40	38.969	97	
Nitrobenzene	40	33.805	85	
PETN	40	41.785	104	
RDX	40	36.3	91	
Tetryl	40	44.096	110	
m–Dinitrobenzene	40	39.708	99	
m–Nitrotoluene	40	39.704	99	
o–Nitrotoluene	40	43.509	109	
p–Nitrotoluene	40	44.305	111	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408025a
Date: 09-Apr-2010
Time: 09:20:28
ID: WXX100408-08CRI
Vial: 1:1,C

MAT 4/12/10

HMX

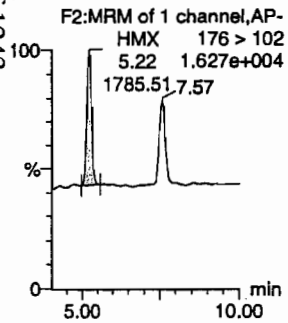

RDX

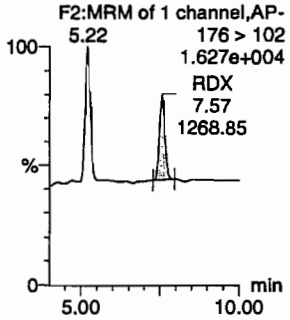

135-Trinitrobenzene

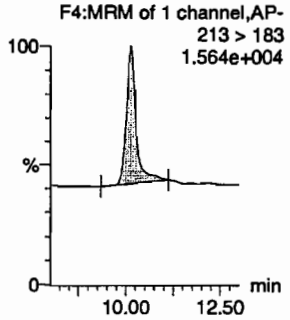

13-Dinitrobenzene-d4

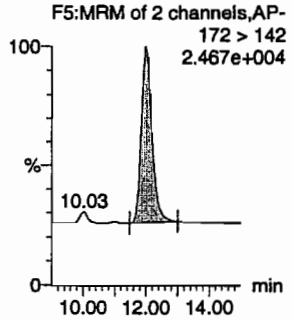

13-Dinitrobenzene

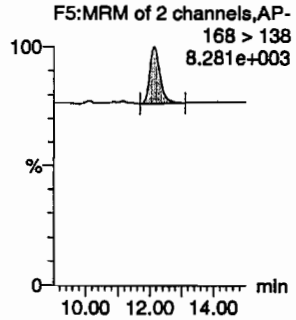

Tetryl

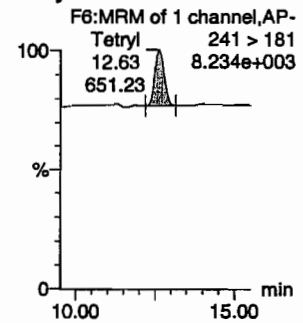

Nitrobenzene

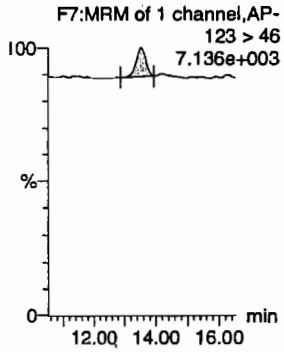

4-Amino-26-dinitrotoluene

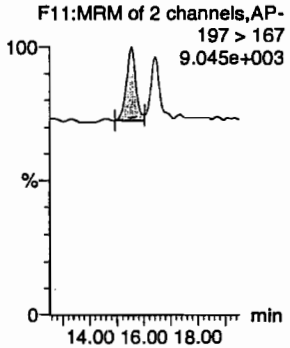

2-Amino-46-dinitrotoluene

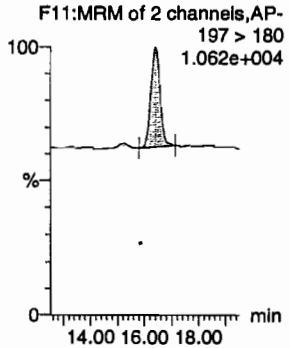

246-Trinitrotoluene

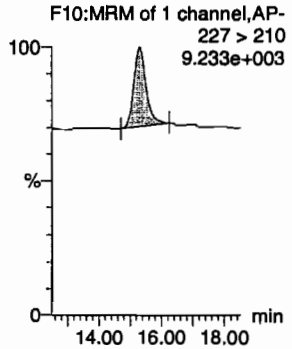

34-dinitrotoluene

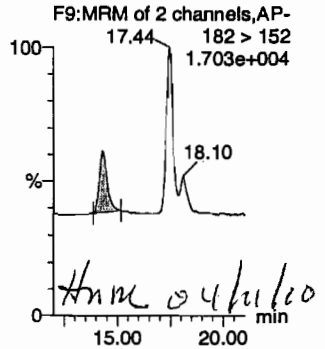

HMM 04/11/10

26-dinitrotoluene

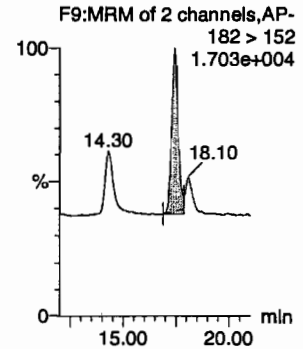

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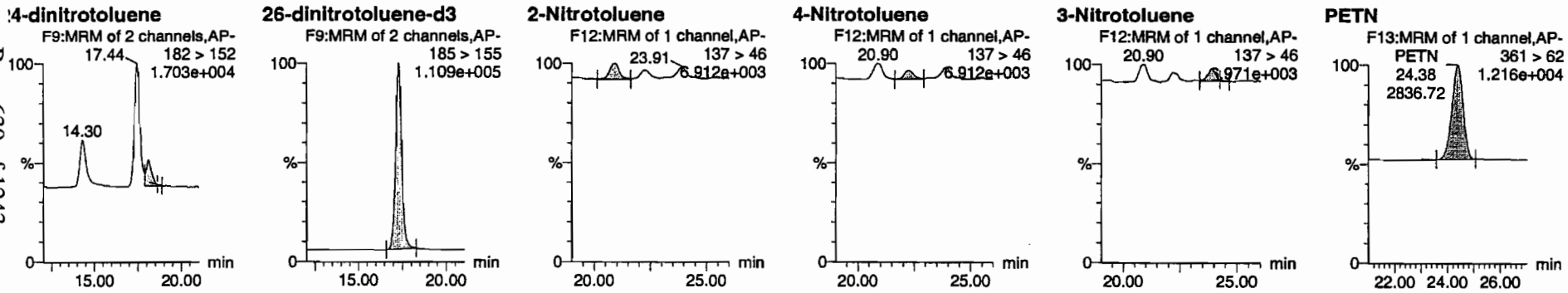

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
VXX100408-08CRI	HMX	176 > 102	5.22	1785.509	7172.133	1785.509	124.475	bb			38.9688	97.4	-2.6	182.8
VXX100408-08CRI	RDX	176 > 102	7.57	1268.851	7172.133	1268.851	88.457	bb			36.2995	90.7	-9.3	116.8
VXX100408-08CRI	135-Trinitrobenzene	213 > 183	10.14	2756.432	7172.133	2756.432	192.163	bb			45.5001	113.8	13.8	137.2
VXX100408-08CRI	13-Dinitrobenzene-d4	172 > 142	12.00	7172.133		7172.133	7172.133	bb			551.8681	110.4	10.4	1479.4
VXX100408-08CRI	13-Dinitrobenzene	168 > 138	12.14	733.552	7172.133	733.552	51.139	bb			39.7082	99.3	-0.7	102.6
VXX100408-08CRI	Tetryl	241 > 181	12.63	651.230	7172.133	651.230	45.400	bb			44.0961	110.2	10.2	75.9
VXX100408-08CRI	Nitrobenzene	123 > 46	13.54	291.435	7172.133	291.435	20.317	bb			33.8054	84.5	-15.5	26.1
VXX100408-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.53	1045.621	42169.504	1045.621	12.398	MM	09-Apr-10	10:45:13	39.8270	99.6	-0.4	31.0
VXX100408-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.41	1591.803	42169.504	1591.803	18.874	bb			41.3149	103.3	3.3	93.8
VXX100408-08CRI	246-Trinitrotoluene	227 > 210	15.31	1257.368	42169.504	1257.368	14.908	bb			38.7441	96.9	-3.1	158.0
VXX100408-08CRI	34-dinitrotoluene	182 > 152	14.30	1658.674	42169.504	1658.674	19.667	bb			19.1762	95.9	-4.1	79.4
VXX100408-08CRI	26-dinitrotoluene	182 > 152	17.44	3897.471	42169.504	3897.471	46.212	MM	09-Apr-10	10:48:07	40.6316	101.6	1.6	214.1
VXX100408-08CRI	24-dinitrotoluene	182 > 152	18.10	889.509	42169.504	889.509	10.547	MM	09-Apr-10	10:50:47	39.8393	99.6	-0.4	46.6
VXX100408-08CRI	26-dinitrotoluene-d3	185 > 155	17.29	42169.504		42169.504	42169.504	bb			534.0807	106.8	6.8	2957.1
VXX100408-08CRI	2-Nitrotoluene	137 > 46	20.90	281.676	42169.504	281.676	3.340	bb			43.5089	108.8	8.8	67.2
VXX100408-08CRI	4-Nitrotoluene	137 > 46	22.24	145.220	42169.504	145.220	1.722	bb			44.3050	110.8	10.8	36.0
VXX100408-08CRI	3-Nitrotoluene	137 > 46	23.90	182.823	42169.504	182.823	2.168	MM	09-Apr-10	10:52:03	39.7038	99.3	-0.7	41.3
VXX100408-08CRI	PETN	361 > 62	24.38	2836.721	42169.504	2836.721	33.635	bb			41.7853	104.5	4.5	1189.4

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/09/10
Time of Injection	0920
Standard Number	WXX100408-08CRI
Data File	EXP0408025a

HMX	97.4
RDX	90.7
135-TNB	113.8
13-DNB	99.3
Tetryl	110.2
Nitrobenzene	84.5
4A-26-DNT	99.6
2A-46-DNT	103.3
246-TNT	96.9
34-DNT(surr)	95.9
26-DNT	101.6
24-DNT	99.6
2-NT	108.8
4-NT	110.8
3-NT	99.3
PETN	104.5
Total	1616.2
Average	101.0

MT 4/10/10

Hmm 4/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0408036a

Analysis Date: 09–APR–10 14:44

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
PETN	600	633.087	106	
RDX	600	715.89	119	
Tetryl	600	687.697	115	
m–Dinitrobenzene	600	604.247	101	
m–Nitrotoluene	600	522.415	87	
o–Nitrotoluene	600	540.297	90	
p–Nitrotoluene	600	575.108	96	
1,3,5–Trinitrobenzene	600	615.039	103	
1,3–Dinitrobenzene–d4	500	422.177	84	
2,4,6–Trinitrotoluene	600	700.231	117	
2,4–Dinitrotoluene	600	598.551	100	
2,6–Dinitrotoluene	600	601.126	100	
2,6–Dinitrotoluene–d3	500	415.826	83	
2–Amino–4,6–dinitrotoluene	600	671.115	112	
3,4–Dinitrotoluene	300	297.202	99	
4–Amino–2,6–dinitrotoluene	600	629.291	105	
HMX	600	668.293	111	
Nitrobenzene	600	565.065	94	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408036a
Date: 09-Apr-2010
Time: 14:44:48
ID: WXX100408-07CCV
Vial: 1:1,B

MM 4/10/10

HMX

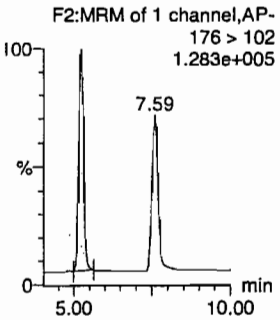

RDX

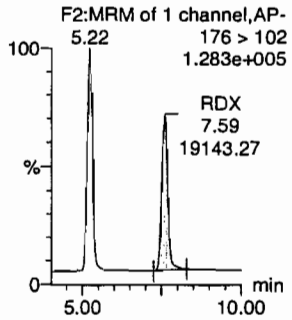

135-Trinitrobenzene

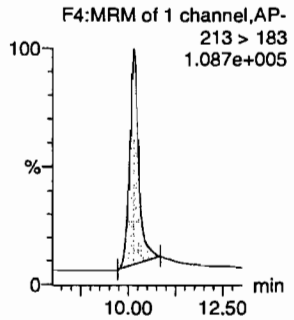

13-Dinitrobenzene-d4

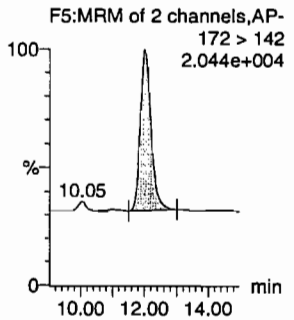

13-Dinitrobenzene

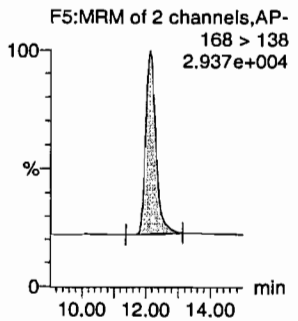

Tetryl

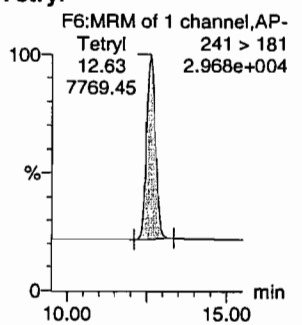

itrobenzene

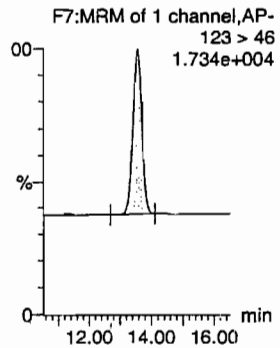

4-Amino-26-dinitrotoluene

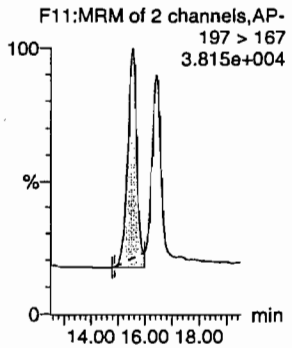

2-Amino-46-dinitrotoluene

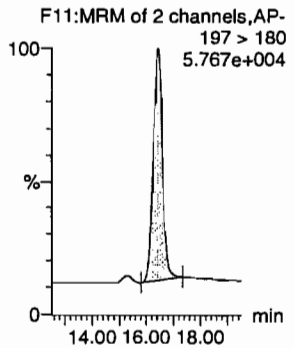

246-Trinitrotoluene

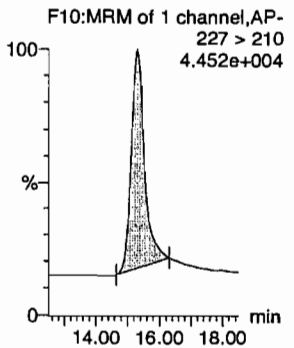

34-dinitrotoluene

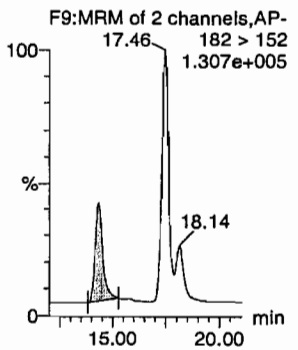

HMM 04/11/10

26-dinitrotoluene

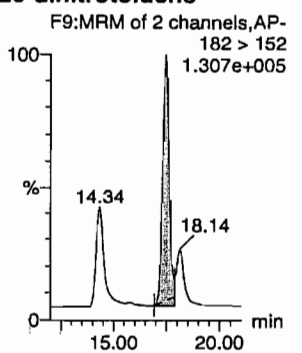

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

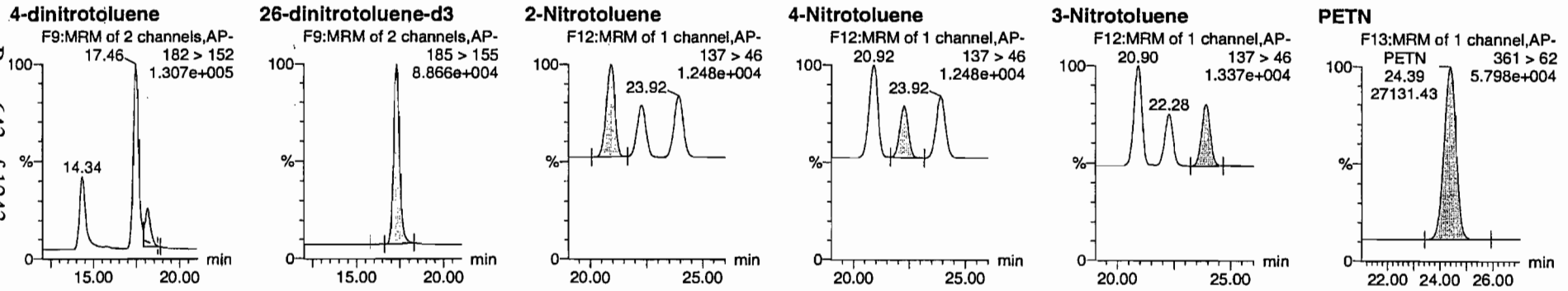

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
VXX100408-07CCV	HMX	176 > 102	5.22	23424.582	5486.660	23424.582	2134.685	bb			668.2927	111.4	11.4	955.9
VXX100408-07CCV	RDX	176 > 102	7.59	19143.270	5486.660	19143.270	1744.529	bb			715.8904	119.3	19.3	670.4
VXX100408-07CCV	135-Trinitrobenzene	213 > 183	10.14	28503.471	5486.660	28503.471	2597.525	bb			615.0391	102.5	2.5	608.2
VXX100408-07CCV	13-Dinitrobenzene-d4	172 > 142	12.00	5486.660		5486.660	5486.660	bb			422.1774	84.4	-15.6	856.5
VXX100408-07CCV	13-Dinitrobenzene	168 > 138	12.14	8539.355	5486.660	8539.355	778.192	bb			604.2470	100.7	0.7	640.0
VXX100408-07CCV	Tetryl	241 > 181	12.63	7769.454	5486.660	7769.454	708.031	bb			687.6967	114.6	14.6	505.4
VXX100408-07CCV	Nitrobenzene	123 > 46	13.54	3726.606	5486.660	3726.606	339.606	bb			565.0651	94.2	-5.8	329.8
VXX100408-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.53	12863.338	32832.465	12863.338	195.894	MM	10-Apr-10	11:39:04	629.2910	104.9	4.9	336.0
VXX100408-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.41	20131.918	32832.465	20131.918	306.586	bb			671.1155	111.9	11.9	952.0
VXX100408-07CCV	246-Trinitrotoluene	227 > 210	15.31	17693.051	32832.465	17693.051	269.444	bb			700.2311	116.7	16.7	1173.6
VXX100408-07CCV	34-dinitrotoluene	182 > 152	14.34	20014.955	32832.465	20014.955	304.804	bb			297.2019	99.1	-0.9	440.5
VXX100408-07CCV	26-dinitrotoluene	182 > 152	17.46	44894.105	32832.465	44894.105	683.685	MM	10-Apr-10	11:35:00	601.1256	100.2	0.2	1130.5
VXX100408-07CCV	24-dinitrotoluene	182 > 152	18.14	10405.064	32832.465	10405.064	158.457	MM	10-Apr-10	11:34:31	598.5511	99.8	-0.2	239.4
VXX100408-07CCV	26-dinitrotoluene-d3	185 > 155	17.29	32832.465		32832.465	32832.465	bb			415.8263	83.2	-16.8	3041.7
VXX100408-07CCV	2-Nitrotoluene	137 > 46	20.92	2723.384	32832.465	2723.384	41.474	bb			540.2967	90.0	-10.0	635.6
VXX100408-07CCV	4-Nitrotoluene	137 > 46	22.28	1467.669	32832.465	1467.669	22.351	bb			575.1078	95.9	-4.1	349.0
VXX100408-07CCV	3-Nitrotoluene	137 > 46	23.92	1872.924	32832.465	1872.924	28.522	bb			522.4154	87.1	-12.9	163.1
VXX100408-07CCV	PETN	361 > 62	24.39	27131.430	32832.465	27131.430	413.180	bb			633.0871	105.5	5.5	12891.7

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/09/10
Time of Injection: 1444
Standard Number: WXX100408-07CCV
Data File: EXP0408036a

HMX	111.4
RDX	119.3
135-TNB	102.5
13-DNB	100.7
Tetryl	114.6
Nitrobenzene	94.2
4A-26-DNT	104.9
2A-46-DNT	111.9
246-TNT	116.7
34-DNT(surr)	99.1
26-DNT	100.2
24-DNT	99.8
2-NT	90.0
4-NT	95.9
3-NT	87.1
PETN	105.5
Total	1653.8
Average	103.4

MOTT 4/12/10

Hmm 04/12/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0408038a

Analysis Date: 09–APR–10 15:43

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
4–Amino–2,6–dinitrotoluene	40	40.006	100	
HMX	40	42.186	105	
Nitrobenzene	40	41.813	105	
PETN	40	40.909	102	
RDX	40	39.856	100	
Tetryl	40	45.95	115	
m–Dinitrobenzene	40	39.657	99	
m–Nitrotoluene	40	41.758	104	
o–Nitrotoluene	40	40.293	101	
p–Nitrotoluene	40	48.523	121	
1,3,5–Trinitrobenzene	40	42.597	106	
1,3–Dinitrobenzene–d4	500	488.04	98	
2,4,6–Trinitrotoluene	40	44.653	112	
2,4–Dinitrotoluene	40	41.901	105	
2,6–Dinitrotoluene	40	40.578	101	
2,6–Dinitrotoluene–d3	500	467.068	93	
2–Amino–4,6–dinitrotoluene	40	43.801	110	
3,4–Dinitrotoluene	20	20.469	102	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408038a
Date: 09-Apr-2010
Time: 15:43:52
ID: WXX100408-08CRI
Vial: 1:1,C

MM 4/12/10

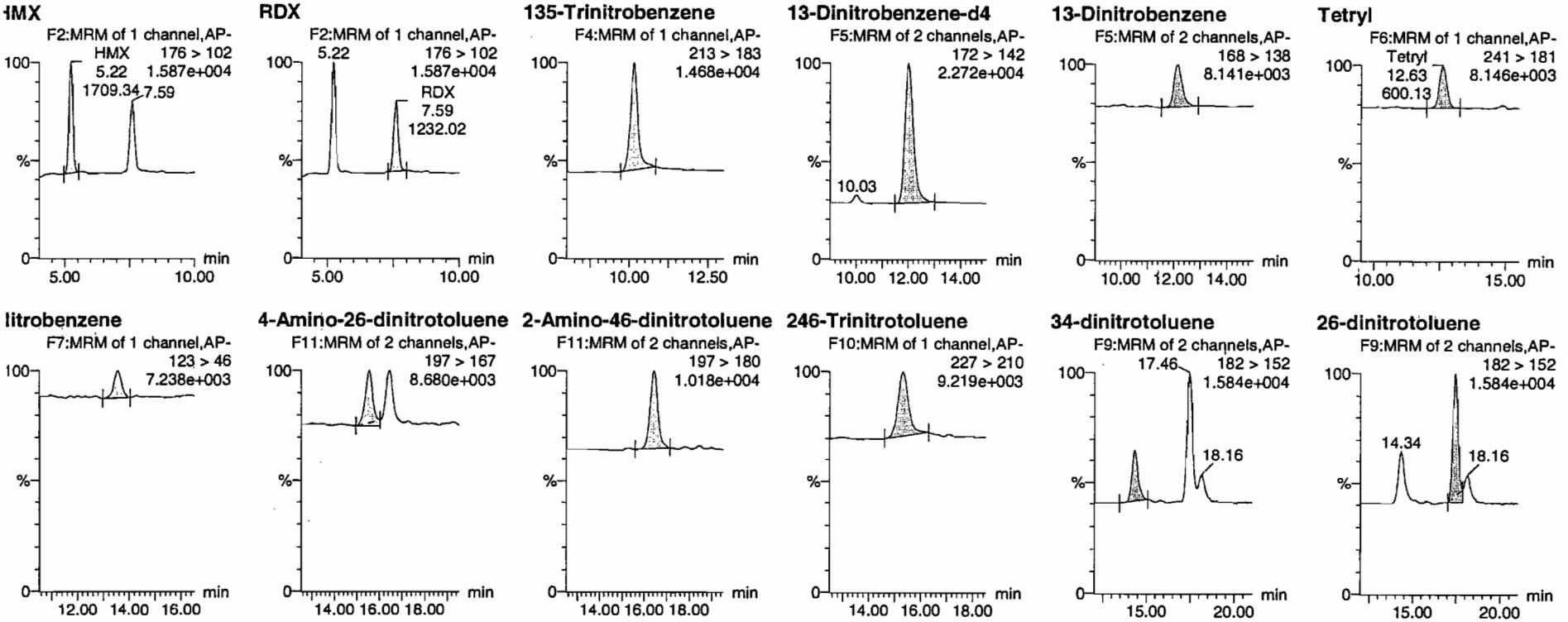

HMM 04/11/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

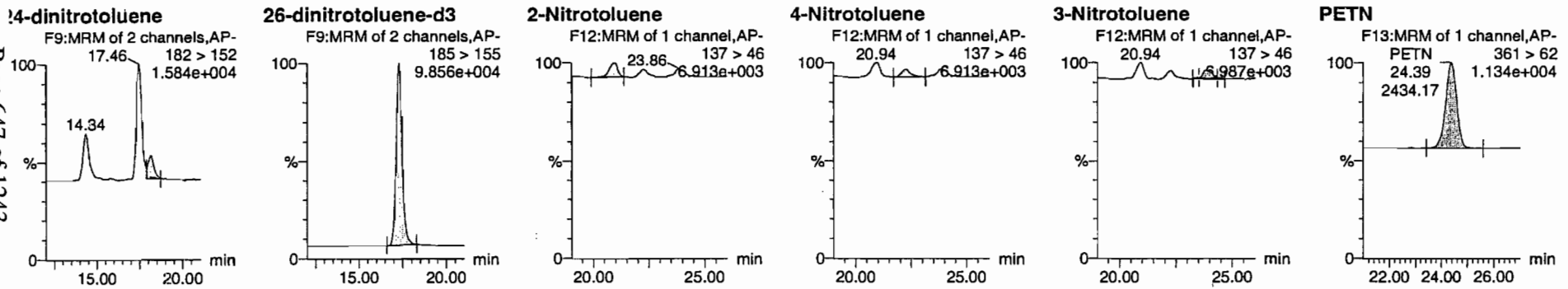

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
VXX100408-08CRI	HMX	176 > 102	5.22	1709.343	6342.622	1709.343	134.751	bb			42.1855	105.5	5.5	183.0
VXX100408-08CRI	RDX	176 > 102	7.59	1232.022	6342.622	1232.022	97.122	bb			39.8555	99.6	-0.4	116.2
VXX100408-08CRI	135-Trinitrobenzene	213 > 183	10.14	2282.100	6342.622	2282.100	179.902	bb			42.5970	106.5	6.5	213.1
VXX100408-08CRI	13-Dinitrobenzene-d4	172 > 142	12.00	6342.622		6342.622	6342.622	bb			488.0404	97.6	-2.4	546.0
VXX100408-08CRI	13-Dinitrobenzene	168 > 138	12.14	647.869	6342.622	647.869	51.073	bb			39.6566	99.1	-0.9	29.3
VXX100408-08CRI	Tetryl	241 > 181	12.63	600.128	6342.622	600.128	47.309	bb			45.9504	114.9	14.9	52.9
VXX100408-08CRI	Nitrobenzene	123 > 46	13.54	318.776	6342.622	318.776	25.130	bb			41.8129	104.5	4.5	50.7
VXX100408-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.53	918.544	36878.363	918.544	12.454	MM	10-Apr-10	11:38:52	40.0064	100.0	0.0	30.3
VXX100408-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.44	1475.851	36878.363	1475.851	20.010	bb			43.8012	109.5	9.5	52.7
VXX100408-08CRI	246-Trinitrotoluene	227 > 210	15.31	1267.309	36878.363	1267.309	17.182	bb			44.6532	111.6	11.6	129.8
VXX100408-08CRI	34-dinitrotoluene	182 > 152	14.34	1548.369	36878.363	1548.369	20.993	bb			20.4693	102.3	2.3	59.4
VXX100408-08CRI	26-dinitrotoluene	182 > 152	17.46	3403.954	36878.363	3403.954	46.151	MM	10-Apr-10	11:35:07	40.5781	101.4	1.4	148.1
VXX100408-08CRI	24-dinitrotoluene	182 > 152	18.16	818.160	36878.363	818.160	11.093	MM	10-Apr-10	11:34:24	41.9012	104.8	4.8	31.0
VXX100408-08CRI	26-dinitrotoluene-d3	185 > 155	17.29	36878.363		36878.363	36878.363	bb			467.0679	93.4	-6.6	2402.7
VXX100408-08CRI	2-Nitrotoluene	137 > 46	20.94	228.128	36878.363	228.128	3.093	bb			40.2934	100.7	0.7	71.1
VXX100408-08CRI	4-Nitrotoluene	137 > 46	22.27	139.089	36878.363	139.089	1.886	bb			48.5228	121.3	21.3	40.0
VXX100408-08CRI	3-Nitrotoluene	137 > 46	23.83	168.156	36878.363	168.156	2.280	MM	10-Apr-10	11:30:16	41.7580	104.4	4.4	14.1
VXX100408-08CRI	PETN	361 > 62	24.39	2434.169	36878.363	2434.169	33.003	bb			40.9088	102.3	2.3	1075.7

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/09/10
Time of Injection	1543
Standard Number	WXX100408-08CRI
Data File	EXP0408038a

HMX	105.5
RDX	99.6
135-TNB	106.5
13-DNB	99.1
Tetryl	114.9
Nitrobenzene	104.5
4A-26-DNT	100.0
2A-46-DNT	109.5
246-TNT	111.6
34-DNT(surr)	102.3
26-DNT	101.4
24-DNT	104.8
2-NT	100.7
4-NT	121.3
3-NT	104.4
PETN	102.3
Total	1688.4
Average	105.5

MHT 4/10/10

Hmc 04/16/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0408046a

Analysis Date: 09–APR–10 19:43

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	626.151	104	
1,3–Dinitrobenzene–d4	500	411.022	82	
2,4,6–Trinitrotoluene	600	720.578	120	*
2,4–Dinitrotoluene	600	610.114	102	
2,6–Dinitrotoluene	600	610.942	102	
2,6–Dinitrotoluene–d3	500	390.069	78	*
2–Amino–4,6–dinitrotoluene	600	714.631	119	
3,4–Dinitrotoluene	300	314.02	105	
4–Amino–2,6–dinitrotoluene	600	619.274	103	
HMX	600	698.805	116	
Nitrobenzene	600	573.858	96	
PETN	600	681.011	114	
RDX	600	745.866	124	*
Tetryl	600	716.114	119	
m–Dinitrobenzene	600	600.408	100	
m–Nitrotoluene	600	529.621	88	
o–Nitrotoluene	600	550.66	92	
p–Nitrotoluene	600	590.579	98	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408046a
Date: 09-Apr-2010
Time: 19:43:09
ID: WXX100408-07CCV
Vial: 1:1,B

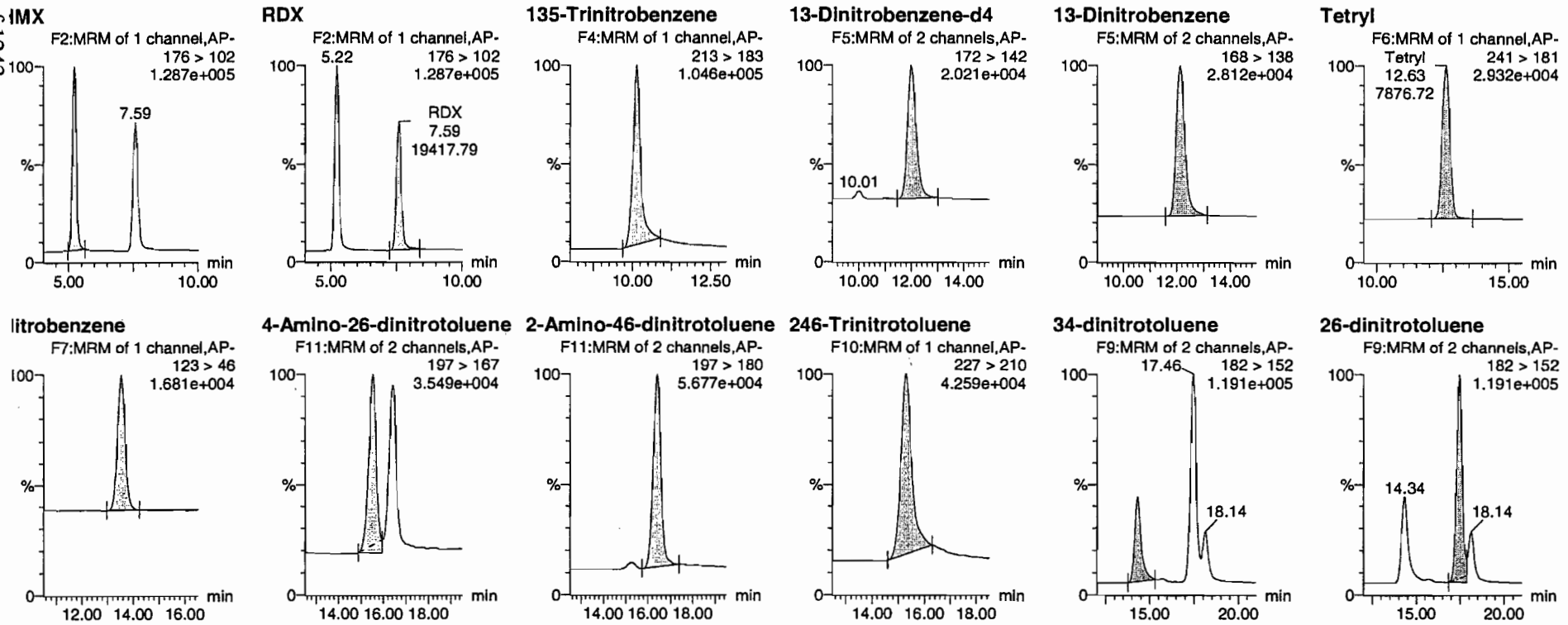

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

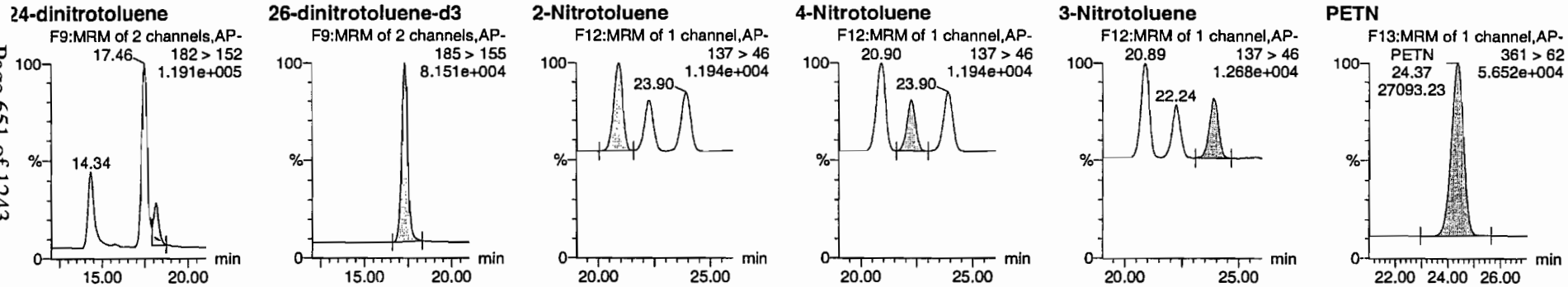

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
VXX100408-07CCV	HMX	176 > 102	5.22	23846.848	5341.678	23846.848	2232.150	bb			698.8053	116.5	16.5	2793.1
VXX100408-07CCV	RDX	176 > 102	7.59	19417.789	5341.678	19417.789	1817.574	bb			745.8655	124.3	24.3	1942.5
VXX100408-07CCV	135-Trinitrobenzene	213 > 183	10.14	28251.629	5341.678	28251.629	2644.453	bb			626.1507	104.4	4.4	3005.7
VXX100408-07CCV	13-Dinitrobenzene-d4	172 > 142	11.97	5341.678		5341.678	5341.678	bb			411.0216	82.2	-17.8	549.3
VXX100408-07CCV	13-Dinitrobenzene	168 > 138	12.14	8260.887	5341.678	8260.887	773.248	bb			600.4080	100.1	0.1	773.1
VXX100408-07CCV	Tetryl	241 > 181	12.63	7876.723	5341.678	7876.723	737.289	bb			716.1143	119.4	19.4	646.1
VXX100408-07CCV	Nitrobenzene	123 > 46	13.54	3684.591	5341.678	3684.591	344.891	bb			573.8582	95.6	-4.4	346.3
VXX100408-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.53	11874.462	30798.709	11874.462	192.775	MM	10-Apr-10	11:38:34	619.2739	103.2	3.2	467.1
VXX100408-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.41	20109.385	30798.709	20109.385	326.465	bb			714.6310	119.1	19.1	591.6
VXX100408-07CCV	246-Trinitrotoluene	227 > 210	15.31	17079.340	30798.709	17079.340	277.274	bb			720.5776	120.1	20.1	938.9
VXX100408-07CCV	34-dinitrotoluene	182 > 152	14.34	19837.617	30798.709	19837.617	322.053	bb			314.0201	104.7	4.7	600.8
VXX100408-07CCV	26-dinitrotoluene	182 > 152	17.46	42800.914	30798.709	42800.914	694.849	MM	10-Apr-10	11:35:20	610.9419	101.8	1.8	1478.7
VXX100408-07CCV	24-dinitrotoluene	182 > 152	18.14	9949.095	30798.709	9949.095	161.518	MM	10-Apr-10	11:34:13	610.1140	101.7	1.7	344.3
VXX100408-07CCV	26-dinitrotoluene-d3	185 > 155	17.29	30798.709		30798.709	30798.709	bb			390.0686	78.0	-22.0	1409.6
VXX100408-07CCV	2-Nitrotoluene	137 > 46	20.90	2603.687	30798.709	2603.687	42.269	bb			550.6596	91.8	-8.2	150.7
VXX100408-07CCV	4-Nitrotoluene	137 > 46	22.25	1413.793	30798.709	1413.793	22.952	bb			590.5789	98.4	-1.6	85.8
VXX100408-07CCV	3-Nitrotoluene	137 > 46	23.88	1781.142	30798.709	1781.142	28.916	bb			529.6212	88.3	-11.7	81.1
VXX100408-07CCV	PETN	361 > 62	24.37	27093.227	30798.709	27093.227	439.844	bb			681.0113	113.5	13.5	552.1

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/09/10
Time of Injection: 1943
Standard Number: WXX100408-07CCV
Data File: EXP0408046a

HMX	116.5
RDX	124.3
135-TNB	104.4
13-DNB	100.1
Tetryl	119.4
Nitrobenzene	95.6
4A-26-DNT	103.2
2A-46-DNT	119.1
246-TNT	120.1
34-DNT(surr)	104.7
26-DNT	101.8
24-DNT	101.7
2-NT	91.8
4-NT	98.4
3-NT	88.3
PETN	113.5
Total	1702.9
Average	106.4

MDT 4/10/10

Anne 04/10/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0408048a

Analysis Date: 09–APR–10 20:42

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	46.817	117	
1,3–Dinitrobenzene–d4	500	425.431	85	
2,4,6–Trinitrotoluene	40	45.785	114	
2,4–Dinitrotoluene	40	39.222	98	
2,6–Dinitrotoluene	40	40.808	102	
2,6–Dinitrotoluene–d3	500	413.788	83	
2–Amino–4,6–dinitrotoluene	40	41.709	104	
3,4–Dinitrotoluene	20	19.877	99	
4–Amino–2,6–dinitrotoluene	40	40.41	101	
HMX	40	49.707	124	
Nitrobenzene	40	37.314	93	
PETN	40	45.798	114	
RDX	40	48.995	122	
Tetryl	40	47.57	119	
m–Dinitrobenzene	40	38.146	95	
m–Nitrotoluene	40	37.735	94	
o–Nitrotoluene	40	38.37	96	
p–Nitrotoluene	40	36.579	91	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408048a
Date: 09-Apr-2010
Time: 20:42:06
ID: WXX100408-08CRI
Vial: 1:1,C

MM 4/10/10

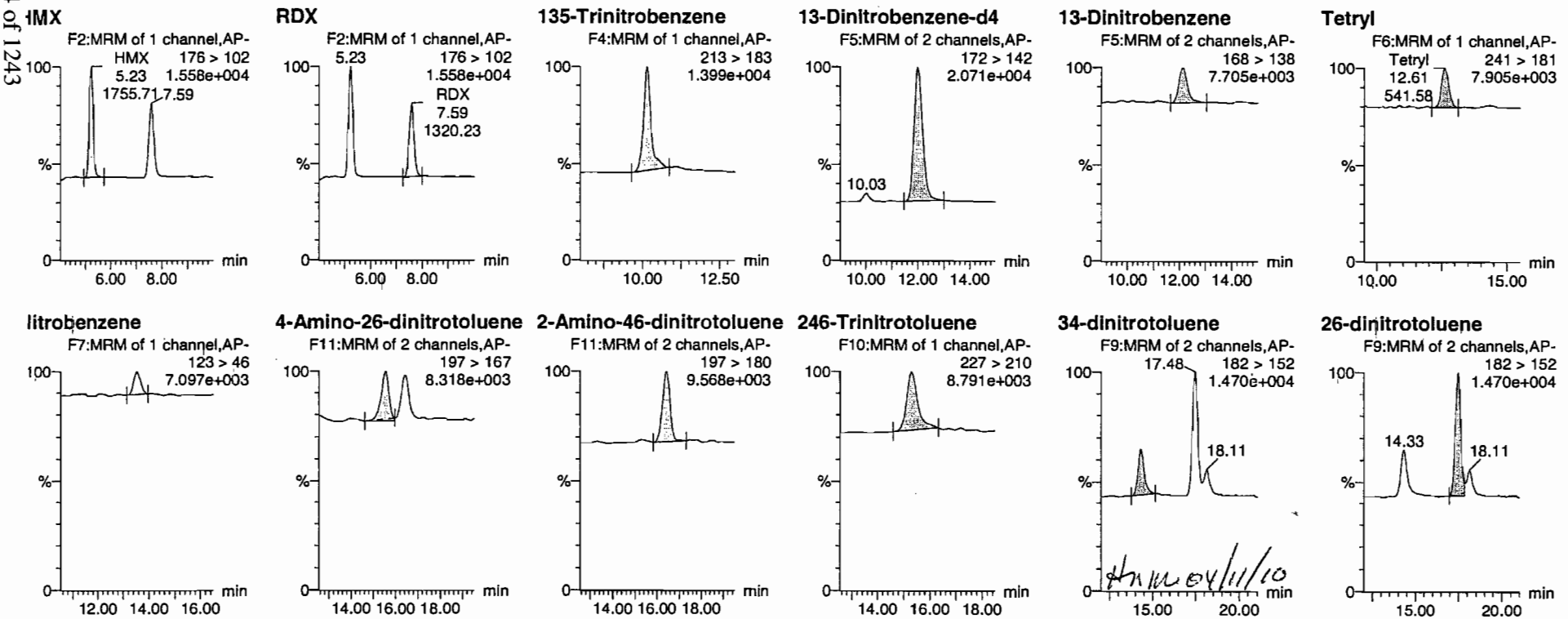

HMM 04/11/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

24-dinitrotoluene

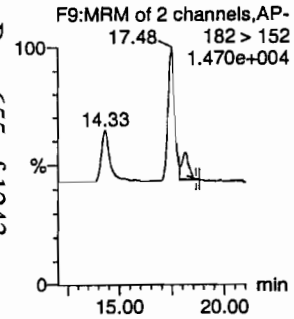

26-dinitrotoluene-d3

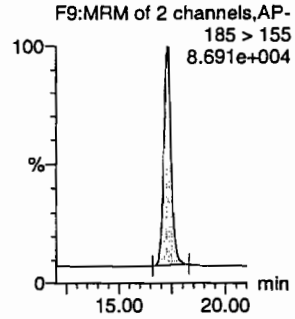

2-Nitrotoluene

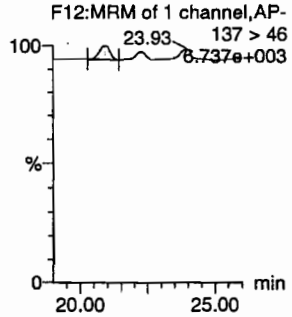

4-Nitrotoluene

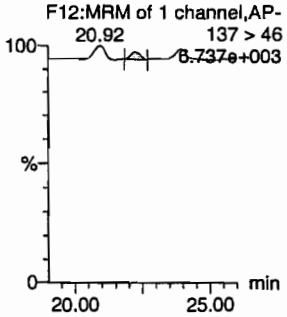

3-Nitrotoluene

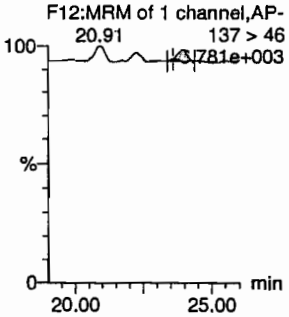

PETN

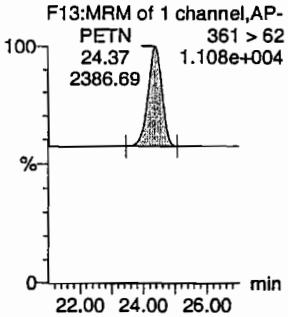

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100408-08CRI	HMX	176 > 102	5.23	1755.715	5528.944	1755.715	158.775	bb			49.7067	124.3	24.3	253.8
WXX100408-08CRI	RDX	176 > 102	7.59	1320.235	5528.944	1320.235	119.393	bb			48.9945	122.5	22.5	167.2
WXX100408-08CRI	135-Trinitrobenzene	213 > 183	10.14	2186.401	5528.944	2186.401	197.723	bb			46.8167	117.0	17.0	134.1
WXX100408-08CRI	13-Dinitrobenzene-d4	172 > 142	12.00	5528.944		5528.944	5528.944	bb			425.4310	85.1	-14.9	244.1
WXX100408-08CRI	13-Dinitrobenzene	168 > 138	12.13	543.243	5528.944	543.243	49.127	bb			38.1460	95.4	-4.6	40.7
WXX100408-08CRI	Tetryl	241 > 181	12.61	541.575	5528.944	541.575	48.976	bb			47.5698	118.9	18.9	43.5
WXX100408-08CRI	Nitrobenzene	123 > 46	13.53	247.982	5528.944	247.982	22.426	bb			37.3139	93.3	-6.7	21.6
WXX100408-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.54	821.968	32671.566	821.968	12.579	MM	10-Apr-10	11:38:26	40.4098	101.0	1.0	26.3
WXX100408-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.42	1245.053	32671.566	1245.053	19.054	bb			41.7094	104.3	4.3	75.5
WXX100408-08CRI	246-Trinitrotoluene	227 > 210	15.30	1151.209	32671.566	1151.209	17.618	bb			45.7853	114.5	14.5	99.7
WXX100408-08CRI	34-dinitrotoluene	182 > 152	14.33	1332.043	32671.566	1332.043	20.385	bb			19.8769	99.4	-0.6	64.0
WXX100408-08CRI	26-dinitrotoluene	182 > 152	17.48	3032.749	32671.566	3032.749	46.413	MM	10-Apr-10	11:35:30	40.8081	102.0	2.0	171.2
WXX100408-08CRI	24-dinitrotoluene	182 > 152	18.11	678.479	32671.566	678.479	10.383	MM	10-Apr-10	11:34:04	39.2217	98.1	-1.9	34.6
WXX100408-08CRI	26-dinitrotoluene-d3	185 > 155	17.30	32671.566		32671.566	32671.566	bb			413.7885	82.8	-17.2	3953.5
WXX100408-08CRI	2-Nitrotoluene	137 > 46	20.92	192.459	32671.566	192.459	2.945	bb			38.3703	95.9	-4.1	53.9
WXX100408-08CRI	4-Nitrotoluene	137 > 46	22.24	92.891	32671.566	92.891	1.422	bb			36.5787	91.4	-8.6	30.6
WXX100408-08CRI	3-Nitrotoluene	137 > 46	23.95	134.623	32671.566	134.623	2.060	MM	10-Apr-10	11:30:24	37.7354	94.3	-5.7	30.4
WXX100408-08CRI	PETN	361 > 62	24.37	2386.693	32671.566	2386.693	36.526	bb			45.7979	114.5	14.5	598.9

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/09/10
Time of Injection	2042
Standard Number	WXX100408-08CRI
Data File	EXP0408048a

HMX	124.3
RDX	122.5
135-TNB	117.0
13-DNB	95.4
Tetryl	118.9
Nitrobenzene	93.3
4A-26-DNT	101.0
2A-46-DNT	104.3
246-TNT	114.5
34-DNT(surr)	99.4
26-DNT	102.0
24-DNT	98.1
2-NT	95.9
4-NT	91.4
3-NT	94.3
PETN	114.5
Total	1686.8
Average	105.4

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0408059a

Analysis Date: 10–APR–10 02:06

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4–Dinitrotoluene	600	611.885	102	
2,6–Dinitrotoluene	600	605.131	101	
2,6–Dinitrotoluene–d3	500	399.227	80	*
2–Amino–4,6–dinitrotoluene	600	658.874	110	
3,4–Dinitrotoluene	300	306.732	102	
4–Amino–2,6–dinitrotoluene	600	652.267	109	
HMX	600	711.322	119	
Nitrobenzene	600	579.312	97	
PETN	600	690.737	115	
RDX	600	755.934	126	*
Tetryl	600	720.544	120	*
m–Dinitrobenzene	600	636.143	106	
m–Nitrotoluene	600	533.946	89	
o–Nitrotoluene	600	552.318	92	
p–Nitrotoluene	600	573.913	96	
1,3,5–Trinitrobenzene	600	637.472	106	
1,3–Dinitrobenzene–d4	500	406.896	81	
2,4,6–Trinitrotoluene	600	750.861	125	*

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408059a
Date: 10-Apr-2010
Time: 02:06:36
ID: WXX100408-07CCV
Vial: 1:1,B

MM 4/10/10

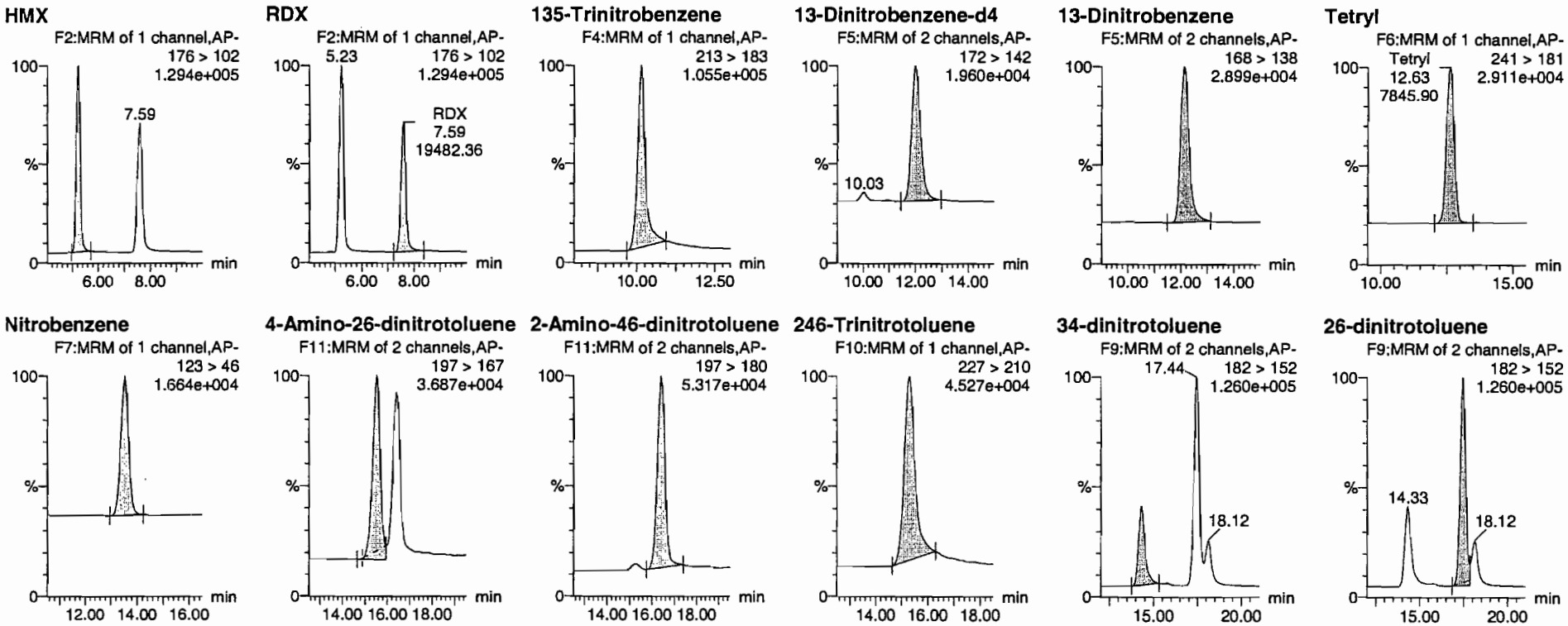

HMW 04/11/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

24-dinitrotoluene

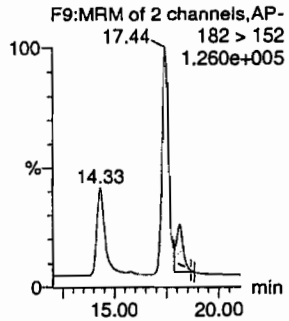

26-dinitrotoluene-d3

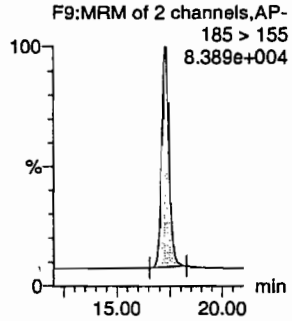

2-Nitrotoluene

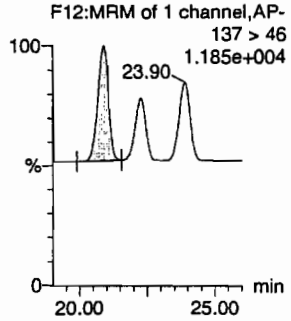

4-Nitrotoluene

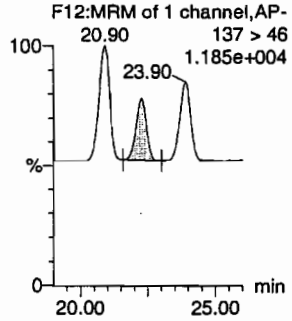

3-Nitrotoluene

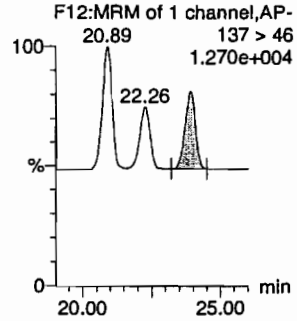

PETN

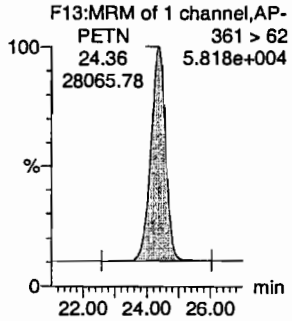

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100408-07CCV	HMX	176 > 102	5.23	24030.314	5288.059	24030.314	2272.130	bb			711.3217	118.6	18.6	1694.3
WXX100408-07CCV	RDX	176 > 102	7.59	19482.361	5288.059	19482.361	1842.109	bb			755.9338	126.0	26.0	1174.8
WXX100408-07CCV	135-Trinitrobenzene	213 > 183	10.14	28473.727	5288.059	28473.727	2692.266	bb			637.4719	106.2	6.2	2781.8
WXX100408-07CCV	13-Dinitrobenzene-d4	172 > 142	12.00	5288.059		5288.059	5288.059	bb			406.8959	81.4	-18.6	698.2
WXX100408-07CCV	13-Dinitrobenzene	168 > 138	12.14	8664.705	5288.059	8664.705	819.271	bb			636.1433	106.0	6.0	1286.5
WXX100408-07CCV	Tetryl	241 > 181	12.63	7845.897	5288.059	7845.897	741.850	bb			720.5445	120.1	20.1	390.5
WXX100408-07CCV	Nitrobenzene	123 > 46	13.53	3682.273	5288.059	3682.273	348.169	bb			579.3123	96.6	-3.4	419.6
WXX100408-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.52	12800.769	31521.859	12800.769	203.046	MM	10-Apr-10	11:37:42	652.2673	108.7	8.7	297.6
WXX100408-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.40	18975.732	31521.859	18975.732	300.993	bb			658.8739	109.8	9.8	436.8
WXX100408-07CCV	246-Trinitrotoluene	227 > 210	15.30	18214.992	31521.859	18214.992	288.926	bb			750.8607	125.1	25.1	499.2
WXX100408-07CCV	34-dinitrotoluene	182 > 152	14.33	19832.203	31521.859	19832.203	314.579	bb			306.7323	102.2	2.2	620.8
WXX100408-07CCV	26-dinitrotoluene	182 > 152	17.44	43389.195	31521.859	43389.195	688.240	MM	10-Apr-10	11:36:00	605.1306	100.9	0.9	1620.8
WXX100408-07CCV	24-dinitrotoluene	182 > 152	18.12	10212.255	31521.859	10212.255	161.987	MM	10-Apr-10	11:33:20	611.8850	102.0	2.0	342.7
WXX100408-07CCV	26-dinitrotoluene-d3	185 > 155	17.29	31521.859		31521.859	31521.859	bb			399.2273	79.8	-20.2	1622.7
WXX100408-07CCV	2-Nitrotoluene	137 > 46	20.90	2672.846	31521.859	2672.846	42.397	bb			552.3178	92.1	-7.9	334.0
WXX100408-07CCV	4-Nitrotoluene	137 > 46	22.26	1406.156	31521.859	1406.156	22.304	bb			573.9133	95.7	-4.3	181.9
WXX100408-07CCV	3-Nitrotoluene	137 > 46	23.90	1837.850	31521.859	1837.850	29.152	bb			533.9463	89.0	-11.0	289.4
WXX100408-07CCV	PETN	361 > 62	24.36	28065.779	31521.859	28065.779	445.180	bb			690.7370	115.1	15.1	8205.5

iEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/10/10
Time of Injection: 0206
Standard Number: WXX100408-07CCV
Data File: EXP0408059a

HMX	118.6
RDX	126.0
135-TNB	106.2
13-DNB	106.0
Tetryl	120.1
Nitrobenzene	96.6
4A-26-DNT	108.7
2A-46-DNT	109.8
246-TNT	125.1
34-DNT(surr)	102.2
26-DNT	100.9
24-DNT	102.0
2-NT	92.1
4-NT	95.7
3-NT	89.0
PETN	115.1
Total	1714.1
Average	107.1

HMM 04/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0408061a

Analysis Date: 10–APR–10 03:05

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3–Dinitrobenzene–d4	500	441.96	88	
2,4,6–Trinitrotoluene	40	47.365	118	
2,4–Dinitrotoluene	40	44.761	112	
2,6–Dinitrotoluene	40	41.465	104	
2,6–Dinitrotoluene–d3	500	430.1	86	
2–Amino–4,6–dinitrotoluene	40	46.162	115	
3,4–Dinitrotoluene	20	21.13	106	
4–Amino–2,6–dinitrotoluene	40	42.51	106	
HMX	40	47.562	119	
Nitrobenzene	40	35.292	88	
PETN	40	48.648	122	
RDX	40	45.14	113	
Tetryl	40	47.002	118	
m–Dinitrobenzene	40	40.574	101	
m–Nitrotoluene	40	32.853	82	
o–Nitrotoluene	40	40.889	102	
p–Nitrotoluene	40	37.144	93	
1,3,5–Trinitrobenzene	40	46.393	116	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Date: 10-Apr-2010
Time: 03:05:40
D: WXX100408-08CRI
Vial: 1:1,C

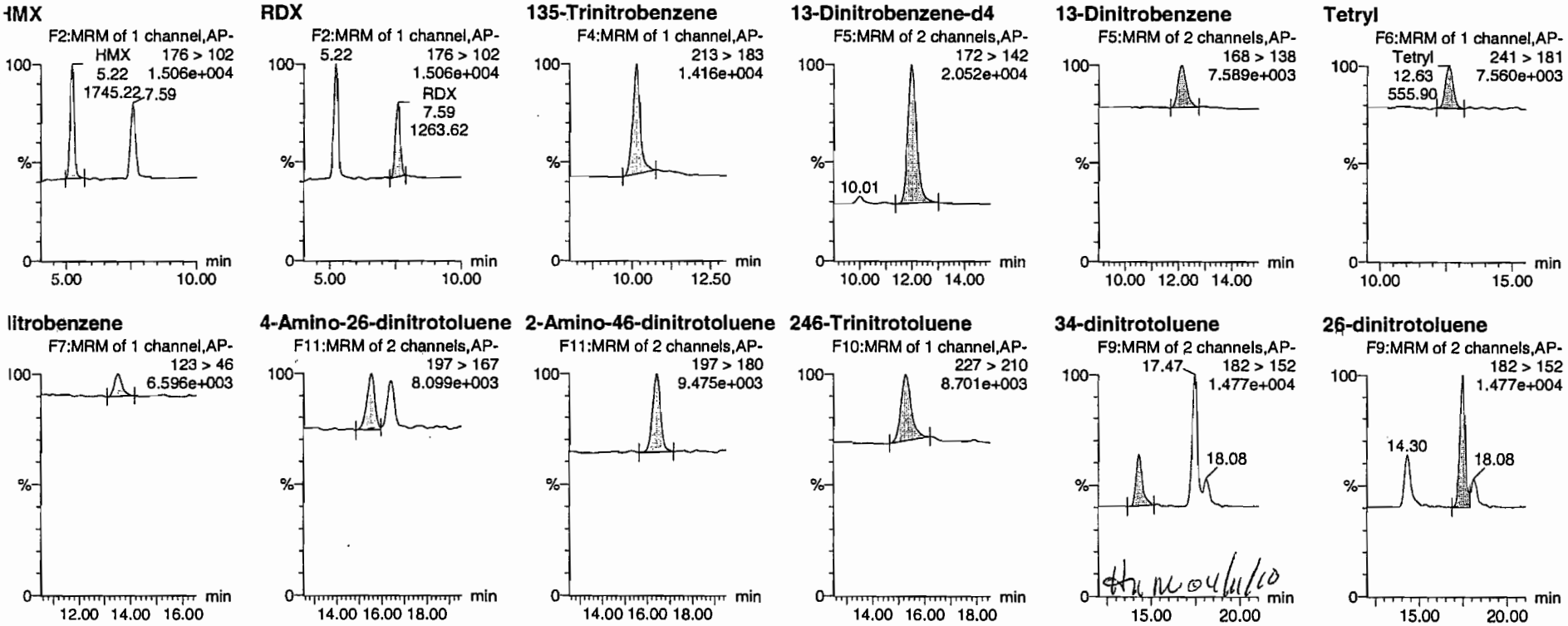

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

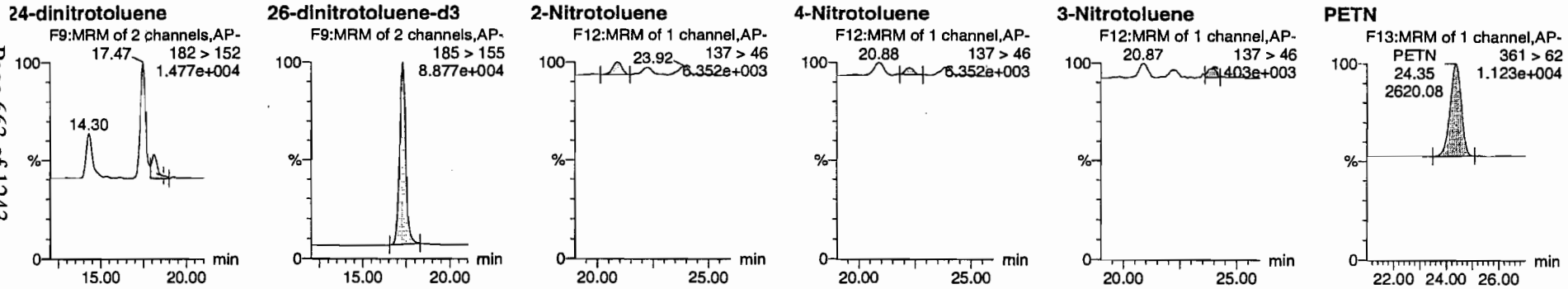

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100408-08CRI	HMX	176 > 102	5.22	1745.218	5743.754	1745.218	151.923	bb			47.5616	118.9	18.9	215.4
WXX100408-08CRI	RDX	176 > 102	7.59	1263.616	5743.754	1263.616	109.999	bb			45.1396	112.8	12.8	140.6
WXX100408-08CRI	135-Trinitrobenzene	213 > 183	10.13	2250.808	5743.754	2250.808	195.935	bb			46.3933	116.0	16.0	125.9
WXX100408-08CRI	13-Dinitrobenzene-d4	172 > 142	11.97	5743.754		5743.754	5743.754	bb			441.9598	88.4	-11.6	425.1
WXX100408-08CRI	13-Dinitrobenzene	168 > 138	12.10	600.272	5743.754	600.272	52.254	bb			40.5742	101.4	1.4	50.7
WXX100408-08CRI	Tetryl	241 > 181	12.63	555.897	5743.754	555.897	48.391	bb			47.0016	117.5	17.5	44.6
WXX100408-08CRI	Nitrobenzene	123 > 46	13.54	243.654	5743.754	243.654	21.210	bb			35.2916	88.2	-11.8	20.9
WXX100408-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.53	898.775	33959.496	898.775	13.233	MM	10-Apr-10	11:37:24	42.5100	106.3	6.3	48.0
WXX100408-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.41	1432.301	33959.496	1432.301	21.088	bb			46.1624	115.4	15.4	39.1
WXX100408-08CRI	246-Trinitrotoluene	227 > 210	15.28	1237.884	33959.496	1237.884	18.226	bb			47.3654	118.4	18.4	23.7
WXX100408-08CRI	34-dinitrotoluene	182 > 152	14.30	1471.854	33959.496	1471.854	21.671	bb			21.1302	105.7	5.7	67.8
WXX100408-08CRI	26-dinitrotoluene	182 > 152	17.47	3203.022	33959.496	3203.022	47.159	MM	10-Apr-10	11:36:06	41.4647	103.7	3.7	175.2
WXX100408-08CRI	24-dinitrotoluene	182 > 152	18.08	804.818	33959.496	804.818	11.850	MM	10-Apr-10	11:33:08	44.7607	111.9	11.9	37.0
WXX100408-08CRI	26-dinitrotoluene-d3	185 > 155	17.27	33959.496		33959.496	33959.496	bb			430.1002	86.0	-14.0	2024.8
WXX100408-08CRI	2-Nitrotoluene	137 > 46	20.88	213.177	33959.496	213.177	3.139	bb			40.8890	102.2	2.2	49.3
WXX100408-08CRI	4-Nitrotoluene	137 > 46	22.23	98.046	33959.496	98.046	1.444	bb			37.1444	92.9	-7.1	25.1
WXX100408-08CRI	3-Nitrotoluene	137 > 46	24.00	121.825	33959.496	121.825	1.794	db			32.8530	82.1	-17.9	11.1
WXX100408-08CRI	PETN	361 > 62	24.35	2620.083	33959.496	2620.083	38.577	bb			48.6484	121.6	21.6	379.5

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/10/10
Time of Injection	0305
Standard Number	WXX100408-08CRI
Data File	EXP0408061a

HMX	118.9
RDX	112.8
135-TNB	116.0
13-DNB	101.4
Tetryl	117.5
Nitrobenzene	88.2
4A-26-DNT	106.3
2A-46-DNT	115.4
246-TNT	118.4
34-DNT(surr)	105.7
26-DNT	103.7
24-DNT	111.9
2-NT	102.2
4-NT	92.9
3-NT	82.1
PETN	121.6
Total	1715.0
Average	107.2

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0408072a

Analysis Date: 10–APR–10 08:30

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Tetryl	600	856.18	143	*
m–Dinitrobenzene	600	587.331	98	
m–Nitrotoluene	600	507.624	85	
o–Nitrotoluene	600	528.075	88	
p–Nitrotoluene	600	578.663	96	
1,3,5–Trinitrobenzene	600	582.253	97	
1,3–Dinitrobenzene–d4	500	448.35	90	
2,4,6–Trinitrotoluene	600	753.785	126	*
2,4–Dinitrotoluene	600	638.151	106	
2,6–Dinitrotoluene	600	616.994	103	
2,6–Dinitrotoluene–d3	500	402.197	80	
2–Amino–4,6–dinitrotoluene	600	686.265	114	
3,4–Dinitrotoluene	300	310.058	103	
4–Amino–2,6–dinitrotoluene	600	642.746	107	
HMX	600	660.224	110	
Nitrobenzene	600	526.993	88	
PETN	600	719.605	120	
RDX	600	678.872	113	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408072a
Date: 10-Apr-2010
Time: 08:30:12
ID: WXX100408-07CCV
Vial: 1:1,B

MMP 4/10/10

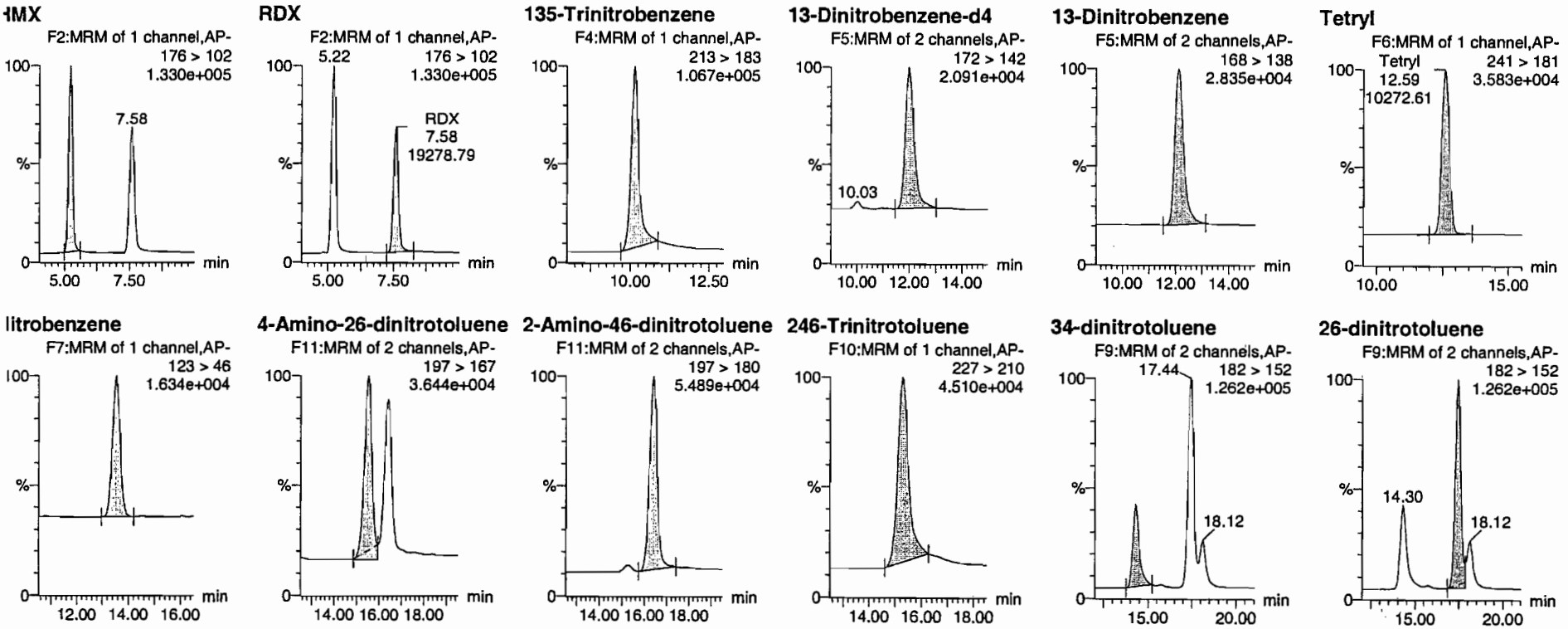

HMM 04/11/10

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report

GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

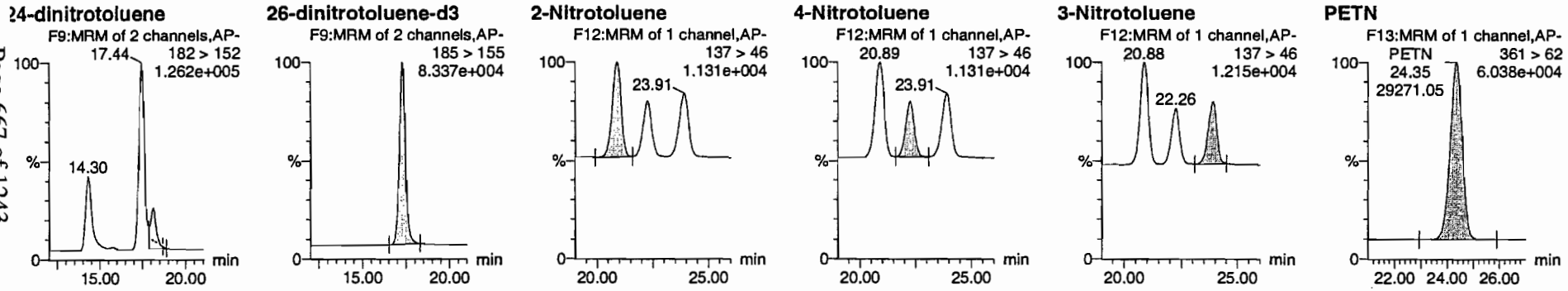

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
VXX100408-07CCV	HMX	176 > 102	5.22	24576.387	5826.798	24576.387	2108.910	bb			660.2235	110.0	10.0	2536.6
VXX100408-07CCV	RDX	176 > 102	7.58	19278.787	5826.798	19278.787	1654.321	bb			678.8725	113.1	13.1	1691.0
VXX100408-07CCV	135-Trinitrobenzene	213 > 183	10.13	28656.854	5826.798	28656.854	2459.057	bb			582.2528	97.0	-3.0	2546.3
VXX100408-07CCV	13-Dinitrobenzene-d4	172 > 142	11.98	5826.798		5826.798	5826.798	bb			448.3498	89.7	-10.3	468.6
VXX100408-07CCV	13-Dinitrobenzene	168 > 138	12.11	8814.859	5826.798	8814.859	756.407	bb			587.3309	97.9	-2.1	882.3
VXX100408-07CCV	Tetryl	241 > 181	12.59	10272.608	5826.798	10272.608	881.497	bb			856.1803	142.7	42.7	680.1
VXX100408-07CCV	Nitrobenzene	123 > 46	13.54	3690.978	5826.798	3690.978	316.724	bb			526.9926	87.8	-12.2	293.6
VXX100408-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.53	12707.749	31756.346	12707.749	200.082	MM	10-Apr-10	11:37:15	642.7461	107.1	7.1	272.5
VXX100408-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.41	19911.619	31756.346	19911.619	313.506	bb			686.2647	114.4	14.4	1139.7
VXX100408-07CCV	246-Trinitrotoluene	227 > 210	15.28	18421.951	31756.346	18421.951	290.051	bb			753.7846	125.6	25.6	829.6
VXX100408-07CCV	34-dinitrotoluene	182 > 152	14.30	20196.369	31756.346	20196.369	317.989	bb			310.0582	103.4	3.4	821.6
VXX100408-07CCV	26-dinitrotoluene	182 > 152	17.44	44568.953	31756.346	44568.953	701.733	MM	10-Apr-10	11:36:17	616.9945	102.8	2.8	2086.3
VXX100408-07CCV	24-dinitrotoluene	182 > 152	18.12	10729.860	31756.346	10729.860	168.940	MM	10-Apr-10	11:32:52	638.1510	106.4	6.4	452.2
VXX100408-07CCV	26-dinitrotoluene-d3	185 > 155	17.27	31756.346		31756.346	31756.346	bb			402.1971	80.4	-19.6	2832.3
VXX100408-07CCV	2-Nitrotoluene	137 > 46	20.89	2574.537	31756.346	2574.537	40.536	bb			528.0749	88.0	-12.0	350.0
VXX100408-07CCV	4-Nitrotoluene	137 > 46	22.26	1428.339	31756.346	1428.339	22.489	bb			578.6626	96.4	-3.6	203.4
VXX100408-07CCV	3-Nitrotoluene	137 > 46	23.91	1760.246	31756.346	1760.246	27.715	bb			507.6240	84.6	-15.4	82.9
VXX100408-07CCV	PETN	361 > 62	24.35	29271.053	31756.346	29271.053	460.869	bb			719.6051	119.9	19.9	6628.8

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/10/10
Time of Injection: 0830
Standard Number: WXX100408-07CCV
Data File: EXP0408072a

HMX		110.0
RDX		113.1
135-TNB		97.0
13-DNB		97.9
Tetryl		142.7
Nitrobenzene		87.8
4A-26-DNT		107.1
2A-46-DNT		114.4
246-TNT		125.6
34-DNT(surr)		103.4
26-DNT		102.8
24-DNT		106.4
2-NT		88.0
4-NT		96.4
3-NT		84.6
PETN		119.9
Total		1697.1
Average		106.1

MAP 4/12/10

Hmm 04/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0408074a

Analysis Date: 10–APR–10 09:29

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
PETN	40	47.507	119	
RDX	40	46.162	115	
Tetryl	40	47.137	118	
m–Dinitrobenzene	40	43.479	109	
m–Nitrotoluene	40	30.676	77	
o–Nitrotoluene	40	37.061	93	
p–Nitrotoluene	40	36.459	91	
1,3,5–Trinitrobenzene	40	46.83	117	
1,3–Dinitrobenzene–d4	500	462.781	93	
2,4,6–Trinitrotoluene	40	43.139	108	
2,4–Dinitrotoluene	40	40.465	101	
2,6–Dinitrotoluene	40	41.672	104	
2,6–Dinitrotoluene–d3	500	459.746	92	
2–Amino–4,6–dinitrotoluene	40	40.75	102	
3,4–Dinitrotoluene	20	19.792	99	
4–Amino–2,6–dinitrotoluene	40	41.358	103	
HMX	40	50.292	126	
Nitrobenzene	40	40.128	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408074a
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Time: 09:29:16
ID: WXX100408-08CRI
Vial: 1:1,C

MAT 4/10/10

HMX

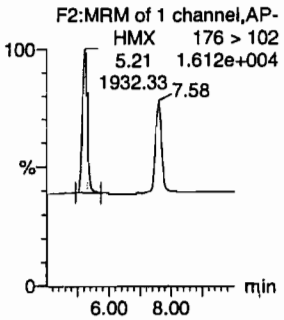

RDX

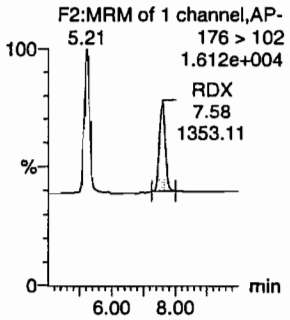

135-Trinitrobenzene

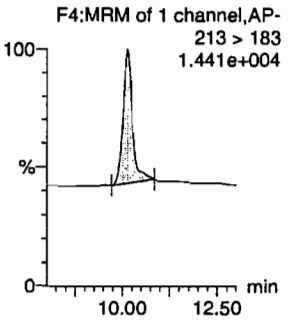

13-Dinitrobenzene-d4

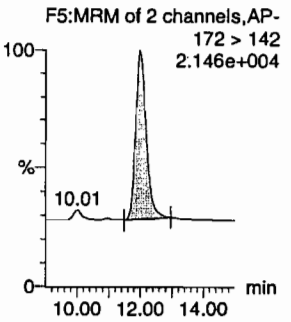

13-Dinitrobenzene

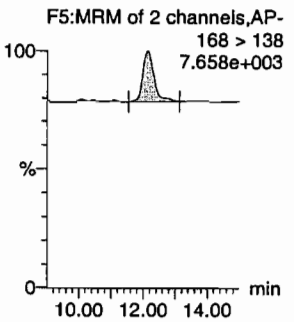

Tetryl

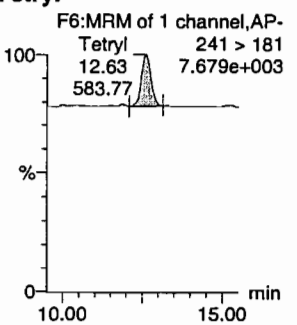

Nitrobenzene

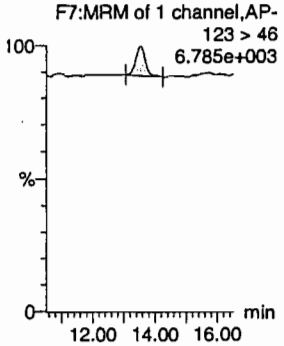

4-Amino-26-dinitrotoluene

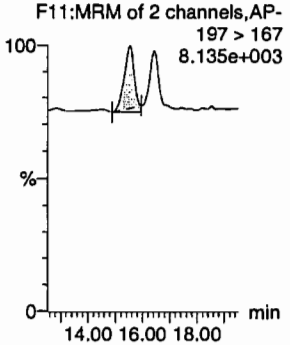

2-Amino-46-dinitrotoluene

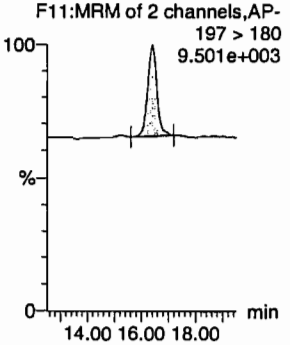

246-Trinitrotoluene

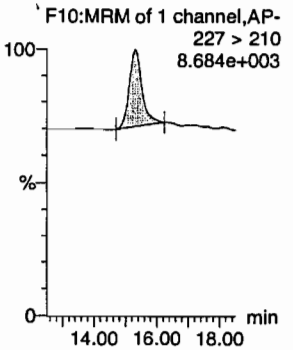

34-dinitrotoluene

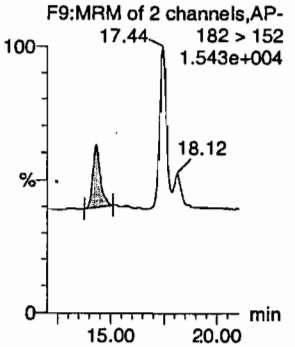

26-dinitrotoluene

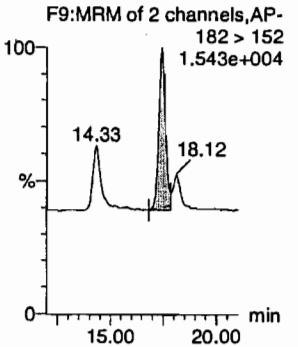

HMM 04/11/10

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

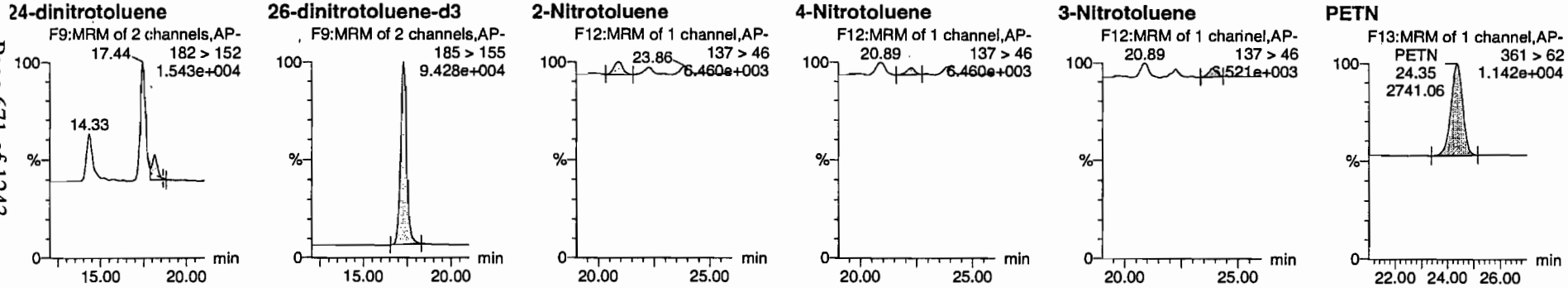

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100408-08CRI	HMX	176 > 102	5.21	1932.331	6014.345	1932.331	160.644	bb			50.2917	125.7	25.7	269.5
WXX100408-08CRI	RDX	176 > 102	7.58	1353.113	6014.345	1353.113	112.490	bb			46.1620	115.4	15.4	170.3
WXX100408-08CRI	135-Trinitrobenzene	213 > 183	10.14	2379.034	6014.345	2379.034	197.780	bb			46.8301	117.1	17.1	320.6
WXX100408-08CRI	13-Dinitrobenzene-d4	172 > 142	11.97	6014.345		6014.345	6014.345	bb			462.7808	92.6	-7.4	585.4
WXX100408-08CRI	13-Dinitrobenzene	168 > 138	12.14	673.543	6014.345	673.543	55.995	bb			43.4785	108.7	8.7	107.4
WXX100408-08CRI	Tetryl	241 > 181	12.63	583.766	6014.345	583.766	48.531	bb			47.1373	117.8	17.8	43.9
WXX100408-08CRI	Nitrobenzene	123 > 46	13.53	290.097	6014.345	290.097	24.117	bb			40.1280	100.3	0.3	26.9
WXX100408-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.52	934.681	36300.254	934.681	12.874	MM	10-Apr-10	11:36:54	41.3576	103.4	3.4	52.1
WXX100408-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.40	1351.508	36300.254	1351.508	18.616	bb			40.7497	101.9	1.9	110.4
WXX100408-08CRI	246-Trinitrotoluene	227 > 210	15.30	1205.129	36300.254	1205.129	16.599	bb			43.1386	107.8	7.8	53.1
WXX100408-08CRI	34-dinitrotoluene	182 > 152	14.33	1473.642	36300.254	1473.642	20.298	bb			19.7917	99.0	-1.0	73.1
WXX100408-08CRI	26-dinitrotoluene	182 > 152	17.44	3440.934	36300.254	3440.934	47.395	MM	10-Apr-10	11:36:23	41.6722	104.2	4.2	191.5
WXX100408-08CRI	24-dinitrotoluene	182 > 152	18.12	777.731	36300.254	777.731	10.712	MM	10-Apr-10	11:32:43	40.4650	101.2	1.2	39.8
WXX100408-08CRI	26-dinitrotoluene-d3	185 > 155	17.26	36300.254		36300.254	36300.254	bb			459.7461	91.9	-8.1	3232.9
WXX100408-08CRI	2-Nitrotoluene	137 > 46	20.89	206.536	36300.254	206.536	2.845	bb			37.0606	92.7	-7.3	64.5
WXX100408-08CRI	4-Nitrotoluene	137 > 46	22.25	102.871	36300.254	102.871	1.417	bb			36.4593	91.1	-8.9	34.7
WXX100408-08CRI	3-Nitrotoluene	137 > 46	23.85	121.594	36300.254	121.594	1.675	bb			30.6762	76.7	-23.3	14.3
WXX100408-08CRI	PETN	361 > 62	24.35	2741.064	36300.254	2741.064	37.755	bb			47.5068	118.8	18.8	161.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/10/10
Time of Injection	0929
Standard Number	WXX100408-08CRI
Data File	EXP0408074a

HMX	125.7
RDX	115.4
135-TNB	117.1
13-DNB	108.7
Tetryl	117.8
Nitrobenzene	100.3
4A-26-DNT	103.4
2A-46-DNT	101.9
246-TNT	107.8
34-DNT(surr)	99.0
26-DNT	104.2
24-DNT	101.2
2-NT	92.7
4-NT	91.1
3-NT	76.7
PETN	118.8
Total	1681.8
Average	105.1

MT 4/12/10

Hmc 04/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0408085a

Analysis Date: 10–APR–10 14:53

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	636.106	106	
1,3–Dinitrobenzene–d4	500	371.009	74	*
2,4,6–Trinitrotoluene	600	748.482	125	*
2,4–Dinitrotoluene	600	589.616	98	
2,6–Dinitrotoluene	600	594.847	99	
2,6–Dinitrotoluene–d3	500	366.196	73	*
2–Amino–4,6–dinitrotoluene	600	651.106	109	
3,4–Dinitrotoluene	300	290.529	97	
4–Amino–2,6–dinitrotoluene	600	623.686	104	
HMX	600	695.105	116	
Nitrobenzene	600	579.84	97	
PETN	600	689.507	115	
RDX	600	723.103	121	*
Tetryl	600	762.469	127	*
m–Dinitrobenzene	600	619.292	103	
m–Nitrotoluene	600	493.304	82	
o–Nitrotoluene	600	535.244	89	
p–Nitrotoluene	600	572.407	95	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408085a
Date: 10-Apr-2010
Time: 14:53:57
ID: WXX100410-07CCV
Vial: 1:1,B

MM 4/11/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.177e+005

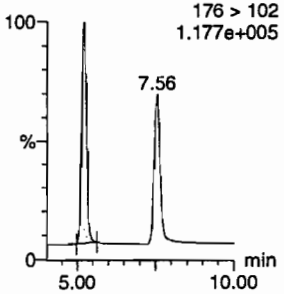

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.177e+005

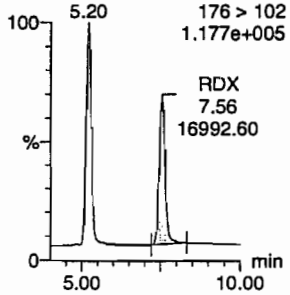

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
9.679e+004

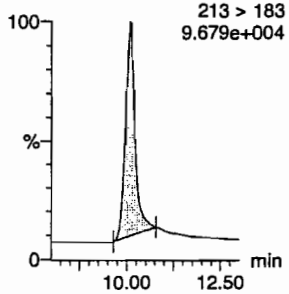

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.024e+004

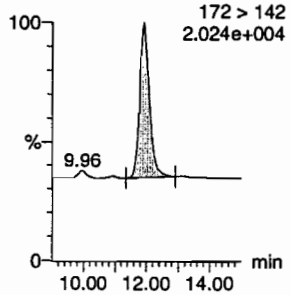

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
2.796e+004

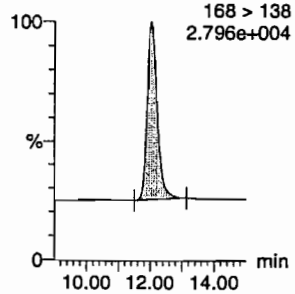

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
2.969e+004

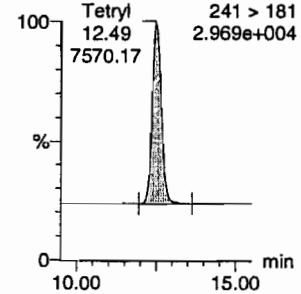

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.660e+004

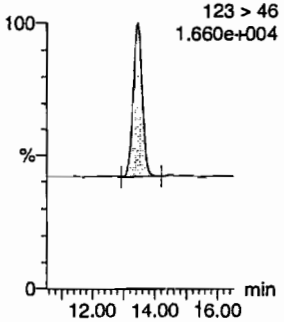

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
3.361e+004

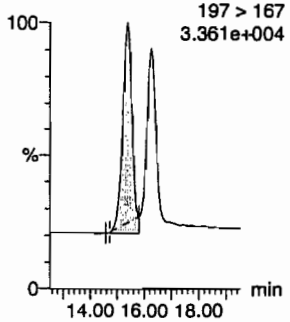

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
4.890e+004

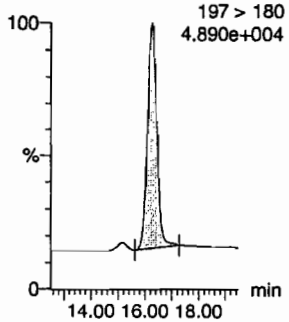

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
4.233e+004

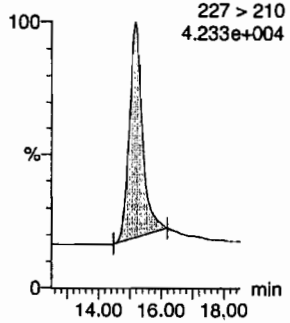

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.124e+005

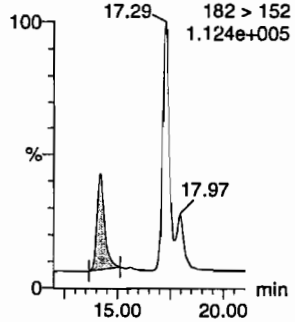

HM 04/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.124e+005

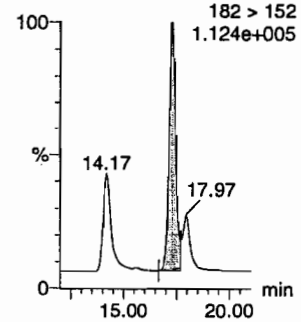

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

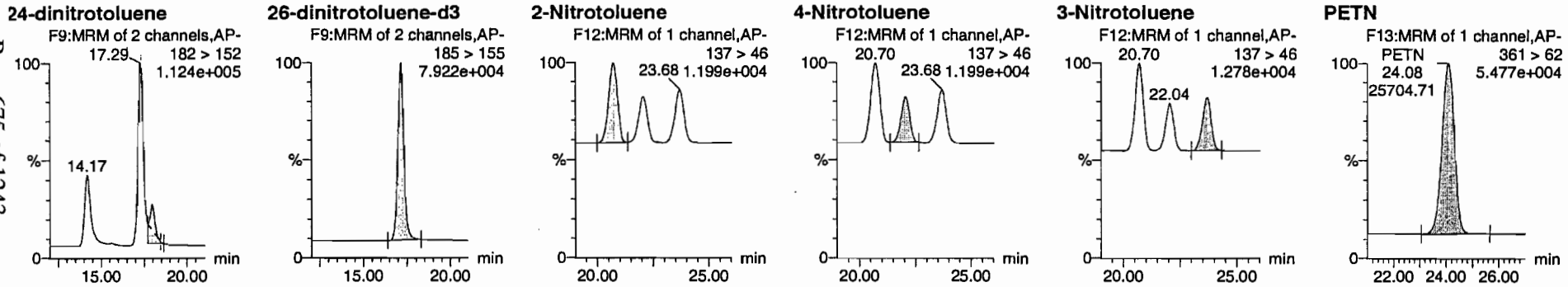

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100410-07CCV	HMX	176 > 102	5.20	21411.418	4821.674	21411.418	2220.330	bb			695.1052	115.9	15.9	1690.9
WXX100410-07CCV	RDX	176 > 102	7.56	16992.596	4821.674	16992.596	1762.105	bb			723.1033	120.5	20.5	1143.0
WXX100410-07CCV	135-Trinitrobenzene	213 > 183	10.09	25906.832	4821.674	25906.832	2686.498	bb			636.1060	106.0	6.0	471.5
WXX100410-07CCV	13-Dinitrobenzene-d4	172 > 142	11.92	4821.674		4821.674	4821.674	bb			371.0093	74.2	-25.8	338.5
WXX100410-07CCV	13-Dinitrobenzene	168 > 138	12.03	7691.231	4821.674	7691.231	797.569	bb			619.2920	103.2	3.2	268.0
WXX100410-07CCV	Tetryl	241 > 181	12.49	7570.172	4821.674	7570.172	785.015	bb			762.4693	127.1	27.1	633.9
WXX100410-07CCV	Nitrobenzene	123 > 46	13.45	3360.572	4821.674	3360.572	348.486	bb			579.8403	96.6	-3.4	220.4
WXX100410-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.39	11227.153	28913.775	11227.153	194.149	MM	11-Apr-10	11:37:03	623.6863	103.9	3.9	224.7
WXX100410-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.26	17200.504	28913.775	17200.504	297.445	bb			651.1064	108.5	8.5	1039.3
WXX100410-07CCV	246-Trinitrotoluene	227 > 210	15.18	16654.984	28913.775	16654.984	288.011	bb			748.4824	124.7	24.7	821.7
WXX100410-07CCV	34-dinitrotoluene	182 > 152	14.17	17230.328	28913.775	17230.328	297.961	bb			290.5288	96.8	-3.2	509.9
WXX100410-07CCV	26-dinitrotoluene	182 > 152	17.29	39122.848	28913.775	39122.848	676.543	MM	11-Apr-10	11:40:59	594.8467	99.1	-0.9	1327.1
WXX100410-07CCV	24-dinitrotoluene	182 > 152	17.97	9026.385	28913.775	9026.385	156.091	MM	11-Apr-10	11:42:24	589.6157	98.3	-1.7	288.6
WXX100410-07CCV	26-dinitrotoluene-d3	185 > 155	17.14	28913.775		28913.775	28913.775	bb			366.1957	73.2	-26.8	3387.6
WXX100410-07CCV	2-Nitrotoluene	137 > 46	20.70	2375.910	28913.775	2375.910	41.086	bb			535.2444	89.2	-10.8	104.4
WXX100410-07CCV	4-Nitrotoluene	137 > 46	22.05	1286.426	28913.775	1286.426	22.246	bb			572.4066	95.4	-4.6	59.8
WXX100410-07CCV	3-Nitrotoluene	137 > 46	23.69	1557.471	28913.775	1557.471	26.933	bb			493.3038	82.2	-17.8	35.2
WXX100410-07CCV	PETN	361 > 62	24.08	25704.707	28913.775	25704.707	444.506	bb			689.5071	114.9	14.9	7447.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/10/10
Time of Injection: 1453
Standard Number: WXX100410-07CCV
Data File: EXP0408085a

HMX		115.9
RDX		120.5
135-TNB		106.0
13-DNB		103.2
Tetryl		127.1
Nitrobenzene		96.6
4A-26-DNT		103.9
2A-46-DNT		108.5
246-TNT		124.7
34-DNT(surr)		96.8
26-DNT		99.1
24-DNT		98.3
2-NT		89.2
4-NT		95.4
3-NT		82.2
PETN		114.9
Total		1682.3
Average		105.1

MAT 4/11/10

Hmm 04/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0408087a

Analysis Date: 10–APR–10 15:52

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	49.672	124	
1,3–Dinitrobenzene–d4	500	444.755	89	
2,4,6–Trinitrotoluene	40	47.969	120	
2,4–Dinitrotoluene	40	39.334	98	
2,6–Dinitrotoluene	40	39.88	100	
2,6–Dinitrotoluene–d3	500	421.031	84	
2–Amino–4,6–dinitrotoluene	40	42.049	105	
3,4–Dinitrotoluene	20	20.099	100	
4–Amino–2,6–dinitrotoluene	40	40.256	101	
HMX	40	43.574	109	
Nitrobenzene	40	41.715	104	
PETN	40	48.304	121	
RDX	40	44.899	112	
Tetryl	40	46.92	117	
m–Dinitrobenzene	40	40.108	100	
m–Nitrotoluene	40	37.251	93	
o–Nitrotoluene	40	35.231	88	
p–Nitrotoluene	40	34.204	86	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408087a
Date: 10-Apr-2010
Time: 15:52:55
ID: WXX100410-08CRI
Vial: 1:1,C

MM 4/11/10

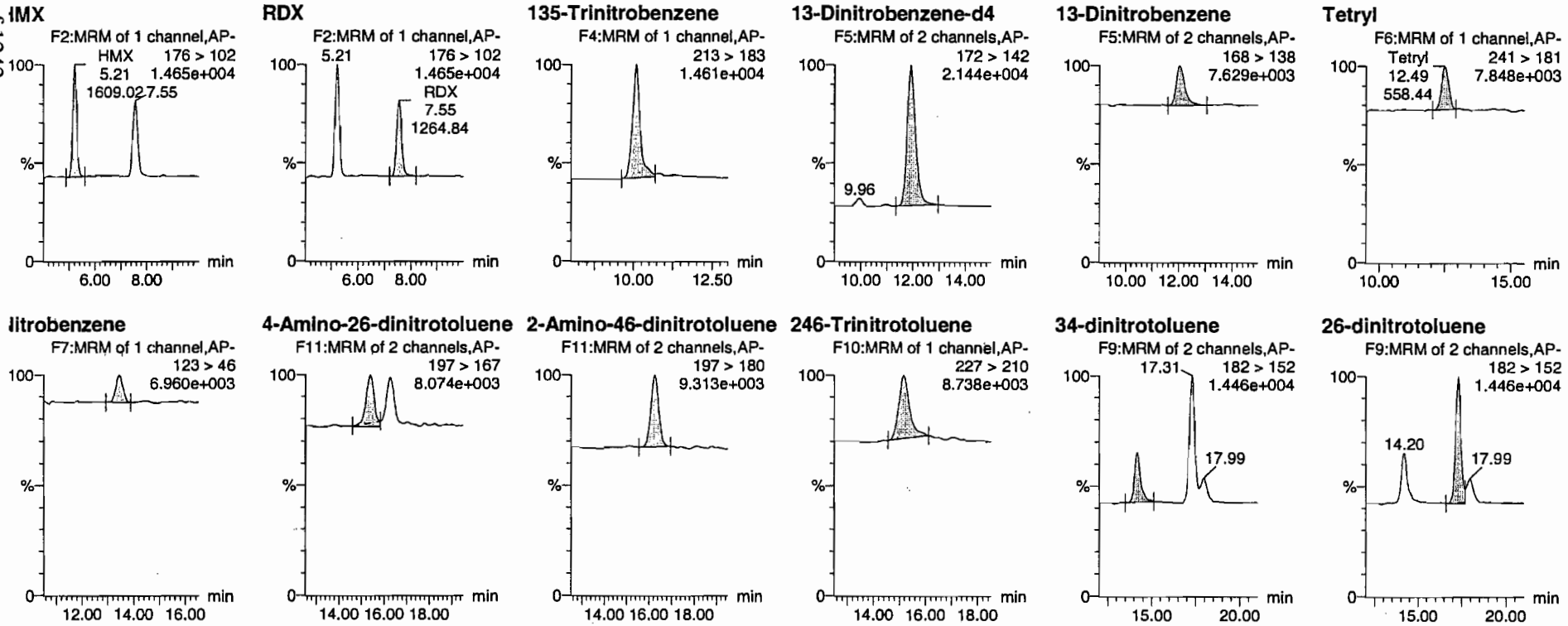

HMM 04/11/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

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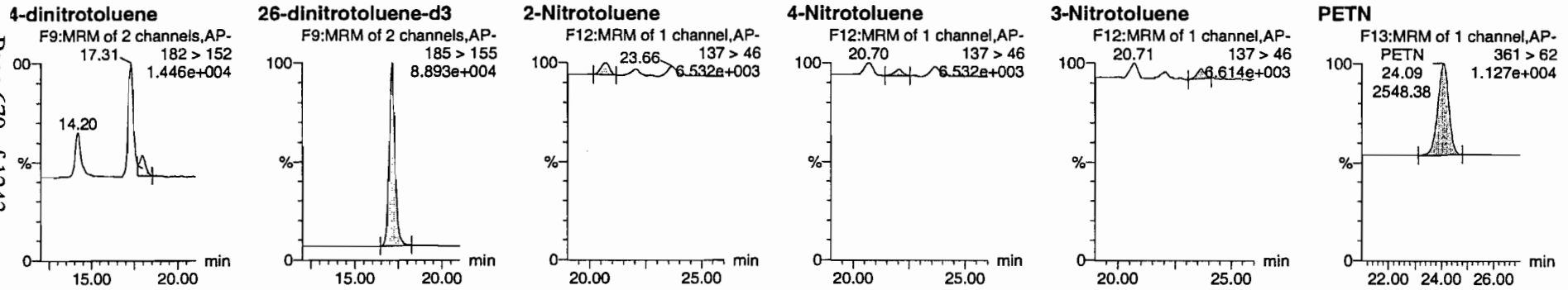

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
VXX100410-08CRI	HMX	176 > 102	5.21	1609.024	5780.081	1609.024	139.187	bb			43.5744	108.9	8.9	133.4
VXX100410-08CRI	RDX	176 > 102	7.55	1264.841	5780.081	1264.841	109.414	bb			44.8994	112.2	12.2	89.0
VXX100410-08CRI	135-Trinitrobenzene	213 > 183	10.09	2425.127	5780.081	2425.127	209.783	bd			49.6722	124.2	24.2	294.1
VXX100410-08CRI	13-Dinitrobenzene-d4	172 > 142	11.92	5780.081		5780.081	5780.081	bb			444.7551	89.0	-11.0	1113.8
VXX100410-08CRI	13-Dinitrobenzene	168 > 138	12.03	597.128	5780.081	597.128	51.654	bb			40.1080	100.3	0.3	57.3
VXX100410-08CRI	Tetryl	241 > 181	12.49	558.444	5780.081	558.444	48.308	bb			46.9202	117.3	17.3	42.1
VXX100410-08CRI	Nitrobenzene	123 > 46	13.45	289.821	5780.081	289.821	25.071	bb			41.7147	104.3	4.3	22.9
VXX100410-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.38	833.179	33243.383	833.179	12.532	MM	11-Apr-10	11:37:10	40.2564	100.6	0.6	40.4
VXX100410-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.25	1277.164	33243.383	1277.164	19.209	bb			42.0491	105.1	5.1	94.2
VXX100410-08CRI	246-Trinitrotoluene	227 > 210	15.17	1227.224	33243.383	1227.224	18.458	bb			47.9690	119.9	19.9	91.5
VXX100410-08CRI	34-dinitrotoluene	182 > 152	14.20	1370.500	33243.383	1370.500	20.613	bb			20.0990	100.5	0.5	67.1
VXX100410-08CRI	26-dinitrotoluene	182 > 152	17.31	3015.613	33243.383	3015.613	45.357	MM	11-Apr-10	11:40:45	39.8795	99.7	-0.3	171.7
VXX100410-08CRI	24-dinitrotoluene	182 > 152	17.99	692.322	33243.383	692.322	10.413	MM	11-Apr-10	11:42:36	39.3335	98.3	-1.7	32.3
VXX100410-08CRI	26-dinitrotoluene-d3	185 > 155	17.13	33243.383		33243.383	33243.383	bb			421.0306	84.2	-15.8	1433.9
VXX100410-08CRI	2-Nitrotoluene	137 > 46	20.70	179.806	33243.383	179.806	2.704	bb			35.2311	88.1	-11.9	47.3
VXX100410-08CRI	4-Nitrotoluene	137 > 46	22.06	88.380	33243.383	88.380	1.329	bb			34.2037	85.5	-14.5	23.4
VXX100410-08CRI	3-Nitrotoluene	137 > 46	23.66	135.222	33243.383	135.222	2.034	bb			37.2513	93.1	-6.9	20.4
VXX100410-08CRI	PETN	361 > 62	24.09	2548.383	33243.383	2548.383	38.329	bb			48.3044	120.8	20.8	505.8

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/10/10
Time of Injection	1552
Standard Number	WXX100410-08CRI
Data File	EXP0408087a

HMX	108.9
RDX	112.2
135-TNB	124.2
13-DNB	100.3
Tetryl	117.3
Nitrobenzene	104.3
4A-26-DNT	100.6
2A-46-DNT	105.1
246-TNT	119.9
34-DNT(surr)	100.5
26-DNT	99.7
24-DNT	98.3
2-NT	88.1
4-NT	85.5
3-NT	93.1
PETN	120.8
Total	1678.8
Average	104.9

MTT 4/11/10

HMM 04/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0408098a

Analysis Date: 10–APR–10 21:17

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6–Dinitrotoluene–d3	500	393.84	79	*
2–Amino–4,6–dinitrotoluene	600	749.422	125	*
3,4–Dinitrotoluene	300	310.007	103	
4–Amino–2,6–dinitrotoluene	600	634.972	106	
HMX	600	661.858	110	
Nitrobenzene	600	525.792	88	
PETN	600	688.502	115	
RDX	600	680.282	113	
Tetryl	600	768.016	128	*
m–Dinitrobenzene	600	586.468	98	
m–Nitrotoluene	600	477.054	80	*
o–Nitrotoluene	600	525.095	88	
p–Nitrotoluene	600	585.867	98	
1,3,5–Trinitrobenzene	600	603.626	101	
1,3–Dinitrobenzene–d4	500	428.998	86	
2,4,6–Trinitrotoluene	600	755.113	126	*
2,4–Dinitrotoluene	600	601.811	100	
2,6–Dinitrotoluene	600	602.552	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408098a
Date: 10-Apr-2010
Time: 21:17:19
ID: WXX100410-07CCV
Vial: 1:1,B

MATT 4/11/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.278e+005

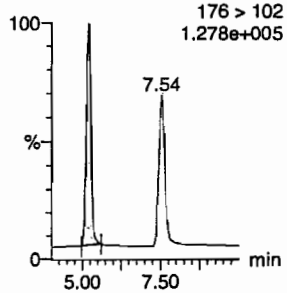

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.278e+005

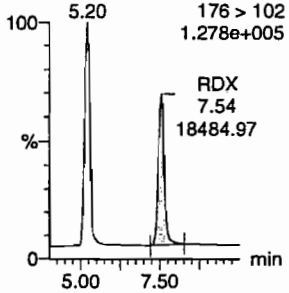

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.064e+005

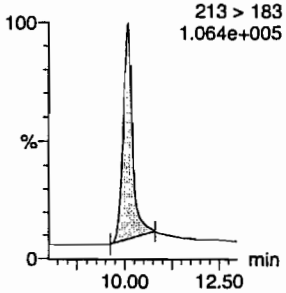

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.077e+004

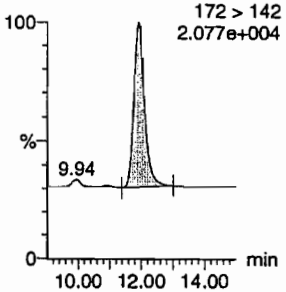

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
2.896e+004

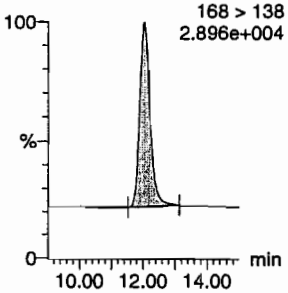

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
3.370e+004

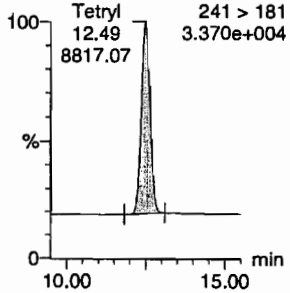

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.653e+004

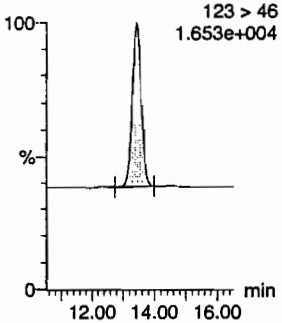

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
3.632e+004

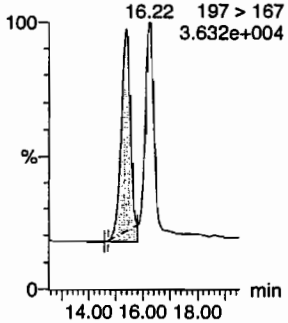

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.992e+004

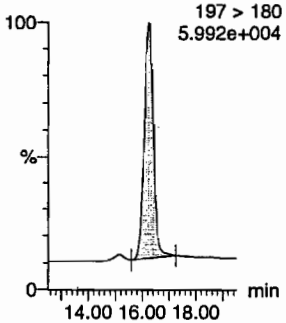

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
4.569e+004

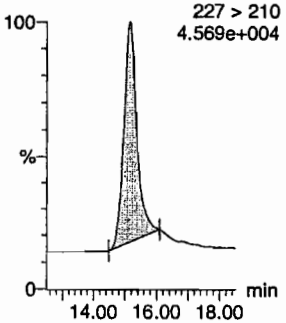

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.228e+005

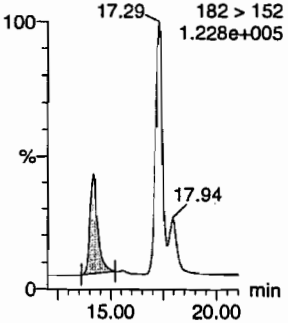

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.228e+005

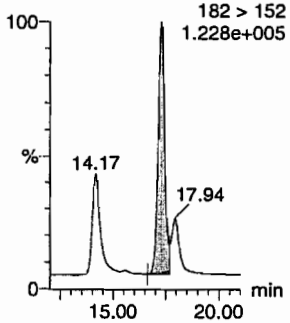

04/11/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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ataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

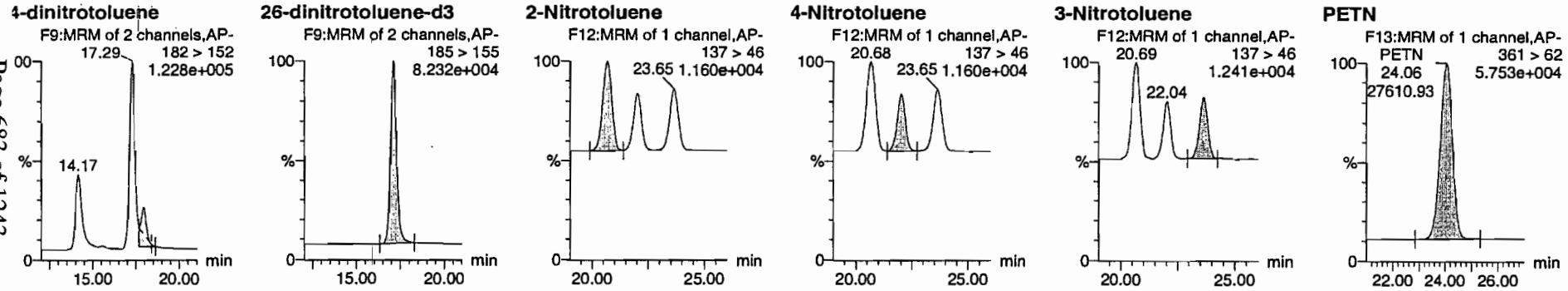

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
VXX100410-07CCV	HMX	176 > 102	5.20	23573.832	5575.298	23573.832	2114.132	bb			661.8583	110.3	10.3	1652.1
VXX100410-07CCV	RDX	176 > 102	7.54	18484.973	5575.298	18484.973	1657.757	bb			680.2824	113.4	13.4	1116.8
VXX100410-07CCV	135-Trinitrobenzene	213 > 183	10.08	28426.451	5575.298	28426.451	2549.321	bb			603.6255	100.6	0.6	1655.4
VXX100410-07CCV	13-Dinitrobenzene-d4	172 > 142	11.90	5575.298		5575.298	5575.298	bb			428.9978	85.8	-14.2	615.5
VXX100410-07CCV	13-Dinitrobenzene	168 > 138	12.04	8422.001	5575.298	8422.001	755.296	bb			586.4685	97.7	-2.3	513.2
VXX100410-07CCV	Tetryl	241 > 181	12.49	8817.065	5575.298	8817.065	790.726	bb			768.0163	128.0	28.0	546.7
VXX100410-07CCV	Nitrobenzene	123 > 46	13.41	3523.622	5575.298	3523.622	316.003	bb			525.7923	87.6	-12.4	206.9
VXX100410-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.36	12293.203	31096.508	12293.203	197.662	MM	11-Apr-10	11:37:28	634.9723	105.8	5.8	266.4
VXX100410-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.22	21292.291	31096.508	21292.291	342.358	bb			749.4219	124.9	24.9	878.5
VXX100410-07CCV	246-Trinitrotoluene	227 > 210	15.14	18070.973	31096.508	18070.973	290.563	bb			755.1133	125.9	25.9	371.2
VXX100410-07CCV	34-dinitrotoluene	182 > 152	14.17	19773.480	31096.508	19773.480	317.937	bb			310.0073	103.3	3.3	497.1
VXX100410-07CCV	26-dinitrotoluene	182 > 152	17.29	42621.277	31096.508	42621.277	685.306	MM	11-Apr-10	11:40:14	602.5515	100.4	0.4	1250.3
VXX100410-07CCV	24-dinitrotoluene	182 > 152	17.94	9908.590	31096.508	9908.590	159.320	MM	11-Apr-10	11:43:05	601.8111	100.3	0.3	262.4
VXX100410-07CCV	26-dinitrotoluene-d3	185 > 155	17.11	31096.508		31096.508	31096.508	bb			393.8402	78.8	-21.2	2049.1
VXX100410-07CCV	2-Nitrotoluene	137 > 46	20.68	2506.817	31096.508	2506.817	40.307	bb			525.0951	87.5	-12.5	356.2
VXX100410-07CCV	4-Nitrotoluene	137 > 46	22.04	1416.075	31096.508	1416.075	22.769	bb			585.8673	97.6	-2.4	226.3
VXX100410-07CCV	3-Nitrotoluene	137 > 46	23.66	1619.868	31096.508	1619.868	26.046	bb			477.0537	79.5	-20.5	66.5
VXX100410-07CCV	PETN	361 > 62	24.06	27610.934	31096.508	27610.934	443.956	bb			688.5018	114.8	14.8	2179.7

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/10/10
Time of Injection: 2117
Standard Number: WXX100410-07CCV
Data File: EXP0408098a

HMX	110.3
RDX	113.4
135-TNB	100.6
13-DNB	97.7
Tetryl	128.0
Nitrobenzene	87.6
4A-26-DNT	105.8
2A-46-DNT	124.9
246-TNT	125.9
34-DNT(surr)	103.3
26-DNT	100.4
24-DNT	100.3
2-NT	87.5
4-NT	97.6
3-NT	79.5
PETN	114.8
Total	1677.6
Average	104.9

MATT 4/11/10

Hmm 04/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0408100a

Analysis Date: 10–APR–10 22:16

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6–Dinitrotoluene	40	41.252	103	
2,6–Dinitrotoluene–d3	500	413.828	83	
2–Amino–4,6–dinitrotoluene	40	45.114	113	
3,4–Dinitrotoluene	20	20.385	102	
4–Amino–2,6–dinitrotoluene	40	38.377	96	
HMX	40	45.045	113	
Nitrobenzene	40	39.471	99	
PETN	40	52.652	132	*
RDX	40	41.618	104	
Tetryl	40	46.813	117	
m–Dinitrobenzene	40	40.978	102	
m–Nitrotoluene	40	44.372	111	
o–Nitrotoluene	40	34.205	86	
p–Nitrotoluene	40	43.836	110	
1,3,5–Trinitrobenzene	40	49.218	123	
1,3–Dinitrobenzene–d4	500	454.205	91	
2,4,6–Trinitrotoluene	40	50.277	126	
2,4–Dinitrotoluene	40	44.306	111	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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ate: 10-Apr-2010
me: 22:16:22
: WXX100410-08CRI
al: 1:1,C

MM 4/11/10

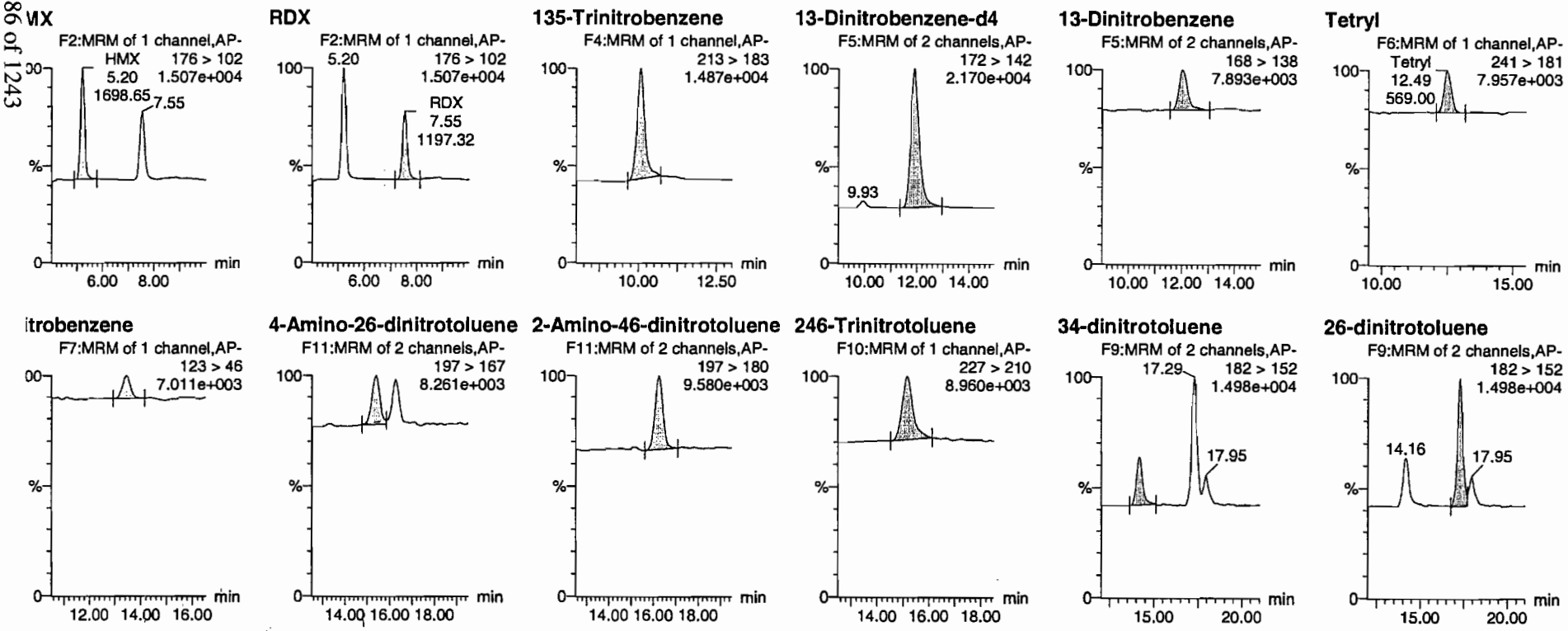

HMM 04/11/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

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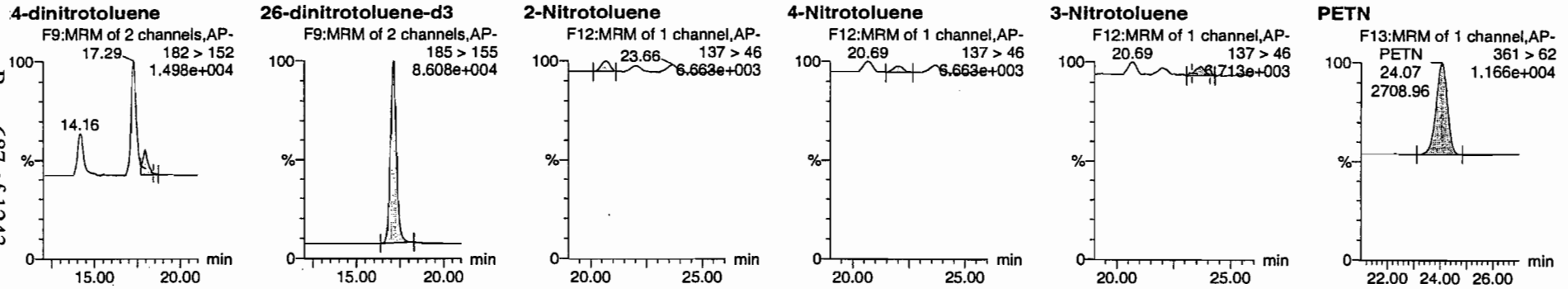

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
VXX100410-08CRI	HMX	176 > 102	5.20	1698.652	5902.887	1698.652	143.883	bb			45.0446	112.6	12.6	132.8
VXX100410-08CRI	RDX	176 > 102	7.55	1197.322	5902.887	1197.322	101.418	bb			41.6184	104.0	4.0	80.4
VXX100410-08CRI	135-Trinitrobenzene	213 > 183	10.07	2453.998	5902.887	2453.998	207.864	bb			49.2179	123.0	23.0	389.5
VXX100410-08CRI	13-Dinitrobenzene-d4	172 > 142	11.90	5902.887		5902.887	5902.887	bb			454.2045	90.8	-9.2	182.2
VXX100410-08CRI	13-Dinitrobenzene	168 > 138	12.04	623.047	5902.887	623.047	52.775	bb			40.9783	102.4	2.4	38.5
VXX100410-08CRI	Tetryl	241 > 181	12.49	568.999	5902.887	568.999	48.197	bb			46.8125	117.0	17.0	65.6
VXX100410-08CRI	Nitrobenzene	123 > 46	13.45	280.058	5902.887	280.058	23.722	bb			39.4709	98.7	-1.3	19.0
VXX100410-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.35	780.686	32674.670	780.686	11.946	MM	11-Apr-10	11:37:34	38.3766	95.9	-4.1	39.8
VXX100410-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.25	1346.796	32674.670	1346.796	20.609	bb			45.1135	112.8	12.8	127.8
VXX100410-08CRI	246-Trinitrotoluene	227 > 210	15.17	1264.256	32674.670	1264.256	19.346	bb			50.2766	125.7	25.7	93.6
VXX100410-08CRI	34-dinitrotoluene	182 > 152	14.16	1366.228	32674.670	1366.228	20.907	bb			20.3851	101.9	1.9	67.2
VXX100410-08CRI	26-dinitrotoluene	182 > 152	17.29	3066.021	32674.670	3066.021	46.917	MM	11-Apr-10	11:40:06	41.2518	103.1	3.1	180.9
VXX100410-08CRI	24-dinitrotoluene	182 > 152	17.95	766.497	32674.670	766.497	11.729	MM	11-Apr-10	11:43:17	44.3057	110.8	10.8	40.7
VXX100410-08CRI	26-dinitrotoluene-d3	185 > 155	17.14	32674.670		32674.670	32674.670	bb			413.8278	82.8	-17.2	2023.0
VXX100410-08CRI	2-Nitrotoluene	137 > 46	20.69	171.583	32674.670	171.583	2.626	bb			34.2050	85.5	-14.5	40.5
VXX100410-08CRI	4-Nitrotoluene	137 > 46	22.01	111.332	32674.670	111.332	1.704	bb			43.8363	109.6	9.6	23.1
VXX100410-08CRI	3-Nitrotoluene	137 > 46	23.68	158.315	32674.670	158.315	2.423	MM	11-Apr-10	11:35:33	44.3721	110.9	10.9	27.5
VXX100410-08CRI	PETN	361 > 62	24.07	2708.960	32674.670	2708.960	41.454	bb			52.6519	131.6	31.6	688.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/10/10
Time of Injection	2216
Standard Number	WXX100410-08CRI
Data File	EXP0408100a

HMX	112.6
RDX	104.0
135-TNB	123.0
13-DNB	102.4
Tetryl	117.0
Nitrobenzene	98.7
4A-26-DNT	95.9
2A-46-DNT	112.8
246-TNT	125.7
34-DNT(surr)	101.9
26-DNT	103.1
24-DNT	110.8
2-NT	85.5
4-NT	109.6
3-NT	110.9
PETN	131.6
Total	1745.5
Average	109.1

MAP 4/16/10

Hmm 04/16/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0408107a

Analysis Date: 11–APR–10 01:42

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m–Nitrotoluene	600	478.023	80	*
o–Nitrotoluene	600	588.163	98	
p–Nitrotoluene	600	547.16	91	
1,3,5–Trinitrobenzene	600	611.107	102	
1,3–Dinitrobenzene–d4	500	422.479	84	
2,4,6–Trinitrotoluene	600	775.43	129	*
2,4–Dinitrotoluene	600	578.962	96	
2,6–Dinitrotoluene	600	615.772	103	
2,6–Dinitrotoluene–d3	500	395.737	79	*
2–Amino–4,6–dinitrotoluene	600	706.692	118	
3,4–Dinitrotoluene	300	350.467	117	
4–Amino–2,6–dinitrotoluene	600	646.193	108	
HMX	600	717.969	120	
Nitrobenzene	600	555.155	93	
PETN	600	737.11	123	*
RDX	600	723.373	121	*
Tetryl	600	757.322	126	*
m–Dinitrobenzene	600	592.316	99	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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ial: 1:1,B

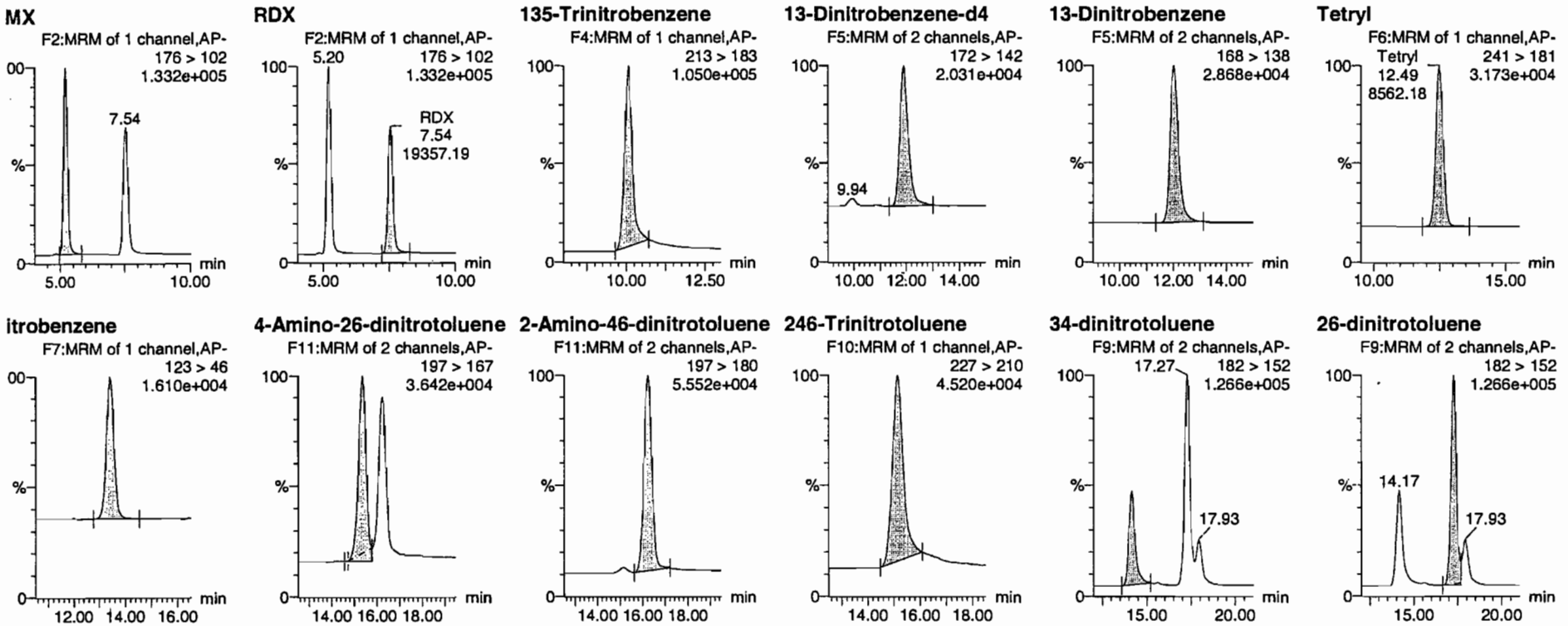

04/11/10

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

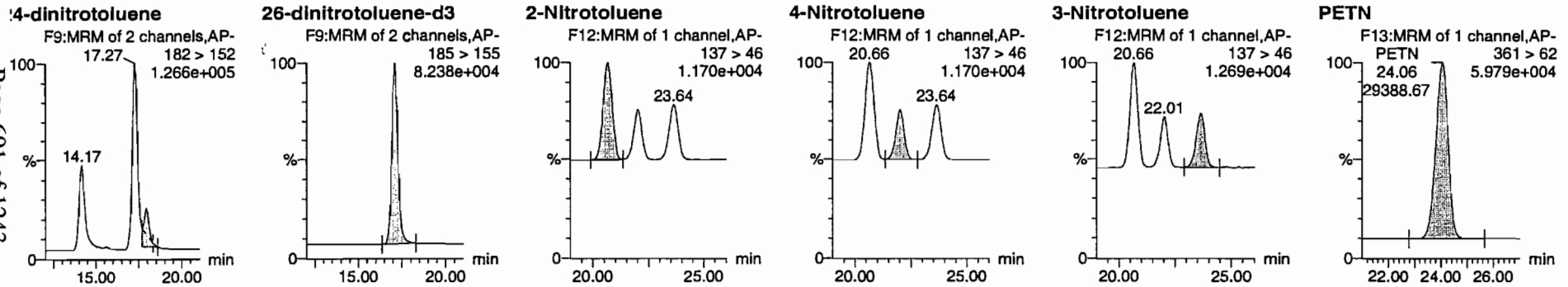

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100410-07CCV	HMX	176 > 102	5.20	25183.777	5490.582	25183.777	2293.361	db			717.9685	119.7	19.7	2346.3
WXX100410-07CCV	RDX	176 > 102	7.54	19357.186	5490.582	19357.186	1762.763	bb			723.3730	120.6	20.6	1583.2
WXX100410-07CCV	135-Trinitrobenzene	213 > 183	10.07	28341.465	5490.582	28341.465	2580.916	bb			611.1066	101.9	1.9	1403.4
WXX100410-07CCV	13-Dinitrobenzene-d4	172 > 142	11.89	5490.582		5490.582	5490.582	bb			422.4792	84.5	-15.5	181.9
WXX100410-07CCV	13-Dinitrobenzene	168 > 138	12.03	8376.726	5490.582	8376.726	762.827	bb			592.3159	98.7	-1.3	560.4
WXX100410-07CCV	Tetryl	241 > 181	12.49	8562.182	5490.582	8562.182	779.715	bb			757.3220	126.2	26.2	490.3
WXX100410-07CCV	Nitrobenzene	123 > 46	13.41	3663.865	5490.582	3663.865	333.650	bb			555.1548	92.5	-7.5	387.7
WXX100410-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.36	12570.697	31246.273	12570.697	201.155	MM	11-Apr-10	11:37:46	646.1934	107.7	7.7	548.0
WXX100410-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.23	20174.973	31246.273	20174.973	322.838	bb			706.6922	117.8	17.8	945.1
WXX100410-07CCV	246-Trinitrotoluene	227 > 210	15.14	18646.559	31246.273	18646.559	298.381	bb			775.4301	129.2	29.2	662.0
WXX100410-07CCV	34-dinitrotoluene	182 > 152	14.17	22461.801	31246.273	22461.801	359.432	bb			350.4667	116.8	16.8	352.0
WXX100410-07CCV	26-dinitrotoluene	182 > 152	17.27	43766.207	31246.273	43766.207	700.343	MM	11-Apr-10	11:39:57	615.7722	102.6	2.6	787.9
WXX100410-07CCV	24-dinitrotoluene	182 > 152	17.93	9578.303	31246.273	9578.303	153.271	MM	11-Apr-10	11:43:35	578.9623	96.5	-3.5	162.2
WXX100410-07CCV	26-dinitrotoluene-d3	185 > 155	17.12	31246.273		31246.273	31246.273	bb			395.7370	79.1	-20.9	3090.2
WXX100410-07CCV	2-Nitrotoluene	137 > 46	20.66	2821.429	31246.273	2821.429	45.148	bb			588.1632	98.0	-2.0	617.4
WXX100410-07CCV	4-Nitrotoluene	137 > 46	22.01	1328.886	31246.273	1328.886	21.265	bb			547.1598	91.2	-8.8	320.2
WXX100410-07CCV	3-Nitrotoluene	137 > 46	23.65	1630.978	31246.273	1630.978	26.099	bb			478.0234	79.7	-20.3	190.4
WXX100410-07CCV	PETN	361 > 62	24.06	29388.670	31246.273	29388.670	470.275	bb			737.1103	122.9	22.9	9396.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/11/10
Time of Injection: 0142
Standard Number: WXX100410-07CCV
Data File: EXP0408107a

HMX		119.7
RDX		120.6
135-TNB		101.9
13-DNB		98.7
Tetryl		126.2
Nitrobenzene		92.5
4A-26-DNT		107.7
2A-46-DNT		117.8
246-TNT		129.2
34-DNT(surr)		116.8
26-DNT		102.6
24-DNT		96.5
2-NT		98.0
4-NT		91.2
3-NT		79.7
PETN		122.9
Total		1722.0
Average		107.6

MJT 4/11/10

HMM 04/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2039

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0408109a

Analysis Date: 11-APR-10 02:41

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Nitrotoluene	40	38.857	97	
o-Nitrotoluene	40	38.013	95	
p-Nitrotoluene	40	43.648	109	
1,3,5-Trinitrobenzene	40	46.822	117	
1,3-Dinitrobenzene-d4	500	457.172	91	
2,4,6-Trinitrotoluene	40	50.631	127	
2,4-Dinitrotoluene	40	38.936	97	
2,6-Dinitrotoluene	40	40.782	102	
2,6-Dinitrotoluene-d3	500	438.501	88	
2-Amino-4,6-dinitrotoluene	40	41.564	104	
3,4-Dinitrotoluene	20	20.26	101	
4-Amino-2,6-dinitrotoluene	40	42.035	105	
HMX	40	48.764	122	
Nitrobenzene	40	38.239	96	
PETN	40	54.13	135	*
RDX	40	44.404	111	
Tetryl	40	55.433	139	*
m-Dinitrobenzene	40	41.871	105	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408109a
ate: 11-Apr-2010
ime: 02:41:56
D: WXX100410-08CRI
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MM 4/11/10

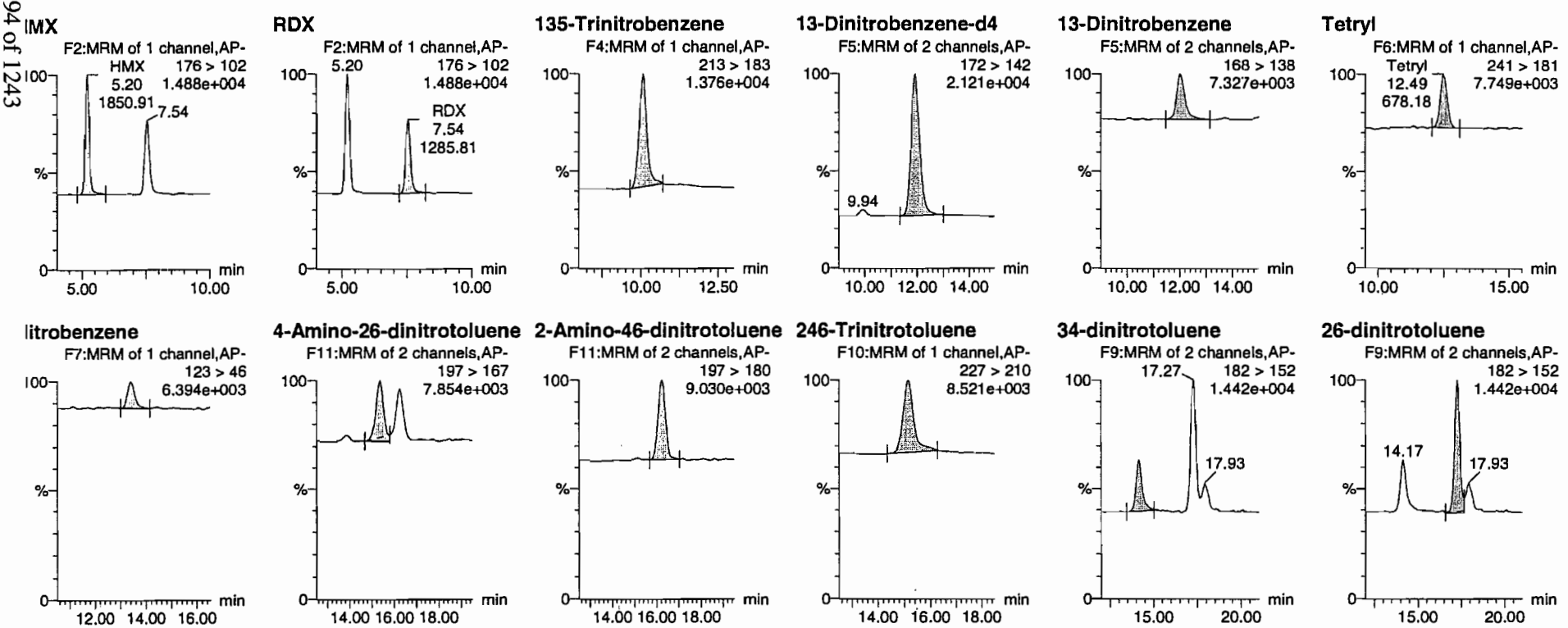

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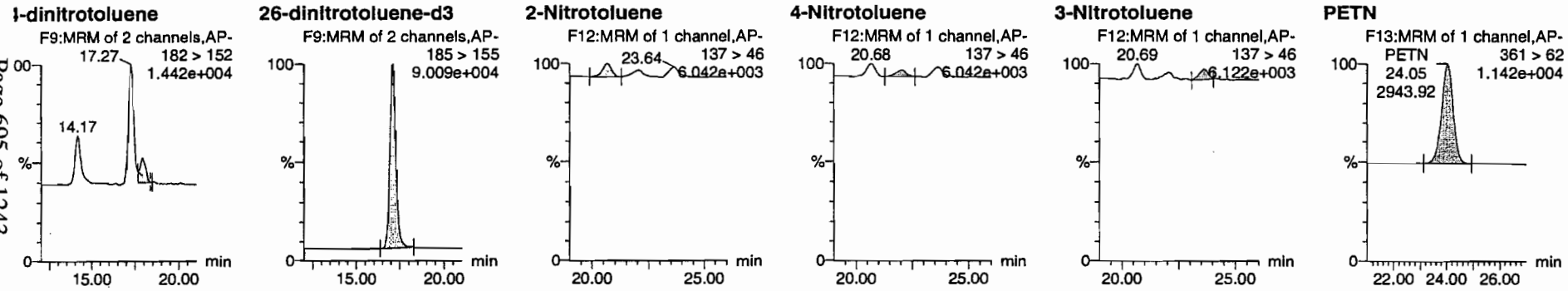

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
VXX100410-08CRI	HMX	176 > 102	5.20	1850.906	5941.449	1850.906	155.762	bb			48.7635	121.9	21.9	401.6
VXX100410-08CRI	RDX	176 > 102	7.54	1285.814	5941.449	1285.814	108.207	bb			44.4042	111.0	11.0	246.4
VXX100410-08CRI	135-Trinitrobenzene	213 > 183	10.07	2349.771	5941.449	2349.771	197.744	bb			46.8216	117.1	17.1	266.4
VXX100410-08CRI	13-Dinitrobenzene-d4	172 > 142	11.92	5941.449		5941.449	5941.449	bb			457.1717	91.4	-8.6	256.3
VXX100410-08CRI	13-Dinitrobenzene	168 > 138	12.00	640.779	5941.449	640.779	53.924	bb			41.8710	104.7	4.7	86.4
VXX100410-08CRI	Tetryl	241 > 181	12.49	678.176	5941.449	678.176	57.072	bb			55.4325	138.6	38.6	74.8
VXX100410-08CRI	Nitrobenzene	123 > 46	13.41	273.090	5941.449	273.090	22.982	bb			38.2390	95.6	-4.4	28.2
VXX100410-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.36	906.098	34622.781	906.098	13.085	MM	11-Apr-10	11:37:55	42.0353	105.1	5.1	37.1
VXX100410-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.23	1314.819	34622.781	1314.819	18.988	bb			41.5642	103.9	3.9	101.8
VXX100410-08CRI	246-Trinitrotoluene	227 > 210	15.14	1349.075	34622.781	1349.075	19.482	bb			50.6310	126.6	26.6	156.9
VXX100410-08CRI	34-dinitrotoluene	182 > 152	14.17	1438.829	34622.781	1438.829	20.779	bb			20.2604	101.3	1.3	88.8
VXX100410-08CRI	26-dinitrotoluene	182 > 152	17.27	3211.783	34622.781	3211.783	46.383	MM	11-Apr-10	11:39:49	40.7815	102.0	2.0	227.2
VXX100410-08CRI	24-dinitrotoluene	182 > 152	17.93	713.761	34622.781	713.761	10.308	MM	11-Apr-10	11:43:46	38.9360	97.3	-2.7	46.1
VXX100410-08CRI	26-dinitrotoluene-d3	185 > 155	17.12	34622.781		34622.781	34622.781	bb			438.5008	87.7	-12.3	2433.0
VXX100410-08CRI	2-Nitrotoluene	137 > 46	20.68	202.052	34622.781	202.052	2.918	bb			38.0126	95.0	-5.0	52.4
VXX100410-08CRI	4-Nitrotoluene	137 > 46	22.07	117.463	34622.781	117.463	1.696	bb			43.6479	109.1	9.1	26.4
VXX100410-08CRI	3-Nitrotoluene	137 > 46	23.65	146.904	34622.781	146.904	2.121	bb			38.8572	97.1	-2.9	5.8
VXX100410-08CRI	PETN	361 > 62	24.05	2943.921	34622.781	2943.921	42.514	bb			54.1295	135.3	35.3	545.9

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GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/11/10
Time of Injection	0241
Standard Number	WXX100410-08CRI
Data File	EXP0408109a

HMX	121.9
RDX	111.0
135-TNB	117.1
13-DNB	104.7
Tetryl	138.6
Nitrobenzene	95.6
4A-26-DNT	105.1
2A-46-DNT	103.9
246-TNT	126.6
34-DNT(surr)	101.3
26-DNT	102.0
24-DNT	97.3
2-NT	95.0
4-NT	109.1
3-NT	97.1
PETN	135.3
Total	1761.6
Average	110.1

MAT 4/12/10

Hmm 04/12/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXP0408120a

Analysis Date: 11–APR–10 08:06

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	598.182	100	
1,3–Dinitrobenzene–d4	500	448.765	90	
2,4,6–Trinitrotoluene	600	747.622	125	*
2,4–Dinitrotoluene	600	607.542	101	
2,6–Dinitrotoluene	600	606.591	101	
2,6–Dinitrotoluene–d3	500	430.552	86	
2–Amino–4,6–dinitrotoluene	600	716.087	119	
3,4–Dinitrotoluene	300	311.125	104	
4–Amino–2,6–dinitrotoluene	600	646.645	108	
HMX	600	706.32	118	
Nitrobenzene	600	540.216	90	
PETN	600	660.216	110	
RDX	600	721.735	120	*
Tetryl	600	700.31	117	
m–Dinitrobenzene	600	611.278	102	
m–Nitrotoluene	600	482.609	80	
o–Nitrotoluene	600	495.433	83	
p–Nitrotoluene	600	534.721	89	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

ataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408120a
ate: 11-Apr-2010
me: 08:06:13
: WXX100410-07CCV
al: 1:1,B

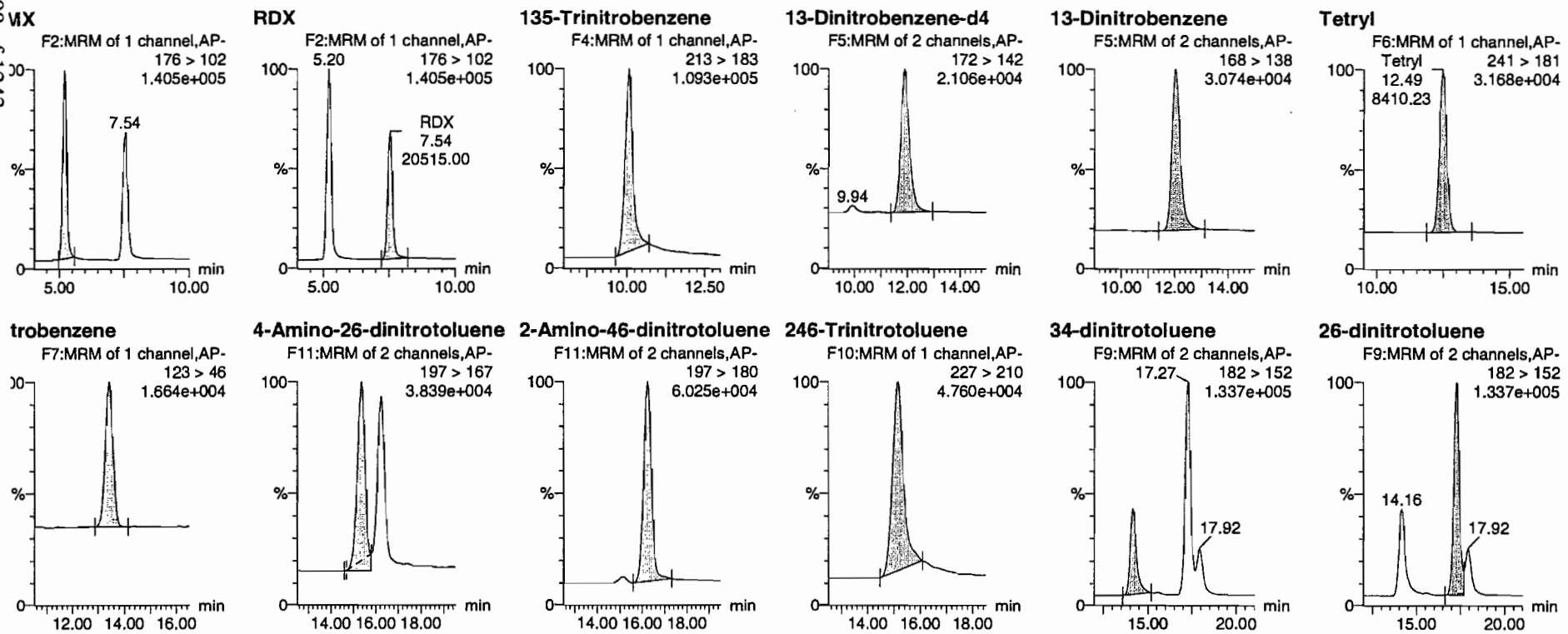

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

24-dinitrotoluene

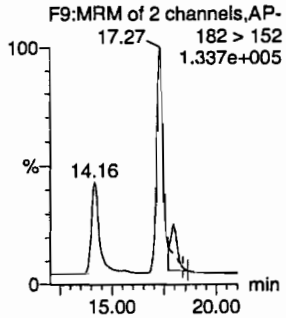

26-dinitrotoluene-d3

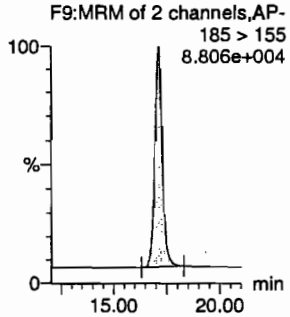

2-Nitrotoluene

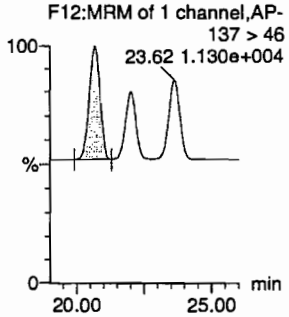

4-Nitrotoluene

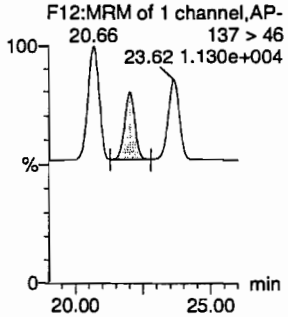

3-Nitrotoluene

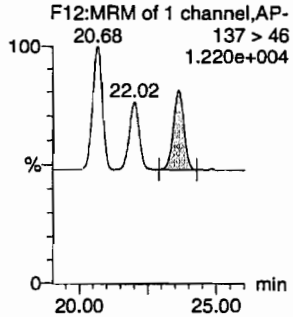

PETN

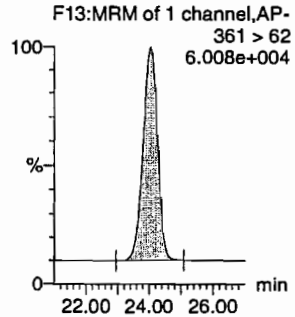

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100410-07CCV	HMX	176 > 102	5.20	26316.664	5832.194	26316.664	2256.155	bb			706.3205	117.7	17.7	2918.5
WXX100410-07CCV	RDX	176 > 102	7.54	20515.000	5832.194	20515.000	1758.772	bb			721.7354	120.3	20.3	1980.9
WXX100410-07CCV	135-Trinitrobenzene	213 > 183	10.07	29468.121	5832.194	29468.121	2526.332	bb			598.1823	99.7	-0.3	2342.4
WXX100410-07CCV	13-Dinitrobenzene-d4	172 > 142	11.90	5832.194		5832.194	5832.194	bb			448.7650	89.8	-10.2	600.3
WXX100410-07CCV	13-Dinitrobenzene	168 > 138	12.03	9182.754	5832.194	9182.754	787.247	bb			611.2776	101.9	1.9	630.0
WXX100410-07CCV	Tetryl	241 > 181	12.49	8410.231	5832.194	8410.231	721.018	bb			700.3102	116.7	16.7	730.6
WXX100410-07CCV	Nitrobenzene	123 > 46	13.45	3787.096	5832.194	3787.096	324.672	bb			540.2159	90.0	-10.0	464.2
WXX100410-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.35	13686.177	33995.191	13686.177	201.296	MM	11-Apr-10	11:38:46	646.6451	107.8	7.8	243.2
WXX100410-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.25	22241.670	33995.191	22241.670	327.130	bb			716.0865	119.3	19.3	484.8
WXX100410-07CCV	246-Trinitrotoluene	227 > 210	15.13	19559.494	33995.191	19559.494	287.680	bb			747.6224	124.6	24.6	314.1
WXX100410-07CCV	34-dinitrotoluene	182 > 152	14.16	21694.615	33995.191	21694.615	319.084	bb			311.1250	103.7	3.7	630.7
WXX100410-07CCV	26-dinitrotoluene	182 > 152	17.27	46906.645	33995.191	46906.645	689.901	MM	11-Apr-10	11:39:15	606.5914	101.1	1.1	1560.0
WXX100410-07CCV	24-dinitrotoluene	182 > 152	17.92	10935.371	33995.191	10935.371	160.837	MM	11-Apr-10	11:44:49	607.5416	101.3	1.3	328.6
WXX100410-07CCV	26-dinitrotoluene-d3	185 > 155	17.11	33995.191		33995.191	33995.191	bb			430.5523	86.1	-13.9	1418.2
WXX100410-07CCV	2-Nitrotoluene	137 > 46	20.66	2585.682	33995.191	2585.682	38.030	bb			495.4326	82.6	-17.4	487.3
WXX100410-07CCV	4-Nitrotoluene	137 > 46	22.01	1412.927	33995.191	1412.927	20.781	bb			534.7206	89.1	-10.9	282.9
WXX100410-07CCV	3-Nitrotoluene	137 > 46	23.63	1791.488	33995.191	1791.488	26.349	bb			482.6093	80.4	-19.6	114.0
WXX100410-07CCV	PETN	361 > 62	24.04	29123.605	33995.191	29123.605	428.349	bb			660.2156	110.0	10.0	3998.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/11/10
Time of Injection: 0806
Standard Number: WXX100410-07CCV
Data File: EXP0408120a

HMX	117.7
RDX	120.3
135-TNB	99.7
13-DNB	101.9
Tetryl	116.7
Nitrobenzene	90.0
4A-26-DNT	107.8
2A-46-DNT	119.3
246-TNT	124.6
34-DNT(surr)	103.7
26-DNT	101.1
24-DNT	101.3
2-NT	82.6
4-NT	89.1
3-NT	80.4
PETN	110.0
Total	1666.2
Average	104.1

MTP 4/11/10

HMM 04/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0408122a

Analysis Date: 11–APR–10 09:05

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	43.065	108	
1,3–Dinitrobenzene–d4	500	498.79	100	
2,4,6–Trinitrotoluene	40	47.605	119	
2,4–Dinitrotoluene	40	41.387	103	
2,6–Dinitrotoluene	40	39.655	99	
2,6–Dinitrotoluene–d3	500	484.368	97	
2–Amino–4,6–dinitrotoluene	40	45.143	113	
3,4–Dinitrotoluene	20	19.345	97	
4–Amino–2,6–dinitrotoluene	40	38.12	95	
HMX	40	47.637	119	
Nitrobenzene	40	38.04	95	
PETN	40	46.767	117	
RDX	40	45.046	113	
Tetryl	40	46.369	116	
m–Dinitrobenzene	40	43.533	109	
m–Nitrotoluene	40	32.773	82	
o–Nitrotoluene	40	29.265	73	
p–Nitrotoluene	40	37.363	93	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408122a
Date: 11-Apr-2010
Time: 09:05:16
ID: WXX100410-08CRI
Vial: 1:1,C

MM 4/11/10

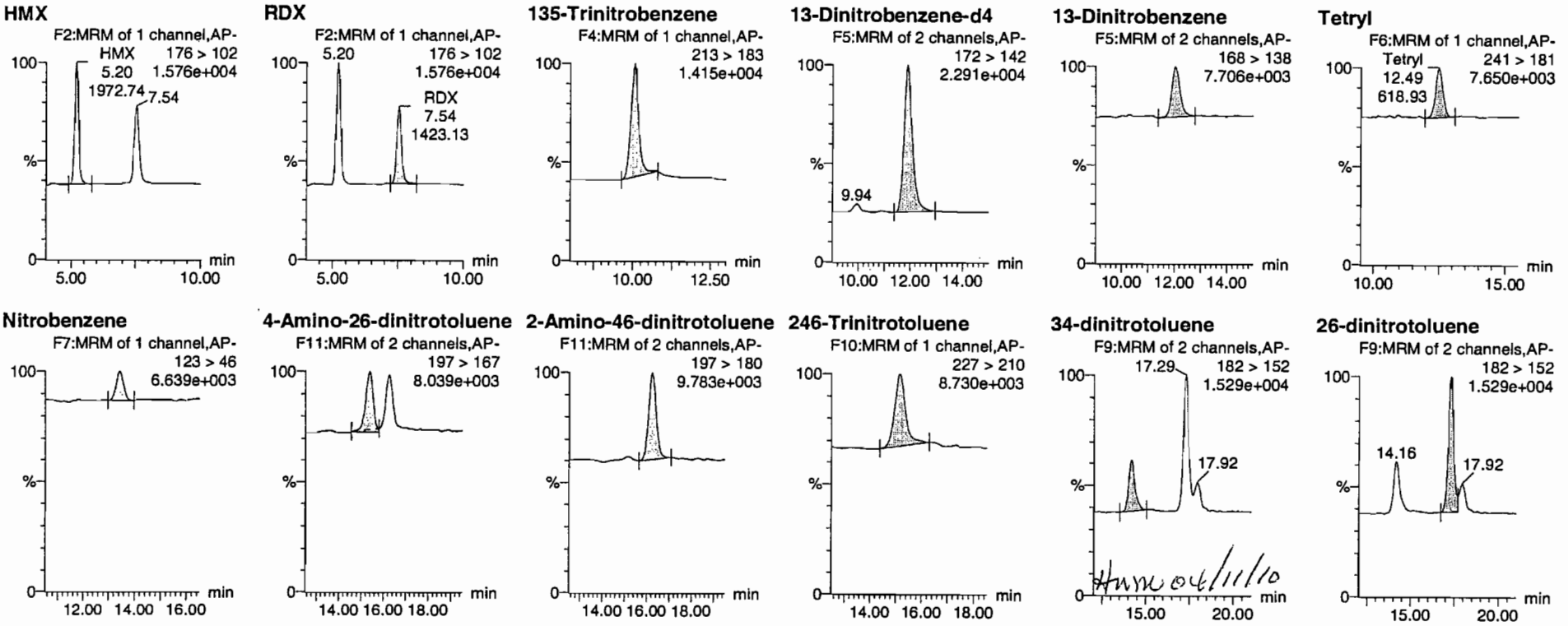

Hum 04/11/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

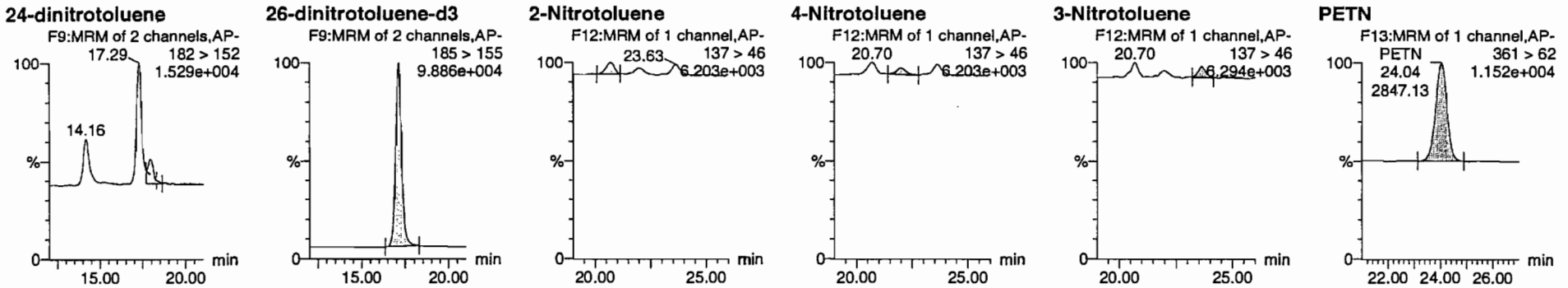

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100410-08CRI	HMX	176 > 102	5.20	1972.745	6482.321	1972.745	152.163	bb			47.6369	119.1	19.1	244.9
WXX100410-08CRI	RDX	176 > 102	7.54	1423.132	6482.321	1423.132	109.770	bb			45.0457	112.6	12.6	155.5
WXX100410-08CRI	135-Trinitrobenzene	213 > 183	10.07	2358.014	6482.321	2358.014	181.880	bb			43.0654	107.7	7.7	336.3
WXX100410-08CRI	13-Dinitrobenzene-d4	172 > 142	11.89	6482.321		6482.321	6482.321	bb			498.7897	99.8	-0.2	386.7
WXX100410-08CRI	13-Dinitrobenzene	168 > 138	12.03	726.859	6482.321	726.859	56.065	bb			43.5329	108.8	8.8	80.9
WXX100410-08CRI	Tetryl	241 > 181	12.49	618.931	6482.321	618.931	47.740	bb			46.3688	115.9	15.9	42.7
WXX100410-08CRI	Nitrobenzene	123 > 46	13.40	296.398	6482.321	296.398	22.862	bb			38.0398	95.1	-4.9	31.9
WXX100410-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.38	907.640	38244.344	907.640	11.866	MM	11-Apr-10	11:38:55	38.1196	95.3	-4.7	33.8
WXX100410-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.22	1577.408	38244.344	1577.408	20.623	bb			45.1432	112.9	12.9	37.7
WXX100410-08CRI	246-Trinitrotoluene	227 > 210	15.17	1401.128	38244.344	1401.128	18.318	bb			47.6050	119.0	19.0	77.0
WXX100410-08CRI	34-dinitrotoluene	182 > 152	14.16	1517.544	38244.344	1517.544	19.840	bb			19.3453	96.7	-3.3	93.1
WXX100410-08CRI	26-dinitrotoluene	182 > 152	17.29	3449.773	38244.344	3449.773	45.102	MM	11-Apr-10	11:39:07	39.6554	99.1	-0.9	245.5
WXX100410-08CRI	24-dinitrotoluene	182 > 152	17.92	838.055	38244.344	838.055	10.957	MM	11-Apr-10	11:45:05	41.3871	103.5	3.5	51.6
WXX100410-08CRI	26-dinitrotoluene-d3	185 > 155	17.11	38244.344		38244.344	38244.344	bb			484.3682	96.9	-3.1	2680.5
WXX100410-08CRI	2-Nitrotoluene	137 > 46	20.70	171.826	38244.344	171.826	2.246	bb			29.2650	73.2	-26.8	20.0
WXX100410-08CRI	4-Nitrotoluene	137 > 46	21.99	111.068	38244.344	111.068	1.452	bb			37.3634	93.4	-6.6	10.9
WXX100410-08CRI	3-Nitrotoluene	137 > 46	23.63	136.864	38244.344	136.864	1.789	bb			32.7734	81.9	-18.1	12.1
WXX100410-08CRI	PETN	361 > 62	24.04	2847.129	38244.344	2847.129	37.223	bb			46.7667	116.9	16.9	1392.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/11/10
Time of Injection	0905
Standard Number	WXX100410-08CRI
Data File	EXP0408122a

HMX		119.1
RDX		112.6
135-TNB		107.7
13-DNB		108.8
Tetryl		115.9
Nitrobenzene		95.1
4A-26-DNT		95.3
2A-46-DNT		112.9
246-TNT		119.0
34-DNT(surr)		96.7
26-DNT		99.1
24-DNT		103.5
2-NT		73.2
4-NT		93.4
3-NT		81.9
PETN		116.9
Total		1651.1
Average		103.2

MMT 4/11/10

Hnm 04/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412012a

Analysis Date: 12–APR–10 21:04

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
3,4–Dinitrotoluene	20	20.822	104	
4–Amino–2,6–dinitrotoluene	40	41.22	103	
HMX	40	40.936	102	
Nitrobenzene	40	40.412	101	
PETN	40	38.904	97	
RDX	40	42.279	106	
Tetryl	40	38.735	97	
m–Dinitrobenzene	40	40.013	100	
m–Nitrotoluene	40	37.251	93	
o–Nitrotoluene	40	34.615	87	
p–Nitrotoluene	40	40.573	101	
1,3,5–Trinitrobenzene	40	42.014	105	
1,3–Dinitrobenzene–d4	500	533.484	107	
2,4,6–Trinitrotoluene	40	37.92	95	
2,4–Dinitrotoluene	40	39.009	98	
2,6–Dinitrotoluene	40	41.835	105	
2,6–Dinitrotoluene–d3	500	543.299	109	
2–Amino–4,6–dinitrotoluene	40	37.957	95	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412012a
Date: 12-Apr-2010
Time: 21:04:58
ID: WXX100412-08CRI
Vial: 1:1,C

MMT 4/13/10

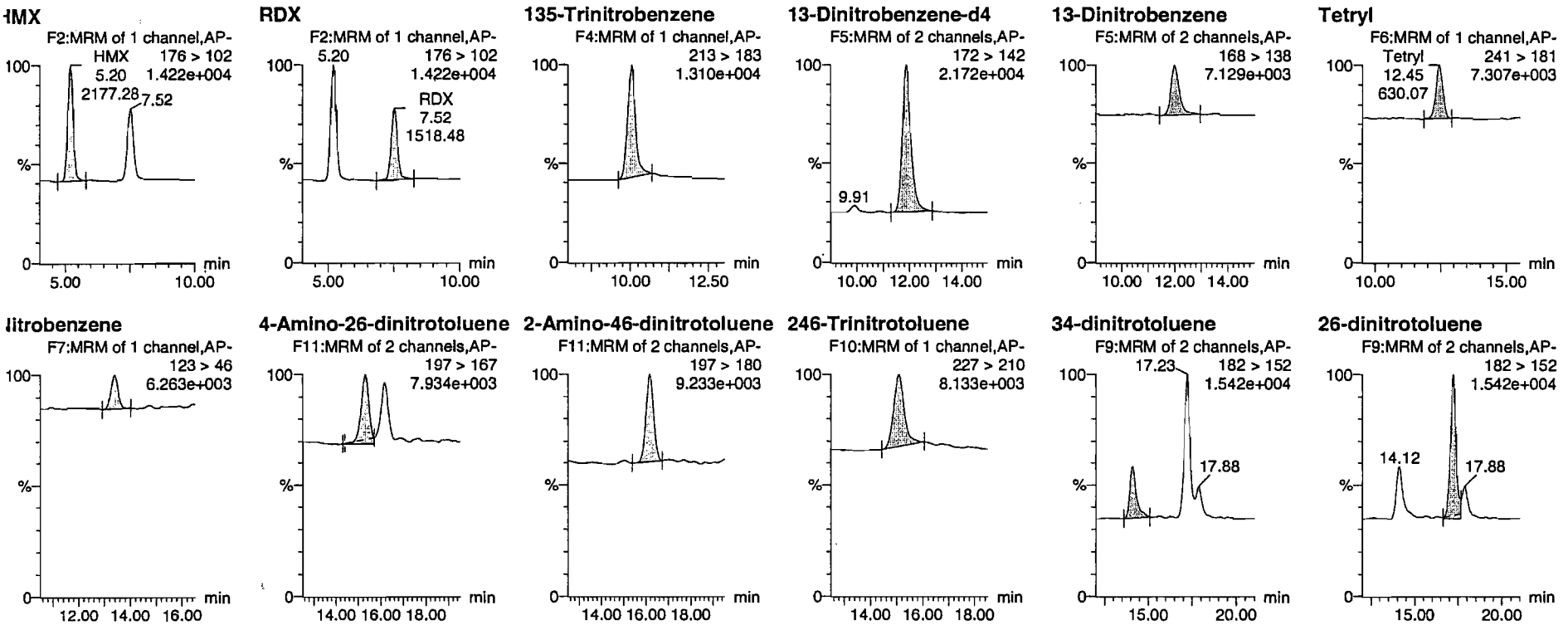

Hmm 04/14/10

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Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

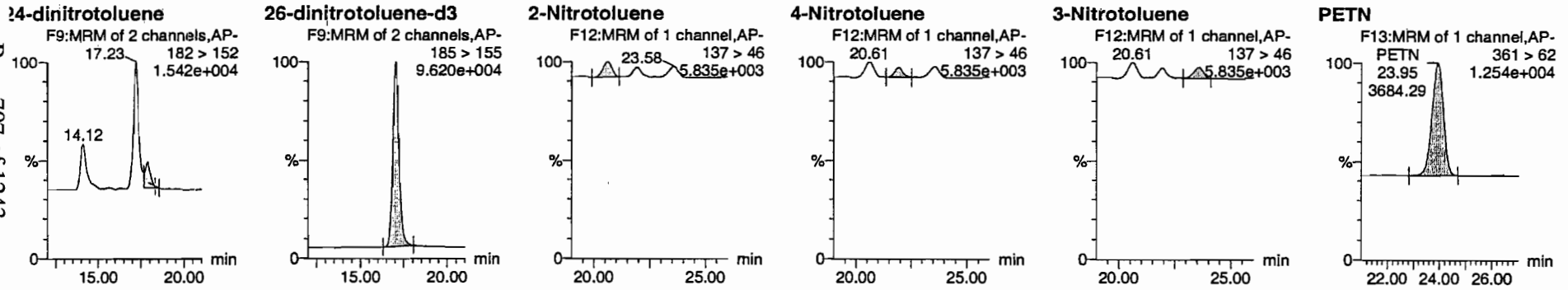

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100412-08CRI	HMX	176 > 102	5.20	2177.283	6274.155	2177.283	173.512	bb			40.9355	102.3	2.3	314.4
WXX100412-08CRI	RDX	176 > 102	7.52	1518.477	6274.155	1518.477	121.010	bb			42.2788	105.7	5.7	197.0
WXX100412-08CRI	135-Trinitrobenzene	213 > 183	10.05	2279.088	6274.155	2279.088	181.625	bb			42.0139	105.0	5.0	180.1
WXX100412-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	6274.155		6274.155	6274.155	bb			533.4836	106.7	6.7	322.2
WXX100412-08CRI	13-Dinitrobenzene	168 > 138	11.97	671.328	6274.155	671.328	53.499	bb			40.0125	100.0	0.0	50.5
WXX100412-08CRI	Tetryl	241 > 181	12.45	630.065	6274.155	630.065	50.211	bb			38.7350	96.8	-3.2	54.0
WXX100412-08CRI	Nitrobenzene	123 > 46	13.41	318.106	6274.155	318.106	25.351	bb			40.4123	101.0	1.0	29.3
WXX100412-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.32	1058.459	38012.648	1058.459	13.922	MM	13-Apr-10	11:01:55	41.2197	103.0	3.0	59.2
WXX100412-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.16	1478.048	38012.648	1478.048	19.442	bb			37.9571	94.9	-5.1	88.4
WXX100412-08CRI	246-Trinitrotoluene	227 > 210	15.10	1254.134	38012.648	1254.134	16.496	bb			37.9196	94.8	-5.2	135.3
WXX100412-08CRI	34-dinitrotoluene	182 > 152	14.12	1632.265	38012.648	1632.265	21.470	bb			20.8219	104.1	4.1	82.1
WXX100412-08CRI	26-dinitrotoluene	182 > 152	17.23	3764.256	38012.648	3764.256	49.513	MM	13-Apr-10	11:07:00	41.8349	104.6	4.6	228.6
WXX100412-08CRI	24-dinitrotoluene	182 > 152	17.88	774.045	38012.648	774.045	10.181	MM	13-Apr-10	11:10:08	39.0087	97.5	-2.5	47.6
WXX100412-08CRI	26-dinitrotoluene-d3	185 > 155	17.05	38012.648		38012.648	38012.648	bb			543.2989	108.7	8.7	2463.8
WXX100412-08CRI	2-Nitrotoluene	137 > 46	20.61	227.869	38012.648	227.869	2.997	bb			34.6153	86.5	-13.5	59.0
WXX100412-08CRI	4-Nitrotoluene	137 > 46	21.95	127.946	38012.648	127.946	1.683	bb			40.5729	101.4	1.4	37.2
WXX100412-08CRI	3-Nitrotoluene	137 > 46	23.58	165.114	38012.648	165.114	2.172	bb			37.2514	93.1	-6.9	41.7
WXX100412-08CRI	PETN	361 > 62	23.95	3684.286	38012.648	3684.286	48.461	bb			38.9040	97.3	-2.7	585.0

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/12/10
Time of Injection	2104
Standard Number	WXX100412-08CRI
Data File	EXP0412012a

HMX	102.3
RDX	105.7
135-TNB	105.0
13-DNB	100.0
Tetryl	96.8
Nitrobenzene	101.0
4A-26-DNT	103.0
2A-46-DNT	94.9
246-TNT	94.8
34-DNT(surr)	104.1
26-DNT	104.6
24-DNT	97.5
2-NT	86.5
4-NT	101.4
3-NT	93.1
PETN	97.3
Total	1588.0
Average	99.3

MMT 4/13/10

HMC 04/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412023a

Analysis Date: 13–APR–10 02:29

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
3,4–Dinitrotoluene	300	294.567	98	
4–Amino–2,6–dinitrotoluene	600	565.953	94	
HMX	600	591.074	99	
Nitrobenzene	600	587.411	98	
PETN	600	688.871	115	
RDX	600	698.421	116	
Tetryl	600	569.67	95	
m–Dinitrobenzene	600	606.197	101	
m–Nitrotoluene	600	540.313	90	
o–Nitrotoluene	600	558.159	93	
p–Nitrotoluene	600	614.491	102	
1,3,5–Trinitrobenzene	600	557.713	93	
1,3–Dinitrobenzene–d4	500	483.478	97	
2,4,6–Trinitrotoluene	600	638.191	106	
2,4–Dinitrotoluene	600	647.757	108	
2,6–Dinitrotoluene	600	603.464	101	
2,6–Dinitrotoluene–d3	500	472.429	94	
2–Amino–4,6–dinitrotoluene	600	581.719	97	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412023a
Date: 13-Apr-2010
Time: 02:29:16
ID: WXX100412-07CCV
Vial: 1:1,B

MM 4/13/10

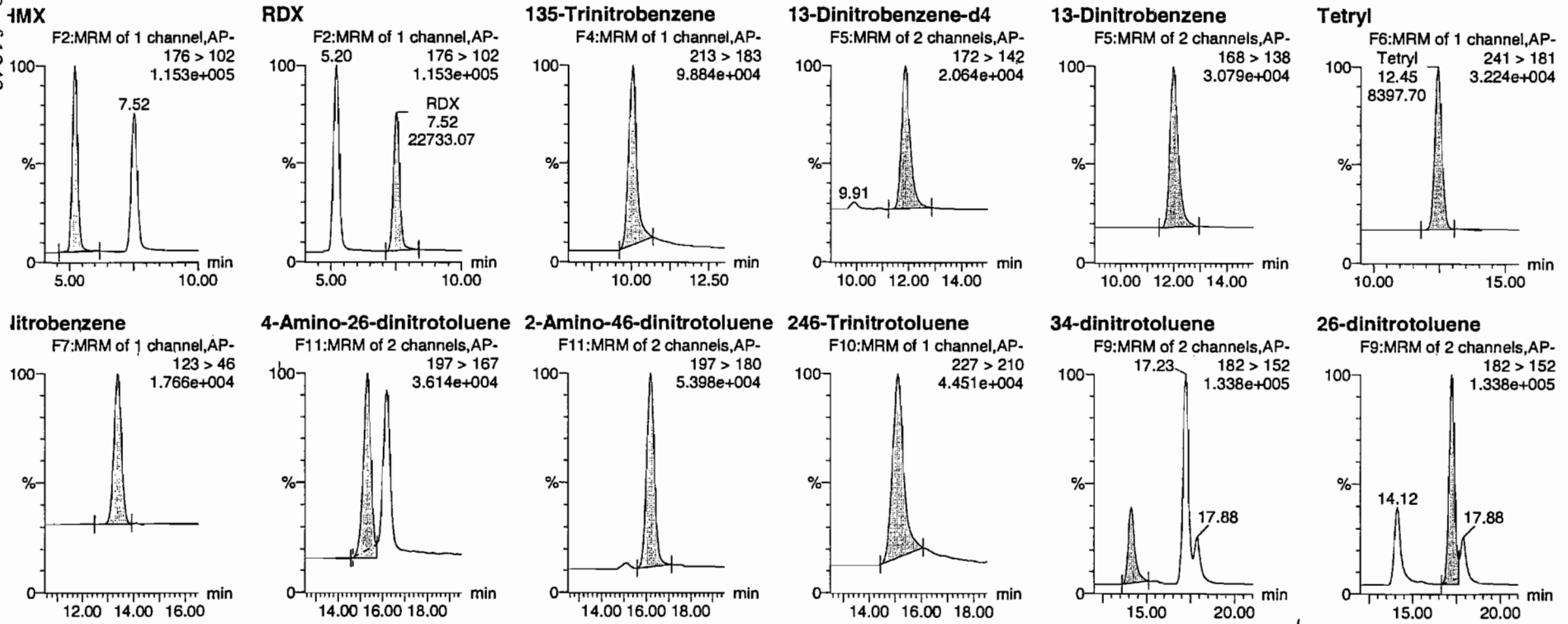

HMM 04/14/10

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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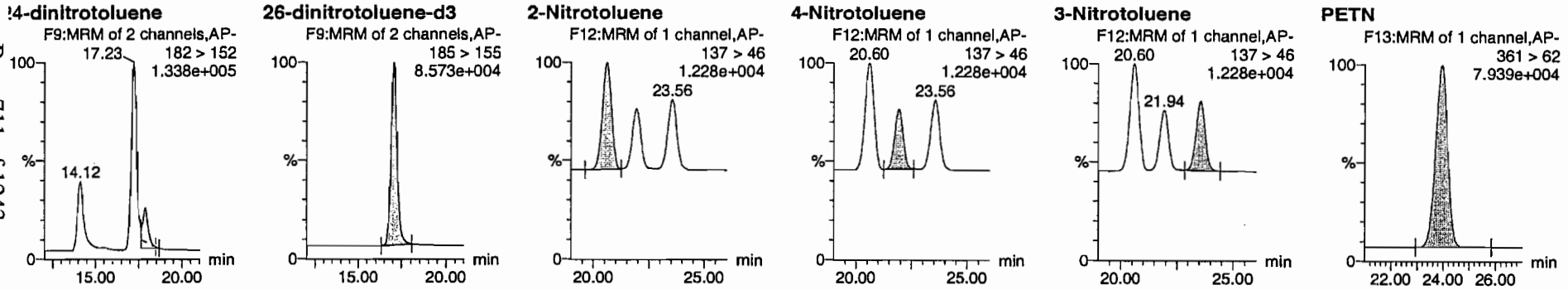

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
VXX100412-07CCV	HMX	176 > 102	5.20	28491.268	5686.049	28491.268	2505.366	bb			591.0742	98.5	-1.5	2424.2
VXX100412-07CCV	RDX	176 > 102	7.52	22733.072	5686.049	22733.072	1999.022	bb			698.4212	116.4	16.4	1800.1
VXX100412-07CCV	135-Trinitrobenzene	213 > 183	10.05	27417.908	5686.049	27417.908	2410.981	bb			557.7127	93.0	-7.0	985.8
VXX100412-07CCV	13-Dinitrobenzene-d4	172 > 142	11.87	5686.049		5686.049	5686.049	bb			483.4777	96.7	-3.3	419.8
VXX100412-07CCV	13-Dinitrobenzene	168 > 138	11.97	9217.395	5686.049	9217.395	810.527	bb			606.1968	101.0	1.0	1027.7
VXX100412-07CCV	Tetryl	241 > 181	12.45	8397.697	5686.049	8397.697	738.447	bd			569.6696	94.9	-5.1	1109.4
VXX100412-07CCV	Nitrobenzene	123 > 46	13.37	4190.401	5686.049	4190.401	368.481	bd			587.4110	97.9	-2.1	482.0
VXX100412-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.32	12637.104	33054.137	12637.104	191.158	MM	13-Apr-10	11:02:49	565.9529	94.3	-5.7	550.6
VXX100412-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.16	19697.299	33054.137	19697.299	297.955	bb			581.7193	97.0	-3.0	507.4
VXX100412-07CCV	246-Trinitrotoluene	227 > 210	15.10	18353.908	33054.137	18353.908	277.634	bb			638.1909	106.4	6.4	574.4
VXX100412-07CCV	34-dinitrotoluene	182 > 152	14.12	20079.451	33054.137	20079.451	303.736	bb			294.5666	98.2	-1.8	472.2
VXX100412-07CCV	26-dinitrotoluene	182 > 152	17.23	47216.063	33054.137	47216.063	714.223	MM	13-Apr-10	11:07:54	603.4644	100.6	0.6	1300.6
VXX100412-07CCV	24-dinitrotoluene	182 > 152	17.88	11176.726	33054.137	11176.726	169.067	MM	13-Apr-10	11:10:49	647.7566	108.0	8.0	280.1
VXX100412-07CCV	26-dinitrotoluene-d3	185 > 155	17.05	33054.137		33054.137	33054.137	bb			472.4290	94.5	-5.5	2808.6
VXX100412-07CCV	2-Nitrotoluene	137 > 46	20.60	3195.010	33054.137	3195.010	48.330	bb			558.1587	93.0	-7.0	343.3
VXX100412-07CCV	4-Nitrotoluene	137 > 46	21.94	1685.013	33054.137	1685.013	25.489	bb			614.4905	102.4	2.4	193.2
VXX100412-07CCV	3-Nitrotoluene	137 > 46	23.56	2082.501	33054.137	2082.501	31.501	bb			540.3134	90.1	-9.9	224.9
VXX100412-07CCV	PETN	361 > 62	23.94	39570.852	33054.137	39570.852	598.576	bb			688.8709	114.8	14.8	6418.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/13/10
Time of Injection: 0229
Standard Number: WXX100412-07CCV
Data File: EXP0412023a

HMX		98.5
RDX		116.4
135-TNB		93.0
13-DNB		101.0
Tetryl		94.9
Nitrobenzene		97.9
4A-26-DNT		94.3
2A-46-DNT		97.0
246-TNT		106.4
34-DNT(surr)		98.2
26-DNT		100.6
24-DNT		108.0
2-NT		93.0
4-NT		102.4
3-NT		90.1
PETN		114.8
Total		1606.5
Average		100.4

MAP 4/13/10

Hmc 04/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412025a

Analysis Date: 13–APR–10 03:28

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	44.517	111	
1,3–Dinitrobenzene–d4	500	492.919	99	
2,4,6–Trinitrotoluene	40	39.436	99	
2,4–Dinitrotoluene	40	43.525	109	
2,6–Dinitrotoluene	40	39.656	99	
2,6–Dinitrotoluene–d3	500	514.01	103	
2–Amino–4,6–dinitrotoluene	40	37.309	93	
3,4–Dinitrotoluene	20	19.281	96	
4–Amino–2,6–dinitrotoluene	40	37.529	94	
HMX	40	42.31	106	
Nitrobenzene	40	35.496	89	
PETN	40	42.974	107	
RDX	40	45.439	114	
Tetryl	40	42.386	106	
m–Dinitrobenzene	40	46.427	116	
m–Nitrotoluene	40	39.933	100	
o–Nitrotoluene	40	37.946	95	
p–Nitrotoluene	40	42.692	107	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412025a
Date: 13-Apr-2010
Time: 03:28:21
ID: WXX100412-08CRI
Vial: 1:1,C

MAT 4/13/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.20 1.395e+004
2079.26 7.52

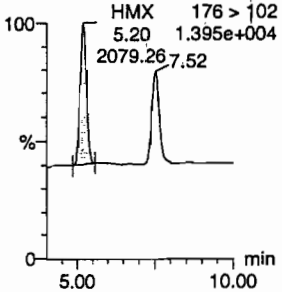

RDX
F2:MRM of 1 channel,AP-
5.20 176 > 102
1.395e+004
RDX
7.52
1507.88

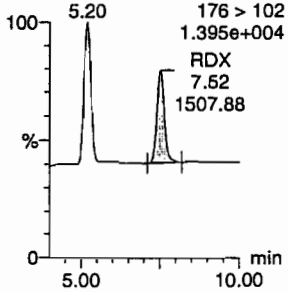

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.296e+004

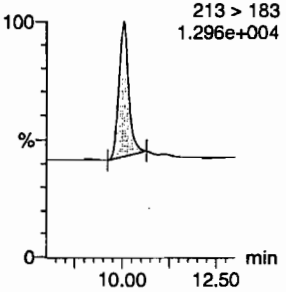

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.072e+004

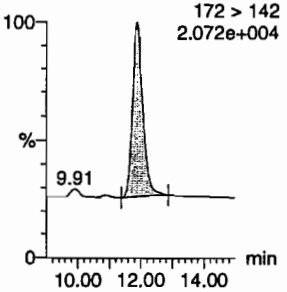

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
7.219e+003

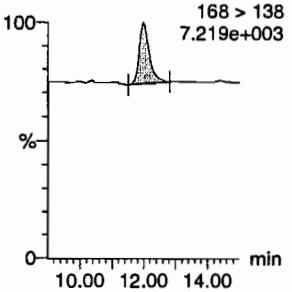

Tetryl
F6:MRM of 1 channel,AP-
Tetryl 241 > 181
12.45 7.456e+003
637.03

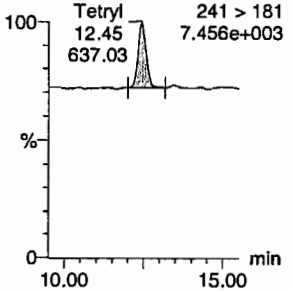

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.117e+003

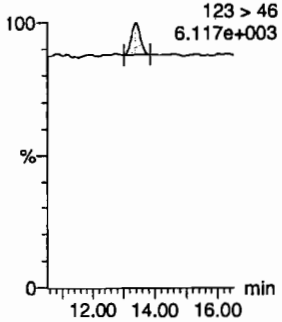

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.611e+003

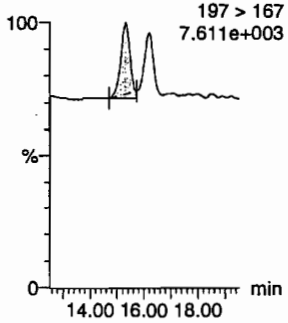

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
8.903e+003

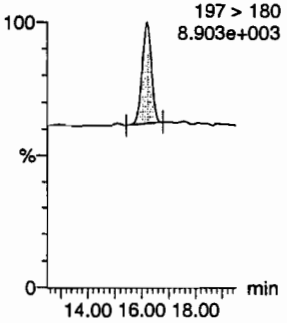

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
7.991e+003

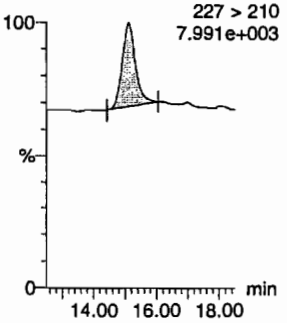

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.22 182 > 152
1.455e+004

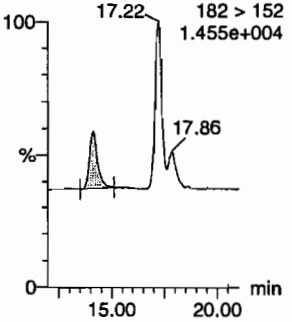

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.455e+004

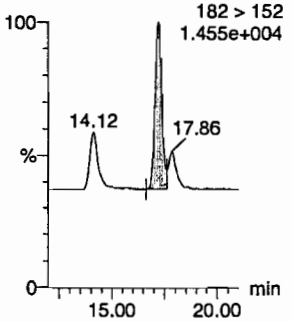

Hmm 04/14/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

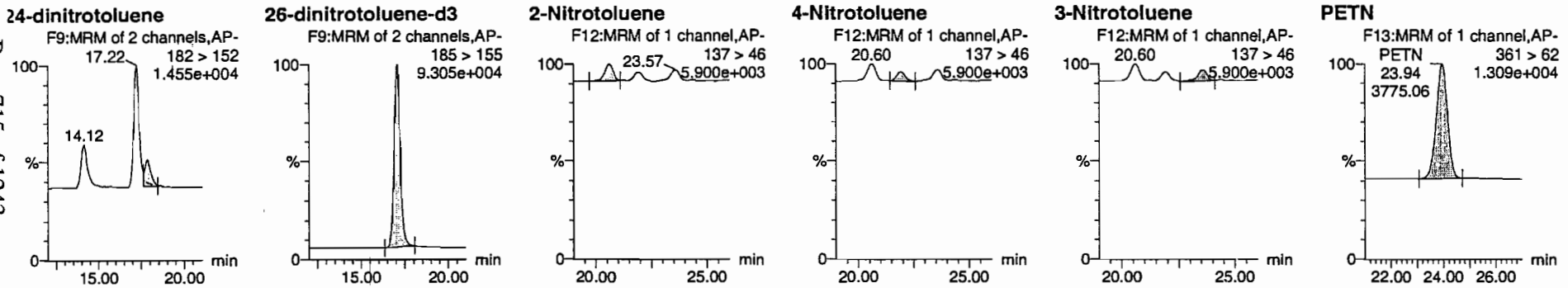

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
WXX100412-08CRI	HMX	176 > 102	5.20	2079.264	5797.090	2079.264	179.337	bb			42.3097	105.8	5.8	348.3
WXX100412-08CRI	RDX	176 > 102	7.52	1507.880	5797.090	1507.880	130.055	bb			45.4388	113.6	13.6	225.5
WXX100412-08CRI	135-Trinitrobenzene	213 > 183	10.05	2231.265	5797.090	2231.265	192.447	bb			44.5172	111.3	11.3	130.5
WXX100412-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	5797.090		5797.090	5797.090	bb			492.9193	98.6	-1.4	771.9
WXX100412-08CRI	13-Dinitrobenzene	168 > 138	11.97	719.725	5797.090	719.725	62.076	bb			46.4272	116.1	16.1	67.2
WXX100412-08CRI	Tetryl	241 > 181	12.45	637.032	5797.090	637.032	54.944	bb			42.3862	106.0	6.0	45.1
WXX100412-08CRI	Nitrobenzene	123 > 46	13.41	258.161	5797.090	258.161	22.266	bb			35.4959	88.7	-11.3	32.0
WXX100412-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.32	911.734	35963.441	911.734	12.676	MM	13-Apr-10	11:02:58	37.5289	93.8	-6.2	44.8
WXX100412-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.19	1374.488	35963.441	1374.488	19.110	bb			37.3089	93.3	-6.7	102.4
WXX100412-08CRI	246-Trinitrotoluene	227 > 210	15.10	1233.959	35963.441	1233.959	17.156	bb			39.4355	98.6	-1.4	52.3
WXX100412-08CRI	34-dinitrotoluene	182 > 152	14.12	1430.000	35963.441	1430.000	19.881	bb			19.2811	96.4	-3.6	68.9
WXX100412-08CRI	26-dinitrotoluene	182 > 152	17.22	3375.872	35963.441	3375.872	46.935	MM	13-Apr-10	11:08:02	39.6563	99.1	-0.9	198.4
WXX100412-08CRI	24-dinitrotoluene	182 > 152	17.86	817.109	35963.441	817.109	11.360	MM	13-Apr-10	11:10:56	43.5253	108.8	8.8	43.1
WXX100412-08CRI	26-dinitrotoluene-d3	185 > 155	17.05	35963.441		35963.441	35963.441	bb			514.0105	102.8	2.8	1763.8
WXX100412-08CRI	2-Nitrotoluene	137 > 46	20.60	236.329	35963.441	236.329	3.286	bb			37.9461	94.9	-5.1	26.8
WXX100412-08CRI	4-Nitrotoluene	137 > 46	21.92	127.371	35963.441	127.371	1.771	bb			42.6921	106.7	6.7	14.4
WXX100412-08CRI	3-Nitrotoluene	137 > 46	23.57	167.459	35963.441	167.459	2.328	bb			39.9332	99.8	-0.2	17.3
WXX100412-08CRI	PETN	361 > 62	23.94	3775.057	35963.441	3775.057	52.485	bb			42.9742	107.4	7.4	1684.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/13/10
Time of Injection	0328
Standard Number	WXX100412-08CRI
Data File	EXP0412025a

HMX		105.8
RDX		113.6
135-TNB		111.3
13-DNB		116.1
Tetryl		106.0
Nitrobenzene		88.7
4A-26-DNT		93.8
2A-46-DNT		93.3
246-TNT		98.6
34-DNT(surr)		96.4
26-DNT		99.1
24-DNT		108.8
2-NT		94.9
4-NT		106.7
3-NT		99.8
PETN		107.4
Total		1640.3
Average		102.5

MJT 4/13/10

Hmm 04/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412036a

Analysis Date: 13–APR–10 08:52

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p–Nitrotoluene	600	594.454	99	
1,3,5–Trinitrobenzene	600	622.986	104	
1,3–Dinitrobenzene–d4	500	495.434	99	
2,4,6–Trinitrotoluene	600	635.68	106	
2,4–Dinitrotoluene	600	609.665	102	
2,6–Dinitrotoluene	600	616.741	103	
2,6–Dinitrotoluene–d3	500	514.162	103	
2–Amino–4,6–dinitrotoluene	600	599.331	100	
3,4–Dinitrotoluene	300	294.405	98	
4–Amino–2,6–dinitrotoluene	600	576.117	96	
HMX	600	602.928	100	
Nitrobenzene	600	645.578	108	
PETN	600	634.783	106	
RDX	600	702.566	117	
Tetryl	600	604.875	101	
m–Dinitrobenzene	600	626.308	104	
m–Nitrotoluene	600	515.069	86	
o–Nitrotoluene	600	519.467	87	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412036a
Date: 13-Apr-2010
Time: 08:52:42
ID: WXX100408-07CCV
Vial: 1:1,B

MM 4/13/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.199e+005
7.52

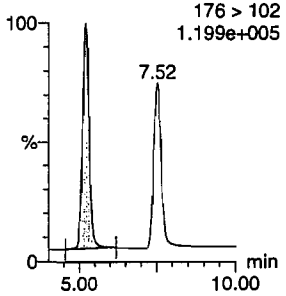

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.199e+005
5.20
RDX
7.52
23433.50

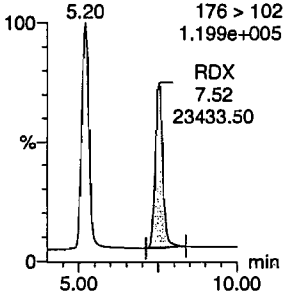

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.141e+005

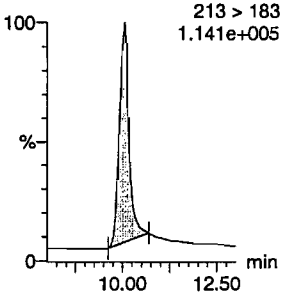

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.123e+004
9.88

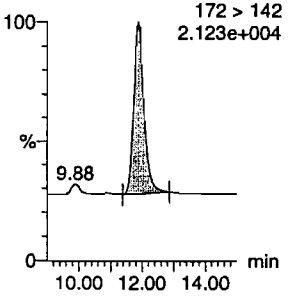

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
3.360e+004

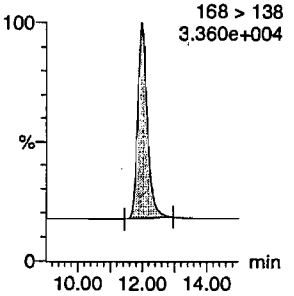

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
3.473e+004
Tetryl
12.45
9137.18

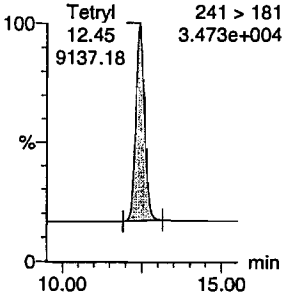

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.941e+004

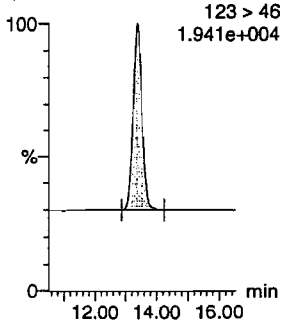

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
3.927e+004

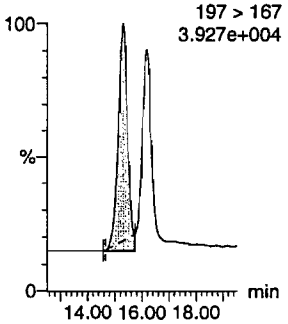

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.040e+004

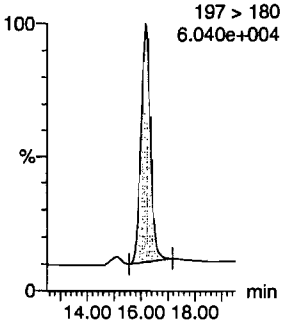

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
4.853e+004

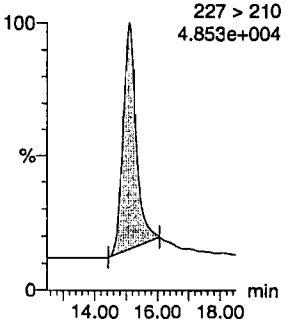

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.500e+005
17.20
17.86

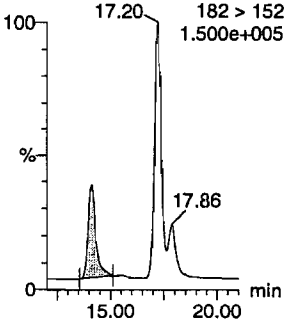

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.500e+005
14.12
17.86

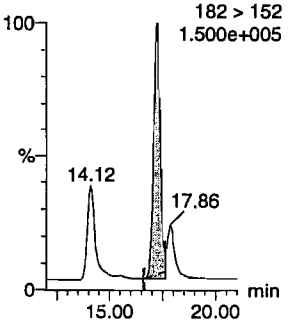

Hmw 04/14/10

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Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

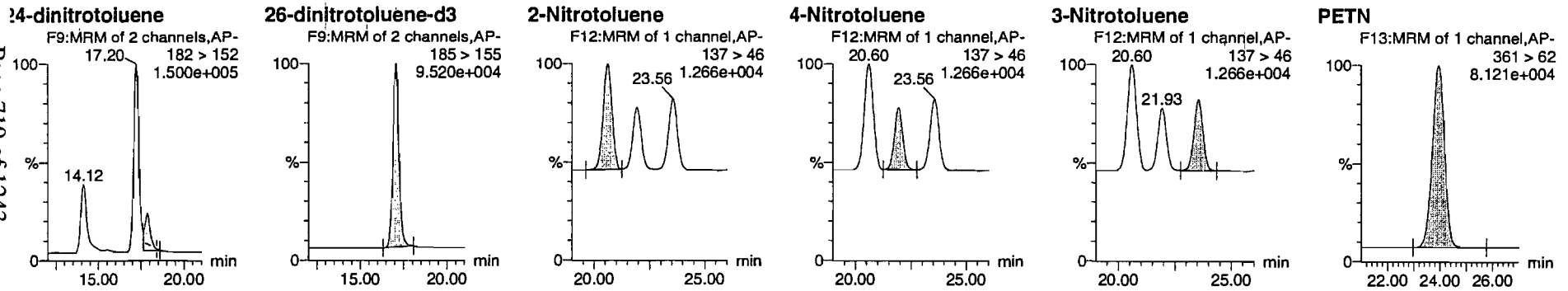

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100408-07CCV	HMX	176 > 102	5.20	29781.385	5826.664	29781.385	2555.612	bb			602.9284	100.5	0.5	621.5
WXX100408-07CCV	RDX	176 > 102	7.52	23433.498	5826.664	23433.498	2010.885	bb			702.5658	117.1	17.1	454.8
WXX100408-07CCV	135-Trinitrobenzene	213 > 183	10.05	31384.221	5826.664	31384.221	2693.155	bb			622.9859	103.8	3.8	1221.3
WXX100408-07CCV	13-Dinitrobenzene-d4	172 > 142	11.87	5826.664		5826.664	5826.664	bb			495.4340	99.1	-0.9	856.5
WXX100408-07CCV	13-Dinitrobenzene	168 > 138	11.97	9758.702	5826.664	9758.702	837.418	bb			626.3082	104.4	4.4	1223.2
WXX100408-07CCV	Tetryl	241 > 181	12.45	9137.179	5826.664	9137.179	784.083	bb			604.8749	100.8	0.8	997.4
WXX100408-07CCV	Nitrobenzene	123 > 46	13.37	4719.232	5826.664	4719.232	404.969	bb			645.5776	107.6	7.6	430.6
WXX100408-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.29	14000.422	35974.031	14000.422	194.591	MM	13-Apr-10	11:03:12	576.1169	96.0	-4.0	564.0
WXX100408-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.16	22086.311	35974.031	22086.311	306.976	bb			599.3310	99.9	-0.1	644.5
WXX100408-07CCV	246-Trinitrotoluene	227 > 210	15.10	19896.646	35974.031	19896.646	276.542	bb			635.6802	105.9	5.9	463.0
WXX100408-07CCV	34-dinitrotoluene	182 > 152	14.12	21841.178	35974.031	21841.178	303.569	bb			294.4045	98.1	-1.9	603.2
WXX100408-07CCV	26-dinitrotoluene	182 > 152	17.20	52517.492	35974.031	52517.492	729.936	MM	13-Apr-10	11:08:37	616.7407	102.8	2.8	1677.9
WXX100408-07CCV	24-dinitrotoluene	182 > 152	17.86	11448.733	35974.031	11448.733	159.125	MM	13-Apr-10	11:11:06	609.6651	101.6	1.6	331.4
WXX100408-07CCV	26-dinitrotoluene-d3	185 > 155	17.05	35974.031		35974.031	35974.031	bb			514.1618	102.8	2.8	2057.8
WXX100408-07CCV	2-Nitrotoluene	137 > 46	20.60	3236.203	35974.031	3236.203	44.980	bb			519.4669	86.6	-13.4	654.9
WXX100408-07CCV	4-Nitrotoluene	137 > 46	21.93	1774.065	35974.031	1774.065	24.658	bb			594.4539	99.1	-0.9	382.8
WXX100408-07CCV	3-Nitrotoluene	137 > 46	23.56	2160.571	35974.031	2160.571	30.030	bb			515.0694	85.8	-14.2	438.3
WXX100408-07CCV	PETN	361 > 62	23.94	40282.918	35974.031	40282.918	559.889	bb			634.7825	105.8	5.8	10168.9

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/13/10
Time of Injection: 0852
Standard Number: WXX100412-07CCV
Data File: EXP0412036a

HMX	100.5
RDX	117.1
135-TNB	103.8
13-DNB	104.4
Tetryl	100.8
Nitrobenzene	107.6
4A-26-DNT	96.0
2A-46-DNT	99.9
246-TNT	105.9
34-DNT(surr)	98.1
26-DNT	102.8
24-DNT	101.6
2-NT	86.6
4-NT	99.1
3-NT	85.8
PETN	105.8
Total	1615.8
Average	101.0

MTP 4/13/10

Hmc 04/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2039

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412038a

Analysis Date: 13-APR-10 09:51

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	45.739	114	
1,3-Dinitrobenzene-d4	500	533	107	
2,4,6-Trinitrotoluene	40	38.169	95	
2,4-Dinitrotoluene	40	45.21	113	
2,6-Dinitrotoluene	40	40.851	102	
2,6-Dinitrotoluene-d3	500	511.74	102	
2-Amino-4,6-dinitrotoluene	40	38.558	96	
3,4-Dinitrotoluene	20	21.488	107	
4-Amino-2,6-dinitrotoluene	40	37.158	93	
HMX	40	39.698	99	
Nitrobenzene	40	39.676	99	
PETN	40	46.251	116	
RDX	40	44.563	111	
Tetryl	40	40.879	102	
m-Dinitrobenzene	40	43.824	110	
m-Nitrotoluene	40	36.581	91	
o-Nitrotoluene	40	36.682	92	
p-Nitrotoluene	40	38.153	95	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412038a
Date: 13-Apr-2010
Time: 09:51:47
ID: WXX100408-08CRI
Vial: 1:1,C

MM 4/13/10

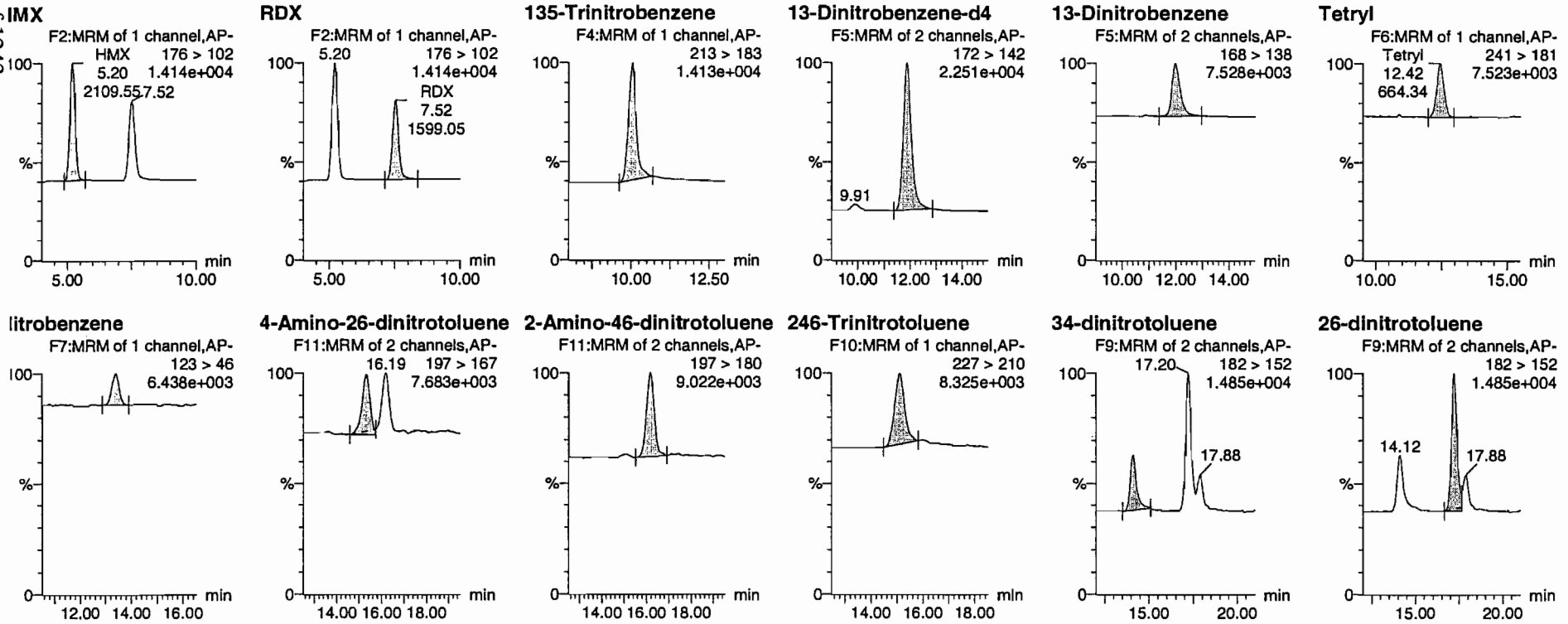

Hmm 04/14/10

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

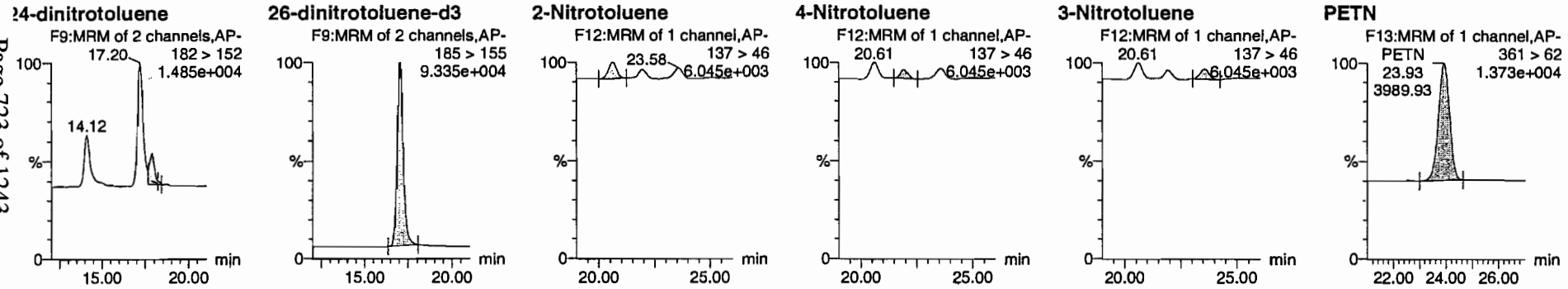

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100408-08CRI	HMX	176 > 102	5.20	2109.553	6268.472	2109.553	168.267	bb			39.6981	99.2	-0.8	344.7
WXX100408-08CRI	RDX	176 > 102	7.52	1599.046	6268.472	1599.046	127.547	bb			44.5625	111.4	11.4	232.6
WXX100408-08CRI	135-Trinitrobenzene	213 > 183	10.05	2478.890	6268.472	2478.890	197.727	bb			45.7385	114.3	14.3	445.4
WXX100408-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	6268.472		6268.472	6268.472	bb			533.0004	106.6	6.6	316.8
WXX100408-08CRI	13-Dinitrobenzene	168 > 138	11.97	734.612	6268.472	734.612	58.596	bb			43.8240	109.6	9.6	56.6
WXX100408-08CRI	Tetryl	241 > 181	12.42	664.339	6268.472	664.339	52.991	bb			40.8791	102.2	2.2	77.0
WXX100408-08CRI	Nitrobenzene	123 > 46	13.37	312.027	6268.472	312.027	24.889	bb			39.6760	99.2	-0.8	26.2
WXX100408-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.32	898.733	35804.613	898.733	12.551	MM	13-Apr-10	11:03:18	37.1578	92.9	-7.1	46.5
WXX100408-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.16	1414.235	35804.613	1414.235	19.749	bb			38.5581	96.4	-3.6	64.1
WXX100408-08CRI	246-Trinitrotoluene	227 > 210	15.10	1189.063	35804.613	1189.063	16.605	bb			38.1693	95.4	-4.6	105.0
WXX100408-08CRI	34-dinitrotoluene	182 > 152	14.12	1586.630	35804.613	1586.630	22.157	bb			21.4879	107.4	7.4	45.9
WXX100408-08CRI	26-dinitrotoluene	182 > 152	17.20	3462.203	35804.613	3462.203	48.349	MM	13-Apr-10	11:08:46	40.8509	102.1	2.1	112.8
WXX100408-08CRI	24-dinitrotoluene	182 > 152	17.88	844.986	35804.613	844.986	11.800	MM	13-Apr-10	11:11:14	45.2099	113.0	13.0	28.2
WXX100408-08CRI	26-dinitrotoluene-d3	185 > 155	17.05	35804.613		35804.613	35804.613	bb			511.7404	102.3	2.3	2742.4
WXX100408-08CRI	2-Nitrotoluene	137 > 46	20.61	227.450	35804.613	227.450	3.176	bb			36.6824	91.7	-8.3	42.8
WXX100408-08CRI	4-Nitrotoluene	137 > 46	21.94	113.326	35804.613	113.326	1.583	bb			38.1530	95.4	-4.6	23.5
WXX100408-08CRI	3-Nitrotoluene	137 > 46	23.58	152.725	35804.613	152.725	2.133	bb			36.5812	91.5	-8.5	27.1
WXX100408-08CRI	PETN	361 > 62	23.93	3989.934	35804.613	3989.934	55.718	bb			46.2507	115.6	15.6	239.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/13/10
Time of Injection	0951
Standard Number	WXX100412-08CRI
Data File	EXP0412038a

HMX		99.2
RDX		111.4
135-TNB		114.3
13-DNB		109.6
Tetryl		102.2
Nitrobenzene		99.2
4A-26-DNT		92.9
2A-46-DNT		96.4
246-TNT		95.4
34-DNT(surr)		107.4
26-DNT		102.1
24-DNT		113.0
2-NT		91.7
4-NT		95.4
3-NT		91.5
PETN		115.6
Total		1637.3
Average		102.3

AMT 4/13/10

Hank 04/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412049a

Analysis Date: 13–APR–10 15:16

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	571.573	95	
1,3–Dinitrobenzene–d4	500	506.928	101	
2,4,6–Trinitrotoluene	600	673.095	112	
2,4–Dinitrotoluene	600	690.861	115	
2,6–Dinitrotoluene	600	617.582	103	
2,6–Dinitrotoluene–d3	500	498.886	100	
2–Amino–4,6–dinitrotoluene	600	607.095	101	
3,4–Dinitrotoluene	300	303.099	101	
4–Amino–2,6–dinitrotoluene	600	604.473	101	
HMX	600	617.414	103	
Nitrobenzene	600	582.952	97	
PETN	600	664.135	111	
RDX	600	727.871	121	*
Tetryl	600	602.021	100	
m–Dinitrobenzene	600	604.378	101	
m–Nitrotoluene	600	551.203	92	
o–Nitrotoluene	600	525.761	88	
p–Nitrotoluene	600	663.98	111	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412049a
Date: 13-Apr-2010
Time: 15:16:35
ID: WXX100412-07CCV
Vial: 1:1,B

MAT 4/14/10

HMX

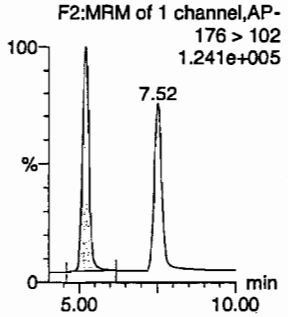

RDX

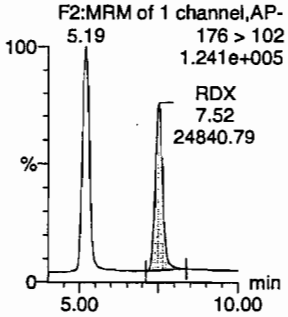

135-Trinitrobenzene

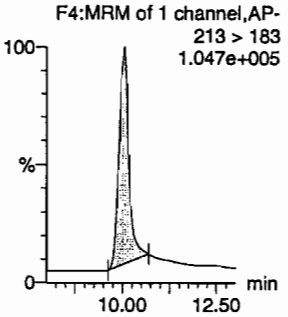

13-Dinitrobenzene-d4

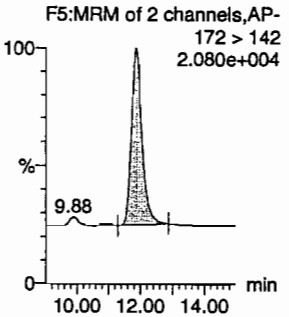

13-Dinitrobenzene

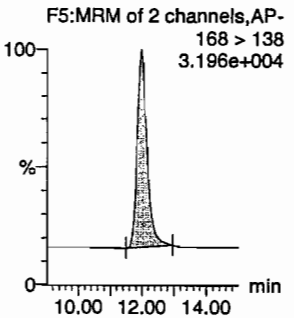

Tetryl

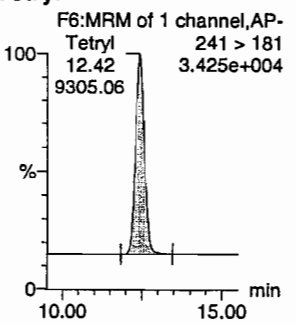

Nitrobenzene

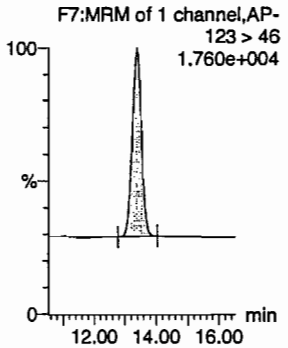

4-Amino-26-dinitrotoluene

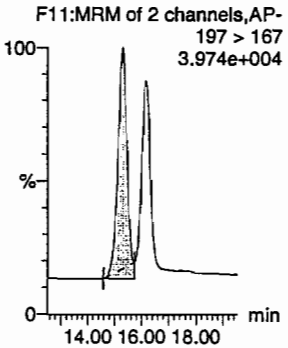

2-Amino-46-dinitrotoluene

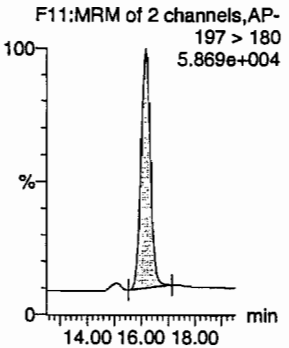

246-Trinitrotoluene

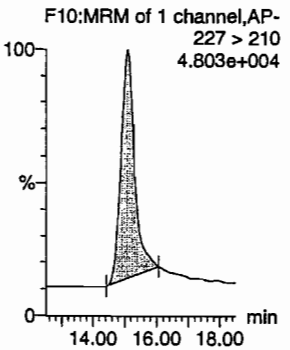

34-dinitrotoluene

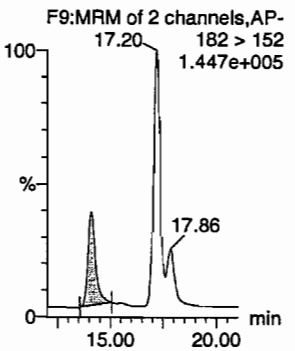

26-dinitrotoluene

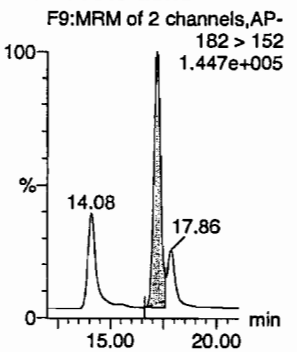

Anne 04/14/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

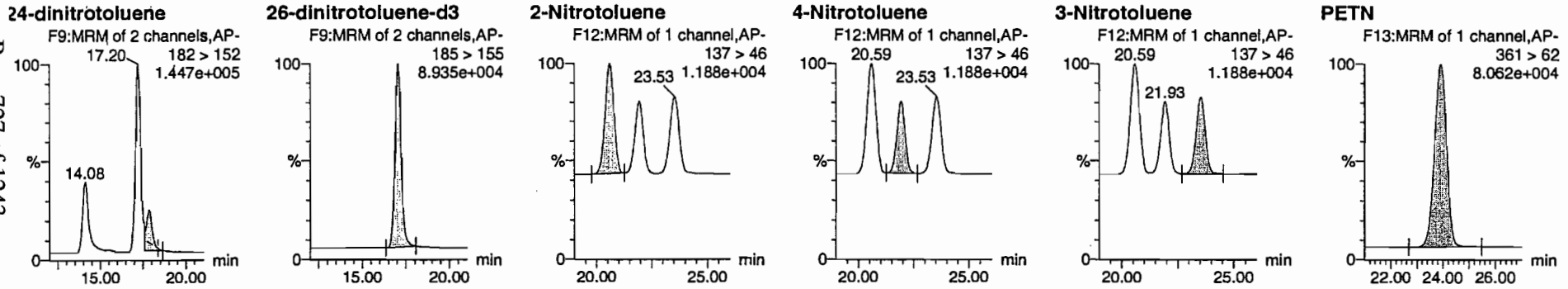

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100412-07CCV	HMX	176 > 102	5.19	31204.445	5961.844	31204.445	2617.013	bb			617.4143	102.9	2.9	5202.5
WXX100412-07CCV	RDX	176 > 102	7.52	24840.789	5961.844	24840.789	2083.314	bb			727.8714	121.3	21.3	3835.8
WXX100412-07CCV	135-Trinitrobenzene	213 > 183	10.05	29462.223	5961.844	29462.223	2470.899	bb			571.5730	95.3	-4.7	761.1
WXX100412-07CCV	13-Dinitrobenzene-d4	172 > 142	11.84	5961.844		5961.844	5961.844	bb			506.9282	101.4	1.4	721.9
WXX100412-07CCV	13-Dinitrobenzene	168 > 138	11.97	9635.484	5961.844	9635.484	808.096	bb			604.3784	100.7	0.7	772.5
WXX100412-07CCV	Tetryl	241 > 181	12.42	9305.055	5961.844	9305.055	780.384	bb			602.0212	100.3	0.3	1125.5
WXX100412-07CCV	Nitrobenzene	123 > 46	13.37	4360.299	5961.844	4360.299	365.684	bb			582.9519	97.2	-2.8	615.4
WXX100412-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.28	14253.106	34905.266	14253.106	204.168	MM	14-Apr-10	09:10:21	604.4733	100.7	0.7	347.8
WXX100412-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.16	21707.760	34905.266	21707.760	310.953	bb			607.0951	101.2	1.2	960.5
WXX100412-07CCV	246-Trinitrotoluene	227 > 210	15.10	20441.820	34905.266	20441.820	292.819	bb			673.0952	112.2	12.2	677.4
WXX100412-07CCV	34-dinitrotoluene	182 > 152	14.08	21818.158	34905.266	21818.158	312.534	bb			303.0991	101.0	1.0	485.6
WXX100412-07CCV	26-dinitrotoluene	182 > 152	17.20	51026.781	34905.266	51026.781	730.932	MM	14-Apr-10	09:11:45	617.5825	102.9	2.9	1319.3
WXX100412-07CCV	24-dinitrotoluene	182 > 152	17.86	12588.055	34905.266	12588.055	180.317	MM	14-Apr-10	09:15:38	690.8611	115.1	15.1	286.1
WXX100412-07CCV	26-dinitrotoluene-d3	185 > 155	17.05	34905.266		34905.266	34905.266	bb			498.8864	99.8	-0.2	2214.7
WXX100412-07CCV	2-Nitrotoluene	137 > 46	20.59	3178.106	34905.266	3178.106	45.525	bb			525.7614	87.6	-12.4	666.3
WXX100412-07CCV	4-Nitrotoluene	137 > 46	21.93	1922.686	34905.266	1922.686	27.541	bb			663.9803	110.7	10.7	437.1
WXX100412-07CCV	3-Nitrotoluene	137 > 46	23.53	2243.447	34905.266	2243.447	32.136	bb			551.2025	91.9	-8.1	464.9
WXX100412-07CCV	PETN	361 > 62	23.92	40562.969	34905.266	40562.969	581.044	bb			664.1354	110.7	10.7	10315.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/13/10
Time of Injection: 1516
Standard Number: WXX100412-07CCV
Data File: EXP0412049a

HMX	102.9
RDX	121.3
135-TNB	95.3
13-DNB	100.7
Tetryl	100.3
Nitrobenzene	97.2
4A-26-DNT	100.7
2A-46-DNT	101.2
246-TNT	112.2
34-DNT(surr)	101.0
26-DNT	102.9
24-DNT	115.1
2-NT	87.6
4-NT	110.7
3-NT	91.9
PETN	110.7
Total	1651.7
Average	103.2

MATT 4/14/10

Hmm 04/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412051a

Analysis Date: 13–APR–10 16:15

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Nitrobenzene	40	39.951	100	
PETN	40	48.006	120	
RDX	40	40.505	101	
Tetryl	40	40.745	102	
m–Dinitrobenzene	40	41.507	104	
m–Nitrotoluene	40	38.882	97	
o–Nitrotoluene	40	38.71	97	
p–Nitrotoluene	40	41.261	103	
1,3,5–Trinitrobenzene	40	43.445	109	
1,3–Dinitrobenzene–d4	500	578.682	116	
2,4,6–Trinitrotoluene	40	41.977	105	
2,4–Dinitrotoluene	40	41.352	103	
2,6–Dinitrotoluene	40	41.013	103	
2,6–Dinitrotoluene–d3	500	540.214	108	
2–Amino–4,6–dinitrotoluene	40	38.681	97	
3,4–Dinitrotoluene	20	22.076	110	
4–Amino–2,6–dinitrotoluene	40	40.59	101	
HMX	40	38.797	97	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412051a
Date: 13-Apr-2010
Time: 16:15:40
ID: WXX100412-08CRI
Vial: 1:1,C

MM 4/14/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.19 1.414e+004
2238.37 7.51

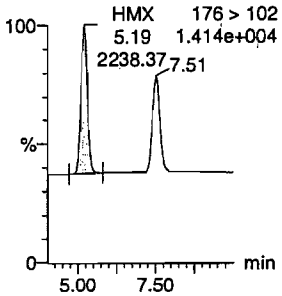

RDX
F2:MRM of 1 channel,AP-
5.19 176 > 102
1.414e+004
RDX
7.51
1578.03

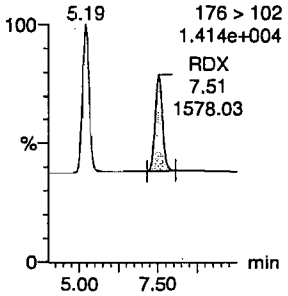

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.408e+004

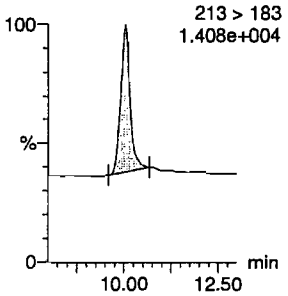

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.324e+004

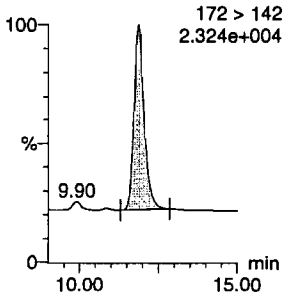

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
7.106e+003

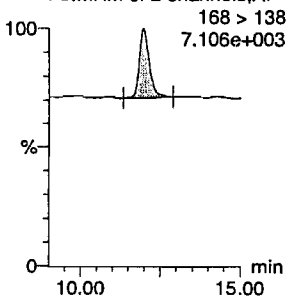

Tetryl
F6:MRM of 1 channel,AP-
Tetryl 241 > 181
12.45 7.193e+003
718.91

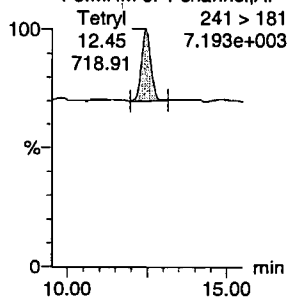

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.018e+003

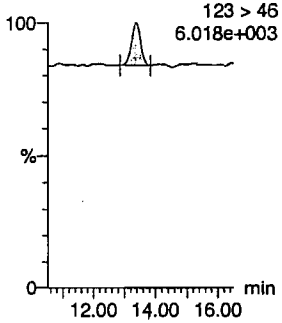

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
7.492e+003

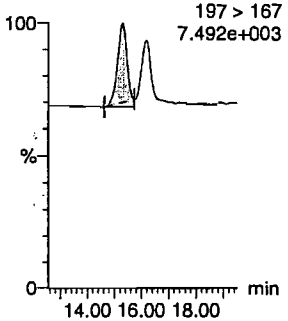

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
8.749e+003

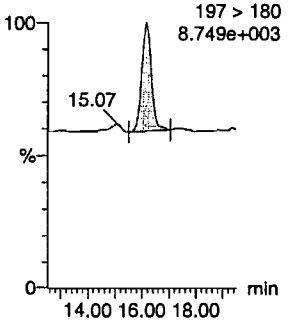

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
8.021e+003

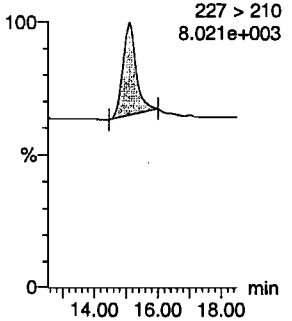

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.19 182 > 152
1.486e+004

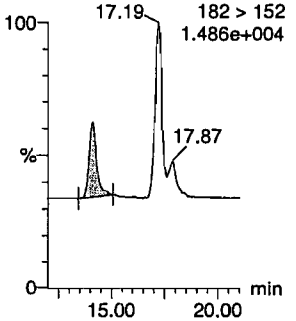

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.486e+004

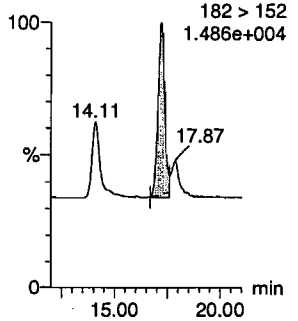

HM 04/14/10

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Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

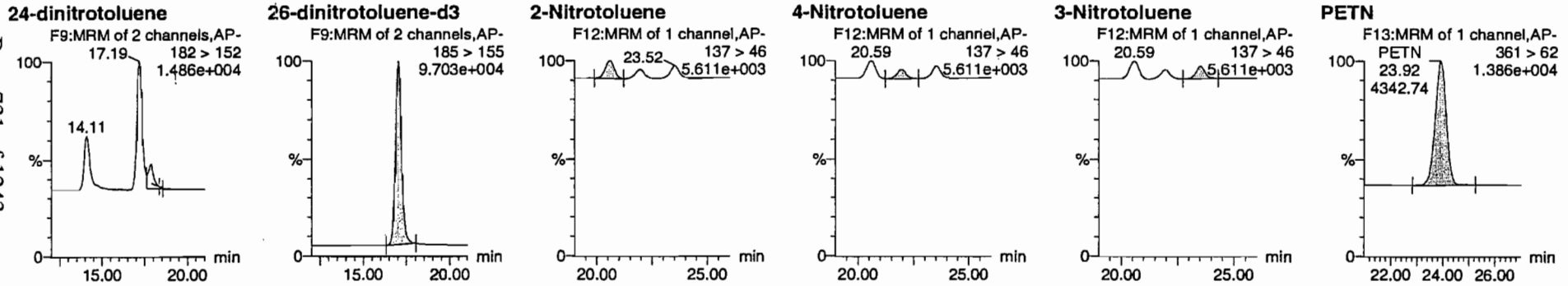

ID	Name	Trace	RT	Area	IS Area	Abs:Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100412-08CRI	HMX	176 > 102	5.19	2238.372	6805.720	2238.372	164.448	bb			38.7971	97.0	-3.0	208.5
WXX100412-08CRI	RDX	176 > 102	7.51	1578.030	6805.720	1578.030	115.934	bb			40.5052	101.3	1.3	135.6
WXX100412-08CRI	135-Trinitrobenzene	213 > 183	10.03	2556.376	6805.720	2556.376	187.811	bb			43.4448	108.6	8.6	179.0
WXX100412-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	6805.720		6805.720	6805.720	bb			578.6819	115.7	15.7	507.4
WXX100412-08CRI	13-Dinitrobenzene	168 > 138	11.97	755.409	6805.720	755.409	55.498	bb			41.5073	103.8	3.8	74.5
WXX100412-08CRI	Tetryl	241 > 181	12.45	718.910	6805.720	718.910	52.817	bb			40.7450	101.9	1.9	73.1
WXX100412-08CRI	Nitrobenzene	123 > 46	13.35	341.116	6805.720	341.116	25.061	bb			39.9508	99.9	-0.1	27.5
WXX100412-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.27	1036.367	37796.773	1036.367	13.710	MM	14-Apr-10	09:10:14	40.5898	101.5	1.5	59.1
WXX100412-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.15	1497.691	37796.773	1497.691	19.812	bb			38.6812	96.7	-3.3	67.3
WXX100412-08CRI	246-Trinitrotoluene	227 > 210	15.09	1380.441	37796.773	1380.441	18.261	bb			41.9770	104.9	4.9	85.1
WXX100412-08CRI	34-dinitrotoluene	182 > 152	14.11	1720.770	37796.773	1720.770	22.763	bb			22.0763	110.4	10.4	91.2
WXX100412-08CRI	26-dinitrotoluene	182 > 152	17.19	3669.359	37796.773	3669.359	48.541	MM	14-Apr-10	09:11:53	41.0132	102.5	2.5	216.3
WXX100412-08CRI	24-dinitrotoluene	182 > 152	17.87	815.884	37796.773	815.884	10.793	MM	14-Apr-10	09:15:28	41.3520	103.4	3.4	43.1
WXX100412-08CRI	26-dinitrotoluene-d3	185 > 155	17.04	37796.773		37796.773	37796.773	bb			540.2135	108.0	8.0	1682.3
WXX100412-08CRI	2-Nitrotoluene	137 > 46	20.59	253.376	37796.773	253.376	3.352	bb			38.7099	96.8	-3.2	70.2
WXX100412-08CRI	4-Nitrotoluene	137 > 46	21.96	129.377	37796.773	129.377	1.711	bb			41.2610	103.2	3.2	35.2
WXX100412-08CRI	3-Nitrotoluene	137 > 46	23.52	171.362	37796.773	171.362	2.267	bb			38.8818	97.2	-2.8	48.1
WXX100412-08CRI	PETN	361 > 62	23.92	4342.742	37796.773	4342.742	57.449	bb			48.0061	120.0	20.0	1612.5

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/13/10
Time of Injection	1615
Standard Number	WXX100412-08CRI
Data File	EXP0412051a

HMX		97.0
RDX		101.3
135-TNB		108.6
13-DNB		103.8
Tetryl		101.9
Nitrobenzene		99.9
4A-26-DNT		101.5
2A-46-DNT		96.7
246-TNT		104.9
34-DNT(surr)		110.4
26-DNT		102.5
24-DNT		103.4
2-NT		96.8
4-NT		103.2
3-NT		97.2
PETN		120.0
Total		1649.1
Average		103.1

4/14/10

4/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10-2039

Lab Code: GEL **GEL Sample ID:** WXXCCV

GEL Data File EXP0412060a **Analysis Date:** 13-APR-10 20:41

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
HMX	600	611.301	102	
Nitrobenzene	600	608.894	101	
PETN	600	646.401	108	
RDX	600	735.804	123	*
Tetryl	600	668.888	111	
m-Dinitrobenzene	600	610.208	102	
m-Nitrotoluene	600	514.808	86	
o-Nitrotoluene	600	527.178	88	
p-Nitrotoluene	600	571.151	95	
1,3,5-Trinitrobenzene	600	599.334	100	
1,3-Dinitrobenzene-d4	500	499.969	100	
2,4,6-Trinitrotoluene	600	660.453	110	
2,4-Dinitrotoluene	600	684.197	114	
2,6-Dinitrotoluene	600	612.271	102	
2,6-Dinitrotoluene-d3	500	510.451	102	
2-Amino-4,6-dinitrotoluene	600	614.276	102	
3,4-Dinitrotoluene	300	313.494	104	
4-Amino-2,6-dinitrotoluene	600	595.541	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412060a
Date: 13-Apr-2010
Time: 20:41:14
ID: WXX100412-07CCV
Vial: 1:1,B

MJT 4/14/10

HMX

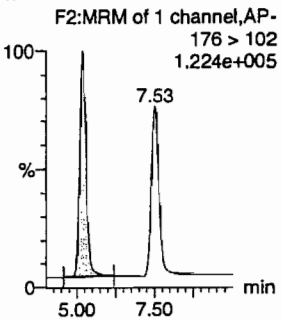

RDX

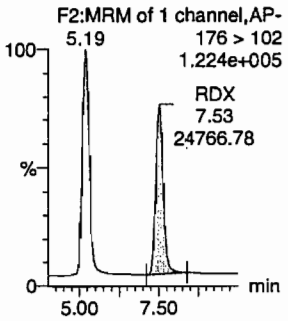

135-Trinitrobenzene

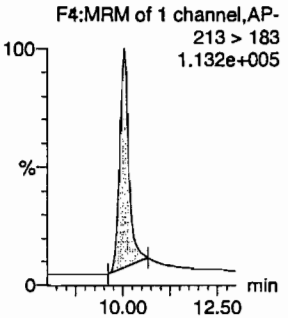

13-Dinitrobenzene-d4

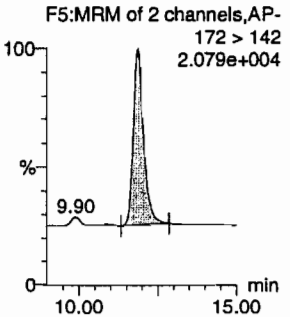

13-Dinitrobenzene

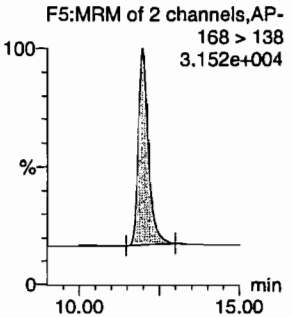

Tetryl

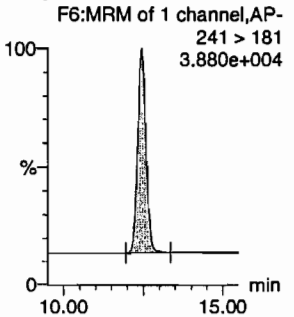

Nitrobenzene

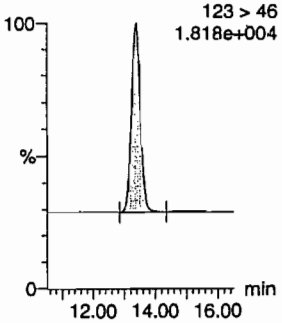

4-Amino-26-dinitrotoluene

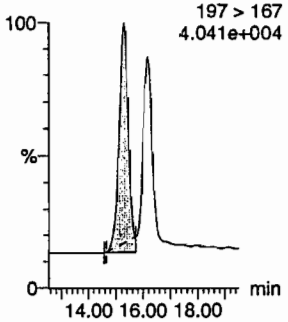

2-Amino-46-dinitrotoluene

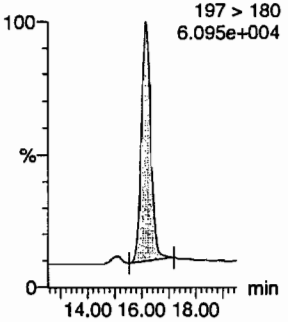

246-Trinitrotoluene

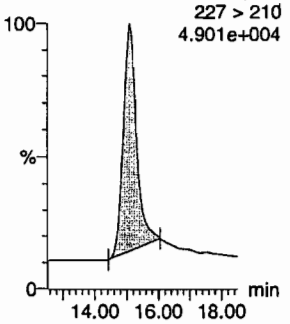

34-dinitrotoluene

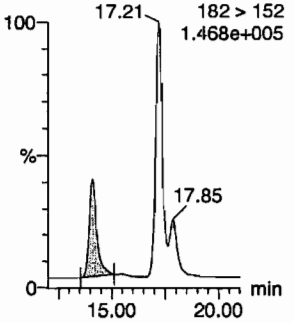

Hmw 04/14/10

26-dinitrotoluene

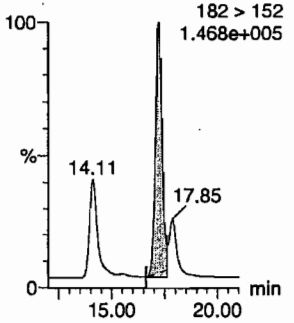

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

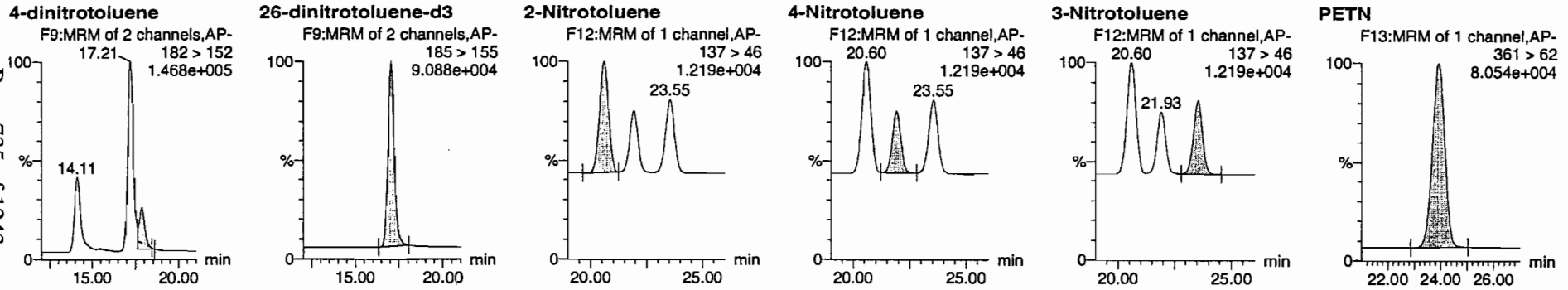

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
VXX100412-07CCV	HMX	176 > 102	5.19	30471.305	5879.997	30471.305	2591.099	bb			611.3005	101.9	1.9	4888.6
VXX100412-07CCV	RDX	176 > 102	7.53	24766.781	5879.997	24766.781	2106.020	bb			735.8043	122.6	22.6	3663.0
VXX100412-07CCV	135-Trinitrobenzene	213 > 183	10.03	30469.059	5879.997	30469.059	2590.908	bb			599.3338	99.9	-0.1	527.0
VXX100412-07CCV	13-Dinitrobenzene-d4	172 > 142	11.86	5879.997		5879.997	5879.997	bb			499.9688	100.0	-0.0	312.1
VXX100412-07CCV	13-Dinitrobenzene	168 > 138	11.97	9594.861	5879.997	9594.861	815.890	bb			610.2076	101.7	1.7	589.3
VXX100412-07CCV	Tetryl	241 > 181	12.45	10196.647	5879.997	10196.647	867.062	bb			668.8885	111.5	11.5	797.0
VXX100412-07CCV	Nitrobenzene	123 > 46	13.39	4491.814	5879.997	4491.814	381.957	bb			608.8941	101.5	1.5	423.9
VXX100412-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.31	14368.022	35714.422	14368.022	201.152	MM	14-Apr-10	09:10:06	595.5413	99.3	-0.7	278.9
VXX100412-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.18	22473.705	35714.422	22473.705	314.631	bb			614.2762	102.4	2.4	791.6
VXX100412-07CCV	246-Trinitrotoluene	227 > 210	15.09	20522.861	35714.422	20522.861	287.319	bb			660.4534	110.1	10.1	1440.2
VXX100412-07CCV	34-dinitrotoluene	182 > 152	14.11	23089.531	35714.422	23089.531	323.252	bb			313.4938	104.5	4.5	574.1
VXX100412-07CCV	26-dinitrotoluene	182 > 152	17.21	51760.656	35714.422	51760.656	724.646	MM	14-Apr-10	09:12:05	612.2713	102.0	2.0	1480.7
VXX100412-07CCV	24-dinitrotoluene	182 > 152	17.85	12755.632	35714.422	12755.632	178.578	MM	14-Apr-10	09:15:11	684.1974	114.0	14.0	325.1
VXX100412-07CCV	26-dinitrotoluene-d3	185 > 155	17.04	35714.422		35714.422	35714.422	bb			510.4514	102.1	2.1	1565.0
VXX100412-07CCV	2-Nitrotoluene	137 > 46	20.60	3260.543	35714.422	3260.543	45.647	bb			527.1784	87.9	-12.1	489.2
VXX100412-07CCV	4-Nitrotoluene	137 > 46	21.93	1692.219	35714.422	1692.219	23.691	bb			571.1507	95.2	-4.8	274.5
VXX100412-07CCV	3-Nitrotoluene	137 > 46	23.55	2143.889	35714.422	2143.889	30.014	bb			514.8077	85.8	-14.2	326.3
VXX100412-07CCV	PETN	361 > 62	23.93	40593.559	35714.422	40593.559	568.308	bb			646.4009	107.7	7.7	8856.6

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/13/10
Time of Injection: 2041
Standard Number: WXX100412-07CCV
Data File: EXP0412060a

HMX	101.9
RDX	122.6
135-TNB	99.9
13-DNB	101.7
Tetryl	111.5
Nitrobenzene	101.5
4A-26-DNT	99.3
2A-46-DNT	102.4
246-TNT	110.1
34-DNT(surr)	104.5
26-DNT	102.0
24-DNT	114.0
2-NT	87.9
4-NT	95.2
3-NT	85.8
PETN	107.7
Total	1648.0
Average	103.0

MMT 4/14/10

Hmm 04/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2039

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412062a

Analysis Date: 13-APR-10 21:40

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	44.068	110	
1,3-Dinitrobenzene-d4	500	557.026	111	
2,4,6-Trinitrotoluene	40	47.263	118	
2,4-Dinitrotoluene	40	43.24	108	
2,6-Dinitrotoluene	40	42.432	106	
2,6-Dinitrotoluene-d3	500	543.492	109	
2-Amino-4,6-dinitrotoluene	40	41.373	103	
3,4-Dinitrotoluene	20	20.458	102	
4-Amino-2,6-dinitrotoluene	40	42.964	107	
HMX	40	45.559	114	
Nitrobenzene	40	43.255	108	
PETN	40	44.881	112	
RDX	40	44.011	110	
Tetryl	40	38.121	95	
m-Dinitrobenzene	40	42.827	107	
m-Nitrotoluene	40	31.848	80	
o-Nitrotoluene	40	44.099	110	
p-Nitrotoluene	40	40.569	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412062a
Date: 13-Apr-2010
Time: 21:40:18
ID: WXX100412-08CRI
Vial: 1:1,C

MT 4/14/10

HMX

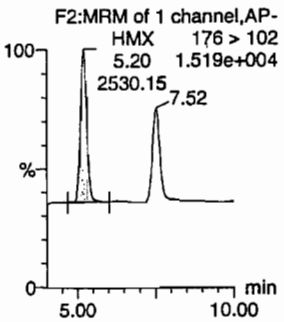

RDX

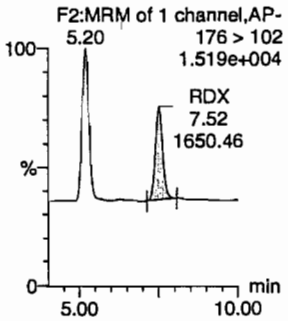

135-Trinitrobenzene

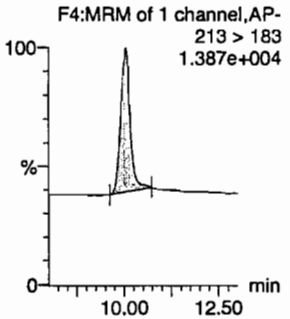

13-Dinitrobenzene-d4

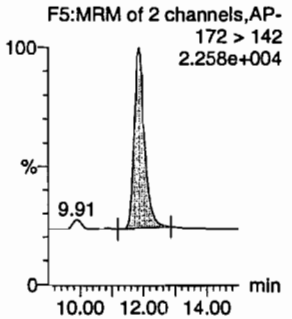

13-Dinitrobenzene

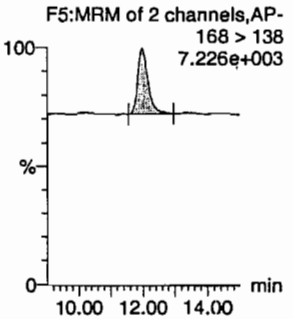

Tetryl

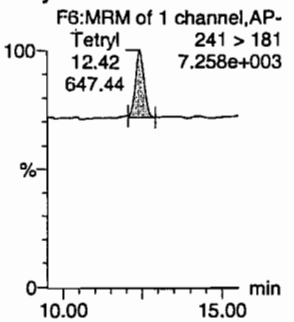

Nitrobenzene

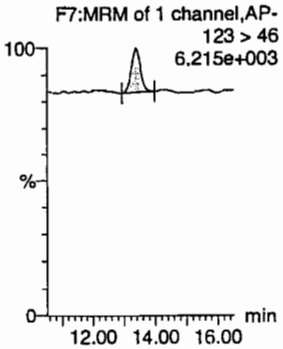

4-Amino-26-dinitrotoluene

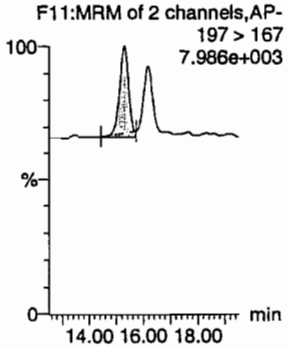

2-Amino-46-dinitrotoluene

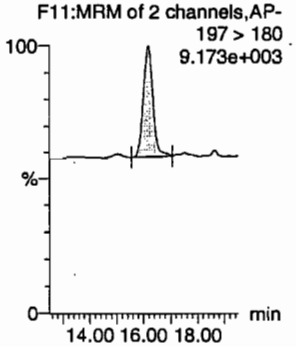

246-Trinitrotoluene

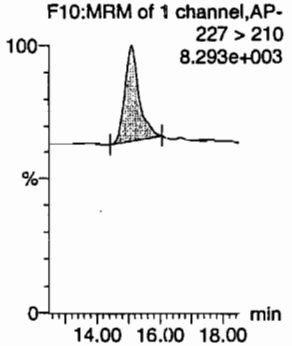

34-dinitrotoluene

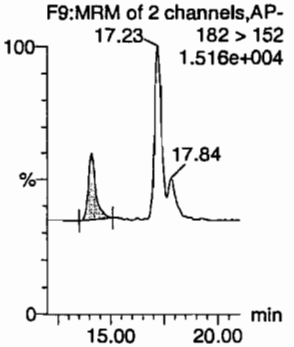

26-dinitrotoluene

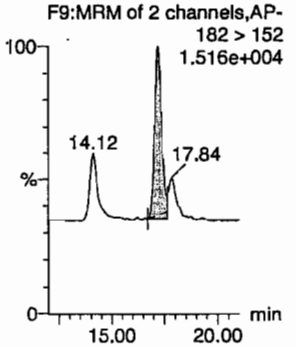

Hmm 04/14/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

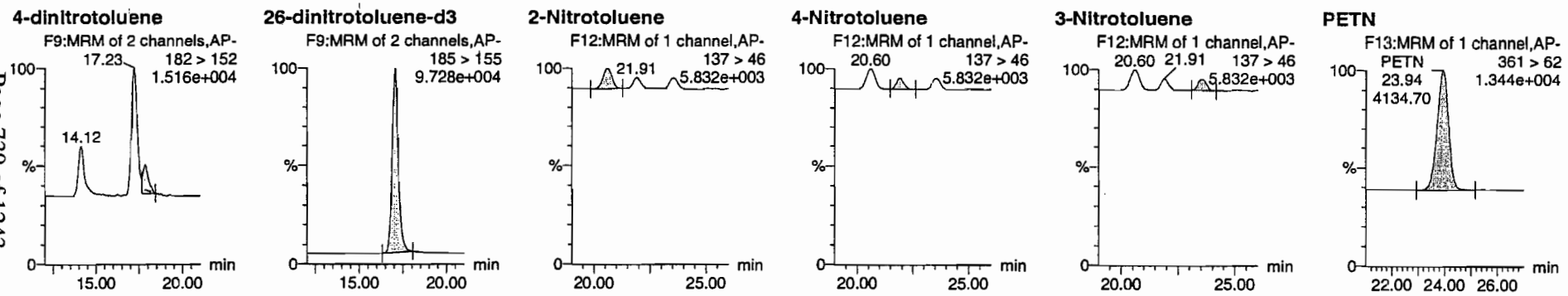

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
WXX100412-08CRI	HMX	176 > 102	5.20	2530.148	6551.026	2530.148	193.111	bb			45.5593	113.9	13.9	260.0
WXX100412-08CRI	RDX	176 > 102	7.52	1650.456	6551.026	1650.456	125.969	bb			44.0113	110.0	10.0	158.1
WXX100412-08CRI	135-Trinitrobenzene	213 > 183	10.05	2495.999	6551.026	2495.999	190.504	bb			44.0679	110.2	10.2	102.3
WXX100412-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	6551.026		6551.026	6551.026	bb			557.0256	111.4	11.4	567.3
WXX100412-08CRI	13-Dinitrobenzene	168 > 138	11.97	750.260	6551.026	750.260	57.263	bb			42.8271	107.1	7.1	65.8
WXX100412-08CRI	Tetryl	241 > 181	12.42	647.438	6551.026	647.438	49.415	db			38.1208	95.3	-4.7	95.8
WXX100412-08CRI	Nitrobenzene	123 > 46	13.37	355.510	6551.026	355.510	27.134	bb			43.2553	108.1	8.1	41.0
WXX100412-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.28	1103.634	38026.156	1103.634	14.512	MM	14-Apr-10	09:09:52	42.9637	107.4	7.4	52.5
WXX100412-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.16	1611.644	38026.156	1611.644	21.191	bb			41.3732	103.4	3.4	158.1
WXX100412-08CRI	246-Trinitrotoluene	227 > 210	15.10	1563.702	38026.156	1563.702	20.561	bb			47.2628	118.2	18.2	169.3
WXX100412-08CRI	34-dinitrotoluene	182 > 152	14.12	1604.344	38026.156	1604.344	21.095	bb			20.4584	102.3	2.3	75.6
WXX100412-08CRI	26-dinitrotoluene	182 > 152	17.23	3819.371	38026.156	3819.371	50.220	MM	14-Apr-10	09:12:11	42.4324	106.1	6.1	195.8
WXX100412-08CRI	24-dinitrotoluene	182 > 152	17.84	858.314	38026.156	858.314	11.286	MM	14-Apr-10	09:14:59	43.2401	108.1	8.1	43.5
WXX100412-08CRI	26-dinitrotoluene-d3	185 > 155	17.05	38026.156		38026.156	38026.156	bb			543.4920	108.7	8.7	2125.4
WXX100412-08CRI	2-Nitrotoluene	137 > 46	20.60	290.400	38026.156	290.400	3.818	bb			44.0987	110.2	10.2	85.6
WXX100412-08CRI	4-Nitrotoluene	137 > 46	21.91	127.979	38026.156	127.979	1.683	bb			40.5690	101.4	1.4	45.5
WXX100412-08CRI	3-Nitrotoluene	137 > 46	23.55	141.213	38026.156	141.213	1.857	bb			31.8477	79.6	-20.4	45.1
WXX100412-08CRI	PETN	361 > 62	23.94	4134.703	38026.156	4134.703	54.367	bb			44.8806	112.2	12.2	1420.3

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/13/10
Time of Injection	2140
Standard Number	WXX100412-08CRI
Data File	EXP0412062a

HMX	113.9
RDX	110.0
135-TNB	100.2
13-DNB	107.1
Tetryl	95.3
Nitrobenzene	108.1
4A-26-DNT	107.4
2A-46-DNT	103.4
246-TNT	118.2
34-DNT(surr)	102.3
26-DNT	106.1
24-DNT	108.1
2-NT	110.2
4-NT	101.4
3-NT	79.6
PETN	112.2
Total	1683.5
Average	105.2

MT 4/14/10

HMC 04/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412073a

Analysis Date: 14–APR–10 03:04

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	472.089	79	*
1,3–Dinitrobenzene–d4	500	626.494	125	*
2,4,6–Trinitrotoluene	600	708.507	118	
2,4–Dinitrotoluene	600	663.973	111	
2,6–Dinitrotoluene	600	597.091	100	
2,6–Dinitrotoluene–d3	500	580.114	116	
2–Amino–4,6–dinitrotoluene	600	639.825	107	
3,4–Dinitrotoluene	300	311.029	104	
4–Amino–2,6–dinitrotoluene	600	618.565	103	
HMX	600	509.641	85	
Nitrobenzene	600	538.682	90	
PETN	600	487.21	81	
RDX	600	549.332	92	
Tetryl	600	547.985	91	
m–Dinitrobenzene	600	597.924	100	
m–Nitrotoluene	600	459.65	77	*
o–Nitrotoluene	600	486.57	81	
p–Nitrotoluene	600	543.675	91	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

lame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412073a
ate: 14-Apr-2010
ime: 03:04:45
D: WXX100412-07CCV
ial: 1:1,B

MM 4/14/10

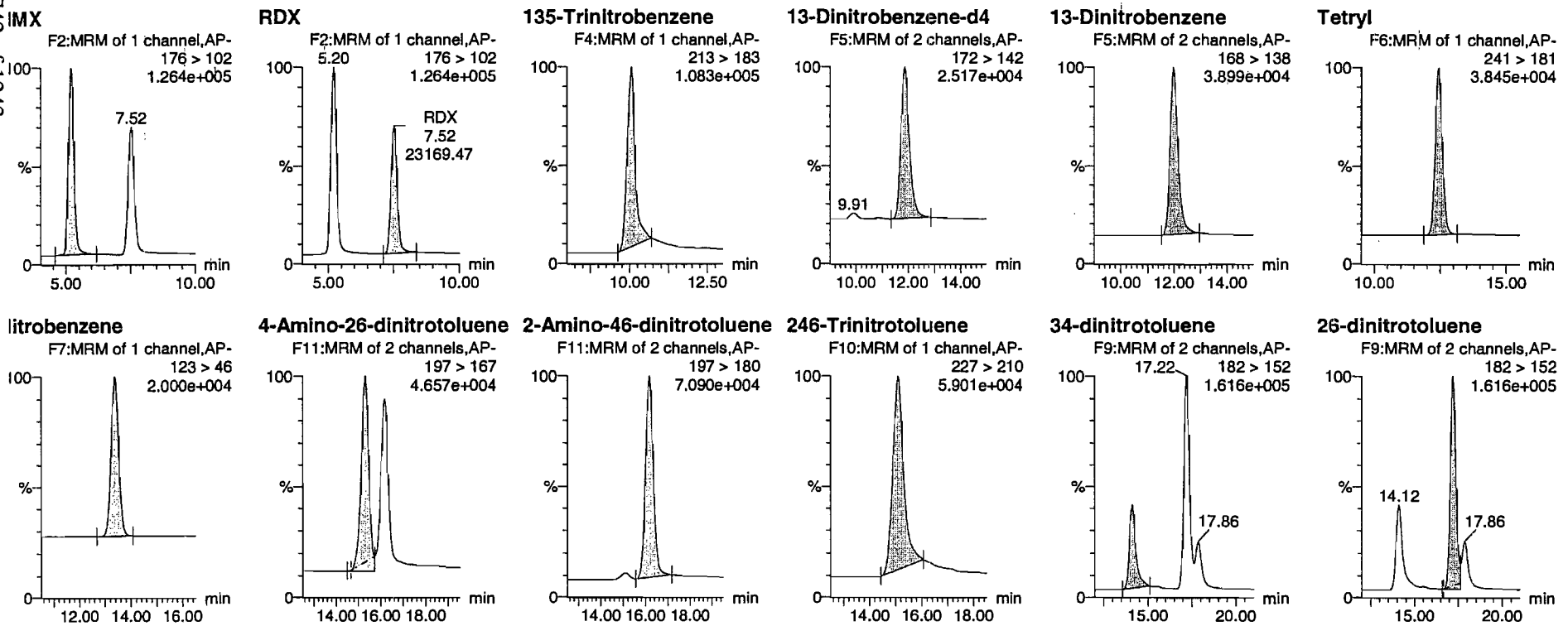

HMW 04/14/10

iEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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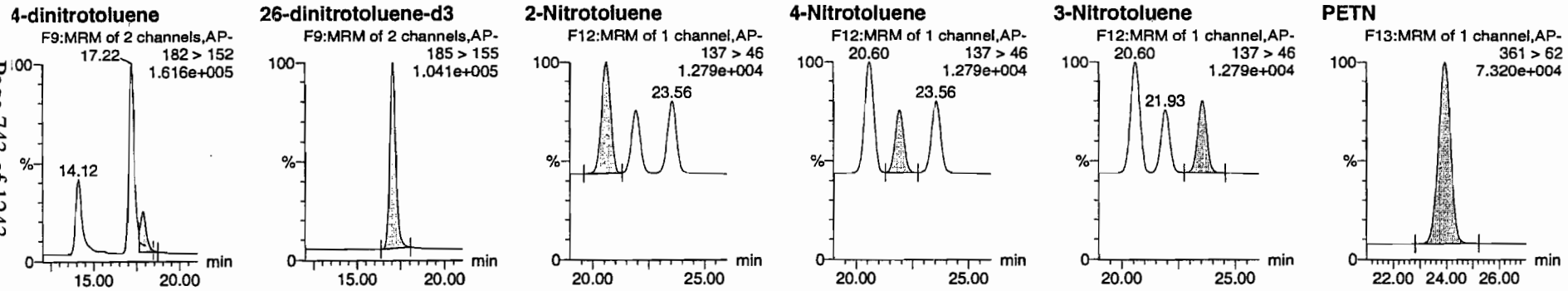

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
VXX100412-07CCV	HMX	176 > 102	5.20	31832.770	7368.023	31832.770	2160.198	bb			509.6409	84.9	-15.1	1916.2
VXX100412-07CCV	RDX	176 > 102	7.52	23169.469	7368.023	23169.469	1572.299	bb			549.3321	91.6	-8.4	1306.0
VXX100412-07CCV	135-Trinitrobenzene	213 > 183	10.05	30073.756	7368.023	30073.756	2040.829	bb			472.0886	78.7	-21.3	986.1
VXX100412-07CCV	13-Dinitrobenzene-d4	172 > 142	11.87	7368.023		7368.023	7368.023	bb			626.4938	125.3	25.3	1409.6
VXX100412-07CCV	13-Dinitrobenzene	168 > 138	11.97	11780.970	7368.023	11780.970	799.466	bb			597.9242	99.7	-0.3	1288.9
VXX100412-07CCV	Tetryl	241 > 181	12.45	10467.578	7368.023	10467.578	710.338	bb			547.9850	91.3	-8.7	772.4
VXX100412-07CCV	Nitrobenzene	123 > 46	13.37	4979.505	7368.023	4979.505	337.913	bb			538.6818	89.8	-10.2	292.9
VXX100412-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.32	16960.145	40588.496	16960.145	208.928	MM	14-Apr-10	09:09:15	618.5647	103.1	3.1	633.7
VXX100412-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.16	26603.059	40588.496	26603.059	327.717	bb			639.8251	106.6	6.6	986.9
VXX100412-07CCV	246-Trinitrotoluene	227 > 210	15.10	25020.701	40588.496	25020.701	308.224	bb			708.5074	118.1	18.1	796.5
VXX100412-07CCV	34-dinitrotoluene	182 > 152	14.12	26034.324	40588.496	26034.324	320.711	bb			311.0290	103.7	3.7	890.6
VXX100412-07CCV	26-dinitrotoluene	182 > 152	17.22	57366.180	40588.496	57366.180	706.680	MM	14-Apr-10	09:13:05	597.0912	99.5	-0.5	2275.1
VXX100412-07CCV	24-dinitrotoluene	182 > 152	17.86	14067.942	40588.496	14067.942	173.300	MM	14-Apr-10	09:13:38	663.9733	110.7	10.7	492.2
VXX100412-07CCV	26-dinitrotoluene-d3	185 > 155	17.05	40588.496		40588.496	40588.496	bb			580.1145	116.0	16.0	2359.9
VXX100412-07CCV	2-Nitrotoluene	137 > 46	20.60	3420.089	40588.496	3420.089	42.131	bb			486.5704	81.1	-18.9	455.8
VXX100412-07CCV	4-Nitrotoluene	137 > 46	21.93	1830.648	40588.496	1830.648	22.551	bb			543.6754	90.6	-9.4	255.7
VXX100412-07CCV	3-Nitrotoluene	137 > 46	23.56	2175.422	40588.496	2175.422	26.799	bb			459.6496	76.6	-23.4	292.3
VXX100412-07CCV	PETN	361 > 62	23.94	36350.066	40588.496	36350.066	447.788	bb			487.2104	81.2	-18.8	8314.8

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/14/10
Time of Injection: 0304
Standard Number: WXX100412-07CCV
Data File: EXP0412073a

HMX		84.9
RDX		91.6
135-TNB		78.7
13-DNB		99.7
Tetryl		91.3
Nitrobenzene		89.8
4A-26-DNT		103.1
2A-46-DNT		106.6
246-TNT		118.1
34-DNT(surr)		103.7
26-DNT		99.5
24-DNT		110.7
2-NT		81.1
4-NT		90.6
3-NT		76.6
PETN		81.2
Total		1507.2
Average		94.2

MST 4/14/10

HMM 04/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412075a

Analysis Date: 14–APR–10 04:03

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4–Dinitrotoluene	40	41.479	104	
2,6–Dinitrotoluene	40	42.183	105	
2,6–Dinitrotoluene–d3	500	507.877	102	
2–Amino–4,6–dinitrotoluene	40	34.458	86	
3,4–Dinitrotoluene	20	20.138	101	
4–Amino–2,6–dinitrotoluene	40	39.725	99	
HMX	40	43.75	109	
Nitrobenzene	40	38.532	96	
PETN	40	44.475	111	
RDX	40	45.796	114	
Tetryl	40	45.012	113	
m–Dinitrobenzene	40	43.704	109	
m–Nitrotoluene	40	41.256	103	
o–Nitrotoluene	40	41.975	105	
p–Nitrotoluene	40	32.405	81	
1,3,5–Trinitrobenzene	40	45.32	113	
1,3–Dinitrobenzene–d4	500	496.282	99	
2,4,6–Trinitrotoluene	40	44.024	110	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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Date: 14-Apr-2010
Time: 04:03:43
ID: WXX100412-08CRI
Vial: 1:1,C

MATT 4/14/10

HMX

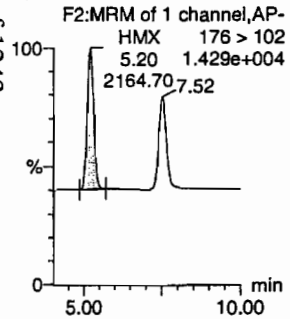

RDX

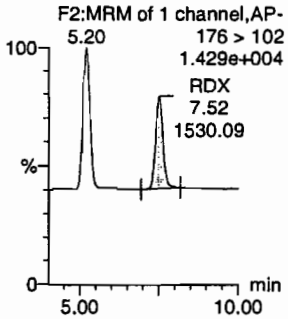

135-Trinitrobenzene

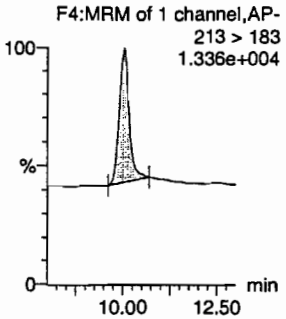

13-Dinitrobenzene-d4

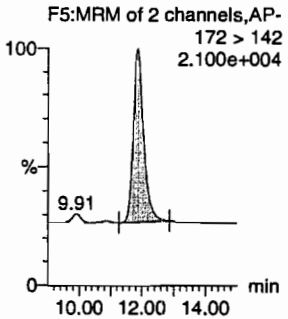

13-Dinitrobenzene

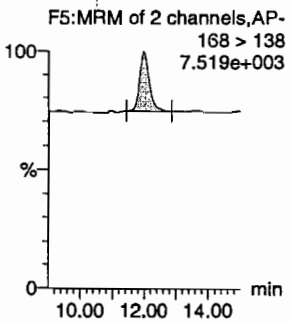

Tetryl

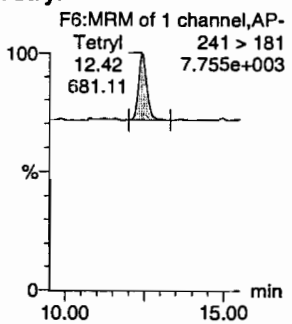

Nitrobenzene

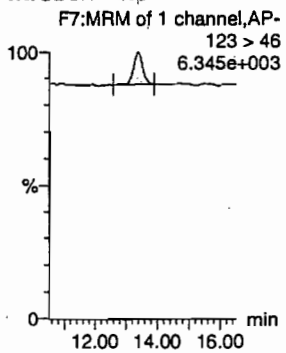

4-Amino-26-dinitrotoluene

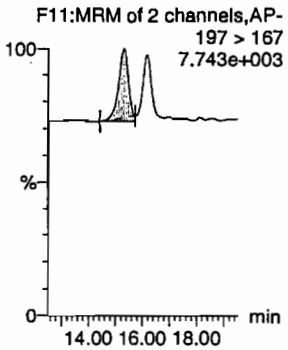

2-Amino-46-dinitrotoluene

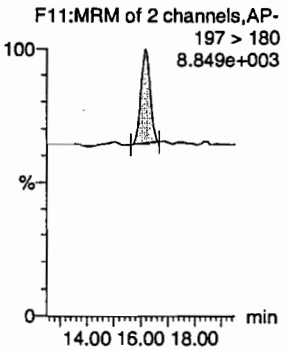

246-Trinitrotoluene

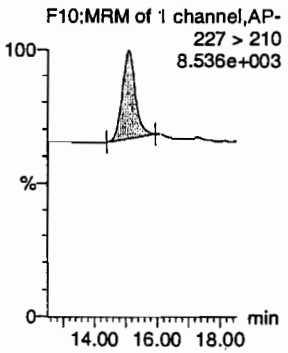

34-dinitrotoluene

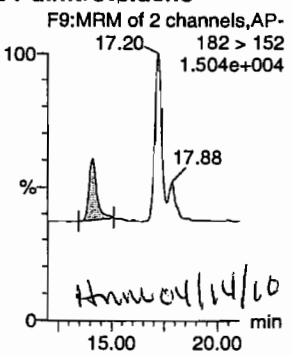

HMM 04/14/10

26-dinitrotoluene

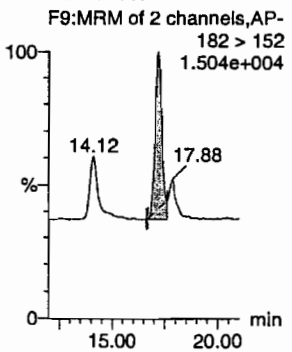

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

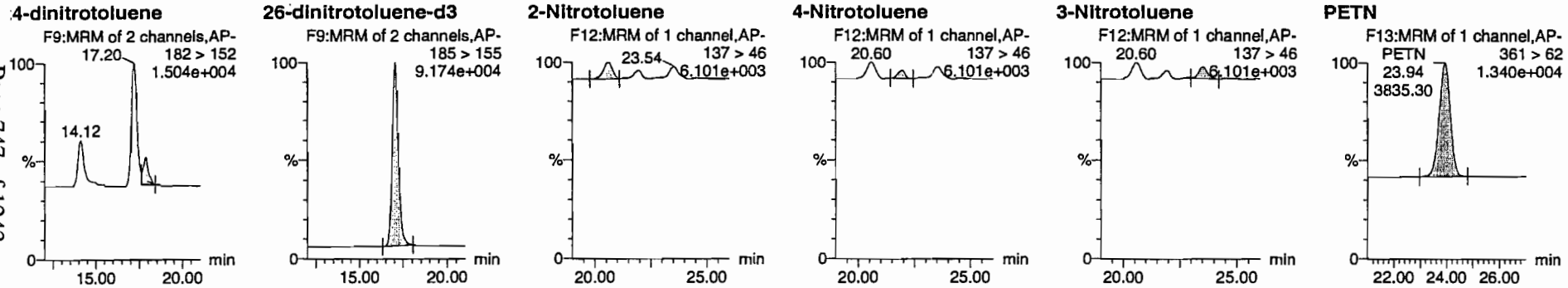

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100412-08CRI	HMX	176 > 102	5.20	2164.698	5836.638	2164.698	185.440	bb			43.7497	109.4	9.4	227.3
WXX100412-08CRI	RDX	176 > 102	7.52	1530.086	5836.638	1530.086	131.076	bb			45.7955	114.5	14.5	146.7
WXX100412-08CRI	135-Trinitrobenzene	213 > 183	10.05	2287.016	5836.638	2287.016	195.919	bb			45.3204	113.3	13.3	203.2
WXX100412-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	5836.638		5836.638	5836.638	bb			496.2820	99.3	-0.7	961.4
WXX100412-08CRI	13-Dinitrobenzene	168 > 138	11.97	682.124	5836.638	682.124	58.435	bb			43.7035	109.3	9.3	83.6
WXX100412-08CRI	Tetryl	241 > 181	12.42	681.107	5836.638	681.107	58.348	bb			45.0118	112.5	12.5	100.8
WXX100412-08CRI	Nitrobenzene	123 > 46	13.37	282.153	5836.638	282.153	24.171	bb			38.5318	96.3	-3.7	23.5
WXX100412-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.32	953.577	35534.277	953.577	13.418	MM	14-Apr-10	09:09:02	39.7253	99.3	-0.7	57.5
WXX100412-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.16	1254.325	35534.277	1254.325	17.650	bb			34.4584	86.1	-13.9	90.0
WXX100412-08CRI	246-Trinitrotoluene	227 > 210	15.10	1361.084	35534.277	1361.084	19.152	bb			44.0236	110.1	10.1	47.0
WXX100412-08CRI	34-dinitrotoluene	182 > 152	14.12	1475.733	35534.277	1475.733	20.765	bb			20.1381	100.7	0.7	71.1
WXX100412-08CRI	26-dinitrotoluene	182 > 152	17.20	3548.120	35534.277	3548.120	49.925	MM	14-Apr-10	09:13:15	42.1831	105.5	5.5	195.5
WXX100412-08CRI	24-dinitrotoluene	182 > 152	17.88	769.393	35534.277	769.393	10.826	MM	14-Apr-10	09:13:26	41.4786	103.7	3.7	43.1
WXX100412-08CRI	26-dinitrotoluene-d3	185 > 155	17.05	35534.277		35534.277	35534.277	bb			507.8766	101.6	1.6	2476.2
WXX100412-08CRI	2-Nitrotoluene	137 > 46	20.60	258.301	35534.277	258.301	3.635	bb			41.9749	104.9	4.9	51.8
WXX100412-08CRI	4-Nitrotoluene	137 > 46	21.97	95.525	35534.277	95.525	1.344	bb			32.4046	81.0	-19.0	24.9
WXX100412-08CRI	3-Nitrotoluene	137 > 46	23.54	170.943	35534.277	170.943	2.405	bb			41.2563	103.1	3.1	35.7
WXX100412-08CRI	PETN	361 > 62	23.94	3835.305	35534.277	3835.305	53.966	bb			44.4749	111.2	11.2	290.1

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/14/10
Time of Injection	0403
Standard Number	WXX100412-08CRI
Data File	EXP0412075a

HMX		109.4
RDX		114.5
135-TNB		113.3
13-DNB		109.3
Tetryl		112.5
Nitrobenzene		96.3
4A-26-DNT		99.3
2A-46-DNT		86.1
246-TNT		110.1
34-DNT(surr)		100.7
26-DNT		105.5
24-DNT		103.7
2-NT		104.9
4-NT		81.0
3-NT		103.1
PETN		111.2
Total		1660.9
Average		103.8

MTT 4/14/10

4/14/10 04/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04050013.wiff

Analysis Date: 05–APR–10 15:54

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	121	121	
2,6–Diamino–4–nitrotoluene	100	128	128	
3,4–Dinitrotoluene	50	58.4	117	
3,5–Dinitroaniline	100	118	118	
TATB	100	103	103	
tris(o–cresyl) phosphate	100	116	116	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

LCW 4/7/10

mple Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050013.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 103. ng/mL
Date: 4/5/2010
Time: 3:54:18 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.86 min
Relative RT: No

Type: Valley
ntion Time: 6.85 min
: 7.33e+004 counts
ht: 16694.073 cps
t Time: 6.76 min
Time: 7.32 min

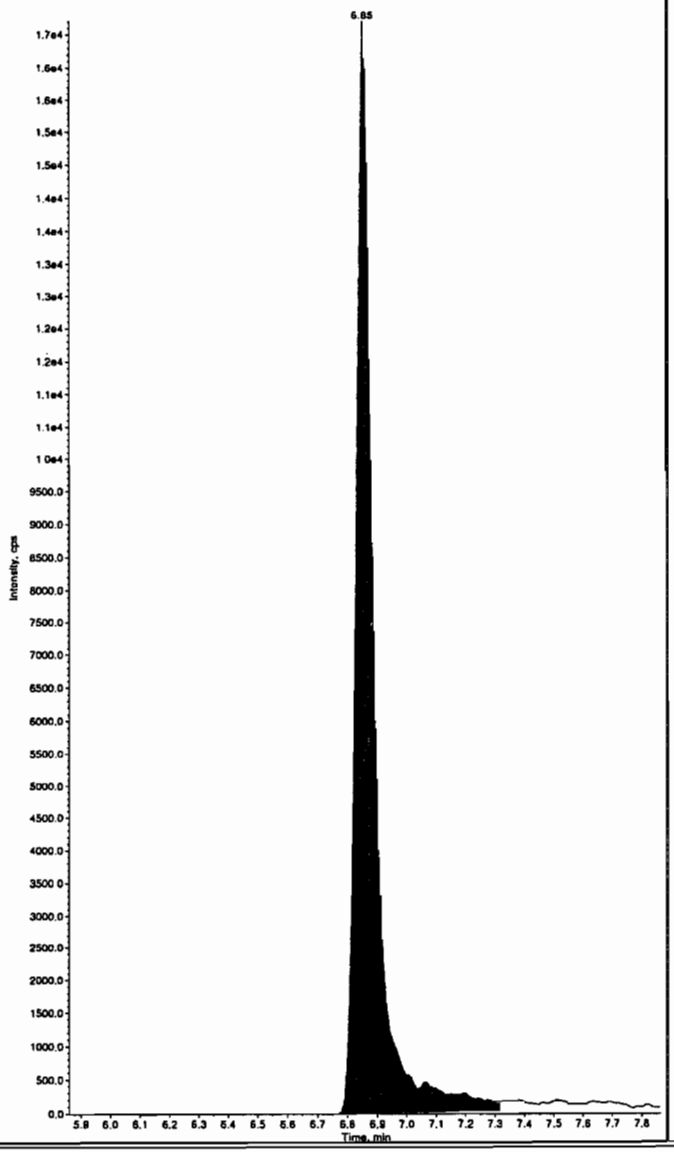

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 118. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 3:54:18 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.09 min
Area: 7.60e+005 counts
Height: 187125.595 cps
Start Time: 7.96 min
End Time: 8.23 min

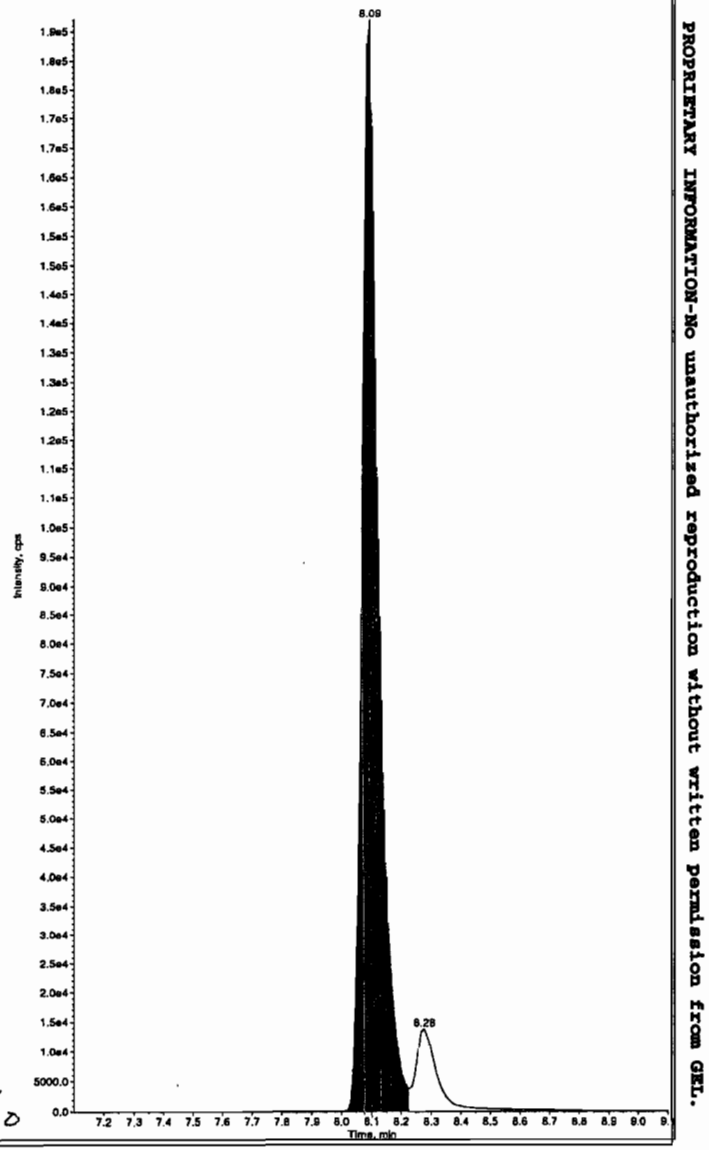

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nple Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050013.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 50.0 ng/mL
ulated Conc: 58.4 ng/mL
Date: 4/5/2010
Time: 3:54:18 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.28 min
Relative RT: No

Type: Valley
ation Time: 8.27 min
: 4.47e+005 counts
ht: 116610.817 cps
c Time: 8.20 min
Time: 8.60 min

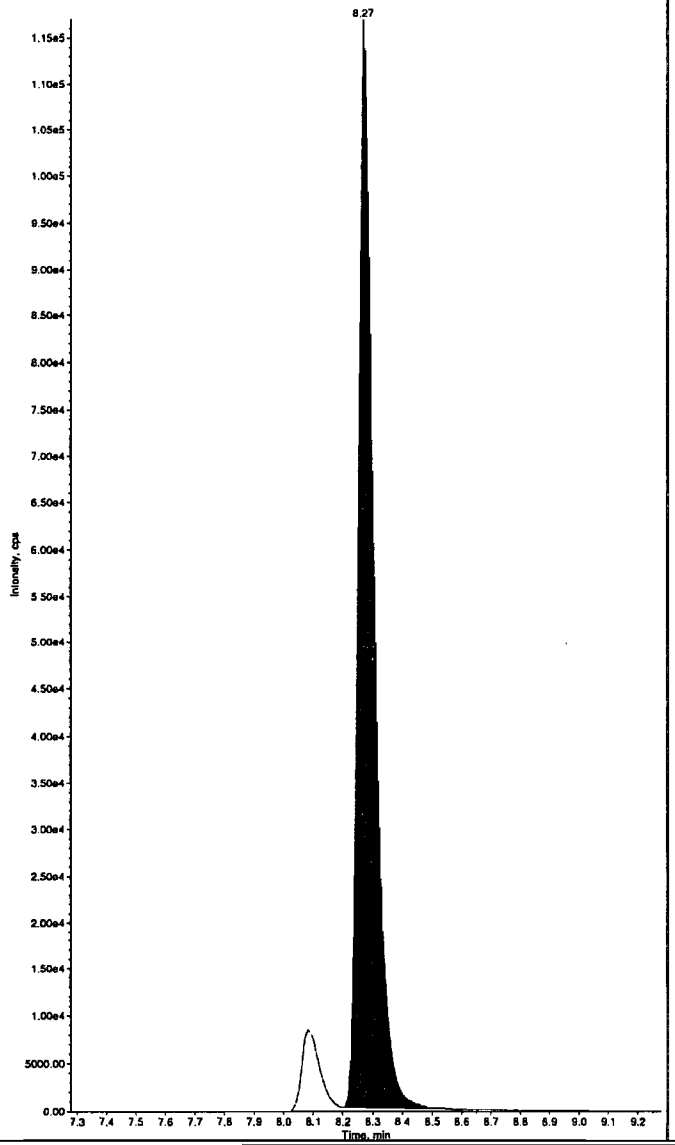

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 128. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 3:54:18 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.92 min
Area: 3.01e+005 counts
Height: 69398.758 cps
Start Time: 4.82 min
End Time: 5.21 min

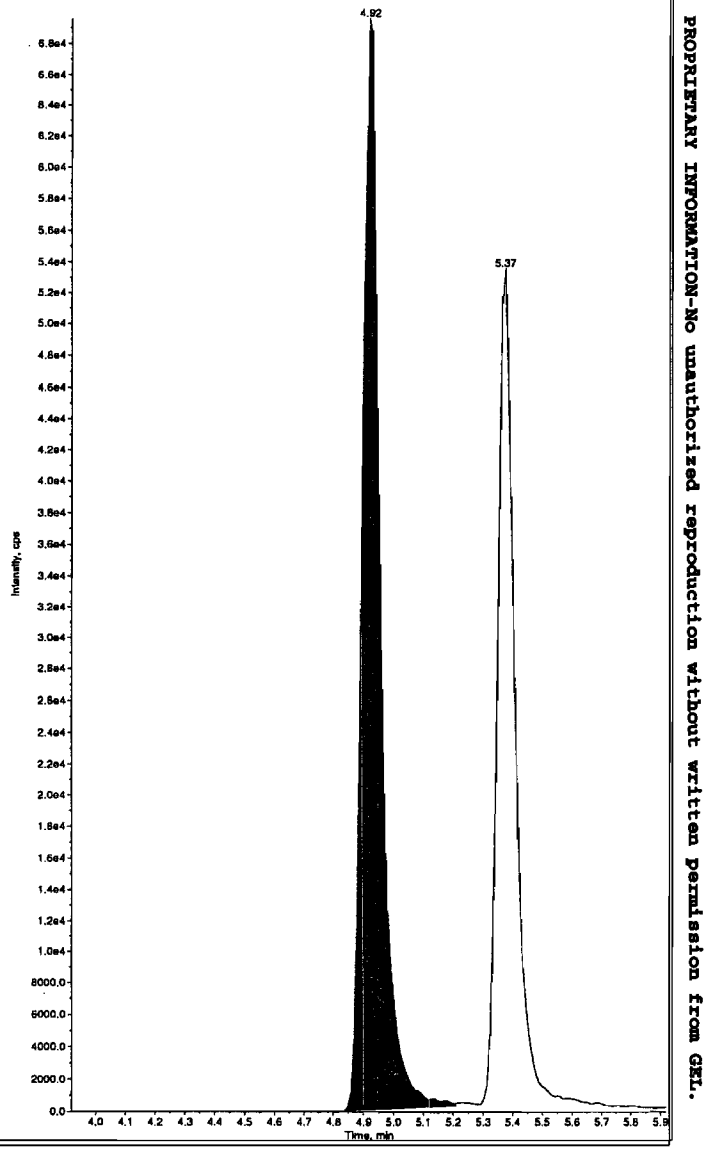

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mple Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050013.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:        1
ple Type:          QC
entration:       100.    ng/mL
culated Conc:    121.    ng/mL
 Date:        4/5/2010
 Time:        3:54:18 PM

fied:              No
. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00   cps
 Peak Width:    0.00   sec
thing Width:  3       points
indow:          30.0   sec
cted RT:         5.37  min
 Relative RT:    No

 Type:          Valley
ntion Time:      5.37  min
:            2.25e+005  counts
ht:          53163.490  cps
t Time:          5.29  min
Time:            5.88  min
```

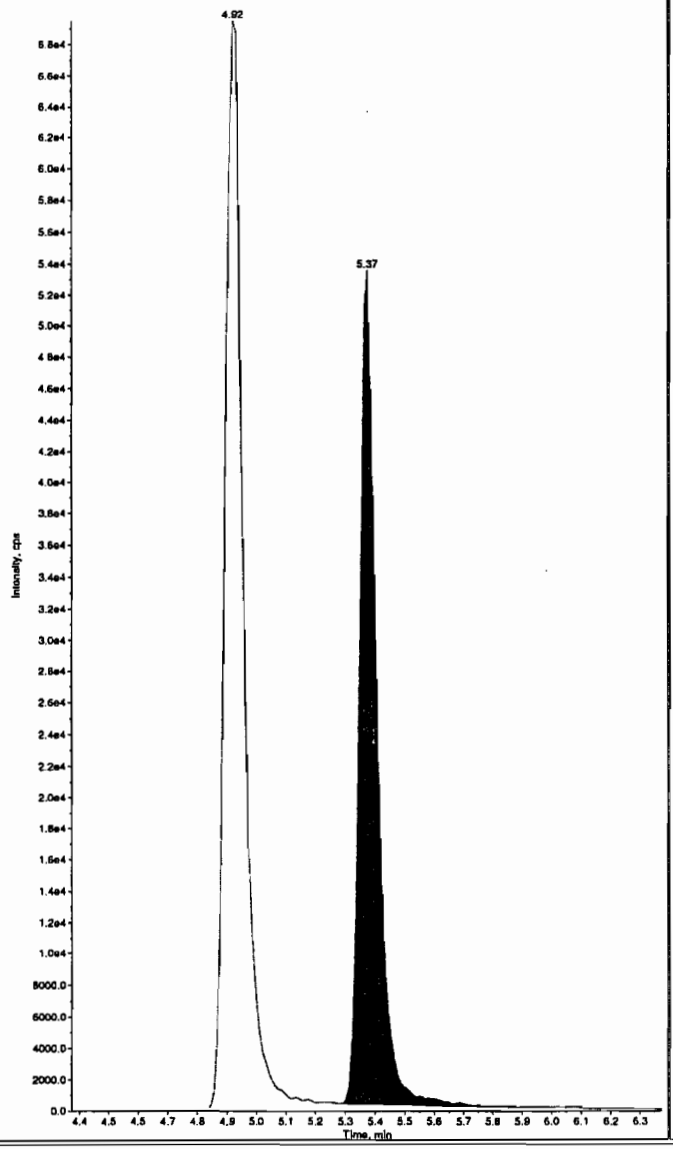

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:          QC
Concentration:       100.    ng/mL
Calculated Conc:     116.    ng/mL
Acq. Date:        4/5/2010
Acq. Time:        3:54:18 PM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:          30.0   sec
Expected RT:        10.8   min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.8   min
Area:          2.10e+006  counts
Height:        514259.460  cps
Start Time:         10.7   min
End Time:           11.1   min
```

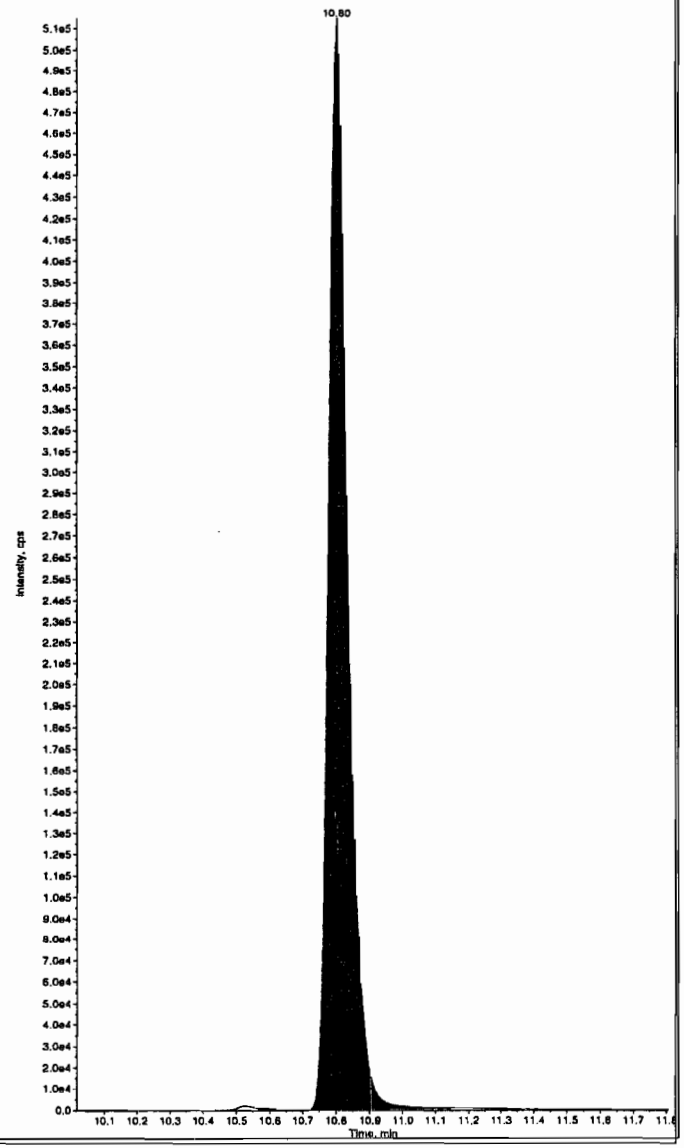

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04050024.wiff

Analysis Date: 05–APR–10 18:47

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
3,4–Dinitrotoluene	250	233	93	
3,5–Dinitroaniline	500	503	101	
TATB	500	470	94	
tris(o–cresyl) phosphate	500	487	97	
2,4–Diamino–6–nitrotoluene	500	458	92	
2,6–Diamino–4–nitrotoluene	500	468	94	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Lea 4/7/10

mple Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050024.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 500. ng/mL
culated Conc: 470. ng/mL
Date: 4/5/2010
Time: 6:47:03 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.86 min
Relative RT: No

Type: Valley
ntion Time: 6.87 min
: 3.74e+005 counts
ht: 83803.894 cps
t Time: 6.78 min
Time: 7.70 min

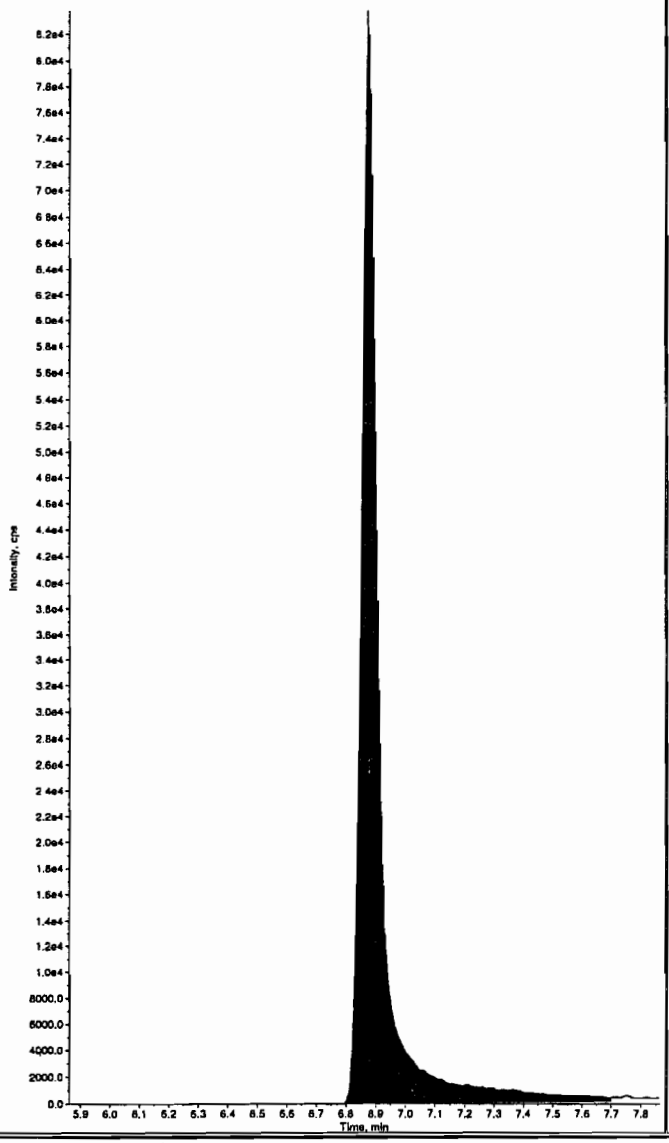

Sample Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 488. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 6:47:03 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.10 min
Area: 3.24e+006 counts
Height: 825998.291 cps
Start Time: 8.03 min
End Time: 8.24 min

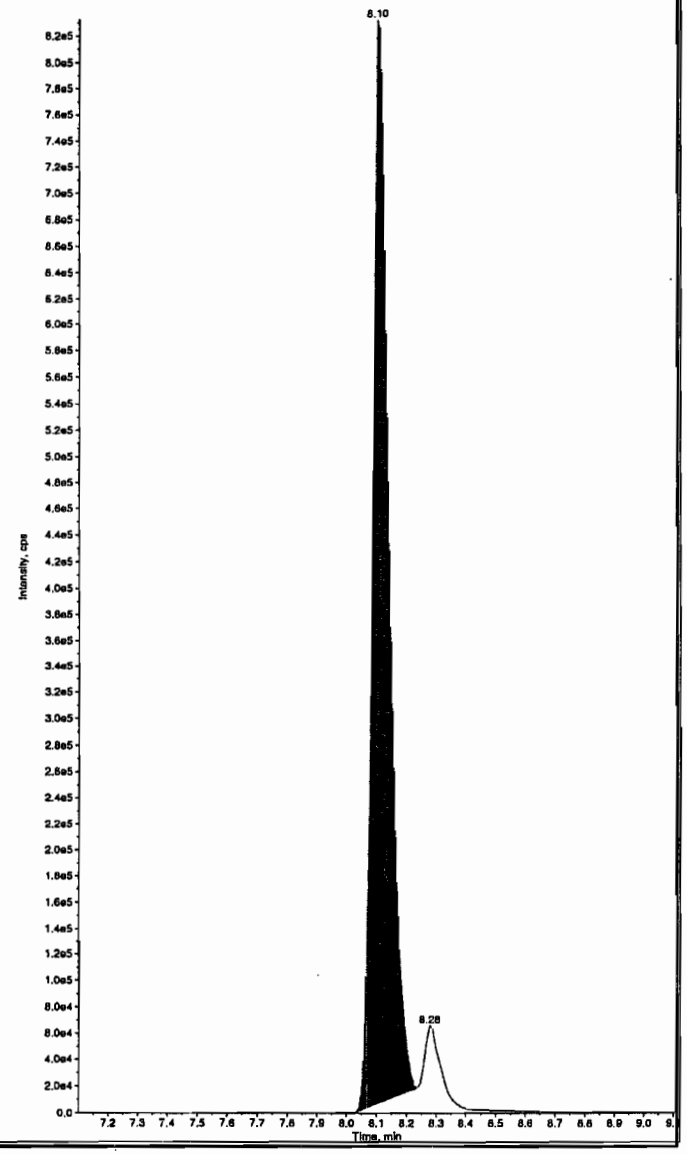

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:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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after Lan 4/7/10

ample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050024.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	500.	ng/mL
culated Conc:	470.	ng/mL
Date:	4/5/2010	
Time:	6:47:03 PM	
fied:	No	
:. Algorithm:	IntelliQuan - IQA	
Peak Height:	2500.00	cps
Peak Width:	0.00	sec
thing Width:	3	points
Window:	30.0	sec
cted RT:	6.86	min
Relative RT:	No	
Type:	Valley	
ntion Time:	6.87	min
:	3.74e+005	counts
ht:	83803.894	cps
t Time:	6.78	min
Time:	7.70	min

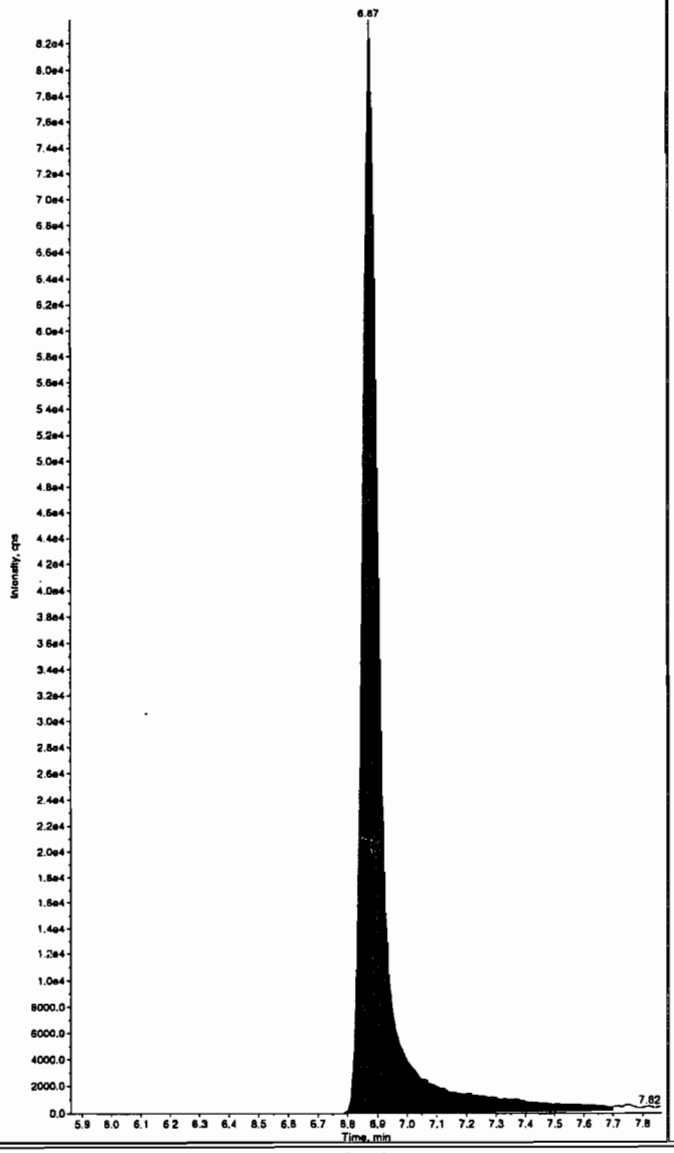

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	503.	ng/mL
Acq. Date:	4/5/2010	
Acq. Time:	6:47:03 PM	
Modified:	Yes	
RT Window:	15.0	sec
Expected RT:	8.10	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	8.11	min
Area:	3.34e+006	counts
Height:	853504.468	cps
Start Time:	8.03	min
End Time:	8.24	min

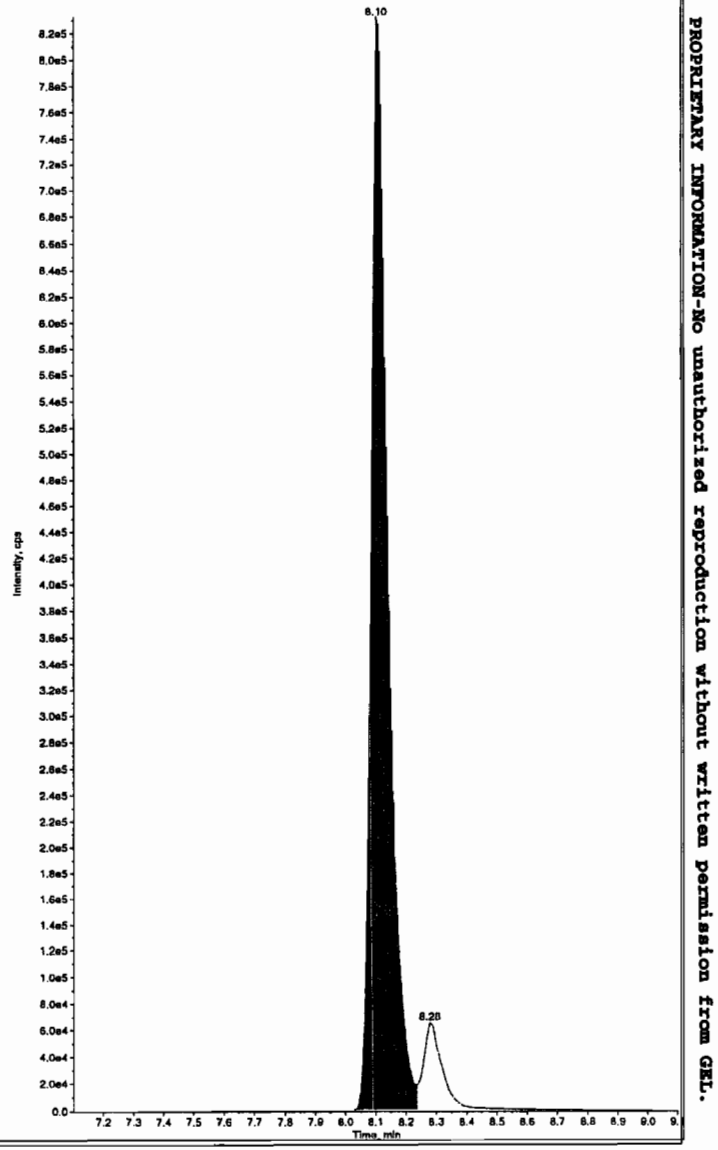

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050024.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 250. ng/mL
ulated Conc: 233. ng/mL
Date: 4/5/2010
Time: 6:47:03 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.28 min
Relative RT: No

Type: Valley
ntion Time: 8.28 min
: 1.99e+006 counts
ht: 497923.370 cps
t Time: 8.21 min
Time: 8.78 min

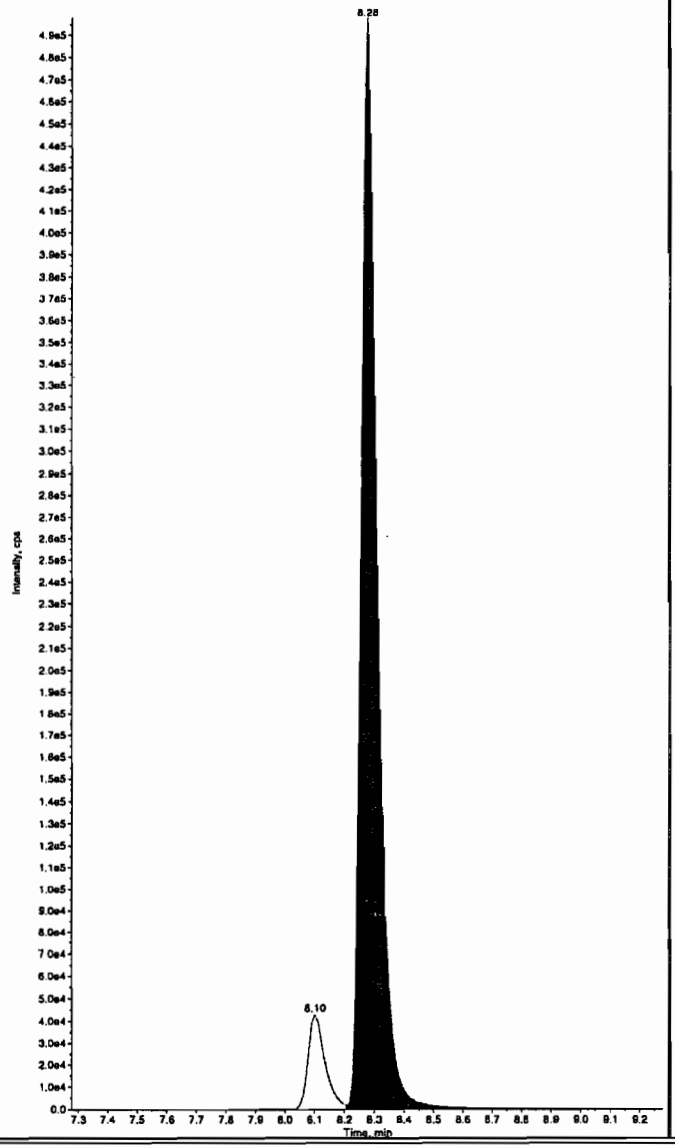

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 468. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 6:47:03 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.93 min
Area: 1.32e+006 counts
Height: 311772.186 cps
Start Time: 4.84 min
End Time: 5.19 min

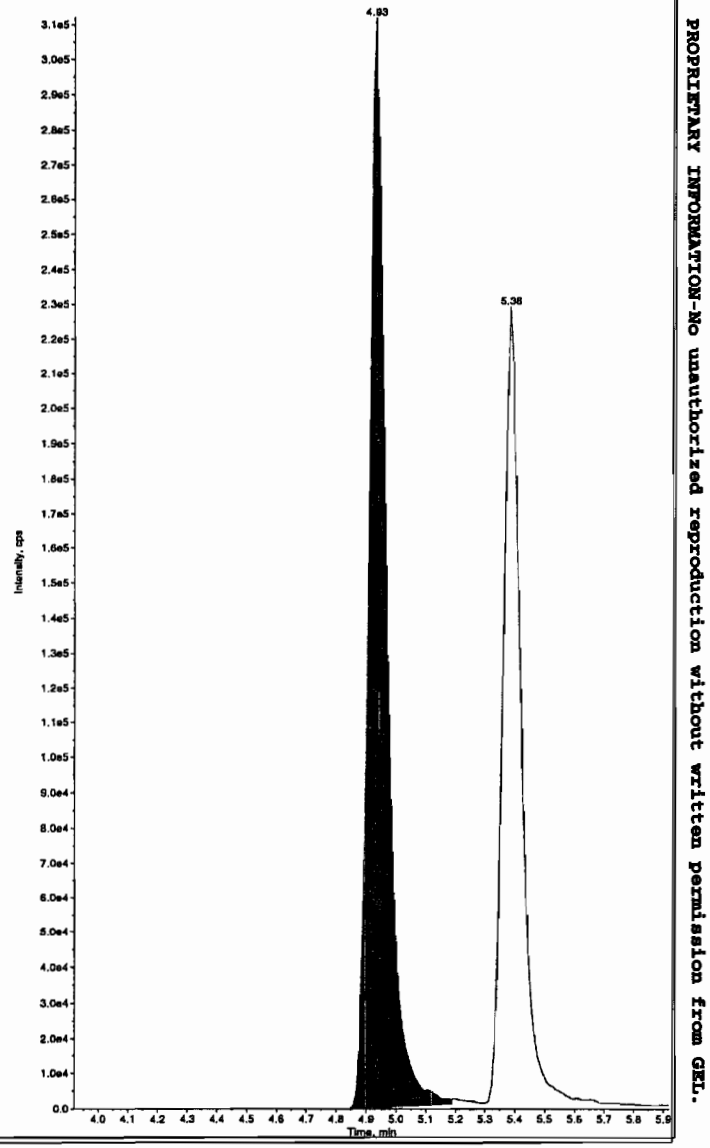

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mple Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050024.wiff"
sk Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 458. ng/mL
Date: 4/5/2010
Time: 6:47:03 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.37 min
Relative RT: No

Type: Valley
ation Time: 5.38 min
: 9.77e+005 ccounts
nt: 227877.625 cps
Time: 5.29 min
Time: 5.86 min

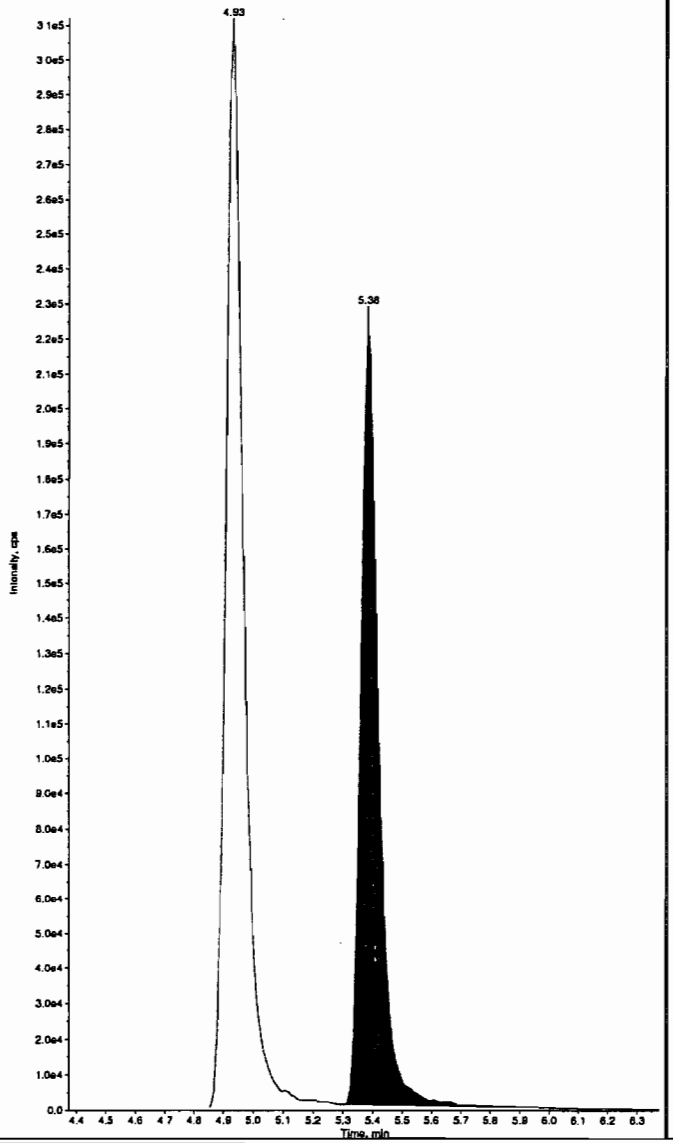

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050024.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 487. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 6:47:03 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 8.77e+006 counts
Height: 2090834.961 cps
Start Time: 10.7 min
End Time: 11.2 min

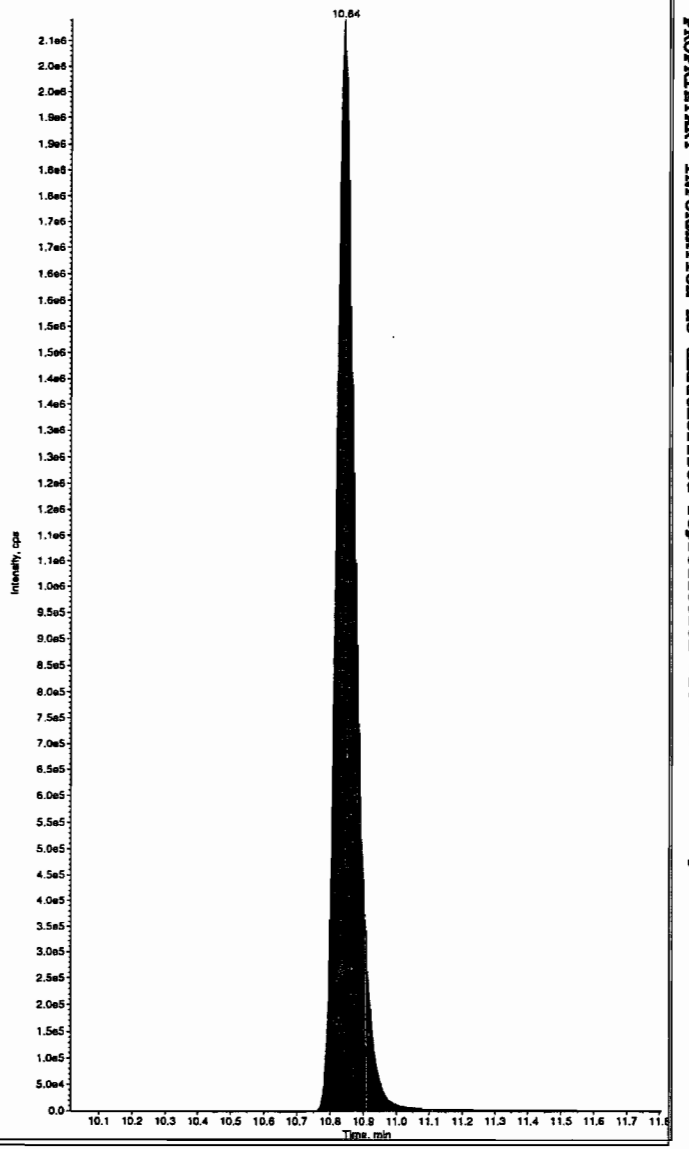

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04050026.wiff

Analysis Date: 05–APR–10 19:18

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	116	116	
2,6–Diamino–4–nitrotoluene	100	114	114	
3,4–Dinitrotoluene	50	54.3	109	
3,5–Dinitroaniline	100	109	109	
TATB	100	101	101	
tris(o–cresyl) phosphate	100	112	112	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

LCM 4/7/10

nple Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050026.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""
le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 101. ng/mL
Date: 4/5/2010
Time: 7:18:27 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.86 min
Relative RT: No

Type: Valley
ntion Time: 6.88 min
: 7.14e+004 counts
ht: 16154.438 cps
t Time: 6.79 min
Time: 7.44 min

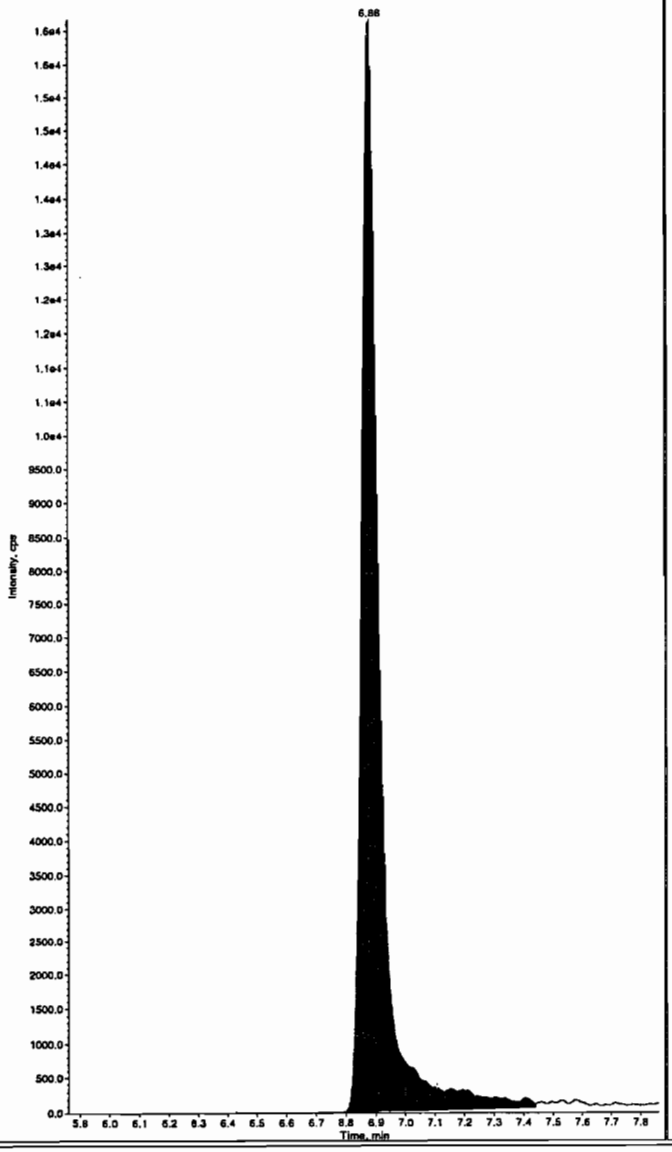

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 109. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 7:18:27 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.11 min
Area: 6.95e+005 counts
Height: 173170.486 cps
Start Time: 7.99 min
End Time: 8.25 min

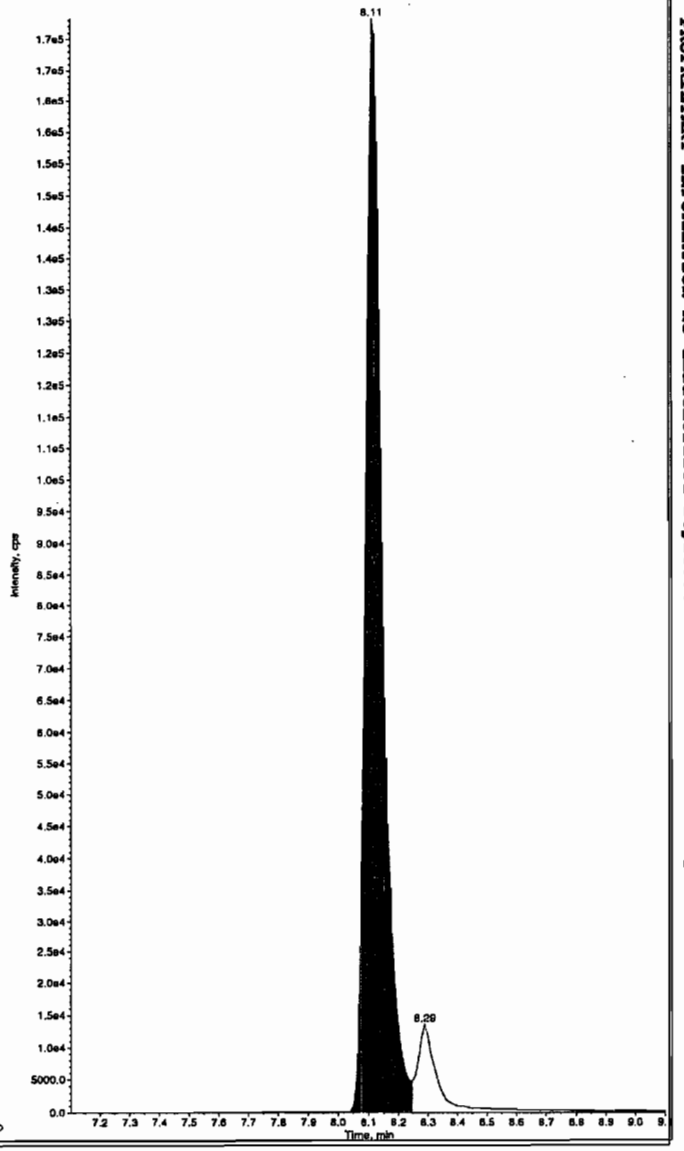

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050026.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 50.0 ng/mL
ulated Conc: 54.3 ng/mL
Date: 4/5/2010
Time: 7:18:27 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.28 min
Relative RT: No

Type: Valley
ntion Time: 8.29 min
: 4.09e+005 counts
ht: 104017.250 cps
t Time: 8.22 min
Time: 8.63 min

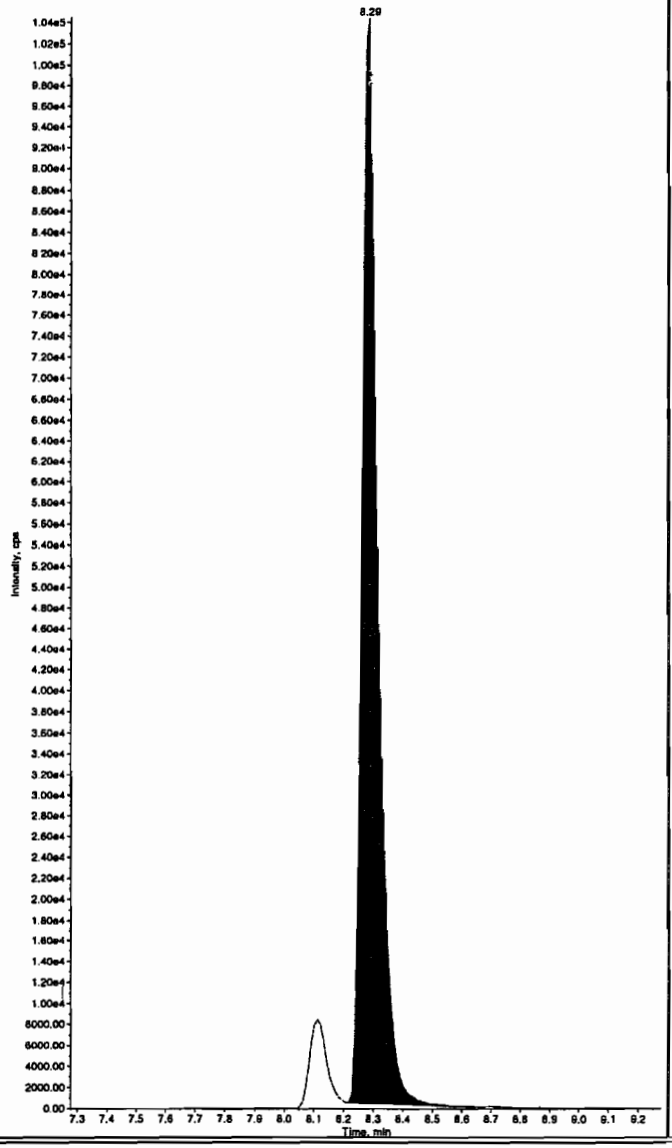

Sample Name: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050026.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 114. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 7:18:27 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.93 min
Area: 2.59e+005 counts
Height: 56403.187 cps
Start Time: 4.82 min
End Time: 5.22 min

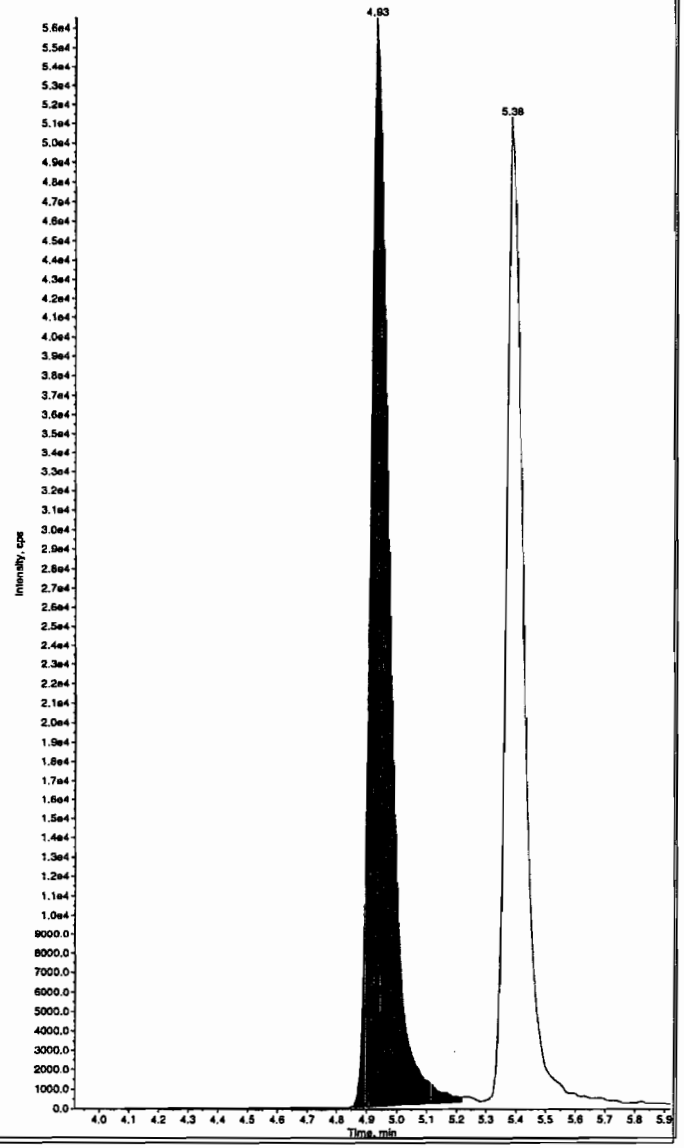

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050026.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
le Index:          1
le Type:          QC
entration:       100.     ng/mL
ulated Conc:     116.     ng/mL
 Date:        4/5/2010
 Time:        7:18:27 PM

fied:             No
. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00    cps
 Peak Width:    0.00    sec
thing Width:  3        points
indow:          30.0    sec
cted RT:         5.37   min
Relative RT:     No

 Type:         Valley
ntion Time:      5.38   min
:          2.13e+005   counts
ht:          50992.790  cps
t Time:          5.28   min
Time:            5.78   min
```

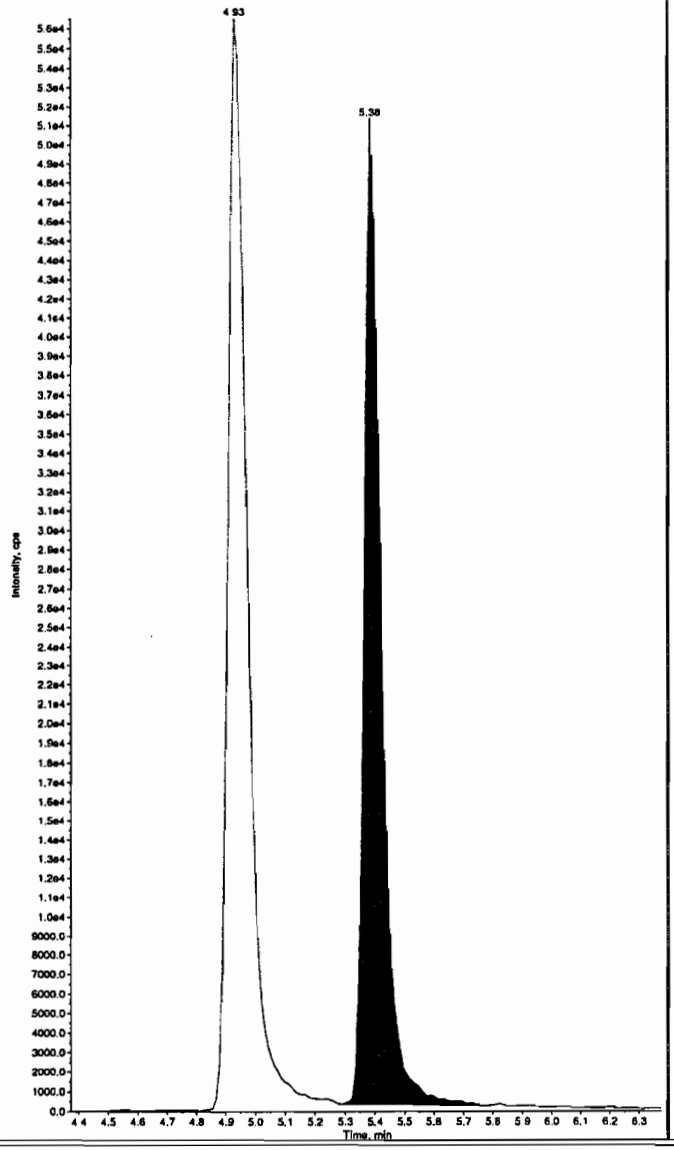

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050026.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       100.     ng/mL
Calculated Conc:     112.     ng/mL
Acq. Date:        4/5/2010
Acq. Time:        7:18:27 PM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:         10.8   min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      10.8   min
Area:          2.01e+006   counts
Height:          491896.027  cps
Start Time:          10.7   min
End Time:            11.2   min
```

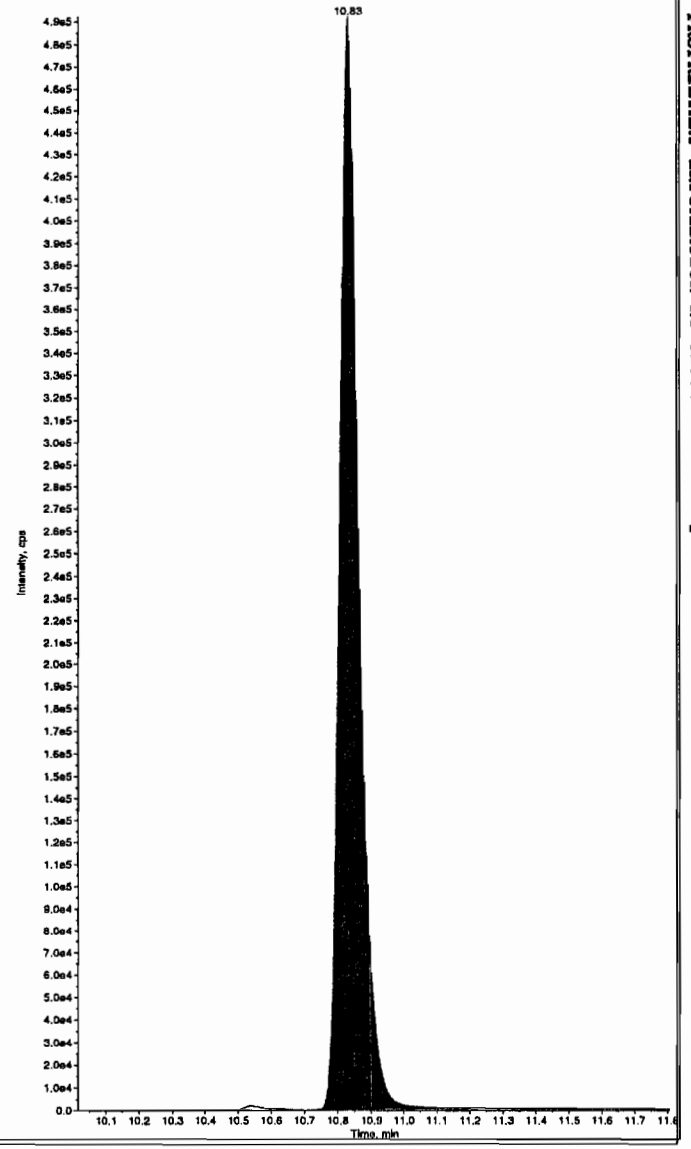

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXS04050037.wiff

Analysis Date: 05–APR–10 22:11

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	545	109	
2,6–Diamino–4–nitrotoluene	500	513	103	
3,4–Dinitrotoluene	250	238	95	
3,5–Dinitroaniline	500	533	107	
TATB	500	511	102	
tris(o–cresyl) phosphate	500	496	99	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ler 4/7/10

mple Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050037.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:          QC
entration:       500.     ng/mL
culated Conc:    511.     ng/mL
  Date:        4/5/2010
  Time:        10:11:19 PM

fied:              No
. Algorithm: IntelliQuan - IQA
 Peak Height:2500.00    cps
 Peak Width:    0.00    sec
thing Width:  3        points
indow:         30.0     sec
cted RT:        6.86    min
 Relative RT:     No

 Type:          Valley
ntion Time:     6.88    min
:          4.08e+005   counts
ht:          87499.840  cps
t Time:         6.75    min
Time:           7.67    min
```

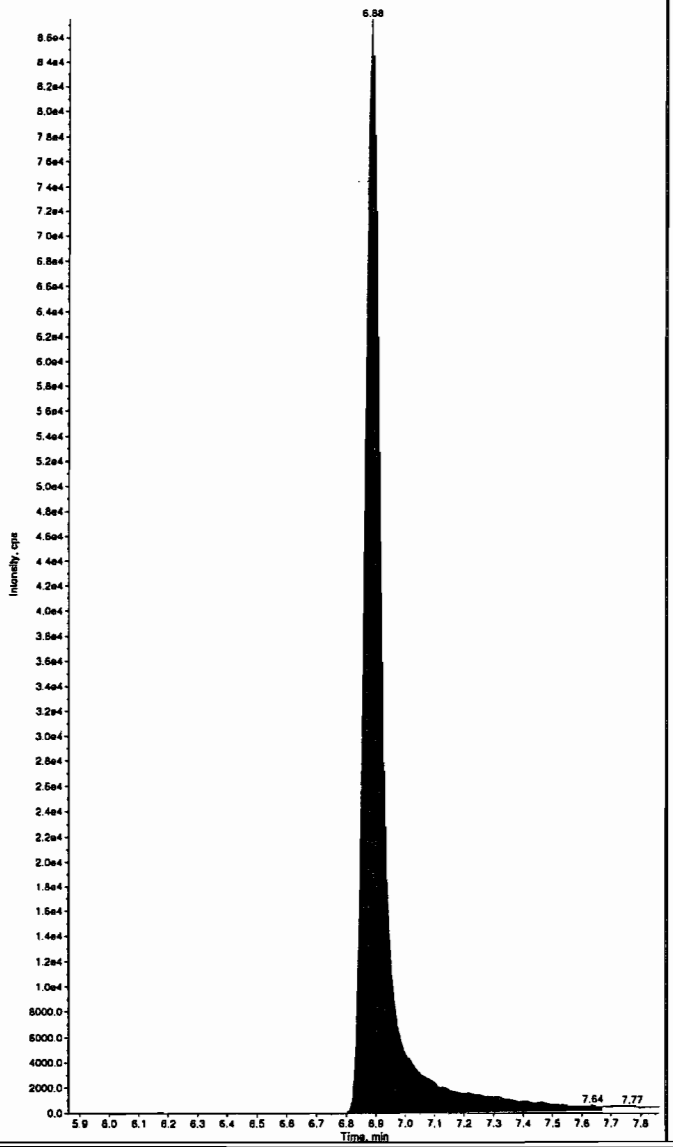

Sample Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050037.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       500.     ng/mL
Calculated Conc:     533.     ng/mL
Acq. Date:        4/5/2010
Acq. Time:        10:11:19 PM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         15.0     sec
Expected RT:        8.10    min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:     8.12    min
Area:          3.52e+006   counts
Height:         846138.245  cps
Start Time:         8.03    min
End Time:           8.25    min
```

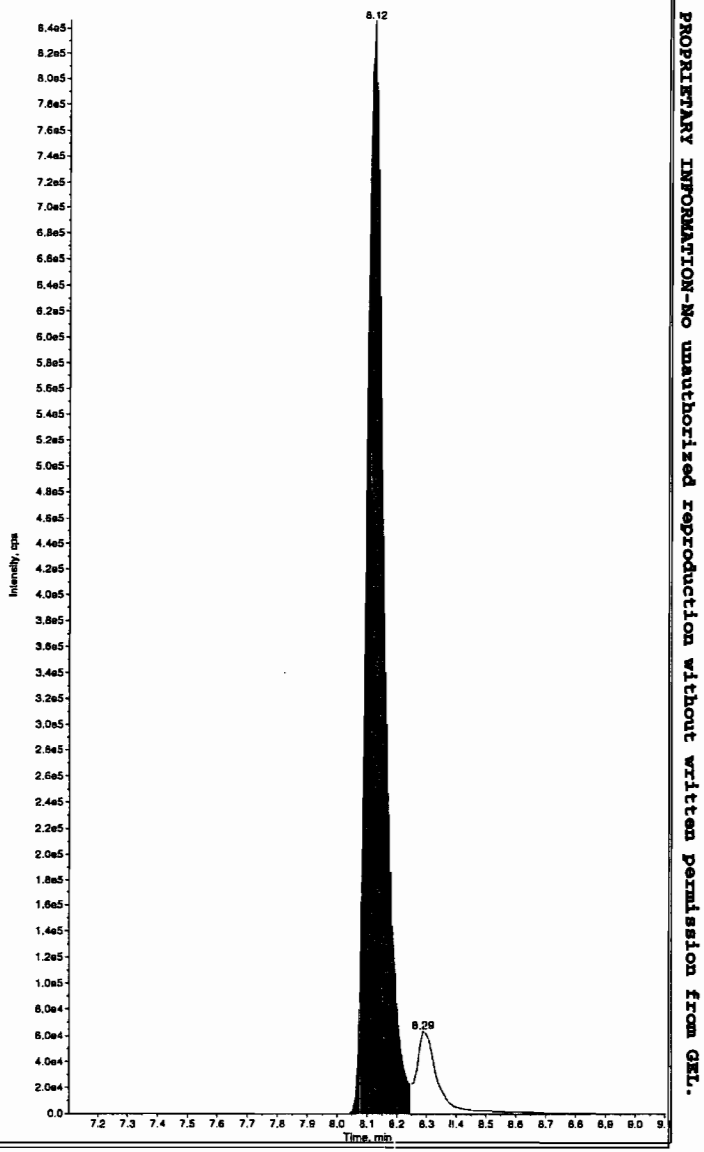

HMM 04/08/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050037.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

ıle Index: 1
ıle Type: QC
entration: 250. ng/mL
ulated Conc: 238. ng/mL
Date: 4/5/2010
Time: 10:11:19 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.28 min
Relative RT: No

Type: Valley
ntion Time: 8.30 min
: 2.03e+006 counts
ht: 499160.309 cps
t Time: 8.22 min
Time: 8.62 min

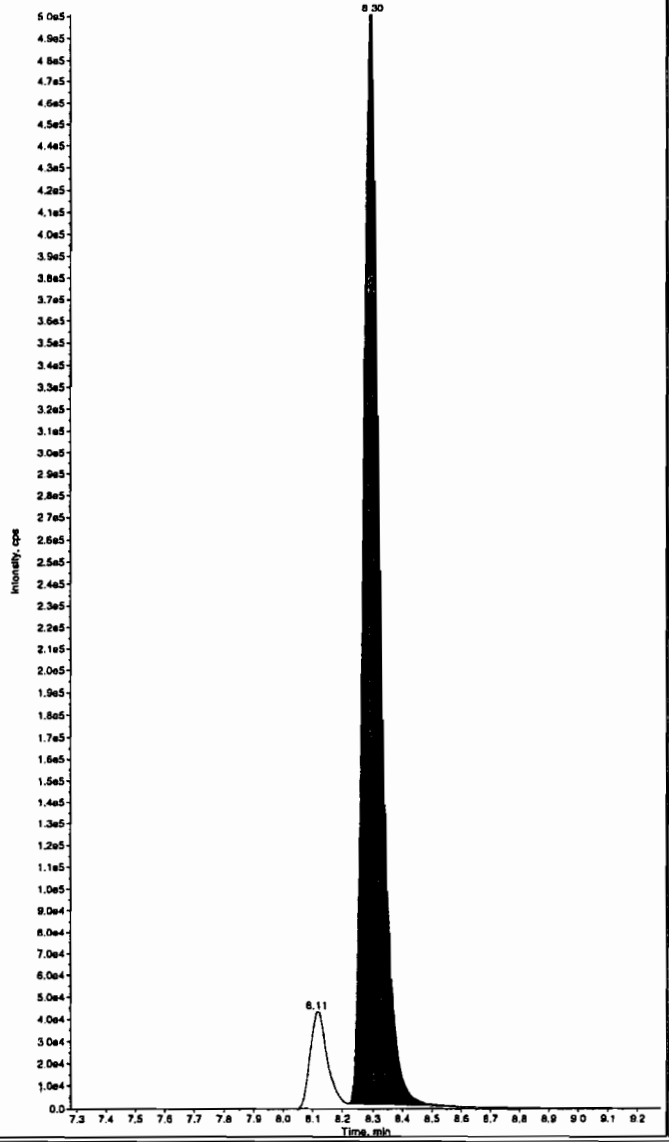

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050037.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 513. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 10:11:19 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.94 min
Area: 1.45e+006 counts
Height: 319630.280 cps
Start Time: 4.85 min
End Time: 5.24 min

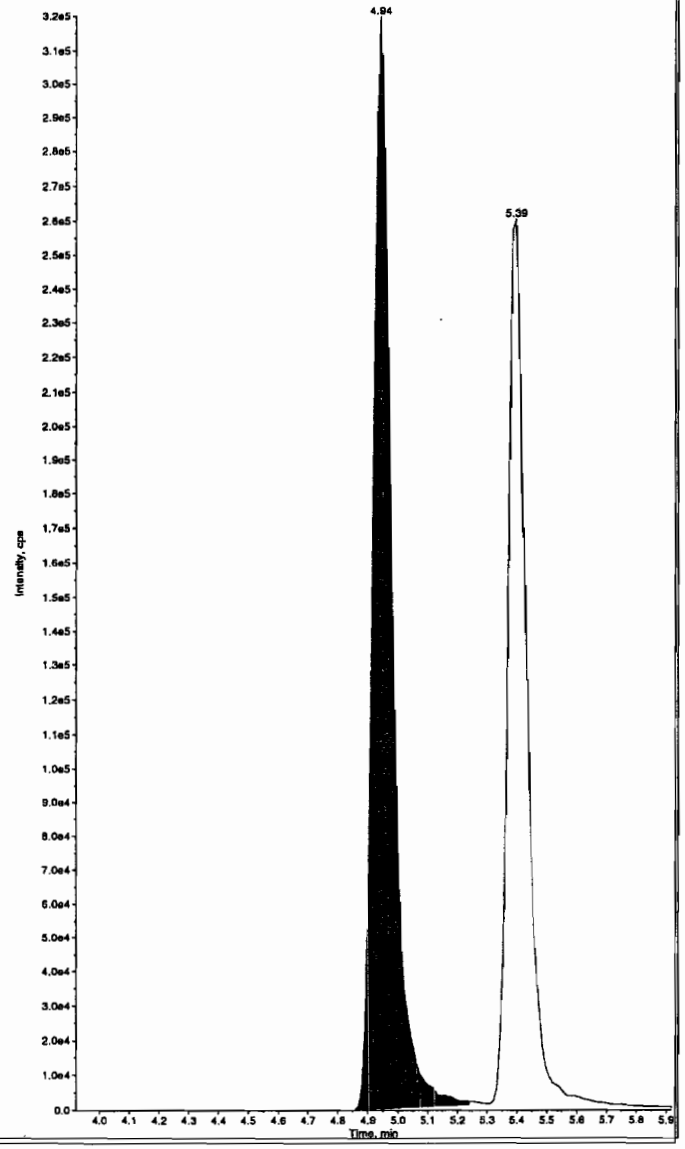

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050037.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
le Index:        1
le Type:        QC
entration:      500.    ng/mL
ulated Conc:    545.    ng/mL
 Date:       4/5/2010
 Time:       10:11:19 PM

fied:           No
. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00   cps
 Peak Width:    0.00   sec
thing Width:  3       points
indow:         30.0   sec
cted RT:        5.37  min
Relative RT:    No

 Type:        Valley
ntion Time:     5.39  min
:          1.16e+006  counts
ht:        260275.818  cps
t Time:         5.30  min
Time:           5.96  min
```

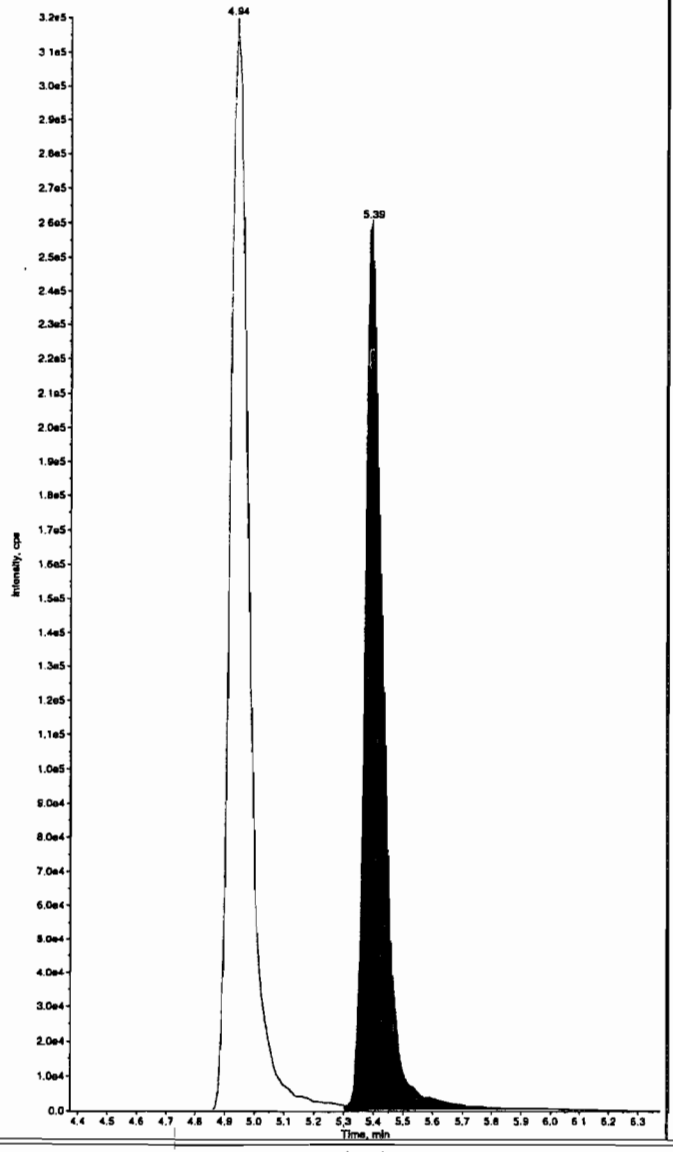

Sample Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050037.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:      500.    ng/mL
Calculated Conc:    496.    ng/mL
Acq. Date:       4/5/2010
Acq. Time:       10:11:19 PM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         30.0   sec
Expected RT:        10.8  min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.8  min
Area:        8.93e+006  counts
Height:      2088964.844  cps
Start Time:         10.7  min
End Time:           11.2  min
```

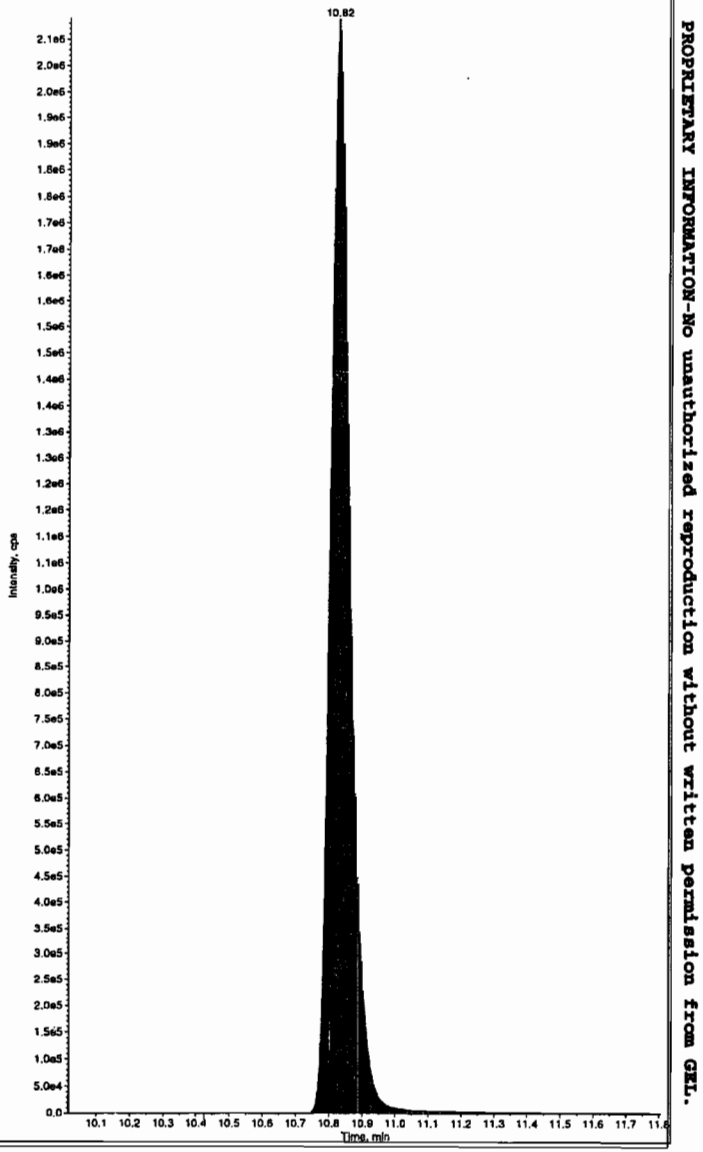

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04050039.wiff

Analysis Date: 05–APR–10 22:42

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	137	137	
2,6–Diamino–4–nitrotoluene	100	129	129	
3,4–Dinitrotoluene	50	55.5	111	
3,5–Dinitroaniline	100	122	122	
TATB	100	108	108	
tris(o–cresyl) phosphate	100	113	113	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lcr 4/7/10

nple Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050039.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 108. ng/mL
Date: 4/5/2010
Time: 10:42:44 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.86 min
Relative RT: No

Type: Valley
ntion Time: 6.89 min
: 7.77e+004 counts
ht: 16630.148 cps
t Time: 6.78 min
Time: 7.55 min

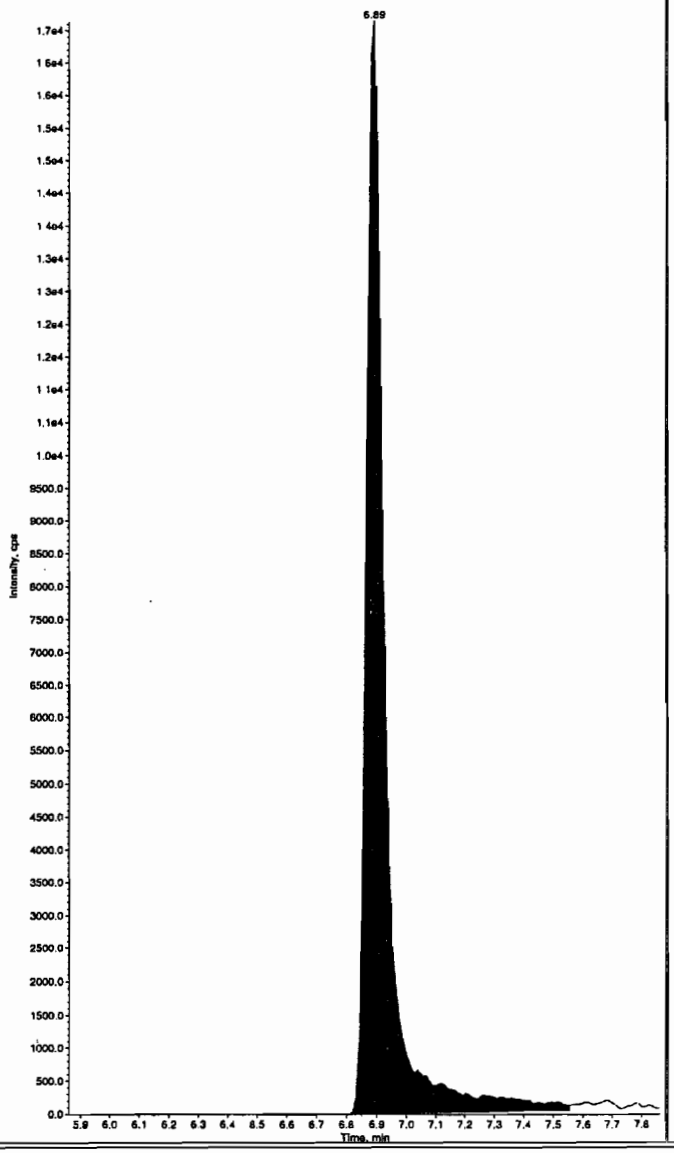

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050039.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 122. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 10:42:44 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.12 min
Area: 7.90e+005 counts
Height: 193252.884 cps
Start Time: 7.99 min
End Time: 8.25 min

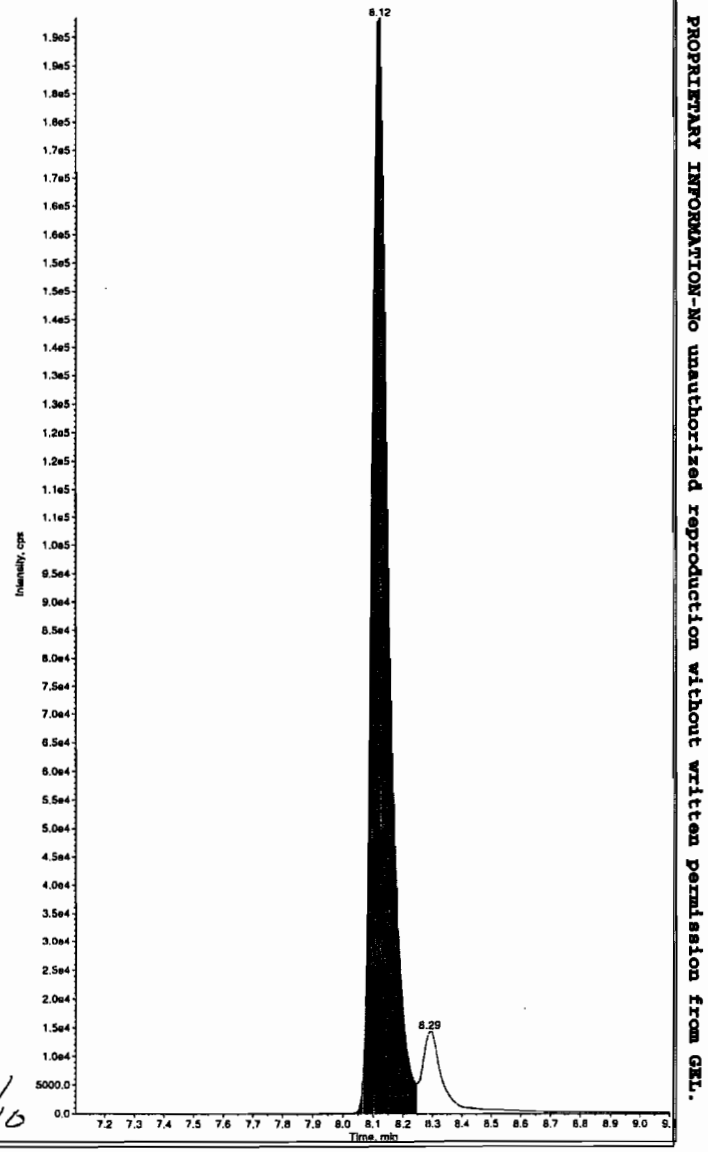

Hmm 04/08/10

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mple Name: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050039.wiff"
sk Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 50.0 ng/mL
ulated Conc: 55.5 ng/mL
Date: 4/5/2010
Time: 10:42:44 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.28 min
Relative RT: No

Type: Valley
ntion Time: 8.29 min
: 4.20e+005 counts
ht: 106636.589 cps
t Time: 8.22 min
Time: 8.62 min

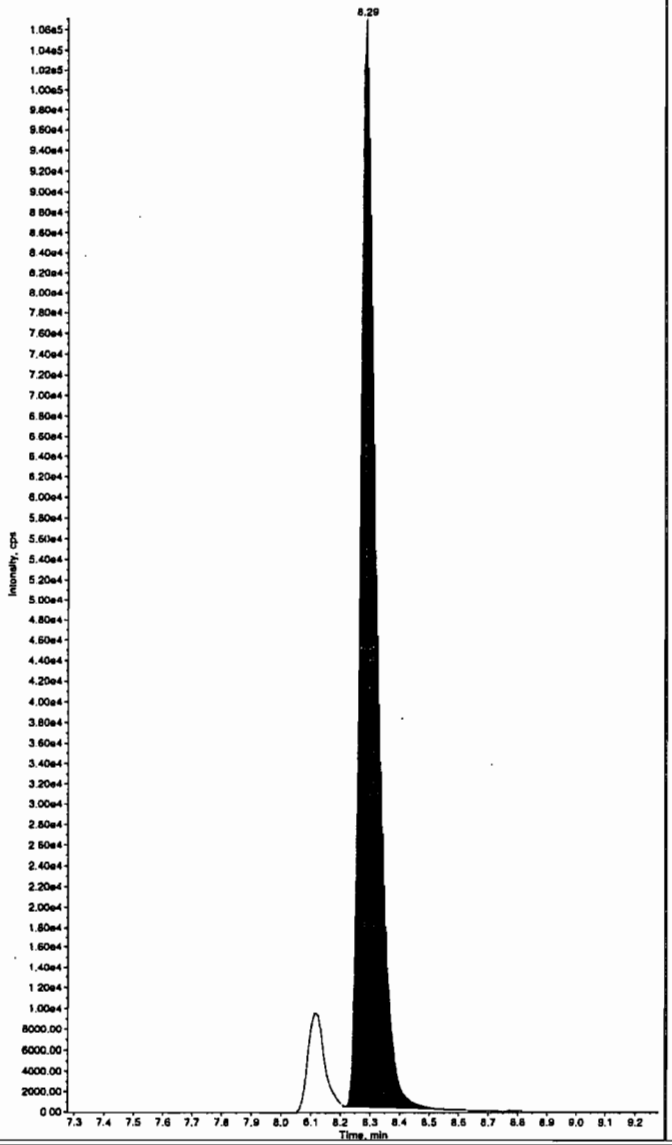

Sample Name: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050039.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 129. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 10:42:44 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.95 min
Area: 3.04e+005 counts
Height: 70480.820 cps
Start Time: 4.85 min
End Time: 5.25 min

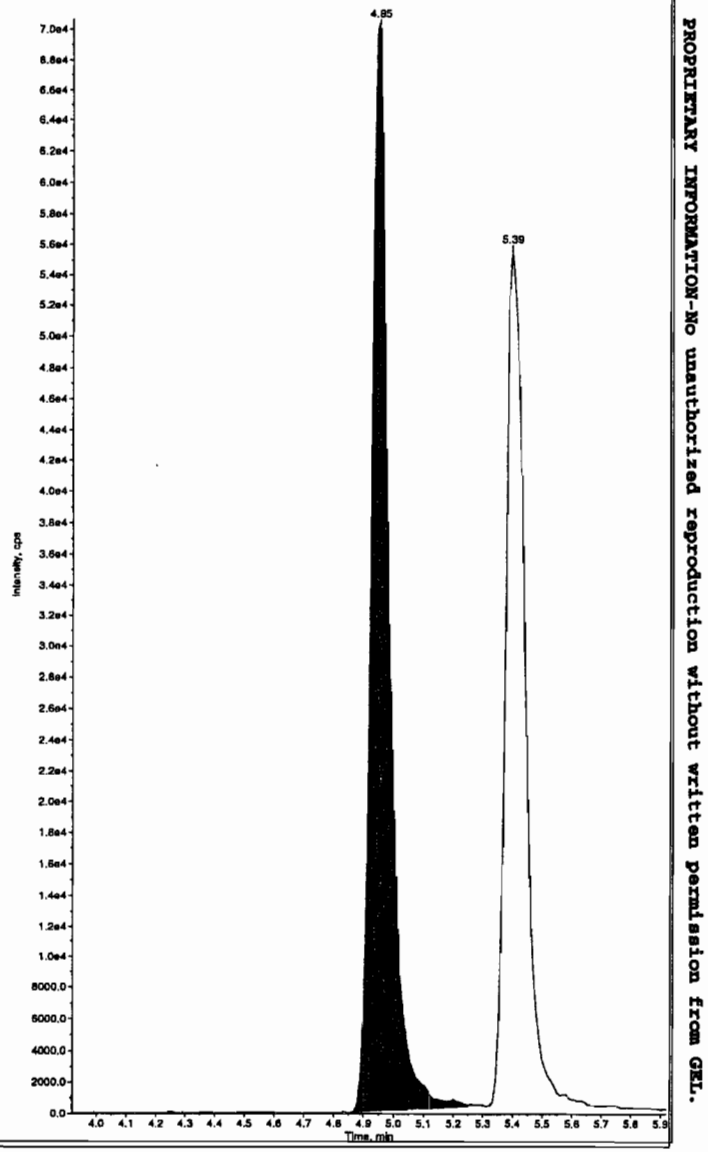

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mple Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050039.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
le Index:        1
le Type:          QC
entration:      100.     ng/mL
ulated Conc:    137.     ng/mL
 Date:       4/5/2010
 Time:       10:42:44 PM

fied:            No
:. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00   cps
 Peak Width:    0.00   sec
thing Width:  3       points
indow:         30.0    sec
cted RT:        5.37   min
Relative RT:    No

 Type:        Valley
ntion Time:     5.39   min
:          2.62e+005   counts
ht:        55825.851   cps
t Time:         5.31   min
Time:           5.97   min
```

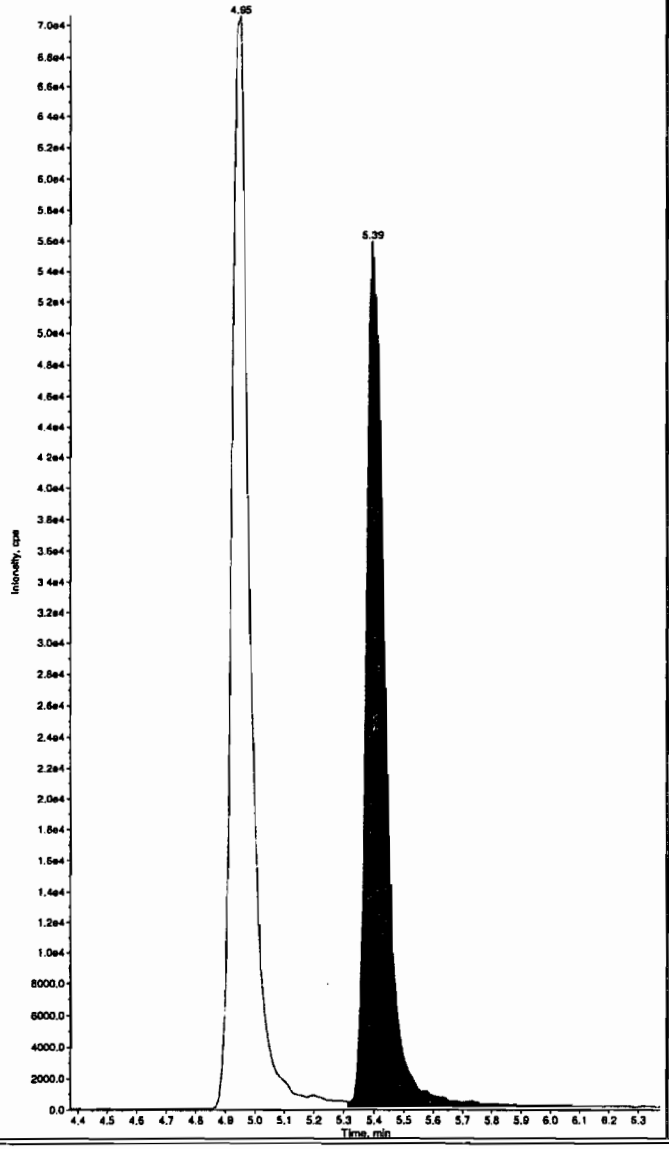

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050039.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:          QC
Concentration:      100.     ng/mL
Calculated Conc:    113.     ng/mL
Acq. Date:       4/5/2010
Acq. Time:       10:42:44 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         30.0    sec
Expected RT:        10.8   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.8   min
Area:         2.03e+006   counts
Height:        510147.522  cps
Start Time:         10.7   min
End Time:           11.1   min
```

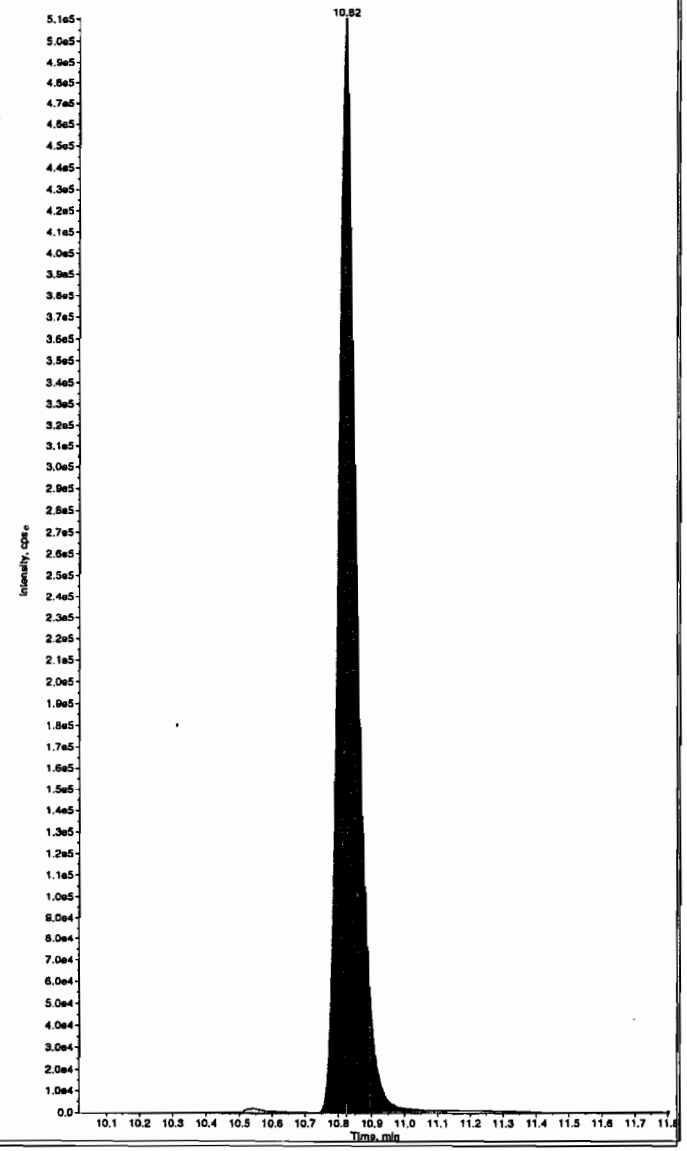

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04050050.wiff

Analysis Date: 06–APR–10 01:35

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	615	123	
2,6–Diamino–4–nitrotoluene	500	532	106	
3,4–Dinitrotoluene	250	248	99	
3,5–Dinitroaniline	500	555	111	
TATB	500	515	103	
tris(o–cresyl) phosphate	500	498	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Dan 4/7/10

mple Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050050.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

```
le Index:          1
le Type:           QC
entration:         500.     ng/mL
ulated Conc:       515.     ng/mL
 Date:          4/6/2010
 Time:          1:35:36 AM

fied:              No
. Algorithm: IntelliQuan - IQA
 Peak Height:2500.00    cps
 Peak Width:    0.00    sec
thing Width:  3        points
indow:         30.0    sec
cted RT:        6.86   min
Relative RT:    No

 Type:         Valley
ntion Time:     6.89   min
:          4.10e+005   counts
ht:          86094.841 cps
t Time:         6.79   min
Time:           7.70   min
```

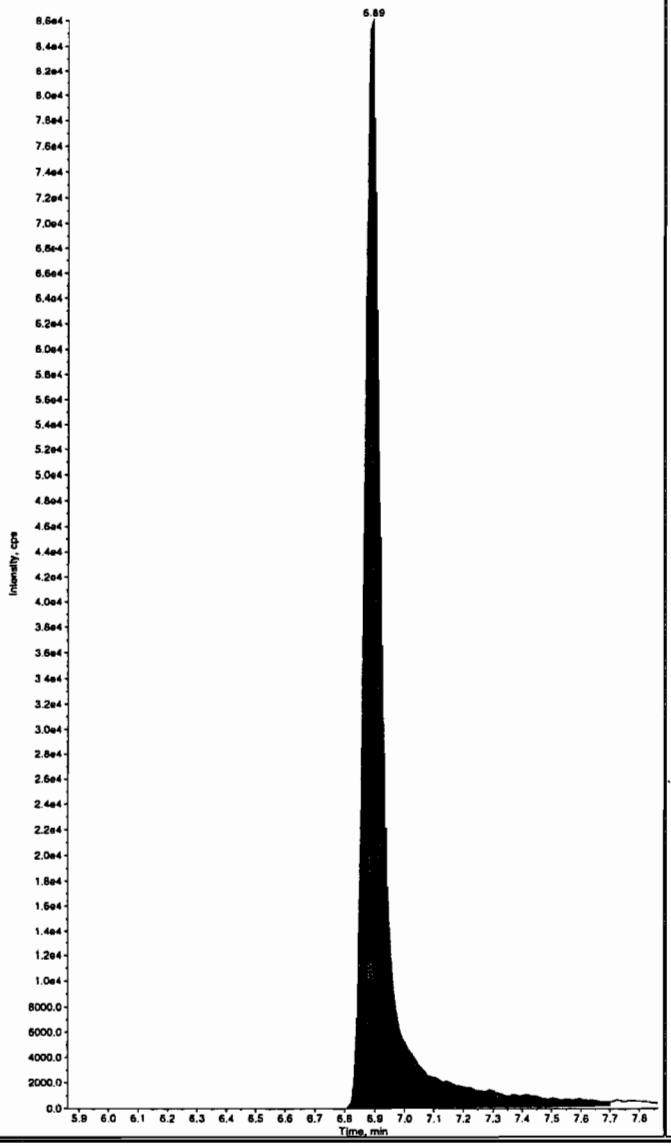

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050050.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         500.     ng/mL
Calculated Conc:       534.     ng/mL
Acq. Date:          4/6/2010
Acq. Time:          1:35:36 AM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         15.0     sec
Expected RT:        8.10    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     8.12    min
Area:          3.53e+006   counts
Height:        894474.854  cps
Start Time:         8.05    min
End Time:           8.25    min
```

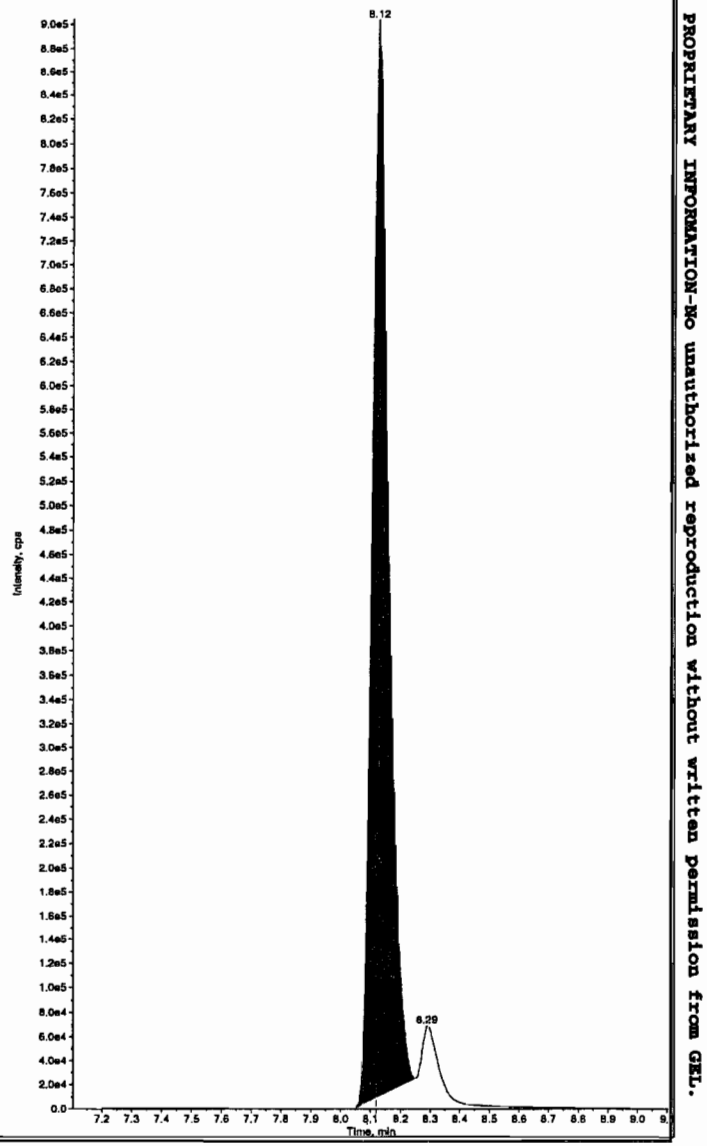

Hmm 04/08/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

after Qan 4/7/10

ample Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050050.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	500.	ng/mL
culated Conc:	515.	ng/mL
. Date:	4/6/2010	
. Time:	1:35:36 AM	
ified:	No	
. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	6.86	min
Relative RT:	No	
. Type:	Valley	
ention Time:	6.89	min
a:	4.10e+005	counts
ght:	86094.841	cps
t Time:	6.79	min
Time:	7.70	min

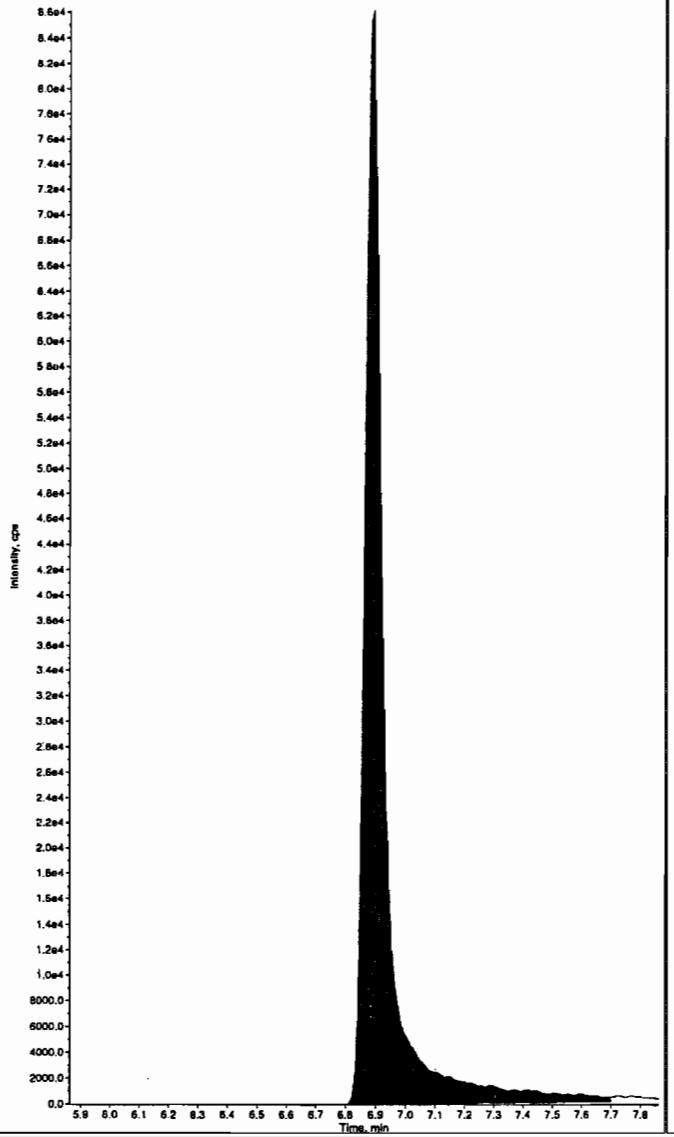

Sample Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050050.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	555.	ng/mL
Acq. Date:	4/6/2010	
Acq. Time:	1:35:36 AM	
Modified:	Yes	
RT Window:	15.0	sec
Expected RT:	8.10	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	8.13	min
Area:	3.66e+006	counts
Height:	912078.807	cps
Start Time:	8.05	min
End Time:	8.25	min

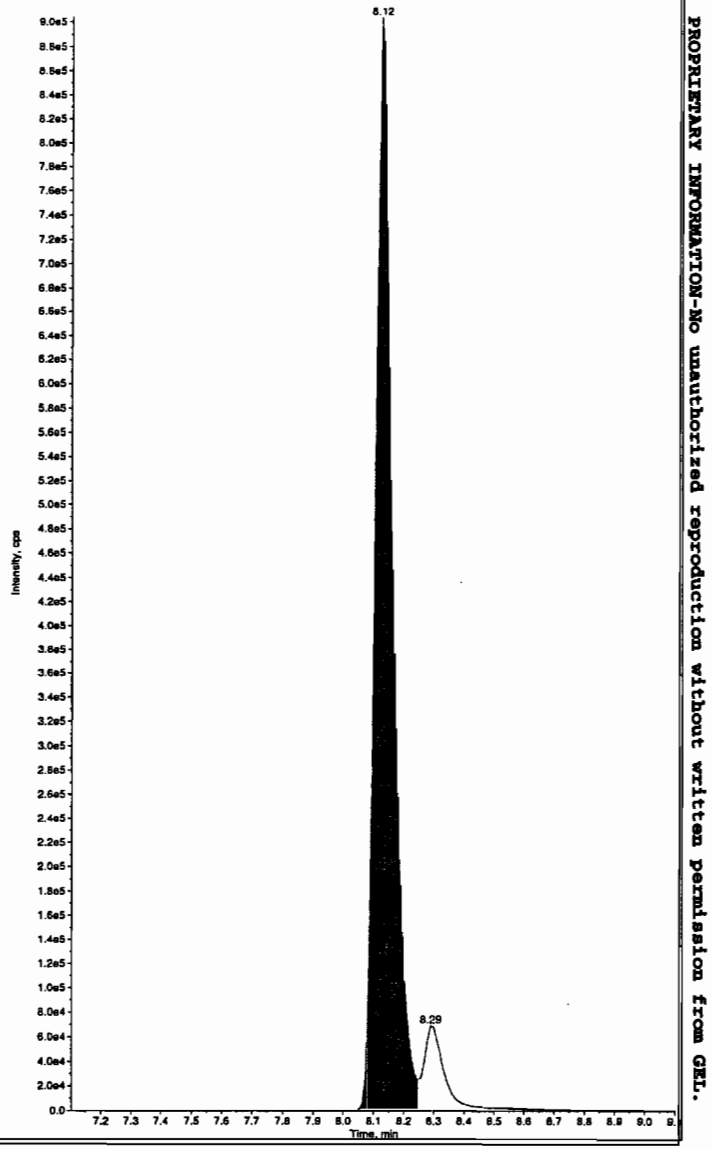

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050050.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

```
le Index:          1
le Type:           QC
entration:       250.     ng/mL
ulated Conc:     248.     ng/mL
 Date:        4/6/2010
 Time:        1:35:36 AM

fied:              No
. Algorithm: IntelliQuan - IQA
 Peak Height:1460.00    cps
 Peak Width:    0.00    sec
thing Width:  3        points
indow:         15.0     sec
cted RT:        8.28    min
Relative RT:    No

 Type:         Valley
ntion Time:     8.29    min
:          2.11e+006   counts
ht:         546261.353  cps
t Time:         8.22    min
Time:           8.57    min
```

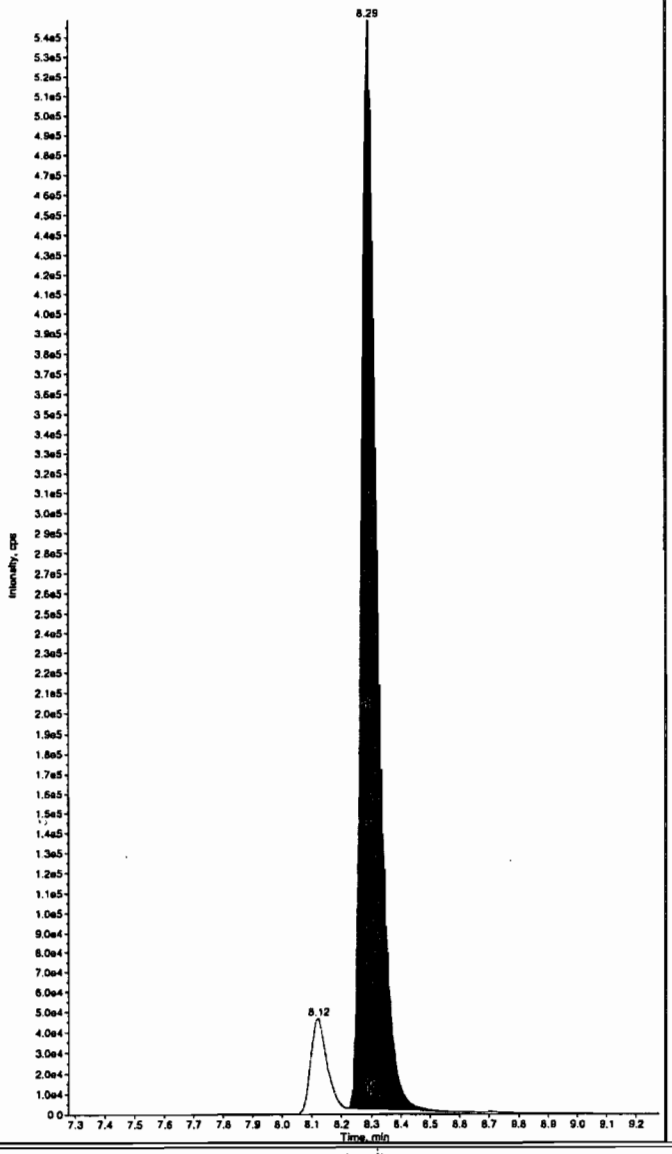

Sample Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050050.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       500.     ng/mL
Calculated Conc:     532.     ng/mL
Acq. Date:        4/6/2010
Acq. Time:        1:35:36 AM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:        4.92    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     4.94    min
Area:          1.50e+006   counts
Height:         324945.679  cps
Start Time:         4.85    min
End Time:           5.24    min
```

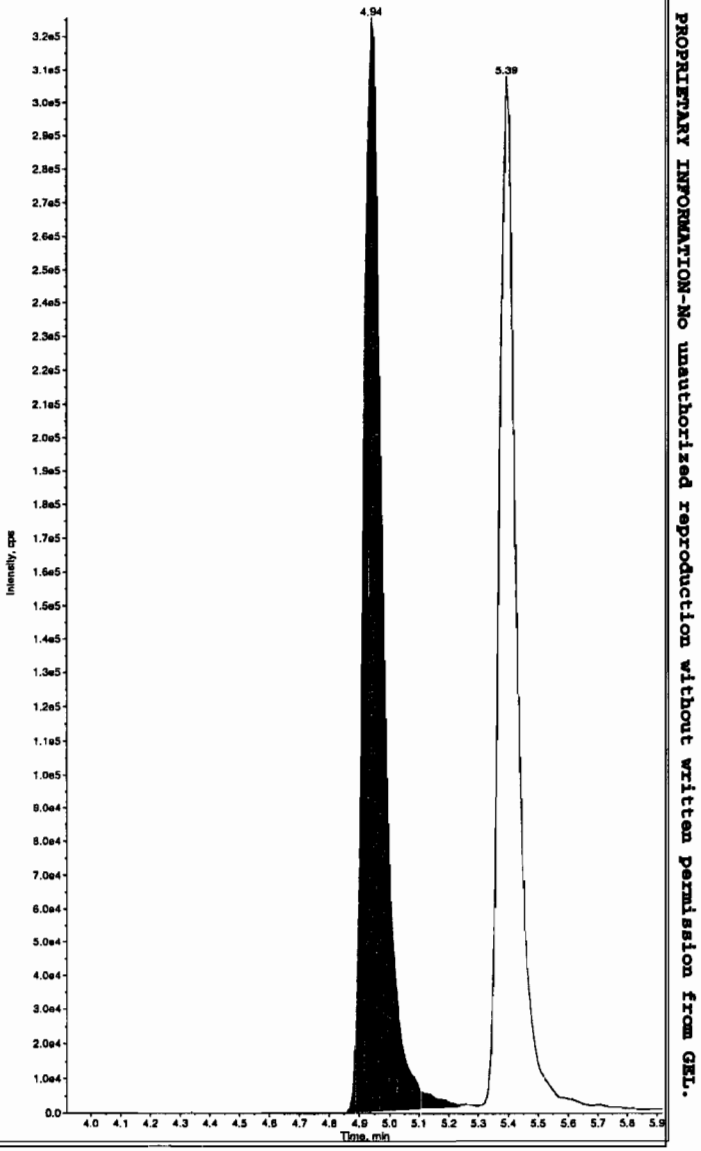

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050050.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 615. ng/mL
Date: 4/6/2010
Time: 1:35:36 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.37 min
Relative RT: No

Type: Valley
ntion Time: 5.39 min
: 1.31e+006 counts
nt: 307594.788 cps
t Time: 5.30 min
Time: 6.03 min

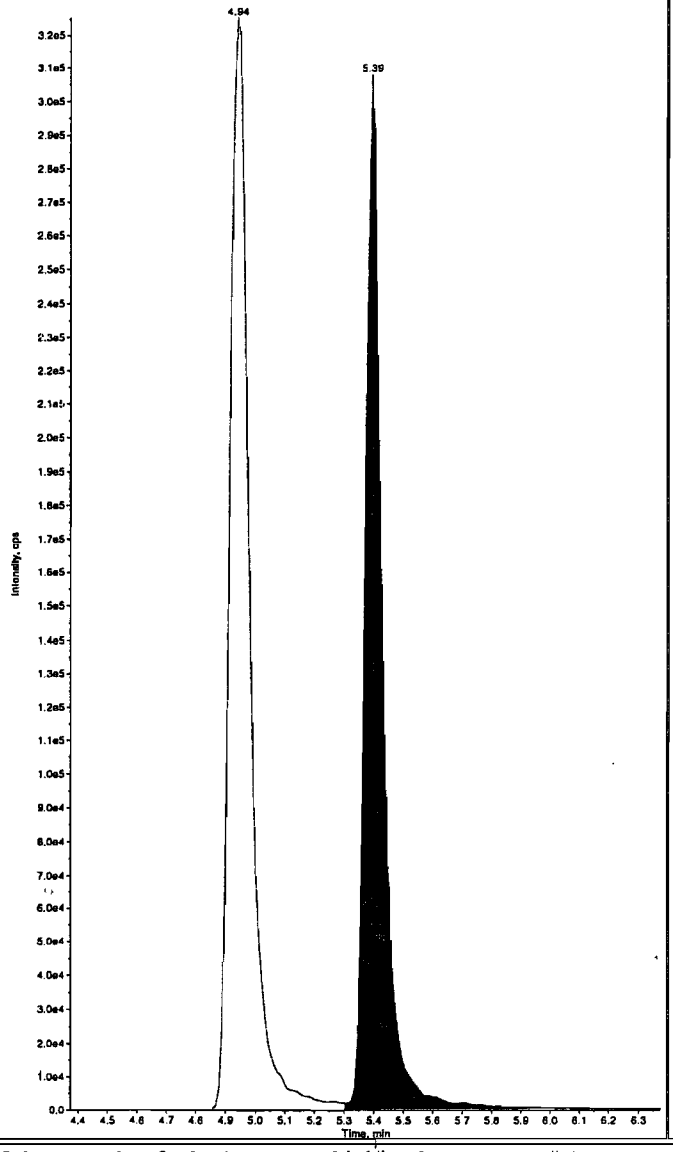

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050050.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 498. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 1:35:36 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 8.97e+006 counts
Height: 2130288.574 cps
Start Time: 10.7 min
End Time: 11.2 min

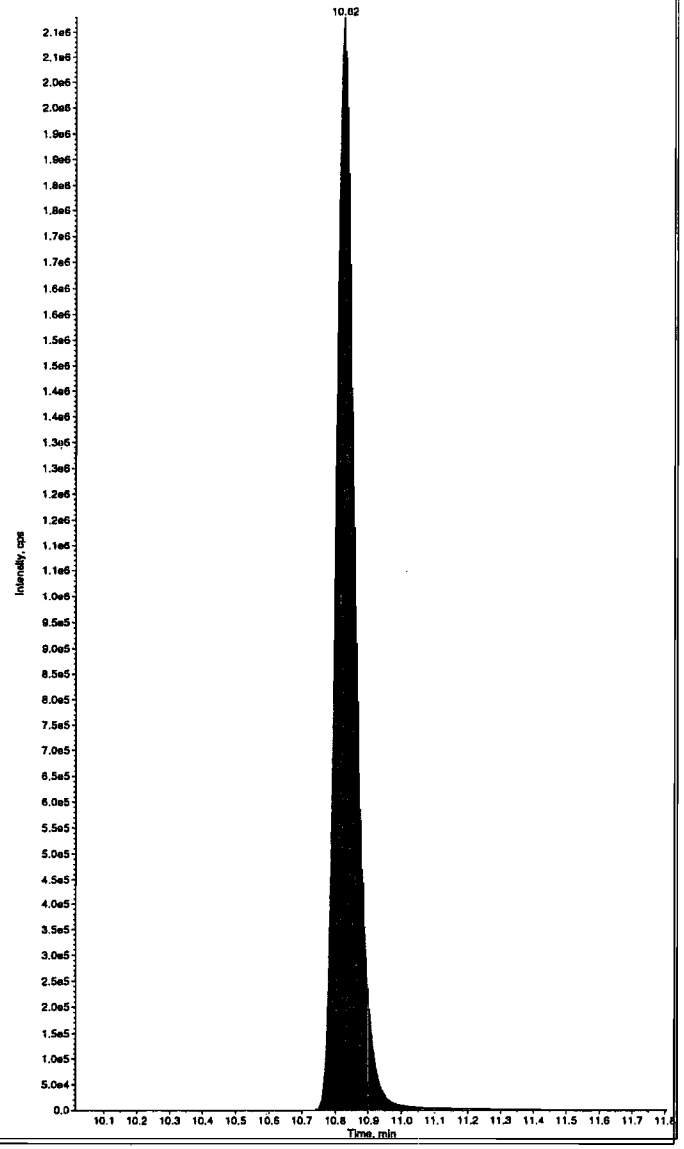

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04050052.wiff

Analysis Date: 06–APR–10 02:06

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	129	129	
2,6–Diamino–4–nitrotoluene	100	130	130	
3,4–Dinitrotoluene	50	57.7	115	
3,5–Dinitroaniline	100	125	125	
TATB	100	110	110	
tris(o–cresyl) phosphate	100	113	113	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

LCar 4/7/10

mple Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050052.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

```
le Index:        1
le Type:          OC
entration:      100.     ng/mL
ulated Conc:    110.     ng/mL
 Date:       4/6/2010
 Time:       2:06:59 AM

fied:            No
. Algorithm: IntelliQuan - IQA
 Peak Height:2500.00   cps
 Peak Width:    0.00   sec
thing Width:  3       points
indow:         30.0    sec
cted RT:        6.86   min
 Relative RT:    No

 Type:        Valley
ntion Time:     6.89   min
:          7.87e+004   counts
ht:          18809.593  cps
t Time:         6.78   min
Time:           7.33   min
```

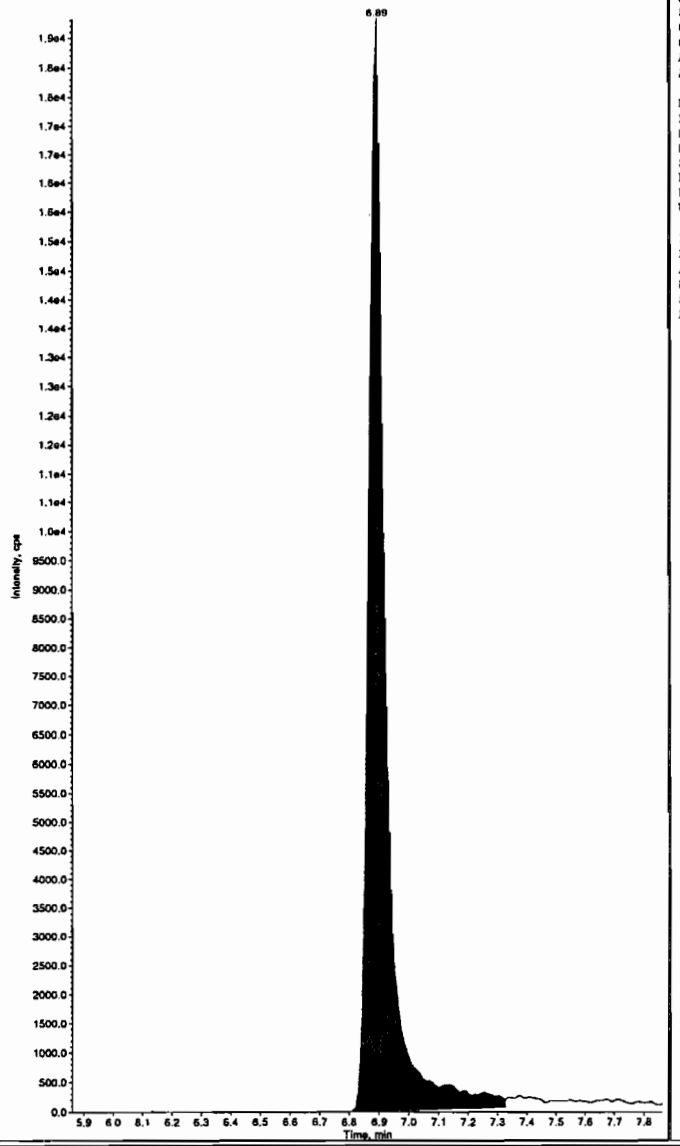

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050052.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:          OC
Concentration:      100.     ng/mL
Calculated Conc:    125.     ng/mL
Acq. Date:       4/6/2010
Acq. Time:       2:06:59 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         15.0    sec
Expected RT:        8.10   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     8.13   min
Area:        8.11e+005   counts
Height:        193015.747  cps
Start Time:         8.04   min
End Time:           8.26   min
```

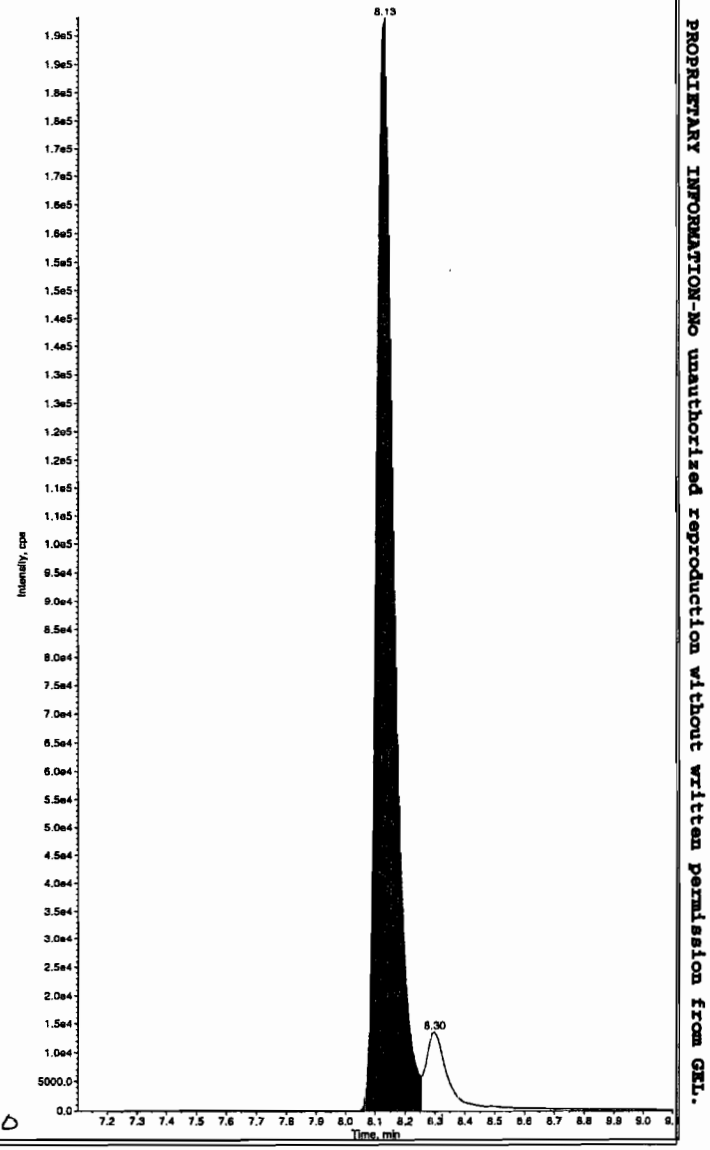

Hnm 04/08/10

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ımple Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050052.wiff"
ıak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
xmment: "LCMSEXP_C" Annotation: ""

```
ɔle Index:          1
ɔle Type:          QC
:entration:      50.0     ng/mL
:ulated Conc:    57.7     ng/mL
. Date:       4/6/2010
. Time:       2:06:59 AM

ıified:            No
:. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00   cps
. Peak Width:     0.00   sec
ɔthing Width:  3       points
Window:          15.0    sec
ɜcted RT:         8.28   min
Relative RT:      No

. Type:        Valley
ɜntion Time:      8.30   min
ı:          4.40e+005   counts
ght:         113012.001  cps
:t Time:          8.23   min
Time:             8.59   min
```

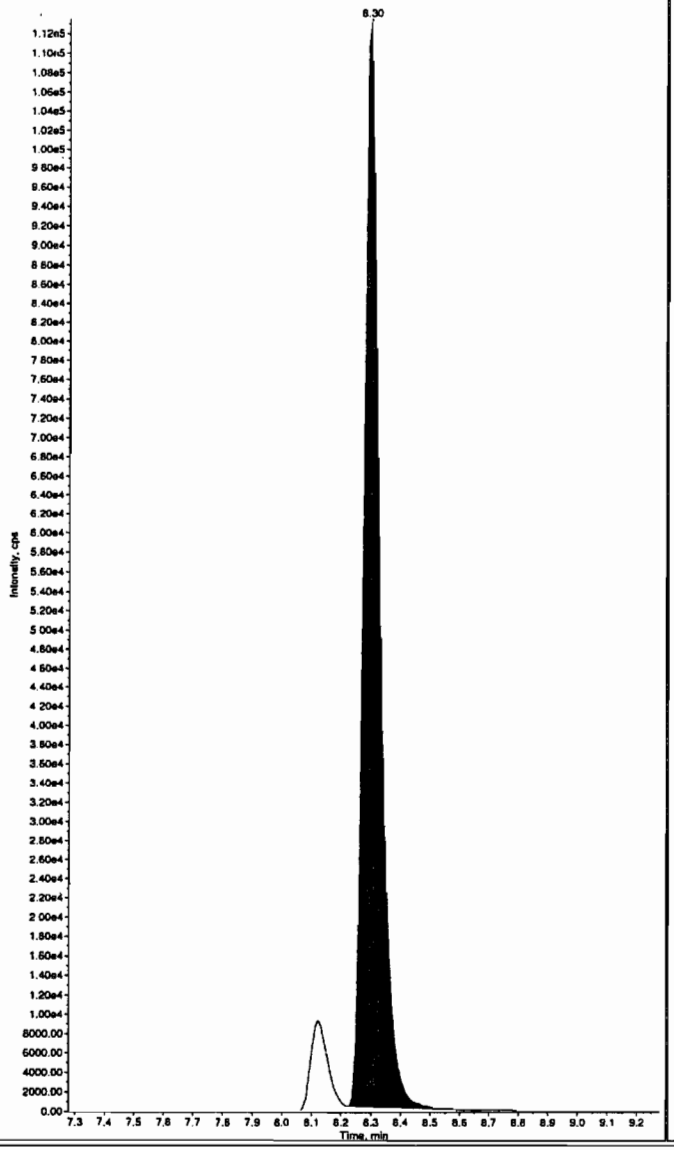

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050052.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:     100.     ng/mL
Calculated Conc:   130.     ng/mL
Acq. Date:       4/6/2010
Acq. Time:       2:06:59 AM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         30.0    sec
Expected RT:        4.92   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     4.94   min
Area:         3.09e+005   counts
Height:        70719.780  cps
Start Time:         4.85   min
End Time:           5.21   min
```

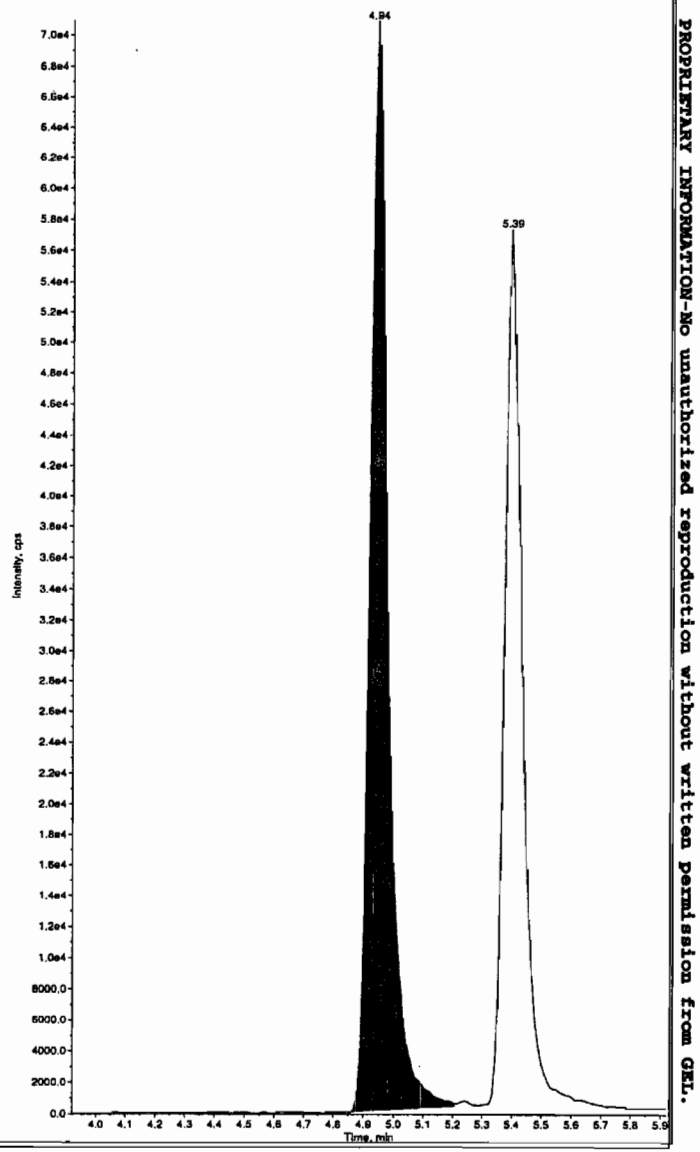

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ple Name: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050052.wiff"
. Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_C" Annotation: ""

```
e Index:          1
e Type:          QC
ntration:      100.     ng/mL
lated Conc:    129.     ng/mL
Date:       4/6/2010
Time:       2:06:59 AM

ied:            No
 Algorithm: IntelliQuan - IQA
Peak Height: 350.00   cps
Peak Width:    0.00   sec
hing Width:  3       points
ndow:         30.0    sec
ted RT:        5.37   min
elative RT:    No

Type:         Valley
tion Time:     5.39   min
          2.44e+005   counts
t:        56857.601   cps
 Time:         5.29   min
ime:           5.81   min
```

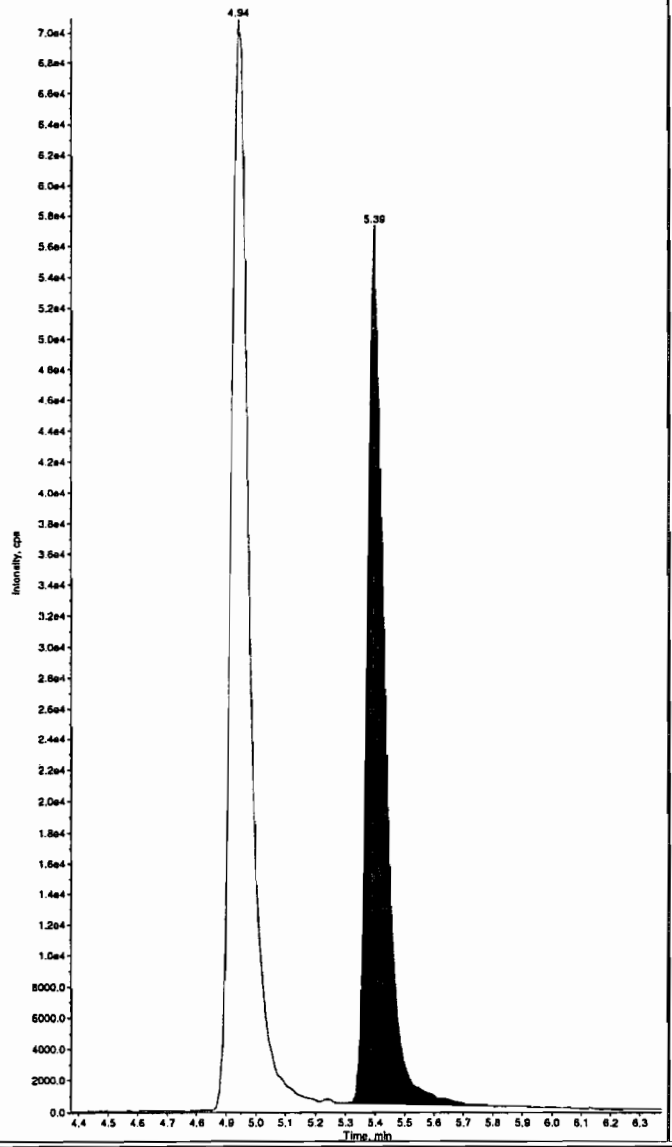

Sample Name: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050052.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:      100.     ng/mL
Calculated Conc:    113.     ng/mL
Acq. Date:       4/6/2010
Acq. Time:       2:06:59 AM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         30.0    sec
Expected RT:       10.8    min
Use Relative RT:   No

Int. Type:        Valley
Retention Time:    10.8    min
Area:        2.03e+006   counts
Height:     500741.028   cps
Start Time:        10.7    min
End Time:          11.2    min
```

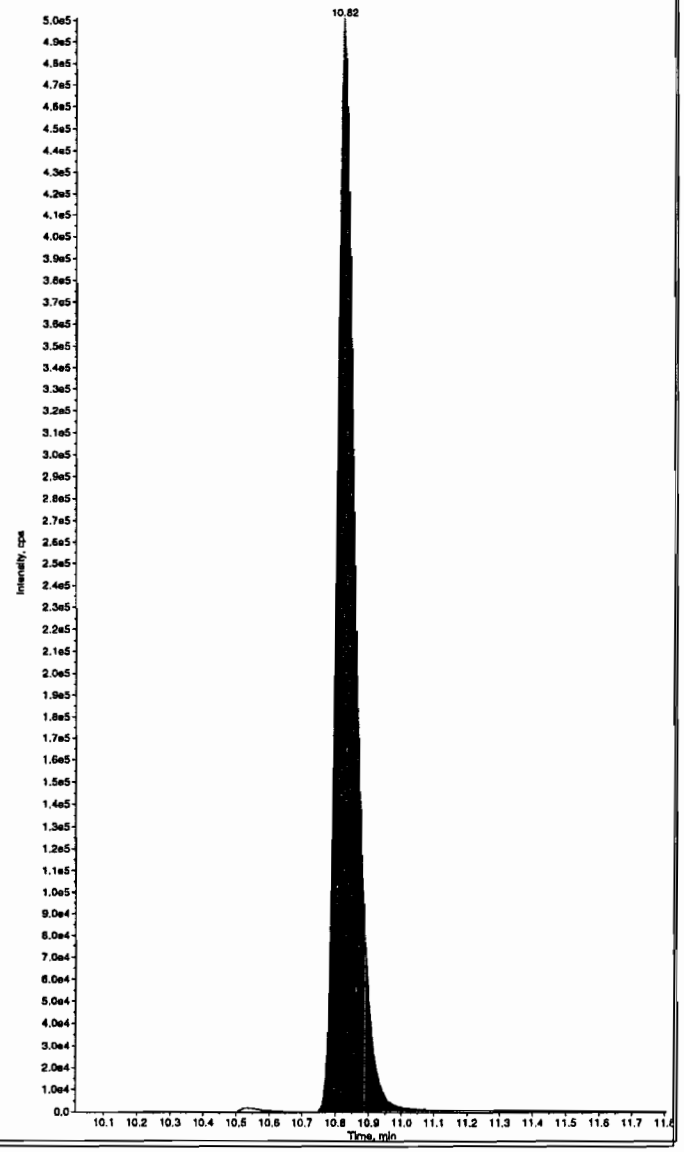

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04050063.wiff

Analysis Date: 06–APR–10 04:59

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	545	109	
2,6–Diamino–4–nitrotoluene	500	510	102	
3,4–Dinitrotoluene	250	245	98	
3,5–Dinitroaniline	500	513	103	
TATB	500	511	102	
tris(o–cresyl) phosphate	500	500	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Ocn 4/7/10

nple Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050063.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 511. ng/mL
Date: 4/6/2010
Time: 4:59:55 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.86 min
Relative RT: No

Type: Valley
ntion Time: 6.89 min
: 4.07e+005 counts
ht: 90371.147 cps
t Time: 6.80 min
Time: 7.51 min

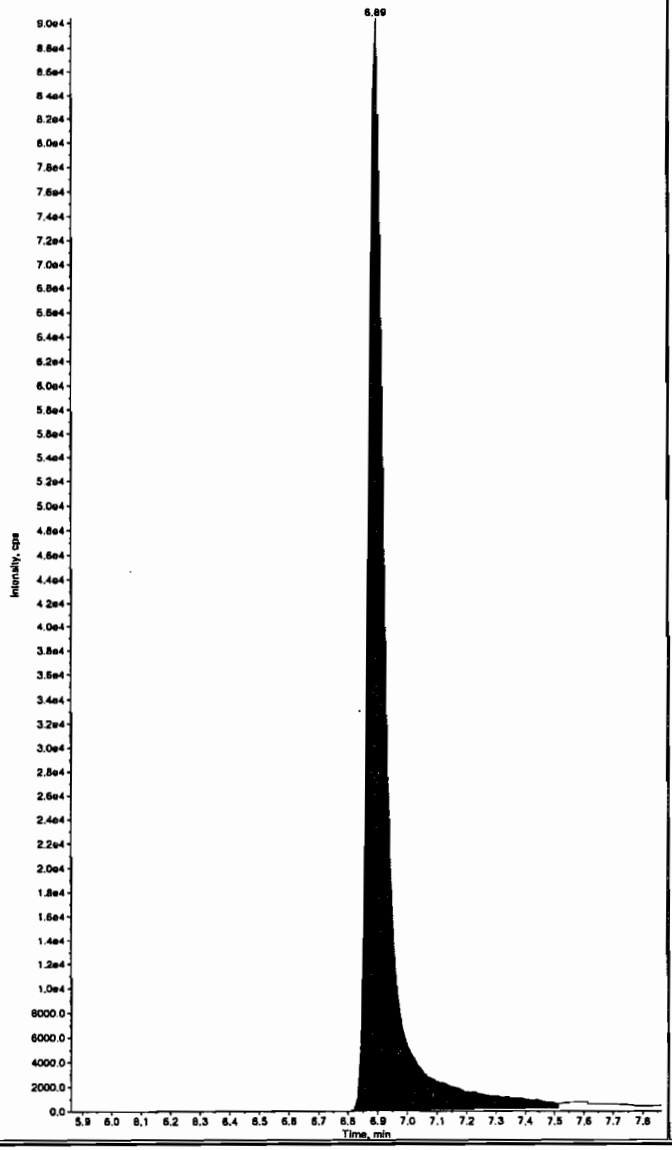

Sample Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050063.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 493. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 4:59:55 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.13 min
Area: 3.27e+006 counts
Height: 824554.504 cps
Start Time: 8.06 min
End Time: 8.26 min

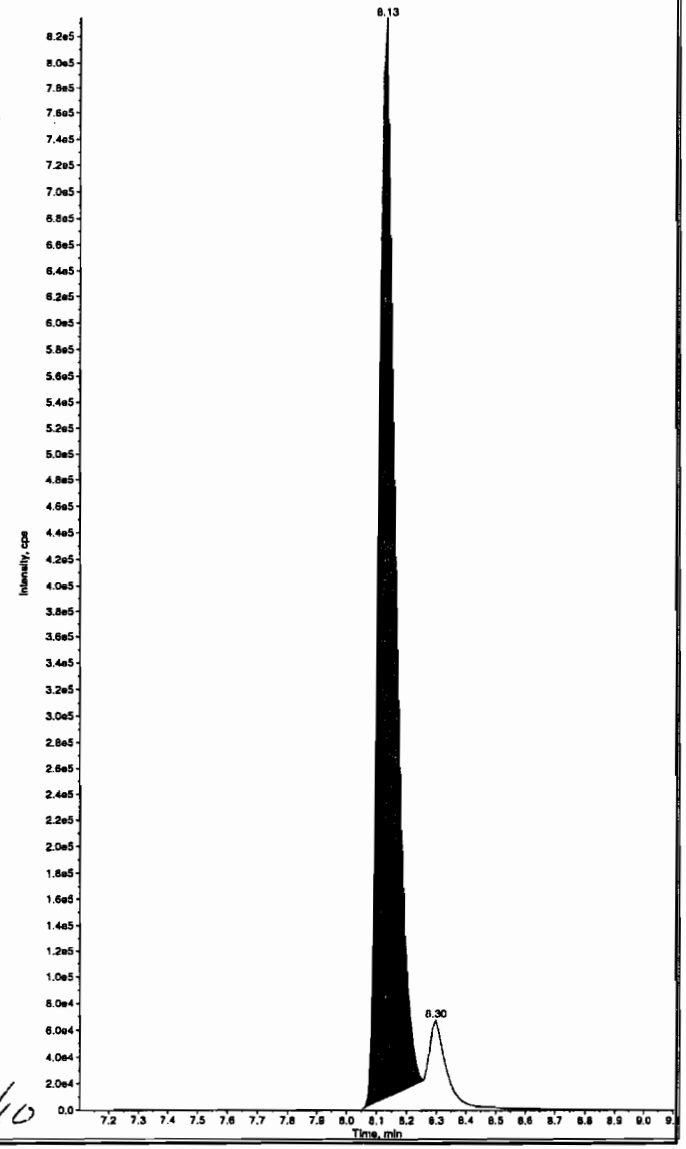

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

after Dan 4/7/10

ample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050063.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	500.	ng/mL
culated Conc:	511.	ng/mL
. Date:	4/6/2010	
. Time:	4:59:55 AM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	6.86	min
Relative RT:	No	
. Type:	Valley	
ention Time:	6.89	min
a:	4.07e+005	counts
ght:	90371.147	cps
rt Time:	6.80	min
Time:	7.51	min

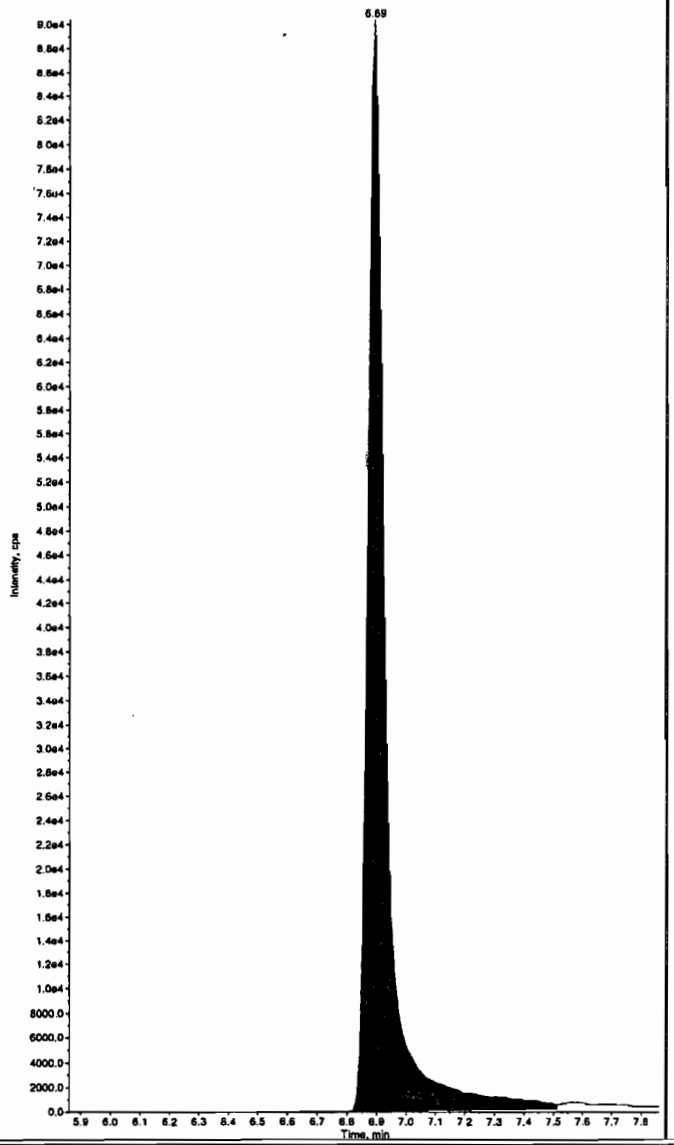

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050063.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	513.	ng/mL
Acq. Date:	4/6/2010	
Acq. Time:	4:59:55 AM	
Modified:	Yes	
RT Window:	15.0	sec
Expected RT:	8.10	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	8.13	min
Area:	3.40e+006	counts
Height:	836100.132	cps
Start Time:	8.06	min
End Time:	8.26	min

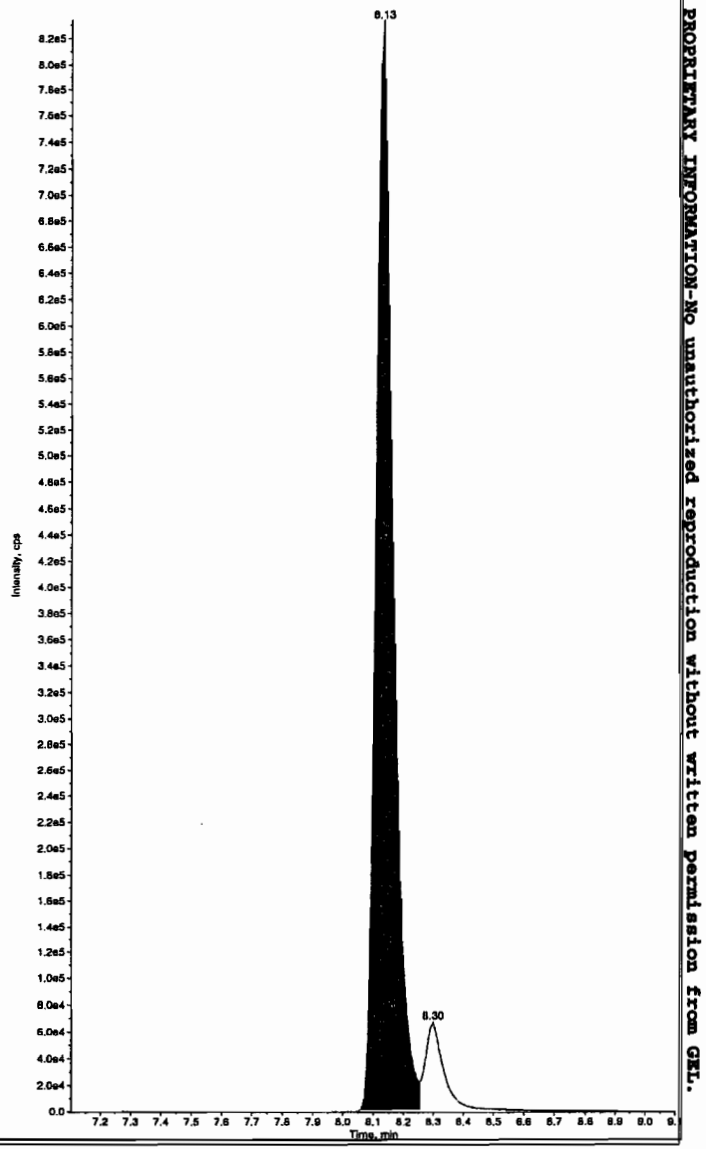

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050063.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 250. ng/mL
ulated Conc: 245. ng/mL
Date: 4/6/2010
Time: 4:59:55 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.28 min
Relative RT: No

Type: Valley
ntion Time: 8.29 min
: 2.09e+006 counts
nt: 531466.980 cps
t Time: 8.23 min
Time: 8.65 min

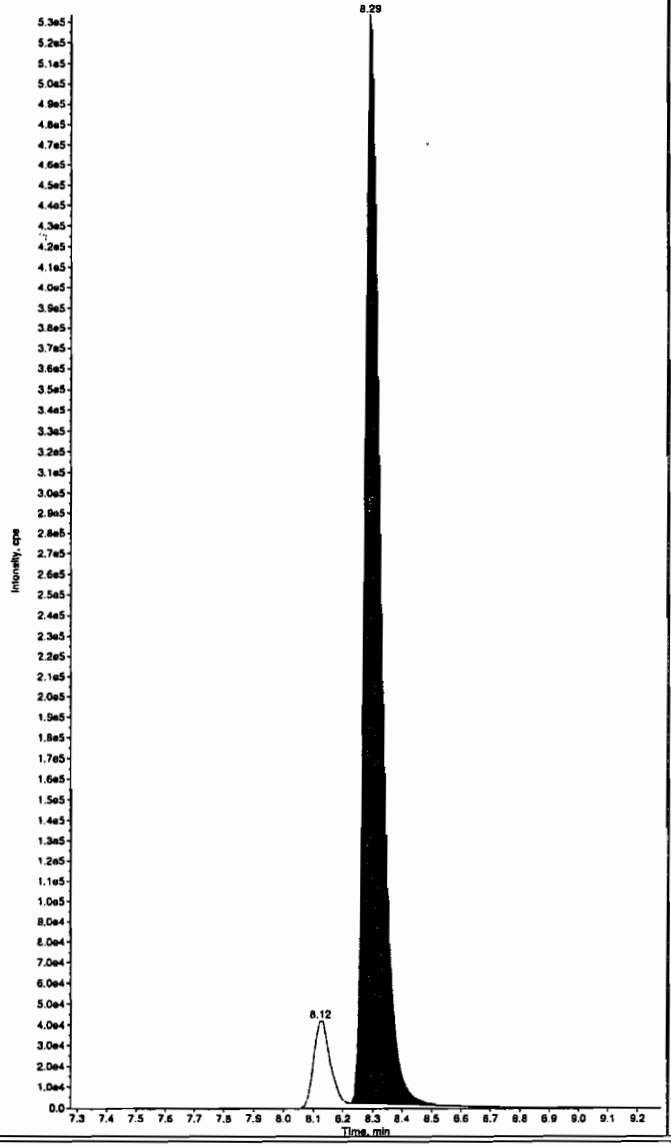

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050063.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 510. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 4:59:55 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.94 min
Area: 1.44e+006 counts
Height: 324868.744 cps
Start Time: 4.86 min
End Time: 5.24 min

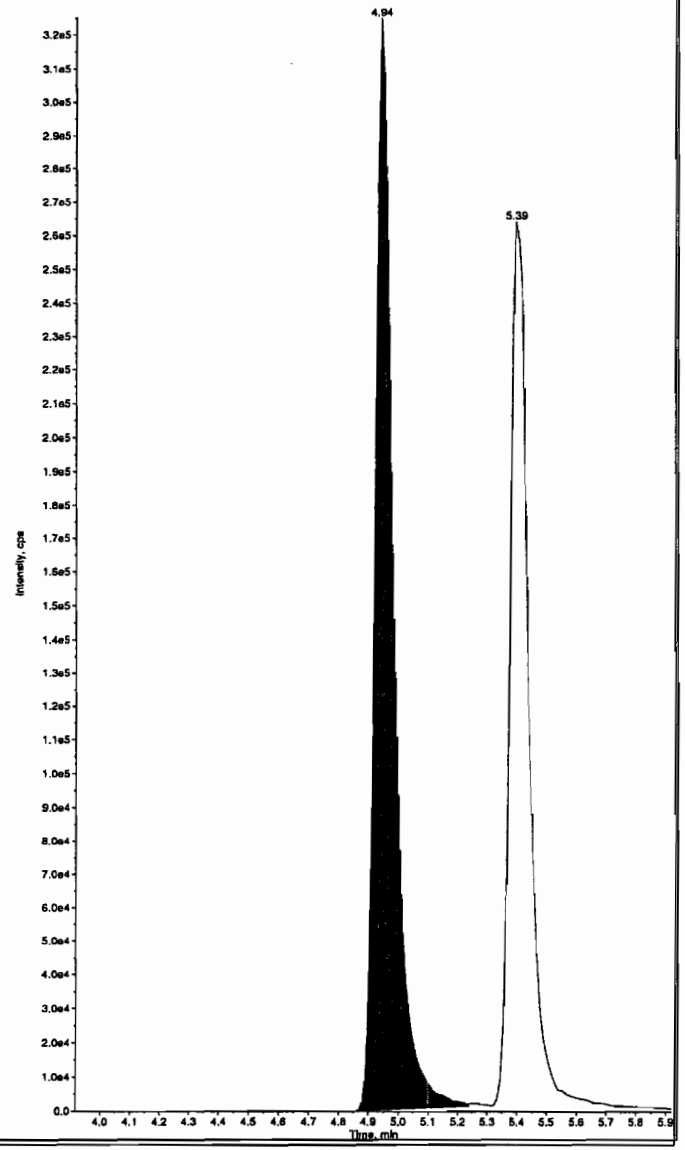

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mple Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050063.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
le Index:          1
le Type:           QC
entration:       500.     ng/mL
ulated Conc:     545.     ng/mL
 Date:        4/6/2010
 Time:        4:59:55 AM

fied:              No
. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00    cps
 Peak Width:    0.00    sec
thing Width:  3        points
Window:         30.0    sec
cted RT:         5.37   min
Relative RT:     No

 Type:         Valley
ntion Time:      5.39   min
:          1.17e+006   counts
ht:          262686.584  cps
t Time:          5.32   min
Time:            5.75   min
```

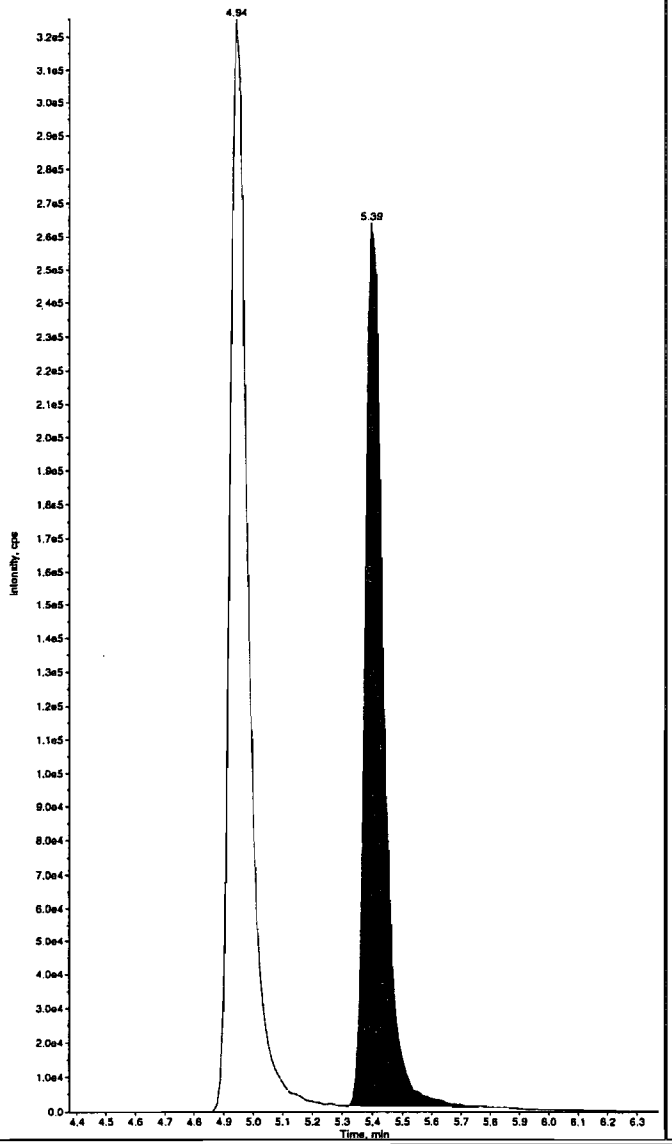

Sample Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050063.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       500.     ng/mL
Calculated Conc:     500.     ng/mL
Acq. Date:        4/6/2010
Acq. Time:        4:59:55 AM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:        10.8    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.8    min
Area:          9.00e+006   counts
Height:        2150083.496  cps
Start Time:         10.7    min
End Time:           11.1    min
```

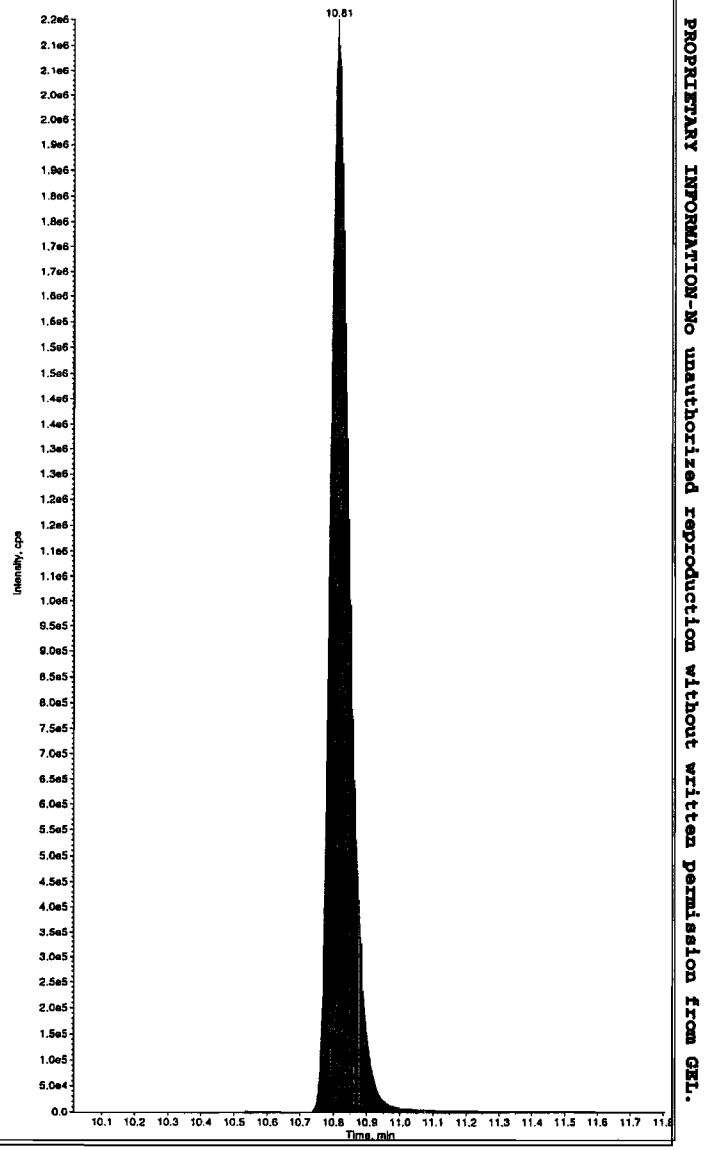

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04050065.wiff

Analysis Date: 06–APR–10 05:31

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
tris(o–cresyl) phosphate	100	112	112	
TATB	100	102	102	
2,4–Diamino–6–nitrotoluene	100	127	127	
2,6–Diamino–4–nitrotoluene	100	120	120	
3,4–Dinitrotoluene	50	55.5	111	
3,5–Dinitroaniline	100	115	115	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lan 4/7/10

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050065.wiff"
Peak Name: "TATB" Mass(as): "257.2/204.9 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 102. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 5:31:18 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2500.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 6.86 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 6.89 min
Area: 7.28e+004 counts
Height: 17437.691 cps
Start Time: 6.80 min
End Time: 7.22 min

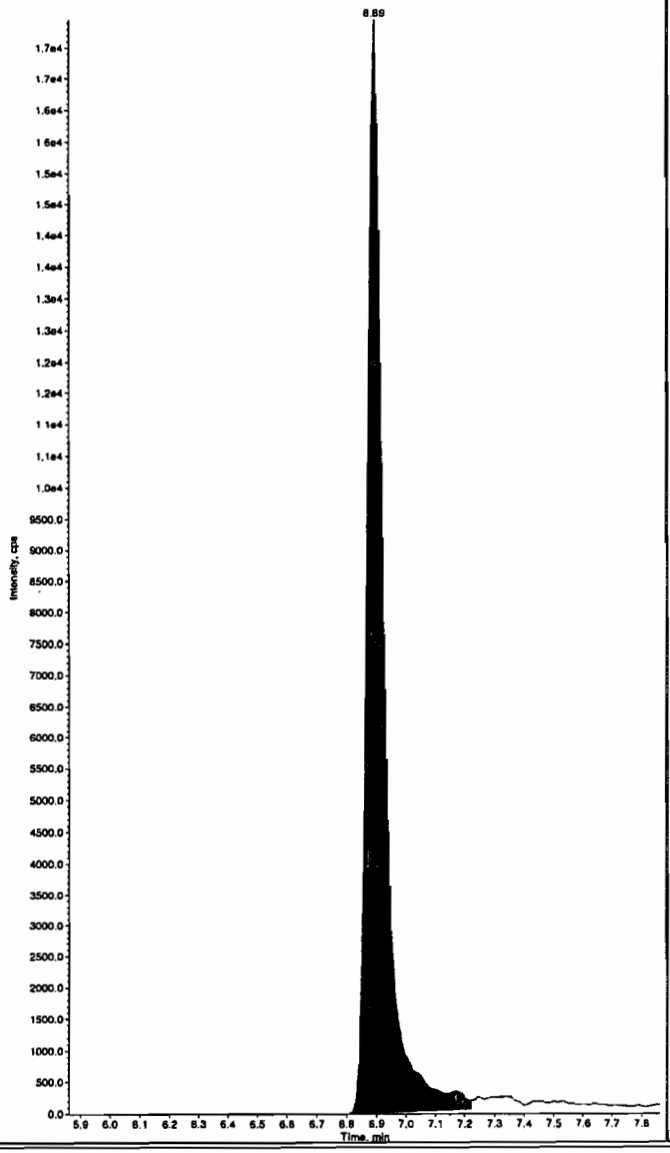

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050065.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 115. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 5:31:18 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.12 min
Area: 7.36e+005 counts
Height: 176065.170 cps
Start Time: 8.04 min
End Time: 8.26 min

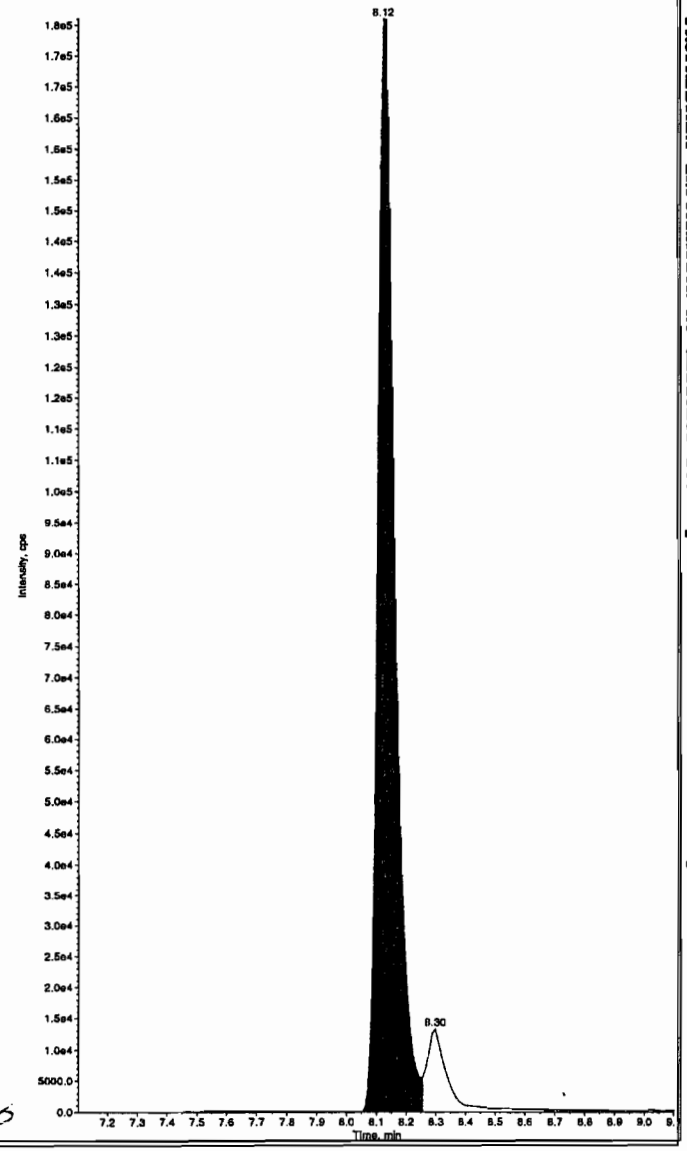

Hmm 04/08/10

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050065.wiff"
sk Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: **

le Index: 1
le Type: QC
entration: 50.0 ng/mL
ulated Conc: 55.5 ng/mL
Date: 4/6/2010
Time: 5:31:18 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.28 min
Relative RT: No

Type: Valley
ntion Time: 8.29 min
: 4.20e+005 counts
ht: 108718.582 cps
c Time: 8.22 min
Time: 8.59 min

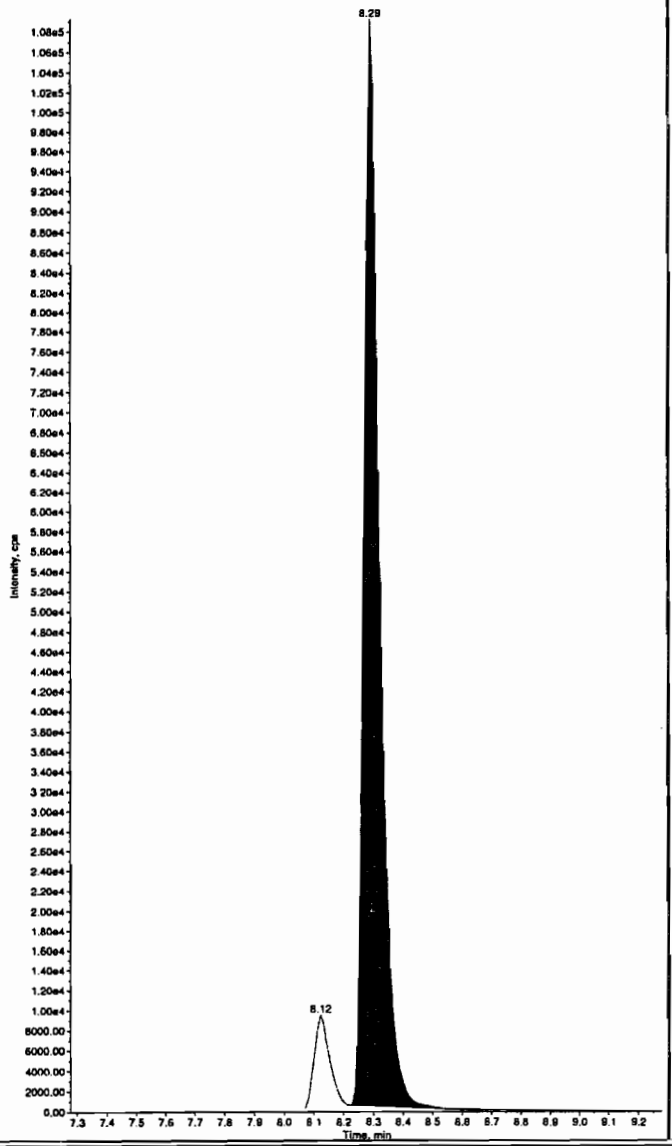

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050065.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: **

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 120. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 5:31:18 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.94 min
Area: 2.78e+005 counts
Height: 57544.590 cps
Start Time: 4.86 min
End Time: 5.24 min

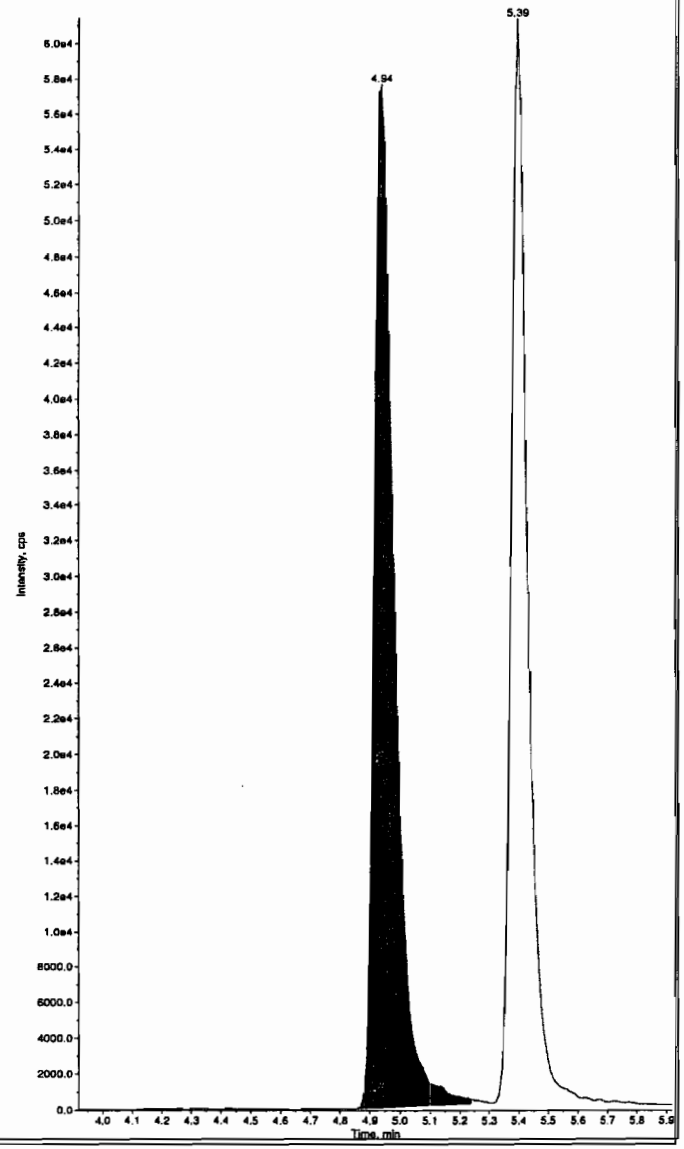

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nple Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050065.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "156.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 127. ng/mL
Date: 4/6/2010
Time: 5:31:18 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.37 min
Relative RT: No

Type: Valley
ntion Time: 5.39 min
: 2.40e+005 counts
ht: 60972.054 cps
t Time: 5.31 min
Time: 5.70 min

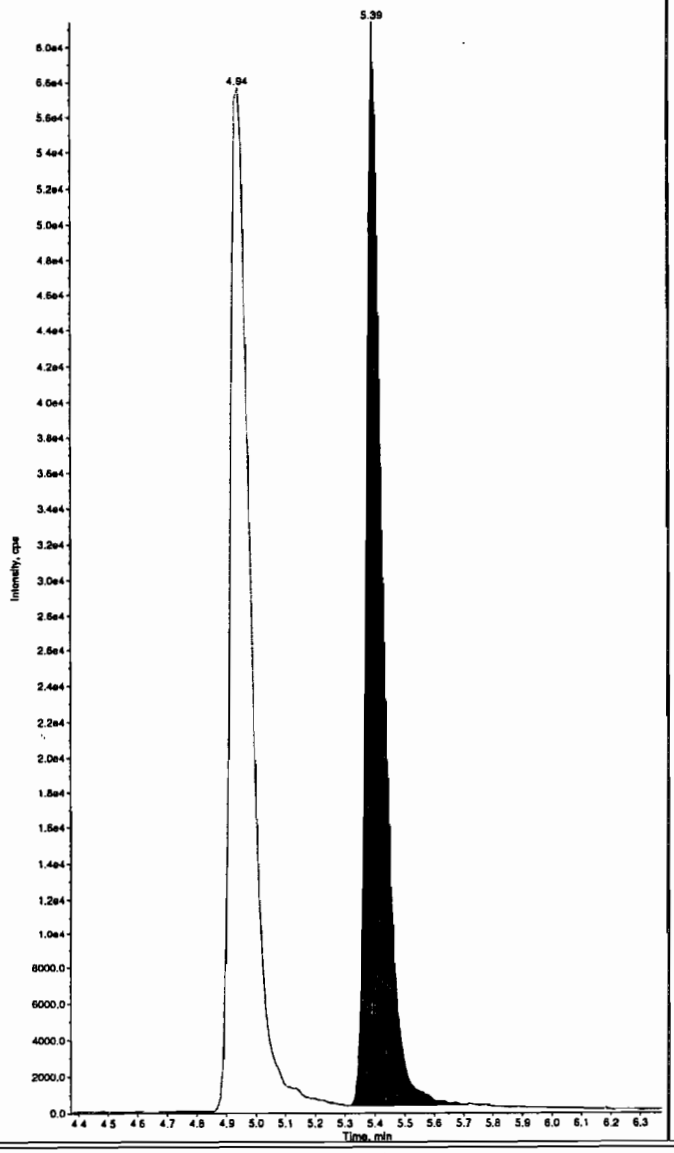

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050065.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 112. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 5:31:18 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 2.03e+006 counts
Height: 499661.285 cps
Start Time: 10.7 min
End Time: 11.2 min

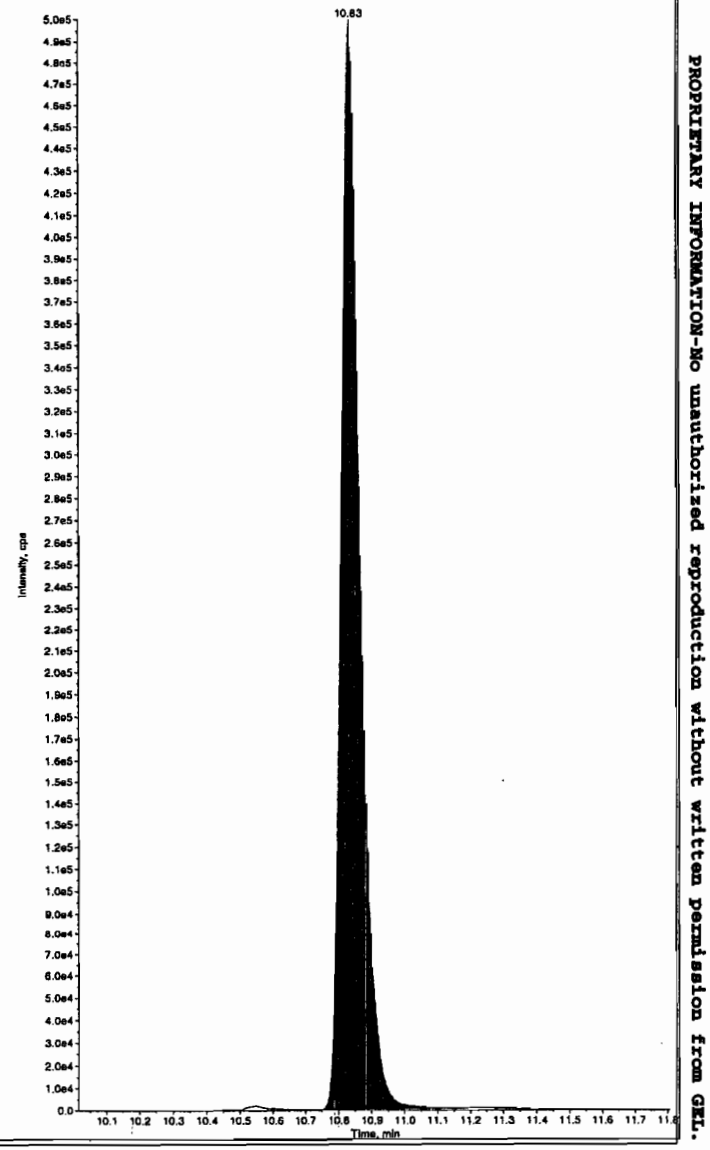

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04050071.wiff

Analysis Date: 06–APR–10 07:05

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	529	106	
2,6–Diamino–4–nitrotoluene	500	498	100	
3,4–Dinitrotoluene	250	232	93	
3,5–Dinitroaniline	500	508	102	
TATB	500	485	97	
tris(o–cresyl) phosphate	500	500	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Lcr 4/7/10

ample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050071.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 485. ng/mL
. Date: 4/6/2010
. Time: 7:05:35 AM

ified: No
. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Pesk Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
ected RT: 6.86 min
Relative RT: No

. Type: Valley
ention Time: 6.89 min
a: 3.86e+005 counts
ght: 81972.862 cps
rt Time: 6.79 min
Time: 7.60 min

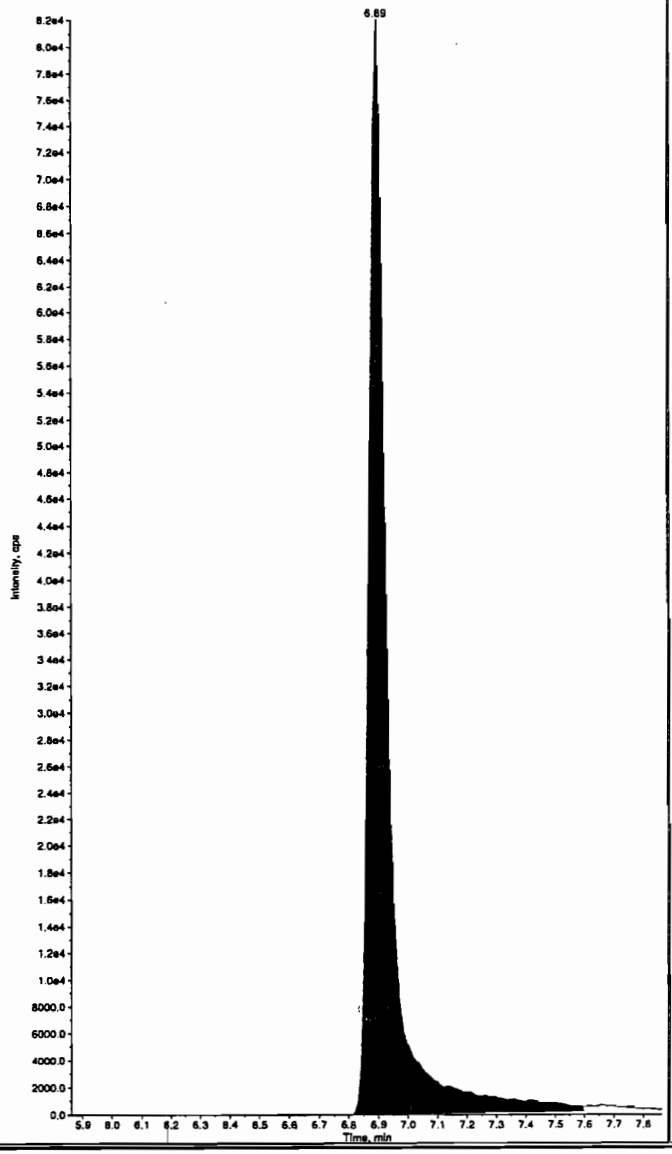

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050071.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 490. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 7:05:35 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.13 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.13 min
Area: 3.25e+006 counts
Height: 819595.947 cps
Start Time: 8.06 min
End Time: 8.26 min

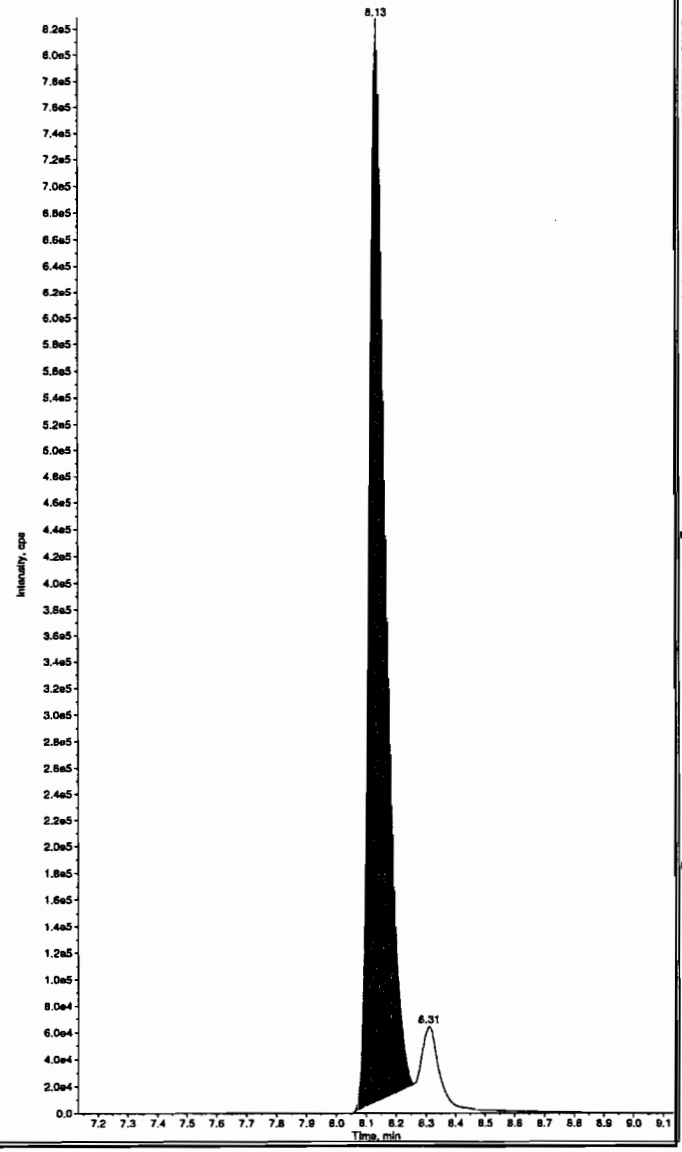

Hmm 04/08/10

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after Lar 4/7/10

ımple Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050071.wiff"
ıak Name: "TATB" Mass(es): "257.2/204.9 amu"
ımment: "LCMSEXP_C" Annotation: ""

›le Index:	1	
›le Type:	QC	
:entration:	500.	ng/mL
:ulated Conc:	485.	ng/mL
. Date:	4/6/2010	
. Time:	7:05:35 AM	
ıfied:	No	
:. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
›thing Width:	3	points
›indow:	30.0	sec
ıcted RT:	6.86	min
Relative RT:	No	
. Type:	Valley	
›ntion Time:	6.89	min
ı:	3.86e+005	counts
›ht:	81972.862	cps
:t Time:	6.79	min
Time:	7.60	min

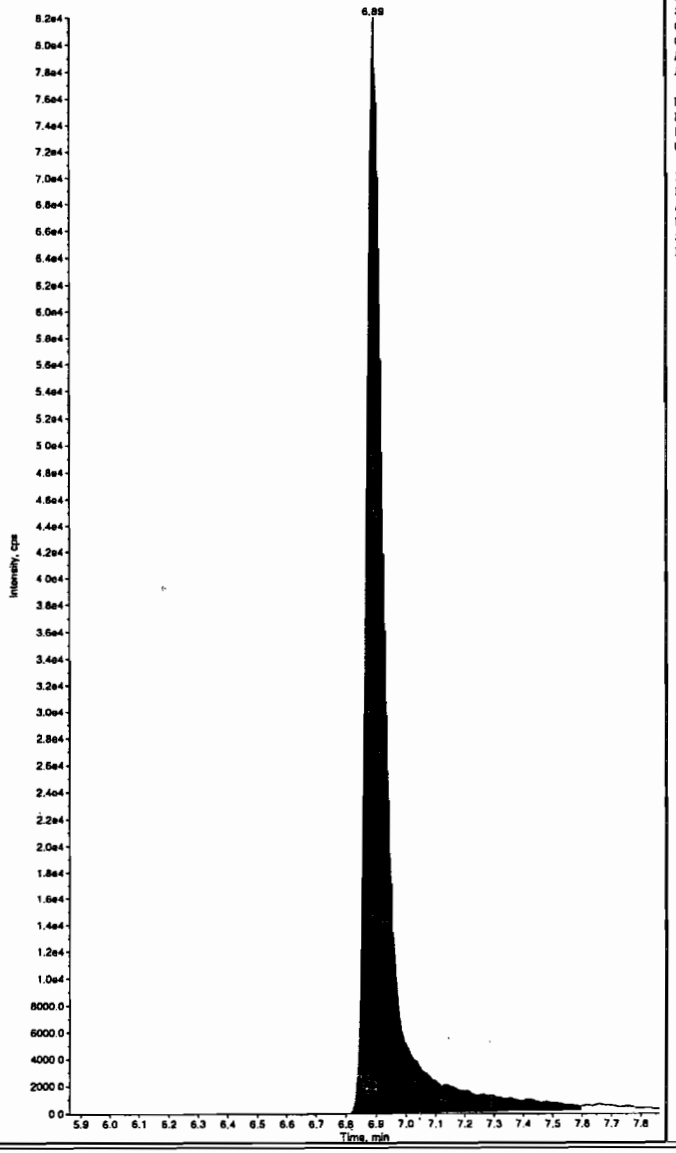

Sample Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050071.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	508.	ng/mL
Acq. Date:	4/6/2010	
Acq. Time:	7:05:35 AM	
Modified:	Yes	
RT Window:	25.0	sec
Expected RT:	8.13	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	8.13	min
Area:	3.36e+006	counts
Height:	826410.027	cps
Start Time:	8.06	min
End Time:	8.26	min

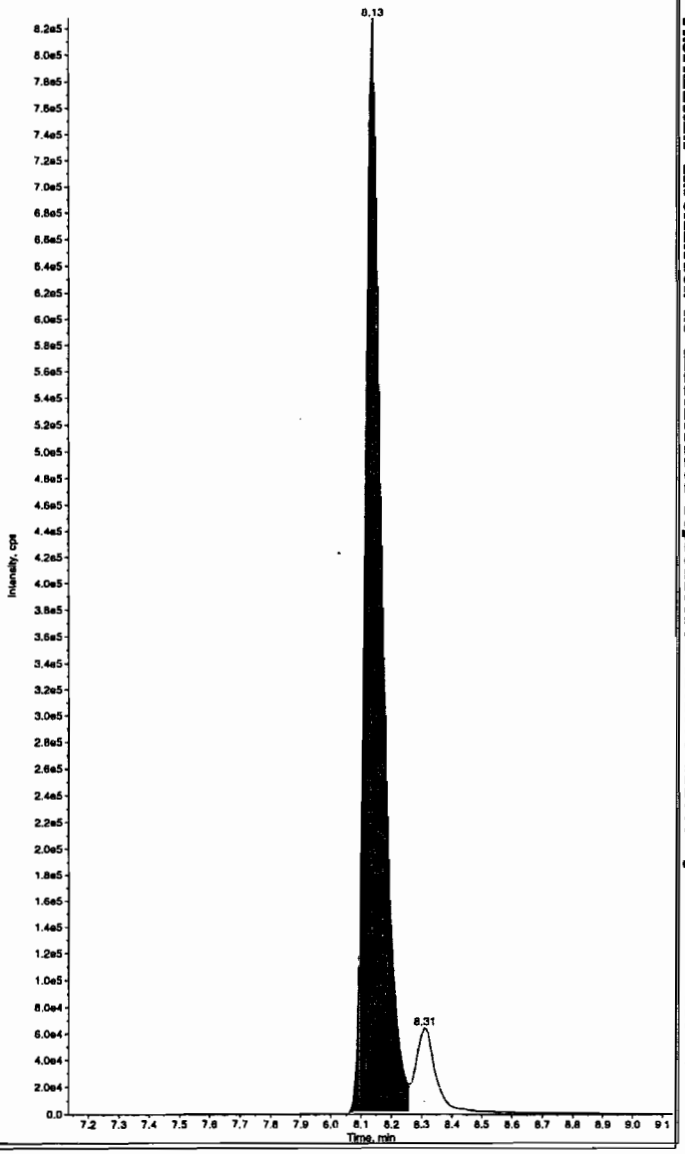

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050071.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:          1
ple Type:            QC
entration:        250.     ng/mL
culated Conc:     232.     ng/mL
. Date:        4/6/2010
. Time:        7:05:35 AM

fied:              No
. Algorithm: IntelliQuan - IQA
  Peak Height:1460.00   cps
  Peak Width:    0.00   sec
thing Width:  3        points
Window:         15.0    sec
cted RT:         8.28   min
 Relative RT:    No

 Type:         Valley
ntion Time:      8.30   min
:          1.98e+006   counts
ht:          500423.340  cps
t Time:          8.23   min
 Time:           8.56   min
```

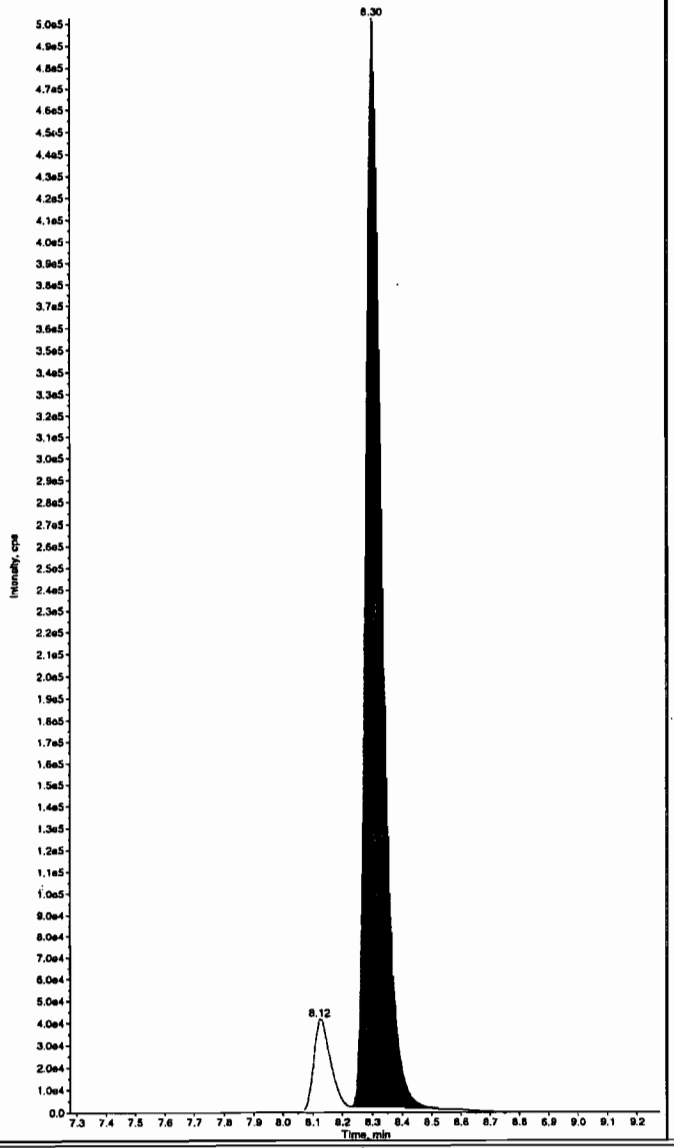

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050071.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(as): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:            QC
Concentration:        500.     ng/mL
Calculated Conc:      498.     ng/mL
Acq. Date:        4/6/2010
Acq. Time:        7:05:35 AM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:        4.92   min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     4.94   min
Area:          1.40e+006   counts
Height:        330309.174  cps
Start Time:         4.85   min
End Time:           5.25   min
```

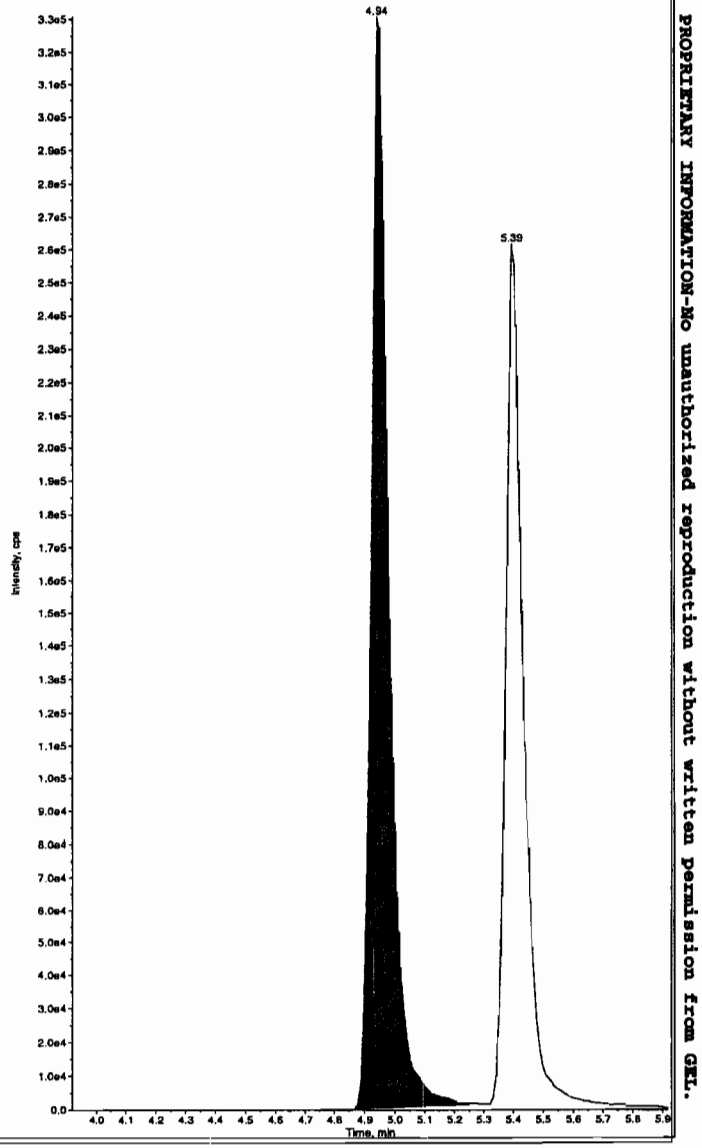

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nple Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050071.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 529. ng/mL
Date: 4/6/2010
Time: 7:05:35 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.37 min
Relative RT: No

Type: Valley
ntion Time: 5.39 min
: 1.13e+006 counts
ht: 261575.287 cps
t Time: 5.31 min
Time: 6.14 min

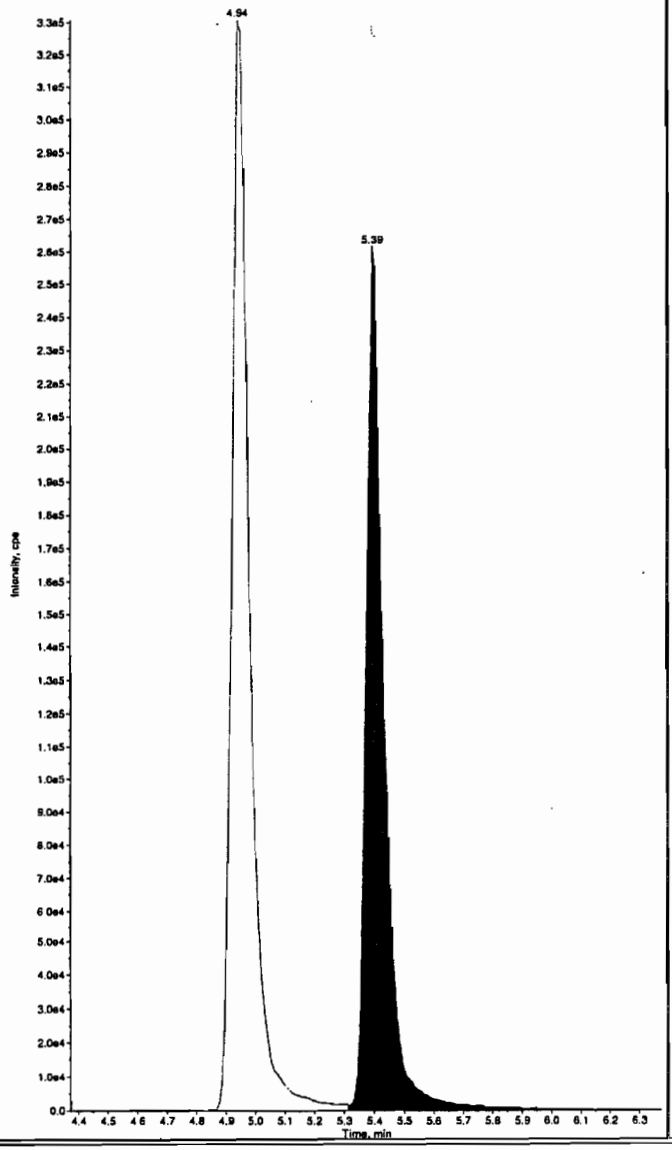

Sample Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050071.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 500. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 7:05:35 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 9.00e+006 counts
Height: 2106493.408 cps
Start Time: 10.7 min
End Time: 11.2 min

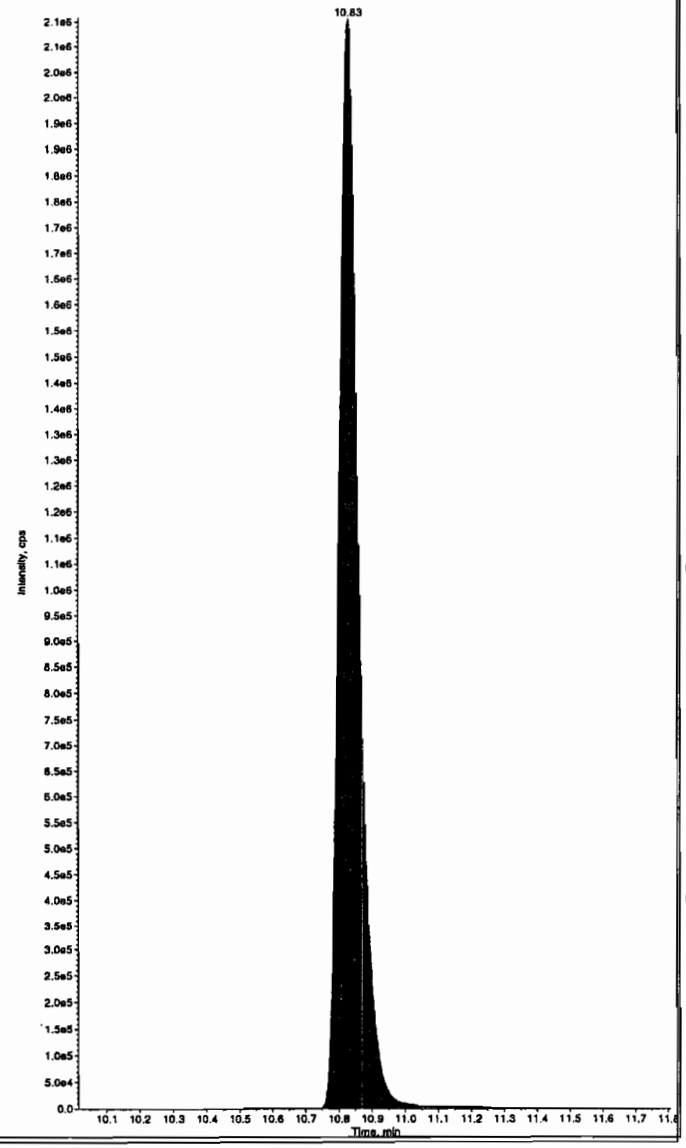

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXS04050073.wiff

Analysis Date: 06–APR–10 07:37

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	131	131	
2,6–Diamino–4–nitrotoluene	100	124	124	
3,4–Dinitrotoluene	50	54.8	110	
3,5–Dinitroaniline	100	119	119	
TATB	100	109	109	
tris(o–cresyl) phosphate	100	113	113	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lar 4/7/10

mple Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050073.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
entration: 100. ng/mL
culated Conc: 109. ng/mL
Date: 4/6/2010
Time: 7:37:00 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
Window: 30.0 sec
cted RT: 6.86 min
Relative RT: No

Type: Valley
ntion Time: 6.90 min
: 7.82e+004 counts
ht: 17356.895 cps
t Time: 6.78 min
Time: 7.59 min

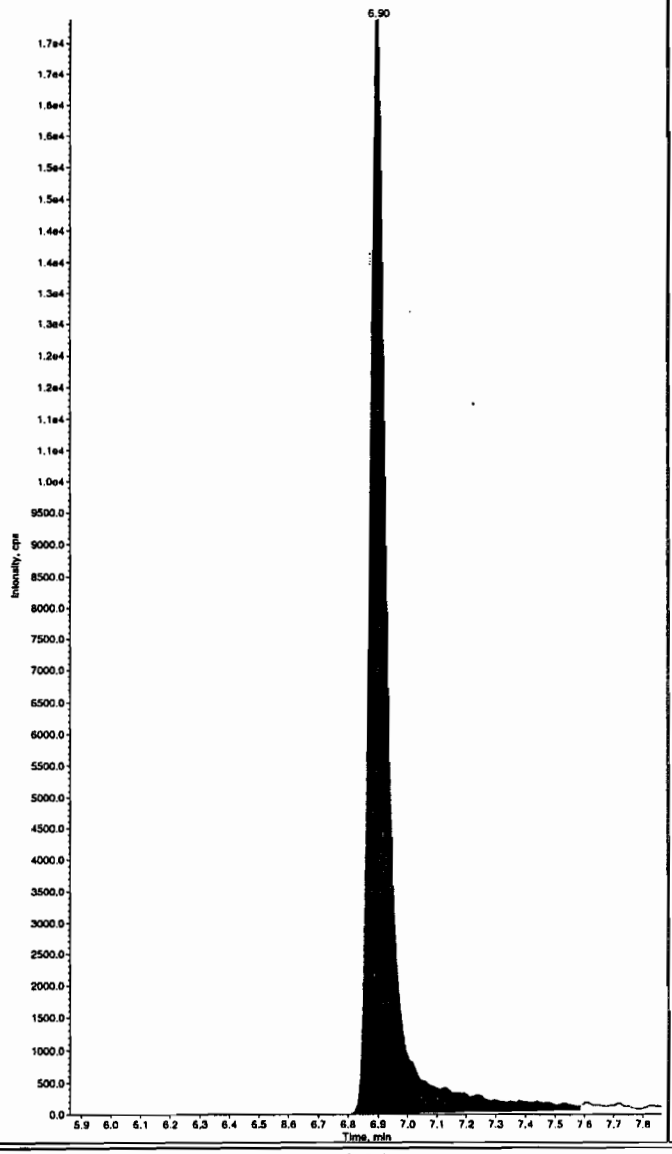

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050073.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 119. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 7:37:00 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.13 min
Area: 7.70e+005 counts
Height: 188518.494 cps
Start Time: 8.04 min
End Time: 8.27 min

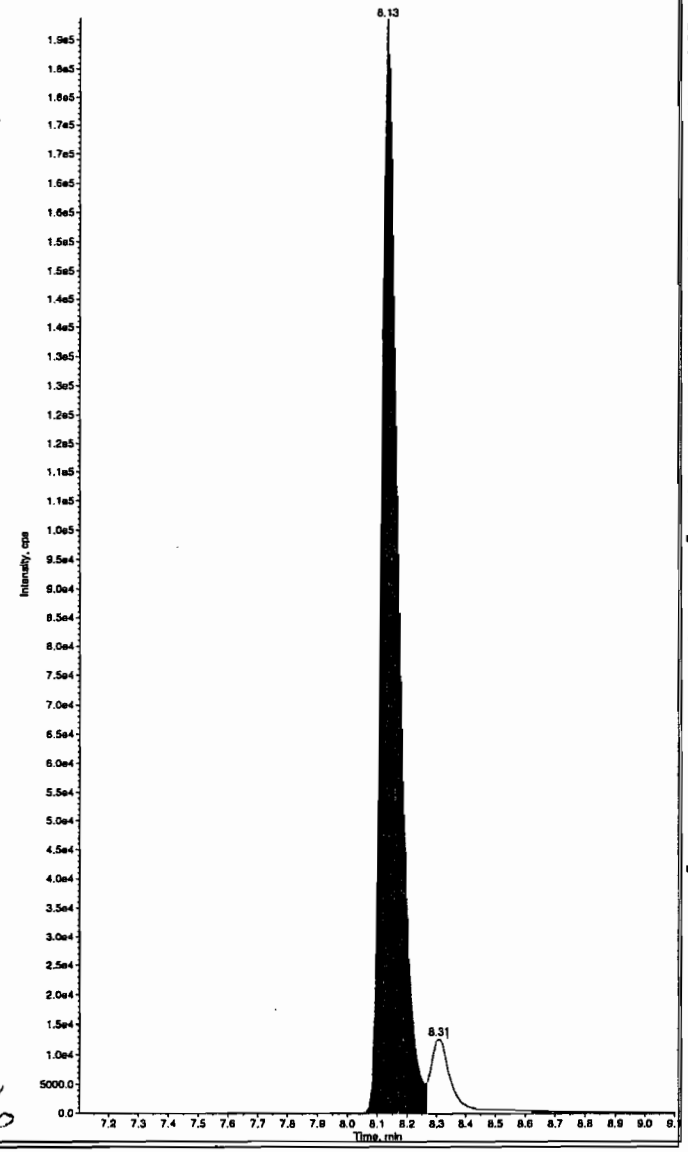

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050073.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

```
le Index:          1
le Type:          QC
entration:      50.0    ng/mL
ulated Conc:    54.8    ng/mL
 Date:       4/6/2010
 Time:       7:37:00 AM

fied:            No
. Algorithm: IntelliQuan - IQA
 Peak Height:1460.00   cps
 Peak Width:    0.00   sec
thing Width:  3       points
indow:         15.0    sec
cted RT:        8.28   min
 Relative RT:    No

 Type:        Valley
ntion Time:     8.30   min
:          4.13e+005   counts
ht:          105831.650  cps
t Time:         8.23   min
Time:           8.64   min
```

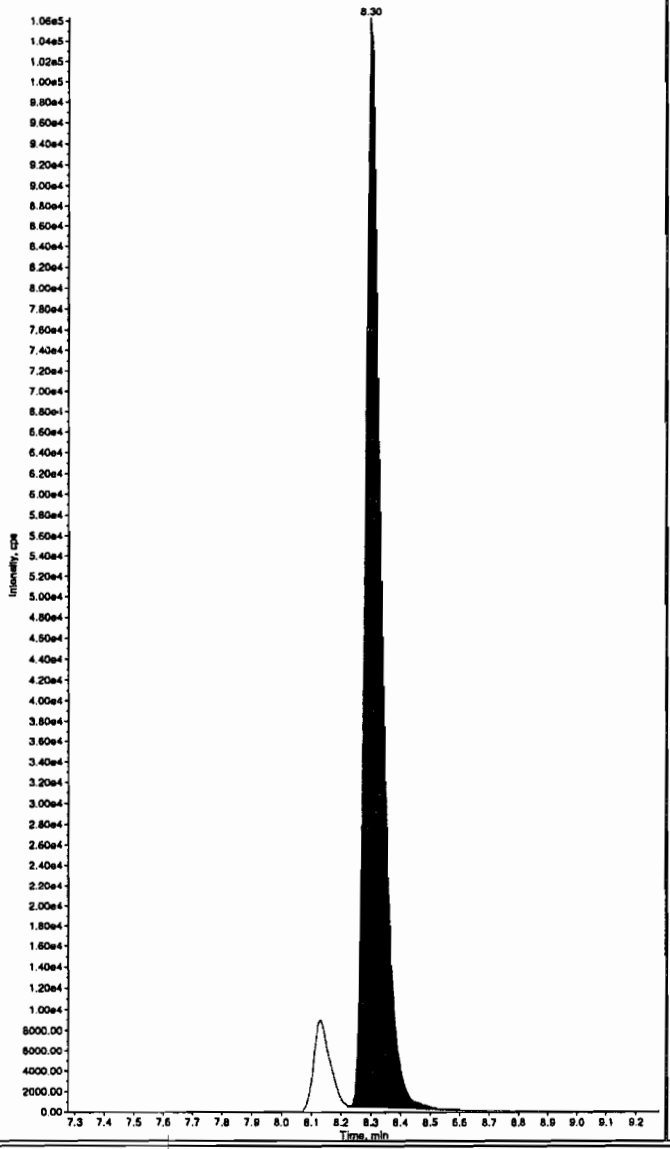

Sample Name: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050073.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:      100.    ng/mL
Calculated Conc:    124.    ng/mL
Acq. Date:       4/6/2010
Acq. Time:       7:37:00 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         30.0    sec
Expected RT:        4.92   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     4.95   min
Area:         2.92e+005   counts
Height:        61837.967  cps
Start Time:         4.85   min
End Time:           5.21   min
```

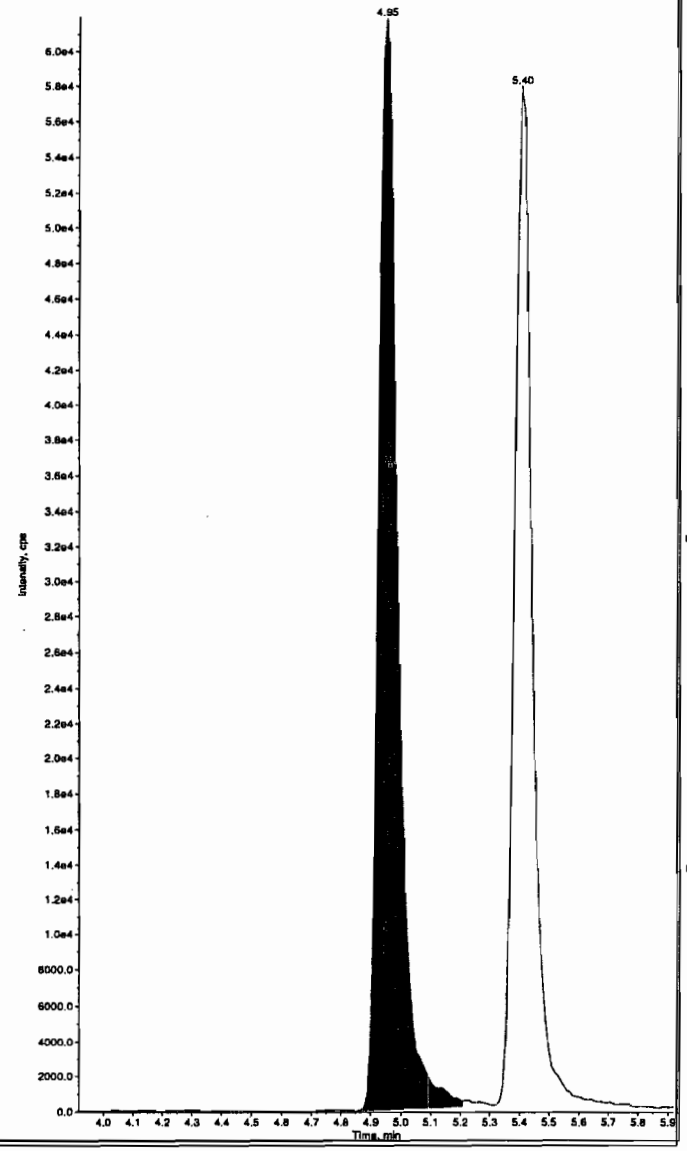

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050073.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 100. ng/mL
ulated Conc: 131. ng/mL
Date: 4/6/2010
Time: 7:37:00 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.37 min
Relative RT: No

Type: Valley
ntion Time: 5.40 min
: 2.48e+005 counts
ht: 57708.473 cps
t Time: 5.31 min
Time: 5.86 min

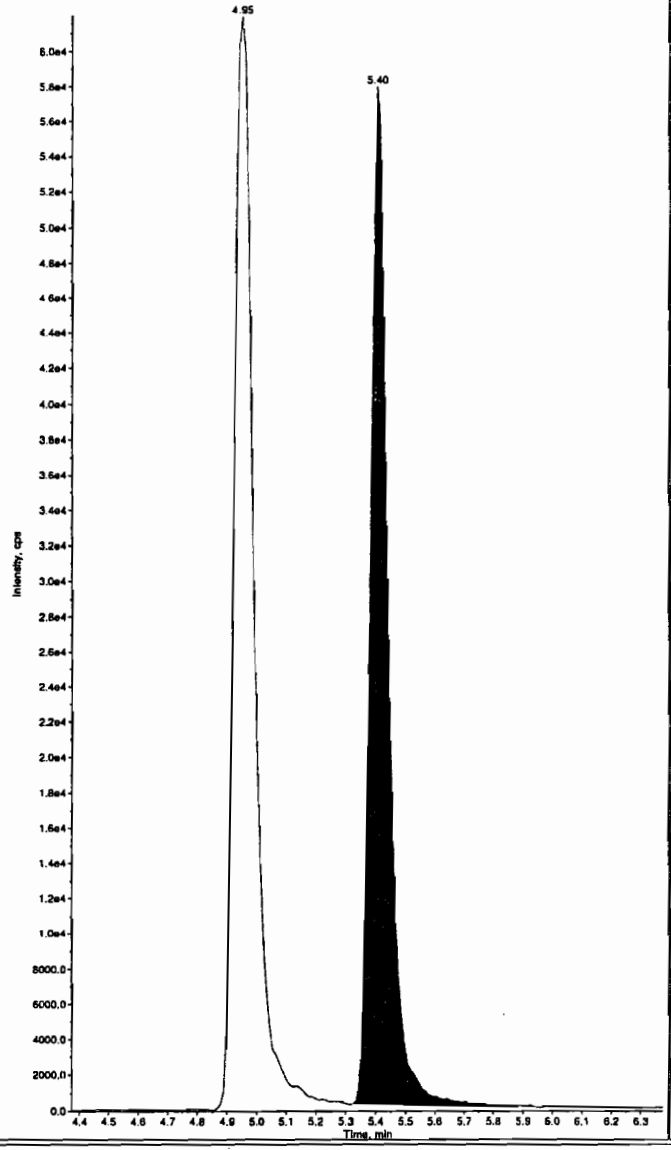

Sample Name: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050073.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 113. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 7:37:00 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 2.04e+006 counts
Height: 491745.026 cps
Start Time: 10.7 min
End Time: 11.2 min

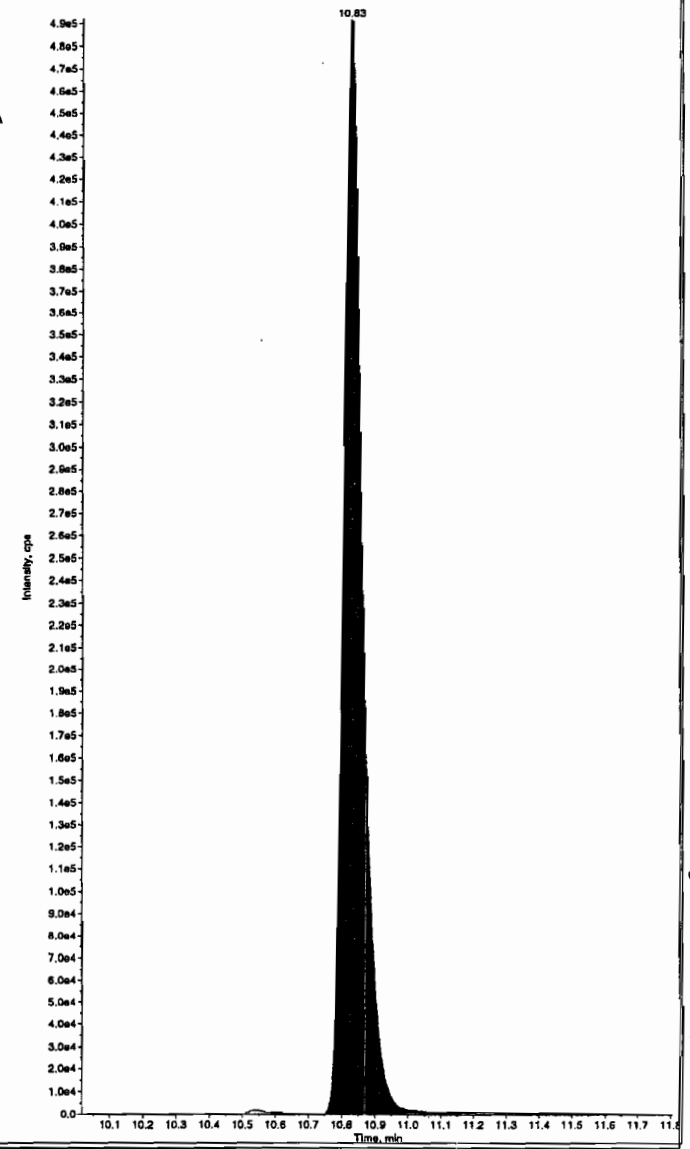

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04050084.wiff

Analysis Date: 06–APR–10 10:29

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
3,5–Dinitroaniline	500	526	105	
TATB	500	521	104	
tris(o–cresyl) phosphate	500	491	98	
2,4–Diamino–6–nitrotoluene	500	566	113	
2,6–Diamino–4–nitrotoluene	500	502	100	
3,4–Dinitrotoluene	250	227	91	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ser 4/7/10

nple Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050084.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 521. ng/mL
Date: 4/6/2010
Time: 10:29:45 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
'indow: 30.0 sec
cted RT: 6.86 min
Relative RT: No

Type: Valley
ntion Time: 6.88 min
: 4.15e+005 counts
ht: 86418.762 cps
't Time: 6.77 min
Time: 7.89 min

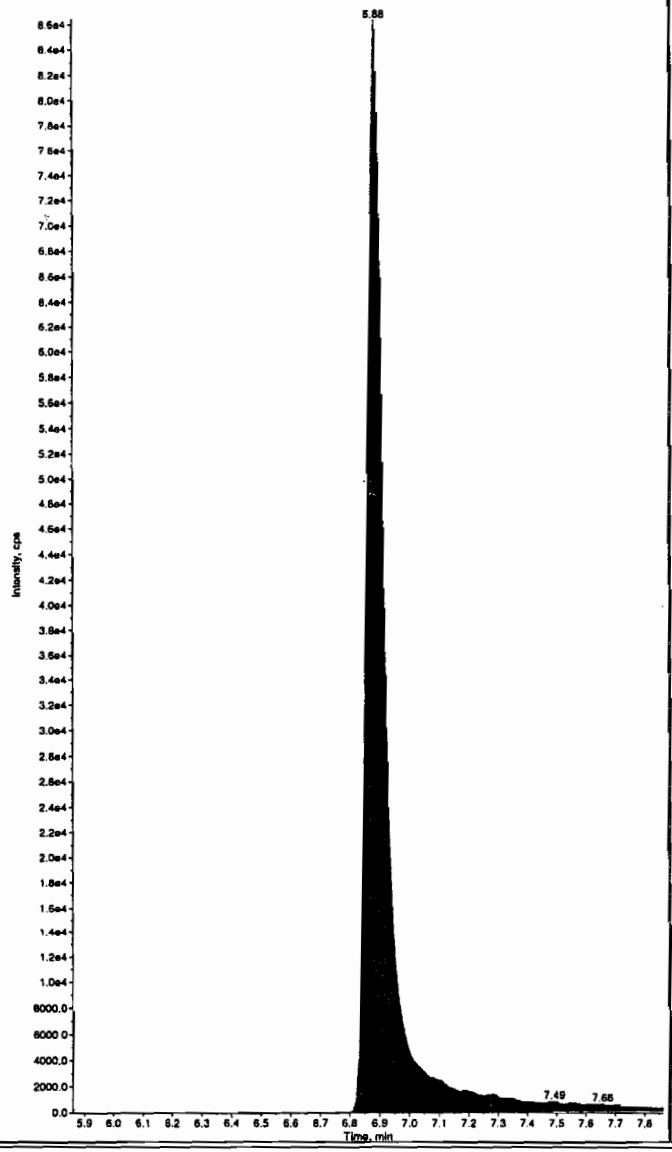

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050084.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 526. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 10:29:45 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.12 min
Area: 3.48e+006 counts
Height: 830225.952 cps
Start Time: 8.03 min
End Time: 8.25 min

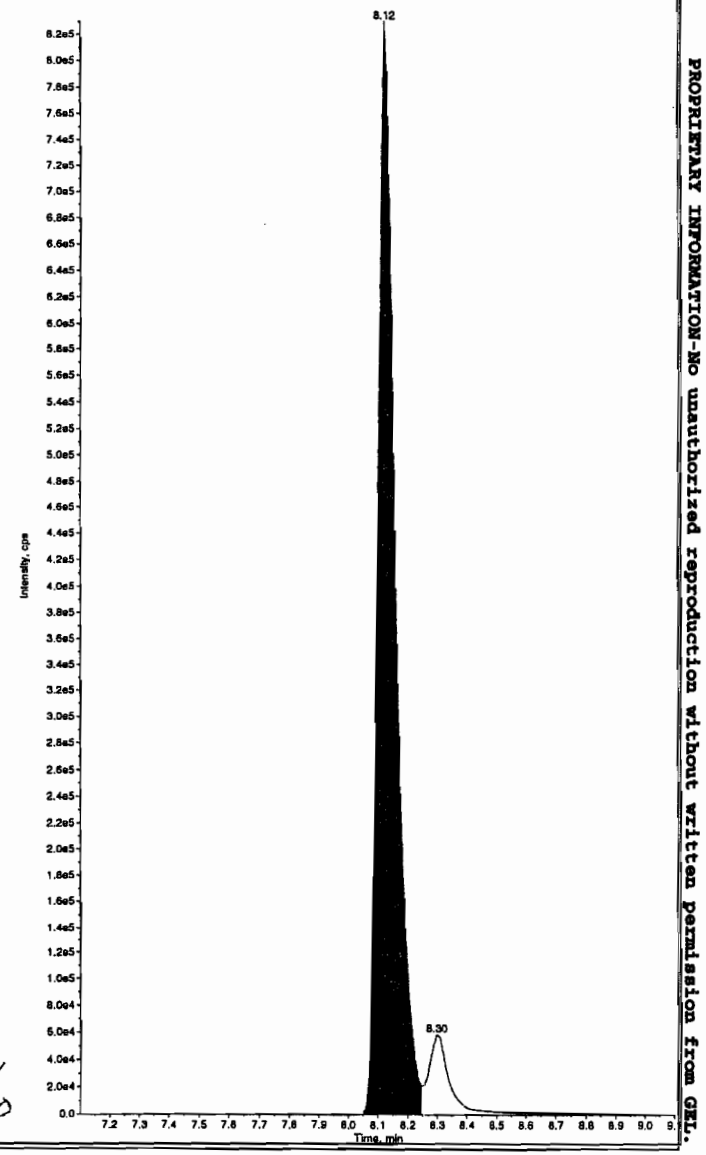

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050084.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:        1
ple Type:          QC
entration:       250.    ng/mL
culated Conc:    227.    ng/mL
 Date:        4/6/2010
 Time:        10:29:45 AM

fied:              No
:. Algorithm: IntelliQuan - IQA
 Peak Height:1460.00   cps
 Peak Width:    0.00   sec
thing Width:  3       points
/indow:         15.0   sec
cted RT:         8.28  min
 Relative RT:    No

 Type:         Valley
ntion Time:      8.30  min
.:          1.93e+006  counts
ht:          486268.158  cps
t Time:          8.23  min
 Time:           8.66  min
```

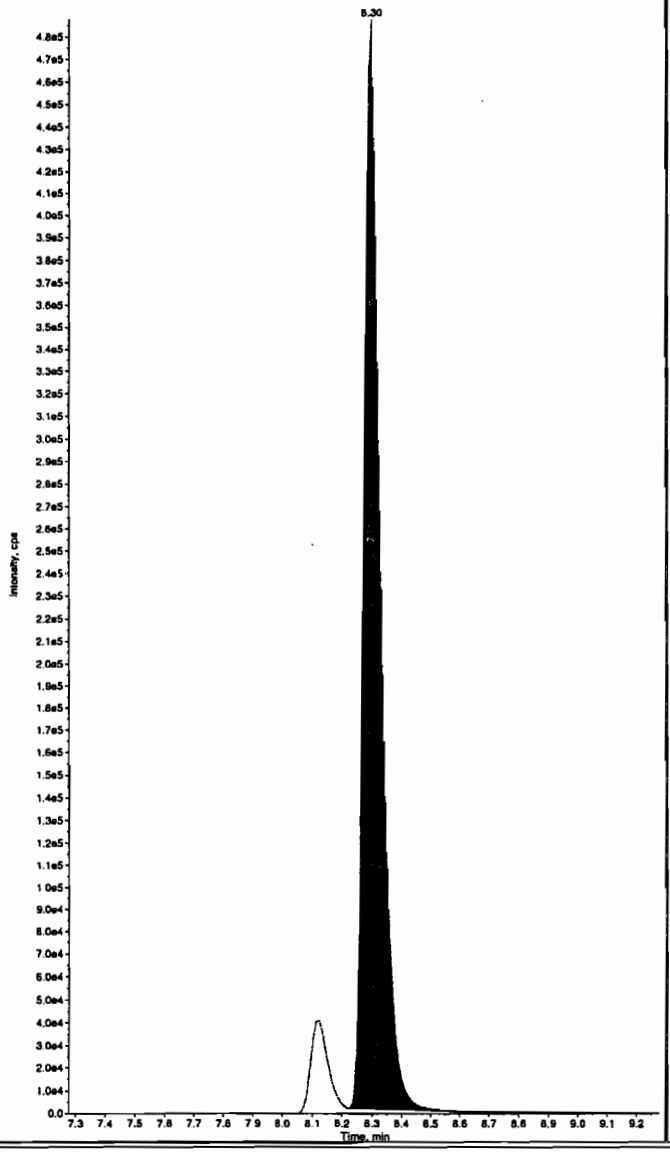

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050084.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:          QC
Concentration:       500.    ng/mL
Calculated Conc:     502.    ng/mL
Acq. Date:        4/6/2010
Acq. Time:        10:29:45 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         30.0    sec
Expected RT:        4.92   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     4.94   min
Area:         1.42e+006   counts
Height:        327911.011  cps
Start Time:         4.84   min
End Time:           5.24   min
```

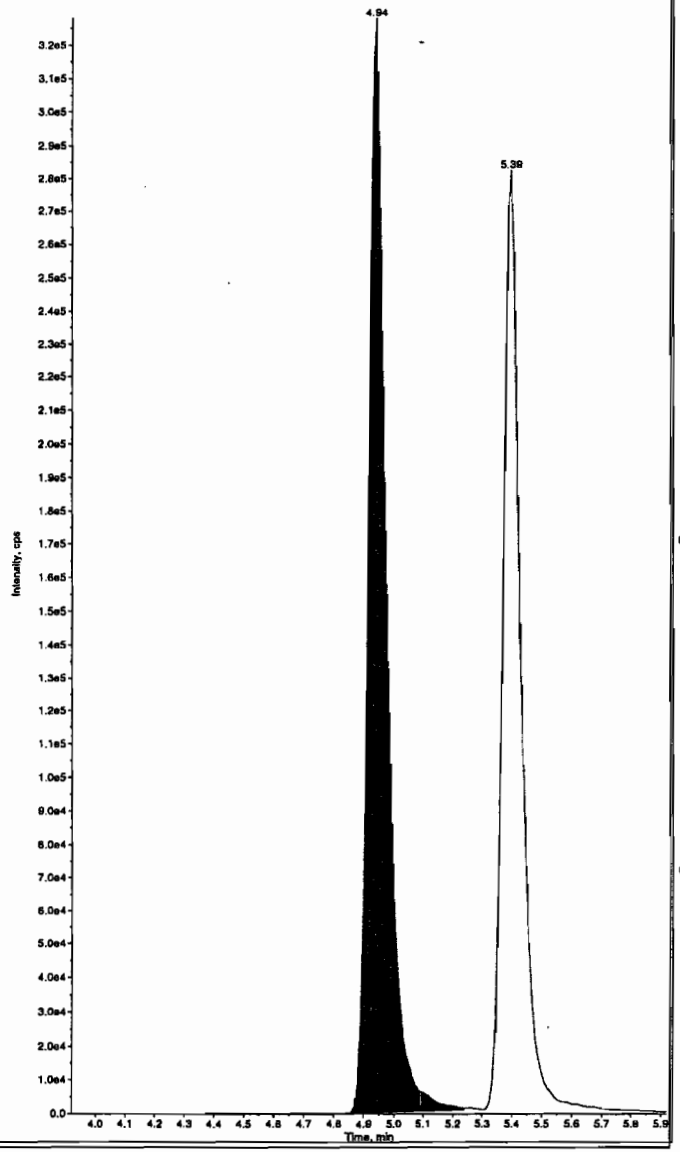

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nple Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050084.wiff"
uk Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 566. ng/mL
Date: 4/6/2010
Time: 10:29:45 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.37 min
Relative RT: No

Type: Valley
ntion Time: 5.39 min
: 1.21e+006 counts
ht: 282343.506 cps
t Time: 5.30 min
Time: 5.91 min

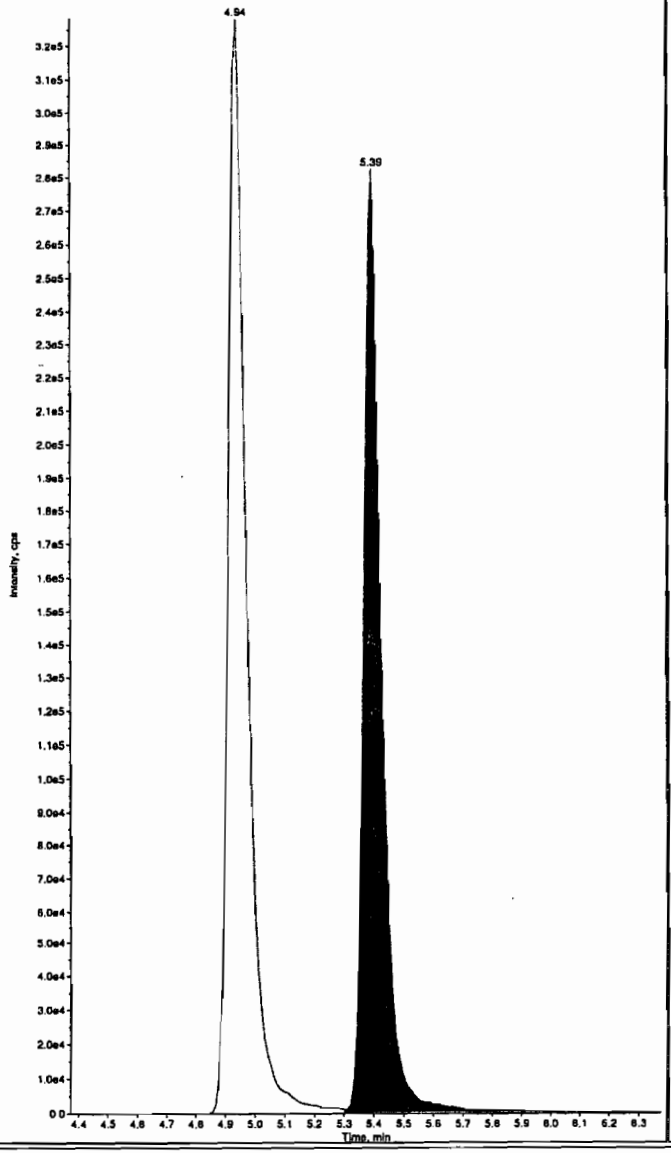

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050084.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 491. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 10:29:45 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 8.84e+006 counts
Height: 2101439.941 cps
Start Time: 10.7 min
End Time: 11.2 min

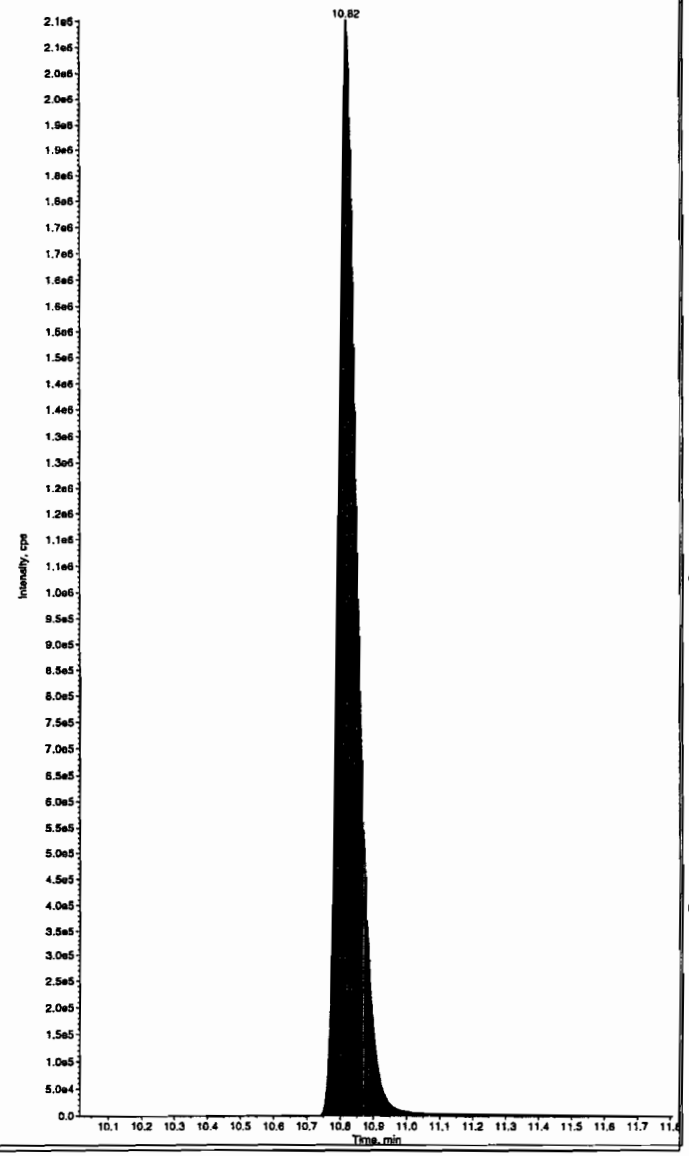

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2039

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04050086.wiff

Analysis Date: 06–APR–10 11:01

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	121	121	
2,6–Diamino–4–nitrotoluene	100	122	122	
3,4–Dinitrotoluene	50	54.1	108	
3,5–Dinitroaniline	100	114	114	
TATB	100	98.7	99	
tris(o–cresyl) phosphate	100	109	109	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lcn 4/7/10

ple Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050086.wiff"
(Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_C" Annotation: ""
.e Index: 1
e Type: QC
ntration: 100. ng/mL
lated Conc: 98.7 ng/mL
Date: 4/6/2010
Time: 11:01:10 AM

ied: No
Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 30.0 sec
ted RT: 6.86 min
lelative RT: No

Type: Valley
ition Time: 6.88 min
6.97e+004 counts
it: 16181.147 cps
: Time: 6.79 min
ime: 7.32 min

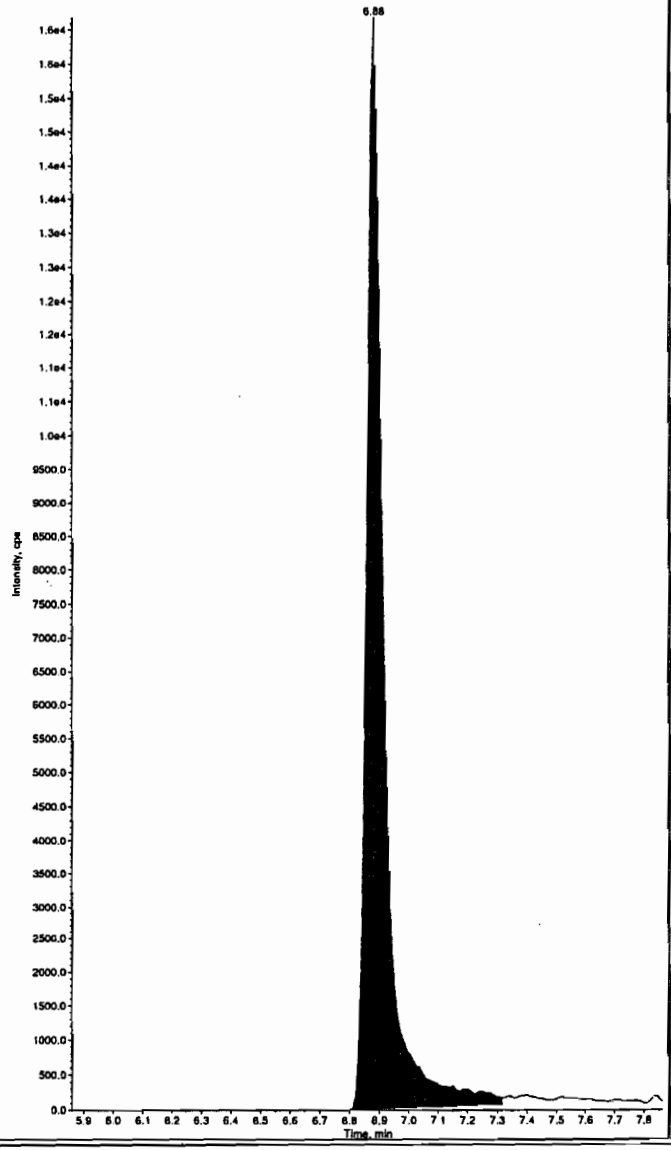

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050086.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 114. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 11:01:10 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.13 min
Area: 7.31e+005 counts
Height: 176888.672 cps
Start Time: 8.00 min
End Time: 8.26 min

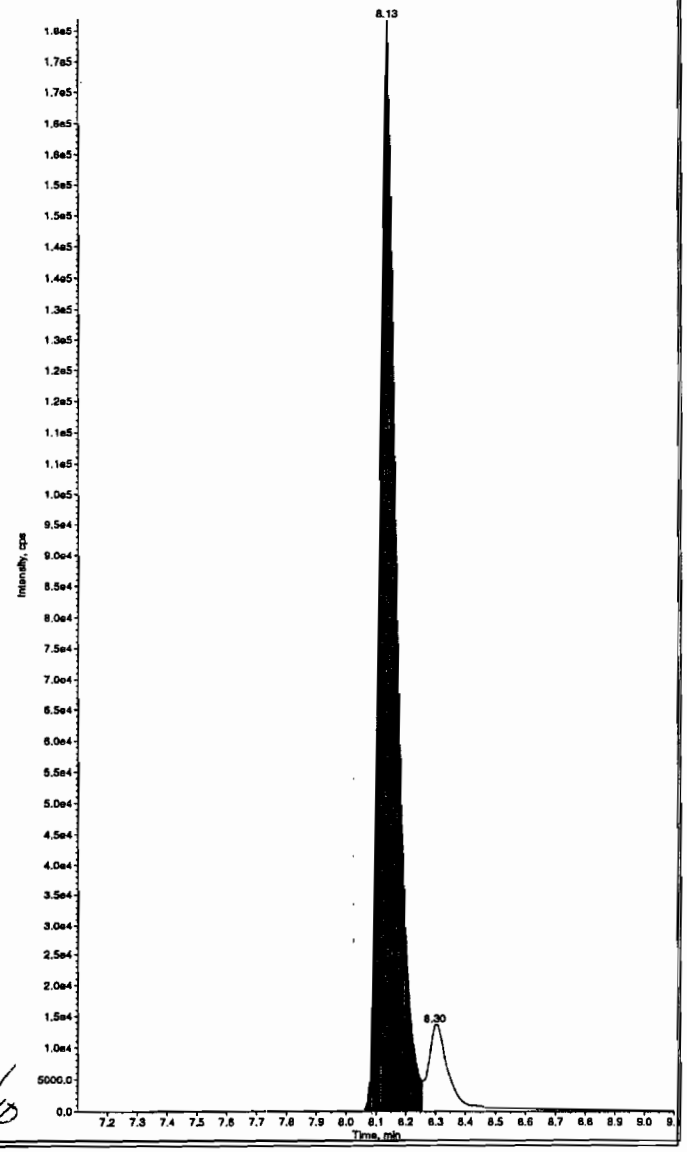

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050086.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""
ple Index: 1
ple Type: QC
centration: 50.0 ng/mL
culated Conc: 54.1 ng/mL
. Date: 4/6/2010
. Time: 11:01:10 AM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.28 min
Relative RT: No

. Type: Valley
ention Time: 8.30 min
a: 4.07e+005 counts
ght: 106456.566 cps
rt Time: 8.23 min
Time: 8.61 min

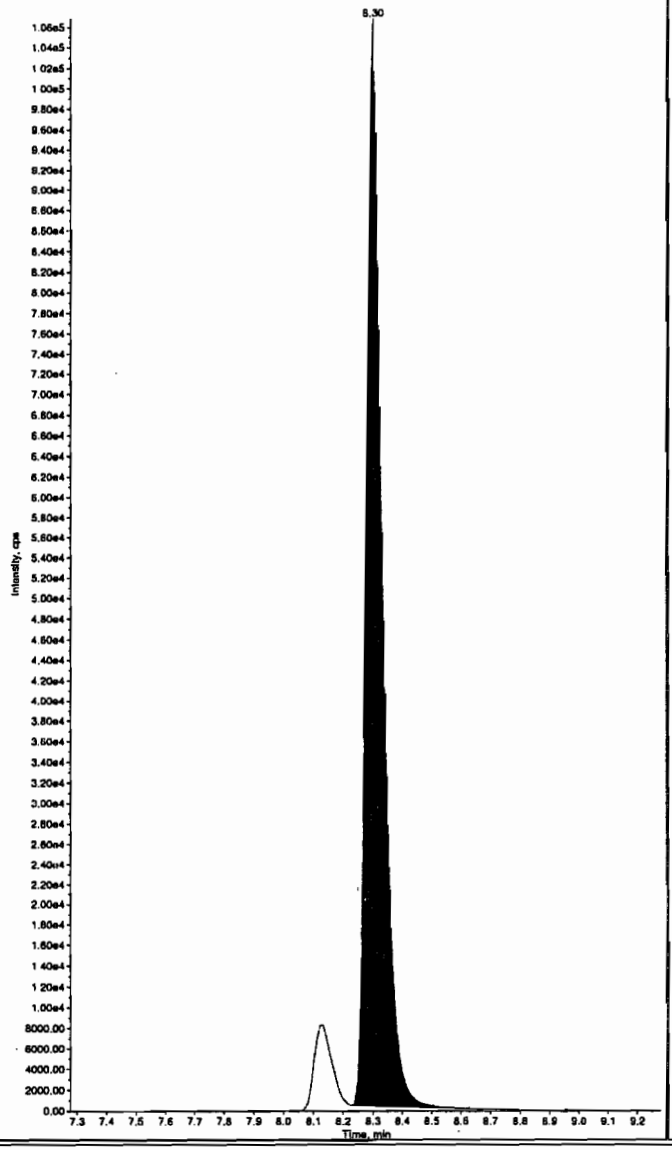

Sample Name: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050086.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 122. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 11:01:10 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.93 min
Area: 2.86e+005 counts
Height: 63735.477 cps
Start Time: 4.84 min
End Time: 5.23 min

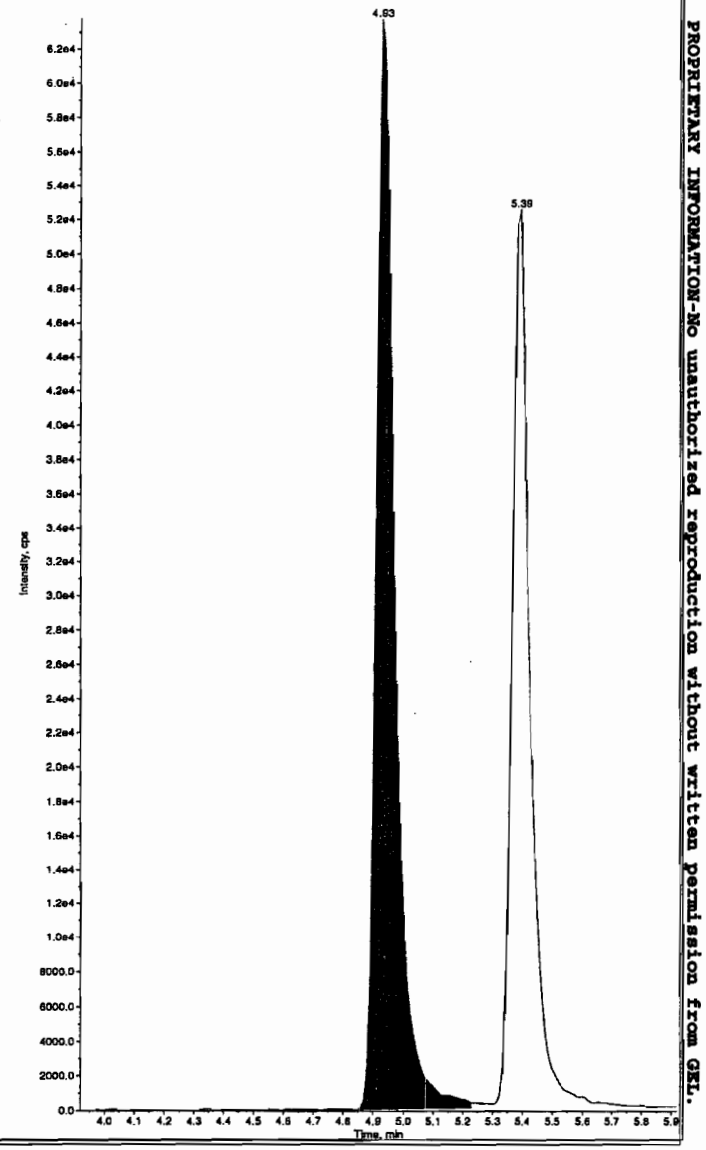

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

mple Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050086.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

```
ple Index:        1
ple Type:          QC
entration:       100.     ng/mL
culated Conc:    121.     ng/mL
 Date:        4/6/2010
 Time:        11:01:10 AM

fied:             No
. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00    cps
 Peak Width:    0.00    sec
othing Width:  3        points
Window:         30.0    sec
cted RT:         5.37   min
 Relative RT:    No

 Type:         Valley
ntion Time:      5.39   min
:          2.25e+005   counts
ht:         52219.002  cps
t Time:          5.30   min
 Time:           5.76   min
```

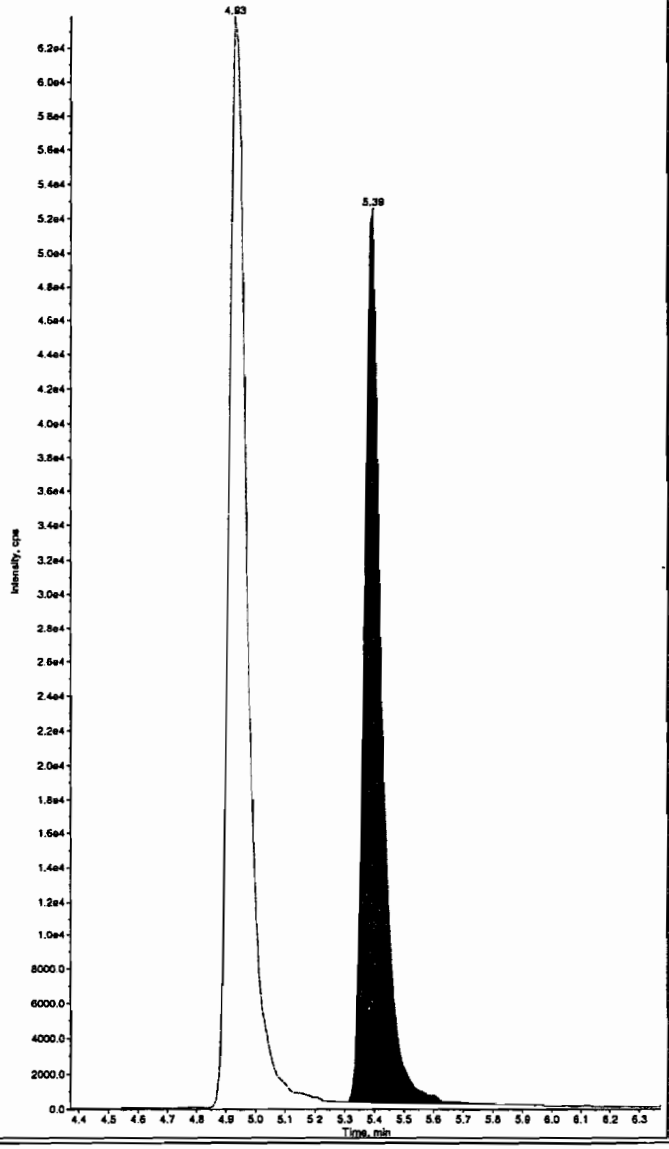

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050086.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:          QC
Concentration:       100.     ng/mL
Calculated Conc:     109.     ng/mL
Acq. Date:        4/6/2010
Acq. Time:        11:01:10 AM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3         points
RT Window:          30.0    sec
Expected RT:         10.8   min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      10.8   min
Area:          1.96e+006   counts
Height:         479932.922 cps
Start Time:          10.7   min
End Time:            11.2   min
```

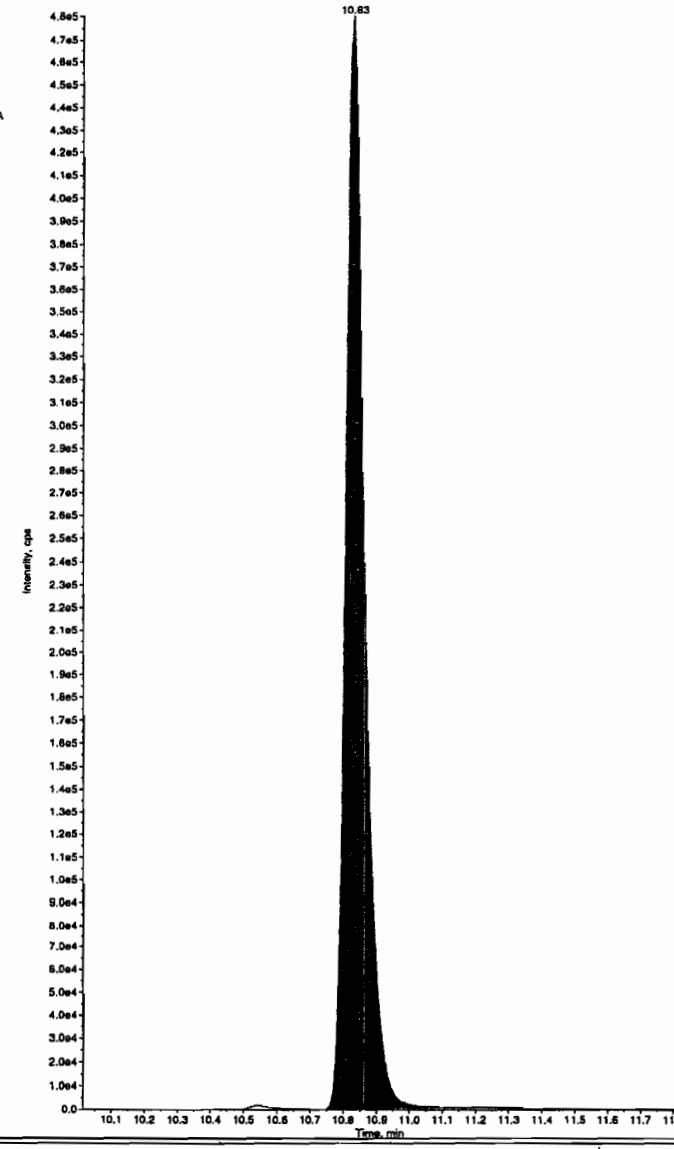

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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QUALITY CONTROL

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 958278

Lab Code: GEL

GEL Job No (SDG) 10–2039

Matrix: GROUND WATER

GEL Sample ID: 1202055078

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 26–FEB–10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01–MAR–10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412063a

Date Analyzed: 13–APR–10 22:09

Units: ug/L

Cas No.	Compound	Concentration*	Q
118–96–7	2,4,6–Trinitrotoluene	0.325	U
121–14–2	2,4–Dinitrotoluene	0.325	U
121–82–4	RDX	0.325	U
19406–51–0	4–Amino–2,6–dinitrotoluene	0.325	U
2691–41–0	HMX	0.325	U
35572–78–2	2–Amino–4,6–dinitrotoluene	0.325	U
479–45–8	Tetryl	0.649	U
606–20–2	2,6–Dinitrotoluene	0.325	U
78–11–5	PETN	1.3	U
88–72–2	o–Nitrotoluene	0.325	U
98–95–3	Nitrobenzene	0.325	U
99–08–1	m–Nitrotoluene	0.325	U
99–35–4	1,3,5–Trinitrobenzene	0.325	U
99–65–0	m–Dinitrobenzene	0.325	U
99–99–0	p–Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412063a
Date: 13-Apr-2010
Time: 22:09:49
ID: 1202055078 | LAWL | 958282 | LZO | MB | 2 |
Vial: 1:4,A

MM 4/14/10

PDS #2

XQ: EXP0408110a

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.545e+003

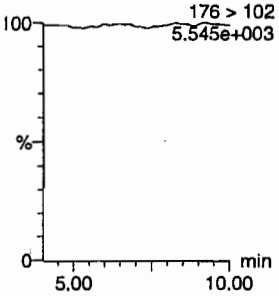

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.545e+003

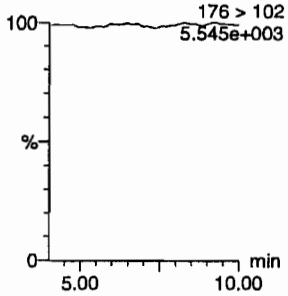

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.407e+003

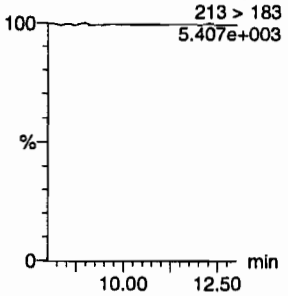

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.562e+004

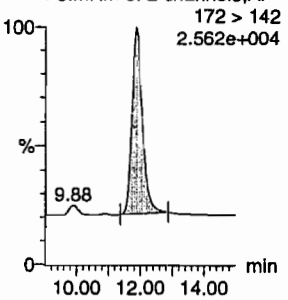

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.388e+003

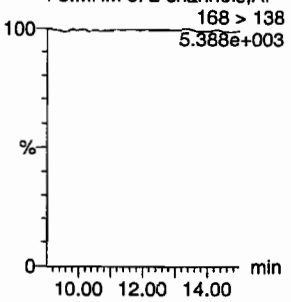

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.452e+003

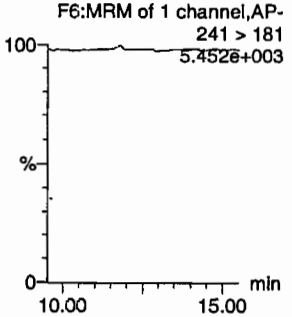

Nitrobenzene
F7:MRM of 1 channel,AP-
12.14 123 > 46
5.502e+003

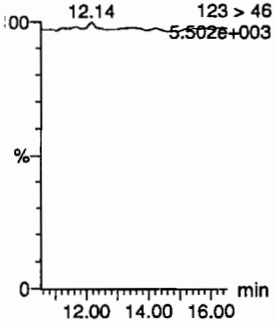

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.471e+003

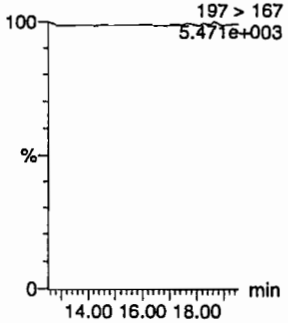

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.466e+003

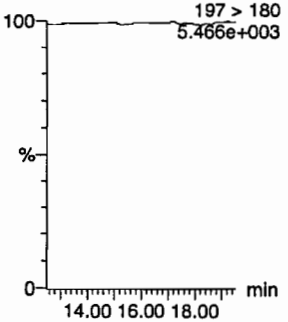

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.404e+003

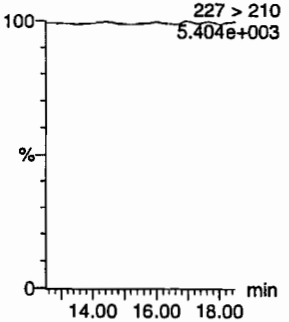

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.275e+004

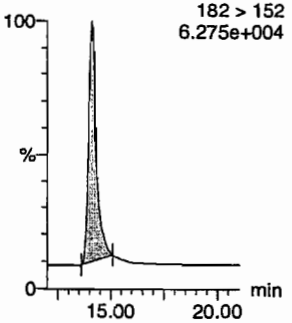

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.12 182 > 152
6.275e+004

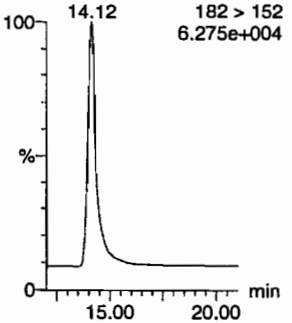

4/14/10

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Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

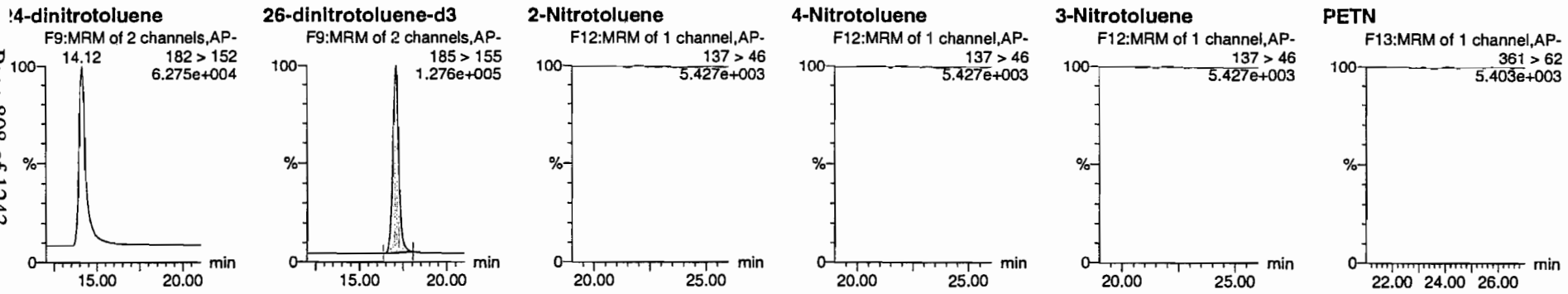

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
202055078	HMX	176 > 102			7603.256									
202055078	RDX	176 > 102			7603.256									
202055078	135-Trinitrobenzene	213 > 183			7603.256									
202055078	13-Dinitrobenzene-d4	172 > 142	11.87	7603.256		7603.256	7603.256	bb			646.4954	129.3	29.3	884.1
202055078	13-Dinitrobenzene	168 > 138			7603.256									
202055078	Tetryl	241 > 181			7603.256									
202055078	Nitrobenzene	123 > 46			7603.256									
202055078	4-Amino-26-dinitrotoluene	197 > 167			49087.559									
202055078	2-Amino-46-dinitrotoluene	197 > 180			49087.559									
202055078	246-Trinitrotoluene	227 > 210			49087.559									
202055078	34-dinitrotoluene	182 > 152	14.12	24147.678	49087.559	24147.678	245.965	bb		3.09	238.5401	95.4	-4.6	1198.6
202055078	26-dinitrotoluene	182 > 152			49087.559									
202055078	24-dinitrotoluene	182 > 152			49087.559									
202055078	26-dinitrotoluene-d3	185 > 155	17.07	49087.559		49087.559	49087.559	bb			701.5880	140.3	40.3	1812.3
202055078	2-Nitrotoluene	137 > 46			49087.559									
202055078	4-Nitrotoluene	137 > 46			49087.559									
202055078	3-Nitrotoluene	137 > 46			49087.559									
202055078	PETN	361 > 62			49087.559									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 958278

Lab Code: GEL

GEL Job No (SDG) 10–2039

Matrix: GROUND WATER

GEL Sample ID: 1202055078

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 26–FEB–10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01–MAR–10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050074.wiff

Date Analyzed: 06–APR–10 07:52

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058–38–6	TATB	1.3	U
59229–75–3	2,6–Diamino–4–nitrotoluene	1.3	U
618–87–1	3,5–Dinitroaniline	1.3	U
6629–29–4	2,4–Diamino–6–nitrotoluene	1.3	U
78–30–8	tris(o–cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dan 4/7/10

ample Name: "1202055078" Sample ID: "958282|2|LER" File: "EXS04050074.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212L" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 4/6/2010
. Time: 7:52:43 AM
ified: No

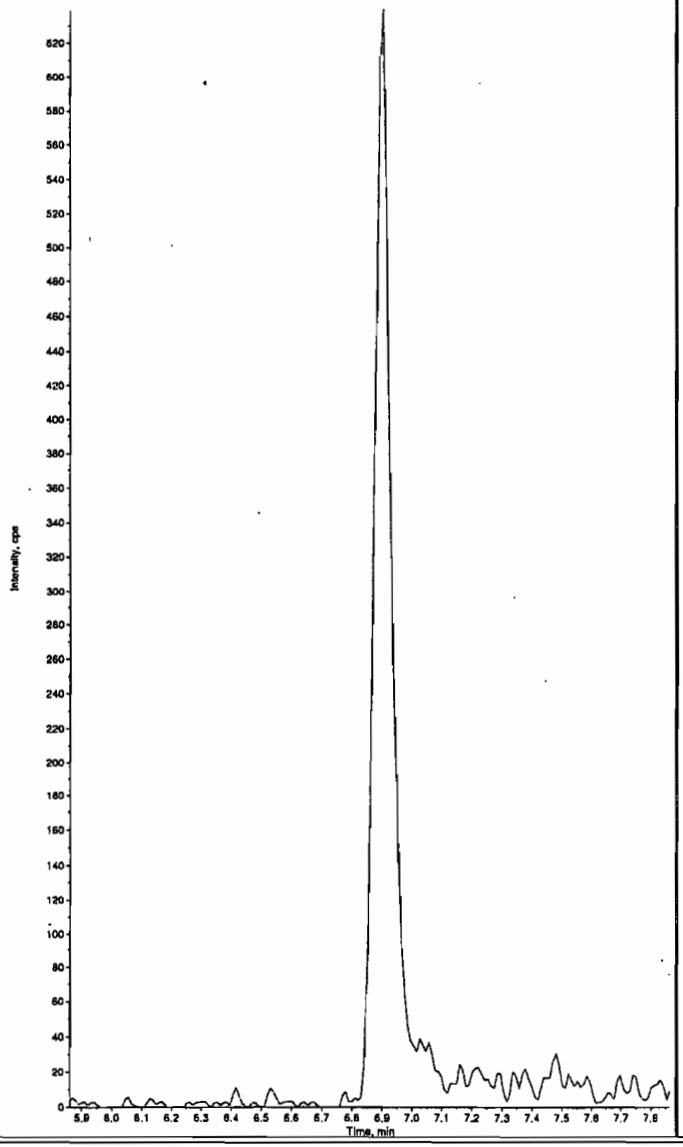

Sample Name: "1202055078" Sample ID: "958282|2|LER" File: "EXS04050074.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 7:52:43 AM

Modified: No

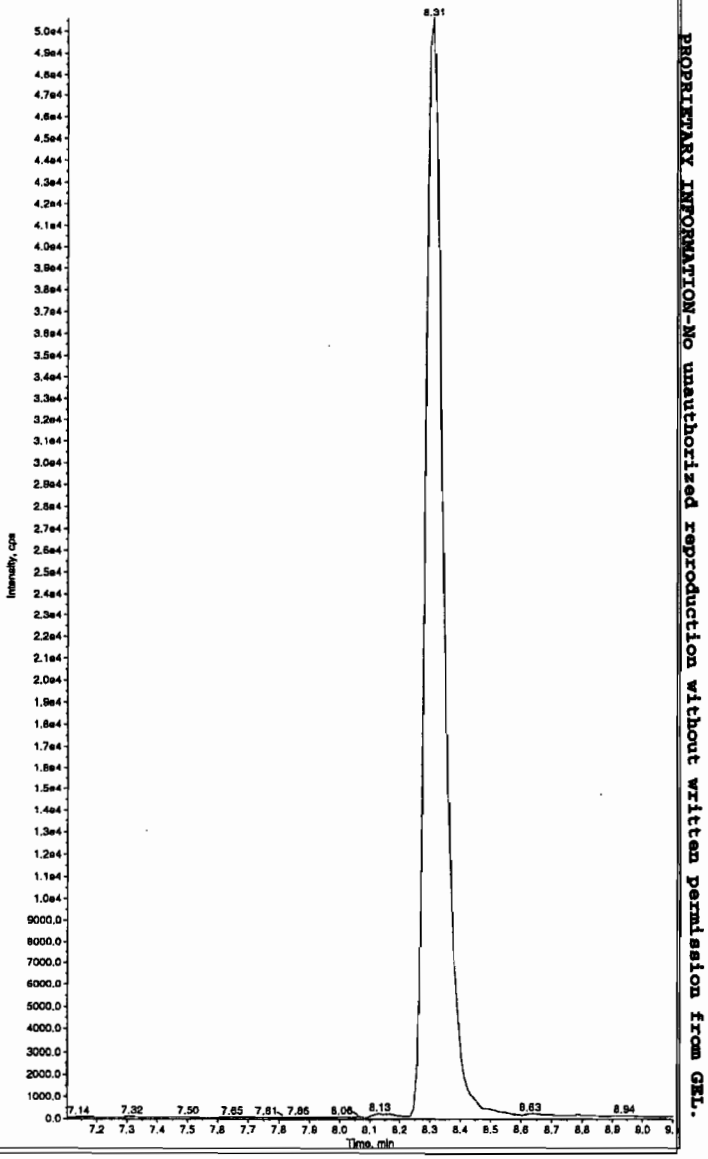

Hmc 04/08/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "1202055078" Sample ID: "958282|2|LER" File: "EXS04050074.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCX83212L" Annotation: ""

3,12

ıle Index: 1
ıle Type: Unknown
:entration: N/A
:ulated Conc: 240. ng/mL
Date: 4/6/2010
Time: 7:52:43 AM

.fied: No
:. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
ıthing Width: 3 points
ıindow: 15.0 sec
ıcted RT: 8.28 min
Relative RT: No

Type: Valley
:ntion Time: 8.30 min
: 2.04e+006 counts
ht: 483867.310 cps
t Time: 8.20 min
Time: 8.91 min

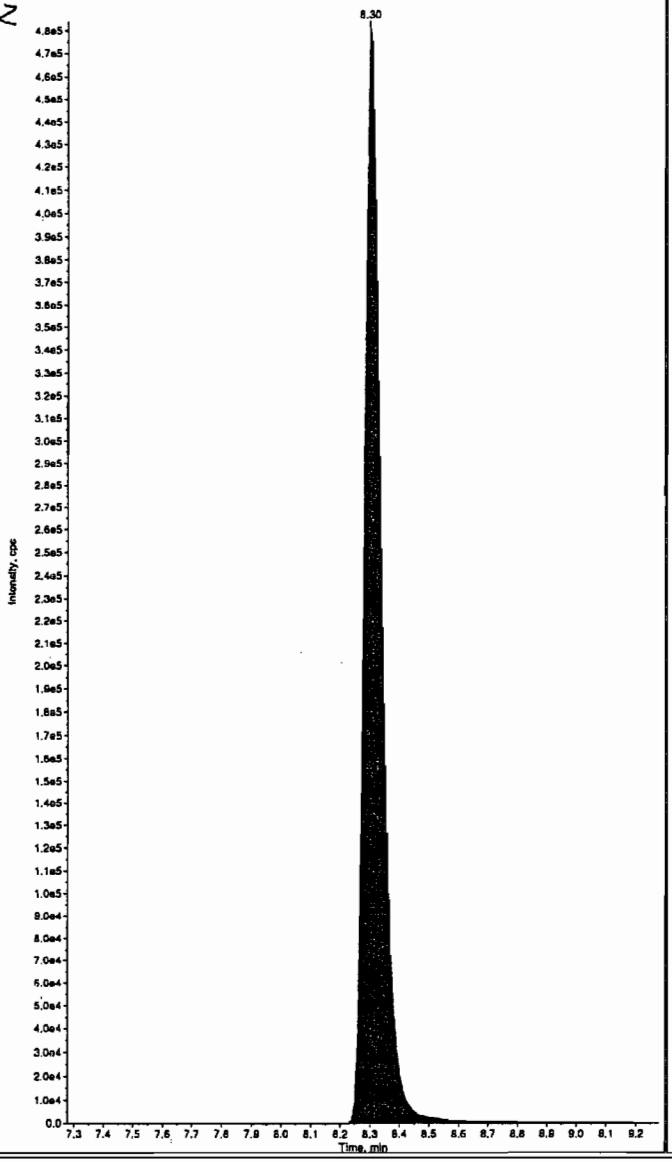

Sample Name: "1202055078" Sample ID: "958282|2|LER" File: "EXS04050074.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 7:52:43 AM

Modified: No

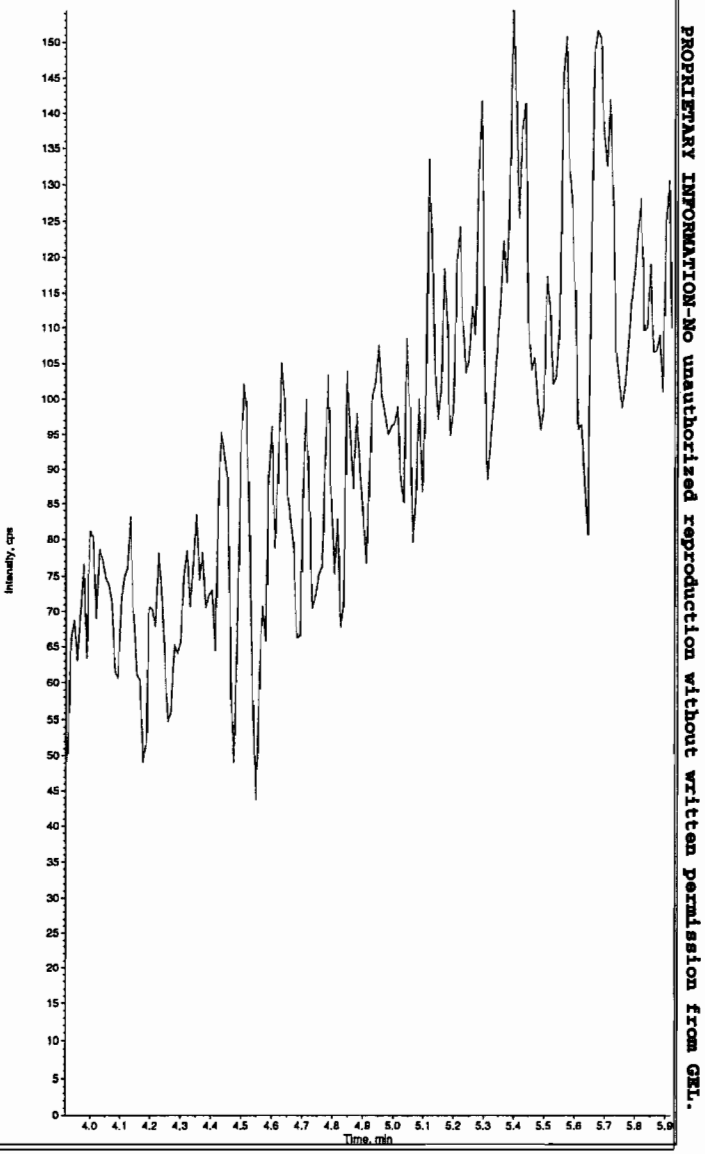

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "1202055078" Sample ID: "958282|2|LER" File: "EXS04050074.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCX83212L" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 4/6/2010
. Time: 7:52:43 AM

ified: No

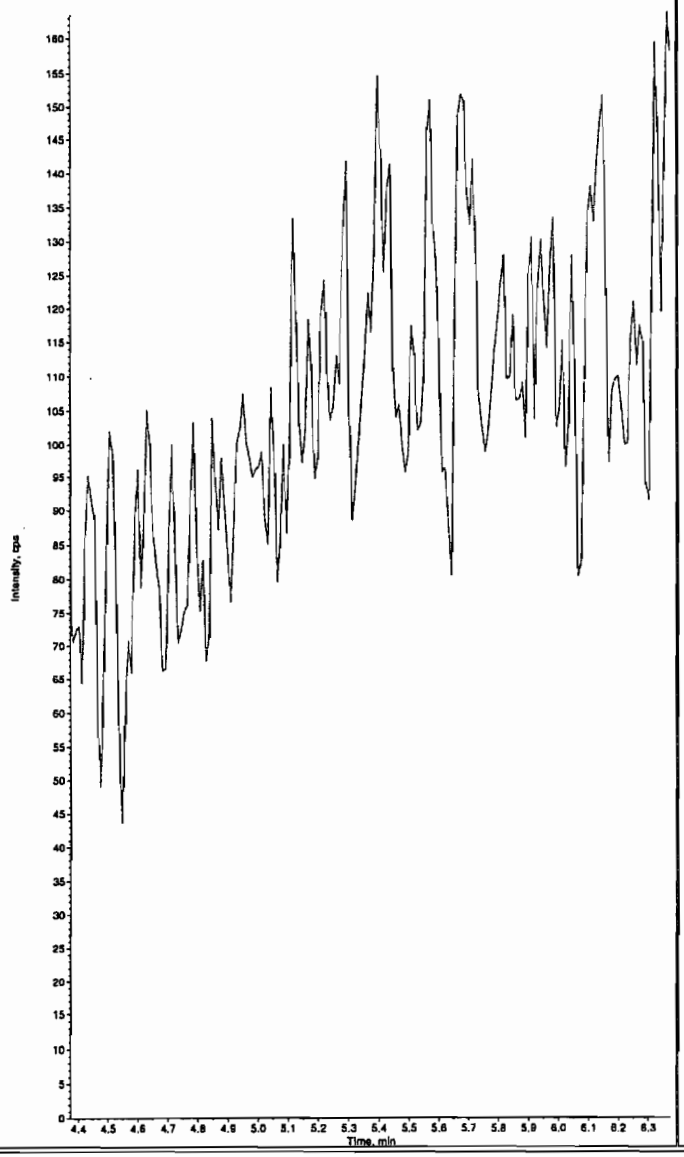

Sample Name: "1202055078" Sample ID: "958282|2|LER" File: "EXS04050074.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 2.95 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 7:52:43 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 5.32e+004 counts
Height: 12935.064 cps
Start Time: 10.8 min
End Time: 11.0 min

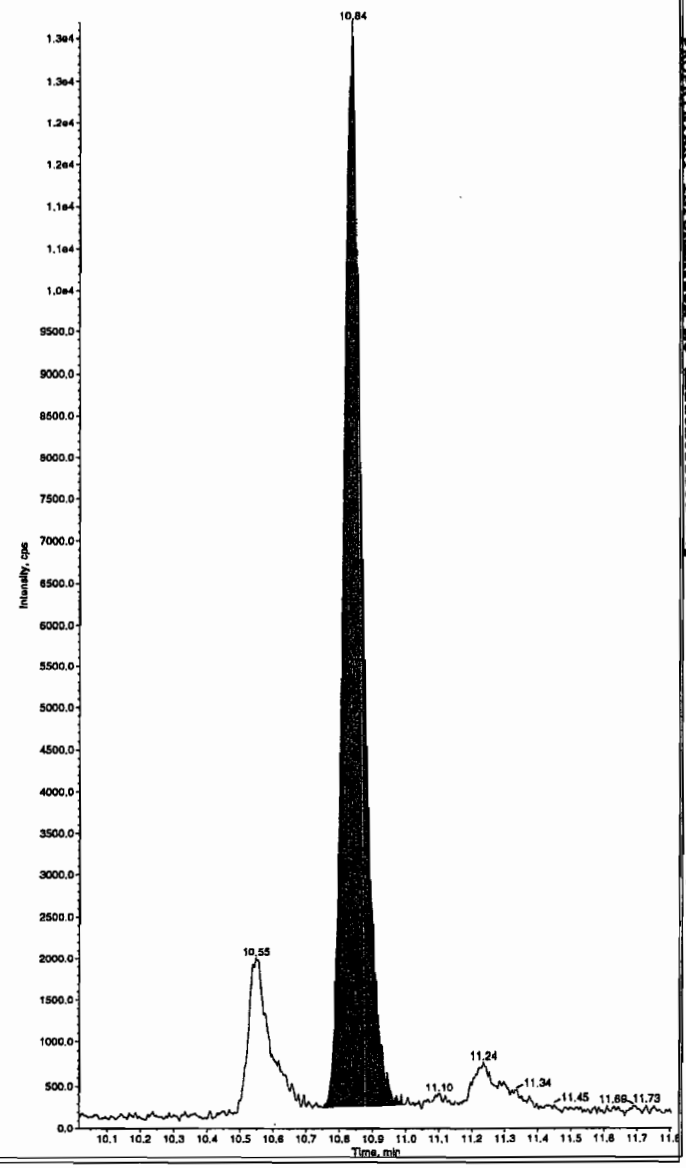

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 958278

Lab Code: GEL

GEL Job No (SDG) 10-2039

Matrix: GROUND WATER

GEL Sample ID: 1202055079

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 26-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408111a

Date Analyzed: 11-APR-10 03:40

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	6.9	
121-14-2	2,4-Dinitrotoluene	6.28	
121-82-4	RDX	6.77	
19406-51-0	4-Amino-2,6-dinitrotoluene	6.21	
2691-41-0	HMX	6.26	
35572-78-2	2-Amino-4,6-dinitrotoluene	6.56	
479-45-8	Tetryl	6.22	
606-20-2	2,6-Dinitrotoluene	5.79	
78-11-5	PETN	6.83	
88-72-2	o-Nitrotoluene	4.97	
98-95-3	Nitrobenzene	5.12	
99-08-1	m-Nitrotoluene	4.59	
99-35-4	1,3,5-Trinitrobenzene	5.95	
99-65-0	m-Dinitrobenzene	5.57	
99-99-0	p-Nitrotoluene	5.03	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408111a
ate: 11-Apr-2010
ime: 03:40:59
): 1202055079
ial: 3:1,B

LANL | 958282 | LIQ | LCS | 2 |

MM 4/14/10

MX
F2:MRM of 1 channel,AP-
176 > 102
1.248e+005

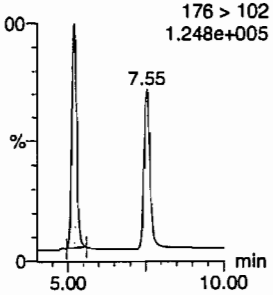

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.248e+005

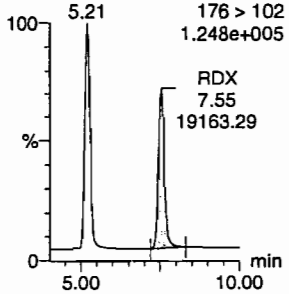

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.086e+005

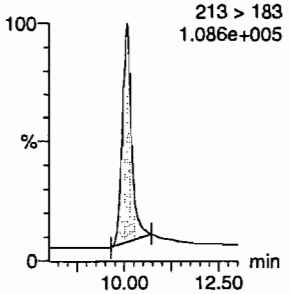

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.530e+004

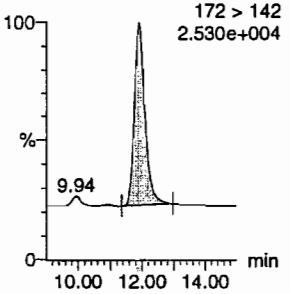

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
2.814e+004

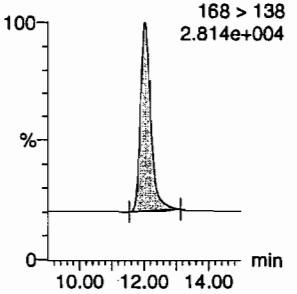

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
2.795e+004

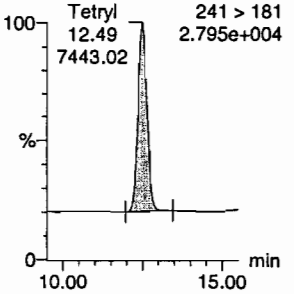

itrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.574e+004

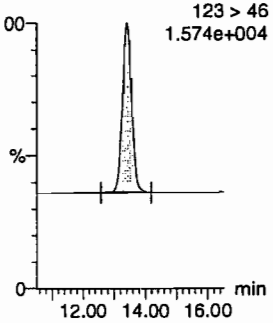

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
3.694e+004

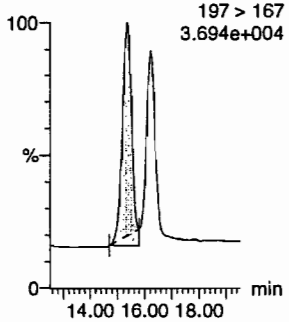

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.411e+004

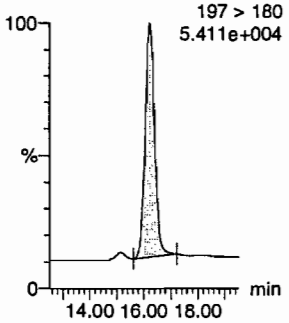

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
4.278e+004

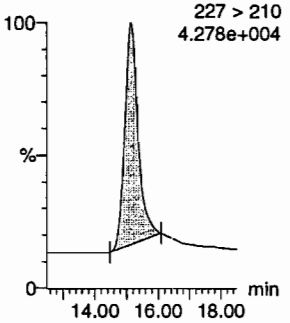

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.232e+005

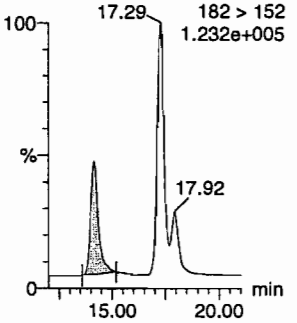

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.232e+005

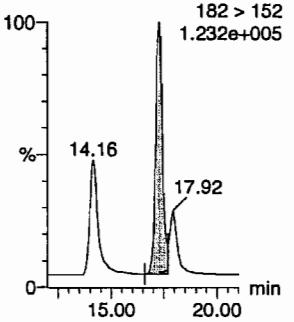

HMK 04/14/10

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luantify Sample Report
iEL Laboratories, LLC / Analyst : Michael A. Penny

ıataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

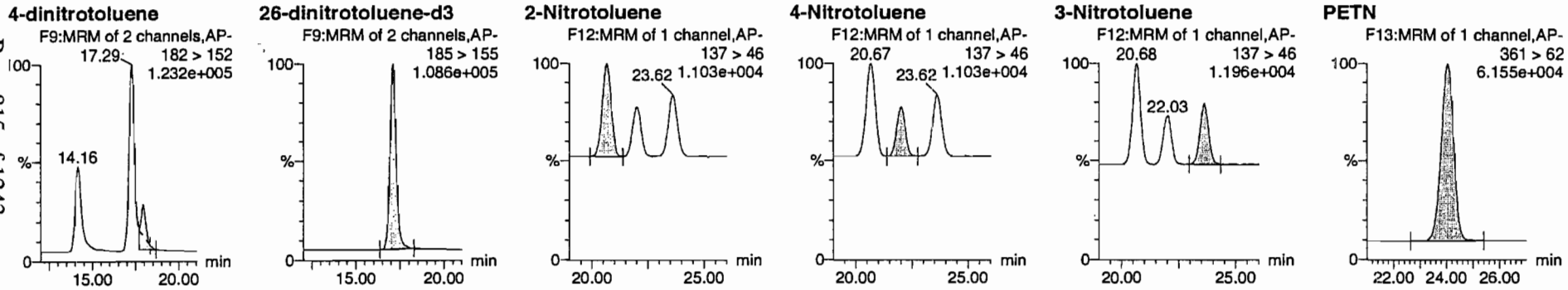

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
202055079	HMX	176 > 102	5.21	23209.354	7542.349	23209.354	1538.602	bb			481.6808	96.3	-3.7	1519.3
202055079	RDX	176 > 102	7.55	19163.291	7542.349	19163.291	1270.379	bb			521.3171	104.3	4.3	1076.5
202055079	135-Trinitrobenzene	213 > 183	10.07	29211.203	7542.349	29211.203	1936.479	bb			458.5174	91.7	-8.3	1978.3
202055079	13-Dinitrobenzene-d4	172 > 142	11.90	7542.349		7542.349	7542.349	bb			580.3548	116.1	16.1	608.0
202055079	13-Dinitrobenzene	168 > 138	12.04	8338.093	7542.349	8338.093	552.752	bb			429.1979	85.8	-14.2	637.6
202055079	Tetryl	241 > 181	12.49	7443.022	7542.349	7443.022	493.415	bb			479.2445	95.8	-4.2	467.0
202055079	Nitrobenzene	123 > 46	13.40	3573.180	7542.349	3573.180	236.874	bb			394.1316	78.8	-21.2	319.1
202055079	4-Amino-26-dinitrotoluene	197 > 167	15.35	12786.243	42973.742	12786.243	148.768	MM	11-Apr-10	11:38:02	477.9045	95.6	-4.4	530.0
202055079	2-Amino-46-dinitrotoluene	197 > 180	16.22	19834.250	42973.742	19834.250	230.772	bb			505.1591	101.0	1.0	496.9
202055079	246-Trinitrotoluene	227 > 210	15.13	17567.518	42973.742	17567.518	204.398	bb			531.1894	106.2	6.2	1072.0
202055079	34-dinitrotoluene	182 > 152	14.16	22795.137	42973.742	22795.137	265.222	bb		3.35	258.6065	103.4	3.4	559.2
202055079	26-dinitrotoluene	182 > 152	17.29	43595.148	42973.742	43595.148	507.230	MM	11-Apr-10	11:39:35	445.9789	89.2	-10.8	1245.6
202055079	24-dinitrotoluene	182 > 152	17.92	10999.102	42973.742	10999.102	127.975	MM	11-Apr-10	11:44:00	483.4082	96.7	-3.3	299.6
202055079	26-dinitrotoluene-d3	185 > 155	17.12	42973.742		42973.742	42973.742	bb			544.2665	108.9	8.9	4306.4
202055079	2-Nitrotoluene	137 > 46	20.67	2523.566	42973.742	2523.566	29.362	bb			382.5062	76.5	-23.5	83.0
202055079	4-Nitrotoluene	137 > 46	22.01	1294.099	42973.742	1294.099	15.057	bb			387.4262	77.5	-22.5	44.6
202055079	3-Nitrotoluene	137 > 46	23.63	1659.118	42973.742	1659.118	19.304	bb			353.5684	70.7	-29.3	43.0
202055079	PETN	361 > 62	24.04	30186.615	42973.742	30186.615	351.222	bb			525.7336	105.1	5.1	11706.6

ıEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 958278

Lab Code: GEL

GEL Job No (SDG) 10-2039

Matrix: GROUND WATER

GEL Sample ID: 1202055079

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 26-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050075.wiff

Date Analyzed: 06-APR-10 08:08

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5.78	
59229-75-3	2,6-Diamino-4-nitrotoluene	5.27	
618-87-1	3,5-Dinitroaniline	5.88	
6629-29-4	2,4-Diamino-6-nitrotoluene	5.35	
78-30-8	tris(o-cresyl) phosphate	1.17	J

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

LCL 4/7/10

nple Name: "1202055079" Sample ID: "958282|2|LER" File: "EXS04050075.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCX83212L" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 445. ng/mL
Date: 4/6/2010
Time: 8:08:30 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.86 min
Relative RT: No

Type: Valley
ntion Time: 6.89 min
: 3.53e+005 counts
ht: 75127.907 cps
t Time: 6.80 min
Time: 7.47 min

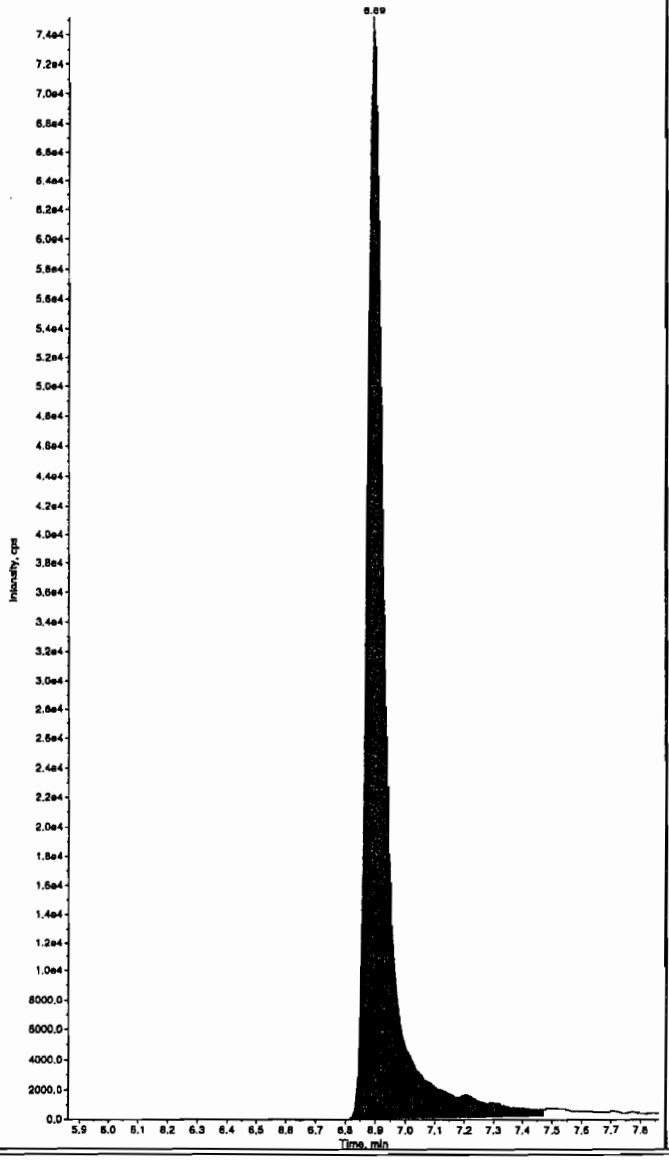

Sample Name: "1202055079" Sample ID: "958282|2|LER" File: "EXS04050075.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 453. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 8:08:30 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.13 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.13 min
Area: 3.02e+006 counts
Height: 781179.504 cps
Start Time: 8.06 min
End Time: 8.26 min

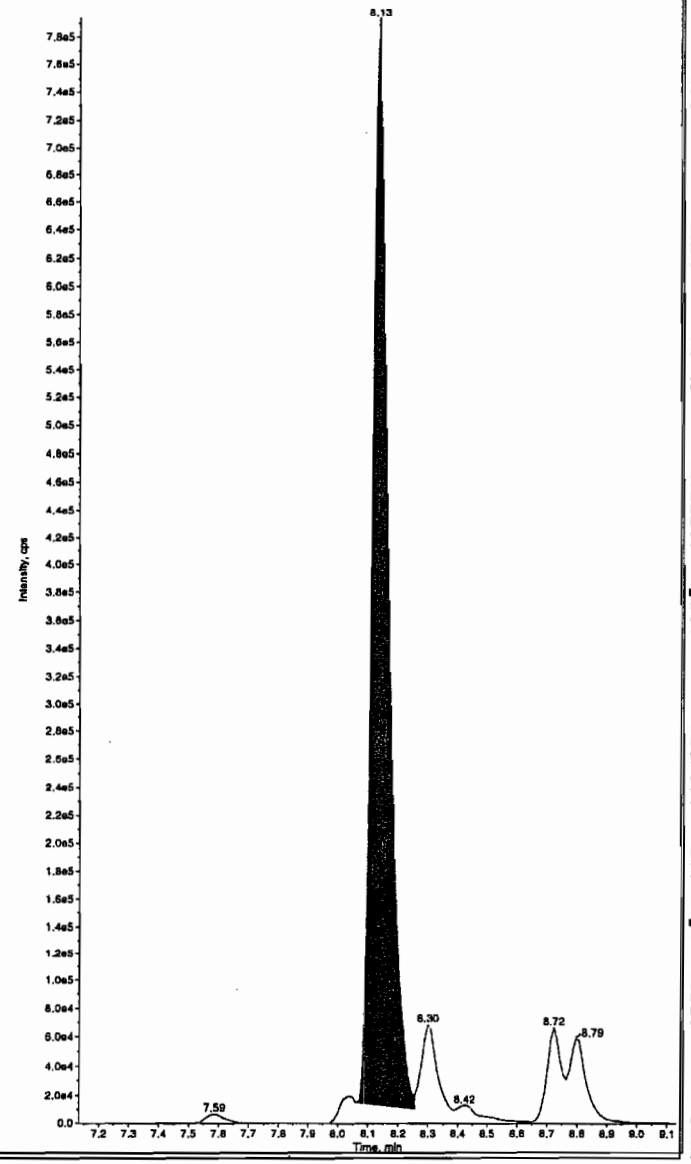

dhm 04/08/10

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "1202055079" Sample ID: "958282|2|LER" File: "EXS04050075.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212L" Annotation: ""

3.Dilu

```
mple Index:        1
mple Type:      Unknown
ncentration:       N/A
lculated Conc:     236.     ng/mL
. Date:        4/6/2010
. Time:        8:08:30 AM

ified:             No
c. Algorithm: IntelliQuan - IQA
. Peak Height:1460.00    cps
. Peak Width:      0.00    sec
oothing Width:  3        points
 Window:          15.0    sec
ected RT:          8.28   min
 Relative RT:      No

:. Type:         Valley
ention Time:       8.30   min
a:          2.01e+006   counts
ght:          503905.487  cps
rt Time:           8.23   min
 Time:             8.54   min
```

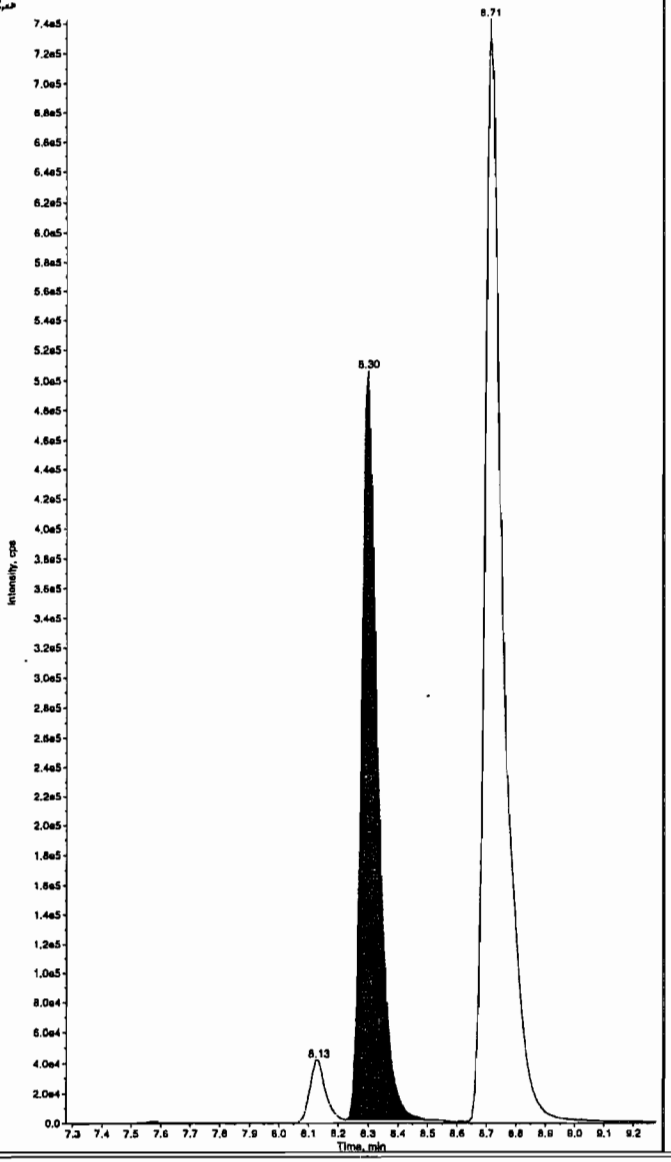

Sample Name: "1202055079" Sample ID: "958282|2|LER" File: "EXS04050075.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:       N/A
Calculated Conc:     406.     ng/mL
Acq. Date:        4/6/2010
Acq. Time:        8:08:30 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:        4.92    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     4.94    min
Area:         1.14e+006    counts
Height:         262868.958  cps
Start Time:         4.85    min
End Time:           5.25    min
```

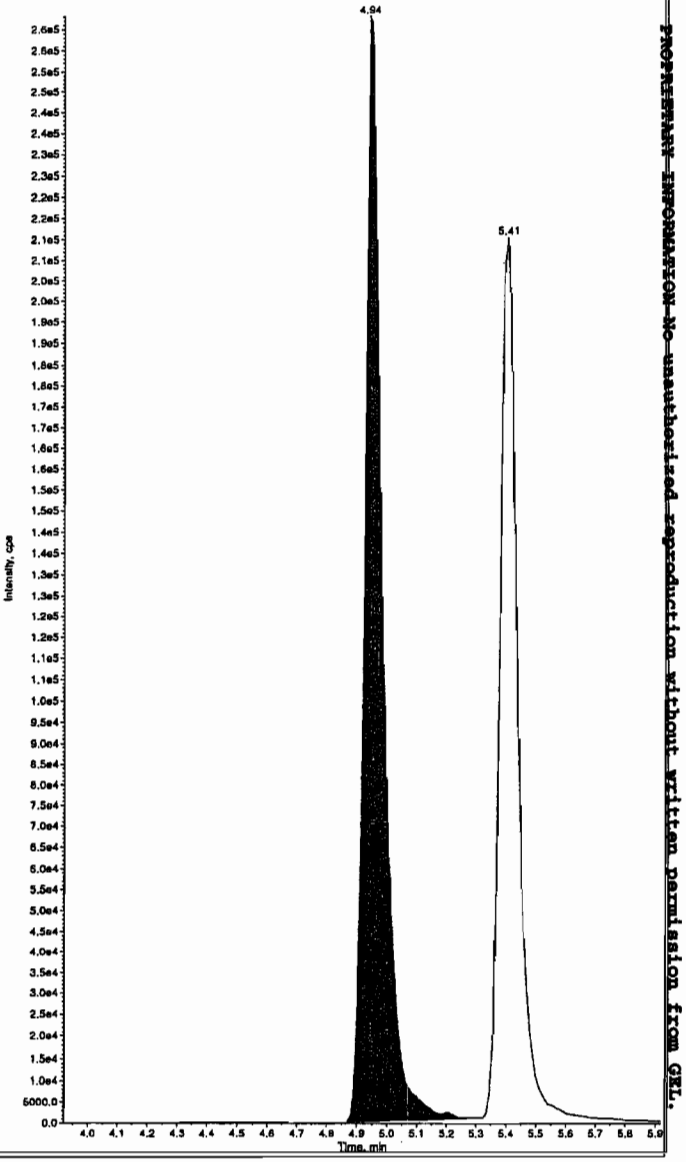

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mple Name: "1202055079" Sample ID: "958282|2|LER" File: "EXS04050075.wiff"
sk Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCX83212L" Annotation: ""

```
le Index:        1
le Type:      Unknown
entration:       N/A
ulated Conc:     412.     ng/mL
 Date:       4/6/2010
 Time:       8:08:30 AM

fied:            No
. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00    cps
 Peak Width:    0.00    sec
thing Width:  3        points
indow:         30.0     sec
cted RT:        5.37    min
Relative RT:    No

 Type:        Valley
ntion Time:     5.41    min
:          8.76e+005    counts
ht:         209306.091   cps
t Time:         5.32    min
Time:           5.81    min
```

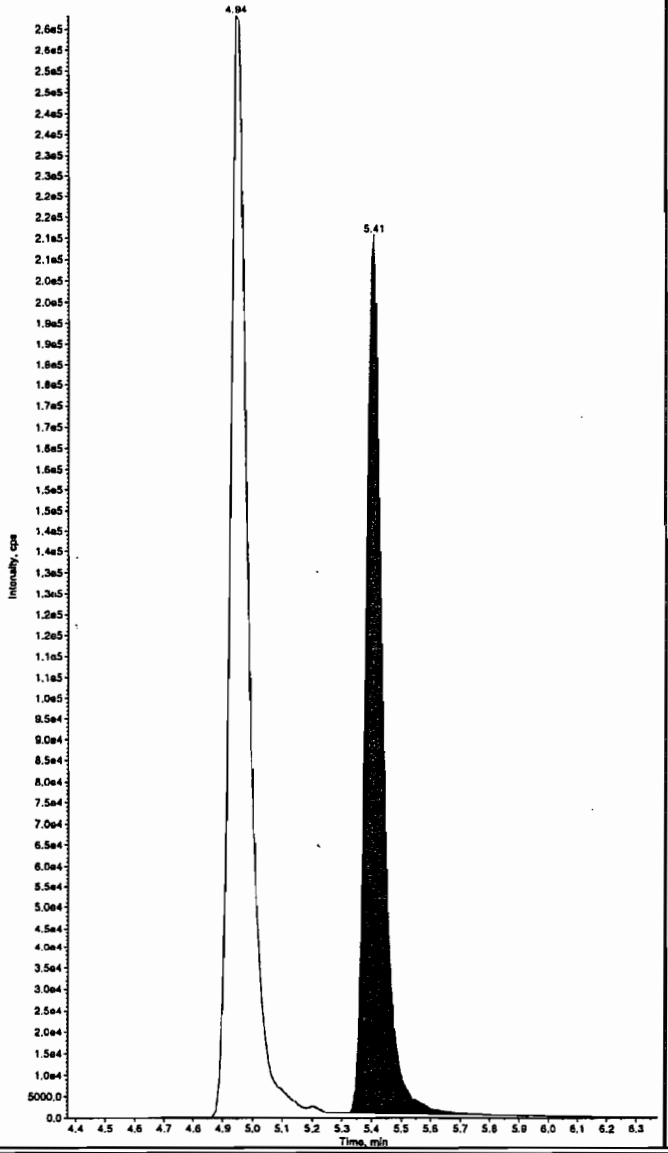

Sample Name: "1202055079" Sample ID: "958282|2|LER" File: "EXS04050075.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:       N/A
Calculated Conc:     89.8     ng/mL
Acq. Date:       4/6/2010
Acq. Time:       8:08:30 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         20.0     sec
Expected RT:       10.8     min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:    10.8     min
Area:        1.62e+006    counts
Height:       392861.267   cps
Start Time:        10.7     min
End Time:          11.2     min
```

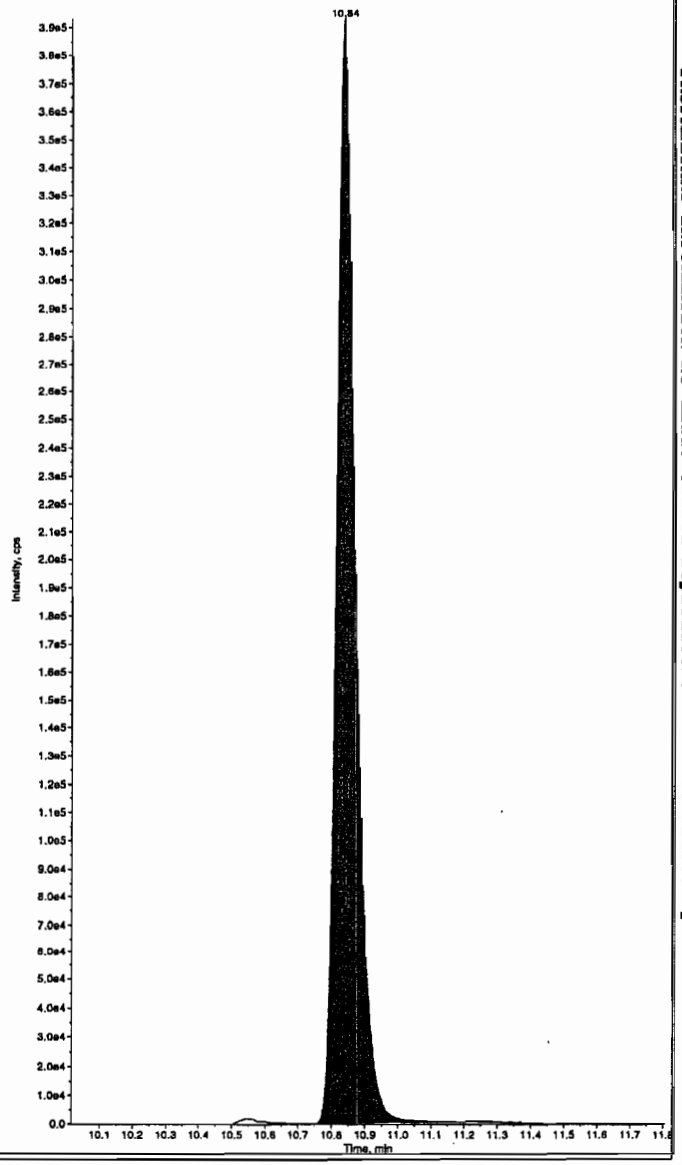

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12917(248017003MS)

Lab Code: GEL

GEL Job No (SDG) 10-2039

Matrix: GROUND WATER

GEL Sample ID: 1202055080

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408113a

Date Analyzed: 11-APR-10 04:39

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	8.35	H
121-14-2	2,4-Dinitrotoluene	5.82	H
121-82-4	RDX	7.07	H
19406-51-0	4-Amino-2,6-dinitrotoluene	6.34	H
2691-41-0	HMX	6.54	H
35572-78-2	2-Amino-4,6-dinitrotoluene	6.42	H
479-45-8	Tetryl	6.47	H
606-20-2	2,6-Dinitrotoluene	5.95	H
78-11-5	PETN	6.72	H
88-72-2	o-Nitrotoluene	4.63	H
98-95-3	Nitrobenzene	4.86	H
99-08-1	m-Nitrotoluene	4.81	H
99-35-4	1,3,5-Trinitrobenzene	6.13	H
99-65-0	m-Dinitrobenzene	5.72	H
99-99-0	p-Nitrotoluene	5.44	H

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408113a
Date: 11-Apr-2010
Time: 04:39:55
ID: 1202055080 | LANL | 958282 | LS | 2480170031LLS | 2 |
Vial: 3:1,D

MA 4/14/10

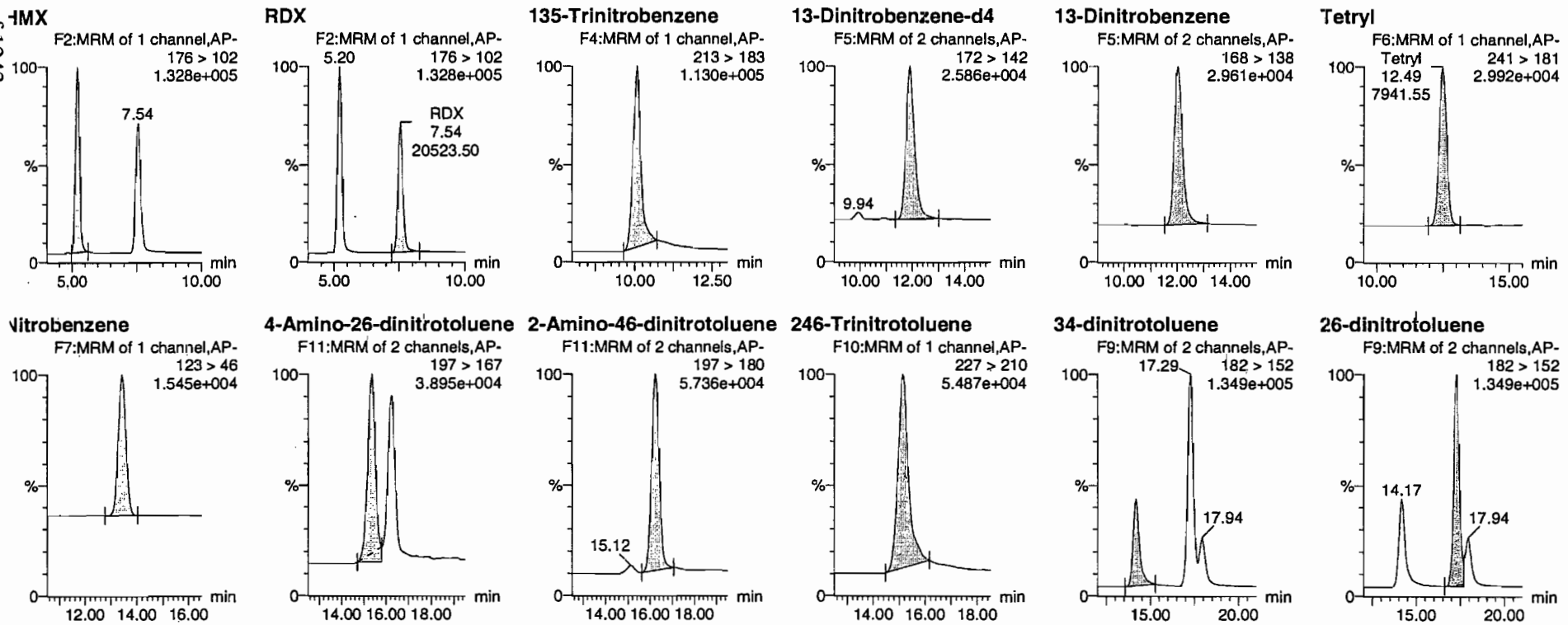

dmm 04/14/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

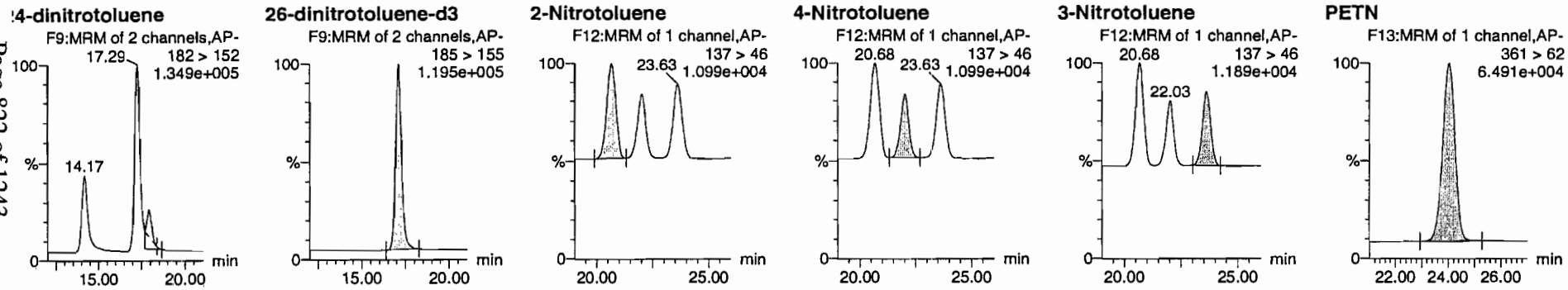

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
1202055080	HMX	176 > 102	5.20	24889.580	7736.037	24889.580	1608.678	bb			503.6188	100.7	0.7	2963.8
1202055080	RDX	176 > 102	7.54	20523.500	7736.037	20523.500	1326.487	bb			544.3414	108.9	8.9	2068.7
1202055080	135-Trinitrobenzene	213 > 183	10.07	30827.141	7736.037	30827.141	1992.438	bb			471.7672	94.4	-5.6	1985.1
1202055080	13-Dinitrobenzene-d4	172 > 142	11.89	7736.037		7736.037	7736.037	bb			595.2584	119.1	19.1	180.2
1202055080	13-Dinitrobenzene	168 > 138	12.03	8783.742	7736.037	8783.742	567.716	bb			440.8172	88.2	-11.8	752.7
1202055080	Tetryl	241 > 181	12.49	7941.549	7736.037	7941.549	513.283	bb			498.5413	99.7	-0.3	728.7
1202055080	Nitrobenzene	123 > 46	13.41	3479.032	7736.037	3479.032	224.859	bb			374.1389	74.8	-25.2	434.3
1202055080	4-Amino-26-dinitrotoluene	197 > 167	15.36	14107.492	46381.922	14107.492	152.080	MM	11-Apr-10	11:38:11	488.5426	97.7	-2.3	146.4
1202055080	2-Amino-46-dinitrotoluene	197 > 180	16.22	20935.064	46381.922	20935.064	225.681	bb			494.0161	98.8	-1.2	1044.3
1202055080	246-Trinitrotoluene	227 > 210	15.14	22955.270	46381.922	22955.270	247.459	bb			643.0961	128.6	28.6	599.5
1202055080	34-dinitrotoluene	182 > 152	14.17	22653.432	46381.922	22653.432	244.205	bb		3.09	238.1144	95.2	-4.8	731.2
1202055080	26-dinitrotoluene	182 > 152	17.29	48322.281	46381.922	48322.281	520.917	MM	11-Apr-10	11:39:29	458.0133	91.6	-8.4	1780.7
1202055080	24-dinitrotoluene	182 > 152	17.94	11011.858	46381.922	11011.858	118.709	MM	11-Apr-10	11:44:11	448.4064	89.7	-10.3	384.5
1202055080	26-dinitrotoluene-d3	185 > 155	17.11	46381.922		46381.922	46381.922	bb			587.4314	117.5	17.5	3335.6
1202055080	2-Nitrotoluene	137 > 46	20.68	2537.071	46381.922	2537.071	27.350	bb			356.2959	71.3	-28.7	959.0
1202055080	4-Nitrotoluene	137 > 46	22.02	1510.532	46381.922	1510.532	16.284	bb			418.9921	83.8	-16.2	633.1
1202055080	3-Nitrotoluene	137 > 46	23.63	1876.091	46381.922	1876.091	20.224	bb			370.4286	74.1	-25.9	227.0
1202055080	PETN	361 > 62	24.04	32140.332	46381.922	32140.332	346.475	bb			517.7230	103.5	3.5	3192.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12917(248017003MS)

Lab Code: GEL

GEL Job No (SDG) 10-2039

Matrix: GROUND WATER

GEL Sample ID: 1202055080

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050077.wiff

Date Analyzed: 06-APR-10 08:39

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5.29	
59229-75-3	2,6-Diamino-4-nitrotoluene	5.75	
618-87-1	3,5-Dinitroaniline	5.27	
6629-29-4	2,4-Diamino-6-nitrotoluene	5.49	
78-30-8	tris(o-cresyl) phosphate	2.61	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 4/7/10

nple Name: "1202055080" Sample ID: "958282|2|LER" File: "EXS04050077.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCX83212L" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 407. ng/mL
Date: 4/6/2010
Time: 8:39:54 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.86 min
Relative RT: No

Type: Valley
ction Time: 6.90 min
: 3.23e+005 counts
nt: 64742.882 cps
: Time: 6.80 min
Time: 7.77 min

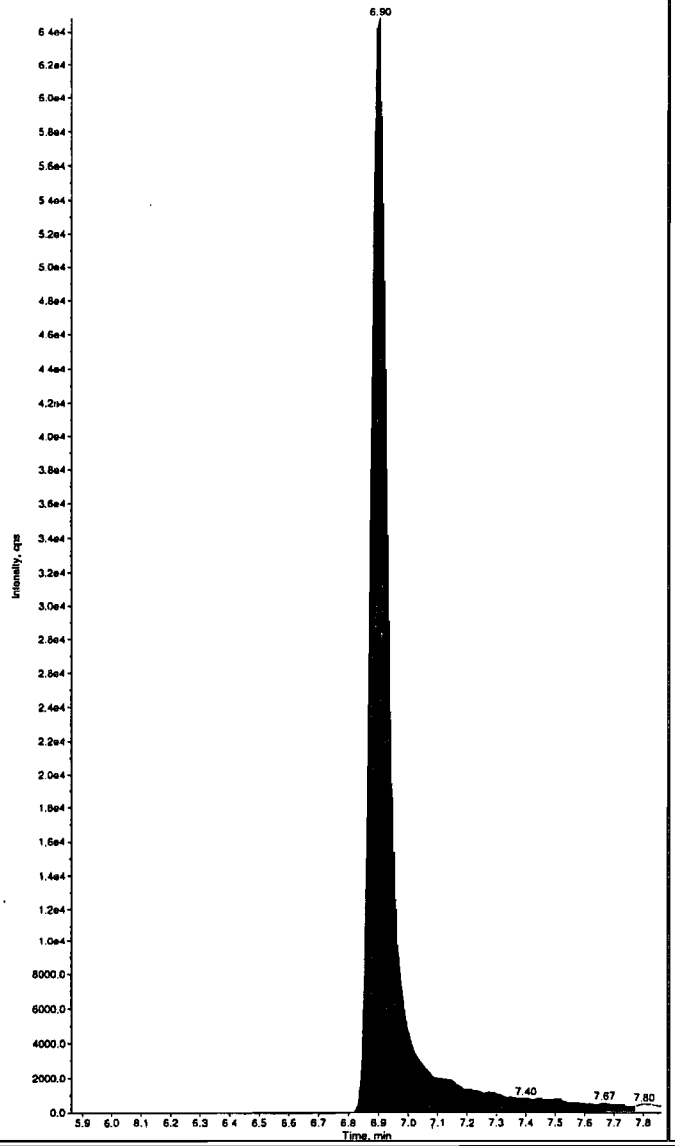

Sample Name: "1202055080" Sample ID: "958282|2|LER" File: "EXS04050077.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 406. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 8:39:54 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.13 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.13 min
Area: 2.71e+006 counts
Height: 647303.650 cps
Start Time: 8.06 min
End Time: 8.26 min

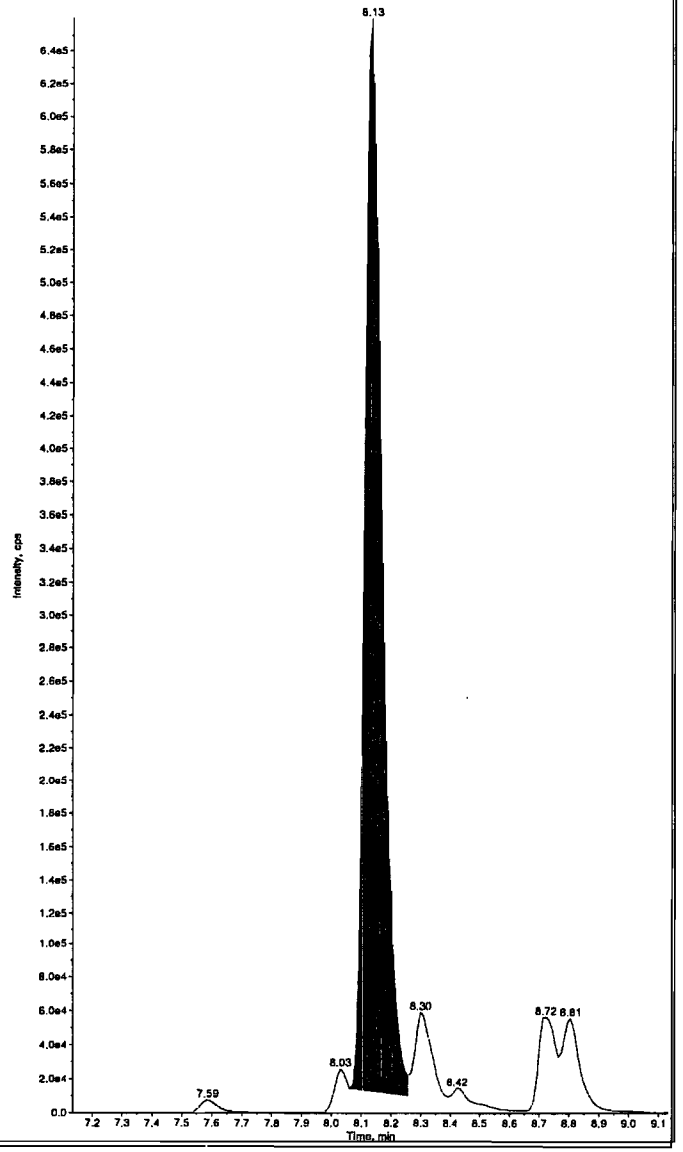

Hnm 04/08/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "1202055080" Sample ID: "958282|2|LER" File: "EXS04050077.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212L" Annotation: "

3,05

ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 235. ng/mL
. Date: 4/6/2010
. Time: 8:39:54 AM

ified: No
. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 15.0 sec
ected RT: 8.28 min
Relative RT: No

. Type: Valley
ention Time: 8.30 min
a: 2.00e+006 counts
ght: 494139.343 cps
rt Time: 8.23 min
Time: 8.55 min

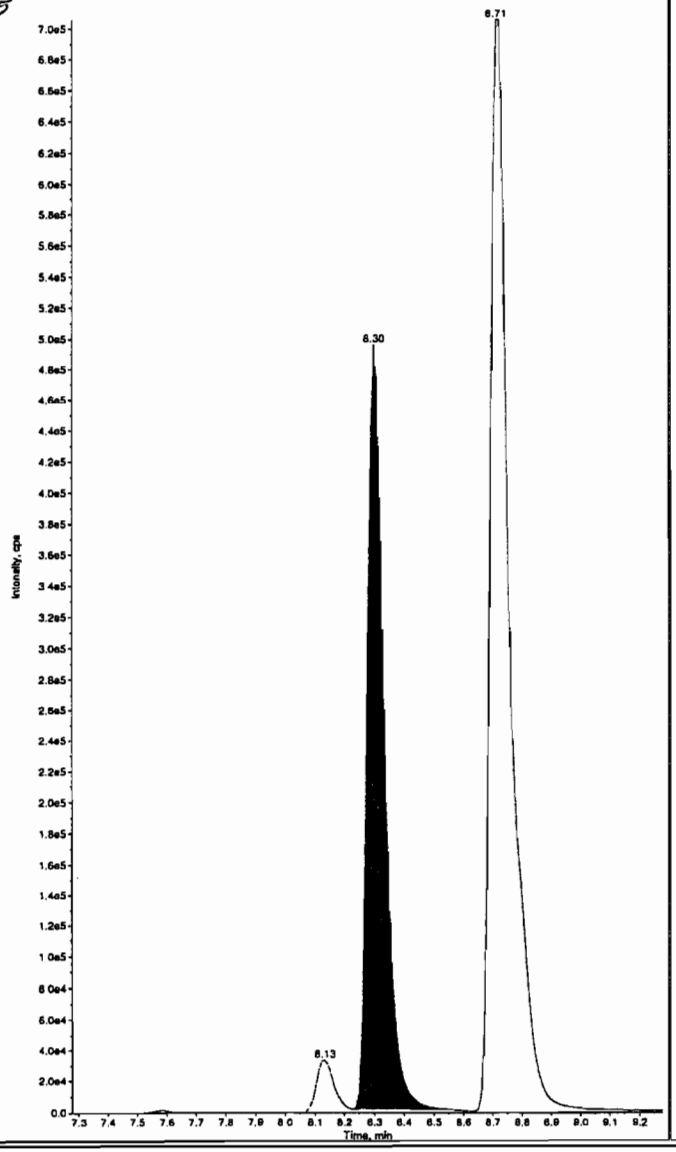

Sample Name: "1202055080" Sample ID: "958282|2|LER" File: "EXS04050077.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: "

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 443. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 8:39:54 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.95 min
Area: 1.24e+006 counts
Height: 273645.782 cps
Start Time: 4.86 min
End Time: 5.24 min

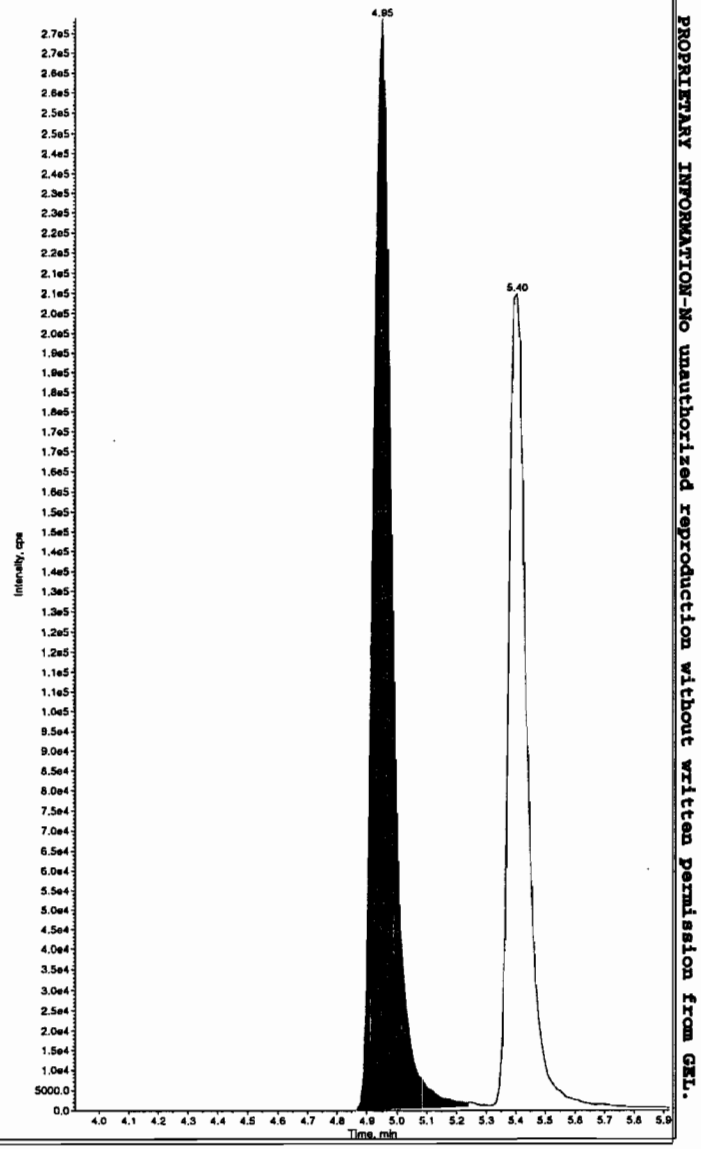

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ple Name: "1202055080" Sample ID: "958282|2|LER" File: "EXS04050077.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCX83212L" Annotation: ""

e Index:	1
e Type:	Unknown
ntration:	N/A
lated Conc:	423. ng/mL
Date:	4/6/2010
Time:	8:39:54 AM
ied:	No
Algorithm:	IntelliQuan - IQA
Peak Height:	350.00 cps
Peak Width:	0.00 sec
hing Width:	3 points
ndow:	30.0 sec
ted RT:	5.37 min
lelative RT:	No
Type:	Valley
tion Time:	5.40 min
	9.00e+005 counts
t:	203896.118 cps
Time:	5.31 min
ime:	5.81 min

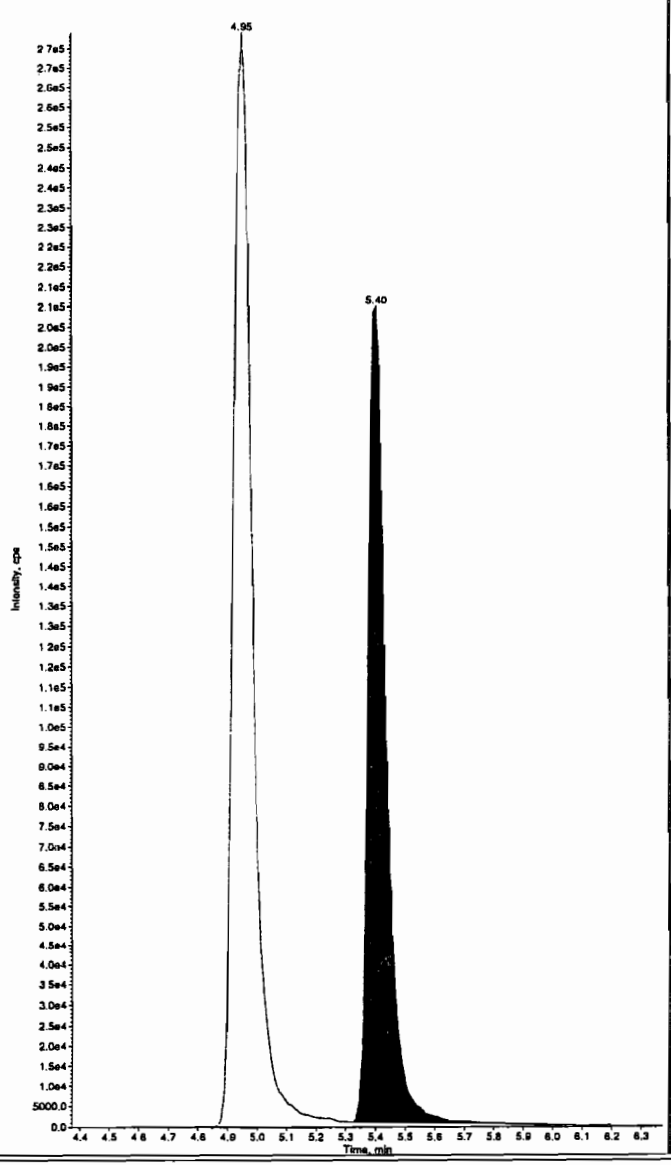

Sample Name: "1202055080" Sample ID: "958282|2|LER" File: "EXS04050077.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	201. ng/mL
Acq. Date:	4/6/2010
Acq. Time:	8:39:54 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.8 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.8 min
Area:	3.62e+006 counts
Height:	875412.231 cps
Start Time:	10.7 min
End Time:	11.2 min

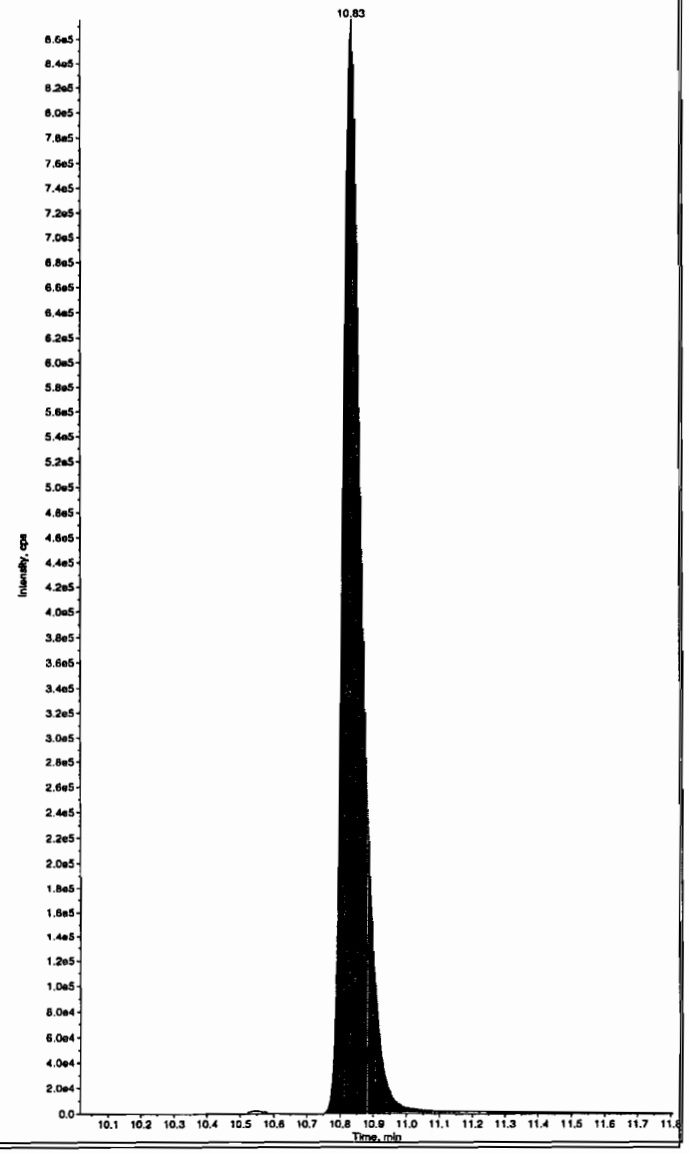

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12917(248017003MSD)

Lab Code: GEL

GEL Job No (SDG) 10-2039

Matrix: GROUND WATER

GEL Sample ID: 1202055081

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412067a

Date Analyzed: 14-APR-10 00:07

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	6.41	H
121-14-2	2,4-Dinitrotoluene	6.73	H
121-82-4	RDX	6.95	H
19406-51-0	4-Amino-2,6-dinitrotoluene	5.57	H
2691-41-0	HMX	6.16	H
35572-78-2	2-Amino-4,6-dinitrotoluene	6.0	H
479-45-8	Tetryl	2.55	H
606-20-2	2,6-Dinitrotoluene	6.02	H
78-11-5	PETN	5.86	H
88-72-2	o-Nitrotoluene	4.82	H
98-95-3	Nitrobenzene	5.51	H
99-08-1	m-Nitrotoluene	5.23	H
99-35-4	1,3,5-Trinitrobenzene	5.57	H
99-65-0	m-Dinitrobenzene	6.11	H
99-99-0	p-Nitrotoluene	5.4	H

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412067a
Date: 14-Apr-2010
Time: 00:07:48
ID: 1202055081
Vial: 1:4,E

LANL | 958282 | LIQ | 248017003 WSD | 2 | 4/14/10 XQ: EXP0408114a

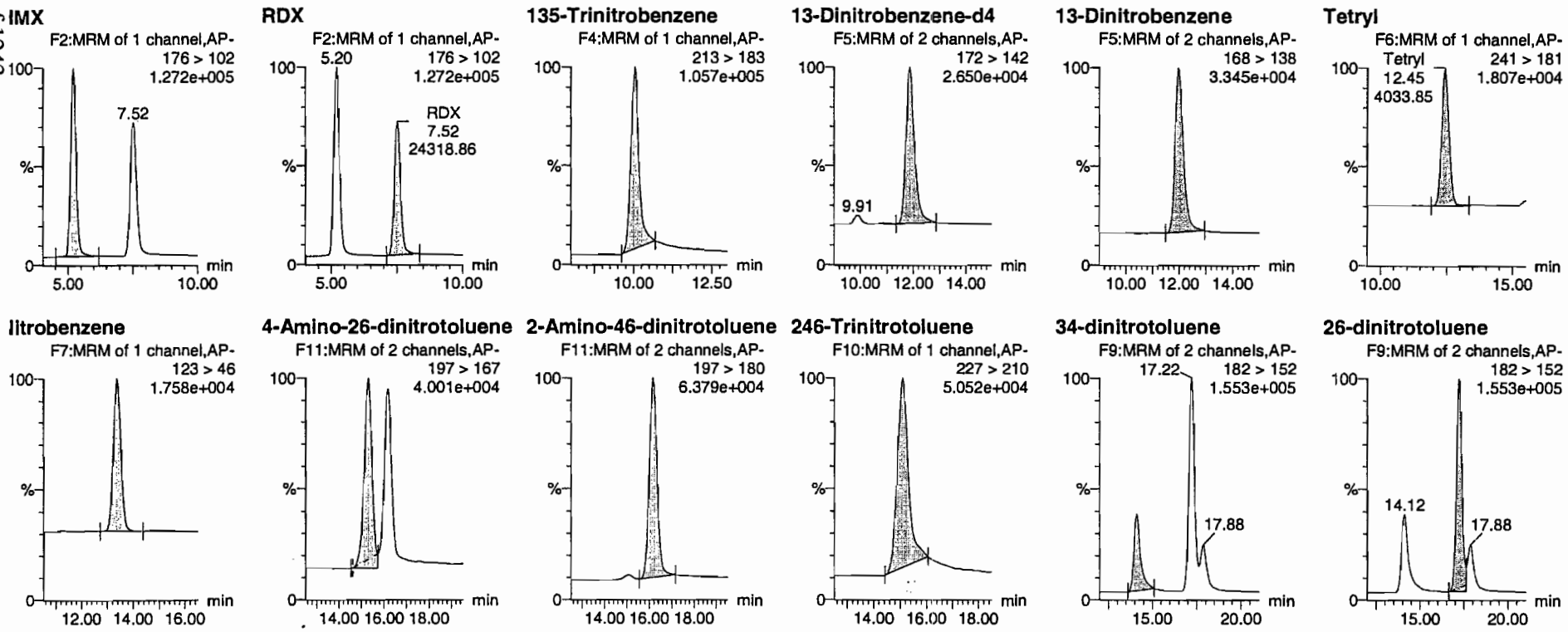

HMM 04/14/10

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ataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

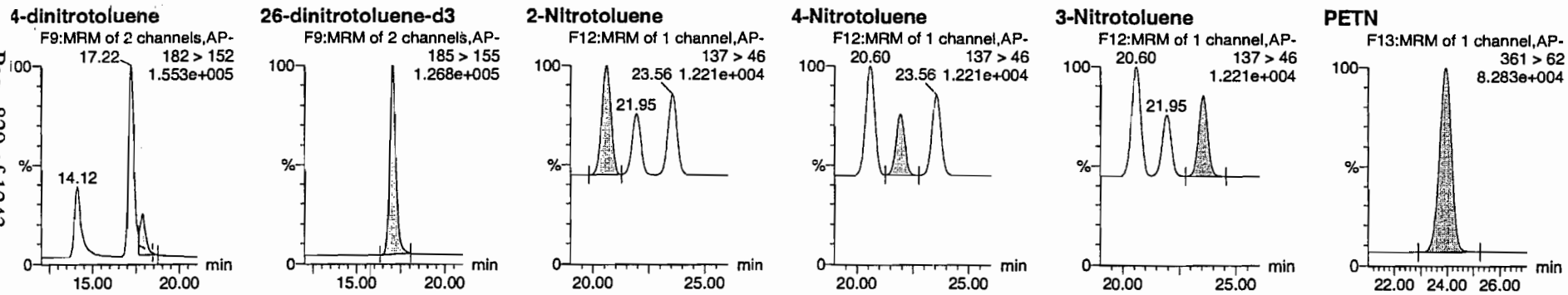

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
202055081	HMX	176 > 102	5.20	31888.916	7934.125	31888.916	2009.605	bb			474.1127	94.8	-5.2	2669.8
202055081	RDX	176 > 102	7.52	24318.857	7934.125	24318.857	1532.548	bb			535.4439	107.1	7.1	1887.4
202055081	135-Trinitrobenzene	213 > 183	10.05	29399.398	7934.125	29399.398	1852.718	bb			428.5744	85.7	-14.3	1192.8
202055081	13-Dinitrobenzene-d4	172 > 142	11.87	7934.125		7934.125	7934.125	bb			674.6287	134.9	34.9	996.5
202055081	13-Dinitrobenzene	168 > 138	11.97	9988.182	7934.125	9988.182	629.444	bb			470.7642	94.2	-5.8	820.5
202055081	Tetryl	241 > 181	12.45	4033.852	7934.125	4033.852	254.209	bb			196.1076	39.2	-60.8	402.5
202055081	Nitrobenzene	123 > 46	13.37	4220.272	7934.125	4220.272	265.957	bb			423.9733	84.8	-15.2	342.0
202055081	4-Amino-26-dinitrotoluene	197 > 167	15.32	14410.682	49730.031	14410.682	144.889	MM	14-Apr-10	09:09:24	428.9675	85.8	-14.2	473.2
202055081	2-Amino-46-dinitrotoluene	197 > 180	16.16	23516.303	49730.031	23516.303	236.440	bb			461.6182	92.3	-7.7	1210.9
202055081	246-Trinitrotoluene	227 > 210	15.10	21357.152	49730.031	21357.152	214.731	bb			493.5970	98.7	-1.3	761.4
202055081	34-dinitrotoluene	182 > 152	14.12	23995.795	49730.031	23995.795	241.261	bb		3.02	233.9774	93.6	-6.4	826.1
202055081	26-dinitrotoluene	182 > 152	17.22	54598.902	49730.031	54598.902	548.953	MM	14-Apr-10	09:12:51	463.8237	92.8	-7.2	2279.5
202055081	24-dinitrotoluene	182 > 152	17.88	13461.175	49730.031	13461.175	135.343	MM	14-Apr-10	09:13:55	518.5460	103.7	3.7	486.6
202055081	26-dinitrotoluene-d3	185 > 155	17.05	49730.031		49730.031	49730.031	bb			710.7706	142.2	42.2	2173.1
202055081	2-Nitrotoluene	137 > 46	20.60	3195.753	49730.031	3195.753	32.131	bb			371.0785	74.2	-25.8	289.0
202055081	4-Nitrotoluene	137 > 46	21.95	1714.694	49730.031	1714.694	17.240	bb			415.6288	83.1	-16.9	161.0
202055081	3-Nitrotoluene	137 > 46	23.56	2336.375	49730.031	2336.375	23.491	bb			402.9120	80.6	-19.4	213.1
202055081	PETN	361 > 62	23.94	41677.180	49730.031	41677.180	419.034	bb			451.2692	90.3	-9.7	13612.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12917(248017003MSD)

Lab Code: GEI

GEL Job No (SDG) 10-2039

Matrix: GROUND WATER

GEL Sample ID: 1202055081

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050078.wiff

Date Analyzed: 06-APR-10 08:55

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	5.43	
59229-75-3	2,6-Diamino-4-nitrotoluene	5.6	
618-87-1	3,5-Dinitroaniline	6.14	
6629-29-4	2,4-Diamino-6-nitrotoluene	5.79	
78-30-8	tris(o-cresyl) phosphate	3.03	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ken 4/7/10

ample Name: "1202055081" Sample ID: "958282|2|LER" File: "EXS04050078.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212L" Annotation: ""

ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 418. ng/mL
. Date: 4/6/2010
. Time: 8:55:36 AM

ified: No
t. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 30.0 sec
ected RT: 6.86 min
Relative RT: No

. Type: Valley
ention Time: 6.89 min
: 3.31e+005 counts
ght: 74494.469 cps
rt Time: 6.78 min
Time: 7.48 min

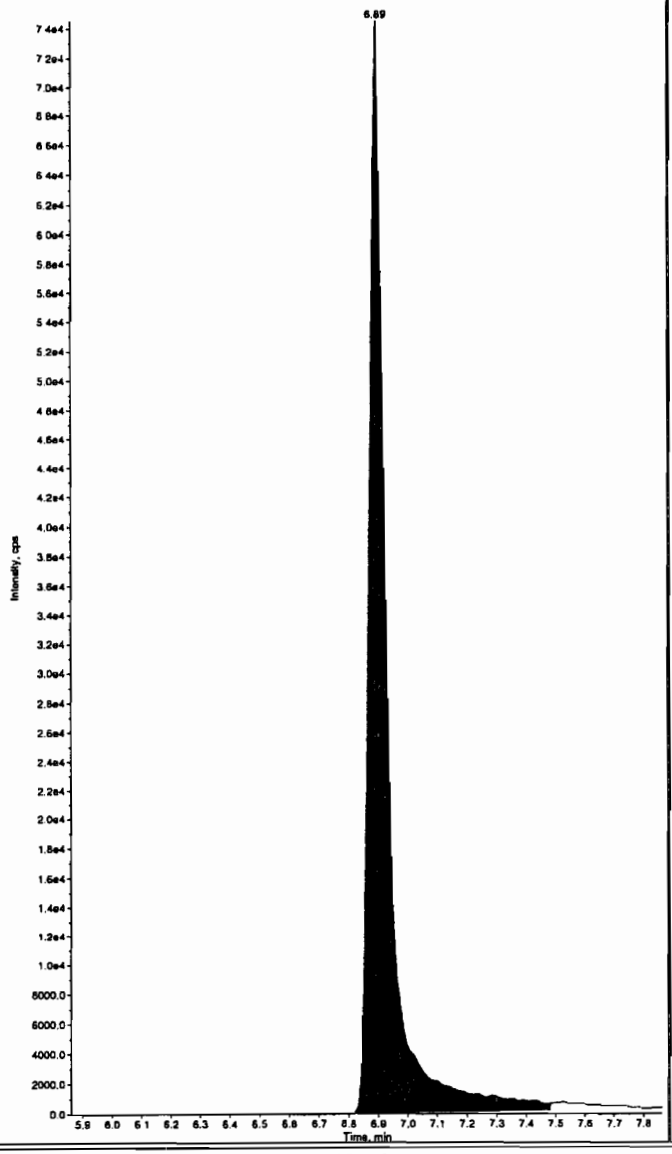

Sample Name: "1202055081" Sample ID: "958282|2|LER" File: "EXS04050078.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 473. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 8:55:36 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.12 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.12 min
Area: 3.14e+006 counts
Height: 755054.504 cps
Start Time: 8.06 min
End Time: 8.26 min

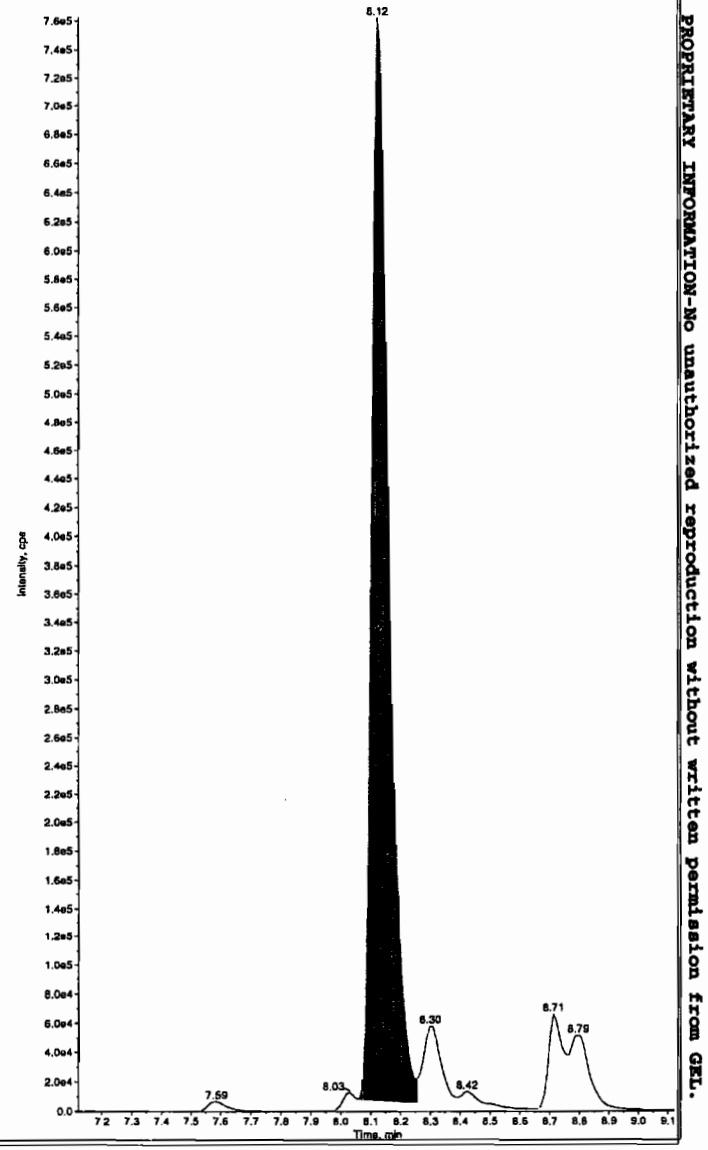

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:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "1202055081" Sample ID: "958282|2|LER" File: "EXS04050078.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCX83212L" Annotation: ""

2.93

ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 226. ng/mL
. Date: 4/6/2010
. Time: 8:55:36 AM

ified: No
:. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
ected RT: 8.28 min
Relative RT: No

. Type: Valley
ention Time: 8.30 min
a: 1.93e+006 counts
ght: 464223.114 cps
t Time: 8.23 min
Time: 8.54 min

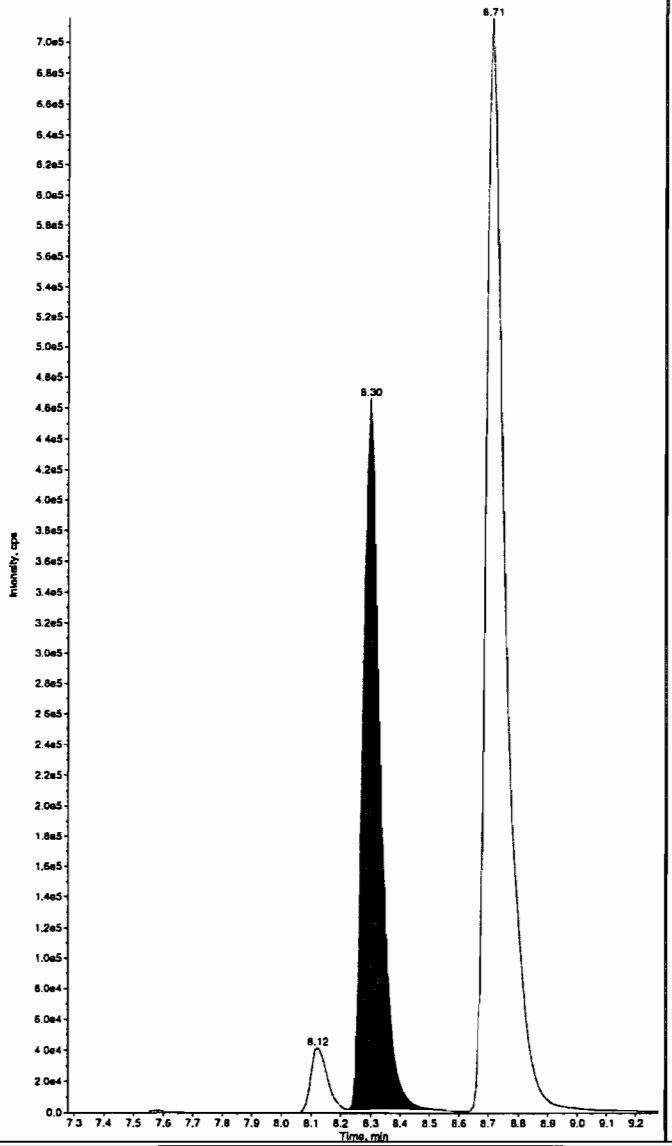

Sample Name: "1202055081" Sample ID: "958282|2|LER" File: "EXS04050078.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 431. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 8:55:36 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.95 min
Area: 1.21e+006 counts
Height: 278627.289 cps
Start Time: 4.85 min
End Time: 5.25 min

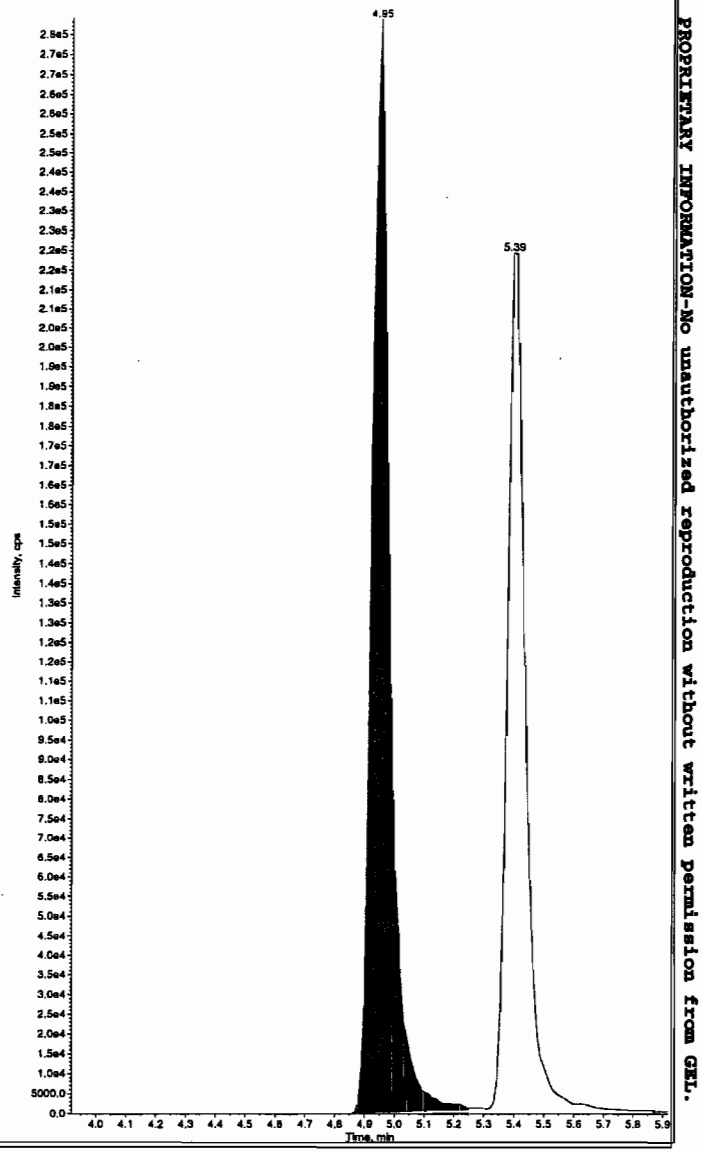

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nple Name: "1202055081" Sample ID: "958282|2|LER" File: "EXS04050078.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/45.0 amu"
nment: "LCX83212L" Annotation: ""

le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 446. ng/mL
Date: 4/6/2010
Time: 8:55:36 AM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.37 min
Relative RT: No

Type: Valley
ntion Time: 5.39 min
: 9.50e+005 counts
ht: 219264.404 cps
t Time: 5.31 min
Time: 5.98 min

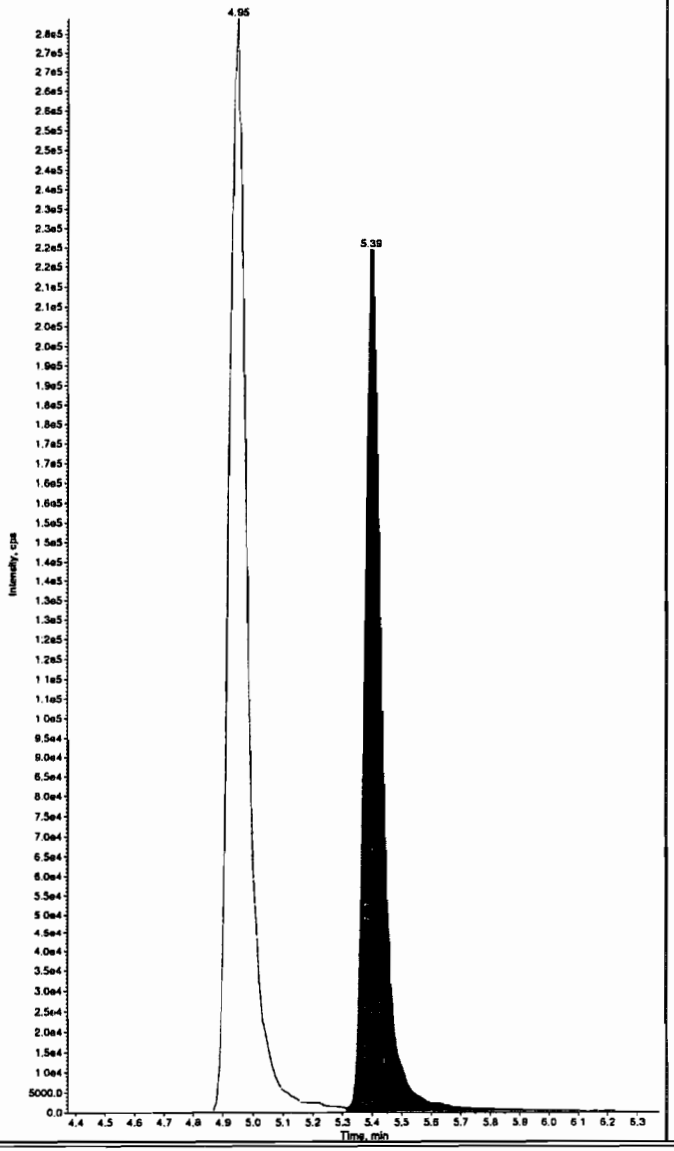

Sample Name: "1202055081" Sample ID: "958282|2|LER" File: "EXS04050078.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 233. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 8:55:36 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 4.20e+006 counts
Height: 1014281.494 cps
Start Time: 10.8 min
End Time: 11.2 min

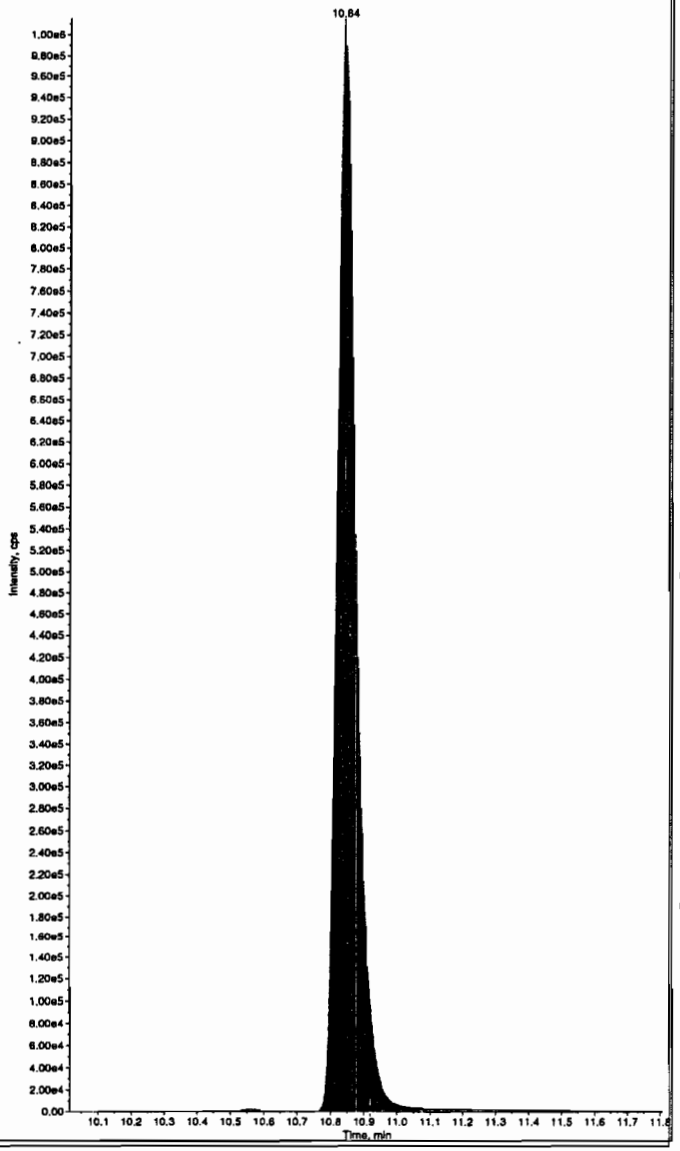

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MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 958278 **Verified by:** _____
Analyst: Sirena White
Method: SW846 Method 3535

Lab SOP: GL-OA-E-033 REV# 17
Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Ph 1	Final Volume (mL)	Prepped Factor (mL/mL)
1202055078 MB	01-MAR-2010 09:38:00	770	5	5	0.00649
1202055079 LCS	01-MAR-2010 09:38:00	770	5	5	0.00649
248017003	01-MAR-2010 09:38:00	770	6	5	0.00649
1202055080 MS (248017003)	01-MAR-2010 09:38:00	770	6	5	0.00649
1202055081 MSD (248017003)	01-MAR-2010 09:38:00	770	6	5	0.00649
248042002	01-MAR-2010 09:38:00	770	6	5	0.00649
248042008	01-MAR-2010 09:38:00	770	6	5	0.00649
248042010	01-MAR-2010 09:38:00	770	5	5	0.00649
248047003	01-MAR-2010 09:38:00	770	6	5	0.00649
248047007	01-MAR-2010 09:38:00	770	6	5	0.00649

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202055079	8321 Explosives LCS	IXX100225-03	.05	mL
LCS	1202055079	8321 LANL Explosives Mix 10mg/L	UXX100122-01.4	.5	mL
MS	1202055080	8321 Explosives LCS	IXX100225-03	.05	mL
MS	1202055080	8321 LANL Explosives Mix 10mg/L	UXX100122-01.4	.5	mL
MSD	1202055081	8321 Explosives LCS	IXX100225-03	.05	mL
MSD	1202055081	8321 LANL Explosives Mix 10mg/L	UXX100122-01.4	.5	mL
SURR	All	3,4-Dinitrotoluene (8330 Surr.) 100ppm	IXP100223-02	.025	mL

Comments:

SPE Cartridge:003339260A

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 04/08/10
Extr. Injection Volume: 50uL
Sequence Number: 040810expA
Initial Calibration Date: 04/08/10

Method: SW846 8321A-Modified
Int. Std.: UXX100324-02.2
Mobile Phase Lot#: 1296548, 1289686
Standard-Samp Reagent Lot#: 1292884, 1293274

Reviewed BY: dnm
Date: 04/14/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100408-07 & WXX100410-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0408001a	XIBLK01	MAP	4/8/10 21:32			1		USE	B
EXP0408002a	XIBLK01	MAP	4/8/10 22:02			1		USE	B
EXP0408003a	WXXICAL-01	MAP	4/8/10 22:31			1		USE	I
EXP0408004a	WXXICAL-02	MAP	4/8/10 23:01			1		USE	I
EXP0408005a	WXXICAL-03	MAP	4/8/10 23:30			1		USE	I
EXP0408006a	WXXICAL-04	MAP	4/9/10 0:00			1		USE	I
EXP0408007a	WXXICAL-05	MAP	4/9/10 0:29			1		USE	I
EXP0408008a	WXXICAL-06	MAP	4/9/10 0:59			1		USE	I
EXP0408009a	XIBLK02	MAP	4/9/10 1:28			1		USE	B
EXP0408010a	WXXICV	MAP	4/9/10 1:58			1		USE	C
EXP0408011a	XIBLK03	MAP	4/9/10 2:27			1		USE	B
EXP0408012a	WXXCRI	MAP	4/9/10 2:57			1		USE	C
EXP0408013a	1202053627	MAP	4/9/10 3:26	957700	10-2009	2	LANL	USE	S
EXP0408014a	1202053628	MAP	4/9/10 3:56	957700	10-2009	2	LANL	USE	S
EXP0408015a	247897001	MAP	4/9/10 4:25	957700	10-2009	2	LANL	USE	S
EXP0408016a	1202053629	MAP	4/9/10 4:55	957700	10-2009	2	LANL	USE	S
EXP0408017a	1202053630	MAP	4/9/10 5:24	957700	10-2009	2	LANL	USE	S
EXP0408018a	247897002	MAP	4/9/10 5:54	957700	10-2009	2	LANL	USE	S
EXP0408019a	247897003	MAP	4/9/10 6:23	957700	10-2009	2	LANL	USE	S
EXP0408020a	247897004	MAP	4/9/10 6:52	957700	10-2009	2	LANL	USE	S
EXP0408021a	247897005	MAP	4/9/10 7:22	957700	10-2009	2	LANL	USE	S
EXP0408022a	247897006	MAP	4/9/10 7:51	957700	10-2009	2	LANL	USE	S
EXP0408023a	WXXCCV	MAP	4/9/10 8:21			1		USE	C
EXP0408024a	XIBLK04	MAP	4/9/10 8:50			1		USE	B
EXP0408025a	WXXCRI	MAP	4/9/10 9:20			1		USE	C
EXP0408026a	247897007	MAP	4/9/10 9:49	957700	10-2009	2	LANL	USE	S
EXP0408027a	247897008	MAP	4/9/10 10:19	957700	10-2009	2	LANL	USE	S
EXP0408028a	247897009	MAP	4/9/10 10:48	957700	10-2009	2	LANL	DUSE-RA	S
EXP0408029a	247897010	MAP	4/9/10 11:18	957700	10-2009	2	LANL	DUSE-RA	S

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EXP0408030a	247897011	MAP	4/9/10 11:47	957700	10-2009	2	LANL	DUSE-RA	S
EXP0408031a	247897012	MAP	4/9/10 12:17	957700	10-2009	2	LANL	USE	S
EXP0408032a	247897013	MAP	4/9/10 12:46	957700	10-2009	2	LANL	USE	S
EXP0408033a	247897014	MAP	4/9/10 13:16	957700	10-2009	2	LANL	USE	S
EXP0408034a	247897015	MAP	4/9/10 13:45	957700	10-2009	2	LANL	USE	S
EXP0408035a	247897016	MAP	4/9/10 14:15	957700	10-2009	2	LANL	USE	S
EXP0408036a	WXXCCV	MAP	4/9/10 14:44			1		USE	C
EXP0408037a	XIBLK05	MAP	4/9/10 15:14			1		USE	B
EXP0408038a	WXXCRI	MAP	4/9/10 15:43			1		USE	C
EXP0408039a	247897017	MAP	4/9/10 16:13	957700	10-2009	2	LANL	USE	S
EXP0408040a	247897018	MAP	4/9/10 16:46	957700	10-2009	2	LANL	USE	S
EXP0408041a	247897019	MAP	4/9/10 17:15	957700	10-2009	2	LANL	USE	S
EXP0408042a	247897020	MAP	4/9/10 17:45	957700	10-2009	2	LANL	USE	S
EXP0408043a	247897009	MAP	4/9/10 18:14	957700	10-2009	2	LANL	DUSE	S
EXP0408044a	247897010	MAP	4/9/10 18:44	957700	10-2009	2	LANL	DUSE	S
EXP0408045a	247897011	MAP	4/9/10 19:13	957700	10-2009	2	LANL	DUSE	S
EXP0408046a	WXXCCV	MAP	4/9/10 19:43			1		USE	C
EXP0408047a	XIBLK06	MAP	4/9/10 20:12			1		USE	B
EXP0408048a	WXXCRI	MAP	4/9/10 20:42			1		USE	C
EXP0408049a	1202053631	MAP	4/9/10 21:11	957702	10-2012	2	LANL	USE	S
EXP0408050a	1202053632	MAP	4/9/10 21:41	957702	10-2012	2	LANL	USE	S
EXP0408051a	247904001	MAP	4/9/10 22:10	957702	10-2012	2	LANL	USE	S
EXP0408052a	1202053633	MAP	4/9/10 22:40	957702	10-2012	2	LANL	USE	S
EXP0408053a	1202053634	MAP	4/9/10 23:09	957702	10-2012	2	LANL	USE	S
EXP0408054a	247904002	MAP	4/9/10 23:39	957702	10-2012	2	LANL	USE	S
EXP0408055a	247904003	MAP	4/10/10 0:08	957702	10-2012	2	LANL	USE	S
EXP0408056a	247904004	MAP	4/10/10 0:38	957702	10-2012	2	LANL	USE	S
EXP0408057a	247904005	MAP	4/10/10 1:07	957702	10-2012	2	LANL	USE	S
EXP0408058a	247904006	MAP	4/10/10 1:37	957702	10-2012	2	LANL	USE	S
EXP0408059a	WXXCCV	MAP	4/10/10 2:06			1		USE	C
EXP0408060a	XIBLK07	MAP	4/10/10 2:36			1		USE	B
EXP0408061a	WXXCRI	MAP	4/10/10 3:05			1		USE	C
EXP0408062a	247904007	MAP	4/10/10 3:35	957702	10-2012	2	LANL	USE	S
EXP0408063a	247904008	MAP	4/10/10 4:04	957702	10-2012	2	LANL	USE	S
EXP0408064a	247904009	MAP	4/10/10 4:34	957702	10-2012	2	LANL	USE	S
EXP0408065a	247904010	MAP	4/10/10 5:03	957702	10-2012	2	LANL	USE	S
EXP0408066a	247904011	MAP	4/10/10 5:33	957702	10-2012	2	LANL	USE	S

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EXP0408067a	247904012	MAP	4/10/10 6:02	957702	10-2012	2	LANL	USE	S
EXP0408068a	247904013	MAP	4/10/10 6:32	957702	10-2012	2	LANL	USE	S
EXP0408069a	247904014	MAP	4/10/10 7:01	957702	10-2012	2	LANL	USE	S
EXP0408070a	247904015	MAP	4/10/10 7:31	957702	10-2012	2	LANL	USE	S
EXP0408071a	247904016	MAP	4/10/10 8:00	957702	10-2012	2	LANL	USE	S
EXP0408072a	WXXCCV	MAP	4/10/10 8:30			1		USE	C
EXP0408073a	XIBLK08	MAP	4/10/10 8:59			1		USE	B
EXP0408074a	WXXCRI	MAP	4/10/10 9:29			1		USE	C
EXP0408075a	247904017	MAP	4/10/10 9:58	957702	10-2012	2	LANL	USE	S
EXP0408076a	XIBLK09	MAP	4/10/10 10:28			1		USE	B
EXP0408077a	1202055003	MAP	4/10/10 10:57	958247	Various	2	LANL	USE	S
EXP0408078a	1202055004	MAP	4/10/10 11:27	958247	Various	2	LANL	USE	S
EXP0408079a	248004002	MAP	4/10/10 11:57	958247	10-2024	2	LANL	USE	S
EXP0408080a	1202055005	MAP	4/10/10 12:26	958247	10-2024	2	LANL	USE	S
EXP0408081a	1202055006	MAP	4/10/10 12:55	958247	10-2024	2	LANL	USE	S
EXP0408082a	247897009	MAP	4/10/10 13:25	957700	10-2009	2	LANL	USE	S
EXP0408083a	247897010	MAP	4/10/10 13:54	957700	10-2009	2	LANL	USE	S
EXP0408084a	247897011	MAP	4/10/10 14:24	957700	10-2009	2	LANL	USE	S
EXP0408085a	WXXCCV	MAP	4/10/10 14:53			1		USE	C
EXP0408086a	XIBLK10	MAP	4/10/10 15:23			1		USE	B
EXP0408087a	WXXCRI	MAP	4/10/10 15:52			1		USE	C
EXP0408088a	248004003	MAP	4/10/10 16:22	958247	10-2024	2	LANL	USE	S
EXP0408089a	248004004	MAP	4/10/10 16:51	958247	10-2024	2	LANL	USE	S
EXP0408090a	248004005	MAP	4/10/10 17:21	958247	10-2024	2	LANL	USE	S
EXP0408091a	248004006	MAP	4/10/10 17:50	958247	10-2024	2	LANL	USE	S
EXP0408092a	248012002	MAP	4/10/10 18:20	958247	10-2027	2	LANL	USE	S
EXP0408093a	248012003	MAP	4/10/10 18:49	958247	10-2027	2	LANL	USE	S
EXP0408094a	248012004	MAP	4/10/10 19:19	958247	10-2027	2	LANL	USE	S
EXP0408095a	248012005	MAP	4/10/10 19:48	958247	10-2027	2	LANL	USE	S
EXP0408096a	248012006	MAP	4/10/10 20:18	958247	10-2027	2	LANL	USE	S
EXP0408097a	248012007	MAP	4/10/10 20:47	958247	10-2027	2	LANL	USE	S
EXP0408098a	WXXCCV	MAP	4/10/10 21:17			1		USE	C
EXP0408099a	XIBLK11	MAP	4/10/10 21:46			1		USE	B
EXP0408100a	WXXCRI	MAP	4/10/10 22:16			1		USE	C
EXP0408101a	248012008	MAP	4/10/10 22:45	958247	10-2027	2	LANL	USE	S
EXP0408102a	248012009	MAP	4/10/10 23:15	958247	10-2027	2	LANL	USE	S
EXP0408103a	248013001	MAP	4/10/10 23:44	958247	10-2034	2	LANL	USE	S

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EXP0408104a	248013002	MAP	4/11/10 0:14	958247	10-2034	2	LANL	USE	S
EXP0408105a	248013003	MAP	4/11/10 0:43	958247	10-2034	2	LANL	USE	S
EXP0408106a	248013004	MAP	4/11/10 1:13	958247	10-2034	2	LANL	USE	S
EXP0408107a	WXXCCV	MAP	4/11/10 1:42			1		USE	C
EXP0408108a	XIBLK12	MAP	4/11/10 2:12			1		USE	B
EXP0408109a	WXXCRI	MAP	4/11/10 2:41			1		USE	C
EXP0408110a	1202055078	MAP	4/11/10 3:11	958282	Various	2	LANL	DUSE-RA	S
EXP0408111a	1202055079	MAP	4/11/10 3:40	958282	Various	2	LANL	USE	S
EXP0408112a	248017003	MAP	4/11/10 4:10	958282	10-2039	2	LANL	DUSE-RA	S
EXP0408113a	1202055080	MAP	4/11/10 4:39	958282	10-2039	2	LANL	USE	S
EXP0408114a	1202055081	MAP	4/11/10 5:09	958282	10-2039	2	LANL	DUSE-RA	S
EXP0408115a	248042002	MAP	4/11/10 5:38	958282	10-2057	2	LANL	DUSE-RA	S
EXP0408116a	248042008	MAP	4/11/10 6:08	958282	10-2057	2	LANL	DUSE-RA	S
EXP0408117a	248042010	MAP	4/11/10 6:37	958282	10-2057	2	LANL	USE	S
EXP0408118a	248047003	MAP	4/11/10 7:07	958282	10-2045	2	LANL	DUSE-RA	S
EXP0408119a	248047007	MAP	4/11/10 7:36	958282	10-2045	2	LANL	DUSE-RA	S
EXP0408120a	WXXCCV	MAP	4/11/10 8:06			1		USE	C
EXP0408121a	XIBLK13	MAP	4/11/10 8:35			1		USE	B
EXP0408122a	WXXCRI	MAP	4/11/10 9:05			1		USE	C
EXP0408123a	1202055028	MAP	4/11/10 9:34	958257	Various	2	LANL	USE	S
EXP0408124a	1202055031	MAP	4/11/10 10:04	958257	Various	2	LANL	USE	S
EXP0408125a	248027002	MAP	4/11/10 10:33	958257	10-2068	2	LANL	USE	S
EXP0408126a	1202055029	MAP	4/11/10 11:03	958257	10-2068	2	LANL	USE	S
EXP0408127a	1202055030	MAP	4/11/10 11:32	958257	10-2068	2	LANL	USE	S
EXP0408128a	248027003	MAP	4/11/10 12:02	958257	10-2068	2	LANL	USE	S
EXP0408129a	248027004	MAP	4/11/10 12:31	958257	10-2068	2	LANL	USE	S
EXP0408130a	248027005	MAP	4/11/10 13:01	958257	10-2068	2	LANL	USE	S
EXP0408131a	248027006	MAP	4/11/10 13:30	958257	10-2068	2	LANL	USE	S
EXP0408132a	248029001	MAP	4/11/10 14:00	958257	10-2071	2	LANL	USE	S
EXP0408133a	WXXCCV	MAP	4/11/10 14:29			1		USE	C
EXP0408134a	XIBLK14	MAP	4/11/10 14:59			1		USE	B
EXP0408135a	WXXCRI	MAP	4/11/10 15:28			1		USE	C
EXP0408136a	248029002	MAP	4/11/10 15:58	958257	10-2071	2	LANL	USE	S
EXP0408137a	248029003	MAP	4/11/10 16:27	958257	10-2071	2	LANL	USE	S
EXP0408138a	248029004	MAP	4/11/10 16:57	958257	10-2071	2	LANL	USE	S
EXP0408139a	248029005	MAP	4/11/10 17:26	958257	10-2071	2	LANL	USE	S
EXP0408140a	248029006	MAP	4/11/10 17:56	958257	10-2071	2	LANL	USE	S

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EXP0408141a	248029007	MAP	4/11/10 18:25	958257	10-2071	2	LANL	USE	S
EXP0408142a	248029008	MAP	4/11/10 18:55	958257	10-2071	2	LANL	USE	S
EXP0408143a	248029009	MAP	4/11/10 19:24	958257	10-2071	2	LANL	USE	S
EXP0408144a	248068001	MAP	4/11/10 19:54	958257	10-2088	2	LANL	USE	S
EXP0408145a	248068002	MAP	4/11/10 20:23	958257	10-2088	2	LANL	USE	S
EXP0408146a	WXXCCV	MAP	4/11/10 20:53			1		USE	C
EXP0408147a	XIBLK15	MAP	4/11/10 21:22			1		USE	B
EXP0408148a	WXXCRI	MAP	4/11/10 21:52			1		USE	C
EXP0408149a	1202055038	MAP	4/11/10 22:21	958267	10-2077	2	LANL	USE	S
EXP0408150a	1202055039	MAP	4/11/10 22:51	958267	10-2077	2	LANL	USE	S
EXP0408151a	248052001	MAP	4/11/10 23:20	958267	10-2077	2	LANL	USE	S
EXP0408152a	1202055040	MAP	4/11/10 23:50	958267	10-2077	2	LANL	USE	S
EXP0408153a	1202055041	MAP	4/12/10 0:19	958267	10-2077	2	LANL	USE	S
EXP0408154a	248052002	MAP	4/12/10 0:49	958267	10-2077	2	LANL	USE	S
EXP0408155a	248052003	MAP	4/12/10 1:18	958267	10-2077	2	LANL	USE	S
EXP0408156a	248052004	MAP	4/12/10 1:48	958267	10-2077	2	LANL	USE	S
EXP0408157a	248052005	MAP	4/12/10 2:17	958267	10-2077	2	LANL	USE	S
EXP0408158a	248052006	MAP	4/12/10 2:47	958267	10-2077	2	LANL	USE	S
EXP0408159a	WXXCCV	MAP	4/12/10 3:16			1		USE	C
EXP0408160a	XIBLK16	MAP	4/12/10 3:46			1		USE	B
EXP0408161a	WXXCRI	MAP	4/12/10 4:15			1		USE	C
EXP0408162a	248052007	MAP	4/12/10 4:45	958267	10-2077	2	LANL	USE	S
EXP0408163a	248052008	MAP	4/12/10 5:14	958267	10-2077	2	LANL	USE	S
EXP0408164a	248052009	MAP	4/12/10 5:44	958267	10-2077	2	LANL	USE	S
EXP0408165a	248052010	MAP	4/12/10 6:13	958267	10-2077	2	LANL	USE	S
EXP0408166a	248052011	MAP	4/12/10 6:43	958267	10-2077	2	LANL	USE	S
EXP0408167a	248052012	MAP	4/12/10 7:12	958267	10-2077	2	LANL	USE	S
EXP0408168a	248052013	MAP	4/12/10 7:42	958267	10-2077	2	LANL	USE	S
EXP0408169a	248052014	MAP	4/12/10 8:11	958267	10-2077	2	LANL	USE	S
EXP0408170a	248052015	MAP	4/12/10 8:41	958267	10-2077	2	LANL	USE	S
EXP0408171a	248052016	MAP	4/12/10 9:10	958267	10-2077	2	LANL	USE	S
EXP0408172a	WXXCCV	MAP	4/12/10 9:40			1		USE	C
EXP0408173a	XIBLK17	MAP	4/12/10 10:09			1		USE	B
EXP0408174a	WXXCRI	MAP	4/12/10 10:39			1		USE	C
EXP0408175a	248052017	MAP	4/12/10 11:08	958267	10-2077	2	LANL	USE	S
EXP0408176a	248052018	MAP	4/12/10 11:38	958267	10-2077	2	LANL	USE	S
EXP0408177a	248052019	MAP	4/12/10 12:08	958267	10-2077	2	LANL	USE	S

EXP0408178a	248052020	MAP	4/12/10 12:37	958267	10-2077	2	LANL	USE	S
EXP0408179a	WXXCCV	MAP	4/12/10 13:07			1		USE	C
EXP0408180a	XIBLK18	MAP	4/12/10 13:36			1		USE	B
EXP0408181a	WXXCRI	MAP	4/12/10 14:06			1		USE	C

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 04/12/10
Extr. Injection Volume: 50uL
Sequence Number: 041210expA
Initial Calibration Date: 04/12/10

Method: SW846 8321A-Modified
Int. Std.: UXX100324-02.3
Mobile Phase Lot#: 1296548, 1289686
Standard-Samp Reagent Lot#: 1299881, 1284736

Reviewed BY: HMK
Date: 04/14/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100412-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0412001a	XIBLK01	MAP	4/12/10 15:40			1		USE	B
EXP0412002a	XIBLK01	MAP	4/12/10 16:10			1		USE	B
EXP0412003a	WXXICAL-01	MAP	4/12/10 16:39			1		USE	I
EXP0412004a	WXXICAL-02	MAP	4/12/10 17:09			1		USE	I
EXP0412005a	WXXICAL-03	MAP	4/12/10 17:38			1		USE	I
EXP0412006a	WXXICAL-04	MAP	4/12/10 18:08			1		USE	I
EXP0412007a	WXXICAL-05	MAP	4/12/10 18:37			1		USE	I
EXP0412008a	WXXICAL-06	MAP	4/12/10 19:07			1		USE	I
EXP0412009a	XIBLK02	MAP	4/12/10 19:36			1		USE	B
EXP0412010a	WXXICV	MAP	4/12/10 20:06			1		USE	C
EXP0412011a	XIBLK03	MAP	4/12/10 20:35			1		USE	B
EXP0412012a	WXXCRI	MAP	4/12/10 21:04			1		USE	C
EXP0412013a	1202047525	MAP	4/12/10 21:34	955063	Various	2	LANL	USE	S
EXP0412014a	1202047526	MAP	4/12/10 22:04	955063	Various	2	LANL	USE	S
EXP0412015a	247332002	MAP	4/12/10 22:33	955063	10-1905	2	LANL	USE	S
EXP0412016a	1202047527	MAP	4/12/10 23:02	955063	10-1905	2	LANL	USE	S
EXP0412017a	1202047528	MAP	4/12/10 23:32	955063	10-1905	2	LANL	USE	S
EXP0412018a	247332003	MAP	4/13/10 0:01	955063	10-1905	2	LANL	USE	S
EXP0412019a	247332004	MAP	4/13/10 0:31	955063	10-1905	2	LANL	USE	S
EXP0412020a	247332005	MAP	4/13/10 1:00	955063	10-1905	2	LANL	USE	S
EXP0412021a	247332006	MAP	4/13/10 1:30	955063	10-1905	2	LANL	USE	S
EXP0412022a	247332007	MAP	4/13/10 1:59	955063	10-1905	2	LANL	USE	S
EXP0412023a	WXXCCV	MAP	4/13/10 2:29			1		USE	C
EXP0412024a	XIBLK04	MAP	4/13/10 2:58			1		USE	B
EXP0412025a	WXXCRI	MAP	4/13/10 3:28			1		USE	C
EXP0412026a	247332008	MAP	4/13/10 3:57	955063	10-1905	2	LANL	USE	S
EXP0412027a	247343001	MAP	4/13/10 4:27	955063	10-1908	2	LANL	USE	S
EXP0412028a	247343002	MAP	4/13/10 4:56	955063	10-1908	2	LANL	USE	S
EXP0412029a	247343003	MAP	4/13/10 5:26	955063	10-1908	2	LANL	USE	S

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EXP0412030a	247343004	MAP	4/13/10 5:55	955063	10-1908	2	LANL	USE	S
EXP0412031a	247343005	MAP	4/13/10 6:25	955063	10-1908	2	LANL	USE	S
EXP0412032a	247343006	MAP	4/13/10 6:54	955063	10-1908	2	LANL	USE	S
EXP0412033a	247343007	MAP	4/13/10 7:24	955063	10-1908	2	LANL	USE	S
EXP0412034a	247343008	MAP	4/13/10 7:53	955063	10-1908	2	LANL	USE	S
EXP0412035a	247343009	MAP	4/13/10 8:23	955063	10-1908	2	LANL	USE	S
EXP0412036a	WXXCCV	MAP	4/13/10 8:52			1		USE	C
EXP0412037a	XIBLK05	MAP	4/13/10 9:22			1		USE	B
EXP0412038a	WXXCRI	MAP	4/13/10 9:51			1		USE	C
EXP0412039a	247343010	MAP	4/13/10 10:21	955063	10-1908	2	LANL	USE	S
EXP0412040a	247343011	MAP	4/13/10 10:50	955063	10-1908	2	LANL	USE	S
EXP0412041a	XIBLK06	MAP	4/13/10 11:20			1		USE	B
EXP0412042a	1202052398	MAP	4/13/10 11:50	957196	10-1972	2	LANL	USE	S
EXP0412043a	1202052399	MAP	4/13/10 12:19	957196	10-1972	2	LANL	USE	S
EXP0412044a	247767001	MAP	4/13/10 12:49	957196	10-1972	2	LANL	USE	S
EXP0412045a	1202052401	MAP	4/13/10 13:18	957196	10-1972	2	LANL	USE	S
EXP0412046a	1202052402	MAP	4/13/10 13:48	957196	10-1972	2	LANL	USE	S
EXP0412047a	247767002	MAP	4/13/10 14:17	957196	10-1972	2	LANL	USE	S
EXP0412048a	247767003	MAP	4/13/10 14:47	957196	10-1972	2	LANL	USE	S
EXP0412049a	WXXCCV	MAP	4/13/10 15:16			1		USE	C
EXP0412050a	XIBLK07	MAP	4/13/10 15:46			1		USE	B
EXP0412051a	WXXCRI	MAP	4/13/10 16:15			1		USE	C
EXP0412052a	247767004	MAP	4/13/10 16:45	957196	10-1972	2	LANL	USE	S
EXP0412053a	247767005	MAP	4/13/10 17:14	957196	10-1972	2	LANL	USE	S
EXP0412054a	247767006	MAP	4/13/10 17:44	957196	10-1972	2	LANL	USE	S
EXP0412055a	247767007	MAP	4/13/10 18:13	957196	10-1972	2	LANL	USE	S
EXP0412056a	247767008	MAP	4/13/10 18:43	957196	10-1972	2	LANL	USE	S
EXP0412057a	247767009	MAP	4/13/10 19:12	957196	10-1972	2	LANL	USE	S
EXP0412058a	247767010	MAP	4/13/10 19:42	957196	10-1972	2	LANL	USE	S
EXP0412059a	247767011	MAP	4/13/10 20:11	957196	10-1972	2	LANL	USE	S
EXP0412060a	WXXCCV	MAP	4/13/10 20:41			1		USE	C
EXP0412061a	XIBLK08	MAP	4/13/10 21:10			1		USE	B
EXP0412062a	WXXCRI	MAP	4/13/10 21:40			1		USE	C
EXP0412063a	1202055078	MAP	4/13/10 22:09	958282	Various	2	LANL	USE	S
EXP0412064a	1202055079	MAP	4/13/10 22:39	958282	Various	2	LANL	DUSE	S
EXP0412065a	248017003	MAP	4/13/10 23:08	958282	10-2039	2	LANL	USE	S
EXP0412066a	1202055080	MAP	4/13/10 23:38	958282	10-2039	2	LANL	DUSE	S

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EXP0412067a	1202055081	MAP	4/14/10 0:07	958282	10-2039	2	LANL	USE	S
EXP0412068a	248042002	MAP	4/14/10 0:37	958282	10-2057	2	LANL	USE	S
EXP0412069a	248042008	MAP	4/14/10 1:06	958282	10-2057	2	LANL	USE	S
EXP0412070a	248042010	MAP	4/14/10 1:36	958282	10-2057	2	LANL	DUSE	S
EXP0412071a	248047003	MAP	4/14/10 2:05	958282	10-2045	2	LANL	USE	S
EXP0412072a	248047007	MAP	4/14/10 2:35	958282	10-2045	2	LANL	USE	S
EXP0412073a	WXXCCV	MAP	4/14/10 3:04			1		USE	C
EXP0412074a	XIBLK09	MAP	4/14/10 3:34			1		USE	B
EXP0412075a	WXXCRI	MAP	4/14/10 4:03			1		USE	C

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS4

Date: 04/05/10
Extr. Injection Volume: 10uL
Sequence Number: 040510exs
Initial Calibration Date: 040510

Method: 8321A-Modified
Int. Std.: N/A
Mobile Phase Lot#:1268566, 1268568
Standard-Samp Reagent Lot# :1292884, 1284736

Reviewed By: [illegible]
Date: 04/08/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100405-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS04050001.wiff	XIBLK01	LER	4/5/2010 12:43			1		USE	B
EXS04050002.wiff	XIBLK01	LER	4/5/2010 12:59			1		USE	B
EXS04050003.wiff	WXXICAL-19	LER	4/5/2010 13:15			1		USE	I
EXS04050004.wiff	WXXICAL-20	LER	4/5/2010 13:30			1		USE	I
EXS04050005.wiff	WXXICAL-21	LER	4/5/2010 13:46			1		USE	I
EXS04050006.wiff	WXXICAL-22	LER	4/5/2010 14:02			1		USE	I
EXS04050007.wiff	WXXICAL-23	LER	4/5/2010 14:18			1		USE	I
EXS04050008.wiff	WXXICAL-24	LER	4/5/2010 14:33			1		USE	I
EXS04050009.wiff	WXXICAL-25	LER	4/5/2010 14:51			1		USE	I
EXS04050010.wiff	XIBLK02	LER	4/5/2010 15:07			1		USE	B
EXS04050011.wiff	WXXICV	LER	4/5/2010 15:22			1		USE	C
EXS04050012.wiff	XIBLK03	LER	4/5/2010 15:38			1		USE	B
EXS04050013.wiff	WXXCRI	LER	4/5/2010 15:54			1		USE	C
EXS04050014.wiff	1202059808	LER	4/5/2010 16:09	960305	10-2150	2	LANL	USE	S
EXS04050015.wiff	1202059809	LER	4/5/2010 16:25	960305	10-2150	2	LANL	USE	S
EXS04050016.wiff	248370001	LER	4/5/2010 16:41	960305	10-2150	2	LANL	USE	S
EXS04050017.wiff	1202059810	LER	4/5/2010 16:57	960305	10-2150	2	LANL	USE	S
EXS04050018.wiff	1202059811	LER	4/5/2010 17:12	960305	10-2150	2	LANL	USE	S
EXS04050019.wiff	248370002	LER	4/5/2010 17:28	960305	10-2150	2	LANL	USE	S
EXS04050020.wiff	248370003	LER	4/5/2010 17:44	960305	10-2150	2	LANL	USE	S
EXS04050021.wiff	248370004	LER	4/5/2010 17:59	960305	10-2150	2	LANL	USE	S
EXS04050022.wiff	248370005	LER	4/5/2010 18:15	960305	10-2150	2	LANL	USE	S
EXS04050023.wiff	248370006	LER	4/5/2010 18:31	960305	10-2150	2	LANL	USE	S
EXS04050024.wiff	WXXCCV	LER	4/5/2010 18:47			1		USE	C
EXS04050025.wiff	XIBLK04	LER	4/5/2010 19:02			1		USE	B
EXS04050026.wiff	WXXCRI	LER	4/5/2010 19:18			1		USE	C
EXS04050027.wiff	248370007	LER	4/5/2010 19:34	960305	10-2150	2	LANL	USE	S
EXS04050028.wiff	248370008	LER	4/5/2010 19:49	960305	10-2150	2	LANL	USE	S
EXS04050029.wiff	248370009	LER	4/5/2010 20:05	960305	10-2150	2	LANL	USE	S
EXS04050030.wiff	248370010	LER	4/5/2010 20:21	960305	10-2150	2	LANL	USE	S

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EXS04050031.wiff	248370011	LER	4/5/2010 20:37	960305	10-2150	2	LANL	USE	S
EXS04050032.wiff	248370012	LER	4/5/2010 20:52	960305	10-2150	2	LANL	USE	S
EXS04050033.wiff	248370013	LER	4/5/2010 21:08	960305	10-2150	2	LANL	USE	S
EXS04050034.wiff	248370014	LER	4/5/2010 21:24	960305	10-2150	2	LANL	USE	S
EXS04050035.wiff	248370015	LER	4/5/2010 21:39	960305	10-2150	2	LANL	USE	S
EXS04050036.wiff	248370016	LER	4/5/2010 21:55	960305	10-2150	2	LANL	USE	S
EXS04050037.wiff	WXXCCV	LER	4/5/2010 22:11			1		USE	C
EXS04050038.wiff	XIBLK05	LER	4/5/2010 22:27			1		USE	B
EXS04050039.wiff	WXXCRI	LER	4/5/2010 22:42			1		USE	C
EXS04050040.wiff	248370017	LER	4/5/2010 22:58	960305	10-2150	2	LANL	USE	S
EXS04050041.wiff	248370018	LER	4/5/2010 23:14	960305	10-2150	2	LANL	USE	S
EXS04050042.wiff	248370019	LER	4/5/2010 23:29	960305	10-2150	2	LANL	USE	S
EXS04050043.wiff	248370020	LER	4/5/2010 23:45	960305	10-2150	2	LANL	USE	S
EXS04050044.wiff	XIBLK06	LER	4/6/2010 0:01			1		USE	B
EXS04050045.wiff	1202064670	LER	4/6/2010 0:17	962462	VARIOUS	2	LANL	USE	S
EXS04050046.wiff	1202064671	LER	4/6/2010 0:32	962462	VARIOUS	2	LANL	USE	S
EXS04050047.wiff	248790001	LER	4/6/2010 0:48	962462	10-2286-1	2	LANL	USE	S
EXS04050048.wiff	1202064672	LER	4/6/2010 1:04	962462	10-2286-1	2	LANL	USE	S
EXS04050049.wiff	1202064673	LER	4/6/2010 1:19	962462	10-2286-1	2	LANL	USE	S
EXS04050050.wiff	WXXCCV	LER	4/6/2010 1:35			1		USE	C
EXS04050051.wiff	XIBLK07	LER	4/6/2010 1:51			1		USE	B
EXS04050052.wiff	WXXCRI	LER	4/6/2010 2:06			1		USE	C
EXS04050053.wiff	248790002	LER	4/6/2010 2:22	962462	10-2286-1	2	LANL	USE	S
EXS04050054.wiff	248790003	LER	4/6/2010 2:38	962462	10-2286-1	2	LANL	USE	S
EXS04050055.wiff	248790004	LER	4/6/2010 2:54	962462	10-2286-1	2	LANL	USE	S
EXS04050056.wiff	248794002	LER	4/6/2010 3:09	962462	10-2288	2	LANL	USE	S
EXS04050057.wiff	248794003	LER	4/6/2010 3:25	962462	10-2288	2	LANL	USE	S
EXS04050058.wiff	248794004	LER	4/6/2010 3:41	962462	10-2288	2	LANL	USE	S
EXS04050059.wiff	248794005	LER	4/6/2010 3:57	962462	10-2288	2	LANL	USE	S
EXS04050060.wiff	248794006	LER	4/6/2010 4:12	962462	10-2288	2	LANL	USE	S
EXS04050061.wiff	248794007	LER	4/6/2010 4:28	962462	10-2288	2	LANL	USE	S
EXS04050062.wiff	248794008	LER	4/6/2010 4:44	962462	10-2288	2	LANL	USE	S
EXS04050063.wiff	WXXCCV	LER	4/6/2010 4:59			1		USE	C
EXS04050064.wiff	XIBLK08	LER	4/6/2010 5:15			1		USE	B
EXS04050065.wiff	WXXCRI	LER	4/6/2010 5:31			1		USE	C
EXS04050066.wiff	248794009	LER	4/6/2010 5:47	962462	10-2288	2	LANL	USE	S
EXS04050067.wiff	248794010	LER	4/6/2010 6:02	962462	10-2288	2	LANL	USE	S

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EXS04050068.wiff	248794011	LER	4/6/2010 6:18	962462	10-2288	2	LANL	USE	S
EXS04050069.wiff	248794012	LER	4/6/2010 6:34	962462	10-2288	2	LANL	USE	S
EXS04050070.wiff	248794013	LER	4/6/2010 6:49	962462	10-2288	2	LANL	USE	S
EXS04050071.wiff	WXXCCV	LER	4/6/2010 7:05			1		USE	C
EXS04050072.wiff	XIBLK09	LER	4/6/2010 7:21			1		USE	B
EXS04050073.wiff	WXXCRI	LER	4/6/2010 7:37			1		USE	C
EXS04050074.wiff	1202055078	LER	4/6/2010 7:52	958282	VARIOUS	2	LANL	USE	S
EXS04050075.wiff	1202055079	LER	4/6/2010 8:08	958282	VARIOUS	2	LANL	USE	S
EXS04050076.wiff	248017003	LER	4/6/2010 8:24	958282	10-2039	2	LANL	USE	S
EXS04050077.wiff	1202055080	LER	4/6/2010 8:39	958282	10-2039	2	LANL	USE	S
EXS04050078.wiff	1202055081	LER	4/6/2010 8:55	958282	10-2039	2	LANL	USE	S
EXS04050079.wiff	248042002	LER	4/6/2010 9:11	958282	10-2057	2	LANL	USE	S
EXS04050080.wiff	248042008	LER	4/6/2010 9:26	958282	10-2057	2	LANL	USE	S
EXS04050081.wiff	248042010	LER	4/6/2010 9:42	958282	10-2057	2	LANL	USE	S
EXS04050082.wiff	248047003	LER	4/6/2010 9:58	958282	10-2045	2	LANL	USE	S
EXS04050083.wiff	248047007	LER	4/6/2010 10:14	958282	10-2045	2	LANL	USE	S
EXS04050084.wiff	WXXCCV	LER	4/6/2010 10:29			1		USE	C
EXS04050085.wiff	XIBLK10	LER	4/6/2010 10:45			1		USE	B
EXS04050086.wiff	WXXCRI	LER	4/6/2010 11:01			1		USE	C
EXS04050087.wiff	1202057500	LER	4/6/2010 11:16	959338	VARIOUS	2	LANL	USE	S
EXS04050088.wiff	1202057501	LER	4/6/2010 11:32	959338	VARIOUS	2	LANL	USE	S
EXS04050089.wiff	248244001	LER	4/6/2010 11:48	959338	10-2137	2	LANL	USE	S
EXS04050090.wiff	248244002	LER	4/6/2010 12:04	959338	10-2137	2	LANL	USE	S
EXS04050091.wiff	248244003	LER	4/6/2010 12:19	959338	10-2137	2	LANL	USE	S
EXS04050092.wiff	248244004	LER	4/6/2010 12:35	959338	10-2137	2	LANL	USE	S
EXS04050093.wiff	248244005	LER	4/6/2010 12:51	959338	10-2137	2	LANL	USE	S
EXS04050094.wiff	248244006	LER	4/6/2010 13:06	959338	10-2137	2	LANL	USE	S
EXS04050095.wiff	248244007	LER	4/6/2010 13:22	959338	10-2137	2	LANL	USE	S
EXS04050096.wiff	248244008	LER	4/6/2010 13:38	959338	10-2137	2	LANL	DUSE-RA	S
EXS04050097.wiff	WXXCCV	LER	4/6/2010 13:53			1		USE	C
EXS04050098.wiff	XIBLK11	LER	4/6/2010 14:09			1		USE	B
EXS04050099.wiff	WXXCRI	LER	4/6/2010 14:25			1		USE	C
EXS04050100.wiff	248249001	LER	4/6/2010 14:41	959338	10-2140	2	LANL	USE	S
EXS04050101.wiff	1202057502	LER	4/6/2010 14:56	959338	10-2140	2	LANL	USE	S
EXS04050102.wiff	1202057503	LER	4/6/2010 15:12	959338	10-2140	2	LANL	USE	S
EXS04050103.wiff	248249002	LER	4/6/2010 15:28	959338	10-2140	2	LANL	USE	S
EXS04050104.wiff	248249003	LER	4/6/2010 15:43	959338	10-2140	2	LANL	USE	S

EXS04050105.wiff	248249004	LER	4/6/2010 15:59	959338	10-2140	2	LANL	USE	S
EXS04050106.wiff	WXXCCV	LER	4/6/2010 16:15			1		USE	C
EXS04050107.wiff	XIBLK12	LER	4/6/2010 16:30			1		USE	B
EXS04050108.wiff	WXXCRI	LER	4/6/2010 16:46			1		USE	C

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

SWSE/RA - ARS

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408110a
Date: 11-Apr-2010
Time: 03:11:25
ID: 1202055078 | LANL | 98282 | LCS | MB | 2 |
Vial: 3:1,A

MM 4/14/10

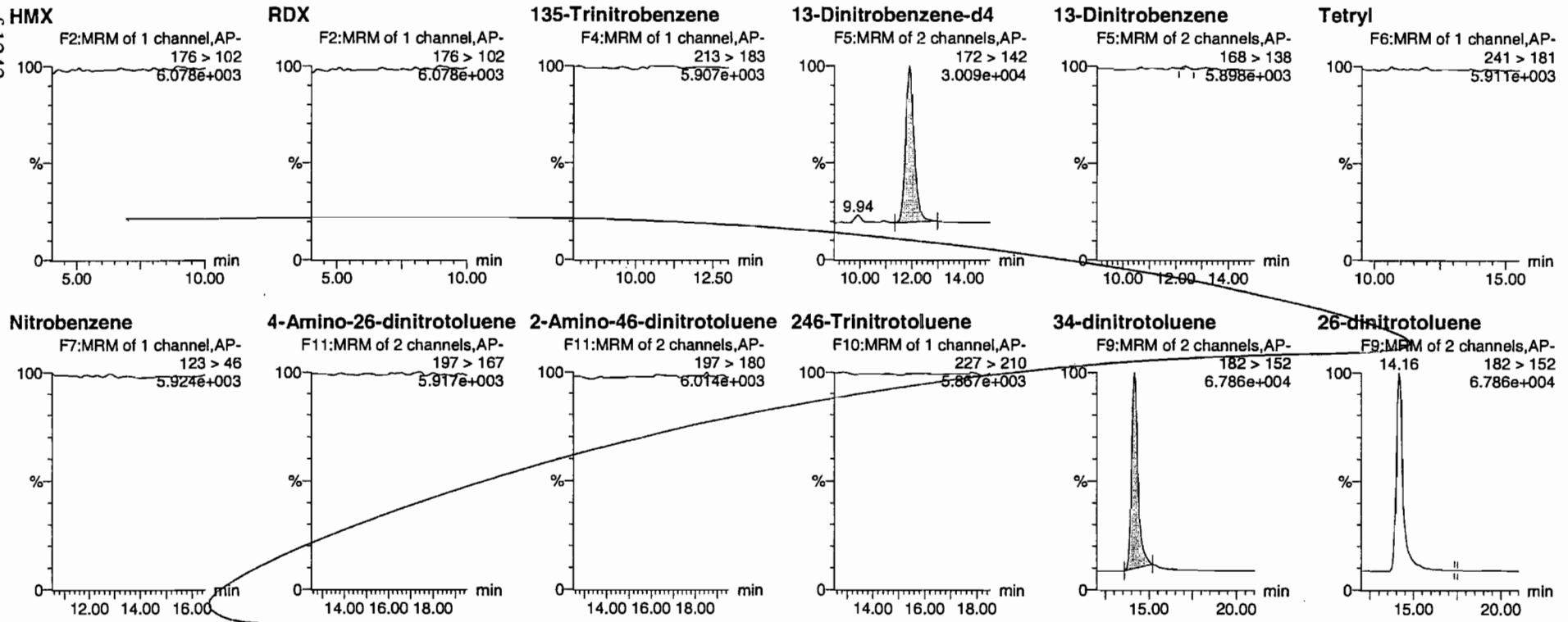

HMM 04/14/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

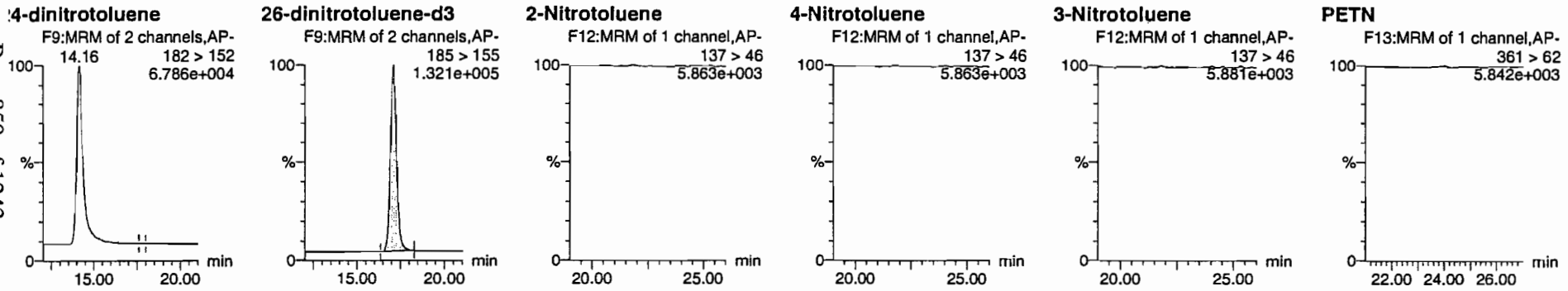

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
1202055078	HMX	176 > 102			9171.783									
1202055078	RDX	176 > 102			9171.783									
1202055078	135-Trinitrobenzene	213 > 183			9171.783									
1202055078	13-Dinitrobenzene-d4	172 > 142	11.90	9171.783		9171.783	9171.783	bb			705.7335	141.1	41.1	368.8
1202055078	13-Dinitrobenzene	168 > 138			9171.783			MM-	11-Apr-10	11:32:56				
1202055078	Tetryl	241 > 181			9171.783									
1202055078	Nitrobenzene	123 > 46			9171.783									
1202055078	4-Amino-26-dinitrotoluene	197 > 167			52450.625									
1202055078	2-Amino-46-dinitrotoluene	197 > 180			52450.625									
1202055078	246-Trinitrotoluene	227 > 210			52450.625									
1202055078	34-dinitrotoluene	182 > 152	14.16	26053.695	52450.625	26053.695	248.364	bb		3.14	242.1693	96.9	-3.1	942.9
1202055078	26-dinitrotoluene	182 > 152			52450.625			MM-	11-Apr-10	11:39:39				
1202055078	24-dinitrotoluene	182 > 152			52450.625			MM-	11-Apr-10	11:43:51				
1202055078	26-dinitrotoluene-d3	185 > 155	17.12	52450.625		52450.625	52450.625	bb			664.2921	132.9	32.9	3368.5
1202055078	2-Nitrotoluene	137 > 46			52450.625									
1202055078	4-Nitrotoluene	137 > 46			52450.625									
1202055078	3-Nitrotoluene	137 > 46			52450.625									
1202055078	PETN	361 > 62			52450.625									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408112a
Date: 11-Apr-2010
Time: 04:10:27
ID: 248017003 | LANC | 953282 | LCD | 2 |
Vial: 3;1,C

MUSE/RA - P28 #1

4/14/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.973e+003

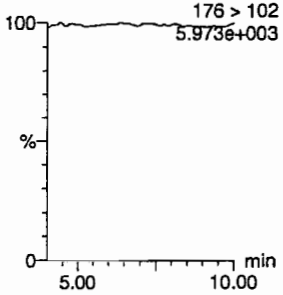

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.973e+003

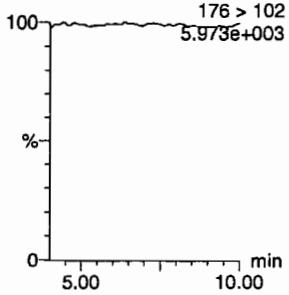

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.773e+003

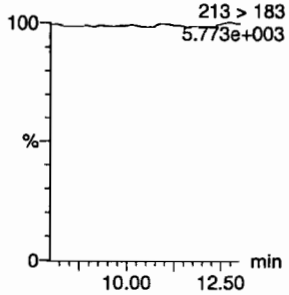

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.774e+004

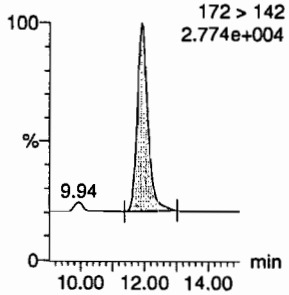

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.599e+003

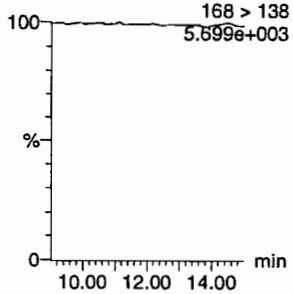

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.686e+003

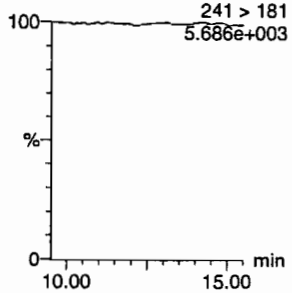

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.718e+003

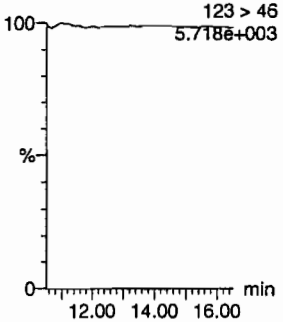

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.880e+003

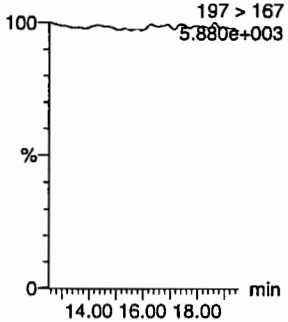

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.916e+003

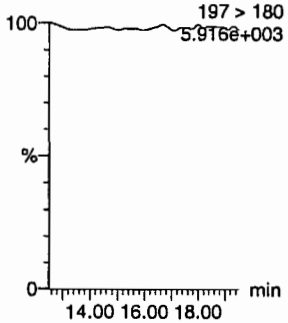

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.722e+003

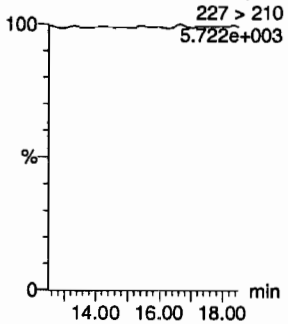

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
7.154e+004

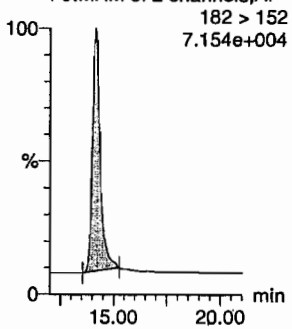

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.17
182 > 152
7.154e+004

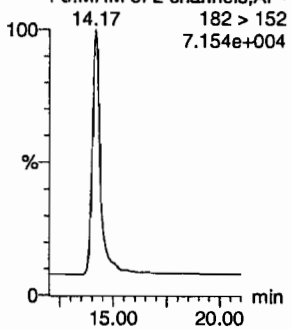

04/14/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

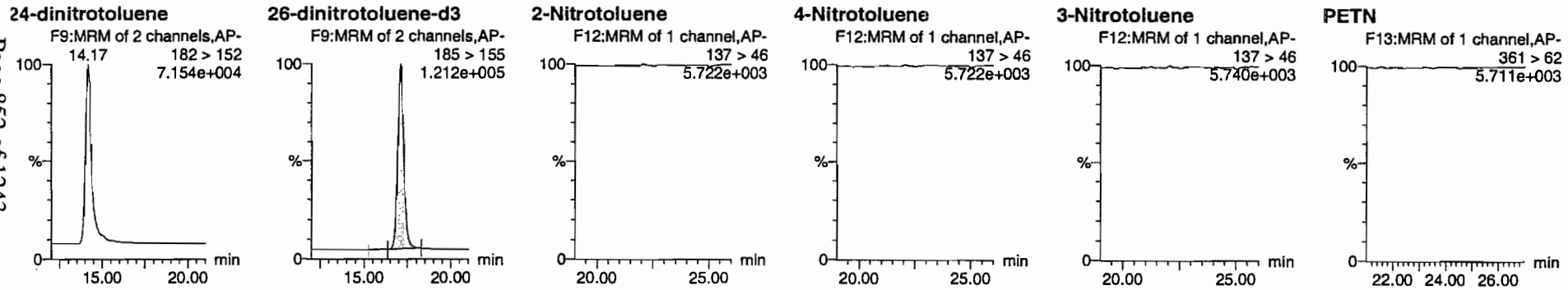

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
248017003	HMX	176 > 102			8483.076									
248017003	RDX	176 > 102			8483.076									
248017003	135-Trinitrobenzene	213 > 183			8483.076									
248017003	13-Dinitrobenzene-d4	172 > 142	11.89	8483.076		8483.076	8483.076	bb			652.7402	130.5	30.5	981.9
248017003	13-Dinitrobenzene	168 > 138			8483.076									
248017003	Tetryl	241 > 181			8483.076									
248017003	Nitrobenzene	123 > 46			8483.076									
248017003	4-Amino-26-dinitrotoluene	197 > 167			48287.977									
248017003	2-Amino-46-dinitrotoluene	197 > 180			48287.977									
248017003	246-Trinitrotoluene	227 > 210			48287.977									
248017003	34-dinitrotoluene	182 > 152	14.17	27626.064	48287.977	27626.064	286.055	bb		3.61	278.9205	111.6	11.6	1573.7
248017003	26-dinitrotoluene	182 > 152			48287.977									
248017003	24-dinitrotoluene	182 > 152			48287.977									
248017003	26-dinitrotoluene-d3	185 > 155	17.11	48287.977		48287.977	48287.977	bb			611.5718	122.3	22.3	3233.5
248017003	2-Nitrotoluene	137 > 46			48287.977									
248017003	4-Nitrotoluene	137 > 46			48287.977									
248017003	3-Nitrotoluene	137 > 46			48287.977									
248017003	PETN	361 > 62			48287.977									

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

MESE/RA - A 28 4

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408114a
Date: 11-Apr-2010
Time: 05:09:23
ID: 1202055081 | LANL | 953282 | GEL | 248017003MSD | 2 |
Vial: 3:1,E

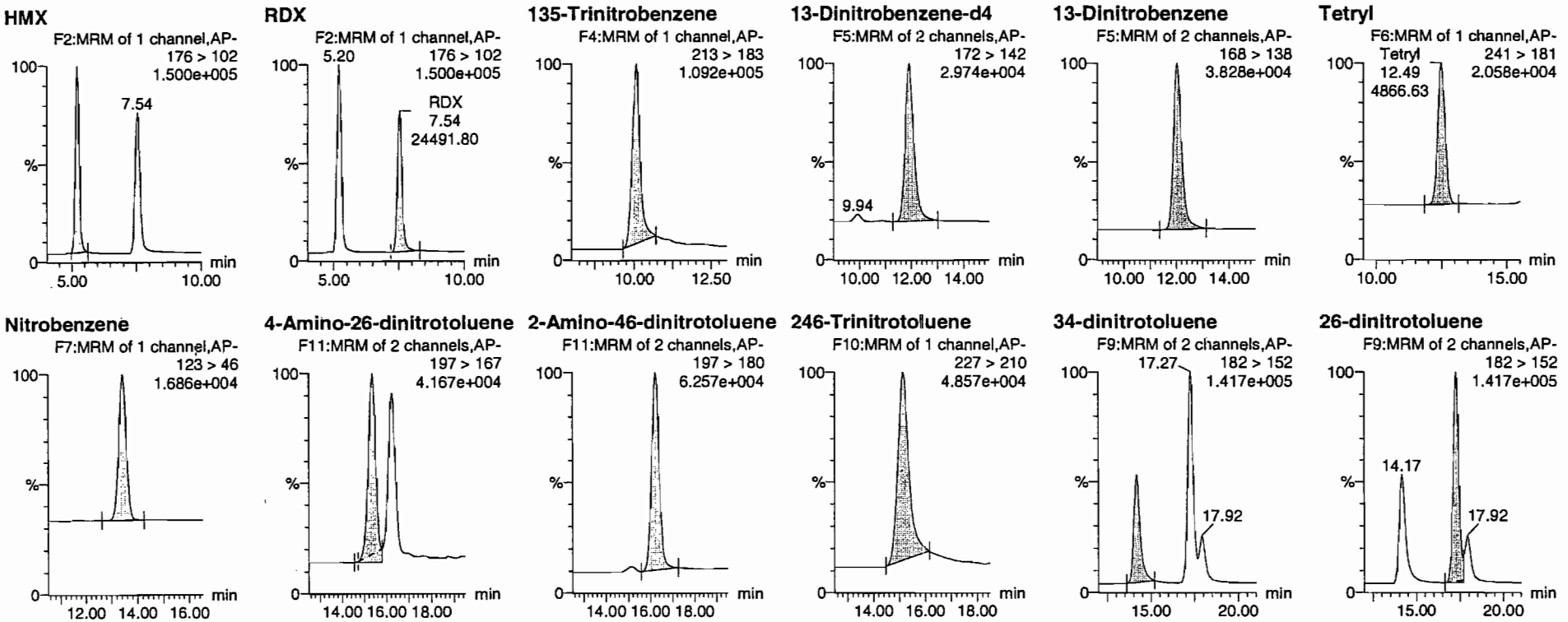

Amm 04/14/10

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Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

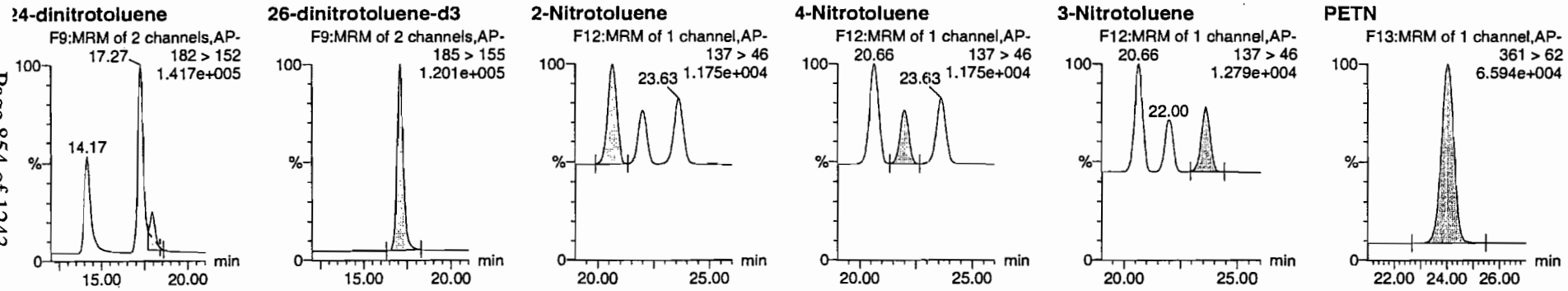

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
1202055081	HMX	176 > 102	5.20	28277.697	9339.486	28277.697	1513.879	bb			473.9407	94.8	-5.2	3351.7
1202055081	RDX	176 > 102	7.54	24491.803	9339.486	24491.803	1311.197	bb			538.0669	107.6	7.6	2526.7
1202055081	135-Trinitrobenzene	213 > 183	10.07	29730.748	9339.486	29730.748	1591.669	bb			376.8738	75.4	-24.6	1912.7
1202055081	13-Dinitrobenzene-d4	172 > 142	11.92	9339.486		9339.486	9339.486	bb			718.6376	143.7	43.7	982.6
1202055081	13-Dinitrobenzene	168 > 138	12.03	11937.830	9339.486	11937.830	639.105	bb			496.2493	99.2	-0.8	1483.4
1202055081	Tetryl	241 > 181	12.49	4866.625	9339.486	4866.625	260.540	bb			253.0576	50.6	-49.4	510.7
1202055081	Nitrobenzene	123 > 46	13.41	3892.416	9339.486	3892.416	208.385	bb			346.7283	69.3	-30.7	658.0
1202055081	4-Amino-26-dinitrotoluene	197 > 167	15.36	14826.088	47212.117	14826.088	157.016	MM	11-Apr-10	11:38:33	504.3993	100.9	0.9	406.7
1202055081	2-Amino-46-dinitrotoluene	197 > 180	16.22	23025.154	47212.117	23025.154	243.848	bb			533.7829	106.8	6.8	694.6
1202055081	246-Trinitrotoluene	227 > 210	15.14	20660.375	47212.117	20660.375	218.804	bb			568.6263	113.7	13.7	1274.0
1202055081	34-dinitrotoluene	182 > 152	14.17	30144.734	47212.117	30144.734	319.248	bb		4.04	311.2851	124.5	24.5	805.2
1202055081	26-dinitrotoluene	182 > 152	17.27	50636.109	47212.117	50636.109	536.262	MM	11-Apr-10	11:39:21	471.5049	94.3	-5.7	1580.7
1202055081	24-dinitrotoluene	182 > 152	17.92	11214.409	47212.117	11214.409	118.766	MM	11-Apr-10	11:44:22	448.6244	89.7	-10.3	327.9
1202055081	26-dinitrotoluene-d3	185 > 155	17.11	47212.117		47212.117	47212.117	bb			597.9459	119.6	19.6	1525.2
1202055081	2-Nitrotoluene	137 > 46	20.66	2886.412	47212.117	2886.412	30.569	bb			398.2280	79.6	-20.4	1051.5
1202055081	4-Nitrotoluene	137 > 46	22.01	1455.711	47212.117	1455.711	15.417	bb			396.6855	79.3	-20.7	563.1
1202055081	3-Nitrotoluene	137 > 46	23.63	1893.312	47212.117	1893.312	20.051	bb			367.2553	73.5	-26.5	118.3
1202055081	PETN	361 > 62	24.05	33129.023	47212.117	33129.023	350.853	bb			525.1104	105.0	5.0	6621.3

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
14-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LC-MS/MS	SW846 3535/8321A Modified	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
958282	See Below		

Potentially affected work order(s)(SDG): 248017(10-2039),248042(10-2057),248047(10-2045)

Application Issues:

Sample Analyzed out of Holding

Other

Failed RPD for MS/MSD, or PS/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The following samples and QC were analyzed out of holding for the Primary analyte analysis: 248017003, 248042002, 248042008, 248042010, 248047003, 248047007, 1202055080(MS) and 1202055081(MSD).	1. The analytical holding times for the samples in this batch were exceeded due to limitations of instrument capacity. However, these samples were analyzed within two times the analytical holding time of the method. The client was notified of this situation and is in agreement to receive these qualified data. The data are reported with the appropriate DER. The discrepancies are noted in the case narrative.
2. The MS/MSD pair (1202055080/081) did not meet RPD acceptance limits for Tetryl at 39.2%. The acceptance limits are 0-30%.	2. Since all other RPD recoveries met acceptance criteria, the noted exceptions are attributed to vagaries in the analytical and/or extraction process. The data are reported with the appropriate DER. The discrepancy is noted in the case narrative.
3. The internal standard responses were outside of the acceptance criteria in the following samples: 248017003, 248042002, 248042008, 1202055078(MB) and 1202055081(MSD). Please see the Form 8 in the data package for the exact recoveries.	3. The samples were re-analyzed and similar recoveries were observed. The re-analysis data are reported with the appropriate DER. The discrepancies are noted in the case narrative. The confirmation raw data are located in the Miscellaneous Section of the data package.

Originator's Name:

Michael Penny 14-APR-10

Data Validator/Group Leader:

Herbert Maier 14-APR-10

GC SEMIVOLATILE PESTICIDE ANALYSIS

Pesticide Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2039

Method/Analysis Information

Procedure:	**Analysis of Organochlorine Pesticides and Chlorinated Hydrocarbons by ECD**
Analytical Method:	SW846 8081A
Prep Method:	SW846 3510C
Analytical Batch Number:	958413
Prep Batch Number:	958412

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8081A:

Sample ID	Client ID
248017004	CAPA-10-12917
1202055366	Method Blank (MB)
1202055367	Laboratory Control Sample (LCS)
1202055370	Laboratory Control Sample (LCS)
1202057240	248017004(CAPA-10-12917) Matrix Spike (MS)
1202057241	248017004(CAPA-10-12917) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-041 REV# 10.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
The calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

Some target analytes failed to meet the acceptance criteria with a positive bias on in the standards bracketing the sample in this SDG. The positive bias for the analytical data is a result of instrument response increasing after the initial calibration. These target analytes were not detected in the associated samples; therefore, the non-compliance has no adverse effects on the data.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries did not meet the acceptance limits for the Toxaphene LCS with a positive bias. There were no target analytes detected in the associated samples; therefore, this non-compliance had no adverse effects on the data. See DER #799343 located in the Miscellaneous Data section.

QC Sample Designation
Sample 248017004 (CAPA-10-12917) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries were not within the established acceptance limits for Beta-BHC with a positive bias. There were no target analytes detected in the associated samples. See DER #799343 located in the Miscellaneous Data section.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were not within the established acceptance limits for Beta-BHC with a positive bias. There were no target analytes detected in the associated samples. See DER #799343 located in the Miscellaneous Data section.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information:

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Florisil
Florisil clean-up was necessary for this batch.

Miscellaneous Information:

Electronic Package Comment

This package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative.

Data Exception (DER) Documentation

Data Exception Reports (DERs) are for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. DER # 799343 was generated for this SDG. A copy is included in the Miscellaneous Data section of this package.

Manual Integrations

Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this pesticide fraction.

Additional Comments

The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The lower results from either column have been chosen and reported in the data package for the client samples, MB and LCS. The data reported for the MS and MSD are from the same analytical column as the parent sample.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-Pesticide analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD7A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide I)
ECD7A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: _____ **Date:** 03-26-10

Roadmap for LANL 10-2039 PEST

This roadmap was analyzed by jam00798 on 03-04-2010, 14:39.
This roadmap was reviewed by jcb on 03-04-2010, 18:51.
This roadmap was validated by yml on 03-26-2010, 13:40.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd7a.i/030210a.b/047f4701.d	248017004	sample	02-MAR-2010	22:27	10-2039.sub	CAPA-10-12917	1.00000	958413	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
□	N	/chem/ecd7a.i/030310.b/012f1201.d	248017004	sample	03-MAR-2010	12:35	10-2039.sub	CAPA-10-12917	1.00000	958413	USE: LOWER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd7a.i/030210a.b/047b4701.d	248017004	sample	02-MAR-2010	22:27	10-2039.sub	CAPA-10-12917	1.00000	958413	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
□	N	/chem/ecd7a.i/030310.b/012b1201.d	248017004	sample	03-MAR-2010	12:35	10-2039.sub	CAPA-10-12917	1.00000	958413	USE: LOWER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd7a.i/030210a.b/044f4401.d	1202055366	mb	02-MAR-2010	21:36	10-2039.sub	PBLK01	1.00000	958413	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
□	N	/chem/ecd7a.i/030310.b/009f0901.d	1202055366	mb	03-MAR-2010	11:44	10-2039.sub	PBLK01	1.00000	958413	USE: LOWER
■	N	/chem/ecd7a.i/030210a.b/045f4501.d	1202055367	lcs	02-MAR-2010	21:53	10-2039.sub	PBLK01LCS	1.00000	958413	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
□	N	/chem/ecd7a.i/030310.b/010f1001.d	1202055367	lcs	03-MAR-2010	12:01	10-2039.sub	PBLK01LCS	1.00000	958413	USE: LOWER
■	N	/chem/ecd7a.i/030210a.b/046f4601.d	1202055370	lcs	02-MAR-2010	22:10	10-2039.sub	PBLK01TLCS	1.00000	958413	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
□	N	/chem/ecd7a.i/030310.b/011f1101.d	1202055370	lcs	03-MAR-2010	12:18	10-2039.sub	PBLK01TLCS	1.00000	958413	USE: LOWER
■	N	/chem/ecd7a.i/030210a.b/048f4801.d	1202057240	ms	02-MAR-2010	22:44	10-2039.sub	CAPA-10-12917MS	1.00000	958413	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
□	N	/chem/ecd7a.i/030310.b/013f1301.d	1202057240	ms	03-MAR-2010	12:53	10-2039.sub	CAPA-10-12917MS	1.00000	958413	USE: LOWER
■	N	/chem/ecd7a.i/030210a.b/049f4901.d	1202057241	msd	02-MAR-2010	23:02	10-2039.sub	CAPA-10-12917MSD	1.00000	958413	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
□	N	/chem/ecd7a.i/030310.b/014f1401.d	1202057241	msd	03-MAR-2010	13:10	10-2039.sub	CAPA-10-12917MSD	1.00000	958413	USE: LOWER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd7a.i/030210a.b/044b4401.d	1202055366	mb	02-MAR-2010	21:36	10-2039.sub	PBLK01	1.00000	958413	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
□	N	/chem/ecd7a.i/030310.b/009b0901.d	1202055366	mb	03-MAR-2010	11:44	10-2039.sub	PBLK01	1.00000	958413	USE: LOWER
■	N	/chem/ecd7a.i/030210a.b/045b4501.d	1202055367	lcs	02-MAR-2010	21:53	10-2039.sub	PBLK01LCS	1.00000	958413	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
□	N	/chem/ecd7a.i/030310.b/010b1001.d	1202055367	lcs	03-MAR-2010	12:01	10-2039.sub	PBLK01LCS	1.00000	958413	USE: LOWER
■	N	/chem/ecd7a.i/030210a.b/046b4601.d	1202055370	lcs	02-MAR-2010	22:10	10-2039.sub	PBLK01TLCS	1.00000	958413	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
□	N	/chem/ecd7a.i/030310.b/011b1101.d	1202055370	lcs	03-MAR-2010	12:18	10-2039.sub	PBLK01TLCS	1.00000	958413	USE: LOWER
■	N	/chem/ecd7a.i/030210a.b/048b4801.d	1202057240	ms	02-MAR-2010	22:44	10-2039.sub	CAPA-10-12917MS	1.00000	958413	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
□	N	/chem/ecd7a.i/030310.b/013b1301.d	1202057240	ms	03-MAR-2010	12:53	10-2039.sub	CAPA-10-12917MS	1.00000	958413	USE: LOWER

■	N	/chem/ecd7a.i/030210a.b/049b4901.d	1202057241	msd	02-MAR-2010	23:02	10-2039.sub	CAPA-10-12917MSD	1.00000	958413	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
□	N	/chem/ecd7a.i/030310.b/014b1401.d	1202057241	msd	03-MAR-2010	13:10	10-2039.sub	CAPA-10-12917MSD	1.00000	958413	USE: LOWER

SAMPLE DATA SUMMARY

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10–2039	**Date Collected:**	02/23/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	248017004	**Date Received:**	02/25/2010 08:45		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA–10–12917	**Method:**	SW846 8081A	**SOP Ref:**	GL–OA–E–041
Batch ID:	958413	**Inst:**	ECD7A.I	**Dilution:**	1
Run Date:	03/03/2010 12:35	**Analyst:**	JXM	**Inj. Vol:**	1 uL
Prep Date:	03/01/2010 18:08	**Aliquot:**	800 mL	**Final Volume:**	5 mL
Data File:	012f1201.d	**Column:**	1 CLP–1	**Level:**	LOW
	012b1201.d		2 CLP–2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.025	ug/L	0.00625	0.025	1
58–89–9	gamma–BHC (Lindane)	U	0.025	ug/L	0.00625	0.025	1
319–85–7	beta–BHC	U	0.025	ug/L	0.0075	0.025	1
319–86–8	delta–BHC	U	0.025	ug/L	0.00625	0.025	1
76–44–8	Heptachlor	U	0.025	ug/L	0.00625	0.025	1
309–00–2	Aldrin	U	0.025	ug/L	0.00625	0.025	1
1024–57–3	Heptachlor epoxide	U	0.025	ug/L	0.00625	0.025	1
5103–74–2	gamma–Chlordane	U	0.025	ug/L	0.00625	0.025	1
5103–71–9	alpha–Chlordane	U	0.025	ug/L	0.00625	0.025	1
959–98–8	Endosulfan I	U	0.025	ug/L	0.00625	0.025	1
72–55–9	4,4'–DDE	U	0.050	ug/L	0.00625	0.050	1
60–57–1	Dieldrin	U	0.050	ug/L	0.0125	0.050	1
72–20–8	Endrin	U	0.050	ug/L	0.0125	0.050	1
72–54–8	4,4'–DDD	U	0.050	ug/L	0.0125	0.050	1
33213–65–9	Endosulfan II	U	0.050	ug/L	0.0125	0.050	1
7421–93–4	Endrin aldehyde	U	0.050	ug/L	0.00625	0.050	1
50–29–3	4,4'–DDT	U	0.050	ug/L	0.0125	0.050	1
1031–07–8	Endosulfan sulfate	U	0.050	ug/L	0.0125	0.050	1
72–43–5	Methoxychlor	U	0.250	ug/L	0.0625	0.250	1
53494–70–5	Endrin ketone	U	0.050	ug/L	0.0125	0.050	1
8001–35–2	Toxaphene	U	0.625	ug/L	0.188	0.625	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	1.18	1.25	ug/L	94.6	(30%–105%)
Decachlorobiphenyl	1.19	1.25	ug/L	95.1	(30%–126%)

QUALITY CONTROL SUMMARY

Pesticide

Surrogate Recovery Report

SDG Number: 10–2039

Matrix Type: LIQUID

CAP Column (1) : CLP–1 **CAP Column (2) : CLP–2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202055366	MB for batch 958412	86	90	95	95
1202055367	LCS for batch 958412	78	82	111	99
1202055370	LCS for batch 958412	92	97	111	110
248017004	CAPA–10–12917	95	100	96	95
1202057240	CAPA–10–12917MS	82	86	95	93
1202057241	CAPA–10–12917MSD	78	83	91	90

Surrogate	Acceptance Limits
4CMX = 4cmx	(30%–105%)
DCB = Decachlorobiphenyl	(30%–126%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: LCS for batch 958412
Lab Sample ID: 1202055367
Instrument: ECD7A.I
Analyst: JXM
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/03/2010 12:01
Prep Batch ID: 958412
Batch ID: 958413
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
319-84-6	LCS	alpha-BHC	0.500	0.0	0.543	109	43-132
58-89-9	LCS	gamma-BHC (Lindane)	0.500	0.0	0.553	111	41-133
319-85-7	LCS	beta-BHC	0.500	0.0	0.546	109	44-130
319-86-8	LCS	delta-BHC	0.500	0.0	0.591	118	45-132
76-44-8	LCS	Heptachlor	0.500	0.0	0.498	100	31-118
309-00-2	LCS	Aldrin	0.500	0.0	0.450	90	30-113
1024-57-3	LCS	Heptachlor epoxide	0.500	0.0	0.540	108	42-121
5103-74-2	LCS	gamma-Chlordane	0.500	0.0	0.499	100	40-128
5103-71-9	LCS	alpha-Chlordane	0.500	0.0	0.515	103	45-127
959-98-8	LCS	Endosulfan I	0.500	0.0	0.536	107	40-128
72-55-9	LCS	4,4'-DDE	1.25	0.0	1.41	112	43-130
60-57-1	LCS	Dieldrin	1.25	0.0	1.33	106	44-129
72-20-8	LCS	Endrin	1.25	0.0	1.66	133	53-141
72-54-8	LCS	4,4'-DDD	1.25	0.0	1.46	117	48-138
33213-65-9	LCS	Endosulfan II	1.25	0.0	1.18	94	42-133
7421-93-4	LCS	Endrin aldehyde	1.25	0.0	1.24	99	39-128
50-29-3	LCS	4,4'-DDT	1.25	0.0	1.52	122	43-157
1031-07-8	LCS	Endosulfan sulfate	1.25	0.0	1.44	115	51-140
72-43-5	LCS	Methoxychlor	5.00	0.0	6.09	122	55-142
53494-70-5	LCS	Endrin ketone	1.25	0.0	1.39	112	47-140

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2039**
Client ID: **LCS for batch 958412**
Lab Sample ID: **1202055370**
Instrument: **ECD7A.I**
Analyst: **JXM**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **GROUND WATER**
Analysis Date: **03/03/2010 12:18**
Dilution: **1**
Prep Batch ID: **958412**
Batch ID: **958413**

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
8001-35-2	LCS Toxaphene	4.00	0.0	5.93	148 *	33-136

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: CAPA-10-12917MS
Lab Sample ID: 1202057240
Instrument: ECD7A.I
Analyst: JXM
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 03/03/2010 12:53
Dilution: 1
Prep Batch ID: 958412
Batch ID: 958413

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
319-84-6	MS	alpha-BHC	0.500	0.00	U	0.525	105	33-129
58-89-9	MS	gamma-BHC (Lindane)	0.500	0.00	U	0.539	108	38-125
319-85-7	MS	beta-BHC	0.500	0.00	U	0.792	158 *	33-131
319-86-8	MS	delta-BHC	0.500	0.00	U	0.571	114	31-130
76-44-8	MS	Heptachlor	0.500	0.00	U	0.541	108	27-118
309-00-2	MS	Aldrin	0.500	0.00	U	0.479	96	29-115
1024-57-3	MS	Heptachlor epoxide	0.500	0.00	U	0.527	105	33-118
5103-74-2	MS	gamma-Chlordane	0.500	0.00	U	0.514	103	31-128
5103-71-9	MS	alpha-Chlordane	0.500	0.00	U	0.522	104	31-129
959-98-8	MS	Endosulfan I	0.500	0.00	U	0.535	107	26-132
72-55-9	MS	4,4'-DDE	1.25	0.00	U	1.35	108	31-129
60-57-1	MS	Dieldrin	1.25	0.00	U	1.32	105	31-127
72-20-8	MS	Endrin	1.25	0.00	U	1.63	131	43-139
72-54-8	MS	4,4'-DDD	1.25	0.00	U	1.47	118	38-137
33213-65-9	MS	Endosulfan II	1.25	0.00	U	1.26	101	31-132
7421-93-4	MS	Endrin aldehyde	1.25	0.00	U	1.23	98	25-125
50-29-3	MS	4,4'-DDT	1.25	0.00	U	1.60	128	31-157
1031-07-8	MS	Endosulfan sulfate	1.25	0.00	U	1.44	115	31-143
72-43-5	MS	Methoxychlor	5.00	0.00	U	6.28	126	42-156
53494-70-5	MS	Endrin ketone	1.25	0.00	U	1.35	108	32-141

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: CAPA-10-12917MSD
Lab Sample ID: 1202057241
Instrument: ECD7A.I
Analyst: JXM
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 03/03/2010 13:10
Dilution: 1
Prep Batch ID: 958412
Batch ID: 958413

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
319-84-6	MSD alpha-BHC	0.500	0.00	U	0.531	106	33-129	1	0-28
58-89-9	MSD gamma-BHC (Lindane)	0.500	0.00	U	0.546	109	38-125	1	0-22
319-85-7	MSD beta-BHC	0.500	0.00	U	0.888	178 *	33-131	11	0-28
319-86-8	MSD delta-BHC	0.500	0.00	U	0.565	113	31-130	1	0-29
76-44-8	MSD Heptachlor	0.500	0.00	U	0.534	107	27-118	1	0-23
309-00-2	MSD Aldrin	0.500	0.00	U	0.465	93	29-115	3	0-28
1024-57-3	MSD Heptachlor epoxide	0.500	0.00	U	0.526	105	33-118	0	0-23
5103-74-2	MSD gamma-Chlordane	0.500	0.00	U	0.510	102	31-128	1	0-29
5103-71-9	MSD alpha-Chlordane	0.500	0.00	U	0.518	104	31-129	1	0-30
959-98-8	MSD Endosulfan I	0.500	0.00	U	0.533	107	26-132	0	0-27
72-55-9	MSD 4,4'-DDE	1.25	0.00	U	1.31	105	31-129	3	0-27
60-57-1	MSD Dieldrin	1.25	0.00	U	1.32	105	31-127	0	0-29
72-20-8	MSD Endrin	1.25	0.00	U	1.64	131	43-139	0	0-22
72-54-8	MSD 4,4'-DDD	1.25	0.00	U	1.48	118	38-137	0	0-28
33213-65-9	MSD Endosulfan II	1.25	0.00	U	1.35	108	31-132	7	0-28
7421-93-4	MSD Endrin aldehyde	1.25	0.00	U	1.27	102	25-125	3	0-31
50-29-3	MSD 4,4'-DDT	1.25	0.00	U	1.59	127	31-157	1	0-29
1031-07-8	MSD Endosulfan sulfate	1.25	0.00	U	1.47	117	31-143	2	0-29
72-43-5	MSD Methoxychlor	5.00	0.00	U	6.28	126	42-156	0	0-23
53494-70-5	MSD Endrin ketone	1.25	0.00	U	1.37	109	32-141	1	0-30

Method Blank Summary

SDG Number:	10–2039	Client:	LANL010	Matrix:	GROUND WATER
Client ID:	MB for batch 958412	Instrument ID:	ECD7A.I_2 ECD7A.I_1	Data File:	009b0901.d 009f0901.d
Lab Sample ID:	1202055366				
Column:	CLP–2 CLP–1	Prep Date:	03/01/2010 18:08	Analyzed:	03/03/10 11:44
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 958412	1202055367	010f1001.d 010b1001.d	03/03/10	1201
02 LCS for batch 958412	1202055370	011f1101.d 011b1101.d	03/03/10	1218
03 CAPA–10–12917	248017004	012f1201.d 012b1201.d	03/03/10	1235
04 CAPA–10–12917MS	1202057240	013f1301.d 013b1301.d	03/03/10	1253
05 CAPA–10–12917MSD	1202057241	014f1401.d 014b1401.d	03/03/10	1310

SAMPLE DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017004**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA–10–12917**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**958413**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 12:35**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/01/2010 18:08**	**Aliquot:**	**800 mL**	**Final Volume:**	**5 mL**
Data File:	**012f1201.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	012b1201.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.025	ug/L	0.00625	0.025	1
58–89–9	gamma–BHC (Lindane)	U	0.025	ug/L	0.00625	0.025	1
319–85–7	beta–BHC	U	0.025	ug/L	0.0075	0.025	1
319–86–8	delta–BHC	U	0.025	ug/L	0.00625	0.025	1
76–44–8	Heptachlor	U	0.025	ug/L	0.00625	0.025	1
309–00–2	Aldrin	U	0.025	ug/L	0.00625	0.025	1
1024–57–3	Heptachlor epoxide	U	0.025	ug/L	0.00625	0.025	1
5103–74–2	gamma–Chlordane	U	0.025	ug/L	0.00625	0.025	1
5103–71–9	alpha–Chlordane	U	0.025	ug/L	0.00625	0.025	1
959–98–8	Endosulfan I	U	0.025	ug/L	0.00625	0.025	1
72–55–9	4,4'–DDE	U	0.050	ug/L	0.00625	0.050	1
60–57–1	Dieldrin	U	0.050	ug/L	0.0125	0.050	1
72–20–8	Endrin	U	0.050	ug/L	0.0125	0.050	1
72–54–8	4,4'–DDD	U	0.050	ug/L	0.0125	0.050	1
33213–65–9	Endosulfan II	U	0.050	ug/L	0.0125	0.050	1
7421–93–4	Endrin aldehyde	U	0.050	ug/L	0.00625	0.050	1
50–29–3	4,4'–DDT	U	0.050	ug/L	0.0125	0.050	1
1031–07–8	Endosulfan sulfate	U	0.050	ug/L	0.0125	0.050	1
72–43–5	Methoxychlor	U	0.250	ug/L	0.0625	0.250	1
53494–70–5	Endrin ketone	U	0.050	ug/L	0.0125	0.050	1
8001–35–2	Toxaphene	U	0.625	ug/L	0.188	0.625	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	1.18	1.25	ug/L	94.6	(30%–105%)
Decachlorobiphenyl	1.19	1.25	ug/L	95.1	(30%–126%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/030310.b/012f1201.d
Lab Smp Id: 248017004 Client Smp ID: CAPA-10-12917
Inj Date : 03-MAR-2010 12:35
Operator : JXM Inst ID: ecd7a.i
Smp Info : |248017004|1|
Misc Info : |ECD81A_1L|958413|SVP|LANL|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 03-Mar-2010 14:03 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2039.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	800.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.877	2.877	0.000	151917094	189.224	1.18	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.095	8.096	-0.001	115639892	192.810	1.20	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/030310.b/012f1201.d

Date : 03-MAR-2010 12:35

Client ID: CAPA-10-12917

Sample Info: |248017004|1|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

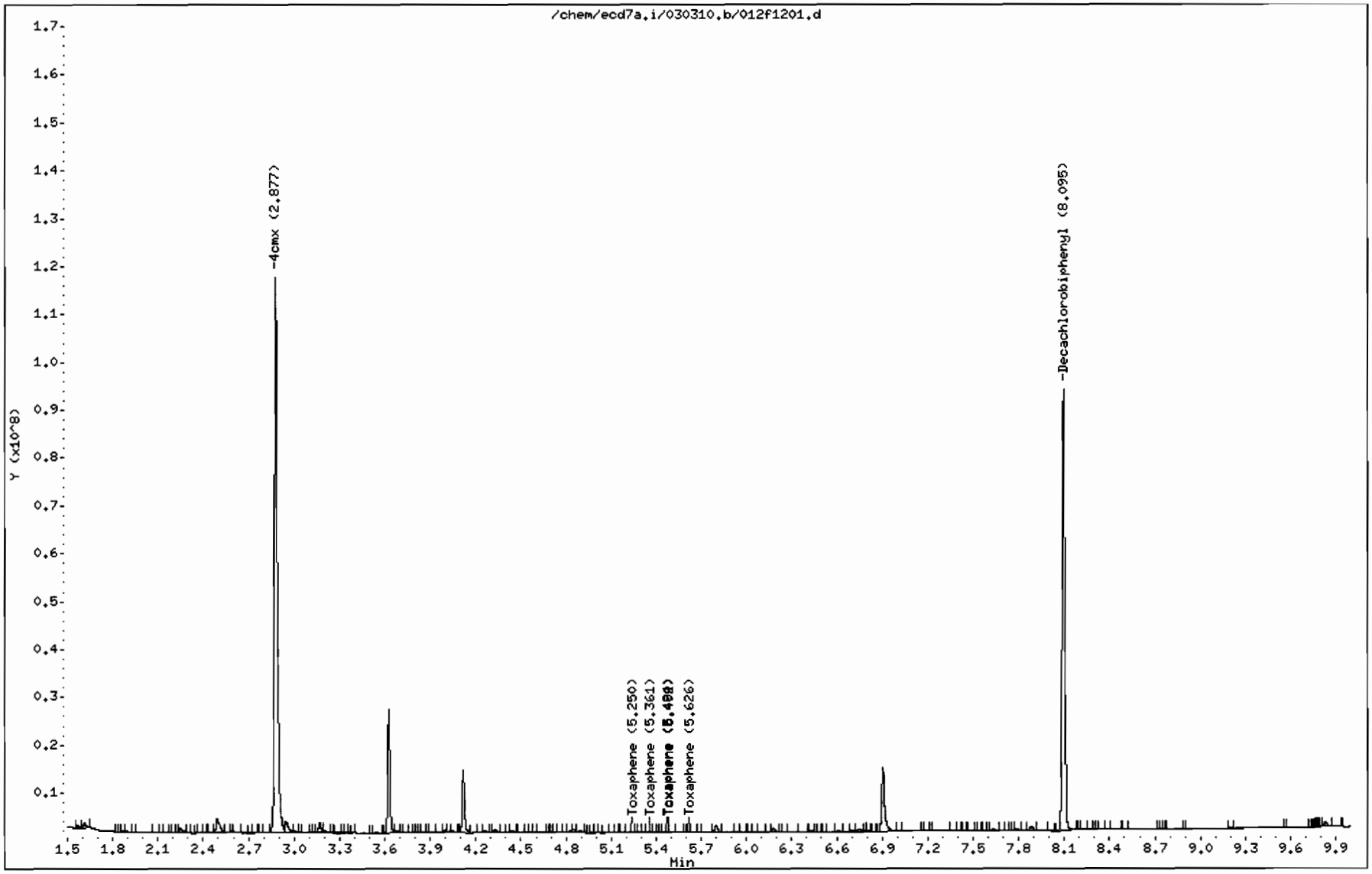

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/012b1201.d
Lab Smp Id: 248017004 Client Smp ID: CAPA-10-12917
Inj Date : 03-MAR-2010 12:35
Operator : JXM Inst ID: ecd7a.i
Smp Info : |248017004|1|
Misc Info : |ECD81A_1L|958413|SVP|LANL|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 03-Mar-2010 14:03 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2039.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	800.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.195	3.195	0.000	112660830	200.678	1.25	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.291	9.292	-0.001	68327484	190.133	1.19	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/030310.b/012b1201.d
Date : 03-MAR-2010 12:35
Client ID: CAPA-10-12917
Sample Info: |248017004|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM
Column diameter: 0.25

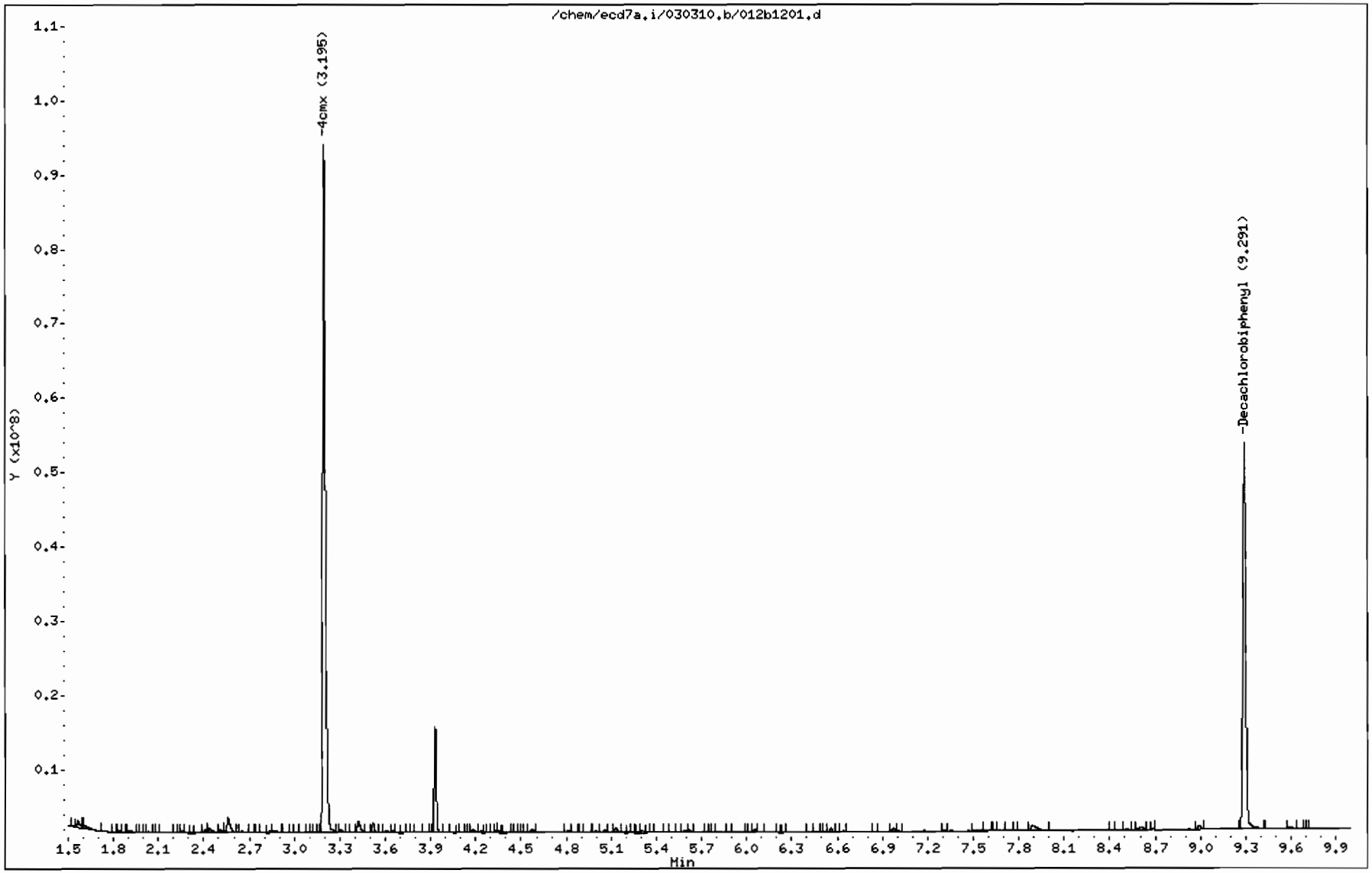

STANDARDS DATA

Report Date: 03-Mar-2010 11:45

Calibration History

Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Start Cal Date: 23-FEB-2010 13:01
End Cal Date : 02-MAR-2010 12:29

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
23-FEB-2010 18:09	gapa	/chem/ecd7a.i/022310a.b/021f2101.d
24-FEB-2010 19:06	chlor	/chem/ecd7a.i/022410.b/019f1901.d
24-FEB-2010 17:24	tox	/chem/ecd7a.i/022410.b/013f1301.d
02-MAR-2010 11:20	indab	/chem/ecd7a.i/030210a.b/008f0801.d
Cal Level: 2 , Cal Amount: 10.00000		
23-FEB-2010 18:26	gapa	/chem/ecd7a.i/022310a.b/022f2201.d
24-FEB-2010 19:23	chlor	/chem/ecd7a.i/022410.b/020f2001.d
24-FEB-2010 17:41	tox	/chem/ecd7a.i/022410.b/014f1401.d
02-MAR-2010 11:37	indab	/chem/ecd7a.i/030210a.b/009f0901.d
Cal Level: 3 , Cal Amount: 50.00000		
23-FEB-2010 18:43	gapa	/chem/ecd7a.i/022310a.b/023f2301.d
24-FEB-2010 19:40	chlor	/chem/ecd7a.i/022410.b/021f2101.d
24-FEB-2010 17:58	tox	/chem/ecd7a.i/022410.b/015f1501.d
02-MAR-2010 11:54	indab	/chem/ecd7a.i/030210a.b/010f1001.d
Cal Level: 4 , Cal Amount: 100.00000		
23-FEB-2010 19:00	gapa	/chem/ecd7a.i/022310a.b/024f2401.d
24-FEB-2010 19:57	chlor	/chem/ecd7a.i/022410.b/022f2201.d
24-FEB-2010 18:15	tox	/chem/ecd7a.i/022410.b/016f1601.d
02-MAR-2010 12:11	indab	/chem/ecd7a.i/030210a.b/011f1101.d
Cal Level: 5 , Cal Amount: 200.00000		
23-FEB-2010 19:17	gapa	/chem/ecd7a.i/022310a.b/025f2501.d
24-FEB-2010 20:14	chlor	/chem/ecd7a.i/022410.b/023f2301.d
24-FEB-2010 18:32	tox	/chem/ecd7a.i/022410.b/017f1701.d
02-MAR-2010 12:29	indab	/chem/ecd7a.i/030210a.b/012f1201.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
03-MAR-2010 10:53	gapa	/chem/ecd7a.i/030310.b/006f0601.d

```
| Ccal Level: 4 , Ccal Amount: 100                                                |
+=================================================================================+
|03-MAR-2010 10:36 |chlor            |/chem/ecd7a.i/030310.b/005f0501.d            |
+------------------+-----------------+-----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                                |
+=================================================================================+
|03-MAR-2010 10:19 |tox              |/chem/ecd7a.i/030310.b/004f0401.d            |
+------------------+-----------------+-----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                                |
+=================================================================================+
|03-MAR-2010 10:02 |indab            |/chem/ecd7a.i/030310.b/003f0301.d            |
+------------------+-----------------+-----------------------------------------+
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Report Date: 03-Mar-2010 11:45

Calibration History

Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Start Cal Date: 23-FEB-2010 13:01
End Cal Date : 02-MAR-2010 12:29

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
23-FEB-2010 18:09	gapa	/chem/ecd7a.i/022310a.b/021b2101.d
24-FEB-2010 19:06	chlor	/chem/ecd7a.i/022410.b/019b1901.d
24-FEB-2010 17:24	tox	/chem/ecd7a.i/022410.b/013b1301.d
02-MAR-2010 11:20	indab	/chem/ecd7a.i/030210a.b/008b0801.d
Cal Level: 2 , Cal Amount: 10.00000		
23-FEB-2010 18:26	gapa	/chem/ecd7a.i/022310a.b/022b2201.d
24-FEB-2010 19:23	chlor	/chem/ecd7a.i/022410.b/020b2001.d
24-FEB-2010 17:41	tox	/chem/ecd7a.i/022410.b/014b1401.d
02-MAR-2010 11:37	indab	/chem/ecd7a.i/030210a.b/009b0901.d
Cal Level: 3 , Cal Amount: 50.00000		
23-FEB-2010 18:43	gapa	/chem/ecd7a.i/022310a.b/023b2301.d
24-FEB-2010 19:40	chlor	/chem/ecd7a.i/022410.b/021b2101.d
24-FEB-2010 17:58	tox	/chem/ecd7a.i/022410.b/015b1501.d
02-MAR-2010 11:54	indab	/chem/ecd7a.i/030210a.b/010b1001.d
Cal Level: 4 , Cal Amount: 100.00000		
23-FEB-2010 19:00	gapa	/chem/ecd7a.i/022310a.b/024b2401.d
24-FEB-2010 19:57	chlor	/chem/ecd7a.i/022410.b/022b2201.d
24-FEB-2010 18:15	tox	/chem/ecd7a.i/022410.b/016b1601.d
02-MAR-2010 12:11	indab	/chem/ecd7a.i/030210a.b/011b1101.d
Cal Level: 5 , Cal Amount: 200.00000		
23-FEB-2010 19:17	gapa	/chem/ecd7a.i/022310a.b/025b2501.d
24-FEB-2010 20:14	chlor	/chem/ecd7a.i/022410.b/023b2301.d
24-FEB-2010 18:32	tox	/chem/ecd7a.i/022410.b/017b1701.d
02-MAR-2010 12:29	indab	/chem/ecd7a.i/030210a.b/012b1201.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
03-MAR-2010 10:53	gapa	/chem/ecd7a.i/030310.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 100		
03-MAR-2010 10:36	chlor	/chem/ecd7a.i/030310.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 100		

03-MAR-2010 10:19	tox	/chem/ecd7a.i/030310.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 100		
03-MAR-2010 10:02	indab	/chem/ecd7a.i/030310.b/003b0301.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Quant Method : ESTD Target Version : 3.50
Last Update : 03-Mar-2010 11:06 Number of Cpnds : 42
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1814.000000
Initial:End Threshold	907.000000
Initial:Area Threshold	18140.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	4.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.877	2.847-2.907	8.028e+05
61 2,4,5-TCP	2.900	2.800-3.000	
59 Hexachlorobenzene	3.172	3.072-3.272	9.401e+05
2 Aroclor-1221	3.011	2.981-3.041	
	3.120	3.090-3.150	
	3.152	3.122-3.182	
3 Aroclor-1016	3.421	3.391-3.451	
	3.794	3.764-3.824	
	3.905	3.875-3.935	
	3.958	3.928-3.988	
	4.250	4.220-4.280	
4 Aroclor-1232	3.421	3.391-3.451	
	3.904	3.874-3.934	
	3.956	3.926-3.986	
	4.248	4.218-4.278	
	4.651	4.621-4.681	
5 alpha-BHC	3.297	3.267-3.327	1.127e+06
6 Aroclor-1242	3.422	3.322-3.522	
	3.903	3.803-4.003	
	3.956	3.856-4.056	
	4.247	4.147-4.347	
	4.623	4.523-4.723	
7 gamma-BHC (Lindane)	3.549	3.519-3.579	1.012e+06

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.877	3.777-3.977	3.333e+04
	4.696	4.596-4.796	2.026e+04
	4.874	4.774-4.974	1.083e+05
	4.998	4.898-5.098	8.838e+04
	5.756	5.656-5.856	2.539e+04
9 Aroclor-1248	3.794	3.694-3.894	
	4.051	3.951-4.151	
	4.248	4.148-4.348	
	4.623	4.523-4.723	
	4.652	4.552-4.752	
10 Heptachlor	3.945	3.914-3.974	7.859e+05
11 Aldrin	4.210	4.180-4.240	9.777e+05
12 beta-BHC	3.614	3.583-3.644	4.616e+05
13 delta-BHC	3.768	3.738-3.798	9.872e+05
14 Heptachlor epoxide	4.756	4.726-4.786	8.694e+05
15 Aroclor-1254	4.584	4.554-4.614	
	4.819	4.789-4.849	
	5.086	5.056-5.116	
	5.202	5.172-5.232	
	5.472	5.442-5.502	
16 Endosulfan I	5.133	5.104-5.163	7.748e+05
17 gamma-Chlordane	4.873	4.843-4.903	8.762e+05
18 alpha-Chlordane	4.998	4.968-5.028	8.725e+05
19 4,4'-DDE	5.061	5.031-5.091	7.991e+05
20 Dieldrin	5.365	5.335-5.395	8.079e+05
21 Aroclor-1260	5.379	5.279-5.479	
	5.651	5.551-5.751	
	6.311	6.211-6.411	
	6.633	6.533-6.733	
	6.939	6.839-7.039	
22 Endrin	5.598	5.568-5.628	6.172e+05
23 Toxaphene	5.265	5.235-5.295	7.335e+03
	5.370	5.340-5.400	1.043e+04
	5.458	5.428-5.488	1.217e+04
	5.516	5.486-5.546	1.589e+04
	5.619	5.589-5.649	1.554e+04
24 Endosulfan II	5.823	5.793-5.853	7.085e+05
25 4,4'-DDD	5.651	5.620-5.681	6.169e+05
26 4,4'-DDT	5.934	5.904-5.963	5.657e+05
27 Endrin aldehyde	6.251	6.221-6.281	5.951e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m

Compound	RT	RT Window	RF
28 Methoxychlor	6.433	6.403-6.463	2.415e+05
29 Endosulfan sulfate	6.706	6.676-6.736	6.071e+05
30 Aroclor-1268	13.480	13.380-13.580	
	13.587	13.487-13.687	
	13.984	13.884-14.084	
	14.586	14.486-14.686	
	15.182	15.082-15.282	
31 Endrin ketone	7.010	6.980-7.040	7.767e+05
51 Mirex	6.600	6.570-6.630	5.726e+05
52 C-Nonachlor	5.627	5.597-5.657	8.841e+05
53 O-Chlordane	4.663	4.633-4.693	6.747e+05
54 T-Nonachlor	4.981	4.951-5.011	8.527e+05
55 1,2-Dichlorobenzene	6.525	6.495-6.555	
56 2,4-DDE	4.737	4.707-4.767	5.210e+05
58 2,4-DDD	5.233	5.203-5.263	4.258e+05
57 2,4-DDT	5.482	5.452-5.512	4.439e+05
$ 32 Decachlorobiphenyl	8.096	8.066-8.126	5.998e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Quant Method : ESTD Target Version : 3.50
Last Update : 03-Mar-2010 11:06 Number of Cpnds : 42
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1475.000000
Initial:End Threshold	737.500000
Initial:Area Threshold	14750.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	4.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	3.195	3.165-3.225	5.614e+05
60 2,4,5-TCP	3.116	3.016-3.216	
59 Hexachlorobenzene	3.612	3.582-3.642	5.280e+05
2 Aroclor-1221	3.435	3.405-3.465	
	3.555	3.525-3.585	
	3.609	3.579-3.639	
3 Aroclor-1016	3.965	3.935-3.995	
	4.391	4.361-4.421	
	4.518	4.488-4.548	
	4.618	4.588-4.648	
	4.970	4.940-5.000	
4 Aroclor-1232	4.193	4.163-4.223	
	4.388	4.358-4.418	
	4.515	4.485-4.545	
	4.614	4.584-4.644	
	4.966	4.936-4.996	
5 alpha-BHC	3.722	3.692-3.752	7.407e+05
6 Aroclor-1242	3.962	3.932-3.992	
	4.387	4.357-4.417	
	4.514	4.484-4.544	
	4.615	4.585-4.645	
	4.966	4.936-4.996	
7 gamma-BHC (Lindane)	4.051	4.021-4.081	6.499e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	4.345	4.315-4.375	2.312e+04
	5.343	5.313-5.373	1.500e+04
	5.583	5.553-5.613	6.466e+04
	5.733	5.703-5.763	5.550e+04
	6.700	6.670-6.730	1.601e+04
9 Aroclor-1248	4.695	4.665-4.725	
	4.966	4.936-4.996	
	5.091	5.061-5.121	
	5.342	5.312-5.372	
	5.393	5.363-5.423	
10 Heptachlor	4.487	4.457-4.517	4.698e+05
11 Aldrin	4.817	4.787-4.847	6.670e+05
12 beta-BHC	4.115	4.085-4.145	3.037e+05
13 delta-BHC	4.404	4.374-4.434	6.360e+05
14 Heptachlor epoxide	5.386	5.356-5.416	5.577e+05
15 Aroclor-1254	5.387	5.357-5.417	
	5.573	5.543-5.603	
	5.941	5.911-5.971	
	6.065	6.035-6.095	
	6.301	6.271-6.331	
16 Endosulfan I	5.802	5.772-5.832	5.128e+05
17 gamma-Chlordane	5.581	5.551-5.611	5.824e+05
18 alpha-Chlordane	5.731	5.701-5.761	5.794e+05
19 4,4'-DDE	5.883	5.853-5.913	4.836e+05
20 Dieldrin	6.089	6.059-6.119	4.955e+05
21 Aroclor-1260	6.274	6.244-6.304	
	6.490	6.460-6.520	
	7.316	7.286-7.346	
	7.586	7.556-7.616	
	8.006	7.976-8.036	
22 Endrin	6.419	6.389-6.449	3.672e+05
23 Toxaphene	6.053	6.023-6.083	9.735e+03
	6.121	6.091-6.151	4.393e+03
	6.184	6.154-6.214	4.991e+03
	6.248	6.218-6.278	5.740e+03
	6.380	6.350-6.410	7.716e+03
24 Endosulfan II	6.643	6.613-6.673	4.606e+05
25 4,4'-DDD	6.501	6.471-6.531	3.581e+05
26 4,4'-DDT	6.847	6.817-6.877	3.068e+05
27 Endrin aldehyde	7.004	6.974-7.034	3.682e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m

Compound	RT	RT Window	RF
28 Methoxychlor	7.591	7.561-7.621	1.285e+05
29 Endosulfan sulfate	7.310	7.280-7.340	3.964e+05
30 Aroclor-1268	13.562	13.532-13.592	
	13.571	13.541-13.601	
	13.999	13.969-14.029	
	14.579	14.549-14.609	
	15.083	15.053-15.113	
31 Endrin ketone	7.919	7.889-7.949	4.682e+05
51 Mirex	7.895	7.865-7.925	2.898e+05
52 C-Nonachlor	6.497	6.467-6.527	5.805e+05
53 O-Chlordane	5.294	5.264-5.324	3.342e+05
54 T-Nonachlor	5.676	5.646-5.706	5.521e+05
55 1,2-Dichlorobenzene	6.621	6.591-6.651	
56 2,4-DDE	5.561	5.531-5.591	2.577e+05
58 2,4-DDD	6.100	6.070-6.130	1.980e+05
57 2,4-DDT	6.433	6.403-6.463	2.542e+05
$ 32 Decachlorobiphenyl	9.292	9.262-9.322	3.594e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 02-MAR-2010 12:29
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Cal Date : 03-Mar-2010 11:06 jam00798
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd7a.i/022310a.b/021f2101.d
Level 2: /chem/ecd7a.i/022310a.b/022f2201.d
Level 3: /chem/ecd7a.i/022310a.b/023f2301.d
Level 4: /chem/ecd7a.i/022310a.b/024f2401.d
Level 5: /chem/ecd7a.i/022310a.b/025f2501.d

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	--- RRF	% RSD
61 2,4,5-TCP	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Hexachlorobenzene	1129401	1000386	891531	860661	818675	940131	13.337
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Aroclor-1016(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 alpha-BHC	1122437	1146574	1154608	1134252	1075947	1126764	2.744
6 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 gamma-BHC (Lindane)	1038943	1041899	1024450	1004359	951441	1012218	3.663
8 Chlordane (tech.)(1)	34622	33771	32986	33199	32077	33331	2.834
(2)	21744	21010	19842	19723	18997	20263	5.418
(3)	112269	112390	110378	107641	98782	108292	5.220
(4)	95313	91465	90506	86624	77994	88380	7.442
(5)	26568	25613	25637	25419	23729	25393	4.063

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 02-MAR-2010 12:29
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Cal Date : 03-Mar-2010 11:06 jam00798
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
9 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10 Heptachlor	846982	817680	783090	764546	717060	785872	6.344
11 Aldrin	1023542	1026396	997018	956492	884855	977661	6.033
12 beta-BHC	528095	494500	447201	432072	406343	461642	10.632
13 delta-BHC	1002434	1009596	1003082	985702	934997	987162	3.086
14 Heptachlor epoxide	942769	923472	875890	835209	769470	869362	8.032
15 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
16 Endosulfan I	845132	828805	771414	741561	686992	774781	8.337
17 gamma-Chlordane	928372	909772	885714	857559	799537	876191	5.753
18 alpha-Chlordane	937736	919838	874931	844057	786094	872531	6.966
19 4,4'-DDE	883955	881151	796644	748311	685292	799071	10.742
20 Dieldrin	879447	874549	811480	765896	708128	807900	9.031
21 Aroclor-1260(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 Endrin	676269	659925	617690	584942	546934	617152	8.609
23 Toxaphene(1)	7957	7295	7283	7045	7094	7335	4.980
(2)	11571	10418	10358	9779	10028	10431	6.595
(3)	12288	12015	12280	12047	12234	12173	1.079
(4)	16641	15882	16067	15356	15514	15892	3.181
(5)	15812	15134	15478	15587	15695	15541	1.667
24 Endosulfan II	792604	770853	701693	666078	611059	708458	10.540
25 4,4'-DDD	681218	663087	616553	584322	539463	616929	9.357

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 02-MAR-2010 12:29
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Cal Date : 03-Mar-2010 11:06 jam00798
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	___ RRF	% RSD
26 4,4'-DDT	609221	593407	564270	547142	514641	565736	6.623
27 Endrin aldehyde	686113	649988	585584	553652	500294	595126	12.488
28 Methoxychlor	296296	271367	224471	212832	202743	241541	16.700
29 Endosulfan sulfate	670181	643067	604990	579160	537886	607057	8.579
30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Endrin ketone	904662	860251	757312	710830	650338	776679	13.509
51 Mirex	707843	605806	537595	517866	494032	572628	15.070
52 C-Nonachlor	990298	937215	873288	833591	785863	884051	9.193
53 O-Chlordane	804507	729313	648327	615262	576312	674744	13.612
54 T-Nonachlor	977240	915229	830723	794583	745732	852701	10.926
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 2,4-DDE	627075	571273	502019	471483	432927	520955	14.976
58 2,4-DDD	525722	465282	405634	380713	351639	425798	16.390
57 2,4-DDT	509524	462465	434205	418130	395126	443890	9.941
$ 1 4cmx	897851	867869	797029	754719	696750	802844	10.207
$ 32 Decachlorobiphenyl	715235	656111	574576	546309	506567	599760	14.120

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 02-MAR-2010 12:29
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Cal Date : 03-Mar-2010 11:06 jam00798

Calibration File Names:
Level 1: /chem/ecd7a.i/022310a.b/021b2101.d
Level 2: /chem/ecd7a.i/022310a.b/022b2201.d
Level 3: /chem/ecd7a.i/022310a.b/023b2301.d
Level 4: /chem/ecd7a.i/022310a.b/024b2401.d
Level 5: /chem/ecd7a.i/022310a.b/025b2501.d

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
60 2,4,5-TCP	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
59 Hexachlorobenzene	3534732	14953267	61966341	116772758	212736548	LINR	-10.49049	527996		0.99731
2 Aroclor-1221 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
3 Aroclor-1016 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
4 Aroclor-1232 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
5 alpha-BHC	777233	776738	751002	722962	675400	AVRG		740667		5.77499
6 Aroclor-1242 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 02-MAR-2010 12:29
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Cal Date : 03-Mar-2010 11:06 jam00798

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
7 gamma-BHC (Lindane)	701087	686934	650083	626645	584958	AVRG		649941		7.19612
8 Chlordane (tech.) (1)	25554	24460	22809	22245	20552	AVRG		23124		8.42473
(2)	17050	16566	14462	14002	12919	AVRG		15000		11.67570
(3)	71986	70600	65114	61817	53803	AVRG		64664		11.34100
(4)	62754	60569	55337	52956	45860	AVRG		55495		12.01192
(5)	18359	17195	15539	14974	13959	AVRG		16005		11.01051
9 Aroclor-1248 (1)	#####	#####	#####	#####	#####	AVRG		0.000e+00		0.000e+00
(2)	#####	#####	#####	#####	#####	AVRG		0.000e+00		0.000e+00
(3)	#####	#####	#####	#####	#####	AVRG		0.000e+00		0.000e+00
(4)	#####	#####	#####	#####	#####	AVRG		0.000e+00		0.000e+00
(5)	#####	#####	#####	#####	#####	AVRG		0.000e+00		0.000e+00
10 Heptachlor	530165	501465	459666	444755	413034	AVRG		469817		9.86878
11 Aldrin	717820	712220	675485	642548	586759	AVRG		666966		8.12129
12 beta-BHC	361665	333706	289659	275921	257528	AVRG		303696		14.12532
13 delta-BHC	683352	671811	637174	615051	572752	AVRG		636028		7.01603
14 Heptachlor epoxide	621447	597750	556230	527987	485192	AVRG		557721		9.74265
15 Aroclor-1254 (1)	#####	#####	#####	#####	#####	AVRG		0.000e+00		0.000e+00
(2)	#####	#####	#####	#####	#####	AVRG		0.000e+00		0.000e+00
(3)	#####	#####	#####	#####	#####	AVRG		0.000e+00		0.000e+00
(4)	#####	#####	#####	#####	#####	AVRG		0.000e+00		0.000e+00
(5)	#####	#####	#####	#####	#####	AVRG		0.000e+00		0.000e+00
16 Endosulfan I	568642	549155	508685	487262	450131	AVRG		512775		9.26929
17 gamma-Chlordane	629626	617092	584848	560695	519897	AVRG		582432		7.59030
18 alpha-Chlordane	642271	619258	574910	550425	510135	AVRG		579400		9.13222

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 02-MAR-2010 12:29
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Cal Date : 03-Mar-2010 11:06 jam00798

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
19 4,4'-DDE	551633	538862	481712	446740	399140	AVRG		483617		13.15021
20 Dieldrin	554898	538049	496797	464910	422627	AVRG		495456		10.86275
21 Aroclor-1260(1)	++++++	++++++	++++++	++++++	++++++	AVRG		0.000e+00		0.000e+00
(2)	++++++	++++++	++++++	++++++	++++++	AVRG		0.000e+00		0.000e+00
(3)	++++++	++++++	++++++	++++++	++++++	AVRG		0.000e+00		0.000e+00
(4)	++++++	++++++	++++++	++++++	++++++	AVRG		0.000e+00		0.000e+00
(5)	++++++	++++++	++++++	++++++	++++++	AVRG		0.000e+00		0.000e+00
22 Endrin	422175	398589	360526	340102	314544	AVRG		367187		11.83896
23 Toxaphene(1)	11160	9968	9728	8931	8887	AVRG		9735		9.53987
(2)	4748	4921	4254	4179	3865	AVRG		4393		9.84663
(3)	5497	5059	4969	4777	4652	AVRG		4991		6.50824
(4)	6075	5866	5949	5498	5312	AVRG		5740		5.60471
(5)	8372	7798	7678	7446	7287	AVRG		7716		5.40292
24 Endosulfan II	525868	502187	455124	428696	391068	AVRG		460589		11.82819
25 4,4'-DDD	416792	392286	350490	330066	300963	AVRG		358120		13.03916
26 4,4'-DDT	341613	322945	301261	292924	275162	AVRG		306781		8.46381
27 Endrin aldehyde	439121	411578	357269	333588	299432	AVRG		368197		15.45819
28 Methoxychlor	161239	145456	120420	111757	103809	AVRG		128536		18.71469
29 Endosulfan sulfate	444778	422056	394842	375999	344161	AVRG		396367		9.88952
30 Aroclor-1268(1)	++++++	++++++	++++++	++++++	++++++	AVRG		0.000e+00		0.000e+00
(2)	++++++	++++++	++++++	++++++	++++++	AVRG		0.000e+00		0.000e+00
(3)	++++++	++++++	++++++	++++++	++++++	AVRG		0.000e+00		0.000e+00
(4)	++++++	++++++	++++++	++++++	++++++	AVRG		0.000e+00		0.000e+00
(5)	++++++	++++++	++++++	++++++	++++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 02-MAR-2010 12:29
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Cal Date : 03-Mar-2010 11:06 jam00798

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
31 Endrin ketone	561863	519813	454303	421521	383599	AVRG		468220		15.46242
51 Mirex	1967628	7984153	33372685	63134808	116876543	LINR	-9.32687	289808		0.99821
52 C-Nonachlor	732794	648092	549502	510459	461589	AVRG		580487		18.82559
53 O-Chlordane	2279545	9683402	40637135	74751518	134708141	LINR	-12.01542	334227		0.99620
54 T-Nonachlor	705195	614513	523390	481961	435531	AVRG		552118		19.56304
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
56 2,4-DDE	1821857	7770505	32067536	58513265	103872394	LINR	-13.53426	257740		0.99496
58 2,4-DDD	1489772	6031823	24578358	44052303	80168461	LINR	-13.12656	197966		0.99644
57 2,4-DDT	316646	275217	240561	227383	211109	AVRG		254183		16.57864
$ 1 4cmx	650868	623691	553183	513555	465713	AVRG		561402		13.62325
$ 32 Decachlorobiphenyl	451411	398426	334846	316607	295541	AVRG		359366		17.87270

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 02-MAR-2010 12:29
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Cal Date : 03-Mar-2010 11:06 jam00798

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2039

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 03/02/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :03/03/10

Lab Sample ID (PEM): WPE100211-99 Time Analyzed :0945

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.21	4.18	4.24	108	100	8.0
4,4'-DDE						
Endrin	5.60	5.57	5.63	123	100	23.0
4,4'-DDD						
4,4'-DDT	5.93	5.90	5.96	111	100	11.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 2.10 Endrin % breakdown (1): 3.50

Combined % breakdown (1): 5.60

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2039

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 03/02/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :03/03/10

Lab Sample ID (PEM): WPE100211-99 Time Analyzed :0945

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.82	4.79	4.85	104	100	4.0
4,4'-DDE						
Endrin	6.42	6.39	6.45	120	100	20.0
4,4'-DDD						
4,4'-DDT	6.85	6.82	6.88	106	100	6.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 2.80 Endrin % breakdown (1): 3.90

Combined % breakdown (1): 6.70

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2039

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 03/02/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM02 Date Analyzed :03/03/10

Lab Sample ID (PEM): WPE100211-99 Time Analyzed :1127

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.21	4.18	4.24	110	100	10.0
4,4'-DDE						
Endrin	5.60	5.57	5.63	123	100	23.0
4,4'-DDD						
4,4'-DDT	5.93	5.90	5.96	110	100	10.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 3.00 Endrin % breakdown (1): 3.90

Combined % breakdown (1): 6.90

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2039

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 03/02/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM02 Date Analyzed :03/03/10

Lab Sample ID (PEM): WPE100211-99 Time Analyzed :1127

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.82	4.79	4.85	107	100	7.0
4,4'-DDE						
Endrin	6.42	6.39	6.45	122	100	22.0
4,4'-DDD						
4,4'-DDT	6.85	6.82	6.88	106	100	6.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 4.20 Endrin % breakdown (1): 4.30

Combined % breakdown (1): 8.50

FORM VII PEST-1 OLM03.0

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2039

Instrument ID: ECD7A Calibration Date: 03/03/10 Time: 1002

Lab File ID: 003F0301 Init. Calib. Date(s): 03/02/10 03/02/10

Heated Purge: (Y/N) N Init. Calib. Times: 1120 1229

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	1126763.7	1123225.7	0.01	-0.3	15.0
beta-BHC	461642.18	429995.36	0.01	-6.8	15.0
delta-BHC	987162.23	1014416.3	0.01	2.8	15.0
gamma-BHC (Lindane)	1012218.4	1033993.6	0.01	2.2	15.0
Heptachlor	785871.63	784505.23	0.01	-0.2	15.0
Aldrin	977660.59	886289.32	0.01	-9.3	15.0
Heptachlor epoxide	869362.40	833957.90	0.01	-4.1	15.0
Endosulfan I	774780.82	781733.51	0.01	0.9	15.0
Dieldrin	807900.18	793005.54	0.01	-1.8	15.0
4,4'-DDE	799070.59	772442.33	0.01	-3.3	15.0
Endrin	617152.03	705371.75	0.01	14.3	15.0
Endosulfan II	708457.57	696686.13	0.01	-1.7	15.0
4,4'-DDD	616928.70	637291.92	0.01	3.3	15.0
Endosulfan sulfate	607056.81	611893.71	0.01	0.8	15.0
4,4'-DDT	565736.33	642591.61	0.01	13.6	15.0
Methoxychlor	241541.47	268538.18	0.01	11.2	15.0
Endrin ketone	776678.54	752296.58	0.01	-3.1	15.0
Endrin aldehyde	595126.05	559207.87	0.01	-6.0	15.0
gamma-Chlordane	876190.78	883401.18	0.01	0.8	15.0
alpha-Chlordane	872531.34	778168.42	0.01	-10.8	15.0
4cmx	802843.84	720941.32	0.01	-10.2	15.0
Decachlorobiphenyl	599759.74	571345.80	0.01	-4.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2039

Instrument ID: ECD7A Calibration Date: 03/03/10 Time: 1002

Lab File ID: 003B0301 Init. Calib. Date(s): 03/02/10 03/02/10

Heated Purge: (Y/N) N Init. Calib. Times: 1120 1229

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	740666.92	731012.89	0.01	-1.3	15.0
beta-BHC	303695.66	286701.19	0.01	-5.6	15.0
delta-BHC	636028.09	648635.81	0.01	2.0	15.0
gamma-BHC (Lindane)	649941.45	658178.07	0.01	1.3	15.0
Heptachlor	469816.98	443278.45	0.01	-5.6	15.0
Aldrin	666966.34	582174.56	0.01	-12.7	15.0
Heptachlor epoxide	557721.12	528127.78	0.01	-5.3	15.0
Endosulfan I	512774.88	499524.57	0.01	-2.6	15.0
Dieldrin	495456.27	480222.56	0.01	-3.1	15.0
4,4'-DDE	483617.45	490568.65	0.01	1.4	15.0
Endrin	367187.11	412170.45	0.01	12.2	15.0
Endosulfan II	460588.58	436949.04	0.01	-5.1	15.0
4,4'-DDD	358119.52	367157.67	0.01	2.5	15.0
Endosulfan sulfate	396367.19	386853.90	0.01	-2.4	15.0
4,4'-DDT	306781.15	338306.74	0.01	10.3	15.0
Methoxychlor	128536.15	137162.95	0.01	6.7	15.0
Endrin ketone	468219.90	441147.42	0.01	-5.8	15.0
Endrin aldehyde	368197.37	333417.42	0.01	-9.4	15.0
gamma-Chlordane	582431.63	568634.53	0.01	-2.4	15.0
alpha-Chlordane	579399.85	495791.05	0.01	-14.4	15.0
4cmx	561402.02	508541.49	0.01	-9.4	15.0
Decachlorobiphenyl	359366.27	335482.62	0.01	-6.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2039

Instrument ID: ECD7A Calibration Date: 03/03/10 Time: 1019

Lab File ID: 004F0401 Init. Calib. Date(s): 02/24/10 02/24/10

Heated Purge: (Y/N) N Init. Calib. Times: 1724 1832

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
Toxaphene	7334.695	6897.510	0.01	-6.0	15.0
(2)	10430.832	10106.138	0.01	-3.1	15.0
(3)	12172.864	13192.155	0.01	8.4	15.0
(4)	15891.838	15000.108	0.01	-5.6	15.0
(5)	15541.028	15993.948	0.01	2.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2039

Instrument ID: ECD7A Calibration Date: 03/03/10 Time: 1019

Lab File ID: 004B0401 Init. Calib. Date(s): 02/24/10 02/24/10

Heated Purge: (Y/N) N Init. Calib. Times: 1724 1832

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
Toxaphene	9734.966	9292.030	0.01	-4.5	15.0
(2)	4393.318	3968.314	0.01	-9.7	15.0
(3)	4991.011	5063.310	0.01	1.4	15.0
(4)	5740.025	4881.922	0.01	-14.9	15.0
(5)	7715.898	7204.078	0.01	-6.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2039

Instrument ID: ECD7A Calibration Date: 03/03/10 Time: 1435

Lab File ID: 019F1901 Init. Calib. Date(s): 03/02/10 03/02/10

Heated Purge: (Y/N) N Init. Calib. Times: 1120 1229

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D	
alpha-BHC	1126763.7	1195799.6	0.01	6.1	15.0	
beta-BHC	461642.18	458138.58	0.01	-0.8	15.0	
delta-BHC	987162.23	1077207.5	0.01	9.1	15.0	
gamma-BHC (Lindane)	1012218.4	1098349.9	0.01	8.5	15.0	
Heptachlor	785871.63	827277.62	0.01	5.3	15.0	
Aldrin	977660.59	944328.92	0.01	-3.4	15.0	
Heptachlor epoxide	869362.40	874622.05	0.01	0.6	15.0	
Endosulfan I	774780.82	823490.52	0.01	6.3	15.0	
Dieldrin	807900.18	831676.51	0.01	2.9	15.0	
4,4'-DDE	799070.59	817903.00	0.01	2.4	15.0	
Endrin	617152.03	715861.35	0.01	16.0	15.0	<-
Endosulfan II	708457.57	728250.37	0.01	2.8	15.0	
4,4'-DDD	616928.70	674534.73	0.01	9.3	15.0	
Endosulfan sulfate	607056.81	638685.73	0.01	5.2	15.0	
4,4'-DDT	565736.33	656494.16	0.01	16.0	15.0	<-
Methoxychlor	241541.47	268894.31	0.01	11.3	15.0	
Endrin ketone	776678.54	785551.00	0.01	1.1	15.0	
Endrin aldehyde	595126.05	589325.20	0.01	-1.0	15.0	
gamma-Chlordane	876190.78	925282.71	0.01	5.6	15.0	
alpha-Chlordane	872531.34	812373.14	0.01	-6.9	15.0	
4cmx	802843.84	771354.56	0.01	-3.9	15.0	
Decachlorobiphenyl	599759.74	578081.84	0.01	-3.6	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2039

Instrument ID: ECD7A Calibration Date: 03/03/10 Time: 1435

Lab File ID: 019B1901 Init. Calib. Date(s): 03/02/10 03/02/10

Heated Purge: (Y/N) N Init. Calib. Times: 1120 1229

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
alpha-BHC	740666.92	786223.48	0.01	6.2	15.0	
beta-BHC	303695.66	307916.88	0.01	1.4	15.0	
delta-BHC	636028.09	696036.65	0.01	9.4	15.0	
gamma-BHC (Lindane)	649941.45	704854.06	0.01	8.4	15.0	
Heptachlor	469816.98	474082.49	0.01	0.9	15.0	
Aldrin	666966.34	622555.72	0.01	-6.6	15.0	
Heptachlor epoxide	557721.12	561542.28	0.01	0.7	15.0	
Endosulfan I	512774.88	531638.76	0.01	3.7	15.0	
Dieldrin	495456.27	508294.58	0.01	2.6	15.0	
4,4'-DDE	483617.45	526092.61	0.01	8.8	15.0	
Endrin	367187.11	423382.70	0.01	15.3	15.0	<-
Endosulfan II	460588.58	463971.48	0.01	0.7	15.0	
4,4'-DDD	358119.52	390591.11	0.01	9.1	15.0	
Endosulfan sulfate	396367.19	408734.06	0.01	3.1	15.0	
4,4'-DDT	306781.15	349493.28	0.01	13.9	15.0	
Methoxychlor	128536.15	141471.08	0.01	10.1	15.0	
Endrin ketone	468219.90	467725.67	0.01	-0.1	15.0	
Endrin aldehyde	368197.37	357943.08	0.01	-2.8	15.0	
gamma-Chlordane	582431.63	599003.49	0.01	2.8	15.0	
alpha-Chlordane	579399.85	526131.24	0.01	-9.2	15.0	
4cmx	561402.02	546926.58	0.01	-2.6	15.0	
Decachlorobiphenyl	359366.27	341947.56	0.01	-4.8	15.0	

FORM VII PEST

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/030310.b/002f0201.d
Lab Smp Id: WPE100211-99DG Client Smp ID: PEM01
Inj Date : 03-MAR-2010 09:45
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100211-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 03-Mar-2010 11:06 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.209	4.210	-0.001	105880759	108.300	108	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.061	5.061	0.000	542153	0.67848	0.678	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.598	5.598	0.000	75924587	123.024	123	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.651	5.651	0.000	808243	1.31011	1.31	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
6.253	6.251	0.002	1136461	1.90961	1.91	80.00- 120.00	100.00(M)
26 4,4'-DDT					CAS #: 50-29-3		
5.934	5.934	0.000	62703116	110.835	111	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.011	7.010	0.001	1579567	2.03375	2.03	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.876	2.877	-0.001	144026177	179.395	179	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.095	8.096	-0.001	113597138	189.404	189	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/030310.b/002f0201.d
Date : 03-MAR-2010 09:45
Client ID: PEM01
Sample Info: IWPE100211-99DG

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM
Column diameter: 0.25

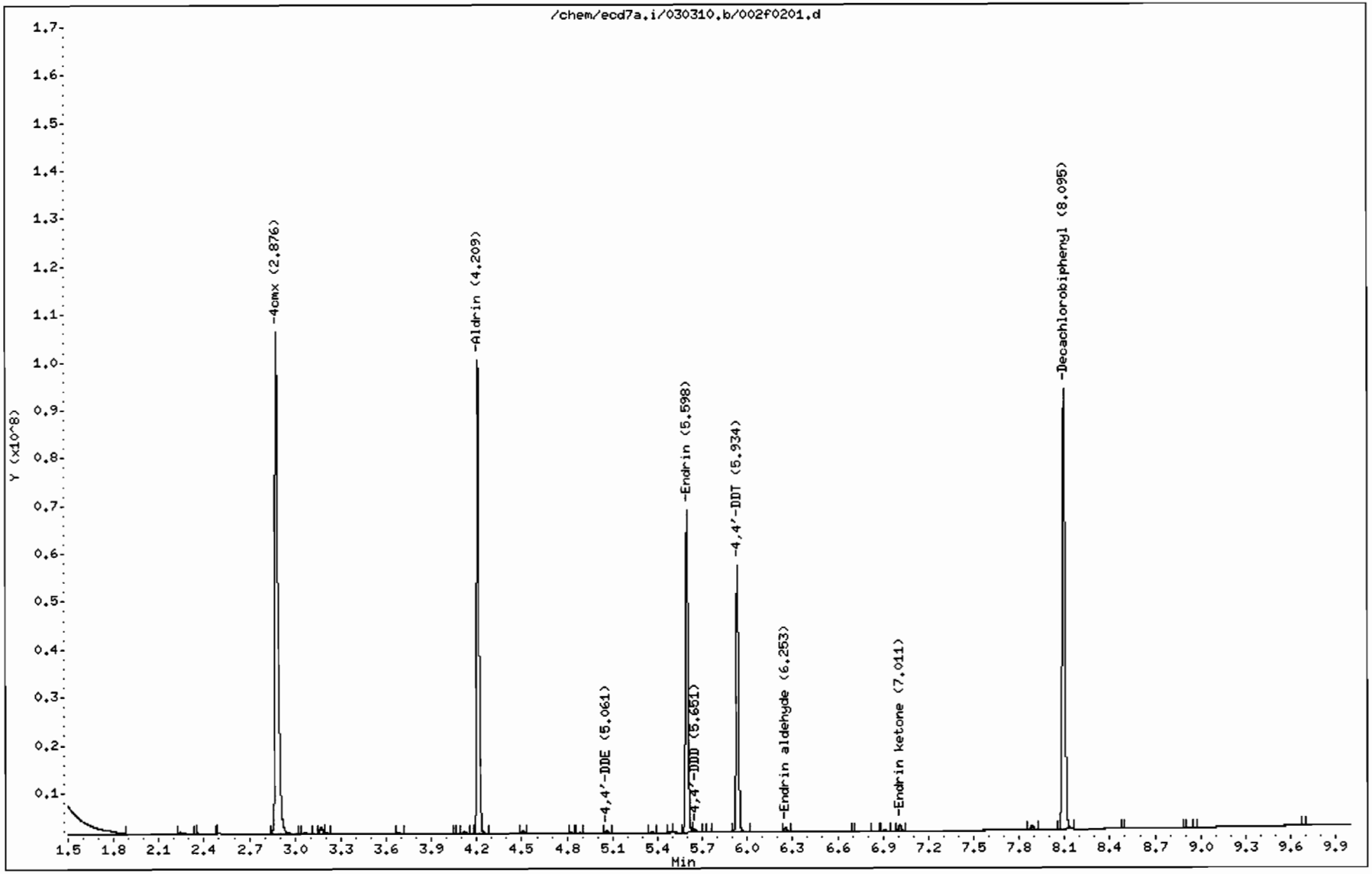

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/002b0201.d
Lab Smp Id: WPE100211-99DG Client Smp ID: PEM01
Inj Date : 03-MAR-2010 09:45
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100211-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 03-Mar-2010 11:06 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.816	4.817	-0.001	69446340	104.123	104	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.882	5.883	-0.001	363768	0.75218	0.752	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
6.417	6.419	-0.002	44150358	120.239	120	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.500	6.501	-0.001	579053	1.61693	1.62	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
7.004	7.004	0.000	754310	2.04866	2.05	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.846	6.847	-0.001	32580938	106.203	106	80.00- 120.00	100.00(M)
31 Endrin ketone					CAS #: 53494-70-5		
7.917	7.919	-0.002	1022573	2.18396	2.18	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.195	3.195	0.000	101654007	181.072	181	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.291	9.292	-0.001	66917983	186.211	186	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/030310.b/002b0201.d
Date : 03-MAR-2010 09:45
Client ID: PEM01
Sample Info: IWPE100211-99DG

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM
Column diameter: 0.25

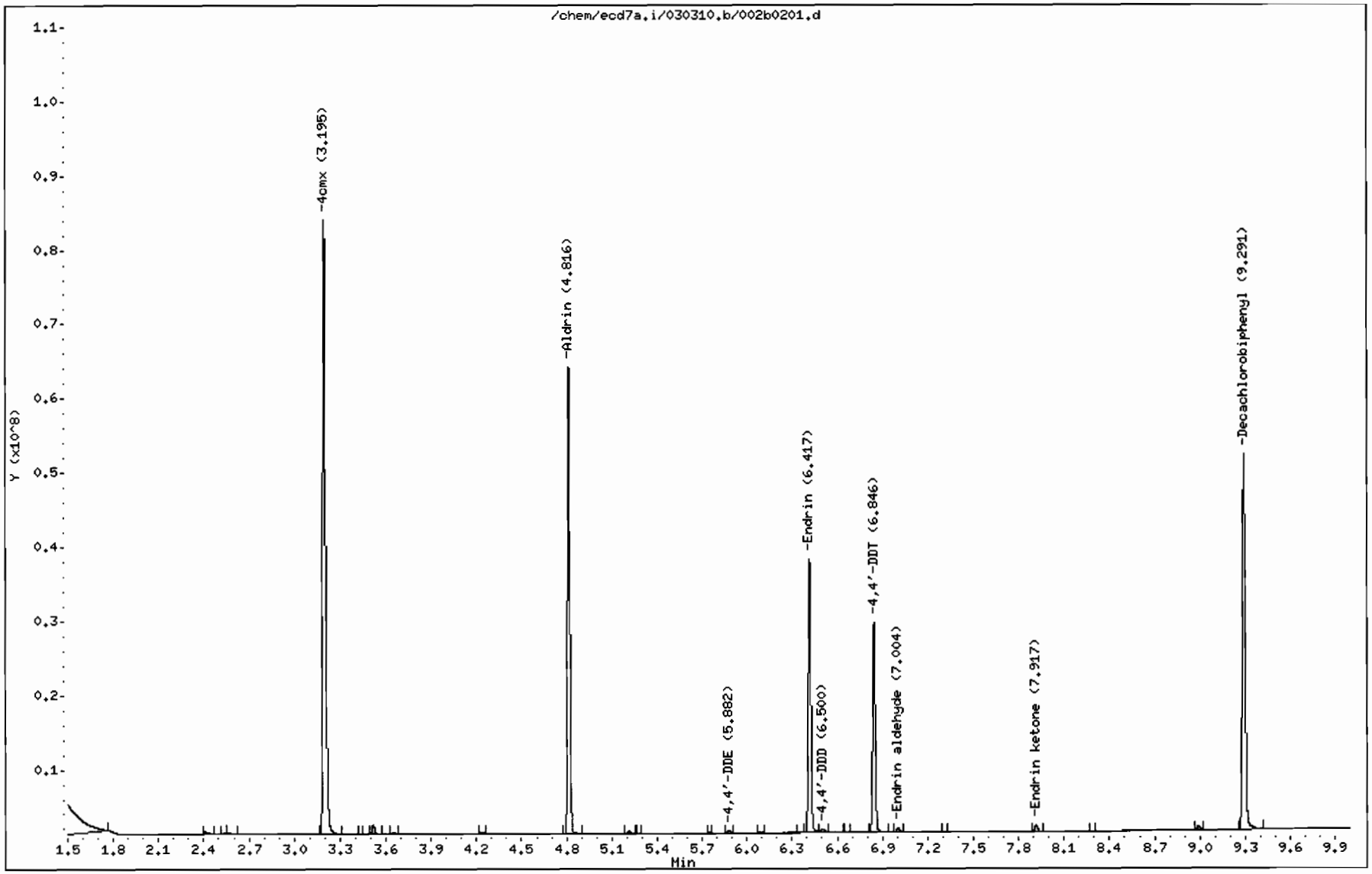

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/030310.b/008f0801.d
Lab Smp Id: WPE100211-99DG Client Smp ID: PEM02
Inj Date : 03-MAR-2010 11:27
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100211-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 03-Mar-2010 11:06 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 8 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.210	4.210	0.000	107861888	110.327	110	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.063	5.061	0.002	505450	0.63255	0.632	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.599	5.598	0.001	75980884	123.115	123	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.653	5.651	0.002	1424578	2.30915	2.31	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.253	6.251	0.002	1112803	1.86986	1.87	80.00- 120.00	100.00(M)
26 4,4'-DDT					CAS #: 50-29-3		
5.935	5.934	0.001	62387569	110.277	110	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.011	7.010	0.001	1969742	2.53611	2.54	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.878	2.877	0.001	145910653	181.742	182	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.095	8.096	-0.001	113440724	189.144	189	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/030310.b/008f0801.d

Date : 03-MAR-2010 11:27

Client ID: PEM02

Sample Info: IWPE100211-99DG

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

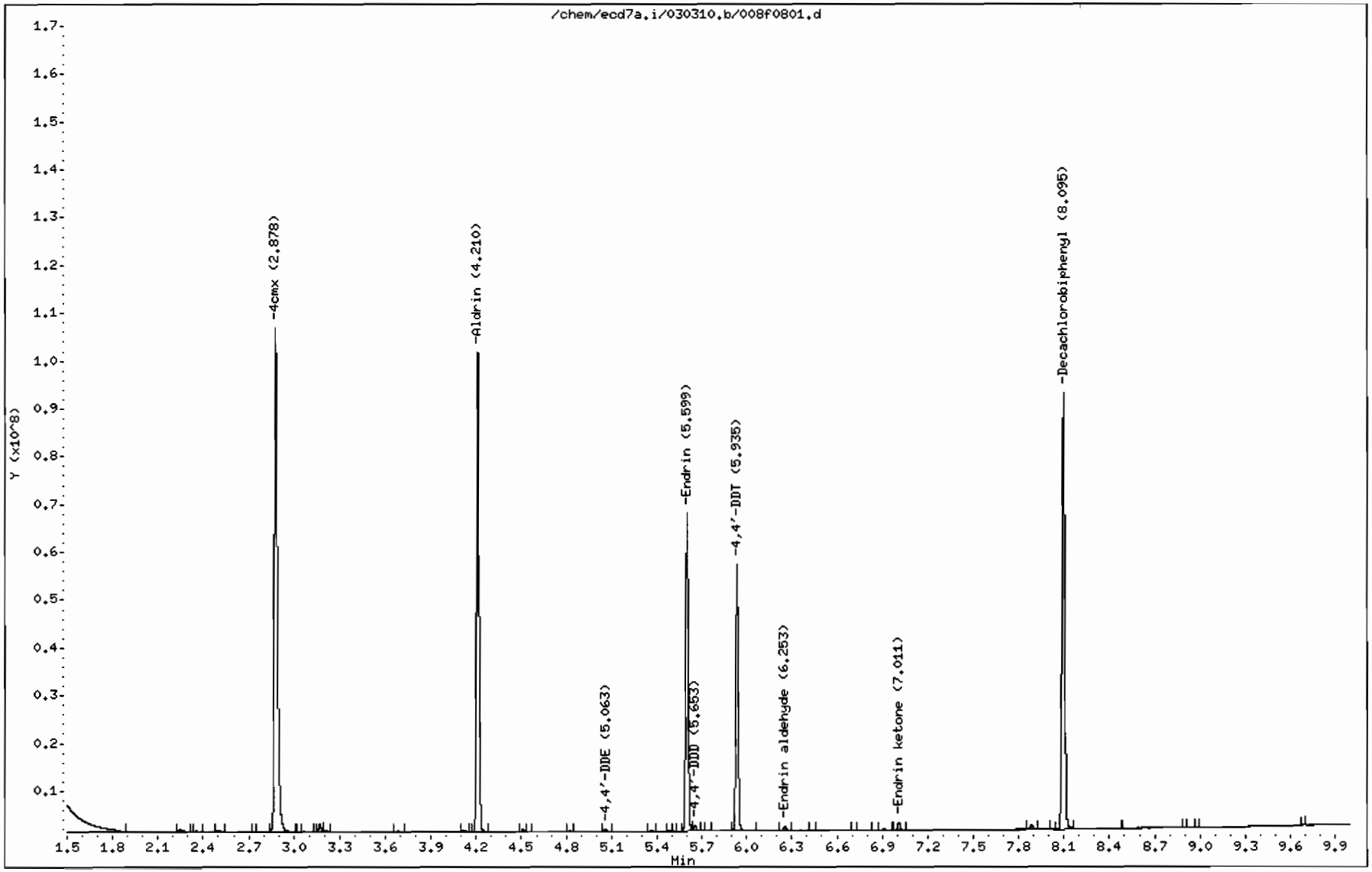

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/008b0801.d
Lab Smp Id: WPE100211-99DG Client Smp ID: PEM02
Inj Date : 03-MAR-2010 11:27
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100211-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 03-Mar-2010 11:06 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 8 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.818	4.817	0.001	71114369	106.624	107	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.884	5.883	0.001	354866	0.73377	0.734	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
6.419	6.419	0.000	44644529	121.585	122	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.502	6.501	0.001	1081845	3.02090	3.02	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.005	7.004	0.001	740129	2.01014	2.01	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.847	6.847	0.000	32643173	106.405	106	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.920	7.919	0.001	1257140	2.68493	2.68	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.195	0.002	103191554	183.810	184	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.292	9.292	0.000	67341716	187.390	187	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/030310.b/008b0801.d
Date : 03-MAR-2010 11:27
Client ID: PEM02
Sample Info: IWPE100211-99DG
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

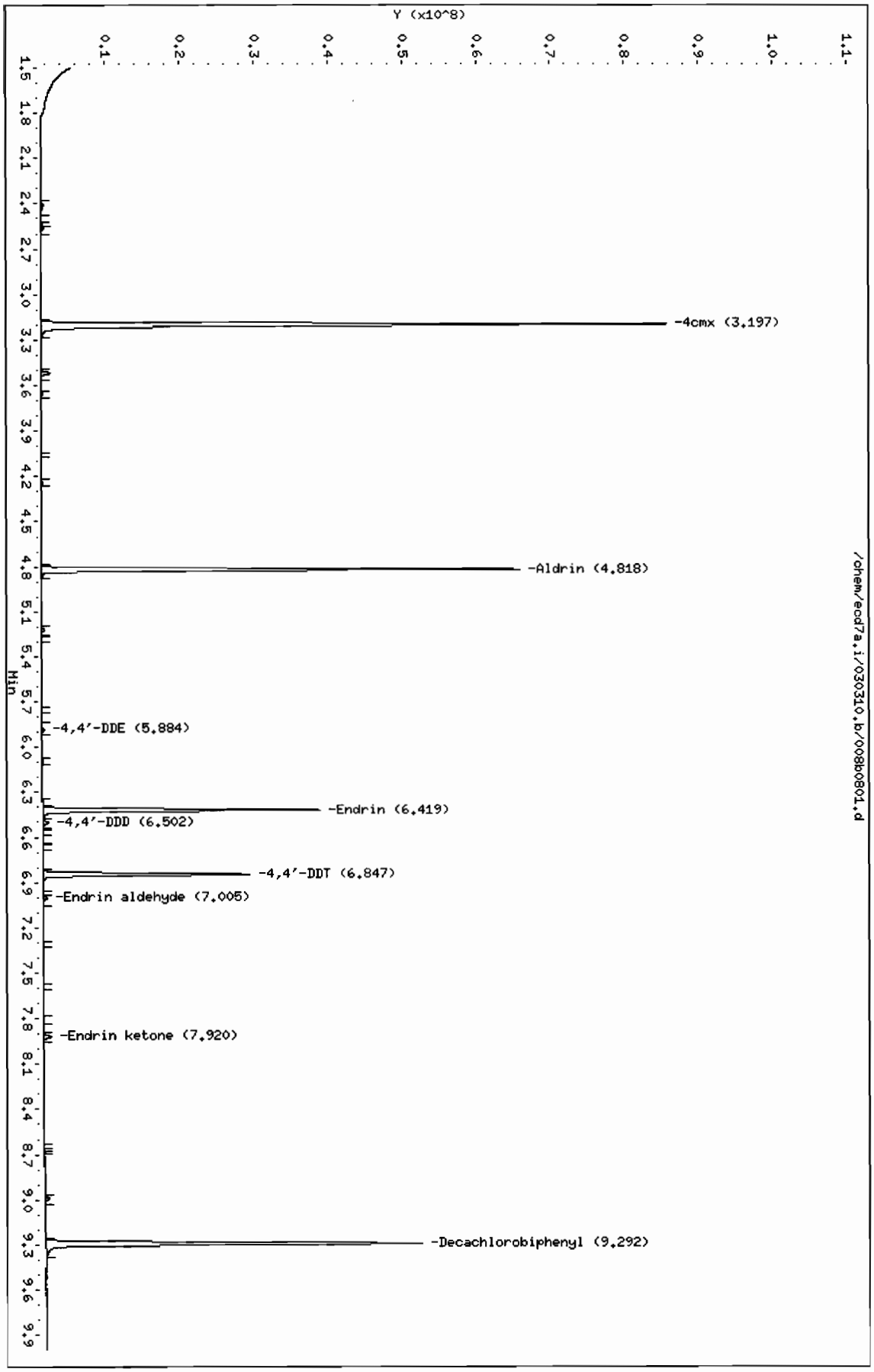

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GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/030310.b/003f0301.d
Lab Smp Id: WPE100211-10AB Client Smp ID: INDAB01
Inj Date : 03-MAR-2010 10:02
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100211-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 03-Mar-2010 11:06 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.297	3.297	0.000	112322574	100.000	99.7	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.549	3.549	0.000	103399361	100.000	102	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.614	3.614	0.000	42999535	100.000	93.1	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.945	3.945	0.000	78450523	100.000	99.8	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.768	3.768	0.000	101441629	100.000	103	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.210	4.210	0.000	88628932	100.000	90.6	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.756	4.756	0.000	83395790	100.000	95.9	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.873	4.873	0.000	88340118	100.000	101	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.998	4.998	0.000	77816841	100.000	89.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.133	5.133	0.000	78173351	100.000	101	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.061	5.061	0.000	154488466	200.000	193	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.365	5.365	0.000	158601108	200.000	196	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.598	5.598	0.000	141074349	200.000	228	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.651	5.651	0.000	127458383	200.000	207	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.823	5.823	0.000	139337226	200.000	197	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.251	6.251	0.000	111841574	200.000	188	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.934	5.934	0.000	128518322	200.000	227	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.706	6.706	0.000	122378741	200.000	202	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.433	6.433	0.000	268538178	1000.00	1110	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.010	7.010	0.000	150459316	200.000	194	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.877	2.877	0.000	144188264	200.000	180	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.096	8.096	0.000	114269159	200.000	190	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/030310.b/003f0301.d
Date : 03-MAR-2010 10:02
Client ID: INDAB01
Sample Info: IWPE100211-10AB
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

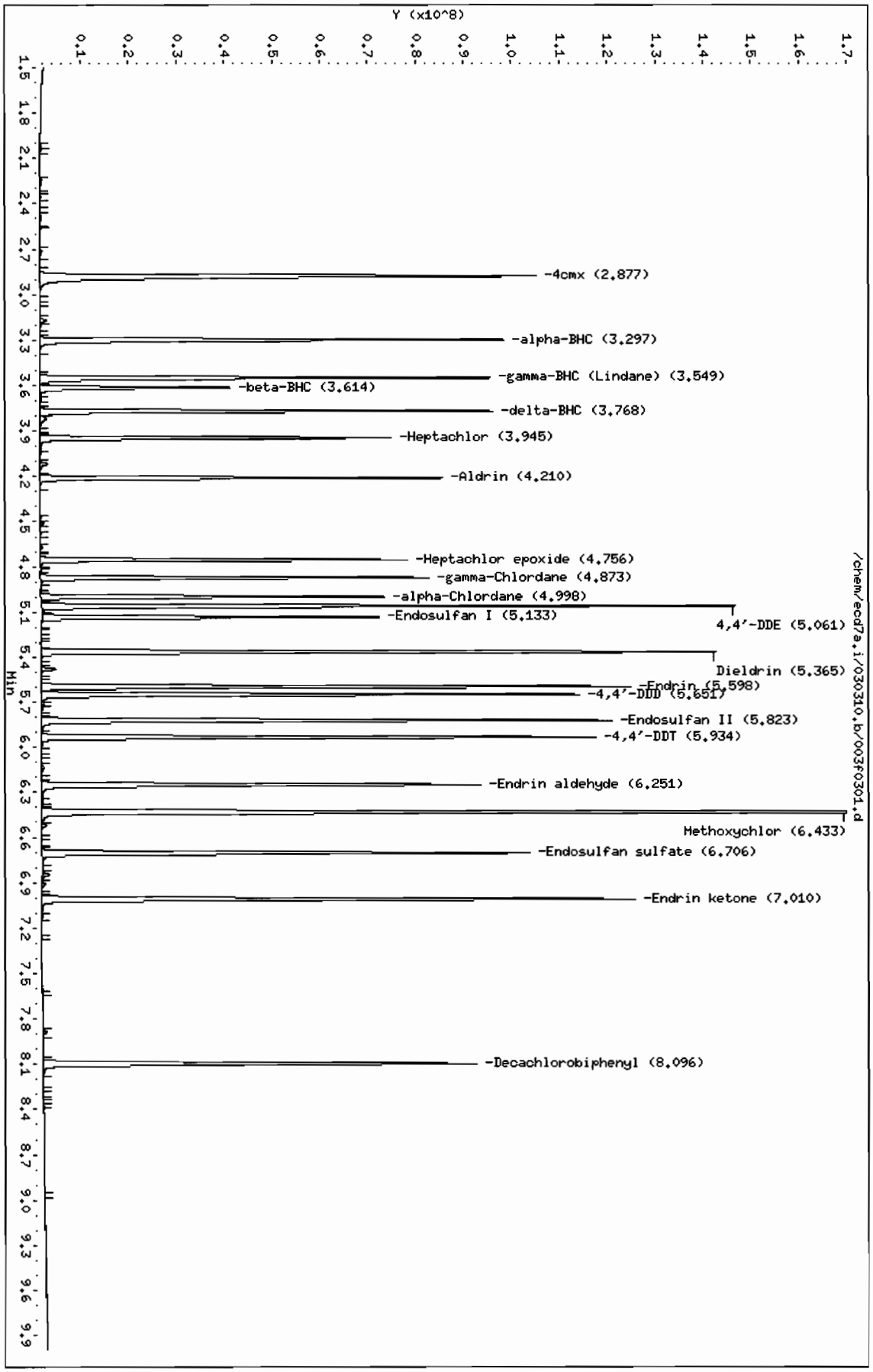

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/003b0301.d
Lab Smp Id: WPE100211-10AB Client Smp ID: INDAB01
Inj Date : 03-MAR-2010 10:02
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100211-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 03-Mar-2010 11:06 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.722	3.722	0.000	73101288	100.000	98.7	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.051	4.051	0.000	65817807	100.000	101	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.115	4.115	0.000	28670119	100.000	94.4	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.487	4.487	0.000	44327844	100.000	94.4	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.404	4.404	0.000	64863580	100.000	102	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.817	4.817	0.000	58217455	100.000	87.3	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.386	5.386	0.000	52812778	100.000	94.7	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.581	5.581	0.000	56863452	100.000	97.6	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.731	5.731	0.000	49579104	100.000	85.6	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.802	5.802	0.000	49952456	100.000	97.4	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.883	5.883	0.000	98113730	200.000	203	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.089	6.089	0.000	96044511	200.000	194	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.419	6.419	0.000	82434089	200.000	224	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.501	6.501	0.000	73431533	200.000	205	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.643	6.643	0.000	87389807	200.000	190	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.004	7.004	0.000	66683483	200.000	181	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.847	6.847	0.000	67661347	200.000	220	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.310	7.310	0.000	77370779	200.000	195	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.591	7.591	0.000	137162952	1000.00	1070	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.919	7.919	0.000	88229484	200.000	188	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.195	3.195	0.000	101708299	200.000	181	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.292	9.292	0.000	67096525	200.000	187	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/030310.b/003b0301.d
Date : 03-MAR-2010 10:02
Client ID: INDAB01
Sample Info: IWPE100211-10AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

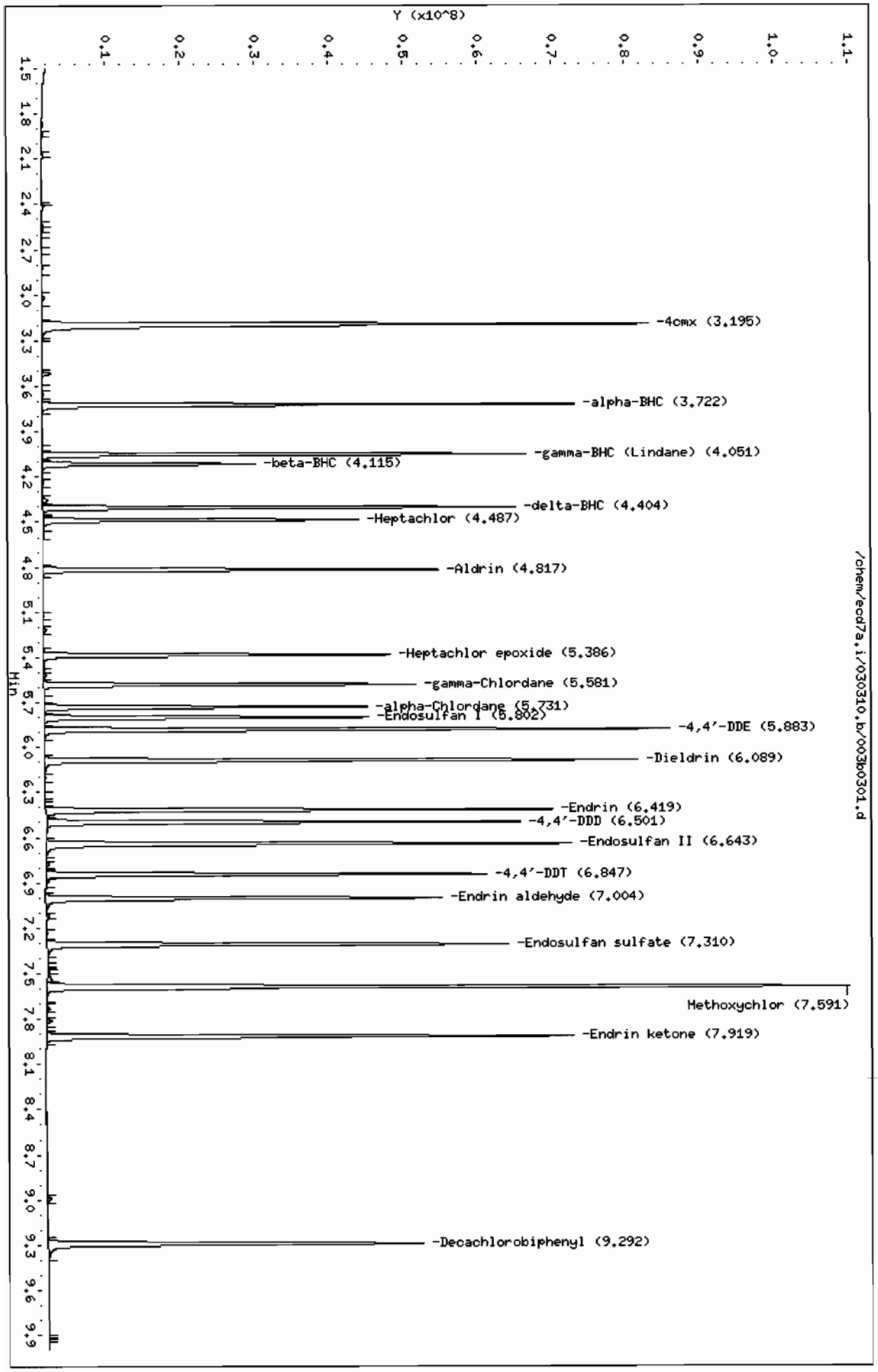

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GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/030310.b/004f0401.d
Lab Smp Id: WPE100125-52TX Client Smp ID: TOXAPH01
Inj Date : 03-MAR-2010 10:19
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100125-52TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 03-Mar-2010 11:06 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.265	5.265	0.000	13795020	2000.00	1880	80.00- 120.00	100.00(M)
5.370	5.370	0.000	20212276	2000.00	1940	126.52- 166.52	146.52
5.458	5.458	0.000	26384310	2000.00	2170	171.26- 211.26	191.26
5.516	5.516	0.000	30000215	2000.00	1890	197.47- 237.47	217.47
5.619	5.619	0.000	31987897	2000.00	2060	211.88- 251.88	231.88

Average of Peak Amounts = 1.99e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/030310.b/004f0401.d

Date : 03-MAR-2010 10:19

Client ID: TOXAPH01

Sample Info: IWPE100125-52TX

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

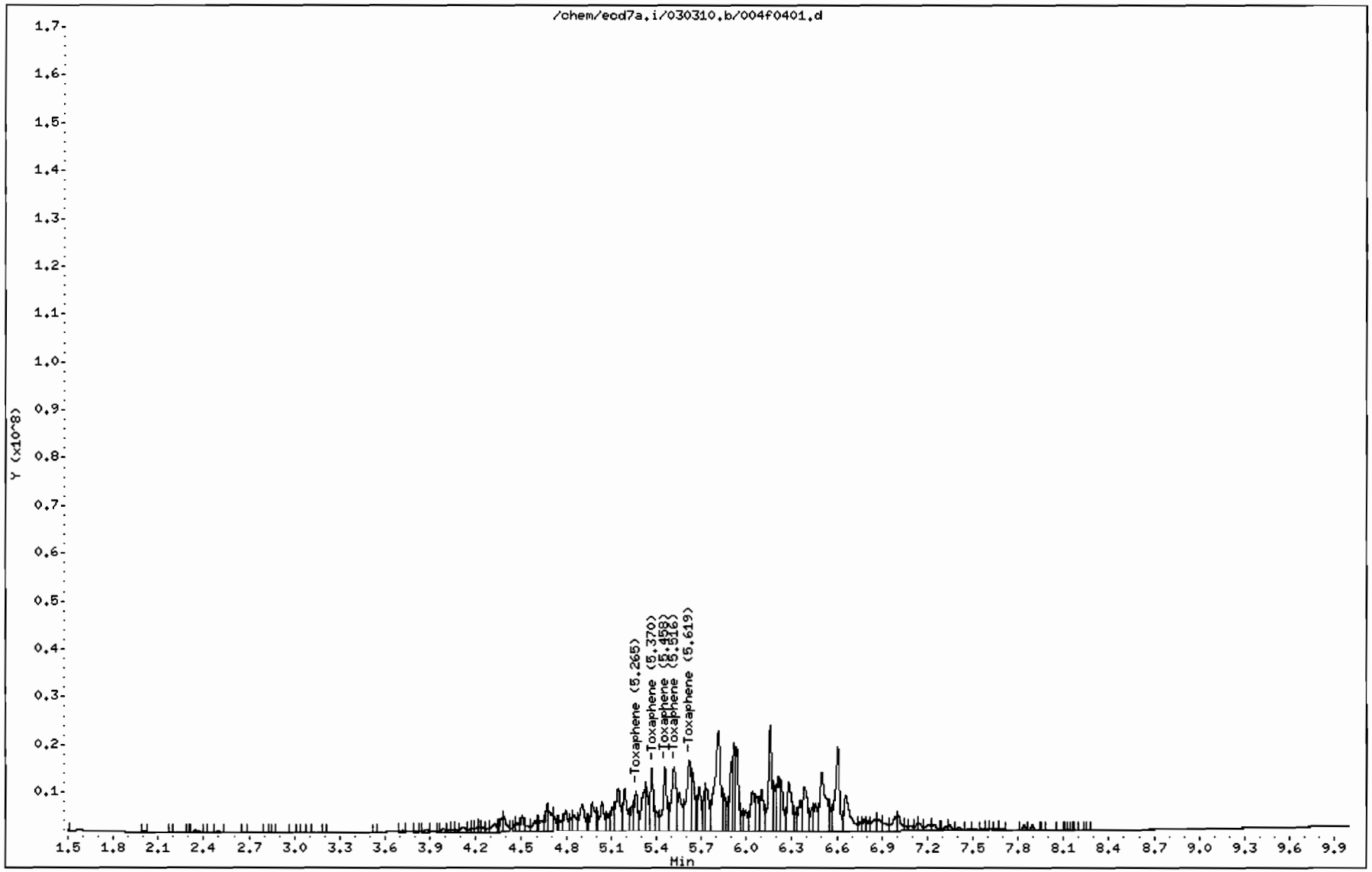

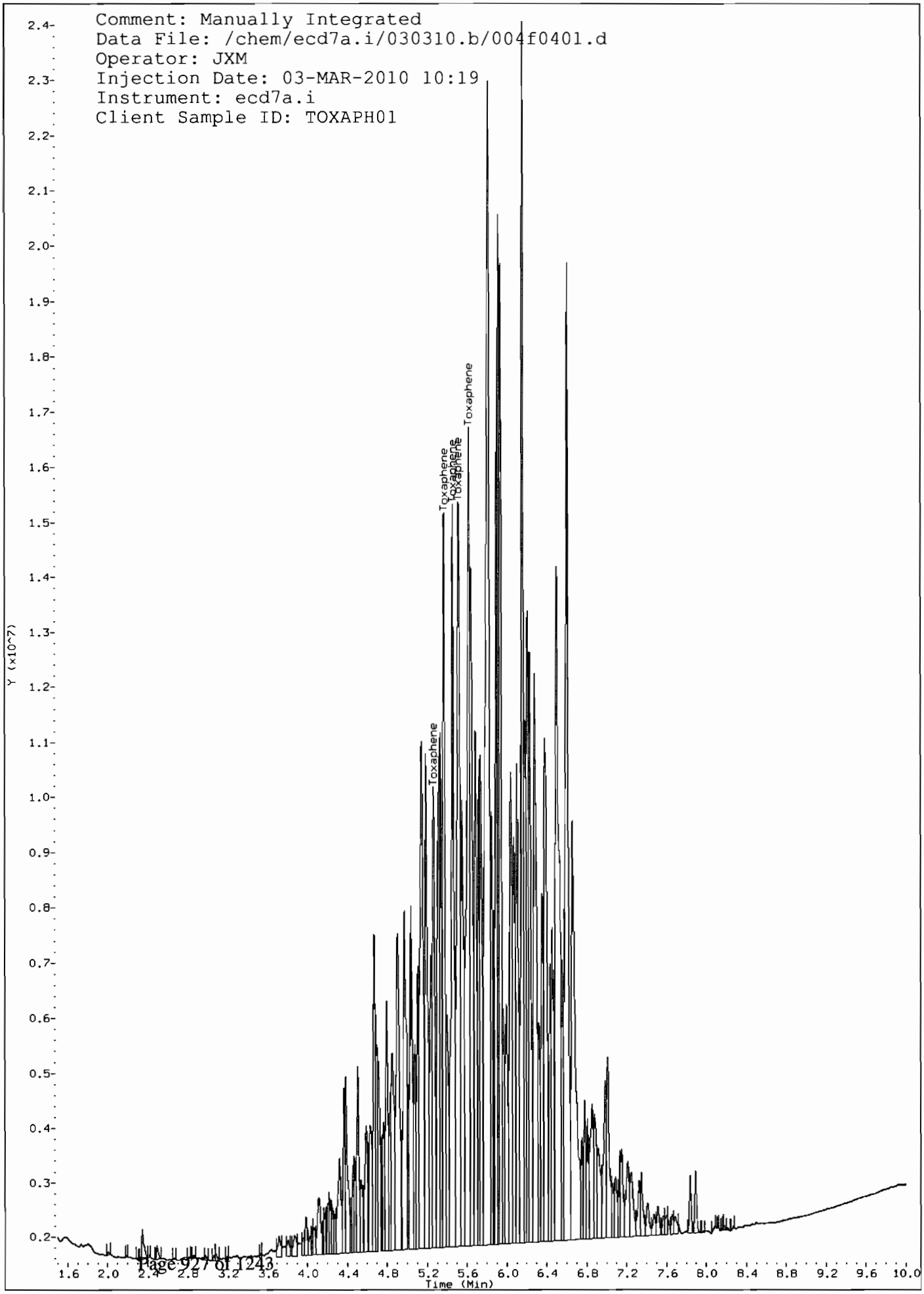
Comment: Manually Integrated
Data File: /chem/ecd7a.i/030310.b/004f0401.d
Operator: JXM
Injection Date: 03-MAR-2010 10:19
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

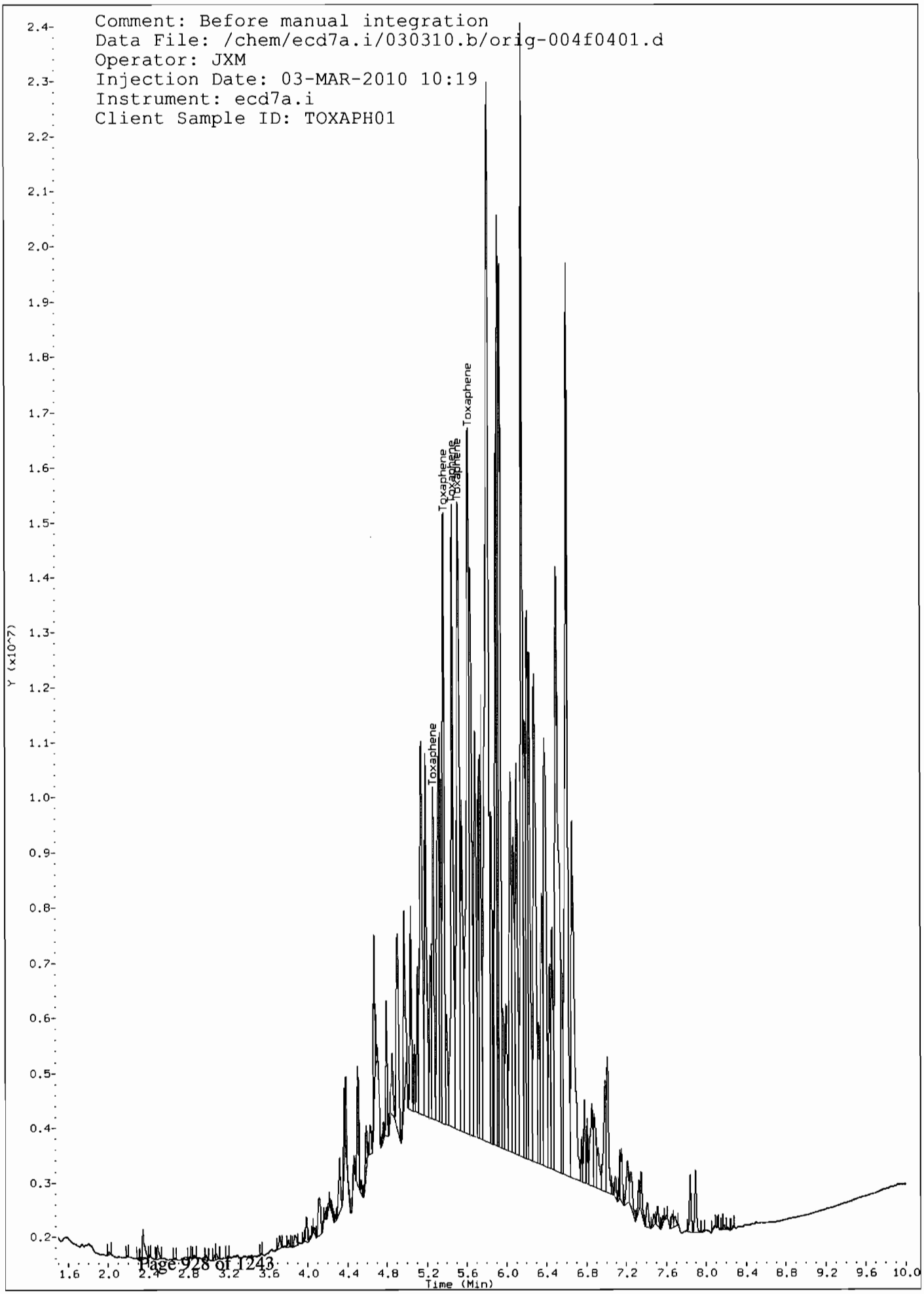
Comment: Before manual integration
Data File: /chem/ecd7a.i/030310.b/orig-004f0401.d
Operator: JXM
Injection Date: 03-MAR-2010 10:19
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/004b0401.d
Lab Smp Id: WPE100125-52TX Client Smp ID: TOXAPH01
Inj Date : 03-MAR-2010 10:19
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100125-52TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 03-Mar-2010 11:06 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
6.053	6.053	0.000	18584061	2000.00	1910	80.00- 120.00	100.00(M)
6.121	6.121	0.000	7936628	2000.00	1810	22.71- 62.71	42.71
6.184	6.184	0.000	10126619	2000.00	2030	34.49- 74.49	54.49
6.248	6.248	0.000	9763844	2000.00	1700	32.54- 72.54	52.54
6.380	6.380	0.000	14408156	2000.00	1870	57.53- 97.53	77.53

Average of Peak Amounts = 1.86e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/030310.b/004b0401.d

Date : 03-MAR-2010 10:19

Client ID: TOXAPH01

Sample Info: IWPE100125-52TX

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

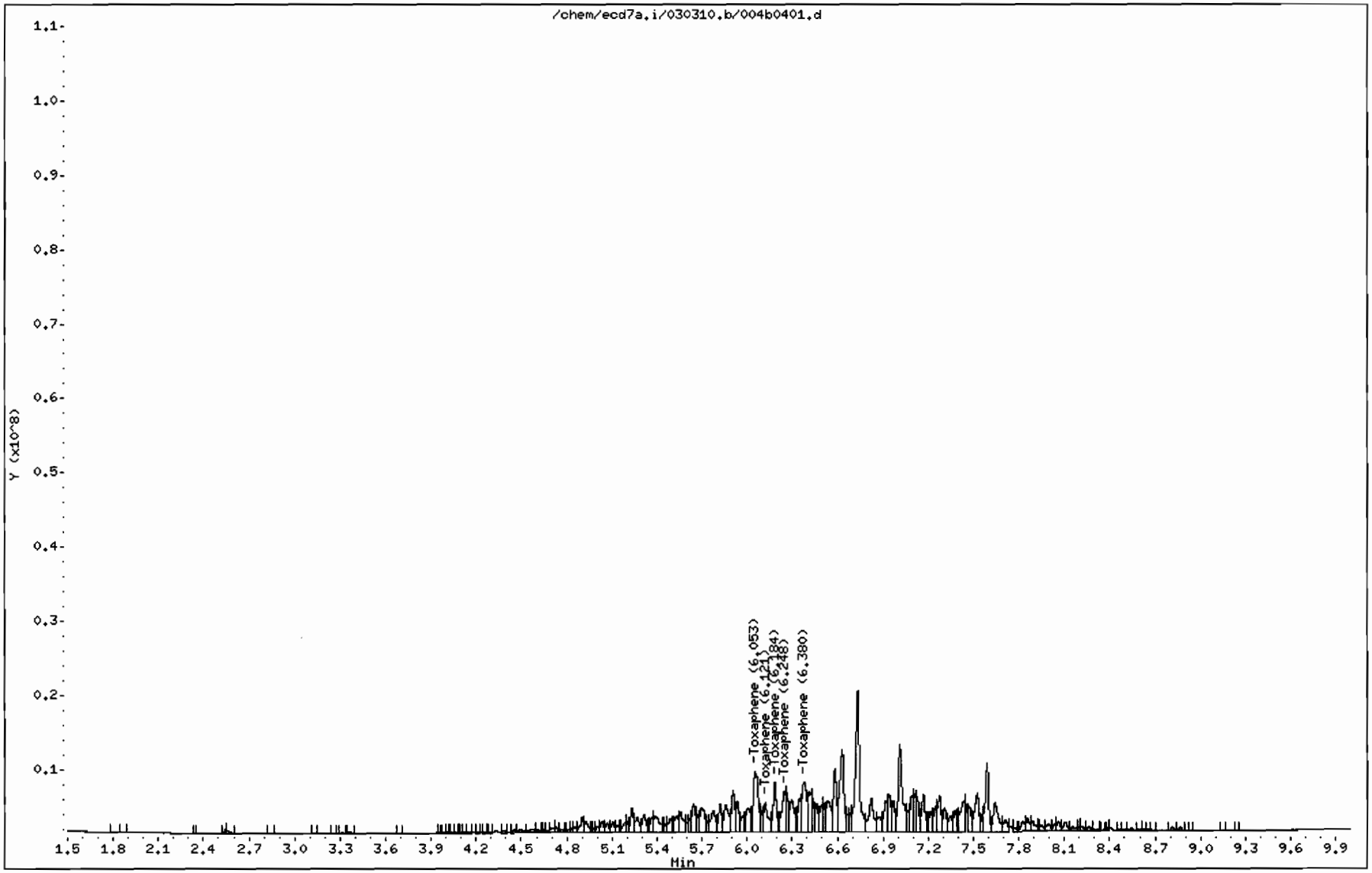

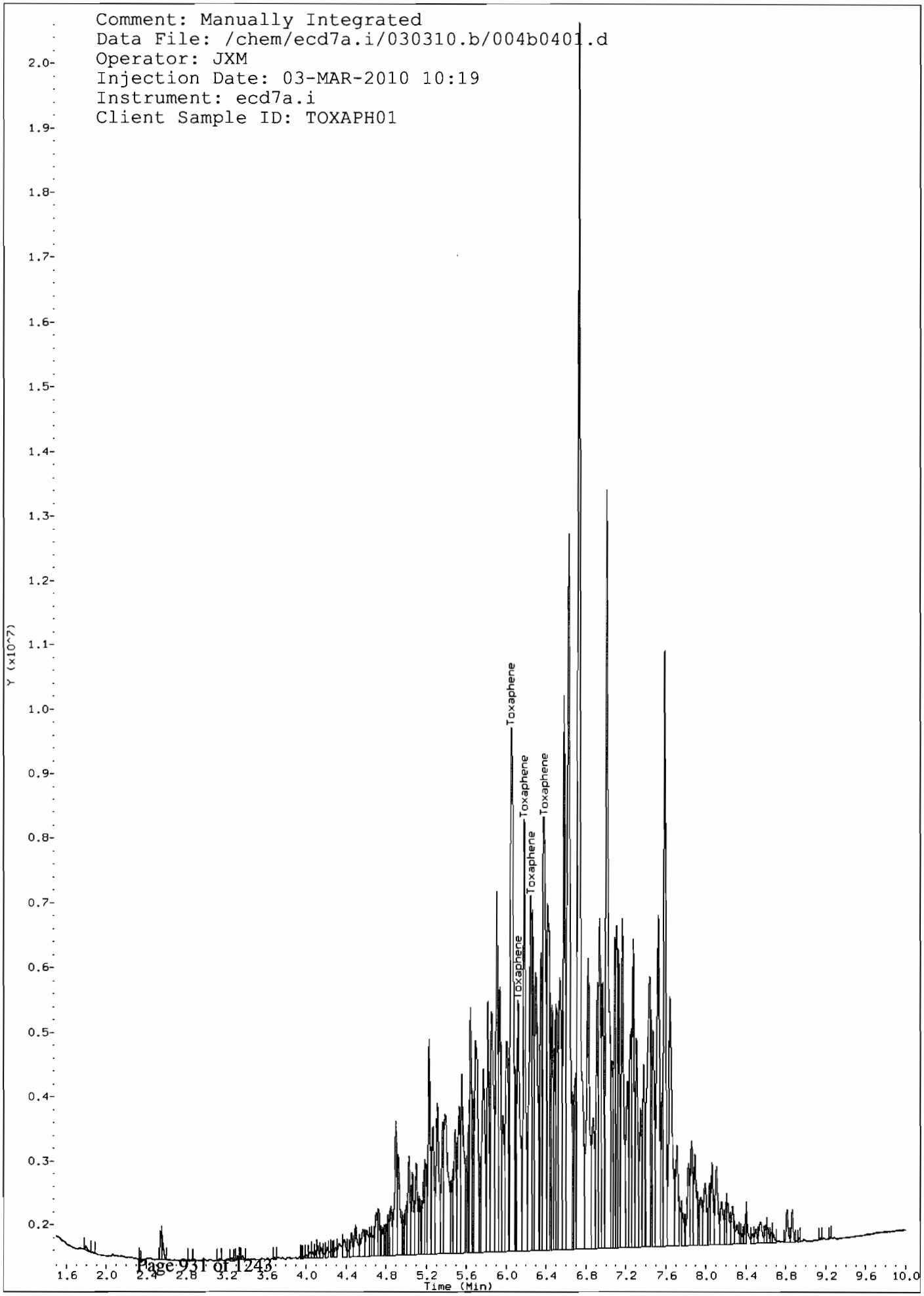
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Data File: /chem/ecd7a.i/030310.b/004b0401.d
Operator: JXM
Injection Date: 03-MAR-2010 10:19
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

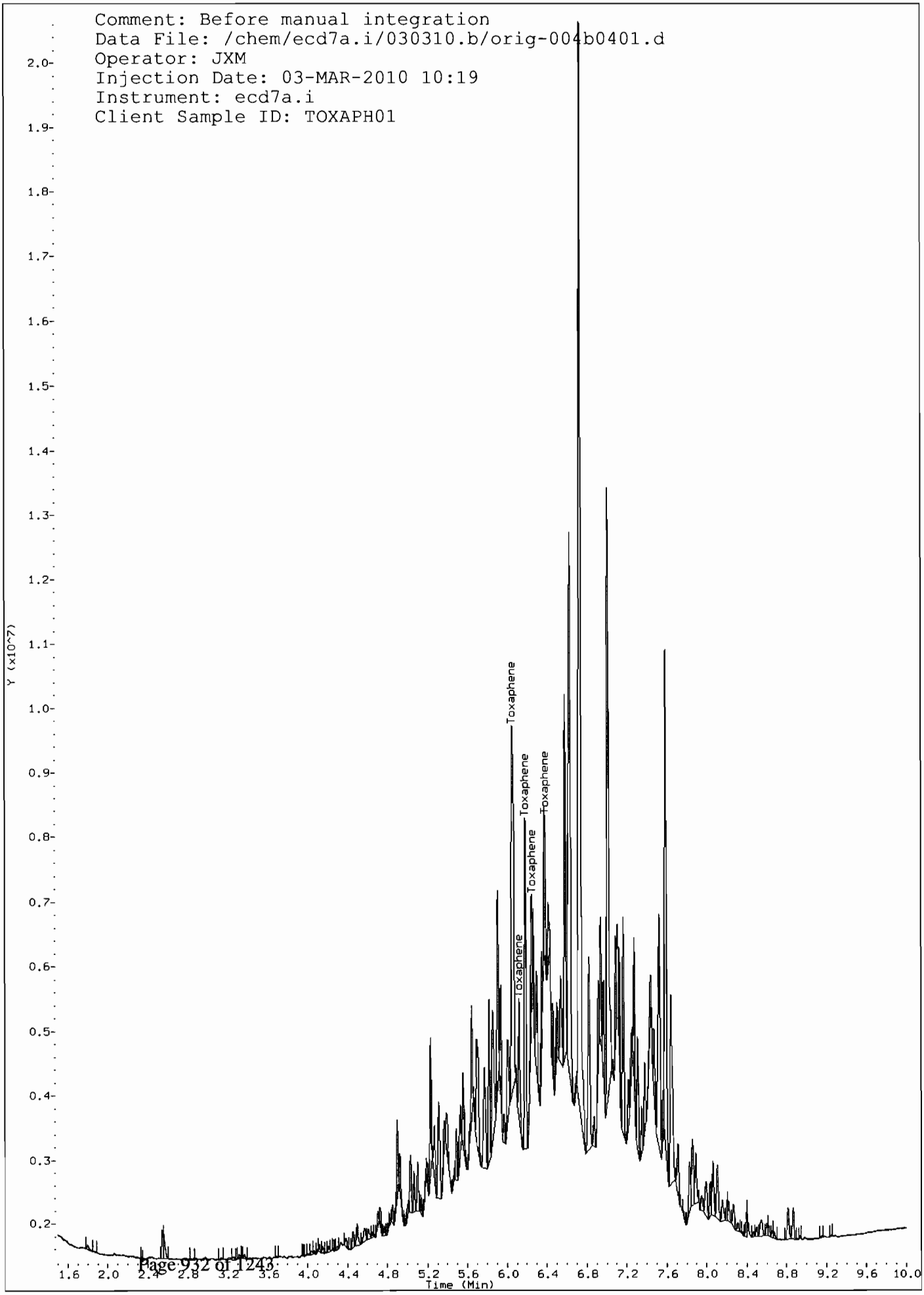
Comment: Before manual integration
Data File: /chem/ecd7a.i/030310.b/orig-004b0401.d
Operator: JXM
Injection Date: 03-MAR-2010 10:19
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/030310.b/019f1901.d
Lab Smp Id: WPE100211-10AB Client Smp ID: INDAB02
Inj Date : 03-MAR-2010 14:35
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100211-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 03-Mar-2010 14:50 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.296	3.297	-0.001	119579963	100.000	106	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.548	3.549	-0.001	109834987	100.000	108	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.613	3.614	-0.001	45813857	100.000	99.2	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.943	3.945	-0.002	82727761	100.000	105	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.767	3.768	-0.001	107720746	100.000	109	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.208	4.210	-0.002	94432891	100.000	96.6	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.755	4.756	-0.001	87462204	100.000	101	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.872	4.873	-0.001	92528270	100.000	106	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.997	4.998	-0.001	81237314	100.000	93.1	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.132	5.133	-0.001	82349051	100.000	106	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.059	5.061	-0.002	163580600	200.000	205	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.363	5.365	-0.002	166335302	200.000	206	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.596	5.598	-0.002	143172271	200.000	232	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.649	5.651	-0.002	134906945	200.000	219	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.822	5.823	-0.001	145650073	200.000	206	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.249	6.251	-0.002	117865040	200.000	198	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.932	5.934	-0.002	131298831	200.000	232	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.705	6.706	-0.001	127737145	200.000	210	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.432	6.433	-0.001	268894313	1000.00	1110	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.008	7.010	-0.002	157110199	200.000	202	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.876	2.877	-0.001	154270913	200.000	192	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.095	8.096	-0.001	115616368	200.000	193	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/030310.b/019f1901.d
Date : 03-MAR-2010 14:35
Client ID: INDAB02
Sample Info: IWPE100211-10AB

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

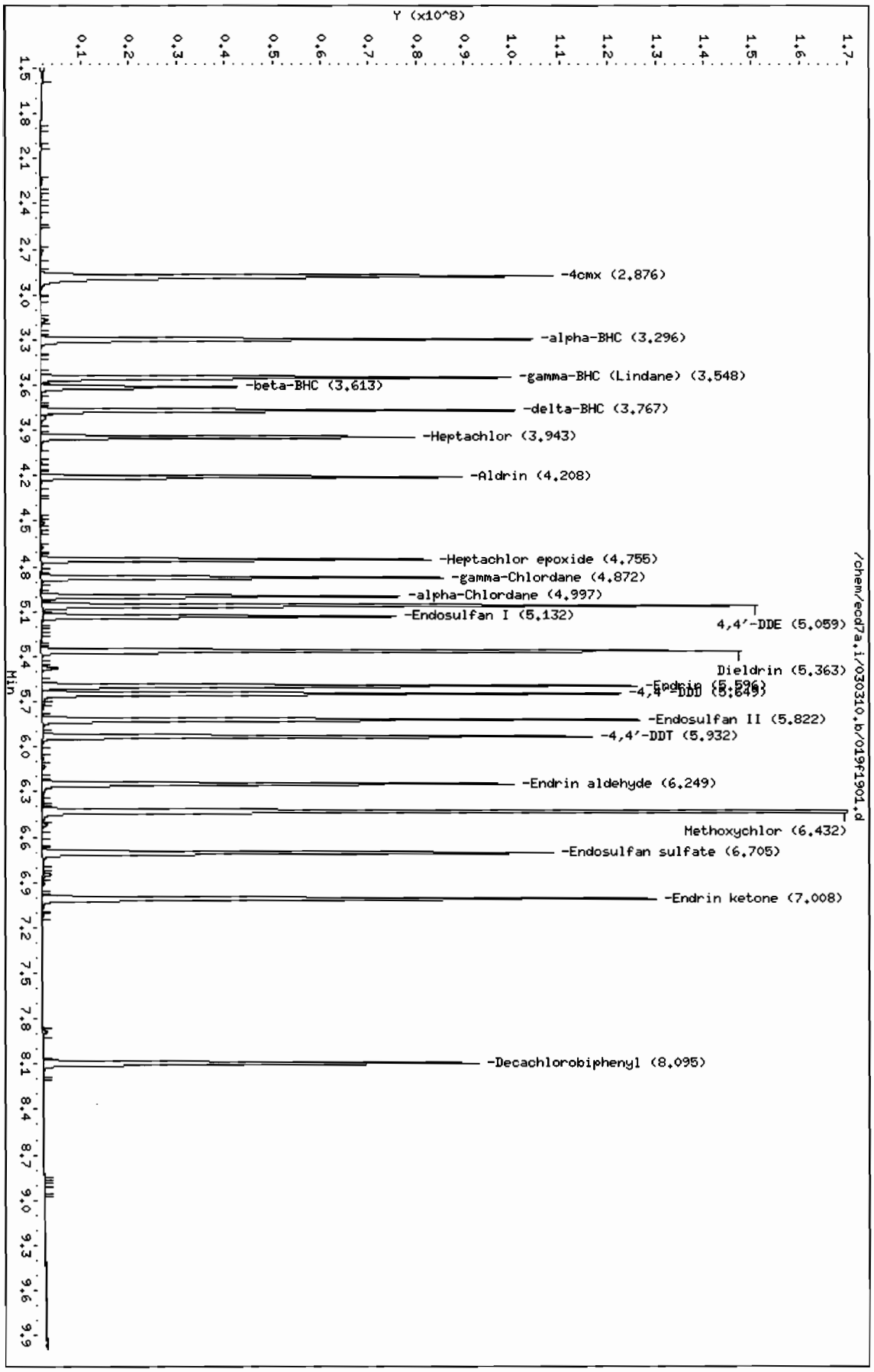

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/019b1901.d
Lab Smp Id: WPE100211-10AB Client Smp ID: INDAB02
Inj Date : 03-MAR-2010 14:35
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100211-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 03-Mar-2010 14:50 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.721	3.722	-0.001	78622347	100.000	106	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.050	4.051	-0.001	70485405	100.000	108	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.114	4.115	-0.001	30791687	100.000	101	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.486	4.487	-0.001	47408249	100.000	101	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.403	4.404	-0.001	69603664	100.000	109	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.816	4.817	-0.001	62255572	100.000	93.3	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.384	5.386	-0.002	56154227	100.000	101	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.581	5.581	0.000	59900349	100.000	103	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.731	5.731	0.000	52613124	100.000	90.8	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.801	5.802	-0.001	53163875	100.000	104	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.881	5.883	-0.002	105218521	200.000	218	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.088	6.089	-0.001	101658916	200.000	205	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.418	6.419	-0.001	84676539	200.000	231	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.500	6.501	-0.001	78118221	200.000	218	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.643	6.643	0.000	92794296	200.000	201	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.003	7.004	-0.001	71588616	200.000	194	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.846	6.847	-0.001	69898656	200.000	228	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.309	7.310	-0.001	81746811	200.000	206	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.590	7.591	-0.001	141471083	1000.00	1100	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.918	7.919	-0.001	93545134	200.000	200	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.195	3.195	0.000	109385317	200.000	195	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.292	9.292	0.000	68389512	200.000	190	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/030310.b/019b1901.d
Date : 03-MAR-2010 14:35
Client ID: INDAB02
Sample Info: IWPE100211-10AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

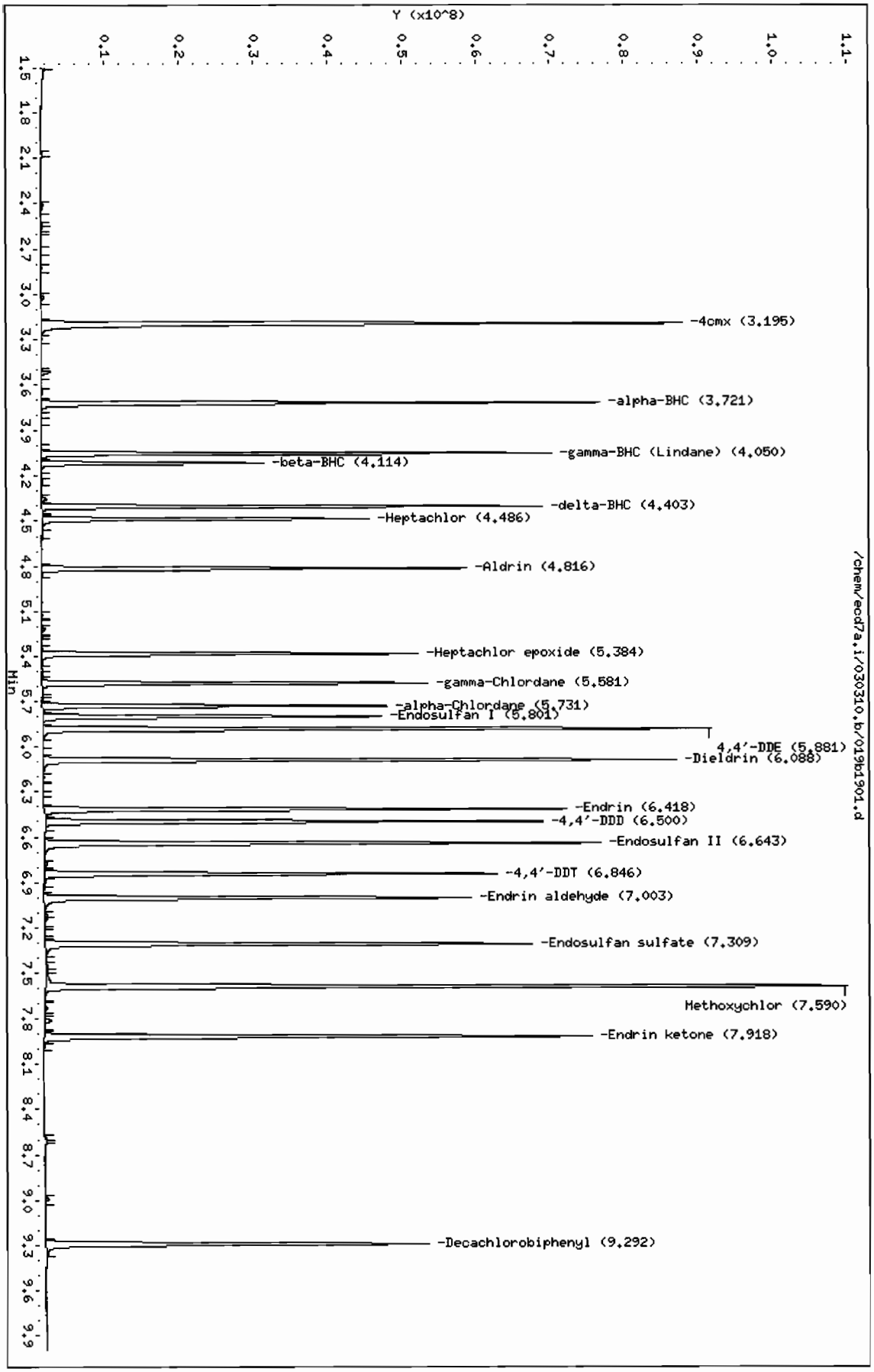

Page 1

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2039

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 02/24/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.88 DCB: 8.10

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/24/10	1359	2.88	8.10
02	PEM01	WPE100211-99	02/24/10	1416	2.87	8.10
03	ZZZZZ	ZZZZZ	02/24/10	1433	2.88	8.10
04	ZZZZZ	ZZZZZ	02/24/10	1450		
05	GAPA01	WPE100114-05	02/24/10	1507	2.88	8.10
06	ZZZZZ	ZZZZZ	02/24/10	1524	2.88	8.10
07	INDAB01	WPE100224-01	02/24/10	1541	2.88	8.10
08	INDAB02	WPE100224-02	02/24/10	1558	2.88	8.10
09	INDAB03	WPE100224-03	02/24/10	1615	2.88	8.10
10	INDAB04	WPE100224-04	02/24/10	1632	2.88	8.10
11	INDAB05	IPE100204-02	02/24/10	1649	2.88	8.10
12	INDAB01	WPE100211-10	02/24/10	1706	2.88	8.10
13	TOXAPH01	WPE100224-11	02/24/10	1724		
14	TOXAPH02	WPE100224-12	02/24/10	1741		
15	TOXAPH03	WPE100224-13	02/24/10	1758		
16	TOXAPH04	WPE100224-14	02/24/10	1815		
17	TOXAPH05	IPE100204-40	02/24/10	1832		
18	TOXAPH01	WPE100125-52	02/24/10	1849		
19	CHLOR01	WPE100224-21	02/24/10	1906	2.87	8.10
20	CHLOR02	WPE100224-22	02/24/10	1923	2.87	8.10
21	CHLOR03	WPE100224-23	02/24/10	1940	2.87	8.10
22	CHLOR04	WPE100224-24	02/24/10	1957	2.88	8.10
23	CHLOR05	IPE100116-06	02/24/10	2014	2.88	8.10
24	CHLOR01	WPE100116-00	02/24/10	2031	2.88	8.10
25	PIBLK02	WAR100219-99	02/24/10	2048	2.88	8.10
26	PEM02	WPE100211-99	02/24/10	2105	2.87	8.10
27	ZZZZZ	ZZZZZ	02/24/10	2122	2.88	8.10
28	ZZZZZ	ZZZZZ	02/24/10	2139	2.88	8.10
29	ZZZZZ	ZZZZZ	02/24/10	2156	2.88	8.10
30	ZZZZZ	ZZZZZ	02/24/10	2214	2.88	8.10
31	PIBLK03	WAR100219-99	02/24/10	2231	2.88	8.10
32	INDAB02	WPE100211-10	02/24/10	2248	2.88	8.10

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2039

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 02/24/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.19 DCB: 9.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/24/10	1359	3.20	9.29
02	PEM01	WPE100211-99	02/24/10	1416	3.19	9.30
03	ZZZZZ	ZZZZZ	02/24/10	1433	3.19	9.30
04	ZZZZZ	ZZZZZ	02/24/10	1450		
05	GAPA01	WPE100114-05	02/24/10	1507	3.19	9.30
06	ZZZZZ	ZZZZZ	02/24/10	1524	3.19	9.30
07	INDAB01	WPE100224-01	02/24/10	1541	3.19	9.30
08	INDAB02	WPE100224-02	02/24/10	1558	3.19	9.30
09	INDAB03	WPE100224-03	02/24/10	1615	3.19	9.30
10	INDAB04	WPE100224-04	02/24/10	1632	3.19	9.30
11	INDAB05	IPE100204-02	02/24/10	1649	3.19	9.30
12	INDAB01	WPE100211-10	02/24/10	1706	3.19	9.30
13	TOXAPH01	WPE100224-11	02/24/10	1724		
14	TOXAPH02	WPE100224-12	02/24/10	1741		
15	TOXAPH03	WPE100224-13	02/24/10	1758		
16	TOXAPH04	WPE100224-14	02/24/10	1815		
17	TOXAPH05	IPE100204-40	02/24/10	1832		
18	TOXAPH01	WPE100125-52	02/24/10	1849		
19	CHLOR01	WPE100224-21	02/24/10	1906	3.19	9.30
20	CHLOR02	WPE100224-22	02/24/10	1923	3.19	9.30
21	CHLOR03	WPE100224-23	02/24/10	1940	3.19	9.30
22	CHLOR04	WPE100224-24	02/24/10	1957	3.19	9.30
23	CHLOR05	IPE100116-06	02/24/10	2014	3.19	9.30
24	CHLOR01	WPE100116-00	02/24/10	2031	3.19	9.30
25	PIBLK02	WAR100219-99	02/24/10	2048	3.19	9.30
26	PEM02	WPE100211-99	02/24/10	2105	3.19	9.30
27	ZZZZZ	ZZZZZ	02/24/10	2122	3.20	9.30
28	ZZZZZ	ZZZZZ	02/24/10	2139	3.20	9.30
29	ZZZZZ	ZZZZZ	02/24/10	2156	3.20	9.30
30	ZZZZZ	ZZZZZ	02/24/10	2214	3.20	9.30
31	PIBLK03	WAR100219-99	02/24/10	2231	3.19	9.30
32	INDAB02	WPE100211-10	02/24/10	2248	3.19	9.30

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2039

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 03/02/10 03/02/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.88 DCB: 8.10

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/02/10	0913	2.88	8.10
02	PEM01	WPE100211-99	03/02/10	0930	2.88	8.10
03	ZZZZZ	ZZZZZ	03/02/10	0947	2.88	8.10
04	TOXAPH01	WPE100125-52	03/02/10	1004		
05	CHLOR01	WPE100116-00	03/02/10	1021	2.88	8.10
06	ZZZZZ	ZZZZZ	03/02/10	1038	2.88	8.10
07	GAPA01	WPE100114-05	03/02/10	1103	2.88	8.10
08	INDAB01	WPE100302-01	03/02/10	1120	2.88	8.10
09	INDAB02	WPE100302-02	03/02/10	1137	2.88	8.10
10	INDAB03	WPE100302-03	03/02/10	1154	2.88	8.10
11	INDAB04	WPE100302-04	03/02/10	1211	2.88	8.10
12	INDAB05	IPE100204-02	03/02/10	1229	2.88	8.10
13	INDAB01	WPE100211-10	03/02/10	1246	2.88	8.10
14	PIBLK02	WAR100219-99	03/02/10	1303	2.88	8.10
15	ZZZZZ	ZZZZZ	03/02/10	1320	2.88	8.10
16	ZZZZZ	ZZZZZ	03/02/10	1337	2.88	8.10
17	ZZZZZ	ZZZZZ	03/02/10	1354	2.88	8.10
18	ZZZZZ	ZZZZZ	03/02/10	1411	2.88	8.10
19	ZZZZZ	ZZZZZ	03/02/10	1428	2.89	8.10
20	ZZZZZ	ZZZZZ	03/02/10	1445	2.88	8.10
21	ZZZZZ	ZZZZZ	03/02/10	1503	2.88	8.10
22	PIBLK03	WAR100219-99	03/02/10	1520	2.88	8.10
23	INDAB02	WPE100211-10	03/02/10	1537	2.88	8.10
24	PIBLK04	WAR100219-99	03/02/10	1554	2.88	8.10
25	ZZZZZ	ZZZZZ	03/02/10	1611	2.88	8.10
26	ZZZZZ	ZZZZZ	03/02/10	1628	2.88	8.10
27	ZZZZZ	ZZZZZ	03/02/10	1645	2.88	8.10
28	ZZZZZ	ZZZZZ	03/02/10	1702	2.88	8.10
29	ZZZZZ	ZZZZZ	03/02/10	1720	2.88	8.10
30	ZZZZZ	ZZZZZ	03/02/10	1737	2.88	8.10
31	ZZZZZ	ZZZZZ	03/02/10	1754	2.88	8.10
32	ZZZZZ	ZZZZZ	03/02/10	1811	2.88	8.10

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2039

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 03/02/10 03/02/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.20 DCB: 9.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/02/10	0913	3.20	9.30
02	PEM01	WPE100211-99	03/02/10	0930	3.19	9.29
03	ZZZZZ	ZZZZZ	03/02/10	0947	3.19	9.30
04	TOXAPH01	WPE100125-52	03/02/10	1004		
05	CHLOR01	WPE100116-00	03/02/10	1021	3.20	9.30
06	ZZZZZ	ZZZZZ	03/02/10	1038	3.19	9.30
07	GAPA01	WPE100114-05	03/02/10	1103	3.20	9.30
08	INDAB01	WPE100302-01	03/02/10	1120	3.20	9.30
09	INDAB02	WPE100302-02	03/02/10	1137	3.20	9.30
10	INDAB03	WPE100302-03	03/02/10	1154	3.20	9.30
11	INDAB04	WPE100302-04	03/02/10	1211	3.20	9.30
12	INDAB05	IPE100204-02	03/02/10	1229	3.20	9.30
13	INDAB01	WPE100211-10	03/02/10	1246	3.20	9.30
14	PIBLK02	WAR100219-99	03/02/10	1303	3.20	9.30
15	ZZZZZ	ZZZZZ	03/02/10	1320	3.20	9.30
16	ZZZZZ	ZZZZZ	03/02/10	1337	3.20	9.30
17	ZZZZZ	ZZZZZ	03/02/10	1354	3.20	9.30
18	ZZZZZ	ZZZZZ	03/02/10	1411	3.20	9.30
19	ZZZZZ	ZZZZZ	03/02/10	1428	3.20	9.30
20	ZZZZZ	ZZZZZ	03/02/10	1445	3.20	9.30
21	ZZZZZ	ZZZZZ	03/02/10	1503	3.20	9.30
22	PIBLK03	WAR100219-99	03/02/10	1520	3.20	9.30
23	INDAB02	WPE100211-10	03/02/10	1537	3.20	9.30
24	PIBLK04	WAR100219-99	03/02/10	1554	3.20	9.30
25	ZZZZZ	ZZZZZ	03/02/10	1611	3.20	9.30
26	ZZZZZ	ZZZZZ	03/02/10	1628	3.20	9.30
27	ZZZZZ	ZZZZZ	03/02/10	1645	3.20	9.30
28	ZZZZZ	ZZZZZ	03/02/10	1702	3.20	9.30
29	ZZZZZ	ZZZZZ	03/02/10	1720	3.20	9.30
30	ZZZZZ	ZZZZZ	03/02/10	1737	3.20	9.30
31	ZZZZZ	ZZZZZ	03/02/10	1754	3.20	9.30
32	ZZZZZ	ZZZZZ	03/02/10	1811	3.20	9.30

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

page 1 of 1

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2039

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 03/02/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.88 DCB: 8.10

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/03/10	0928	2.89	8.10
02	PEM01	WPE100211-99	03/03/10	0945	2.88	8.10
03	INDAB01	WPE100211-10	03/03/10	1002	2.88	8.10
04	TOXAPH01	WPE100125-52	03/03/10	1019		
05	CHLOR01	WPE100116-00	03/03/10	1036	2.88	8.10
06	GAPA01	WPE100114-05	03/03/10	1053	2.88	8.10
07	PIBLK02	WAR100219-99	03/03/10	1110	2.88	8.10
08	PEM02	WPE100211-99	03/03/10	1127	2.88	8.10
09	PBLK01	1202055366	03/03/10	1144	2.88	8.09
10	PBLK01LCS	1202055367	03/03/10	1201	2.88	8.09
11	PBLK01TLCS	1202055370	03/03/10	1218	2.88	8.10
12	CAPA-10-12917	248017004	03/03/10	1235	2.88	8.09
13	CAPA-10-12917MS	1202057240	03/03/10	1253	2.88	8.09
14	CAPA-10-12917MSD	1202057241	03/03/10	1310	2.88	8.10
15	ZZZZZ	ZZZZZ	03/03/10	1327	2.88	8.09
16	ZZZZZ	ZZZZZ	03/03/10	1344	2.88	8.09
17	ZZZZZ	ZZZZZ	03/03/10	1401	2.88	8.10
18	ZZZZZ	ZZZZZ	03/03/10	1418	2.88	8.10
19	INDAB02	WPE100211-10	03/03/10	1435	2.88	8.10
20	PIBLK03	WAR100219-99	03/03/10	1452	2.88	8.10
21	ZZZZZ	ZZZZZ	03/03/10	1509	2.88	8.09
22	ZZZZZ	ZZZZZ	03/03/10	1526	2.88	8.10
23	ZZZZZ	ZZZZZ	03/03/10	1543	2.88	8.10
24	INDAB03	WPE100211-10	03/03/10	1601	2.88	8.10
25	PIBLK04	WAR100219-99	03/03/10	1618	2.88	8.10
26	ZZZZZ	ZZZZZ	03/03/10	1635	2.88	8.10
27	ZZZZZ	ZZZZZ	03/03/10	1652	2.88	8.09
28	ZZZZZ	ZZZZZ	03/03/10	1709	2.88	8.09
29	ZZZZZ	ZZZZZ	03/03/10	1726	2.88	8.09
30	ZZZZZ	ZZZZZ	03/03/10	1743	2.88	8.09
31	ZZZZZ	ZZZZZ	03/03/10	1800	2.88	8.09
32	PIBLK05	WAR100219-99	03/03/10	1817	2.88	8.10

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2039

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 03/02/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.19 DCB: 9.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/03/10	0928	3.20	9.29
02	PEM01	WPE100211-99	03/03/10	0945	3.20	9.29
03	INDAB01	WPE100211-10	03/03/10	1002	3.20	9.29
04	TOXAPH01	WPE100125-52	03/03/10	1019		
05	CHLOR01	WPE100116-00	03/03/10	1036	3.20	9.29
06	GAPA01	WPE100114-05	03/03/10	1053	3.20	9.29
07	PIBLK02	WAR100219-99	03/03/10	1110	3.20	9.29
08	PEM02	WPE100211-99	03/03/10	1127	3.20	9.29
09	PBLK01	1202055366	03/03/10	1144	3.20	9.29
10	PBLK01LCS	1202055367	03/03/10	1201	3.20	9.29
11	PBLK01TLCS	1202055370	03/03/10	1218	3.20	9.29
12	CAPA-10-12917	248017004	03/03/10	1235	3.20	9.29
13	CAPA-10-12917MS	1202057240	03/03/10	1253	3.20	9.29
14	CAPA-10-12917MSD	1202057241	03/03/10	1310	3.20	9.29
15	ZZZZZ	ZZZZZ	03/03/10	1327	3.20	9.29
16	ZZZZZ	ZZZZZ	03/03/10	1344	3.19	9.29
17	ZZZZZ	ZZZZZ	03/03/10	1401	3.19	9.29
18	ZZZZZ	ZZZZZ	03/03/10	1418	3.20	9.29
19	INDAB02	WPE100211-10	03/03/10	1435	3.19	9.29
20	PIBLK03	WAR100219-99	03/03/10	1452	3.19	9.29
21	ZZZZZ	ZZZZZ	03/03/10	1509	3.19	9.29
22	ZZZZZ	ZZZZZ	03/03/10	1526	3.19	9.29
23	ZZZZZ	ZZZZZ	03/03/10	1543	3.20	9.29
24	INDAB03	WPE100211-10	03/03/10	1601	3.19	9.29
25	PIBLK04	WAR100219-99	03/03/10	1618	3.19	9.29
26	ZZZZZ	ZZZZZ	03/03/10	1635	3.19	9.29
27	ZZZZZ	ZZZZZ	03/03/10	1652	3.19	9.29
28	ZZZZZ	ZZZZZ	03/03/10	1709	3.19	9.29
29	ZZZZZ	ZZZZZ	03/03/10	1726	3.19	9.29
30	ZZZZZ	ZZZZZ	03/03/10	1743	3.19	9.29
31	ZZZZZ	ZZZZZ	03/03/10	1800	3.19	9.29
32	PIBLK05	WAR100219-99	03/03/10	1817	3.20	9.29

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

Identification Summary

SDG Number: 10–2039 **Client ID:** CAPA–10–12917MS

Lab Sample ID: 1202057240

Data File:	013f1301.d	**Data File:**	013b1301.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	03–MAR–10 12:53	**Analyzed:**	03–MAR–10 12:53

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							.0397
Column 1	1	3.3	3.27 – 3.33	1.05		ug/L	
Column 2	1	3.72	3.69 – 3.75	1.05		ug/L	
gamma–BHC (Lindane)							.226
Column 1	1	3.55	3.52 – 3.58	1.08		ug/L	
Column 2	1	4.05	4.02 – 4.08	1.07		ug/L	
beta–BHC							39.6
Column 1	1	3.62	3.58 – 3.64	1.58		ug/L	
Column 2	1	4.12	4.08 – 4.14	1.06		ug/L	
delta–BHC							.0347
Column 1	1	3.77	3.74 – 3.8	1.14		ug/L	
Column 2	1	4.4	4.37 – 4.43	1.14		ug/L	
Heptachlor							7.93
Column 1	1	3.95	3.91 – 3.97	1.08		ug/L	
Column 2	1	4.49	4.46 – 4.52	.999		ug/L	

Identification Summary

SDG Number: 10–2039 **Client ID:** CAPA–10–12917MS

Lab Sample ID: 1202057240

Data File:	013f1301.d	**Data File:**	013b1301.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	03–MAR–10 12:53	**Analyzed:**	03–MAR–10 12:53

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							3.76
Column 1	1	4.21	4.18 – 4.24	.957		ug/L	
Column 2	1	4.82	4.79 – 4.85	.922		ug/L	
Heptachlor epoxide							.402
Column 1	1	4.76	4.73 – 4.79	1.05		ug/L	
Column 2	1	5.39	5.36 – 5.42	1.05		ug/L	
gamma–Chlordane							1.27
Column 1	1	4.87	4.84 – 4.9	1.03		ug/L	
Column 2	1	5.58	5.55 – 5.61	1.04		ug/L	
alpha–Chlordane							.601
Column 1	1	5	4.97 – 5.03	1.04		ug/L	
Column 2	1	5.73	5.7 – 5.76	1.04		ug/L	
Endosulfan I							2.12
Column 1	1	5.13	5.1 – 5.16	1.07		ug/L	
Column 2	1	5.8	5.77 – 5.83	1.05		ug/L	

Identification Summary

SDG Number: 10–2039 **Client ID:** CAPA–10–12917MS

Lab Sample ID: 1202057240

Data File:	013f1301.d	**Data File:**	013b1301.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	03–MAR–10 12:53	**Analyzed:**	03–MAR–10 12:53

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE								3.88
	Column 1	1	5.06	5.03 – 5.09	2.71		ug/L	
	Column 2	1	5.88	5.85 – 5.91	2.81		ug/L	
Dieldrin								1.05
	Column 1	1	5.37	5.33 – 5.39	2.63		ug/L	
	Column 2	1	6.09	6.06 – 6.12	2.66		ug/L	
Endrin								.225
	Column 1	1	5.6	5.57 – 5.63	3.27		ug/L	
	Column 2	1	6.42	6.39 – 6.45	3.28		ug/L	
4,4'–DDD								2.15
	Column 1	1	5.65	5.62 – 5.68	2.94		ug/L	
	Column 2	1	6.5	6.47 – 6.53	2.88		ug/L	
Endosulfan II								4.21
	Column 1	1	5.82	5.79 – 5.85	2.52		ug/L	
	Column 2	1	6.64	6.61 – 6.67	2.63		ug/L	

Identification Summary

SDG Number: 10–2039 **Client ID:** CAPA–10–12917MS

Lab Sample ID: 1202057240

Data File:	013f1301.d	**Data File:**	013b1301.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	03–MAR–10 12:53	**Analyzed:**	03–MAR–10 12:53

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							2.97
Column 1	1	6.25	6.22 – 6.28	2.46		ug/L	
Column 2	1	7	6.97 – 7.03	2.39		ug/L	
4,4'–DDT							8.42
Column 1	1	5.93	5.9 – 5.96	3.21		ug/L	
Column 2	1	6.85	6.82 – 6.88	2.95		ug/L	
Endosulfan sulfate							3.81
Column 1	1	6.71	6.68 – 6.74	2.88		ug/L	
Column 2	1	7.31	7.28 – 7.34	2.77		ug/L	
Methoxychlor							3.84
Column 1	1	6.43	6.4 – 6.46	12.6		ug/L	
Column 2	1	7.59	7.56 – 7.62	12.1		ug/L	
Endrin ketone							.26
Column 1	1	7.01	6.98 – 7.04	2.71		ug/L	
Column 2	1	7.92	7.89 – 7.95	2.7		ug/L	

Identification Summary

SDG Number: 10–2039 **Client ID:** CAPA–10–12917MSD

Lab Sample ID: 1202057241

Data File:	014f1401.d	**Data File:**	014b1401.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	03–MAR–10 13:10	**Analyzed:**	03–MAR–10 13:10

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							.413
Column 1	1	3.3	3.27 – 3.33	.531		ug/L	
Column 2	1	3.72	3.69 – 3.75	.533		ug/L	
gamma–BHC (Lindane)							.059
Column 1	1	3.55	3.52 – 3.58	.546		ug/L	
Column 2	1	4.05	4.02 – 4.08	.546		ug/L	
beta–BHC							49.9
Column 1	1	3.62	3.58 – 3.64	.888		ug/L	
Column 2	1	4.12	4.08 – 4.14	.533		ug/L	
delta–BHC							1.33
Column 1	1	3.77	3.74 – 3.8	.565		ug/L	
Column 2	1	4.41	4.37 – 4.43	.573		ug/L	
Heptachlor							8.33
Column 1	1	3.95	3.91 – 3.97	.534		ug/L	
Column 2	1	4.49	4.46 – 4.52	.491		ug/L	

Identification Summary

SDG Number: 10–2039 **Client ID:** CAPA–10–12917MSD

Lab Sample ID: 1202057241

Data File:	014f1401.d	**Data File:**	014b1401.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	03–MAR–10 13:10	**Analyzed:**	03–MAR–10 13:10

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							3.31
Column 1	1	4.21	4.18 – 4.24	.465		ug/L	
Column 2	1	4.82	4.79 – 4.85	.45		ug/L	
Heptachlor epoxide							1.82
Column 1	1	4.76	4.73 – 4.79	.526		ug/L	
Column 2	1	5.39	5.36 – 5.42	.517		ug/L	
gamma–Chlordane							1.18
Column 1	1	4.87	4.84 – 4.9	.51		ug/L	
Column 2	1	5.58	5.55 – 5.61	.516		ug/L	
alpha–Chlordane							.155
Column 1	1	5	4.97 – 5.03	.518		ug/L	
Column 2	1	5.73	5.7 – 5.76	.518		ug/L	
Endosulfan I							1.79
Column 1	1	5.13	5.1 – 5.16	.533		ug/L	
Column 2	1	5.8	5.77 – 5.83	.524		ug/L	

Identification Summary

SDG Number: 10–2039 **Client ID:** CAPA–10–12917MSD

Lab Sample ID: 1202057241

Data File:	014f1401.d	**Data File:**	014b1401.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	03–MAR–10 13:10	**Analyzed:**	03–MAR–10 13:10

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE								6.18
	Column 1	1	5.06	5.03 – 5.09	1.31		ug/L	
	Column 2	1	5.88	5.85 – 5.91	1.4		ug/L	
Dieldrin								.0332
	Column 1	1	5.37	5.33 – 5.39	1.32		ug/L	
	Column 2	1	6.09	6.06 – 6.12	1.32		ug/L	
Endrin								1.25
	Column 1	1	5.6	5.57 – 5.63	1.64		ug/L	
	Column 2	1	6.42	6.39 – 6.45	1.62		ug/L	
4,4'–DDD								1.78
	Column 1	1	5.65	5.62 – 5.68	1.48		ug/L	
	Column 2	1	6.5	6.47 – 6.53	1.45		ug/L	
Endosulfan II								2.49
	Column 1	1	5.82	5.79 – 5.85	1.35		ug/L	
	Column 2	1	6.64	6.61 – 6.67	1.32		ug/L	

Identification Summary

SDG Number: 10–2039 **Client ID:** CAPA–10–12917MSD

Lab Sample ID: 1202057241

Data File:	014f1401.d	**Data File:**	014b1401.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	03–MAR–10 13:10	**Analyzed:**	03–MAR–10 13:10

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							2.11
Column 1	1	6.25	6.22 – 6.28	1.27		ug/L	
Column 2	1	7	6.97 – 7.03	1.24		ug/L	
4,4'–DDT							6.81
Column 1	1	5.93	5.9 – 5.96	1.59		ug/L	
Column 2	1	6.85	6.82 – 6.88	1.49		ug/L	
Endosulfan sulfate							3.9
Column 1	1	6.71	6.68 – 6.74	1.47		ug/L	
Column 2	1	7.31	7.28 – 7.34	1.41		ug/L	
Methoxychlor							4.29
Column 1	1	6.43	6.4 – 6.46	6.28		ug/L	
Column 2	1	7.59	7.56 – 7.62	6.01		ug/L	
Endrin ketone							2.75
Column 1	1	7.01	6.98 – 7.04	1.37		ug/L	
Column 2	1	7.92	7.89 – 7.95	1.33		ug/L	

Identification Summary

SDG Number: 10–2039 **Client ID:** LCS for batch 958412

Lab Sample ID: 1202055367

Data File:	010f1001.d	**Data File:**	010b1001.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	03–MAR–10 12:01	**Analyzed:**	03–MAR–10 12:01

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							.0588
Column 1	1	3.3	3.27 – 3.33	.543		ug/L	
Column 2	1	3.72	3.69 – 3.75	.543		ug/L	
gamma–BHC (Lindane)							1.18
Column 1	1	3.55	3.52 – 3.58	.56		ug/L	
Column 2	1	4.05	4.02 – 4.08	.553		ug/L	
beta–BHC							1.37
Column 1	1	3.61	3.58 – 3.64	.553		ug/L	
Column 2	1	4.11	4.08 – 4.14	.546		ug/L	
delta–BHC							.1
Column 1	1	3.77	3.74 – 3.8	.591		ug/L	
Column 2	1	4.4	4.37 – 4.43	.591		ug/L	
Heptachlor							6.34
Column 1	1	3.94	3.91 – 3.97	.531		ug/L	
Column 2	1	4.49	4.46 – 4.52	.498		ug/L	

Identification Summary

SDG Number: 10–2039 **Client ID:** LCS for batch 958412

Lab Sample ID: 1202055367

Data File:	010f1001.d	**Data File:**	010b1001.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	03–MAR–10 12:01	**Analyzed:**	03–MAR–10 12:01

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin							3.2
Column 1	1	4.21	4.18 – 4.24	.465		ug/L	
Column 2	1	4.82	4.79 – 4.85	.45		ug/L	
Heptachlor epoxide							1.56
Column 1	1	4.76	4.73 – 4.79	.54		ug/L	
Column 2	1	5.39	5.36 – 5.42	.548		ug/L	
gamma–Chlordane							4.58
Column 1	1	4.87	4.84 – 4.9	.499		ug/L	
Column 2	1	5.58	5.55 – 5.61	.522		ug/L	
alpha–Chlordane							2.18
Column 1	1	5	4.97 – 5.03	.526		ug/L	
Column 2	1	5.73	5.7 – 5.76	.515		ug/L	
Endosulfan I							1.7
Column 1	1	5.13	5.1 – 5.16	.545		ug/L	
Column 2	1	5.8	5.77 – 5.83	.536		ug/L	

Identification Summary

SDG Number: 10–2039 **Client ID:** LCS for batch 958412

Lab Sample ID: 1202055367

Data File:	010f1001.d	**Data File:**	010b1001.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	03–MAR–10 12:01	**Analyzed:**	03–MAR–10 12:01

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE								1.12
	Column 1	1	5.06	5.03 – 5.09	1.41		ug/L	
	Column 2	1	5.88	5.85 – 5.91	1.42		ug/L	
Dieldrin								2.87
	Column 1	1	5.36	5.33 – 5.39	1.33		ug/L	
	Column 2	1	6.09	6.06 – 6.12	1.37		ug/L	
Endrin								3.15
	Column 1	1	5.6	5.57 – 5.63	1.66		ug/L	
	Column 2	1	6.42	6.39 – 6.45	1.72		ug/L	
4,4'–DDD								.762
	Column 1	1	5.65	5.62 – 5.68	1.47		ug/L	
	Column 2	1	6.5	6.47 – 6.53	1.46		ug/L	
Endosulfan II								14.1
	Column 1	1	5.82	5.79 – 5.85	1.18		ug/L	
	Column 2	1	6.64	6.61 – 6.67	1.36		ug/L	

Identification Summary

SDG Number: 10–2039 **Client ID:** LCS for batch 958412

Lab Sample ID: 1202055367

Data File:	010f1001.d	**Data File:**	010b1001.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	03–MAR–10 12:01	**Analyzed:**	03–MAR–10 12:01

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							4.1
Column 1	1	6.25	6.22 – 6.28	1.29		ug/L	
Column 2	1	7	6.97 – 7.03	1.24		ug/L	
4,4'–DDT							9.05
Column 1	1	5.93	5.9 – 5.96	1.67		ug/L	
Column 2	1	6.85	6.82 – 6.88	1.52		ug/L	
Endosulfan sulfate							2.72
Column 1	1	6.7	6.68 – 6.74	1.48		ug/L	
Column 2	1	7.31	7.28 – 7.34	1.44		ug/L	
Methoxychlor							4.49
Column 1	1	6.43	6.4 – 6.46	6.37		ug/L	
Column 2	1	7.59	7.56 – 7.62	6.09		ug/L	
Endrin ketone							15.2
Column 1	1	7.01	6.98 – 7.04	1.39		ug/L	
Column 2	1	7.92	7.89 – 7.95	1.62		ug/L	

Identification Summary

SDG Number: 10–2039 **Client ID:** LCS for batch 958412

Lab Sample ID: 1202055370

Data File:	011f1101.d	**Data File:**	011b1101.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	03–MAR–10 12:18	**Analyzed:**	03–MAR–10 12:18

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Toxaphene							1.67
Column 1	1	5.26	5.23 – 5.29	6.27		ug/L	
	2	5.37	5.34 – 5.4	5.68		ug/L	
	3	5.46	5.43 – 5.49	6.4		ug/L	
	4	5.52	5.49 – 5.55	5.79		ug/L	
	5	5.62	5.59 – 5.65	6.01		ug/L	
					6.03		
Column 2	1	6.06	6.02 – 6.08	5.83		ug/L	
	2	6.12	6.09 – 6.15	5.87		ug/L	
	3	6.18	6.15 – 6.21	6.39		ug/L	
	4	6.25	6.22 – 6.28	5.84		ug/L	
	5	6.38	6.35 – 6.41	5.73		ug/L	
					5.93		

QUALITY CONTROL DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202055366**				
Client Sample:	**QC for batch 958412**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 958412**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**958413**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 11:44**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/01/2010 18:08**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**009f0901.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	009b0901.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.020	ug/L	0.005	0.020	1
58-89-9	gamma-BHC (Lindane)	U	0.020	ug/L	0.005	0.020	1
319-85-7	beta-BHC	U	0.020	ug/L	0.006	0.020	1
319-86-8	delta-BHC	U	0.020	ug/L	0.005	0.020	1
76-44-8	Heptachlor	U	0.020	ug/L	0.005	0.020	1
309-00-2	Aldrin	U	0.020	ug/L	0.005	0.020	1
1024-57-3	Heptachlor epoxide	U	0.020	ug/L	0.005	0.020	1
5103-74-2	gamma-Chlordane	U	0.020	ug/L	0.005	0.020	1
5103-71-9	alpha-Chlordane	U	0.020	ug/L	0.005	0.020	1
959-98-8	Endosulfan I	U	0.020	ug/L	0.005	0.020	1
72-55-9	4,4'-DDE	U	0.040	ug/L	0.005	0.040	1
60-57-1	Dieldrin	U	0.040	ug/L	0.010	0.040	1
72-20-8	Endrin	U	0.040	ug/L	0.010	0.040	1
72-54-8	4,4'-DDD	U	0.040	ug/L	0.010	0.040	1
33213-65-9	Endosulfan II	U	0.040	ug/L	0.010	0.040	1
7421-93-4	Endrin aldehyde	U	0.040	ug/L	0.005	0.040	1
50-29-3	4,4'-DDT	U	0.040	ug/L	0.010	0.040	1
1031-07-8	Endosulfan sulfate	U	0.040	ug/L	0.010	0.040	1
72-43-5	Methoxychlor	U	0.200	ug/L	0.050	0.200	1
53494-70-5	Endrin ketone	U	0.040	ug/L	0.010	0.040	1
8001-35-2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.859	1.00	ug/L	85.9	(30%-105%)
Decachlorobiphenyl	0.950	1.00	ug/L	95.0	(30%-126%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/030310.b/009f0901.d
Lab Smp Id: 1202055366 Client Smp ID: PBLK01
Inj Date : 03-MAR-2010 11:44
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202055366|1|
Misc Info : |ECD81A_1L|958413|SVP|MB|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 03-Mar-2010 14:03 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 9 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2039.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.878	2.877	0.001	137936971	171.810	0.859	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.095	8.096	-0.001	114498153	190.907	0.954	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/030310.b/009f0901.d
Date : 03-MAR-2010 11:44
Client ID: PBLK01
Sample Info: |1202055366|1|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

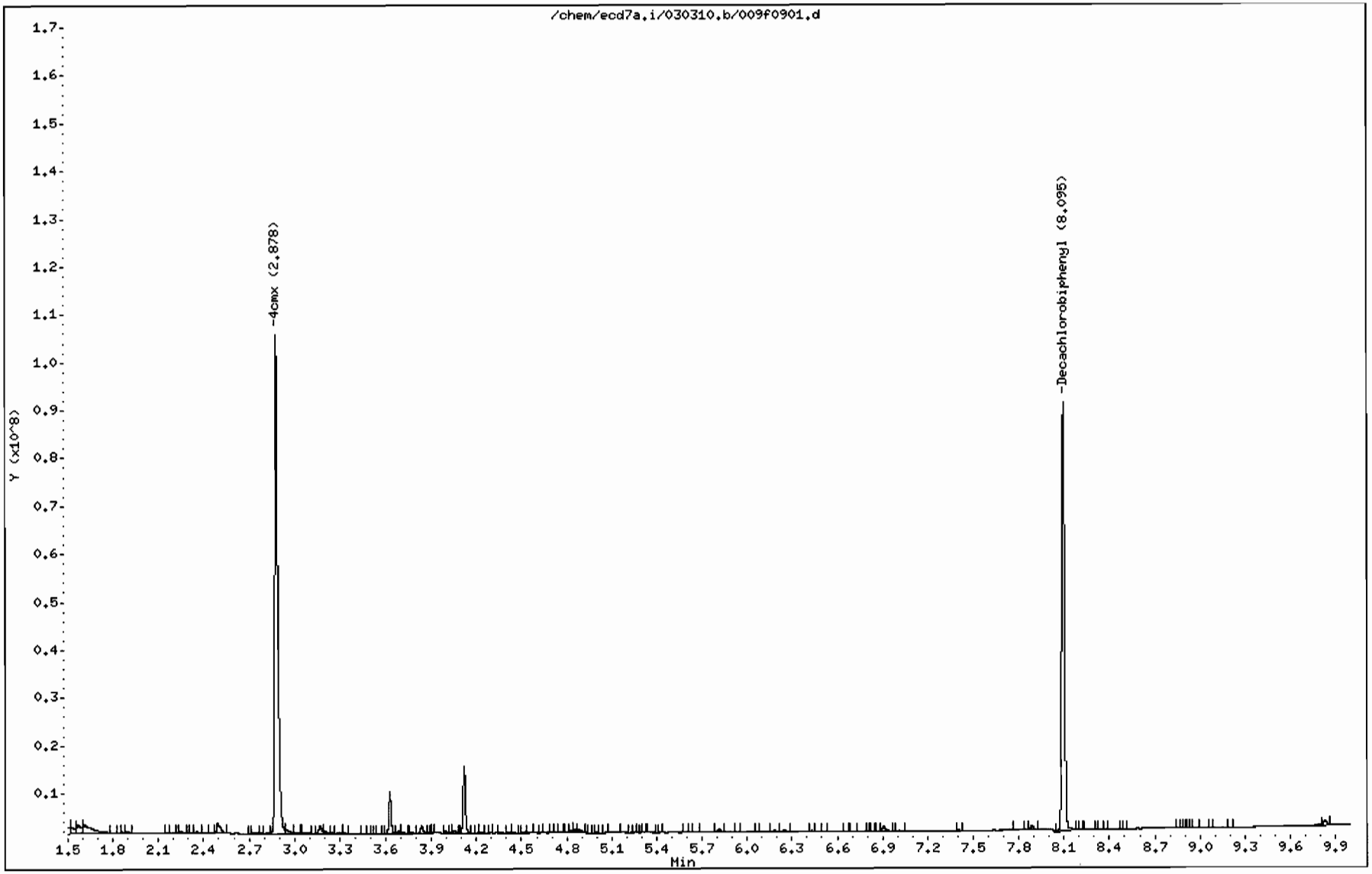

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/009b0901.d
Lab Smp Id: 1202055366 Client Smp ID: PBLK01
Inj Date : 03-MAR-2010 11:44
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202055366|1|
Misc Info : |ECD81A_1L|958413|SVP|MB|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 03-Mar-2010 14:03 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 9 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2039.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.195	0.002	101211221	180.283	0.901	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.292	9.292	0.000	68302966	190.065	0.950	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/030310.b/009b0901.d

Date : 03-MAR-2010 11:44

Client ID: PBLK01

Sample Info: |120205536611|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

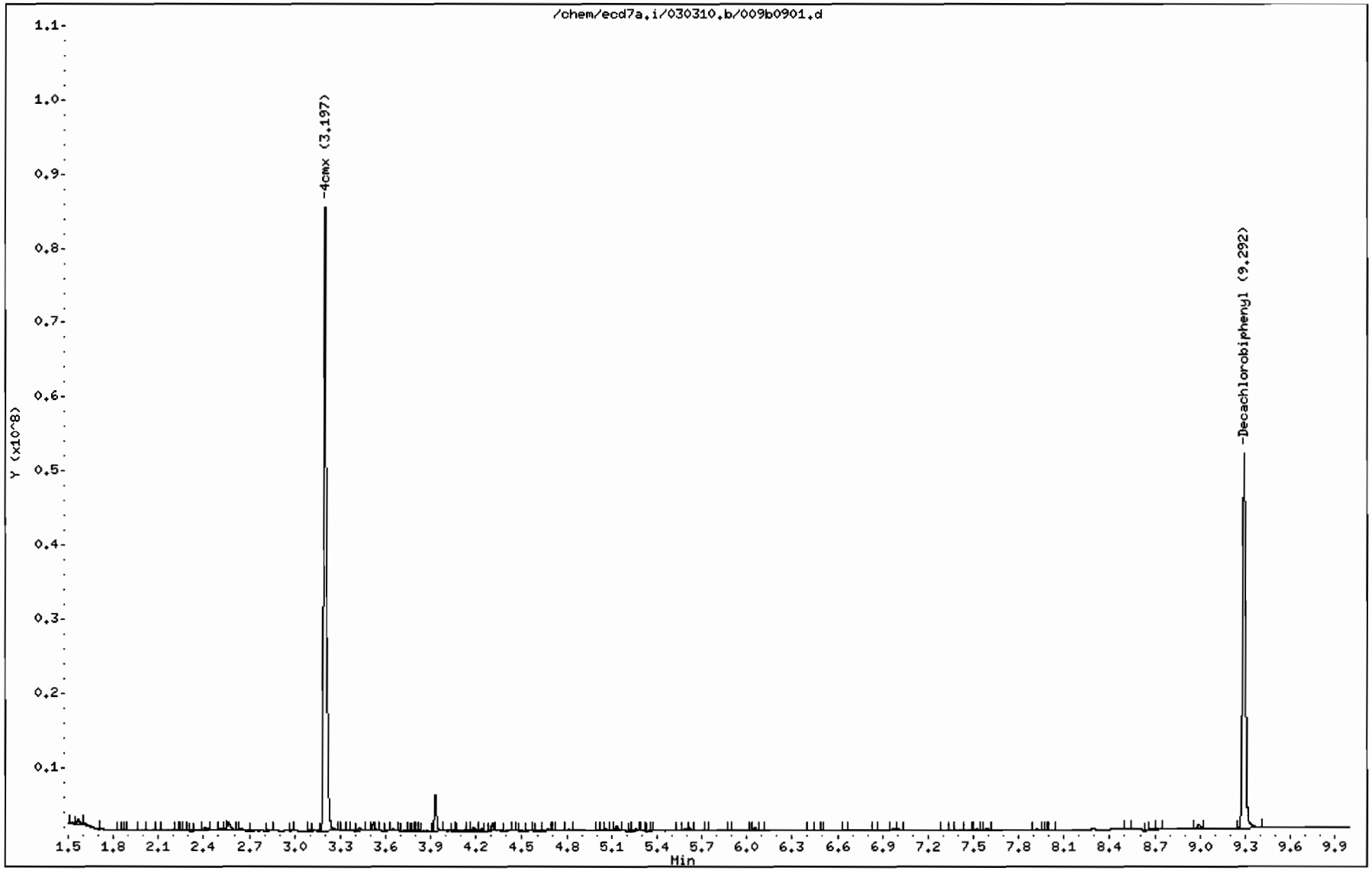

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202055367**				
Client Sample:	**QC for batch 958412**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 958412**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**958413**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 12:01**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/01/2010 18:08**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**010f1001.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	010b1001.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC		0.543	ug/L	0.005	0.020	1
58-89-9	gamma-BHC (Lindane)		0.553	ug/L	0.005	0.020	2
319-85-7	beta-BHC		0.546	ug/L	0.006	0.020	2
319-86-8	delta-BHC		0.591	ug/L	0.005	0.020	2
76-44-8	Heptachlor		0.498	ug/L	0.005	0.020	2
309-00-2	Aldrin		0.450	ug/L	0.005	0.020	2
1024-57-3	Heptachlor epoxide		0.540	ug/L	0.005	0.020	1
5103-74-2	gamma-Chlordane		0.499	ug/L	0.005	0.020	1
5103-71-9	alpha-Chlordane		0.515	ug/L	0.005	0.020	2
959-98-8	Endosulfan I		0.536	ug/L	0.005	0.020	2
72-55-9	4,4'-DDE		1.41	ug/L	0.005	0.040	1
60-57-1	Dieldrin		1.33	ug/L	0.010	0.040	1
72-20-8	Endrin		1.66	ug/L	0.010	0.040	1
72-54-8	4,4'-DDD		1.46	ug/L	0.010	0.040	2
33213-65-9	Endosulfan II		1.18	ug/L	0.010	0.040	1
7421-93-4	Endrin aldehyde		1.24	ug/L	0.005	0.040	2
50-29-3	4,4'-DDT		1.52	ug/L	0.010	0.040	2
1031-07-8	Endosulfan sulfate		1.44	ug/L	0.010	0.040	2
72-43-5	Methoxychlor		6.09	ug/L	0.050	0.200	2
53494-70-5	Endrin ketone		1.39	ug/L	0.010	0.040	1
8001-35-2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.784	1.00	ug/L	78.4	(30%-105%)
Decachlorobiphenyl	0.995	1.00	ug/L	99.5	(30%-126%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/030310.b/010f1001.d
Lab Smp Id: 1202055367 Client Smp ID: PBLK01LCS
Inj Date : 03-MAR-2010 12:01
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202055367|1|
Misc Info : |ECD81A_1L|958413|SVP|LCS|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 03-Mar-2010 14:03 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 10 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2039.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.877	2.877	0.000	125850020	156.755	0.784	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.094	8.096	-0.002	133078177	221.886	1.11	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.297	3.297	0.000	122317978	108.557	0.543	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.549	3.549	0.000	113314072	111.946	0.560	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.614	3.614	0.000	51066827	110.620	0.553	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
13 delta-BHC					CAS #: 319-86-8		
3.768	3.768	0.000	116721351	118.239	0.591	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.944	3.945	-0.001	83430503	106.163	0.531	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.209	4.210	-0.001	90946648	93.0248	0.465	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.756	4.756	0.000	93860709	107.965	0.540	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.872	4.873	-0.001	87412123	99.7638	0.499	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.997	4.998	-0.001	91817036	105.231	0.526	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.133	5.133	0.000	84488096	109.048	0.545	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.060	5.061	-0.001	224640108	281.127	1.40	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.364	5.365	-0.001	214674579	265.719	1.33	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.597	5.598	-0.001	205365253	332.763	1.66	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.649	5.651	-0.002	181656078	294.452	1.47	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.822	5.823	-0.001	166991674	235.712	1.18	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.249	6.251	-0.002	153354625	257.684	1.29	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.932	5.934	-0.002	188789682	333.706	1.67	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.704	6.706	-0.002	180110375	296.694	1.48	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.432	6.433	-0.001	307566891	1273.35	6.37	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.007	7.010	-0.003	216566592	278.837	1.39	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/030310.b/010f1001.d
Date : 03-MAR-2010 12:01
Client ID: PBLK01LCS
Sample Info: 1120205536711
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

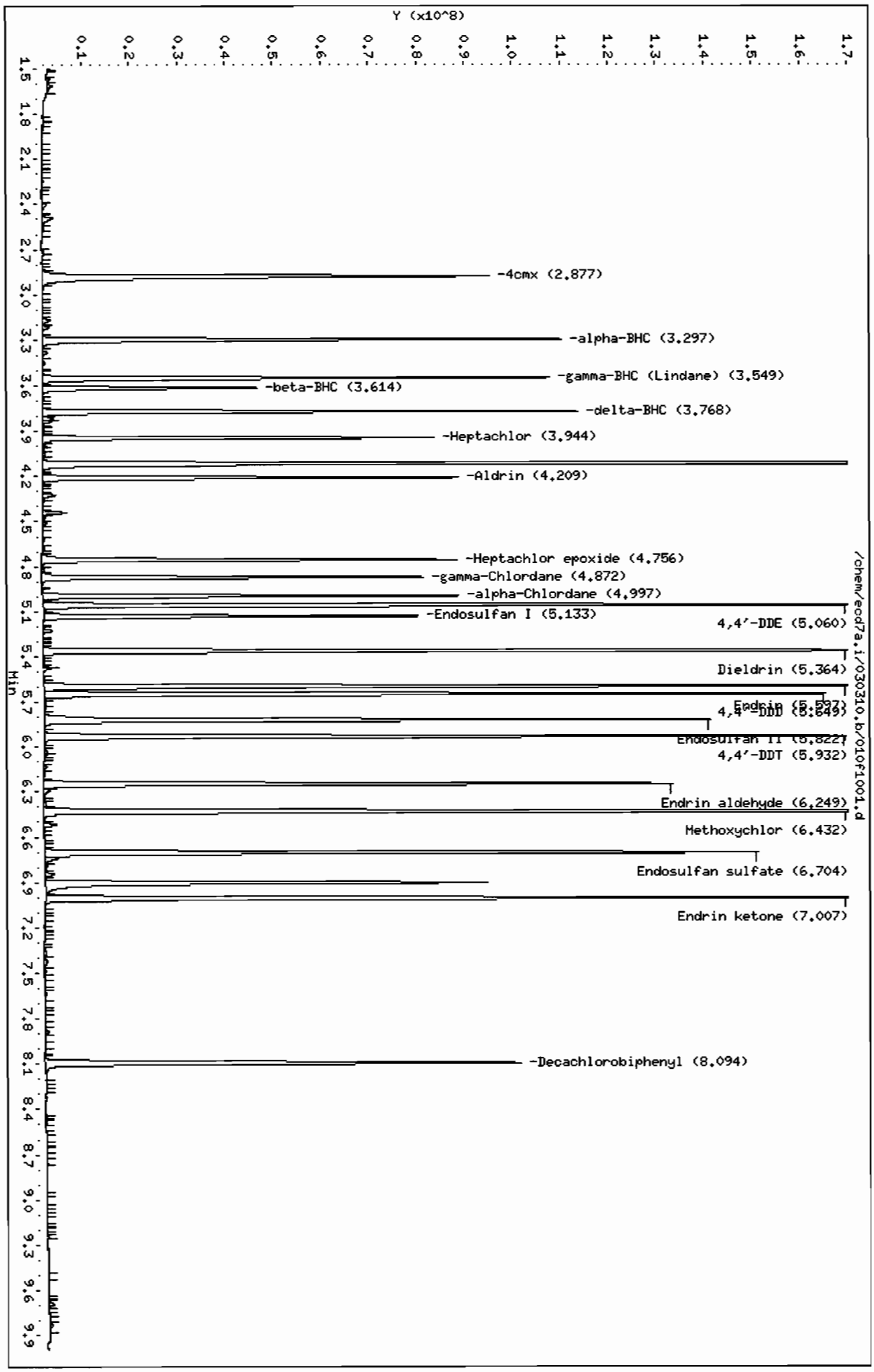

Page 1

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/010b1001.d
Lab Smp Id: 1202055367 Client Smp ID: PBLK01LCS
Inj Date : 03-MAR-2010 12:01
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202055367|1|
Misc Info : |ECD81A_1L|958413|SVP|LCS|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 03-Mar-2010 14:03 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 10 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2039.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.195	3.195	0.000	91958238	163.801	0.819	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.292	9.292	0.000	71488160	198.928	0.995	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.722	3.722	0.000	80451789	108.621	0.543	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.051	4.051	0.000	71908129	110.638	0.553	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.114	4.115	-0.001	33137975	109.116	0.546	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
13 delta-BHC					CAS #: 319-86-8		
4.404	4.404	0.000	75128169	118.121	0.591	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.486	4.487	-0.001	46813699	99.6424	0.498	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.817	4.817	0.000	60090908	90.0959	0.450	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.385	5.386	-0.001	61158401	109.658	0.548	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.581	5.581	0.000	60831633	104.444	0.522	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.732	5.731	0.001	59655809	102.961	0.515	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.801	5.802	-0.001	54971857	107.205	0.536	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.881	5.883	-0.002	137494448	284.304	1.42	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.089	6.089	0.000	135486606	273.458	1.37	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.419	6.419	0.000	126101953	343.427	1.72	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.500	6.501	-0.001	104648452	292.217	1.46	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.642	6.643	-0.001	125004029	271.401	1.36	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.004	7.004	0.000	91064116	247.324	1.24	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.846	6.847	-0.001	93507730	304.803	1.52	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.309	7.310	-0.001	114446478	288.739	1.44	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.589	7.591	-0.002	156478246	1217.39	6.09	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.917	7.919	-0.002	152052369	324.746	1.62	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/030310.b/010b1001.d
Date : 03-MAR-2010 12:01
Client ID: PBLK01LCS
Sample Info: |120205536714|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

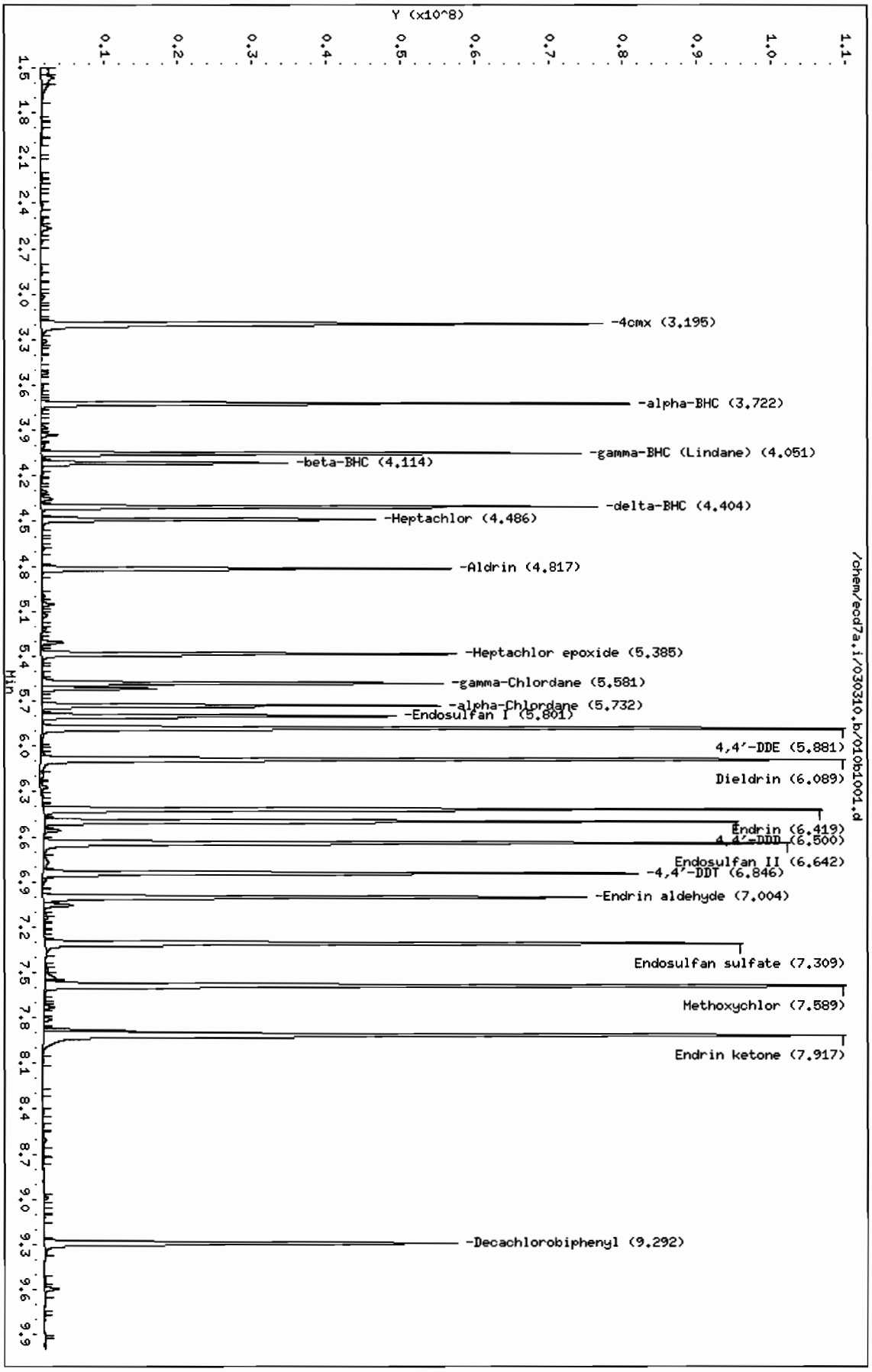

Page 1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2039**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202055370**				
Client Sample:	**QC for batch 958412**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 958412**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**958413**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 12:18**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/01/2010 18:08**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**011f1101.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	011b1101.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.020	ug/L	0.005	0.020	1
58–89–9	gamma–BHC (Lindane)	U	0.020	ug/L	0.005	0.020	1
319–85–7	beta–BHC	U	0.020	ug/L	0.006	0.020	1
319–86–8	delta–BHC	U	0.020	ug/L	0.005	0.020	1
76–44–8	Heptachlor	U	0.020	ug/L	0.005	0.020	1
309–00–2	Aldrin	U	0.020	ug/L	0.005	0.020	1
1024–57–3	Heptachlor epoxide	U	0.020	ug/L	0.005	0.020	1
5103–74–2	gamma–Chlordane	U	0.020	ug/L	0.005	0.020	1
5103–71–9	alpha–Chlordane	U	0.020	ug/L	0.005	0.020	1
959–98–8	Endosulfan I	U	0.020	ug/L	0.005	0.020	1
72–55–9	4,4'–DDE	U	0.040	ug/L	0.005	0.040	1
60–57–1	Dieldrin	U	0.040	ug/L	0.010	0.040	1
72–20–8	Endrin	U	0.040	ug/L	0.010	0.040	1
72–54–8	4,4'–DDD	U	0.040	ug/L	0.010	0.040	1
33213–65–9	Endosulfan II	U	0.040	ug/L	0.010	0.040	1
7421–93–4	Endrin aldehyde	U	0.040	ug/L	0.005	0.040	1
50–29–3	4,4'–DDT	U	0.040	ug/L	0.010	0.040	1
1031–07–8	Endosulfan sulfate	U	0.040	ug/L	0.010	0.040	1
72–43–5	Methoxychlor	U	0.200	ug/L	0.050	0.200	1
53494–70–5	Endrin ketone	U	0.040	ug/L	0.010	0.040	1
8001–35–2	Toxaphene		5.93	ug/L	0.150	0.500	2

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.917	1.00	ug/L	91.7	(30%–105%)
Decachlorobiphenyl	1.10	1.00	ug/L	110	(30%–126%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/030310.b/011f1101.d
Lab Smp Id: 1202055370 Client Smp ID: PBLK01TLCS
Inj Date : 03-MAR-2010 12:18
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202055370|1|
Misc Info : |ECD81A_1L|958413|SVP|TLCS|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 03-Mar-2010 14:03 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 11 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2039.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.878	2.877	0.001	147273747	183.440	0.917	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.095	8.096	-0.001	133236871	222.150	1.11	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.264	5.265	-0.001	9195390	1253.68	6.27	80.00- 120.00	100.00(RM)
5.369	5.370	-0.001	11859729	1136.99	5.68	126.52- 166.52	128.97
5.457	5.458	-0.001	15593286	1280.99	6.40	171.26- 211.26	169.58
5.519	5.516	0.003	18410414	1158.48	5.79	197.47- 237.47	200.21
5.618	5.619	-0.001	18682841	1202.16	6.01	211.88- 251.88	203.18
Average of Peak Concentrations =					6.03		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/030310.b/011f1101.d

Page 1

Date : 03-MAR-2010 12:18

Client ID: PBLK01TLCS

Instrument: ecd7a.i

Sample Info: |120205537011|

Volume Injected (uL): 1.0

Operator: JXM

Column phase: CLP-1

Column diameter: 0.25

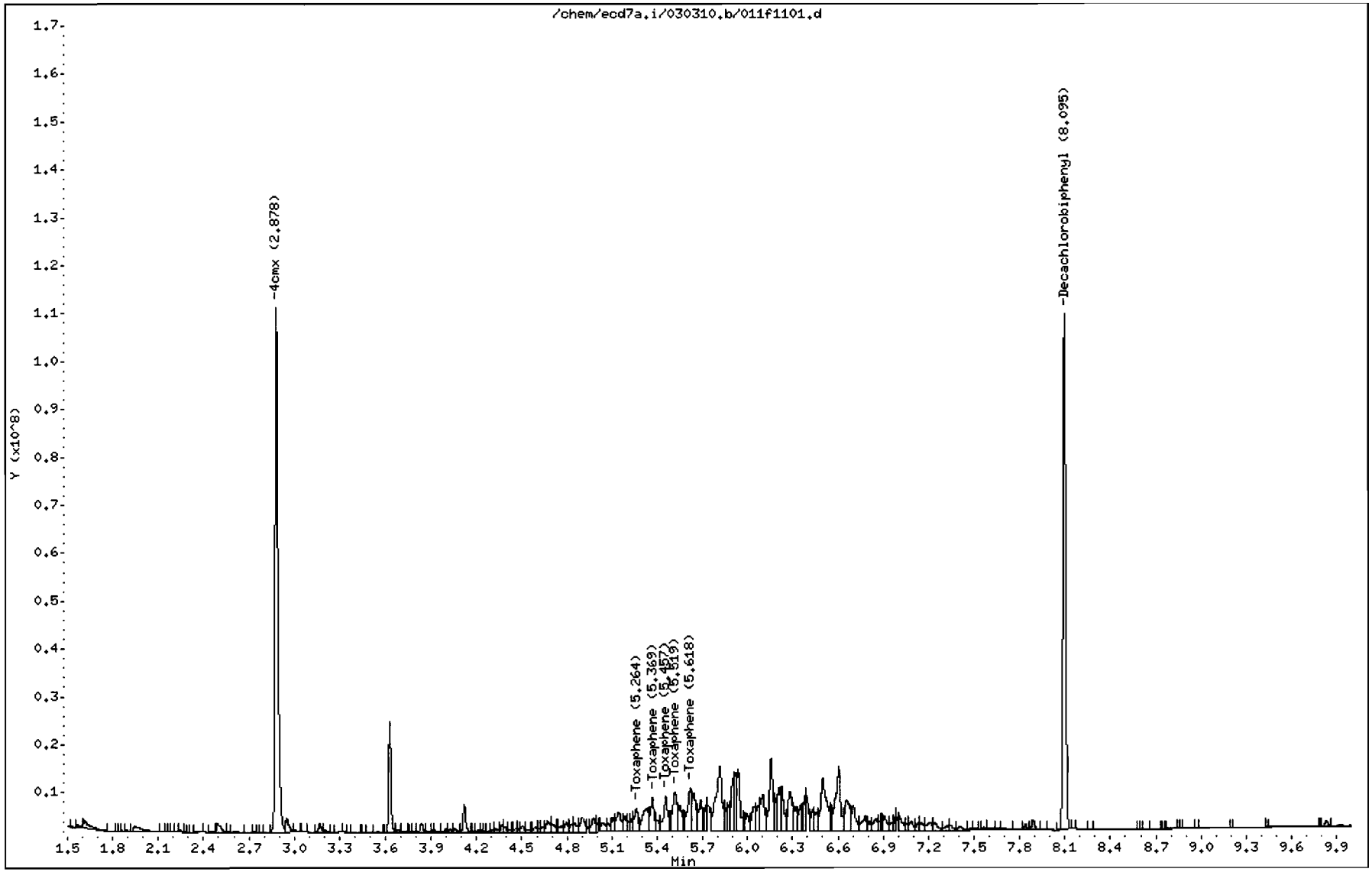

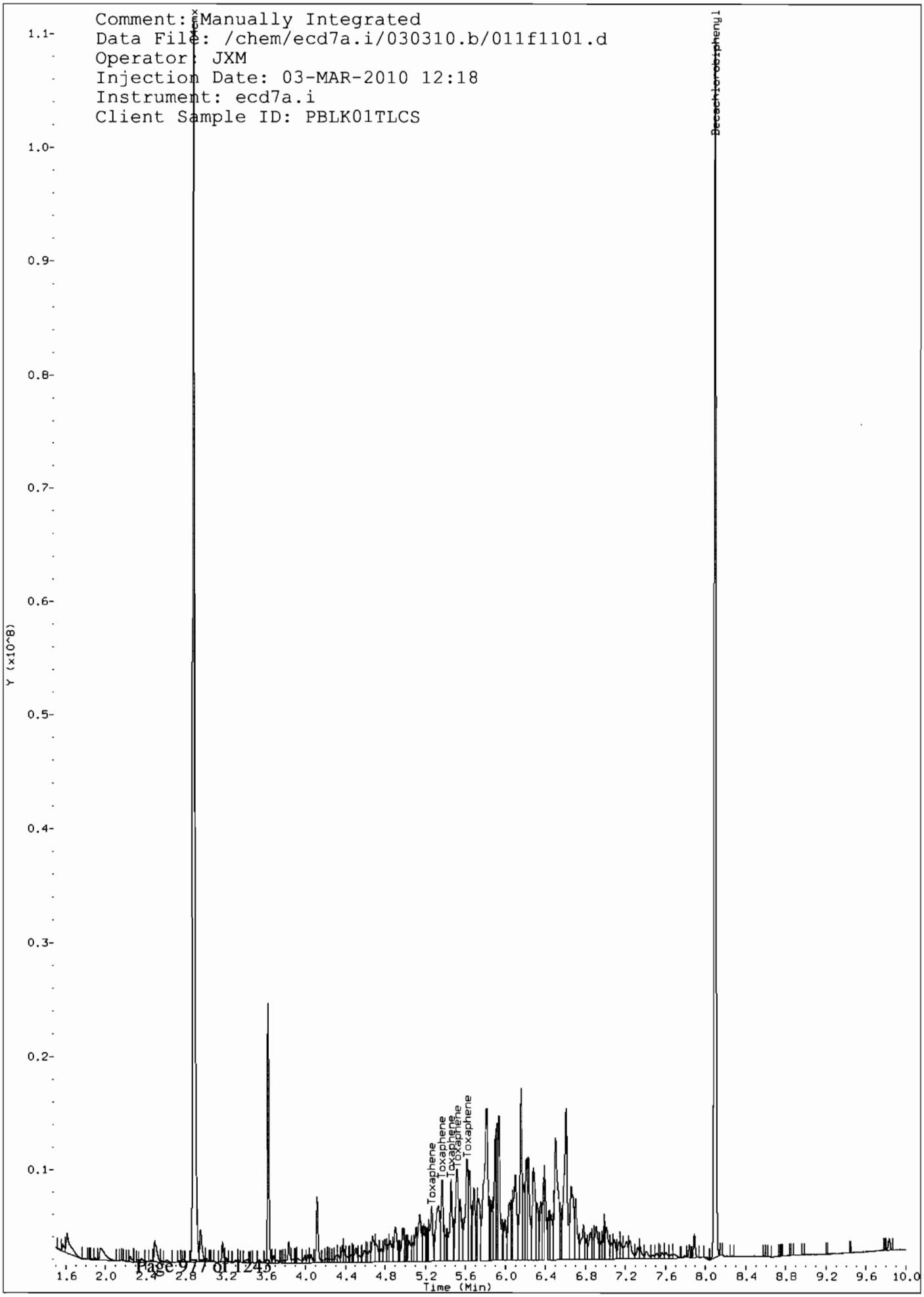
Comment: Manually Integrated
Data File: /chem/ecd7a.i/030310.b/011f1101.d
Operator: JXM
Injection Date: 03-MAR-2010 12:18
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS
Mirex
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^8)
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
1.6 2.0 2.4 2.8 3.2 3.6 4.0 4.4 4.8 5.2 5.6 6.0 6.4 6.8 7.2 7.6 8.0 8.4 8.8 9.2 9.6 10.0
Time (Min)

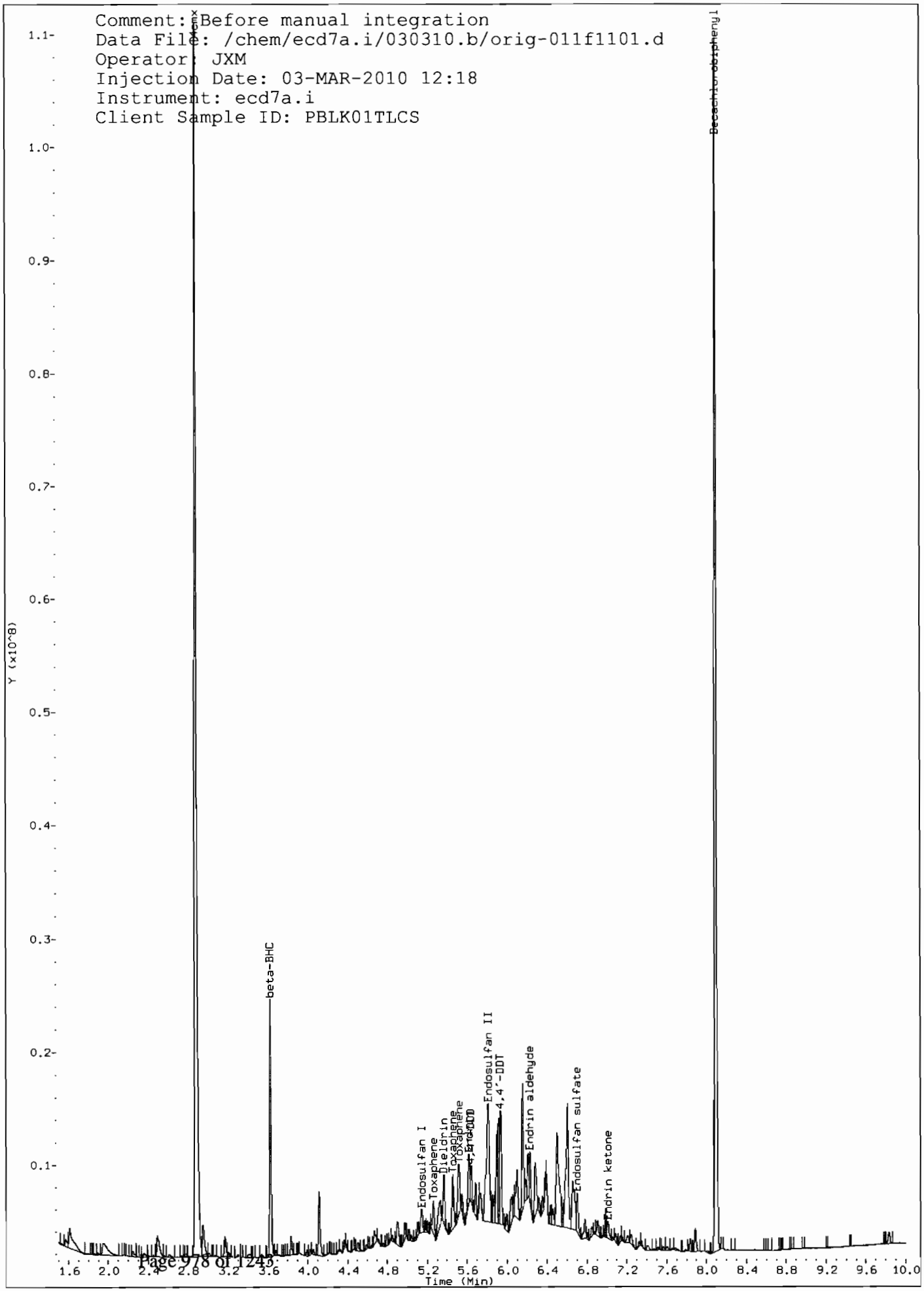
Comment: Before manual integration
Data File: /chem/ecd7a.i/030310.b/orig-011f1101.d
Operator: JXM
Injection Date: 03-MAR-2010 12:18
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS
Mirex
Decachlorobiphenyl
beta-BHC
Endosulfan I
Toxaphene
Dieldrin
Toxaphene
Toxaphene
4,4'-DDD
Endrin
Endosulfan II
4,4'-DDT
Endrin aldehyde
Endosulfan sulfate
Endrin ketone
Y (x10^8)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/011b1101.d
Lab Smp Id: 1202055370 Client Smp ID: PBLK01TLCS
Inj Date : 03-MAR-2010 12:18
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202055370|1|
Misc Info : |ECD81A_1L|958413|SVP|TLCS|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 03-Mar-2010 14:03 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 11 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2039.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.196	3.195	0.001	108503639	193.273	0.966	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.292	9.292	0.000	79082826	220.062	1.10	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
6.062	6.053	0.009	11348711	1165.77	5.83	80.00- 120.00	100.00(RM)
6.120	6.121	-0.001	5159007	1174.28	5.87	22.71- 62.71	91.98
6.184	6.184	0.000	6379473	1278.19	6.39	34.49- 74.49	113.74
6.246	6.248	-0.002	6703127	1167.79	5.84	32.54- 72.54	119.51
6.378	6.380	-0.002	8845136	1146.35	5.73	57.53- 97.53	157.70
			Average of Peak Concentrations =		5.93		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/030310.b/011b1101.d
Date : 03-MAR-2010 12:18
Client ID: PBLK01TLCS
Sample Info: |1202055370|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

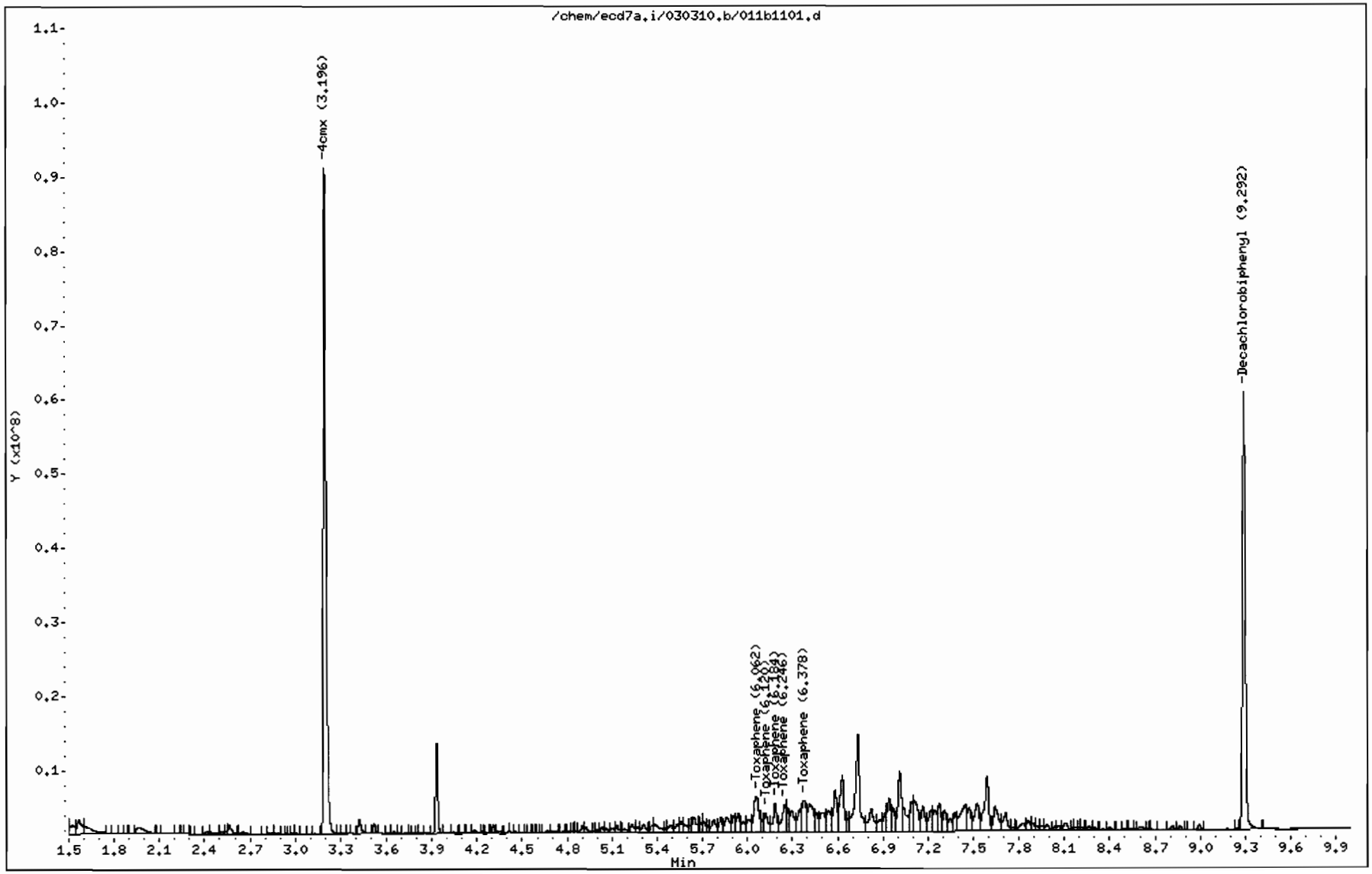

Comment: Manually Integrated
Data File: /chem/ecd7a.i/030310.b/011b1101.d
Operator: JXM
Injection Date: 03-MAR-2010 12:18
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS

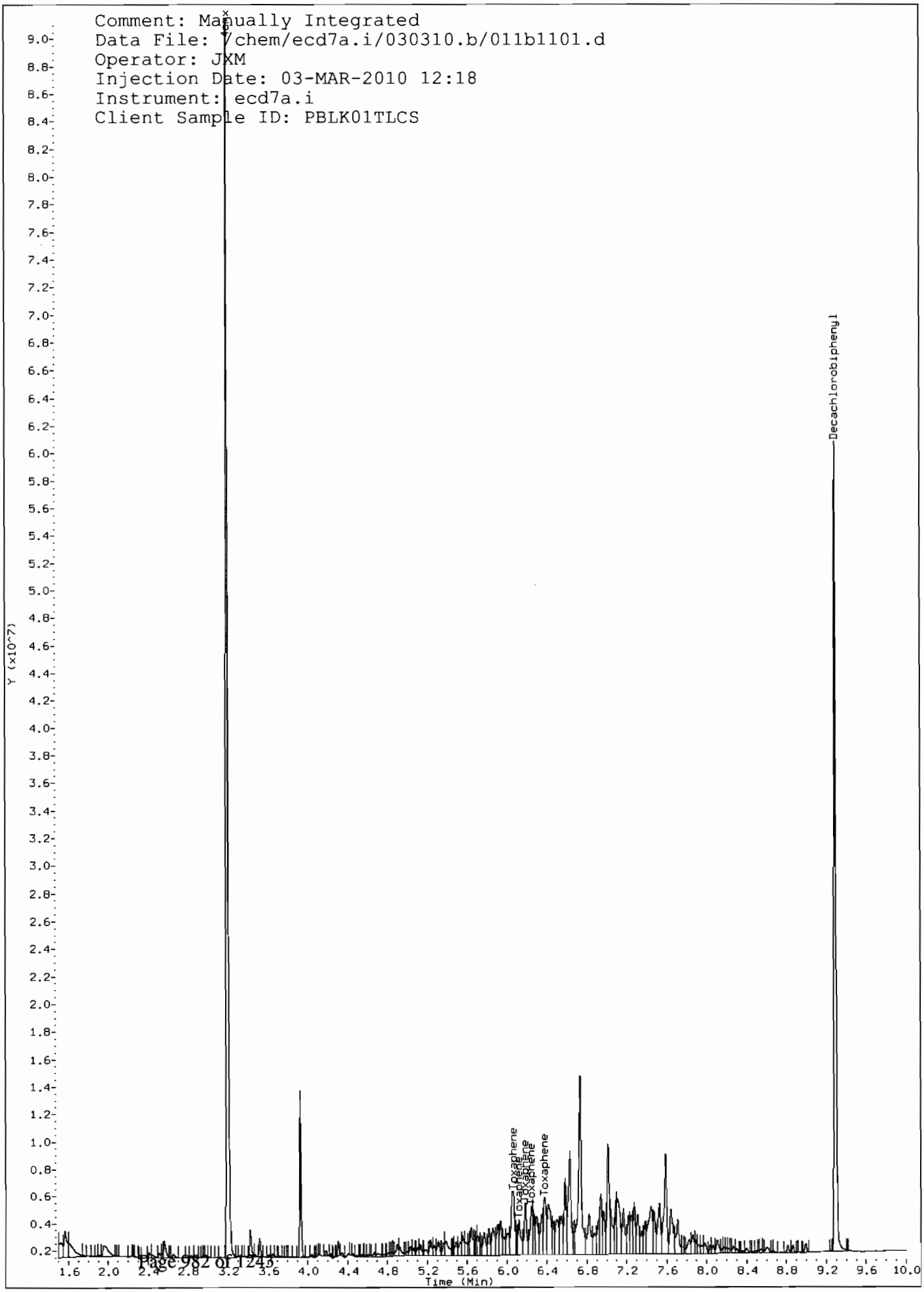

Comment: Before manual integration
Data File: /chem/ecd7a.i/030310.b/orig-011b1101.d
Operator: JKM
Injection Date: 03-MAR-2010 12:18
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS

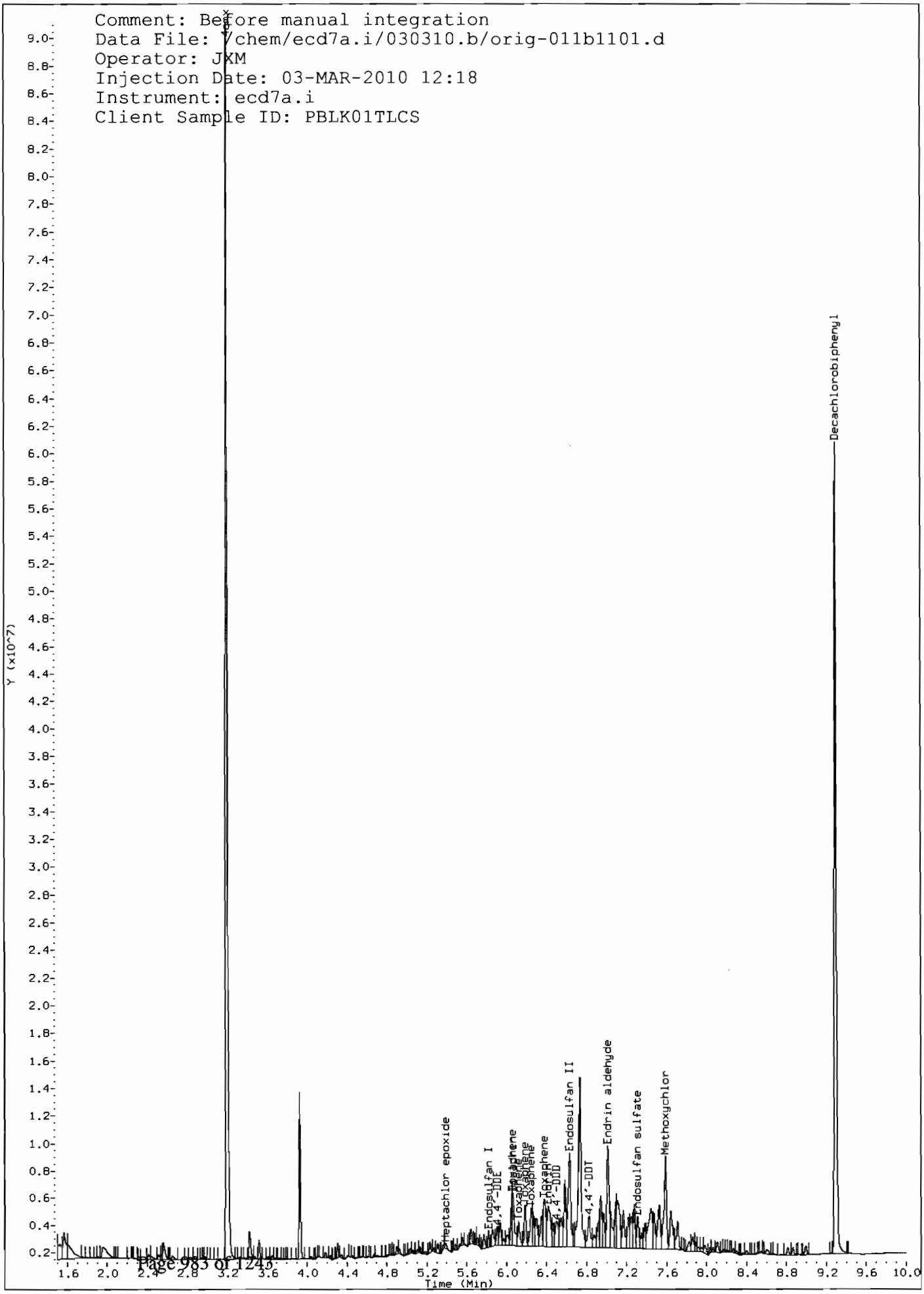

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202057240**	**Date Received:**	**02/25/2010 08:45**		
Client Sample:	**QC for batch 958412**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA–10–12917MS**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**958413**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 12:53**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/01/2010 18:08**	**Aliquot:**	**500 mL**	**Final Volume:**	**2.5 mL**
Data File:	**013f1301.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	013b1301.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC		0.525	ug/L	0.005	0.020	1
58–89–9	gamma–BHC (Lindane)		0.539	ug/L	0.005	0.020	1
319–85–7	beta–BHC		0.792	ug/L	0.006	0.020	1
319–86–8	delta–BHC		0.571	ug/L	0.005	0.020	1
76–44–8	Heptachlor		0.541	ug/L	0.005	0.020	1
309–00–2	Aldrin		0.479	ug/L	0.005	0.020	1
1024–57–3	Heptachlor epoxide		0.527	ug/L	0.005	0.020	1
5103–74–2	gamma–Chlordane		0.514	ug/L	0.005	0.020	1
5103–71–9	alpha–Chlordane		0.522	ug/L	0.005	0.020	1
959–98–8	Endosulfan I		0.535	ug/L	0.005	0.020	1
72–55–9	4,4'–DDE		1.35	ug/L	0.005	0.040	1
60–57–1	Dieldrin		1.32	ug/L	0.010	0.040	1
72–20–8	Endrin		1.63	ug/L	0.010	0.040	1
72–54–8	4,4'–DDD		1.47	ug/L	0.010	0.040	1
33213–65–9	Endosulfan II		1.26	ug/L	0.010	0.040	1
7421–93–4	Endrin aldehyde		1.23	ug/L	0.005	0.040	1
50–29–3	4,4'–DDT		1.60	ug/L	0.010	0.040	1
1031–07–8	Endosulfan sulfate		1.44	ug/L	0.010	0.040	1
72–43–5	Methoxychlor		6.28	ug/L	0.050	0.200	1
53494–70–5	Endrin ketone		1.35	ug/L	0.010	0.040	1
8001–35–2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.818	1.00	ug/L	81.8	(30%–105%)
Decachlorobiphenyl	0.934	1.00	ug/L	93.4	(30%–126%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/030310.b/013f1301.d
Lab Smp Id: 1202057240 Client Smp ID: CAPA-10-12917MS
Inj Date : 03-MAR-2010 12:53
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202057240|1|
Misc Info : |ECD81A_1L|958413|SVP|MS|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 03-Mar-2010 14:03 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 13 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2039.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.878	2.877	0.001	131276517	163.514	0.818	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.095	8.096	-0.001	114415358	190.769	0.954	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.298	3.297	0.001	118225647	104.925	0.525	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.550	3.549	0.001	109028242	107.712	0.538	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.618	3.614	0.004	73110323	158.370	0.792	80.00- 120.00	100.00(R)

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
13 delta-BHC					CAS #: 319-86-8		
3.769	3.768	0.001	112816256	114.283	0.571	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.945	3.945	0.000	84956081	108.104	0.540	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.210	4.210	0.000	93586010	95.7244	0.479	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.756	4.756	0.000	91712331	105.494	0.527	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.874	4.873	0.001	89999415	102.717	0.514	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.998	4.998	0.000	91124234	104.437	0.522	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.134	5.133	0.001	82895869	106.993	0.535	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.061	5.061	0.000	216226929	270.598	1.35	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.365	5.365	0.000	212755912	263.344	1.32	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.599	5.598	0.001	201783704	326.959	1.63	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.649	5.651	-0.002	181609239	294.376	1.47	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.823	5.823	0.000	178514945	251.977	1.26	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.249	6.251	-0.002	146361332	245.933	1.23	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.932	5.934	-0.002	181343294	320.544	1.60	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.705	6.706	-0.001	174771305	287.899	1.44	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.432	6.433	-0.001	303440965	1256.27	6.28	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.008	7.010	-0.002	210452380	270.965	1.35	80.00- 120.00	100.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/030310.b/013f1301.d

Date : 03-MAR-2010 12:53

Client ID: CAPA-10-12917MS

Sample Info: |1202057240|1|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

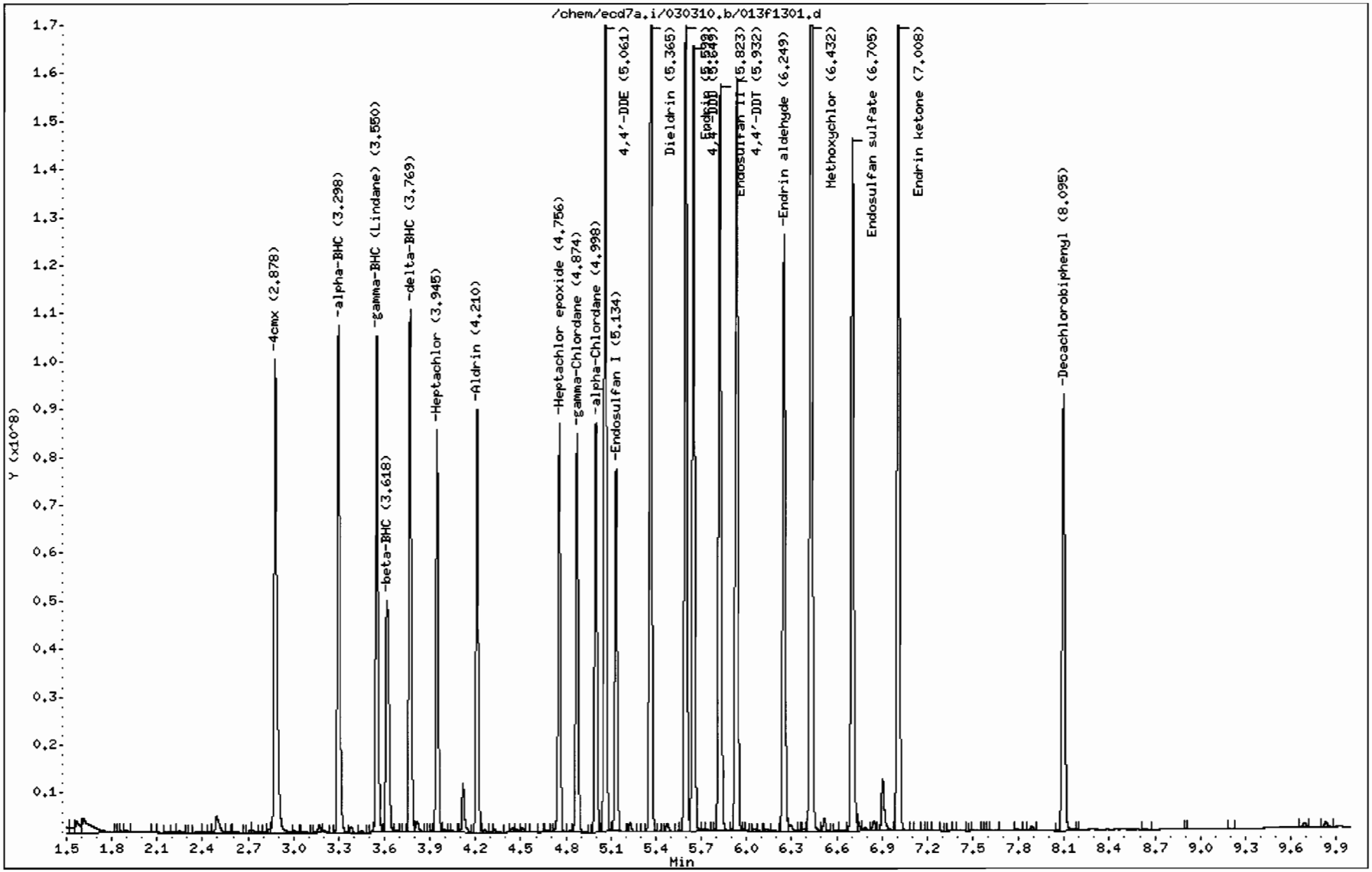

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/013b1301.d
Lab Smp Id: 1202057240 Client Smp ID: CAPA-10-12917MS
Inj Date : 03-MAR-2010 12:53
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202057240|1|
Misc Info : |ECD81A_1L|958413|SVP|MS|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 03-Mar-2010 14:03 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 13 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2039.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.195	0.002	96556409	171.992	0.860	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.292	9.292	0.000	67123489	186.783	0.934	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.723	3.722	0.001	77745323	104.967	0.525	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.052	4.051	0.001	69848251	107.469	0.537	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.115	4.115	0.000	32205432	106.045	0.530	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
13 delta-BHC					CAS #: 319-86-8		
4.405	4.404	0.001	72712700	114.323	0.572	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.488	4.487	0.001	46913988	99.8559	0.499	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.817	4.817	0.000	61489175	92.1923	0.461	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.386	5.386	0.000	58600217	105.071	0.525	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.581	5.581	0.000	60587319	104.025	0.520	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.731	5.731	0.000	60147713	103.810	0.519	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.802	5.802	0.000	53710635	104.745	0.524	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.882	5.883	-0.001	136048042	281.313	1.41	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.090	6.089	0.001	131847130	266.113	1.33	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.419	6.419	0.000	120326235	327.697	1.64	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.500	6.501	-0.001	103181086	288.119	1.44	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.643	6.643	0.000	121049706	262.815	1.31	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.003	7.004	-0.001	87901348	238.734	1.19	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.845	6.847	-0.002	90389226	294.637	1.47	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.309	7.310	-0.001	109843404	277.125	1.38	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.590	7.591	-0.001	155398258	1208.98	6.04	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.917	7.919	-0.002	126542149	270.262	1.35	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/030310.b/013b1301.d
Date : 03-MAR-2010 12:53
Client ID: CAPA-10-12917MS
Sample Info: |1202057240|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

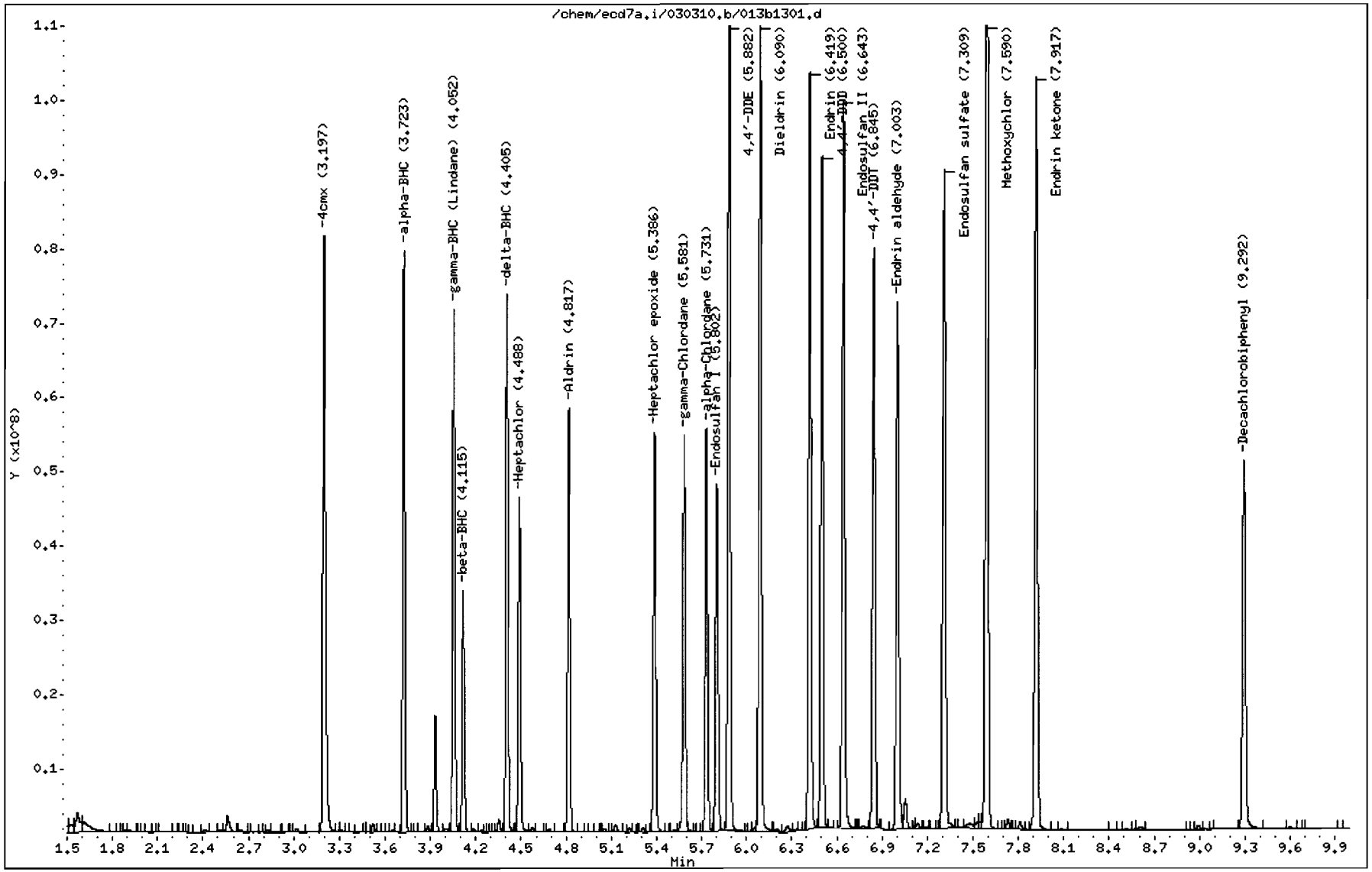

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202057241**	**Date Received:**	**02/25/2010 08:45**		
Client Sample:	**QC for batch 958412**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA–10–12917MSD**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**958413**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 13:10**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/01/2010 18:08**	**Aliquot:**	**500 mL**	**Final Volume:**	**2.5 mL**
Data File:	**014f1401.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	014b1401.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC		0.531	ug/L	0.005	0.020	1
58–89–9	gamma–BHC (Lindane)		0.546	ug/L	0.005	0.020	1
319–85–7	beta–BHC	P	0.888	ug/L	0.006	0.020	1
319–86–8	delta–BHC		0.565	ug/L	0.005	0.020	1
76–44–8	Heptachlor		0.534	ug/L	0.005	0.020	1
309–00–2	Aldrin		0.465	ug/L	0.005	0.020	1
1024–57–3	Heptachlor epoxide		0.526	ug/L	0.005	0.020	1
5103–74–2	gamma–Chlordane		0.510	ug/L	0.005	0.020	1
5103–71–9	alpha–Chlordane		0.518	ug/L	0.005	0.020	1
959–98–8	Endosulfan I		0.533	ug/L	0.005	0.020	1
72–55–9	4,4'–DDE		1.31	ug/L	0.005	0.040	1
60–57–1	Dieldrin		1.32	ug/L	0.010	0.040	1
72–20–8	Endrin		1.64	ug/L	0.010	0.040	1
72–54–8	4,4'–DDD		1.48	ug/L	0.010	0.040	1
33213–65–9	Endosulfan II		1.35	ug/L	0.010	0.040	1
7421–93–4	Endrin aldehyde		1.27	ug/L	0.005	0.040	1
50–29–3	4,4'–DDT		1.59	ug/L	0.010	0.040	1
1031–07–8	Endosulfan sulfate		1.47	ug/L	0.010	0.040	1
72–43–5	Methoxychlor		6.28	ug/L	0.050	0.200	1
53494–70–5	Endrin ketone		1.37	ug/L	0.010	0.040	1
8001–35–2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
4cmx	0.776	1.00	ug/L	77.6	(30%–105%)
Decachlorobiphenyl	0.899	1.00	ug/L	89.9	(30%–126%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/030310.b/014f1401.d
Lab Smp Id: 1202057241 Client Smp ID: CAPA-10-12917MSD
Inj Date : 03-MAR-2010 13:10
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202057241|1|
Misc Info : |ECD81A_1L|958413|SVP|MSD|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 03-Mar-2010 14:03 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 14 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2039.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.878	2.877	0.001	124594598	155.192	0.776	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.096	8.096	0.000	108697549	181.235	0.906	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.298	3.297	0.001	119703412	106.236	0.531	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.550	3.549	0.001	110523449	109.189	0.546	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.623	3.614	0.009	81963850	177.548	0.888	80.00- 120.00	100.00(R)

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
13 delta-BHC					CAS #: 319-86-8		
3.769	3.768	0.001	111646647	113.099	0.565	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.945	3.945	0.000	83865662	106.717	0.534	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.211	4.210	0.001	90910431	92.9877	0.465	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.757	4.756	0.001	91474739	105.220	0.526	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.873	4.873	0.000	89334959	101.958	0.510	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.999	4.998	0.001	90474730	103.692	0.518	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.134	5.133	0.001	82665605	106.695	0.533	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.061	5.061	0.000	209980495	262.781	1.31	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.365	5.365	0.000	212946740	263.581	1.32	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.598	5.598	0.000	202074996	327.431	1.64	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.650	5.651	-0.001	182137396	295.232	1.48	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.822	5.823	-0.001	191737087	270.640	1.35	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.250	6.251	-0.001	151107125	253.908	1.27	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.933	5.934	-0.001	179942540	318.068	1.59	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.706	6.706	0.000	178278101	293.676	1.47	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.432	6.433	-0.001	303183431	1255.20	6.28	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.008	7.010	-0.002	212067781	273.044	1.36	80.00- 120.00	100.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/030310.b/014f1401.d
Date : 03-MAR-2010 13:10
Client ID: CAPA-10-12917MSD
Sample Info: 1120205724111
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

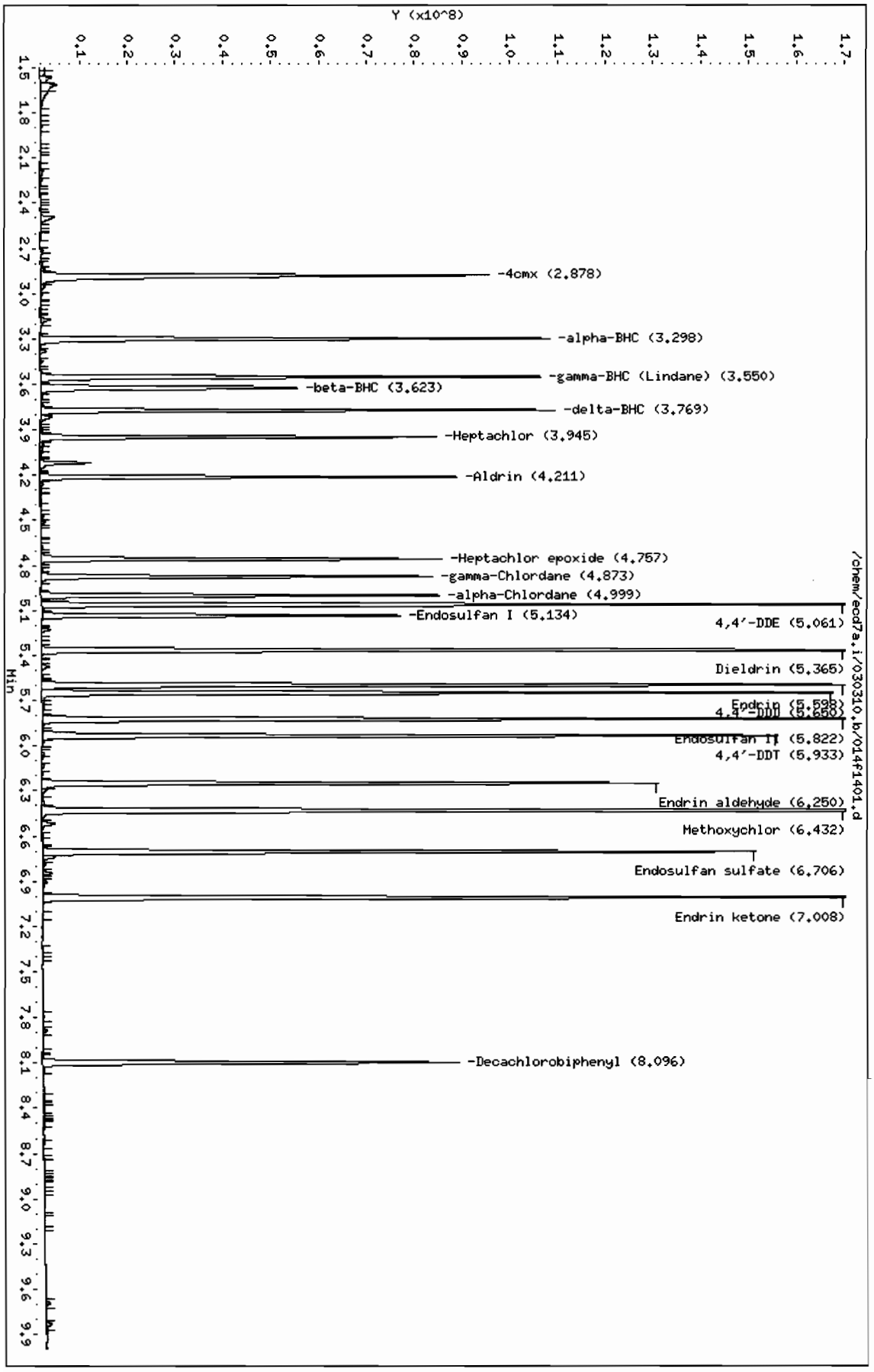

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/014b1401.d
Lab Smp Id: 1202057241 Client Smp ID: CAPA-10-12917MSD
Inj Date : 03-MAR-2010 13:10
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202057241|1|
Misc Info : |ECD81A_1L|958413|SVP|MSD|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 03-Mar-2010 14:03 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 14 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2039.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.196	3.195	0.001	92691717	165.108	0.826	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.293	9.292	0.001	64629980	179.844	0.899	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.723	3.722	0.001	79011572	106.676	0.533	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.052	4.051	0.001	71008545	109.254	0.546	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.115	4.115	0.000	32387629	106.645	0.533	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
13 delta-BHC					CAS #: 319-86-8		
4.406	4.404	0.002	72900374	114.618	0.573	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.488	4.487	0.001	46128948	98.1849	0.491	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.817	4.817	0.000	59998667	89.9576	0.450	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.386	5.386	0.000	57623379	103.319	0.516	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.582	5.581	0.001	60090325	103.171	0.516	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.731	5.731	0.000	59986231	103.532	0.518	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.802	5.802	0.000	53740552	104.803	0.524	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.882	5.883	-0.001	135183016	279.525	1.40	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.090	6.089	0.001	130635987	263.668	1.32	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.419	6.419	0.000	118737668	323.371	1.62	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.500	6.501	-0.001	103865403	290.030	1.45	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.643	6.643	0.000	121585039	263.978	1.32	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.004	7.004	0.000	91539998	248.617	1.24	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.846	6.847	-0.001	91149618	297.116	1.48	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.309	7.310	-0.001	111947251	282.433	1.41	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.590	7.591	-0.001	154556267	1202.43	6.01	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.918	7.919	-0.001	124372781	265.629	1.33	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/030310.b/014b1401.d
Date : 03-MAR-2010 13:10
Client ID: CAPA-10-12917MSD
Sample Info: I120205724111
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

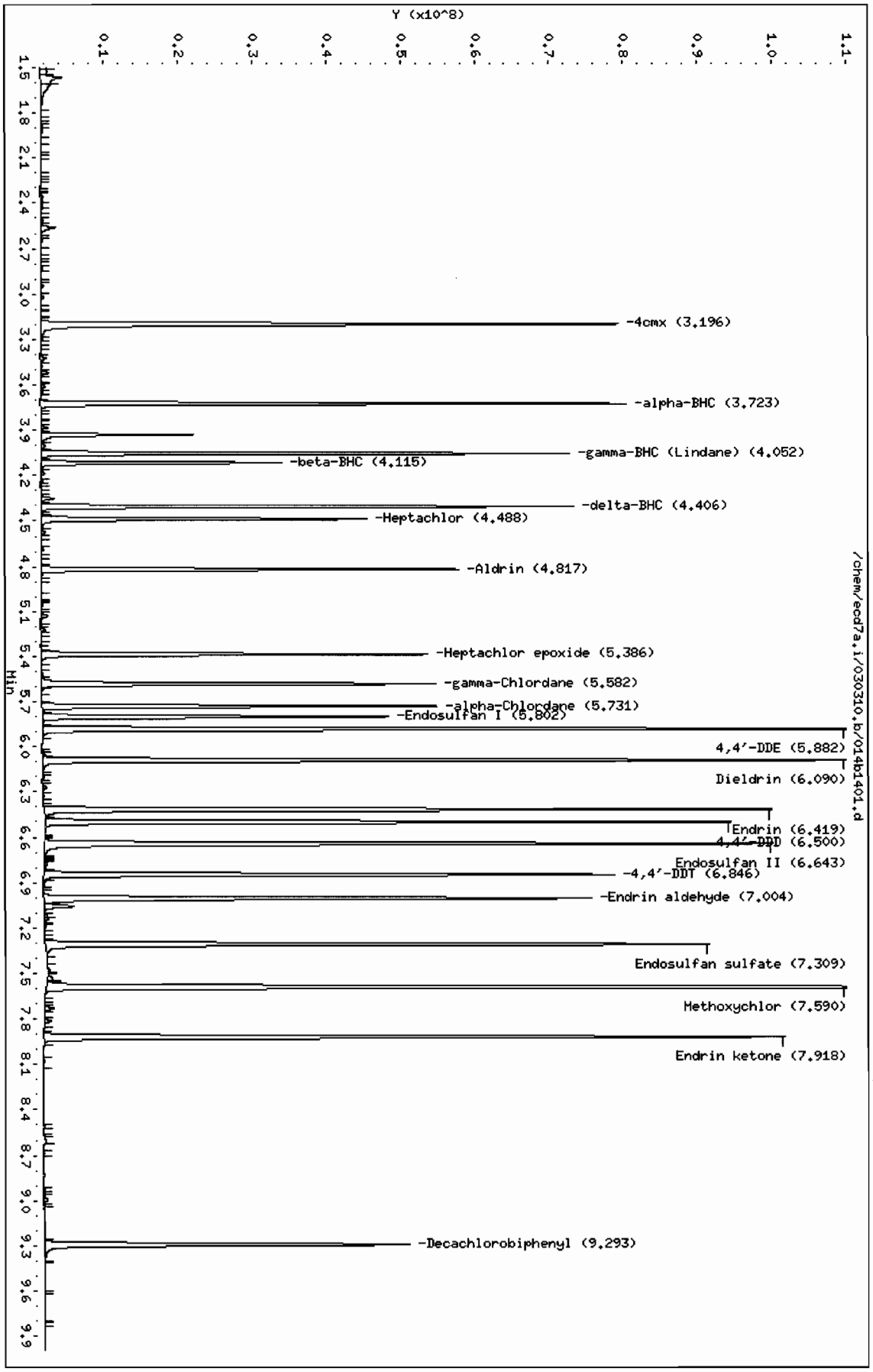

Page 1

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD7

DATE: 02/24/2010 METHOD: ECD7-B-8081-022310.m OPERATOR:JXM REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT
MERCURY LOT

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-041 Organochlorine Pesticides and Chlorinated Hydrocarbons: EPA 8081
8121
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, BD-Percent Endrin and 4,4'-DDT Breakdown, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd7a.i/022410.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR100219-99IB	JXM	24-FEB-2010 13:59		022410	1.0		CLEAN
002b0201.d	WPE100211-99DG	JXM	24-FEB-2010 14:16		022410	1.0		(B)DDT 5.2, ENDRIN 5.8 (F)DDT 2.7, ENDRIN 4.9
003b0301.d	WPE100211-10AB	JXM	24-FEB-2010 14:33		022410	1.0		DUSE
004b0401.d	WPE100125-52TX	JXM	24-FEB-2010 14:50		022410	1.0		DUSE
005b0501.d	WPE100114-05GA	JXM	24-FEB-2010 15:07		022410	1.0		PASSES FOR CARE
006b0601.d	WPE100116-00CL	JXM	24-FEB-2010 15:24		022410	1.0		DUSE
007b0701.d	WPE100224-01AB	JXM	24-FEB-2010 15:41		022410	1.0		INDAB LEVEL 1
008b0801.d	WPE100224-02AB	JXM	24-FEB-2010 15:58		022410	1.0		INDAB LEVEL 2
009b0901.d	WPE100224-03AB	JXM	24-FEB-2010 16:15		022410	1.0		INDAB LEVEL 3
010b1001.d	WPE100224-04AB	JXM	24-FEB-2010 16:32		022410	1.0		INDAB LEVEL 4
011b1101.d	IPE100204-02AB	JXM	24-FEB-2010 16:49		022410	1.0		INDAB LEVEL 5
012b1201.d	WPE100211-10AB	JXM	24-FEB-2010 17:06		022410	1.0		PASSES BOTH COLUMNS
013b1301.d	WPE100224-11TX	JXM	24-FEB-2010 17:24		022410	1.0		TOXAPH LEVEL 1
014b1401.d	WPE100224-12TX	JXM	24-FEB-2010 17:41		022410	1.0		TOXAPH LEVEL 2
015b1501.d	WPE100224-13TX	JXM	24-FEB-2010 17:58		022410	1.0		TOXAPH LEVEL 3

Instrument Batch: /chem/ecd7a.i/022410.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016b1601.d	WPE100224-14TX	JXM	24-FEB-2010 18:15		022410		1.0		TOXAPH LEVEL 4
017b1701.d	IPE100204-40TX	JXM	24-FEB-2010 18:32		022410		1.0		TOXAPH LEVEL 5
018b1801.d	WPE100125-52TX	JXM	24-FEB-2010 18:49		022410		1.0		PASSES BOTH COLUMNS
019b1901.d	WPE100224-21CL	JXM	24-FEB-2010 19:06		022410		1.0		CHLOR LEVEL 1
020b2001.d	WPE100224-22CL	JXM	24-FEB-2010 19:23		022410		1.0		CHLOR LEVEL 2
021b2101.d	WPE100224-23CL	JXM	24-FEB-2010 19:40		022410		1.0		CHLOR LEVEL 3
022b2201.d	WPE100224-24CL	JXM	24-FEB-2010 19:57		022410		1.0		CHLOR LEVEL 4
023b2301.d	IPE100116-06CL	JXM	24-FEB-2010 20:14		022410		1.0		CHLOR LEVEL 5
024b2401.d	WPE100116-00CL	JXM	24-FEB-2010 20:31		022410		1.0		PASSES BOTH COLUMNS
025b2501.d	WAR100219-99IB	JXM	24-FEB-2010 20:48		022410		1.0		CLEAN
026b2601.d	WPE100211-99DG	JXM	24-FEB-2010 21:05		022410		1.0		(B)DDT 8.0, ENDRIN 7.7 (F)DDT 6.0, ENDRIN 6.5
027b2701.d	1202050661	JXM	24-FEB-2010 21:22	956349	EUI-7516		1.0	MB	USE: HIGHER
028b2801.d	1202050662	JXM	24-FEB-2010 21:39	956349	EUI-7516		1.0	LCS	USE: HIGHER
029b2901.d	1202050663	JXM	24-FEB-2010 21:56	956349	EUI-7516		1.0	LCSD	USE: HIGHER
030b3001.d	247409001	JXM	24-FEB-2010 22:14	956349	EUI-7516		1.0	CARE	USE: HIGHER
031b3101.d	WAR100219-99IB	JXM	24-FEB-2010 22:31		022410		1.0		CLEAN
032b3201.d	WPE100211-10AB	JXM	24-FEB-2010 22:48		022410		1.0		PASSES BOTH COLUMNS
033b3301.d	WAR100219-99IB	JXM	24-FEB-2010 23:05		022410		1.0		CLEAN
034b3401.d	1202048141	JXM	24-FEB-2010 23:22	955272	247009		1.0	MB	USE: HIGHER
035b3501.d	1202048142	JXM	24-FEB-2010 23:39	955272	247009		1.0	LCS	USE: HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	247009002	JXM	24-FEB-2010 23:56	955272	247009	1.0	CLSS	USE: HIGHER
037b3701.d	1202048143	JXM	25-FEB-2010 00:13	955272	247009	1.0	MS	USE: HIGHER
038b3801.d	1202048144	JXM	25-FEB-2010 00:30	955272	247009	1.0	MSD	USE: HIGHER
039b3901.d	247009003	JXM	25-FEB-2010 00:47	955272	247009	1.0	CLSS	USE: HIGHER
040b4001.d	WAR100219-99IB	JXM	25-FEB-2010 01:04		022410	1.0		MATRIX CARRYOVER

041b4101.d	WPE100211-10AB	JXM	25-FEB-2010 01:21		022410	1.0		PASSES BOTH COLUMNS
042b4201.d	WAR100219-99IB	JXM	25-FEB-2010 01:38		022410	1.0		SLIGHT MATRIX CARRYOVER
043b4301.d	245420001	JXM	25-FEB-2010 01:55	955536	NY-330_SHW	5.0	PTQA	USE: HIGHER
044b4401.d	1202048594	JXM	25-FEB-2010 02:12	955536	NY-330_SHW	5.0	DUP	USE: HIGHER
045b4501.d	WAR100219-99IB	JXM	25-FEB-2010 02:29		022410	1.0		SLIGHT MATRIX CARRYOVER
046b4601.d	245420001	JXM	25-FEB-2010 02:46	955536	NY-330_SHW	10.0	SVP	DUSE: WRONG SAMPLE DILUTED AND ANALYZED
047b4701.d	1202048594	JXM	25-FEB-2010 03:03	955536	NY-330_SHW	10.0	SVP	DUSE: WRONG SAMPLE DILUTED AND ANALYZED
048b4801.d	WAR100219-99IB	JXM	25-FEB-2010 03:20		022410	1.0		MATRIX CARRYOVER
049b4901.d	WPE100211-10AB	JXM	25-FEB-2010 03:37		022410	1.0		DDT AND METH. LOW ON FRONT
050b5001.d	WAR100219-99IB	JXM	25-FEB-2010 03:54		022410	1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD7

DATE: 03/02/2010 METHOD: ECD7-B-8081-022310.m OPERATOR:JXM REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA936

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-041 Organochlorine Pesticides and Chlorinated Hydrocarbons: EPA 8081
8121
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, BD-Percent Endrin and 4,4'-DDT Breakdown, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd7a.i/030210a.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR100219-99IB	JXM	02-MAR-2010 09:13		030210a	1.0		Clean
002b0201.d	WPE100211-99DG	JXM	02-MAR-2010 09:30		030210a	1.0		(b) DDT 6.3%, Endrin 7.3%; (f) DDT 5.3%, Endrin 6.5%
003b0301.d	WPE100211-10AB	JXM	02-MAR-2010 09:47		030210a	1.0		DUSE
004b0401.d	WPE100125-52TX	JXM	02-MAR-2010 10:04		030210a	1.0		Passes on average for 8081A (All okay 8081B)
005b0501.d	WPE100116-00CL	JXM	02-MAR-2010 10:21		030210a	1.0		All okay
006b0601.d	WPE100211-10AB	JXM	02-MAR-2010 10:38		030210a	1.0		DUSE
007b0701.d	WPE100114-05GA	JXM	02-MAR-2010 11:03		030210a	1.0		All okay
008b0801.d	WPE100302-01AB	JXM	02-MAR-2010 11:20		030210a	1.0		INDAB ICAL level 1
009b0901.d	WPE100302-02AB	JXM	02-MAR-2010 11:37		030210a	1.0		INDAB ICAL level 2
010b1001.d	WPE100302-03AB	JXM	02-MAR-2010 11:54		030210a	1.0		INDAB ICAL level 3
011b1101.d	WPE100302-04AB	JXM	02-MAR-2010 12:11		030210a	1.0		INDAB ICAL level 4
012b1201.d	IPE100204-02AB	JXM	02-MAR-2010 12:29		030210a	1.0		INDAB ICAL level 5
013b1301.d	WPE100211-10AB	JXM	02-MAR-2010 12:46		030210a	1.0		All okay
014b1401.d	WAR100219-99IB	JXM	02-MAR-2010 13:03		030210a	1.0		Clean
015b1501.d	1202051515	JXM	02-MAR-2010 13:20	958404	EUI-7509	1.0	TB	USE, uploaded both columns, reporting higher result

Instrument Batch: /chem/ecd7a.i/030210a.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016b1601.d	1202052746	JXM	02-MAR-2010 13:37	958404	EUI-7515		1.0	TB	USE, uploaded both columns, reporting higher result
017b1701.d	1202055351	JXM	02-MAR-2010 13:54	958404	EUI-7509		1.0	MB	USE, uploaded both columns, reporting higher result NCR - 4cmx low - passes in samples
018b1801.d	1202055358	JXM	02-MAR-2010 14:11	958404	EUI-7509		1.0	LCS	USE, uploaded both columns, reporting higher result
019b1901.d	1202055359	JXM	02-MAR-2010 14:28	958404	EUI-7509		1.0	TLCS	USE, uploaded both columns, reporting higher result
020b2001.d	1202055360	JXM	02-MAR-2010 14:45	958404	EUI-7509		1.0	CLCS	USE, uploaded both columns, reporting higher result
021b2101.d	247407001	JXM	02-MAR-2010 15:03	958404	EUI-7514		1.0	CARE	USE, uploaded both columns, reporting higher result
022b2201.d	WAR100219-99IB	JXM	02-MAR-2010 15:20		030210a		1.0		Clean
023b2301.d	WPE100211-10AB	JXM	02-MAR-2010 15:37		030210a		1.0		All okay
024b2401.d	WAR100219-99IB	JXM	02-MAR-2010 15:54		030210a		1.0		Clean
025b2501.d	247294001	JXM	02-MAR-2010 16:11	958404	EUI-7509		1.0	CARE	USE: HIGHER
026b2601.d	1202055352	JXM	02-MAR-2010 16:28	958404	EUI-7509		1.0	MS	USE: HIGHER
027b2701.d	1202055355	JXM	02-MAR-2010 16:45	958404	EUI-7509		1.0	MSD	USE: HIGHER
028b2801.d	1202055353	JXM	02-MAR-2010 17:02	958404	EUI-7509		1.0	TMS	USE: HIGHER
029b2901.d	1202055356	JXM	02-MAR-2010 17:20	958404	EUI-7509		1.0	TMSD	USE: HIGHER
030b3001.d	1202055354	JXM	02-MAR-2010 17:37	958404	EUI-7509		1.0	CMS	USE: HIGHER
031b3101.d	1202055357	JXM	02-MAR-2010 17:54	958404	EUI-7509		1.0	CMSD	USE: HIGHER
032b3201.d	247408001	JXM	02-MAR-2010 18:11	958404	EUI-7515		1.0	CARE	USE: HIGHER
033b3301.d	WAR100219-99IB	JXM	02-MAR-2010 18:28		030210a		1.0		CLEAN
034b3401.d	WPE100211-10AB	JXM	02-MAR-2010 18:45		030210a		1.0		PASSES BOTH COLUMNS
035b3501.d	WAR100219-99IB	JXM	02-MAR-2010 19:02		030210a		1.0		CLEAN

10H

Instrument Batch: /chem/ecd7a.i/030210a.b Page: 2

10H16.6H

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	1202055375	JXM	02-MAR-2010 19:19	958418	EUI-7519	1.0	MB	USE: HIGHER
037b3701.d	1202055376	JXM	02-MAR-2010 19:36	958418	EUI-7519	1.0	LCS	USE: HIGHER
038b3801.d	1202055379	JXM	02-MAR-2010 19:54	958418	EUI-7519	1.0	LCSD	USE: HIGHER
039b3901.d	247819001	JXM	02-MAR-2010 20:11	958418	EUI-7519	1.0	CARE	USE: HIGHER

040b4001.d	WAR100219-99IB	JXM	02-MAR-2010 20:28		030210a		1.0		MATRIX CARRYOVER
041b4101.d	WPE100211-10AB	JXM	02-MAR-2010 20:45		030210a		1.0		PASSES BOTH COLUMNS
042b4201.d	WAR100219-99IB	JXM	02-MAR-2010 21:02		030210a		1.0		SLIGHT MATRIX CARRYOVER
043b4301.d	WPE100211-99DG	JXM	02-MAR-2010 21:19		030210a		1.0		(b) DDT 22%, Endrin 7.5%; (f) DDT 20%, Endrin 7.1%
044b4401.d	1202055366	JXM	02-MAR-2010 21:36	958413	10-2039		1.0	MB	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
045b4501.d	1202055367	JXM	02-MAR-2010 21:53	958413	10-2039		1.0	LCS	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
046b4601.d	1202055370	JXM	02-MAR-2010 22:10	958413	10-2039		1.0	TLCS	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
047b4701.d	248017004	JXM	02-MAR-2010 22:27	958413	10-2039		1.0	LANL	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
048b4801.d	1202057240	JXM	02-MAR-2010 22:44	958413	10-2039		1.0	MS	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
049b4901.d	1202057241	JXM	02-MAR-2010 23:02	958413	10-2039		1.0	MSD	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
050b5001.d	248040003	JXM	02-MAR-2010 23:19	958413	10-2051		1.0	LANL	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
051b5101.d	248042003	JXM	02-MAR-2010 23:36	958413	10-2057		1.0	LANL	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
052b5201.d	248042011	JXM	02-MAR-2010 23:53	958413	10-2057		1.0	LANL	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
053b5301.d	248042014	JXM	03-MAR-2010 00:10	958413	10-2057		1.0	LANL	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
054b5401.d	WPE100211-10AB	JXM	03-MAR-2010 00:27		030210a		1.0		PASSES BOTH COLUMNS
055b5501.d	WAR100219-99IB	JXM	03-MAR-2010 00:44		030210a		1.0		CLEAN

10H

Instrument Batch: /chem/ecd7a.i/030210a.b Page: 3

10H16.6H

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056b5601.d	248047004	JXM	03-MAR-2010 01:01	958413	10-2045	1.0	LANL	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
057b5701.d	248047008	JXM	03-MAR-2010 01:18	958413	10-2045	1.0	LANL	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
058b5801.d	248047010	JXM	03-MAR-2010 01:35	958413	10-2045	1.0	LANL	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
059b5901.d	WPE100211-10AB	JXM	03-MAR-2010 01:52		030210a	1.0		PASSES BOTH COLUMNS
060b6001.d	WAR100219-99IB	JXM	03-MAR-2010 02:09		030210a	1.0		CLEAN
061b6101.d	1202056014	JXM	03-MAR-2010 02:26	958674	10-1876	1.0	MB	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
062b6201.d	1202056015	JXM	03-MAR-2010 02:44	958674	10-1876	1.0	LCS	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
063b6301.d	1202056018	JXM	03-MAR-2010 03:01	958674	10-1876	1.0	TLCS	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
064b6401.d	247552002	JXM	03-MAR-2010 03:18	958674	10-1970	1.0	LANL	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310

065b6501.d	1202056016	JXM	03-MAR-2010 03:35	958674	10-1970		1.0	MS	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
066b6601.d	1202056017	JXM	03-MAR-2010 03:52	958674	10-1970		1.0	MSD	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
067b6701.d	WAR100219-99IB	JXM	03-MAR-2010 04:09		030210a		1.0		CLEAN
068b6801.d	WPE100211-10AB	JXM	03-MAR-2010 04:26		030210a		1.0		PASSES BOTH COLUMNS
069b6901.d	WAR100219-99IB	JXM	03-MAR-2010 04:43		030210a		1.0		CLEAN
070b7001.d	247245001	JXM	03-MAR-2010 05:00	958674	10-1876		10.0	LANL	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
071b7101.d	247245002	JXM	03-MAR-2010 05:17	958674	10-1876		10.0	LANL	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
072b7201.d	247245003	JXM	03-MAR-2010 05:34	958674	10-1876		10.0	LANL	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
073b7301.d	247245004	JXM	03-MAR-2010 05:51	958674	10-1876		10.0	LANL	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
074b7401.d	247245006	JXM	03-MAR-2010 06:08	958674	10-1876		10.0	LANL	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
075b7501.d	247325001	JXM	03-MAR-2010 06:25	958674	10-1896		10.0	LANL	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310

10H

Instrument Batch: /chem/ecd7a.i/030210a.b Page: 4

10H16.6H

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076b7601.d	WAR100219-99IB	JXM	03-MAR-2010 06:42		030210a		1.0		MATRIX CARRYOVER
077b7701.d	WPE100211-10AB	JXM	03-MAR-2010 06:59		030210a		1.0		DDT AND METHOXYCHLOR LOW ON BOTH COLUMNS
078b7801.d	WAR100219-99IB	JXM	03-MAR-2010 07:16		030210a		1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD7

DATE: 03/03/2010 METHOD: ECD7-B-8081-022310.m OPERATOR:JXM REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT
MERCURY LOT

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-041 Organochlorine Pesticides and Chlorinated Hydrocarbons: EPA 8081
8121
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, BD-Percent Endrin and 4,4'-DDT Breakdown, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd7a.i/030310.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR100219-99IB	JXM	03-MAR-2010 09:28		030310	1.0		CLEAN
002b0201.d	WPE100211-99DG	JXM	03-MAR-2010 09:45		030310	1.0		(B)DDT 2.8, ENDRIN 3.9 (F)DDT 2.1, ENDRIN 3.5
003b0301.d	WPE100211-10AB	JXM	03-MAR-2010 10:02		030310	1.0		PASSES BOTH COLUMNS
004b0401.d	WPE100125-52TX	JXM	03-MAR-2010 10:19		030310	1.0		PASSES BOTH COLUMNS
005b0501.d	WPE100116-00CL	JXM	03-MAR-2010 10:36		030310	1.0		PASSES AVERAGE
006b0601.d	WPE100114-05GA	JXM	03-MAR-2010 10:53		030310	1.0		DUSE
007b0701.d	WAR100219-99IB	JXM	03-MAR-2010 11:10		030310	1.0		CLEAN
008b0801.d	WPE100211-99DG	JXM	03-MAR-2010 11:27		030310	1.0		(B)DDT 4.2, ENDRIN 4.3 (F)DDT 3.0, ENDRIN 3.9
009b0901.d	1202055366	JXM	03-MAR-2010 11:44	958413	10-2039	1.0	MB	USE: LOWER
010b1001.d	1202055367	JXM	03-MAR-2010 12:01	958413	10-2039	1.0	LCS	USE: LOWER
011b1101.d	1202055370	JXM	03-MAR-2010 12:18	958413	10-2039	1.0	TLCS	USE: LOWER
012b1201.d	248017004	JXM	03-MAR-2010 12:35	958413	10-2039	1.0	LANL	USE: LOWER
013b1301.d	1202057240	JXM	03-MAR-2010 12:53	958413	10-2039	1.0	MS	USE: LOWER
014b1401.d	1202057241	JXM	03-MAR-2010 13:10	958413	10-2039	1.0	MSD	USE: LOWER
015b1501.d	248040003	JXM	03-MAR-2010 13:27	958413	10-2051	1.0	LANL	USE: LOWER

Instrument Batch: /chem/ecd7a.i/030310.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016b1601.d	248042003	JXM	03-MAR-2010 13:44	958413	10-2057		1.0	LANL	USE: LOWER
017b1701.d	248042011	JXM	03-MAR-2010 14:01	958413	10-2057		1.0	LANL	USE: LOWER
018b1801.d	248042014	JXM	03-MAR-2010 14:18	958413	10-2057		1.0	LANL	USE: LOWER
019b1901.d	WPE100211-10AB	JXM	03-MAR-2010 14:35		030310		1.0		(B)ENDRIN HIGH (F)ENDRIN AND DDT HIGH
020b2001.d	WAR100219-99IB	JXM	03-MAR-2010 14:52		030310		1.0		CLEAN
021b2101.d	248047004	JXM	03-MAR-2010 15:09	958413	10-2045		1.0	LANL	USE: LOWER
022b2201.d	248047008	JXM	03-MAR-2010 15:26	958413	10-2045		1.0	LANL	USE: LOWER
023b2301.d	248047010	JXM	03-MAR-2010 15:43	958413	10-2045		1.0	LANL	USE: LOWER
024b2401.d	WPE100211-10AB	JXM	03-MAR-2010 16:01		030310		1.0		PASSES BOTH COLUMNS
025b2501.d	WAR100219-99IB	JXM	03-MAR-2010 16:18		030310		1.0		CLEAN
026b2601.d	1202058092	JXM	03-MAR-2010 16:35	959604	247808		1.0	MB	USE: HIGHER
027b2701.d	1202058093	JXM	03-MAR-2010 16:52	959604	247808		1.0	LCS	USE: HIGHER
028b2801.d	1202058096	JXM	03-MAR-2010 17:09	959604	247808		1.0	TLCS	USE: HIGHER
029b2901.d	247808011	JXM	03-MAR-2010 17:26	959604	247808		10.0	BY12	USE: HIGHER
030b3001.d	1202058094	JXM	03-MAR-2010 17:43	959604	247808		10.0	MS	USE: HIGHER
031b3101.d	1202058095	JXM	03-MAR-2010 18:00	959604	247808		10.0	MSD	USE: HIGHER
032b3201.d	WAR100219-99IB	JXM	03-MAR-2010 18:17		030310		1.0		SLIGHT MATRIX CARRYOVER
033b3301.d	WPE100211-10AB	JXM	03-MAR-2010 18:34		030310		1.0		DDT HIGH ON FRONT, PASSES ON BACK
034b3401.d	WAR100219-99IB	JXM	03-MAR-2010 18:51		030310		1.0		CLEAN
035b3501.d	1202056014	JXM	03-MAR-2010 19:08	958674	10-1876		1.0	MB	USE: LOWER

Instrument Batch: /chem/ecd7a.i/030310.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	1202056015	JXM	03-MAR-2010 19:25	958674	10-1876	1.0	LCS	USE: LOWER
037b3701.d	1202056018	JXM	03-MAR-2010 19:43	958674	10-1876	1.0	TLCS	USE: LOWER
038b3801.d	247552002	JXM	03-MAR-2010 20:00	958674	10-1970	1.0	LANL	USE: LOWER
039b3901.d	1202056016	JXM	03-MAR-2010 20:17	958674	10-1970	1.0	MS	USE: LOWER
040b4001.d	1202056017	JXM	03-MAR-2010 20:34	958674	10-1970	1.0	MSD	USE: LOWER

041b4101.d	WAR100219-99IB	JXM	03-MAR-2010 20:51		030310		1.0		SLIGHT MATRIX CARRYOVER
042b4201.d	WPE100211-10AB	JXM	03-MAR-2010 21:08		030310		1.0		PASSES BOTH COLUMNS
043b4301.d	WAR100219-99IB	JXM	03-MAR-2010 21:25		030310		1.0		CLEAN
044b4401.d	247245001	JXM	03-MAR-2010 21:42	958674	10-1876		10.0	LANL	USE: LOWER
045b4501.d	247245002	JXM	03-MAR-2010 21:59	958674	10-1876		10.0	LANL	USE: LOWER
046b4601.d	247245003	JXM	03-MAR-2010 22:16	958674	10-1876		10.0	LANL	USE: LOWER
047b4701.d	247245004	JXM	03-MAR-2010 22:33	958674	10-1876		10.0	LANL	USE: LOWER
048b4801.d	247245006	JXM	03-MAR-2010 22:49	958674	10-1876		10.0	LANL	USE: LOWER
049b4901.d	247325001	JXM	03-MAR-2010 23:06	958674	10-1896		10.0	LANL	USE: LOWER
050b5001.d	UE100302-09	JXM	03-MAR-2010 23:23	SCREEN	030310		1.0	PESTSURR	SCREEN
051b5101.d	WAR100219-99IB	JXM	03-MAR-2010 23:40		030310		1.0		SLIGHT MATRIX CARRYOVER
052b5201.d	WPE100211-10AB	JXM	03-MAR-2010 23:57		030310		1.0		ENDRIN AND DDD HIGH ON BOTH COLUMNS
053b5301.d	WAR100219-99IB	JXM	04-MAR-2010 00:14		030310		1.0		SLIGHT MATRIX CARRYOVER

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/001b0101.d
Lab Smp Id: WAR100219-99IB Client Smp ID: PIBLK01
Inj Date : 03-MAR-2010 09:28
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WAR100219-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 03-Mar-2010 11:06 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 1 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.205	3.195	0.010	102909078	183.307	183	80.00- 120.00	100.00
$ 32 Decachlorobipheny1					CAS #: 2051-24-3		
9.293	9.292	0.001	67210896	187.026	187	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/030310.b/001b0101.d
Date : 03-MAR-2010 09:28
Client ID: PIBLK01
Sample Info: IWAR100219-99IB

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM
Column diameter: 0.25

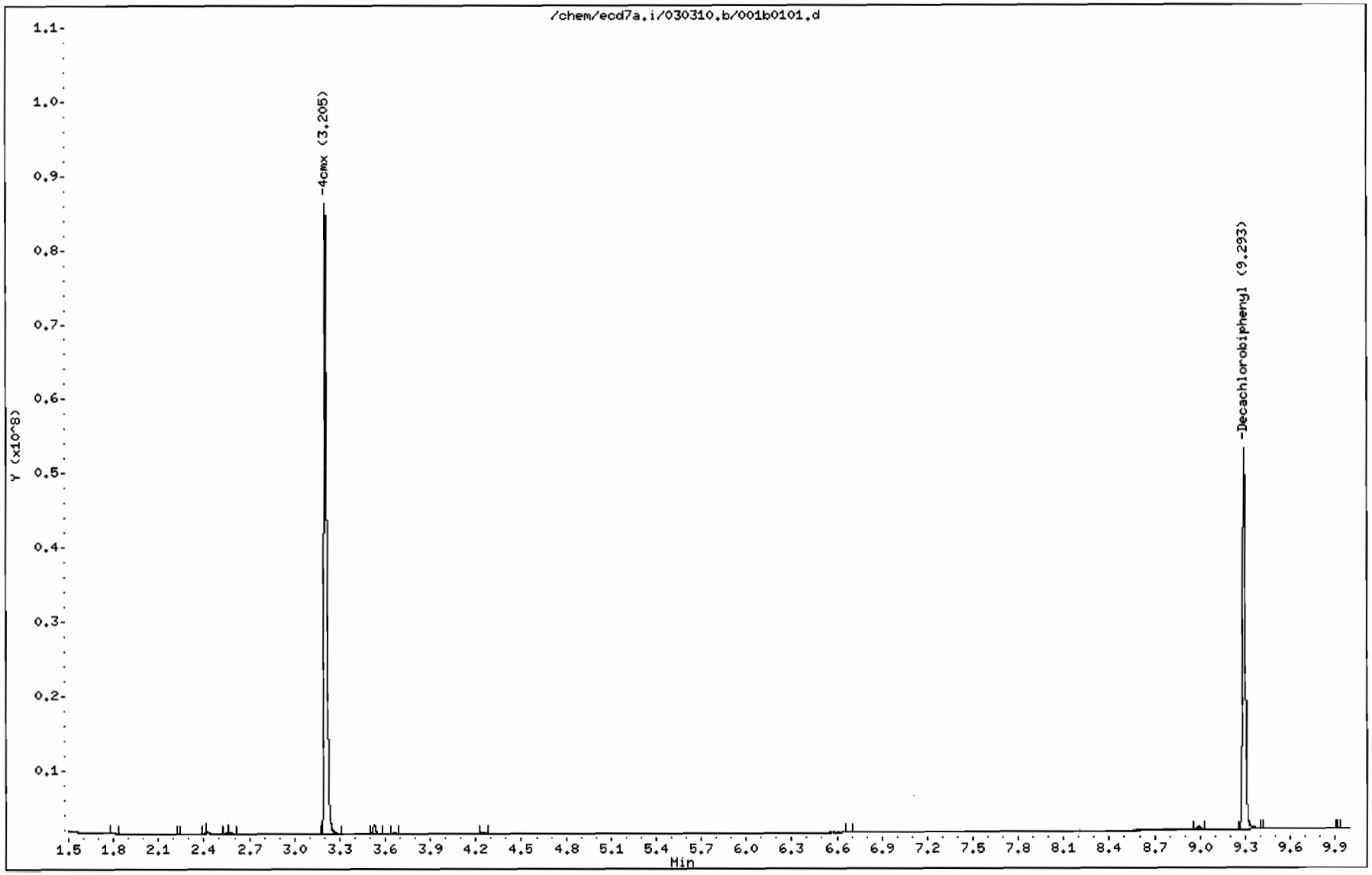

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/030310.b/001f0101.d
Lab Smp Id: WAR100219-99IB Client Smp ID: PIBLK01
Inj Date : 03-MAR-2010 09:28
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WAR100219-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 03-Mar-2010 11:06 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 1 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.886	2.877	0.009	145908510	181.740	182	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.100	8.096	0.004	114565843	191.020	191	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/030310.b/001f0101.d

Page 1

Date : 03-MAR-2010 09:28

Client ID: PIBLK01

Instrument: ecd7a.i

Sample Info: IWAR100219-99IB

Operator: JXM

Column phase: CLP-1

Column diameter: 0.25

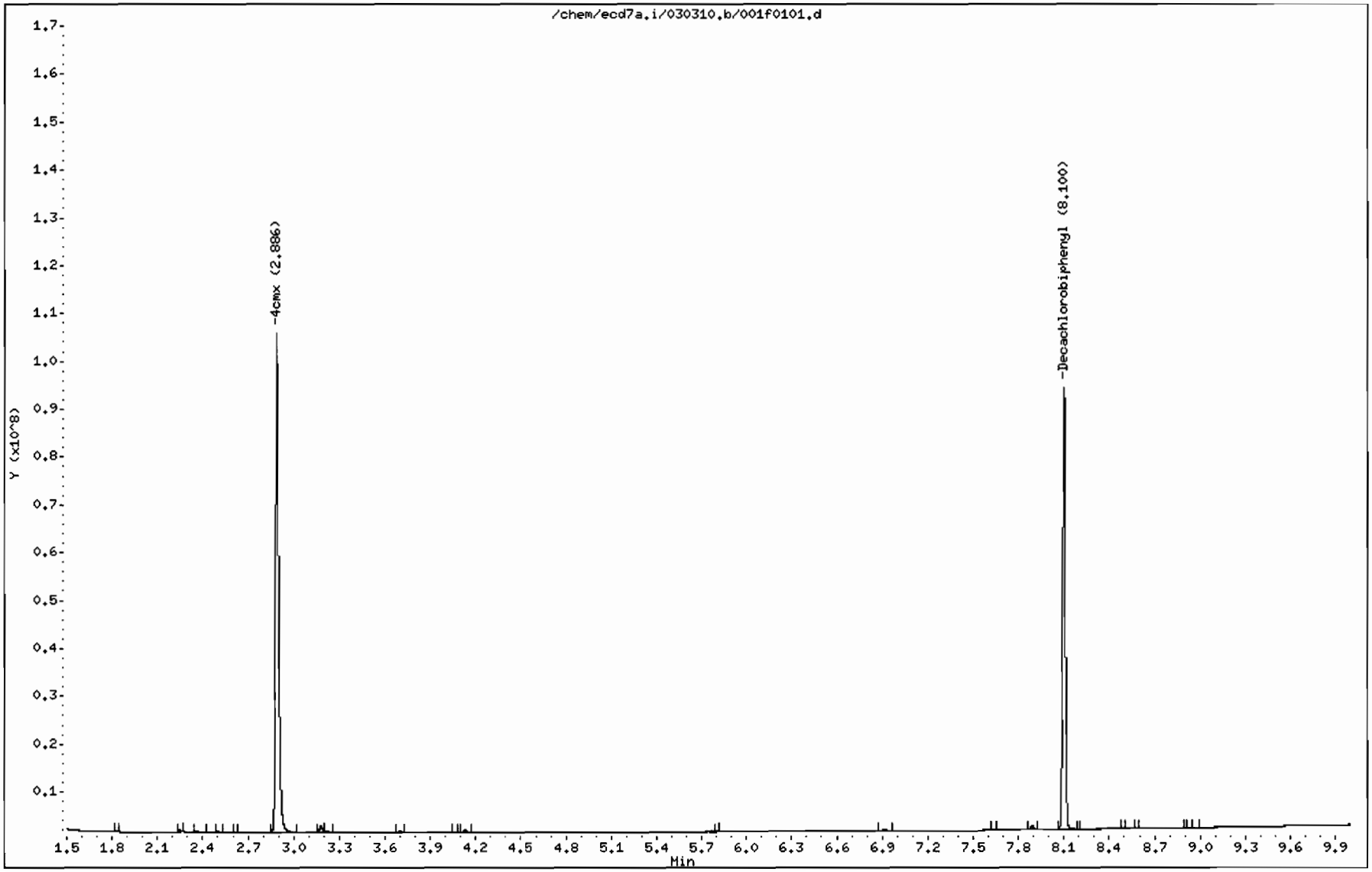

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/007b0701.d
Lab Smp Id: WAR100219-99IB Client Smp ID: PIBLK02
Inj Date : 03-MAR-2010 11:10
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WAR100219-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 03-Mar-2010 11:06 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 7 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.195	0.002	105786891	188.433	188	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.293	9.292	0.001	68664760	191.072	191	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/030310.b/007b0701.d
Date : 03-MAR-2010 11:10
Client ID: PIBLK02
Sample Info: IWAR100219-99IB

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM
Column diameter: 0.25

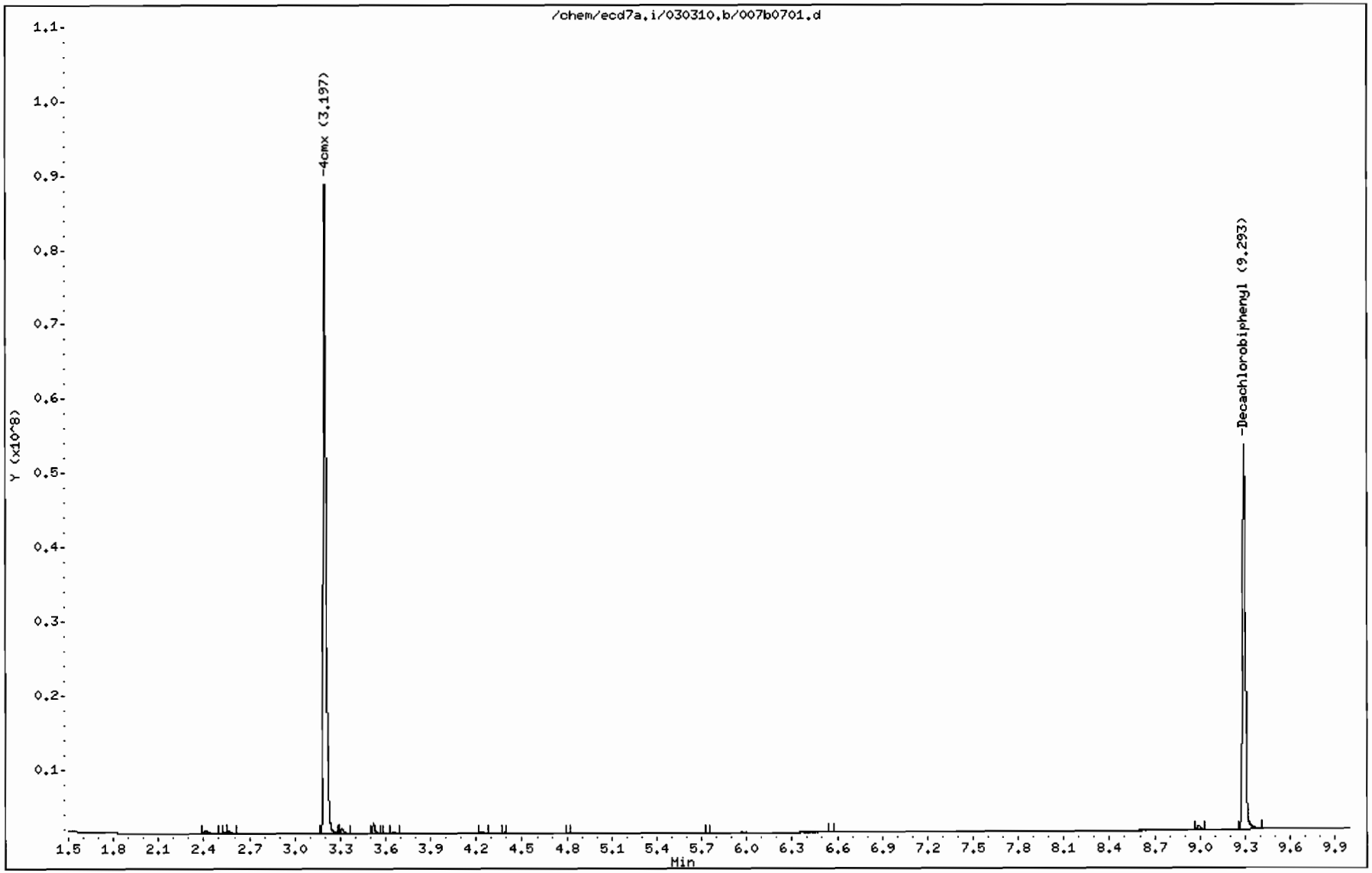

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/030310.b/007f0701.d
Lab Smp Id: WAR100219-99IB Client Smp ID: PIBLK02
Inj Date : 03-MAR-2010 11:10
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WAR100219-99IB
Misc Info :
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 03-Mar-2010 11:06 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 7 QC Sample: INSTBLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8081.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.878	2.877	0.001	150509891	187.471	187	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.096	8.096	0.000	115511898	192.597	192	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/030310.b/007f0701.d

Date : 03-MAR-2010 11:10

Client ID: PIBLK02

Sample Info: IWAR100219-99IB

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

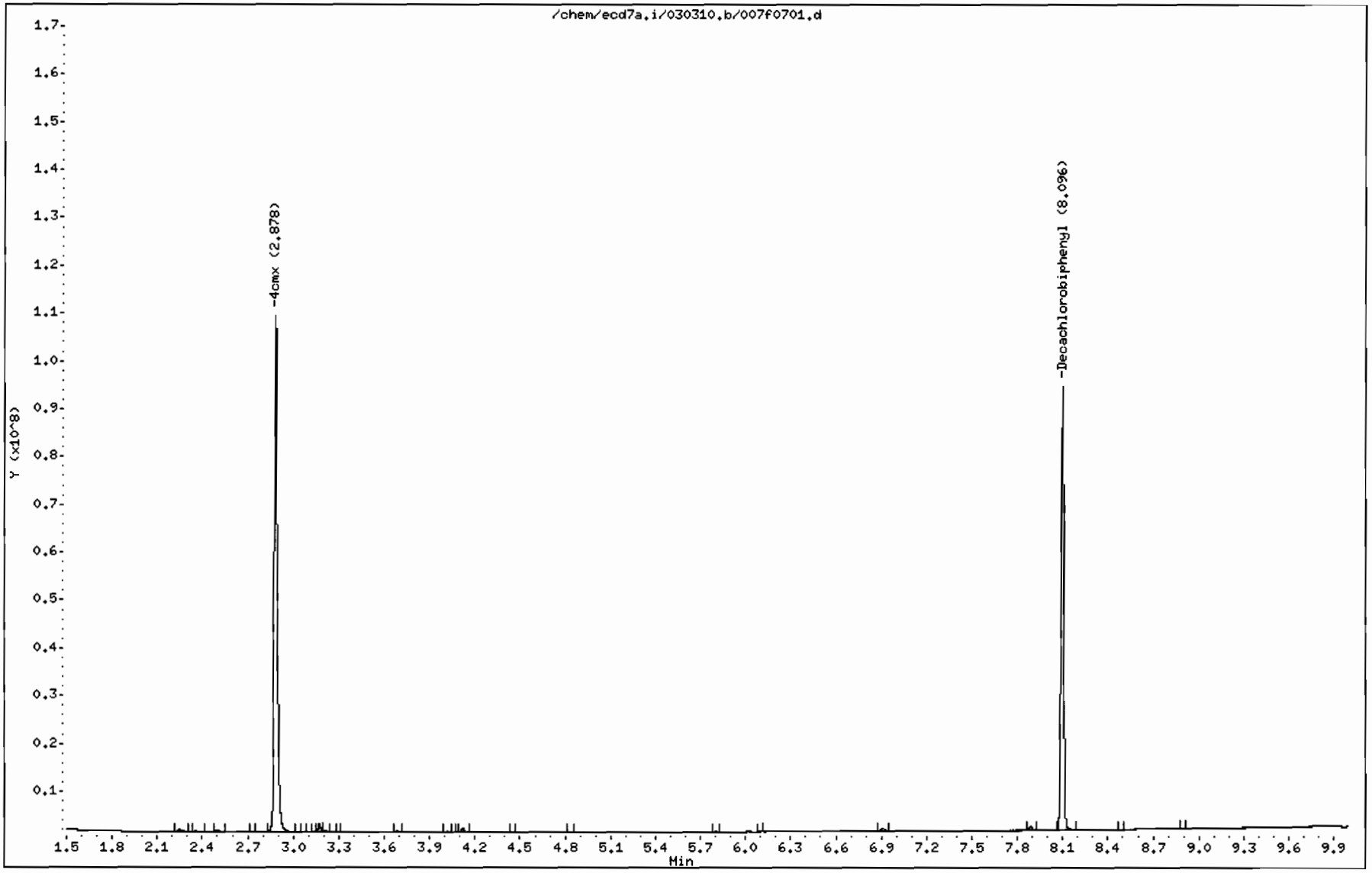

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 958412 **Verified by:** _____
Analyst: Sophia Cox
Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21
Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202055366 MB	01-MAR-2010 18:08:00	1000	5	5	Florisil	5	1	10	5	0.005
1202055367 LCS	01-MAR-2010 18:08:00	1000	5	5	Florisil	5	1	10	5	0.005
1202055370 LCS	01-MAR-2010 18:08:00	1000	5	5	Florisil	5	1	10	5	0.005
248017004	01-MAR-2010 18:08:00	800	5	5	Florisil	5	1	10	5	0.00625
1202057240 MS (248017004)	01-MAR-2010 18:08:00	500	5	5	Florisil	2.5	1	10	2.5	0.005
1202057241 MSD (248017004)	01-MAR-2010 18:08:00	500	5	5	Florisil	2.5	1	10	2.5	0.005
248040003	01-MAR-2010 18:08:00	900	5	5	Florisil	5	1	10	5	0.00556
248042003	01-MAR-2010 18:08:00	870	5	5	Florisil	5	1	10	5	0.00575
248042011	01-MAR-2010 18:08:00	780	5	5	Florisil	5	1	10	5	0.00641
248042014	01-MAR-2010 18:08:00	980	5	5	Florisil	5	1	10	5	0.0051
248047004	01-MAR-2010 18:08:00	890	5	5	Florisil	5	1	10	5	0.00562
248047008	01-MAR-2010 18:08:00	900	5	5	Florisil	5	1	10	5	0.00556
248047010	01-MAR-2010 18:08:00	870	5	5	Florisil	5	1	10	5	0.00575

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202055367	PESTSPIKE	UE100218-04	1	mL
LCS	1202055370	Toxaphene TCLP LCS	WE100105-11	2	mL
MS	1202057240	PESTSPIKE	UE100218-04	.5	mL
MSD	1202057241	PESTSPIKE	UE100218-04	.5	mL
SURR	All	PEST SURROGATE 1000 UG/L	UE100217-08	.5	mL
SURR	All	PEST SURROGATE 1000 UG/L	UE100217-08	1	mL
REGNT	All	Hexane	100211-B2	5	mL
REGNT	All	Methylene Chloride	100301-D	180	mL
REGNT	All	Florisil cartridge 1000mg per cartridge	1269340-28	1	g
SOURC	All	SODIUM SULFATE	1269268	30	g

Comments:

Clean up Date: 01-MAR-2010
Clean up Initials: SCC
Verified By: JAC
Final Solvent: Hexane
Clean Up SOP: GL-OA-E-036

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
04-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GC/ECD	SW846 8081A	Liquid	ESHL, LANL
Batch ID:	**Sample Numbers:**		
958413	See Below		

Potentially affected work order(s)(SDG): 248017(10-2039),248040(10-2051),248042(10-2057),248047(10-2045)

Application Issues:

Failed Recovery for MSD/PSD

Failed Recovery for LCS/LCSD

Failed Recovery for MS/PS

Failed Yield for Surrogates

Specification and Requirements Exception Description:	DER Disposition:
1. The MS(1202057240) did not meet spike recovery acceptance limits.	1. The MS failed the spike recovery high on one column while passing on the other. There were no detects of target analytes in the samples.
2. The Tox LCS(1202055370) did not meet spike recovery acceptance limits.	2. The Toxaphene LCS failed spike recovery high. Since there were no detects in the samples and the spike was biased high, the data were reported.
3. Samples 248042003, 011, 014, and 248047008 did not meet surrogate recovery acceptance limits.	3. The samples failed the surrogates high. Since there were no detects in the samples and the surrogates were biased high, the data were reported.
4. The MS(1202057240) and MSD(1202057241) did not meet RPD criteria.	4. The MSD failed the spike recovery high on one column while passing on the other. As a result, the RPD criteria were not met.

Originator's Name:

James Maestas 04-MAR-10

Data Validator/Group Leader:

Cameron Bearden 04-MAR-10

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2039

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3510C
Analytical Batch Number:	961887
Prep Batch Number:	961885

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
248017005	CAPA-10-12917
1202063177	Method Blank (MB)
1202063178	Laboratory Control Sample (LCS)
1202064344	247824001(CAPA-10-13498) Matrix Spike (MS)
1202064345	247824001(CAPA-10-13498) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix from another SDG (10-2005) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 3/26/10

Roadmap for LANL 10-2039 PCB

This roadmap was analyzed by yip00818 on 03-10-2010, 07:02.
This roadmap was reviewed by jim01140 on 03-10-2010, 11:39.
This roadmap was packaged by sha01289 on 03-26-2010, 07:15.
This roadmap was validated by jim01140 on 03-26-2010, 15:26.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/030910.b/033f3301.d	248017005	sample	09-MAR-2010	11:46	10-2039.sub	CAPA-10-12917	1.00000	961887	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/030910.b/033h3301.d	248017005	sample	09-MAR-2010	11:46	10-2039.sub	CAPA-10-12917	1.00000	961887	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/030910.b/027f2701-2.d	1202063177	mb	09-MAR-2010	10:42	10-2039.sub	PBLK01	1.00000	961887	
☐	N	/chem/ecd1a.i/030910.b/028f2801-2.d	1202063178	lcs	09-MAR-2010	10:53	10-2039.sub	PBLK01LCS	1.00000	961887	

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/030910.b/027b2701-2.d	1202063177	mb	09-MAR-2010	10:42	10-2039.sub	PBLK01	1.00000	961887	
☐	N	/chem/ecd1a.i/030910.b/028b2801-2.d	1202063178	lcs	09-MAR-2010	10:53	10-2039.sub	PBLK01LCS	1.00000	961887	

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017005**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA–10–12917**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**961887**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 11:46**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/08/2010 14:29**	**Aliquot:**	**940 mL**	**Final Volume:**	**1 mL**
Data File:	**033f3301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	033b3301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	0.106	ug/L	0.0354	0.106	1
11104–28–2	Aroclor–1221	U	0.106	ug/L	0.0354	0.106	1
11141–16–5	Aroclor–1232	U	0.106	ug/L	0.0354	0.106	1
53469–21–9	Aroclor–1242	U	0.106	ug/L	0.0354	0.106	1
12672–29–6	Aroclor–1248	U	0.106	ug/L	0.0354	0.106	1
11097–69–1	Aroclor–1254	U	0.106	ug/L	0.0354	0.106	1
11096–82–5	Aroclor–1260	U	0.106	ug/L	0.0354	0.106	1
37324–23–5	Aroclor–1262	U	0.106	ug/L	0.0354	0.106	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.108	0.213	ug/L	50.5	(30%–105%)
Decachlorobiphenyl	0.110	0.213	ug/L	51.7	(30%–126%)

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10–2039

Matrix Type: LIQUID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202063177	MB for batch 961885	48	47	64	59
1202063178	LCS for batch 961885	48	47	67	63
248017005	CAPA–10–12917	51	50	52	50

Surrogate	Acceptance Limits
4CMX = 4cmx	(30%–105%)
DCB = Decachlorobiphenyl	(30%–126%)

* Recovery outside Acceptance Limits
# Column to be used to flag recovery values
D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2039**
Client ID: **LCS for batch 961885**
Lab Sample ID: **1202063178**
Instrument: **ECD1A.I**
Analyst: **YS1**
Inj. Vol: **1 uL**

Sample Type: **Laboratory Control Sample**
Matrix: **WATER**
Analysis Date: **03/09/2010 10:53**
Dilution: **1**
Prep Batch ID: **961885**
Batch ID: **961887**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
12674-11-2	LCS	Aroclor-1016	1.00	0.0	0.660	66	40-110
11096-82-5	LCS	Aroclor-1260	1.00	0.0	0.840	84	48-110

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2005**
Client ID: **CAPA-10-13498MS**
Lab Sample ID: **1202064344**
Instrument: **ECD1A.I**
Analyst: **YS1**
Inj. Vol: **1 uL**

Sample Type: **Matrix Spike**
Matrix: **GROUND WATER**
Analysis Date: **03/09/2010 11:14**
Dilution: **1**
Prep Batch ID **961885**
Batch ID: **961887**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
12674-11-2	MS	Aroclor-1016	1.00	0.00	U	0.690	69	25-116
11096-82-5	MS	Aroclor-1260	1.00	0.00	U	0.880	88	34-116

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2005
Client ID: CAPA–10–13498MSD
Lab Sample ID: 1202064345
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 03/09/2010 11:24
Dilution: 1
Prep Batch ID: 961885
Batch ID: 961887

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674–11–2	MSD Aroclor–1016	1.00	0.00	U	0.660	66	25–116	4	0–31
11096–82–5	MSD Aroclor–1260	1.00	0.00	U	0.840	84	34–116	5	0–29

Method Blank Summary

SDG Number:	10-2039	Client:	LANL010	Matrix:	WATER
Client ID:	MB for batch 961885	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	027b2701-1.d 027f2701-1.d
Lab Sample ID:	1202063177				
Column:	CLP2 CLP1	Prep Date:	03/08/2010 14:29	Analyzed:	03/09/10 10:42
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 961885	1202063178	028f2801-1.d 028b2801-1.d	03/09/10	1053
04 CAPA-10-12917	248017005	033f3301.d 033b3301.d	03/09/10	1146

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2039**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248017005**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA–10–12917**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**961887**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 11:46**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/08/2010 14:29**	**Aliquot:**	**940 mL**	**Final Volume:**	**1 mL**
Data File:	**033f3301.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	033b3301.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	0.106	ug/L	0.0354	0.106	1
11104–28–2	Aroclor–1221	U	0.106	ug/L	0.0354	0.106	1
11141–16–5	Aroclor–1232	U	0.106	ug/L	0.0354	0.106	1
53469–21–9	Aroclor–1242	U	0.106	ug/L	0.0354	0.106	1
12672–29–6	Aroclor–1248	U	0.106	ug/L	0.0354	0.106	1
11097–69–1	Aroclor–1254	U	0.106	ug/L	0.0354	0.106	1
11096–82–5	Aroclor–1260	U	0.106	ug/L	0.0354	0.106	1
37324–23–5	Aroclor–1262	U	0.106	ug/L	0.0354	0.106	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.108	0.213	ug/L	50.5	(30%–105%)
Decachlorobiphenyl	0.110	0.213	ug/L	51.7	(30%–126%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/033f3301.d
Lab Smp Id: 248017005 Client Smp ID: CAPA-10-12917
Inj Date : 09-MAR-2010 11:46
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248017005|1|
Misc Info : |ECD82P_1L|961887|SVA|LANL|GROUND WATER|CAPA-10-12917||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 33
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2039.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	940.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.918	1.916	0.002	43522603	101.066	0.11	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.222	5.223	-0.001	31759651	103.354	0.11	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/033f3301.d

Page 1

Date : 09-MAR-2010 11:46

Client ID: CAPA-10-12917

Instrument: ecd1a.i

Sample Info: 1248017005111

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

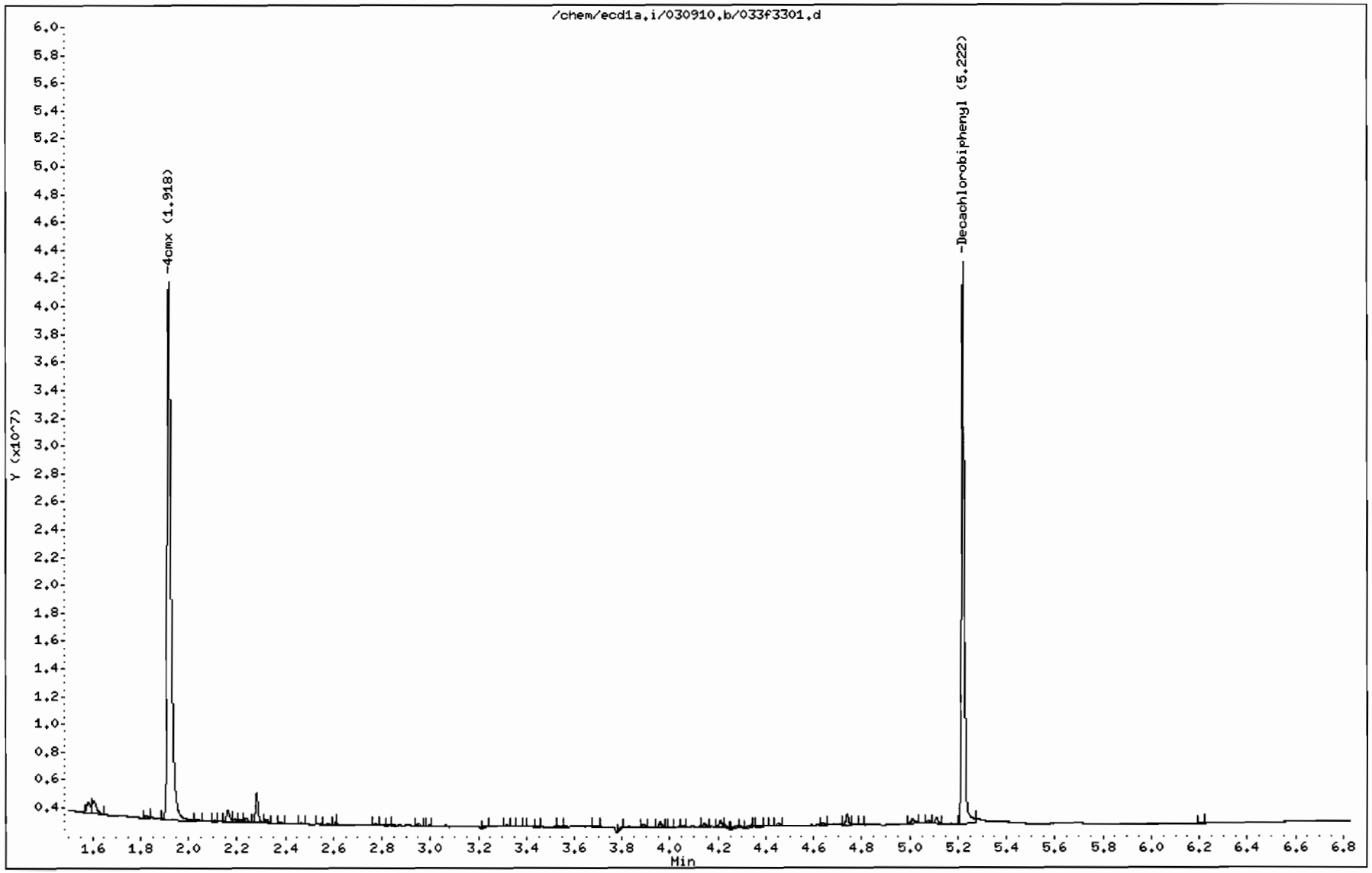

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/033b3301.d
Lab Smp Id: 248017005 Client Smp ID: CAPA-10-12917
Inj Date : 09-MAR-2010 11:46
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248017005|1|
Misc Info : |ECD82P_1L|961887|SVA|LANL|GROUND WATER|CAPA-10-12917||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 10:54 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 33
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2039.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	940.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.276	2.276	0.000	29549212	99.3595	0.10	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.917	5.918	-0.001	21165530	100.074	0.11	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/033b3301.d

Date : 09-MAR-2010 11:46

Client ID: CAPA-10-12917

Sample Info: |248017005|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

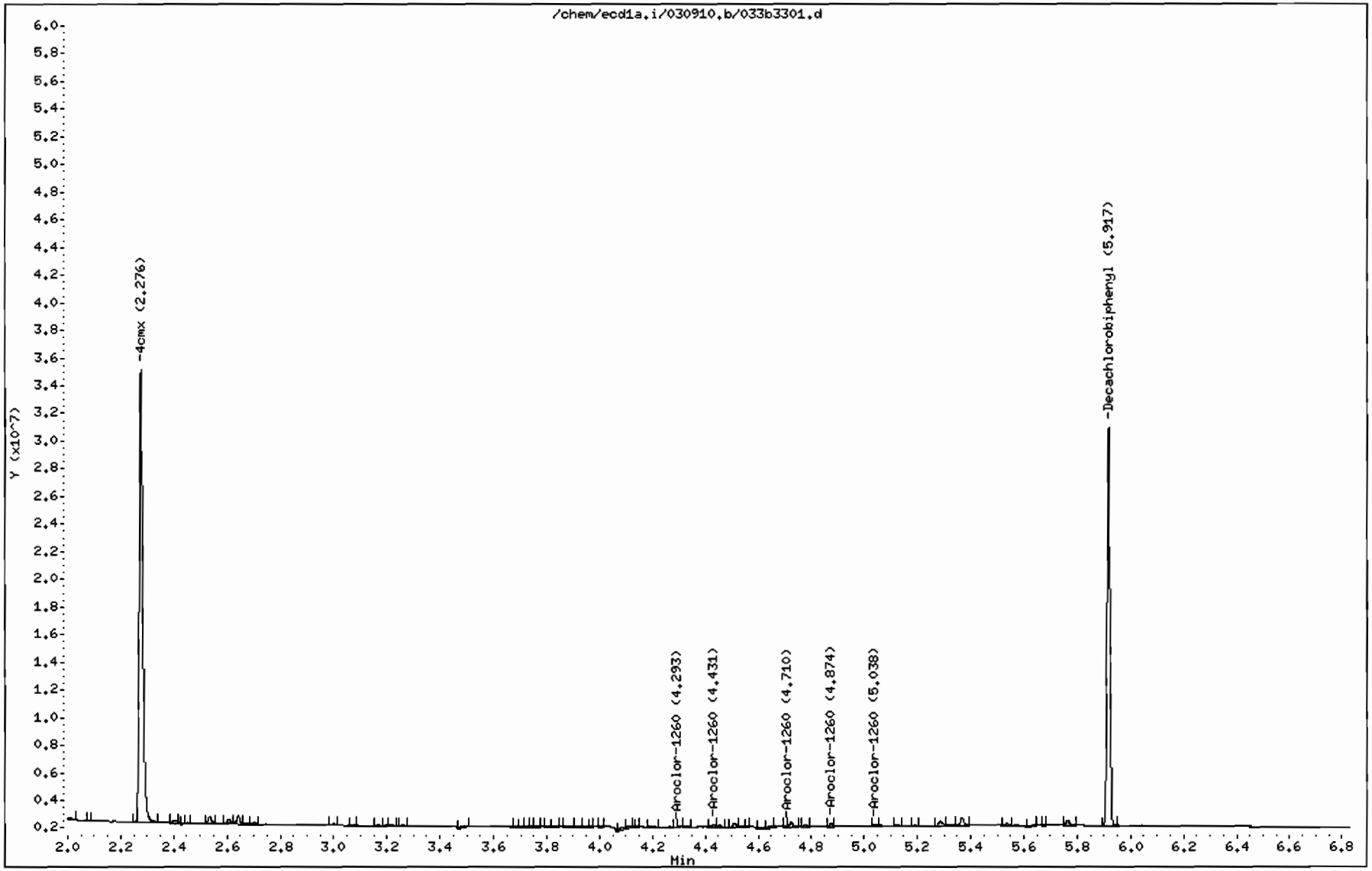

STANDARDS DATA

Report Date: 09-Mar-2010 14:38

Calibration History

Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032f3201.d
22-FEB-2010 10:23	AR1248	/chem/ecd1a.i/022210.b/026f2601.d
22-FEB-2010 09:20	AR1242	/chem/ecd1a.i/022210.b/020f2001.d
22-FEB-2010 08:16	AR1254	/chem/ecd1a.i/022210.b/014f1401.d
22-FEB-2010 07:13	AR1660	/chem/ecd1a.i/022210.b/008f0801.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033f3301.d
22-FEB-2010 10:33	AR1248	/chem/ecd1a.i/022210.b/027f2701.d
22-FEB-2010 09:30	AR1242	/chem/ecd1a.i/022210.b/021f2101.d
22-FEB-2010 08:27	AR1254	/chem/ecd1a.i/022210.b/015f1501.d
22-FEB-2010 07:24	AR1660	/chem/ecd1a.i/022210.b/009f0901.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034f3401.d
22-FEB-2010 10:44	AR1248	/chem/ecd1a.i/022210.b/028f2801.d
22-FEB-2010 09:41	AR1242	/chem/ecd1a.i/022210.b/022f2201.d
22-FEB-2010 08:37	AR1254	/chem/ecd1a.i/022210.b/016f1601.d
22-FEB-2010 07:34	AR1660	/chem/ecd1a.i/022210.b/010f1001.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035f3501.d
22-FEB-2010 11:05	AR1248	/chem/ecd1a.i/022210.b/030f3001.d
22-FEB-2010 09:51	AR1242	/chem/ecd1a.i/022210.b/023f2301.d
22-FEB-2010 08:48	AR1254	/chem/ecd1a.i/022210.b/017f1701.d
22-FEB-2010 07:45	AR1660	/chem/ecd1a.i/022210.b/011f1101.d
22-FEB-2010 07:03	AR1262	/chem/ecd1a.i/022210.b/007f0701.d
22-FEB-2010 06:52	AR1221	/chem/ecd1a.i/022210.b/006f0601.d
22-FEB-2010 06:41	AR1232	/chem/ecd1a.i/022210.b/005f0501.d
22-FEB-2010 06:31	DDTANALOGSTD	/chem/ecd1a.i/022210.b/004f0401.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036f3601.d
22-FEB-2010 10:54	AR1248	/chem/ecd1a.i/022210.b/029f2901.d
22-FEB-2010 10:02	AR1242	/chem/ecd1a.i/022210.b/024f2401.d
22-FEB-2010 08:59	AR1254	/chem/ecd1a.i/022210.b/018f1801.d
22-FEB-2010 07:55	AR1660	/chem/ecd1a.i/022210.b/012f1201.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:58	AR1232	/chem/ecd1a.i/030910.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 13:35	AR1660	/chem/ecd1a.i/030910.b/042f4201.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 12:23	AR1660	/chem/ecd1a.i/030910.b/036f3601.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 10:21	AR1660	/chem/ecd1a.i/030910.b/025f2501.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 09:12	AR1660	/chem/ecd1a.i/030910.b/019f1901.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 07:19	AR1262	/chem/ecd1a.i/030910.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 07:08	AR1221	/chem/ecd1a.i/030910.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:47	AR1268	/chem/ecd1a.i/030910.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:37	AR1248	/chem/ecd1a.i/030910.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:26	AR1242	/chem/ecd1a.i/030910.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:16	AR1254	/chem/ecd1a.i/030910.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:05	AR1660	/chem/ecd1a.i/030910.b/002f0201.d

Report Date: 09-Mar-2010 14:37

Calibration History

Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032b3201.d
22-FEB-2010 10:23	AR1248	/chem/ecd1a.i/022210.b/026b2601.d
22-FEB-2010 09:20	AR1242	/chem/ecd1a.i/022210.b/020b2001.d
22-FEB-2010 08:16	AR1254	/chem/ecd1a.i/022210.b/014b1401.d
22-FEB-2010 07:13	AR1660	/chem/ecd1a.i/022210.b/008b0801.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033b3301.d
22-FEB-2010 10:33	AR1248	/chem/ecd1a.i/022210.b/027b2701.d
22-FEB-2010 09:30	AR1242	/chem/ecd1a.i/022210.b/021b2101.d
22-FEB-2010 08:27	AR1254	/chem/ecd1a.i/022210.b/015b1501.d
22-FEB-2010 07:24	AR1660	/chem/ecd1a.i/022210.b/009b0901.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034b3401.d
22-FEB-2010 10:44	AR1248	/chem/ecd1a.i/022210.b/028b2801.d
22-FEB-2010 09:41	AR1242	/chem/ecd1a.i/022210.b/022b2201.d
22-FEB-2010 08:37	AR1254	/chem/ecd1a.i/022210.b/016b1601.d
22-FEB-2010 07:34	AR1660	/chem/ecd1a.i/022210.b/010b1001.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035b3501.d
22-FEB-2010 11:05	AR1248	/chem/ecd1a.i/022210.b/030b3001.d
22-FEB-2010 09:51	AR1242	/chem/ecd1a.i/022210.b/023b2301.d
22-FEB-2010 08:48	AR1254	/chem/ecd1a.i/022210.b/017b1701.d
22-FEB-2010 07:45	AR1660	/chem/ecd1a.i/022210.b/011b1101.d
22-FEB-2010 07:03	AR1262	/chem/ecd1a.i/022210.b/007b0701.d
22-FEB-2010 06:52	AR1221	/chem/ecd1a.i/022210.b/006b0601.d
22-FEB-2010 06:41	AR1232	/chem/ecd1a.i/022210.b/005b0501.d
22-FEB-2010 06:31	DDTANALOGSTD	/chem/ecd1a.i/022210.b/004b0401.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036b3601.d
22-FEB-2010 10:54	AR1248	/chem/ecd1a.i/022210.b/029b2901.d
22-FEB-2010 10:02	AR1242	/chem/ecd1a.i/022210.b/024b2401.d
22-FEB-2010 08:59	AR1254	/chem/ecd1a.i/022210.b/018b1801.d
22-FEB-2010 07:55	AR1660	/chem/ecd1a.i/022210.b/012b1201.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 13:35	AR1660	/chem/ecd1a.i/030910.b/042b4201.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 12:23	AR1660	/chem/ecd1a.i/030910.b/036b3601.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 10:21	AR1660	/chem/ecd1a.i/030910.b/025b2501.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 09:12	AR1660	/chem/ecd1a.i/030910.b/019b1901.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 07:19	AR1262	/chem/ecd1a.i/030910.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 07:08	AR1221	/chem/ecd1a.i/030910.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:58	AR1232	/chem/ecd1a.i/030910.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:47	AR1268	/chem/ecd1a.i/030910.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:37	AR1248	/chem/ecd1a.i/030910.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:26	AR1242	/chem/ecd1a.i/030910.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:16	AR1254	/chem/ecd1a.i/030910.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:05	AR1660	/chem/ecd1a.i/030910.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Quant Method : ESTD Target Version : 3.50
Last Update : 09-Mar-2010 14:23 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.370	2.340-2.400	1.538e+04
	2.656	2.626-2.686	1.824e+04
	2.736	2.706-2.766	1.207e+04
	2.774	2.744-2.804	7.096e+03
	2.984	2.954-3.014	8.912e+03
63 4,4-DDD	3.900	3.880-3.920	3.060e+05
64 4,4-DDE	3.551	3.531-3.571	3.552e+05
62 4,4-DDT	4.064	4.044-4.084	2.080e+05
2 Aroclor-1221	2.030	2.000-2.060	4.398e+03
	2.123	2.093-2.153	2.431e+03
	2.148	2.118-2.178	1.042e+04
3 Aroclor-1232	2.370	2.340-2.400	6.218e+03
	2.656	2.626-2.686	7.488e+03
	2.737	2.707-2.767	4.887e+03
	2.851	2.821-2.881	2.191e+03
	3.238	3.208-3.268	2.731e+03
4 Aroclor-1242	2.370	2.340-2.400	1.256e+04
	2.658	2.628-2.688	1.461e+04
	2.775	2.745-2.805	5.629e+03
	2.985	2.955-3.015	7.310e+03
	3.238	3.208-3.268	6.183e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m

Compound	RT	RT Window	RF
5 Aroclor-1248	2.851	2.821-2.881	9.301e+03
	2.985	2.955-3.015	1.241e+04
	3.238	3.208-3.268	1.220e+04
	3.370	3.340-3.400	1.042e+04
	3.603	3.573-3.633	6.820e+03
6 Aroclor-1254	3.213	3.183-3.243	1.201e+04
	3.368	3.338-3.398	1.583e+04
	3.602	3.572-3.632	1.952e+04
	3.764	3.734-3.794	1.381e+04
	3.874	3.844-3.904	1.428e+04
7 Aroclor-1260	3.710	3.680-3.740	1.707e+04
	3.873	3.843-3.903	2.364e+04
	4.035	4.005-4.065	2.497e+04
	4.102	4.072-4.132	1.441e+04
	4.246	4.216-4.276	1.443e+04
8 Aroclor-1262	3.711	3.681-3.741	1.261e+04
	3.874	3.844-3.904	1.569e+04
	4.104	4.074-4.134	1.995e+04
	4.246	4.216-4.276	1.798e+04
	4.425	4.395-4.455	3.725e+04
9 Aroclor-1268	4.609	4.579-4.639	4.848e+04
	4.632	4.602-4.662	5.448e+04
	4.745	4.715-4.775	3.862e+04
	4.947	4.917-4.977	1.635e+04
	5.113	5.083-5.143	1.121e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.916	1.886-1.946	4.306e+05
$ 12 Decachlorobiphenyl	5.223	5.193-5.253	3.073e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Quant Method : ESTD Target Version : 3.50
Last Update : 09-Mar-2010 14:09 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.170	3.140-3.200	1.279e+04
	3.253	3.223-3.283	8.918e+03
	3.316	3.286-3.346	5.406e+03
	3.544	3.514-3.574	6.916e+03
	3.619	3.589-3.649	6.425e+03
62 4,4-DDT	4.660	4.640-4.680	1.000e+05
63 4,4-DDE	4.128	4.108-4.148	2.505e+05
64 4,4-DDD	4.473	4.453-4.493	2.085e+05
2 Aroclor-1221	2.473	2.443-2.503	3.431e+03
	2.567	2.537-2.597	2.152e+03
	2.607	2.577-2.637	7.328e+03
3 Aroclor-1232	2.873	2.843-2.903	4.920e+03
	3.171	3.141-3.201	5.252e+03
	3.254	3.224-3.284	3.768e+03
	3.544	3.514-3.574	2.699e+03
	3.778	3.748-3.808	2.631e+03
4 Aroclor-1242	3.171	3.141-3.201	1.035e+04
	3.254	3.224-3.284	7.279e+03
	3.544	3.514-3.574	5.768e+03
	3.778	3.748-3.808	5.788e+03
	3.805	3.775-3.835	6.641e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.380	3.350-3.410	7.602e+03
	3.545	3.515-3.575	9.360e+03
	3.778	3.748-3.808	1.065e+04
	3.805	3.775-3.835	1.210e+04
	3.942	3.912-3.972	1.150e+04
6 Aroclor-1254	3.378	3.348-3.408	6.068e+03
	3.801	3.771-3.831	1.074e+04
	3.918	3.888-3.948	1.164e+04
	4.193	4.163-4.223	1.590e+04
	4.329	4.299-4.359	1.198e+04
7 Aroclor-1260	4.309	4.279-4.339	1.321e+04
	4.435	4.405-4.465	1.557e+04
	4.700	4.670-4.730	1.184e+04
	4.873	4.843-4.903	1.220e+04
	5.021	4.991-5.051	2.653e+04
8 Aroclor-1262	4.434	4.404-4.464	1.126e+04
	4.700	4.670-4.730	1.550e+04
	4.874	4.844-4.904	1.407e+04
	5.020	4.990-5.050	2.845e+04
	5.234	5.204-5.264	1.972e+04
9 Aroclor-1268	5.231	5.201-5.261	3.730e+04
	5.260	5.230-5.290	3.492e+04
	5.409	5.379-5.439	2.658e+04
	5.574	5.544-5.604	1.223e+04
	5.766	5.736-5.796	7.433e+04
10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.276	2.246-2.306	2.974e+05
$ 12 Decachlorobiphenyl	5.918	5.888-5.948	2.115e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Cal Date : 09-Mar-2010 14:23 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032f3201.d
Level 2: /chem/ecd1a.i/022210.b/033f3301.d
Level 3: /chem/ecd1a.i/022210.b/034f3401.d
Level 4: /chem/ecd1a.i/022210.b/035f3501.d
Level 5: /chem/ecd1a.i/022210.b/036f3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	18473	16312	15150	14238	12749	15384	14.060
(2)	20194	18537	17759	17625	17070	18237	6.651
(3)	14170	12473	11875	11163	10646	12065	11.317
(4)	8163	7198	6933	6624	6564	7096	9.135
(5)	10345	9178	8623	8273	8142	8912	10.051
63 4,4-DDD	+++++	+++++	+++++	305990	+++++	305990	0.000
64 4,4-DDE	+++++	+++++	+++++	355239	+++++	355239	0.000
62 4,4-DDT	+++++	+++++	+++++	208015	+++++	208015	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4398	+++++	4398	0.000
(2)	+++++	+++++	+++++	2431	+++++	2431	0.000
(3)	+++++	+++++	+++++	10418	+++++	10418	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6218	+++++	6218	0.000
(2)	+++++	+++++	+++++	7488	+++++	7488	0.000
(3)	+++++	+++++	+++++	4887	+++++	4887	0.000
(4)	+++++	+++++	+++++	2191	+++++	2191	0.000
(5)	+++++	+++++	+++++	2731	+++++	2731	0.000
4 Aroclor-1242(1)	14895	13406	12308	11554	10624	12557	13.200
(2)	15940	15326	14418	13613	13761	14612	6.870
(3)	6066	5934	5542	5337	5267	5629	6.326
(4)	8523	7616	7127	6725	6562	7310	10.814
(5)	6824	6256	5999	5817	6020	6183	6.317
5 Aroclor-1248(1)	10594	9810	9017	8885	8199	9301	9.911
(2)	14228	12736	11895	11712	11476	12409	9.043
(3)	12841	12156	11815	11785	12410	12201	3.615
(4)	11297	10503	10013	9956	10333	10420	5.179
(5)	7445	6917	6453	6460	6824	6820	5.977

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Cal Date : 09-Mar-2010 14:23 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	___ RRF	% RSD
6 Aroclor-1254(1)	13496	12213	11744	11466	11117	12007	7.694
(2)	16789	15969	15727	15423	15253	15832	3.802
(3)	20267	19353	19208	19481	19310	19524	2.185
(4)	14142	13669	13487	13772	13976	13809	1.858
(5)	15228	14234	13851	14228	13864	14281	3.932
7 Aroclor-1260(1)	19445	17307	16758	16208	15645	17072	8.574
(2)	25625	23757	23316	22992	22528	23643	5.056
(3)	27164	24948	24176	24127	24442	24971	5.079
(4)	16166	14596	13941	13551	13775	14406	7.345
(5)	15672	14437	13986	13647	14411	14431	5.316
8 Aroclor-1262(1)	+++++	+++++	+++++	12612	+++++	12612	0.000
(2)	+++++	+++++	+++++	15693	+++++	15693	0.000
(3)	+++++	+++++	+++++	19946	+++++	19946	0.000
(4)	+++++	+++++	+++++	17981	+++++	17981	0.000
(5)	+++++	+++++	+++++	37250	+++++	37250	0.000
9 Aroclor-1268(1)	49163	48928	48151	48132	48019	48478	1.086
(2)	55254	54719	54718	54649	53075	54483	1.512
(3)	39937	38826	38121	38191	38006	38616	2.083
(4)	16234	16191	16152	16347	16815	16348	1.657
(5)	114910	115297	111446	111050	107804	112101	2.753
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	457836	439032	431646	423676	400995	430637	4.841
$ 12 Decachlorobiphenyl	331580	312081	303953	298909	289924	307289	5.135

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Cal Date : 09-Mar-2010 14:09 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032b3201.d
Level 2: /chem/ecd1a.i/022210.b/033b3301.d
Level 3: /chem/ecd1a.i/022210.b/034b3401.d
Level 4: /chem/ecd1a.i/022210.b/035b3501.d
Level 5: /chem/ecd1a.i/022210.b/036b3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14790	13406	12599	11956	11198	12790	10.807
(2)	11020	9550	8735	8081	7204	8918	16.336
(3)	6667	5702	5261	4923	4477	5406	15.464
(4)	8469	7466	6811	6206	5627	6916	15.991
(5)	7861	6755	6366	5845	5300	6425	15.123
62 4,4-DDT	+++++	+++++	+++++	100019	+++++	100019	0.000
63 4,4-DDE	+++++	+++++	+++++	250510	+++++	250510	0.000
64 4,4-DDD	+++++	+++++	+++++	208527	+++++	208527	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3431	+++++	3431	0.000
(2)	+++++	+++++	+++++	2152	+++++	2152	0.000
(3)	+++++	+++++	+++++	7328	+++++	7328	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	4920	+++++	4920	0.000
(2)	+++++	+++++	+++++	5252	+++++	5252	0.000
(3)	+++++	+++++	+++++	3768	+++++	3768	0.000
(4)	+++++	+++++	+++++	2699	+++++	2699	0.000
(5)	+++++	+++++	+++++	2631	+++++	2631	0.000
4 Aroclor-1242(1)	12162	10602	10267	9852	8873	10351	11.615
(2)	8972	7860	7095	6551	5917	7279	16.286
(3)	7172	6222	5595	5138	4714	5768	16.707
(4)	7092	6149	5608	5215	4876	5788	15.018
(5)	8262	7049	6439	5944	5512	6641	16.138
5 Aroclor-1248(1)	9375	8130	7334	6873	6297	7602	15.743
(2)	11273	9902	9059	8609	7955	9360	13.704
(3)	12356	11118	10348	9982	9432	10647	10.657
(4)	14147	12783	11698	11327	10532	12097	11.596
(5)	13387	12032	11069	10719	10286	11499	10.750

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Cal Date : 09-Mar-2010 14:09 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7593	6474	5915	5463	4897	6068	16.986
(2)	13079	11278	10543	9836	8978	10743	14.511
(3)	14023	12144	11373	10769	9907	11643	13.419
(4)	18579	16173	15683	15087	13972	15899	10.745
(5)	14693	12059	11530	11303	10291	11975	13.772
7 Aroclor-1260(1)	16156	14478	12627	11898	10869	13206	15.988
(2)	18308	16389	15401	14483	13254	15567	12.332
(3)	14169	12468	11644	10875	10061	11844	13.319
(4)	14677	12787	11930	11182	10430	12201	13.416
(5)	30570	27429	26347	25126	23163	26527	10.405
8 Aroclor-1262(1)	+++++	+++++	+++++	11265	+++++	11265	0.000
(2)	+++++	+++++	+++++	15504	+++++	15504	0.000
(3)	+++++	+++++	+++++	14070	+++++	14070	0.000
(4)	+++++	+++++	+++++	28448	+++++	28448	0.000
(5)	+++++	+++++	+++++	19723	+++++	19723	0.000
9 Aroclor-1268(1)	41829	39003	36612	35751	33294	37298	8.721
(2)	39747	36378	33891	33096	31474	34917	9.246
(3)	30202	27679	25801	25188	24032	26580	9.093
(4)	14370	12834	11677	11309	10971	12232	11.329
(5)	81955	77588	73073	71224	67792	74326	7.452
10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	335261	308362	295849	285028	262485	297397	9.098
$ 12 Decachlorobiphenyl	252219	220293	206273	196840	181867	211498	12.633

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022210.b/008f0801.d
Lab Smp Id: WAR100222-01 60 Client Smp ID: AR166001
Inj Date : 22-FEB-2010 07:13
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-01 60
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 11:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:26 Cal File: 032f3201.d
Als bottle: 8 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
11 4cmx					CAS #: 877-09-8		
1.925	1.925	0.000	4578363	10.0000	10.5	80.00- 120.00	100.00
12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.235	5.235	0.000	3315798	10.0000	10.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.378	2.378	0.000	1847306	100.000	117	80.00- 120.00	100.00(M)
2.665	2.665	0.000	2019408	100.000	106	89.32- 129.32	109.32
2.746	2.746	0.000	1416950	100.000	112	56.70- 96.70	76.70
2.784	2.784	0.000	816253	100.000	107	24.19- 64.19	44.19
2.995	2.995	0.000	1034535	100.000	107	36.00- 76.00	56.00
Average of Peak Amounts =					110		
7 Aroclor-1260					CAS #: 11096-82-5		
3.721	3.721	0.000	1944546	100.000	104	80.00- 120.00	100.00(M)
3.884	3.884	0.000	2562485	100.000	97.0	111.78- 151.78	131.78
4.046	4.046	0.000	2716424	100.000	95.8	119.69- 159.69	139.69
4.115	4.115	0.000	1616569	100.000	98.7	63.13- 103.13	83.13
4.257	4.257	0.000	1567229	100.000	94.2	60.60- 100.60	80.60
Average of Peak Amounts =					97.9		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/022210.b/008f0801.d

Date : 22-FEB-2010 07:13

Client ID: AR166001

Sample Info: IWAR100222-01 60

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

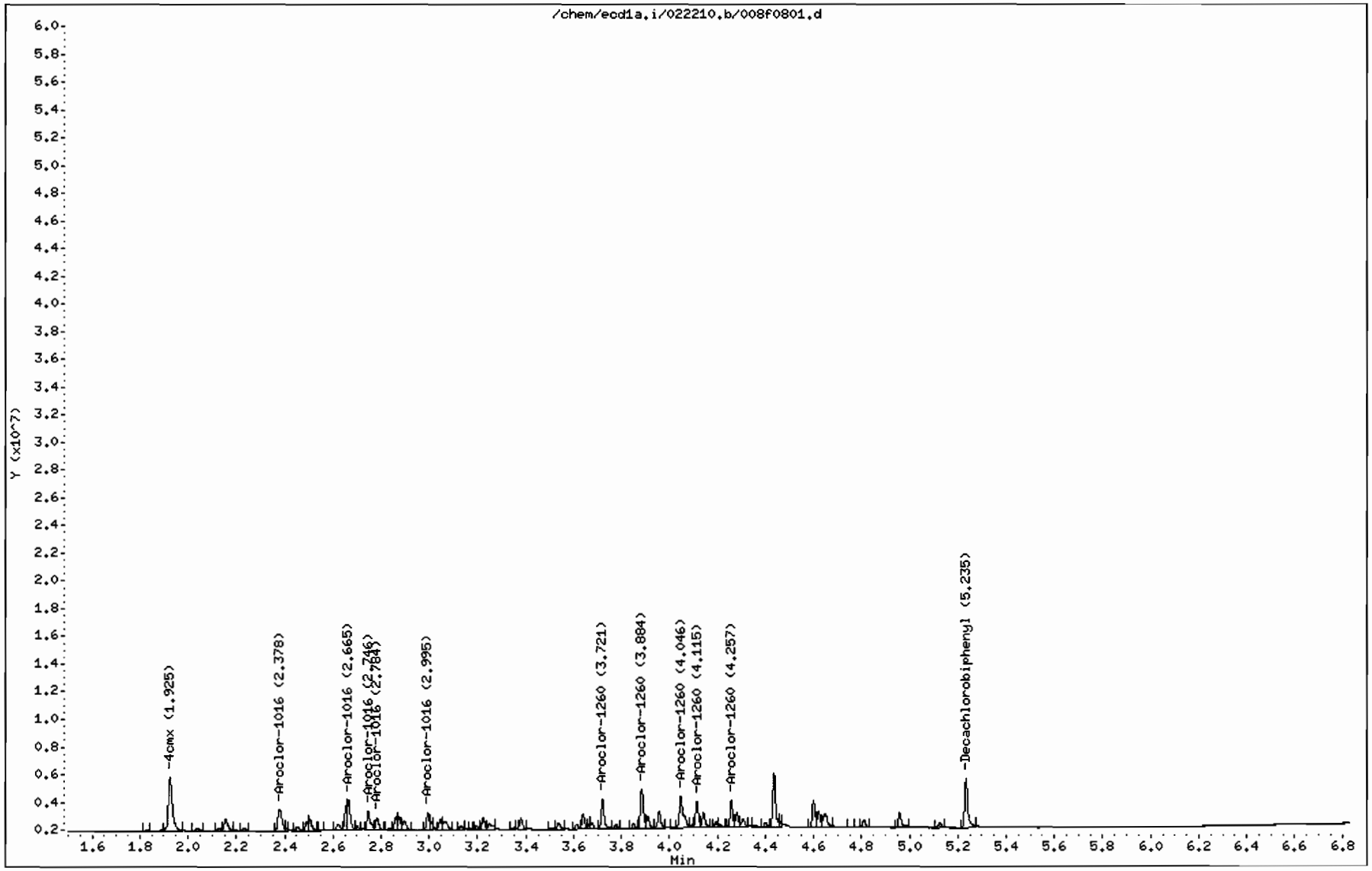

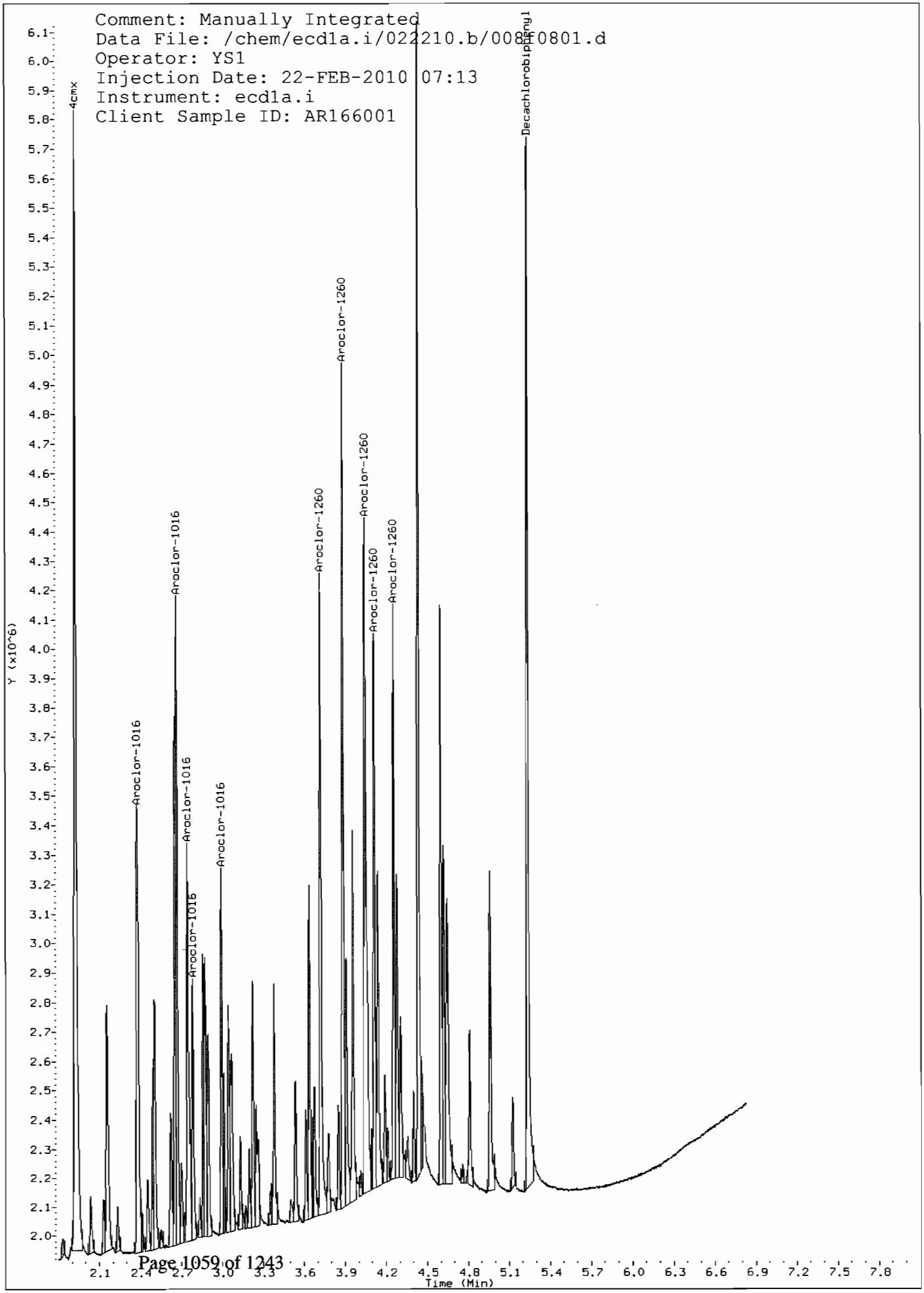
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Data File: /chem/ecd1a.i/022210.b/00810801.d
Operator: YS1
Injection Date: 22-FEB-2010 07:13
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^6)
Time (Min)

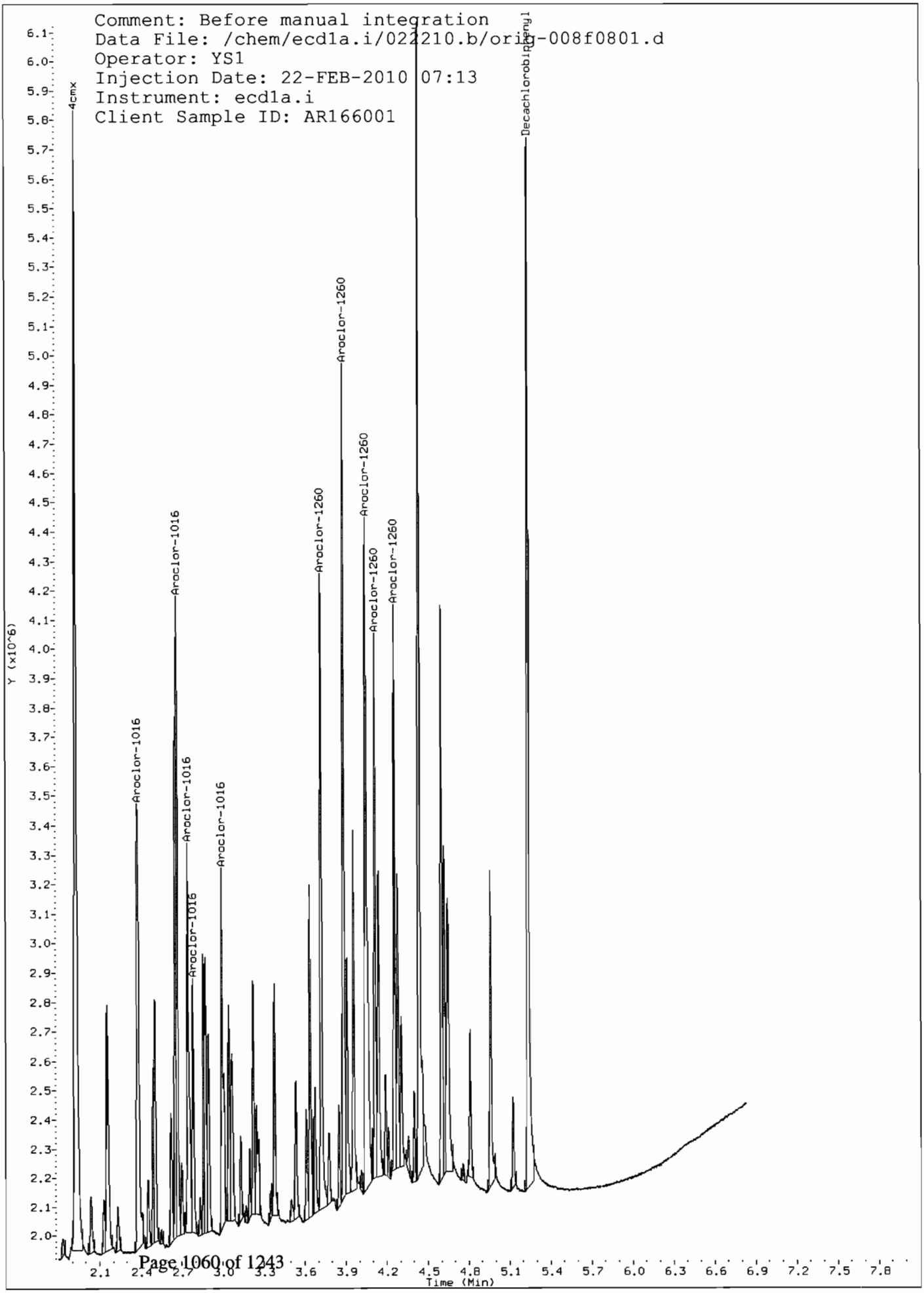
Comment: Before manual integration
Data File: /chem/ecd1a.i/022210.b/orig-008f0801.d
Operator: YS1
Injection Date: 22-FEB-2010 07:13
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^6)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022210.b/008b0801.d
Lab Smp Id: WAR100222-01 60 Client Smp ID: AR166001
Inj Date : 22-FEB-2010 07:13
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-01 60
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 11:13 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:26 Cal File: 032b3201.d
Als bottle: 8 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
11 4cmx					CAS #: 877-09-8		
2.290	2.290	0.000	3352610	10.0000	11.3	80.00- 120.00	100.00
12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.937	5.937	0.000	2522193	10.0000	11.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.185	3.185	0.000	1478950	100.000	114	80.00- 120.00	100.00(M)
3.269	3.269	0.000	1101966	100.000	123	54.51- 94.51	74.51
3.333	3.333	0.000	666707	100.000	120	25.08- 65.08	45.08
3.560	3.560	0.000	846904	100.000	119	37.26- 77.26	57.26
3.635	3.635	0.000	786085	100.000	119	33.15- 73.15	53.15
Average of Peak Amounts =					119		
7 Aroclor-1260					CAS #: 11096-82-5		
4.326	4.326	0.000	1615650	100.000	122	80.00- 120.00	100.00
4.451	4.451	0.000	1830766	100.000	115	93.31- 133.31	113.31
4.717	4.717	0.000	1416900	100.000	117	67.70- 107.70	87.70
4.891	4.891	0.000	1467662	100.000	116	70.84- 110.84	90.84
5.038	5.038	0.000	3057043	100.000	112	169.21- 209.21	189.21
Average of Peak Amounts =					116		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/022210.b/008b0801.d

Page 1

Date : 22-FEB-2010 07:13

Client ID: AR166001

Instrument: ecd1a.i

Sample Info: !WAR100222-01 60

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

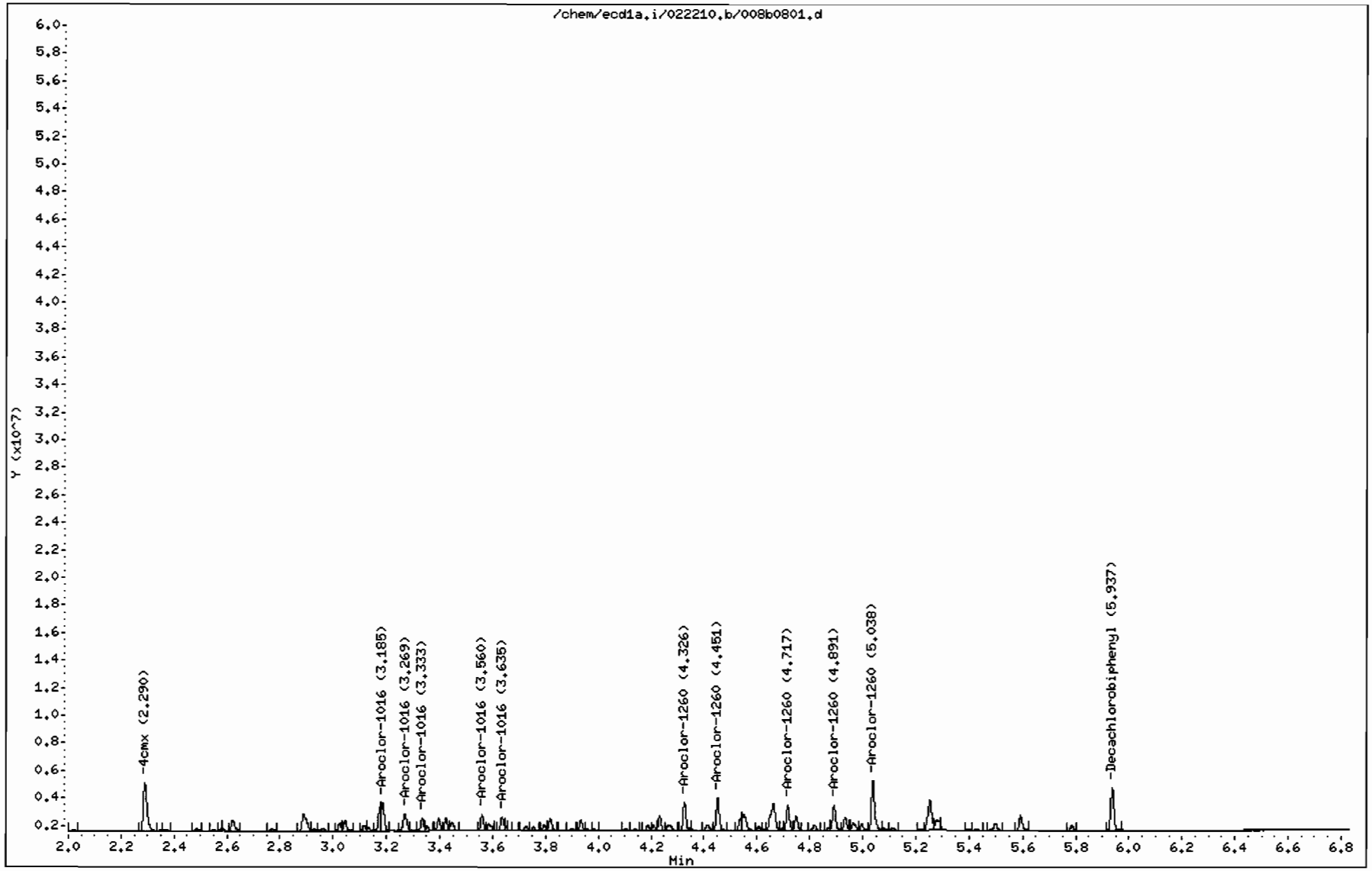

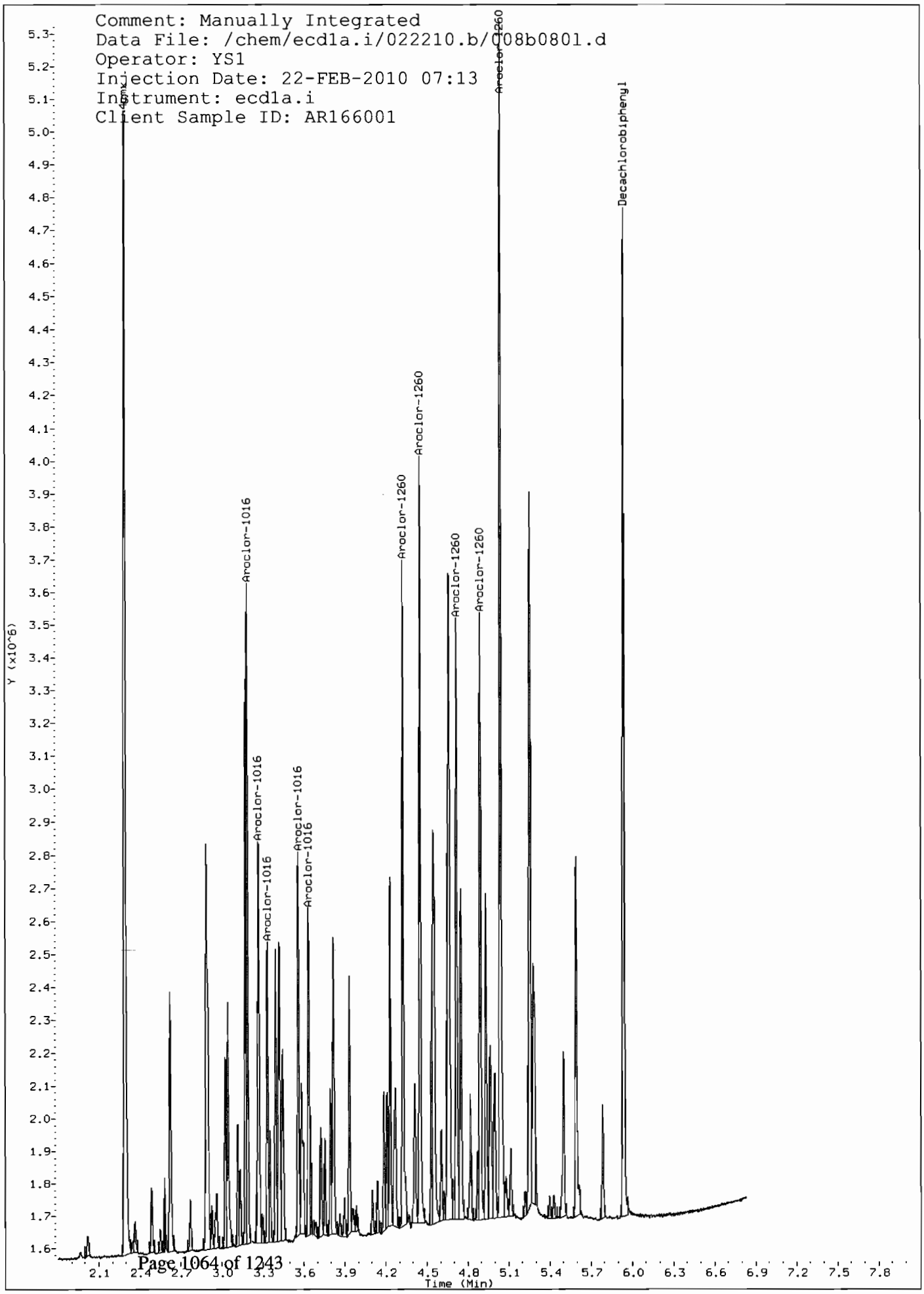
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Data File: /chem/ecd1a.i/022210.b/C08b0801.d
Operator: YS1
Injection Date: 22-FEB-2010 07:13
Instrument: ecd1a.i
Client Sample ID: AR166001
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^6)
Time (Min)

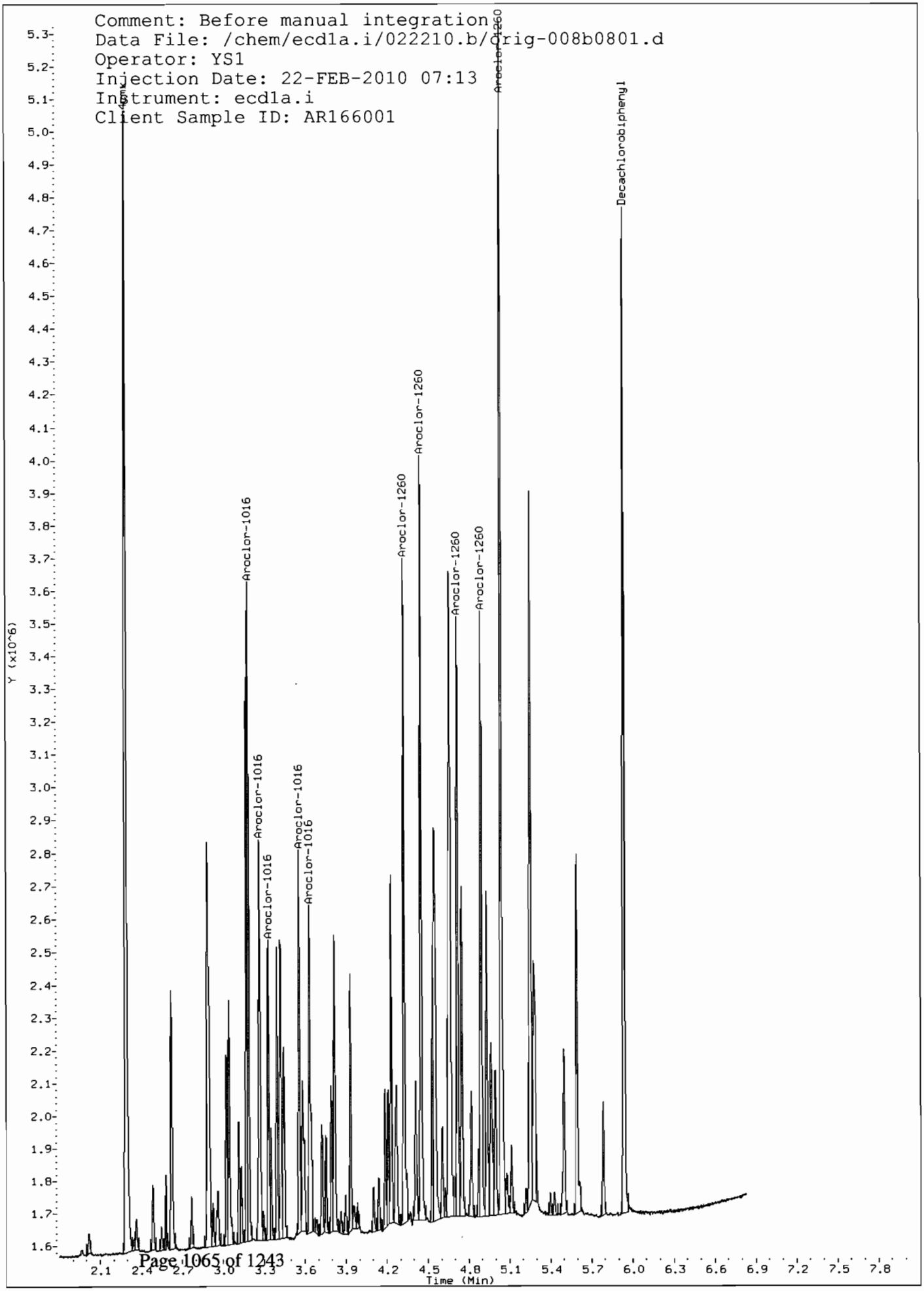
Comment: Before manual integration
Data File: /chem/ecd1a.i/022210.b/orig-008b0801.d
Operator: YS1
Injection Date: 22-FEB-2010 07:13
Instrument: ecd1a.i
Client Sample ID: AR166001
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^6)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022210.b/009f0901.d
Lab Smp Id: WAR100222-02 60 Client Smp ID: AR166002
Inj Date : 22-FEB-2010 07:24
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-02 60
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 11:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:37 Cal File: 033f3301.d
Als bottle: 9 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
11 4cmx					CAS #: 877-09-8		
1.924	1.924	0.000	10975795	25.0000	25.3	80.00- 120.00	100.00
12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.234	5.234	0.000	7802016	25.0000	24.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.379	2.379	0.000	4078048	250.000	260	80.00- 120.00	100.00(M)
2.665	2.665	0.000	4634296	250.000	248	93.64- 133.64	113.64
2.746	2.746	0.000	3118320	250.000	250	56.47- 96.47	76.47
2.784	2.784	0.000	1799428	250.000	243	24.12- 64.12	44.12
2.994	2.994	0.000	2294379	250.000	244	36.26- 76.26	56.26
Average of Peak Amounts =					249		
7 Aroclor-1260					CAS #: 11096-82-5		
3.720	3.720	0.000	4326627	250.000	238	80.00- 120.00	100.00(M)
3.883	3.883	0.000	5939258	250.000	232	117.27- 157.27	137.27
4.045	4.045	0.000	6236926	250.000	228	124.15- 164.15	144.15
4.114	4.114	0.000	3649052	250.000	231	64.34- 104.34	84.34
4.257	4.257	0.000	3609150	250.000	226	63.42- 103.42	83.42
Average of Peak Amounts =					231		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/022210.b/009f0901.d
Date : 22-FEB-2010 07:24
Client ID: AR166002
Sample Info: !WAR100222-02 60
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

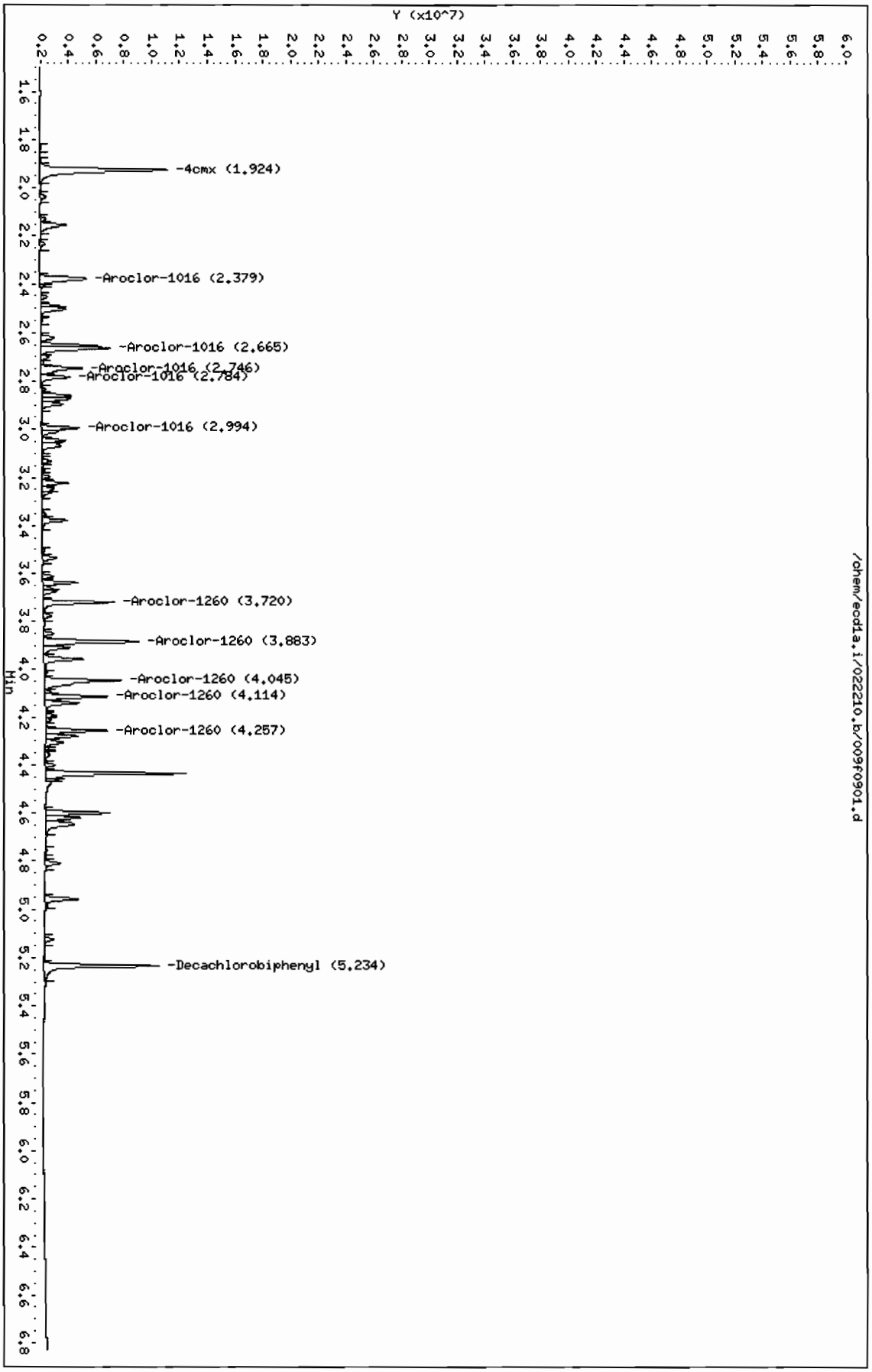

/chem/ecd1a.i/022210.b/009f0901.d

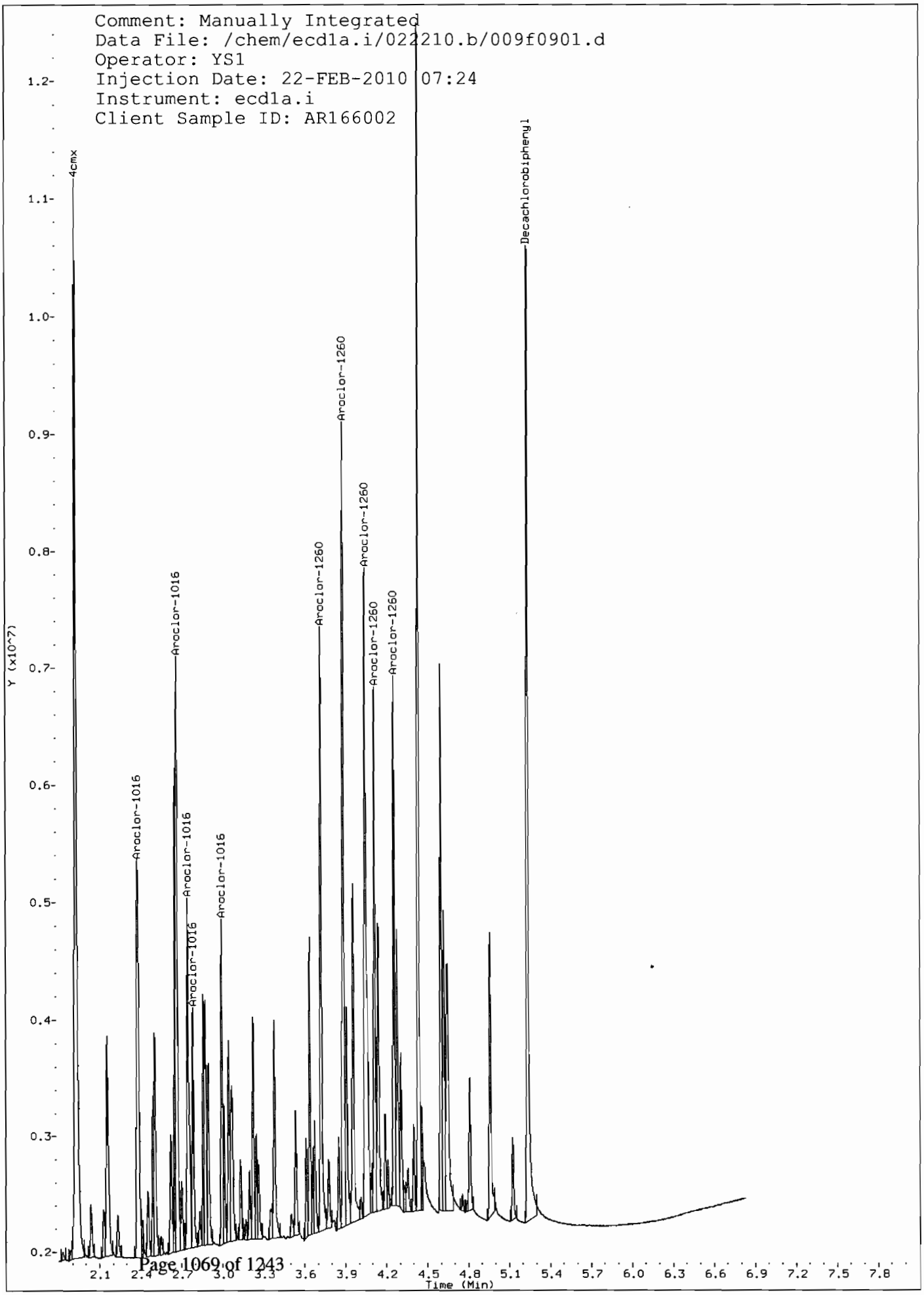
Comment: Manually Integrated
Data File: /chem/ecd1a.i/022210.b/009f0901.d
Operator: YS1
Injection Date: 22-FEB-2010 07:24
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2
4.5
4.8
5.1
5.4
5.7
6.0
6.3
6.6
6.9
7.2
7.5
7.8
Time (Min)

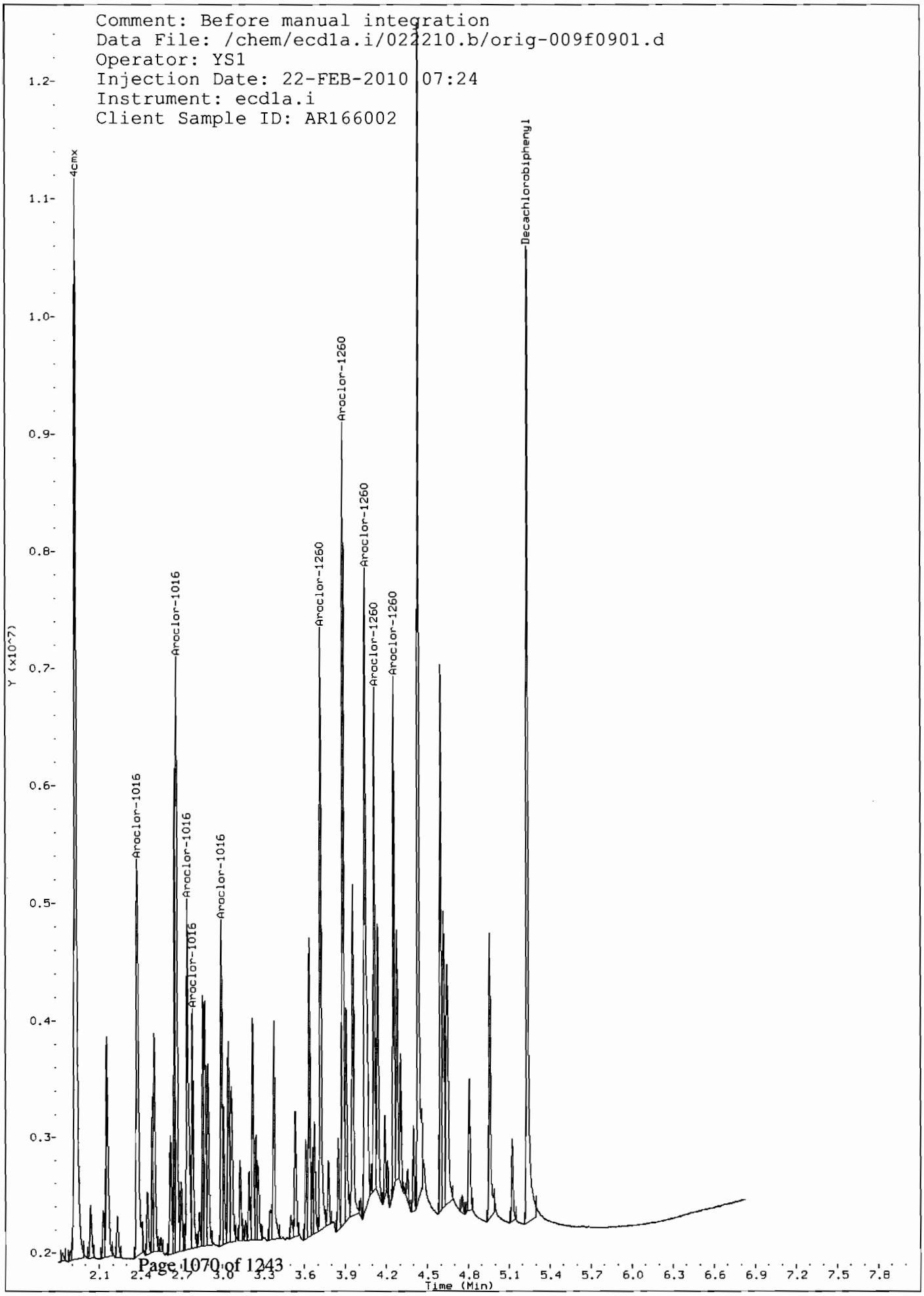
Comment: Before manual integration
Data File: /chem/ecd1a.i/022210.b/orig-009f0901.d
Operator: YS1
Injection Date: 22-FEB-2010 07:24
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2
4.5
4.8
5.1
5.4
5.7
6.0
6.3
6.6
6.9
7.2
7.5
7.8
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022210.b/009b0901.d
Lab Smp Id: WAR100222-02 60 Client Smp ID: AR166002
Inj Date : 22-FEB-2010 07:24
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-02 60
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 11:13 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:37 Cal File: 033b3301.d
Als bottle: 9 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
11 4cmx					CAS #: 877-09-8		
2.289	2.289	0.000	7709042	25.0000	25.9	80.00- 120.00	100.00
12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.937	5.937	0.000	5507321	25.0000	25.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.185	3.185	0.000	3351403	250.000	258	80.00- 120.00	100.00(M)
3.269	3.269	0.000	2387580	250.000	266	51.24- 91.24	71.24
3.332	3.332	0.000	1425521	250.000	259	22.54- 62.54	42.54
3.559	3.559	0.000	1866432	250.000	263	35.69- 75.69	55.69
3.634	3.634	0.000	1688630	250.000	257	30.39- 70.39	50.39
Average of Peak Amounts =					261		
7 Aroclor-1260					CAS #: 11096-82-5		
4.325	4.325	0.000	3619434	250.000	270	80.00- 120.00	100.00
4.450	4.450	0.000	4097261	250.000	258	93.20- 133.20	113.20
4.717	4.717	0.000	3117037	250.000	258	66.12- 106.12	86.12
4.890	4.890	0.000	3196628	250.000	256	68.32- 108.32	88.32
5.038	5.038	0.000	6857256	250.000	252	169.46- 209.46	189.46
Average of Peak Amounts =					259		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/022210.b/009b0901.d

Date : 22-FEB-2010 07:24

Client ID: AR166002

Sample Info: IWAR100222-02 60

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

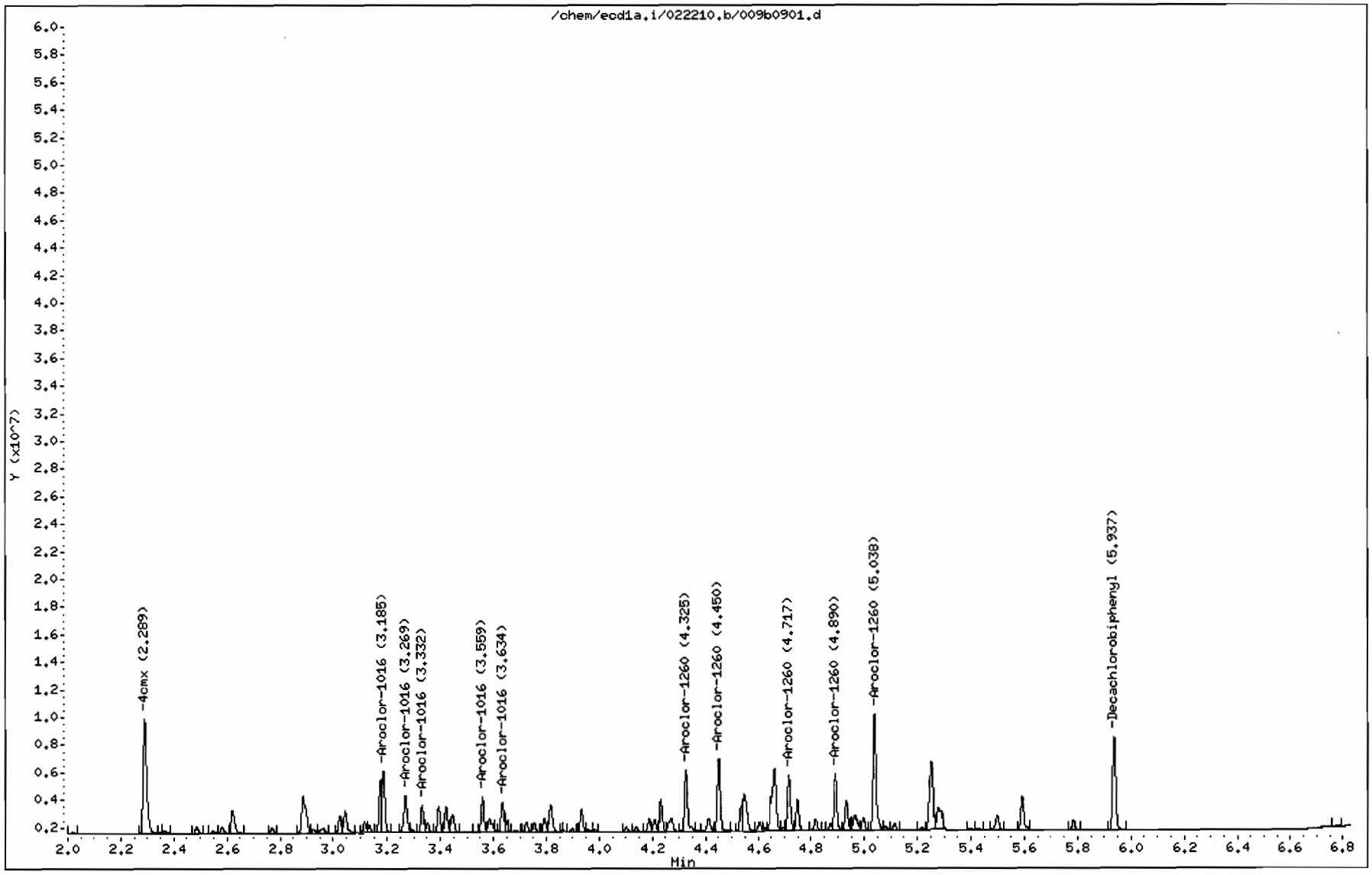

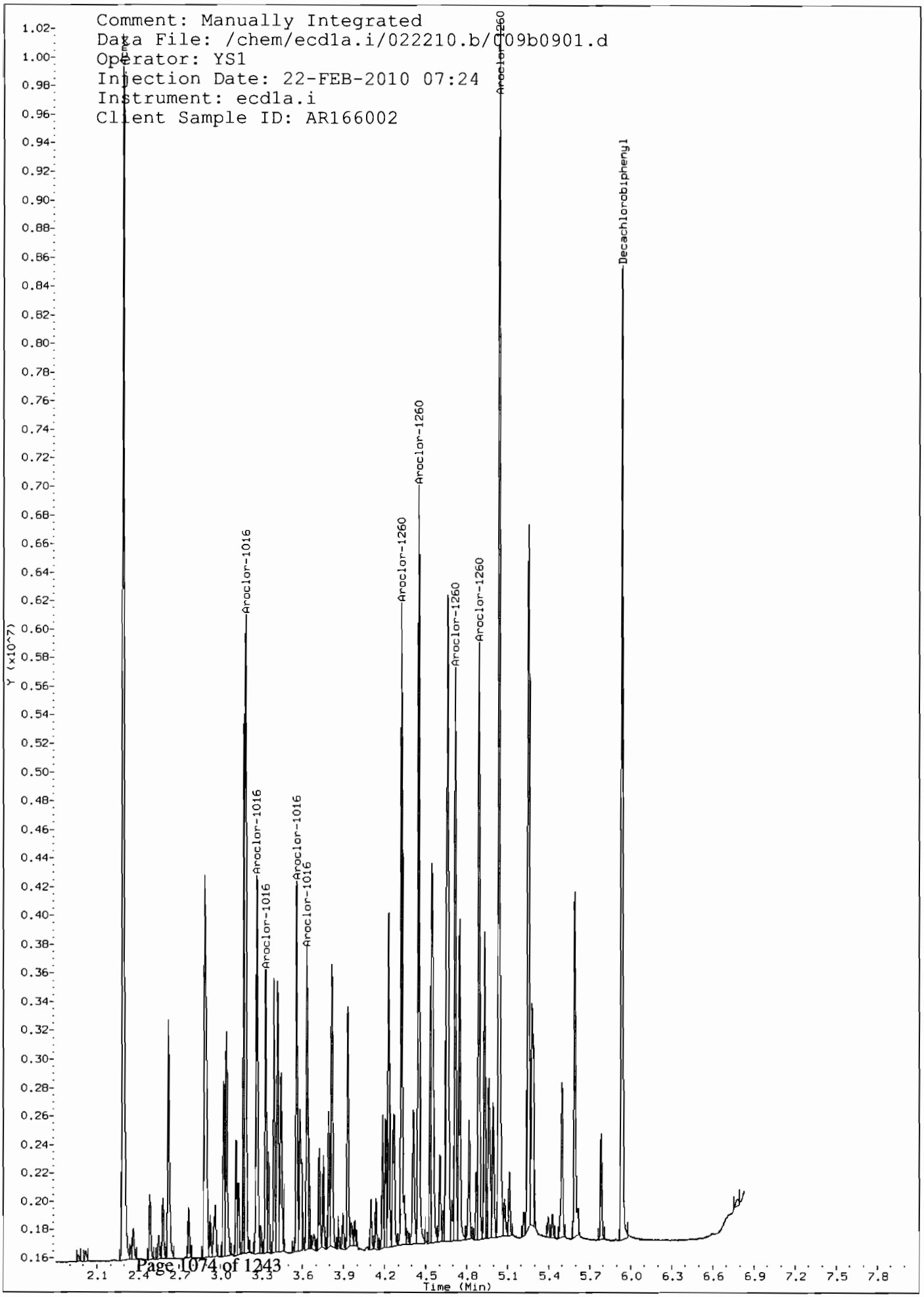
Comment: Manually Integrated
Data File: /chem/ecd1a.i/022210.b/009b0901.d
Operator: YS1
Injection Date: 22-FEB-2010 07:24
Instrument: ecd1a.i
Client Sample ID: AR166002
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
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Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

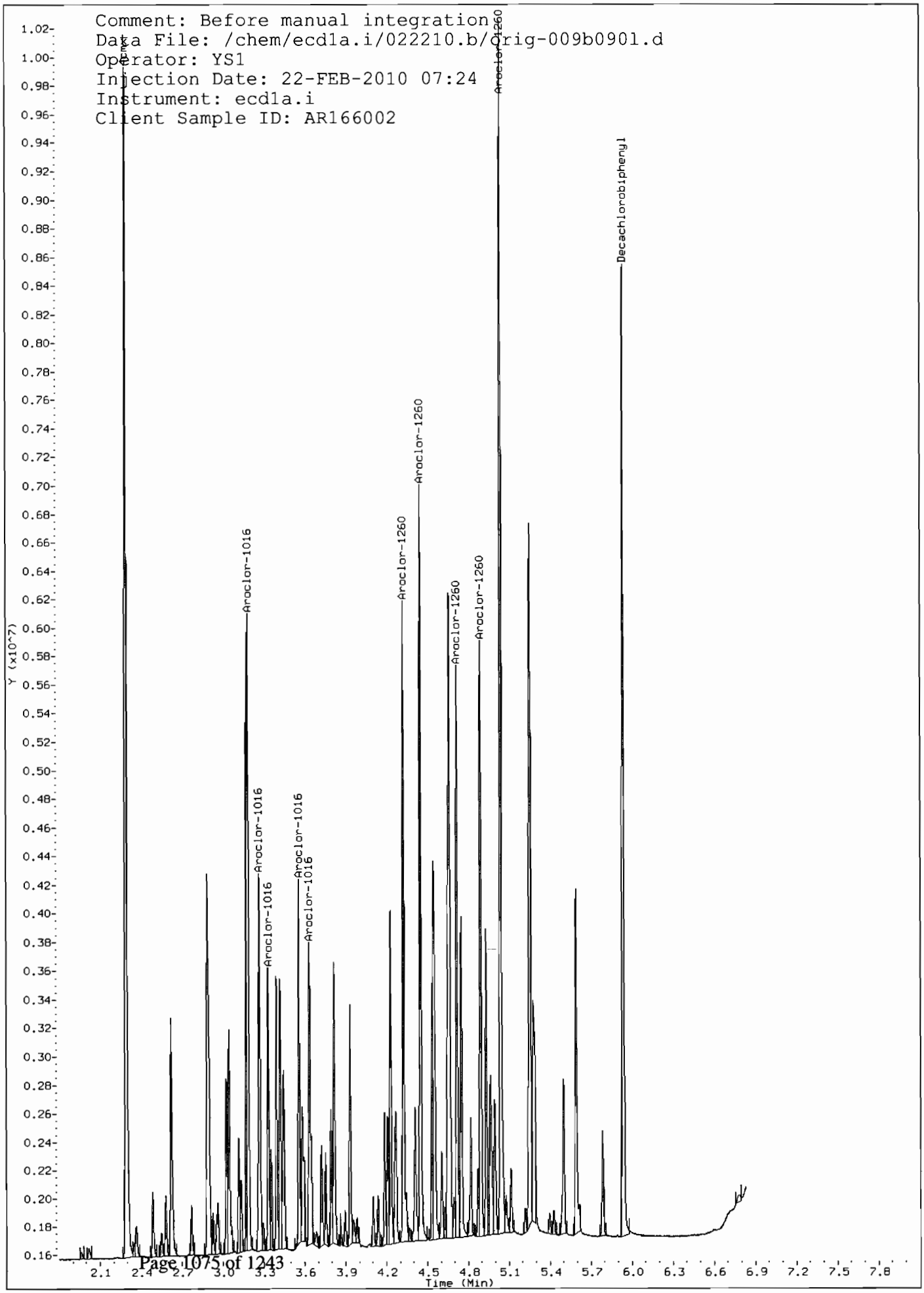
Comment: Before manual integration
Data File: /chem/ecd1a.i/022210.b/orig-009b0901.d
Operator: YS1
Injection Date: 22-FEB-2010 07:24
Instrument: ecd1a.i
Client Sample ID: AR166002
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022210.b/010f1001.d
Lab Smp Id: WAR100222-03 60 Client Smp ID: AR166003
Inj Date : 22-FEB-2010 07:34
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-03 60
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 11:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:47 Cal File: 034f3401.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
11 4cmx					CAS #: 877-09-8		
1.924	1.924	0.000	21582276	50.0000	49.9	80.00- 120.00	100.00
12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.233	5.233	0.000	15197649	50.0000	48.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.378	2.378	0.000	7574913	500.000	484	80.00- 120.00	100.00
2.666	2.666	0.000	8879539	500.000	477	97.22- 137.22	117.22
2.746	2.746	0.000	5937626	500.000	480	58.39- 98.39	78.39
2.783	2.783	0.000	3466386	500.000	474	25.76- 65.76	45.76
2.994	2.994	0.000	4311342	500.000	465	36.92- 76.92	56.92
Average of Peak Amounts =					476		
7 Aroclor-1260					CAS #: 11096-82-5		
3.721	3.721	0.000	8378812	500.000	469	80.00- 120.00	100.00
3.882	3.882	0.000	11657767	500.000	467	119.13- 159.13	139.13
4.046	4.046	0.000	12088128	500.000	455	124.27- 164.27	144.27
4.113	4.113	0.000	6970364	500.000	455	63.19- 103.19	83.19
4.256	4.256	0.000	6992796	500.000	453	63.46- 103.46	83.46
Average of Peak Amounts =					460		

Data File: /chem/ecd1a.i/022210.b/010f1001.d

Date : 22-FEB-2010 07:34

Client ID: AR166003

Sample Info: IWAR100222-03 60

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

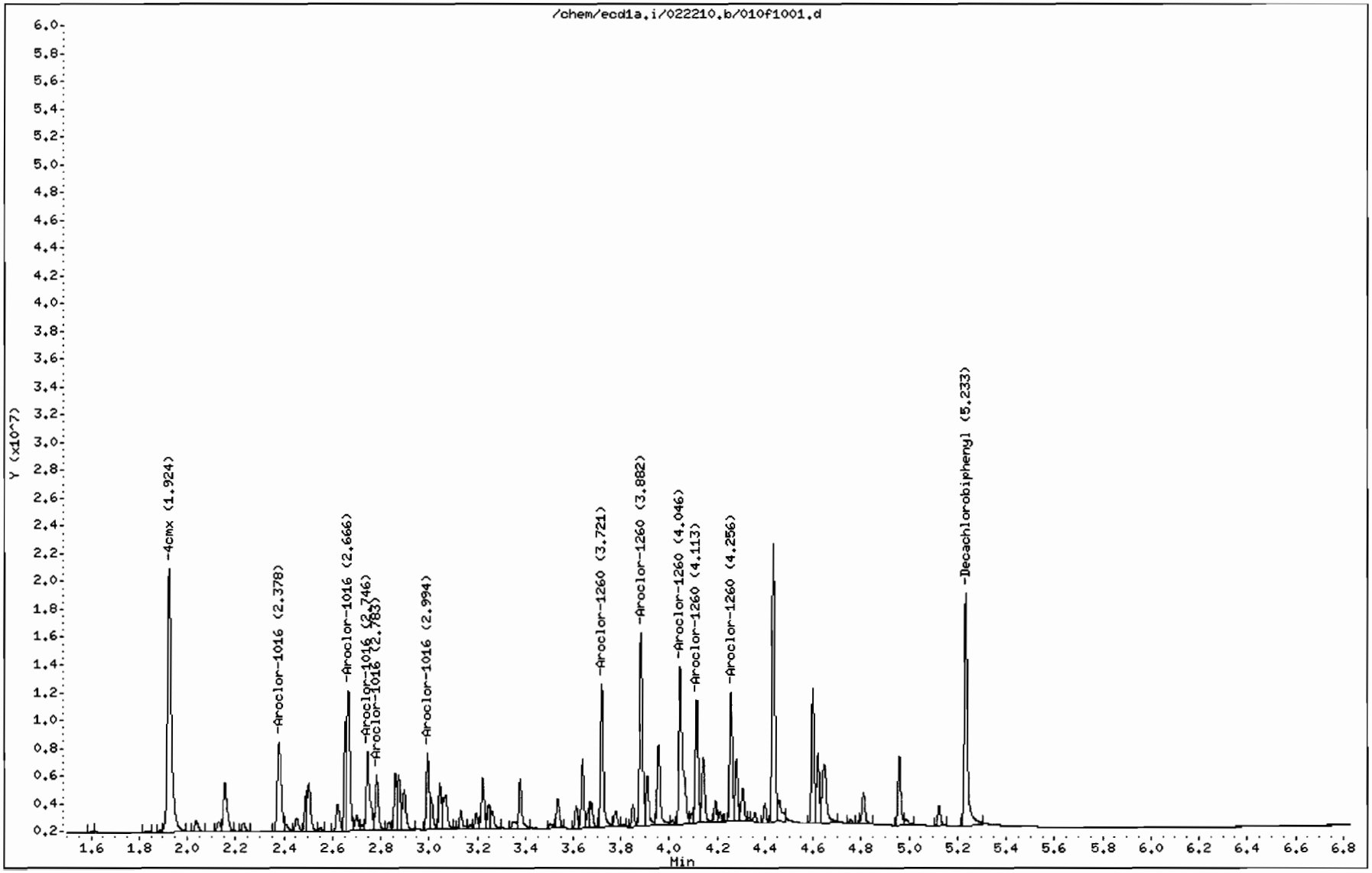

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022210.b/010b1001.d
Lab Smp Id: WAR100222-03 60 Client Smp ID: AR166003
Inj Date : 22-FEB-2010 07:34
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-03 60
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 11:13 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:47 Cal File: 034b3401.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpc1p1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
11 4cmx					CAS #: 877-09-8		
2.289	2.289	0.000	14792456	50.0000	49.5	80.00- 120.00	100.00
12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.936	5.936	0.000	10313627	50.0000	47.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.186	3.186	0.000	6299648	500.000	486	80.00- 120.00	100.00(M)
3.268	3.268	0.000	4367414	500.000	485	49.33- 89.33	69.33
3.332	3.332	0.000	2630441	500.000	479	21.76- 61.76	41.76
3.559	3.559	0.000	3405446	500.000	480	34.06- 74.06	54.06
3.635	3.635	0.000	3183012	500.000	484	30.53- 70.53	50.53
Average of Peak Amounts =					483		
7 Aroclor-1260					CAS #: 11096-82-5		
4.326	4.326	0.000	6313347	500.000	471	80.00- 120.00	100.00
4.450	4.450	0.000	7700403	500.000	486	101.97- 141.97	121.97
4.716	4.716	0.000	5822220	500.000	483	72.22- 112.22	92.22
4.891	4.891	0.000	5965035	500.000	478	74.48- 114.48	94.48
5.037	5.037	0.000	13173608	500.000	487	188.66- 228.66	208.66
Average of Peak Amounts =					481		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/022210.b/010b1001.d
Date : 22-FEB-2010 07:34
Client ID: AR166003
Sample Info: IWAR100222-03 60

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

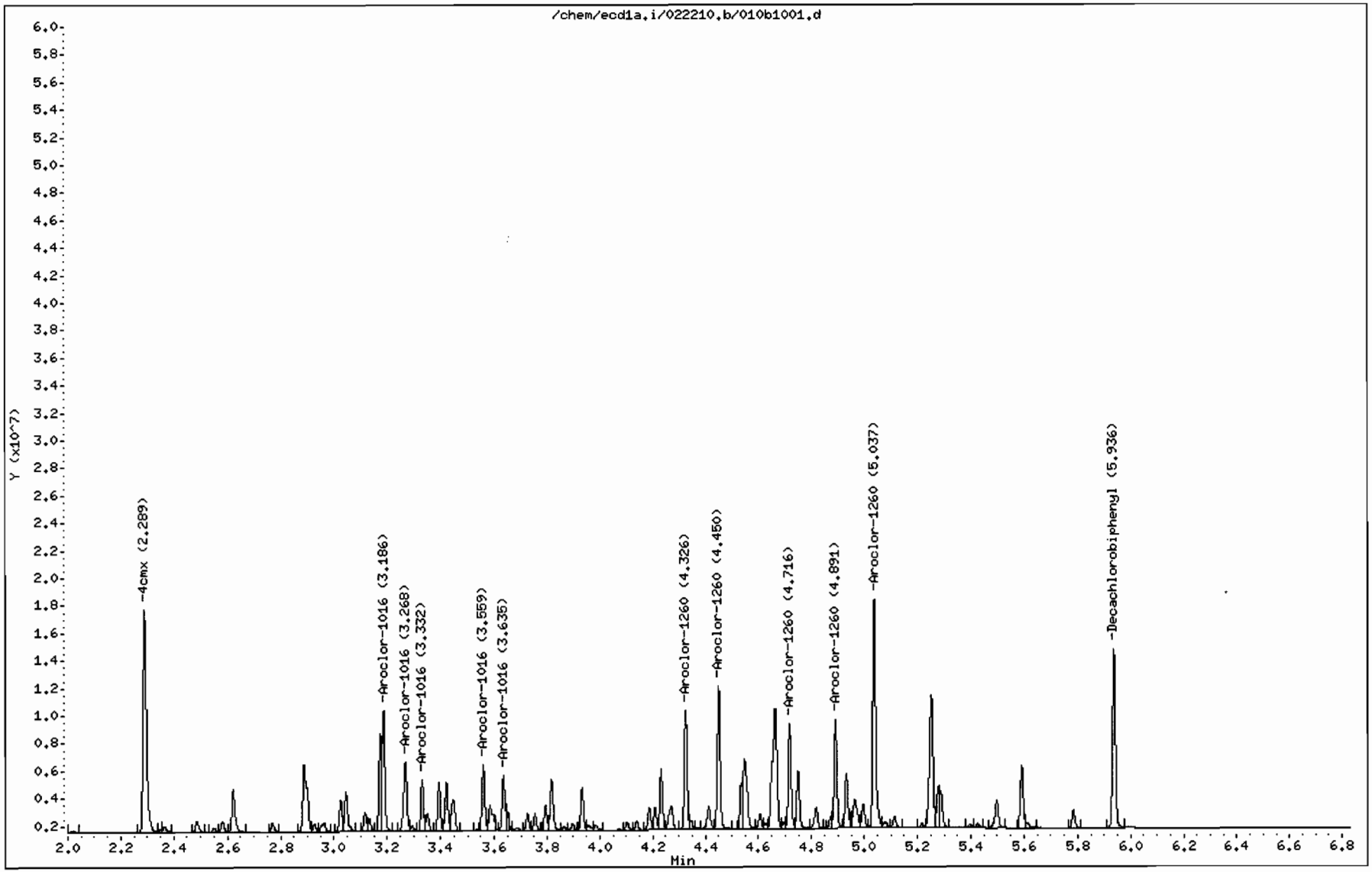

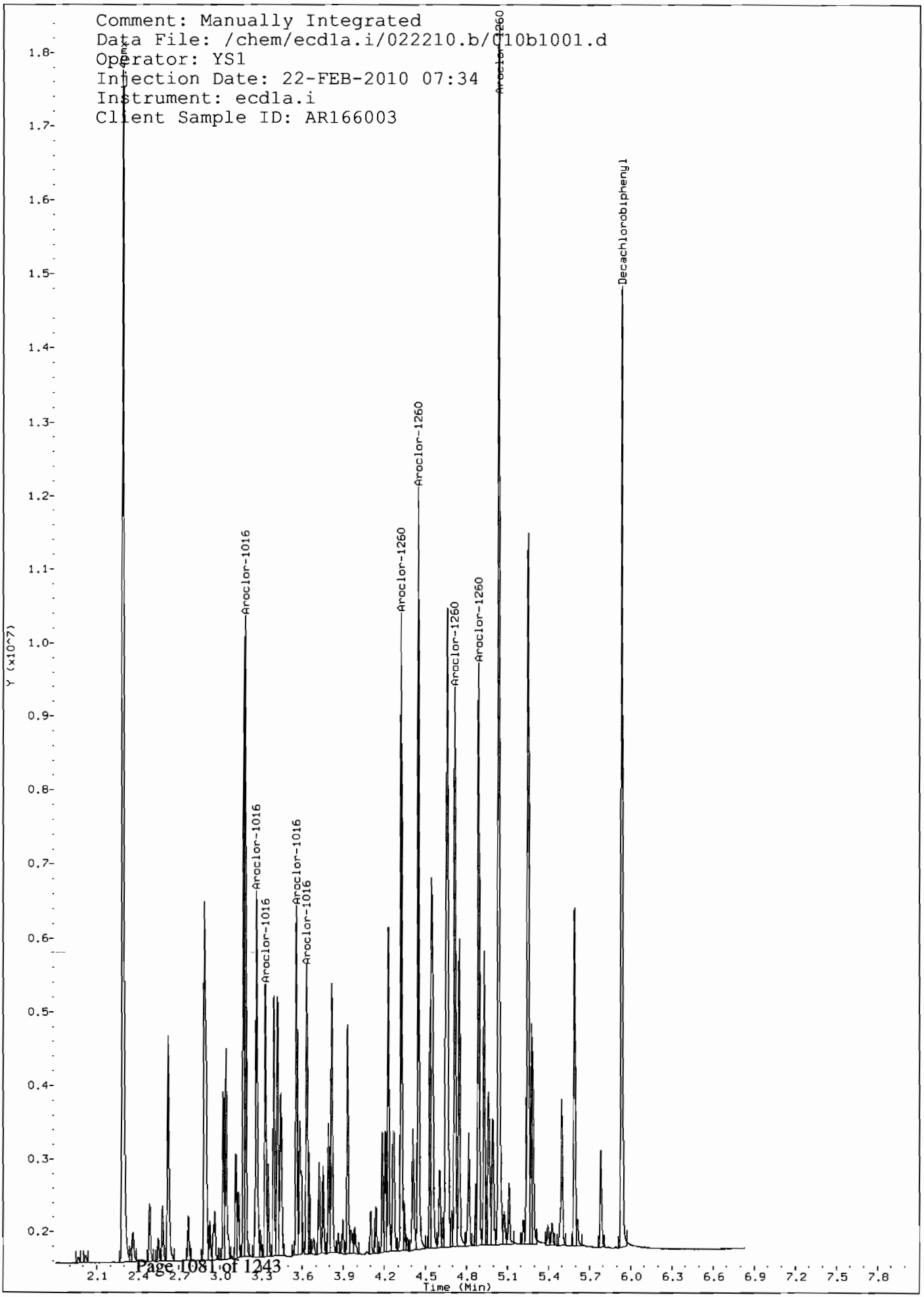
Comment: Manually Integrated
Data File: /chem/ecd1a.i/022210.b/C10b1001.d
Operator: YS1
Injection Date: 22-FEB-2010 07:34
Instrument: ecd1a.i
Client Sample ID: AR166003
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
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Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

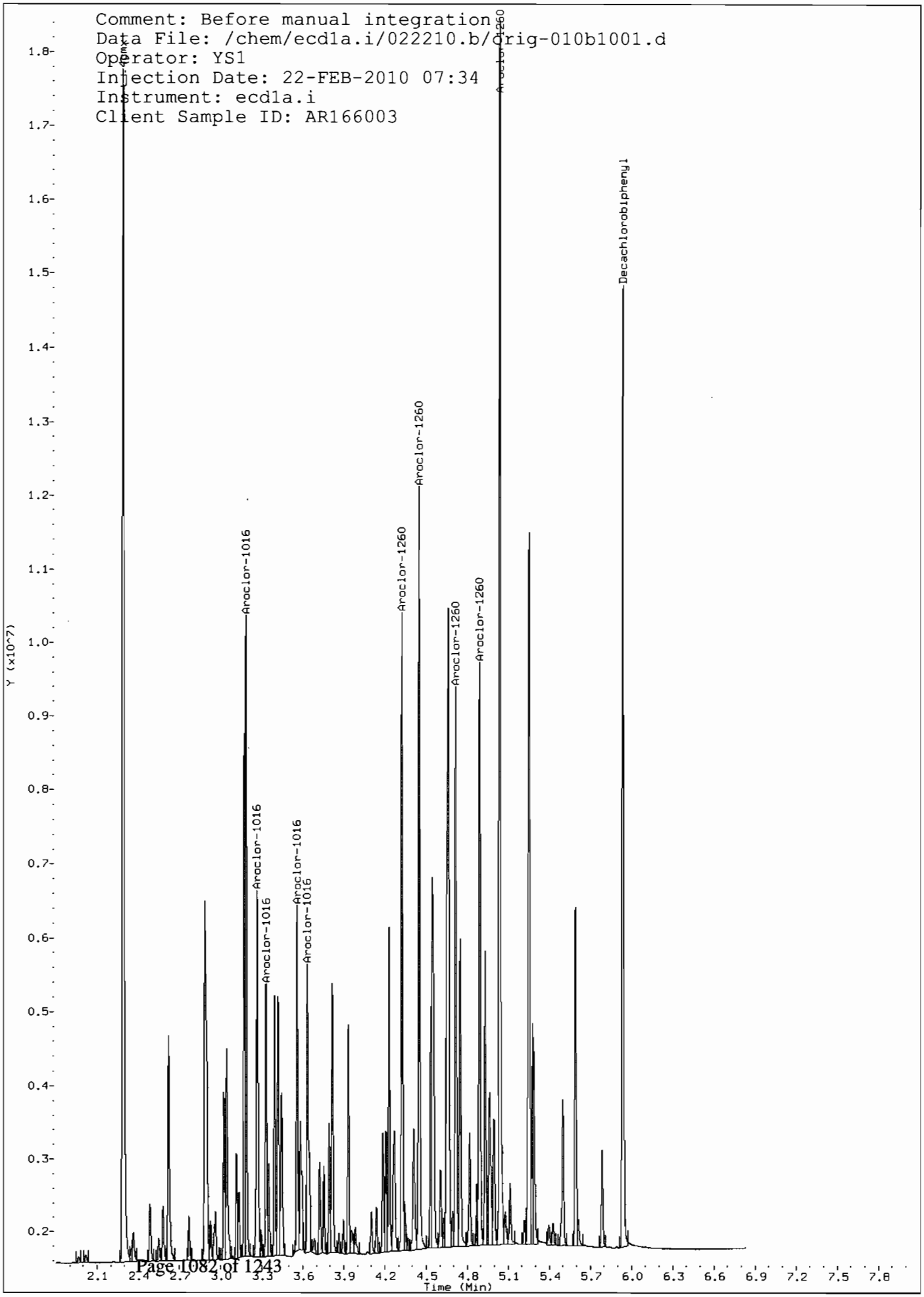
Comment: Before manual integration
Data File: /chem/ecd1a.i/022210.b/orig-010b1001.d
Operator: YS1
Injection Date: 22-FEB-2010 07:34
Instrument: ecd1a.i
Client Sample ID: AR166003
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022210.b/011f1101.d
Lab Smp Id: WAR100222-04 60 Client Smp ID: AR166004
Inj Date : 22-FEB-2010 07:45
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-04 60
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 11:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:58 Cal File: 035f3501.d
Als bottle: 11 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpc1p1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
11 4cmx					CAS #: 877-09-8		
1.924	1.924	0.000	42367613	100.000	98.4	80.00- 120.00	100.00
12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.234	5.234	0.000	29890895	100.000	97.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.377	2.377	0.000	14237597	1000.00	915	80.00- 120.00	100.00
2.665	2.665	0.000	17624553	1000.00	956	103.79- 143.79	123.79
2.746	2.746	0.000	11163464	1000.00	912	58.41- 98.41	78.41
2.783	2.783	0.000	6623837	1000.00	918	26.52- 66.52	46.52
2.994	2.994	0.000	8272910	1000.00	908	38.11- 78.11	58.11
Average of Peak Amounts =					922		
7 Aroclor-1260					CAS #: 11096-82-5		
3.721	3.721	0.000	16208013	1000.00	927	80.00- 120.00	100.00
3.883	3.883	0.000	22991581	1000.00	946	121.85- 161.85	141.85
4.046	4.046	0.000	24126610	1000.00	936	128.86- 168.86	148.86
4.113	4.113	0.000	13550533	1000.00	913	63.60- 103.60	83.60
4.257	4.257	0.000	13647181	1000.00	917	64.20- 104.20	84.20
Average of Peak Amounts =					928		

Data File: /chem/ecd1a.i/022210.b/011f1101.d

Date : 22-FEB-2010 07:45

Client ID: AR166004

Sample Info: IWAR100222-04 60

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

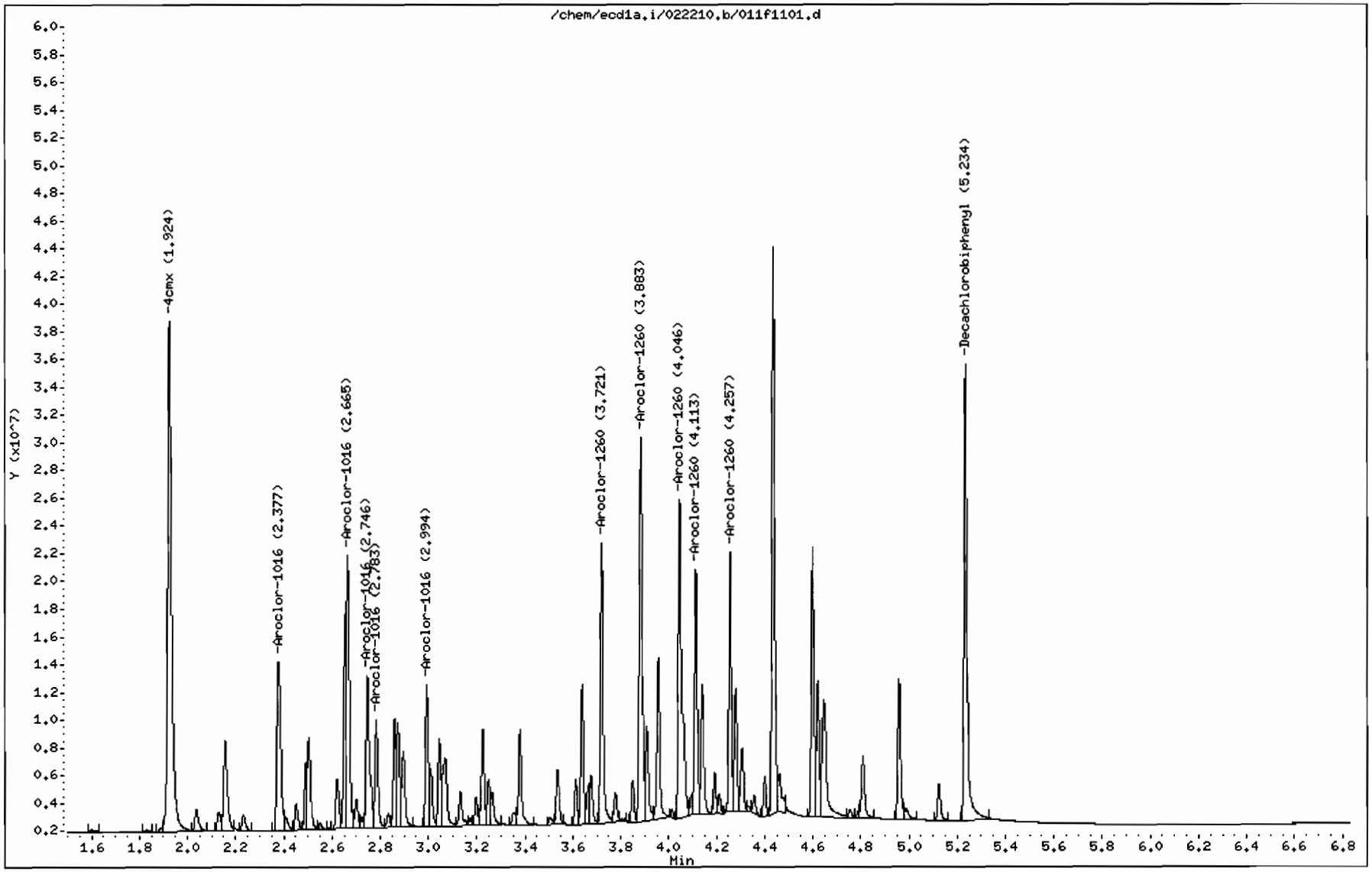

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022210.b/011b1101.d
Lab Smp Id: WAR100222-04 60 Client Smp ID: AR166004
Inj Date : 22-FEB-2010 07:45
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-04 60
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 11:13 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:58 Cal File: 035b3501.d
Als bottle: 11 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
11 4cmx					CAS #: 877-09-8		
2.289	2.289	0.000	28502775	100.000	95.2	80.00- 120.00	100.00
12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.937	5.937	0.000	19684032	100.000	91.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.186	3.186	0.000	11956444	1000.00	925	80.00- 120.00	100.00
3.268	3.268	0.000	8080910	1000.00	899	47.59- 87.59	67.59
3.332	3.332	0.000	4923229	1000.00	899	21.18- 61.18	41.18
3.559	3.559	0.000	6205765	1000.00	884	31.90- 71.90	51.90
3.635	3.635	0.000	5845165	1000.00	895	28.89- 68.89	48.89
Average of Peak Amounts =					900		
7 Aroclor-1260					CAS #: 11096-82-5		
4.326	4.326	0.000	11898455	1000.00	891	80.00- 120.00	100.00
4.451	4.451	0.000	14482885	1000.00	919	101.72- 141.72	121.72
4.717	4.717	0.000	10874794	1000.00	907	71.40- 111.40	91.40
4.891	4.891	0.000	11182340	1000.00	904	73.98- 113.98	93.98
5.038	5.038	0.000	25126266	1000.00	935	191.17- 231.17	211.17
Average of Peak Amounts =					911		

Data File: /chem/ecd1a.i/022210.b/011b1101.d
Date : 22-FEB-2010 07:45
Client ID: AR166004
Sample Info: WAR100222-04 60
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

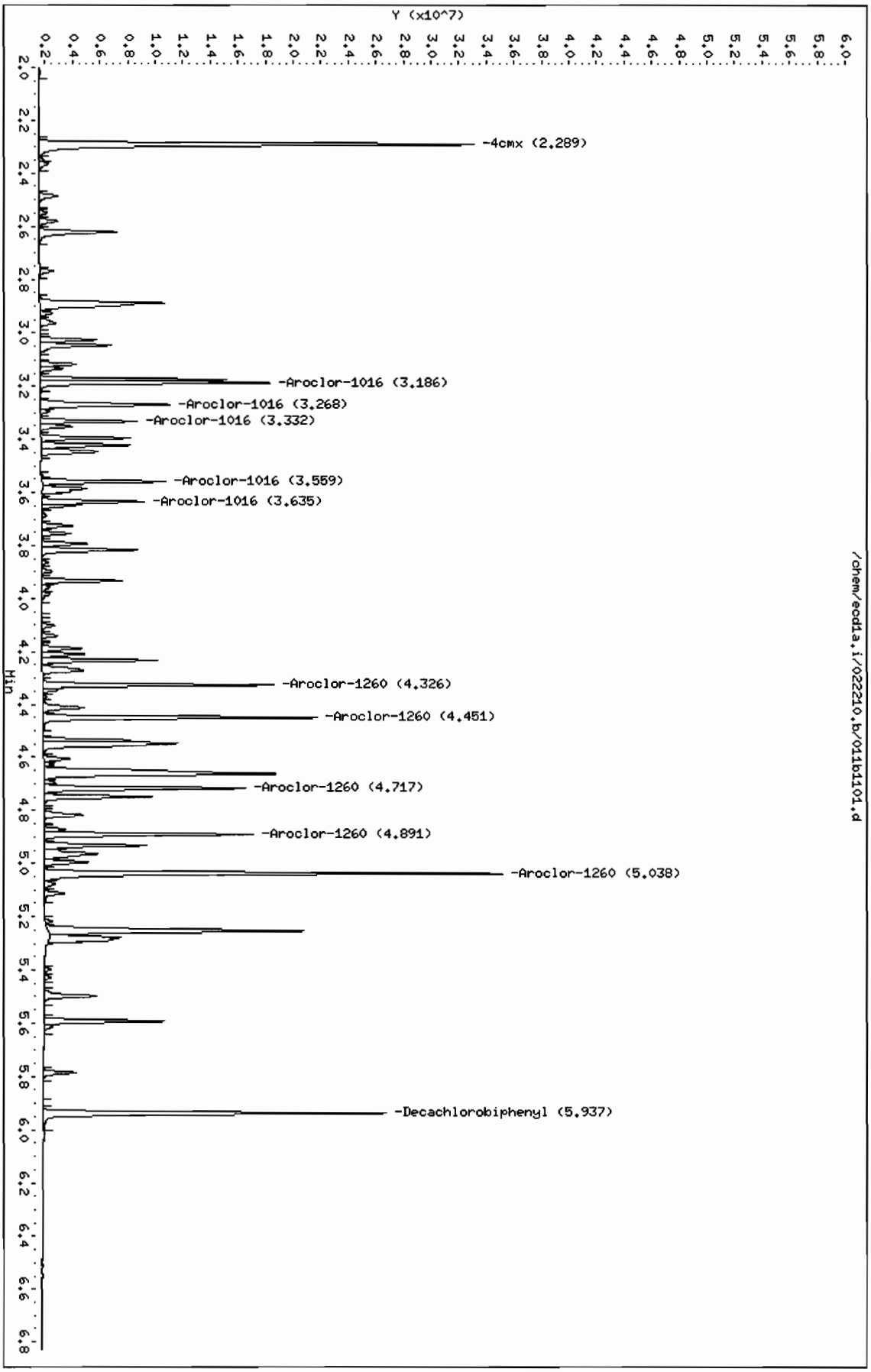

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022210.b/012f1201.d
Lab Smp Id: IAR100104-01 Client Smp ID: AR166005
Inj Date : 22-FEB-2010 07:55
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |IAR100104-01
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 11:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 12 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
11 4cmx					CAS #: 877-09-8		
1.925	1.925	0.000	160397915	400.000	372	80.00- 120.00	100.00
12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.233	5.233	0.000	115969744	400.000	377	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.378	2.378	0.000	50996207	4000.00	3310	80.00- 120.00	100.00(M)
2.665	2.665	0.000	68280653	4000.00	3740	113.89- 153.89	133.89
2.745	2.745	0.000	42583666	4000.00	3530	63.50- 103.50	83.50
2.782	2.782	0.000	26254695	4000.00	3700	31.48- 71.48	51.48
2.994	2.994	0.000	32570000	4000.00	3650	43.87- 83.87	63.87
Average of Peak Amounts =					3.59e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
3.720	3.720	0.000	62578007	4000.00	3660	80.00- 120.00	100.00(M)
3.882	3.882	0.000	90112997	4000.00	3810	124.00- 164.00	144.00
4.045	4.045	0.000	97767462	4000.00	3920	136.23- 176.23	156.23
4.112	4.112	0.000	55100856	4000.00	3820	68.05- 108.05	88.05
4.256	4.256	0.000	57643898	4000.00	3990	72.12- 112.12	92.12
Average of Peak Amounts =					3.84e+03		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/022210.b/012f1201.d

Date : 22-FEB-2010 07:55

Client ID: AR166005

Sample Info: IIAR100104-01

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

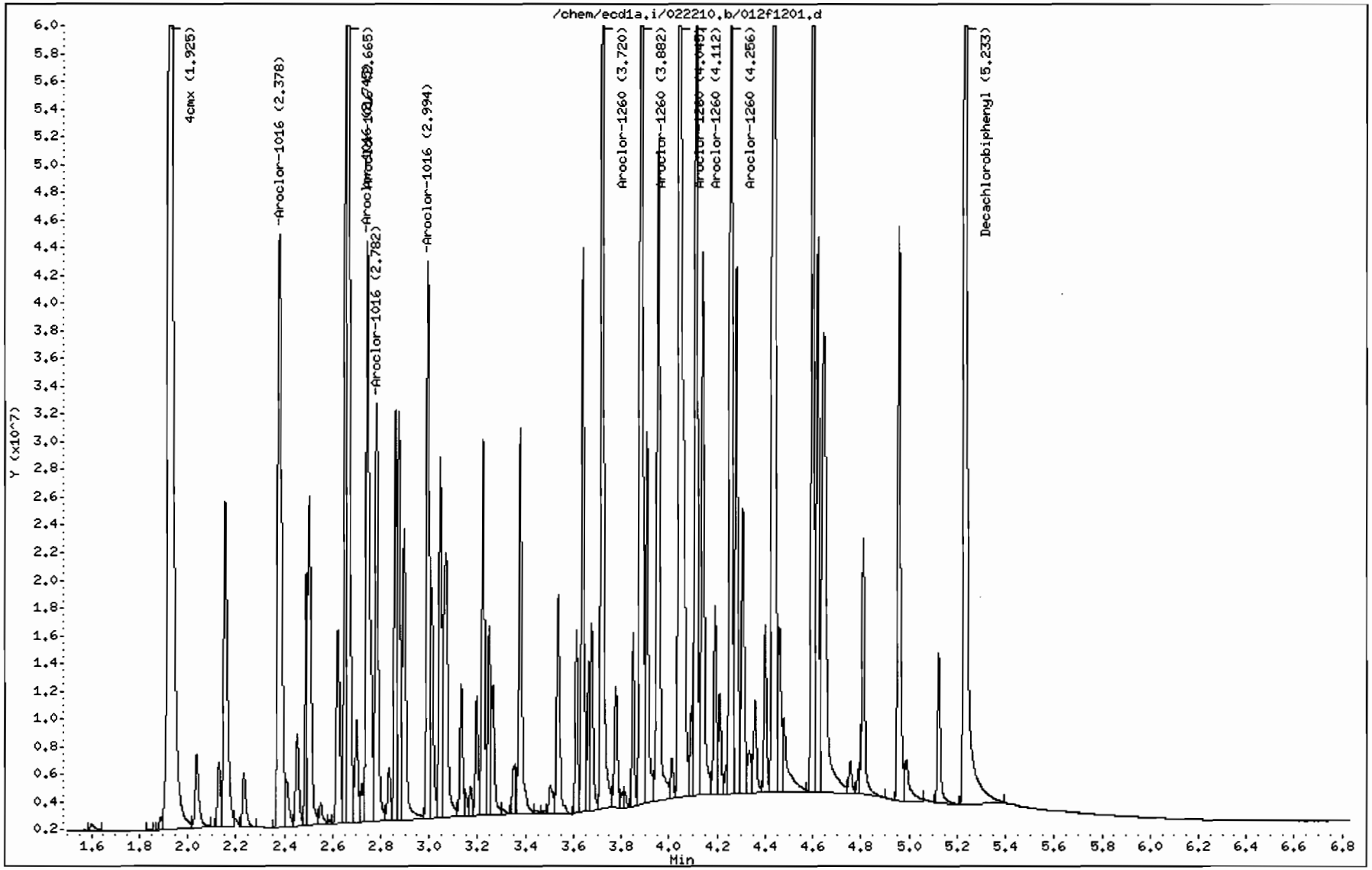

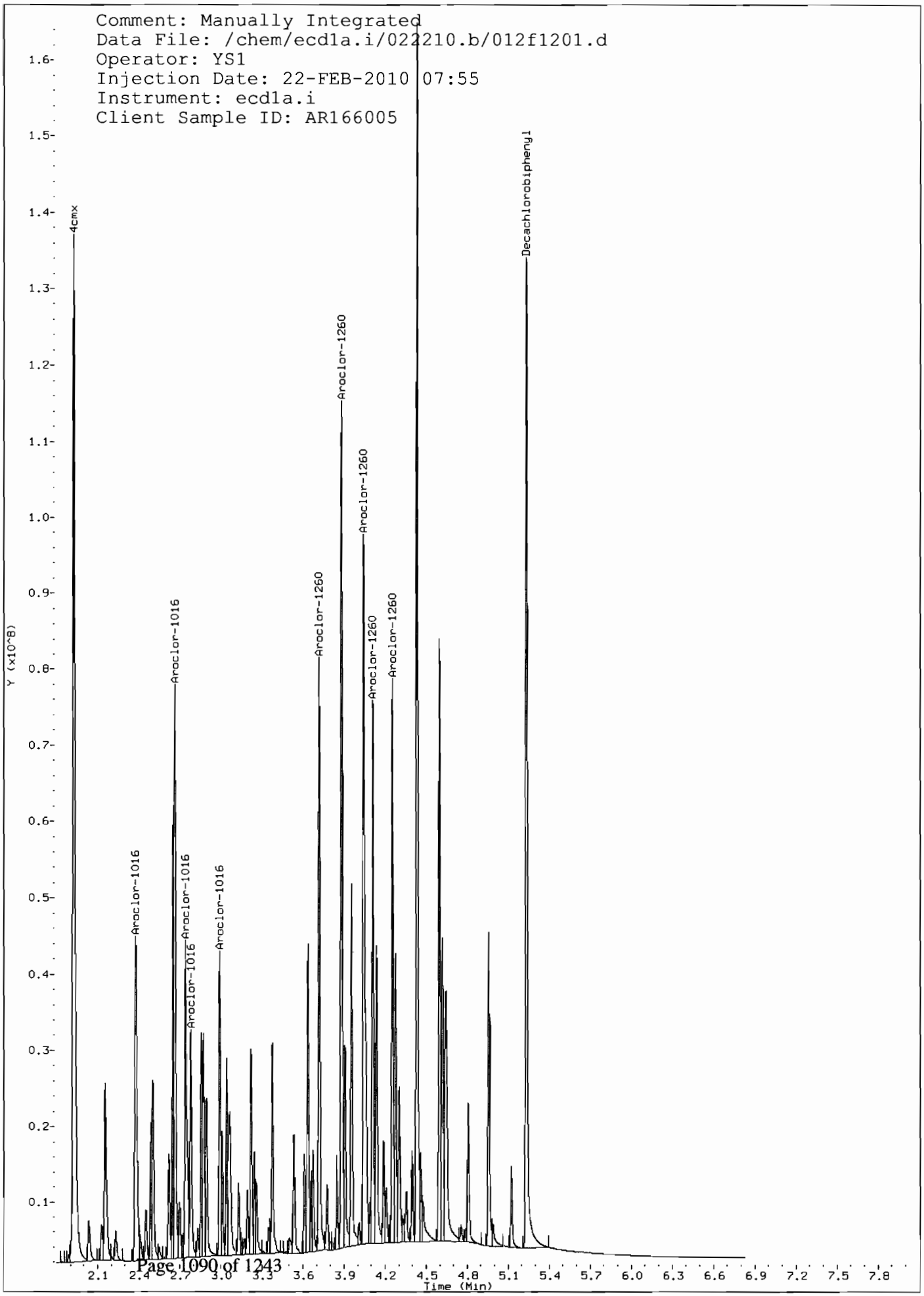
Comment: Manually Integrated
Data File: /chem/ecd1a.i/022210.b/012f1201.d
Operator: YS1
Injection Date: 22-FEB-2010 07:55
Instrument: ecd1a.i
Client Sample ID: AR166005
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^8)
Time (Min)

Comment: Before manual integration
Data File: /chem/ecd1a.i/022210.b/orig-012f1201.d
Operator: YS1
Injection Date: 22-FEB-2010 07:55
Instrument: ecd1a.i
Client Sample ID: AR166005

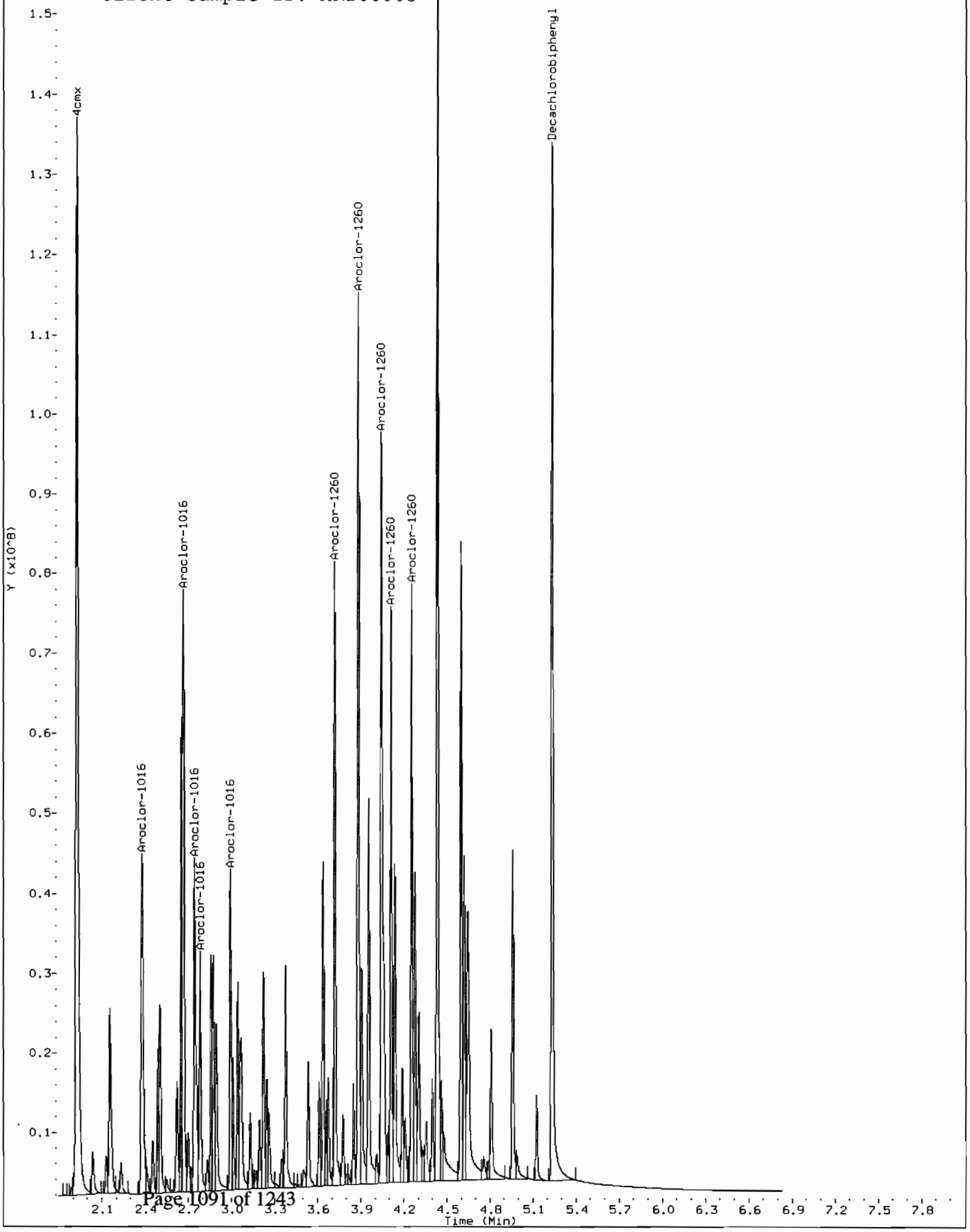

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022210.b/012b1201.d
Lab Smp Id: IAR100104-01 Client Smp ID: AR166005
Inj Date : 22-FEB-2010 07:55
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |IAR100104-01
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 11:13 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 12 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
11 4cmx					CAS #: 877-09-8		
2.289	2.289	0.000	104994049	400.000	353	80.00- 120.00	100.00
12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.937	5.937	0.000	72746678	400.000	344	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.185	3.185	0.000	44792225	4000.00	3500	80.00- 120.00	100.00
3.268	3.268	0.000	28815644	4000.00	3230	44.33- 84.33	64.33
3.332	3.332	0.000	17907155	4000.00	3310	19.98- 59.98	39.98
3.558	3.558	0.000	22507063	4000.00	3250	30.25- 70.25	50.25
3.634	3.634	0.000	21198018	4000.00	3300	27.33- 67.33	47.33
Average of Peak Amounts =					3.32e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.326	4.326	0.000	43475293	4000.00	3290	80.00- 120.00	100.00
4.450	4.450	0.000	53014703	4000.00	3400	101.94- 141.94	121.94
4.717	4.717	0.000	40244483	4000.00	3400	72.57- 112.57	92.57
4.890	4.890	0.000	41721699	4000.00	3420	75.97- 115.97	95.97
5.037	5.037	0.000	92651700	4000.00	3490	193.11- 233.11	213.11
Average of Peak Amounts =					3.4e+03		

Data File: /chem/ecd1a.i/022210.b/012b1201.d
Date : 22-FEB-2010 07:55
Client ID: AR166005
Sample Info: IIAR100104-01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

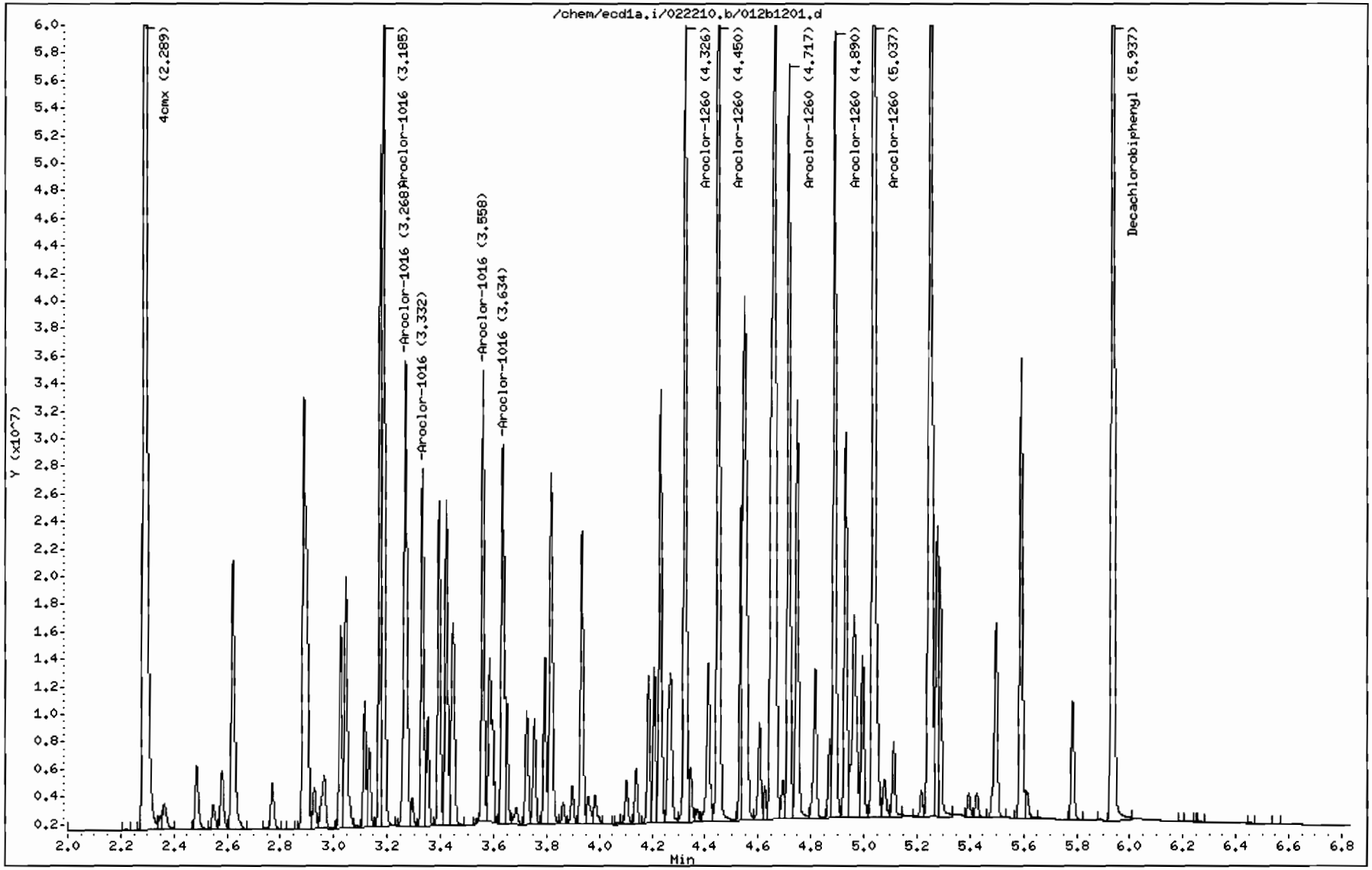

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2039

Instrument ID: ECD1A Calibration Date: 03/09/10 Time: 0605

Lab File ID: 002F0201 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15384.345	13476.079	0.01	-12.4	15.0
(2)	18237.012	17118.774	0.01	-6.1	15.0
(3)	12065.482	10856.453	0.01	-10.0	15.0
(4)	7096.105	6531.897	0.01	-8.0	15.0
(5)	8912.192	8268.348	0.01	-7.2	15.0
Aroclor-1260	17072.421	16301.721	0.01	-4.5	15.0
(2)	23643.449	24329.087	0.01	2.9	15.0
(3)	24971.335	26072.574	0.01	4.4	15.0
(4)	14405.675	14699.904	0.01	2.0	15.0
(5)	14430.527	15333.852	0.01	6.2	15.0
4cmx	430636.91	381155.79	0.01	-11.5	15.0
Decachlorobiphenyl	307289.35	296054.84	0.01	-3.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2039

Instrument ID: ECD1A Calibration Date: 03/09/10 Time: 0605

Lab File ID: 002B0201 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	12184.528	0.01	-4.7	15.0
(2)	8917.926	7823.059	0.01	-12.3	15.0
(3)	5406.011	4862.200	0.01	-10.0	15.0
(4)	6915.638	6333.733	0.01	-8.4	15.0
(5)	6425.213	5855.276	0.01	-8.9	15.0
Aroclor-1260	13205.642	11874.381	0.01	-10.1	15.0
(2)	15566.814	14523.516	0.01	-6.7	15.0
(3)	11843.501	10940.143	0.01	-7.6	15.0
(4)	12201.193	11358.948	0.01	-6.9	15.0
(5)	26527.172	25417.207	0.01	-4.2	15.0
4cmx	297396.93	265127.64	0.01	-10.8	15.0
Decachlorobiphenyl	211498.34	189933.73	0.01	-10.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2039

Instrument ID: ECD1A Calibration Date: 03/09/10 Time: 1021

Lab File ID: 025F2501 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15384.345	14060.684	0.01	-8.6	15.0
(2)	18237.012	17777.120	0.01	-2.5	15.0
(3)	12065.482	11271.847	0.01	-6.6	15.0
(4)	7096.105	6815.126	0.01	-4.0	15.0
(5)	8912.192	8730.276	0.01	-2.0	15.0
Aroclor-1260	17072.421	17016.414	0.01	-0.3	15.0
(2)	23643.449	25400.273	0.01	7.4	15.0
(3)	24971.335	27114.496	0.01	8.6	15.0
(4)	14405.675	15286.706	0.01	6.1	15.0
(5)	14430.527	15918.474	0.01	10.3	15.0
4cmx	430636.91	396802.26	0.01	-7.8	15.0
Decachlorobiphenyl	307289.35	309415.76	0.01	0.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2039

Instrument ID: ECD1A Calibration Date: 03/09/10 Time: 1021

Lab File ID: 025B2501 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	12193.531	0.01	-4.7	15.0
(2)	8917.926	7901.532	0.01	-11.4	15.0
(3)	5406.011	4934.564	0.01	-8.7	15.0
(4)	6915.638	6203.624	0.01	-10.3	15.0
(5)	6425.213	5825.015	0.01	-9.3	15.0
Aroclor-1260	13205.642	11974.228	0.01	-9.3	15.0
(2)	15566.814	14696.750	0.01	-5.6	15.0
(3)	11843.501	11082.986	0.01	-6.4	15.0
(4)	12201.193	11537.123	0.01	-5.4	15.0
(5)	26527.172	25747.290	0.01	-2.9	15.0
4cmx	297396.93	267436.61	0.01	-10.1	15.0
Decachlorobiphenyl	211498.34	193873.52	0.01	-8.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2039

Instrument ID: ECD1A Calibration Date: 03/09/10 Time: 1223

Lab File ID: 036F3601 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15384.345	14278.137	0.01	-7.2	15.0
(2)	18237.012	18701.586	0.01	2.5	15.0
(3)	12065.482	11479.585	0.01	-4.8	15.0
(4)	7096.105	6956.938	0.01	-2.0	15.0
(5)	8912.192	8887.593	0.01	-0.3	15.0
Aroclor-1260	17072.421	17231.278	0.01	0.9	15.0
(2)	23643.449	25747.342	0.01	8.9	15.0
(3)	24971.335	27594.766	0.01	10.5	15.0
(4)	14405.675	15539.148	0.01	7.9	15.0
(5)	14430.527	16196.327	0.01	12.2	15.0
4cmx	430636.91	404714.44	0.01	-6.0	15.0
Decachlorobiphenyl	307289.35	318067.20	0.01	3.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2039

Instrument ID: ECD1A Calibration Date: 03/09/10 Time: 1223

Lab File ID: 036B3601 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	12542.512	0.01	-1.9	15.0
(2)	8917.926	8094.605	0.01	-9.2	15.0
(3)	5406.011	5066.938	0.01	-6.3	15.0
(4)	6915.638	6566.448	0.01	-5.0	15.0
(5)	6425.213	6086.252	0.01	-5.3	15.0
Aroclor-1260	13205.642	12295.985	0.01	-6.9	15.0
(2)	15566.814	15078.122	0.01	-3.1	15.0
(3)	11843.501	11370.329	0.01	-4.0	15.0
(4)	12201.193	11877.501	0.01	-2.6	15.0
(5)	26527.172	26534.899	0.01	0.0	15.0
4cmx	297396.93	275451.91	0.01	-7.4	15.0
Decachlorobiphenyl	211498.34	199844.80	0.01	-5.5	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/002f0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 09-MAR-2010 06:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.916	1.916	0.000	38115579	100.000	88.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.223	5.223	0.000	29605484	100.000	96.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.370	2.370	0.000	13476078	1000.00	876	80.00- 120.00	100.00
2.656	2.656	0.000	17118773	1000.00	939	107.03- 147.03	127.03
2.736	2.736	0.000	10856452	1000.00	900	60.56- 100.56	80.56
2.774	2.774	0.000	6531897	1000.00	920	28.47- 68.47	48.47
2.984	2.984	0.000	8268347	1000.00	928	41.36- 81.36	61.36
Average of Peak Amounts =					913		
7 Aroclor-1260					CAS #: 11096-82-5		
3.710	3.710	0.000	16301721	1000.00	955	80.00- 120.00	100.00
3.873	3.873	0.000	24329086	1000.00	1030	129.24- 169.24	149.24
4.035	4.035	0.000	26072574	1000.00	1040	139.94- 179.94	159.94
4.102	4.102	0.000	14699904	1000.00	1020	70.17- 110.17	90.17
4.246	4.246	0.000	15333852	1000.00	1060	74.06- 114.06	94.06
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecd1a.i/030910.b/002f0201.d

Date : 09-MAR-2010 06:05

Client ID: AR166001

Sample Info: IWAR100222-60 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

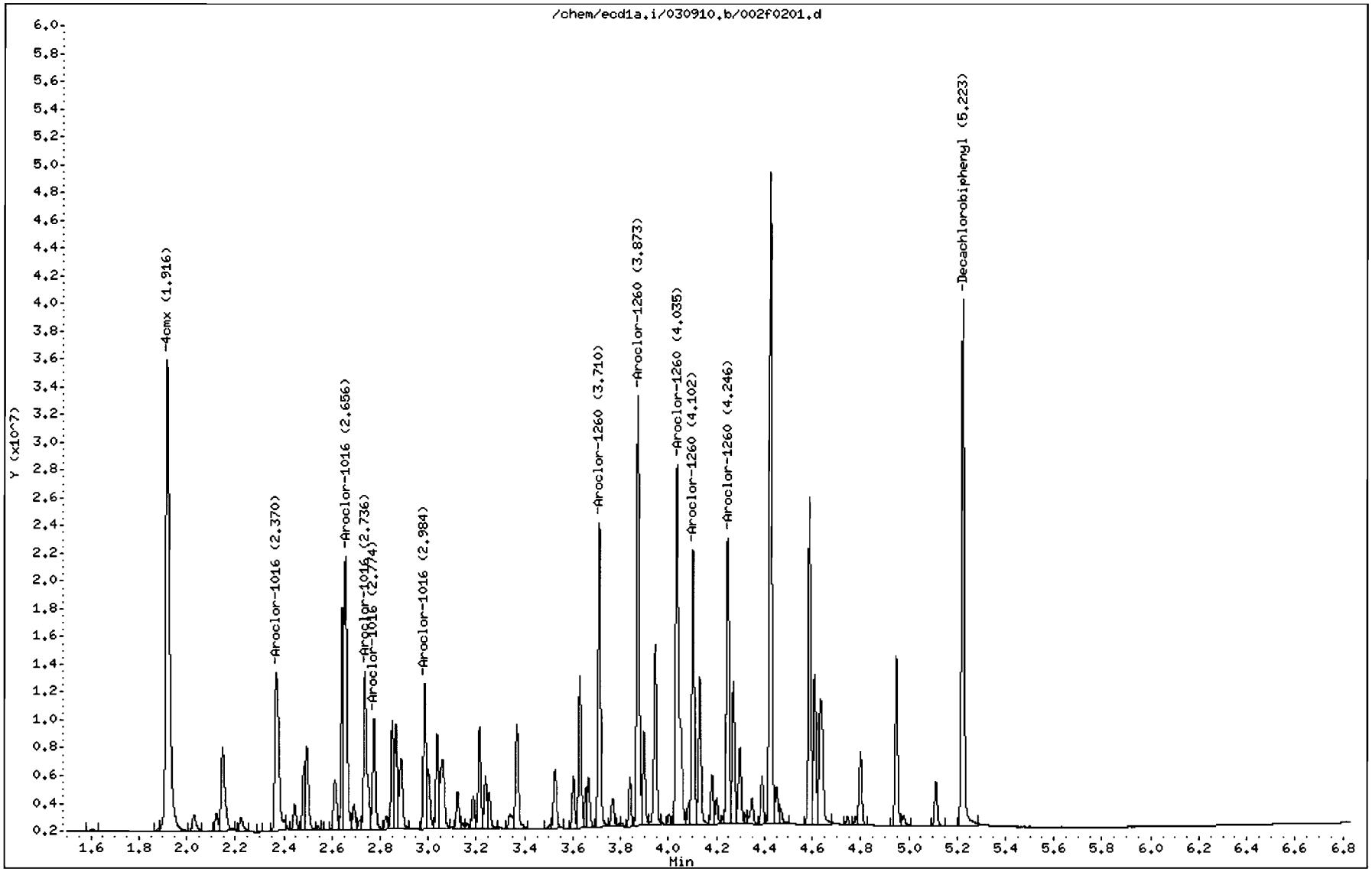

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/002b0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 09-MAR-2010 06:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.276	2.276	0.000	26512764	100.000	89.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.918	5.918	0.000	18993373	100.000	89.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.170	3.170	0.000	12184528	1000.00	953	80.00- 120.00	100.00
3.253	3.253	0.000	7823059	1000.00	877	44.20- 84.20	64.20
3.316	3.316	0.000	4862199	1000.00	899	19.90- 59.90	39.90
3.544	3.544	0.000	6333733	1000.00	916	31.98- 71.98	51.98
3.619	3.619	0.000	5855276	1000.00	911	28.06- 68.06	48.06
Average of Peak Amounts =					911		
7 Aroclor-1260					CAS #: 11096-82-5		
4.309	4.309	0.000	11874381	1000.00	899	80.00- 120.00	100.00
4.435	4.435	0.000	14523516	1000.00	933	102.31- 142.31	122.31
4.700	4.700	0.000	10940143	1000.00	924	72.13- 112.13	92.13
4.873	4.873	0.000	11358947	1000.00	931	75.66- 115.66	95.66
5.021	5.021	0.000	25417206	1000.00	958	194.05- 234.05	214.05
Average of Peak Amounts =					929		

Data File: /chem/ecd1a.i/030910.b/002b0201.d
Date : 09-MAR-2010 06:05
Client ID: AR166001
Sample Info: IWAR100222-60 01
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

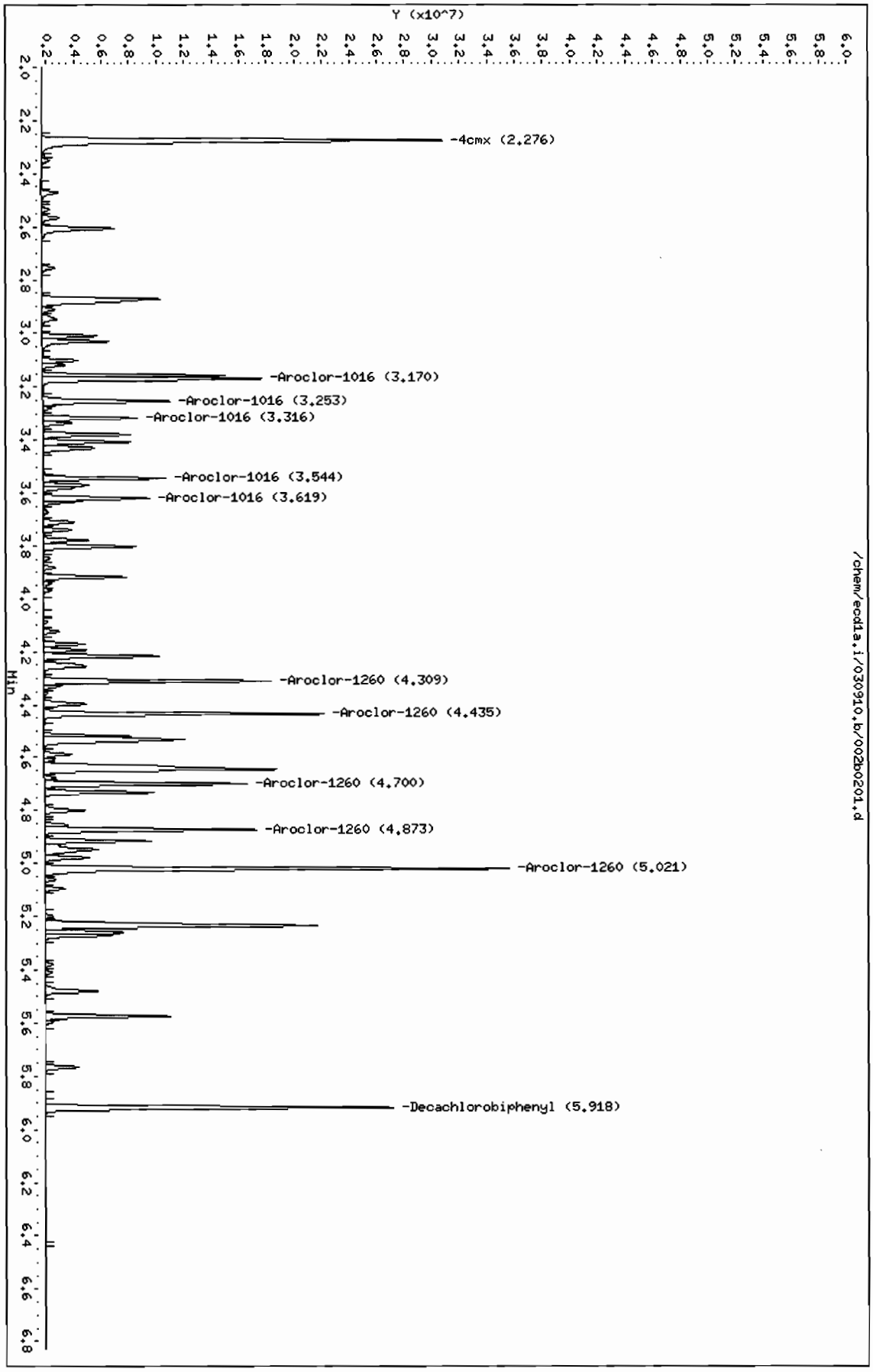

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/003f0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 09-MAR-2010 06:16
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.213	3.213	0.000	11735254	1000.00	977	80.00- 120.00	100.00
3.368	3.368	0.000	15987053	1000.00	1010	116.23- 156.23	136.23
3.602	3.602	0.000	20709681	1000.00	1060	156.47- 196.47	176.47
3.764	3.764	0.000	15509457	1000.00	1120	112.16- 152.16	132.16
3.874	3.874	0.000	15125872	1000.00	1060	108.89- 148.89	128.89

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/030910.b/003f0301.d

Date : 09-MAR-2010 06:16

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

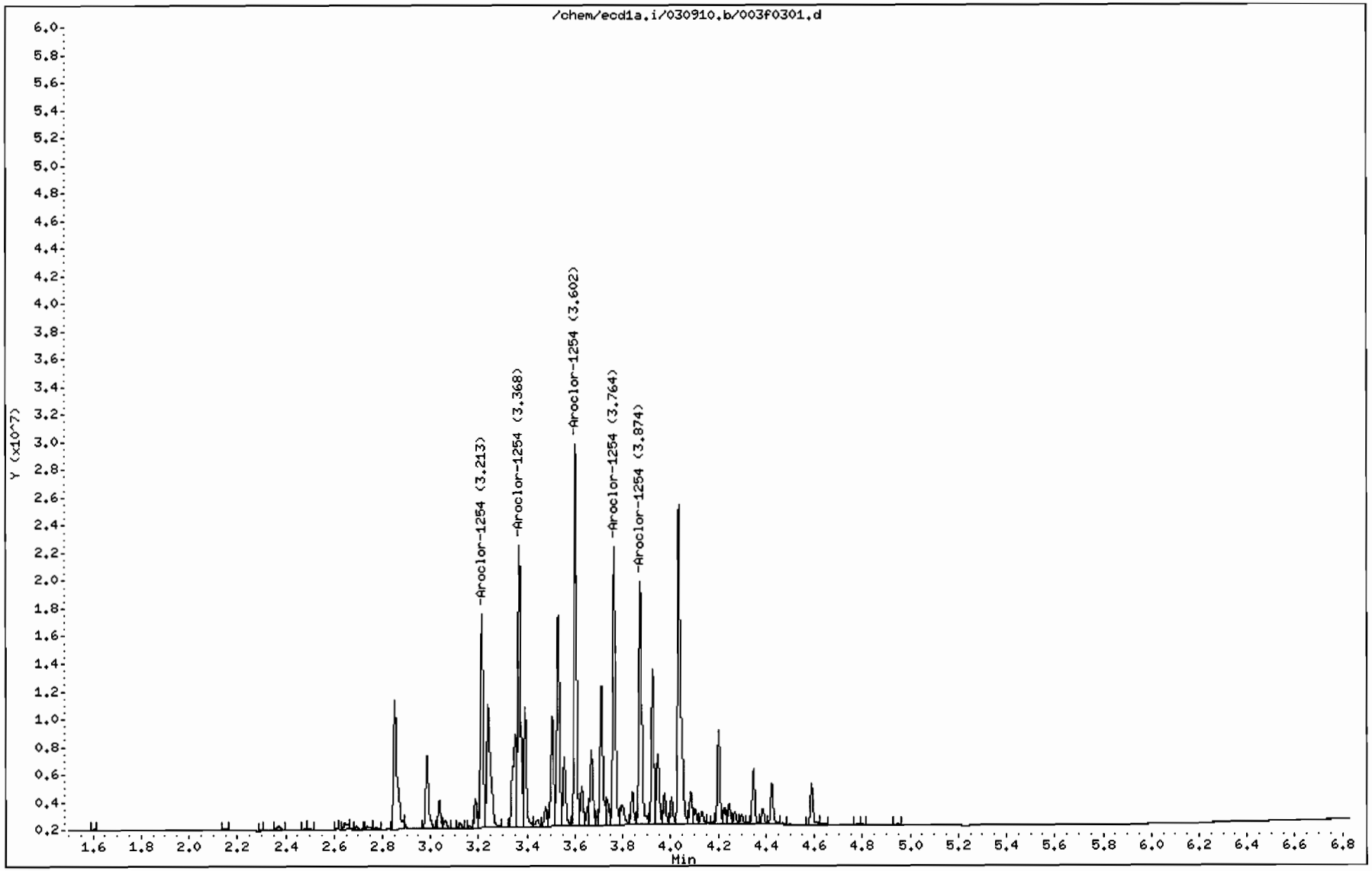

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/003b0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 09-MAR-2010 06:16
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.378	3.378	0.000	5407963	1000.00	891	80.00- 120.00	100.00
3.801	3.801	0.000	9772511	1000.00	910	160.71- 200.71	180.71
3.918	3.918	0.000	10919160	1000.00	938	181.91- 221.91	201.91
4.193	4.193	0.000	15360930	1000.00	966	264.04- 304.04	284.04
4.329	4.329	0.000	11283940	1000.00	942	188.65- 228.65	208.65
Average of Peak Amounts =					929		

Data File: /chem/ecd1a.i/030910.b/003b0301.d

Date : 09-MAR-2010 06:16

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

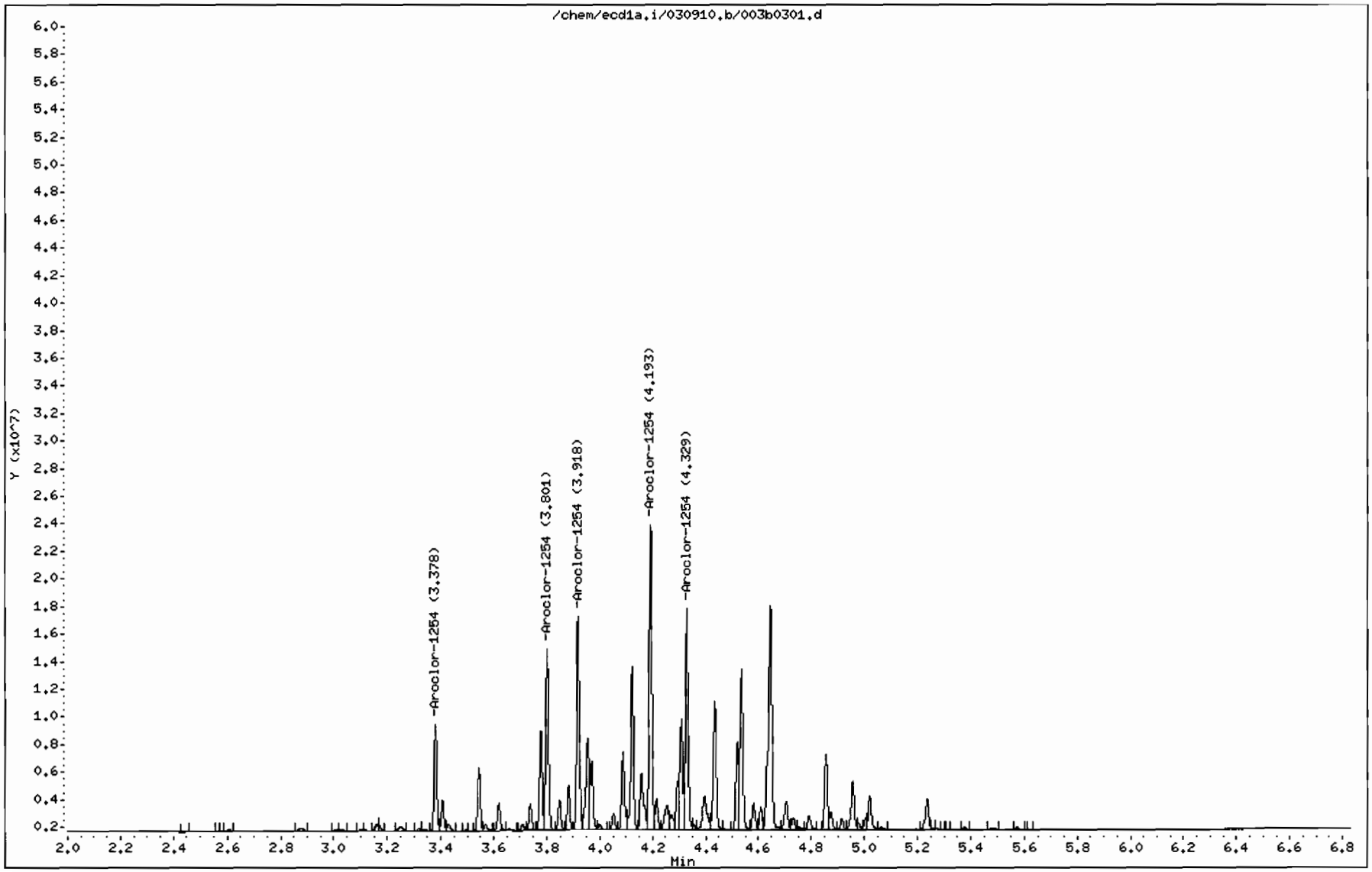

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/004f0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 09-MAR-2010 06:26
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.370	2.370	0.000	11459185	1000.00	912	80.00- 120.00	100.00
2.658	2.658	0.000	14227469	1000.00	974	104.16- 144.16	124.16
2.775	2.775	0.000	5440640	1000.00	966	27.48- 67.48	47.48
2.985	2.985	0.000	7044792	1000.00	964	41.48- 81.48	61.48
3.238	3.238	0.000	6798015	1000.00	1100	39.32- 79.32	59.32

Average of Peak Amounts = 983

Data File: /chem/ecd1a.i/030910.b/004f0401.d
Date : 09-MAR-2010 06:26
Client ID: AR124201
Sample Info: IWAR100219-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

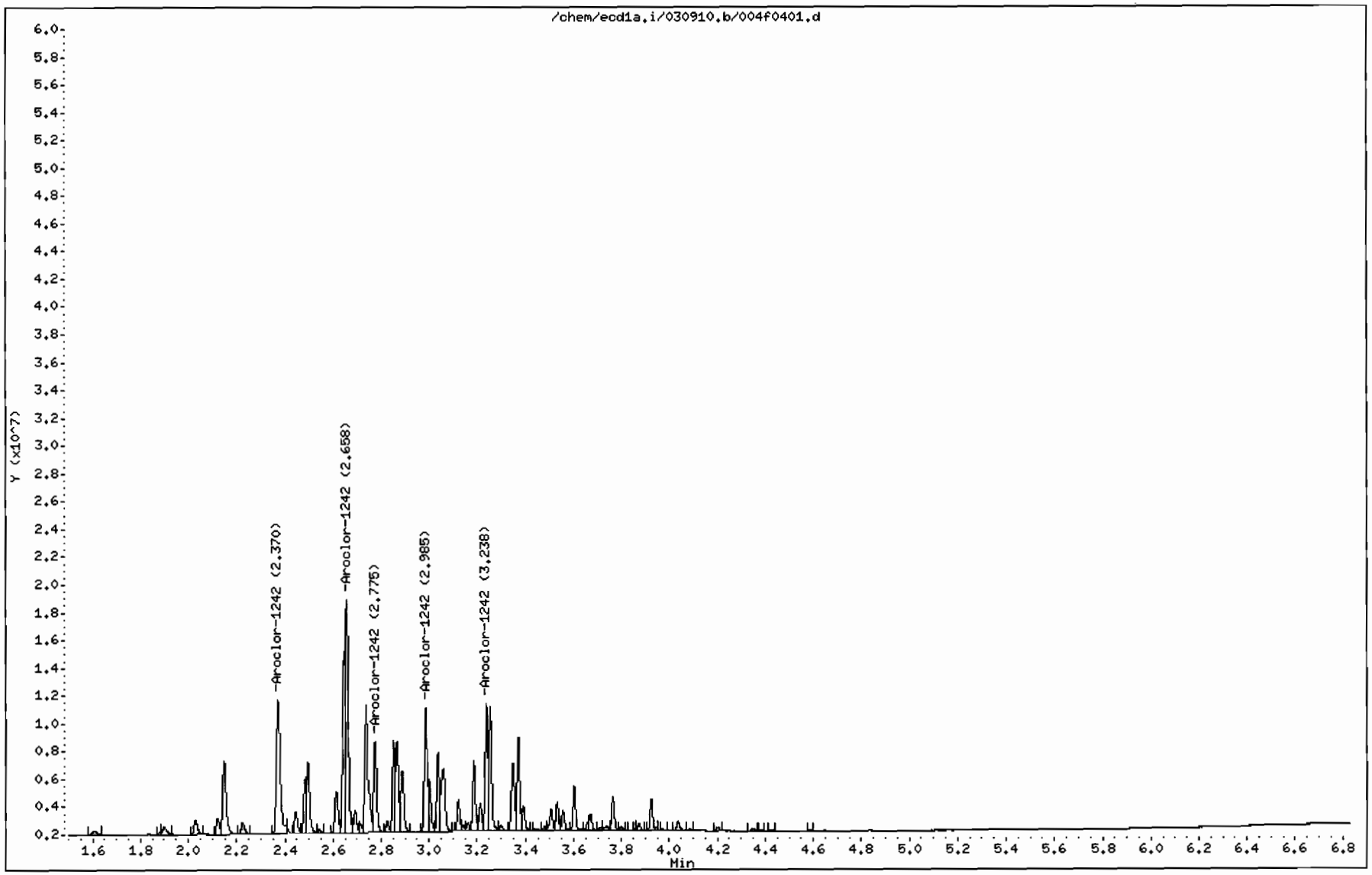

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/004b0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 09-MAR-2010 06:26
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.171	3.171	0.000	9957580	1000.00	962	80.00- 120.00	100.00
3.254	3.254	0.000	6501639	1000.00	893	45.29- 85.29	65.29
3.544	3.544	0.000	5151963	1000.00	893	31.74- 71.74	51.74
3.778	3.778	0.000	5458701	1000.00	943	34.82- 74.82	54.82
3.805	3.805	0.000	6051465	1000.00	911	40.77- 80.77	60.77
Average of Peak Amounts =					921		

Data File: /chem/ecd1a.i/030910.b/004b0401.d

Date : 09-MAR-2010 06:26

Client ID: AR124201

Sample Info: IWAR100219-42

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

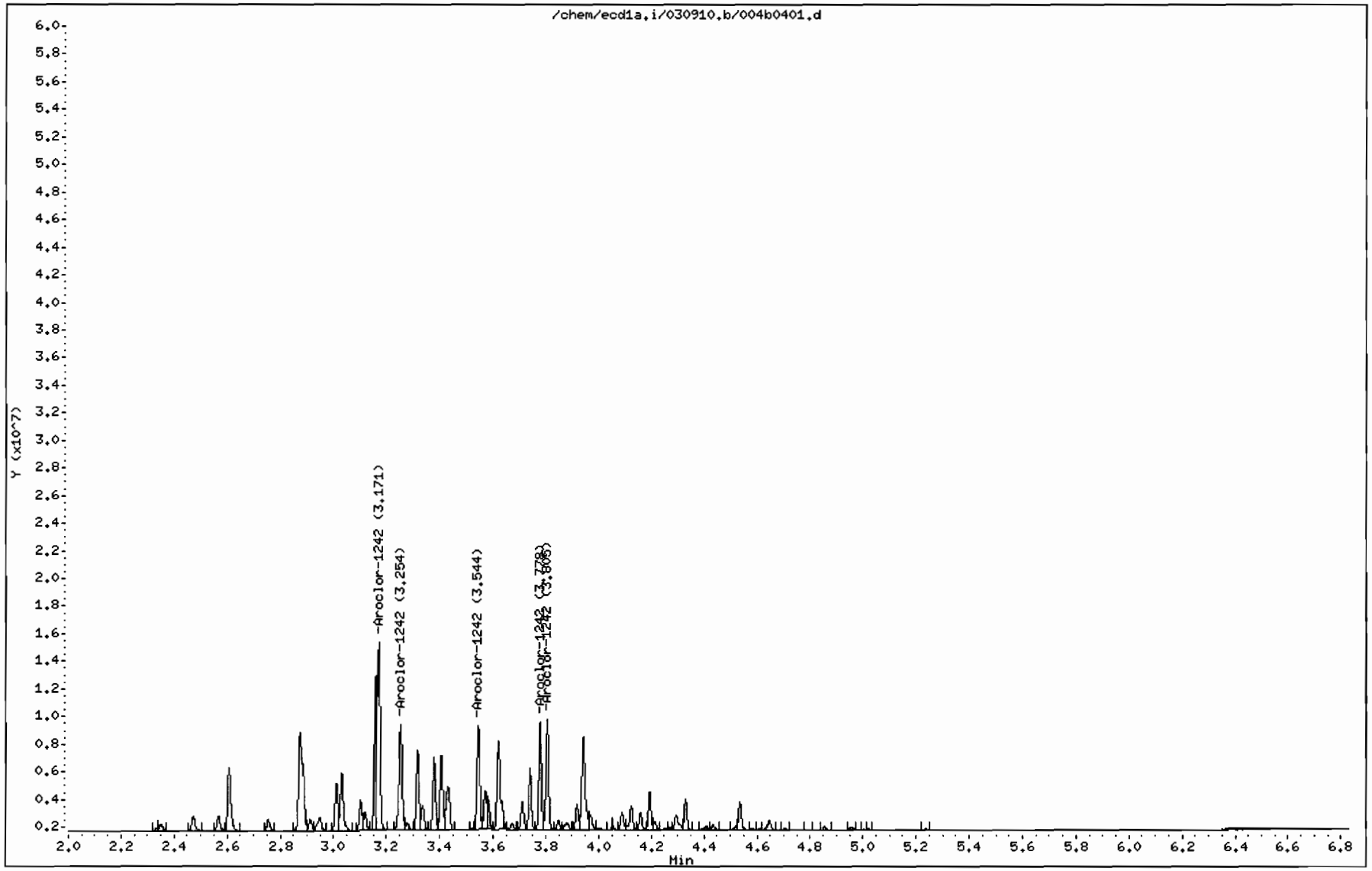

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/005f0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 09-MAR-2010 06:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
2.851	2.851	0.000	9046016	1000.00	972	80.00- 120.00	100.00
2.985	2.985	0.000	12081884	1000.00	974	113.56- 153.56	133.56
3.238	3.238	0.000	13581353	1000.00	1110	130.14- 170.14	150.14
3.370	3.370	0.000	10896732	1000.00	1040	100.46- 140.46	120.46
3.603	3.603	0.000	7304707	1000.00	1070	60.75- 100.75	80.75

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd1a.i/030910.b/005f0501.d
Date : 09-MAR-2010 06:37
Client ID: AR124801
Sample Info: IWAR100223-48

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

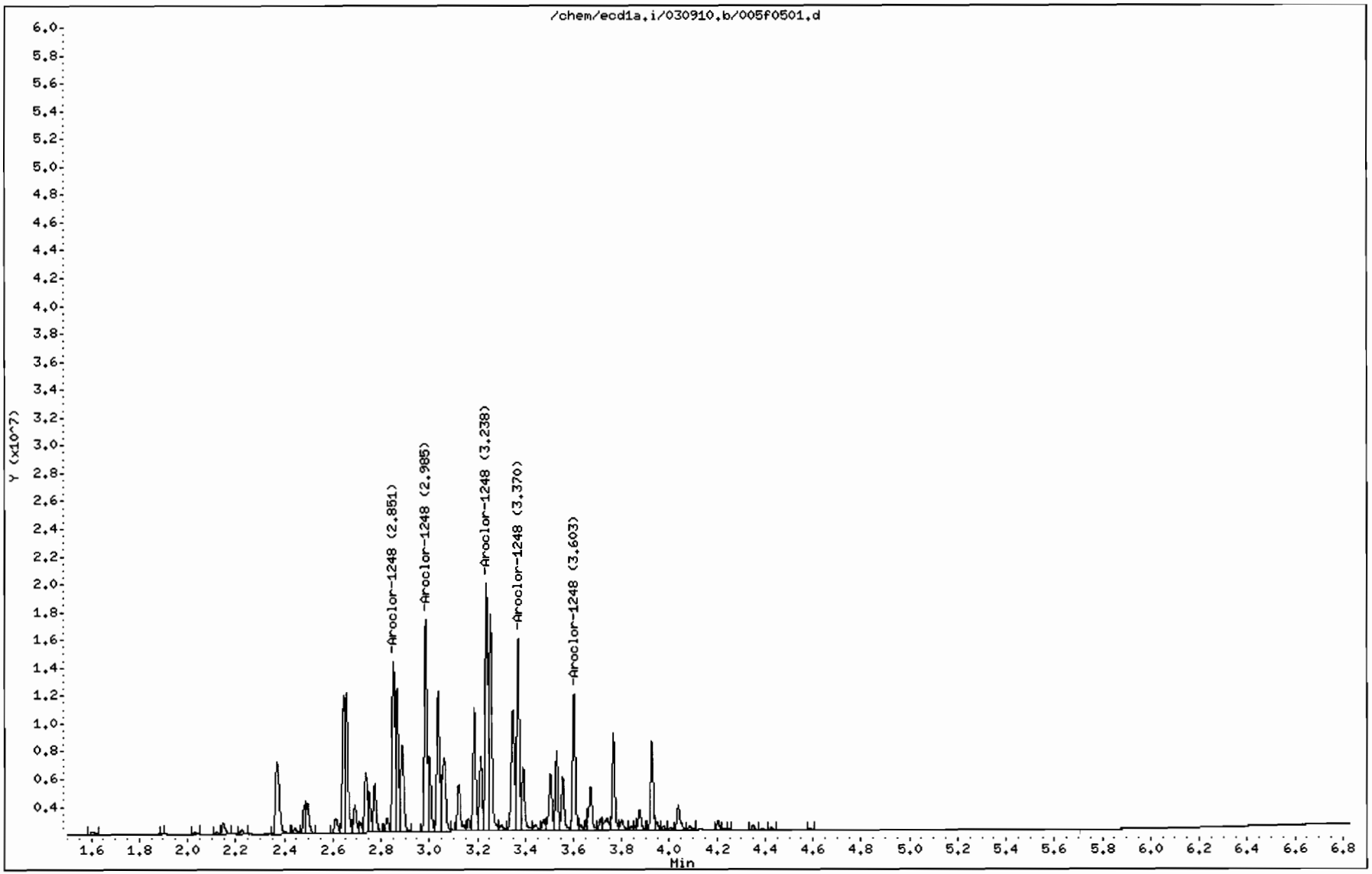

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/005b0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 09-MAR-2010 06:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.380	3.380	0.000	6929850	1000.00	912	80.00- 120.00	100.00
3.545	3.545	0.000	8715802	1000.00	931	105.77- 145.77	125.77
3.778	3.778	0.000	10291134	1000.00	966	128.50- 168.50	148.50
3.805	3.805	0.000	11463962	1000.00	948	145.43- 185.43	165.43
3.942	3.942	0.000	11102138	1000.00	966	140.21- 180.21	160.21
Average of Peak Amounts =					945		

Data File: /chem/ecd1a.i/030910.b/005b0501.d

Date : 09-MAR-2010 06:37

Client ID: AR124801

Sample Info: IWAR100223-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

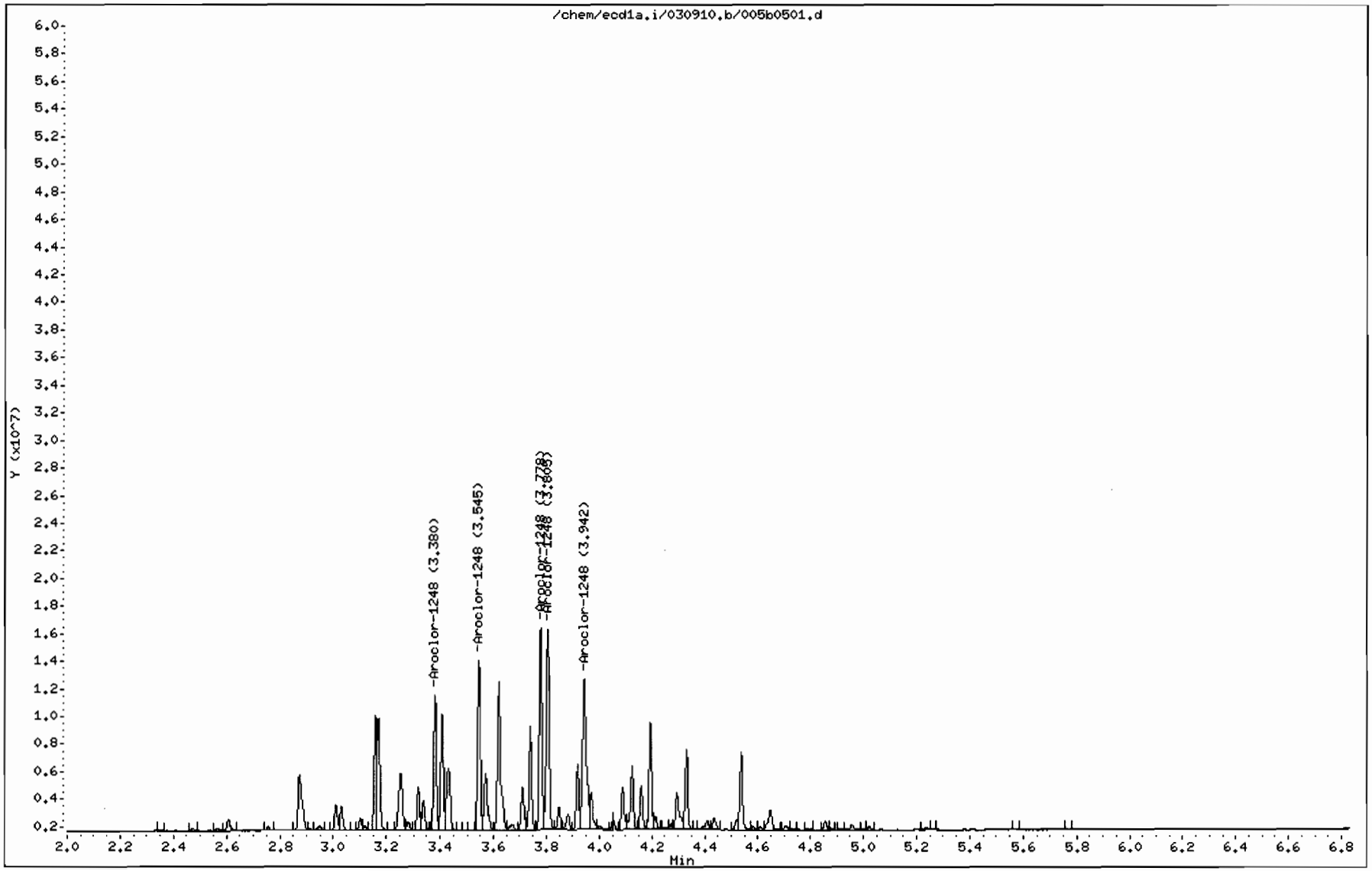

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/007f0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 09-MAR-2010 06:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 14:23 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.370	2.370	0.000	7033576	1000.00	1130	80.00- 120.00	100.00
2.656	2.656	0.000	9006580	1000.00	1200	108.05- 148.05	128.05
2.737	2.737	0.000	5844017	1000.00	1200	63.09- 103.09	83.09
2.851	2.851	0.000	2829786	1000.00	1290	20.23- 60.23	40.23
3.238	3.238	0.000	3889364	1000.00	1420	35.30- 75.30	55.30

Average of Peak Amounts = 1.25e+03

Data File: /chem/ecd1a.i/030910.b/007f0701.d

Date : 09-MAR-2010 06:58

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

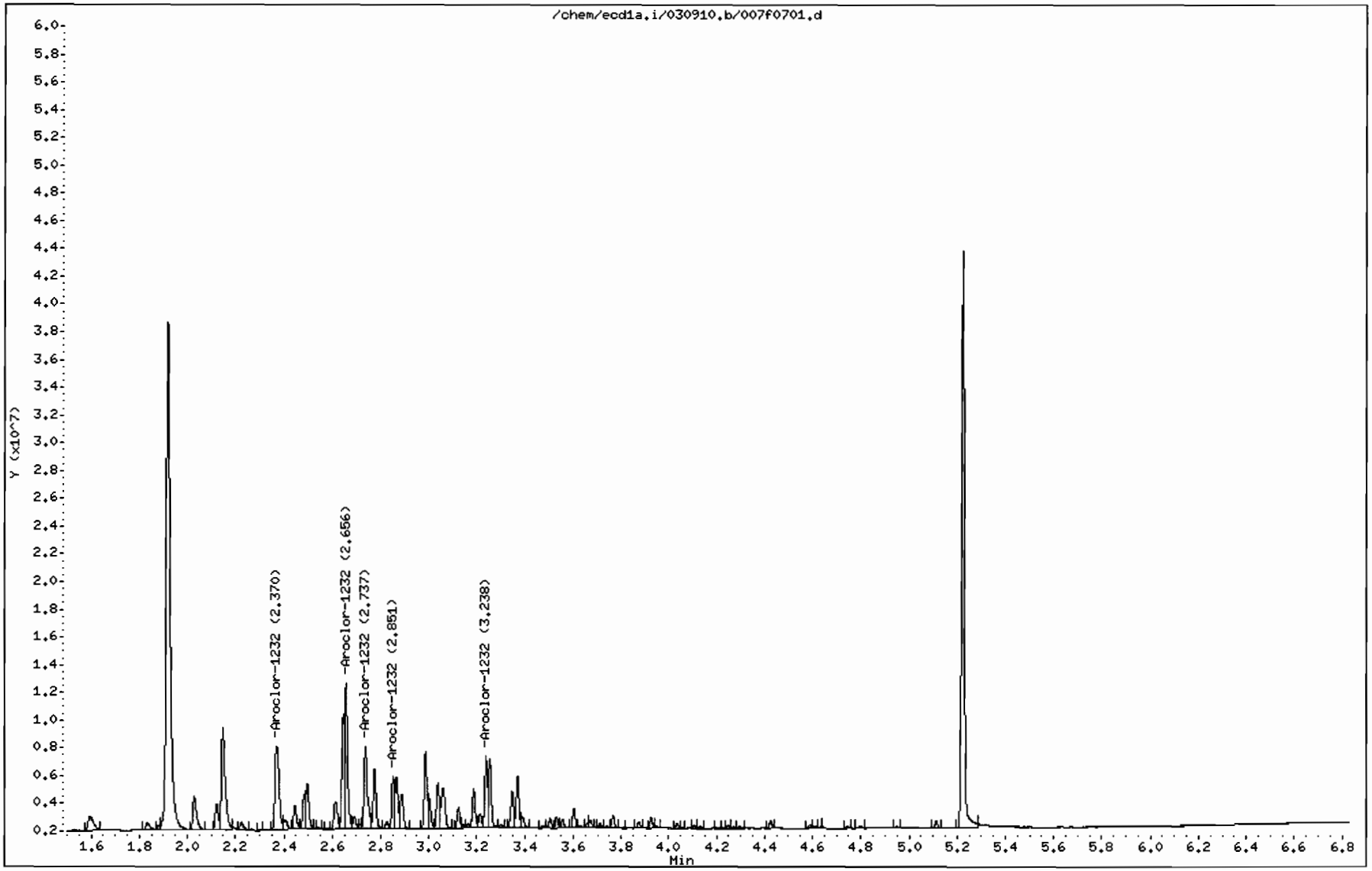

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/007b0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 09-MAR-2010 06:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.873	2.873	0.000	5540248	1000.00	1120	80.00- 120.00	100.00
3.171	3.171	0.000	6241262	1000.00	1190	92.65- 132.65	112.65
3.254	3.254	0.000	4271702	1000.00	1130	57.10- 97.10	77.10
3.544	3.544	0.000	3194463	1000.00	1180	37.66- 77.66	57.66
3.778	3.778	0.000	3209215	1000.00	1220	37.93- 77.93	57.93

Average of Peak Amounts = 1.17e+03

Data File: /chem/ecd1a.i/030910.b/007b0701.d

Date : 09-MAR-2010 06:58

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

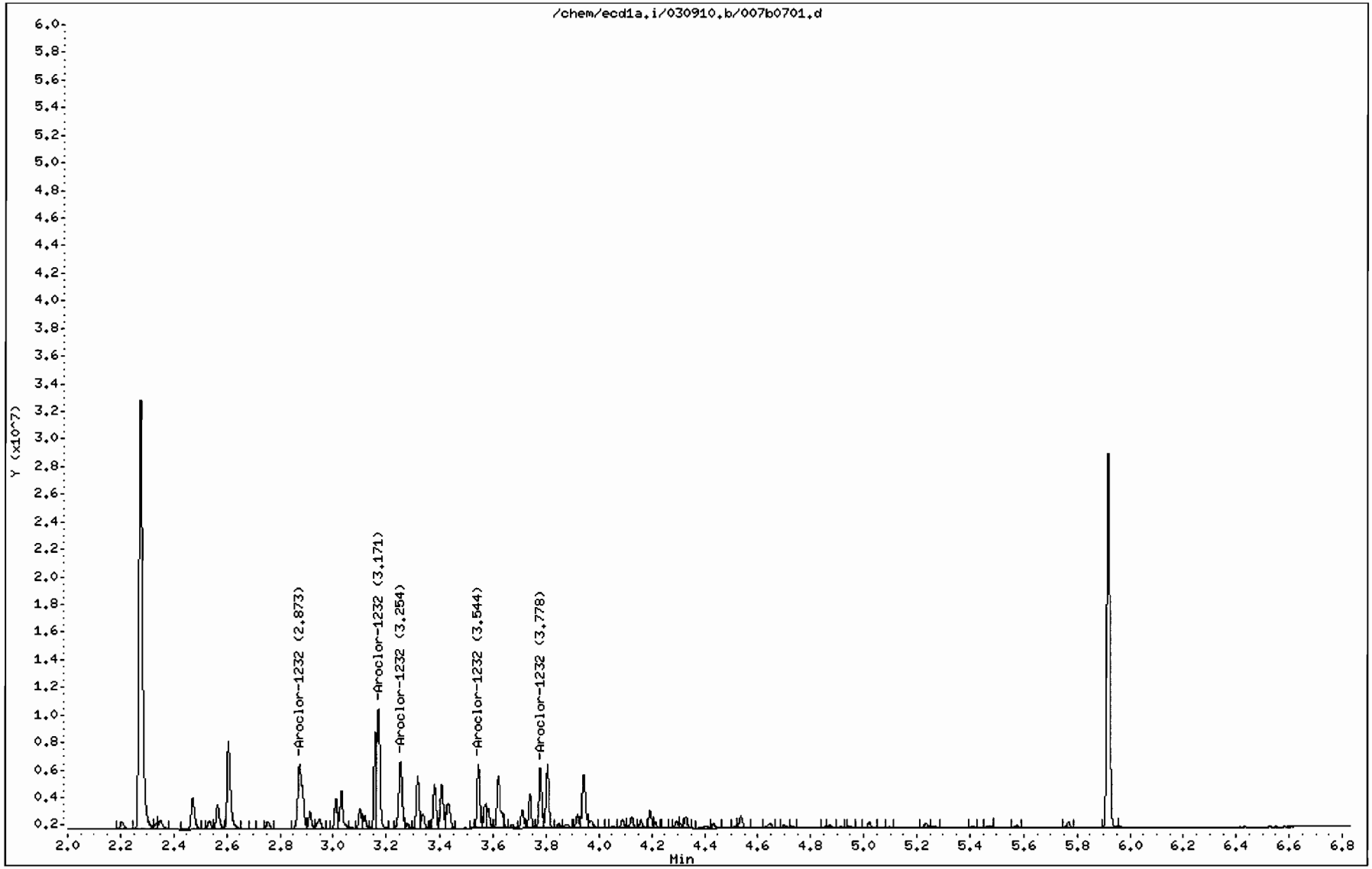

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/008f0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 09-MAR-2010 07:08
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.030	2.030	0.000	4834593	1000.00	1100	80.00- 120.00	100.00
2.123	2.123	0.000	2705775	1000.00	1110	35.97- 75.97	55.97
2.148	2.148	0.000	11738563	1000.00	1130	222.80- 262.80	242.80

Average of Peak Amounts = 1.11e+03

Data File: /chem/ecd1a.i/030910.b/008f0801.d
Date : 09-MAR-2010 07:08
Client ID: AR122101
Sample Info: IWAR100104-21

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

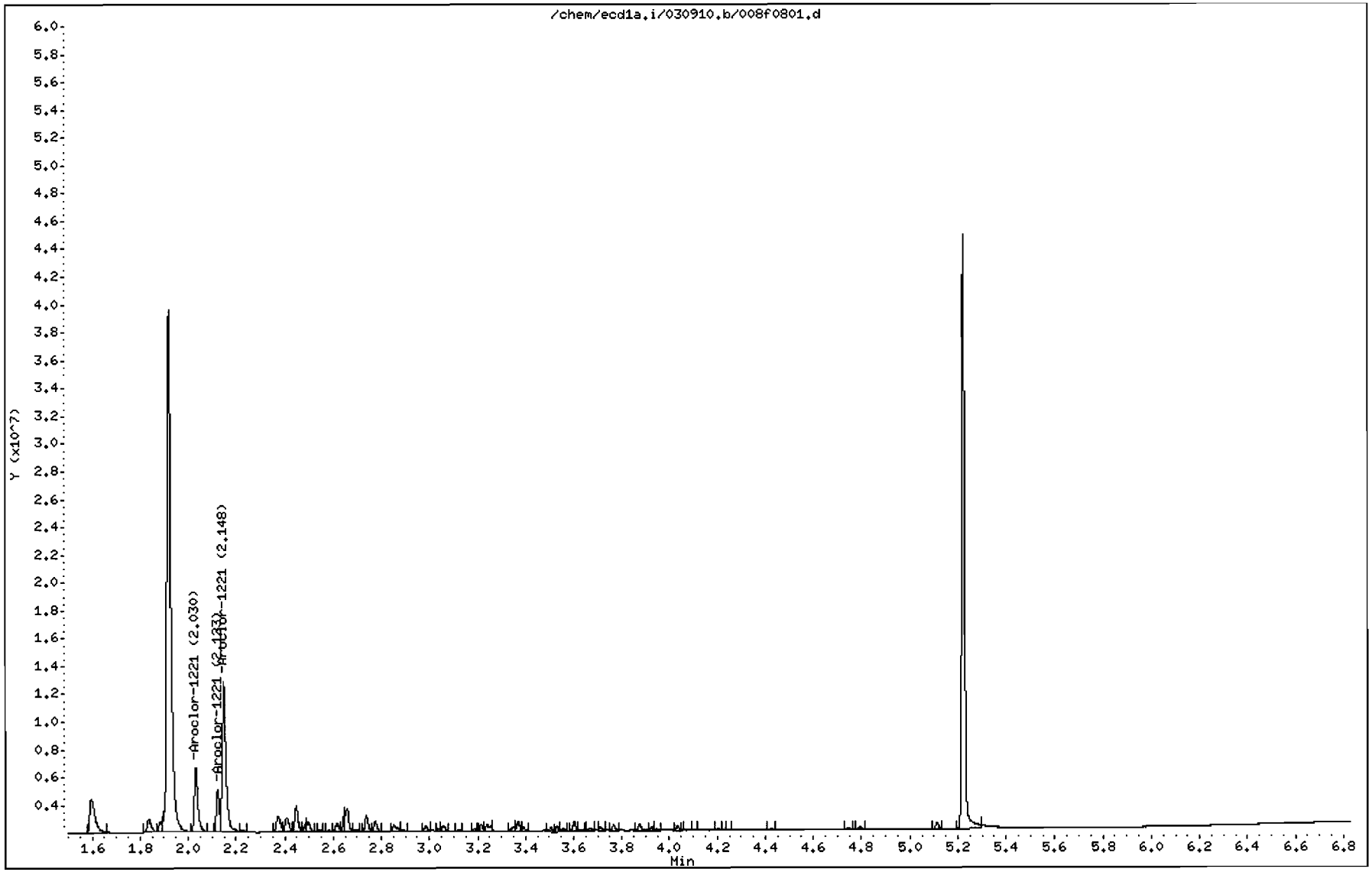

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/008b0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 09-MAR-2010 07:08
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.473	2.473	0.000	3800281	1000.00	1110	80.00- 120.00	100.00
2.567	2.567	0.000	2374760	1000.00	1100	42.49- 82.49	62.49
2.607	2.607	0.000	8102035	1000.00	1100	193.20- 233.20	213.20

Average of Peak Amounts = 1.11e+03

Data File: /chem/ecd1a.i/030910.b/008b0801.d
Date : 09-MAR-2010 07:08
Client ID: AR122101
Sample Info: IWAR100104-21

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

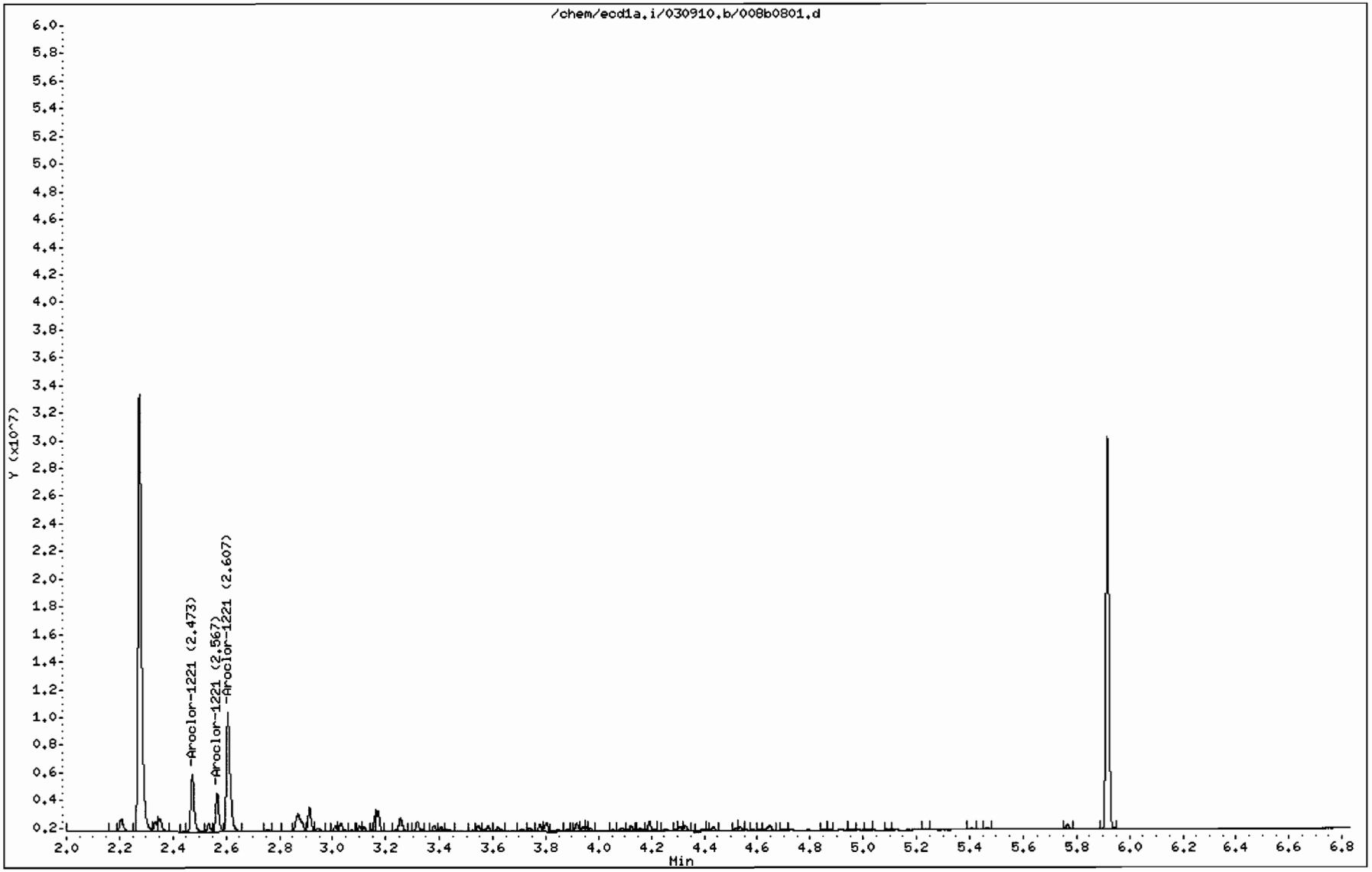

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/009f0901.d
Lab Smp Id: WAR100104-62 Client Smp ID: AR126201
Inj Date : 09-MAR-2010 07:19
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-62
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1262.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
8 Aroclor-1262					CAS #: 37324-23-5		
3.711	3.711	0.000	15005429	1000.00	1190	80.00- 120.00	100.00
3.874	3.874	0.000	19920997	1000.00	1270	112.76- 152.76	132.76
4.104	4.104	0.000	24923261	1000.00	1250	146.09- 186.09	166.09
4.246	4.246	0.000	22573182	1000.00	1260	130.43- 170.43	150.43
4.425	4.425	0.000	46923136	1000.00	1260	292.71- 332.71	312.71

Average of Peak Amounts = 1.24e+03

Data File: /chem/ecd1a.i/030910.b/009f0901.d
Date : 09-MAR-2010 07:19
Client ID: AR126201
Sample Info: IWAR100104-62

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

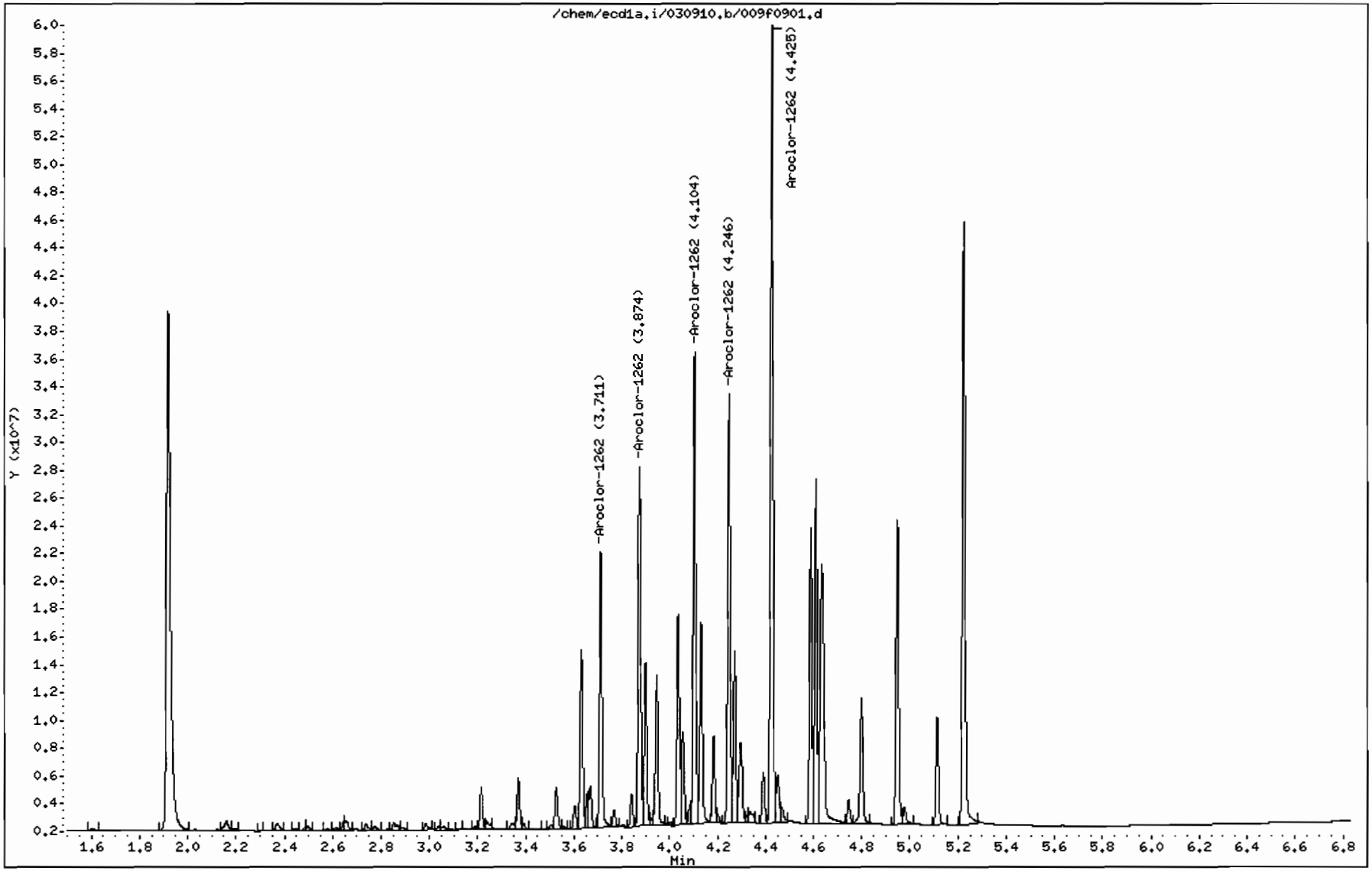

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/009b0901.d
Lab Smp Id: WAR100104-62 Client Smp ID: AR126201
Inj Date : 09-MAR-2010 07:19
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-62
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1262.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
8 Aroclor-1262					CAS #: 37324-23-5		
4.434	4.434	0.000	12789626	1000.00	1140	80.00- 120.00	100.00
4.700	4.700	0.000	17676136	1000.00	1140	118.21- 158.21	138.21
4.874	4.874	0.000	16181286	1000.00	1150	106.52- 146.52	126.52
5.020	5.020	0.000	32756762	1000.00	1150	236.12- 276.12	256.12
5.234	5.234	0.000	23091642	1000.00	1170	160.55- 200.55	180.55

Average of Peak Amounts = 1.15e+03

Data File: /chem/ecd1a.i/030910.b/009b0901.d
Date : 09-MAR-2010 07:19
Client ID: AR126201
Sample Info: IWAR100104-62

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

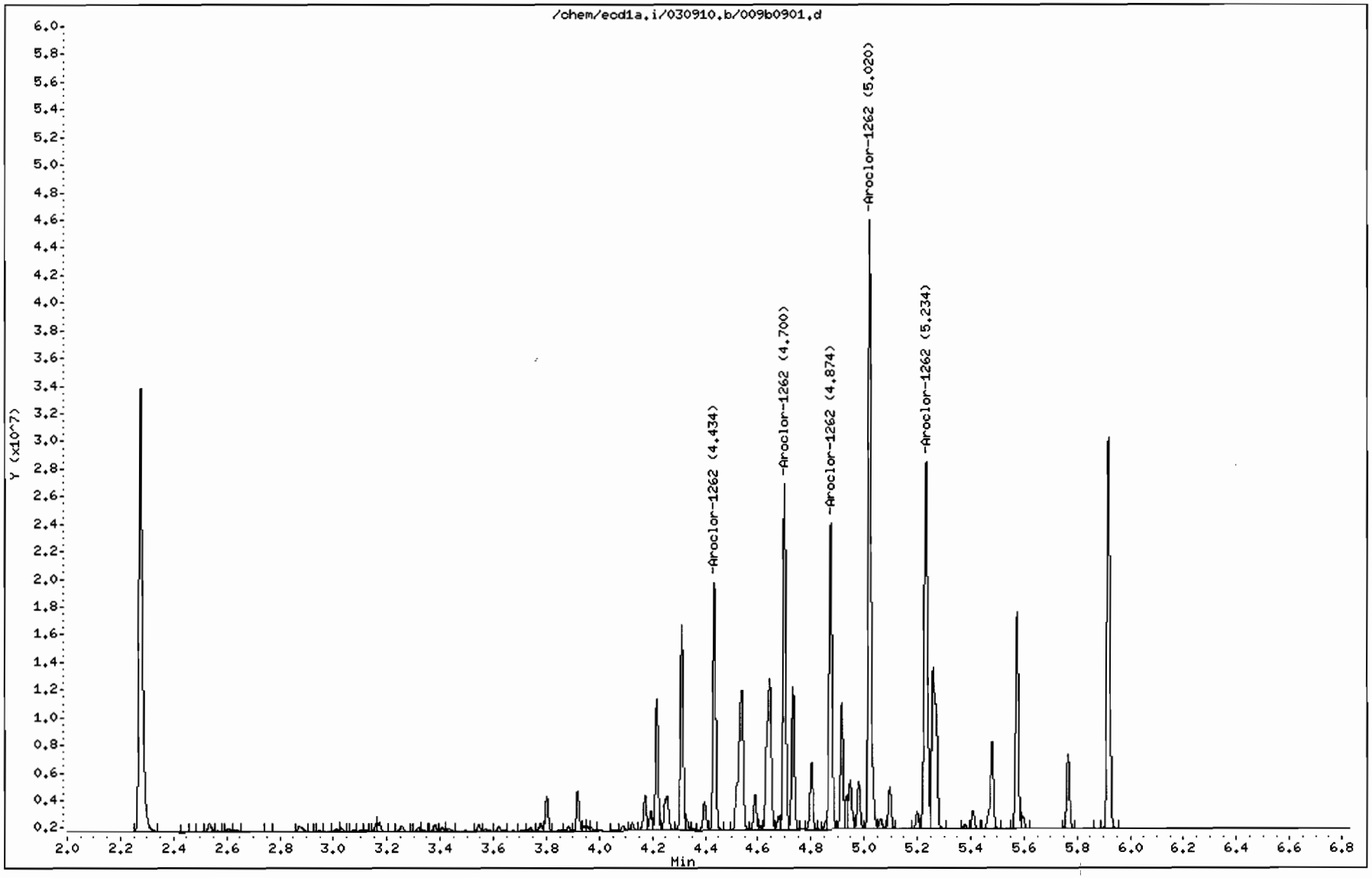

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RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/030910.b/025f2501.d
Lab Smp Id: WAR100222-60 03 Client Smp ID: AR166003
Inj Date : 09-MAR-2010 10:21
Operator : YS1 Inst ID: ecdla.i
Smp Info : |WAR100222-60 03
Misc Info :
Comment :
Method : /chem/ecdla.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 10:55 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.917	1.916	0.001	39680226	100.000	92.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.220	5.223	-0.003	30941576	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.369	2.370	-0.001	14060683	1000.00	914	80.00- 120.00	100.00
2.656	2.656	0.000	17777120	1000.00	975	106.43- 146.43	126.43
2.736	2.736	0.000	11271846	1000.00	934	60.17- 100.17	80.17
2.773	2.774	-0.001	6815125	1000.00	960	28.47- 68.47	48.47
2.983	2.984	-0.001	8730275	1000.00	980	42.09- 82.09	62.09
Average of Peak Amounts =					953		
7 Aroclor-1260					CAS #: 11096-82-5		
3.708	3.710	-0.002	17016413	1000.00	997	80.00- 120.00	100.00
3.871	3.873	-0.002	25400273	1000.00	1070	129.27- 169.27	149.27
4.033	4.035	-0.002	27114495	1000.00	1080	139.34- 179.34	159.34
4.102	4.102	0.000	15286706	1000.00	1060	69.84- 109.84	89.84
4.244	4.246	-0.002	15918473	1000.00	1100	73.55- 113.55	93.55
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecd1a.i/030910.b/025f2501.d
Date : 09-MAR-2010 10:21
Client ID: AR166003
Sample Info: IWAR100222-60 03

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

Column phase: CLP1

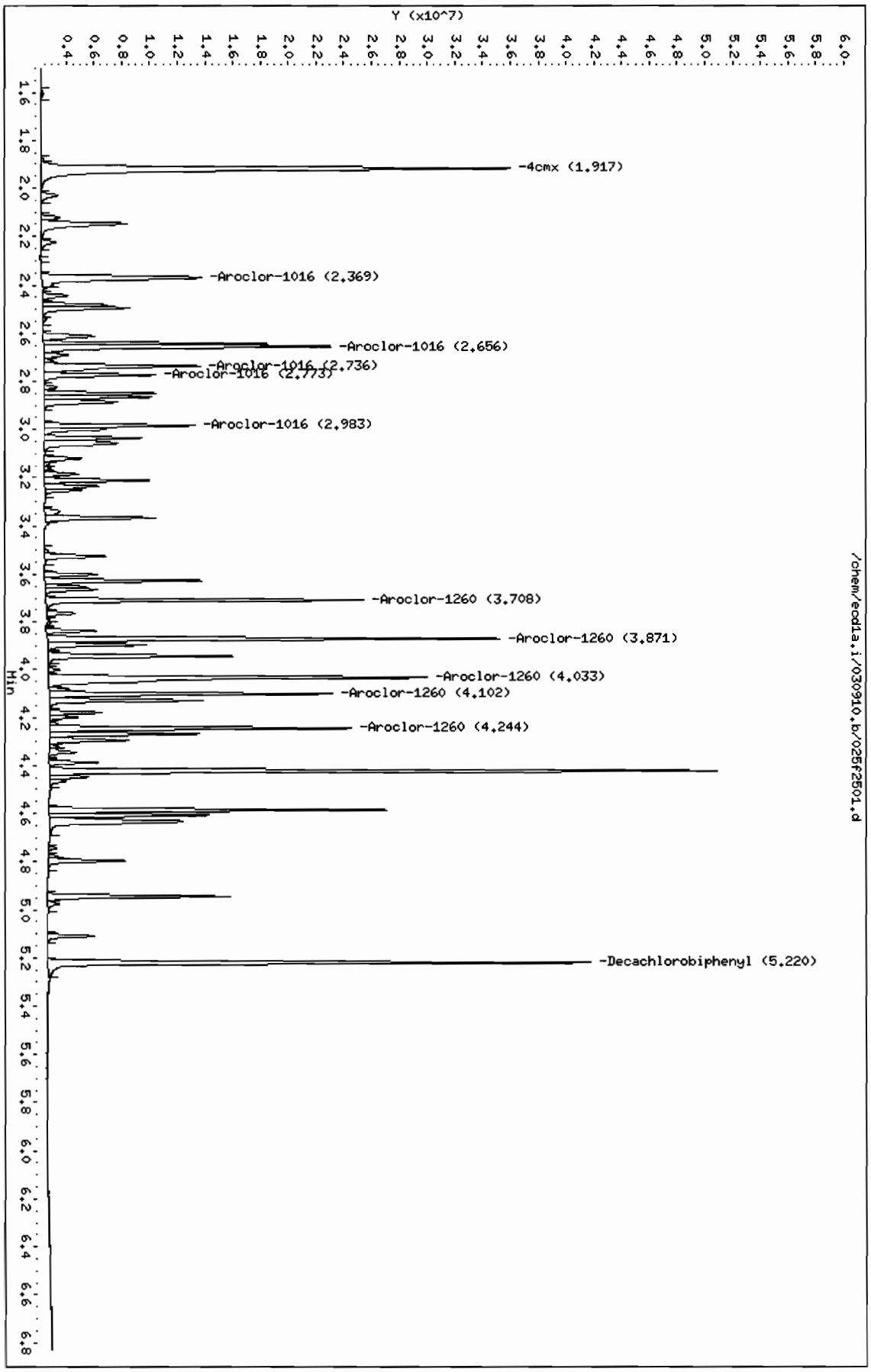

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/025b2501.d
Lab Smp Id: WAR100222-60 03 Client Smp ID: AR166003
Inj Date : 09-MAR-2010 10:21
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 10:54 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpc1p1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.275	2.276	-0.001	26743661	100.000	89.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.916	5.918	-0.002	19387352	100.000	91.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.169	3.170	-0.001	12193531	1000.00	953	80.00- 120.00	100.00(M)
3.252	3.253	-0.001	7901532	1000.00	886	44.80- 84.80	64.80
3.316	3.316	0.000	4934564	1000.00	913	20.47- 60.47	40.47
3.542	3.544	-0.002	6203624	1000.00	897	30.88- 70.88	50.88
3.617	3.619	-0.002	5825015	1000.00	906	37.60- 77.60	57.60
Average of Peak Amounts =					911		
7 Aroclor-1260					CAS #: 11096-82-5		
4.307	4.309	-0.002	11974228	1000.00	907	80.00- 120.00	100.00
4.432	4.435	-0.003	14696750	1000.00	944	102.74- 142.74	122.74
4.697	4.700	-0.003	11082986	1000.00	936	72.56- 112.56	92.56
4.871	4.873	-0.002	11537123	1000.00	946	76.35- 116.35	96.35
5.018	5.021	-0.003	25747290	1000.00	971	195.02- 235.02	215.02
Average of Peak Amounts =					941		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/030910.b/025b2501.d
Date : 09-MAR-2010 10:21
Client ID: AR166003
Sample Info: IWAR100222-60 03
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

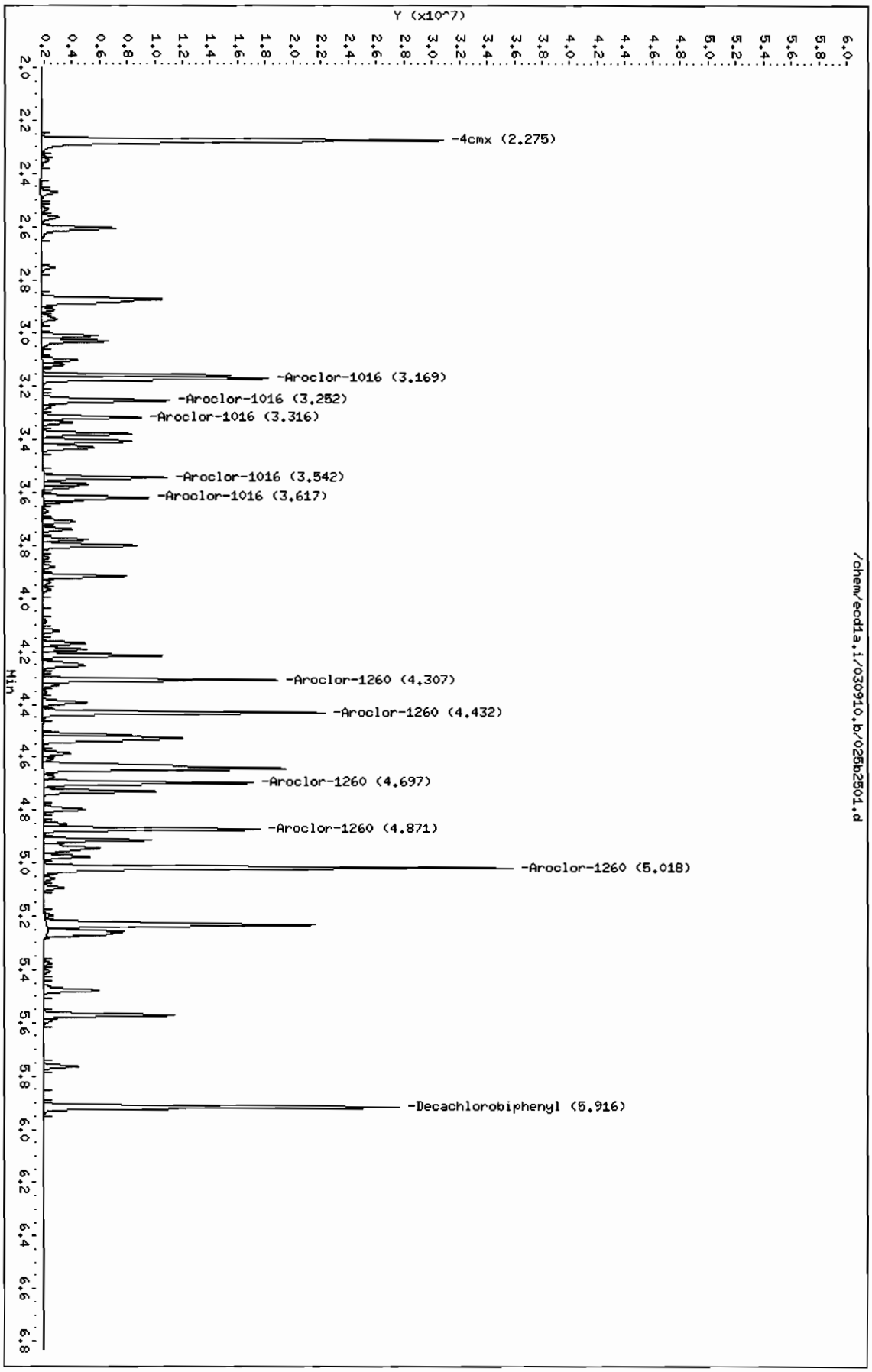

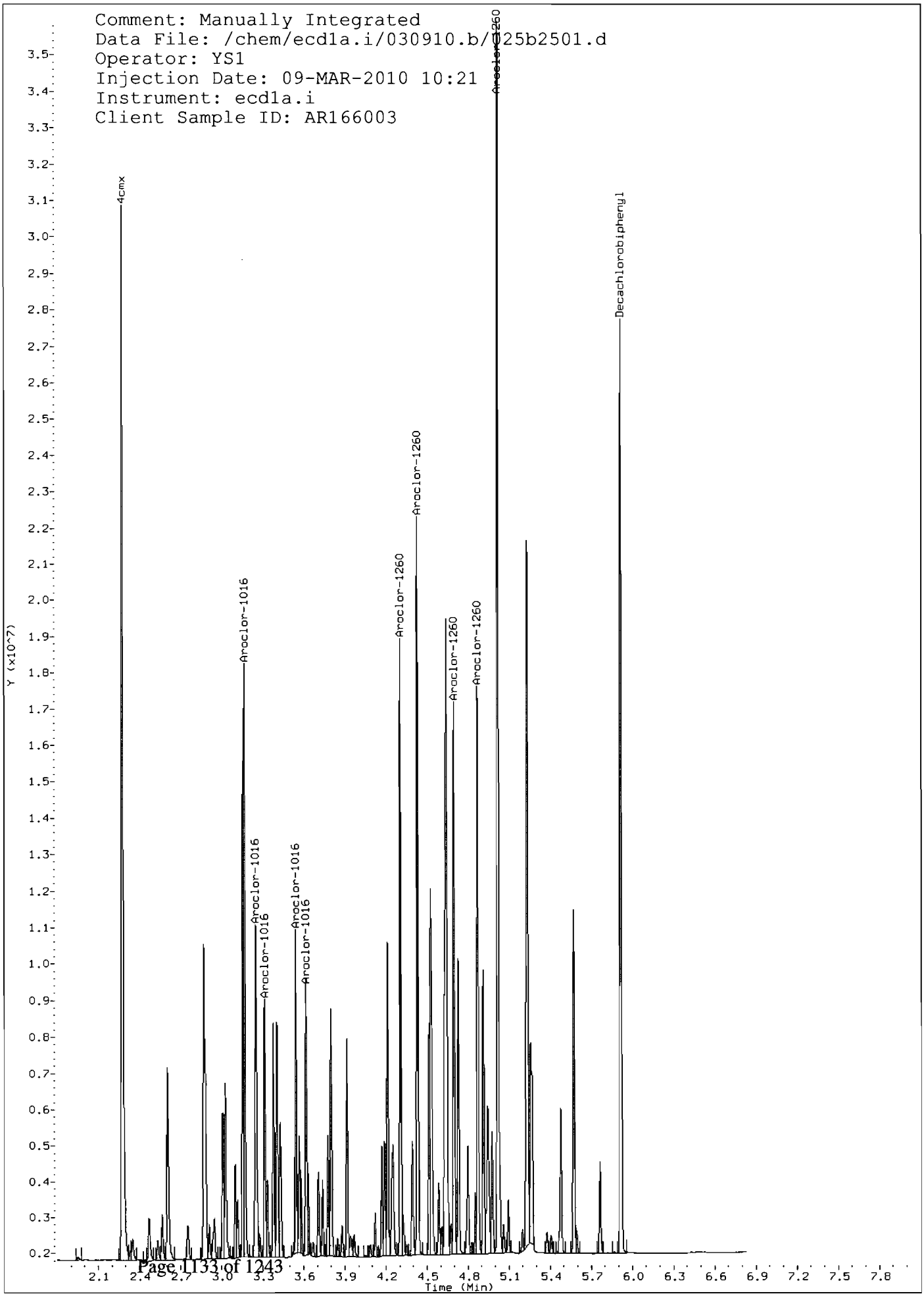
Comment: Manually Integrated
Data File: /chem/ecd1a.i/030910.b/125b2501.d
Operator: YS1
Injection Date: 09-MAR-2010 10:21
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

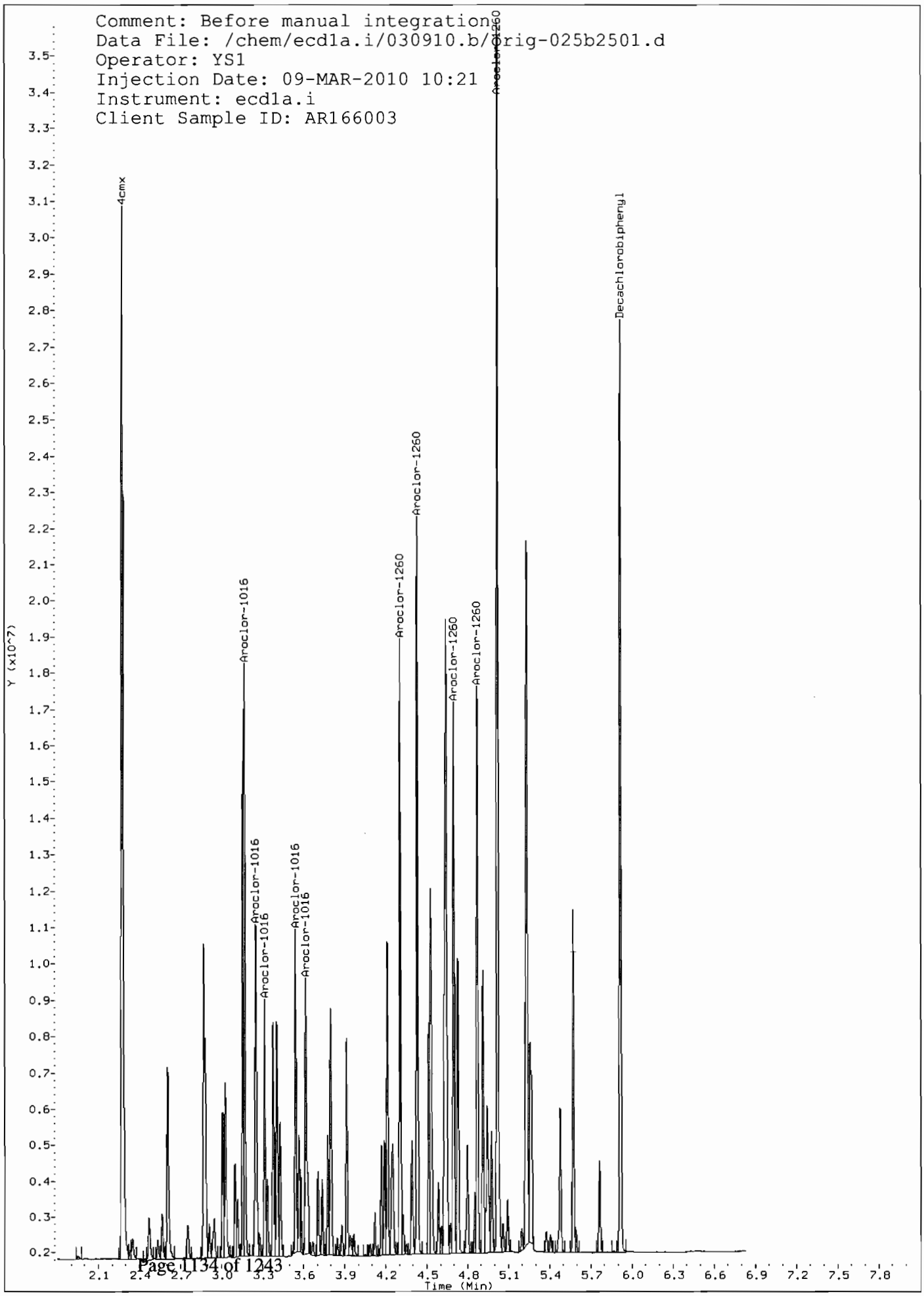
Comment: Before manual integration
Data File: /chem/ecd1a.i/030910.b/orig-025b2501.d
Operator: YS1
Injection Date: 09-MAR-2010 10:21
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/036f3601.d
Lab Smp Id: WAR100222-60 04 Client Smp ID: AR166004
Inj Date : 09-MAR-2010 12:23
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 36 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.916	1.916	0.000	40471444	100.000	94.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.220	5.223	-0.003	31806720	100.000	104	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.368	2.370	-0.002	14278137	1000.00	928	80.00- 120.00	100.00
2.656	2.656	0.000	18701586	1000.00	1020	110.98- 150.98	130.98
2.736	2.736	0.000	11479585	1000.00	951	60.40- 100.40	80.40
2.773	2.774	-0.001	6956937	1000.00	980	28.72- 68.72	48.72
2.983	2.984	-0.001	8887592	1000.00	997	42.25- 82.25	62.25
Average of Peak Amounts =					977		
7 Aroclor-1260					CAS #: 11096-82-5		
3.708	3.710	-0.002	17231278	1000.00	1010	80.00- 120.00	100.00
3.871	3.873	-0.002	25747341	1000.00	1090	129.42- 169.42	149.42
4.032	4.035	-0.003	27594765	1000.00	1100	140.14- 180.14	160.14
4.101	4.102	-0.001	15539147	1000.00	1080	70.18- 110.18	90.18
4.243	4.246	-0.003	16196326	1000.00	1120	73.99- 113.99	93.99
Average of Peak Amounts =					1.08e+03		

Data File: /chem/ecd1a.i/030910.b/036f3601.d
Date : 09-MAR-2010 12:23
Client ID: AR166004
Sample Info: IWAR100222-60 04
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

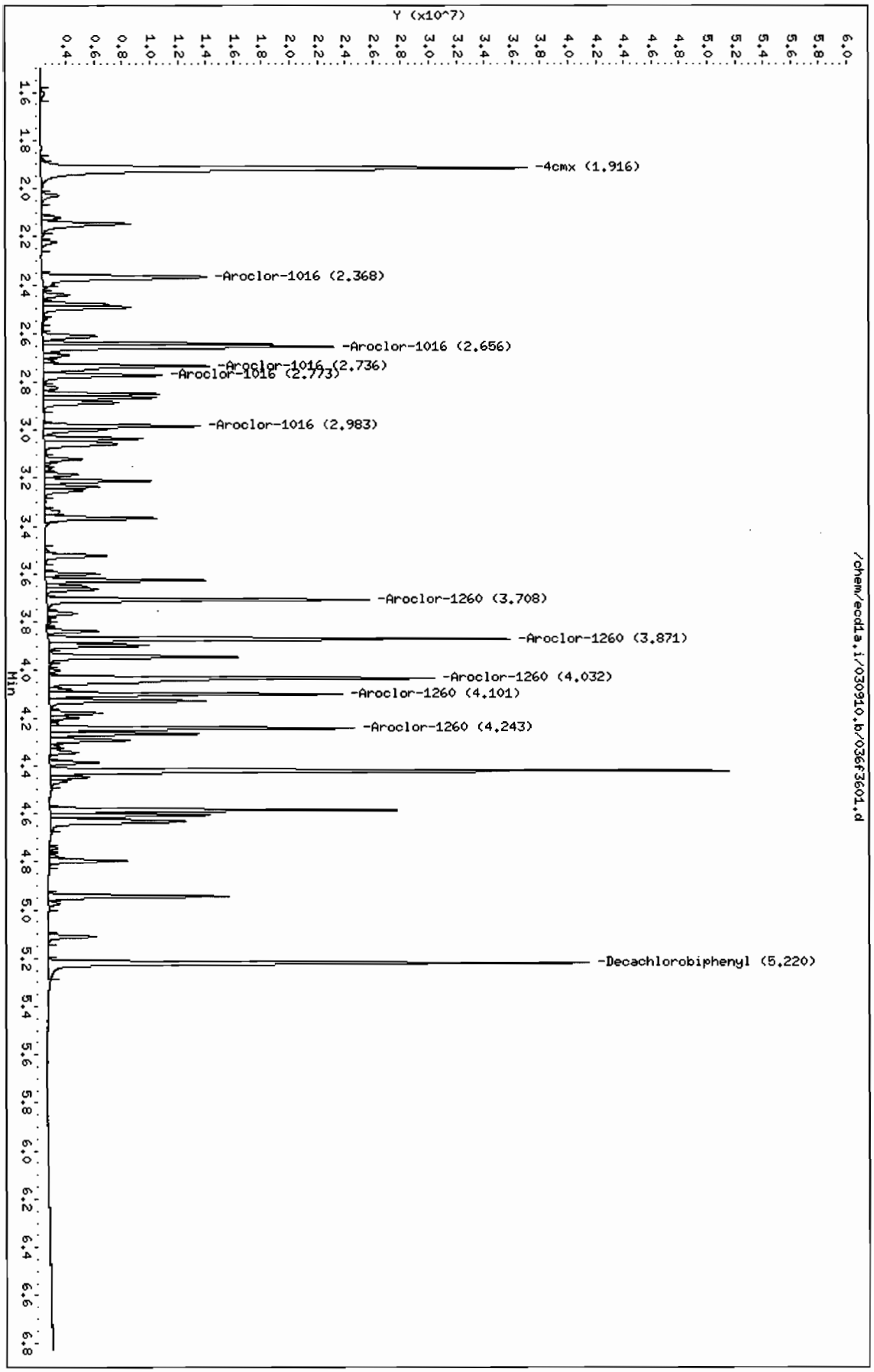

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/036b3601.d
Lab Smp Id: WAR100222-60 04 Client Smp ID: AR166004
Inj Date : 09-MAR-2010 12:23
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 36 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.275	2.276	-0.001	27545191	100.000	92.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.915	5.918	-0.003	19984480	100.000	94.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.169	3.170	-0.001	12542512	1000.00	981	80.00- 120.00	100.00(M)
3.252	3.253	-0.001	8094605	1000.00	908	44.54- 84.54	64.54
3.316	3.316	0.000	5066938	1000.00	937	20.40- 60.40	40.40
3.542	3.544	-0.002	6566448	1000.00	950	30.67- 70.67	52.35
3.617	3.619	-0.002	6086252	1000.00	947	37.45- 77.45	48.52
Average of Peak Amounts =					944		
7 Aroclor-1260					CAS #: 11096-82-5		
4.307	4.309	-0.002	12295985	1000.00	931	80.00- 120.00	100.00
4.432	4.435	-0.003	15078122	1000.00	969	102.63- 142.63	122.63
4.697	4.700	-0.003	11370329	1000.00	960	72.47- 112.47	92.47
4.871	4.873	-0.002	11877501	1000.00	973	76.60- 116.60	96.60
5.018	5.021	-0.003	26534899	1000.00	1000	195.80- 235.80	215.80
Average of Peak Amounts =					967		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdia.i/030910.b/036b3601.d
Date : 09-MAR-2010 12:23
Client ID: AR166004
Sample Info: IWAR100222-60 04
Column phase: CLP2

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

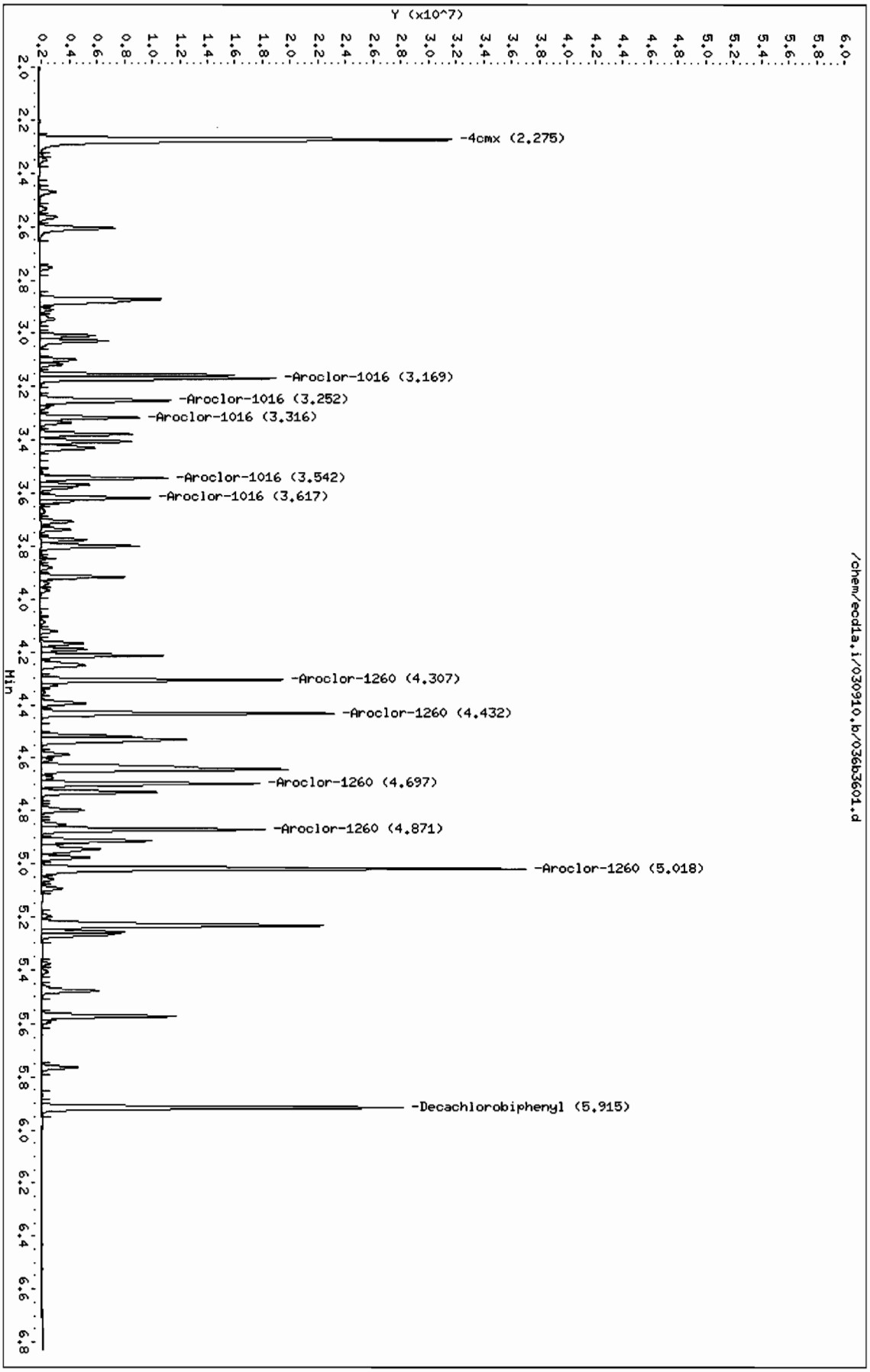

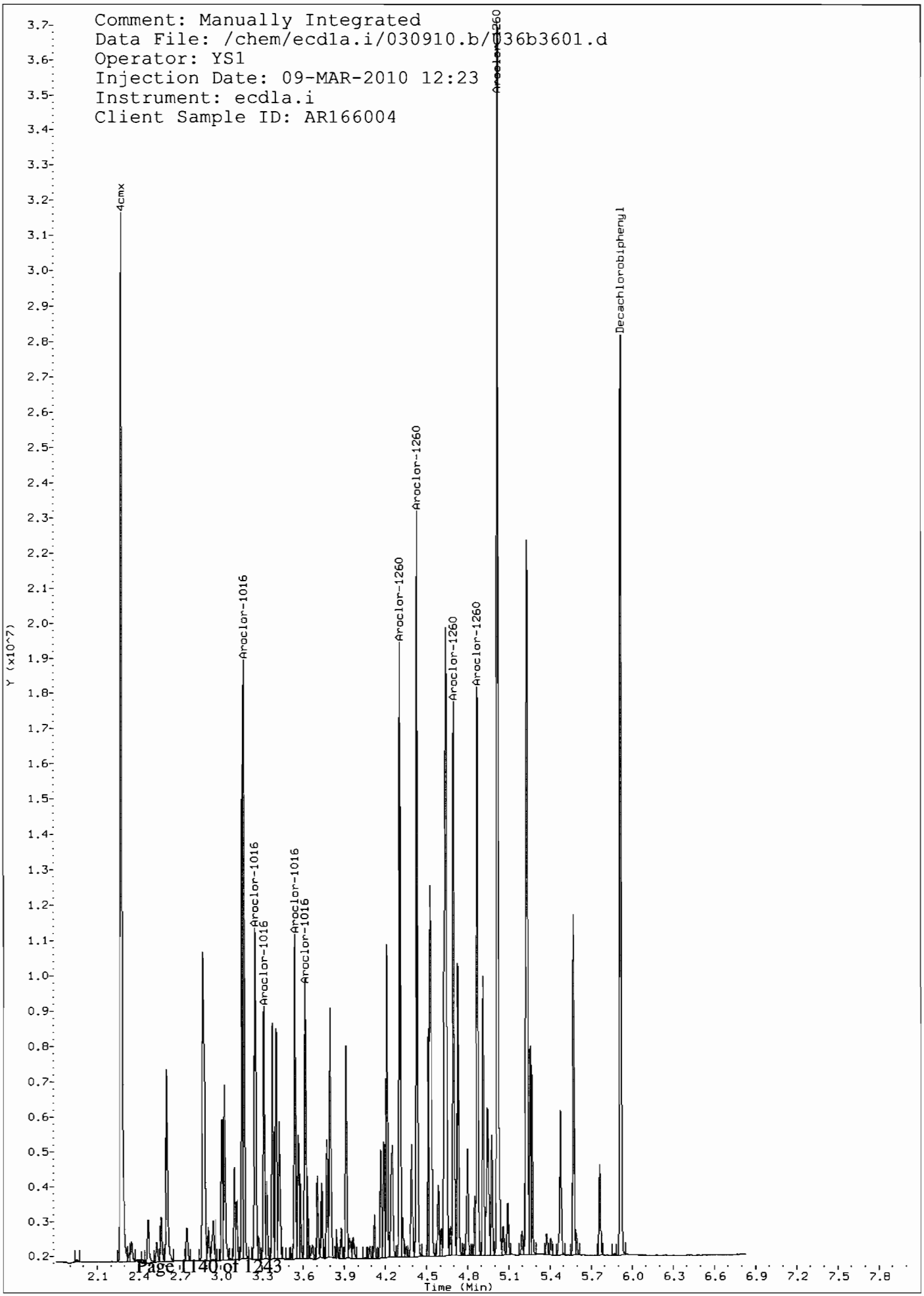
Comment: Manually Integrated
Data File: /chem/ecd1a.i/030910.b/036b3601.d
Operator: YS1
Injection Date: 09-MAR-2010 12:23
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

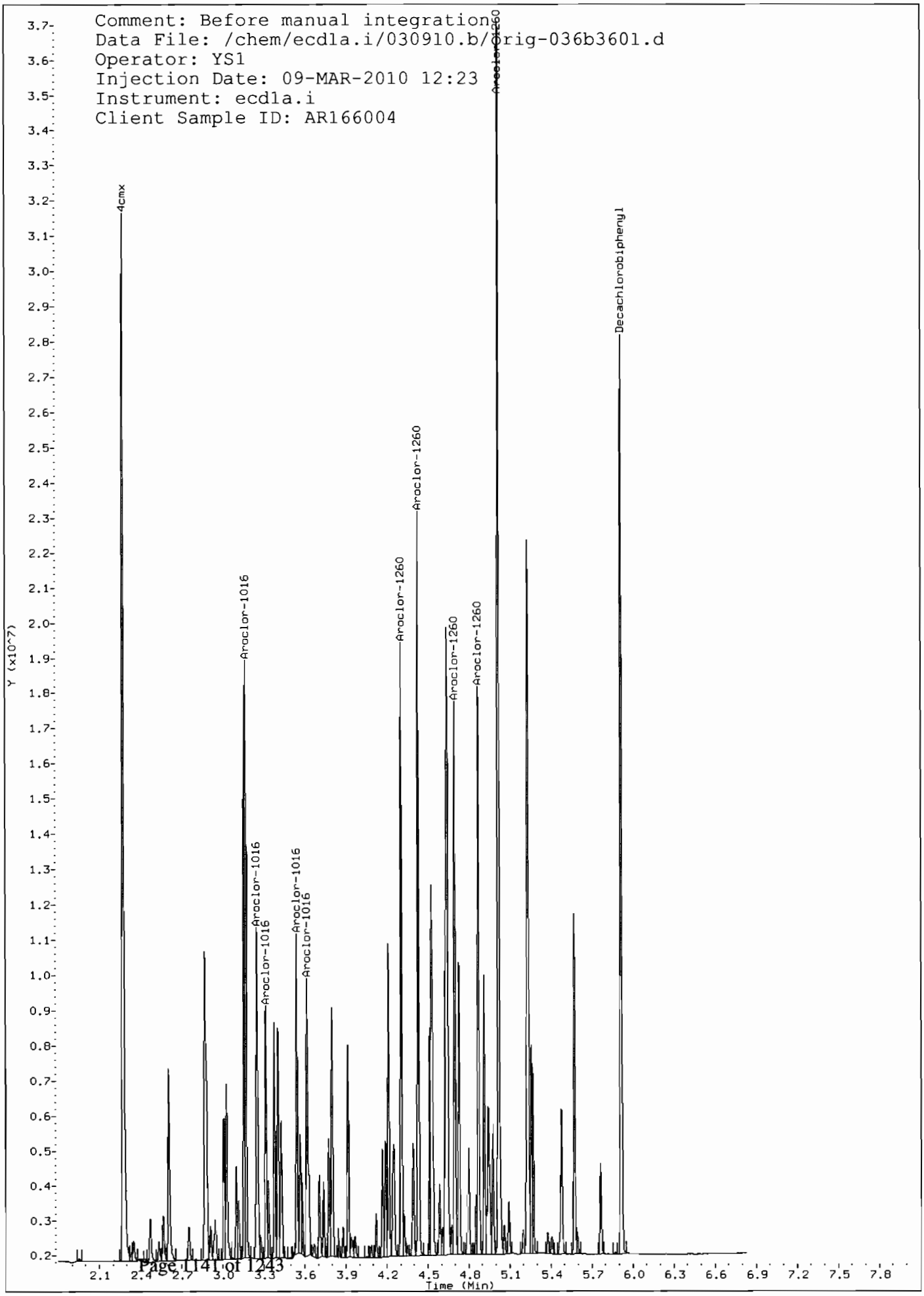
Comment: Before manual integration
Data File: /chem/ecd1a.i/030910.b/Orig-036b3601.d
Operator: YS1
Injection Date: 09-MAR-2010 12:23
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2039

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.92 DCB: 5.23

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/22/10	0559	1.92	5.23
02	DUSE	WAR100203-60	02/22/10	0610	1.92	5.23
03	ZZZZZ	ZZZZZ	02/22/10	0620	1.92	5.23
04	DDTANALOGSTD	WAR091219-DD	02/22/10	0631		
05	AR123201	WAR100104-32	02/22/10	0641		
06	AR122101	WAR100104-21	02/22/10	0652		
07	AR126201	WAR100104-62	02/22/10	0703		
08	AR166001	WAR100222-01	02/22/10	0713	1.92	5.23
09	AR166002	WAR100222-02	02/22/10	0724	1.92	5.23
10	AR166003	WAR100222-03	02/22/10	0734	1.92	5.23
11	AR166004	WAR100222-04	02/22/10	0745	1.92	5.23
12	AR166005	IAR100104-01	02/22/10	0755	1.92	5.23
13	AR166001	WAR100203-60	02/22/10	0806	1.92	5.23
14	AR125401	WAR100222-05	02/22/10	0816		
15	AR125402	WAR100222-06	02/22/10	0827		
16	AR125403	WAR100222-07	02/22/10	0837		
17	AR125404	WAR100222-08	02/22/10	0848		
18	AR125405	IAR100219-02	02/22/10	0859		
19	AR125401	WAR100219-54	02/22/10	0909		
20	AR124201	WAR100222-09	02/22/10	0920		
21	AR124202	WAR100222-10	02/22/10	0930		
22	AR124203	WAR100222-11	02/22/10	0941		
23	AR124204	WAR100222-12	02/22/10	0951		
24	AR124205	IAR100219-01	02/22/10	1002		
25	AR124201	WAR100219-42	02/22/10	1012		
26	AR124801	WAR100222-13	02/22/10	1023		
27	AR124802	WAR100222-14	02/22/10	1033		
28	AR124803	WAR100222-15	02/22/10	1044		
29	AR124805	IAR100211-01	02/22/10	1054		
30	AR124804	WAR100222-16	02/22/10	1105		
31	AR124801	WAR091217-48	02/22/10	1116		
32	AR126801	WAR100222-17	02/22/10	1126		

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2039

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.92 DCB: 5.23

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR126802	WAR100222-18	02/22/10	1137		
02	AR126803	WAR100222-19	02/22/10	1147		
03	AR126804	WAR100222-20	02/22/10	1158		
04	AR126805	IAR100104-05	02/22/10	1208		
05	AR126801	WAR100107-68	02/22/10	1219		
06	PIBLK02	WAR100219-99	02/22/10	1229	1.92	5.23
07	ZZZZZ	ZZZZZ	02/22/10	1240	1.92	5.23
08	ZZZZZ	ZZZZZ	02/22/10	1250	1.93	5.23
09	ZZZZZ	ZZZZZ	02/22/10	1301	1.92	5.23
10	ZZZZZ	ZZZZZ	02/22/10	1314	1.92	5.23
11	ZZZZZ	ZZZZZ	02/22/10	1326	1.92	5.23
12	ZZZZZ	ZZZZZ	02/22/10	1339	1.92	5.23
13	ZZZZZ	ZZZZZ	02/22/10	1351	1.92	5.23
14	ZZZZZ	ZZZZZ	02/22/10	1404	1.92	5.23
15	ZZZZZ	ZZZZZ	02/22/10	1417	1.92	5.23
16	ZZZZZ	ZZZZZ	02/22/10	1430	1.92	5.23
17	AR166002	WAR100203-60	02/22/10	1442	1.92	5.23
18	PIBLK03	WAR100219-99	02/22/10	1453	1.92	5.23
19	ZZZZZ	ZZZZZ	02/22/10	1503	1.92	5.23
20	ZZZZZ	ZZZZZ	02/22/10	1516	1.92	5.23
21	ZZZZZ	ZZZZZ	02/22/10	1528	1.92	5.23
22	ZZZZZ	ZZZZZ	02/22/10	1541	1.92	5.23
23	ZZZZZ	ZZZZZ	02/22/10	1554	1.92	5.23
24	ZZZZZ	ZZZZZ	02/22/10	1606	1.92	5.23
25	ZZZZZ	ZZZZZ	02/22/10	1619	1.92	5.23
26	ZZZZZ	ZZZZZ	02/22/10	1632	1.92	5.23
27	ZZZZZ	ZZZZZ	02/22/10	1644	1.92	5.23
28	ZZZZZ	ZZZZZ	02/22/10	1657	1.92	5.23
29	AR166003	WAR100203-60	02/22/10	1710	1.92	5.23
30	PIBLK04	WAR100219-99	02/22/10	1722	1.92	5.23
31	ZZZZZ	ZZZZZ	02/22/10	1735	1.92	5.23
32	ZZZZZ	ZZZZZ	02/22/10	1748	1.92	5.23

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2039

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/22/10	0559	2.29	5.93
02	DUSE	WAR100203-60	02/22/10	0610	2.29	5.94
03	ZZZZZ	ZZZZZ	02/22/10	0620	2.29	5.94
04	DDTANALOGSTD	WAR091219-DD	02/22/10	0631		
05	AR123201	WAR100104-32	02/22/10	0641		
06	AR122101	WAR100104-21	02/22/10	0652		
07	AR126201	WAR100104-62	02/22/10	0703		
08	AR166001	WAR100222-01	02/22/10	0713	2.29	5.94
09	AR166002	WAR100222-02	02/22/10	0724	2.29	5.94
10	AR166003	WAR100222-03	02/22/10	0734	2.29	5.94
11	AR166004	WAR100222-04	02/22/10	0745	2.29	5.94
12	AR166005	IAR100104-01	02/22/10	0755	2.29	5.94
13	AR166001	WAR100203-60	02/22/10	0806	2.29	5.94
14	AR125401	WAR100222-05	02/22/10	0816		
15	AR125402	WAR100222-06	02/22/10	0827		
16	AR125403	WAR100222-07	02/22/10	0837		
17	AR125404	WAR100222-08	02/22/10	0848		
18	AR125405	IAR100219-02	02/22/10	0859		
19	AR125401	WAR100219-54	02/22/10	0909		
20	AR124201	WAR100222-09	02/22/10	0920		
21	AR124202	WAR100222-10	02/22/10	0930		
22	AR124203	WAR100222-11	02/22/10	0941		
23	AR124204	WAR100222-12	02/22/10	0951		
24	AR124205	IAR100219-01	02/22/10	1002		
25	AR124201	WAR100219-42	02/22/10	1012		
26	AR124801	WAR100222-13	02/22/10	1023		
27	AR124802	WAR100222-14	02/22/10	1033		
28	AR124803	WAR100222-15	02/22/10	1044		
29	AR124805	IAR100211-01	02/22/10	1054		
30	AR124804	WAR100222-16	02/22/10	1105		
31	AR124801	WAR091217-48	02/22/10	1116		
32	AR126801	WAR100222-17	02/22/10	1126		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2039

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR126802	WAR100222-18	02/22/10	1137		
02	AR126803	WAR100222-19	02/22/10	1147		
03	AR126804	WAR100222-20	02/22/10	1158		
04	AR126805	IAR100104-05	02/22/10	1208		
05	AR126801	WAR100107-68	02/22/10	1219		
06	PIBLK02	WAR100219-99	02/22/10	1229	2.29	5.94
07	ZZZZZ	ZZZZZ	02/22/10	1240	2.29	5.94
08	ZZZZZ	ZZZZZ	02/22/10	1250	2.29	5.94
09	ZZZZZ	ZZZZZ	02/22/10	1301	2.29	5.94
10	ZZZZZ	ZZZZZ	02/22/10	1314	2.29	5.94
11	ZZZZZ	ZZZZZ	02/22/10	1326	2.29	5.94
12	ZZZZZ	ZZZZZ	02/22/10	1339	2.29	5.93
13	ZZZZZ	ZZZZZ	02/22/10	1351	2.29	5.93
14	ZZZZZ	ZZZZZ	02/22/10	1404	2.29	5.94
15	ZZZZZ	ZZZZZ	02/22/10	1417	2.29	5.93
16	ZZZZZ	ZZZZZ	02/22/10	1430	2.29	5.93
17	AR166002	WAR100203-60	02/22/10	1442	2.29	5.94
18	PIBLK03	WAR100219-99	02/22/10	1453	2.29	5.94
19	ZZZZZ	ZZZZZ	02/22/10	1503	2.29	5.94
20	ZZZZZ	ZZZZZ	02/22/10	1516	2.29	5.93
21	ZZZZZ	ZZZZZ	02/22/10	1528	2.29	5.93
22	ZZZZZ	ZZZZZ	02/22/10	1541	2.29	5.94
23	ZZZZZ	ZZZZZ	02/22/10	1554	2.29	5.93
24	ZZZZZ	ZZZZZ	02/22/10	1606	2.29	5.93
25	ZZZZZ	ZZZZZ	02/22/10	1619	2.29	5.94
26	ZZZZZ	ZZZZZ	02/22/10	1632	2.29	5.93
27	ZZZZZ	ZZZZZ	02/22/10	1644	2.29	5.93
28	ZZZZZ	ZZZZZ	02/22/10	1657	2.29	5.93
29	AR166003	WAR100203-60	02/22/10	1710	2.29	5.93
30	PIBLK04	WAR100219-99	02/22/10	1722	2.29	5.93
31	ZZZZZ	ZZZZZ	02/22/10	1735	2.29	5.93
32	ZZZZZ	ZZZZZ	02/22/10	1748	2.29	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2039

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.92 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/09/10	0555	1.91	5.22
02	AR166001	WAR100222-60	03/09/10	0605	1.92	5.22
03	AR125401	WAR100219-54	03/09/10	0616		
04	AR124201	WAR100219-42	03/09/10	0626		
05	AR124801	WAR100223-48	03/09/10	0637		
06	AR126801	WAR100107-68	03/09/10	0647		
07	AR123201	WAR100104-32	03/09/10	0658		
08	AR122101	WAR100104-21	03/09/10	0708		
09	AR126201	WAR100104-62	03/09/10	0719		
10	DDTANALOGSTD	WAR091219-DD	03/09/10	0729		
11	PIBLK02	WAR100219-99	03/09/10	0740	1.92	5.22
12	ZZZZZ	ZZZZZ	03/09/10	0750	1.92	5.22
13	ZZZZZ	ZZZZZ	03/09/10	0801	1.92	5.22
14	ZZZZZ	ZZZZZ	03/09/10	0811	1.92	5.22
15	ZZZZZ	ZZZZZ	03/09/10	0822	1.92	5.22
16	ZZZZZ	ZZZZZ	03/09/10	0834	1.92	5.22
17	ZZZZZ	ZZZZZ	03/09/10	0847	1.92	5.22
18	ZZZZZ	ZZZZZ	03/09/10	0859	1.92	5.22
19	AR166002	WAR100222-60	03/09/10	0912	1.92	5.22
20	PIBLK03	WAR100219-99	03/09/10	0923	1.92	5.22
21	ZZZZZ	ZZZZZ	03/09/10	0933	1.92	5.22
22	ZZZZZ	ZZZZZ	03/09/10	0944	1.92	5.22
23	ZZZZZ	ZZZZZ	03/09/10	0956	1.92	5.22
24	ZZZZZ	ZZZZZ	03/09/10	1009	1.92	5.22
25	AR166003	WAR100222-60	03/09/10	1021	1.92	5.22
26	PIBLK04	WAR100219-99	03/09/10	1032	1.92	5.22
27	PBLK01	1202063177	03/09/10	1042	1.92	5.22
28	PBLK01LCS	1202063178	03/09/10	1053	1.92	5.22
29	ZZZZZ	ZZZZZ	03/09/10	1103	1.92	5.22
30	ZZZZZ	ZZZZZ	03/09/10	1114	1.92	5.22
31	ZZZZZ	ZZZZZ	03/09/10	1124	1.92	5.22
32	ZZZZZ	ZZZZZ	03/09/10	1135	1.92	5.22

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2039

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.92 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	CAPA-10-12917	248017005	03/09/10	1146	1.92	5.22
02	ZZZZZ	ZZZZZ	03/09/10	1158	1.92	5.22
03	ZZZZZ	ZZZZZ	03/09/10	1211	1.92	5.22
04	AR166004	WAR100222-60	03/09/10	1223	1.92	5.22
05	PIBLK05	WAR100219-99	03/09/10	1234	1.92	5.22
06	ZZZZZ	ZZZZZ	03/09/10	1244	1.92	5.22
07	ZZZZZ	ZZZZZ	03/09/10	1257	1.92	5.22
08	ZZZZZ	ZZZZZ	03/09/10	1309	1.92	5.22
09	ZZZZZ	ZZZZZ	03/09/10	1322	1.92	5.22
10	AR166005	WAR100222-60	03/09/10	1335	1.92	5.22
11	PIBLK06	WAR100219-99	03/09/10	1345	1.92	5.22
12	ZZZZZ	ZZZZZ	03/09/10	1404	1.92	5.23
13	ZZZZZ	ZZZZZ	03/09/10	1431	1.92	5.23
14	ZZZZZ	ZZZZZ	03/09/10	1442	1.92	5.22
15						
16						
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30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2039

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.28 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/09/10	0555	2.27	5.92
02	AR166001	WAR100222-60	03/09/10	0605	2.28	5.92
03	AR125401	WAR100219-54	03/09/10	0616		
04	AR124201	WAR100219-42	03/09/10	0626		
05	AR124801	WAR100223-48	03/09/10	0637		
06	AR126801	WAR100107-68	03/09/10	0647		
07	AR123201	WAR100104-32	03/09/10	0658		
08	AR122101	WAR100104-21	03/09/10	0708		
09	AR126201	WAR100104-62	03/09/10	0719		
10	DDTANALOGSTD	WAR091219-DD	03/09/10	0729		
11	PIBLK02	WAR100219-99	03/09/10	0740	2.28	5.92
12	ZZZZZ	ZZZZZ	03/09/10	0750	2.28	5.92
13	ZZZZZ	ZZZZZ	03/09/10	0801	2.27	5.92
14	ZZZZZ	ZZZZZ	03/09/10	0811	2.28	5.92
15	ZZZZZ	ZZZZZ	03/09/10	0822	2.28	5.92
16	ZZZZZ	ZZZZZ	03/09/10	0834	2.28	5.92
17	ZZZZZ	ZZZZZ	03/09/10	0847	2.27	5.92
18	ZZZZZ	ZZZZZ	03/09/10	0859	2.27	5.92
19	AR166002	WAR100222-60	03/09/10	0912	2.28	5.92
20	PIBLK03	WAR100219-99	03/09/10	0923	2.28	5.92
21	ZZZZZ	ZZZZZ	03/09/10	0933	2.28	5.92
22	ZZZZZ	ZZZZZ	03/09/10	0944	2.28	5.92
23	ZZZZZ	ZZZZZ	03/09/10	0956	2.28	5.91
24	ZZZZZ	ZZZZZ	03/09/10	1009	2.27	5.91
25	AR166003	WAR100222-60	03/09/10	1021	2.27	5.92
26	PIBLK04	WAR100219-99	03/09/10	1032	2.28	5.92
27	PBLK01	1202063177	03/09/10	1042	2.28	5.92
28	PBLK01LCS	1202063178	03/09/10	1053	2.28	5.92
29	ZZZZZ	ZZZZZ	03/09/10	1103	2.28	5.92
30	ZZZZZ	ZZZZZ	03/09/10	1114	2.28	5.92
31	ZZZZZ	ZZZZZ	03/09/10	1124	2.28	5.92
32	ZZZZZ	ZZZZZ	03/09/10	1135	2.28	5.92

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2039

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.28 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	CAPA-10-12917	248017005	03/09/10	1146	2.28	5.92
02	ZZZZZ	ZZZZZ	03/09/10	1158	2.28	5.92
03	ZZZZZ	ZZZZZ	03/09/10	1211	2.28	5.92
04	AR166004	WAR100222-60	03/09/10	1223	2.27	5.91
05	PIBLK05	WAR100219-99	03/09/10	1234	2.28	5.92
06	ZZZZZ	ZZZZZ	03/09/10	1244	2.28	5.92
07	ZZZZZ	ZZZZZ	03/09/10	1257	2.28	5.92
08	ZZZZZ	ZZZZZ	03/09/10	1309	2.28	5.92
09	ZZZZZ	ZZZZZ	03/09/10	1322	2.27	5.92
10	AR166005	WAR100222-60	03/09/10	1335	2.27	5.91
11	PIBLK06	WAR100219-99	03/09/10	1345	2.28	5.92
12	ZZZZZ	ZZZZZ	03/09/10	1404	2.27	5.92
13	ZZZZZ	ZZZZZ	03/09/10	1431	2.28	5.92
14	ZZZZZ	ZZZZZ	03/09/10	1442	2.28	5.92
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

Identification Summary

SDG Number: 10–2039 **Client ID:** LCS for batch 961885

Lab Sample ID: 1202063178

Data File:	028f2801.d	**Data File:**	028b2801.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	09–MAR–10 10:53	**Analyzed:**	09–MAR–10 10:53

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							2.7
Column 1	1	2.37	2.34 – 2.4	.604		ug/L	
	2	2.66	2.63 – 2.69	.671		ug/L	
	3	2.74	2.71 – 2.77	.648		ug/L	
	4	2.77	2.74 – 2.8	.694		ug/L	
	5	2.98	2.95 – 3.01	.674		ug/L	
					.658		
Column 2	1	3.17	3.14 – 3.2	.64		ug/L	
	2	3.25	3.22 – 3.28	.607		ug/L	
	3	3.32	3.29 – 3.35	.609		ug/L	
	4	3.54	3.51 – 3.57	.672		ug/L	
	5	3.62	3.59 – 3.65	.675		ug/L	
					.641		
Aroclor–1260							9.9
Column 1	1	3.71	3.68 – 3.74	.78		ug/L	
	2	3.87	3.84 – 3.9	.859		ug/L	
	3	4.03	4 – 4.06	.879		ug/L	
	4	4.1	4.07 – 4.13	.856		ug/L	
	5	4.24	4.22 – 4.28	.803		ug/L	
					.835		
Column 2	1	4.31	4.28 – 4.34	.725		ug/L	
	2	4.43	4.4 – 4.46	.761		ug/L	
	3	4.7	4.67 – 4.73	.75		ug/L	
	4	4.87	4.84 – 4.9	.758		ug/L	
	5	5.02	4.99 – 5.05	.789		ug/L	
					.757		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**WATER**
Lab Sample ID:	**1202063177**				
Client Sample:	**QC for batch 961885**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 961885**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**961887**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 10:42**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/08/2010 14:29**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**027f2701-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	027b2701-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.100	ug/L	0.0333	0.100	1
11104-28-2	Aroclor-1221	U	0.100	ug/L	0.0333	0.100	1
11141-16-5	Aroclor-1232	U	0.100	ug/L	0.0333	0.100	1
53469-21-9	Aroclor-1242	U	0.100	ug/L	0.0333	0.100	1
12672-29-6	Aroclor-1248	U	0.100	ug/L	0.0333	0.100	1
11097-69-1	Aroclor-1254	U	0.100	ug/L	0.0333	0.100	1
11096-82-5	Aroclor-1260	U	0.100	ug/L	0.0333	0.100	1
37324-23-5	Aroclor-1262	U	0.100	ug/L	0.0333	0.100	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.096	0.200	ug/L	48.0	(30%-105%)
Decachlorobiphenyl	0.127	0.200	ug/L	63.6	(30%-126%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/027f2701-2.d
Lab Smp Id: 1202063177 Client Smp ID: PBLK01
Inj Date : 09-MAR-2010 10:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202063177|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|WATER|MB|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 14:23 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 27 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2039.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.918	1.916	0.002	41338476	95.9938	0.096	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.222	5.223	-0.001	39087168	127.200	0.13	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/027f2701-2.d

Date : 09-MAR-2010 10:42

Client ID: PBLK01

Sample Info: |120206317|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

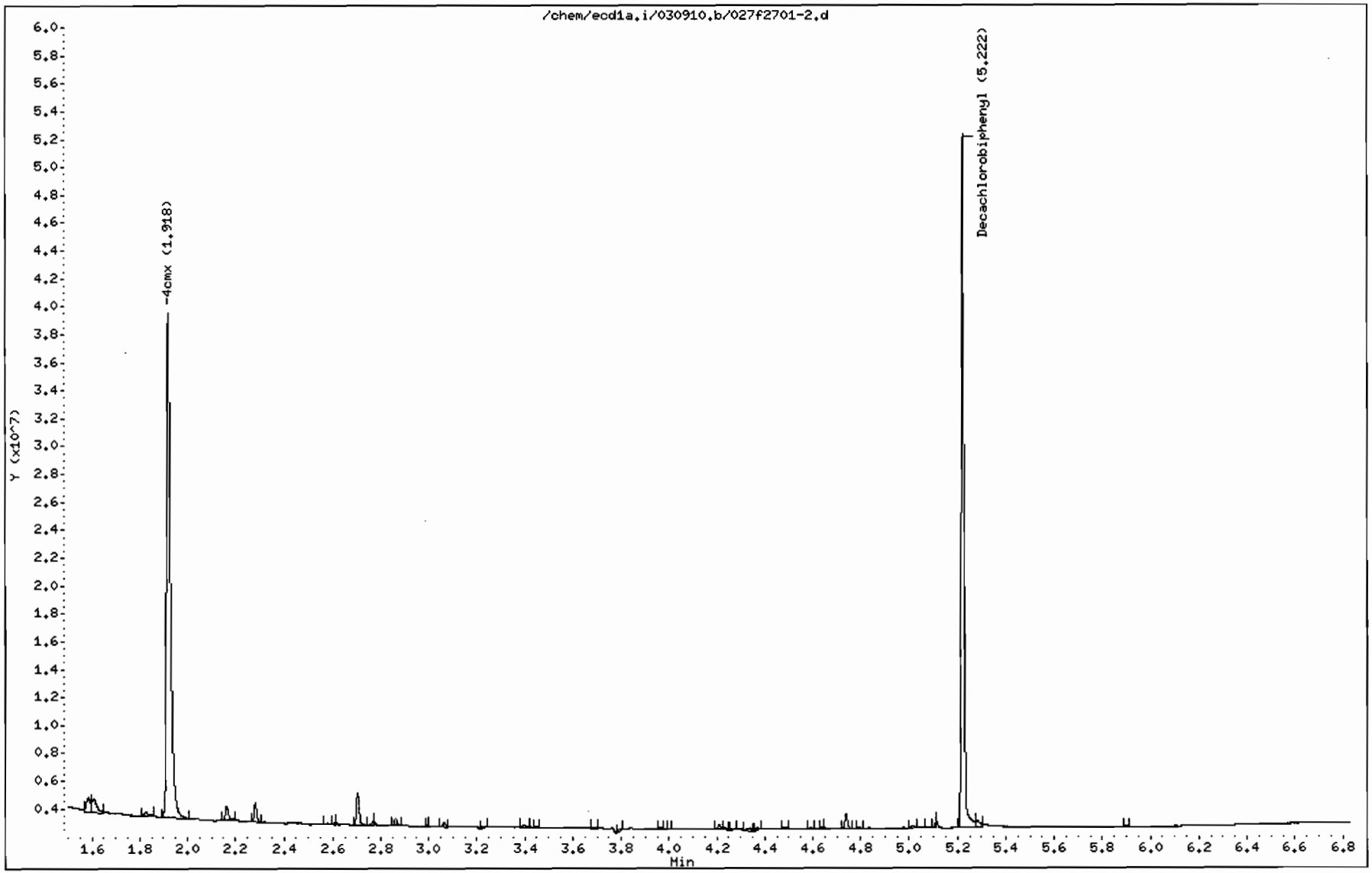

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/027b2701-2.d
Lab Smp Id: 1202063177 Client Smp ID: PBLK01
Inj Date : 09-MAR-2010 10:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202063177|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|WATER|MB|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 14:09 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 27 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2039.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.277	2.276	0.001	27948784	93.9781	0.094	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.917	5.918	-0.001	25157063	118.947	0.12	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/027b2701-2.d

Page 1

Date : 09-MAR-2010 10:42

Client ID: PBLK01

Instrument: ecd1a.i

Sample Info: |120206317711|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

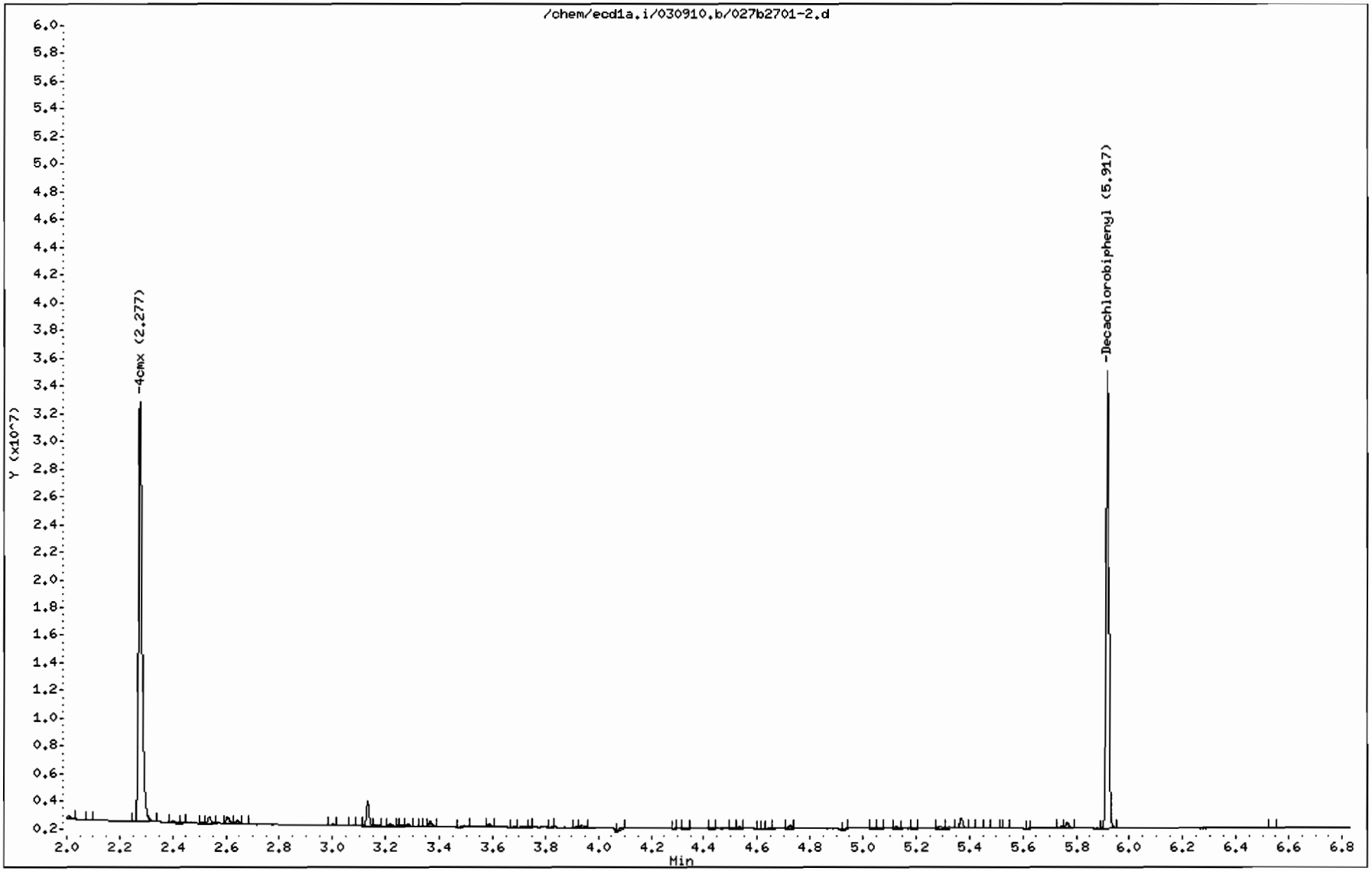

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2039**			**Matrix:**	**WATER**
Lab Sample ID:	**1202063178**				
Client Sample:	**QC for batch 961885**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961885**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**961887**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 10:53**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/08/2010 14:29**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**028f2801-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	028b2801-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		0.660	ug/L	0.0333	0.100	1
11104-28-2	Aroclor-1221	U	0.100	ug/L	0.0333	0.100	1
11141-16-5	Aroclor-1232	U	0.100	ug/L	0.0333	0.100	1
53469-21-9	Aroclor-1242	U	0.100	ug/L	0.0333	0.100	1
12672-29-6	Aroclor-1248	U	0.100	ug/L	0.0333	0.100	1
11097-69-1	Aroclor-1254	U	0.100	ug/L	0.0333	0.100	1
11096-82-5	Aroclor-1260		0.840	ug/L	0.0333	0.100	1
37324-23-5	Aroclor-1262	U	0.100	ug/L	0.0333	0.100	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.0958	0.200	ug/L	47.9	(30%-105%)
Decachlorobiphenyl	0.133	0.200	ug/L	66.6	(30%-126%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/028f2801-2.d
Lab Smp Id: 1202063178 Client Smp ID: PBLK01LCS
Inj Date : 09-MAR-2010 10:53
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202063178|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|WATER|LCS|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 14:23 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 28 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2039.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.918	1.916	0.002	41264077	95.8210	0.096	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.221	5.223	-0.002	40956540	133.283	0.13	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.371	2.370	0.001	9296537	604.286	0.60	80.00- 120.00	100.00
2.657	2.656	0.001	12229349	670.579	0.67	106.89- 146.89	131.55
2.737	2.736	0.001	7813553	647.596	0.65	60.41- 100.41	84.05
2.775	2.774	0.001	4924710	694.002	0.69	28.38- 68.38	52.97
2.985	2.984	0.001	6007674	674.096	0.67	42.93- 82.93	64.62

Average of Peak Concentrations = 0.66

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.711	3.710	0.001	13319133	780.155	0.78	80.00- 120.00	100.00
3.872	3.873	-0.001	20308318	858.941	0.86	123.18- 163.18	152.47
4.035	4.035	0.000	21944681	878.795	0.88	125.08- 165.08	164.76
4.102	4.102	0.000	12330186	855.926	0.86	68.08- 108.08	92.57
4.245	4.246	-0.001	11594596	803.477	0.80	72.42- 112.42	87.05
Average of Peak Concentrations =					0.84		

Data File: /chem/ecd1a.i/030910.b/028f2801-2.d

Date : 09-MAR-2010 10:53

Client ID: PBLK01LCS

Sample Info: |120206317811|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

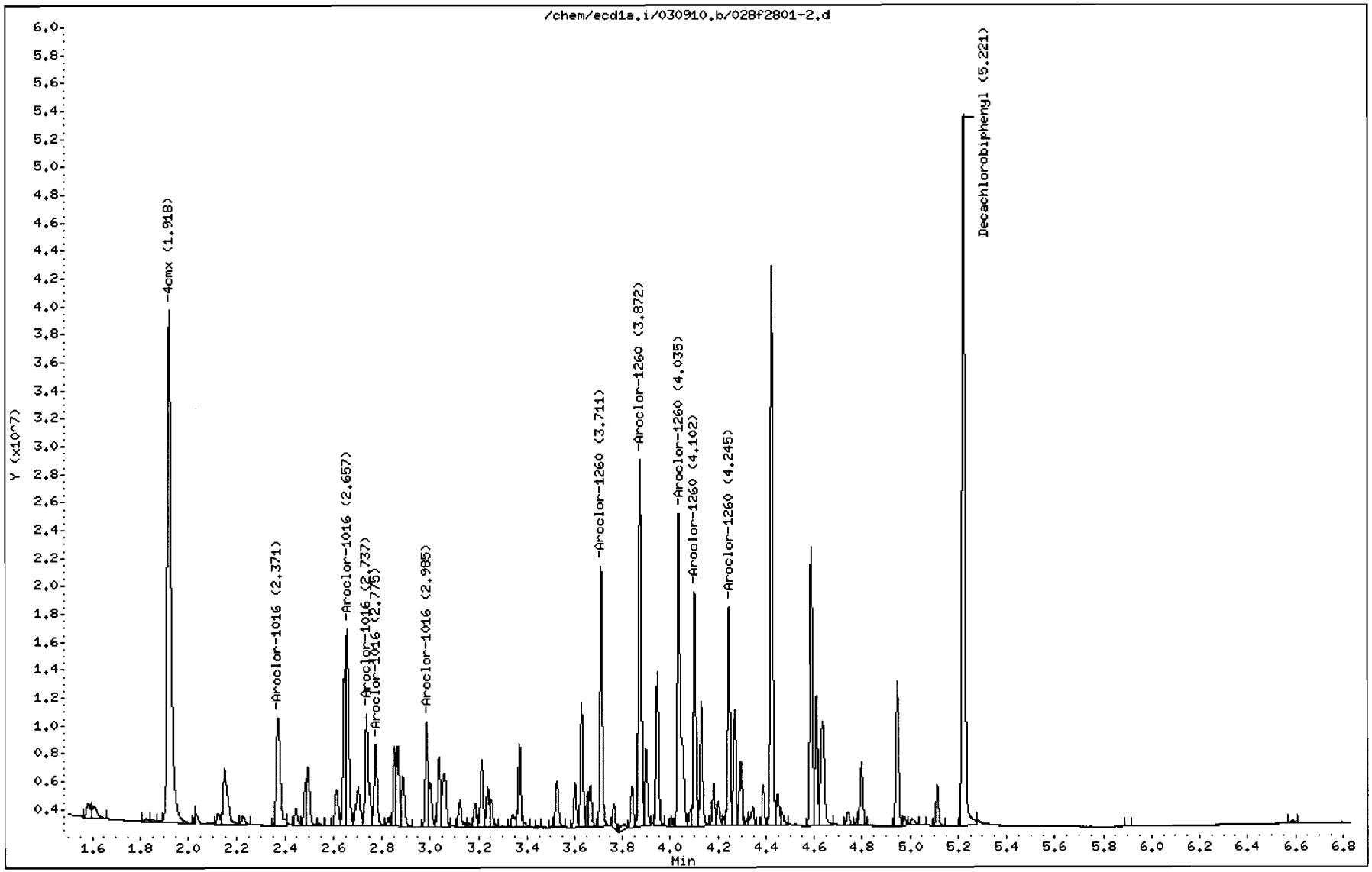

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/028b2801-2.d
Lab Smp Id: 1202063178 Client Smp ID: PBLK01LCS
Inj Date : 09-MAR-2010 10:53
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202063178|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|WATER|LCS|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 14:09 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 28 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2039.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.276	2.276	0.000	27998758	94.1461	0.094	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.916	5.918	-0.002	26852663	126.964	0.13	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.171	3.170	0.001	8185562	640.008	0.64	80.00- 120.00	100.00(M)
3.253	3.253	0.000	5415527	607.263	0.61	46.14- 86.14	66.16
3.316	3.316	0.000	3290453	608.666	0.61	21.09- 61.09	40.20
3.544	3.544	0.000	4644758	671.631	0.67	31.66- 71.66	56.74
3.619	3.619	0.000	4340137	675.485	0.68	29.28- 69.28	53.02

Average of Peak Concentrations = 0.64

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.309	4.309	0.000	9579346	725.398	0.72	80.00- 120.00	100.00
4.433	4.435	-0.002	11851829	761.352	0.76	102.28- 142.28	123.72
4.699	4.700	-0.001	8879850	749.766	0.75	71.92- 111.92	92.70
4.872	4.873	-0.001	9243424	757.584	0.76	75.56- 115.56	96.49
5.020	5.021	-0.001	20935579	789.213	0.79	194.53- 234.53	218.55
			Average of Peak Concentrations =		0.76		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/030910.b/028b2801-2.d
Date : 09-MAR-2010 10:53
Client ID: PBLK01LCS
Sample Info: 1120206317811
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

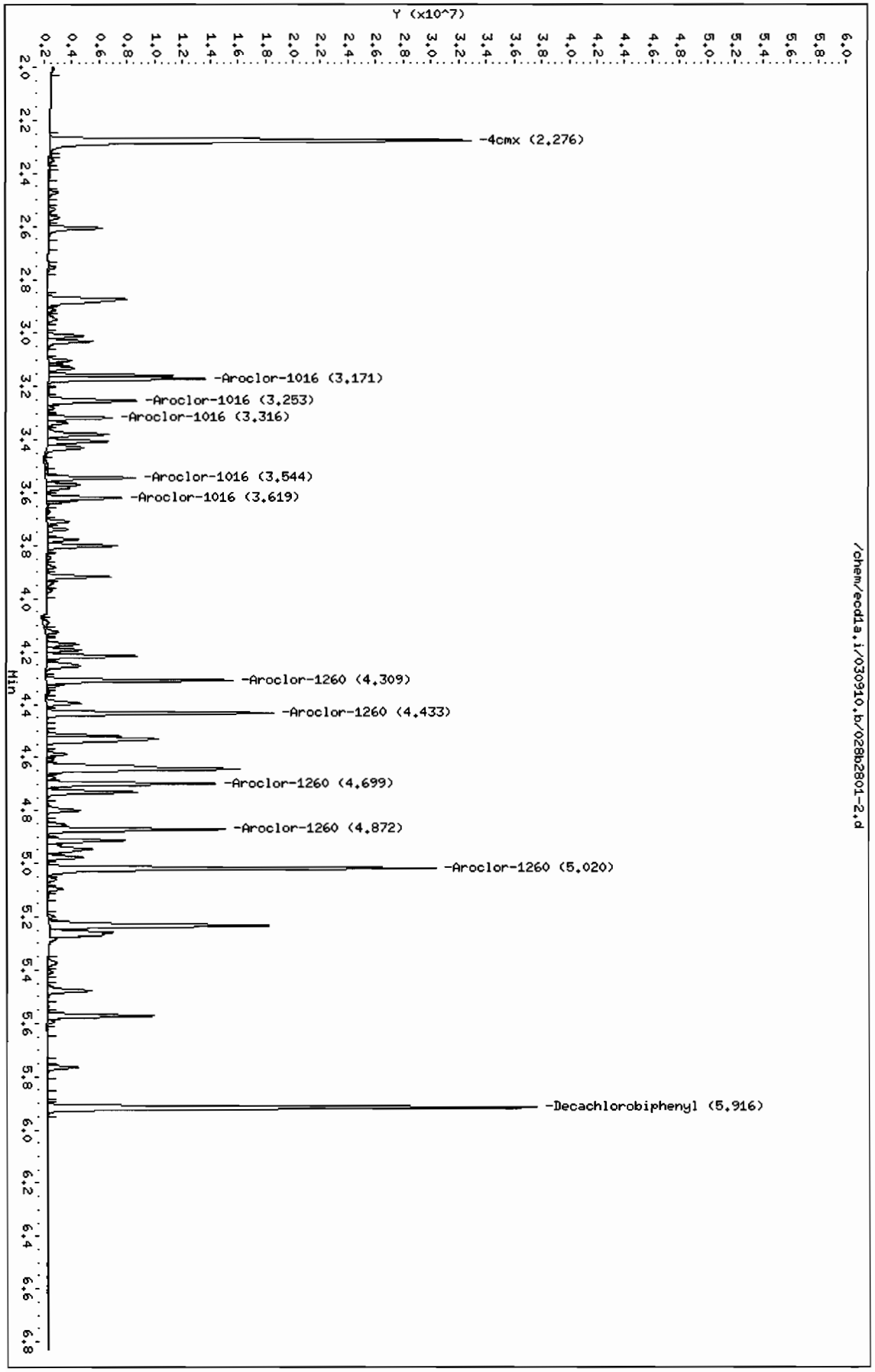

Page 1

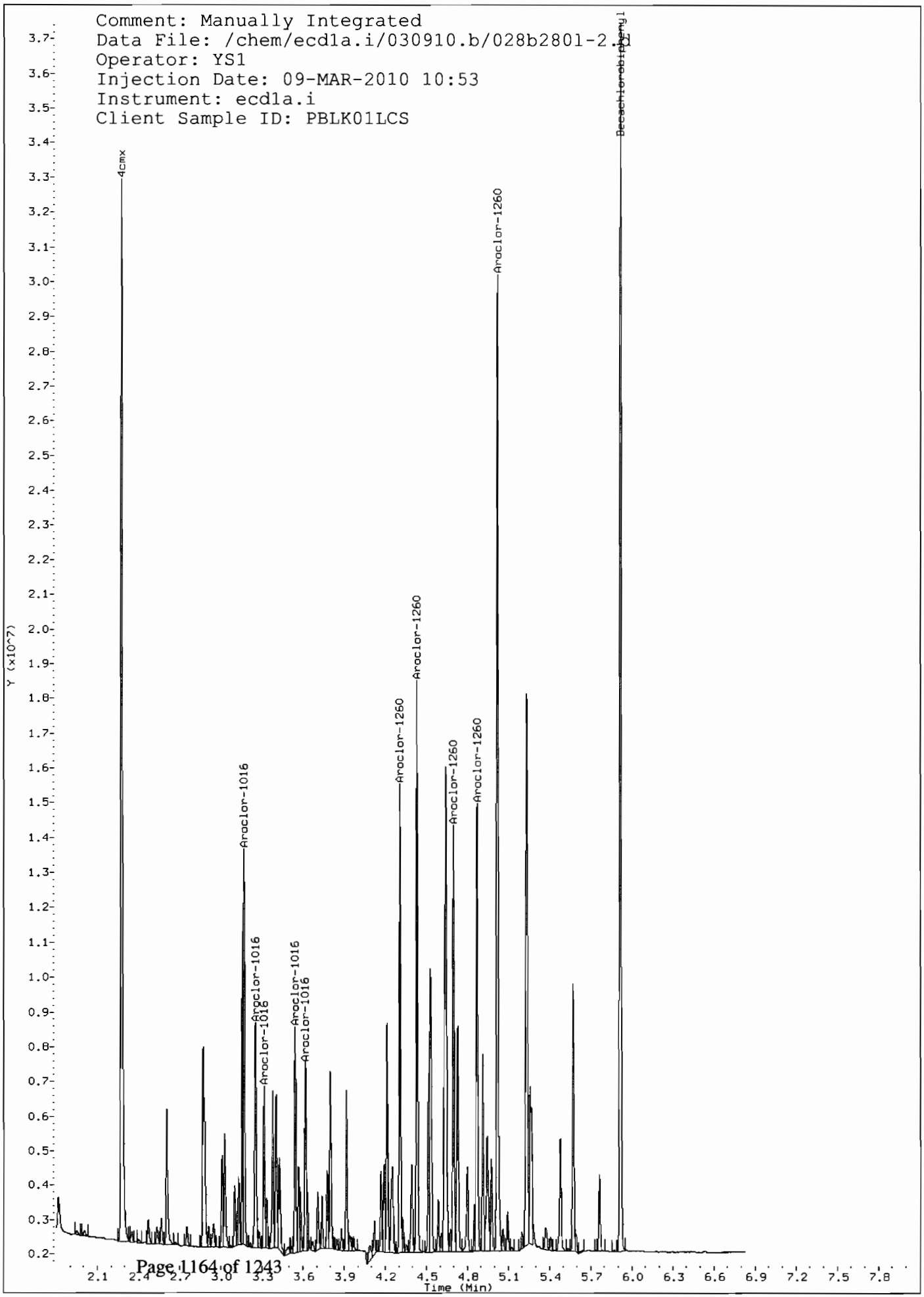
Comment: Manually Integrated
Data File: /chem/ecd1a.i/030910.b/028b2801-2.d
Operator: YS1
Injection Date: 09-MAR-2010 10:53
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

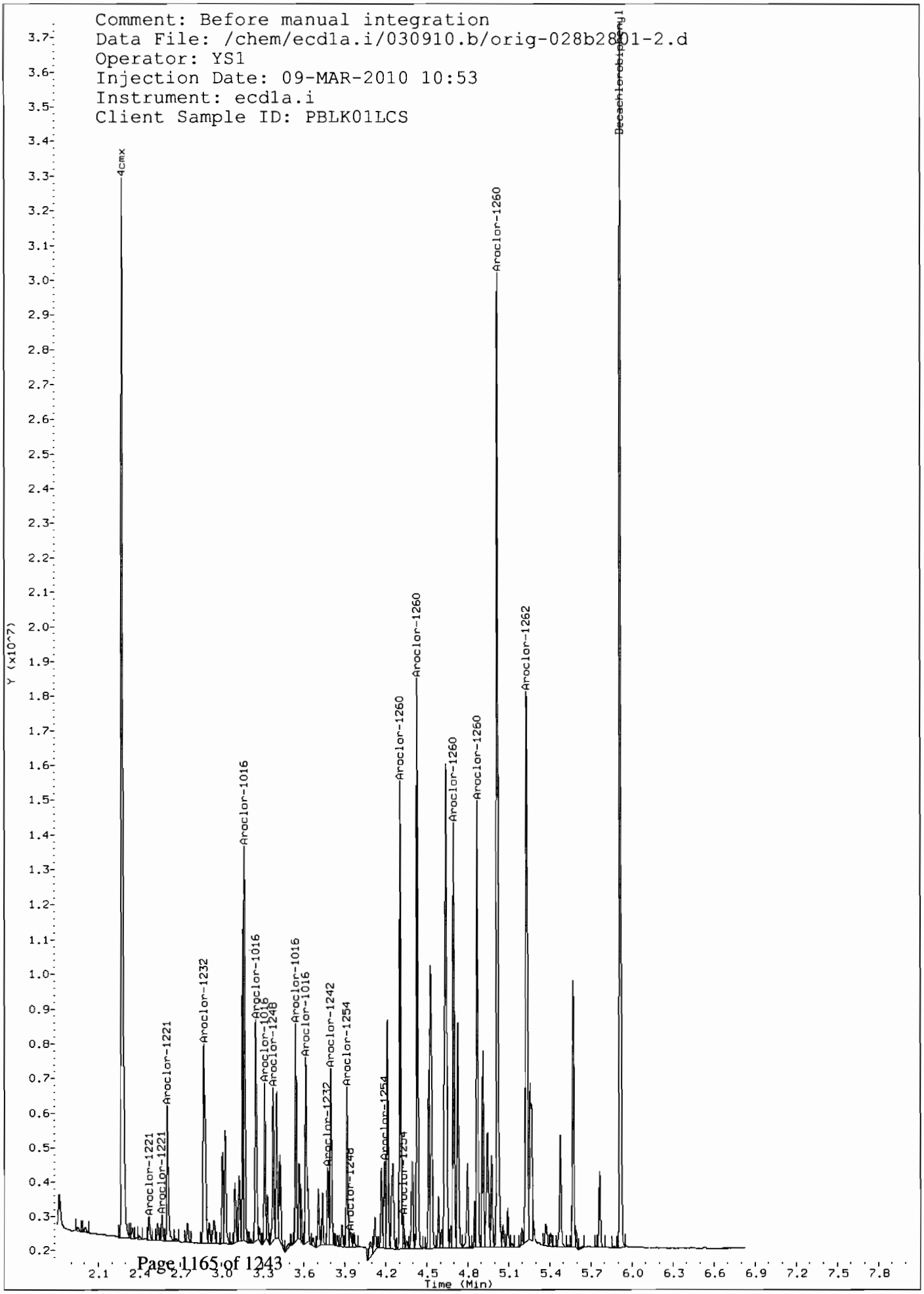
Comment: Before manual integration
Data File: /chem/ecd1a.i/030910.b/orig-028b2801-2.d
Operator: YS1
Injection Date: 09-MAR-2010 10:53
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
4cmx
Aroclor-1221
Aroclor-1221
Aroclor-1221
Aroclor-1232
Aroclor-1016
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Aroclor-1016
Aroclor-1248
Aroclor-1016
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Aroclor-1232
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Aroclor-1254
Aroclor-1254
Aroclor-1260
Aroclor-1260
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Aroclor-1260
Aroclor-1260
Aroclor-1262
Decachlorobiphenyl
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 02/23/2010 METHOD: ECD1-F-8082-022210.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/022210.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	22-FEB-2010 05:59		022210	1.0		CLEAN
002f0201.d	WAR100203-60 01	YS1	22-FEB-2010 06:10		022210	1.0		DUSE RE-ICAL
003f0301.d	AR1660-4	YS1	22-FEB-2010 06:20		022210	1.0		DUSE SCREEN
004f0401.d	WAR091219-DDT	YS1	22-FEB-2010 06:31		022210	1.0		DDT ANALOG STANDARD
005f0501.d	WAR100104-32	YS1	22-FEB-2010 06:41		022210	1.0		PATTERN ONLY
006f0601.d	WAR100104-21	YS1	22-FEB-2010 06:52		022210	1.0		PATTERN ONLY
007f0701.d	WAR100104-62	YS1	22-FEB-2010 07:03		022210	1.0		PATTERN ONLY
008f0801.d	WAR100222-01 60	YS1	22-FEB-2010 07:13		022210	1.0		AR1660 I-CAL LEVEL 1
009f0901.d	WAR100222-02 60	YS1	22-FEB-2010 07:24		022210	1.0		AR1660 I-CAL LEVEL 2
010f1001.d	WAR100222-03 60	YS1	22-FEB-2010 07:34		022210	1.0		AR1660 I-CAL LEVEL 3
011f1101.d	WAR100222-04 60	YS1	22-FEB-2010 07:45		022210	1.0		AR1660 I-CAL LEVEL 4
012f1201.d	IAR100104-01	YS1	22-FEB-2010 07:55		022210	1.0		AR1660 I-CAL LEVEL 5
013f1301.d	WAR100203-60 01	YS1	22-FEB-2010 08:06		022210	1.0		PASSED ON BOTH COLUMNS
014f1401.d	WAR100222-05 54	YS1	22-FEB-2010 08:16		022210	1.0		AR1254 I-CAL LEVEL 1
015f1501.d	WAR100222-06 54	YS1	22-FEB-2010 08:27		022210	1.0		AR1254 I-CAL LEVEL 2

Instrument Batch: /chem/ecd1a.i/022210.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR100222-07 54	YS1	22-FEB-2010 08:37		022210		1.0		AR1254 I-CAL LEVEL 3
017f1701.d	WAR100222-08 54	YS1	22-FEB-2010 08:48		022210		1.0		AR1254 I-CAL LEVEL 4
018f1801.d	IAR100219-02	YS1	22-FEB-2010 08:59		022210		1.0		AR1254 I-CAL LEVEL 5
019f1901.d	WAR100219-54	YS1	22-FEB-2010 09:09		022210		1.0		PASSED ON BOTH COLUMNS
020f2001.d	WAR100222-09 42	YS1	22-FEB-2010 09:20		022210		1.0		AR1242 I-CAL LEVEL 1
021f2101.d	WAR100222-10 42	YS1	22-FEB-2010 09:30		022210		1.0		AR1242 I-CAL LEVEL 2
022f2201.d	WAR100222-11 42	YS1	22-FEB-2010 09:41		022210		1.0		AR1242 I-CAL LEVEL 3
023f2301.d	WAR100222-12 42	YS1	22-FEB-2010 09:51		022210		1.0		AR1242 I-CAL LEVEL 4
024f2401.d	IAR100219-01	YS1	22-FEB-2010 10:02		022210		1.0		AR1242 I-CAL LEVEL 5
025f2501.d	WAR100219-42	YS1	22-FEB-2010 10:12		022210		1.0		PASSED ON BOTH COLUMNS
026f2601.d	WAR100222-13 48	YS1	22-FEB-2010 10:23		022210		1.0		AR1248 I-CAL LEVEL 1
027f2701.d	WAR100222-14 48	YS1	22-FEB-2010 10:33		022210		1.0		AR1248 I-CAL LEVEL 2
028f2801.d	WAR100222-15 48	YS1	22-FEB-2010 10:44		022210		1.0		AR1248 I-CAL LEVEL 3
029f2901.d	IAR100211-01	YS1	22-FEB-2010 10:54		022210		1.0		AR1248 I-CAL LEVEL 5
030f3001.d	WAR100222-16	YS1	22-FEB-2010 11:05		022210		1.0		AR1248 I-CAL LEVEL 4
031f3101.d	WAR091217-48	YS1	22-FEB-2010 11:16		022210		1.0		PASSED ON BOTH COLUMNS
032f3201.d	WAR100222-17 68	YS1	22-FEB-2010 11:26		022210		1.0		AR1268 I-CAL LEVEL 1
033f3301.d	WAR100222-18 68	YS1	22-FEB-2010 11:37		022210		1.0		AR1268 I-CAL LEVEL 2
034f3401.d	WAR100222-19 68	YS1	22-FEB-2010 11:47		022210		1.0		AR1268 I-CAL LEVEL 3
035f3501.d	WAR100222-20 68	YS1	22-FEB-2010 11:58		022210		1.0		AR1268 I-CAL LEVEL 4

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	IAR100104-05	YS1	22-FEB-2010 12:08		022210	1.0		AR1268 I-CAL LEVEL 5
037f3701.d	WAR100107-68	YS1	22-FEB-2010 12:19		022210	1.0		PASSED ON BOTH COLUMNS
038f3801.d	WAR100219-99 02	YS1	22-FEB-2010 12:29		022210	1.0		CLEAN
039f3901-1.d	1202046866	YS1	22-FEB-2010 12:40	954781	10-1846	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901-2.d	1202046866	YS1	22-FEB-2010 12:40	954781	10-1848	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

039f3901.d	1202046866	YS1	22-FEB-2010 12:40	954781	10-1808	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001-1.d	1202046867	YS1	22-FEB-2010 12:50	954781	10-1846	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001-2.d	1202046867	YS1	22-FEB-2010 12:50	954781	10-1848	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	1202046867	YS1	22-FEB-2010 12:50	954781	10-1808	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
041f4101.d	246968001	YS1	22-FEB-2010 13:01	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
042f4201.d	246968002	YS1	22-FEB-2010 13:14	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
043f4301.d	246968003	YS1	22-FEB-2010 13:26	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
044f4401.d	246968004	YS1	22-FEB-2010 13:39	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	246968005	YS1	22-FEB-2010 13:51	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
046f4601.d	246968006	YS1	22-FEB-2010 14:04	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
047f4701.d	246968007	YS1	22-FEB-2010 14:17	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
048f4801.d	246968008	YS1	22-FEB-2010 14:30	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	WAR100203-60 02	YS1	22-FEB-2010 14:42		022210	1.0		PASSED ON BOTH COLUMNS
050f5001.d	WAR100219-99 03	YS1	22-FEB-2010 14:53		022210	1.0		CLEAN
051f5101.d	246968009	YS1	22-FEB-2010 15:03	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/022210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
052f5201.d	246968010	YS1	22-FEB-2010 15:16	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	246968011	YS1	22-FEB-2010 15:28	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	246968012	YS1	22-FEB-2010 15:41	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	246968013	YS1	22-FEB-2010 15:54	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
056f5601.d	246968014	YS1	22-FEB-2010 16:06	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	246968015	YS1	22-FEB-2010 16:19	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	246968016	YS1	22-FEB-2010 16:32	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	246968017	YS1	22-FEB-2010 16:44	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
060f6001.d	247121002	YS1	22-FEB-2010 16:57	954781	10-1846	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

061f6101.d	WAR100203-60 03	YS1	22-FEB-2010 17:10		022210		1.0		PASSED ON BOTH COLUMNS
062f6201.d	WAR100219-99 04	YS1	22-FEB-2010 17:22		022210		1.0		CLEAN
063f6301.d	247123001	YS1	22-FEB-2010 17:35	954781	10-1848		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	1202046868	YS1	22-FEB-2010 17:48	954781	10-1848		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
065f6501.d	1202046869	YS1	22-FEB-2010 18:00	954781	10-1848		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	WAR100203-60 04	YS1	22-FEB-2010 18:13		022210		1.0		PASSED ON BOTH COLUMNS
067f6701.d	WAR100219-99 05	YS1	22-FEB-2010 18:26		022210		1.0		CLEAN
068f6801.d	1202048527	YS1	22-FEB-2010 18:38	955479	10-1818		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	1202048528	YS1	22-FEB-2010 18:51	955479	10-1818		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	247043003	YS1	22-FEB-2010 19:04	955479	10-1818		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
071f7101.d	1202048529	YS1	22-FEB-2010 19:16	955479	10-1818		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
072f7201.d	1202048530	YS1	22-FEB-2010 19:29	955479	10-1818	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	247043004	YS1	22-FEB-2010 19:42	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	247043005	YS1	22-FEB-2010 19:54	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	247043006	YS1	22-FEB-2010 20:07	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
076f7601.d	247043007	YS1	22-FEB-2010 20:20	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	247043008	YS1	22-FEB-2010 20:32	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	WAR100203-60 05	YS1	22-FEB-2010 20:45		022210	1.0		PASSED ON BOTH COLUMNS
079f7901.d	WAR100219-99 06	YS1	22-FEB-2010 20:58		022210	1.0		CLEAN
080f8001.d	247043009	YS1	22-FEB-2010 21:10	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
081f8101.d	247043010	YS1	22-FEB-2010 21:23	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
082f8201.d	247043011	YS1	22-FEB-2010 21:35	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
083f8301.d	247043012	YS1	22-FEB-2010 21:48	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
084f8401.d	247043013	YS1	22-FEB-2010 22:01	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
085f8501.d	247043014	YS1	22-FEB-2010 22:13	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

086f8601.d	247043015	YS1	22-FEB-2010 22:26	955479	10-1818		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	247043016	YS1	22-FEB-2010 22:39	955479	10-1818		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
088f8801.d	247043017	YS1	22-FEB-2010 22:51	955479	10-1818		1.0	LANL	SURROGATE LOW RE
089f8901.d	247043018	YS1	22-FEB-2010 23:04	955479	10-1818		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
090f9001.d	WAR100203-60 06	YS1	22-FEB-2010 23:17		022210		1.0		PASSED ON BOTH COLUMNS
091f9101.d	WAR100219-99 07	YS1	22-FEB-2010 23:29		022210		1.0		CLEAN

Instrument Batch: /chem/ecd1a.i/022210.b Page: 5

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
092f9201.d	1660	YS1	22-FEB-2010 23:42		022210		1.0	DUSE SCREEN
093f9301.d	1660-4	YS1	22-FEB-2010 23:55		022210		1.0	DUSE SCREEN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 03/09/2010 METHOD: ECD1-F-8082-022210.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA936
ALUMINA LOT 1273992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/030910.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	09-MAR-2010 05:55		030910	1.0		CLEAN
002f0201.d	WAR100222-60 01	YS1	09-MAR-2010 06:05		030910	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR100219-54	YS1	09-MAR-2010 06:16		030910	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR100219-42	YS1	09-MAR-2010 06:26		030910	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR100223-48	YS1	09-MAR-2010 06:37		030910	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100107-68	YS1	09-MAR-2010 06:47		030910	1.0		PASSED ON BOTH COLUMNS
007f0701.d	WAR100104-32	YS1	09-MAR-2010 06:58		030910	1.0		PATTERN ONLY
008f0801.d	WAR100104-21	YS1	09-MAR-2010 07:08		030910	1.0		PATTERN ONLY
009f0901.d	WAR100104-62	YS1	09-MAR-2010 07:19		030910	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	YS1	09-MAR-2010 07:29		030910	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100219-99 02	YS1	09-MAR-2010 07:40		030910	1.0		CLEAN
012f1201.d	1202065484	YS1	09-MAR-2010 07:50	962782	EUI-7541	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
013f1301.d	1202065485	YS1	09-MAR-2010 08:01	962782	EUI-7541	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
014f1401.d	1202065498	YS1	09-MAR-2010 08:11	962782	EUI-7541	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
015f1501.d	248721001	YS1	09-MAR-2010 08:22	962782	EUI-7541	1.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
016f1601.d	1202065486	YS1	09-MAR-2010 08:34	962782	EUI-7541	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/030910.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
017f1701.d	1202065487	YS1	09-MAR-2010 08:47	962782	EUI-7541	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
018f1801.d	248721002	YS1	09-MAR-2010 08:59	962782	EUI-7541	1.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
019f1901.d	WAR100222-60 02	YS1	09-MAR-2010 09:12		030910	1.0		PASSED ON BOTH COLUMNS
020f2001.d	WAR100219-99 03	YS1	09-MAR-2010 09:23		030910	1.0		CLEAN
021f2101.d	018004	YS1	09-MAR-2010 09:33		030910	1.0		DUSE SCERRN
022f2201.d	018005	YS1	09-MAR-2010 09:44		030910	1.0		DUSE SCERRN
023f2301.d	018007	YS1	09-MAR-2010 09:56		030910	1.0		DUSE SCERRN
024f2401.d	018008	YS1	09-MAR-2010 10:09		030910	1.0		DUSE SCERRN
025f2501.d	WAR100222-60 03	YS1	09-MAR-2010 10:21		030910	1.0		PASSED ON BOTH COLUMNS
026f2601.d	WAR100219-99 04	YS1	09-MAR-2010 10:32		030910	1.0		CLEAN
027f2701.d	1202063177	YS1	09-MAR-2010 10:42	961887	10-2057	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	1202063178	YS1	09-MAR-2010 10:53	961887	10-2057	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	247824001	YS1	09-MAR-2010 11:03	961887	10-2005	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
030f3001.d	1202064344	YS1	09-MAR-2010 11:14	961887	10-2005	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
031f3101.d	1202064345	YS1	09-MAR-2010 11:24	961887	10-2005	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	247828001	YS1	09-MAR-2010 11:35	961887	10-2000	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	248017005	YS1	09-MAR-2010 11:46	961887	10-2039	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	248042004	YS1	09-MAR-2010 11:58	961887	10-2057	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	248042012	YS1	09-MAR-2010 12:11	961887	10-2057	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
036f3601.d	WAR100222-60 04	YS1	09-MAR-2010 12:23		030910	1.0		PASSED ON BOTH COLUMNS

Instrument Batch: /chem/ecd1a.i/030910.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
037f3701.d	WAR100219-99 05	YS1	09-MAR-2010 12:34		030910	1.0		CLEAN
038f3801.d	248047005	YS1	09-MAR-2010 12:44	961887	10-2045	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	248047009	YS1	09-MAR-2010 12:57	961887	10-2045	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	248047011	YS1	09-MAR-2010 13:09	961887	10-2045	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

041f4101.d	248254001	YS1	09-MAR-2010 13:22	961887	10-2144		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
042f4201.d	WAR100222-60 05	YS1	09-MAR-2010 13:35		030910		1.0		PASSED ON BOTH COLUMNS
043f4301.d	WAR100219-99 06	YS1	09-MAR-2010 13:45		030910		1.0		CLEAN

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/001b0101.d
Lab Smp Id: WAR100219-99 01 Client Smp ID: PIBLK01
Inj Date : 09-MAR-2010 05:55
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-99 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.273	2.276	-0.003	56445477	189.798	190	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.915	5.918	-0.003	40227061	190.200	190	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/001b0101.d

Date : 09-MAR-2010 05:55

Client ID: PIBLK01

Sample Info: IWAR100219-99 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

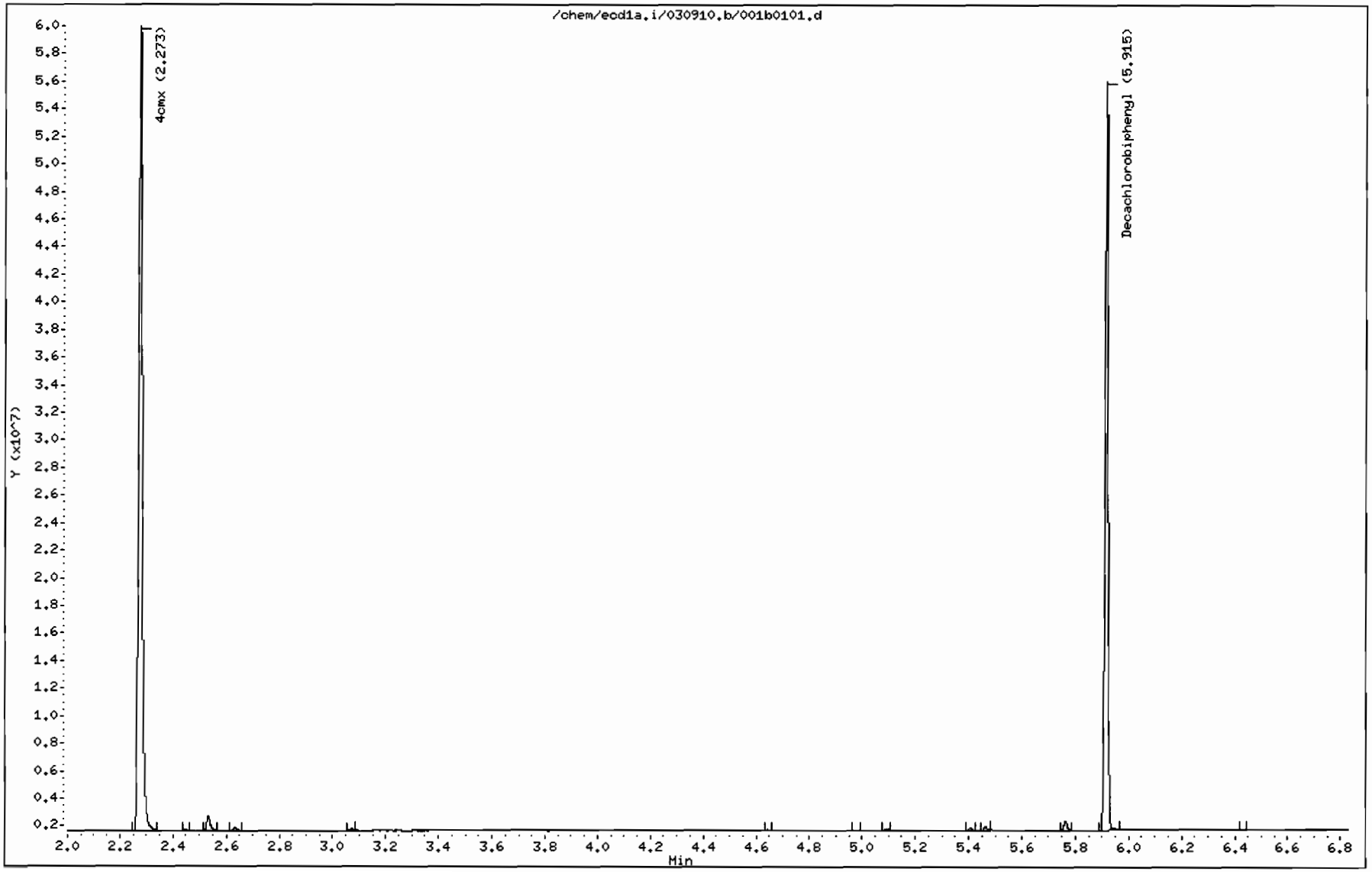

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/001f0101.d
Lab Smp Id: WAR100219-99 01 Client Smp ID: PIBLK01
Inj Date : 09-MAR-2010 05:55
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-99 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.914	1.916	-0.002	81368399	188.949	189	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.218	5.223	-0.005	63194167	205.650	206	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/001f0101.d

Date : 09-MAR-2010 05:55

Client ID: PIBLK01

Sample Info: IWAR100219-99 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

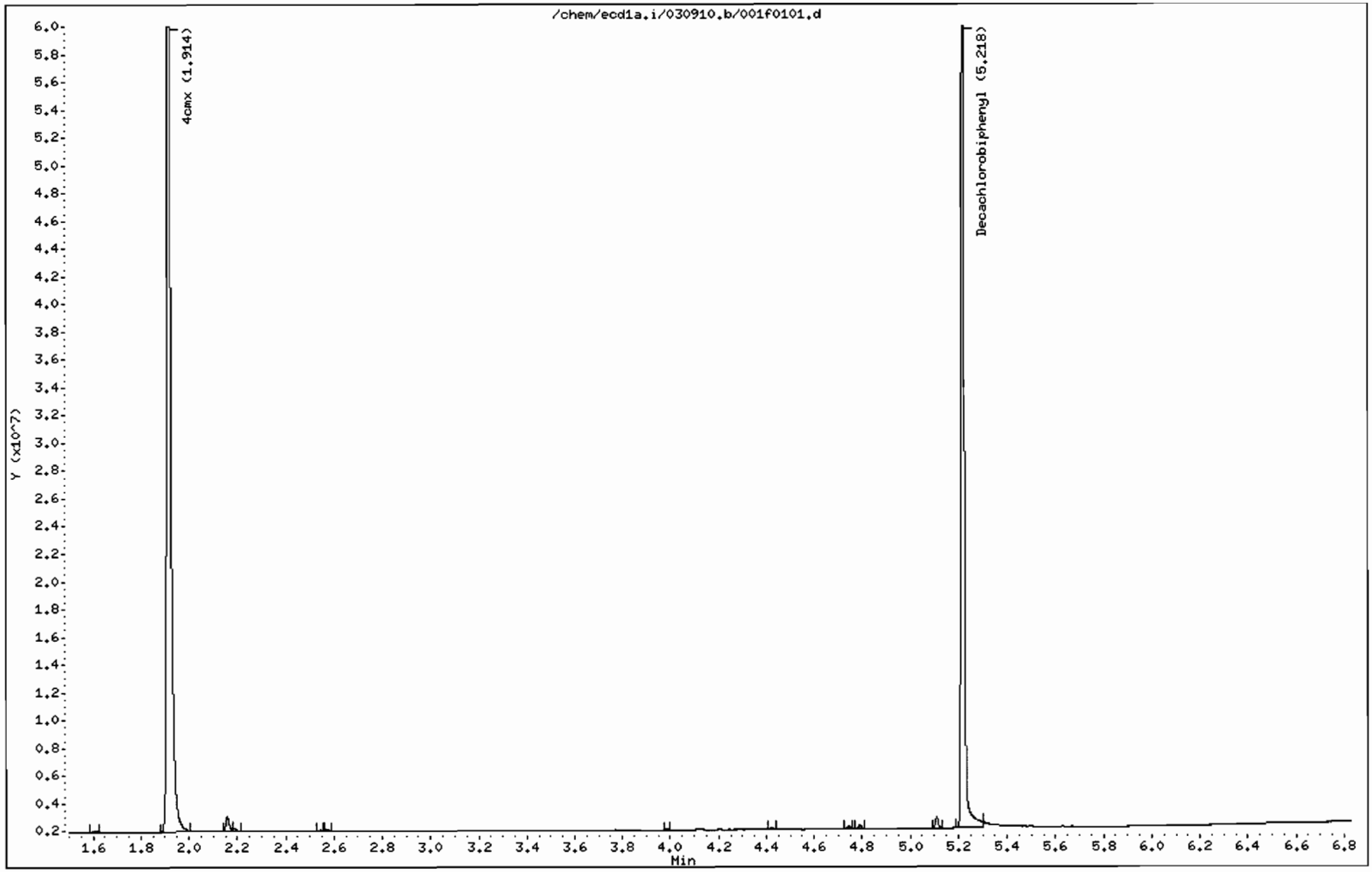

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/026b2601.d
Lab Smp Id: WAR100219-99 04 Client Smp ID: PIBLK04
Inj Date : 09-MAR-2010 10:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-99 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 10:54 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 26 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.275	2.276	-0.001	57829684	194.453	194	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.916	5.918	-0.002	42028829	198.719	199	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd1a.i/030910.b/026b2601.d

Page 1

Date : 09-MAR-2010 10:32

Client ID: PIBLK04

Instrument: ecd1a.i

Sample Info: IWAR100219-99 04

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

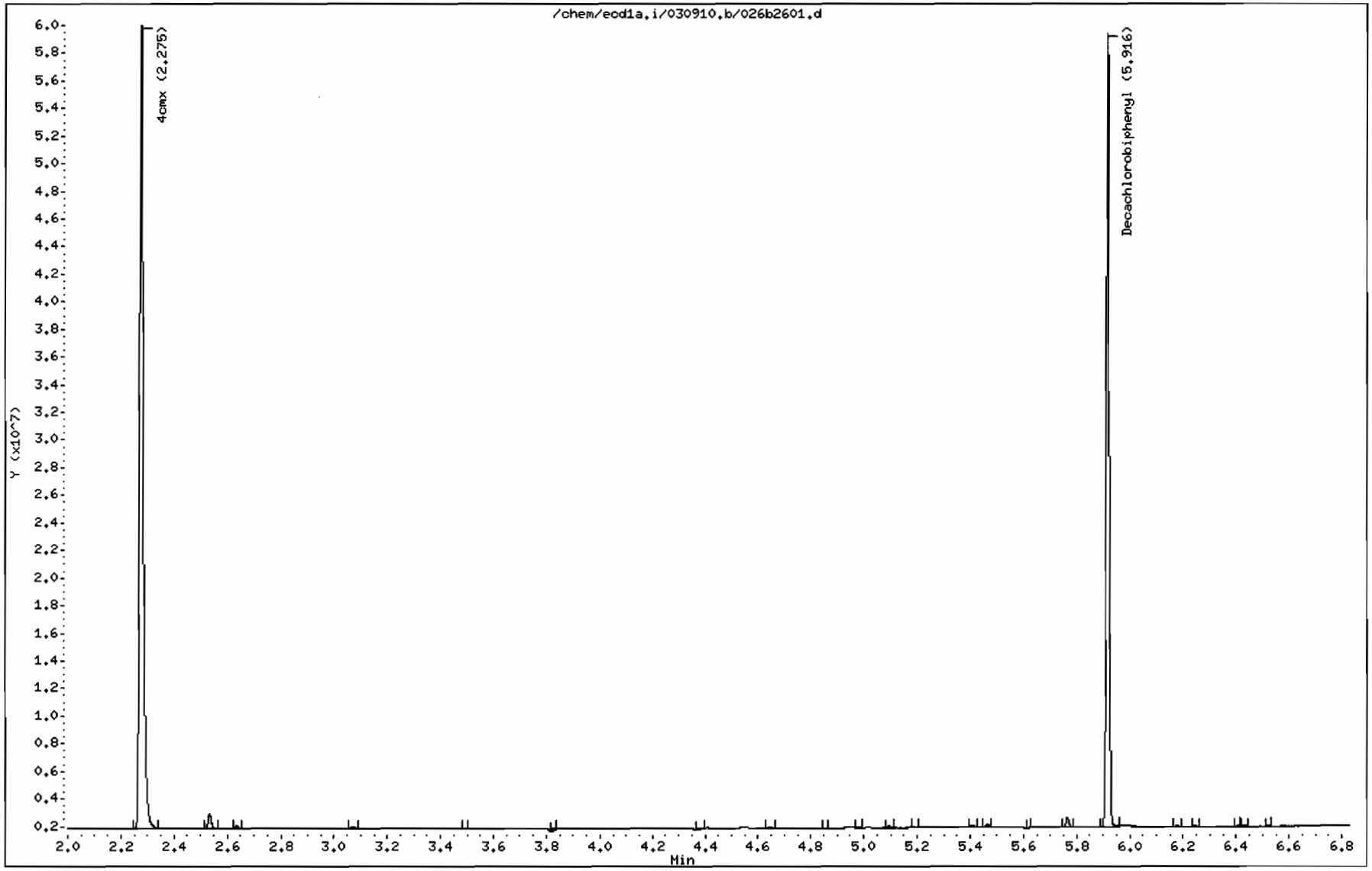

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/026f2601.d
Lab Smp Id: WAR100219-99 04 Client Smp ID: PIBLK04
Inj Date : 09-MAR-2010 10:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-99 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 10:55 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 26 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.917	1.916	0.001	86693797	201.315	201	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.221	5.223	-0.002	65245841	212.327	212	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd1a.i/030910.b/026f2601.d

Date : 09-MAR-2010 10:32

Client ID: PIBLK04

Sample Info: IWAR100219-99 04

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

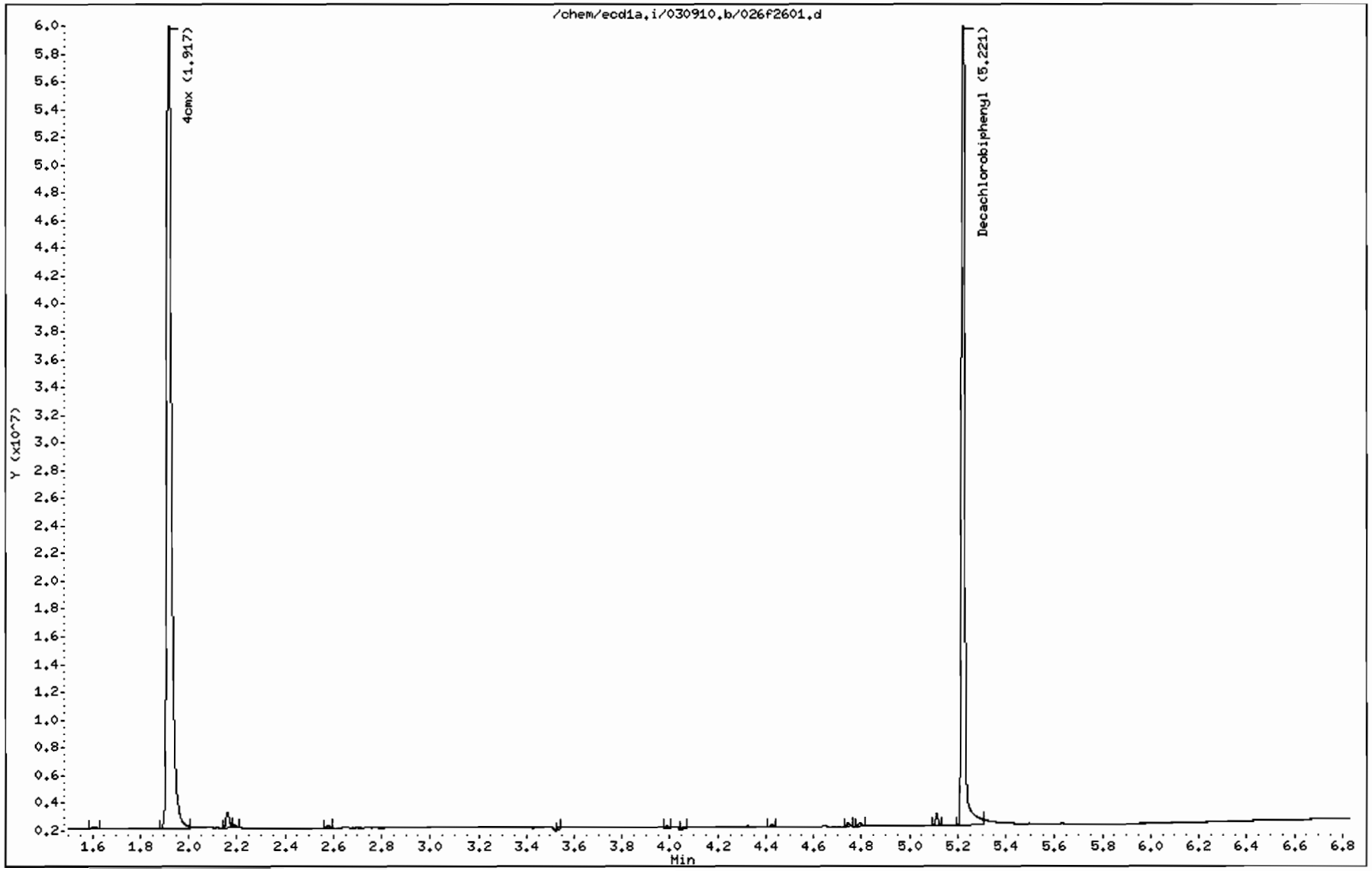

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/030b3001.d
Lab Smp Id: 1202064344 Client Smp ID: CAPA-10-13498MS
Inj Date : 09-MAR-2010 11:14
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202064344|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|GROUND WATER|MS|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 30 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.275	2.276	-0.001	32057930	107.795	0.11	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.918	5.918	0.000	22696873	107.315	0.11	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.170	3.170	0.000	9193222	718.794	0.72	80.00- 120.00	100.00(M)
3.254	3.253	0.001	6030752	676.251	0.68	44.54- 84.54	65.60
3.316	3.316	0.000	3462212	640.438	0.64	20.40- 60.40	37.66
3.544	3.544	0.000	4661986	674.122	0.67	30.67- 70.67	50.71
3.619	3.619	0.000	4326553	673.371	0.67	37.45- 77.45	56.81

Average of Peak Concentrations = 0.68

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.309	4.309	0.000	9367882	709.385	0.71	80.00- 120.00	100.00
4.434	4.435	-0.001	11434085	734.517	0.73	102.63- 142.63	122.06
4.699	4.700	-0.001	8226890	694.633	0.69	72.47- 112.47	87.82
4.873	4.873	0.000	8742121	716.497	0.72	76.60- 116.60	93.32
5.019	5.021	-0.002	20141504	759.278	0.76	195.80- 235.80	215.01
			Average of Peak Concentrations =		0.72		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/030910.b/030b3001.d
Date : 09-MAR-2010 11:14
Client ID: CAPA-10-13498MS
Sample Info: |1202064344|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

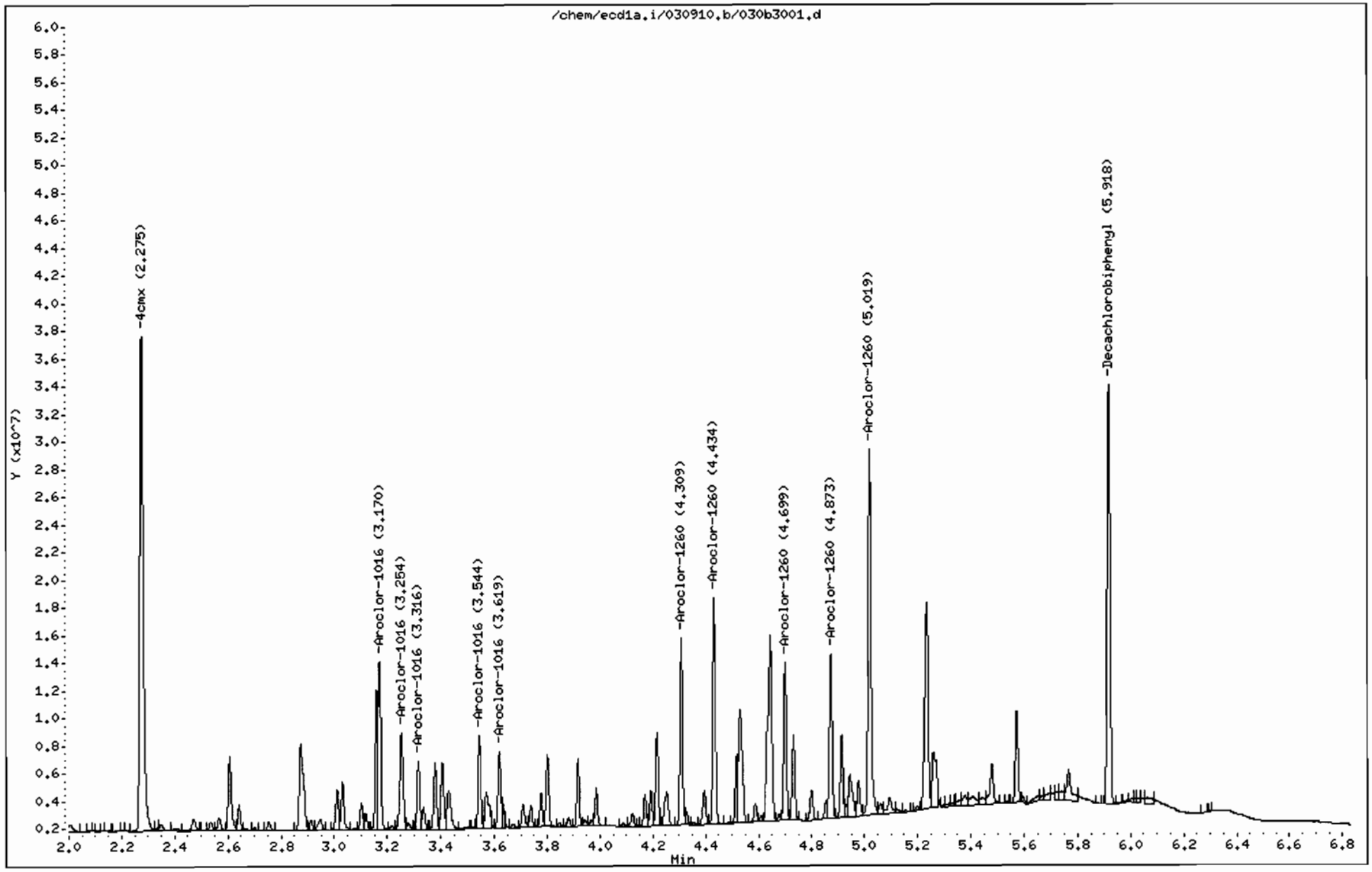

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/030f3001.d
Lab Smp Id: 1202064344 Client Smp ID: CAPA-10-13498MS
Inj Date : 09-MAR-2010 11:14
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202064344|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|GROUND WATER|MS|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 30 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.917	1.916	0.001	47591284	110.514	0.11	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.222	5.223	-0.001	33398484	108.687	0.11	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.370	2.370	0.000	9893183	643.068	0.64	80.00- 120.00	100.00
2.657	2.656	0.001	12749305	699.090	0.70	110.98- 150.98	128.87
2.737	2.736	0.001	8295359	687.528	0.69	60.40- 100.40	83.85
2.774	2.774	0.000	5055397	712.419	0.71	28.72- 68.72	51.10
2.984	2.984	0.000	6380526	715.932	0.72	42.25- 82.25	64.49
Average of Peak Concentrations =					0.69		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.709	3.710	-0.001	17819358	1043.75	1.0	80.00- 120.00	100.00
3.873	3.873	0.000	20518802	867.843	0.87	129.42- 169.42	115.15
4.034	4.035	-0.001	21815926	873.639	0.87	140.14- 180.14	122.43
4.103	4.102	0.001	11791923	818.561	0.82	70.18- 110.18	66.17
4.245	4.246	-0.001	12434935	861.710	0.86	73.99- 113.99	69.78
			Average of Peak Concentrations =		0.88		

Data File: /chem/ecd1a.i/030910.b/030f3001.d
Date : 09-MAR-2010 11:14
Client ID: CAPA-10-13498MS
Sample Info: |1202064344|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

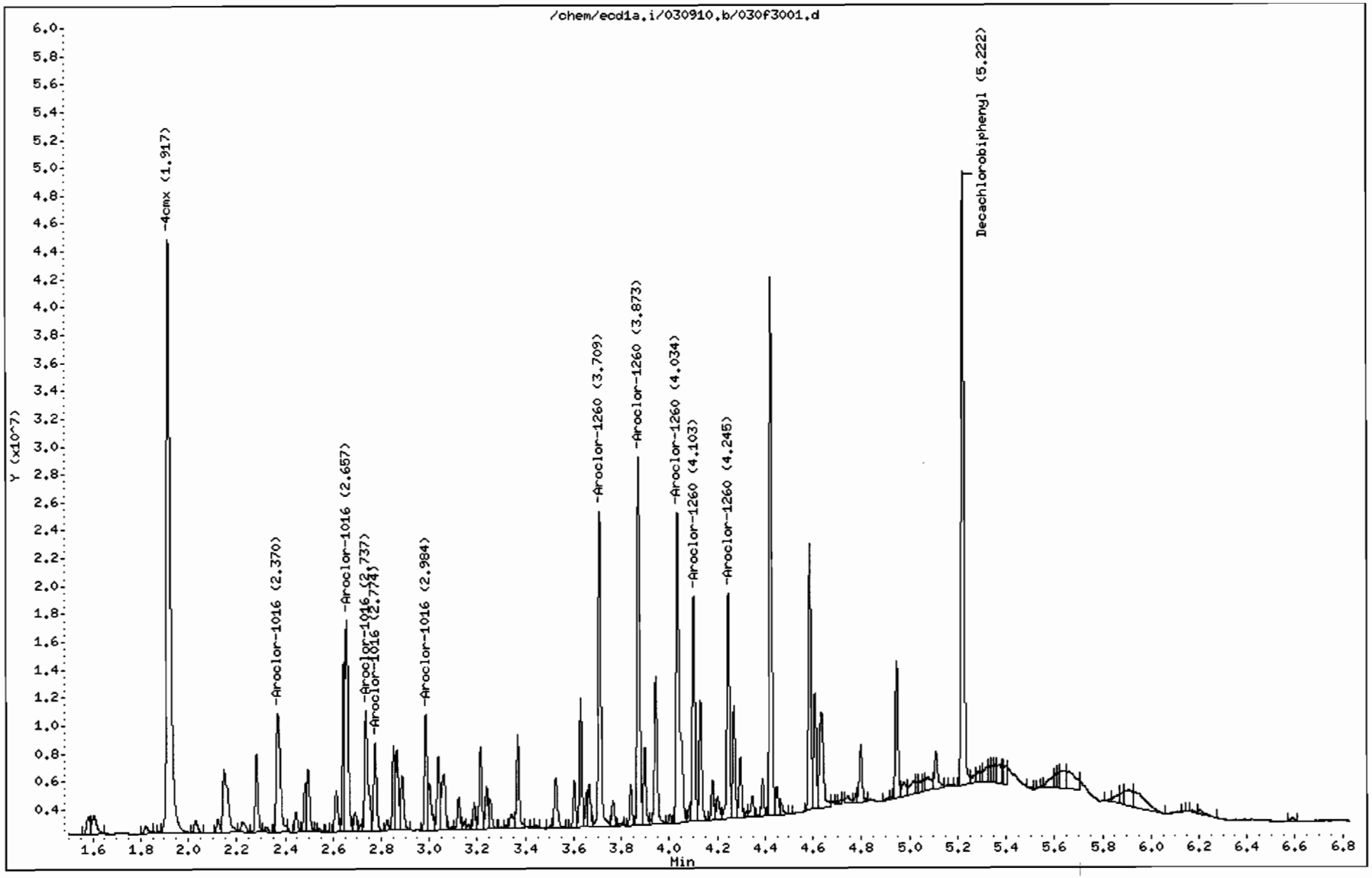

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/031b3101.d
Lab Smp Id: 1202064345 Client Smp ID: CAPA-10-134980MSD
Inj Date : 09-MAR-2010 11:24
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202064345|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|GROUND WATER|MSD|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 31 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.276	2.276	0.000	29887809	100.498	0.10	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.916	5.918	-0.002	21350593	100.949	0.10	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.171	3.170	0.001	8522856	666.380	0.67	80.00- 120.00	100.00(M)
3.253	3.253	0.000	5675559	636.421	0.64	44.54- 84.54	66.59
3.316	3.316	0.000	3224988	596.556	0.60	20.40- 60.40	37.84
3.544	3.544	0.000	4514145	652.745	0.65	30.67- 70.67	52.97
3.619	3.619	0.000	4079951	634.991	0.63	37.45- 77.45	57.99
Average of Peak Concentrations =					0.64		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.309	4.309	0.000	9059472	686.030	0.69	80.00- 120.00	100.00
4.434	4.435	-0.001	11045449	709.551	0.71	102.63- 142.63	121.92
4.699	4.700	-0.001	7633008	644.489	0.64	72.47- 112.47	84.25
4.872	4.873	-0.001	8050204	659.788	0.66	76.60- 116.60	88.86
5.020	5.021	-0.001	18819313	709.435	0.71	195.80- 235.80	207.73
			Average of Peak Concentrations =		0.68		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/030910.b/031b3101.d
Date : 09-MAR-2010 11:24
Client ID: CAPA-10-134980MSD
Sample Info: |120206434511|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YSL
Column diameter: 0.25

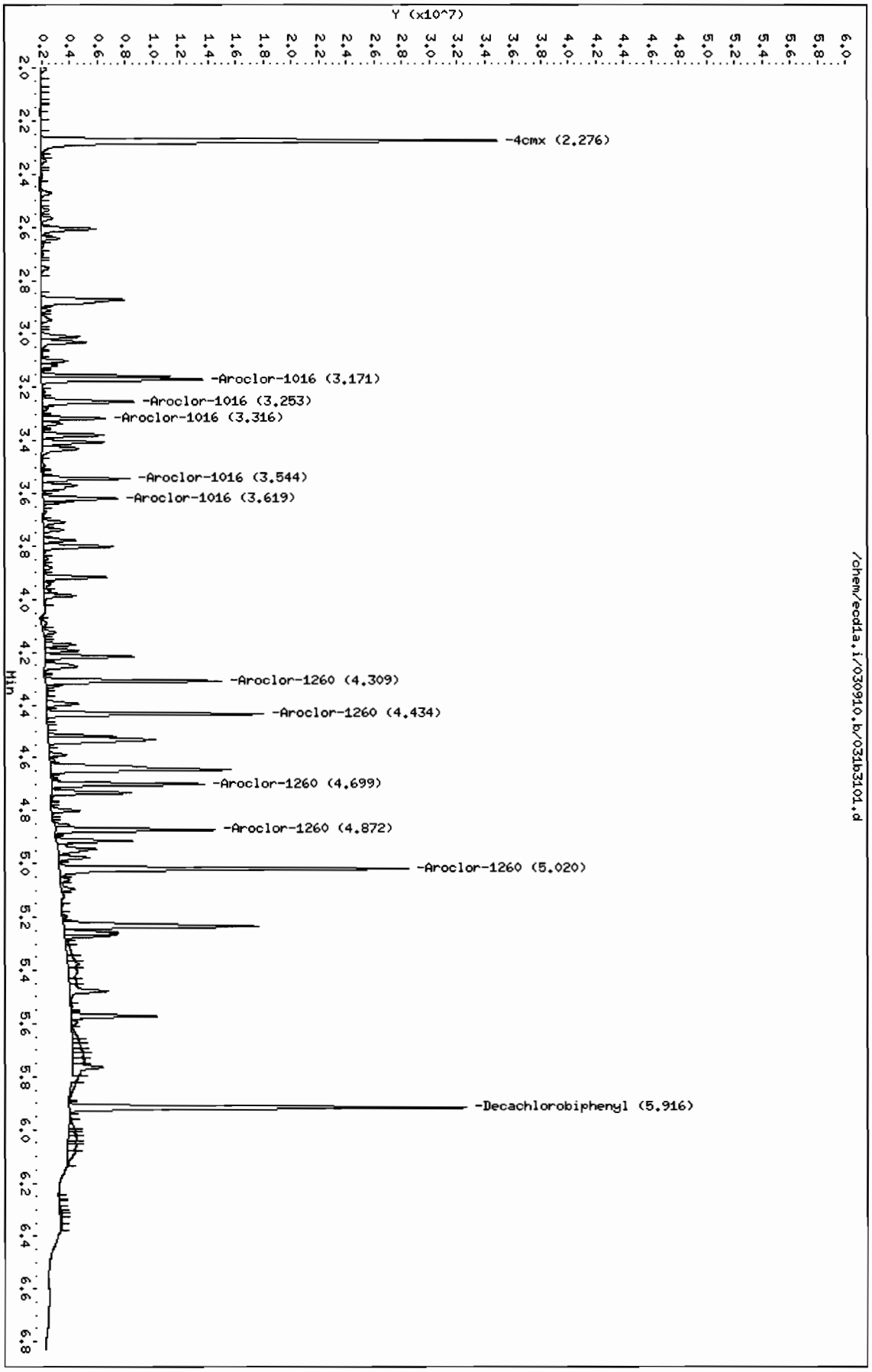

Page 1

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/031f3101.d
Lab Smp Id: 1202064345 Client Smp ID: CAPA-10-13498MSD
Inj Date : 09-MAR-2010 11:24
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202064345|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|GROUND WATER|MSD|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 31 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.917	1.916	0.001	44063297	102.321	0.10	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.221	5.223	-0.002	32570646	105.993	0.10	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.370	2.370	0.000	9475701	615.931	0.62	80.00- 120.00	100.00
2.656	2.656	0.000	12057560	661.159	0.66	110.98- 150.98	127.25
2.737	2.736	0.001	8070058	668.855	0.67	60.40- 100.40	85.17
2.774	2.774	0.000	4866560	685.807	0.68	28.72- 68.72	51.36
2.985	2.984	0.001	6133904	688.260	0.69	42.25- 82.25	64.73
Average of Peak Concentrations =					0.66		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.709	3.710	-0.001	16433416	962.571	0.96	80.00- 120.00	100.00
3.872	3.873	-0.001	19617120	829.706	0.83	129.42- 169.42	119.37
4.034	4.035	-0.001	20750712	830.981	0.83	140.14- 180.14	126.27
4.102	4.102	0.000	11220565	778.899	0.78	70.18- 110.18	68.28
4.244	4.246	-0.002	11430386	792.098	0.79	73.99- 113.99	69.56
			Average of Peak Concentrations =		0.84		

Data File: /chem/ecdia.i/030910.b/031f3101.d
Date : 09-MAR-2010 11:24
Client ID: CAPA-10-13498MSD
Sample Info: 1120206434511
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

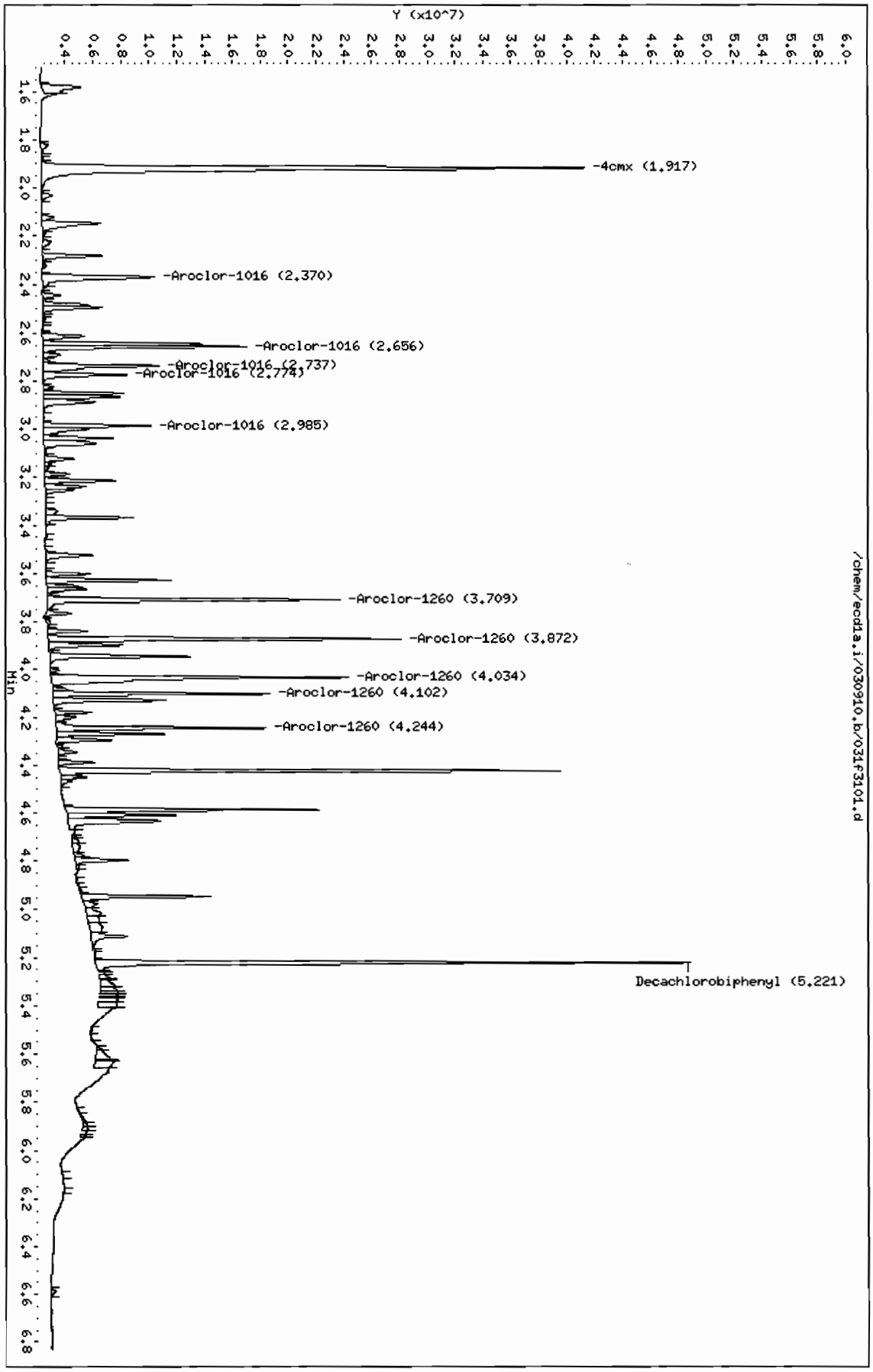

Page 1

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 961885 **Verified by:** _____

Analyst: Sophia Cox

Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202063177 MB	08-MAR-2010 14:29:00	1000	5	5	H2SO4/KMi2		2	8	1	0.001
1202063178 LCS	08-MAR-2010 14:29:00	1000	5	5	H2SO4/KMi2		2	8	1	0.001
247824001	08-MAR-2010 14:29:00	900	5	5	H2SO4/KMi2		2	8	1	0.00111
1202064344 MS (247824001)	08-MAR-2010 14:29:00	500	5	5	H2SO4/KMi2		2	8	0.5	0.001
1202064345 MSD (247824001)	08-MAR-2010 14:29:00	500	5	5	H2SO4/KMi2		2	8	0.5	0.001
247828001	08-MAR-2010 14:29:00	920	5	5	H2SO4/KMi2		2	8	1	0.00109
248017005	08-MAR-2010 14:29:00	940	5	5	H2SO4/KMi2		2	8	1	0.00106
248042004	08-MAR-2010 14:29:00	860	5	5	H2SO4/KMi2		2	8	1	0.00116
248042012	08-MAR-2010 14:29:00	870	5	5	H2SO4/KMi2		2	8	1	0.00115
248047005	08-MAR-2010 14:29:00	860	5	5	H2SO4/KMi2		2	8	1	0.00116
248047009	08-MAR-2010 14:29:00	920	6	6	H2SO4/KMi2		2	8	1	0.00109
248047011	08-MAR-2010 14:29:00	850	5	5	H2SO4/KMi2		2	8	1	0.00118
248254001	08-MAR-2010 14:29:00	980	5	5	H2SO4/KMi2		2	8	1	0.00102

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202063178	PCB Laboratory Control	WE100224-07	1	mL
MS	1202064344	PCB Laboratory Control	WE100224-07	.5	mL
MSD	1202064345	PCB Laboratory Control	WE100224-07	.5	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100222-15	.5	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100222-15	1	mL
REGNT	All	Hexane	100211-B2	5	mL
REGNT	All	Methylene Chloride	100301-D	180	mL
REGNT	All	Sulfuric Acid Sol., 1:1	1271216	5	mL
REGNT	All	5% Potassium Permanganate	B1275177-F	5	mL
SOURC	All	SODIUM SULFATE	1269268	30	g

Comments:

Clean up Date: 03-08-10

Clean up Initials: SCC

Verified By: JAC

Final Solvent: HEXANE

Clean Up SOP: GL-OA-E-037

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2039

Method/Analysis Information

Product: **Carbon, Total Organic**

Analytical Batch: 959246 **Method:** SW 9060 Total Organic Carbon

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9060:

Sample ID	Client ID
248017003	CAPA-10-12917
1202057266	Method Blank (MB)
1202057267	246959005(CAMO-10-9370) Sample Duplicate (DUP)
1202057268	248126003(WSTPU-10-13398) Sample Duplicate (DUP)
1202057269	246959005(CAMO-10-9370) Post Spike (PS)
1202057270	248126003(WSTPU-10-13398) Post Spike (PS)
1202057271	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-093 REV# 9.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Carbon analysis was performed on a O-I Analytical Model 1010 Total Organic Carbon Analyzer.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 246959005 (CAMO-10-9370) and 248126003 (WSTPU-10-13398).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202057267 (CAMO-10-9370).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1202057268 (WSTPU-10-13398) and 1202057270 (WSTPU-10-13398).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
A 15 mg/L Total Inorganic Carbon check standard is analyzed with each analytical run to prove that the instrument is effectively sparging away the inorganic carbon.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will

always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Total Kjeldahl Nitrogen**		
Analytical Batch:	958135	**Method:**	Nitrogen and Total Kjeldahl (TKN)
Prep Batch :	958133	**Method:**	EEPA 351.2 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 351.2:

Sample ID	Client ID
248017003	CAPA-10-12917
1202054670	Method Blank (MB)
1202054671	246959005(CAMO-10-9370) Sample Duplicate (DUP)
1202054672	248074001(SWWS46-10-13636) Sample Duplicate (DUP)
1202054673	246959005(CAMO-10-9370) Matrix Spike (MS)
1202054674	248074001(SWWS46-10-13636) Matrix Spike (MS)
1202054675	246959005(CAMO-10-9370) Matrix Spike Duplicate (MSD)
1202054676	248074001(SWWS46-10-13636) Matrix Spike Duplicate (MSD)
1202054677	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-104 REV# 8.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 246959005 (CAMO-10-9370) and 248074001 (SWWS46-10-13636).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202054673 (CAMO-10-9370) and 1202054674 (SWWS46-10-13636).

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202054675 (CAMO-10-9370) and 1202054676 (SWWS46-10-13636).

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202054671 (CAMO-10-9370).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following samples were re-analyzed due to LCS failure: 1202054670 (MB), 1202054671 (CAMO-10-9370), 1202054673 (CAMO-10-9370), 1202054675 (CAMO-10-9370), 1202054677 (LCS) and 248017003 (CAPA-10-12917).

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 798784 1202054673 (CAMO-10-9370), 1202054674 (SWWS46-10-13636), 1202054675 (CAMO-10-9370) and 1202054676 (SWWS46-10-13636).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Nik-Cole A. Elmore **Date:** 3·24·10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2039 GEL Work Order: 248017

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Nick-Cole A. Elmore 3·24·10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 17, 2010

Client SDG: 10-2039

Client Sample ID:	CAPA-10-12917	Project:	ESHL01000
Sample ID:	248017003	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	23-FEB-10 12:00		
Receive Date:	25-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Carbon Analysis										
SW 9060 Total Organic Carbon "As Received"										
Total Organic Carbon Average	J	0.994	0.330	1.00	mg/L	1	TSM 03/02/10	1820	959246	1
Nutrient Analysis										
Nitrogen, Total Kjeldahl (TKN) "As Received"										
Nitrogen, Total Kjeldahl	U	ND	0.033	0.100	mg/L	1	AXH3 03/03/10	1433	958135	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 351.2 Prep	EPA 351.2 Total Kjeldahl Nitrogen Prep	SXJ1	03/01/10	1100	958133

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9060	
2	EPA 351.2	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: March 17, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 248017

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Carbon Analysis											
Batch 959246											
QC1202057267 246959005 DUP											
Total Organic Carbon Average		J	0.346	J	0.491	mg/L	34.6 ^		(+/-1.00)	TSM	03/02/10 16:11
QC1202057268 248126003 DUP											
Total Organic Carbon Average			28.5		27.7	mg/L	2.67		(0%-20%)		03/03/10 15:00
QC1202057271 LCS											
Total Organic Carbon Average	10.0				9.94	mg/L		99.4	(85%-115%)		03/02/10 15:29
QC1202057266 MB											
Total Organic Carbon Average				U	ND	mg/L					03/02/10 15:20
QC1202057269 246959005 PS											
Total Organic Carbon Average	10.0	J	0.346		10.0	mg/L		96.8	(65%-121%)		03/02/10 16:31
QC1202057270 248126003 PS											
Total Organic Carbon Average	10.0		14.2		22.6	mg/L		84.2	(65%-121%)		03/03/10 15:20
Nutrient Analysis											
Batch 958135											
QC1202054671 246959005 DUP											
Nitrogen, Total Kjeldahl		J	0.042	U	ND	mg/L	200 ^			AXH3	03/03/10 14:22
QC1202054672 248074001 DUP											
Nitrogen, Total Kjeldahl			1.26		1.14	mg/L	10.6		(0%-20%)		03/03/10 14:26
QC1202054677 LCS											
Nitrogen, Total Kjeldahl	1.00				1.03	mg/L		103	(90%-110%)		03/03/10 14:21
QC1202054670 MB											
Nitrogen, Total Kjeldahl				J	0.084	mg/L					03/03/10 14:20
QC1202054673 246959005 MS											
Nitrogen, Total Kjeldahl	1.00	J	0.042		0.898	mg/L		85.6 *	(90%-110%)		03/03/10 14:23
QC1202054674 248074001 MS											
Nitrogen, Total Kjeldahl	1.00		1.26		2.02	mg/L		75.3 *	(90%-110%)		03/03/10 14:26
QC1202054675 246959005 MSD											
Nitrogen, Total Kjeldahl	1.00	J	0.042		0.897	mg/L	0.111	85.5 *	(0%-20%)		03/03/10 14:24
QC1202054676 248074001 MSD											
Nitrogen, Total Kjeldahl	1.00		1.26		2.42	mg/L	18.1	115 *	(0%-20%)		03/03/10 14:27

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

QC Summary

Workorder: 248017

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
JNX	Non Calibrated Compound
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UJ	Compound cannot be extracted
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 17-MAR-2010 15:57

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-2039

Carbon Analysis

Method: SW846 9060 Concentration Units:mg/L

Instrument: O-I Analytical Model 1010 Total Organic Carbon Analyzer

Parmname: Total Organic Carbon
Average

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**02-MAR-2010 11:24:00**	**XQ054.rlt**	**9.934**	**10**	**99.3**	**(90%-110%)**	**Yes**
CCV	02-MAR-2010 15:02:00	XQ063.rlt	9.939	10	99.4	(90%-110%)	Yes
CCV	02-MAR-2010 19:28:00	XQ075.rlt	10.244	10	102	(90%-110%)	Yes
CCV	03-MAR-2010 00:09:00	XQ086.rlt	10.78	10	108	(90%-110%)	Yes
ICV	**03-MAR-2010 12:17:00**	**XQ111.rlt**	**9.898**	**10**	**99**	**(90%-110%)**	**Yes**
CCV	03-MAR-2010 13:35:00	XQ114.rlt	10.333	10	103	(90%-110%)	Yes
CCV	03-MAR-2010 15:29:00	XQ120.rlt	10.662	10	107	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**02-MAR-2010 11:33:00**	**XQ055.rlt**	**0.084**	**1**	**Yes**
CCB	02-MAR-2010 15:11:00	XQ064.rlt	0.023	1	Yes
CCB	02-MAR-2010 19:37:00	XQ076.rlt	0.054	1	Yes
CCB	03-MAR-2010 00:18:00	XQ087.rlt	0.053	1	Yes
ICB	**03-MAR-2010 12:26:00**	**XQ112.rlt**	**0.186**	**1**	**Yes**
CCB	03-MAR-2010 13:44:00	XQ115.rlt	0.167	1	Yes
CCB	03-MAR-2010 15:38:00	XQ121.rlt	0.256	1	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 17-MAR-2010 15:57

GEL Laboratories LLC

Contract: **ESHL01000**

SDG #: **10-2039**

Nutrient Analysis

Method: EPA 351.2 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Nitrogen, Total Kjeldahl

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**03-MAR-2010 14:04:16**	**OM_3-3-2010_13-56-41**	**0.975**	**1**	**97.5**	**(90%-110%)**	**Yes**
CCV	03-MAR-2010 14:16:25	OM_3-3-2010_13-56-41	0.963	1	96.3	(90%-110%)	Yes
CCV	03-MAR-2010 14:28:36	OM_3-3-2010_13-56-41	1.002	1	100	(90%-110%)	Yes
CCV	03-MAR-2010 14:41:42	OM_3-3-2010_13-56-41	0.977	1	97.7	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**03-MAR-2010 14:06:12**	**OM_3-3-2010_13-56-41**	**-0.035**	**0.1**	**Yes**
CCB	03-MAR-2010 14:18:20	OM_3-3-2010_13-56-41	0.014	0.1	Yes
CCB	03-MAR-2010 14:30:32	OM_3-3-2010_13-56-41	-0.008	0.1	Yes
CCB	03-MAR-2010 14:43:37	OM_3-3-2010_13-56-41	0.007	0.1	Yes

Carbon, Total Organic

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
ICAL-01		1	TSM	2-Mar-10 10:39	XQ049.rlt
ICAL-02		1	TSM	2-Mar-10 10:48	XQ050.rlt
ICAL-03		1	TSM	2-Mar-10 10:57	XQ051.rlt
ICAL-04		1	TSM	2-Mar-10 11:06	XQ052.rlt
ICAL-05		1	TSM	2-Mar-10 11:15	XQ053.rlt
ICV		1	TSM	2-Mar-10 11:24	XQ054.rlt
ICB		1	TSM	2-Mar-10 11:33	XQ055.rlt
TIC	959246	1	TSM	2-Mar-10 11:43	XQ056.rlt
CCV		1	TSM	2-Mar-10 15:02	XQ063.rlt
CCB		1	TSM	2-Mar-10 15:11	XQ064.rlt
1202057266	959246	1	TSM	2-Mar-10 15:20	XQ065.rlt
1202057271	959246	1	TSM	2-Mar-10 15:29	XQ066.rlt
246959005	959246	1	TSM	2-Mar-10 15:38	XQ067.rlt
1202057267	959246	1	TSM	2-Mar-10 16:11	XQ068.rlt
1202057269	959246	1	TSM	2-Mar-10 16:31	XQ069.rlt
246959010	959246	1	TSM	2-Mar-10 16:40	XQ070.rlt
247824003	959246	1	TSM	2-Mar-10 17:13	XQ071.rlt
247828003	959246	1	TSM	2-Mar-10 17:47	XQ072.rlt
24817003	959246	1	TSM	2-Mar-10 18:20	XQ073.rlt
248042002	959246	1	TSM	2-Mar-10 18:54	XQ074.rlt
CCV		1	TSM	2-Mar-10 19:28	XQ075.rlt
CCB		1	TSM	2-Mar-10 19:37	XQ076.rlt
248042010	959246	1	TSM	2-Mar-10 19:45	XQ077.rlt
248042013	959246	1	TSM	2-Mar-10 20:19	XQ078.rlt
248047003	959246	1	TSM	2-Mar-10 20:52	XQ079.rlt
248047007	959246	1	TSM	2-Mar-10 21:26	XQ080.rlt
248126003	959246	1	TSM	2-Mar-10 21:59	XQ081.rlt
1202057268	959246	1	TSM	2-Mar-10 22:33	XQ082.rlt
1202057270	959246	1	TSM	2-Mar-10 22:53	XQ083.rlt
248170003	959246	1	TSM	2-Mar-10 23:01	XQ084.rlt
248170004	959246	1	TSM	2-Mar-10 23:35	XQ085.rlt
CCV		1	TSM	3-Mar-10 0:09	XQ086.rlt
CCB		1	TSM	3-Mar-10 0:18	XQ087.rlt
CCV		1	TSM	3-Mar-10 0:27	XQ088.rlt
CCB		1	TSM	3-Mar-10 0:36	XQ089.rlt
1202058021	959561	1	TSM	3-Mar-10 0:45	XQ090.rlt
1202058024	959561	1	TSM	3-Mar-10 0:53	XQ091.rlt
248133001	959561	1	TSM	3-Mar-10 1:02	XQ092.rlt
1202058022	959561	1	TSM	3-Mar-10 1:35	XQ093.rlt
1202058023	959561	1	TSM	3-Mar-10 1:55	XQ094.rlt
248133004	959561	1	TSM	3-Mar-10 2:04	XQ095.rlt
248133005	959561	1	TSM	3-Mar-10 2:37	XQ096.rlt
248139001	959561	1	TSM	3-Mar-10 3:11	XQ097.rlt
248139002	959561	1	TSM	3-Mar-10 3:44	XQ098.rlt
248139003	959561	1	TSM	3-Mar-10 4:18	XQ099.rlt
CCV		1	TSM	3-Mar-10 4:52	XQ100.rlt
CCB		1	TSM	3-Mar-10 5:01	XQ101.rlt
248139004	959561	1	TSM	3-Mar-10 5:09	XQ102.rlt
CCV		1	TSM	3-Mar-10 5:43	XQ103.rlt
CCB		1	TSM	3-Mar-10 5:52	XQ104.rlt

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*********************************************************************
**                          CONFIGURATION                          **
*********************************************************************

Analysis Mode:  TOC         Spl Intro:  Autosampler 53
Remote Start :  OFF

Loop Size:  5 mL        Actual Volume  1mL   5mL   10mL   25mL
                        -------------  ----  ----  -----  -----
                         Loop A (uL):  1000  4900  10000  25000
                         Loop B (uL):  1000  4900  10000  25000

Tray Type:              53 Vial  Vial Option:                 Neither
Needle Depth:           97 %     Preacid Volume (uL):             200
Wash Needle Depth:      94 %     Preacid Purge Time (min:sec):   0:30

            TIC    TOC    TC
Blank      ----   ----   ----            Linearization Coeff:  53000
 Average:   141    744   2269

                         Sample Transfer Times (sec)
          Initial Fill          |         Loop Fill         | Sample Inject
     Non-AS    AS  AS w/Sep | Non-AS    AS  AS w/Sep |    (all)
     ------  ----- -------- | ------  ----- -------- | -------------
1mL:    6.0    4.5      3.5 |    1.2    1.2      1.0 |      4.5
5mL:    8.1    7.0      8.0 |    5.1    3.0      5.5 |     10.3
10mL:  14.2   12.2     11.0 |   10.5   10.5     11.0 |     16.5
25mL:  35.0   35.0     32.0 |    n/a    n/a      n/a |     38.0

Analog Concentration Signal indicates TOC
Analog Conc. Signal Timer is OFF, Timer duration (h:m:s): 00:00:00
Min Signal Range:   0.000 ppmC,  Max Signal Range:   0.000 ppmC

Alarms DISABLED
Alarm Relay Timer is OFF, Timer duration (h:m:s): 00:00:00
       Conc. Alarm Setpoints (ppm C)
          Low       |    High
      ----------    | ----------
TIC:     0.000          0.000
TOC:     0.000          0.000
TC:      0.000          0.000
```

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*******************************************************************
**                          CALIBRATION                          **
*******************************************************************
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03/02/10 Tue Mar 02 11:15:21 2010

Std. #	Used	Conc. (ppm)	Volume (mL)
1	Yes	20.000	5.000
2	Yes	10.000	5.000
3	Yes	1.000	5.000
4	Yes	0.200	5.000
5	Yes	0.000	5.000

RF (ugC/k-cts):	1.156
R-Squared:	0.9998
Offset (cts):	1069
Offset (ugC):	-1.237
Calibration Mode:	TOC
Allow Editing:	No

Rep	Std. 1	Std. 2	Std. 3	Std. 4	Std. 5
1	86301	42467	5320	2063	1420
2	-	-	-	-	-
3	-	-	-	-	-
4	-	-	-	-	-
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	-
9	-	-	-	-	-
10	-	-	-	-	-

(* = unused)

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
1	Blk	1	02Mar2010	10:08	-	-	-	590	-	-	-	-	-
1	Blk	2	02Mar2010	10:15	-	-	-	974	-	-	-	-	-
1	Blk	3	02Mar2010	10:21	-	-	-	1016	-	-	-	-	-
1	Blk	4	02Mar2010	10:30	-	-	-	615	-	-	-	-	-

** Std1 Name: ICAL-01 Data File: XQ049
Remarks: 959246|1|1| WTC100302-01 ID:TOC267

1	Std1	1	02Mar2010	10:39	-	-	-	86301	98.000	20.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.147
R-Squared: 1.0000
Offset (cts): 0
Offset (ugC): 0.000

** Std2 Name: ICAL-02 Data File: XQ050
Remarks: 959246|1|1| WTC100302-02 ID:TOC267

2	Std2	1	02Mar2010	10:48	-	-	-	42467	49.000	10.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.118
R-Squared: 1.0000
Offset (cts): -1367
Offset (ugC): 1.528

** Std3 Name: ICAL-03 Data File: XQ051
Remarks: 959246|1|1| WTC100302-03 ID:TOC267

3	Std3	1	02Mar2010	10:57	-	-	-	5320	4.900	1.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.149
R-Squared: 0.9997
Offset (cts): 617
Offset (ugC): -0.709

** Std4 Name: ICAL-04 Data File: XQ052
Remarks: 959246|1|1| WTC100302-04 ID:TOC267

4	Std4	1	02Mar2010	11:06	-	-	-	2063	0.980	0.200	-	-	-

** Calibration: RF (ugC/k-cts): 1.153
R-Squared: 0.9998
Offset (cts): 900
Offset (ugC): -1.039

** Std5 Name: ICAL-05 Data File: XQ053
Remarks: 959246|1|1| ID:TOC267

5	Std5	1	02Mar2010	11:15	-	-	-	1420	0.000	0.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.156
R-Squared: 0.9998
Offset (cts): 1069
Offset (ugC): -1.237

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** Chk2      Name:     ICV                          Data File: XQ054
             Remarks: 959246|1|1| WTC100302-05 ID:TOC267

6    Chk2    1 02Mar2010 11:24      -       -          -     43167  48.674      9.934      -       -          -

** Chk5      Name:     ICB                          Data File: XQ055
             Remarks: 959246|1|1| ID:TOC267

7    Chk5    1 02Mar2010 11:33      -       -          -      1424   0.410      0.084      -       -          -

** Spl       Name:     TIC                          Data File: XQ056
             Remarks: 959246|1|1| WIC100302-01 ID:TOC267

8    Spl     1 02Mar2010 11:43      -       -          -      1892   1.184      0.242      -       -          -
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Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
9	Blk	1	02Mar2010	14:54	-	-	-	465	-	-	-	-	-
** Chk2	Name: CCV						Data File: XQ063						
	Remarks: 959246|1|1| WTC100302-02 ID:TOC267												
9	Chk2	1	02Mar2010	15:02	-	-	-	43189	48.700	9.939	-	-	-
** Chk5	Name: CCB						Data File: XQ064						
	Remarks: 959246|1|1| ID:TOC267												
10	Chk5	1	02Mar2010	15:11	-	-	-	1168	0.114	0.023	-	-	-
** Chk5	Name: 1202057266						Data File: XQ065						
	Remarks: 959246|1|1| MB ID:TOC267												
11	Chk5	1	02Mar2010	15:20	-	-	-	1249	0.207	0.042	-	-	-
** Chk2	Name: 1202057271						Data File: XQ066						
	Remarks: 959246|1|1| WTC100302-05:LCS ID:TOC267												
12	Chk2	1	02Mar2010	15:29	-	-	-	43186	48.696	9.938	-	-	-
** Sp1	Name: 246959005						Data File: XQ067						
	Remarks: 959246|1|1| ID:TOC267												
13	Sp1	1	02Mar2010	15:38	-	-	-	2158	1.688	0.345	-	-	-
13	Sp1	2	02Mar2010	15:46	-	-	-	2164	1.695	0.346	-	-	-
13	Sp1	3	02Mar2010	15:53	-	-	-	2131	1.657	0.338	-	-	-
13	Sp1	4	02Mar2010	16:03	-	-	-	2207	1.745	0.356	-	-	-
13	Sp1	Avg						2165	1.696	0.346			
13	Sp1	SDev						31.464					
13	Sp1	%RSD						1.45					
** Sp1	Name: 1202057267						Data File: XQ068						
	Remarks: 959246|1|1| 246959005:DUP ID:TOC267												
14	Sp1	1	02Mar2010	16:11	-	-	-	2723	2.341	0.478	-	-	-
14	Sp1	2	02Mar2010	16:21	-	-	-	2834	2.470	0.504	-	-	-
14	Sp1	Avg						2778	2.406	0.491			
14	Sp1	SDev						78.489					
14	Sp1	%RSD						2.82					
** Sp1	Name: 1202057269						Data File: XQ069						
	Remarks: 959246|1|1| 246959005:PS ID:TOC267												
15	Sp1	1	02Mar2010	16:31	-	-	-	43192	49.133	10.027	-	-	-
** Sp1	Name: 246959010						Data File: XQ070						
	Remarks: 959246|1|1| ID:TOC267												
16	Sp1	1	02Mar2010	16:40	-	-	-	3328	3.041	0.621	-	-	-
16	Sp1	2	02Mar2010	16:47	-	-	-	3561	3.310	0.676	-	-	-
16	Sp1	3	02Mar2010	16:55	-	-	-	3373	3.093	0.631	-	-	-

16	Spl	4 02Mar2010 17:05	-	-	-	3339	3.054	0.623	-	-	-
16	Spl	Avg				3400	3.124	0.638			
16	Spl	SDev				108.865					
16	Spl	%RSD				3.20					

** Spl Name: 247824003 Data File: XQ071
Remarks: 959246|1|1| ID:TOC267

17	Spl	1 02Mar2010 17:13	-	-	-	4436	4.322	0.882	-	-	-
17	Spl	2 02Mar2010 17:21	-	-	-	4801	4.744	0.968	-	-	-
17	Spl	3 02Mar2010 17:29	-	-	-	4840	4.789	0.977	-	-	-
17	Spl	4 02Mar2010 17:38	-	-	-	4876	4.831	0.986	-	-	-
17	Spl	Avg				4738	4.671	0.953			
17	Spl	SDev				203.814					
17	Spl	%RSD				4.30					

** Spl Name: 247828003 Data File: XQ072
Remarks: 959246|1|1| ID:TOC267

18	Spl	1 02Mar2010 17:47	-	-	-	3737	3.514	0.717	-	-	-
18	Spl	2 02Mar2010 17:54	-	-	-	4117	3.953	0.807	-	-	-
18	Spl	3 02Mar2010 18:02	-	-	-	3974	3.788	0.773	-	-	-
18	Spl	4 02Mar2010 18:12	-	-	-	3940	3.748	0.765	-	-	-
18	Spl	Avg				3942	3.751	0.766			
18	Spl	SDev				156.714					
18	Spl	%RSD				3.98					

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** Spl Name: 24817003 248017003 Data File: XQ073
Remarks: 959246|1|1| ID:TOC267

19	Spl	1 02Mar2010 18:20	-	-	-	4667	4.589	0.937	-	-	-
19	Spl	2 02Mar2010 18:28	-	-	-	5120	5.113	1.043	-	-	-
19	Spl	3 02Mar2010 18:36	-	-	-	4870	4.824	0.984	-	-	-
19	Spl	4 02Mar2010 18:45	-	-	-	4985	4.957	1.012	-	-	-
19	Spl	Avg				4910	4.871	0.994			
19	Spl	SDev				191.810					
19	Spl	%RSD				3.91					

** Spl Name: 248042002 Data File: XQ074
Remarks: 959246|1|1| ID:TOC267

20	Spl	1 02Mar2010 18:54	-	-	-	8401	8.906	1.818	-	-	-
20	Spl	2 02Mar2010 19:01	-	-	-	9249	9.887	2.018	-	-	-
20	Spl	3 02Mar2010 19:09	-	-	-	9185	9.813	2.003	-	-	-
20	Spl	4 02Mar2010 19:19	-	-	-	9324	9.974	2.035	-	-	-
20	Spl	Avg				9039	9.645	1.968			
20	Spl	SDev				429.606					
20	Spl	%RSD				4.75					

** Chk2 Name: CCV Data File: XQ075
Remarks: 959246|1|1| WTC100302-02 ID:TOC267

21	Chk2	1 02Mar2010 19:28	-	-	-	44483	50.196	10.244	-	-	-

** Chk5 Name: CCB Data File: XQ076
Remarks: 959246|1|1| ID:TOC267

22	Chk5	1 02Mar2010 19:37	-	-	-	1300	0.266	0.054	-	-	-

959246
959561
TGM 03/03/10

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** Spl      Name:    248042010                    Data File: XQ077
            Remarks: 959246|1|1| ID:TOC267

23   Spl    1 02Mar2010 19:45      -       -          -     4053   3.879      0.792      -       -          -
23   Spl    2 02Mar2010 19:53      -       -          -     4437   4.323      0.882      -       -          -
23   Spl    3 02Mar2010 20:01      -       -          -     4379   4.256      0.869      -       -          -
23   Spl    4 02Mar2010 20:10      -       -          -     4376   4.253      0.868      -       -          -
23   Spl  Avg                                             4311   4.178      0.853
23   Spl  SDev                                          174.441
23   Spl  %RSD                                            4.05

** Spl      Name:    248042013                    Data File: XQ078
            Remarks: 959246|1|1| ID:TOC267

24   Spl    1 02Mar2010 20:19      -       -          -     3952   3.762      0.768      -       -          -
24   Spl    2 02Mar2010 20:26      -       -          -     3951   3.761      0.768      -       -          -
24   Spl    3 02Mar2010 20:34      -       -          -     4122   3.959      0.808      -       -          -
24   Spl    4 02Mar2010 20:44      -       -          -     4004   3.822      0.780      -       -          -
24   Spl  Avg                                             4007   3.826      0.781
24   Spl  SDev                                           80.405
24   Spl  %RSD                                            2.01

** Spl      Name:    248047003                    Data File: XQ079
            Remarks: 959246|1|1| ID:TOC267

25   Spl    1 02Mar2010 20:52      -       -          -     8014   8.459      1.726      -       -          -
25   Spl    2 02Mar2010 21:00      -       -          -     8665   9.212      1.880      -       -          -
25   Spl    3 02Mar2010 21:08      -       -          -     8638   9.180      1.874      -       -          -
25   Spl    4 02Mar2010 21:17      -       -          -     8637   9.179      1.873      -       -          -
25   Spl  Avg                                             8488   9.008      1.838
25   Spl  SDev                                          316.599
25   Spl  %RSD                                            3.73

** Spl      Name:    248047007                    Data File: XQ080
            Remarks: 959246|1|1| ID:TOC267

26   Spl    1 02Mar2010 21:26      -       -          -     7428   7.781      1.588      -       -          -
26   Spl    2 02Mar2010 21:34      -       -          -     8195   8.668      1.769      -       -          -
26   Spl    3 02Mar2010 21:41      -       -          -     8062   8.514      1.738      -       -          -
26   Spl    4 02Mar2010 21:51      -       -          -     8059   8.511      1.737      -       -          -
26   Spl  Avg                                             7936   8.369      1.708
26   Spl  SDev                                          344.553
26   Spl  %RSD                                            4.34

** Spl      Name:    248126003                    Data File: XQ081
            Remarks: 959246|1|1| ID:TOC267

27   Spl    1 02Mar2010 21:59      -       -          -   102842 118.102     24.102      -       -          -
27   Spl    2 02Mar2010 22:07      -       -          -   121676 139.878     28.547      -       -          -
27   Spl    3 02Mar2010 22:15      -       -          -   122928 141.326     28.842      -       -          -
27   Spl    4 02Mar2010 22:24      -       -          -   123832 142.371     29.055      -       -          -
27   Spl  Avg                                           117819 135.419     27.637
27   Spl  SDev                                        10024.055
27   Spl  %RSD                                            8.51

** Spl      Name:    1202057268                   Data File: XQ082
            Remarks: 959246|1|1| 248126003:DUP ID:TOC267

28   Spl    1 02Mar2010 22:33      -       -          -   106870 122.759     25.053      -       -          -
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** Chk5     Name:    CCB                          Data File: XQ135
            Remarks: 960019|1|1| ID:TOC267

30   Chk5   1 03Mar2010 20:59      -       -          -     1208   0.774      0.158      -       -          -


** Spl      Name:    248298002                    Data File: XQ136
            Remarks: 960019|1|1| ID:TOC267

31   Spl    1 03Mar2010 21:08      -       -          -     4413   4.709      0.961      -       -          -
31   Spl    2 03Mar2010 21:16      -       -          -     4399   4.693      0.958      -       -          -
31   Spl    3 03Mar2010 21:23      -       -          -     4489   4.799      0.979      -       -          -
31   Spl    4 03Mar2010 21:33      -       -          -     4639   4.977      1.016      -       -          -
31   Spl  Avg                                            4485   4.795      0.979
31   Spl  SDev                                        110.018
31   Spl  %RSD                                           2.45


** Spl      Name:    248298003                    Data File: XQ137
            Remarks: 960019|1|1| ID:TOC267

32   Spl    1 03Mar2010 21:41      -       -          -     3180   3.246      0.663      -       -          -
32   Spl    2 03Mar2010 21:49      -       -          -     3475   3.596      0.734      -       -          -
32   Spl    3 03Mar2010 21:57      -       -          -     3271   3.354      0.684      -       -          -
32   Spl    4 03Mar2010 22:06      -       -          -     3472   3.593      0.733      -       -          -
32   Spl  Avg                                            3349   3.447      0.703
32   Spl  SDev                                        147.929
32   Spl  %RSD                                           4.42


** Spl      Name:    1202059115                   Data File: XQ138
            Remarks: 960019|1|1| 248298003:DUP ID:TOC267

33   Spl    1 03Mar2010 22:15      -       -          -     3470   3.590      0.733      -       -          -
33   Spl    2 03Mar2010 22:24      -       -          -     3725   3.893      0.794      -       -          -
33   Spl  Avg                                            3597   3.742      0.764
33   Spl  SDev                                        180.312
33   Spl  %RSD                                           5.01


** Spl      Name:    1202059116                   Data File: XQ139
            Remarks: 960019|1|1| 248298003:PS ID:TOC267

34   Spl    1 03Mar2010 22:35      -       -          -    44281  52.013     10.615      -       -          -


** Chk2     Name:    CCV                          Data File: XQ140
            Remarks: 960019|1|1| WTC100303-02 ID:TOC267

35   Chk2   1 03Mar2010 22:44      -       -          -    47858  56.124     11.454      -       -          -


** Chk5     Name:    CCB                          Data File: XQ141
            Remarks: 960019|1|1|  ID:TOC267

36   Chk5   1 03Mar2010 22:53      -       -          -     1192   0.755      0.154      -       -          -
```

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28   Sp1    2 02Mar2010 22:42      -       -          -   122243 140.534     28.680      -       -          -
28   Sp1  Avg                                            114556 131.646     26.867
28   Sp1  SDev                                         10870.353
28   Sp1  %RSD                                              9.49

** Sp1      Name:    1202057270                   Data File: XQ083
            Remarks: 959246|1|1| 248126003:PS ID:TOC267

29   Sp1    1 02Mar2010 22:53      -       -          -   158372 182.307     37.206      -       -          -

** Sp1      Name:    248170003                    Data File: XQ084
            Remarks: 959246|1|1|  ID:TOC267

30   Sp1    1 02Mar2010 23:01      -       -          -     9913  10.655      2.174      -       -          -
30   Sp1    2 02Mar2010 23:09      -       -          -    10393  11.210      2.288      -       -          -
30   Sp1    3 02Mar2010 23:17      -       -          -    10007  10.763      2.197      -       -          -
30   Sp1    4 02Mar2010 23:26      -       -          -    10092  10.862      2.217      -       -          -
30   Sp1  Avg                                             10101  10.872      2.219
30   Sp1  SDev                                            207.786
30   Sp1  %RSD                                               2.06

** Sp1      Name:    248170004                    Data File: XQ085
            Remarks: 959246|1|1|  ID:TOC267

31   Sp1    1 02Mar2010 23:35      -       -          -     9442  10.110      2.063      -       -          -
31   Sp1    2 02Mar2010 23:42      -       -          -    10397  11.214      2.289      -       -          -
31   Sp1    3 02Mar2010 23:50      -       -          -    10365  11.177      2.281      -       -          -
31   Sp1    4 03Mar2010 00:00      -       -          -    10415  11.235      2.293      -       -          -
31   Sp1  Avg                                             10154  10.934      2.231
31   Sp1  SDev                                            475.616
31   Sp1  %RSD                                               4.68

** Chk2     Name:    CCV                          Data File: XQ086
            Remarks: 959246|1|1| WTC100302-02  ID:TOC267

32   Chk2   1 03Mar2010 00:09      -       -          -    46755  52.823     10.780      -       -          -

** Chk5     Name:    CCB                          Data File: XQ087
            Remarks: 959246|1|1|  ID:TOC267

33   Chk5   1 03Mar2010 00:18      -       -          -     1295   0.261      0.053      -       -          -

** Chk2     Name:    CCV                          Data File: XQ088
            Remarks: 959561|1|1| WTC100302-02  ID:TOC267

34   Chk2   1 03Mar2010 00:27      -       -          -    46162  52.137     10.640      -       -          -

** Chk5     Name:    CCB                          Data File: XQ089
            Remarks: 959561|1|1|  ID:TOC267

35   Chk5   1 03Mar2010 00:36      -       -          -     1291   0.256      0.052      -       -          -

** Chk5     Name:    1202058021                   Data File: XQ090
            Remarks: 959561|1|1| MB ID:TOC267

36   Chk5   1 03Mar2010 00:45      -       -          -     1176   0.123      0.025      -       -          -
```

```
** Chk2     Name:    1202058024                    Data File: XQ091
            Remarks: 959561|1|1| WTC100302-05:LCS ID:TOC267

37   Chk2   1 03Mar2010 00:53      -       -          -    45800  51.719     10.555      -       -          -

** Spl      Name:    248133001                     Data File: XQ092
            Remarks: 959561|1|1|  ID:TOC267

38   Spl    1 03Mar2010 01:02      -       -          -     7480   7.842      1.600      -       -          -
38   Spl    2 03Mar2010 01:10      -       -          -     9683  10.389      2.120      -       -          -
38   Spl    3 03Mar2010 01:17      -       -          -     9732  10.445      2.132      -       -          -
38   Spl    4 03Mar2010 01:27      -       -          -     9545  10.229      2.088      -       -          -
38   Spl  Avg                                           9110   9.726      1.985
38   Spl  SDev                                       1089.547
38   Spl  %RSD                                          11.96

** Spl      Name:    1202058022                    Data File: XQ093
            Remarks: 959561|1|1| 248133001:DUP ID:TOC267

39   Spl    1 03Mar2010 01:35      -       -          -     7746   8.149      1.663      -       -          -
39   Spl    2 03Mar2010 01:45      -       -          -     9965  10.715      2.187      -       -          -
39   Spl  Avg                                           8855   9.432      1.925
39   Spl  SDev                                       1569.070
39   Spl  %RSD                                          17.72

** Spl      Name:    1202058023                    Data File: XQ094
            Remarks: 959561|1|1| 248133001:PS ID:TOC267

40   Spl    1 03Mar2010 01:55      -       -          -    49264  56.153     11.460      -       -          -

** Spl      Name:    248133004                     Data File: XQ095
            Remarks: 959561|1|1| ID:TOC267

41   Spl    1 03Mar2010 02:04      -       -          -    24806  27.874      5.689      -       -          -
41   Spl    2 03Mar2010 02:11      -       -          -    30691  34.679      7.077      -       -          -
41   Spl    3 03Mar2010 02:19      -       -          -    30709  34.700      7.082      -       -          -
41   Spl    4 03Mar2010 02:29      -       -          -    30703  34.693      7.080      -       -          -
41   Spl  Avg                                          29227  32.986      6.732
41   Spl  SDev                                       2947.509
41   Spl  %RSD                                          10.08

** Spl      Name:    248133005                     Data File: XQ096
            Remarks: 959561|1|1| ID:TOC267

42   Spl    1 03Mar2010 02:37      -       -          -    13693  15.025      3.066      -       -          -
42   Spl    2 03Mar2010 02:45      -       -          -    17344  19.247      3.928      -       -          -
42   Spl    3 03Mar2010 02:53      -       -          -    16857  18.684      3.813      -       -          -
42   Spl    4 03Mar2010 03:02      -       -          -    16419  18.177      3.710      -       -          -
42   Spl  Avg                                          16078  17.783      3.629
42   Spl  SDev                                       1634.432
42   Spl  %RSD                                          10.17

** Spl      Name:    248139001                     Data File: XQ097
            Remarks: 959561|1|1| ID:TOC267

43   Spl    1 03Mar2010 03:11      -       -          -    70702  80.941     16.518      -       -          -
43   Spl    2 03Mar2010 03:18      -       -          -    84712  97.139     19.824      -       -          -
43   Spl    3 03Mar2010 03:26      -       -          -    85989  98.616     20.126      -       -          -
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43   Spl    4 03Mar2010 03:36      -       -          -    87955 100.889     20.590      -       -          -
43   Spl  Avg                                           82339  94.396     19.264
43   Spl  SDev                                        7872.163
43   Spl  %RSD                                           9.56

** Spl      Name:    248139002                    Data File: XQ098
            Remarks: 959561|1|1| ID:TOC267

44   Spl    1 03Mar2010 03:44      -       -          -    12982  14.203      2.899      -       -          -
44   Spl    2 03Mar2010 03:52      -       -          -    13647  14.972      3.056      -       -          -
44   Spl    3 03Mar2010 04:00      -       -          -    13377  14.660      2.992      -       -          -
44   Spl    4 03Mar2010 04:09      -       -          -    13397  14.683      2.997      -       -          -
44   Spl  Avg                                           13350  14.629      2.986
44   Spl  SDev                                          274.814
44   Spl  %RSD                                             2.06

** Spl      Name:    248139003                    Data File: XQ099
            Remarks: 959561|1|1| ID:TOC267

45   Spl    1 03Mar2010 04:18      -       -          -     9371  10.028      2.046      -       -          -
45   Spl    2 03Mar2010 04:26      -       -          -    10393  11.210      2.288      -       -          -
45   Spl    3 03Mar2010 04:33      -       -          -    10243  11.036      2.252      -       -          -
45   Spl    4 03Mar2010 04:43      -       -          -    10309  11.113      2.268      -       -          -
45   Spl  Avg                                           10079  10.847      2.214
45   Spl  SDev                                          475.975
45   Spl  %RSD                                             4.72

** Chk2     Name:    CCV                          Data File: XQ100
            Remarks: 959561|1|1| WTC100302-02 ID:TOC267

46   Chk2   1 03Mar2010 04:52      -       -          -    45520  51.395     10.489      -       -          -

** Chk5     Name:    CCB                          Data File: XQ101
            Remarks: 959561|1|1| ID:TOC267

47   Chk5   1 03Mar2010 05:01      -       -          -     1397   0.379      0.077      -       -          -

** Spl      Name:    248139004                    Data File: XQ102
            Remarks: 959561|1|1| ID:TOC267

48   Spl    1 03Mar2010 05:09      -       -          -    21982  24.609      5.022      -       -          -
48   Spl    2 03Mar2010 05:17      -       -          -    26719  30.086      6.140      -       -          -
48   Spl    3 03Mar2010 05:25      -       -          -    27225  30.671      6.259      -       -          -
48   Spl    4 03Mar2010 05:34      -       -          -    27179  30.618      6.249      -       -          -
48   Spl  Avg                                           25776  28.996      5.918
48   Spl  SDev                                         2539.796
48   Spl  %RSD                                             9.85

** Chk2     Name:    CCV                          Data File: XQ103
            Remarks: 959561|1|1| WTC100302-02 ID:TOC267

49   Chk2   1 03Mar2010 05:43      -       -          -    47890  54.135     11.048      -       -          -

** Chk5     Name:    CCB                          Data File: XQ104
            Remarks: 959561|1|1| ID:TOC267

50   Chk5   1 03Mar2010 05:52      -       -          -     1615   0.631      0.129      -       -          -
```

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
248017003	959246	1	TSM	2-Mar-10 18:20	XQ073.rlt

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
ICAL-01		1	TSM	3-Mar-10 11:32	XQ106.rlt
ICAL-02		1	TSM	3-Mar-10 11:41	XQ107.rlt
ICAL-03		1	TSM	3-Mar-10 11:50	XQ108.rlt
ICAL-04		1	TSM	3-Mar-10 11:59	XQ109.rlt
ICAL-05		1	TSM	3-Mar-10 12:08	XQ110.rlt
ICV		1	TSM	3-Mar-10 12:17	XQ111.rlt
ICB		1	TSM	3-Mar-10 12:26	XQ112.rlt
TIC	960019	1	TSM	3-Mar-10 12:36	XQ113.rlt
CCV		1	TSM	3-Mar-10 13:35	XQ114.rlt
CCB		1	TSM	3-Mar-10 13:44	XQ115.rlt
248139001	959561	2	TSM	3-Mar-10 13:53	XQ116.rlt
248126003	959246	2	TSM	3-Mar-10 14:26	XQ117.rlt
1202057268	959246	2	TSM	3-Mar-10 15:00	XQ118.rlt
1202057270	959246	2	TSM	3-Mar-10 15:20	XQ119.rlt
CCV		1	TSM	3-Mar-10 15:29	XQ120.rlt
CCB		1	TSM	3-Mar-10 15:38	XQ121.rlt
CCV		1	TSM	3-Mar-10 15:47	XQ122.rlt
CCB		1	TSM	3-Mar-10 15:55	XQ123.rlt
1202059114	960019	1	TSM	3-Mar-10 16:04	XQ124.rlt
1202059117	960019	1	TSM	3-Mar-10 16:13	XQ125.rlt
248157002	960019	1	TSM	3-Mar-10 16:22	XQ126.rlt
248157003	960019	1	TSM	3-Mar-10 16:55	XQ127.rlt
248157004	960019	1	TSM	3-Mar-10 17:29	XQ128.rlt
248157005	960019	1	TSM	3-Mar-10 18:02	XQ129.rlt
248157006	960019	1	TSM	3-Mar-10 18:36	XQ130.rlt
248157007	960019	1	TSM	3-Mar-10 19:09	XQ131.rlt
248268003	960019	1	TSM	3-Mar-10 19:43	XQ132.rlt
248298001	960019	1	TSM	3-Mar-10 20:16	XQ133.rlt
CCV		1	TSM	3-Mar-10 20:51	XQ134.rlt
CCB		1	TSM	3-Mar-10 20:59	XQ135.rlt
248298002	960019	1	TSM	3-Mar-10 21:08	XQ136.rlt
248298003	960019	1	TSM	3-Mar-10 21:41	XQ137.rlt
1202059115	960019	1	TSM	3-Mar-10 22:15	XQ138.rlt
1202059116	960019	1	TSM	3-Mar-10 22:35	XQ139.rlt
CCV		1	TSM	3-Mar-10 22:44	XQ140.rlt
CCB		1	TSM	3-Mar-10 22:53	XQ141.rlt

```
*********************************************************************
**                           CALIBRATION                           **
*********************************************************************
```

03/03/10 Wed Mar 03 12:08:15 2010

Std. #	Used	Conc. (ppm)	Volume (mL)
1	Yes	20.000	5.000
2	Yes	10.000	5.000
3	Yes	1.000	5.000
4	Yes	0.200	5.000
5	Yes	0.000	5.000

RF (ugC/k-cts):	1.186
R-Squared:	0.9977
Offset (cts):	555
Offset (ugC):	-0.660
Calibration Mode:	TOC
Allow Editing:	No

Rep	Std. 1	Std. 2	Std. 3	Std. 4	Std. 5
1	84504	38786	5246	1950	1143
2	-	-	-	-	-
3	-	-	-	-	-
4	-	-	-	-	-
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	-
9	-	-	-	-	-
10	-	-	-	-	-

(* = unused)

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
1	Blk	1	03Mar2010	10:48	-	-	-	659	-	-	-	-	-
1	Blk	2	03Mar2010	10:54	-	-	-	545	-	-	-	-	-
1	Blk	3	03Mar2010	11:01	-	-	-	1019	-	-	-	-	-
1	Blk	4	03Mar2010	11:08	-	-	-	518	-	-	-	-	-
1	Blk	5	03Mar2010	11:14	-	-	-	411	-	-	-	-	-
1	Blk	6	03Mar2010	11:23	-	-	-	405	-	-	-	-	-

** Std1 Name: ICAL-01 Data File: XQ106
Remarks: 960019|1|1| WTC100303-01 ID:TOC267

1	Std1	1	03Mar2010	11:32	-	-	-	84504	98.000	20.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.166
R-Squared: 1.0000
Offset (cts): 0
Offset (ugC): 0.000

** Std2 Name: ICAL-02 Data File: XQ107
Remarks: 960019|1|1| WTC100303-02 ID:TOC267

2	Std2	1	03Mar2010	11:41	-	-	-	38786	49.000	10.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.072
R-Squared: 1.0000
Offset (cts): -6932
Offset (ugC): 7.430

** Std3 Name: ICAL-03 Data File: XQ108
Remarks: 960019|1|1| WTC100303-03 ID:TOC267

3	Std3	1	03Mar2010	11:50	-	-	-	5246	4.900	1.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.169
R-Squared: 0.9966
Offset (cts): -482
Offset (ugC): 0.564

** Std4 Name: ICAL-04 Data File: XQ109
Remarks: 960019|1|1| WTC100303-04 ID:TOC267

4	Std4	1	03Mar2010	11:59	-	-	-	1950	0.980	0.200	-	-	-

** Calibration: RF (ugC/k-cts): 1.182
R-Squared: 0.9973
Offset (cts): 273
Offset (ugC): -0.324

** Std5 Name: ICAL-05 Data File: XQ110
Remarks: 960019|1|1| WTC100303-05 ID:TOC267

5	Std5	1	03Mar2010	12:08	-	-	-	1143	0.000	0.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.186
R-Squared: 0.9977
Offset (cts): 555
Offset (ugC): -0.660

```
** Chk2      Name:    ICV                          Data File: XQ111
             Remarks: 960019|1|1| WTC100303-05 ID:TOC267

6    Chk2    1 03Mar2010 12:17      -       -          -     41433  48.501      9.898      -       -          -

** Chk5      Name:    ICB                          Data File: XQ112
             Remarks: 960019|1|1| ID:TOC267

7    Chk5    1 03Mar2010 12:26      -       -          -      1325   0.913      0.186      -       -          -

** Spl       Name:    TIC                          Data File: XQ113
             Remarks: 960019|1|1| WIC100303-01 ID:TOC267

8    Spl     1 03Mar2010 12:36      -       -          -      1281   0.993      0.203      -       -          -
```

```
                                  |- - - - - T I C  - - - -| |- - - - - T O C  - - - -| |- - - - - - T C  - - - -|
Pos/ Run  Rep   Run      Run     Area    Mass     Conc      Area    Mass     Conc      Area    Mass     Conc
Vial Type  #    Date     Time    (cts)   (ugC)    (ppm)     (cts)   (ugC)    (ppm)     (cts)   (ugC)    (ppm)
---- ---- --- --------- ----- ------- ------- ---------- ------- ------- ---------- ------- ------- ----------

** Chk2     Name:    CCV                          Data File: XQ114
            Remarks: 959561|1|2| WTC100303-02 ID:TOC267

9    Chk2   1 03Mar2010 13:35      -       -          -    43228  50.630     10.333      -       -          -


** Chk5     Name:    CCB                          Data File: XQ115
            Remarks: 959561|1|2| ID:TOC267

10   Chk5   1 03Mar2010 13:44      -       -          -     1244   0.816      0.167      -       -          -


** Sp1      Name:    248139001                    Data File: XQ116
            Remarks: 959561|2|2| ID:TOC267

11   Sp1    1 03Mar2010 13:53      -       -          -    35336  41.399      8.449      -       -          -
11   Sp1    2 03Mar2010 14:00      -       -          -    41116  48.257      9.848      -       -          -
11   Sp1    3 03Mar2010 14:08      -       -          -    41760  49.021     10.004      -       -          -
11   Sp1    4 03Mar2010 14:18      -       -          -    42168  49.506     10.103      -       -          -
11   Sp1  Avg                                           40095  47.046      9.601
11   Sp1  SDev                                        3202.087
11   Sp1  %RSD                                            7.99


** Sp1      Name:    248126003                    Data File: XQ117
            Remarks: 959246|2|2| ID:TOC267

12   Sp1    1 03Mar2010 14:26      -       -          -    53261  62.667     12.789      -       -          -
12   Sp1    2 03Mar2010 14:34      -       -          -    61591  72.551     14.806      -       -          -
12   Sp1    3 03Mar2010 14:42      -       -          -    61016  71.869     14.667      -       -          -
12   Sp1    4 03Mar2010 14:51      -       -          -    60945  71.784     14.650      -       -          -
12   Sp1  Avg                                           59203  69.718     14.228
12   Sp1  SDev                                        3972.046
12   Sp1  %RSD                                            6.71


** Sp1      Name:    1202057268                   Data File: XQ118
            Remarks: 959246|2|2| 248126003:DUP ID:TOC267

13   Sp1    1 03Mar2010 15:00      -       -          -    53909  63.436     12.946      -       -          -
13   Sp1    2 03Mar2010 15:09      -       -          -    61397  72.321     14.759      -       -          -
13   Sp1  Avg                                           57653  67.878     13.853
13   Sp1  SDev                                        5294.816
13   Sp1  %RSD                                            9.18


** Sp1      Name:    1202057270                   Data File: XQ119
            Remarks: 959246|2|2| 248126003:PS ID:TOC267

14   Sp1    1 03Mar2010 15:20      -       -          -    93980 110.980     22.649      -       -          -


** Chk2     Name:    CCV                          Data File: XQ120
            Remarks: 959246|1|2| WTC100303-02 ID:TOC267

15   Chk2   1 03Mar2010 15:29      -       -          -    44589  52.245     10.662      -       -          -


** Chk5     Name:    CCB                          Data File: XQ121
            Remarks: 959246|1|2|  ID:TOC267
```

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16   Chk5   1 03Mar2010 15:38      -       -          -     1613   1.254      0.256      -       -          -

** Chk2     Name:    CCV                          Data File: XQ122
           Remarks: 960019|1|1| WTC100303-02 ID:TOC267

17   Chk2   1 03Mar2010 15:47      -       -          -    42982  50.339     10.273      -       -          -

** Chk5     Name:    CCB                          Data File: XQ123
           Remarks: 960019|1|1| ID:TOC267

18   Chk5   1 03Mar2010 15:55      -       -          -     1257   0.832      0.170      -       -          -

** Chk5     Name:    1202059114                   Data File: XQ124
           Remarks: 960019|1|1| MB ID:TOC267

19   Chk5   1 03Mar2010 16:04      -       -          -     1360   0.954      0.195      -       -          -

** Chk2     Name:    1202059117                   Data File: XQ125
           Remarks: 960019|1|1| WTC100303-05:LCS ID:TOC267

20   Chk2   1 03Mar2010 16:13      -       -          -    42389  49.635     10.130      -       -          -

** Spl      Name:    248157002                    Data File: XQ126
           Remarks: 960019|1|1| ID:TOC267

21   Spl    1 03Mar2010 16:22      -       -          -    85357 100.749     20.561      -       -          -
21   Spl    2 03Mar2010 16:29      -       -          -   104991 124.045     25.315      -       -          -
21   Spl    3 03Mar2010 16:37      -       -          -   102889 121.551     24.806      -       -          -
21   Spl    4 03Mar2010 16:47      -       -          -   106367 125.678     25.649      -       -          -
21   Spl  Avg                                          99901 118.006     24.083
21   Spl  SDev                                      9800.907
21   Spl  %RSD                                          9.81

** Spl      Name:    248157003                    Data File: XQ127
           Remarks: 960019|1|1| ID:TOC267

22   Spl    1 03Mar2010 16:55      -       -          -     8699   9.795      1.999      -       -          -
22   Spl    2 03Mar2010 17:03      -       -          -     9627  10.896      2.224      -       -          -
22   Spl    3 03Mar2010 17:11      -       -          -     9203  10.393      2.121      -       -          -
22   Spl    4 03Mar2010 17:20      -       -          -     9306  10.515      2.146      -       -          -
22   Spl  Avg                                           9208  10.399      2.122
22   Spl  SDev                                       384.824
22   Spl  %RSD                                          4.18

** Spl      Name:    248157004                    Data File: XQ128
           Remarks: 960019|1|1| ID:TOC267

23   Spl    1 03Mar2010 17:29      -       -          -    12729  14.576      2.975      -       -          -
23   Spl    2 03Mar2010 17:37      -       -          -    14436  16.602      3.388      -       -          -
23   Spl    3 03Mar2010 17:44      -       -          -    14492  16.668      3.402      -       -          -
23   Spl    4 03Mar2010 17:54      -       -          -    14379  16.534      3.374      -       -          -
23   Spl  Avg                                          14009  16.095      3.285
23   Spl  SDev                                       854.579
23   Spl  %RSD                                          6.10

** Spl      Name:    248157005                    Data File: XQ129
```

Remarks: 960019|1|1| ID:TOC267

24	Spl	1	03Mar2010 18:02	-	-	-	10666	12.128	2.475	-	-	-
24	Spl	2	03Mar2010 18:10	-	-	-	11929	13.627	2.781	-	-	-
24	Spl	3	03Mar2010 18:18	-	-	-	11664	13.313	2.717	-	-	-
24	Spl	4	03Mar2010 18:28	-	-	-	11571	13.202	2.694	-	-	-
24	Spl	Avg					11457	13.068	2.667			
24	Spl	SDev					549.032					
24	Spl	%RSD					4.79					

** Spl Name: 248157006 Data File: XQ130
Remarks: 960019|1|1| ID:TOC267

25	Spl	1	03Mar2010 18:36	-	-	-	15997	18.454	3.766	-	-	-
25	Spl	2	03Mar2010 18:44	-	-	-	18532	21.461	4.380	-	-	-
25	Spl	3	03Mar2010 18:51	-	-	-	18173	21.035	4.293	-	-	-
25	Spl	4	03Mar2010 19:01	-	-	-	18060	20.901	4.266	-	-	-
25	Spl	Avg					17690	20.463	4.176			
25	Spl	SDev					1146.793					
25	Spl	%RSD					6.48					

** Spl Name: 248157007 Data File: XQ131
Remarks: 960019|1|1| ID:TOC267

26	Spl	1	03Mar2010 19:09	-	-	-	19688	22.833	4.660	-	-	-
26	Spl	2	03Mar2010 19:17	-	-	-	22501	26.171	5.341	-	-	-
26	Spl	3	03Mar2010 19:25	-	-	-	21733	25.259	5.155	-	-	-
26	Spl	4	03Mar2010 19:35	-	-	-	21926	25.488	5.202	-	-	-
26	Spl	Avg					21462	24.938	5.089			
26	Spl	SDev					1226.830					
26	Spl	%RSD					5.72					

** Spl Name: 248268003 Data File: XQ132
Remarks: 960019|1|1| ID:TOC267

27	Spl	1	03Mar2010 19:43	-	-	-	5501	6.000	1.224	-	-	-
27	Spl	2	03Mar2010 19:51	-	-	-	5928	6.507	1.328	-	-	-
27	Spl	3	03Mar2010 19:58	-	-	-	5763	6.311	1.288	-	-	-
27	Spl	4	03Mar2010 20:08	-	-	-	5695	6.230	1.271	-	-	-
27	Spl	Avg					5721	6.262	1.278			
27	Spl	SDev					176.717					
27	Spl	%RSD					3.09					

** Spl Name: 248298001 Data File: XQ133
Remarks: 960019|1|1| ID:TOC267

28	Spl	1	03Mar2010 20:16	-	-	-	3194	3.263	0.666	-	-	-
28	Spl	2	03Mar2010 20:24	-	-	-	3344	3.441	0.702	-	-	-
28	Spl	3	03Mar2010 20:32	-	-	-	3131	3.188	0.651	-	-	-
28	Spl	4	03Mar2010 20:42	-	-	-	3210	3.282	0.670	-	-	-
28	Spl	Avg					3219	3.293	0.672			
28	Spl	SDev					89.578					
28	Spl	%RSD					2.78					

** Chk2 Name: CCV Data File: XQ134
Remarks: 960019|1|1| WTC100303-02 ID:TOC267

29	Chk2	1	03Mar2010 20:51	-	-	-	44961	52.687	10.752	-	-	-

Total Kjeldahl Nitrogen

Prep Logbook

Total Phosphorous and Total Kjeldahl Nitrogen Sample Preparation

Batch ID: **958133.0** Verified by: _____

Analyst: Stephanie Jackson

Method: EPA 351.2 Prep

Lab SOP: GL-GC-E-071 REV# 10

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202054677	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054673	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054674	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054675	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054676	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202054670 MB	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
1202054677 LCS	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
246959005	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
1202054671 DUP (246959005)	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
1202054673 MS (246959005)	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
1202054675 MSD (246959005)	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
246959010	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
248017003	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
248042002	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
248042010	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
248042013	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
248047003	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
248047007	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
248074001	01-MAR-2010 11:00:00	Waste Water	20	20	1	<2
1202054672 DUP (248074001)	01-MAR-2010 11:00:00	Waste Water	20	20	1	<2
1202054674 MS (248074001)	01-MAR-2010 11:00:00	Waste Water	20	20	1	<2
1202054676 MSD (248074001)	01-MAR-2010 11:00:00	Waste Water	20	20	1	<2
248074002	01-MAR-2010 11:00:00	Waste Water	20	20	1	<2
248074003	01-MAR-2010 11:00:00	Waste Water	20	20	1	<2

Reagent/Solvent Lot ID	Description	Amount
1269276-C	TKN/PO4 Digestion Solution	4 mL

Comments:

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
5.0 ppm Std.		1	axh3	3/3/2010 13:58:13	OM_3-3-2010_13-56-41
3.0 ppm Std.		1	axh3	3/3/2010 13:59:00	OM_3-3-2010_13-56-41
1.0 ppm Std.		1	axh3	3/3/2010 13:59:49	OM_3-3-2010_13-56-41
0.5 ppm Std		1	axh3	3/3/2010 14:00:38	OM_3-3-2010_13-56-41
0.1 ppm Std		1	axh3	3/3/2010 14:01:28	OM_3-3-2010_13-56-41
ICAL-00		1	axh3	3/3/2010 14:02:20	OM_3-3-2010_13-56-41
ICV		1	axh3	3/3/2010 14:04:16	OM_3-3-2010_13-56-41
ICB		1	axh3	3/3/2010 14:06:12	OM_3-3-2010_13-56-41
1202054670*	958135	1	axh3	3/3/2010 14:08:07	OM_3-3-2010_13-56-41
1202054677*	958135	1	axh3	3/3/2010 14:08:58	OM_3-3-2010_13-56-41
246959005*	958135	1	axh3	3/3/2010 14:09:49	OM_3-3-2010_13-56-41
1202054671*	958135	1	axh3	3/3/2010 14:10:40	OM_3-3-2010_13-56-41
1202054673*	958135	1	axh3	3/3/2010 14:11:30	OM_3-3-2010_13-56-41
1202054675*	958135	1	axh3	3/3/2010 14:12:20	OM_3-3-2010_13-56-41
246959010*	958135	1	axh3	3/3/2010 14:13:10	OM_3-3-2010_13-56-41
248017003*	958135	1	axh3	3/3/2010 14:13:59	OM_3-3-2010_13-56-41
248042002*	958135	1	axh3	3/3/2010 14:14:48	OM_3-3-2010_13-56-41
248042010*	958135	1	axh3	3/3/2010 14:15:37	OM_3-3-2010_13-56-41
CCV		1	axh3	3/3/2010 14:16:25	OM_3-3-2010_13-56-41
CCB		1	axh3	3/3/2010 14:18:20	OM_3-3-2010_13-56-41
1202054670	958135	1	axh3	3/3/2010 14:20:15	OM_3-3-2010_13-56-41
1202054677	958135	1	axh3	3/3/2010 14:21:07	OM_3-3-2010_13-56-41
246959005	958135	1	axh3	3/3/2010 14:21:57	OM_3-3-2010_13-56-41
1202054671	958135	1	axh3	3/3/2010 14:22:48	OM_3-3-2010_13-56-41
1202054673	958135	1	axh3	3/3/2010 14:23:39	OM_3-3-2010_13-56-41
1202054675	958135	1	axh3	3/3/2010 14:24:29	OM_3-3-2010_13-56-41
248074001	958135	1	axh3	3/3/2010 14:25:17	OM_3-3-2010_13-56-41
1202054672	958135	1	axh3	3/3/2010 14:26:04	OM_3-3-2010_13-56-41
1202054674	958135	1	axh3	3/3/2010 14:26:54	OM_3-3-2010_13-56-41
1202054676	958135	1	axh3	3/3/2010 14:27:46	OM_3-3-2010_13-56-41
CCV		1	axh3	3/3/2010 14:28:36	OM_3-3-2010_13-56-41
CCB		1	axh3	3/3/2010 14:30:32	OM_3-3-2010_13-56-41
246959010*	958135	1	axh3	3/3/2010 14:32:26	OM_3-3-2010_13-56-41
248017003	958135	1	axh3	3/3/2010 14:33:15	OM_3-3-2010_13-56-41
248042002	958135	1	axh3	3/3/2010 14:34:04	OM_3-3-2010_13-56-41
248042010	958135	1	axh3	3/3/2010 14:34:53	OM_3-3-2010_13-56-41
248042013	958135	1	axh3	3/3/2010 14:35:41	OM_3-3-2010_13-56-41
248047003	958135	1	axh3	3/3/2010 14:36:29	OM_3-3-2010_13-56-41
248047007	958135	1	axh3	3/3/2010 14:37:17	OM_3-3-2010_13-56-41
248074002	958135	1	axh3	3/3/2010 14:38:06	OM_3-3-2010_13-56-41
248074003	958135	1	axh3	3/3/2010 14:38:57	OM_3-3-2010_13-56-41
246959010	958135	1	axh3	3/3/2010 14:39:48	OM_3-3-2010_13-56-41
CCV		1	axh3	3/3/2010 14:41:42	OM_3-3-2010_13-56-41
CCB		1	axh3	3/3/2010 14:43:37	OM_3-3-2010_13-56-41

Author: axh3 Date : 3/3/2010

Original Run Filename: OM_3-3-2010_13-56-41.OMN created 3/3/2010 13:56:41
Original Run Author's Signature: [axh3]
Current Run Filename: OM_3-3-2010_13-56-41.OMN last modified 3/3/2010 14:44:47
Current Run Author's Signature: [axh3]
Description: TKN EPA Method 351.2 GEL SOP: GL-GC-E-104
Detection 660 nM
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TKN Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100303-12	1	S1	5.000	8.913	3/3/2010@13:58:13			5.0 ppm Std.
WTR100303-13	1	S2	3.000	5.269	3/3/2010@13:59:00			3.0 ppm Std.
WTR100303-14	1	S3	1.000	1.718	3/3/2010@13:59:49			1.0 ppm Std.
WTR100303-15	1	S4	0.500	0.909	3/3/2010@14:00:38			0.5 ppm Std
WTR100303-16	1	S5	0.100	0.233	3/3/2010@14:01:28			0.1 ppm Std
WTR100303-19 0.0 ppm	1	S7	0.000	0.042	3/3/2010@14:02:20			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99990 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR100303-18 ICV	1	S8	0.975	1.741	3/3/2010@14:04:16			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	0.975 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.975 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR100303-19 ICB	1	S7	-0.035	-0.048	3/3/2010@14:06:12			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.035 < 0.100					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.035 > -0.100					
		Message	ICB Passed					
		Action	Continue					
1202054670|958135|MB	1	1	0.078	0.152	3/3/2010@14:08:07			
1202054677||LCS	1	2	1.117	1.992	3/3/2010@14:08:58			
246959005	1	3	0.058	0.116	3/3/2010@14:09:49			
1202054671||DUP	1	4	-0.051	-0.076	3/3/2010@14:10:40			
1202054673||MS	1	5	0.523	0.941	3/3/2010@14:11:30			
1202054675||MSD	1	6	0.874	1.562	3/3/2010@14:12:20			
246959010	1	7	-0.044	-0.064	3/3/2010@14:13:10			
248017003	1	8	-0.056	-0.085	3/3/2010@14:13:59			
248042002	1	9	0.008	0.027	3/3/2010@14:14:48			
248042010	1	10	0.082	0.159	3/3/2010@14:15:37			
WTR100303-14 CCV	1	S3	0.963	1.719	3/3/2010@14:16:25			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	0.963 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.963 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100303-19 CCB	1	S7	0.014	0.040	3/3/2010@14:18:20			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	0.014 < 0.099					
		Message	CCB Passed					

		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.014 > -0.100					
		Message	CCB Passed					
		Action	Continue					
1202054670|958135|MB	1	1	0.084	0.162	3/3/2010@14:20:15			
1202054677||LCS	1	2	1.027	1.833	3/3/2010@14:21:07			
246959005	1	3	0.042	0.088	3/3/2010@14:21:57			
1202054671||DUP	1	4	-0.060	-0.093	3/3/2010@14:22:48			
1202054673||MS	1	5	0.898	1.605	3/3/2010@14:23:39			
1202054675||MSD	1	6	0.897	1.602	3/3/2010@14:24:29			
248074001	1	14	1.263	2.250	3/3/2010@14:25:17			
1202054672||DUP	1	15	1.136	2.026	3/3/2010@14:26:04			
1202054674||MS	1	16	2.016	3.584	3/3/2010@14:26:54			
1202054676||MSD	1	17	2.417	4.295	3/3/2010@14:27:46			
WTR100303-14 CCV	1	S3	1.002	1.789	3/3/2010@14:28:36			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.002 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.002 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100303-19 CCB	1	S7	-0.008	-2.588e-4	3/3/2010@14:30:32			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.008 < 0.099					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.008 > -0.100					
		Message	CCB Passed					
		Action	Continue					
246959010	1	7	-0.537	-0.936	3/3/2010@14:32:26			
248017003	1	8	-0.060	-0.092	3/3/2010@14:33:15			
248042002	1	9	0.010	0.031	3/3/2010@14:34:04			
248042010	1	10	0.085	0.164	3/3/2010@14:34:53			
248042013	1	11	0.059	0.118	3/3/2010@14:35:41			
248047003	1	12	0.143	0.268	3/3/2010@14:36:29			
248047007	1	13	0.147	0.274	3/3/2010@14:37:17			
248074002	1	18	0.551	0.989	3/3/2010@14:38:06			
248074003	1	19	0.051	0.103	3/3/2010@14:38:57			
246959010	1	7	-0.048	-0.072	3/3/2010@14:39:48			
WTR100303-14 CCV	1	S3	0.977	1.744	3/3/2010@14:41:42			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.977 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.977 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100303-19 CCB	1	S7	0.007	0.026	3/3/2010@14:43:37			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.007 < 0.099					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.007 > -0.100					
		Message	CCB Passed					
		Action	Continue					

Author: axh3 Date : 3/3/2010

Channel 1 (TKN) : Current View

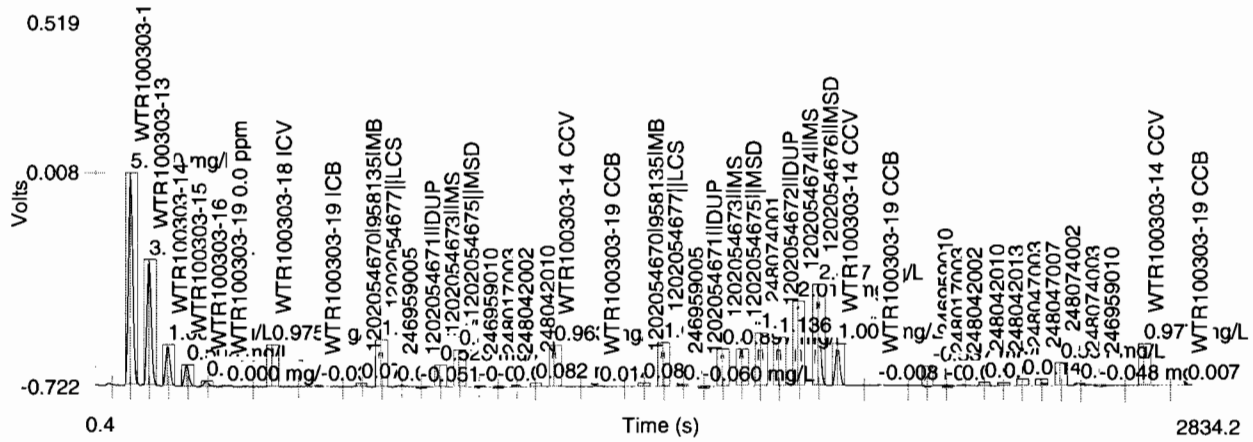

Table 1: TKN

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	5.000	1	8.913	0.716	-0.5	3/3/2010	13:59:21
2	3.000	1	5.269	0.423	1.1	3/3/2010	14:00:08
3	1.000	1	1.718	0.139	3.8	3/3/2010	14:00:57
4	0.500	1	0.909	0.072	-1.0	3/3/2010	14:01:46
5	0.100	1	0.233	0.018	-21.8	3/3/2010	14:02:37
6	0.000	1	0.042	0.003		3/3/2010	14:03:28

Figure 1: TKN

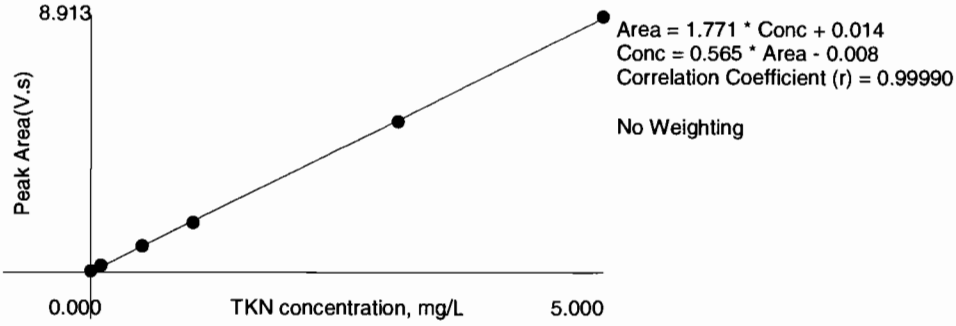

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
03-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 351.2	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
958135	See Below		

Potentially affected work order(s)(SDG): 246959(10-1801),248017(10-2039),248042(10-2057),248047(10-2045),248074(10-2050)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/MSD: QC 1202054673MS,1202054674MS, 1202054675MSD, 1202054676MSD	1. The spike and spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits.

Originator's Name:

Aubrey Kingsbury 03-MAR-10

Data Validator/Group Leader:

Elzbieta Szulc 03-MAR-10

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2057

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2057
Per Agreement Number:126310011
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples
according to the schedule indicated:

SHIP DATE: 2/24/2010
TURNAROUND/REPORT DUE: 3/26/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:351.2	1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	SW-846:8081A	1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	SW-846:8082	1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13085	WG	2/23/2010	
	SW-846:8260B	1	CAPA-10-12771	WG	2/22/2010	

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2057

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	2	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-12772	WG	2/22/2010	
		1	CAPA-10-12773	WG	2/22/2010	
		2	CAPA-10-12773	WG	2/22/2010	
		1	CAPA-10-13080	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
		2	CAPA-10-13320	WG	2/23/2010	
	SW-846:8270C	1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-12773	WG	2/22/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	SW-846:8321A_MOD	1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13083	WG	2/23/2010	
		2	CAPA-10-13083	WG	2/23/2010	
		3	CAPA-10-13083	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
	SW-846:9060	1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	

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Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2057

REQUEST NUMBER: 10-2057

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12771	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12771	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12771	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12771	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-12771	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-12771	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-12771	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-12772	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12773	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12773	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12773	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-13080	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-13083	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13083	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13083	3	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13085	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-13085	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-13085	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13085	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-13085	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-13085	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-13320	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-13320	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-13320	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-13320	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2057

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-13320	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG

Relinquished By:		**Date**	**Time**	**Received By:**		**Date**	**Time**
Jeff W Cy		2/24/10	1:20				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		**Date**	**Time**	**Remarks:**
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-12770 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/22/10	MEDIA:	WGA	OK
TIME COLLECTED (HH:MM)		1242	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	BP	
LOCATION ID:	18-BG-1		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / (NA)

BOREHOLE: YES / NO (NA) **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH < 2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH < 2

SAMPLE DESC:

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

See CAPA-10-12771

COLLECTED BY (PRINT) H. Werthan

REVIEWED BY (PRINT) K. Crawford

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Kelon Crawford	2/23/10	(Printed Name)	2/23/10
(Signature) Kelon Crawford	1400	(Signature)	2:00
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-12771 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/22/10	MEDIA:	WGA	OK
TIME COLLECTED (HH:MM)		1242	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	BP	
LOCATION ID:	18-BG-1		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

	#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
KC 2/23/10	2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
KC 2/23/10	1 ~~3~~		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
KC 2/23/10	1 ~~3~~		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
KC 2/23/10	1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH>12
KC 2/23/10	1		WSP-GrossA/B	1 LITER POLY	None	Y	
KC 2/23/10	1 ~~2~~		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
KC 2/23/10	1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH<2
KC 2/23/10	1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	pH<2
KC 2/23/10	1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH<2
KC 2/23/10	1		WSP-LL-H-3	1 LITER POLY	None	Y	
KC 2/23/10	1		Ra226+228	1 GAL POLY	Nitric Acid	Y	pH<2
KC 2/23/10	1 ~~3~~		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
KC 2/23/10	1 ~~3~~		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	

SAMPLE DESC:

SAMPLE COMMENTS: Sampling occurred during a snow storm, possible snow melt contamination

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH	Temp°C	SC µS/cm	DO mg/L	Turb (NTU)	ORP mV	~~Ft~~ V ~~stoc~~	Q gpm
5.28	10.32	197	5.56	46.8	506.4	28.46	0.08

COLLECTED BY (PRINT) H. Wershaw

REVIEWED BY (PRINT) K. Crawford

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Kelon Crawford (Signature) Kelon Crawford	2/23/10 1400	(Printed Name) (Signature)	2/23/10 2:00
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-12772 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/22/10	MEDIA:	WGA	OK
TIME COLLECTED (HH:MM)		1242	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	BP	
LOCATION ID:	18-BG-1		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO (NA)

BOREHOLE: YES / NO (NA) **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	

2/23/10

SAMPLE DESC: QC Sample of CAPA-10-12771

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

See CAPA-10-12771

COLLECTED BY (PRINT) H. Washow

REVIEWED BY (PRINT) K. Crawford

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Kelon Crawford (Signature) Kelon Crawford	2/23/10 1400	(Printed Name) (Signature)	2/23/10 2:00
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-12773 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/22/10	MEDIA:	WGA	OK
TIME COLLECTED (HH:MM)		1242	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:		
LOCATION ID:	18-BG-1		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
1		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of CAPA-10-12771

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

See CAPA-10-12771

COLLECTED BY (PRINT) H. Wershow

REVIEWED BY (PRINT) K. Crawford

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Kelon Crawford (Signature) Kelon Crawford	2/23/10 1400	(Printed Name) (Signature)	2/23/10 2:00
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-13080 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		2/23/10	MEDIA:	WGR	aqc
TIME COLLECTED (HH:MM)		1200	SUB-MEDIA:	UA	
PRS ID:	C-00-011		SAMPLE TECH CODE:	~~RSP~~ NA JL 2/23/10	
LOCATION ID:	R-40		FIELD QC TYPE:	FTB prefilled	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P1A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

~~COMPOSITE TYPE:~~ NA JL 2/23/10 COMPOSITE TIME INTERVAL: WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: BOREHOLE DIRECTION:

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	

SAMPLE DESC: QC Sample of CAPA-10-13083

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: refer to CAPA-10-13683

COLLECTED BY (PRINT) Lansay **REVIEWED BY (PRINT)** D Woody

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) S. Schmeer	2/23/10 1400	(Printed Name)	2/23/10 2:00
(Signature) Sandy Schmeer		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-13082 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		2/23/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1200	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	RSP	
LOCATION ID:	R-40		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	P1A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ COMPOSITE TIME INTERVAL: NA 2/23/10 WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC:

NA

SAMPLE COMMENTS: 4th full suite sample.

2/23/10

LOCATION DESC:

NA

FIELD SCREENING/MEASUREMENT RESULTS: refer to CAPA-10-13083

COLLECTED BY (PRINT) MGREEN **REVIEWED BY (PRINT)** LANSGY

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) S. Schmeer	2/23/10	(Printed Name)	2/23/10
(Signature)	1400	(Signature)	2:00
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-13083 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		2/23/2010	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1200	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	RSP	
LOCATION ID:	R-40		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P1A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	N	
~~2~~ 3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	N	
~~2~~ 3		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
~~2~~		~~WSP-HEXMOD~~	~~1 LITER AMBER GLASS~~	~~Ice~~	N	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	
~~1~~		~~WSP-RAD~~	~~1 GAL POLY~~	~~Nitric Acid~~	N	
~~1~~		~~WSP-TKN+TOC~~	~~500 ML AMBER GLASS~~	~~Sulfuric Acid~~ (Hydrogen Sulfate)	N	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
~~2~~ 3		~~WSP-8081A-Pest~~	~~1 LITER AMBER GLASS~~	~~Ice~~	N	
~~2~~ 3		~~WSP-8082-PCB~~	~~1 LITER AMBER GLASS~~	~~Ice~~	N	
~~2~~ 2		~~WSP-8290-D/F~~	~~1 LITER AMBER GLASS~~	Ice	N	
2		~~WSP-D2H+O18O16~~	~~40 ML SEPTUM AMBER~~ GLASS	~~Ice~~	N	
1		Ra226+228	1 GAL POLY	Nitric Acid	Y	
~~2~~ 3		~~WSP-8151A-Herb~~	~~1 LITER AMBER GLASS~~	~~Ice~~	N	

KC 2/19/10

KC 2/19/10

KC 2/19/10

SAMPLE DESC: NA

SAMPLE COMMENTS: 4th full suite sample.

limited suite

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS:

pH	T (°C)	DO (mg/L)	SP Cond (µS/cm)	ORP (mv)	Turb (NTU)	Q gpm
6.91	11.76	3.97	185	341.3	1.61	.33

COLLECTED BY (PRINT) D Woody **REVIEWED BY (PRINT)** L Ansay

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) S. Schmeer	2/23/10	(Printed Name)	2/23/10
(Signature) Sandy Schmeer	1400	(Signature)	2:00
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

CAPA-10-13083

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-13085 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/23/2010	MEDIA:	WGR	ok
TIME COLLECTED (HH:MM)		0937	SUB-MEDIA:	UA	
PRS ID:	C-00-011	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	R-40		FIELD QC TYPE:	PEB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P1A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		~~EXCAVATED: YES / NO / NA~~		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** _____ **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** _____ **BOREHOLE DIRECTION:** _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	
1 2		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice		
1 2		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice		
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide		
1		WSP-GrossA/B	1 LITER POLY	None		
1 2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice		
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid		
1		WSP-RAD	1 GAL POLY	Nitric Acid		
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		
1		WSP-LL-H-3	1 LITER POLY	None		
1 2		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice		
1 2		WSP-8082-PCB	1 LITER AMBER GLASS	Ice		
1 2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice		
1		WSP-GENINORG	1 LITER POLY	Ice		
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		
1		WSP-H-3	250 ML AMBER GLASS	Ice		
1		WSP-SSC	500 ML POLY	Ice		
1 ~~2~~		WSP-PCB-CNGR	1 LITER AMBER GLASS	Ice		

SAMPLE DESC: QC Sample of CAPA-10-13083

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE COMMENTS: PEB belongs to entire watershed.

18.2 MR-cm

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS:

NA

COLLECTED BY (PRINT) D. Woody

REVIEWED BY (PRINT) M. Green

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) S. Schmeer	2/23/10	(Printed Name)	2/23/10
(Signature)	1400	(Signature)	2:00
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

CAPA-10-13085

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-13320 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY)		02/23/2010	MEDIA:	WGR	QC
TIME COLLECTED (HH:MM)		0937	SUB-MEDIA:	UA	
PRS ID:	C-00-011	QC	SAMPLE TECH CODE:	DC	
LOCATION ID:	R-40		FIELD QC TYPE:	PEB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P1A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: N/A 02/23/2010 QC COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	
1 3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice		
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide		
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid		
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		
1 2		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice		
1		WSP-GENINORG	1 LITER POLY	Ice		
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		
1 2		WSP-PCB-CNGR	1 LITER AMBER GLASS	Ice		

02/19/10 AH 02/19/10 AH 02/19/10 AH 02/19/10 AH

SAMPLE DESC: QC Sample of CAPA-10-13083

SAMPLE COMMENTS: Comparison PEB. Use bottled, reagant-grade deionized water.

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) Lansay **REVIEWED BY (PRINT)** D. Woody

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) S. Schmeer	2/23/10	(Printed Name)	2/23/10
(Signature)	1400	(Signature)	2:00
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

CAPA-10-13320

DATA VALIDATION COVER SHEET

5114-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2057 VALIDATION DATE: 04/21/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Maryann Jordan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): VOCs by GC/MS

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICAL and/or ICV/CCV RRFs were <0.05 for n-butyl alcohol and isobutyl alcohol. All associated sample results were NDs and, thus, were qualified R,V7b.
2. The %D was >20% for dichlorodifluoromethane in the ICV and/or CCV. All associated sample results were NDs and, thus, were qualified UJ,V7c.
3. It should be noted that 10 compounds were not included in the MS/MSD. Since analysis of a MS/MSD pair is not a client requirement, no sample data were qualified.

Reviewed by: Allison Felix Level: 1 Date: 4/28/10

VALIDATOR'S SIGNATURE: Maryann Jordan DATE: 04/21/10

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, V9	J-, V9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, V9a	J-, V9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, V16	R, V16
☐	☐	☒	4. Samples were analyzed outside specific method tune time criteria.	N/A	J, V16b
☐	☐	☒	5. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, V16c	R, V16c
☐	☒	☐	6. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ or R, V7	J, V7
☐	☒	☐	7. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, V7a	J, V7a
☒	☐	☐	8. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or CCV.	R, V7b	J, V7b
☒	☐	☐	9. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, V7c	J, V7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, V7d	J, V7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, V7f	R, V7f

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The sample result is ≤5X (10X for common organic laboratory contaminants) the concentration of the related analyte in the method blank.	U, V4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X (10X for common laboratory contaminants).	N/A	J, V4a
☐	☒	☐	14. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, V4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V4e	R, V4e
☐	☒	☐	16. The IS retention time has shifted by more than 30 seconds.	UJ, V0	J, V0
☐	☐	☒	17. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, V0a
☐	☒	☐	18. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V0b	R, V0b
☐	☐	☒	19. The quantitating IS are count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, V1a	J, V1a
☐	☐	☒	20. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow the method-specific windows.	UJ, V1b	J, V1b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is >200% of the area count for the previous organic continuing calibration. Follow the method-specific windows.	UJ, V1c	J, V1c
☐	☐	☒	22. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V1d	R, V1d
☐	☒	☐	23. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, V3	J-, V3
☐	☒	☐	24. The surrogate is < the Lower Acceptance Limit (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, V3a	J-, V3a
☐	☒	☐	25. The surrogate %R is > the Upper Acceptance Limit (UAL) Follow the external laboratory limits located within the associated data package.	N/A	J+, V3b
☐	☒	☐	26. At least one surrogate is > the UAL and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, V3c	J, V3c
☐	☒	☐	27. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V3d	R, V3d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, V12	J-, V12
☐	☒	☐	29. The LCS percent recovery was < the LAL but > 10%. Follow the external laboratory limits located within the associated data package.	UV, V12a	J-, V12a
☐	☒	☐	30. The LCS percent recover was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, V12b

VOLATILE ORGANIC COMPOUND (VOC) ANALYTICAL DATA VALIDATION CHECKLIST

5114-2

Volatile Organic Compound (VOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V12c	R, V12c
☐	☐	☒	32. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, V8
☐	☐	☒	33. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, V8a	R, V8a
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, V88	J, V88
☐	☐	☒	35. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, V15	R, V15
☒	☐	☐	36. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	37. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, V19	J, R, V19

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12771**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 14:16**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 14:16**				
Data File:	**030410V4\4A410.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00	UJ,V7c
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00	
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00	
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00	
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0	
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0	
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00	
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0	
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00	
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00	
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0	R,V7b
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00	
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00	
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00	
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00	

MJ
04/21/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12771**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 14:16**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 14:16**				
Data File:	**030410V4\4A410.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00	
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00	
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00	
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00	
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00	
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00	
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00	
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00	
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00	
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00	
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00	
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00	
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00	
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00	
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0	R,V7b
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00	

MJ
04/21/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12771**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 14:16**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 14:16**				
Data File:	**030410V4\4A410.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	48.5	50.0	ug/L	96.9	(72%-132%)
Bromofluorobenzene	59.8	50.0	ug/L	120	(77%-123%)
Toluene-d8	51.0	50.0	ug/L	102	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	13.1	ug/L	0	J
	unknown siloxane	14.83	5.41	ug/L	0	J
	unknown siloxane	16.8	17.5	ug/L	0	J

MJ
04/21/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2057	**Date Collected:**	02/22/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	248042005	**Date Received:**	02/25/2010 08:45		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-12772	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	961120	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/04/2010 14:43	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/04/2010 14:43				
Data File:	030410V4\4A411.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00	UJ,V7c
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00	
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00	
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00	
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0	
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0	
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00	
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0	
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00	
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00	
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0	R,V7b
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00	
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00	
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00	
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00	

MJ
04/21/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2057	Date Collected:	02/22/2010 12:00	Matrix:	GROUND WATER
Lab Sample ID:	248042005	Date Received:	02/25/2010 08:45		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-12772	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	961120	Inst:	VOA4.I	Dilution:	1
Run Date:	03/04/2010 14:43	Analyst:	ACJ	Purge Vol:	5 mL
Prep Date:	03/04/2010 14:43				
Data File:	030410V4\4A411.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00	
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00	
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00	
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00	
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00	
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00	
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00	
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00	
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00	
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00	
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00	
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00	
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00	
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00	
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0	R,V7b
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00	

MJ
04/21/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042005**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12772**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 14:43**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 14:43**				
Data File:	**030410V4\4A411.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	48.5	50.0	ug/L	96.9	(72%-132%)
Bromofluorobenzene	59.0	50.0	ug/L	118	(77%-123%)
Toluene-d8	49.5	50.0	ug/L	98.9	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	9.95	ug/L	0	J
	unknown siloxane	12.47	10.3	ug/L	0	J
	unknown siloxane	14.83	32.3	ug/L	0	J
	unknown siloxane	16.79	5.56	ug/L	0	J

MJ
04/21/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2057	**Date Collected:**	02/22/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	248042006	**Date Received:**	02/25/2010 08:45		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-12773	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	961120	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/04/2010 15:11	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/04/2010 15:11				
Data File:	030410V4\4A412.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00	UJ,V7c
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00	
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00	
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00	
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0	
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0	
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00	
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0	
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00	
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00	
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0	R,V7b
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00	
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00	
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00	
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00	

MJ
04/21/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2057	Date Collected:	02/22/2010 12:00	Matrix:	GROUND WATER
Lab Sample ID:	248042006	Date Received:	02/25/2010 08:45		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-12773	Method:	SW846 8260B DOE-AL	SOP Ref:	GL-OA-E-038
Batch ID:	961120	Inst:	VOA4.I	Dilution:	1
Run Date:	03/04/2010 15:11	Analyst:	ACJ	Purge Vol:	5 mL
Prep Date:	03/04/2010 15:11				
Data File:	030410V4\4A412.D	Column:	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00	
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00	
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00	
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00	
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00	
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00	
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00	
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00	
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00	
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00	
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00	
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00	
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00	
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00	
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0	R,V7b
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00	

MJ
04/21/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042006**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12773**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 15:11**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 15:11**				
Data File:	**030410V4\4A412.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	49.4	50.0	ug/L	98.8	(72%-132%)
Bromofluorobenzene	58.5	50.0	ug/L	117	(77%-123%)
Toluene-d8	50.5	50.0	ug/L	101	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	10.9	ug/L	0	J
	unknown siloxane	14.83	5.68	ug/L	0	J

MJ
04/21/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042007**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13080**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 15:38**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 15:38**				
Data File:	**030410V4\4A413.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00	UJ,V7c
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00	
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00	
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00	
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0	
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0	
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00	
75-09-2	Methylene chloride	J	3.22	ug/L	3.00	10.0	
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00	
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00	
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0	R,V7b
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00	
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00	
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00	
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00	

MJ
04/21/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2057	**Date Collected:**	02/23/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	248042007	**Date Received:**	02/25/2010 08:45		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-13080	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	961120	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/04/2010 15:38	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/04/2010 15:38				
Data File:	030410V4\4A413.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00	
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00	
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00	
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00	
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00	
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00	
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00	
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00	
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00	
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00	
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00	
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00	
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00	
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00	
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0	R,V7b
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00	

MJ
04/21/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042007**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13080**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 15:38**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 15:38**				
Data File:	**030410V4\4A413.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	50.2	50.0	ug/L	100	(72%-132%)
Bromofluorobenzene	59.5	50.0	ug/L	119	(77%-123%)
Toluene-d8	49.4	50.0	ug/L	98.8	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	9.62	ug/L	0	J
	unknown siloxane	12.47	5.14	ug/L	0	J
	unknown siloxane	14.83	34.6	ug/L	0	J
	unknown siloxane	16.79	9.98	ug/L	0	J

MJ
04/21/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042009**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13085**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 16:06**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 16:06**				
Data File:	**030410V4\4A414.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00	UJ,V7c
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00	
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00	
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00	
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0	
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0	
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00	
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0	
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00	
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00	
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0	R,V7b
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00	
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00	
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00	
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00	

MJ
04/21/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042009**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13085**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 16:06**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 16:06**				
Data File:	**030410V4\4A414.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00	
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00	
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00	
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00	
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00	
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00	
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00	
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00	
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00	
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00	
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00	
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00	
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00	
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00	
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0	R,V7b
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00	

MJ
04/21/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042009**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13085**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 16:06**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 16:06**				
Data File:	**030410V4\4A414.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	49.2	50.0	ug/L	98.5	(72%-132%)
Bromofluorobenzene	58.8	50.0	ug/L	118	(77%-123%)
Toluene-d8	49.7	50.0	ug/L	99.4	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Flt	Qual
	unknown hydrocarbon	4.48	6.73	ug/L	0	J
	unknown siloxane	14.83	7.69	ug/L	0	J
	unknown siloxane	16.79	18	ug/L	0	J

MJ
04/21/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2057	**Date Collected:**	02/23/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	248042013	**Date Received:**	02/25/2010 08:45		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-13320	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	961120	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/04/2010 16:34	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/04/2010 16:34				
Data File:	030410V4\4A415.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00	UJ,V7c
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00	
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00	
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00	
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00	
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00	
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00	
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0	
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0	
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00	
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0	
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00	
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00	
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00	
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00	
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00	
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00	
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00	
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00	
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00	
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00	
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00	
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0	R,V7b
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00	
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00	
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00	
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00	
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00	
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00	
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00	
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00	
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00	
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00	
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00	
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00	

MJ
04/21/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2057	**Date Collected:**	02/23/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	248042013	**Date Received:**	02/25/2010 08:45		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-13320	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	961120	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/04/2010 16:34	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/04/2010 16:34				
Data File:	030410V4\4A415.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00	
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00	
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00	
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00	
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00	
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00	
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00	
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00	
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00	
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00	
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00	
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00	
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00	
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00	
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00	
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00	
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00	
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00	
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00	
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00	
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00	
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00	
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00	
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00	
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00	
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00	
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00	
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00	
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00	
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00	
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00	
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0	R,V7b
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00	

MJ
04/21/10

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042013**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13320**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 16:34**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 16:34**				
Data File:	**030410V4\4A415.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	49.5	50.0	ug/L	98.9	(72%-132%)
Bromofluorobenzene	58.4	50.0	ug/L	117	(77%-123%)
Toluene-d8	50.3	50.0	ug/L	101	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	Estimated RT	Units	Fit	Qual
	unknown hydrocarbon	4.48	ug/L	0	J
	unknown siloxane	14.83	ug/L	0	J
	unknown siloxane	16.79	ug/L	0	J

MJ
04/21/10

DATA VALIDATION COVER SHEET

5115-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2057 VALIDATION DATE: 04/23/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Maryann Jordan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☒ OTHER (DESCRIBE): SVOCs by GC/MS

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☒	☐	☐	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☒	☐	☐	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the ICAL and/or CCV associated with samples CAPA-10-12771 and -12773, the RF was <0.05 for atrazine. The associated sample results were NDs and, thus, were qualified R,SV7b.
2. In the ICV and/or CCV associated with samples -12771 and -12773, the %Ds were >20% for pyridine; bis (2-chloroisopropyl)ether; 2-nitroaniline; 4-nitrophenol; dibenzo(a,h)anthracene; hexachlorocyclopentadiene; benzyl alcohol; 3-nitroaniline; 2-methyl-4,6-dinitrophenol; benzidine and 4-nitroaniline. In the ICV and/or CCV associated with samples -13085 and -13320, the %Ds were >20% for pyridine; hexachlorocyclopentadiene; benzyl alcohol; 3-nitroaniline; 2-methyl-4,6-dinitrophenol; benzoic acid; N-methyl-N-nitrosomethylamine; butylbenzylphthalate and 4-nitroaniline. All associated sample results were NDs and, thus, were qualified UJ,SV7c.
3. It should be noted that 6 compounds were not included in the LCS. Sample data was not qualified as a result.
4. In the MS/MSD associated with samples -12771 and -12773, the %Rs were < the laboratory LAL for benzyl alcohol; benzidine and 3,3-dichlorobenzidine. In the MS/MSD associated with samples -13085 and -13320, the RPD was > the laboratory acceptance limit for benzidine. It should be noted that the MS/MSD analyses were performed on samples from other LANL RNs and that the parent sample raw data was not included in the data package. It should also be noted that 6 compounds were not included in the MS/MSD. Since analysis of a MS/MSD pair is not a client requirement, no sample data were qualified.

Reviewed by: Allison Felix Level: 1 Date: 4/28/10

DATA VALIDATION COVER SHEET

5115-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

VALIDATOR'S SIGNATURE: _____ DATE: 04/23/10

Form 5115-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2 Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, SV9	J-, SV9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, SV9a	J-, SV9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, SV9b	R, SV9b
☐	☐	☒	4. The instrument performance sample did not pass method acceptance criteria.	R, SV16	R, SV16
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, SV16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, SV16c	R, SV16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, SV7	J, SV7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, SV7a	J, SV7a
☒	☐	☐	9. The affected analytes were analyzed with an RRF of <0.05 in the initial calibration and/or Continuing Calibration Verification (CCV).	R, SV7b	J, SV7b
☒	☐	☐	10. The Initial Calibration Verification (ICV) and/or CCV were recovered outside the method-specific limits.	UJ, SV7c	J, SV7c
☐	☒	☐	11. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, SV7d	J, SV7d

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, SV7f	R, SV7f
☐	☒	☐	13. The sample result is ≤5X (10X for common organic laboratory contaminates) the concentration of the related analyte in the method blank.	U, SV4	J, V4a
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X (10X for common laboratory contaminates).	N/A	J, SV4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, SV4d	N/A
☐	☒	☐	16. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV4e	R, SV4e
☐	☒	☐	17. The IS retention time has shifted by more than 30 seconds.	UJ, SV0	J, SV0
☐	☐	☒	18. Analyte is positively confirmed but outside the IS retention time window; however, spectral matches must be provided.	N/A	J, SV0a
☐	☒	☐	19. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV0b	R, SV0b
☐	☐	☒	20. The quantitating IS area count is <10% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow method-specific windows.	R, SV1a	J, SV1a

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	21. The IS area count for the quantitating IS is <50% but >10% for organics window relation to the previous continuing calibration. Follow method-specific windows.	UJ, SV1b	J, SV1b
☐	☐	☒	22. The IS area count for the quantitating IS is >200% of the area count for the previous continuing calibration. Follow method-specific windows.	UJ, SV1c	J, SV1c
☐	☐	☒	23. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV1d	R, SV1d
☐	☒	☐	24. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, SV3	J-, SV3
☐	☒	☐	25. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, SV3a	J-, SV3a
☐	☒	☐	26. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV3b
☐	☒	☐	27. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, SV3c	J, SV3c
☐	☒	☐	28. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV3d	R, SV3d
☐	☒	☐	29. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, SV12	J-, SV12

SEMIVOLATILE ORGANIC COMPOUND (SVOC) ANALYTICAL DATA VALIDATION CHECKLIST

5115-2

Semivolatile Organic Compound (SVOC) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	30. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, SV12a	J-, SV12a
☐	☒	☐	31. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, SV12b
☐	☒	☐	32. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV12c	R, SV12c
☐	☐	☒	33. The affected analyte is considered not detected because mass spectrum did not meet specifications.	N/A	U, SV8
☐	☐	☒	34. The mass spectrum column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, SV8a	R, SV8a
☐	☒	☐	35. Duplicate, dilution, or reanalysis.	UJ, SV88	J, SV88
☐	☐	☒	36. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, SV15	R, SV15
☒	☐	☐	37. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, SV19	J, R, SV19

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2057	Date Collected:	02/22/2010 12:00	Matrix:	GROUND WATER
Lab Sample ID:	248042001	Date Received:	02/25/2010 08:45		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-12771	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	959294	Inst:	MSD8.I	Dilution:	1
Run Date:	03/03/2010 18:39	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	03/01/2010 23:33	Aliquot:	900 mL	Final Volume:	1 mL
Data File:	s8c0318.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	11.1	ug/L	2.22	11.1	
108-95-2	Phenol	U	11.1	ug/L	1.11	11.1	
95-57-8	2-Chlorophenol	U	11.1	ug/L	2.22	11.1	
106-46-7	1,4-Dichlorobenzene	U	11.1	ug/L	2.22	11.1	
621-64-7	N-Nitrosodi--n-propylamine	U	11.1	ug/L	2.22	11.1	
59-50-7	*N-Nitrosodipropylamine* Parachlorometa cresol	U	11.1	ug/L	2.22	11.1	
83-32-9	*4-Chloro-3-methylphenol* Acenaphthene	U	1.11	ug/L	0.344	1.11	
121-14-2	2,4-Dinitrotoluene	U	11.1	ug/L	2.22	11.1	
100-02-7	4-Nitrophenol	U	11.1	ug/L	2.22	11.1	UJ,SV7c
87-86-5	Pentachlorophenol	U	11.1	ug/L	2.22	11.1	
129-00-0	Pyrene	U	1.11	ug/L	0.333	1.11	
110-86-1	Pyridine	U	11.1	ug/L	3.33	11.1	UJ,SV7c
62-53-3	Aniline	U	11.1	ug/L	2.78	11.1	
111-44-4	bis(2-Chloroethyl) ether	U	11.1	ug/L	2.22	11.1	
541-73-1	1,3-Dichlorobenzene	U	11.1	ug/L	2.22	11.1	
100-51-6	Benzyl alcohol	U	11.1	ug/L	2.22	11.1	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	11.1	ug/L	2.22	11.1	
108-60-1	bis(2-Chloroisopropyl)ether	U	11.1	ug/L	2.22	11.1	UJ,SV7c
95-48-7	o-Cresol	U	11.1	ug/L	2.22	11.1	
65794-96-9	m,p-Cresols	U	11.1	ug/L	3.33	11.1	
67-72-1	Hexachloroethane	U	11.1	ug/L	2.22	11.1	
98-95-3	Nitrobenzene	U	11.1	ug/L	3.33	11.1	
78-59-1	Isophorone	U	11.1	ug/L	3.33	11.1	
88-75-5	2-Nitrophenol	U	11.1	ug/L	2.22	11.1	
105-67-9	2,4-Dimethylphenol	U	11.1	ug/L	2.22	11.1	
111-91-1	bis(2-Chloroethoxy)methane	U	11.1	ug/L	3.33	11.1	
120-83-2	2,4-Dichlorophenol	U	11.1	ug/L	2.22	11.1	
65-85-0	Benzoic acid	U	22.2	ug/L	6.67	22.2	
91-20-3	Naphthalene	U	1.11	ug/L	0.333	1.11	
106-47-8	4-Chloroaniline	U	11.1	ug/L	2.22	11.1	
87-68-3	Hexachlorobutadiene	U	11.1	ug/L	2.22	11.1	
91-57-6	2-Methylnaphthalene	U	1.11	ug/L	0.333	1.11	
90-12-0	1-Methylnaphthalene	U	1.11	ug/L	0.333	1.11	
77-47-4	Hexachlorocyclopentadiene	U	11.1	ug/L	3.33	11.1	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	11.1	ug/L	2.22	11.1	
95-95-4	2,4,5-Trichlorophenol	U	11.1	ug/L	2.22	11.1	
91-58-7	2-Chloronaphthalene	U	1.11	ug/L	0.333	1.11	

MJ
04/23/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2057	Date Collected:	02/22/2010 12:00	Matrix:	GROUND WATER
Lab Sample ID:	248042001	Date Received:	02/25/2010 08:45		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-12771	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	959294	Inst:	MSD8.I	Dilution:	1
Run Date:	03/03/2010 18:39	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	03/01/2010 23:33	Aliquot:	900 mL	Final Volume:	1 mL
Data File:	s8c0318.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	11.1	ug/L	2.22	11.1	UJ,SV7c
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	11.1	ug/L	2.22	11.1	UJ,SV7c
131-11-3	Dimethylphthalate	U	11.1	ug/L	2.22	11.1	
606-20-2	2,6-Dinitrotoluene	U	11.1	ug/L	2.22	11.1	
208-96-8	Acenaphthylene	U	1.11	ug/L	0.222	1.11	
51-28-5	2,4-Dinitrophenol	U	22.2	ug/L	5.56	22.2	
132-64-9	Dibenzofuran	U	11.1	ug/L	2.22	11.1	
84-66-2	Diethylphthalate	U	11.1	ug/L	2.22	11.1	
86-73-7	Fluorene	U	1.11	ug/L	0.222	1.11	
7005-72-3	4-Chlorophenylphenylether	U	11.1	ug/L	2.22	11.1	
534-52-1	2-Methyl-4,6-dinitrophenol	U	11.1	ug/L	3.33	11.1	UJ,SV7c
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	11.1	ug/L	3.33	11.1	UJ,SV7c
122-39-4	Diphenylamine	U	11.1	ug/L	3.33	11.1	
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	11.1	ug/L	2.22	11.1	
101-55-3	4-Bromophenylphenylether	U	11.1	ug/L	2.22	11.1	
118-74-1	Hexachlorobenzene	U	11.1	ug/L	2.22	11.1	
1912-24-9	Atrazine	U	11.1	ug/L	3.33	11.1	R,SV7b
85-01-8	Phenanthrene	U	1.11	ug/L	0.222	1.11	
120-12-7	Anthracene	U	1.11	ug/L	0.222	1.11	
84-74-2	Di-n-butylphthalate	U	11.1	ug/L	2.22	11.1	
206-44-0	Fluoranthene	U	1.11	ug/L	0.222	1.11	
92-87-5	Benzidine	U	11.1	ug/L	3.33	11.1	UJ,SV7c
85-68-7	Butylbenzylphthalate	U	11.1	ug/L	2.22	11.1	
56-55-3	Benzo(a)anthracene	U	1.11	ug/L	0.222	1.11	
91-94-1	3,3'-Dichlorobenzidine	U	11.1	ug/L	2.22	11.1	
218-01-9	Chrysene	U	1.11	ug/L	0.222	1.11	
117-81-7	bis(2-Ethylhexyl)phthalate	U	11.1	ug/L	2.22	11.1	
117-84-0	Di-n-octylphthalate	U	11.1	ug/L	3.33	11.1	
205-99-2	Benzo(b)fluoranthene	U	1.11	ug/L	0.222	1.11	
207-08-9	Benzo(k)fluoranthene	U	1.11	ug/L	0.222	1.11	
50-32-8	Benzo(a)pyrene	U	1.11	ug/L	0.222	1.11	
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.11	ug/L	0.222	1.11	
53-70-3	Dibenzo(a,h)anthracene	U	1.11	ug/L	0.222	1.11	UJ,SV7c
191-24-2	Benzo(ghi)perylene	U	1.11	ug/L	0.222	1.11	
123-91-1	1,4-Dioxane	U	11.1	ug/L	2.22	11.1	
55-18-5	N-Nitrosodiethylamine	U	11.1	ug/L	2.22	11.1	

MJ
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2057	**Date Collected:**	02/22/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	248042001	**Date Received:**	02/25/2010 08:45		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-12771	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	959294	**Inst:**	MSD8.I	**Dilution:**	1
Run Date:	03/03/2010 18:39	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/01/2010 23:33	**Aliquot:**	900 mL	**Final Volume:**	1 mL
Data File:	s8c0318.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	11.1	ug/L	2.22	11.1
924-16-3	N-Nitrosodi-n-butylamine	U	11.1	ug/L	3.33	11.1
95-94-3	1,2,4,5-Tetrachlorobenzene	U	11.1	ug/L	3.33	11.1
608-93-5	Pentachlorobenzene	U	11.1	ug/L	3.33	11.1
58-90-2	2,3,4,6-Tetrachlorophenol	U	11.1	ug/L	2.22	11.1
88-85-7	Dinoseb	U	11.1	ug/L	2.22	11.1
120-82-1	1,2,4-Trichlorobenzene	U	11.1	ug/L	2.22	11.1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	65.1	111	ug/L	58.6	(39%-120%)
2-Fluorobiphenyl	27.8	55.6	ug/L	50.1	(38%-108%)
2-Fluorophenol	42.5	111	ug/L	38.2	(19%-98%)
Nitrobenzene-d5	27.7	55.6	ug/L	49.9	(31%-122%)
Phenol-d5	28.3	111	ug/L	25.5	(15%-83%)
p-Terphenyl-d14	46.5	55.6	ug/L	83.8	(40%-138%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

MJ
04/23/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2057	Date Collected:	02/22/2010 12:00	Matrix:	GROUND WATER
Lab Sample ID:	248042006	Date Received:	02/25/2010 08:45		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-12773	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	959294	Inst:	MSD8.I	Dilution:	1
Run Date:	03/03/2010 19:09	Analyst:	NAG1	Inj. Vol:	.5 uL
Prep Date:	03/01/2010 23:33	Aliquot:	940 mL	Final Volume:	1 mL
Data File:	s8c0319.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.6	ug/L	2.13	10.6	
108-95-2	Phenol	U	10.6	ug/L	1.06	10.6	
95-57-8	2-Chlorophenol	U	10.6	ug/L	2.13	10.6	
106-46-7	1,4-Dichlorobenzene	U	10.6	ug/L	2.13	10.6	
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	10.6	ug/L	2.13	10.6	
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	10.6	ug/L	2.13	10.6	
83-32-9	Acenaphthene	U	1.06	ug/L	0.330	1.06	
121-14-2	2,4-Dinitrotoluene	U	10.6	ug/L	2.13	10.6	
100-02-7	4-Nitrophenol	U	10.6	ug/L	2.13	10.6	UJ,SV7c
87-86-5	Pentachlorophenol	U	10.6	ug/L	2.13	10.6	
129-00-0	Pyrene	U	1.06	ug/L	0.319	1.06	
110-86-1	Pyridine	U	10.6	ug/L	3.19	10.6	UJ,SV7c
62-53-3	Aniline	U	10.6	ug/L	2.66	10.6	
111-44-4	bis(2-Chloroethyl) ether	U	10.6	ug/L	2.13	10.6	
541-73-1	1,3-Dichlorobenzene	U	10.6	ug/L	2.13	10.6	
100-51-6	Benzyl alcohol	U	10.6	ug/L	2.13	10.6	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	10.6	ug/L	2.13	10.6	
108-60-1	bis(2-Chloroisopropyl)ether	U	10.6	ug/L	2.13	10.6	UJ,SV7c
95-48-7	o-Cresol	U	10.6	ug/L	2.13	10.6	
65794-96-9	m,p-Cresols	U	10.6	ug/L	3.19	10.6	
67-72-1	Hexachloroethane	U	10.6	ug/L	2.13	10.6	
98-95-3	Nitrobenzene	U	10.6	ug/L	3.19	10.6	
78-59-1	Isophorone	U	10.6	ug/L	3.19	10.6	
88-75-5	2-Nitrophenol	U	10.6	ug/L	2.13	10.6	
105-67-9	2,4-Dimethylphenol	U	10.6	ug/L	2.13	10.6	
111-91-1	bis(2-Chloroethoxy)methane	U	10.6	ug/L	3.19	10.6	
120-83-2	2,4-Dichlorophenol	U	10.6	ug/L	2.13	10.6	
65-85-0	Benzoic acid	U	21.3	ug/L	6.38	21.3	
91-20-3	Naphthalene	U	1.06	ug/L	0.319	1.06	
106-47-8	4-Chloroaniline	U	10.6	ug/L	2.13	10.6	
87-68-3	Hexachlorobutadiene	U	10.6	ug/L	2.13	10.6	
91-57-6	2-Methylnaphthalene	U	1.06	ug/L	0.319	1.06	
90-12-0	1-Methylnaphthalene	U	1.06	ug/L	0.319	1.06	
77-47-4	Hexachlorocyclopentadiene	U	10.6	ug/L	3.19	10.6	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	10.6	ug/L	2.13	10.6	
95-95-4	2,4,5-Trichlorophenol	U	10.6	ug/L	2.13	10.6	
91-58-7	2-Chloronaphthalene	U	1.06	ug/L	0.319	1.06	

MJ
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042006**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12773**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 19:09**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**940 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0319.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.6	ug/L	2.13	10.6	UJ,SV7c
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.6	ug/L	2.13	10.6	UJ,SV7c
131-11-3	Dimethylphthalate	U	10.6	ug/L	2.13	10.6	
606-20-2	2,6-Dinitrotoluene	U	10.6	ug/L	2.13	10.6	
208-96-8	Acenaphthylene	U	1.06	ug/L	0.213	1.06	
51-28-5	2,4-Dinitrophenol	U	21.3	ug/L	5.32	21.3	
132-64-9	Dibenzofuran	U	10.6	ug/L	2.13	10.6	
84-66-2	Diethylphthalate	U	10.6	ug/L	2.13	10.6	
86-73-7	Fluorene	U	1.06	ug/L	0.213	1.06	
7005-72-3	4-Chlorophenylphenylether	U	10.6	ug/L	2.13	10.6	
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.6	ug/L	3.19	10.6	UJ,SV7c
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.6	ug/L	3.19	10.6	UJ,SV7c
122-39-4	Diphenylamine	U	10.6	ug/L	3.19	10.6	
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	10.6	ug/L	2.13	10.6	
101-55-3	4-Bromophenylphenylether	U	10.6	ug/L	2.13	10.6	
118-74-1	Hexachlorobenzene	U	10.6	ug/L	2.13	10.6	
1912-24-9	Atrazine	U	10.6	ug/L	3.19	10.6	R,SV7b
85-01-8	Phenanthrene	U	1.06	ug/L	0.213	1.06	
120-12-7	Anthracene	U	1.06	ug/L	0.213	1.06	
84-74-2	Di-n-butylphthalate	U	10.6	ug/L	2.13	10.6	
206-44-0	Fluoranthene	U	1.06	ug/L	0.213	1.06	
92-87-5	Benzidine	U	10.6	ug/L	3.19	10.6	UJ,SV7c
85-68-7	Butylbenzylphthalate	U	10.6	ug/L	2.13	10.6	
56-55-3	Benzo(a)anthracene	U	1.06	ug/L	0.213	1.06	
91-94-1	3,3'-Dichlorobenzidine	U	10.6	ug/L	2.13	10.6	
218-01-9	Chrysene	U	1.06	ug/L	0.213	1.06	
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.6	ug/L	2.13	10.6	
117-84-0	Di-n-octylphthalate	U	10.6	ug/L	3.19	10.6	
205-99-2	Benzo(b)fluoranthene	U	1.06	ug/L	0.213	1.06	
207-08-9	Benzo(k)fluoranthene	U	1.06	ug/L	0.213	1.06	
50-32-8	Benzo(a)pyrene	U	1.06	ug/L	0.213	1.06	
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.06	ug/L	0.213	1.06	
53-70-3	Dibenzo(a,h)anthracene	U	1.06	ug/L	0.213	1.06	UJ,SV7c
191-24-2	Benzo(ghi)perylene	U	1.06	ug/L	0.213	1.06	
123-91-1	1,4-Dioxane	U	10.6	ug/L	2.13	10.6	
55-18-5	N-Nitrosodiethylamine	U	10.6	ug/L	2.13	10.6	

MJ
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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042006**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12773**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 19:09**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**940 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0319.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.6	ug/L	2.13	10.6
924-16-3	N-Nitrosodi-n-butylamine	U	10.6	ug/L	3.19	10.6
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.6	ug/L	3.19	10.6
608-93-5	Pentachlorobenzene	U	10.6	ug/L	3.19	10.6
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.6	ug/L	2.13	10.6
88-85-7	Dinoseb	U	10.6	ug/L	2.13	10.6
120-82-1	1,2,4-Trichlorobenzene	U	10.6	ug/L	2.13	10.6

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	71.8	106	ug/L	67.5	(39%-120%)
2-Fluorobiphenyl	31.3	53.2	ug/L	58.9	(38%-108%)
2-Fluorophenol	39.3	106	ug/L	36.9	(19%-98%)
Nitrobenzene-d5	31.2	53.2	ug/L	58.7	(31%-122%)
Phenol-d5	25.4	106	ug/L	23.9	(15%-83%)
p-Terphenyl-d14	45.7	53.2	ug/L	86.0	(40%-138%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

MJ
04/23/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2057	Date Collected:	02/23/2010 12:00	Matrix:	GROUND WATER
Lab Sample ID:	248042009	Date Received:	02/25/2010 08:45		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-13085	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	959852	Inst:	MSD2.I	Dilution:	1
Run Date:	03/04/2010 05:12	Analyst:	AGS1	Inj. Vol:	.5 uL
Prep Date:	03/02/2010 17:51	Aliquot:	800 mL	Final Volume:	1 mL
Data File:	s2c0332.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	12.5	ug/L	2.50	12.5	UJ,SV7c
108-95-2	Phenol	U	12.5	ug/L	1.25	12.5	
95-57-8	2-Chlorophenol	U	12.5	ug/L	2.50	12.5	
106-46-7	1,4-Dichlorobenzene	U	12.5	ug/L	2.50	12.5	
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	12.5	ug/L	2.50	12.5	
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	12.5	ug/L	2.50	12.5	
83-32-9	Acenaphthene	U	1.25	ug/L	0.388	1.25	
121-14-2	2,4-Dinitrotoluene	U	12.5	ug/L	2.50	12.5	
100-02-7	4-Nitrophenol	U	12.5	ug/L	2.50	12.5	
87-86-5	Pentachlorophenol	U	12.5	ug/L	2.50	12.5	
129-00-0	Pyrene	U	1.25	ug/L	0.375	1.25	
110-86-1	Pyridine	U	12.5	ug/L	3.75	12.5	UJ,SV7c
62-53-3	Aniline	U	12.5	ug/L	3.13	12.5	
111-44-4	bis(2-Chloroethyl) ether	U	12.5	ug/L	2.50	12.5	
541-73-1	1,3-Dichlorobenzene	U	12.5	ug/L	2.50	12.5	
100-51-6	Benzyl alcohol	U	12.5	ug/L	2.50	12.5	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	12.5	ug/L	2.50	12.5	
108-60-1	bis(2-Chloroisopropyl)ether	U	12.5	ug/L	2.50	12.5	
95-48-7	o-Cresol	U	12.5	ug/L	2.50	12.5	
65794-96-9	m,p-Cresols	U	12.5	ug/L	3.75	12.5	
67-72-1	Hexachloroethane	U	12.5	ug/L	2.50	12.5	
98-95-3	Nitrobenzene	U	12.5	ug/L	3.75	12.5	
78-59-1	Isophorone	U	12.5	ug/L	3.75	12.5	
88-75-5	2-Nitrophenol	U	12.5	ug/L	2.50	12.5	
105-67-9	2,4-Dimethylphenol	U	12.5	ug/L	2.50	12.5	
111-91-1	bis(2-Chloroethoxy)methane	U	12.5	ug/L	3.75	12.5	
120-83-2	2,4-Dichlorophenol	U	12.5	ug/L	2.50	12.5	
65-85-0	Benzoic acid	U	25.0	ug/L	7.50	25.0	UJ,SV7c
91-20-3	Naphthalene	U	1.25	ug/L	0.375	1.25	
106-47-8	4-Chloroaniline	U	12.5	ug/L	2.50	12.5	
87-68-3	Hexachlorobutadiene	U	12.5	ug/L	2.50	12.5	
91-57-6	2-Methylnaphthalene	U	1.25	ug/L	0.375	1.25	
90-12-0	1-Methylnaphthalene	U	1.25	ug/L	0.375	1.25	
77-47-4	Hexachlorocyclopentadiene	U	12.5	ug/L	3.75	12.5	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	12.5	ug/L	2.50	12.5	
95-95-4	2,4,5-Trichlorophenol	U	12.5	ug/L	2.50	12.5	
91-58-7	2-Chloronaphthalene	U	1.25	ug/L	0.375	1.25	

MJ
04/23/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042009**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13085**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 05:12**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**800 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0332.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	12.5	ug/L	2.50	12.5	
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	12.5	ug/L	2.50	12.5	UJ,SV7c
131-11-3	Dimethylphthalate	U	12.5	ug/L	2.50	12.5	
606-20-2	2,6-Dinitrotoluene	U	12.5	ug/L	2.50	12.5	
208-96-8	Acenaphthylene	U	1.25	ug/L	0.250	1.25	
51-28-5	2,4-Dinitrophenol	U	25.0	ug/L	6.25	25.0	
132-64-9	Dibenzofuran	U	12.5	ug/L	2.50	12.5	
84-66-2	Diethylphthalate	U	12.5	ug/L	2.50	12.5	
86-73-7	Fluorene	U	1.25	ug/L	0.250	1.25	
7005-72-3	4-Chlorophenylphenylether	U	12.5	ug/L	2.50	12.5	
534-52-1	2-Methyl-4,6-dinitrophenol	U	12.5	ug/L	3.75	12.5	UJ,SV7c
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	12.5	ug/L	3.75	12.5	UJ,SV7c
122-39-4	Diphenylamine	U	12.5	ug/L	3.75	12.5	
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	12.5	ug/L	2.50	12.5	
101-55-3	4-Bromophenylphenylether	U	12.5	ug/L	2.50	12.5	
118-74-1	Hexachlorobenzene	U	12.5	ug/L	2.50	12.5	
1912-24-9	Atrazine	U	12.5	ug/L	3.75	12.5	
85-01-8	Phenanthrene	U	1.25	ug/L	0.250	1.25	
120-12-7	Anthracene	U	1.25	ug/L	0.250	1.25	
84-74-2	Di-n-butylphthalate	U	12.5	ug/L	2.50	12.5	
206-44-0	Fluoranthene	U	1.25	ug/L	0.250	1.25	
92-87-5	Benzidine	U	12.5	ug/L	3.75	12.5	
85-68-7	Butylbenzylphthalate	U	12.5	ug/L	2.50	12.5	UJ,SV7c
56-55-3	Benzo(a)anthracene	U	1.25	ug/L	0.250	1.25	
91-94-1	3,3'-Dichlorobenzidine	U	12.5	ug/L	2.50	12.5	
218-01-9	Chrysene	U	1.25	ug/L	0.250	1.25	
117-81-7	bis(2-Ethylhexyl)phthalate	U	12.5	ug/L	2.50	12.5	
117-84-0	Di-n-octylphthalate	U	12.5	ug/L	3.75	12.5	
205-99-2	Benzo(b)fluoranthene	U	1.25	ug/L	0.250	1.25	
207-08-9	Benzo(k)fluoranthene	U	1.25	ug/L	0.250	1.25	
50-32-8	Benzo(a)pyrene	U	1.25	ug/L	0.250	1.25	
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.25	ug/L	0.250	1.25	
53-70-3	Dibenzo(a,h)anthracene	U	1.25	ug/L	0.250	1.25	
191-24-2	Benzo(ghi)perylene	U	1.25	ug/L	0.250	1.25	
123-91-1	1,4-Dioxane	U	12.5	ug/L	2.50	12.5	
55-18-5	N-Nitrosodiethylamine	U	12.5	ug/L	2.50	12.5	

MJ
04/23/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042009**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13085**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 05:12**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**800 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0332.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	12.5	ug/L	2.50	12.5
924-16-3	N-Nitrosodi-n-butylamine	U	12.5	ug/L	3.75	12.5
95-94-3	1,2,4,5-Tetrachlorobenzene	U	12.5	ug/L	3.75	12.5
608-93-5	Pentachlorobenzene	U	12.5	ug/L	3.75	12.5
58-90-2	2,3,4,6-Tetrachlorophenol	U	12.5	ug/L	2.50	12.5
88-85-7	Dinoseb	U	12.5	ug/L	2.50	12.5
120-82-1	1,2,4-Trichlorobenzene	U	12.5	ug/L	2.50	12.5

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	90.8	125	ug/L	72.6	(39%-120%)
2-Fluorobiphenyl	43.0	62.5	ug/L	68.8	(38%-108%)
2-Fluorophenol	56.9	125	ug/L	45.5	(19%-98%)
Nitrobenzene-d5	45.3	62.5	ug/L	72.5	(31%-122%)
Phenol-d5	37.5	125	ug/L	30.0	(15%-83%)
p-Terphenyl-d14	66.9	62.5	ug/L	107	(40%-138%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

MJ
04/23/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2057	Date Collected:	02/23/2010 12:00	Matrix:	GROUND WATER
Lab Sample ID:	248042013	Date Received:	02/25/2010 08:45		
		Client:	LANL010	Project:	ESHL01000
Client ID:	CAPA-10-13320	Method:	SW846 8270C	SOP Ref:	GL-OA-E-009
Batch ID:	959852	Inst:	MSD2.I	Dilution:	1
Run Date:	03/04/2010 05:32	Analyst:	AGS1	Inj. Vol:	.5 uL
Prep Date:	03/02/2010 17:51	Aliquot:	940 mL	Final Volume:	1 mL
Data File:	s2c0333.d	Column:	J&W DB-5MS	Level:	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.6	ug/L	2.13	10.6	UJ,SV7c
108-95-2	Phenol	U	10.6	ug/L	1.06	10.6	
95-57-8	2-Chlorophenol	U	10.6	ug/L	2.13	10.6	
106-46-7	1,4-Dichlorobenzene	U	10.6	ug/L	2.13	10.6	
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	10.6	ug/L	2.13	10.6	
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	10.6	ug/L	2.13	10.6	
83-32-9	Acenaphthene	U	1.06	ug/L	0.330	1.06	
121-14-2	2,4-Dinitrotoluene	U	10.6	ug/L	2.13	10.6	
100-02-7	4-Nitrophenol	U	10.6	ug/L	2.13	10.6	
87-86-5	Pentachlorophenol	U	10.6	ug/L	2.13	10.6	
129-00-0	Pyrene	U	1.06	ug/L	0.319	1.06	
110-86-1	Pyridine	U	10.6	ug/L	3.19	10.6	UJ,SV7c
62-53-3	Aniline	U	10.6	ug/L	2.66	10.6	
111-44-4	bis(2-Chloroethyl) ether	U	10.6	ug/L	2.13	10.6	
541-73-1	1,3-Dichlorobenzene	U	10.6	ug/L	2.13	10.6	
100-51-6	Benzyl alcohol	U	10.6	ug/L	2.13	10.6	UJ,SV7c
95-50-1	1,2-Dichlorobenzene	U	10.6	ug/L	2.13	10.6	
108-60-1	bis(2-Chloroisopropyl)ether	U	10.6	ug/L	2.13	10.6	
95-48-7	o-Cresol	U	10.6	ug/L	2.13	10.6	
65794-96-9	m,p-Cresols	U	10.6	ug/L	3.19	10.6	
67-72-1	Hexachloroethane	U	10.6	ug/L	2.13	10.6	
98-95-3	Nitrobenzene	U	10.6	ug/L	3.19	10.6	
78-59-1	Isophorone	U	10.6	ug/L	3.19	10.6	
88-75-5	2-Nitrophenol	U	10.6	ug/L	2.13	10.6	
105-67-9	2,4-Dimethylphenol	U	10.6	ug/L	2.13	10.6	
111-91-1	bis(2-Chloroethoxy)methane	U	10.6	ug/L	3.19	10.6	
120-83-2	2,4-Dichlorophenol	U	10.6	ug/L	2.13	10.6	
65-85-0	Benzoic acid	U	21.3	ug/L	6.38	21.3	UJ,SV7c
91-20-3	Naphthalene	U	1.06	ug/L	0.319	1.06	
106-47-8	4-Chloroaniline	U	10.6	ug/L	2.13	10.6	
87-68-3	Hexachlorobutadiene	U	10.6	ug/L	2.13	10.6	
91-57-6	2-Methylnaphthalene	U	1.06	ug/L	0.319	1.06	
90-12-0	1-Methylnaphthalene	U	1.06	ug/L	0.319	1.06	
77-47-4	Hexachlorocyclopentadiene	U	10.6	ug/L	3.19	10.6	UJ,SV7c
88-06-2	2,4,6-Trichlorophenol	U	10.6	ug/L	2.13	10.6	
95-95-4	2,4,5-Trichlorophenol	U	10.6	ug/L	2.13	10.6	
91-58-7	2-Chloronaphthalene	U	1.06	ug/L	0.319	1.06	

MJ
04/23/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2057	**Date Collected:**	02/23/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	248042013	**Date Received:**	02/25/2010 08:45		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-13320	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	959852	**Inst:**	MSD2.I	**Dilution:**	1
Run Date:	03/04/2010 05:32	**Analyst:**	AGS1	**Inj. Vol:**	.5 uL
Prep Date:	03/02/2010 17:51	**Aliquot:**	940 mL	**Final Volume:**	1 mL
Data File:	s2c0333.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.6	ug/L	2.13	10.6	
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.6	ug/L	2.13	10.6	UJ,SV7c
131-11-3	Dimethylphthalate	U	10.6	ug/L	2.13	10.6	
606-20-2	2,6-Dinitrotoluene	U	10.6	ug/L	2.13	10.6	
208-96-8	Acenaphthylene	U	1.06	ug/L	0.213	1.06	
51-28-5	2,4-Dinitrophenol	U	21.3	ug/L	5.32	21.3	
132-64-9	Dibenzofuran	U	10.6	ug/L	2.13	10.6	
84-66-2	Diethylphthalate	U	10.6	ug/L	2.13	10.6	
86-73-7	Fluorene	U	1.06	ug/L	0.213	1.06	
7005-72-3	4-Chlorophenylphenylether	U	10.6	ug/L	2.13	10.6	
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.6	ug/L	3.19	10.6	UJ,SV7c
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.6	ug/L	3.19	10.6	UJ,SV7c
122-39-4	Diphenylamine	U	10.6	ug/L	3.19	10.6	
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	10.6	ug/L	2.13	10.6	
101-55-3	4-Bromophenylphenylether	U	10.6	ug/L	2.13	10.6	
118-74-1	Hexachlorobenzene	U	10.6	ug/L	2.13	10.6	
1912-24-9	Atrazine	U	10.6	ug/L	3.19	10.6	
85-01-8	Phenanthrene	U	1.06	ug/L	0.213	1.06	
120-12-7	Anthracene	U	1.06	ug/L	0.213	1.06	
84-74-2	Di-n-butylphthalate	U	10.6	ug/L	2.13	10.6	
206-44-0	Fluoranthene	U	1.06	ug/L	0.213	1.06	
92-87-5	Benzidine	U	10.6	ug/L	3.19	10.6	
85-68-7	Butylbenzylphthalate	U	10.6	ug/L	2.13	10.6	UJ,SV7c
56-55-3	Benzo(a)anthracene	U	1.06	ug/L	0.213	1.06	
91-94-1	3,3'-Dichlorobenzidine	U	10.6	ug/L	2.13	10.6	
218-01-9	Chrysene	U	1.06	ug/L	0.213	1.06	
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.6	ug/L	2.13	10.6	
117-84-0	Di-n-octylphthalate	U	10.6	ug/L	3.19	10.6	
205-99-2	Benzo(b)fluoranthene	U	1.06	ug/L	0.213	1.06	
207-08-9	Benzo(k)fluoranthene	U	1.06	ug/L	0.213	1.06	
50-32-8	Benzo(a)pyrene	U	1.06	ug/L	0.213	1.06	
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.06	ug/L	0.213	1.06	
53-70-3	Dibenzo(a,h)anthracene	U	1.06	ug/L	0.213	1.06	
191-24-2	Benzo(ghi)perylene	U	1.06	ug/L	0.213	1.06	
123-91-1	1,4-Dioxane	U	10.6	ug/L	2.13	10.6	
55-18-5	N-Nitrosodiethylamine	U	10.6	ug/L	2.13	10.6	

MJ
04/23/10

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042013**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13320**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 05:32**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**940 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0333.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.6	ug/L	2.13	10.6
924-16-3	N-Nitrosodi-n-butylamine	U	10.6	ug/L	3.19	10.6
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.6	ug/L	3.19	10.6
608-93-5	Pentachlorobenzene	U	10.6	ug/L	3.19	10.6
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.6	ug/L	2.13	10.6
88-85-7	Dinoseb	U	10.6	ug/L	2.13	10.6
120-82-1	1,2,4-Trichlorobenzene	U	10.6	ug/L	2.13	10.6

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	45.0	106	ug/L	42.3	(39%-120%)
2-Fluorobiphenyl	23.3	53.2	ug/L	43.8	(38%-108%)
2-Fluorophenol	29.9	106	ug/L	28.1	(19%-98%)
Nitrobenzene-d5	24.5	53.2	ug/L	46.1	(31%-122%)
Phenol-d5	18.7	106	ug/L	17.6	(15%-83%)
p-Terphenyl-d14	33.3	53.2	ug/L	62.5	(40%-138%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

MJ
04/23/10

DATA VALIDATION COVER SHEET

5122-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2057 VALIDATION DATE: 04/26/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Maryann Jordan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☒ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The primary analyte analysis for all samples was performed >1X but ≤2X beyond the applicable holding time. All sample results were NDs and, thus, were qualified UJ,HE9.
2. The ICAL RRF was <0.05 but ≥0.01 for p-nitrotoluene. The associated sample results were NDs and, thus, were qualified UJ,HE7b.
3. The ICV and/or CCV %D was >20% with a positive bias for RDX. The RDX sample results were NDs and, thus, were not qualified. The ICV and/or CCV %Ds were > 20% but ≤40% with a negative bias for m-nitrotoluene and 1,3,5-trinitrobenzene. The associated sample results were NDs and, thus, were qualified UJ,HE7c.
4. The MS/MSD RPD was > the laboratory acceptance limit for tetryl. All sample results for tetryl were NDs and, thus, were qualified UJ,HE12g.

Reviewed by: Allison Felix Level: 1 Date: 4/28/10

VALIDATOR'S SIGNATURE: Maryann Jordan DATE: 04/26/10

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST

5122-2

LC/MS/MS High Explosive Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The IS retention time has shifted by more than 30 seconds.	R, UJ, HE0	J, HE0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE0b	R, HE0b
☐	☐	☒	3. The quantitating IS area count is <25% of the expected value, which indicates increased potential for false negative results and other possible problems with sample quantitation. Follow the method-specific windows.	R, HE1a	J, HE1a
☐	☐	☒	4. The IS area count for the quantitating IS is <70% but >25% of the average of that obtained from the calibration standards.	UJ, HE1b	J+, HE1b
☐	☐	☒	5. The IS area count for the quantitating IS is >130% of the average of that obtained from the calibration standards.	UJ, HE1c	J-, HE1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE1d	R, HE1d
☐	☒	☐	7. The surrogate is <10%R. Follow the external laboratory limits.	R, HE3	J-, HE3
☐	☒	☐	8. The surrogate is < the Lower Acceptance Limit but ≥10% recovery. Follow the external laboratory limits.	UJ, HE3a	J-, HE3a
☐	☒	☐	9. The surrogate %R value is > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE3b
☐	☐	☒	10. At least one surrogate is > the Upper Acceptance Limit and one surrogate is < the Lower Acceptance Limit. Follow the external laboratory limits.	UJ, HE3c	J, HE3c

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	11. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE3d	R, HE3d
☐	☒	☐	12. The sample result is ≤5 times the concentration of the related analyte in the method blank.	U, HE4	N/A
☐	☒	☐	13. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5x.	N/A	J, HE4a
☐	☒	☐	14. The sample result is ≤5 times the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, HE4d	N/A
☐	☒	☐	15. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE4e	R, HE4e
☐	☒	☐	16. The absence of sample carry-over must be determined and verified.	N/A	R, N, HE4f
☐	☒	☐	17. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, HE7	J, HE7
☐	☒	☐	18. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is less < 0.99.	UJ, R, HE7a	J, HE7a
☒	☐	☐	19. The affected analytes were analyzed with a RRF of <0.05 in the initial calibration and/or CCV.	UJ, R, HE7b	J, HE7b
☒	☐	☐	20. The ICV and/or CCV were recovered outside the method limits.	UJ, R, HE7c	J, HE7c
☐	☒	☐	21. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, HE7d	J, HE7d
☐	☒	☐	22. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, HE7f	R, HE7f

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	23. The mass spectral documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE8a	R, HE8a
☒	☐	☐	24. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, HE9	J-, HE9
☐	☒	☐	25. The holding time was >2 times the applicable holding time requirement.	R, HE9a	J-, HE9a
☐	☒	☐	26. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, HE12	J-, HE12
☐	☒	☐	27. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, HE12a	J-, HE12a
☐	☒	☐	28. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, HE12b
☐	☒	☐	29. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, HE12c	R, HE12c
☐	☒	☐	30. The MS/MSD percent recovery was <10%.	R, HE12d	R, HE12d
☐	☒	☐	31. The MS/MSD percent recovery was >10% but <70%.	UJ, HE12e	J, HE12e
☐	☒	☐	32. The MS/MSD percent recover was >70%.	N/A	J+, HE12f
☒	☐	☐	33. The MS/MSD relative percent difference was >30%.	UJ, HE12g	J, HE12g
☐	☐	☒	34. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. (Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.)	UJ, R, HE15	R, HE15
☐	☐	☒	35. The sample was diluted because target analytes were > the initial verification calibration.	UJ, HE15a	J, HE15a

LC/MS/MS HIGH EXPLOSIVE ANALYTICAL DATA VALIDATION CHECKLIST	
5122-2 **LC/MS/MS High Explosive Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	36. The Contract Required Detection Limit Check Standard (CRI) sample did not pass method acceptance criteria.	UJ, R, HE16	J, HE16
☐	☐	☒	37. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, HE16c	R, HE16c
☐	☒	☐	38. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, HE19	J, R, HE19
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, HE88	J, HE88

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12771

Lab Code: GEL

GEL Job No (SDG) 10-2057

Matrix: GROUND WATER

GEL Sample ID: 248042002

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412068a

Date Analyzed: 14-APR-10 00:37

Units: ug/L

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	UJ,HE9	0.325	HU
121-14-2	2,4-Dinitrotoluene		0.325	HU
121-82-4	RDX		0.325	HU
19406-51-0	4-Amino-2,6-dinitrotoluene		0.325	HU
2691-41-0	HMX		0.325	HU
35572-78-2	2-Amino-4,6-dinitrotoluene		0.325	HU
479-45-8	Tetryl		0.649	HU
606-20-2	2,6-Dinitrotoluene		0.325	HU
78-11-5	PETN		1.3	HU
88-72-2	o-Nitrotoluene		0.325	HU
98-95-3	Nitrobenzene		0.325	HU
99-08-1	m-Nitrotoluene		0.325	HU
99-35-4	1,3,5-Trinitrobenzene		0.325	HU
99-65-0	m-Dinitrobenzene		0.325	HU
99-99-0	p-Nitrotoluene		0.649	HU

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MJ
04/26/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12771

Lab Code: GEL

GEL Job No (SDG) 10-2057

Matrix: GROUND WATER

GEL Sample ID: 248042002

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050079.wiff

Date Analyzed: 06-APR-10 09:11

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MJ
04/26/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13083

Lab Code: GEL

GEL Job No (SDG) 10-2057

Matrix: GROUND WATER

GEL Sample ID: 248042008

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412069a

Date Analyzed: 14-APR-10 01:06

Units: ug/L

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	UJ,HE9	0.325	HU
121-14-2	2,4-Dinitrotoluene		0.325	HU
121-82-4	RDX		0.325	HU
19406-51-0	4-Amino-2,6-dinitrotoluene		0.325	HU
2691-41-0	HMX		0.325	HU
35572-78-2	2-Amino-4,6-dinitrotoluene		0.325	HU
479-45-8	Tetryl		0.649	HU
606-20-2	2,6-Dinitrotoluene		0.325	HU
78-11-5	PETN		1.3	HU
88-72-2	o-Nitrotoluene		0.325	HU
98-95-3	Nitrobenzene		0.325	HU
99-08-1	m-Nitrotoluene		0.325	HU
99-35-4	1,3,5-Trinitrobenzene		0.325	HU
99-65-0	m-Dinitrobenzene		0.325	HU
99-99-0	p-Nitrotoluene		0.649	HU

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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04/26/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13083

Lab Code: GEL

GEL Job No (SDG) 10-2057

Matrix: GROUND WATER

GEL Sample ID: 248042008

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050080.wiff

Date Analyzed: 06-APR-10 09:26

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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04/26/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13085

Lab Code: GEL

GEL Job No (SDG) 10-2057

Matrix: GROUND WATER

GEL Sample ID: 248042010

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408117a

Date Analyzed: 11-APR-10 06:37

Units: ug/L

Cas No.	Compound		Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	UJ,HE9	0.325	HU
121-14-2	2,4-Dinitrotoluene		0.325	HU
121-82-4	RDX		0.325	HU
19406-51-0	4-Amino-2,6-dinitrotoluene		0.325	HU
2691-41-0	HMX		0.325	HU
35572-78-2	2-Amino-4,6-dinitrotoluene		0.325	HU
479-45-8	Tetryl		0.649	HU
606-20-2	2,6-Dinitrotoluene		0.325	HU
78-11-5	PETN		1.3	HU
88-72-2	o-Nitrotoluene		0.325	HU
98-95-3	Nitrobenzene		0.325	HU
99-08-1	m-Nitrotoluene		0.325	HU
99-35-4	1,3,5-Trinitrobenzene		0.325	HU
99-65-0	m-Dinitrobenzene		0.325	HU
99-99-0	p-Nitrotoluene		0.649	HU

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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04/26/10

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13085

Lab Code: GEL

GEL Job No (SDG) 10-2057

Matrix: GROUND WATER

GEL Sample ID: 248042010

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050081.wiff

Date Analyzed: 06-APR-10 09:42

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

MJ
04/26/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2057 VALIDATION DATE: 04/26/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Maryann Jordan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): Pesticides

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. The ICV/CCV %Ds were >15% for endrin and 4,4-DDT on one column. The associated sample results were NDs and, thus, were not qualified.
2. The %R for surrogate 4-cmx was > the laboratory UAL on both columns in sample CAPA-10-12771, and on one column in samples -13085 and -13320. All associated sample results were NDs and, thus, were not qualified.
3. The LCS %R was > the laboratory UAL for toxaphene. The results for toxaphene in the samples were NDs and, thus, were not qualified.
4. The MS/MSD %Rs were > the laboratory UAL for beta-BHC. It should be noted that the MS/MSD analyses were performed on a sample from another LANL RN and that the parent sample raw data was not included in the data package. It should also be noted that toxaphene was not included in the MS/MSD. Since analysis of a MS/MSD pair is not a client requirement, no sample data were qualified.

Reviewed by: Allison Felix Level: 1 Date: 4/28/10

VALIDATOR'S SIGNATURE: Maryann Jordan DATE: 04/26/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☒	☐	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☒	☐	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☒	☐	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST	
5116-2 **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042003**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12771**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**958413**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 13:44**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/01/2010 18:08**	**Aliquot:**	**870 mL**	**Final Volume:**	**5 mL**
Data File:	**016f1601.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	016b1601.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.023	ug/L	0.00575	0.023	1
58-89-9	gamma-BHC (Lindane)	U	0.023	ug/L	0.00575	0.023	1
319-85-7	beta-BHC	U	0.023	ug/L	0.0069	0.023	1
319-86-8	delta-BHC	U	0.023	ug/L	0.00575	0.023	1
76-44-8	Heptachlor	U	0.023	ug/L	0.00575	0.023	1
309-00-2	Aldrin	U	0.023	ug/L	0.00575	0.023	1
1024-57-3	Heptachlor epoxide	U	0.023	ug/L	0.00575	0.023	1
5103-74-2	gamma-Chlordane	U	0.023	ug/L	0.00575	0.023	1
5103-71-9	alpha-Chlordane	U	0.023	ug/L	0.00575	0.023	1
959-98-8	Endosulfan I	U	0.023	ug/L	0.00575	0.023	1
72-55-9	4,4'-DDE	U	0.046	ug/L	0.00575	0.046	1
60-57-1	Dieldrin	U	0.046	ug/L	0.0115	0.046	1
72-20-8	Endrin	U	0.046	ug/L	0.0115	0.046	1
72-54-8	4,4'-DDD	U	0.046	ug/L	0.0115	0.046	1
33213-65-9	Endosulfan II	U	0.046	ug/L	0.0115	0.046	1
7421-93-4	Endrin aldehyde	U	0.046	ug/L	0.00575	0.046	1
50-29-3	4,4'-DDT	U	0.046	ug/L	0.0115	0.046	1
1031-07-8	Endosulfan sulfate	U	0.046	ug/L	0.0115	0.046	1
72-43-5	Methoxychlor	U	0.230	ug/L	0.0575	0.230	1
53494-70-5	Endrin ketone	U	0.046	ug/L	0.0115	0.046	1
8001-35-2	Toxaphene	U	0.575	ug/L	0.172	0.575	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%		Acceptable Limits
4cmx	1.22	1.15	ug/L	106	*	(30%-105%)
Decachlorobiphenyl	0.886	1.15	ug/L	77.1		(30%-126%)

MJ
04/26/10

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	10-2057	**Date Collected:**	02/23/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	248042011	**Date Received:**	02/25/2010 08:45		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-13085	**Method:**	SW846 8081A	**SOP Ref:**	GL-OA-E-041
Batch ID:	958413	**Inst:**	ECD7A.I	**Dilution:**	1
Run Date:	03/03/2010 14:01	**Analyst:**	JXM	**Inj. Vol:**	1 uL
Prep Date:	03/01/2010 18:08	**Aliquot:**	780 mL	**Final Volume:**	5 mL
Data File:	017f1701.d	**Column:**	1 CLP-1	**Level:**	LOW
	017b1701.d		2 CLP-2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.0256	ug/L	0.00641	0.0256	1
58-89-9	gamma-BHC (Lindane)	U	0.0256	ug/L	0.00641	0.0256	1
319-85-7	beta-BHC	U	0.0256	ug/L	0.00769	0.0256	1
319-86-8	delta-BHC	U	0.0256	ug/L	0.00641	0.0256	1
76-44-8	Heptachlor	U	0.0256	ug/L	0.00641	0.0256	1
309-00-2	Aldrin	U	0.0256	ug/L	0.00641	0.0256	1
1024-57-3	Heptachlor epoxide	U	0.0256	ug/L	0.00641	0.0256	1
5103-74-2	gamma-Chlordane	U	0.0256	ug/L	0.00641	0.0256	1
5103-71-9	alpha-Chlordane	U	0.0256	ug/L	0.00641	0.0256	1
959-98-8	Endosulfan I	U	0.0256	ug/L	0.00641	0.0256	1
72-55-9	4,4'-DDE	U	0.0513	ug/L	0.00641	0.0513	1
60-57-1	Dieldrin	U	0.0513	ug/L	0.0128	0.0513	1
72-20-8	Endrin	U	0.0513	ug/L	0.0128	0.0513	1
72-54-8	4,4'-DDD	U	0.0513	ug/L	0.0128	0.0513	1
33213-65-9	Endosulfan II	U	0.0513	ug/L	0.0128	0.0513	1
7421-93-4	Endrin aldehyde	U	0.0513	ug/L	0.00641	0.0513	1
50-29-3	4,4'-DDT	U	0.0513	ug/L	0.0128	0.0513	1
1031-07-8	Endosulfan sulfate	U	0.0513	ug/L	0.0128	0.0513	1
72-43-5	Methoxychlor	U	0.256	ug/L	0.0641	0.256	1
53494-70-5	Endrin ketone	U	0.0513	ug/L	0.0128	0.0513	1
8001-35-2	Toxaphene	U	0.641	ug/L	0.192	0.641	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	1.31	1.28	ug/L	102	(30%-105%)
Decachlorobiphenyl	1.05	1.28	ug/L	81.6	(30%-126%)

MJ
04/26/10

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042014**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA–10–13320**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**958413**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 14:18**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/01/2010 18:08**	**Aliquot:**	**980 mL**	**Final Volume:**	**5 mL**
Data File:	**018f1801.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	018b1801.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.0204	ug/L	0.0051	0.0204	1
58–89–9	gamma–BHC (Lindane)	U	0.0204	ug/L	0.0051	0.0204	1
319–85–7	beta–BHC	U	0.0204	ug/L	0.00612	0.0204	1
319–86–8	delta–BHC	U	0.0204	ug/L	0.0051	0.0204	1
76–44–8	Heptachlor	U	0.0204	ug/L	0.0051	0.0204	1
309–00–2	Aldrin	U	0.0204	ug/L	0.0051	0.0204	1
1024–57–3	Heptachlor epoxide	U	0.0204	ug/L	0.0051	0.0204	1
5103–74–2	gamma–Chlordane	U	0.0204	ug/L	0.0051	0.0204	1
5103–71–9	alpha–Chlordane	U	0.0204	ug/L	0.0051	0.0204	1
959–98–8	Endosulfan I	U	0.0204	ug/L	0.0051	0.0204	1
72–55–9	4,4'–DDE	U	0.0408	ug/L	0.0051	0.0408	1
60–57–1	Dieldrin	U	0.0408	ug/L	0.0102	0.0408	1
72–20–8	Endrin	U	0.0408	ug/L	0.0102	0.0408	1
72–54–8	4,4'–DDD	U	0.0408	ug/L	0.0102	0.0408	1
33213–65–9	Endosulfan II	U	0.0408	ug/L	0.0102	0.0408	1
7421–93–4	Endrin aldehyde	U	0.0408	ug/L	0.0051	0.0408	1
50–29–3	4,4'–DDT	U	0.0408	ug/L	0.0102	0.0408	1
1031–07–8	Endosulfan sulfate	U	0.0408	ug/L	0.0102	0.0408	1
72–43–5	Methoxychlor	U	0.204	ug/L	0.051	0.204	1
53494–70–5	Endrin ketone	U	0.0408	ug/L	0.0102	0.0408	1
8001–35–2	Toxaphene	U	0.510	ug/L	0.153	0.510	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.406	1.02	ug/L	39.8	(30%–105%)
Decachlorobiphenyl	1.03	1.02	ug/L	101	(30%–126%)

MJ
04/26/10

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2057 VALIDATION DATE: 04/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Maryann Jordan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☒ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE): PCBs

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD analysis was performed on a sample from another RN and that the parent sample raw data was not included in the data package. Since analysis of a MS/MSD pair is not a client requirement, no sample data were qualified.

Reviewed by: Allison Felix Level: 1 Date: 4/28/10

VALIDATOR'S SIGNATURE: Maryann Jordan DATE: 04/27/10

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, P9	J-, P9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, P9	J-, P9a
☐	☒	☐	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, P9b	R, P9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, P7	J, P7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, P7a	J, P7a
☐	☒	☐	6. The Initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, P7c	J, P7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, P7d	J, P7d
☐	☐	☒	8. The multicomponent standard was not analyzed within 72 hours of the initial analysis.	R, P7e	J, P7e
☐	☒	☐	9. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, P7f	R, P7f
☐	☐	☒	10. The breakdown criteria have been exceeded. This can cause low bias in reported results. If compound is detected, qualify J-. If compound is not present, but breakdown products are present, qualify R. If no compounds or breakdown products are present, qualify UJ (4,4' DDT and Endrin).	UJ, R, P13	J-, P13

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	11. The breakdown criteria have been exceeded. This can cause high bias in the reported results and potential false positive results for the breakdown products Endrin ketone, Endrin aldehyde, DDD, and DDE.	UJ, P13a	J+, P13a
☐	☐	☒	12. The breakdown documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P13b	R, P13b
☐	☒	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, P4	N/A
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was greater than 5X.	N/A	J, P4a
☐	☐	☒	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	UJ, P4b	N/A
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	UJ, P4d	N/A
☐	☒	☐	17. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P4e	R, P4e
☐	☒	☐	18. The analyte RT shifted by more than 0.05 minutes from the mid-level standard of the initial calibration.	R, P0	J, P0
☐	☒	☐	19. Required retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P0b	R, P0b
☐	☒	☐	20. The surrogate is <10%R. Follow the external laboratory limits located within the associated data package.	R, P3	J-, P3

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST

5116-2

Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The surrogate is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package.	UJ, P3a	J-, P3a
☐	☒	☐	22. The surrogate %R value is > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P3b
☐	☒	☐	23. At least one surrogate is > the Upper Acceptance Limit (UAL) and one surrogate is < the LAL. Follow the external laboratory limits located within the associated data package.	UJ, P3c	J, P3c
☐	☒	☐	24. Required surrogate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P3d	R, P3d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, P12	J-, P12
☐	☒	☐	26. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, P12a	J-, P12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, P12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P12c	R, P12c
☐	☐	☒	29. The analyte was not confirmed on a second dissimilar column.	N/A	R, P8
☐	☐	☒	30. The second dissimilar column documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, P8a	R, P8a
☐	☒	☐	31. Duplicate, Dilution, or reanalysis.	UJ, P88	J, P88

ORGANOCHLORINE PESTICIDE (PEST) AND POLYCHLORINATED BIPHENYL (PCB) ANALYTICAL DATA VALIDATION CHECKLIST	
5116-2 **Organochlorine Pesticide (PEST) and Polychlorinated Biphenyl (PCB) Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	32. The affected analytes have elevated detection limits and may not meet project DQOs because the sample was diluted without any target analytees identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, P15	R, P15
☒	☐	☐	33. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	34. The LANL project chemist identified quality deficiencies in the reported data that requires further qualification. This code can only be used and/or under advisement by the LANL project chemist.	UJ, R, P19	J, R, P19

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10–2057	**Date Collected:**	02/22/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	248042004	**Date Received:**	02/25/2010 08:45		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA–10–12771	**Method:**	SW846 8082	**SOP Ref:**	GL–OA–E–040
Batch ID:	961887	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/09/2010 11:58	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/08/2010 14:29	**Aliquot:**	860 mL	**Final Volume:**	1 mL
Data File:	034f3401.d	**Column:**	1 CLP1	**Level:**	LOW
	034b3401.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	0.116	ug/L	0.0387	0.116	1
11104–28–2	Aroclor–1221	U	0.116	ug/L	0.0387	0.116	1
11141–16–5	Aroclor–1232	U	0.116	ug/L	0.0387	0.116	1
53469–21–9	Aroclor–1242	U	0.116	ug/L	0.0387	0.116	1
12672–29–6	Aroclor–1248	U	0.116	ug/L	0.0387	0.116	1
11097–69–1	Aroclor–1254	U	0.116	ug/L	0.0387	0.116	1
11096–82–5	Aroclor–1260	U	0.116	ug/L	0.0387	0.116	1
37324–23–5	Aroclor–1262	U	0.116	ug/L	0.0387	0.116	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.131	0.233	ug/L	56.2	(30%–105%)
Decachlorobiphenyl	0.120	0.233	ug/L	51.6	(30%–126%)

MJ
04/27/10

PCB
Certificate of Analysis
Sample Summary

SDG Number:	10-2057	**Date Collected:**	02/23/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	248042012	**Date Received:**	02/25/2010 08:45		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-13085	**Method:**	SW846 8082	**SOP Ref:**	GL-OA-E-040
Batch ID:	961887	**Inst:**	ECD1A.I	**Dilution:**	1
Run Date:	03/09/2010 12:11	**Analyst:**	YS1	**Inj. Vol:**	1 uL
Prep Date:	03/08/2010 14:29	**Aliquot:**	870 mL	**Final Volume:**	1 mL
Data File:	035f3501.d	**Column:**	1 CLP1	**Level:**	LOW
	035b3501.d		2 CLP2		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.115	ug/L	0.0383	0.115	1
11104-28-2	Aroclor-1221	U	0.115	ug/L	0.0383	0.115	1
11141-16-5	Aroclor-1232	U	0.115	ug/L	0.0383	0.115	1
53469-21-9	Aroclor-1242	U	0.115	ug/L	0.0383	0.115	1
12672-29-6	Aroclor-1248	U	0.115	ug/L	0.0383	0.115	1
11097-69-1	Aroclor-1254	U	0.115	ug/L	0.0383	0.115	1
11096-82-5	Aroclor-1260	U	0.115	ug/L	0.0383	0.115	1
37324-23-5	Aroclor-1262	U	0.115	ug/L	0.0383	0.115	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
Decachlorobiphenyl	0.0752	0.230	ug/L	32.7	(30%-126%)
4cmx	0.076	0.230	ug/L	33.1	(30%-105%)

MJ
04/27/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY

Section I.

REQUEST NUMBER: 10-2057 VALIDATION DATE: 04/27/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Maryann Jordan ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. TKN was detected in the MB. The results for TKN in samples CAPA-10-13085 and -13320 were detects ≤5X the blank concentration and, thus, were qualified U,I4. The TKN result for sample -12771 was an ND and, thus, was not qualified.
2. TOC was detected in PEBs -13085 and -13320; however, these PEBs were not associated with field sample -12771. No sample results were qualified.
3. The MS %R was < the laboratory LAL but ≥10% for TKN. The results for TKN in the samples were either ND or qualified as ND and, thus, were qualified UJ,I6a.
4. It should be noted that the QC analyses were performed on samples from other LANL RNs. No sample data were qualified as a result.

Reviewed by: Allison Felix Level: 1 Date: 4/28/10

VALIDATOR'S SIGNATURE: Maryann Jordan DATE: 04/27/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☒	☐	☐	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2057

Client Sample ID:	CAPA-10-12771	Project:	ESHL01000
Sample ID:	248042002	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	22-FEB-10 12:00		
Receive Date:	25-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
SW 9060 Total Organic Carbon "As Received"												
Total Organic Carbon Average		1.97		0.330	1.00	mg/L	1	TSM	03/02/10	1854	959246	1
Nutrient Analysis												
Nitrogen, Total Kjeldahl (TKN) "As Received"												
Nitrogen, Total Kjeldahl	U	ND	UJ,I6a	0.033	0.100	mg/L	1	AXH3	03/03/10	1434	958135	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 351.2 Prep	EPA 351.2 Total Kjeldahl Nitrogen Prep	SXJ1	03/01/10	1100	958133

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9060	
2	EPA 351.2	

MJ
04/27/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2057

Client Sample ID:	CAPA-10-13085	Project:	ESHL01000
Sample ID:	248042010	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	23-FEB-10 12:00		
Receive Date:	25-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
SW 9060 Total Organic Carbon "As Received"												
Total Organic Carbon Average	J	0.853		0.330	1.00	mg/L	1	TSM	03/02/10	1945	959246	1
Nutrient Analysis												
Nitrogen, Total Kjeldahl (TKN) "As Received"												
Nitrogen, Total Kjeldahl	J	0.085	U,I4	0.033	0.100	mg/L	1	AXH3	03/03/10	1434	958135	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 351.2 Prep	EPA 351.2 Total Kjeldahl Nitrogen Prep	SXJ1	03/01/10	1100	958133

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9060	
2	EPA 351.2	

MJ
04/27/10

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010
Client SDG: 10-2057

Client Sample ID:	CAPA-10-13320	Project:	ESHL01000
Sample ID:	248042013	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	23-FEB-10 12:00		
Receive Date:	25-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis												
SW 9060 Total Organic Carbon "As Received"												
Total Organic Carbon Average	J	0.781		0.330	1.00	mg/L	1	TSM	03/02/10	2019	959246	1
Nutrient Analysis												
Nitrogen, Total Kjeldahl (TKN) "As Received"												
Nitrogen, Total Kjeldahl	J	0.059	U,I4	0.033	0.100	mg/L	1	AXH3	03/03/10	1435	958135	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 351.2 Prep	EPA 351.2 Total Kjeldahl Nitrogen Prep	SXJ1	03/01/10	1100	958133

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9060	
2	EPA 351.2	

MJ
04/27/10

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2057

LOS ALAMOS

NATIONAL LABORATORY

REQUEST NUMBER: 10-2057

ATTN: Valerie Davis

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

LAB REQUEST COMMENTS: 248042

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12771	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12771	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12771	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12771	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-12771	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-12771	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-12771	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-12772	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12773	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12773	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12773	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-13080	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-13083	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13083	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13083	3	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13085	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-13085	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-13085	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13085	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-13085	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-13085	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-13320	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-13320	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-13320	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-13320	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2057

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-13320	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
Jeremy W G		2/24/10	1:00	Dionne Francis		2/25/10	0845
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2057

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2057
Per Agreement Number:126310011
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/24/2010
TURNAROUND/REPORT DUE: 3/26/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:351.2	1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	SW-846:8081A	1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	SW-846:8082	1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13085	WG	2/23/2010	
	SW-846:8260B	1	CAPA-10-12771	WG	2/22/2010	

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2057

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	2	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-12772	WG	2/22/2010	
		1	CAPA-10-12773	WG	2/22/2010	
		2	CAPA-10-12773	WG	2/22/2010	
		1	CAPA-10-13080	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
		2	CAPA-10-13320	WG	2/23/2010	
	SW-846:8270C	1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-12773	WG	2/22/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	SW-846:8321A_MOD	1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13083	WG	2/23/2010	
		2	CAPA-10-13083	WG	2/23/2010	
		3	CAPA-10-13083	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
	SW-846:9060	1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	

Final Page of REQUEST NUMBER 10-2057

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

March 03, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL-WQH Water Samples
Work Order: 248042
SDG: 10-2057

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 25, 2010, and analyzed for Explosives by LCMSMS, GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile, GC/MS Volatile and General Chemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2057
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 248042
SDG # : 10-2057

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Quality Control Summary.....1154
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Quality Control Data.....1279
Miscellaneous Data.....1294

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Quality Control Summary.....1339
Instrument QC Data Summary.....1342
Carbon, Total Organic.....1345
Total Kjeldahl Nitrogen.....1365
Miscellaneous.....1371

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 248042
SDG # : 10-2057

March 03, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 25, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The lab received (2) 1L amber glass HEXP containers for sample CAPA-10-13803 instead of (3) as indicated on the COC. All sample containers arrived without any visible signs of tampering or breakage. Containers were checked for pH, where appropriate, and matched the preservative as documented on the accompanying chain of custody. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
248042001	CAPA-10-12771
248042002	CAPA-10-12771
248042003	CAPA-10-12771
248042004	CAPA-10-12771
248042005	CAPA-10-12772
248042006	CAPA-10-12773
248042007	CAPA-10-13080
248042008	CAPA-10-13083
248042009	CAPA-10-13085
248042010	CAPA-10-13085
248042011	CAPA-10-13085
248042012	CAPA-10-13085
248042013	CAPA-10-13320
248042014	CAPA-10-13320

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Explosives by LCMSMS, GC Semivolatile PCB, GC Semivolatile Pesticide, GC/MS Semivolatile, GC/MS Volatile and General Chemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

GEL Laboratories LLC PO Box 30712 Charleston, SC 29417 2040 Savage Road Charleston, SC 29407 P 843.556.8171 F 843.766.1178 www.gel.com

List of current GEL Certifications as of 03 March 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California - NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida - NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois - NELAP	200029
Indiana	C-SC-01
Kansas - NELAP	E-10332
Kentucky	90129
Louisiana - NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey - NELAP	SC002
New Mexico	FL NELAP E87156
New York - NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania - NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas - NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah - NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2057

LOS ALAMOS

NATIONAL LABORATORY

REQUEST NUMBER: 10-2057

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 248042

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12771	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12771	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12771	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-12771	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-12771	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-12771	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-12771	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-12772	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12773	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12773	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-12773	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-13080	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-13083	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13083	2	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13083	3	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13085	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-13085	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-13085	1	AMBER GLASS	WSP-8321A-NMED HEXP	Ice	WG
CAPA-10-13085	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-13085	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG
CAPA-10-13085	1	AMBER GLASS	WSP-8082-PCB	Ice	WG
CAPA-10-13320	1	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-13320	2	SEPTUM AMBER GLASS	WSP-8260B-VOA	Hydrochloric Acid (Hydrogen Chloride)	WG
CAPA-10-13320	1	AMBER GLASS	WSP-8270C-SVOA	Ice	WG
CAPA-10-13320	1	AMBER GLASS	WSP-TKN+TOC	Sulfuric Acid (Hydrogen Sulfate)	WG

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2057

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-13320	1	AMBER GLASS	WSP-8081A-Pest	Ice	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		2/24/10	1200	Dionne Francis	[illegible]	2/25/10	0845
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:	Date	Time	Remarks:
Printed Name	Signature		

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2057

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2057

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/24/2010

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:351.2	1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	SW-846:8081A	1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	SW-846:8082	1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13085	WG	2/23/2010	
	SW-846:8260B	1	CAPA-10-12771	WG	2/22/2010	

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2057

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	SW-846:8260B	2	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-12772	WG	2/22/2010	
		1	CAPA-10-12773	WG	2/22/2010	
		2	CAPA-10-12773	WG	2/22/2010	
		1	CAPA-10-13080	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
		2	CAPA-10-13320	WG	2/23/2010	
	SW-846:8270C	1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-12773	WG	2/22/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	SW-846:8321A_MOD	1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13083	WG	2/23/2010	
		2	CAPA-10-13083	WG	2/23/2010	
		3	CAPA-10-13083	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
	SW-846:9060	1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	

Final Page of REQUEST NUMBER 10-2057

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-2057**
Received By: Dionne Francis	**Date Received: 2/25/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **80CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe) **0-6C** **12-14C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	X			Sample ID's, containers affected and observed pH: If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?	X			Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **time not listed on COC**
11	Number of containers received match number indicated on COC?			X	Sample ID's affected: **CAPA-10-13803** **the lab rec'd (2) 1L amber glass HEXP instead of (3) as indicated on COC**
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#s

7209 7850 1919 0C	**7209 7850 2076 2C**	**7209 7850 2238 3C**	**7209 7850 1893 12C**
7209 7850 2146 1C	**7209 7850 2065 2C**	**7209 7850 2124 3C**	**7209 7850 1849 12C**
7209 7850 1952 1C	**7209 7850 1996 3C**	**7209 7850 1974 4C**	**7209 7850 1838 13C**
7209 7850 2054 1C	**7209 7850 2135 3C**	**7209 7850 1985 4C**	**7209 7850 1860 13C**
7209 7850 1963 1C	**7209 7850 2032 3C**	**7209 7850 2000 4C**	**7209 7850 1850 13C**
7209 7850 2021 2C	**7209 7850 2249 3C**	**7209 7850 2087 4C**	**7209 7850 2098 13C**
7209 7850 2113 2C	**7209 7850 2168 3C**	**7209 7850 2010 5C**	**7209 7850 1908 14C**
7209 7850 2102 2C	**7209 7850 1941 3C**	**7209 7850 2157 6C**	
7209 7850 1882 2C	**7209 7850 2043 3C**	**7209 7850 1871 12C**	

PM (or PMA) review: Initials JAR Date 2-26-10

Subject: Sample Receipt for 2/25/10
From: Dionne Francis <Dionne.Francis@gel.com>
Date: Thu, 25 Feb 2010 20:59:32 -0500
To: "Keith R. Greene" <kgreene@lanl.gov>, Joylene Valdez <joylenev@lanl.gov>, Valerie Davis <vsd@gel.com>

Keith,

RN 10-2059 2052, 2046 and 2040: the Gross A/B containers will be preserved prior to analysis.

RN 10-2051: the lab rec'd (1) 40ml vial 8260B container for sample WST05-10-12495 instead of (2) as indicated on the COC.

RN 10-2057: the lab rec'd (2) 1L amber glass HEXP container for sample CAPA-10-13803 instead of (3) as indicated on the COC.

RN 10-2069: the lab did not receive a NO3NO2 container for sample RE15-10-8406.
RN 10-2075: the lab did not receive a NO3NO2 container for sample RE36-10-7528 and 7527. An aliquot will be taken from the perchlorate container and preserved prior to analysis.

The following containers were received without a COC:
RE36-10-7404, 7405, 7425, 7426, 7431, 7433, 7434, 8281, 8482 - 500ml glass containers for 8270C+NMED Exp

RE36-10-7403, 7406, 7516, 7429, 7432 - 125ml poly containers for Metals

RE36-10-8928 - (2) 500ml glass containers for 8270C+8082+TPH-DRO, TCLP P/H/S/V

Thanks,
Dionne

--
Dionne Francis
Project Manager Assistant
GEL Laboratories, LLC
2040 Savage Road
Charleston, SC (USA) 29407
Direct: 843.769.7376 Ext. 4432
Main: 843.556.8171
Fax: 843.766.1178
E-mail: daf@gel.com
Web: www.gel.com

Let the Bible fill the memory, rule the heart, and guide the feet.

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB1
ACTWGT: 49.0 LB M
CAD: 0014176/CAFE

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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MPS# 0263 7209 7850 1919
Mstr# 7209 7850 1908 0201

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2460

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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FedEx Express

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MPS# 0263 7209 7850 2146
Mstr# 7209 7850 2135 0201

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Part # 156148-434 NRT V3.04.09

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ENERAL ENGINEERING LAB
040 SAVAGE RD

HARLESTON SC 29407
43) 556-8171
EF: 6B010AMR3A05529E00

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SH# 63 7209 7850 1952
trk# 7209 7850 1941 0201

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PRIORITY OVERNIGHT

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VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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TRK# 0201 7209 7850 2054
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PRIORITY OVERNIGHT

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GIN ID: SAFA (505) 665-9968
LENE VALDEZ
ALAMOS NATL LAB
BLDG 1237 DPU 03

ALAMOS, NM 87545
TED STATES US

SHIP DATE: 24FEB10
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2450

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NERAL ENGINEERING LAB
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
IA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

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Part # 1561B-434 NRIT V3.04-05

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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MPS# 0263 7209 7850 2102
Mstr# 7209 7850 2098 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

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SC-US
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48-434 NRIT V3.04-05

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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MPS# 0263 7209 7850 1882
Mstr# 7209 7850 1871 0201

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Part # 150148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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1 of 2
TRK# 0201 7209 7850 2076
MASTER

THU - 25FEB A1
PRIORITY OVERNIGHT

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Part # 150148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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MPS# 0263 7209 7850 2065
Mstr# 7209 7850 2054 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

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SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

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THU - 25FEB A1
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 151.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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TRK# 0201 7209 7850 2135
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Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0223KY10

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1 of 2
TRK# 0201 7209 7850 2032
THU - 25FEB A1
PRIORITY OVERNIGHT
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XX CHSA
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Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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2 of 2
MPS# 0263 7209 7850 2249
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PRIORITY OVERNIGHT
MstrW 7209 7850 2238 0201
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ORIGIN ID: SAFA (505) 665-9960
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AAREW0140T500

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TRK# 0201 7209 7850 2168
THU - 25FEB A1
PRIORITY OVERNIGHT
XX CHSA
29407
SC-US
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

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TRK# 0201 7209 7850 1941
THU - 25FEB A1
PRIORITY OVERNIGHT
MASTER

XX CHSA
29407
SC-US
CHS

Part # 156146-234 NAT 03 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0223KY10

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FedEx Express

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MPS# 0263 7209 7850 2043
MstrW 7209 7850 2032 0201
THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA
29407
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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TRK# 0201 7209 7850 2238
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 67.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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2 of 2
MPS# 0263 7209 7850 2124
MstrW 7209 7850 2113 0201
THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA
29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

4c

FedEx Express

TRK# 0201 7209 7850 1974

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

4c

FedEx Express

1 of 2
TRK# 0201 7209 7850 1985
MASTER

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

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LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

4c

FedEx Express

1 of 2
TRK# 0201 7209 7850 2000
MASTER

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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MPS# 0203 7209 7850 2087
Mstr# 7209 7850 2076 0201

THU - 25FEB A1
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE24

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

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Mstr# 7209 7850 2000 0201

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JOY
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AWE6L11570000

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TRK# 0201 7209 7850 2157

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PRIORITY OVERNIGHT

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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Mstr# 7209 7850 1871 0201

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PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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Mstr# 7209 7850 1827 0201

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PRIORITY OVERNIGH

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Part # 156148-434 NRIT V3.04-06

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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FedEx Express

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MPS# 0263 7209 7850 1838
Mstr# 7209 7850 1827 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

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Part # 156148-434 NRIT V3.04-06

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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MPS# 0263 7209 7850 1860
Mstr# 7209 7850 1850 0201

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PRIORITY OVERNIGHT

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SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 66.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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PRIORITY OVERNIGHT

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29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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FedEx Express

1 of 2
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THU - 25FEB - A1
PRIORITY OVERNIGHT

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SC-US
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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FedEx Express

1 of 2
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PRIORITY OVERNIGHT

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DATA REVIEW QUALIFIER FLAG DEFINITION SHEET

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

GC/MS Volatile Analysis

Case Narrative

ChemStation Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2057

Method/Analysis Information

Procedure: Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer
Analytical Method: SW846 8260B DOE-AL
Prep Method: SW846 5030B
Analytical Batch Number: 961120

Sample Analysis

The following client and quality control samples were analyzed to complete this SDG using the methods referenced in the Analysis Information section:

Sample ID	Client ID
248042001	CAPA-10-12771
248042005	CAPA-10-12772
248042006	CAPA-10-12773
248042007	CAPA-10-13080
248042009	CAPA-10-13085
248042013	CAPA-10-13320
1202061536	Method Blank (MB)
1202061539	Laboratory Control Sample (LCS)
1202061540	Laboratory Control Sample (LCS)
1202061537	248042001(CAPA-10-12771) Post Spike (PS)
1202061538	248042001(CAPA-10-12771) Post Spike Duplicate (PSD)

NOTE: For volatile organic analyses the matrix spike designations may be indicated as "PS" or "PSD". The "PS" designation (post spike) indicates that the matrix was fortified prior to analysis but after applying any prep factors, such as a dilution. The laboratory considers the MS/MSD and PS/PSD designations interchangeable.
The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-038 REV# 14.

Raw data reports are processed and reviewed by the analyst using the Chemstation software package. False positives have been removed from the quantitation reports per standard operating procedures (SOP) section 19.1.2. False positive analytes are designated on the quantitation report with a 'd' qualifier.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

The surrogate compounds were calibrated using a minimum five-point calibration curve. The surrogates were added by the auto sampler at a concentration of 50 ug/L. GEL Laboratories LLC will not have surrogate recoveries reported for Dibromofluoromethane. This is due to increased regulations for this analyte and an industry shortage.

A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery groups (SDG). A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

Continuing Calibration Verification Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Surrogate recoveries in all client and quality control samples were within the acceptance limits.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 248042001 (CAPA-10-12771) was designated for spike analysis in this SDG.

Matrix Spike (PS) Recovery Statement
The spike recoveries for this SDG were within the required acceptance limits.

Matrix Spike Duplicate (PSD) Recovery Statement
The spike duplicate recoveries for this SDG were within the required acceptance limits.

Relative Percent Difference (RPD) Statement
The RPD(s) between the matrix spike pair met the acceptance limits.

Internal Standard (ISTD) Acceptance
The internal standard responses in all client and quality control samples met the required acceptance criteria.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Preservation and Integrity
All samples met the sample preservation and integrity requirements.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-analyses were not required for samples in this SDG.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted: Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative will include the data validator's signature and title. The signature page also includes the data qualifiers used in the fractional package. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
A Data Exception Document was not required for this SDG.

Manual Integrations
Data files associated with the initial calibration, continuing calibration check, and samples did not require manual integrations.

TIC Comment
Tentatively identified compounds (TIC) were required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Residual Chlorine
Residual Chlorine was not detected in any of the samples in this SDG.

System Configuration
The Volatile-GC/MS analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description	P & T Trap
VOA4.I	Gas Chromatograph/Mass Spectrometer	HP6890/HP5973	DB-624	J&W, 60m x 0.25mm x 1.4um	Trap 10

Certification Statement
Where the analytical method has been performed under NELAP certification, the analysis has met all the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2057 GEL Work Order: 248042

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this case narrative:

Signature: Erin Haubert **Name: Erin Haubert**

Date: 20 MAR 2010 **Title: Data Validator**

Sample Data Summary

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12771**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 14:16**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 14:16**				
Data File:	**030410V4\4A410.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12771**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 14:16**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 14:16**				
Data File:	**030410V4\4A410.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12771**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 14:16**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 14:16**				
Data File:	**030410V4\4A410.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	48.5	50.0	ug/L	96.9	(72%-132%)
Bromofluorobenzene	59.8	50.0	ug/L	120	(77%-123%)
Toluene-d8	51.0	50.0	ug/L	102	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	13.1	ug/L	0	J
	unknown siloxane	14.83	5.41	ug/L	0	J
	unknown siloxane	16.8	17.5	ug/L	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042005**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12772**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 14:43**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 14:43**				
Data File:	**030410V4\4A411.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042005**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12772**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 14:43**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 14:43**				
Data File:	**030410V4\4A411.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042005**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12772**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 14:43**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 14:43**				
Data File:	**030410V4\4A411.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	48.5	50.0	ug/L	96.9	(72%-132%)
Bromofluorobenzene	59.0	50.0	ug/L	118	(77%-123%)
Toluene-d8	49.5	50.0	ug/L	98.9	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	9.95	ug/L	0	J
	unknown siloxane	12.47	10.3	ug/L	0	J
	unknown siloxane	14.83	32.3	ug/L	0	J
	unknown siloxane	16.79	5.56	ug/L	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042006**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12773**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 15:11**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 15:11**				
Data File:	**030410V4\4A412.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042006**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12773**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 15:11**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 15:11**				
Data File:	**030410V4\4A412.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042006**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12773**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 15:11**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 15:11**				
Data File:	**030410V4\4A412.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	49.4	50.0	ug/L	98.8	(72%-132%)
Bromofluorobenzene	58.5	50.0	ug/L	117	(77%-123%)
Toluene-d8	50.5	50.0	ug/L	101	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	10.9	ug/L	0	J
	unknown siloxane	14.83	5.68	ug/L	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042007**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13080**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 15:38**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 15:38**				
Data File:	**030410V4\4A413.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	J	3.22	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042007**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13080**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 15:38**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 15:38**				
Data File:	**030410V4\4A413.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042007**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13080**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 15:38**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 15:38**				
Data File:	**030410V4\4A413.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	50.2	50.0	ug/L	100	(72%-132%)
Bromofluorobenzene	59.5	50.0	ug/L	119	(77%-123%)
Toluene-d8	49.4	50.0	ug/L	98.8	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	9.62	ug/L	0	J
	unknown siloxane	12.47	5.14	ug/L	0	J
	unknown siloxane	14.83	34.6	ug/L	0	J
	unknown siloxane	16.79	9.98	ug/L	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042009**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13085**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 16:06**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 16:06**				
Data File:	**030410V4\4A414.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U-	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042009**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13085**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 16:06**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 16:06**				
Data File:	**030410V4\4A414.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042009**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13085**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 16:06**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 16:06**				
Data File:	**030410V4\4A414.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	49.2	50.0	ug/L	98.5	(72%-132%)
Bromofluorobenzene	58.8	50.0	ug/L	118	(77%-123%)
Toluene-d8	49.7	50.0	ug/L	99.4	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	6.73	ug/L	0	J
	unknown siloxane	14.83	7.69	ug/L	0	J
	unknown siloxane	16.79	18	ug/L	0	J

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042013**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13320**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 16:34**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 16:34**				
Data File:	**030410V4\4A415.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042013**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13320**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 16:34**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 16:34**				
Data File:	**030410V4\4A415.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042013**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13320**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 16:34**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 16:34**				
Data File:	**030410V4\4A415.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	49.5	50.0	ug/L	98.9	(72%-132%)
Bromofluorobenzene	58.4	50.0	ug/L	117	(77%-123%)
Toluene-d8	50.3	50.0	ug/L	101	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	unknown hydrocarbon	4.48	ug/L	0	J
	unknown siloxane	14.83	ug/L	0	J
	unknown siloxane	16.79	ug/L	0	J

Quality Control Summary

Volatile

Surrogate Recovery Report

SDG Number: 10-2057

Matrix Type: LIQUID

Sample ID	Client ID	DCED4 %REC	TOL %REC	BFB %REC
1202061539	LCS for batch 961120	94	95	100
1202061540	LCS for batch 961120	92	96	106
1202061536	MB for batch 961120	92	99	112
248042001	CAPA-10-12771	97	102	120
248042005	CAPA-10-12772	97	99	118
248042006	CAPA-10-12773	99	101	117
248042007	CAPA-10-13080	100	99	119
248042009	CAPA-10-13085	98	99	118
248042013	CAPA-10-13320	99	101	117
1202061537	CAPA-10-12771PS	95	95	103
1202061538	CAPA-10-12771PSD	96	95	105

Surrogate		Acceptance Limits
DCED4	= 1,2-Dichloroethane-d4	(72%-132%)
TOL	= Toluene-d8	(76%-122%)
BFB	= Bromofluorobenzene	(77%-123%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057 **Sample Type:** Post Spike

Client ID: CAPA-10-12771PS **Matrix:** GROUND WATER

Lab Sample ID: 1202061537

Instrument: VOA4.I **Analysis Date:** 03/04/2010 21:10 **Dilution:** 1

Analyst: ACJ **Prep Batch ID:** 961120

Purge Vol: 5 mL **Batch ID:** 961120

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
75-71-8	PS	Dichlorodifluoromethane	50.0	0.00	U	35.3	71	36-136
74-87-3	PS	Chloromethane	50.0	0.00	U	46.1	92	47-135
75-01-4	PS	Vinyl chloride	50.0	0.00	U	45.8	92	51-136
74-83-9	PS	Bromomethane	50.0	0.00	U	47.1	94	50-140
75-00-3	PS	Chloroethane	50.0	0.00	U	44.5	89	60-125
75-69-4	PS	Trichlorofluoromethane	50.0	0.00	U	44.1	88	54-146
60-29-7	PS	Ethyl ether	50.0	0.00	U	46.1	92	61-112
67-64-1	PS	Acetone	250	0.00	U	93.0	37	15-142
75-05-8	PS	Acetonitrile	1250	0.00	U	1280	102	53-129
75-35-4	PS	1,1-Dichloroethylene	50.0	0.00	U	42.4	85	59-128
74-88-4	PS	Iodomethane	250	0.00	U	196	78	57-133
75-09-2	PS	Methylene chloride	50.0	0.00	U	39.9	80	63-122
75-15-0	PS	Carbon disulfide	250	0.00	U	241	96	62-135
1634-04-4	PS	tert-Butyl methyl ether	50.0	0.00	U	43.7	87	65-120
156-60-5	PS	trans-1,2-Dichloroethylene	50.0	0.00	U	44.2	88	64-120
108-05-4	PS	Vinyl acetate	250	0.00	U	298	119	56-151
75-34-3	PS	1,1-Dichloroethane	50.0	0.00	U	45.9	92	58-132
78-93-3	PS	2-Butanone	250	0.00	U	142	57	11-118
156-59-2	PS	cis-1,2-Dichloroethylene	50.0	0.00	U	45.3	91	63-132
594-20-7	PS	2,2-Dichloropropane	50.0	0.00	U	39.5	79	56-136
67-66-3	PS	Chloroform	50.0	0.00	U	44.9	90	68-130
74-97-5	PS	Bromochloromethane	50.0	0.00	U	43.2	86	70-124

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057 **Sample Type:** Post Spike

Client ID: CAPA-10-12771PS **Matrix:** GROUND WATER

Lab Sample ID: 1202061537

Instrument: VOA4.I **Analysis Date:** 03/04/2010 21:10 **Dilution:** 1

Analyst: ACJ **Prep Batch ID** 961120

Purge Vol: 5 mL **Batch ID:** 961120

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
71-55-6	PS	1,1,1-Trichloroethane	50.0	0.00	U	42.0	84	66-132
563-58-6	PS	1,1-Dichloropropene	50.0	0.00	U	43.0	86	64-130
71-36-3	PS	n-Butyl alcohol	5000	0.00	U	5370	107	52-149
56-23-5	PS	Carbon tetrachloride	50.0	0.00	U	41.5	83	61-137
107-06-2	PS	1,2-Dichloroethane	50.0	0.00	U	47.1	94	60-127
71-43-2	PS	Benzene	50.0	0.00	U	43.2	86	65-119
79-01-6	PS	Trichloroethylene	50.0	0.00	U	41.7	83	68-121
78-87-5	PS	1,2-Dichloropropane	50.0	0.00	U	47.0	94	69-122
75-27-4	PS	Bromodichloromethane	50.0	0.00	U	47.4	95	67-134
74-95-3	PS	Dibromomethane	50.0	0.00	U	46.0	92	70-122
108-10-1	PS	4-Methyl-2-pentanone	250	0.00	U	234	93	52-130
10061-01-5	PS	cis-1,3-Dichloropropylene	50.0	0.00	U	44.1	88	64-133
108-88-3	PS	Toluene	50.0	0.00	U	41.4	83	64-116
10061-02-6	PS	trans-1,3-Dichloropropylene	50.0	0.00	U	45.6	91	63-133
79-00-5	PS	1,1,2-Trichloroethane	50.0	0.00	U	48.0	96	66-123
591-78-6	PS	2-Hexanone	250	0.00	U	174	70	25-125
142-28-9	PS	1,3-Dichloropropane	50.0	0.00	U	46.5	93	70-119
127-18-4	PS	Tetrachloroethylene	50.0	0.00	U	38.3	77	63-121
124-48-1	PS	Dibromochloromethane	50.0	0.00	U	46.2	92	66-132
106-93-4	PS	1,2-Dibromoethane	50.0	0.00	U	45.5	91	72-122
108-90-7	PS	Chlorobenzene	50.0	0.00	U	42.0	84	74-116
100-41-4	PS	Ethylbenzene	50.0	0.00	U	42.4	85	59-125

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057 **Sample Type:** Post Spike
Client ID: CAPA-10-12771PS **Matrix:** GROUND WATER
Lab Sample ID: 1202061537
Instrument: VOA4.I **Analysis Date:** 03/04/2010 21:10 **Dilution:** 1
Analyst: ACJ **Prep Batch ID** 961120
Purge Vol: 5 mL **Batch ID:** 961120

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	PS	m,p-Xylenes	100	0.00	U	84.7	85	48-140
95-47-6	PS	o-Xylene	50.0	0.00	U	44.2	88	59-134
100-42-5	PS	Styrene	50.0	0.00	U	46.0	92	54-138
75-25-2	PS	Bromoform	50.0	0.00	U	44.3	89	59-140
79-34-5	PS	1,1,2,2-Tetrachloroethane	50.0	0.00	U	46.0	92	65-124
96-18-4	PS	1,2,3-Trichloropropane	50.0	0.00	U	43.7	87	61-137
108-86-1	PS	Bromobenzene	50.0	0.00	U	40.9	82	64-125
103-65-1	PS	n-Propylbenzene	50.0	0.00	U	40.1	80	56-128
95-49-8	PS	2-Chlorotoluene	50.0	0.00	U	40.9	82	62-125
98-82-8	PS	Isopropylbenzene	50.0	0.00	U	38.8	78	44-134
108-67-8	PS	1,3,5-Trimethylbenzene	50.0	0.00	U	41.3	83	55-133
106-43-4	PS	4-Chlorotoluene	50.0	0.00	U	40.6	81	62-126
98-06-6	PS	tert-Butylbenzene	50.0	0.00	U	39.3	79	62-130
95-63-6	PS	1,2,4-Trimethylbenzene	50.0	0.00	U	41.4	83	66-123
135-98-8	PS	sec-Butylbenzene	50.0	0.00	U	40.4	81	61-121
99-87-6	PS	4-Isopropyltoluene	50.0	0.00	U	40.3	81	60-136
541-73-1	PS	1,3-Dichlorobenzene	50.0	0.00	U	40.3	81	66-122
106-46-7	PS	1,4-Dichlorobenzene	50.0	0.00	U	39.7	79	75-120
104-51-8	PS	n-Butylbenzene	50.0	0.00	U	40.3	81	57-133
96-12-8	PS	1,2-Dibromo-3-chloropropane	50.0	0.00	U	44.2	88	58-138
87-68-3	PS	Hexachlorobutadiene	50.0	0.00	U	34.9	70	48-136
91-20-3	PS	Naphthalene	50.0	0.00	U	39.4	79	63-129

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057
Sample Type: Post Spike
Client ID: CAPA-10-12771PS
Matrix: GROUND WATER
Lab Sample ID: 1202061537
Instrument: VOA4.I
Analysis Date: 03/04/2010 21:10
Dilution: 1
Analyst: ACJ
Prep Batch ID: 961120
Purge Vol: 5 mL
Batch ID: 961120

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
87-61-6	PS	1,2,3-Trichlorobenzene	50.0	0.00	U	39.1	78	65-129
630-20-6	PS	1,1,1,2-Tetrachloroethane	50.0	0.00	U	44.2	88	69-128
120-82-1	PS	1,2,4-Trichlorobenzene	50.0	0.00	U	38.3	77	56-130
95-50-1	PS	1,2-Dichlorobenzene	50.0	0.00	U	40.7	81	67-123

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057
Client ID: CAPA-10-12771PSD
Lab Sample ID: 1202061538
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 03/04/2010 21:38
Prep Batch ID: 961120
Batch ID: 961120
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
75-71-8	PSD	Dichlorodifluoromethane	50.0	0.00	U	38.5	77	36-136	9	0-20
74-87-3	PSD	Chloromethane	50.0	0.00	U	45.4	91	47-135	2	0-20
75-01-4	PSD	Vinyl chloride	50.0	0.00	U	48.5	97	51-136	6	0-20
74-83-9	PSD	Bromomethane	50.0	0.00	U	48.3	97	50-140	2	0-20
75-00-3	PSD	Chloroethane	50.0	0.00	U	47.3	95	60-125	6	0-20
75-69-4	PSD	Trichlorofluoromethane	50.0	0.00	U	47.8	96	54-146	8	0-20
60-29-7	PSD	Ethyl ether	50.0	0.00	U	49.7	99	61-112	8	0-20
67-64-1	PSD	Acetone	250	0.00	U	96.8	39	15-142	4	0-20
75-05-8	PSD	Acetonitrile	1250	0.00	U	1330	106	53-129	3	0-20
75-35-4	PSD	1,1-Dichloroethylene	50.0	0.00	U	44.8	90	59-128	6	0-20
74-88-4	PSD	Iodomethane	250	0.00	U	220	88	57-133	12	0-20
75-09-2	PSD	Methylene chloride	50.0	0.00	U	41.1	82	63-122	3	0-20
75-15-0	PSD	Carbon disulfide	250	0.00	U	250	100	62-135	4	0-20
1634-04-4	PSD	tert-Butyl methyl ether	50.0	0.00	U	46.9	94	65-120	7	0-20
156-60-5	PSD	trans-1,2-Dichloroethylene	50.0	0.00	U	47.3	95	64-120	7	0-20
108-05-4	PSD	Vinyl acetate	250	0.00	U	310	124	56-151	4	0-20
75-34-3	PSD	1,1-Dichloroethane	50.0	0.00	U	49.0	98	58-132	6	0-20
78-93-3	PSD	2-Butanone	250	0.00	U	147	59	11-118	3	0-20
156-59-2	PSD	cis-1,2-Dichloroethylene	50.0	0.00	U	48.0	96	63-132	6	0-20
594-20-7	PSD	2,2-Dichloropropane	50.0	0.00	U	43.6	87	56-136	10	0-20
67-66-3	PSD	Chloroform	50.0	0.00	U	47.7	95	68-130	6	0-20
74-97-5	PSD	Bromochloromethane	50.0	0.00	U	46.3	93	70-124	7	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057 **Sample Type:** Post Spike Duplicate

Client ID: CAPA-10-12771PSD **Matrix:** GROUND WATER

Lab Sample ID: 1202061538

Instrument: VOA4.I **Analysis Date:** 03/04/2010 21:38 **Dilution:** 1

Analyst: ACJ **Prep Batch ID:** 961120

Purge Vol: 5 mL **Batch ID:** 961120

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
71-55-6	PSD	1,1,1-Trichloroethane	50.0	0.00	U	46.6	93	66-132	10	0-20
563-58-6	PSD	1,1-Dichloropropene	50.0	0.00	U	46.5	93	64-130	8	0-29
71-36-3	PSD	n-Butyl alcohol	5000	0.00	U	5560	111	52-149	4	0-20
56-23-5	PSD	Carbon tetrachloride	50.0	0.00	U	45.8	92	61-137	10	0-20
107-06-2	PSD	1,2-Dichloroethane	50.0	0.00	U	49.0	98	60-127	4	0-20
71-43-2	PSD	Benzene	50.0	0.00	U	46.5	93	65-119	7	0-20
79-01-6	PSD	Trichloroethylene	50.0	0.00	U	46.1	92	68-121	10	0-20
78-87-5	PSD	1,2-Dichloropropane	50.0	0.00	U	49.5	99	69-122	5	0-20
75-27-4	PSD	Bromodichloromethane	50.0	0.00	U	50.4	101	67-134	6	0-20
74-95-3	PSD	Dibromomethane	50.0	0.00	U	49.0	98	70-122	6	0-20
108-10-1	PSD	4-Methyl-2-pentanone	250	0.00	U	249	99	52-130	6	0-20
10061-01-5	PSD	cis-1,3-Dichloropropylene	50.0	0.00	U	48.7	97	64-133	10	0-20
108-88-3	PSD	Toluene	50.0	0.00	U	45.3	91	64-116	9	0-20
10061-02-6	PSD	trans-1,3-Dichloropropylene	50.0	0.00	U	48.9	98	63-133	7	0-20
79-00-5	PSD	1,1,2-Trichloroethane	50.0	0.00	U	50.6	101	66-123	5	0-20
591-78-6	PSD	2-Hexanone	250	0.00	U	182	73	25-125	5	0-20
142-28-9	PSD	1,3-Dichloropropane	50.0	0.00	U	49.7	99	70-119	7	0-20
127-18-4	PSD	Tetrachloroethylene	50.0	0.00	U	43.2	86	63-121	12	0-20
124-48-1	PSD	Dibromochloromethane	50.0	0.00	U	49.7	99	66-132	7	0-20
106-93-4	PSD	1,2-Dibromoethane	50.0	0.00	U	48.9	98	72-122	7	0-20
108-90-7	PSD	Chlorobenzene	50.0	0.00	U	46.2	92	74-116	10	0-20
100-41-4	PSD	Ethylbenzene	50.0	0.00	U	46.8	94	59-125	10	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057
Client ID: CAPA-10-12771PSD
Lab Sample ID: 1202061538
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Post Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 03/04/2010 21:38
Dilution: 1
Prep Batch ID: 961120
Batch ID: 961120

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
179601-23-1	PSD	m,p-Xylenes	100	0.00	U	93.7	94	48-140	10	0-20
95-47-6	PSD	o-Xylene	50.0	0.00	U	48.5	97	59-134	9	0-20
100-42-5	PSD	Styrene	50.0	0.00	U	50.5	101	54-138	9	0-20
75-25-2	PSD	Bromoform	50.0	0.00	U	49.0	98	59-140	10	0-20
79-34-5	PSD	1,1,2,2-Tetrachloroethane	50.0	0.00	U	49.6	99	65-124	8	0-20
96-18-4	PSD	1,2,3-Trichloropropane	50.0	0.00	U	46.3	93	61-137	6	0-20
108-86-1	PSD	Bromobenzene	50.0	0.00	U	46.1	92	64-125	12	0-20
103-65-1	PSD	n-Propylbenzene	50.0	0.00	U	46.0	92	56-128	14	0-20
95-49-8	PSD	2-Chlorotoluene	50.0	0.00	U	46.5	93	62-125	13	0-20
98-82-8	PSD	Isopropylbenzene	50.0	0.00	U	44.6	89	44-134	14	0-20
108-67-8	PSD	1,3,5-Trimethylbenzene	50.0	0.00	U	47.1	94	55-133	13	0-20
106-43-4	PSD	4-Chlorotoluene	50.0	0.00	U	46.1	92	62-126	13	0-20
98-06-6	PSD	tert-Butylbenzene	50.0	0.00	U	45.9	92	62-130	16	0-20
95-63-6	PSD	1,2,4-Trimethylbenzene	50.0	0.00	U	46.8	94	66-123	12	0-20
135-98-8	PSD	sec-Butylbenzene	50.0	0.00	U	46.4	93	61-121	14	0-20
99-87-6	PSD	4-Isopropyltoluene	50.0	0.00	U	46.9	94	60-136	15	0-20
541-73-1	PSD	1,3-Dichlorobenzene	50.0	0.00	U	45.6	91	66-122	12	0-20
106-46-7	PSD	1,4-Dichlorobenzene	50.0	0.00	U	45.3	91	75-120	13	0-20
104-51-8	PSD	n-Butylbenzene	50.0	0.00	U	46.7	93	57-133	15	0-20
96-12-8	PSD	1,2-Dibromo-3-chloropropane	50.0	0.00	U	49.5	99	58-138	11	0-20
87-68-3	PSD	Hexachlorobutadiene	50.0	0.00	U	41.4	83	48-136	17	0-20
91-20-3	PSD	Naphthalene	50.0	0.00	U	44.6	89	63-129	12	0-20

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2057**
Client ID: **CAPA-10-12771PSD**
Lab Sample ID: **1202061538**
Instrument: **VOA4.I**
Analyst: **ACJ**
Purge Vol: **5 mL**

Sample Type: **Post Spike Duplicate**
Matrix: **GROUND WATER**
Analysis Date: **03/04/2010 21:38**
Dilution: **1**
Prep Batch ID: **961120**
Batch ID: **961120**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
87-61-6	PSD	1,2,3-Trichlorobenzene	50.0	0.00	U	45.2	90	65-129	15	0-24
630-20-6	PSD	1,1,1,2-Tetrachloroethane	50.0	0.00	U	47.5	95	69-128	7	0-20
120-82-1	PSD	1,2,4-Trichlorobenzene	50.0	0.00	U	44.4	89	56-130	15	0-20
95-50-1	PSD	1,2-Dichlorobenzene	50.0	0.00	U	45.8	92	67-123	12	0-20

Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2057 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 961120 **Matrix:** GROUND WATER

Lab Sample ID: 1202061539

Instrument: VOA4.I **Analysis Date:** 03/04/2010 10:33 **Dilution:** 1

Analyst: ACJ **Prep Batch ID:** 961120

Purge Vol: 5 mL **Batch ID:** 961120

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
75-71-8	LCS	Dichlorodifluoromethane	50.0	0.0	45.8	92	58-147
74-87-3	LCS	Chloromethane	50.0	0.0	46.0	92	57-131
75-01-4	LCS	Vinyl chloride	50.0	0.0	50.9	102	68-129
74-83-9	LCS	Bromomethane	50.0	0.0	50.1	100	70-129
75-00-3	LCS	Chloroethane	50.0	0.0	49.9	100	69-128
75-69-4	LCS	Trichlorofluoromethane	50.0	0.0	54.4	109	70-150
60-29-7	LCS	Ethyl ether	50.0	0.0	47.4	95	68-122
67-64-1	LCS	Acetone	250	0.0	229	91	30-152
75-05-8	LCS	Acetonitrile	1250	0.0	1210	97	60-121
75-35-4	LCS	1,1-Dichloroethylene	50.0	0.0	47.7	95	71-130
74-88-4	LCS	Iodomethane	250	0.0	234	94	71-129
75-09-2	LCS	Methylene chloride	50.0	0.0	40.3	81	70-124
75-15-0	LCS	Carbon disulfide	250	0.0	265	106	74-137
1634-04-4	LCS	tert-Butyl methyl ether	50.0	0.0	45.0	90	70-120
156-60-5	LCS	trans-1,2-Dichloroethylene	50.0	0.0	49.3	99	73-122
108-05-4	LCS	Vinyl acetate	250	0.0	288	115	62-143
75-34-3	LCS	1,1-Dichloroethane	50.0	0.0	49.2	98	75-121
78-93-3	LCS	2-Butanone	250	0.0	234	94	30-145
156-59-2	LCS	cis-1,2-Dichloroethylene	50.0	0.0	49.0	98	76-125
594-20-7	LCS	2,2-Dichloropropane	50.0	0.0	51.9	104	74-138
67-66-3	LCS	Chloroform	50.0	0.0	48.0	96	75-120
74-97-5	LCS	Bromochloromethane	50.0	0.0	46.1	92	74-122

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057
Client ID: LCS for batch 961120
Lab Sample ID: 1202061539
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/04/2010 10:33
Dilution: 1
Prep Batch ID: 961120
Batch ID: 961120

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
71-55-6	LCS	1,1,1-Trichloroethane	50.0	0.0	50.2	100	73-132
563-58-6	LCS	1,1-Dichloropropene	50.0	0.0	50.6	101	79-130
71-36-3	LCS	n-Butyl alcohol	5000	0.0	5230	105	60-141
56-23-5	LCS	Carbon tetrachloride	50.0	0.0	50.8	102	73-139
107-06-2	LCS	1,2-Dichloroethane	50.0	0.0	47.0	94	66-123
71-43-2	LCS	Benzene	50.0	0.0	47.7	95	74-120
79-01-6	LCS	Trichloroethylene	50.0	0.0	49.6	99	78-123
78-87-5	LCS	1,2-Dichloropropane	50.0	0.0	49.1	98	75-120
75-27-4	LCS	Bromodichloromethane	50.0	0.0	49.7	99	76-129
74-95-3	LCS	Dibromomethane	50.0	0.0	46.2	92	75-120
108-10-1	LCS	4-Methyl-2-pentanone	250	0.0	241	96	57-132
10061-01-5	LCS	cis-1,3-Dichloropropylene	50.0	0.0	49.4	99	78-129
108-88-3	LCS	Toluene	50.0	0.0	47.2	94	74-120
10061-02-6	LCS	trans-1,3-Dichloropropylene	50.0	0.0	49.1	98	77-126
79-00-5	LCS	1,1,2-Trichloroethane	50.0	0.0	48.2	96	74-120
591-78-6	LCS	2-Hexanone	250	0.0	244	98	30-149
142-28-9	LCS	1,3-Dichloropropane	50.0	0.0	46.8	94	74-120
127-18-4	LCS	Tetrachloroethylene	50.0	0.0	48.7	97	73-124
124-48-1	LCS	Dibromochloromethane	50.0	0.0	48.2	96	74-128
106-93-4	LCS	1,2-Dibromoethane	50.0	0.0	47.0	94	77-120
108-90-7	LCS	Chlorobenzene	50.0	0.0	47.5	95	77-120
100-41-4	LCS	Ethylbenzene	50.0	0.0	48.8	98	74-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057
Client ID: LCS for batch 961120
Lab Sample ID: 1202061539
Instrument: VOA4.I
Analyst: ACJ
Purge Vol: 5 mL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/04/2010 10:33
Dilution: 1
Prep Batch ID: 961120
Batch ID: 961120

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
179601-23-1	LCS	m,p-Xylenes	100	0.0	99.2	99	75-121
95-47-6	LCS	o-Xylene	50.0	0.0	49.9	100	76-123
100-42-5	LCS	Styrene	50.0	0.0	51.8	104	74-128
75-25-2	LCS	Bromoform	50.0	0.0	47.0	94	67-134
79-34-5	LCS	1,1,2,2-Tetrachloroethane	50.0	0.0	44.9	90	69-120
96-18-4	LCS	1,2,3-Trichloropropane	50.0	0.0	43.0	86	72-134
108-86-1	LCS	Bromobenzene	50.0	0.0	46.8	94	74-120
103-65-1	LCS	n-Propylbenzene	50.0	0.0	48.6	97	70-123
95-49-8	LCS	2-Chlorotoluene	50.0	0.0	48.4	97	72-121
98-82-8	LCS	Isopropylbenzene	50.0	0.0	47.1	94	58-127
108-67-8	LCS	1,3,5-Trimethylbenzene	50.0	0.0	49.0	98	71-125
106-43-4	LCS	4-Chlorotoluene	50.0	0.0	47.6	95	73-122
98-06-6	LCS	tert-Butylbenzene	50.0	0.0	47.7	95	75-127
95-63-6	LCS	1,2,4-Trimethylbenzene	50.0	0.0	48.5	97	74-123
135-98-8	LCS	sec-Butylbenzene	50.0	0.0	48.6	97	74-126
99-87-6	LCS	4-Isopropyltoluene	50.0	0.0	50.6	101	76-129
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	48.1	96	76-120
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	48.1	96	75-120
104-51-8	LCS	n-Butylbenzene	50.0	0.0	52.2	104	75-130
96-12-8	LCS	1,2-Dibromo-3-chloropropane	50.0	0.0	47.5	95	66-130
87-68-3	LCS	Hexachlorobutadiene	50.0	0.0	48.4	97	67-132
91-20-3	LCS	Naphthalene	50.0	0.0	44.5	89	66-126

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2057**
Client ID: **LCS for batch 961120**
Lab Sample ID: **1202061539**
Instrument: **VOA4.I**
Analyst: **ACJ**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **GROUND WATER**
Analysis Date: **03/04/2010 10:33**
Dilution: 1
Prep Batch ID: **961120**
Batch ID: **961120**

CAS No	Parmname		Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
87-61-6	LCS	1,2,3-Trichlorobenzene	50.0	0.0	48.9	98	71-130
630-20-6	LCS	1,1,1,2-Tetrachloroethane	50.0	0.0	48.3	97	76-125
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	51.8	104	73-127
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	47.4	95	76-120

Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2057**
Client ID: **LCS for batch 961120**
Lab Sample ID: **1202061540**
Instrument: **VOA4.I**
Analyst: **ACJ**
Purge Vol: **5 mL**

Sample Type: **Laboratory Control Sample**
Matrix: **GROUND WATER**
Analysis Date: **03/04/2010 11:29**
Dilution: **1**
Prep Batch ID: **961120**
Batch ID: **961120**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
107-02-8	LCS	Acrolein	250	0.0	226	90	43-147
76-13-1	LCS	Trichlorotrifluoroethane	250	0.0	208	83	66-142
107-05-1	LCS	Allyl chloride	250	0.0	226	91	61-137
107-13-1	LCS	Acrylonitrile	250	0.0	215	86	55-137
126-99-8	LCS	2-Chloro-1,3-butadiene	50.0	0.0	48.7	97	71-143
107-12-0	LCS	Propionitrile	250	0.0	216	86	68-131
126-98-7	LCS	Methacrylonitrile	250	0.0	212	85	54-134
78-83-1	LCS	Isobutyl alcohol	2500	0.0	2300	92	50-143
80-62-6	LCS	Methyl methacrylate	250	0.0	215	86	63-133
97-63-2	LCS	Ethyl methacrylate	250	0.0	222	89	66-128

Method Blank Summary

SDG Number:	10-2057	Client:	LANL010	Matrix:	GROUND WATER
Client ID:	MB for batch 961120	Instrument ID:	VOA4.I	Data File:	030410V4\4A407BL.D
Lab Sample ID:	1202061536	Prep Date:	03/04/2010 12:53	Analyzed:	03/04/10 12:53
Column:	DB-624				

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 961120	1202061539	030410V4\4A402LL.D	03/04/10	1033
02	LCS for batch 961120	1202061540	030410V4\4A404SL.D	03/04/10	1129
03	CAPA-10-12771	248042001	030410V4\4A410.D	03/04/10	1416
04	CAPA-10-12772	248042005	030410V4\4A411.D	03/04/10	1443
05	CAPA-10-12773	248042006	030410V4\4A412.D	03/04/10	1511
06	CAPA-10-13080	248042007	030410V4\4A413.D	03/04/10	1538
07	CAPA-10-13085	248042009	030410V4\4A414.D	03/04/10	1606
08	CAPA-10-13320	248042013	030410V4\4A415.D	03/04/10	1634
09	CAPA-10-12771PS	1202061537	030410V4\4A425.D	03/04/10	2110
10	CAPA-10-12771PSD	1202061538	030410V4\4A426.D	03/04/10	2138

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2057

Instrument ID: VOA4.I **Injection Date/Time:** 01-MAR-10 19:08

Column Description: DB-624 **Lab File ID** 030110V4\4A101.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	19.1
75	30.0 - 60.0% of mass 95	49.8
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	0.5
174	50.0 - 100.0% of mass 95	82.3
175	5.0 -9.0% of mass 174	7
176	95.0 - 101.0% of mass 174	95.5
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
ICALMIX[A]	W4VM100301-01	030110V4\4A103.D	01-MAR-10 20:03
ICALMIX[A]	W4VM100301-02	030110V4\4A104.D	01-MAR-10 20:30
ICALMIX[A]	W4VM100301-04	030110V4\4A106.D	01-MAR-10 21:26
ICALMIX[A]	W4VM100301-05	030110V4\4A107.D	01-MAR-10 21:54
ICALMIX[A]	W4VM100301-06	030110V4\4A108.D	01-MAR-10 22:21
ICALMIX[A]	W4VM100301-08	030110V4\4A110.D	01-MAR-10 23:16
ICALMIX[A]	W4VM100301-09	030110V4\4A111.D	01-MAR-10 23:44
ICALMIX[B]	W4VM100301-10	030110V4\4A113.D	02-MAR-10 00:39
ICALMIX[B]	W4VM100301-11	030110V4\4A114.D	02-MAR-10 01:06
ICALMIX[B]	W4VM100301-12	030110V4\4A115.D	02-MAR-10 01:34
ICALMIX[B]	W4VM100301-13	030110V4\4A116.D	02-MAR-10 02:01
ICALMIX[B]	W4VM100301-14	030110V4\4A117.D	02-MAR-10 02:28
ICALMIX[B]	W4VM100301-15	030110V4\4A118.D	02-MAR-10 02:56
ICALMIX[B]	W4VM100301-16	030110V4\4A119.D	02-MAR-10 03:23
ICVMIX[A]01	W4VM100301-18	030110V4\4A122.D	02-MAR-10 04:45
ICVMIX[B]02	W4VM100301-19	030110V4\4A123.D	02-MAR-10 05:13

Instrument Performance Check

BFB

Lab Name GEL Laboratories LLC **Client SDG:** 10-2057

Instrument ID: VOA4.I **Injection Date/Time:** 04-MAR-10 10:05

Column Description: DB-624 **Lab File ID** 030410V4\4A401.D

m/e	Ion Abundance Criteria	% Relative Abundance
50	15.0 - 40.0% of mass 95	20.7
75	30.0 - 60.0% of mass 95	51.6
95	Base Peak, 100% Relative Abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0.6
174	50.0 - 100.0% of mass 95	77.3
175	5.0 -9.0% of mass 174	7.3
176	95.0 - 101.0% of mass 174	95.7
177	5.0 - 9.0% of mass 176	6.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
CCVMIX[A]07	W4VM100304-01	030410V4\4A402.D	04-MAR-10 10:33
BLK01LCS	1202061539	030410V4\4A402LL.D	04-MAR-10 10:33
CCVMIX[B]08	W4VM100304-03	030410V4\4A404.D	04-MAR-10 11:29
BLK01SLCS	1202061540	030410V4\4A404SL.D	04-MAR-10 11:29
BLK01	1202061536	030410V4\4A407BL.D	04-MAR-10 12:53
CAPA-10-12771	248042001	030410V4\4A410.D	04-MAR-10 14:16
CAPA-10-12772	248042005	030410V4\4A411.D	04-MAR-10 14:43
CAPA-10-12773	248042006	030410V4\4A412.D	04-MAR-10 15:11
CAPA-10-13080	248042007	030410V4\4A413.D	04-MAR-10 15:38
CAPA-10-13085	248042009	030410V4\4A414.D	04-MAR-10 16:06
CAPA-10-13320	248042013	030410V4\4A415.D	04-MAR-10 16:34
CAPA-10-12771MS	1202061537	030410V4\4A425.D	04-MAR-10 21:10
CAPA-10-12771MSD	1202061538	030410V4\4A426.D	04-MAR-10 21:38

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: VOA4.I

GC Column: DB-624

Client SDG: 10-2057

STD Analysis Time: 04-MAR-10 10:33

Data File: C:\msdchem\1\DATA\030410V4\4A402.D

	Fluorobenzene			Chlorobenzene-d5			1,4-Dichlorobenzene-d4		
	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	1282321		10.6	1091552		13.8	770738		16.2
Upper Limit	2564642		11.1	2183104		14.3	1541476		16.7
Lower Limit	641161		10.1	545776		13.3	385369		15.7
Sample ID									
BLK01LCS	1282321		10.6	1091552		13.8	770738		16.2
BLK01SLCS	1371328		10.6	1132161		13.8	738923		16.2
BLK01	1281902		10.6	1011802		13.8	584065		16.2
CAPA-10-12771	1153382		10.6	902239		13.8	503005		16.2
CAPA-10-12772	1106531		10.6	884615		13.8	505886		16.2
CAPA-10-12773	1083806		10.6	869350		13.8	496466		16.2
CAPA-10-13080	1073245		10.6	872275		13.8	495587		16.2
CAPA-10-13085	1065502		10.6	864195		13.8	492595		16.2
CAPA-10-13320	1048158		10.6	847759		13.8	495657		16.2
CAPA-10-12771MS	1073731		10.6	922187		13.8	673004		16.2
CAPA-10-12771MSD	1153128		10.6	987988		13.8	695460		16.2

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12771**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 14:16**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 14:16**				
Data File:	**030410V4\4A410.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12771**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 14:16**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 14:16**				
Data File:	**030410V4\4A410.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12771**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 14:16**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 14:16**				
Data File:	**030410V4\4A410.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	48.5	50.0	ug/L	96.9	(72%-132%)
Bromofluorobenzene	59.8	50.0	ug/L	120	(77%-123%)
Toluene-d8	51.0	50.0	ug/L	102	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	13.1	ug/L	0	J
	unknown siloxane	14.83	5.41	ug/L	0	J
	unknown siloxane	16.8	17.5	ug/L	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A410.D
Acq On : 4 Mar 2010 2:16 pm
Operator : ACJ
InstName : VOA4
Sample : |248042001|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 08 21:51:15 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.620	10.620	1.000	96	1153382	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.772	13.771	1.000	117	902239	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.180	16.180	1.000	152	502987	50.00	ug/L	0.00
82) B Fluorobenzene	10.620	10.619	1.000	96	1153382	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.772	13.771	1.000	117	902239	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	503005	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.260	10.260	0.966	65	231167	48.45	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery	=	96.90%			
43) Toluene-d8	12.254	12.247	0.890	98	854042	51.03	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery	=	102.06%			
61) Bromofluorobenzene	14.954	14.954	0.924	95	588417	59.79	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery	=	119.58%			

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.911	0.000		0	N.D.		
3) Chloromethane	5.291	5.291	0.498	50	1953	N.D.		
4) Vinyl chloride	0.000	5.521	0.000		0	N.D.		
5) Bromomethane	0.000	6.137	0.000		0	N.D.		
6) Chloroethane	0.000	6.295	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.669	0.000		0	N.D.		
8) Ethyl ether	0.000	6.998	0.000		0	N.D.		
9) Acetone	7.376	7.352	0.695	43	5013	N.D.		
10) 1,1-Dichloroethylene	0.000	7.389	0.000		0	N.D.		
11) Iodomethane	0.000	7.663	0.000		0	N.D.		
12) Acetonitrile	7.718	7.699	0.727	41	303	N.D.		
13) Methyl acetate	7.712	7.748	0.726	43	148	N.D.		
14) Carbon disulfide	7.767	7.773	0.731	76	990	N.D.		
15) Methylene chloride	7.943	7.931	0.748	84	3991	N.D.		
16) tert-Butyl methyl ether	0.000	8.242	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.285	0.000		0	N.D.		
18) Vinyl acetate	8.705	8.705	0.820	43	400	N.D.		
19) 1,1-Dichloroethane	0.000	8.760	0.000		0	N.D.		
20) 2-Butanone	9.346	9.327	0.880	43	994	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.388	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.419	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.675	9.687	0.911	83	185	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.979	0.000		0	N.D.		
26) Cyclohexane	10.095	10.083	0.951	56	137	N.D.		
27) 1,1-Dichloropropene	0.000	10.132	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.175	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.339	0.000		0	N.D.		
31) Benzene	10.364	10.370	0.976	78	379	N.D.		
32) Cyclohexene	10.620	10.492	1.000	67	344	N.D.		
33) n-Butyl alcohol	10.681	10.693	1.006	56	239	N.D.		
34) Trichloroethylene	0.000	11.004	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.260	0.000		0	N.D.		
37) Dibromomethane	0.000	11.376	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.485	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.699	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A410.D
Acq On : 4 Mar 2010 2:16 pm
Operator : ACJ
InstName : VOA4
Sample : |248042001|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 08 21:51:15 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40)	cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000	12.016	0.000		0	N.D.	
44)	Toluene	12.327	12.320	0.895	91	2039	N.D.	
45)	trans-1,3-Dichloroprop...	12.473	12.461	0.906	75	2119	N.D.	
46)	1,1,2-Trichloroethane	0.000	12.680	0.000		0	N.D.	
47)	2-Hexanone	12.863	12.857	0.934	43	252	N.D.	
48)	1,3-Dichloropropane	0.000	12.875	0.000		0	N.D.	
49)	Tetrachloroethylene	12.930	12.918	0.939	164	291	N.D.	
50)	Dibromochloromethane	0.000	13.144	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000	13.320	0.000		0	N.D.	
52)	Chlorobenzene	13.808	13.802	1.003	112	597	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	13.851	0.000		0	N.D.	
54)	Ethylbenzene	13.863	13.863	1.007	91	1094	N.D.	
55)	m,p-Xylenes	13.960	13.973	1.014	106	898	N.D.	
56)	o-Xylene	14.399	14.399	1.046	106	146	N.D.	
57)	Styrene	14.399	14.399	1.046	104	500	N.D.	
59)	Bromoform	0.000	14.655	0.000		0	N.D.	
60)	Isopropylbenzene	14.759	14.759	0.912	105	1165	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	15.015	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	15.107	0.000		0	N.D.	
64)	Bromobenzene	15.168	15.168	0.937	156	126	N.D.	
65)	n-Propylbenzene	15.180	15.180	0.938	91	1097	N.D.	
66)	1,3,5-Trimethylbenzene	15.326	15.332	0.947	105	544	N.D.	
67)	2-Chlorotoluene	15.338	15.332	0.948	126	147	N.D.	
68)	4-Chlorotoluene	15.430	15.430	0.954	91	837	N.D.	
69)	tert-Butylbenzene	0.000	15.704	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	15.741	15.741	0.973	105	690	N.D.	
71)	sec-Butylbenzene	15.930	15.930	0.985	105	756	N.D.	
72)	4-Isopropyltoluene	16.039	16.051	0.991	119	706	N.D.	
73)	1,3-Dichlorobenzene	16.125	16.119	0.997	146	388	N.D.	
74)	1,4-Dichlorobenzene	16.204	16.204	1.002	146	682	N.D.	
75)	n-Butylbenzene	16.515	16.503	1.021	91	506	N.D.	
76)	1,2-Dichlorobenzene	16.637	16.643	1.028	146	325	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	17.527	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	18.636	18.630	1.152	180	266	N.D.	
79)	Hexachlorobutadiene	0.000	18.819	0.000		0	N.D.	
80)	Naphthalene	19.033	19.026	1.176	128	4411	N.D.	
81)	1,2,3-Trichlorobenzene	19.380	19.386	1.198	180	198	N.D.	
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85)	Acrolein	0.000	7.180	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	7.369	0.000		0	N.D.	
87)	Isopropyl Alcohol	7.462	7.430	0.703	45	248	N.D.	
88)	Allyl chloride	7.797	7.796	0.734	41	274	N.D.	
89)	tert-Butyl Alcohol	7.919	7.924	0.746	59	571	N.D.	
90)	Acrylonitrile	8.193	8.174	0.772	53	144	N.D.	
91)	Isopropyl ether	8.657	8.741	0.815	45	105	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	8.869	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	9.143	0.000		0	N.D.	
94)	Ethyl acetate	9.346	9.338	0.880	43	994	N.D.	
95)	Propionitrile	0.000	9.393	0.000		0	N.D.	
96)	Methacrylonitrile	9.602	9.576	0.904	41	252	N.D.	
97)	Tetrahydrofuran	9.730	9.710	0.916	42	754	N.D.	
98)	Isobutyl alcohol	10.028	10.009	0.944	41	218	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A410.D
Acq On : 4 Mar 2010 2:16 pm
Operator : ACJ
InstName : VOA4
Sample : |248042001|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 08 21:51:15 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	10.387	0.000		0	N.D.	
100) Methyl methacrylate	11.248	11.204	1.059	69	128	N.D.	
101) 1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102) 2-Nitropropane	11.674	11.673	1.099	43	134	N.D.	
104) Ethyl methacrylate	12.461	12.466	0.905	69	206	N.D.	
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	14.783	0.000		0	N.D.	
108) Cyclohexanone	14.912	14.904	0.922	42	225	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	15.063	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111) Benzyl chloride	16.320	16.319	1.009	91	1022	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.721	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A410.D
Acq On : 4 Mar 2010 2:16 pm
Operator : ACJ
InstName : VOA4
Sample : |248042001|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 08 21:51:15 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

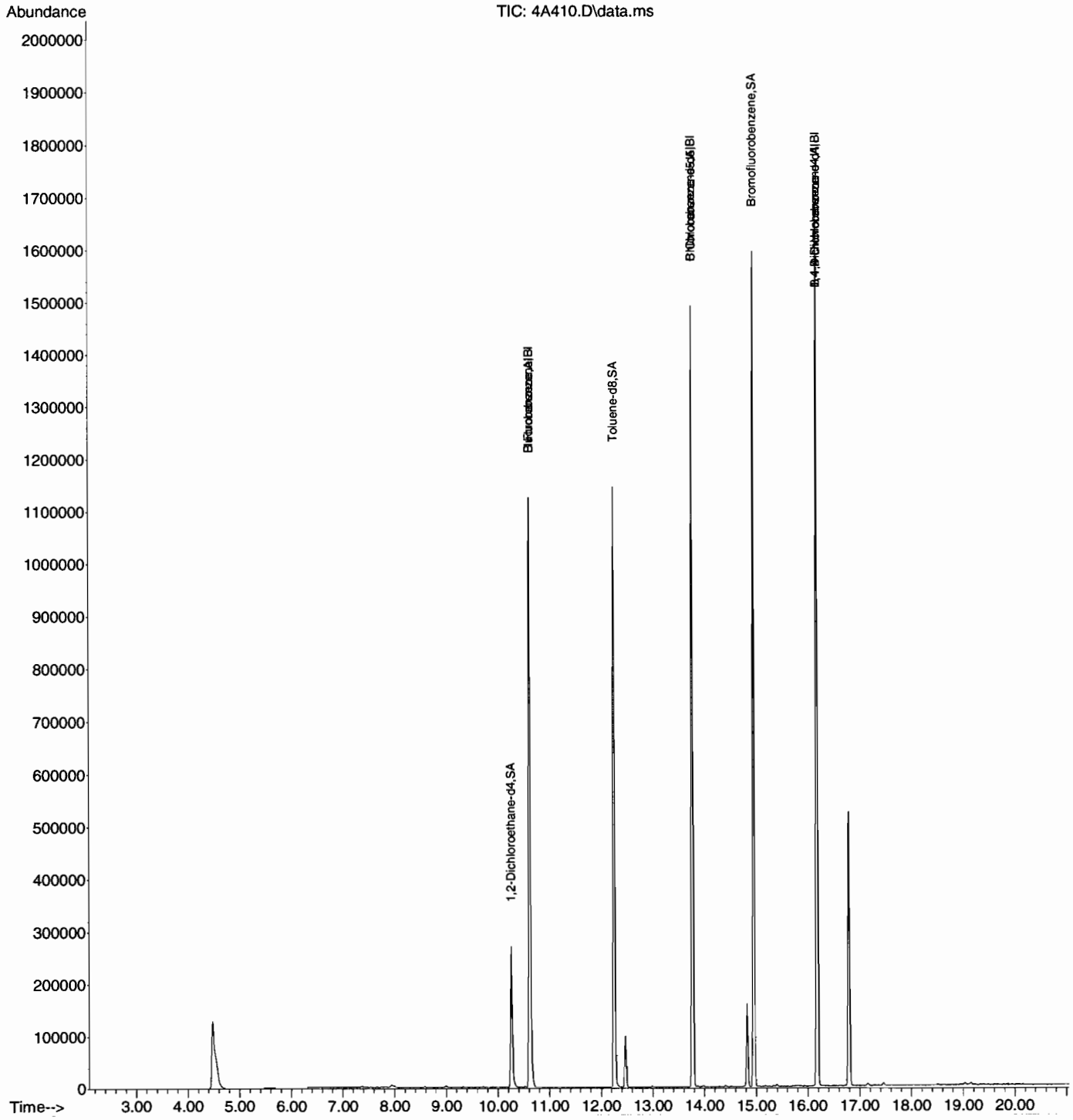

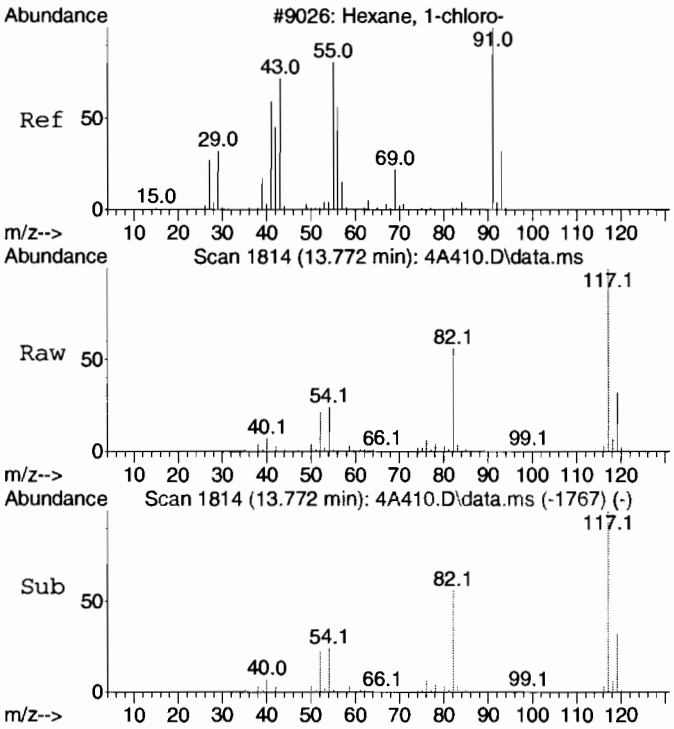

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.73 ug/L
RT: 13.772 min Scan# 1814
Delta R.T. 0.111 min
Lab File: 4A410.D
Acq: 4 Mar 2010 2:16 pm

Tgt Ion: 55 Resp: 10031

Ion	Ratio	Lower	Upper
55	100		
91	20.1	112.1	172.1#
56	61.2	28.5	88.5

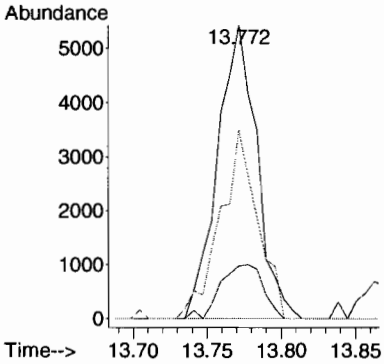

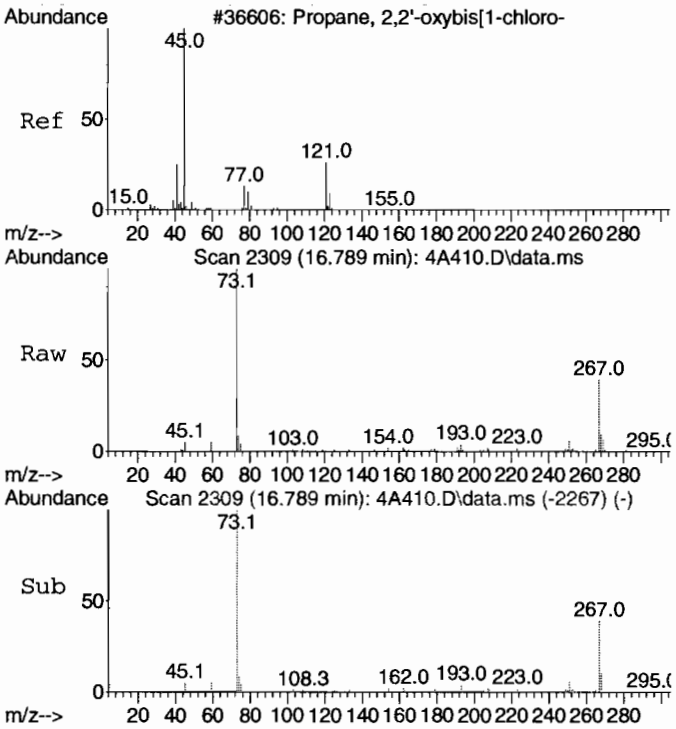

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 6.01 ug/L
RT: 16.789 min Scan# 2309
Delta R.T. 0.068 min
Lab File: 4A410.D
Acq: 4 Mar 2010 2:16 pm

Tgt Ion: 45 Resp: 24111

Ion	Ratio	Lower	Upper
45	100		
121	1.0	0.0	56.0

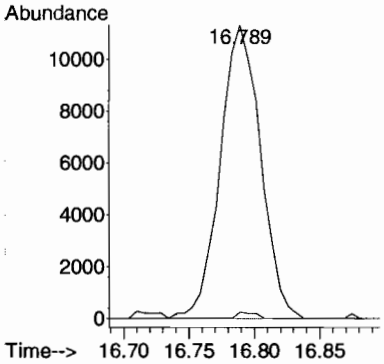

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A410.D
Acq On : 4 Mar 2010 2:16 pm
Operator : ACJ
Sample : |248042001|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown hydrocarbon Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	13.09 ug/L	657750	Fluorobenzene	10.620

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	3

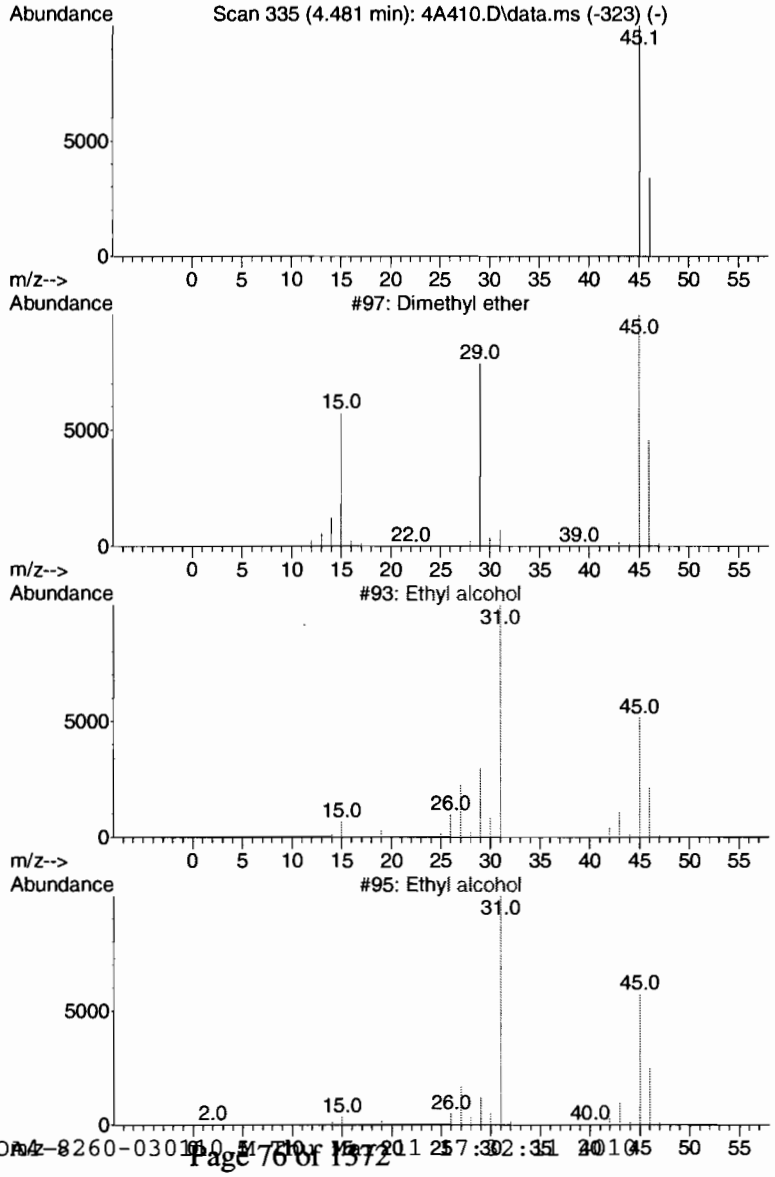

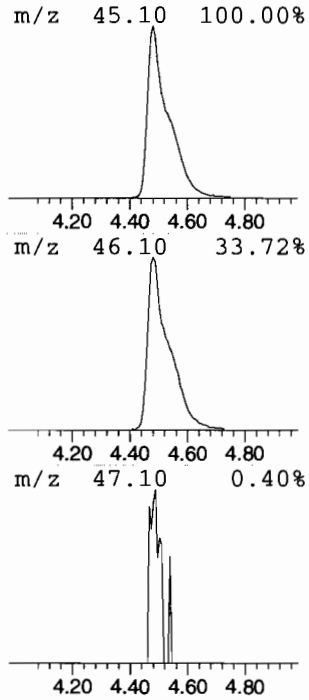

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A410.D
Acq On : 4 Mar 2010 2:16 pm
Operator : ACJ
Sample : |248042001|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 2 unknown siloxane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.826	5.41 ug/L	311398	B Chlorobenzene-d5	13.772

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	87
2	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	72
3	7H-Dibenzo[b,g]carbazole, 7-methyl-	281	C21H15N	003557-49-1	59
4	Benzoic acid, 3-methyl-2-trimeth...	296	C14H24O3Si2	1000153-57-1	59
5	trans-4-Dimethylamino-4'-methoxy...	281	C18H19NO2	052119-37-6	50

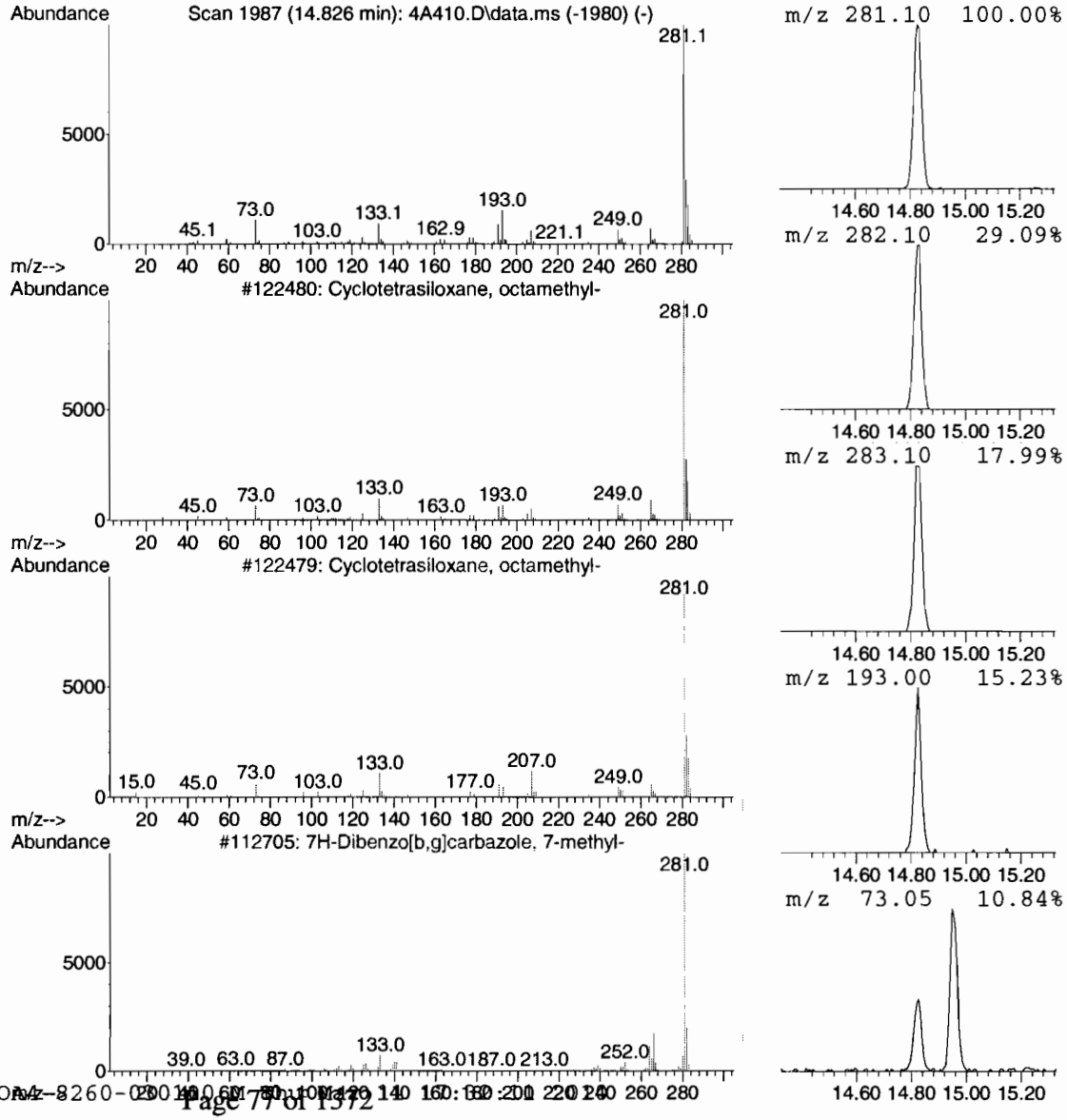

Library Search Compound Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A410.D
Acq On    :  4 Mar 2010   2:16 pm
Operator  : ACJ
Sample    : |248042001|961120|1|VOAF|1|VOA8260LFD|
Misc      : LANL 5ML PH2
ALS Vial  : 10   Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library    : C:\Database\NIST05.L
TIC Integration Parameters: default.P
```

****

Peak Number 3 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.795	17.50 ug/L	1103440	B 1,4-Dichlorobenzene-d4	16.180

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	59
2	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	56
3	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	40
4	3,5-Dimethoxyphenylacetic acid, ...	268	C13H20O4Si	1000071-82-4	22
5	Tetrasiloxane, 1,1,3,3,5,5,7,7-o...	282	C8H26O3Si4	001000-05-1	10

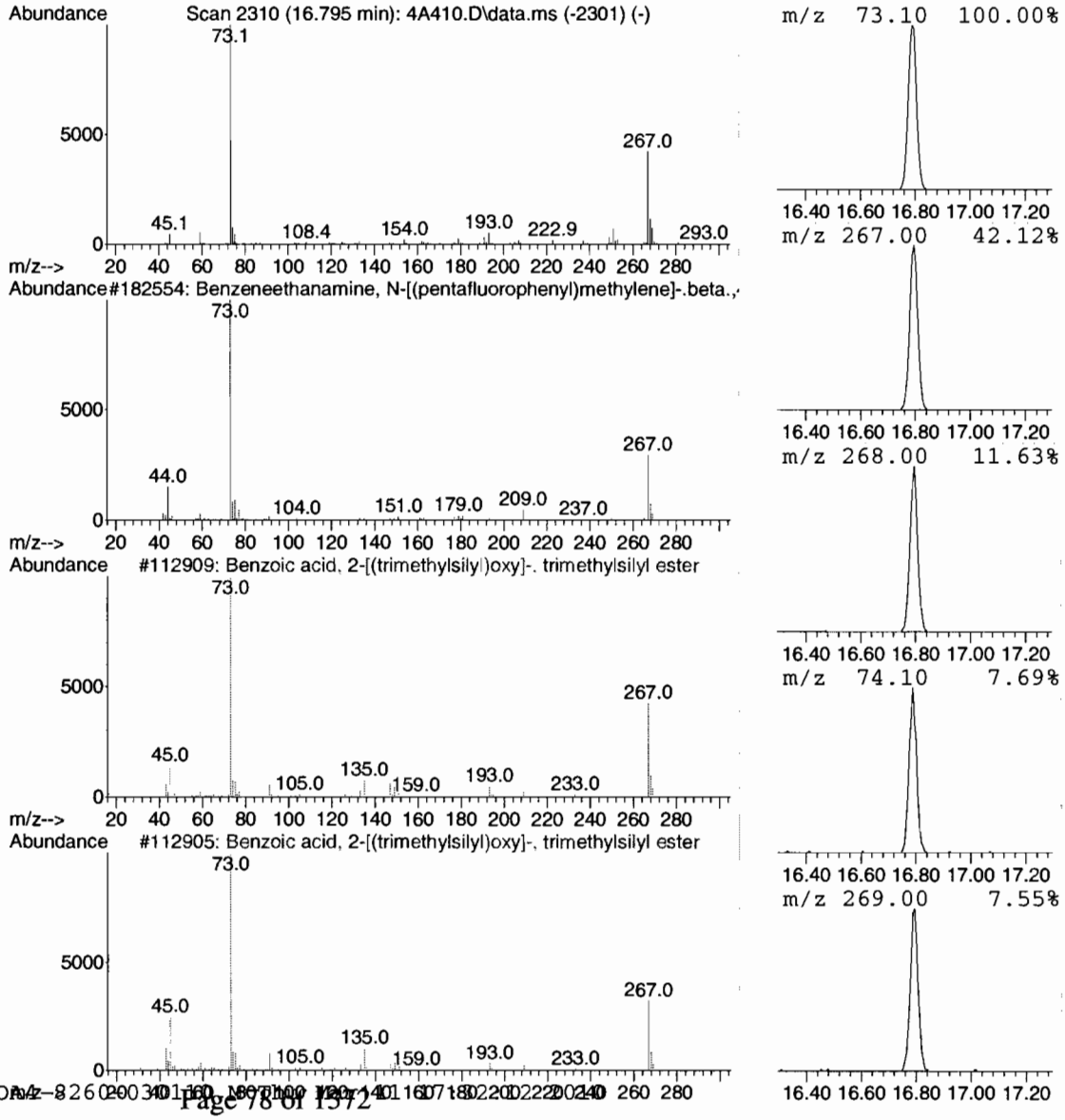

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A410.D
Acq On : 4 Mar 2010 2:16 pm
Operator : ACJ
Sample : |248042001|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown hydroca...	4.481	13.1	ug/L	657750	1	10.620	2512460	50.0
unknown siloxane	14.826	5.4	ug/L	311398	4	13.772	2879230	50.0
unknown siloxane	16.795	17.5	ug/L	1103440	6	16.180	3152750	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042005**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12772**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 14:43**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 14:43**				
Data File:	**030410V4\4A411.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042005**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12772**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 14:43**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 14:43**				
Data File:	**030410V4\4A411.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042005**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12772**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 14:43**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 14:43**				
Data File:	**030410V4\4A411.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	48.5	50.0	ug/L	96.9	(72%-132%)
Bromofluorobenzene	59.0	50.0	ug/L	118	(77%-123%)
Toluene-d8	49.5	50.0	ug/L	98.9	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	9.95	ug/L	0	J
	unknown siloxane	12.47	10.3	ug/L	0	J
	unknown siloxane	14.83	32.3	ug/L	0	J
	unknown siloxane	16.79	5.56	ug/L	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A411.D
Acq On : 4 Mar 2010 2:43 pm
Operator : ACJ
InstName : VOA4
Sample : |248042005|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 08 21:52:03 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.619	10.620	1.000	96	1106727	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	884615	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	505871	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1106531	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	884615	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	505886	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	221833	48.45	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 96.90%					
43) Toluene-d8	12.253	12.247	0.890	98	811576	49.46	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 98.92%					
61) Bromofluorobenzene	14.953	14.954	0.924	95	583489	58.95	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 117.90%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.911	0.000		0	N.D.		
3) Chloromethane	5.299	5.291	0.499	50	2600	N.D.		
4) Vinyl chloride	5.528	5.521	0.521	62	349	N.D.		
5) Bromomethane	0.000	6.137	0.000		0	N.D.		
6) Chloroethane	0.000	6.295	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.669	0.000		0	N.D.		
8) Ethyl ether	0.000	6.998	0.000		0	N.D.		
9) Acetone	7.363	7.352	0.693	43	6250	N.D.		
10) 1,1-Dichloroethylene	0.000	7.389	0.000		0	N.D.		
11) Iodomethane	7.668	7.663	0.722	142	218	N.D.		
12) Acetonitrile	7.699	7.699	0.725	41	170	N.D.		
13) Methyl acetate	7.753	7.748	0.730	43	101	N.D.		
14) Carbon disulfide	7.790	7.773	0.734	76	929	N.D.		
15) Methylene chloride	7.973	7.931	0.751	84	21958	2.19	ug/L	92
16) tert-Butyl methyl ether	0.000	8.242	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.285	0.000		0	N.D.		
18) Vinyl acetate	8.826	8.705	0.831	43	137	N.D.		
19) 1,1-Dichloroethane	0.000	8.760	0.000		0	N.D.		
20) 2-Butanone	9.332	9.327	0.879	43	867	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.388	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.419	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.686	9.687	0.912	83	376	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.979	0.000		0	N.D.		
26) Cyclohexane	10.070	10.083	0.948	56	131	N.D.		
27) 1,1-Dichloropropene	0.000	10.132	0.000		0	N.D.		
28) Carbon tetrachloride	10.149	10.175	0.956	117	114	N.D.		
30) 1,2-Dichloroethane	0.000	10.339	0.000		0	N.D.		
31) Benzene	10.381	10.370	0.978	78	232	N.D.		
32) Cyclohexene	10.619	10.492	1.000	67	415	N.D.		
33) n-Butyl alcohol	10.692	10.693	1.007	56	508	N.D.		
34) Trichloroethylene	11.161	11.004	1.051	95	217	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.260	0.000		0	N.D.		
37) Dibromomethane	0.000	11.376	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.485	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.699	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A411.D
Acq On : 4 Mar 2010 2:43 pm
Operator : ACJ
InstName : VOA4
Sample : |248042005|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 08 21:52:03 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.016	0.000		0	N.D.	
44) Toluene	12.313	12.320	0.894	91	1609	N.D.	
45) trans-1,3-Dichloroprop...	0.000	12.461	0.000		0m	N.D.	d
46) 1,1,2-Trichloroethane	0.000	12.680	0.000		0	N.D.	
47) 2-Hexanone	12.868	12.857	0.934	43	421	N.D.	
48) 1,3-Dichloropropane	0.000	12.875	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.918	0.000		0	N.D.	
50) Dibromochloromethane	0.000	13.144	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.320	0.000		0	N.D.	
52) Chlorobenzene	13.813	13.802	1.003	112	628	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.851	0.000		0	N.D.	
54) Ethylbenzene	13.862	13.863	1.007	91	911	N.D.	
55) m,p-Xylenes	13.960	13.973	1.014	106	829	N.D.	
56) o-Xylene	14.411	14.399	1.046	106	256	N.D.	
57) Styrene	14.398	14.399	1.046	104	263	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	14.819	14.759	0.916	105	3175	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	15.015	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.107	0.000		0	N.D.	
64) Bromobenzene	0.000	15.168	0.000		0	N.D.	
65) n-Propylbenzene	15.185	15.180	0.939	91	931	N.D.	
66) 1,3,5-Trimethylbenzene	15.331	15.332	0.948	105	869	N.D.	
67) 2-Chlorotoluene	15.435	15.332	0.954	126	220	N.D.	
68) 4-Chlorotoluene	15.429	15.430	0.954	91	534	N.D.	
69) tert-Butylbenzene	0.000	15.704	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.746	15.741	0.973	105	761	N.D.	
71) sec-Butylbenzene	15.935	15.930	0.985	105	663	N.D.	
72) 4-Isopropyltoluene	16.051	16.051	0.992	119	814	N.D.	
73) 1,3-Dichlorobenzene	16.118	16.119	0.996	146	430	N.D.	
74) 1,4-Dichlorobenzene	16.215	16.204	1.002	146	676	N.D.	
75) n-Butylbenzene	16.514	16.503	1.021	91	357	N.D.	
76) 1,2-Dichlorobenzene	16.636	16.643	1.028	146	307	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.527	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.630	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.819	0.000		0	N.D.	
80) Naphthalene	19.032	19.026	1.176	128	3684	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.386	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	0.000	7.180	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.369	0.000		0	N.D.	
87) Isopropyl Alcohol	7.442	7.430	0.701	45	3461	N.D.	
88) Allyl chloride	7.845	7.796	0.739	41	261	N.D.	
89) tert-Butyl Alcohol	7.918	7.924	0.746	59	968	N.D.	
90) Acrylonitrile	0.000	8.174	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.741	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.869	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.143	0.000		0	N.D.	
94) Ethyl acetate	9.332	9.338	0.879	43	867	N.D.	
95) Propionitrile	0.000	9.393	0.000		0	N.D.	
96) Methacrylonitrile	9.637	9.576	0.908	41	164	N.D.	
97) Tetrahydrofuran	9.723	9.710	0.916	42	855	N.D.	
98) Isobutyl alcohol	9.912	10.009	0.933	41	296	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A411.D
Acq On : 4 Mar 2010 2:43 pm
Operator : ACJ
InstName : VOA4
Sample : |248042005|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 08 21:52:03 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	10.387	0.000		0	N.D.	
100) Methyl methacrylate	0.000	11.204	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102) 2-Nitropropane	11.704	11.673	1.102	43	215	N.D.	
104) Ethyl methacrylate	12.454	12.466	0.904	69	207	N.D.	
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	14.783	0.000		0	N.D.	
108) Cyclohexanone	14.813	14.904	0.916	42	187	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	15.063	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111) Benzyl chloride	16.319	16.319	1.009	91	827	N.D.	
112) bis(2-Chloroisopropyl)...	16.721	16.721	1.034	45	117	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A411.D
Acq On : 4 Mar 2010 2:43 pm
Operator : ACJ
InstName : VOA4
Sample : |248042005|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 08 21:52:03 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

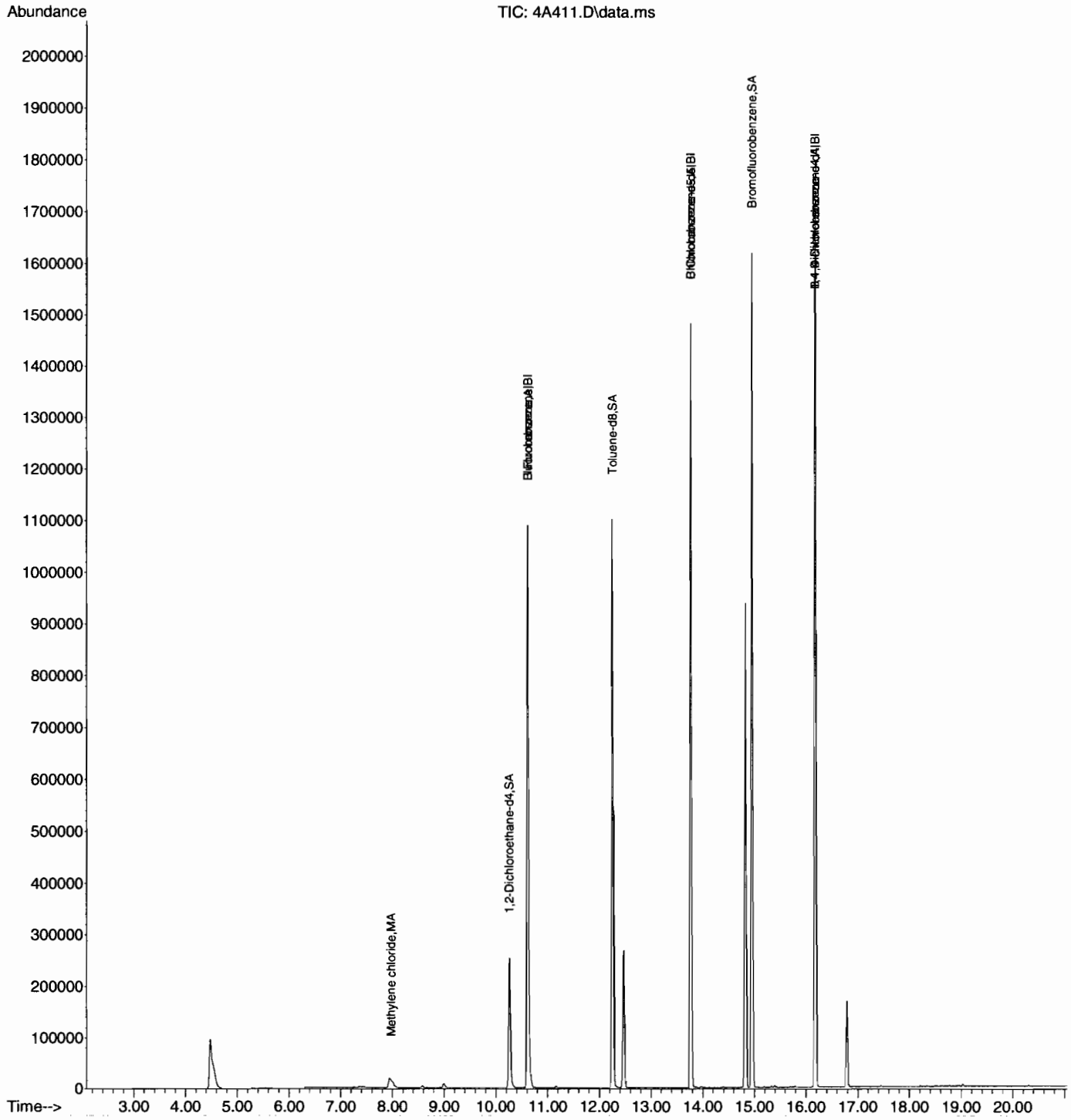

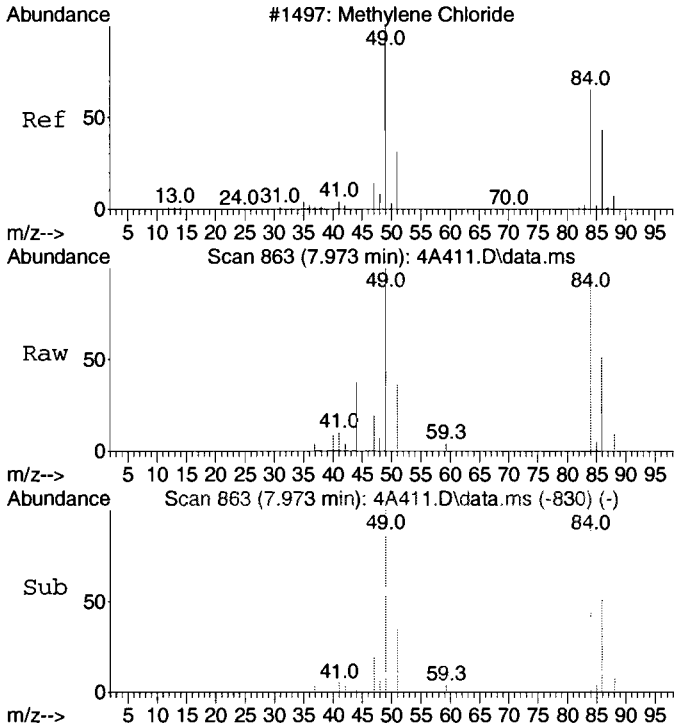

#15
Methylene chloride
Concen: 2.19 ug/L
RT: 7.973 min Scan# 863
Delta R.T. 0.042 min
Lab File: 4A411.D
Acq: 4 Mar 2010 2:43 pm

Tgt Ion: 84 Resp: 21958

Ion	Ratio	Lower	Upper
84	100		
86	66.1	33.9	93.9
49	141.6	98.9	158.9

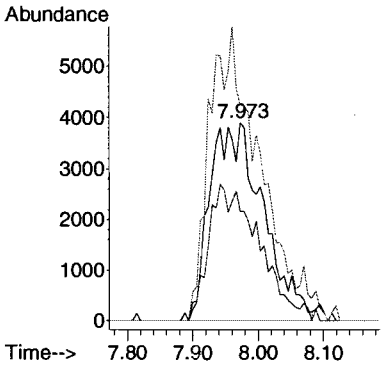

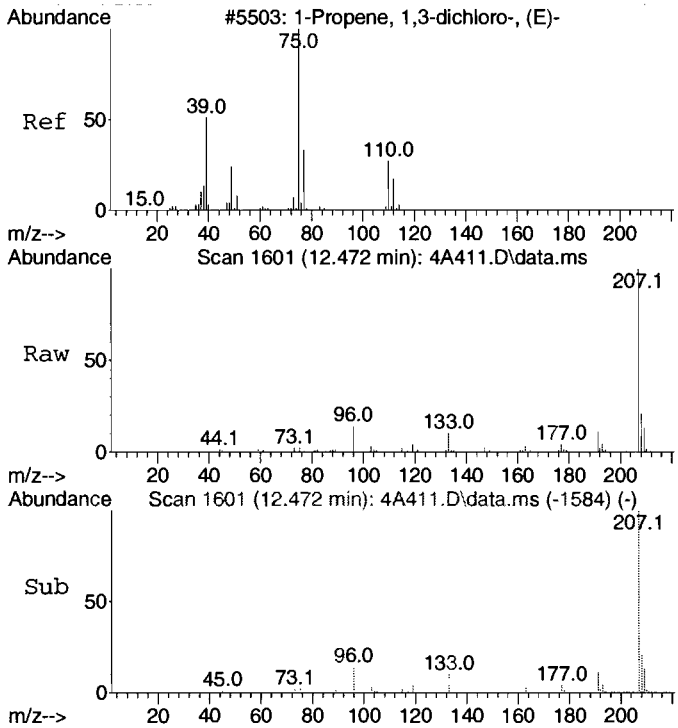

#45 BEFORE analyst DELETION
trans-1,3-Dichloropropylene
Concen: 0.49 ug/L
RT: 12.472 min Scan# 1601
Delta R.T. 0.011 min
Lab File: 4A411.D
Acq: 4 Mar 2010 2:43 pm

Tgt Ion: 75 Resp: 5087

Ion	Ratio	Lower	Upper
75	100		
39	5.7	22.8	82.8#
77	6.3	1.6	61.6

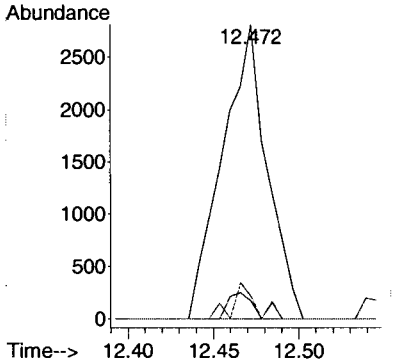

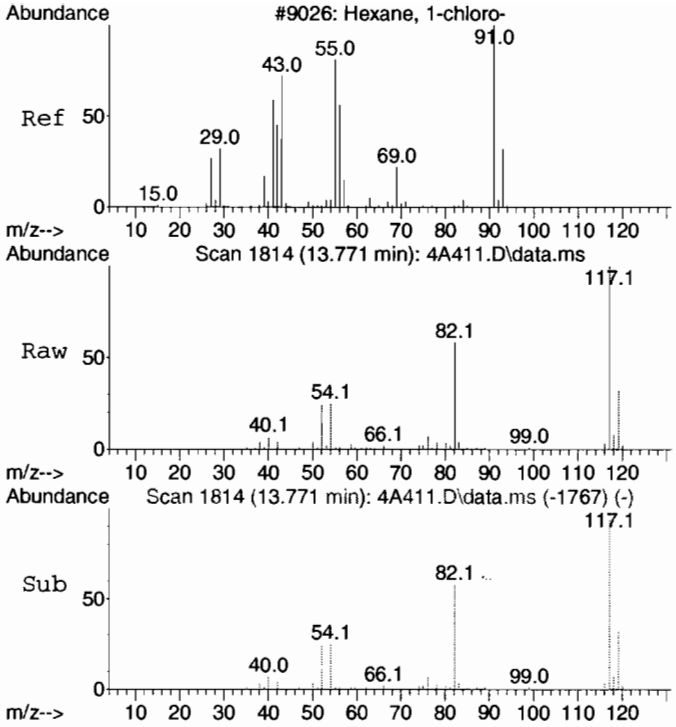

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.74 ug/L
RT: 13.771 min Scan# 1814
Delta R.T. 0.110 min
Lab File: 4A411.D
Acq: 4 Mar 2010 2:43 pm

Tgt Ion: 55 Resp: 10126

Ion	Ratio	Lower	Upper
55	100		
91	15.6	112.1	172.1#
56	57.3	28.5	88.5

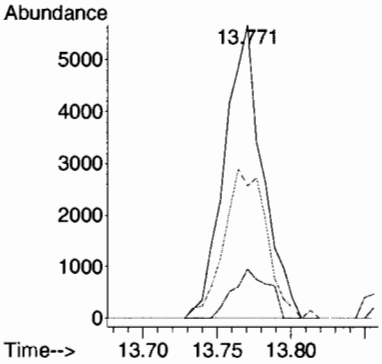

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A411.D
Acq On : 4 Mar 2010 2:43 pm
Operator : ACJ
Sample : |248042005|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	9.95 ug/L	485381	Fluorobenzene	10.619

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	3

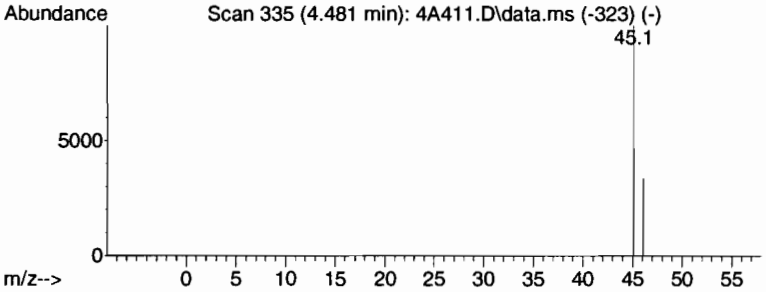

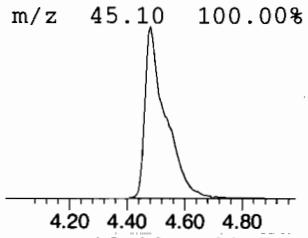

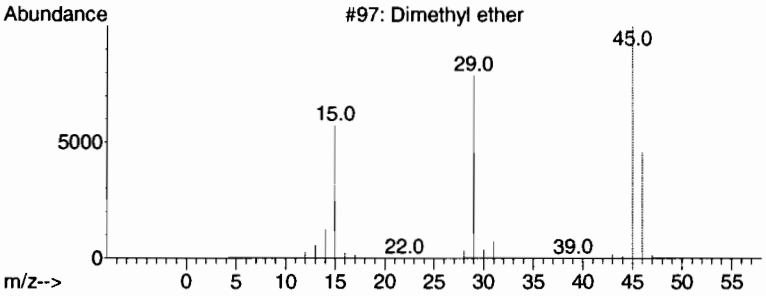

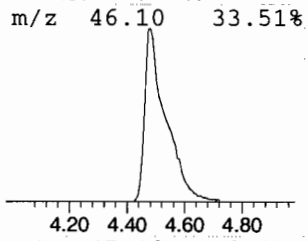

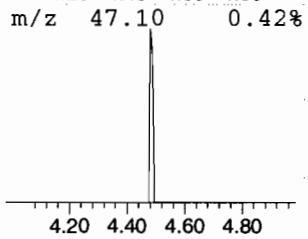

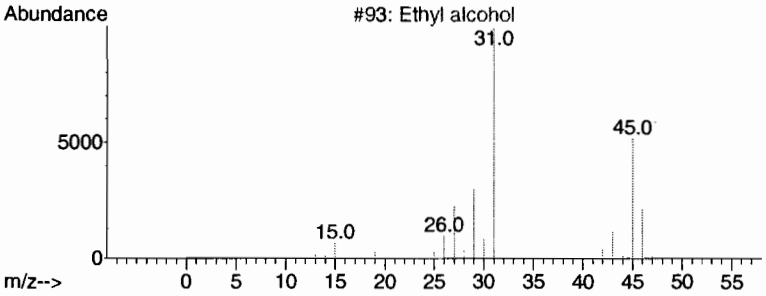

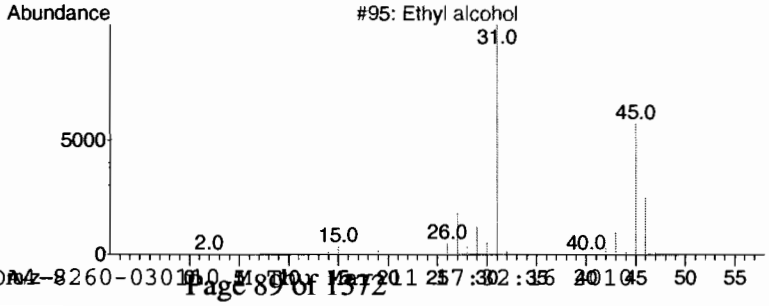

Library Search Compound Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A411.D
Acq On    :  4 Mar 2010   2:43 pm
Operator  : ACJ
Sample    : |248042005|961120|1|VOAF|1|VOA8260LFD|
Misc      : LANL 5ML PH2
ALS Vial  : 11   Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library    : C:\Database\NIST05.L
TIC Integration Parameters: default.P
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****

Peak Number 2 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.472	10.29 ug/L	581444	Chlorobenzene-d5	13.771

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	91
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	90
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	80
4	Benzo[h]quinoline, 2,4-dimethyl-	207	C15H13N	000605-67-4	38
5	Anthracene, 9-ethyl-9,10-dihydro...	264	C20H24	1000154-57-7	38

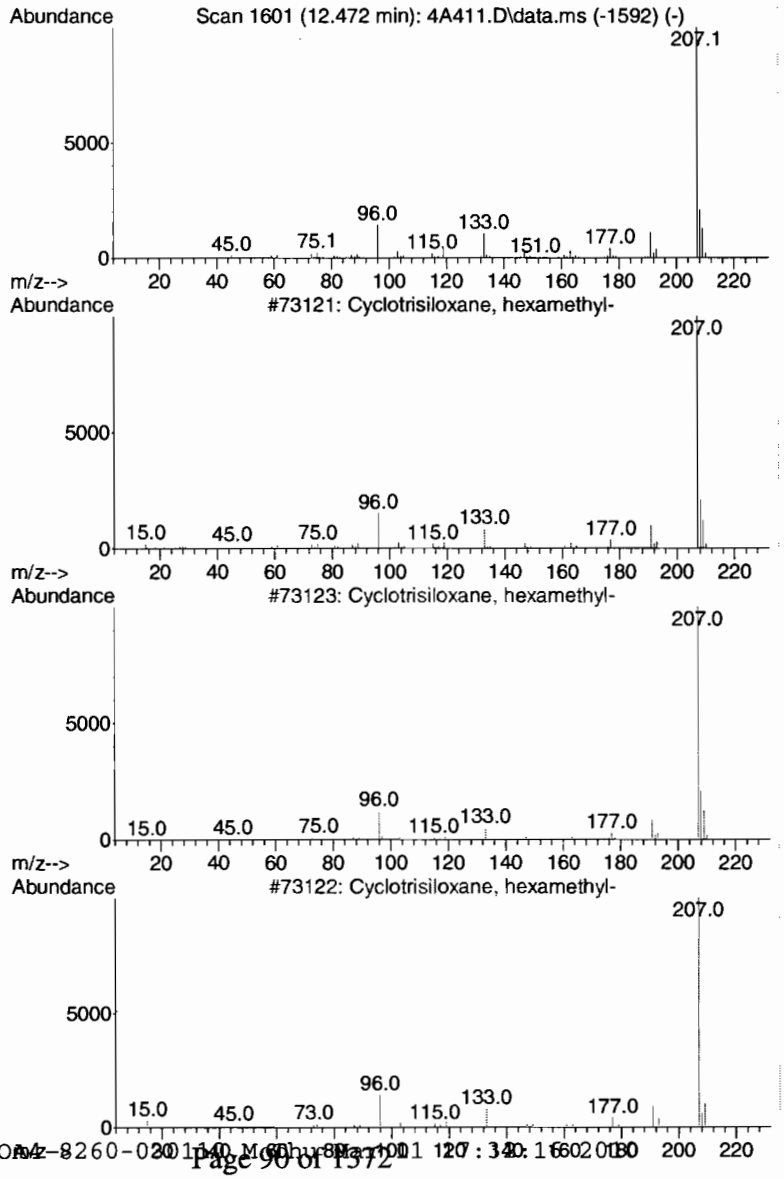

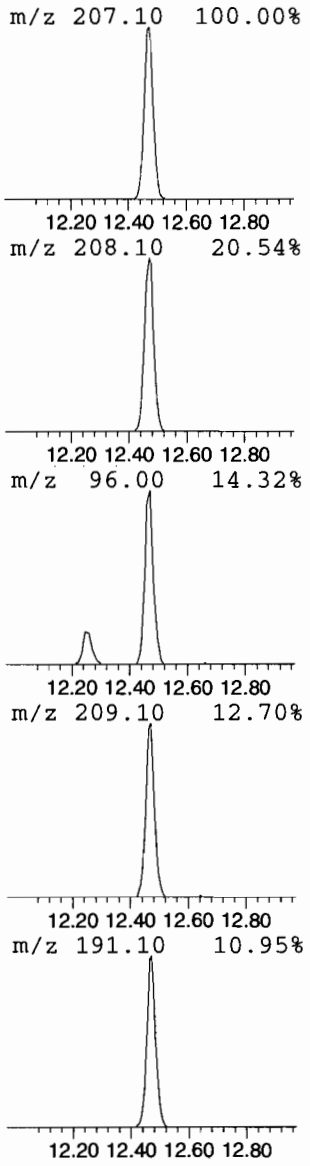

Library Search Compound Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A411.D
Acq On    :  4 Mar 2010   2:43 pm
Operator  : ACJ
Sample    : |248042005|961120|1|VOAF|1|VOA8260LFD|
Misc      : LANL 5ML PH2
ALS Vial  : 11   Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library    : C:\Database\NIST05.L
TIC Integration Parameters: default.P
```

****

Peak Number 3 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.825	32.30 ug/L	1825450	B Chlorobenzene-d5	13.771

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	7H-Dibenzo[b,g]carbazole, 7-methyl-	281	C21H15N	003557-49-1	53
2	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	49
3	4H-1,2,4-Triazole-3-thiol, 4-all...	281	C16H15N3S	031803-13-1	47
4	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	46
5	trans-4-Dimethylamino-4'-methoxy...	281	C18H19NO2	052119-37-6	42

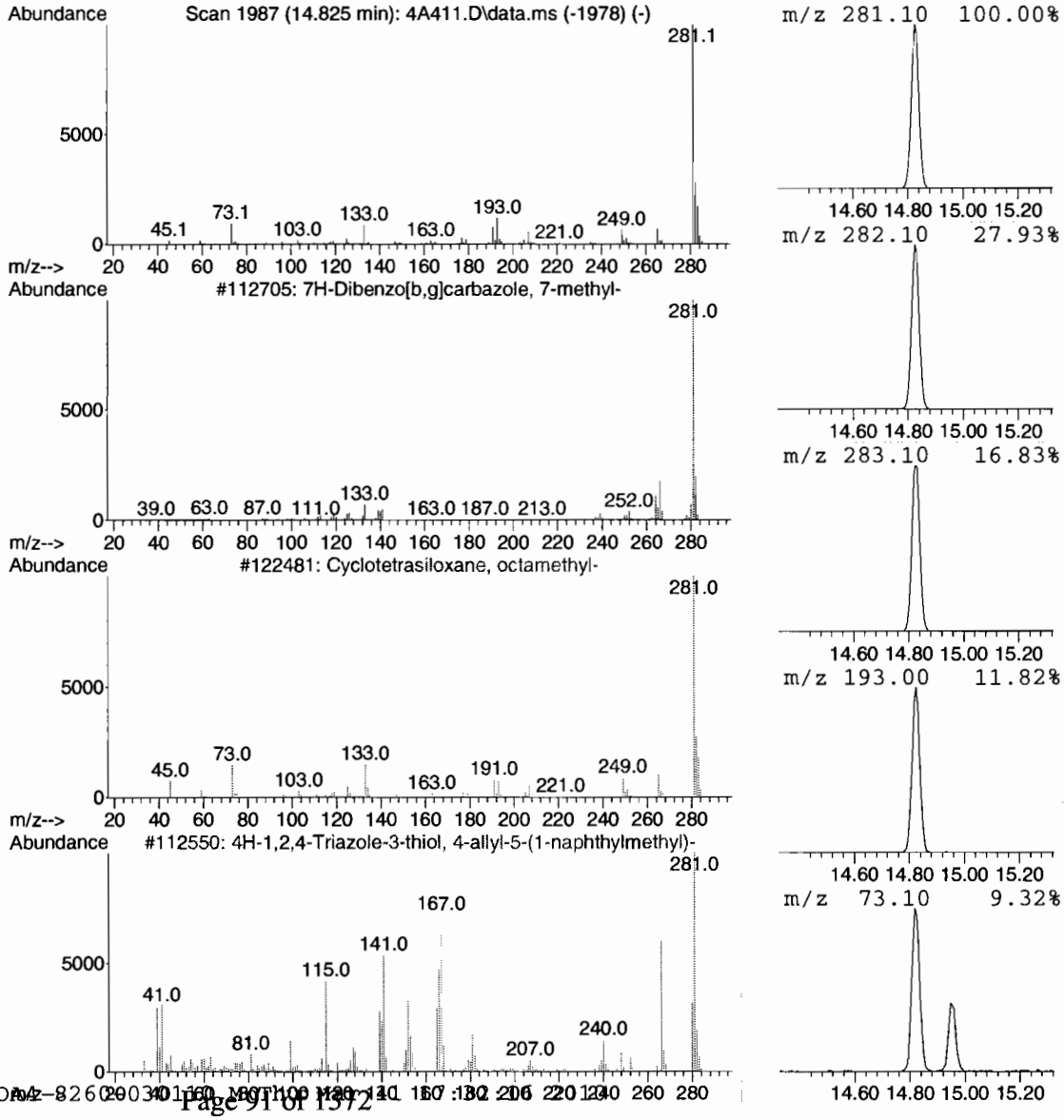

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A411.D
Acq On : 4 Mar 2010 2:43 pm
Operator : ACJ
Sample : |248042005|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 4 unknown siloxane Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.788	5.56 ug/L	355563	B 1,4-Dichlorobenzene-d4	16.179

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	64
2	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	64
3	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	64
4	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	50
5	3,5-Dimethoxyphenylacetic acid, ...	268	C13H20O4Si	1000071-82-4	35

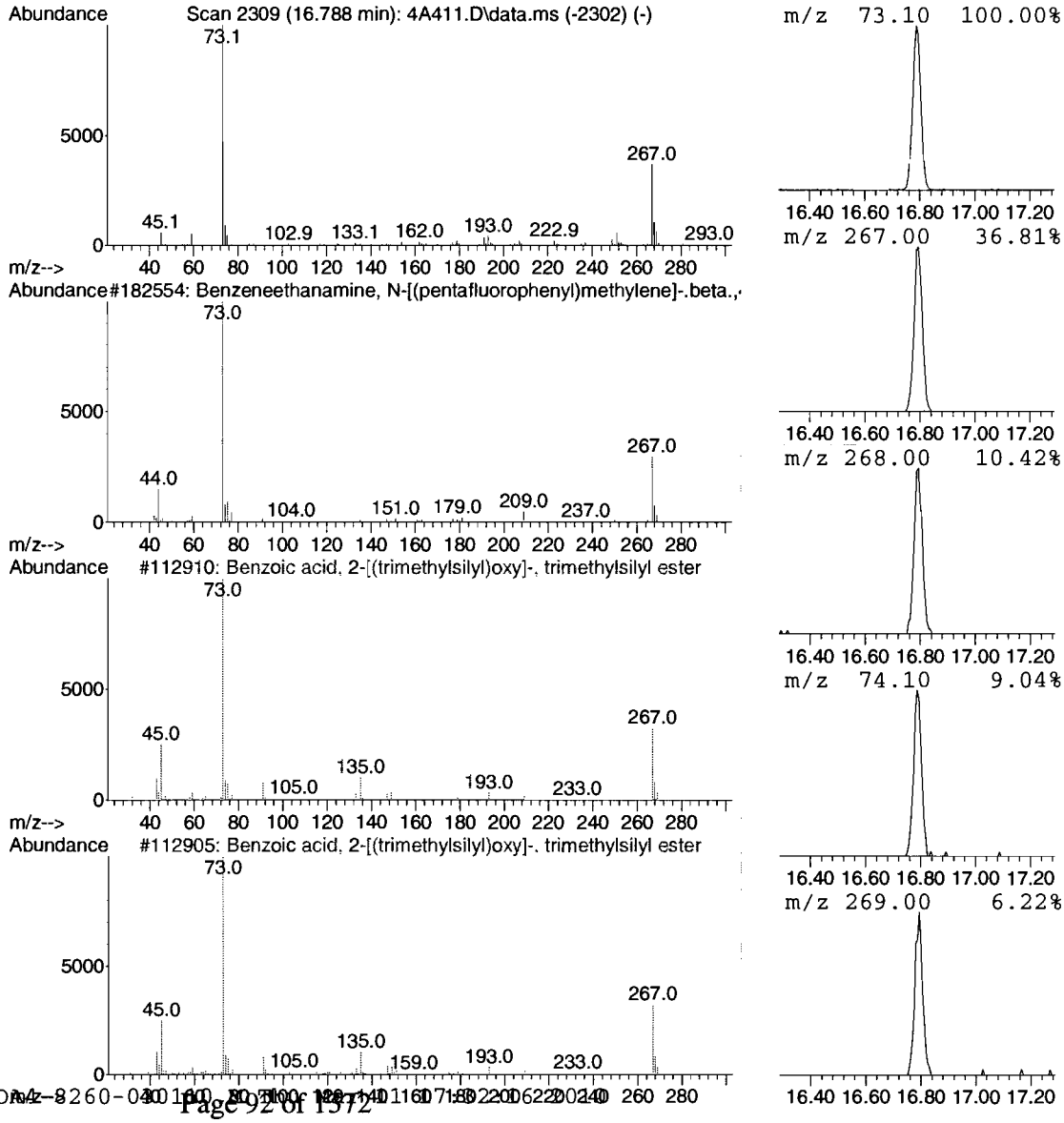

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A411.D
Acq On : 4 Mar 2010 2:43 pm
Operator : ACJ
Sample : |248042005|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown hydroca...	4.481	9.9	ug/L	485381	1	10.619	2440330	50.0
unknown siloxane	12.472	10.3	ug/L	581444	3	13.771	2825370	50.0
unknown siloxane	14.825	32.3	ug/L	1825450	4	13.771	2825370	50.0
unknown siloxane	16.788	5.6	ug/L	355563	6	16.179	3196400	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042006**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12773**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 15:11**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 15:11**				
Data File:	**030410V4\4A412.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042006**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12773**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 15:11**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 15:11**				
Data File:	**030410V4\4A412.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042006**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12773**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 15:11**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 15:11**				
Data File:	**030410V4\4A412.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	49.4	50.0	ug/L	98.8	(72%-132%)
Bromofluorobenzene	58.5	50.0	ug/L	117	(77%-123%)
Toluene-d8	50.5	50.0	ug/L	101	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	10.9	ug/L	0	J
	unknown siloxane	14.83	5.68	ug/L	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A412.D
Acq On : 4 Mar 2010 3:11 pm
Operator : ACJ
InstName : VOA4
Sample : |248042006|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 08 21:52:44 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.619	10.620	1.000	96	1084336	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.770	13.771	1.000	117	869350	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	496452	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1083806	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.770	13.771	1.000	117	869350	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	496466	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	221495	49.38	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 98.76%					
43) Toluene-d8	12.252	12.247	0.890	98	814123	50.48	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 100.96%					
61) Bromofluorobenzene	14.953	14.954	0.924	95	567724	58.45	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 116.90%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.911	0.000		0	N.D.		
3) Chloromethane	5.313	5.291	0.500	50	2254	N.D.		
4) Vinyl chloride	0.000	5.521	0.000		0	N.D.		
5) Bromomethane	0.000	6.137	0.000		0	N.D.		
6) Chloroethane	0.000	6.295	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.669	0.000		0	N.D.		
8) Ethyl ether	0.000	6.998	0.000		0	N.D.		
9) Acetone	7.381	7.352	0.695	43	4880	N.D.		
10) 1,1-Dichloroethylene	0.000	7.389	0.000		0	N.D.		
11) Iodomethane	0.000	7.663	0.000		0	N.D.		
12) Acetonitrile	7.692	7.699	0.724	41	243	N.D.		
13) Methyl acetate	7.741	7.748	0.729	43	151	N.D.		
14) Carbon disulfide	7.741	7.773	0.729	76	120	N.D.		
15) Methylene chloride	7.948	7.931	0.749	84	4994	N.D.		
16) tert-Butyl methyl ether	0.000	8.242	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.285	0.000		0	N.D.		
18) Vinyl acetate	8.704	8.705	0.820	43	160	N.D.		
19) 1,1-Dichloroethane	0.000	8.760	0.000		0	N.D.		
20) 2-Butanone	9.332	9.327	0.879	43	907	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.388	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.419	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	0.000	9.687	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.979	0.000		0	N.D.		
26) Cyclohexane	0.000	10.083	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	10.132	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.175	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.339	0.000		0	N.D.		
31) Benzene	10.375	10.370	0.977	78	487	N.D.		
32) Cyclohexene	10.619	10.492	1.000	67	403	N.D.		
33) n-Butyl alcohol	10.704	10.693	1.008	56	434	N.D.		
34) Trichloroethylene	0.000	11.004	0.000		0	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.260	0.000		0	N.D.		
37) Dibromomethane	0.000	11.376	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.485	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.699	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A412.D
Acq On : 4 Mar 2010 3:11 pm
Operator : ACJ
InstName : VOA4
Sample : |248042006|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 08 21:52:44 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.016	0.000		0	N.D.	
44) Toluene	12.326	12.320	0.895	91	1607	N.D.	
45) trans-1,3-Dichloroprop...	12.466	12.461	0.905	75	1837	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.680	0.000		0	N.D.	
47) 2-Hexanone	12.868	12.857	0.934	43	510	N.D.	
48) 1,3-Dichloropropane	0.000	12.875	0.000		0	N.D.	
49) Tetrachloroethylene	12.911	12.918	0.938	164	174	N.D.	
50) Dibromochloromethane	0.000	13.144	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.320	0.000		0	N.D.	
52) Chlorobenzene	13.801	13.802	1.002	112	463	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.851	0.000		0	N.D.	
54) Ethylbenzene	13.856	13.863	1.006	91	854	N.D.	
55) m,p-Xylenes	13.978	13.973	1.015	106	585	N.D.	
56) o-Xylene	14.404	14.399	1.046	106	151	N.D.	
57) Styrene	14.398	14.399	1.046	104	425	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	14.831	14.759	0.917	105	462	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	15.015	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.107	0.000		0	N.D.	
64) Bromobenzene	15.160	15.168	0.937	156	120	N.D.	
65) n-Propylbenzene	15.331	15.180	0.948	91	874	N.D.	
66) 1,3,5-Trimethylbenzene	15.331	15.332	0.948	105	862	N.D.	
67) 2-Chlorotoluene	15.331	15.332	0.948	126	231	N.D.	
68) 4-Chlorotoluene	15.429	15.430	0.954	91	679	N.D.	
69) tert-Butylbenzene	0.000	15.704	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.740	15.741	0.973	105	664	N.D.	
71) sec-Butylbenzene	15.929	15.930	0.985	105	613	N.D.	
72) 4-Isopropyltoluene	16.044	16.051	0.992	119	312	N.D.	
73) 1,3-Dichlorobenzene	16.124	16.119	0.997	146	221	N.D.	
74) 1,4-Dichlorobenzene	16.209	16.204	1.002	146	588	N.D.	
75) n-Butylbenzene	16.502	16.503	1.020	91	385	N.D.	
76) 1,2-Dichlorobenzene	16.648	16.643	1.029	146	299	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.527	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	18.641	18.630	1.152	180	250	N.D.	
79) Hexachlorobutadiene	0.000	18.819	0.000		0	N.D.	
80) Naphthalene	19.038	19.026	1.177	128	3392	N.D.	
81) 1,2,3-Trichlorobenzene	19.385	19.386	1.198	180	145	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	0.000	7.180	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.369	0.000		0	N.D.	
87) Isopropyl Alcohol	7.461	7.430	0.703	45	1884	N.D.	
88) Allyl chloride	7.717	7.796	0.727	41	666	N.D.	
89) tert-Butyl Alcohol	7.936	7.924	0.747	59	485	N.D.	
90) Acrylonitrile	0.000	8.174	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.741	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.869	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.143	0.000		0	N.D.	
94) Ethyl acetate	9.332	9.338	0.879	43	907	N.D.	
95) Propionitrile	0.000	9.393	0.000		0	N.D.	
96) Methacrylonitrile	9.448	9.576	0.890	41	222	N.D.	
97) Tetrahydrofuran	9.729	9.710	0.916	42	749	N.D.	
98) Isobutyl alcohol	9.942	10.009	0.936	41	204	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A412.D
Acq On : 4 Mar 2010 3:11 pm
Operator : ACJ
InstName : VOA4
Sample : |248042006|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 08 21:52:44 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	10.387	0.000		0	N.D.	
100) Methyl methacrylate	0.000	11.204	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102) 2-Nitropropane	11.600	11.673	1.092	43	132	N.D.	
104) Ethyl methacrylate	0.000	12.466	0.000		0	N.D.	
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	14.783	0.000		0	N.D.	
108) Cyclohexanone	0.000	14.904	0.000		0	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	15.063	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111) Benzyl chloride	16.325	16.319	1.009	91	533	N.D.	
112) bis(2-Chloroisopropyl)...	16.709	16.721	1.033	45	154	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A412.D
Acq On : 4 Mar 2010 3:11 pm
Operator : ACJ
InstName : VOA4
Sample : |248042006|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 08 21:52:44 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

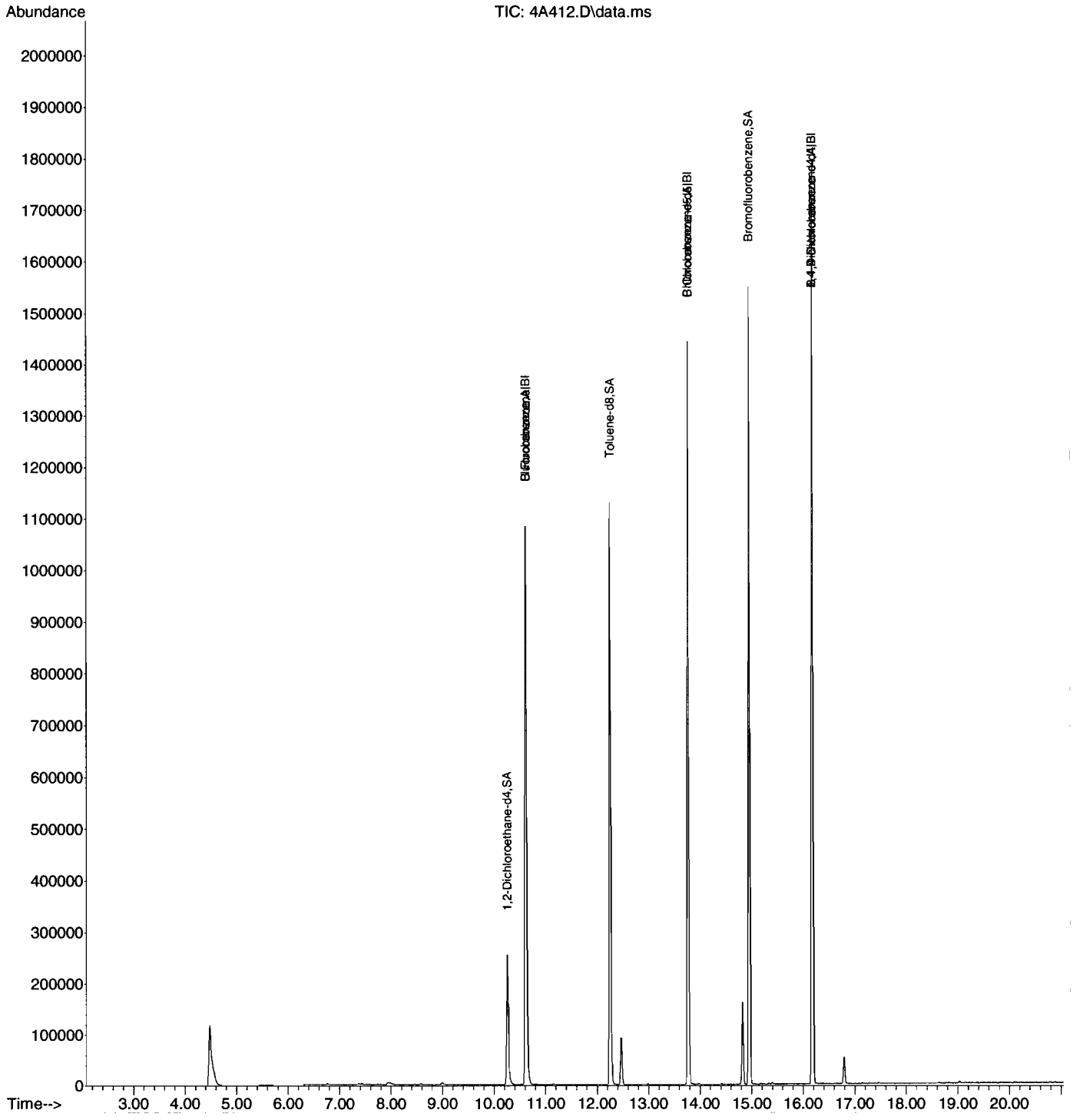

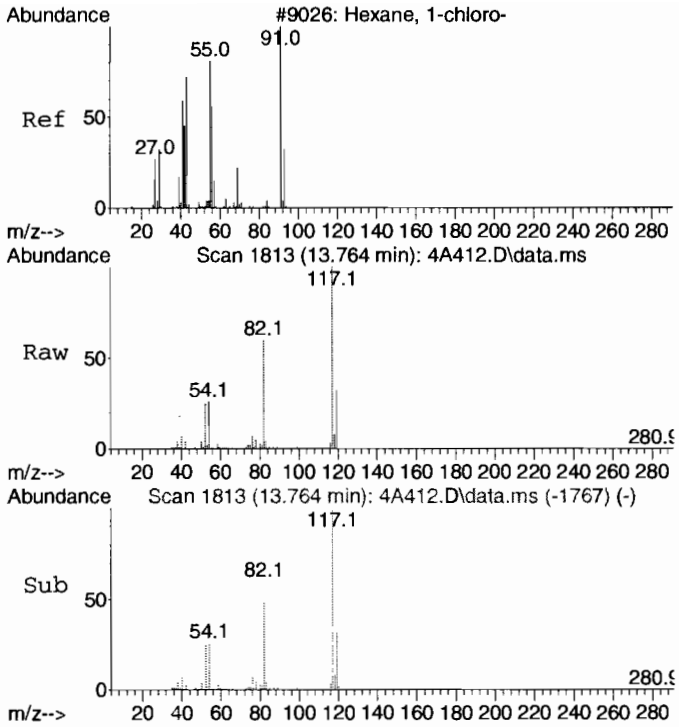

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.72 ug/L
RT: 13.764 min Scan# 1813
Delta R.T. 0.104 min
Lab File: 4A412.D
Acq: 4 Mar 2010 3:11 pm

Tgt Ion: 55 Resp: 9855

Ion	Ratio	Lower	Upper
55	100		
91	20.1	112.1	172.1#
56	61.4	28.5	88.5

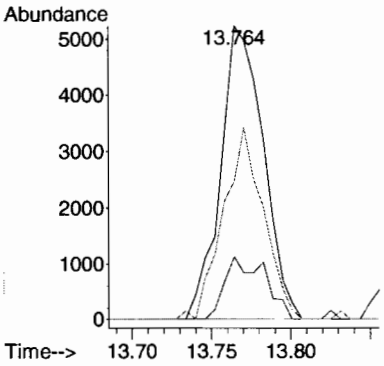

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A412.D
Acq On : 4 Mar 2010 3:11 pm
Operator : ACJ
Sample : |248042006|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown hydrocarbon Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	10.87 ug/L	517181	Fluorobenzene	10.619

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Dimethyl ether	46	C2H6O	000115-10-6	2

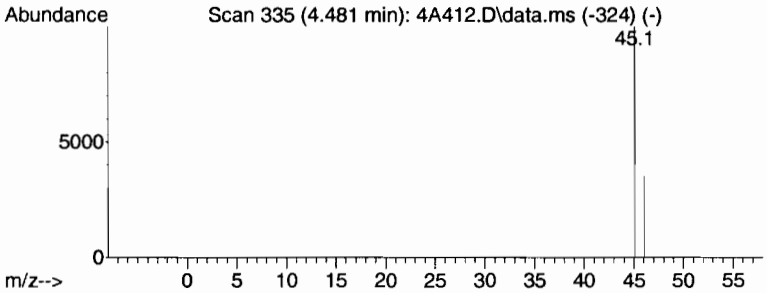

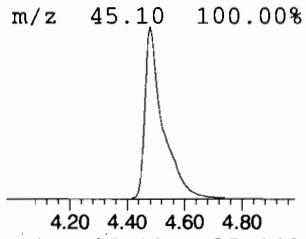

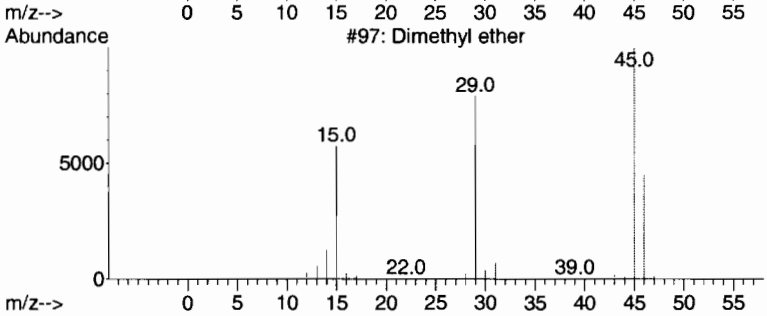

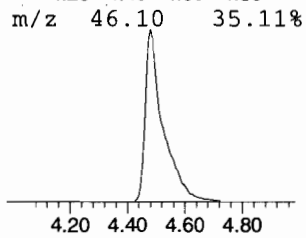

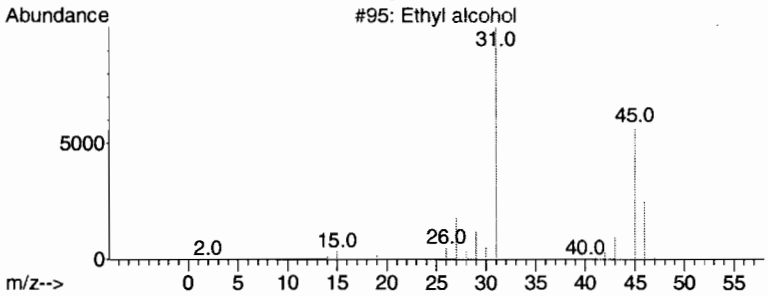

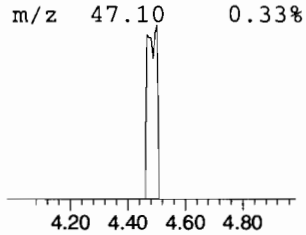

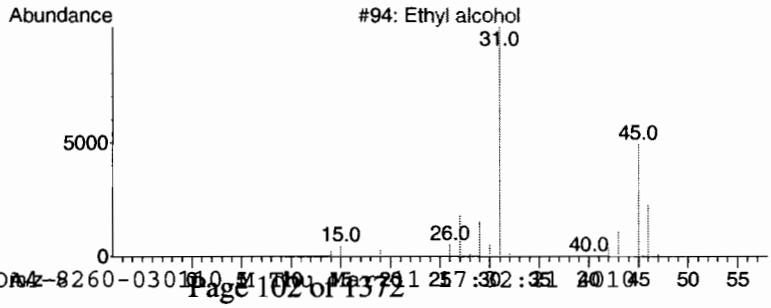

Library Search Compound Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A412.D
Acq On    :  4 Mar 2010   3:11 pm
Operator  : ACJ
Sample    : |248042006|961120|1|VOAF|1|VOA8260LFD|
Misc      : LANL 5ML PH2
ALS Vial  : 12   Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library    : C:\Database\NIST05.L
TIC Integration Parameters: default.P
```

****

Peak Number 2 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.825	5.68 ug/L	315763	B Chlorobenzene-d5	13.771

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	78
2	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	49
3	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	46
4	Benzoic acid, 5-methyl-2-trimeth...	296	C14H24O3Si2	1000153-59-4	45
5	7H-Dibenzo[b,g]carbazole, 7-methyl-	281	C21H15N	003557-49-1	45

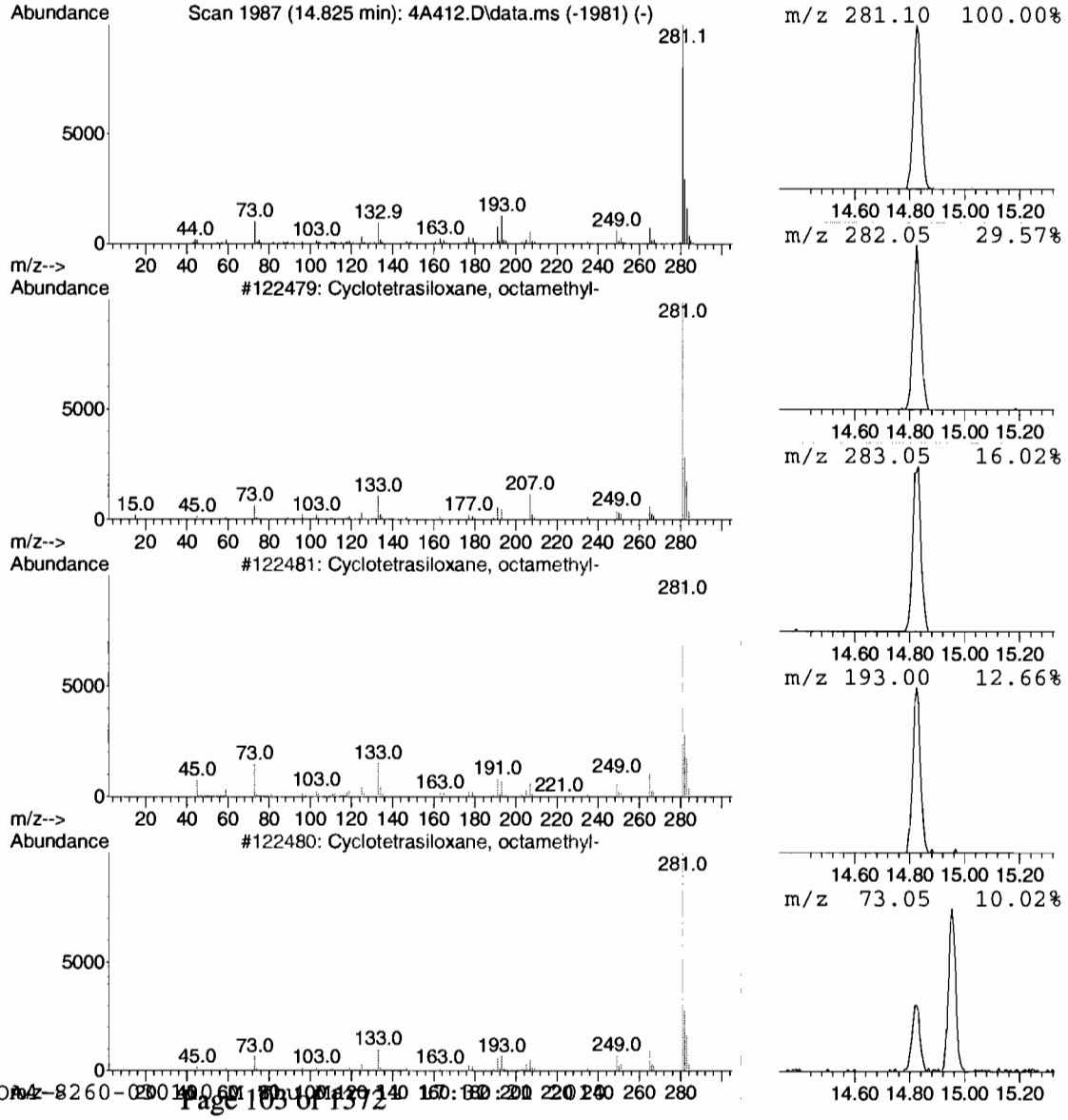

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A412.D
Acq On : 4 Mar 2010 3:11 pm
Operator : ACJ
Sample : |248042006|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown hydroca...	4.481	10.9	ug/L	517181	1	10.619	2378200	50.0
unknown siloxane	14.825	5.7	ug/L	315763	4	13.771	2781170	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042007**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13080**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 15:38**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 15:38**				
Data File:	**030410V4\4A413.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	J	3.22	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042007**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13080**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 15:38**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 15:38**				
Data File:	**030410V4\4A413.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042007**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13080**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 15:38**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 15:38**				
Data File:	**030410V4\4A413.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	50.2	50.0	ug/L	100	(72%-132%)
Bromofluorobenzene	59.5	50.0	ug/L	119	(77%-123%)
Toluene-d8	49.4	50.0	ug/L	98.8	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	9.62	ug/L	0	J
	unknown siloxane	12.47	5.14	ug/L	0	J
	unknown siloxane	14.83	34.6	ug/L	0	J
	unknown siloxane	16.79	9.98	ug/L	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A413.D
Acq On : 4 Mar 2010 3:38 pm
Operator : ACJ
InstName : VOA4
Sample : |248042007|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 08 21:54:03 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.618	10.620	1.000	96	1073474	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.770	13.771	1.000	117	872258	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.178	16.180	1.000	152	495562	50.00	ug/L	0.00
82) B Fluorobenzene	10.618	10.619	1.000	96	1073245	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.770	13.771	1.000	117	872275	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.178	16.179	1.000	152	495587	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	222871	50.19	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 100.38%					
43) Toluene-d8	12.252	12.247	0.890	98	799218	49.39	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 98.78%					
61) Bromofluorobenzene	14.953	14.954	0.924	95	576477	59.46	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 118.92%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.911	0.000		0	N.D.		
3) Chloromethane	5.291	5.291	0.498	50	674	N.D.		
4) Vinyl chloride	0.000	5.521	0.000		0	N.D.		
5) Bromomethane	0.000	6.137	0.000		0	N.D.		
6) Chloroethane	0.000	6.295	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.669	0.000		0	N.D.		
8) Ethyl ether	0.000	6.998	0.000		0	N.D.		
9) Acetone	7.357	7.352	0.693	43	6051	N.D.		
10) 1,1-Dichloroethylene	0.000	7.389	0.000		0	N.D.		
11) Iodomethane	0.000	7.663	0.000		0	N.D.		
12) Acetonitrile	7.747	7.699	0.730	41	312	N.D.		
13) Methyl acetate	7.741	7.748	0.729	43	143	N.D.		
14) Carbon disulfide	7.765	7.773	0.731	76	714	N.D.		
15) Methylene chloride	7.954	7.931	0.749	84	31261	3.22	ug/L	92
16) tert-Butyl methyl ether	0.000	8.242	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.285	0.000		0	N.D.		
18) Vinyl acetate	8.686	8.705	0.818	43	119	N.D.		
19) 1,1-Dichloroethane	0.000	8.760	0.000		0	N.D.		
20) 2-Butanone	9.320	9.327	0.878	43	525	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.388	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.419	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.680	9.687	0.912	83	127	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.979	0.000		0	N.D.		
26) Cyclohexane	0.000	10.083	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	10.132	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.175	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.339	0.000		0	N.D.		
31) Benzene	10.375	10.370	0.977	78	545	N.D.		
32) Cyclohexene	10.612	10.492	0.999	67	230	N.D.		
33) n-Butyl alcohol	10.710	10.693	1.009	56	124	N.D.		
34) Trichloroethylene	11.167	11.004	1.052	95	118	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.260	0.000		0	N.D.		
37) Dibromomethane	0.000	11.376	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.485	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.699	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A413.D
Acq On : 4 Mar 2010 3:38 pm
Operator : ACJ
InstName : VOA4
Sample : |248042007|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 08 21:54:03 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.016	0.000		0	N.D.	
44) Toluene	12.325	12.320	0.895	91	1982	N.D.	
45) trans-1,3-Dichloroprop...	12.466	12.461	0.905	75	2445	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.680	0.000		0	N.D.	
47) 2-Hexanone	12.868	12.857	0.934	43	761	N.D.	
48) 1,3-Dichloropropane	0.000	12.875	0.000		0	N.D.	
49) Tetrachloroethylene	0.000	12.918	0.000		0	N.D.	
50) Dibromochloromethane	0.000	13.144	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.320	0.000		0	N.D.	
52) Chlorobenzene	13.801	13.802	1.002	112	297	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.851	0.000		0	N.D.	
54) Ethylbenzene	13.862	13.863	1.007	91	758	N.D.	
55) m,p-Xylenes	13.984	13.973	1.015	106	574	N.D.	
56) o-Xylene	0.000	14.399	0.000		0	N.D.	
57) Styrene	14.404	14.399	1.046	104	305	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	14.819	14.759	0.916	105	3199	N.D.	
62) 1,1,2,2-Tetrachloroethane	15.014	15.015	0.928	83	132	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.107	0.000		0	N.D.	
64) Bromobenzene	15.179	15.168	0.938	156	115	N.D.	
65) n-Propylbenzene	15.349	15.180	0.949	91	642	N.D.	
66) 1,3,5-Trimethylbenzene	15.331	15.332	0.948	105	825	N.D.	
67) 2-Chlorotoluene	0.000	15.332	0.000		0	N.D.	
68) 4-Chlorotoluene	15.428	15.430	0.954	91	650	N.D.	
69) tert-Butylbenzene	0.000	15.704	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.733	15.741	0.972	105	314	N.D.	
71) sec-Butylbenzene	15.934	15.930	0.985	105	403	N.D.	
72) 4-Isopropyltoluene	16.062	16.051	0.993	119	561	N.D.	
73) 1,3-Dichlorobenzene	16.136	16.119	0.997	146	212	N.D.	
74) 1,4-Dichlorobenzene	16.209	16.204	1.002	146	456	N.D.	
75) n-Butylbenzene	16.501	16.503	1.020	91	273	N.D.	
76) 1,2-Dichlorobenzene	16.642	16.643	1.029	146	589	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.527	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	18.635	18.630	1.152	180	138	N.D.	
79) Hexachlorobutadiene	0.000	18.819	0.000		0	N.D.	
80) Naphthalene	19.025	19.026	1.176	128	3765	N.D.	
81) 1,2,3-Trichlorobenzene	19.385	19.386	1.198	180	134	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	0.000	7.180	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.369	0.000		0	N.D.	
87) Isopropyl Alcohol	7.448	7.430	0.701	45	576	N.D.	
88) Allyl chloride	7.808	7.796	0.735	41	102	N.D.	
89) tert-Butyl Alcohol	7.936	7.924	0.747	59	863	N.D.	
90) Acrylonitrile	0.000	8.174	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.741	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.869	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.143	0.000		0	N.D.	
94) Ethyl acetate	9.320	9.338	0.878	43	525	N.D.	
95) Propionitrile	0.000	9.393	0.000		0	N.D.	
96) Methacrylonitrile	9.491	9.576	0.894	41	151	N.D.	
97) Tetrahydrofuran	9.716	9.710	0.915	42	497	N.D.	
98) Isobutyl alcohol	10.033	10.009	0.945	41	197	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A413.D
Acq On : 4 Mar 2010 3:38 pm
Operator : ACJ
InstName : VOA4
Sample : |248042007|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 08 21:54:03 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	0.000	10.387	0.000		0	N.D.	
100) Methyl methacrylate	0.000	11.204	0.000		0	N.D.	
101) 1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102) 2-Nitropropane	11.661	11.673	1.098	43	150	N.D.	
104) Ethyl methacrylate	12.478	12.466	0.906	69	124	N.D.	
106) 1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	0.000	14.783	0.000		0	N.D.	
108) Cyclohexanone	14.910	14.904	0.922	42	109	N.D.	
109) trans-1,4-Dichloro-2-b...	0.000	15.063	0.000		0	N.D.	
110) Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111) Benzyl chloride	16.306	16.319	1.008	91	344	N.D.	
112) bis(2-Chloroisopropyl)...	0.000	16.721	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A413.D
Acq On : 4 Mar 2010 3:38 pm
Operator : ACJ
InstName : VOA4
Sample : |248042007|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 08 21:54:03 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

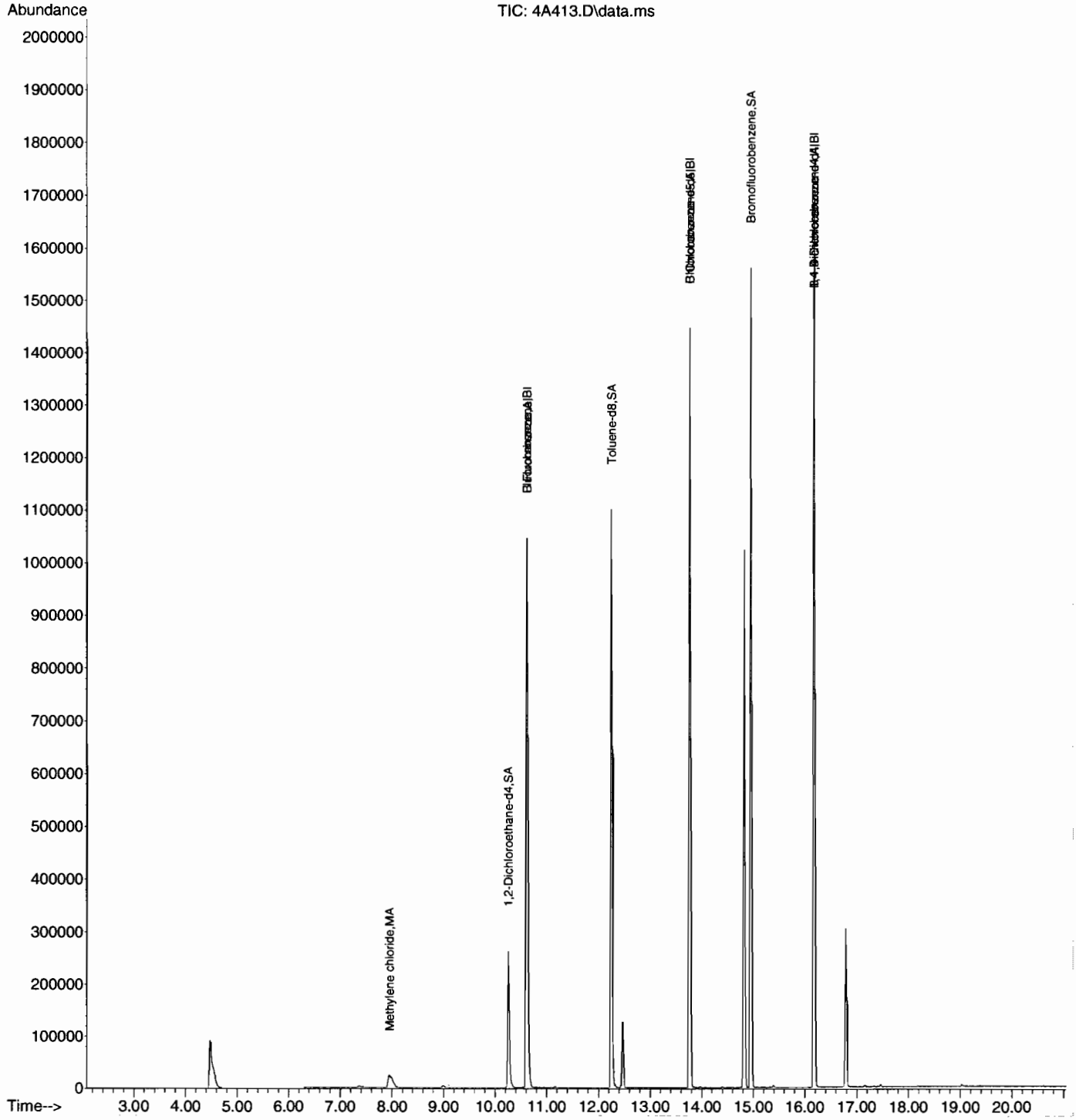

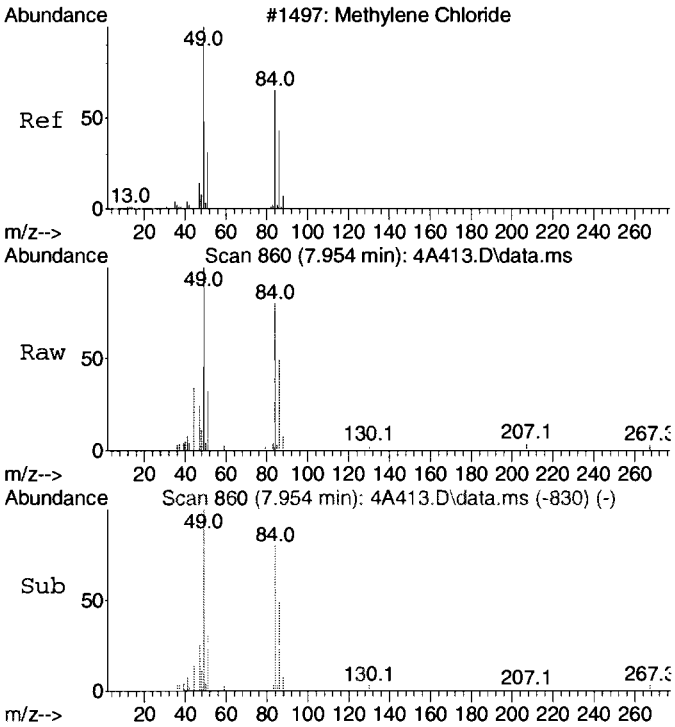

#15
Methylene chloride
Concen: 3.22 ug/L
RT: 7.954 min Scan# 860
Delta R.T. 0.023 min
Lab File: 4A413.D
Acq: 4 Mar 2010 3:38 pm

Tgt Ion: 84 Resp: 31261

Ion	Ratio	Lower	Upper
84	100		
86	67.5	33.9	93.9
49	140.6	98.9	158.9

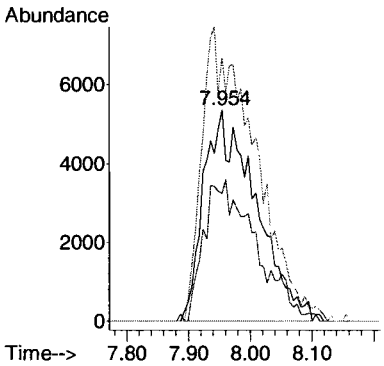

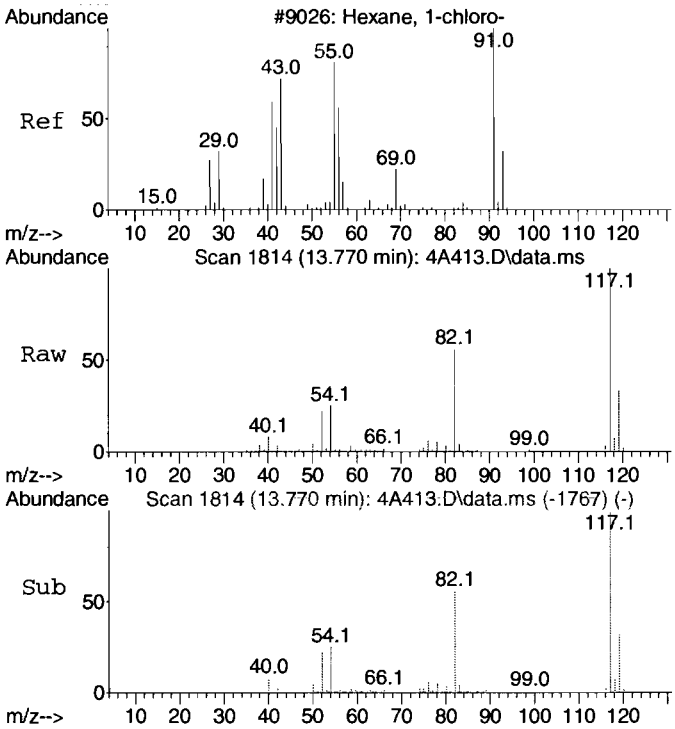

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.74 ug/L
RT: 13.770 min Scan# 1814
Delta R.T. 0.109 min
Lab File: 4A413.D
Acq: 4 Mar 2010 3:38 pm

Tgt Ion: 55 Resp: 9922

Ion	Ratio	Lower	Upper
55	100		
91	17.6	112.1	172.1#
56	62.1	28.5	88.5

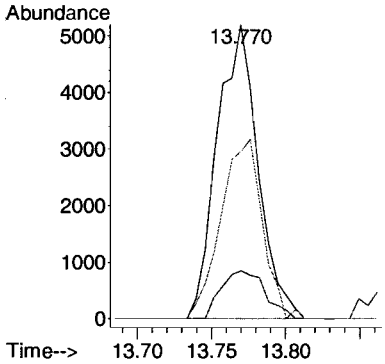

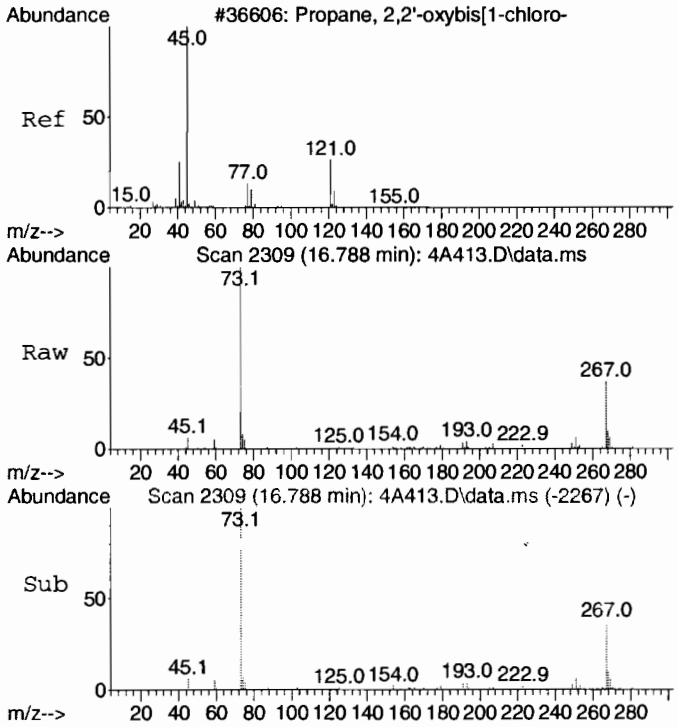

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 3.83 ug/L
RT: 16.788 min Scan# 2309
Delta R.T. 0.067 min
Lab File: 4A413.D
Acq: 4 Mar 2010 3:38 pm

Tgt Ion: 45 Resp: 15136

Ion	Ratio	Lower	Upper
45	100		
121	1.3	0.0	56.0

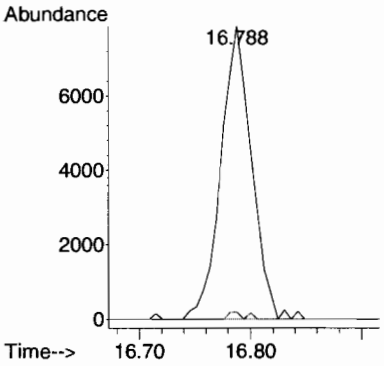

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A413.D
Acq On : 4 Mar 2010 3:38 pm
Operator : ACJ
Sample : |248042007|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 1 unknown hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	9.62 ug/L	454684	Fluorobenzene	10.618

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	2

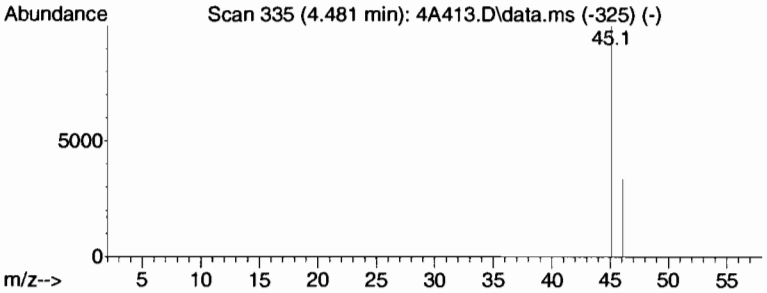

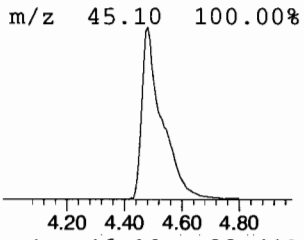

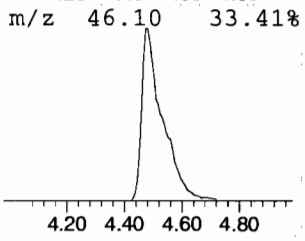

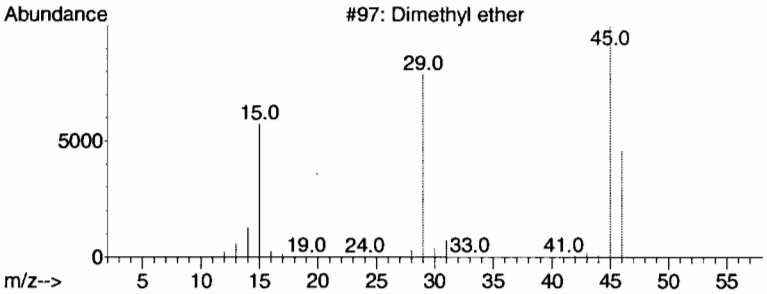

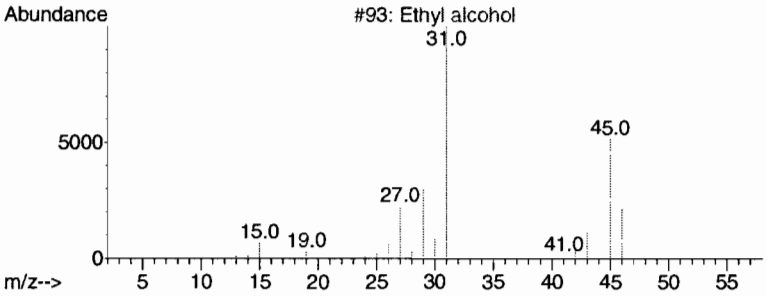

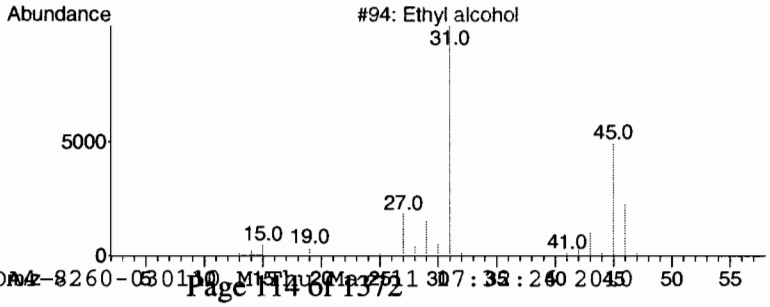

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A413.D
Acq On : 4 Mar 2010 3:38 pm
Operator : ACJ
Sample : |248042007|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 2 unknown siloxane Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.466	5.14 ug/L	287115	Chlorobenzene-d5	13.770

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	91
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	90
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	80
4	2-Ethylacridine	207	C15H13N	055751-83-2	42
5	Benzo[h]quinoline, 2,4-dimethyl-	207	C15H13N	000605-67-4	38

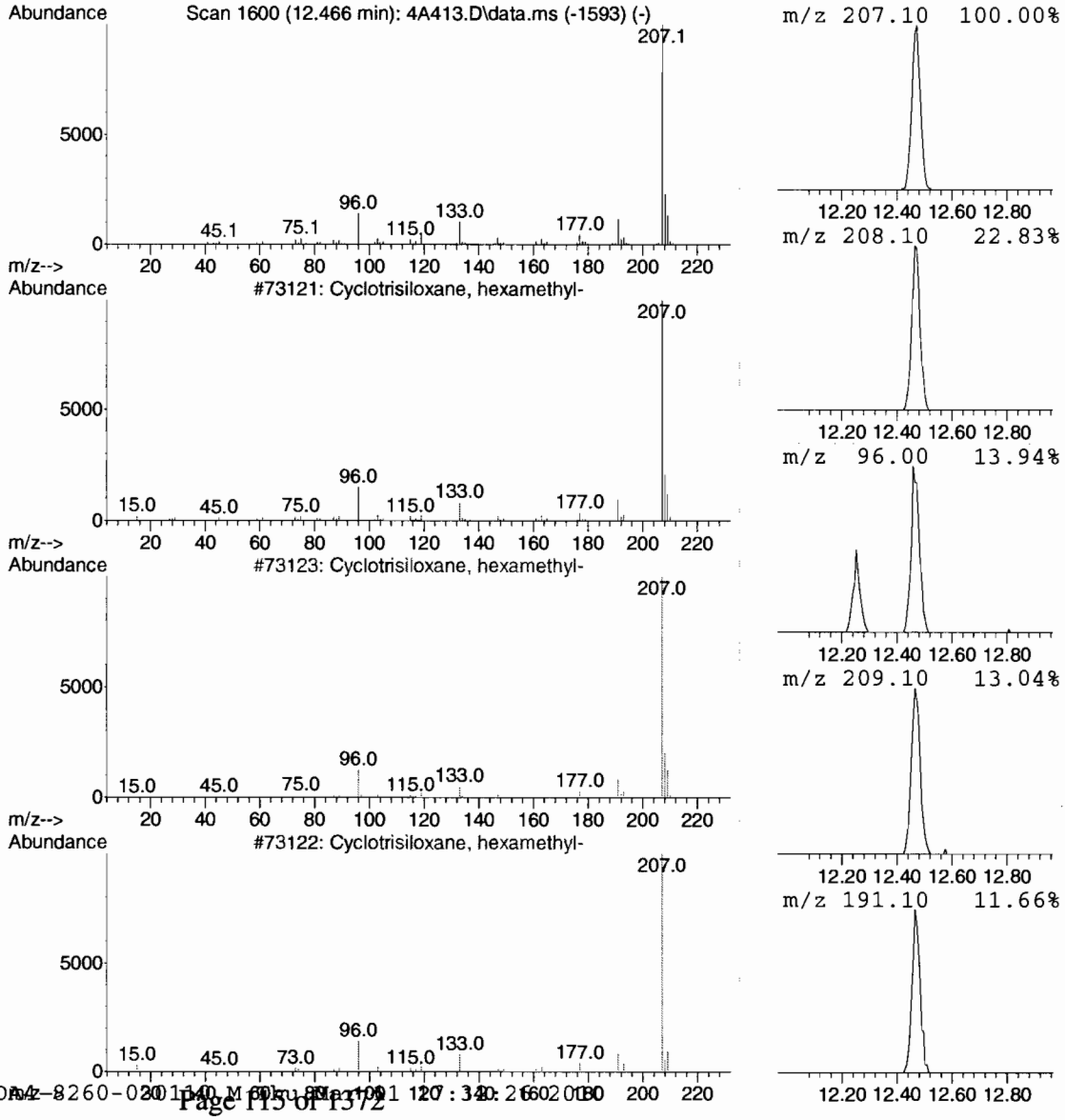

Library Search Compound Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A413.D
Acq On    :  4 Mar 2010   3:38 pm
Operator  : ACJ
Sample    : |248042007|961120|1|VOAF|1|VOA8260LFD|
Misc      : LANL 5ML PH2
ALS Vial  : 13   Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library    : C:\Database\NIST05.L
TIC Integration Parameters: default.P
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****

Peak Number 3 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.825	34.61 ug/L	1933370	B Chlorobenzene-d5	13.770

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzoic acid, 5-methyl-2-trimeth...	296	C14H24O3Si2	1000153-59-4	64
2	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	56
3	7H-Dibenzo[b,g]carbazole, 7-methyl-	281	C21H15N	003557-49-1	53
4	4H-1,2,4-Triazole-3-thiol, 4-all...	281	C16H15N3S	031803-13-1	49
5	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	49

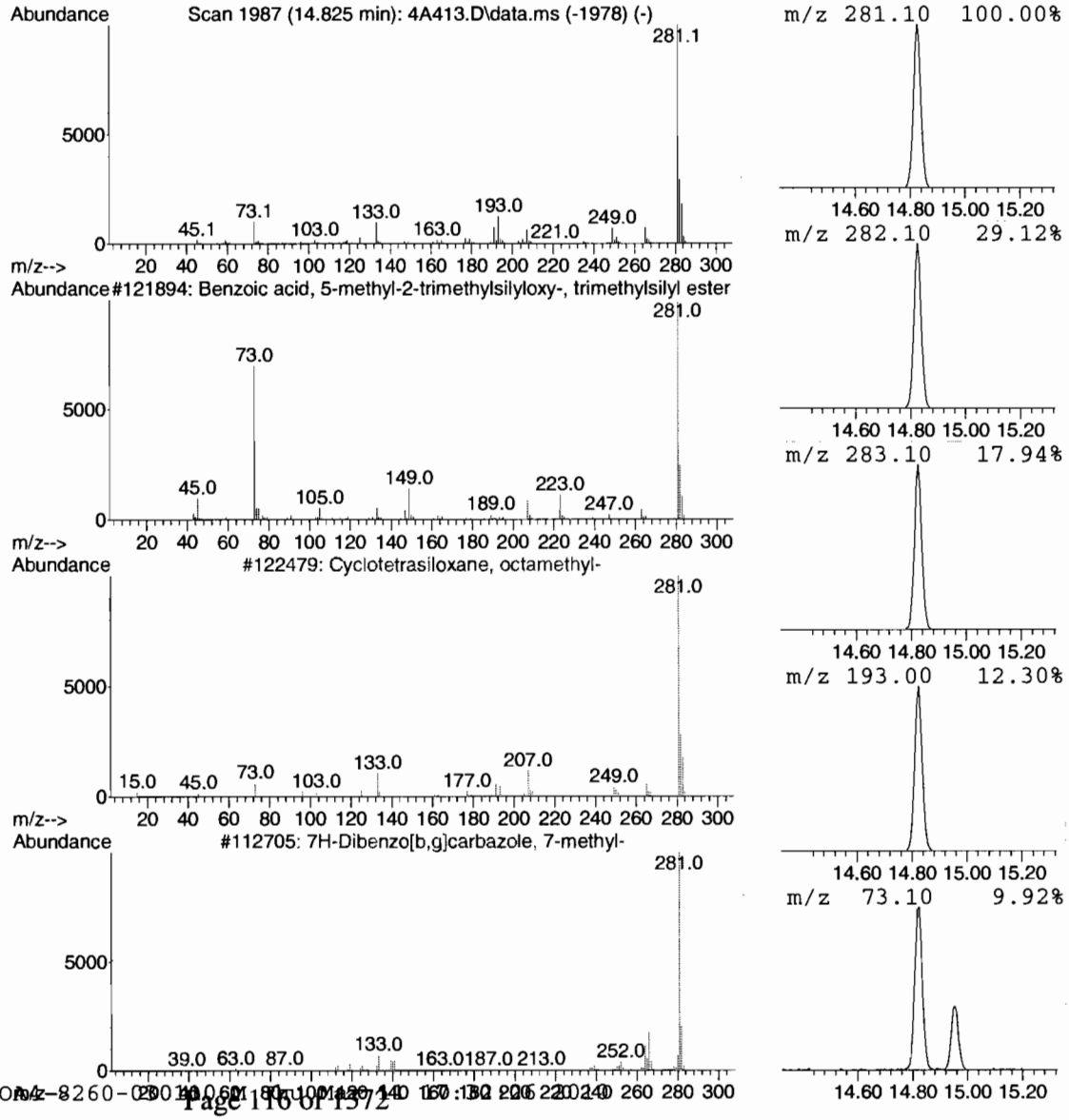

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A413.D
Acq On : 4 Mar 2010 3:38 pm
Operator : ACJ
Sample : |248042007|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 13 Sample Mu1tiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 4 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.788	9.98 ug/L	627480	B 1,4-Dichlorobenzene-d4	16.178

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	42
2	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	38
3	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	38
4	Benzoic acid, 4-[(trimethylsilyl...	282	C13H22O3Si2	002078-13-9	33
5	Benzeneacetic acid, 3-methoxy-4-...	268	C13H20O4Si	015964-84-8	32

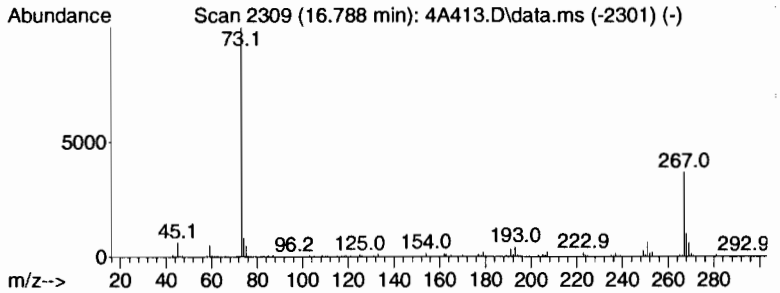

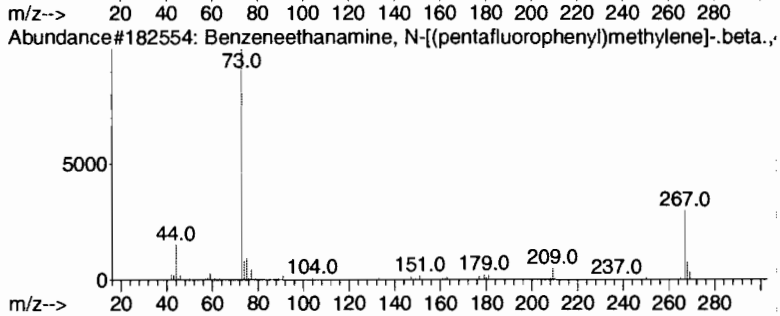

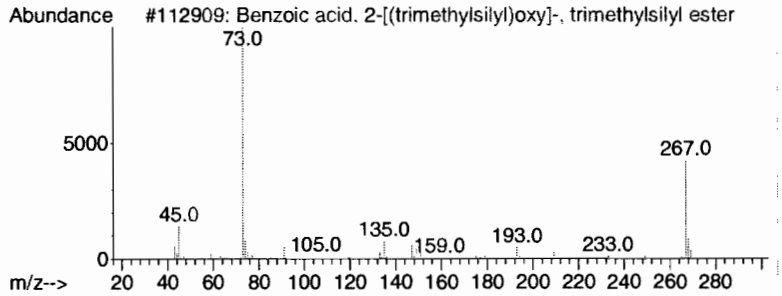

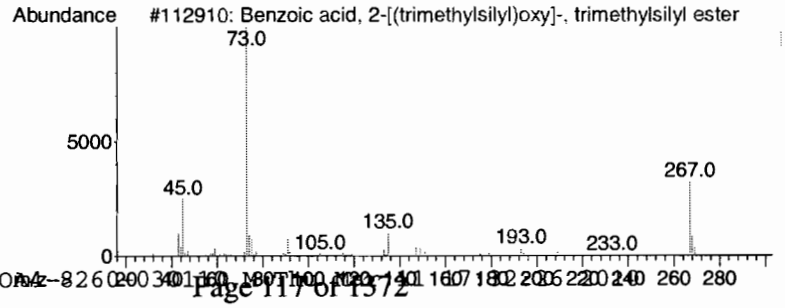

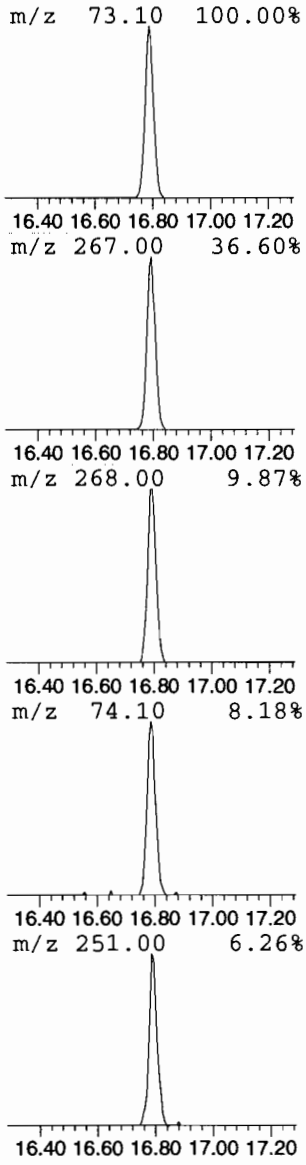

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A413.D
Acq On : 4 Mar 2010 3:38 pm
Operator : ACJ
Sample : |248042007|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown hydroca...	4.481	9.6	ug/L	454684	1	10.618	2363780	50.0
unknown siloxane	12.466	5.1	ug/L	287115	3	13.770	2793010	50.0
unknown siloxane	14.825	34.6	ug/L	1933370	4	13.770	2793010	50.0
unknown siloxane	16.788	10.0	ug/L	627480	6	16.178	3143960	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042009**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13085**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 16:06**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 16:06**				
Data File:	**030410V4\4A414.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042009**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13085**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 16:06**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 16:06**				
Data File:	**030410V4\4A414.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042009**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13085**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 16:06**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 16:06**				
Data File:	**030410V4\4A414.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	49.2	50.0	ug/L	98.5	(72%-132%)
Bromofluorobenzene	58.8	50.0	ug/L	118	(77%-123%)
Toluene-d8	49.7	50.0	ug/L	99.4	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	unknown hydrocarbon	4.48	6.73	ug/L	0	J
	unknown siloxane	14.83	7.69	ug/L	0	J
	unknown siloxane	16.79	18	ug/L	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A414.D
Acq On : 4 Mar 2010 4:06 pm
Operator : ACJ
InstName : VOA4
Sample : |248042009|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 08 21:54:46 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.620	10.620	1.000	96	1065638	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	864195	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.180	16.180	1.000	152	492579	50.00	ug/L	0.00
82) B Fluorobenzene	10.620	10.619	1.000	96	1065502	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	864195	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	492595	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.266	10.260	0.967	65	217038	49.23	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 98.46%					
43) Toluene-d8	12.253	12.247	0.890	98	797095	49.72	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 99.44%					
61) Bromofluorobenzene	14.954	14.954	0.924	95	566343	58.77	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 117.54%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.911	0.000		0	N.D.		
3) Chloromethane	5.306	5.291	0.500	50	1573	N.D.		
4) Vinyl chloride	5.521	5.521	0.520	62	130	N.D.		
5) Bromomethane	0.000	6.137	0.000		0	N.D.		
6) Chloroethane	0.000	6.295	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.669	0.000		0	N.D.		
8) Ethyl ether	0.000	6.998	0.000		0	N.D.		
9) Acetone	7.370	7.352	0.694	43	4249	N.D.		
10) 1,1-Dichloroethylene	0.000	7.389	0.000		0	N.D.		
11) Iodomethane	0.000	7.663	0.000		0	N.D.		
12) Acetonitrile	7.693	7.699	0.724	41	329	N.D.		
13) Methyl acetate	7.760	7.748	0.731	43	116	N.D.		
14) Carbon disulfide	7.760	7.773	0.731	76	764	N.D.		
15) Methylene chloride	7.956	7.931	0.749	84	5545	N.D.		
16) tert-Butyl methyl ether	0.000	8.242	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.285	0.000		0	N.D.		
18) Vinyl acetate	8.724	8.705	0.821	43	202	N.D.		
19) 1,1-Dichloroethane	0.000	8.760	0.000		0	N.D.		
20) 2-Butanone	9.333	9.327	0.879	43	894	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.388	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.419	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	0.000	9.687	0.000		0	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.979	0.000		0	N.D.		
26) Cyclohexane	0.000	10.083	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	10.132	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.175	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.339	0.000		0	N.D.		
31) Benzene	10.370	10.370	0.976	78	450	N.D.		
32) Cyclohexene	0.000	10.492	0.000		0	N.D.		
33) n-Butyl alcohol	10.717	10.693	1.009	56	170	N.D.		
34) Trichloroethylene	0.000	11.004	0.000		0	N.D.		
35) 1,2-Dichloropropane	11.400	11.241	1.073	63	117	N.D.		
36) Methylcyclohexane	0.000	11.260	0.000		0	N.D.		
37) Dibromomethane	0.000	11.376	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.485	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.699	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A414.D
Acq On : 4 Mar 2010 4:06 pm
Operator : ACJ
InstName : VOA4
Sample : |248042009|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 08 21:54:46 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40)	cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42)	4-Methyl-2-pentanone	0.000	12.016	0.000		0	N.D.	
44)	Toluene	12.327	12.320	0.895	91	1378	N.D.	
45)	trans-1,3-Dichloroprop...	12.461	12.461	0.905	75	1831	N.D.	
46)	1,1,2-Trichloroethane	0.000	12.680	0.000		0	N.D.	
47)	2-Hexanone	12.839	12.857	0.932	43	125	N.D.	
48)	1,3-Dichloropropane	0.000	12.875	0.000		0	N.D.	
49)	Tetrachloroethylene	0.000	12.918	0.000		0	N.D.	
50)	Dibromochloromethane	0.000	13.144	0.000		0	N.D.	
51)	1,2-Dibromoethane	0.000	13.320	0.000		0	N.D.	
52)	Chlorobenzene	13.796	13.802	1.002	112	293	N.D.	
53)	1,1,1,2-Tetrachloroethane	0.000	13.851	0.000		0	N.D.	
54)	Ethylbenzene	13.863	13.863	1.007	91	751	N.D.	
55)	m,p-Xylenes	13.967	13.973	1.014	106	446	N.D.	
56)	o-Xylene	14.406	14.399	1.046	106	262	N.D.	
57)	Styrene	14.399	14.399	1.046	104	158	N.D.	
59)	Bromoform	0.000	14.655	0.000		0	N.D.	
60)	Isopropylbenzene	14.826	14.759	0.916	105	483	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	15.015	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	15.107	0.000		0	N.D.	
64)	Bromobenzene	0.000	15.168	0.000		0	N.D.	
65)	n-Propylbenzene	15.338	15.180	0.948	91	463	N.D.	
66)	1,3,5-Trimethylbenzene	15.326	15.332	0.947	105	415	N.D.	
67)	2-Chlorotoluene	0.000	15.332	0.000		0	N.D.	
68)	4-Chlorotoluene	15.436	15.430	0.954	91	369	N.D.	
69)	tert-Butylbenzene	15.710	15.704	0.971	134	148	N.D.	
70)	1,2,4-Trimethylbenzene	15.753	15.741	0.974	105	563	N.D.	
71)	sec-Butylbenzene	15.942	15.930	0.985	105	567	N.D.	
72)	4-Isopropyltoluene	16.052	16.051	0.992	119	448	N.D.	
73)	1,3-Dichlorobenzene	16.106	16.119	0.995	146	142	N.D.	
74)	1,4-Dichlorobenzene	16.216	16.204	1.002	146	488	N.D.	
75)	n-Butylbenzene	16.503	16.503	1.020	91	749	N.D.	
76)	1,2-Dichlorobenzene	16.783	16.643	1.037	146	132	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	17.527	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	0.000	18.630	0.000		0	N.D.	
79)	Hexachlorobutadiene	0.000	18.819	0.000		0	N.D.	
80)	Naphthalene	19.039	19.026	1.177	128	3216	N.D.	
81)	1,2,3-Trichlorobenzene	0.000	19.386	0.000		0	N.D.	
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85)	Acrolein	0.000	7.180	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	7.369	0.000		0	N.D.	
87)	Isopropyl Alcohol	7.456	7.430	0.702	45	2054	N.D.	
88)	Allyl chloride	7.797	7.796	0.734	41	145	N.D.	
89)	tert-Butyl Alcohol	7.919	7.924	0.746	59	490	N.D.	
90)	Acrylonitrile	0.000	8.174	0.000		0	N.D.	
91)	Isopropyl ether	0.000	8.741	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	8.869	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	9.143	0.000		0	N.D.	
94)	Ethyl acetate	9.333	9.338	0.879	43	894	N.D.	
95)	Propionitrile	0.000	9.393	0.000		0	N.D.	
96)	Methacrylonitrile	9.547	9.576	0.899	41	201	N.D.	
97)	Tetrahydrofuran	9.723	9.710	0.916	42	509	N.D.	
98)	Isobutyl alcohol	9.894	10.009	0.932	41	215	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A414.D
Acq On : 4 Mar 2010 4:06 pm
Operator : ACJ
InstName : VOA4
Sample : |248042009|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 08 21:54:46 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	0.000	10.387	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	11.204	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102)	2-Nitropropane	0.000	11.673	0.000		0	N.D.	
104)	Ethyl methacrylate	0.000	12.466	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	0.000	14.783	0.000		0	N.D.	
108)	Cyclohexanone	0.000	14.904	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	15.063	0.000		0	N.D.	
110)	Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111)	Benzyl chloride	16.326	16.319	1.009	91	460	N.D.	
112)	bis(2-Chloroisopropyl)...	0.000	16.721	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A414.D
Acq On : 4 Mar 2010 4:06 pm
Operator : ACJ
InstName : VOA4
Sample : |248042009|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 08 21:54:46 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

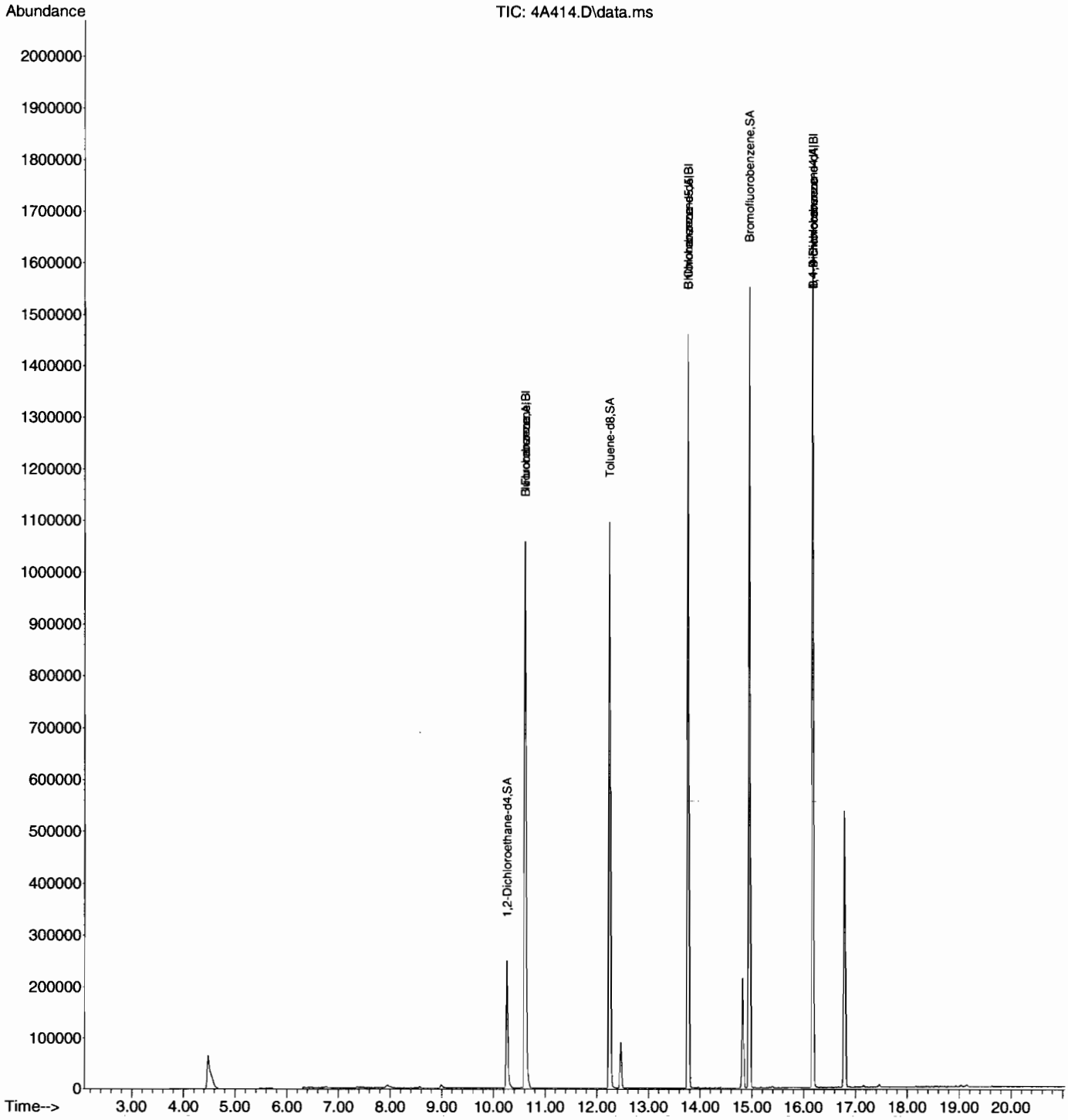

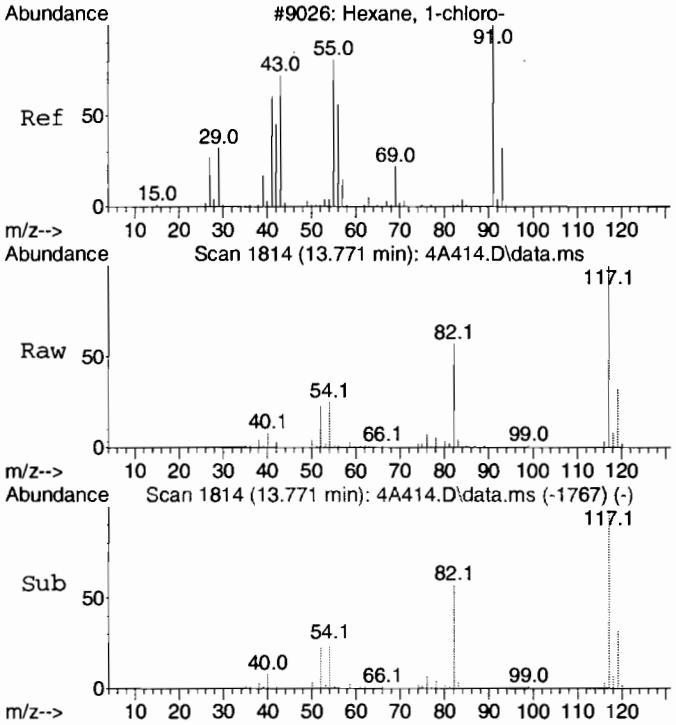

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.78 ug/L
RT: 13.771 min Scan# 1814
Delta R.T. 0.111 min
Lab File: 4A414.D
Acq: 4 Mar 2010 4:06 pm

Tgt Ion: 55 Resp: 10095

Ion	Ratio	Lower	Upper
55	100		
91	20.9	112.1	172.1#
56	60.9	28.5	88.5

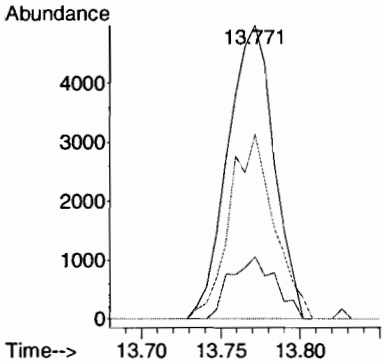

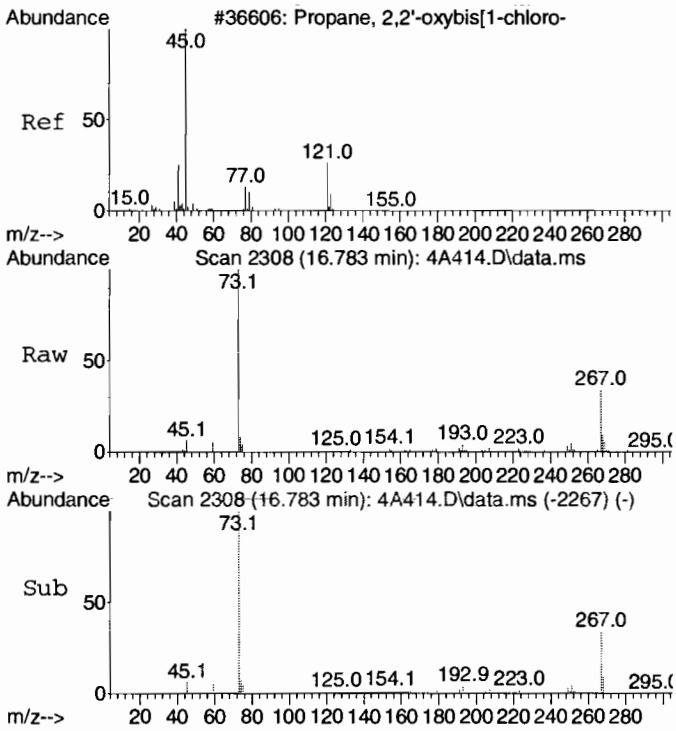

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 6.86 ug/L
RT: 16.783 min Scan# 2308
Delta R.T. 0.062 min
Lab File: 4A414.D
Acq: 4 Mar 2010 4:06 pm

Tgt Ion: 45 Resp: 26967

Ion	Ratio	Lower	Upper
45	100		
121	2.1	0.0	56.0

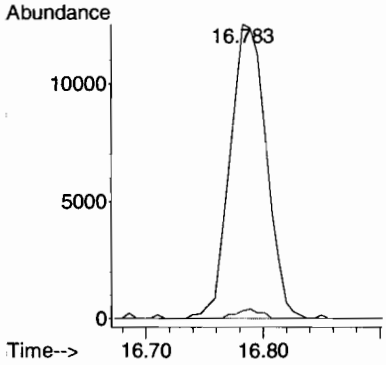

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A414.D
Acq On : 4 Mar 2010 4:06 pm
Operator : ACJ
Sample : |248042009|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 1 unknown hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	6.73 ug/L	315827	Fluorobenzene	10.620

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Dimethyl ether	46	C2H6O	000115-10-6	2

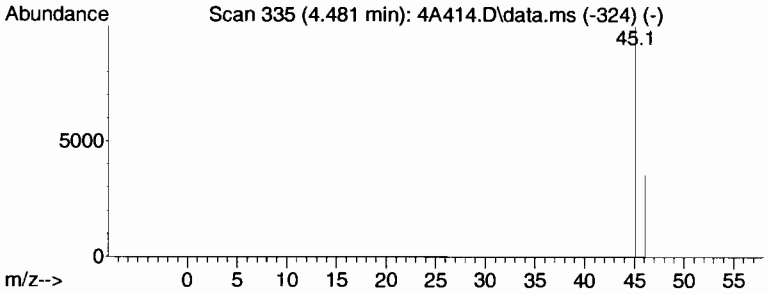

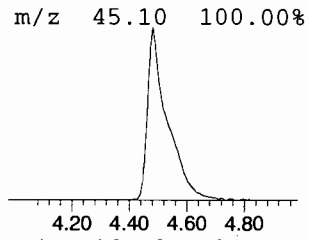

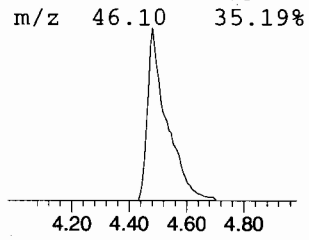

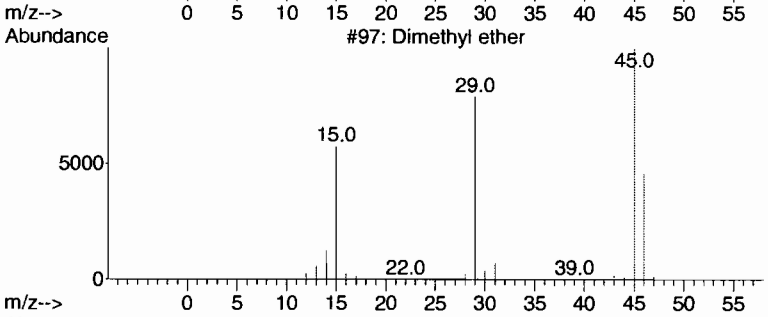

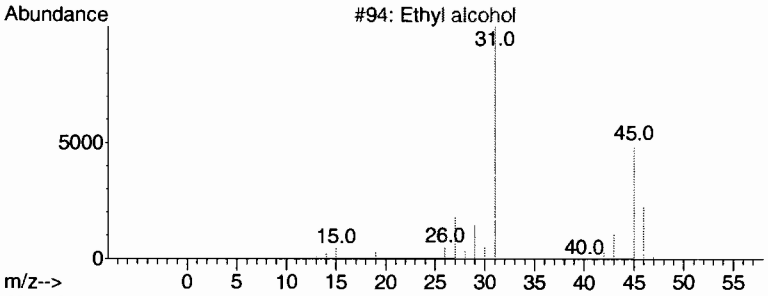

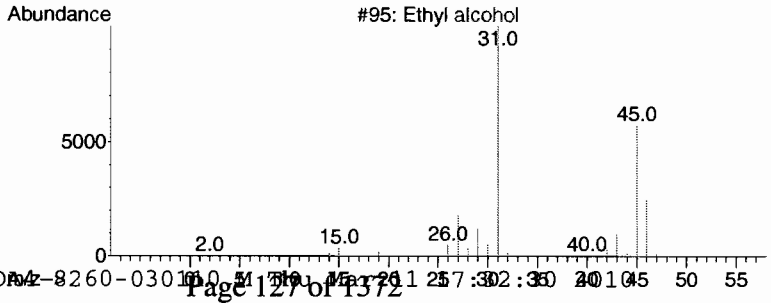

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A414.D
Acq On : 4 Mar 2010 4:06 pm
Operator : ACJ
Sample : |248042009|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 2 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.826	7.69 ug/L	428372	B Chlorobenzene-d5	13.772

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	64
2	7H-Dibenzo[b,g]carbazole, 7-methyl-	281	C21H15N	003557-49-1	59
3	Benzoic acid, 4-methyl-2-trimeth...	296	C14H24O3Si2	1000153-59-3	50
4	5H-Naphtho[2,3-c]carbazole, 5-me...	281	C21H15N	100025-44-3	50
5	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	49

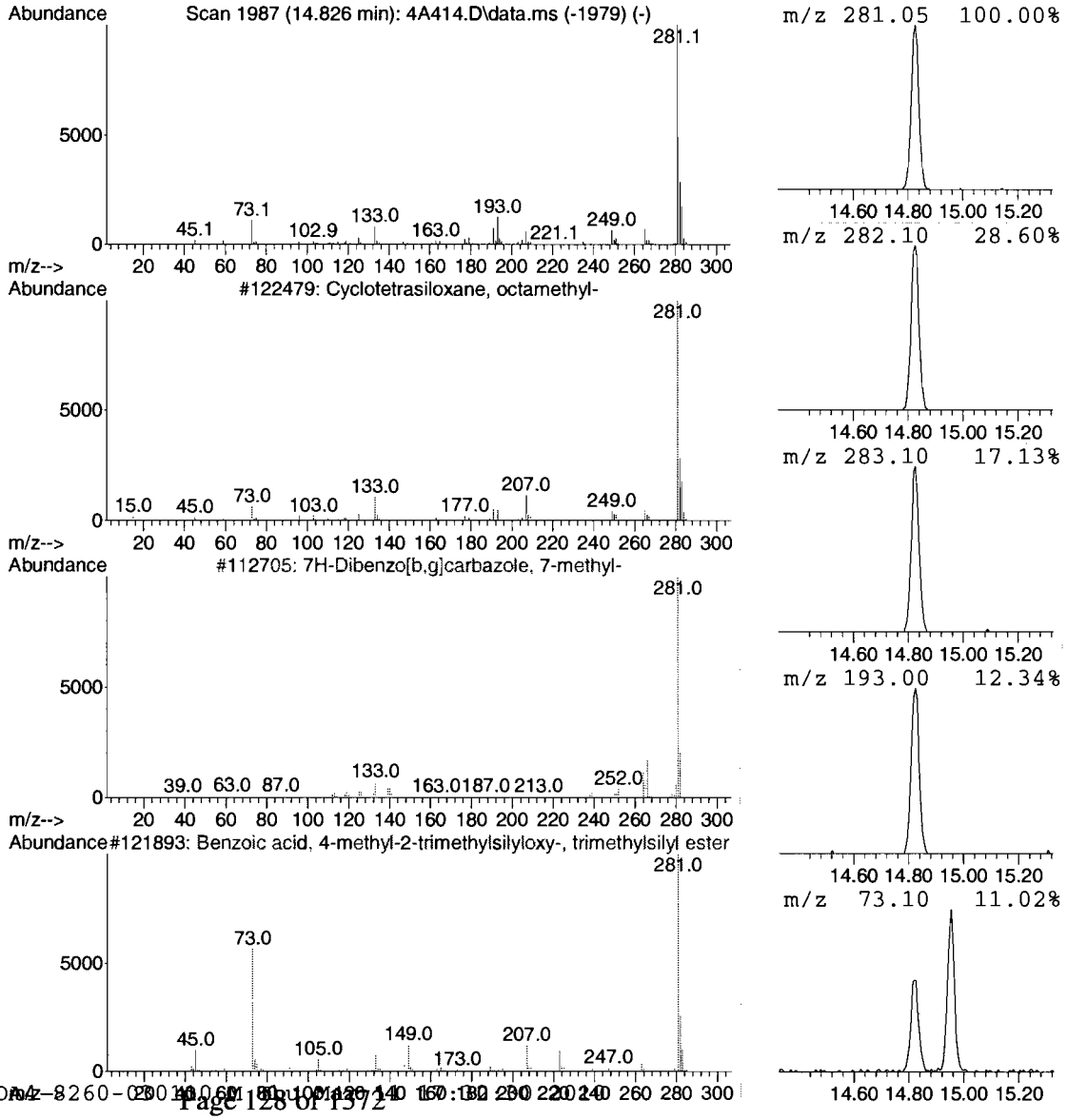

Library Search Compound Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A414.D
Acq On    :  4 Mar 2010   4:06 pm
Operator  : ACJ
Sample    : |248042009|961120|1|VOAF|1|VOA8260LFD|
Misc      : LANL 5ML PH2
ALS Vial  : 14   Sample Mu1tiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library    : C:\Database\NIST05.L
TIC Integration Parameters: default.P
```

****

Peak Number 3 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.789	17.97 ug/L	1134230	B 1,4-Dichlorobenzene-d4	16.180

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	64
2	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	45
3	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	40
4	1-Boraindane, 3-methyl-1-[1-(tri...	266	C17H23BSi	190316-36-0	16
5	3,5-Dimethoxyphenylacetic acid, ...	268	C13H20O4Si	1000071-82-4	14

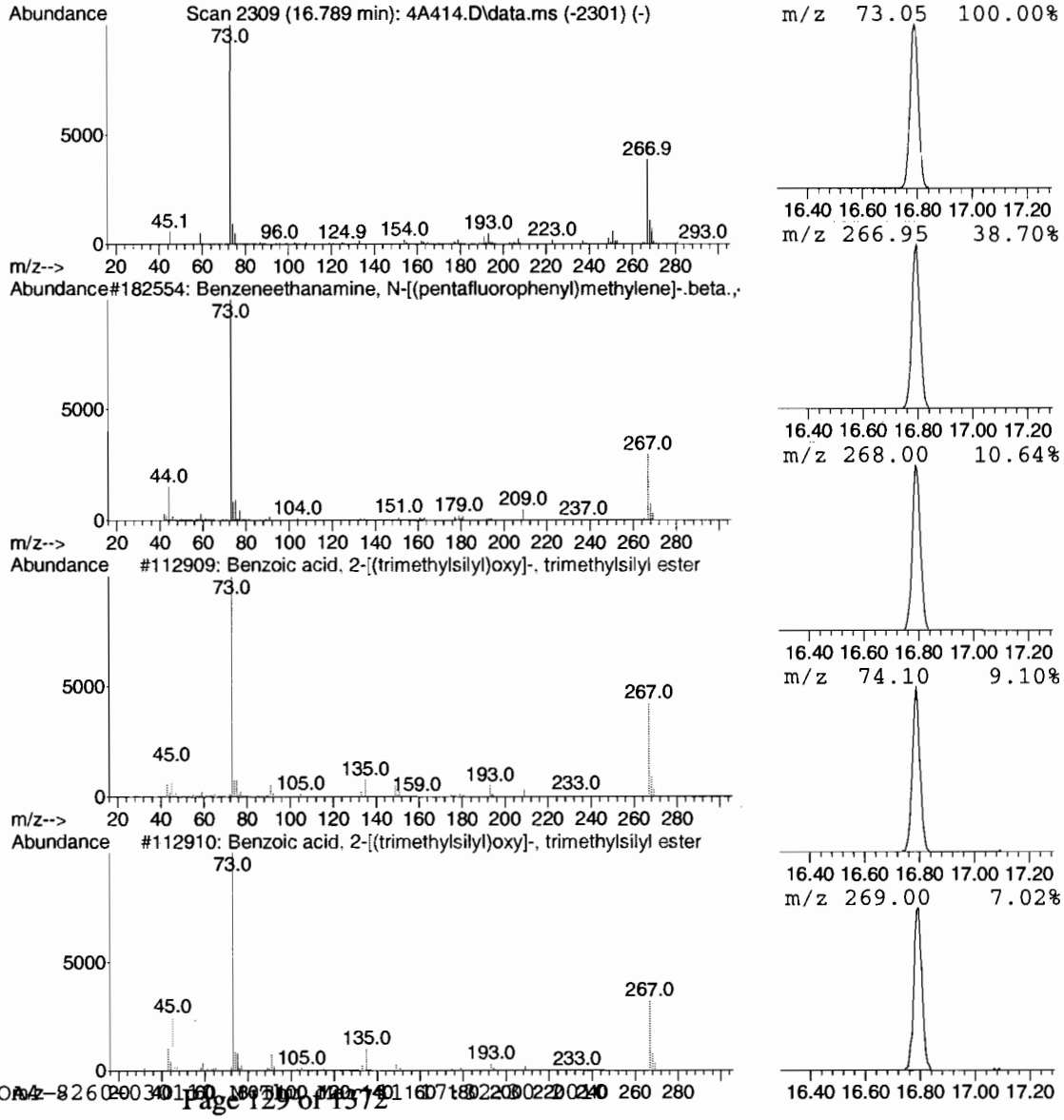

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A414.D
Acq On : 4 Mar 2010 4:06 pm
Operator : ACJ
Sample : |248042009|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown hydroca...	4.481	6.7	ug/L	315827	1	10.620	2346240	50.0
unknown siloxane	14.826	7.7	ug/L	428372	4	13.772	2785160	50.0
unknown siloxane	16.789	18.0	ug/L	1134230	6	16.180	3155270	50.0

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042013**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13320**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 16:34**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 16:34**				
Data File:	**030410V4\4A415.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042013**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13320**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 16:34**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 16:34**				
Data File:	**030410V4\4A415.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042013**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13320**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 16:34**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 16:34**				
Data File:	**030410V4\4A415.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	49.5	50.0	ug/L	98.9	(72%-132%)
Bromofluorobenzene	58.4	50.0	ug/L	117	(77%-123%)
Toluene-d8	50.3	50.0	ug/L	101	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated Units	Fit	Qual
	unknown hydrocarbon	4.48	ug/L	0	J
	unknown siloxane	14.83	ug/L	0	J
	unknown siloxane	16.79	ug/L	0	J

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A415.D
Acq On : 4 Mar 2010 4:34 pm
Operator : ACJ
InstName : VOA4
Sample : |248042013|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 08 21:56:12 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.619	10.620	1.000	96	1048267	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.770	13.771	1.000	117	847739	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	495498	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1048158	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.770	13.771	1.000	117	847759	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	495657	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.265	10.260	0.967	65	214533	49.47	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 98.94%					
43) Toluene-d8	12.252	12.247	0.890	98	791213	50.31	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 100.62%					
61) Bromofluorobenzene	14.953	14.954	0.924	95	566023	58.39	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 116.78%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.911	0.000		0	N.D.		
3) Chloromethane	5.299	5.291	0.499	50	1346	N.D.		
4) Vinyl chloride	0.000	5.521	0.000		0	N.D.		
5) Bromomethane	0.000	6.137	0.000		0	N.D.		
6) Chloroethane	0.000	6.295	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.669	0.000		0	N.D.		
8) Ethyl ether	0.000	6.998	0.000		0	N.D.		
9) Acetone	7.363	7.352	0.693	43	4076	N.D.		
10) 1,1-Dichloroethylene	0.000	7.389	0.000		0	N.D.		
11) Iodomethane	0.000	7.663	0.000		0	N.D.		
12) Acetonitrile	7.711	7.699	0.726	41	272	N.D.		
13) Methyl acetate	7.759	7.748	0.731	43	312	N.D.		
14) Carbon disulfide	7.772	7.773	0.732	76	763	N.D.		
15) Methylene chloride	7.930	7.931	0.747	84	3345	N.D.		
16) tert-Butyl methyl ether	0.000	8.242	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.285	0.000		0	N.D.		
18) Vinyl acetate	0.000	8.705	0.000		0	N.D.		
19) 1,1-Dichloroethane	0.000	8.760	0.000		0	N.D.		
20) 2-Butanone	9.320	9.327	0.878	43	173	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.388	0.000		0	N.D.		
22) 2,2-Dichloropropane	9.284	9.419	0.874	77	151	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.680	9.687	0.912	83	227	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.979	0.000		0	N.D.		
26) Cyclohexane	0.000	10.083	0.000		0	N.D.		
27) 1,1-Dichloropropene	0.000	10.132	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.175	0.000		0	N.D.		
30) 1,2-Dichloroethane	0.000	10.339	0.000		0	N.D.		
31) Benzene	10.363	10.370	0.976	78	464	N.D.		
32) Cyclohexene	10.625	10.492	1.001	67	372	N.D.		
33) n-Butyl alcohol	10.698	10.693	1.007	56	251	N.D.		
34) Trichloroethylene	11.167	11.004	1.052	95	142	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.260	0.000		0	N.D.		
37) Dibromomethane	0.000	11.376	0.000		0	N.D.		
38) Bromodichloromethane	0.000	11.485	0.000		0	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.699	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A415.D
Acq On : 4 Mar 2010 4:34 pm
Operator : ACJ
InstName : VOA4
Sample : |248042013|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 08 21:56:12 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40) cis-1,3-Dichloropropylene	0.000	11.930	0.000		0	N.D.	
42) 4-Methyl-2-pentanone	0.000	12.016	0.000		0	N.D.	
44) Toluene	12.326	12.320	0.895	91	1653	N.D.	
45) trans-1,3-Dichloroprop...	12.466	12.461	0.905	75	2070	N.D.	
46) 1,1,2-Trichloroethane	0.000	12.680	0.000		0	N.D.	
47) 2-Hexanone	12.856	12.857	0.934	43	196	N.D.	
48) 1,3-Dichloropropane	0.000	12.875	0.000		0	N.D.	
49) Tetrachloroethylene	12.935	12.918	0.939	164	121	N.D.	
50) Dibromochloromethane	0.000	13.144	0.000		0	N.D.	
51) 1,2-Dibromoethane	0.000	13.320	0.000		0	N.D.	
52) Chlorobenzene	13.801	13.802	1.002	112	359	N.D.	
53) 1,1,1,2-Tetrachloroethane	0.000	13.851	0.000		0	N.D.	
54) Ethylbenzene	13.862	13.863	1.007	91	770	N.D.	
55) m,p-Xylenes	13.972	13.973	1.015	106	711	N.D.	
56) o-Xylene	0.000	14.399	0.000		0	N.D.	
57) Styrene	0.000	14.399	0.000		0	N.D.	
59) Bromoform	0.000	14.655	0.000		0	N.D.	
60) Isopropylbenzene	14.770	14.759	0.913	105	657	N.D.	
62) 1,1,2,2-Tetrachloroethane	0.000	15.015	0.000		0	N.D.	
63) 1,2,3-Trichloropropane	0.000	15.107	0.000		0	N.D.	
64) Bromobenzene	0.000	15.168	0.000		0	N.D.	
65) n-Propylbenzene	15.179	15.180	0.938	91	635	N.D.	
66) 1,3,5-Trimethylbenzene	15.319	15.332	0.947	105	505	N.D.	
67) 2-Chlorotoluene	0.000	15.332	0.000		0	N.D.	
68) 4-Chlorotoluene	15.416	15.430	0.953	91	325	N.D.	
69) tert-Butylbenzene	0.000	15.704	0.000		0	N.D.	
70) 1,2,4-Trimethylbenzene	15.727	15.741	0.972	105	606	N.D.	
71) sec-Butylbenzene	15.935	15.930	0.985	105	601	N.D.	
72) 4-Isopropyltoluene	16.044	16.051	0.992	119	597	N.D.	
73) 1,3-Dichlorobenzene	16.111	16.119	0.996	146	215	N.D.	
74) 1,4-Dichlorobenzene	16.215	16.204	1.002	146	505	N.D.	
75) n-Butylbenzene	16.508	16.503	1.020	91	543	N.D.	
76) 1,2-Dichlorobenzene	0.000	16.643	0.000		0	N.D.	
77) 1,2-Dibromo-3-chloropr...	0.000	17.527	0.000		0	N.D.	
78) 1,2,4-Trichlorobenzene	0.000	18.630	0.000		0	N.D.	
79) Hexachlorobutadiene	0.000	18.819	0.000		0	N.D.	
80) Naphthalene	19.044	19.026	1.177	128	3166	N.D.	
81) 1,2,3-Trichlorobenzene	0.000	19.386	0.000		0	N.D.	
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85) Acrolein	0.000	7.180	0.000		0	N.D.	
86) Trichlorotrifluoroethane	0.000	7.369	0.000		0	N.D.	
87) Isopropyl Alcohol	7.436	7.430	0.700	45	3372	N.D.	
88) Allyl chloride	7.778	7.796	0.732	41	277	N.D.	
89) tert-Butyl Alcohol	7.942	7.924	0.748	59	217	N.D.	
90) Acrylonitrile	0.000	8.174	0.000		0	N.D.	
91) Isopropyl ether	0.000	8.741	0.000		0	N.D.	
92) 2-Chloro-1,3-butadiene	0.000	8.869	0.000		0	N.D.	
93) Ethyl tert-butyl ether	0.000	9.143	0.000		0	N.D.	
94) Ethyl acetate	9.338	9.338	0.879	43	531	N.D.	
95) Propionitrile	0.000	9.393	0.000		0	N.D.	
96) Methacrylonitrile	9.680	9.576	0.912	41	154	N.D.	
97) Tetrahydrofuran	9.722	9.710	0.916	42	839	N.D.	
98) Isobutyl alcohol	9.991	10.009	0.941	41	174	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A415.D
Acq On : 4 Mar 2010 4:34 pm
Operator : ACJ
InstName : VOA4
Sample : |248042013|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 08 21:56:12 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	0.000	10.387	0.000		0	N.D.	
100)	Methyl methacrylate	0.000	11.204	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102)	2-Nitropropane	11.734	11.673	1.105	43	212	N.D.	
104)	Ethyl methacrylate	0.000	12.466	0.000		0	N.D.	
106)	1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	0.000	14.783	0.000		0	N.D.	
108)	Cyclohexanone	0.000	14.904	0.000		0	N.D.	
109)	trans-1,4-Dichloro-2-b...	0.000	15.063	0.000		0	N.D.	
110)	Pentachloroethane	0.000	15.770	0.000		0	N.D.	
111)	Benzyl chloride	16.331	16.319	1.009	91	233	N.D.	
112)	bis(2-Chloroisopropyl)...	0.000	16.721	0.000		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A415.D
Acq On : 4 Mar 2010 4:34 pm
Operator : ACJ
InstName : VOA4
Sample : |248042013|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 08 21:56:12 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

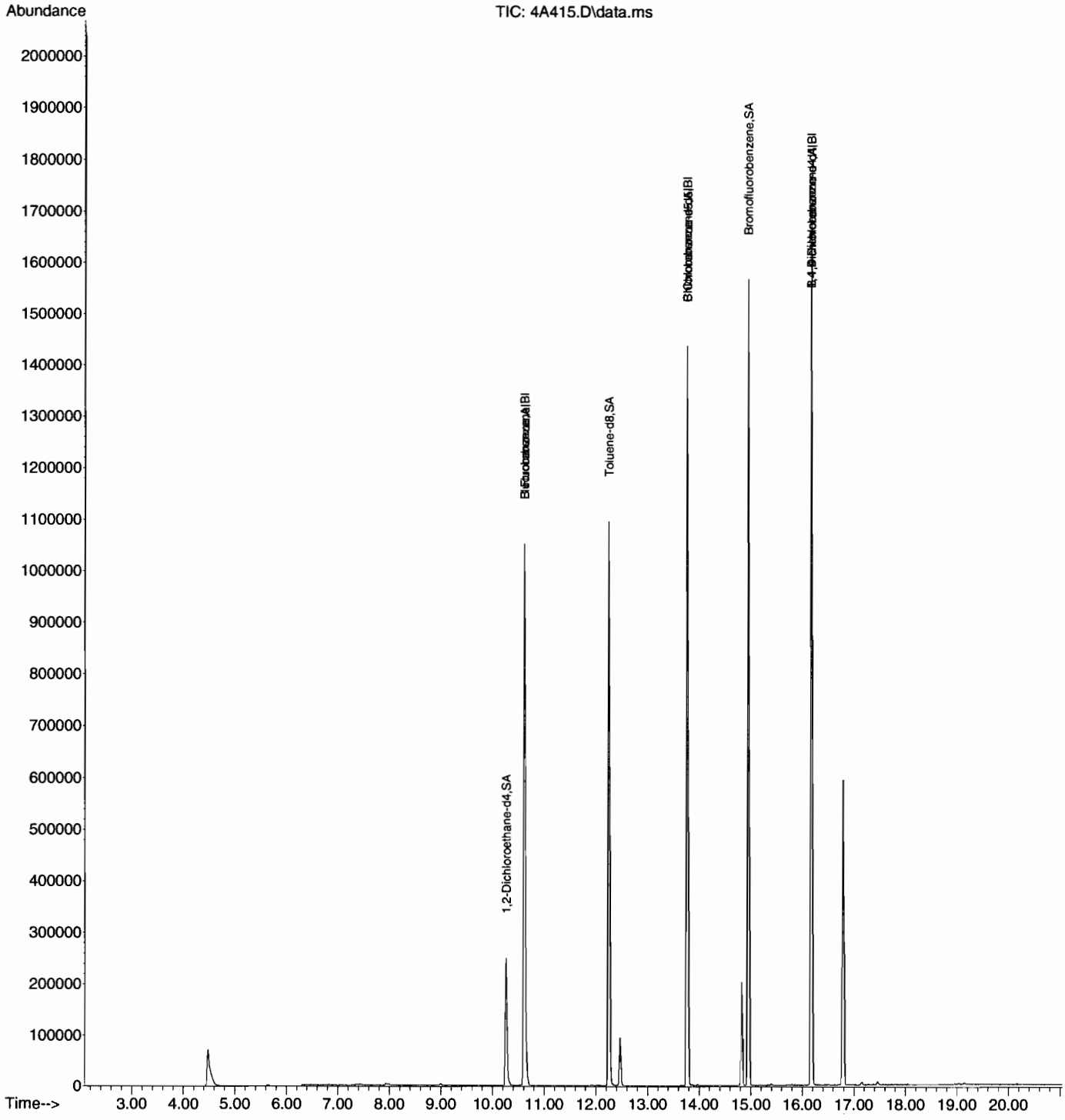

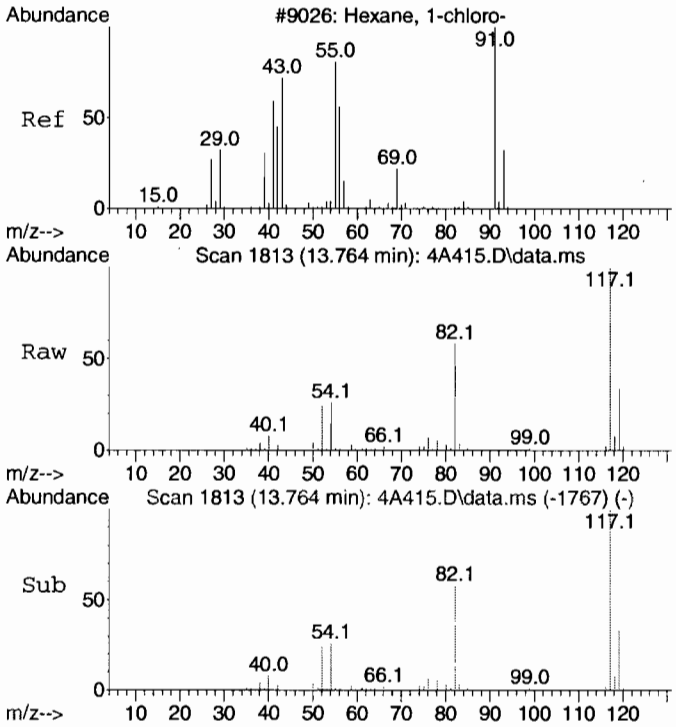

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.75 ug/L
RT: 13.764 min Scan# 1813
Delta R.T. 0.104 min
Lab File: 4A415.D
Acq: 4 Mar 2010 4:34 pm

Tgt Ion: 55 Resp: 9983

Ion	Ratio	Lower	Upper
55	100		
91	19.1	112.1	172.1#
56	59.7	28.5	88.5

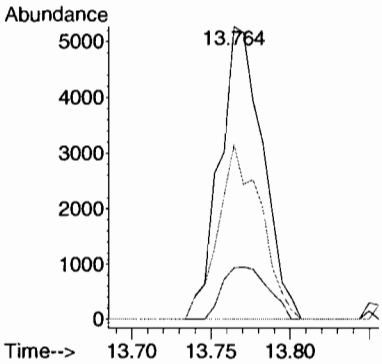

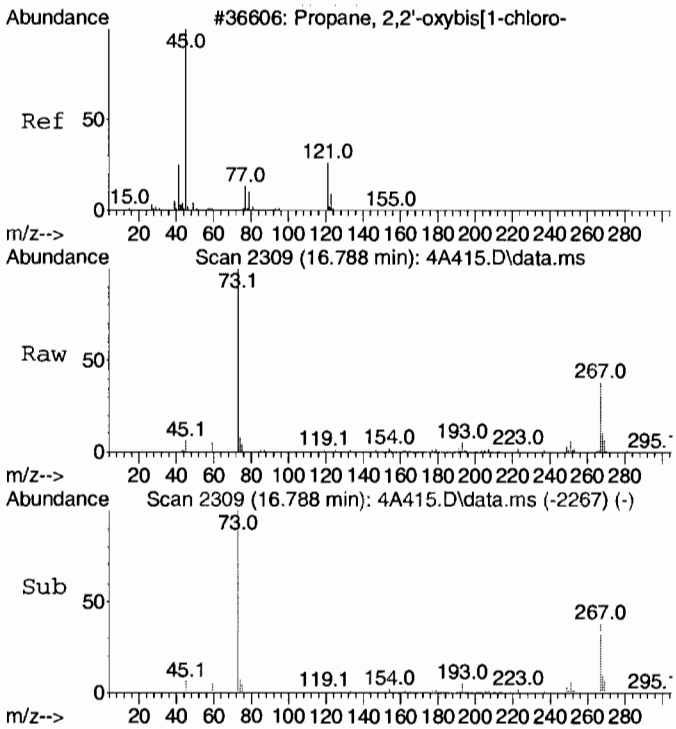

#112 BEFORE analyst DELETION
bis(2-Chloroisopropyl)ether
Concen: 7.58 ug/L
RT: 16.788 min Scan# 2309
Delta R.T. 0.067 min
Lab File: 4A415.D
Acq: 4 Mar 2010 4:34 pm

Tgt Ion: 45 Resp: 29982

Ion	Ratio	Lower	Upper
45	100		
121	1.8	0.0	56.0

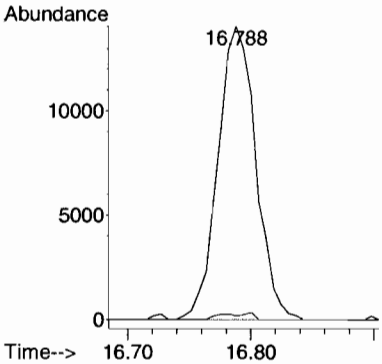

Library Search Compound Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A415.D
Acq On    :  4 Mar 2010   4:34 pm
Operator  : ACJ
Sample    : |248042013|961120|1|VOAF|1|VOA8260LFD|
Misc      : LANL 5ML PH2
ALS Vial  : 15   Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title  : Volatile Organics 8260B                    SubList :

TIC Library    : C:\Database\NIST05.L
TIC Integration Parameters: default.P
```

****

Peak Number 1 unknown hydrocarbon Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.481	6.79 ug/L	314544	Fluorobenzene	10.619

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Dimethyl ether	46	C2H6O	000115-10-6	5
2	Ethyl alcohol	46	C2H6O	000064-17-5	4
3	Ethyl alcohol	46	C2H6O	000064-17-5	4
4	Ethyl alcohol	46	C2H6O	000064-17-5	4
5	Formic acid	46	CH2O2	000064-18-6	3

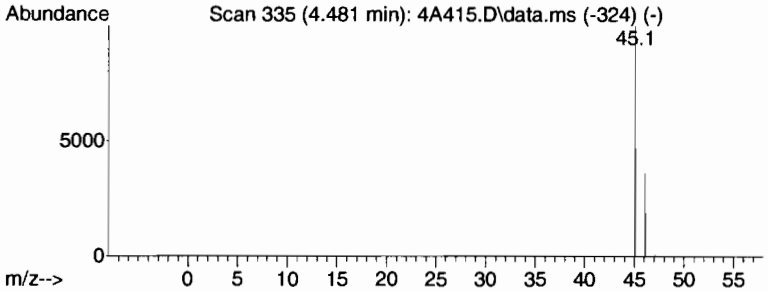

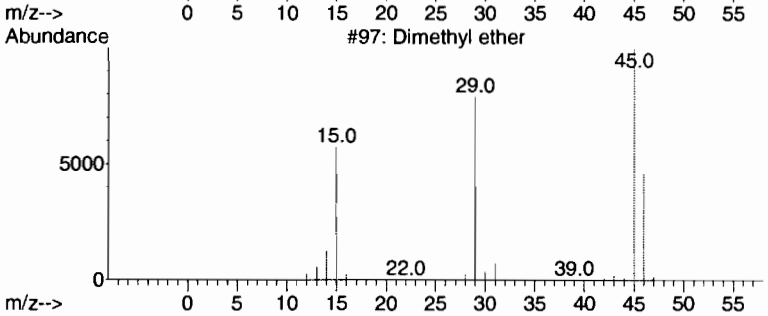

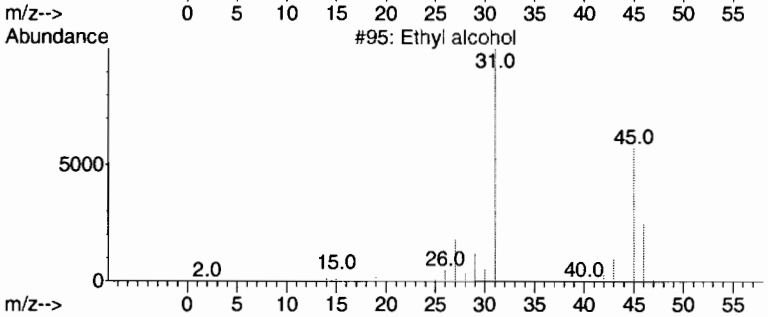

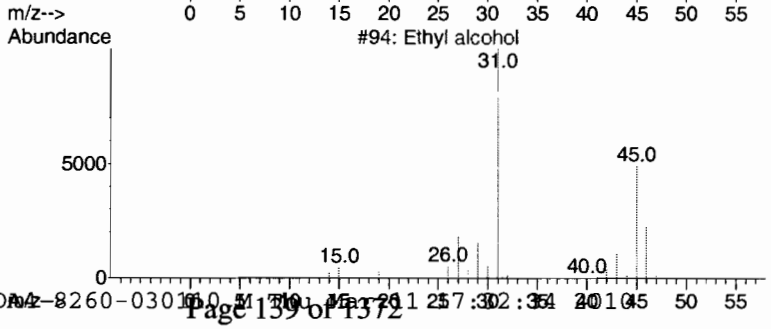

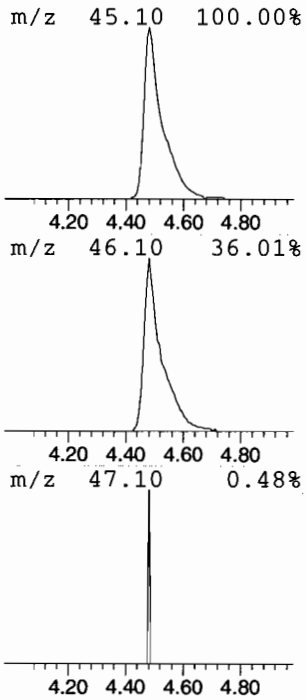

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A415.D
Acq On : 4 Mar 2010 4:34 pm
Operator : ACJ
Sample : |248042013|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****

Peak Number 2 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.825	7.20 ug/L	394487	B Chlorobenzene-d5	13.771

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	86
2	7H-Dibenzo[b,g]carbazole, 7-methyl-	281	C21H15N	003557-49-1	50
3	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	49
4	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	46
5	Benzoic acid, 4-methyl-2-trimeth...	296	C14H24O3Si2	1000153-59-3	45

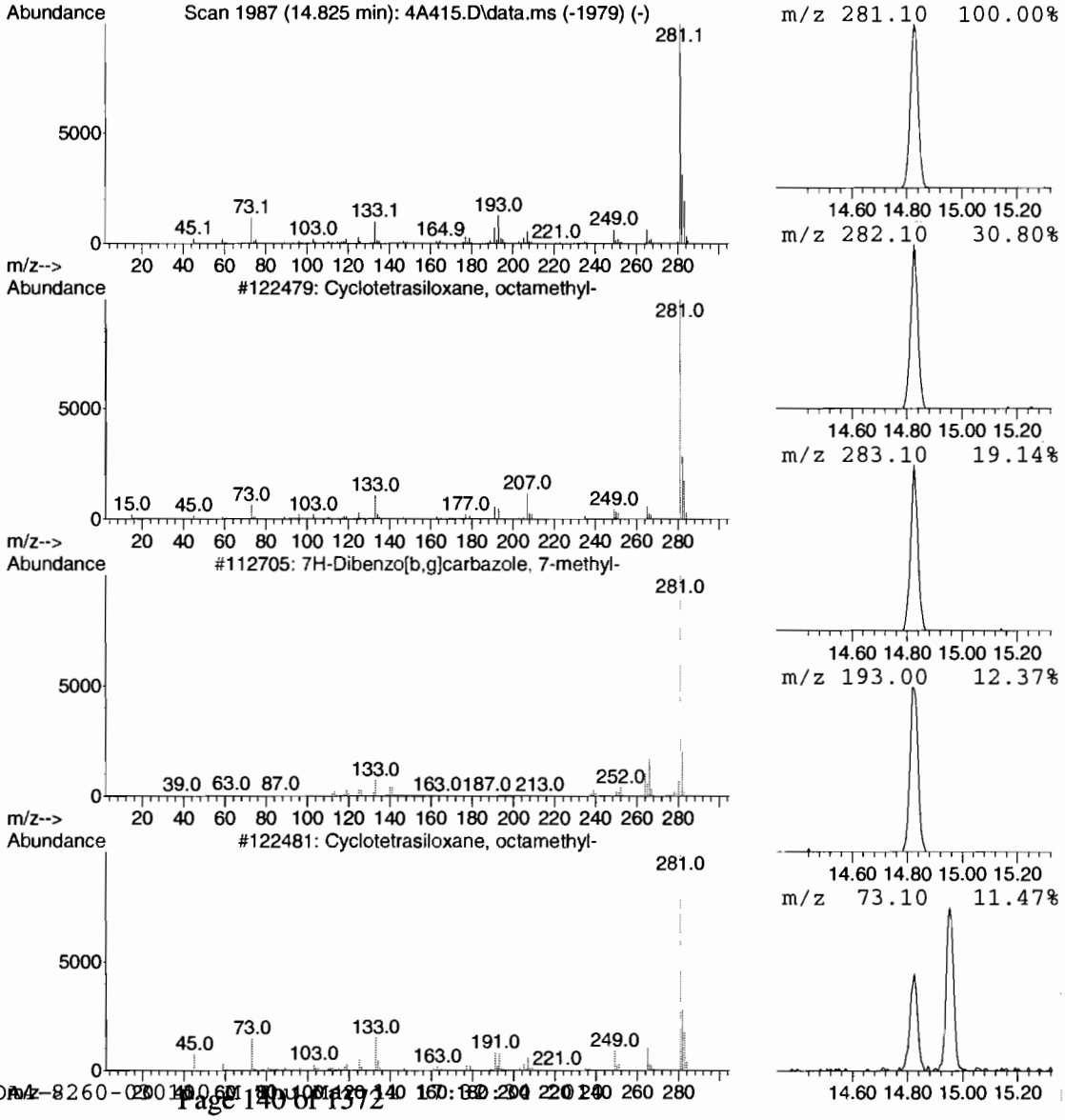

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A415.D
Acq On : 4 Mar 2010 4:34 pm
Operator : ACJ
Sample : |248042013|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

****
Peak Number 3 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.788	19.94 ug/L	1254650	B 1,4-Dichlorobenzene-d4	16.179

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	38
2	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	38
3	Benzeneethanamine, N-[(pentafluo...	475	C21H26F5NO2Si2	055429-85-1	36
4	1-Boraindane, 3-methyl-1-[1-(tri...	266	C17H23BSi	190316-36-0	27
5	Benzeneacetic acid, 3-methoxy-4-...	268	C13H20O4Si	015964-84-8	9

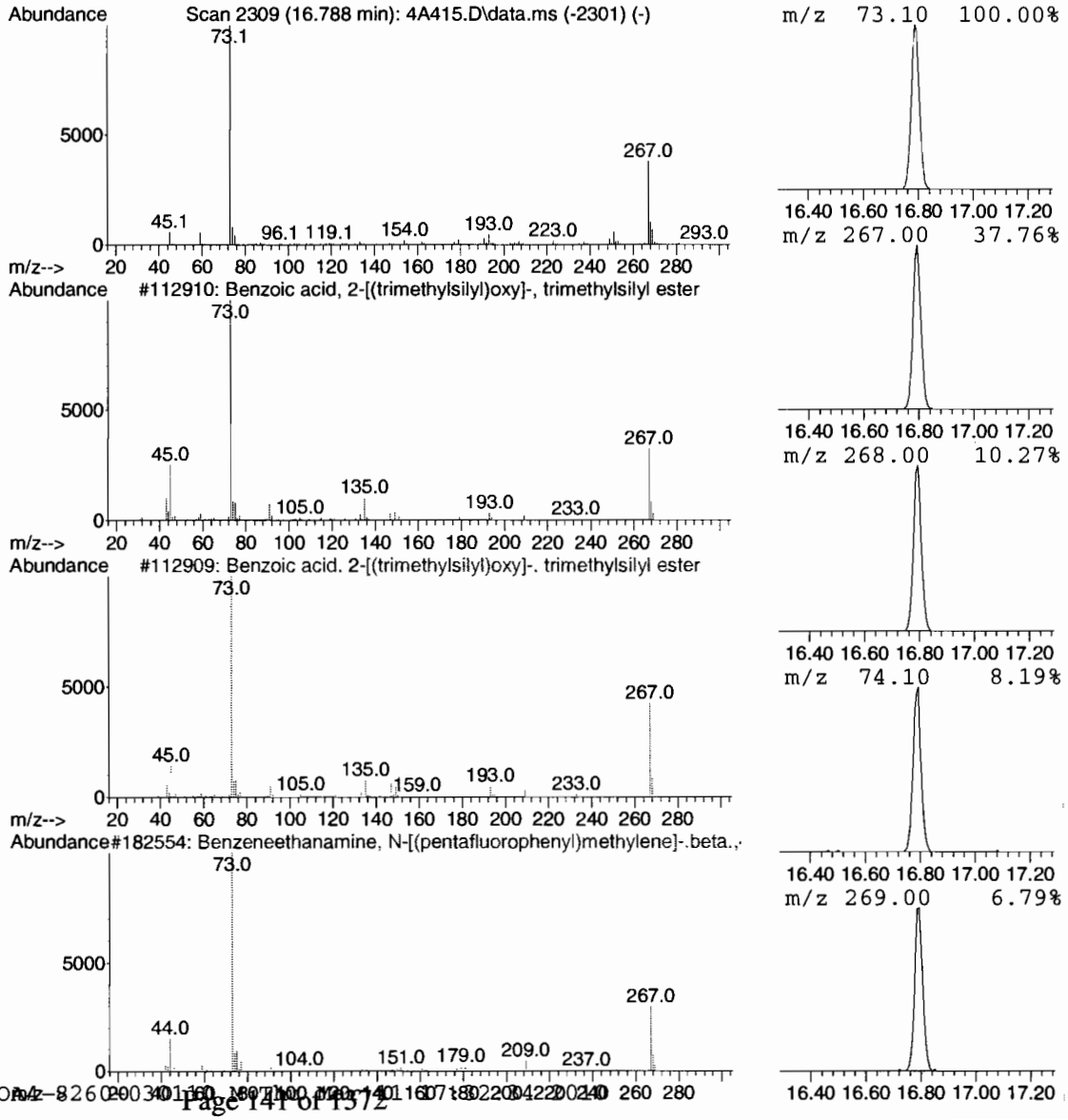

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A415.D
Acq On : 4 Mar 2010 4:34 pm
Operator : ACJ
Sample : |248042013|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
unknown hydroca...	4.481	6.8	ug/L	314544	1	10.619	2315260	50.0
unknown siloxane	14.825	7.2	ug/L	394487	4	13.771	2740270	50.0
unknown siloxane	16.788	19.9	ug/L	1254650	6	16.179	3146000	50.0

Standards

EPA 524.2/Low level SW846 8260B and Regular level 8260B and EPA 624
Calibration Standard Concentration Levels

	Level 1	Level 1a	Level 2	Level 3	Level 4 #	Level 5	Level 6	Level 7 !	Level 7a
Fluorobenzene (IS)									
1,2-Dichloroethane-d4(surr)		0.5	1	2	5	10	20	50	100
Dichlorodifluoromethane		0.5	1	2	5	10	20	50	100
Chloromethane		0.5	1	2	5	10	20	50	100
Vinyl chloride		0.5	1	2	5	10	20	50	100
Bromomethane		0.5	1	2	5	10	20	50	100
Chloroethane		0.5	1	2	5	10	20	50	100
Trichlorofluoromethane		0.5	1	2	5	10	20	50	100
1,1-Dichloroethene		0.5	1	2	5	10	20	50	100
Acetone	1	2.5	5	10	25	50	100	250	500
Iodomethane	1	2.5	5	10	25	50	100	250	500
Carbon disulfide	1	2.5	5	10	25	50	100	250	500
Methylene chloride		0.5	1	2	5	10	20	50	100
trans-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,1-Dichloroethane		0.5	1	2	5	10	20	50	100
Ethyl ether		0.5	1	2	5	10	20	50	100
Vinyl acetate	1	2.5	5	10	25	50	100	250	500
cis-1,2-Dichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethene (total)		1	2	4	10	20	40	100	200
Cyclohexene		0.5	1	2	5	10	20	50	100
2-Chloroethylvinyl ether			5	10	25	50	100	250	500
2,2-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Butanone	1	2.5	5	10	25	50	100	250	500
Bromochloromethane		0.5	1	2	5	10	20	50	100
Chloroform		0.5	1	2	5	10	20	50	100
1,1,1-Trichloroethane		0.5	1	2	5	10	20	50	100
1,1-Dichloropropene		0.5	1	2	5	10	20	50	100
Carbon tetrachloride		0.5	1	2	5	10	20	50	100
Benzene		0.5	1	2	5	10	20	50	100
1,2-Dichloroethane		0.5	1	2	5	10	20	50	100
Trichloroethene		0.5	1	2	5	10	20	50	100
1,2-Dichloropropane		0.5	1	2	5	10	20	50	100
Dibromomethane		0.5	1	2	5	10	20	50	100
Bromodichloromethane		0.5	1	2	5	10	20	50	100
cis-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
tert-Butylmethylether		0.5	1	2	5	10	20	50	100
Ethyl Ether			1	2	5	10	20	50	100
Acetonitrile			25	50	125	250	500	1250	2500
Methyl acetate			5	10	25	50	100	250	500
Cyclohexane			1	2	5	10	20	50	100
Methylcyclohexane			1	2	5	10	20	50	100
n-Butyl alcohol			50	100	250	500	1000	2500	5000
2-Nitropropane			5	10	25	50	100	250	500
Ethyl acetate			5	10	25	50	100	250	500
Acrolein			5	10	25	50	100	250	500
Trichlorotrifluoroethane			5	10	25	50	100	250	500
Allyl chloride			5	10	25	50	100	250	500
Acrylonitrile			5	10	25	50	100	250	500
1,4-Dioxane			50	100	250	500	1000	2500	5000
Isobutyl alcohol			50	100	250	500	1000	2500	5000
Methacrylonitrile			5	10	25	50	100	250	500
Propionitrile			5	10	25	50	100	250	500
Methyl methacrylate			5	10	25	50	100	250	500
Chlorotrifluoroethylene			5	10	25	50	100	250	500
2-Chloro-1,1,1-trifluoroethane			5	10	25	50	100	250	500

tert-Butyl alcohol			50	100	250	500	1000	2500	5000
Isopropyl ether			1	2	5	10	20	50	100
Ethyl tert-butyl ether			1	2	5	10	20	50	100
Isopropyl alcohol			50	100	250	500	1000	2500	5000
Methyl tert-amyl ether			1	2	5	10	20	50	100
1-Chlorohexane			1	2	5	10	20	50	100
2-Chloro-1,3-butadiene(chloroprene)			1	2	5	10	20	50	100
Chlorobenzene-d5 (IS)									
Toluene-d8 (surr)		0.5	1	2	5	10	20	50	100
4-Methyl-2-pentanone	1	2.5	5	10	25	50	100	250	500
Toluene		0.5	1	2	5	10	20	50	100
trans-1,3-Dichloropropene		0.5	1	2	5	10	20	50	100
1,1,2-Trichloroethane		0.5	1	2	5	10	20	50	100
Tetrachloroethene		0.5	1	2	5	10	20	50	100
1,3-Dichloropropane		0.5	1	2	5	10	20	50	100
2-Hexanone	1	2.5	5	10	25	50	20	250	500
Dibromochloromethane		0.5	1	2	5	10	20	50	100
1,2-Dibromoethane		0.5	1	2	5	10	20	50	100
Chlorobenzene		0.5	1	2	5	10	20	50	100
1,1,1,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Ethylbenzene		0.5	1	2	5	10	20	50	100
m,p-Xylene		1	2	4	10	20	20	100	200
o-Xylene		0.5	1	2	5	10	20	50	100
Xylenes (total)		1.5	3	6	15	30	60	150	300
Stryene		0.5	1	2	5	10	20	50	100
Cyclohexanone			50	100	250	500	1000	2500	5000
Ethyl methacrylate			5	10	25	50	100	250	500
1,4-Dichlorobenzene-d4 (IS)									
Bromofluorobenzene (surr)		0.5	1	2	5	10	20	50	100
Bromoform		0.5	1	2	5	10	20	50	100
Isopropylbenzene		0.5	1	2	5	10	20	50	100
1,1,2,2-Tetrachloroethane		0.5	1	2	5	10	20	50	100
Bromobenzene		0.5	1	2	5	10	20	50	100
1,2,3-Trichloropropane		0.5	1	2	5	10	20	50	100
n-Propylbenzene		0.5	1	2	5	10	20	50	100
2-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,3,5-Trimethylbenzene		0.5	1	2	5	10	20	50	100
4-Chlorotoluene		0.5	1	2	5	10	20	50	100
1,2,4-Trimethylbenzene		0.5	1	2	5	10	20	50	100
sec-Butylbenzene		0.5	1	2	5	10	20	50	100
1,3-Dichlorobenzene		0.5	1	2	5	10	20	50	100
tert-Butylbenzene		0.5	1	2	5	10	20	50	100
Isopropyltoluene		0.5	1	2	5	10	20	50	100
1,4-Dichlorobenzene		0.5	1	2	5	10	20	50	100
n-Butylbenzene		0.5	1	2	5	10	20	50	100
1,2-Dichlorobenzene		0.5	1	2	5	10	20	50	100
1,2-Dibromo-3-chloropropa		0.5	1	2	5	10	20	50	100
1,2,4-Trichlorobenzene		0.5	1	2	5	10	20	50	100
Hexachlorobutadiene		0.5	1	2	5	10	20	50	100
Naphthalene		0.5	1	2	5	10	20	50	100
1,2,3-Trichlorobenzene		0.5	1	2	5	10	20	50	100
cis-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
trans-1,4-Dichloro-2-butene			5	10	25	50	100	250	500
Tetrahydrofuran			5	10	25	50	100	250	500
Pentachloroethane			5	10	25	50	100	250	500
Benzyl chloride			5	10	25	50	100	250	500
bis(2-Chloro-isopropyl)ether			5	10	25	50	100	250	500

Method	PQL	Concentration range
EPA 524.2	Level 1a	Levels 1a -> 7a
SW 846 8260B low level	Level 1a	Levels 1-> 7a
EPA 624	Level 2	Levels 2-> 7a
SW846 8260B	Level 2	Levels 2-> 7a

#: Indicates calibration verification concentration level used for low level analysis

!: Indicates calibration verification concentration level used for regular level analysis

Calibration History Report VOA4
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Last Update : Tue Mar 02 15:03:40 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

Cal Lvl:8 Amt:-1 Last Updated with: C:\msdchem\1\DATA\030110V4\4A103.D

Injection Date	Mix	Calibration File
1 Mar 2010 8:03 pm	A	C:\msdchem\1\DATA\030110V4\4A103.D

Cal Lvl:1 Amt:1 Last Updated with: C:\msdchem\1\DATA\030110V4\4A104.D

Injection Date	Mix	Calibration File
1 Mar 2010 8:30 pm	A	C:\msdchem\1\DATA\030110V4\4A104.D
2 Mar 2010 12:39 am	B	C:\msdchem\1\DATA\030110V4\4A113.D

Cal Lvl:2 Amt:2 Last Updated with: C:\msdchem\1\DATA\030110V4\4A114.D

Injection Date	Mix	Calibration File
1 Mar 2010 9:26 pm	A	C:\msdchem\1\DATA\030110V4\4A106.D
2 Mar 2010 1:06 am	B	C:\msdchem\1\DATA\030110V4\4A114.D

Cal Lvl:3 Amt:5 Last Updated with: C:\msdchem\1\DATA\030110V4\4A115.D

Injection Date	Mix	Calibration File
1 Mar 2010 9:54 pm	A	C:\msdchem\1\DATA\030110V4\4A107.D
2 Mar 2010 1:34 am	B	C:\msdchem\1\DATA\030110V4\4A115.D

Cal Lvl:4 Amt:10 Last Updated with: C:\msdchem\1\DATA\030110V4\4A116.D

Injection Date	Mix	Calibration File
1 Mar 2010 10:21 pm	A	C:\msdchem\1\DATA\030110V4\4A108.D
2 Mar 2010 2:01 am	B	C:\msdchem\1\DATA\030110V4\4A116.D

Cal Lvl:5 Amt:-1 Last Updated with: C:\msdchem\1\DATA\030110V4\4A117.D

Injection Date	Mix	Calibration File
1 Mar 2010 10:49 pm	A	C:\msdchem\1\DATA\030110V4\4A109.D
2 Mar 2010 2:28 am	B	C:\msdchem\1\DATA\030110V4\4A117.D

Cal Lvl:6 Amt:50 Last Updated with: C:\msdchem\1\DATA\030110V4\4A118.D

Injection Date	Mix	Calibration File
1 Mar 2010 11:16 pm	A	C:\msdchem\1\DATA\030110V4\4A110.D
2 Mar 2010 2:56 am	B	C:\msdchem\1\DATA\030110V4\4A118.D

Cal Lvl:7 Amt:100 Last Updated with: C:\msdchem\1\DATA\030110V4\4A119.D

Injection Date	Mix	Calibration File
1 Mar 2010 11:44 pm	A	C:\msdchem\1\DATA\030110V4\4A111.D
2 Mar 2010 3:23 am	B	C:\msdchem\1\DATA\030110V4\4A119.D

VOA4-8260-030110.M Fri Mar 19 17:32:07 2010

Response Factor Report VOA4
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Last Update : Tue Mar 02 15:03:40 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
2)MA Dichlorodifluoromethane	0.2908561	0.3094751 0.3031216	0.3280031	0.3612408	0.3086181		0.3169	AVRG		7.8338
3)MPA Chloromethane	0.4893066	0.5729365 0.4852403	0.5257676	0.5300317	0.5087671		0.5187	AVRG		6.2189
4)MCA Vinyl chloride	0.4896654	0.5556015 0.4800115	0.5350749	0.5133625	0.5104256		0.5140	AVRG		5.4579
5)MA Bromomethane	0.3113689	0.2891901 0.3122806	0.3068545	0.2985733	0.3159442		0.3057	AVRG		3.2877
6)MA Chloroethane	0.2619117	0.2722809 0.2612404	0.2615291	0.2661486	0.2656411		0.2648	AVRG		1.6040
7)MA Trichlorofluoromethane	0.5258166	0.5030491 0.5349635	0.5264847	0.5272128	0.5275867		0.5242	AVRG		2.0751
8)MA Ethyl ether	0.2548761	0.2415341 0.2540043	0.2378465	0.2480119	0.2617549		0.2497	AVRG		3.5854
9)MA Acetone	0.3032708	0.3705916 0.2752399	0.3197349	0.3077369	0.3139688		0.3151	AVRG		9.9201
10)MCA 1,1-Dichloroethylene	0.5519492	0.5794751 0.6065546	0.5416569	0.6102438	0.6071555		0.5828	AVRG		5.1849
11)MA Iodomethane	0.5910160	0.5734048 0.6450650	0.5471266	0.6082113	0.6470482		0.6020	AVRG		6.5914
12)MA Acetonitrile	0.0510683	0.0504308 0.0504136	0.0513643	0.0552385	0.0552876		0.0523	AVRG		4.4436
13)MA Methyl acetate	0.2611160	0.2702859 0.2577124	0.2639834	0.2673019	0.2855392		0.2677	AVRG		3.6682
14)MA Carbon disulfide	1.0876449	0.9801140 1.1334287	0.9486797	1.1622919	1.1922855		1.0841	AVRG		9.1704
15)MA Methylene chloride	0.3791125	0.4118045	0.5413222	0.4788783	0.4500774		0.4522	AVRG		13.8235
16)MA tert-Butyl methyl ether	0.9092717	0.9693907 0.9481439	0.9709886	0.9531098	1.0246243		0.9626	AVRG		3.9165

Response Factor Report VOA4
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Last Update : Tue Mar 02 15:03:40 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
17)MA trans-1,2-Dichloroethyle		0.4568833	0.4331088	0.4667206	0.4691201					
	0.4278390	0.4394880					0.4489	AVRG		3.9499
18)MA Vinyl acetate		0.6003014	0.6013608	0.6048363	0.5853654					
	0.5871409	0.5211594					0.5834	AVRG		5.3988
19)MPA 1,1-Dichloroethane		0.5785324	0.5298634	0.5778642	0.5939291					
	0.5386702	0.5580868					0.5628	AVRG		4.4474
20)MA 2-Butanone		0.3516691	0.3325229	0.3247048	0.3275315					
	0.3481286	0.2989724					0.3306	AVRG		5.7383
21)MA cis-1,2-Dichloroethylene		0.5066074	0.4842512	0.5084067	0.5131511					
	0.4630022	0.4767585					0.4920	AVRG		4.1285
22)MA 2,2-Dichloropropane		0.3345652	0.2947900	0.3049192	0.3192840					
	0.2817542	0.2754918					0.3018	AVRG		7.4565
23)MA Bromochloromethane		0.1665375	0.1772055	0.1857821	0.1886328					
	0.1690604	0.1826083					0.1783	AVRG		5.0552
24)MCA Chloroform		0.6050823	0.6010229	0.5945464	0.6059334					
	0.5562893	0.5831481					0.5910	AVRG		3.2112
25)MA 1,1,1-Trichloroethane		0.4648209	0.4513728	0.4789040	0.4849944					
	0.4386245	0.4451256					0.4606	AVRG		4.0677
26)MA Cyclohexane		0.5588252	0.5202214	0.5216520	0.5277387					
	0.4630114	0.4789281					0.5117	AVRG		6.8224
27)MA 1,1-Dichloropropene		0.4624488	0.4115936	0.4524134	0.4394794					
	0.4060724	0.4217200					0.4323	AVRG		5.2686
28)MA Carbon tetrachloride		0.4498581	0.4242158	0.4397280	0.4587258					
	0.4179535	0.4380206					0.4381	AVRG		3.4843
29)SA 1,2-Dichloroethane-d4		0.2043679	0.2090512	0.2098656	0.2123324					
	0.2034892	0.2019789					0.2068	AVRG		1.9954
30)MA 1,2-Dichloroethane		0.5074893	0.4854465	0.4863183	0.4981336					
	0.4503800	0.4655985					0.4822	AVRG		4.3588
31)MA Benzene		1.3318439	1.2441519	1.3096329	1.3356057					
	1.2030885	1.2240879					1.2747	AVRG		4.5497

Response Factor Report VOA4
GEL Laboratories, LLC

Method File : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Last Update : Tue Mar 02 15:03:40 2010
Integrator : (RTE Integrator) Response via : Initial Calibration

For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
32)MA Cyclohexene		0.6395393	0.5860420	0.6494392	0.6392113					
	0.6007305	0.6137152					0.6214	AVRG		4.0511
33)MA n-Butyl alcohol	0.0152149	0.0108964	0.0112719	0.0124979	0.0135854					
	0.0142691	0.0143615					0.0132	AVRG		12.4909
34)MA Trichloroethylene		0.3437801	0.3200982	0.3470815	0.3477155					
	0.3248326	0.3388240					0.3371	AVRG		3.5091
35)MCA 1,2-Dichloropropane		0.3333792	0.3186002	0.3302578	0.3490766					
	0.3141259	0.3337969					0.3299	AVRG		3.7660
36)MA Methylcyclohexane		0.5498840	0.5176396	0.5554798	0.5485111					
	0.5032676	0.5212290					0.5327	AVRG		4.0167
37)MA Dibromomethane		0.2116389	0.2197578	0.2208584	0.2244713					
	0.2076497	0.2218045					0.2177	AVRG		3.0098
38)MA Bromodichloromethane		0.4181989	0.4146854	0.4276733	0.4597959					
	0.4357536	0.4678536					0.4373	AVRG		5.0211
39)MA 2-Chloroethylvinyl ether		0.1693963	0.1682743	0.2063950	0.1768768					
	0.1882166	0.1873501					0.1828	AVRG		7.8632
40)MA cis-1,3-Dichloropropylen		0.4961760	0.4860043	0.5009409	0.5342986					
	0.5042918	0.5407149					0.5104	AVRG		4.3053
42)MA 4-Methyl-2-pentanone		0.1812431	0.1913755	0.1812924	0.1814015					
	0.1874330	0.1710181					0.1823	AVRG		3.7921
43)SA Toluene-d8		0.9571065	0.9493994	0.9489777	0.9189842					
	0.9087348	0.8817669					0.9275	AVRG		3.1741
44)MCA Toluene		1.8581648	1.6886550	1.7535024	1.6503380					
	1.5066037	1.4729560					1.6550	AVRG		8.8511
45)MA trans-1,3-Dichloropropyl		0.5744260	0.5816789	0.5737143	0.5981879					
	0.5688252	0.5899924					0.5811	AVRG		1.9180
46)MA 1,1,2-Trichloroethane		0.2905339	0.3038670	0.3013148	0.3068866					
	0.2863925	0.2982854					0.2979	AVRG		2.6640
47)MA 2-Hexanone		0.5036428	0.5363755	0.5159977	0.5061352					
	0.5382292	0.4346162					0.5058	AVRG		7.4823

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
48)MA 1,3-Dichloropropane		0.6286995	0.6273240	0.6290113	0.6310176					
	0.5849931	0.6121944					0.6189	AVRG		2.9002
49)MA Tetrachloroethylene		0.3642776	0.3253014	0.3419562	0.3310143					
	0.3132361	0.3223346					0.3330	AVRG		5.4152
50)MA Dibromochloromethane		0.4089868	0.4098351	0.4043078	0.4264329					
	0.4309932	0.4648053					0.4242	AVRG		5.3060
51)MA 1,2-Dibromoethane		0.3814705	0.3843430	0.3784487	0.3896992					
	0.3774139	0.3926663					0.3840	AVRG		1.5981
52)MPA Chlorobenzene		1.1723073	1.1582322	1.1598989	1.1365570					
	1.0469242	1.0892324					1.1272	AVRG		4.3535
53)MA 1,1,1,2-Tetrachloroethan		0.4198035	0.4188438	0.4138090	0.4265661					
	0.4215505	0.4667464					0.4279	AVRG		4.5525
54)MCA Ethylbenzene		2.0840260	2.0164027	2.0203991	1.9648385					
	1.8396323	1.8349551					1.9600	AVRG		5.2209
55)MA m,p-Xylenes		0.7968904	0.7843637	0.7812839	0.7687025					
	0.7500114	0.7838288					0.7775	AVRG		2.0822
56)MA o-Xylene		0.7644591	0.7952265	0.8048390	0.7930166					
	0.8014504	0.8757789					0.8058	AVRG		4.6105
57)MA Styrene		1.2443810	1.2117404	1.2744438	1.3143277					
	1.3579431	1.4472582					1.3083	AVRG		6.5184
59)MPA Bromoform		0.3902477	0.4141142	0.4242333	0.4566677					
	0.4801735	0.5461896					0.4519	AVRG		12.4017
60)MA Isopropylbenzene		3.3175209	3.3494916	3.3243159	3.1363524					
	2.8963725	2.9600744					3.1640	AVRG		6.2838
61)SA Bromofluorobenzene		0.9826198	1.0053785	0.9728582	0.9665938					
	0.9564305	0.9856607					0.9783	AVRG		1.7414
62)MPA 1,1,2,2-Tetrachloroethan		0.9195561	0.9683729	0.9026073	0.9198707					
	0.8567728	0.8818222					0.9082	AVRG		4.1952
63)MA 1,2,3-Trichloropropane		0.2432967	0.2801066	0.2441238	0.2472761					
	0.2288957	0.2413168					0.2475	AVRG		6.9435

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
64)MA Bromobenzene		0.8647386	0.8752875	0.8519557	0.8635659					
	0.8331826	0.9351452					0.8706	AVRG		3.9852
65)MA n-Propylbenzene		4.0498435	4.1369496	4.0588436	3.8552049					
	3.5743302	3.5017307					3.8628	AVRG		6.9678
66)MA 1,3,5-Trimethylbenzene		2.8354956	3.0146701	2.9763206	2.9065436					
	2.7813114	2.8437041					2.8930	AVRG		3.0971
67)MA 2-Chlorotoluene		0.8688915	0.8524719	0.8724659	0.8294085					
	0.8241385	0.9261661					0.8623	AVRG		4.2959
68)MA 4-Chlorotoluene		2.4844031	2.5612741	2.5152706	2.3978939					
	2.2460486	2.2714761					2.4127	AVRG		5.4253
69)MA tert-Butylbenzene		0.6320613	0.6437287	0.6497004	0.6155296					
	0.5991326	0.6650760					0.6342	AVRG		3.7759
70)MA 1,2,4-Trimethylbenzene		2.8841431	3.0892537	3.0875822	3.0143936					
	2.8235529	2.8025765					2.9503	AVRG		4.4071
71)MA sec-Butylbenzene		4.0143071	4.0846347	4.1051946	3.9152029					
	3.6420766	3.5181276					3.8799	AVRG		6.3072
72)MA 4-Isopropyltoluene		3.0338824	3.2694698	3.3123587	3.1719621					
	3.0102983	2.9278625					3.1210	AVRG		4.9307
73)MA 1,3-Dichlorobenzene		1.7733193	1.7685299	1.7969645	1.7342003					
	1.6369787	1.6738737					1.7306	AVRG		3.6236
74)MA 1,4-Dichlorobenzene		1.7771756	1.9012008	1.8477494	1.7442019					
	1.6703842	1.6822429					1.7705	AVRG		5.1518
75)MA n-Butylbenzene		2.9574109	3.0426503	3.2663712	3.0010450					
	2.8332954	2.6704491					2.9619	AVRG		6.7905
76)MA 1,2-Dichlorobenzene		1.6923391	1.8190827	1.7229194	1.6964463					
	1.5724597	1.6033986					1.6844	AVRG		5.2380
77)MA 1,2-Dibromo-3-chloroprop		0.1427388	0.1601043	0.1552744	0.1568820					
	0.1724465	0.1820974					0.1616	AVRG		8.5663
78)MA 1,2,4-Trichlorobenzene		0.8213712	0.8237018	0.8975434	0.8897582					
	0.8820654	0.8549721					0.8616	AVRG		3.8851

Response Factor Report VOA4
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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
79)MA Hexachlorobutadiene	0.5423204	0.5620564 0.5524787	0.5490636	0.6013384	0.5418709		0.5582	AVRG		4.0146
80)MA Naphthalene	2.0444053	2.3970157 1.9772015	2.2199511	2.0905527	2.1315508		2.1434	AVRG		6.9367
81)MA 1,2,3-Trichlorobenzene	0.7056849	0.7105499 0.7041686	0.7076489	0.7426567	0.7348618		0.7176	AVRG		2.3293
83)B Chlorotrifluoroethylene	0.1651545	0.1928176 0.1795403	0.1589189	0.1461446	0.1735227	0.2114385	0.1754	AVRG		12.4398
84)B 2-Chloro-1,1,1-trifluoro	0.5904177	0.5721523 0.5501506	0.5400354	0.5501283	0.5962120	0.5535334	0.5647	AVRG		3.8712
85)B Acrolein -0.0135 | 0.0505 | 0.00	321964	6504 773364	9876	23934	49064	109086		LINR		0.9943
86)B Trichlorotrifluoroethane	0.1023600	0.1461689 0.1060014	0.1221725	0.1222409	0.1237840	0.1087334	0.1188	AVRG		12.5463
87)B Isopropyl Alcohol	0.0315174	0.0309507 0.0328078	0.0289400	0.0295944	0.0321518	0.0309392	0.0310	AVRG		4.3869
88)B Allyl chloride	0.4247044	0.4410914 0.3890080	0.4144177	0.4329829	0.4237283	0.4390746	0.4236	AVRG		4.2184
89)B tert-Butyl Alcohol	0.0499952	0.0493194 0.0515867	0.0465802	0.0486116	0.0516194	0.0492098	0.0496	AVRG		3.5428
90)B Acrylonitrile	0.1226476	0.1354744 0.1210012	0.1169982	0.1192240	0.1172877	0.1199926	0.1218	AVRG		5.2104
91)B Isopropyl ether	1.0893456	1.0359445 1.0610693	1.0095069	1.0621565	1.1182501	1.0699375	1.0637	AVRG		3.2990
92)B 2-Chloro-1,3-butadiene	0.4396326	0.4432562 0.3923863	0.4025100	0.4251441	0.4110593	0.4255095	0.4199	AVRG		4.4883
93)B Ethyl tert-butyl ether	1.0232943	0.9724237 1.0210297	0.9454935	0.9877587	1.0437350	1.0062867	1.0000	AVRG		3.3710
94)B Ethyl acetate	0.3335166	0.4207751 0.3226695	0.3344995	0.3419534	0.3318285	0.3437715	0.3470	AVRG		9.5860

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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound b | m1 | m2	8 6	1 7	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
95)B Propionitrile	0.0516971	0.0579700 0.0529726	0.0471239	0.0497289	0.0512108	0.0510792	0.0517	AVRG		6.4357
96)B Methacrylonitrile	0.2106405	0.2375600 0.2040929	0.1961336	0.2113702	0.2065848	0.2121764	0.2112	AVRG		6.0965
97)B Tetrahydrofuran	0.1086713	0.1362498 0.1103988	0.1128471	0.1112702	0.1073795	0.1101952	0.1139	AVRG		8.8074
98)B Isobutyl alcohol	0.0170587	0.0152586 0.0160889	0.0143983	0.0161756	0.0155977	0.0159383	0.0158	AVRG		5.2524
99)B Methyl tert-amyl ether	0.9699206	0.9092583 0.9951498	0.9103189	0.9127399	0.9686898	0.9431764	0.9442	AVRG		3.6732
100)B Methyl methacrylate	0.2372493	0.2366812 0.2371432	0.2151339	0.2261493	0.2218900	0.2322491	0.2295	AVRG		3.7866
101)B 1,4-Dioxane	0.0045308	0.0045376 0.0043816	0.0041314	0.0041319	0.0042340	0.0043051	0.0043	AVRG	#	3.9414
102)B 2-Nitropropane	0.1188684	0.1281983 0.1221423	0.0945526	0.1031010	0.1109235	0.1179372	0.1137	AVRG		10.2389
104)B Ethyl methacrylate	0.5410113	0.5301747 0.4985569	0.4853177	0.5128271	0.5124319	0.5436019	0.5177	AVRG		4.1999
106)B 1-Chlorohexane	0.6049091	0.5706431 0.4412334	0.5950303	0.5938594	0.6226543	0.6078436	0.5766	AVRG		10.7135
107)B cis-1,4-Dichloro-2-buten	0.2753507	0.2562164 0.2528613	0.2433071	0.2543648	0.2476176	0.2715778	0.2573	AVRG		4.6219
108)B Cyclohexanone		0.0319960	0.0244636	0.0253938	0.0259780	0.0283148	0.0272	AVRG		11.0914
109)B trans-1,4-Dichloro-2-but	0.2676538	0.2448200 0.2425929	0.2333204	0.2463157	0.2452294	0.2638413	0.2491	AVRG		4.8999
110)B Pentachloroethane	0.2405564	0.2773251 0.2477113	0.2448282	0.2417607	0.3144067	0.3343024	0.2716	AVRG		14.2132
111)B Benzyl chloride	1.3187502	1.2135141 1.0882205	1.1462821	1.2503052	1.2578961	1.3440856	1.2313	AVRG		7.3732

Response Factor Report VOA4
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For Linear Calibration: y = concentration ratio, x = response ratio. y = b + m1(x) + m2(xE2)

Compound	8	1	2	3	4	5	Avg	Curve	Exp	%RSD/r^2
b m1 m2	6	7								
12)B bis(2-Chloroisopropyl)et		0.4102831	0.3581670	0.3914475	0.3940309	0.4206244				
	0.4143469	0.4031629					0.3989	AVRG		5.2157

) = Out of Range

Continuing Calibration Summary

Client SDG: 10-2057

Instrument ID: VOA4.I **Injection Dat** 02-MAR-10 04:45

Data File: 030110V4\4A122.D **Init. Cal. Date(s)** 01-MAR-10 20:03 - 02-MAR-10 03:2

Lab Sample ID W4VM100301-18 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.2068	0.20039		.01		-3.09961	30		Averaged	
S	Toluene-d8	0.9275	0.92786		.01		0.03881	30		Averaged	
S	Bromofluorobenzene	0.9783	0.9522		.01		-2.66789	30		Averaged	
	Dichlorodifluoromethane	0.3169	0.20881		.01		-34.10855	30	*	Averaged	
	Chloromethane	0.5187	0.39141		.1		-24.5402	30		Averaged	spcc
	Vinyl chloride	0.514	0.435		.01		-15.36965	20		Averaged	ccc
	Bromomethane	0.3057	0.27503		.01		-10.03271	30		Averaged	
	Chloroethane	0.2648	0.23859		.01		-9.89804	30		Averaged	
	Trichlorofluoromethane	0.5242	0.48534		.01		-7.4132	30		Averaged	
	Ethyl ether	0.2497	0.23194		.01		-7.11254	30		Averaged	
	Acetone	0.3151	0.2404		.01		-23.70676	40		Averaged	
	1,1-Dichloroethylene	0.5828	0.49891		.01		-14.3943	20		Averaged	ccc
	Iodomethane	0.602	0.55263		.01		-8.201	30		Averaged	
	Acetonitrile	0.0523	0.0479		.01		-8.413	30		Averaged	
	Methyl acetate	0.2677	0.23983		.01		-10.41091	40		Averaged	
	Carbon disulfide	1.0841	1.0305		.01		-4.94419	30		Averaged	
	Methylene chloride	0.4522	0.36418		.01		-19.46484	30		Averaged	
	tert-Butyl methyl ether	0.9626	0.86175		.01		-10.47683	30		Averaged	
	trans-1,2-Dichloroethylene	0.4489	0.40435		.01		-9.92426	30		Averaged	
	Vinyl acetate	0.5834	0.47195		.01		-19.10353	40		Averaged	
	1,1-Dichloroethane	0.5628	0.522		.1		-7.24947	30		Averaged	spcc
	2-Butanone	0.3306	0.2659		.01		-19.57048	40		Averaged	
	cis-1,2-Dichloroethylene	0.492	0.45017		.01		-8.50203	30		Averaged	
	2,2-Dichloropropane	0.3018	0.26297		.01		-12.86614	30		Averaged	
	Bromochloromethane	0.1783	0.16596		.01		-6.92092	30		Averaged	
	Chloroform	0.591	0.55389		.01		-6.27919	20		Averaged	ccc
	1,1,1-Trichloroethane	0.4606	0.42347		.01		-8.06122	30		Averaged	
	Cyclohexane	0.5117	0.44897		.01		-12.25914	30		Averaged	
	1,1-Dichloropropene	0.4323	0.39451		.01		-8.74161	30		Averaged	
	Carbon tetrachloride	0.4381	0.40412		.01		-7.75622	30		Averaged	
	1,2-Dichloroethane	0.4822	0.43255		.01		-10.29656	30		Averaged	
	Benzene	1.2747	1.16072		.01		-8.94171	30		Averaged	
	Cyclohexene	0.6214	0.55044		.01		-11.41938	30		Averaged	
	n-Butyl alcohol	0.0132	0.01316		.01		-0.30303	40		Averaged	
	Trichloroethylene	0.3371	0.32002		.01		-5.06675	30		Averaged	
	1,2-Dichloropropane	0.3299	0.31032		.01		-5.93513	20		Averaged	ccc
	Methylcyclohexane	0.5327	0.47592		.01		-10.65891	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA4.I **Injection Dat** 02-MAR-10 04:45

Data File: 030110V4\4A122.D **Init. Cal. Date(s)** 01-MAR-10 20:03 02-MAR-10 03:2

Lab Sample ID W4VM100301-18 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.2177	0.19691		.01		-9.54984	30		Averaged	
Bromodichloromethane	0.4373	0.42638		.01		-2.49714	30		Averaged	
2-Chloroethylvinyl ether	0.1828	0.18686		.01		2.22101	30		Averaged	
cis-1,3-Dichloropropylene	0.5104	0.48153		.01		-5.65635	30		Averaged	
4-Methyl-2-pentanone	0.1823	0.16376		.01		-10.17005	40		Averaged	
Toluene	1.655	1.48911		.01		-10.02356	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.5811	0.55064		.01		-5.24178	30		Averaged	
1,1,2-Trichloroethane	0.2979	0.28433		.01		-4.55522	30		Averaged	
2-Hexanone	0.5058	0.41646		.01		-17.66311	40		Averaged	
1,3-Dichloropropane	0.6189	0.57199		.01		-7.57958	30		Averaged	
Tetrachloroethylene	0.333	0.30484		.01		-8.45646	30		Averaged	
Dibromochloromethane	0.4242	0.4208		.01		-0.80151	30		Averaged	
1,2-Dibromoethane	0.384	0.36883		.01		-3.95052	30		Averaged	
Chlorobenzene	1.1272	1.05319		.3		-6.56583	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.4279	0.41668		.01		-2.62211	30		Averaged	
Ethylbenzene	1.96	1.801		.01		-8.11224	20		Averaged	ccc
m,p-Xylenes	0.7775	0.73062		.01		-6.02958	30		Averaged	
o-Xylene	0.8058	0.78154		.01		-3.01067	30		Averaged	
Styrene	1.3083	1.32658		.01		1.39723	30		Averaged	
Bromoform	0.4519	0.44567		.1		-1.37862	30		Averaged	spcc
Isopropylbenzene	3.164	2.79156		.01		-11.77118	30		Averaged	
1,1,2,2-Tetrachloroethane	0.9082	0.79153		.3		-12.84629	30		Averaged	spcc
1,2,3-Trichloropropane	0.2475	0.2197		.01		-11.23232	30		Averaged	
Bromobenzene	0.8706	0.81417		.01		-6.48174	30		Averaged	
n-Propylbenzene	3.8628	3.45672		.01		-10.51258	30		Averaged	
2-Chlorotoluene	0.8623	0.8077		.01		-6.3319	30		Averaged	
1,3,5-Trimethylbenzene	2.893	2.69152		.01		-6.9644	30		Averaged	
4-Chlorotoluene	2.4127	2.1839		.01		-9.48315	30		Averaged	
tert-Butylbenzene	0.6342	0.587		.01		-7.44245	30		Averaged	
1,2,4-Trimethylbenzene	2.9503	2.72034		.01		-7.79446	30		Averaged	
sec-Butylbenzene	3.8799	3.52828		.01		-9.0626	30		Averaged	
4-Isopropyltoluene	3.121	2.92624		.01		-6.24031	30		Averaged	
1,3-Dichlorobenzene	1.7306	1.604		.01		-7.31538	30		Averaged	
1,4-Dichlorobenzene	1.7705	1.63632		.01		-7.57865	30		Averaged	
n-Butylbenzene	2.9619	2.76611		.01		-6.61028	30		Averaged	
1,2-Dichlorobenzene	1.6844	1.58047		.01		-6.17015	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1616	0.16175		.01		0.09282	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA4.I **Injection Dat** 02-MAR-10 04:45

Data File: 030110V4\4A122.D **Init. Cal. Date(s)** 01-MAR-10 20:03 02-MAR-10 03:2

Lab Sample ID W4VM100301-18 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8616	0.84001		.01		-2.5058	30		Averaged
Hexachlorobutadiene	0.5582	0.5327		.01		-4.56826	30		Averaged
Naphthalene	2.1434	1.99062		.01		-7.12793	30		Averaged
1,2,3-Trichlorobenzene	0.7176	0.70968		.01		-1.10368	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A122.D
Acq On : 2 Mar 2010 4:45 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-18|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[A] 0220-01B+0301-01
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 02 15:05:11 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.619	10.620	1.000	96	1540174	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	1292531	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	911427	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1539787	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	1292531	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	913350	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	308637	48.44	ug/L	0.00
43) Toluene-d8	12.253	12.247	0.890	98	1199290	50.02	ug/L	0.00
61) Bromofluorobenzene	14.953	14.954	0.924	95	867862	48.67	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.904	4.911	0.462	85	321604	32.95	ug/L	100
3) Chloromethane	5.292	5.291	0.498	50	602837	37.73	ug/L	99
4) Vinyl chloride	5.521	5.521	0.520	62	669968	42.31	ug/L	100
5) Bromomethane	6.130	6.137	0.577	94	423599	44.98	ug/L	99
6) Chloroethane	6.295	6.295	0.593	64	367464	45.05	ug/L	100
7) Trichlorofluoromethane	6.668	6.669	0.628	101	747504	46.29	ug/L	100
8) Ethyl ether	6.997	6.998	0.659	59	357225	46.45	ug/L	98
9) Acetone	7.357	7.352	0.693	43	1851300	190.74	ug/L	100
10) 1,1-Dichloroethylene	7.394	7.389	0.696	61	768401	42.80	ug/L	100
11) Iodomethane	7.662	7.663	0.722	142	4255710	229.50	ug/L	100
12) Acetonitrile	7.699	7.699	0.725	41	1844276	1144.77	ug/L	99
13) Methyl acetate	7.753	7.748	0.730	43	1846931	224.01	ug/L	99
14) Carbon disulfide	7.772	7.773	0.732	76	7935717	237.64	ug/L	100
15) Methylene chloride	7.936	7.931	0.747	84	560901	40.26	ug/L	100
16) tert-Butyl methyl ether	8.241	8.242	0.776	73	1327244	44.76	ug/L	99
17) trans-1,2-Dichloroethy...	8.284	8.285	0.780	61	622773	45.04	ug/L	100
18) Vinyl acetate	8.711	8.705	0.820	43	3634425	202.25	ug/L	99
19) 1,1-Dichloroethane	8.759	8.760	0.825	63	803966	46.37	ug/L	100
20) 2-Butanone	9.326	9.327	0.878	43	2047670	201.08	ug/L	99
21) cis-1,2-Dichloroethylene	9.387	9.388	0.884	61	693341	45.75	ug/L	100
22) 2,2-Dichloropropane	9.418	9.419	0.887	77	405016	43.57	ug/L	98
23) Bromochloromethane	9.656	9.656	0.909	128	255613	46.54	ug/L	98
24) Chloroform	9.692	9.687	0.913	83	853090	46.86	ug/L	98
25) 1,1,1-Trichloroethane	9.979	9.979	0.940	97	652222	45.97	ug/L	100
26) Cyclohexane	10.082	10.083	0.949	56	691497	43.87	ug/L	99
27) 1,1-Dichloropropene	10.137	10.132	0.955	75	607607	45.63	ug/L #	79
28) Carbon tetrachloride	10.174	10.175	0.958	117	622408	46.12	ug/L	100
30) 1,2-Dichloroethane	10.338	10.339	0.974	62	666203	44.85	ug/L	99
31) Benzene	10.375	10.370	0.977	78	1787715	45.53	ug/L	100
32) Cyclohexene	10.497	10.492	0.989	67	847777	44.29	ug/L	98
33) n-Butyl alcohol	10.692	10.693	1.007	56	2026999	5001.56	ug/L	100
34) Trichloroethylene	11.009	11.004	1.037	95	492892	47.47	ug/L	99
35) 1,2-Dichloropropane	11.241	11.241	1.059	63	477950	47.04	ug/L	100
36) Methylcyclohexane	11.265	11.260	1.061	83	733004	44.67	ug/L	99
37) Dibromomethane	11.375	11.376	1.071	93	303275	45.23	ug/L	100
38) Bromodichloromethane	11.484	11.485	1.082	83	656694	48.75	ug/L	100
39) 2-Chloroethylvinyl ether	11.698	11.699	1.102	63	1438998	255.62	ug/L	100
40) cis-1,3-Dichloropropylene	11.929	11.930	1.123	75	741641	47.17	ug/L	100
42) 4-Methyl-2-pentanone	12.021	12.016	0.873	58	1058321	224.58	ug/L	98
44) Toluene	12.326	12.320	0.895	91	1924727	44.99	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A122.D
Acq On : 2 Mar 2010 4:45 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-18|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[A] 0220-01B+0301-01
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 02 15:05:11 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
45)	trans-1,3-Dichloroprop...	12.466	12.461	0.905	75	711716	47.38	ug/L	99
46)	1,1,2-Trichloroethane	12.685	12.680	0.921	83	367506	47.73	ug/L	100
47)	2-Hexanone	12.856	12.857	0.934	43	2691452	205.83	ug/L	98
48)	1,3-Dichloropropane	12.874	12.875	0.935	76	739318	46.21	ug/L	89
49)	Tetrachloroethylene	12.923	12.918	0.938	164	394013	45.77	ug/L	99
50)	Dibromochloromethane	13.149	13.144	0.955	129	543899	49.60	ug/L	100
51)	1,2-Dibromoethane	13.319	13.320	0.967	107	476721	48.02	ug/L	100
52)	Chlorobenzene	13.801	13.802	1.002	112	1361279	46.72	ug/L	100
53)	1,1,1,2-Tetrachloroethane	13.850	13.851	1.006	131	538577	48.69	ug/L	99
54)	Ethylbenzene	13.862	13.863	1.007	91	2327846	45.94	ug/L	100
55)	m,p-Xylenes	13.972	13.973	1.015	106	1888702	93.97	ug/L	100
56)	o-Xylene	14.405	14.399	1.046	106	1010170	48.50	ug/L	98
57)	Styrene	14.405	14.399	1.046	104	1714651	50.70	ug/L	100
59)	Bromoform	14.661	14.655	0.906	173	406192	49.31	ug/L	99
60)	Isopropylbenzene	14.758	14.759	0.912	105	2544300	44.11	ug/L	100
62)	1,1,2,2-Tetrachloroethane	15.020	15.015	0.928	83	721422	43.58	ug/L	99
63)	1,2,3-Trichloropropane	15.112	15.107	0.934	110	200239	44.38	ug/L	97
64)	Bromobenzene	15.167	15.168	0.937	156	742061	46.76	ug/L	99
65)	n-Propylbenzene	15.185	15.180	0.939	91	3150549	44.74	ug/L	99
66)	1,3,5-Trimethylbenzene	15.331	15.332	0.948	105	2453122	46.52	ug/L	100
67)	2-Chlorotoluene	15.331	15.332	0.948	126	736161	46.84	ug/L	99
68)	4-Chlorotoluene	15.429	15.430	0.954	91	1990465	45.26	ug/L	100
69)	tert-Butylbenzene	15.703	15.704	0.971	134	535011	46.28	ug/L	99
70)	1,2,4-Trimethylbenzene	15.746	15.741	0.973	105	2479390	46.10	ug/L	99
71)	sec-Butylbenzene	15.935	15.930	0.985	105	3215773	45.47	ug/L	100
72)	4-Isopropyltoluene	16.051	16.051	0.992	119	2667056	46.88	ug/L	100
73)	1,3-Dichlorobenzene	16.124	16.119	0.997	146	1461933	46.34	ug/L	100
74)	1,4-Dichlorobenzene	16.209	16.204	1.002	146	1491390	46.21	ug/L	99
75)	n-Butylbenzene	16.508	16.503	1.020	91	2521109	46.70	ug/L	100
76)	1,2-Dichlorobenzene	16.642	16.643	1.029	146	1440483	46.91	ug/L	100
77)	1,2-Dibromo-3-chloropr...	17.532	17.527	1.084	157	147425	50.05	ug/L	100
78)	1,2,4-Trichlorobenzene	18.635	18.630	1.152	180	765605	48.75	ug/L	99
79)	Hexachlorobutadiene	18.818	18.819	1.163	225	485516	47.72	ug/L	100
80)	Naphthalene	19.032	19.026	1.176	128	1814309	46.44	ug/L	99
81)	1,2,3-Trichlorobenzene	19.385	19.386	1.198	180	646822	49.45	ug/L	99
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85)	Acrolein	7.241	7.180	0.682		0m	N.D.	d	
86)	Trichlorotrifluoroethane	0.000	7.369	0.000		0	N.D.		
87)	Isopropyl Alcohol	7.351	7.430	0.692		0m	N.D.	d	
88)	Allyl chloride	7.699	7.796	0.725		0m	N.D.	d	
89)	tert-Butyl Alcohol	0.000	7.924	0.000		0	N.D.		
90)	Acrylonitrile	8.241	8.174	0.776		0m	N.D.	d	
91)	Isopropyl ether	8.711	8.741	0.820		0m	N.D.	d	
92)	2-Chloro-1,3-butadiene	8.875	8.869	0.836		0m	N.D.	d	
93)	Ethyl tert-butyl ether	9.131	9.143	0.860		0m	N.D.	d	
94)	Ethyl acetate	9.326	9.338	0.878		0m	N.D.	d	
95)	Propionitrile	9.442	9.393	0.889		0m	N.D.	d	
96)	Methacrylonitrile	0.000	9.576	0.000		0	N.D.		
97)	Tetrahydrofuran	9.716	9.710	0.915		0m	N.D.	d	
98)	Isobutyl alcohol	9.997	10.009	0.941		0m	N.D.	d	
99)	Methyl tert-amyl ether	10.375	10.387	0.977		0m	N.D.	d	
100)	Methyl methacrylate	11.167	11.204	1.052		0m	N.D.	d	
101)	1,4-Dioxane	11.344	11.326	1.068		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A122.D
Acq On : 2 Mar 2010 4:45 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-18|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[A] 0220-01B+0301-01
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 02 15:05:11 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
102) 2-Nitropropane	11.698	11.673	1.102		0m	N.D.	d
104) Ethyl methacrylate	12.466	12.466	0.905		0m	N.D.	d
106) 1-Chlorohexane	13.667	13.661	0.845		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.764	14.783	0.913		0m	N.D.	d
108) Cyclohexanone	14.911	14.904	0.922		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.069	15.063	0.931		0m	N.D.	d
110) Pentachloroethane	15.770	15.770	0.975		0m	N.D.	d
111) Benzyl chloride	16.313	16.319	1.008		0m	N.D.	d
112) bis(2-Chloroisopropy1)...	16.721	16.721	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A122.D
Acq On : 2 Mar 2010 4:45 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-18|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[A] 0220-01B+0301-01
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Mar 02 15:05:11 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

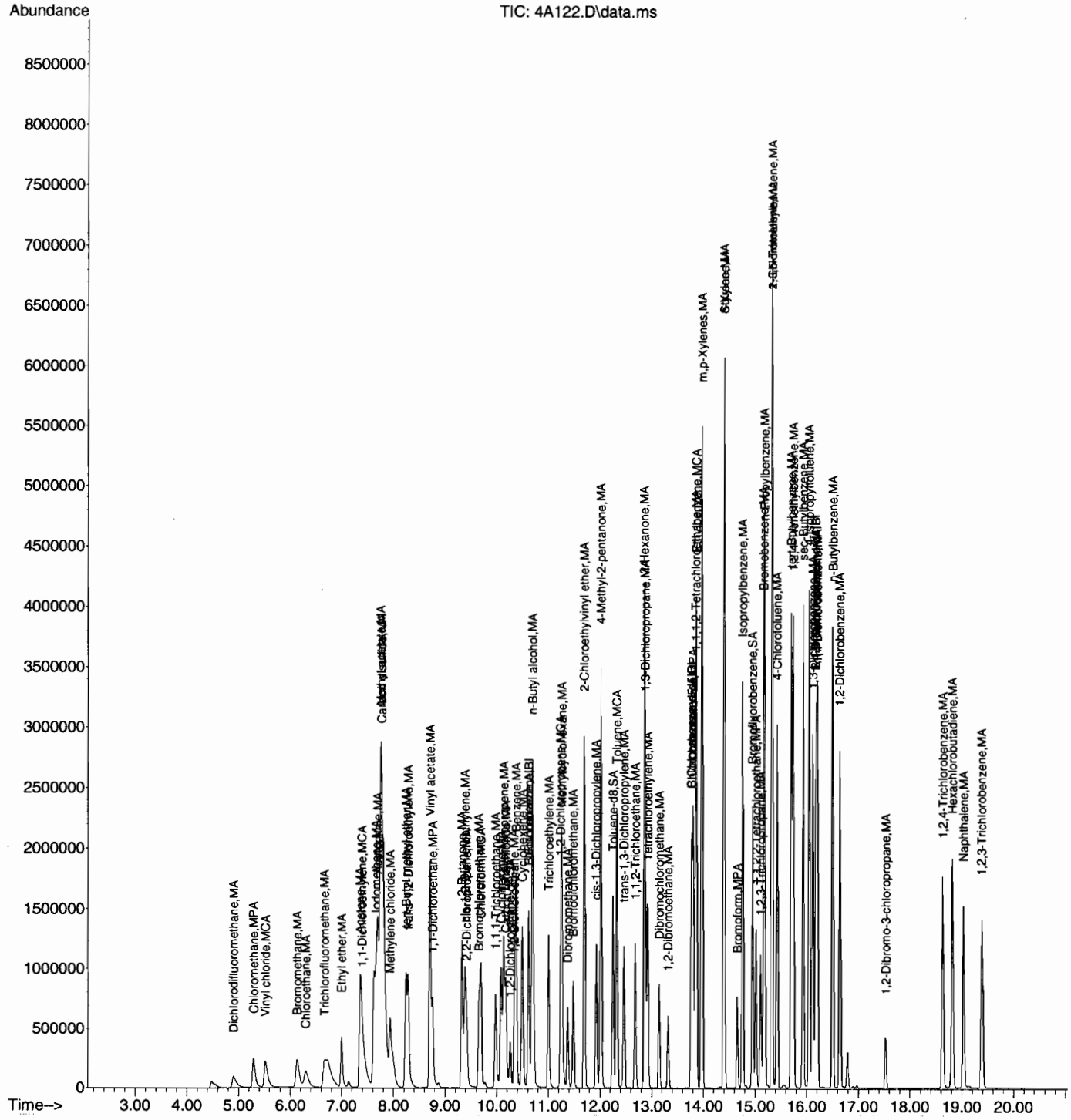

Continuing Calibration Summary

Client SDG: 10-2057

Instrument ID: VOA4.I **Injection Date** 02-MAR-10 05:13

Data File: 030110V4\4A123.D **Init. Cal. Date(s)** 01-MAR-10 20:03 - 02-MAR-10 03:2

Lab Sample ID W4VM100301-19 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.2068	0.19926		.01		-3.64603	30		Averaged
S	Toluene-d8	0.9275	0.92876		.01		0.13585	30		Averaged
S	Bromofluorobenzene	0.9783	0.99852		.01		2.06685	30		Averaged
	Chlorotrifluoroethylene	0.1754	0.18522		.01		5.59863	30		Averaged
	2-Chloro-1,1,1-trifluoroethane	0.5647	0.54723		.01		-3.09368	30		Averaged
	Acrolein	250	210.71	250			-15.716	30		Linear
	Trichlorotrifluoroethane	0.1188	0.11301		.01		-4.87374	30		Averaged
	Isopropyl Alcohol	0.031	0.02807		.01		-9.45161	40		Averaged
	Allyl chloride	0.4236	0.39588		.01		-6.54391	30		Averaged
	tert-Butyl Alcohol	0.0496	0.04432		.01		-10.64516	40		Averaged
	Acrylonitrile	0.1218	0.10925		.01		-10.30378	30		Averaged
	Isopropyl ether	1.0637	1.00324		.01		-5.68393	30		Averaged
	2-Chloro-1,3-butadiene	0.4199	0.43689		.01		4.0462	30		Averaged
	Ethyl tert-butyl ether	1	0.94464		.01		-5.536	30		Averaged
	Ethyl acetate	0.347	0.27896		.01		-19.60807	40		Averaged
	Propionitrile	0.0517	0.04585		.01		-11.31528	30		Averaged
	Methacrylonitrile	0.2112	0.18555		.01		-12.14489	30		Averaged
	Tetrahydrofuran	0.1139	0.09806		.01		-13.90694	30		Averaged
	Isobutyl alcohol	0.0158	0.01386		.01		-12.27848	40		Averaged
	Methyl tert-amyl ether	0.9442	0.9056		.01		-4.08812	30		Averaged
	Methyl methacrylate	0.2295	0.20869		.01		-9.06754	30		Averaged
	1,4-Dioxane	0.0043	0.00376		.01		-12.55814	40		Averaged
	2-Nitropropane	0.1137	0.10782		.01		-5.1715	30		Averaged
	Ethyl methacrylate	0.5177	0.48191		.01		-6.91327	30		Averaged
	1-Chlorohexane	0.5766	0.55415		.01		-3.89351	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2573	0.25096		.01		-2.46405	30		Averaged
	Cyclohexanone	0.0272	0.05136		.01		88.82353	40	*	Averaged
	trans-1,4-Dichloro-2-butene	0.2491	0.23734		.01		-4.721	30		Averaged
	Pentachloroethane	0.2716	0.16088		.01		-40.76583	30	*	Averaged
	Benzyl chloride	1.2313	1.05586		.01		-14.24836	30		Averaged
	bis(2-Chloroisopropyl)ether	0.3989	0.35372		.01		-11.32615	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A123.D
Acq On : 2 Mar 2010 5:13 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-19|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[B] 0215-08A+0125-08E
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 02 15:05:20 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.619	10.620	1.000	96	1591342	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	1313113	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	848630	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1590834	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	1313113	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	848653	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	317090	48.17	ug/L	0.00
43) Toluene-d8	12.253	12.247	0.890	98	1219563	50.07	ug/L	0.00
61) Bromofluorobenzene	14.953	14.954	0.924	95	847377	51.04	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.818	4.911	0.454		0m	N.D.	d	
3) Chloromethane	5.292	5.291	0.498		0m	N.D.	d	
4) Vinyl chloride	5.521	5.521	0.520		0m	N.D.	d	
5) Bromomethane	6.130	6.137	0.577		0m	N.D.	d	
6) Chloroethane	6.321	6.295	0.595		0m	N.D.	d	
7) Trichlorofluoromethane	6.680	6.669	0.629		0m	N.D.	d	
8) Ethyl ether	6.991	6.998	0.658		0m	N.D.	d	
9) Acetone	7.430	7.352	0.700		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.375	7.389	0.695		0m	N.D.	d	
11) Iodomethane	7.619	7.663	0.718		0m	N.D.	d	
12) Acetonitrile	7.692	7.699	0.724		0m	N.D.	d	
13) Methyl acetate	7.753	7.748	0.730		0m	N.D.	d	
14) Carbon disulfide	7.802	7.773	0.735		0m	N.D.	d	
15) Methylene chloride	7.942	7.931	0.748		0m	N.D.	d	
16) tert-Butyl methyl ether	8.247	8.242	0.777		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.284	8.285	0.780		0m	N.D.	d	
18) Vinyl acetate	8.741	8.705	0.823		0m	N.D.	d	
19) 1,1-Dichloroethane	8.759	8.760	0.825		0m	N.D.	d	
20) 2-Butanone	9.338	9.327	0.879		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.338	9.388	0.879		0m	N.D.	d	
22) 2,2-Dichloropropane	9.558	9.419	0.900		0m	N.D.	d	
23) Bromochloromethane	9.655	9.656	0.909		0m	N.D.	d	
24) Chloroform	9.692	9.687	0.913		0m	N.D.	d	
25) 1,1,1-Trichloroethane	9.979	9.979	0.940		0m	N.D.	d	
26) Cyclohexane	10.009	10.083	0.943		0m	N.D.	d	
27) 1,1-Dichloropropene	10.125	10.132	0.953		0m	N.D.	d	
28) Carbon tetrachloride	10.174	10.175	0.958		0m	N.D.	d	
30) 1,2-Dichloroethane	10.357	10.339	0.975		0m	N.D.	d	
31) Benzene	10.375	10.370	0.977		0m	N.D.	d	
32) Cyclohexene	10.497	10.492	0.989		0m	N.D.	d	
33) n-Butyl alcohol	10.686	10.693	1.006		0m	N.D.	d	
34) Trichloroethylene	11.003	11.004	1.036		0m	N.D.	d	
35) 1,2-Dichloropropane	11.247	11.241	1.059		0m	N.D.	d	
36) Methylcyclohexane	11.210	11.260	1.056		0m	N.D.	d	
37) Dibromomethane	11.369	11.376	1.071		0m	N.D.	d	
38) Bromodichloromethane	11.478	11.485	1.081		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.692	11.699	1.101		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	11.935	11.930	1.124		0m	N.D.	d	
42) 4-Methyl-2-pentanone	12.015	12.016	0.872		0m	N.D.	d	
44) Toluene	12.326	12.320	0.895		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A123.D
Acq On : 2 Mar 2010 5:13 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-19|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[B] 0215-08A+0125-08E
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 02 15:05:20 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
45)	trans-1,3-Dichloroprop...	12.460	12.461	0.905		0m	N.D.	d		
46)	1,1,2-Trichloroethane	12.685	12.680	0.921		0m	N.D.	d		
47)	2-Hexanone	12.862	12.857	0.934		0m	N.D.	d		
48)	1,3-Dichloropropane	12.880	12.875	0.935		0m	N.D.	d		
49)	Tetrachloroethylene	12.923	12.918	0.938		0m	N.D.	d		
50)	Dibromochloromethane	13.136	13.144	0.954		0m	N.D.	d		
51)	1,2-Dibromoethane	13.313	13.320	0.967		0m	N.D.	d		
52)	Chlorobenzene	13.801	13.802	1.002		0m	N.D.	d		
53)	1,1,1,2-Tetrachloroethane	13.850	13.851	1.006		0m	N.D.	d		
54)	Ethylbenzene	13.862	13.863	1.007		0m	N.D.	d		
55)	m,p-Xylenes	13.972	13.973	1.015		0m	N.D.	d		
56)	o-Xylene	14.405	14.399	1.046		0m	N.D.	d		
57)	Styrene	14.405	14.399	1.046		0m	N.D.	d		
59)	Bromoform	14.654	14.655	0.906		0m	N.D.	d		
60)	Isopropylbenzene	14.764	14.759	0.913		0m	N.D.	d		
62)	1,1,2,2-Tetrachloroethane	15.008	15.015	0.928		0m	N.D.	d		
63)	1,2,3-Trichloropropane	15.112	15.107	0.934		0m	N.D.	d		
64)	Bromobenzene	15.167	15.168	0.937		0m	N.D.	d		
65)	n-Propylbenzene	15.185	15.180	0.939		0m	N.D.	d		
66)	1,3,5-Trimethylbenzene	15.331	15.332	0.948		0m	N.D.	d		
67)	2-Chlorotoluene	15.331	15.332	0.948		0m	N.D.	d		
68)	4-Chlorotoluene	15.435	15.430	0.954		0m	N.D.	d		
69)	tert-Butylbenzene	15.703	15.704	0.971		0m	N.D.	d		
70)	1,2,4-Trimethylbenzene	15.740	15.741	0.973		0m	N.D.	d		
71)	sec-Butylbenzene	15.935	15.930	0.985		0m	N.D.	d		
72)	4-Isopropyltoluene	16.057	16.051	0.992		0m	N.D.	d		
73)	1,3-Dichlorobenzene	16.118	16.119	0.996		0m	N.D.	d		
74)	1,4-Dichlorobenzene	16.209	16.204	1.002		0m	N.D.	d		
75)	n-Butylbenzene	16.502	16.503	1.020		0m	N.D.	d		
76)	1,2-Dichlorobenzene	16.648	16.643	1.029		0m	N.D.	d		
77)	1,2-Dibromo-3-chloropr...	17.532	17.527	1.084		0m	N.D.	d		
78)	1,2,4-Trichlorobenzene	18.635	18.630	1.152		0m	N.D.	d		
79)	Hexachlorobutadiene	18.812	18.819	1.163		0m	N.D.	d		
80)	Naphthalene	19.038	19.026	1.177		0m	N.D.	d		
81)	1,2,3-Trichlorobenzene	19.385	19.386	1.198		0m	N.D.	d		
83)	Chlorotrifluoroethylene	4.826	4.826	0.454	116	883966	158.43	ug/L		100
84)	2-Chloro-1,1,1-trifluo...	5.657	5.657	0.533	118	2611674	145.37	ug/L	#	99
85)	Acrolein	7.180	7.180	0.676	56	317143	210.71	ug/L		100
86)	Trichlorotrifluoroethane	7.363	7.369	0.693	85	898867	237.85	ug/L		98
87)	Isopropyl Alcohol	7.436	7.430	0.700	45	2232769	2264.77	ug/L		99
88)	Allyl chloride	7.802	7.796	0.735	41	3148934	233.66	ug/L		99
89)	tert-Butyl Alcohol	7.930	7.924	0.747	59	3525465	2235.77	ug/L	#	100
90)	Acrylonitrile	8.174	8.174	0.770	53	869015	224.24	ug/L		99
91)	Isopropyl ether	8.741	8.741	0.823	45	1595996	47.16	ug/L		100
92)	2-Chloro-1,3-butadiene	8.869	8.869	0.835	53	695018	52.02	ug/L		100
93)	Ethyl tert-butyl ether	9.143	9.143	0.861	59	1502758	47.23	ug/L		99
94)	Ethyl acetate	9.338	9.338	0.879	43	2218913	200.98	ug/L		100
95)	Propionitrile	9.393	9.393	0.885	54	364674	221.77	ug/L		100
96)	Methacrylonitrile	9.576	9.576	0.902	41	1475866	219.61	ug/L		99
97)	Tetrahydrofuran	9.716	9.710	0.915	42	780014	215.32	ug/L		99
98)	Isobutyl alcohol	10.009	10.009	0.943	41	1102186	2194.18	ug/L		100
99)	Methyl tert-amyl ether	10.387	10.387	0.978	73	1440665	47.96	ug/L		99
100)	Methyl methacrylate	11.210	11.204	1.056	69	1659968	227.33	ug/L		99
101)	1,4-Dioxane	11.332	11.326	1.067	88	299443	2177.71	ug/L		99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A123.D
Acq On : 2 Mar 2010 5:13 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100301-19|ICV|1|VOAF|1|
Misc : ICV 5ML - MIX[B] 0215-08A+0125-08E
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 02 15:05:20 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
102)	2-Nitropropane	11.673	11.673	1.099	43	857630	237.13	ug/L	99	
104)	Ethyl methacrylate	12.466	12.466	0.905	69	3164038	232.72	ug/L	100	
106)	1-Chlorohexane	13.661	13.661	0.844	55	470278	48.05	ug/L	97	
107)	cis-1,4-Dichloro-2-butene	14.782	14.783	0.914	53	1064876	243.81	ug/L	99	
108)	Cyclohexanone	14.904	14.904	0.921	42	1089625	2357.66	ug/L	98	E
109)	trans-1,4-Dichloro-2-b...	15.063	15.063	0.931	53	1007110	238.19	ug/L	99	
110)	Pentachloroethane	15.776	15.770	0.975	167	682676	148.11	ug/L	100	
111)	Benzyl chloride	16.319	16.319	1.009	91	4480303	214.38	ug/L	99	
112)	bis(2-Chloroisopropyl)...	16.721	16.721	1.034	45	1500940	221.71	ug/L	99	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

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Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A123.D
Acq On    :  2 Mar 2010   5:13 am
Operator  : ACJ
InstName  : VOA4
Sample    : |W4VM100301-19|ICV|1|VOAF|1|
Misc      : ICV 5ML - MIX[B] 0215-08A+0125-08E
ALS Vial  : 23   Sample Multiplier: 1

Quant Time: Mar 02 15:05:20 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE
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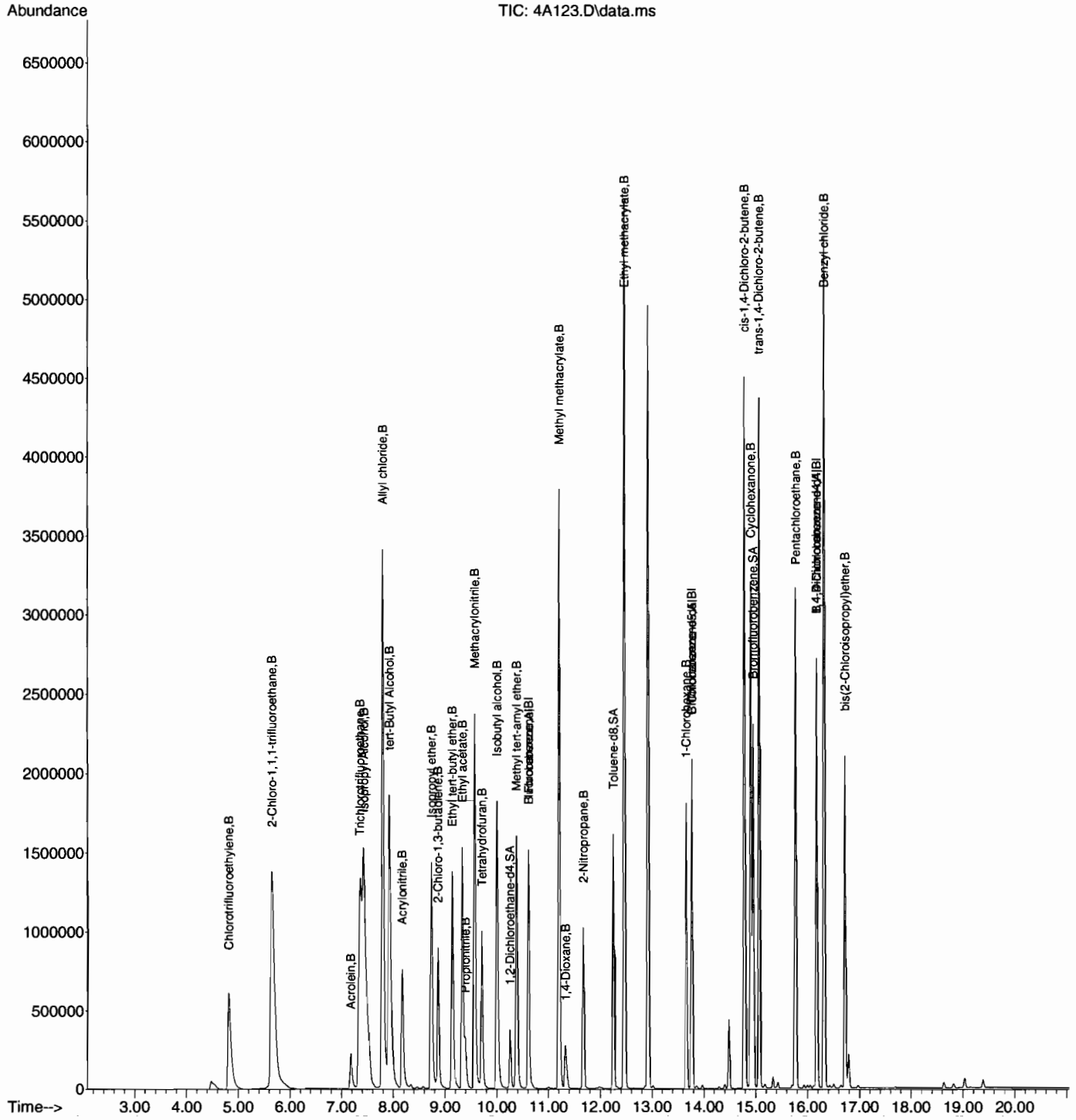

Continuing Calibration Summary

Client SDG: 10-2057

Instrument ID: VOA4.I **Injection Date** 04-MAR-10 10:33

Data File: 030410V4\4A402.D **Init. Cal. Date(s)** 01-MAR-10 20:03 - 02-MAR-10 03:2

Lab Sample ID W4VM100304-01 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
S	1,2-Dichloroethane-d4	0.2068	0.19356		.01		-6.40232	30		Averaged	
S	Toluene-d8	0.9275	0.87991		.01		-5.131	30		Averaged	
S	Bromofluorobenzene	0.9783	0.97737		.01		-0.09506	30		Averaged	
	Dichlorodifluoromethane	0.3169	0.29017		.01		-8.43484	30		Averaged	
	Chloromethane	0.5187	0.47724		.1		-7.99306	30		Averaged	spcc
	Vinyl chloride	0.514	0.52345		.01		1.83852	20		Averaged	ccc
	Bromomethane	0.3057	0.30603		.01		0.10795	30		Averaged	
	Chloroethane	0.2648	0.26439		.01		-0.15483	30		Averaged	
	Trichlorofluoromethane	0.5242	0.57015		.01		8.76574	30		Averaged	
	Ethyl ether	0.2497	0.23666		.01		-5.22227	30		Averaged	
	Acetone	0.3151	0.28825		.01		-8.5211	40		Averaged	
	1,1-Dichloroethylene	0.5828	0.55627		.01		-4.55216	20		Averaged	ccc
	Iodomethane	0.602	0.56376		.01		-6.35216	30		Averaged	
	Acetonitrile	0.0523	0.05082		.01		-2.82983	30		Averaged	
	Methyl acetate	0.2677	0.25732		.01		-3.87747	40		Averaged	
	Carbon disulfide	1.0841	1.14951		.01		6.03358	30		Averaged	
	Methylene chloride	0.4522	0.36447		.01		-19.40071	30		Averaged	
	tert-Butyl methyl ether	0.9626	0.86642		.01		-9.99169	30		Averaged	
	trans-1,2-Dichloroethylene	0.4489	0.44214		.01		-1.5059	30		Averaged	
	Vinyl acetate	0.5834	0.6712		.01		15.04971	40		Averaged	
	1,1-Dichloroethane	0.5628	0.55396		.1		-1.57072	30		Averaged	spcc
	2-Butanone	0.3306	0.31004		.01		-6.219	40		Averaged	
	cis-1,2-Dichloroethylene	0.492	0.48223		.01		-1.98577	30		Averaged	
	2,2-Dichloropropane	0.3018	0.31304		.01		3.72432	30		Averaged	
	Bromochloromethane	0.1783	0.16425		.01		-7.87998	30		Averaged	
	Chloroform	0.591	0.56732		.01		-4.00677	20		Averaged	ccc
	1,1,1-Trichloroethane	0.4606	0.46281		.01		0.47981	30		Averaged	
	Cyclohexane	0.5117	0.5246		.01		2.52101	30		Averaged	
	1,1-Dichloropropene	0.4323	0.43739		.01		1.17742	30		Averaged	
	Carbon tetrachloride	0.4381	0.44494		.01		1.56129	30		Averaged	
	1,2-Dichloroethane	0.4822	0.45371		.01		-5.90834	30		Averaged	
	Benzene	1.2747	1.21721		.01		-4.51008	30		Averaged	
	Cyclohexene	0.6214	0.62524		.01		0.61796	30		Averaged	
	n-Butyl alcohol	0.0132	0.01376		.01		4.24242	40		Averaged	
	Trichloroethylene	0.3371	0.33456		.01		-0.75349	30		Averaged	
	1,2-Dichloropropane	0.3299	0.32384		.01		-1.83692	20		Averaged	ccc
	Methylcyclohexane	0.5327	0.54677		.01		2.64126	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA4.I **Injection Date** 04-MAR-10 10:33

Data File: 030410V4\4A402.D **Init. Cal. Date(s)** 01-MAR-10 20:03 02-MAR-10 03:2

Lab Sample ID W4VM100304-01 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type	
Dibromomethane	0.2177	0.20095		.01		-7.69407	30		Averaged	
Bromodichloromethane	0.4373	0.43487		.01		-0.55568	30		Averaged	
2-Chloroethylvinyl ether	0.1828	0.17057		.01		-6.69037	30		Averaged	
cis-1,3-Dichloropropylene	0.5104	0.50461		.01		-1.1344	30		Averaged	
4-Methyl-2-pentanone	0.1823	0.17584		.01		-3.54361	40		Averaged	
Toluene	1.655	1.56262		.01		-5.58187	20		Averaged	ccc
trans-1,3-Dichloropropylene	0.5811	0.57118		.01		-1.70711	30		Averaged	
1,1,2-Trichloroethane	0.2979	0.28696		.01		-3.67237	30		Averaged	
2-Hexanone	0.5058	0.4934		.01		-2.45156	40		Averaged	
1,3-Dichloropropane	0.6189	0.57871		.01		-6.49378	30		Averaged	
Tetrachloroethylene	0.333	0.32453		.01		-2.54354	30		Averaged	
Dibromochloromethane	0.4242	0.40901		.01		-3.58086	30		Averaged	
1,2-Dibromoethane	0.384	0.36131		.01		-5.90885	30		Averaged	
Chlorobenzene	1.1272	1.07003		.3		-5.07186	30		Averaged	spcc
1,1,1,2-Tetrachloroethane	0.4279	0.41312		.01		-3.45408	30		Averaged	
Ethylbenzene	1.96	1.91454		.01		-2.31939	20		Averaged	ccc
m,p-Xylenes	0.7775	0.77149		.01		-0.77299	30		Averaged	
Styrene	1.3083	1.35601		.01		3.64672	30		Averaged	
o-Xylene	0.8058	0.80429		.01		-0.18739	30		Averaged	
Bromoform	0.4519	0.42491		.1		-5.97256	30		Averaged	spcc
Isopropylbenzene	3.164	2.97826		.01		-5.87042	30		Averaged	
1,1,2,2-Tetrachloroethane	0.9082	0.81603		.3		-10.14865	30		Averaged	spcc
1,2,3-Trichloropropane	0.2475	0.2129		.01		-13.9798	30		Averaged	
Bromobenzene	0.8706	0.81566		.01		-6.31059	30		Averaged	
n-Propylbenzene	3.8628	3.75136		.01		-2.88495	30		Averaged	
2-Chlorotoluene	0.8623	0.83415		.01		-3.26453	30		Averaged	
1,3,5-Trimethylbenzene	2.893	2.83343		.01		-2.05911	30		Averaged	
4-Chlorotoluene	2.4127	2.29559		.01		-4.8539	30		Averaged	
tert-Butylbenzene	0.6342	0.60488		.01		-4.62315	30		Averaged	
1,2,4-Trimethylbenzene	2.9503	2.86055		.01		-3.04206	30		Averaged	
sec-Butylbenzene	3.8799	3.77175		.01		-2.78744	30		Averaged	
4-Isopropyltoluene	3.121	3.16117		.01		1.28709	30		Averaged	
1,3-Dichlorobenzene	1.7306	1.66519		.01		-3.77961	30		Averaged	
1,4-Dichlorobenzene	1.7705	1.70464		.01		-3.71985	30		Averaged	
n-Butylbenzene	2.9619	3.09114		.01		4.36342	30		Averaged	
1,2-Dichlorobenzene	1.6844	1.59513		.01		-5.29981	30		Averaged	
1,2-Dibromo-3-chloropropane	0.1616	0.15353		.01		-4.99381	30		Averaged	

Continuing Calibration Summary

Instrument ID: VOA4.I **Injection Dat** 04-MAR-10 10:33

Data File: 030410V4\4A402.D **Init. Cal. Date(s)** 01-MAR-10 20:03 02-MAR-10 03:2

Lab Sample ID W4VM100304-01 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
1,2,4-Trichlorobenzene	0.8616	0.8931		.01		3.65599	30		Averaged
Hexachlorobutadiene	0.5582	0.54044		.01		-3.18166	30		Averaged
Naphthalene	2.1434	1.90906		.01		-10.9331	30		Averaged
1,2,3-Trichlorobenzene	0.7176	0.7022		.01		-2.14604	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A402.D
Acq On : 4 Mar 2010 10:33 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100304-01|CCV|1|VOAF|1|
Misc : GEL 5ML - MIX[A] 0220-01C+0304-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 11:26:15 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.614	10.620	1.000	96	1282500	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	1091552	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.180	16.180	1.000	152	770618	50.00	ug/L	0.00
82) B Fluorobenzene	10.614	10.619	1.000	96	1282321	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	1091552	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	770738	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.260	10.260	0.967	65	248237	46.79	ug/L	0.00
43) Toluene-d8	12.247	12.247	0.889	98	960464	47.43	ug/L	0.00
61) Bromofluorobenzene	14.954	14.954	0.924	95	753176	49.95	ug/L	0.00
Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.904	4.911	0.462	85	372142	45.78	ug/L	99
3) Chloromethane	5.291	5.291	0.499	50	612057	46.01	ug/L	100
4) Vinyl chloride	5.514	5.521	0.519	62	671325	50.92	ug/L	100
5) Bromomethane	6.130	6.137	0.578	94	392482	50.05	ug/L	98
6) Chloroethane	6.288	6.295	0.592	64	339081	49.92	ug/L	100
7) Trichlorofluoromethane	6.663	6.669	0.628	101	731214	54.38	ug/L	99
8) Ethyl ether	6.998	6.998	0.659	59	303522	47.40	ug/L	98
9) Acetone	7.352	7.352	0.693	43	1848376	228.70	ug/L	97
10) 1,1-Dichloroethylene	7.382	7.389	0.696	61	713421	47.72	ug/L	98
11) Iodomethane	7.626	7.663	0.719	142	3615118	234.13	ug/L	99
12) Acetonitrile	7.699	7.699	0.725	41	1629328	1214.55	ug/L	99
13) Methyl acetate	7.748	7.748	0.730	43	1650068	240.35	ug/L	98
14) Carbon disulfide	7.767	7.773	0.732	76	7371233	265.09	ug/L	100
15) Methylene chloride	7.937	7.931	0.748	84	467439	40.30	ug/L	96
16) tert-Butyl methyl ether	8.236	8.242	0.776	73	1111184	45.00	ug/L	99
17) trans-1,2-Dichloroethy...	8.279	8.285	0.780	61	567039	49.25	ug/L	99
18) Vinyl acetate	8.705	8.705	0.820	43	4304084	287.64	ug/L	99
19) 1,1-Dichloroethane	8.754	8.760	0.825	63	710459	49.21	ug/L	99
20) 2-Butanone	9.327	9.327	0.879	43	1988147	234.46	ug/L	97
21) cis-1,2-Dichloroethylene	9.382	9.388	0.884	61	618459	49.00	ug/L	97
22) 2,2-Dichloropropane	9.419	9.419	0.887	77	401477	51.86	ug/L	96
23) Bromochloromethane	9.656	9.656	0.910	128	210647	46.06	ug/L	95
24) Chloroform	9.687	9.687	0.913	83	727592	48.00	ug/L	99
25) 1,1,1-Trichloroethane	9.980	9.979	0.940	97	593556	50.24	ug/L	98
26) Cyclohexane	10.083	10.083	0.950	56	672798	51.26	ug/L	98
27) 1,1-Dichloropropene	10.132	10.132	0.955	75	560952	50.59	ug/L	99
28) Carbon tetrachloride	10.175	10.175	0.959	117	570637	50.78	ug/L	100
30) 1,2-Dichloroethane	10.339	10.339	0.974	62	581886	47.04	ug/L	99
31) Benzene	10.370	10.370	0.977	78	1561067	47.74	ug/L	99
32) Cyclohexene	10.492	10.492	0.989	67	801866	50.30	ug/L	98
33) n-Butyl alcohol	10.687	10.693	1.007	56	1764536	5228.71	ug/L	98
34) Trichloroethylene	11.004	11.004	1.037	95	429078	49.63	ug/L	99
35) 1,2-Dichloropropane	11.241	11.241	1.059	63	415323	49.09	ug/L	99
36) Methylcyclohexane	11.260	11.260	1.061	83	701237	51.32	ug/L	98
37) Dibromomethane	11.376	11.376	1.072	93	257719	46.15	ug/L	96
38) Bromodichloromethane	11.479	11.485	1.082	83	557725	49.72	ug/L	99
39) 2-Chloroethylvinyl ether	11.699	11.699	1.102	63	1093780	233.34	ug/L	99
40) cis-1,3-Dichloropropylene	11.930	11.930	1.124	75	647161	49.43	ug/L	97
42) 4-Methyl-2-pentanone	12.016	12.016	0.873	58	959719	241.16	ug/L	93
44) Toluene	12.321	12.320	0.895	91	1705681	47.21	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A402.D
Acq On : 4 Mar 2010 10:33 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100304-01|CCV|1|VOAF|1|
Misc : GEL 5ML - MIX[A] 0220-01C+0304-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 11:26:15 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
45)	trans-1,3-Dichloroprop...	12.461	12.461	0.905	75	623474	49.14	ug/L	96
46)	1,1,2-Trichloroethane	12.680	12.680	0.921	83	313231	48.17	ug/L	97
47)	2-Hexanone	12.857	12.857	0.934	43	2692878	243.86	ug/L	97
48)	1,3-Dichloropropane	12.875	12.875	0.935	76	631693	46.76	ug/L	98
49)	Tetrachloroethylene	12.918	12.918	0.938	164	354242	48.73	ug/L	98
50)	Dibromochloromethane	13.144	13.144	0.954	129	446455	48.21	ug/L	100
51)	1,2-Dibromoethane	13.320	13.320	0.967	107	394389	47.04	ug/L	100
52)	Chlorobenzene	13.802	13.802	1.002	112	1167995	47.46	ug/L	99
53)	1,1,1,2-Tetrachloroethane	13.851	13.851	1.006	131	450938	48.27	ug/L	99
54)	Ethylbenzene	13.863	13.863	1.007	91	2089816	48.84	ug/L	99
55)	m,p-Xylenes	13.973	13.973	1.015	106	1684242	99.23	ug/L	97
56)	o-Xylene	14.406	14.399	1.046	106	877925	49.91	ug/L	97
57)	Styrene	14.399	14.399	1.046	104	1480158	51.82	ug/L	100
59)	Bromoform	14.655	14.655	0.906	173	327445	47.01	ug/L	99
60)	Isopropylbenzene	14.759	14.759	0.912	105	2295098	47.06	ug/L	100
62)	1,1,2,2-Tetrachloroethane	15.015	15.015	0.928	83	628851	44.93	ug/L	100
63)	1,2,3-Trichloropropane	15.107	15.107	0.934	110	164063	43.01	ug/L	97
64)	Bromobenzene	15.168	15.168	0.937	156	628561	46.84	ug/L	97
65)	n-Propylbenzene	15.180	15.180	0.938	91	2890868	48.56	ug/L	98
66)	1,3,5-Trimethylbenzene	15.332	15.332	0.948	105	2183492	48.97	ug/L	99
67)	2-Chlorotoluene	15.332	15.332	0.948	126	642809	48.37	ug/L	96
68)	4-Chlorotoluene	15.430	15.430	0.954	91	1769021	47.57	ug/L	99
69)	tert-Butylbenzene	15.704	15.704	0.971	134	466130	47.69	ug/L	98
70)	1,2,4-Trimethylbenzene	15.741	15.741	0.973	105	2204394	48.48	ug/L	99
71)	sec-Butylbenzene	15.930	15.930	0.985	105	2906580	48.61	ug/L	99
72)	4-Isopropyltoluene	16.052	16.051	0.992	119	2436054	50.64	ug/L	99
73)	1,3-Dichlorobenzene	16.119	16.119	0.996	146	1283227	48.11	ug/L	100
74)	1,4-Dichlorobenzene	16.204	16.204	1.002	146	1313627	48.14	ug/L	100
75)	n-Butylbenzene	16.503	16.503	1.020	91	2382086	52.18	ug/L	99
76)	1,2-Dichlorobenzene	16.643	16.643	1.029	146	1229238	47.35	ug/L	100
77)	1,2-Dibromo-3-chloropr...	17.527	17.527	1.083	157	118313	47.51	ug/L	97
78)	1,2,4-Trichlorobenzene	18.630	18.630	1.151	180	688237	51.83	ug/L	99
79)	Hexachlorobutadiene	18.819	18.819	1.163	225	416471	48.41	ug/L	100
80)	Naphthalene	19.033	19.026	1.176	128	1471154	44.53	ug/L	100
81)	1,2,3-Trichlorobenzene	19.386	19.386	1.198	180	541125	48.93	ug/L	100
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85)	Acrolein	7.017	7.180	0.661		0m	N.D.	d	
86)	Trichlorotrifluoroethane	7.358	7.369	0.693		0m	N.D.	d	
87)	Isopropyl Alcohol	7.364	7.430	0.694		0m	N.D.	d	
88)	Allyl chloride	7.699	7.796	0.725		0m	N.D.	d	
89)	tert-Butyl Alcohol	8.035	7.924	0.757		0m	N.D.	d	
90)	Acrylonitrile	8.163	8.174	0.769		0m	N.D.	d	
91)	Isopropyl ether	8.705	8.741	0.820		0m	N.D.	d	
92)	2-Chloro-1,3-butadiene	8.870	8.869	0.836		0m	N.D.	d	
93)	Ethyl tert-butyl ether	9.138	9.143	0.861		0m	N.D.	d	
94)	Ethyl acetate	9.327	9.338	0.879		0m	N.D.	d	
95)	Propionitrile	9.333	9.393	0.879		0m	N.D.	d	
96)	Methacrylonitrile	9.577	9.576	0.902		0m	N.D.	d	
97)	Tetrahydrofuran	9.693	9.710	0.913		0m	N.D.	d	
98)	Isobutyl alcohol	10.077	10.009	0.949		0m	N.D.	d	
99)	Methyl tert-amyl ether	10.370	10.387	0.977		0m	N.D.	d	
100)	Methyl methacrylate	11.260	11.204	1.061		0m	N.D.	d	
101)	1,4-Dioxane	11.339	11.326	1.068		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A402.D
Acq On : 4 Mar 2010 10:33 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100304-01|CCV|1|VOAF|1|
Misc : GEL 5ML - MIX[A] 0220-01C+0304-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 11:26:15 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
102) 2-Nitropropane	11.699	11.673	1.102		0m	N.D.	d
104) Ethyl methacrylate	12.467	12.466	0.905		0m	N.D.	d
106) 1-Chlorohexane	13.662	13.661	0.844		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.759	14.783	0.912		0m	N.D.	d
108) Cyclohexanone	14.899	14.904	0.921		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.070	15.063	0.931		0m	N.D.	d
110) Pentachloroethane	15.771	15.770	0.975		0m	N.D.	d
111) Benzyl chloride	16.320	16.319	1.009		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.722	16.721	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A402.D
Acq On : 4 Mar 2010 10:33 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100304-01|CCV|1|VOAF|1|
Misc : GEL 5ML - MIX[A] 0220-01C+0304-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 11:26:15 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

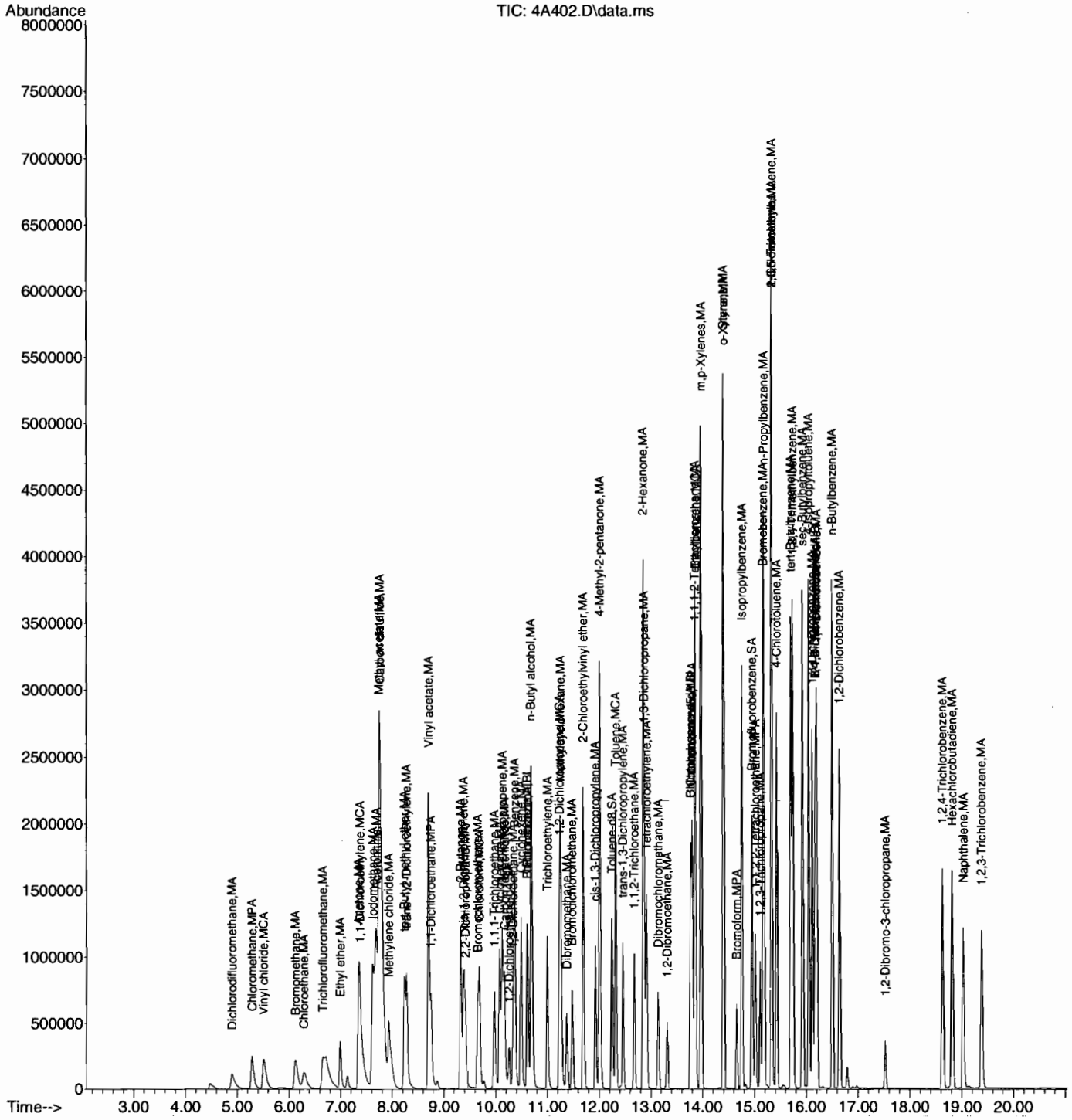

Continuing Calibration Summary

Client SDG: 10-2057

Instrument ID: VOA4.I **Injection Dat** 04-MAR-10 11:29

Data File: 030410V4\4A404.D **Init. Cal. Date(s)** 01-MAR-10 20:03 - 02-MAR-10 03:2

Lab Sample ID W4VM100304-03 **Quant Type** ISTD **Method:** 030110V4\VOA4-8260-030110.M

	Compound	AVERF / Amount	RF CCV	Nominal CCV	Min RF	RF Q	%D / %Drift	Max	Drift Q	Curve Type
S	1,2-Dichloroethane-d4	0.2068	0.19088		.01		-7.69826	30		Averaged
S	Toluene-d8	0.9275	0.8902		.01		-4.02156	30		Averaged
S	Bromofluorobenzene	0.9783	1.03671		.01		5.97056	30		Averaged
	Acrolein	250	225.72	250			-9.712	30		Linear
	Trichlorotrifluoroethane	0.1188	0.09893		.01		-16.72559	30		Averaged
	Allyl chloride	0.4236	0.38355		.01		-9.45467	30		Averaged
	Acrylonitrile	0.1218	0.10456		.01		-14.15435	30		Averaged
	2-Chloro-1,3-butadiene	0.4199	0.40873		.01		-2.66016	30		Averaged
	Ethyl acetate	0.347	0.27773		.01		-19.96254	40		Averaged
	Propionitrile	0.0517	0.04458		.01		-13.77176	30		Averaged
	Methacrylonitrile	0.2112	0.17946		.01		-15.02841	30		Averaged
	Tetrahydrofuran	0.1139	0.09777		.01		-14.16155	30		Averaged
	Isobutyl alcohol	0.0158	0.01453		.01		-8.03797	40		Averaged
	Methyl methacrylate	0.2295	0.19782		.01		-13.80392	30		Averaged
	1,4-Dioxane	0.0043	0.00361		.01		-16.04651	40		Averaged
	2-Nitropropane	0.1137	0.10831		.01		-4.74055	30		Averaged
	Ethyl methacrylate	0.5177	0.45947		.01		-11.24783	30		Averaged
	cis-1,4-Dichloro-2-butene	0.2573	0.26415		.01		2.66226	30		Averaged
	Cyclohexanone	0.0272	0.05554		.01		104.19118	40	*	Averaged
	trans-1,4-Dichloro-2-butene	0.2491	0.25504		.01		2.38458	30		Averaged
	Pentachloroethane	0.2716	0.34611		.01		27.43373	30		Averaged
	Benzyl chloride	1.2313	1.44326		.01		17.21433	30		Averaged
	bis(2-Chloroisopropyl)ether	0.3989	0.352		.01		-11.75733	30		Averaged

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A404.D
Acq On : 4 Mar 2010 11:29 am
Operator : ACJ
InstName : VOA4
Sample : |W4VM100304-03|CCV|1|VOAF|1|VOA8260BL|
Misc : GEL 5ML - MIX[B] 0215-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 04 12:01:39 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.619	10.620	1.000	96	1371647	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	1132136	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	738741	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1371328	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	1132161	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	738923	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	261820	46.14	ug/L	0.00
43) Toluene-d8	12.253	12.247	0.890	98	1007824	47.99	ug/L	0.00
61) Bromofluorobenzene	14.953	14.954	0.924	95	765859	52.99	ug/L	0.00

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.911	0.000		0	N.D.		
3) Chloromethane	5.306	5.291	0.500		0m	N.D.	d	
4) Vinyl chloride	5.514	5.521	0.519		0m	N.D.	d	
5) Bromomethane	6.109	6.137	0.575		0m	N.D.	d	
6) Chloroethane	6.327	6.295	0.596		0m	N.D.	d	
7) Trichlorofluoromethane	6.742	6.669	0.635		0m	N.D.	d	
8) Ethyl ether	7.010	6.998	0.660		0m	N.D.	d	
9) Acetone	7.357	7.352	0.693		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.388	7.389	0.696		0m	N.D.	d	
11) Iodomethane	7.674	7.663	0.723		0m	N.D.	d	
12) Acetonitrile	7.711	7.699	0.726		0m	N.D.	d	
13) Methyl acetate	7.747	7.748	0.730		0m	N.D.	d	
14) Carbon disulfide	7.802	7.773	0.735		0m	N.D.	d	
15) Methylene chloride	7.930	7.931	0.747		0m	N.D.	d	
16) tert-Butyl methyl ether	8.247	8.242	0.777		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.278	8.285	0.780		0m	N.D.	d	
18) Vinyl acetate	8.711	8.705	0.820		0m	N.D.	d	
19) 1,1-Dichloroethane	8.759	8.760	0.825		0m	N.D.	d	
20) 2-Butanone	9.339	9.327	0.879		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.339	9.388	0.879		0m	N.D.	d	
22) 2,2-Dichloropropane	9.424	9.419	0.887		0m	N.D.	d	
23) Bromochloromethane	9.643	9.656	0.908		0m	N.D.	d	
24) Chloroform	9.686	9.687	0.912		0m	N.D.	d	
25) 1,1,1-Trichloroethane	9.979	9.979	0.940		0m	N.D.	d	
26) Cyclohexane	10.009	10.083	0.943		0m	N.D.	d	
27) 1,1-Dichloropropene	10.137	10.132	0.955		0m	N.D.	d	
28) Carbon tetrachloride	10.174	10.175	0.958		0m	N.D.	d	
30) 1,2-Dichloroethane	10.338	10.339	0.974		0m	N.D.	d	
31) Benzene	10.369	10.370	0.976		0m	N.D.	d	
32) Cyclohexene	10.497	10.492	0.989		0m	N.D.	d	
33) n-Butyl alcohol	10.692	10.693	1.007		0m	N.D.	d	
34) Trichloroethylene	11.003	11.004	1.036		0m	N.D.	d	
35) 1,2-Dichloropropane	11.235	11.241	1.058		0m	N.D.	d	
36) Methylcyclohexane	11.204	11.260	1.055		0m	N.D.	d	
37) Dibromomethane	11.381	11.376	1.072		0m	N.D.	d	
38) Bromodichloromethane	11.484	11.485	1.082		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.698	11.699	1.102		0m	N.D.	d	
40) cis-1,3-Dichloropropylene	11.936	11.930	1.124		0m	N.D.	d	
42) 4-Methyl-2-pentanone	12.027	12.016	0.873		0m	N.D.	d	
44) Toluene	12.320	12.320	0.895		0m	N.D.	d	

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Sample : |W4VM100304-03|CCV|1|VOAF|1|VOA8260BL|
Misc : GEL 5ML - MIX[B] 0215-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 04 12:01:39 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
45)	trans-1,3-Dichloroprop...	12.466	12.461	0.905		0m	N.D.	d	
46)	1,1,2-Trichloroethane	12.692	12.680	0.922		0m	N.D.	d	
47)	2-Hexanone	12.862	12.857	0.934		0m	N.D.	d	
48)	1,3-Dichloropropane	12.874	12.875	0.935		0m	N.D.	d	
49)	Tetrachloroethylene	12.923	12.918	0.938		0m	N.D.	d	
50)	Dibromochloromethane	13.137	13.144	0.954		0m	N.D.	d	
51)	1,2-Dibromoethane	13.313	13.320	0.967		0m	N.D.	d	
52)	Chlorobenzene	13.807	13.802	1.003		0m	N.D.	d	
53)	1,1,1,2-Tetrachloroethane	13.850	13.851	1.006		0m	N.D.	d	
54)	Ethylbenzene	13.862	13.863	1.007		0m	N.D.	d	
55)	m,p-Xylenes	13.978	13.973	1.015		0m	N.D.	d	
56)	o-Xylene	14.399	14.399	1.046		0m	N.D.	d	
57)	Styrene	14.405	14.399	1.046		0m	N.D.	d	
59)	Bromoform	14.667	14.655	0.907		0m	N.D.	d	
60)	Isopropylbenzene	14.758	14.759	0.912		0m	N.D.	d	
62)	1,1,2,2-Tetrachloroethane	15.020	15.015	0.928		0m	N.D.	d	
63)	1,2,3-Trichloropropane	15.112	15.107	0.934		0m	N.D.	d	
64)	Bromobenzene	15.173	15.168	0.938		0m	N.D.	d	
65)	n-Propylbenzene	15.185	15.180	0.939		0m	N.D.	d	
66)	1,3,5-Trimethylbenzene	15.325	15.332	0.947		0m	N.D.	d	
67)	2-Chlorotoluene	15.337	15.332	0.948		0m	N.D.	d	
68)	4-Chlorotoluene	15.435	15.430	0.954		0m	N.D.	d	
69)	tert-Butylbenzene	15.709	15.704	0.971		0m	N.D.	d	
70)	1,2,4-Trimethylbenzene	15.746	15.741	0.973		0m	N.D.	d	
71)	sec-Butylbenzene	15.929	15.930	0.985		0m	N.D.	d	
72)	4-Isopropyltoluene	16.057	16.051	0.992		0m	N.D.	d	
73)	1,3-Dichlorobenzene	16.118	16.119	0.996		0m	N.D.	d	
74)	1,4-Dichlorobenzene	16.203	16.204	1.002		0m	N.D.	d	
75)	n-Butylbenzene	16.502	16.503	1.020		0m	N.D.	d	
76)	1,2-Dichlorobenzene	16.642	16.643	1.029		0m	N.D.	d	
77)	1,2-Dibromo-3-chloropr...	17.526	17.527	1.083		0m	N.D.	d	
78)	1,2,4-Trichlorobenzene	18.629	18.630	1.151		0m	N.D.	d	
79)	Hexachlorobutadiene	18.825	18.819	1.164		0m	N.D.	d	
80)	Naphthalene	19.026	19.026	1.176		0m	N.D.	d	
81)	1,2,3-Trichlorobenzene	19.391	19.386	1.199		0m	N.D.	d	
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	5.664	5.657	0.533	118	120	N.D.		
85)	Acrolein	7.180	7.180	0.676	56	294183	225.72	ug/L	96
86)	Trichlorotrifluoroethane	7.357	7.369	0.693	85	678348	208.23	ug/L	99
87)	Isopropyl Alcohol	0.000	7.430	0.000		0m	N.D.	d	
88)	Allyl chloride	7.802	7.796	0.735	41	2629831	226.38	ug/L	99
89)	tert-Butyl Alcohol	7.936	7.924	0.747	59	2723	N.D.		
90)	Acrylonitrile	8.174	8.174	0.770	53	716956	214.62	ug/L	98
91)	Isopropyl ether	8.735	8.741	0.823	45	393	N.D.		
92)	2-Chloro-1,3-butadiene	8.869	8.869	0.835	53	560504	48.67	ug/L	99
93)	Ethyl tert-butyl ether	9.137	9.143	0.860	59	168	N.D.		
94)	Ethyl acetate	9.339	9.338	0.879	43	1904321	200.10	ug/L	99
95)	Propionitrile	9.393	9.393	0.885	54	305679	215.65	ug/L	99
96)	Methacrylonitrile	9.576	9.576	0.902	41	1230507	212.41	ug/L	100
97)	Tetrahydrofuran	9.717	9.710	0.915	42	670382	214.68	ug/L	99
98)	Isobutyl alcohol	10.009	10.009	0.943	41	996536	2301.41	ug/L	99
99)	Methyl tert-amyl ether	10.381	10.387	0.978	73	1222	N.D.		
100)	Methyl methacrylate	11.210	11.204	1.056	69	1356348	215.49	ug/L	97
101)	1,4-Dioxane	11.332	11.326	1.067	88	247536	2088.37	ug/L	100

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ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 04 12:01:39 2010
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Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
102) 2-Nitropropane	11.673	11.673	1.099	43	742674	238.21	ug/L	98	
104) Ethyl methacrylate	12.466	12.466	0.905	69	2600992	221.88	ug/L	97	
106) 1-Chlorohexane	13.661	13.661	0.844	55	571	N.D.			
107) cis-1,4-Dichloro-2-butene	14.783	14.783	0.914	53	975926	256.63	ug/L	98	
108) Cyclohexanone	14.905	14.904	0.921	42	1025985	2549.62	ug/L	97	E
109) trans-1,4-Dichloro-2-b...	15.063	15.063	0.931	53	942265	255.95	ug/L	98	
110) Pentachloroethane	15.776	15.770	0.975	167	1278748	318.64	ug/L	100	
111) Benzyl chloride	16.319	16.319	1.009	91	5332298	293.04	ug/L	100	
112) bis(2-Chloroisopropyl)...	16.721	16.721	1.034	45	1300496	220.62	ug/L	99	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
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Data File : 4A404.D
Acq On : 4 Mar 2010 11:29 am
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InstName : VOA4
Sample : |W4VM100304-03|CCV|1|VOAF|1|VOA8260BL|
Misc : GEL 5ML - MIX[B] 0215-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 04 12:01:39 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

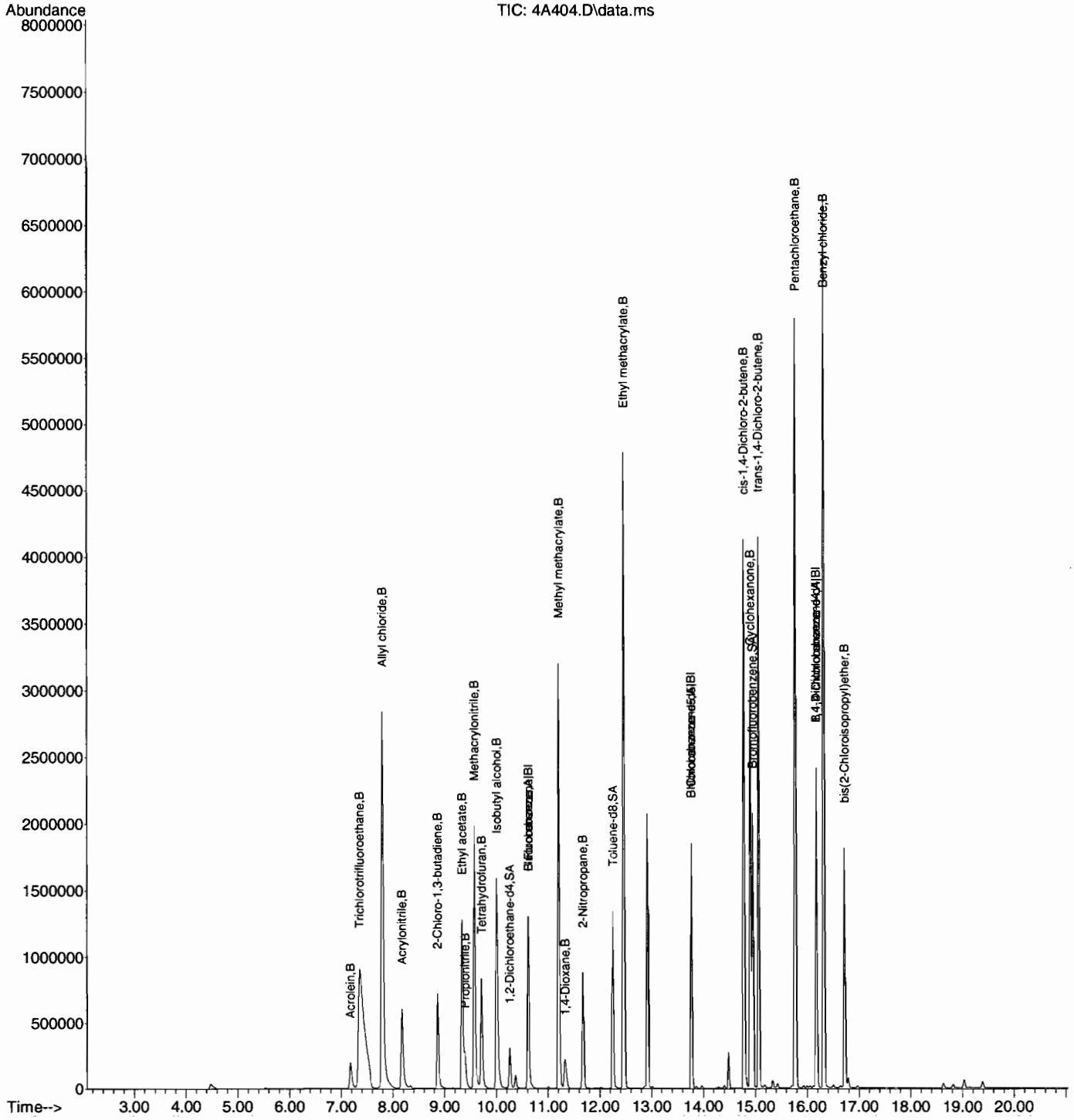

Quality Control Data

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030110V4\
Data File : 4A101.D
Acq On : 1 Mar 2010 7:08 pm
Operator : ACJ
Sample : |UVM091216-10|BFB1|1|VOAF|1|
Misc : GEL 5ML N/A
ALS Vial : 1 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Title : Volatile Organics 8260B SubList :
Last Update : Tue Mar 02 15:03:40 2010

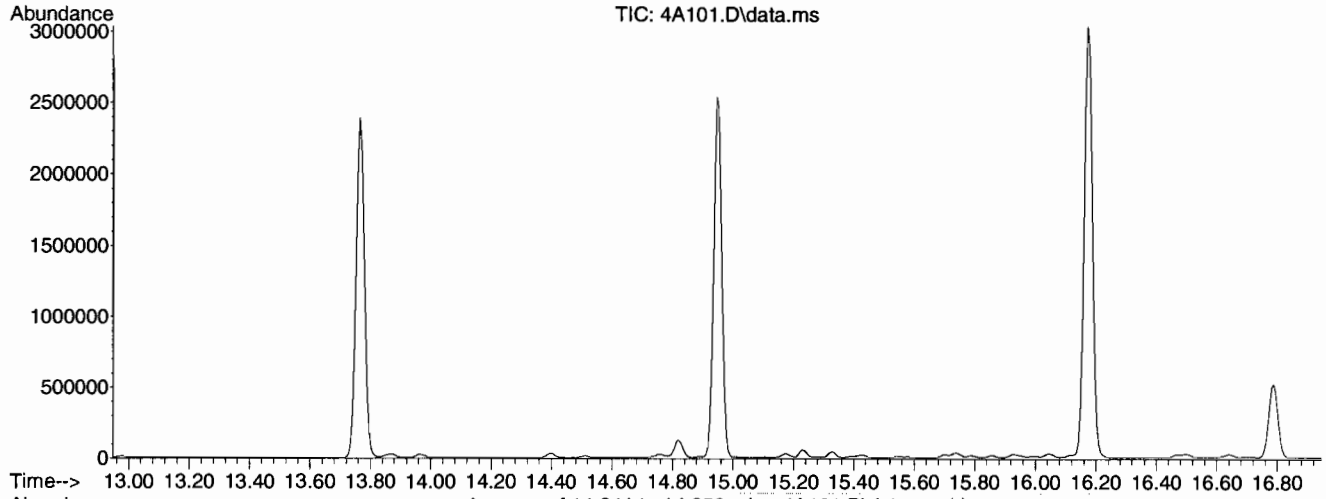

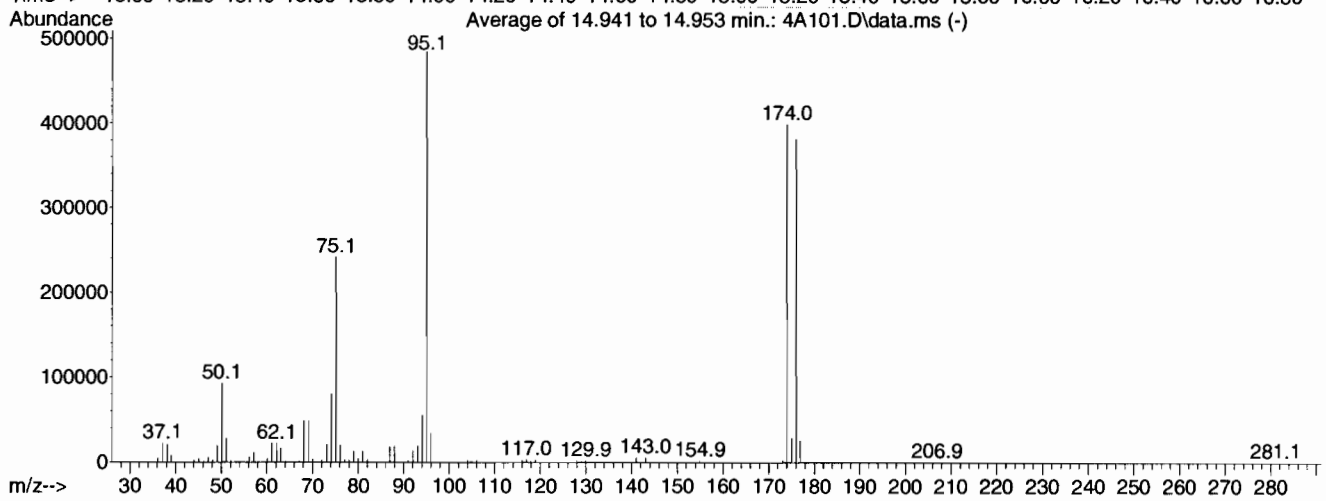

AutoFind: Scans 2006, 2007, 2008; Background Corrected with Scan 1996

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.1	92460	PASS
75	95	30	60	49.8	241152	PASS
95	95	100	100	100.0	484629	PASS
96	95	5	9	7.0	33893	PASS
173	174	0.00	2	0.5	1986	PASS
174	95	50	100	82.3	398848	PASS
175	174	5	9	7.0	27931	PASS
176	174	95	101	95.5	381035	PASS
177	176	5	9	6.7	25547	PASS

Tune Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A401.D
Acq On : 4 Mar 2010 10:05 am
Operator : ACJ
Sample : |UVM091216-10|BFB|1|VOAF|1|
Misc : GEL 5ML N/A
ALS Vial : 1 Sample Multiplier: 1

Integration File: ron.P

Method : C:\msdchem\1\DATA\030210V4\Methods\VOA4-8260-030110.M
Title : Volatile Organics 8260B SubList :
Last Update : Tue Mar 02 15:03:40 2010

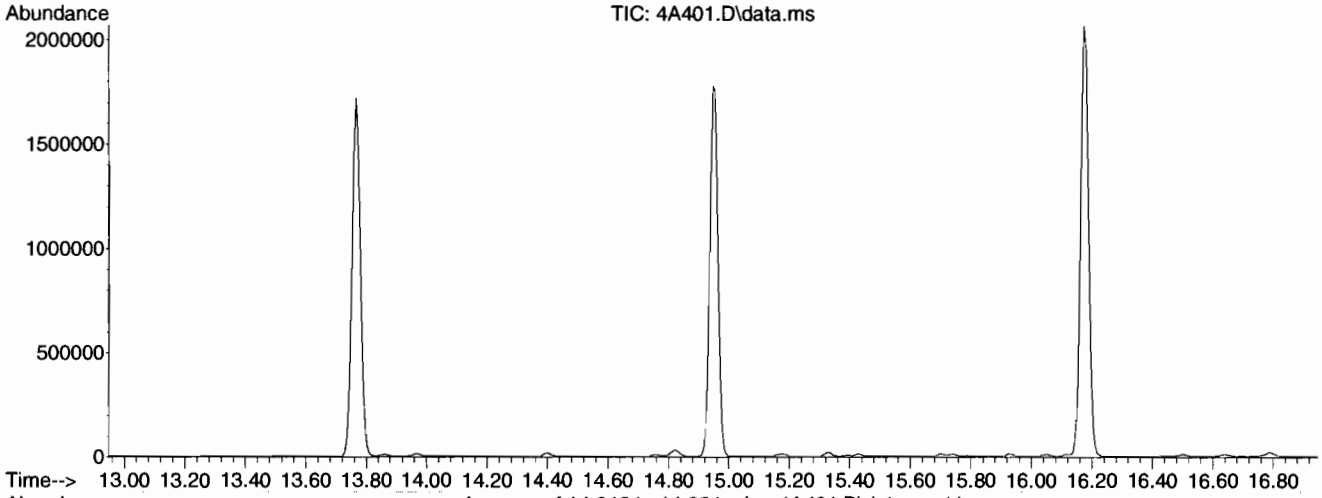

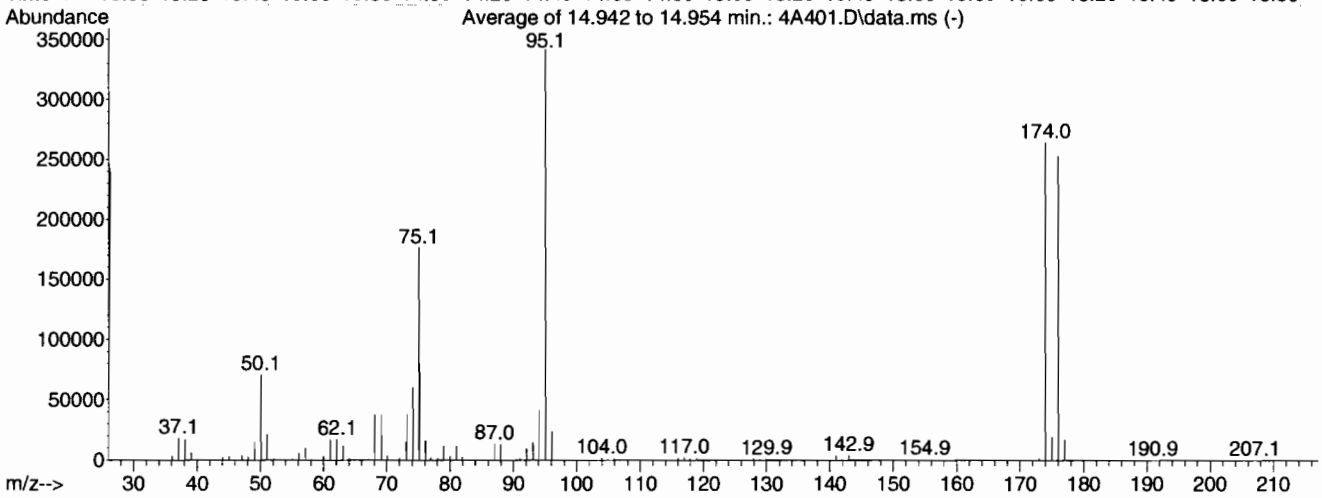

AutoFind: Scans 2006, 2007, 2008; Background Corrected with Scan 1997

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.7	70917	PASS
75	95	30	60	51.6	176235	PASS
95	95	100	100	100.0	341867	PASS
96	95	5	9	6.9	23419	PASS
173	174	0.00	2	0.6	1558	PASS
174	95	50	100	77.3	264171	PASS
175	174	5	9	7.3	19228	PASS
176	174	95	101	95.7	252907	PASS
177	176	5	9	6.7	17049	PASS

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202061536**				
Client Sample:	**QC for batch 961120**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 961120**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 12:53**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 12:53**				
Data File:	**030410V4\4A407BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202061536**				
Client Sample:	**QC for batch 961120**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 961120**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 12:53**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 12:53**				
Data File:	**030410V4\4A407BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202061536**				
Client Sample:	**QC for batch 961120**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 961120**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 12:53**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 12:53**				
Data File:	**030410V4\4A407BL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	45.9	50.0	ug/L	91.9	(72%-132%)
Bromofluorobenzene	56.2	50.0	ug/L	112	(77%-123%)
Toluene-d8	49.6	50.0	ug/L	99.1	(76%-122%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A407BL.D
Acq On : 4 Mar 2010 12:53 pm
Operator : ACJ
InstName : VOA4
Sample : |1202061536|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML -
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 04 13:59:36 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.619	10.620	1.000	96	1282144	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	1011802	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	584049	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1281902	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	1011802	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	584065	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	243614	45.93	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 91.86%					
43) Toluene-d8	12.253	12.247	0.890	98	930429	49.57	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 99.14%					
61) Bromofluorobenzene	14.953	14.954	0.924	95	642287	56.21	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 112.42%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.911	0.000		0	N.D.		
3) Chloromethane	5.284	5.291	0.498	50	248	N.D.		
4) Vinyl chloride	5.535	5.521	0.521	62	1035	N.D.		
5) Bromomethane	0.000	6.137	0.000		0	N.D.		
6) Chloroethane	0.000	6.295	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000	6.669	0.000		0	N.D.		
8) Ethyl ether	0.000	6.998	0.000		0	N.D.		
9) Acetone	7.363	7.352	0.693	43	4527	N.D.		
10) 1,1-Dichloroethylene	0.000	7.389	0.000		0	N.D.		
11) Iodomethane	7.625	7.663	0.718	142	124	N.D.		
12) Acetonitrile	7.705	7.699	0.726	41	394	N.D.		
13) Methyl acetate	7.741	7.748	0.729	43	195	N.D.		
14) Carbon disulfide	7.766	7.773	0.731	76	1547	N.D.		
15) Methylene chloride	7.942	7.931	0.748	84	6921	N.D.		
16) tert-Butyl methyl ether	0.000	8.242	0.000		0	N.D.		
17) trans-1,2-Dichloroethy...	0.000	8.285	0.000		0	N.D.		
18) Vinyl acetate	8.711	8.705	0.820	43	508	N.D.		
19) 1,1-Dichloroethane	0.000	8.760	0.000		0	N.D.		
20) 2-Butanone	9.332	9.327	0.879	43	1677	N.D.		
21) cis-1,2-Dichloroethylene	0.000	9.388	0.000		0	N.D.		
22) 2,2-Dichloropropane	0.000	9.419	0.000		0	N.D.		
23) Bromochloromethane	0.000	9.656	0.000		0	N.D.		
24) Chloroform	9.704	9.687	0.914	83	159	N.D.		
25) 1,1,1-Trichloroethane	0.000	9.979	0.000		0	N.D.		
26) Cyclohexane	10.088	10.083	0.950	56	217	N.D.		
27) 1,1-Dichloropropene	0.000	10.132	0.000		0	N.D.		
28) Carbon tetrachloride	0.000	10.175	0.000		0	N.D.		
30) 1,2-Dichloroethane	10.326	10.339	0.972	62	132	N.D.		
31) Benzene	10.363	10.370	0.976	78	969	N.D.		
32) Cyclohexene	10.472	10.492	0.986	67	141	N.D.		
33) n-Butyl alcohol	10.698	10.693	1.007	56	504	N.D.		
34) Trichloroethylene	11.167	11.004	1.052	95	198	N.D.		
35) 1,2-Dichloropropane	0.000	11.241	0.000		0	N.D.		
36) Methylcyclohexane	0.000	11.260	0.000		0	N.D.		
37) Dibromomethane	0.000	11.376	0.000		0	N.D.		
38) Bromodichloromethane	11.478	11.485	1.081	83	147	N.D.		
39) 2-Chloroethylvinyl ether	0.000	11.699	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A407BL.D
Acq On : 4 Mar 2010 12:53 pm
Operator : ACJ
InstName : VOA4
Sample : |1202061536|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML -
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 04 13:59:36 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
40)	cis-1,3-Dichloropropylene	11.917	11.930	1.122	75	117	N.D.	
42)	4-Methyl-2-pentanone	0.000	12.016	0.000		0	N.D.	
44)	Toluene	12.320	12.320	0.895	91	2131	N.D.	
45)	trans-1,3-Dichloroprop...	12.466	12.461	0.905	75	837	N.D.	
46)	1,1,2-Trichloroethane	0.000	12.680	0.000		0	N.D.	
47)	2-Hexanone	12.862	12.857	0.934	43	918	N.D.	
48)	1,3-Dichloropropane	0.000	12.875	0.000		0	N.D.	
49)	Tetrachloroethylene	12.911	12.918	0.938	164	124	N.D.	
50)	Dibromochloromethane	0.000	13.144	0.000		0	N.D.	
51)	1,2-Dibromoethane	13.313	13.320	0.967	107	184	N.D.	
52)	Chlorobenzene	13.795	13.802	1.002	112	949	N.D.	
53)	1,1,1,2-Tetrachloroethane	13.795	13.851	1.002	131	128	N.D.	
54)	Ethylbenzene	13.862	13.863	1.007	91	1753	N.D.	
55)	m,p-Xylenes	13.960	13.973	1.014	106	878	N.D.	
56)	o-Xylene	14.411	14.399	1.046	106	620	N.D.	
57)	Styrene	14.399	14.399	1.046	104	892	N.D.	
59)	Bromoform	0.000	14.655	0.000		0	N.D.	
60)	Isopropylbenzene	14.752	14.759	0.912	105	1388	N.D.	
62)	1,1,2,2-Tetrachloroethane	0.000	15.015	0.000		0	N.D.	
63)	1,2,3-Trichloropropane	0.000	15.107	0.000		0	N.D.	
64)	Bromobenzene	0.000	15.168	0.000		0	N.D.	
65)	n-Propylbenzene	15.191	15.180	0.939	91	1925	N.D.	
66)	1,3,5-Trimethylbenzene	15.331	15.332	0.948	105	1318	N.D.	
67)	2-Chlorotoluene	15.331	15.332	0.948	126	451	N.D.	
68)	4-Chlorotoluene	15.435	15.430	0.954	91	1279	N.D.	
69)	tert-Butylbenzene	0.000	15.704	0.000		0	N.D.	
70)	1,2,4-Trimethylbenzene	15.740	15.741	0.973	105	2015	N.D.	
71)	sec-Butylbenzene	15.923	15.930	0.984	105	1203	N.D.	
72)	4-Isopropyltoluene	16.051	16.051	0.992	119	924	N.D.	
73)	1,3-Dichlorobenzene	16.124	16.119	0.997	146	994	N.D.	
74)	1,4-Dichlorobenzene	16.203	16.204	1.002	146	1120	N.D.	
75)	n-Butylbenzene	16.496	16.503	1.020	91	1019	N.D.	
76)	1,2-Dichlorobenzene	16.642	16.643	1.029	146	905	N.D.	
77)	1,2-Dibromo-3-chloropr...	0.000	17.527	0.000		0	N.D.	
78)	1,2,4-Trichlorobenzene	18.629	18.630	1.151	180	717	N.D.	
79)	Hexachlorobutadiene	18.818	18.819	1.163	225	154	N.D.	
80)	Naphthalene	19.038	19.026	1.177	128	5271	N.D.	
81)	1,2,3-Trichlorobenzene	19.391	19.386	1.199	180	612	N.D.	
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.	
84)	2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.	
85)	Acrolein	0.000	7.180	0.000		0	N.D.	
86)	Trichlorotrifluoroethane	0.000	7.369	0.000		0	N.D.	
87)	Isopropyl Alcohol	7.400	7.430	0.697	45	149	N.D.	
88)	Allyl chloride	7.778	7.796	0.732	41	262	N.D.	
89)	tert-Butyl Alcohol	7.942	7.924	0.748	59	381	N.D.	
90)	Acrylonitrile	8.192	8.174	0.772	53	174	N.D.	
91)	Isopropyl ether	0.000	8.741	0.000		0	N.D.	
92)	2-Chloro-1,3-butadiene	0.000	8.869	0.000		0	N.D.	
93)	Ethyl tert-butyl ether	0.000	9.143	0.000		0	N.D.	
94)	Ethyl acetate	9.332	9.338	0.879	43	1677	N.D.	
95)	Propionitrile	0.000	9.393	0.000		0	N.D.	
96)	Methacrylonitrile	9.576	9.576	0.902	41	423	N.D.	
97)	Tetrahydrofuran	9.716	9.710	0.915	42	1286	N.D.	
98)	Isobutyl alcohol	10.021	10.009	0.944	41	538	N.D.	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A407BL.D
Acq On : 4 Mar 2010 12:53 pm
Operator : ACJ
InstName : VOA4
Sample : |1202061536|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML -
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 04 13:59:36 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	10.393	10.387	0.979	73	133	N.D.	
100)	Methyl methacrylate	0.000	11.204	0.000		0	N.D.	
101)	1,4-Dioxane	0.000	11.326	0.000		0	N.D.	
102)	2-Nitropropane	11.637	11.673	1.096	43	258	N.D.	
104)	Ethyl methacrylate	12.472	12.466	0.906	69	816	N.D.	
106)	1-Chlorohexane	0.000	13.661	0.000		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	14.783	14.783	0.914	53	247	N.D.	
108)	Cyclohexanone	14.911	14.904	0.922	42	1482	N.D.	
109)	trans-1,4-Dichloro-2-b...	15.063	15.063	0.931	53	603	N.D.	
110)	Pentachloroethane	15.770	15.770	0.975	167	250	N.D.	
111)	Benzyl chloride	16.319	16.319	1.009	91	3216	N.D.	
112)	bis(2-Chloroisopropyl)...	16.679	16.721	1.031	45	146	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A407BL.D
Acq On : 4 Mar 2010 12:53 pm
Operator : ACJ
InstName : VOA4
Sample : |1202061536|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML -
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 04 13:59:36 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

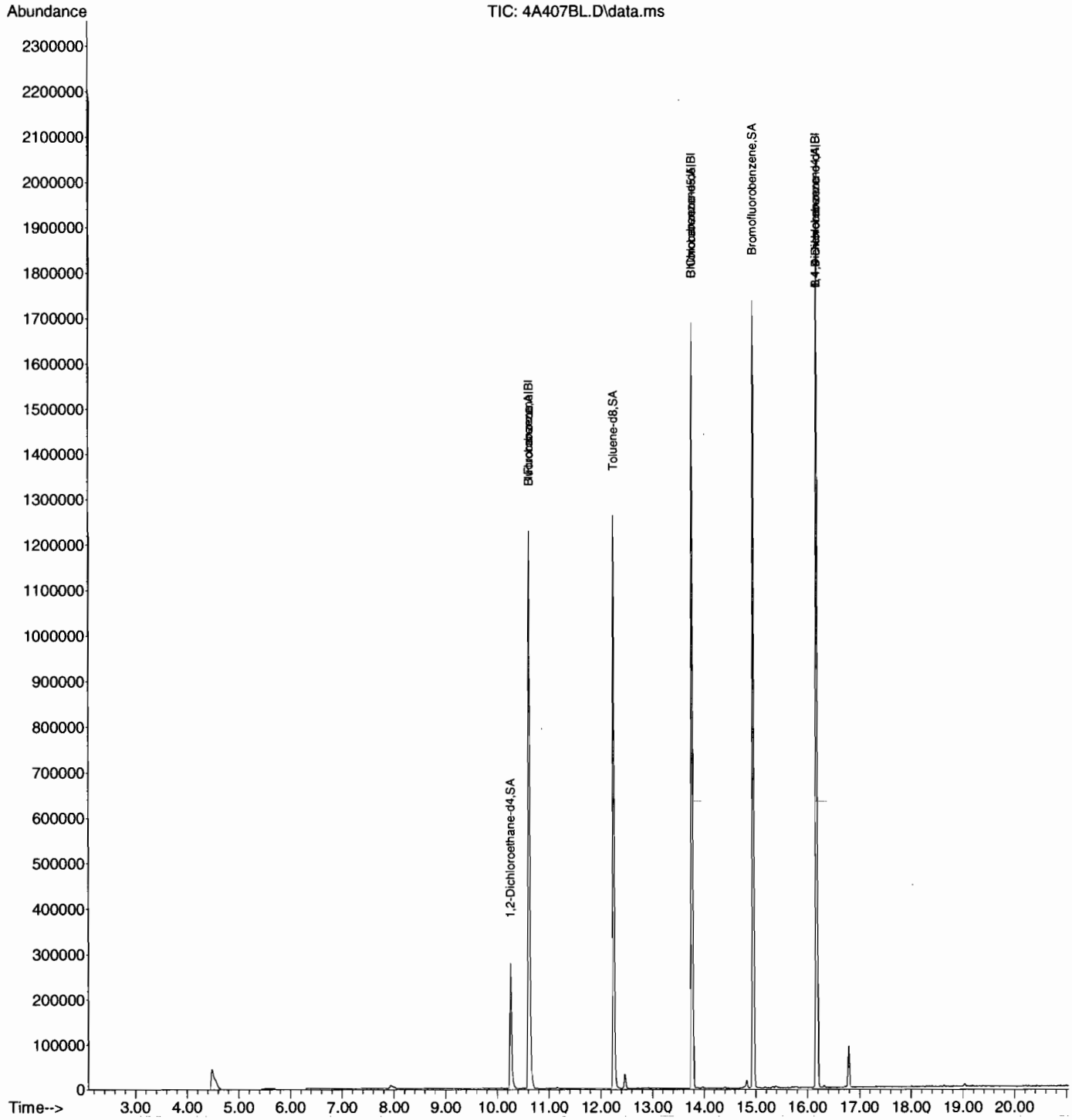

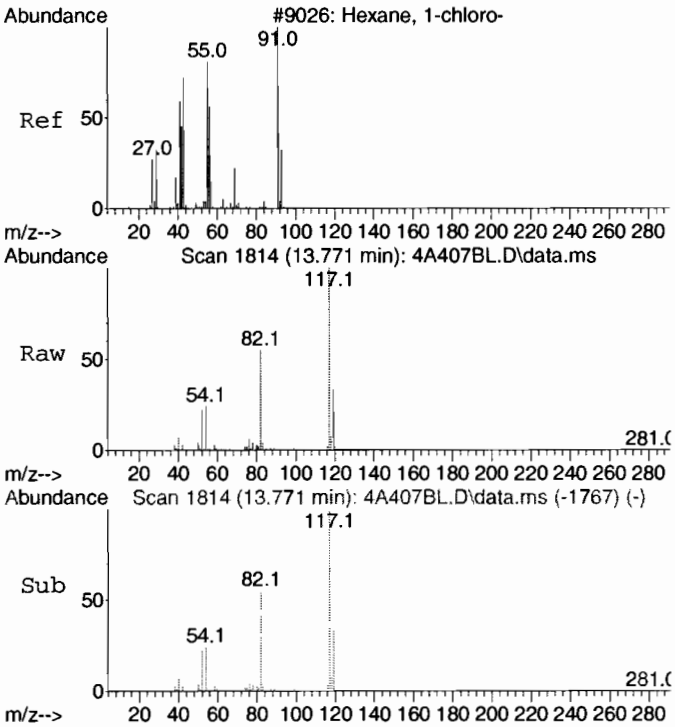

#106 BEFORE analyst DELETION
1-Chlorohexane
Concen: 1.60 ug/L
RT: 13.771 min Scan# 1814
Delta R.T. 0.110 min
Lab File: 4A407BL.D
Acq: 4 Mar 2010 12:53 pm

Tgt Ion: 55 Resp: 10781

Ion	Ratio	Lower	Upper
55	100		
91	23.2	112.1	172.1#
56	62.1	28.5	88.5

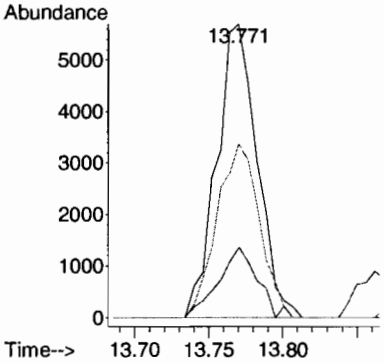

Library Search Compound Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A407BL.D
Acq On : 4 Mar 2010 12:53 pm
Operator : ACJ
Sample : |1202061536|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML -
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A407BL.D
Acq On : 4 Mar 2010 12:53 pm
Operator : ACJ
Sample : |1202061536|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML -
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :

TIC Library : C:\Database\NIST05.L
TIC Integration Parameters: default.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202061539**				
Client Sample:	**QC for batch 961120**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961120**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 10:33**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 10:33**				
Data File:	**030410V4\4A402LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		45.8	ug/L	0.300	1.00
74-87-3	Chloromethane		46.0	ug/L	0.300	1.00
75-01-4	Vinyl chloride		50.9	ug/L	0.500	1.00
74-83-9	Bromomethane		50.1	ug/L	0.300	1.00
75-00-3	Chloroethane		49.9	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		54.4	ug/L	0.300	1.00
60-29-7	Ethyl ether		47.4	ug/L	0.300	1.00
67-64-1	Acetone		229	ug/L	3.50	10.0
75-05-8	Acetonitrile		1210	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		47.7	ug/L	0.300	1.00
74-88-4	Iodomethane		234	ug/L	1.25	5.00
75-09-2	Methylene chloride		40.3	ug/L	3.00	10.0
75-15-0	Carbon disulfide		265	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		45.0	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		49.3	ug/L	0.300	1.00
108-05-4	Vinyl acetate		288	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		49.2	ug/L	0.300	1.00
78-93-3	2-Butanone		234	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		49.0	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		51.9	ug/L	0.300	1.00
67-66-3	Chloroform		48.0	ug/L	0.250	1.00
74-97-5	Bromochloromethane		46.1	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		50.2	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		50.6	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		5230	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		50.8	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		47.0	ug/L	0.250	1.00
71-43-2	Benzene		47.7	ug/L	0.300	1.00
79-01-6	Trichloroethylene		49.6	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		49.1	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		49.7	ug/L	0.250	1.00
74-95-3	Dibromomethane		46.2	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		241	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		49.4	ug/L	0.250	1.00
108-88-3	Toluene		47.2	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		49.1	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		48.2	ug/L	0.250	1.00
591-78-6	2-Hexanone		244	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202061539**				
Client Sample:	**QC for batch 961120**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961120**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 10:33**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 10:33**				
Data File:	**030410V4\4A402LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		46.8	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		48.7	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		48.2	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		47.0	ug/L	0.250	1.00
108-90-7	Chlorobenzene		47.5	ug/L	0.250	1.00
100-41-4	Ethylbenzene		48.8	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		99.2	ug/L	0.500	2.00
95-47-6	o-Xylene		49.9	ug/L	0.300	1.00
100-42-5	Styrene		51.8	ug/L	0.250	1.00
75-25-2	Bromoform		47.0	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		44.9	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		43.0	ug/L	0.300	1.00
108-86-1	Bromobenzene		46.8	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		48.6	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		48.4	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		47.1	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		49.0	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		47.6	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		47.7	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		48.5	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		48.6	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		50.6	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		48.1	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		48.1	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		52.2	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		47.5	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		48.4	ug/L	0.300	1.00
91-20-3	Naphthalene		44.5	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		48.9	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202061539**				
Client Sample:	**QC for batch 961120**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961120**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 10:33**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 10:33**				
Data File:	**030410V4\4A402LL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		48.3	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		51.8	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		47.4	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	46.8	50.0	ug/L	93.6	(72%-132%)
Bromofluorobenzene	50.0	50.0	ug/L	99.9	(77%-123%)
Toluene-d8	47.4	50.0	ug/L	94.9	(76%-122%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A402LL.D
Acq On : 4 Mar 2010 10:33 am
Operator : ACJ
InstName : VOA4
Sample : |1202061539|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[A] 0220-01C+0304-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 11:26:15 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.614	10.620	1.000	96	1282500	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	1091552	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.180	16.180	1.000	152	770618	50.00	ug/L	0.00
82) B Fluorobenzene	10.614	10.619	1.000	96	1282321	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	1091552	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.180	16.179	1.000	152	770738	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.260	10.260	0.967	65	248237	46.79	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 93.58%					
43) Toluene-d8	12.247	12.247	0.889	98	960464	47.43	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 94.86%					
61) Bromofluorobenzene	14.954	14.954	0.924	95	753176	49.95	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 99.90%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.904	4.911	0.462	85	372142	45.78	ug/L	99
3) Chloromethane	5.291	5.291	0.499	50	612057	46.01	ug/L	100
4) Vinyl chloride	5.514	5.521	0.519	62	671325	50.92	ug/L	100
5) Bromomethane	6.130	6.137	0.578	94	392482	50.05	ug/L	98
6) Chloroethane	6.288	6.295	0.592	64	339081	49.92	ug/L	100
7) Trichlorofluoromethane	6.663	6.669	0.628	101	731214	54.38	ug/L	99
8) Ethyl ether	6.998	6.998	0.659	59	303522	47.40	ug/L	98
9) Acetone	7.352	7.352	0.693	43	1848376	228.70	ug/L	97
10) 1,1-Dichloroethylene	7.382	7.389	0.696	61	713421	47.72	ug/L	98
11) Iodomethane	7.626	7.663	0.719	142	3615118	234.13	ug/L	99
12) Acetonitrile	7.699	7.699	0.725	41	1629328	1214.55	ug/L	99
13) Methyl acetate	7.748	7.748	0.730	43	1650068	240.35	ug/L	98
14) Carbon disulfide	7.767	7.773	0.732	76	7371233	265.09	ug/L	100
15) Methylene chloride	7.937	7.931	0.748	84	467439	40.30	ug/L	96
16) tert-Butyl methyl ether	8.236	8.242	0.776	73	1111184	45.00	ug/L	99
17) trans-1,2-Dichloroethy...	8.279	8.285	0.780	61	567039	49.25	ug/L	99
18) Vinyl acetate	8.705	8.705	0.820	43	4304084	287.64	ug/L	99
19) 1,1-Dichloroethane	8.754	8.760	0.825	63	710459	49.21	ug/L	99
20) 2-Butanone	9.327	9.327	0.879	43	1988147	234.46	ug/L	97
21) cis-1,2-Dichloroethylene	9.382	9.388	0.884	61	618459	49.00	ug/L	97
22) 2,2-Dichloropropane	9.419	9.419	0.887	77	401477	51.86	ug/L	96
23) Bromochloromethane	9.656	9.656	0.910	128	210647	46.06	ug/L	95
24) Chloroform	9.687	9.687	0.913	83	727592	48.00	ug/L	99
25) 1,1,1-Trichloroethane	9.980	9.979	0.940	97	593556	50.24	ug/L	98
26) Cyclohexane	10.083	10.083	0.950	56	672798	51.26	ug/L	98
27) 1,1-Dichloropropene	10.132	10.132	0.955	75	560952	50.59	ug/L	99
28) Carbon tetrachloride	10.175	10.175	0.959	117	570637	50.78	ug/L	100
30) 1,2-Dichloroethane	10.339	10.339	0.974	62	581886	47.04	ug/L	99
31) Benzene	10.370	10.370	0.977	78	1561067	47.74	ug/L	99
32) Cyclohexene	10.492	10.492	0.989	67	801866	50.30	ug/L	98
33) n-Butyl alcohol	10.687	10.693	1.007	56	1764536	5228.71	ug/L	98
34) Trichloroethylene	11.004	11.004	1.037	95	429078	49.63	ug/L	99
35) 1,2-Dichloropropane	11.241	11.241	1.059	63	415323	49.09	ug/L	99
36) Methylcyclohexane	11.260	11.260	1.061	83	701237	51.32	ug/L	98
37) Dibromomethane	11.376	11.376	1.072	93	257719	46.15	ug/L	96
38) Bromodichloromethane	11.479	11.485	1.082	83	557725	49.72	ug/L	99
39) 2-Chloroethylvinyl ether	11.699	11.699	1.102	63	1093780	233.34	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A402LL.D
Acq On : 4 Mar 2010 10:33 am
Operator : ACJ
InstName : VOA4
Sample : |1202061539|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[A] 0220-01C+0304-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 11:26:15 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	11.930	11.930	1.124	75	647161	49.43	ug/L	97
42) 4-Methyl-2-pentanone	12.016	12.016	0.873	58	959719	241.16	ug/L	93
44) Toluene	12.321	12.320	0.895	91	1705681	47.21	ug/L	99
45) trans-1,3-Dichloroprop...	12.461	12.461	0.905	75	623474	49.14	ug/L	96
46) 1,1,2-Trichloroethane	12.680	12.680	0.921	83	313231	48.17	ug/L	97
47) 2-Hexanone	12.857	12.857	0.934	43	2692878	243.86	ug/L	97
48) 1,3-Dichloropropane	12.875	12.875	0.935	76	631693	46.76	ug/L	98
49) Tetrachloroethylene	12.918	12.918	0.938	164	354242	48.73	ug/L	98
50) Dibromochloromethane	13.144	13.144	0.954	129	446455	48.21	ug/L	100
51) 1,2-Dibromoethane	13.320	13.320	0.967	107	394389	47.04	ug/L	100
52) Chlorobenzene	13.802	13.802	1.002	112	1167995	47.46	ug/L	99
53) 1,1,1,2-Tetrachloroethane	13.851	13.851	1.006	131	450938	48.27	ug/L	99
54) Ethylbenzene	13.863	13.863	1.007	91	2089816	48.84	ug/L	99
55) m,p-Xylenes	13.973	13.973	1.015	106	1684242	99.23	ug/L	97
56) o-Xylene	14.406	14.399	1.046	106	877925	49.91	ug/L	97
57) Styrene	14.399	14.399	1.046	104	1480158	51.82	ug/L	100
59) Bromoform	14.655	14.655	0.906	173	327445	47.01	ug/L	99
60) Isopropylbenzene	14.759	14.759	0.912	105	2295098	47.06	ug/L	100
62) 1,1,2,2-Tetrachloroethane	15.015	15.015	0.928	83	628851	44.93	ug/L	100
63) 1,2,3-Trichloropropane	15.107	15.107	0.934	110	164063	43.01	ug/L	97
64) Bromobenzene	15.168	15.168	0.937	156	628561	46.84	ug/L	97
65) n-Propylbenzene	15.180	15.180	0.938	91	2890868	48.56	ug/L	98
66) 1,3,5-Trimethylbenzene	15.332	15.332	0.948	105	2183492	48.97	ug/L	99
67) 2-Chlorotoluene	15.332	15.332	0.948	126	642809	48.37	ug/L	96
68) 4-Chlorotoluene	15.430	15.430	0.954	91	1769021	47.57	ug/L	99
69) tert-Butylbenzene	15.704	15.704	0.971	134	466130	47.69	ug/L	98
70) 1,2,4-Trimethylbenzene	15.741	15.741	0.973	105	2204394	48.48	ug/L	99
71) sec-Butylbenzene	15.930	15.930	0.985	105	2906580	48.61	ug/L	99
72) 4-Isopropyltoluene	16.052	16.051	0.992	119	2436054	50.64	ug/L	99
73) 1,3-Dichlorobenzene	16.119	16.119	0.996	146	1283227	48.11	ug/L	100
74) 1,4-Dichlorobenzene	16.204	16.204	1.002	146	1313627	48.14	ug/L	100
75) n-Butylbenzene	16.503	16.503	1.020	91	2382086	52.18	ug/L	99
76) 1,2-Dichlorobenzene	16.643	16.643	1.029	146	1229238	47.35	ug/L	100
77) 1,2-Dibromo-3-chloropr...	17.527	17.527	1.083	157	118313	47.51	ug/L	97
78) 1,2,4-Trichlorobenzene	18.630	18.630	1.151	180	688237	51.83	ug/L	99
79) Hexachlorobutadiene	18.819	18.819	1.163	225	416471	48.41	ug/L	100
80) Naphthalene	19.033	19.026	1.176	128	1471154	44.53	ug/L	100
81) 1,2,3-Trichlorobenzene	19.386	19.386	1.198	180	541125	48.93	ug/L	100
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85) Acrolein	7.017	7.180	0.661		0m	N.D.	d	
86) Trichlorotrifluoroethane	7.358	7.369	0.693		0m	N.D.	d	
87) Isopropyl Alcohol	7.364	7.430	0.694		0m	N.D.	d	
88) Allyl chloride	7.699	7.796	0.725		0m	N.D.	d	
89) tert-Butyl Alcohol	8.035	7.924	0.757		0m	N.D.	d	
90) Acrylonitrile	8.163	8.174	0.769		0m	N.D.	d	
91) Isopropyl ether	8.705	8.741	0.820		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	8.870	8.869	0.836		0m	N.D.	d	
93) Ethyl tert-butyl ether	9.138	9.143	0.861		0m	N.D.	d	
94) Ethyl acetate	9.327	9.338	0.879		0m	N.D.	d	
95) Propionitrile	9.333	9.393	0.879		0m	N.D.	d	
96) Methacrylonitrile	9.577	9.576	0.902		0m	N.D.	d	
97) Tetrahydrofuran	9.693	9.710	0.913		0m	N.D.	d	
98) Isobutyl alcohol	10.077	10.009	0.949		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A402LL.D
Acq On : 4 Mar 2010 10:33 am
Operator : ACJ
InstName : VOA4
Sample : |1202061539|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[A] 0220-01C+0304-01
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 04 11:26:15 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99) Methyl tert-amyl ether	10.370	10.387	0.977		0m	N.D.	d
100) Methyl methacrylate	11.260	11.204	1.061		0m	N.D.	d
101) 1,4-Dioxane	11.339	11.326	1.068		0m	N.D.	d
102) 2-Nitropropane	11.699	11.673	1.102		0m	N.D.	d
104) Ethyl methacrylate	12.467	12.466	0.905		0m	N.D.	d
106) 1-Chlorohexane	13.662	13.661	0.844		0m	N.D.	d
107) cis-1,4-Dichloro-2-butene	14.759	14.783	0.912		0m	N.D.	d
108) Cyclohexanone	14.899	14.904	0.921		0m	N.D.	d
109) trans-1,4-Dichloro-2-b...	15.070	15.063	0.931		0m	N.D.	d
110) Pentachloroethane	15.771	15.770	0.975		0m	N.D.	d
111) Benzyl chloride	16.320	16.319	1.009		0m	N.D.	d
112) bis(2-Chloroisopropyl)...	16.722	16.721	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

```
Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A402LL.D
Acq On    :  4 Mar 2010  10:33 am
Operator  : ACJ
InstName  : VOA4
Sample    : |1202061539|961120|1|VOAF|1|VOA8260LFD|
Misc      : GEL 5ML - MIX[A] 0220-01C+0304-01
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Mar 04 11:26:15 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title  : Volatile Organics 8260B                    SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE
```

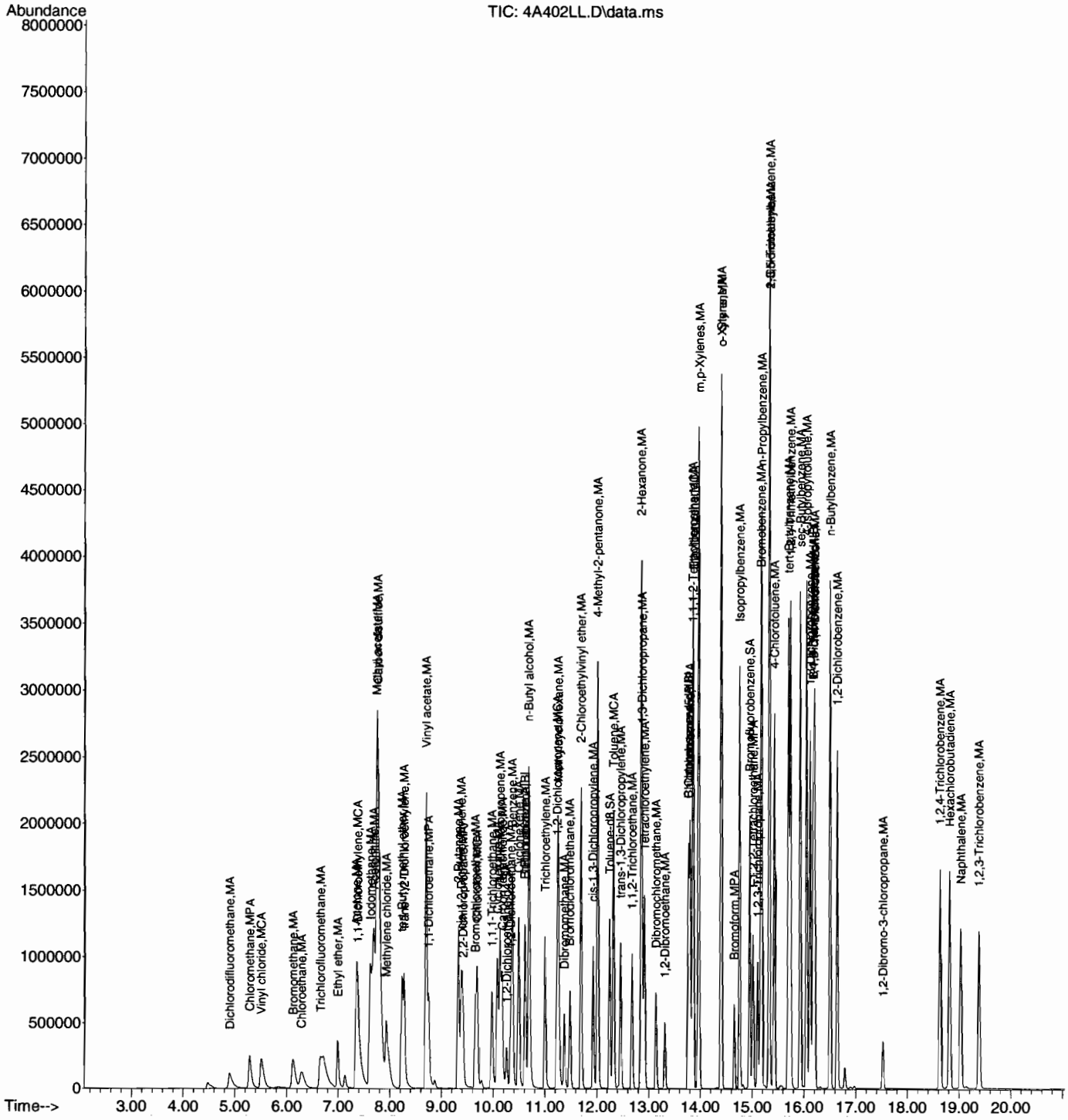

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202061540**				
Client Sample:	**QC for batch 961120**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961120**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 11:29**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 11:29**				
Data File:	**030410V4\4A404SL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane	U	1.00	ug/L	0.300	1.00
74-87-3	Chloromethane	U	1.00	ug/L	0.300	1.00
75-01-4	Vinyl chloride	U	1.00	ug/L	0.500	1.00
74-83-9	Bromomethane	U	1.00	ug/L	0.300	1.00
75-00-3	Chloroethane	U	1.00	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane	U	1.00	ug/L	0.300	1.00
60-29-7	Ethyl ether	U	1.00	ug/L	0.300	1.00
67-64-1	Acetone	U	10.0	ug/L	3.50	10.0
75-05-8	Acetonitrile	U	25.0	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene	U	1.00	ug/L	0.300	1.00
74-88-4	Iodomethane	U	5.00	ug/L	1.25	5.00
75-09-2	Methylene chloride	U	10.0	ug/L	3.00	10.0
75-15-0	Carbon disulfide	U	5.00	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether	U	1.00	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
108-05-4	Vinyl acetate	U	5.00	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane	U	1.00	ug/L	0.300	1.00
78-93-3	2-Butanone	U	5.00	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene	U	1.00	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane	U	1.00	ug/L	0.300	1.00
67-66-3	Chloroform	U	1.00	ug/L	0.250	1.00
74-97-5	Bromochloromethane	U	1.00	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane	U	1.00	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene	U	1.00	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol	U	50.0	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride	U	1.00	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane	U	1.00	ug/L	0.250	1.00
71-43-2	Benzene	U	1.00	ug/L	0.300	1.00
79-01-6	Trichloroethylene	U	1.00	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane	U	1.00	ug/L	0.250	1.00
75-27-4	Bromodichloromethane	U	1.00	ug/L	0.250	1.00
74-95-3	Dibromomethane	U	1.00	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone	U	5.00	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
108-88-3	Toluene	U	1.00	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene	U	1.00	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane	U	1.00	ug/L	0.250	1.00
591-78-6	2-Hexanone	U	5.00	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202061540**				
Client Sample:	**QC for batch 961120**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961120**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 11:29**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 11:29**				
Data File:	**030410V4\4A404SL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane	U	1.00	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene	U	1.00	ug/L	0.300	1.00
124-48-1	Dibromochloromethane	U	1.00	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane	U	1.00	ug/L	0.250	1.00
108-90-7	Chlorobenzene	U	1.00	ug/L	0.250	1.00
100-41-4	Ethylbenzene	U	1.00	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes	U	2.00	ug/L	0.500	2.00
95-47-6	o-Xylene	U	1.00	ug/L	0.300	1.00
100-42-5	Styrene	U	1.00	ug/L	0.250	1.00
75-25-2	Bromoform	U	1.00	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane	U	1.00	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane	U	1.00	ug/L	0.300	1.00
108-86-1	Bromobenzene	U	1.00	ug/L	0.250	1.00
103-65-1	n-Propylbenzene	U	1.00	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-82-8	Isopropylbenzene	U	1.00	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene	U	1.00	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene	U	1.00	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene	U	1.00	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene	U	1.00	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene	U	1.00	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene	U	1.00	ug/L	0.250	1.00
104-51-8	n-Butylbenzene	U	1.00	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane	U	1.00	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene	U	1.00	ug/L	0.300	1.00
91-20-3	Naphthalene	U	1.00	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene	U	1.00	ug/L	0.332	1.00
107-02-8	Acrolein		226	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane		208	ug/L	1.00	5.00
107-05-1	Allyl chloride		226	ug/L	1.50	5.00
107-13-1	Acrylonitrile		215	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene		48.7	ug/L	0.300	1.00
107-12-0	Propionitrile		216	ug/L	1.50	5.00
126-98-7	Methacrylonitrile		212	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol		2300	ug/L	12.5	50.0
80-62-6	Methyl methacrylate		215	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202061540**				
Client Sample:	**QC for batch 961120**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961120**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 11:29**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 11:29**				
Data File:	**030410V4\4A404SL.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate		222	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane	U	1.00	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene	U	1.00	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene	U	1.00	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	46.1	50.0	ug/L	92.3	(72%-132%)
Bromofluorobenzene	53.0	50.0	ug/L	106	(77%-123%)
Toluene-d8	48.0	50.0	ug/L	96.0	(76%-122%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A404SL.D
Acq On : 4 Mar 2010 11:29 am
Operator : ACJ
InstName : VOA4
Sample : |1202061540|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[B] 0215-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 04 12:01:39 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.619	10.620	1.000	96	1371647	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.771	13.771	1.000	117	1132136	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	738741	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1371328	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.771	13.771	1.000	117	1132161	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	738923	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	261820	46.14	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 92.28%					
43) Toluene-d8	12.253	12.247	0.890	98	1007824	47.99	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 95.98%					
61) Bromofluorobenzene	14.953	14.954	0.924	95	765859	52.99	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 105.98%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	0.000	4.911	0.000		0	N.D.		
3) Chloromethane	5.306	5.291	0.500		0m	N.D.	d	
4) Vinyl chloride	5.514	5.521	0.519		0m	N.D.	d	
5) Bromomethane	6.109	6.137	0.575		0m	N.D.	d	
6) Chloroethane	6.327	6.295	0.596		0m	N.D.	d	
7) Trichlorofluoromethane	6.742	6.669	0.635		0m	N.D.	d	
8) Ethyl ether	7.010	6.998	0.660		0m	N.D.	d	
9) Acetone	7.357	7.352	0.693		0m	N.D.	d	
10) 1,1-Dichloroethylene	7.388	7.389	0.696		0m	N.D.	d	
11) Iodomethane	7.674	7.663	0.723		0m	N.D.	d	
12) Acetonitrile	7.711	7.699	0.726		0m	N.D.	d	
13) Methyl acetate	7.747	7.748	0.730		0m	N.D.	d	
14) Carbon disulfide	7.802	7.773	0.735		0m	N.D.	d	
15) Methylene chloride	7.930	7.931	0.747		0m	N.D.	d	
16) tert-Butyl methyl ether	8.247	8.242	0.777		0m	N.D.	d	
17) trans-1,2-Dichloroethy...	8.278	8.285	0.780		0m	N.D.	d	
18) Vinyl acetate	8.711	8.705	0.820		0m	N.D.	d	
19) 1,1-Dichloroethane	8.759	8.760	0.825		0m	N.D.	d	
20) 2-Butanone	9.339	9.327	0.879		0m	N.D.	d	
21) cis-1,2-Dichloroethylene	9.339	9.388	0.879		0m	N.D.	d	
22) 2,2-Dichloropropane	9.424	9.419	0.887		0m	N.D.	d	
23) Bromochloromethane	9.643	9.656	0.908		0m	N.D.	d	
24) Chloroform	9.686	9.687	0.912		0m	N.D.	d	
25) 1,1,1-Trichloroethane	9.979	9.979	0.940		0m	N.D.	d	
26) Cyclohexane	10.009	10.083	0.943		0m	N.D.	d	
27) 1,1-Dichloropropene	10.137	10.132	0.955		0m	N.D.	d	
28) Carbon tetrachloride	10.174	10.175	0.958		0m	N.D.	d	
30) 1,2-Dichloroethane	10.338	10.339	0.974		0m	N.D.	d	
31) Benzene	10.369	10.370	0.976		0m	N.D.	d	
32) Cyclohexene	10.497	10.492	0.989		0m	N.D.	d	
33) n-Butyl alcohol	10.692	10.693	1.007		0m	N.D.	d	
34) Trichloroethylene	11.003	11.004	1.036		0m	N.D.	d	
35) 1,2-Dichloropropane	11.235	11.241	1.058		0m	N.D.	d	
36) Methylcyclohexane	11.204	11.260	1.055		0m	N.D.	d	
37) Dibromomethane	11.381	11.376	1.072		0m	N.D.	d	
38) Bromodichloromethane	11.484	11.485	1.082		0m	N.D.	d	
39) 2-Chloroethylvinyl ether	11.698	11.699	1.102		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A404SL.D
Acq On : 4 Mar 2010 11:29 am
Operator : ACJ
InstName : VOA4
Sample : |1202061540|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[B] 0215-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 04 12:01:39 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40)	cis-1,3-Dichloropropylene	11.936	11.930	1.124		0m	N.D.	d	
42)	4-Methyl-2-pentanone	12.027	12.016	0.873		0m	N.D.	d	
44)	Toluene	12.320	12.320	0.895		0m	N.D.	d	
45)	trans-1,3-Dichloroprop...	12.466	12.461	0.905		0m	N.D.	d	
46)	1,1,2-Trichloroethane	12.692	12.680	0.922		0m	N.D.	d	
47)	2-Hexanone	12.862	12.857	0.934		0m	N.D.	d	
48)	1,3-Dichloropropane	12.874	12.875	0.935		0m	N.D.	d	
49)	Tetrachloroethylene	12.923	12.918	0.938		0m	N.D.	d	
50)	Dibromochloromethane	13.137	13.144	0.954		0m	N.D.	d	
51)	1,2-Dibromoethane	13.313	13.320	0.967		0m	N.D.	d	
52)	Chlorobenzene	13.807	13.802	1.003		0m	N.D.	d	
53)	1,1,1,2-Tetrachloroethane	13.850	13.851	1.006		0m	N.D.	d	
54)	Ethylbenzene	13.862	13.863	1.007		0m	N.D.	d	
55)	m,p-Xylenes	13.978	13.973	1.015		0m	N.D.	d	
56)	o-Xylene	14.399	14.399	1.046		0m	N.D.	d	
57)	Styrene	14.405	14.399	1.046		0m	N.D.	d	
59)	Bromoform	14.667	14.655	0.907		0m	N.D.	d	
60)	Isopropylbenzene	14.758	14.759	0.912		0m	N.D.	d	
62)	1,1,2,2-Tetrachloroethane	15.020	15.015	0.928		0m	N.D.	d	
63)	1,2,3-Trichloropropane	15.112	15.107	0.934		0m	N.D.	d	
64)	Bromobenzene	15.173	15.168	0.938		0m	N.D.	d	
65)	n-Propylbenzene	15.185	15.180	0.939		0m	N.D.	d	
66)	1,3,5-Trimethylbenzene	15.325	15.332	0.947		0m	N.D.	d	
67)	2-Chlorotoluene	15.337	15.332	0.948		0m	N.D.	d	
68)	4-Chlorotoluene	15.435	15.430	0.954		0m	N.D.	d	
69)	tert-Butylbenzene	15.709	15.704	0.971		0m	N.D.	d	
70)	1,2,4-Trimethylbenzene	15.746	15.741	0.973		0m	N.D.	d	
71)	sec-Butylbenzene	15.929	15.930	0.985		0m	N.D.	d	
72)	4-Isopropyltoluene	16.057	16.051	0.992		0m	N.D.	d	
73)	1,3-Dichlorobenzene	16.118	16.119	0.996		0m	N.D.	d	
74)	1,4-Dichlorobenzene	16.203	16.204	1.002		0m	N.D.	d	
75)	n-Butylbenzene	16.502	16.503	1.020		0m	N.D.	d	
76)	1,2-Dichlorobenzene	16.642	16.643	1.029		0m	N.D.	d	
77)	1,2-Dibromo-3-chloropr...	17.526	17.527	1.083		0m	N.D.	d	
78)	1,2,4-Trichlorobenzene	18.629	18.630	1.151		0m	N.D.	d	
79)	Hexachlorobutadiene	18.825	18.819	1.164		0m	N.D.	d	
80)	Naphthalene	19.026	19.026	1.176		0m	N.D.	d	
81)	1,2,3-Trichlorobenzene	19.391	19.386	1.199		0m	N.D.	d	
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	5.664	5.657	0.533	118	120	N.D.		
85)	Acrolein	7.180	7.180	0.676	56	294183	225.72	ug/L	96
86)	Trichlorotrifluoroethane	7.357	7.369	0.693	85	678348	208.23	ug/L	99
87)	Isopropyl Alcohol	0.000	7.430	0.000		0m	N.D.	d	
88)	Allyl chloride	7.802	7.796	0.735	41	2629831	226.38	ug/L	99
89)	tert-Butyl Alcohol	7.936	7.924	0.747	59	2723	N.D.		
90)	Acrylonitrile	8.174	8.174	0.770	53	716956	214.62	ug/L	98
91)	Isopropyl ether	8.735	8.741	0.823	45	393	N.D.		
92)	2-Chloro-1,3-butadiene	8.869	8.869	0.835	53	560504	48.67	ug/L	99
93)	Ethyl tert-butyl ether	9.137	9.143	0.860	59	168	N.D.		
94)	Ethyl acetate	9.339	9.338	0.879	43	1904321	200.10	ug/L	99
95)	Propionitrile	9.393	9.393	0.885	54	305679	215.65	ug/L	99
96)	Methacrylonitrile	9.576	9.576	0.902	41	1230507	212.41	ug/L	100
97)	Tetrahydrofuran	9.717	9.710	0.915	42	670382	214.68	ug/L	99
98)	Isobutyl alcohol	10.009	10.009	0.943	41	996536	2301.41	ug/L	99

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A404SL.D
Acq On : 4 Mar 2010 11:29 am
Operator : ACJ
InstName : VOA4
Sample : |1202061540|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[B] 0215-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 04 12:01:39 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units		
99)	Methyl tert-amyl ether	10.381	10.387	0.978	73	1222	N.D.			
100)	Methyl methacrylate	11.210	11.204	1.056	69	1356348	215.49	ug/L	97	
101)	1,4-Dioxane	11.332	11.326	1.067	88	247536	2088.37	ug/L	100	
102)	2-Nitropropane	11.673	11.673	1.099	43	742674	238.21	ug/L	98	
104)	Ethyl methacrylate	12.466	12.466	0.905	69	2600992	221.88	ug/L	97	
106)	1-Chlorohexane	13.661	13.661	0.844	55	571	N.D.			
107)	cis-1,4-Dichloro-2-butene	14.783	14.783	0.914	53	975926	256.63	ug/L	98	
108)	Cyclohexanone	14.905	14.904	0.921	42	1025985	2549.62	ug/L	97	E
109)	trans-1,4-Dichloro-2-b...	15.063	15.063	0.931	53	942265	255.95	ug/L	98	
110)	Pentachloroethane	15.776	15.770	0.975	167	1278748	318.64	ug/L	100	
111)	Benzyl chloride	16.319	16.319	1.009	91	5332298	293.04	ug/L	100	
112)	bis(2-Chloroisopropyl)...	16.721	16.721	1.034	45	1300496	220.62	ug/L	99	

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A404SL.D
Acq On : 4 Mar 2010 11:29 am
Operator : ACJ
InstName : VOA4
Sample : |1202061540|961120|1|VOAF|1|VOA8260LFD|
Misc : GEL 5ML - MIX[B] 0215-08A
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 04 12:01:39 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

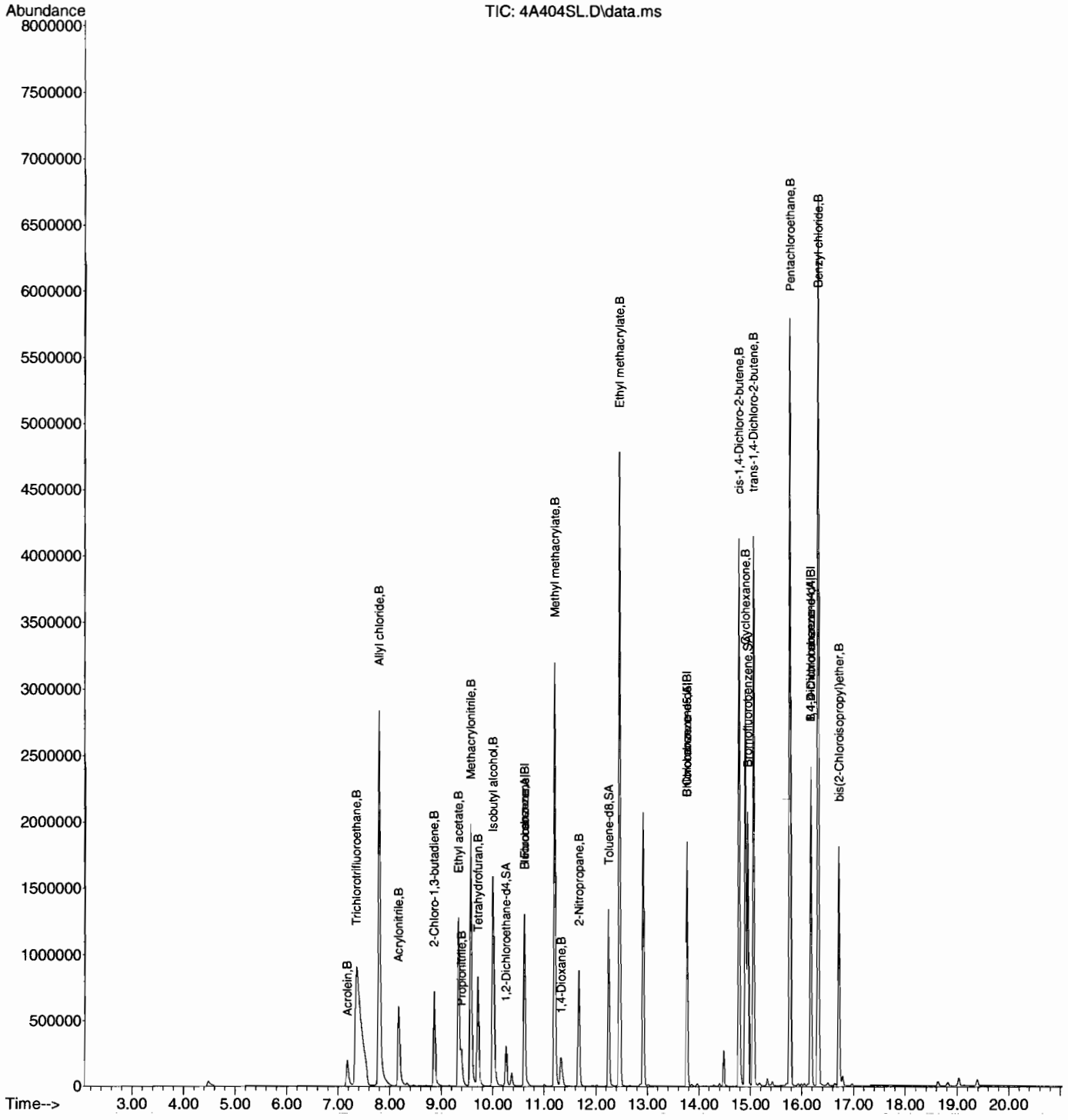

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202061537**	**Date Received:**	**02/25/2010 08:45**		
Client Sample:	**QC for batch 961120**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12771PS**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 21:10**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 21:10**				
Data File:	**030410V4\4A425.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		35.3	ug/L	0.300	1.00
74-87-3	Chloromethane		46.1	ug/L	0.300	1.00
75-01-4	Vinyl chloride		45.8	ug/L	0.500	1.00
74-83-9	Bromomethane		47.1	ug/L	0.300	1.00
75-00-3	Chloroethane		44.5	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		44.1	ug/L	0.300	1.00
60-29-7	Ethyl ether		46.1	ug/L	0.300	1.00
67-64-1	Acetone		93.0	ug/L	3.50	10.0
75-05-8	Acetonitrile		1280	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		42.4	ug/L	0.300	1.00
74-88-4	Iodomethane		196	ug/L	1.25	5.00
75-09-2	Methylene chloride		39.9	ug/L	3.00	10.0
75-15-0	Carbon disulfide		241	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		43.7	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		44.2	ug/L	0.300	1.00
108-05-4	Vinyl acetate		298	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		45.9	ug/L	0.300	1.00
78-93-3	2-Butanone		142	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		45.3	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		39.5	ug/L	0.300	1.00
67-66-3	Chloroform		44.9	ug/L	0.250	1.00
74-97-5	Bromochloromethane		43.2	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		42.0	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		43.0	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		5370	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		41.5	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		47.1	ug/L	0.250	1.00
71-43-2	Benzene		43.2	ug/L	0.300	1.00
79-01-6	Trichloroethylene		41.7	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		47.0	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		47.4	ug/L	0.250	1.00
74-95-3	Dibromomethane		46.0	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		234	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		44.1	ug/L	0.250	1.00
108-88-3	Toluene		41.4	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		45.6	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		48.0	ug/L	0.250	1.00
591-78-6	2-Hexanone		174	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202061537**	**Date Received:**	**02/25/2010 08:45**		
Client Sample:	**QC for batch 961120**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12771PS**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 21:10**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 21:10**				
Data File:	**030410V4\4A425.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		46.5	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		38.3	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		46.2	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		45.5	ug/L	0.250	1.00
108-90-7	Chlorobenzene		42.0	ug/L	0.250	1.00
100-41-4	Ethylbenzene		42.4	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		84.7	ug/L	0.500	2.00
95-47-6	o-Xylene		44.2	ug/L	0.300	1.00
100-42-5	Styrene		46.0	ug/L	0.250	1.00
75-25-2	Bromoform		44.3	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		46.0	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		43.7	ug/L	0.300	1.00
108-86-1	Bromobenzene		40.9	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		40.1	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		40.9	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		38.8	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		41.3	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		40.6	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		39.3	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		41.4	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		40.4	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		40.3	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		40.3	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		39.7	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		40.3	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		44.2	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		34.9	ug/L	0.300	1.00
91-20-3	Naphthalene		39.4	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		39.1	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202061537**	**Date Received:**	**02/25/2010 08:45**		
Client Sample:	**QC for batch 961120**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12771PS**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 21:10**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 21:10**				
Data File:	**030410V4\4A425.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		44.2	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		38.3	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		40.7	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	47.5	50.0	ug/L	95.0	(72%-132%)
Bromofluorobenzene	51.4	50.0	ug/L	103	(77%-123%)
Toluene-d8	47.4	50.0	ug/L	94.7	(76%-122%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A425.D
Acq On : 4 Mar 2010 9:10 pm
Operator : ACJ
InstName : VOA4
Sample : |1202061537|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MIX[A] MS 248042001
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 05 10:33:19 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
Internal Standards								Dev(Min)
1) Fluorobenzene	10.619	10.620	1.000	96	1073810	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.770	13.771	1.000	117	922187	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.178	16.180	1.000	152	672931	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1073731	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.770	13.771	1.000	117	922187	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.178	16.179	1.000	152	673004	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	210979	47.49	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 94.98%					
43) Toluene-d8	12.252	12.247	0.890	98	810352	47.37	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 94.74%					
61) Bromofluorobenzene	14.953	14.954	0.924	95	677105	51.43	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 102.86%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.904	4.911	0.462	85	240461	35.33	ug/L	100
3) Chloromethane	5.299	5.291	0.499	50	513813	46.13	ug/L	100
4) Vinyl chloride	5.521	5.521	0.520	62	505015	45.75	ug/L	99
5) Bromomethane	6.145	6.137	0.579	94	309193	47.09	ug/L	99
6) Chloroethane	6.288	6.295	0.592	64	252931	44.48	ug/L	100
7) Trichlorofluoromethane	6.674	6.669	0.629	101	496433	44.10	ug/L	99
8) Ethyl ether	6.997	6.998	0.659	59	247253	46.11	ug/L	98
9) Acetone	7.351	7.352	0.692	43	629627	93.04	ug/L	96
10) 1,1-Dichloroethylene	7.394	7.389	0.696	61	530515	42.38	ug/L	96
11) Iodomethane	7.656	7.663	0.721	142	2529445	195.65	ug/L	97
12) Acetonitrile	7.698	7.699	0.725	41	1437965	1280.22	ug/L	99
13) Methyl acetate	7.747	7.748	0.730	43	1412322	245.70	ug/L	96
14) Carbon disulfide	7.778	7.773	0.732	76	5601851	240.61	ug/L	99
15) Methylene chloride	7.942	7.931	0.748	84	387218	39.87	ug/L	93
16) tert-Butyl methyl ether	8.241	8.242	0.776	73	902856	43.67	ug/L	98
17) trans-1,2-Dichloroethy...	8.284	8.285	0.780	61	426446	44.24	ug/L	95
18) Vinyl acetate	8.704	8.705	0.820	43	3731152	297.82	ug/L	97
19) 1,1-Dichloroethane	8.759	8.760	0.825	63	555333	45.94	ug/L	100
20) 2-Butanone	9.326	9.327	0.878	43	1006189	141.72	ug/L	95
21) cis-1,2-Dichloroethylene	9.387	9.388	0.884	61	478405	45.27	ug/L	96
22) 2,2-Dichloropropane	9.418	9.419	0.887	77	255783	39.46	ug/L	89
23) Bromochloromethane	9.655	9.656	0.909	128	165385	43.19	ug/L	91
24) Chloroform	9.692	9.687	0.913	83	570218	44.93	ug/L	96
25) 1,1,1-Trichloroethane	9.978	9.979	0.940	97	415642	42.01	ug/L	98
26) Cyclohexane	10.082	10.083	0.949	56	452060	41.13	ug/L	83
27) 1,1-Dichloropropene	10.131	10.132	0.954	75	398977	42.98	ug/L	96
28) Carbon tetrachloride	10.174	10.175	0.958	117	390481	41.50	ug/L	100
30) 1,2-Dichloroethane	10.338	10.339	0.974	62	487444	47.07	ug/L	99
31) Benzene	10.369	10.370	0.976	78	1183651	43.24	ug/L	98
32) Cyclohexene	10.491	10.492	0.988	67	561251	42.05	ug/L	96
33) n-Butyl alcohol	10.686	10.693	1.006	56	1517832	5371.77	ug/L	95
34) Trichloroethylene	11.003	11.004	1.036	95	301496	41.65	ug/L	98
35) 1,2-Dichloropropane	11.247	11.241	1.059	63	333011	47.01	ug/L	99
36) Methylcyclohexane	11.259	11.260	1.060	83	476263	41.63	ug/L	95
37) Dibromomethane	11.375	11.376	1.071	93	215153	46.02	ug/L	93
38) Bromodichloromethane	11.484	11.485	1.082	83	445471	47.43	ug/L	99
39) 2-Chloroethylvinyl ether	0.000	11.699	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A425.D
Acq On : 4 Mar 2010 9:10 pm
Operator : ACJ
InstName : VOA4
Sample : |1202061537|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MIX[A] MS 248042001
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 05 10:33:19 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40) cis-1,3-Dichloropropylene	11.929	11.930	1.123	75	482881	44.05	ug/L	94
42) 4-Methyl-2-pentanone	12.015	12.016	0.872	58	785478	233.62	ug/L	87
44) Toluene	12.326	12.320	0.895	91	1262171	41.35	ug/L	99
45) trans-1,3-Dichloroprop...	12.460	12.461	0.905	75	488500	45.58	ug/L	94
46) 1,1,2-Trichloroethane	12.685	12.680	0.921	83	263872	48.03	ug/L	97
47) 2-Hexanone	12.856	12.857	0.934	43	1624500	174.13	ug/L	93
48) 1,3-Dichloropropane	12.874	12.875	0.935	76	530760	46.50	ug/L	87
49) Tetrachloroethylene	12.923	12.918	0.938	164	234992	38.26	ug/L	95
50) Dibromochloromethane	13.149	13.144	0.955	129	361652	46.22	ug/L	99
51) 1,2-Dibromoethane	13.319	13.320	0.967	107	322268	45.50	ug/L	100
52) Chlorobenzene	13.801	13.802	1.002	112	872107	41.95	ug/L	98
53) 1,1,1,2-Tetrachloroethane	13.850	13.851	1.006	131	349129	44.24	ug/L	99
54) Ethylbenzene	13.862	13.863	1.007	91	1532202	42.38	ug/L	98
55) m,p-Xylenes	13.972	13.973	1.015	106	1214428	84.69	ug/L	95
56) o-Xylene	14.404	14.399	1.046	106	656855	44.20	ug/L	95
57) Styrene	14.404	14.399	1.046	104	1109075	45.96	ug/L	97
59) Bromoform	14.660	14.655	0.906	173	269592	44.32	ug/L	100
60) Isopropylbenzene	14.758	14.759	0.912	105	1653451	38.83	ug/L	100
62) 1,1,2,2-Tetrachloroethane	15.020	15.015	0.928	83	562437	46.02	ug/L	100
63) 1,2,3-Trichloropropane	15.106	15.107	0.934	110	145607	43.71	ug/L	97
64) Bromobenzene	15.166	15.168	0.937	156	479368	40.91	ug/L	94
65) n-Propylbenzene	15.179	15.180	0.938	91	2085210	40.11	ug/L	97
66) 1,3,5-Trimethylbenzene	15.331	15.332	0.948	105	1606021	41.25	ug/L	98
67) 2-Chlorotoluene	15.331	15.332	0.948	126	475013	40.93	ug/L	92
68) 4-Chlorotoluene	15.429	15.430	0.954	91	1318376	40.60	ug/L	98
69) tert-Butylbenzene	15.703	15.704	0.971	134	335387	39.29	ug/L	94
70) 1,2,4-Trimethylbenzene	15.746	15.741	0.973	105	1643156	41.38	ug/L	98
71) sec-Butylbenzene	15.929	15.930	0.985	105	2111324	40.43	ug/L	97
72) 4-Isopropyltoluene	16.050	16.051	0.992	119	1691117	40.26	ug/L	98
73) 1,3-Dichlorobenzene	16.124	16.119	0.997	146	939446	40.33	ug/L	99
74) 1,4-Dichlorobenzene	16.203	16.204	1.002	146	946164	39.71	ug/L	99
75) n-Butylbenzene	16.502	16.503	1.020	91	1606894	40.31	ug/L	98
76) 1,2-Dichlorobenzene	16.642	16.643	1.029	146	922719	40.70	ug/L	99
77) 1,2-Dibromo-3-chloropr...	17.526	17.527	1.083	157	96134	44.20	ug/L	95
78) 1,2,4-Trichlorobenzene	18.629	18.630	1.151	180	443521	38.25	ug/L	99
79) Hexachlorobutadiene	18.818	18.819	1.163	225	262422	34.93	ug/L	100
80) Naphthalene	19.032	19.026	1.176	128	1136759	39.41	ug/L	100
81) 1,2,3-Trichlorobenzene	19.385	19.386	1.198	180	377202	39.06	ug/L	99
83) Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84) 2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85) Acrolein	7.205	7.180	0.678		0m	N.D.	d	
86) Trichlorotrifluoroethane	0.000	7.369	0.000		0	N.D.		
87) Isopropyl Alcohol	7.351	7.430	0.692		0m	N.D.	d	
88) Allyl chloride	7.698	7.796	0.725		0m	N.D.	d	
89) tert-Butyl Alcohol	0.000	7.924	0.000		0	N.D.		
90) Acrylonitrile	8.247	8.174	0.777		0m	N.D.	d	
91) Isopropyl ether	8.710	8.741	0.820		0m	N.D.	d	
92) 2-Chloro-1,3-butadiene	8.863	8.869	0.835		0m	N.D.	d	
93) Ethyl tert-butyl ether	9.149	9.143	0.862		0m	N.D.	d	
94) Ethyl acetate	9.326	9.338	0.878		0m	N.D.	d	
95) Propionitrile	9.393	9.393	0.885		0m	N.D.	d	
96) Methacrylonitrile	9.680	9.576	0.912		0m	N.D.	d	
97) Tetrahydrofuran	9.686	9.710	0.912		0m	N.D.	d	
98) Isobutyl alcohol	9.960	10.009	0.938		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A425.D
Acq On : 4 Mar 2010 9:10 pm
Operator : ACJ
InstName : VOA4
Sample : |1202061537|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MIX[A] MS 248042001
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 05 10:33:19 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	10.375	10.387	0.977		0m	N.D.	d
100)	Methyl methacrylate	11.259	11.204	1.060		0m	N.D.	d
101)	1,4-Dioxane	11.375	11.326	1.071		0m	N.D.	d
102)	2-Nitropropane	11.740	11.673	1.106		0m	N.D.	d
104)	Ethyl methacrylate	12.472	12.466	0.906		0m	N.D.	d
106)	1-Chlorohexane	13.667	13.661	0.845		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	14.758	14.783	0.912		0m	N.D.	d
108)	Cyclohexanone	14.904	14.904	0.921		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	15.051	15.063	0.930		0m	N.D.	d
110)	Pentachloroethane	15.776	15.770	0.975		0m	N.D.	d
111)	Benzyl chloride	16.178	16.319	1.000		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.721	16.721	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A425.D
Acq On : 4 Mar 2010 9:10 pm
Operator : ACJ
InstName : VOA4
Sample : |1202061537|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MIX[A] MS 248042001
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Mar 05 10:33:19 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

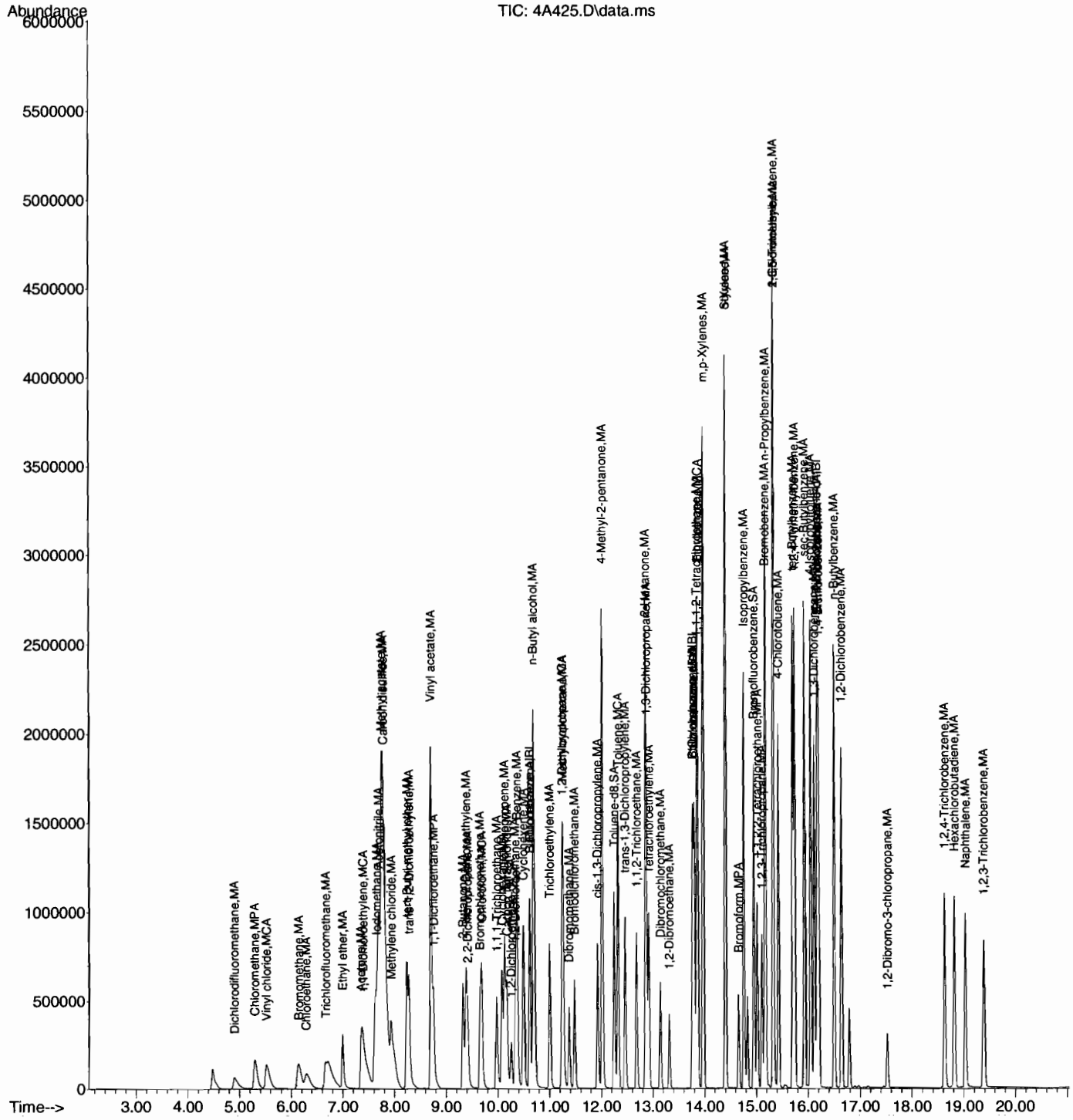

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2057	**Date Collected:**	02/22/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	1202061538	**Date Received:**	02/25/2010 08:45		
Client Sample:	QC for batch 961120	**Client:**	LANL010	**Project:**	QC
Client ID:	CAPA-10-12771PSD	**Method:**	SW846 8260B DOE-AL	**SOP Ref:**	GL-OA-E-038
Batch ID:	961120	**Inst:**	VOA4.I	**Dilution:**	1
Run Date:	03/04/2010 21:38	**Analyst:**	ACJ	**Purge Vol:**	5 mL
Prep Date:	03/04/2010 21:38				
Data File:	030410V4\4A426.D	**Column:**	DB-624		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
75-71-8	Dichlorodifluoromethane		38.5	ug/L	0.300	1.00
74-87-3	Chloromethane		45.4	ug/L	0.300	1.00
75-01-4	Vinyl chloride		48.5	ug/L	0.500	1.00
74-83-9	Bromomethane		48.3	ug/L	0.300	1.00
75-00-3	Chloroethane		47.3	ug/L	0.300	1.00
75-69-4	Trichlorofluoromethane		47.8	ug/L	0.300	1.00
60-29-7	Ethyl ether		49.7	ug/L	0.300	1.00
67-64-1	Acetone		96.8	ug/L	3.50	10.0
75-05-8	Acetonitrile		1330	ug/L	6.25	25.0
75-35-4	1,1-Dichloroethylene		44.8	ug/L	0.300	1.00
74-88-4	Iodomethane		220	ug/L	1.25	5.00
75-09-2	Methylene chloride		41.1	ug/L	3.00	10.0
75-15-0	Carbon disulfide		250	ug/L	1.25	5.00
1634-04-4	tert-Butyl methyl ether		46.9	ug/L	0.250	1.00
156-60-5	trans-1,2-Dichloroethylene		47.3	ug/L	0.300	1.00
108-05-4	Vinyl acetate		310	ug/L	1.50	5.00
75-34-3	1,1-Dichloroethane		49.0	ug/L	0.300	1.00
78-93-3	2-Butanone		147	ug/L	1.25	5.00
156-59-2	cis-1,2-Dichloroethylene		48.0	ug/L	0.300	1.00
594-20-7	2,2-Dichloropropane		43.6	ug/L	0.300	1.00
67-66-3	Chloroform		47.7	ug/L	0.250	1.00
74-97-5	Bromochloromethane		46.3	ug/L	0.300	1.00
71-55-6	1,1,1-Trichloroethane		46.6	ug/L	0.325	1.00
563-58-6	1,1-Dichloropropene		46.5	ug/L	0.250	1.00
71-36-3	n-Butyl alcohol		5560	ug/L	15.0	50.0
56-23-5	Carbon tetrachloride		45.8	ug/L	0.300	1.00
107-06-2	1,2-Dichloroethane		49.0	ug/L	0.250	1.00
71-43-2	Benzene		46.5	ug/L	0.300	1.00
79-01-6	Trichloroethylene		46.1	ug/L	0.250	1.00
78-87-5	1,2-Dichloropropane		49.5	ug/L	0.250	1.00
75-27-4	Bromodichloromethane		50.4	ug/L	0.250	1.00
74-95-3	Dibromomethane		49.0	ug/L	0.300	1.00
108-10-1	4-Methyl-2-pentanone		249	ug/L	1.25	5.00
10061-01-5	cis-1,3-Dichloropropylene		48.7	ug/L	0.250	1.00
108-88-3	Toluene		45.3	ug/L	0.250	1.00
10061-02-6	trans-1,3-Dichloropropylene		48.9	ug/L	0.250	1.00
79-00-5	1,1,2-Trichloroethane		50.6	ug/L	0.250	1.00
591-78-6	2-Hexanone		182	ug/L	1.25	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202061538**	**Date Received:**	**02/25/2010 08:45**		
Client Sample:	**QC for batch 961120**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12771PSD**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 21:38**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 21:38**				
Data File:	**030410V4\4A426.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
142-28-9	1,3-Dichloropropane		49.7	ug/L	0.300	1.00
127-18-4	Tetrachloroethylene		43.2	ug/L	0.300	1.00
124-48-1	Dibromochloromethane		49.7	ug/L	0.300	1.00
106-93-4	1,2-Dibromoethane		48.9	ug/L	0.250	1.00
108-90-7	Chlorobenzene		46.2	ug/L	0.250	1.00
100-41-4	Ethylbenzene		46.8	ug/L	0.250	1.00
179601-23-1	m,p-Xylenes		93.7	ug/L	0.500	2.00
95-47-6	o-Xylene		48.5	ug/L	0.300	1.00
100-42-5	Styrene		50.5	ug/L	0.250	1.00
75-25-2	Bromoform		49.0	ug/L	0.250	1.00
79-34-5	1,1,2,2-Tetrachloroethane		49.6	ug/L	0.250	1.00
96-18-4	1,2,3-Trichloropropane		46.3	ug/L	0.300	1.00
108-86-1	Bromobenzene		46.1	ug/L	0.250	1.00
103-65-1	n-Propylbenzene		46.0	ug/L	0.250	1.00
95-49-8	2-Chlorotoluene		46.5	ug/L	0.250	1.00
98-82-8	Isopropylbenzene		44.6	ug/L	0.250	1.00
108-67-8	1,3,5-Trimethylbenzene		47.1	ug/L	0.250	1.00
106-43-4	4-Chlorotoluene		46.1	ug/L	0.250	1.00
98-06-6	tert-Butylbenzene		45.9	ug/L	0.250	1.00
95-63-6	1,2,4-Trimethylbenzene		46.8	ug/L	0.250	1.00
135-98-8	sec-Butylbenzene		46.4	ug/L	0.250	1.00
99-87-6	4-Isopropyltoluene		46.9	ug/L	0.250	1.00
541-73-1	1,3-Dichlorobenzene		45.6	ug/L	0.250	1.00
106-46-7	1,4-Dichlorobenzene		45.3	ug/L	0.250	1.00
104-51-8	n-Butylbenzene		46.7	ug/L	0.250	1.00
96-12-8	1,2-Dibromo-3-chloropropane		49.5	ug/L	0.300	1.00
87-68-3	Hexachlorobutadiene		41.4	ug/L	0.300	1.00
91-20-3	Naphthalene		44.6	ug/L	0.250	1.00
87-61-6	1,2,3-Trichlorobenzene		45.2	ug/L	0.332	1.00
107-02-8	Acrolein	U	5.00	ug/L	1.25	5.00
76-13-1	Trichlorotrifluoroethane	U	5.00	ug/L	1.00	5.00
107-05-1	Allyl chloride	U	5.00	ug/L	1.50	5.00
107-13-1	Acrylonitrile	U	5.00	ug/L	1.00	5.00
126-99-8	2-Chloro-1,3-butadiene	U	1.00	ug/L	0.300	1.00
107-12-0	Propionitrile	U	5.00	ug/L	1.50	5.00
126-98-7	Methacrylonitrile	U	5.00	ug/L	1.00	5.00
78-83-1	Isobutyl alcohol	U	50.0	ug/L	12.5	50.0
80-62-6	Methyl methacrylate	U	5.00	ug/L	1.00	5.00

Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202061538**	**Date Received:**	**02/25/2010 08:45**		
Client Sample:	**QC for batch 961120**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**CAPA-10-12771PSD**	**Method:**	**SW846 8260B DOE-AL**	**SOP Ref:**	**GL-OA-E-038**
Batch ID:	**961120**	**Inst:**	**VOA4.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 21:38**	**Analyst:**	**ACJ**	**Purge Vol:**	**5 mL**
Prep Date:	**03/04/2010 21:38**				
Data File:	**030410V4\4A426.D**	**Column:**	**DB-624**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
97-63-2	Ethyl methacrylate	U	5.00	ug/L	1.00	5.00
630-20-6	1,1,1,2-Tetrachloroethane		47.5	ug/L	0.300	1.00
120-82-1	1,2,4-Trichlorobenzene		44.4	ug/L	0.300	1.00
95-50-1	1,2-Dichlorobenzene		45.8	ug/L	0.250	1.00

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
1,2-Dichloroethane-d4	47.9	50.0	ug/L	95.8	(72%-132%)
Bromofluorobenzene	52.5	50.0	ug/L	105	(77%-123%)
Toluene-d8	47.5	50.0	ug/L	94.9	(76%-122%)

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A426.D
Acq On : 4 Mar 2010 9:38 pm
Operator : ACJ
InstName : VOA4
Sample : |1202061538|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MIX[A] MSD 248042001
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 05 10:33:21 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	Dev(Min)
Internal Standards								
1) Fluorobenzene	10.619	10.620	1.000	96	1153560	50.00	ug/L	0.00
41) Chlorobenzene-d5	13.770	13.771	1.000	117	987988	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	16.179	16.180	1.000	152	694054	50.00	ug/L	0.00
82) B Fluorobenzene	10.619	10.619	1.000	96	1153128	50.00	ug/L	0.00
103) B Chlorobenzene-d5	13.770	13.771	1.000	117	987988	50.00	ug/L	0.00
105) B 1,4-Dichlorobenzene-d4	16.179	16.179	1.000	152	695460	50.00	ug/L	0.00
System Monitoring Compounds								Dev(Min)
29) 1,2-Dichloroethane-d4	10.259	10.260	0.966	65	228682	47.92	ug/L	0.00
Spiked Amount 50.000	Range 72 - 132		Recovery = 95.84%					
43) Toluene-d8	12.252	12.247	0.890	98	869736	47.46	ug/L	0.00
Spiked Amount 50.000	Range 76 - 122		Recovery = 94.92%					
61) Bromofluorobenzene	14.953	14.954	0.924	95	713383	52.53	ug/L	0.00
Spiked Amount 50.000	Range 77 - 123		Recovery = 105.06%					

Target Compounds	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	QValue
2) Dichlorodifluoromethane	4.904	4.911	0.462	85	281382	38.49	ug/L	100
3) Chloromethane	5.292	5.291	0.498	50	543084	45.38	ug/L	100
4) Vinyl chloride	5.521	5.521	0.520	62	574717	48.46	ug/L	100
5) Bromomethane	6.130	6.137	0.577	94	340430	48.27	ug/L	99
6) Chloroethane	6.295	6.295	0.593	64	288741	47.26	ug/L	99
7) Trichlorofluoromethane	6.674	6.669	0.629	101	577503	47.75	ug/L	100
8) Ethyl ether	6.997	6.998	0.659	59	286531	49.74	ug/L	97
9) Acetone	7.357	7.352	0.693	43	703766	96.81	ug/L	97
10) 1,1-Dichloroethylene	7.388	7.389	0.696	61	602968	44.84	ug/L	96
11) Iodomethane	7.656	7.663	0.721	142	3052227	219.77	ug/L	97
12) Acetonitrile	7.698	7.699	0.725	41	1599339	1325.45	ug/L	99
13) Methyl acetate	7.747	7.748	0.730	43	1569609	254.18	ug/L	97
14) Carbon disulfide	7.772	7.773	0.732	76	6262733	250.40	ug/L	100
15) Methylene chloride	7.936	7.931	0.747	84	428421	41.06	ug/L	94
16) tert-Butyl methyl ether	8.241	8.242	0.776	73	1042393	46.94	ug/L	98
17) trans-1,2-Dichloroethy...	8.284	8.285	0.780	61	489405	47.26	ug/L	96
18) Vinyl acetate	8.710	8.705	0.820	43	4177952	310.42	ug/L	97
19) 1,1-Dichloroethane	8.759	8.760	0.825	63	636204	49.00	ug/L	99
20) 2-Butanone	9.326	9.327	0.878	43	1118723	146.68	ug/L	96
21) cis-1,2-Dichloroethylene	9.387	9.388	0.884	61	544322	47.95	ug/L	96
22) 2,2-Dichloropropane	9.418	9.419	0.887	77	303475	43.58	ug/L	92
23) Bromochloromethane	9.655	9.656	0.909	128	190425	46.29	ug/L	92
24) Chloroform	9.692	9.687	0.913	83	650239	47.69	ug/L	97
25) 1,1,1-Trichloroethane	9.979	9.979	0.940	97	495601	46.63	ug/L	98
26) Cyclohexane	10.082	10.083	0.949	56	540196	45.76	ug/L	97
27) 1,1-Dichloropropene	10.131	10.132	0.954	75	464122	46.54	ug/L #	77
28) Carbon tetrachloride	10.174	10.175	0.958	117	462420	45.75	ug/L	100
30) 1,2-Dichloroethane	10.338	10.339	0.974	62	545411	49.02	ug/L	99
31) Benzene	10.375	10.370	0.977	78	1368156	46.52	ug/L	98
32) Cyclohexene	10.491	10.492	0.988	67	652691	45.52	ug/L	96
33) n-Butyl alcohol	10.692	10.693	1.007	56	1688909	5564.01	ug/L	96
34) Trichloroethylene	11.003	11.004	1.036	95	358817	46.14	ug/L	98
35) 1,2-Dichloropropane	11.247	11.241	1.059	63	376310	49.45	ug/L	100
36) Methylcyclohexane	11.259	11.260	1.060	83	559821	45.55	ug/L	95
37) Dibromomethane	11.375	11.376	1.071	93	245918	48.96	ug/L	93
38) Bromodichloromethane	11.484	11.485	1.082	83	508309	50.38	ug/L	100
39) 2-Chloroethylvinyl ether	0.000	11.699	0.000		0	N.D.		

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A426.D
Acq On : 4 Mar 2010 9:38 pm
Operator : ACJ
InstName : VOA4
Sample : |1202061538|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MIX[A] MSD 248042001
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 05 10:33:21 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units	
40)	cis-1,3-Dichloropropylene	11.929	11.930	1.123	75	573251	48.68	ug/L	95
42)	4-Methyl-2-pentanone	12.015	12.016	0.872	58	895659	248.65	ug/L	91
44)	Toluene	12.326	12.320	0.895	91	1482351	45.33	ug/L	99
45)	trans-1,3-Dichloroprop...	12.466	12.461	0.905	75	560946	48.85	ug/L	95
46)	1,1,2-Trichloroethane	12.685	12.680	0.921	83	297682	50.57	ug/L	97
47)	2-Hexanone	12.856	12.857	0.934	43	1822448	182.33	ug/L	94
48)	1,3-Dichloropropane	12.874	12.875	0.935	76	607533	49.68	ug/L	85
49)	Tetrachloroethylene	12.917	12.918	0.938	164	284283	43.20	ug/L	97
50)	Dibromochloromethane	13.143	13.144	0.954	129	416689	49.71	ug/L	100
51)	1,2-Dibromoethane	13.319	13.320	0.967	107	371014	48.90	ug/L	99
52)	Chlorobenzene	13.801	13.802	1.002	112	1028950	46.20	ug/L	99
53)	1,1,1,2-Tetrachloroethane	13.850	13.851	1.006	131	401275	47.46	ug/L	98
54)	Ethylbenzene	13.862	13.863	1.007	91	1812126	46.79	ug/L	98
55)	m,p-Xylenes	13.972	13.973	1.015	106	1439152	93.67	ug/L	96
56)	o-Xylene	14.404	14.399	1.046	106	772830	48.54	ug/L	95
57)	Styrene	14.404	14.399	1.046	104	1304522	50.46	ug/L	97
59)	Bromoform	14.654	14.655	0.906	173	307339	48.99	ug/L	100
60)	Isopropylbenzene	14.758	14.759	0.912	105	1959631	44.62	ug/L	99
62)	1,1,2,2-Tetrachloroethane	15.020	15.015	0.928	83	625341	49.61	ug/L	99
63)	1,2,3-Trichloropropane	15.106	15.107	0.934	110	158956	46.27	ug/L	96
64)	Bromobenzene	15.167	15.168	0.937	156	556972	46.09	ug/L	95
65)	n-Propylbenzene	15.179	15.180	0.938	91	2466893	46.01	ug/L	98
66)	1,3,5-Trimethylbenzene	15.331	15.332	0.948	105	1891095	47.09	ug/L	99
67)	2-Chlorotoluene	15.331	15.332	0.948	126	556525	46.50	ug/L	93
68)	4-Chlorotoluene	15.429	15.430	0.954	91	1543040	46.07	ug/L	98
69)	tert-Butylbenzene	15.703	15.704	0.971	134	404124	45.91	ug/L	97
70)	1,2,4-Trimethylbenzene	15.740	15.741	0.973	105	1917362	46.82	ug/L	99
71)	sec-Butylbenzene	15.935	15.930	0.985	105	2496364	46.35	ug/L	98
72)	4-Isopropyltoluene	16.050	16.051	0.992	119	2032134	46.91	ug/L	99
73)	1,3-Dichlorobenzene	16.124	16.119	0.997	146	1094813	45.57	ug/L	99
74)	1,4-Dichlorobenzene	16.209	16.204	1.002	146	1114229	45.34	ug/L	99
75)	n-Butylbenzene	16.502	16.503	1.020	91	1918648	46.67	ug/L	98
76)	1,2-Dichlorobenzene	16.642	16.643	1.029	146	1071753	45.84	ug/L	99
77)	1,2-Dibromo-3-chloropr...	17.526	17.527	1.083	157	111111	49.54	ug/L	97
78)	1,2,4-Trichlorobenzene	18.629	18.630	1.151	180	531095	44.41	ug/L	99
79)	Hexachlorobutadiene	18.818	18.819	1.163	225	320781	41.40	ug/L	98
80)	Naphthalene	19.032	19.026	1.176	128	1327105	44.60	ug/L	100
81)	1,2,3-Trichlorobenzene	19.385	19.386	1.198	180	450419	45.22	ug/L	99
83)	Chlorotrifluoroethylene	0.000	4.826	0.000		0	N.D.		
84)	2-Chloro-1,1,1-trifluo...	0.000	5.657	0.000		0	N.D.		
85)	Acrolein	7.199	7.180	0.678		0m	N.D.	d	
86)	Trichlorotrifluoroethane	7.381	7.369	0.695		0m	N.D.	d	
87)	Isopropyl Alcohol	7.467	7.430	0.703		0m	N.D.	d	
88)	Allyl chloride	7.698	7.796	0.725		0m	N.D.	d	
89)	tert-Butyl Alcohol	8.009	7.924	0.754		0m	N.D.	d	
90)	Acrylonitrile	8.235	8.174	0.776		0m	N.D.	d	
91)	Isopropyl ether	8.710	8.741	0.820		0m	N.D.	d	
92)	2-Chloro-1,3-butadiene	8.869	8.869	0.835		0m	N.D.	d	
93)	Ethyl tert-butyl ether	9.155	9.143	0.862		0m	N.D.	d	
94)	Ethyl acetate	9.326	9.338	0.878		0m	N.D.	d	
95)	Propionitrile	9.320	9.393	0.878		0m	N.D.	d	
96)	Methacrylonitrile	9.680	9.576	0.912		0m	N.D.	d	
97)	Tetrahydrofuran	9.692	9.710	0.913		0m	N.D.	d	
98)	Isobutyl alcohol	9.991	10.009	0.941		0m	N.D.	d	

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A426.D
Acq On : 4 Mar 2010 9:38 pm
Operator : ACJ
InstName : VOA4
Sample : |1202061538|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MIX[A] MSD 248042001
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 05 10:33:21 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

	Compound	R.T.	Exp RT	Rel RT	QIon	Response	Conc	Units
99)	Methyl tert-amyl ether	10.375	10.387	0.977		0m	N.D.	d
100)	Methyl methacrylate	11.265	11.204	1.061		0m	N.D.	d
101)	1,4-Dioxane	11.368	11.326	1.071		0m	N.D.	d
102)	2-Nitropropane	11.673	11.673	1.099		0m	N.D.	d
104)	Ethyl methacrylate	12.466	12.466	0.905		0m	N.D.	d
106)	1-Chlorohexane	13.685	13.661	0.846		0m	N.D.	d
107)	cis-1,4-Dichloro-2-butene	14.758	14.783	0.912		0m	N.D.	d
108)	Cyclohexanone	14.917	14.904	0.922		0m	N.D.	d
109)	trans-1,4-Dichloro-2-b...	15.063	15.063	0.931		0m	N.D.	d
110)	Pentachloroethane	15.776	15.770	0.975		0m	N.D.	d
111)	Benzyl chloride	16.313	16.319	1.008		0m	N.D.	d
112)	bis(2-Chloroisopropyl)...	16.733	16.721	1.034		0m	N.D.	d

(#) = qualifier out of range (m) = manual integration (+) = signals summed
(E) = Over the calibration range (d) = deleted

Quantitation Report
GEL Laboratories, LLC

Data Path : C:\msdchem\1\DATA\030410V4\
Data File : 4A426.D
Acq On : 4 Mar 2010 9:38 pm
Operator : ACJ
InstName : VOA4
Sample : |1202061538|961120|1|VOAF|1|VOA8260LFD|
Misc : LANL 5ML PH2 MIX[A] MSD 248042001
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Mar 05 10:33:21 2010
Quant Method : C:\msdchem\1\DATA\030110V4\VOA4-8260-030110.M
Quant Title : Volatile Organics 8260B SubList :
QLast Update : Tue Mar 02 15:03:40 2010
Response via : Initial Calibration
Integrator: RTE

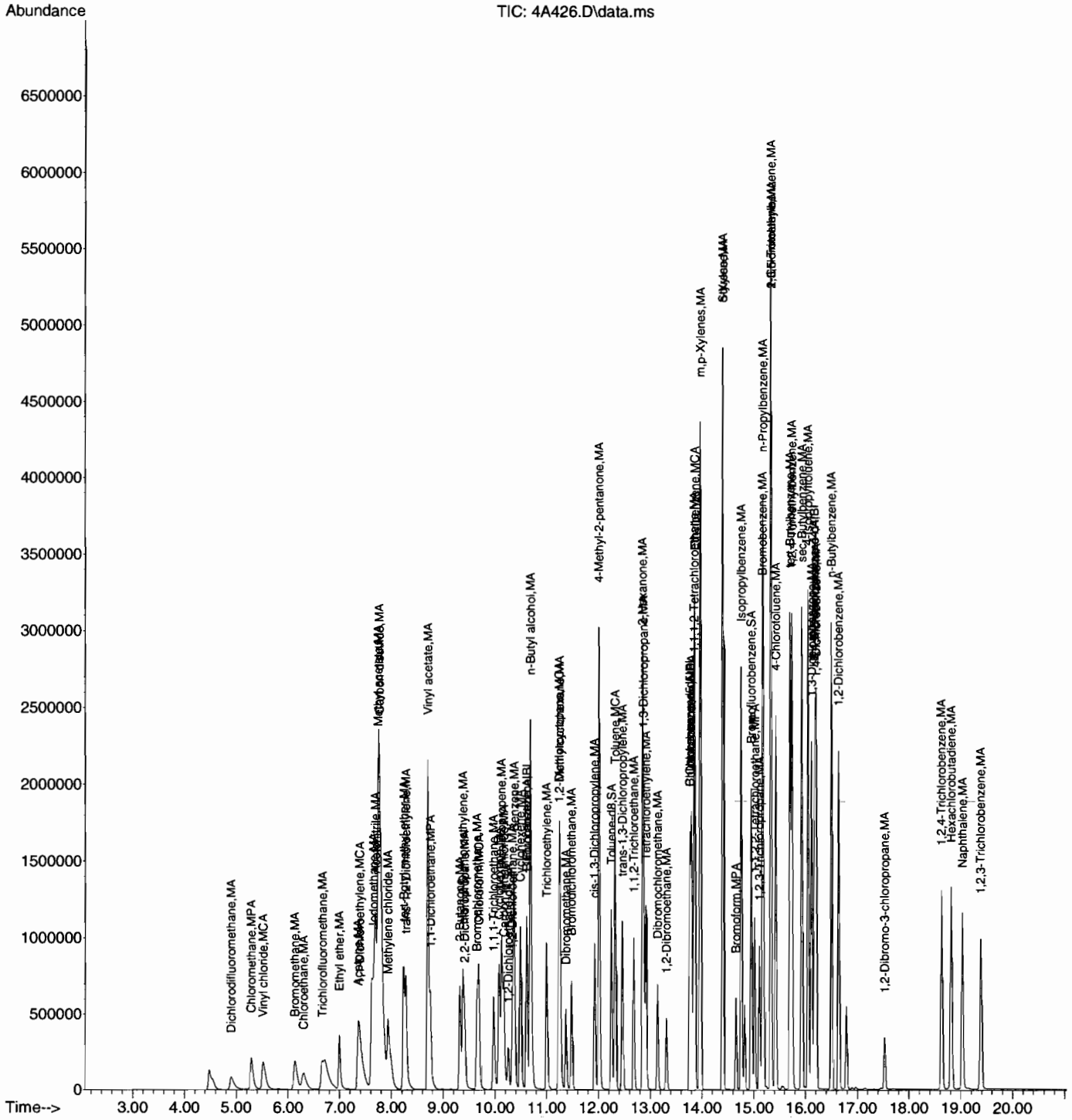

Miscellaneous

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA4

Date: 3/1/2010 Method 8260B/624 Operator: ACJ

REVIEWED BY: _____
DATE: _____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1671

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/1/2010

(See pg. 63 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot #

Sequence Number: 030110V4

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV					
IS	UVM100114-01	1	1	1	
SS	UVM091216-10	1	1	1	
LCS/MS					
BFB	UVM091216-10				1
SHORT					
DHEC					

Purge Amount	
5	Water Purge Vol:
N/A	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
1 Mar 2010 19:08	4A101.D	UVM091216-10	GEL	BFB	1UL	1	N/A	1	W	ACJ	N/A	O	
1 Mar 2010 19:35	4A102.D	120256-----	GEL	BLANK	5ML	1	N/A	2	w	ACJ	N/A	X	
1 Mar 2010 20:03	4A103.D	W4VM100301-01	GEL	ICAL	5+5UL	1	N/A	3	w	ACJ	N/A	O	UVM100126-01C+UVM100222-01A
1 Mar 2010 20:30	4A104.D	W4VM100301-02	GEL	ICAL	5+5UL	1	N/A	4	w	ACJ	N/A	O	UVM100126-02C+UVM100222-02A
1 Mar 2010 20:58	4A105.D	W4VM100301-03	GEL	ICAL	5+5UL	1	N/A	5	w	ACJ	N/A	X	UVM100126-02C+UVM100222-02A
1 Mar 2010 21:26	4A106.D	W4VM100301-04	GEL	ICAL	5+5UL	1	N/A	6	w	ACJ	N/A	O	UVM100126-03C+UVM100222-03A
1 Mar 2010 21:54	4A107.D	W4VM100301-05	GEL	ICAL	5+5UL	1	N/A	7	w	ACJ	N/A	O	UVM100126-04C+UVM100222-04A
1 Mar 2010 22:21	4A108.D	W4VM100301-06	GEL	ICAL	5+5UL	1	N/A	8	w	ACJ	N/A	O	UVM100126-05C+UVM100222-05A
1 Mar 2010 22:49	4A109.D	W4VM100301-07	GEL	ICAL	5+5UL	1	N/A	9	w	ACJ	N/A	X	UVM100126-06C+UVM100222-06A
1 Mar 2010 23:16	4A110.D	W4VM100301-08	GEL	ICAL	2.5+5UL	1	N/A	10	w	ACJ	N/A	O	UVM100126-07C+UVM100222-07A
1 Mar 2010 23:44	4A111.D	W4VM100301-09	GEL	ICAL	5+5UL	1	N/A	11	w	ACJ	N/A	O	UVM100126-08C+UVM100222-08A
2 Mar 2010 00:12	4A112.D	120256-----	GEL	BLANK	5ML	1	N/A	12	w	ACJ	N/A	X	
2 Mar 2010 00:39	4A113.D	W4VM100301-10	GEL	ICAL	5+5UL	1	N/A	13	w	ACJ	N/A	O	UVM100215-01+UVM100227-01A
2 Mar 2010 01:06	4A114.D	W4VM100301-11	GEL	ICAL	5+5UL	1	N/A	14	w	ACJ	N/A	O	UVM100215-02+UVM100227-02A
2 Mar 2010 01:34	4A115.D	W4VM100301-12	GEL	ICAL	5+5UL	1	N/A	15	w	ACJ	N/A	O	UVM100215-03+UVM100227-03A
2 Mar 2010 02:01	4A116.D	W4VM100301-13	GEL	ICAL	5+5UL	1	N/A	16	w	ACJ	N/A	O	UVM100215-04+UVM100227-04A
2 Mar 2010 02:28	4A117.D	W4VM100301-14	GEL	ICAL	5+5UL	1	N/A	17	w	ACJ	N/A	O	UVM100215-05+UVM100227-05A
2 Mar 2010 02:56	4A118.D	W4VM100301-15	GEL	ICAL	5+5UL	1	N/A	18	w	ACJ	N/A	O	UVM100215-06+UVM100227-06A
2 Mar 2010 03:23	4A119.D	W4VM100301-16	GEL	ICAL	5+5UL	1	N/A	19	w	ACJ	N/A	O	UVM100215-07+UVM100227-07A
2 Mar 2010 03:50	4A120.D	120256-----	GEL	BLANK	5ML	1	N/A	20	w	ACJ	N/A	X	
2 Mar 2010 04:18	4A121.D	W4VM100301-17	GEL	ICV	5+5UL	1	N/A	21	w	ACJ	N/A	X	UVM100126-02E+IVM100301-01
2 Mar 2010 04:45	4A122.D	W4VM100301-18	GEL	ICV	5+5UL	1	N/A	22	w	ACJ	N/A	O	UVM100220-01B+IVM100301-01
2 Mar 2010 05:13	4A123.D	W4VM100301-19	GEL	ICV	5+5UL	1	N/A	23	w	ACJ	N/A	O	UVM100215-08A+UVM100125-08E
2 Mar 2010 05:41	4A124.D	120256-----	GEL	BLANK	5ML	1	N/A	24	w	ACJ	N/A	X	
2 Mar 2010 06:08	4A125.D	W4VM100301-20	GEL	TEST	5UL	1	N/A	25	w	ACJ	N/A	X	UVM100106-07C/UVM100222-07A

GEL Laboratories, LLC
Revision:11/22/04

ORGANIC RUN LOG - INSTRUMENT ID#VOA4

Date: 3/4/2010 Method 8260B/624 Operator: ACJ

REVIEWED BY: ____
DATE: ____

HARDWARE CONFIGURATION & METHOD CONDITIONS SUMMARY No# 1

Daily Instrument Readings:
Multiplier Voltage: 1671

CALIBRATION & CC INFORMATION:

Initial Calibration Date: 3/1/2010

(See pg. 63 for ICAL Std. Sci. Ids)

NaHSO4 lot # N/A

Cl test lot # 81710

Sequence Number: 030410V4

Daily Standard Solution ID#		Volume Added for Purge (ul) Blk/ Smpl	CCV	MS/ LCS	BFB
CCV	W4VM100304-01		5+5		
IS	UVM100114-01	1	1	1	
SS	UVM091216-10	1	1	1	
LCS/MS	W4VM100304-01/02			5+5	
BFB	UVM091216-10				1
SHORT	W4VM100304-03/04		5	5	
DHEC	N/A			5	

Purge Amount	
5	Water Purge Vol:
5G	Soil Purge Wt.
N/A	Mid level ext. MeOH Vol:
N/A	ul
N/A	Methanol Lot #
x	Heated Purge

Analysis Date Time	Data File	Lab Sample ID	Client	Batch #	Wt.(g) or Vol(ml/ul)	Dil. Factor	pH	AS Slot #	Matrix w or s	Analyst	Cl test (Y/N)	Acceptable (O/X)	Comments
4 Mar 2010 10:05	4A401.D	UVM091216-10	GEL	BFB	5ML	1	N/A	1	W	ACJ	N/A	O	
4 Mar 2010 10:33	4A402.D	W4VM100304-01	GEL	CCV	5ML	1	N/A	2	W	ACJ	N/A	O	UVM100220-01C+IVM100304-01
4 Mar 2010 11:01	4A403.D	W4VM100304-02	GEL	LCS	5G	1	N/A	3	S	ACJ	N/A	O	UVM100220-01C+IVM100304-01
4 Mar 2010 11:29	4A404.D	W4VM100304-03	GEL	CCV	5ML	1	N/A	4	W	ACJ	N/A	O	UVM100215-08A
4 Mar 2010 11:57	4A405.D	W4VM100304-04	GEL	LCS	5G	1	N/A	5	S	ACJ	N/A	O	UVM100215-08A
4 Mar 2010 12:25	4A406.D	12020-----	GEL	BLANK	5G	1	N/A	6	S	ACJ	N/A	O	
4 Mar 2010 12:53	4A407.D	12020-----	GEL	BLANK	5ML	1	N/A	7	W	ACJ	N/A	O	
4 Mar 2010 13:20	4A408.D	247824002	LANL	961120	5ML	1	PH2	8	W	ACJ	N	O	
4 Mar 2010 13:48	4A409.D	247824005	LANL	961120	5ML	1	PH2	9	W	ACJ	N	O	
4 Mar 2010 14:16	4A410.D	248042001	LANL	961120	5ML	1	PH2	10	W	ACJ	N	O	
4 Mar 2010 14:43	4A411.D	248042005	LANL	961120	5ML	1	PH2	11	W	ACJ	N	O	
4 Mar 2010 15:11	4A412.D	248042006	LANL	961120	5ML	1	PH2	12	W	ACJ	N	O	
4 Mar 2010 15:38	4A413.D	248042007	LANL	961120	5ML	1	PH2	13	W	ACJ	N	O	
4 Mar 2010 16:06	4A414.D	248042009	LANL	961120	5ML	1	PH2	14	W	ACJ	N	O	
4 Mar 2010 16:34	4A415.D	248042013	LANL	961120	5ML	1	PH2	15	W	ACJ	N	O	
4 Mar 2010 17:02	4A416.D	248169001	LANL	961120	5ML	1	PH2	16	W	ACJ	N	O	
4 Mar 2010 17:30	4A417.D	248169004	LANL	961120	5ML	1	PH6	17	W	ACJ	N	O	
4 Mar 2010 17:58	4A418.D	248187001	LANL	961120	5ML	1	PH2	18	W	ACJ	N	O	
4 Mar 2010 18:25	4A419.D	248114001	LANL	961336	5G	1	N/A	19	s	ACJ	N/A	O	
4 Mar 2010 18:53	4A420.D	248114002	LANL	961336	5G	1	N/A	20	s	ACJ	N/A	O	
4 Mar 2010 19:21	4A421.D	248114003	LANL	961336	5G	1	N/A	21	s	ACJ	N/A	O	
4 Mar 2010 19:48	4A422.D	248114004	LANL	961336	5G	1	N/A	22	s	ACJ	N/A	O	
4 Mar 2010 20:16	4A423.D	248114005	LANL	961336	5G	1	N/A	23	s	ACJ	N/A	O	
4 Mar 2010 20:43	4A424.D	248114006	LANL	961336	5G	1	N/A	24	s	ACJ	N/A	O	
4 Mar 2010 21:10	4A425.D	1202061537	LANL	961120	5ML	1	PH2	25	w	ACJ	N	O	MS 248042001
4 Mar 2010 21:38	4A426.D	1202061538	LANL	961120	5ML	1	PH2	26	w	ACJ	N	O	MSD 248042001

GC/MS Semivolatile Analysis

Semi-Volatile Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2057

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3510C
Analytical Batch Number:	959294
Prep Batch Number:	959290

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
248042001	CAPA-10-12771
248042006	CAPA-10-12773
1202057395	Method Blank (MB)
1202057396	247922004(WST29-10-13281) Matrix Spike (MS)
1202057397	247922004(WST29-10-13281) Matrix Spike Duplicate (MSD)
1202057398	Laboratory Control Sample (LCS)

The samples in this batch were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

Initial calibration and continuing calibration requirements may not be satisfied for all requested target analytes analyzed according to Method 8270D. However, the method allows for a designated number of outliers dependent on the requested analyte list. Please see the Initial Calibration and/or CCV Requirements Section of the case narrative for any samples impacted by calibration failures.

When calibrations are performed for Appendix IX compounds some of the compounds may not be calibrated exactly according to the criteria in Method 8270C. If the %RSD is greater than 15% or the correlation coefficient is less than 0.99 then the analyte is quantitated using the response factor. If the analyte is detected then the sample is re-analyzed for that analyte on an instrument that is compliant with the criteria of the method.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this batch. A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this batch met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for the SDG associated samples in this batch.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 247922004 (WST29-10-13281) not associated with this SDG, was selected for analysis as the matrix spike and matrix spike duplicate. Please see the associated raw data files located in the Miscellaneous Section of the data report.

Matrix Spike (MS) Recovery Statement
The MS and MSD each failed recovery for Benzidine, Benzyl alcohol and 3,3'-Dichlorobenzidine. Please see the spike recovery report for the specific recovery values. As the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported.

Matrix Spike Duplicate (MSD) Recovery Statement
The MS and MSD each failed recovery for Benzidine, Benzyl alcohol and 3,3'-Dichlorobenzidine. Please see the spike recovery report for the specific recovery values. As the MS and MSD displayed similar recoveries, the failures were attributed to sample matrix interference and the data have been reported.

MS/MSD Relative Percent Difference (RPD) Statement
The MS/MSD RPD value for Benzyl alcohol exceeded the established acceptance limit. Please see the spike recovery report for the specific values. The failure was attributed to sample matrix interference.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this batch met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this batch did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this batch except for confirmations and/or dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for the samples reported in this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this batch.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this batch were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD8.I	HP Mass Spectrometer	HP6890/HP5973	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)

Method/Analysis Information

Procedure:	**Analysis of Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry**
Analytical Method:	SW846 8270C
Prep Method:	SW846 3510C
Analytical Batch Number:	959852
Prep Batch Number:	959838

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8270C:

Sample ID	Client ID
248042009	CAPA-10-13085
248042013	CAPA-10-13320
1202058722	Method Blank (MB)
1202058723	Laboratory Control Sample (LCS)
1202058724	248017002(CAPA-10-12917) Matrix Spike (MS)
1202058725	248017002(CAPA-10-12917) Matrix Spike Duplicate (MSD)

The samples in this batch were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-009 REV# 23.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 18.2.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package. Please note that the second level of the initial calibration (5 mg/L) is only used for n-Nitrosodipropylamine. The various calibration mixes may not be calibrated using all of the calibration levels. In addition, not all of the mixes are calibrated using the same levels.

Diphenylamine has now superseded N-Nitroso-diphenylamine as a CCC on Quantitation Reports, Initial Calibration Reports, Calibration Check Standard Reports, etc. Previous versions of EPA Method 8270 (prior to 8270C) listed N-Nitroso-diphenylamine as a CCC. However, as stated in EPA Method 8270C, Revision 3, December, 1996, Section 1.4.5, "N-Nitroso-diphenylamine decomposes in the gas chromatographic inlet and cannot be separated from Diphenylamine." Studies of these two compounds at GEL, both independent of each other and together, show that they not only co-elute, but also have similar mass spectra. N-Nitroso-diphenylamine and Diphenylamine will be reported as Diphenylamine on all reports and forms.

Initial calibration and continuing calibration requirements may not be satisfied for all requested target analytes analyzed according to Method 8270D. However, the method allows for a designated number of outliers dependent on the requested analyte list. Please see the Initial Calibration and/or CCV Requirements Section of the case narrative for any samples impacted by calibration failures.

When calibrations are performed for Appendix IX compounds some of the compounds may not be calibrated exactly according to the criteria in Method 8270C. If the %RSD is greater than 15% or the correlation coefficient is less than 0.99 then the analyte is quantitated using the response factor. If the analyte is detected then the sample is re-analyzed for that analyte on an instrument that is compliant with the criteria of the method.

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Initial Calibration
All initial calibration requirements have been met for this batch. A second source initial calibration verification (ICV) was included in the standard section directly behind the initial calibration.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this batch met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this batch.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
The non-SDG sample 248017002 (CAPA-10-12917) was selected for analysis as the matrix spike and matrix spike duplicate. Please see the associated raw data files located in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The MS(1202058724)/MSD(1202058725) RPD value for Benzidine was 50% (limit: 25.00%). As the iIndividual spike recoveries in the MS and MSD were within recovery limits and no target analytes were detected in the parent sample, the data were reported un-qualified for the RPD value failure.

Internal Standard (ISTD) Acceptance
The internal standard responses were within the required acceptance criteria for all samples and QC.

Technical Information

Holding Time Specifications
All samples in this batch met the specified holding time. GEL assigns holding times based on the associated methodology that assigns the date and time from sample collection or sample receipt. Those holding times expressed in hours are calculated in the ALPHALIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this batch did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this batch except for confirmations and/or dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for the samples reported in this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations. Please see the raw data in the Miscellaneous Section.

Additional Comments
Additional comments were not required for this batch.

Electronic Package Comment
The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

System Configuration

The samples reported in this batch were analyzed on one or more of the following instrument systems. Instrument systems are referenced in the raw data and individual form headers by the Instrument ID designations listed below:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
MSD2.I	Agilent 5975 Mass Spectrometer	HP7890A/HP5975C	DB-5MS	25m x 0.2mm, 0.33um (5% Phenylmethylpolysiloxane)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: Dan Berchem **Date:** 3-26-10

Roadmap for LANL 10-2057 SVOA

This roadmap was analyzed by ANN00964 on 03-04-2010, 18:19.
This roadmap was analyzed by nat00999 on 03-05-2010, 14:09.
This roadmap was reviewed by dan01134 on 03-08-2010, 14:21.
This roadmap was packaged by CHA01131 on 03-25-2010, 16:39.

Sample

exclude	manual	datafile	smpid	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	N	/chem/MSD8.i/s030310.b/s8c0318.d	248042001	03-MAR-2010	18:39	10-2057.sub	CAPA-10-12771	1	959294	
☐	N	/chem/MSD8.i/s030310.b/s8c0319.d	248042006	03-MAR-2010	19:09	10-2057.sub	CAPA-10-12773	1	959294	
☐	N	/chem/MSD2.i/s030310a.b/s2c0332.d	248042009	04-MAR-2010	05:12	10-2057.sub	CAPA-10-13085	1	959852	
☐	N	/chem/MSD2.i/s030310a.b/s2c0333.d	248042013	04-MAR-2010	05:32	10-2057.sub	CAPA-10-13320	1	959852	

QC Sample

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	batchid	comment
☐	Y	/chem/MSD2.i/s030310a.b/s2c0316-2.d	1202058722	mb	03-MAR-2010	23:02	10-2057.sub	SBLK02	1.00000	959852	
☐	Y	/chem/MSD2.i/s030310a.b/s2c0317-2.d	1202058723	lcs	03-MAR-2010	23:22	10-2057.sub	SBLK02LCS	1.00000	959852	
☐	Y	/chem/MSD8.i/s030310.b/s8c0310-2.d	1202057395	mb	03-MAR-2010	14:41	10-2057.sub	SBLK01	1.00000	959294	
☐	Y	/chem/MSD8.i/s030310.b/s8c0311-2.d	1202057398	lcs	03-MAR-2010	15:11	10-2057.sub	SBLK01LCS	1.00000	959294	

Sample Data Summary

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12771**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 18:39**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**900 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0318.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	11.1	ug/L	2.22	11.1
108-95-2	Phenol	U	11.1	ug/L	1.11	11.1
95-57-8	2-Chlorophenol	U	11.1	ug/L	2.22	11.1
106-46-7	1,4-Dichlorobenzene	U	11.1	ug/L	2.22	11.1
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	11.1	ug/L	2.22	11.1
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	11.1	ug/L	2.22	11.1
83-32-9	Acenaphthene	U	1.11	ug/L	0.344	1.11
121-14-2	2,4-Dinitrotoluene	U	11.1	ug/L	2.22	11.1
100-02-7	4-Nitrophenol	U	11.1	ug/L	2.22	11.1
87-86-5	Pentachlorophenol	U	11.1	ug/L	2.22	11.1
129-00-0	Pyrene	U	1.11	ug/L	0.333	1.11
110-86-1	Pyridine	U	11.1	ug/L	3.33	11.1
62-53-3	Aniline	U	11.1	ug/L	2.78	11.1
111-44-4	bis(2-Chloroethyl) ether	U	11.1	ug/L	2.22	11.1
541-73-1	1,3-Dichlorobenzene	U	11.1	ug/L	2.22	11.1
100-51-6	Benzyl alcohol	U	11.1	ug/L	2.22	11.1
95-50-1	1,2-Dichlorobenzene	U	11.1	ug/L	2.22	11.1
108-60-1	bis(2-Chloroisopropyl)ether	U	11.1	ug/L	2.22	11.1
95-48-7	o-Cresol	U	11.1	ug/L	2.22	11.1
65794-96-9	m,p-Cresols	U	11.1	ug/L	3.33	11.1
67-72-1	Hexachloroethane	U	11.1	ug/L	2.22	11.1
98-95-3	Nitrobenzene	U	11.1	ug/L	3.33	11.1
78-59-1	Isophorone	U	11.1	ug/L	3.33	11.1
88-75-5	2-Nitrophenol	U	11.1	ug/L	2.22	11.1
105-67-9	2,4-Dimethylphenol	U	11.1	ug/L	2.22	11.1
111-91-1	bis(2-Chloroethoxy)methane	U	11.1	ug/L	3.33	11.1
120-83-2	2,4-Dichlorophenol	U	11.1	ug/L	2.22	11.1
65-85-0	Benzoic acid	U	22.2	ug/L	6.67	22.2
91-20-3	Naphthalene	U	1.11	ug/L	0.333	1.11
106-47-8	4-Chloroaniline	U	11.1	ug/L	2.22	11.1
87-68-3	Hexachlorobutadiene	U	11.1	ug/L	2.22	11.1
91-57-6	2-Methylnaphthalene	U	1.11	ug/L	0.333	1.11
90-12-0	1-Methylnaphthalene	U	1.11	ug/L	0.333	1.11
77-47-4	Hexachlorocyclopentadiene	U	11.1	ug/L	3.33	11.1
88-06-2	2,4,6-Trichlorophenol	U	11.1	ug/L	2.22	11.1
95-95-4	2,4,5-Trichlorophenol	U	11.1	ug/L	2.22	11.1
91-58-7	2-Chloronaphthalene	U	1.11	ug/L	0.333	1.11

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12771**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 18:39**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**900 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0318.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	11.1	ug/L	2.22	11.1
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	11.1	ug/L	2.22	11.1
131-11-3	Dimethylphthalate	U	11.1	ug/L	2.22	11.1
606-20-2	2,6-Dinitrotoluene	U	11.1	ug/L	2.22	11.1
208-96-8	Acenaphthylene	U	1.11	ug/L	0.222	1.11
51-28-5	2,4-Dinitrophenol	U	22.2	ug/L	5.56	22.2
132-64-9	Dibenzofuran	U	11.1	ug/L	2.22	11.1
84-66-2	Diethylphthalate	U	11.1	ug/L	2.22	11.1
86-73-7	Fluorene	U	1.11	ug/L	0.222	1.11
7005-72-3	4-Chlorophenylphenylether	U	11.1	ug/L	2.22	11.1
534-52-1	2-Methyl-4,6-dinitrophenol	U	11.1	ug/L	3.33	11.1
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	11.1	ug/L	3.33	11.1
122-39-4	Diphenylamine	U	11.1	ug/L	3.33	11.1
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	11.1	ug/L	2.22	11.1
101-55-3	4-Bromophenylphenylether	U	11.1	ug/L	2.22	11.1
118-74-1	Hexachlorobenzene	U	11.1	ug/L	2.22	11.1
1912-24-9	Atrazine	U	11.1	ug/L	3.33	11.1
85-01-8	Phenanthrene	U	1.11	ug/L	0.222	1.11
120-12-7	Anthracene	U	1.11	ug/L	0.222	1.11
84-74-2	Di-n-butylphthalate	U	11.1	ug/L	2.22	11.1
206-44-0	Fluoranthene	U	1.11	ug/L	0.222	1.11
92-87-5	Benzidine	U	11.1	ug/L	3.33	11.1
85-68-7	Butylbenzylphthalate	U	11.1	ug/L	2.22	11.1
56-55-3	Benzo(a)anthracene	U	1.11	ug/L	0.222	1.11
91-94-1	3,3'-Dichlorobenzidine	U	11.1	ug/L	2.22	11.1
218-01-9	Chrysene	U	1.11	ug/L	0.222	1.11
117-81-7	bis(2-Ethylhexyl)phthalate	U	11.1	ug/L	2.22	11.1
117-84-0	Di-n-octylphthalate	U	11.1	ug/L	3.33	11.1
205-99-2	Benzo(b)fluoranthene	U	1.11	ug/L	0.222	1.11
207-08-9	Benzo(k)fluoranthene	U	1.11	ug/L	0.222	1.11
50-32-8	Benzo(a)pyrene	U	1.11	ug/L	0.222	1.11
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.11	ug/L	0.222	1.11
53-70-3	Dibenzo(a,h)anthracene	U	1.11	ug/L	0.222	1.11
191-24-2	Benzo(ghi)perylene	U	1.11	ug/L	0.222	1.11
123-91-1	1,4-Dioxane	U	11.1	ug/L	2.22	11.1
55-18-5	N-Nitrosodiethylamine	U	11.1	ug/L	2.22	11.1

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12771**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 18:39**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**900 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0318.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	11.1	ug/L	2.22	11.1
924-16-3	N-Nitrosodi-n-butylamine	U	11.1	ug/L	3.33	11.1
95-94-3	1,2,4,5-Tetrachlorobenzene	U	11.1	ug/L	3.33	11.1
608-93-5	Pentachlorobenzene	U	11.1	ug/L	3.33	11.1
58-90-2	2,3,4,6-Tetrachlorophenol	U	11.1	ug/L	2.22	11.1
88-85-7	Dinoseb	U	11.1	ug/L	2.22	11.1
120-82-1	1,2,4-Trichlorobenzene	U	11.1	ug/L	2.22	11.1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	65.1	111	ug/L	58.6	(39%-120%)
2-Fluorobiphenyl	27.8	55.6	ug/L	50.1	(38%-108%)
2-Fluorophenol	42.5	111	ug/L	38.2	(19%-98%)
Nitrobenzene-d5	27.7	55.6	ug/L	49.9	(31%-122%)
Phenol-d5	28.3	111	ug/L	25.5	(15%-83%)
p-Terphenyl-d14	46.5	55.6	ug/L	83.8	(40%-138%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042006**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12773**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 19:09**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**940 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0319.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.6	ug/L	2.13	10.6
108-95-2	Phenol	U	10.6	ug/L	1.06	10.6
95-57-8	2-Chlorophenol	U	10.6	ug/L	2.13	10.6
106-46-7	1,4-Dichlorobenzene	U	10.6	ug/L	2.13	10.6
621-64-7	N-Nitrosodi--n-propylamine	U	10.6	ug/L	2.13	10.6
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol	U	10.6	ug/L	2.13	10.6
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene	U	1.06	ug/L	0.330	1.06
121-14-2	2,4-Dinitrotoluene	U	10.6	ug/L	2.13	10.6
100-02-7	4-Nitrophenol	U	10.6	ug/L	2.13	10.6
87-86-5	Pentachlorophenol	U	10.6	ug/L	2.13	10.6
129-00-0	Pyrene	U	1.06	ug/L	0.319	1.06
110-86-1	Pyridine	U	10.6	ug/L	3.19	10.6
62-53-3	Aniline	U	10.6	ug/L	2.66	10.6
111-44-4	bis(2-Chloroethyl) ether	U	10.6	ug/L	2.13	10.6
541-73-1	1,3-Dichlorobenzene	U	10.6	ug/L	2.13	10.6
100-51-6	Benzyl alcohol	U	10.6	ug/L	2.13	10.6
95-50-1	1,2-Dichlorobenzene	U	10.6	ug/L	2.13	10.6
108-60-1	bis(2-Chloroisopropyl)ether	U	10.6	ug/L	2.13	10.6
95-48-7	o-Cresol	U	10.6	ug/L	2.13	10.6
65794-96-9	m,p-Cresols	U	10.6	ug/L	3.19	10.6
67-72-1	Hexachloroethane	U	10.6	ug/L	2.13	10.6
98-95-3	Nitrobenzene	U	10.6	ug/L	3.19	10.6
78-59-1	Isophorone	U	10.6	ug/L	3.19	10.6
88-75-5	2-Nitrophenol	U	10.6	ug/L	2.13	10.6
105-67-9	2,4-Dimethylphenol	U	10.6	ug/L	2.13	10.6
111-91-1	bis(2-Chloroethoxy)methane	U	10.6	ug/L	3.19	10.6
120-83-2	2,4-Dichlorophenol	U	10.6	ug/L	2.13	10.6
65-85-0	Benzoic acid	U	21.3	ug/L	6.38	21.3
91-20-3	Naphthalene	U	1.06	ug/L	0.319	1.06
106-47-8	4-Chloroaniline	U	10.6	ug/L	2.13	10.6
87-68-3	Hexachlorobutadiene	U	10.6	ug/L	2.13	10.6
91-57-6	2-Methylnaphthalene	U	1.06	ug/L	0.319	1.06
90-12-0	1-Methylnaphthalene	U	1.06	ug/L	0.319	1.06
77-47-4	Hexachlorocyclopentadiene	U	10.6	ug/L	3.19	10.6
88-06-2	2,4,6-Trichlorophenol	U	10.6	ug/L	2.13	10.6
95-95-4	2,4,5-Trichlorophenol	U	10.6	ug/L	2.13	10.6
91-58-7	2-Chloronaphthalene	U	1.06	ug/L	0.319	1.06

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	10-2057	**Date Collected:**	02/22/2010 12:00	**Matrix:**	GROUND WATER
Lab Sample ID:	248042006	**Date Received:**	02/25/2010 08:45		
		Client:	LANL010	**Project:**	ESHL01000
Client ID:	CAPA-10-12773	**Method:**	SW846 8270C	**SOP Ref:**	GL-OA-E-009
Batch ID:	959294	**Inst:**	MSD8.I	**Dilution:**	1
Run Date:	03/03/2010 19:09	**Analyst:**	NAG1	**Inj. Vol:**	.5 uL
Prep Date:	03/01/2010 23:33	**Aliquot:**	940 mL	**Final Volume:**	1 mL
Data File:	s8c0319.d	**Column:**	J&W DB-5MS	**Level:**	LOW

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline	U	10.6	ug/L	2.13	10.6
	o-Nitroaniline					
99-09-2	3-Nitroaniline	U	10.6	ug/L	2.13	10.6
	m-Nitroaniline					
131-11-3	Dimethylphthalate	U	10.6	ug/L	2.13	10.6
606-20-2	2,6-Dinitrotoluene	U	10.6	ug/L	2.13	10.6
208-96-8	Acenaphthylene	U	1.06	ug/L	0.213	1.06
51-28-5	2,4-Dinitrophenol	U	21.3	ug/L	5.32	21.3
132-64-9	Dibenzofuran	U	10.6	ug/L	2.13	10.6
84-66-2	Diethylphthalate	U	10.6	ug/L	2.13	10.6
86-73-7	Fluorene	U	1.06	ug/L	0.213	1.06
7005-72-3	4-Chlorophenylphenylether	U	10.6	ug/L	2.13	10.6
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.6	ug/L	3.19	10.6
100-01-6	4-Nitroaniline	U	10.6	ug/L	3.19	10.6
	p-Nitroaniline					
122-39-4	Diphenylamine	U	10.6	ug/L	3.19	10.6
122-66-7	Azobenzene	U	10.6	ug/L	2.13	10.6
	1,2-Diphenylhydrazine					
101-55-3	4-Bromophenylphenylether	U	10.6	ug/L	2.13	10.6
118-74-1	Hexachlorobenzene	U	10.6	ug/L	2.13	10.6
1912-24-9	Atrazine	U	10.6	ug/L	3.19	10.6
85-01-8	Phenanthrene	U	1.06	ug/L	0.213	1.06
120-12-7	Anthracene	U	1.06	ug/L	0.213	1.06
84-74-2	Di-n-butylphthalate	U	10.6	ug/L	2.13	10.6
206-44-0	Fluoranthene	U	1.06	ug/L	0.213	1.06
92-87-5	Benzidine	U	10.6	ug/L	3.19	10.6
85-68-7	Butylbenzylphthalate	U	10.6	ug/L	2.13	10.6
56-55-3	Benzo(a)anthracene	U	1.06	ug/L	0.213	1.06
91-94-1	3,3'-Dichlorobenzidine	U	10.6	ug/L	2.13	10.6
218-01-9	Chrysene	U	1.06	ug/L	0.213	1.06
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.6	ug/L	2.13	10.6
117-84-0	Di-n-octylphthalate	U	10.6	ug/L	3.19	10.6
205-99-2	Benzo(b)fluoranthene	U	1.06	ug/L	0.213	1.06
207-08-9	Benzo(k)fluoranthene	U	1.06	ug/L	0.213	1.06
50-32-8	Benzo(a)pyrene	U	1.06	ug/L	0.213	1.06
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.06	ug/L	0.213	1.06
53-70-3	Dibenzo(a,h)anthracene	U	1.06	ug/L	0.213	1.06
191-24-2	Benzo(ghi)perylene	U	1.06	ug/L	0.213	1.06
123-91-1	1,4-Dioxane	U	10.6	ug/L	2.13	10.6
55-18-5	N-Nitrosodiethylamine	U	10.6	ug/L	2.13	10.6

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042006**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12773**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 19:09**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**940 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0319.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.6	ug/L	2.13	10.6
924-16-3	N-Nitrosodi-n-butylamine	U	10.6	ug/L	3.19	10.6
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.6	ug/L	3.19	10.6
608-93-5	Pentachlorobenzene	U	10.6	ug/L	3.19	10.6
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.6	ug/L	2.13	10.6
88-85-7	Dinoseb	U	10.6	ug/L	2.13	10.6
120-82-1	1,2,4-Trichlorobenzene	U	10.6	ug/L	2.13	10.6

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	71.8	106	ug/L	67.5	(39%-120%)
2-Fluorobiphenyl	31.3	53.2	ug/L	58.9	(38%-108%)
2-Fluorophenol	39.3	106	ug/L	36.9	(19%-98%)
Nitrobenzene-d5	31.2	53.2	ug/L	58.7	(31%-122%)
Phenol-d5	25.4	106	ug/L	23.9	(15%-83%)
p-Terphenyl-d14	45.7	53.2	ug/L	86.0	(40%-138%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042009**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13085**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 05:12**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**800 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0332.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	12.5	ug/L	2.50	12.5
108-95-2	Phenol	U	12.5	ug/L	1.25	12.5
95-57-8	2-Chlorophenol	U	12.5	ug/L	2.50	12.5
106-46-7	1,4-Dichlorobenzene	U	12.5	ug/L	2.50	12.5
621-64-7	N-Nitrosodi--n-propylamine	U	12.5	ug/L	2.50	12.5
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol	U	12.5	ug/L	2.50	12.5
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene	U	1.25	ug/L	0.388	1.25
121-14-2	2,4-Dinitrotoluene	U	12.5	ug/L	2.50	12.5
100-02-7	4-Nitrophenol	U	12.5	ug/L	2.50	12.5
87-86-5	Pentachlorophenol	U	12.5	ug/L	2.50	12.5
129-00-0	Pyrene	U	1.25	ug/L	0.375	1.25
110-86-1	Pyridine	U	12.5	ug/L	3.75	12.5
62-53-3	Aniline	U	12.5	ug/L	3.13	12.5
111-44-4	bis(2-Chloroethyl) ether	U	12.5	ug/L	2.50	12.5
541-73-1	1,3-Dichlorobenzene	U	12.5	ug/L	2.50	12.5
100-51-6	Benzyl alcohol	U	12.5	ug/L	2.50	12.5
95-50-1	1,2-Dichlorobenzene	U	12.5	ug/L	2.50	12.5
108-60-1	bis(2-Chloroisopropyl)ether	U	12.5	ug/L	2.50	12.5
95-48-7	o-Cresol	U	12.5	ug/L	2.50	12.5
65794-96-9	m,p-Cresols	U	12.5	ug/L	3.75	12.5
67-72-1	Hexachloroethane	U	12.5	ug/L	2.50	12.5
98-95-3	Nitrobenzene	U	12.5	ug/L	3.75	12.5
78-59-1	Isophorone	U	12.5	ug/L	3.75	12.5
88-75-5	2-Nitrophenol	U	12.5	ug/L	2.50	12.5
105-67-9	2,4-Dimethylphenol	U	12.5	ug/L	2.50	12.5
111-91-1	bis(2-Chloroethoxy)methane	U	12.5	ug/L	3.75	12.5
120-83-2	2,4-Dichlorophenol	U	12.5	ug/L	2.50	12.5
65-85-0	Benzoic acid	U	25.0	ug/L	7.50	25.0
91-20-3	Naphthalene	U	1.25	ug/L	0.375	1.25
106-47-8	4-Chloroaniline	U	12.5	ug/L	2.50	12.5
87-68-3	Hexachlorobutadiene	U	12.5	ug/L	2.50	12.5
91-57-6	2-Methylnaphthalene	U	1.25	ug/L	0.375	1.25
90-12-0	1-Methylnaphthalene	U	1.25	ug/L	0.375	1.25
77-47-4	Hexachlorocyclopentadiene	U	12.5	ug/L	3.75	12.5
88-06-2	2,4,6-Trichlorophenol	U	12.5	ug/L	2.50	12.5
95-95-4	2,4,5-Trichlorophenol	U	12.5	ug/L	2.50	12.5
91-58-7	2-Chloronaphthalene	U	1.25	ug/L	0.375	1.25

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042009**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13085**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 05:12**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**800 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0332.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	12.5	ug/L	2.50	12.5
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	12.5	ug/L	2.50	12.5
131-11-3	Dimethylphthalate	U	12.5	ug/L	2.50	12.5
606-20-2	2,6-Dinitrotoluene	U	12.5	ug/L	2.50	12.5
208-96-8	Acenaphthylene	U	1.25	ug/L	0.250	1.25
51-28-5	2,4-Dinitrophenol	U	25.0	ug/L	6.25	25.0
132-64-9	Dibenzofuran	U	12.5	ug/L	2.50	12.5
84-66-2	Diethylphthalate	U	12.5	ug/L	2.50	12.5
86-73-7	Fluorene	U	1.25	ug/L	0.250	1.25
7005-72-3	4-Chlorophenylphenylether	U	12.5	ug/L	2.50	12.5
534-52-1	2-Methyl-4,6-dinitrophenol	U	12.5	ug/L	3.75	12.5
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	12.5	ug/L	3.75	12.5
122-39-4	Diphenylamine	U	12.5	ug/L	3.75	12.5
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	12.5	ug/L	2.50	12.5
101-55-3	4-Bromophenylphenylether	U	12.5	ug/L	2.50	12.5
118-74-1	Hexachlorobenzene	U	12.5	ug/L	2.50	12.5
1912-24-9	Atrazine	U	12.5	ug/L	3.75	12.5
85-01-8	Phenanthrene	U	1.25	ug/L	0.250	1.25
120-12-7	Anthracene	U	1.25	ug/L	0.250	1.25
84-74-2	Di-n-butylphthalate	U	12.5	ug/L	2.50	12.5
206-44-0	Fluoranthene	U	1.25	ug/L	0.250	1.25
92-87-5	Benzidine	U	12.5	ug/L	3.75	12.5
85-68-7	Butylbenzylphthalate	U	12.5	ug/L	2.50	12.5
56-55-3	Benzo(a)anthracene	U	1.25	ug/L	0.250	1.25
91-94-1	3,3'-Dichlorobenzidine	U	12.5	ug/L	2.50	12.5
218-01-9	Chrysene	U	1.25	ug/L	0.250	1.25
117-81-7	bis(2-Ethylhexyl)phthalate	U	12.5	ug/L	2.50	12.5
117-84-0	Di-n-octylphthalate	U	12.5	ug/L	3.75	12.5
205-99-2	Benzo(b)fluoranthene	U	1.25	ug/L	0.250	1.25
207-08-9	Benzo(k)fluoranthene	U	1.25	ug/L	0.250	1.25
50-32-8	Benzo(a)pyrene	U	1.25	ug/L	0.250	1.25
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.25	ug/L	0.250	1.25
53-70-3	Dibenzo(a,h)anthracene	U	1.25	ug/L	0.250	1.25
191-24-2	Benzo(ghi)perylene	U	1.25	ug/L	0.250	1.25
123-91-1	1,4-Dioxane	U	12.5	ug/L	2.50	12.5
55-18-5	N-Nitrosodiethylamine	U	12.5	ug/L	2.50	12.5

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042009**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13085**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 05:12**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**800 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0332.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	12.5	ug/L	2.50	12.5
924-16-3	N-Nitrosodi-n-butylamine	U	12.5	ug/L	3.75	12.5
95-94-3	1,2,4,5-Tetrachlorobenzene	U	12.5	ug/L	3.75	12.5
608-93-5	Pentachlorobenzene	U	12.5	ug/L	3.75	12.5
58-90-2	2,3,4,6-Tetrachlorophenol	U	12.5	ug/L	2.50	12.5
88-85-7	Dinoseb	U	12.5	ug/L	2.50	12.5
120-82-1	1,2,4-Trichlorobenzene	U	12.5	ug/L	2.50	12.5

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	90.8	125	ug/L	72.6	(39%-120%)
2-Fluorobiphenyl	43.0	62.5	ug/L	68.8	(38%-108%)
2-Fluorophenol	56.9	125	ug/L	45.5	(19%-98%)
Nitrobenzene-d5	45.3	62.5	ug/L	72.5	(31%-122%)
Phenol-d5	37.5	125	ug/L	30.0	(15%-83%)
p-Terphenyl-d14	66.9	62.5	ug/L	107	(40%-138%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042013**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13320**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 05:32**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**940 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0333.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.6	ug/L	2.13	10.6
108-95-2	Phenol	U	10.6	ug/L	1.06	10.6
95-57-8	2-Chlorophenol	U	10.6	ug/L	2.13	10.6
106-46-7	1,4-Dichlorobenzene	U	10.6	ug/L	2.13	10.6
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	10.6	ug/L	2.13	10.6
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	10.6	ug/L	2.13	10.6
83-32-9	Acenaphthene	U	1.06	ug/L	0.330	1.06
121-14-2	2,4-Dinitrotoluene	U	10.6	ug/L	2.13	10.6
100-02-7	4-Nitrophenol	U	10.6	ug/L	2.13	10.6
87-86-5	Pentachlorophenol	U	10.6	ug/L	2.13	10.6
129-00-0	Pyrene	U	1.06	ug/L	0.319	1.06
110-86-1	Pyridine	U	10.6	ug/L	3.19	10.6
62-53-3	Aniline	U	10.6	ug/L	2.66	10.6
111-44-4	bis(2-Chloroethyl) ether	U	10.6	ug/L	2.13	10.6
541-73-1	1,3-Dichlorobenzene	U	10.6	ug/L	2.13	10.6
100-51-6	Benzyl alcohol	U	10.6	ug/L	2.13	10.6
95-50-1	1,2-Dichlorobenzene	U	10.6	ug/L	2.13	10.6
108-60-1	bis(2-Chloroisopropyl)ether	U	10.6	ug/L	2.13	10.6
95-48-7	o-Cresol	U	10.6	ug/L	2.13	10.6
65794-96-9	m,p-Cresols	U	10.6	ug/L	3.19	10.6
67-72-1	Hexachloroethane	U	10.6	ug/L	2.13	10.6
98-95-3	Nitrobenzene	U	10.6	ug/L	3.19	10.6
78-59-1	Isophorone	U	10.6	ug/L	3.19	10.6
88-75-5	2-Nitrophenol	U	10.6	ug/L	2.13	10.6
105-67-9	2,4-Dimethylphenol	U	10.6	ug/L	2.13	10.6
111-91-1	bis(2-Chloroethoxy)methane	U	10.6	ug/L	3.19	10.6
120-83-2	2,4-Dichlorophenol	U	10.6	ug/L	2.13	10.6
65-85-0	Benzoic acid	U	21.3	ug/L	6.38	21.3
91-20-3	Naphthalene	U	1.06	ug/L	0.319	1.06
106-47-8	4-Chloroaniline	U	10.6	ug/L	2.13	10.6
87-68-3	Hexachlorobutadiene	U	10.6	ug/L	2.13	10.6
91-57-6	2-Methylnaphthalene	U	1.06	ug/L	0.319	1.06
90-12-0	1-Methylnaphthalene	U	1.06	ug/L	0.319	1.06
77-47-4	Hexachlorocyclopentadiene	U	10.6	ug/L	3.19	10.6
88-06-2	2,4,6-Trichlorophenol	U	10.6	ug/L	2.13	10.6
95-95-4	2,4,5-Trichlorophenol	U	10.6	ug/L	2.13	10.6
91-58-7	2-Chloronaphthalene	U	1.06	ug/L	0.319	1.06

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042013**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13320**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 05:32**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**940 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0333.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.6	ug/L	2.13	10.6
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.6	ug/L	2.13	10.6
131-11-3	Dimethylphthalate	U	10.6	ug/L	2.13	10.6
606-20-2	2,6-Dinitrotoluene	U	10.6	ug/L	2.13	10.6
208-96-8	Acenaphthylene	U	1.06	ug/L	0.213	1.06
51-28-5	2,4-Dinitrophenol	U	21.3	ug/L	5.32	21.3
132-64-9	Dibenzofuran	U	10.6	ug/L	2.13	10.6
84-66-2	Diethylphthalate	U	10.6	ug/L	2.13	10.6
86-73-7	Fluorene	U	1.06	ug/L	0.213	1.06
7005-72-3	4-Chlorophenylphenylether	U	10.6	ug/L	2.13	10.6
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.6	ug/L	3.19	10.6
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.6	ug/L	3.19	10.6
122-39-4	Diphenylamine	U	10.6	ug/L	3.19	10.6
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	10.6	ug/L	2.13	10.6
101-55-3	4-Bromophenylphenylether	U	10.6	ug/L	2.13	10.6
118-74-1	Hexachlorobenzene	U	10.6	ug/L	2.13	10.6
1912-24-9	Atrazine	U	10.6	ug/L	3.19	10.6
85-01-8	Phenanthrene	U	1.06	ug/L	0.213	1.06
120-12-7	Anthracene	U	1.06	ug/L	0.213	1.06
84-74-2	Di-n-butylphthalate	U	10.6	ug/L	2.13	10.6
206-44-0	Fluoranthene	U	1.06	ug/L	0.213	1.06
92-87-5	Benzidine	U	10.6	ug/L	3.19	10.6
85-68-7	Butylbenzylphthalate	U	10.6	ug/L	2.13	10.6
56-55-3	Benzo(a)anthracene	U	1.06	ug/L	0.213	1.06
91-94-1	3,3'-Dichlorobenzidine	U	10.6	ug/L	2.13	10.6
218-01-9	Chrysene	U	1.06	ug/L	0.213	1.06
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.6	ug/L	2.13	10.6
117-84-0	Di-n-octylphthalate	U	10.6	ug/L	3.19	10.6
205-99-2	Benzo(b)fluoranthene	U	1.06	ug/L	0.213	1.06
207-08-9	Benzo(k)fluoranthene	U	1.06	ug/L	0.213	1.06
50-32-8	Benzo(a)pyrene	U	1.06	ug/L	0.213	1.06
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.06	ug/L	0.213	1.06
53-70-3	Dibenzo(a,h)anthracene	U	1.06	ug/L	0.213	1.06
191-24-2	Benzo(ghi)perylene	U	1.06	ug/L	0.213	1.06
123-91-1	1,4-Dioxane	U	10.6	ug/L	2.13	10.6
55-18-5	N-Nitrosodiethylamine	U	10.6	ug/L	2.13	10.6

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042013**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13320**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 05:32**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**940 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0333.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.6	ug/L	2.13	10.6
924-16-3	N-Nitrosodi-n-butylamine	U	10.6	ug/L	3.19	10.6
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.6	ug/L	3.19	10.6
608-93-5	Pentachlorobenzene	U	10.6	ug/L	3.19	10.6
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.6	ug/L	2.13	10.6
88-85-7	Dinoseb	U	10.6	ug/L	2.13	10.6
120-82-1	1,2,4-Trichlorobenzene	U	10.6	ug/L	2.13	10.6

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	45.0	106	ug/L	42.3	(39%-120%)
2-Fluorobiphenyl	23.3	53.2	ug/L	43.8	(38%-108%)
2-Fluorophenol	29.9	106	ug/L	28.1	(19%-98%)
Nitrobenzene-d5	24.5	53.2	ug/L	46.1	(31%-122%)
Phenol-d5	18.7	106	ug/L	17.6	(15%-83%)
p-Terphenyl-d14	33.3	53.2	ug/L	62.5	(40%-138%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

QC Summary

Semi-Volatile

Surrogate Recovery Report

SDG Number: 10-2057

Matrix Type: LIQUID

CAP Column (1) : J&W DB-5MS

Sample ID	Client ID	2FP %REC	PHL %REC	NBZ %REC	FBP %REC	TBP %REC	TPH %REC
1202057395	MB for batch 959290	42	25	64	66	72	106
1202057398	LCS for batch 959290	41	24	65	65	80	87
248042001	CAPA-10-12771	38	25	50	50	59	84
248042006	CAPA-10-12773	37	24	59	59	67	86
1202058722	MB for batch 959838	43	27	77	71	74	97
1202058723	LCS for batch 959838	42	26	74	70	83	96
248042009	CAPA-10-13085	46	30	72	69	73	107
248042013	CAPA-10-13320	28	18	46	44	42	63

Surrogate			Acceptance Limits
2FP	=	2-Fluorophenol	(19%-98%)
PHL	=	Phenol-d5	(15%-83%)
NBZ	=	Nitrobenzene-d5	(31%-122%)
FBP	=	2-Fluorobiphenyl	(38%-108%)
TBP	=	2,4,6-Tribromophenol	(39%-120%)
TPH	=	p-Terphenyl-d14	(40%-138%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2057 **Sample Type:** Matrix Spike

Client ID: WST29-10-13281MS **Matrix:** W

Lab Sample ID: 1202057396

Instrument: MSD8.I **Analysis Date:** 03/03/2010 17:40 **Dilution:** 1

Analyst: NAG1 **Prep Batch ID** 959290

Inj. Vol: .5 uL **Batch ID:** 959294

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	100	0.00	U	46.0	46	28-111
108-95-2	MS	Phenol	100	0.00	U	36.5	37	20-71
95-57-8	MS	2-Chlorophenol	100	0.00	U	51.7	52	47-99
106-46-7	MS	1,4-Dichlorobenzene	100	0.00	U	54.3	54	40-83
621-64-7	MS	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	100	0.00	U	67.3	67	35-125
59-50-7	MS	Parachlorometa cresol *4-Chloro-3-methylphenol*	100	0.00	U	60.7	61	52-112
83-32-9	MS	Acenaphthene	100	0.00	U	61.8	62	44-102
121-14-2	MS	2,4-Dinitrotoluene	100	0.00	U	76.5	76	52-111
100-02-7	MS	4-Nitrophenol	100	0.00	U	45.4	45	27-91
87-86-5	MS	Pentachlorophenol	100	0.00	U	61.9	62	20-140
129-00-0	MS	Pyrene	100	0.00	U	68.9	69	28-131
110-86-1	MS	Pyridine	100	0.00	U	57.7	58	22-113
62-53-3	MS	Aniline	100	0.00	U	60.8	61	45-126
111-44-4	MS	bis(2-Chloroethyl) ether	100	0.00	U	55.1	55	32-109
541-73-1	MS	1,3-Dichlorobenzene	100	0.00	U	55.9	56	37-83
100-51-6	MS	Benzyl alcohol	100	0.00	U	7.84	8 *	37-111
95-50-1	MS	1,2-Dichlorobenzene	100	0.00	U	59.5	60	35-88
108-60-1	MS	bis(2-Chloroisopropyl)ether	100	0.00	U	49.6	50	25-122
95-48-7	MS	o-Cresol	100	0.00	U	65.2	65	29-107
65794-96-9	MS	m,p-Cresols	100	0.00	U	69.8	70	22-116
67-72-1	MS	Hexachloroethane	100	0.00	U	52.6	53	4-98
98-95-3	MS	Nitrobenzene	100	0.00	U	76.6	77	21-138

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057 **Sample Type:** Matrix Spike
Client ID: WST29-10-13281MS **Matrix:** W
Lab Sample ID: 1202057396
Instrument: MSD8.I **Analysis Date:** 03/03/2010 17:40 **Dilution:** 1
Analyst: NAG1 **Prep Batch ID** 959290
Inj. Vol: .5 uL **Batch ID:** 959294

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	100	0.00	U	71.2	71	24-136
88-75-5	MS	2-Nitrophenol	100	0.00	U	55.1	55	47-110
105-67-9	MS	2,4-Dimethylphenol	100	0.00	U	54.7	55	43-103
111-91-1	MS	bis(2-Chloroethoxy)methane	100	0.00	U	69.9	70	37-116
120-83-2	MS	2,4-Dichlorophenol	100	0.00	U	58.6	59	48-106
65-85-0	MS	Benzoic acid	200	41.2		178	68	30-100
91-20-3	MS	Naphthalene	100	0.00	U	65.3	65	32-94
106-47-8	MS	4-Chloroaniline	100	0.00	U	70.5	70	46-123
87-68-3	MS	Hexachlorobutadiene	100	0.00	U	57.7	58	18-90
91-57-6	MS	2-Methylnaphthalene	100	1.40		69.7	68	40-103
90-12-0	MS	1-Methylnaphthalene	100	1.32		69.3	68	16-113
77-47-4	MS	Hexachlorocyclopentadiene	100	0.00	U	43.6	44	10-101
88-06-2	MS	2,4,6-Trichlorophenol	100	0.00	U	54.5	55	50-111
95-95-4	MS	2,4,5-Trichlorophenol	100	0.00	U	59.7	60	52-115
91-58-7	MS	2-Chloronaphthalene	100	0.00	U	65.6	66	44-97
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	100	0.00	U	45.9	46	31-133
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	100	0.00	U	66.3	66	25-150
131-11-3	MS	Dimethylphthalate	100	0.00	U	84.5	85	49-128
606-20-2	MS	2,6-Dinitrotoluene	100	0.00	U	78.7	79	55-110
208-96-8	MS	Acenaphthylene	100	0.00	U	67.7	68	22-127
51-28-5	MS	2,4-Dinitrophenol	100	0.00	U	56.9	57	33-135
132-64-9	MS	Dibenzofuran	100	0.00	U	70.4	70	39-119

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057 **Sample Type:** Matrix Spike
Client ID: WST29-10-13281MS **Matrix:** W
Lab Sample ID: 1202057396
Instrument: MSD8.I **Analysis Date:** 03/03/2010 17:40 **Dilution:** 1
Analyst: NAG1 **Prep Batch ID** 959290
Inj. Vol: .5 uL **Batch ID:** 959294

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
84-66-2	MS	Diethylphthalate	100	0.00	U	81.1	81	50-130
86-73-7	MS	Fluorene	100	0.00	U	66.1	66	37-118
7005-72-3	MS	4-Chlorophenylphenylether	100	0.00	U	70.1	70	50-111
534-52-1	MS	2-Methyl-4,6-dinitrophenol	100	0.00	U	51.6	52	41-126
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	100	0.00	U	50.5	50	23-156
122-39-4	MS	Diphenylamine	100	0.00	U	85.3	85	26-130
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	100	0.00	U	75.7	76	48-117
101-55-3	MS	4-Bromophenylphenylether	100	0.00	U	78.8	79	48-114
118-74-1	MS	Hexachlorobenzene	100	0.00	U	77.0	77	25-134
1912-24-9	MS	Atrazine	100	0.00	U	105	105	25-136
85-01-8	MS	Phenanthrene	100	0.00	U	75.6	76	33-120
120-12-7	MS	Anthracene	100	0.00	U	72.6	73	27-131
84-74-2	MS	Di-n-butylphthalate	100	0.00	U	92.0	92	38-140
206-44-0	MS	Fluoranthene	100	0.00	U	75.7	76	46-121
92-87-5	MS	Benzidine	200	0.00	U	0.00	0 *	13-138
85-68-7	MS	Butylbenzylphthalate	100	0.00	U	92.8	93	35-149
56-55-3	MS	Benzo(a)anthracene	100	0.00	U	71.2	71	33-127
91-94-1	MS	3,3'-Dichlorobenzidine	100	0.00	U	18.0	18 *	40-111
218-01-9	MS	Chrysene	100	0.00	U	78.3	78	36-125
117-81-7	MS	bis(2-Ethylhexyl)phthalate	100	122	E	241	119	35-148
117-84-0	MS	Di-n-octylphthalate	100	0.00	U	95.9	96	27-159
205-99-2	MS	Benzo(b)fluoranthene	100	0.00	U	76.2	76	32-134

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057
Client ID: WST29-10-13281MS
Lab Sample ID: 1202057396
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: W
Analysis Date: 03/03/2010 17:40
Prep Batch ID: 959290
Batch ID: 959294
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
207-08-9	MS	Benzo(k)fluoranthene	100	0.00	U	76.3	76	33-136
50-32-8	MS	Benzo(a)pyrene	100	0.00	U	78.6	79	35-134
193-39-5	MS	Indeno(1,2,3-cd)pyrene	100	0.00	U	83.9	84	28-138
53-70-3	MS	Dibenzo(a,h)anthracene	100	0.00	U	87.8	88	28-140
191-24-2	MS	Benzo(ghi)perylene	100	0.00	U	82.4	82	24-138
123-91-1	MS	1,4-Dioxane	100	0.00	U	60.3	60	44-102
930-55-2	MS	N-Nitrosopyrrolidine	100	0.00	U	67.2	67	29-117
120-82-1	MS	1,2,4-Trichlorobenzene	100	0.00	U	60.8	61	34-88

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057
Client ID: WST29-10-13281MSD
Lab Sample ID: 1202057397
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: W
Analysis Date: 03/03/2010 18:09
Prep Batch ID: 959290
Batch ID: 959294
Dilution: 1

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD N-Methyl-N-nitrosomethylam	100	0.00	U	48.5	48	28-111	5	0-25
108-95-2	MSD Phenol	100	0.00	U	37.7	38	20-71	3	0-25
95-57-8	MSD 2-Chlorophenol	100	0.00	U	50.7	51	47-99	2	0-25
106-46-7	MSD 1,4-Dichlorobenzene	100	0.00	U	60.8	61	40-83	11	0-25
621-64-7	MSD N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	100	0.00	U	73.1	73	35-125	8	0-25
59-50-7	MSD Parachlorometa cresol *4-Chloro-3-methylphenol*	100	0.00	U	63.1	63	52-112	4	0-25
83-32-9	MSD Acenaphthene	100	0.00	U	67.8	68	44-102	9	0-25
121-14-2	MSD 2,4-Dinitrotoluene	100	0.00	U	79.3	79	52-111	4	0-25
100-02-7	MSD 4-Nitrophenol	100	0.00	U	45.6	46	27-91	1	0-25
87-86-5	MSD Pentachlorophenol	100	0.00	U	61.5	61	20-140	1	0-25
129-00-0	MSD Pyrene	100	0.00	U	71.0	71	28-131	3	0-25
110-86-1	MSD Pyridine	100	0.00	U	54.1	54	22-113	6	0-25
62-53-3	MSD Aniline	100	0.00	U	64.2	64	45-126	5	0-25
111-44-4	MSD bis(2-Chloroethyl) ether	100	0.00	U	60.0	60	32-109	8	0-25
541-73-1	MSD 1,3-Dichlorobenzene	100	0.00	U	61.5	61	37-83	10	0-25
100-51-6	MSD Benzyl alcohol	100	0.00	U	21.2	21 *	37-111	92 *	0-25
95-50-1	MSD 1,2-Dichlorobenzene	100	0.00	U	66.7	67	35-88	11	0-25
108-60-1	MSD bis(2-Chloroisopropyl)ether	100	0.00	U	54.6	55	25-122	10	0-25
95-48-7	MSD o-Cresol	100	0.00	U	70.3	70	29-107	8	0-25
65794-96-9	MSD m,p-Cresols	100	0.00	U	71.2	71	22-116	2	0-25
67-72-1	MSD Hexachloroethane	100	0.00	U	57.9	58	4-98	9	0-25
98-95-3	MSD Nitrobenzene	100	0.00	U	79.7	80	21-138	4	0-25

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057 **Sample Type:** Matrix Spike Duplicate
Client ID: WST29-10-13281MSD **Matrix:** W
Lab Sample ID: 1202057397
Instrument: MSD8.I **Analysis Date:** 03/03/2010 18:09 **Dilution:** 1
Analyst: NAG1 **Prep Batch ID** 959290
Inj. Vol: .5 uL **Batch ID:** 959294

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	100	0.00	U	75.9	76	24-136	6	0-25
88-75-5	MSD 2-Nitrophenol	100	0.00	U	51.2	51	47-110	7	0-25
105-67-9	MSD 2,4-Dimethylphenol	100	0.00	U	65.0	65	43-103	17	0-25
111-91-1	MSD bis(2-Chloroethoxy)methane	100	0.00	U	75.8	76	37-116	8	0-25
120-83-2	MSD 2,4-Dichlorophenol	100	0.00	U	55.1	55	48-106	6	0-25
65-85-0	MSD Benzoic acid	200	41.2		176	67	30-100	1	0-25
91-20-3	MSD Naphthalene	100	0.00	U	71.2	71	32-94	9	0-25
106-47-8	MSD 4-Chloroaniline	100	0.00	U	74.3	74	46-123	5	0-25
87-68-3	MSD Hexachlorobutadiene	100	0.00	U	64.2	64	18-90	11	0-25
91-57-6	MSD 2-Methylnaphthalene	100	1.40		78.8	77	40-103	12	0-25
90-12-0	MSD 1-Methylnaphthalene	100	1.32		77.4	76	16-113	11	0-25
77-47-4	MSD Hexachlorocyclopentadiene	100	0.00	U	47.4	47	10-101	8	0-25
88-06-2	MSD 2,4,6-Trichlorophenol	100	0.00	U	51.6	52	50-111	6	0-25
95-95-4	MSD 2,4,5-Trichlorophenol	100	0.00	U	53.9	54	52-115	10	0-25
91-58-7	MSD 2-Chloronaphthalene	100	0.00	U	72.6	73	44-97	10	0-25
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	100	0.00	U	44.3	44	31-133	3	0-25
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	100	0.00	U	67.0	67	25-150	1	0-25
131-11-3	MSD Dimethylphthalate	100	0.00	U	88.1	88	49-128	4	0-25
606-20-2	MSD 2,6-Dinitrotoluene	100	0.00	U	83.3	83	55-110	6	0-25
208-96-8	MSD Acenaphthylene	100	0.00	U	73.6	74	22-127	8	0-25
51-28-5	MSD 2,4-Dinitrophenol	100	0.00	U	51.9	52	33-135	9	0-25
132-64-9	MSD Dibenzofuran	100	0.00	U	75.6	76	39-119	7	0-25

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057 **Sample Type:** Matrix Spike Duplicate

Client ID: WST29-10-13281MSD **Matrix:** W

Lab Sample ID: 1202057397

Instrument: MSD8.I **Analysis Date:** 03/03/2010 18:09 **Dilution:** 1

Analyst: NAG1 **Prep Batch ID:** 959290

Inj. Vol: .5 uL **Batch ID:** 959294

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
84-66-2	MSD	Diethylphthalate	100	0.00	U	85.2	85	50-130	5	0-25
86-73-7	MSD	Fluorene	100	0.00	U	72.1	72	37-118	9	0-25
7005-72-3	MSD	4-Chlorophenylphenylether	100	0.00	U	75.8	76	50-111	8	0-25
534-52-1	MSD	2-Methyl-4,6-dinitrophenol	100	0.00	U	44.7	45	41-126	14	0-25
100-01-6	MSD	4-Nitroaniline *p-Nitroaniline*	100	0.00	U	50.5	50	23-156	0	0-25
122-39-4	MSD	Diphenylamine	100	0.00	U	89.8	90	26-130	5	0-25
122-66-7	MSD	Azobenzene *1,2-Diphenylhydrazine*	100	0.00	U	80.8	81	48-117	6	0-25
101-55-3	MSD	4-Bromophenylphenylether	100	0.00	U	84.0	84	48-114	6	0-25
118-74-1	MSD	Hexachlorobenzene	100	0.00	U	81.2	81	25-134	5	0-25
1912-24-9	MSD	Atrazine	100	0.00	U	109	109	25-136	4	0-25
85-01-8	MSD	Phenanthrene	100	0.00	U	78.9	79	33-120	4	0-25
120-12-7	MSD	Anthracene	100	0.00	U	74.8	75	27-131	3	0-25
84-74-2	MSD	Di-n-butylphthalate	100	0.00	U	96.1	96	38-140	4	0-25
206-44-0	MSD	Fluoranthene	100	0.00	U	76.6	77	46-121	1	0-25
92-87-5	MSD	Benzidine	200	0.00	U	0.00	0 *	13-138	0	0-25
85-68-7	MSD	Butylbenzylphthalate	100	0.00	U	98.0	98	35-149	5	0-25
56-55-3	MSD	Benzo(a)anthracene	100	0.00	U	72.9	73	33-127	2	0-25
91-94-1	MSD	3,3'-Dichlorobenzidine	100	0.00	U	16.1	16 *	40-111	12	0-25
218-01-9	MSD	Chrysene	100	0.00	U	79.3	79	36-125	1	0-25
117-81-7	MSD	bis(2-Ethylhexyl)phthalate	100	122	E	248	126	35-148	3	0-25
117-84-0	MSD	Di-n-octylphthalate	100	0.00	U	93.8	94	27-159	2	0-25
205-99-2	MSD	Benzo(b)fluoranthene	100	0.00	U	76.1	76	32-134	0	0-25

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057
Client ID: WST29-10-13281MSD
Lab Sample ID: 1202057397
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: W
Analysis Date: 03/03/2010 18:09
Dilution: 1
Prep Batch ID: 959290
Batch ID: 959294

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
207-08-9	MSD Benzo(k)fluoranthene	100	0.00	U	74.1	74	33-136	3	0-25
50-32-8	MSD Benzo(a)pyrene	100	0.00	U	80.1	80	35-134	2	0-25
193-39-5	MSD Indeno(1,2,3-cd)pyrene	100	0.00	U	87.4	87	28-138	4	0-25
53-70-3	MSD Dibenzo(a,h)anthracene	100	0.00	U	104	104	28-140	17	0-25
191-24-2	MSD Benzo(ghi)perylene	100	0.00	U	97.5	97	24-138	17	0-25
123-91-1	MSD 1,4-Dioxane	100	0.00	U	60.5	60	44-102	0	0-25
930-55-2	MSD N-Nitrosopyrrolidine	100	0.00	U	73.7	74	29-117	9	0-25
120-82-1	MSD 1,2,4-Trichlorobenzene	100	0.00	U	66.8	67	34-88	9	0-25

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057
Client ID: LCS for batch 959290
Lab Sample ID: 1202057398
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: WATER
Analysis Date: 03/03/2010 15:11
Dilution: 1
Prep Batch ID: 959290
Batch ID: 959294

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	50.0	0.0	20.1	40	29-86
108-95-2	LCS	Phenol	50.0	0.0	12.9	26	15-50
95-57-8	LCS	2-Chlorophenol	50.0	0.0	33.0	66	43-103
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	28.1	56	35-90
621-64-7	LCS	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	50.0	0.0	33.6	67	51-111
59-50-7	LCS	Parachlorometa cresol *4-Chloro-3-methylphenol*	50.0	0.0	32.9	66	57-105
83-32-9	LCS	Acenaphthene	50.0	0.0	30.2	60	49-99
121-14-2	LCS	2,4-Dinitrotoluene	50.0	0.0	38.9	78	49-117
100-02-7	LCS	4-Nitrophenol	50.0	0.0	11.1	22	18-60
87-86-5	LCS	Pentachlorophenol	50.0	0.0	38.7	77	32-125
129-00-0	LCS	Pyrene	50.0	0.0	34.6	69	53-114
110-86-1	LCS	Pyridine	50.0	0.0	25.8	52	18-108
62-53-3	LCS	Aniline	50.0	0.0	32.2	64	48-120
111-44-4	LCS	bis(2-Chloroethyl) ether	50.0	0.0	28.6	57	49-99
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	28.3	57	21-88
100-51-6	LCS	Benzyl alcohol	50.0	0.0	24.1	48	33-97
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	29.2	58	24-93
108-60-1	LCS	bis(2-Chloroisopropyl)ether	50.0	0.0	23.7	47	36-117
95-48-7	LCS	o-Cresol	50.0	0.0	27.2	54	32-100
65794-96-9	LCS	m,p-Cresols	50.0	0.0	27.8	56	23-110
67-72-1	LCS	Hexachloroethane	50.0	0.0	25.6	51	10-91
98-95-3	LCS	Nitrobenzene	50.0	0.0	31.7	63	47-112

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057
Client ID: LCS for batch 959290
Lab Sample ID: 1202057398
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: WATER
Analysis Date: 03/03/2010 15:11
Prep Batch ID: 959290
Batch ID: 959294
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	50.0	0.0	35.9	72	55-109
88-75-5	LCS	2-Nitrophenol	50.0	0.0	35.0	70	51-108
105-67-9	LCS	2,4-Dimethylphenol	50.0	0.0	33.2	66	37-106
111-91-1	LCS	bis(2-Chloroethoxy)methane	50.0	0.0	35.1	70	51-106
120-83-2	LCS	2,4-Dichlorophenol	50.0	0.0	35.8	72	53-102
65-85-0	LCS	Benzoic acid	100	0.0	31.7	32	10-130
91-20-3	LCS	Naphthalene	50.0	0.0	31.9	64	39-90
106-47-8	LCS	4-Chloroaniline	50.0	0.0	42.2	84	54-123
87-68-3	LCS	Hexachlorobutadiene	50.0	0.0	26.6	53	16-93
91-57-6	LCS	2-Methylnaphthalene	50.0	0.0	33.7	67	44-98
90-12-0	LCS	1-Methylnaphthalene	50.0	0.0	33.5	67	29-104
77-47-4	LCS	Hexachlorocyclopentadiene	50.0	0.0	17.5	35	10-112
88-06-2	LCS	2,4,6-Trichlorophenol	50.0	0.0	37.1	74	47-115
95-95-4	LCS	2,4,5-Trichlorophenol	50.0	0.0	34.7	69	52-113
91-58-7	LCS	2-Chloronaphthalene	50.0	0.0	30.8	62	41-104
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	50.0	0.0	31.4	63	54-118
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	50.0	0.0	39.6	79	45-143
131-11-3	LCS	Dimethylphthalate	50.0	0.0	41.9	84	62-121
606-20-2	LCS	2,6-Dinitrotoluene	50.0	0.0	39.6	79	52-115
208-96-8	LCS	Acenaphthylene	50.0	0.0	33.4	67	46-111
51-28-5	LCS	2,4-Dinitrophenol	50.0	0.0	34.1	68	30-135
132-64-9	LCS	Dibenzofuran	50.0	0.0	34.2	68	59-106

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057
Client ID: LCS for batch 959290
Lab Sample ID: 1202057398
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: WATER
Analysis Date: 03/03/2010 15:11
Dilution: 1
Prep Batch ID: 959290
Batch ID: 959294

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
84-66-2	LCS	Diethylphthalate	50.0	0.0	41.5	83	63-124
86-73-7	LCS	Fluorene	50.0	0.0	32.9	66	49-108
7005-72-3	LCS	4-Chlorophenylphenylether	50.0	0.0	34.2	68	56-107
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	50.0	0.0	33.7	67	45-126
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	50.0	0.0	42.4	85	43-146
122-39-4	LCS	Diphenylamine	50.0	0.0	43.3	87	60-111
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	50.0	0.0	37.3	75	47-122
101-55-3	LCS	4-Bromophenylphenylether	50.0	0.0	38.7	77	53-113
118-74-1	LCS	Hexachlorobenzene	50.0	0.0	38.6	77	53-111
1912-24-9	LCS	Atrazine	50.0	0.0	52.0	104	42-133
85-01-8	LCS	Phenanthrene	50.0	0.0	37.5	75	55-105
120-12-7	LCS	Anthracene	50.0	0.0	36.0	72	54-111
84-74-2	LCS	Di-n-butylphthalate	50.0	0.0	46.7	93	56-130
206-44-0	LCS	Fluoranthene	50.0	0.0	37.6	75	58-115
92-87-5	LCS	Benzidine	100	0.0	39.8	40	10-151
85-68-7	LCS	Butylbenzylphthalate	50.0	0.0	46.6	93	54-139
56-55-3	LCS	Benzo(a)anthracene	50.0	0.0	35.7	71	58-109
91-94-1	LCS	3,3'-Dichlorobenzidine	50.0	0.0	37.4	75	44-110
218-01-9	LCS	Chrysene	50.0	0.0	39.5	79	58-112
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	50.0	0.0	48.3	97	54-138
117-84-0	LCS	Di-n-octylphthalate	50.0	0.0	42.4	85	46-145
205-99-2	LCS	Benzo(b)fluoranthene	50.0	0.0	35.4	71	55-120

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057
Client ID: LCS for batch 959290
Lab Sample ID: 1202057398
Instrument: MSD8.I
Analyst: NAG1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: WATER
Analysis Date: 03/03/2010 15:11
Dilution: 1
Prep Batch ID: 959290
Batch ID: 959294

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
207-08-9	LCS	Benzo(k)fluoranthene	50.0	0.0	37.6	75	57-119
50-32-8	LCS	Benzo(a)pyrene	50.0	0.0	38.4	77	60-118
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	50.0	0.0	40.4	81	52-124
53-70-3	LCS	Dibenzo(a,h)anthracene	50.0	0.0	52.2	104	53-125
191-24-2	LCS	Benzo(ghi)perylene	50.0	0.0	48.9	98	49-125
123-91-1	LCS	1,4-Dioxane	50.0	0.0	27.3	55	27-93
930-55-2	LCS	N-Nitrosopyrrolidine	50.0	0.0	32.5	65	46-101
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	29.1	58	23-94

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057
Client ID: LCS for batch 959838
Lab Sample ID: 1202058723
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/03/2010 23:22
Prep Batch ID: 959838
Batch ID: 959852
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
62-75-9	LCS	N-Methyl-N-nitrosomethylam	50.0	0.0	21.7	43	29-86
108-95-2	LCS	Phenol	50.0	0.0	14.1	28	15-50
95-57-8	LCS	2-Chlorophenol	50.0	0.0	34.0	68	43-103
106-46-7	LCS	1,4-Dichlorobenzene	50.0	0.0	29.0	58	35-90
621-64-7	LCS	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	50.0	0.0	37.7	75	51-111
59-50-7	LCS	Parachlorometa cresol *4-Chloro-3-methylphenol*	50.0	0.0	40.1	80	57-105
83-32-9	LCS	Acenaphthene	50.0	0.0	38.1	76	49-99
121-14-2	LCS	2,4-Dinitrotoluene	50.0	0.0	39.6	79	49-117
100-02-7	LCS	4-Nitrophenol	50.0	0.0	15.6	31	18-60
87-86-5	LCS	Pentachlorophenol	50.0	0.0	40.8	82	32-125
129-00-0	LCS	Pyrene	50.0	0.0	42.8	86	53-114
110-86-1	LCS	Pyridine	50.0	0.0	27.1	54	18-108
62-53-3	LCS	Aniline	50.0	0.0	42.1	84	48-120
111-44-4	LCS	bis(2-Chloroethyl) ether	50.0	0.0	35.0	70	49-99
541-73-1	LCS	1,3-Dichlorobenzene	50.0	0.0	28.5	57	21-88
100-51-6	LCS	Benzyl alcohol	50.0	0.0	30.0	60	33-97
95-50-1	LCS	1,2-Dichlorobenzene	50.0	0.0	30.8	62	24-93
108-60-1	LCS	bis(2-Chloroisopropyl)ether	50.0	0.0	43.2	86	36-117
95-48-7	LCS	o-Cresol	50.0	0.0	32.3	65	32-100
65794-96-9	LCS	m,p-Cresols	50.0	0.0	32.2	64	23-110
67-72-1	LCS	Hexachloroethane	50.0	0.0	27.3	55	10-91
98-95-3	LCS	Nitrobenzene	50.0	0.0	37.6	75	47-112

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: **10-2057** **Sample Type:** **Laboratory Control Sample**

Client ID: **LCS for batch 959838** **Matrix:** **GROUND WATER**

Lab Sample ID: **1202058723**

Instrument: **MSD2.I** **Analysis Date:** **03/03/2010 23:22** **Dilution: 1**

Analyst: **AGS1** **Prep Batch ID** **959838**

Inj. Vol: **.5 uL** **Batch ID:** **959852**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
78-59-1	LCS	Isophorone	50.0	0.0	38.5	77	55-109
88-75-5	LCS	2-Nitrophenol	50.0	0.0	35.9	72	51-108
105-67-9	LCS	2,4-Dimethylphenol	50.0	0.0	34.5	69	37-106
111-91-1	LCS	bis(2-Chloroethoxy)methane	50.0	0.0	35.5	71	51-106
120-83-2	LCS	2,4-Dichlorophenol	50.0	0.0	36.9	74	53-102
65-85-0	LCS	Benzoic acid	100	0.0	23.7	24	10-130
91-20-3	LCS	Naphthalene	50.0	0.0	31.9	64	39-90
106-47-8	LCS	4-Chloroaniline	50.0	0.0	40.5	81	54-123
87-68-3	LCS	Hexachlorobutadiene	50.0	0.0	28.9	58	16-93
91-57-6	LCS	2-Methylnaphthalene	50.0	0.0	32.4	65	44-98
90-12-0	LCS	1-Methylnaphthalene	50.0	0.0	32.2	64	29-104
77-47-4	LCS	Hexachlorocyclopentadiene	50.0	0.0	24.9	50	10-112
88-06-2	LCS	2,4,6-Trichlorophenol	50.0	0.0	41.4	83	47-115
95-95-4	LCS	2,4,5-Trichlorophenol	50.0	0.0	37.5	75	52-113
91-58-7	LCS	2-Chloronaphthalene	50.0	0.0	33.1	66	41-104
88-74-4	LCS	2-Nitroaniline *o-Nitroaniline*	50.0	0.0	40.4	81	54-118
99-09-2	LCS	3-Nitroaniline *m-Nitroaniline*	50.0	0.0	41.3	83	45-143
131-11-3	LCS	Dimethylphthalate	50.0	0.0	42.9	86	62-121
606-20-2	LCS	2,6-Dinitrotoluene	50.0	0.0	40.3	81	52-115
208-96-8	LCS	Acenaphthylene	50.0	0.0	37.3	75	46-111
51-28-5	LCS	2,4-Dinitrophenol	50.0	0.0	43.0	86	30-135
132-64-9	LCS	Dibenzofuran	50.0	0.0	37.4	75	59-106

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057
Client ID: LCS for batch 959838
Lab Sample ID: 1202058723
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/03/2010 23:22
Dilution: 1
Prep Batch ID 959838
Batch ID: 959852

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
84-66-2	LCS	Diethylphthalate	50.0	0.0	45.8	92	63-124
86-73-7	LCS	Fluorene	50.0	0.0	39.2	78	49-108
7005-72-3	LCS	4-Chlorophenylphenylether	50.0	0.0	37.8	76	56-107
534-52-1	LCS	2-Methyl-4,6-dinitrophenol	50.0	0.0	44.5	89	45-126
100-01-6	LCS	4-Nitroaniline *p-Nitroaniline*	50.0	0.0	40.1	80	43-146
122-39-4	LCS	Diphenylamine	50.0	0.0	45.4	91	60-111
122-66-7	LCS	Azobenzene *1,2-Diphenylhydrazine*	50.0	0.0	44.7	89	47-122
101-55-3	LCS	4-Bromophenylphenylether	50.0	0.0	38.4	77	53-113
118-74-1	LCS	Hexachlorobenzene	50.0	0.0	38.9	78	53-111
1912-24-9	LCS	Atrazine	50.0	0.0	44.5	89	42-133
85-01-8	LCS	Phenanthrene	50.0	0.0	38.9	78	55-105
120-12-7	LCS	Anthracene	50.0	0.0	41.3	83	54-111
84-74-2	LCS	Di-n-butylphthalate	50.0	0.0	48.0	96	56-130
206-44-0	LCS	Fluoranthene	50.0	0.0	41.2	82	58-115
92-87-5	LCS	Benzidine	100	0.0	41.9	42	10-151
85-68-7	LCS	Butylbenzylphthalate	50.0	0.0	54.9	110	54-139
56-55-3	LCS	Benzo(a)anthracene	50.0	0.0	39.5	79	58-109
91-94-1	LCS	3,3'-Dichlorobenzidine	50.0	0.0	41.0	82	44-110
218-01-9	LCS	Chrysene	50.0	0.0	39.9	80	58-112
117-81-7	LCS	bis(2-Ethylhexyl)phthalate	50.0	0.0	50.5	101	54-138
117-84-0	LCS	Di-n-octylphthalate	50.0	0.0	56.2	112	46-145
205-99-2	LCS	Benzo(b)fluoranthene	50.0	0.0	42.1	84	55-120

Semi-Volatile

Quality Control Summary

Spike Recovery Report

SDG Number: 10-2057 **Sample Type:** Laboratory Control Sample

Client ID: LCS for batch 959838 **Matrix:** GROUND WATER

Lab Sample ID: 1202058723

Instrument: MSD2.I **Analysis Date:** 03/03/2010 23:22 **Dilution:** 1

Analyst: AGS1 **Prep Batch ID** 959838

Inj. Vol: .5 uL **Batch ID:** 959852

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
207-08-9	LCS	Benzo(k)fluoranthene	50.0	0.0	41.8	84	57-119
50-32-8	LCS	Benzo(a)pyrene	50.0	0.0	40.7	81	60-118
193-39-5	LCS	Indeno(1,2,3-cd)pyrene	50.0	0.0	36.6	73	52-124
53-70-3	LCS	Dibenzo(a,h)anthracene	50.0	0.0	36.6	73	53-125
191-24-2	LCS	Benzo(ghi)perylene	50.0	0.0	35.1	70	49-125
123-91-1	LCS	1,4-Dioxane	50.0	0.0	28.4	57	27-93
930-55-2	LCS	N-Nitrosopyrrolidine	50.0	0.0	35.5	71	46-101
120-82-1	LCS	1,2,4-Trichlorobenzene	50.0	0.0	29.7	59	23-94

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057
Client ID: CAPA-10-12917MS
Lab Sample ID: 1202058724
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 03/04/2010 03:54
Prep Batch ID: 959838
Batch ID: 959852
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
62-75-9	MS	N-Methyl-N-nitrosomethylam	100	0.00	U	60.5	61	28-111
108-95-2	MS	Phenol	100	0.00	U	47.8	48	20-71
95-57-8	MS	2-Chlorophenol	100	0.00	U	76.5	77	47-99
106-46-7	MS	1,4-Dichlorobenzene	100	0.00	U	67.1	67	40-83
621-64-7	MS	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	100	0.00	U	81.2	81	35-125
59-50-7	MS	Parachlorometa cresol *4-Chloro-3-methylphenol*	100	0.00	U	83.3	83	52-112
83-32-9	MS	Acenaphthene	100	0.00	U	80.8	81	44-102
121-14-2	MS	2,4-Dinitrotoluene	100	0.00	U	82.6	83	52-111
100-02-7	MS	4-Nitrophenol	100	0.00	U	51.2	51	27-91
87-86-5	MS	Pentachlorophenol	100	0.00	U	85.3	85	20-140
129-00-0	MS	Pyrene	100	0.00	U	90.4	90	28-131
110-86-1	MS	Pyridine	100	0.00	U	70.1	70	22-113
62-53-3	MS	Aniline	100	0.00	U	92.5	92	45-126
111-44-4	MS	bis(2-Chloroethyl) ether	100	0.00	U	75.7	76	32-109
541-73-1	MS	1,3-Dichlorobenzene	100	0.00	U	65.3	65	37-83
100-51-6	MS	Benzyl alcohol	100	0.00	U	67.0	67	37-111
95-50-1	MS	1,2-Dichlorobenzene	100	0.00	U	71.0	71	35-88
108-60-1	MS	bis(2-Chloroisopropyl)ether	100	0.00	U	93.6	94	25-122
95-48-7	MS	o-Cresol	100	0.00	U	75.9	76	29-107
65794-96-9	MS	m,p-Cresols	100	0.00	U	78.6	79	22-116
67-72-1	MS	Hexachloroethane	100	0.00	U	64.3	64	4-98
98-95-3	MS	Nitrobenzene	100	0.00	U	80.7	81	21-138

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057
Client ID: CAPA-10-12917MS
Lab Sample ID: 1202058724
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 03/04/2010 03:54
Prep Batch ID: 959838
Batch ID: 959852
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
78-59-1	MS	Isophorone	100	0.00	U	80.3	80	24-136
88-75-5	MS	2-Nitrophenol	100	0.00	U	77.9	78	47-110
105-67-9	MS	2,4-Dimethylphenol	100	0.00	U	73.2	73	43-103
111-91-1	MS	bis(2-Chloroethoxy)methane	100	0.00	U	74.7	75	37-116
120-83-2	MS	2,4-Dichlorophenol	100	0.00	U	79.3	79	48-106
65-85-0	MS	Benzoic acid	200	0.00	U	101	50	30-100
91-20-3	MS	Naphthalene	100	0.00	U	70.6	71	32-94
106-47-8	MS	4-Chloroaniline	100	0.00	U	85.0	85	46-123
87-68-3	MS	Hexachlorobutadiene	100	0.00	U	66.9	67	18-90
91-57-6	MS	2-Methylnaphthalene	100	0.00	U	71.2	71	40-103
90-12-0	MS	1-Methylnaphthalene	100	0.00	U	69.4	69	16-113
77-47-4	MS	Hexachlorocyclopentadiene	100	0.00	U	54.3	54	10-101
88-06-2	MS	2,4,6-Trichlorophenol	100	0.00	U	85.3	85	50-111
95-95-4	MS	2,4,5-Trichlorophenol	100	0.00	U	80.1	80	52-115
91-58-7	MS	2-Chloronaphthalene	100	0.00	U	72.3	72	44-97
88-74-4	MS	2-Nitroaniline *o-Nitroaniline*	100	0.00	U	85.1	85	31-133
99-09-2	MS	3-Nitroaniline *m-Nitroaniline*	100	0.00	U	85.7	86	25-150
131-11-3	MS	Dimethylphthalate	100	0.00	U	87.3	87	49-128
606-20-2	MS	2,6-Dinitrotoluene	100	0.00	U	81.7	82	55-110
208-96-8	MS	Acenaphthylene	100	0.00	U	79.2	79	22-127
51-28-5	MS	2,4-Dinitrophenol	100	0.00	U	95.2	95	33-135
132-64-9	MS	Dibenzofuran	100	0.00	U	78.6	79	39-119

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057 **Sample Type:** Matrix Spike
Client ID: CAPA-10-12917MS **Matrix:** GROUND WATER
Lab Sample ID: 1202058724
Instrument: MSD2.I **Analysis Date:** 03/04/2010 03:54 **Dilution:** 1
Analyst: AGS1 **Prep Batch ID** 959838
Inj. Vol: .5 uL **Batch ID:** 959852

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
84-66-2	MS	Diethylphthalate	100	0.00	U	90.3	90	50-130
86-73-7	MS	Fluorene	100	0.00	U	81.4	81	37-118
7005-72-3	MS	4-Chlorophenylphenylether	100	0.00	U	80.0	80	50-111
534-52-1	MS	2-Methyl-4,6-dinitrophenol	100	0.00	U	93.1	93	41-126
100-01-6	MS	4-Nitroaniline *p-Nitroaniline*	100	0.00	U	94.1	94	23-156
122-39-4	MS	Diphenylamine	100	0.00	U	93.7	94	26-130
122-66-7	MS	Azobenzene *1,2-Diphenylhydrazine*	100	0.00	U	92.0	92	48-117
101-55-3	MS	4-Bromophenylphenylether	100	0.00	U	81.8	82	48-114
118-74-1	MS	Hexachlorobenzene	100	0.00	U	81.9	82	25-134
1912-24-9	MS	Atrazine	100	0.00	U	86.3	86	25-136
85-01-8	MS	Phenanthrene	100	0.00	U	80.2	80	33-120
120-12-7	MS	Anthracene	100	0.00	U	85.8	86	27-131
84-74-2	MS	Di-n-butylphthalate	100	0.00	U	92.6	93	38-140
206-44-0	MS	Fluoranthene	100	0.00	U	81.7	82	46-121
92-87-5	MS	Benzidine	200	0.00	U	114	57	13-138
85-68-7	MS	Butylbenzylphthalate	100	0.00	U	110	110	35-149
56-55-3	MS	Benzo(a)anthracene	100	0.00	U	82.2	82	33-127
91-94-1	MS	3,3'-Dichlorobenzidine	100	0.00	U	84.7	85	40-111
218-01-9	MS	Chrysene	100	0.00	U	80.1	80	36-125
117-81-7	MS	bis(2-Ethylhexyl)phthalate	100	0.00	U	98.0	98	35-148
117-84-0	MS	Di-n-octylphthalate	100	0.00	U	110	110	27-159
205-99-2	MS	Benzo(b)fluoranthene	100	0.00	U	90.6	91	32-134

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057
Client ID: CAPA-10-12917MS
Lab Sample ID: 1202058724
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 03/04/2010 03:54
Prep Batch ID: 959838
Batch ID: 959852
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
207-08-9	MS	Benzo(k)fluoranthene	100	0.00	U	83.1	83	33-136
50-32-8	MS	Benzo(a)pyrene	100	0.00	U	83.6	84	35-134
193-39-5	MS	Indeno(1,2,3-cd)pyrene	100	0.00	U	78.8	79	28-138
53-70-3	MS	Dibenzo(a,h)anthracene	100	0.00	U	80.2	80	28-140
191-24-2	MS	Benzo(ghi)perylene	100	0.00	U	75.4	75	24-138
123-91-1	MS	1,4-Dioxane	100	0.00	U	79.2	79	44-102
930-55-2	MS	N-Nitrosopyrrolidine	100	0.00	U	78.5	79	29-117
120-82-1	MS	1,2,4-Trichlorobenzene	100	0.00	U	67.3	67	34-88

Semi-Volatile
Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057
Client ID: CAPA-10-12917MSD
Lab Sample ID: 1202058725
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 03/04/2010 04:13
Dilution: 1
Prep Batch ID: 959838
Batch ID: 959852

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
62-75-9	MSD N-Methyl-N-nitrosomethylam	100	0.00	U	61.6	62	28-111	2	0-25
108-95-2	MSD Phenol	100	0.00	U	49.9	50	20-71	4	0-25
95-57-8	MSD 2-Chlorophenol	100	0.00	U	78.7	79	47-99	3	0-25
106-46-7	MSD 1,4-Dichlorobenzene	100	0.00	U	68.7	69	40-83	2	0-25
621-64-7	MSD N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	100	0.00	U	85.6	86	35-125	5	0-25
59-50-7	MSD Parachlorometa cresol *4-Chloro-3-methylphenol*	100	0.00	U	87.5	87	52-112	5	0-25
83-32-9	MSD Acenaphthene	100	0.00	U	85.8	86	44-102	6	0-25
121-14-2	MSD 2,4-Dinitrotoluene	100	0.00	U	87.1	87	52-111	5	0-25
100-02-7	MSD 4-Nitrophenol	100	0.00	U	56.5	56	27-91	10	0-25
87-86-5	MSD Pentachlorophenol	100	0.00	U	89.6	90	20-140	5	0-25
129-00-0	MSD Pyrene	100	0.00	U	87.0	87	28-131	4	0-25
110-86-1	MSD Pyridine	100	0.00	U	64.1	64	22-113	9	0-25
62-53-3	MSD Aniline	100	0.00	U	87.2	87	45-126	6	0-25
111-44-4	MSD bis(2-Chloroethyl) ether	100	0.00	U	77.5	77	32-109	2	0-25
541-73-1	MSD 1,3-Dichlorobenzene	100	0.00	U	67.6	68	37-83	3	0-25
100-51-6	MSD Benzyl alcohol	100	0.00	U	69.1	69	37-111	3	0-25
95-50-1	MSD 1,2-Dichlorobenzene	100	0.00	U	72.5	73	35-88	2	0-25
108-60-1	MSD bis(2-Chloroisopropyl)ether	100	0.00	U	97.0	97	25-122	4	0-25
95-48-7	MSD o-Cresol	100	0.00	U	78.2	78	29-107	3	0-25
65794-96-9	MSD m,p-Cresols	100	0.00	U	82.8	83	22-116	5	0-25
67-72-1	MSD Hexachloroethane	100	0.00	U	64.0	64	4-98	0	0-25
98-95-3	MSD Nitrobenzene	100	0.00	U	83.9	84	21-138	4	0-25

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057 **Sample Type:** Matrix Spike Duplicate

Client ID: CAPA-10-12917MSD **Matrix:** GROUND WATER

Lab Sample ID: 1202058725

Instrument: MSD2.I **Analysis Date:** 03/04/2010 04:13 **Dilution:** 1

Analyst: AGS1 **Prep Batch ID** 959838

Inj. Vol: .5 uL **Batch ID:** 959852

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
78-59-1	MSD Isophorone	100	0.00	U	83.6	84	24-136	4	0-25
88-75-5	MSD 2-Nitrophenol	100	0.00	U	81.7	82	47-110	5	0-25
105-67-9	MSD 2,4-Dimethylphenol	100	0.00	U	77.2	77	43-103	5	0-25
111-91-1	MSD bis(2-Chloroethoxy)methane	100	0.00	U	78.7	79	37-116	5	0-25
120-83-2	MSD 2,4-Dichlorophenol	100	0.00	U	82.1	82	48-106	3	0-25
65-85-0	MSD Benzoic acid	200	0.00	U	115	57	30-100	13	0-25
91-20-3	MSD Naphthalene	100	0.00	U	74.1	74	32-94	5	0-25
106-47-8	MSD 4-Chloroaniline	100	0.00	U	83.1	83	46-123	2	0-25
87-68-3	MSD Hexachlorobutadiene	100	0.00	U	66.8	67	18-90	0	0-25
91-57-6	MSD 2-Methylnaphthalene	100	0.00	U	75.7	76	40-103	6	0-25
90-12-0	MSD 1-Methylnaphthalene	100	0.00	U	73.4	73	16-113	6	0-25
77-47-4	MSD Hexachlorocyclopentadiene	100	0.00	U	58.7	59	10-101	8	0-25
88-06-2	MSD 2,4,6-Trichlorophenol	100	0.00	U	88.1	88	50-111	3	0-25
95-95-4	MSD 2,4,5-Trichlorophenol	100	0.00	U	85.2	85	52-115	6	0-25
91-58-7	MSD 2-Chloronaphthalene	100	0.00	U	76.6	77	44-97	6	0-25
88-74-4	MSD 2-Nitroaniline *o-Nitroaniline*	100	0.00	U	88.4	88	31-133	4	0-25
99-09-2	MSD 3-Nitroaniline *m-Nitroaniline*	100	0.00	U	89.6	90	25-150	4	0-25
131-11-3	MSD Dimethylphthalate	100	0.00	U	91.1	91	49-128	4	0-25
606-20-2	MSD 2,6-Dinitrotoluene	100	0.00	U	86.4	86	55-110	6	0-25
208-96-8	MSD Acenaphthylene	100	0.00	U	83.7	84	22-127	6	0-25
51-28-5	MSD 2,4-Dinitrophenol	100	0.00	U	108	108	33-135	12	0-25
132-64-9	MSD Dibenzofuran	100	0.00	U	83.8	84	39-119	6	0-25

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057
Client ID: CAPA-10-12917MSD
Lab Sample ID: 1202058725
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 03/04/2010 04:13
Dilution: 1
Prep Batch ID: 959838
Batch ID: 959852

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
84-66-2	MSD Diethylphthalate	100	0.00	U	94.1	94	50-130	4	0-25
86-73-7	MSD Fluorene	100	0.00	U	85.5	85	37-118	5	0-25
7005-72-3	MSD 4-Chlorophenylphenylether	100	0.00	U	85.6	86	50-111	7	0-25
534-52-1	MSD 2-Methyl-4,6-dinitrophenol	100	0.00	U	104	104	41-126	11	0-25
100-01-6	MSD 4-Nitroaniline *p-Nitroaniline*	100	0.00	U	95.8	96	23-156	2	0-25
122-39-4	MSD Diphenylamine	100	0.00	U	96.0	96	26-130	2	0-25
122-66-7	MSD Azobenzene *1,2-Diphenylhydrazine*	100	0.00	U	94.0	94	48-117	2	0-25
101-55-3	MSD 4-Bromophenylphenylether	100	0.00	U	84.1	84	48-114	3	0-25
118-74-1	MSD Hexachlorobenzene	100	0.00	U	84.4	84	25-134	3	0-25
1912-24-9	MSD Atrazine	100	0.00	U	88.7	89	25-136	3	0-25
85-01-8	MSD Phenanthrene	100	0.00	U	82.0	82	33-120	2	0-25
120-12-7	MSD Anthracene	100	0.00	U	87.6	88	27-131	2	0-25
84-74-2	MSD Di-n-butylphthalate	100	0.00	U	95.6	96	38-140	3	0-25
206-44-0	MSD Fluoranthene	100	0.00	U	85.5	86	46-121	5	0-25
92-87-5	MSD Benzidine	200	0.00	U	68.9	34	13-138	50 *	0-25
85-68-7	MSD Butylbenzylphthalate	100	0.00	U	108	108	35-149	1	0-25
56-55-3	MSD Benzo(a)anthracene	100	0.00	U	77.9	78	33-127	5	0-25
91-94-1	MSD 3,3'-Dichlorobenzidine	100	0.00	U	90.0	90	40-111	6	0-25
218-01-9	MSD Chrysene	100	0.00	U	85.8	86	36-125	7	0-25
117-81-7	MSD bis(2-Ethylhexyl)phthalate	100	0.00	U	99.2	99	35-148	1	0-25
117-84-0	MSD Di-n-octylphthalate	100	0.00	U	110	110	27-159	0	0-25
205-99-2	MSD Benzo(b)fluoranthene	100	0.00	U	92.2	92	32-134	2	0-25

Semi-Volatile

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057
Client ID: CAPA-10-12917MSD
Lab Sample ID: 1202058725
Instrument: MSD2.I
Analyst: AGS1
Inj. Vol: .5 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 03/04/2010 04:13
Dilution: 1
Prep Batch ID: 959838
Batch ID: 959852

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
207-08-9	MSD	Benzo(k)fluoranthene	100	0.00	U	81.8	82	33-136	2	0-25
50-32-8	MSD	Benzo(a)pyrene	100	0.00	U	85.3	85	35-134	2	0-25
193-39-5	MSD	Indeno(1,2,3-cd)pyrene	100	0.00	U	82.1	82	28-138	4	0-25
53-70-3	MSD	Dibenzo(a,h)anthracene	100	0.00	U	82.9	83	28-140	3	0-25
191-24-2	MSD	Benzo(ghi)perylene	100	0.00	U	78.4	78	24-138	4	0-25
123-91-1	MSD	1,4-Dioxane	100	0.00	U	77.5	78	44-102	2	0-25
930-55-2	MSD	N-Nitrosopyrrolidine	100	0.00	U	83.6	84	29-117	6	0-25
120-82-1	MSD	1,2,4-Trichlorobenzene	100	0.00	U	69.7	70	34-88	4	0-25

Method Blank Summary

SDG Number:	10-2057	**Client:**	LANL010	**Matrix:**	WATER
Client ID:	MB for batch 959290	**Instrument ID:**	MSD8.I	**Data File:**	s8c0310-1.d
Lab Sample ID:	1202057395	**Prep Date:**	03/01/2010 23:33	**Analyzed:**	03/03/10 14:41
Column:	J&W DB-5MS	**Level:**	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 959290	1202057398	s8c0311-1.d	03/03/10	1511
04 CAPA-10-12771	248042001	s8c0318.d	03/03/10	1839
05 CAPA-10-12773	248042006	s8c0319.d	03/03/10	1909

Method Blank Summary

SDG Number:	10-2057	Client:	LANL010	Matrix:	GROUND WATER
Client ID:	MB for batch 959838	Instrument ID:	MSD2.I	Data File:	s2c0316-1.d
Lab Sample ID:	1202058722	Prep Date:	03/02/2010 17:51	Analyzed:	03/03/10 23:02
Column:	J&W DB-5MS	Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 959838	1202058723	s2c0317-1.d	03/03/10	2322
04 CAPA-10-13085	248042009	s2c0332.d	03/04/10	0512
05 CAPA-10-13320	248042013	s2c0333.d	03/04/10	0532

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2057

Instrument ID: MSD2.I **Injection Date/Time:** 03-MAR-10 19:28

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD2.i/s030310a.b/s2c0307.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	47.1
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	43.1
70	Less than 2% of mass 69	0.4
127	40 - 60% of mass 198	52.6
197	0 - 1% of mass 198	0.6
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	22.5
365	Greater than 1% of mass 198	2.8
441	Present, but less than mass 443	69.4
442	Greater than 40% of mass 198	86.3
443	17 - 23% of mass 442	21.4

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100225-09.4	s2c0308.d	03-MAR-10 19:41
APCVS	WBN100218-08.1	s2c0310.d	03-MAR-10 20:35
SBLK02	1202058722	s2c0316-1.d	03-MAR-10 23:02
SBLK02LCS	1202058723	s2c0317-1.d	03-MAR-10 23:22
CAPA-10-13085	248042009	s2c0332.d	04-MAR-10 05:12
CAPA-10-13320	248042013	s2c0333.d	04-MAR-10 05:32

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2057

Instrument ID: MSD2.I **Injection Date/Time:** 25-FEB-10 18:56

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD2.i/s022510a.b/s2b2510.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	55
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	53.7
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	57.4
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	22.2
365	Greater than 1% of mass 198	2.8
441	Present, but less than mass 443	68.8
442	Greater than 40% of mass 198	81.7
443	17 - 23% of mass 442	21.8

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
AP010	WBN100218-01	s2b2522.d	25-FEB-10 23:33
AP020	WBN100218-02	s2b2523.d	25-FEB-10 23:52
AP040	WBN100218-03.1	s2b2524.d	26-FEB-10 00:12
AP050	WBN100218-04	s2b2525.d	26-FEB-10 00:32
AP080	WBN100218-05	s2b2526.d	26-FEB-10 00:51
AP100	WBN100218-06	s2b2527.d	26-FEB-10 01:11
AP120	WBN100218-07	s2b2528.d	26-FEB-10 01:31
APICV	WBN100218-08.1	s2b2537.d	26-FEB-10 04:31

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2057

Instrument ID: MSD2.I **Injection Date/Time:** 26-FEB-10 14:01

Column Description: J&W DB-5MS **Lab File ID** /chem/MSD2.i/s022510a.b/s2b2539.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	51.5
68	Less than 2% of mass 69	1.6
69	Mass 69 Relative Abundance	50.4
70	Less than 2% of mass 69	0.5
127	40 - 60% of mass 198	54
197	0 - 1% of mass 198	0.2
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	22.6
365	Greater than 1% of mass 198	3
441	Present, but less than mass 443	69.3
442	Greater than 40% of mass 198	88
443	17 - 23% of mass 442	21.5

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGA001	WBN100225-08	s2b2541.d	26-FEB-10 14:34
MEGA010	WBN100225-07	s2b2542.d	26-FEB-10 14:58
MEGA020	WBN100225-06	s2b2543.d	26-FEB-10 15:23
MEGA040	WBN100225-05.1	s2b2544.d	26-FEB-10 15:48
MEGA050	WBN100225-04	s2b2545.d	26-FEB-10 16:13
MEGA080	WBN100225-03	s2b2550.d	26-FEB-10 18:12
MEGA100	WBN100225-02	s2b2551.d	26-FEB-10 18:36
MEGA120	WBN100225-01	s2b2552.d	26-FEB-10 19:01
MEGAICV	WBN100225-09.1	s2b2554.d	26-FEB-10 19:46

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2057

Instrument ID: MSD8.I **Injection Date/Time:** 03-MAR-10 13:25

Column Description: J & W DB-5MS **Lab File ID** /chem/MSD8.i/s030310.b/s8c0307.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	34.6
68	Less than 2% of mass 69	1.3
69	Mass 69 Relative Abundance	39
70	Less than 2% of mass 69	0.4
127	40 - 60% of mass 198	50.2
197	0 - 1% of mass 198	0.3
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	26.9
365	Greater than 1% of mass 198	2.9
441	Present, but less than mass 443	80
442	Greater than 40% of mass 198	62.8
443	17 - 23% of mass 442	20

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGACVS	WBN100225-05.5	s8c0308.d	03-MAR-10 13:40
AP12CVS	WBN100218-03.4	s8c0309.d	03-MAR-10 14:12
SBLK01	1202057395	s8c0310-1.d	03-MAR-10 14:41
SBLK01LCS	1202057398	s8c0311-1.d	03-MAR-10 15:11
CAPA-10-12771	248042001	s8c0318.d	03-MAR-10 18:39
CAPA-10-12773	248042006	s8c0319.d	03-MAR-10 19:09

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2057

Instrument ID: MSD8.I **Injection Date/Time:** 20-FEB-10 12:04

Column Description: J & W DB-5MS **Lab File ID** /chem/MSD8.i/s022010.b/s8b2001.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	41.9
68	Less than 2% of mass 69	1.9
69	Mass 69 Relative Abundance	40.3
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	49.9
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	24.3
365	Greater than 1% of mass 198	2.6
441	Present, but less than mass 443	76.5
442	Greater than 40% of mass 198	61.7
443	17 - 23% of mass 442	19.3

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
MEGAICAL	WBN100215-08	s8b2003.d	20-FEB-10 12:55
MEGAICAL	WBN100215-07	s8b2004.d	20-FEB-10 13:30
MEGAICAL	WBN100215-06	s8b2005.d	20-FEB-10 14:05
MEGAICAL	WBN100215-05.1	s8b2006.d	20-FEB-10 14:40
MEGAICAL	WBN100215-04	s8b2007.d	20-FEB-10 15:14
MEGAICAL	WBN100215-03	s8b2008.d	20-FEB-10 15:50
MEGAICAL	WBN100215-02	s8b2009.d	20-FEB-10 16:25
MEGAICAL	WBN100215-01	s8b2010.d	20-FEB-10 16:59
MEGAICV	WBN100215-05.1	s8b2012.d	20-FEB-10 18:09

Instrument Performance Check

DFTPP

Lab Name GEL Laboratories LLC **Client SDG:** 10-2057

Instrument ID: MSD8.1 **Injection Date/Time:** 21-FEB-10 08:35

Column Description: J & W DB-5MS **Lab File ID** /chem/MSD8.i/s022010.b/s8b2013.d

m/e	Ion Abundance Criteria	% Relative Abundance
198	Base Peak, 100% Relative Abundance	100
51	30 - 60% of mass 198	40.5
68	Less than 2% of mass 69	1.8
69	Mass 69 Relative Abundance	38.9
70	Less than 2% of mass 69	0.6
127	40 - 60% of mass 198	48.8
197	0 - 1% of mass 198	0
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	25.3
365	Greater than 1% of mass 198	2.8
441	Present, but less than mass 443	76.6
442	Greater than 40% of mass 198	61.7
443	17 - 23% of mass 442	19.7

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, LCS, LCSD,BLANKS AND STANDARDS

Client Sample ID	Lab Sample ID	Lab File ID	Time Analyzed
APICAL	WBN100218-01	s8b2015.d	21-FEB-10 09:21
APICAL	WBN100218-02	s8b2016.d	21-FEB-10 09:52
APICAL	WBN100218-03.1	s8b2017.d	21-FEB-10 10:23
APICAL	WBN100218-04	s8b2018.d	21-FEB-10 10:54
APICAL	WBN100218-05	s8b2019.d	21-FEB-10 11:26
APICAL	WBN100218-06	s8b2020.d	21-FEB-10 11:59
APICAL	WBN100218-07	s8b2021.d	21-FEB-10 12:30
APICV	WBN100218-08.1	s8b2035.d	21-FEB-10 19:53

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Instrument: MSD2.I

GC Column: J&W DB-5MS

Client SDG: 10-2057

STD Analysis Time: 03-MAR-10 19:41

Data File: s2c0308.d

	1,4-Dichlorobenzene-d4			Naphthalene-d8			Acenaphthene-d10			Phenanthrene-d10			Chrysene-d12			Perylene-d12		
	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #	Area	#	RT #
12 Hour STD	453255		4.01	1938135		4.88	963661		6.12	1523873		7.1	1023929		8.81	755419		10.4
Upper Limit	906510		4.51	3876270		5.38	1927322		6.62	3047746		7.6	2047858		9.31	1510838		10.9
Lower Limit	226628		3.51	969068		4.38	481831		5.62	761937		6.6	511965		8.31	377710		9.86
Sample ID																		
BLK02	345053		4	1359001		4.87	768084		6.12	1250714		7.09	910091		8.8	662243		10.4
BLK02LCS	326332		4.01	1407415		4.88	726776		6.12	1183933		7.09	877238		8.8	594480		10.4
CAPA-10-13085	361506		4	1419929		4.87	791483		6.12	1256486		7.09	804510		8.8	484805		10.4
CAPA-10-13320	370168		4	1450241		4.87	814066		6.12	1336484		7.09	891193		8.8	559066		10.4

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Internal Standard
Area and RT Summary

Lab Name : GEL Laboratories LLC

Client SDG: 10-2057

Instrument: MSD8.I

STD Analysis Time: 03-MAR-10 13:40

GC Column: J&W DB-5MS

Data File: s8c0308.d

	1,4-Dichlorobenzene-d4				Naphthalene-d8				Acenaphthene-d10				Phenanthrene-d10				Chrysene-d12				Perylene-d12			
	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#	Area	#	RT	#
12 Hour STD	337349		4.35		1317433		5.61		787174		7.46		1390793		9.06		1272293		11.9		991553		14.0	
Upper Limit	674698		4.85		2634866		6.11		1574348		7.96		2781586		9.56		2544586		12.4		1983106		14.5	
Lower Limit	168675		3.85		658717		5.11		393587		6.96		695397		8.56		636147		11.4		495777		13.5	
Sample ID																								
BLK01	494671		4.35		1872276		5.61		1088385		7.46		1782518		9.06		1263915		11.9		962548		14.0	
BLK01LCS	388983		4.35		1478511		5.61		902508		7.46		1576300		9.06		1412049		11.9		1087893		14.0	
CAPA-10-12771	370986		4.35		1428164		5.61		863483		7.46		1470467		9.06		994007		11.9		763327		14.0	
CAPA-10-12773	465836		4.35		1833663		5.61		1111517		7.46		1891656		9.06		1500367		11.9		1155385		14.0	

Area Upper Limit = +100% of internal standard area
Area Lower Limit = - 50% of internal standard area

RT Upper Limit = + 0.50 minutes of internal standard RT
RT Lower Limit = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Value outside of QC Limits

Sample Data

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12771**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 18:39**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**900 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0318.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	11.1	ug/L	2.22	11.1
108-95-2	Phenol	U	11.1	ug/L	1.11	11.1
95-57-8	2-Chlorophenol	U	11.1	ug/L	2.22	11.1
106-46-7	1,4-Dichlorobenzene	U	11.1	ug/L	2.22	11.1
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	11.1	ug/L	2.22	11.1
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	11.1	ug/L	2.22	11.1
83-32-9	Acenaphthene	U	1.11	ug/L	0.344	1.11
121-14-2	2,4-Dinitrotoluene	U	11.1	ug/L	2.22	11.1
100-02-7	4-Nitrophenol	U	11.1	ug/L	2.22	11.1
87-86-5	Pentachlorophenol	U	11.1	ug/L	2.22	11.1
129-00-0	Pyrene	U	1.11	ug/L	0.333	1.11
110-86-1	Pyridine	U	11.1	ug/L	3.33	11.1
62-53-3	Aniline	U	11.1	ug/L	2.78	11.1
111-44-4	bis(2-Chloroethyl) ether	U	11.1	ug/L	2.22	11.1
541-73-1	1,3-Dichlorobenzene	U	11.1	ug/L	2.22	11.1
100-51-6	Benzyl alcohol	U	11.1	ug/L	2.22	11.1
95-50-1	1,2-Dichlorobenzene	U	11.1	ug/L	2.22	11.1
108-60-1	bis(2-Chloroisopropyl)ether	U	11.1	ug/L	2.22	11.1
95-48-7	o-Cresol	U	11.1	ug/L	2.22	11.1
65794-96-9	m,p-Cresols	U	11.1	ug/L	3.33	11.1
67-72-1	Hexachloroethane	U	11.1	ug/L	2.22	11.1
98-95-3	Nitrobenzene	U	11.1	ug/L	3.33	11.1
78-59-1	Isophorone	U	11.1	ug/L	3.33	11.1
88-75-5	2-Nitrophenol	U	11.1	ug/L	2.22	11.1
105-67-9	2,4-Dimethylphenol	U	11.1	ug/L	2.22	11.1
111-91-1	bis(2-Chloroethoxy)methane	U	11.1	ug/L	3.33	11.1
120-83-2	2,4-Dichlorophenol	U	11.1	ug/L	2.22	11.1
65-85-0	Benzoic acid	U	22.2	ug/L	6.67	22.2
91-20-3	Naphthalene	U	1.11	ug/L	0.333	1.11
106-47-8	4-Chloroaniline	U	11.1	ug/L	2.22	11.1
87-68-3	Hexachlorobutadiene	U	11.1	ug/L	2.22	11.1
91-57-6	2-Methylnaphthalene	U	1.11	ug/L	0.333	1.11
90-12-0	1-Methylnaphthalene	U	1.11	ug/L	0.333	1.11
77-47-4	Hexachlorocyclopentadiene	U	11.1	ug/L	3.33	11.1
88-06-2	2,4,6-Trichlorophenol	U	11.1	ug/L	2.22	11.1
95-95-4	2,4,5-Trichlorophenol	U	11.1	ug/L	2.22	11.1
91-58-7	2-Chloronaphthalene	U	1.11	ug/L	0.333	1.11

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12771**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 18:39**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**900 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0318.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	11.1	ug/L	2.22	11.1
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	11.1	ug/L	2.22	11.1
131-11-3	Dimethylphthalate	U	11.1	ug/L	2.22	11.1
606-20-2	2,6-Dinitrotoluene	U	11.1	ug/L	2.22	11.1
208-96-8	Acenaphthylene	U	1.11	ug/L	0.222	1.11
51-28-5	2,4-Dinitrophenol	U	22.2	ug/L	5.56	22.2
132-64-9	Dibenzofuran	U	11.1	ug/L	2.22	11.1
84-66-2	Diethylphthalate	U	11.1	ug/L	2.22	11.1
86-73-7	Fluorene	U	1.11	ug/L	0.222	1.11
7005-72-3	4-Chlorophenylphenylether	U	11.1	ug/L	2.22	11.1
534-52-1	2-Methyl-4,6-dinitrophenol	U	11.1	ug/L	3.33	11.1
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	11.1	ug/L	3.33	11.1
122-39-4	Diphenylamine	U	11.1	ug/L	3.33	11.1
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	11.1	ug/L	2.22	11.1
101-55-3	4-Bromophenylphenylether	U	11.1	ug/L	2.22	11.1
118-74-1	Hexachlorobenzene	U	11.1	ug/L	2.22	11.1
1912-24-9	Atrazine	U	11.1	ug/L	3.33	11.1
85-01-8	Phenanthrene	U	1.11	ug/L	0.222	1.11
120-12-7	Anthracene	U	1.11	ug/L	0.222	1.11
84-74-2	Di-n-butylphthalate	U	11.1	ug/L	2.22	11.1
206-44-0	Fluoranthene	U	1.11	ug/L	0.222	1.11
92-87-5	Benzidine	U	11.1	ug/L	3.33	11.1
85-68-7	Butylbenzylphthalate	U	11.1	ug/L	2.22	11.1
56-55-3	Benzo(a)anthracene	U	1.11	ug/L	0.222	1.11
91-94-1	3,3'-Dichlorobenzidine	U	11.1	ug/L	2.22	11.1
218-01-9	Chrysene	U	1.11	ug/L	0.222	1.11
117-81-7	bis(2-Ethylhexyl)phthalate	U	11.1	ug/L	2.22	11.1
117-84-0	Di-n-octylphthalate	U	11.1	ug/L	3.33	11.1
205-99-2	Benzo(b)fluoranthene	U	1.11	ug/L	0.222	1.11
207-08-9	Benzo(k)fluoranthene	U	1.11	ug/L	0.222	1.11
50-32-8	Benzo(a)pyrene	U	1.11	ug/L	0.222	1.11
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.11	ug/L	0.222	1.11
53-70-3	Dibenzo(a,h)anthracene	U	1.11	ug/L	0.222	1.11
191-24-2	Benzo(ghi)perylene	U	1.11	ug/L	0.222	1.11
123-91-1	1,4-Dioxane	U	11.1	ug/L	2.22	11.1
55-18-5	N-Nitrosodiethylamine	U	11.1	ug/L	2.22	11.1

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042001**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12771**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 18:39**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**900 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0318.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	11.1	ug/L	2.22	11.1
924-16-3	N-Nitrosodi-n-butylamine	U	11.1	ug/L	3.33	11.1
95-94-3	1,2,4,5-Tetrachlorobenzene	U	11.1	ug/L	3.33	11.1
608-93-5	Pentachlorobenzene	U	11.1	ug/L	3.33	11.1
58-90-2	2,3,4,6-Tetrachlorophenol	U	11.1	ug/L	2.22	11.1
88-85-7	Dinoseb	U	11.1	ug/L	2.22	11.1
120-82-1	1,2,4-Trichlorobenzene	U	11.1	ug/L	2.22	11.1

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	65.1	111	ug/L	58.6	(39%-120%)
2-Fluorobiphenyl	27.8	55.6	ug/L	50.1	(38%-108%)
2-Fluorophenol	42.5	111	ug/L	38.2	(19%-98%)
Nitrobenzene-d5	27.7	55.6	ug/L	49.9	(31%-122%)
Phenol-d5	28.3	111	ug/L	25.5	(15%-83%)
p-Terphenyl-d14	46.5	55.6	ug/L	83.8	(40%-138%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030310.b/s8c0318.d
Lab Smp Id: 248042001 Client Smp ID: CAPA-10-12771
Inj Date : 03-MAR-2010 18:39
Operator : nagl Inst ID: MSD8.i
Smp Info : |248042001|959294|1|SVMF|1|LANL
Misc Info : |MSD82709L|WBN100227-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Meth Date : 03-Mar-2010 15:34 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2057.sub
Target Version: 3.50
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	900.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.353	4.354	(1.000)	370986	40.0000	
* 29 Naphthalene-d8	136	5.611	5.611	(1.000)	1428164	40.0000	
* 46 Acenaphthene-d10	164	7.463	7.463	(1.000)	863483	40.0000	
* 67 Phenanthrene-d10	188	9.058	9.058	(1.000)	1470467	40.0000	
* 91 Chrysene-d12	240	11.939	11.944	(1.000)	994007	40.0000	
* 98 Perylene-d12	264	13.987	13.992	(1.000)	763327	40.0000	
$ 3 2-Fluorophenol	112	3.201	3.201	(0.735)	334750	38.2201	42.5
$ 5 Phenol-d5	99	3.972	3.973	(0.912)	278486	25.4958	28.3
$ 20 Nitrobenzene-d5	82	4.877	4.877	(0.869)	253496	24.9693	27.7
$ 39 2-Fluorobiphenyl	172	6.734	6.735	(0.902)	636558	25.0450	27.8
$ 60 2,4,6-Tribromophenol	329	8.306	8.306	(1.113)	167196	58.5756	65.1
$ 81 p-Terphenyl-d14	244	10.773	10.773	(0.902)	749526	41.8829	46.5

ION RATIO REPORT

SV REPORT

Data file: s8c0318.d
Report Date: 03/04/2010 07:08
Lab. ID: 248042001 SampleType: SAMPLE
Injection Date: 03-MAR-2010 18:39
Operator: nagl Instrument: MSD8.i
Sample Info: |248042001|959294|1|SVMF|1|LANL
Miscellaneous Info: |MSD82709L|WBN100227-01
Comment:
Method used: /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2057
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	33188	4.88	4.73	80-120	100	(T)
42	15424	4.88	4.73	20- 80	46	(T)
30 Naphthalene				CAS#: 91-20-3		
128	342	5.63	5.63	80-120	100	( )
129	144	5.61	5.63	0- 41	42	(Q)
127	0	0.00	5.63	0- 43	0	(T)
34 2-Methylnaphthalene				CAS#: 91-57-6		
142	205	6.35	6.35	80-120	100	( )
141	251	6.35	6.35	56-116	122	(Q)
35 1-Methylnaphthalene				CAS#: 90-12-0		
142	266	6.45	6.46	80-120	100	( )
141	171	6.45	6.46	60-120	65	( )
115	117	6.47	6.45	4- 64	44	( )
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	111950	7.46	7.23	80-120	100	(T)
63	1500	7.46	7.23	21- 81	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	111950	7.46	7.66	80-120	100	(T)
89	1381	7.46	7.66	35- 95	1	(QT)
63	1500	7.46	7.66	16- 76	1	(QT)

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	521	8.30	8.10	80-120	100	(T)
105	1113	8.30	8.10	7- 67	213	(QT)
51	1146	8.30	8.10	10- 70	220	(QT)
68 Phenanthrene			CAS#: 85-01-8			
178	1526	9.08	9.08	80-120	100	( )
179	355	9.08	9.08	0- 45	23	( )
176	351	9.08	9.08	0- 49	23	( )
92 Chrysene			CAS#: 218-01-9			
228	436	11.97	11.97	80-120	100	( )
229	1035	11.94	11.97	0- 49	237	(Q)
226	345	11.93	11.97	0- 59	79	(Q)
94 Di-n-octylphthalate			CAS#: 117-84-0			
149	433	12.82	12.82	80-120	100	( )
43	702	12.63	12.82	0- 38	162	(QT)
101 Benzo(ghi)perylene			CAS#: 191-24-2			
276	2551	16.23	16.25	80-120	100	( )
138	446	16.23	16.25	0- 54	17	( )

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030310.b/s8c0318.d
Lab Smp Id: 248042001 Client Smp ID: CAPA-10-12771
Inj Date : 03-MAR-2010 18:39
Operator : nag1 Inst ID: MSD8.i
Smp Info : |248042001|959294|1|SVMF|1|LANL
Misc Info : |MSD82709L|WBN100227-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Meth Date : 03-Mar-2010 15:34 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2057.sub
Target Version: 3.50
Processing Host: hpclp1

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/MSD8.i/s030310.b/s8c0318.d
Date : 03-MAR-2010 18:39
Client ID: CAPA-10-12771
Sample Info: 1248042001|959294|1|SVMF11|LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: nagi
Column diameter: 0.20

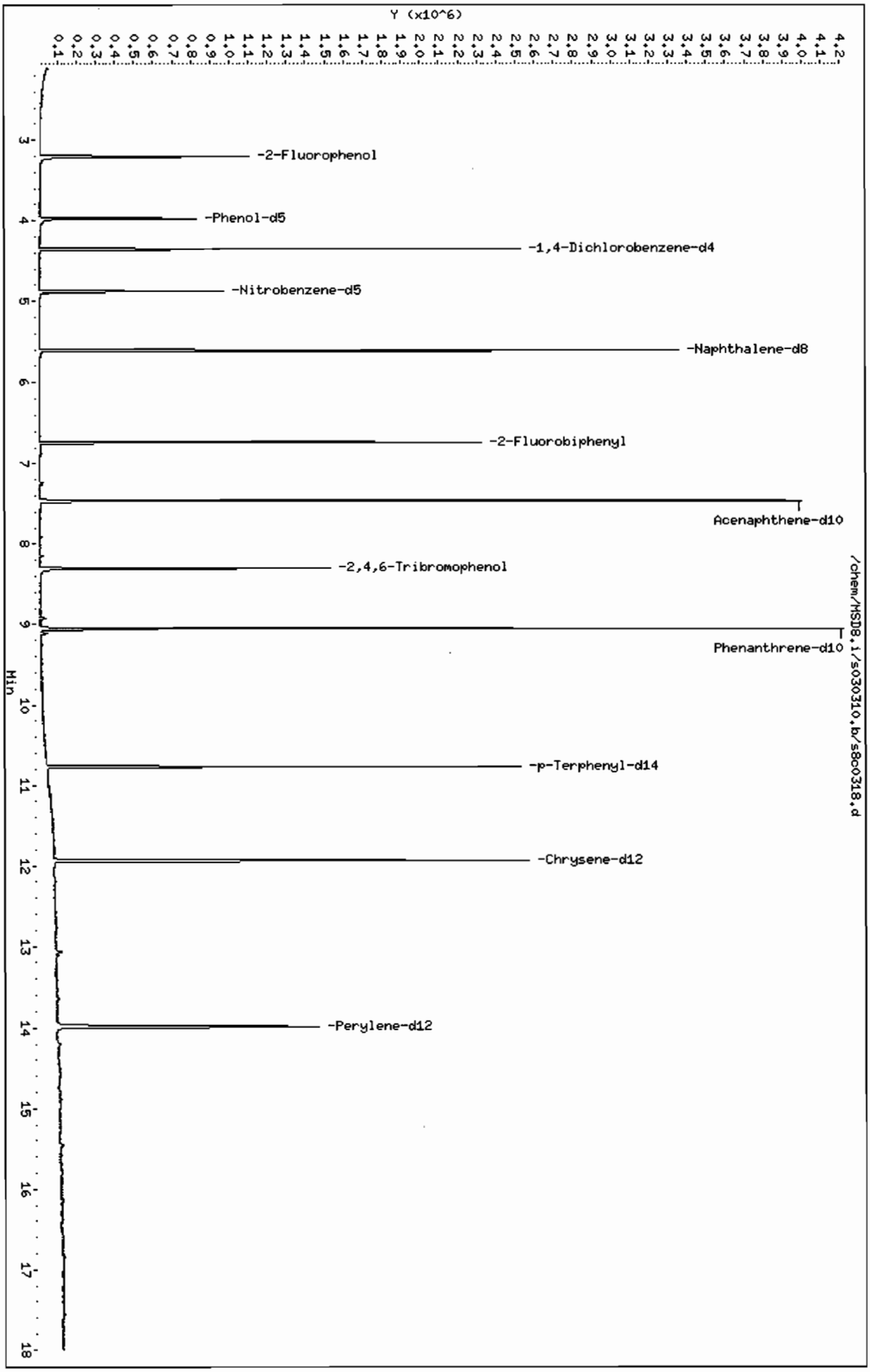

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Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042006**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12773**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 19:09**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**940 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0319.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.6	ug/L	2.13	10.6
108-95-2	Phenol	U	10.6	ug/L	1.06	10.6
95-57-8	2-Chlorophenol	U	10.6	ug/L	2.13	10.6
106-46-7	1,4-Dichlorobenzene	U	10.6	ug/L	2.13	10.6
621-64-7	N-Nitrosodi--n-propylamine	U	10.6	ug/L	2.13	10.6
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol	U	10.6	ug/L	2.13	10.6
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene	U	1.06	ug/L	0.330	1.06
121-14-2	2,4-Dinitrotoluene	U	10.6	ug/L	2.13	10.6
100-02-7	4-Nitrophenol	U	10.6	ug/L	2.13	10.6
87-86-5	Pentachlorophenol	U	10.6	ug/L	2.13	10.6
129-00-0	Pyrene	U	1.06	ug/L	0.319	1.06
110-86-1	Pyridine	U	10.6	ug/L	3.19	10.6
62-53-3	Aniline	U	10.6	ug/L	2.66	10.6
111-44-4	bis(2-Chloroethyl) ether	U	10.6	ug/L	2.13	10.6
541-73-1	1,3-Dichlorobenzene	U	10.6	ug/L	2.13	10.6
100-51-6	Benzyl alcohol	U	10.6	ug/L	2.13	10.6
95-50-1	1,2-Dichlorobenzene	U	10.6	ug/L	2.13	10.6
108-60-1	bis(2-Chloroisopropyl)ether	U	10.6	ug/L	2.13	10.6
95-48-7	o-Cresol	U	10.6	ug/L	2.13	10.6
65794-96-9	m,p-Cresols	U	10.6	ug/L	3.19	10.6
67-72-1	Hexachloroethane	U	10.6	ug/L	2.13	10.6
98-95-3	Nitrobenzene	U	10.6	ug/L	3.19	10.6
78-59-1	Isophorone	U	10.6	ug/L	3.19	10.6
88-75-5	2-Nitrophenol	U	10.6	ug/L	2.13	10.6
105-67-9	2,4-Dimethylphenol	U	10.6	ug/L	2.13	10.6
111-91-1	bis(2-Chloroethoxy)methane	U	10.6	ug/L	3.19	10.6
120-83-2	2,4-Dichlorophenol	U	10.6	ug/L	2.13	10.6
65-85-0	Benzoic acid	U	21.3	ug/L	6.38	21.3
91-20-3	Naphthalene	U	1.06	ug/L	0.319	1.06
106-47-8	4-Chloroaniline	U	10.6	ug/L	2.13	10.6
87-68-3	Hexachlorobutadiene	U	10.6	ug/L	2.13	10.6
91-57-6	2-Methylnaphthalene	U	1.06	ug/L	0.319	1.06
90-12-0	1-Methylnaphthalene	U	1.06	ug/L	0.319	1.06
77-47-4	Hexachlorocyclopentadiene	U	10.6	ug/L	3.19	10.6
88-06-2	2,4,6-Trichlorophenol	U	10.6	ug/L	2.13	10.6
95-95-4	2,4,5-Trichlorophenol	U	10.6	ug/L	2.13	10.6
91-58-7	2-Chloronaphthalene	U	1.06	ug/L	0.319	1.06

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042006**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12773**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 19:09**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**940 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0319.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.6	ug/L	2.13	10.6
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.6	ug/L	2.13	10.6
131-11-3	Dimethylphthalate	U	10.6	ug/L	2.13	10.6
606-20-2	2,6-Dinitrotoluene	U	10.6	ug/L	2.13	10.6
208-96-8	Acenaphthylene	U	1.06	ug/L	0.213	1.06
51-28-5	2,4-Dinitrophenol	U	21.3	ug/L	5.32	21.3
132-64-9	Dibenzofuran	U	10.6	ug/L	2.13	10.6
84-66-2	Diethylphthalate	U	10.6	ug/L	2.13	10.6
86-73-7	Fluorene	U	1.06	ug/L	0.213	1.06
7005-72-3	4-Chlorophenylphenylether	U	10.6	ug/L	2.13	10.6
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.6	ug/L	3.19	10.6
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.6	ug/L	3.19	10.6
122-39-4	Diphenylamine *1,2-Diphenylhydrazine*	U	10.6	ug/L	3.19	10.6
122-66-7	Azobenzene	U	10.6	ug/L	2.13	10.6
101-55-3	4-Bromophenylphenylether	U	10.6	ug/L	2.13	10.6
118-74-1	Hexachlorobenzene	U	10.6	ug/L	2.13	10.6
1912-24-9	Atrazine	U	10.6	ug/L	3.19	10.6
85-01-8	Phenanthrene	U	1.06	ug/L	0.213	1.06
120-12-7	Anthracene	U	1.06	ug/L	0.213	1.06
84-74-2	Di-n-butylphthalate	U	10.6	ug/L	2.13	10.6
206-44-0	Fluoranthene	U	1.06	ug/L	0.213	1.06
92-87-5	Benzidine	U	10.6	ug/L	3.19	10.6
85-68-7	Butylbenzylphthalate	U	10.6	ug/L	2.13	10.6
56-55-3	Benzo(a)anthracene	U	1.06	ug/L	0.213	1.06
91-94-1	3,3'-Dichlorobenzidine	U	10.6	ug/L	2.13	10.6
218-01-9	Chrysene	U	1.06	ug/L	0.213	1.06
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.6	ug/L	2.13	10.6
117-84-0	Di-n-octylphthalate	U	10.6	ug/L	3.19	10.6
205-99-2	Benzo(b)fluoranthene	U	1.06	ug/L	0.213	1.06
207-08-9	Benzo(k)fluoranthene	U	1.06	ug/L	0.213	1.06
50-32-8	Benzo(a)pyrene	U	1.06	ug/L	0.213	1.06
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.06	ug/L	0.213	1.06
53-70-3	Dibenzo(a,h)anthracene	U	1.06	ug/L	0.213	1.06
191-24-2	Benzo(ghi)perylene	U	1.06	ug/L	0.213	1.06
123-91-1	1,4-Dioxane	U	10.6	ug/L	2.13	10.6
55-18-5	N-Nitrosodiethylamine	U	10.6	ug/L	2.13	10.6

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042006**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12773**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 19:09**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**940 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0319.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.6	ug/L	2.13	10.6
924-16-3	N-Nitrosodi-n-butylamine	U	10.6	ug/L	3.19	10.6
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.6	ug/L	3.19	10.6
608-93-5	Pentachlorobenzene	U	10.6	ug/L	3.19	10.6
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.6	ug/L	2.13	10.6
88-85-7	Dinoseb	U	10.6	ug/L	2.13	10.6
120-82-1	1,2,4-Trichlorobenzene	U	10.6	ug/L	2.13	10.6

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	71.8	106	ug/L	67.5	(39%-120%)
2-Fluorobiphenyl	31.3	53.2	ug/L	58.9	(38%-108%)
2-Fluorophenol	39.3	106	ug/L	36.9	(19%-98%)
Nitrobenzene-d5	31.2	53.2	ug/L	58.7	(31%-122%)
Phenol-d5	25.4	106	ug/L	23.9	(15%-83%)
p-Terphenyl-d14	45.7	53.2	ug/L	86.0	(40%-138%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030310.b/s8c0319.d
Lab Smp Id: 248042006 Client Smp ID: CAPA-10-12773
Inj Date : 03-MAR-2010 19:09
Operator : nagl Inst ID: MSD8.i
Smp Info : |248042006|959294|1|SVMF|1|LANL
Misc Info : |MSD82709L|WBN100227-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Meth Date : 03-Mar-2010 15:34 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2057.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	940.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.354	4.354	(1.000)	465836	40.0000	
* 29 Naphthalene-d8	136	5.611	5.611	(1.000)	1833663	40.0000	
* 46 Acenaphthene-d10	164	7.463	7.463	(1.000)	1111517	40.0000	
* 67 Phenanthrene-d10	188	9.058	9.058	(1.000)	1891656	40.0000	
* 91 Chrysene-d12	240	11.939	11.944	(1.000)	1500367	40.0000	
* 98 Perylene-d12	264	13.987	13.992	(1.000)	1155385	40.0000	
$ 3 2-Fluorophenol	112	3.206	3.201	(0.736)	406351	36.9486	39.3
$ 5 Phenol-d5	99	3.973	3.973	(0.912)	327243	23.8595	25.4
$ 20 Nitrobenzene-d5	82	4.877	4.877	(0.869)	382252	29.3254	31.2
$ 39 2-Fluorobiphenyl	172	6.735	6.735	(0.902)	963365	29.4451	31.3
$ 60 2,4,6-Tribromophenol	329	8.306	8.306	(1.113)	248013	67.4999	71.8
$ 81 p-Terphenyl-d14	244	10.773	10.773	(0.902)	1161576	43.0021	45.7

ION RATIO REPORT

SV REPORT

Data file: s8c0319.d
Report Date: 03/04/2010 07:08
Lab. ID: 248042006 SampleType: SAMPLE
Injection Date: 03-MAR-2010 19:09
Operator: nag1 Instrument: MSD8.i
Sample Info: |248042006|959294|1|SVMF|1|LANL
Miscellaneous Info: |MSD82709L|WBN100227-01
Comment:
Method used: /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2057
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	49923	4.88	4.73	80-120	100	(T)
42	22205	4.88	4.73	20- 80	44	(T)
30 Naphthalene				CAS#: 91-20-3		
128	475	5.63	5.63	80-120	100	( )
129	246	5.61	5.63	0- 41	52	(Q)
127	167	5.68	5.63	0- 43	35	( )
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	141513	7.46	7.23	80-120	100	(T)
63	1879	7.46	7.23	21- 81	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	141513	7.46	7.66	80-120	100	(T)
89	1907	7.46	7.66	35- 95	1	(QT)
63	1879	7.46	7.66	16- 76	1	(QT)
55 2-Methyl-4,6-dinitrophenol				CAS#: 534-52-1		
198	667	8.30	8.10	80-120	100	(T)
105	1504	8.30	8.10	7- 67	225	(QT)
51	1326	8.30	8.10	10- 70	199	(QT)
68 Phenanthrene				CAS#: 85-01-8		
178	706	9.08	9.08	80-120	100	( )
179	1223	9.06	9.08	0- 45	173	(Q)
176	102	9.08	9.08	0- 49	14	( )

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
92 Chrysene			CAS#: 218-01-9			
228	174	11.97	11.97	80-120	100	( )
229	962	11.94	11.97	0- 49	552	(Q)
226	247	11.94	11.97	0- 59	142	(Q)
94 Di-n-octylphthalate			CAS#: 117-84-0			
149	436	12.82	12.82	80-120	100	( )
43	251	12.84	12.82	0- 38	58	(Q)

Q qualifier indicates ion failed ratio requirement

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030310.b/s8c0319.d
Lab Smp Id: 248042006 Client Smp ID: CAPA-10-12773
Inj Date : 03-MAR-2010 19:09
Operator : nagl Inst ID: MSD8.i
Smp Info : |248042006|959294|1|SVMF|1|LANL
Misc Info : |MSD82709L|WBN100227-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Meth Date : 03-Mar-2010 15:34 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2057.sub
Target Version: 3.50
Processing Host: hpclp1

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/MSD8.i/s030310.b/s8c0319.d

Page 1

Date : 03-MAR-2010 19:09

Client ID: CAPA-10-12773

Instrument: MSD8.i

Sample Info: |2480420061959294|1|SVMF|1|LANL

Volume Injected (uL): 0.5

Operator: nag1

Column phase: J&W DB-5MS

Column diameter: 0.20

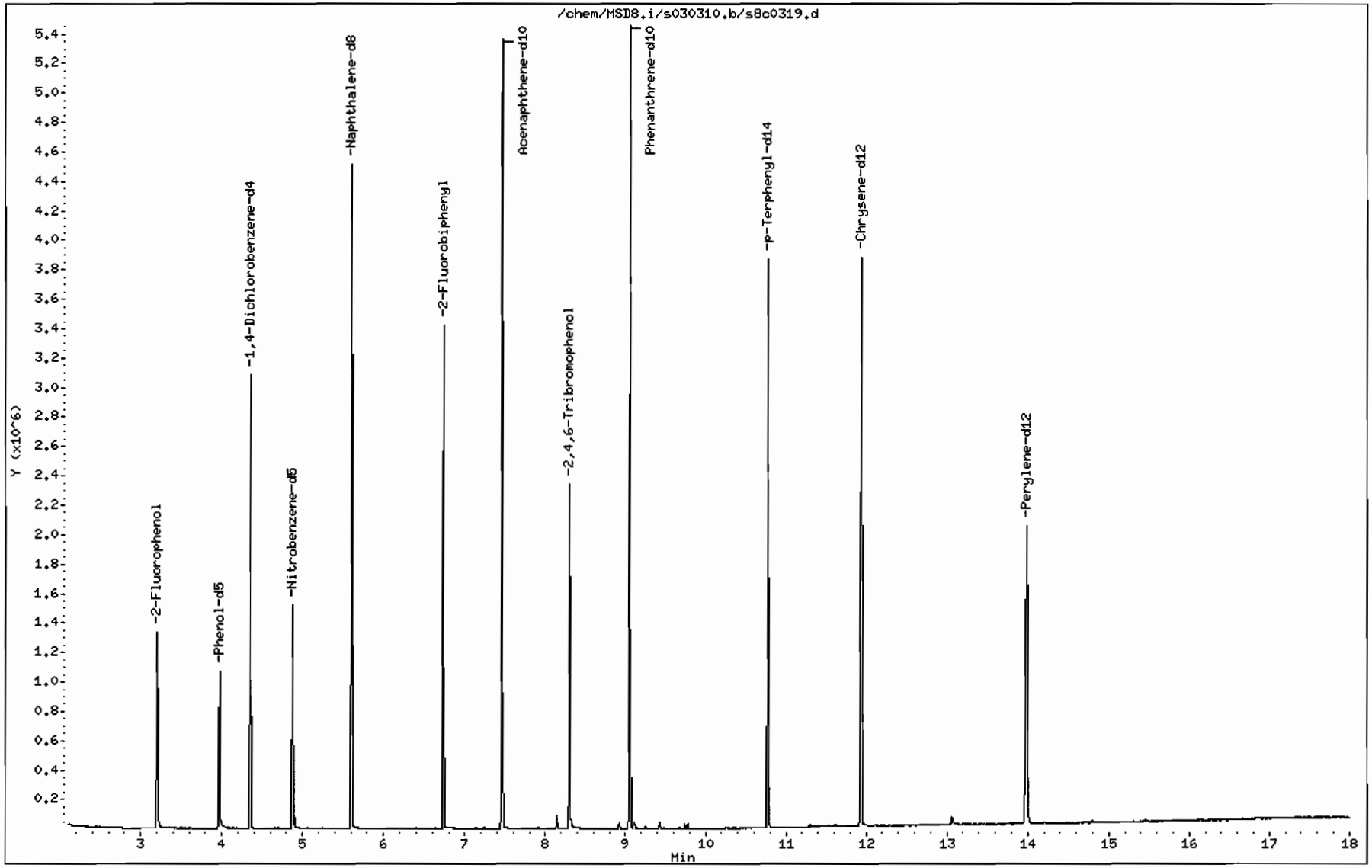

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042009**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13085**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 05:12**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**800 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0332.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	12.5	ug/L	2.50	12.5
108-95-2	Phenol	U	12.5	ug/L	1.25	12.5
95-57-8	2-Chlorophenol	U	12.5	ug/L	2.50	12.5
106-46-7	1,4-Dichlorobenzene	U	12.5	ug/L	2.50	12.5
621-64-7	N-Nitrosodi--n-propylamine	U	12.5	ug/L	2.50	12.5
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol	U	12.5	ug/L	2.50	12.5
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene	U	1.25	ug/L	0.388	1.25
121-14-2	2,4-Dinitrotoluene	U	12.5	ug/L	2.50	12.5
100-02-7	4-Nitrophenol	U	12.5	ug/L	2.50	12.5
87-86-5	Pentachlorophenol	U	12.5	ug/L	2.50	12.5
129-00-0	Pyrene	U	1.25	ug/L	0.375	1.25
110-86-1	Pyridine	U	12.5	ug/L	3.75	12.5
62-53-3	Aniline	U	12.5	ug/L	3.13	12.5
111-44-4	bis(2-Chloroethyl) ether	U	12.5	ug/L	2.50	12.5
541-73-1	1,3-Dichlorobenzene	U	12.5	ug/L	2.50	12.5
100-51-6	Benzyl alcohol	U	12.5	ug/L	2.50	12.5
95-50-1	1,2-Dichlorobenzene	U	12.5	ug/L	2.50	12.5
108-60-1	bis(2-Chloroisopropyl)ether	U	12.5	ug/L	2.50	12.5
95-48-7	o-Cresol	U	12.5	ug/L	2.50	12.5
65794-96-9	m,p-Cresols	U	12.5	ug/L	3.75	12.5
67-72-1	Hexachloroethane	U	12.5	ug/L	2.50	12.5
98-95-3	Nitrobenzene	U	12.5	ug/L	3.75	12.5
78-59-1	Isophorone	U	12.5	ug/L	3.75	12.5
88-75-5	2-Nitrophenol	U	12.5	ug/L	2.50	12.5
105-67-9	2,4-Dimethylphenol	U	12.5	ug/L	2.50	12.5
111-91-1	bis(2-Chloroethoxy)methane	U	12.5	ug/L	3.75	12.5
120-83-2	2,4-Dichlorophenol	U	12.5	ug/L	2.50	12.5
65-85-0	Benzoic acid	U	25.0	ug/L	7.50	25.0
91-20-3	Naphthalene	U	1.25	ug/L	0.375	1.25
106-47-8	4-Chloroaniline	U	12.5	ug/L	2.50	12.5
87-68-3	Hexachlorobutadiene	U	12.5	ug/L	2.50	12.5
91-57-6	2-Methylnaphthalene	U	1.25	ug/L	0.375	1.25
90-12-0	1-Methylnaphthalene	U	1.25	ug/L	0.375	1.25
77-47-4	Hexachlorocyclopentadiene	U	12.5	ug/L	3.75	12.5
88-06-2	2,4,6-Trichlorophenol	U	12.5	ug/L	2.50	12.5
95-95-4	2,4,5-Trichlorophenol	U	12.5	ug/L	2.50	12.5
91-58-7	2-Chloronaphthalene	U	1.25	ug/L	0.375	1.25

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042009**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13085**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 05:12**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**800 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0332.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	12.5	ug/L	2.50	12.5
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	12.5	ug/L	2.50	12.5
131-11-3	Dimethylphthalate	U	12.5	ug/L	2.50	12.5
606-20-2	2,6-Dinitrotoluene	U	12.5	ug/L	2.50	12.5
208-96-8	Acenaphthylene	U	1.25	ug/L	0.250	1.25
51-28-5	2,4-Dinitrophenol	U	25.0	ug/L	6.25	25.0
132-64-9	Dibenzofuran	U	12.5	ug/L	2.50	12.5
84-66-2	Diethylphthalate	U	12.5	ug/L	2.50	12.5
86-73-7	Fluorene	U	1.25	ug/L	0.250	1.25
7005-72-3	4-Chlorophenylphenylether	U	12.5	ug/L	2.50	12.5
534-52-1	2-Methyl-4,6-dinitrophenol	U	12.5	ug/L	3.75	12.5
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	12.5	ug/L	3.75	12.5
122-39-4	Diphenylamine	U	12.5	ug/L	3.75	12.5
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	12.5	ug/L	2.50	12.5
101-55-3	4-Bromophenylphenylether	U	12.5	ug/L	2.50	12.5
118-74-1	Hexachlorobenzene	U	12.5	ug/L	2.50	12.5
1912-24-9	Atrazine	U	12.5	ug/L	3.75	12.5
85-01-8	Phenanthrene	U	1.25	ug/L	0.250	1.25
120-12-7	Anthracene	U	1.25	ug/L	0.250	1.25
84-74-2	Di-n-butylphthalate	U	12.5	ug/L	2.50	12.5
206-44-0	Fluoranthene	U	1.25	ug/L	0.250	1.25
92-87-5	Benzidine	U	12.5	ug/L	3.75	12.5
85-68-7	Butylbenzylphthalate	U	12.5	ug/L	2.50	12.5
56-55-3	Benzo(a)anthracene	U	1.25	ug/L	0.250	1.25
91-94-1	3,3'-Dichlorobenzidine	U	12.5	ug/L	2.50	12.5
218-01-9	Chrysene	U	1.25	ug/L	0.250	1.25
117-81-7	bis(2-Ethylhexyl)phthalate	U	12.5	ug/L	2.50	12.5
117-84-0	Di-n-octylphthalate	U	12.5	ug/L	3.75	12.5
205-99-2	Benzo(b)fluoranthene	U	1.25	ug/L	0.250	1.25
207-08-9	Benzo(k)fluoranthene	U	1.25	ug/L	0.250	1.25
50-32-8	Benzo(a)pyrene	U	1.25	ug/L	0.250	1.25
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.25	ug/L	0.250	1.25
53-70-3	Dibenzo(a,h)anthracene	U	1.25	ug/L	0.250	1.25
191-24-2	Benzo(ghi)perylene	U	1.25	ug/L	0.250	1.25
123-91-1	1,4-Dioxane	U	12.5	ug/L	2.50	12.5
55-18-5	N-Nitrosodiethylamine	U	12.5	ug/L	2.50	12.5

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042009**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13085**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 05:12**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**800 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0332.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	12.5	ug/L	2.50	12.5
924-16-3	N-Nitrosodi-n-butylamine	U	12.5	ug/L	3.75	12.5
95-94-3	1,2,4,5-Tetrachlorobenzene	U	12.5	ug/L	3.75	12.5
608-93-5	Pentachlorobenzene	U	12.5	ug/L	3.75	12.5
58-90-2	2,3,4,6-Tetrachlorophenol	U	12.5	ug/L	2.50	12.5
88-85-7	Dinoseb	U	12.5	ug/L	2.50	12.5
120-82-1	1,2,4-Trichlorobenzene	U	12.5	ug/L	2.50	12.5

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	90.8	125	ug/L	72.6	(39%-120%)
2-Fluorobiphenyl	43.0	62.5	ug/L	68.8	(38%-108%)
2-Fluorophenol	56.9	125	ug/L	45.5	(19%-98%)
Nitrobenzene-d5	45.3	62.5	ug/L	72.5	(31%-122%)
Phenol-d5	37.5	125	ug/L	30.0	(15%-83%)
p-Terphenyl-d14	66.9	62.5	ug/L	107	(40%-138%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

GEL Laboratories LLC

GEL Laboratories, LLC
Data file : /chem/MSD2.i/s030310a.b/s2c0332.d
Lab Smp Id: 248042009 Client Smp ID: CAPA-10-13085
Inj Date : 04-MAR-2010 05:12
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248042009|959852|1|SVM|1|LANL
Misc Info : |MSD82709L|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Meth Date : 03-Mar-2010 22:22 ann00964 Quant Type: ISTD
Cal Date : 27-FEB-2010 17:29 Cal File: s2b2568.d
Als bottle: 32
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2057.sub
Target Version: 3.50
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	800.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.003	4.009	(1.000)	361506	40.0000	
* 29 Naphthalene-d8	136	4.870	4.875	(1.000)	1419929	40.0000	
* 46 Acenaphthene-d10	164	6.116	6.121	(1.000)	791483	40.0000	
* 67 Phenanthrene-d10	188	7.095	7.100	(1.000)	1256486	40.0000	
* 91 Chrysene-d12	240	8.796	8.806	(1.000)	804510	40.0000	
* 98 Perylene-d12	264	10.347	10.358	(1.000)	484805	40.0000	
$ 3 2-Fluorophenol	112	3.190	3.190	(0.797)	519077	45.5099	56.9
$ 5 Phenol-d5	99	3.709	3.715	(0.926)	449691	30.0289	37.5
$ 20 Nitrobenzene-d5	82	4.367	4.372	(0.897)	492377	36.2341	45.3
$ 39 2-Fluorobiphenyl	172	5.613	5.613	(0.918)	753884	34.3924	43.0
$ 60 2,4,6-Tribromophenol	329	6.645	6.646	(1.087)	208824	72.6320	90.8
$ 81 p-Terphenyl-d14	244	8.015	8.015	(0.911)	765332	53.5307	66.9

ION RATIO REPORT

SV REPORT

Data file: s2c0332.d
Report Date: 03/04/2010 12:53
Lab. ID: 248042009 SampleType: SAMPLE
Injection Date: 04-MAR-2010 05:12
Operator: AGS1 Instrument: MSD2.i
Sample Info: |248042009|959852|1|SVM|1|LANL
Miscellaneous Info: |MSD82709L|WBN100227-01|
Comment:
Method used: /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Dilution Factor= 1.0
Integrator: HP RTE Compound Sublist: 10-2057
Sample Matrix: WATER

MASS	RESPONSE	RT	EXPECT RT	TARGET RANGE	RATIO	QUAL
17 N-Nitrosodipropylamine				CAS#: 621-64-7		
70	70491	4.37	4.24	80-120	100	(T)
42	46359	4.37	4.24	59-119	66	(T)
43 Dimethylphthalate				CAS#: 131-11-3		
163	140985	6.12	5.89	80-120	100	(T)
164	791483	6.12	5.89	0- 40	561	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	101031	6.12	5.94	80-120	100	(T)
63	1702	6.12	5.94	71-131	2	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	101031	6.12	6.22	80-120	100	(T)
89	1677	6.12	6.22	48-108	2	(QT)
63	1702	6.12	6.22	30- 90	2	(QT)
61 4-Bromophenylphenylether				CAS#: 101-55-3		
248	13255	6.65	6.79	80-120	100	(T)
141	102385	6.64	6.79	60-120	772	(QT)
250	26871	6.65	6.79	67-127	203	(QT)
121 N-Nitrosodi-n-butylamine				CAS#: 924-16-3		
84	44137	4.87	5.12	80-120	100	(T)
57	1628	4.87	5.12	79-139	4	(QT)
41	1714	4.87	5.12	63-123	4	(QT)

Q qualifier indicates ion failed ratio requirement

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Data file : /chem/MSD2.i/s030310a.b/s2c0332.d
Lab Smp Id: 248042009 Client Smp ID: CAPA-10-13085
Inj Date : 04-MAR-2010 05:12
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248042009|959852|1|SVM|1|LANL
Misc Info : |MSD82709L|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Meth Date : 03-Mar-2010 22:22 ann00964 Quant Type: ISTD
Cal Date : 27-FEB-2010 17:29 Cal File: s2b2568.d
Als bottle: 32
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2057.sub
Target Version: 3.50
Processing Host: hpclp1

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/MSD2.i/s030310a.b/s2c0332.d
Date : 04-MAR-2010 05:12
Client ID: CAPA-10-13085
Sample Info: 1248042009195952141SVM11LANL
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

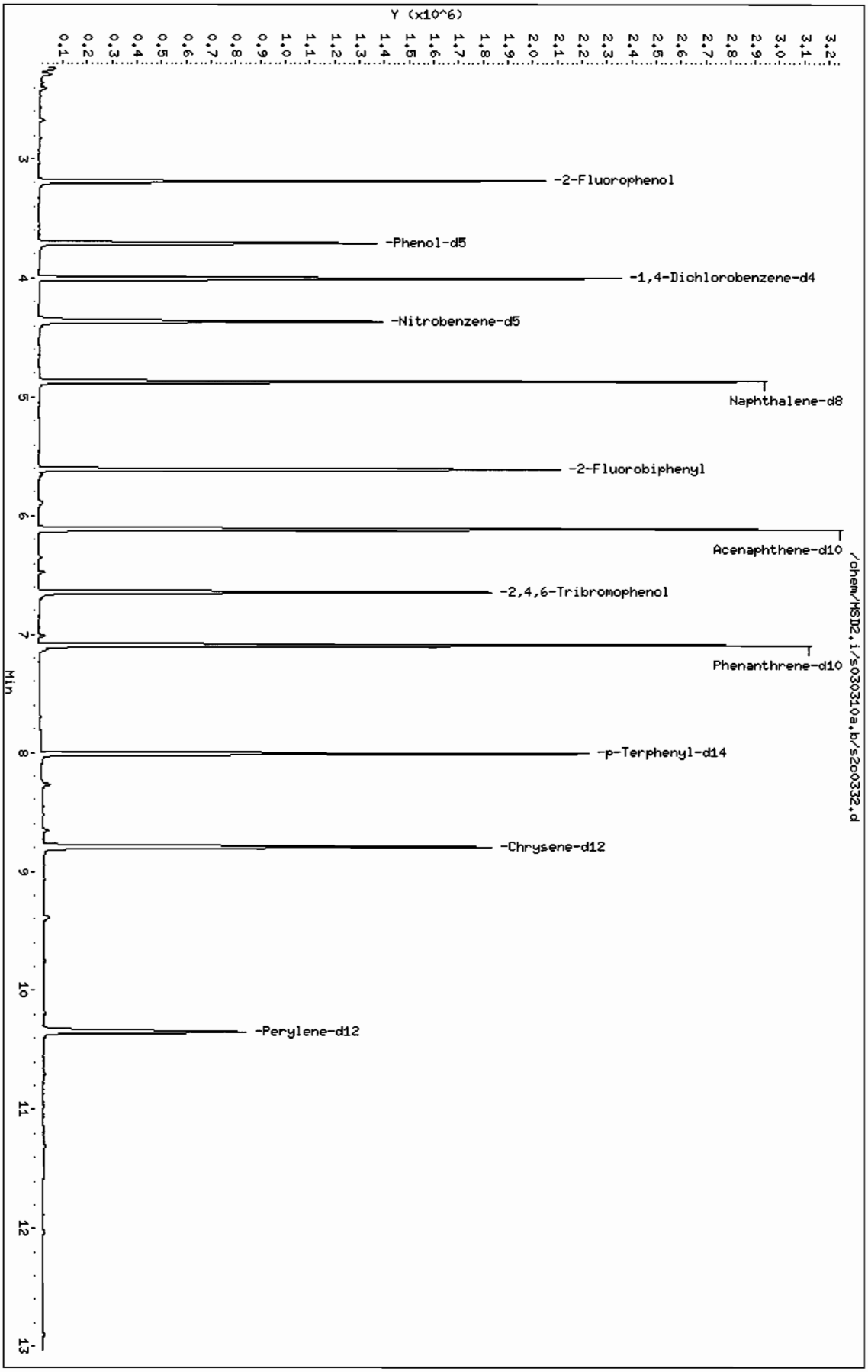

Page 1

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042013**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13320**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 05:32**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**940 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0333.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.6	ug/L	2.13	10.6
108-95-2	Phenol	U	10.6	ug/L	1.06	10.6
95-57-8	2-Chlorophenol	U	10.6	ug/L	2.13	10.6
106-46-7	1,4-Dichlorobenzene	U	10.6	ug/L	2.13	10.6
621-64-7	N-Nitrosodi--n-propylamine	U	10.6	ug/L	2.13	10.6
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol	U	10.6	ug/L	2.13	10.6
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene	U	1.06	ug/L	0.330	1.06
121-14-2	2,4-Dinitrotoluene	U	10.6	ug/L	2.13	10.6
100-02-7	4-Nitrophenol	U	10.6	ug/L	2.13	10.6
87-86-5	Pentachlorophenol	U	10.6	ug/L	2.13	10.6
129-00-0	Pyrene	U	1.06	ug/L	0.319	1.06
110-86-1	Pyridine	U	10.6	ug/L	3.19	10.6
62-53-3	Aniline	U	10.6	ug/L	2.66	10.6
111-44-4	bis(2-Chloroethyl) ether	U	10.6	ug/L	2.13	10.6
541-73-1	1,3-Dichlorobenzene	U	10.6	ug/L	2.13	10.6
100-51-6	Benzyl alcohol	U	10.6	ug/L	2.13	10.6
95-50-1	1,2-Dichlorobenzene	U	10.6	ug/L	2.13	10.6
108-60-1	bis(2-Chloroisopropyl)ether	U	10.6	ug/L	2.13	10.6
95-48-7	o-Cresol	U	10.6	ug/L	2.13	10.6
65794-96-9	m,p-Cresols	U	10.6	ug/L	3.19	10.6
67-72-1	Hexachloroethane	U	10.6	ug/L	2.13	10.6
98-95-3	Nitrobenzene	U	10.6	ug/L	3.19	10.6
78-59-1	Isophorone	U	10.6	ug/L	3.19	10.6
88-75-5	2-Nitrophenol	U	10.6	ug/L	2.13	10.6
105-67-9	2,4-Dimethylphenol	U	10.6	ug/L	2.13	10.6
111-91-1	bis(2-Chloroethoxy)methane	U	10.6	ug/L	3.19	10.6
120-83-2	2,4-Dichlorophenol	U	10.6	ug/L	2.13	10.6
65-85-0	Benzoic acid	U	21.3	ug/L	6.38	21.3
91-20-3	Naphthalene	U	1.06	ug/L	0.319	1.06
106-47-8	4-Chloroaniline	U	10.6	ug/L	2.13	10.6
87-68-3	Hexachlorobutadiene	U	10.6	ug/L	2.13	10.6
91-57-6	2-Methylnaphthalene	U	1.06	ug/L	0.319	1.06
90-12-0	1-Methylnaphthalene	U	1.06	ug/L	0.319	1.06
77-47-4	Hexachlorocyclopentadiene	U	10.6	ug/L	3.19	10.6
88-06-2	2,4,6-Trichlorophenol	U	10.6	ug/L	2.13	10.6
95-95-4	2,4,5-Trichlorophenol	U	10.6	ug/L	2.13	10.6
91-58-7	2-Chloronaphthalene	U	1.06	ug/L	0.319	1.06

Semi-Volatile
Certificate of Analysis
Sample Summary

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Lab Sample ID:	**248042013**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13320**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 05:32**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**940 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0333.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.6	ug/L	2.13	10.6
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.6	ug/L	2.13	10.6
131-11-3	Dimethylphthalate	U	10.6	ug/L	2.13	10.6
606-20-2	2,6-Dinitrotoluene	U	10.6	ug/L	2.13	10.6
208-96-8	Acenaphthylene	U	1.06	ug/L	0.213	1.06
51-28-5	2,4-Dinitrophenol	U	21.3	ug/L	5.32	21.3
132-64-9	Dibenzofuran	U	10.6	ug/L	2.13	10.6
84-66-2	Diethylphthalate	U	10.6	ug/L	2.13	10.6
86-73-7	Fluorene	U	1.06	ug/L	0.213	1.06
7005-72-3	4-Chlorophenylphenylether	U	10.6	ug/L	2.13	10.6
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.6	ug/L	3.19	10.6
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.6	ug/L	3.19	10.6
122-39-4	Diphenylamine	U	10.6	ug/L	3.19	10.6
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	10.6	ug/L	2.13	10.6
101-55-3	4-Bromophenylphenylether	U	10.6	ug/L	2.13	10.6
118-74-1	Hexachlorobenzene	U	10.6	ug/L	2.13	10.6
1912-24-9	Atrazine	U	10.6	ug/L	3.19	10.6
85-01-8	Phenanthrene	U	1.06	ug/L	0.213	1.06
120-12-7	Anthracene	U	1.06	ug/L	0.213	1.06
84-74-2	Di-n-butylphthalate	U	10.6	ug/L	2.13	10.6
206-44-0	Fluoranthene	U	1.06	ug/L	0.213	1.06
92-87-5	Benzidine	U	10.6	ug/L	3.19	10.6
85-68-7	Butylbenzylphthalate	U	10.6	ug/L	2.13	10.6
56-55-3	Benzo(a)anthracene	U	1.06	ug/L	0.213	1.06
91-94-1	3,3'-Dichlorobenzidine	U	10.6	ug/L	2.13	10.6
218-01-9	Chrysene	U	1.06	ug/L	0.213	1.06
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.6	ug/L	2.13	10.6
117-84-0	Di-n-octylphthalate	U	10.6	ug/L	3.19	10.6
205-99-2	Benzo(b)fluoranthene	U	1.06	ug/L	0.213	1.06
207-08-9	Benzo(k)fluoranthene	U	1.06	ug/L	0.213	1.06
50-32-8	Benzo(a)pyrene	U	1.06	ug/L	0.213	1.06
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.06	ug/L	0.213	1.06
53-70-3	Dibenzo(a,h)anthracene	U	1.06	ug/L	0.213	1.06
191-24-2	Benzo(ghi)perylene	U	1.06	ug/L	0.213	1.06
123-91-1	1,4-Dioxane	U	10.6	ug/L	2.13	10.6
55-18-5	N-Nitrosodiethylamine	U	10.6	ug/L	2.13	10.6

Semi-Volatile
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Sample Summary

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Lab Sample ID:	**248042013**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13320**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/04/2010 05:32**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**940 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0333.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.6	ug/L	2.13	10.6
924-16-3	N-Nitrosodi-n-butylamine	U	10.6	ug/L	3.19	10.6
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.6	ug/L	3.19	10.6
608-93-5	Pentachlorobenzene	U	10.6	ug/L	3.19	10.6
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.6	ug/L	2.13	10.6
88-85-7	Dinoseb	U	10.6	ug/L	2.13	10.6
120-82-1	1,2,4-Trichlorobenzene	U	10.6	ug/L	2.13	10.6

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
2,4,6-Tribromophenol	45.0	106	ug/L	42.3	(39%-120%)
2-Fluorobiphenyl	23.3	53.2	ug/L	43.8	(38%-108%)
2-Fluorophenol	29.9	106	ug/L	28.1	(19%-98%)
Nitrobenzene-d5	24.5	53.2	ug/L	46.1	(31%-122%)
Phenol-d5	18.7	106	ug/L	17.6	(15%-83%)
p-Terphenyl-d14	33.3	53.2	ug/L	62.5	(40%-138%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

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Data file : /chem/MSD2.i/s030310a.b/s2c0333.d
Lab Smp Id: 248042013 Client Smp ID: CAPA-10-13320
Inj Date : 04-MAR-2010 05:32
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |248042013|959852|1|SVM|1|LANL
Misc Info : |MSD82709L|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Meth Date : 03-Mar-2010 22:22 ann00964 Quant Type: ISTD
Cal Date : 27-FEB-2010 17:29 Cal File: s2b2568.d
Als bottle: 33
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2057.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	940.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.003	4.009	(1.000)	370168	40.0000	
* 29 Naphthalene-d8	136	4.870	4.875	(1.000)	1450241	40.0000	
* 46 Acenaphthene-d10	164	6.116	6.121	(1.000)	814066	40.0000	
* 67 Phenanthrene-d10	188	7.095	7.100	(1.000)	1336484	40.0000	
* 91 Chrysene-d12	240	8.796	8.806	(1.000)	891193	40.0000	
* 98 Perylene-d12	264	10.347	10.358	(1.000)	559066	40.0000	
$ 3 2-Fluorophenol	112	3.190	3.190	(0.797)	328586	28.1346	29.9
$ 5 Phenol-d5	99	3.709	3.715	(0.927)	269326	17.5639	18.7
$ 20 Nitrobenzene-d5	82	4.362	4.372	(0.896)	320116	23.0650	24.5
$ 39 2-Fluorobiphenyl	172	5.608	5.613	(0.917)	493791	21.9020	23.3
$ 60 2,4,6-Tribromophenol	329	6.646	6.646	(1.087)	124949	42.2535	45.0
$ 81 p-Terphenyl-d14	244	8.010	8.015	(0.911)	495233	31.2696	33.3

ION RATIO REPORT

SV REPORT

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Injection Date: 04-MAR-2010 05:32
Operator: AGS1 Instrument: MSD2.i
Sample Info: |248042013|959852|1|SVM|1|LANL
Miscellaneous Info: |MSD82709L|WBN100227-01|
Comment:
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164	814066	6.12	5.89	0- 40	562	(QT)
44 2,6-Dinitrotoluene				CAS#: 606-20-2		
165	104693	6.12	5.94	80-120	100	(T)
63	1559	6.12	5.94	71-131	1	(QT)
50 2,4-Dinitrotoluene				CAS#: 121-14-2		
165	104693	6.12	6.22	80-120	100	(T)
89	1709	6.12	6.22	48-108	2	(QT)
63	1559	6.12	6.22	30- 90	1	(QT)
121 N-Nitrosodi-n-butylamine				CAS#: 924-16-3		
84	45279	4.87	5.12	80-120	100	(T)
57	1904	4.87	5.12	79-139	4	(QT)
41	1668	4.87	5.12	63-123	4	(QT)

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Inj Date : 04-MAR-2010 05:32
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Smp Info : |248042013|959852|1|SVM|1|LANL
Misc Info : |MSD82709L|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Meth Date : 03-Mar-2010 22:22 ann00964 Quant Type: ISTD
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Als bottle: 33
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2057.sub
Target Version: 3.50
Processing Host: hpclp1

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/MSD2.i/s030310a.b/s2c0333.d

Date : 04-MAR-2010 05:32

Client ID: CAPA-10-13320

Sample Info: 1248042013195985211SVMI1ILANL

Volume Injected (uL): 0.5

Column phase: J&W DB-5MS

Instrument: MSD2.i

Operator: ACS1

Column diameter: 0.20

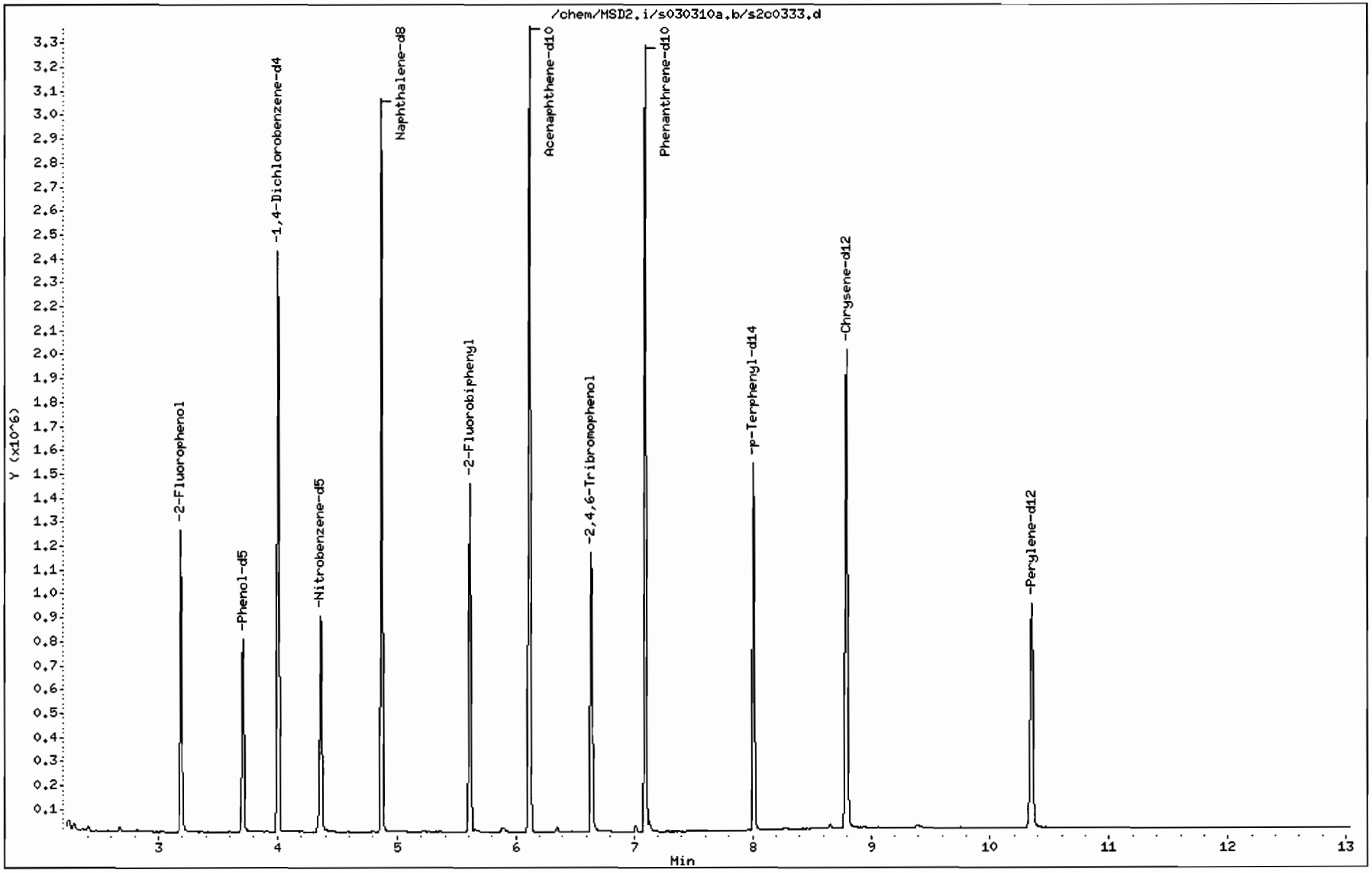

Standard Data

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1,4-Dichlorobenzene-d4 (INTERNAL STANDARD)								
Naphthalene-d8 (INTERNAL STANDARD)								
Acenaphthene-d10 (INTERNAL STANDARD)								
Phenanthrene-d10 (INTERNAL STANDARD)								
Chrysene-d12 (INTERNAL STANDARD)								
Perylene-d12 (INTERNAL STANDARD)								
2-Fluorophenol (SURROGATE)		10	20	40	50	80	100	120
Phenol-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Chlorophenol-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
1,2-Dichlorobenzene-d4 (CLP SURROGATE)		10	20	40	50	80	100	120
Nitrobenzene-d5 (SURROGATE)		10	20	40	50	80	100	120
2-Fluorobiphenyl (SURROGATE)		10	20	40	50	80	100	120
2,4,6-Tribromophenol (SURROGATE)		10	20	40	50	80	100	120
p-Terphenyl-d14 (SURROGATE)		10	20	40	50	80	100	120
N-Nitrosodimethylamine	1**	10	20	40	50	80	100	120
Pyridine		10	20	40	50	80	100	120
Aniline		10	20	40	50	80	100	120
Phenol		10	20	40	50	80	100	120
bis(2-Chloroethyl)ether		10	20	40	50	80	100	120
2-Chlorophenol		10	20	40	50	80	100	120
n-Decane		10	20	40	50	80	100	120
1,3-Dichlorobenzene		10	20	40	50	80	100	120
1,4-Dichlorobenzene		10	20	40	50	80	100	120
Benzyl Alcohol		10	20	40	50	80	100	120
1,2-Dichlorobenzene		10	20	40	50	80	100	120
bis(2-Chloroisopropyl)ether		10	20	40	50	80	100	120
o-Cresol (2-Methylphenol)		10	20	40	50	80	100	120
N-Nitrosodipropylamine	1**	10	20	40	50	80	100	120
m,p-Cresols (3-Methylphenol & 4-Methylphenol)		10	20	40	50	80	100	120
Hexachloroethane		10	20	40	50	80	100	120
Nitrobenzene		10	20	40	50	80	100	120
Isophorone		10	20	40	50	80	100	120
2-Nitrophenol		10	20	40	50	80	100	120
2,4-Dimethylphenol		10	20	40	50	80	100	120
bis(2-Chloroethoxy)methane		10	20	40	50	80	100	120
2,4-Dichlorophenol		10	20	40	50	80	100	120
Benzoic Acid			20	40	50	80	100	120
1,2,4-Trichlorobenzene		10	20	40	50	80	100	120
Naphthalene	1	10	20	40	50	80	100	120
alpha-Terpineol		10	20	40	50	80	100	120
4-Chloroaniline		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorobutadiene		10	20	40	50	80	100	120
4-Chloro-3-methylphenol		10	20	40	50	80	100	120
2-Methylnaphthalene	1	10	20	40	50	80	100	120

1-Methylnaphthalene	1	10	20	40	50	80	100	120
Hexachlorocyclopentadiene		10	20	40	50	80	100	120
2,3-Dichloroaniline		10	20	40	50	80	100	120
2,4,6-Trichlorophenol		10	20	40	50	80	100	120
2,4,5-Trichlorophenol		10	20	40	50	80	100	120
2-Chloronaphthalene	1	10	20	40	50	80	100	120
o-Nitroaniline		10	20	40	50	80	100	120
m-Nitroaniline		10	20	40	50	80	100	120
Dimethylphthalate	1**	10	20	40	50	80	100	120
2,6-Dinitrotoluene		10	20	40	50	80	100	120
Acenaphthylene	1	10	20	40	50	80	100	120
Acenaphthene	1	10	20	40	50	80	100	120
2,4-Dinitrophenol			20	40	50	80	100	120
Dibenzofuran		10	20	40	50	80	100	120
2,4-Dinitrotoluene		10	20	40	50	80	100	120
Diethylphthalate	1**	10	20	40	50	80	100	120
4-Nitrophenol		10	20	40	50	80	100	120
Fluorene	1	10	20	40	50	80	100	120
4-Chlorophenyl phenyl ether		10	20	40	50	80	100	120
2-Methyl-4,6-dinitrophenol		10	20	40	50	80	100	120
p-Nitroaniline		10	20	40	50	80	100	120
Diphenylamine		10	20	40	50	80	100	120
1,2-Diphenylhydrazine		10	20	40	50	80	100	120
4-Bromophenyl phenyether		10	20	40	50	80	100	120
Hexachlorobenzene		10	20	40	50	80	100	120
Pentachlorophenol		10	20	40	50	80	100	120
n-Octadecane		10	20	40	50	80	100	120
Phenanthrene	1	10	20	40	50	80	100	120
Anthracene	1	10	20	40	50	80	100	120
Di-n-butylphthalate	1**	10	20	40	50	80	100	120
Fluoranthene	1	10	20	40	50	80	100	120
Pyrene	1	10	20	40	50	80	100	120
Butylbenzylphthalate	1**	10	20	40	50	80	100	120
Benzo(a)anthracene	1	10	20	40	50	80	100	120
Chrysene	1	10	20	40	50	80	100	120
bis (2-Ethylhexyl) phthalate	1	10	20	40	50	80	100	120
Di-n-octylphthalate	1**	10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
MEGA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzo(b)fluoranthene	1	10	20	40	50	80	100	120
Benzo(k)fluoranthene	1	10	20	40	50	80	100	120
Benzo(a)pyrene	1	10	20	40	50	80	100	120
Indeno-(1,2,3-cd)pyrene	1	10	20	40	50	80	100	120
Dibenzo(a,h)anthracene	1	10	20	40	50	80	100	120
Benzo(ghi)perylene	1	10	20	40	50	80	100	120
m-Dinitrobenzene		10	20	40	50	80	100	120
2,3,4,6-Tetrachlorophenol		10	20	40	50	80	100	120
Dinoseb		10	20	40	50	80	100	120
Carbazole	1	10	20	40	50	80	100	120

p-Benzoquinone		10	20	40	50	80	100	120
Methoxychlor	1**	10	20	40	50	80	100	120
p-Toluidine		10	20	40	50	80	100	120
m-Toluidine		10	20	40	50	80	10	120
1,4-Dinitrobenzene		10	20	40	50	80	100	120
2-Ethoxyethanol		10	20	40	50	80	100	120
Phthalic anhydride		10	20	40	50	80	100	120
Methylenebis(2-chloroaniline)		10	20	40	50	80	100	120
Dibenzo(a,e)pyrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Benzaldehyde		10	20	40	50	80	100	120
Acetophenone		10	20	40	50	80	100	120
Caprolactam		10	20	40	50	80	100	120
1,1'-Biphenyl		10	20	40	50	80	100	120
Atrazine		10	20	40	50	80	100	120
Benzidine		10	20	40	50	80	100	120
3,3'-Dichlorobenzidene		10	20	40	50	80	100	120
1,4-Dioxane		10	20	40	50	80	100	120
Methyl methacrylate		10	20	40	50	80	100	120
Ethyl methacrylate		10	20	40	50	80	100	120
2-Picoline		10	20	40	50	80	100	120
N-Nitrosomethylethylamine		10	20	40	50	80	100	120
Methyl methanesulfonate		10	20	40	50	80	100	120
N-Nitrosodiethylamine		10	20	40	50	80	100	120
Ethyl methanesulfonate		10	20	40	50	80	100	120
Pentachloroethane		10	20	40	50	80	100	120
N-Nitrosopyrrolidine		10	20	40	50	80	100	120
N-Nitrosomorpholine		10	20	40	50	80	100	120
o-Toluidine		10	20	40	50	80	100	120
N-Nitrosopiperidine		10	20	40	50	80	100	120
a,a-Dimethhylphenethylamine		10	20	40	50	80	100	120
2,6-Dichlorophenol		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
AP MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachloropropene		10	20	40	50	80	100	120
p-Phenylenediamine		10	20	40	50	80	100	120
N-Nitrosodi-n-butylamine		10	20	40	50	80	100	120
Safrole		10	20	40	50	80	100	120
1,2,4,5-Tetrachlorobenzene		10	20	40	50	80	100	120
Isosafrole		10	20	40	50	80	100	120
1,4-Naphthoquinone		10	20	40	50	80	100	120
Pentachlorobenzene		10	20	40	50	80	100	120
1-Naphthylamine		10	20	40	50	80	100	120
2-Naphthylamine		10	20	40	50	80	100	120
5-Nitro-o-toluidine		10	20	40	50	80	100	120
1,3,5-Trinitrobenzene		10	20	40	50	80	100	120
Phenacetin		10	20	40	50	80	100	120
Diallate		10	20	40	50	80	100	120
cis-Diallate		1.5	3	6	7.5	12	15	18
trans-Diallate		8.5	17	34	42	68	85	102
4-Aminobiphenyl		10	20	40	50	80	100	120

Pentachloronitrobenzene		10	20	40	50	80	100	120
Pronamide		10	20	40	50	80	100	120
4-Nitroquinoline oxide		10	20	40	50	80	100	120
Methapyrilene	1**	10	20	40	50	80	100	120
Isodrin	1**	10	20	40	50	80	100	120
Aramite		10	20	40	50	80	100	120
Kepone	1**	10	20	40	50	80	100	120
p-(Dimethylamino)azobenzene		10	20	40	50	80	100	120
Chlorobenzilate		10	20	40	50	80	100	120
3,3'-Dimethylbenzidine		10	20	40	50	80	100	120
2-Acetylaminofluorene		10	20	40	50	80	100	120
7,12-Dimethylbenz(a)anthracene		10	20	40	50	80	100	120
3-Methylcholanthrene		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Hexachlorophene		500	1000	1250	1500	1750	2000	

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
PEST MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
Tributylphosphate		10	20	40	50	80	100	120
Triethylphosphorothioate		10	20	40	50	80	100	120
Thionazin		10	20	40	50	80	100	120
Sulfotepp		10	20	40	50	80	100	120
Phorate		10	20	40	50	80	100	120
Dimethoate		10	20	40	50	80	100	120
Disulfoton		10	20	40	50	80	100	120
Methyl parathion		10	20	40	50	80	100	120
Famphur		10	20	40	50	80	100	120
Parathion		10	20	40	50	80	100	120

SW846 8270/EPA 625								
Calibration Standard Concentration Levels*								
NEVADA MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
bis(Chloromethyl)ether		10	20	40	50	80	100	120
4-Chlorothiophenol		10	20	40	50	80	100	120
4-Chlorothioanisole		10	20	40	50	80	100	120
Phthalic acid		10	20	40	50	80	100	120
Hydroxymethyl phthalimide		10	20	40	50	80	100	120
Diphenyl sulfide		10	20	40	50	80	100	120
Diphenyl disulfide		10	20	40	50	80	100	120
Phenyl sulfone		10	20	40	50	80	100	120
Octachlorostyrene		10	20	40	50	80	100	120
Thiophenol		10	20	40	50	80	100	120
2,2'-Dichlorobenzil		10	20	40	50	80	100	120
bis(p-Chlorophenyl)disulfide		10	20	40	50	80	100	120

bis(p-Chlorophenyl)sulfone		10	20	40	50	80	100	120

SW846 8270C/8270D/EPA 625								
Calibration Standard Concentration Levels*								
BJCO MIX	Level 1	Level 2	Level 3	Level 4#	Level 5	Level 6	Level 7	Level 8
1-Hexanol		10	20	40	50	80	100	120
Quinoline		10	20	40	50	80	100	120
2,4-Toluene diisocyanate		10	20	40	50	80	100	120
1-Nitropyrene		10	20	40	50	80	100	120
5-Methylchrysene		10	20	40	50	80	100	120
Benzo(j)fluoranthene		10	20	40	50	80	100	120
Dibenzo(a,h)pyrene		10	20	40	50	80	100	120
Dibenzo(a,h)acridine		10	20	40	50	80	100	120
Dibenzo(a,j)acridine		10	20	40	50	80	100	120
Dibenzo(a,i)pyrene		10	20	40	50	80	100	120
Dibenzo(a,l)pyrene		10	20	40	50	80	100	120
7H-Dibenzo(c,g)carbazole		10	20	40	50	80	10	120

All values are mg/L without the prep factor.
# Indicates the calibration verification concentration level used
* Usual calibration levels using SCAN methodology
** This analyte included in this level at special client request.
(0210/Full list)

Report Date: 03-Mar-2010 22:06

Calibration History

Method : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Start Cal Date: 25-FEB-2010 19:29
End Cal Date : 27-FEB-2010 19:19

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
26-FEB-2010 14:34	MEGAII	/chem/MSD2.i/s022510a.b/s2b2541.d
Cal Level: 2 , Cal Amount: 10.00000		
27-FEB-2010 16:33	BJCO	/chem/MSD2.i/s022510a.b/s2b2566.d
26-FEB-2010 20:10	HEX	/chem/MSD2.i/s022510a.b/s2b2555.d
26-FEB-2010 14:58	MEGAII	/chem/MSD2.i/s022510a.b/s2b2542.d
26-FEB-2010 01:50	PEST	/chem/MSD2.i/s022510a.b/s2b2529.d
25-FEB-2010 23:33	AP12	/chem/MSD2.i/s022510a.b/s2b2522.d
Cal Level: 3 , Cal Amount: 20.00000		
27-FEB-2010 17:01	BJCO	/chem/MSD2.i/s022510a.b/s2b2567.d
26-FEB-2010 20:30	HEX	/chem/MSD2.i/s022510a.b/s2b2556.d
26-FEB-2010 15:23	MEGAII	/chem/MSD2.i/s022510a.b/s2b2543.d
26-FEB-2010 02:10	PEST	/chem/MSD2.i/s022510a.b/s2b2530.d
25-FEB-2010 23:52	AP12	/chem/MSD2.i/s022510a.b/s2b2523.d
Cal Level: 4 , Cal Amount: 40.00000		
27-FEB-2010 17:29	BJCO	/chem/MSD2.i/s022510a.b/s2b2568.d
26-FEB-2010 20:50	HEX	/chem/MSD2.i/s022510a.b/s2b2557.d
26-FEB-2010 02:29	PEST	/chem/MSD2.i/s022510a.b/s2b2531.d
26-FEB-2010 00:12	AP12	/chem/MSD2.i/s022510a.b/s2b2524.d
26-FEB-2010 15:48	MEGAII	/chem/MSD2.i/s022510a.b/s2b2544.d
Cal Level: 5 , Cal Amount: 50.00000		
27-FEB-2010 17:56	BJCO	/chem/MSD2.i/s022510a.b/s2b2569.d
26-FEB-2010 21:10	HEX	/chem/MSD2.i/s022510a.b/s2b2558.d
26-FEB-2010 02:49	PEST	/chem/MSD2.i/s022510a.b/s2b2532.d
26-FEB-2010 00:32	AP12	/chem/MSD2.i/s022510a.b/s2b2525.d
26-FEB-2010 16:13	MEGAII	/chem/MSD2.i/s022510a.b/s2b2545.d
Cal Level: 6 , Cal Amount: 80.00000		
27-FEB-2010 18:24	BJCO	/chem/MSD2.i/s022510a.b/s2b2570.d
26-FEB-2010 21:31	HEX	/chem/MSD2.i/s022510a.b/s2b2559.d
26-FEB-2010 03:09	PEST	/chem/MSD2.i/s022510a.b/s2b2533.d
26-FEB-2010 00:51	AP12	/chem/MSD2.i/s022510a.b/s2b2526.d
26-FEB-2010 18:12	MEGAII	/chem/MSD2.i/s022510a.b/s2b2550.d
Cal Level: 7 , Cal Amount: 100.00000		

27-FEB-2010 18:51	BJCO	/chem/MSD2.i/s022510a.b/s2b2571.d
26-FEB-2010 21:51	HEX	/chem/MSD2.i/s022510a.b/s2b2560.d
26-FEB-2010 03:28	PEST	/chem/MSD2.i/s022510a.b/s2b2534.d
26-FEB-2010 01:11	AP12	/chem/MSD2.i/s022510a.b/s2b2527.d
26-FEB-2010 18:36	MEGAII	/chem/MSD2.i/s022510a.b/s2b2551.d

Cal Level: 8 , Cal Amount: 120.00000

27-FEB-2010 19:19	BJCO	/chem/MSD2.i/s022510a.b/s2b2572.d
26-FEB-2010 21:51	HEX	/chem/MSD2.i/s022510a.b/s2b2560.d
26-FEB-2010 03:48	PEST	/chem/MSD2.i/s022510a.b/s2b2535.d
26-FEB-2010 01:31	AP12	/chem/MSD2.i/s022510a.b/s2b2528.d
26-FEB-2010 19:01	MEGAII	/chem/MSD2.i/s022510a.b/s2b2552.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0

03-MAR-2010 19:41	MEGAII	/chem/MSD2.i/s030310a.b/s2c0308.d

Ccal Level: 4 , Ccal Amount: 40.0

03-MAR-2010 20:55	PEST	/chem/MSD2.i/s030310a.b/s2c0311.d

Ccal Level: 4 , Ccal Amount: 40.0

03-MAR-2010 20:35	AP12	/chem/MSD2.i/s030310a.b/s2c0310.d

Ccal Level: 4 , Ccal Amount: 40.0

03-MAR-2010 20:08	BJCO	/chem/MSD2.i/s030310a.b/s2c0309.d

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 25-FEB-2010 19:29
End Cal Date : 27-FEB-2010 19:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Calibration File Names:
Level 1: /chem/MSD2.i/s022510a.b/s2b2541.d
Level 2: /chem/MSD2.i/s022510a.b/s2b2566.d
Level 3: /chem/MSD2.i/s022510a.b/s2b2567.d
Level 4: /chem/MSD2.i/s022510a.b/s2b2568.d
Level 5: /chem/MSD2.i/s022510a.b/s2b2569.d
Level 6: /chem/MSD2.i/s022510a.b/s2b2570.d
Level 7: /chem/MSD2.i/s022510a.b/s2b2571.d
Level 8: /chem/MSD2.i/s022510a.b/s2b2572.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.96083	0.93470	0.90169	0.88235	+++++					
	0.90612	0.87826					AVRG		0.91066		3.48859
2 Pyridine	+++++	1.32941	1.29922	1.29607	1.27296	+++++					
	1.36923	1.32750					AVRG		1.31573		2.56102
4 Aniline	+++++	0.87209	0.83930	0.83203	0.80787	+++++					
	0.84081	0.80247					AVRG		0.83243		3.03486
209 Benzaldehyde	+++++	1.27706	1.28551	1.18516	1.14807	1.05102					
	0.98759	0.97107					AVRG		1.12935		11.48569
6 Phenol	+++++	1.78590	1.72703	1.68515	1.63270	+++++					
	1.66865	1.60464					AVRG		1.68401		3.88523

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 25-FEB-2010 19:29
End Cal Date : 27-FEB-2010 19:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	1.99289	1.58752	1.53320	1.45484	1.39911	+++++					
	1.40492	1.31186					AVRG		1.52634		14.73520
8 2-Chlorophenol	+++++	1.41341	1.37632	1.34113	1.29916	+++++					
	1.32947	1.26500					AVRG		1.33741		3.96680
203 n-Decane	+++++	166695	282749	510384	619845	+++++					
	781419	+++++					WLINR	-0.11232	1.62556		0.99134
9 1,3-Dichlorobenzene	+++++	1.56159	1.47898	1.40282	1.32950	+++++					
	1.34156	1.27304					AVRG		1.39791		7.62686
11 1,4-Dichlorobenzene	+++++	1.55616	1.48367	1.39006	1.33194	+++++					
	1.35979	1.27116					AVRG		1.39880		7.45174
12 Benzyl alcohol	+++++	0.94046	0.94896	0.95662	0.92717	+++++					
	0.95371	0.93596					AVRG		0.94381		1.19697
13 1,2-Dichlorobenzene	+++++	1.44658	1.36644	1.24699	1.17284	+++++					
	1.15172	1.07781					AVRG		1.24373		11.21244
14 bis(2-Chloroisopropyl)ether	+++++	3.34348	3.18518	2.98716	2.81798	+++++					
	2.75071	2.47789					AVRG		2.92707		10.67746
15 o-Cresol	+++++	1.18315	1.13337	1.08279	1.04231	+++++					
	1.03320	0.96867					AVRG		1.07392		7.12554

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 25-FEB-2010 19:29
End Cal Date : 27-FEB-2010 19:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.72238	1.73346	1.57923	1.52211	1.44651					
	1.38847	1.34220					AVRG		1.53348		10.07011
17 N-Nitrosodipropylamine	1.30882	1.13901	1.11608	1.11579	1.07894	+++++					
	1.08279	1.05112					AVRG		1.12751		7.54884
18 m,p-Cresols	+++++	1.49869	1.49197	1.48742	1.44830	+++++					
	1.50369	1.44021					AVRG		1.47838		1.83546
19 Hexachloroethane	+++++	0.65780	0.62900	0.61006	0.58654	+++++					
	0.59555	0.55978					AVRG		0.60646		5.64141
21 Nitrobenzene	+++++	0.40771	0.39351	0.36823	0.35428	+++++					
	0.33286	0.31725					AVRG		0.36231		9.58687
22 Isophorone	+++++	0.79009	0.76424	0.71625	0.69192	+++++					
	0.64886	0.63240					AVRG		0.70729		8.81531
23 2-Nitrophenol	+++++	0.17683	0.16467	0.15174	0.14396	+++++					
	0.13446	0.12583					AVRG		0.14958		12.68219
24 2,4-Dimethylphenol	+++++	114467	172656	356450	457974	+++++					
	590799	+++++					WLINR	-0.13682	0.25061		0.99445
25 bis(2-Chloroethoxy)methane	+++++	0.45195	0.42405	0.39728	0.37196	+++++					
	0.33855	0.32615					AVRG		0.38499		12.69803

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 25-FEB-2010 19:29
End Cal Date : 27-FEB-2010 19:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
26 2,4-Dichlorophenol	+++++	0.25955	0.25011	0.23895	0.22966	+++++					
	0.21021	0.20045					AVRG		0.23149		9.86834
27 Benzoic acid	+++++	+++++	0.14558	0.19372	0.19239	+++++					
	0.20025	0.20792					AVRG		0.18797		13.02716
28 1,2,4-Trichlorobenzene	+++++	0.31851	0.29678	0.27143	0.25816	+++++					
	0.23125	0.22241					AVRG		0.26642		13.94629
30 Naphthalene	38495	315438	545995	1066679	1330641	+++++					
	+++++	+++++					WLINR	-0.01441	0.92412		0.99298
204 alpha-Terpineol	+++++	0.40883	0.38699	0.34941	0.32671	+++++					
	0.29355	+++++					AVRG		0.35310		13.06251
31 4-Chloroaniline	+++++	0.46451	0.45750	0.44279	0.42526	+++++					
	0.39549	0.37174					AVRG		0.42621		8.54476
189 Caprolactam	+++++	0.10360	0.11245	0.10321	0.10118	0.09706					
	0.09212	0.09205					AVRG		0.10024		7.20867
32 Hexachlorobutadiene	+++++	0.17453	0.16498	0.15132	0.14325	+++++					
	0.13075	0.12396					AVRG		0.14813		13.16380
33 4-Chloro-3-methylphenol	+++++	0.31352	0.30864	0.29541	0.28173	+++++					
	0.26432	0.25391					AVRG		0.28625		8.37778

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 25-FEB-2010 19:29
End Cal Date : 27-FEB-2010 19:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	23164	191546	332069	649464	804813	+++++					
	+++++	+++++					WLINR	-0.01401	0.56180		0.99273
35 1-Methylnaphthalene	22629	186777	324061	635503	792726	+++++					
	+++++	+++++					WLINR	-0.01397	0.54938		0.99335
36 Hexachlorocyclopentadiene	+++++	0.24213	0.22878	0.24332	0.23286	+++++					
	0.20305	0.20531					AVRG		0.22591		7.84269
208 1,1'-Biphenyl	+++++	1.53667	1.50580	1.32567	1.29020	1.17269					
	1.12831	1.07153					AVRG		1.29012		14.02106
205 2,3-Dichloroaniline	+++++	0.64661	0.60773	0.57105	0.54205	+++++					
	0.53045	0.50907					AVRG		0.56783		9.09052
37 2,4,6-Trichlorophenol	+++++	0.32075	0.31355	0.28978	0.27727	+++++					
	0.28613	0.26835					AVRG		0.29264		7.00977
38 2,4,5-Trichlorophenol	+++++	0.33898	0.33430	0.35332	0.34815	+++++					
	0.33584	0.33964					AVRG		0.34170		2.18034
40 2-Chloronaphthalene	21416	180003	317486	629647	786247	+++++					
	1084538	1379520					WLINR	-0.01178	1.00831		0.99536
42 o-Nitroaniline	+++++	0.41541	0.41858	0.42225	0.41659	+++++					
	0.42962	0.42517					AVRG		0.42127		1.29708

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INITIAL CALIBRATION DATA

Start Cal Date : 25-FEB-2010 19:29
End Cal Date : 27-FEB-2010 19:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
41 m-Nitroaniline	+++++	0.21635	0.20907	0.27874	0.27487	+++++					
	0.28018	0.28342					AVRG		0.25711		13.44685
43 Dimethylphthalate	+++++	1.34025	1.27848	1.21438	1.18560	+++++					
	1.18009	1.14200					AVRG		1.22347		5.97277
44 2,6-Dinitrotoluene	+++++	0.30043	0.29494	0.28033	0.27851	+++++					
	0.27232	0.26106					AVRG		0.28126		5.15496
45 Acenaphthylene	31286	272877	476988	945755	1177310	+++++					
	1642487	2083884					WLINR	-0.01061	1.52251		0.99506
47 Acenaphthene	24284	184933	317034	617566	765915	+++++					
	1056115	1344850					WLINR	-0.01743	0.99160		0.99324
48 2,4-Dinitrophenol	+++++	+++++	17380	52977	71347	+++++					
	105646	155427					LINR	0.24037	0.10967		0.99396
49 Dibenzofuran	+++++	1.57349	1.45423	1.36613	1.30200	+++++					
	1.27451	1.22965					AVRG		1.36667		9.36431
50 2,4-Dinitrotoluene	+++++	0.37294	0.36957	0.37082	0.36079	+++++					
	0.36631	0.35902					AVRG		0.36658		1.53366
51 Diethylphthalate	+++++	1.31997	1.24157	1.18099	1.13762	+++++					
	1.12180	1.05849					AVRG		1.17674		7.90526

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INITIAL CALIBRATION DATA

Start Cal Date : 25-FEB-2010 19:29
End Cal Date : 27-FEB-2010 19:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
52 4-Nitrophenol	+++++	0.15881	0.16491	0.18627	0.18800	+++++					
	0.20229	0.20510					AVRG		0.18423		10.29687
53 Fluorene	24699	200404	346401	672796	825439	+++++					
	1157522	1472042					WLINR	-0.01449	1.08430		0.99299
54 4-Chlorophenylphenylether	+++++	0.62874	0.58262	0.54608	0.52122	+++++					
	0.52120	0.49669					AVRG		0.54943		8.83341
55 2-Methyl-4,6-dinitrophenol	+++++	0.07313	0.08177	0.09724	0.09798	+++++					
	0.10130	0.10654					AVRG		0.09299		13.73729
56 p-Nitroaniline	+++++	0.23293	0.18512	0.21076	0.23706	+++++					
	0.24110	0.23015					AVRG		0.22285		9.54048
133 Diphenylamine	+++++	0.63947	0.56141	0.52963	0.51717	+++++					
	0.50268	0.50639					AVRG		0.54279		9.55781
58 1,2-Diphenylhydrazine	+++++	0.97333	0.93806	0.87542	0.84710	+++++					
	0.81902	0.79694					AVRG		0.87498		7.86059
59 Tributylphosphate	+++++	1.67040	1.60774	1.45365	1.47617	1.28671					
	1.28017	1.21678					AVRG		1.42737		12.15038
61 4-Bromophenylphenylether	+++++	0.19909	0.19128	0.17857	0.17267	+++++					
	0.17027	0.16980					AVRG		0.18028		6.77333

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INITIAL CALIBRATION DATA

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Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
63 Hexachlorobenzene	+++++	0.21670	0.20548	0.19384	0.18635	+++++					
	0.18566	0.18742					AVRG		0.19591		6.44255
207 Atrazine	+++++	0.05747	0.05299	0.04839	0.04578	0.04075					
	+++++	+++++					AVRG		0.04908		13.14274
65 Pentachlorophenol	+++++	0.08661	0.09538	0.10459	0.10176	+++++					
	0.10321	0.10404					AVRG		0.09927		7.09600
206 n-Octadecane	+++++	215273	367617	675252	792565	+++++					
	1040486	1226791					LINR	-0.30806	0.47366		0.99094
68 Phenanthrene	37096	291327	497385	1018008	1223062	+++++					
	+++++	+++++					WLINR	-0.01445	1.00999		0.99581
69 Anthracene	34490	294500	506024	995816	1244001	+++++					
	1740919	2128824					WLINR	-0.01300	0.97994		0.99207
72 Di-n-butylphthalate	+++++	1.31815	1.23152	1.15243	1.09535	+++++					
	1.05114	0.99722					AVRG		1.14097		10.41023
76 Fluoranthene	31840	282347	496526	983639	1182349	+++++					
	1664894	2102108					WLINR	-0.01107	0.95328		0.99198
77 Benzidine	+++++	0.37773	0.36443	0.32941	0.31637	0.39377					
	0.37177	0.44003					AVRG		0.37050		11.06586

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INITIAL CALIBRATION DATA

Start Cal Date : 25-FEB-2010 19:29
End Cal Date : 27-FEB-2010 19:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
79 Pyrene	34279	304145	524002	1043035	1252934	++++++					
	1760030	2215154					WLINR	-0.01109	1.26152		0.99844
85 Butylbenzylphthalate	++++++	0.60155	0.58125	0.53971	0.52541	++++++					
	0.51027	0.48160					AVRG		0.53997		8.28139
89 Benzo(a)anthracene	1.37202	1.09869	1.03669	1.03526	0.98977	++++++					
	1.05045	1.03932					AVRG		1.08888		11.83350
90 3,3'-Dichlorobenzidine	++++++	0.26337	0.31394	0.29436	0.27766	0.27165					
	0.26556	0.26917					AVRG		0.27939		6.58910
92 Chrysene	27731	245863	430266	833657	1014169	++++++					
	1399291	1734450					WLINR	-0.01137	1.01358		0.99731
93 bis(2-Ethylhexyl)phthalate	0.85374	0.83474	0.83862	0.79683	0.77348	++++++					
	0.76393	0.73822					AVRG		0.79994		5.45344
94 Di-n-octylphthalate	++++++	1.44504	1.56647	1.59402	1.55617	++++++					
	1.61191	1.59783					AVRG		1.56191		3.89803
95 Benzo(b)fluoranthene	1.27325	1.06033	1.12561	1.06318	1.09841	++++++					
	1.15709	1.08147					AVRG		1.12276		6.66288
96 Benzo(k)fluoranthene	1.38580	1.23216	1.12886	1.13962	1.05896	++++++					
	1.07765	1.08074					AVRG		1.15768		10.02475

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INITIAL CALIBRATION DATA

Start Cal Date : 25-FEB-2010 19:29
End Cal Date : 27-FEB-2010 19:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
97 Benzo(a)pyrene	1.00791	0.96983	0.94985	0.94533	0.93731	+++++					
	0.97222	0.93026					AVRG		0.95896		2.77596
99 Indeno(1,2,3-cd)pyrene	0.89796	0.95120	0.86697	0.87540	0.85146	+++++					
	0.91499	0.85649					AVRG		0.88778		4.04847
100 Dibenzo(a,h)anthracene	0.72254	0.77392	0.70084	0.71287	0.69517	+++++					
	0.75888	0.70200					AVRG		0.72374		4.25327
101 Benzo(ghi)perylene	0.80112	0.80434	0.73496	0.72690	0.70998	+++++					
	0.76848	0.69769					AVRG		0.74907		5.71606
102 1,4-Dioxane	+++++	0.53925	0.54287	0.49126	0.47875	0.45236					
	0.44091	0.41878					AVRG		0.48060		9.91660
103 Methyl methacrylate	+++++	0.28748	0.28411	0.26047	0.25489	0.23988					
	0.23454	0.22008					AVRG		0.25449		9.88524
104 Ethyl methacrylate	+++++	1.13169	1.14952	1.05163	1.02602	0.97733					
	0.96306	0.90304					AVRG		1.02890		8.73600
105 2-Picoline	+++++	1.70882	1.71902	1.56231	1.50264	1.41322					
	1.38047	1.31115					AVRG		1.51395		10.49891
106 N-Nitrosomethylethylamine	+++++	0.71911	0.75131	0.70235	0.68847	0.66792					
	0.65742	0.63076					AVRG		0.68819		5.87137

GEL Laboratories LLC

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Start Cal Date : 25-FEB-2010 19:29
End Cal Date : 27-FEB-2010 19:19
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Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
107 Methyl methanesulfonate	+++++	0.74841	0.78829	0.73180	0.70739	0.67551					
	0.63152	0.64066					AVRG		0.70337		8.19526
108 N-Nitrosodiethylamine	+++++	0.73409	0.74350	0.67924	0.65820	0.63736					
	0.61687	0.59155					AVRG		0.66583		8.59612
109 Ethyl Methanesulfonate	+++++	0.93756	0.95056	0.88809	0.86832	0.84160					
	0.81265	0.79993					AVRG		0.87125		6.68893
110 Pentachloroethane	+++++	0.39829	0.40278	0.36588	0.36182	0.34351					
	0.33484	0.31276					AVRG		0.35998		9.12256
111 N-Nitrosopyrrolidine	+++++	0.72207	0.74269	0.70922	0.69255	0.66024					
	0.61752	0.60823					AVRG		0.67893		7.64165
113 N-Nitrosomorpholine	+++++	1.07046	1.07648	1.00314	0.97823	0.93918					
	0.88057	0.85296					AVRG		0.97157		8.93592
114 o-Toluidine	+++++	2.48598	2.51646	2.29083	2.22932	2.11994					
	1.99763	1.93245					AVRG		2.22466		10.14687
115 N-Nitrosopiperidine	+++++	0.17888	0.18198	0.16546	0.16269	0.15404					
	0.14941	0.14580					AVRG		0.16261		8.61837
116 a,a-Dimethylphenethylamine	+++++	1.08032	1.18250	1.15839	1.13380	1.10310					
	1.09780	1.05963					AVRG		1.11650		3.91820

GEL Laboratories LLC

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Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
117 Triethylphosphorothioate	+++++	0.15680	0.14989	0.14183	0.13840	0.12487					
	0.12241	0.12071					AVRG		0.13642		10.39468
118 2,6-Dichlorophenol	+++++	0.22968	0.24767	0.23019	0.22824	0.21994					
	0.20722	0.20384					AVRG		0.22383		6.70943
119 Hexachloropropene	+++++	0.09643	0.12071	0.10810	0.10830	0.10566					
	0.10396	0.10222					AVRG		0.10648		7.01238
120 p-Phenylenediamine	+++++	0.27853	0.35439	0.32961	0.32052	0.29301					
	0.23989	0.26763					AVRG		0.29765		13.28967
121 N-Nitrosodi-n-butylamine	+++++	0.32657	0.33644	0.27079	0.26330	0.24730					
	+++++	+++++					AVRG		0.28888		13.83925
122 Safrole	+++++	0.23357	0.23152	0.20679	0.19987	0.18624					
	0.17835	0.17213					AVRG		0.20121		12.15719
123 1,2,4,5-Tetrachlorobenzene	+++++	0.49828	0.47823	0.42902	0.41697	0.38308					
	0.37806	0.35650					AVRG		0.42002		12.58385
124 Isosafrole	+++++	0.42619	0.42314	0.38749	0.37541	0.35479					
	0.34277	0.33324					AVRG		0.37758		9.81458
125 1,4-Naphthoquinone	+++++	0.43969	0.46304	0.42102	0.40805	0.36256					
	0.32446	0.31769					AVRG		0.39093		14.53134

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Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
126 m-Dinitrobenzene	+++++	0.19632	0.20285	0.20695	0.20411	+++++					
	0.20519	0.19977					AVRG		0.20253		1.91634
127 Pentachlorobenzene	+++++	0.42915	0.42256	0.37734	0.36900	0.34893					
	0.33929	0.32545					AVRG		0.37310		10.73227
128 1-Naphthylamine	+++++	1.01824	1.02797	0.96063	0.92496	0.86385					
	0.78852	0.81833					AVRG		0.91464		10.32976
129 2-Naphthylamine	+++++	1.18449	1.20191	1.06848	1.02397	0.97839					
	0.87863	0.91493					AVRG		1.03583		12.05275
130 2,3,4,6-Tetrachlorophenol	+++++	0.27570	0.27851	0.29233	0.25662	+++++					
	0.28091	0.28573					AVRG		0.27830		4.35824
131 5-Nitro-o-toluidine	+++++	0.27926	0.31877	0.29625	0.29174	0.28793					
	0.26479	0.27930					AVRG		0.28829		5.87162
132 Thionazin	+++++	0.21837	0.21310	0.20787	0.20291	0.18443					
	0.18151	0.17878					AVRG		0.19814		8.21521
134 Sulfotepp	+++++	0.11576	0.11273	0.10759	0.11050	0.10349					
	0.10498	0.10334					AVRG		0.10834		4.44813
135 Phorate	+++++	0.54395	0.53764	0.50127	0.50410	0.43441					
	0.42913	0.41424					AVRG		0.48068		11.21388

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INITIAL CALIBRATION DATA

Start Cal Date : 25-FEB-2010 19:29
End Cal Date : 27-FEB-2010 19:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
136 1,3,5-Trinitrobenzene	+++++	0.09902	0.13795	0.14185	0.14437	0.15552					
	0.14250	0.15346					AVRG		0.13924		13.53210
137 Phenacetin	+++++	0.36668	0.38290	0.36495	0.36255	0.35934					
	0.33744	0.34833					AVRG		0.36031		3.99768
138 Diallate	+++++	0.41072	0.38101	0.34947	0.34396	0.31724					
	0.31143	0.28849					AVRG		0.34319		12.30726
139 Dimethoate	+++++	0.30985	0.31438	0.31158	0.31433	0.28790					
	0.29351	0.28516					AVRG		0.30239		4.29471
140 4-Aminobiphenyl	+++++	0.62717	0.56633	0.52337	0.53442	0.53467					
	0.49789	0.49805					AVRG		0.54027		8.33257
141 Pentachloronitrobenzene	+++++	0.08305	0.08211	0.07650	0.07385	0.06634					
	0.06431	0.05917					AVRG		0.07219		12.69107
142 Pronamide	+++++	0.33308	0.30964	0.27184	0.26209	0.22641					
	+++++	+++++					AVRG		0.28061		14.85845
143 Dinoseb	+++++	0.10204	0.11901	0.14040	0.13703	+++++					
	0.13681	0.14379					AVRG		0.12985		12.40127
144 Disulfoton	+++++	0.43145	0.42298	0.39104	0.39568	0.33598					
	0.33444	0.32672					AVRG		0.37690		11.68975

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End Cal Date : 27-FEB-2010 19:19
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Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
145 Methyl parathion	+++++	0.22147	0.22330	0.22848	0.23357	0.22035					
	0.22015	0.21498					AVRG		0.22319		2.73426
146 4-Nitroquinoline-1-oxide	+++++	0.02862	0.03367	0.02762	0.02834	0.02191					
	+++++	+++++					AVRG		0.02803		14.90672
147 Methapyrilene	+++++	0.67380	0.65416	0.60002	0.56011	0.47272					
	+++++	+++++					AVRG		0.59216		13.57942
148 Isodrin	+++++	0.12395	0.11205	0.10954	0.09773	0.08713					
	+++++	+++++					AVRG		0.10608		13.29500
149 Aramite	+++++	0.06101	0.06312	0.05720	0.05442	0.04866					
	0.04375	0.04685					AVRG		0.05357		13.76359
150 Kepone	+++++	0.08590	0.08785	0.07852	0.07442	0.06805					
	0.06062	0.07046					AVRG		0.07512		13.00110
151 p-(Dimethylamino)azobenzene	+++++	0.43965	0.42302	0.37955	0.38382	0.35586					
	0.36266	0.31984					AVRG		0.38063		10.68466
152 Chlorobenzilate	+++++	0.31965	0.30681	0.28694	0.29640	0.27825					
	0.29353	0.26489					AVRG		0.29235		6.17308
153 3,3'-Dimethylbenzidine	+++++	0.58668	0.57470	0.51215	0.49457	0.49848					
	0.47976	0.50114					AVRG		0.52107		8.05789

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INITIAL CALIBRATION DATA

Start Cal Date : 25-FEB-2010 19:29
End Cal Date : 27-FEB-2010 19:19
Quant Method : ISTD
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Integrator : HP RTE
Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
154 Famphur	+++++	0.36131	0.38113	0.37483	0.37752	0.34625						
	0.35078	0.35083					AVRG		0.36323		3.98923	
155 2-Acetylaminofluorene	+++++	0.28795	0.35817	0.35446	0.32877	0.33220						
	0.32731	0.33122					AVRG		0.33144		6.92488	
157 7,12Dimethylbenz(a)anthracene	+++++	0.55020	0.53822	0.49882	0.52345	0.49124						
	0.48675	0.46414					AVRG		0.50755		6.05771	
158 3-Methylcholanthrene	+++++	0.42576	0.44495	0.43942	0.43727	0.42343						
	0.41779	0.41039					AVRG		0.42843		2.92537	
26 Phthalic anhydride	+++++	19674	43662	149139	198258	+++++						
	303292	390870					LINR	0.10709	0.12908		0.99568	
173 Carbazole	26652	231943	285485	742895	969476	+++++						
	1360936	1784176					LINR	-0.00713	0.72308		0.99840	
174 Hexachlorophene	+++++	0.04145	0.05155	0.05326	0.05594	0.05389						
	0.05958	+++++					AVRG		0.05261		11.63508	
179 Dibenzo(a,e)pyrene	+++++	0.35625	0.30196	0.33296	0.31351	+++++						
	0.41993	0.31979					AVRG		0.34073		12.62818	
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

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Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
184 p-Benzoquinone	+++++	0.11909	0.19949	0.26236	0.26927	+++++					
	0.39002	0.34759					AVRG		0.26464		37.04598 <-
191 Parathion	+++++	0.05838	0.06156	0.06139	0.06391	0.05967					
	0.06086	0.06070					AVRG		0.06092		2.81439
192 Methoxychlor	+++++	0.55793	0.56118	0.58128	0.56300	+++++					
	0.56663	0.56646					AVRG		0.56608		1.43825
210 m-Toluidine	+++++	1.79529	1.85187	1.92101	1.96359	+++++					
	2.24576	1.99048					AVRG		1.96133		7.99456
211 p-Toluidine	+++++	1.79858	1.60866	1.82813	1.72433	+++++					
	1.42696	1.55800					AVRG		1.65744		9.30464
212 Cis Diallate	+++++	0.43087	0.42200	0.40125	0.40045	0.38358					
	0.38382	0.35836					AVRG		0.39719		6.20814
213 Trans Diallate	+++++	0.48319	0.44824	0.41114	0.40466	0.37323					
	0.36639	0.33940					AVRG		0.40375		12.30726
214 1,4-Dinitrobenzene	+++++	0.25326	0.26920	0.28341	0.28173	+++++					
	0.29614	0.29228					AVRG		0.27934		5.67123
215 2-Ethoxyethanol	+++++	1.13332	1.11090	1.08871	1.05848	+++++					
	1.12963	1.06800					AVRG		1.09817		2.86878

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Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
216 Methylenebis(2-chloroaniline)	+++++	23181	35172	100539	129618	+++++						
	217340	306992					LINR	0.24172	0.17592		0.99230	
226 2,2'-Dichlorobenzil	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
227 4-Chlorothioanisole	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
228 4-Chlorothiophenol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
229 bis(p-Chlorophenyl)sulfone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
230 bis(p-Chlorophenyl)disulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
231 Diphenyl disulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
232 Diphenyl sulfide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
233 Phenyl sulfone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-

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Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
234 Hydroxymethyl phthalimide	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
235 Phthalic acid	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
236 Thiophenol	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
237 bis(Chloromethyl)ether	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
238 Octachlorostyrene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
239 Dibenzo(a,h)pyrene	+++++	16214	54354	114214	189671	366515						
	+++++	551083					LINR	0.20987	0.31941		0.99436	<-
240 Benzo(j)fluoranthene	+++++	0.85390	0.86463	0.84299	0.86658	0.80083						
	+++++	0.79743					AVRG		0.83773		3.71012	<-
241 Dibenzo(a,j)acridine	+++++	0.39881	0.49972	0.51254	0.54964	0.54659						
	+++++	0.56420					AVRG		0.51192		11.81878	<-
242 Dibenz(a,h)acridine	+++++	0.39192	0.48760	0.50053	0.53690	0.53811						
	+++++	0.55086					AVRG		0.50099		11.71717	<-

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Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1 / 100 Level 7	10 Level 2 / 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
243 Quinoline	++++++	0.54164	0.56122	0.53067	0.54908	0.50806						
	++++++	0.49772					AVRG		0.53140		4.59869	<-
244 2,4-Toluene Diisocyanate	++++++	0.32809	0.35001	0.33585	0.35120	0.32214						
	++++++	0.29887					AVRG		0.33102		5.90763	<-
245 Dibenzo(a,i)pyrene	++++++	8071	32130	70192	111587	237153						
	++++++	358959					LINR	0.26072	0.21122		0.99228	<-
246 1-Nitropyrene	++++++	10513	34383	92176	166425	330067						
	++++++	464207					LINR	0.24032	0.19779		0.99701	<-
247 5-Methylchrysene	++++++	0.49419	0.51030	0.49396	0.49924	0.46951						
	++++++	0.45770					AVRG		0.48748		4.05701	<-
248 Dibenzo(a,l)pyrene	++++++	18888	56203	115537	184365	347484						
	++++++	506374					LINR	0.15039	0.28934		0.99695	<-
249 7H-Dibenzo(c,g)carbazole	++++++	28751	75053	159553	261485	490297						
	++++++	687536					LINR	0.13062	0.39411		0.99858	<-
250 1-Hexanol	++++++	1.51040	1.63222	1.64202	1.62617	1.49305						
	++++++	1.42232					AVRG		1.55436		5.89845	<-
M 222 Trichlorophenols	++++++	0.32987	0.32392	0.32155	0.31271	++++++						
	0.31098	0.30400					AVRG		0.31717		3.01656	

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Method file : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
M 223 Tetrachlorophenols	+++++	0.27570	0.27851	0.29233	0.25662	+++++						
	0.28091	0.28573					AVRG		0.27830		4.35824	
M 224 Benzo(b,k)fluoranthene	1.32952	1.14624	1.12724	1.10140	1.07868	+++++						
	1.11737	1.08111					AVRG		1.14022		7.62477	
M 225 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 3 2-Fluorophenol	+++++	1.30930	1.29737	1.26180	1.22844	+++++						
	1.27000	1.20528					AVRG		1.26203		3.14876	
$ 5 Phenol-d5	+++++	1.75157	1.70055	1.66377	1.60913	+++++						
	1.63501	1.58190					AVRG		1.65699		3.74957	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.41938	0.41391	0.38967	0.37644	+++++						
	0.35598	0.34143					AVRG		0.38280		8.11486	
$ 39 2-Fluorobiphenyl	+++++	1.28100	1.19764	1.09965	1.05644	+++++						
	1.02519	0.98685					AVRG		1.10780		10.07044	

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Cal Date : 03-Mar-2010 22:02 ann00964

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
$ 60 2,4,6-Tribromophenol	+++++	0.14103	0.14257	0.14751	0.14295	+++++					
	0.14866	0.14909					AVRG		0.14530		2.41925
$ 81 p-Terphenyl-d14	+++++	0.74776	0.71990	0.68728	0.68533	+++++					
	0.71130	0.71350					AVRG		0.71085		3.24359

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response
Wt Linear	Amt = b + Rsp/m1	Response

Report Date: 03-Mar-2010 15:36

Calibration History

Method : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Start Cal Date: 20-FEB-2010 12:55
End Cal Date : 22-FEB-2010 01:19

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 1.00000		
20-FEB-2010 12:55	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2003.d
Cal Level: 2 , Cal Amount: 10.00000		
21-FEB-2010 22:13	NEV	/chem/MSD8.i/s022010.b/s8b2040.d
21-FEB-2010 16:44	HEX	/chem/MSD8.i/s022010.b/s8b2029.d
21-FEB-2010 13:02	PEST	/chem/MSD8.i/s022010.b/s8b2022.d
21-FEB-2010 09:21	AP12	/chem/MSD8.i/s022010.b/s8b2015.d
20-FEB-2010 13:30	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2004.d
Cal Level: 3 , Cal Amount: 20.00000		
21-FEB-2010 22:45	NEV	/chem/MSD8.i/s022010.b/s8b2041.d
21-FEB-2010 17:16	HEX	/chem/MSD8.i/s022010.b/s8b2030.d
21-FEB-2010 13:33	PEST	/chem/MSD8.i/s022010.b/s8b2023.d
21-FEB-2010 09:52	AP12	/chem/MSD8.i/s022010.b/s8b2016.d
20-FEB-2010 14:05	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2005.d
Cal Level: 4 , Cal Amount: 40.00000		
21-FEB-2010 23:15	NEV	/chem/MSD8.i/s022010.b/s8b2042.d
21-FEB-2010 17:48	HEX	/chem/MSD8.i/s022010.b/s8b2031.d
21-FEB-2010 14:05	PEST	/chem/MSD8.i/s022010.b/s8b2024.d
21-FEB-2010 10:23	AP12	/chem/MSD8.i/s022010.b/s8b2017.d
20-FEB-2010 14:40	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2006.d
Cal Level: 5 , Cal Amount: 50.00000		
21-FEB-2010 23:46	NEV	/chem/MSD8.i/s022010.b/s8b2043.d
21-FEB-2010 18:19	HEX	/chem/MSD8.i/s022010.b/s8b2032.d
21-FEB-2010 14:37	PEST	/chem/MSD8.i/s022010.b/s8b2025.d
21-FEB-2010 10:54	AP12	/chem/MSD8.i/s022010.b/s8b2018.d
20-FEB-2010 15:14	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2007.d
Cal Level: 6 , Cal Amount: 80.00000		
22-FEB-2010 00:17	NEV	/chem/MSD8.i/s022010.b/s8b2044.d
21-FEB-2010 18:51	HEX	/chem/MSD8.i/s022010.b/s8b2033.d
21-FEB-2010 15:09	PEST	/chem/MSD8.i/s022010.b/s8b2026.d
21-FEB-2010 11:26	AP12	/chem/MSD8.i/s022010.b/s8b2019.d
20-FEB-2010 15:50	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2008.d
Cal Level: 7 , Cal Amount: 100.00000		

22-FEB-2010 00:48	NEV	/chem/MSD8.i/s022010.b/s8b2045.d
21-FEB-2010 19:22	HEX	/chem/MSD8.i/s022010.b/s8b2034.d
21-FEB-2010 15:40	PEST	/chem/MSD8.i/s022010.b/s8b2027.d
21-FEB-2010 11:59	AP12	/chem/MSD8.i/s022010.b/s8b2020.d
20-FEB-2010 16:25	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2009.d

Cal Level: 8 , Cal Amount: 120.00000

22-FEB-2010 01:19	NEV	/chem/MSD8.i/s022010.b/s8b2046.d
21-FEB-2010 16:12	PEST	/chem/MSD8.i/s022010.b/s8b2028.d
21-FEB-2010 12:30	AP12	/chem/MSD8.i/s022010.b/s8b2021.d
20-FEB-2010 16:59	MEGAIICARE	/chem/MSD8.i/s022010.b/s8b2010.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 40.0

03-MAR-2010 13:40	MEGAIICARE	/chem/MSD8.i/s030310.b/s8c0308.d

Ccal Level: 4 , Ccal Amount: 40.0

03-MAR-2010 14:12	AP12	/chem/MSD8.i/s030310.b/s8c0309.d

Ccal Level: 4 , Ccal Amount: 40.0

03-MAR-2010 11:13	MEGAIICARE	/chem/MSD8.i/s030310.b/s8c0306.d

Ccal Level: 4 , Ccal Amount: 40.0

03-MAR-2010 10:08	AP12	/chem/MSD8.i/s030310.b/s8c0304.d

Ccal Level: 4 , Ccal Amount: 40.0

03-MAR-2010 09:05	MEGAIICARE	/chem/MSD8.i/s030310.b/s8c0302.d

Ccal Level: 4 , Ccal Amount: 40.0

03-MAR-2010 09:37	MEGAIICARE	/chem/MSD8.i/s030310.b/s8c0303.d

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INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55
End Cal Date : 22-FEB-2010 01:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Cal Date : 03-Mar-2010 15:34 nat00999

Calibration File Names:
Level 1: /chem/MSD8.i/s022010.b/s8b2003.d
Level 2: /chem/MSD8.i/s022010.b/s8b2040.d
Level 3: /chem/MSD8.i/s022010.b/s8b2041.d
Level 4: /chem/MSD8.i/s022010.b/s8b2042.d
Level 5: /chem/MSD8.i/s022010.b/s8b2043.d
Level 6: /chem/MSD8.i/s022010.b/s8b2044.d
Level 7: /chem/MSD8.i/s022010.b/s8b2045.d
Level 8: /chem/MSD8.i/s022010.b/s8b2046.d

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
1 N-Methyl-N-nitrosomethylamine	+++++	0.61951	0.63665	0.62571	0.60931	0.60758					
	0.57992	0.58593					AVRG		0.60923		3.37337
2 Pyridine	+++++	0.89446	0.93458	0.90790	0.87786	0.88941					
	0.87607	0.87582					AVRG		0.89373		2.40541
4 Aniline	+++++	0.55291	0.56486	0.55215	0.55460	0.55759					
	0.54402	0.56183					AVRG		0.55542		1.23562
209 Benzaldehyde	+++++	0.88461	0.93065	0.82979	0.84335	0.81229					
	0.82905	0.77335					AVRG		0.84330		6.04219
6 Phenol	+++++	1.21439	1.26753	1.22620	1.19992	1.19696					
	1.19022	1.21801					AVRG		1.21617		2.13674

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
7 bis(2-Chloroethyl) ether	+++++	0.86875	0.87510	0.84552	0.82182	0.81301					
	0.79428	0.80161					AVRG		0.83144		3.86597
8 2-Chlorophenol	+++++	1.03978	1.08408	1.07215	1.04534	1.05301					
	1.03335	1.06466					AVRG		1.05605		1.73871
203 n-Decane	+++++	1.27851	1.24822	1.15740	1.07516	1.00264					
	0.94466	0.91988					AVRG		1.08949		13.14312
9 1,3-Dichlorobenzene	+++++	1.28111	1.28796	1.25869	1.21836	1.23373					
	1.22581	1.26112					AVRG		1.25240		2.16688
11 1,4-Dichlorobenzene	+++++	1.29450	1.32850	1.27510	1.26337	1.28372					
	1.27786	1.32204					AVRG		1.29215		1.89951
12 Benzyl alcohol	+++++	0.63823	0.66891	0.66923	0.65483	0.66997					
	0.65441	0.66840					AVRG		0.66057		1.81681
13 1,2-Dichlorobenzene	+++++	1.23246	1.24228	1.20302	1.17789	1.18128					
	1.16994	1.20670					AVRG		1.20194		2.30652
14 bis(2-Chloroisopropyl)ether	+++++	1.75891	1.77869	1.68785	1.62858	1.56724					
	1.49862	1.49146					AVRG		1.63019		7.19167
15 o-Cresol	+++++	0.83685	0.86246	0.86097	0.83301	0.83522					
	0.83135	0.85253					AVRG		0.84463		1.60879

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
16 Acetophenone	+++++	1.22382	1.29124	1.18127	1.20711	1.16108					
	1.20314	1.15394					AVRG		1.20309		3.85004
17 N-Nitrosodipropylamine	+++++	0.77291	0.78775	0.78533	0.78242	0.77484					
	0.76559	0.77632					AVRG		0.77788		0.99721
18 m,p-Cresols	+++++	1.04493	1.08669	1.06836	1.05918	1.07181					
	1.06572	1.08557					AVRG		1.06890		1.36774
19 Hexachloroethane	+++++	0.48582	0.49574	0.48975	0.48187	0.48407					
	0.48126	0.49008					AVRG		0.48694		1.06899
21 Nitrobenzene	+++++	0.29364	0.29812	0.29008	0.28855	0.29311					
	0.29496	0.29467					AVRG		0.29331		1.08619
22 Isophorone	+++++	0.54198	0.54074	0.53290	0.53134	0.54066					
	0.54707	0.54526					AVRG		0.53999		1.09041
23 2-Nitrophenol	+++++	0.13002	0.13039	0.13172	0.13404	0.13721					
	0.13936	0.13958					AVRG		0.13462		3.05487
24 2,4-Dimethylphenol	+++++	0.23868	0.23567	0.23285	0.23796	0.24044					
	0.24421	0.24544					AVRG		0.23932		1.86969
25 bis(2-Chloroethoxy)methane	+++++	0.31326	0.30893	0.29561	0.29347	0.29853					
	0.30400	0.30594					AVRG		0.30282		2.39356

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
26 2,4-Dichlorophenol	+++++	0.20745	0.21497	0.21364	0.21276	0.21836					
	0.22351	0.22510					AVRG		0.21654		2.87770
27 Benzoic acid	+++++	+++++	83893	215984	333227	600127					
	779305	996763					LINR	0.37420	0.17210		0.99460
28 1,2,4-Trichlorobenzene	+++++	0.30108	0.29237	0.28234	0.27990	0.28748					
	0.29534	0.29975					AVRG		0.29118		2.83696
30 Naphthalene	59622	408591	879341	1743176	2453204	3915424					
	4829589	5952102					LINR	0.05011	0.91806		0.99772
204 alpha-Terpineol	+++++	0.23619	0.23584	0.22166	0.22004	0.21591					
	0.21504	0.21341					AVRG		0.22259		4.31595
31 4-Chloroaniline	+++++	0.27947	0.29236	0.29508	0.28109	0.28200					
	0.28493	0.28604					AVRG		0.28585		2.05307
189 Caprolactam	+++++	0.05934	0.06750	0.06559	0.06739	0.06727					
	0.07008	0.06871					AVRG		0.06655		5.20909
32 Hexachlorobutadiene	+++++	0.18359	0.18107	0.17811	0.17478	0.18060					
	0.18360	0.18593					AVRG		0.18110		2.07689
33 4-Chloro-3-methylphenol	+++++	0.22447	0.23171	0.23125	0.22996	0.23628					
	0.24180	0.24455					AVRG		0.23429		3.00125

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
34 2-Methylnaphthalene	38110	275963	600338	1198438	1651350	2574886					
	3185761	3911554					LINR	0.03268	0.60114		0.99853
35 1-Methylnaphthalene	38576	271665	594641	1175844	1616234	2506814					
	3139153	3823750					LINR	0.03094	0.58835		0.99835
36 Hexachlorocyclopentadiene	+++++	0.21877	0.25138	0.24756	0.25311	0.24824					
	0.25115	0.26766					AVRG		0.24827		5.90114
208 1,1'-Biphenyl	+++++	1.22247	1.29127	1.17987	1.19898	1.18070					
	1.25475	1.22731					AVRG		1.22219		3.32526
205 2,3-Dichloroaniline	+++++	0.51270	0.51480	0.49871	0.51091	0.53248					
	0.55128	0.57535					AVRG		0.52803		5.10658
37 2,4,6-Trichlorophenol	+++++	0.27914	0.29104	0.28876	0.29978	0.31571					
	0.33385	0.34903					AVRG		0.30819		8.34550
38 2,4,5-Trichlorophenol	+++++	0.29440	0.32076	0.31947	0.31565	0.33788					
	0.34169	0.35990					AVRG		0.32711		6.48907
40 2-Chloronaphthalene	36449	268251	582975	1155795	1582228	2469755					
	3039631	3702903					LINR	0.03655	1.02665		0.99760
42 o-Nitroaniline	+++++	0.25572	0.26998	0.26946	0.27364	0.27783					
	0.28197	0.28884					AVRG		0.27392		3.85593

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Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
41 m-Nitroaniline	+++++	0.18519	0.21448	0.21492	0.21737	0.20957					
	0.20505	0.21482					AVRG		0.20877		5.36018
43 Dimethylphthalate	+++++	1.12648	1.14453	1.10613	1.09173	1.11237					
	1.12375	1.14118					AVRG		1.12088		1.68894
44 2,6-Dinitrotoluene	+++++	0.25896	0.26346	0.25342	0.24949	0.24696					
	0.24733	0.25426					AVRG		0.25341		2.42391
45 Acenaphthylene	2.18976	1.59988	1.58469	1.52835	1.53064	1.56415					
	1.60612	1.68189					AVRG		1.66068		13.20366
47 Acenaphthene	1.41358	1.00028	0.99778	0.98187	0.99926	1.00432					
	1.02939	1.07707					AVRG		1.06294		13.61052
48 2,4-Dinitrophenol	+++++	+++++	38021	93310	146622	245403					
	320377	412311					LINR	0.35935	0.12672		0.99075
49 Dibenzofuran	+++++	1.40644	1.40820	1.32867	1.33815	1.36798					
	1.41726	1.49580					AVRG		1.39464		4.06888
50 2,4-Dinitrotoluene	+++++	0.31049	0.32653	0.32098	0.31786	0.31902					
	0.33142	0.34814					AVRG		0.32492		3.75316
51 Diethylphthalate	+++++	1.16273	1.19006	1.14803	1.15696	1.15712					
	1.18165	1.21522					AVRG		1.17311		2.02529

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Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
52 4-Nitrophenol	+++++	0.10359	0.13187	0.13545	0.14163	0.14151						
	0.14797	0.15374					AVRG		0.13654		11.90490	
53 Fluorene	1.69412	1.18564	1.18324	1.16123	1.18593	1.26226						
	1.29401	1.36155					AVRG		1.29100		13.69804	
54 4-Chlorophenylphenylether	+++++	0.59987	0.60491	0.58500	0.59564	0.63651						
	0.64896	0.68125					AVRG		0.62173		5.60755	
220 Hydroquinone	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
55 2-Methyl-4,6-dinitrophenol	+++++	26409	78471	169233	248477	398816						
	489102	612903					LINR	0.16815	0.09594		0.99736	
56 p-Nitroaniline	+++++	0.13756	0.16571	0.18963	0.20209	0.19373						
	0.19726	0.20537					AVRG		0.18448		13.23346	
133 Diphenylamine	+++++	0.48702	0.48634	0.48646	0.49672	0.51765						
	0.52558	0.53844					AVRG		0.50546		4.26163	
58 1,2-Diphenylhydrazine	+++++	0.58322	0.59673	0.58464	0.59299	0.60280						
	0.59206	0.60379					AVRG		0.59375		1.35599	
59 Tributylphosphate	+++++	0.85316	0.98848	0.99919	0.98562	0.99554						
	0.98996	1.00565					AVRG		0.97394		5.51372	

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	100 Level 7	120 Level 8									
61 4-Bromophenylphenylether	+++++	0.18589	0.18897	0.18392	0.18630	0.19322					
	0.19629	0.20338					AVRG		0.19114		3.62682
63 Hexachlorobenzene	+++++	0.19642	0.19554	0.19003	0.19110	0.20055					
	0.20365	0.21337					AVRG		0.19866		4.06498
207 Atrazine	+++++	0.03758	0.04062	0.03420	0.03665	0.03302					
	0.03441	0.03072					AVRG		0.03531		9.21662
65 Pentachlorophenol	+++++	0.06388	0.08247	0.08843	0.09083	0.09630					
	0.09718	0.10035					AVRG		0.08849		14.02887
206 n-Octadecane	+++++	0.41912	0.42264	0.40756	0.40012	0.39129					
	0.37111	0.36735					AVRG		0.39703		5.48958
68 Phenanthrene	65568	486199	1015060	2006630	2809008	4284140					
	5370346	6608324					LINR	0.04915	0.98874		0.99753
69 Anthracene	1.26726	0.89621	0.90633	0.88074	0.91241	0.94159					
	0.95537	1.00675					AVRG		0.97083		13.00076
72 Di-n-butylphthalate	+++++	0.94663	0.99271	0.99656	1.01616	1.04338					
	1.04405	1.06383					AVRG		1.01476		3.93061
76 Fluoranthene	1.27400	0.97604	0.96078	0.93382	0.96161	0.98359					
	1.01627	1.03676					AVRG		1.01786		10.65772

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Compound	1 Level 1 / 100 Level 7	10 Level 2 / 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
77 Benzidine	+++++	114948	240488	575469	576881	1632421					
	1879386	2370017					LINR	0.20503	0.37744		0.99275
79 Pyrene	1.59200	1.13341	1.18323	1.21007	1.19482	1.23234					
	1.21785	1.22742					AVRG		1.24889		11.38418
85 Butylbenzylphthalate	+++++	0.37478	0.43005	0.45705	0.44937	0.45125					
	0.44474	0.44980					AVRG		0.43672		6.54417
89 Benzo(a)anthracene	1.38070	0.96707	0.98220	0.96802	0.98013	1.02003					
	1.04657	1.07617					AVRG		1.05261		13.14311
90 3,3'-Dichlorobenzidine	+++++	0.19682	0.23362	0.24165	0.24177	0.26523					
	0.27999	0.27551					AVRG		0.24780		11.62921
92 Chrysene	56779	460630	913811	1690536	2342194	3398164					
	4593832	5526812					LINR	0.00950	0.92743		0.99892
93 bis(2-Ethylhexyl)phthalate	0.56666	0.53374	0.59392	0.62267	0.62324	0.64211					
	0.64575	0.66128					AVRG		0.61117		7.10990
94 Di-n-octylphthalate	+++++	368592	834860	1605441	2216889	3330642					
	4377445	+++++					LINR	0.13246	1.42322		0.99630
95 Benzo(b)fluoranthene	1.19103	0.97573	1.06659	1.08748	1.13194	1.14428					
	1.17803	1.29729					AVRG		1.13405		8.41332

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	100 Level 7	120 Level 8									
96 Benzo(k)fluoranthene	1.26573	1.00893	1.07939	1.10364	1.13551	1.12361					
	1.19513	1.20870					AVRG		1.14008		7.11278
97 Benzo(a)pyrene	0.91365	0.85418	0.92377	0.94122	0.96804	0.99011					
	1.01342	1.04734					AVRG		0.95647		6.41651
99 Indeno(1,2,3-cd)pyrene	0.79917	0.81532	0.80541	0.77792	0.75613	0.85605					
	0.74498	0.78923					AVRG		0.79303		4.41296
100 Dibenzo(a,h)anthracene	0.61288	0.61866	0.60233	0.58469	0.57198	0.65233					
	0.63604	0.62414					AVRG		0.61288		4.28662
101 Benzo(ghi)perylene	0.75516	0.69322	0.66528	0.62680	0.59234	0.66873					
	0.64840	0.59909					AVRG		0.65613		8.07863
102 1,4-Dioxane	+++++	0.35084	0.36273	0.32344	0.32306	0.29885					
	0.30758	0.29584					AVRG		0.32319		7.90081
103 Methyl methacrylate	+++++	0.17778	0.18944	0.16410	0.16994	0.15571					
	0.16230	0.15788					AVRG		0.16817		7.11952
104 Ethyl methacrylate	+++++	0.70693	0.75062	0.67894	0.68905	0.63812					
	0.66413	0.62961					AVRG		0.67963		6.10805
105 2-Picoline	+++++	1.12830	1.19020	1.07957	1.10232	1.04185					
	1.07041	1.03794					AVRG		1.09294		4.88732

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106 N-Nitrosomethylethylamine	+++++	0.44779	0.46529	0.43489	0.44140	0.42410					
	0.44409	0.42146					AVRG		0.43986		3.39928
107 Methyl methanesulfonate	+++++	0.52524	0.54520	0.49099	0.48678	0.48343					
	0.49978	0.46508					AVRG		0.49950		5.43906
108 N-Nitrosodiethylamine	+++++	0.46217	0.49395	0.44813	0.46428	0.44274					
	0.45963	0.43541					AVRG		0.45804		4.17302
109 Ethyl Methanesulfonate	+++++	0.62189	0.65375	0.60074	0.60188	0.58949					
	0.61342	0.58197					AVRG		0.60902		3.91897
110 Pentachloroethane	+++++	0.32386	0.34717	0.31621	0.32412	0.30740					
	0.32132	0.30635					AVRG		0.32092		4.26755
111 N-Nitrosopyrrolidine	+++++	0.47922	0.51794	0.48306	0.49257	0.48446					
	0.49612	0.48073					AVRG		0.49059		2.76402
113 N-Nitrosomorpholine	+++++	0.68559	0.71997	0.66306	0.66815	0.64403					
	0.65152	0.61465					AVRG		0.66385		4.99866
114 o-Toluidine	+++++	1.63357	1.73837	1.58287	1.64173	1.56389					
	1.62224	1.57015					AVRG		1.62183		3.70471
115 N-Nitrosopiperidine	+++++	0.12360	0.13377	0.12334	0.12644	0.11963					
	0.12371	0.12009					AVRG		0.12437		3.81963

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 20-FEB-2010 12:55
End Cal Date : 22-FEB-2010 01:19
Quant Method : ISTD
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Cal Date : 03-Mar-2010 15:34 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
116 a,a-Dimethylphenethylamine	+++++	0.64589	0.73902	0.73378	0.77250	0.75528					
	0.78780	0.76698					AVRG		0.74304		6.29693
117 Triethylphosphorothioate	+++++	0.12776	0.13008	0.12715	0.12802	0.12765					
	0.12726	0.13005					AVRG		0.12828		0.97777
118 2,6-Dichlorophenol	+++++	0.19213	0.20693	0.19910	0.19955	0.20082					
	0.20928	0.20299					AVRG		0.20154		2.79228
119 Hexachloropropene	+++++	0.11005	0.12087	0.12529	0.11800	0.12775					
	0.13255	0.13069					AVRG		0.12360		6.37831
120 p-Phenylenediamine	+++++	0.20097	0.22012	0.20890	0.19933	0.19552					
	0.18199	0.16903					AVRG		0.19655		8.57847
121 N-Nitrosodi-n-butylamine	+++++	0.22009	0.23358	0.22059	0.22594	0.19498					
	0.19691	0.18916					AVRG		0.21161		8.26915
122 Safrole	+++++	0.19404	0.20590	0.18988	0.19335	0.18710					
	0.19409	0.18904					AVRG		0.19334		3.19019
123 1,2,4,5-Tetrachlorobenzene	+++++	0.48179	0.50127	0.46416	0.46968	0.45641					
	0.48299	0.47441					AVRG		0.47582		3.07832
124 Isosafrole	+++++	0.31959	0.34105	0.31534	0.32095	0.31245					
	0.32391	0.31581					AVRG		0.32130		2.96333

GEL Laboratories LLC

INITIAL CALIBRATION DATA

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Method file : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Cal Date : 03-Mar-2010 15:34 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
125 1,4-Naphthoquinone	+++++	0.32816	0.34621	0.30613	0.30795	0.25958					
	0.23046	+++++					AVRG		0.29641		14.64421
126 m-Dinitrobenzene	+++++	0.15594	0.16628	0.16332	0.16381	0.16032					
	0.16004	+++++					AVRG		0.16162		2.24564
127 Pentachlorobenzene	+++++	0.43767	0.45121	0.42030	0.42682	0.42210					
	0.44346	0.43799					AVRG		0.43422		2.65150
128 1-Naphthylamine	+++++	0.82239	0.86814	0.82529	0.81386	0.84167					
	0.87214	0.85263					AVRG		0.84230		2.72431
129 2-Naphthylamine	+++++	0.87494	0.84477	0.88369	0.86051	0.89209					
	0.94061	0.91680					AVRG		0.88763		3.68720
130 2,3,4,6-Tetrachlorophenol	+++++	0.25022	0.26956	0.27043	0.27312	0.28194					
	0.29224	0.30421					AVRG		0.27739		6.29089
131 5-Nitro-o-toluidine	+++++	0.21312	0.24508	0.24080	0.23259	0.24890					
	0.25619	0.25185					AVRG		0.24122		6.04443
132 Thionazin	+++++	0.13437	0.14473	0.14728	0.14423	0.14621					
	0.14438	0.14610					AVRG		0.14390		3.02307
134 Sulfotepp	+++++	0.07479	0.07643	0.07811	0.08209	0.08186					
	0.08119	0.08666					AVRG		0.08016		5.01325

GEL Laboratories LLC

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Method file : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Cal Date : 03-Mar-2010 15:34 nat00999

Compound	1 Level 1 / 100 Level 7	10 Level 2 / 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
135 Phorate	++++++	0.29874	0.30476	0.30486	0.31798	0.30102					
	0.29242	0.29307					AVRG		0.30183		2.88237
136 1,3,5-Trinitrobenzene	++++++	0.07415	0.09175	0.09919	0.09673	0.10189					
	0.10131	0.09994					AVRG		0.09499		10.32629
137 Phenacetin	++++++	0.18206	0.20988	0.21406	0.21650	0.22859					
	0.23865	0.22853					AVRG		0.21690		8.45110
138 Diallate	++++++	0.20463	0.21020	0.19892	0.21153	0.19343					
	0.20258	0.19294					AVRG		0.20203		3.67352
139 Dimethoate	++++++	0.14043	0.15915	0.16697	0.17200	0.17406					
	0.16740	0.16949					AVRG		0.16422		7.00813
140 4-Aminobiphenyl	++++++	0.43217	0.48080	0.49774	0.49087	0.54937					
	0.58751	0.58243					AVRG		0.51727		11.12235
141 Pentachloronitrobenzene	++++++	0.07756	0.08234	0.07796	0.08272	0.07781					
	0.08047	0.07668					AVRG		0.07936		3.09424
142 Pronamide	++++++	0.24165	0.25727	0.24493	0.25850	0.24762					
	0.26196	0.25418					AVRG		0.25230		3.02507
143 Dinoseb	++++++	36739	110780	253153	360839	582168					
	749359	959224					LINR	0.21574	0.15018		0.99408

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INITIAL CALIBRATION DATA

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Integrator : HP RTE
Method file : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Cal Date : 03-Mar-2010 15:34 nat00999

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
144 Disulfoton	+++++	0.26489	0.24948	0.24076	0.24841	0.23789					
	0.22925	0.23314					AVRG		0.24340		4.93796
145 Methyl parathion	+++++	0.12612	0.15136	0.15938	0.16288	0.16711					
	0.16709	0.17055					AVRG		0.15779		9.71146
146 4-Nitroquinoline-1-oxide	+++++	0.02056	0.02288	0.01846	0.01666	0.01679					
	+++++	+++++					AVRG		0.01907		13.89367
147 Methapyrilene	+++++	0.29694	0.32659	0.28898	0.30536	0.28186					
	0.28225	0.26103					AVRG		0.29186		7.08529
148 Isodrin	+++++	0.10688	0.11119	0.10398	0.11043	0.10326					
	0.10901	0.10550					AVRG		0.10718		2.91403
149 Aramite	+++++	0.03161	0.03603	0.03415	0.03476	0.03379					
	0.03486	0.03195					AVRG		0.03388		4.71492
150 Kepone	+++++	0.07589	0.08420	0.07666	0.07796	0.07644					
	0.07875	0.07575					AVRG		0.07795		3.80313
151 p-(Dimethylamino)azobenzene	+++++	0.22465	0.25205	0.24804	0.27799	0.25995					
	0.27510	0.26877					AVRG		0.25808		7.17705
152 Chlorobenzilate	+++++	0.22654	0.24955	0.24660	0.29801	0.25875					
	0.28069	0.27880					AVRG		0.26271		9.30544

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Method file : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Cal Date : 03-Mar-2010 15:34 nat00999

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
153 3,3'-Dimethylbenzidine	+++++	0.37150	0.43396	0.42299	0.44074	0.48724					
	0.52259	0.50844					AVRG		0.45535		11.72591
154 Famphur	+++++	0.29682	0.32000	0.33232	0.36789	0.37506					
	0.36897	0.38152					AVRG		0.34894		9.31134
155 2-Acetylaminofluorene	+++++	77941	174270	466888	454874	1169522					
	1402952	1690573					LINR	0.16495	0.26994		0.99689
157 7,12Dimethylbenz(a)anthracene	+++++	0.44428	0.50077	0.50095	0.52555	0.52043					
	0.56747	0.57419					AVRG		0.51909		8.50027
158 3-Methylcholanthrene	+++++	0.31873	0.35613	0.36783	0.37459	0.37965					
	0.39268	0.38502					AVRG		0.36780		6.70304
26 Phthalic anhydride	+++++	35664	121861	249075	381828	594958					
	723533	893615					LINR	0.12971	0.14328		0.99917
173 Carbazole	0.89649	0.61077	0.58409	0.64323	0.66829	0.69364					
	0.71352	0.73688					AVRG		0.69337		13.94742
174 Hexachlorophene	+++++	935628	3163522	4273678	5413416	6917749					
	7386241	+++++					LINR	6.19705	0.07687		0.99449
179 Dibenzo(a,e)pyrene	+++++	0.28462	0.26044	0.26698	0.22397	0.28475					
	0.27252	0.23457					AVRG		0.26112		9.06299

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Method file : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Cal Date : 03-Mar-2010 15:34 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
185 (2,3-Dibromopropyl)phosphate	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
184 p-Benzoquinone	+++++	13412	38094	103028	141046	214307						
	265584	310038					LINR	0.07963	0.20135		0.99786	
191 Parathion	+++++	0.04141	0.04946	0.05375	0.05525	0.05615						
	0.05609	0.05831					AVRG		0.05291		10.91556	
192 Methoxychlor	+++++	0.47370	0.56446	0.59238	0.57838	0.60702						
	0.60937	0.59064					AVRG		0.57371		8.15235	
210 m-Toluidine	+++++	1.23929	1.38356	1.46111	1.48802	1.58621						
	1.58280	1.66243					AVRG		1.48620		9.61503	
211 p-Toluidine	+++++	1.14906	1.18370	1.16691	1.19548	1.08736						
	1.10329	1.09804					AVRG		1.14055		3.86703	
212 Cis Diallate	+++++	0.20120	0.20767	0.19674	0.21346	0.19409						
	0.19989	0.19195					AVRG		0.20071		3.79541	
213 Trans Diallate	+++++	0.24074	0.24730	0.23402	0.24886	0.22756						
	0.23833	0.22699					AVRG		0.23769		3.67352	
214 1,4-Dinitrobenzene	+++++	0.14712	0.16526	0.16942	0.17547	0.17667						
	0.18015	0.18546					AVRG		0.17136		7.34157	

GEL Laboratories LLC

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Integrator : HP RTE
Method file : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Cal Date : 03-Mar-2010 15:34 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	100 Level 7	120 Level 8									
215 2-Ethoxyethanol	+++++	0.58676	0.60203	0.59483	0.55565	0.57374					
	0.55822	0.54494					AVRG		0.57374		3.77318
216 Methylenebis(2-chloroaniline)	+++++	36455	87285	192808	305235	476431					
	647915	779120					LINR	0.18581	0.13997		0.99822
229 2,2'-Dichlorobenzil	+++++	0.53014	0.54882	0.57218	0.56813	0.55363					
	0.63091	0.61172					AVRG		0.57365		6.23315
230 4-Chlorothioanisole	+++++	0.23127	0.22998	0.24707	0.25459	0.25234					
	0.25390	0.26275					AVRG		0.24741		4.99827
231 4-Chlorothiophenol	+++++	69510	156101	409410	538100	905821					
	1130595	1540522					LINR	0.15090	0.21447		0.99884
232 bis(p-Chlorophenyl)sulfone	+++++	0.32332	0.32274	0.32522	0.32041	0.30818					
	0.34792	0.33496					AVRG		0.32611		3.81298
233 bis(p-Chlorophenyl)disulfide	+++++	0.11382	0.11054	0.12051	0.11929	0.11551					
	0.12978	0.12394					AVRG		0.11906		5.46007
234 Diphenyl disulfide	+++++	0.19202	0.19186	0.19737	0.19958	0.19288					
	0.20205	0.19917					AVRG		0.19642		2.10807
235 Diphenyl sulfide	+++++	0.76604	0.75916	0.77559	0.80138	0.79306					
	0.81579	0.83897					AVRG		0.79285		3.59622

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Method file : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Cal Date : 03-Mar-2010 15:34 nat00999

Compound	1 Level 1 100 Level 7	10 Level 2 120 Level 8	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
236 Phenyl sulfone	+++++	0.34800	0.34646	0.34913	0.35609	0.34394					
	0.35788	0.36394					AVRG		0.35221		2.05193
237 Hydroxymethyl phthalimide	+++++	0.11562	0.12919	0.11505	0.10331	0.08699					
	0.09932	0.08725					AVRG		0.10525		14.88762
238 Phthalic acid	+++++	20021	61221	192852	247836	445405					
	592112	841517					LINR	0.27721	0.11935		0.99378
239 Thiophenol	+++++	0.72136	0.86680	1.01677	1.07339	1.08115					
	1.06962	1.11441					AVRG		0.99193		14.55784
240 bis(Chloromethyl)ether	+++++	0.73330	0.72927	0.75420	0.77531	0.76257					
	0.72897	0.73156					AVRG		0.74502		2.53135
241 Octachlorostyrene	+++++	0.06930	0.06943	0.07008	0.07083	0.07166					
	0.07686	0.07691					AVRG		0.07215		4.62127
M 222 Trichlorophenols	+++++	0.28677	0.30590	0.30411	0.30771	0.32680					
	0.33777	0.35446					AVRG		0.31765		7.28968
M 223 Tetrachlorophenols	+++++	0.25022	0.26956	0.27043	0.27312	0.28194					
	0.29224	0.30421					AVRG		0.27739		6.29089
M 224 Benzo(b,k)fluoranthene	1.22838	0.99233	1.07299	1.09556	1.13372	1.13395					
	1.18658	1.25299					AVRG		1.13706		7.50876

GEL Laboratories LLC

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Method file : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Cal Date : 03-Mar-2010 15:34 nat00999

Compound	1 Level 1	10 Level 2	20 Level 3	40 Level 4	50 Level 5	80 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	100 Level 7	120 Level 8										
M 225 TTO Sum Semivolatiles	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 3 2-Fluorophenol	+++++	0.92659	0.96919	0.96650	0.94036	0.93281						
	0.93098	0.94400					AVRG		0.94435		1.80921	
$ 5 Phenol-d5	+++++	1.15492	1.20808	1.18961	1.17093	1.17303						
	1.15725	1.19013					AVRG		1.17771		1.63471	
$ 187 2-Chlorophenol-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 188 1,2-Dichlorobenzene-d4	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++	+++++					AVRG		0.000e+00		0.000e+00	<-
$ 20 Nitrobenzene-d5	+++++	0.28463	0.28610	0.28272	0.27867	0.28386						
	0.28710	0.28733					AVRG		0.28435		1.06265	
$ 39 2-Fluorobiphenyl	+++++	1.17351	1.17042	1.12460	1.11619	1.18499						
	1.20400	1.26805					AVRG		1.17740		4.32813	
$ 60 2,4,6-Tribromophenol	+++++	0.12711	0.13347	0.12836	0.12619	0.12779						
	0.13893	0.14371					AVRG		0.13223		5.12665	
$ 81 p-Terphenyl-d14	+++++	0.67083	0.69230	0.71233	0.71339	0.73658						
	0.74530	0.77029					AVRG		0.72015		4.65100	

GEL Laboratories LLC

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Cal Date : 03-Mar-2010 15:34 nat00999

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 26-FEB-2010 04:31
Lab File ID: s2b2537.d Init. Cal. Date(s): 25-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 19:29 15:23
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s022510a.b/MSD2-M8270AQA-022510a.m

COMPOUND	RRF / AMOUNT	RF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	1.12935	1.11132	0.000	-1.59676	60.00000	Averaged
16 Acetophenone	1.53348	1.58998	0.000	3.68452	60.00000	Averaged
189 Caprolactam	0.10024	0.10624	0.000	5.98808	60.00000	Averaged
208 1,1'-Biphenyl	1.29012	1.34651	0.000	4.37036	60.00000	Averaged
207 Atrazine	0.04908	0.04896	0.000	-0.24831	60.00000	Averaged
77 Benzidine	0.37050	0.34999	0.000	-5.53741	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.27939	0.31522	0.000	12.82599	60.00000	Averaged
102 1,4-Dioxane	0.48060	0.54672	0.000	13.75779	60.00000	Averaged
103 Methyl methacrylate	0.25449	0.29122	0.000	14.43340	60.00000	Averaged
104 Ethyl methacrylate	1.02890	1.16551	0.000	13.27727	60.00000	Averaged
105 2-Picoline	1.51395	1.58183	0.000	4.48423	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.68819	0.73371	0.000	6.61486	60.00000	Averaged
107 Methyl methanesulfonate	0.70337	0.78285	0.000	11.30019	60.00000	Averaged
108 N-Nitrosodiethylamine	0.66583	0.70452	0.000	5.81048	60.00000	Averaged
109 Ethyl Methanesulfonate	0.87125	1.00485	0.000	15.33533	60.00000	Averaged
110 Pentachloroethane	0.35998	0.43945	0.000	22.07455	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.67893	0.72930	0.000	7.41885	60.00000	Averaged
113 N-Nitrosomorpholine	0.97157	1.09282	0.000	12.47940	60.00000	Averaged
114 o-Toluidine	2.22466	2.36540	0.000	6.32642	60.00000	Averaged
115 N-Nitrosopiperidine	0.16261	0.17212	0.000	5.85027	60.00000	Averaged
116 a,a-Dimethylphenethylamine	1.11650	1.23278	0.000	10.41386	60.00000	Averaged
118 2,6-Dichlorophenol	0.22383	0.23824	0.000	6.44008	60.00000	Averaged
119 Hexachloropropene	0.10648	0.14600	0.000	37.11406	60.00000	Averaged
120 p-Phenylenediamine	0.29765	0.34493	0.000	15.88186	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.28888	0.28356	0.000	-1.84037	60.00000	Averaged
122 Safrole	0.20121	0.22439	0.000	11.52110	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42002	0.44518	0.000	5.99050	60.00000	Averaged
124 Isosafrole	0.37758	0.45233	0.000	19.79893	60.00000	Averaged
125 1,4-Naphthoquinone	0.39093	0.41107	0.000	5.15139	60.00000	Averaged
127 Pentachlorobenzene	0.37310	0.38817	0.000	4.03737	60.00000	Averaged
128 1-Naphthylamine	0.91464	1.01319	0.000	10.77501	60.00000	Averaged
129 2-Naphthylamine	1.03583	1.13513	0.000	9.58690	60.00000	Averaged
131 5-Nitro-o-toluidine	0.28829	0.30645	0.000	6.29771	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.13924	0.15671	0.000	12.54378	60.00000	Averaged
137 Phenacetin	0.36031	0.38228	0.000	6.09761	60.00000	Averaged
138 Diallate	0.34319	0.33408	0.000	-2.65264	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 26-FEB-2010 04:31
Lab File ID: s2b2537.d Init. Cal. Date(s): 25-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 19:29 15:23
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s022510a.b/MSD2-M8270AQA-022510a.m

COMPOUND	RRF / AMOUNT	RF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.39719	0.43961	0.000	10.67876	60.00000	Averaged
213 Trans Diallate	0.40375	0.39304	0.000	-2.65264	60.00000	Averaged
140 4-Aminobiphenyl	0.54027	0.59867	0.000	10.80905	60.00000	Averaged
141 Pentachloronitrobenzene	0.07219	0.07812	0.000	8.21775	60.00000	Averaged
142 Pronamide	0.28061	0.27532	0.000	-1.88577	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02803	0.03018	0.000	7.66867	60.00000	Averaged
147 Methapyrilene	0.59216	0.64123	0.000	8.28598	60.00000	Averaged
148 Isodrin	0.10608	0.09917	0.000	-6.50880	60.00000	Averaged
149 Aramite	0.05357	0.05556	0.000	3.70790	60.00000	Averaged
150 Kepone	0.07512	0.07502	0.000	-0.12732	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.38063	0.39321	0.000	3.30610	60.00000	Averaged
152 Chlorobenzilate	0.29235	0.28940	0.000	-1.00892	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52107	0.55119	0.000	5.78091	60.00000	Averaged
155 2-Acetylaminofluorene	0.33144	0.36840	0.000	11.15022	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.50755	0.50417	0.000	-0.66473	60.00000	Averaged
158 3-Methylcholanthrene	0.42843	0.46320	0.000	8.11646	60.00000	Averaged

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GEL Laboratories, LLC
Data file : /chem/MSD2.i/s022510a.b/s2b2537.d
Lab Smp Id: WBN100218-08.1 Client Smp ID: APICV
Inj Date : 26-FEB-2010 04:31
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100218-08.1|40 PPM|1|SVMF|1|APICV
Misc Info : |MSD8270|WBN100217-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s022510a.b/MSD2-M8270AQA-022510a.m
Meth Date : 26-Feb-2010 17:02 ann00964 Quant Type: ISTD
Cal Date : 26-FEB-2010 01:31 Cal File: s2b2528.d
Als bottle: 27 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.030	4.030	(1.000)	302469	40.0000	
* 29 Naphthalene-d8	136	4.897	4.897	(1.000)	1191005	40.0000	
* 46 Acenaphthene-d10	164	6.143	6.143	(1.000)	647150	40.0000	
* 67 Phenanthrene-d10	188	7.116	7.116	(1.000)	1057338	40.0000	
* 91 Chrysene-d12	240	8.822	8.822	(1.000)	879230	40.0000	
* 98 Perylene-d12	264	10.400	10.400	(1.000)	680784	40.0000	
209 Benzaldehyde	77	3.752	3.752	(0.931)	336140	40.0000	39.4
16 Acetophenone	105	4.276	4.276	(1.061)	480920	40.0000	41.5
189 Caprolactam	113	5.169	5.169	(1.056)	126532	40.0000	42.4
208 1,1'-Biphenyl	154	5.715	5.715	(0.930)	871391	40.0000	41.7
207 Atrazine	173	6.881	6.881	(0.967)	51763	40.0000	39.9
77 Benzidine	184	7.892	7.892	(0.894)	307718	40.0000	37.8
90 3,3'-Dichlorobenzidine	252	8.748	8.748	(0.992)	277153	40.0000	45.1
102 1,4-Dioxane	88	2.367	2.367	(0.587)	165365	40.0000	45.5
103 Methyl methacrylate	100	2.361	2.361	(0.586)	88086	40.0000	45.8
104 Ethyl methacrylate	69	2.730	2.730	(0.677)	352530	40.0000	45.3
105 2-Picoline	93	2.923	2.923	(0.725)	478456	40.0000	41.8
106 N-Nitrosomethylethylamine	88	2.966	2.966	(0.736)	221926	40.0000	42.6
107 Methyl methanesulfonate	80	3.121	3.121	(0.774)	236788	40.0000	44.5
108 N-Nitrosodiethylamine	102	3.356	3.356	(0.833)	213095	40.0000	42.3
109 Ethyl Methanesulfonate	79	3.506	3.506	(0.870)	303937	40.0000	46.1
110 Pentachloroethane	167	3.854	3.854	(0.956)	132919	40.0000	48.8
111 N-Nitrosopyrrolidine	100	4.265	4.265	(1.058)	220591	40.0000	43.0(Q)
113 N-Nitrosomorpholine	56	4.287	4.287	(1.064)	330544	40.0000	45.0
114 o-Toluidine	106	4.303	4.303	(1.068)	715460	40.0000	42.5
115 N-Nitrosopiperidine	114	4.506	4.506	(0.920)	204996	40.0000	42.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.752	4.752	(0.970)	1468242	40.0000	44.2
118 2,6-Dichlorophenol	162	4.939	4.939	(1.009)	283746	40.0000	42.6
119 Hexachloropropene	213	4.966	4.966	(1.014)	173891	40.0000	54.8
120 p-Phenylenediamine	108	5.169	5.169	(1.056)	410811	40.0000	46.4
121 N-Nitrosodi-n-butylamine	84	5.137	5.137	(1.049)	337724	40.0000	39.3
122 Safrole	162	5.303	5.303	(1.083)	267252	40.0000	44.6
123 1,2,4,5-Tetrachlorobenzene	216	5.512	5.512	(0.897)	288099	40.0000	42.4
124 Isosafrole	162	5.672	5.672	(0.923)	292727	40.0000	47.9
125 1,4-Naphthoquinone	158	5.865	5.865	(0.955)	266022	40.0000	42.1
127 Pentachlorobenzene	250	6.250	6.250	(1.017)	251201	40.0000	41.6
128 1-Naphthylamine	143	6.330	6.330	(1.030)	655689	40.0000	44.3
129 2-Naphthylamine	143	6.378	6.378	(1.038)	734601	40.0000	43.8
131 5-Nitro-o-toluidine	152	6.501	6.501	(1.058)	198318	40.0000	42.5
136 1,3,5-Trinitrobenzene	75	6.704	6.704	(0.942)	165691	40.0000	45.0
137 Phenacetin	108	6.742	6.742	(0.947)	404202	40.0000	42.4(Q)
138 Diallate	86	6.737	6.737	(0.947)	353240	40.0000	38.9
212 Cis Diallate	86	6.795	6.795	(0.955)	69722	6.00000	6.6
213 Trans Diallate	86	6.737	6.737	(0.947)	353240	34.0000	33.1
140 4-Aminobiphenyl	169	6.977	6.977	(0.980)	632998	40.0000	44.3
141 Pentachloronitrobenzene	237	6.993	6.993	(0.983)	82603	40.0000	43.3
142 Pronamide	173	6.983	6.983	(0.981)	291104	40.0000	39.2
146 4-Nitroquinoline-1-oxide	101	7.582	7.582	(1.065)	31913	40.0000	43.1
147 Methapyrilene	58	7.592	7.592	(1.067)	677995	40.0000	43.3
148 Isodrin	193	7.758	7.758	(1.090)	104861	40.0000	37.4
149 Aramite	185	7.983	7.983	(1.122)	58745	40.0000	41.5
150 Kepone	272	8.432	8.432	(1.185)	79323	40.0000	39.9
151 p-(Dimethylamino)azobenzene	120	8.111	8.111	(0.919)	345724	40.0000	41.3
152 Chlorobenzilate	251	8.127	8.127	(0.921)	254453	40.0000	39.6
153 3,3'-Dimethylbenzidine	212	8.330	8.330	(0.944)	484626	40.0000	42.3
155 2-Acetylaminofluorene	181	8.523	8.523	(0.966)	323904	40.0000	44.5
157 7,12Dimethylbenz(a)anthracene	256	9.860	9.860	(0.948)	343233	40.0000	39.7
158 3-Methylcholanthrene	268	10.796	10.796	(1.038)	315341	40.0000	43.2(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s022510a.b/s2b2537.d
Date : 26-FEB-2010 04:31
Client ID: APICV
Sample Info: IWBN100218-08.1|40 PPM|1|SVMF|1|APICV
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

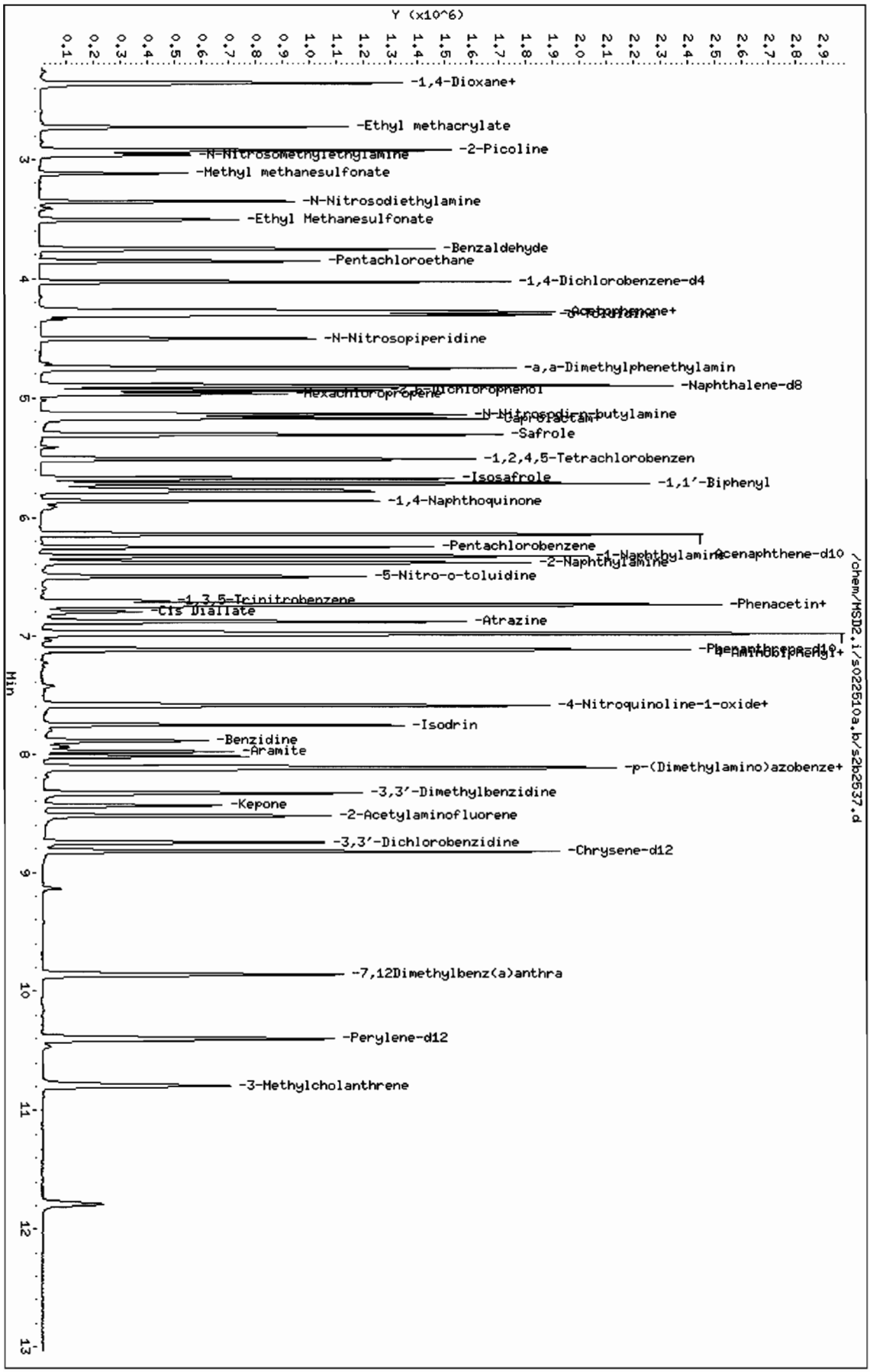

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 26-FEB-2010 19:46
Lab File ID: s2b2554.d Init. Cal. Date(s): 25-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 19:29 19:01
Lab Sample ID: WBN100225-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s022510a.b/MSD2-M8270AQA-022510a.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3	2-Fluorophenol	1.26203	1.19888	1.19888	0.000	-5.00402	60.00000	Averaged
$ 5	Phenol-d5	1.65699	1.50537	1.50537	0.000	-9.15010	60.00000	Averaged
$ 20	Nitrobenzene-d5	0.38280	0.38070	0.38070	0.000	-0.54842	60.00000	Averaged
$ 39	2-Fluorobiphenyl	1.10780	1.06494	1.06494	0.000	-3.86905	60.00000	Averaged
$ 60	2,4,6-Tribromophenol	0.14530	0.13429	0.13429	0.000	-7.57517	60.00000	Averaged
$ 81	p-Terphenyl-d14	0.71085	0.73511	0.73511	0.000	3.41318	60.00000	Averaged
1	N-Methyl-N-nitrosomethylami	0.91066	0.81995	0.81995	0.000	-9.96029	60.00000	Averaged
2	Pyridine	1.31573	0.95835	0.95835	0.000	-27.16218	60.00000	Averaged
4	Aniline	0.83243	0.73205	0.73205	0.000	-12.05789	60.00000	Averaged
6	Phenol	1.68401	1.57691	1.57691	0.001	-6.35979	20.00000	Averaged ccc
7	bis(2-Chloroethyl) ether	1.52634	1.26446	1.26446	0.000	-17.15692	60.00000	Averaged
8	2-Chlorophenol	1.33741	1.24734	1.24734	0.000	-6.73514	60.00000	Averaged
203	n-Decane	36.80406	40.00000	1.67826	0.000	-7.98986	60.00000	Wt Linear
9	1,3-Dichlorobenzene	1.39791	1.33344	1.33344	0.000	-4.61233	60.00000	Averaged
11	1,4-Dichlorobenzene	1.39880	1.30290	1.30290	0.001	-6.85561	20.00000	Averaged ccc
13	1,2-Dichlorobenzene	1.24373	1.15460	1.15460	0.000	-7.16618	60.00000	Averaged
14	bis(2-Chloroisopropyl)ether	2.92707	2.79275	2.79275	0.000	-4.58875	60.00000	Averaged
12	Benzyl alcohol	0.94381	0.88097	0.88097	0.000	-6.65862	60.00000	Averaged
15	o-Cresol	1.07392	0.96224	0.96224	0.000	-10.39894	60.00000	Averaged
18	m,p-Cresols	1.47838	1.41115	1.41115	0.000	-4.54732	60.00000	Averaged
17	N-Nitrosodipropylamine	1.12751	1.01922	1.01922	0.050	-9.60373	60.00000	Averaged spcc
19	Hexachloroethane	0.60646	0.56139	0.56139	0.000	-7.43015	60.00000	Averaged
21	Nitrobenzene	0.36231	0.34676	0.34676	0.000	-4.29057	60.00000	Averaged
22	Isophorone	0.70729	0.64553	0.64553	0.000	-8.73170	60.00000	Averaged
23	2-Nitrophenol	0.14958	0.14834	0.14834	0.001	-0.82944	20.00000	Averaged ccc
24	2,4-Dimethylphenol	41.27351	40.00000	0.28806	0.000	3.18379	60.00000	Wt Linear
25	bis(2-Chloroethoxy)methane	0.38499	0.34455	0.34455	0.000	-10.50465	60.00000	Averaged
26	2,4-Dichlorophenol	0.23149	0.22853	0.22853	0.001	-1.27968	20.00000	Averaged ccc
27	Benzoic acid	0.18797	0.20310	0.20310	0.000	8.04739	60.00000	Averaged
28	1,2,4-Trichlorobenzene	0.26642	0.25127	0.25127	0.000	-5.68834	60.00000	Averaged
30	Naphthalene	34.34163	40.00000	0.80672	0.000	-14.14592	60.00000	Wt Linear
204	alpha-Terpineol	0.35310	0.30562	0.30562	0.000	-13.44479	60.00000	Averaged
31	4-Chloroaniline	0.42621	0.39749	0.39749	0.000	-6.73958	60.00000	Averaged
32	Hexachlorobutadiene	0.14813	0.14336	0.14336	0.001	-3.22291	20.00000	Averaged ccc
33	4-Chloro-3-methylphenol	0.28625	0.28258	0.28258	0.001	-1.28365	20.00000	Averaged ccc
34	2-Methylnaphthalene	36.33751	40.00000	0.51823	0.000	-9.15623	60.00000	Wt Linear

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 26-FEB-2010 19:46
Lab File ID: s2b2554.d Init. Cal. Date(s): 25-FEB-2010 26-FEB-2010
Analysis Type: Init. Cal. Times: 19:29 19:01
Lab Sample ID: WBN100225-09.1 Quant Type: ISTD
Method: /chem/MSD2.i/s022510a.b/MSD2-M8270AQA-022510a.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	34.91145	40.00000	0.48717	0.000	-12.72138	60.00000	Wt Linear	
36 Hexachlorocyclopentadiene	0.22591	0.16942	0.16942	0.050	-25.00436	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.56783	0.52160	0.52160	0.000	-8.14030	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.29264	0.28473	0.28473	0.001	-2.70384	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.34170	0.33799	0.33799	0.000	-1.08704	60.00000	Averaged	
40 2-Chloronaphthalene	37.87923	40.00000	0.96673	0.000	-5.30193	60.00000	Wt Linear	
42 o-Nitroaniline	0.42127	0.39551	0.39551	0.000	-6.11580	60.00000	Averaged	
41 m-Nitroaniline	0.25711	0.25188	0.25188	0.000	-2.03314	60.00000	Averaged	
43 Dimethylphthalate	1.22347	1.11708	1.11708	0.000	-8.69559	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.28126	0.26299	0.26299	0.000	-6.49689	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.36658	0.34224	0.34224	0.000	-6.63839	60.00000	Averaged	
45 Acenaphthylene	37.83614	40.00000	1.45631	0.000	-5.40964	60.00000	Wt Linear	
47 Acenaphthene	35.77252	40.00000	0.90408	0.001	-10.56869	20.00000	Wt Linear	ccc
48 2,4-Dinitrophenol	39.23044	40.00000	0.08120	0.050	-1.92391	60.00000	Linear	spcc
49 Dibenzofuran	1.36667	1.26730	1.26730	0.000	-7.27118	60.00000	Averaged	
51 Diethylphthalate	1.17674	1.07383	1.07383	0.000	-8.74521	60.00000	Averaged	
52 4-Nitrophenol	0.18423	0.17246	0.17246	0.050	-6.38900	60.00000	Averaged	spcc
53 Fluorene	35.99551	40.00000	0.99147	0.000	-10.01123	60.00000	Wt Linear	
54 4-Chlorophenylphenylether	0.54943	0.49146	0.49146	0.000	-10.54961	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	0.09299	0.11575	0.11575	0.000	24.47626	60.00000	Averaged	
56 p-Nitroaniline	0.22606	0.21174	0.21174	0.000	-6.33344	60.00000	Averaged	
133 Diphenylamine	0.54279	0.50815	0.50815	0.001	-6.38295	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.87498	0.84132	0.84132	0.000	-3.84700	60.00000	Averaged	
61 4-Bromophenylphenylether	0.18028	0.16151	0.16151	0.000	-10.40874	60.00000	Averaged	
63 Hexachlorobenzene	0.19591	0.17941	0.17941	0.000	-8.42255	60.00000	Averaged	
65 Pentachlorophenol	0.09927	0.09628	0.09628	0.001	-3.01413	20.00000	Averaged	ccc
206 n-Octadecane	41.99228	40.00000	0.64317	0.000	4.98069	60.00000	Linear	
68 Phenanthrene	37.84938	40.00000	0.93515	0.000	-5.37656	60.00000	Wt Linear	
69 Anthracene	35.76576	40.00000	0.88895	0.000	-10.58560	60.00000	Wt Linear	
72 Di-n-butylphthalate	1.14097	1.06078	1.06078	0.000	-7.02804	60.00000	Averaged	
76 Fluoranthene	36.46608	40.00000	0.87962	0.001	-8.83479	20.00000	Wt Linear	ccc
79 Pyrene	35.87699	40.00000	1.14548	0.000	-10.30751	60.00000	Wt Linear	
85 Butylbenzylphthalate	0.53997	0.56587	0.56587	0.000	4.79698	60.00000	Averaged	
89 Benzo(a)anthracene	1.08888	0.90305	0.90305	0.000	-17.06645	60.00000	Averaged	
92 Chrysene	36.38660	40.00000	0.93354	0.000	-9.03350	60.00000	Wt Linear	
93 bis(2-Ethylhexyl)phthalate	0.79994	0.72588	0.72588	0.000	-9.25836	60.00000	Averaged	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i
Lab File ID: s2b2554.d
Analysis Type:
Lab Sample ID: WBN100225-09.1
Method: /chem/MSD2.i/s022510a.b/MSD2-M8270AQA-022510a.m

Injection Date: 26-FEB-2010 19:46
Init. Cal. Date(s): 25-FEB-2010 26-FEB-2010
Init. Cal. Times: 19:29 19:01
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.56106	1.46863	1.46863	0.001	-5.92078	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.12276	0.96169	0.96169	0.000	-14.34631	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.15768	1.06325	1.06325	0.000	-8.15690	60.00000	Averaged	
	97 Benzo(a)pyrene	0.95896	0.85880	0.85880	0.001	-10.44462	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.88778	0.75994	0.75994	0.000	-14.40040	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.72374	0.61499	0.61499	0.000	-15.02689	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.74907	0.62768	0.62768	0.000	-16.20553	60.00000	Averaged	
	126 m-Dinitrobenzene	0.20253	0.19276	0.19276	0.000	-4.82304	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.27830	0.24217	0.24217	0.000	-12.98351	60.00000	Averaged	
	143 Dinoseb	0.12985	0.12606	0.12606	0.000	-2.91935	60.00000	Averaged	
	173 Carbazole	39.85048	40.00000	0.72553	0.000	-0.37380	60.00000	Linear	
	184 p-Benzoquinone	0.26464	0.18701	0.18701	0.000	-29.33148	60.00000	Averaged	
	192 Methoxychlor	0.56608	0.52183	0.52183	0.000	-7.81635	60.00000	Averaged	
	211 p-Toluidine	1.65744	1.24815	1.24815	0.000	-24.69391	60.00000	Averaged	
	210 m-Toluidine	1.96133	1.92915	1.92915	0.000	-1.64097	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.27934	0.27375	0.27375	0.000	-1.99834	60.00000	Averaged	
	215 2-Ethoxyethanol	1.09817	1.07910	1.07910	0.000	-1.73647	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	38.42290	40.00000	0.12646	0.000	-3.94275	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	0.34073	0.20393	0.20393	0.000	-40.14986	60.00000	Averaged	
	26 Phthalic anhydride	56.62888	40.00000	0.16892	0.000	41.57219	60.00000	Linear	
M	222 Trichlorophenols	0.31717	0.31136	0.31136	0.000	-1.83291	60.00000	Averaged	
M	223 Tetrachlorophenols	0.27830	0.24217	0.24217	0.000	-12.98351	60.00000	Averaged	
M	224 Benzo(b,k)fluoranthene	1.14022	1.01247	1.01247	0.000	-11.20422	60.00000	Averaged	

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GEL Laboratories, LLC
Data file : /chem/MSD2.i/s022510a.b/s2b2554.d
Lab Smp Id: WBN100225-09.1 Client Smp ID: MEGAICV
Inj Date : 26-FEB-2010 19:46
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100225-09.1|40PPM|1|SVMF|1|MEGAICV
Misc Info : |MSD8270|WBN100217-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s022510a.b/MSD2-M8270AQA-022510a.m
Meth Date : 26-Feb-2010 21:20 ann00964 Quant Type: ISTD
Cal Date : 26-FEB-2010 01:31 Cal File: s2b2528.d
Als bottle: 16 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAII.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.030	4.030	(1.000)	286572	40.0000	
* 29 Naphthalene-d8	136	4.897	4.897	(1.000)	1223068	40.0000	
* 46 Acenaphthene-d10	164	6.143	6.143	(1.000)	623494	40.0000	
* 67 Phenanthrene-d10	188	7.122	7.122	(1.000)	999696	40.0000	
* 91 Chrysene-d12	240	8.833	8.833	(1.000)	782318	40.0000	
* 98 Perylene-d12	264	10.406	10.406	(1.000)	593549	40.0000	
$ 3 2-Fluorophenol	112	3.206	3.206	(0.796)	343565	40.0000	38.0
$ 5 Phenol-d5	99	3.736	3.736	(0.927)	431397	40.0000	36.3
$ 20 Nitrobenzene-d5	82	4.394	4.394	(0.897)	465625	40.0000	39.8
$ 39 2-Fluorobiphenyl	172	5.635	5.635	(0.917)	663981	40.0000	38.4
$ 60 2,4,6-Tribromophenol	329	6.672	6.672	(1.086)	83732	40.0000	37.0
$ 81 p-Terphenyl-d14	244	8.036	8.036	(0.910)	575088	40.0000	41.4
1 N-Methyl-N-nitrosomethylamine	74	2.516	2.516	(0.624)	234976	40.0000	36.0
2 Pyridine	79	2.554	2.554	(0.634)	274636	40.0000	29.1
4 Aniline	66	3.811	3.811	(0.946)	209786	40.0000	35.2
6 Phenol	94	3.741	3.741	(0.928)	451899	40.0000	37.4(Q)
7 bis(2-Chloroethyl) ether	63	3.827	3.827	(0.950)	362360	40.0000	33.1
8 2-Chlorophenol	128	3.891	3.891	(0.965)	357452	40.0000	37.3
203 n-Decane	43	3.875	3.875	(0.962)	480943	40.0000	36.8
9 1,3-Dichlorobenzene	146	3.998	3.998	(0.992)	382126	40.0000	38.2
11 1,4-Dichlorobenzene	146	4.041	4.041	(1.003)	373375	40.0000	37.2
13 1,2-Dichlorobenzene	146	4.148	4.148	(1.029)	330876	40.0000	37.1
14 bis(2-Chloroisopropyl)ether	45	4.169	4.169	(1.034)	800324	40.0000	38.2
12 Benzyl alcohol	108	4.094	4.094	(1.016)	252461	40.0000	37.3
15 o-Cresol	107	4.142	4.142	(1.028)	275751	40.0000	35.8
18 m,p-Cresols	107	4.244	4.244	(1.053)	404397	40.0000	38.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.265	4.265	(1.058)	292081	40.0000	36.2
19 Hexachloroethane	117	4.378	4.378	(1.086)	160880	40.0000	37.0
21 Nitrobenzene	77	4.404	4.404	(0.900)	424112	40.0000	38.3
22 Isophorone	82	4.560	4.560	(0.931)	789532	40.0000	36.5
23 2-Nitrophenol	139	4.618	4.618	(0.943)	181430	40.0000	39.7
24 2,4-Dimethylphenol	122	4.608	4.608	(0.941)	352315	40.0000	41.3
25 bis(2-Chloroethoxy)methane	93	4.677	4.677	(0.955)	421405	40.0000	35.8
26 2,4-Dichlorophenol	162	4.779	4.779	(0.976)	279502	40.0000	39.5
27 Benzoic acid	105	4.661	4.661	(0.952)	248405	40.0000	43.2
28 1,2,4-Trichlorobenzene	180	4.848	4.848	(0.990)	307317	40.0000	37.7
30 Naphthalene	128	4.913	4.913	(1.003)	986668	40.0000	34.3(Q)
204 alpha-Terpineol	59	4.886	4.886	(0.998)	373798	40.0000	34.6
31 4-Chloroaniline	127	4.923	4.923	(1.005)	486156	40.0000	37.3
32 Hexachlorobutadiene	225	4.977	4.977	(1.016)	175336	40.0000	38.7
33 4-Chloro-3-methylphenol	107	5.234	5.234	(1.069)	345614	40.0000	39.5
34 2-Methylnaphthalene	142	5.394	5.394	(1.102)	633832	40.0000	36.3
35 1-Methylnaphthalene	142	5.469	5.469	(1.117)	595836	40.0000	34.9
36 Hexachlorocyclopentadiene	237	5.496	5.496	(0.895)	105632	40.0000	30.0
205 2,3-Dichloroaniline	161	5.587	5.587	(0.909)	325217	40.0000	36.7
37 2,4,6-Trichlorophenol	196	5.581	5.581	(0.909)	177525	40.0000	38.9
38 2,4,5-Trichlorophenol	196	5.608	5.608	(0.913)	210735	40.0000	39.6
40 2-Chloronaphthalene	162	5.747	5.747	(0.936)	602752	40.0000	37.9
42 o-Nitroaniline	65	5.800	5.800	(0.944)	246595	40.0000	37.6
41 m-Nitroaniline	138	6.089	6.089	(0.991)	157045	40.0000	39.2
43 Dimethylphthalate	163	5.907	5.907	(0.962)	696492	40.0000	36.5
44 2,6-Dinitrotoluene	165	5.961	5.961	(0.970)	163973	40.0000	37.4
50 2,4-Dinitrotoluene	165	6.244	6.244	(1.017)	213385	40.0000	37.3
45 Acenaphthylene	152	6.052	6.052	(0.985)	907999	40.0000	37.8
47 Acenaphthene	154	6.170	6.170	(1.004)	563690	40.0000	35.8
48 2,4-Dinitrophenol	184	6.159	6.159	(1.003)	50625	40.0000	39.2
49 Dibenzofuran	168	6.282	6.282	(1.023)	790151	40.0000	37.1
51 Diethylphthalate	149	6.383	6.383	(1.039)	669528	40.0000	36.5
52 4-Nitrophenol	139	6.170	6.170	(1.004)	107527	40.0000	37.4
53 Fluorene	166	6.512	6.512	(1.060)	618174	40.0000	36.0
54 4-Chlorophenylphenylether	204	6.490	6.490	(1.057)	306425	40.0000	35.8
55 2-Methyl-4,6-dinitrophenol	198	6.523	6.523	(0.916)	115719	40.0000	49.8
56 p-Nitroaniline	138	6.506	6.506	(1.059)	132021	40.0000	37.5
133 Diphenylamine	169	6.565	6.565	(0.922)	507992	40.0000	37.4
58 1,2-Diphenylhydrazine	77	6.597	6.597	(0.926)	841062	40.0000	38.5
61 4-Bromophenylphenylether	248	6.811	6.811	(0.956)	161465	40.0000	35.8
63 Hexachlorobenzene	284	6.870	6.870	(0.965)	179353	40.0000	36.6
65 Pentachlorophenol	266	6.988	6.988	(0.981)	96246	40.0000	38.8
206 n-Octadecane	57	6.966	6.966	(0.978)	642974	40.0000	42.0
68 Phenanthrene	178	7.138	7.138	(1.002)	934866	40.0000	37.8
69 Anthracene	178	7.164	7.164	(1.006)	888680	40.0000	35.8
72 Di-n-butylphthalate	149	7.400	7.400	(1.039)	1060458	40.0000	37.2
76 Fluoranthene	202	7.844	7.844	(1.101)	879349	40.0000	36.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.988	7.988	(0.904)	896132	40.0000	35.9
85 Butylbenzylphthalate	149	8.309	8.309	(0.941)	442688	40.0000	41.9
89 Benzo(a)anthracene	228	8.817	8.817	(0.998)	706473	40.0000	33.2
92 Chrysene	228	8.855	8.855	(1.002)	730327	40.0000	36.4
93 bis(2-Ethylhexyl)phthalate	149	8.689	8.689	(0.984)	567866	40.0000	36.3
94 Di-n-octylphthalate	149	9.261	9.261	(0.890)	871705	40.0000	37.6
95 Benzo(b)fluoranthene	252	9.898	9.898	(0.951)	570808	40.0000	34.3(H)
96 Benzo(k)fluoranthene	252	9.935	9.935	(0.955)	631092	40.0000	36.7
97 Benzo(a)pyrene	252	10.331	10.331	(0.993)	509739	40.0000	35.8
99 Indeno(1,2,3-cd)pyrene	276	12.192	12.192	(1.172)	451059	40.0000	34.2
100 Dibenzo(a,h)anthracene	278	12.197	12.197	(1.172)	365025	40.0000	34.0
101 Benzo(ghi)perylene	276	12.748	12.748	(1.225)	372558	40.0000	33.5
126 m-Dinitrobenzene	168	5.950	5.950	(0.969)	120186	40.0000	38.1
130 2,3,4,6-Tetrachlorophenol	232	6.351	6.351	(1.034)	150990	40.0000	34.8
143 Dinoseb	211	7.073	7.073	(0.993)	126017	40.0000	38.8
173 Carbazole	167	7.250	7.250	(1.018)	725305	40.0000	39.8
184 p-Benzoquinone	54	3.511	3.511	(0.871)	53593	40.0000	28.3
192 Methoxychlor	227	8.673	8.673	(0.982)	408240	40.0000	36.9
211 p-Toluidine	106	4.303	4.303	(1.068)	357686	40.0000	30.1(H)
210 m-Toluidine	106	4.324	4.324	(1.073)	552840	40.0000	39.3
214 1,4-Dinitrobenzene	75	5.891	5.891	(0.959)	170684	40.0000	39.2
215 2-Ethoxyethanol	59	2.361	2.361	(0.586)	309241	40.0000	39.3
216 Methylenebis(2-chloroaniline)	231	8.742	8.742	(0.990)	98932	40.0000	38.4(Q)
179 Dibenzo(a,e)pyrene	302	17.017	17.017	(1.635)	121042	40.0000	23.9
26 Phthalic anhydride	104	5.431	5.431	(1.109)	206599	40.0000	56.6
M 222 Trichlorophenols	196				388260	80.0000	78.5
M 223 Tetrachlorophenols	232				150990	40.0000	34.8
M 224 Benzo(b,k)fluoranthene	252				1201900	80.0000	71.0

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD2.i/s022510a.b/s2b2554.d
Date : 26-FEB-2010 19:46
Client ID: MEGAICV
Sample Info: IWBN100225-09,1|40PPM|1|SVMF|1|MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

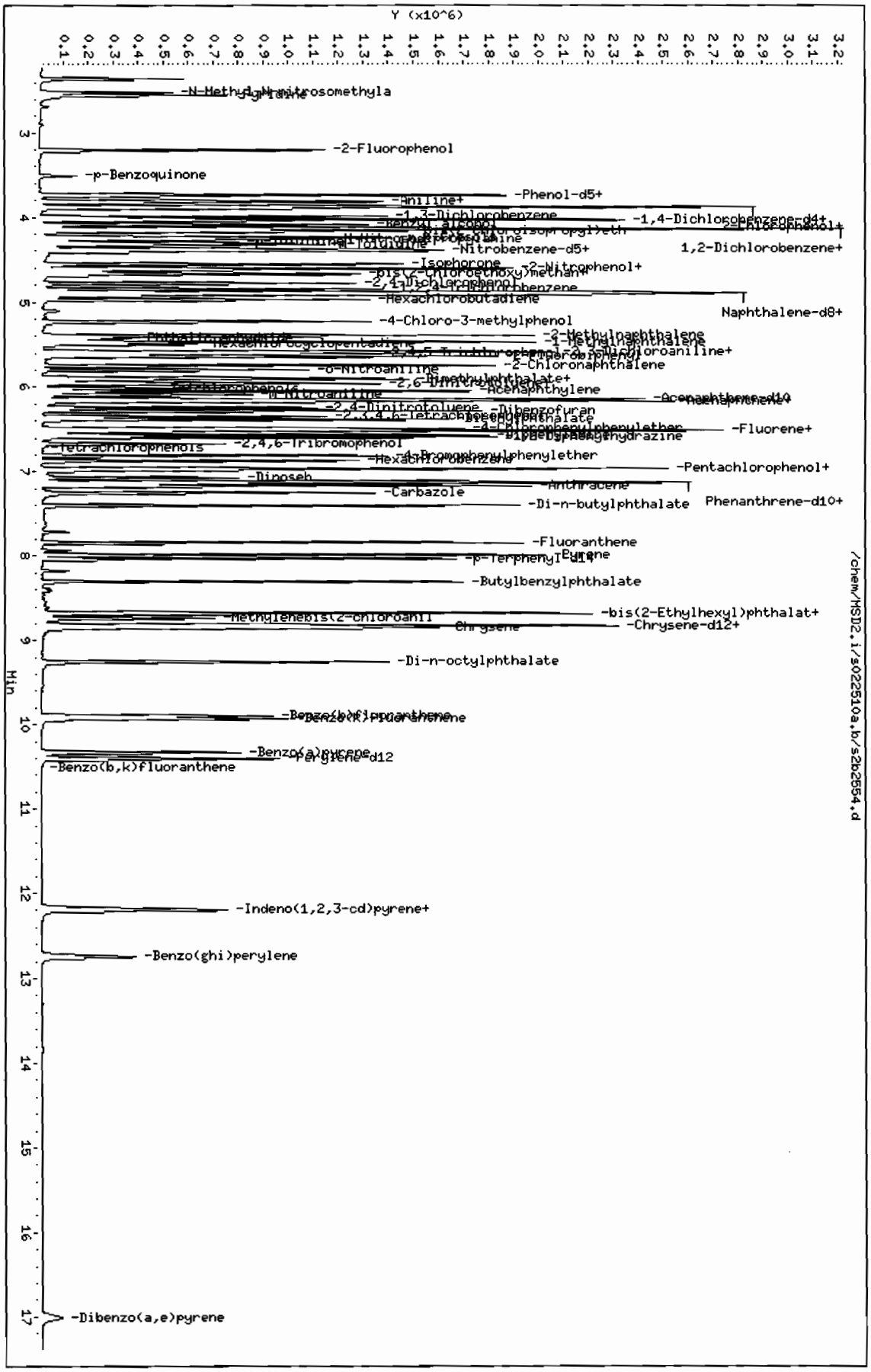

/chem/MSD2.i/s022510a.b/s2b2554.d

Page 1

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 20-FEB-2010 18:09
Lab File ID: s8b2012.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Analysis Type: Init. Cal. Times: 12:55 01:19
Lab Sample ID: WBN100215-05.1 Quant Type: ISTD
Method: /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3	2-Fluorophenol	0.94435	0.91252	0.91252	0.000	-3.36963	60.00000	Averaged
$ 5	Phenol-d5	1.17771	1.11967	1.11967	0.000	-4.92793	60.00000	Averaged
$ 20	Nitrobenzene-d5	0.28435	0.28445	0.28445	0.000	0.03513	60.00000	Averaged
$ 39	2-Fluorobiphenyl	1.17740	1.10971	1.10971	0.000	-5.74835	60.00000	Averaged
$ 60	2,4,6-Tribromophenol	0.13223	0.12031	0.12031	0.000	-9.01194	60.00000	Averaged
$ 81	p-Terphenyl-d14	0.72015	0.73651	0.73651	0.000	2.27163	60.00000	Averaged
1	N-Methyl-N-nitrosomethylami	0.60923	0.57218	0.57218	0.000	-6.08077	60.00000	Averaged
2	Pyridine	0.89373	0.67690	0.67690	0.000	-24.26051	60.00000	Averaged
4	Aniline	0.55542	0.50332	0.50332	0.000	-9.38073	60.00000	Averaged
6	Phenol	1.21617	1.17309	1.17309	0.001	-3.54259	20.00000	Averaged ccc
7	bis(2-Chloroethyl) ether	0.83144	0.74294	0.74294	0.000	-10.64430	60.00000	Averaged
8	2-Chlorophenol	1.05605	1.02399	1.02399	0.000	-3.03618	60.00000	Averaged
203	n-Decane	1.08949	1.10768	1.10768	0.000	1.66910	60.00000	Averaged
9	1,3-Dichlorobenzene	1.25240	1.20785	1.20785	0.000	-3.55721	60.00000	Averaged
11	1,4-Dichlorobenzene	1.29215	1.21176	1.21176	0.001	-6.22171	20.00000	Averaged ccc
13	1,2-Dichlorobenzene	1.20194	1.13600	1.13600	0.000	-5.48562	60.00000	Averaged
14	bis(2-Chloroisopropyl)ether	1.63019	1.56683	1.56683	0.000	-3.88699	60.00000	Averaged
12	Benzyl alcohol	0.66057	0.64188	0.64188	0.000	-2.82972	60.00000	Averaged
15	o-Cresol	0.84463	0.81254	0.81254	0.000	-3.79849	60.00000	Averaged
18	m,p-Cresols	1.06890	1.06346	1.06346	0.000	-0.50838	60.00000	Averaged
17	N-Nitrosodipropylamine	0.77788	0.74120	0.74120	0.050	-4.71529	60.00000	Averaged spcc
19	Hexachloroethane	0.48694	0.45665	0.45665	0.000	-6.22059	60.00000	Averaged
21	Nitrobenzene	0.29331	0.27681	0.27681	0.000	-5.62390	60.00000	Averaged
22	Isophorone	0.53999	0.49377	0.49377	0.000	-8.55934	60.00000	Averaged
23	2-Nitrophenol	0.13462	0.13301	0.13301	0.001	-1.19474	20.00000	Averaged ccc
24	2,4-Dimethylphenol	0.23932	0.22527	0.22527	0.000	-5.87154	60.00000	Averaged
25	bis(2-Chloroethoxy)methane	0.30282	0.26637	0.26637	0.000	-12.03559	60.00000	Averaged
26	2,4-Dichlorophenol	0.21654	0.20901	0.20901	0.001	-3.47894	20.00000	Averaged ccc
27	Benzoic acid	41.94960	40.00000	0.11609	0.000	4.87400	60.00000	Linear
28	1,2,4-Trichlorobenzene	0.29118	0.26506	0.26506	0.000	-8.96931	60.00000	Averaged
30	Naphthalene	35.39177	40.00000	0.76629	0.000	-11.52057	60.00000	Linear
204	alpha-Terpineol	0.22259	0.20059	0.20059	0.000	-9.88109	60.00000	Averaged
31	4-Chloroaniline	0.28585	0.27423	0.27423	0.000	-4.06642	60.00000	Averaged
32	Hexachlorobutadiene	0.18110	0.17017	0.17017	0.001	-6.03393	20.00000	Averaged ccc
33	4-Chloro-3-methylphenol	0.23429	0.22644	0.22644	0.001	-3.34816	20.00000	Averaged ccc
34	2-Methylnaphthalene	37.56535	40.00000	0.54491	0.000	-6.08662	60.00000	Linear

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i
Lab File ID: s8b2012.d
Analysis Type:
Lab Sample ID: WBN100215-05.1 Quant Type: ISTD
Method: /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m

Injection Date: 20-FEB-2010 18:09
Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Init. Cal. Times: 12:55 01:19

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	36.14060	40.00000	0.51338	0.000	-9.64851	60.00000	Linear	
36 Hexachlorocyclopentadiene	0.24827	0.20951	0.20951	0.050	-15.61096	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.52803	0.47281	0.47281	0.000	-10.45916	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.30819	0.28652	0.28652	0.001	-7.02903	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.32711	0.32121	0.32121	0.000	-1.80308	60.00000	Averaged	
40 2-Chloronaphthalene	36.94398	40.00000	0.91069	0.000	-7.64006	60.00000	Linear	
42 o-Nitroaniline	0.27392	0.25926	0.25926	0.000	-5.35118	60.00000	Averaged	
41 m-Nitroaniline	0.20877	0.20131	0.20131	0.000	-3.57417	60.00000	Averaged	
43 Dimethylphthalate	1.12088	1.03748	1.03748	0.000	-7.44016	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.25341	0.23417	0.23417	0.000	-7.59187	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.32492	0.29882	0.29882	0.000	-8.03184	60.00000	Averaged	
45 Acenaphthylene	1.66068	1.47808	1.47808	0.000	-10.99555	60.00000	Averaged	
47 Acenaphthene	1.06294	0.89925	0.89925	0.001	-15.39975	20.00000	Averaged	ccc
48 2,4-Dinitrophenol	42.02206	40.00000	0.08759	0.050	5.05516	60.00000	Linear	spcc
49 Dibenzofuran	1.39464	1.27908	1.27908	0.000	-8.28625	60.00000	Averaged	
51 Diethylphthalate	1.17311	1.07200	1.07200	0.000	-8.61955	60.00000	Averaged	
52 4-Nitrophenol	0.13654	0.14391	0.14391	0.050	5.40043	60.00000	Averaged	spcc
53 Fluorene	1.29100	1.07540	1.07540	0.000	-16.69989	60.00000	Averaged	
54 4-Chlorophenylphenylether	0.62173	0.54162	0.54162	0.000	-12.88500	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	48.66926	40.00000	0.10060	0.000	21.67316	60.00000	Linear	
56 p-Nitroaniline	0.18448	0.18495	0.18495	0.000	0.25453	60.00000	Averaged	
133 Diphenylamine	0.50546	0.46520	0.46520	0.001	-7.96469	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.59375	0.56532	0.56532	0.000	-4.78833	60.00000	Averaged	
61 4-Bromophenylphenylether	0.19114	0.16319	0.16319	0.000	-14.62019	60.00000	Averaged	
63 Hexachlorobenzene	0.19866	0.17428	0.17428	0.000	-12.27477	60.00000	Averaged	
65 Pentachlorophenol	0.08849	0.08776	0.08776	0.001	-0.83218	20.00000	Averaged	ccc
206 n-Octadecane	0.39703	0.39262	0.39262	0.000	-1.10928	60.00000	Averaged	
68 Phenanthrene	35.36562	40.00000	0.82559	0.000	-11.58594	60.00000	Linear	
69 Anthracene	0.97083	0.82497	0.82497	0.000	-15.02413	60.00000	Averaged	
72 Di-n-butylphthalate	1.01476	0.94515	0.94515	0.000	-6.85986	60.00000	Averaged	
76 Fluoranthene	1.01786	0.89285	0.89285	0.001	-12.28130	20.00000	Averaged	ccc
79 Pyrene	1.24889	1.05447	1.05447	0.000	-15.56774	60.00000	Averaged	
85 Butylbenzylphthalate	0.43672	0.42071	0.42071	0.000	-3.66508	60.00000	Averaged	
89 Benzo(a)anthracene	1.05261	0.90191	0.90191	0.000	-14.31645	60.00000	Averaged	
92 Chrysene	36.32073	40.00000	0.83331	0.000	-9.19818	60.00000	Linear	
93 bis(2-Ethylhexyl)phthalate	0.61117	0.58944	0.58944	0.000	-3.55520	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i
Lab File ID: s8b2012.d
Analysis Type:
Lab Sample ID: WBN100215-05.1
Method: /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m

Injection Date: 20-FEB-2010 18:09
Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Init. Cal. Times: 12:55 01:19
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	39.76021	40.00000	1.22616	0.001	-0.59948	20.00000	Linear	ccc
	95 Benzo(b)fluoranthene	1.13405	1.05298	1.05298	0.000	-7.14838	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.14008	1.04465	1.04465	0.000	-8.37069	60.00000	Averaged	
	97 Benzo(a)pyrene	0.95647	0.89169	0.89169	0.001	-6.77277	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.79303	0.69287	0.69287	0.000	-12.62907	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.61288	0.52486	0.52486	0.000	-14.36175	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.65613	0.54043	0.54043	0.000	-17.63270	60.00000	Averaged	
	126 m-Dinitrobenzene	0.16162	0.15617	0.15617	0.000	-3.37054	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.27739	0.25140	0.25140	0.000	-9.36867	60.00000	Averaged	
	143 Dinoseb	39.33235	40.00000	0.11528	0.000	-1.66914	60.00000	Linear	
	173 Carbazole	0.69337	0.64707	0.64707	0.000	-6.67637	60.00000	Averaged	
	184 p-Benzoquinone	26.23116	40.00000	0.11601	0.000	-34.42209	60.00000	Linear	
	192 Methoxychlor	0.57371	0.53574	0.53574	0.000	-6.61792	60.00000	Averaged	
	211 p-Toluidine	1.14055	0.88750	0.88750	0.000	-22.18641	60.00000	Averaged	
	210 m-Toluidine	1.48620	1.44197	1.44197	0.000	-2.97629	60.00000	Averaged	
	26 Phthalic anhydride	53.94737	40.00000	0.17465	0.000	34.86844	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	0.26112	0.15069	0.15069	0.000	-42.29332	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.17136	0.17062	0.17062	0.000	-0.43576	60.00000	Averaged	
	215 2-Ethoxyethanol	0.57374	0.58779	0.58779	0.000	2.44852	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	41.74874	40.00000	0.12008	0.000	4.37185	60.00000	Linear	
M	222 Trichlorophenols	0.31765	0.30387	0.30387	0.000	-4.33823	60.00000	Averaged	
M	223 Tetrachlorophenols	0.27739	0.25140	0.25140	0.000	-9.36867	60.00000	Averaged	
M	224 Benzo(b,k)fluoranthene	1.13706	1.04881	1.04881	0.000	-7.76116	60.00000	Averaged	

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Data file : /chem/MSD8.i/s022010.b/s8b2012.d
Lab Smp Id: WBN100215-05.1 Client Smp ID: MEGAICV
Inj Date : 20-FEB-2010 18:09
Operator : nagl Inst ID: MSD8.i
Smp Info : |WBN100215-05.1|40 PPM|1|SVM|1|MEGAICV
Misc Info : |MSD8270|WBN100217-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m
Meth Date : 23-Feb-2010 13:25 nat00999 Quant Type: ISTD
Cal Date : 22-FEB-2010 01:19 Cal File: s8b2046.d
Als bottle: 11 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.530	4.530	(1.000)	613599	40.0000	
* 29 Naphthalene-d8	136	5.797	5.797	(1.000)	2473544	40.0000	
* 46 Acenaphthene-d10	164	7.663	7.663	(1.000)	1402775	40.0000	
* 67 Phenanthrene-d10	188	9.263	9.263	(1.000)	2635307	40.0000	
* 91 Chrysene-d12	240	12.197	12.197	(1.000)	2302220	40.0000	
* 98 Perylene-d12	264	14.354	14.354	(1.000)	1521193	40.0000	
$ 3 2-Fluorophenol	112	3.368	3.368	(0.743)	559924	40.0000	38.6
$ 5 Phenol-d5	99	4.149	4.149	(0.916)	687028	40.0000	38.0
$ 20 Nitrobenzene-d5	82	5.063	5.063	(0.873)	703589	40.0000	40.0
$ 39 2-Fluorobiphenyl	172	6.925	6.925	(0.904)	1556680	40.0000	37.7
$ 60 2,4,6-Tribromophenol	329	8.506	8.506	(1.110)	168767	40.0000	36.4
$ 81 p-Terphenyl-d14	244	10.978	10.978	(0.900)	1695598	40.0000	40.9
1 N-Methyl-N-nitrosomethylamine	74	2.382	2.382	(0.526)	351092	40.0000	37.6
2 Pyridine	79	2.420	2.420	(0.534)	415348	40.0000	30.3
4 Aniline	66	4.220	4.220	(0.932)	308837	40.0000	36.2
6 Phenol	94	4.163	4.163	(0.919)	719807	40.0000	38.6(Q)
7 bis(2-Chloroethyl) ether	63	4.263	4.263	(0.941)	455867	40.0000	35.7
8 2-Chlorophenol	128	4.335	4.335	(0.957)	628318	40.0000	38.8
203 n-Decane	43	4.354	4.354	(0.961)	679671	40.0000	40.7
9 1,3-Dichlorobenzene	146	4.477	4.477	(0.988)	741134	40.0000	38.6
11 1,4-Dichlorobenzene	146	4.549	4.549	(1.004)	743535	40.0000	37.5
13 1,2-Dichlorobenzene	146	4.692	4.692	(1.036)	697051	40.0000	37.8
14 bis(2-Chloroisopropyl)ether	45	4.768	4.768	(1.053)	961403	40.0000	38.4
12 Benzyl alcohol	108	4.644	4.644	(1.025)	393855	40.0000	38.9(H)
15 o-Cresol	107	4.735	4.735	(1.045)	498576	40.0000	38.5
18 m,p-Cresols	107	4.887	4.887	(1.079)	652539	40.0000	39.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.906	4.906	(1.083)	454801	40.0000	38.1
19 Hexachloroethane	117	5.025	5.025	(1.109)	280201	40.0000	37.5
21 Nitrobenzene	77	5.082	5.082	(0.877)	684707	40.0000	37.8
22 Isophorone	82	5.320	5.320	(0.918)	1221372	40.0000	36.6
23 2-Nitrophenol	139	5.397	5.397	(0.931)	329005	40.0000	39.5
24 2,4-Dimethylphenol	122	5.420	5.420	(0.935)	557217	40.0000	37.6
25 bis(2-Chloroethoxy)methane	93	5.525	5.525	(0.953)	658886	40.0000	35.2
26 2,4-Dichlorophenol	162	5.644	5.644	(0.974)	516992	40.0000	38.6
27 Benzoic acid	105	5.539	5.539	(0.956)	287142	40.0000	41.9
28 1,2,4-Trichlorobenzene	180	5.735	5.735	(0.989)	655648	40.0000	36.4
30 Naphthalene	128	5.820	5.820	(1.004)	1895442	40.0000	35.4
204 alpha-Terpineol	59	5.816	5.816	(1.003)	496172	40.0000	36.0
31 4-Chloroaniline	127	5.863	5.863	(1.012)	678318	40.0000	38.4
32 Hexachlorobutadiene	225	5.939	5.939	(1.025)	420920	40.0000	37.6
33 4-Chloro-3-methylphenol	107	6.354	6.354	(1.096)	560118	40.0000	38.7
34 2-Methylnaphthalene	142	6.539	6.539	(1.128)	1347856	40.0000	37.6
35 1-Methylnaphthalene	142	6.649	6.649	(1.147)	1269859	40.0000	36.1
36 Hexachlorocyclopentadiene	237	6.706	6.706	(0.875)	293896	40.0000	33.8
205 2,3-Dichloroaniline	161	6.835	6.835	(0.892)	663240	40.0000	35.8
37 2,4,6-Trichlorophenol	196	6.835	6.835	(0.892)	401928	40.0000	37.2
38 2,4,5-Trichlorophenol	196	6.873	6.873	(0.897)	450584	40.0000	39.3
40 2-Chloronaphthalene	162	7.063	7.063	(0.922)	1277487	40.0000	36.9
42 o-Nitroaniline	65	7.163	7.163	(0.935)	363688	40.0000	37.8
41 m-Nitroaniline	138	7.606	7.606	(0.993)	282391	40.0000	38.6
43 Dimethylphthalate	163	7.363	7.363	(0.961)	1455357	40.0000	37.0
44 2,6-Dinitrotoluene	165	7.425	7.425	(0.969)	328490	40.0000	37.0
50 2,4-Dinitrotoluene	165	7.854	7.854	(1.025)	419181	40.0000	36.8
45 Acenaphthylene	152	7.511	7.511	(0.980)	2073418	40.0000	35.6
47 Acenaphthene	154	7.697	7.697	(1.004)	1261448	40.0000	33.8
48 2,4-Dinitrophenol	184	7.711	7.711	(1.006)	122866	40.0000	42.0
49 Dibenzofuran	168	7.878	7.878	(1.028)	1794261	40.0000	36.7
51 Diethylphthalate	149	8.111	8.111	(1.058)	1503769	40.0000	36.6
52 4-Nitrophenol	139	7.768	7.768	(1.014)	201873	40.0000	42.2
53 Fluorene	166	8.249	8.249	(1.076)	1508548	40.0000	33.3
54 4-Chlorophenylphenylether	204	8.239	8.239	(1.075)	759775	40.0000	34.8
55 2-Methyl-4,6-dinitrophenol	198	8.297	8.297	(0.896)	265115	40.0000	48.7
56 p-Nitroaniline	138	8.263	8.263	(1.078)	259438	40.0000	40.1
133 Diphenylamine	169	8.368	8.368	(0.903)	1225948	40.0000	36.8
58 1,2-Diphenylhydrazine	77	8.416	8.416	(0.908)	1489780	40.0000	38.1
61 4-Bromophenylphenylether	248	8.768	8.768	(0.947)	430063	40.0000	34.2
63 Hexachlorobenzene	284	8.839	8.839	(0.954)	459277	40.0000	35.1
65 Pentachlorophenol	266	9.049	9.049	(0.977)	231262	40.0000	39.7
206 n-Octadecane	57	9.125	9.125	(0.985)	1034683	40.0000	39.6
68 Phenanthrene	178	9.292	9.292	(1.003)	2175678	40.0000	35.4
69 Anthracene	178	9.344	9.344	(1.009)	2174061	40.0000	34.0
72 Di-n-butylphthalate	149	9.873	9.873	(1.066)	2490757	40.0000	37.2
76 Fluoranthene	202	10.573	10.573	(1.141)	2352940	40.0000	35.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	10.820	10.820	(0.887)	2427617	40.0000	33.8
85 Butylbenzylphthalate	149	11.497	11.497	(0.943)	968576	40.0000	38.5
89 Benzo(a)anthracene	228	12.178	12.178	(0.998)	2076405	40.0000	34.3
92 Chrysene	228	12.230	12.230	(1.003)	1918472	40.0000	36.3
93 bis(2-Ethylhexyl)phthalate	149	12.182	12.182	(0.999)	1357026	40.0000	38.6
94 Di-n-octylphthalate	149	13.097	13.097	(0.912)	1865222	40.0000	39.8
95 Benzo(b)fluoranthene	252	13.720	13.720	(0.956)	1601785	40.0000	37.1(H)
96 Benzo(k)fluoranthene	252	13.768	13.768	(0.959)	1589110	40.0000	36.6
97 Benzo(a)pyrene	252	14.254	14.254	(0.993)	1356428	40.0000	37.3
99 Indeno(1,2,3-cd)pyrene	276	16.220	16.220	(1.130)	1053996	40.0000	34.9
100 Dibenzo(a,h)anthracene	278	16.254	16.254	(1.132)	798414	40.0000	34.2
101 Benzo(ghi)perylene	276	16.701	16.701	(1.164)	822104	40.0000	32.9
126 m-Dinitrobenzene	168	7.392	7.392	(0.965)	219071	40.0000	38.6
130 2,3,4,6-Tetrachlorophenol	232	8.001	8.001	(1.044)	352660	40.0000	36.2
143 Dinoseb	211	9.239	9.239	(0.997)	303786	40.0000	39.3
173 Carbazole	167	9.511	9.511	(1.027)	1705240	40.0000	37.3
184 p-Benzoquinone	54	3.787	3.787	(0.836)	71181	40.0000	26.2
192 Methoxychlor	227	12.078	12.078	(0.990)	1233392	40.0000	37.4
211 p-Toluidine	106	4.949	4.949	(1.093)	544571	40.0000	31.1
210 m-Toluidine	106	4.982	4.982	(1.100)	884790	40.0000	38.8
26 Phthalic anhydride	104	6.597	6.597	(1.138)	432011	40.0000	53.9
179 Dibenzo(a,e)pyrene	302	19.925	19.925	(1.388)	229221	40.0000	23.1
214 1,4-Dinitrobenzene	75	7.311	7.311	(0.954)	239338	40.0000	39.8
215 2-Ethoxyethanol	59	2.177	2.177	(0.481)	360665	40.0000	41.0
216 Methylenebis(2-chloroaniline)	231	12.135	12.135	(0.995)	276453	40.0000	41.7(Q)
M 222 Trichlorophenols	196				852512	80.0000	76.5
M 223 Tetrachlorophenols	232				352660	40.0000	36.2
M 224 Benzo(b,k)fluoranthene	252				3190895	80.0000	73.8

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD8.i/s022010.b/s8b2012.d
Date : 20-FEB-2010 18:09
Client ID: MEGAICV
Sample Info: IWBN100215-05,1:40 PPM:1:SVM:1:MEGAICV
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: nag1
Column diameter: 0.20

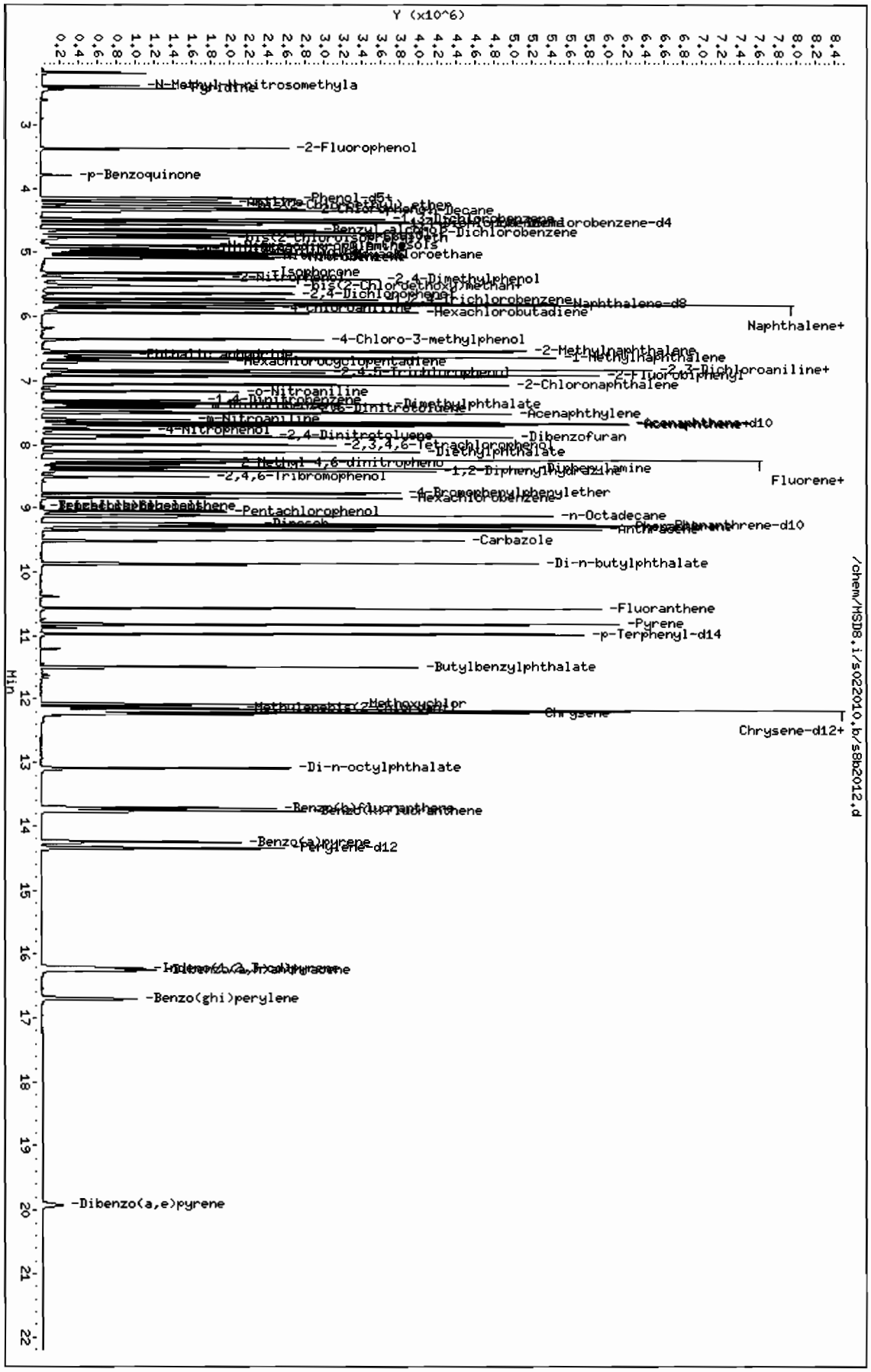

GEL Laboratories LLC

Data file : /chem/MSD8.i/s022010.b/s8b2035.d
Lab Smp Id: WBN100218-08.1 Client Smp ID: APICV
Inj Date : 21-FEB-2010 19:53
Operator : nagl Inst ID: MSD8.i
Smp Info : |WBN100218-08.1|40 PPM|1|SVM|1|APICV
Misc Info : |MSD8270|WBN100217-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s022010.b/MSD8-8270AQA-022010.m
Meth Date : 23-Feb-2010 13:31 nat00999 Quant Type: ISTD
Cal Date : 22-FEB-2010 00:48 Cal File: s8b2045.d
Als bottle: 23 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.530	4.530	(1.000)	649861	40.0000	
* 29 Naphthalene-d8	136	5.796	5.796	(1.000)	2469894	40.0000	
* 46 Acenaphthene-d10	164	7.658	7.658	(1.000)	1465298	40.0000	
* 67 Phenanthrene-d10	188	9.263	9.263	(1.000)	2747481	40.0000	
* 91 Chrysene-d12	240	12.192	12.192	(1.000)	2214467	40.0000	
* 98 Perylene-d12	264	14.349	14.349	(1.000)	1648118	40.0000	
209 Benzaldehyde	77	4.125	4.125	(0.911)	452872	40.0000	33.0
16 Acetophenone	105	4.906	4.906	(1.083)	741552	40.0000	37.9
189 Caprolactam	113	6.225	6.225	(1.074)	168712	40.0000	41.0(H)
208 1,1'-Biphenyl	154	7.034	7.034	(0.919)	1754011	40.0000	39.2
207 Atrazine	173	8.939	8.939	(0.965)	104582	40.0000	43.1
77 Benzidine	184	10.706	10.706	(0.878)	705844	40.0000	42.0
90 3,3'-Dichlorobenzidine	252	12.130	12.130	(0.995)	604986	40.0000	44.1
102 1,4-Dioxane	88	2.177	2.177	(0.481)	245052	40.0000	46.7
103 Methyl methacrylate	100	2.177	2.177	(0.481)	127862	40.0000	46.8
104 Ethyl methacrylate	69	2.692	2.692	(0.594)	519520	40.0000	47.0
105 2-Picoline	93	2.939	2.939	(0.649)	701726	40.0000	39.5
106 N-Nitrosomethylethylamine	88	3.011	3.011	(0.665)	300533	40.0000	42.0
107 Methyl methanesulfonate	80	3.239	3.239	(0.715)	354120	40.0000	43.6
108 N-Nitrosodiethylamine	102	3.568	3.568	(0.788)	310419	40.0000	41.7
109 Ethyl Methanesulfonate	79	3.806	3.806	(0.840)	479140	40.0000	48.4
110 Pentachloroethane	167	4.268	4.268	(0.942)	281568	40.0000	54.0
111 N-Nitrosopyrrolidine	100	4.887	4.887	(1.079)	320276	40.0000	40.2(Q)
113 N-Nitrosomorpholine	56	4.925	4.925	(1.087)	457122	40.0000	42.4
114 o-Toluidine	106	4.944	4.944	(1.091)	1068400	40.0000	40.5
115 N-Nitrosopiperidine	114	5.230	5.230	(0.902)	310940	40.0000	40.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.630	5.630	(0.971)	1921805	40.0000	41.9
118 2,6-Dichlorophenol	162	5.872	5.872	(1.013)	505519	40.0000	40.6
119 Hexachloropropene	213	5.906	5.906	(1.019)	467897	40.0000	61.3
120 p-Phenylenediamine	108	6.230	6.230	(1.075)	497912	40.0000	41.0
121 N-Nitrosodi-n-butylamine	84	6.211	6.211	(1.071)	561557	40.0000	43.0
122 Safrole	162	6.439	6.439	(1.111)	528955	40.0000	44.3
123 1,2,4,5-Tetrachlorobenzene	216	6.715	6.715	(0.877)	713829	40.0000	41.0
124 Isosafrole	162	6.992	6.992	(0.913)	605957	40.0000	51.5
125 1,4-Naphthoquinone	158	7.244	7.244	(0.946)	430153	40.0000	39.6
127 Pentachlorobenzene	250	7.830	7.830	(1.022)	615188	40.0000	38.7
128 1-Naphthylamine	143	7.958	7.958	(1.039)	1285298	40.0000	41.6
129 2-Naphthylamine	143	8.044	8.044	(1.050)	1369199	40.0000	42.1
131 5-Nitro-o-toluidine	152	8.249	8.249	(1.077)	366207	40.0000	41.4
136 1,3,5-Trinitrobenzene	75	8.634	8.634	(0.932)	361581	40.0000	55.4
137 Phenacetin	108	8.701	8.701	(0.939)	630422	40.0000	42.3(Q)
138 Diallate	86	8.673	8.673	(0.936)	524804	40.0000	37.8
212 Cis Diallate	86	8.768	8.768	(0.947)	106203	6.00000	7.7
213 Trans Diallate	86	8.673	8.673	(0.936)	524804	34.0000	32.1
140 4-Aminobiphenyl	169	9.049	9.049	(0.977)	1515283	40.0000	42.6
141 Pentachloronitrobenzene	237	9.063	9.063	(0.978)	228304	40.0000	41.9(Q)
142 Pronamide	173	9.106	9.106	(0.983)	733556	40.0000	42.3
146 4-Nitroquinoline-1-oxide	101	10.111	10.111	(1.091)	39509	40.0000	30.2
147 Methapyrilene	58	10.192	10.192	(1.100)	886744	40.0000	44.2
148 Isodrin	193	10.411	10.411	(1.124)	263898	40.0000	35.8
149 Aramite	185	10.944	10.944	(1.181)	92281	40.0000	39.6
150 Kepone	272	11.563	11.563	(1.248)	211334	40.0000	39.5
151 p-(Dimethylamino)azobenzene	120	11.125	11.125	(0.912)	613518	40.0000	42.9
152 Chlorobenzilate	251	11.173	11.173	(0.916)	624855	40.0000	43.0
153 3,3'-Dimethylbenzidine	212	11.487	11.487	(0.942)	1088156	40.0000	43.2
155 2-Acetylaminofluorene	181	11.782	11.782	(0.966)	534890	40.0000	42.4
157 7,12Dimethylbenz(a)anthracene	256	13.706	13.706	(0.955)	808013	40.0000	37.8
158 3-Methylcholanthrene	268	14.849	14.849	(1.035)	664045	40.0000	43.8(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: /chem/MSD8.i/s022010.b/s8b2035.d
Date : 21-FEB-2010 19:53
Client ID: APICV
Sample Info: IWBN100218-08.1|40 PPM|1|SVMI|1|APICV
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: nagi
Column diameter: 0.20

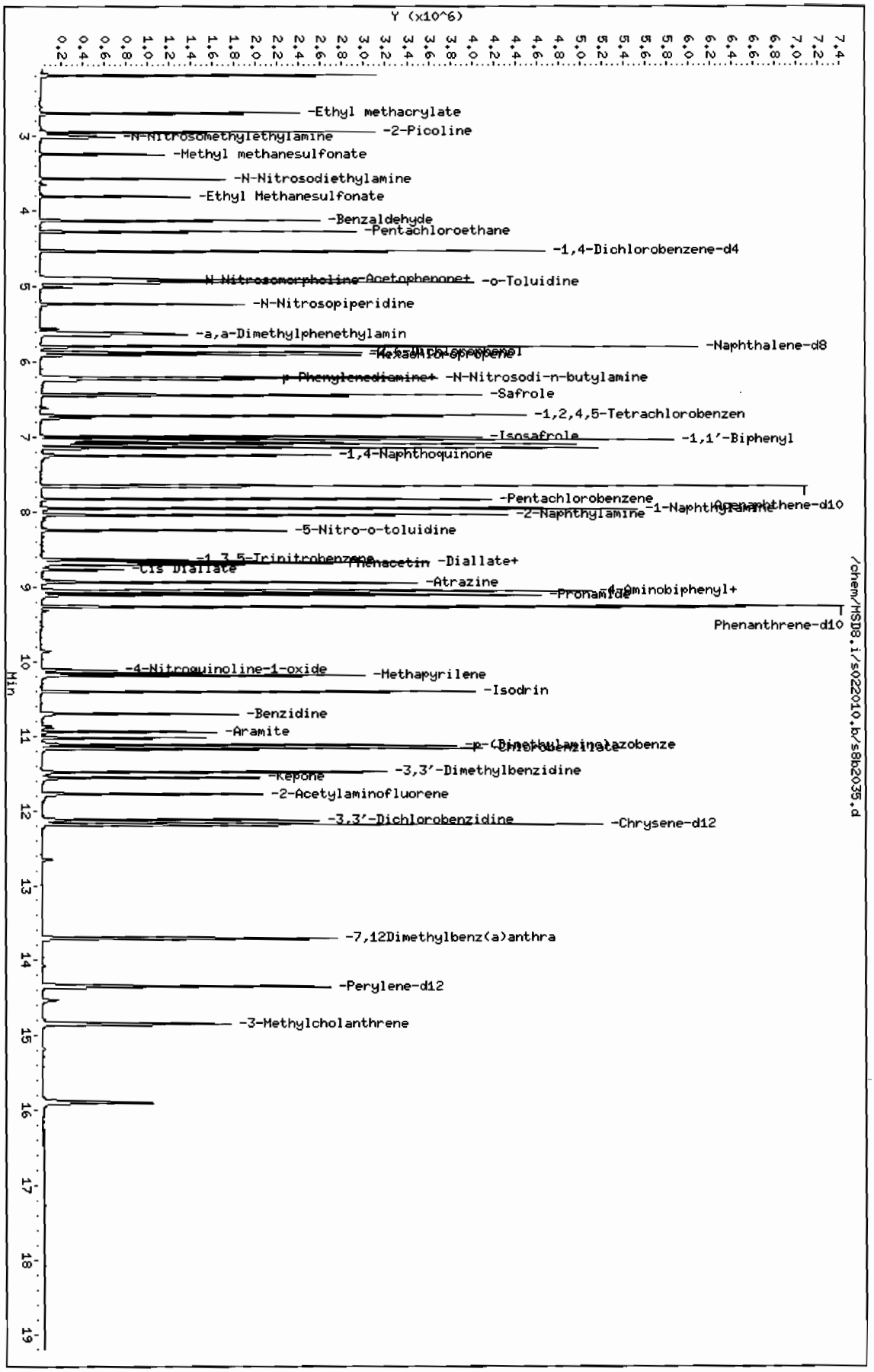

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 03-MAR-2010 19:41
Lab File ID: s2c0308.d Init. Cal. Date(s): 25-FEB-2010 27-FEB-2010
Analysis Type: Init. Cal. Times: 19:29 19:19
Lab Sample ID: WBN100225-09.4 Quant Type: ISTD
Method: /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 3	2-Fluorophenol	1.26203	1.12914	1.12914	0.000	-10.53014	60.00000	Averaged
$ 5	Phenol-d5	1.65699	1.38597	1.38597	0.000	-16.35582	60.00000	Averaged
$ 20	Nitrobenzene-d5	0.38280	0.33715	0.33715	0.000	-11.92574	60.00000	Averaged
$ 39	2-Fluorobiphenyl	1.10780	1.13966	1.13966	0.000	2.87618	60.00000	Averaged
$ 60	2,4,6-Tribromophenol	0.14530	0.16671	0.16671	0.000	14.73235	60.00000	Averaged
$ 81	p-Terphenyl-d14	0.71085	0.84363	0.84363	0.000	18.68048	60.00000	Averaged
1	N-Methyl-N-nitrosomethylami	0.91066	0.67533	0.67533	0.000	-25.84128	60.00000	Averaged
2	Pyridine	1.31573	0.93704	0.93704	0.000	-28.78175	60.00000	Averaged
4	Aniline	0.83243	0.69073	0.69073	0.000	-17.02258	60.00000	Averaged
6	Phenol	1.68401	1.41159	1.41159	0.001	-16.17675	20.00000	Averaged ccc
7	bis(2-Chloroethyl) ether	1.52634	1.26733	1.26733	0.000	-16.96940	60.00000	Averaged
8	2-Chlorophenol	1.33741	1.26014	1.26014	0.000	-5.77784	60.00000	Averaged
203	n-Decane	45.81025	40.00000	2.04426	0.000	14.52563	60.00000	Wt Linear
9	1,3-Dichlorobenzene	1.39791	1.36655	1.36655	0.000	-2.24360	60.00000	Averaged
11	1,4-Dichlorobenzene	1.39880	1.40520	1.40520	0.001	0.45806	20.00000	Averaged ccc
13	1,2-Dichlorobenzene	1.24373	1.28482	1.28482	0.000	3.30430	60.00000	Averaged
14	bis(2-Chloroisopropyl)ether	2.92707	2.97249	2.97249	0.000	1.55179	60.00000	Averaged
12	Benzyl alcohol	0.94381	0.73037	0.73037	0.000	-22.61453	60.00000	Averaged
15	o-Cresol	1.07392	0.94710	0.94710	0.000	-11.80828	60.00000	Averaged
18	m,p-Cresols	1.47838	1.22272	1.22272	0.000	-17.29354	60.00000	Averaged
17	N-Nitrosodipropylamine	1.12751	0.90032	0.90032	0.050	-20.14937	60.00000	Averaged spcc
19	Hexachloroethane	0.60646	0.61095	0.61095	0.000	0.74037	60.00000	Averaged
21	Nitrobenzene	0.36231	0.31489	0.31489	0.000	-13.08741	60.00000	Averaged
22	Isophorone	0.70729	0.59054	0.59054	0.000	-16.50634	60.00000	Averaged
23	2-Nitrophenol	0.14958	0.14677	0.14677	0.001	-1.87773	20.00000	Averaged ccc
24	2,4-Dimethylphenol	37.78567	40.00000	0.27102	0.000	-5.53581	60.00000	Wt Linear
25	bis(2-Chloroethoxy)methane	0.38499	0.34170	0.34170	0.000	-11.24371	60.00000	Averaged
26	2,4-Dichlorophenol	0.23149	0.22519	0.22519	0.001	-2.72153	20.00000	Averaged ccc
27	Benzoic acid	0.18797	0.12613	0.12613	0.000	-32.89856	60.00000	Averaged
28	1,2,4-Trichlorobenzene	0.26642	0.26647	0.26647	0.000	0.01793	60.00000	Averaged
30	Naphthalene	38.19794	40.00000	0.89581	0.000	-4.50516	60.00000	Wt Linear
204	alpha-Terpineol	0.35310	0.32721	0.32721	0.000	-7.33125	60.00000	Averaged
31	4-Chloroaniline	0.42621	0.40652	0.40652	0.000	-4.62136	60.00000	Averaged
32	Hexachlorobutadiene	0.14813	0.15626	0.15626	0.001	5.48481	20.00000	Averaged ccc
33	4-Chloro-3-methylphenol	0.28625	0.25550	0.25550	0.001	-10.74191	20.00000	Averaged ccc
34	2-Methylnaphthalene	37.91070	40.00000	0.54033	0.000	-5.22324	60.00000	Wt Linear

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i
Lab File ID: s2c0308.d
Analysis Type:
Lab Sample ID: WBN100225-09.4 Quant Type: ISTD
Method: /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m

Injection Date: 03-MAR-2010 19:41
Init. Cal. Date(s): 25-FEB-2010 27-FEB-2010
Init. Cal. Times: 19:29 19:19

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
35 1-Methylnaphthalene	37.86413	40.00000	0.52772	0.000	-5.33967	60.00000	Wt Linear	
36 Hexachlorocyclopentadiene	0.22591	0.22365	0.22365	0.050	-1.00025	60.00000	Averaged	spcc
205 2,3-Dichloroaniline	0.56783	0.57800	0.57800	0.000	1.79139	60.00000	Averaged	
37 2,4,6-Trichlorophenol	0.29264	0.31671	0.31671	0.001	8.22421	20.00000	Averaged	ccc
38 2,4,5-Trichlorophenol	0.34170	0.32612	0.32612	0.000	-4.56217	60.00000	Averaged	
40 2-Chloronaphthalene	39.45073	40.00000	1.00635	0.000	-1.37318	60.00000	Wt Linear	
42 o-Nitroaniline	0.42127	0.35945	0.35945	0.000	-14.67519	60.00000	Averaged	
41 m-Nitroaniline	0.25711	0.17167	0.17167	0.000	-33.23102	60.00000	Averaged	
43 Dimethylphthalate	1.22347	1.21859	1.21859	0.000	-0.39881	60.00000	Averaged	
44 2,6-Dinitrotoluene	0.28126	0.27597	0.27597	0.000	-1.88164	60.00000	Averaged	
50 2,4-Dinitrotoluene	0.36658	0.34021	0.34021	0.000	-7.19153	60.00000	Averaged	
45 Acenaphthylene	40.46695	40.00000	1.55644	0.000	1.16738	60.00000	Wt Linear	
47 Acenaphthene	43.37378	40.00000	1.09252	0.001	8.43446	60.00000	Wt Linear	ccc
48 2,4-Dinitrophenol	45.27201	40.00000	0.09776	0.050	13.18003	60.00000	Linear	spcc
49 Dibenzofuran	1.36667	1.35121	1.35121	0.000	-1.13119	60.00000	Averaged	
51 Diethylphthalate	1.17674	1.20797	1.20797	0.000	2.65418	60.00000	Averaged	
52 4-Nitrophenol	0.18423	0.16663	0.16663	0.050	-9.55389	60.00000	Averaged	spcc
53 Fluorene	42.04774	40.00000	1.15553	0.000	5.11935	60.00000	Wt Linear	
54 4-Chlorophenylphenylether	0.54943	0.55542	0.55542	0.000	1.09017	60.00000	Averaged	
55 2-Methyl-4,6-dinitrophenol	0.09299	0.10112	0.10112	0.000	8.73724	60.00000	Averaged	
56 p-Nitroaniline	0.22285	0.13540	0.13540	0.000	-39.24435	60.00000	Averaged	
133 Diphenylamine	0.54279	0.54902	0.54902	0.001	1.14816	20.00000	Averaged	ccc
58 1,2-Diphenylhydrazine	0.87498	0.78198	0.78198	0.000	-10.62901	60.00000	Averaged	
61 4-Bromophenylphenylether	0.18028	0.19987	0.19987	0.000	10.86768	60.00000	Averaged	
63 Hexachlorobenzene	0.19591	0.21728	0.21728	0.000	10.90817	60.00000	Averaged	
65 Pentachlorophenol	0.09927	0.11244	0.11244	0.001	13.26577	20.00000	Averaged	ccc
206 n-Octadecane	48.01175	40.00000	0.71445	0.000	20.02937	60.00000	Linear	
68 Phenanthrene	38.56862	40.00000	0.98844	0.000	-3.57844	60.00000	Wt Linear	
69 Anthracene	42.07226	40.00000	1.04345	0.000	5.18064	60.00000	Wt Linear	
72 Di-n-butylphthalate	1.14097	1.21404	1.21404	0.000	6.40473	60.00000	Averaged	
76 Fluoranthene	38.07137	40.00000	0.91787	0.001	-4.82157	60.00000	Wt Linear	ccc
79 Pyrene	45.12268	40.00000	1.43707	0.000	12.80670	60.00000	Wt Linear	
85 Butylbenzylphthalate	0.53997	0.65984	0.65984	0.000	22.20098	60.00000	Averaged	
89 Benzo(a)anthracene	1.08888	1.07123	1.07123	0.000	-1.62160	60.00000	Averaged	
92 Chrysene	38.28972	40.00000	0.98177	0.000	-4.27570	60.00000	Wt Linear	
93 bis(2-Ethylhexyl)phthalate	0.79994	0.93107	0.93107	0.000	16.39293	60.00000	Averaged	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i
Lab File ID: s2c0308.d
Analysis Type:
Lab Sample ID: WBN100225-09.4
Method: /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m

Injection Date: 03-MAR-2010 19:41
Init. Cal. Date(s): 25-FEB-2010 27-FEB-2010
Init. Cal. Times: 19:29 19:19
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
	94 Di-n-octylphthalate	1.56191	1.87200	1.87200	0.001	19.85356	20.00000	Averaged	ccc
	95 Benzo(b)fluoranthene	1.12276	1.16752	1.16752	0.000	3.98675	60.00000	Averaged	
	96 Benzo(k)fluoranthene	1.15768	1.15241	1.15241	0.000	-0.45528	60.00000	Averaged	
	97 Benzo(a)pyrene	0.95896	0.95117	0.95117	0.001	-0.81185	20.00000	Averaged	ccc
	99 Indeno(1,2,3-cd)pyrene	0.88778	0.82026	0.82026	0.000	-7.60557	60.00000	Averaged	
	100 Dibenzo(a,h)anthracene	0.72374	0.66165	0.66165	0.000	-8.57890	60.00000	Averaged	
	101 Benzo(ghi)perylene	0.74907	0.66606	0.66606	0.000	-11.08189	60.00000	Averaged	
	126 m-Dinitrobenzene	0.20253	0.18436	0.18436	0.000	-8.97034	60.00000	Averaged	
	130 2,3,4,6-Tetrachlorophenol	0.27830	0.27200	0.27200	0.000	-2.26430	60.00000	Averaged	
	143 Dinoseb	0.12985	0.14248	0.14248	0.000	9.72626	60.00000	Averaged	
	173 Carbazole	25.21130	40.00000	0.46089	0.000	-36.97174	60.00000	Linear	
	184 p-Benzoquinone	0.26464	0.27988	0.27988	0.000	5.75967	60.00000	Averaged	
	192 Methoxychlor	0.56608	0.61674	0.61674	0.000	8.94897	60.00000	Averaged	
	211 p-Toluidine	1.65744	1.26045	1.26045	0.000	-23.95222	60.00000	Averaged	
	210 m-Toluidine	1.96133	1.73790	1.73790	0.000	-11.39168	60.00000	Averaged	
	214 1,4-Dinitrobenzene	0.27934	0.24034	0.24034	0.000	-13.95854	60.00000	Averaged	
	215 2-Ethoxyethanol	1.09817	0.89013	0.89013	0.000	-18.94448	60.00000	Averaged	
	216 Methylenebis(2-chloroanilin	28.78261	40.00000	0.08406	0.000	-28.04346	60.00000	Linear	
	179 Dibenzo(a,e)pyrene	0.34073	0.31102	0.31102	0.000	-8.72129	60.00000	Averaged	
	26 Phthalic anhydride	36.20514	40.00000	0.10301	0.000	-9.48715	60.00000	Linear	
M	222 Trichlorophenols	0.31717	0.32141	0.32141	0.000	1.33651	60.00000	Averaged	
M	223 Tetrachlorophenols	0.27830	0.27200	0.27200	0.000	-2.26430	60.00000	Averaged	
M	224 Benzo(b,k)fluoranthene	1.14022	1.15997	1.15997	0.000	1.73173	60.00000	Averaged	

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Data file : /chem/MSD2.i/s030310a.b/s2c0308.d
Lab Smp Id: WBN100225-09.4 Client Smp ID: MEGACVS
Inj Date : 03-MAR-2010 19:41
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100225-09.4|40PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Meth Date : 03-Mar-2010 22:02 ann00964 Quant Type: ISTD
Cal Date : 27-FEB-2010 17:29 Cal File: s2b2568.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAII.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.009	4.009	(1.000)	453255	40.0000	
* 29 Naphthalene-d8	136	4.875	4.875	(1.000)	1938135	40.0000	
* 46 Acenaphthene-d10	164	6.121	6.121	(1.000)	963661	40.0000	
* 67 Phenanthrene-d10	188	7.100	7.100	(1.000)	1523873	40.0000	
* 91 Chrysene-d12	240	8.806	8.806	(1.000)	1023929	40.0000	
* 98 Perylene-d12	264	10.358	10.358	(1.000)	755419	40.0000	
$ 3 2-Fluorophenol	112	3.190	3.190	(0.796)	511787	40.0000	35.8
$ 5 Phenol-d5	99	3.715	3.715	(0.927)	628199	40.0000	33.4
$ 20 Nitrobenzene-d5	82	4.372	4.372	(0.897)	653442	40.0000	35.2
$ 39 2-Fluorobiphenyl	172	5.613	5.613	(0.917)	1098245	40.0000	41.2
$ 60 2,4,6-Tribromophenol	329	6.646	6.646	(1.086)	160650	40.0000	45.9
$ 81 p-Terphenyl-d14	244	8.015	8.015	(0.910)	863822	40.0000	47.5
1 N-Methyl-N-nitrosomethylamine	74	2.506	2.506	(0.625)	306098	40.0000	29.7
2 Pyridine	79	2.543	2.543	(0.634)	424718	40.0000	28.5
4 Aniline	66	3.789	3.789	(0.945)	313075	40.0000	33.2
6 Phenol	94	3.725	3.725	(0.929)	639812	40.0000	33.5
7 bis(2-Chloroethyl) ether	63	3.805	3.805	(0.949)	574422	40.0000	33.2
8 2-Chlorophenol	128	3.870	3.870	(0.965)	571165	40.0000	37.7
203 n-Decane	43	3.854	3.854	(0.961)	926573	40.0000	45.8
9 1,3-Dichlorobenzene	146	3.977	3.977	(0.992)	619396	40.0000	39.1
11 1,4-Dichlorobenzene	146	4.019	4.019	(1.003)	636916	40.0000	40.2
13 1,2-Dichlorobenzene	146	4.121	4.121	(1.028)	582353	40.0000	41.3
14 bis(2-Chloroisopropyl)ether	45	4.148	4.148	(1.035)	1347295	40.0000	40.6
12 Benzyl alcohol	108	4.073	4.073	(1.016)	331046	40.0000	31.0
15 o-Cresol	107	4.121	4.121	(1.028)	429280	40.0000	35.3
18 m,p-Cresols	107	4.223	4.223	(1.053)	554202	40.0000	33.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.244	4.244	(1.059)	408075	40.0000	31.9
19 Hexachloroethane	117	4.351	4.351	(1.085)	276914	40.0000	40.3
21 Nitrobenzene	77	4.383	4.383	(0.899)	610298	40.0000	34.8
22 Isophorone	82	4.538	4.538	(0.931)	1144555	40.0000	33.4
23 2-Nitrophenol	139	4.597	4.597	(0.943)	284464	40.0000	39.2
24 2,4-Dimethylphenol	122	4.586	4.586	(0.941)	525275	40.0000	37.8
25 bis(2-Chloroethoxy)methane	93	4.656	4.656	(0.955)	662265	40.0000	35.5
26 2,4-Dichlorophenol	162	4.758	4.758	(0.976)	436444	40.0000	38.9
27 Benzoic acid	105	4.635	4.635	(0.951)	244462	40.0000	26.8
28 1,2,4-Trichlorobenzene	180	4.822	4.822	(0.989)	516455	40.0000	40.0
30 Naphthalene	128	4.891	4.891	(1.003)	1736197	40.0000	38.2
204 alpha-Terpineol	59	4.864	4.864	(0.998)	634177	40.0000	37.1
31 4-Chloroaniline	127	4.902	4.902	(1.005)	787885	40.0000	38.2
32 Hexachlorobutadiene	225	4.955	4.955	(1.016)	302846	40.0000	42.2
33 4-Chloro-3-methylphenol	107	5.212	5.212	(1.069)	495203	40.0000	35.7
34 2-Methylnaphthalene	142	5.373	5.373	(1.102)	1047226	40.0000	37.9
35 1-Methylnaphthalene	142	5.442	5.442	(1.116)	1022790	40.0000	37.9
36 Hexachlorocyclopentadiene	237	5.474	5.474	(0.894)	215519	40.0000	39.6
205 2,3-Dichloroaniline	161	5.565	5.565	(0.909)	556995	40.0000	40.7
37 2,4,6-Trichlorophenol	196	5.554	5.554	(0.907)	305197	40.0000	43.3
38 2,4,5-Trichlorophenol	196	5.581	5.581	(0.912)	314265	40.0000	38.2
40 2-Chloronaphthalene	162	5.726	5.726	(0.935)	969777	40.0000	39.4
42 o-Nitroaniline	65	5.779	5.779	(0.944)	346385	40.0000	34.1
41 m-Nitroaniline	138	6.068	6.068	(0.991)	165429	40.0000	26.7
43 Dimethylphthalate	163	5.886	5.886	(0.962)	1174305	40.0000	39.8
44 2,6-Dinitrotoluene	165	5.940	5.940	(0.970)	265943	40.0000	39.2
50 2,4-Dinitrotoluene	165	6.223	6.223	(1.017)	327850	40.0000	37.1
45 Acenaphthylene	152	6.025	6.025	(0.984)	1499884	40.0000	40.5
47 Acenaphthene	154	6.143	6.143	(1.003)	1052816	40.0000	43.4
48 2,4-Dinitrophenol	184	6.132	6.132	(1.002)	94207	40.0000	45.3
49 Dibenzofuran	168	6.261	6.261	(1.023)	1302107	40.0000	39.5
51 Diethylphthalate	149	6.362	6.362	(1.039)	1164077	40.0000	41.1
52 4-Nitrophenol	139	6.148	6.148	(1.004)	160573	40.0000	36.2
53 Fluorene	166	6.490	6.490	(1.060)	1113538	40.0000	42.0
54 4-Chlorophenylphenylether	204	6.469	6.469	(1.057)	535233	40.0000	40.4
55 2-Methyl-4,6-dinitrophenol	198	6.501	6.501	(0.916)	154091	40.0000	43.5
56 p-Nitroaniline	138	6.485	6.485	(1.059)	130476	40.0000	24.3
133 Diphenylamine	169	6.544	6.544	(0.922)	836644	40.0000	40.4
58 1,2-Diphenylhydrazine	77	6.576	6.576	(0.926)	1191633	40.0000	35.7
61 4-Bromophenylphenylether	248	6.790	6.790	(0.956)	304578	40.0000	44.3
63 Hexachlorobenzene	284	6.849	6.849	(0.965)	331104	40.0000	44.4
65 Pentachlorophenol	266	6.967	6.967	(0.981)	171338	40.0000	45.3
206 n-Octadecane	57	6.945	6.945	(0.978)	1088730	40.0000	48.0
68 Phenanthrene	178	7.116	7.116	(1.002)	1506259	40.0000	38.6
69 Anthracene	178	7.143	7.143	(1.006)	1590086	40.0000	42.1
72 Di-n-butylphthalate	149	7.378	7.378	(1.039)	1850049	40.0000	42.6
76 Fluoranthene	202	7.822	7.822	(1.102)	1398723	40.0000	38.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	7.972	7.972	(0.905)	1471462	40.0000	45.1
85 Butylbenzylphthalate	149	8.288	8.288	(0.941)	675632	40.0000	48.9
89 Benzo(a)anthracene	228	8.790	8.790	(0.998)	1096861	40.0000	39.4
92 Chrysene	228	8.828	8.828	(1.002)	1005259	40.0000	38.3
93 bis(2-Ethylhexyl)phthalate	149	8.662	8.662	(0.984)	953350	40.0000	46.6
94 Di-n-octylphthalate	149	9.229	9.229	(0.891)	1414145	40.0000	47.9
95 Benzo(b)fluoranthene	252	9.860	9.860	(0.952)	881969	40.0000	41.6
96 Benzo(k)fluoranthene	252	9.892	9.892	(0.955)	870554	40.0000	39.8
97 Benzo(a)pyrene	252	10.288	10.288	(0.993)	718534	40.0000	39.7
99 Indeno(1,2,3-cd)pyrene	276	12.117	12.117	(1.170)	619639	40.0000	37.0
100 Dibenzo(a,h)anthracene	278	12.123	12.123	(1.170)	499826	40.0000	36.6
101 Benzo(ghi)perylene	276	12.663	12.663	(1.223)	503153	40.0000	35.6
126 m-Dinitrobenzene	168	5.924	5.924	(0.968)	177663	40.0000	36.4
130 2,3,4,6-Tetrachlorophenol	232	6.330	6.330	(1.034)	262115	40.0000	39.1
143 Dinoseb	211	7.052	7.052	(0.993)	217114	40.0000	43.9
173 Carbazole	167	7.229	7.229	(1.018)	702345	40.0000	25.2
184 p-Benzoquinone	54	3.490	3.490	(0.871)	126856	40.0000	42.3
192 Methoxychlor	227	8.651	8.651	(0.982)	631497	40.0000	43.6
211 p-Toluidine	106	4.282	4.282	(1.068)	571304	40.0000	30.4
210 m-Toluidine	106	4.303	4.303	(1.073)	787714	40.0000	35.4
214 1,4-Dinitrobenzene	75	5.870	5.870	(0.959)	231611	40.0000	34.4
215 2-Ethoxyethanol	59	2.356	2.356	(0.588)	403456	40.0000	32.4
216 Methylenebis(2-chloroaniline)	231	8.716	8.716	(0.990)	86074	40.0000	28.8
179 Dibenzo(a,e)pyrene	302	16.872	16.872	(1.629)	234948	40.0000	36.5
26 Phthalic anhydride	104	5.405	5.405	(1.109)	199649	40.0000	36.2
M 222 Trichlorophenols	196				619462	80.0000	81.1
M 223 Tetrachlorophenols	232				262115	40.0000	39.1
M 224 Benzo(b,k)fluoranthene	252				1752523	80.0000	81.4

Data File: /chem/MSD2.i/s030310a,b/s2c0308.d
Date : 03-MAR-2010 19:41
Client ID: MEGACVS
Sample Info: IWBN100225-09,4140PPM!1!SVMF!1!MEGACVS
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: AGS1
Column diameter: 0.20

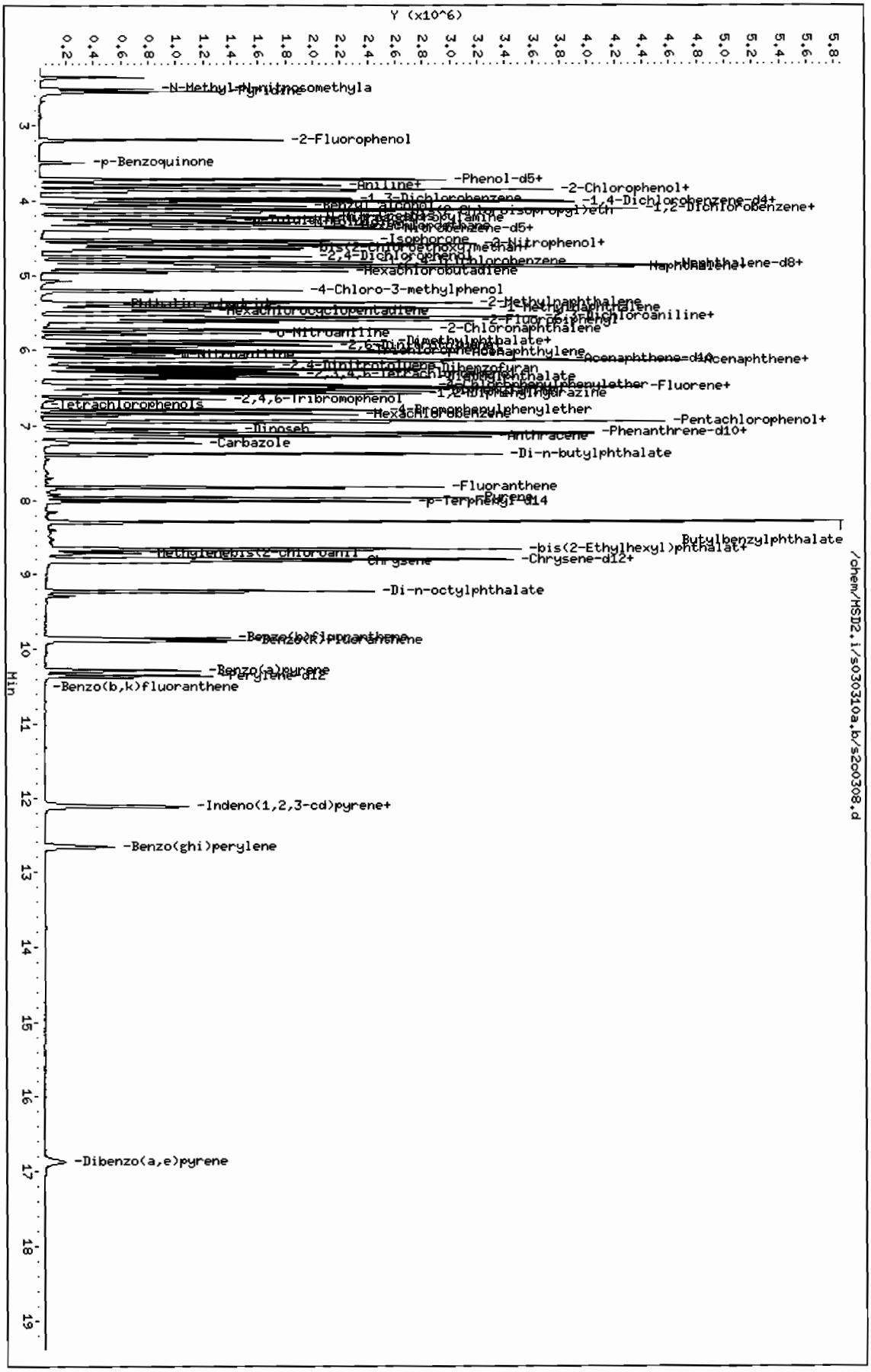

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 03-MAR-2010 20:35
Lab File ID: s2c0310.d Init. Cal. Date(s): 25-FEB-2010 27-FEB-2010
Analysis Type: Init. Cal. Times: 19:29 19:19
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	1.12935	1.13273	1.13273	0.000	0.29878	60.00000	Averaged
16 Acetophenone	1.53348	1.56410	1.56410	0.000	1.99693	60.00000	Averaged
189 Caprolactam	0.10024	0.09479	0.09479	0.000	-5.43403	60.00000	Averaged
208 1,1'-Biphenyl	1.29012	1.32500	1.32500	0.000	2.70304	60.00000	Averaged
207 Atrazine	0.04908	0.04695	0.04695	0.000	-4.32667	60.00000	Averaged
77 Benzidine	0.37050	0.30199	0.30199	0.000	-18.49288	60.00000	Averaged
90 3,3'-Dichlorobenzidine	0.27939	0.27890	0.27890	0.000	-0.17442	60.00000	Averaged
102 1,4-Dioxane	0.48060	0.43326	0.43326	0.000	-9.85064	60.00000	Averaged
103 Methyl methacrylate	0.25449	0.23386	0.23386	0.000	-8.10756	60.00000	Averaged
104 Ethyl methacrylate	1.02890	0.97147	0.97147	0.000	-5.58138	60.00000	Averaged
105 2-Picoline	1.51395	1.39018	1.39018	0.000	-8.17507	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.68819	0.60161	0.60161	0.000	-12.58148	60.00000	Averaged
107 Methyl methanesulfonate	0.70337	0.73885	0.73885	0.000	5.04495	60.00000	Averaged
108 N-Nitrosodiethylamine	0.66583	0.60631	0.60631	0.000	-8.93855	60.00000	Averaged
109 Ethyl Methanesulfonate	0.87125	0.82283	0.82283	0.000	-5.55737	60.00000	Averaged
110 Pentachloroethane	0.35998	0.37073	0.37073	0.000	2.98428	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.67893	0.63792	0.63792	0.000	-6.04077	60.00000	Averaged
113 N-Nitrosomorpholine	0.97157	1.21316	1.21316	0.000	24.86517	60.00000	Averaged
114 o-Toluidine	2.22466	2.20028	2.20028	0.000	-1.09580	60.00000	Averaged
115 N-Nitrosopiperidine	0.16261	0.15008	0.15008	0.000	-7.70469	60.00000	Averaged
116 a,a-Dimethylphenethylamine	1.11650	1.24807	1.24807	0.000	11.78358	60.00000	Averaged
118 2,6-Dichlorophenol	0.22383	0.23112	0.23112	0.000	3.25723	60.00000	Averaged
119 Hexachloropropene	0.10648	0.12617	0.12617	0.000	18.48773	60.00000	Averaged
120 p-Phenylenediamine	0.29765	0.28391	0.28391	0.000	-4.61751	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.28888	0.26639	0.26639	0.000	-7.78369	60.00000	Averaged
122 Safrole	0.20121	0.20637	0.20637	0.000	2.56605	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.42002	0.42729	0.42729	0.000	1.73201	60.00000	Averaged
124 Isosafrole	0.37758	0.35521	0.35521	0.000	-5.92306	60.00000	Averaged
125 1,4-Naphthoquinone	0.39093	0.36596	0.36596	0.000	-6.38607	60.00000	Averaged
127 Pentachlorobenzene	0.37310	0.37930	0.37930	0.000	1.66236	60.00000	Averaged
128 1-Naphthylamine	0.91464	0.91743	0.91743	0.000	0.30505	60.00000	Averaged
129 2-Naphthylamine	1.03583	1.00849	1.00849	0.000	-2.63921	60.00000	Averaged
131 5-Nitro-o-toluidine	0.28829	0.27104	0.27104	0.000	-5.98571	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.13924	0.18465	0.18465	0.000	32.61125	60.00000	Averaged
137 Phenacetin	0.36031	0.35686	0.35686	0.000	-0.95928	60.00000	Averaged
138 Diallate	0.34319	0.35197	0.35197	0.000	2.56008	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD2.i Injection Date: 03-MAR-2010 20:35
Lab File ID: s2c0310.d Init. Cal. Date(s): 25-FEB-2010 27-FEB-2010
Analysis Type: Init. Cal. Times: 19:29 19:19
Lab Sample ID: WBN100218-08.1 Quant Type: ISTD
Method: /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.39719	0.35182	0.35182	0.000	-11.42427	60.00000	Averaged
213 Trans Diallate	0.40375	0.41409	0.41409	0.000	2.56008	60.00000	Averaged
140 4-Aminobiphenyl	0.54027	0.52326	0.52326	0.000	-3.14967	60.00000	Averaged
141 Pentachloronitrobenzene	0.07219	0.08317	0.08317	0.000	15.21458	60.00000	Averaged
142 Pronamide	0.28061	0.29871	0.29871	0.000	6.44956	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.02803	0.03124	0.03124	0.000	11.44641	60.00000	Averaged
147 Methapyrilene	0.59216	0.60312	0.60312	0.000	1.84996	60.00000	Averaged
148 Isodrin	0.10608	0.10249	0.10249	0.000	-3.38079	60.00000	Averaged
149 Aramite	0.05357	0.05618	0.05618	0.000	4.86370	60.00000	Averaged
150 Kepone	0.07512	0.06842	0.06842	0.000	-8.90921	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.38063	0.40104	0.40104	0.000	5.36271	60.00000	Averaged
152 Chlorobenzilate	0.29235	0.32964	0.32964	0.000	12.75389	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.52107	0.49468	0.49468	0.000	-5.06527	60.00000	Averaged
155 2-Acetylaminofluorene	0.33144	0.34564	0.34564	0.000	4.28433	60.00000	Averaged
157 7,12Dimethylbenz(a)anthrace	0.50755	0.53456	0.53456	0.000	5.32225	60.00000	Averaged
158 3-Methylcholanthrene	0.42843	0.44308	0.44308	0.000	3.42024	60.00000	Averaged

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Data file : /chem/MSD2.i/s030310a.b/s2c0310.d
Lab Smp Id: WBN100218-08.1 Client Smp ID: APCVS
Inj Date : 03-MAR-2010 20:35
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |WBN100218-08.1|40 PPM|1|SVMF|1|APCVS
Misc Info : |MSD8270|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Meth Date : 03-Mar-2010 22:01 ann00964 Quant Type: ISTD
Cal Date : 27-FEB-2010 17:29 Cal File: s2b2568.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.003	4.003	(1.000)	400828	40.0000	
* 29 Naphthalene-d8	136	4.875	4.875	(1.000)	1556222	40.0000	
* 46 Acenaphthene-d10	164	6.116	6.116	(1.000)	880355	40.0000	
* 67 Phenanthrene-d10	188	7.095	7.095	(1.000)	1468212	40.0000	
* 91 Chrysene-d12	240	8.796	8.796	(1.000)	1146992	40.0000	
* 98 Perylene-d12	264	10.347	10.347	(1.000)	846966	40.0000	
209 Benzaldehyde	77	3.731	3.731	(0.932)	454029	40.0000	40.1
16 Acetophenone	105	4.255	4.255	(1.063)	626936	40.0000	40.8
189 Caprolactam	113	5.148	5.148	(1.056)	147515	40.0000	37.8
208 1,1'-Biphenyl	154	5.694	5.694	(0.931)	1166466	40.0000	41.1
207 Atrazine	173	6.860	6.860	(0.967)	68939	40.0000	38.3
77 Benzidine	184	7.865	7.865	(0.894)	346375	40.0000	32.6
90 3,3'-Dichlorobenzidine	252	8.716	8.716	(0.991)	319897	40.0000	39.9
102 1,4-Dioxane	88	2.361	2.361	(0.590)	173661	40.0000	36.0
103 Methyl methacrylate	100	2.351	2.351	(0.587)	93737	40.0000	36.8
104 Ethyl methacrylate	69	2.714	2.714	(0.678)	389393	40.0000	37.8
105 2-Picoline	93	2.912	2.912	(0.727)	557223	40.0000	36.7
106 N-Nitrosomethylethylamine	88	2.950	2.950	(0.737)	241141	40.0000	35.0
107 Methyl methanesulfonate	80	3.099	3.099	(0.774)	296153	40.0000	42.0
108 N-Nitrosodiethylamine	102	3.335	3.335	(0.833)	243028	40.0000	36.4
109 Ethyl Methanesulfonate	79	3.490	3.490	(0.872)	329812	40.0000	37.8
110 Pentachloroethane	167	3.832	3.832	(0.957)	148597	40.0000	41.2
111 N-Nitrosopyrrolidine	100	4.244	4.244	(1.060)	255696	40.0000	37.6(Q)
113 N-Nitrosomorpholine	56	4.266	4.266	(1.065)	486267	40.0000	49.9
114 o-Toluidine	106	4.282	4.282	(1.069)	881934	40.0000	39.6
115 N-Nitrosopiperidine	114	4.485	4.485	(0.920)	233556	40.0000	36.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	4.726	4.726	(0.969)	1942272	40.0000	44.7
118 2,6-Dichlorophenol	162	4.913	4.913	(1.008)	359669	40.0000	41.3
119 Hexachloropropene	213	4.945	4.945	(1.014)	196348	40.0000	47.4
120 p-Phenylenediamine	108	5.148	5.148	(1.056)	441828	40.0000	38.2
121 N-Nitrosodi-n-butylamine	84	5.116	5.116	(1.049)	414567	40.0000	36.9
122 Safrole	162	5.282	5.282	(1.083)	321163	40.0000	41.0
123 1,2,4,5-Tetrachlorobenzene	216	5.485	5.485	(0.897)	376171	40.0000	40.7
124 Isosafrole	162	5.651	5.651	(0.924)	312713	40.0000	37.6
125 1,4-Naphthoquinone	158	5.838	5.838	(0.955)	322178	40.0000	37.4
127 Pentachlorobenzene	250	6.228	6.228	(1.018)	333922	40.0000	40.7
128 1-Naphthylamine	143	6.309	6.309	(1.031)	807666	40.0000	40.1
129 2-Naphthylamine	143	6.357	6.357	(1.039)	887830	40.0000	38.9
131 5-Nitro-o-toluidine	152	6.480	6.480	(1.059)	238608	40.0000	37.6
136 1,3,5-Trinitrobenzene	75	6.688	6.688	(0.943)	271102	40.0000	53.0
137 Phenacetin	108	6.721	6.721	(0.947)	523940	40.0000	39.6(Q)
138 Diallate	86	6.715	6.715	(0.946)	516772	40.0000	41.0
212 Cis Diallate	86	6.774	6.774	(0.955)	77481	6.00000	5.3
213 Trans Diallate	86	6.715	6.715	(0.946)	516772	34.0000	34.9
140 4-Aminobiphenyl	169	6.956	6.956	(0.980)	768251	40.0000	38.7
141 Pentachloronitrobenzene	237	6.972	6.972	(0.983)	122118	40.0000	46.1
142 Pronamide	173	6.961	6.961	(0.981)	438566	40.0000	42.6
146 4-Nitroquinoline-1-oxide	101	7.560	7.560	(1.066)	45869	40.0000	44.6
147 Methapyrilene	58	7.571	7.571	(1.067)	885503	40.0000	40.7
148 Isodrin	193	7.737	7.737	(1.090)	150481	40.0000	38.6
149 Aramite	185	7.961	7.961	(1.122)	82482	40.0000	41.9
150 Kepone	272	8.405	8.405	(1.185)	100462	40.0000	36.4
151 p-(Dimethylamino)azobenzene	120	8.090	8.090	(0.920)	459990	40.0000	42.1
152 Chlorobenzilate	251	8.106	8.106	(0.922)	378095	40.0000	45.1
153 3,3'-Dimethylbenzidine	212	8.309	8.309	(0.945)	567391	40.0000	38.0
155 2-Acetylaminofluorene	181	8.491	8.491	(0.965)	396445	40.0000	41.7
157 7,12Dimethylbenz(a)anthracene	256	9.817	9.817	(0.949)	452754	40.0000	42.1
158 3-Methylcholanthrene	268	10.737	10.737	(1.038)	375276	40.0000	41.4(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s030310a.b/s2c0310.d
Date : 03-MAR-2010 20:35
Client ID: APCVS
Sample Info: IWBN100218-08,1|40 PPM|1|SVMF1|1|APCVS
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

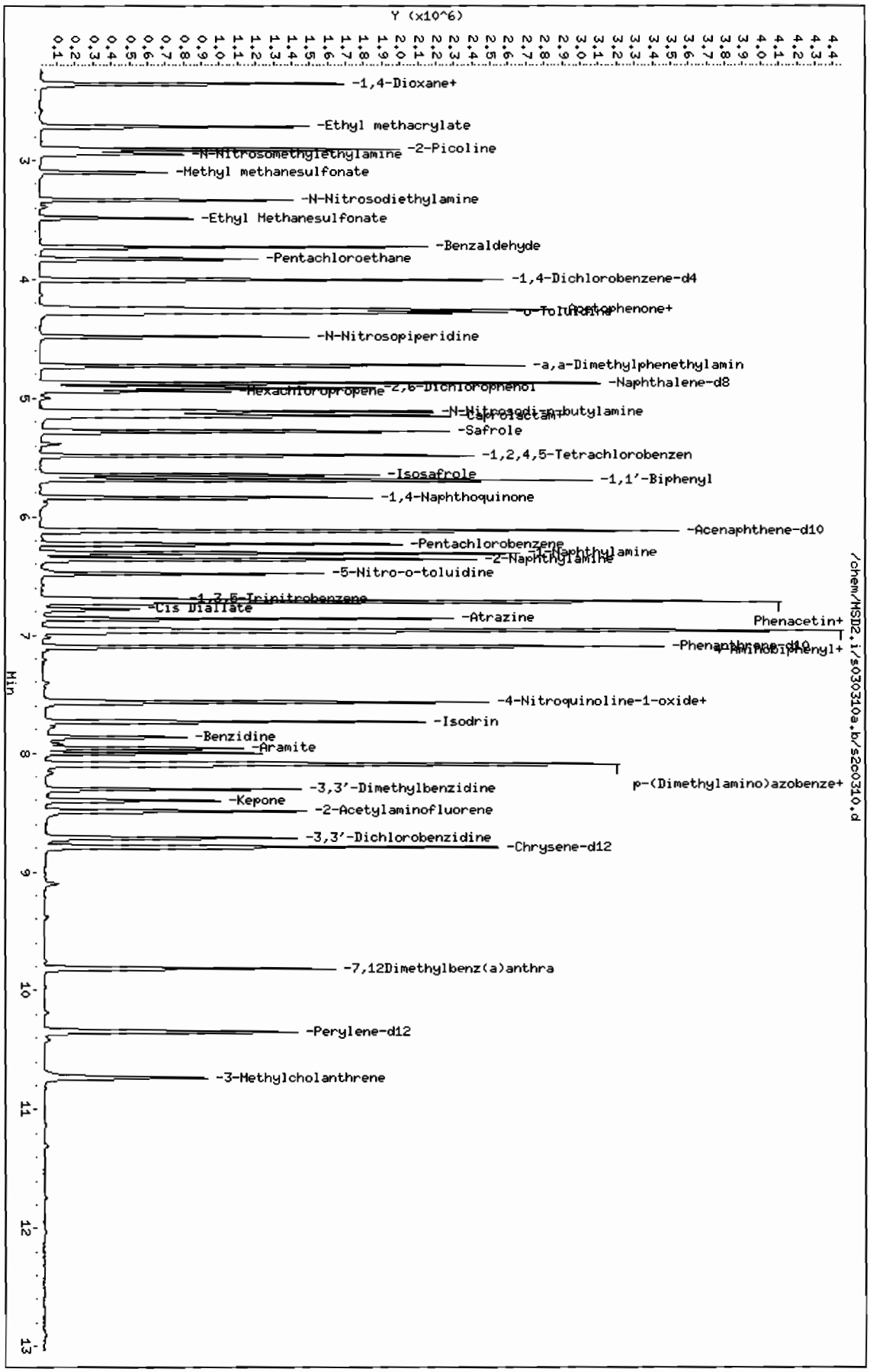

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GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 03-MAR-2010 13:40
Lab File ID: s8c0308.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Analysis Type: Init. Cal. Times: 12:55 01:19
Lab Sample ID: WBN100225-05.5 Quant Type: ISTD
Method: /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m

	COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$	3 2-Fluorophenol	0.94435	0.87156	0.87156	0.000	-7.70713	60.00000	Averaged	
$	5 Phenol-d5	1.17771	1.09738	1.09738	0.000	-6.82055	60.00000	Averaged	
$	20 Nitrobenzene-d5	0.28435	0.25053	0.25053	0.000	-11.89290	60.00000	Averaged	
$	39 2-Fluorobiphenyl	1.17740	1.09659	1.09659	0.000	-6.86309	60.00000	Averaged	
$	60 2,4,6-Tribromophenol	0.13223	0.12505	0.12505	0.000	-5.42679	60.00000	Averaged	
$	81 p-Terphenyl-d14	0.72015	0.67127	0.67127	0.000	-6.78726	60.00000	Averaged	
	1 N-Methyl-N-nitrosomethylami	0.60923	0.52195	0.52195	0.000	-14.32702	60.00000	Averaged	
	2 Pyridine	0.89373	0.76241	0.76241	0.000	-14.69332	60.00000	Averaged	
	4 Aniline	0.55542	0.45431	0.45431	0.000	-18.20528	60.00000	Averaged	
	6 Phenol	1.21617	1.09601	1.09601	0.001	-9.88049	20.00000	Averaged	ccc
	7 bis(2-Chloroethyl) ether	0.83144	0.70784	0.70784	0.000	-14.86624	60.00000	Averaged	
	8 2-Chlorophenol	1.05605	1.01772	1.01772	0.000	-3.62966	60.00000	Averaged	
	203 n-Decane	1.08949	0.81694	0.81694	0.000	-25.01658	60.00000	Averaged	
	9 1,3-Dichlorobenzene	1.25240	1.22963	1.22963	0.000	-1.81758	60.00000	Averaged	
	11 1,4-Dichlorobenzene	1.29215	1.26496	1.26496	0.001	-2.10436	20.00000	Averaged	ccc
	13 1,2-Dichlorobenzene	1.20194	1.18282	1.18282	0.000	-1.59087	60.00000	Averaged	
	14 bis(2-Chloroisopropyl)ether	1.63019	1.10550	1.10550	0.000	-32.18576	60.00000	Averaged	
	12 Benzyl alcohol	0.66057	0.44469	0.44469	0.000	-32.68110	60.00000	Averaged	
	15 o-Cresol	0.84463	0.74903	0.74903	0.000	-11.31876	60.00000	Averaged	
	18 m,p-Cresols	1.06890	0.92370	0.92370	0.000	-13.58351	60.00000	Averaged	
	17 N-Nitrosodipropylamine	0.77788	0.67631	0.67631	0.050	-13.05729	60.00000	Averaged	spcc
	19 Hexachloroethane	0.48694	0.46557	0.46557	0.000	-4.38944	60.00000	Averaged	
	21 Nitrobenzene	0.29331	0.25161	0.25161	0.000	-14.21767	60.00000	Averaged	
	22 Isophorone	0.53999	0.50022	0.50022	0.000	-7.36499	60.00000	Averaged	
	23 2-Nitrophenol	0.13462	0.13285	0.13285	0.001	-1.31382	20.00000	Averaged	ccc
	24 2,4-Dimethylphenol	0.23932	0.20906	0.20906	0.000	-12.64560	60.00000	Averaged	
	25 bis(2-Chloroethoxy)methane	0.30282	0.28790	0.28790	0.000	-4.92531	60.00000	Averaged	
	26 2,4-Dichlorophenol	0.21654	0.20464	0.20464	0.001	-5.49726	20.00000	Averaged	ccc
	27 Benzoic acid	36.08338	40.00000	0.09085	0.000	-9.79155	60.00000	Linear	
	28 1,2,4-Trichlorobenzene	0.29118	0.27855	0.27855	0.000	-4.33894	60.00000	Averaged	
	30 Naphthalene	39.33346	40.00000	0.85675	0.000	-1.66636	60.00000	Linear	
	204 alpha-Terpineol	0.22259	0.19758	0.19758	0.000	-11.23592	60.00000	Averaged	
	31 4-Chloroaniline	0.28585	0.23695	0.23695	0.000	-17.10879	60.00000	Averaged	
	32 Hexachlorobutadiene	0.18110	0.16870	0.16870	0.001	-6.84538	20.00000	Averaged	ccc
	33 4-Chloro-3-methylphenol	0.23429	0.19958	0.19958	0.001	-14.81396	20.00000	Averaged	ccc
	34 2-Methylnaphthalene	39.32008	40.00000	0.57128	0.000	-1.69979	60.00000	Linear	

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i
Lab File ID: s8c0308.d
Analysis Type:
Lab Sample ID: WBN100225-05.5
Method: /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m

Injection Date: 03-MAR-2010 13:40
Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Init. Cal. Times: 12:55 01:19
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
35 1-Methylnaphthalene	39.37499	40.00000	0.56095	0.000	-1.56252	60.00000	Linear
36 Hexachlorocyclopentadiene	0.24827	0.18591	0.18591	0.050	-25.11780	60.00000	Averaged spcc
205 2,3-Dichloroaniline	0.52803	0.49904	0.49904	0.000	-5.49093	60.00000	Averaged
37 2,4,6-Trichlorophenol	0.30819	0.29193	0.29193	0.001	-5.27502	20.00000	Averaged ccc
38 2,4,5-Trichlorophenol	0.32711	0.27662	0.27662	0.000	-15.43327	60.00000	Averaged
40 2-Chloronaphthalene	37.07311	40.00000	0.91400	0.000	-7.31723	60.00000	Linear
42 o-Nitroaniline	0.27392	0.21360	0.21360	0.000	-22.02202	60.00000	Averaged
41 m-Nitroaniline	0.20877	0.10778	0.10778	0.000	-48.37373	60.00000	Averaged
43 Dimethylphthalate	1.12088	1.08844	1.08844	0.000	-2.89396	60.00000	Averaged
44 2,6-Dinitrotoluene	0.25341	0.25028	0.25028	0.000	-1.23365	60.00000	Averaged
50 2,4-Dinitrotoluene	0.32492	0.30660	0.30660	0.000	-5.63845	60.00000	Averaged
45 Acenaphthylene	1.66068	1.49173	1.49173	0.000	-10.17387	60.00000	Averaged
47 Acenaphthene	1.06294	0.93918	0.93918	0.001	-11.64350	20.00000	Averaged ccc
48 2,4-Dinitrophenol	35.89921	40.00000	0.06819	0.050	-10.25198	60.00000	Linear spcc
49 Dibenzofuran	1.39464	1.28924	1.28924	0.000	-7.55756	60.00000	Averaged
51 Diethylphthalate	1.17311	1.11693	1.11693	0.000	-4.78946	60.00000	Averaged
52 4-Nitrophenol	0.13654	0.08886	0.08886	0.050	-34.91769	60.00000	Averaged spcc
53 Fluorene	1.29100	1.15011	1.15011	0.000	-10.91277	60.00000	Averaged
54 4-Chlorophenylphenylether	0.62173	0.55203	0.55203	0.000	-11.21125	60.00000	Averaged
55 2-Methyl-4,6-dinitrophenol	36.35765	40.00000	0.07107	0.000	-9.10588	60.00000	Linear
56 p-Nitroaniline	0.18448	0.09904	0.09904	0.000	-46.31350	60.00000	Averaged
133 Diphenylamine	0.50546	0.47966	0.47966	0.001	-5.10356	20.00000	Averaged ccc
58 1,2-Diphenylhydrazine	0.59375	0.51200	0.51200	0.000	-13.76846	60.00000	Averaged
61 4-Bromophenylphenylether	0.19114	0.18518	0.18518	0.000	-3.11608	60.00000	Averaged
63 Hexachlorobenzene	0.19866	0.19326	0.19326	0.000	-2.71891	60.00000	Averaged
65 Pentachlorophenol	0.08849	0.08534	0.08534	0.001	-3.55931	20.00000	Averaged ccc
206 n-Octadecane	0.39703	0.35310	0.35310	0.000	-11.06518	60.00000	Averaged
68 Phenanthrene	37.54058	40.00000	0.87935	0.000	-6.14856	60.00000	Linear
69 Anthracene	0.97083	0.86924	0.86924	0.000	-10.46511	60.00000	Averaged
72 Di-n-butylphthalate	1.01476	1.06193	1.06193	0.000	4.64836	60.00000	Averaged
76 Fluoranthene	1.01786	0.93461	0.93461	0.001	-8.17894	20.00000	Averaged ccc
79 Pyrene	1.24889	1.09743	1.09743	0.000	-12.12756	60.00000	Averaged
85 Butylbenzylphthalate	0.43672	0.45293	0.45293	0.000	3.71091	60.00000	Averaged
89 Benzo(a)anthracene	1.05261	0.92696	0.92696	0.000	-11.93681	60.00000	Averaged
92 Chrysene	38.15837	40.00000	0.87592	0.000	-4.60409	60.00000	Linear
93 bis(2-Ethylhexyl)phthalate	0.61117	0.65614	0.65614	0.000	7.35747	60.00000	Averaged

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i Injection Date: 03-MAR-2010 13:40
Lab File ID: s8c0308.d Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Analysis Type: Init. Cal. Times: 12:55 01:19
Lab Sample ID: WBN100225-05.5 Quant Type: ISTD
Method: /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
94 Di-n-octylphthalate	40.04246	40.00000	1.23620	0.001	0.10616	20.00000	Linear	ccc
95 Benzo(b)fluoranthene	1.13405	0.99750	0.99750	0.000	-12.04012	60.00000	Averaged	
96 Benzo(k)fluoranthene	1.14008	1.04173	1.04173	0.000	-8.62679	60.00000	Averaged	
97 Benzo(a)pyrene	0.95647	0.90308	0.90308	0.001	-5.58147	20.00000	Averaged	ccc
99 Indeno(1,2,3-cd)pyrene	0.79303	0.81301	0.81301	0.000	2.51997	60.00000	Averaged	
100 Dibenzo(a,h)anthracene	0.61288	0.76612	0.76612	0.000	25.00234	60.00000	Averaged	
101 Benzo(ghi)perylene	0.65613	0.78997	0.78997	0.000	20.39901	60.00000	Averaged	
126 m-Dinitrobenzene	0.16162	0.15087	0.15087	0.000	-6.64811	60.00000	Averaged	
130 2,3,4,6-Tetrachlorophenol	0.27739	0.25115	0.25115	0.000	-9.45883	60.00000	Averaged	
143 Dinoseb	36.74798	40.00000	0.10557	0.000	-8.13006	60.00000	Linear	
173 Carbazole	0.69337	0.37963	0.37963	0.000	-45.24887	60.00000	Averaged	
184 p-Benzoquinone	14.83768	40.00000	0.05865	0.000	-62.90581	60.00000	Linear	<-
192 Methoxychlor	0.57371	0.56230	0.56230	0.000	-1.98780	60.00000	Averaged	
211 p-Toluidine	1.14055	0.90774	0.90774	0.000	-20.41214	60.00000	Averaged	
210 m-Toluidine	1.48620	1.13118	1.13118	0.000	-23.88813	60.00000	Averaged	
26 Phthalic anhydride	23.67392	40.00000	0.06621	0.000	-40.81519	60.00000	Linear	
179 Dibenzo(a,e)pyrene	0.26112	0.45698	0.45698	0.000	75.00498	60.00000	Averaged	<-
214 1,4-Dinitrobenzene	0.17136	0.12710	0.12710	0.000	-25.83037	60.00000	Averaged	
215 2-Ethoxyethanol	0.57374	0.36887	0.36887	0.000	-35.70808	60.00000	Averaged	
216 Methylenebis(2-chloroanilin	27.24631	40.00000	0.06933	0.000	-31.88422	60.00000	Linear	
M 222 Trichlorophenols	0.31765	0.28428	0.28428	0.000	-10.50542	60.00000	Averaged	
M 223 Tetrachlorophenols	0.27739	0.25115	0.25115	0.000	-9.45883	60.00000	Averaged	
M 224 Benzo(b,k)fluoranthene	1.13706	1.01962	1.01962	0.000	-10.32893	60.00000	Averaged	

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Data file : /chem/MSD8.i/s030310.b/s8c0308.d
Lab Smp Id: WBN100225-05.5 Client Smp ID: MEGACVS
Inj Date : 03-MAR-2010 13:40
Operator : nagl Inst ID: MSD8.i
Smp Info : |WBN100225-05.5|40 PPM|1|SVMF|1|MEGACVS
Misc Info : |MSD8270|WBN100227-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Meth Date : 04-Mar-2010 07:36 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: MEGAIICARE.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.354	4.354	(1.000)	337349	40.0000	
* 29 Naphthalene-d8	136	5.611	5.611	(1.000)	1317433	40.0000	
* 46 Acenaphthene-d10	164	7.463	7.463	(1.000)	787174	40.0000	
* 67 Phenanthrene-d10	188	9.058	9.058	(1.000)	1390793	40.0000	
* 91 Chrysene-d12	240	11.944	11.944	(1.000)	1272293	40.0000	
* 98 Perylene-d12	264	13.992	13.992	(1.000)	991553	40.0000	
$ 3 2-Fluorophenol	112	3.201	3.201	(0.735)	294021	40.0000	36.9
$ 5 Phenol-d5	99	3.973	3.973	(0.912)	370200	40.0000	37.3
$ 20 Nitrobenzene-d5	82	4.877	4.877	(0.869)	330055	40.0000	35.2
$ 39 2-Fluorobiphenyl	172	6.735	6.735	(0.902)	863207	40.0000	37.2
$ 60 2,4,6-Tribromophenol	329	8.306	8.306	(1.113)	98436	40.0000	37.8
$ 81 p-Terphenyl-d14	244	10.773	10.773	(0.902)	854050	40.0000	37.3
1 N-Methyl-N-nitrosomethylamine	74	2.239	2.239	(0.514)	176078	40.0000	34.3
2 Pyridine	79	2.273	2.273	(0.522)	257198	40.0000	34.1
4 Aniline	66	4.044	4.044	(0.929)	153260	40.0000	32.7
6 Phenol	94	3.987	3.987	(0.916)	369738	40.0000	36.0
7 bis(2-Chloroethyl) ether	63	4.087	4.087	(0.939)	238788	40.0000	34.0
8 2-Chlorophenol	128	4.154	4.154	(0.954)	343327	40.0000	38.5
203 n-Decane	43	4.177	4.177	(0.960)	275594	40.0000	30.0
9 1,3-Dichlorobenzene	146	4.301	4.301	(0.988)	414816	40.0000	39.3
11 1,4-Dichlorobenzene	146	4.368	4.368	(1.003)	426734	40.0000	39.2
13 1,2-Dichlorobenzene	146	4.511	4.511	(1.036)	399022	40.0000	39.4
14 bis(2-Chloroisopropyl)ether	45	4.597	4.597	(1.056)	372940	40.0000	27.1
12 Benzyl alcohol	108	4.463	4.463	(1.025)	150015	40.0000	26.9
15 o-Cresol	107	4.558	4.558	(1.047)	252683	40.0000	35.5
18 m,p-Cresols	107	4.706	4.706	(1.081)	311610	40.0000	34.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
17 N-Nitrosodipropylamine	70	4.725	4.725	(1.085)	228153	40.0000	34.8
19 Hexachloroethane	117	4.839	4.839	(1.112)	157059	40.0000	38.2
21 Nitrobenzene	77	4.897	4.897	(0.873)	331474	40.0000	34.3
22 Isophorone	82	5.135	5.135	(0.915)	659011	40.0000	37.0
23 2-Nitrophenol	139	5.216	5.216	(0.930)	175020	40.0000	39.5
24 2,4-Dimethylphenol	122	5.239	5.239	(0.934)	275421	40.0000	34.9
25 bis(2-Chloroethoxy)methane	93	5.344	5.344	(0.952)	379295	40.0000	38.0
26 2,4-Dichlorophenol	162	5.454	5.454	(0.972)	269597	40.0000	37.8
27 Benzoic acid	105	5.320	5.320	(0.948)	119684	40.0000	36.1
28 1,2,4-Trichlorobenzene	180	5.549	5.549	(0.989)	366967	40.0000	38.3
30 Naphthalene	128	5.630	5.630	(1.003)	1128715	40.0000	39.3
204 alpha-Terpineol	59	5.630	5.630	(1.003)	260293	40.0000	35.5
31 4-Chloroaniline	127	5.677	5.677	(1.012)	312162	40.0000	33.2
32 Hexachlorobutadiene	225	5.754	5.754	(1.025)	222250	40.0000	37.3
33 4-Chloro-3-methylphenol	107	6.168	6.168	(1.099)	262934	40.0000	34.1
34 2-Methylnaphthalene	142	6.354	6.354	(1.132)	752623	40.0000	39.3
35 1-Methylnaphthalene	142	6.458	6.458	(1.151)	739014	40.0000	39.4
36 Hexachlorocyclopentadiene	237	6.516	6.516	(0.873)	146342	40.0000	30.0
205 2,3-Dichloroaniline	161	6.644	6.644	(0.890)	392831	40.0000	37.8
37 2,4,6-Trichlorophenol	196	6.644	6.644	(0.890)	229799	40.0000	37.9
38 2,4,5-Trichlorophenol	196	6.678	6.678	(0.895)	217751	40.0000	33.8
40 2-Chloronaphthalene	162	6.868	6.868	(0.920)	719477	40.0000	37.1
42 o-Nitroaniline	65	6.968	6.968	(0.934)	168139	40.0000	31.2
41 m-Nitroaniline	138	7.411	7.411	(0.993)	84842	40.0000	20.6
43 Dimethylphthalate	163	7.168	7.168	(0.960)	856793	40.0000	38.8
44 2,6-Dinitrotoluene	165	7.235	7.235	(0.969)	197017	40.0000	39.5
50 2,4-Dinitrotoluene	165	7.663	7.663	(1.027)	241347	40.0000	37.7
45 Acenaphthylene	152	7.311	7.311	(0.980)	1174250	40.0000	35.9
47 Acenaphthene	154	7.497	7.497	(1.004)	739297	40.0000	35.3
48 2,4-Dinitrophenol	184	7.520	7.520	(1.008)	53678	40.0000	35.9
49 Dibenzofuran	168	7.682	7.682	(1.029)	1014858	40.0000	37.0
51 Diethylphthalate	149	7.920	7.920	(1.061)	879216	40.0000	38.1
52 4-Nitrophenol	139	7.578	7.578	(1.015)	69949	40.0000	26.0
53 Fluorene	166	8.049	8.049	(1.078)	905340	40.0000	35.6
54 4-Chlorophenylphenylether	204	8.049	8.049	(1.078)	434543	40.0000	35.5
55 2-Methyl-4,6-dinitrophenol	198	8.097	8.097	(0.894)	98846	40.0000	36.4
56 p-Nitroaniline	138	8.063	8.063	(1.080)	77961	40.0000	21.5
133 Diphenylamine	169	8.173	8.173	(0.902)	667112	40.0000	38.0
58 1,2-Diphenylhydrazine	77	8.216	8.216	(0.907)	712081	40.0000	34.5
61 4-Bromophenylphenylether	248	8.573	8.573	(0.946)	257549	40.0000	38.8
63 Hexachlorobenzene	284	8.639	8.639	(0.954)	268788	40.0000	38.9
65 Pentachlorophenol	266	8.844	8.844	(0.976)	118693	40.0000	38.6
206 n-Octadecane	57	8.935	8.935	(0.986)	491083	40.0000	35.6
68 Phenanthrene	178	9.082	9.082	(1.003)	1222993	40.0000	37.5
69 Anthracene	178	9.139	9.139	(1.009)	1208926	40.0000	35.8
72 Di-n-butylphthalate	149	9.682	9.682	(1.069)	1476924	40.0000	41.8
76 Fluoranthene	202	10.363	10.363	(1.144)	1299847	40.0000	36.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
79 Pyrene	202	10.606	10.606	(0.888)	1396255	40.0000	35.1
85 Butylbenzylphthalate	149	11.297	11.297	(0.946)	576255	40.0000	41.5
89 Benzo(a)anthracene	228	11.930	11.930	(0.999)	1179368	40.0000	35.2
92 Chrysene	228	11.973	11.973	(1.002)	1114428	40.0000	38.2
93 bis(2-Ethylhexyl)phthalate	149	11.954	11.954	(1.001)	834799	40.0000	42.9
94 Di-n-octylphthalate	149	12.820	12.820	(0.916)	1225758	40.0000	40.0
95 Benzo(b)fluoranthene	252	13.392	13.392	(0.957)	989079	40.0000	35.2
96 Benzo(k)fluoranthene	252	13.435	13.435	(0.960)	1032928	40.0000	36.5
97 Benzo(a)pyrene	252	13.901	13.901	(0.994)	895453	40.0000	37.8
99 Indeno(1,2,3-cd)pyrene	276	15.787	15.787	(1.128)	806143	40.0000	41.0
100 Dibenzo(a,h)anthracene	278	15.825	15.825	(1.131)	759644	40.0000	50.0
101 Benzo(ghi)perylene	276	16.254	16.254	(1.162)	783297	40.0000	48.2
126 m-Dinitrobenzene	168	7.201	7.201	(0.965)	118763	40.0000	37.3
130 2,3,4,6-Tetrachlorophenol	232	7.806	7.806	(1.046)	197700	40.0000	36.2
143 Dinoseb	211	9.044	9.044	(0.998)	146829	40.0000	36.7
173 Carbazole	167	9.306	9.306	(1.027)	527981	40.0000	21.9
184 p-Benzoquinone	54	3.620	3.620	(0.832)	19787	40.0000	14.8
192 Methoxychlor	227	11.844	11.844	(0.992)	715415	40.0000	39.2
211 p-Toluidine	106	4.768	4.768	(1.095)	306225	40.0000	31.8
210 m-Toluidine	106	4.801	4.801	(1.103)	381601	40.0000	30.4
26 Phthalic anhydride	104	6.401	6.401	(1.141)	87233	40.0000	23.7
179 Dibenzo(a,e)pyrene	302	19.249	19.249	(1.376)	453117	40.0000	70.0
214 1,4-Dinitrobenzene	75	7.120	7.120	(0.954)	100050	40.0000	29.7
215 2-Ethoxyethanol	59	2.035	2.035	(0.467)	124437	40.0000	25.7
216 Methylenebis(2-chloroaniline)	231	11.897	11.897	(0.996)	88213	40.0000	27.2
M 222 Trichlorophenols	196				447550	80.0000	71.6
M 223 Tetrachlorophenols	232				197700	40.0000	36.2
M 224 Benzo(b,k)fluoranthene	252				2022007	80.0000	71.7

Data File: /chem/MSD8.i/s030310.b/s8c0308.d

Date : 03-MAR-2010 13:40

Client ID: MEGACVS

Sample Info: |WBN100225-05.5|40 PPM|1|SVMF|1|MEGACVS

Column phase: J&W DB-5MS

Instrument: MSD8.i

Operator: nag1

Column diameter: 0.20

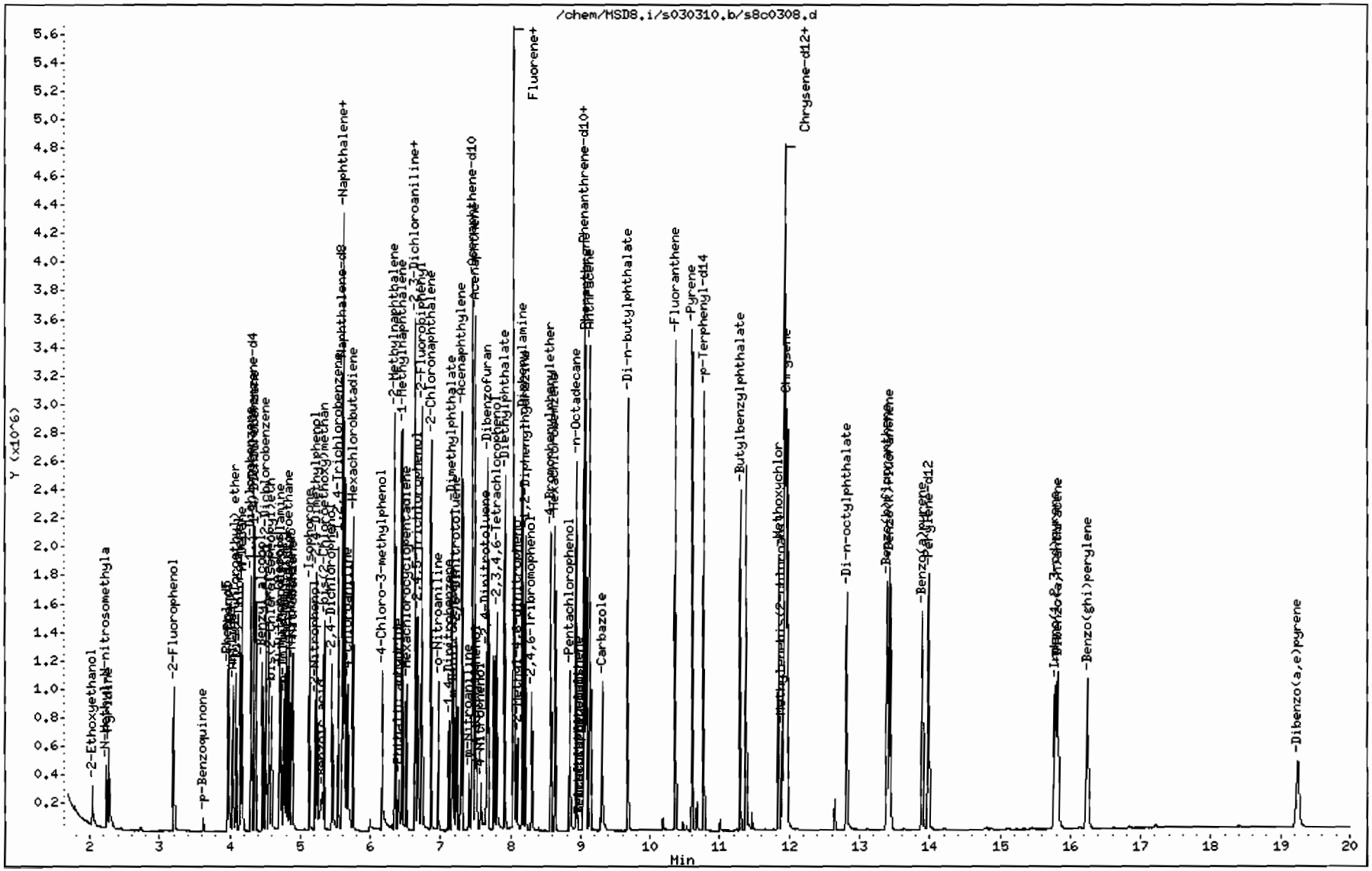

Data File: /chem/MSD8.i/s030310.b/s8c0309.d
Report Date: 04-Mar-2010 07:36

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i
Lab File ID: s8c0309.d
Analysis Type:
Lab Sample ID: WBN100218-03.4
Method: /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m

Injection Date: 03-MAR-2010 14:12
Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Init. Cal. Times: 12:55 01:19
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
209 Benzaldehyde	0.84330	0.74685	0.74685	0.000	-11.43676	60.00000	Averaged
16 Acetophenone	1.20309	1.08469	1.08469	0.000	-9.84064	60.00000	Averaged
189 Caprolactam	0.06655	0.06983	0.06983	0.000	4.92580	60.00000	Averaged
208 1,1'-Biphenyl	1.22219	1.15508	1.15508	0.000	-5.49106	60.00000	Averaged
207 Atrazine	0.03531	0.04177	0.04177	0.000	18.27090	60.00000	Averaged
77 Benzidine	25.97397	40.00000	0.16771	0.000	-35.06508	60.00000	Linear
90 3,3'-Dichlorobenzidine	0.24780	0.22841	0.22841	0.000	-7.82475	60.00000	Averaged
102 1,4-Dioxane	0.32319	0.29702	0.29702	0.000	-8.09822	60.00000	Averaged
103 Methyl methacrylate	0.16817	0.16468	0.16468	0.000	-2.07300	60.00000	Averaged
104 Ethyl methacrylate	0.67963	0.58750	0.58750	0.000	-13.55569	60.00000	Averaged
105 2-Picoline	1.09294	1.03810	1.03810	0.000	-5.01751	60.00000	Averaged
106 N-Nitrosomethylethylamine	0.43986	0.38831	0.38831	0.000	-11.72030	60.00000	Averaged
107 Methyl methanesulfonate	0.49950	0.42657	0.42657	0.000	-14.60026	60.00000	Averaged
108 N-Nitrosodiethylamine	0.45804	0.42367	0.42367	0.000	-7.50458	60.00000	Averaged
109 Ethyl Methanesulfonate	0.60902	0.53330	0.53330	0.000	-12.43289	60.00000	Averaged
110 Pentachloroethane	0.32092	0.31105	0.31105	0.000	-3.07499	60.00000	Averaged
111 N-Nitrosopyrrolidine	0.49059	0.43983	0.43983	0.000	-10.34637	60.00000	Averaged
113 N-Nitrosomorpholine	0.66385	0.53422	0.53422	0.000	-19.52771	60.00000	Averaged
114 o-Toluidine	1.62183	1.54532	1.54532	0.000	-4.71773	60.00000	Averaged
115 N-Nitrosopiperidine	0.12437	0.12264	0.12264	0.000	-1.38679	60.00000	Averaged
116 a,a-Dimethylphenethylamine	0.74304	0.58158	0.58158	0.000	-21.72985	60.00000	Averaged
118 2,6-Dichlorophenol	0.20154	0.20625	0.20625	0.000	2.33410	60.00000	Averaged
119 Hexachloropropene	0.12360	0.09152	0.09152	0.000	-25.95821	60.00000	Averaged
120 p-Phenylenediamine	0.19655	0.17463	0.17463	0.000	-11.15227	60.00000	Averaged
121 N-Nitrosodi-n-butylamine	0.21161	0.20146	0.20146	0.000	-4.79428	60.00000	Averaged
122 Safrole	0.19334	0.18942	0.18942	0.000	-2.03052	60.00000	Averaged
123 1,2,4,5-Tetrachlorobenzene	0.47582	0.44833	0.44833	0.000	-5.77719	60.00000	Averaged
124 Isosafrole	0.32130	0.30003	0.30003	0.000	-6.61887	60.00000	Averaged
125 1,4-Naphthoquinone	0.29641	0.31775	0.31775	0.000	7.19940	60.00000	Averaged
127 Pentachlorobenzene	0.43422	0.39656	0.39656	0.000	-8.67267	60.00000	Averaged
128 1-Naphthylamine	0.84230	0.76622	0.76622	0.000	-9.03219	60.00000	Averaged
129 2-Naphthylamine	0.88763	0.79647	0.79647	0.000	-10.26971	60.00000	Averaged
131 5-Nitro-o-toluidine	0.24122	0.21981	0.21981	0.000	-8.87617	60.00000	Averaged
136 1,3,5-Trinitrobenzene	0.09499	0.08269	0.08269	0.000	-12.95411	60.00000	Averaged
137 Phenacetin	0.21690	0.19915	0.19915	0.000	-8.17993	60.00000	Averaged
138 Diallate	0.20203	0.20074	0.20074	0.000	-0.64127	60.00000	Averaged

GEL Laboratories LLC

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: MSD8.i
Lab File ID: s8c0309.d
Analysis Type:
Lab Sample ID: WBN100218-03.4
Method: /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m

Injection Date: 03-MAR-2010 14:12
Init. Cal. Date(s): 20-FEB-2010 22-FEB-2010
Init. Cal. Times: 12:55 01:19
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF40	CCAL RRF40	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
212 Cis Diallate	0.20071	0.19732	0.19732	0.000	-1.69084	60.00000	Averaged
213 Trans Diallate	0.23769	0.23616	0.23616	0.000	-0.64127	60.00000	Averaged
140 4-Aminobiphenyl	0.51727	0.43693	0.43693	0.000	-15.53169	60.00000	Averaged
141 Pentachloronitrobenzene	0.07936	0.07257	0.07257	0.000	-8.56446	60.00000	Averaged
142 Pronamide	0.25230	0.26751	0.26751	0.000	6.02765	60.00000	Averaged
146 4-Nitroquinoline-1-oxide	0.01907	0.01545	0.01545	0.000	-18.98880	60.00000	Averaged
147 Methapyrilene	0.29186	0.25442	0.25442	0.000	-12.82705	60.00000	Averaged
148 Isodrin	0.10718	0.10342	0.10342	0.000	-3.50335	60.00000	Averaged
149 Aramite	0.03388	0.03438	0.03438	0.000	1.48196	60.00000	Averaged
150 Kepone	0.07795	0.07759	0.07759	0.000	-0.46233	60.00000	Averaged
151 p-(Dimethylamino)azobenzene	0.25808	0.26798	0.26798	0.000	3.83516	60.00000	Averaged
152 Chlorobenzilate	0.26271	0.28487	0.28487	0.000	8.43508	60.00000	Averaged
153 3,3'-Dimethylbenzidine	0.45535	0.34912	0.34912	0.000	-23.33020	60.00000	Averaged
155 2-Acetylaminofluorene	40.27859	40.00000	0.22729	0.000	0.69648	60.00000	Linear
157 7,12Dimethylbenz(a)anthrace	0.51909	0.50778	0.50778	0.000	-2.17967	60.00000	Averaged
158 3-Methylcholanthrene	0.36780	0.37334	0.37334	0.000	1.50602	60.00000	Averaged

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030310.b/s8c0309.d
Lab Smp Id: WBN100218-03.4 Client Smp ID: AP12CVS
Inj Date : 03-MAR-2010 14:12
Operator : nagl Inst ID: MSD8.i
Smp Info : |WBN100218-03.4|40 PPM|1|SVMF|1|AP12CVS
Misc Info : |MSD8270|WBN100227-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Meth Date : 04-Mar-2010 07:36 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AP12.sub
Target Version: 3.50
Processing Host: hpclp1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
* 10 1,4-Dichlorobenzene-d4	152	4.354	4.354	(1.000)	514258	40.0000	
* 29 Naphthalene-d8	136	5.611	5.611	(1.000)	1965389	40.0000	
* 46 Acenaphthene-d10	164	7.463	7.463	(1.000)	1178677	40.0000	
* 67 Phenanthrene-d10	188	9.058	9.058	(1.000)	1980428	40.0000	
* 91 Chrysene-d12	240	11.939	11.939	(1.000)	1525476	40.0000	
* 98 Perylene-d12	264	13.987	13.987	(1.000)	1125807	40.0000	
209 Benzaldehyde	77	3.958	3.958	(0.909)	384075	40.0000	35.4
16 Acetophenone	105	4.730	4.730	(1.086)	557813	40.0000	36.1
189 Caprolactam	113	6.030	6.030	(1.075)	137248	40.0000	42.0
208 1,1'-Biphenyl	154	6.844	6.844	(0.917)	1361468	40.0000	37.8
207 Atrazine	173	8.749	8.749	(0.966)	82716	40.0000	47.3
77 Benzidine	184	10.506	10.506	(0.880)	255830	40.0000	26.0
90 3,3'-Dichlorobenzidine	252	11.892	11.892	(0.996)	348433	40.0000	36.9
102 1,4-Dioxane	88	2.039	2.039	(0.468)	152744	40.0000	36.8
103 Methyl methacrylate	100	2.044	2.044	(0.469)	84688	40.0000	39.2
104 Ethyl methacrylate	69	2.544	2.544	(0.584)	302126	40.0000	34.6
105 2-Picoline	93	2.787	2.787	(0.640)	533853	40.0000	38.0
106 N-Nitrosomethylethylamine	88	2.858	2.858	(0.657)	199690	40.0000	35.3
107 Methyl methanesulfonate	80	3.082	3.082	(0.708)	219368	40.0000	34.2
108 N-Nitrosodiethylamine	102	3.406	3.406	(0.782)	217876	40.0000	37.0
109 Ethyl Methanesulfonate	79	3.644	3.644	(0.837)	274254	40.0000	35.0
110 Pentachloroethane	167	4.096	4.096	(0.941)	159960	40.0000	38.8
111 N-Nitrosopyrrolidine	100	4.711	4.711	(1.082)	226185	40.0000	35.9(Q)
113 N-Nitrosomorpholine	56	4.744	4.744	(1.090)	274725	40.0000	32.2
114 o-Toluidine	106	4.763	4.763	(1.094)	794692	40.0000	38.1
115 N-Nitrosopiperidine	114	5.049	5.049	(0.900)	241044	40.0000	39.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/ul)	AMOUNTS ON-COL (ng/ul)
116 a,a-Dimethylphenethylamine	58	5.454	5.454	(0.972)	1143022	40.0000	31.3
118 2,6-Dichlorophenol	162	5.687	5.687	(1.014)	405354	40.0000	40.9
119 Hexachloropropene	213	5.720	5.720	(1.020)	179867	40.0000	29.6
120 p-Phenylenediamine	108	6.044	6.044	(1.077)	343220	40.0000	35.5
121 N-Nitrosodi-n-butylamine	84	6.030	6.030	(1.075)	395954	40.0000	38.1
122 Safrole	162	6.254	6.254	(1.115)	372277	40.0000	39.2
123 1,2,4,5-Tetrachlorobenzene	216	6.530	6.530	(0.875)	528436	40.0000	37.7
124 Isosafrole	162	6.806	6.806	(0.912)	353644	40.0000	37.4
125 1,4-Naphthoquinone	158	7.054	7.054	(0.945)	374530	40.0000	42.9
127 Pentachlorobenzene	250	7.635	7.635	(1.023)	467418	40.0000	36.5
128 1-Naphthylamine	143	7.763	7.763	(1.040)	903130	40.0000	36.4
129 2-Naphthylamine	143	7.849	7.849	(1.052)	938785	40.0000	35.9
131 5-Nitro-o-toluidine	152	8.054	8.054	(1.079)	259083	40.0000	36.4
136 1,3,5-Trinitrobenzene	75	8.449	8.449	(0.933)	163757	40.0000	34.8
137 Phenacetin	108	8.506	8.506	(0.939)	394410	40.0000	36.7(Q)
138 Diallate	86	8.482	8.482	(0.936)	397547	40.0000	39.7
212 Cis Diallate	86	8.577	8.577	(0.947)	58617	6.00000	5.9
213 Trans Diallate	86	8.482	8.482	(0.936)	397547	34.0000	33.8
140 4-Aminobiphenyl	169	8.854	8.854	(0.977)	865307	40.0000	33.8
141 Pentachloronitrobenzene	237	8.863	8.863	(0.978)	143711	40.0000	36.6(Q)
142 Pronamide	173	8.915	8.915	(0.984)	529781	40.0000	42.4
146 4-Nitroquinoline-1-oxide	101	9.911	9.911	(1.094)	30592	40.0000	32.4
147 Methapyrilene	58	9.992	9.992	(1.103)	503864	40.0000	34.9
148 Isodrin	193	10.201	10.201	(1.126)	204823	40.0000	38.6
149 Aramite	185	10.749	10.749	(1.187)	68090	40.0000	40.6
150 Kepone	272	11.344	11.344	(1.252)	153656	40.0000	39.8
151 p-(Dimethylamino)azobenzene	120	10.925	10.925	(0.915)	408793	40.0000	41.5
152 Chlorobenzilate	251	10.973	10.973	(0.919)	434555	40.0000	43.4
153 3,3'-Dimethylbenzidine	212	11.282	11.282	(0.945)	532571	40.0000	30.7
155 2-Acetylaminofluorene	181	11.558	11.558	(0.968)	346729	40.0000	40.3
157 7,12Dimethylbenz(a)anthracene	256	13.377	13.377	(0.956)	571658	40.0000	39.1
158 3-Methylcholanthrene	268	14.468	14.468	(1.034)	420313	40.0000	40.6(Q)

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD8.i/s030310.b/s8c0309.d
Date : 03-MAR-2010 14:12
Client ID: AP12CVS
Sample Info: IWBN100218-03,4|40 PPM|1|SVHF|1|AP12CVS

Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: nag1
Column diameter: 0.20

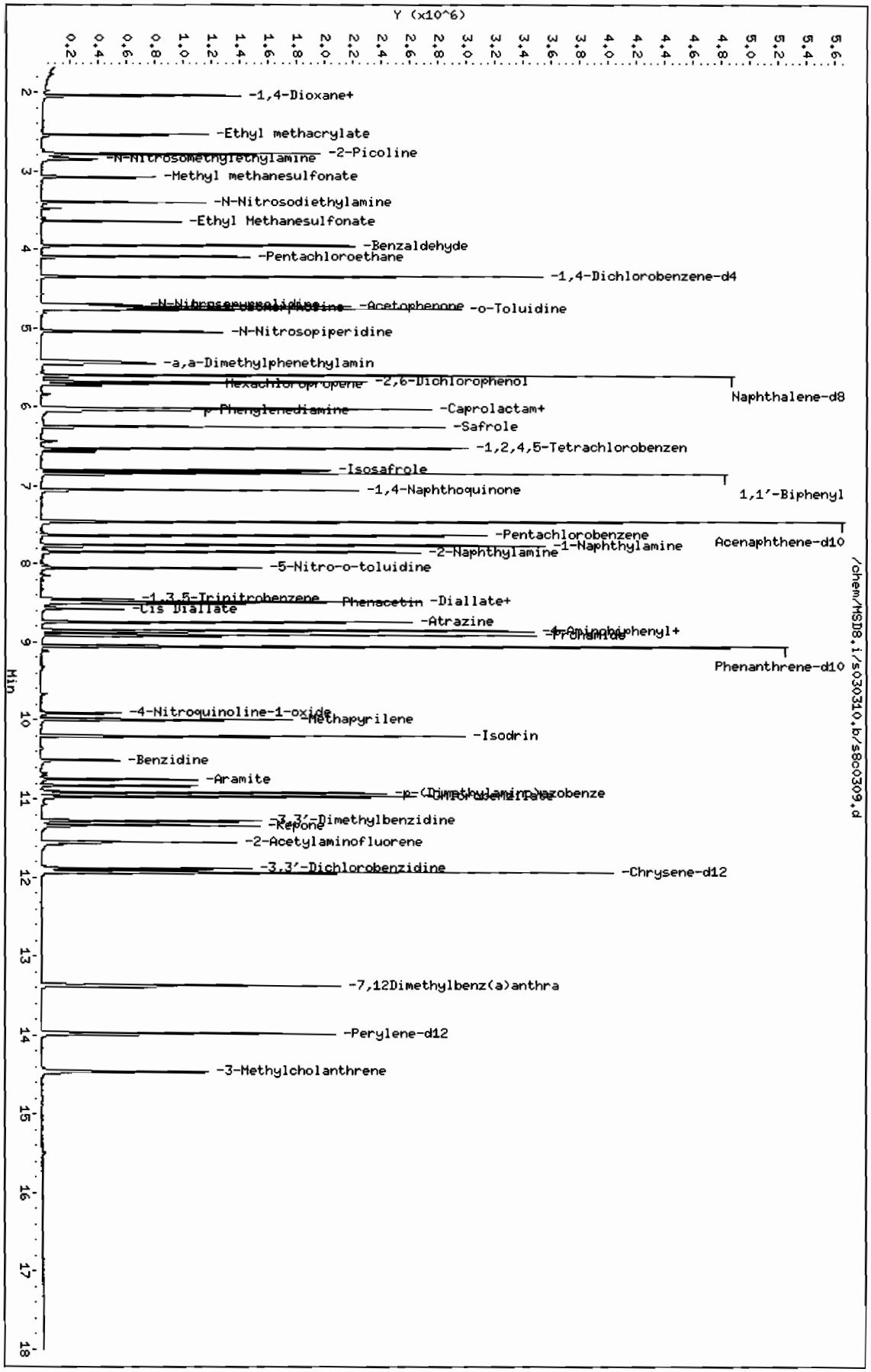

QC Data

Data File: /chem/MSD2.i/s022510a.b/s2b2510.d

Date : 25-FEB-2010 18:56

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: ACS1

Column phase: J&W DB-5MS

Column diameter: 0.20

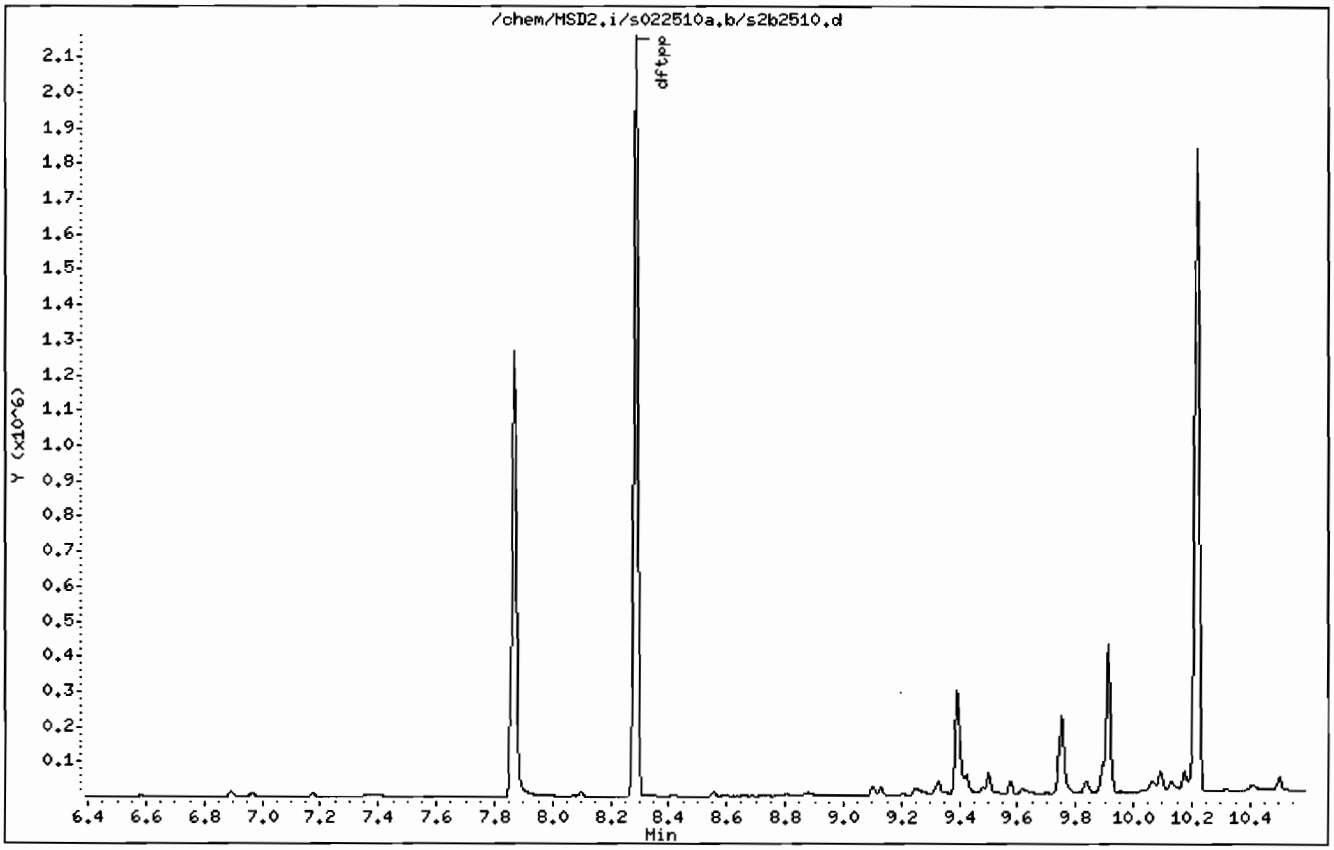

Data File: /chem/MSD2.i/s022510a.b/s2b2510.d

Date : 25-FEB-2010 18:56

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

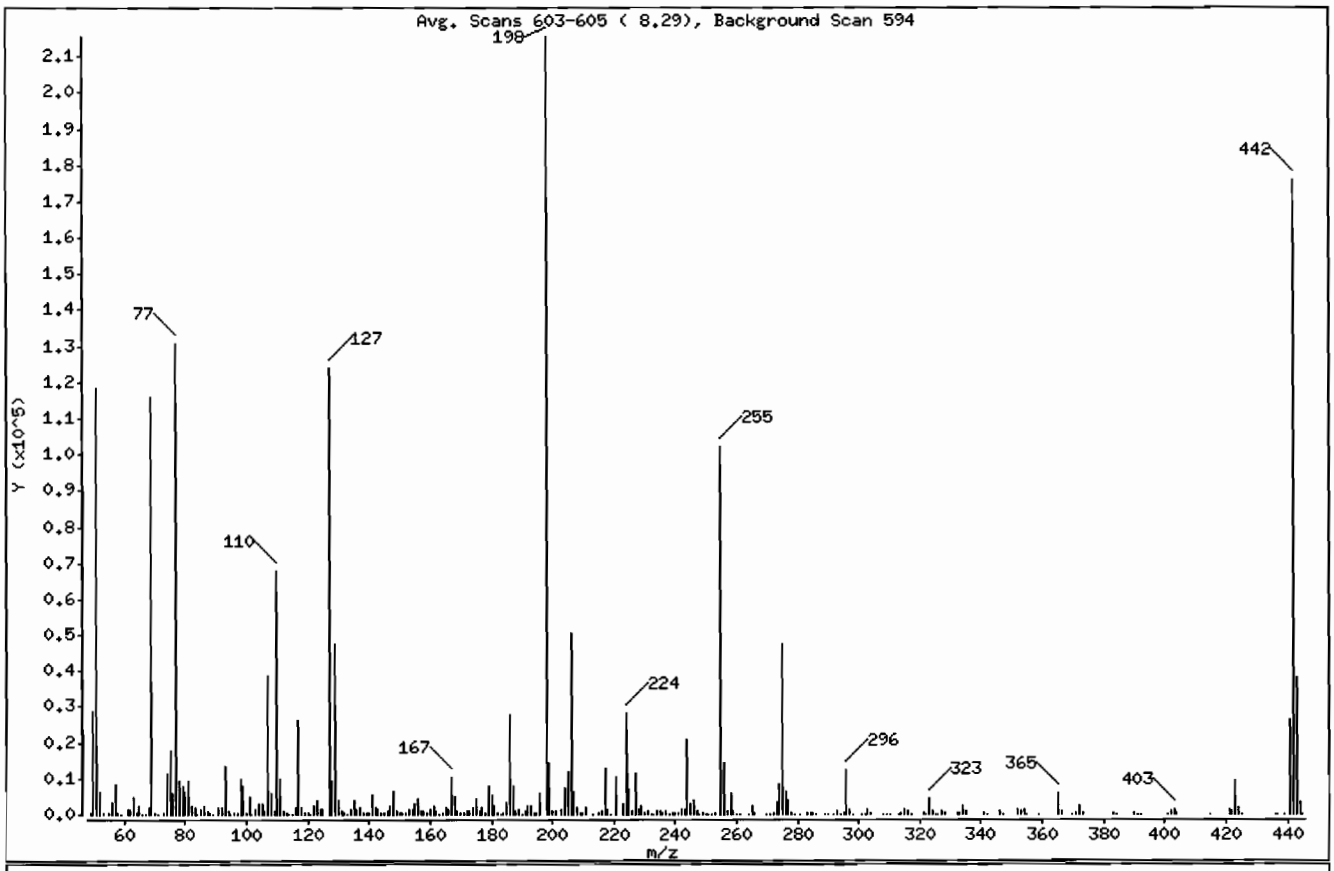

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	54.99
68	Less than 2.00% of mass 69	0.88 (1.63)
69	Mass 69 relative abundance	53.68
70	Less than 2.00% of mass 69	0.27 (0.50)
127	40.00 - 60.00% of mass 198	57.35
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.78
275	10.00 - 30.00% of mass 198	22.16
365	Greater than 1.00% of mass 198	2.84
441	Present, but less than mass 443	12.24
442	Greater than 40.00% of mass 198	81.67
443	17.00 - 23.00% of mass 442	17.79 (21.78)

Data File: /chem/MSD2.i/s022510a.b/s2b2510.d

Date : 25-FEB-2010 18:56

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s2b2510.d
Spectrum: Avg. Scans 603-605 (8.29), Background Scan 594
Location of Maximum: 198.00
Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
49.00	654	127.00	123648	201.00	917	289.00	134
50.00	28728	128.00	9398	203.00	1595	290.00	76
51.00	118560	129.00	47776	204.00	7280	292.00	153
52.00	6218	130.00	4187	205.00	12102	293.00	852
53.00	278	131.00	783	206.00	50304	294.00	194
55.00	391	132.00	436	207.00	6518	295.00	258
56.00	3486	133.00	211	208.00	1735	296.00	12194
57.00	8571	134.00	1283	209.00	546	297.00	1625
58.00	411	135.00	3777	210.00	577	298.00	145
59.00	129	136.00	1381	211.00	1936	301.00	170
61.00	1525	137.00	1859	213.00	137	302.00	200
62.00	1631	138.00	409	215.00	522	303.00	1521
63.00	4954	139.00	275	216.00	1094	304.00	426
64.00	637	140.00	532	217.00	13024	308.00	151
65.00	2476	141.00	5640	218.00	1683	309.00	120
66.00	173	142.00	1779	219.00	151	310.00	140
67.00	174	143.00	1339	221.00	10531	313.00	121
68.00	1892	144.00	274	223.00	3058	314.00	550
69.00	115720	145.00	303	224.00	28216	315.00	1295
70.00	583	146.00	892	225.00	7166	316.00	778
71.00	75	147.00	2666	226.00	756	317.00	140
73.00	715	148.00	6262	227.00	11486	321.00	474
74.00	11306	149.00	1144	228.00	1676	322.00	192
75.00	17880	150.00	338	229.00	2386	323.00	4335
76.00	6138	151.00	617	230.00	303	324.00	857
77.00	130672	152.00	421	231.00	1079	325.00	33
78.00	9235	153.00	1697	232.00	182	326.00	36
79.00	7928	154.00	1393	233.00	182	327.00	843
80.00	6331	155.00	3066	234.00	747	328.00	409
81.00	9384	156.00	4627	235.00	810	332.00	273
82.00	2293	157.00	925	236.00	479	333.00	421
83.00	2127	158.00	949	237.00	885	334.00	2694
84.00	115	159.00	702	238.00	82	335.00	756
85.00	1481	160.00	1683	239.00	427	341.00	545
86.00	2485	161.00	2557	240.00	340	342.00	149

Data File: /chem/MSD2.i/s022510a.b/s2b2510.d

Date : 25-FEB-2010 18:56

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s2b2510.d
Spectrum: Avg. Scans 603-605 (8.29), Background Scan 594
Location of Maximum: 198.00
Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
87.00	1184	162.00	793	241.00	589	346.00	871
88.00	419	163.00	213	242.00	1456	347.00	149
89.00	229	164.00	341	243.00	1446	352.00	1326
91.00	2046	165.00	1914	244.00	20776	353.00	958
92.00	2075	166.00	1600	245.00	2801	354.00	1304
93.00	13397	167.00	10397	246.00	3987	355.00	241
94.00	891	168.00	4861	247.00	748	359.00	76
95.00	168	169.00	813	248.00	181	365.00	6133
96.00	614	170.00	316	249.00	700	366.00	829
97.00	254	171.00	352	250.00	100	370.00	117
98.00	10028	172.00	884	251.00	203	371.00	350
99.00	8154	173.00	1177	252.00	243	372.00	2415
100.00	658	174.00	2018	253.00	522	373.00	618
101.00	5054	175.00	4264	255.00	102112	383.00	676
102.00	232	176.00	1178	256.00	14579	384.00	150
103.00	1592	177.00	1837	257.00	1213	390.00	326
104.00	3123	178.00	622	258.00	5800	391.00	229
105.00	3017	179.00	7930	259.00	845	392.00	112
106.00	918	180.00	5463	260.00	156	401.00	131
107.00	38536	181.00	2587	261.00	177	402.00	1044
108.00	6004	182.00	423	264.00	196	403.00	1340
109.00	1062	183.00	212	265.00	2292	404.00	512
110.00	67936	184.00	615	266.00	354	415.00	34
111.00	9940	185.00	3688	270.00	144	421.00	1431
112.00	1230	186.00	27888	271.00	222	422.00	1230
113.00	469	187.00	7782	272.00	328	423.00	9590
114.00	80	188.00	811	273.00	3312	424.00	1962
115.00	147	189.00	1680	274.00	8281	425.00	207
116.00	1866	190.00	235	275.00	47776	436.00	70
117.00	26168	191.00	804	276.00	6604	437.00	70
118.00	1869	192.00	2349	277.00	3902	439.00	142
119.00	304	193.00	2586	278.00	588	441.00	26384
120.00	451	194.00	564	279.00	89	442.00	176064
121.00	145	195.00	366	281.00	69	443.00	38352
122.00	2282	196.00	5777	283.00	450	444.00	3711

Data File: /chem/MSD2.i/s022510a.b/s2b2510.d

Date : 25-FEB-2010 18:56

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s2b2510.d

Spectrum: Avg. Scans 603-605 (8.29), Background Scan 594

Location of Maximum: 198.00

Number of points: 290

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	3739	198.00	215552	284.00	302	445.00	189
124.00	1549	199.00	14612	285.00	645		
125.00	1528	200.00	1070	286.00	81		

Data File: /chem/MSD2.i/s022510a.b/s2b2539.d

Date : 26-FEB-2010 14:01

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

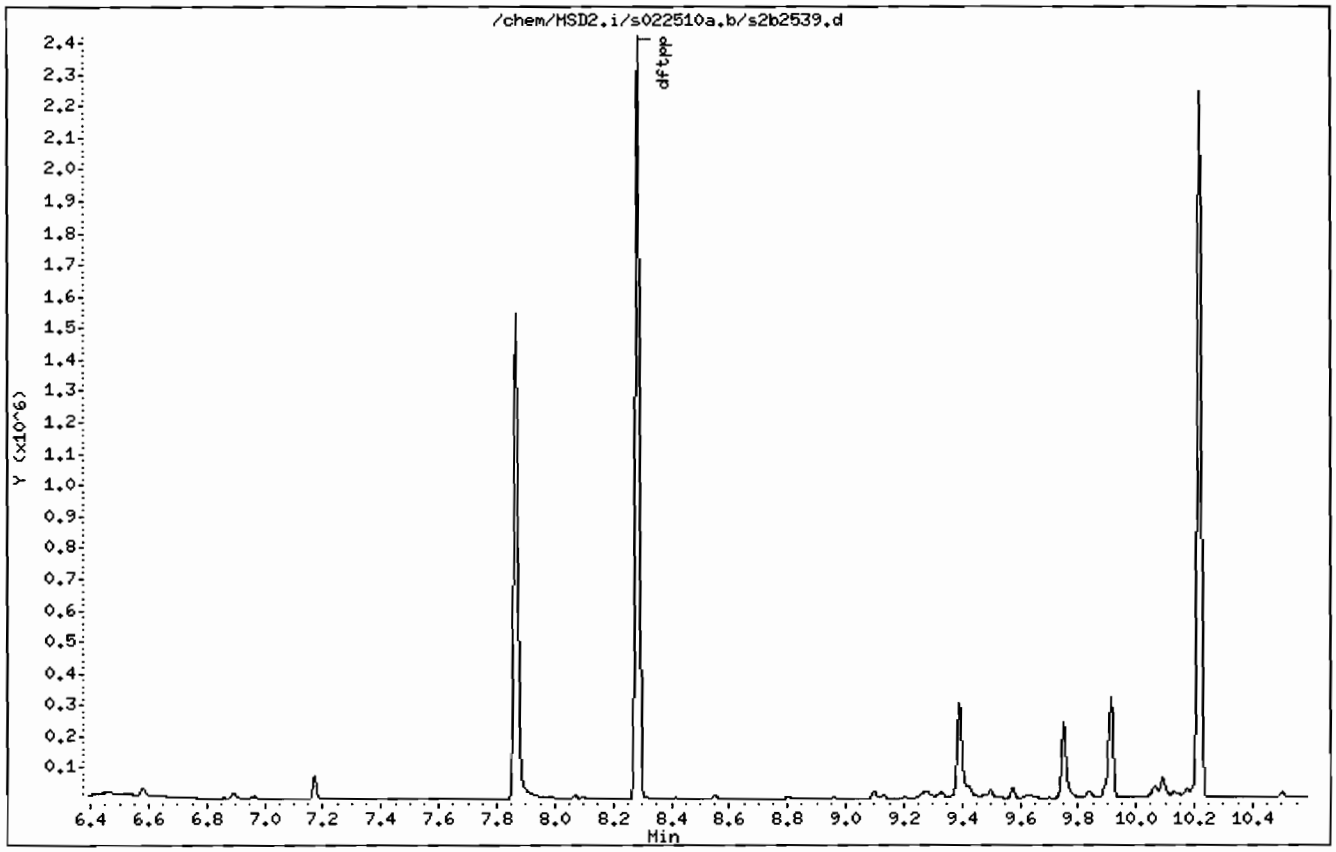

Data File: /chem/MSD2.i/s022510a.b/s2b2539.d

Date : 26-FEB-2010 14:01

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

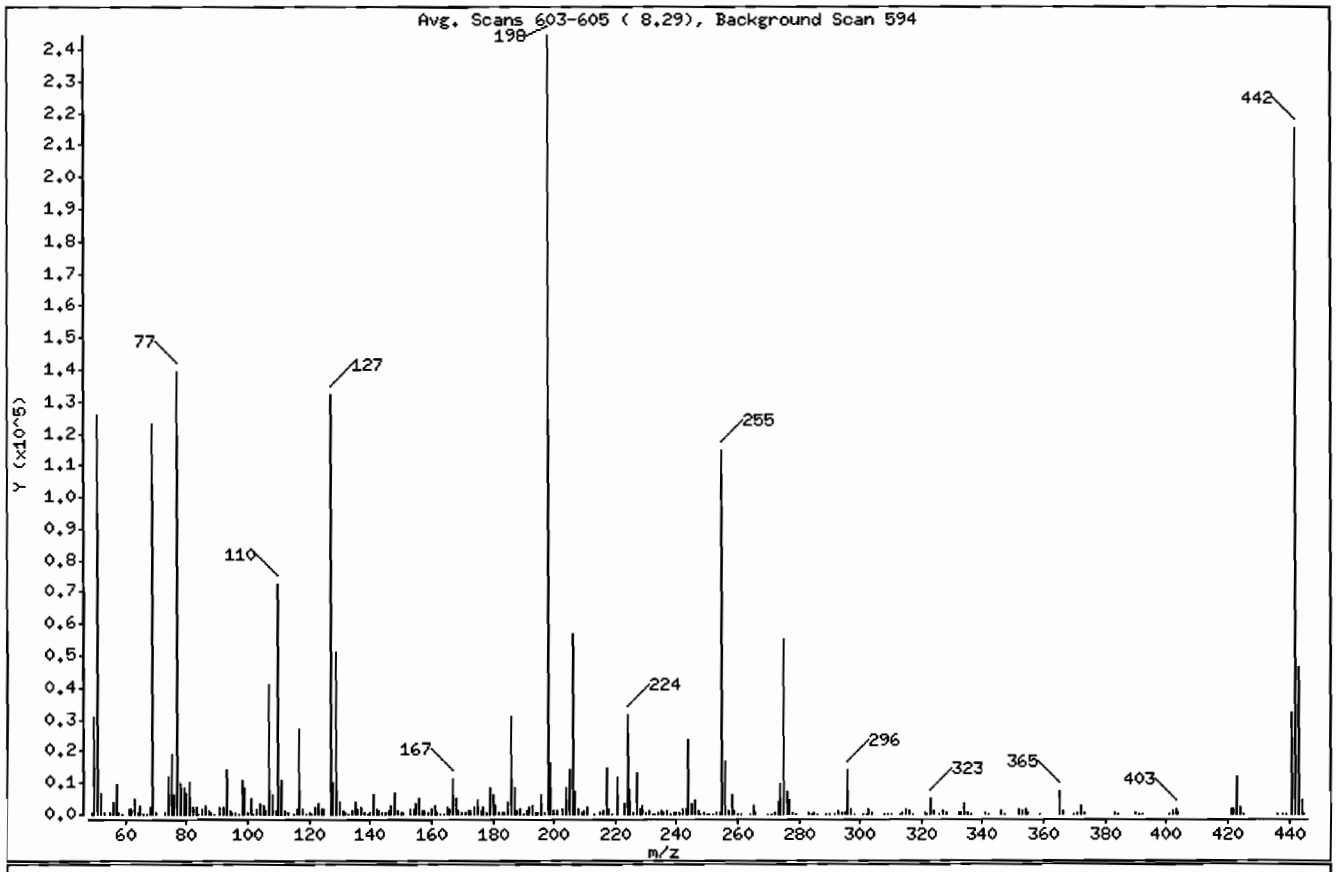

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	51.54
68	Less than 2.00% of mass 69	0.82 (1.64)
69	Mass 69 relative abundance	50.36
70	Less than 2.00% of mass 69	0.25 (0.49)
127	40.00 - 60.00% of mass 198	54.04
197	Less than 1.00% of mass 198	0.23
199	5.00 - 9.00% of mass 198	6.69
275	10.00 - 30.00% of mass 198	22.63
365	Greater than 1.00% of mass 198	2.95
441	Present, but less than mass 443	13.09
442	Greater than 40.00% of mass 198	88.00
443	17.00 - 23.00% of mass 442	18.90 (21.47)

Data File: /chem/MSD2.i/s022510a.b/s2b2539.d

Date : 26-FEB-2010 14:01

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s2b2539.d
Spectrum: Avg. Scans 603-605 (8.29), Background Scan 594
Location of Maximum: 198.00
Number of points: 287

m/z	Y	m/z	Y	m/z	Y	m/z	Y
49.00	788	128.00	10018	201.00	1125	286.00	135
50.00	30728	129.00	50992	203.00	1526	289.00	140
51.00	126048	130.00	4119	204.00	8246	290.00	121
52.00	6481	131.00	854	205.00	13813	292.00	203
53.00	287	132.00	470	206.00	56840	293.00	1095
55.00	501	133.00	169	207.00	7561	294.00	288
56.00	4044	134.00	1269	208.00	1896	295.00	295
57.00	9301	135.00	4092	209.00	494	296.00	13903
58.00	427	136.00	1622	210.00	1012	297.00	1956
59.00	133	137.00	1987	211.00	2219	298.00	110
61.00	1571	138.00	455	213.00	155	301.00	190
62.00	1717	139.00	267	215.00	599	302.00	262
63.00	5206	140.00	596	216.00	1075	303.00	1752
64.00	672	141.00	5984	217.00	14571	304.00	441
65.00	2576	142.00	1920	218.00	1810	308.00	164
66.00	169	143.00	1378	219.00	222	309.00	69
67.00	143	144.00	375	221.00	12024	310.00	172
68.00	2017	145.00	311	223.00	3502	313.00	160
69.00	123152	146.00	1065	224.00	31720	314.00	589
70.00	606	147.00	3006	225.00	8022	315.00	1460
73.00	814	148.00	6592	226.00	829	316.00	889
74.00	11948	149.00	1301	227.00	12837	317.00	181
75.00	19384	150.00	356	228.00	1812	321.00	479
76.00	6356	151.00	696	229.00	2801	322.00	275
77.00	139328	153.00	1869	230.00	361	323.00	5082
78.00	9324	154.00	1461	231.00	1144	324.00	907
79.00	8452	155.00	3332	232.00	150	326.00	72
80.00	6927	156.00	5096	233.00	218	327.00	955
81.00	10009	157.00	1008	234.00	789	328.00	464
82.00	2443	158.00	1095	235.00	891	332.00	343
83.00	2388	159.00	818	236.00	631	333.00	473
84.00	279	160.00	1888	237.00	963	334.00	3121
85.00	1703	161.00	2732	238.00	116	335.00	794
86.00	2624	162.00	753	239.00	509	336.00	110
87.00	1333	163.00	190	240.00	396	341.00	531

Date : 26-FEB-2010 14:01

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2b2539.d
Spectrum: Avg. Scans 603-605 (8.29), Background Scan 594
Location of Maximum: 198.00
Number of points: 287

m/z	Y	m/z	Y	m/z	Y	m/z	Y
88.00	486	164.00	277	241.00	644	342.00	171
89.00	230	165.00	2144	242.00	1643	346.00	1027
91.00	2183	166.00	1821	243.00	1767	347.00	184
92.00	2432	167.00	11213	244.00	23712	352.00	1434
93.00	14191	168.00	5281	245.00	3246	353.00	1133
94.00	970	169.00	985	246.00	4470	354.00	1552
95.00	306	170.00	386	247.00	973	355.00	289
96.00	673	171.00	438	248.00	234	359.00	72
97.00	184	172.00	1064	249.00	769	365.00	7222
98.00	10491	173.00	1248	250.00	200	366.00	1021
99.00	8498	174.00	2309	251.00	194	370.00	180
100.00	726	175.00	4616	252.00	235	371.00	359
101.00	5318	176.00	1191	253.00	527	372.00	2997
102.00	269	177.00	2227	254.00	290	373.00	747
103.00	1704	178.00	636	255.00	114712	383.00	714
104.00	3261	179.00	8620	256.00	16608	384.00	233
105.00	3052	180.00	6131	257.00	1369	390.00	336
106.00	1017	181.00	2798	258.00	6338	391.00	264
107.00	40816	182.00	392	259.00	1012	392.00	182
108.00	6423	183.00	304	260.00	189	401.00	173
109.00	1068	184.00	687	261.00	188	402.00	1255
110.00	72512	185.00	4077	264.00	197	403.00	1638
111.00	10757	186.00	30760	265.00	2606	404.00	572
112.00	1322	187.00	8598	266.00	394	421.00	1558
113.00	369	188.00	925	270.00	184	422.00	1439
115.00	125	189.00	1888	271.00	242	423.00	11831
116.00	1953	190.00	270	272.00	397	424.00	2385
117.00	27176	191.00	864	273.00	3781	425.00	229
118.00	1956	192.00	2467	274.00	9822	436.00	72
119.00	253	193.00	2867	275.00	55352	438.00	168
120.00	452	194.00	571	276.00	7358	439.00	95
121.00	131	195.00	406	277.00	4240	441.00	32008
122.00	2333	196.00	6295	278.00	656	442.00	215168
123.00	3627	197.00	558	279.00	151	443.00	46208
124.00	1775	198.00	244544	283.00	490	444.00	4233

Data File: /chem/MSD2.i/s022510a.b/s2b2539.d

Date : 26-FEB-2010 14:01

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s2b2539.d
Spectrum: Avg. Scans 603-605 (8.29), Background Scan 594
Location of Maximum: 198.00
Number of points: 287

m/z	Y	m/z	Y	m/z	Y	m/z	Y
125.00	1595	199.00	16361	284.00	277	445.00	227
127.00	132096	200.00	1283	285.00	840		

Data File: /chem/MSD8.i/s022010.b/s8b2001.d

Date : 20-FEB-2010 12:04

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: IWBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

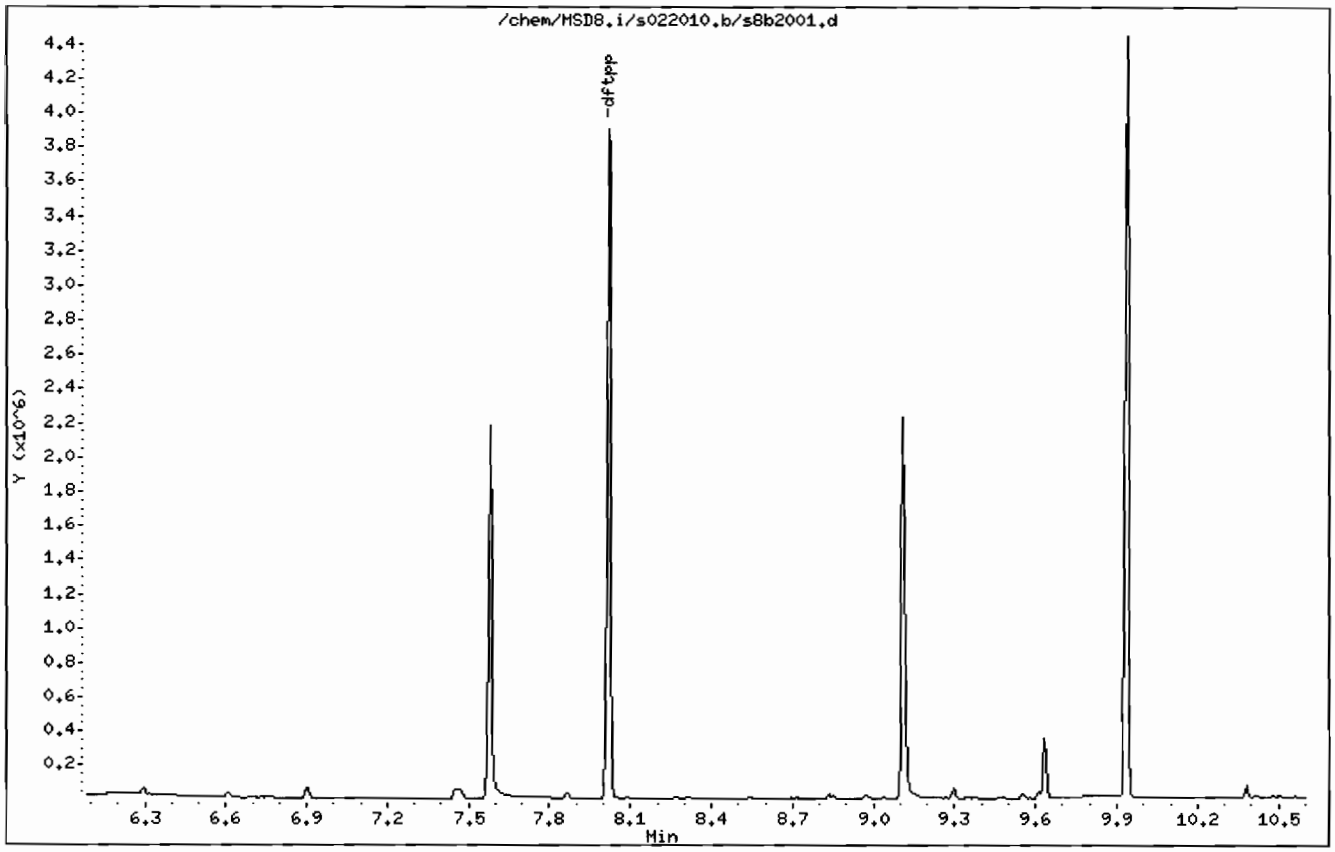

Data File: /chem/MSD8.i/s022010.b/s8b2001.d

Date : 20-FEB-2010 12:04

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

1 dftpp

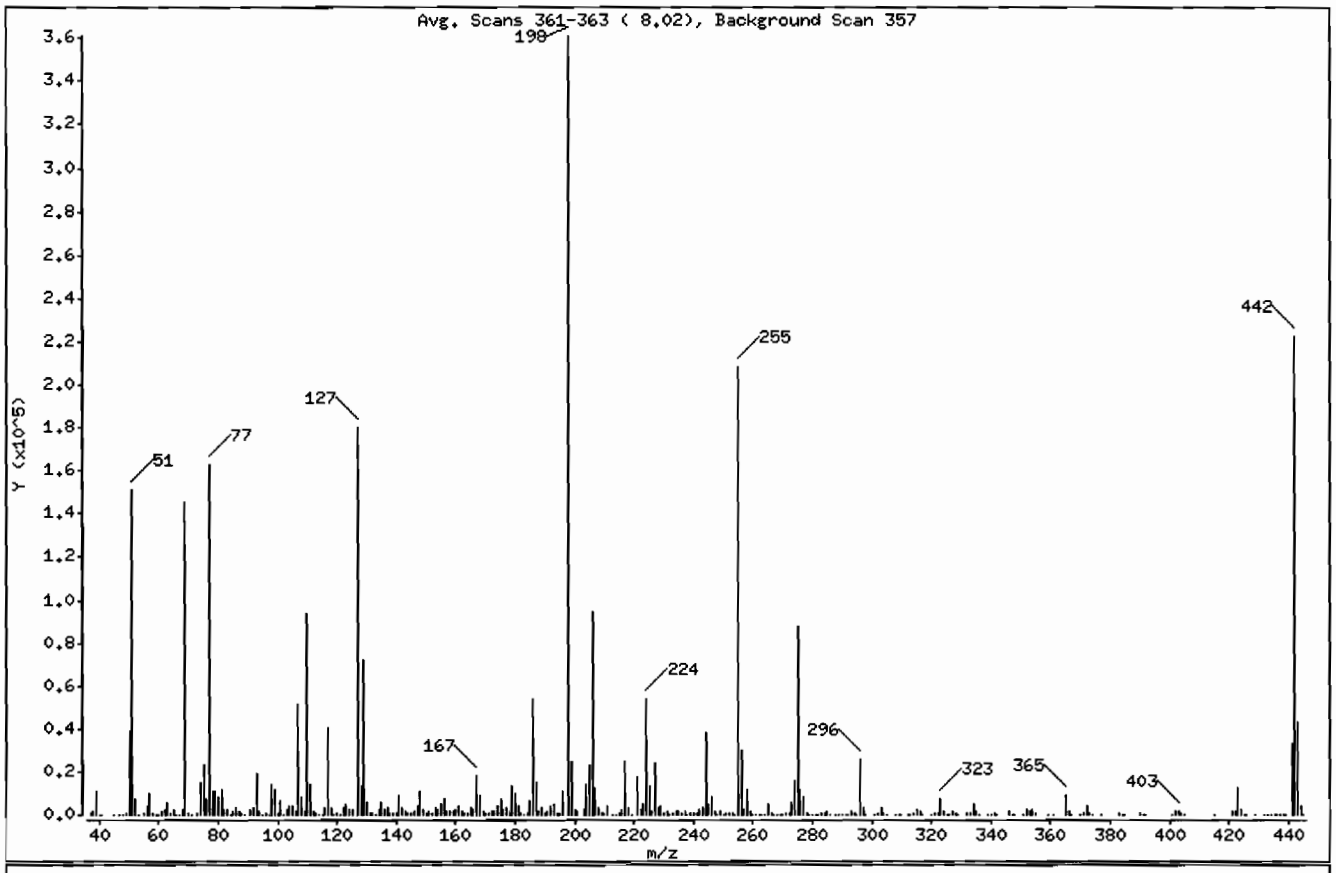

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	41.91
68	Less than 2.00% of mass 69	0.76 (1.89)
69	Mass 69 relative abundance	40.27
70	Less than 2.00% of mass 69	0.22 (0.56)
127	40.00 - 60.00% of mass 198	49.86
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.79
275	10.00 - 30.00% of mass 198	24.30
365	Greater than 1.00% of mass 198	2.63
441	Present, but less than mass 443	9.09
442	Greater than 40.00% of mass 198	61.67
443	17.00 - 23.00% of mass 442	11.88 (19.27)

Data File: /chem/MSD8.i/s022010.b/s8b2001.d

Date : 20-FEB-2010 12:04

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

Data File: s8b2001.d
Spectrum: Avg. Scans 361-363 (8.02), Background Scan 357
Location of Maximum: 198.00
Number of points: 333

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	636	129.00	72112	216.00	2111	304.00	793
38.00	1805	130.00	6198	217.00	25088	305.00	96
39.00	10515	131.00	1179	218.00	3223	308.00	368
40.00	135	132.00	719	219.00	274	309.00	231
41.00	281	133.00	246	221.00	17016	310.00	352
45.00	296	134.00	2094	222.00	2240	312.00	71
47.00	79	135.00	5474	223.00	5388	313.00	267
48.00	100	136.00	2273	224.00	53856	314.00	1186
49.00	1097	137.00	2986	225.00	13496	315.00	2886
50.00	38736	138.00	704	226.00	1520	316.00	1494
51.00	151296	139.00	433	227.00	24000	317.00	272
52.00	7819	140.00	888	228.00	3311	320.00	103
53.00	348	141.00	9408	229.00	4563	321.00	882
55.00	755	142.00	3186	230.00	691	322.00	424
56.00	4473	143.00	1904	231.00	1920	323.00	7824
57.00	10066	144.00	664	232.00	303	324.00	1477
58.00	547	145.00	475	233.00	448	325.00	190
59.00	111	146.00	1633	234.00	1560	326.00	188
60.00	164	147.00	4413	235.00	1679	327.00	1444
61.00	1759	148.00	10596	236.00	1024	328.00	743
62.00	2153	149.00	2303	237.00	1900	329.00	97
63.00	6125	150.00	612	238.00	252	332.00	590
64.00	883	151.00	1360	239.00	942	333.00	759
65.00	2765	152.00	728	240.00	677	334.00	5028
66.00	317	153.00	2923	241.00	1231	335.00	1370
67.00	157	154.00	2190	242.00	2711	336.00	167
68.00	2746	155.00	5079	243.00	3008	339.00	122
69.00	145408	156.00	7633	244.00	38520	340.00	144
70.00	809	157.00	1609	245.00	5292	341.00	1027
71.00	66	158.00	1859	246.00	8553	342.00	229
73.00	1006	159.00	1245	247.00	1526	346.00	1715
74.00	14753	160.00	2882	248.00	404	347.00	313
75.00	23536	161.00	4229	249.00	1334	348.00	34
76.00	7856	162.00	1249	250.00	237	351.00	95
77.00	162688	163.00	420	251.00	454	352.00	2254

Data File: /chem/MSD8.i/s022010.b/s8b2001.d

Date : 20-FEB-2010 12:04

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

Data File: s8b2001.d
Spectrum: Avg. Scans 361-363 (8.02), Background Scan 357
Location of Maximum: 198.00
Number of points: 333

m/z	Y	m/z	Y	m/z	Y	m/z	Y
78.00	11164	164.00	482	252.00	526	353.00	1685
79.00	11063	165.00	3411	253.00	1014	354.00	2374
80.00	8318	166.00	2886	254.00	246	355.00	442
81.00	11755	167.00	18128	255.00	208576	359.00	131
82.00	2698	168.00	8989	256.00	29864	361.00	41
83.00	2563	169.00	1693	257.00	2335	365.00	9500
84.00	292	170.00	689	258.00	11889	366.00	1267
85.00	2016	171.00	811	259.00	1946	367.00	41
86.00	3161	172.00	1827	260.00	327	370.00	143
87.00	1709	173.00	1985	261.00	323	371.00	544
88.00	611	174.00	3761	262.00	91	372.00	4073
89.00	242	175.00	7387	263.00	105	373.00	967
91.00	2732	176.00	2369	264.00	245	374.00	36
92.00	2924	177.00	3691	265.00	4904	377.00	41
93.00	18696	178.00	1264	266.00	660	383.00	924
94.00	1352	179.00	13514	267.00	81	384.00	271
95.00	383	180.00	9564	268.00	48	385.00	83
96.00	815	181.00	4172	269.00	46	390.00	495
97.00	300	182.00	737	270.00	217	391.00	390
98.00	14288	183.00	389	271.00	458	392.00	149
99.00	11396	184.00	1158	272.00	683	401.00	249
100.00	988	185.00	6644	273.00	6165	402.00	1263
101.00	6504	186.00	53976	274.00	16175	403.00	1933
102.00	385	187.00	15120	275.00	87720	404.00	757
103.00	2407	188.00	1626	276.00	11586	405.00	99
104.00	4126	189.00	3449	277.00	8344	415.00	104
105.00	3848	190.00	678	278.00	1175	421.00	1862
106.00	1319	191.00	1548	279.00	270	422.00	1706
107.00	51688	192.00	4531	280.00	40	423.00	12077
108.00	8074	193.00	4921	281.00	26	424.00	2784
109.00	1707	194.00	960	282.00	153	425.00	353
110.00	94192	195.00	585	283.00	954	426.00	35
111.00	14368	196.00	10955	284.00	633	429.00	49
112.00	1773	198.00	361024	285.00	1386	432.00	53
113.00	552	199.00	24520	286.00	247	433.00	99

Data File: /chem/MSD8.i/s022010.b/s8b2001.d

Date : 20-FEB-2010 12:04

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

Data File: s8b2001.d
Spectrum: Avg. Scans 361-363 (8.02), Background Scan 357
Location of Maximum: 198.00
Number of points: 333

m/z	Y	m/z	Y	m/z	Y	m/z	Y
114.00	137	200.00	2077	288.00	81	434.00	73
115.00	242	201.00	1683	289.00	256	435.00	109
116.00	2914	203.00	2421	290.00	281	436.00	130
117.00	40800	204.00	13892	291.00	185	437.00	215
118.00	3050	205.00	22864	292.00	403	438.00	351
119.00	350	206.00	94712	293.00	1882	439.00	245
120.00	773	207.00	12092	294.00	526	441.00	32832
121.00	290	208.00	3333	295.00	44	442.00	222592
122.00	3559	209.00	1153	296.00	25992	443.00	42896
123.00	5240	210.00	891	297.00	3524	444.00	3896
124.00	2349	211.00	3877	298.00	302	445.00	219
125.00	2177	213.00	294	301.00	317		
127.00	179968	214.00	128	302.00	514		
128.00	13270	215.00	1136	303.00	3030		

Data File: /chem/MSD8.i/s022010.b/s8b2013.d

Page 1

Date : 21-FEB-2010 08:35

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

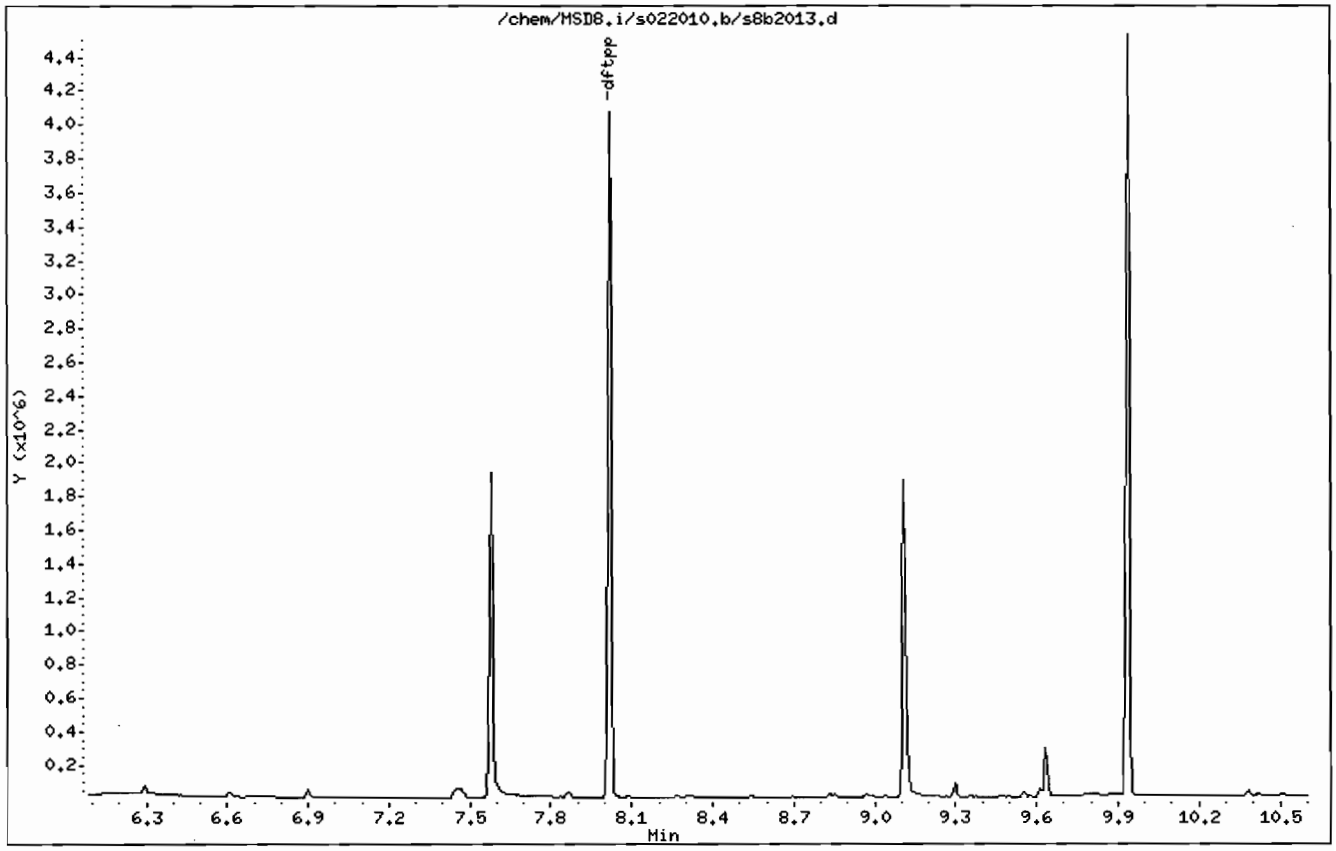

Data File: /chem/MSD8.i/s022010.b/s8b2013.d

Date : 21-FEB-2010 08:35

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: IWBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

1 dftpp

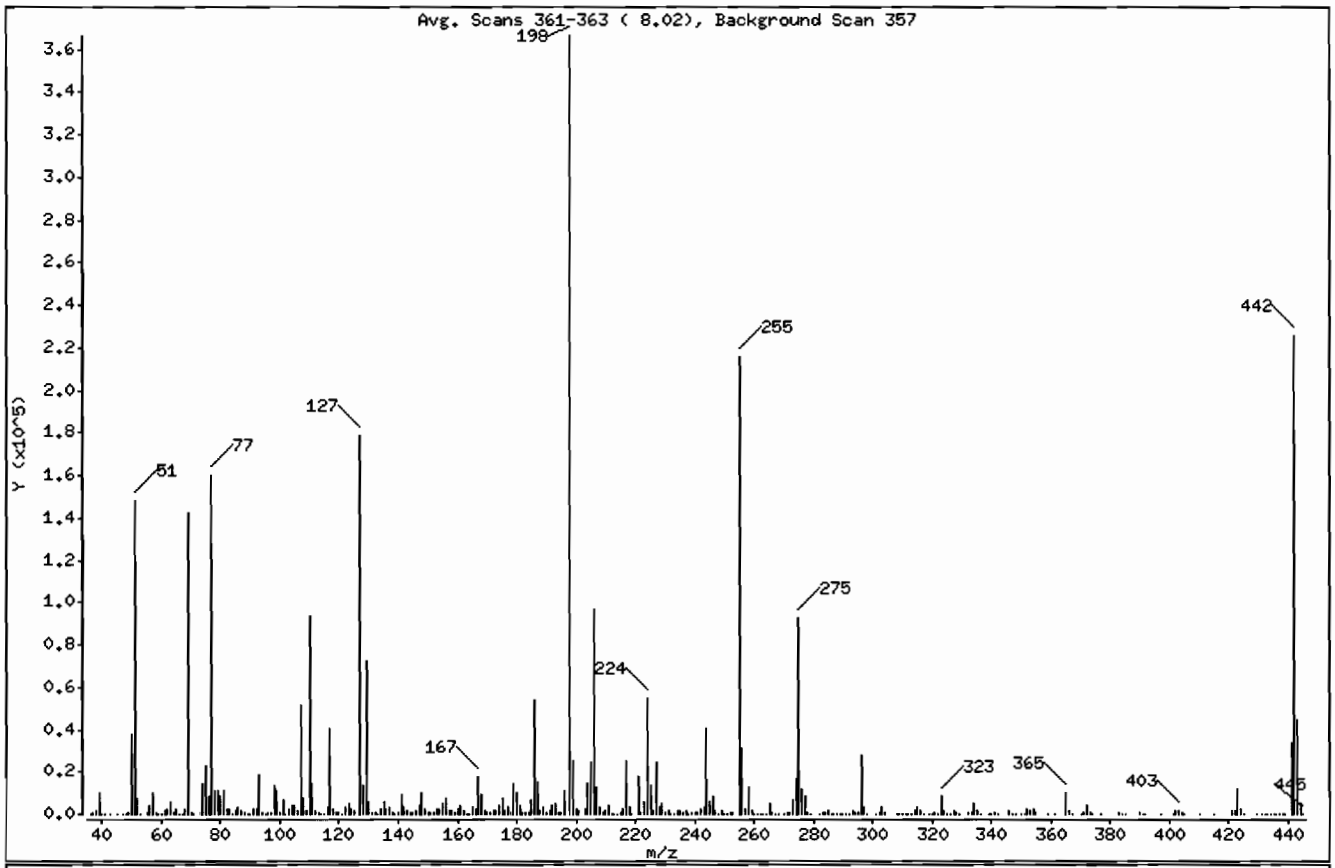

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	40.53
68	Less than 2.00% of mass 69	0.71 (1.84)
69	Mass 69 relative abundance	38.91
70	Less than 2.00% of mass 69	0.22 (0.56)
127	40.00 - 60.00% of mass 198	48.75
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.82
275	10.00 - 30.00% of mass 198	25.27
365	Greater than 1.00% of mass 198	2.78
441	Present, but less than mass 443	9.31
442	Greater than 40.00% of mass 198	61.67
443	17.00 - 23.00% of mass 442	12.15 (19.71)

Data File: /chem/MSD8.i/s022010.b/s8b2013.d

Date : 21-FEB-2010 08:35

Client ID: DFTPP | Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0 | Operator: nag1

Column phase: J & W DB-5MS | Column diameter: 0.20

Data File: s8b2013.d
Spectrum: Avg. Scans 361-363 (8.02), Background Scan 357
Location of Maximum: 198.00
Number of points: 338

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	56	127.00	178624	214.00	46	309.00	256
37.00	622	128.00	13701	215.00	1055	310.00	391
38.00	1670	129.00	72120	216.00	2351	311.00	40
39.00	10227	130.00	6084	217.00	25672	312.00	66
40.00	276	131.00	1249	218.00	3337	313.00	215
41.00	148	132.00	676	219.00	394	314.00	1282
43.00	81	133.00	345	221.00	17360	315.00	2979
45.00	175	134.00	2137	222.00	784	316.00	1571
47.00	75	135.00	5764	223.00	5854	317.00	345
48.00	135	136.00	2291	224.00	54384	319.00	39
49.00	1152	137.00	3163	225.00	13504	320.00	89
50.00	38328	138.00	613	226.00	1516	321.00	844
51.00	148480	139.00	305	227.00	24384	322.00	237
52.00	7983	140.00	874	228.00	3450	323.00	8074
53.00	379	141.00	9200	229.00	5126	324.00	1548
55.00	654	142.00	3293	230.00	654	325.00	173
56.00	4225	143.00	2051	231.00	1887	326.00	144
57.00	9800	144.00	620	232.00	354	327.00	1551
58.00	460	145.00	527	233.00	399	328.00	753
59.00	146	146.00	1802	234.00	1541	329.00	186
60.00	207	147.00	4607	235.00	1773	332.00	625
61.00	1930	148.00	10337	236.00	1054	333.00	892
62.00	2234	149.00	2168	237.00	1872	334.00	4922
63.00	5775	150.00	592	238.00	323	335.00	1472
64.00	828	151.00	1245	239.00	1019	336.00	124
65.00	2791	152.00	804	240.00	727	339.00	168
66.00	273	153.00	2889	241.00	1258	340.00	43
67.00	294	154.00	2254	242.00	2657	341.00	971
68.00	2618	155.00	4976	243.00	3024	342.00	281
69.00	142528	156.00	7917	244.00	40320	346.00	1742
70.00	801	157.00	1591	245.00	5613	347.00	411
71.00	110	158.00	1797	246.00	8746	348.00	42
73.00	982	159.00	1200	247.00	1601	350.00	100
74.00	14686	160.00	2833	248.00	402	351.00	114
75.00	23056	161.00	3964	249.00	1347	352.00	2446

Data File: /chem/MSD8.i/s022010.b/s8b2013.d

Date : 21-FEB-2010 08:35

Client ID: DFTPP | Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0 | Operator: nagl

Column phase: J & W DB-5MS | Column diameter: 0.20

Data File: s8b2013.d

Spectrum: Avg. Scans 361-363 (8.02), Background Scan 357

Location of Maximum: 198.00

Number of points: 338

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	8112	162.00	1292	250.00	297	353.00	1664
77.00	159808	163.00	370	251.00	407	354.00	2324
78.00	10752	164.00	418	252.00	537	355.00	613
79.00	10806	165.00	3457	253.00	973	359.00	188
80.00	8432	166.00	2678	255.00	216000	361.00	35
81.00	11175	167.00	17744	256.00	30888	365.00	10172
82.00	2848	168.00	9666	257.00	2348	366.00	1571
83.00	2358	169.00	1555	258.00	12794	367.00	123
84.00	380	170.00	598	259.00	1933	370.00	198
85.00	1937	171.00	742	260.00	364	371.00	652
86.00	3300	172.00	1586	261.00	405	372.00	4000
87.00	1567	173.00	2096	262.00	34	373.00	950
88.00	607	174.00	3829	263.00	99	374.00	88
89.00	261	175.00	7675	264.00	325	377.00	56
90.00	99	176.00	2028	265.00	5206	383.00	1037
91.00	2533	177.00	3616	266.00	733	384.00	350
92.00	2877	178.00	1241	267.00	130	385.00	59
93.00	18624	179.00	14050	268.00	1	390.00	434
94.00	1132	180.00	10302	270.00	314	391.00	386
95.00	384	181.00	4359	271.00	454	392.00	247
96.00	852	182.00	801	272.00	611	397.00	36
97.00	507	183.00	425	273.00	6575	401.00	218
98.00	13725	184.00	1104	274.00	16896	402.00	1420
99.00	11316	185.00	7010	275.00	92592	403.00	2003
100.00	984	186.00	53560	276.00	12112	404.00	730
101.00	6416	187.00	15376	277.00	8831	405.00	147
102.00	398	188.00	1621	278.00	1259	410.00	36
103.00	2271	189.00	3344	279.00	291	415.00	89
104.00	4172	190.00	507	282.00	228	421.00	1948
105.00	3955	191.00	1461	283.00	887	422.00	1783
106.00	1360	192.00	4556	284.00	657	423.00	12054
107.00	51416	193.00	5226	285.00	1565	424.00	2758
108.00	7732	194.00	1074	286.00	264	425.00	311
109.00	1415	195.00	648	287.00	35	429.00	89
110.00	93200	196.00	11299	288.00	114	431.00	91

Data File: /chem/MSD8.i/s022010.b/s8b2013.d

Date : 21-FEB-2010 08:35

Client ID: DFTPP | Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0 | Operator: nag1

Column phase: J & W DB-5MS | Column diameter: 0.20

Data File: s8b2013.d
Spectrum: Avg. Scans 361-363 (8.02), Background Scan 357
Location of Maximum: 198.00
Number of points: 338

m/z	Y	m/z	Y	m/z	Y	m/z	Y
111.00	14005	198.00	366464	289.00	359	432.00	75
112.00	1777	199.00	25008	290.00	221	433.00	42
113.00	565	200.00	2149	291.00	192	434.00	133
114.00	156	201.00	1762	292.00	407	435.00	174
115.00	309	203.00	2677	293.00	1828	436.00	69
116.00	2977	204.00	14145	294.00	475	437.00	142
117.00	40696	205.00	24104	295.00	609	438.00	145
118.00	2826	206.00	97072	296.00	27600	439.00	257
119.00	441	207.00	12482	297.00	3606	441.00	34104
120.00	684	208.00	3467	298.00	227	442.00	225984
121.00	249	209.00	1206	301.00	394	443.00	44536
122.00	3382	210.00	1778	302.00	459	444.00	4167
123.00	5335	211.00	3877	303.00	3092	445.00	202
124.00	2445	212.00	196	304.00	889		
125.00	2106	213.00	321	308.00	309		

Data File: /chem/MSD2.i/s030310a.b/s2c0307.d

Date : 03-MAR-2010 19:28

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

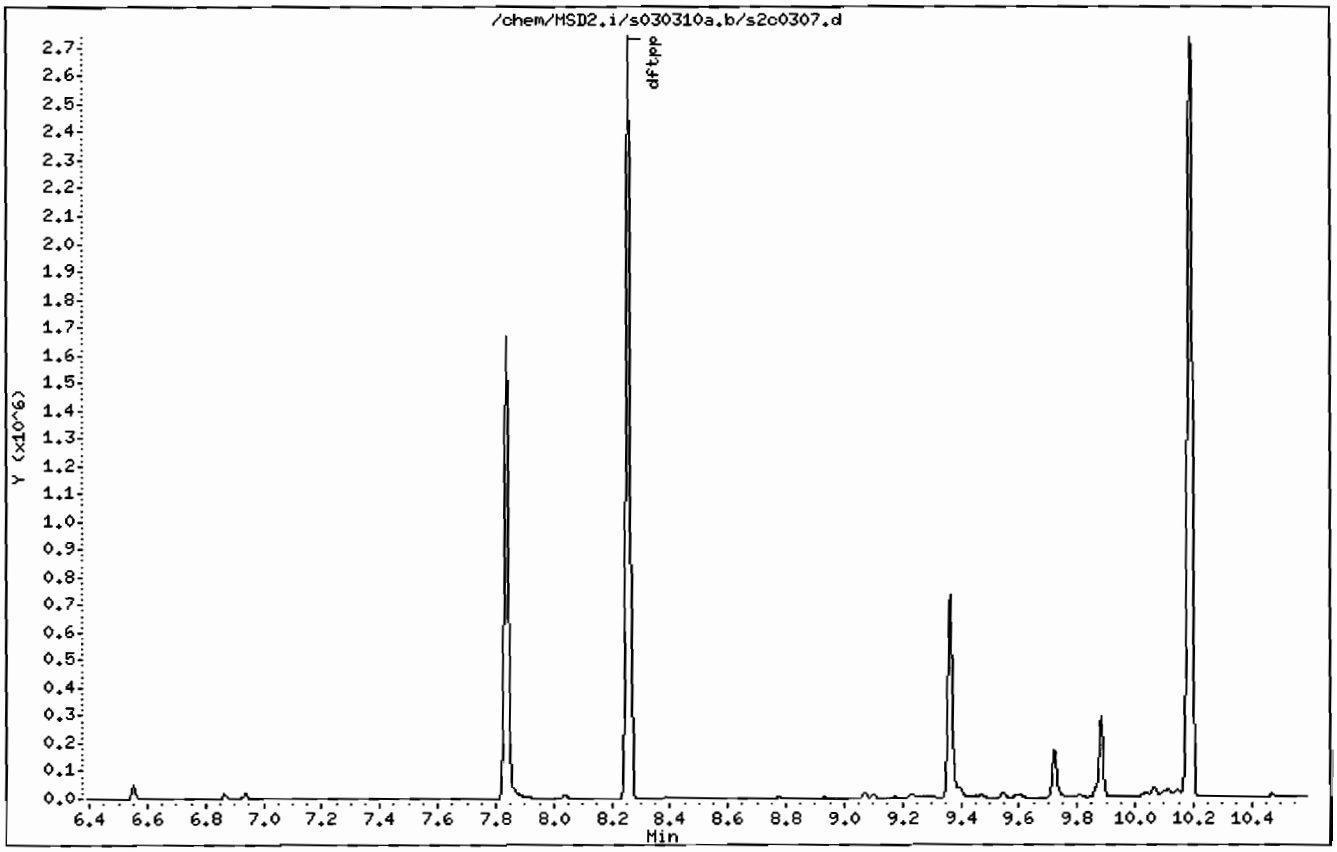

Data File: /chem/MSD2.i/s030310a.b/s2c0307.d

Date : 03-MAR-2010 19:28

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

1 dftpp

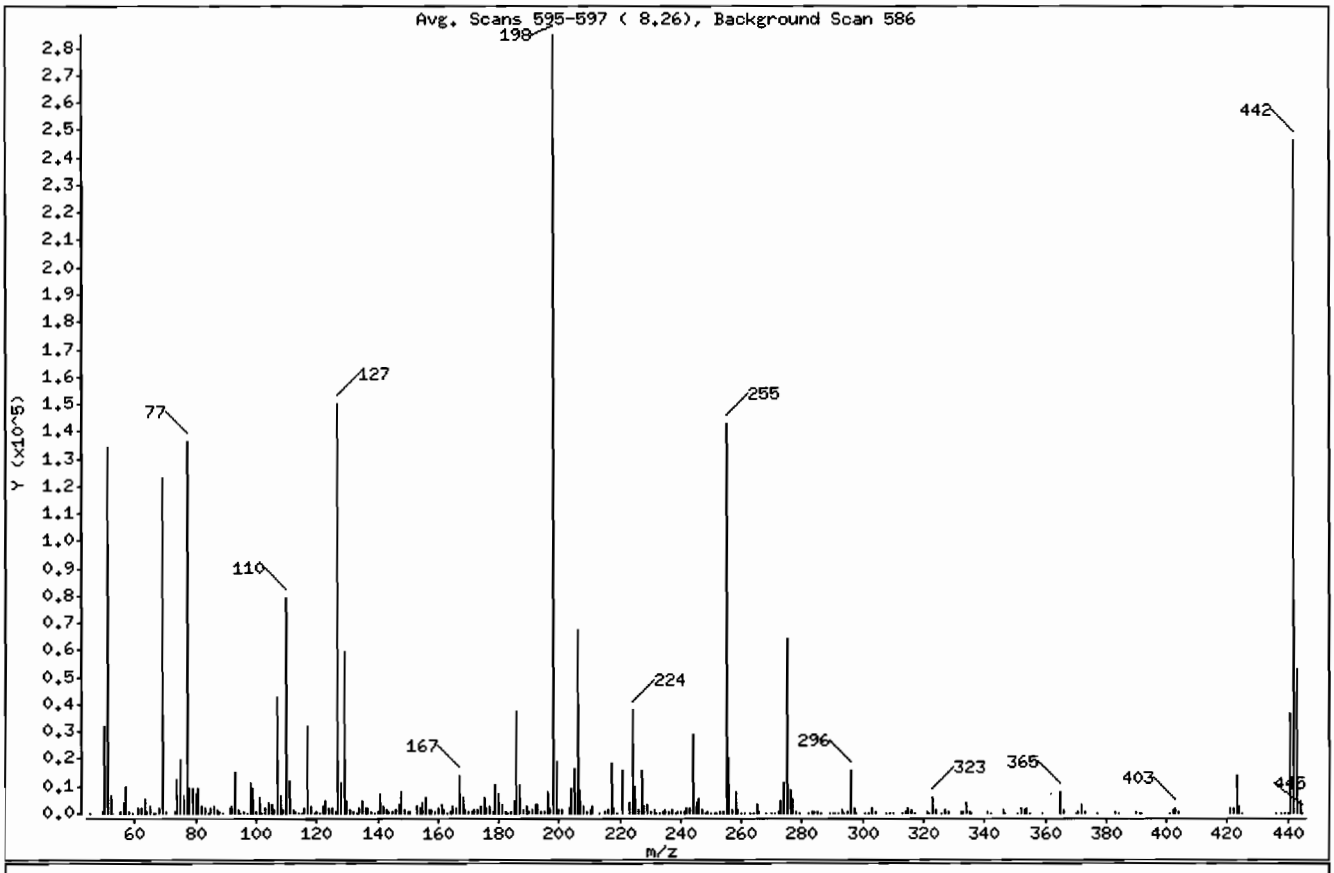

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	47.06
68	Less than 2.00% of mass 69	0.67 (1.56)
69	Mass 69 relative abundance	43.14
70	Less than 2.00% of mass 69	0.19 (0.45)
127	40.00 - 60.00% of mass 198	52.65
197	Less than 1.00% of mass 198	0.59
199	5.00 - 9.00% of mass 198	6.70
275	10.00 - 30.00% of mass 198	22.49
365	Greater than 1.00% of mass 198	2.77
441	Present, but less than mass 443	12.85
442	Greater than 40.00% of mass 198	86.32
443	17.00 - 23.00% of mass 442	18.51 (21.45)

Data File: /chem/MSD2.i/s030310a.b/s2c0307.d

Date : 03-MAR-2010 19:28

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s2c0307.d
Spectrum: Avg. Scans 595-597 (8.26), Background Scan 586
Location of Maximum: 198.00
Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
45.00	169	128.00	11166	205.00	16185	291.00	34
49.00	694	129.00	59600	206.00	67640	292.00	216
50.00	32352	130.00	4877	207.00	8821	293.00	1106
51.00	134080	131.00	985	208.00	2443	294.00	302
52.00	6661	132.00	540	209.00	683	295.00	381
53.00	273	133.00	203	210.00	1122	296.00	15947
55.00	592	134.00	1728	211.00	2695	297.00	2244
56.00	4110	135.00	4681	213.00	201	298.00	153
57.00	9644	136.00	1829	215.00	617	301.00	224
58.00	408	137.00	2264	216.00	1442	302.00	278
59.00	113	138.00	491	217.00	18080	303.00	2069
61.00	1698	139.00	280	218.00	2092	304.00	401
62.00	1808	140.00	760	219.00	211	308.00	184
63.00	5144	141.00	7210	221.00	15594	309.00	146
64.00	742	142.00	2298	223.00	4072	310.00	204
65.00	2665	143.00	1611	224.00	38320	313.00	99
66.00	233	144.00	399	225.00	9506	314.00	881
67.00	143	145.00	369	226.00	1047	315.00	1798
68.00	1920	146.00	1208	227.00	15972	316.00	1063
69.00	122936	147.00	3432	228.00	2365	317.00	179
70.00	551	148.00	7782	229.00	3215	321.00	625
73.00	881	149.00	1505	230.00	416	322.00	285
74.00	12210	150.00	422	231.00	1405	323.00	5838
75.00	19800	151.00	939	232.00	222	324.00	1022
76.00	6422	153.00	2300	233.00	250	326.00	116
77.00	136256	154.00	1745	234.00	952	327.00	1005
78.00	9111	155.00	3946	235.00	1131	328.00	614
79.00	8900	156.00	5944	236.00	686	332.00	455
80.00	6992	157.00	1381	237.00	1340	333.00	512
81.00	9481	158.00	1304	238.00	216	334.00	3853
82.00	2517	159.00	975	239.00	533	335.00	930
83.00	2203	160.00	2202	240.00	455	336.00	69
84.00	188	161.00	3407	241.00	910	341.00	630
85.00	1873	162.00	1002	242.00	1923	342.00	226
86.00	2503	163.00	271	243.00	2096	346.00	1112

Date : 03-MAR-2010 19:28

Client ID: DFTPP Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS Column diameter: 0.20

Data File: s2c0307.d
Spectrum: Avg. Scans 595-597 (8.26), Background Scan 586
Location of Maximum: 198.00
Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
87.00	1303	164.00	340	244.00	28712	347.00	203
88.00	516	165.00	2498	245.00	3664	351.00	69
89.00	243	166.00	2071	246.00	5328	352.00	1716
91.00	2285	167.00	13664	247.00	1162	353.00	1187
92.00	2312	168.00	6109	248.00	229	354.00	1952
93.00	15192	169.00	1067	249.00	917	355.00	316
94.00	1045	170.00	476	250.00	185	359.00	35
95.00	306	171.00	633	251.00	241	365.00	7899
96.00	759	172.00	1325	252.00	268	366.00	1111
97.00	260	173.00	1472	253.00	552	370.00	186
98.00	11433	174.00	2766	254.00	389	371.00	411
99.00	9199	175.00	5611	255.00	142784	372.00	3239
100.00	796	176.00	1785	256.00	20024	373.00	789
101.00	5624	177.00	2592	257.00	1601	377.00	74
102.00	321	178.00	944	258.00	7999	383.00	844
103.00	1891	179.00	10467	259.00	1364	384.00	187
104.00	3617	180.00	7219	260.00	222	390.00	425
105.00	3456	181.00	3132	261.00	229	391.00	282
106.00	1030	182.00	587	263.00	72	392.00	281
107.00	42864	183.00	254	264.00	295	401.00	144
108.00	6874	184.00	795	265.00	3316	402.00	1171
109.00	1163	185.00	4774	266.00	510	403.00	1697
110.00	79520	186.00	37368	268.00	123	404.00	566
111.00	11683	187.00	10475	270.00	208	421.00	1722
112.00	1437	188.00	1032	271.00	243	422.00	1672
113.00	525	189.00	2343	272.00	421	423.00	13446
114.00	87	190.00	413	273.00	4444	424.00	2732
115.00	166	191.00	1065	274.00	11120	425.00	322
116.00	2279	192.00	3012	275.00	64088	436.00	70
117.00	32072	193.00	3448	276.00	8458	438.00	102
118.00	2364	194.00	702	277.00	5183	439.00	174
119.00	268	195.00	501	278.00	892	440.00	63
120.00	526	196.00	8051	279.00	177	441.00	36608
121.00	157	197.00	1682	282.00	121	442.00	246016
122.00	2820	198.00	284992	283.00	600	443.00	52760

Data File: /chem/MSD2.i/s030310a.b/s2c0307.d

Date : 03-MAR-2010 19:28

Client ID: DFTPP

Instrument: MSD2.i

Sample Info: |WBN100207-01|50PPM|1|SVMF|1|DFTPP|

Operator: AGS1

Column phase: J&W DB-5MS

Column diameter: 0.20

Data File: s2c0307.d
Spectrum: Avg. Scans 595-597 (8.26), Background Scan 586
Location of Maximum: 198.00
Number of points: 297

m/z	Y	m/z	Y	m/z	Y	m/z	Y
123.00	4284	199.00	19096	284.00	381	444.00	4845
124.00	1887	200.00	1332	285.00	887	445.00	287
125.00	1951	201.00	1450	286.00	156		
126.00	434	203.00	1955	289.00	177		
127.00	150016	204.00	9408	290.00	139		

Data File: /chem/MSD8.i/s030310.b/s8c0307.d

Page 1

Date : 03-MAR-2010 13:25

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: IWBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

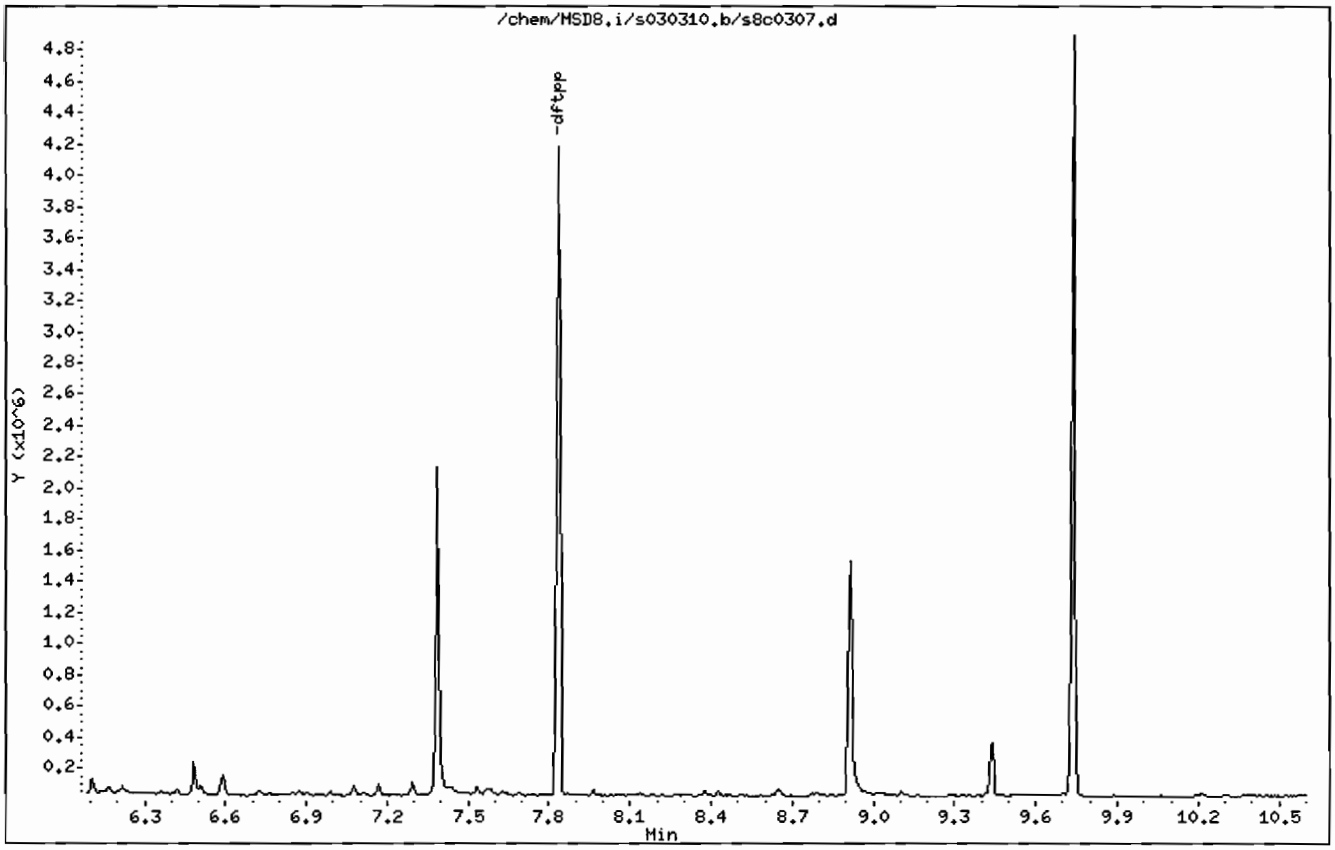

Data File: /chem/MSD8.i/s030310.b/s8c0307.d

Date : 03-MAR-2010 13:25

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

1 dftpp

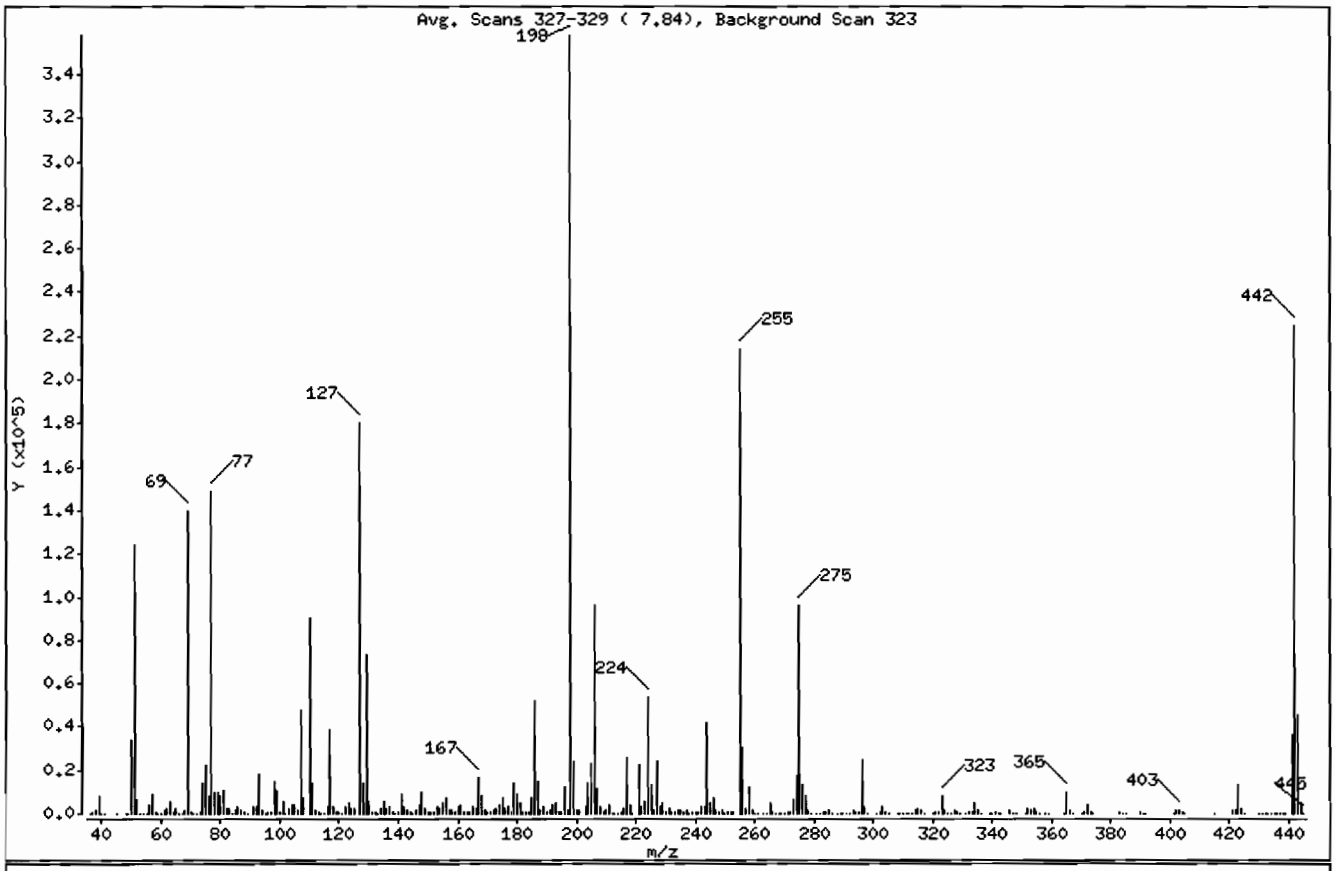

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	34.63
68	Less than 2.00% of mass 69	0.51 (1.30)
69	Mass 69 relative abundance	38.99
70	Less than 2.00% of mass 69	0.15 (0.40)
127	40.00 - 60.00% of mass 198	50.24
197	Less than 1.00% of mass 198	0.35
199	5.00 - 9.00% of mass 198	6.59
275	10.00 - 30.00% of mass 198	26.90
365	Greater than 1.00% of mass 198	2.87
441	Present, but less than mass 443	10.04
442	Greater than 40.00% of mass 198	62.84
443	17.00 - 23.00% of mass 442	12.54 (19.96)

Data File: /chem/MSD8.i/s030310.b/s8c0307.d

Date : 03-MAR-2010 13:25

Client ID: DFTPP

Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0

Operator: nag1

Column phase: J & W DB-5MS

Column diameter: 0.20

Data File: s8c0307.d
Spectrum: Avg. Scans 327-329 (7.84), Background Scan 323
Location of Maximum: 198.00
Number of points: 337

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	52	129.00	72912	215.00	1173	309.00	266
37.00	567	130.00	6055	216.00	2083	310.00	278
38.00	1435	131.00	1009	217.00	25424	311.00	45
39.00	7936	132.00	604	218.00	3753	312.00	79
40.00	262	133.00	281	219.00	356	313.00	312
41.00	133	134.00	2128	221.00	22424	314.00	1239
45.00	363	135.00	5446	222.00	2896	315.00	2581
48.00	46	136.00	2429	223.00	6126	316.00	1574
49.00	267	137.00	2907	224.00	53816	317.00	199
50.00	33496	138.00	496	225.00	13464	320.00	114
51.00	124008	139.00	30	226.00	1593	321.00	748
52.00	6493	140.00	859	227.00	23496	322.00	501
53.00	231	141.00	9265	228.00	3213	323.00	8262
54.00	4	142.00	2955	229.00	4582	324.00	1485
55.00	411	143.00	1977	230.00	621	325.00	174
56.00	3944	144.00	629	231.00	2275	326.00	202
57.00	9105	145.00	409	232.00	448	327.00	1417
58.00	517	146.00	1511	233.00	434	328.00	951
59.00	232	147.00	4314	234.00	1447	329.00	200
60.00	245	148.00	10094	235.00	1558	331.00	50
61.00	1803	149.00	2143	236.00	1062	332.00	651
62.00	2159	150.00	733	237.00	1770	333.00	819
63.00	5767	151.00	1195	238.00	360	334.00	4884
64.00	961	152.00	932	239.00	1063	335.00	1426
65.00	2604	153.00	2912	240.00	674	336.00	136
66.00	180	154.00	2120	241.00	1230	339.00	95
67.00	228	155.00	5142	242.00	3062	340.00	152
68.00	1815	156.00	7726	243.00	3169	341.00	937
69.00	139584	157.00	1742	244.00	41984	342.00	290
70.00	554	158.00	1784	245.00	5292	343.00	46
71.00	85	159.00	1225	246.00	7792	346.00	1624
72.00	167	160.00	2999	247.00	1595	347.00	322
73.00	1115	161.00	4172	248.00	474	348.00	51
74.00	14075	162.00	1193	249.00	1446	351.00	128
75.00	22272	163.00	615	250.00	296	352.00	2154

Data File: /chem/MSD8.i/s030310.b/s8c0307.d

Date : 03-MAR-2010 13:25

Client ID: DFTPP | Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0 | Operator: nag1

Column phase: J & W DB-5MS | Column diameter: 0.20

Data File: s8c0307.d
Spectrum: Avg. Scans 327-329 (7.84), Background Scan 323
Location of Maximum: 198.00
Number of points: 337

m/z	Y	m/z	Y	m/z	Y	m/z	Y
76.00	8086	164.00	658	251.00	447	353.00	1707
77.00	148736	165.00	3314	252.00	451	354.00	2280
78.00	9964	166.00	2607	253.00	1081	355.00	528
79.00	10031	167.00	16304	255.00	214400	356.00	38
80.00	8005	168.00	7835	256.00	30776	358.00	56
81.00	10730	169.00	1575	257.00	2600	359.00	155
82.00	2601	170.00	746	258.00	12333	364.00	92
83.00	2563	171.00	736	259.00	1741	365.00	10291
84.00	269	172.00	1686	260.00	390	366.00	1655
85.00	2014	173.00	2223	261.00	381	367.00	76
86.00	3502	174.00	4105	263.00	109	370.00	260
87.00	1594	175.00	7298	264.00	265	371.00	624
88.00	528	176.00	2247	265.00	5170	372.00	3782
89.00	163	177.00	3029	266.00	521	373.00	941
91.00	2973	178.00	1072	267.00	160	374.00	166
92.00	3022	179.00	13875	268.00	168	383.00	1082
93.00	18360	180.00	9271	269.00	56	384.00	351
94.00	1361	181.00	4582	270.00	377	385.00	39
95.00	161	182.00	876	271.00	499	390.00	467
96.00	754	183.00	517	272.00	699	391.00	329
97.00	549	184.00	1222	273.00	6181	392.00	322
98.00	14414	185.00	7156	274.00	16896	401.00	186
99.00	10872	186.00	51608	275.00	96336	402.00	1299
100.00	995	187.00	14688	276.00	13229	403.00	2057
101.00	5811	188.00	1508	277.00	8084	404.00	634
102.00	407	189.00	3277	278.00	1322	405.00	111
103.00	2481	190.00	703	279.00	351	415.00	86
104.00	4333	191.00	1482	281.00	146	421.00	1803
105.00	3746	192.00	4299	282.00	264	422.00	1778
106.00	1493	193.00	4654	283.00	942	423.00	12992
107.00	47536	194.00	1151	284.00	682	424.00	2611
108.00	7419	195.00	883	285.00	1363	425.00	292
110.00	90168	196.00	12235	286.00	298	430.00	134
111.00	13881	197.00	1250	288.00	48	431.00	81
112.00	1636	198.00	358144	289.00	273	432.00	106

Data File: /chem/MSD8.i/s030310.b/s8c0307.d

Date : 03-MAR-2010 13:25

Client ID: DFTPP | Instrument: MSD8.i

Sample Info: |WBN100207-01|50 PPM|1|SVMF|1|DFTPP

Volume Injected (uL): 1.0 | Operator: nag1

Column phase: J & W DB-5MS | Column diameter: 0.20

Data File: s8c0307.d
Spectrum: Avg. Scans 327-329 (7.84), Background Scan 323
Location of Maximum: 198.00
Number of points: 337

m/z	Y	m/z	Y	m/z	Y	m/z	Y
113.00	481	199.00	23600	290.00	292	433.00	60
114.00	199	200.00	2034	291.00	161	434.00	118
115.00	173	201.00	1949	292.00	374	435.00	272
116.00	3050	203.00	3009	293.00	1744	436.00	328
117.00	38304	204.00	13814	294.00	424	437.00	343
118.00	2919	205.00	23192	295.00	533	438.00	258
119.00	459	206.00	96248	296.00	24512	439.00	404
120.00	766	207.00	11937	297.00	3396	441.00	35944
121.00	332	208.00	3335	298.00	226	442.00	225024
122.00	3616	209.00	1136	301.00	385	443.00	44920
123.00	4839	210.00	1687	302.00	432	444.00	4143
124.00	2446	211.00	3728	303.00	3017	445.00	198
125.00	2127	212.00	319	304.00	814		
127.00	179904	213.00	303	305.00	54		
128.00	14286	214.00	136	308.00	343		

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**			**Matrix:**	**WATER**
Lab Sample ID:	**1202057395**				
Client Sample:	**QC for batch 959290**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 959290**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 14:41**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0310-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.0	ug/L	2.00	10.0
108-95-2	Phenol	U	10.0	ug/L	1.00	10.0
95-57-8	2-Chlorophenol	U	10.0	ug/L	2.00	10.0
106-46-7	1,4-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*	U	10.0	ug/L	2.00	10.0
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*	U	10.0	ug/L	2.00	10.0
83-32-9	Acenaphthene	U	1.00	ug/L	0.310	1.00
121-14-2	2,4-Dinitrotoluene	U	10.0	ug/L	2.00	10.0
100-02-7	4-Nitrophenol	U	10.0	ug/L	2.00	10.0
87-86-5	Pentachlorophenol	U	10.0	ug/L	2.00	10.0
129-00-0	Pyrene	U	1.00	ug/L	0.300	1.00
110-86-1	Pyridine	U	10.0	ug/L	3.00	10.0
62-53-3	Aniline	U	10.0	ug/L	2.50	10.0
111-44-4	bis(2-Chloroethyl) ether	U	10.0	ug/L	2.00	10.0
541-73-1	1,3-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
100-51-6	Benzyl alcohol	U	10.0	ug/L	2.00	10.0
95-50-1	1,2-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
108-60-1	bis(2-Chloroisopropyl)ether	U	10.0	ug/L	2.00	10.0
95-48-7	o-Cresol	U	10.0	ug/L	2.00	10.0
65794-96-9	m,p-Cresols	U	10.0	ug/L	3.00	10.0
67-72-1	Hexachloroethane	U	10.0	ug/L	2.00	10.0
98-95-3	Nitrobenzene	U	10.0	ug/L	3.00	10.0
78-59-1	Isophorone	U	10.0	ug/L	3.00	10.0
88-75-5	2-Nitrophenol	U	10.0	ug/L	2.00	10.0
105-67-9	2,4-Dimethylphenol	U	10.0	ug/L	2.00	10.0
111-91-1	bis(2-Chloroethoxy)methane	U	10.0	ug/L	3.00	10.0
120-83-2	2,4-Dichlorophenol	U	10.0	ug/L	2.00	10.0
65-85-0	Benzoic acid	U	20.0	ug/L	6.00	20.0
91-20-3	Naphthalene	U	1.00	ug/L	0.300	1.00
106-47-8	4-Chloroaniline	U	10.0	ug/L	2.00	10.0
87-68-3	Hexachlorobutadiene	U	10.0	ug/L	2.00	10.0
91-57-6	2-Methylnaphthalene	U	1.00	ug/L	0.300	1.00
90-12-0	1-Methylnaphthalene	U	1.00	ug/L	0.300	1.00
77-47-4	Hexachlorocyclopentadiene	U	10.0	ug/L	3.00	10.0
88-06-2	2,4,6-Trichlorophenol	U	10.0	ug/L	2.00	10.0
95-95-4	2,4,5-Trichlorophenol	U	10.0	ug/L	2.00	10.0
91-58-7	2-Chloronaphthalene	U	1.00	ug/L	0.300	1.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**			**Matrix:**	**WATER**
Lab Sample ID:	**1202057395**				
Client Sample:	**QC for batch 959290**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 959290**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 14:41**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0310-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.0	ug/L	2.00	10.0
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.0	ug/L	2.00	10.0
131-11-3	Dimethylphthalate	U	10.0	ug/L	2.00	10.0
606-20-2	2,6-Dinitrotoluene	U	10.0	ug/L	2.00	10.0
208-96-8	Acenaphthylene	U	1.00	ug/L	0.200	1.00
51-28-5	2,4-Dinitrophenol	U	20.0	ug/L	5.00	20.0
132-64-9	Dibenzofuran	U	10.0	ug/L	2.00	10.0
84-66-2	Diethylphthalate	U	10.0	ug/L	2.00	10.0
86-73-7	Fluorene	U	1.00	ug/L	0.200	1.00
7005-72-3	4-Chlorophenylphenylether	U	10.0	ug/L	2.00	10.0
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.0	ug/L	3.00	10.0
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.0	ug/L	3.00	10.0
122-39-4	Diphenylamine *1,2-Diphenylhydrazine*	U	10.0	ug/L	3.00	10.0
122-66-7	Azobenzene	U	10.0	ug/L	2.00	10.0
101-55-3	4-Bromophenylphenylether	U	10.0	ug/L	2.00	10.0
118-74-1	Hexachlorobenzene	U	10.0	ug/L	2.00	10.0
1912-24-9	Atrazine	U	10.0	ug/L	3.00	10.0
85-01-8	Phenanthrene	U	1.00	ug/L	0.200	1.00
120-12-7	Anthracene	U	1.00	ug/L	0.200	1.00
84-74-2	Di-n-butylphthalate	U	10.0	ug/L	2.00	10.0
206-44-0	Fluoranthene	U	1.00	ug/L	0.200	1.00
92-87-5	Benzidine	U	10.0	ug/L	3.00	10.0
85-68-7	Butylbenzylphthalate	U	10.0	ug/L	2.00	10.0
56-55-3	Benzo(a)anthracene	U	1.00	ug/L	0.200	1.00
91-94-1	3,3'-Dichlorobenzidine	U	10.0	ug/L	2.00	10.0
218-01-9	Chrysene	U	1.00	ug/L	0.200	1.00
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.0	ug/L	2.00	10.0
117-84-0	Di-n-octylphthalate	U	10.0	ug/L	3.00	10.0
205-99-2	Benzo(b)fluoranthene	U	1.00	ug/L	0.200	1.00
207-08-9	Benzo(k)fluoranthene	U	1.00	ug/L	0.200	1.00
50-32-8	Benzo(a)pyrene	U	1.00	ug/L	0.200	1.00
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.00	ug/L	0.200	1.00
53-70-3	Dibenzo(a,h)anthracene	U	1.00	ug/L	0.200	1.00
191-24-2	Benzo(ghi)perylene	U	1.00	ug/L	0.200	1.00
123-91-1	1,4-Dioxane	U	10.0	ug/L	2.00	10.0
55-18-5	N-Nitrosodiethylamine	U	10.0	ug/L	2.00	10.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**			**Matrix:**	**WATER**
Lab Sample ID:	**1202057395**				
Client Sample:	**QC for batch 959290**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 959290**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 14:41**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0310-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.0	ug/L	2.00	10.0
924-16-3	N-Nitrosodi-n-butylamine	U	10.0	ug/L	3.00	10.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.0	ug/L	3.00	10.0
608-93-5	Pentachlorobenzene	U	10.0	ug/L	3.00	10.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.0	ug/L	2.00	10.0
88-85-7	Dinoseb	U	10.0	ug/L	2.00	10.0
120-82-1	1,2,4-Trichlorobenzene	U	10.0	ug/L	2.00	10.0

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	72.1	100	ug/L	72.1	(39%-120%)
2-Fluorobiphenyl	32.8	50.0	ug/L	65.7	(38%-108%)
2-Fluorophenol	41.6	100	ug/L	41.6	(19%-98%)
Nitrobenzene-d5	31.9	50.0	ug/L	63.9	(31%-122%)
Phenol-d5	24.8	100	ug/L	24.8	(15%-83%)
p-Terphenyl-d14	52.8	50.0	ug/L	106	(40%-138%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030310.b/s8c0310-2.d
Lab Smp Id: 1202057395 Client Smp ID: SBLK01
Inj Date : 03-MAR-2010 14:41
Operator : nag1 Inst ID: MSD8.i
Smp Info : |1202057395|959294|1|SVMF|1|SBLK01
Misc Info : |MSD82709L|WBN100227-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Meth Date : 03-Mar-2010 15:34 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2057.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.354	4.354	(1.000)	494671	40.0000	
* 29 Naphthalene-d8	136	5.611	5.611	(1.000)	1872276	40.0000	
* 46 Acenaphthene-d10	164	7.463	7.463	(1.000)	1088385	40.0000	
* 67 Phenanthrene-d10	188	9.058	9.058	(1.000)	1782518	40.0000	
* 91 Chrysene-d12	240	11.939	11.944	(1.000)	1263915	40.0000	
* 98 Perylene-d12	264	13.987	13.992	(1.000)	962548	40.0000	
$ 3 2-Fluorophenol	112	3.206	3.201	(0.736)	485337	41.5581	41.6
$ 5 Phenol-d5	99	3.973	3.973	(0.912)	361546	24.8239	24.8
$ 20 Nitrobenzene-d5	82	4.877	4.877	(0.869)	425126	31.9419	31.9
$ 39 2-Fluorobiphenyl	172	6.734	6.735	(0.902)	1052095	32.8405	32.8
$ 60 2,4,6-Tribromophenol	329	8.306	8.306	(1.113)	259355	72.0870	72.1
$ 81 p-Terphenyl-d14	244	10.773	10.773	(0.902)	1200709	52.7666	52.8

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030310.b/s8c0310-2.d
Lab Smp Id: 1202057395 Client Smp ID: SBLK01
Inj Date : 03-MAR-2010 14:41
Operator : nag1 Inst ID: MSD8.i
Smp Info : |1202057395|959294|1|SVMF|1|SBLK01
Misc Info : |MSD82709L|WBN100227-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Meth Date : 03-Mar-2010 15:34 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 4 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2057.sub
Target Version: 3.50
Processing Host: hpclp1

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/MSD8.i/s030310.b/s8c0310-2.d
Date : 03-MAR-2010 14:41
Client ID: SBLK01
Sample Info: 1120205739519592941|1|SVHF|1|SBLK01
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: nag1
Column diameter: 0.20

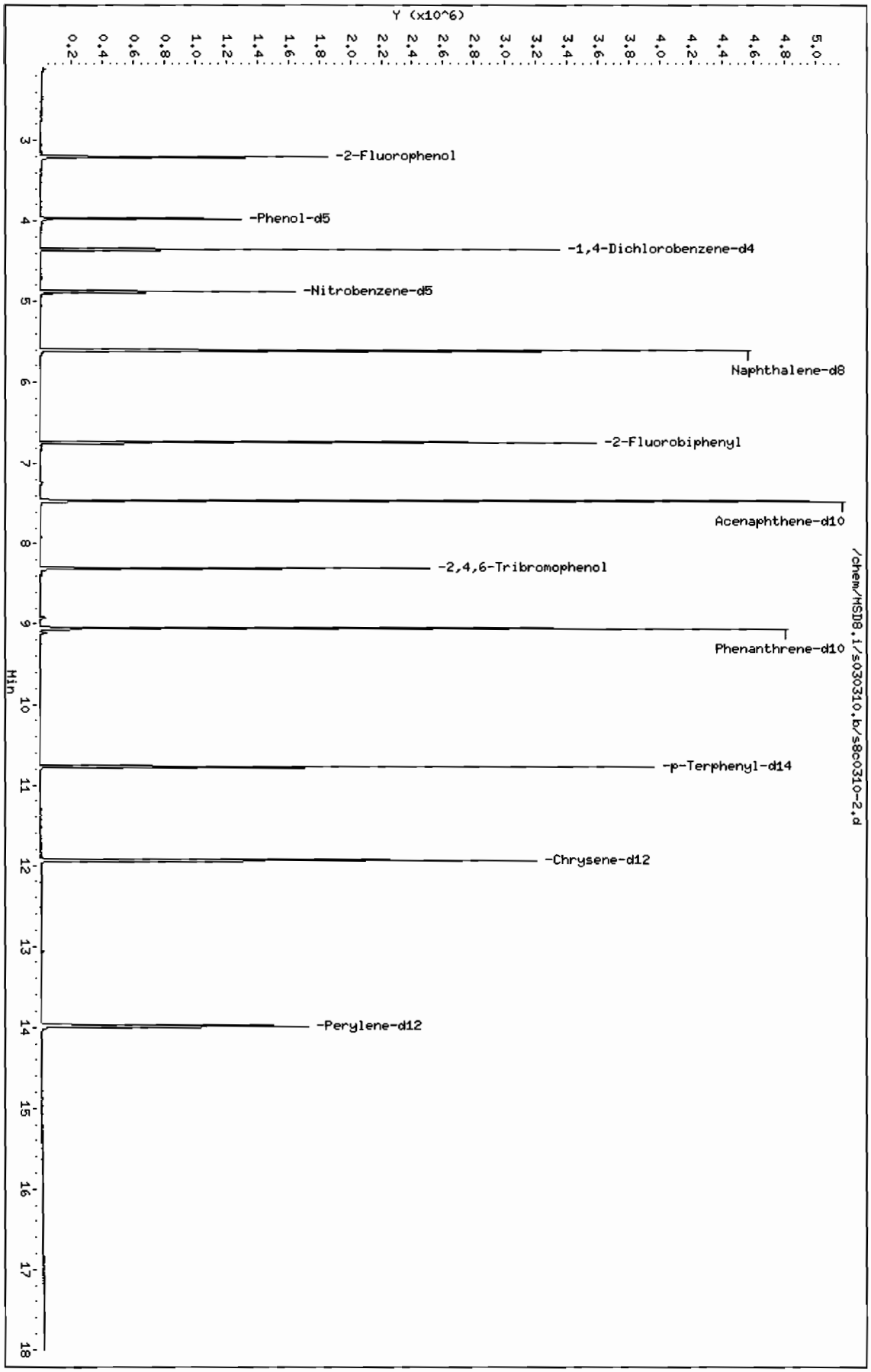

Page 1

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202058722**				
Client Sample:	**QC for batch 959838**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 959838**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 23:02**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0316-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine	U	10.0	ug/L	2.00	10.0
108-95-2	Phenol	U	10.0	ug/L	1.00	10.0
95-57-8	2-Chlorophenol	U	10.0	ug/L	2.00	10.0
106-46-7	1,4-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
621-64-7	N-Nitrosodi--n-propylamine	U	10.0	ug/L	2.00	10.0
	N-Nitrosodipropylamine					
59-50-7	Parachlorometa cresol	U	10.0	ug/L	2.00	10.0
	4-Chloro-3-methylphenol					
83-32-9	Acenaphthene	U	1.00	ug/L	0.310	1.00
121-14-2	2,4-Dinitrotoluene	U	10.0	ug/L	2.00	10.0
100-02-7	4-Nitrophenol	U	10.0	ug/L	2.00	10.0
87-86-5	Pentachlorophenol	U	10.0	ug/L	2.00	10.0
129-00-0	Pyrene	U	1.00	ug/L	0.300	1.00
110-86-1	Pyridine	U	10.0	ug/L	3.00	10.0
62-53-3	Aniline	U	10.0	ug/L	2.50	10.0
111-44-4	bis(2-Chloroethyl) ether	U	10.0	ug/L	2.00	10.0
541-73-1	1,3-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
100-51-6	Benzyl alcohol	U	10.0	ug/L	2.00	10.0
95-50-1	1,2-Dichlorobenzene	U	10.0	ug/L	2.00	10.0
108-60-1	bis(2-Chloroisopropyl)ether	U	10.0	ug/L	2.00	10.0
95-48-7	o-Cresol	U	10.0	ug/L	2.00	10.0
65794-96-9	m,p-Cresols	U	10.0	ug/L	3.00	10.0
67-72-1	Hexachloroethane	U	10.0	ug/L	2.00	10.0
98-95-3	Nitrobenzene	U	10.0	ug/L	3.00	10.0
78-59-1	Isophorone	U	10.0	ug/L	3.00	10.0
88-75-5	2-Nitrophenol	U	10.0	ug/L	2.00	10.0
105-67-9	2,4-Dimethylphenol	U	10.0	ug/L	2.00	10.0
111-91-1	bis(2-Chloroethoxy)methane	U	10.0	ug/L	3.00	10.0
120-83-2	2,4-Dichlorophenol	U	10.0	ug/L	2.00	10.0
65-85-0	Benzoic acid	U	20.0	ug/L	6.00	20.0
91-20-3	Naphthalene	U	1.00	ug/L	0.300	1.00
106-47-8	4-Chloroaniline	U	10.0	ug/L	2.00	10.0
87-68-3	Hexachlorobutadiene	U	10.0	ug/L	2.00	10.0
91-57-6	2-Methylnaphthalene	U	1.00	ug/L	0.300	1.00
90-12-0	1-Methylnaphthalene	U	1.00	ug/L	0.300	1.00
77-47-4	Hexachlorocyclopentadiene	U	10.0	ug/L	3.00	10.0
88-06-2	2,4,6-Trichlorophenol	U	10.0	ug/L	2.00	10.0
95-95-4	2,4,5-Trichlorophenol	U	10.0	ug/L	2.00	10.0
91-58-7	2-Chloronaphthalene	U	1.00	ug/L	0.300	1.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202058722**				
Client Sample:	**QC for batch 959838**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 959838**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 23:02**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0316-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*	U	10.0	ug/L	2.00	10.0
99-09-2	3-Nitroaniline *m-Nitroaniline*	U	10.0	ug/L	2.00	10.0
131-11-3	Dimethylphthalate	U	10.0	ug/L	2.00	10.0
606-20-2	2,6-Dinitrotoluene	U	10.0	ug/L	2.00	10.0
208-96-8	Acenaphthylene	U	1.00	ug/L	0.200	1.00
51-28-5	2,4-Dinitrophenol	U	20.0	ug/L	5.00	20.0
132-64-9	Dibenzofuran	U	10.0	ug/L	2.00	10.0
84-66-2	Diethylphthalate	U	10.0	ug/L	2.00	10.0
86-73-7	Fluorene	U	1.00	ug/L	0.200	1.00
7005-72-3	4-Chlorophenylphenylether	U	10.0	ug/L	2.00	10.0
534-52-1	2-Methyl-4,6-dinitrophenol	U	10.0	ug/L	3.00	10.0
100-01-6	4-Nitroaniline *p-Nitroaniline*	U	10.0	ug/L	3.00	10.0
122-39-4	Diphenylamine	U	10.0	ug/L	3.00	10.0
122-66-7	Azobenzene *1,2-Diphenylhydrazine*	U	10.0	ug/L	2.00	10.0
101-55-3	4-Bromophenylphenylether	U	10.0	ug/L	2.00	10.0
118-74-1	Hexachlorobenzene	U	10.0	ug/L	2.00	10.0
1912-24-9	Atrazine	U	10.0	ug/L	3.00	10.0
85-01-8	Phenanthrene	U	1.00	ug/L	0.200	1.00
120-12-7	Anthracene	U	1.00	ug/L	0.200	1.00
84-74-2	Di-n-butylphthalate	U	10.0	ug/L	2.00	10.0
206-44-0	Fluoranthene	U	1.00	ug/L	0.200	1.00
92-87-5	Benzidine	U	10.0	ug/L	3.00	10.0
85-68-7	Butylbenzylphthalate	U	10.0	ug/L	2.00	10.0
56-55-3	Benzo(a)anthracene	U	1.00	ug/L	0.200	1.00
91-94-1	3,3'-Dichlorobenzidine	U	10.0	ug/L	2.00	10.0
218-01-9	Chrysene	U	1.00	ug/L	0.200	1.00
117-81-7	bis(2-Ethylhexyl)phthalate	U	10.0	ug/L	2.00	10.0
117-84-0	Di-n-octylphthalate	U	10.0	ug/L	3.00	10.0
205-99-2	Benzo(b)fluoranthene	U	1.00	ug/L	0.200	1.00
207-08-9	Benzo(k)fluoranthene	U	1.00	ug/L	0.200	1.00
50-32-8	Benzo(a)pyrene	U	1.00	ug/L	0.200	1.00
193-39-5	Indeno(1,2,3-cd)pyrene	U	1.00	ug/L	0.200	1.00
53-70-3	Dibenzo(a,h)anthracene	U	1.00	ug/L	0.200	1.00
191-24-2	Benzo(ghi)perylene	U	1.00	ug/L	0.200	1.00
123-91-1	1,4-Dioxane	U	10.0	ug/L	2.00	10.0
55-18-5	N-Nitrosodiethylamine	U	10.0	ug/L	2.00	10.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202058722**				
Client Sample:	**QC for batch 959838**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 959838**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 23:02**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0316-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine	U	10.0	ug/L	2.00	10.0
924-16-3	N-Nitrosodi-n-butylamine	U	10.0	ug/L	3.00	10.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.0	ug/L	3.00	10.0
608-93-5	Pentachlorobenzene	U	10.0	ug/L	3.00	10.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.0	ug/L	2.00	10.0
88-85-7	Dinoseb	U	10.0	ug/L	2.00	10.0
120-82-1	1,2,4-Trichlorobenzene	U	10.0	ug/L	2.00	10.0

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	73.5	100	ug/L	73.5	(39%-120%)
2-Fluorobiphenyl	35.6	50.0	ug/L	71.3	(38%-108%)
2-Fluorophenol	42.8	100	ug/L	42.8	(19%-98%)
Nitrobenzene-d5	38.4	50.0	ug/L	76.7	(31%-122%)
Phenol-d5	26.8	100	ug/L	26.8	(15%-83%)
p-Terphenyl-d14	48.5	50.0	ug/L	97.1	(40%-138%)

Tentatively Identified Compound Summary

CAS No.	Tentatively Identified Compound (TIC)	RT	Estimated	Units	Fit	Qual
	No Tentatively Identified Compounds Found			ug/L		

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Data file : /chem/MSD2.i/s030310a.b/s2c0316-2.d
Lab Smp Id: 1202058722 Client Smp ID: SBLK02
Inj Date : 03-MAR-2010 23:02
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202058722|959852|1|SVM|1|MB
Misc Info : |MSD82709L|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Meth Date : 03-Mar-2010 22:22 ann00964 Quant Type: ISTD
Cal Date : 27-FEB-2010 17:29 Cal File: s2b2568.d
Als bottle: 16 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2057.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.003	4.009	(1.000)	345053	40.0000	
* 29 Naphthalene-d8	136	4.870	4.875	(1.000)	1359001	40.0000	
* 46 Acenaphthene-d10	164	6.116	6.121	(1.000)	768084	40.0000	
* 67 Phenanthrene-d10	188	7.095	7.100	(1.000)	1250714	40.0000	
* 91 Chrysene-d12	240	8.796	8.806	(1.000)	910091	40.0000	
* 98 Perylene-d12	264	10.347	10.358	(1.000)	662243	40.0000	
$ 3 2-Fluorophenol	112	3.190	3.190	(0.797)	465624	42.7700	42.8
$ 5 Phenol-d5	99	3.709	3.715	(0.927)	382552	26.7637	26.8
$ 20 Nitrobenzene-d5	82	4.367	4.372	(0.897)	499047	38.3714	38.4
$ 39 2-Fluorobiphenyl	172	5.613	5.613	(0.918)	758204	35.6432	35.6
$ 60 2,4,6-Tribromophenol	329	6.646	6.646	(1.087)	205087	73.5053	73.5
$ 81 p-Terphenyl-d14	244	8.009	8.015	(0.911)	785029	48.5384	48.5

GEL Laboratories LLC

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Data file : /chem/MSD2.i/s030310a.b/s2c0316-2.d
Lab Smp Id: 1202058722 Client Smp ID: SBLK02
Inj Date : 03-MAR-2010 23:02
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202058722|959852|1|SVM|1|MB
Misc Info : |MSD82709L|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Meth Date : 03-Mar-2010 22:22 ann00964 Quant Type: ISTD
Cal Date : 27-FEB-2010 17:29 Cal File: s2b2568.d
Als bottle: 16 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2057.sub
Target Version: 3.50
Processing Host: hpclp1

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Data File: /chem/MSD2.i/s030310a.b/s2c0316-2.d
Date : 03-MAR-2010 23:02
Client ID: SBLK02
Sample Info: |1202058722|959852|1|SVM|1|MB
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i

Operator: AGS1
Column diameter: 0.20

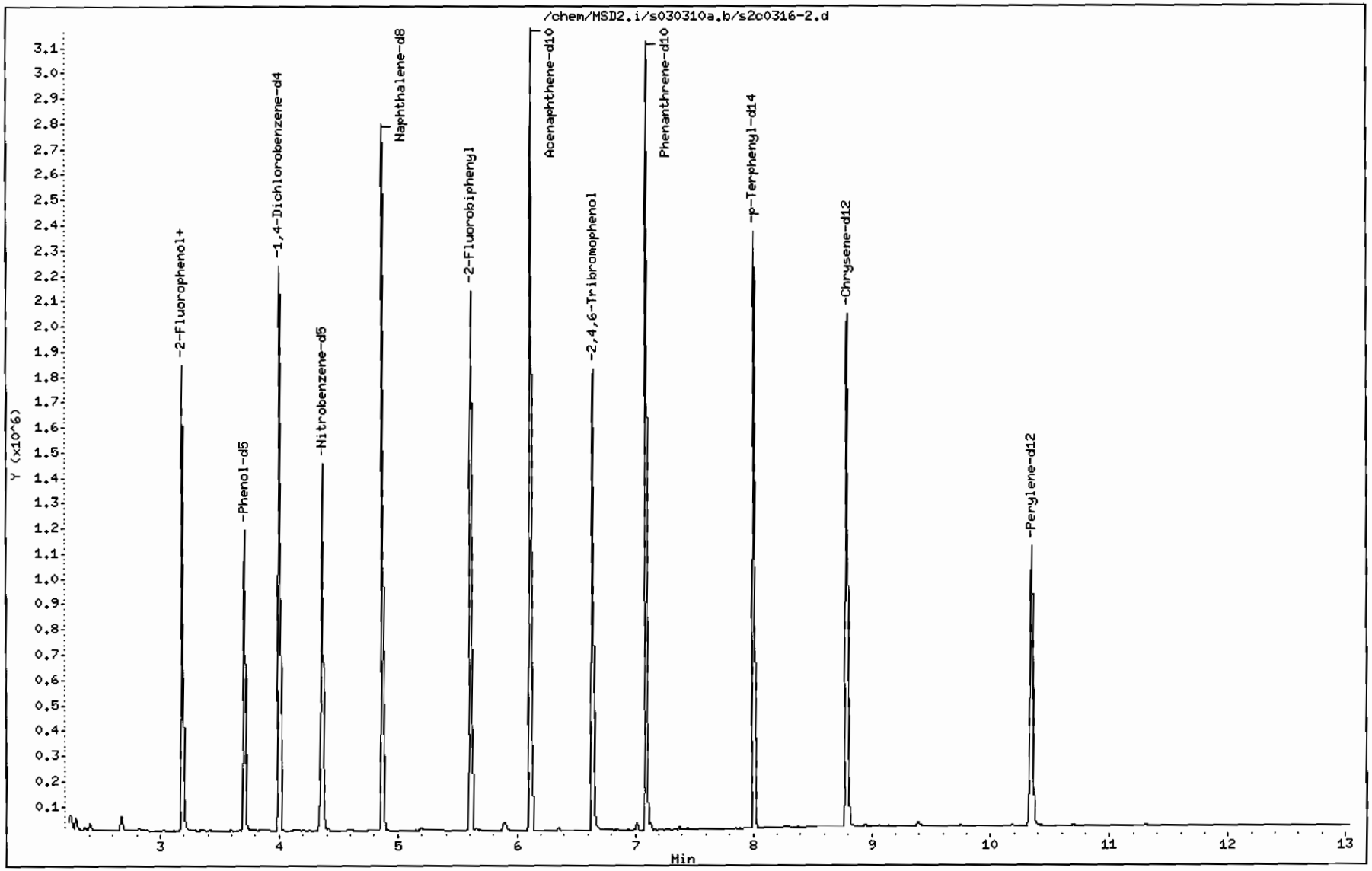

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**			**Matrix:**	**WATER**
Lab Sample ID:	**1202057398**				
Client Sample:	**QC for batch 959290**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 959290**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 15:11**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0311-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		20.1	ug/L	2.00	10.0
108-95-2	Phenol		12.9	ug/L	1.00	10.0
95-57-8	2-Chlorophenol		33.0	ug/L	2.00	10.0
106-46-7	1,4-Dichlorobenzene		28.1	ug/L	2.00	10.0
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*		33.6	ug/L	2.00	10.0
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*		32.9	ug/L	2.00	10.0
83-32-9	Acenaphthene		30.2	ug/L	0.310	1.00
121-14-2	2,4-Dinitrotoluene		38.9	ug/L	2.00	10.0
100-02-7	4-Nitrophenol		11.1	ug/L	2.00	10.0
87-86-5	Pentachlorophenol		38.7	ug/L	2.00	10.0
129-00-0	Pyrene		34.6	ug/L	0.300	1.00
110-86-1	Pyridine		25.8	ug/L	3.00	10.0
62-53-3	Aniline		32.2	ug/L	2.50	10.0
111-44-4	bis(2-Chloroethyl) ether		28.6	ug/L	2.00	10.0
541-73-1	1,3-Dichlorobenzene		28.3	ug/L	2.00	10.0
100-51-6	Benzyl alcohol		24.1	ug/L	2.00	10.0
95-50-1	1,2-Dichlorobenzene		29.2	ug/L	2.00	10.0
108-60-1	bis(2-Chloroisopropyl)ether		23.7	ug/L	2.00	10.0
95-48-7	o-Cresol		27.2	ug/L	2.00	10.0
65794-96-9	m,p-Cresols		27.8	ug/L	3.00	10.0
67-72-1	Hexachloroethane		25.6	ug/L	2.00	10.0
98-95-3	Nitrobenzene		31.7	ug/L	3.00	10.0
78-59-1	Isophorone		35.9	ug/L	3.00	10.0
88-75-5	2-Nitrophenol		35.0	ug/L	2.00	10.0
105-67-9	2,4-Dimethylphenol		33.2	ug/L	2.00	10.0
111-91-1	bis(2-Chloroethoxy)methane		35.1	ug/L	3.00	10.0
120-83-2	2,4-Dichlorophenol		35.8	ug/L	2.00	10.0
65-85-0	Benzoic acid		31.7	ug/L	6.00	20.0
91-20-3	Naphthalene		31.9	ug/L	0.300	1.00
106-47-8	4-Chloroaniline		42.2	ug/L	2.00	10.0
87-68-3	Hexachlorobutadiene		26.6	ug/L	2.00	10.0
91-57-6	2-Methylnaphthalene		33.7	ug/L	0.300	1.00
90-12-0	1-Methylnaphthalene		33.5	ug/L	0.300	1.00
77-47-4	Hexachlorocyclopentadiene		17.5	ug/L	3.00	10.0
88-06-2	2,4,6-Trichlorophenol		37.1	ug/L	2.00	10.0
95-95-4	2,4,5-Trichlorophenol		34.7	ug/L	2.00	10.0
91-58-7	2-Chloronaphthalene		30.8	ug/L	0.300	1.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**			**Matrix:**	**WATER**
Lab Sample ID:	**1202057398**				
Client Sample:	**QC for batch 959290**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 959290**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 15:11**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0311-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*		31.4	ug/L	2.00	10.0
99-09-2	3-Nitroaniline *m-Nitroaniline*		39.6	ug/L	2.00	10.0
131-11-3	Dimethylphthalate		41.9	ug/L	2.00	10.0
606-20-2	2,6-Dinitrotoluene		39.6	ug/L	2.00	10.0
208-96-8	Acenaphthylene		33.4	ug/L	0.200	1.00
51-28-5	2,4-Dinitrophenol		34.1	ug/L	5.00	20.0
132-64-9	Dibenzofuran		34.2	ug/L	2.00	10.0
84-66-2	Diethylphthalate		41.5	ug/L	2.00	10.0
86-73-7	Fluorene		32.9	ug/L	0.200	1.00
7005-72-3	4-Chlorophenylphenylether		34.2	ug/L	2.00	10.0
534-52-1	2-Methyl-4,6-dinitrophenol		33.7	ug/L	3.00	10.0
100-01-6	4-Nitroaniline *p-Nitroaniline*		42.4	ug/L	3.00	10.0
122-39-4	Diphenylamine *1,2-Diphenylhydrazine*		43.3	ug/L	3.00	10.0
122-66-7	Azobenzene		37.3	ug/L	2.00	10.0
101-55-3	4-Bromophenylphenylether		38.7	ug/L	2.00	10.0
118-74-1	Hexachlorobenzene		38.6	ug/L	2.00	10.0
1912-24-9	Atrazine		52.0	ug/L	3.00	10.0
85-01-8	Phenanthrene		37.5	ug/L	0.200	1.00
120-12-7	Anthracene		36.0	ug/L	0.200	1.00
84-74-2	Di-n-butylphthalate		46.7	ug/L	2.00	10.0
206-44-0	Fluoranthene		37.6	ug/L	0.200	1.00
92-87-5	Benzidine		39.8	ug/L	3.00	10.0
85-68-7	Butylbenzylphthalate		46.6	ug/L	2.00	10.0
56-55-3	Benzo(a)anthracene		35.7	ug/L	0.200	1.00
91-94-1	3,3'-Dichlorobenzidine		37.4	ug/L	2.00	10.0
218-01-9	Chrysene		39.5	ug/L	0.200	1.00
117-81-7	bis(2-Ethylhexyl)phthalate		48.3	ug/L	2.00	10.0
117-84-0	Di-n-octylphthalate		42.4	ug/L	3.00	10.0
205-99-2	Benzo(b)fluoranthene		35.4	ug/L	0.200	1.00
207-08-9	Benzo(k)fluoranthene		37.6	ug/L	0.200	1.00
50-32-8	Benzo(a)pyrene		38.4	ug/L	0.200	1.00
193-39-5	Indeno(1,2,3-cd)pyrene		40.4	ug/L	0.200	1.00
53-70-3	Dibenzo(a,h)anthracene		52.2	ug/L	0.200	1.00
191-24-2	Benzo(ghi)perylene		48.9	ug/L	0.200	1.00
123-91-1	1,4-Dioxane		27.3	ug/L	2.00	10.0
55-18-5	N-Nitrosodiethylamine	U	10.0	ug/L	2.00	10.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**			**Matrix:**	**WATER**
Lab Sample ID:	**1202057398**				
Client Sample:	**QC for batch 959290**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 959290**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959294**	**Inst:**	**MSD8.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 15:11**	**Analyst:**	**NAG1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/01/2010 23:33**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s8c0311-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine		32.5	ug/L	2.00	10.0
924-16-3	N-Nitrosodi-n-butylamine	U	10.0	ug/L	3.00	10.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.0	ug/L	3.00	10.0
608-93-5	Pentachlorobenzene	U	10.0	ug/L	3.00	10.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.0	ug/L	2.00	10.0
88-85-7	Dinoseb	U	10.0	ug/L	2.00	10.0
120-82-1	1,2,4-Trichlorobenzene		29.1	ug/L	2.00	10.0

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	80.4	100	ug/L	80.4	(39%-120%)
2-Fluorobiphenyl	32.5	50.0	ug/L	65.1	(38%-108%)
2-Fluorophenol	41.1	100	ug/L	41.1	(19%-98%)
Nitrobenzene-d5	32.4	50.0	ug/L	64.8	(31%-122%)
Phenol-d5	24.5	100	ug/L	24.5	(15%-83%)
p-Terphenyl-d14	43.4	50.0	ug/L	86.8	(40%-138%)

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Data file : /chem/MSD8.i/s030310.b/s8c0311-2.d
Lab Smp Id: 1202057398 Client Smp ID: SBLK01LCS
Inj Date : 03-MAR-2010 15:11
Operator : nagl Inst ID: MSD8.i
Smp Info : |1202057398|959294|1|SVMF|1|SBLK01LCS
Misc Info : |MSD82709L|WBN100227-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Meth Date : 04-Mar-2010 07:36 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 5 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2057.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.354	4.354	(1.000)	388983	40.0000	
* 29 Naphthalene-d8	136	5.611	5.611	(1.000)	1478511	40.0000	
* 46 Acenaphthene-d10	164	7.463	7.463	(1.000)	902508	40.0000	
* 67 Phenanthrene-d10	188	9.059	9.058	(1.000)	1576300	40.0000	
* 91 Chrysene-d12	240	11.944	11.944	(1.000)	1412049	40.0000	
* 98 Perylene-d12	264	13.992	13.992	(1.000)	1087893	40.0000	
$ 3 2-Fluorophenol	112	3.201	3.201	(0.735)	377620	41.1200	41.1
$ 5 Phenol-d5	99	3.973	3.973	(0.912)	280452	24.4879	24.5
$ 20 Nitrobenzene-d5	82	4.882	4.877	(0.870)	340272	32.3754	32.4
$ 39 2-Fluorobiphenyl	172	6.739	6.735	(0.903)	864259	32.5335	32.5
$ 60 2,4,6-Tribromophenol	329	8.306	8.306	(1.113)	239868	80.4019	80.4
$ 81 p-Terphenyl-d14	244	10.773	10.773	(0.902)	1103664	43.4136	43.4
6 Phenol	94	3.987	3.987	(0.916)	153035	12.9397	12.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	4.154	4.154	(0.954)	338508	32.9620	33.0
11 1,4-Dichlorobenzene	146	4.368	4.368	(1.003)	352992	28.0918	28.1
17 N-Nitrosodipropylamine	70	4.725	4.725	(1.085)	253958	33.5720	33.6(Q)
28 1,2,4-Trichlorobenzene	180	5.549	5.549	(0.989)	313546	29.1322	29.1
33 4-Chloro-3-methylphenol	107	6.173	6.168	(1.100)	284912	32.9000	32.9
47 Acenaphthene	154	7.497	7.497	(1.004)	724039	30.1899	30.2
50 2,4-Dinitrotoluene	165	7.663	7.663	(1.027)	285115	38.8913	38.9
52 4-Nitrophenol	139	7.582	7.578	(1.016)	34261	11.1214	11.1
65 Pentachlorophenol	266	8.849	8.844	(0.977)	135115	38.7456	38.7
79 Pyrene	202	10.611	10.606	(0.888)	1524481	34.5786	34.6
2 Pyridine	79	2.277	2.273	(0.523)	224026	25.7764	25.8
4 Aniline	66	4.044	4.044	(0.929)	173962	32.2077	32.2
7 bis(2-Chloroethyl) ether	63	4.092	4.087	(0.940)	231210	28.5960	28.6
9 1,3-Dichlorobenzene	146	4.301	4.301	(0.988)	344821	28.3127	28.3
12 Benzyl alcohol	108	4.468	4.463	(1.026)	154741	24.0889	24.1
13 1,2-Dichlorobenzene	146	4.511	4.511	(1.036)	341111	29.1839	29.2
14 bis(2-Chloroisopropyl)ether	45	4.597	4.597	(1.056)	375055	23.6584	23.6
15 o-Cresol	107	4.558	4.558	(1.047)	223078	27.1595	27.2
18 m,p-Cresols	107	4.706	4.706	(1.081)	289376	27.8392	27.8
19 Hexachloroethane	117	4.839	4.839	(1.112)	121026	25.5582	25.6
21 Nitrobenzene	77	4.901	4.897	(0.874)	344096	31.7389	31.7
22 Isophorone	82	5.135	5.135	(0.915)	715789	35.8618	35.9
23 2-Nitrophenol	139	5.216	5.216	(0.930)	174173	35.0037	35.0
24 2,4-Dimethylphenol	122	5.239	5.239	(0.934)	293850	33.2183	33.2
25 bis(2-Chloroethoxy)methane	93	5.344	5.344	(0.952)	393056	35.1161	35.1
26 2,4-Dichlorophenol	162	5.458	5.454	(0.973)	286445	35.7878	35.8
27 Benzoic acid	105	5.320	5.320	(0.948)	106141	31.6539	31.6
30 Naphthalene	128	5.635	5.630	(1.004)	1014489	31.9005	31.9
31 4-Chloroaniline	127	5.678	5.677	(1.012)	445824	42.1945	42.2
32 Hexachlorobutadiene	225	5.754	5.754	(1.025)	177867	26.5719	26.6
34 2-Methylnaphthalene	142	6.354	6.354	(1.132)	719343	33.6810	33.7
35 1-Methylnaphthalene	142	6.458	6.458	(1.151)	701560	33.4978	33.5
36 Hexachlorocyclopentadiene	237	6.516	6.516	(0.873)	97840	17.4665	17.5
37 2,4,6-Trichlorophenol	196	6.644	6.644	(0.890)	258169	37.1279	37.1
38 2,4,5-Trichlorophenol	196	6.682	6.678	(0.895)	256384	34.7384	34.7
40 2-Chloronaphthalene	162	6.868	6.868	(0.920)	680004	30.8182	30.8
42 o-Nitroaniline	65	6.968	6.968	(0.934)	193839	31.3635	31.4
41 m-Nitroaniline	138	7.411	7.411	(0.993)	186406	39.5730	39.6
43 Dimethylphthalate	163	7.168	7.168	(0.960)	1058798	41.8662	41.9
44 2,6-Dinitrotoluene	165	7.235	7.235	(0.969)	226692	39.6480	39.6
45 Acenaphthylene	152	7.311	7.311	(0.980)	1250119	33.3636	33.4
48 2,4-Dinitrophenol	184	7.520	7.520	(1.008)	56268	34.0543	34.0
49 Dibenzofuran	168	7.682	7.682	(1.029)	1077087	34.2292	34.2
51 Diethylphthalate	149	7.925	7.920	(1.062)	1097486	41.4637	41.5
53 Fluorene	166	8.049	8.049	(1.078)	958642	32.9109	32.9
54 4-Chlorophenylphenylether	204	8.049	8.049	(1.078)	479580	34.1874	34.2
55 2-Methyl-4,6-dinitrophenol	198	8.097	8.097	(0.894)	101848	33.6645	33.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
56 p-Nitroaniline	138	8.063	8.063	(1.080)	176375	42.3745	42.4
133 Diphenylamine	169	8.173	8.173	(0.902)	862118	43.2814	43.3
58 1,2-Diphenylhydrazine	77	8.220	8.216	(0.907)	871990	37.2676	37.3
61 4-Bromophenylphenylether	248	8.573	8.573	(0.946)	291525	38.7036	38.7
63 Hexachlorobenzene	284	8.639	8.639	(0.954)	301923	38.5654	38.6
207 Atrazine	173	8.749	8.749	(0.966)	72368	52.0014	52.0
68 Phenanthrene	178	9.082	9.082	(1.003)	1385740	37.5309	37.5
69 Anthracene	178	9.139	9.139	(1.009)	1378328	36.0271	36.0
72 Di-n-butylphthalate	149	9.682	9.682	(1.069)	1869258	46.7441	46.7
76 Fluoranthene	202	10.363	10.363	(1.144)	1506478	37.5575	37.6
77 Benzidine	184	10.506	10.506	(0.880)	421590	39.8421	39.8
85 Butylbenzylphthalate	149	11.297	11.297	(0.946)	719114	46.6450	46.6
89 Benzo(a)anthracene	228	11.930	11.930	(0.999)	1326130	35.6885	35.7
90 3,3'-Dichlorobenzidine	252	11.892	11.892	(0.996)	326939	37.3747	37.4
92 Chrysene	228	11.978	11.973	(1.003)	1280974	39.5063	39.5
93 bis(2-Ethylhexyl)phthalate	149	11.954	11.954	(1.001)	1042499	48.3196	48.3
94 Di-n-octylphthalate	149	12.820	12.820	(0.916)	1436716	42.4157	42.4
95 Benzo(b)fluoranthene	252	13.392	13.392	(0.957)	1091312	35.3828	35.4
96 Benzo(k)fluoranthene	252	13.435	13.435	(0.960)	1165940	37.6023	37.6
97 Benzo(a)pyrene	252	13.901	13.901	(0.994)	1000063	38.4443	38.4
99 Indeno(1,2,3-cd)pyrene	276	15.787	15.787	(1.128)	871794	40.4203	40.4
100 Dibenzo(a,h)anthracene	278	15.825	15.825	(1.131)	870610	52.2302	52.2
101 Benzo(ghi)perylene	276	16.254	16.254	(1.162)	872263	48.8803	48.9
102 1,4-Dioxane	88	2.039	2.039	(0.468)	85701	27.2682	27.3
111 N-Nitrosopyrrolidine	100	4.706	4.711	(1.081)	155150	32.5212	32.5(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.239	2.239	(0.514)	119064	20.0969	20.1

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD8.i/s030310.b/s8c0311-2.d
Date : 03-MAR-2010 15:11
Client ID: SBLK01LCS
Sample Info: 1120205739819592941|SVMF1|SBLK01LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: nag1
Column diameter: 0.20

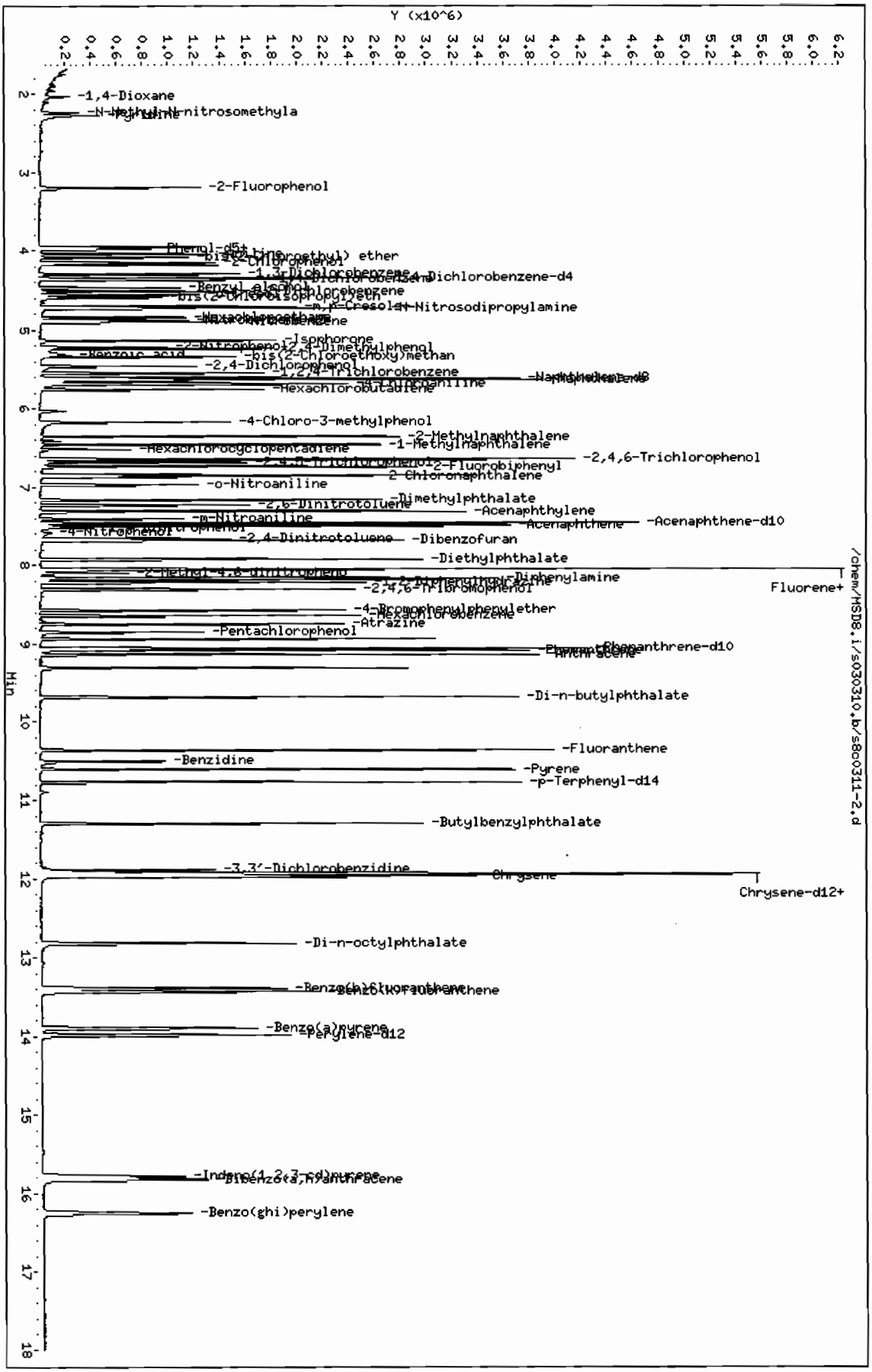

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202058723**				
Client Sample:	**QC for batch 959838**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 959838**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 23:22**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0317-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
62-75-9	N-Methyl-N-nitrosomethylamine		21.7	ug/L	2.00	10.0
108-95-2	Phenol		14.1	ug/L	1.00	10.0
95-57-8	2-Chlorophenol		34.0	ug/L	2.00	10.0
106-46-7	1,4-Dichlorobenzene		29.0	ug/L	2.00	10.0
621-64-7	N-Nitrosodi--n-propylamine *N-Nitrosodipropylamine*		37.7	ug/L	2.00	10.0
59-50-7	Parachlorometa cresol *4-Chloro-3-methylphenol*		40.1	ug/L	2.00	10.0
83-32-9	Acenaphthene		38.1	ug/L	0.310	1.00
121-14-2	2,4-Dinitrotoluene		39.6	ug/L	2.00	10.0
100-02-7	4-Nitrophenol		15.6	ug/L	2.00	10.0
87-86-5	Pentachlorophenol		40.8	ug/L	2.00	10.0
129-00-0	Pyrene		42.8	ug/L	0.300	1.00
110-86-1	Pyridine		27.1	ug/L	3.00	10.0
62-53-3	Aniline		42.1	ug/L	2.50	10.0
111-44-4	bis(2-Chloroethyl) ether		35.0	ug/L	2.00	10.0
541-73-1	1,3-Dichlorobenzene		28.5	ug/L	2.00	10.0
100-51-6	Benzyl alcohol		30.0	ug/L	2.00	10.0
95-50-1	1,2-Dichlorobenzene		30.8	ug/L	2.00	10.0
108-60-1	bis(2-Chloroisopropyl)ether		43.2	ug/L	2.00	10.0
95-48-7	o-Cresol		32.3	ug/L	2.00	10.0
65794-96-9	m,p-Cresols		32.2	ug/L	3.00	10.0
67-72-1	Hexachloroethane		27.3	ug/L	2.00	10.0
98-95-3	Nitrobenzene		37.6	ug/L	3.00	10.0
78-59-1	Isophorone		38.5	ug/L	3.00	10.0
88-75-5	2-Nitrophenol		35.9	ug/L	2.00	10.0
105-67-9	2,4-Dimethylphenol		34.5	ug/L	2.00	10.0
111-91-1	bis(2-Chloroethoxy)methane		35.5	ug/L	3.00	10.0
120-83-2	2,4-Dichlorophenol		36.9	ug/L	2.00	10.0
65-85-0	Benzoic acid		23.7	ug/L	6.00	20.0
91-20-3	Naphthalene		31.9	ug/L	0.300	1.00
106-47-8	4-Chloroaniline		40.5	ug/L	2.00	10.0
87-68-3	Hexachlorobutadiene		28.9	ug/L	2.00	10.0
91-57-6	2-Methylnaphthalene		32.4	ug/L	0.300	1.00
90-12-0	1-Methylnaphthalene		32.2	ug/L	0.300	1.00
77-47-4	Hexachlorocyclopentadiene		24.9	ug/L	3.00	10.0
88-06-2	2,4,6-Trichlorophenol		41.4	ug/L	2.00	10.0
95-95-4	2,4,5-Trichlorophenol		37.5	ug/L	2.00	10.0
91-58-7	2-Chloronaphthalene		33.1	ug/L	0.300	1.00

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202058723**				
Client Sample:	**QC for batch 959838**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 959838**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 23:22**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0317-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
88-74-4	2-Nitroaniline *o-Nitroaniline*		40.4	ug/L	2.00	10.0
99-09-2	3-Nitroaniline *m-Nitroaniline*		41.3	ug/L	2.00	10.0
131-11-3	Dimethylphthalate		42.9	ug/L	2.00	10.0
606-20-2	2,6-Dinitrotoluene		40.3	ug/L	2.00	10.0
208-96-8	Acenaphthylene		37.3	ug/L	0.200	1.00
51-28-5	2,4-Dinitrophenol		43.0	ug/L	5.00	20.0
132-64-9	Dibenzofuran		37.4	ug/L	2.00	10.0
84-66-2	Diethylphthalate		45.8	ug/L	2.00	10.0
86-73-7	Fluorene		39.2	ug/L	0.200	1.00
7005-72-3	4-Chlorophenylphenylether		37.8	ug/L	2.00	10.0
534-52-1	2-Methyl-4,6-dinitrophenol		44.5	ug/L	3.00	10.0
100-01-6	4-Nitroaniline *p-Nitroaniline*		40.1	ug/L	3.00	10.0
122-39-4	Diphenylamine		45.4	ug/L	3.00	10.0
122-66-7	Azobenzene *1,2-Diphenylhydrazine*		44.7	ug/L	2.00	10.0
101-55-3	4-Bromophenylphenylether		38.4	ug/L	2.00	10.0
118-74-1	Hexachlorobenzene		38.9	ug/L	2.00	10.0
1912-24-9	Atrazine		44.5	ug/L	3.00	10.0
85-01-8	Phenanthrene		38.9	ug/L	0.200	1.00
120-12-7	Anthracene		41.3	ug/L	0.200	1.00
84-74-2	Di-n-butylphthalate		48.0	ug/L	2.00	10.0
206-44-0	Fluoranthene		41.2	ug/L	0.200	1.00
92-87-5	Benzidine		41.9	ug/L	3.00	10.0
85-68-7	Butylbenzylphthalate		54.9	ug/L	2.00	10.0
56-55-3	Benzo(a)anthracene		39.5	ug/L	0.200	1.00
91-94-1	3,3'-Dichlorobenzidine		41.0	ug/L	2.00	10.0
218-01-9	Chrysene		39.9	ug/L	0.200	1.00
117-81-7	bis(2-Ethylhexyl)phthalate		50.5	ug/L	2.00	10.0
117-84-0	Di-n-octylphthalate		56.2	ug/L	3.00	10.0
205-99-2	Benzo(b)fluoranthene		42.1	ug/L	0.200	1.00
207-08-9	Benzo(k)fluoranthene		41.8	ug/L	0.200	1.00
50-32-8	Benzo(a)pyrene		40.7	ug/L	0.200	1.00
193-39-5	Indeno(1,2,3-cd)pyrene		36.6	ug/L	0.200	1.00
53-70-3	Dibenzo(a,h)anthracene		36.6	ug/L	0.200	1.00
191-24-2	Benzo(ghi)perylene		35.1	ug/L	0.200	1.00
123-91-1	1,4-Dioxane		28.4	ug/L	2.00	10.0
55-18-5	N-Nitrosodiethylamine	U	10.0	ug/L	2.00	10.0

Semi-Volatile
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202058723**				
Client Sample:	**QC for batch 959838**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 959838**	**Method:**	**SW846 8270C**	**SOP Ref:**	**GL-OA-E-009**
Batch ID:	**959852**	**Inst:**	**MSD2.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 23:22**	**Analyst:**	**AGS1**	**Inj. Vol:**	**.5 uL**
Prep Date:	**03/02/2010 17:51**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**s2c0317-1.d**	**Column:**	**J&W DB-5MS**	**Level:**	**LOW**

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ
930-55-2	N-Nitrosopyrrolidine		35.5	ug/L	2.00	10.0
924-16-3	N-Nitrosodi-n-butylamine	U	10.0	ug/L	3.00	10.0
95-94-3	1,2,4,5-Tetrachlorobenzene	U	10.0	ug/L	3.00	10.0
608-93-5	Pentachlorobenzene	U	10.0	ug/L	3.00	10.0
58-90-2	2,3,4,6-Tetrachlorophenol	U	10.0	ug/L	2.00	10.0
88-85-7	Dinoseb	U	10.0	ug/L	2.00	10.0
120-82-1	1,2,4-Trichlorobenzene		29.7	ug/L	2.00	10.0

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
2,4,6-Tribromophenol	82.8	100	ug/L	82.8	(39%-120%)
2-Fluorobiphenyl	35.1	50.0	ug/L	70.2	(38%-108%)
2-Fluorophenol	41.9	100	ug/L	41.9	(19%-98%)
Nitrobenzene-d5	36.9	50.0	ug/L	73.8	(31%-122%)
Phenol-d5	26.3	100	ug/L	26.3	(15%-83%)
p-Terphenyl-d14	47.9	50.0	ug/L	95.8	(40%-138%)

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Data file : /chem/MSD2.i/s030310a.b/s2c0317-2.d
Lab Smp Id: 1202058723 Client Smp ID: SBLK02LCS
Inj Date : 03-MAR-2010 23:22
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202058723|959852|1|SVM|1|LCS
Misc Info : |MSD82709L|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Meth Date : 03-Mar-2010 22:22 ann00964 Quant Type: ISTD
Cal Date : 27-FEB-2010 17:29 Cal File: s2b2568.d
Als bottle: 17 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2057.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	1000.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.009	4.009	(1.000)	326332	40.0000	
* 29 Naphthalene-d8	136	4.875	4.875	(1.000)	1407415	40.0000	
* 46 Acenaphthene-d10	164	6.116	6.121	(1.000)	726776	40.0000	
* 67 Phenanthrene-d10	188	7.095	7.100	(1.000)	1183933	40.0000	
* 91 Chrysene-d12	240	8.801	8.806	(1.000)	877238	40.0000	
* 98 Perylene-d12	264	10.352	10.358	(1.000)	594480	40.0000	
$ 3 2-Fluorophenol	112	3.190	3.190	(0.796)	431020	41.8628	41.9
$ 5 Phenol-d5	99	3.715	3.715	(0.927)	354868	26.2511	26.2
$ 20 Nitrobenzene-d5	82	4.367	4.372	(0.896)	496998	36.8993	36.9
$ 39 2-Fluorobiphenyl	172	5.613	5.613	(0.918)	706459	35.0983	35.1
$ 60 2,4,6-Tribromophenol	329	6.651	6.646	(1.087)	218487	82.7589	82.8
$ 81 p-Terphenyl-d14	244	8.015	8.015	(0.911)	746422	47.8798	47.9
6 Phenol	94	3.725	3.725	(0.929)	193891	14.1128	14.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	3.870	3.870	(0.965)	371409	34.0398	34.0
11 1,4-Dichlorobenzene	146	4.019	4.019	(1.003)	331146	29.0178	29.0
17 N-Nitrosodipropylamine	70	4.244	4.244	(1.059)	346951	37.7181	37.7(Q)
28 1,2,4-Trichlorobenzene	180	4.822	4.822	(0.989)	278015	29.6576	29.6
33 4-Chloro-3-methylphenol	107	5.212	5.212	(1.069)	404169	40.1282	40.1
47 Acenaphthene	154	6.143	6.143	(1.004)	698639	38.0800	38.1
50 2,4-Dinitrotoluene	165	6.218	6.223	(1.017)	263527	39.5659	39.6
52 4-Nitrophenol	139	6.154	6.148	(1.006)	52085	15.5601	15.6
65 Pentachlorophenol	266	6.967	6.967	(0.982)	119931	40.8186	40.8
79 Pyrene	202	7.967	7.972	(0.905)	1196022	42.7865	42.8
2 Pyridine	79	2.543	2.543	(0.634)	290778	27.0891	27.1
4 Aniline	66	3.789	3.789	(0.945)	286038	42.1190	42.1(Q)
7 bis(2-Chloroethyl) ether	63	3.800	3.805	(0.948)	436040	35.0168	35.0
9 1,3-Dichlorobenzene	146	3.971	3.977	(0.991)	324544	28.4573	28.4
12 Benzyl alcohol	108	4.068	4.073	(1.015)	231359	30.0469	30.0
13 1,2-Dichlorobenzene	146	4.121	4.121	(1.028)	312326	30.7810	30.8
14 bis(2-Chloroisopropyl)ether	45	4.148	4.148	(1.035)	1032474	43.2361	43.2
15 o-Cresol	107	4.121	4.121	(1.028)	283369	32.3432	32.3
18 m,p-Cresols	107	4.223	4.223	(1.053)	388305	32.1949	32.2
19 Hexachloroethane	117	4.351	4.351	(1.085)	135201	27.3263	27.3
21 Nitrobenzene	77	4.383	4.383	(0.899)	479294	37.5980	37.6
22 Isophorone	82	4.533	4.538	(0.930)	957000	38.4548	38.4
23 2-Nitrophenol	139	4.597	4.597	(0.943)	188860	35.8841	35.9
24 2,4-Dimethylphenol	122	4.586	4.586	(0.941)	352281	34.4789	34.5
25 bis(2-Chloroethoxy)methane	93	4.651	4.656	(0.954)	481189	35.5226	35.5
26 2,4-Dichlorophenol	162	4.758	4.758	(0.976)	300168	36.8531	36.8
27 Benzoic acid	105	4.635	4.635	(0.951)	156846	23.7146	23.7
30 Naphthalene	128	4.891	4.891	(1.003)	1055159	31.8744	31.9
31 4-Chloroaniline	127	4.902	4.902	(1.005)	607474	40.5077	40.5
32 Hexachlorobutadiene	225	4.955	4.955	(1.016)	150537	28.8824	28.9
34 2-Methylnaphthalene	142	5.367	5.373	(1.101)	652363	32.4420	32.4
35 1-Methylnaphthalene	142	5.442	5.442	(1.116)	632844	32.1800	32.2
36 Hexachlorocyclopentadiene	237	5.474	5.474	(0.895)	102088	24.8718	24.9
37 2,4,6-Trichlorophenol	196	5.555	5.554	(0.908)	220046	41.3848	41.4
38 2,4,5-Trichlorophenol	196	5.587	5.581	(0.913)	233066	37.5394	37.5
40 2-Chloronaphthalene	162	5.726	5.726	(0.936)	614623	33.0772	33.1
42 o-Nitroaniline	65	5.774	5.779	(0.944)	309017	40.3722	40.4
41 m-Nitroaniline	138	6.063	6.068	(0.991)	193132	41.3429	41.3
43 Dimethylphthalate	163	5.881	5.886	(0.962)	954434	42.9352	42.9
44 2,6-Dinitrotoluene	165	5.940	5.940	(0.971)	205837	40.2781	40.3
45 Acenaphthylene	152	6.025	6.025	(0.985)	1043338	37.2913	37.3
48 2,4-Dinitrophenol	184	6.132	6.132	(1.003)	66469	42.9733	43.0(Q)
49 Dibenzofuran	168	6.255	6.261	(1.023)	928853	37.4062	37.4
51 Diethylphthalate	149	6.362	6.362	(1.040)	979172	45.7971	45.8
53 Fluorene	166	6.491	6.490	(1.061)	782845	39.1563	39.2
54 4-Chlorophenylphenylether	204	6.464	6.469	(1.057)	377666	37.8319	37.8
55 2-Methyl-4,6-dinitrophenol	198	6.501	6.501	(0.916)	122392	44.4668	44.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
56 p-Nitroaniline	138	6.485	6.485	(1.060)	162509	40.1344	40.1
133 Diphenylamine	169	6.544	6.544	(0.922)	729995	45.4380	45.4
58 1,2-Diphenylhydrazine	77	6.571	6.576	(0.926)	1157803	44.7065	44.7
61 4-Bromophenylphenylether	248	6.790	6.790	(0.957)	204863	38.3930	38.4
63 Hexachlorobenzene	284	6.849	6.849	(0.965)	225727	38.9282	38.9
207 Atrazine	173	6.860	6.860	(0.967)	64612	44.4796	44.5
68 Phenanthrene	178	7.111	7.116	(1.002)	1180902	38.9250	38.9
69 Anthracene	178	7.143	7.143	(1.007)	1214227	41.3431	41.3
72 Di-n-butylphthalate	149	7.378	7.378	(1.040)	1621241	48.0073	48.0
76 Fluoranthene	202	7.822	7.822	(1.103)	1175486	41.2180	41.2
77 Benzidine	184	7.870	7.865	(0.894)	340215	41.8702	41.9
85 Butylbenzylphthalate	149	8.282	8.288	(0.941)	650638	54.9435	54.9
89 Benzo(a)anthracene	228	8.790	8.790	(0.999)	943214	39.4976	39.5
90 3,3'-Dichlorobenzidine	252	8.721	8.716	(0.991)	251316	41.0161	41.0
92 Chrysene	228	8.823	8.828	(1.002)	897251	39.9096	39.9
93 bis(2-Ethylhexyl)phthalate	149	8.662	8.662	(0.984)	886144	50.5116	50.5
94 Di-n-octylphthalate	149	9.224	9.229	(0.891)	1303955	56.1733	56.2
95 Benzo(b)fluoranthene	252	9.855	9.860	(0.952)	701955	42.0673	42.1
96 Benzo(k)fluoranthene	252	9.887	9.892	(0.955)	718771	41.7757	41.8
97 Benzo(a)pyrene	252	10.283	10.288	(0.993)	580638	40.7407	40.7
99 Indeno(1,2,3-cd)pyrene	276	12.112	12.117	(1.170)	483397	36.6371	36.6
100 Dibenzo(a,h)anthracene	278	12.117	12.123	(1.170)	393883	36.6189	36.6
101 Benzo(ghi)perylene	276	12.658	12.663	(1.223)	391309	35.1496	35.1
102 1,4-Dioxane	88	2.356	2.361	(0.588)	111427	28.4190	28.4
111 N-Nitrosopyrrolidine	100	4.249	4.244	(1.060)	196812	35.5325	35.5(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.506	2.506	(0.625)	161074	21.6805	21.7

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s030310a.b/s2c0317-2.d
Date : 03-MAR-2010 23:22
Client ID: SBLK02LCS
Sample Info: 1120205872319598521 1 1SVM11LCS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: AGS1
Column diameter: 0.20

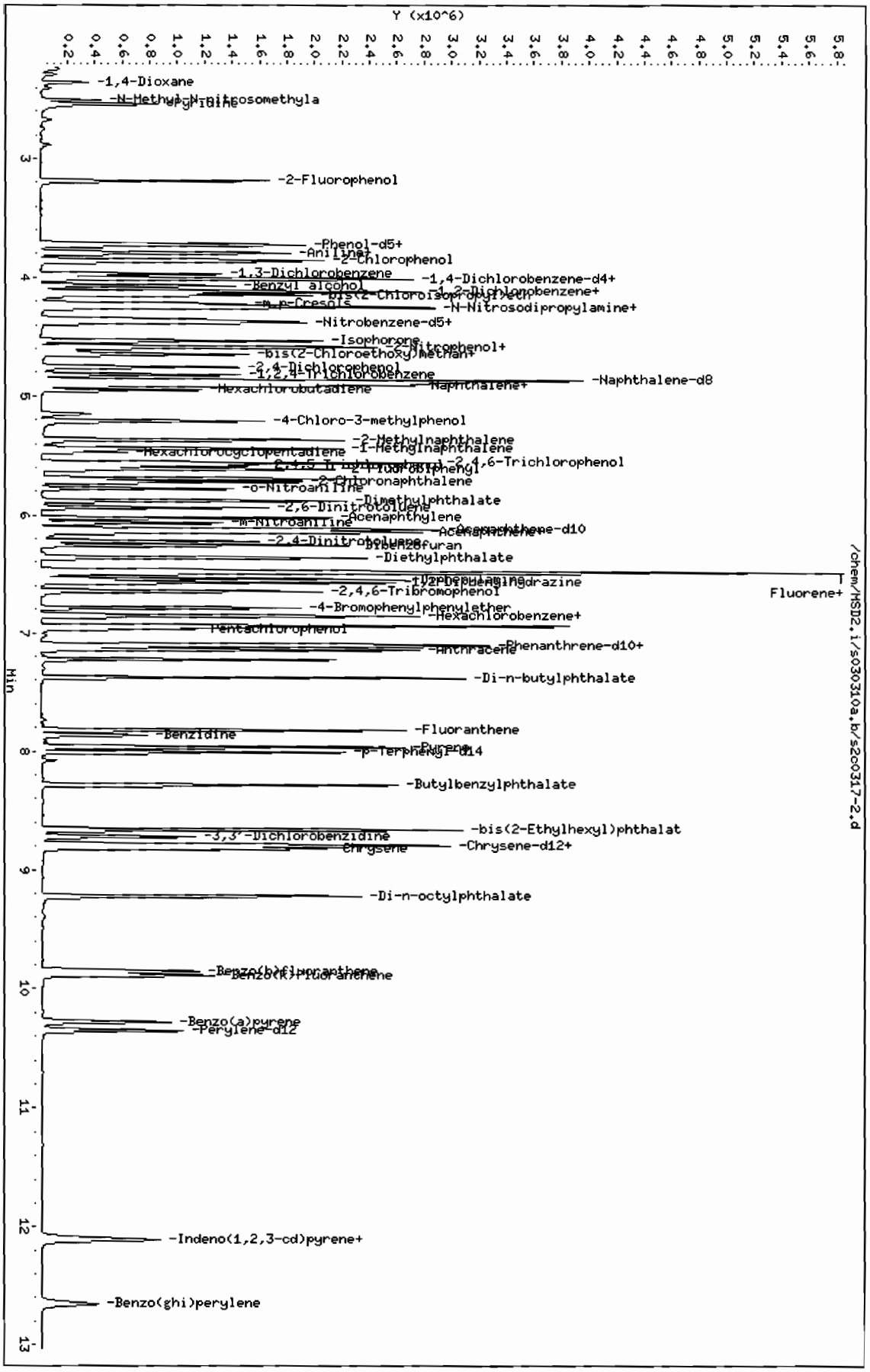

Page 1

Miscellaneous Data

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 959290 **Verified by:** _____

Analyst: Sequan Smalls

Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Sec Ext pH	Final Volume (mL)	Prepped Factor (mL/mL)
1202057395 MB	01-MAR-2010 23:33:00	1000	5	1	13	1	0.001
1202057398 LCS	01-MAR-2010 23:33:00	1000	5	1	13	1	0.001
247824002 - 2	01-MAR-2010 23:33:00	950	6	1	13	1	0.00105
247922004	01-MAR-2010 23:33:00	1000	6	1	13	1	0.001
1202057396 MS (247922004)	01-MAR-2010 23:33:00	500	6	1	13	1	0.002
1202057397 MSD (247922004)	01-MAR-2010 23:33:00	500	6	1	13	1	0.002
248042001	01-MAR-2010 23:33:00	900	6	1	13	1	0.00111
248042006	01-MAR-2010 23:33:00	940	6	1	13	1	0.00106

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202057398	BNA LCS w/o Benzidine 50ppm	UE100222-14	1	mL
LCS	1202057398	BENZIDINE LCS	UE100222-22	1	mL
MS	1202057396	BNA LCS w/o Benzidine 50ppm	UE100222-14	1	mL
MS	1202057396	BENZIDINE LCS	UE100222-22	1	mL
MSD	1202057397	BNA LCS w/o Benzidine 50ppm	UE100222-14	1	mL
MSD	1202057397	BENZIDINE LCS	UE100222-22	1	mL
SURR	All	BNA for all Surrogate	UE100222-10B	1	mL
REGNT	All	Sulfuric Acid Sol., 1:1	1271216	2	mL
REGNT	All	10 N Sodium Hydroxide Solution	1274128	10	mL
REGNT	All	Methylene Chloride	1274843-D	360	mL
SOURC	All	SODIUM SULFATE	1269268	30	g

Comments:

All Samples were emulsive in acid and base.
Verified By: MJS
Final Solvent: CH2CL2

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 959838 **Verified by:** _____

Analyst: Sequan Smalls

Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Sec Ext pH	Final Volume (mL)	Prepped Factor (mL/mL)
1202058722 MB	02-MAR-2010 17:51:00	1000	5	1	13	1	0.001
1202058723 LCS	02-MAR-2010 17:51:00	1000	5	1	13	1	0.001
248017001	02-MAR-2010 17:51:00	920	5	1	13	1	0.00109
248017002	02-MAR-2010 17:51:00	880	5	1	13	1	0.00114
1202058724 MS (248017002)	02-MAR-2010 17:51:00	500	5	1	13	1	0.002
1202058725 MSD (248017002)	02-MAR-2010 17:51:00	500	5	1	13	1	0.002
248040002	02-MAR-2010 17:51:00	920	6	1	13	1	0.00109
248040006	02-MAR-2010 17:51:00	900	6	1	13	1	0.00111
248042009	02-MAR-2010 17:51:00	800	6	1	13	1	0.00125
248042013	02-MAR-2010 17:51:00	940	6	1	13	1	0.00106
248047002	02-MAR-2010 17:51:00	820	6	1	13	1	0.00122
248047006	02-MAR-2010 17:51:00	860	6	1	13	1	0.00116
248047012	02-MAR-2010 17:51:00	830	6	1	13	1	0.0012

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202058723	BNA LCS w/o Benzidine 50ppm	UE100217-14	1	mL
LCS	1202058723	BENZIDINE LCS	UE100222-22	1	mL
MS	1202058724	BNA LCS w/o Benzidine 50ppm	UE100217-14	1	mL
MS	1202058724	BENZIDINE LCS	UE100222-22	1	mL
MSD	1202058725	BNA LCS w/o Benzidine 50ppm	UE100217-14	1	mL
MSD	1202058725	BENZIDINE LCS	UE100222-22	t	mL
SURR	All	BNA for all Surrogate	UE100301-10	1	mL
REGNT	All	Methylene Chloride	100301-D	360	mL
REGNT	All	Sulfuric Acid Sol., 1:1	1271216	2	mL
REGNT	Alt	10 N Sodium Hydroxide Solution	1277863	10	mL
SOURC	All	SODIUM SULFATE	1274910	30	g

Comments:

Verified By: MJS

Final Solvent: CH2CL2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD2

DATE: 03/04/2010 METHOD:8270C MSD2-DFTPP.m OPERATOR:AGS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1106 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100227-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
SOP: GL-OA-E-009 Rev. 23

Sequence Number: /chem/MSD2.i/s030310a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s2c0307.d	WBN100207-01	AGS1	03-MAR-2010 19:28	50PPM	DFTPP	1.0	DFTPP	8270C TUNE
s2c0308.d	WBN100225-09.4	AGS1	03-MAR-2010 19:41	40PPM	CVS	1.0	MEGACVS	8270C 453255
s2c0309.d	WBN100121-05.4	AGS1	03-MAR-2010 20:08	40PPM	CVS	1.0	BJCVS	8270C
s2c0310.d	WBN100218-08.1	AGS1	03-MAR-2010 20:35	40 PPM	CVS	1.0	APCVS	8270C
s2c0311.d	WBN100205-26.1	AGS1	03-MAR-2010 20:55	40 PPM	CVS	1.0	PESTCVS	8270C
s2c0312.d	1202059202	AGS1	03-MAR-2010 21:15	960061	247974	1.0	MB	
s2c0313.d	1202059203	AGS1	03-MAR-2010 21:42	960061	247974	1.0	LCS	
s2c0314.d	1202055380	AGS1	03-MAR-2010 22:08	958421	247974	1.0	MB	
s2c0315.d	1202055381	AGS1	03-MAR-2010 22:35	958421	247974	1.0	LCS	
s2c0316.d	1202058722	AGS1	03-MAR-2010 23:02	959852	10-2039	1.0	MB	
s2c0316-1.d	1202058722	AGS1	03-MAR-2010 23:02	959852	10-2051	1.0	MB	
s2c0316-2.d	1202058722	AGS1	03-MAR-2010 23:02	959852	10-2057	1.0	MB	
s2c0316-3.d	1202058722	AGS1	03-MAR-2010 23:02	959852	10-2045	1.0	MB	
s2c0317.d	1202058723	AGS1	03-MAR-2010 23:22	959852	10-2039	1.0	LCS	
s2c0317-1.d	1202058723	AGS1	03-MAR-2010 23:22	959852	10-2051	1.0	LCS	
s2c0317-2.d	1202058723	AGS1	03-MAR-2010 23:22	959852	10-2057	1.0	LCS	
s2c0317-3.d	1202058723	AGS1	03-MAR-2010 23:22	959852	10-2045	1.0	LCS	
s2c0318.d	247974002	AGS1	03-MAR-2010 23:42	958421	247974	1.0	BY12	
s2c0319.d	1202055382	AGS1	04-MAR-2010 00:08	958421	247974	1.0	MS	

s2c0320.d	1202055383	AGS1	04-MAR-2010 00:35	958421	247974		1.0	MSD	
s2c0321.d	247974011	AGS1	04-MAR-2010 01:01	960061	247974		1.0	BY12	
s2c0322.d	247974016	AGS1	04-MAR-2010 01:28	960061	247974		1.0	BY12	
s2c0323.d	1202059204	AGS1	04-MAR-2010 01:55	960061	247974		1.0	MS	
s2c0324.d	1202059205	AGS1	04-MAR-2010 02:21	960061	247974		1.0	MSD	
s2c0325.d	247974020	AGS1	04-MAR-2010 02:48	960061	247974		10.0	BY12	DUSE ISTD low RR / dil. 8000X C93 O.R.s2c0413.d /s2c0411.d
s2c0326.d	248017001	AGS1	04-MAR-2010 03:14	959852	10-2039		1.0	LANL	
s2c0327.d	248017002	AGS1	04-MAR-2010 03:34	959852	10-2039		1.0	LANL	
s2c0328.d	1202058724	AGS1	04-MAR-2010 03:54	959852	10-2039		1.0	MS	
s2c0329.d	1202058725	AGS1	04-MAR-2010 04:13	959852	10-2039		1.0	MSD	
s2c0330.d	248040002	AGS1	04-MAR-2010 04:33	959852	10-2051		1.0	LANL	
s2c0331.d	248040006	AGS1	04-MAR-2010 04:53	959852	10-2051		1.0	LANL	
s2c0332.d	248042009	AGS1	04-MAR-2010 05:12	959852	10-2057		1.0	LANL	
s2c0333.d	248042013	AGS1	04-MAR-2010 05:32	959852	10-2057		1.0	LANL	
s2c0334.d	248047002	AGS1	04-MAR-2010 05:52	959852	10-2045		1.0	LANL	
s2c0335.d	248047006	AGS1	04-MAR-2010 06:12	959852	10-2045		1.0	LANL	
s2c0336.d	248047012	AGS1	04-MAR-2010 06:32	959852	10-2045		1.0	LANL	

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD8

DATE: 03/03/2010 METHOD:See raw data OPERATOR:NAG REVIEWED BY:_____ DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT 1266705-D
Multiplier Voltage: 1176mv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100227-01
Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
SOP: GL-OA-E-009 Rev. 23

Sequence Number: /chem/MSD8.i/s030310.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s8c0301.d	WBN100207-01	nagl	03-MAR-2010 08:49	50 PPM	s030310	1.0	DFTPP	DUSE
s8c0302.d	WBN100225-05.5	nagl	03-MAR-2010 09:05	40 PPM	s030310	1.0	MEGACVS	DUSE
s8c0303.d	WBN100215-05.5	nagl	03-MAR-2010 09:37	40 PPM	s030310	1.0	MEGACVS	DUSE
s8c0304.d	WBN100218-03.4	nagl	03-MAR-2010 10:08	40 PPM	s030310	1.0	AP12CVS	DUSE
s8c0305.d	WBN100207-01	nagl	03-MAR-2010 10:57	50 PPM	s030310	1.0	DFTPP	DUSE
s8c0306.d	WBN100225-05.5	nagl	03-MAR-2010 11:13	40 PPM	s030310	1.0	MEGACVS	DUSE
s8c0307.d	WBN100207-01	nagl	03-MAR-2010 13:25	50 PPM	s030310	1.0	DFTPP	
s8c0308.d	WBN100225-05.5	nagl	03-MAR-2010 13:40	40 PPM	s030310	1.0	MEGACVS	337349
s8c0309.d	WBN100218-03.4	nagl	03-MAR-2010 14:12	40 PPM	s030310	1.0	AP12CVS	
s8c0310-1.d	1202057395	nagl	03-MAR-2010 14:41	959294	10-2022	1.0	SBLK01	
s8c0310-2.d	1202057395	nagl	03-MAR-2010 14:41	959294	10-2057	1.0	SBLK01	
s8c0310.d	1202057395	nagl	03-MAR-2010 14:41	959294	10-2005	1.0	SBLK01	
s8c0311-1.d	1202057398	nagl	03-MAR-2010 15:11	959294	10-2022	1.0	SBLK01LCS	failed <5%
s8c0311-2.d	1202057398	nagl	03-MAR-2010 15:11	959294	10-2057	1.0	SBLK01LCS	failed <5%
s8c0311.d	1202057398	nagl	03-MAR-2010 15:11	959294	10-2005	1.0	SBLK01LCS	failed <5%
s8c0312.d	1202057827	nagl	03-MAR-2010 15:41	959459	248160	1.0	SBLK01	
s8c0313.d	1202057828	nagl	03-MAR-2010 16:11	959459	248160	1.0	SBLK01LCS	
s8c0314.d	247824002	nagl	03-MAR-2010 16:40	959294	10-2005	1.0	LANL	passes w/in holding - RX of s8b2519
s8c0315.d	247922004	nagl	03-MAR-2010 17:10	959294	10-2022	1.0	LANL	failed surr - C93 OR - rr @ 2x - see s8c0412 for DL

s8c0316.d	1202057396	nag1	03-MAR-2010 17:40	959294	10-2022		1.0	MS	failed spike
s8c0317.d	1202057397	nag1	03-MAR-2010 18:09	959294	10-2022		1.0	MSD	failed spike
s8c0318.d	248042001	nag1	03-MAR-2010 18:39	959294	10-2057		1.0	LANL	
s8c0319.d	248042006	nag1	03-MAR-2010 19:09	959294	10-2057		1.0	LANL	
s8c0320.d	247791003	nag1	03-MAR-2010 19:39	957838	10-1982		1.0	LANL	USE - rr of s8c0121
s8c0321.d	247791004	nag1	03-MAR-2010 20:09	957838	10-1982		1.0	LANL	
s8c0322.d	247791005	nag1	03-MAR-2010 20:38	957838	10-1982		1.0	LANL	
s8c0323.d	247791006	nag1	03-MAR-2010 21:08	957838	10-1982		1.0	LANL	
s8c0324.d	247855002	nag1	03-MAR-2010 21:37	957838	10-1978		1.0	LANL	
s8c0325.d	248160001	nag1	03-MAR-2010 22:07	959459	248160		1.0	ARGN	
s8c0326.d	1202057829	nag1	03-MAR-2010 22:36	959459	248160		1.0	MS	
s8c0327.d	1202057830	nag1	03-MAR-2010 23:05	959459	248160		1.0	MSD	
s8c0328.d	248160003	nag1	03-MAR-2010 23:35	959459	248160		1.0	ARGN	
s8c0329.d	248160004	nag1	04-MAR-2010 00:04	959459	248160		1.0	ARGN	
s8c0330.d	248160005	nag1	04-MAR-2010 00:33	959459	248160		1.0	ARGN	
s8c0331.d	248160006	nag1	04-MAR-2010 01:02	959459	248160		1.0	ARGN	

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD8

DATE: 02/20/2010 METHOD:See raw data OPERATOR:NAG REVIEWED BY:_____ DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT 1239699-D
Multiplier Voltage: 1094mv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100217-01
Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
SOP: GL-OA-E-009 Rev. 23

Sequence Number: /chem/MSD8.i/s022010.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s8b2001-D.d	WBN100207-01	nagl	20-FEB-2010 12:04	50 PPM	s022010	1.0	DFTPP	
s8b2001.d	WBN100207-01	nagl	20-FEB-2010 12:04	50 PPM	s022010	1.0	DFTPP	
s8b2002.d	inst blk	nagl	20-FEB-2010 12:21	--------	s022010	1.0	INST BLK	
s8b2003.d	WBN100215-08	nagl	20-FEB-2010 12:55	1 PPM	s022010	1.0	MEGAICAL	Naphthalene/1-Methylnaphthalene failed SC
s8b2004-linear.d	WBN100215-07	nagl	20-FEB-2010 13:30	10 PPM	s022010	1.0	MEGAICAL	
s8b2004.d	WBN100215-07	nagl	20-FEB-2010 13:30	10 PPM	s022010	1.0	MEGAICAL	
s8b2005-linear.d	WBN100215-06	nagl	20-FEB-2010 14:05	20 PPM	s022010	1.0	MEGAICAL	
s8b2005.d	WBN100215-06	nagl	20-FEB-2010 14:05	20 PPM	s022010	1.0	MEGAICAL	
s8b2006.d	WBN100215-05.1	nagl	20-FEB-2010 14:40	40 PPM	s022010	1.0	MEGAICAL	
s8b2007.d	WBN100215-04	nagl	20-FEB-2010 15:14	50 PPM	s022010	1.0	MEGAICAL	
s8b2008.d	WBN100215-03	nagl	20-FEB-2010 15:50	80 PPM	s022010	1.0	MEGAICAL	
s8b2009.d	WBN100215-02	nagl	20-FEB-2010 16:25	100 PPM	s022010	1.0	MEGAICAL	
s8b2010.d	WBN100215-01	nagl	20-FEB-2010 16:59	120 PPM	s022010	1.0	MEGAICAL	
s8b2011.d	inst blk	nagl	20-FEB-2010 17:34	--------	s022010	1.0	INST BLK	
s8b2012-D.d	WBN100215-05.1	nagl	20-FEB-2010 18:09	40 PPM	s022010	1.0	MEAGICV	8270D
s8b2012.d	WBN100215-05.1	nagl	20-FEB-2010 18:09	40 PPM	s022010	1.0	MEGAICV	
s8b2013-D.d	WBN100207-01	nagl	21-FEB-2010 08:35	50 PPM	s022010	1.0	DFTPP	
s8b2013.d	WBN100207-01	nagl	21-FEB-2010 08:35	50 PPM	s022010	1.0	DFTPP	
s8b2014.d	inst blk	nagl	21-FEB-2010 08:51	--------	s022010	1.0	INST BLK	

s8b2015.d	WBN100218-01	nag1	21-FEB-2010 09:21	10 PPM	s022010	1.0	APICAL	
s8b2016.d	WBN100218-02	nag1	21-FEB-2010 09:52	20 PPM	s022010	1.0	APICAL	
s8b2017.d	WBN100218-03.1	nag1	21-FEB-2010 10:23	40 PPM	s022010	1.0	APICAL	
s8b2018.d	WBN100218-04	nag1	21-FEB-2010 10:54	50 PPM	s022010	1.0	APICAL	
s8b2019.d	WBN100218-05	nag1	21-FEB-2010 11:26	80 PPM	s022010	1.0	APICAL	
s8b2020.d	WBN100218-06	nag1	21-FEB-2010 11:59	100 PPM	s022010	1.0	APICAL	
s8b2021.d	WBN100218-07	nag1	21-FEB-2010 12:30	120 PPM	s022010	1.0	APICAL	
s8b2022.d	WBN100205-25	nag1	21-FEB-2010 13:02	10 PPM	s022010	1.0	PESTICAL	
s8b2023.d	WBN100205-24	nag1	21-FEB-2010 13:33	20 PPM	s022010	1.0	PESTICAL	
s8b2024.d	WBN100205-23.1	nag1	21-FEB-2010 14:05	40 PPM	s022010	1.0	PESTICAL	
s8b2025.d	WBN100205-22	nag1	21-FEB-2010 14:37	50 PPM	s022010	1.0	PESTICAL	
s8b2026.d	WBN100205-21	nag1	21-FEB-2010 15:09	80 PPM	s022010	1.0	PESTICAL	
s8b2027.d	WBN100205-20	nag1	21-FEB-2010 15:40	100 PPM	s022010	1.0	PESTICAL	
s8b2028.d	WBN100205-19	nag1	21-FEB-2010 16:12	120 PPM	s022010	1.0	PESTICAL	
s8b2029-linear.d	WBN100120-16	nag1	21-FEB-2010 16:44	500 PPM	s022010	1.0	HEXICAL	
s8b2029.d	WBN100120-16	nag1	21-FEB-2010 16:44	500 PPM	s022010	1.0	HEXICAL	
s8b2030.d	WBN100120-15	nag1	21-FEB-2010 17:16	1000 PPM	s022010	1.0	HEXICAL	
s8b2031.d	WBN100120-14	nag1	21-FEB-2010 17:48	1250 PPM	s022010	1.0	HEXICAL	
s8b2032.d	WBN100120-13	nag1	21-FEB-2010 18:19	1500 PPM	s022010	1.0	HEXICAL	
s8b2033.d	WBN100120-12	nag1	21-FEB-2010 18:51	1750 PPM	s022010	1.0	HEXICAL	
s8b2034.d	UBN090828-02.10	nag1	21-FEB-2010 19:22	2000 PPM	s022010	1.0	HEXICAL	
s8b2035-D.d	WBN100218-08.1	nag1	21-FEB-2010 19:53	40 PPM	s022010	1.0	APICV	8270D
s8b2035.d	WBN100218-08.1	nag1	21-FEB-2010 19:53	40 PPM	s022010	1.0	APICV	
s8b2036-D.d	WBN100205-26.1	nag1	21-FEB-2010 20:25	40 PPM	s022010	1.0	PESTICV	8270D
s8b2036.d	WBN100205-26.1	nag1	21-FEB-2010 20:25	40 PPM	s022010	1.0	PESTICV	
s8b2037.d	WBN091016-10.1	nag1	21-FEB-2010 20:55	1250 PPM	s022010	1.0	HEXICV	DUSE
s8b2038-D.d	WBN100207-01	nag1	21-FEB-2010 21:26	50 PPM	s022010	1.0	DFTPP	

s8b2038.d	WBN100207-01	nag1	21-FEB-2010 21:26	50 PPM	s022010	1.0	DFTPP	
s8b2039.d	inst blk	nag1	21-FEB-2010 21:43	--------	s022010	1.0	INST BLK	
s8b2040.d	WBN100127-01	nag1	21-FEB-2010 22:13	10 PPM	s022010	1.0	NEVICAL	
s8b2041.d	WBN100127-02	nag1	21-FEB-2010 22:45	20 PPM	s022010	1.0	NEVICAL	
s8b2042.d	WBN100127-03	nag1	21-FEB-2010 23:15	40 PPM	s022010	1.0	NEVICAL	
s8b2043.d	WBN100127-04	nag1	21-FEB-2010 23:46	50 PPM	s022010	1.0	NEVICAL	
s8b2044.d	WBN100127-05	nag1	22-FEB-2010 00:17	80 PPM	s022010	1.0	NEVICAL	
s8b2045.d	WBN100127-06	nag1	22-FEB-2010 00:48	100 PPM	s022010	1.0	NEVICAL	
s8b2046.d	WBN100127-07	nag1	22-FEB-2010 01:19	120 PPM	s022010	1.0	NEVICAL	
s8b2047-D.d	WBN100103-10.2	nag1	22-FEB-2010 08:59	1250 PPM	s022010	1.0	HEXICV	8270D
s8b2047.d	WBN100103-10.2	nag1	22-FEB-2010 08:59	1250 PPM	s022010	1.0	HEXICV	

(s10HInstrument Batch: /chem/MSD8.i/s022010.b Page: 2

GEL ORGANIC RUN LOG INSTRUMENT ID: MSD2

DATE: 02/25/2010 METHOD:8270C MSD2-DFTPP.m OPERATOR:AGS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT:1239699-D
Multiplier Voltage: 1106 Emv Extr. Injection Volume: 0.5, 1.0 ul
DFTPP Solution ID: WBN100207-01 Internal Std ID: WBN100217-01
CALIBRATION & QC INFORMATION:
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
SOP: GL-OA-E-009 Rev. 23

Sequence Number: /chem/MSD2.i/s022510a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s2b2510.d	WBN100207-01	AGS1	25-FEB-2010 18:56	50PPM	DFTPP	1.0	DFTPP	8270C TUNE (AP-PEST)
s2b2510D.d	WBN100207-01	AGS1	25-FEB-2010 18:56	50PPM	DFTPP	1.0	DFTPP	8270D
s2b2511.d	INSTBLK	AGS1	25-FEB-2010 19:09	40 PPM	s022510a	1.0	INSTBLK	
s2b2512.d	WBN100215-08	AGS1	25-FEB-2010 19:29	1PPM		1.0	MEGA001	DUSE
s2b2513.d	WBN100215-07	AGS1	25-FEB-2010 19:53	10PPM		1.0	MEGA010	DUSE
s2b2514.d	WBN100215-06	AGS1	25-FEB-2010 20:18	20PPM		1.0	MEGA020	DUSE
s2b2515.d	WBN100215-05.1	AGS1	25-FEB-2010 20:42	40PPM	s022510a	1.0	MEGA040	DUSE
s2b2516.d	WBN100215-05.2	AGS1	25-FEB-2010 21:06	40PPM	s022510a	1.0	MEGA040	DUSE
s2b2517.d	WBN100215-04	AGS1	25-FEB-2010 21:31	50PPM		1.0	MEGA050	DUSE
s2b2518.d	WBN100215-08	AGS1	25-FEB-2010 21:55	1PPM	s022510a	1.0	MEGA001	DUSE
s2b2519.d	WBN100215-03	AGS1	25-FEB-2010 22:20	80PPM	s022510a	1.0	MEGA080	DUSE
s2b2520.d	WBN100215-02	AGS1	25-FEB-2010 22:44	100PPM	s022510a	1.0	MEGA100	DUSE
s2b2521.d	WBN100215-01	AGS1	25-FEB-2010 23:08	120PPM	s022510a	1.0	MEGA120	DUSE
s2b2522.d	WBN100218-01	AGS1	25-FEB-2010 23:33	10 PPM	CAL	1.0	AP010	
s2b2523.d	WBN100218-02	AGS1	25-FEB-2010 23:52	20 PPM	CAL	1.0	AP020	
s2b2524.d	WBN100218-03.1	AGS1	26-FEB-2010 00:12	40 PPM	CAL	1.0	AP040	
s2b2525.d	WBN100218-04	AGS1	26-FEB-2010 00:32	50 PPM	CAL	1.0	AP050	
s2b2526.d	WBN100218-05	AGS1	26-FEB-2010 00:51	80 PPM	CAL	1.0	AP080	
s2b2527.d	WBN100218-06	AGS1	26-FEB-2010 01:11	100 PPM	CAL	1.0	AP100	

s2b2528.d	WBN100218-07	AGS1	26-FEB-2010 01:31	120 PPM	CAL		1.0	AP120	
s2b2529.d	WBN100205-25	AGS1	26-FEB-2010 01:50	10 PPM	CAL		1.0	PEST010	
s2b2530.d	WBN100205-24	AGS1	26-FEB-2010 02:10	20 PPM	CAL		1.0	PEST020	
s2b2531.d	WBN100205-23.1	AGS1	26-FEB-2010 02:29	40 PPM	CAL		1.0	PEST040	
s2b2532.d	WBN100205-22	AGS1	26-FEB-2010 02:49	50 PPM	CAL		1.0	PEST050	
s2b2533.d	WBN100205-21	AGS1	26-FEB-2010 03:09	80 PPM	CAL		1.0	PEST080	
s2b2534.d	WBN100205-20	AGS1	26-FEB-2010 03:28	100 PPM	CAL		1.0	PEST100	
s2b2535.d	WBN100205-19	AGS1	26-FEB-2010 03:48	120 PPM	CAL		1.0	PEST120	
s2b2536.d	WBN100215-09.1	AGS1	26-FEB-2010 04:07	40PPM	s022510a		1.0	MEGAICV	DUSE
s2b2537.d	WBN100218-08.1	AGS1	26-FEB-2010 04:31	40 PPM	ICV		1.0	APICV	8270C
s2b2538.d	WBN100205-26.1	AGS1	26-FEB-2010 04:51	40 PPM	ICV		1.0	PESTICV	8270C
s2b2539.d	WBN100207-01	AGS1	26-FEB-2010 14:01	50PPM	DFTPP		1.0	DFTPP	8270C TUNE (MEGA-HEX)
s2b2539D.d	WBN100207-01	AGS1	26-FEB-2010 14:01	50PPM	DFTPP		1.0	DFTPP	8270D
s2b2540.d	INSTBLK	AGS1	26-FEB-2010 14:14	40 PPM	s022510a		1.0	INSTBLK	
s2b2541.d	WBN100225-08	AGS1	26-FEB-2010 14:34	1PPM	CAL		1.0	MEGA001	
s2b2542.d	WBN100225-07	AGS1	26-FEB-2010 14:58	10PPM	CAL		1.0	MEGA010	
s2b2543.d	WBN100225-06	AGS1	26-FEB-2010 15:23	20PPM	CAL		1.0	MEGA020	
s2b2544.d	WBN100225-05.1	AGS1	26-FEB-2010 15:48	40PPM	CAL		1.0	MEGA040	
s2b2545.d	WBN100225-04	AGS1	26-FEB-2010 16:13	50PPM	CAL		1.0	MEGA050	
s2b2546.d	WBN100225-03	AGS1	26-FEB-2010 16:38	80PPM	s022510a		1.0	MEGA080	DUSE
s2b2547.d	WBN100225-02	AGS1	26-FEB-2010 17:02	100PPM	s022510a		1.0	MEGA100	DUSE
s2b2548.d	WBN100225-01	AGS1	26-FEB-2010 17:27	120PPM	s022510a		1.0	MEGA120	DUSE

Instrument Batch: /chem/MSD2.i/s022510a.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
s2b2549.d	INSTBLK	AGS1	26-FEB-2010 17:52	40 PPM	s022510a		1.0	INSTBLK
s2b2550.d	WBN100225-03	AGS1	26-FEB-2010 18:12	80PPM	CAL		1.0	MEGA080

s2b2551.d	WBN100225-02	AGS1	26-FEB-2010 18:36	100PPM	CAL	1.0	MEGA100		
s2b2552.d	WBN100225-01	AGS1	26-FEB-2010 19:01	120PPM	CAL	1.0	MEGA120		
s2b2553.d	INSTBLK	AGS1	26-FEB-2010 19:26	40 PPM	s022510a	1.0	INSTBLK		
s2b2554.d	WBN100225-09.1	AGS1	26-FEB-2010 19:46	40PPM	ICV	1.0	MEGAICV	8270C	286572
s2b2555.d	WBN100120-16	AGS1	26-FEB-2010 20:10	500 PPM	s022510a	1.0	HEX0500		
s2b2556.d	WBN100120-15	AGS1	26-FEB-2010 20:30	1000 PPM	s022510a	1.0	HEX1000		
s2b2557.d	WBN100120-14	AGS1	26-FEB-2010 20:50	1250 PPM	s022510a	1.0	HEX1250		
s2b2558.d	WBN100120-13	AGS1	26-FEB-2010 21:10	1500 PPM	s022510a	1.0	HEX1500		
s2b2559.d	WBN100120-12	AGS1	26-FEB-2010 21:31	1750 PPM	s022510a	1.0	HEX1750		
s2b2560.d	UBN090828-02.10	AGS1	26-FEB-2010 21:51	2000 PPM	s022510a	1.0	HEX2000		
s2b2561.d	INSTBLK	AGS1	26-FEB-2010 22:11	40 PPM	s022510a	1.0	INSTBLK		
s2b2562.d	WBN091016-10.1	AGS1	26-FEB-2010 22:31	1250 PPM	s022510a	1.0	HEXICV	DUSE see s3b2573	
s2b2563.d	WBN100207-01	AGS1	26-FEB-2010 22:53	50PPM	s022510a	1.0	DFTPP	DUSE FAILED	
s2b2564-D.d	WBN100207-01	AGS1	27-FEB-2010 16:01	50PPM	s022510a	1.0	DFTPP		
s2b2564.d	WBN100207-01	AGS1	27-FEB-2010 16:01	50PPM	s022510a	1.0	DFTPP	TUNE (BJCO-HEXICV)	
s2b2565.d	INSTBLK	AGS1	27-FEB-2010 16:13	40 PPM	s022510a	1.0	INSTBLK		
s2b2566.d	WBN100121-07	AGS1	27-FEB-2010 16:33	10PPM	s022510a	1.0	BJCO010		
s2b2567.d	WBN100121-06	AGS1	27-FEB-2010 17:01	20PPM	s022510a	1.0	BJCO020		
s2b2568.d	WBN100121-05.1	AGS1	27-FEB-2010 17:29	40PPM	s022510a	1.0	BJCO040		
s2b2569.d	WBN100121-04	AGS1	27-FEB-2010 17:56	50PPM	s022510a	1.0	BJCO050		
s2b2570.d	WBN100121-03	AGS1	27-FEB-2010 18:24	80PPM	s022510a	1.0	BJCO080		
s2b2571.d	WBN100121-02	AGS1	27-FEB-2010 18:51	100PPM	s022510a	1.0	BJCO100	DUSE	
s2b2572.d	WBN100121-01	AGS1	27-FEB-2010 19:19	120PPM	s022510a	1.0	BJCO120		
s2b2573-D.d	WBN091016-10.3	AGS1	27-FEB-2010 19:46	1250 PPM	s022510a	1.0	HEXICV		
s2b2573.d	WBN091016-10.3	AGS1	27-FEB-2010 19:46	1250 PPM	s022510a	1.0	HEXICV		
s2b2574.d	WBN100121-05.4	AGS1	27-FEB-2010 20:06	40PPM	s022510a	1.0	BJCOICV		
s2b2575.d	245886003	AGS1	27-FEB-2010 20:34	947655	2010MDLV_BJCOList-S	1.0	QCQA	BJ MDLV	

Instrument Batch: /chem/MSD2.i/s022510a.b

GEL Laboratories LLC

Data file : /chem/MSD8.i/s030310.b/s8c0316.d
Lab Smp Id: 1202057396 Client Smp ID: WST29-10-13281MS
Inj Date : 03-MAR-2010 17:40
Operator : nagl Inst ID: MSD8.i
Smp Info : |1202057396|959294|1|SVMF|1|MS
Misc Info : |MSD82709L|WBN100227-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Meth Date : 04-Mar-2010 07:36 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 10 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2022.sub
Target Version: 3.50
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	500.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.354	4.354	(1.000)	265569	40.0000	
* 29 Naphthalene-d8	136	5.611	5.611	(1.000)	1007121	40.0000	
* 46 Acenaphthene-d10	164	7.463	7.463	(1.000)	597994	40.0000	
* 67 Phenanthrene-d10	188	9.058	9.058	(1.000)	1036240	40.0000	
* 91 Chrysene-d12	240	11.949	11.944	(1.000)	959722	40.0000	
* 98 Perylene-d12	264	13.997	13.992	(1.000)	673649	40.0000	
$ 3 2-Fluorophenol	112	3.201	3.201	(0.735)	276442	44.0916	88.2
$ 5 Phenol-d5	99	3.977	3.973	(0.914)	279759	35.7791	71.6
$ 20 Nitrobenzene-d5	82	4.877	4.877	(0.869)	231588	32.3480	64.7
$ 39 2-Fluorobiphenyl	172	6.739	6.735	(0.903)	607191	34.4958	69.0
$ 60 2,4,6-Tribromophenol	329	8.306	8.306	(1.113)	117147	59.2624	118
$ 81 p-Terphenyl-d14	244	10.777	10.773	(0.902)	723691	41.8839	83.8
6 Phenol	94	3.992	3.987	(0.917)	147413	18.2567	36.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	4.154	4.154	(0.954)	181312	25.8597	51.7
11 1,4-Dichlorobenzene	146	4.368	4.368	(1.003)	233120	27.1736	54.3
17 N-Nitrosodipropylamine	70	4.720	4.725	(1.084)	173881	33.6683	67.3(Q)
28 1,2,4-Trichlorobenzene	180	5.549	5.549	(0.989)	222922	30.4066	60.8
33 4-Chloro-3-methylphenol	107	6.177	6.168	(1.101)	178903	30.3282	60.6
47 Acenaphthene	154	7.496	7.497	(1.004)	491019	30.8995	61.8
50 2,4-Dinitrotoluene	165	7.658	7.663	(1.026)	185794	38.2489	76.5
52 4-Nitrophenol	139	7.596	7.578	(1.018)	46309	22.6872	45.4
65 Pentachlorophenol	266	8.854	8.844	(0.977)	70997	30.9697	61.9
79 Pyrene	202	10.611	10.606	(0.888)	1032550	34.4588	68.9
2 Pyridine	79	2.273	2.273	(0.522)	171270	28.8642	57.7
4 Aniline	66	4.044	4.044	(0.929)	112191	30.4240	60.8
7 bis(2-Chloroethyl) ether	63	4.087	4.087	(0.939)	152176	27.5675	55.1
9 1,3-Dichlorobenzene	146	4.301	4.301	(0.988)	232324	27.9405	55.9
12 Benzyl alcohol	108	4.468	4.463	(1.026)	17202	3.92232	7.8(aQR)
13 1,2-Dichlorobenzene	146	4.511	4.511	(1.036)	237448	29.7556	59.5
14 bis(2-Chloroisopropyl)ether	45	4.596	4.597	(1.056)	268407	24.7992	49.6
15 o-Cresol	107	4.558	4.558	(1.047)	182849	32.6070	65.2
18 m,p-Cresols	107	4.711	4.706	(1.082)	247632	34.8943	69.8
19 Hexachloroethane	117	4.839	4.839	(1.112)	85055	26.3090	52.6
21 Nitrobenzene	77	4.896	4.897	(0.873)	282968	38.3171	76.6
22 Isophorone	82	5.135	5.135	(0.915)	483794	35.5836	71.2
23 2-Nitrophenol	139	5.215	5.216	(0.930)	93445	27.5697	55.1
24 2,4-Dimethylphenol	122	5.239	5.239	(0.934)	164729	27.3379	54.7
25 bis(2-Chloroethoxy)methane	93	5.344	5.344	(0.952)	266654	34.9738	69.9
26 2,4-Dichlorophenol	162	5.458	5.454	(0.973)	159814	29.3124	58.6
27 Benzoic acid	105	5.354	5.320	(0.954)	320017	88.8231	178
30 Naphthalene	128	5.630	5.630	(1.003)	707973	32.6330	65.3
31 4-Chloroaniline	127	5.677	5.677	(1.012)	253560	35.2303	70.5
32 Hexachlorobutadiene	225	5.754	5.754	(1.025)	131657	28.8744	57.7
34 2-Methylnaphthalene	142	6.354	6.354	(1.132)	507891	34.8632	69.7
35 1-Methylnaphthalene	142	6.458	6.458	(1.151)	494996	34.6530	69.3
36 Hexachlorocyclopentadiene	237	6.515	6.516	(0.873)	80918	21.8016	43.6
37 2,4,6-Trichlorophenol	196	6.644	6.644	(0.890)	125609	27.2628	54.5
38 2,4,5-Trichlorophenol	196	6.682	6.678	(0.895)	145957	29.8468	59.7
40 2-Chloronaphthalene	162	6.868	6.868	(0.920)	480874	32.7930	65.6
42 o-Nitroaniline	65	6.968	6.968	(0.934)	93972	22.9475	45.9
41 m-Nitroaniline	138	7.406	7.411	(0.992)	103525	33.1695	66.3
43 Dimethylphthalate	163	7.168	7.168	(0.960)	708363	42.2727	84.5
44 2,6-Dinitrotoluene	165	7.230	7.235	(0.969)	149028	39.3375	78.7
45 Acenaphthylene	152	7.311	7.311	(0.980)	840778	33.8655	67.7
48 2,4-Dinitrophenol	184	7.530	7.520	(1.009)	26708	28.4723	56.9
49 Dibenzofuran	168	7.682	7.682	(1.029)	734169	35.2124	70.4
51 Diethylphthalate	149	7.920	7.920	(1.061)	711572	40.5735	81.1
53 Fluorene	166	8.049	8.049	(1.078)	637620	33.0369	66.1
54 4-Chlorophenylphenylether	204	8.049	8.049	(1.078)	325890	35.0615	70.1
55 2-Methyl-4,6-dinitrophenol	198	8.096	8.097	(0.894)	47348	25.7762	51.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
56 p-Nitroaniline	138	8.058	8.063	(1.080)	69585	25.2312	50.5
133 Diphenylamine	169	8.173	8.173	(0.902)	558425	42.6460	85.3
58 1,2-Diphenylhydrazine	77	8.220	8.216	(0.907)	582196	37.8502	75.7
61 4-Bromophenylphenylether	248	8.573	8.573	(0.946)	195173	39.4161	78.8
63 Hexachlorobenzene	284	8.639	8.639	(0.954)	198110	38.4935	77.0
207 Atrazine	173	8.749	8.749	(0.966)	48005	52.4727	105
68 Phenanthrene	178	9.087	9.082	(1.003)	917384	37.7813	75.6
69 Anthracene	178	9.139	9.139	(1.009)	912696	36.2895	72.6
72 Di-n-butylphthalate	149	9.682	9.682	(1.069)	1209846	46.0221	92.0
76 Fluoranthene	202	10.368	10.363	(1.145)	997873	37.8432	75.7
85 Butylbenzylphthalate	149	11.301	11.297	(0.946)	486436	46.4234	92.8
89 Benzo(a)anthracene	228	11.935	11.930	(0.999)	899417	35.6129	71.2
90 3,3'-Dichlorobenzidine	252	11.896	11.892	(0.996)	53651	9.02387	18.0(aR)
92 Chrysene	228	11.977	11.973	(1.002)	862253	39.1296	78.2
93 bis(2-Ethylhexyl)phthalate	149	11.958	11.954	(1.001)	1768151	120.579	241(AR)
94 Di-n-octylphthalate	149	12.825	12.820	(0.916)	1022735	47.9682	95.9
95 Benzo(b)fluoranthene	252	13.401	13.392	(0.957)	727737	38.1040	76.2
96 Benzo(k)fluoranthene	252	13.444	13.435	(0.961)	732264	38.1381	76.3
97 Benzo(a)pyrene	252	13.906	13.901	(0.994)	633141	39.3058	78.6
99 Indeno(1,2,3-cd)pyrene	276	15.792	15.787	(1.128)	560381	41.9587	83.9
100 Dibenzo(a,h)anthracene	278	15.830	15.825	(1.131)	452978	43.8861	87.8
101 Benzo(ghi)perylene	276	16.254	16.254	(1.161)	455085	41.1843	82.4
102 1,4-Dioxane	88	2.034	2.039	(0.467)	64644	30.1267	60.2
111 N-Nitrosopyrrolidine	100	4.706	4.711	(1.081)	109484	33.6139	67.2(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.239	2.239	(0.514)	93117	23.0213	46.0

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD8.i/s030310.b/s8c0316.d
Date : 03-MAR-2010 17:40
Client ID: WST29-10-13281MS
Sample Info: 1120205739619592941|SVHF|1|MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: nag1
Column diameter: 0.20

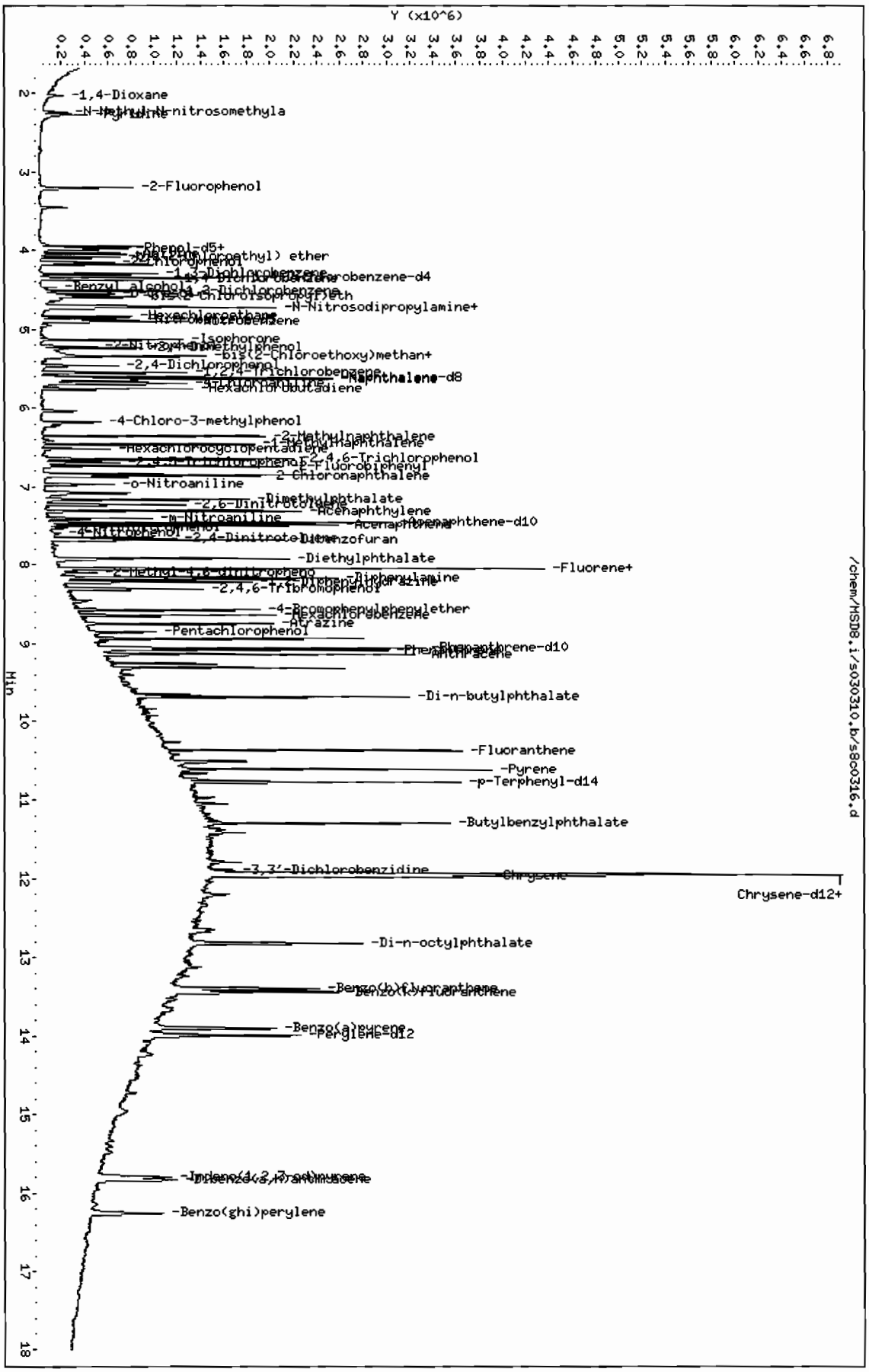

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GEL Laboratories LLC

Data file : /chem/MSD8.i/s030310.b/s8c0317.d
Lab Smp Id: 1202057397 Client Smp ID: WST29-10-13281MSD
Inj Date : 03-MAR-2010 18:09
Operator : nagl Inst ID: MSD8.i
Smp Info : |1202057397|959294|1|SVMF|1|MSD
Misc Info : |MSD82709L|WBN100227-01
Comment : Column: J & W DB-5MS, 25m x 0.20 mm x 0.33 micron film
Method : /chem/MSD8.i/s030310.b/MSD8-8270AQA-022010.m
Meth Date : 04-Mar-2010 07:36 nat00999 Quant Type: ISTD
Cal Date : 21-FEB-2010 23:15 Cal File: s8b2042.d
Als bottle: 11 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2022.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	500.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.353	4.354	(1.000)	312573	40.0000	
* 29 Naphthalene-d8	136	5.611	5.611	(1.000)	1228088	40.0000	
* 46 Acenaphthene-d10	164	7.463	7.463	(1.000)	745243	40.0000	
* 67 Phenanthrene-d10	188	9.058	9.058	(1.000)	1284370	40.0000	
* 91 Chrysene-d12	240	11.949	11.944	(1.000)	1156216	40.0000	
* 98 Perylene-d12	264	14.001	13.992	(1.000)	855781	40.0000	
$ 3 2-Fluorophenol	112	3.206	3.201	(0.736)	316529	42.8935	85.8
$ 5 Phenol-d5	99	3.977	3.973	(0.914)	333680	36.2578	72.5
$ 20 Nitrobenzene-d5	82	4.882	4.877	(0.870)	293942	33.6702	67.3
$ 39 2-Fluorobiphenyl	172	6.739	6.735	(0.903)	799146	36.4306	72.9
$ 60 2,4,6-Tribromophenol	329	8.311	8.306	(1.114)	131709	53.4641	107
$ 81 p-Terphenyl-d14	244	10.777	10.773	(0.902)	882325	42.3866	84.8
6 Phenol	94	3.992	3.987	(0.917)	179287	18.8652	37.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	4.153	4.154	(0.954)	209085	25.3365	50.7
11 1,4-Dichlorobenzene	146	4.368	4.368	(1.003)	306948	30.3990	60.8
17 N-Nitrosodipropylamine	70	4.725	4.725	(1.085)	222205	36.5552	73.1(Q)
28 1,2,4-Trichlorobenzene	180	5.549	5.549	(0.989)	298626	33.4037	66.8
33 4-Chloro-3-methylphenol	107	6.177	6.168	(1.101)	227092	31.5706	63.1
47 Acenaphthene	154	7.496	7.497	(1.004)	671399	33.9026	67.8
50 2,4-Dinitrotoluene	165	7.663	7.663	(1.027)	240016	39.6484	79.3
52 4-Nitrophenol	139	7.596	7.578	(1.018)	58057	22.8228	45.6
65 Pentachlorophenol	266	8.854	8.844	(0.977)	87355	30.7436	61.5
79 Pyrene	202	10.611	10.606	(0.888)	1281608	35.5019	71.0
2 Pyridine	79	2.277	2.273	(0.523)	188943	27.0542	54.1
4 Aniline	66	4.044	4.044	(0.929)	139272	32.0884	64.2
7 bis(2-Chloroethyl) ether	63	4.092	4.087	(0.940)	194875	29.9939	60.0
9 1,3-Dichlorobenzene	146	4.301	4.301	(0.988)	300804	30.7362	61.5
12 Benzyl alcohol	108	4.468	4.463	(1.026)	54797	10.6157	21.2(R)
13 1,2-Dichlorobenzene	146	4.515	4.511	(1.037)	313139	33.3399	66.7
14 bis(2-Chloroisopropyl)ether	45	4.596	4.597	(1.056)	347603	27.2868	54.6
15 o-Cresol	107	4.563	4.558	(1.048)	232096	35.1651	70.3
18 m,p-Cresols	107	4.711	4.706	(1.082)	297370	35.6017	71.2(Q)
19 Hexachloroethane	117	4.844	4.839	(1.113)	110087	28.9312	57.9
21 Nitrobenzene	77	4.901	4.897	(0.874)	358957	39.8611	79.7
22 Isophorone	82	5.134	5.135	(0.915)	629314	37.9585	75.9
23 2-Nitrophenol	139	5.215	5.216	(0.930)	105860	25.6129	51.2
24 2,4-Dimethylphenol	122	5.244	5.239	(0.935)	238936	32.5183	65.0
25 bis(2-Chloroethoxy)methane	93	5.344	5.344	(0.952)	352425	37.9065	75.8
26 2,4-Dichlorophenol	162	5.458	5.454	(0.973)	183104	27.5414	55.1
27 Benzoic acid	105	5.363	5.320	(0.956)	384902	87.8147	176
30 Naphthalene	128	5.634	5.630	(1.004)	947306	35.6131	71.2
31 4-Chloroaniline	127	5.677	5.677	(1.012)	325960	37.1408	74.3
32 Hexachlorobutadiene	225	5.753	5.754	(1.025)	178557	32.1143	64.2
34 2-Methylnaphthalene	142	6.354	6.354	(1.132)	702964	39.3950	78.8
35 1-Methylnaphthalene	142	6.458	6.458	(1.151)	676378	38.6820	77.4
36 Hexachlorocyclopentadiene	237	6.515	6.516	(0.873)	109728	23.7225	47.4
37 2,4,6-Trichlorophenol	196	6.644	6.644	(0.890)	148006	25.7768	51.6
38 2,4,5-Trichlorophenol	196	6.687	6.678	(0.896)	164343	26.9664	53.9
40 2-Chloronaphthalene	162	6.868	6.868	(0.920)	666694	36.3172	72.6
42 o-Nitroaniline	65	6.968	6.968	(0.934)	113151	22.1715	44.3
41 m-Nitroaniline	138	7.411	7.411	(0.993)	130227	33.4806	67.0
43 Dimethylphthalate	163	7.168	7.168	(0.960)	919644	44.0375	88.1
44 2,6-Dinitrotoluene	165	7.234	7.235	(0.969)	196721	41.6667	83.3
45 Acenaphthylene	152	7.311	7.311	(0.980)	1137984	36.7799	73.6
48 2,4-Dinitrophenol	184	7.534	7.520	(1.010)	27306	25.9400	51.9
49 Dibenzofuran	168	7.682	7.682	(1.029)	982466	37.8109	75.6
51 Diethylphthalate	149	7.925	7.920	(1.062)	930634	42.5796	85.2
53 Fluorene	166	8.049	8.049	(1.078)	867592	36.0705	72.1
54 4-Chlorophenylphenylether	204	8.049	8.049	(1.078)	439282	37.9229	75.8
55 2-Methyl-4,6-dinitrophenol	198	8.101	8.097	(0.894)	48070	22.3303	44.7

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
56 p-Nitroaniline	138	8.063	8.063	(1.080)	86749	25.2397	50.5
133 Diphenylamine	169	8.173	8.173	(0.902)	728973	44.9154	89.8
58 1,2-Diphenylhydrazine	77	8.220	8.216	(0.907)	769828	40.3797	80.8
61 4-Bromophenylphenylether	248	8.573	8.573	(0.946)	257834	42.0111	84.0
63 Hexachlorobenzene	284	8.639	8.639	(0.954)	258842	40.5775	81.2
207 Atrazine	173	8.749	8.749	(0.966)	61879	54.5708	109
68 Phenanthrene	178	9.087	9.082	(1.003)	1190593	39.4677	78.9
69 Anthracene	178	9.139	9.139	(1.009)	1166372	37.4164	74.8
72 Di-n-butylphthalate	149	9.687	9.682	(1.069)	1565318	48.0407	96.1
76 Fluoranthene	202	10.368	10.363	(1.145)	1251559	38.2943	76.6
85 Butylbenzylphthalate	149	11.301	11.297	(0.946)	618717	49.0128	98.0
89 Benzo(a)anthracene	228	11.935	11.930	(0.999)	1108492	36.4322	72.9
90 3,3'-Dichlorobenzidine	252	11.896	11.892	(0.996)	57615	8.04372	16.1(aR)
92 Chrysene	228	11.982	11.973	(1.003)	1052806	39.6524	79.3
93 bis(2-Ethylhexyl)phthalate	149	11.963	11.954	(1.001)	2193403	124.159	248(AR)
94 Di-n-octylphthalate	149	12.825	12.820	(0.916)	1267199	46.9157	93.8
95 Benzo(b)fluoranthene	252	13.401	13.392	(0.957)	922580	38.0252	76.0
96 Benzo(k)fluoranthene	252	13.449	13.435	(0.961)	903668	37.0485	74.1
97 Benzo(a)pyrene	252	13.911	13.901	(0.994)	819099	40.0280	80.0
99 Indeno(1,2,3-cd)pyrene	276	15.796	15.787	(1.128)	741695	43.7155	87.4
100 Dibenzo(a,h)anthracene	278	15.835	15.825	(1.131)	684583	52.2092	104
101 Benzo(ghi)perylene	276	16.263	16.254	(1.162)	684185	48.7397	97.5
102 1,4-Dioxane	88	2.034	2.039	(0.467)	76368	30.2385	60.5
111 N-Nitrosopyrrolidine	100	4.706	4.711	(1.081)	141223	36.8383	73.7(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.239	2.239	(0.514)	115441	24.2486	48.5

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/MSD8.i/s030310.b/s8c0317.d
Date : 03-MAR-2010 18:09
Client ID: WST29-10-13281MSD
Sample Info: 1120205739719592941|SVHF11|MSD
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD8.i
Operator: nag1
Column diameter: 0.20

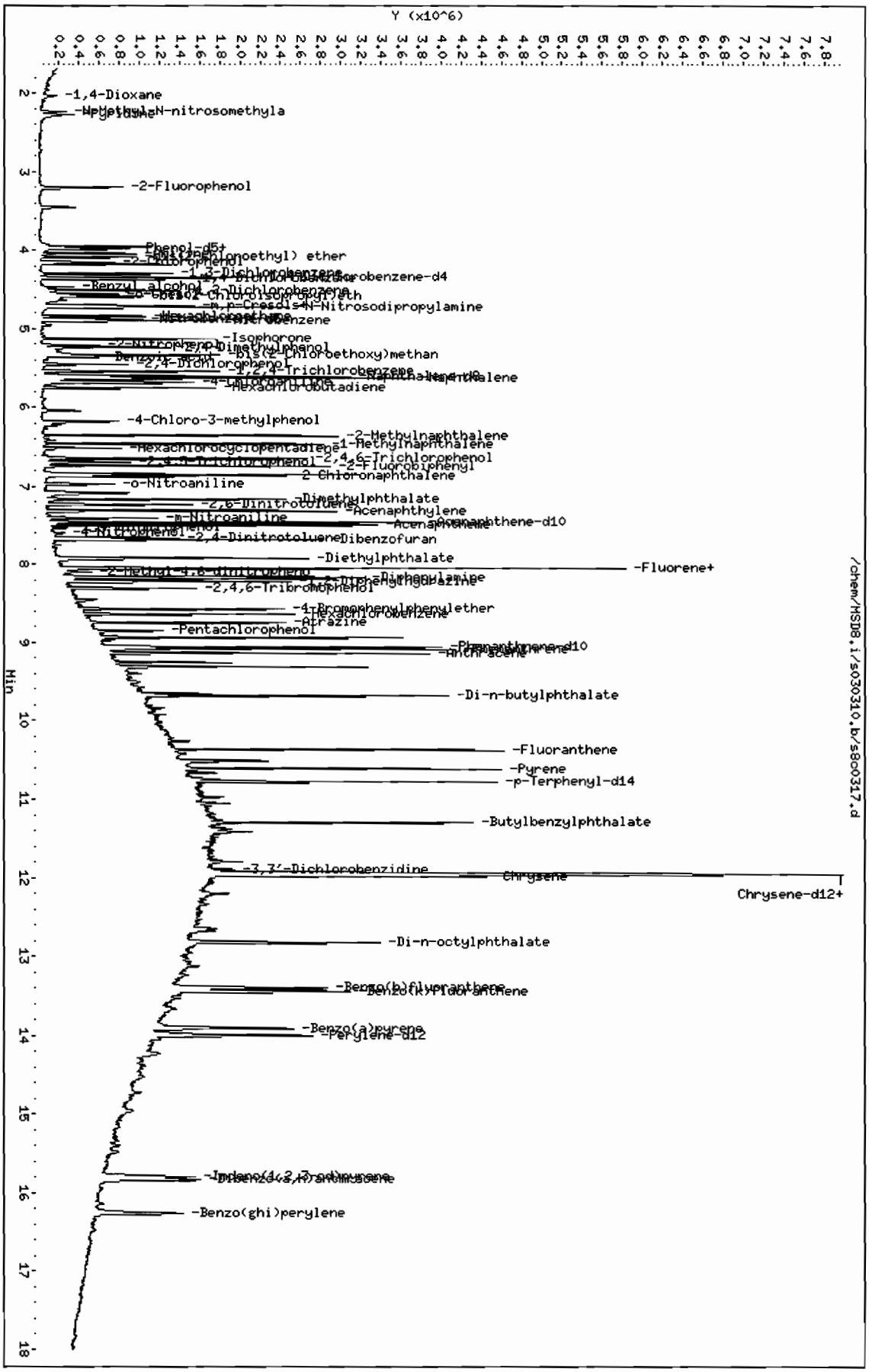

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Data file : /chem/MSD2.i/s030310a.b/s2c0328.d
Lab Smp Id: 1202058724 Client Smp ID: CAPA-10-12917MS
Inj Date : 04-MAR-2010 03:54
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202058724|959852|1|SVM|1|MS
Misc Info : |MSD82709L|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Meth Date : 03-Mar-2010 22:22 ann00964 Quant Type: ISTD
Cal Date : 27-FEB-2010 17:29 Cal File: s2b2568.d
Als bottle: 28 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2039.sub
Target Version: 3.50
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	500.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.009	4.009	(1.000)	367413	40.0000	
* 29 Naphthalene-d8	136	4.875	4.875	(1.000)	1597006	40.0000	
* 46 Acenaphthene-d10	164	6.116	6.121	(1.000)	816380	40.0000	
* 67 Phenanthrene-d10	188	7.095	7.100	(1.000)	1314990	40.0000	
* 91 Chrysene-d12	240	8.796	8.806	(1.000)	923616	40.0000	
* 98 Perylene-d12	264	10.352	10.358	(1.000)	609778	40.0000	
$ 3 2-Fluorophenol	112	3.190	3.190	(0.796)	705777	60.8840	122
$ 5 Phenol-d5	99	3.715	3.715	(0.927)	681789	44.7957	89.6
$ 20 Nitrobenzene-d5	82	4.367	4.372	(0.896)	605732	39.6333	79.3
$ 39 2-Fluorobiphenyl	172	5.613	5.613	(0.918)	847210	37.4713	74.9
$ 60 2,4,6-Tribromophenol	329	6.651	6.646	(1.087)	254888	85.9501	172
$ 81 p-Terphenyl-d14	244	8.009	8.015	(0.911)	810489	49.3788	98.8
6 Phenol	94	3.725	3.725	(0.929)	369338	23.8772	47.8

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	3.870	3.870	(0.965)	470149	38.2715	76.5
11 1,4-Dichlorobenzene	146	4.019	4.019	(1.003)	430949	33.5410	67.1
17 N-Nitrosodipropylamine	70	4.244	4.244	(1.059)	420362	40.5891	81.2(Q)
28 1,2,4-Trichlorobenzene	180	4.822	4.822	(0.989)	357912	33.6480	67.3
33 4-Chloro-3-methylphenol	107	5.212	5.212	(1.069)	476263	41.6724	83.3
47 Acenaphthene	154	6.143	6.143	(1.004)	832200	40.4234	80.8
50 2,4-Dinitrotoluene	165	6.218	6.223	(1.017)	308868	41.2836	82.6
52 4-Nitrophenol	139	6.148	6.148	(1.005)	96221	25.5905	51.2
65 Pentachlorophenol	266	6.966	6.967	(0.982)	139130	42.6336	85.3
79 Pyrene	202	7.967	7.972	(0.906)	1330046	45.2168	90.4
2 Pyridine	79	2.543	2.543	(0.634)	423700	35.0588	70.1
4 Aniline	66	3.789	3.789	(0.945)	353487	46.2310	92.5(Q)
7 bis(2-Chloroethyl) ether	63	3.805	3.805	(0.949)	530624	37.8479	75.7
9 1,3-Dichlorobenzene	146	3.971	3.977	(0.991)	419523	32.6724	65.3
12 Benzyl alcohol	108	4.073	4.073	(1.016)	290214	33.4763	67.0
13 1,2-Dichlorobenzene	146	4.121	4.121	(1.028)	405622	35.5060	71.0
14 bis(2-Chloroisopropyl)ether	45	4.148	4.148	(1.035)	1258760	46.8183	93.6
15 o-Cresol	107	4.121	4.121	(1.028)	374576	37.9730	75.9
18 m,p-Cresols	107	4.223	4.223	(1.053)	533683	39.3009	78.6
19 Hexachloroethane	117	4.351	4.351	(1.085)	179010	32.1354	64.3
21 Nitrobenzene	77	4.383	4.383	(0.899)	583773	40.3573	80.7
22 Isophorone	82	4.533	4.538	(0.930)	1134387	40.1713	80.3
23 2-Nitrophenol	139	4.597	4.597	(0.943)	232617	38.9511	77.9
24 2,4-Dimethylphenol	122	4.586	4.586	(0.941)	420788	36.5829	73.2
25 bis(2-Chloroethoxy)methane	93	4.651	4.656	(0.954)	574426	37.3714	74.7
26 2,4-Dichlorophenol	162	4.758	4.758	(0.976)	366633	39.6695	79.3
27 Benzoic acid	105	4.651	4.635	(0.954)	377456	50.2949	100
30 Naphthalene	128	4.891	4.891	(1.003)	1323208	35.2870	70.6
31 4-Chloroaniline	127	4.902	4.902	(1.005)	723046	42.4905	85.0
32 Hexachlorobutadiene	225	4.955	4.955	(1.016)	197779	33.4415	66.9
34 2-Methylnaphthalene	142	5.367	5.373	(1.101)	810876	35.5911	71.2
35 1-Methylnaphthalene	142	5.442	5.442	(1.116)	773427	34.7027	69.4
36 Hexachlorocyclopentadiene	237	5.474	5.474	(0.895)	125182	27.1508	54.3
37 2,4,6-Trichlorophenol	196	5.554	5.554	(0.908)	254761	42.6549	85.3
38 2,4,5-Trichlorophenol	196	5.587	5.581	(0.913)	279466	40.0724	80.1
40 2-Chloronaphthalene	162	5.726	5.726	(0.936)	754101	36.1726	72.3
42 o-Nitroaniline	65	5.774	5.779	(0.944)	365844	42.5504	85.1
41 m-Nitroaniline	138	6.068	6.068	(0.992)	224881	42.8556	85.7
43 Dimethylphthalate	163	5.881	5.886	(0.962)	1089966	43.6504	87.3
44 2,6-Dinitrotoluene	165	5.940	5.940	(0.971)	234408	40.8344	81.7
45 Acenaphthylene	152	6.025	6.025	(0.985)	1242934	39.5750	79.2
48 2,4-Dinitrophenol	184	6.132	6.132	(1.003)	85013	47.5971	95.2(Q)
49 Dibenzofuran	168	6.255	6.261	(1.023)	1096006	39.2932	78.6
51 Diethylphthalate	149	6.362	6.362	(1.040)	1084582	45.1595	90.3
53 Fluorene	166	6.490	6.490	(1.061)	913669	40.7065	81.4
54 4-Chlorophenylphenylether	204	6.464	6.469	(1.057)	448763	40.0198	80.0
55 2-Methyl-4,6-dinitrophenol	198	6.501	6.501	(0.916)	142355	46.5650	93.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
56 p-Nitroaniline	138	6.485	6.485	(1.060)	213990	47.0480	94.1
133 Diphenylamine	169	6.544	6.544	(0.922)	836443	46.8749	93.7
58 1,2-Diphenylhydrazine	77	6.571	6.576	(0.926)	1323378	46.0070	92.0
61 4-Bromophenylphenylether	248	6.790	6.790	(0.957)	242493	40.9159	81.8
63 Hexachlorobenzene	284	6.849	6.849	(0.965)	263577	40.9254	81.8
207 Atrazine	173	6.860	6.860	(0.967)	69585	43.1288	86.2
68 Phenanthrene	178	7.111	7.116	(1.002)	1350213	40.0872	80.2
69 Anthracene	178	7.143	7.143	(1.007)	1398662	42.8959	85.8
72 Di-n-butylphthalate	149	7.378	7.378	(1.040)	1737263	46.3158	92.6
76 Fluoranthene	202	7.822	7.822	(1.103)	1293632	40.8359	81.7
77 Benzidine	184	7.865	7.865	(0.894)	489594	57.2287	114
85 Butylbenzylphthalate	149	8.282	8.288	(0.942)	683029	54.7825	110
89 Benzo(a)anthracene	228	8.785	8.790	(0.999)	1033523	41.1061	82.2
90 3,3'-Dichlorobenzidine	252	8.721	8.716	(0.991)	273079	42.3301	84.7
92 Chrysene	228	8.822	8.828	(1.003)	947790	40.0422	80.1
93 bis(2-Ethylhexyl)phthalate	149	8.657	8.662	(0.984)	905073	49.0000	98.0
94 Di-n-octylphthalate	149	9.224	9.229	(0.891)	1313553	55.1672	110
95 Benzo(b)fluoranthene	252	9.855	9.860	(0.952)	775661	45.3182	90.6
96 Benzo(k)fluoranthene	252	9.887	9.892	(0.955)	733388	41.5559	83.1
97 Benzo(a)pyrene	252	10.277	10.288	(0.993)	611407	41.8234	83.6
99 Indeno(1,2,3-cd)pyrene	276	12.107	12.117	(1.169)	533341	39.4083	78.8
100 Dibenzo(a,h)anthracene	278	12.112	12.123	(1.170)	442440	40.1013	80.2
101 Benzo(ghi)perylene	276	12.657	12.663	(1.223)	430765	37.7230	75.4
102 1,4-Dioxane	88	2.361	2.361	(0.589)	174853	39.6093	79.2
111 N-Nitrosopyrrolidine	100	4.249	4.244	(1.060)	244915	39.2730	78.5(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.506	2.506	(0.625)	253218	30.2722	60.5

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s030310a.b/s2c0328.d
Date : 04-MAR-2010 03:54
Client ID: CAPA-10-12917MS
Sample Info: 1120205872419598521 1|SVM11|MS
Volume Injected (uL): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

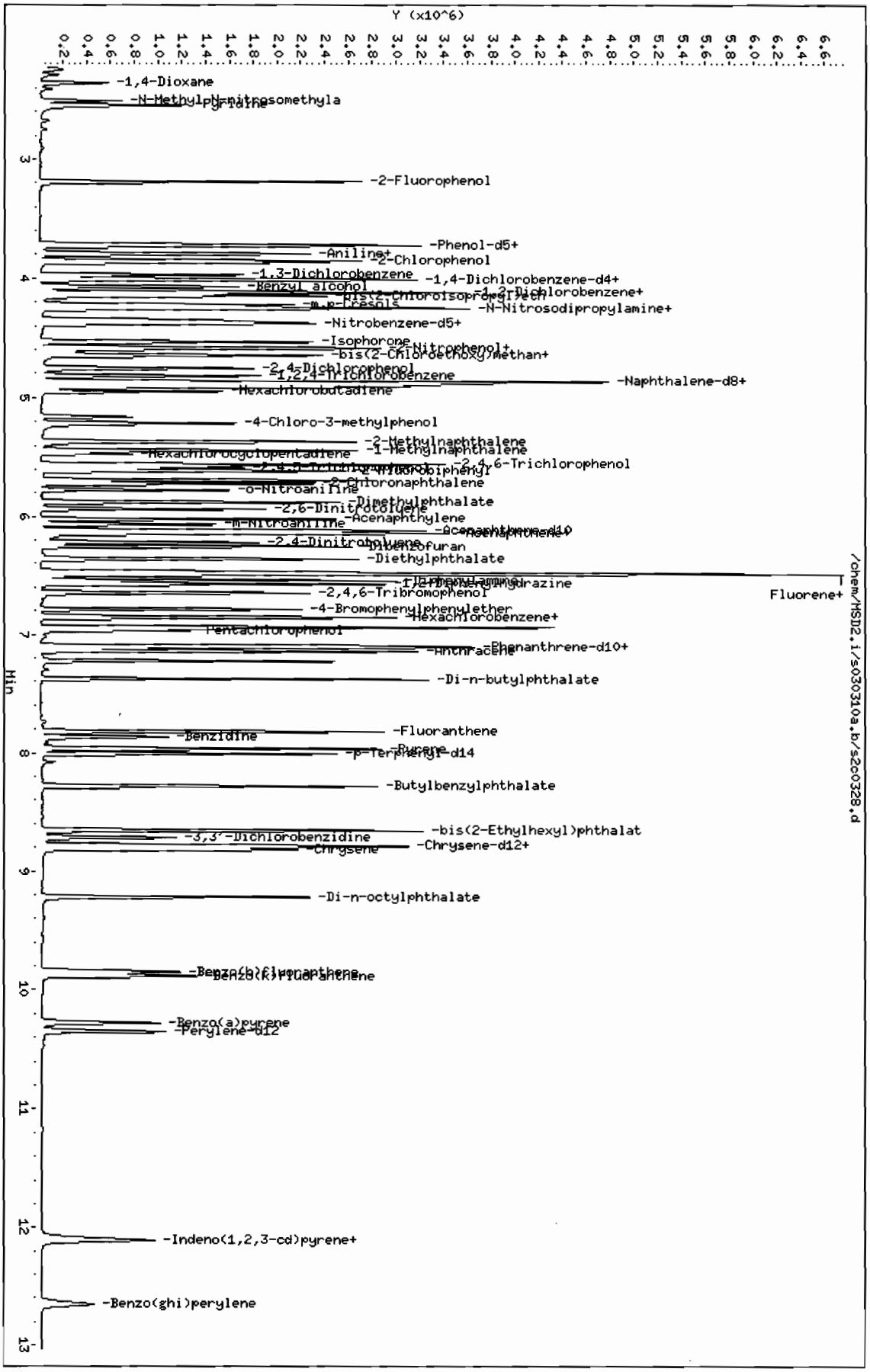

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Data file : /chem/MSD2.i/s030310a.b/s2c0329.d
Lab Smp Id: 1202058725 Client Smp ID: CAPA-10-12917MSD
Inj Date : 04-MAR-2010 04:13
Operator : AGS1 Inst ID: MSD2.i
Smp Info : |1202058725|959852|1|SVM|1|MSD
Misc Info : |MSD82709L|WBN100227-01|
Comment : Column: J & W Scientific DB-5MS 25m x 0.2mm x 0.33um
Method : /chem/MSD2.i/s030310a.b/MSD2-M8270AQA-022510a.m
Meth Date : 03-Mar-2010 22:22 ann00964 Quant Type: ISTD
Cal Date : 27-FEB-2010 17:29 Cal File: s2b2568.d
Als bottle: 29 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 10-2039.sub
Target Version: 3.50
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf * Vt/(Vo *Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	500.00000	ng unit correction factor
Vt	1.00000	volume of final ext
Vo	500.00000	volume of sample ext
Vi	0.50000	volume injected

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
* 10 1,4-Dichlorobenzene-d4	152	4.009	4.009	(1.000)	378930	40.0000	
* 29 Naphthalene-d8	136	4.875	4.875	(1.000)	1673329	40.0000	
* 46 Acenaphthene-d10	164	6.121	6.121	(1.000)	870445	40.0000	
* 67 Phenanthrene-d10	188	7.095	7.100	(1.000)	1443336	40.0000	
* 91 Chrysene-d12	240	8.796	8.806	(1.000)	1101371	40.0000	
* 98 Perylene-d12	264	10.352	10.358	(1.000)	760843	40.0000	
$ 3 2-Fluorophenol	112	3.190	3.190	(0.796)	725143	60.6533	121
$ 5 Phenol-d5	99	3.714	3.715	(0.927)	723067	46.0639	92.1
$ 20 Nitrobenzene-d5	82	4.367	4.372	(0.896)	654574	40.8755	81.8
$ 39 2-Fluorobiphenyl	172	5.613	5.613	(0.917)	938091	38.9138	77.8
$ 60 2,4,6-Tribromophenol	329	6.651	6.646	(1.087)	283606	89.6940	179
$ 81 p-Terphenyl-d14	244	8.009	8.015	(0.911)	928981	47.4633	94.9
6 Phenol	94	3.725	3.725	(0.929)	397788	24.9349	49.9

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
8 2-Chlorophenol	128	3.869	3.870	(0.965)	498540	39.3491	78.7
11 1,4-Dichlorobenzene	146	4.019	4.019	(1.003)	455200	34.3517	68.7
17 N-Nitrosodipropylamine	70	4.244	4.244	(1.059)	457257	42.8097	85.6(Q)
28 1,2,4-Trichlorobenzene	180	4.822	4.822	(0.989)	388574	34.8644	69.7
33 4-Chloro-3-methylphenol	107	5.217	5.212	(1.070)	523777	43.7395	87.5
47 Acenaphthene	154	6.143	6.143	(1.003)	940571	42.8916	85.8
50 2,4-Dinitrotoluene	165	6.218	6.223	(1.016)	347361	43.5448	87.1
52 4-Nitrophenol	139	6.153	6.148	(1.005)	113173	28.2295	56.4
65 Pentachlorophenol	266	6.966	6.967	(0.982)	160521	44.8145	89.6
79 Pyrene	202	7.967	7.972	(0.906)	1526846	43.5132	87.0
2 Pyridine	79	2.543	2.543	(0.634)	399519	32.0532	64.1
4 Aniline	66	3.789	3.789	(0.945)	343709	43.5859	87.2(Q)
7 bis(2-Chloroethyl) ether	63	3.805	3.805	(0.949)	560112	38.7370	77.5
9 1,3-Dichlorobenzene	146	3.971	3.977	(0.991)	447702	33.8072	67.6
12 Benzyl alcohol	108	4.073	4.073	(1.016)	309048	34.5653	69.1
13 1,2-Dichlorobenzene	146	4.121	4.121	(1.028)	427159	36.2548	72.5
14 bis(2-Chloroisopropyl)ether	45	4.148	4.148	(1.035)	1344482	48.4868	97.0
15 o-Cresol	107	4.121	4.121	(1.028)	397621	39.0841	78.2
18 m,p-Cresols	107	4.222	4.223	(1.053)	579638	41.3877	82.8
19 Hexachloroethane	117	4.351	4.351	(1.085)	183766	31.9866	64.0
21 Nitrobenzene	77	4.383	4.383	(0.899)	635493	41.9290	83.8
22 Isophorone	82	4.538	4.538	(0.931)	1236930	41.8047	83.6
23 2-Nitrophenol	139	4.597	4.597	(0.943)	255690	40.8617	81.7
24 2,4-Dimethylphenol	122	4.586	4.586	(0.941)	461863	38.5827	77.2
25 bis(2-Chloroethoxy)methane	93	4.650	4.656	(0.954)	633389	39.3279	78.6
26 2,4-Dichlorophenol	162	4.757	4.758	(0.976)	397340	41.0311	82.1
27 Benzoic acid	105	4.656	4.635	(0.955)	450695	57.3147	115
30 Naphthalene	128	4.891	4.891	(1.003)	1453754	37.0280	74.0
31 4-Chloroaniline	127	4.902	4.902	(1.005)	741251	41.5735	83.1
32 Hexachlorobutadiene	225	4.955	4.955	(1.016)	206857	33.3811	66.8
34 2-Methylnaphthalene	142	5.367	5.373	(1.101)	902305	37.8324	75.7
35 1-Methylnaphthalene	142	5.442	5.442	(1.116)	855917	36.6837	73.4
36 Hexachlorocyclopentadiene	237	5.474	5.474	(0.894)	144187	29.3304	58.7
37 2,4,6-Trichlorophenol	196	5.554	5.554	(0.907)	280390	44.0301	88.1
38 2,4,5-Trichlorophenol	196	5.586	5.581	(0.913)	316623	42.5804	85.2
40 2-Chloronaphthalene	162	5.725	5.726	(0.935)	851104	38.3175	76.6
42 o-Nitroaniline	65	5.779	5.779	(0.944)	405285	44.2099	88.4
41 m-Nitroaniline	138	6.068	6.068	(0.991)	250733	44.8144	89.6
43 Dimethylphthalate	163	5.881	5.886	(0.961)	1212163	45.5289	91.0
44 2,6-Dinitrotoluene	165	5.939	5.940	(0.970)	264531	43.2196	86.4
45 Acenaphthylene	152	6.025	6.025	(0.984)	1400788	41.8550	83.7
48 2,4-Dinitrophenol	184	6.132	6.132	(1.002)	105447	53.8005	108(Q)
49 Dibenzofuran	168	6.255	6.261	(1.022)	1246294	41.9060	83.8
51 Diethylphthalate	149	6.362	6.362	(1.039)	1205310	47.0692	94.1
53 Fluorene	166	6.490	6.490	(1.060)	1022289	42.7455	85.5
54 4-Chlorophenylphenylether	204	6.464	6.469	(1.056)	511583	42.7883	85.6
55 2-Methyl-4,6-dinitrophenol	198	6.501	6.501	(0.916)	173974	51.8474	104

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/ul)	FINAL (ug/L)
56 p-Nitroaniline	138	6.485	6.485	(1.059)	232399	47.9218	95.8
133 Diphenylamine	169	6.544	6.544	(0.922)	940486	48.0188	96.0
58 1,2-Diphenylhydrazine	77	6.576	6.576	(0.927)	1483232	46.9791	94.0
61 4-Bromophenylphenylether	248	6.790	6.790	(0.957)	273422	42.0321	84.1
63 Hexachlorobenzene	284	6.849	6.849	(0.965)	298315	42.2003	84.4
207 Atrazine	173	6.865	6.860	(0.968)	78581	44.3736	88.7
68 Phenanthrene	178	7.111	7.116	(1.002)	1514829	40.9881	82.0
69 Anthracene	178	7.143	7.143	(1.007)	1567683	43.8153	87.6
72 Di-n-butylphthalate	149	7.378	7.378	(1.040)	1967529	47.7903	95.6
76 Fluoranthene	202	7.822	7.822	(1.103)	1485959	42.7565	85.5
77 Benzidine	184	7.865	7.865	(0.894)	351551	34.4607	68.9
85 Butylbenzylphthalate	149	8.282	8.288	(0.942)	804755	54.1283	108
89 Benzo(a)anthracene	228	8.785	8.790	(0.999)	1168124	38.9613	77.9
90 3,3'-Dichlorobenzidine	252	8.721	8.716	(0.991)	346041	44.9827	90.0
92 Chrysene	228	8.822	8.828	(1.003)	1210599	42.9231	85.8
93 bis(2-Ethylhexyl)phthalate	149	8.656	8.662	(0.984)	1092285	49.5914	99.2
94 Di-n-octylphthalate	149	9.218	9.229	(0.890)	1634458	55.0153	110
95 Benzo(b)fluoranthene	252	9.855	9.860	(0.952)	984986	46.1219	92.2
96 Benzo(k)fluoranthene	252	9.887	9.892	(0.955)	900348	40.8870	81.8
97 Benzo(a)pyrene	252	10.277	10.288	(0.993)	777705	42.6364	85.3
99 Indeno(1,2,3-cd)pyrene	276	12.112	12.117	(1.170)	692986	41.0378	82.1
100 Dibenzo(a,h)anthracene	278	12.112	12.123	(1.170)	570802	41.4635	82.9
101 Benzo(ghi)perylene	276	12.657	12.663	(1.223)	558617	39.2064	78.4
102 1,4-Dioxane	88	2.361	2.361	(0.589)	176483	38.7634	77.5
111 N-Nitrosopyrrolidine	100	4.249	4.244	(1.060)	268962	41.8182	83.6(Q)
1 N-Methyl-N-nitrosomethylamine	74	2.506	2.506	(0.625)	265604	30.7879	61.6

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/MSD2.i/s030310a.b/s2c0329.d
Date : 04-MAR-2010 04:13
Client ID: CAPA-10-12917MSD
Sample Info: 1120205872581989852111SVM11MSD
Volume Injected (ul): 0.5
Column phase: J&W DB-5MS

Instrument: MSD2.i
Operator: ACS1
Column diameter: 0.20

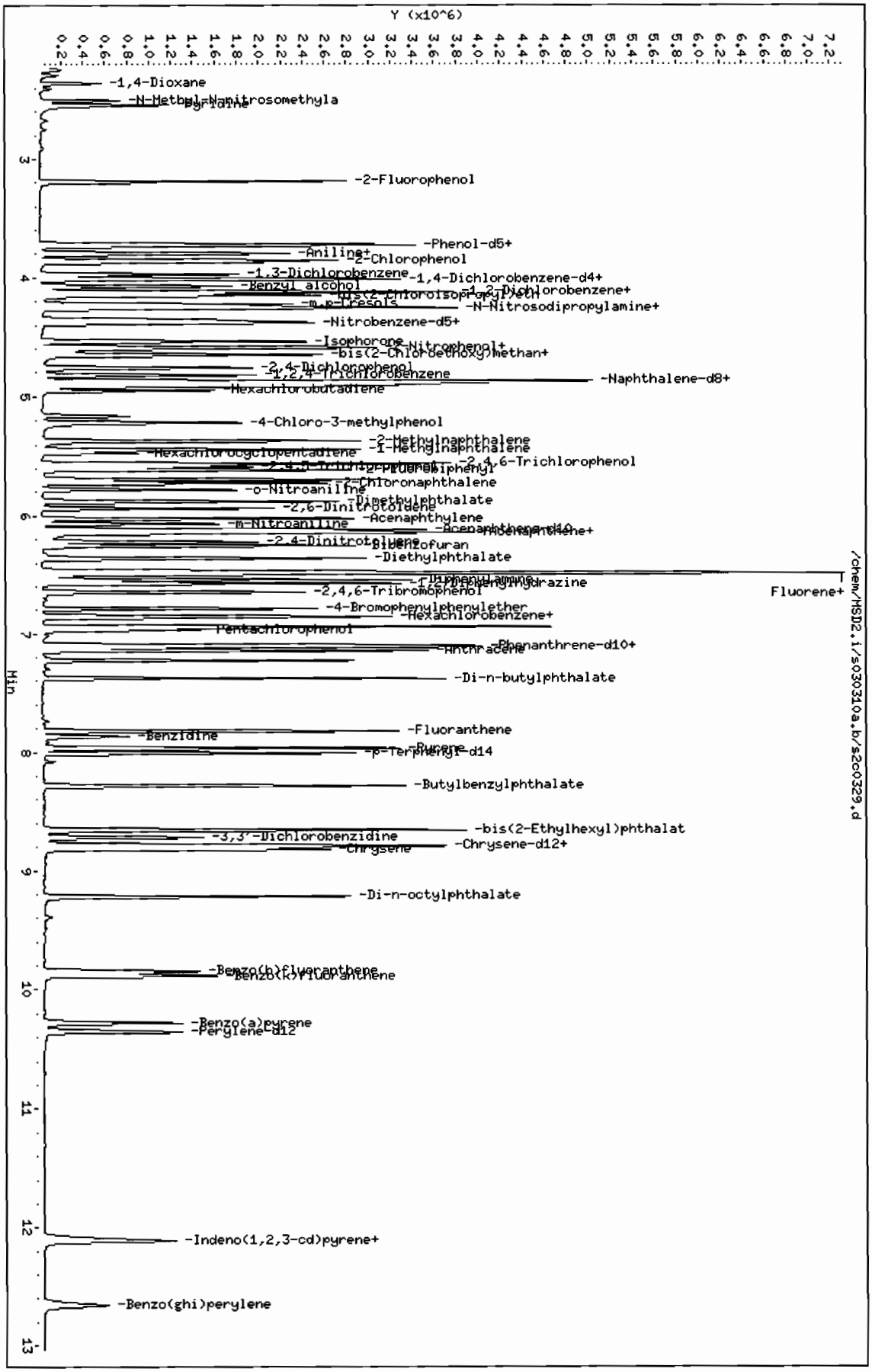

Page 1

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LC/MS/MS EXPLOSIVES ANALYSIS

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LC/MS/MS Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2057

Method/Analysis Information

Procedure:	**Definitive Low Level Analysis of Nitroaromatic Explosives Utilizing Liquid Chromatography / Mass Spectrometry / Mass Spectrometry (LC/MS/MS) by SW-846 Method 8321 Modified (8321M)**
Analytical Method:	SW846 3535/8321A Modified
Prep Method:	SW846 Method 3535
Analytical Batch Number:	958282
Prep Batch Number:	958278

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 3535/8321A Modified :

Sample ID	Client ID
248042002	CAPA-10-12771
248042008	CAPA-10-13083
248042010	CAPA-10-13085
1202055078	Method Blank (MB)
1202055079	Laboratory Control Sample (LCS)
1202055080	248017003(CAPA-10-12917) Matrix Spike (MS)
1202055081	248017003(CAPA-10-12917) Matrix Spike Duplicate (MSD)

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-056 REV# 12.

Primary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

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CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Client sample 248017003 (CAPA-10-12917) from SDG 10-2039 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The MS/MSD RPD for Tetryl was 39.2%. The acceptance limits are 0-30%. Since all other RPD recoveries met acceptance criteria, the noted exceptions are attributed to vagaries in the analytical and/or extraction process. The data are reported. Please see data exception report 817080.

Internal Standard (ISTD) Acceptance
Samples 1202055078 (MB), 248042002 (CAPA-10-12771) and 248042008 (CAPA-10-13083) failed ISTD acceptance criteria. Please see the Form 8 in the data package for the exact recoveries. The samples were re-analyzed and similar recoveries were observed. The re-analysis data are reported. The confirmation raw data are in the Miscellaneous Section. Please see data exception report 817080.

Technical Information

Holding Time Specifications
Samples 248042002(CAPA-10-12771), 248042008(CAPA-10-13083) and 248042010(CAPA-10-13085) were analyzed out of holding for the Primary analyte analysis. The analytical holding times for the samples in this batch were exceeded due to limitations of instrument capacity. However, these samples were analyzed within two times the analytical holding time of the method. The client was notified of this situation and is in agreement to receive these qualified data. The data are reported. Please see data exception report 817080. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

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Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Samples 1202055078 (MB), 248042002 (CAPA-10-12771) and 248042008 (CAPA-10-13083) failed ISTD acceptance criteria. Please see the Form 8 in the data package for the exact recoveries. The samples were re-analyzed and similar recoveries were observed. The re-analysis data are reported. The confirmation raw data are in the Miscellaneous Section. Please see data exception report 817080.

Secondary Analyte Analysis

Calibration Information

Initial Calibration
All initial calibration requirements for this analysis have been met for this SDG.

Calibration Verification Standard Requirements
All associated calibration verification standard(s) (ICV or CCV) for this analysis met the acceptance criteria.

Calibration Blank Requirements
All initial or continuing calibration blanks (ICB or CCB) bracketing the analyses associated with this batch for this analysis were within acceptance criteria. Due to software limitations, the CCBs and/or the ICBs may have a concentration for target analytes in the Found column. These values should be zero.

CRI Requirements
All low level calibration verification (CRI) requirements for this analysis were met by all bracketing CRI standards and may be based off the grand mean average percent recovery of all target analytes.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG for this analysis met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria in this SDG in this analytical batch for this analysis.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries were within the established acceptance limits.

QC Sample Designation
Client sample 248017003 (CAPA-10-12917) from SDG 10-2039 was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS spike recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD spike recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

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Internal Standard (ISTD) Acceptance
The internal standards were not added to the secondary analyte extracts.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch for this analysis met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
According to the GEL SOP for Method 8321A, all sample and QC extracts are diluted 1:1 v/v with HPLC grade water. The samples in this SDG in this analytical batch for this analysis did not require any additional dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG in this analytical batch for this analysis except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception report 817080 was generated for this SDG.

The MS/MSD RPD for Tetryl was 39.2%. The acceptance limits are 0-30%. Since all other RPD recoveries met acceptance criteria, the noted exceptions are attributed to vagaries in the analytical and/or extraction process. The data are reported.

Samples 1202055078 (MB), 248042002 (CAPA-10-12771) and 248042008 (CAPA-10-13083) failed ISTD acceptance criteria. Please see the Form 8 in the data package for the exact recoveries. The samples were re-analyzed and similar recoveries were observed. The re-analysis data are reported. The confirmation raw data are in the Miscellaneous Section.

Samples 248042002(CAPA-10-12771), 248042008(CAPA-10-13083) and 248042010(CAPA-10-13085) were analyzed out of holding for the Primary analyte analysis. The analytical holding times for the samples in this batch were exceeded due to limitations of instrument capacity. However, these samples were analyzed within two times the analytical holding time of the method. The client was notified of this situation and is in agreement to receive these qualified data. The data are reported.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples required manual integrations due to software limitations.

Flagging Convention
The samples were not originally analyzed using SW-846 Method 8330.

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Additional Comments
Due to software limitations, all initial calibration blanks must be designated as XIB001 in order for the forms to be correct.

Due to software limitations in the secondary analyte analysis, false positives and analytes detected below the MDL cannot be deleted from the raw data.

Due to software limitations, file extensions such as DL, RE, etc. may not appear on the generated forms and/or raw data.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for primary analyte analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for the primary analyte analysis. The laboratory also utilizes an Agilent 1100 liquid chromatography instrument for either primary or secondary analyte analysis. It is coupled with a Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as either LCMSMS #3 or LCMSMS #4. It is fitted with a APCI (Atmospheric Pressure chemical Ionization) probe that is operated in the negative ionization mode for both the primary and secondary analyte analysis.

Chromatographic Columns

The detection of the primary analyte nitroaromatic and nitramines is accomplished through analysis on the following reversed phase column:

Phenomenex: Ultracarb 5u ODS (20), 250 x 4.60 mm ID.

The detection of the secondary analytes is accomplished through analysis on the following reversed phase column:

YMC: J'sphere ODS-H80, 150 x 4.6mm I.D.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Herbert M Maier **Date:** 04/15/10

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SAMPLE DATA SUMMARY

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12771

Lab Code: GEL

GEL Job No (SDG) 10-2057

Matrix: GROUND WATER

GEL Sample ID: 248042002

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412068a

Date Analyzed: 14-APR-10 00:37

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	HU
121-14-2	2,4-Dinitrotoluene	0.325	HU
121-82-4	RDX	0.325	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	HU
2691-41-0	HMX	0.325	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	HU
479-45-8	Tetryl	0.649	HU
606-20-2	2,6-Dinitrotoluene	0.325	HU
78-11-5	PETN	1.3	HU
88-72-2	o-Nitrotoluene	0.325	HU
98-95-3	Nitrobenzene	0.325	HU
99-08-1	m-Nitrotoluene	0.325	HU
99-35-4	1,3,5-Trinitrobenzene	0.325	HU
99-65-0	m-Dinitrobenzene	0.325	HU
99-99-0	p-Nitrotoluene	0.649	HU

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12771

Lab Code: GEL

GEL Job No (SDG) 10-2057

Matrix: GROUND WATER

GEL Sample ID: 248042002

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050079.wiff

Date Analyzed: 06-APR-10 09:11

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13083

Lab Code: GEI

GEL Job No (SDG) 10-2057

Matrix: GROUND WATER

GEL Sample ID: 248042008

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412069a

Date Analyzed: 14-APR-10 01:06

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	HU
121-14-2	2,4-Dinitrotoluene	0.325	HU
121-82-4	RDX	0.325	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	HU
2691-41-0	HMX	0.325	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	HU
479-45-8	Tetryl	0.649	HU
606-20-2	2,6-Dinitrotoluene	0.325	HU
78-11-5	PETN	1.3	HU
88-72-2	o-Nitrotoluene	0.325	HU
98-95-3	Nitrobenzene	0.325	HU
99-08-1	m-Nitrotoluene	0.325	HU
99-35-4	1,3,5-Trinitrobenzene	0.325	HU
99-65-0	m-Dinitrobenzene	0.325	HU
99-99-0	p-Nitrotoluene	0.649	HU

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13083

Lab Code: GEL

GEL Job No (SDG) 10-2057

Matrix: GROUND WATER

GEL Sample ID: 248042008

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050080.wiff

Date Analyzed: 06-APR-10 09:26

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13085

Lab Code: GEL

GEL Job No (SDG) 10-2057

Matrix: GROUND WATER

GEL Sample ID: 248042010

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408117a

Date Analyzed: 11-APR-10 06:37

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	HU
121-14-2	2,4-Dinitrotoluene	0.325	HU
121-82-4	RDX	0.325	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	HU
2691-41-0	HMX	0.325	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	HU
479-45-8	Tetryl	0.649	HU
606-20-2	2,6-Dinitrotoluene	0.325	HU
78-11-5	PETN	1.3	HU
88-72-2	o-Nitrotoluene	0.325	HU
98-95-3	Nitrobenzene	0.325	HU
99-08-1	m-Nitrotoluene	0.325	HU
99-35-4	1,3,5-Trinitrobenzene	0.325	HU
99-65-0	m-Dinitrobenzene	0.325	HU
99-99-0	p-Nitrotoluene	0.649	HU

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13085

Lab Code: GEL

GEL Job No (SDG) 10-2057

Matrix: GROUND WATER

GEL Sample ID: 248042010

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050081.wiff

Date Analyzed: 06-APR-10 09:42

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

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QUALITY CONTROL SUMMARY

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

High Explosives Surrogate Recovery Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–2057

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Lab Sample ID	Client Sample ID	DNT	QC Limits	Flg
248042002	CAPA–10–12771	90.8	67 – 134	
248042002	CAPA–10–12771	97.6	67 – 134	
248042008	CAPA–10–13083	97.1	67 – 134	
248042008	CAPA–10–13083	99.6	67 – 134	
248042010	CAPA–10–13085	93.5	67 – 134	
248042010	CAPA–10–13085	97.2	67 – 134	
1202055078	MB for batch 958278	95.4	67 – 134	
1202055078	MB for batch 958278	96	67 – 134	
1202055079	LCS for batch 958278	103	67 – 134	
1202055079	LCS for batch 958278	94.4	67 – 134	

DNT = 3,4–Dinitrotoluene

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-2057

Extract Batch Code: 958278

Date Extracted: 01-MAR-10

GEL LCS ID: 1202055079

GEL LCSDUP ID:

Analysis Date/Time: 11-APR-10 03:40

DUP Analysis Date/Time:

Reporting Units: ug/L

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec	#	LCSD Conc	LCSD Rec	#	RPD	#	RPD	Recovery Limits
2-Amino-4,6-dinitrotoluene	6.49351	6.56	101								66 - 143
4-Amino-2,6-dinitrotoluene	6.49351	6.21	95.6								68 - 141
HMX	6.49351	6.26	96.3								57 - 129
Nitrobenzene	6.49351	5.12	78.8								56 - 125
2,6-Dinitrotoluene	6.49351	5.79	89.2								73 - 123
2,4-Dinitrotoluene	6.49351	6.28	96.7								76.9 - 126
2,4,6-Trinitrotoluene	6.49351	6.9	106								67 - 150
1,3,5-Trinitrobenzene	6.49351	5.95	91.7								64 - 129
PETN	6.49351	6.83	105								59 - 142
RDX	6.49351	6.77	104								66 - 150
Tetryl	6.49351	6.22	95.8								53 - 123
m-Dinitrobenzene	6.49351	5.57	85.8								70 - 128
m-Nitrotoluene	6.49351	4.59	70.7								55 - 119
o-Nitrotoluene	6.49351	4.97	76.5								54 - 121
p-Nitrotoluene	6.49351	5.03	77.5								56 - 129

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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3B
High Explosives LCS/LCS Duplicate Summary

Lab Name: GEL Laboratories LLC

Client ID: LCS

Lab Code: GEL

GEL Job No (SDG) 10-2057

Extract Batch Code: 958278

Date Extracted: 01-MAR-10

GEL LCS ID: 1202055079

GEL LCSDUP ID:

Analysis Date/Time: 06-APR-10 08:08

DUP Analysis Date/Time:

Reporting Units: ug/L

QC Type: LCS/LCSD

Compound	Spike Added	LCS Conc	LCS Rec #	LCSD Conc	LCSD Rec #	RPD #	RPD	Recovery Limits
2,4-Diamino-6-nitrotoluene	6.49351	5.35	82.4					38 - 114
2,6-Diamino-4-nitrotoluene	6.49351	5.27	81.2					59.1 - 123
TATB	6.49351	5.78	89					27 - 141
3,5-Dinitroaniline	6.49351	5.88	90.6					64 - 117
tris(o-cresyl) phosphate	6.49351	1.17	18					17 - 73

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

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High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: CAPA-10-12917

Lab Code: GEL

GEL Job No (SDG) 10-2057

Extract Batch Code: 958278

Date Extracted: 01-MAR-10

GEL Spike ID: 1202055080

GEL SpikeDup ID: 1202055081

Analysis Date/Time: 11-APR-10 04:39

MSD Analysis Date/Time:

Reporting Units: ug/L

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
1,3,5-Trinitrobenzene	6.49351	0	6.13	94.4	5.57	85.7	9.6	30	28 – 140
2,4,6-Trinitrotoluene	6.49351	0	8.35	129	6.41	98.7	26.3	30	68 – 147
2,4-Dinitrotoluene	6.49351	0	5.82	89.7	6.73	104	14.5	30	77.5 – 131
2,6-Dinitrotoluene	6.49351	0	5.95	91.6	6.02	92.8	1.26	30	83 – 114
2-Amino-4,6-dinitrotoluene	6.49351	0	6.42	98.8	6	92.3	6.78	30	70 – 149
4-Amino-2,6-dinitrotoluene	6.49351	0	6.34	97.7	5.57	85.8	13	30	73 – 140
HMX	6.49351	0	6.54	101	6.16	94.8	6.04	30	53 – 150
Nitrobenzene	6.49351	0	4.86	74.8	5.51	84.8	12.5	30	65 – 114
PETN	6.49351	0	6.72	104	5.86	90.3	13.7	30	47 – 145
RDX	6.49351	0	7.07	109	6.95	107	1.65	30	63 – 156
Tetryl	6.49351	0	6.47	99.7	2.55	39.2	87.1 *	30	26 – 116
m-Dinitrobenzene	6.49351	0	5.72	88.2	6.11	94.2	6.57	30	79 – 117
m-Nitrotoluene	6.49351	0	4.81	74.1	5.23	80.6	8.4	30	66 – 111
o-Nitrotoluene	6.49351	0	4.63	71.3	4.82	74.2	4.06	30	65 – 115
p-Nitrotoluene	6.49351	0	5.44	83.8	5.4	83.1	.806	30	66 – 121

#Column to be used to flag recovery and RPD values with an asterisk

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High Explosives MS/MSD Summary

Lab Name: GEL Laboratories LLC

Client ID: CAPA-10-12917

Lab Code: GEL

GEL Job No (SDG) 10-2057

Extract Batch Code: 958278

Date Extracted: 01-MAR-10

GEL Spike ID: 1202055080

GEL SpikeDup ID: 1202055081

Analysis Date/Time: 06-APR-10 08:39

MSD Analysis Date/Time:

Reporting Units: ug/L

QC Type: MS/MSD

Compound	Spike Added	Sample Conc	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Rec Limits
TATB	6.49351	0	5.29	81.4	5.43	83.6	2.67	30	21 – 150
tris(o-cresyl) phosphate	6.49351	0	2.61	40.2	3.03	46.6	14.7	30	14 – 78
2,4-Diamino-6-nitrotoluene	6.49351	0	5.49	84.6	5.79	89.2	5.29	30	31 – 125
3,5-Dinitroaniline	6.49351	0	5.27	81.2	6.14	94.6	15.2	30	60 – 128
2,6-Diamino-4-nitrotoluene	6.49351	0	5.75	88.6	5.6	86.2	2.75	30	50.3 – 136

#Column to be used to flag recovery and RPD values with an asterisk

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 08–APR–10 21:32

GEL Data File: EXP0408001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	505.174
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	503.22
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\040810expa.mdb, Time: Fri Apr 09 10:24:44 2010
Calibration: Untitled, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408001a
Date: 08-Apr-2010
Time: 21:32:51
ID: XIBLK01
Vial: 1:1,A

MMT 4/10/10

HMX

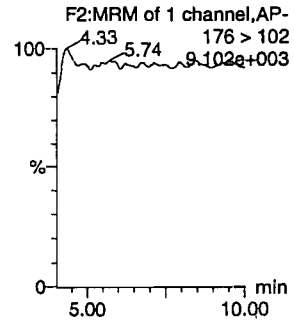

RDX

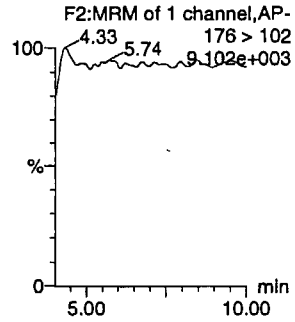

135-Trinitrobenzene

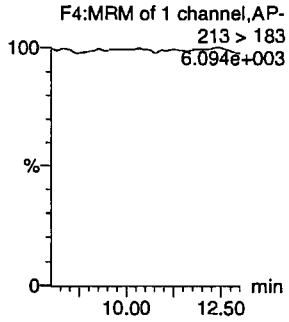

13-Dinitrobenzene-d4

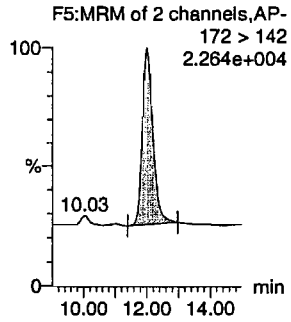

13-Dinitrobenzene

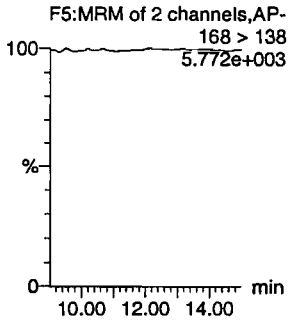

Tetryl

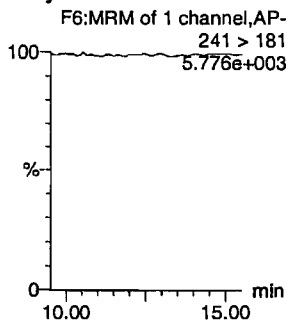

Nitrobenzene

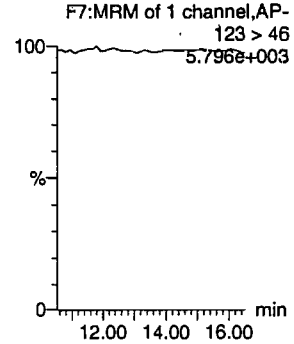

4-Amino-26-dinitrotoluene

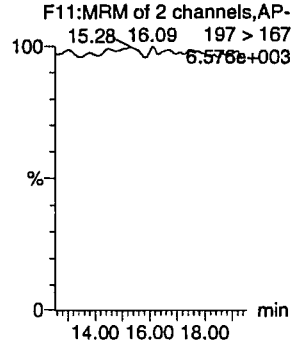

2-Amino-46-dinitrotoluene

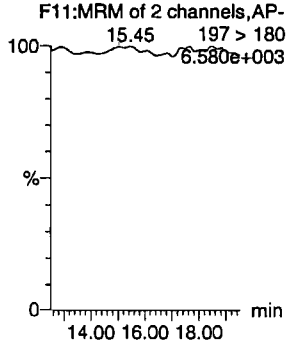

246-Trinitrotoluene

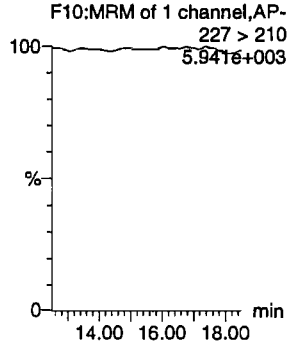

34-dinitrotoluene

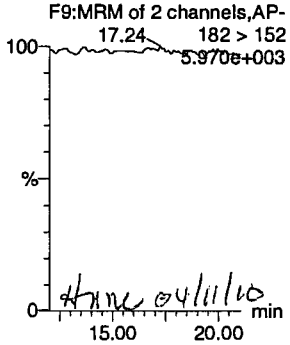

Hme 04/11/10

26-dinitrotoluene

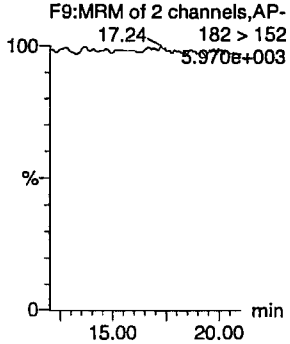

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

24-dinitrotoluene

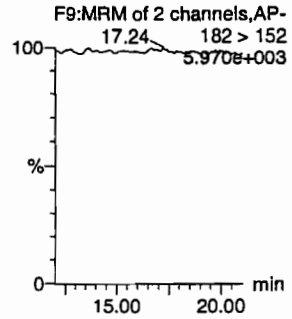

26-dinitrotoluene-d3

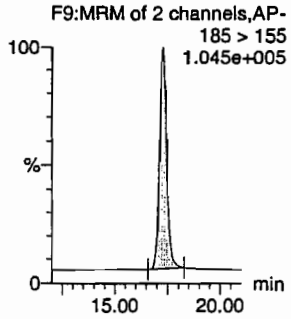

2-Nitrotoluene

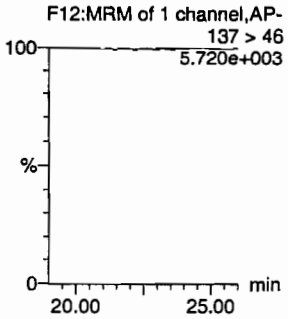

4-Nitrotoluene

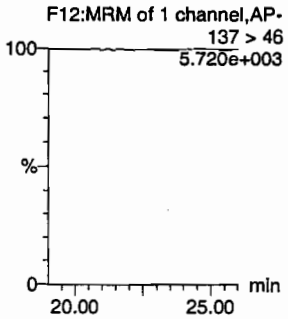

3-Nitrotoluene

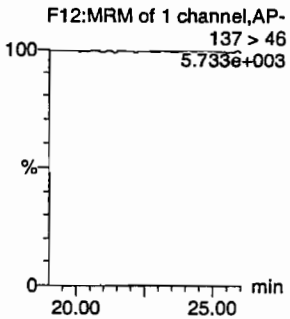

PETN

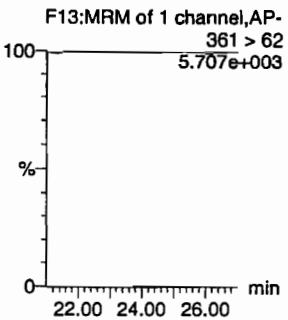

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			6565.287									
XIBLK01	RDX	176 > 102			6565.287									
XIBLK01	135-Trinitrobenzene	213 > 183			6565.287									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.00	6565.287		6565.287	6565.287	bb			505.1737	101.0	1.0	289.2
XIBLK01	13-Dinitrobenzene	168 > 138			6565.287									
XIBLK01	Tetryl	241 > 181			6565.287									
XIBLK01	Nitrobenzene	123 > 46			6565.287									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			39732.852									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			39732.852									
XIBLK01	246-Trinitrotoluene	227 > 210			39732.852									
XIBLK01	34-dinitrotoluene	182 > 152			39732.852									
XIBLK01	26-dinitrotoluene	182 > 152			39732.852									
XIBLK01	24-dinitrotoluene	182 > 152			39732.852									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.28	39732.852		39732.852	39732.852	bb			503.2203	100.6	0.6	2525.4
XIBLK01	2-Nitrotoluene	137 > 46			39732.852									
XIBLK01	4-Nitrotoluene	137 > 46			39732.852									
XIBLK01	3-Nitrotoluene	137 > 46			39732.852									
XIBLK01	PETN	361 > 62			39732.852									

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 08–APR–10 22:02

GEL Data File: EXP0408002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	589.589
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	523.733
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408002a
Date: 08-Apr-2010
Time: 22:02:20
ID: XIBLK01
Vial: 1:1,A

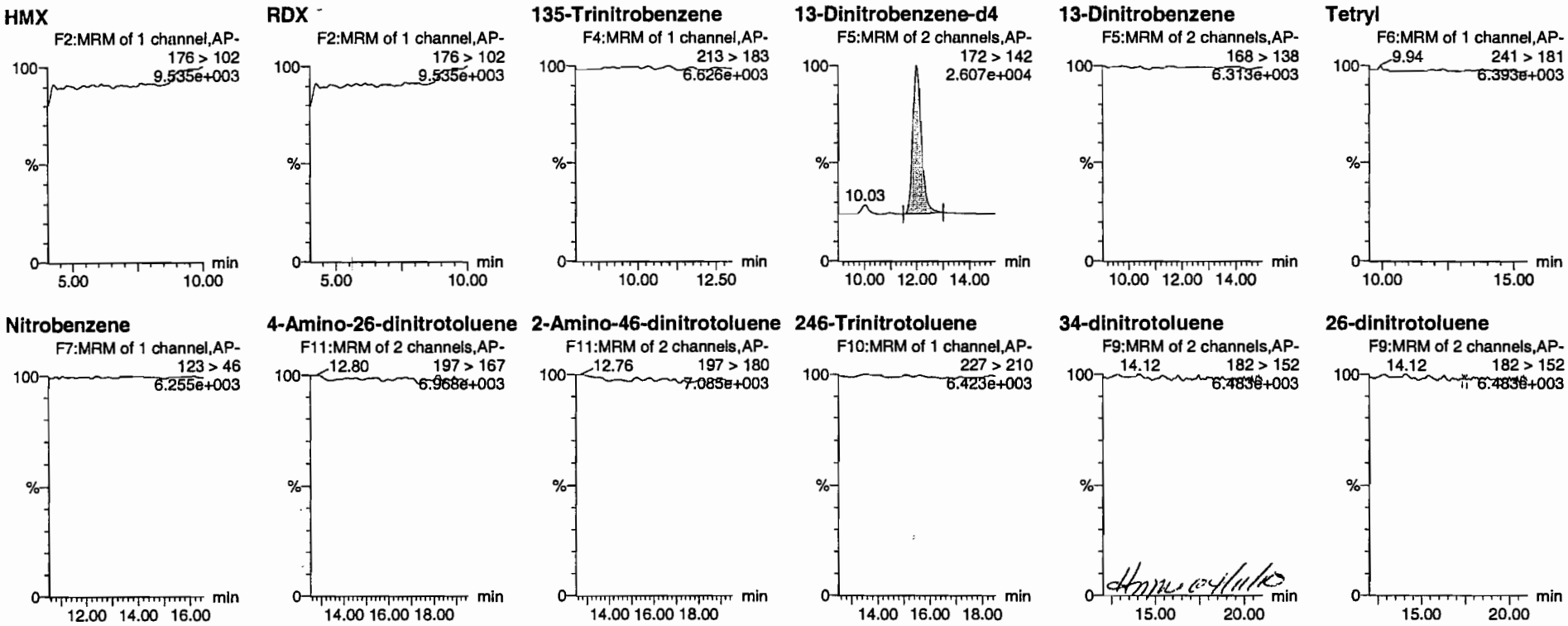

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

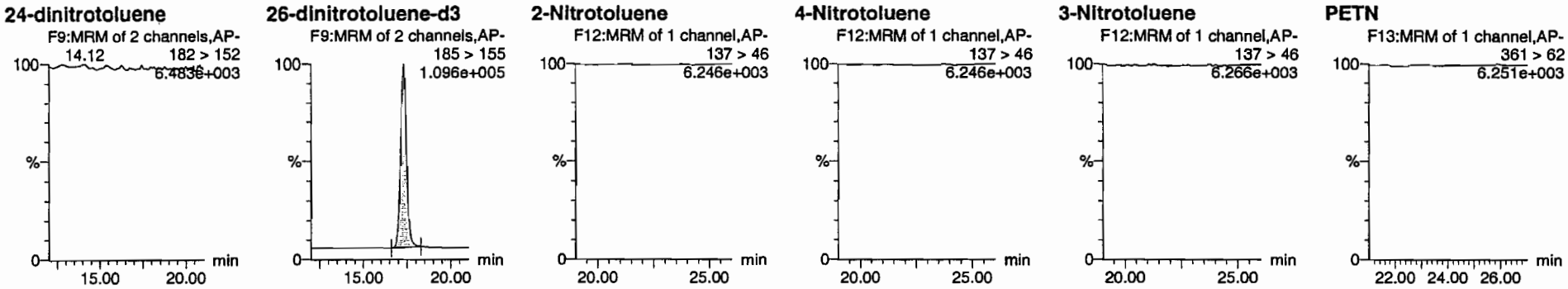

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			7662.359									
XIBLK01	RDX	176 > 102			7662.359									
XIBLK01	135-Trinitrobenzene	213 > 183			7662.359									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	12.00	7662.359		7662.359	7662.359	bb			589.5891	117.9	17.9	617.0
XIBLK01	13-Dinitrobenzene	168 > 138			7662.359									
XIBLK01	Tetryl	241 > 181			7662.359									
XIBLK01	Nitrobenzene	123 > 46			7662.359									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			41352.492									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			41352.492									
XIBLK01	246-Trinitrotoluene	227 > 210			41352.492									
XIBLK01	34-dinitrotoluene	182 > 152			41352.492									
XIBLK01	26-dinitrotoluene	182 > 152			41352.492			MM-	09-Apr-10	10:45:40				
XIBLK01	24-dinitrotoluene	182 > 152			41352.492									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.29	41352.492		41352.492	41352.492	bb			523.7332	104.7	4.7	3147.8
XIBLK01	2-Nitrotoluene	137 > 46			41352.492									
XIBLK01	4-Nitrotoluene	137 > 46			41352.492									
XIBLK01	3-Nitrotoluene	137 > 46			41352.492									
XIBLK01	PETN	361 > 62			41352.492									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 12–APR–10 15:40

GEL Data File: EXP0412001a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	440.355
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	475.584
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\041210expa.mdb, Time: Tue Apr 13 09:03:30 2010
Calibration: Untitled, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412001a
Date: 12-Apr-2010
Time: 15:40:40
ID: XIBLK01
Vial: 1:1,A

MMT 4/13/10

HMX

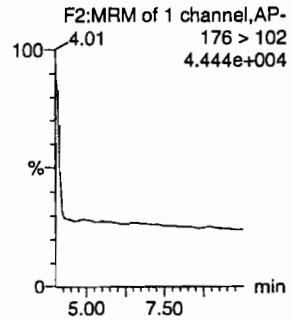

RDX

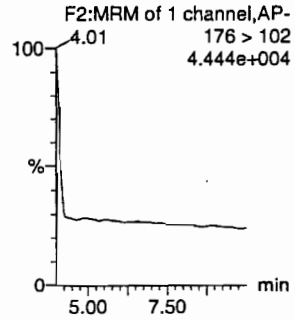

135-Trinitrobenzene

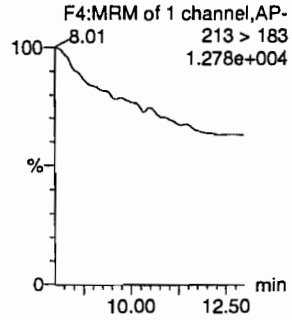

13-Dinitrobenzene-d4

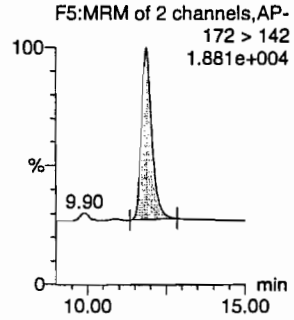

13-Dinitrobenzene

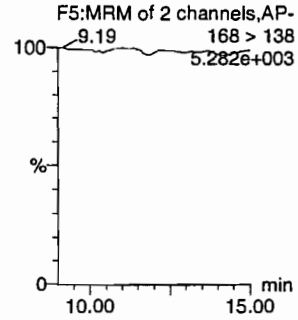

Tetryl

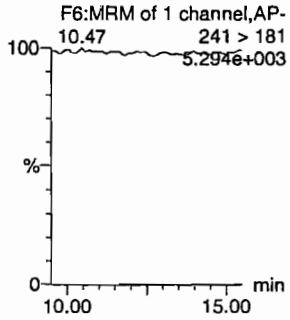

Nitrobenzene

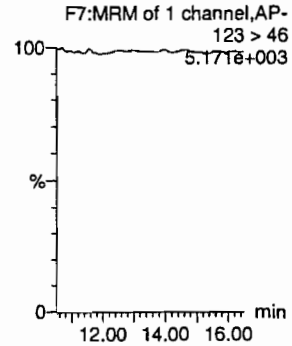

4-Amino-26-dinitrotoluene

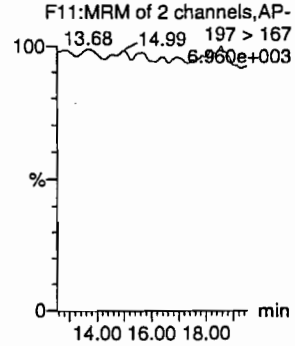

2-Amino-46-dinitrotoluene

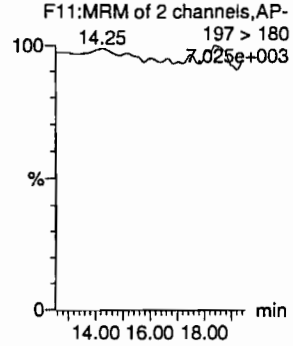

246-Trinitrotoluene

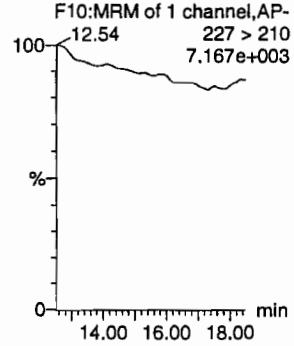

34-dinitrotoluene

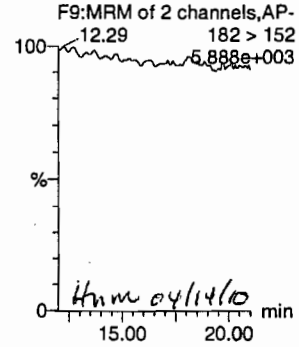

Hmm 04/14/10

26-dinitrotoluene

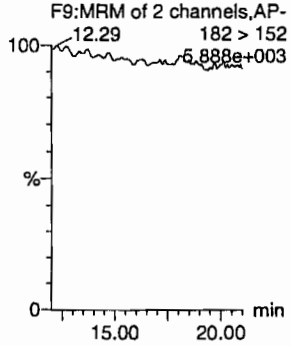

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

24-dinitrotoluene

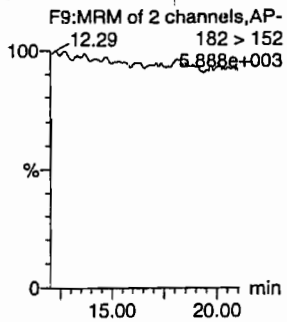

26-dinitrotoluene-d3

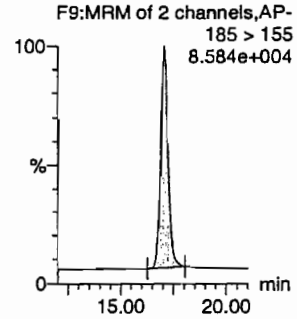

2-Nitrotoluene

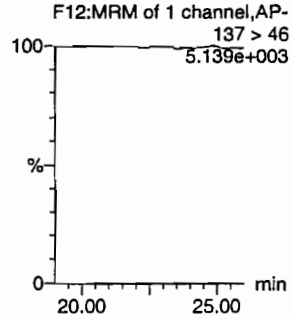

4-Nitrotoluene

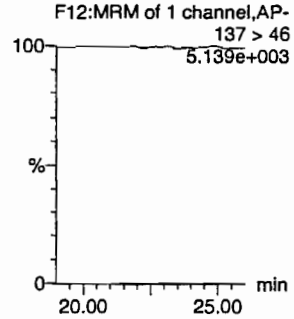

3-Nitrotoluene

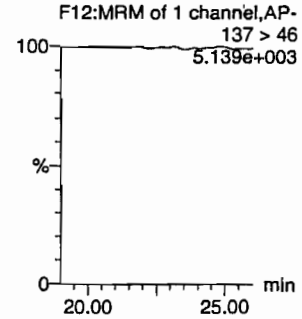

PETN

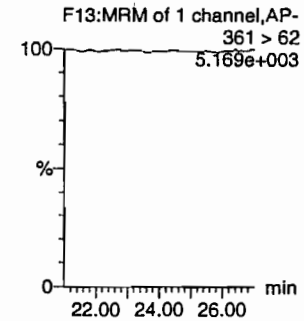

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			5178.896									
XIBLK01	RDX	176 > 102			5178.896									
XIBLK01	135-Trinitrobenzene	213 > 183			5178.896									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	11.87	5178.896		5178.896	5178.896	bb			440.3551	88.1	-11.9	715.5
XIBLK01	13-Dinitrobenzene	168 > 138			5178.896									
XIBLK01	Tetryl	241 > 181			5178.896									
XIBLK01	Nitrobenzene	123 > 46			5178.896									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			33274.848									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			33274.848									
XIBLK01	246-Trinitrotoluene	227 > 210			33274.848									
XIBLK01	34-dinitrotoluene	182 > 152			33274.848									
XIBLK01	26-dinitrotoluene	182 > 152			33274.848									
XIBLK01	24-dinitrotoluene	182 > 152			33274.848									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.06	33274.848		33274.848	33274.848	bb			475.5835	95.1	-4.9	2809.6
XIBLK01	2-Nitrotoluene	137 > 46			33274.848									
XIBLK01	4-Nitrotoluene	137 > 46			33274.848									
XIBLK01	3-Nitrotoluene	137 > 46			33274.848									
XIBLK01	PETN	361 > 62			33274.848									

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 12–APR–10 16:10

GEL Data File: EXP0412002a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	473.054
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	498.176
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412002a
Date: 12-Apr-2010
Time: 16:10:12
ID: XIBLK01
Vial: 1:1,A

MMT 4/13/10

HMX

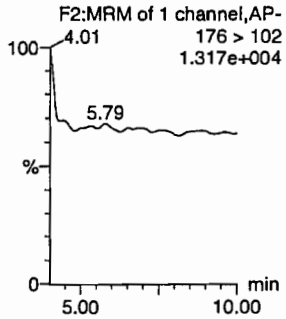

RDX

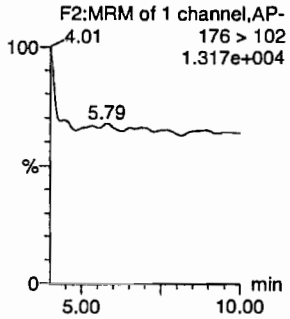

135-Trinitrobenzene

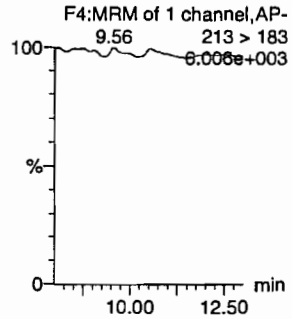

13-Dinitrobenzene-d4

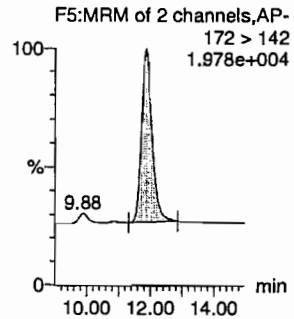

13-Dinitrobenzene

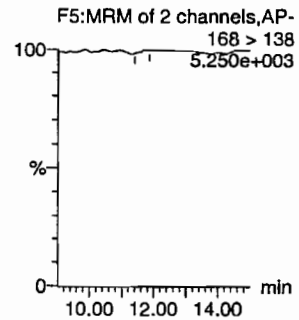

Tetryl

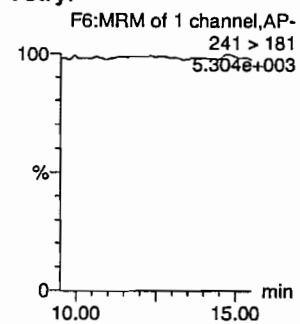

Nitrobenzene

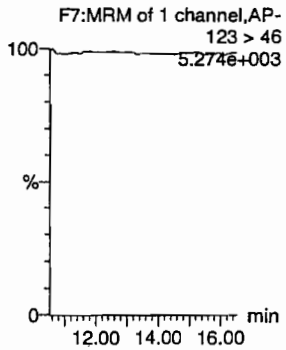

4-Amino-26-dinitrotoluene

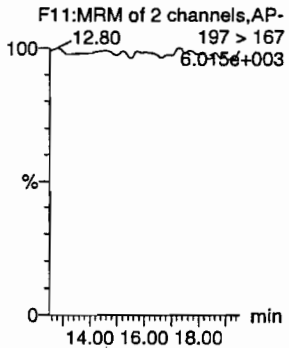

2-Amino-46-dinitrotoluene

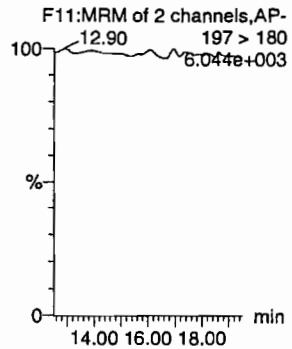

246-Trinitrotoluene

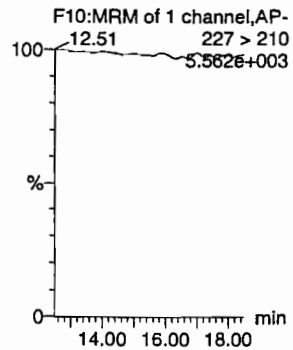

34-dinitrotoluene

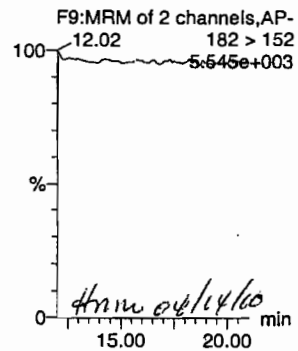

Hnm 04/14/10

26-dinitrotoluene

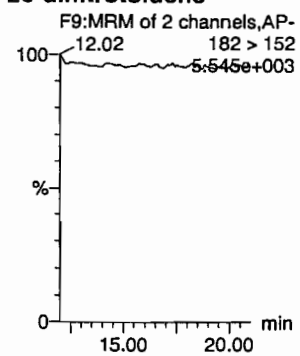

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

24-dinitrotoluene

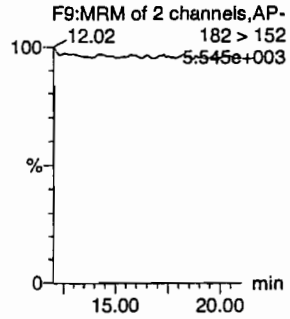

26-dinitrotoluene-d3

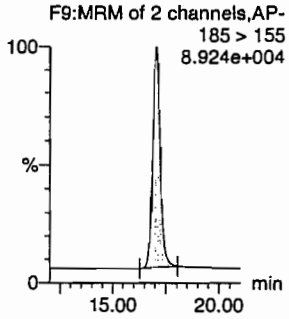

2-Nitrotoluene

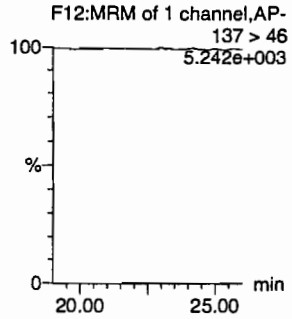

4-Nitrotoluene

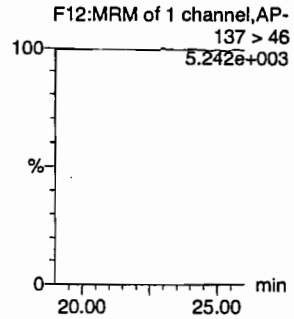

3-Nitrotoluene

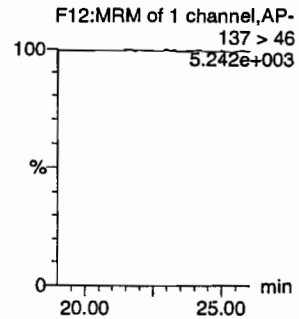

PETN

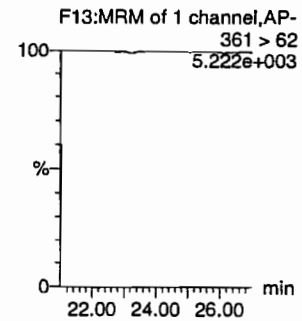

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK01	HMX	176 > 102			5563.454									
XIBLK01	RDX	176 > 102			5563.454									
XIBLK01	135-Trinitrobenzene	213 > 183			5563.454									
XIBLK01	13-Dinitrobenzene-d4	172 > 142	11.87	5563.454		5563.454	5563.454	bb			473.0536	94.6	-5.4	108.0
XIBLK01	13-Dinitrobenzene	168 > 138			5563.454			MM-	13-Apr-10	10:59:24				
XIBLK01	Tetryl	241 > 181			5563.454									
XIBLK01	Nitrobenzene	123 > 46			5563.454									
XIBLK01	4-Amino-26-dinitrotoluene	197 > 167			34855.578									
XIBLK01	2-Amino-46-dinitrotoluene	197 > 180			34855.578									
XIBLK01	246-Trinitrotoluene	227 > 210			34855.578									
XIBLK01	34-dinitrotoluene	182 > 152			34855.578									
XIBLK01	26-dinitrotoluene	182 > 152			34855.578									
XIBLK01	24-dinitrotoluene	182 > 152			34855.578									
XIBLK01	26-dinitrotoluene-d3	185 > 155	17.05	34855.578		34855.578	34855.578	bb			498.1763	99.6	-0.4	2742.7
XIBLK01	2-Nitrotoluene	137 > 46			34855.578									
XIBLK01	4-Nitrotoluene	137 > 46			34855.578									
XIBLK01	3-Nitrotoluene	137 > 46			34855.578									
XIBLK01	PETN	361 > 62			34855.578									

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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4

Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 05–APR–10 12:43

GEL Data File: EXS04050001.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	2.85
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	27.2
2,6–Diamino–4–nitrotoluene	0	0

Lar 4/7/10

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS04050001.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 12:43:45 PM

Modified: No

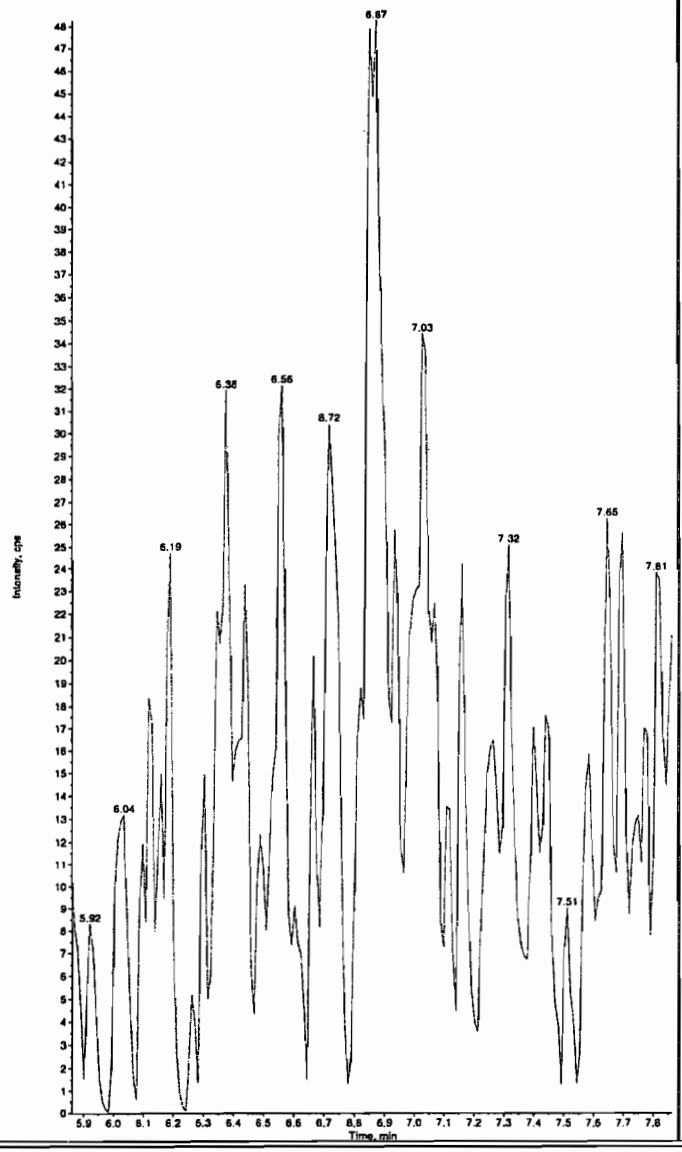

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS04050001.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 12:43:45 PM

Modified: No

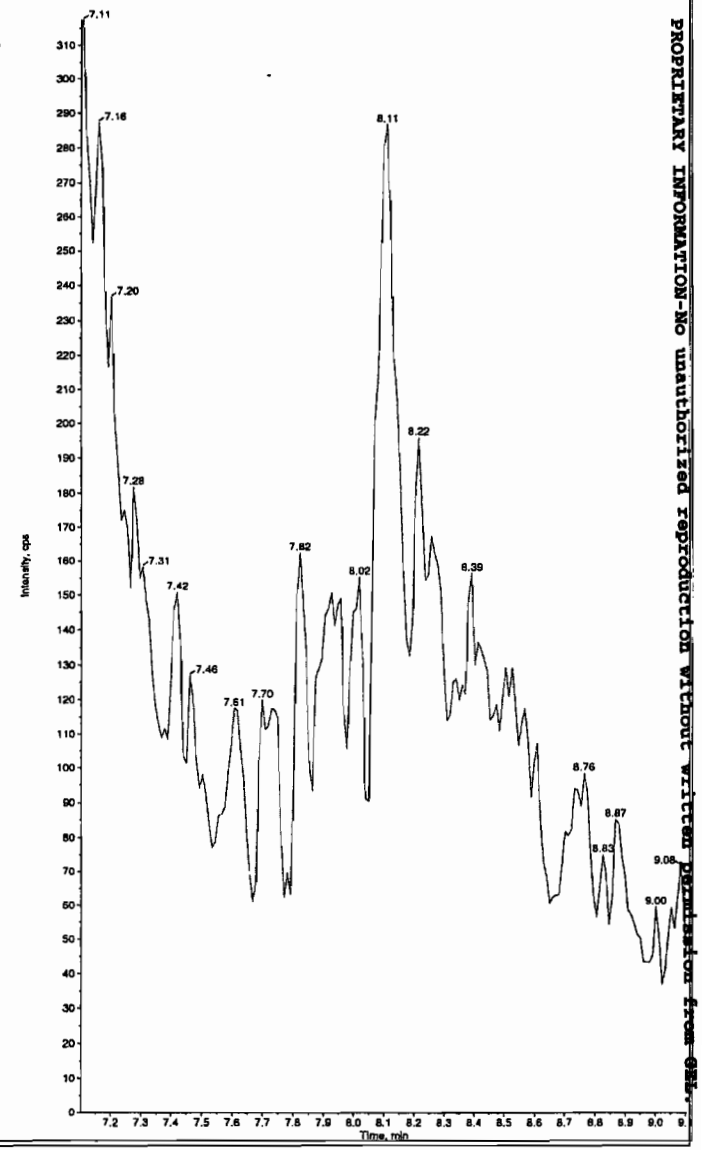

Hum 04/08/10

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Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS04050001.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 4/5/2010
cq. Time: 12:43:45 PM

odified: No

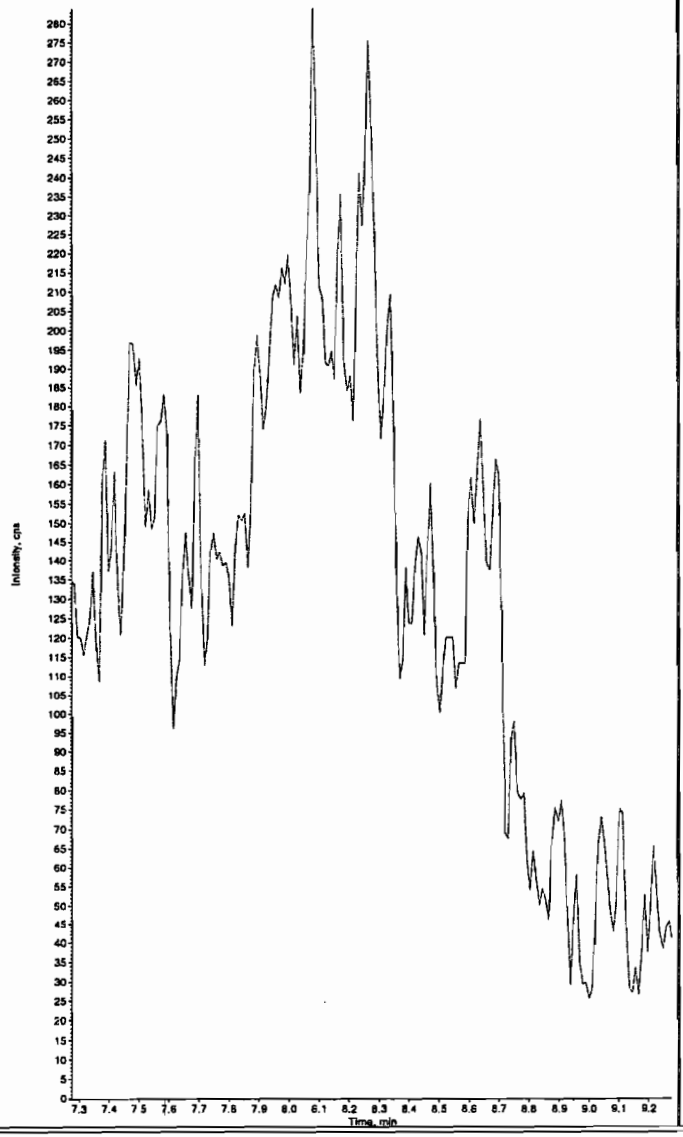

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS04050001.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 12:43:45 PM

Modified: No

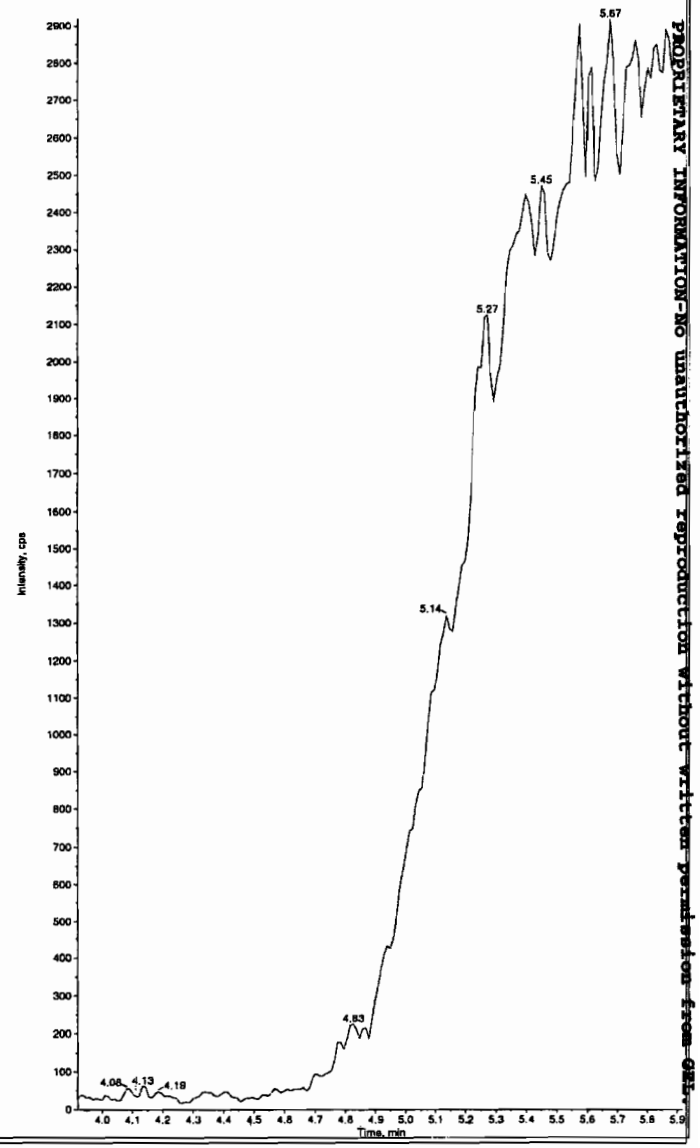

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Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS04050001.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 27.2 ng/mL
cq. Date: 4/5/2010
cq. Time: 12:43:45 PM

odified: No
roc. Algorithm: IntelliQuan - IQA
in. Peak Height: 350.00 cps
in. Peak Width: 0.00 sec
moothing Width: 3 points
T Window: 30.0 sec
xpected RT: 5.37 min
se Relative RT: No

nt. Type: Valley
etention Time: 5.57 min
rea: 9.32e+003 counts
eight: 557.000 cps
tart Time: 5.16 min
nd Time: 5.62 min

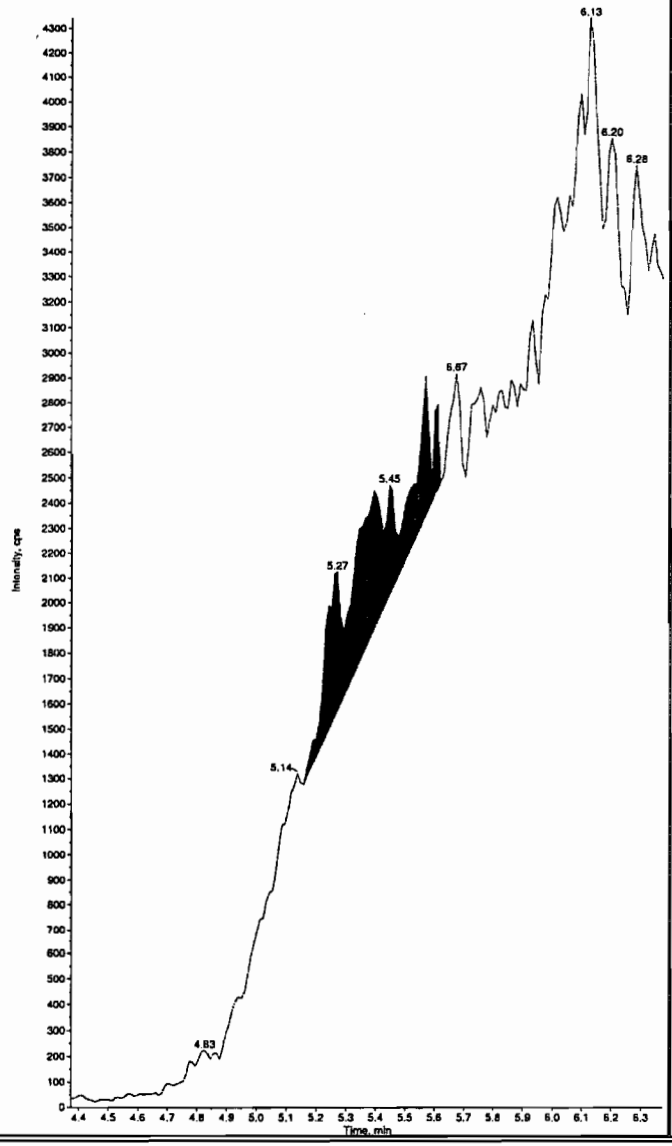

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS04050001.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 2.85 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 12:43:45 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 5.14e+004 counts
Height: 11831.752 cps
Start Time: 10.7 min
End Time: 10.9 min

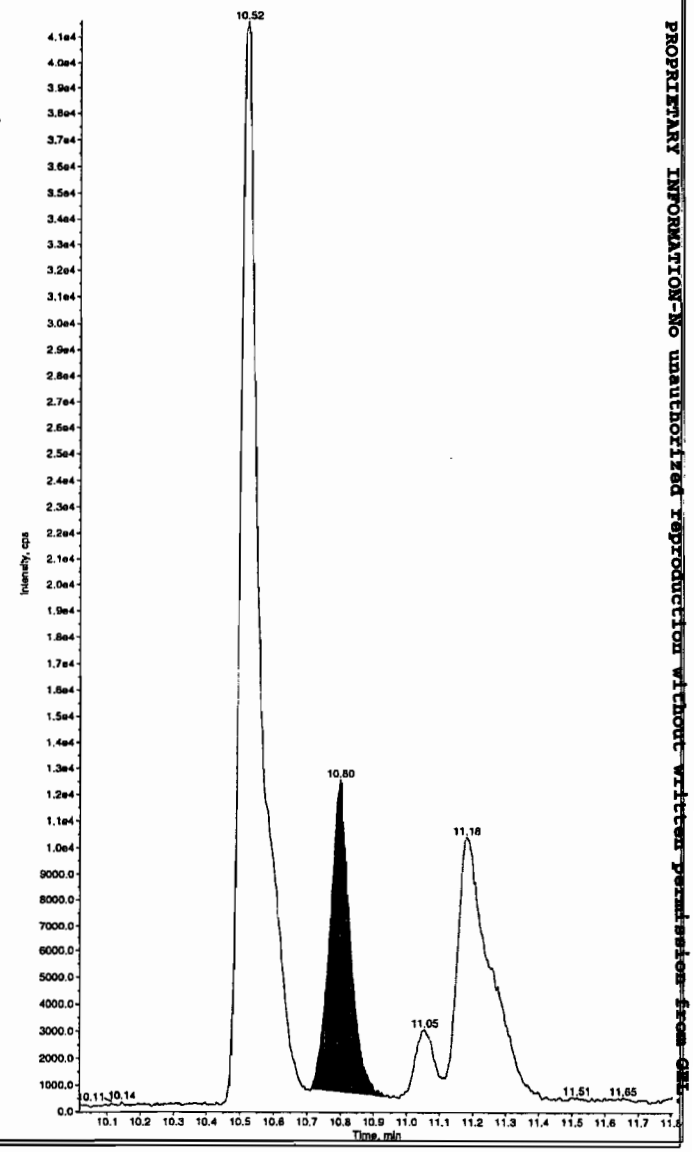

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Explosives Initial Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK01

Analysis Date: 05–APR–10 12:59

GEL Data File: EXS04050002.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

ÖCER 4/7/10

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS04050002.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 12:59:32 PM

Modified: No

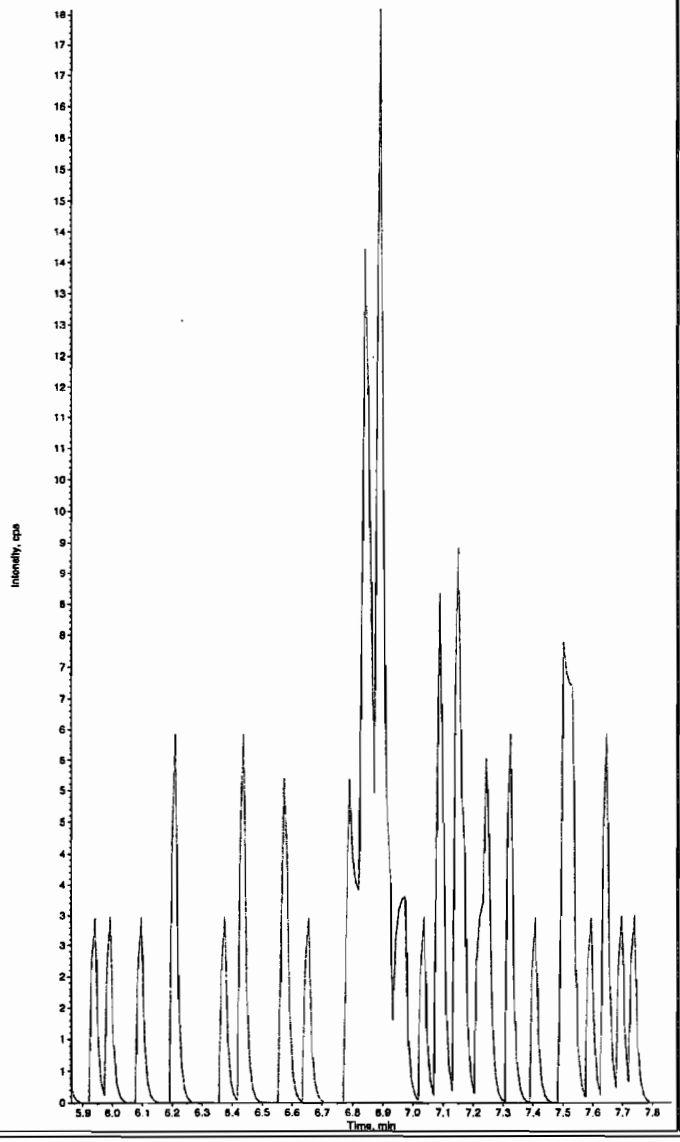

Sample Name: "XIBLK01" Sample ID: "|1|LER" File: "EXS04050002.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 12:59:32 PM

Modified: No

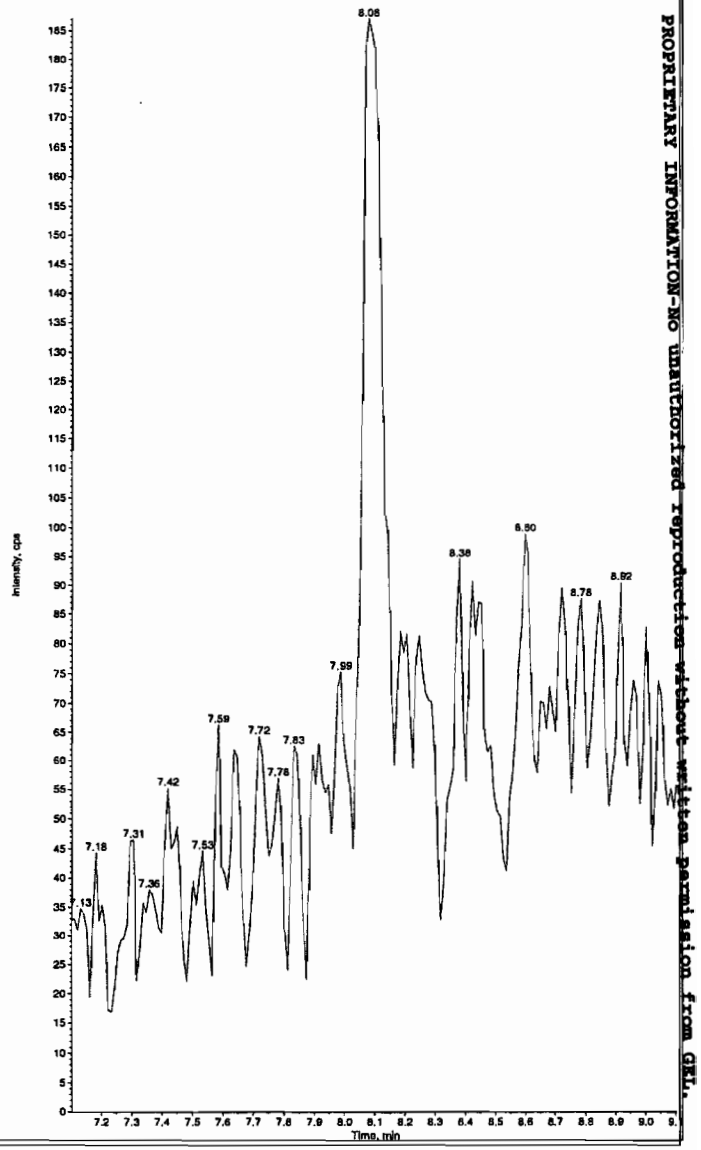

Hmm 04/08/10

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Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS04050002.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 12:59:32 PM

Modified: No

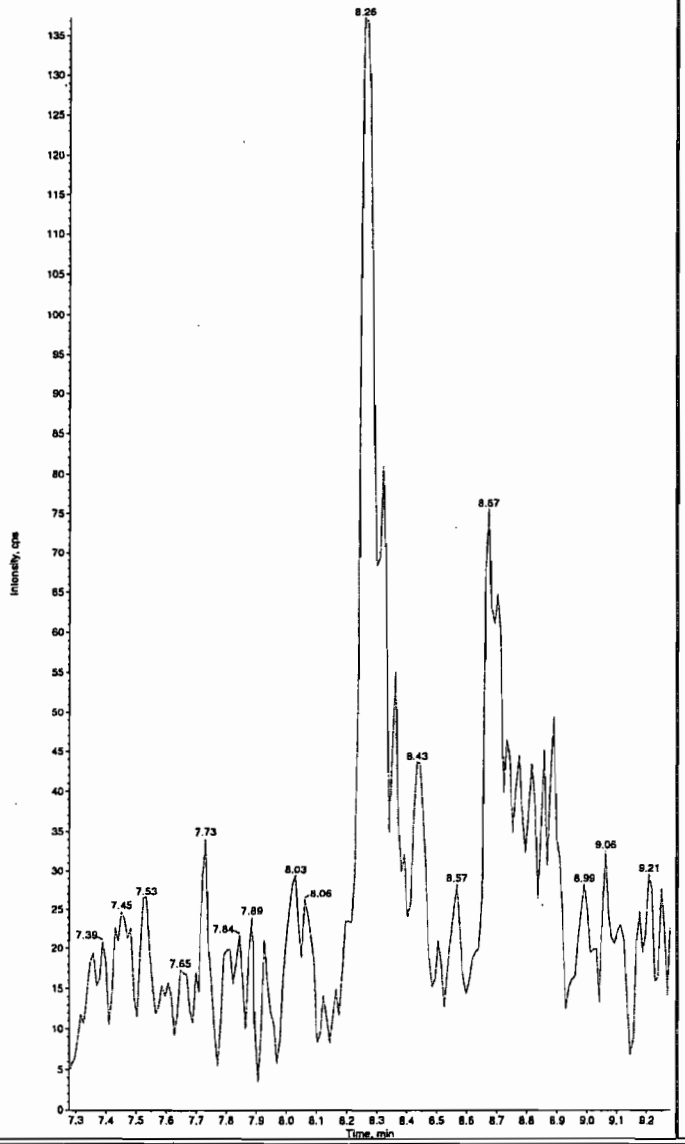

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS04050002.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 12:59:32 PM

Modified: No

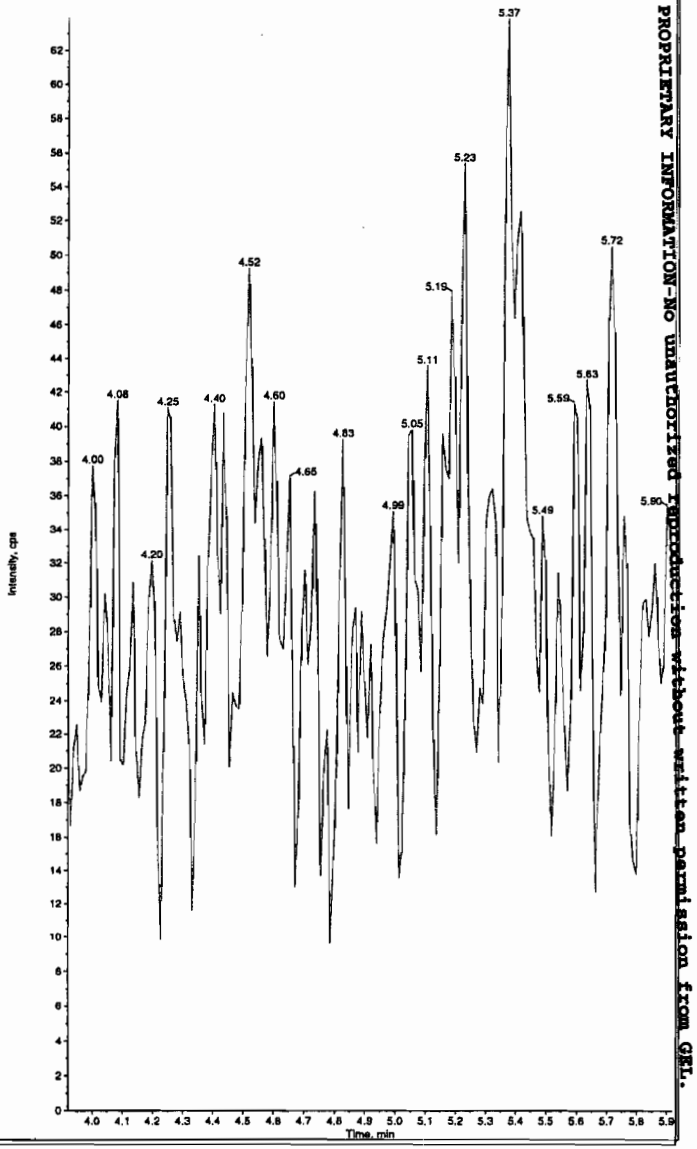

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Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS04050002.wiff"
Peak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

ample Index: 1
ample Type: Unknown
oncentration: N/A
alculated Conc: 0.00 ng/mL
cq. Date: 4/5/2010
cq. Time: 12:59:32 PM

odified: No

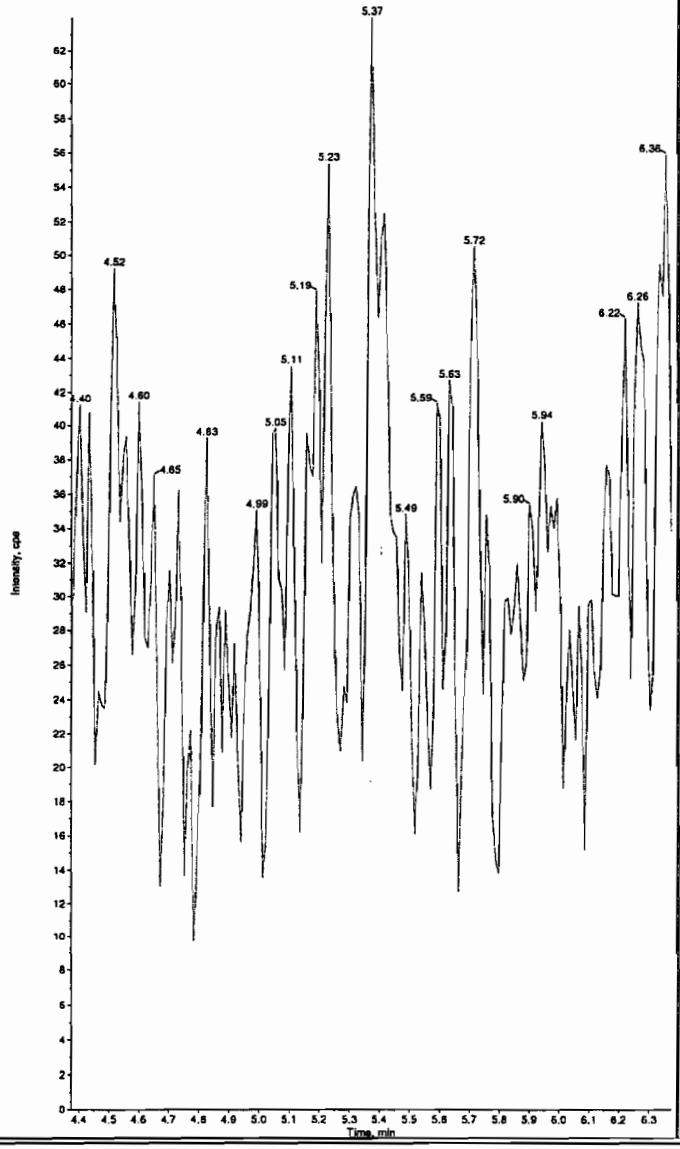

Sample Name: "XIBLK01" Sample ID: "[1]LER" File: "EXS04050002.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 12:59:32 PM

Modified: No

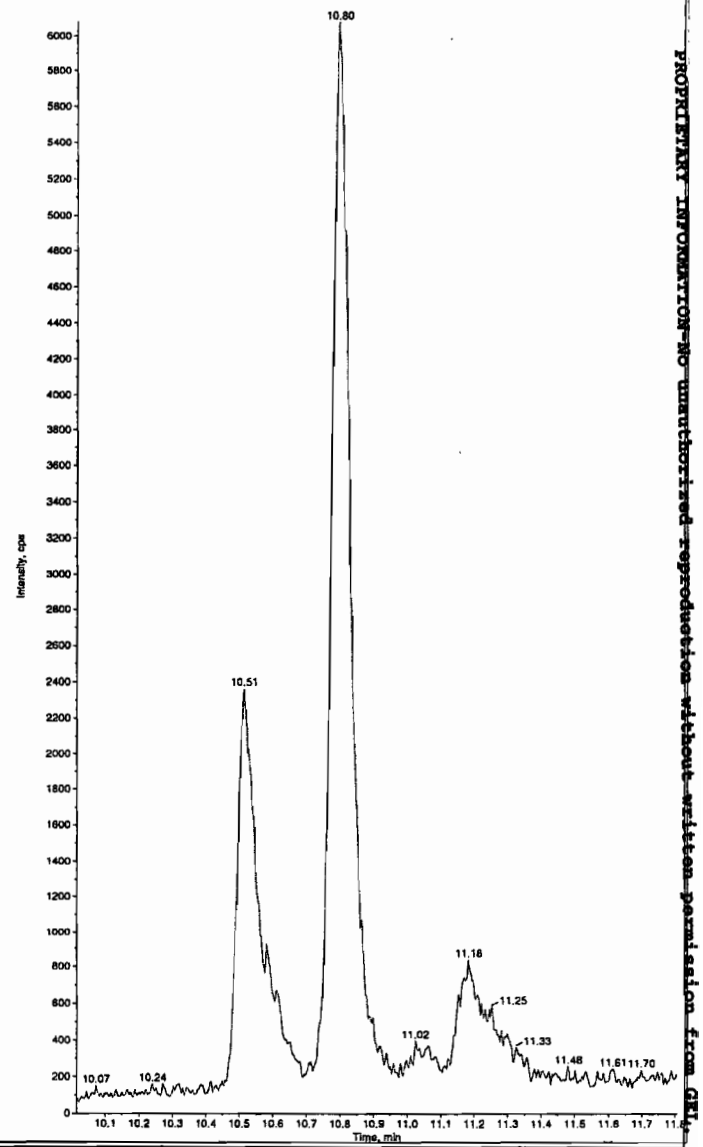

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 09–APR–10 01:28

GEL Data File: EXP0408009a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	582.512
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	582.151
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408009a
Date: 09-Apr-2010
Time: 01:28:39
ID: XIBLK02
Vial: 1:1,A

MMT 4/12/10

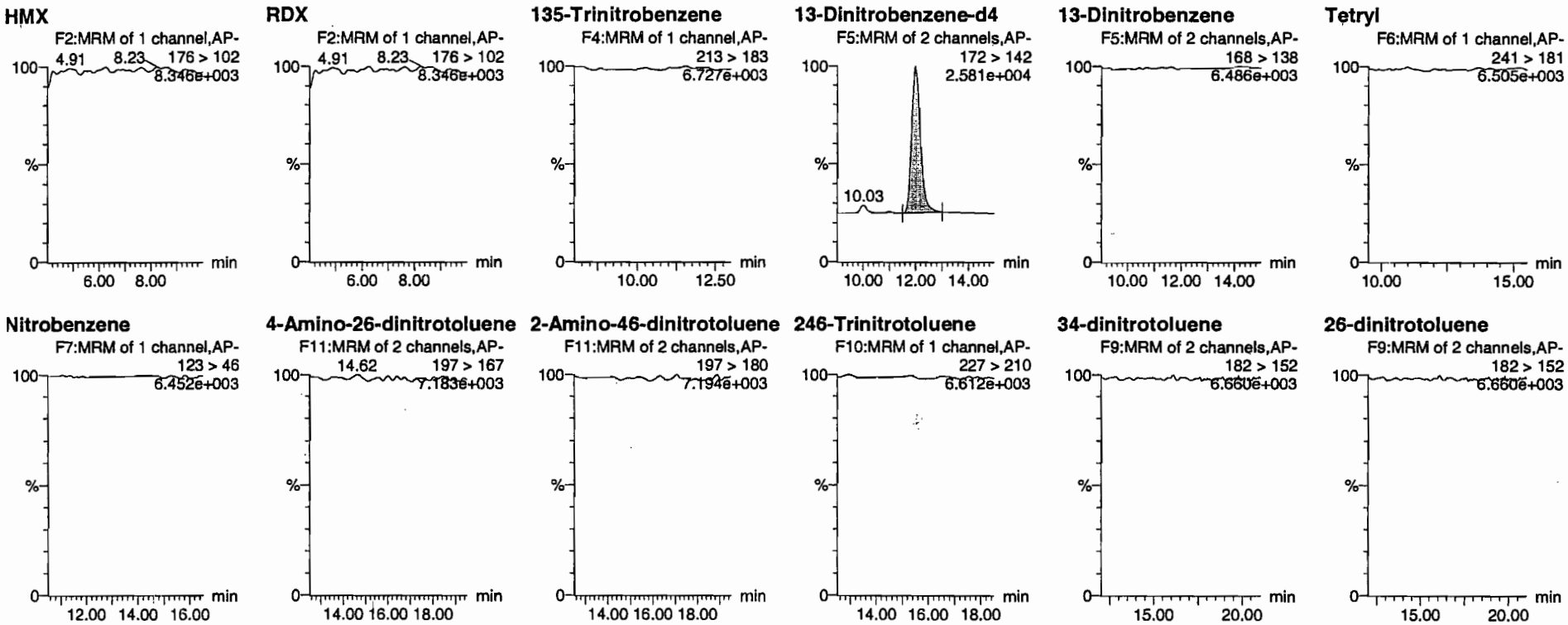

Hnne 04/11/10

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Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

24-dinitrotoluene

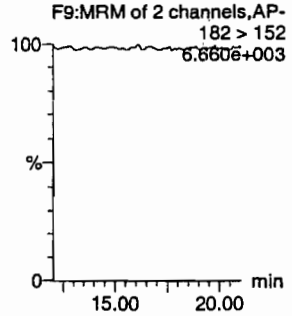

26-dinitrotoluene-d3

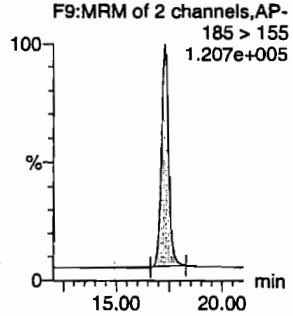

2-Nitrotoluene

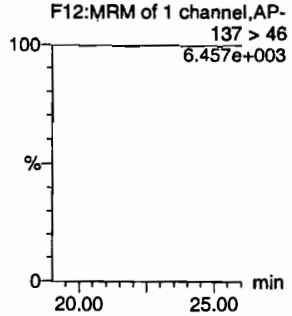

4-Nitrotoluene

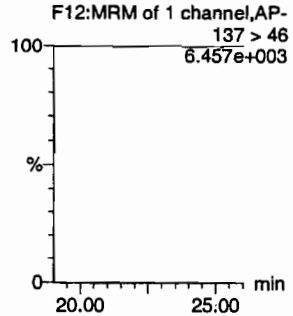

3-Nitrotoluene

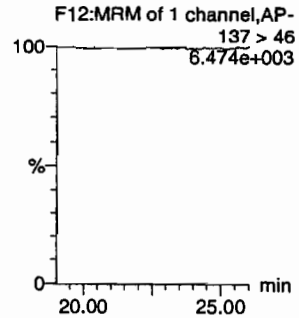

PETN

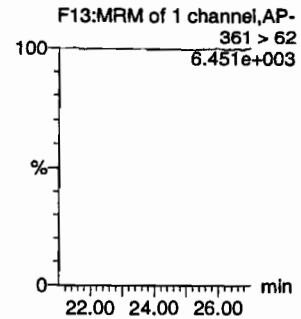

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XIBLK02	HMX	176 > 102			7570.382									
XIBLK02	RDX	176 > 102			7570.382									
XIBLK02	135-Trinitrobenzene	213 > 183			7570.382									
XIBLK02	13-Dinitrobenzene-d4	172 > 142	12.00	7570.382		7570.382	7570.382	bb			582.5119	116.5	16.5	406.2
XIBLK02	13-Dinitrobenzene	168 > 138			7570.382									
XIBLK02	Tetryl	241 > 181			7570.382									
XIBLK02	Nitrobenzene	123 > 46			7570.382									
XIBLK02	4-Amino-26-dinitrotoluene	197 > 167			45964.992									
XIBLK02	2-Amino-46-dinitrotoluene	197 > 180			45964.992									
XIBLK02	246-Trinitrotoluene	227 > 210			45964.992									
XIBLK02	34-dinitrotoluene	182 > 152			45964.992									
XIBLK02	26-dinitrotoluene	182 > 152			45964.992									
XIBLK02	24-dinitrotoluene	182 > 152			45964.992									
XIBLK02	26-dinitrotoluene-d3	185 > 155	17.29	45964.992		45964.992	45964.992	bb			582.1510	116.4	16.4	2006.3
XIBLK02	2-Nitrotoluene	137 > 46			45964.992									
XIBLK02	4-Nitrotoluene	137 > 46			45964.992									
XIBLK02	3-Nitrotoluene	137 > 46			45964.992									
XIBLK02	PETN	361 > 62			45964.992									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 09–APR–10 02:27

GEL Data File: EXP0408011a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	614.27
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	618.135
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408011a
Date: 09-Apr-2010
Time: 02:27:37
ID: XIBLK03
Vial: 1:1,A

MMT 4/10/10

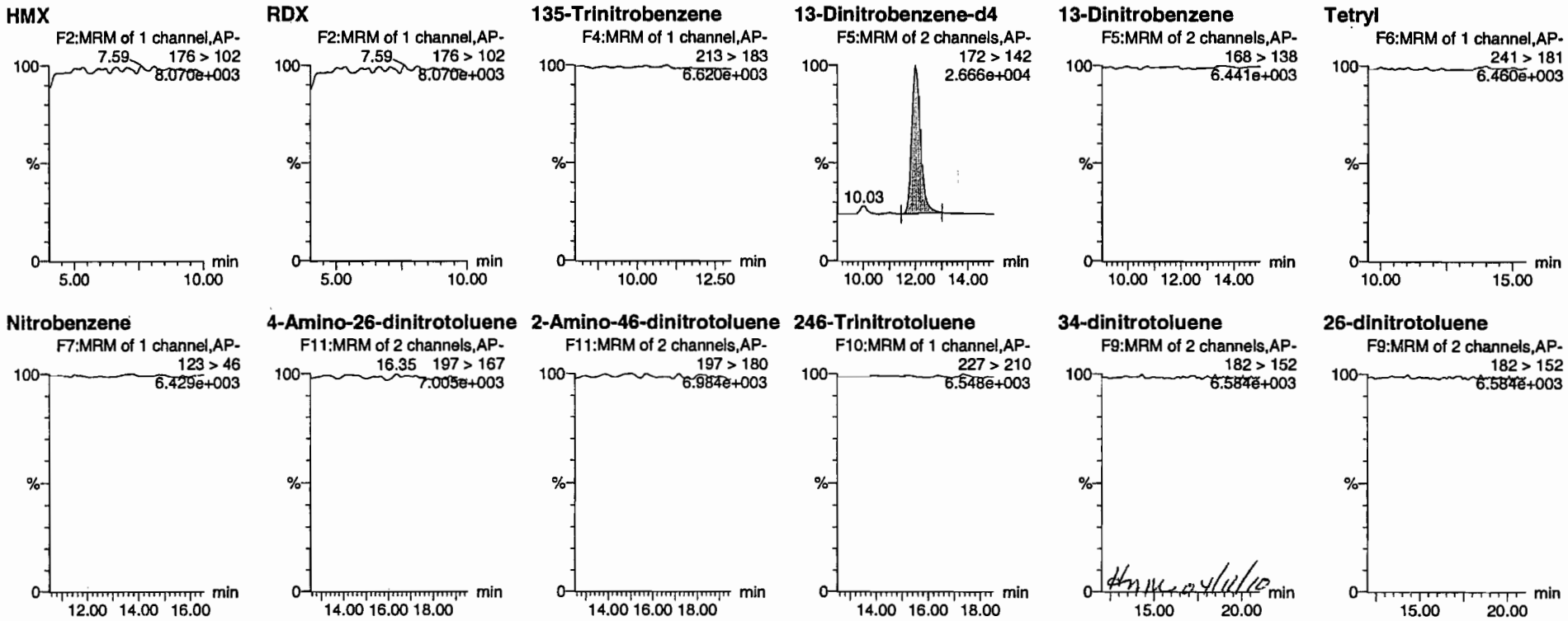

HMW 04/10/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.584e+003

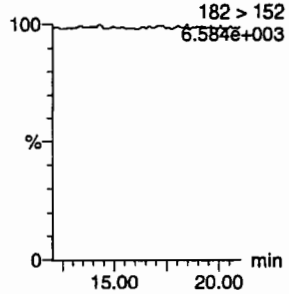

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
1.277e+005

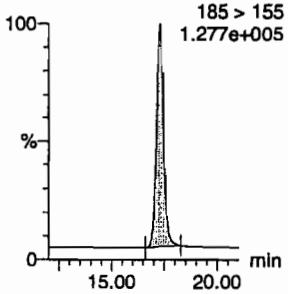

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.401e+003

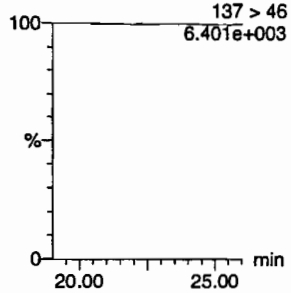

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.401e+003

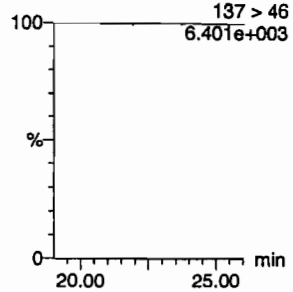

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.410e+003

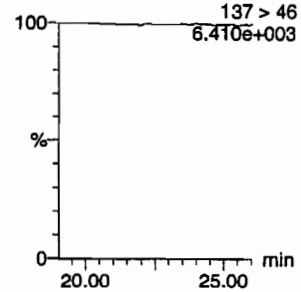

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.385e+003

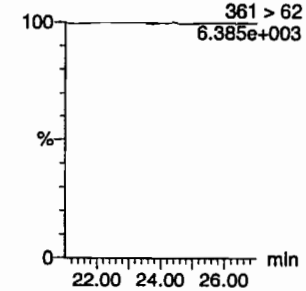

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK03	HMX	176 > 102			7983.108									
XIBLK03	RDX	176 > 102			7983.108									
XIBLK03	135-Trinitrobenzene	213 > 183			7983.108									
XIBLK03	13-Dinitrobenzene-d4	172 > 142	12.00	7983.108		7983.108	7983.108	bb			614.2695	122.9	22.9	696.9
XIBLK03	13-Dinitrobenzene	168 > 138			7983.108									
XIBLK03	Tetryl	241 > 181			7983.108									
XIBLK03	Nitrobenzene	123 > 46			7983.108									
XIBLK03	4-Amino-26-dinitrotoluene	197 > 167			48806.199									
XIBLK03	2-Amino-46-dinitrotoluene	197 > 180			48806.199									
XIBLK03	246-Trinitrotoluene	227 > 210			48806.199									
XIBLK03	34-dinitrotoluene	182 > 152			48806.199									
XIBLK03	26-dinitrotoluene	182 > 152			48806.199									
XIBLK03	24-dinitrotoluene	182 > 152			48806.199									
XIBLK03	26-dinitrotoluene-d3	185 > 155	17.29	48806.199		48806.199	48806.199	bb			618.1351	123.6	23.6	4573.9
XIBLK03	2-Nitrotoluene	137 > 46			48806.199									
XIBLK03	4-Nitrotoluene	137 > 46			48806.199									
XIBLK03	3-Nitrotoluene	137 > 46			48806.199									
XIBLK03	PETN	361 > 62			48806.199									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 09–APR–10 08:50

GEL Data File: EXP0408024a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	626.188
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	634.417
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408024a
Date: 09-Apr-2010
Time: 08:50:59
ID: XIBLK04
Vial: 1:1,A

MATT 4/10/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.136e+003

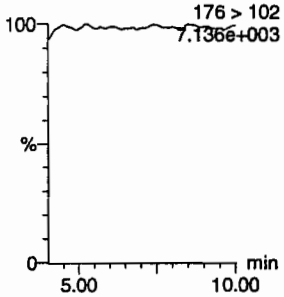

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.136e+003

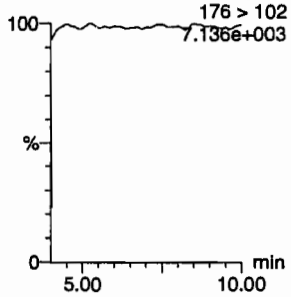

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.479e+003

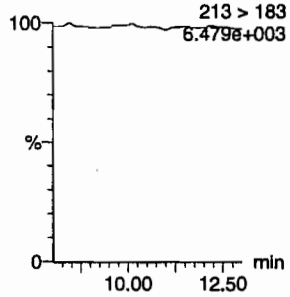

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.721e+004

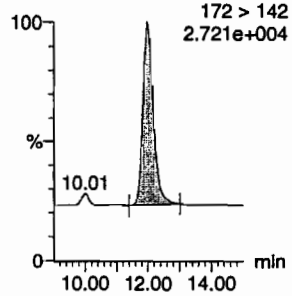

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.296e+003

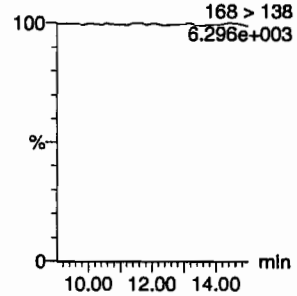

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.392e+003

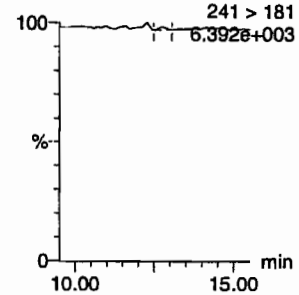

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.291e+003

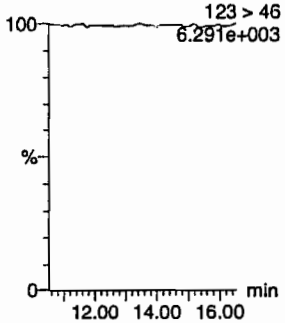

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.608e+003

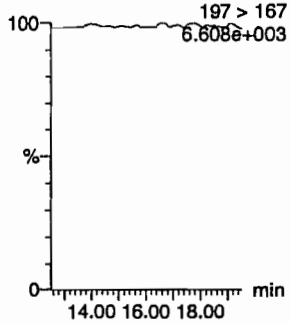

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.621e+003

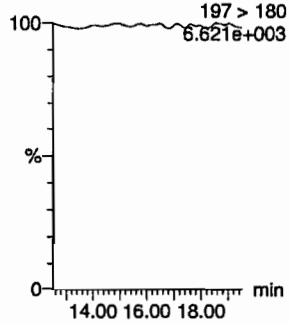

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.402e+003

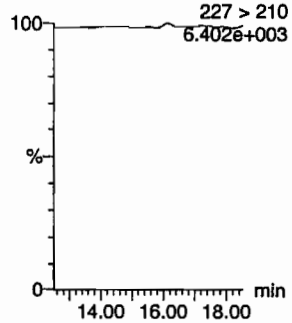

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.423e+003

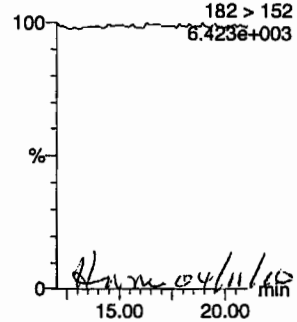

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.423e+003

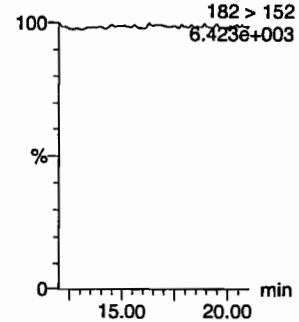

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

24-dinitrotoluene

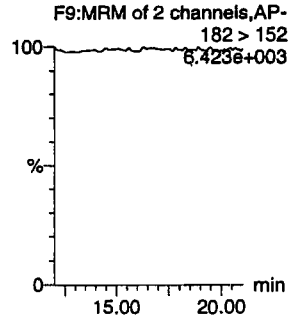

26-dinitrotoluene-d3

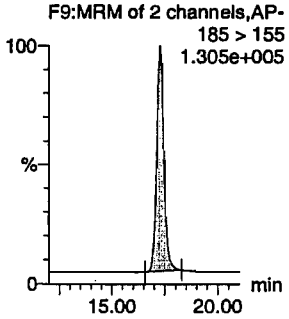

2-Nitrotoluene

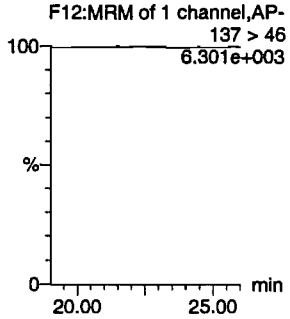

4-Nitrotoluene

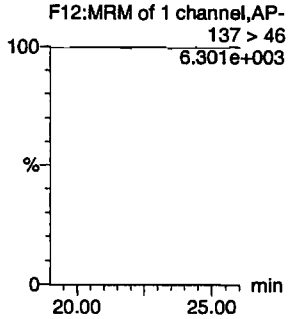

3-Nitrotoluene

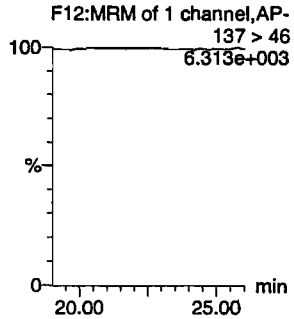

PETN

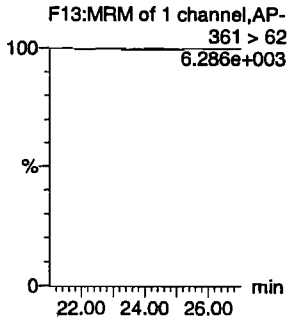

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK04	HMX	176 > 102			8137.999									
XIBLK04	RDX	176 > 102			8137.999									
XIBLK04	135-Trinitrobenzene	213 > 183			8137.999									
XIBLK04	13-Dinitrobenzene-d4	172 > 142	11.97	8137.999		8137.999	8137.999	bb			626.1878	125.2	25.2	456.2
XIBLK04	13-Dinitrobenzene	168 > 138			8137.999									
XIBLK04	Tetryl	241 > 181			8137.999			MM-	09-Apr-10	10:42:51				
XIBLK04	Nitrobenzene	123 > 46			8137.999									
XIBLK04	4-Amino-26-dinitrotoluene	197 > 167			50091.766									
XIBLK04	2-Amino-46-dinitrotoluene	197 > 180			50091.766									
XIBLK04	246-Trinitrotoluene	227 > 210			50091.766									
XIBLK04	34-dinitrotoluene	182 > 152			50091.766									
XIBLK04	26-dinitrotoluene	182 > 152			50091.766									
XIBLK04	24-dinitrotoluene	182 > 152			50091.766									
XIBLK04	26-dinitrotoluene-d3	185 > 155	17.27	50091.766		50091.766	50091.766	bb			634.4169	126.9	26.9	5991.7
XIBLK04	2-Nitrotoluene	137 > 46			50091.766									
XIBLK04	4-Nitrotoluene	137 > 46			50091.766									
XIBLK04	3-Nitrotoluene	137 > 46			50091.766									
XIBLK04	PETN	361 > 62			50091.766									

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4A

Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 09–APR–10 15:14

GEL Data File: EXP0408037a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	537.089
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	518.05
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408037a
Date: 09-Apr-2010
Time: 15:14:23
ID: XIBLK05
Vial: 1:1,A

MMT 4/10/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
7.101e+003

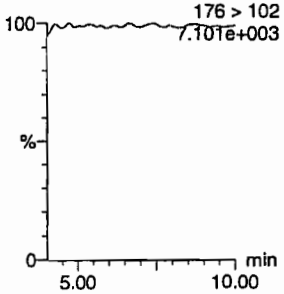

RDX
F2:MRM of 1 channel,AP-
176 > 102
7.101e+003

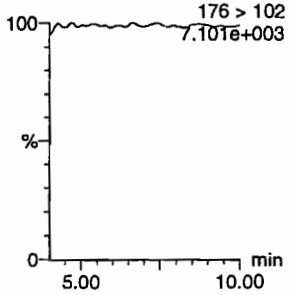

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
6.609e+003

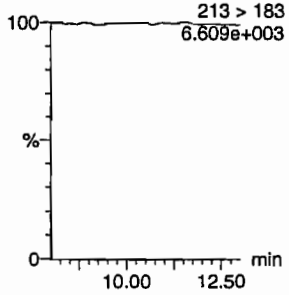

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.418e+004

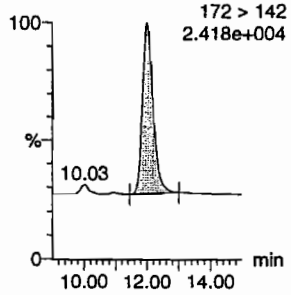

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
6.516e+003

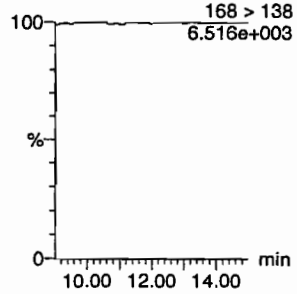

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
6.542e+003

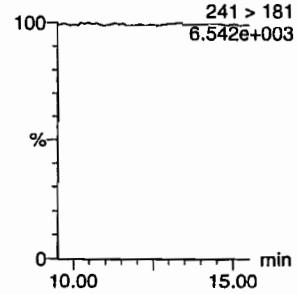

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.530e+003

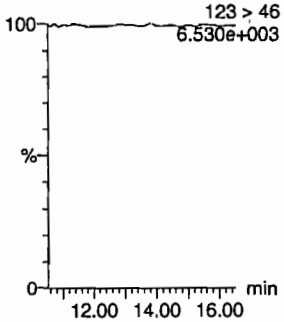

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.753e+003

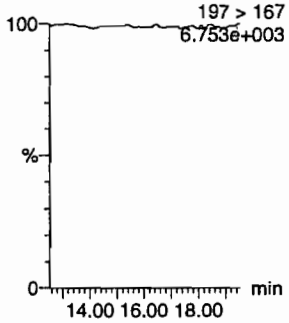

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
12.76
197 > 180
6.834e+003

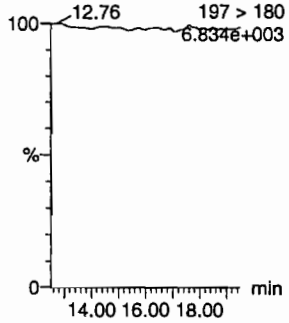

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.581e+003

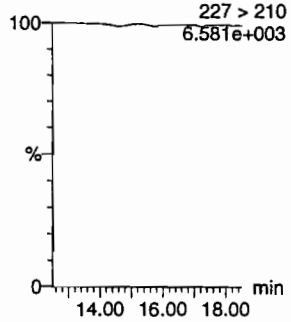

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.536e+003

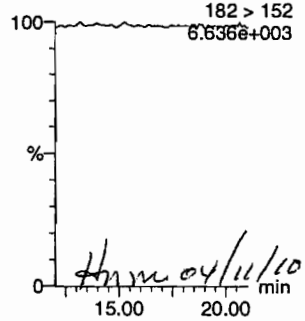

Hm 04/11/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.536e+003

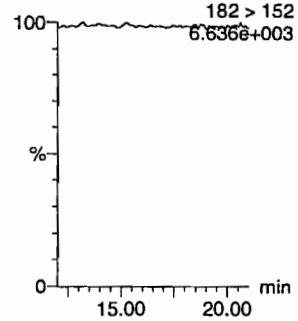

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GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.636e+003

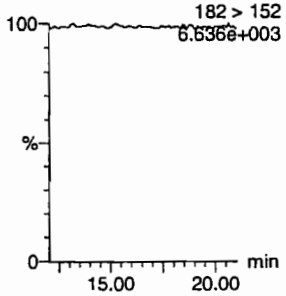

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
1.092e+005

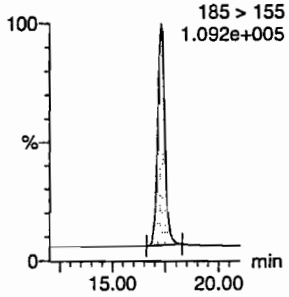

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.547e+003

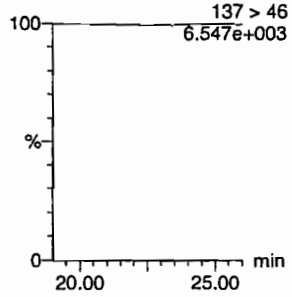

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.547e+003

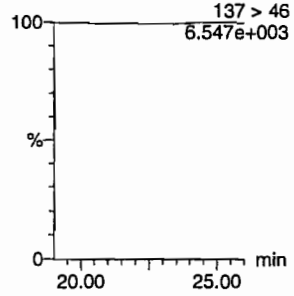

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
6.564e+003

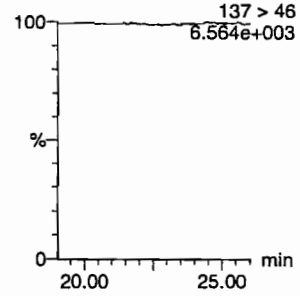

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.531e+003

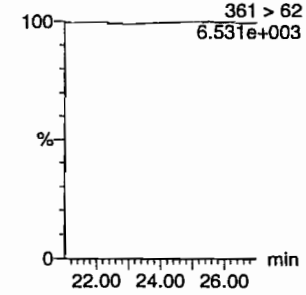

ID	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XIBLK05	HMX	176 > 102			6980.063									
XIBLK05	RDX	176 > 102			6980.063									
XIBLK05	135-Trinitrobenzene	213 > 183			6980.063									
XIBLK05	13-Dinitrobenzene-d4	172 > 142	12.00	6980.063		6980.063	6980.063	bb			537.0891	107.4	7.4	999.9
XIBLK05	13-Dinitrobenzene	168 > 138			6980.063									
XIBLK05	Tetryl	241 > 181			6980.063									
XIBLK05	Nitrobenzene	123 > 46			6980.063									
XIBLK05	4-Amino-26-dinitrotoluene	197 > 167			40903.723									
XIBLK05	2-Amino-46-dinitrotoluene	197 > 180			40903.723									
XIBLK05	246-Trinitrotoluene	227 > 210			40903.723									
XIBLK05	34-dinitrotoluene	182 > 152			40903.723									
XIBLK05	26-dinitrotoluene	182 > 152			40903.723									
XIBLK05	24-dinitrotoluene	182 > 152			40903.723									
XIBLK05	26-dinitrotoluene-d3	185 > 155	17.29	40903.723		40903.723	40903.723	bb			518.0495	103.6	3.6	2372.7
XIBLK05	2-Nitrotoluene	137 > 46			40903.723									
XIBLK05	4-Nitrotoluene	137 > 46			40903.723									
XIBLK05	3-Nitrotoluene	137 > 46			40903.723									
XIBLK05	PETN	361 > 62			40903.723									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2057

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 09-APR-10 20:12

GEL Data File: EXP0408047a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	429.443
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	435.902
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

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me: 20:12:37
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al: 1:1,A

MM 4/10/10

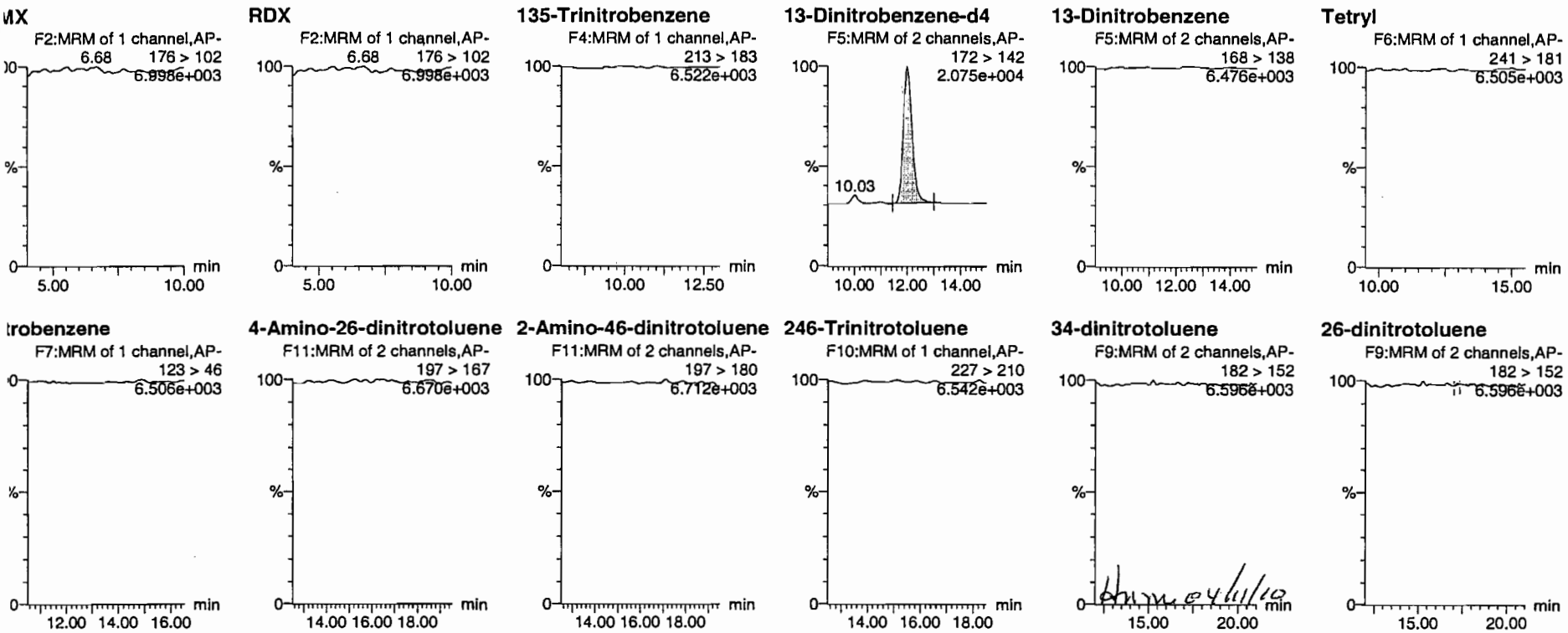

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ataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

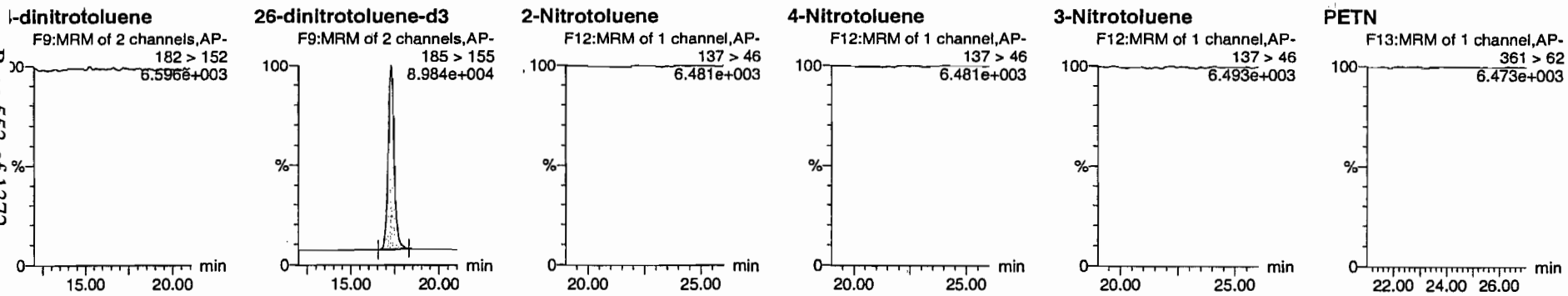

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
BLK06	HMX	176 > 102			5581.087									
BLK06	RDX	176 > 102			5581.087									
BLK06	135-Trinitrobenzene	213 > 183			5581.087									
BLK06	13-Dinitrobenzene-d4	172 > 142	12.00	5581.087		5581.087	5581.087	bb			429.4432	85.9	-14.1	248.3
BLK06	13-Dinitrobenzene	168 > 138			5581.087									
BLK06	Tetryl	241 > 181			5581.087									
BLK06	Nitrobenzene	123 > 46			5581.087									
BLK06	4-Amino-26-dinitrotoluene	197 > 167			34417.574									
BLK06	2-Amino-46-dinitrotoluene	197 > 180			34417.574									
BLK06	246-Trinitrotoluene	227 > 210			34417.574									
BLK06	34-dinitrotoluene	182 > 152			34417.574									
BLK06	26-dinitrotoluene	182 > 152			34417.574			MM-	10-Apr-10	11:35:24				
BLK06	24-dinitrotoluene	182 > 152			34417.574									
BLK06	26-dinitrotoluene-d3	185 > 155	17.29	34417.574		34417.574	34417.574	bb			435.9018	87.2	-12.8	2532.7
BLK06	2-Nitrotoluene	137 > 46			34417.574									
BLK06	4-Nitrotoluene	137 > 46			34417.574									
BLK06	3-Nitrotoluene	137 > 46			34417.574									
BLK06	PETN	361 > 62			34417.574									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 10–APR–10 02:36

GEL Data File: EXP0408060a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	468.862
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	454.011
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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MT 4/10/10

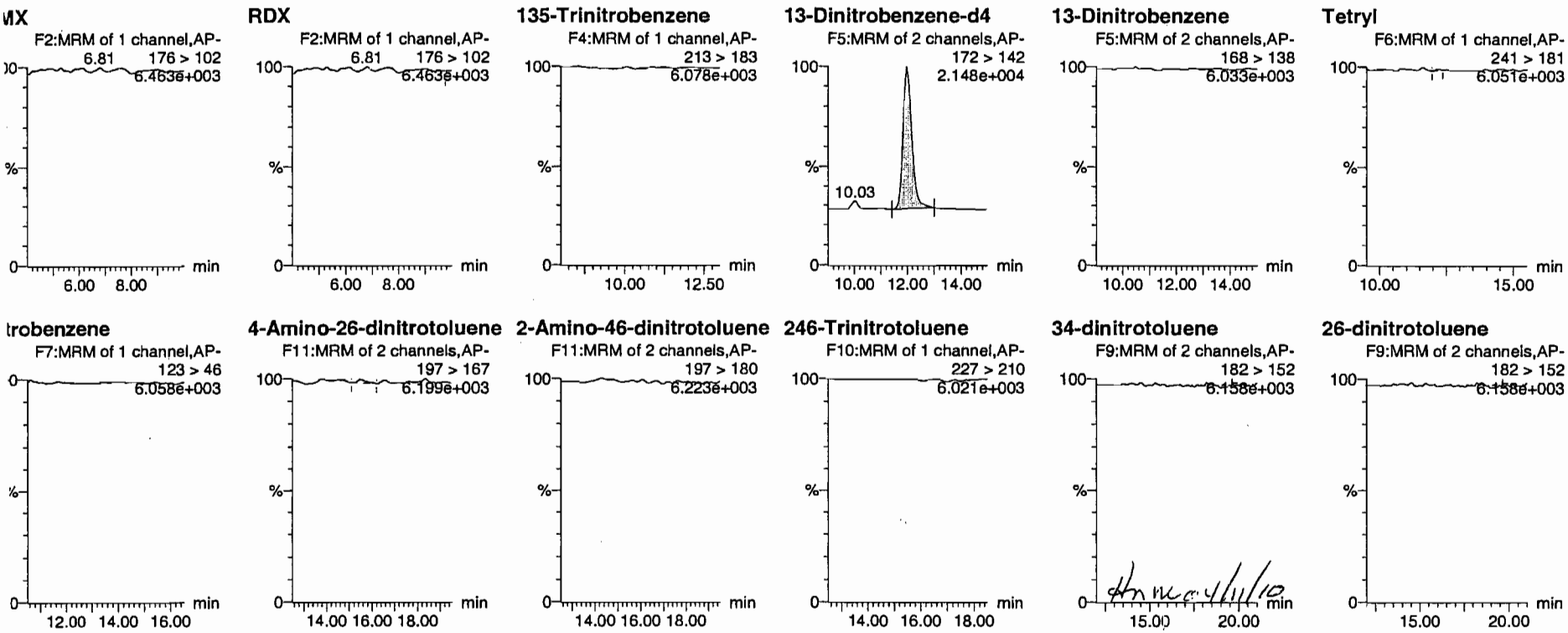

HM 4/11/10

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ataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

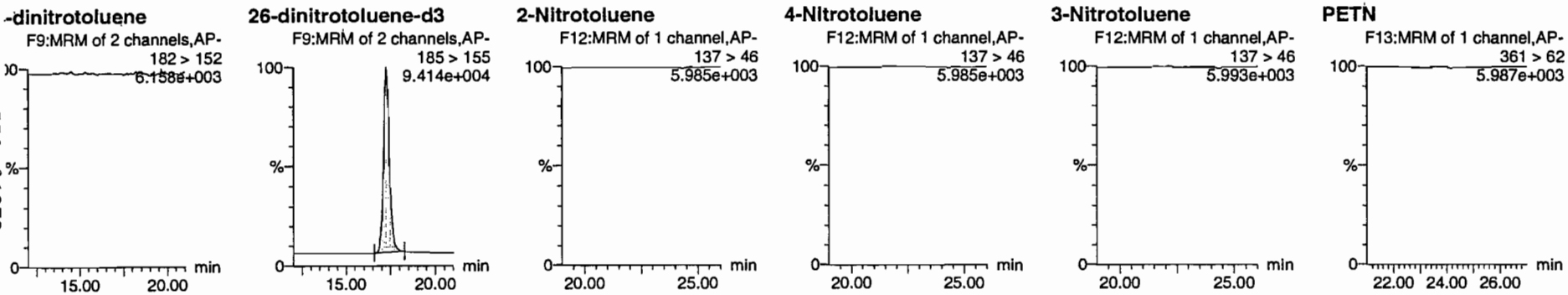

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
BLK07	HMX	176 > 102			6093.372									
BLK07	RDX	176 > 102			6093.372									
BLK07	135-Trinitrobenzene	213 > 183			6093.372									
BLK07	13-Dinitrobenzene-d4	172 > 142	11.97	6093.372		6093.372	6093.372	bb			468.8616	93.8	-6.2	691.4
BLK07	13-Dinitrobenzene	168 > 138			6093.372									
BLK07	Tetryl	241 > 181			6093.372			MM-	10-Apr-10	11:39:49				
BLK07	Nitrobenzene	123 > 46			6093.372									
BLK07	4-Amino-26-dinitrotoluene	197 > 167			35847.441			MM-	10-Apr-10	11:37:30				
BLK07	2-Amino-46-dinitrotoluene	197 > 180			35847.441									
BLK07	246-Trinitrotoluene	227 > 210			35847.441									
BLK07	34-dinitrotoluene	182 > 152			35847.441									
BLK07	26-dinitrotoluene	182 > 152			35847.441									
BLK07	24-dinitrotoluene	182 > 152			35847.441									
BLK07	26-dinitrotoluene-d3	185 > 155	17.27	35847.441		35847.441	35847.441	bb			454.0112	90.8	-9.2	2465.3
BLK07	2-Nitrotoluene	137 > 46			35847.441									
BLK07	4-Nitrotoluene	137 > 46			35847.441									
BLK07	3-Nitrotoluene	137 > 46			35847.441									
BLK07	PETN	361 > 62			35847.441									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 10–APR–10 08:59

GEL Data File: EXP0408073a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2,6–Dinitrotoluene–d3	500	463.163
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	505.982
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0

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: XIBLK08
al: 1:1,A

MATT 4/10/10

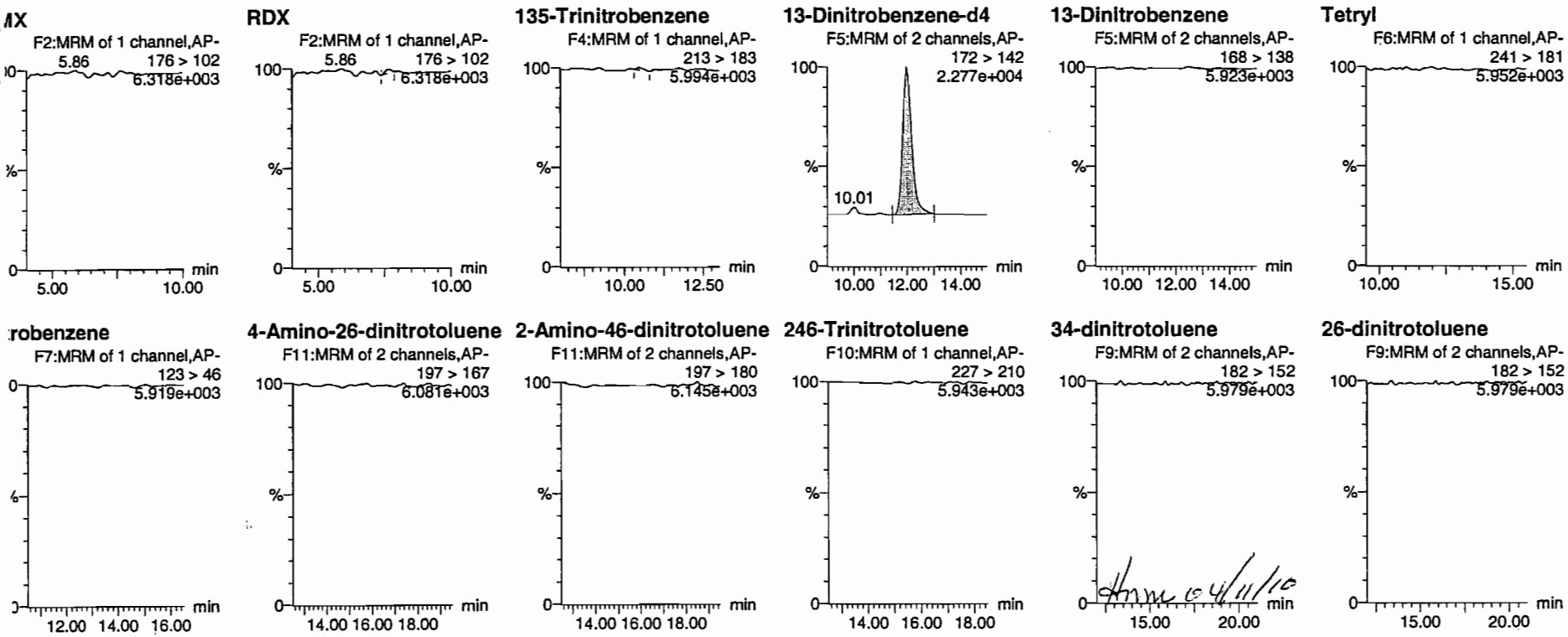

HMM 04/11/10

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EL Laboratories, LLC / Analyst : Michael A. Penny

ıtaset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

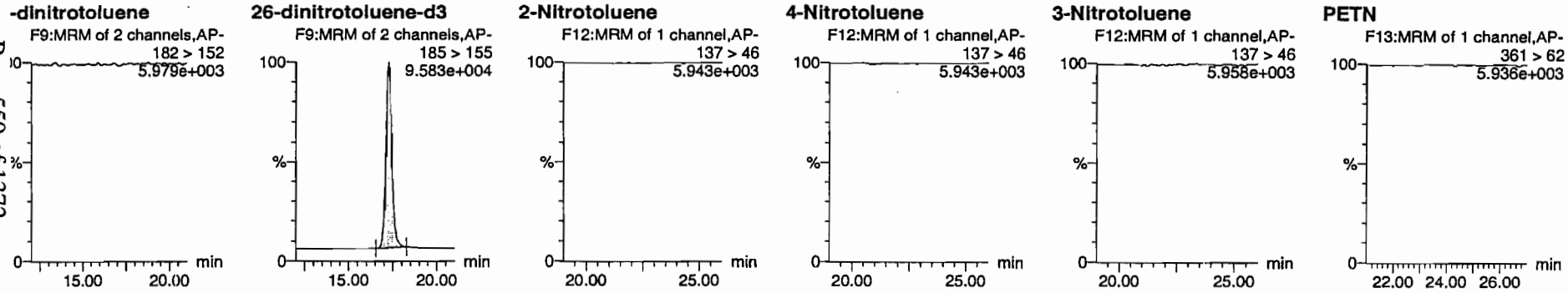

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
BLK08	HMX	176 > 102			6575.798									
BLK08	RDX	176 > 102			6575.798			MM-	10-Apr-10	11:40:20				
BLK08	135-Trinitrobenzene	213 > 183			6575.798			MM-	10-Apr-10	11:40:06				
BLK08	13-Dinitrobenzene-d4	172 > 142	11.97	6575.798		6575.798	6575.798	bb			505.9824	101.2	1.2	928.8
BLK08	13-Dinitrobenzene	168 > 138			6575.798									
BLK08	Tetryl	241 > 181			6575.798									
BLK08	Nitrobenzene	123 > 46			6575.798									
BLK08	4-Amino-26-dinitrotoluene	197 > 167			36570.039									
BLK08	2-Amino-46-dinitrotoluene	197 > 180			36570.039									
BLK08	246-Trinitrotoluene	227 > 210			36570.039									
BLK08	34-dinitrotoluene	182 > 152			36570.039									
BLK08	26-dinitrotoluene	182 > 152			36570.039									
BLK08	24-dinitrotoluene	182 > 152			36570.039									
BLK08	26-dinitrotoluene-d3	185 > 155	17.27	36570.039		36570.039	36570.039	bb			463.1630	92.6	-7.4	3298.5
BLK08	2-Nitrotoluene	137 > 46			36570.039									
BLK08	4-Nitrotoluene	137 > 46			36570.039									
BLK08	3-Nitrotoluene	137 > 46			36570.039									
BLK08	PETN	361 > 62			36570.039									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 10–APR–10 10:28

GEL Data File: EXP0408076a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	465.147
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	447.611
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0

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MMP 4/11/10

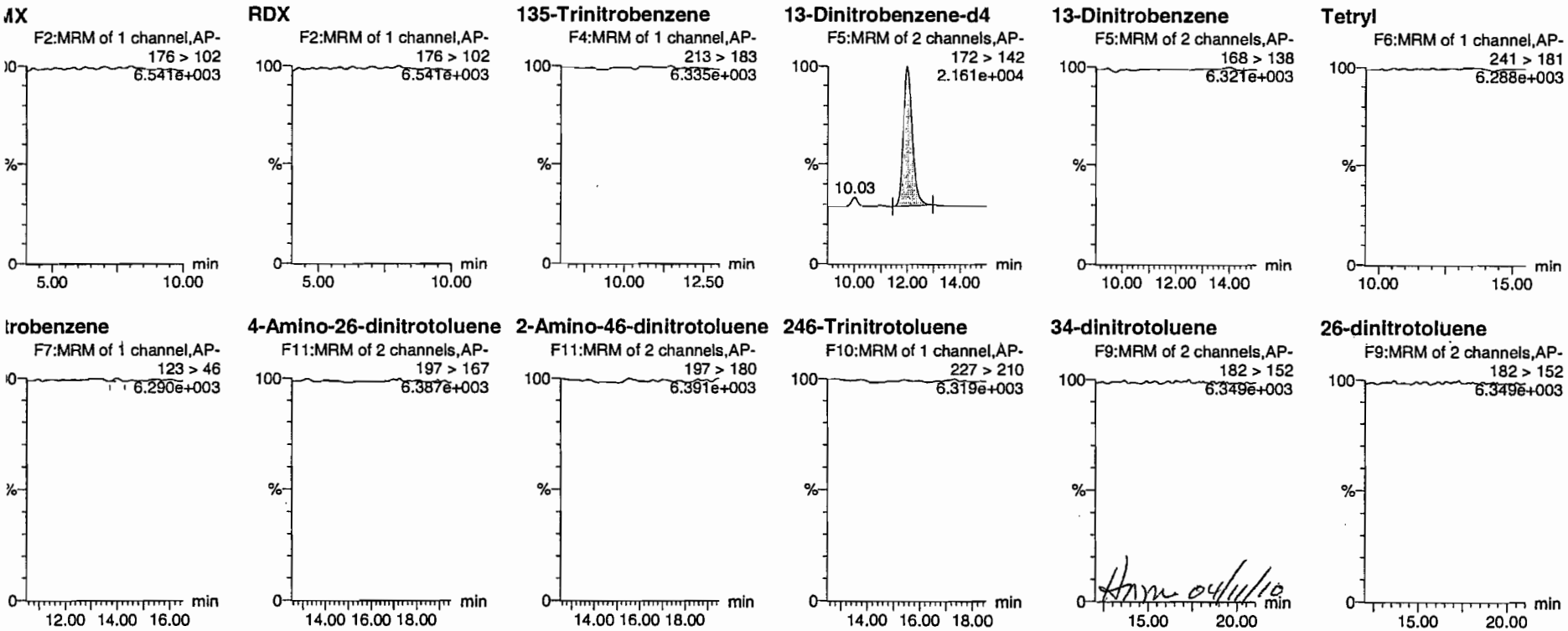

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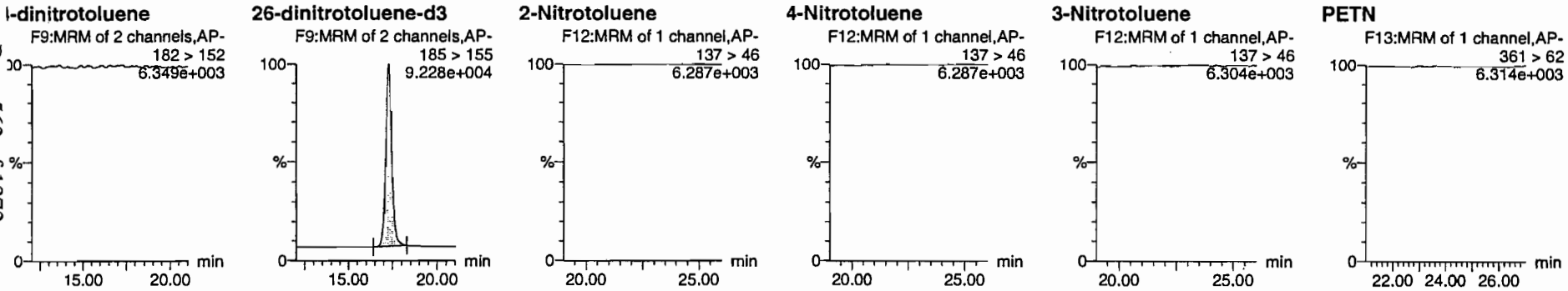

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BLK09	HMX	176 > 102			6045.094									
BLK09	RDX	176 > 102			6045.094									
BLK09	135-Trinitrobenzene	213 > 183			6045.094									
BLK09	13-Dinitrobenzene-d4	172 > 142	12.00	6045.094		6045.094	6045.094	bb			465.1468	93.0	-7.0	703.9
BLK09	13-Dinitrobenzene	168 > 138			6045.094									
BLK09	Tetryl	241 > 181			6045.094									
BLK09	Nitrobenzene	123 > 46			6045.094			MM-	11-Apr-10	11:33:23				
BLK09	4-Amino-26-dinitrotoluene	197 > 167			35342.066									
BLK09	2-Amino-46-dinitrotoluene	197 > 180			35342.066									
BLK09	246-Trinitrotoluene	227 > 210			35342.066									
BLK09	34-dinitrotoluene	182 > 152			35342.066									
BLK09	26-dinitrotoluene	182 > 152			35342.066									
BLK09	24-dinitrotoluene	182 > 152			35342.066									
BLK09	26-dinitrotoluene-d3	185 > 155	17.29	35342.066		35342.066	35342.066	bb			447.6106	89.5	-10.5	1834.9
BLK09	2-Nitrotoluene	137 > 46			35342.066									
BLK09	4-Nitrotoluene	137 > 46			35342.066									
BLK09	3-Nitrotoluene	137 > 46			35342.066									
BLK09	PETN	361 > 62			35342.066									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 10–APR–10 15:23

GEL Data File: EXP0408086a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	453.275
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	429.682
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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me: 15:23:25
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MAP 4/11/10

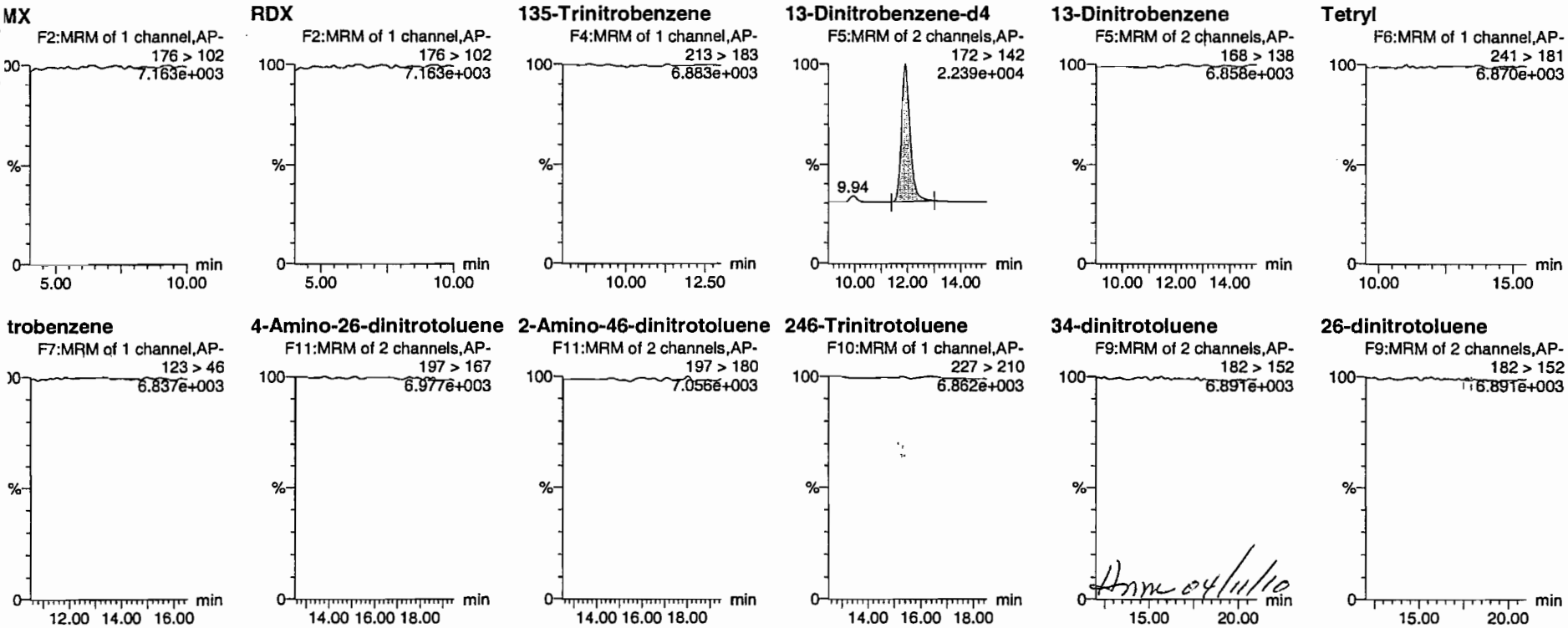

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.taset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

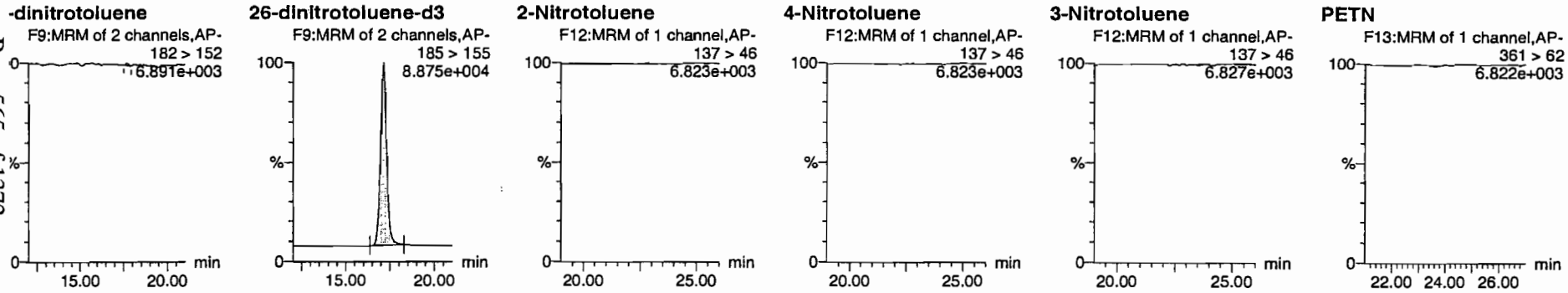

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
3LK10	HMX	176 > 102			5890.806									
3LK10	RDX	176 > 102			5890.806									
3LK10	135-Trinitrobenzene	213 > 183			5890.806									
3LK10	13-Dinitrobenzene-d4	172 > 142	11.92	5890.806		5890.806	5890.806	bb			453.2749	90.7	-9.3	263.8
3LK10	13-Dinitrobenzene	168 > 138			5890.806									
3LK10	Tetryl	241 > 181			5890.806									
3LK10	Nitrobenzene	123 > 46			5890.806									
3LK10	4-Amino-26-dinitrotoluene	197 > 167			33926.508									
3LK10	2-Amino-46-dinitrotoluene	197 > 180			33926.508									
3LK10	246-Trinitrotoluene	227 > 210			33926.508									
3LK10	34-dinitrotoluene	182 > 152			33926.508									
3LK10	26-dinitrotoluene	182 > 152			33926.508			MM-	11-Apr-10	11:40:49				
3LK10	24-dinitrotoluene	182 > 152			33926.508			MM-	11-Apr-10	11:42:27				
3LK10	26-dinitrotoluene-d3	185 > 155	17.14	33926.508		33926.508	33926.508	bb			429.6824	85.9	-14.1	1188.7
3LK10	2-Nitrotoluene	137 > 46			33926.508									
3LK10	4-Nitrotoluene	137 > 46			33926.508									
3LK10	3-Nitrotoluene	137 > 46			33926.508									
3LK10	PETN	361 > 62			33926.508									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC
GEL Job No(SDG): 10–2057
Lab Code: GEL
Lab Sample ID: XIBLK11
Analysis Date: 10–APR–10 21:46
GEL Data File: EXP0408099a
Instrument ID: LCMSMS
Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	574.264
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	468.42
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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ime: 21:46:53
): XIBLK11
ial: 1:1,A

MTP 4/11/10

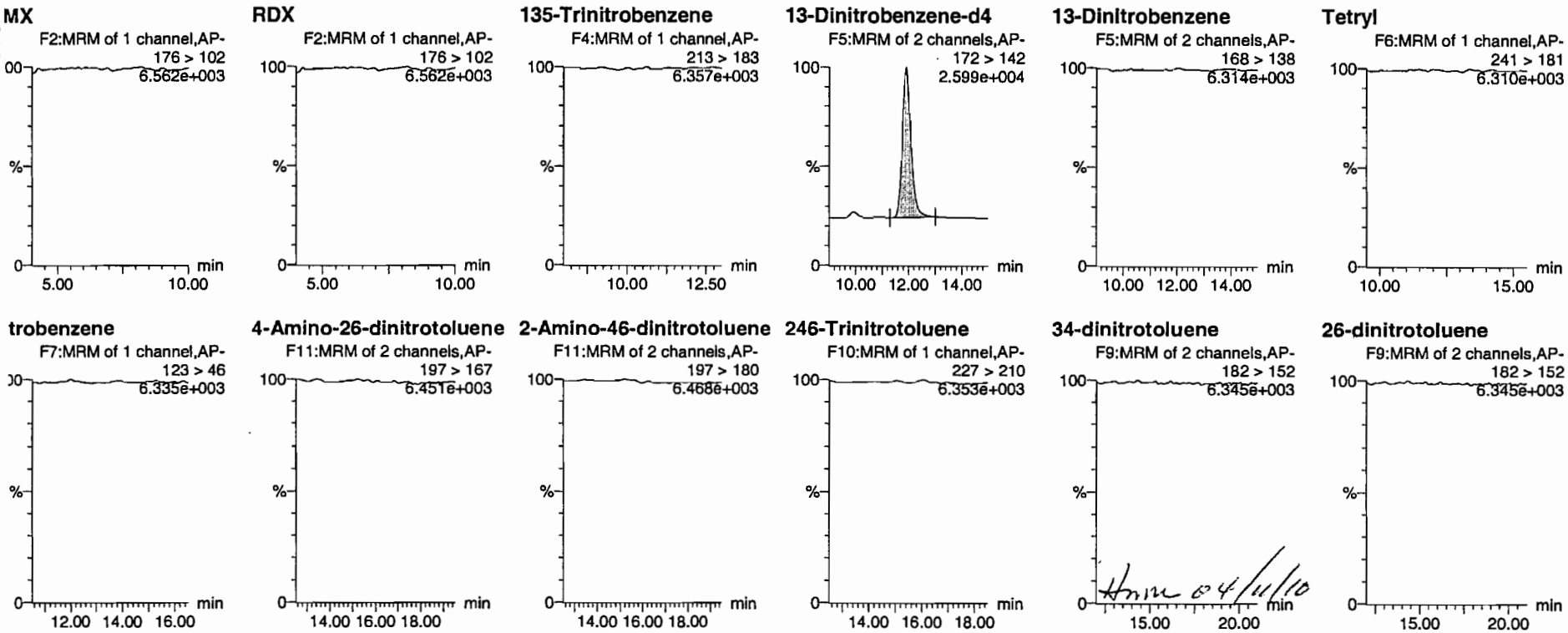

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taset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

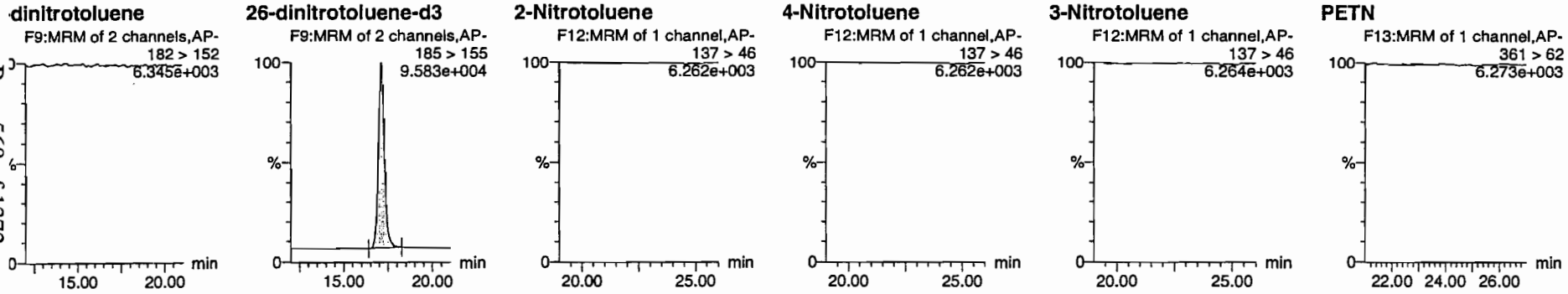

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
3LK11	HMX	176 > 102			7463.190									
3LK11	RDX	176 > 102			7463.190									
3LK11	135-Trinitrobenzene	213 > 183			7463.190									
3LK11	13-Dinitrobenzene-d4	172 > 142	11.92	7463.190		7463.190	7463.190	bb			574.2638	114.9	14.9	301.0
3LK11	13-Dinitrobenzene	168 > 138			7463.190									
3LK11	Tetryl	241 > 181			7463.190									
3LK11	Nitrobenzene	123 > 46			7463.190									
3LK11	4-Amino-26-dinitrotoluene	197 > 167			36985.094									
3LK11	2-Amino-46-dinitrotoluene	197 > 180			36985.094									
3LK11	246-Trinitrotoluene	227 > 210			36985.094									
3LK11	34-dinitrotoluene	182 > 152			36985.094									
3LK11	26-dinitrotoluene	182 > 152			36985.094									
3LK11	24-dinitrotoluene	182 > 152			36985.094									
3LK11	26-dinitrotoluene-d3	185 > 155	17.12	36985.094		36985.094	36985.094	bb			468.4197	93.7	-6.3	1366.7
3LK11	2-Nitrotoluene	137 > 46			36985.094									
3LK11	4-Nitrotoluene	137 > 46			36985.094									
3LK11	3-Nitrotoluene	137 > 46			36985.094									
3LK11	PETN	361 > 62			36985.094									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2057

Lab Code: GEL

Lab Sample ID: XIBLK12

Analysis Date: 11-APR-10 02:12

GEL Data File: EXP0408108a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	478.469
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	458.517
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

ıme: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408108a
ıte: 11-Apr-2010
ne: 02:12:26
: XIBLK12
al: 1:1,A

MM 4/11/10

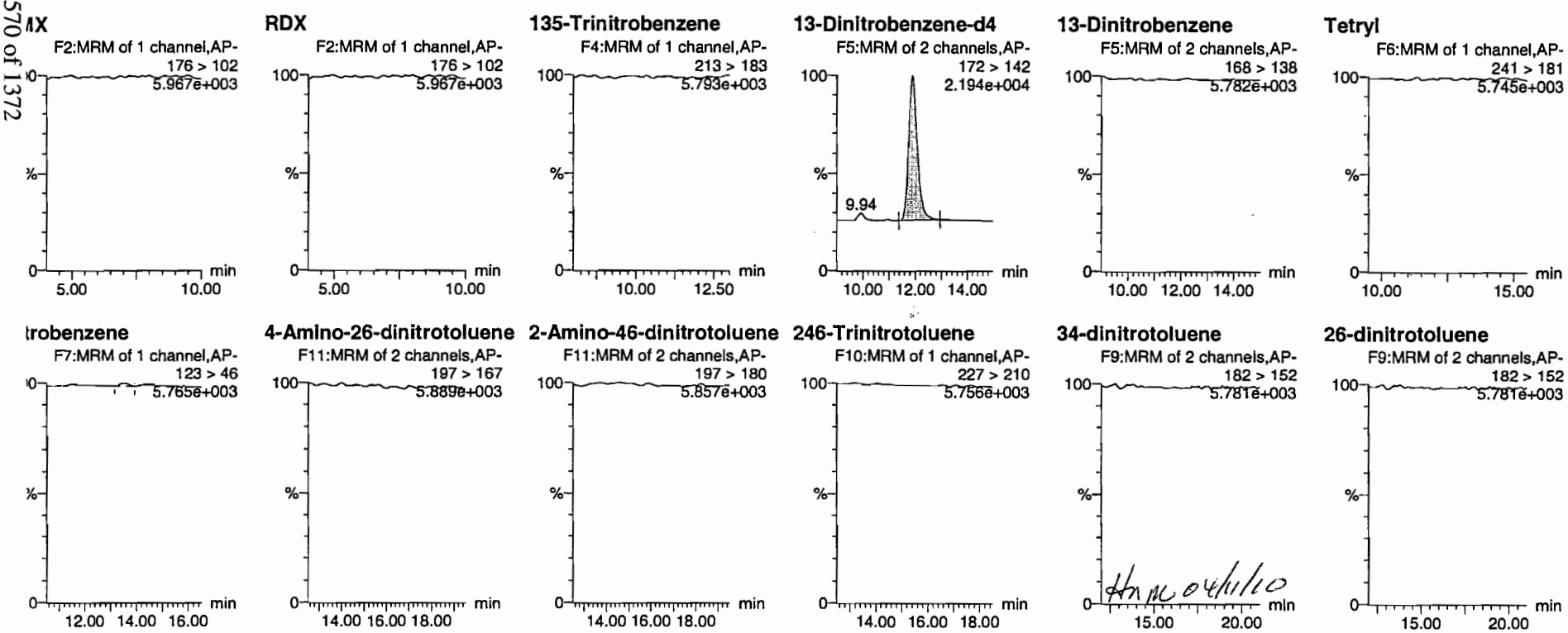

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taset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

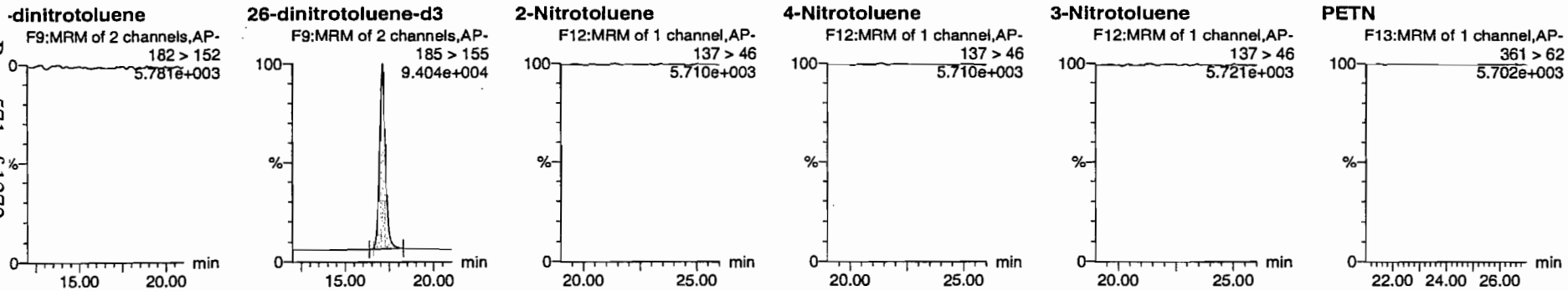

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
3LK12	HMX	176 > 102			6218.233									
3LK12	RDX	176 > 102			6218.233									
3LK12	135-Trinitrobenzene	213 > 183			6218.233									
3LK12	13-Dinitrobenzene-d4	172 > 142	11.90	6218.233		6218.233	6218.233	bb			478.4692	95.7	-4.3	1367.7
3LK12	13-Dinitrobenzene	168 > 138			6218.233									
3LK12	Tetryl	241 > 181			6218.233									
3LK12	Nitrobenzene	123 > 46			6218.233			MM-	11-Apr-10	11:34:03				
3LK12	4-Amino-26-dinitrotoluene	197 > 167			36203.238									
3LK12	2-Amino-46-dinitrotoluene	197 > 180			36203.238									
3LK12	246-Trinitrotoluene	227 > 210			36203.238									
3LK12	34-dinitrotoluene	182 > 152			36203.238									
3LK12	26-dinitrotoluene	182 > 152			36203.238									
3LK12	24-dinitrotoluene	182 > 152			36203.238									
3LK12	26-dinitrotoluene-d3	185 > 155	17.11	36203.238		36203.238	36203.238	bb			458.5174	91.7	-8.3	1716.9
3LK12	2-Nitrotoluene	137 > 46			36203.238									
3LK12	4-Nitrotoluene	137 > 46			36203.238									
3LK12	3-Nitrotoluene	137 > 46			36203.238									
3LK12	PETN	361 > 62			36203.238									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK13

Analysis Date: 11–APR–10 08:35

GEL Data File: EXP0408121a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	533.075
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	526.463
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0

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MAP 4/11/10

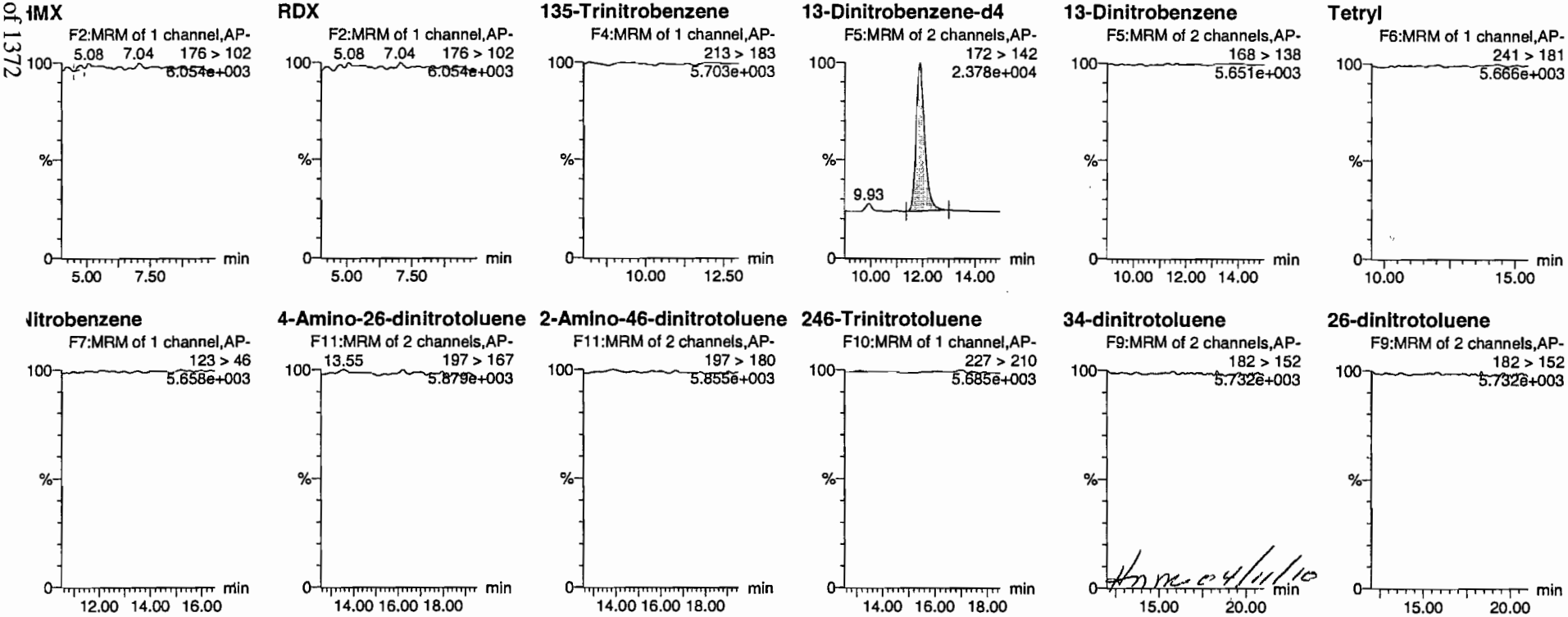

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)uantify Sample Report
;EL Laboratories, LLC / Analyst : Michael A. Penny

)ataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

4-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.732e+003

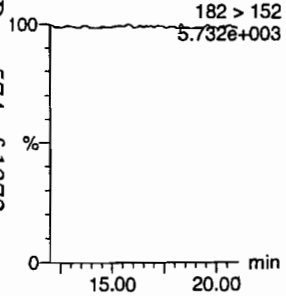

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
1.057e+005

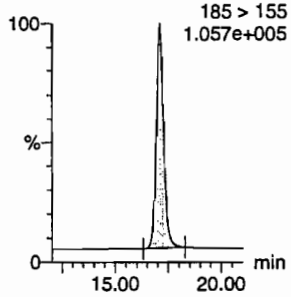

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.647e+003

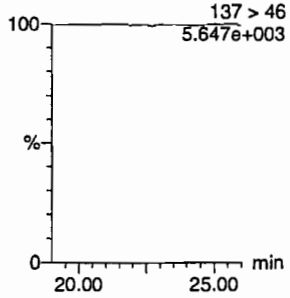

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.647e+003

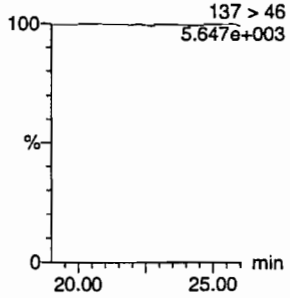

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
5.655e+003

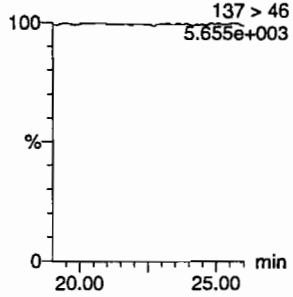

PETN
F13:MRM of 1 channel,AP-
361 > 62
5.624e+003

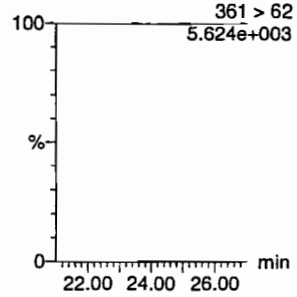

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
(IBLK13	HMX	176 > 102			6927.902			MM-	11-Apr-10	11:31:50				
(IBLK13	RDX	176 > 102			6927.902									
(IBLK13	135-Trinitrobenzene	213 > 183			6927.902									
(IBLK13	13-Dinitrobenzene-d4	172 > 142	11.89	6927.902		6927.902	6927.902	bb			533.0755	106.6	6.6	429.5
(IBLK13	13-Dinitrobenzene	168 > 138			6927.902									
(IBLK13	Tetryl	241 > 181			6927.902									
(IBLK13	Nitrobenzene	123 > 46			6927.902									
(IBLK13	4-Amino-26-dinitrotoluene	197 > 167			41568.000									
(IBLK13	2-Amino-46-dinitrotoluene	197 > 180			41568.000									
(IBLK13	246-Trinitrotoluene	227 > 210			41568.000									
(IBLK13	34-dinitrotoluene	182 > 152			41568.000									
(IBLK13	26-dinitrotoluene	182 > 152			41568.000									
(IBLK13	24-dinitrotoluehe	182 > 152			41568.000			MM-	11-Apr-10	11:44:55				
(IBLK13	26-dinitrotoluene-d3	185 > 155	17.11	41568.000		41568.000	41568.000	bb			526.4626	105.3	5.3	3997.7
(IBLK13	2-Nitrotoluene	137 > 46			41568.000									
(IBLK13	4-Nitrotoluene	137 > 46			41568.000									
(IBLK13	3-Nitrotoluene	137 > 46			41568.000									
(IBLK13	PETN	361 > 62			41568.000									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 12–APR–10 19:36

GEL Data File: EXP0412009a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	566.025
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	597.817
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0

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al: 1:1,A

MM 4/13/10

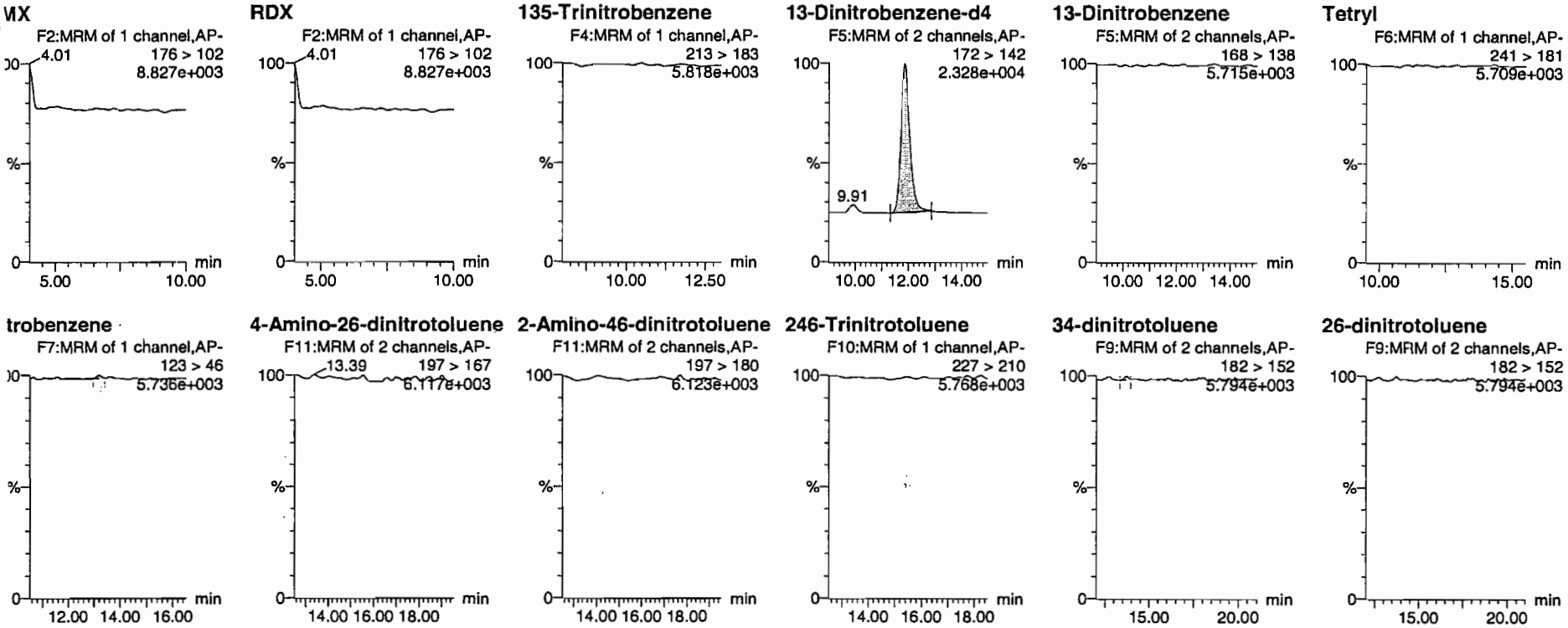

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uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

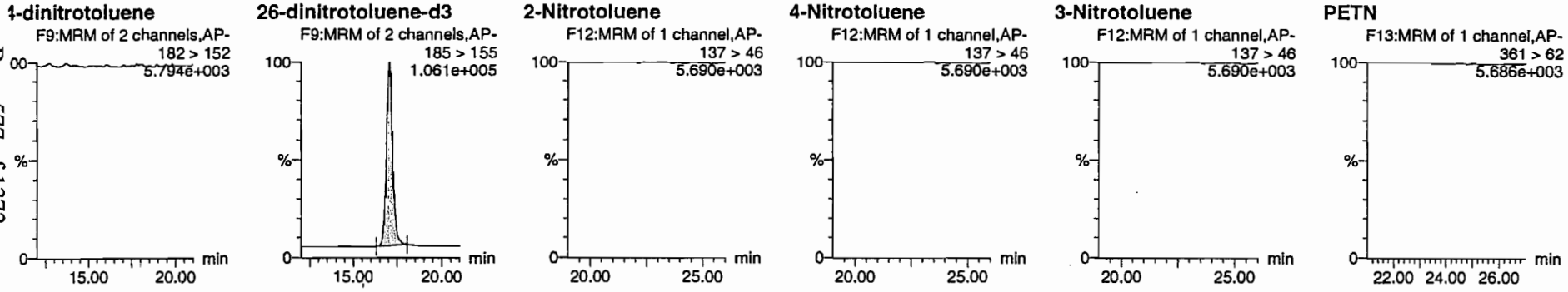

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
IBLK02	HMX	176 > 102			6656.868									
IBLK02	RDX	176 > 102			6656.868									
IBLK02	135-Trinitrobenzene	213 > 183			6656.868									
IBLK02	13-Dinitrobenzene-d4	172 > 142	11.87	6656.868		6656.868	6656.868	bb			566.0252	113.2	13.2	258.0
IBLK02	13-Dinitrobenzene	168 > 138			6656.868									
BLK02	Tetryl	241 > 181			6656.868									
BLK02	Nitrobenzene	123 > 46			6656.868			MM-	13-Apr-10	11:00:12				
BLK02	4-Amino-26-dinitrotoluene	197 > 167			41827.098									
BLK02	2-Amino-46-dinitrotoluene	197 > 180			41827.098									
BLK02	246-Trinitrotoluene	227 > 210			41827.098									
BLK02	34-dinitrotoluene	182 > 152			41827.098			MM-	13-Apr-10	11:04:01				
BLK02	26-dinitrotoluene	182 > 152			41827.098									
BLK02	24-dinitrotoluene	182 > 152			41827.098									
BLK02	26-dinitrotoluene-d3	185 > 155	17.05	41827.098		41827.098	41827.098	bb			597.8173	119.6	19.6	1486.5
BLK02	2-Nitrotoluene	137 > 46			41827.098									
BLK02	4-Nitrotoluene	137 > 46			41827.098									
BLK02	3-Nitrotoluene	137 > 46			41827.098									
BLK02	PETN	361 > 62			41827.098									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 12–APR–10 20:35

GEL Data File: EXP0412011a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	547.706
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	578.822

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ıte: 12-Apr-2010
ne: 20:35:28
: XIBLK03
al: 1:1,A

MM 4/13/10

ıX

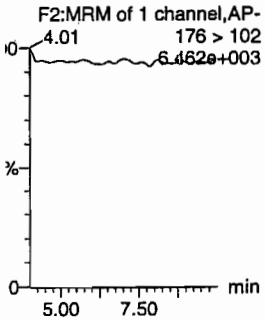

RDX

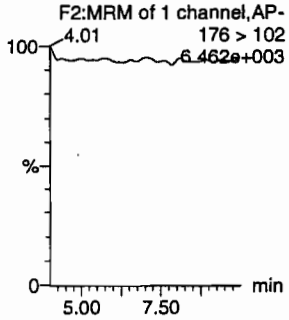

135-Trinitrobenzene

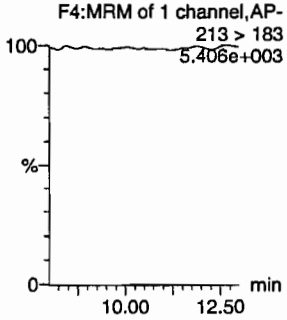

13-Dinitrobenzene-d4

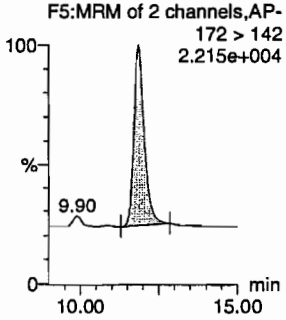

13-Dinitrobenzene

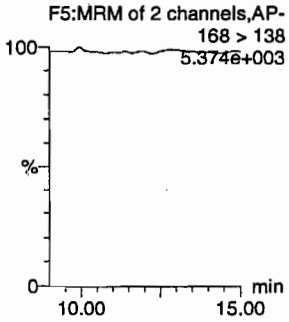

Tetryl

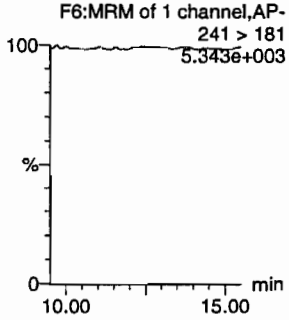

ıtrobenzene

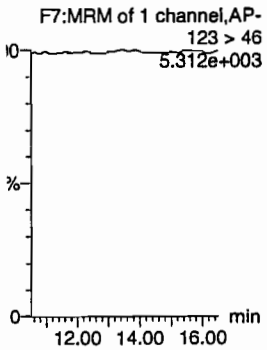

4-Amino-26-dinitrotoluene

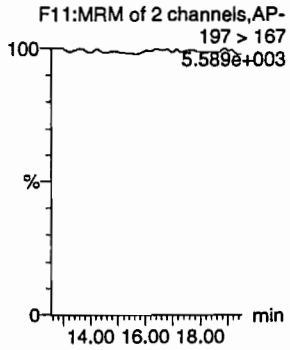

2-Amino-46-dinitrotoluene

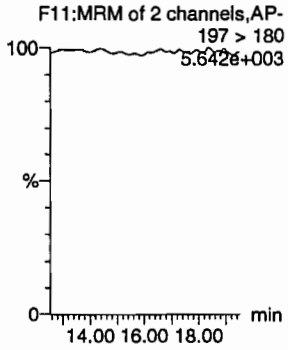

246-Trinitrotoluene

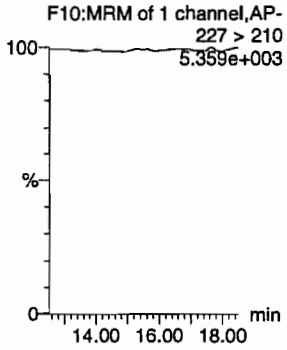

34-dinitrotoluene

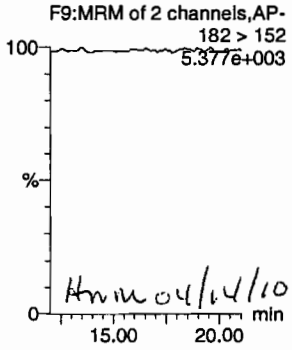

HMM 04/14/10

26-dinitrotoluene

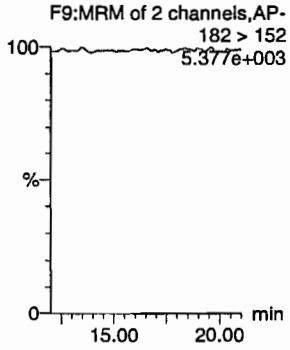

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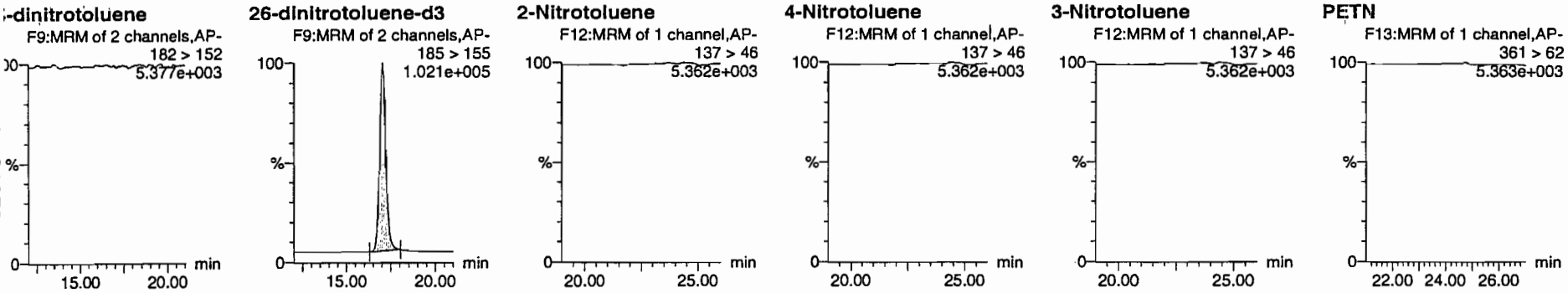

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
BLK03	HMX	176 > 102			6441.423									
BLK03	RDX	176 > 102			6441.423									
BLK03	135-Trinitrobenzene	213 > 183			6441.423									
BLK03	13-Dinitrobenzene-d4	172 > 142	11.87	6441.423		6441.423	6441.423	bb			547.7062	109.5	9.5	345.7
BLK03	13-Dinitrobenzene	168 > 138			6441.423									
BLK03	Tetryl	241 > 181			6441.423									
BLK03	Nitrobenzene	123 > 46			6441.423									
BLK03	4-Amino-26-dinitrotoluene	197 > 167			40498.094									
BLK03	2-Amino-46-dinitrotoluene	197 > 180			40498.094									
BLK03	246-Trinitrotoluene	227 > 210			40498.094									
BLK03	34-dinitrotoluene	182 > 152			40498.094									
BLK03	26-dinitrotoluene	182 > 152			40498.094									
BLK03	24-dinitrotoluene	182 > 152			40498.094									
BLK03	26-dinitrotoluene-d3	185 > 155	17.06	40498.094		40498.094	40498.094	bb			578.8224	115.8	15.8	2241.2
BLK03	2-Nitrotoluene	137 > 46			40498.094									
BLK03	4-Nitrotoluene	137 > 46			40498.094									
BLK03	3-Nitrotoluene	137 > 46			40498.094									
BLK03	PETN	361 > 62			40498.094									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 13–APR–10 02:58

GEL Data File: EXP0412024a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	493.141
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	499.061
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0

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MTT 4/13/10

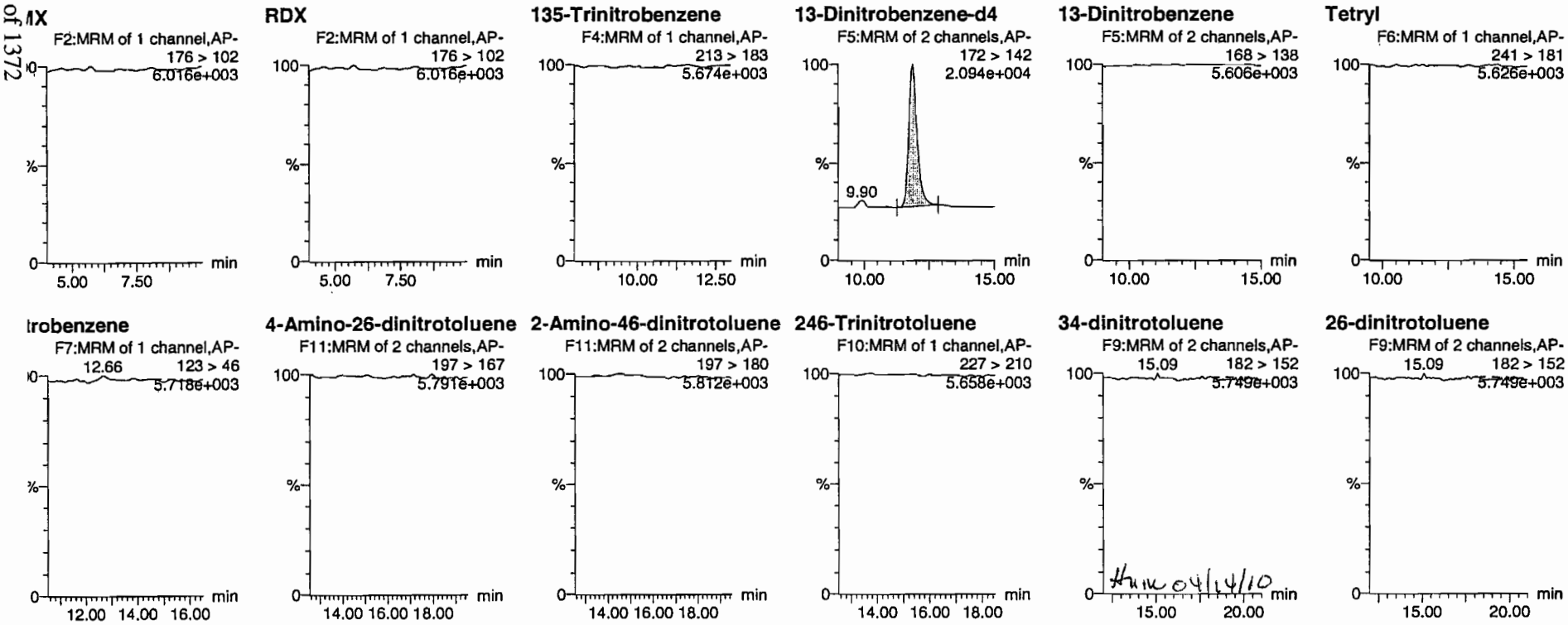

HMW 04/14/10

:L SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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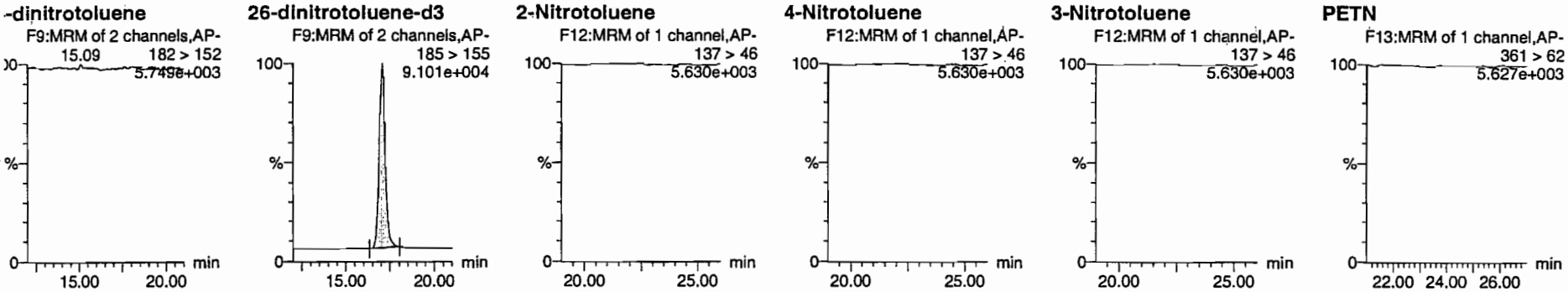

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
BLK04	HMX	176 > 102			5799.697									
BLK04	RDX	176 > 102			5799.697									
BLK04	135-Trinitrobenzene	213 > 183			5799.697									
BLK04	13-Dinitrobenzene-d4	172 > 142	11.86	5799.697		5799.697	5799.697	bb			493.1410	98.6	-1.4	818.6
BLK04	13-Dinitrobenzene	168 > 138			5799.697									
BLK04	Tetryl	241 > 181			5799.697									
BLK04	Nitrobenzene	123 > 46			5799.697									
BLK04	4-Amino-26-dinitrotoluene	197 > 167			34917.508									
BLK04	2-Amino-46-dinitrotoluene	197 > 180			34917.508									
BLK04	246-Trinitrotoluene	227 > 210			34917.508									
BLK04	34-dinitrotoluene	182 > 152			34917.508									
BLK04	26-dinitrotoluene	182 > 152			34917.508									
BLK04	24-dinitrotoluene	182 > 152			34917.508									
BLK04	26-dinitrotoluene-d3	185 > 155	17.06	34917.508		34917.508	34917.508	bb			499.0614	99.8	-0.2	4328.2
BLK04	2-Nitrotoluene	137 > 46			34917.508									
BLK04	4-Nitrotoluene	137 > 46			34917.508									
BLK04	3-Nitrotoluene	137 > 46			34917.508									
BLK04	PETN	361 > 62			34917.508									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 13–APR–10 09:22

GEL Data File: EXP0412037a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	510.743
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	501.204
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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MATT 4/13/10

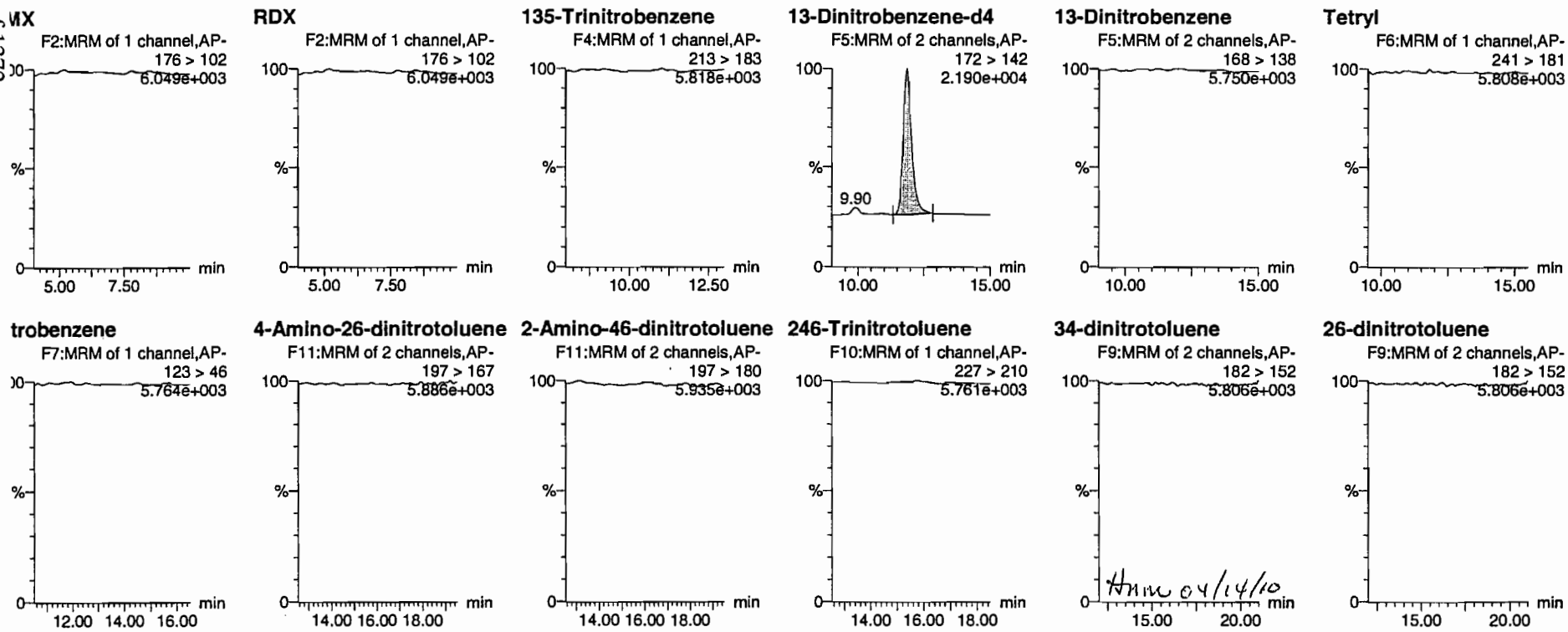

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uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ıtaset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

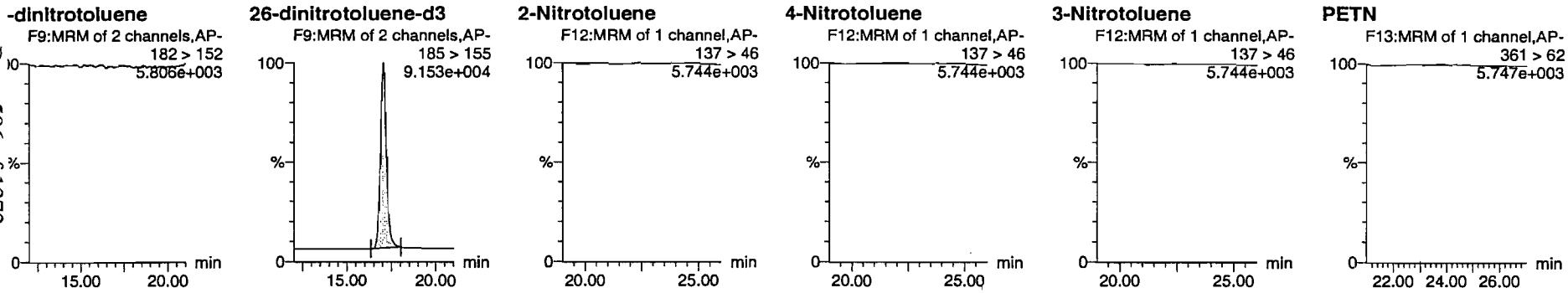

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
3LK05	HMX	176 > 102			6006.704									
3LK05	RDX	176 > 102			6006.704									
3LK05	135-Trinitrobenzene	213 > 183			6006.704									
3LK05	13-Dinitrobenzene-d4	172 > 142	11.87	6006.704		6006.704	6006.704	bb			510.7425	102.1	2.1	513.6
3LK05	13-Dinitrobenzene	168 > 138			6006.704									
3LK05	Tetryl	241 > 181			6006.704									
3LK05	Nitrobenzene	123 > 46			6006.704									
3LK05	4-Amino-26-dinitrotoluene	197 > 167			35067.418									
3LK05	2-Amino-46-dinitrotoluene	197 > 180			35067.418									
3LK05	246-Trinitrotoluene	227 > 210			35067.418									
3LK05	34-dinitrotoluene	182 > 152			35067.418									
3LK05	26-dinitrotoluene	182 > 152			35067.418									
3LK05	24-dinitrotoluene	182 > 152			35067.418									
3LK05	26-dinitrotoluene-d3	185 > 155	17.06	35067.418		35067.418	35067.418	bb			501.2040	100.2	0.2	3209.3
3LK05	2-Nitrotoluene	137 > 46			35067.418									
3LK05	4-Nitrotoluene	137 > 46			35067.418									
3LK05	3-Nitrotoluene	137 > 46			35067.418									
3LK05	PETN	361 > 62			35067.418									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 13–APR–10 11:20

GEL Data File: EXP0412041a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	648.08
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	519.054
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

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LMT 4/14/10

MX
F2:MRM of 1 channel,AP-
176 > 102
5.638e+003

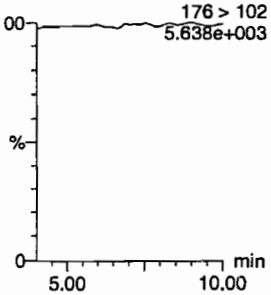

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.638e+003

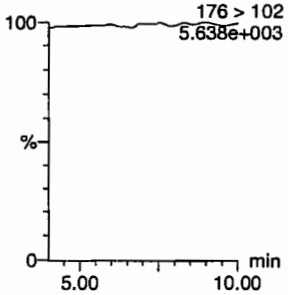

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.500e+003

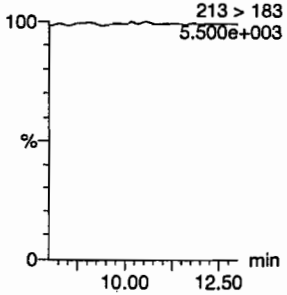

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.552e+004

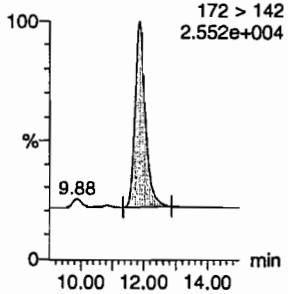

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
12.45
168 > 138
5.539e+003

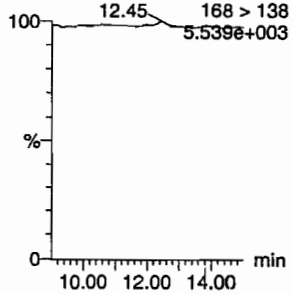

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.468e+003

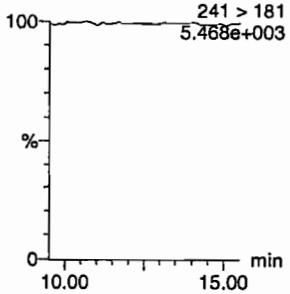

itrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.491e+003

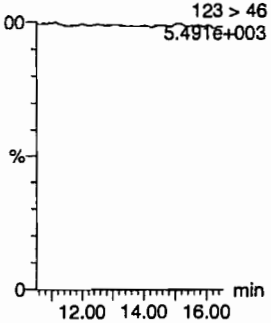

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.507e+003

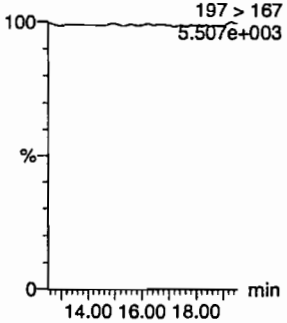

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.524e+003

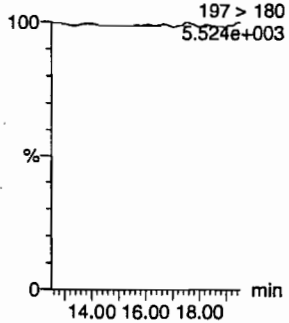

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.445e+003

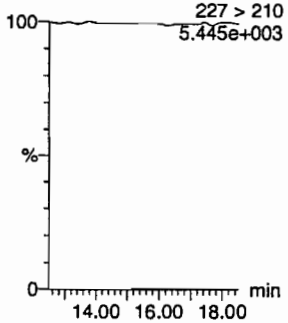

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.501e+003

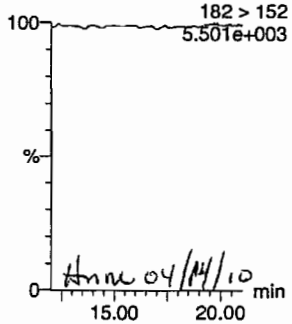

Hmc 04/14/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.501e+003

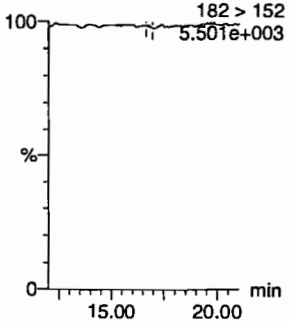

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ataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

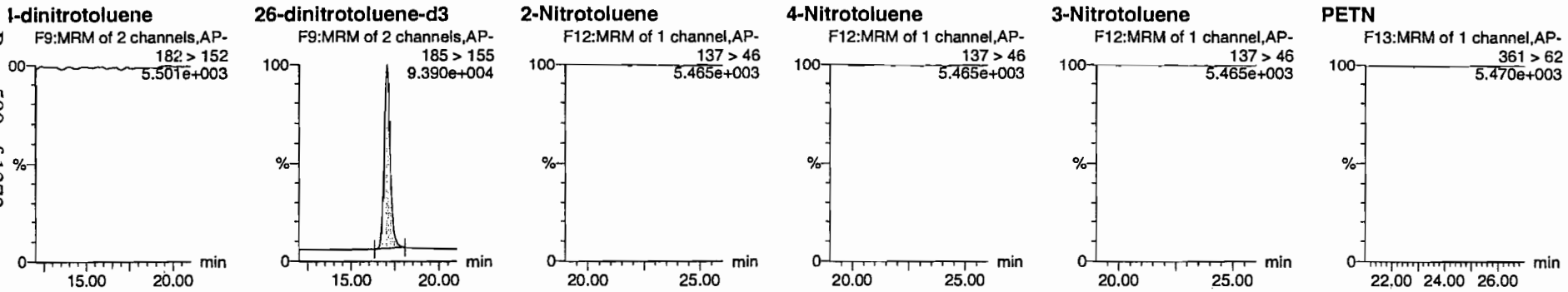

)	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
IBLK06	HMX	176 > 102			7621.890									
IBLK06	RDX	176 > 102			7621.890									
IBLK06	135-Trinitrobenzene	213 > 183			7621.890									
IBLK06	13-Dinitrobenzene-d4	172 > 142	11.87	7621.890		7621.890	7621.890	bb			648.0798	129.6	29.6	880.4
IBLK06	13-Dinitrobenzene	168 > 138			7621.890									
IBLK06	Tetryl	241 > 181			7621.890									
IBLK06	Nitrobenzene	123 > 46			7621.890									
IBLK06	4-Amino-26-dinitrotoluene	197 > 167			36316.328									
IBLK06	2-Amino-46-dinitrotoluene	197 > 180			36316.328									
IBLK06	246-Trinitrotoluene	227 > 210			36316.328									
IBLK06	34-dinitrotoluene	182 > 152			36316.328									
IBLK06	26-dinitrotoluene	182 > 152			36316.328			MM-	14-Apr-10	09:11:01				
IBLK06	24-dinitrotoluene	182 > 152			36316.328									
IBLK06	26-dinitrotoluene-d3	185 > 155	17.05	36316.328		36316.328	36316.328	bb			519.0541	103.8	3.8	1500.7
IBLK06	2-Nitrotoluene	137 > 46			36316.328									
IBLK06	4-Nitrotoluene	137 > 46			36316.328									
IBLK06	3-Nitrotoluene	137 > 46			36316.328									
IBLK06	PETN	361 > 62			36316.328									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 13–APR–10 15:46

GEL Data File: EXP0412050a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	555.622
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	595.796
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

ataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

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: XIBLK07
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MM 4/14/10

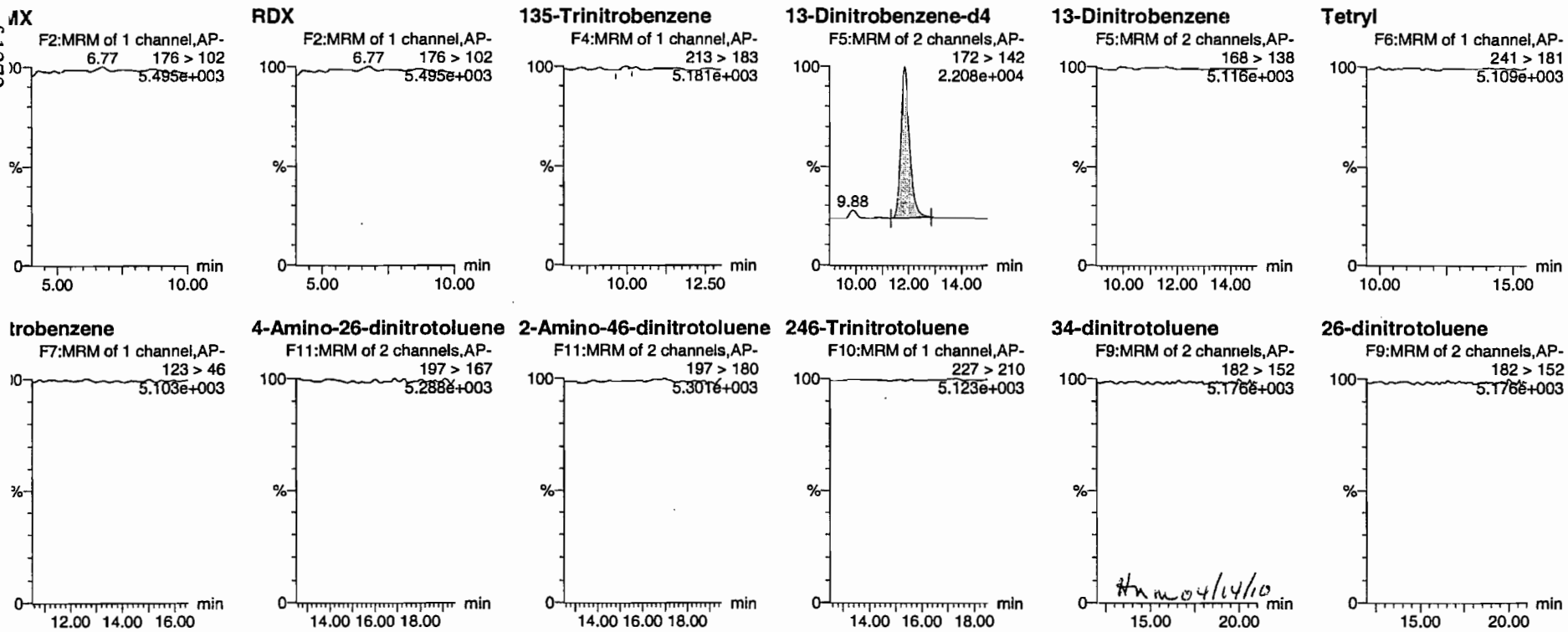

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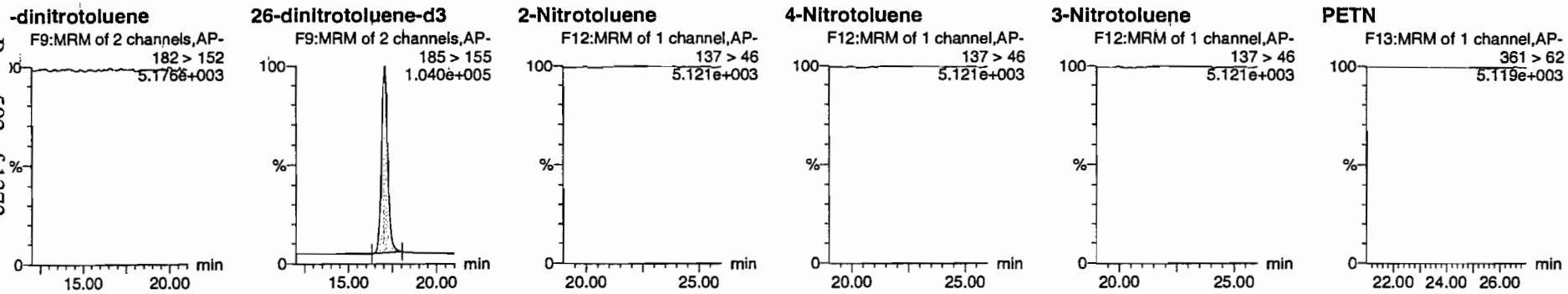

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BLK07	HMX	176 > 102			6534.515									
BLK07	RDX	176 > 102			6534.515									
BLK07	135-Trinitrobenzene	213 > 183			6534.515			MM-	14-Apr-10	09:05:01				
BLK07	13-Dinitrobenzene-d4	172 > 142	11.87	6534.515		6534.515	6534.515	bb			555.6217	111.1	11.1	831.9
BLK07	13-Dinitrobenzene	168 > 138			6534.515									
BLK07	Tetryl	241 > 181			6534.515									
BLK07	Nitrobenzene	123 > 46			6534.515									
BLK07	4-Amino-26-dinitrotoluene	197 > 167			41685.668									
BLK07	2-Amino-46-dinitrotoluene	197 > 180			41685.668									
BLK07	246-Trinitrotoluene	227 > 210			41685.668									
BLK07	34-dinitrotoluene	182 > 152			41685.668									
BLK07	26-dinitrotoluene	182 > 152			41685.668									
BLK07	24-dinitrotoluene	182 > 152			41685.668									
BLK07	26-dinitrotoluene-d3	185 > 155	17.05	41685.668		41685.668	41685.668	bb			595.7959	119.2	19.2	3775.0
BLK07	2-Nitrotoluene	137 > 46			41685.668									
BLK07	4-Nitrotoluene	137 > 46			41685.668									
BLK07	3-Nitrotoluene	137 > 46			41685.668									
BLK07	PETN	361 > 62			41685.668									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 13–APR–10 21:10

GEL Data File: EXP0412061a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
1,3,5–Trinitrobenzene	0	0
1,3–Dinitrobenzene–d4	500	531.786
2,4,6–Trinitrotoluene	0	0
2,4–Dinitrotoluene	0	0
2,6–Dinitrotoluene	0	0
2,6–Dinitrotoluene–d3	500	563.322
2–Amino–4,6–dinitrotoluene	0	0
4–Amino–2,6–dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m–Dinitrobenzene	0	0
m–Nitrotoluene	0	0
o–Nitrotoluene	0	0
p–Nitrotoluene	0	0

ataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

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ime: 21:10:49
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MATT 4/14/10

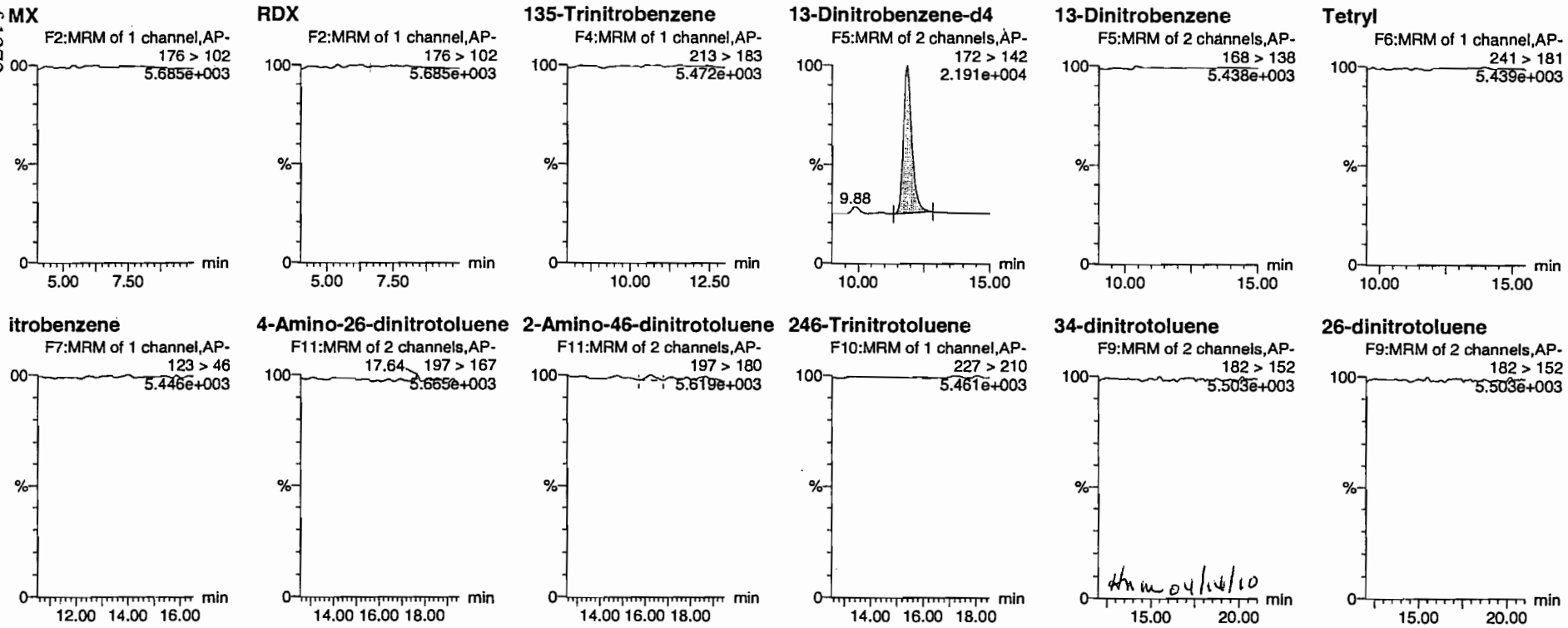

AMM 04/14/10

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ataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

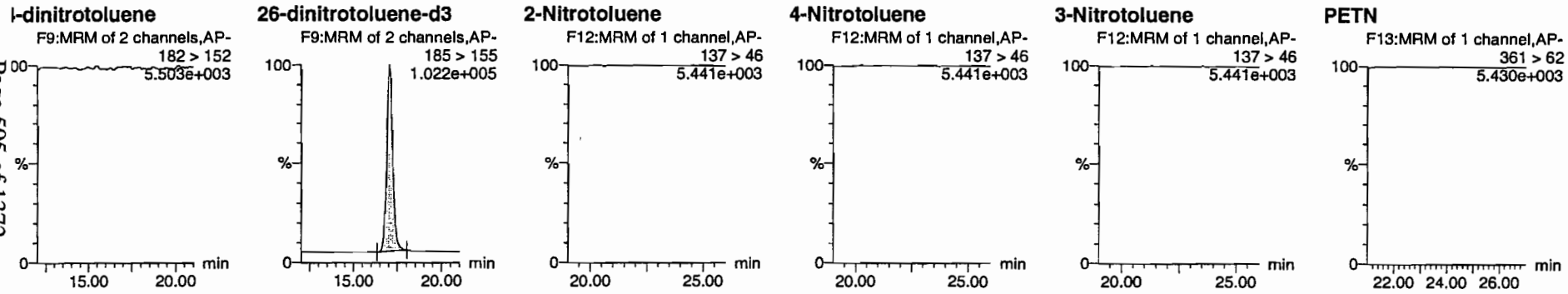

)	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
IBLK08	HMX	176 > 102			6254.194									
IBLK08	RDX	176 > 102			6254.194									
IBLK08	135-Trinitrobenzene	213 > 183			6254.194									
IBLK08	13-Dinitrobenzene-d4	172 > 142	11.87	6254.194		6254.194	6254.194	bb			531.7863	106.4	6.4	504.3
IBLK08	13-Dinitrobenzene	168 > 138			6254.194									
IBLK08	Tetryl	241 > 181			6254.194									
IBLK08	Nitrobenzene	123 > 46			6254.194									
IBLK08	4-Amino-26-dinitrotoluene	197 > 167			39413.598									
IBLK08	2-Amino-46-dinitrotoluene	197 > 180			39413.598			MM-	14-Apr-10	09:02:14				
IBLK08	246-Trinitrotoluene	227 > 210			39413.598									
IBLK08	34-dinitrotoluene	182 > 152			39413.598									
IBLK08	26-dinitrotoluene	182 > 152			39413.598									
IBLK08	24-dinitrotoluene	182 > 152			39413.598									
IBLK08	26-dinitrotoluene-d3	185 > 155	17.04	39413.598		39413.598	39413.598	bb			563.3221	112.7	12.7	3089.3
IBLK08	2-Nitrotoluene	137 > 46			39413.598									
IBLK08	4-Nitrotoluene	137 > 46			39413.598									
IBLK08	3-Nitrotoluene	137 > 46			39413.598									
IBLK08	PETN	361 > 62			39413.598									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10-2057

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 14-APR-10 03:34

GEL Data File: EXP0412074a

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4-Dinitrotoluene	0	0
1,3,5-Trinitrobenzene	0	0
1,3-Dinitrobenzene-d4	500	496.797
2,4,6-Trinitrotoluene	0	0
2,4-Dinitrotoluene	0	0
2,6-Dinitrotoluene	0	0
2,6-Dinitrotoluene-d3	500	587.81
2-Amino-4,6-dinitrotoluene	0	0
4-Amino-2,6-dinitrotoluene	0	0
HMX	0	0
Nitrobenzene	0	0
PETN	0	0
RDX	0	0
Tetryl	0	0
m-Dinitrobenzene	0	0
m-Nitrotoluene	0	0
o-Nitrotoluene	0	0
p-Nitrotoluene	0	0

uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

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ime: 03:34:13
D: XIBLK09
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MM 4/14/10

MX
F2:MRM of 1 channel,AP-
176 > 102
5.800e+003

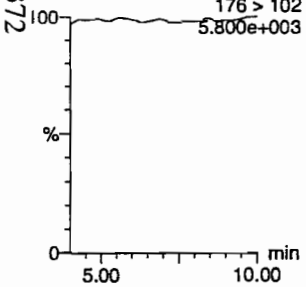

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.800e+003

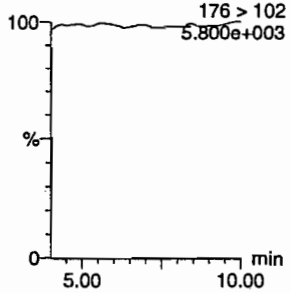

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.556e+003

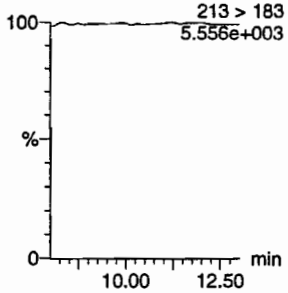

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.107e+004

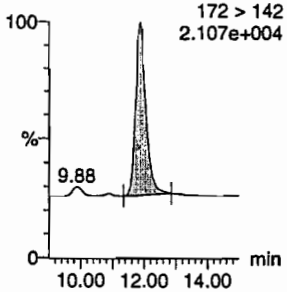

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.518e+003

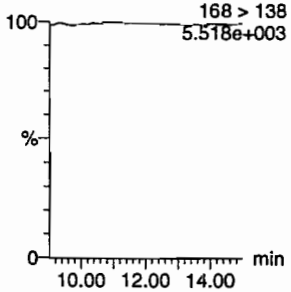

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.516e+003

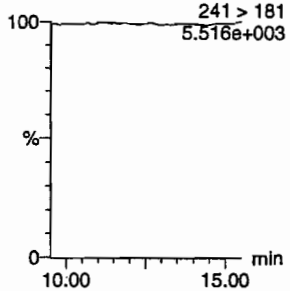

itrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.511e+003

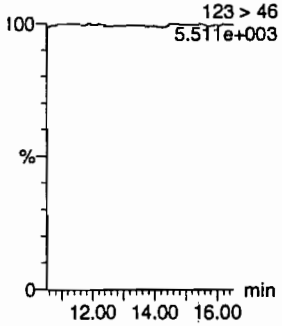

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.654e+003

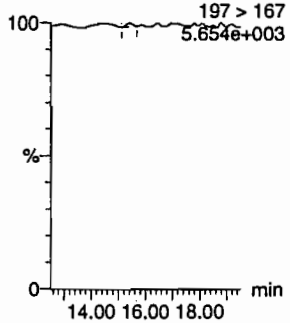

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.691e+003

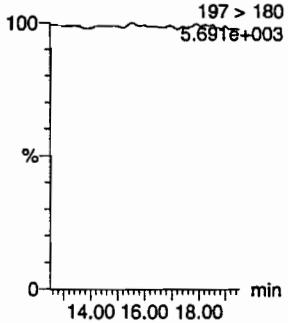

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.513e+003

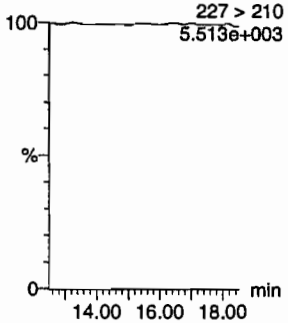

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.554e+003

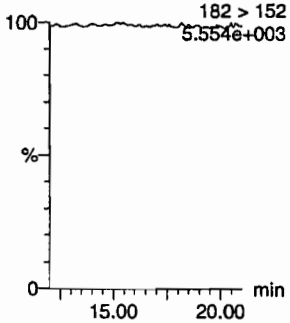

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.554e+003

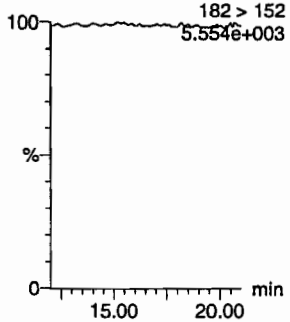

HMW 04/14/10

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

24-dinitrotoluene

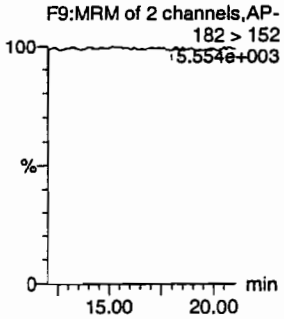

26-dinitrotoluene-d3

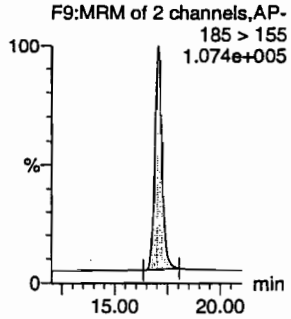

2-Nitrotoluene

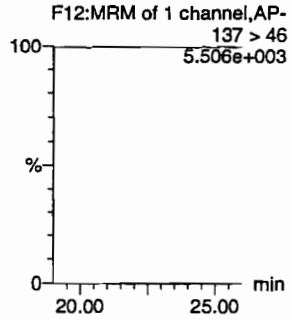

4-Nitrotoluene

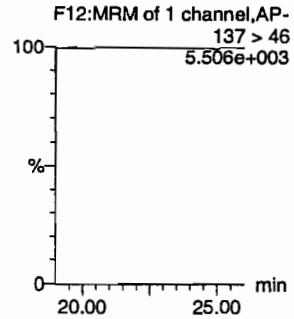

3-Nitrotoluene

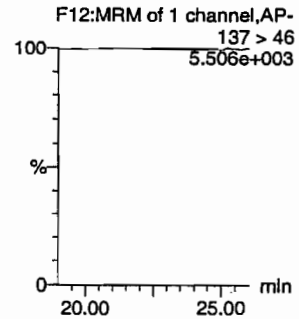

PETN

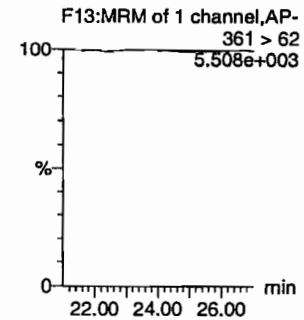

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XIBLK09	HMX	176 > 102			5842.696									
XIBLK09	RDX	176 > 102			5842.696									
XIBLK09	135-Trinitrobenzene	213 > 183			5842.696									
XIBLK09	13-Dinitrobenzene-d4	172 > 142	11.87	5842.696		5842.696	5842.696	bb			496.7972	99.4	-0.6	724.2
XIBLK09	13-Dinitrobenzene	168 > 138			5842.696									
XIBLK09	Tetryl	241 > 181			5842.696									
XIBLK09	Nitrobenzene	123 > 46			5842.696									
XIBLK09	4-Amino-26-dinitrotoluene	197 > 167			41126.906			MM-	14-Apr-10	09:09:05				
XIBLK09	2-Amino-46-dinitrotoluene	197 > 180			41126.906									
XIBLK09	246-Trinitrotoluene	227 > 210			41126.906									
XIBLK09	34-dinitrotoluene	182 > 152			41126.906									
XIBLK09	26-dinitrotoluene	182 > 152			41126.906									
XIBLK09	24-dinitrotoluene	182 > 152			41126.906			MM-	14-Apr-10	09:13:30				
XIBLK09	26-dinitrotoluene-d3	185 > 155	17.05	41126.906		41126.906	41126.906	bb			587.8097	117.6	17.6	1849.8
XIBLK09	2-Nitrotoluene	137 > 46			41126.906									
XIBLK09	4-Nitrotoluene	137 > 46			41126.906									
XIBLK09	3-Nitrotoluene	137 > 46			41126.906									
XIBLK09	PETN	361 > 62			41126.906									

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK02

Analysis Date: 05–APR–10 15:07

GEL Data File: EXS04050010.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	11.1
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Ken 4/7/10

mple Name: "XIBLK02" Sample ID: "1|LER" File: "EXS04050010.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 4/5/2010
Time: 3:07:10 PM

fied: No

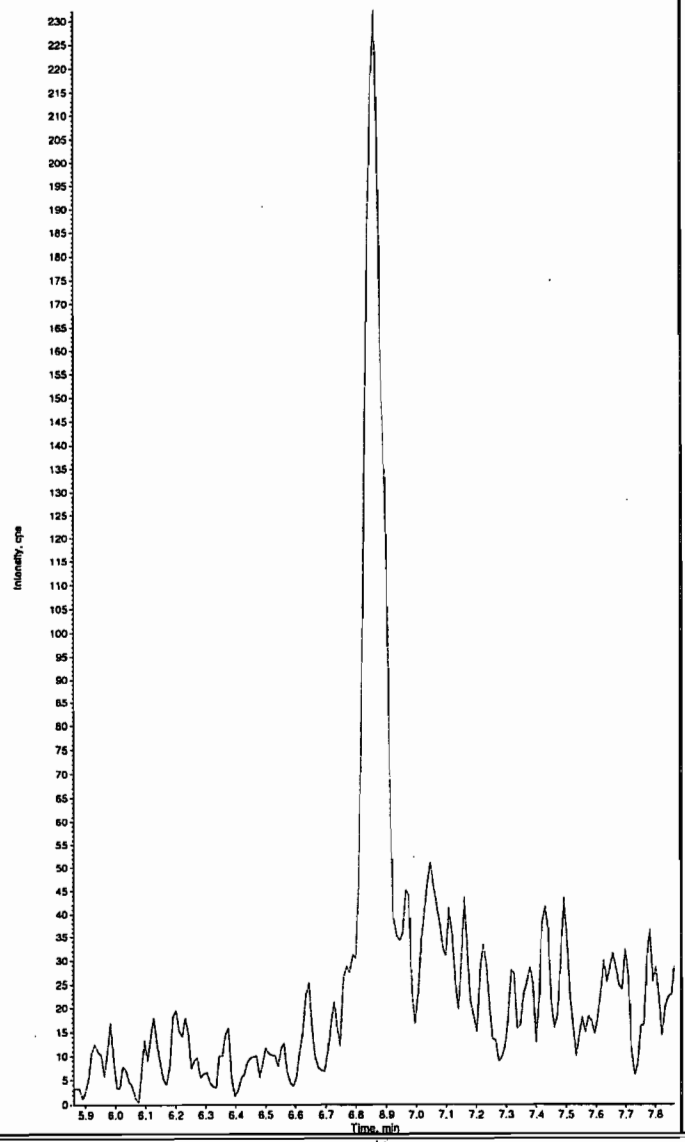

Sample Name: "XIBLK02" Sample ID: "1|LER" File: "EXS04050010.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 3:07:10 PM

Modified: No

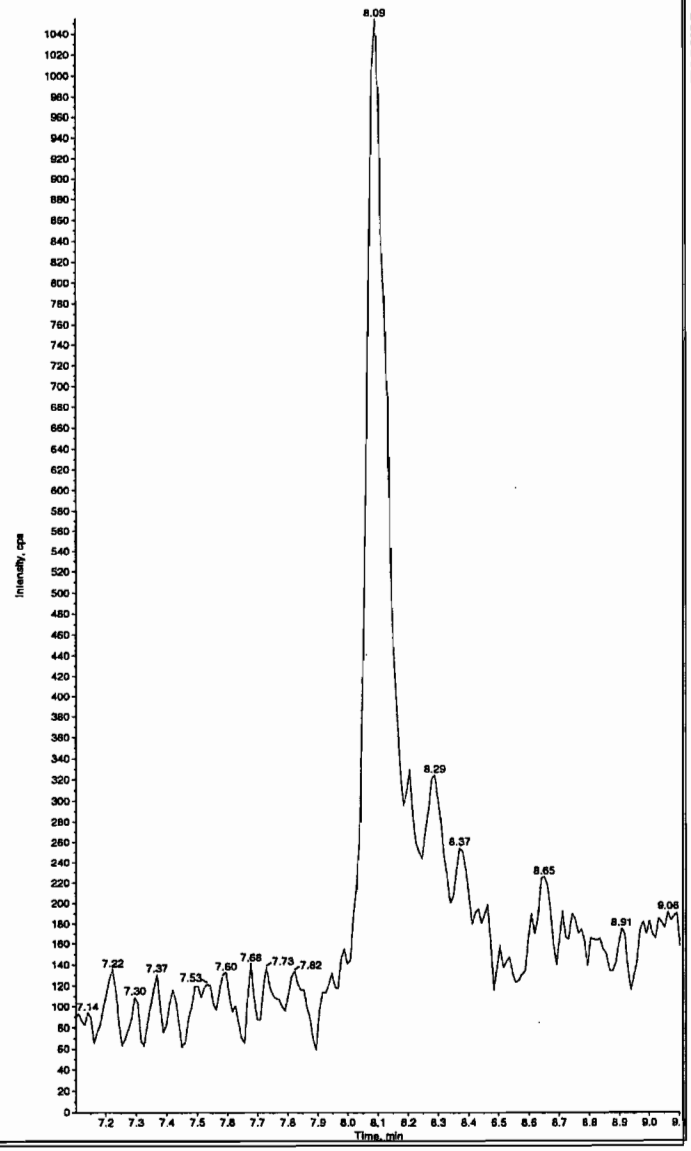

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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mple Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS04050010.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 4/5/2010
Time: 3:07:10 PM

fied: No

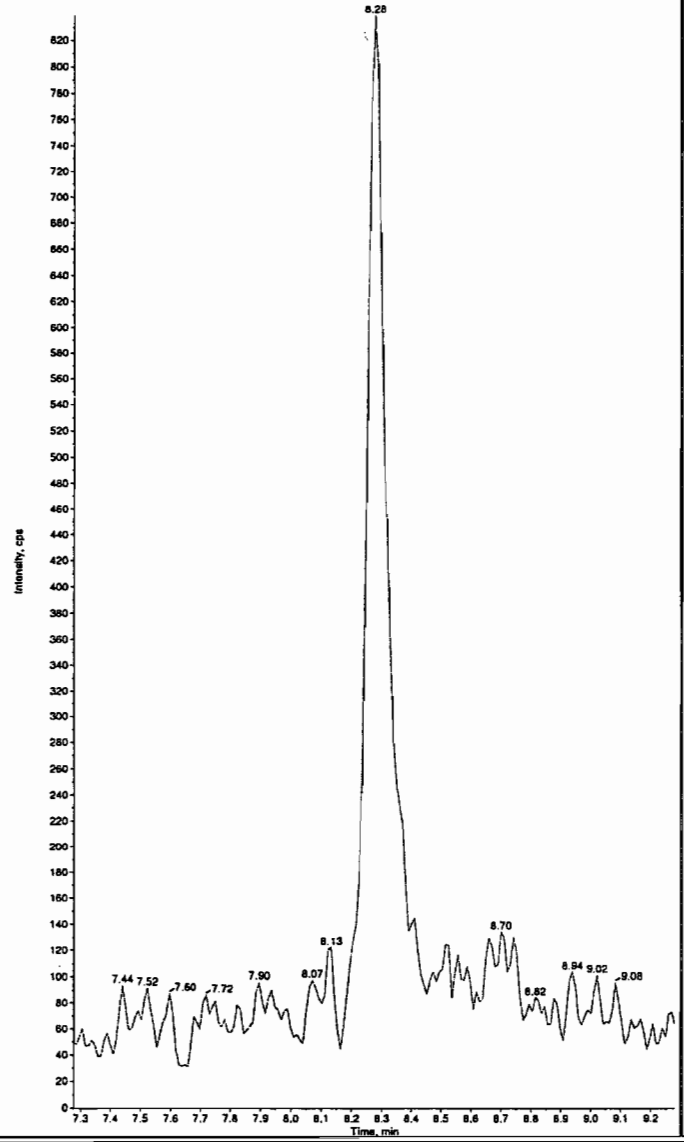

Sample Name: "XIBLK02" Sample ID: "|1|LER" File: "EXS04050010.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 3:07:10 PM

Modified: No

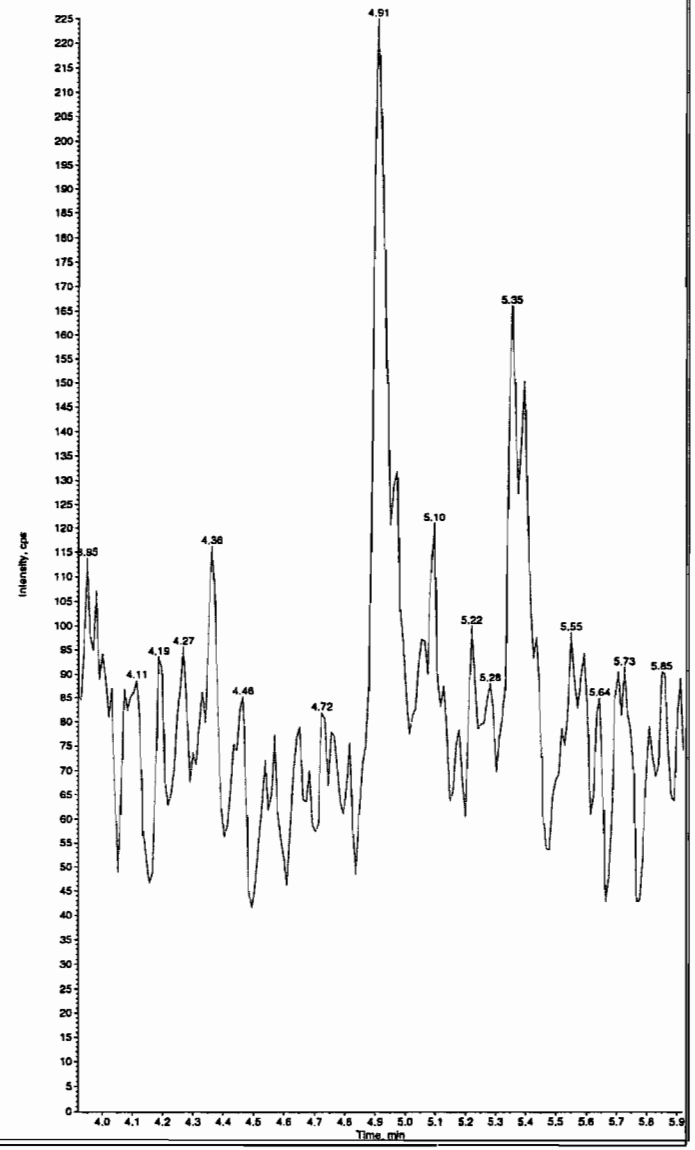

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

ample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS04050010.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_B" Annotation: ""

```
ple Index:        1
ple Type:      Unknown
centration:       N/A
culated Conc:     0.00     ng/mL
. Date:        4/5/2010
  Time:        3:07:10 PM

.fied:            No
```

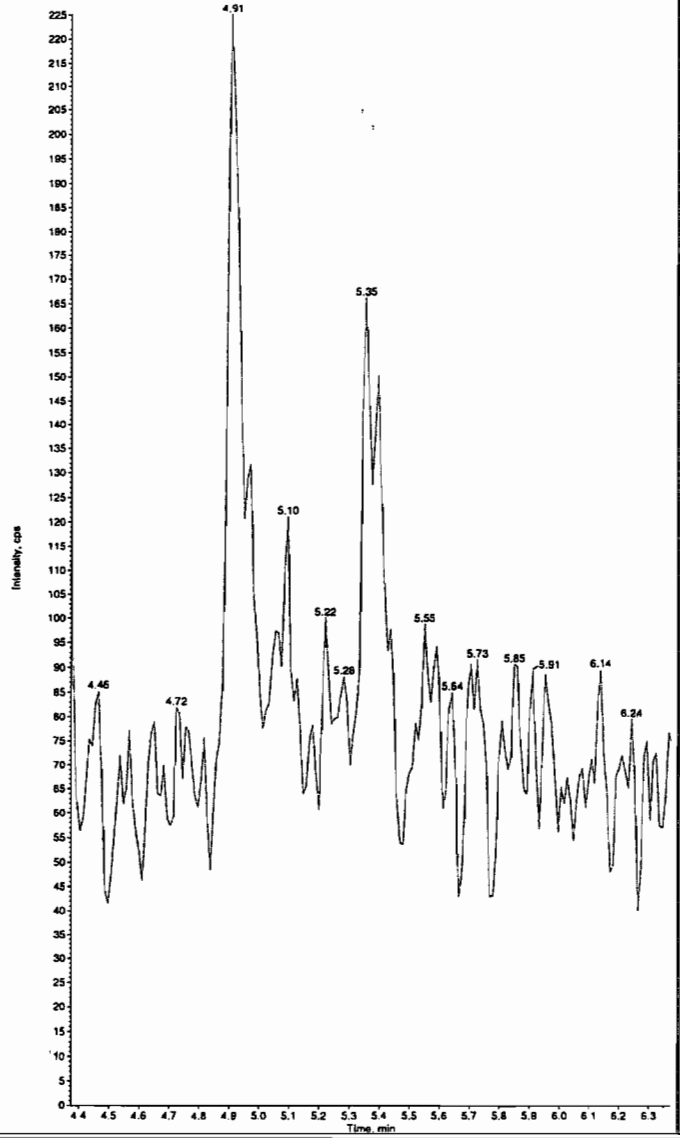

Sample Name: "XIBLK02" Sample ID: "[1]LER" File: "EXS04050010.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

```
Sample Index:        1
Sample Type:      Unknown
Concentration:       N/A
Calculated Conc:     11.1     ng/mL
Acq. Date:        4/5/2010
Acq. Time:        3:07:10 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:         10.8   min
Use Relative RT:     No

Int. Type:        Valley
Retention Time:      10.8   min
Area:          2.00e+005   counts
Height:        46951.988   cps
Start Time:          10.7   min
End Time:            11.1   min
```

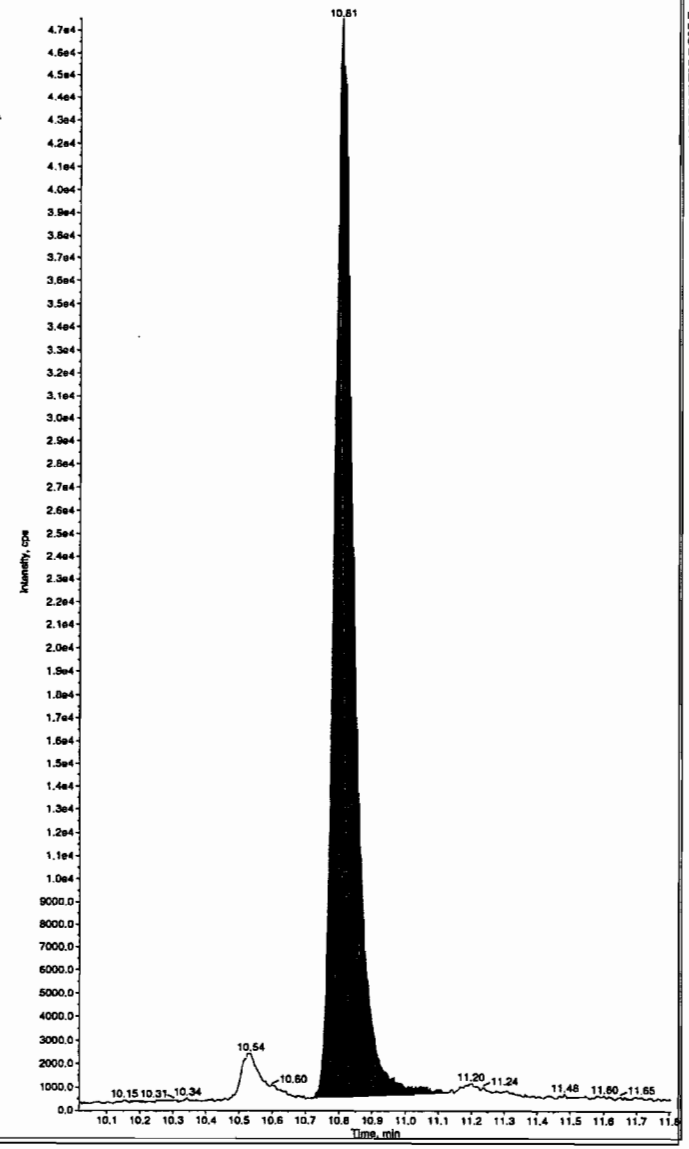

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK03

Analysis Date: 05–APR–10 15:38

GEL Data File: EXS04050012.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	4.92
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

LCM 4/7/10

mple Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS04050012.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 4/5/2010
Time: 3:38:35 PM

fied: No

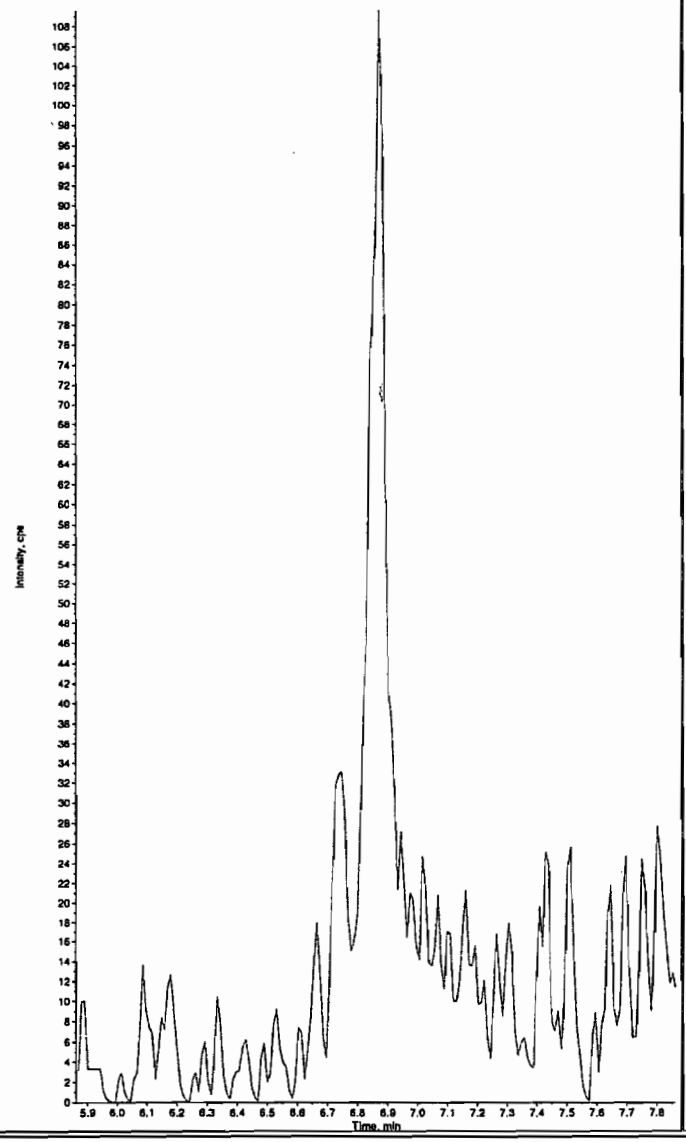

Sample Name: "XIBLK03" Sample ID: "[1]LER" File: "EXS04050012.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 3:38:35 PM

Modified: No

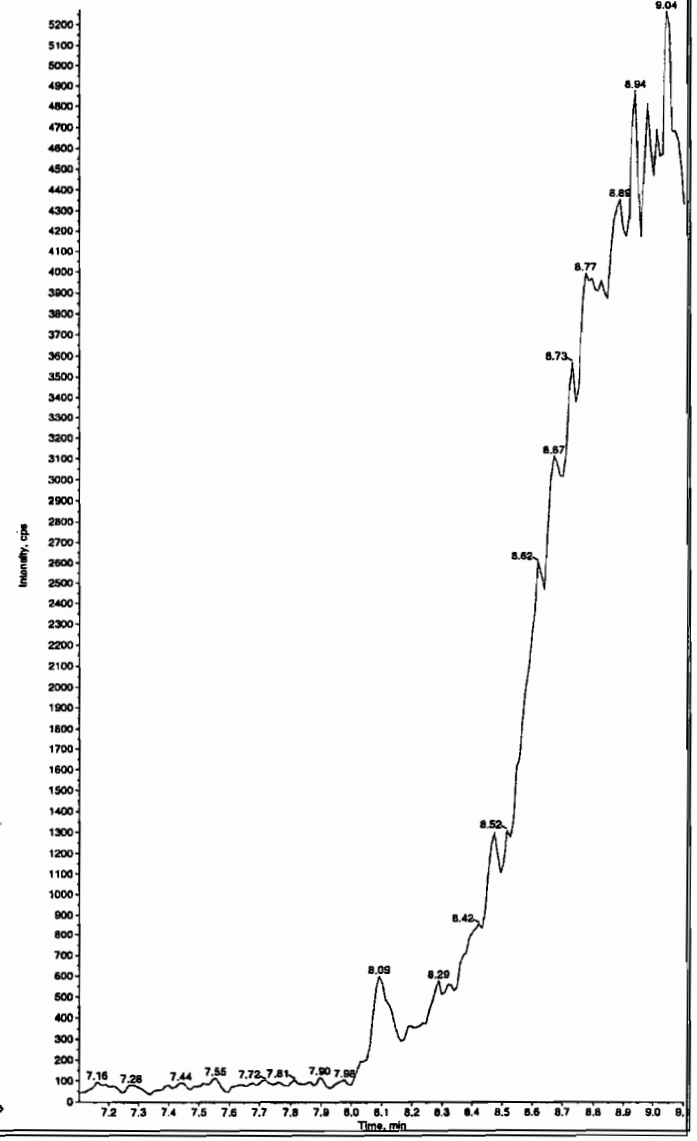

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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nple Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS04050012.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 4/5/2010
Time: 3:38:35 PM

fied: No

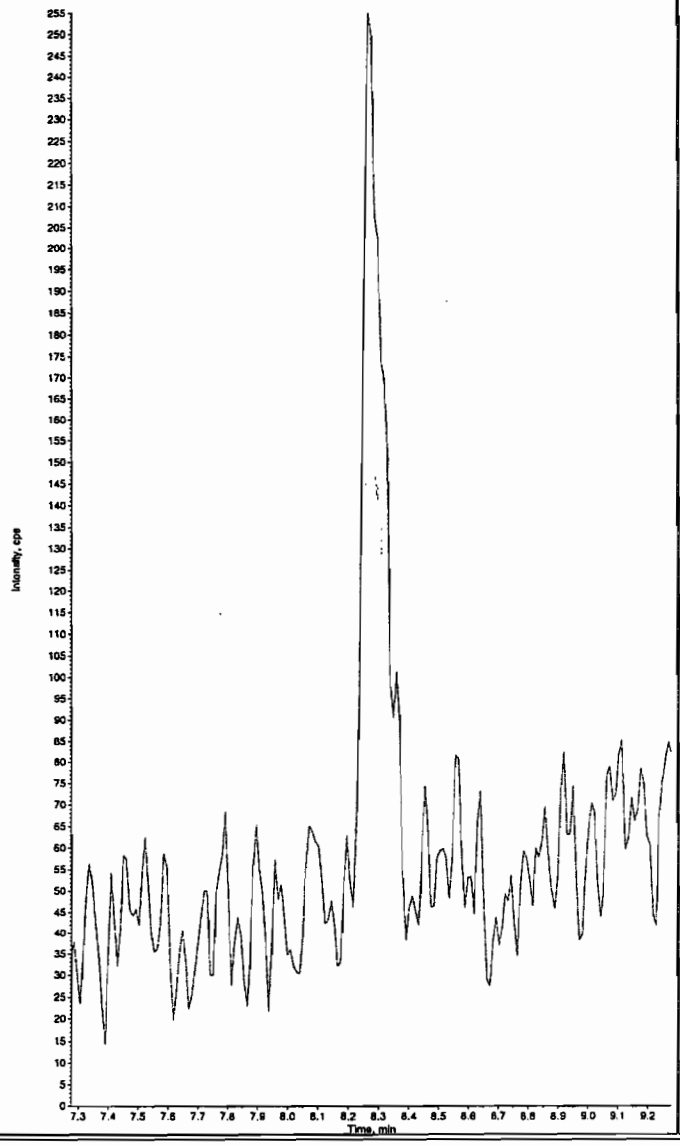

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS04050012.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 3:38:35 PM

Modified: No

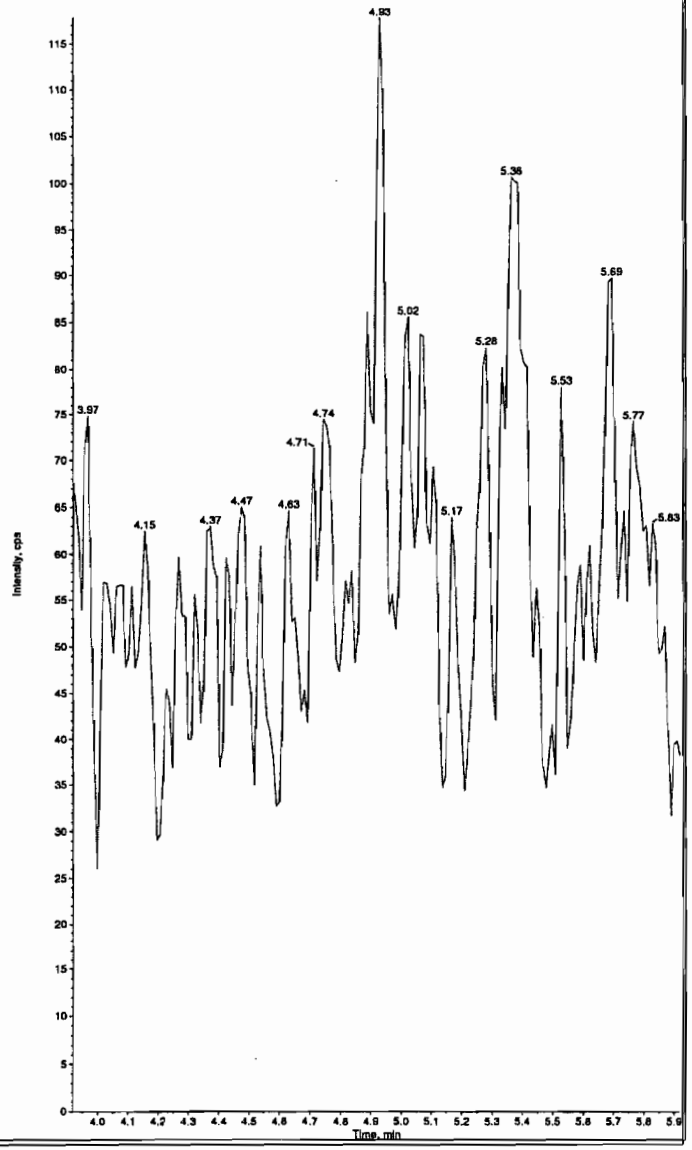

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

mple Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS04050012.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: "

```
le Index:        1
le Type:      Unknown
entration:       N/A
ulated Conc:     0.00     ng/mL
 Date:       4/5/2010
 Time:       3:38:35 PM

fied:            No
```

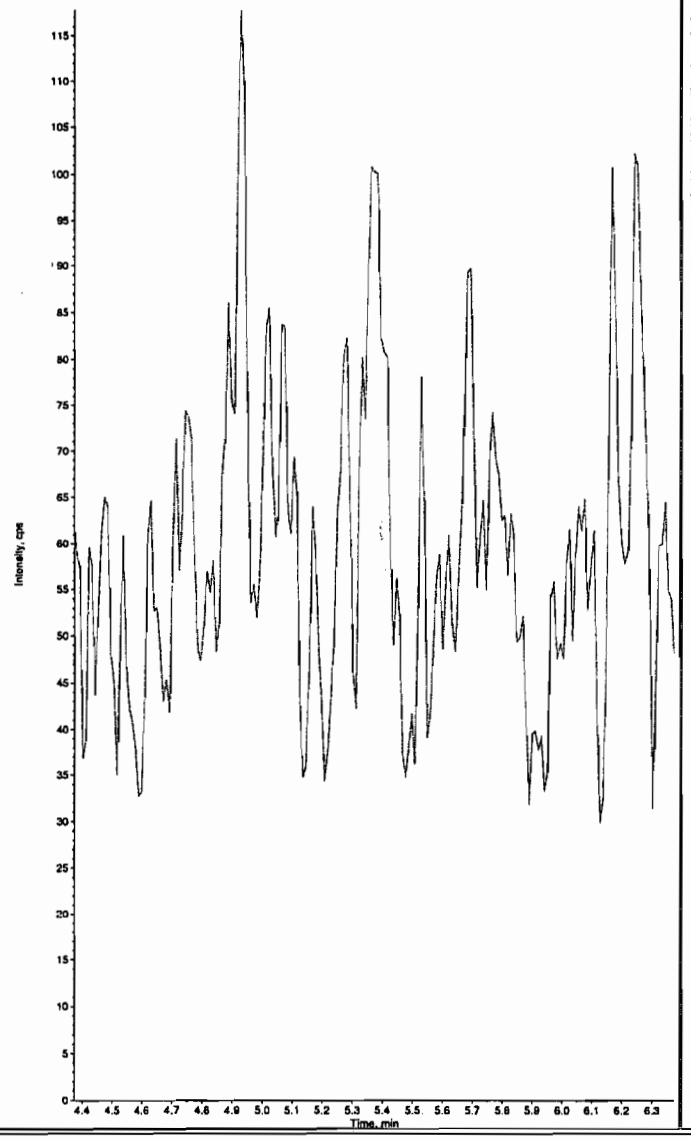

Sample Name: "XIBLK03" Sample ID: "|1|LER" File: "EXS04050012.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: "

```
Sample Index:        1
Sample Type:      Unknown
Concentration:       N/A
Calculated Conc:     4.92     ng/mL
Acq. Date:       4/5/2010
Acq. Time:       3:38:35 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:     0.00    sec
Smoothing Width:  3        points
RT Window:          30.0     sec
Expected RT:        10.8     min
Use Relative RT:     No

Int. Type:        Valley
Retention Time:     10.8     min
Area:         8.86e+004    counts
Height:         21737.801  cps
Start Time:         10.7     min
End Time:           11.0     min
```

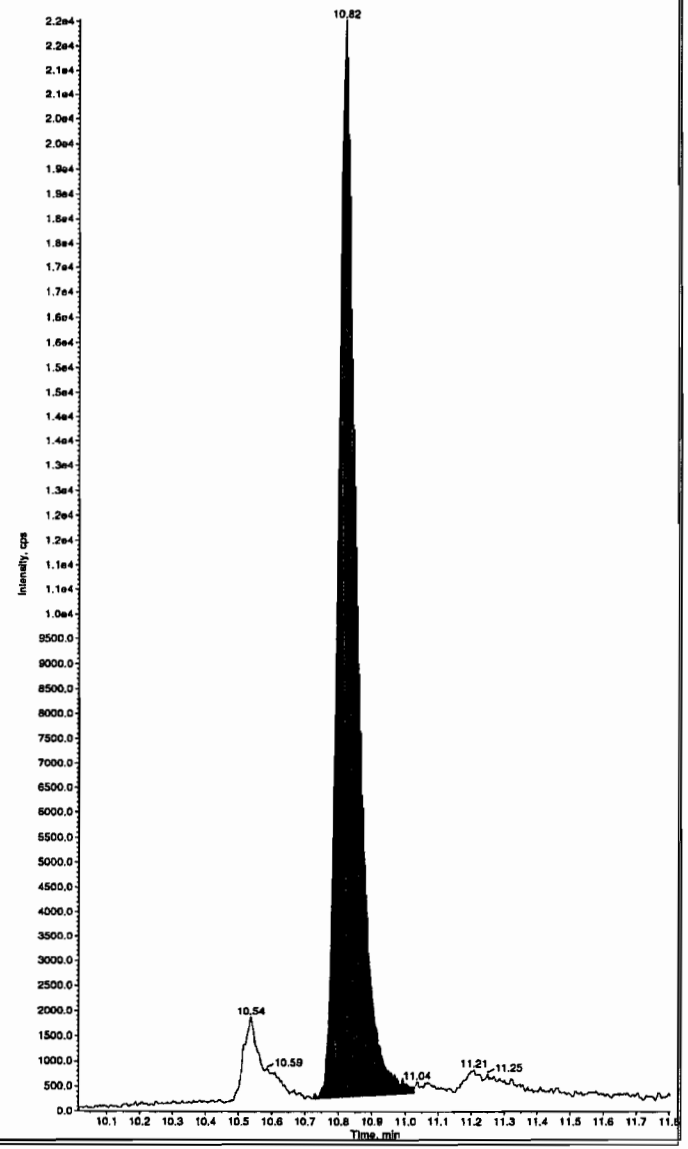

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK04

Analysis Date: 05–APR–10 19:02

GEL Data File: EXS04050025.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	4.08
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

JLer 4/7/10

mple Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS04050025.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
entration: N/A
culated Conc: 0.00 ng/mL
Date: 4/5/2010
Time: 7:02:45 PM
fied: No

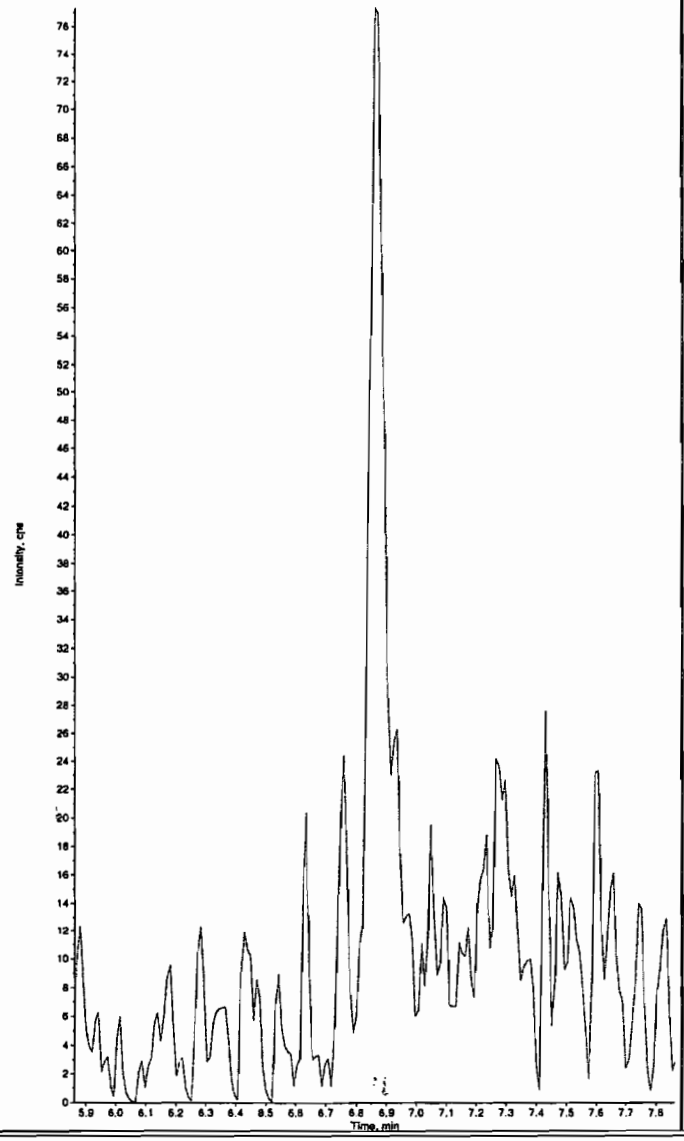

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS04050025.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 7:02:45 PM

Modified: No

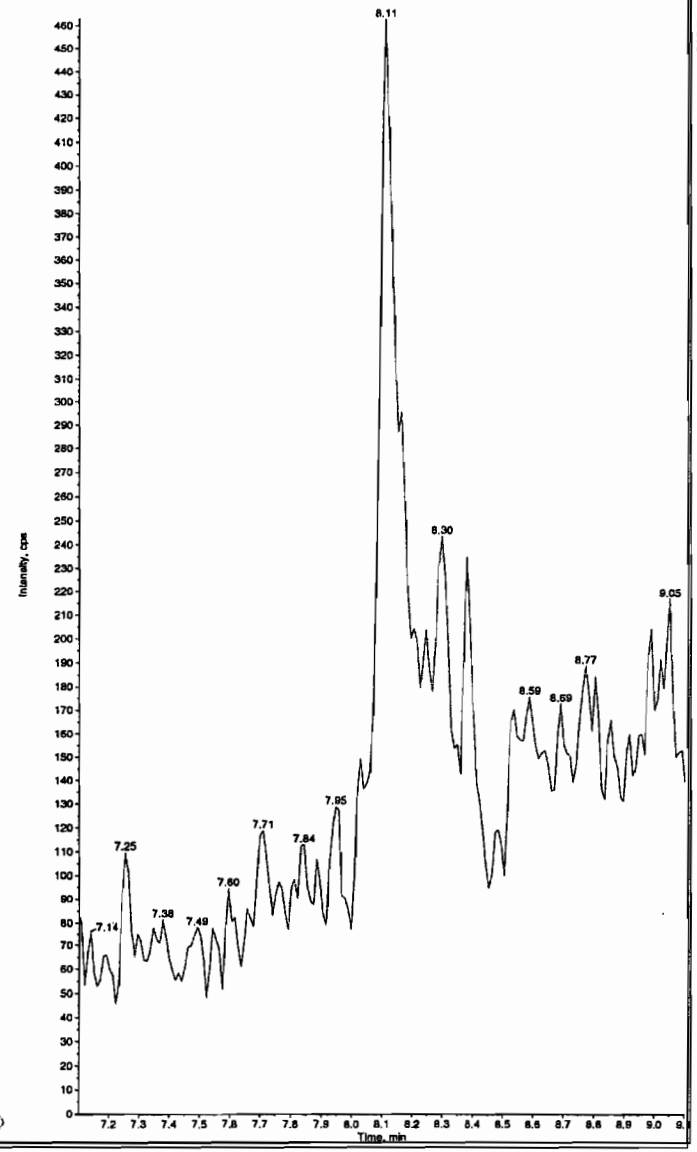

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:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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nple Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS04050025.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 4/5/2010
Time: 7:02:45 PM
fied: No

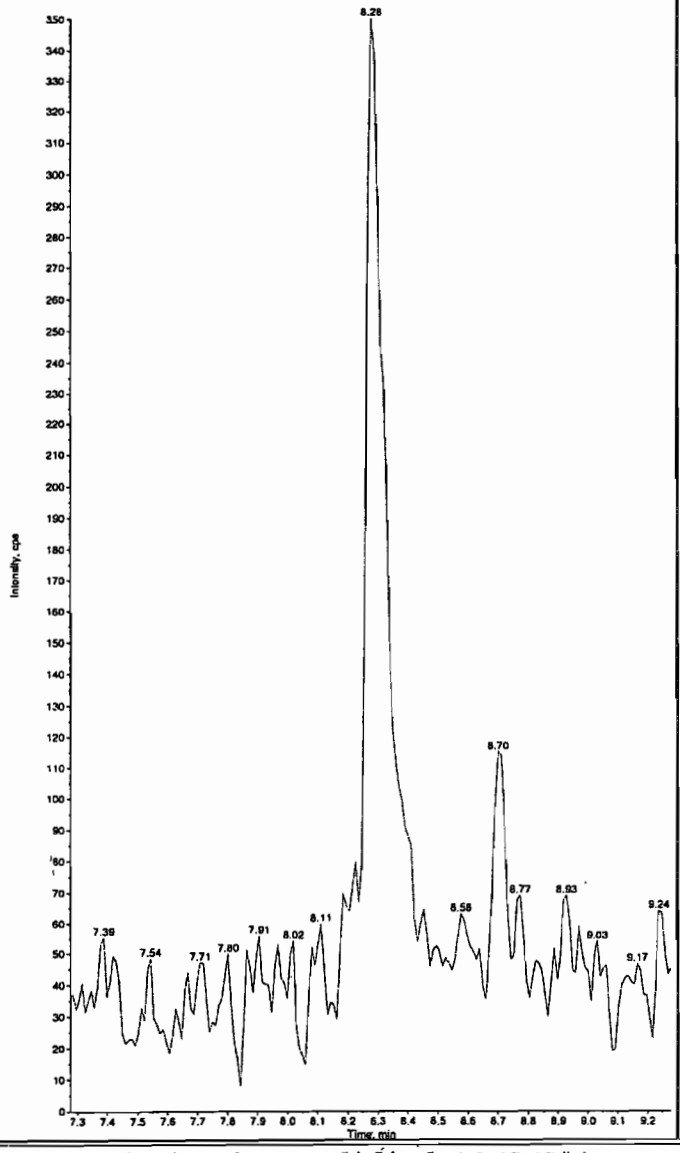

Sample Name: "XIBLK04" Sample ID: "[1]LER" File: "EXS04050025.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 7:02:45 PM

Modified: No

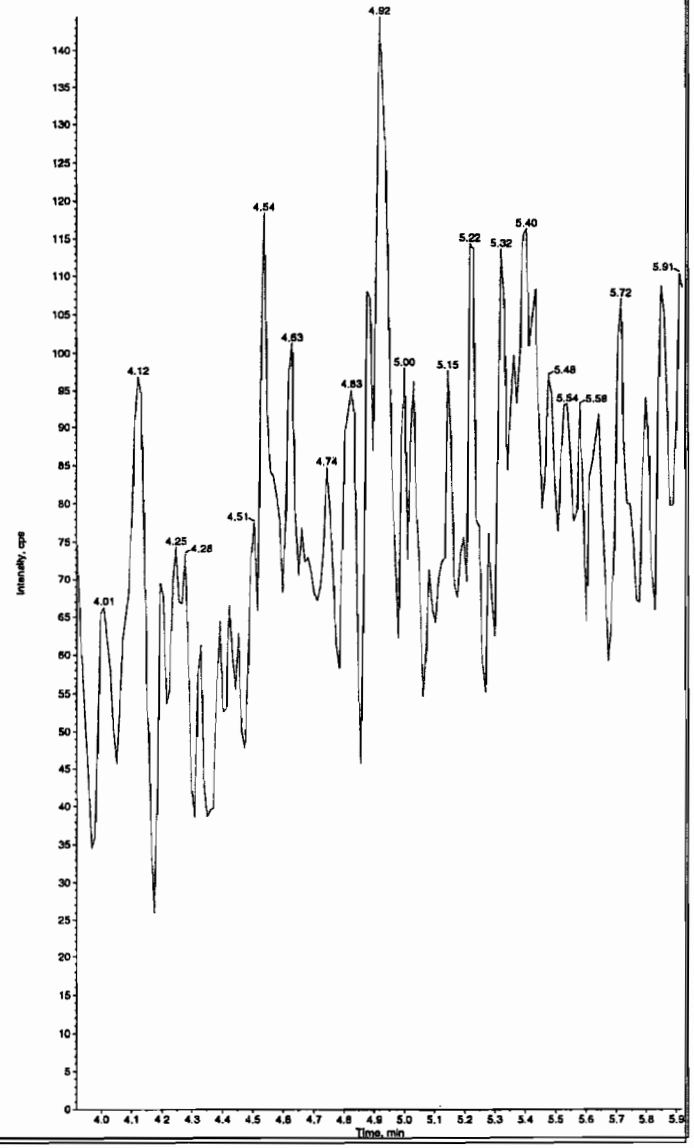

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ple Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS04050025.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ilated Conc: 0.00 ng/mL
Date: 4/5/2010
Time: 7:02:45 PM

ied: No

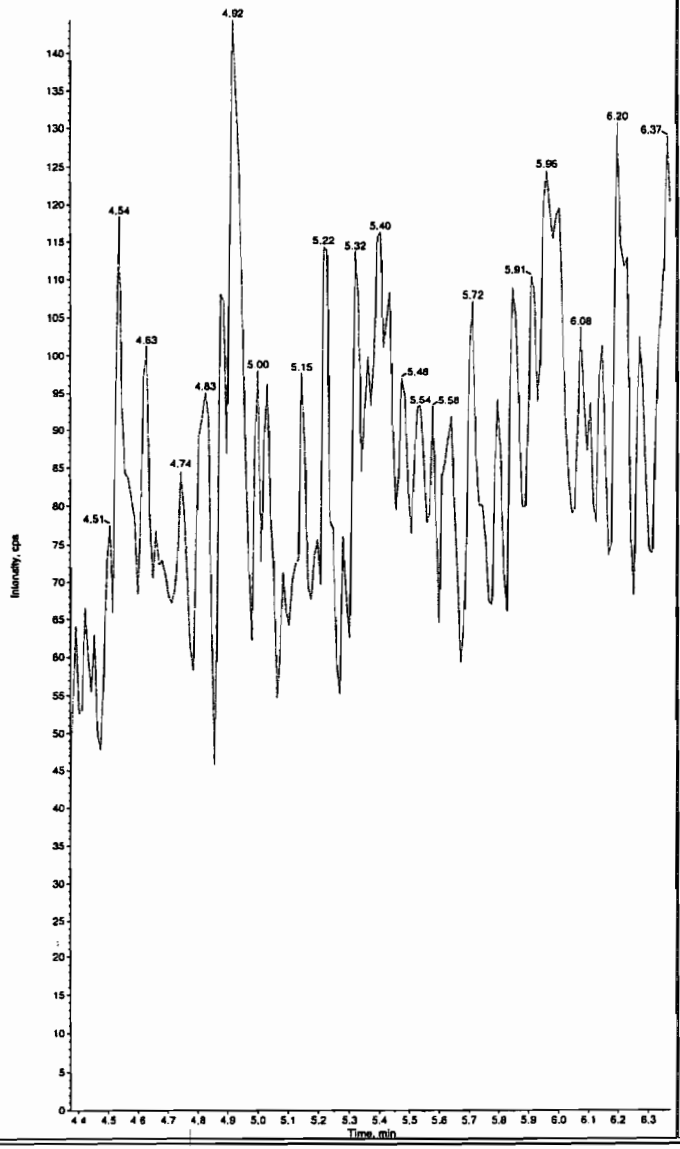

Sample Name: "XIBLK04" Sample ID: "|1|LER" File: "EXS04050025.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	4.08 ng/mL
Acq. Date:	4/5/2010
Acq. Time:	7:02:45 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.8 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.8 min
Area:	7.36e+004 counts
Height:	17743.299 cps
Start Time:	10.7 min
End Time:	11.0 min

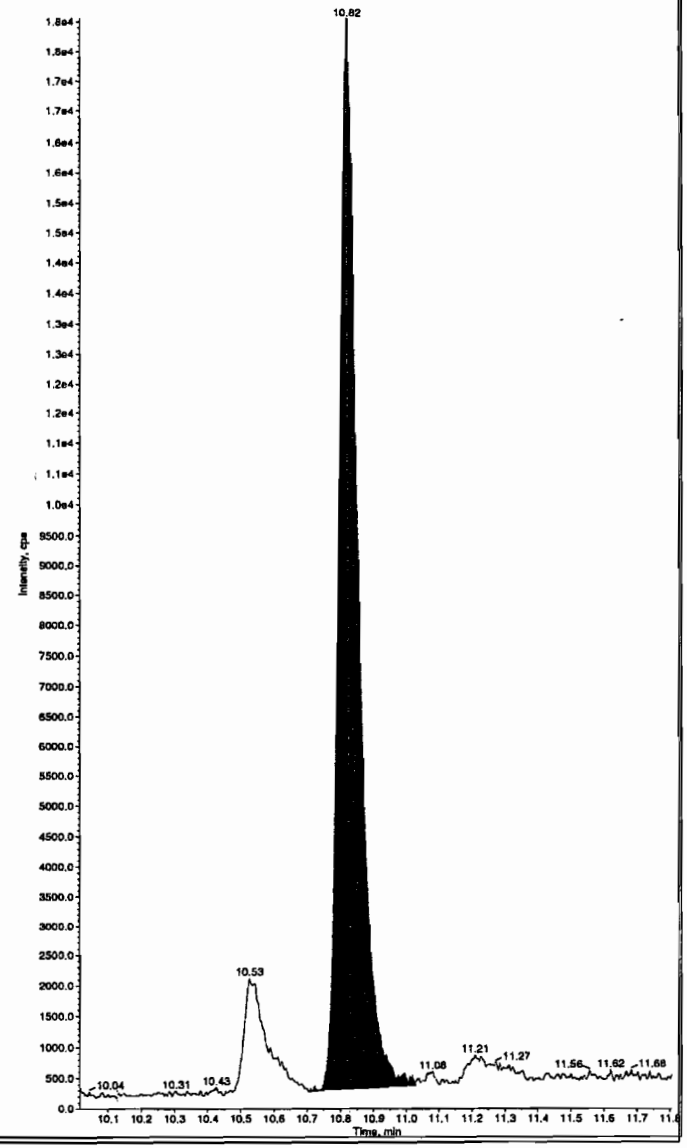

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK05

Analysis Date: 05–APR–10 22:27

GEL Data File: EXS04050038.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	3.57
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Olen 4/7/10

nple Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS04050038.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 4/5/2010
Time: 10:27:02 PM

fied: No

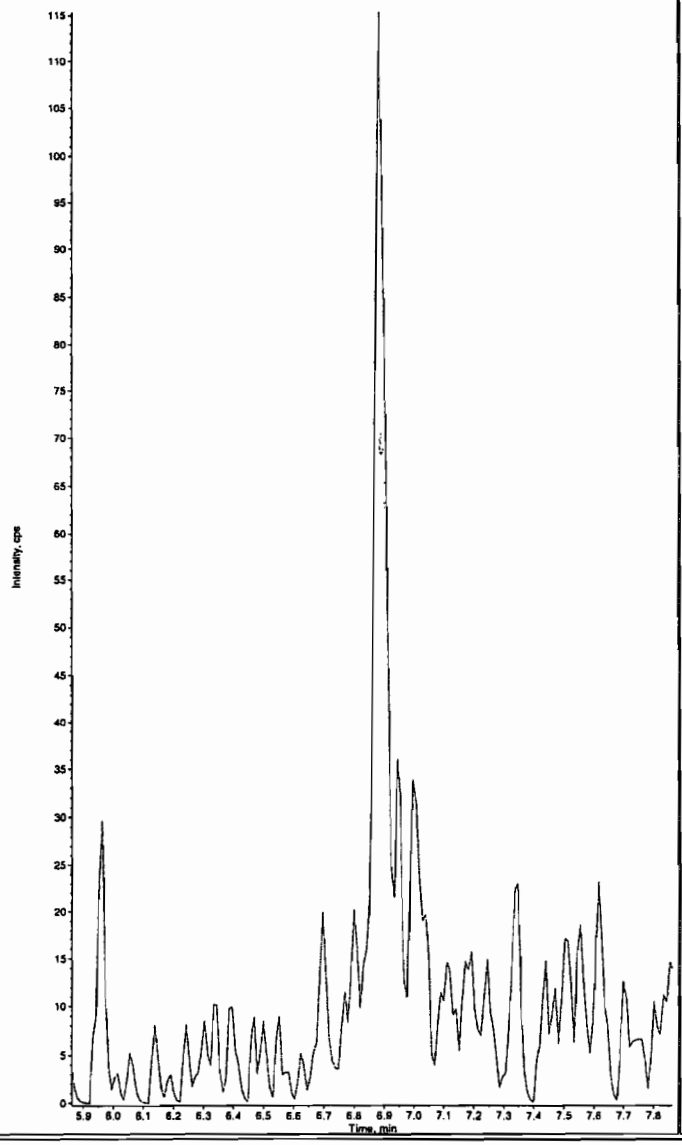

Sample Name: "XIBLK05" Sample ID: "[1]LER" File: "EXS04050038.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 10:27:02 PM

Modified: No

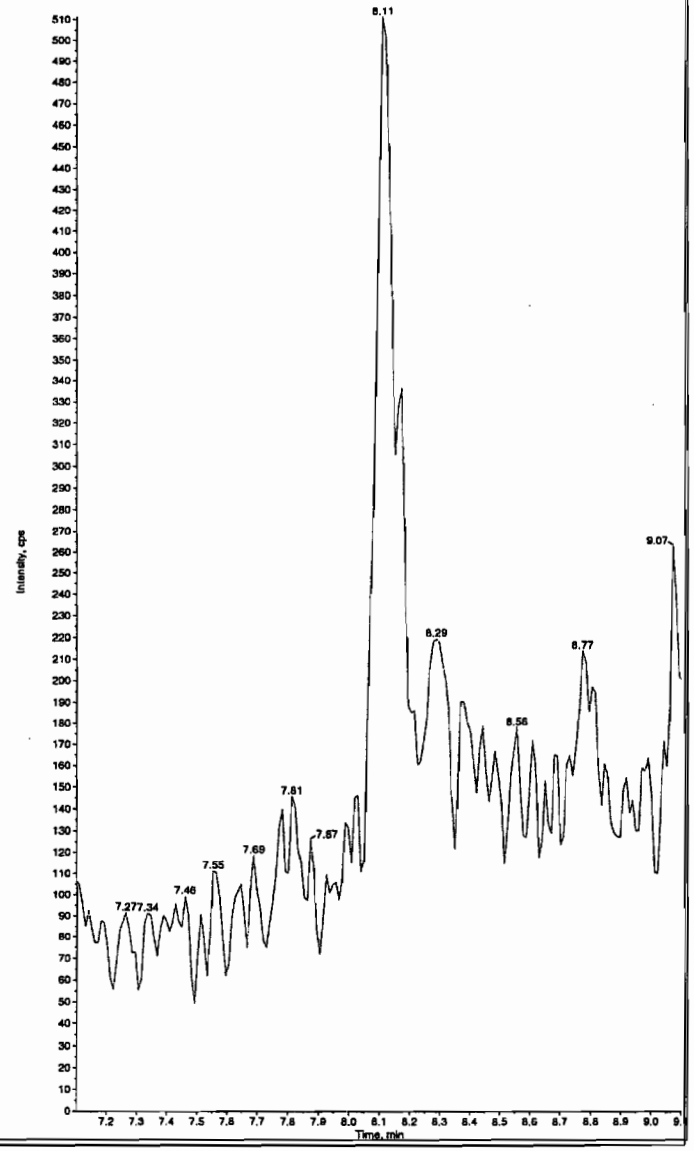

tmm 04/08/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS04050036.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 4/5/2010
Time: 10:27:02 PM

fied: No

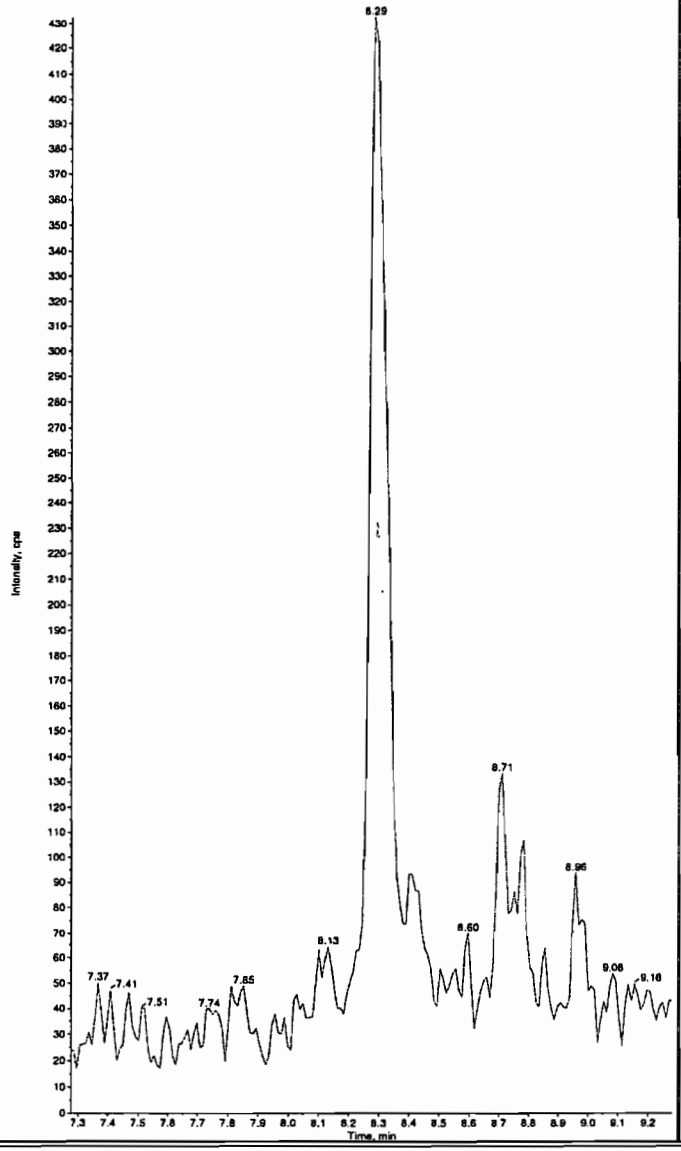

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS04050036.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 10:27:02 PM

Modified: No

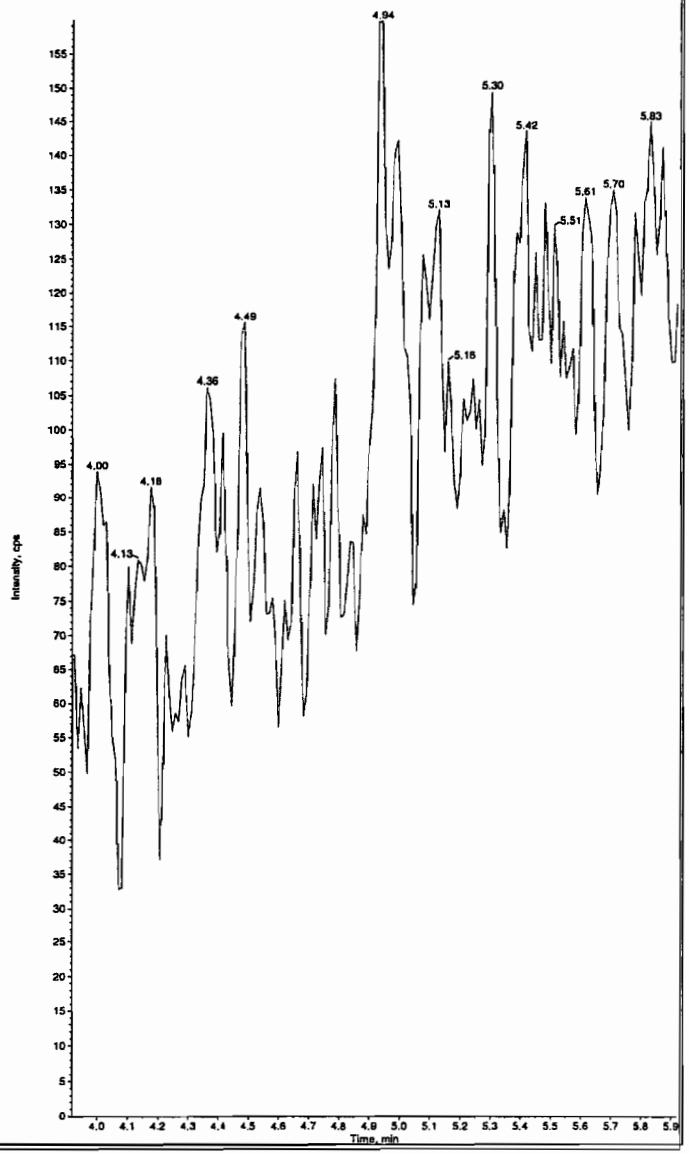

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS04050038.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 4/5/2010
Time: 10:27:02 PM
fied: No

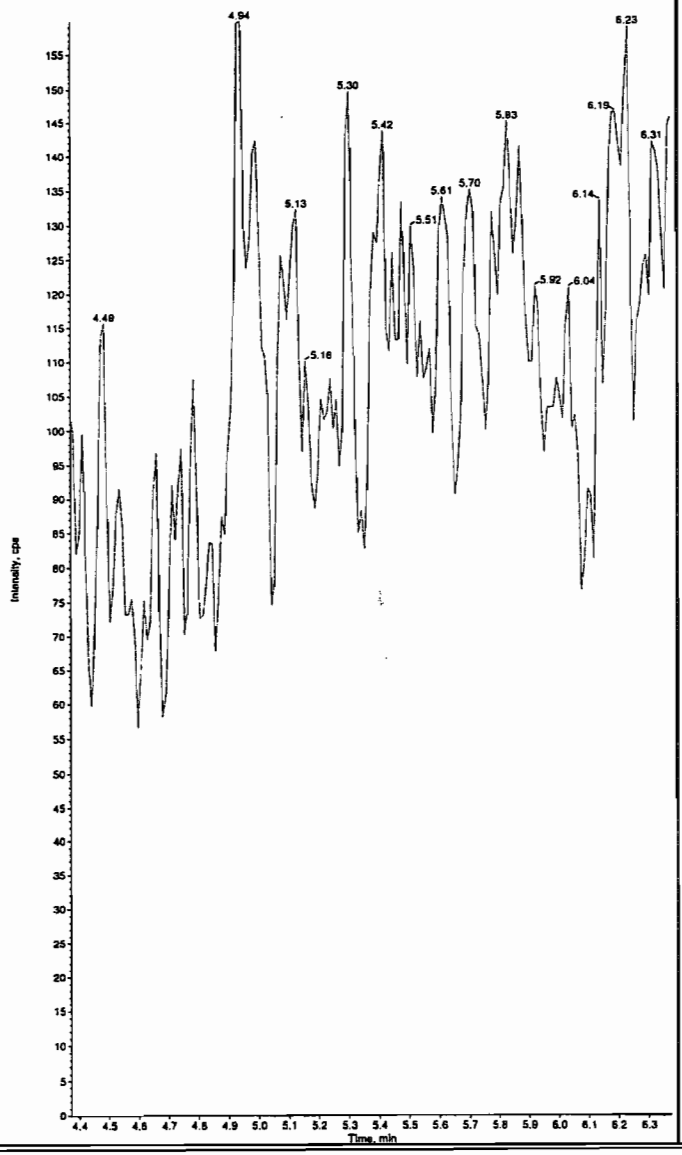

Sample Name: "XIBLK05" Sample ID: "|1|LER" File: "EXS04050038.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	3.57 ng/mL
Acq. Date:	4/5/2010
Acq. Time:	10:27:02 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.8 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.8 min
Area:	6.43e+004 counts
Height:	15462.545 cps
Start Time:	10.7 min
End Time:	11.0 min

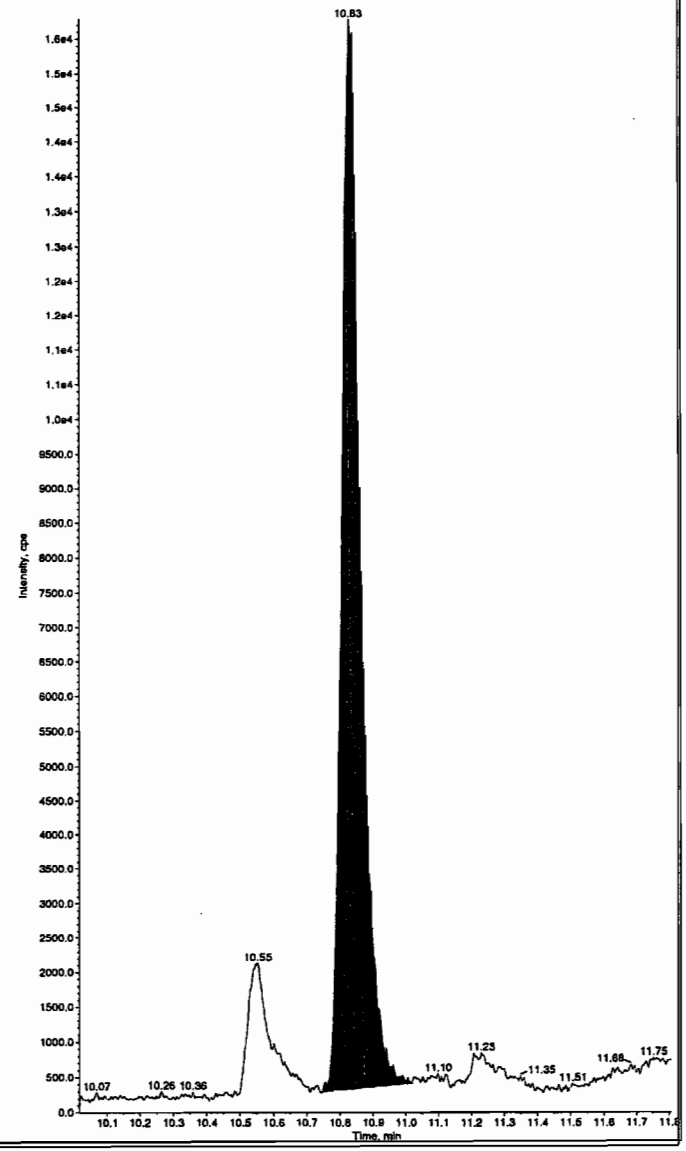

J SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK06

Analysis Date: 06–APR–10 00:01

GEL Data File: EXS04050044.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
tris(o–cresyl) phosphate	0	0
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0
3,4–Dinitrotoluene	0	0

Dan 4/7/10

nple Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS04050044.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 12:01:19 AM

fied: No

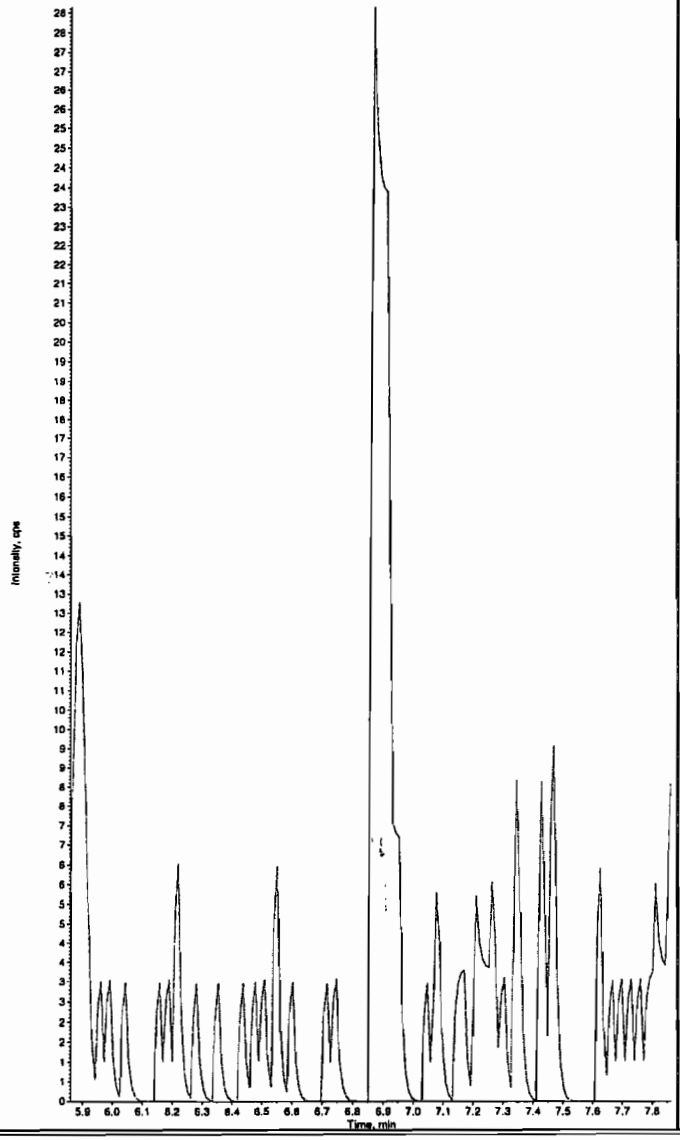

Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS04050044.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 12:01:19 AM

Modified: No

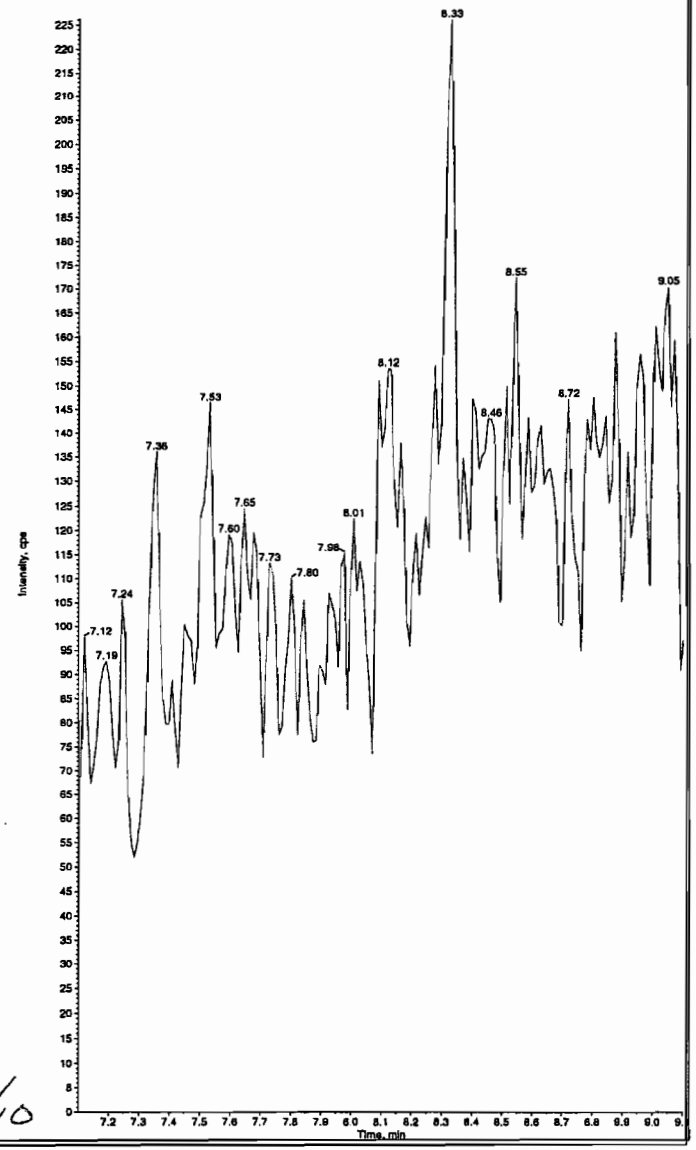

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS04050044.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 12:01:19 AM

fied: No

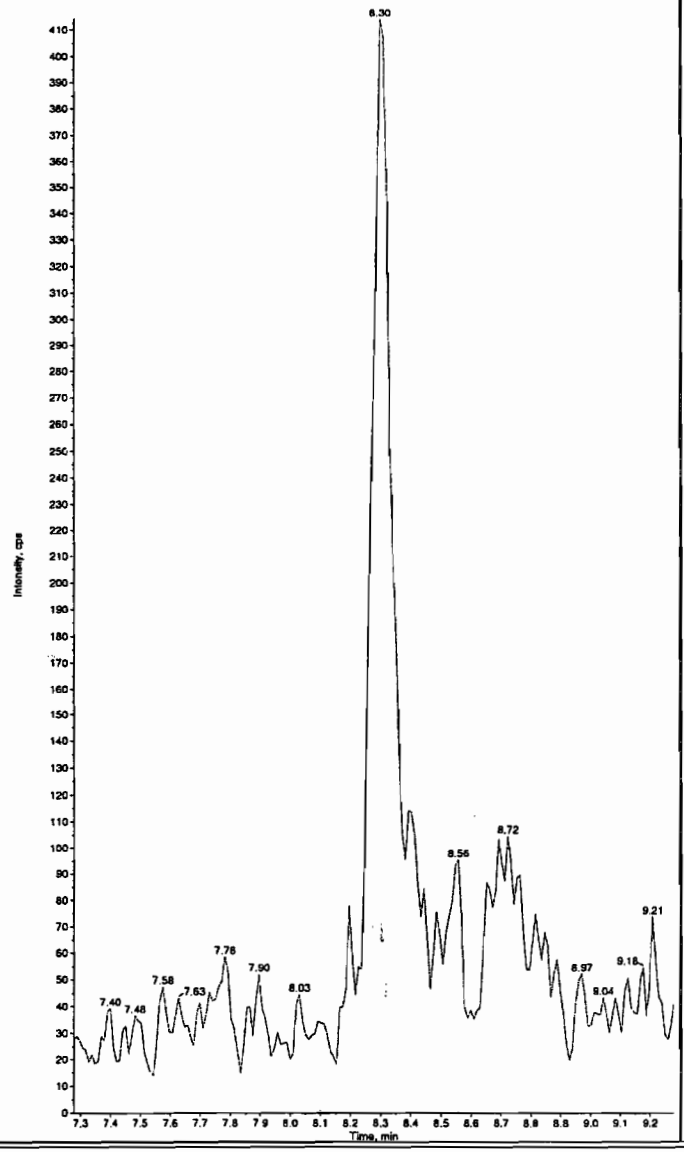

Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS04050044.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 12:01:19 AM

Modified: No

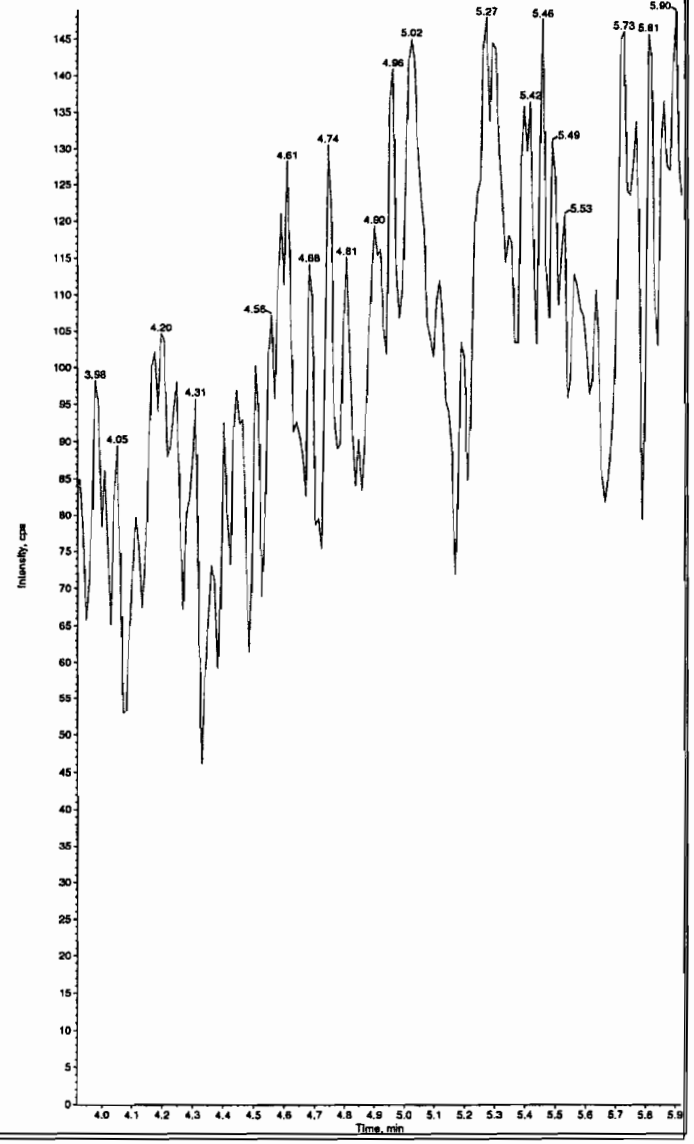

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS04050044.wiff"
Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 12:01:19 AM

ied: No

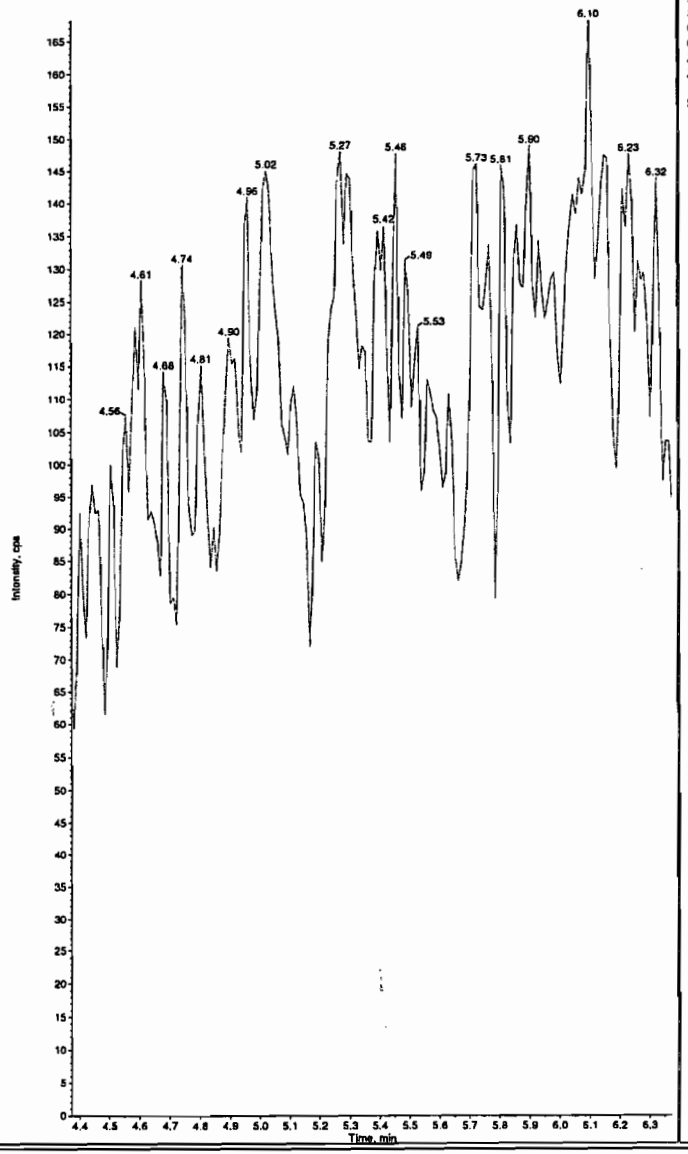

Sample Name: "XIBLK06" Sample ID: "|1|LER" File: "EXS04050044.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 12:01:19 AM

Modified: No

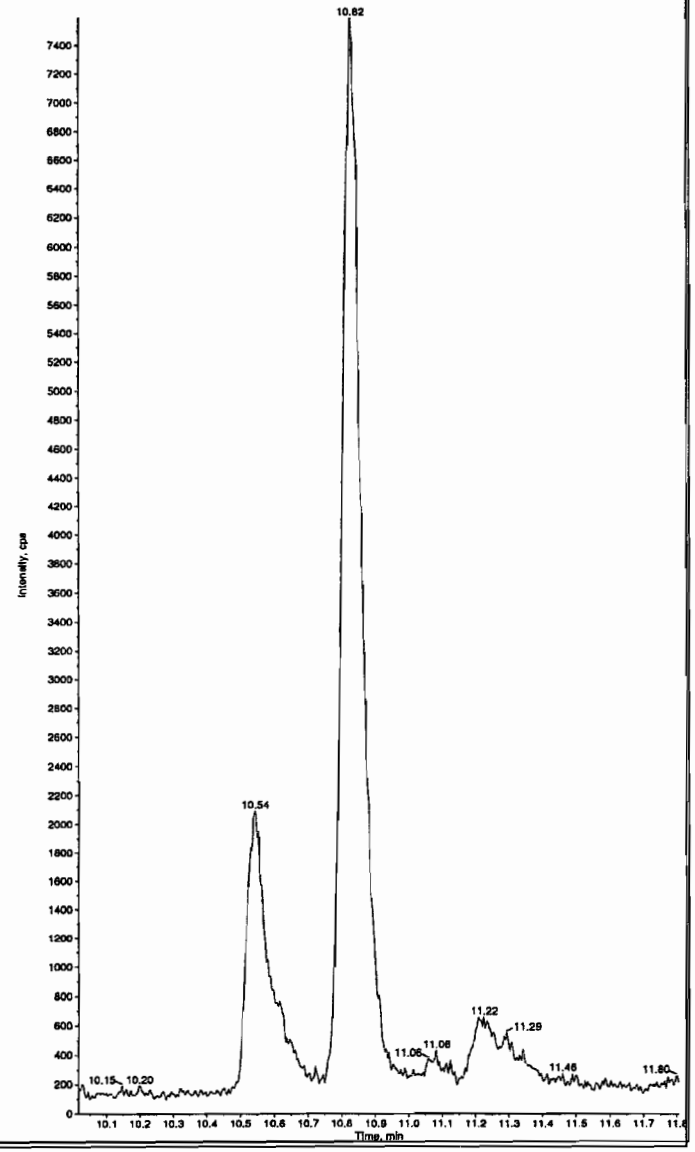

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK07

Analysis Date: 06–APR–10 01:51

GEL Data File: EXS04050051.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	5.78
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

LCM 4/7/10

nple Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS04050051.wiff"
ak Name: "TATB" Mass(as): "257.2/204.9 amu"
nment: "LCMSEXP_B" Annotation: "*"
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 1:51:17 AM

fied: No

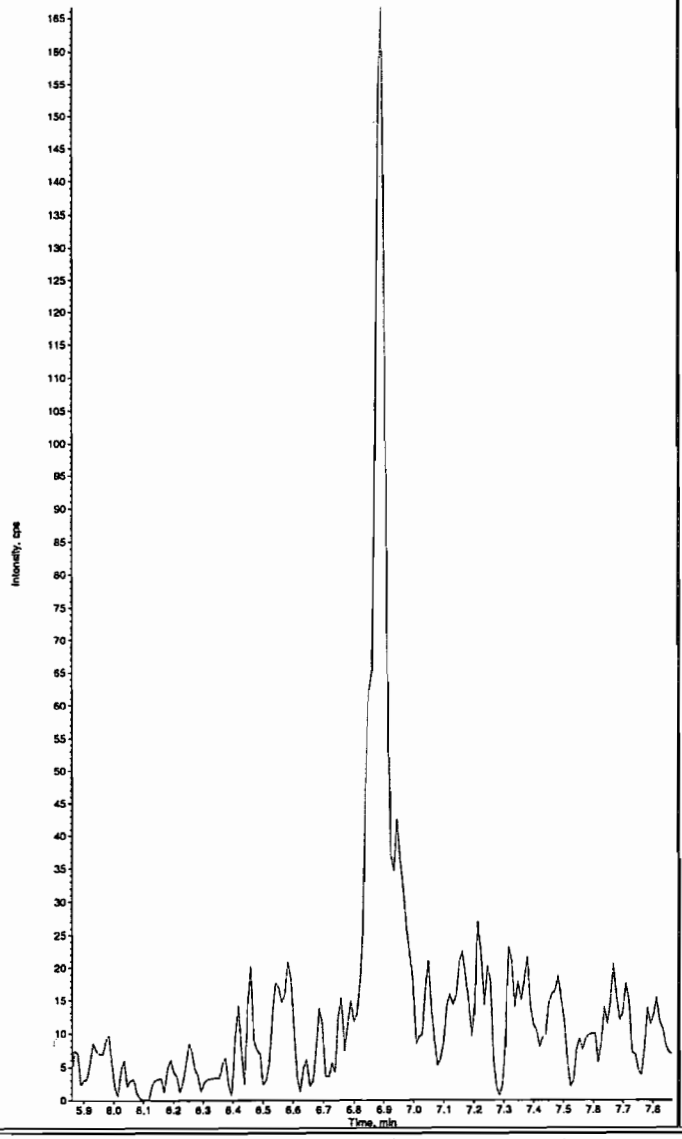

Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS04050051.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: "*"
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 1:51:17 AM

Modified: No

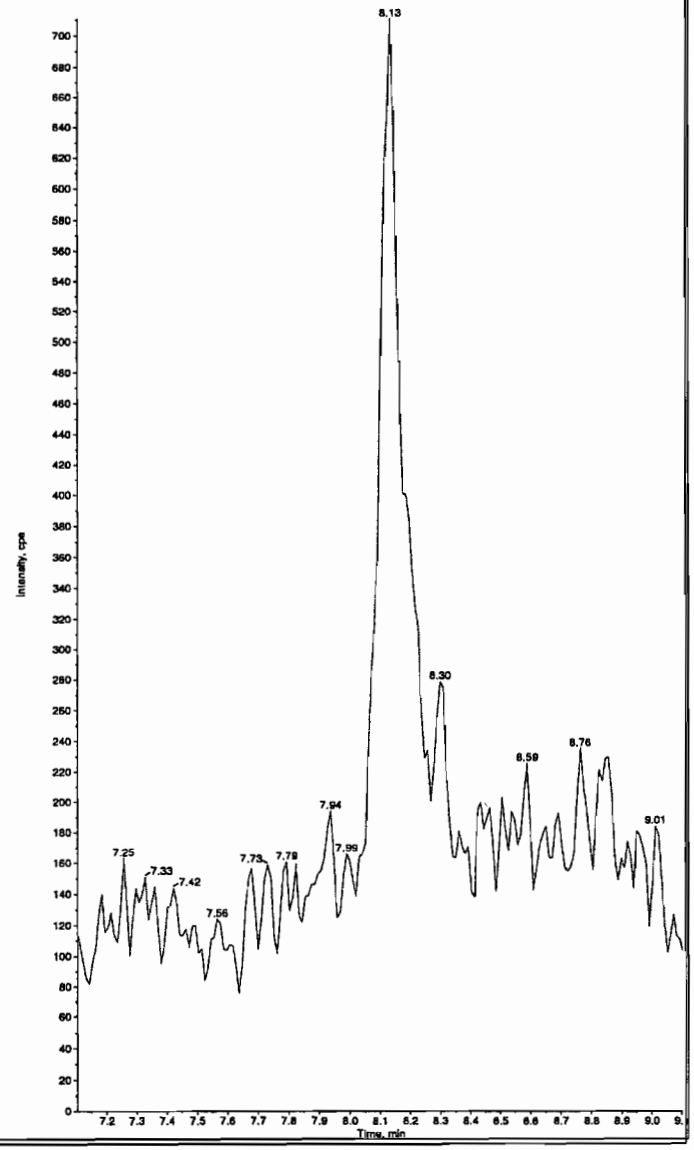

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ole Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS04050051.wiff"
. Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 1:51:17 AM

ied: No

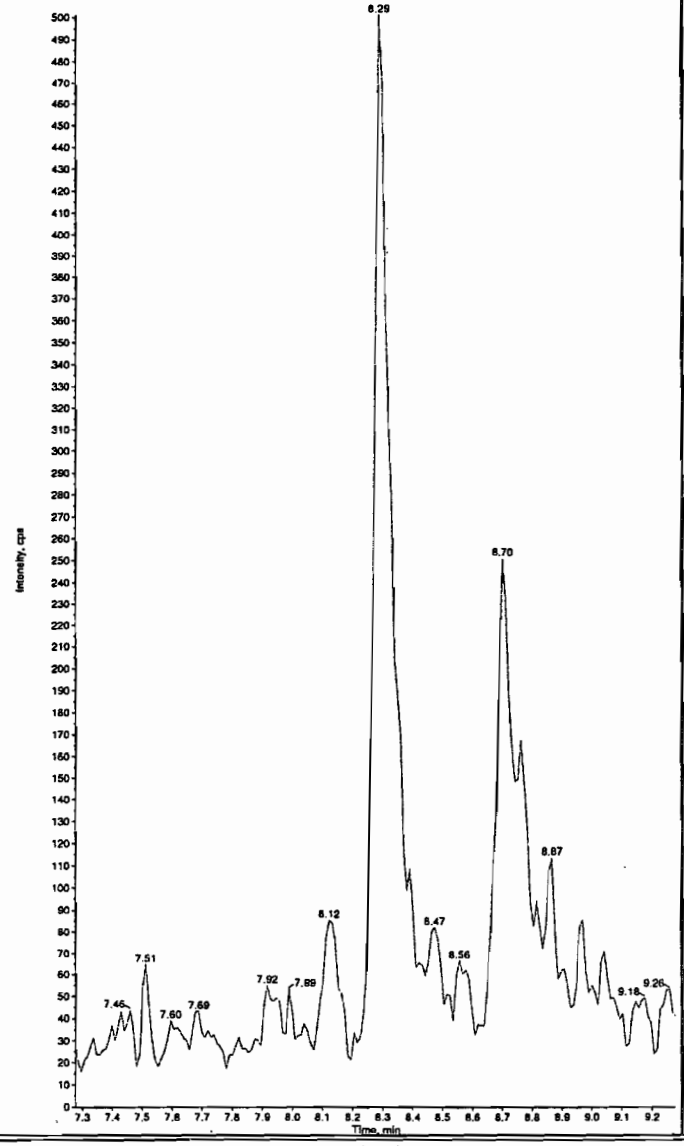

Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS04050051.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 1:51:17 AM

Modified: No

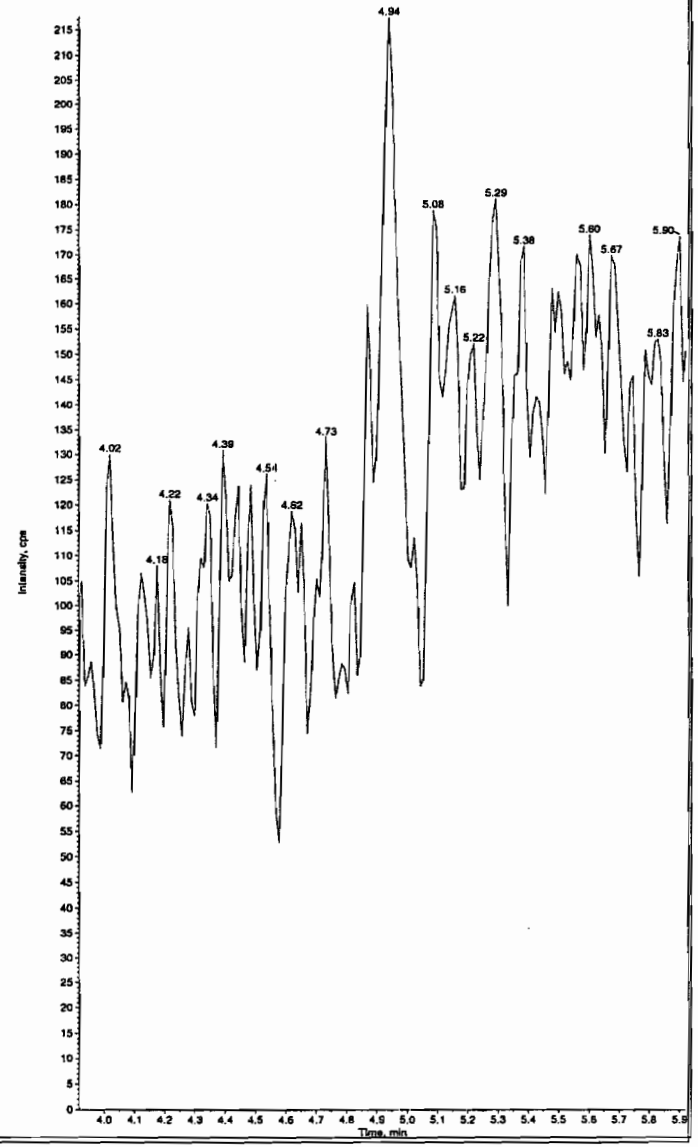

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS04050051.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
lated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 1:51:17 AM
fied: No

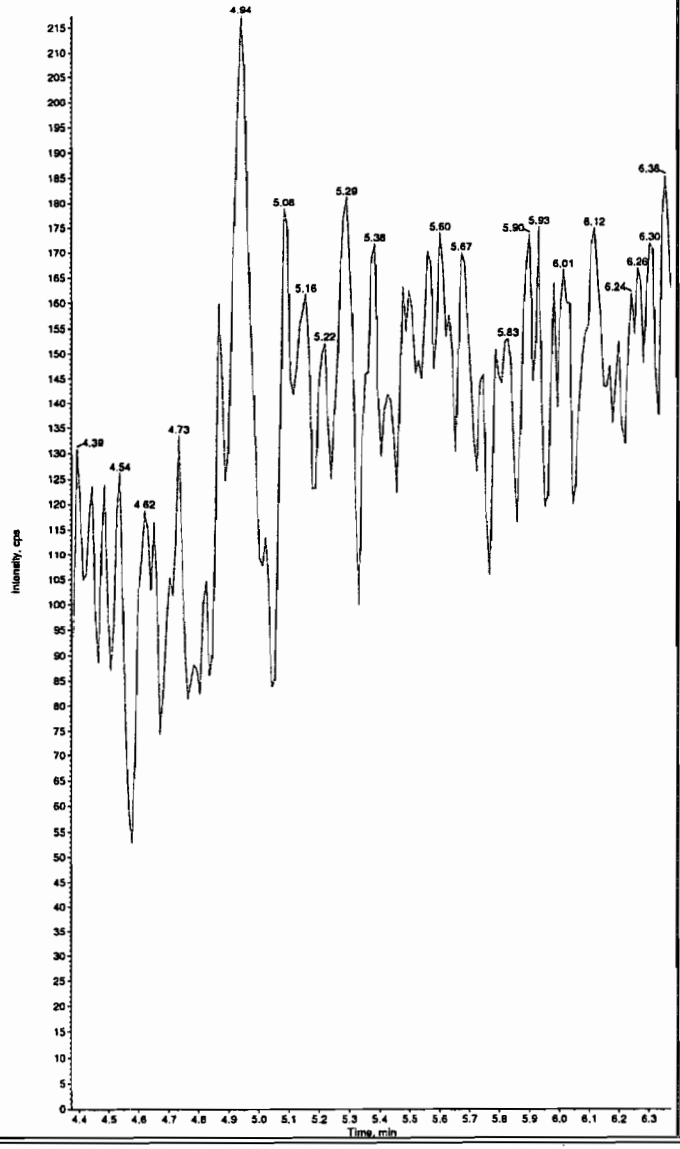

Sample Name: "XIBLK07" Sample ID: "|1|LER" File: "EXS04050051.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	5.78	ng/mL
Acq. Date:	4/6/2010	
Acq. Time:	1:51:17 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.8	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.8	min
Area:	1.04e+005	counts
Height:	25001.743	cps
Start Time:	10.7	min
End Time:	11.0	min

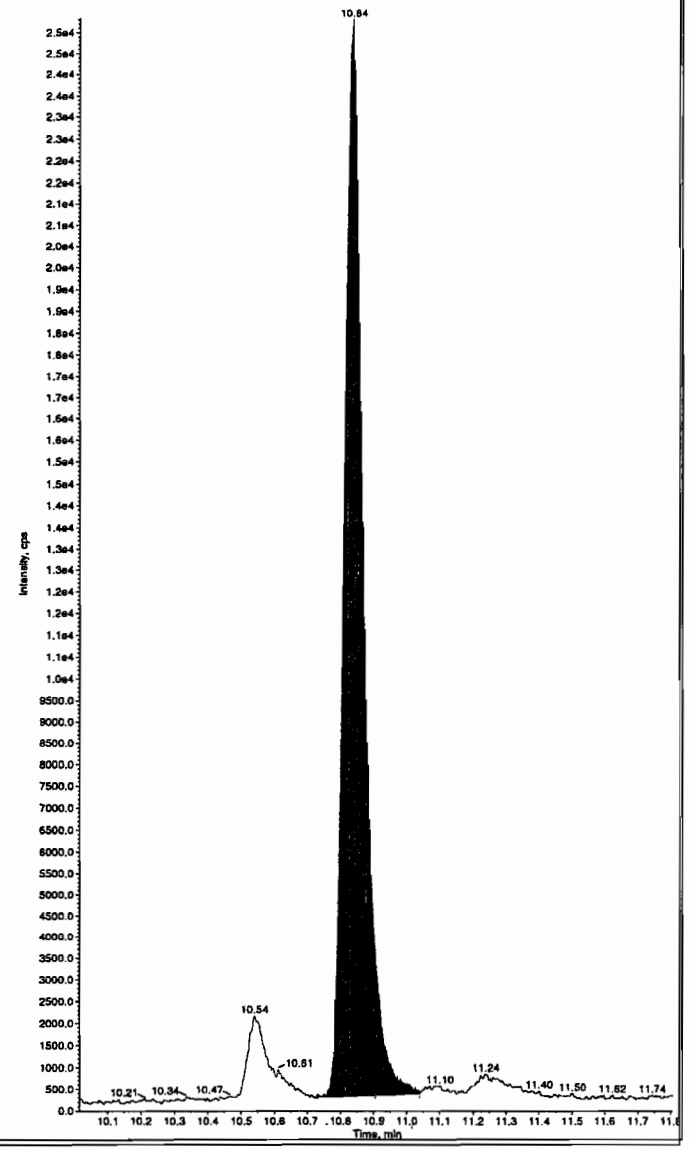

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4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK08

Analysis Date: 06–APR–10 05:15

GEL Data File: EXS04050064.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	4.46
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Lan 4/7/10

ple Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS04050064.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 5:15:36 AM

fied: No

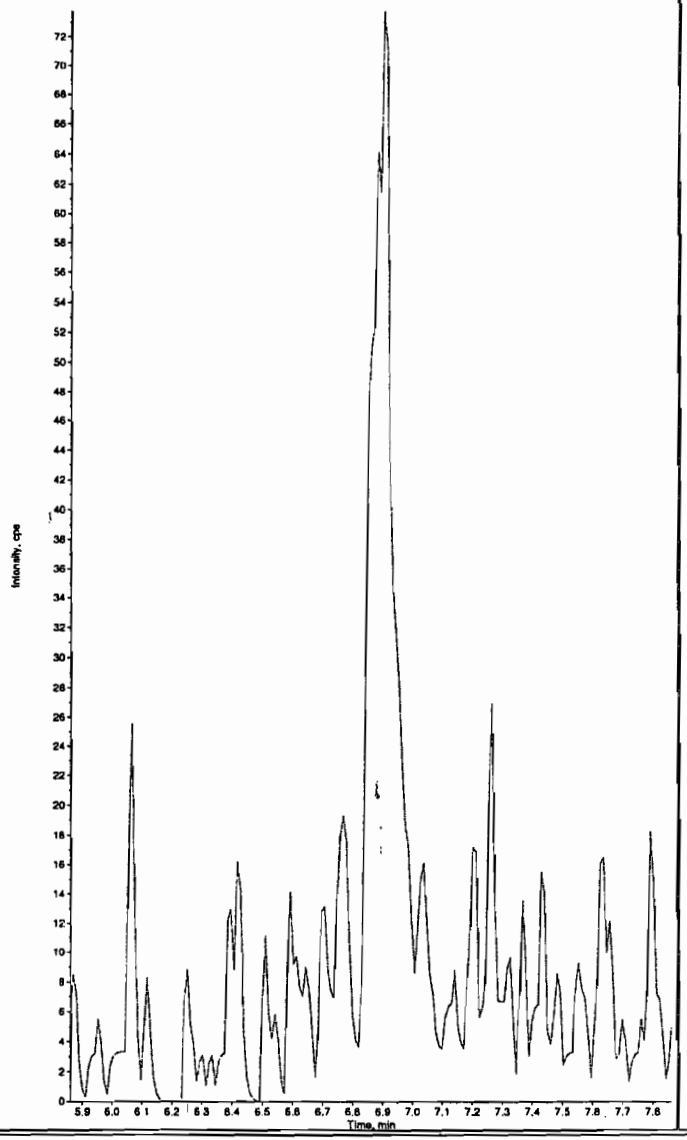

Sample Name: "XIBLK08" Sample ID: "[1]LER" File: "EXS04050064.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 5:15:36 AM

Modified: No

HNM 04/08/10

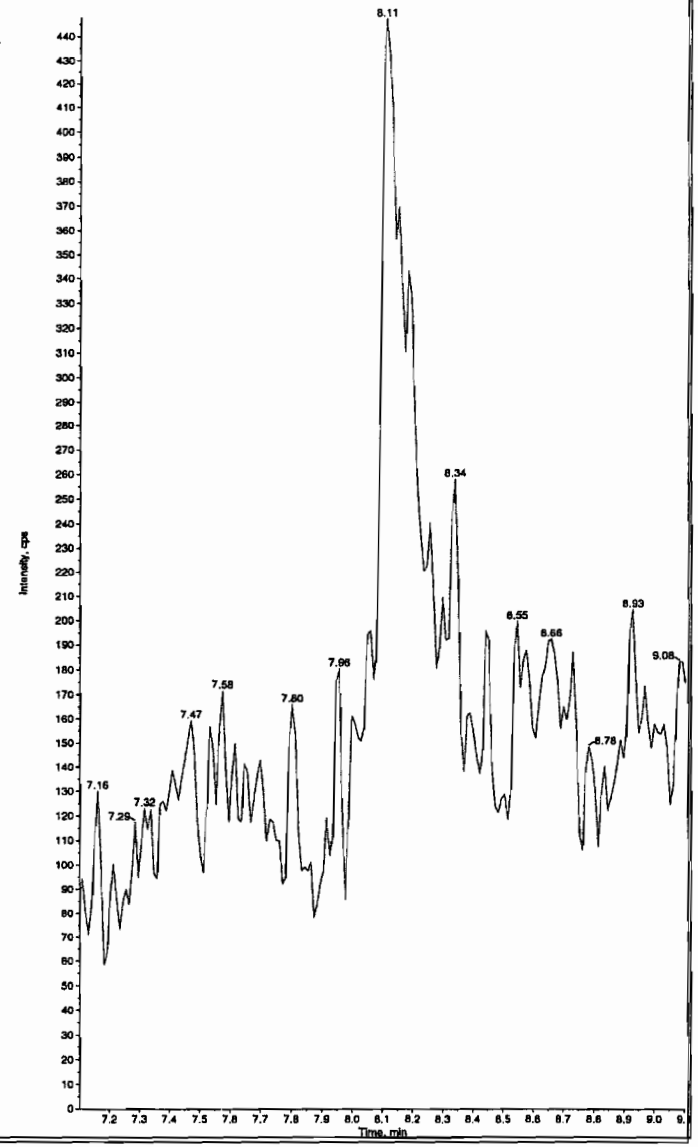

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS04050064.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 5:15:36 AM
fied: No

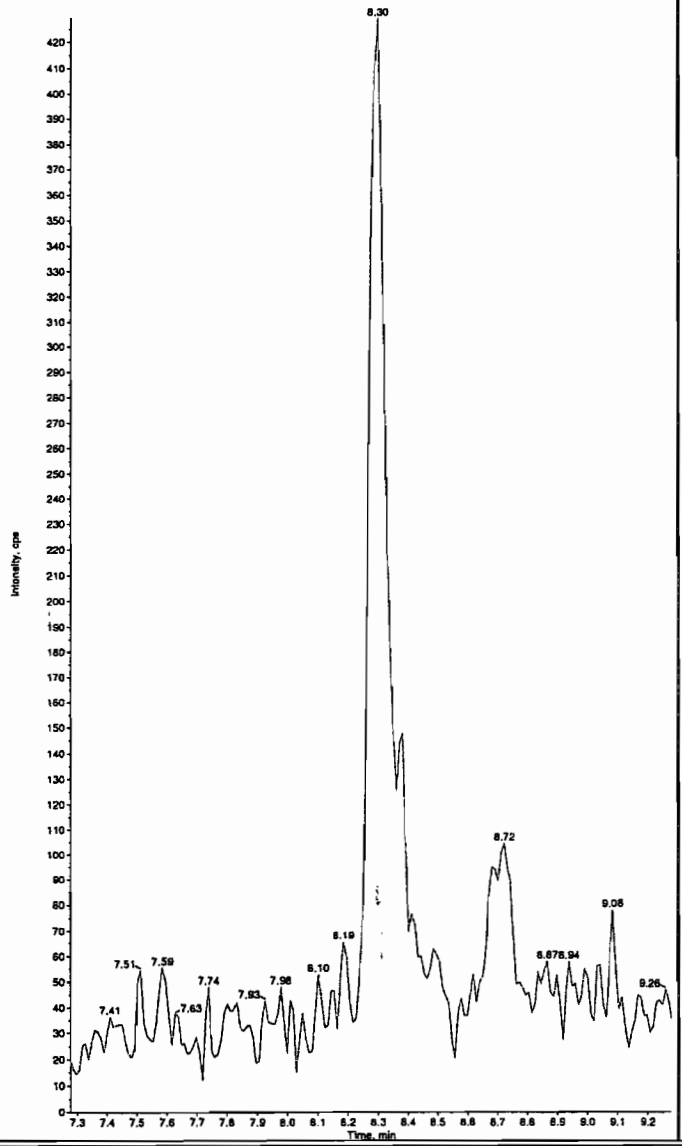

Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS04050064.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 5:15:36 AM

Modified: No

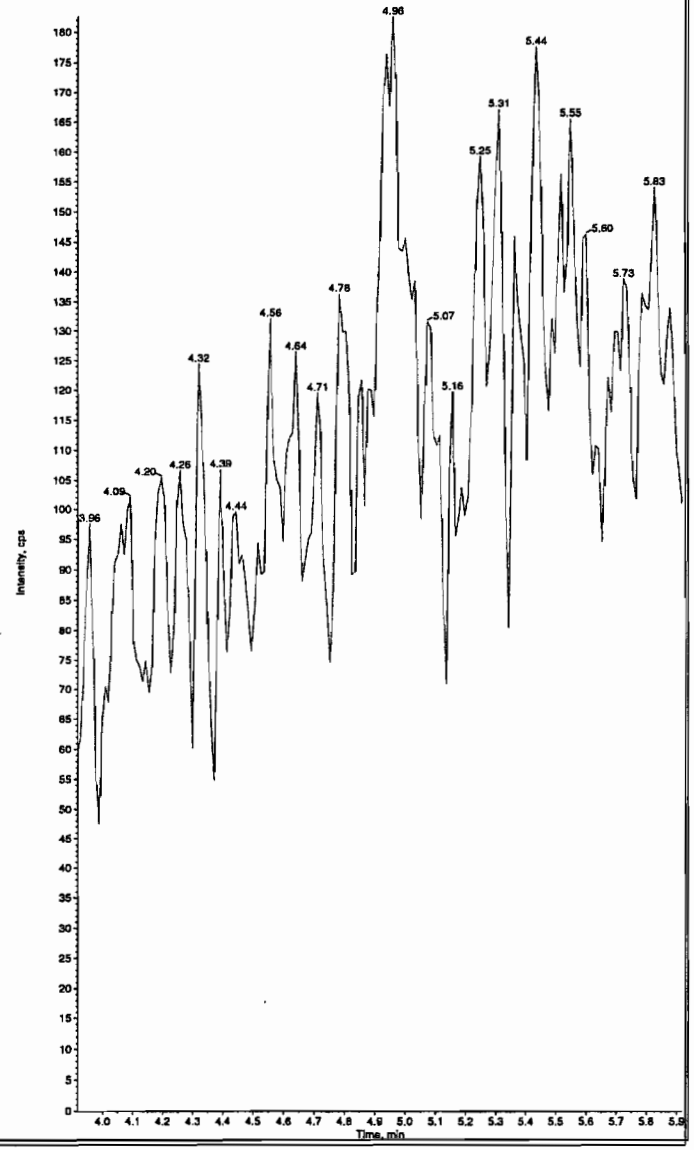

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS04050064.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_B" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 5:15:36 AM
fied: No

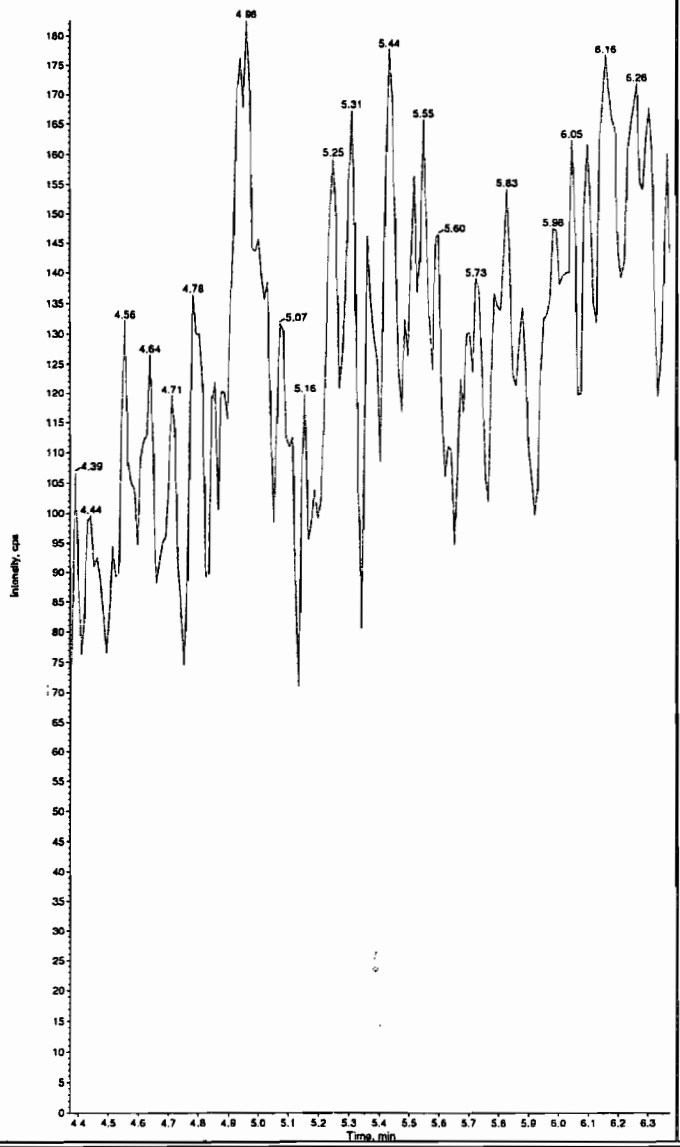

Sample Name: "XIBLK08" Sample ID: "|1|LER" File: "EXS04050064.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index:	1	
Sample Type:	Unknown	
Concentration:	N/A	
Calculated Conc:	4.46	ng/mL
Acq. Date:	4/6/2010	
Acq. Time:	5:15:36 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.8	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.8	min
Area:	8.03e+004	counts
Height:	19608.795	cps
Start Time:	10.7	min
End Time:	11.0	min

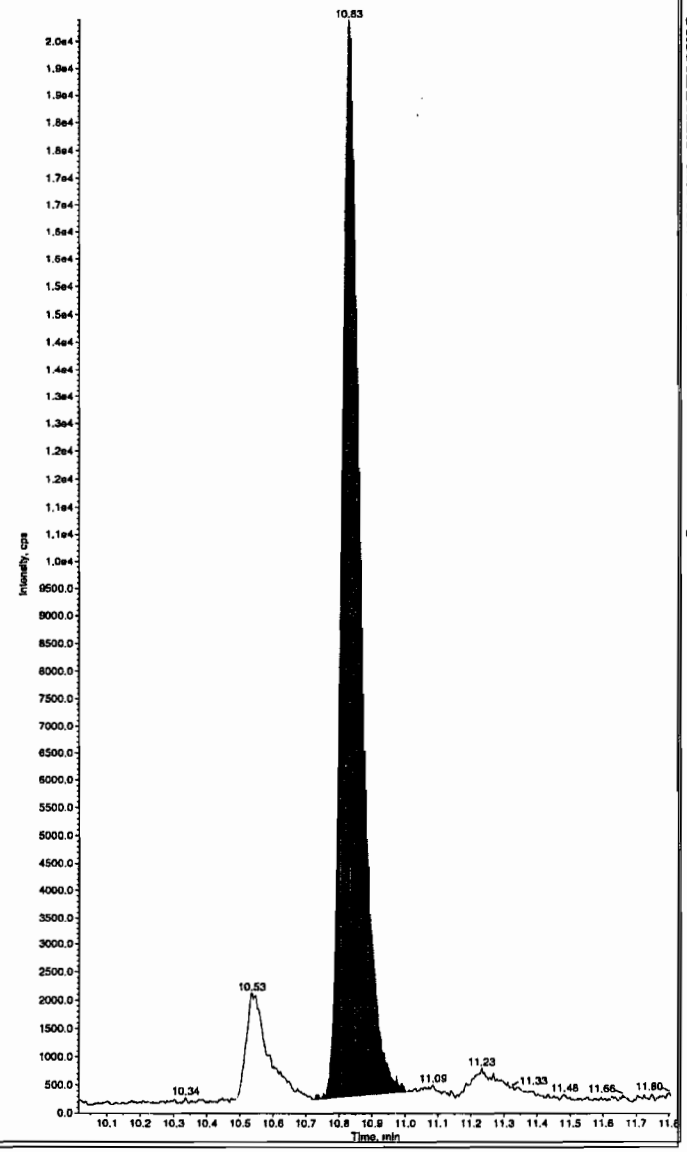

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK09

Analysis Date: 06–APR–10 07:21

GEL Data File: EXS04050072.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	4.38
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Rar 4/7/10

ple Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS04050072.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_B" Annotation: ""
.e Index: 1
.e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 7:21:17 AM

ied: No

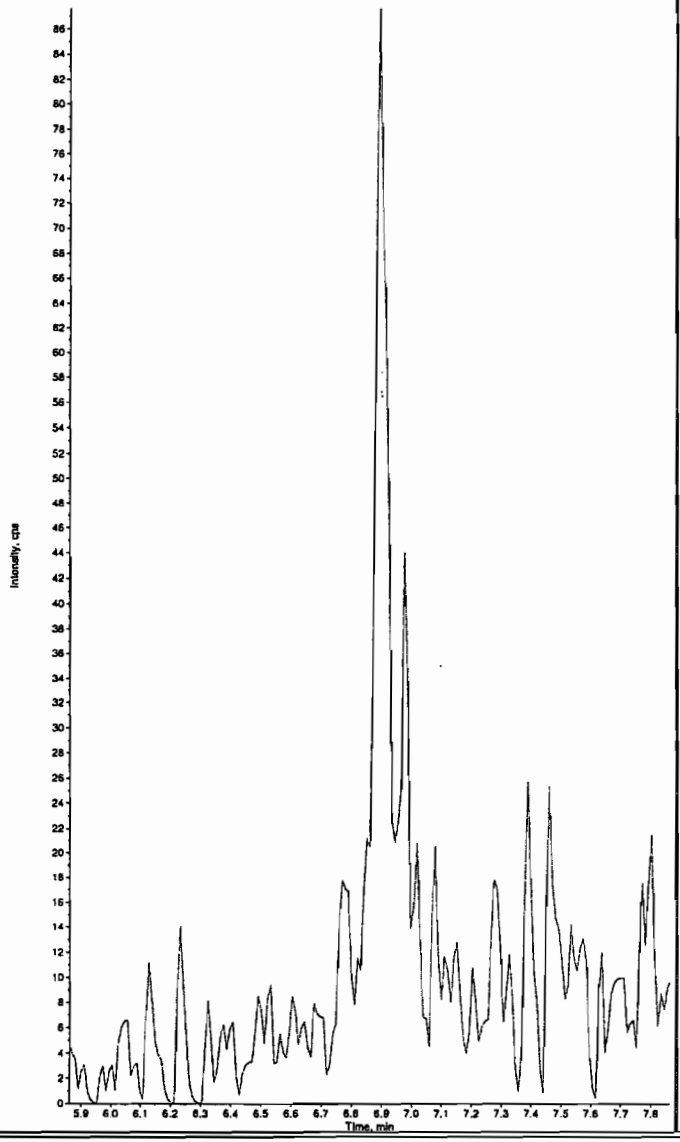

Sample Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS04050072.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 7:21:17 AM

Modified: No

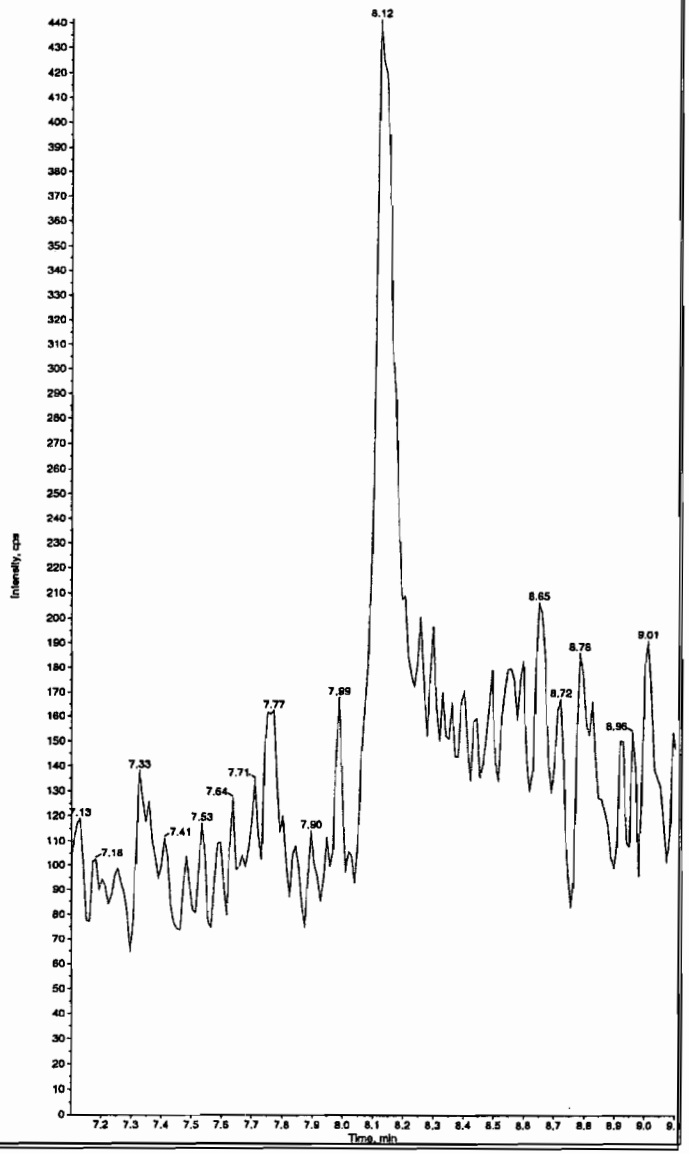

Hm 04/08/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS04050072.wiff"
. Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 7:21:17 AM

ied: No

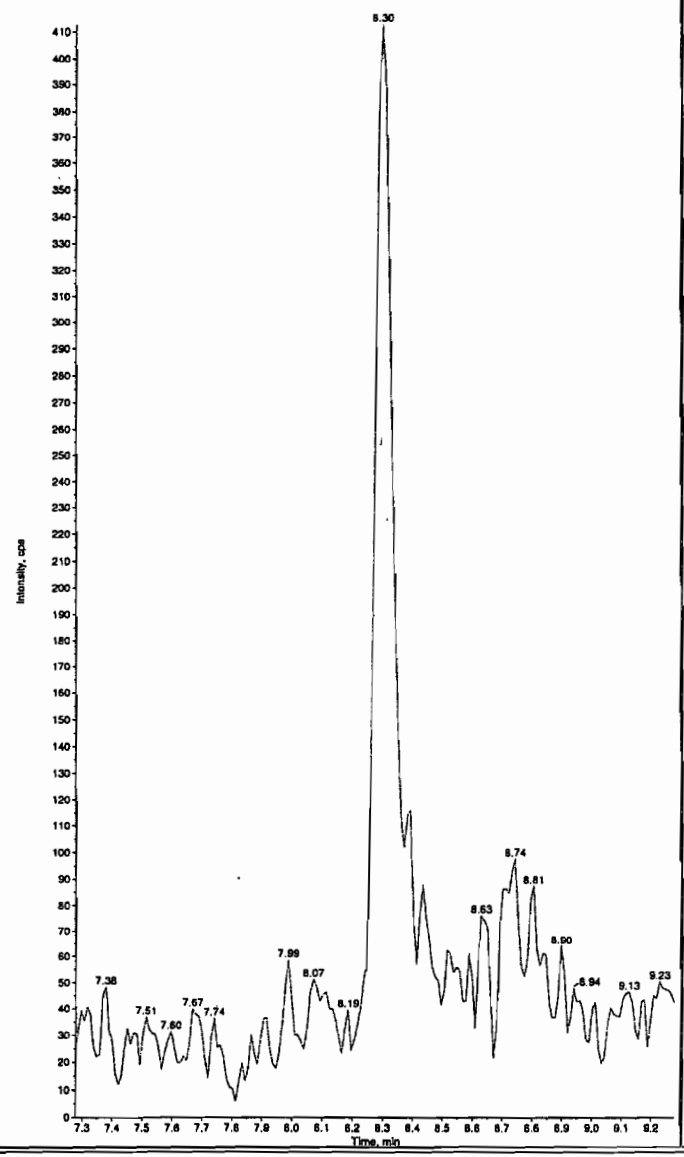

Sample Name: "XIBLK09" Sample ID: "|1|LER" File: "EXS04050072.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 7:21:17 AM

Modified: No

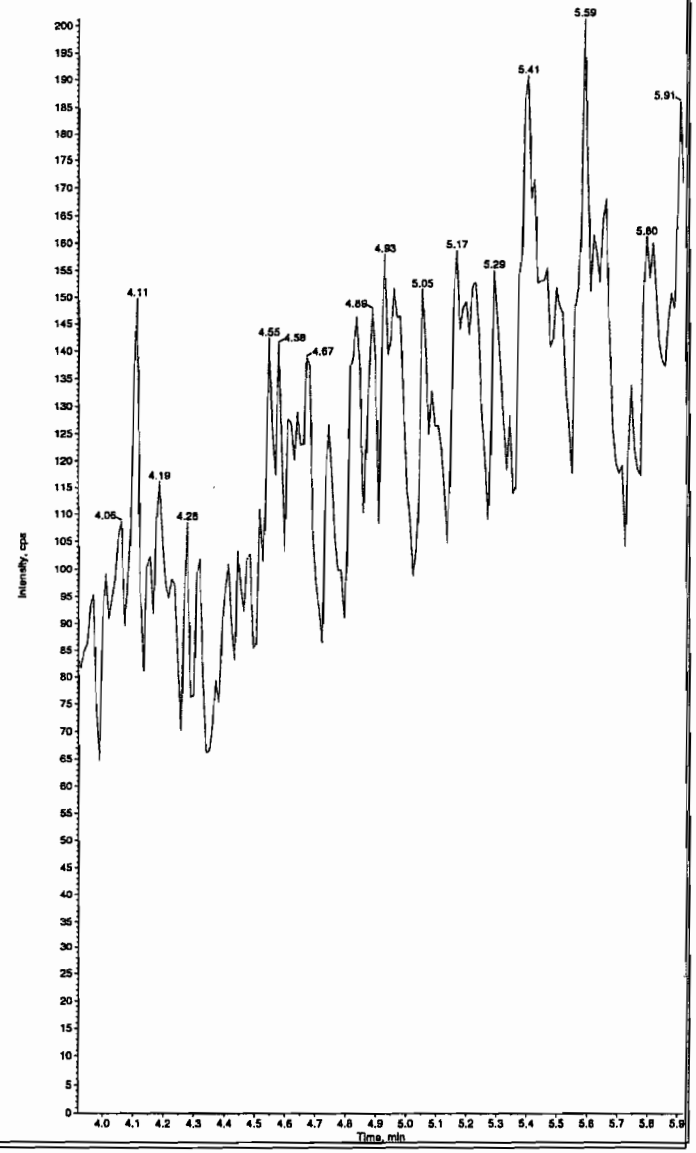

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS04050072.wiff"
: Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 7:21:17 AM

ied: No

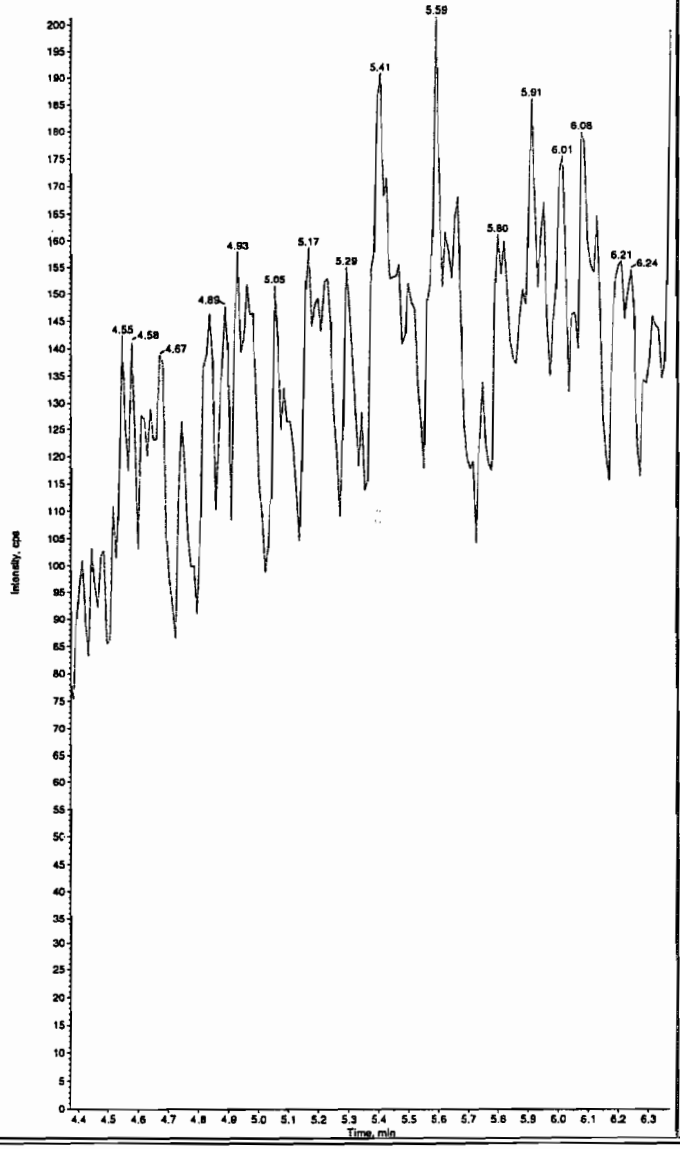

Sample Name: "XIBLK09" Sample ID: "[1]LER" File: "EXS04050072.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 4.38 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 7:21:17 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 7.89e+004 counts
Height: 19134.485 cps
Start Time: 10.7 min
End Time: 11.0 min

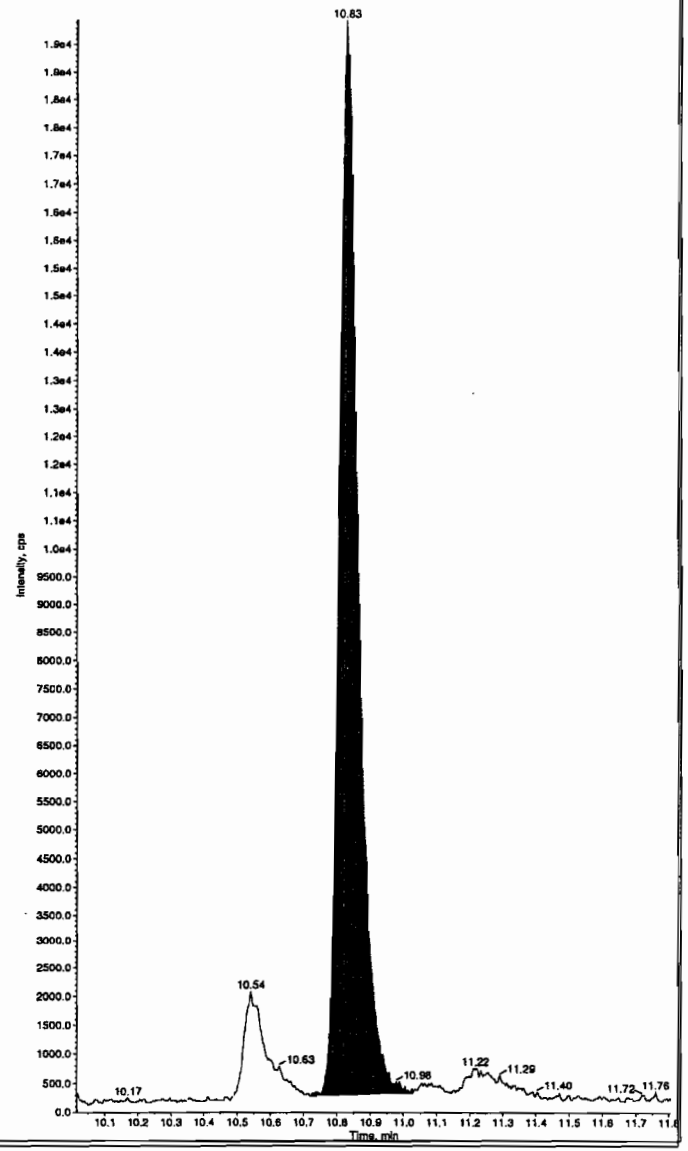

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

4A
Explosives Continuing Calibration Blank

Lab Name: GEL Laboratories LLC

GEL Job No(SDG): 10–2057

Lab Code: GEL

Lab Sample ID: XIBLK10

Analysis Date: 06–APR–10 10:45

GEL Data File: EXS04050085.wiff

Instrument ID: LCMSMS

Column: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found (ug/L)
3,4–Dinitrotoluene	0	0
tris(o–cresyl) phosphate	0	4.12
TATB	0	0
3,5–Dinitroaniline	0	0
2,4–Diamino–6–nitrotoluene	0	0
2,6–Diamino–4–nitrotoluene	0	0

Scr 4/7/10

ple Name: "XIBLK10" Sample ID: "|1|LER" File: "EXS04050085.wiff"
k Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCMSEXP_B" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 10:45:27 AM

ied: No

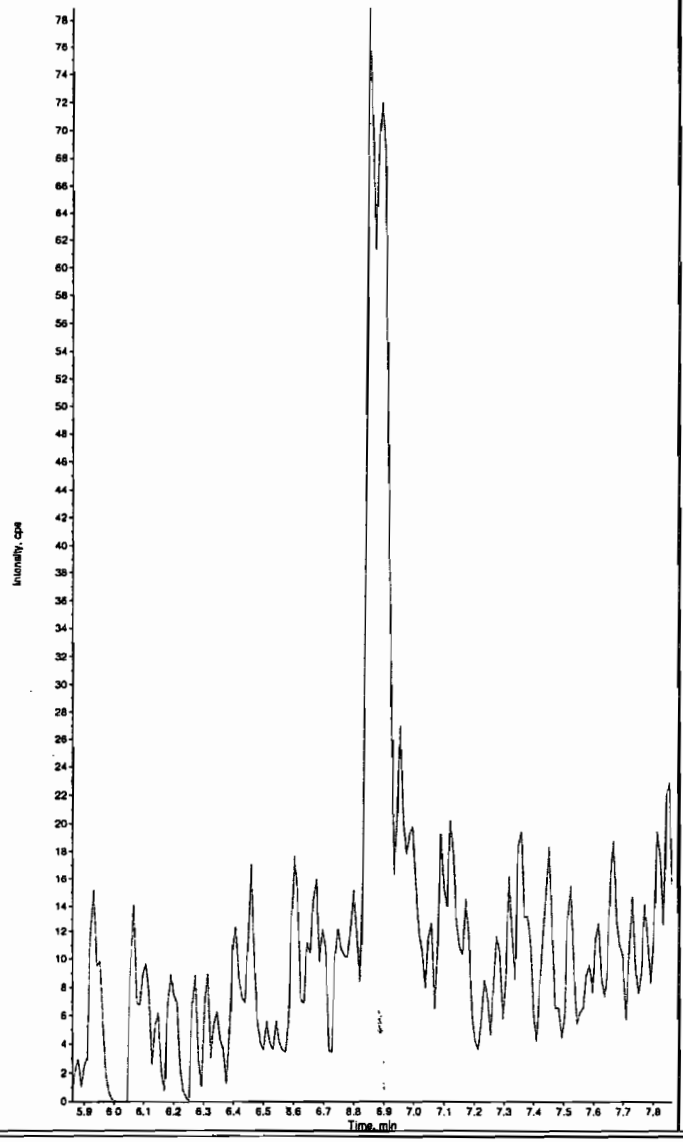

Sample Name: "XIBLK10" Sample ID: "|1|LER" File: "EXS04050085.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 10:45:27 AM

Modified: No

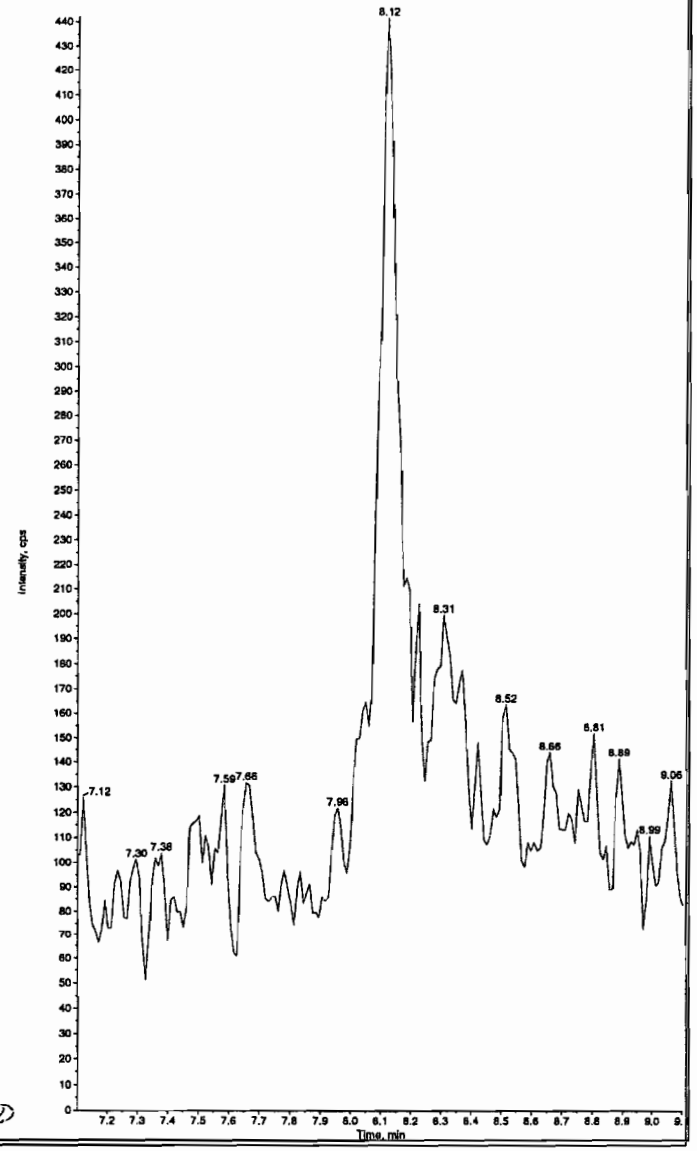

4/7/10 04/08/10

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS04050085.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 10:45:27 AM

fied: No

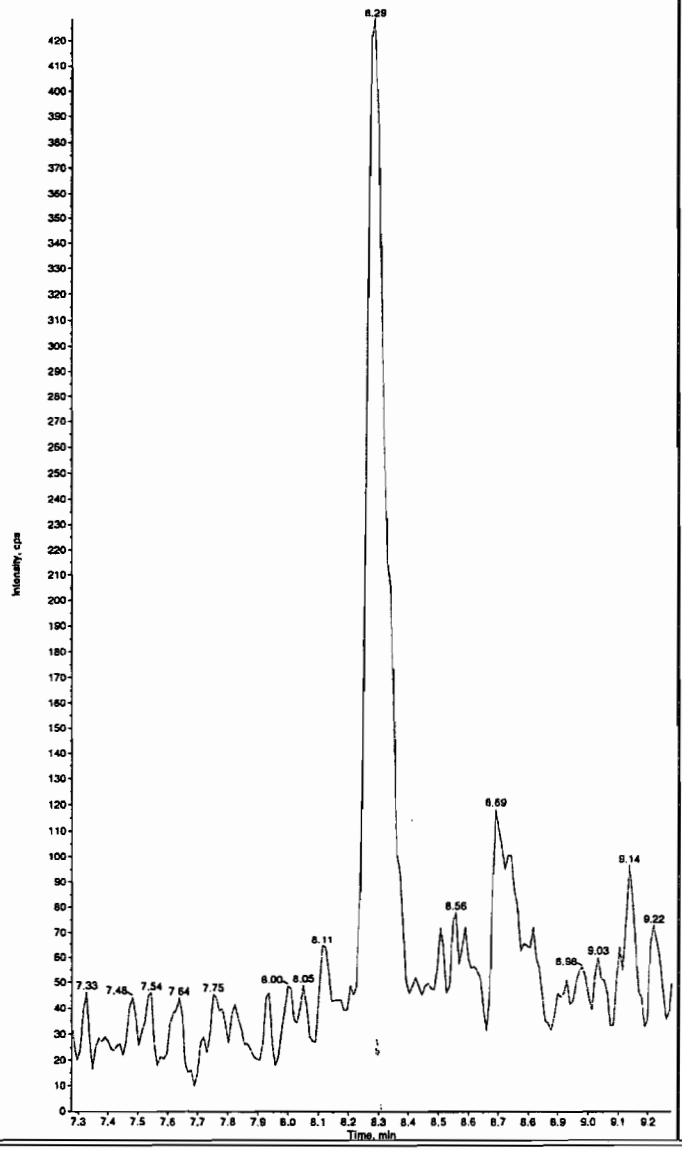

Sample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS04050085.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_B" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 10:45:27 AM

Modified: No

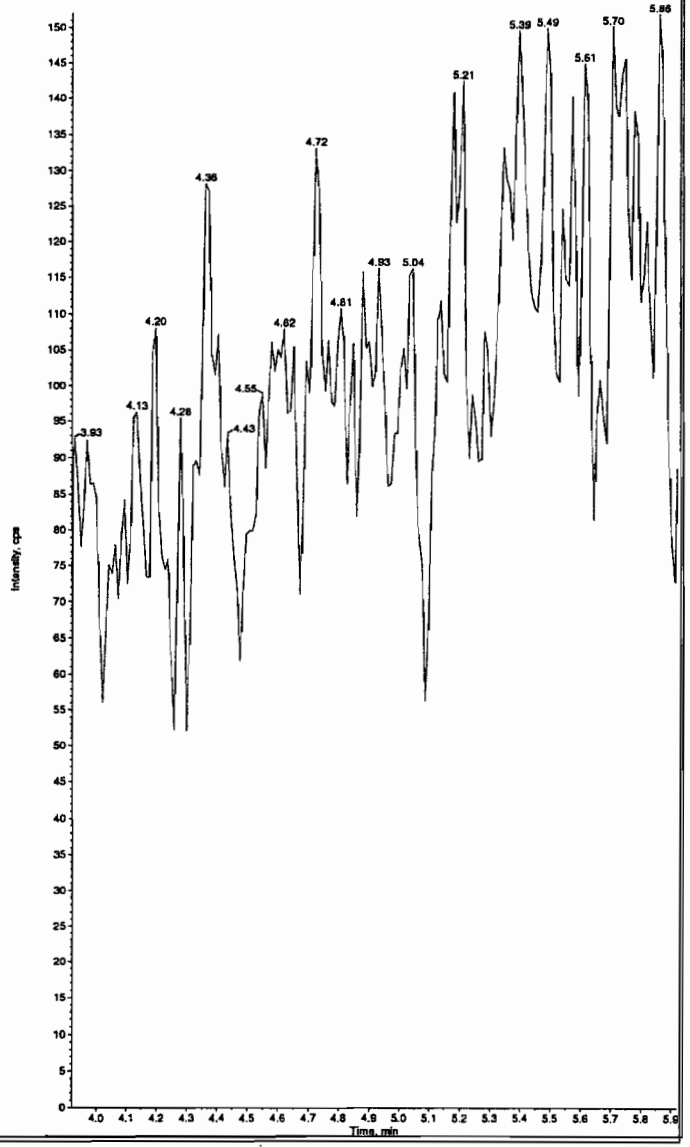

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ple Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS04050085.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_B" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 10:45:27 AM

fied: No

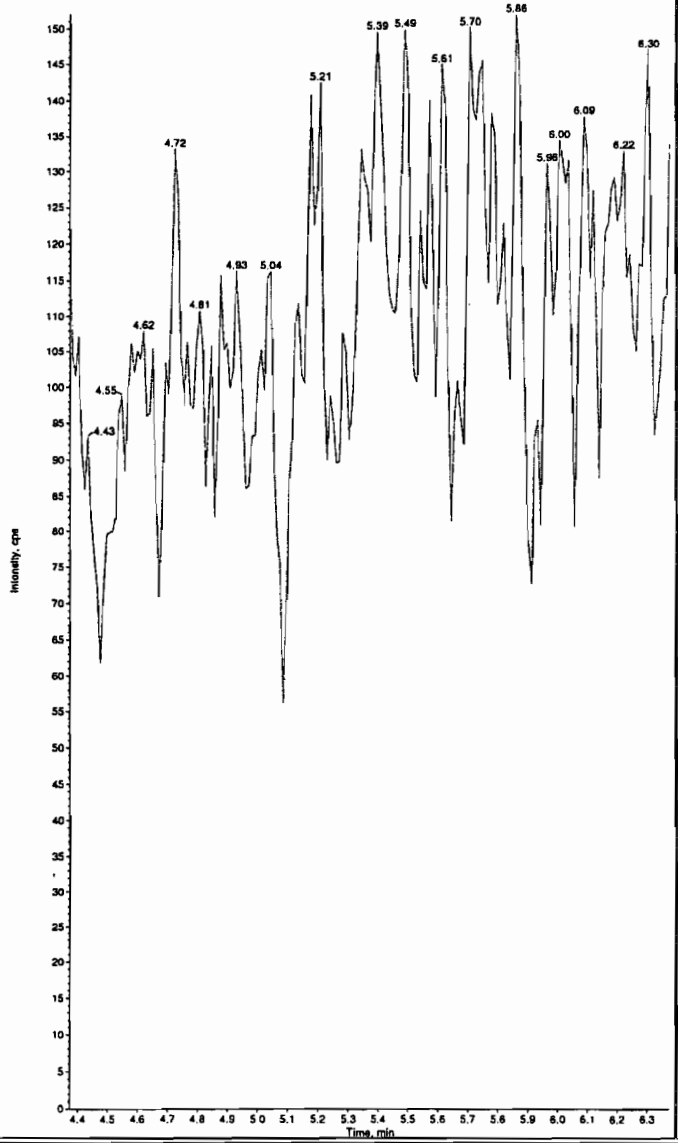

Sample Name: "XIBLK10" Sample ID: "[1]LER" File: "EXS04050085.wiff"
Peak Name: "Tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_B" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 4.12 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 10:45:27 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 7.43e+004 counts
Height: 17629.286 cps
Start Time: 10.7 min
End Time: 11.0 min

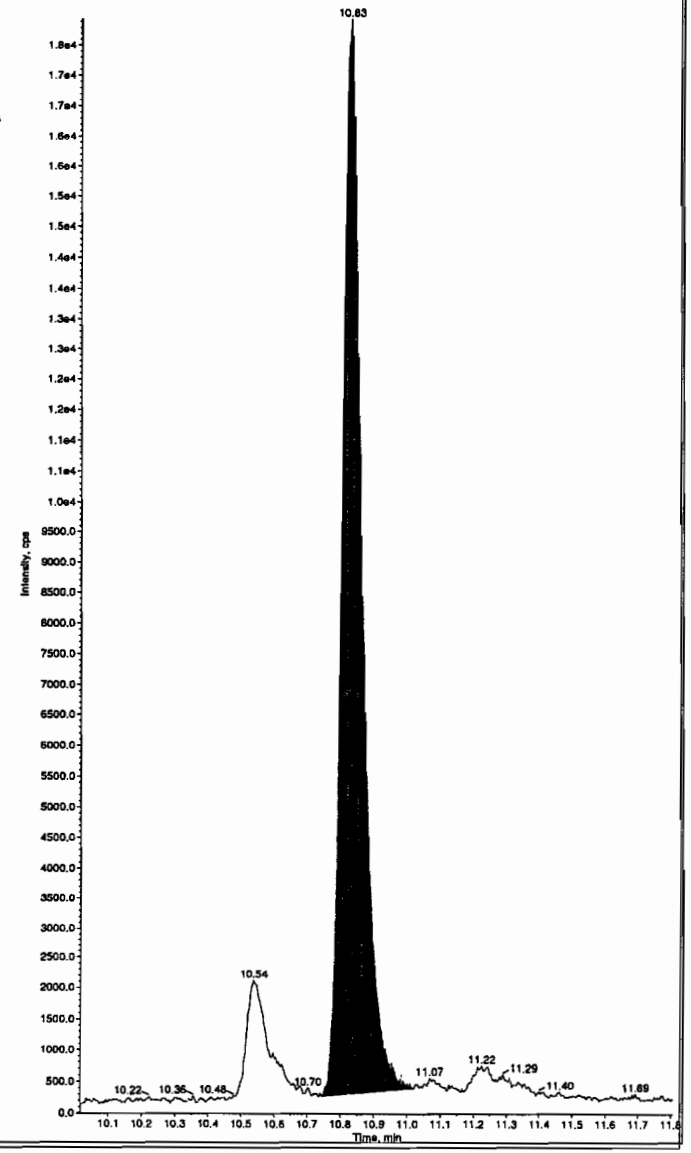

L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/Rbi (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Static

Printed: Fri Aug 25 10:50:01 2006

Data file: STATMS1 - Calibrated

15 matches of 15 tested references

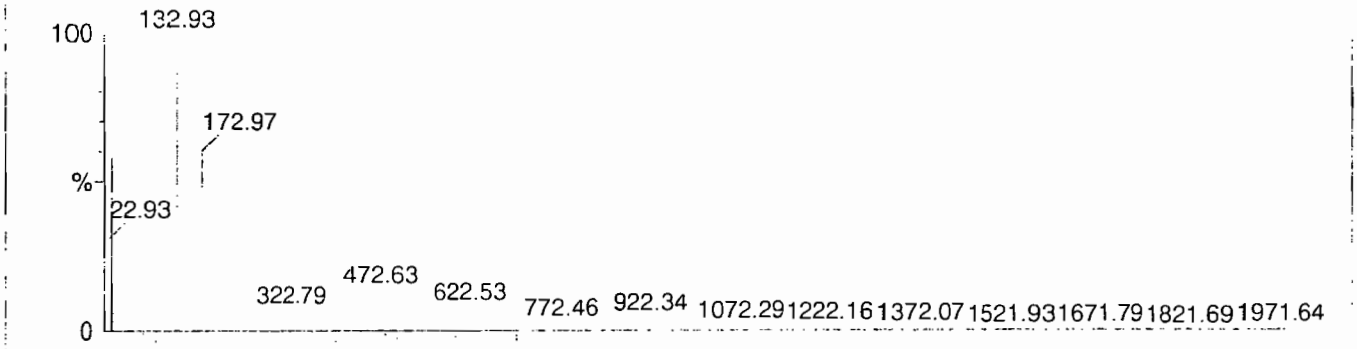

Reference file: Naics2

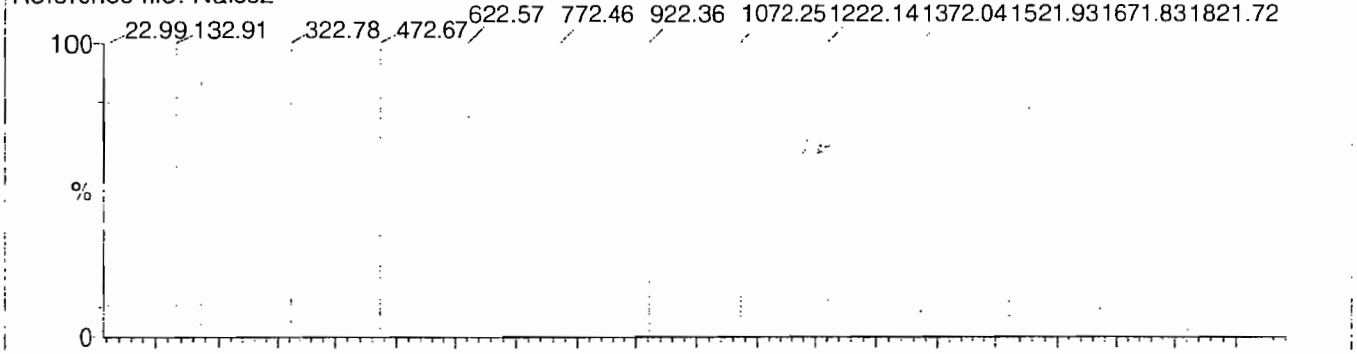

Mass difference (Raw - Ref mass)

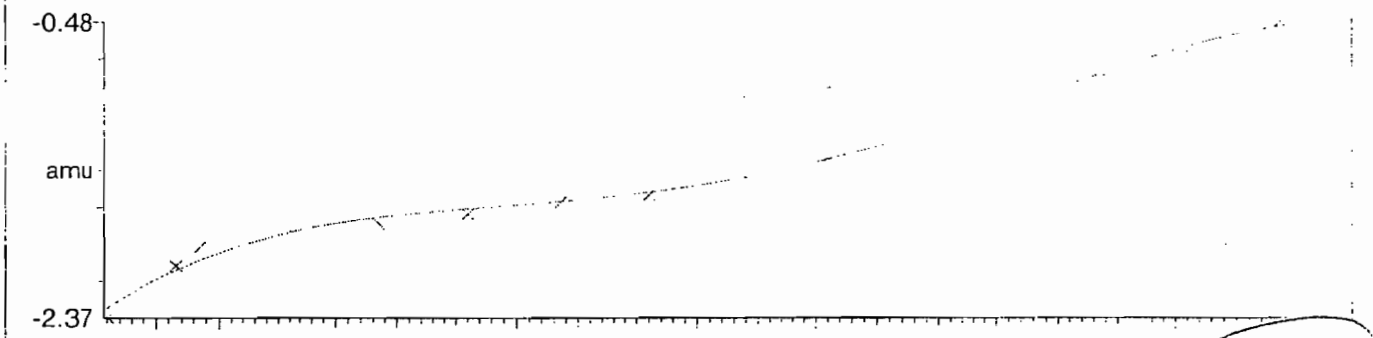

Residuals

Mean residual = -1.673470e-9 ± 0.036953

ok
hm

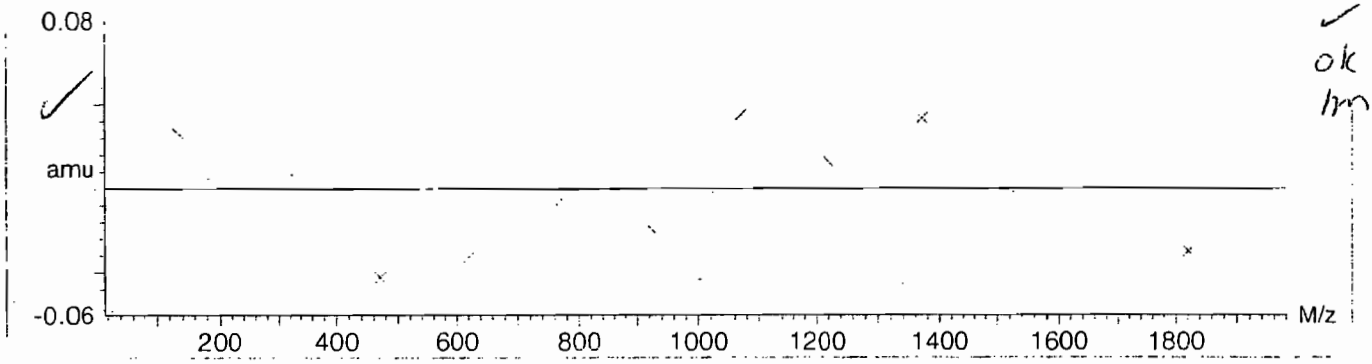

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scanning

Printed: Fri Aug 25 10:51:06 2006

Data file: SCNMS1 - Calibrated

15 matches of 15 tested references

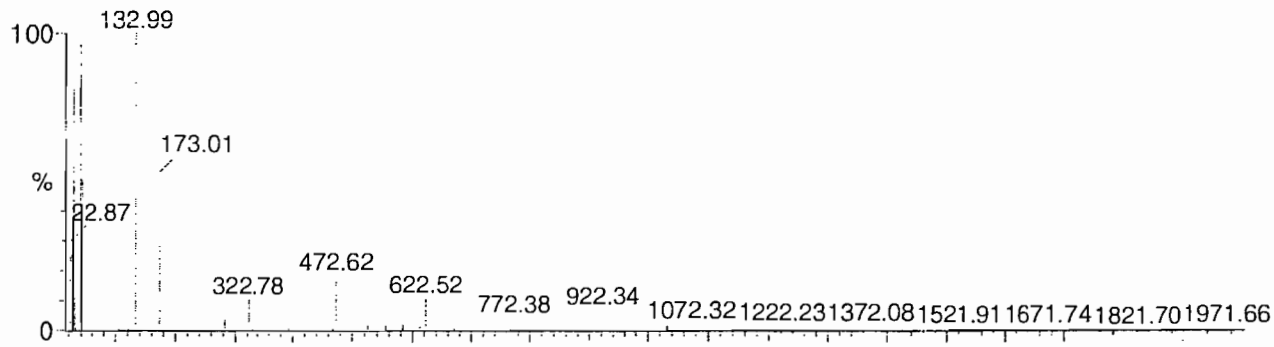

Reference file: Naics2

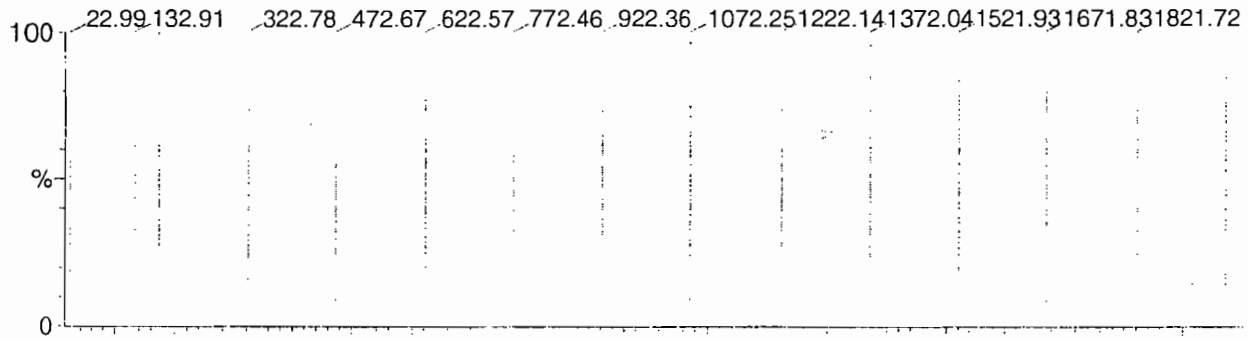

Mass difference (Raw - Ref mass)

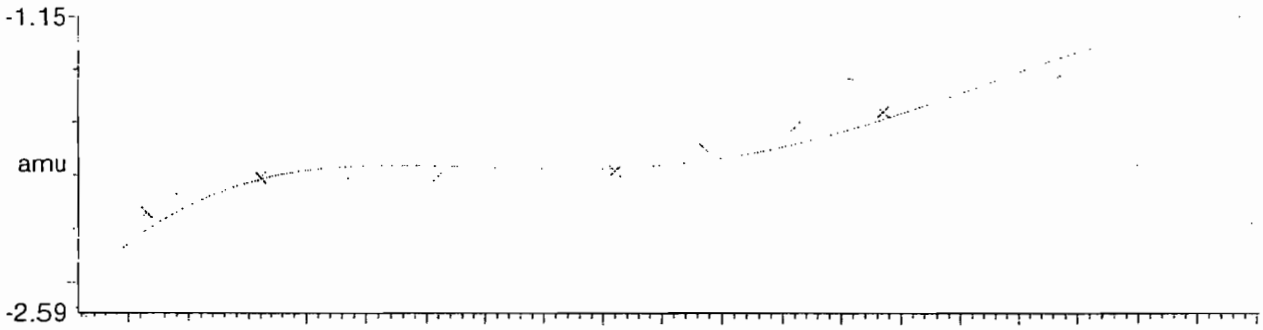

Residuals

Mean residual = -5.432715e-9 ± 0.069858

ok
m

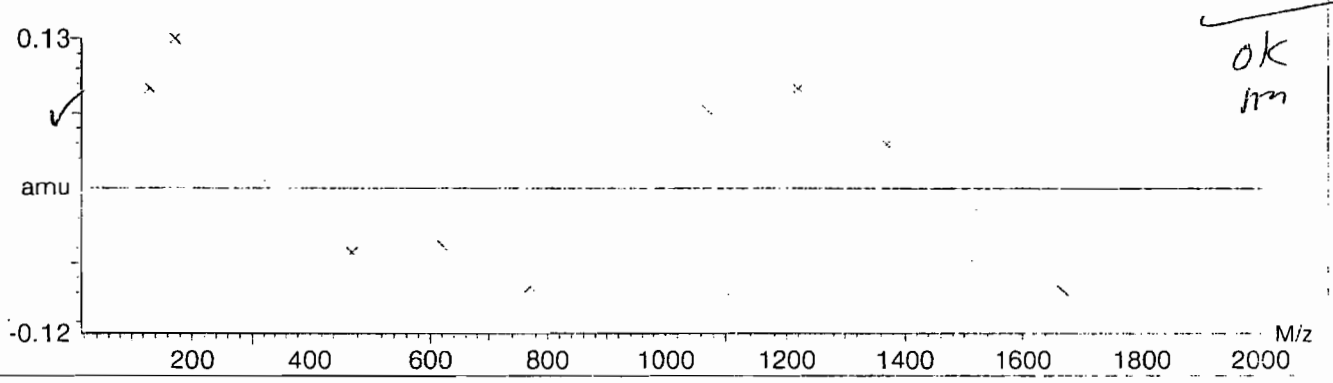

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Calibration Report - MS1 Scan Speed Compensation

Printed: Fri Aug 25 10:52:01 2006

Data file: FASTMS1 - Calibrated

15 matches of 15 tested references

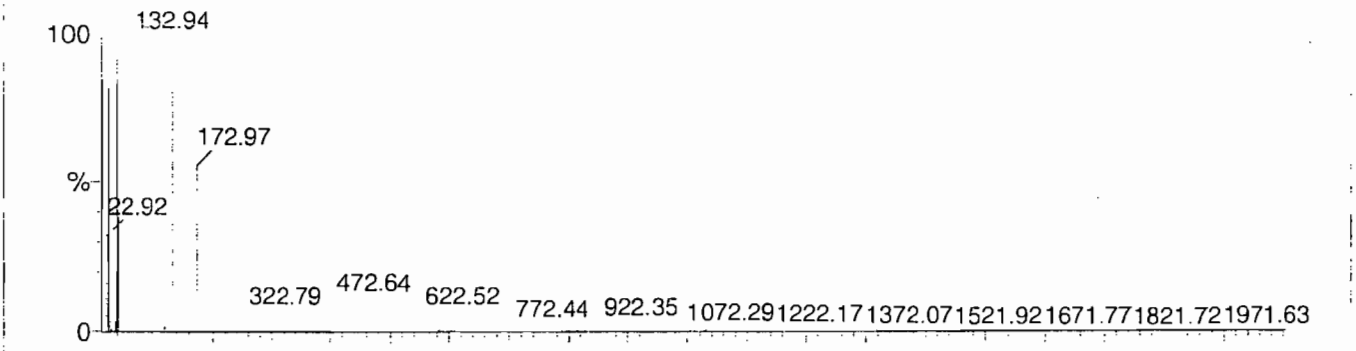

Reference file: Naics2

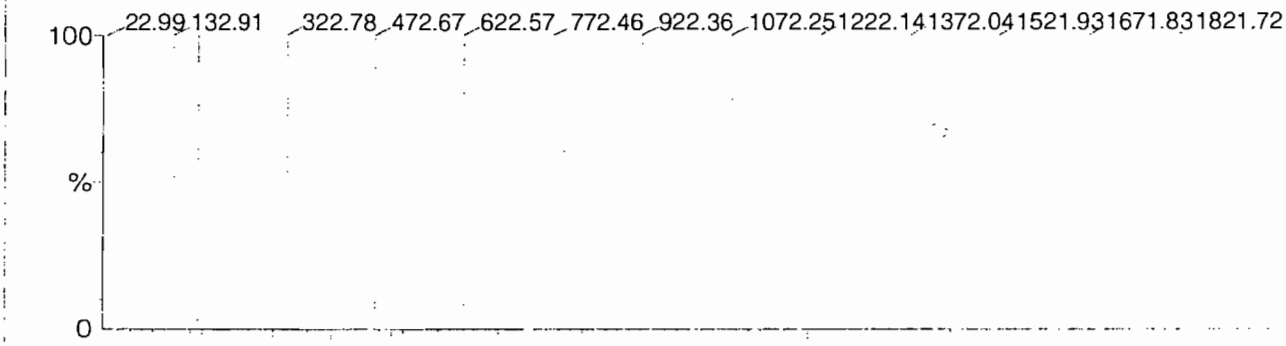

Mass difference (Raw - Ref mass)

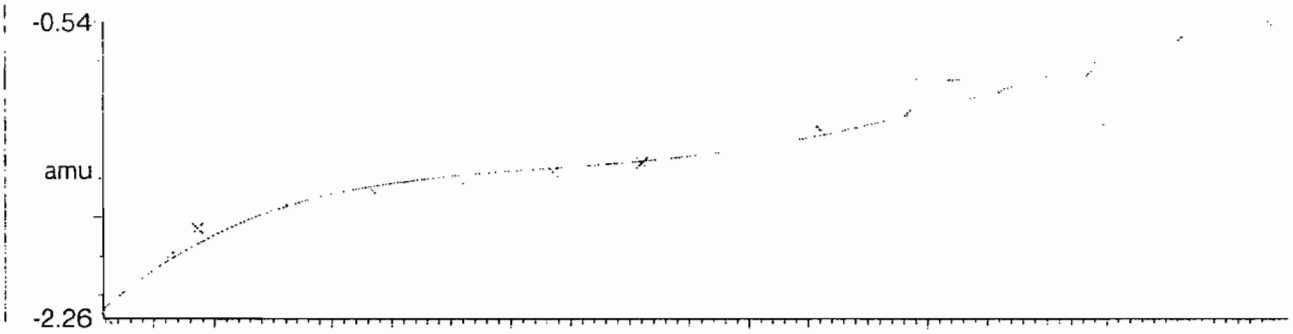

Residuals

Mean residual = 3.486639e-9 ± 0.040487

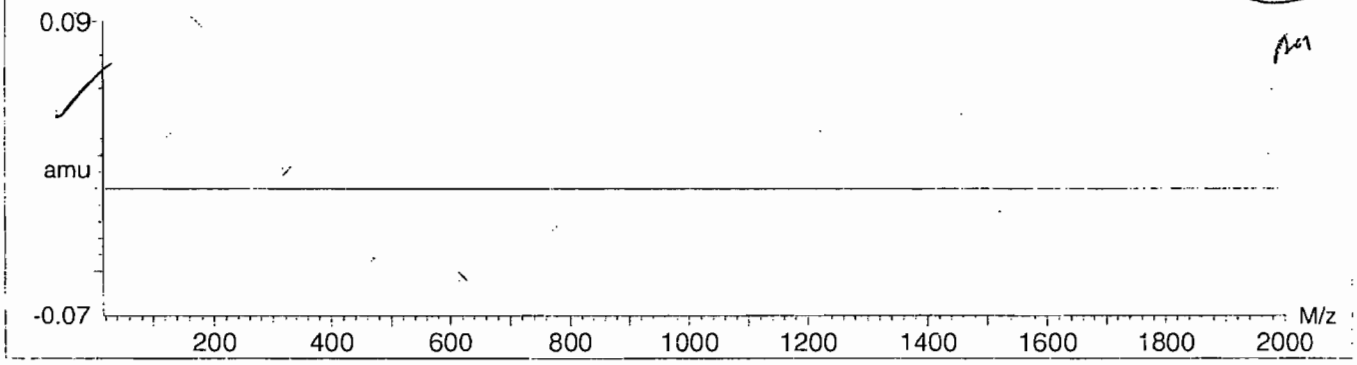

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: Fri Aug 25 10:52:54 2006

Data file: STATMS2 - Calibrated

15 matches of 15 tested references

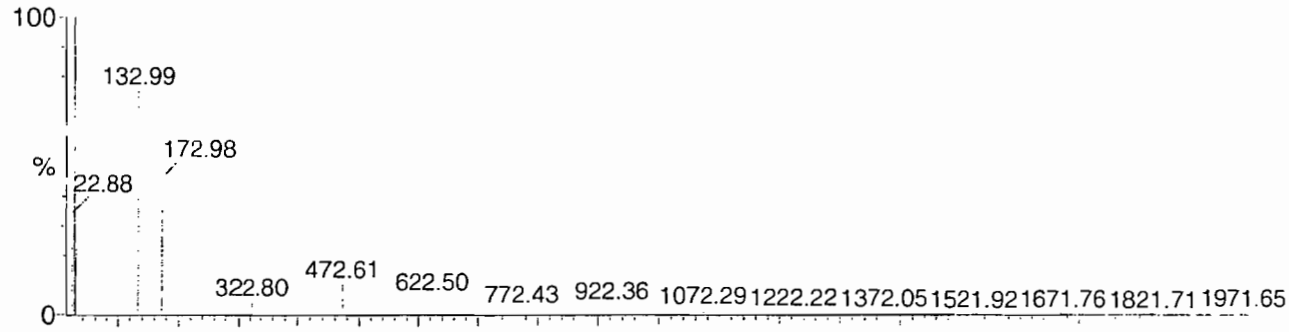

Reference file: Naics2

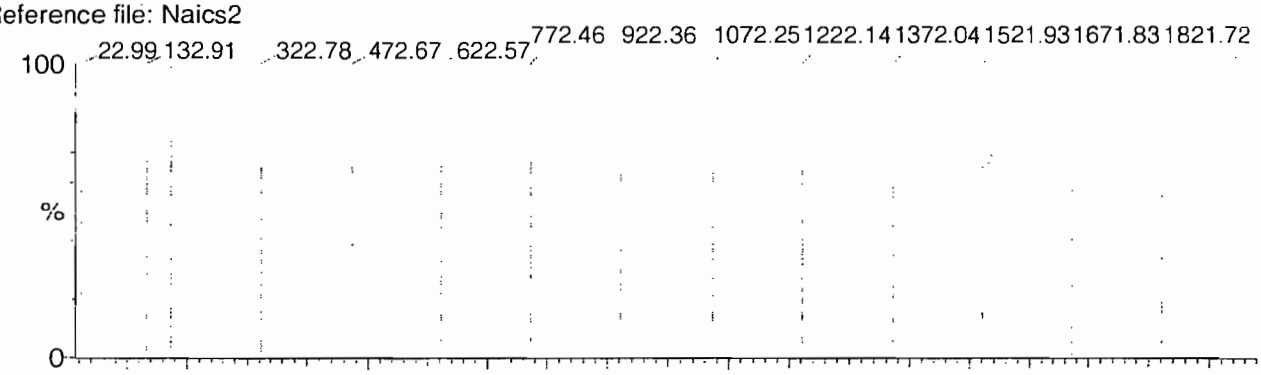

Mass difference (Raw - Ref mass)

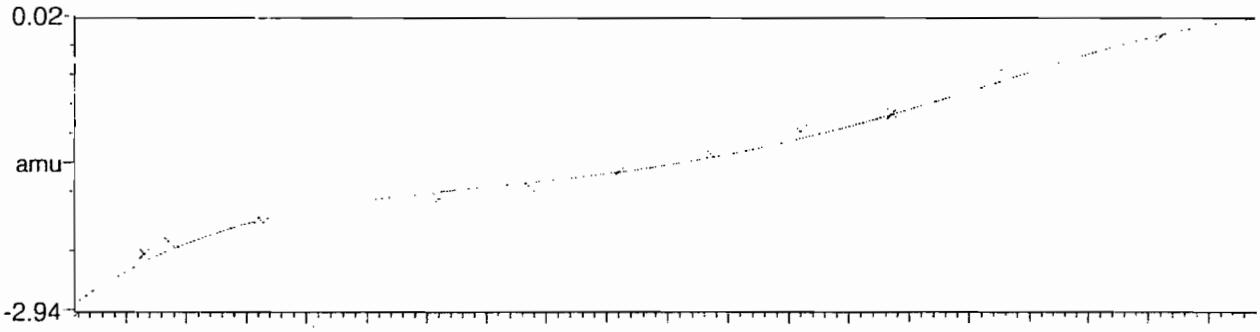

Residuals

Mean residual = 2.048910e-9 ± 0.057803

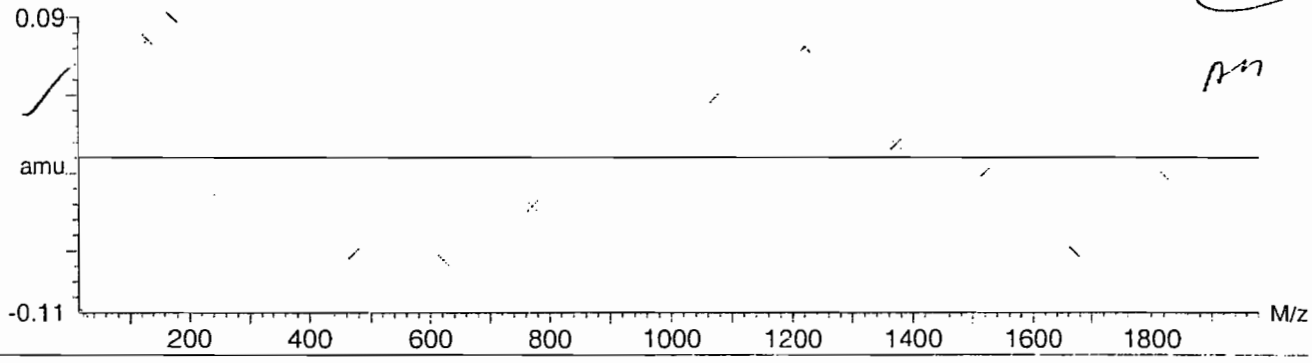

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

Printed: Fri Aug 25 10:54:00 2006

Data file: SCNMS2 - Calibrated

14 matches of 15 tested references

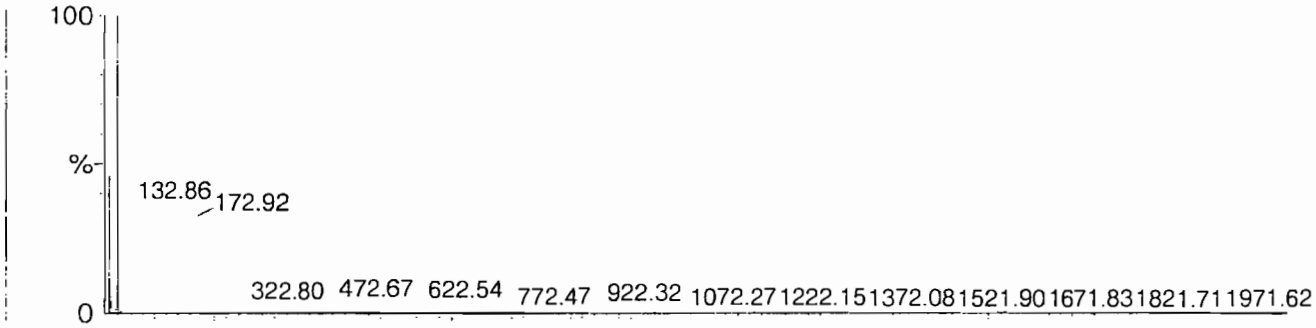

Reference file: Naics2

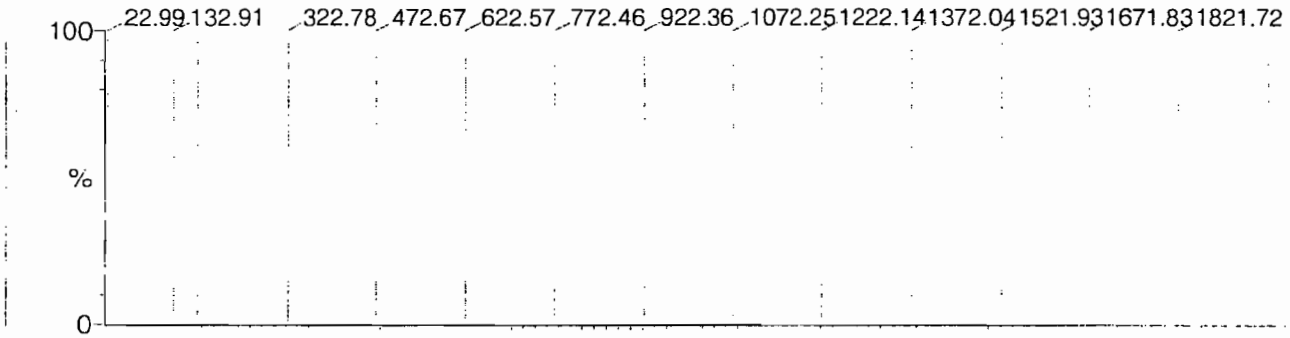

Mass difference (Raw - Ref mass)

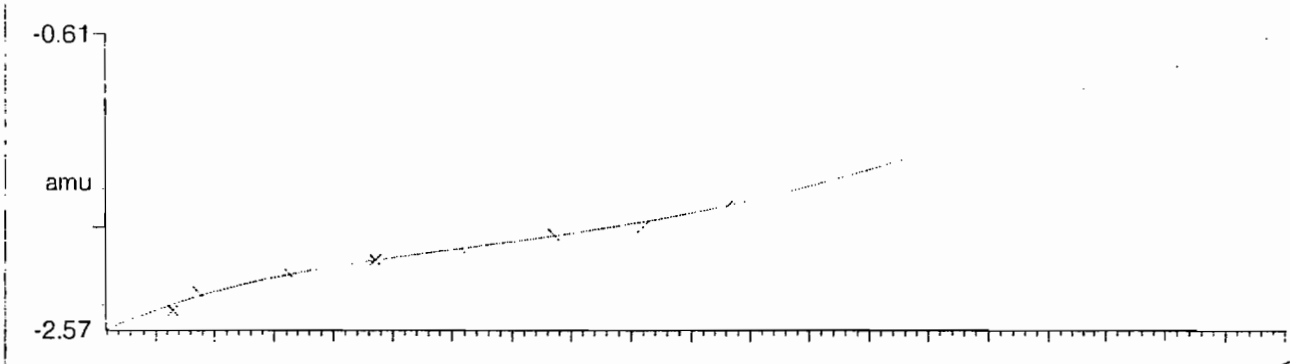

Residuals

Mean residual = -2.623502e-9 ± 0.025622

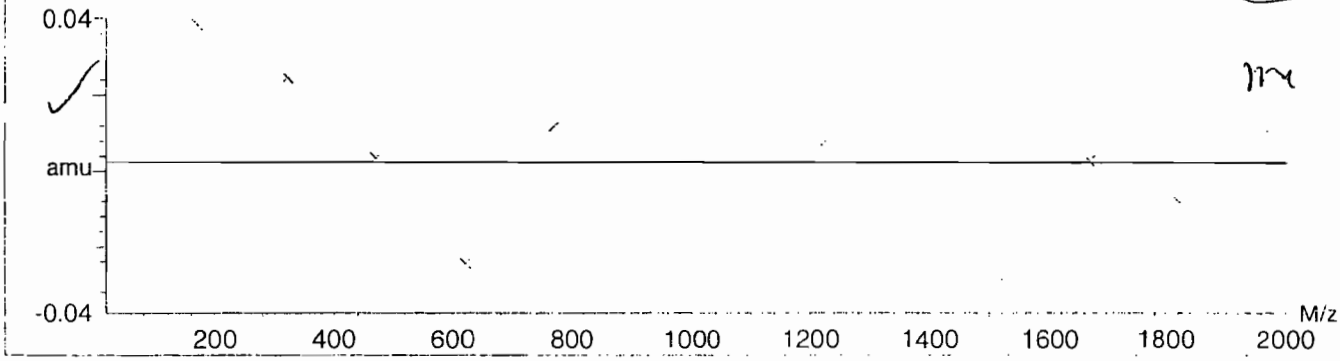

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Printed: Fri Aug 25 10:54:54 2006

Data file: FASTMS2 - Calibrated 14 matches of 15 tested references

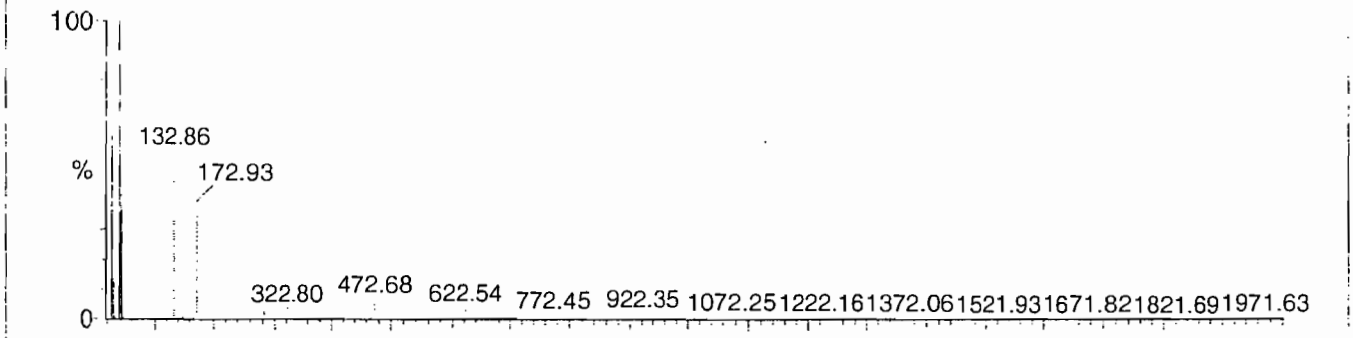

Reference file: Naics2

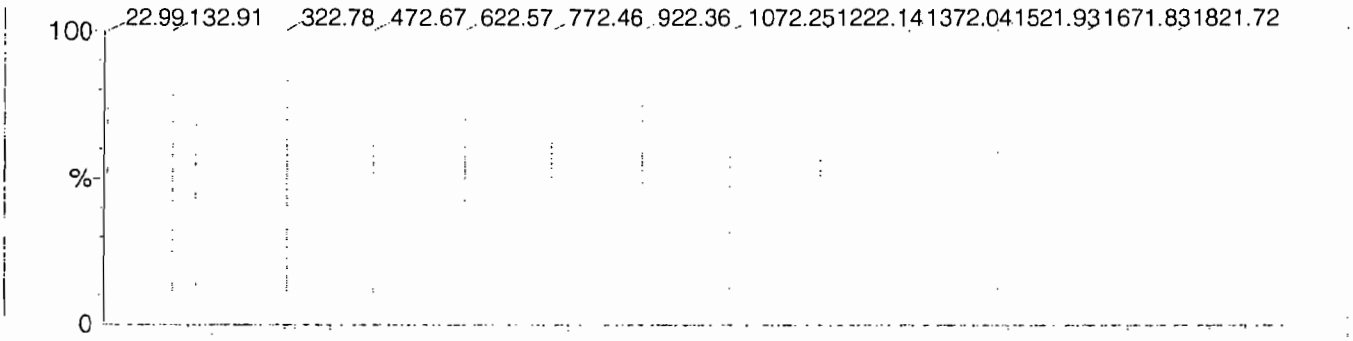

Mass difference (Raw - Ref mass)

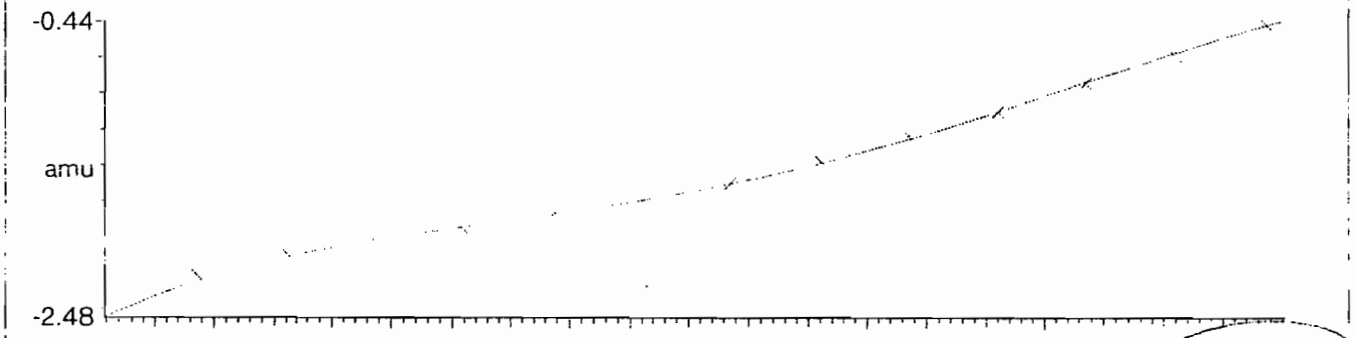

Residuals Mean residual = -6.785350e-9 ± 0.023134

m

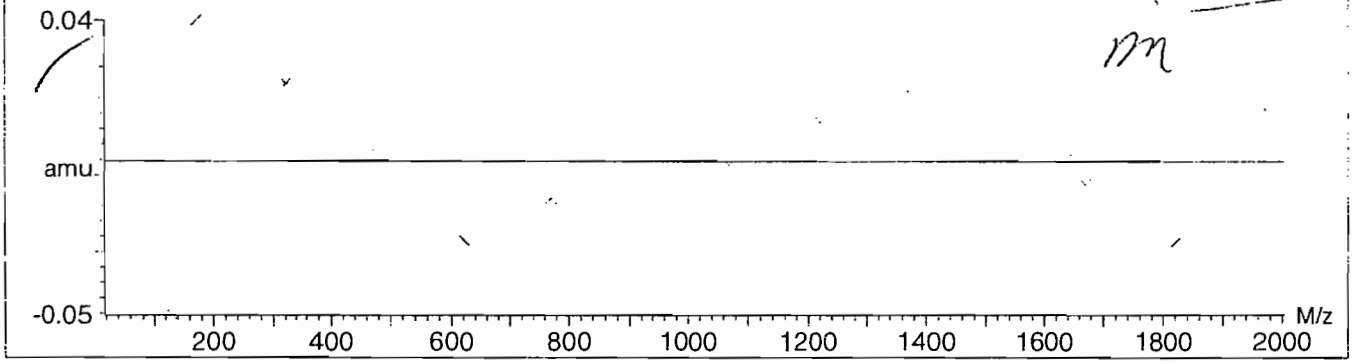

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Quattro Micro Tune Parameters

Parameter File: C:\MASSLYNX\New_Exp.PRO\ACQUDB\explosives04.ipr

Printed : Thu Apr 08 15:35:33 2010

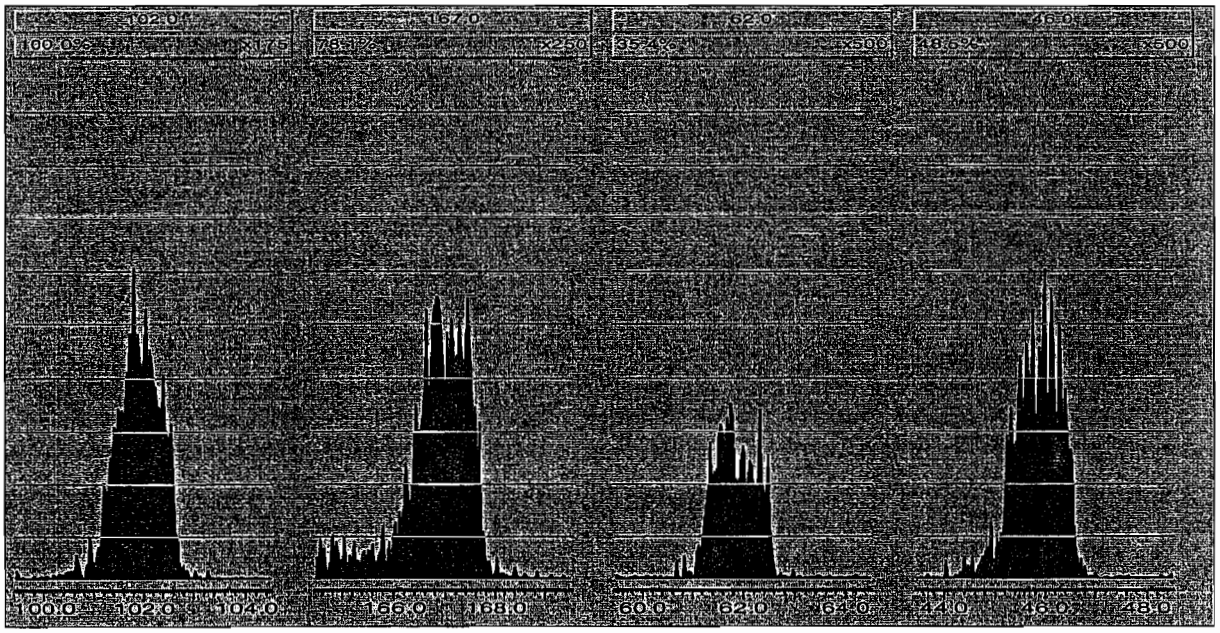

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Quattro Micro Tune Parameters

Parameter File: C:\MASSLYNX\NEW_EXP.PRO\ACQUDB\explosives04.IPR

Printed : Mon Apr 12 14:40:37 2010

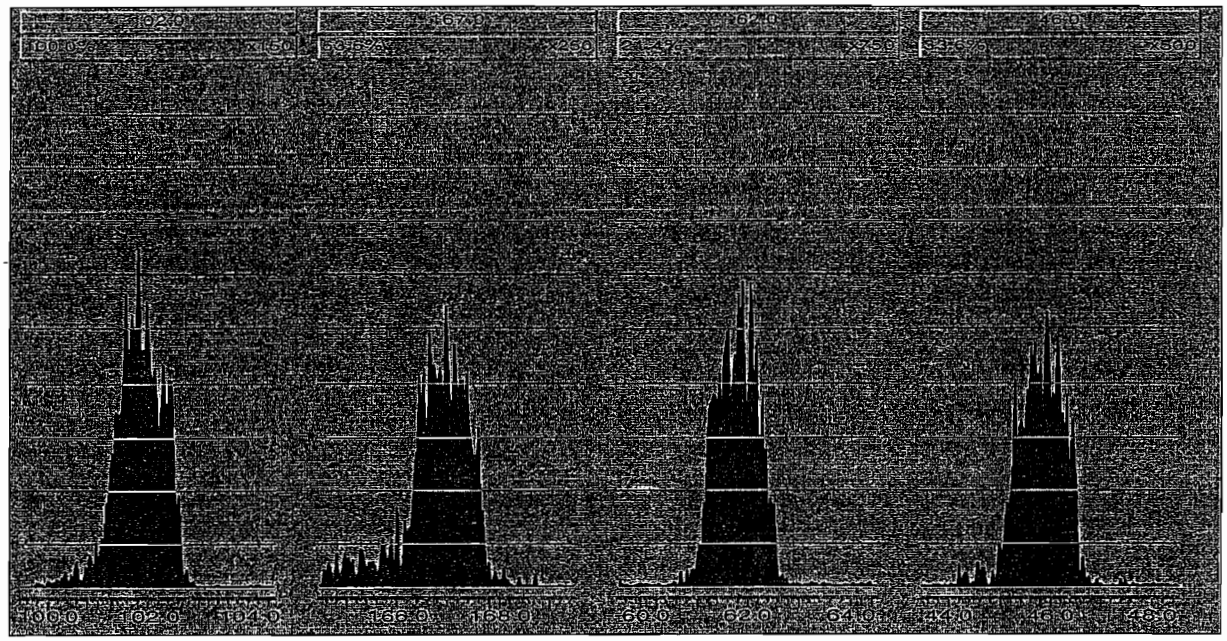

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8

High Explosives Internal Standard Summary

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–2057

Lab Code: GEL **HPLC Column:** Phenomenex Ultracarb 5u ODS(20)

Instrument ID: LCMSMS

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			6498.048	11.995	39478.583	17.288
Upper Limit			8447.4624	12.495	51322.1579	17.788
Lower Limit			4548.6336	11.495	27635.0081	16.788
LCS for batch 958278	11–apr–10 03:40	EXP0408111a	7542.35	11.896	42973.7	17.115
CAPA–10–13085	11–apr–10 06:37	EXP0408117a	8004.89	11.9	46127.3	17.116

	Analysis Date/Time	GEL Data File	IS1 (DNB) (Area) #	RT (min) #	IS2 (DNT) (Area) #	RT2 (min) #
			5880.363	11.868	34983.183	17.054
Upper Limit			7644.4719	12.368	45478.1379	17.554
Lower Limit			4116.2541	11.368	24488.2281	16.554
MB for batch 958278	13–apr–10 22:09	EXP0412063a	7603.26	11.867	49087.6 *	17.072
CAPA–10–12771	14–apr–10 00:37	EXP0412068a	8187.9 *	11.866	50757.1 *	17.062
CAPA–10–13083	14–apr–10 01:06	EXP0412069a	7898.73 *	11.867	50043.2 *	17.072

IS1 (DNB) = 1,3–Dinitrobenzene–d4
IS2 (DNT) = 2,6–Dinitrotoluene–d3

Area Upper Limit = + 30% of average IS area from multipoint calibration
Area Lower Limit = – 30% of average IS area from multipoint calibration

RT Upper Limit = +0.5 of average multipoint RT
RT Lower Limit = –0.5 of average multipoint RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits

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SAMPLE
DATA

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12771

Lab Code: GEL

GEL Job No (SDG) 10-2057

Matrix: GROUND WATER

GEL Sample ID: 248042002

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412068a

Date Analyzed: 14-APR-10 00:37

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	HU
121-14-2	2,4-Dinitrotoluene	0.325	HU
121-82-4	RDX	0.325	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	HU
2691-41-0	HMX	0.325	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	HU
479-45-8	Tetryl	0.649	HU
606-20-2	2,6-Dinitrotoluene	0.325	HU
78-11-5	PETN	1.3	HU
88-72-2	o-Nitrotoluene	0.325	HU
98-95-3	Nitrobenzene	0.325	HU
99-08-1	m-Nitrotoluene	0.325	HU
99-35-4	1,3,5-Trinitrobenzene	0.325	HU
99-65-0	m-Dinitrobenzene	0.325	HU
99-99-0	p-Nitrotoluene	0.649	HU

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412068a
Date: 14-Apr-2010
Time: 00:37:16
ID: 248042002
Vial: 1:4,F

| LANL | 958282 | LIQ | 2 |

MAT 4/14/10

PZS

XQ: EXP0408115a

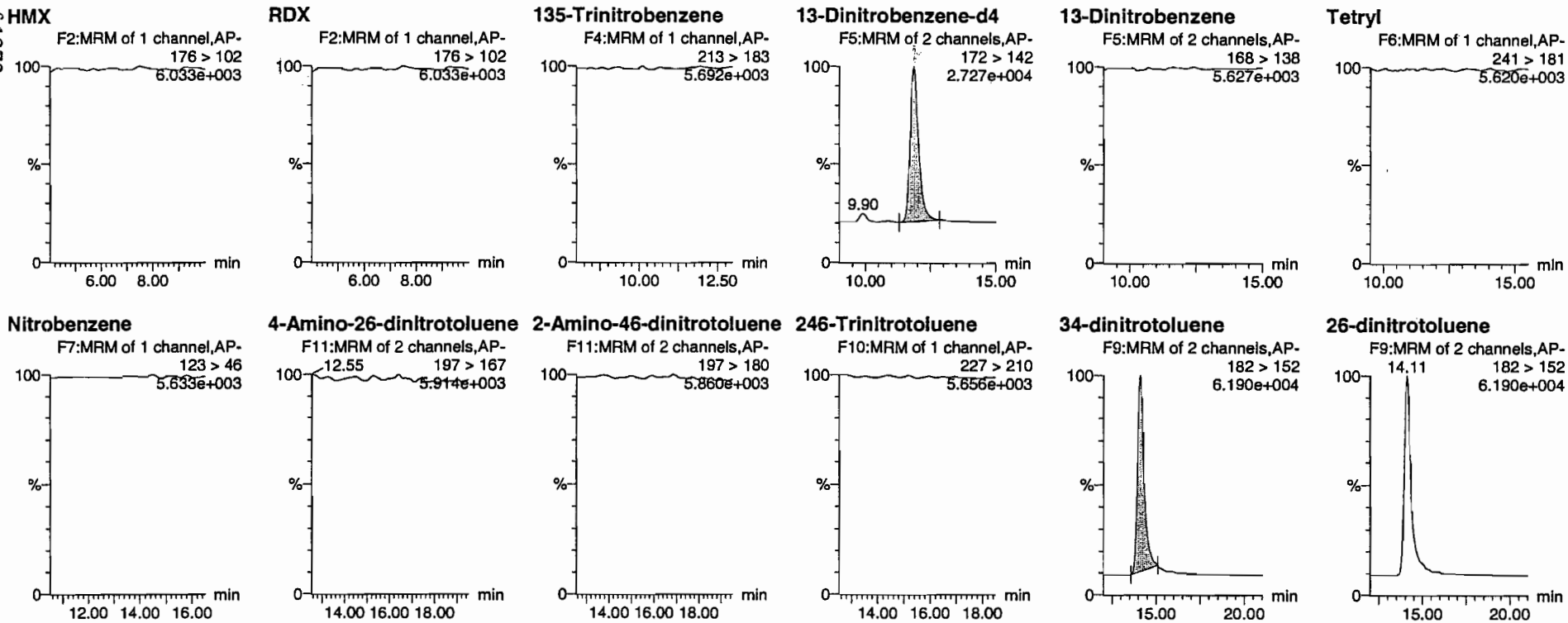

Hmm 04/14/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

34-dinitrotoluene

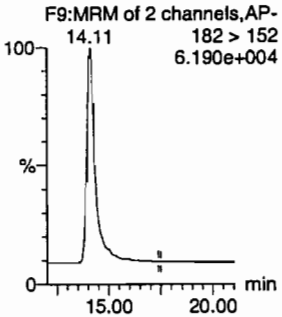

26-dinitrotoluene-d3

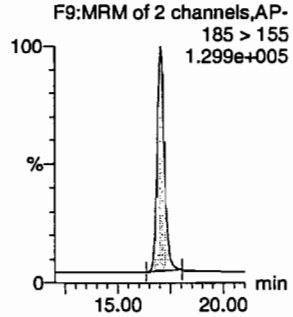

2-Nitrotoluene

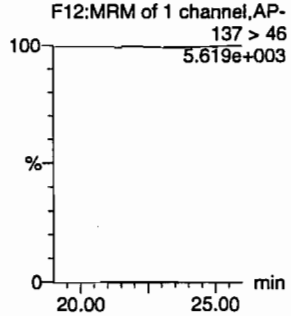

4-Nitrotoluene

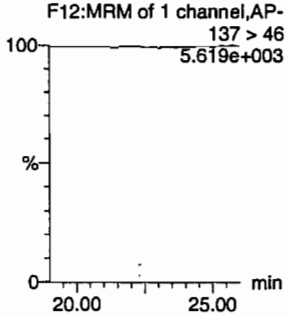

3-Nitrotoluene

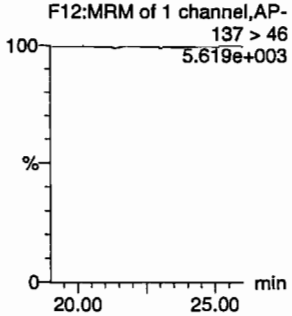

PETN

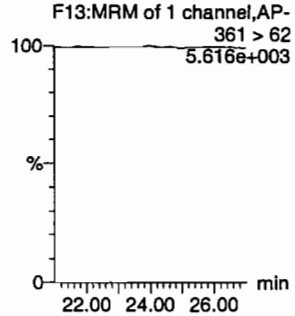

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
248042002	HMX	176 > 102			8187.898									
248042002	RDX	176 > 102			8187.898									
248042002	135-Trinitrobenzene	213 > 183			8187.898									
248042002	13-Dinitrobenzene-d4	172 > 142	11.87	8187.898		8187.898	8187.898	bb			696.2068	139.2	39.2	740.7
248042002	13-Dinitrobenzene	168 > 138			8187.898									
248042002	Tetryl	241 > 181			8187.898									
248042002	Nitrobenzene	123 > 46			8187.898									
248042002	4-Amino-26-dinitrotoluene	197 > 167			50757.082									
248042002	2-Amino-46-dinitrotoluene	197 > 180			50757.082									
248042002	246-Trinitrotoluene	227 > 210			50757.082									
248042002	34-dinitrotoluene	182 > 152	14.11	23749.041	50757.082	23749.041	233.948	bb		2.95	226.8856	90.8	-9.2	1049.7
248042002	26-dinitrotoluene	182 > 152			50757.082									
248042002	24-dinitrotoluene	182 > 152			50757.082			MM-	14-Apr-10	09:13:45				
248042002	26-dinitrotoluene-d3	185 > 155	17.06	50757.082		50757.082	50757.082	bb			725.4498	145.1	45.1	3235.4
248042002	2-Nitrotoluene	137 > 46			50757.082									
248042002	4-Nitrotoluene	137 > 46			50757.082									
248042002	3-Nitrotoluene	137 > 46			50757.082									
248042002	PETN	361 > 62			50757.082									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-12771

Lab Code: GEL

GEL Job No (SDG) 10-2057

Matrix: GROUND WATER

GEL Sample ID: 248042002

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050079.wiff

Date Analyzed: 06-APR-10 09:11

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ran 4/7/10

mple Name: "248042002" Sample ID: "958282|2|LER" File: "EXS04050079.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCX83212L" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 9:11:18 AM

fied: No

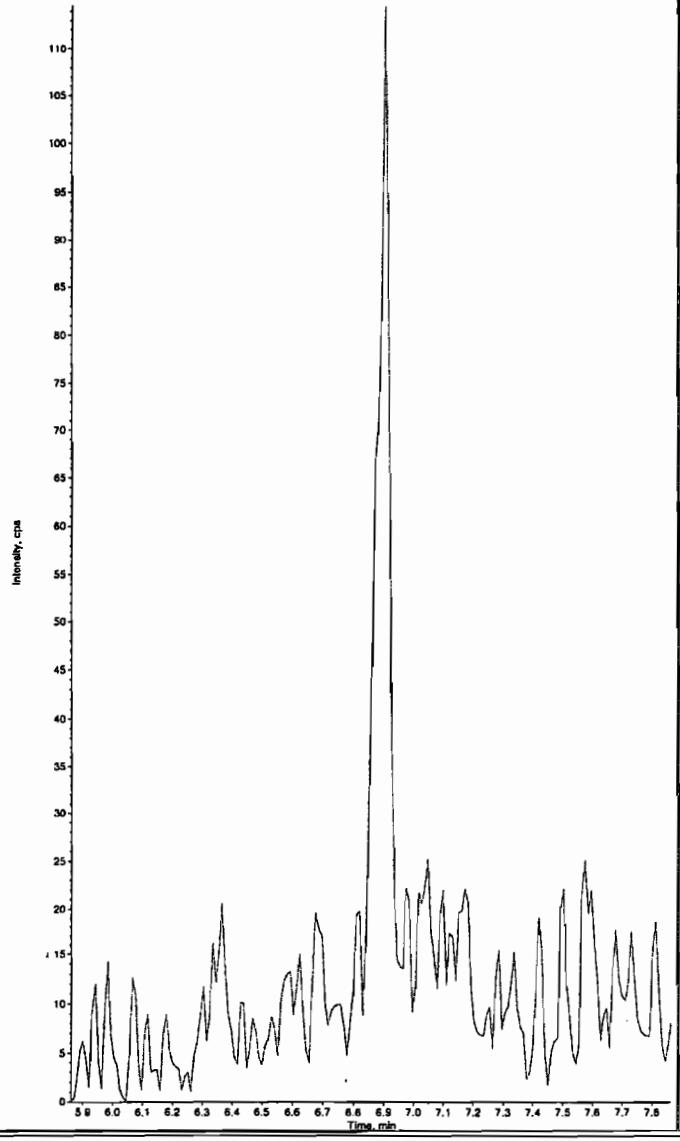

Sample Name: "248042002" Sample ID: "958282|2|LER" File: "EXS04050079.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 9:11:18 AM

Modified: No

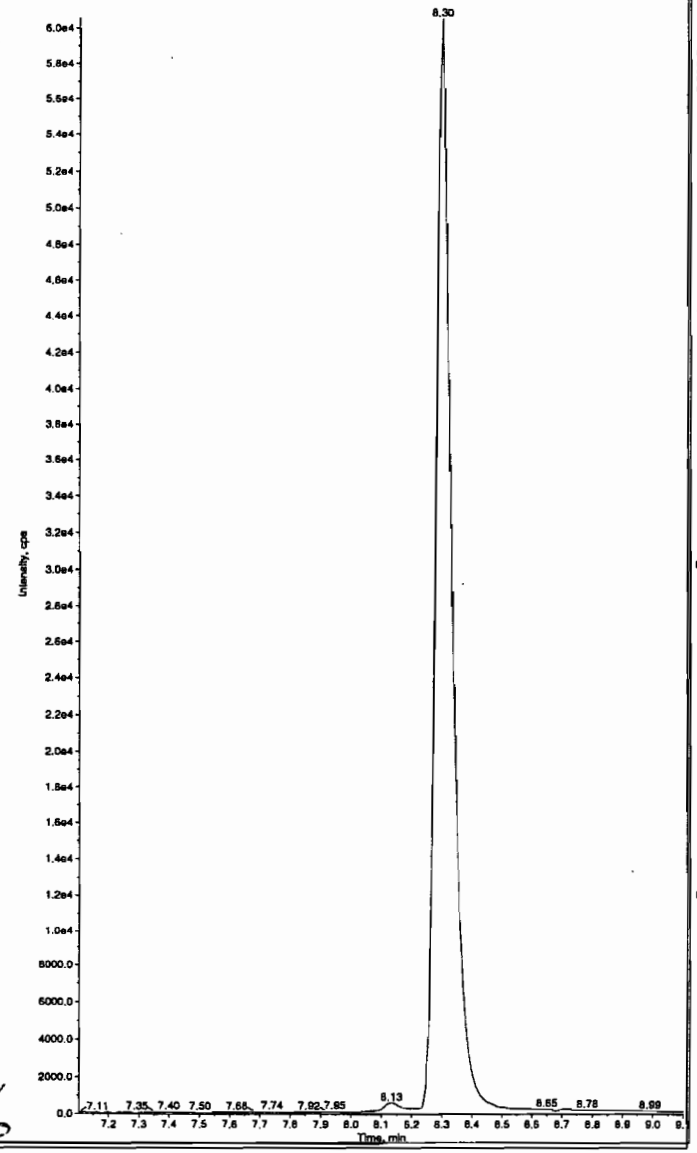

Hnmc 4/08/10

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EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

mple Name: "248042002" Sample ID: "958282|2|LER" File: "EXS04050079.wiff"
sk Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCX83212L" Annotation: ""

3/7

le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 244. ng/mL
Date: 4/6/2010
Time: 9:11:18 AM

fied: No
Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.28 min
Relative RT: No

Type: Valley
ntion Time: 8.29 min
: 2.08e+006 counts
ht: 526071.838 cps
t Time: 8.19 min
Time: 8.65 min

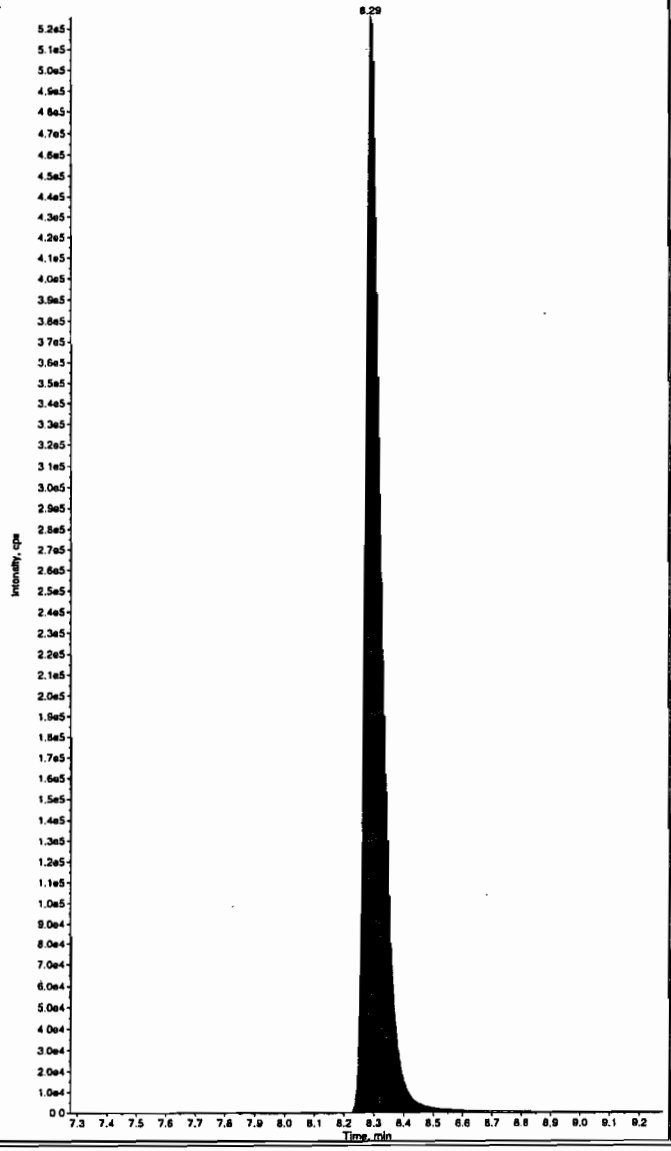

Sample Name: "248042002" Sample ID: "958282|2|LER" File: "EXS04050079.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 9:11:18 AM

Modified: No

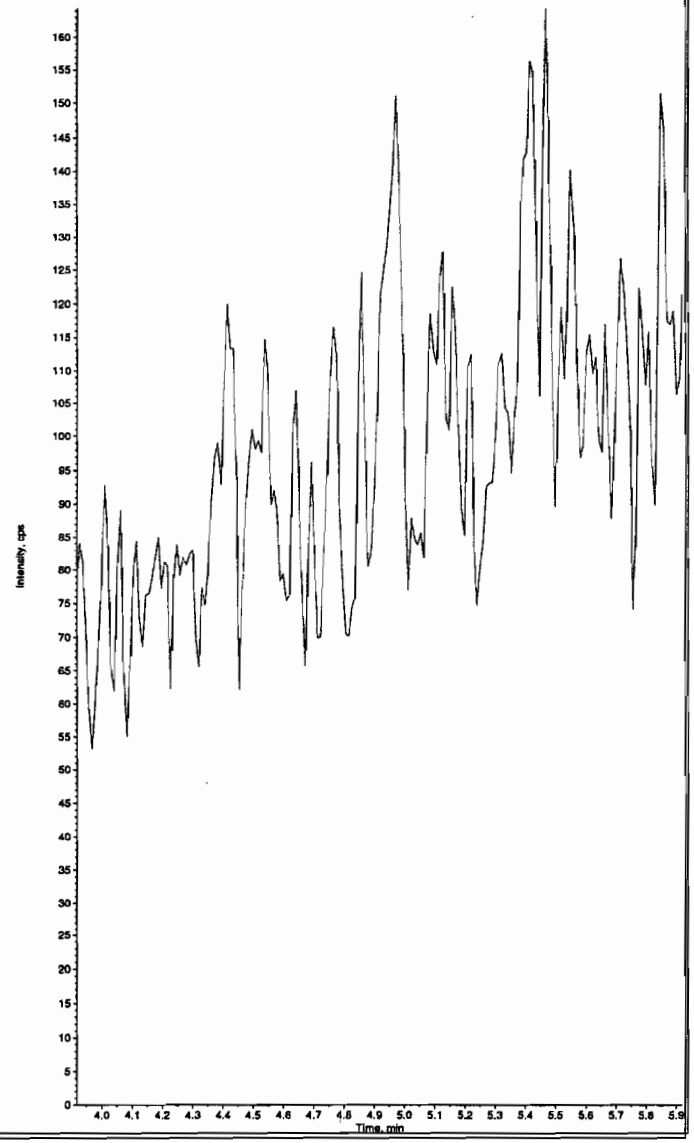

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ple Name: "248042002" Sample ID: "958282|2|LER" File: "EXS04050079.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCX83212L" Annotation: ""
le Index: 1
le Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 9:11:18 AM
fied: No

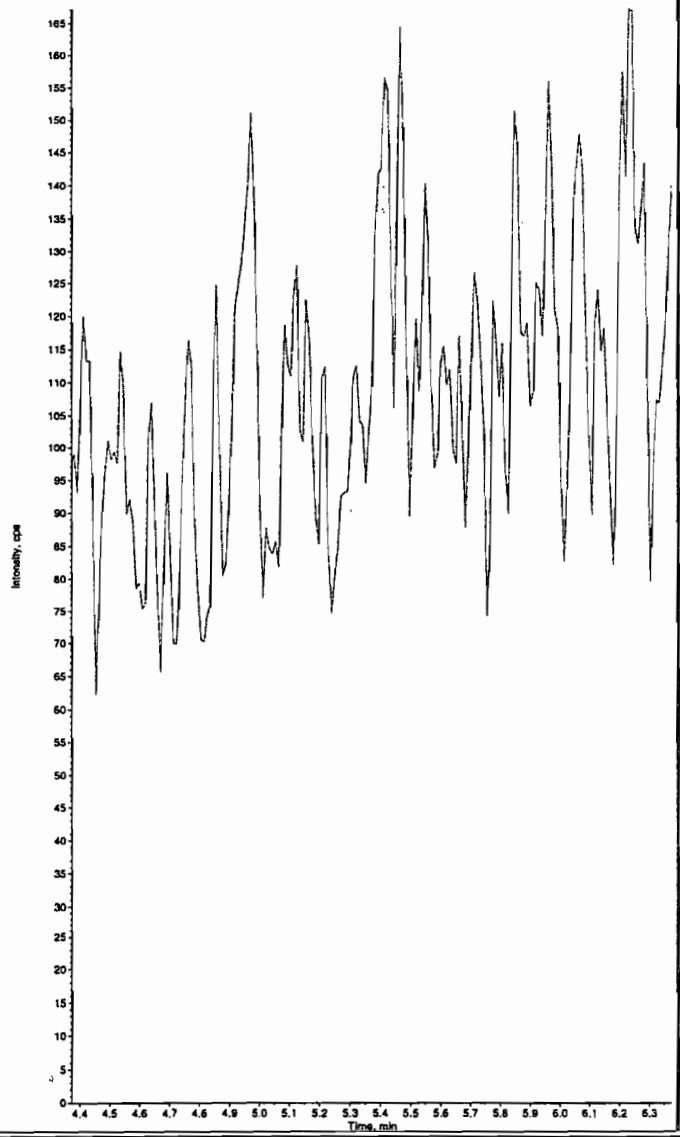

Sample Name: "248042002" Sample ID: "958282|2|LER" File: "EXS04050079.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 2.56 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 9:11:18 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 4.60e+004 counts
Height: 10860.024 cps
Start Time: 10.8 min
End Time: 11.0 min

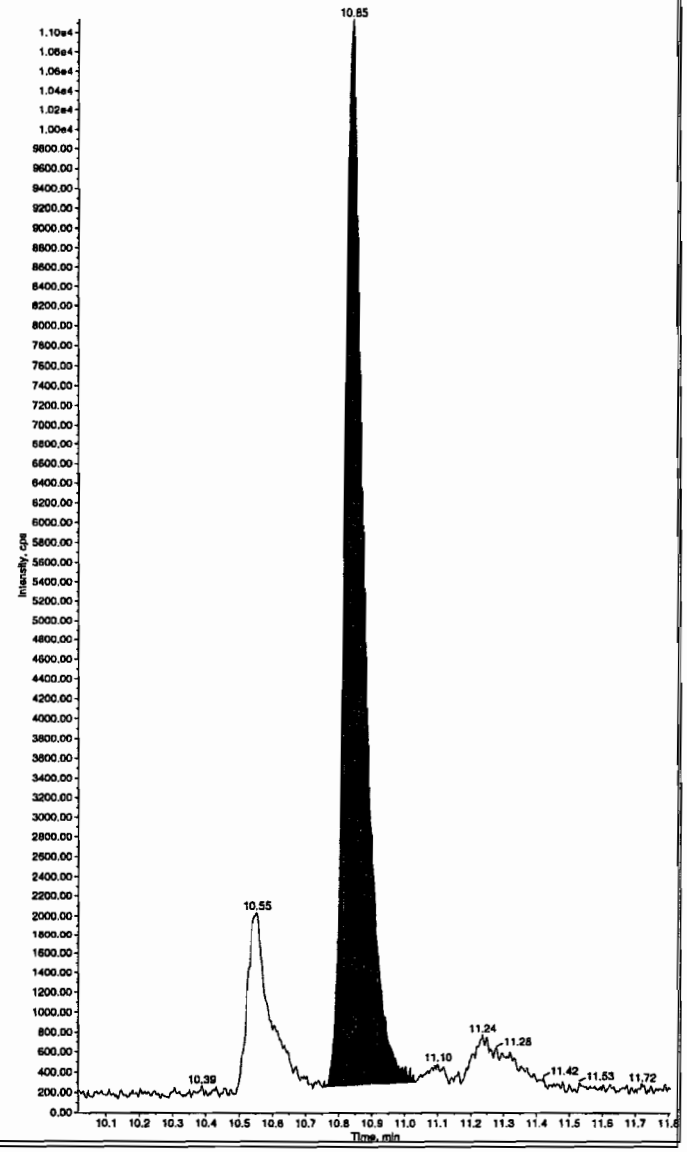

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13083

Lab Code: GEL

GEL Job No (SDG) 10-2057

Matrix: GROUND WATER

GEL Sample ID: 248042008

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412069a

Date Analyzed: 14-APR-10 01:06

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	HU
121-14-2	2,4-Dinitrotoluene	0.325	HU
121-82-4	RDX	0.325	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	HU
2691-41-0	HMX	0.325	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	HU
479-45-8	Tetryl	0.649	HU
606-20-2	2,6-Dinitrotoluene	0.325	HU
78-11-5	PETN	1.3	HU
88-72-2	o-Nitrotoluene	0.325	HU
98-95-3	Nitrobenzene	0.325	HU
99-08-1	m-Nitrotoluene	0.325	HU
99-35-4	1,3,5-Trinitrobenzene	0.325	HU
99-65-0	m-Dinitrobenzene	0.325	HU
99-99-0	p-Nitrotoluene	0.649	HU

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412069a
Date: 14-Apr-2010
Time: 01:06:44
ID: 248042008
Vial: 1:5,A

LANL/958282/GID/2/

MA 4/14/10

A23

XC: EXP0408116a

HMX
F2:MRM of 1 channel,AP-
176 > 102
5.850e+003

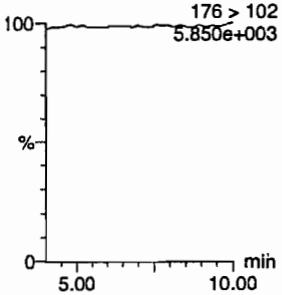

RDX
F2:MRM of 1 channel,AP-
176 > 102
5.850e+003

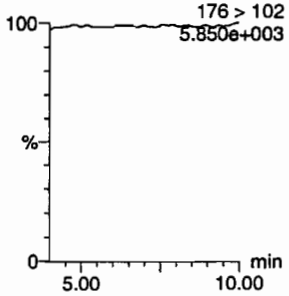

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.580e+003

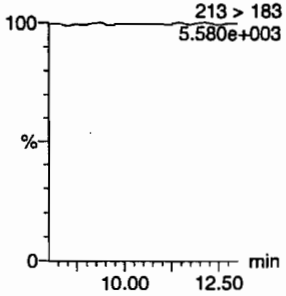

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.594e+004

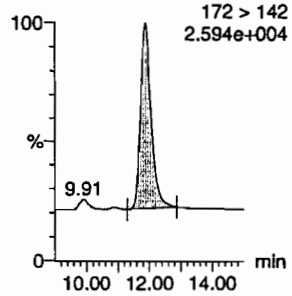

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.554e+003

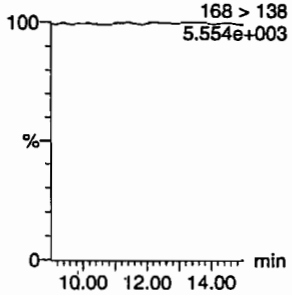

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.634e+003

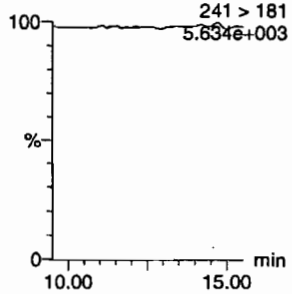

litrobenzene
F7:MRM of 1 channel,AP-
123 > 46
5.589e+003

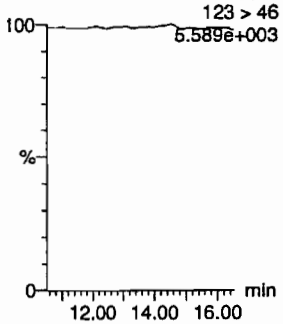

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.707e+003

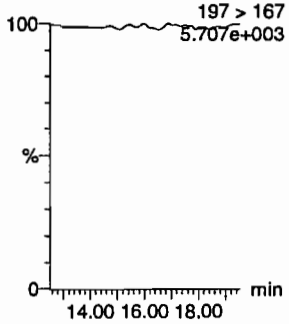

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.703e+003

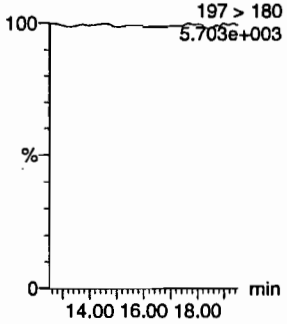

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.580e+003

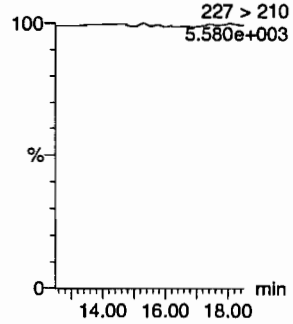

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
6.552e+004

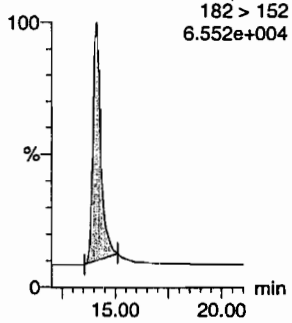

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.12
182 > 152
6.552e+004

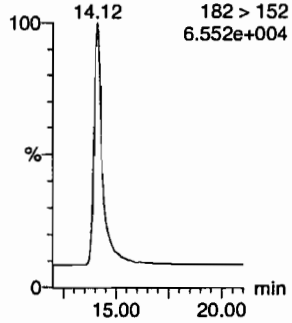

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uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

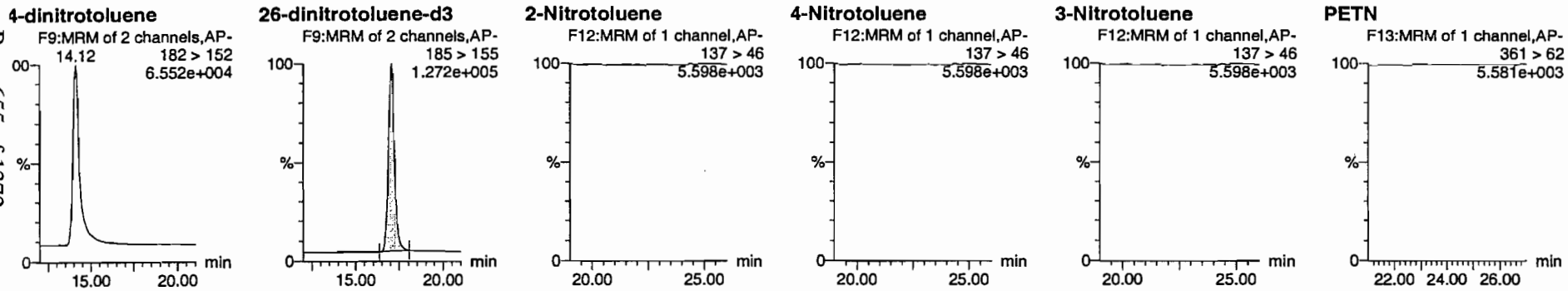

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
48042008	HMX	176 > 102			7898.727									
48042008	RDX	176 > 102			7898.727									
48042008	135-Trinitrobenzene	213 > 183			7898.727									
48042008	13-Dinitrobenzene-d4	172 > 142	11.87	7898.727		7898.727	7898.727	bb			671.6189	134.3	34.3	306.6
48042008	13-Dinitrobenzene	168 > 138			7898.727									
48042008	Tetryl	241 > 181			7898.727									
48042008	Nitrobenzene	123 > 46			7898.727									
48042008	4-Amino-26-dinitrotoluene	197 > 167			50043.180									
48042008	2-Amino-46-dinitrotoluene	197 > 180			50043.180									
48042008	246-Trinitrotoluene	227 > 210			50043.180					3.14				
48042008	34-dinitrotoluene	182 > 152	14.12	25050.719	50043.180	25050.719	250.291	bb			242.7352	97.1	-2.9	803.4
48042008	26-dinitrotoluene	182 > 152			50043.180									
48042008	24-dinitrotoluene	182 > 152			50043.180									
48042008	26-dinitrotoluene-d3	185 > 155	17.07	50043.180		50043.180	50043.180	bb			715.2463	143.0	43.0	3898.8
48042008	2-Nitrotoluene	137 > 46			50043.180									
48042008	4-Nitrotoluene	137 > 46			50043.180									
48042008	3-Nitrotoluene	137 > 46			50043.180									
48042008	PETN	361 > 62			50043.180									

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13083

Lab Code: GEL

GEL Job No (SDG) 10-2057

Matrix: GROUND WATER

GEL Sample ID: 248042008

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050080.wiff

Date Analyzed: 06-APR-10 09:26

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Ran 4/7/10

de Name: "248042008" Sample ID: "958282|2|LER" File: "EXS04050080.wiff"
Name: "TATB" Mass(es): "257.2/204.9 amu"
ment: "LCX83212L" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 9:26:59 AM

ied: No

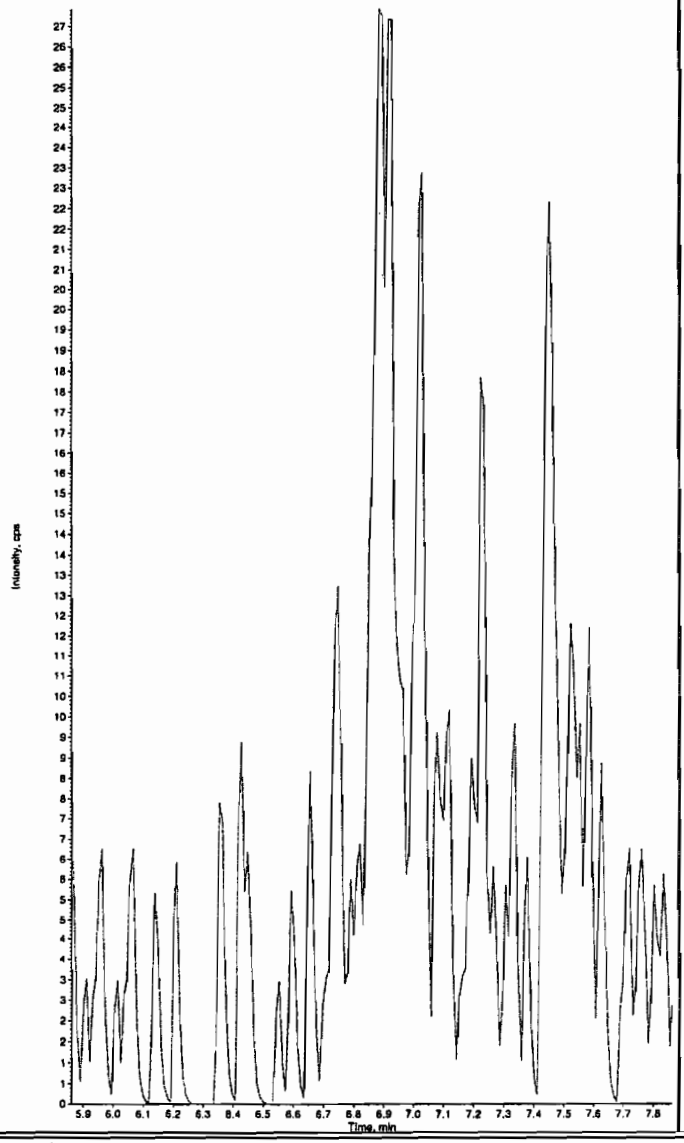

Sample Name: "248042008" Sample ID: "958282|2|LER" File: "EXS04050080.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 9:26:59 AM

Modified: No

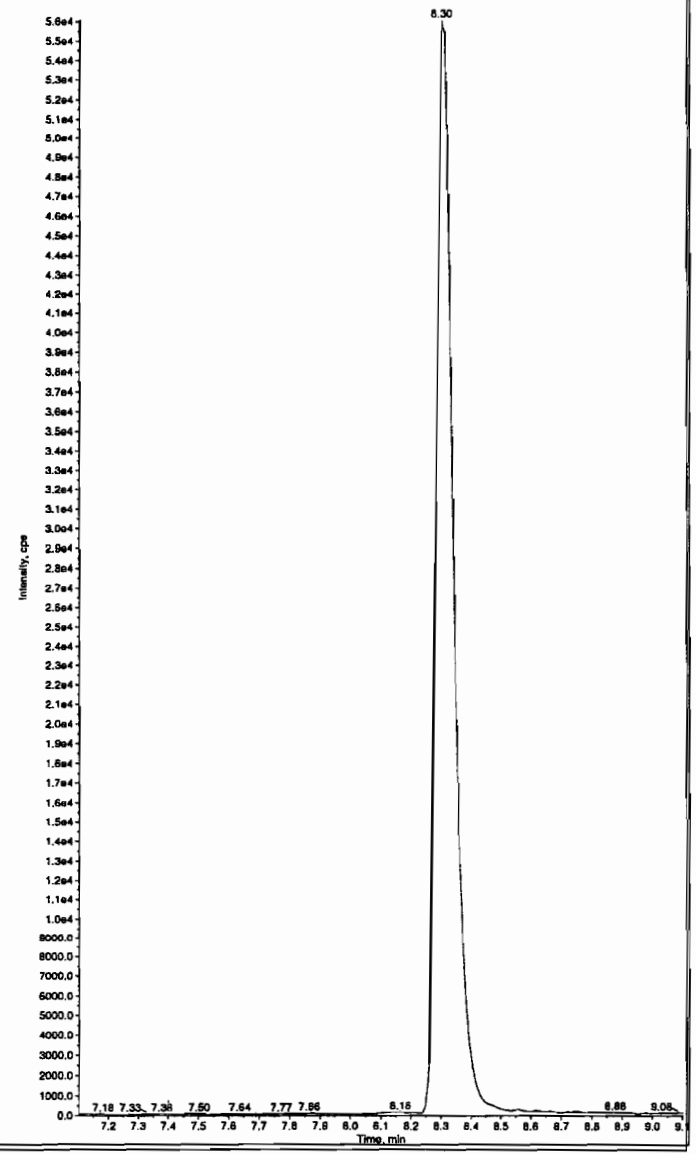

Hnm 04/08/10

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ple Name: "248042008" Sample ID: "958282|2|LER" File: "EXS04050080.wiff"
k Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nment: "LCX83212L" Annotation: ""
e Index: 1
e Type: Unknown
ntration: N/A
lated Conc: 249. ng/mL
Date: 4/6/2010
Time: 9:26:59 AM

3.23

ied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
hing Width: 3 points
ndow: 15.0 sec
cted RT: 8.28 min
Relative RT: No

Type: Valley
ation Time: 8.30 min
: 2.13e+006 counts
t: 530811.707 cps
: Time: 8.22 min
Time: 8.84 min

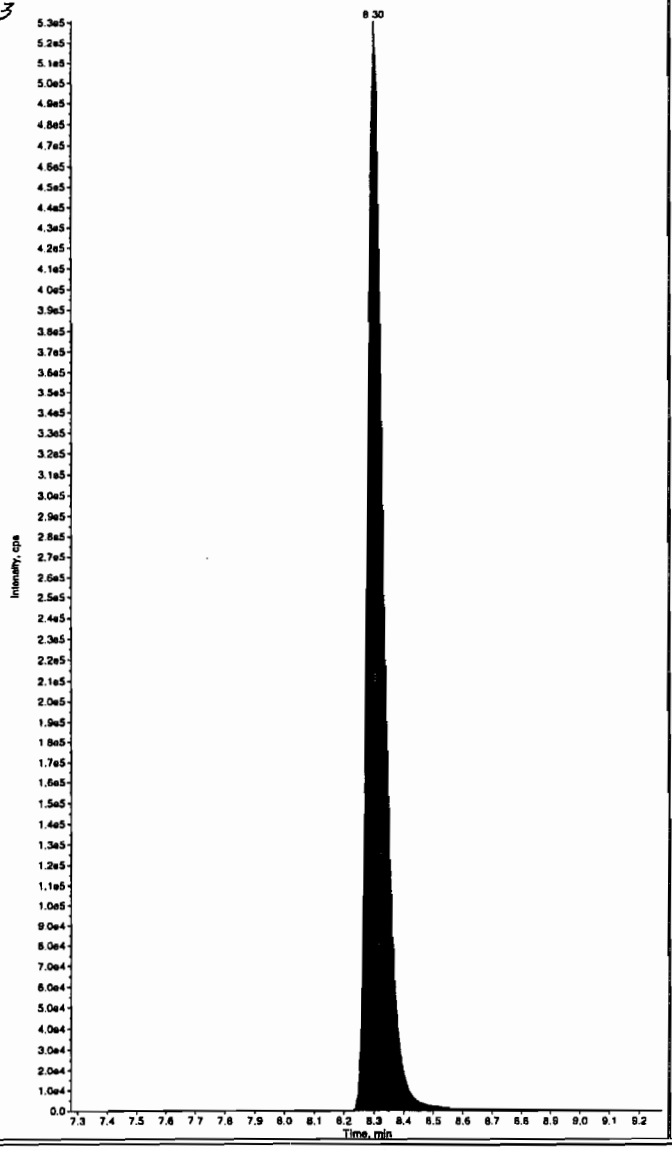

Sample Name: "248042008" Sample ID: "958282|2|LER" File: "EXS04050080.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 9:26:59 AM

Modified: No

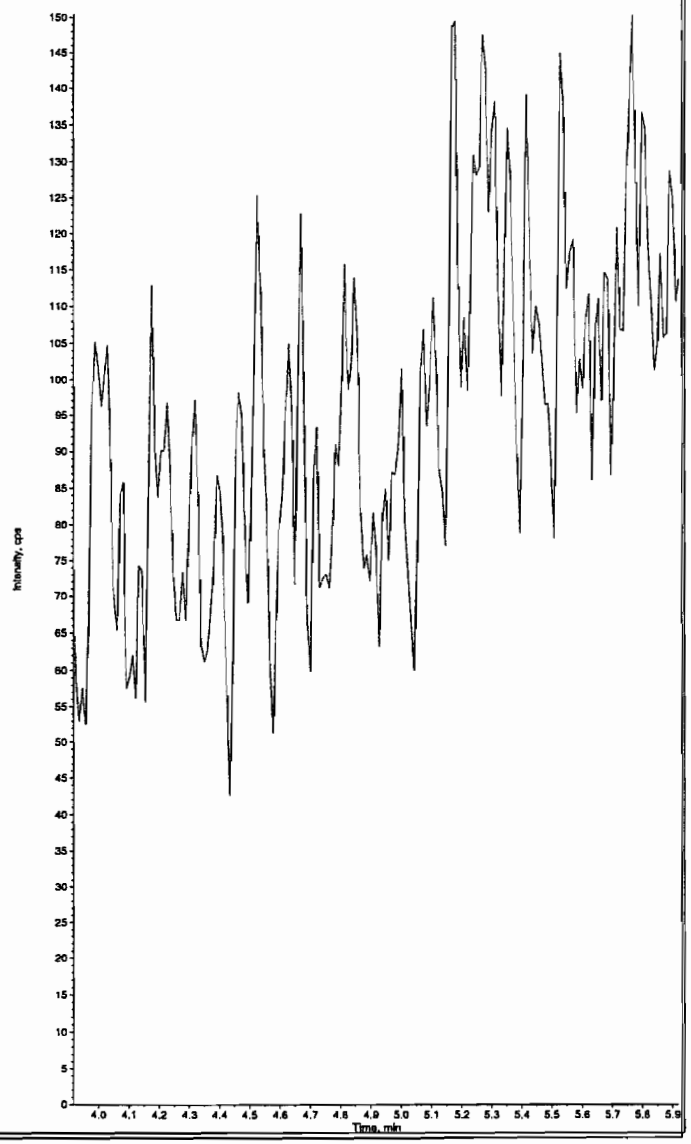

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "248042008" Sample ID: "958282|2|LER" File: "EXS04050080.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCX83212L" Annotation: ""
le Index: 1
le Type: Unknown
entration: N/A
ulated Conc: 0.00 ng/mL
Date: 4/6/2010
Time: 9:26:59 AM

fied: No

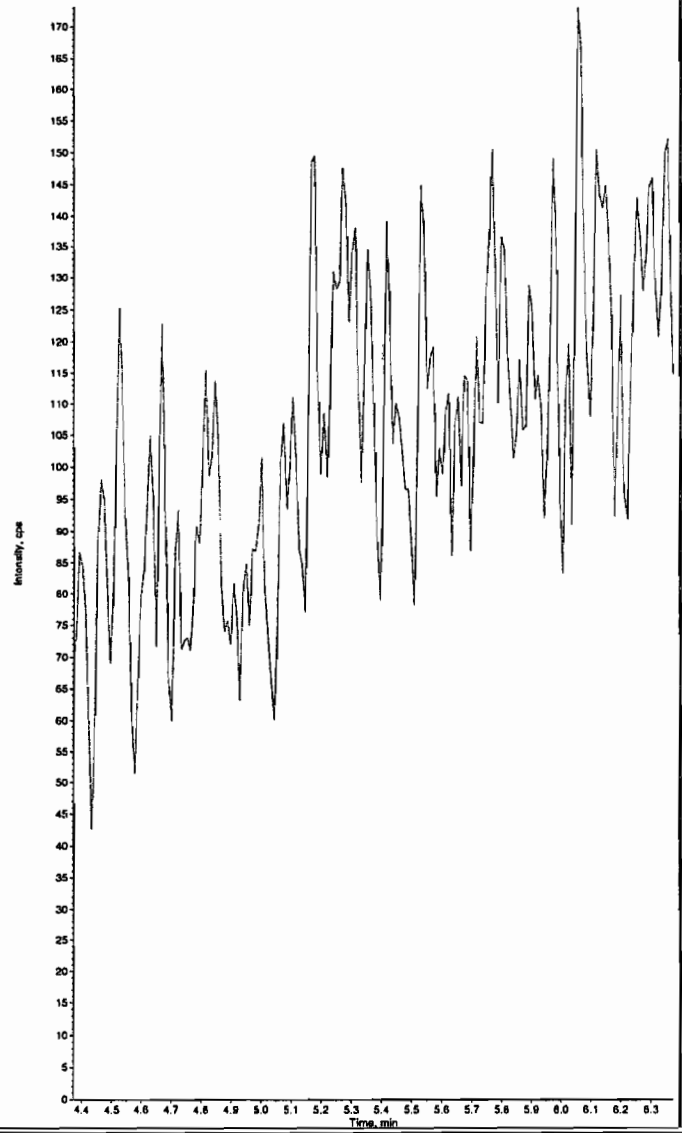

Sample Name: "248042008" Sample ID: "958282|2|LER" File: "EXS04050080.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 9:26:59 AM

Modified: No

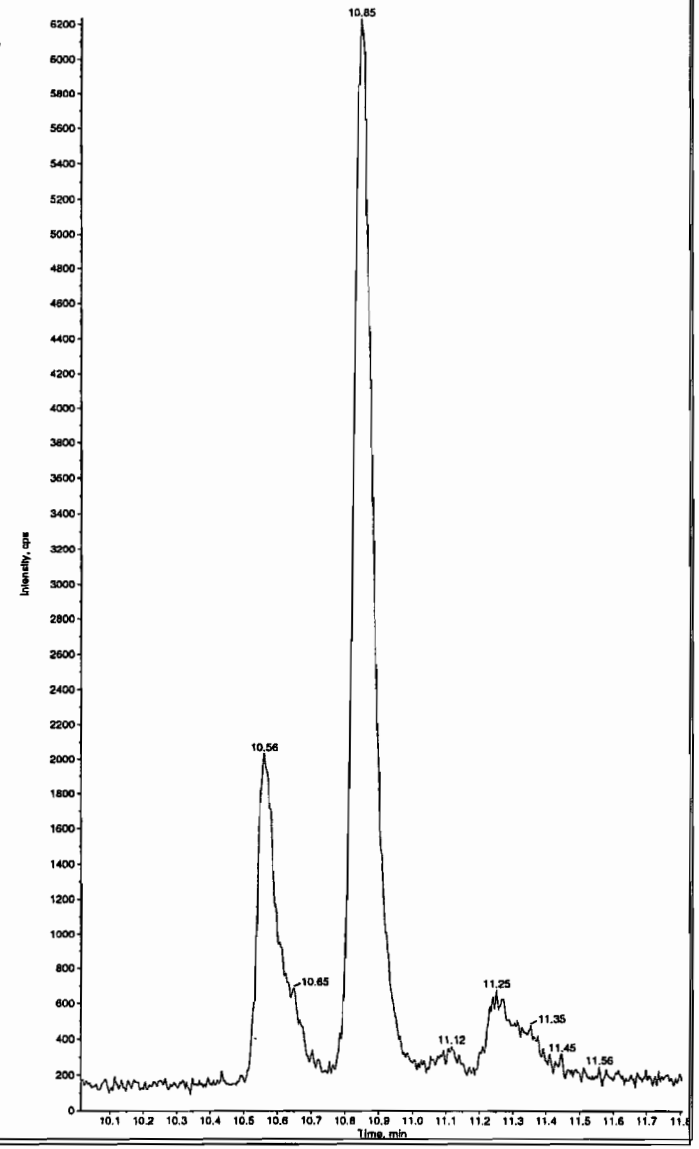

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13085

Lab Code: GEL

GEL Job No (SDG) 10-2057

Matrix: GROUND WATER

GEL Sample ID: 248042010

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408117a

Date Analyzed: 11-APR-10 06:37

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	0.325	HU
121-14-2	2,4-Dinitrotoluene	0.325	HU
121-82-4	RDX	0.325	HU
19406-51-0	4-Amino-2,6-dinitrotoluene	0.325	HU
2691-41-0	HMX	0.325	HU
35572-78-2	2-Amino-4,6-dinitrotoluene	0.325	HU
479-45-8	Tetryl	0.649	HU
606-20-2	2,6-Dinitrotoluene	0.325	HU
78-11-5	PETN	1.3	HU
88-72-2	o-Nitrotoluene	0.325	HU
98-95-3	Nitrobenzene	0.325	HU
99-08-1	m-Nitrotoluene	0.325	HU
99-35-4	1,3,5-Trinitrobenzene	0.325	HU
99-65-0	m-Dinitrobenzene	0.325	HU
99-99-0	p-Nitrotoluene	0.649	HU

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408117a
Date: 11-Apr-2010
Time: 06:37:48
ID: 248042010
Vial: 3:2,B

LANL | 958252 | LIQ | 2

MA 4/14/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
6.035e+003

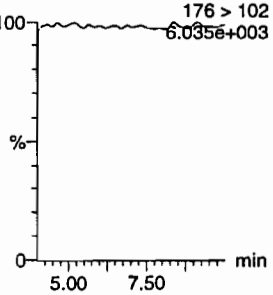

RDX
F2:MRM of 1 channel,AP-
176 > 102
6.035e+003

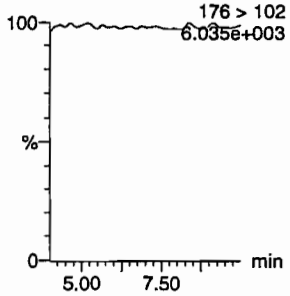

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
5.786e+003

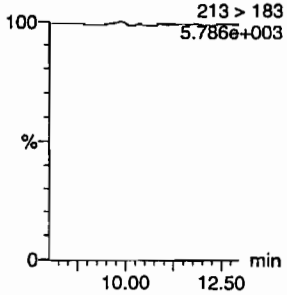

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.581e+004

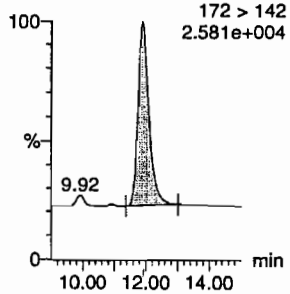

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
5.759e+003

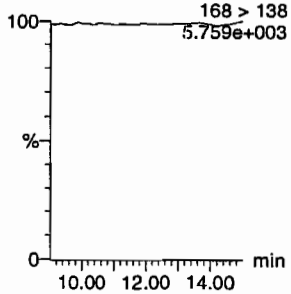

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
5.788e+003

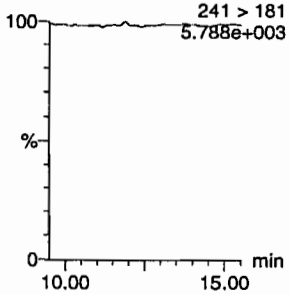

Nitrobenzene
F7:MRM of 1 channel,AP-
12.15
123 > 46
6.015e+003

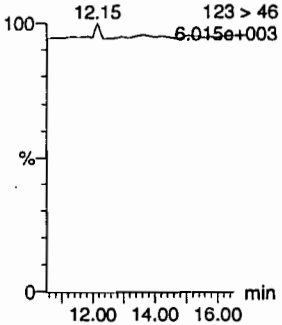

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.853e+003

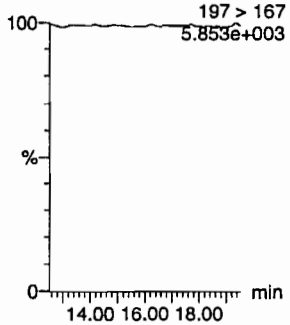

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
12.52
197 > 180
5.933e+003

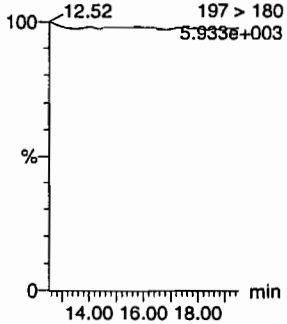

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.760e+003

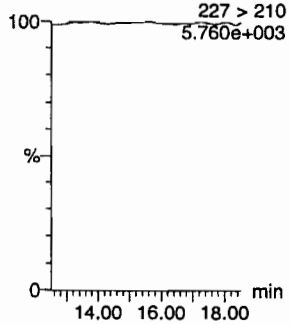

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.795e+004

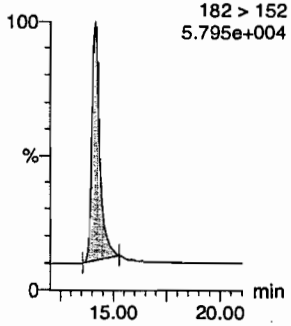

26-dinitrotoluene
F9:MRM of 2 channels,AP-
14.17
182 > 152
5.795e+004

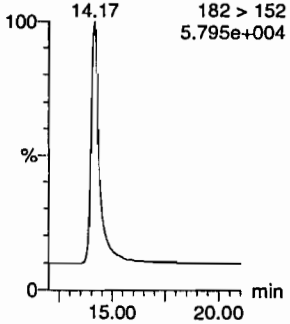

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

4-dinitrotoluene

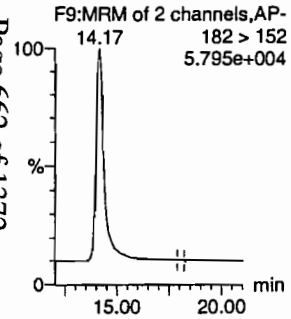

26-dinitrotoluene-d3

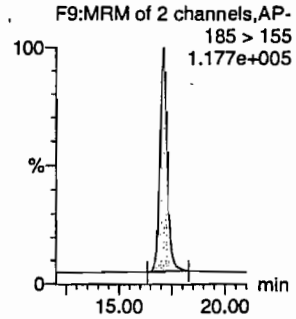

2-Nitrotoluene

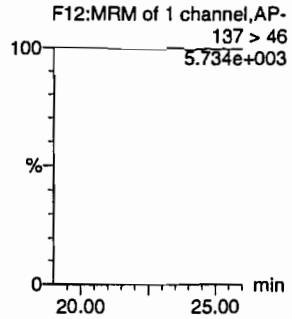

4-Nitrotoluene

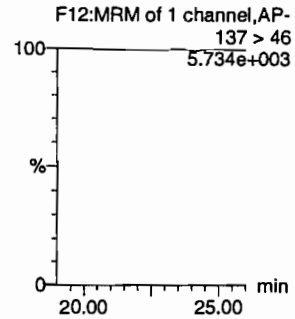

3-Nitrotoluene

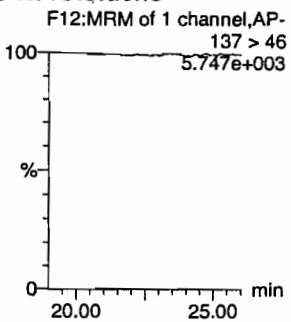

PETN

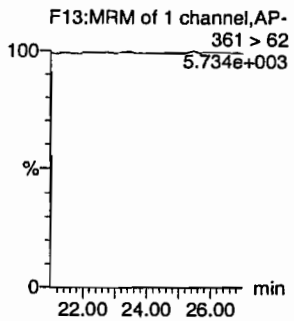

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
248042010	HMX	176 > 102			8004.894									
248042010	RDX	176 > 102			8004.894									
248042010	135-Trinitrobenzene	213 > 183			8004.894									
248042010	13-Dinitrobenzene-d4	172 > 142	11.90	8004.894		8004.894	8004.894	bb			615.9459	123.2	23.2	1065.1
248042010	13-Dinitrobenzene	168 > 138			8004.894									
248042010	Tetryl	241 > 181			8004.894									
248042010	Nitrobenzene	123 > 46			8004.894									
248042010	4-Amino-26-dinitrotoluene	197 > 167			46127.328									
248042010	2-Amino-46-dinitrotoluene	197 > 180			46127.328									
248042010	246-Trinitrotoluene	227 > 210			46127.328									
248042010	34-dinitrotoluene	182 > 152	14.17	22117.996	46127.328	22117.996	239.749	bb			233.7695	93.5	-6.5	1119.5
248042010	26-dinitrotoluene	182 > 152			46127.328									
248042010	24-dinitrotoluene	182 > 152			46127.328			MM-	11-Apr-10	11:44:37				
248042010	26-dinitrotoluene-d3	185 > 155	17.12	46127.328		46127.328	46127.328	bb			584.2070	116.8	16.8	1447.4
248042010	2-Nitrotoluene	137 > 46			46127.328									
248042010	4-Nitrotoluene	137 > 46			46127.328									
248042010	3-Nitrotoluene	137 > 46			46127.328									
248042010	PETN	361 > 62			46127.328									

3.02

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: CAPA-10-13085

Lab Code: GEL

GEL Job No (SDG) 10-2057

Matrix: GROUND WATER

GEL Sample ID: 248042010

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 25-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050081.wiff

Date Analyzed: 06-APR-10 09:42

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Kan 4/7/10

ample Name: "248042010" Sample ID: "958282|2|LER" File: "EXS04050081.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCX83212L" Annotation: ""
ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 4/6/2010
. Time: 9:42:40 AM

ified: No

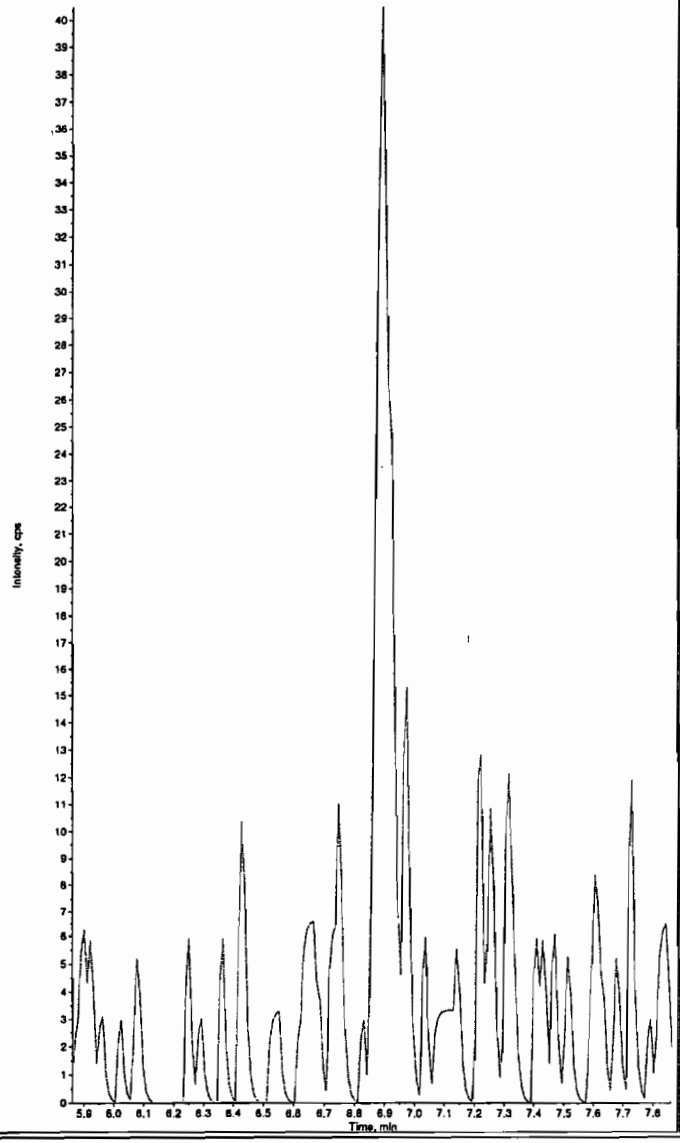

Sample Name: "248042010" Sample ID: "958282|2|LER" File: "EXS04050081.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 9:42:40 AM

Modified: No

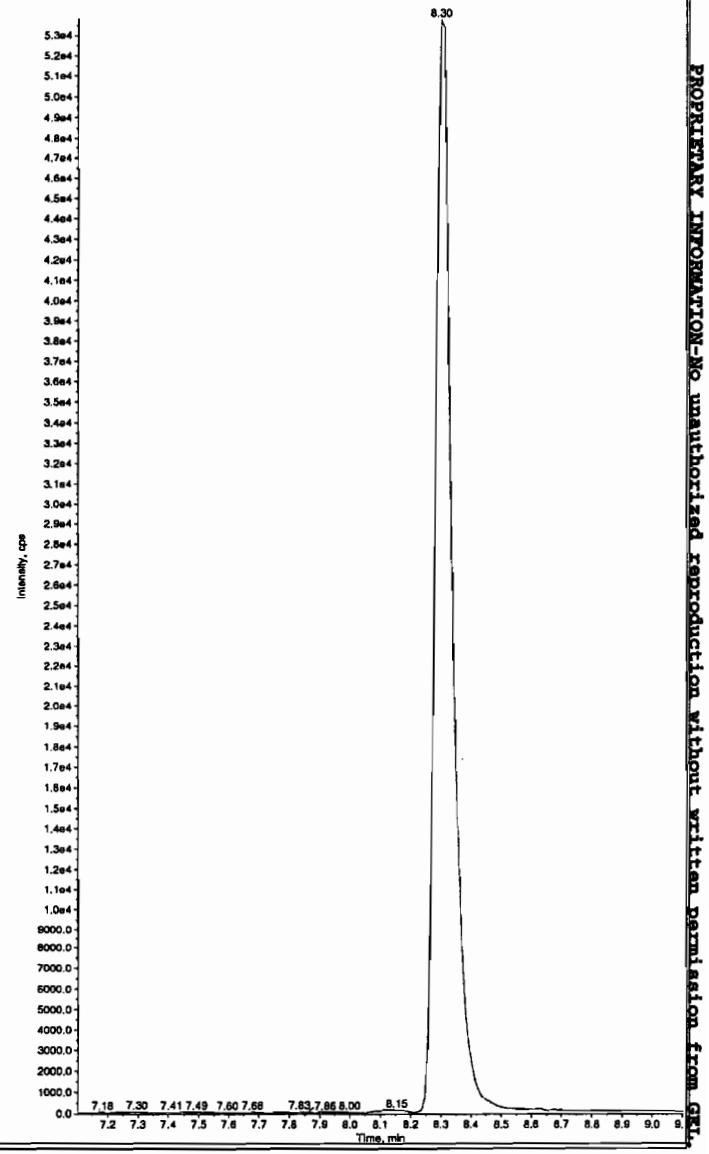

Hmk 04/08/10

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Sample Name: "248042010" Sample ID: "958282|2|LER" File: "EXS04050081.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 243. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 9:42:40 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 1460.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.28 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.30 min
Area: 2.07e+006 counts
Height: 526479.614 cps
Start Time: 8.15 min
End Time: 8.82 min

3/15

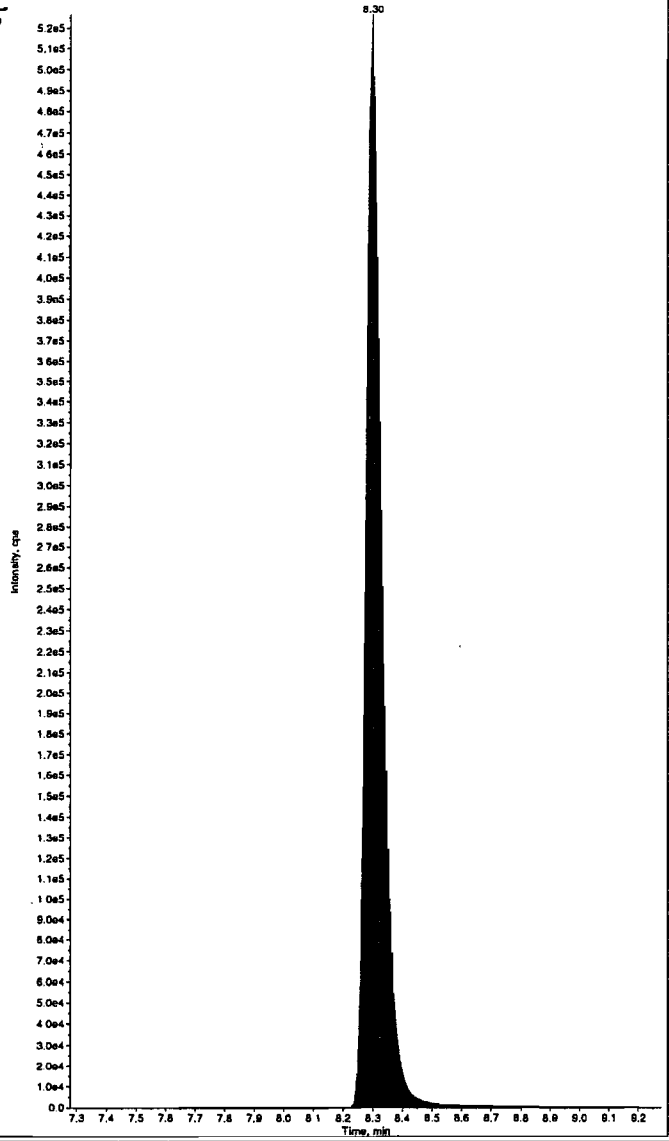

Sample Name: "248042010" Sample ID: "958282|2|LER" File: "EXS04050081.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 9:42:40 AM

Modified: No

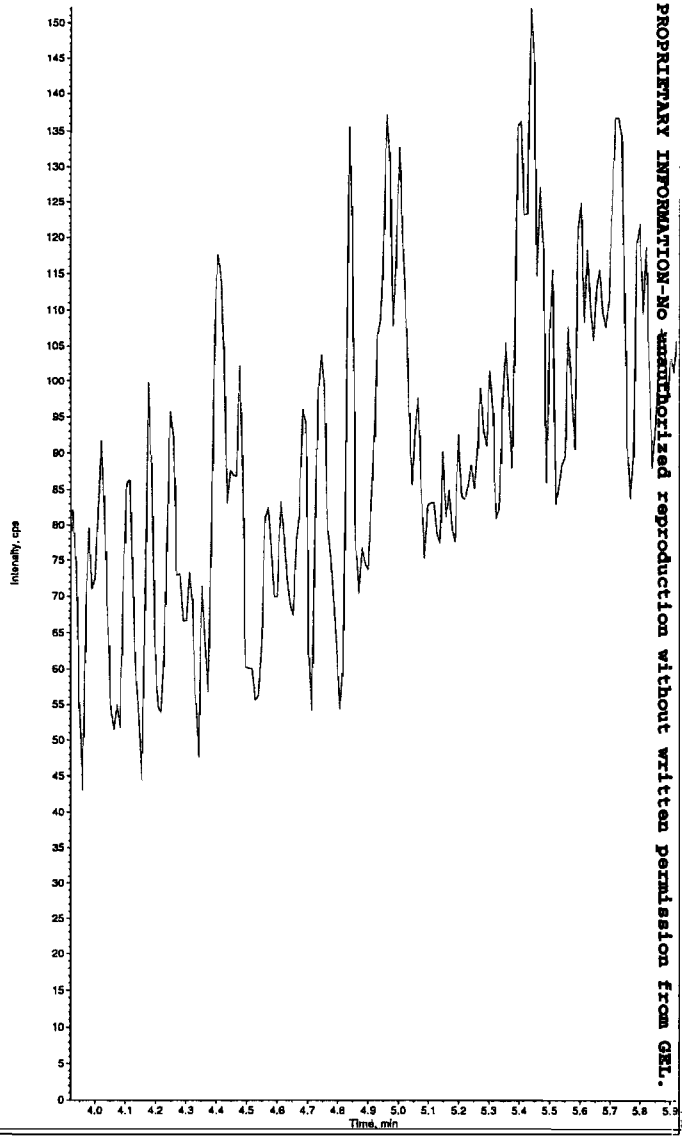

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ample Name: "248042010" Sample ID: "958282|2|LER" File: "EXS04050081.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCX83212L" Annotation: **

ple Index: 1
ple Type: Unknown
centration: N/A
culated Conc: 0.00 ng/mL
. Date: 4/6/2010
. Time: 9:42:40 AM

ified: No

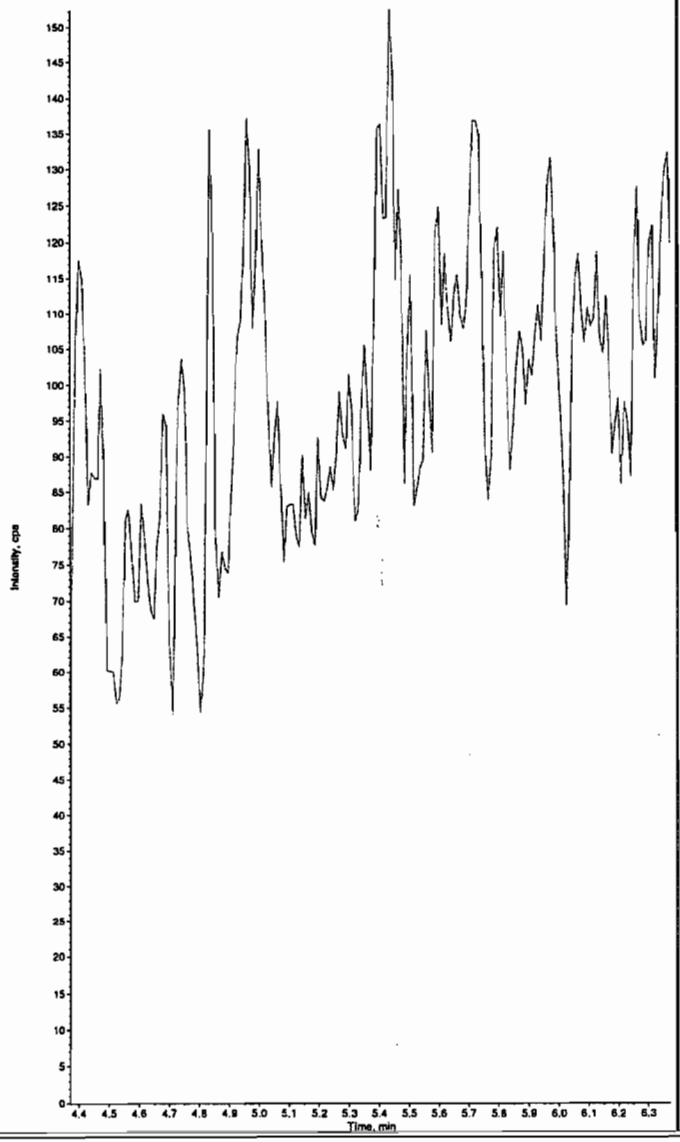

Sample Name: "248042010" Sample ID: "958282|2|LER" File: "EXS04050081.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: **

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 9:42:40 AM

Modified: No

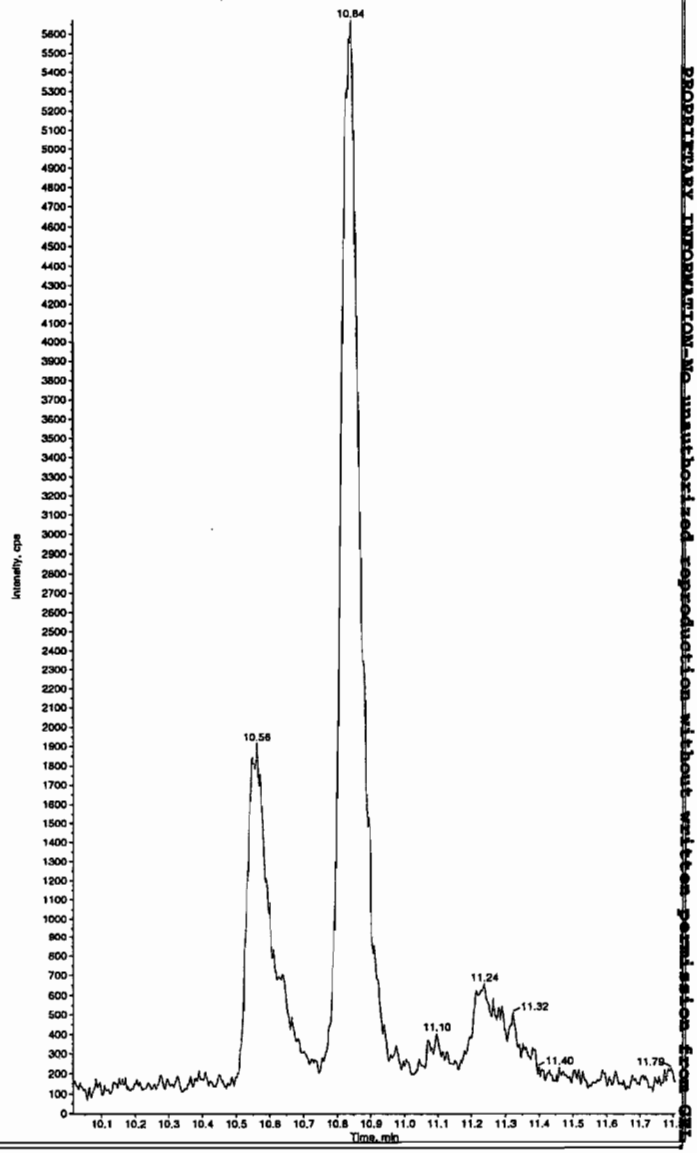

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STANDARDS DATA

SW846 8321A Modified-Explosives
Calibration Standard Concentration Levels

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	CCV
3,4-Dinitrotoluene (Surrogate)	12.5	25	100	200	400	500		300
Primary Analytes								
HMX	25	50	200	400	800	1000	na	600
RDX	25	50	200	400	800	1000	na	600
DNX	25	50	200	400	800	1000	na	600
MNX	25	50	200	400	800	1000	na	600
TNX	25	50	200	400	800	1000	na	600
1,3,5-Trinitrobenzene	25	50	200	400	800	1000	na	600
1,3-Dinitrobenzene	25	50	200	400	800	1000	na	600
Nitrobenzene	25	50	200	400	800	1000	na	600
Tetryl	25	50	200	400	800	1000	na	600
Nitroglycerin	50	100	200	400	800	1000	na	600
2,4,6-Trinitrotoluene	25	50	200	400	800	1000	na	600
2-Amino-4,6-dinitrotoluene	25	50	200	400	800	1000	na	600
4-Amino-2,6-dinitrotoluene	25	50	200	400	800	1000	na	600
2,4-Dinitrotoluene	25	50	200	400	800	1000	na	600
2,6-Dinitrotoluene	25	50	200	400	800	1000	na	600
2-Nitrotoluene	25	50	200	400	800	1000	na	600
4-Nitrotoluene	25	50	200	400	800	1000	an	600
3-Nitrotoluene	25	50	200	400	800	1000	na	600
PETN	25	50	200	400	800	1000	na	600
Picric Acid	200	400	1600	3200	6400	8000	na	4800
3,4-Dinitrotoluene (Surrogate)	25	50	125	250	375	500	1000	250
Secondary Analytes								
2,4-Diamino-6-nitrotoluene	50	100	250	500	750	1000	2000	500
2,6-Diamino-4-nitrotoluene	50	100	250	500	750	1000	2000	500
3,5-Dinitroaniline	50	100	250	500	750	1000	2000	500
TATB	50	100	250	500	750	1000	2000	500
tris(o-Cresyl)phosphate	50	100	250	500	750	1000	2000	500

All values are ug/L without the prep factor

Calibration Levels 8321A-Modified-EXPL.xls (08/09A)

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2057

Lab Code: GEL

Run Date: 05-APR-10,08-APR-10,09-APR-10,12-APR-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	1	2	3	4	5	6	Ave RF	RSD	Q
Data File:	EXP0408003a	EXP0408004a	EXP0408005a	EXP0408006a	EXP0408007a	EXP0408008a			
Parmname									
1,3,5-Trinitrobenzene	4.687	4.464	3.962	4.008	4.099	4.121	4.224	6.807	
1,3-Dinitrobenzene-d4	13.523	13.591	13.387	13.023	12.673	11.779	12.996	5.301	
2,4,6-Trinitrotoluene	.332	.381	.371	.383	.429	.412	0.385	8.792	
2,4-Dinitrotoluene	.302	.264	.237	.241	.272	.273	0.265	9.006	
2,6-Dinitrotoluene	1.178	1.135	1.114	1.112	1.154	1.132	1.138	2.211	
2,6-Dinitrotoluene-d3	82.492	84.272	82.213	78.859	74.94	70.968	78.957	6.49	
2-Amino-4,6-dinitrotoluene	.404	.418	.456	.474	.496	.493	0.457	8.404	
3,4-Dinitrotoluene	.965	1.047	1.023	1.004	1.066	1.048	1.026	3.585	
4-Amino-2,6-dinitrotoluene	.311	.305	.298	.303	.328	.321	0.311	3.669	
HMX	3.229	3.048	3.107	3.23	3.277	3.275	3.194	2.968	
Nitrobenzene	.708	.557	.552	.603	.597	.59	0.601	9.362	
RDX	2.156	2.344	2.394	2.481	2.636	2.61	2.437	7.364	
Tetryl	.912	1.015	.955	1.05	1.137	1.108	1.030	8.455	
m-Dinitrobenzene	1.273	1.293	1.249	1.293	1.314	1.306	1.288	1.832	
m-Nitrotoluene	.063	.061	.049	.049	.049	.057	0.055	11.935	
o-Nitrotoluene	.089	.079	.071	.074	.076	.073	0.077	8.462	
p-Nitrotoluene	.038	.043	.037	.038	.039	.038	0.039	5.09	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2057

Lab Code: GEL

Run Date: 05-APR-10,08-APR-10,09-APR-10,12-APR-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	1	2	3	4	5	6	X	X^2	Intercept	COD	Q
Data File:	EXP0408003a	EXP0408004a	EXP0408005a	EXP0408006a	EXP0408007a	EXP0408008a					
Parmname:											
PETN	1630.9	3370.45	12155.9	21436.3	37797.5	42677.4	.732	-.0001338	3.275	.9999	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Method: C:\MASSLYNX\New_Exp.PRO\MethDB\040810expa.mdb, Time: Fri Apr 09 10:24:44 2010
Calibration: Untitled, Time: Fri Apr 09 10:54:52 2010

Compound name: HMX
Response Factor: 3.19424
RRF SD: 0.0948173, % Relative SD: 2.96839
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

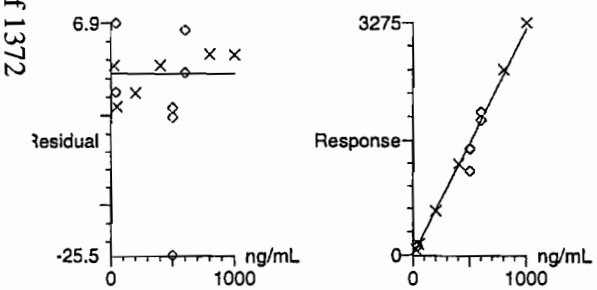

MMT 4/10/10

Compound name: RDX
Response Factor: 2.43687
RRF SD: 0.179446, % Relative SD: 7.36382
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

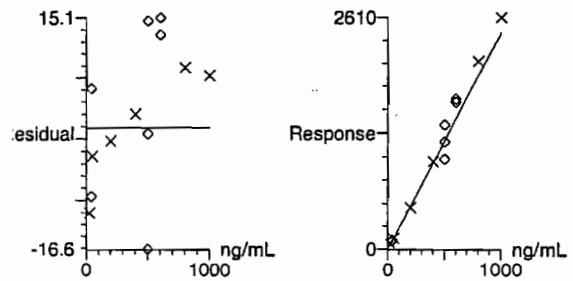

MMT 04/11/10

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ıtaset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

ompound name: 135-Trinitrobenzene
esponse Factor: 4.22335
RF SD: 0.287497, % Relative SD: 6.80733
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

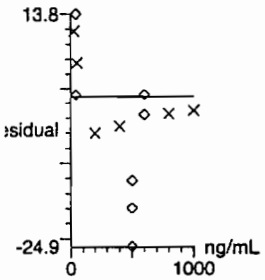

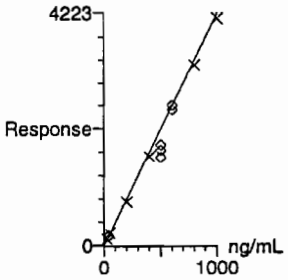

ompound name: 13-Dinitrobenzene-d4
esponse Factor: 12.9961
RF SD: 0.688911, % Relative SD: 5.30091
esponse type: External Std, Area
urve type: RF

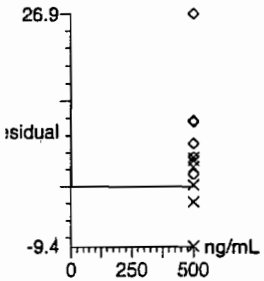

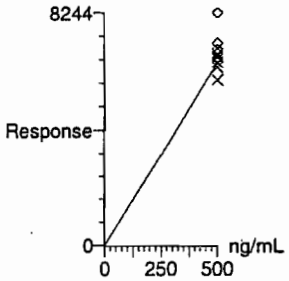

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Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Compound name: 13-Dinitrobenzene
Response Factor: 1.28787
RRF SD: 0.0235993, % Relative SD: 1.83243
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

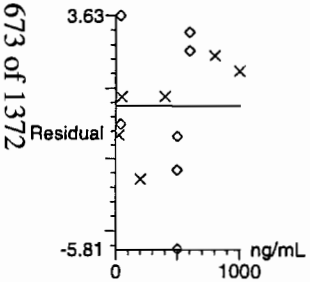

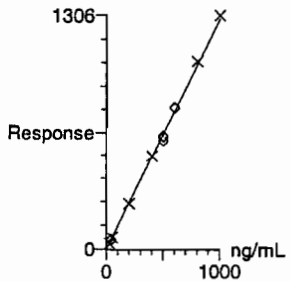

Compound name: Tetryl
Response Factor: 1.02957
RRF SD: 0.0870508, % Relative SD: 8.45507
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

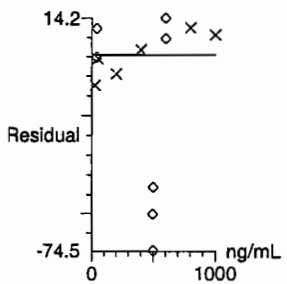

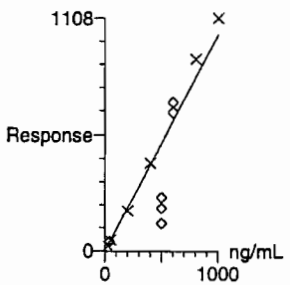

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Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Compound name: Nitrobenzene
Response Factor: 0.601003
RRF SD: 0.0562669, % Relative SD: 9.36216
Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
Curve type: RF

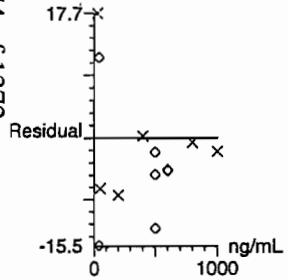

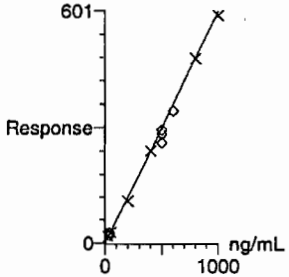

Compound name: 4-Amino-26-dinitrotoluene
Response Factor: 0.311292
RRF SD: 0.0114211, % Relative SD: 3.66892
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

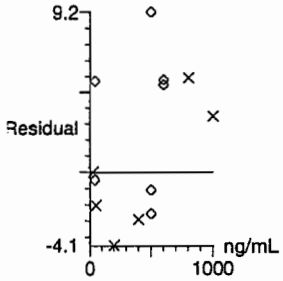

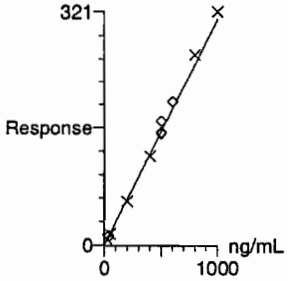

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Compound name: 2-Amino-46-dinitrotoluene
Response Factor: 0.45683
RRF SD: 0.0383897, % Relative SD: 8.4035
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

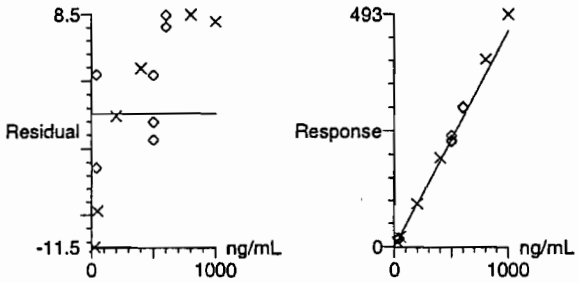

Compound name: 246-Trinitrotoluene
Response Factor: 0.384794
RRF SD: 0.0338323, % Relative SD: 8.79231
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

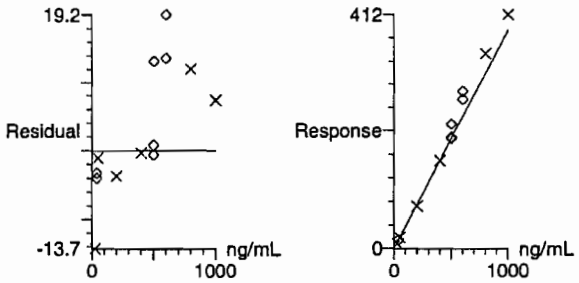

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Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Compound name: 34-dinitrotoluene
Response Factor: 1.02558
RF SD: 0.0367625, % Relative SD: 3.58456
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

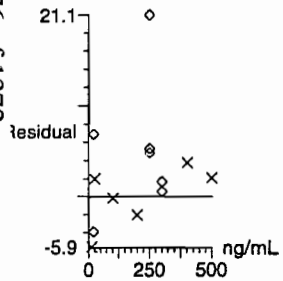

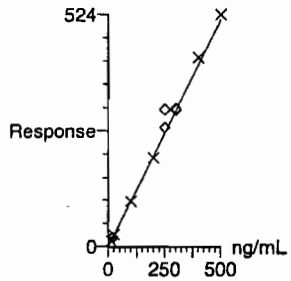

Compound name: 26-dinitrotoluene
Response Factor: 1.13734
RF SD: 0.0251449, % Relative SD: 2.21085
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

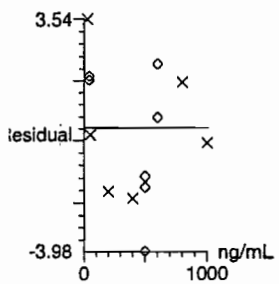

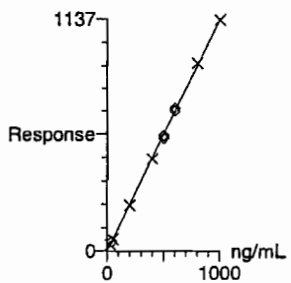

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ataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

ompound name: 24-dinitrotoluene
esponse Factor: 0.264734
RF SD: 0.0238421, % Relative SD: 9.00607
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

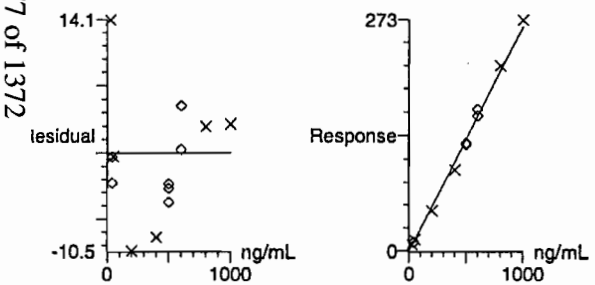

ompound name: 26-dinitrotoluene-d3
esponse Factor: 78.9572
RF SD: 5.12457, % Relative SD: 6.49031
esponse type: External Std, Area
urve type: RF

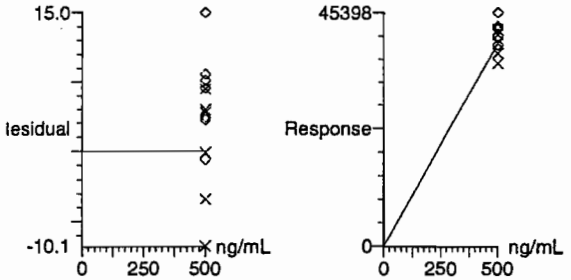

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Compound name: 2-Nitrotoluene
Response Factor: 0.0767614
RRF SD: 0.00649593, % Relative SD: 8.46249
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

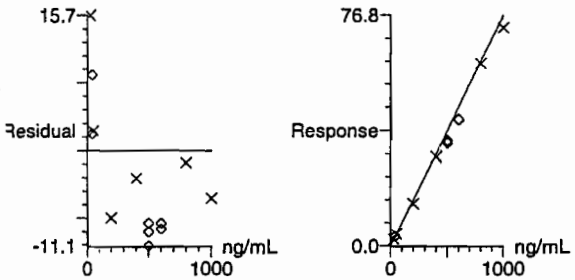

Compound name: 4-Nitrotoluene
Response Factor: 0.0388638
RRF SD: 0.00197819, % Relative SD: 5.09006
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

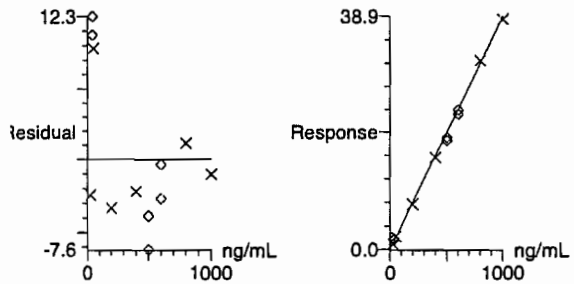

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Compound name: 3-Nitrotoluene
Response Factor: 0.0545972
RRF SD: 0.00651612, % Relative SD: 11.9349
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

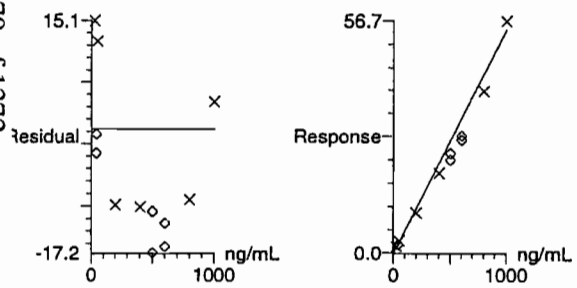

Compound name: PETN
Coefficient of Determination: 0.999915
Calibration curve: -0.000133771 * x^2 + 0.732159 * x + 3.27481
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None

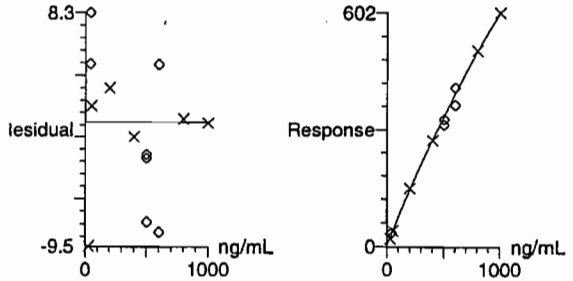

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ataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408003a
ate: 08-Apr-2010
ime: 22:31:48
): WXX100408-01
ial: 1:2,A

MAT 4/10/10

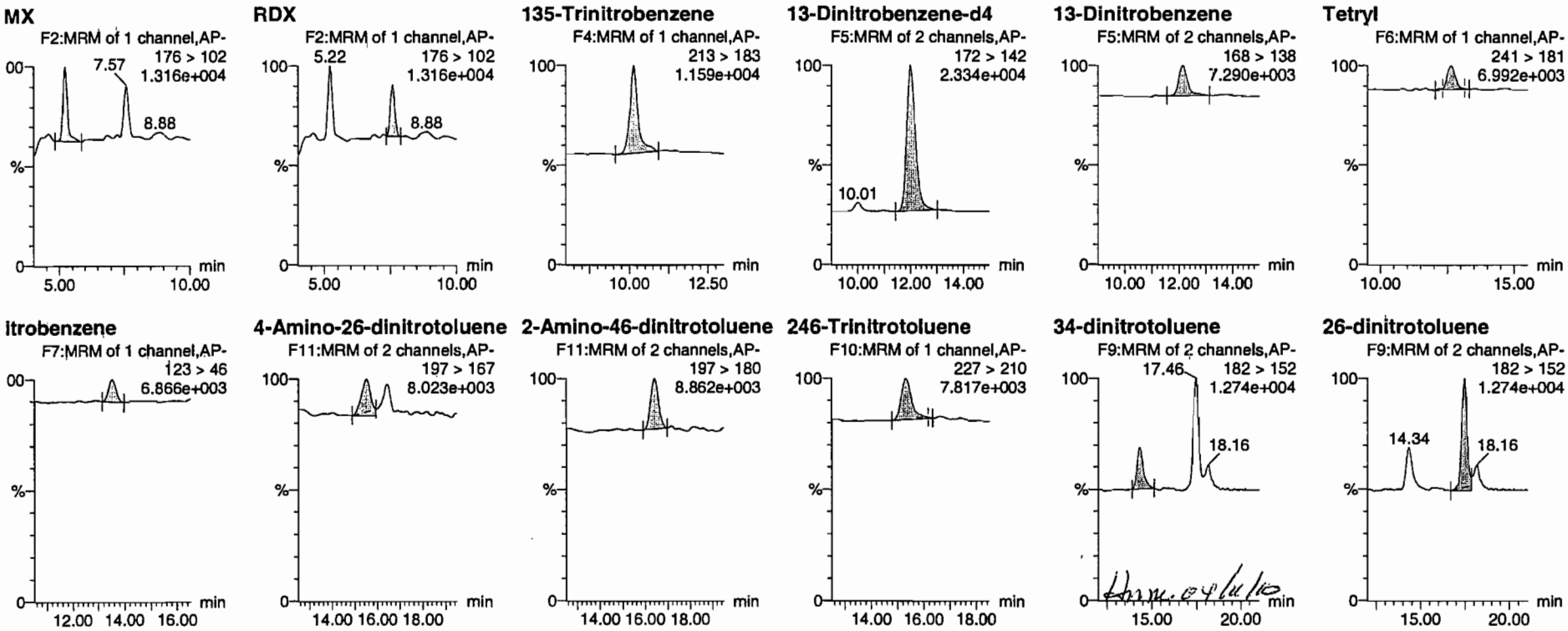

HMM 04/14/10

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Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

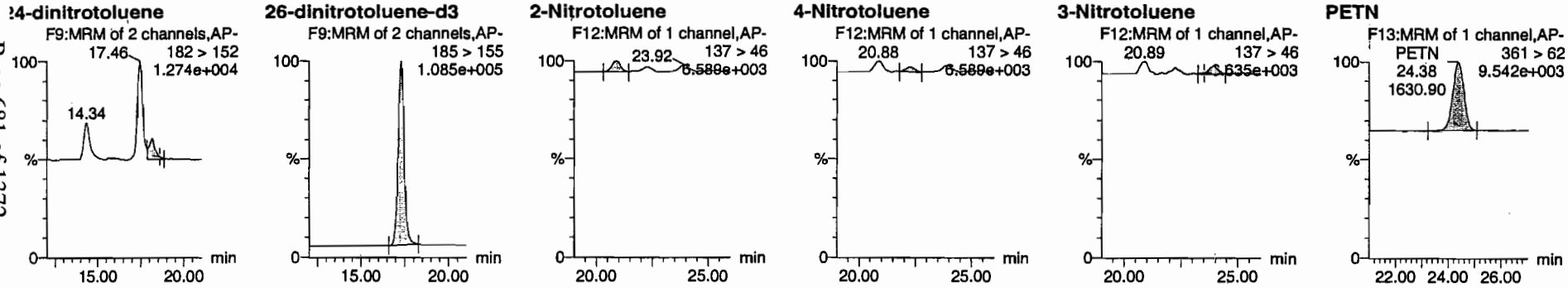

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
WXX100408-01	HMX	176 > 102	5.22	1091.802	6761.654	1091.802	80.735	bb			25.2752	101.1	1.1	30.2
WXX100408-01	RDX	176 > 102	7.57	728.995	6761.654	728.995	53.907	bb			22.1213	88.5	-11.5	21.0
WXX100408-01	135-Trinitrobenzene	213 > 183	10.14	1584.537	6761.654	1584.537	117.171	bb			27.7436	111.0	11.0	118.4
WXX100408-01	13-Dinitrobenzene-d4	172 > 142	12.00	6761.654		6761.654	6761.654	bb			520.2833	104.1	4.1	962.2
WXX100408-01	13-Dinitrobenzene	168 > 138	12.14	430.248	6761.654	430.248	31.815	bb			24.7038	98.8	-1.2	45.5
WXX100408-01	Tetryl	241 > 181	12.63	308.314	6761.654	308.314	22.799	MM	09-Apr-10	10:42:36	22.1439	88.6	-11.4	17.1
WXX100408-01	Nitrobenzene	123 > 46	13.54	239.200	6761.654	239.200	17.688	bb			29.4307	117.7	17.7	28.3
WXX100408-01	4-Amino-26-dinitrotoluene	197 > 167	15.49	642.043	41245.910	642.043	7.783	MM	09-Apr-10	10:43:25	25.0026	100.0	0.0	8.6
WXX100408-01	2-Amino-46-dinitrotoluene	197 > 180	16.41	833.536	41245.910	833.536	10.104	bb			22.1187	88.5	-11.5	23.8
WXX100408-01	246-Trinitrotoluene	227 > 210	15.31	684.811	41245.910	684.811	8.302	MM	09-Apr-10	10:53:43	21.5741	86.3	-13.7	43.8
WXX100408-01	34-dinitrotoluene	182 > 152	14.34	995.111	41245.910	995.111	12.063	bb			11.7623	94.1	-5.9	18.4
WXX100408-01	26-dinitrotoluene	182 > 152	17.46	2428.607	41245.910	2428.607	29.441	MM	09-Apr-10	10:45:48	25.8855	103.5	3.5	49.6
WXX100408-01	24-dinitrotoluene	182 > 152	18.16	622.780	41245.910	622.780	7.550	MM	09-Apr-10	10:48:21	28.5176	114.1	14.1	10.8
WXX100408-01	26-dinitrotoluene-d3	185 > 155	17.29	41245.910		41245.910	41245.910	bb			522.3833	104.5	4.5	4709.0
WXX100408-01	2-Nitrotoluene	137 > 46	20.88	183.226	41245.910	183.226	2.221	bb			28.9356	115.7	15.7	32.8
WXX100408-01	4-Nitrotoluene	137 > 46	22.26	77.736	41245.910	77.736	0.942	bb			24.2474	97.0	-3.0	14.5
WXX100408-01	3-Nitrotoluene	137 > 46	23.95	129.573	41245.910	129.573	1.571	MM	09-Apr-10	10:52:52	28.7695	115.1	15.1	15.8
WXX100408-01	PETN	361 > 62	24.38	1630.897	41245.910	1630.897	19.770	bb			22.6236	90.5	-9.5	53.8

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408004a
Date: 08-Apr-2010
Time: 23:01:17
ID: WXX100408-02
Vial: 1:2,B

MM 4/10/10

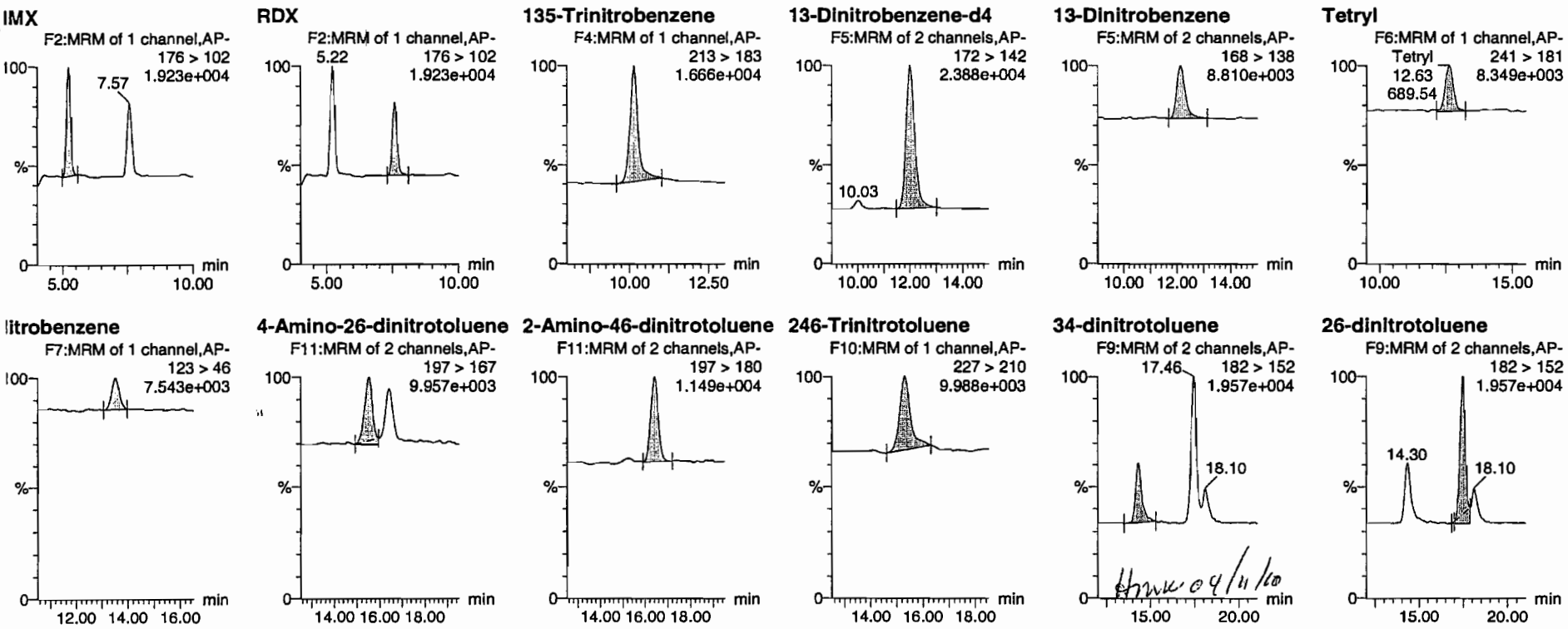

HMW 04/11/10

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Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

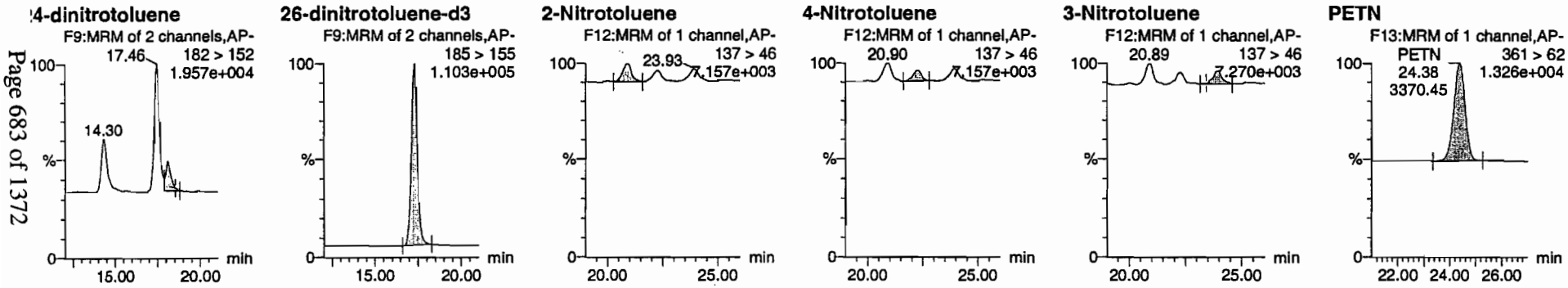

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
VXX100408-02	HMX	176 > 102	5.22	2071.210	6795.654	2071.210	152.392	bb			47.7085	95.4	-4.6	162.3
VXX100408-02	RDX	176 > 102	7.57	1592.856	6795.654	1592.856	117.197	bb			48.0932	96.2	-3.8	108.8
VXX100408-02	135-Trinitrobenzene	213 > 183	10.14	3033.288	6795.654	3033.288	223.179	bb			52.8440	105.7	5.7	186.2
VXX100408-02	13-Dinitrobenzene-d4	172 > 142	12.00	6795.654		6795.654	6795.654	bb			522.8995	104.6	4.6	543.0
VXX100408-02	13-Dinitrobenzene	168 > 138	12.10	878.481	6795.654	878.481	64.636	bb			50.1878	100.4	0.4	121.0
VXX100408-02	Tetryl	241 > 181	12.63	689.543	6795.654	689.543	50.734	db			49.2770	98.6	-1.4	59.0
VXX100408-02	Nitrobenzene	123 > 46	13.54	378.812	6795.654	378.812	27.872	bb			46.3752	92.8	-7.2	26.4
VXX100408-02	4-Amino-26-dinitrotoluene	197 > 167	15.53	1287.167	42135.762	1287.167	15.274	MM	09-Apr-10	10:43:14	49.0665	98.1	-1.9	35.2
VXX100408-02	2-Amino-46-dinitrotoluene	197 > 180	16.41	1762.401	42135.762	1762.401	20.913	bb			45.7793	91.6	-8.4	133.5
VXX100408-02	246-Trinitrotoluene	227 > 210	15.31	1604.706	42135.762	1604.706	19.042	bb			49.4865	99.0	-1.0	171.1
VXX100408-02	34-dinitrotoluene	182 > 152	14.30	2206.385	42135.762	2206.385	26.182	bb			25.5288	102.1	2.1	76.6
VXX100408-02	26-dinitrotoluene	182 > 152	17.46	4780.886	42135.762	4780.886	56.732	MM	09-Apr-10	10:45:58	49.8812	99.8	-0.2	189.4
VXX100408-02	24-dinitrotoluene	182 > 152	18.10	1111.143	42135.762	1111.143	13.185	MM	09-Apr-10	10:48:35	49.8057	99.6	-0.4	42.8
VXX100408-02	26-dinitrotoluene-d3	185 > 155	17.29	42135.762		42135.762	42135.762	bb			533.6534	106.7	6.7	3979.8
VXX100408-02	2-Nitrotoluene	137 > 46	20.90	330.889	42135.762	330.889	3.926	bb			51.1515	102.3	2.3	64.1
VXX100408-02	4-Nitrotoluene	137 > 46	22.26	179.532	42135.762	179.532	2.130	bb			54.8170	109.6	9.6	37.1
VXX100408-02	3-Nitrotoluene	137 > 46	23.96	258.094	42135.762	258.094	3.063	MM	09-Apr-10	10:52:23	56.0953	112.2	12.2	23.4
VXX100408-02	PETN	361 > 62	24.38	3370.452	42135.762	3370.452	39.995	bb			50.6217	101.2	1.2	875.1

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Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408005a
Date: 08-Apr-2010
Time: 23:30:47
ID: WXX100408-03
Vial: 1:2,C

MM 4/10/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.22 5.058e+004
8317.98
7.59

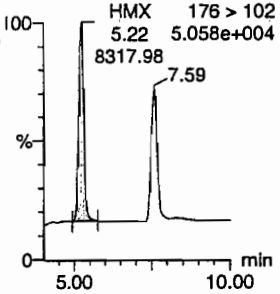

RDX
F2:MRM of 1 channel,AP-
5.22 176 > 102
5.058e+004
RDX
7.59
6408.75

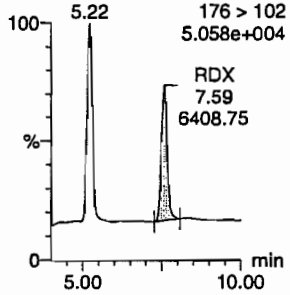

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
4.247e+004

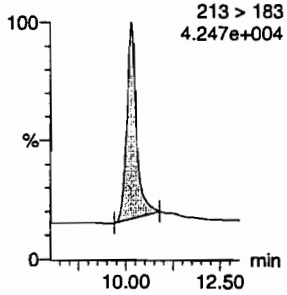

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.327e+004

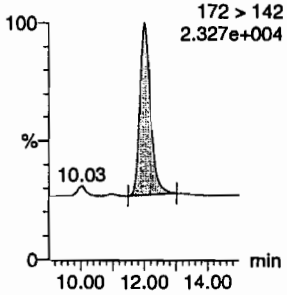

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.497e+004

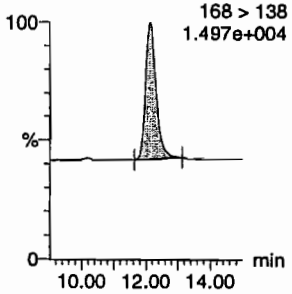

Tetryl
F6:MRM of 1 channel,AP-
Tetryl 241 > 181
12.63 1.372e+004
2556.66

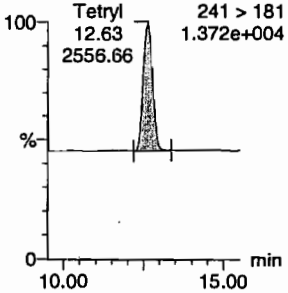

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.062e+004

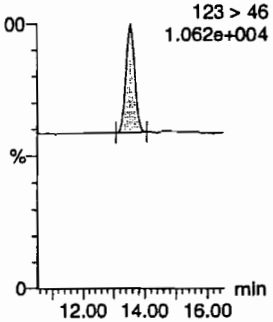

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
1.823e+004

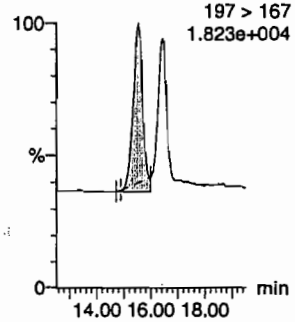

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
2.575e+004

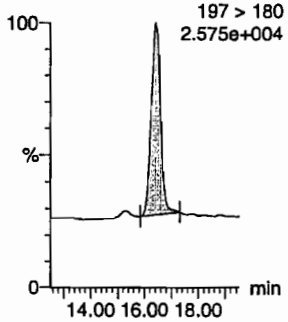

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
1.948e+004

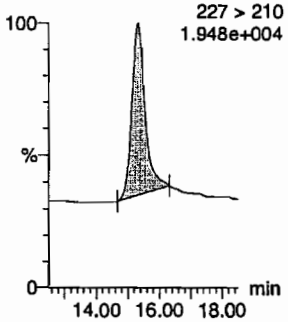

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.46 182 > 152
5.704e+004
18.12

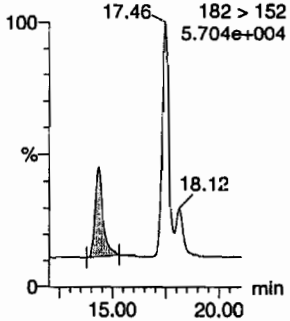

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.704e+004
14.34
18.12

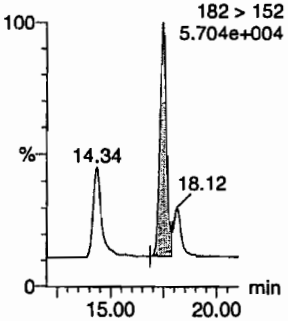

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ataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

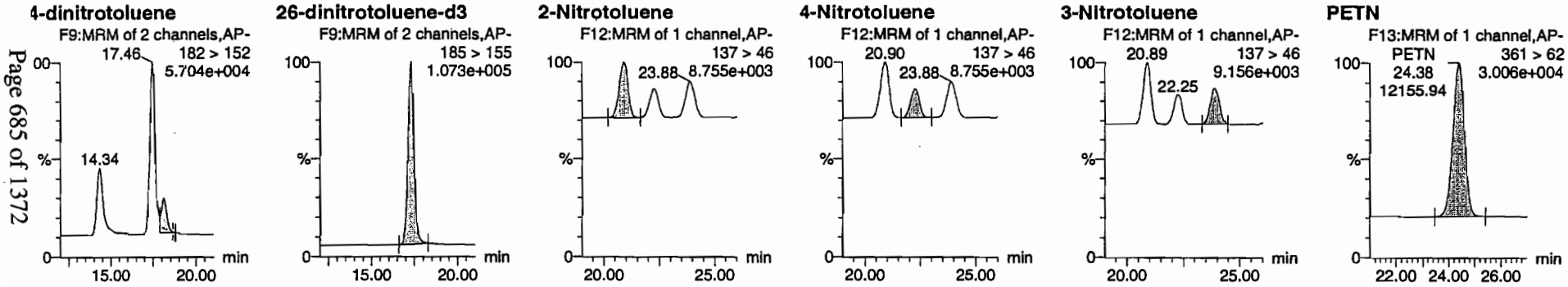

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
/XX100408-03	HMX	176 > 102	5.22	8317.981	6693.685	8317.981	621.330	bb			194.5161	97.3	-2.7	417.3
/XX100408-03	RDX	176 > 102	7.59	6408.748	6693.685	6408.748	478.716	bb			196.4475	98.2	-1.8	283.8
/XX100408-03	135-Trinitrobenzene	213 > 183	10.14	10606.825	6693.685	10606.825	792.301	bb			187.6001	93.8	-6.2	364.7
/XX100408-03	13-Dinitrobenzene-d4	172 > 142	12.00	6693.685		6693.685	6693.685	bb			515.0534	103.0	3.0	361.2
/XX100408-03	13-Dinitrobenzene	168 > 138	12.14	3344.546	6693.685	3344.546	249.828	bb			193.9855	97.0	-3.0	122.8
/XX100408-03	Tetryl	241 > 181	12.63	2556.659	6693.685	2556.659	190.975	bb			185.4906	92.7	-7.3	242.9
/XX100408-03	Nitrobenzene	123 > 46	13.54	1476.995	6693.685	1476.995	110.327	bb			183.5721	91.8	-8.2	164.0
/XX100408-03	4-Amino-26-dinitrotoluene	197 > 167	15.53	4907.719	41106.352	4907.719	59.695	MM	09-Apr-10	10:43:38	191.7662	95.9	-4.1	159.0
/XX100408-03	2-Amino-46-dinitrotoluene	197 > 180	16.41	7493.107	41106.352	7493.107	91.143	bb			199.5118	99.8	-0.2	583.4
/XX100408-03	246-Trinitrotoluene	227 > 210	15.31	6098.811	41106.352	6098.811	74.183	bb			192.7873	96.4	-3.6	191.9
/XX100408-03	34-dinitrotoluene	182 > 152	14.34	8414.092	41106.352	8414.092	102.345	bb			99.7927	99.8	-0.2	188.1
/XX100408-03	26-dinitrotoluene	182 > 152	17.46	18316.104	41106.352	18316.104	222.789	MM	09-Apr-10	10:46:18	195.8861	97.9	-2.1	491.3
/XX100408-03	24-dinitrotoluene	182 > 152	18.12	3897.868	41106.352	3897.868	47.412	MM	09-Apr-10	10:48:43	179.0928	89.5	-10.5	98.3
/XX100408-03	26-dinitrotoluene-d3	185 > 155	17.29	41106.352		41106.352	41106.352	bb			520.6158	104.1	4.1	3476.9
/XX100408-03	2-Nitrotoluene	137 > 46	20.90	1162.897	41106.352	1162.897	14.145	bb			184.2720	92.1	-7.9	88.0
/XX100408-03	4-Nitrotoluene	137 > 46	22.26	612.866	41106.352	612.866	7.455	bb			191.8144	95.9	-4.1	46.6
/XX100408-03	3-Nitrotoluene	137 > 46	23.86	803.310	41106.352	803.310	9.771	bb			178.9672	89.5	-10.5	43.9
/XX100408-03	PETN	361 > 62	24.38	12155.943	41106.352	12155.943	147.860	bb			205.1684	102.6	2.6	7461.6

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Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

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Time: 00:00:16
ID: WXX100408-04
Vial: 1:2,D

MM 4/10/10

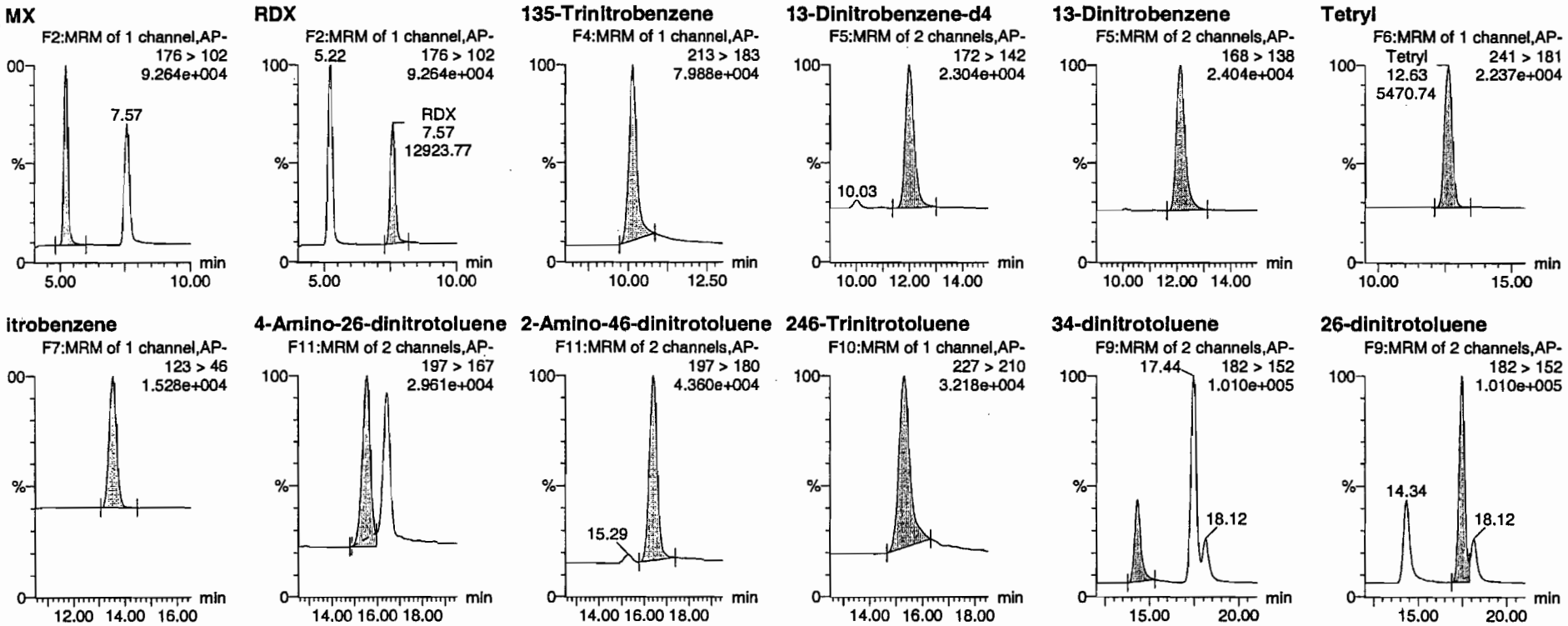

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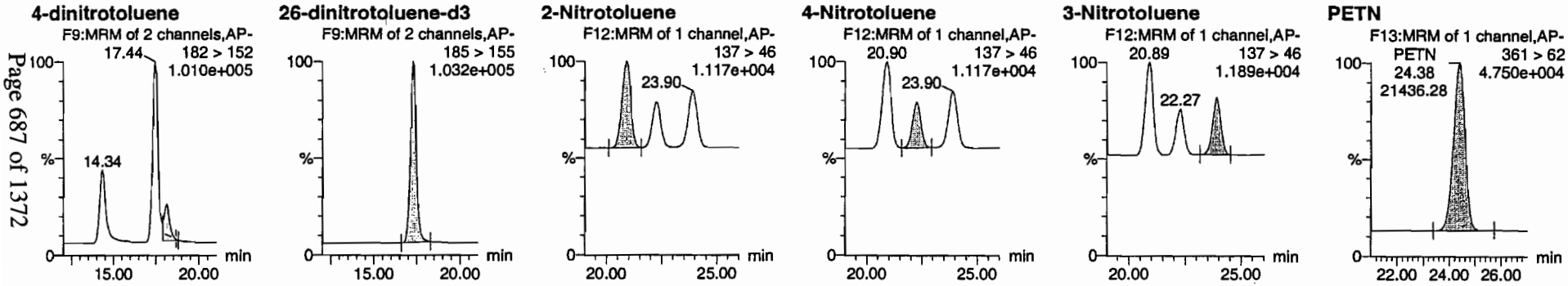

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
VXX100408-04	HMX	176 > 102	5.22	16823.926	6511.661	16823.926	1291.831	bb			404.4255	101.1	1.1	894.1
VXX100408-04	RDX	176 > 102	7.57	12923.769	6511.661	12923.769	992.356	bb			407.2264	101.8	1.8	601.0
VXX100408-04	135-Trinitrobenzene	213 > 183	10.14	20881.182	6511.661	20881.182	1603.368	bb			379.6438	94.9	-5.1	3254.8
VXX100408-04	13-Dinitrobenzene-d4	172 > 142	11.97	6511.661		6511.661	6511.661	bb			501.0473	100.2	0.2	193.6
VXX100408-04	13-Dinitrobenzene	168 > 138	12.14	6735.461	6511.661	6735.461	517.185	bb			401.5809	100.4	0.4	567.0
VXX100408-04	Tetryl	241 > 181	12.63	5470.739	6511.661	5470.739	420.072	bb			408.0080	102.0	2.0	455.2
VXX100408-04	Nitrobenzene	123 > 46	13.54	3139.621	6511.661	3139.621	241.077	bb			401.1238	100.3	0.3	229.0
VXX100408-04	4-Amino-26-dinitrotoluene	197 > 167	15.53	9557.234	39429.430	9557.234	121.194	MM	09-Apr-10	10:43:46	389.3257	97.3	-2.7	352.4
VXX100408-04	2-Amino-46-dinitrotoluene	197 > 180	16.41	14963.298	39429.430	14963.298	189.748	bb			415.3578	103.8	3.8	532.2
VXX100408-04	246-Trinitrotoluene	227 > 210	15.31	12096.198	39429.430	12096.198	153.390	bb			398.6305	99.7	-0.3	84.0
VXX100408-04	34-dinitrotoluene	182 > 152	14.34	15829.145	39429.430	15829.145	200.728	bb			195.7210	97.9	-2.1	359.7
VXX100408-04	26-dinitrotoluene	182 > 152	17.44	35065.902	39429.430	35065.902	444.667	MM	09-Apr-10	10:46:28	390.9704	97.7	-2.3	907.9
VXX100408-04	24-dinitrotoluene	182 > 152	18.12	7597.563	39429.430	7597.563	96.344	MM	09-Apr-10	10:48:55	363.9266	91.0	-9.0	183.0
VXX100408-04	26-dinitrotoluene-d3	185 > 155	17.29	39429.430		39429.430	39429.430	bb			499.3774	99.9	-0.1	1540.4
VXX100408-04	2-Nitrotoluene	137 > 46	20.90	2343.453	39429.430	2343.453	29.717	bb			387.1352	96.8	-3.2	397.6
VXX100408-04	4-Nitrotoluene	137 > 46	22.26	1192.846	39429.430	1192.846	15.126	bb			389.2141	97.3	-2.7	208.2
VXX100408-04	3-Nitrotoluene	137 > 46	23.89	1536.785	39429.430	1536.785	19.488	bb			356.9373	89.2	-10.8	139.5
VXX100408-04	PETN	361 > 62	24.38	21436.277	39429.430	21436.277	271.831	bb			395.3591	98.8	-1.2	7379.9

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Time: 00:29:44
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Vial: 1:2,E

MM 4/10/10

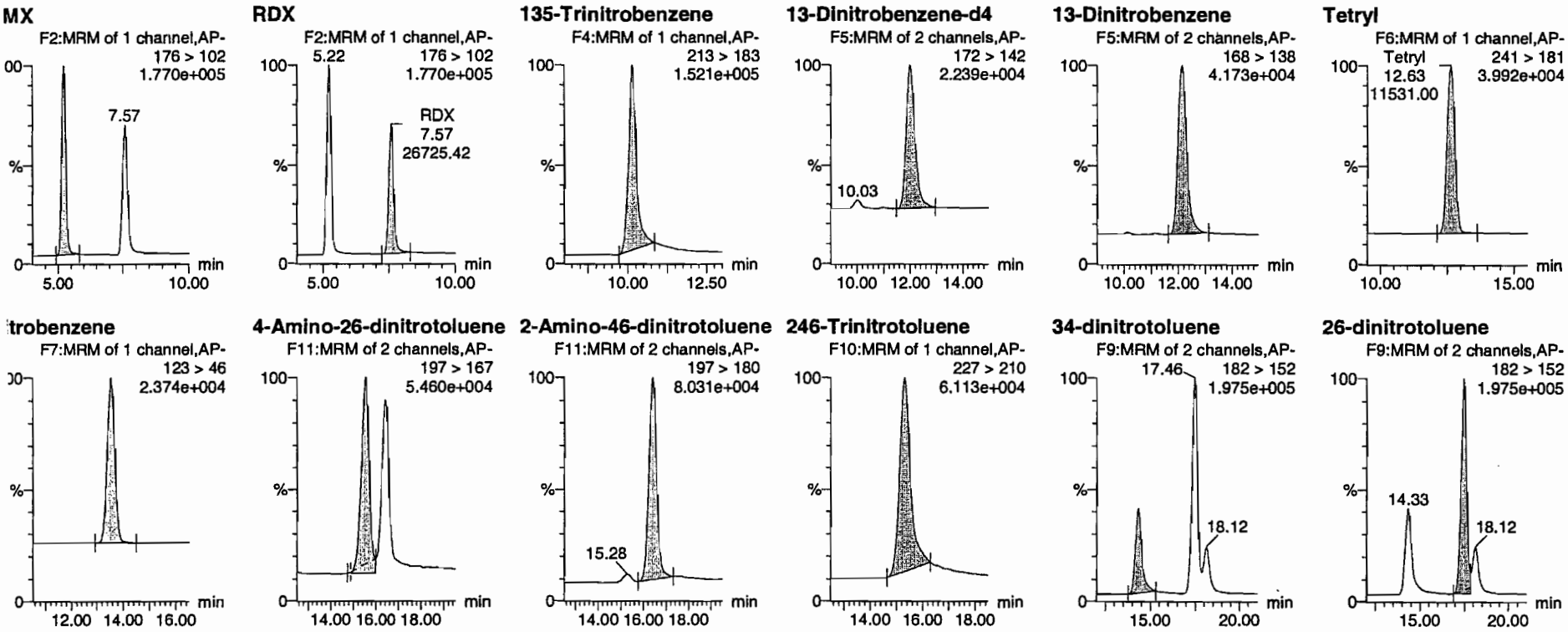

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Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

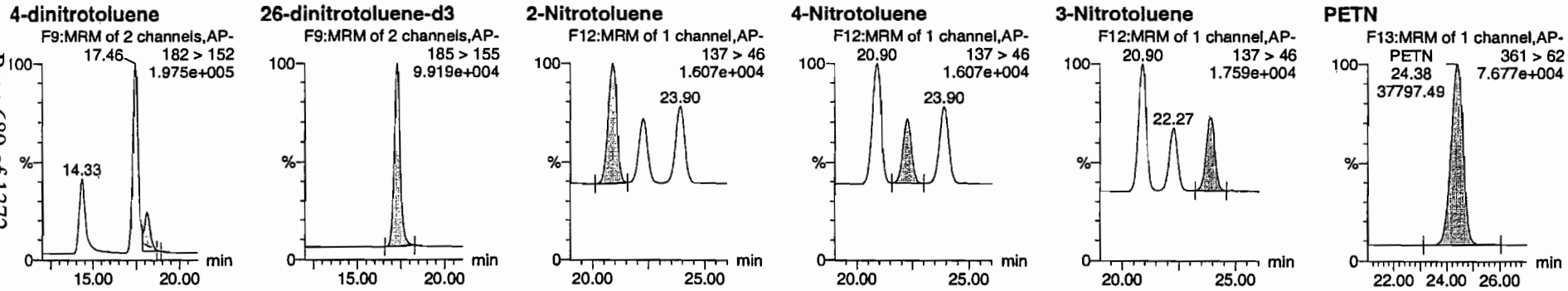

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/XX100408-05	HMX	176 > 102	5.22	33223.695	6336.354	33223.695	2621.673	bb			820.7510	102.6	2.6	782.1
/XX100408-05	RDX	176 > 102	7.57	26725.416	6336.354	26725.416	2108.895	bb			865.4132	108.2	8.2	535.4
/XX100408-05	135-Trinitrobenzene	213 > 183	10.14	41554.766	6336.354	41554.766	3279.075	bb			776.4160	97.1	-2.9	4664.7
/XX100408-05	13-Dinitrobenzene-d4	172 > 142	12.00	6336.354		6336.354	6336.354	bb			487.5581	97.5	-2.5	429.2
/XX100408-05	13-Dinitrobenzene	168 > 138	12.14	13320.454	6336.354	13320.454	1051.113	bb			816.1633	102.0	2.0	1094.4
/XX100408-05	Tetryl	241 > 181	12.63	11530.997	6336.354	11530.997	909.908	bb			883.7754	110.5	10.5	1331.3
/XX100408-05	Nitrobenzene	123 > 46	13.53	6054.559	6336.354	6054.559	477.764	bb			794.9432	99.4	-0.6	573.4
/XX100408-05	4-Amino-26-dinitrotoluene	197 > 167	15.52	19673.686	37469.934	19673.686	262.526	MM	09-Apr-10	10:43:55	843.3428	105.4	5.4	438.1
/XX100408-05	2-Amino-46-dinitrotoluene	197 > 180	16.40	29715.199	37469.934	29715.199	396.521	bb			867.9832	108.5	8.5	1024.2
/XX100408-05	246-Trinitrotoluene	227 > 210	15.30	25741.932	37469.934	25741.932	343.501	bb			892.6894	111.6	11.6	911.6
/XX100408-05	34-dinitrotoluene	182 > 152	14.33	31952.576	37469.934	31952.576	426.376	bb			415.7415	103.9	3.9	866.7
/XX100408-05	26-dinitrotoluene	182 > 152	17.46	69212.203	37469.934	69212.203	923.570	MM	09-Apr-10	10:46:35	812.0432	101.5	1.5	2202.9
XX100408-05	24-dinitrotoluene	182 > 152	18.12	16307.411	37469.934	16307.411	217.607	MM	09-Apr-10	10:49:04	821.9815	102.7	2.7	459.7
XX100408-05	26-dinitrotoluene-d3	185 > 155	17.29	37469.934		37469.934	37469.934	bb			474.5602	94.9	-5.1	2805.2
XX100408-05	2-Nitrotoluene	137 > 46	20.90	4536.544	37469.934	4536.544	60.536	bb			788.6224	98.6	-1.4	774.9
XX100408-05	4-Nitrotoluene	137 > 46	22.26	2363.277	37469.934	2363.277	31.536	bb			811.4399	101.4	1.4	411.7
XX100408-05	3-Nitrotoluene	137 > 46	23.89	2953.433	37469.934	2953.433	39.411	bb			721.8442	90.2	-9.8	176.1
XX100408-05	PETN	361 > 62	24.38	37797.492	37469.934	37797.492	504.371	bb			801.8968	100.2	0.2	12301.0

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ataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

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ate: 09-Apr-2010
ime: 00:59:12
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ial: 1:2,F

MM 4/10/10

MX
F2:MRM of 1 channel,AP-
176 > 102
2.029e+005
7.57

RDX
F2:MRM of 1 channel,AP-
176 > 102
2.029e+005
5.22
RDX
7.57
30746.90

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.769e+005

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.145e+004
10.01

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
4.738e+004

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
4.487e+004
Tetryl
12.63
13054.68

trobenzene
F7:MRM of 1 channel,AP-
123 > 46
2.597e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
6.177e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
9.458e+004
15.29

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.836e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.274e+005
17.44
18.12

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
2.274e+005
14.34
18.12

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Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

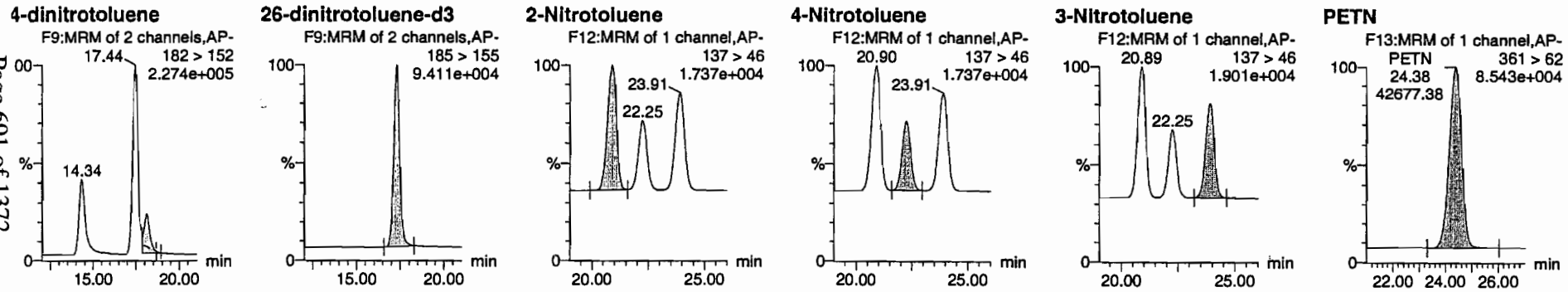

Sample	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
XX100408-06	HMX	176 > 102	5.22	38573.215	5889.290	38573.215	3274.861	bb			1025.2...	102.5	2.5	1478.1
XX100408-06	RDX	176 > 102	7.57	30746.896	5889.290	30746.896	2610.408	bb			1071.2...	107.1	7.1	1030.1
XX100408-06	135-Trinitrobenzene	213 > 183	10.14	48538.594	5889.290	48538.594	4120.921	bb			975.7472	97.6	-2.4	2752.3
XX100408-06	13-Dinitrobenzene-d4	172 > 142	12.00	5889.290		5889.290	5889.290	bb			453.1583	90.6	-9.4	654.8
XX100408-06	13-Dinitrobenzene	168 > 138	12.14	15381.786	5889.290	15381.786	1305.912	bb			1014.0...	101.4	1.4	831.8
XX100408-06	Tetryl	241 > 181	12.63	13054.682	5889.290	13054.682	1108.341	bb			1076.5...	107.7	7.7	930.4
XX100408-06	Nitrobenzene	123 > 46	13.54	6943.883	5889.290	6943.883	589.535	bb			980.9175	98.1	-1.9	780.0
XX100408-06	4-Amino-26-dinitrotoluene	197 > 167	15.53	22804.184	35484.121	22804.184	321.329	MM	09-Apr-10	10:44:03	1032.2...	103.2	3.2	255.8
XX100408-06	2-Amino-46-dinitrotoluene	197 > 180	16.41	34972.992	35484.121	34972.992	492.798	bb			1078.7...	107.9	7.9	696.5
XX100408-06	246-Trinitrotoluene	227 > 210	15.31	29245.158	35484.121	29245.158	412.088	bb			1070.9...	107.1	7.1	518.0
XX100408-06	34-dinitrotoluene	182 > 152	14.34	37191.707	35484.121	37191.707	524.061	bb			510.9901	102.2	2.2	683.1
XX100408-06	26-dinitrotoluene	182 > 152	17.44	80315.352	35484.121	80315.352	1131.708	MM	09-Apr-10	10:46:43	995.0477	99.5	-0.5	1732.4
XX100408-06	24-dinitrotoluene	182 > 152	18.12	19359.293	35484.121	19359.293	272.788	MM	09-Apr-10	10:49:15	1030.4...	103.0	3.0	367.5
XX100408-06	26-dinitrotoluene-d3	185 > 155	17.29	35484.121		35484.121	35484.121	bb			449.4097	89.9	-10.1	1432.4
XX100408-06	2-Nitrotoluene	137 > 46	20.90	5145.653	35484.121	5145.653	72.506	bb			944.5683	94.5	-5.5	381.0
XX100408-06	4-Nitrotoluene	137 > 46	22.25	2723.218	35484.121	2723.218	38.372	bb			987.3542	98.7	-1.3	207.6
XX100408-06	3-Nitrotoluene	137 > 46	23.92	4021.241	35484.121	4021.241	56.663	bb			1037.8...	103.8	3.8	126.8
XX100408-06	PETN	361 > 62	24.38	42677.375	35484.121	42677.375	601.359	bb			999.3454	99.9	-0.1	16487.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0408010a

Analysis Date: 09–APR–10 01:58

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
4–Amino–2,6–dinitrotoluene	600	631.912	105	
HMX	600	600.63	100	
Nitrobenzene	600	573.106	96	
PETN	600	549.302	92	
RDX	600	676.458	113	
Tetryl	600	637.74	106	
m–Dinitrobenzene	600	613.434	102	
m–Nitrotoluene	600	502.386	84	
o–Nitrotoluene	600	545.024	91	
p–Nitrotoluene	600	597.413	100	
1,3,5–Trinitrobenzene	600	581.429	97	
1,3–Dinitrobenzene–d4	500	523.283	105	
2,4,6–Trinitrotoluene	600	678.465	113	
2,4–Dinitrotoluene	600	629.676	105	
2,6–Dinitrotoluene	600	612.703	102	
2,6–Dinitrotoluene–d3	500	516.716	103	
2–Amino–4,6–dinitrotoluene	600	650.562	108	
3,4–Dinitrotoluene	300	305.309	102	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408010a
Date: 09-Apr-2010
Time: 01:58:08
ID: WXX100408-07ICV
Vial: 1:1,B

MM 4/10/10

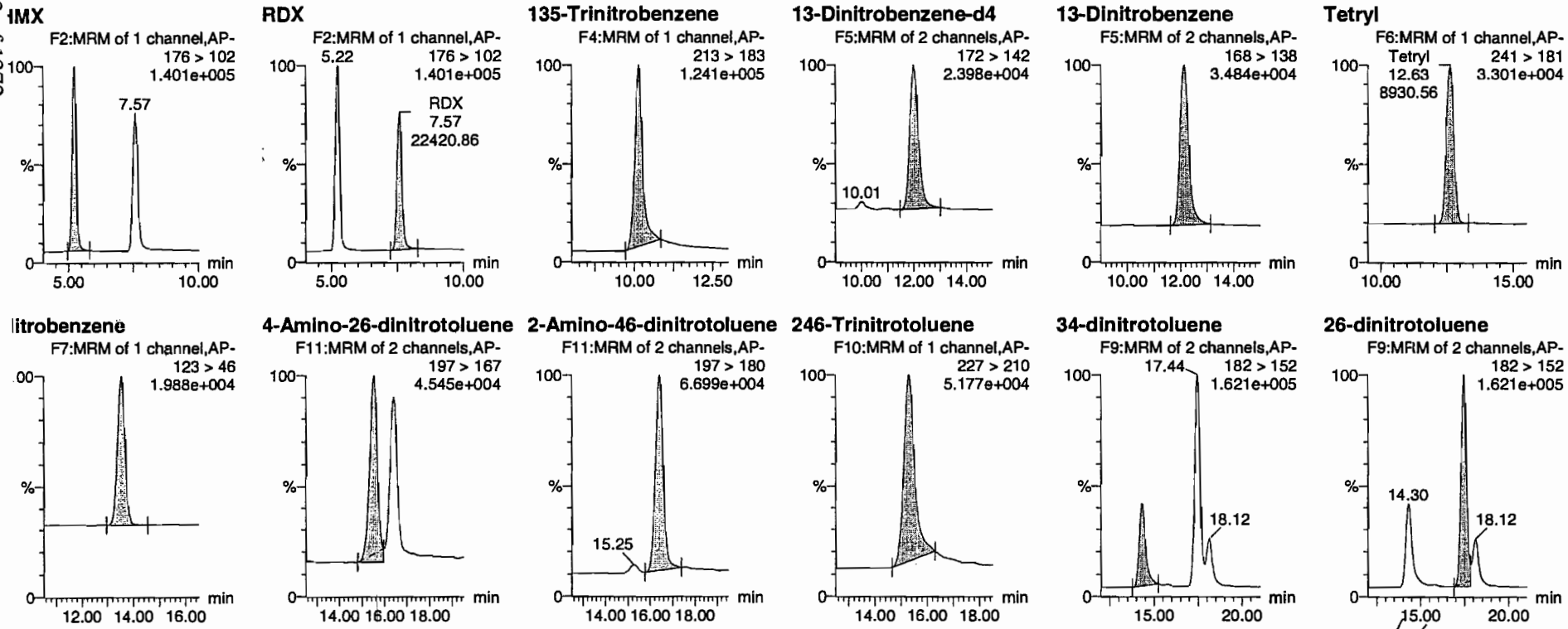

ATM 04/11/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

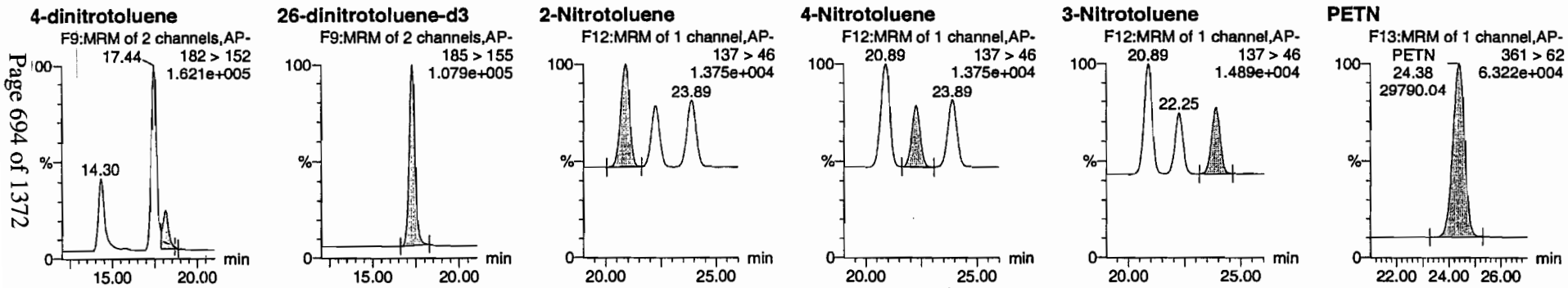

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
/XX100408-07ICV	HMX	176 > 102	5.22	26094.779	6800.638	26094.779	1918.554	db			600.6298	100.1	0.1	1169.6
/XX100408-07ICV	RDX	176 > 102	7.57	22420.859	6800.638	22420.859	1648.438	bb			676.4583	112.7	12.7	866.4
/XX100408-07ICV	135-Trinitrobenzene	213 > 183	10.14	33398.980	6800.638	33398.980	2455.577	bb			581.4289	96.9	-3.1	2909.4
/XX100408-07ICV	13-Dinitrobenzene-d4	172 > 142	11.97	6800.638		6800.638	6800.638	bb			523.2830	104.7	4.7	477.0
/XX100408-07ICV	13-Dinitrobenzene	168 > 138	12.14	10745.340	6800.638	10745.340	790.024	bb			613.4342	102.2	2.2	1774.4
/XX100408-07ICV	Tetryl	241 > 181	12.63	8930.563	6800.638	8930.563	656.597	bb			637.7400	106.3	6.3	644.7
/XX100408-07ICV	Nitrobenzene	123 > 46	13.54	4684.807	6800.638	4684.807	344.439	bb			573.1062	95.5	-4.5	471.2
/XX100408-07ICV	4-Amino-26-dinitrotoluene	197 > 167	15.53	16050.857	40798.398	16050.857	196.709	MM	09-Apr-10	10:44:14	631.9118	105.3	5.3	489.6
/XX100408-07ICV	2-Amino-46-dinitrotoluene	197 > 180	16.41	24250.242	40798.398	24250.242	297.196	bb			650.5618	108.4	8.4	710.9
/XX100408-07ICV	246-Trinitrotoluene	227 > 210	15.31	21302.396	40798.398	21302.396	261.069	bb			678.4651	113.1	13.1	447.7
/XX100408-07ICV	34-dinitrotoluene	182 > 152	14.30	25549.520	40798.398	25549.520	313.119	bb			305.3093	101.8	1.8	603.7
/XX100408-07ICV	26-dinitrotoluene	182 > 152	17.44	56860.898	40798.398	56860.898	696.852	MM	09-Apr-10	10:46:50	612.7030	102.1	2.1	1549.3
XX100408-07ICV	24-dinitrotoluene	182 > 152	18.12	13601.919	40798.398	13601.919	166.697	MM	09-Apr-10	10:49:28	629.6758	104.9	4.9	329.9
XX100408-07ICV	26-dinitrotoluene-d3	185 > 155	17.29	40798.398		40798.398	40798.398	bb			516.7156	103.3	3.3	5037.6
XX100408-07ICV	2-Nitrotoluene	137 > 46	20.89	3413.753	40798.398	3413.753	41.837	bb			545.0244	90.8	-9.2	41.5
XX100408-07ICV	4-Nitrotoluene	137 > 46	22.26	1894.492	40798.398	1894.492	23.218	bb			597.4125	99.6	-0.4	24.1
XX100408-07ICV	3-Nitrotoluene	137 > 46	23.89	2238.110	40798.398	2238.110	27.429	bb			502.3861	83.7	-16.3	73.3
XX100408-07ICV	PETN	361 > 62	24.38	29790.043	40798.398	29790.043	365.088	bb			549.3025	91.6	-8.4	7925.2

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/09/10
Time of Injection: 0158
Standard Number: WXX100408-07ICV
Data File: EXP0408010a

HMX	100.1
RDX	112.7
135-TNB	96.9
13-DNB	102.2
Tetryl	106.3
Nitrobenzene	95.5
4A-26-DNT	105.3
2A-46-DNT	108.4
246-TNT	113.1
34-DNT(surr)	101.8
26-DNT	102.1
24-DNT	104.9
2-NT	90.8
4-NT	99.6
3-NT	83.7
PETN	91.6
Total	1615.0
Average	100.9

MTT 4/10/10

HMM 04/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2057

Lab Code: GEL

Run Date: 05-APR-10,08-APR-10,09-APR-10,12-APR-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: Average RF

Calibration Level:	1	2	3	4	5	6	Ave RF	RSD	Q
Data File:	EXP0412003a	EXP0412004a	EXP0412005a	EXP0412006a	EXP0412007a	EXP0412008a			
Parmname									
1,3,5-Trinitrobenzene	4.711	4.33	4.184	4.118	4.135	4.46	4.323	5.342	
1,3-Dinitrobenzene-d4	11.467	12.345	11.86	12.536	12.341	10.015	11.761	7.996	
2,4,6-Trinitrotoluene	.41	.394	.427	.449	.461	.469	0.435	6.752	
2,4-Dinitrotoluene	.262	.241	.266	.256	.262	.279	0.261	4.785	
2,6-Dinitrotoluene	1.228	1.123	1.137	1.19	1.203	1.22	1.184	3.683	
2,6-Dinitrotoluene-d3	63.991	74.817	73.595	74.921	70.943	61.531	69.966	8.311	
2-Amino-4,6-dinitrotoluene	.484	.481	.503	.515	.535	.556	0.512	5.686	
3,4-Dinitrotoluene	1.117	.974	.984	1.041	1.027	1.044	1.031	4.983	
4-Amino-2,6-dinitrotoluene	.361	.326	.32	.335	.34	.344	0.338	4.22	
HMX	3.896	4.064	4.283	4.375	4.325	4.489	4.239	5.149	
Nitrobenzene	.565	.604	.633	.662	.625	.674	0.627	6.339	
RDX	2.18	2.427	3.051	3.081	3.073	3.36	2.862	15.868	
Tetryl	1.226	1.243	1.421	1.278	1.24	1.37	1.296	6.198	
m-Dinitrobenzene	1.304	1.349	1.33	1.336	1.312	1.391	1.337	2.342	
m-Nitrotoluene	.055	.071	.054	.053	.061	.056	0.058	11.551	
o-Nitrotoluene	.105	.086	.078	.084	.079	.088	0.087	11.254	
p-Nitrotoluene	.042	.041	.038	.043	.042	.044	0.042	5.194	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2057

Lab Code: GEL

Run Date: 05-APR-10,08-APR-10,09-APR-10,12-APR-10

LCMSMS Instrument ID: LCMSMS

Method: 8321A Modified

HPLC Column: Phenomenex Ultracarb 5 ODS(20)

Calibration Type: 2nd Order

Calibration Level:	1	2	3	4	5	6	X	X^2	Intercept	COD	Q
Data File:	EXP0412003a	EXP0412004a	EXP0412005a	EXP0412006a	EXP0412007a	EXP0412008a					
Parmname:											
PETN	2009.76	4470.27	14910.6	28870.8	46927.1	49397.1	1.007	-.00022	9.637	.9994	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

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uantify Calibration Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

ethod: C:\MASSLYNX\New_Exp.PRO\MethDB\041210expa.mdb, Time: Tue Apr 13 09:03:30 2010
alibration: Untitled, Time: Tue Apr 13 11:12:22 2010

ompound name: HMX
esponse Factor: 4.23867
RF SD: 0.218263, % Relative SD: 5.14933
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

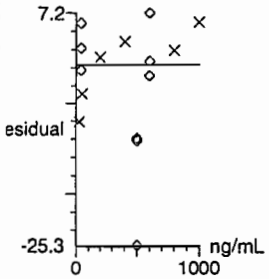

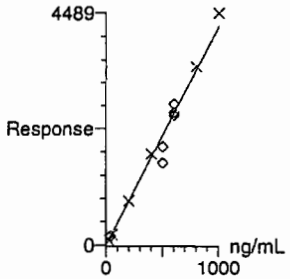

MMT
4/13/10

ompound name: RDX
esponse Factor: 2.8622
RF SD: 0.454164, % Relative SD: 15.8676
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

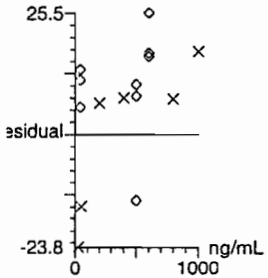

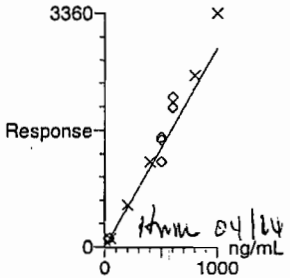

MMT 04/14/10

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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ımpound name: 135-Trinitrobenzene
sponse Factor: 4.32298
RF SD: 0.230915, % Relative SD: 5.34157
sponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
rve type: RF

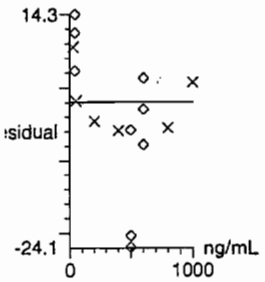

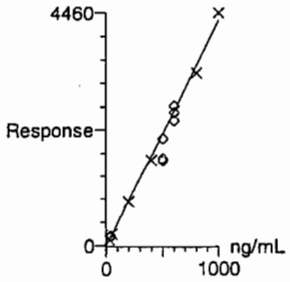

ımpound name: 13-Dinitrobenzene-d4
sponse Factor: 11.7607
RF SD: 0.940441, % Relative SD: 7.99645
sponse type: External Std, Area
ırve type: RF

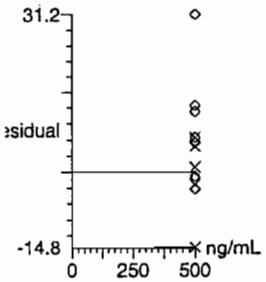

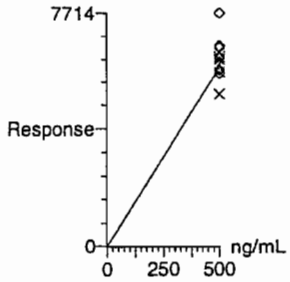

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ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

ompound name: 13-Dinitrobenzene
esponse Factor: 1.33707
RF SD: 0.0313205, % Relative SD: 2.34247
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

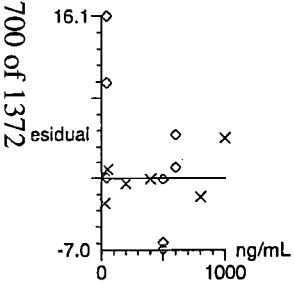

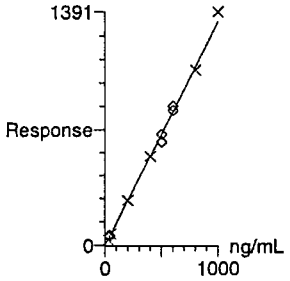

ompound name: Tetryl
esponse Factor: 1.29627
RF SD: 0.0803478, % Relative SD: 6.19837
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

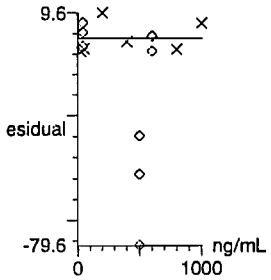

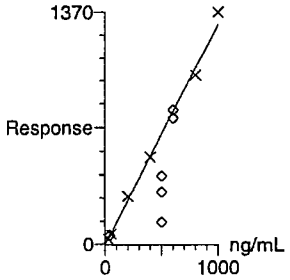

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ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

ompound name: Nitrobenzene
esponse Factor: 0.627297
RF SD: 0.0397666, % Relative SD: 6.33936
esponse type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)
urve type: RF

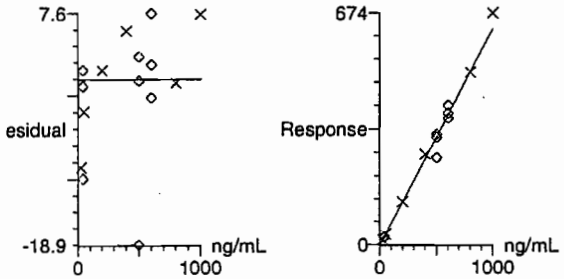

ompound name: 4-Amino-26-dinitrotoluene
esponse Factor: 0.337763
RF SD: 0.014254, % Relative SD: 4.22013
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

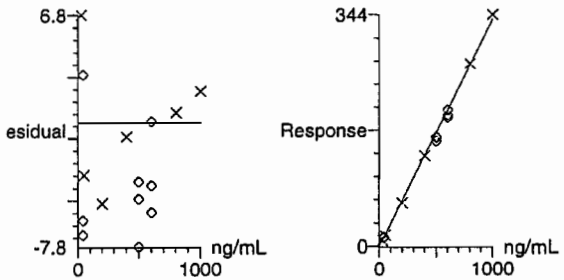

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

ompound name: 2-Amino-46-dinitrotoluene
esponse Factor: 0.512197
RF SD: 0.0291218, % Relative SD: 5.68567
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

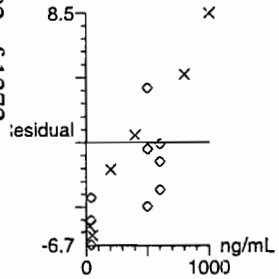

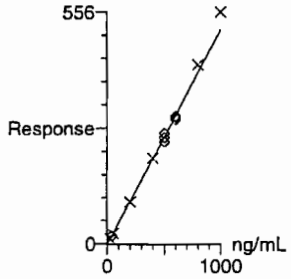

ompound name: 246-Trinitrotoluene
esponse Factor: 0.435033
RF SD: 0.0293746, % Relative SD: 6.75226
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

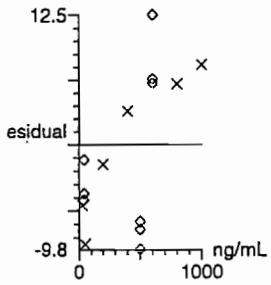

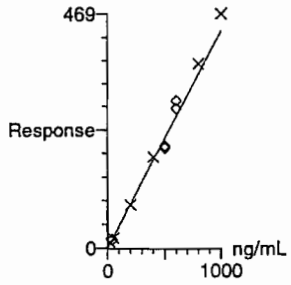

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ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

ompound name: 34-dinitrotoluene
esponse Factor: 1.03113
RF SD: 0.0513762, % Relative SD: 4.98253
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

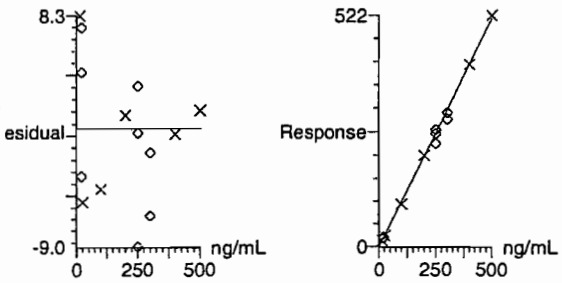

ompound name: 26-dinitrotoluene
esponse Factor: 1.18354
RF SD: 0.0435946, % Relative SD: 3.68342
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

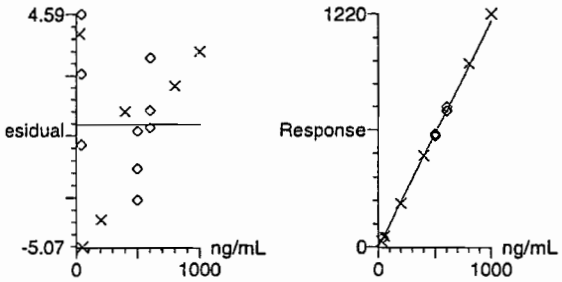

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ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

ompound name: 24-dinitrotoluene
esponse Factor: 0.261004
RF SD: 0.0124888, % Relative SD: 4.7849
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

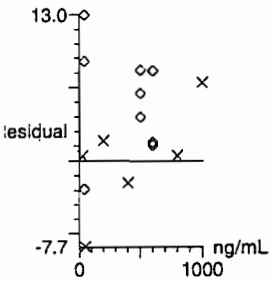

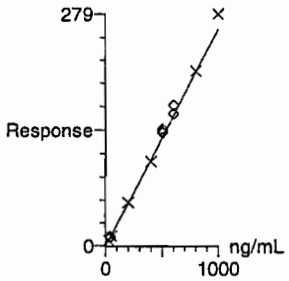

ompound name: 26-dinitrotoluene-d3
esponse Factor: 69.9664
RF SD: 5.81467, % Relative SD: 8.31066
esponse type: External Std, Area
urve type: RF

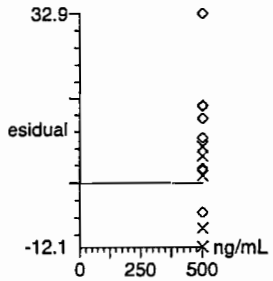

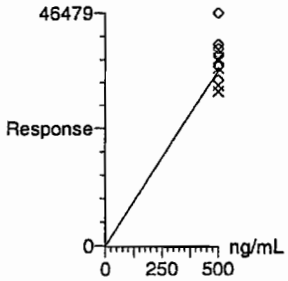

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ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

ompound name: 2-Nitrotoluene
esponse Factor: 0.0865882
RF SD: 0.00974436, % Relative SD: 11.2537
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

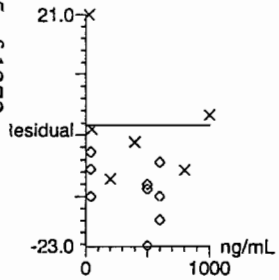

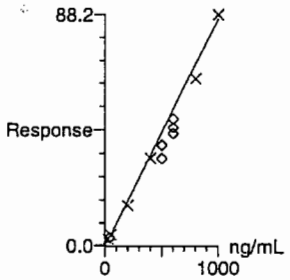

ompound name: 4-Nitrotoluene
esponse Factor: 0.0414794
RF SD: 0.00215463, % Relative SD: 5.19445
esponse type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
urve type: RF

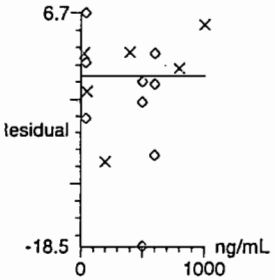

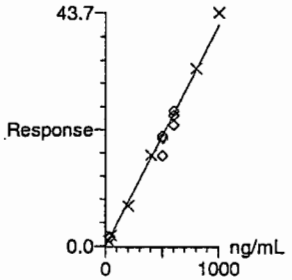

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Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Compound name: 3-Nitrotoluene
Response Factor: 0.058302
IRF SD: 0.00673426, % Relative SD: 11.5507
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: RF

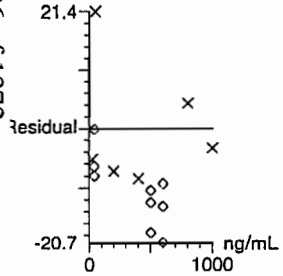

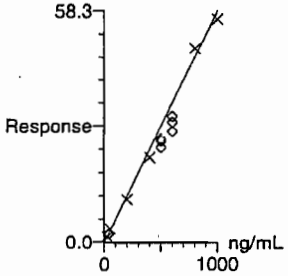

Compound name: PETN
Coefficient of Determination: 0.999447
Calibration curve: -0.000220026 * x^2 + 1.0065 * x + 9.6373
Response type: Internal Std (Ref 14), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: Null, Axis trans: None

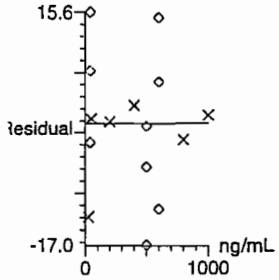

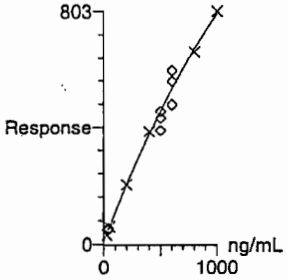

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ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412003a
ate: 12-Apr-2010
ime: 16:39:41
): WXX100412-01
ial: 1:2,A

MM 4/13/10

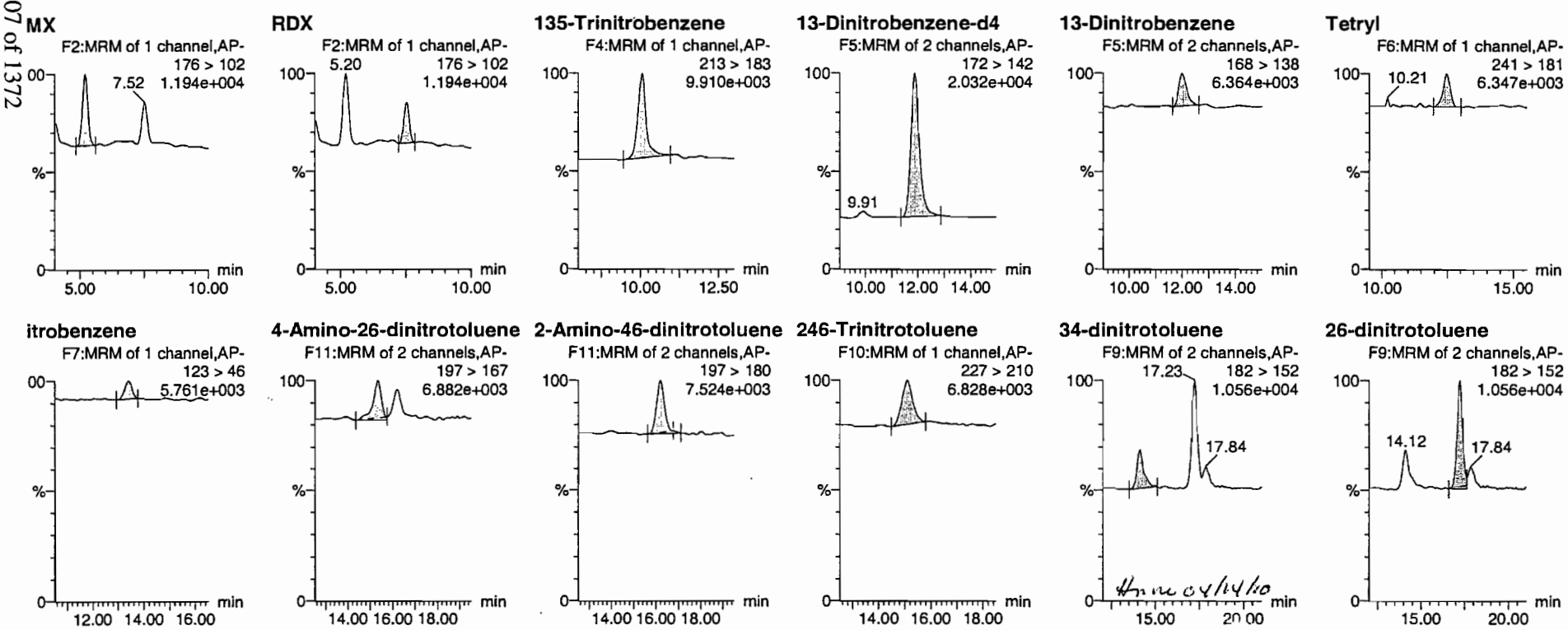

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uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

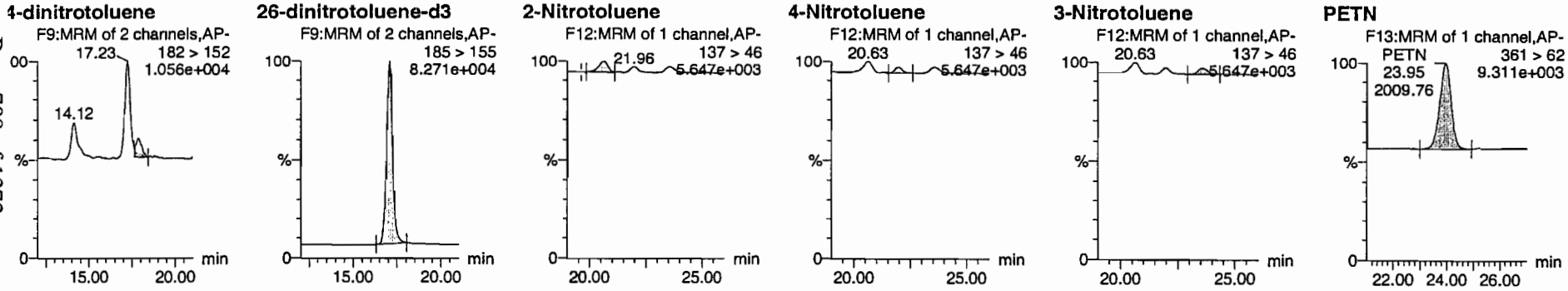

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
/XX100412-01	HMX	176 > 102	5.20	1116.955	5733.373	1116.955	97.408	bb			22.9809	91.9	-8.1	101.4
/XX100412-01	RDX	176 > 102	7.52	624.912	5733.373	624.912	54.498	bb			19.0405	76.2	-23.8	58.2
/XX100412-01	135-Trinitrobenzene	213 > 183	10.05	1350.600	5733.373	1350.600	117.784	bb			27.2460	109.0	9.0	56.3
/XX100412-01	13-Dinitrobenzene-d4	172 > 142	11.87	5733.373		5733.373	5733.373	bb			487.5016	97.5	-2.5	311.2
/XX100412-01	13-Dinitrobenzene	168 > 138	11.97	373.729	5733.373	373.729	32.592	bb			24.3760	97.5	-2.5	81.9
/XX100412-01	Tetryl	241 > 181	12.45	351.472	5733.373	351.472	30.651	bb			23.6458	94.6	-5.4	39.4
/XX100412-01	Nitrobenzene	123 > 46	13.41	161.898	5733.373	161.898	14.119	bb			22.5076	90.0	-10.0	13.2
/XX100412-01	4-Amino-26-dinitrotoluene	197 > 167	15.32	577.114	31995.521	577.114	9.019	MM	13-Apr-10	11:00:41	26.7012	106.8	6.8	20.3
/XX100412-01	2-Amino-46-dinitrotoluene	197 > 180	16.19	774.429	31995.521	774.429	12.102	MM	13-Apr-10	11:03:35	23.6279	94.5	-5.5	21.0
/XX100412-01	246-Trinitrotoluene	227 > 210	15.10	656.316	31995.521	656.316	10.256	bb			23.5761	94.3	-5.7	51.9
/XX100412-01	34-dinitrotoluene	182 > 152	14.12	893.652	31995.521	893.652	13.965	bb			13.5437	108.3	8.3	23.1
/XX100412-01	26-dinitrotoluene	182 > 152	17.23	1965.124	31995.521	1965.124	30.709	MM	13-Apr-10	11:06:05	25.9471	103.8	3.8	63.7
/XX100412-01	24-dinitrotoluene	182 > 152	17.84	419.446	31995.521	419.446	6.555	MM	13-Apr-10	11:08:57	25.1137	100.5	0.5	12.4
/XX100412-01	26-dinitrotoluene-d3	185 > 155	17.05	31995.521		31995.521	31995.521	bb			457.2987	91.5	-8.5	1382.8
/XX100412-01	2-Nitrotoluene	137 > 46	20.63	167.658	31995.521	167.658	2.620	MM	13-Apr-10	11:11:38	30.2584	121.0	21.0	21.6
/XX100412-01	4-Nitrotoluene	137 > 46	21.96	67.965	31995.521	67.965	1.062	bb			25.6055	102.4	2.4	10.9
/XX100412-01	3-Nitrotoluene	137 > 46	23.54	88.020	31995.521	88.020	1.376	bb			23.5927	94.4	-5.6	11.0
/XX100412-01	PETN	361 > 62	23.95	2009.763	31995.521	2009.763	31.407	bb			21.7322	86.9	-13.1	161.7

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Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412004a
Date: 12-Apr-2010
Time: 17:09:11
ID: WXX100412-02
Vial: 1:2,B

MMP 4/13/10

HMX
F2:MRM of 1 channel,AP-
HMX 176 > 102
5.20 1.692e+004
2508.52
7.52

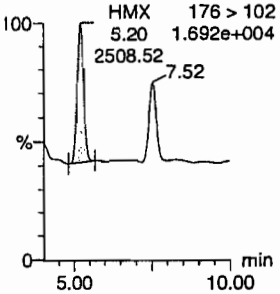

RDX
F2:MRM of 1 channel,AP-
5.20 176 > 102
1.692e+004
RDX
7.52
1498.15

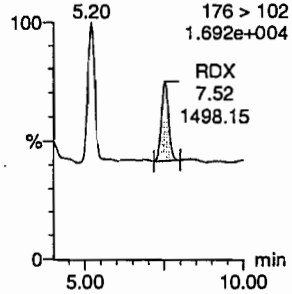

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.448e+004

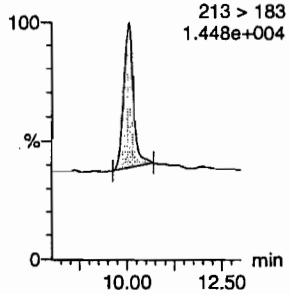

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.139e+004

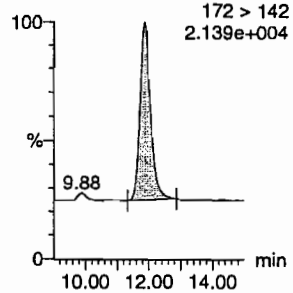

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
7.352e+003

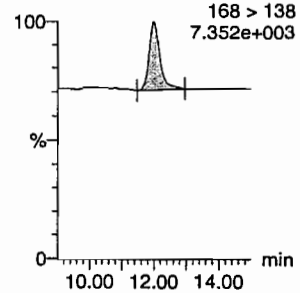

Tetryl
F6:MRM of 1 channel,AP-
Tetryl 241 > 181
12.42 7.572e+003
767.10

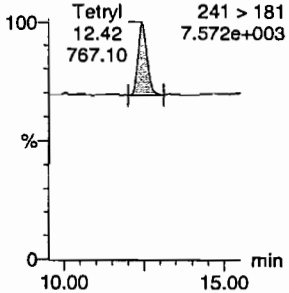

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
6.351e+003

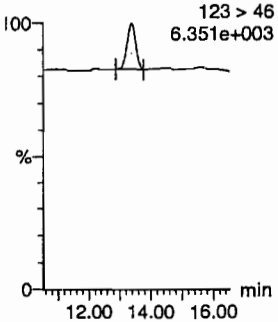

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
8.259e+003

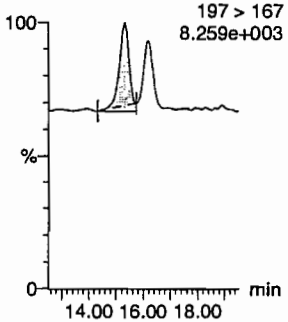

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
9.790e+003

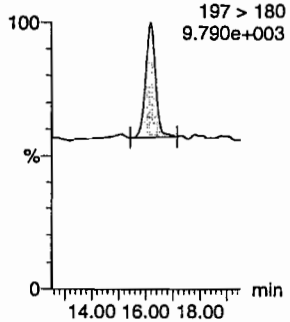

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
8.482e+003

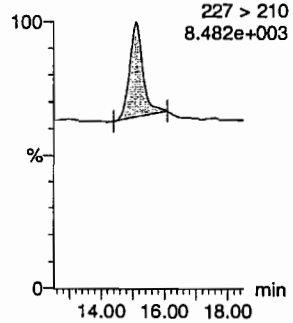

34-dinitrotoluene
F9:MRM of 2 channels,AP-
17.20 182 > 152
1.680e+004

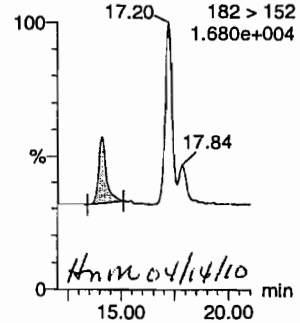

HMM 04/14/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.680e+004

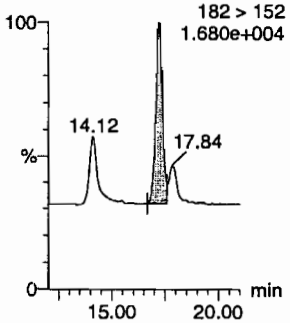

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GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

4-dinitrotoluene

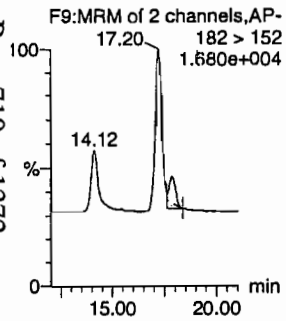

26-dinitrotoluene-d3

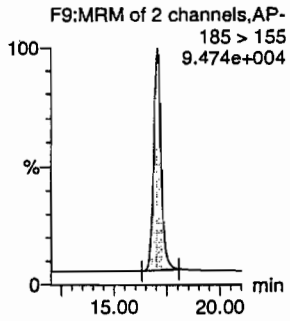

2-Nitrotoluene

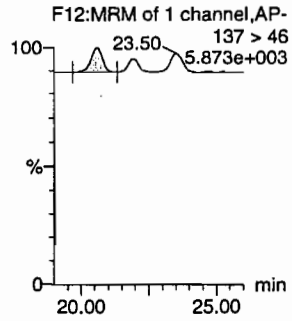

4-Nitrotoluene

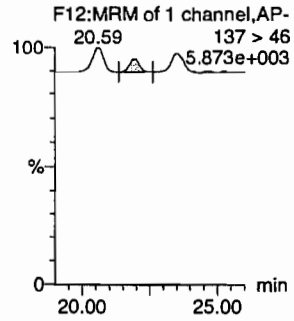

3-Nitrotoluene

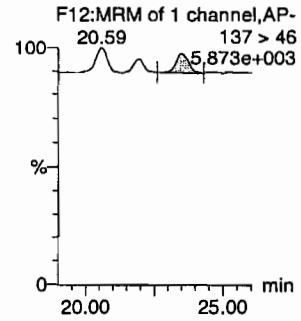

PETN

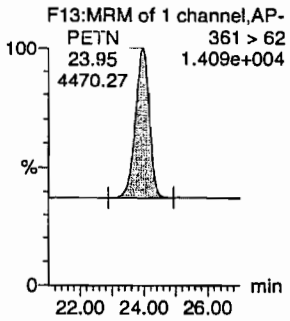

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
VXX100412-02	HMX	176 > 102	5.20	2508.523	6172.583	2508.523	203.199	bb			47.9393	95.9	-4.1	94.2
VXX100412-02	RDX	176 > 102	7.52	1498.154	6172.583	1498.154	121.356	bb			42.3994	84.8	-15.2	52.5
VXX100412-02	135-Trinitrobenzene	213 > 183	10.05	2672.564	6172.583	2672.564	216.487	bb			50.0781	100.2	0.2	226.3
VXX100412-02	13-Dinitrobenzene-d4	172 > 142	11.87	6172.583		6172.583	6172.583	bb			524.8470	105.0	5.0	433.6
VXX100412-02	13-Dinitrobenzene	168 > 138	12.00	832.984	6172.583	832.984	67.475	bb			50.4645	100.9	0.9	170.4
VXX100412-02	Tetryl	241 > 181	12.42	767.095	6172.583	767.095	62.137	bb			47.9353	95.9	-4.1	84.6
VXX100412-02	Nitrobenzene	123 > 46	13.37	373.028	6172.583	373.028	30.217	bb			48.1694	96.3	-3.7	25.8
VXX100412-02	4-Amino-26-dinitrotoluene	197 > 167	15.32	1221.271	37408.676	1221.271	16.323	MM	13-Apr-10	11:00:51	48.3279	96.7	-3.3	28.2
VXX100412-02	2-Amino-46-dinitrotoluene	197 > 180	16.19	1799.165	37408.676	1799.165	24.047	bb			46.9495	93.9	-6.1	82.9
VXX100412-02	246-Trinitrotoluene	227 > 210	15.10	1475.637	37408.676	1475.637	19.723	bb			45.3372	90.7	-9.3	59.1
VXX100412-02	34-dinitrotoluene	182 > 152	14.12	1821.743	37408.676	1821.743	24.349	bb			23.6141	94.5	-5.5	71.9
VXX100412-02	26-dinitrotoluene	182 > 152	17.20	4202.803	37408.676	4202.803	56.174	MM	13-Apr-10	11:06:14	47.4629	94.9	-5.1	193.6
VXX100412-02	24-dinitrotoluene	182 > 152	17.84	901.139	37408.676	901.139	12.045	MM	13-Apr-10	11:09:05	46.1469	92.3	-7.7	38.4
VXX100412-02	26-dinitrotoluene-d3	185 > 155	17.05	37408.676		37408.676	37408.676	bb			534.6666	106.9	6.9	2743.6
VXX100412-02	2-Nitrotoluene	137 > 46	20.59	321.040	37408.676	321.040	4.291	bb			49.5562	99.1	-0.9	55.8
VXX100412-02	4-Nitrotoluene	137 > 46	21.94	152.504	37408.676	152.504	2.038	bb			49.1413	98.3	-1.7	28.9
VXX100412-02	3-Nitrotoluene	137 > 46	23.50	264.859	37408.676	264.859	3.540	bb			60.7196	121.4	21.4	42.1
VXX100412-02	PETN	361 > 62	23.95	4470.270	37408.676	4470.270	59.749	bb			50.3420	100.7	0.7	1477.3

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412005a
Date: 12-Apr-2010
Time: 17:38:40
ID: WXX100412-03
Vial: 1:2,C

MM 4/13/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
4.613e+004

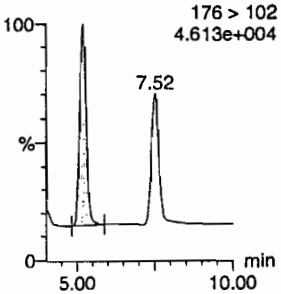

RDX
F2:MRM of 1 channel,AP-
176 > 102
4.613e+004

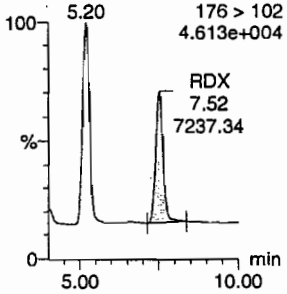

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
3.846e+004

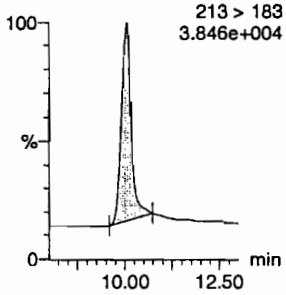

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.098e+004

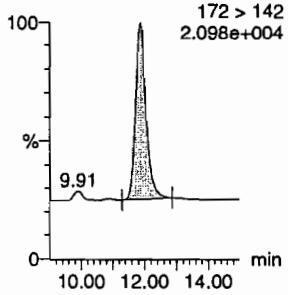

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
1.386e+004

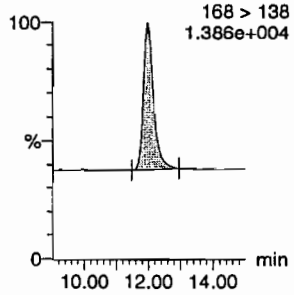

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
1.580e+004

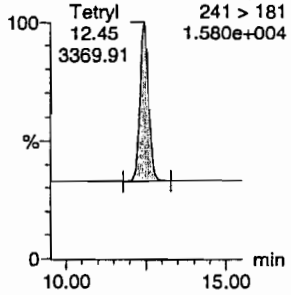

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
9.434e+003

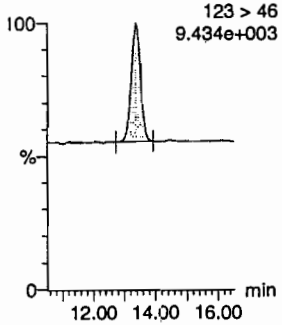

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
1.638e+004

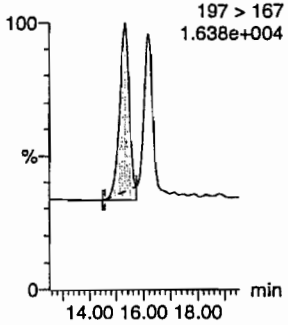

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
2.383e+004

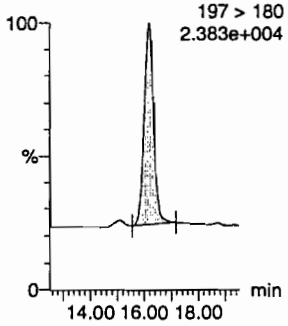

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
1.859e+004

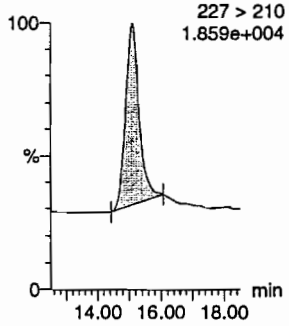

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.022e+004

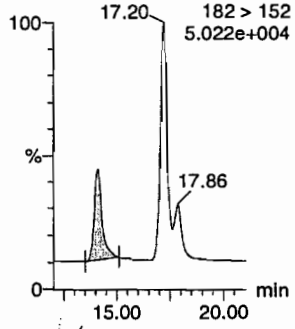

Hmk 04/14/10

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
5.022e+004

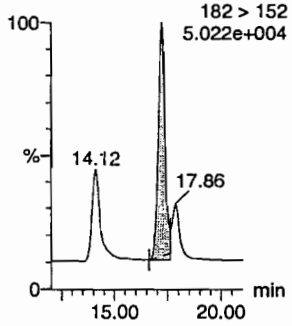

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uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

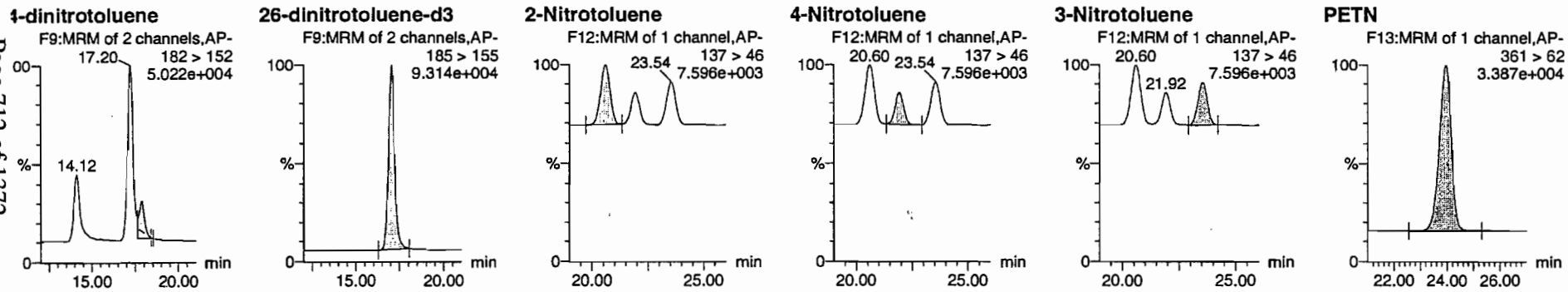

)	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
/XX100412-03	HMX	176 > 102	5.20	10159.616	5929.922	10159.616	856.640	bb			202.1013	101.1	1.1	310.8
/XX100412-03	RDX	176 > 102	7.52	7237.344	5929.922	7237.344	610.239	bb			213.2063	106.6	6.6	201.2
/XX100412-03	135-Trinitrobenzene	213 > 183	10.05	9923.623	5929.922	9923.623	836.741	bb			193.5566	96.8	-3.2	749.0
/XX100412-03	13-Dinitrobenzene-d4	172 > 142	11.87	5929.922		5929.922	5929.922	bb			504.2139	100.8	0.8	148.1
/XX100412-03	13-Dinitrobenzene	168 > 138	11.97	3154.276	5929.922	3154.276	265.963	bb			198.9146	99.5	-0.5	568.4
/XX100412-03	Tetryl	241 > 181	12.45	3369.913	5929.922	3369.913	284.145	bb			219.2013	109.6	9.6	256.1
/XX100412-03	Nitrobenzene	123 > 46	13.37	1502.609	5929.922	1502.609	126.697	bb			201.9734	101.0	1.0	170.5
/XX100412-03	4-Amino-26-dinitrotoluene	197 > 167	15.32	4715.967	36797.332	4715.967	64.080	MM	13-Apr-10	11:01:08	189.7199	94.9	-5.1	168.8
/XX100412-03	2-Amino-46-dinitrotoluene	197 > 180	16.19	7406.561	36797.332	7406.561	100.640	bb			196.4866	98.2	-1.8	186.9
/XX100412-03	246-Trinitrotoluene	227 > 210	15.10	6284.198	36797.332	6284.198	85.389	bb			196.2824	98.1	-1.9	319.2
/XX100412-03	34-dinitrotoluene	182 > 152	14.12	7241.057	36797.332	7241.057	98.391	bb			95.4208	95.4	-4.6	211.8
/XX100412-03	26-dinitrotoluene	182 > 152	17.20	16735.250	36797.332	16735.250	227.398	MM	13-Apr-10	11:06:20	192.1337	96.1	-3.9	560.0
/XX100412-03	24-dinitrotoluene	182 > 152	17.86	3910.226	36797.332	3910.226	53.132	MM	13-Apr-10	11:09:14	203.5676	101.8	1.8	123.0
/XX100412-03	26-dinitrotoluene-d3	185 > 155	17.05	36797.332		36797.332	36797.332	bb			525.9289	105.2	5.2	2510.2
/XX100412-03	2-Nitrotoluene	137 > 46	20.60	1144.344	36797.332	1144.344	15.549	bb			179.5773	89.8	-10.2	170.4
/XX100412-03	4-Nitrotoluene	137 > 46	21.92	552.792	36797.332	552.792	7.511	bb			181.0853	90.5	-9.5	89.7
/XX100412-03	3-Nitrotoluene	137 > 46	23.54	791.513	36797.332	791.513	10.755	bb			184.4710	92.2	-7.8	120.3
/XX100412-03	PETN	361 > 62	23.94	14910.624	36797.332	14910.624	202.605	bb			200.5093	100.3	0.3	4112.1

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

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ate: 12-Apr-2010
me: 18:08:08
: WXX100412-04
al: 1:2,D

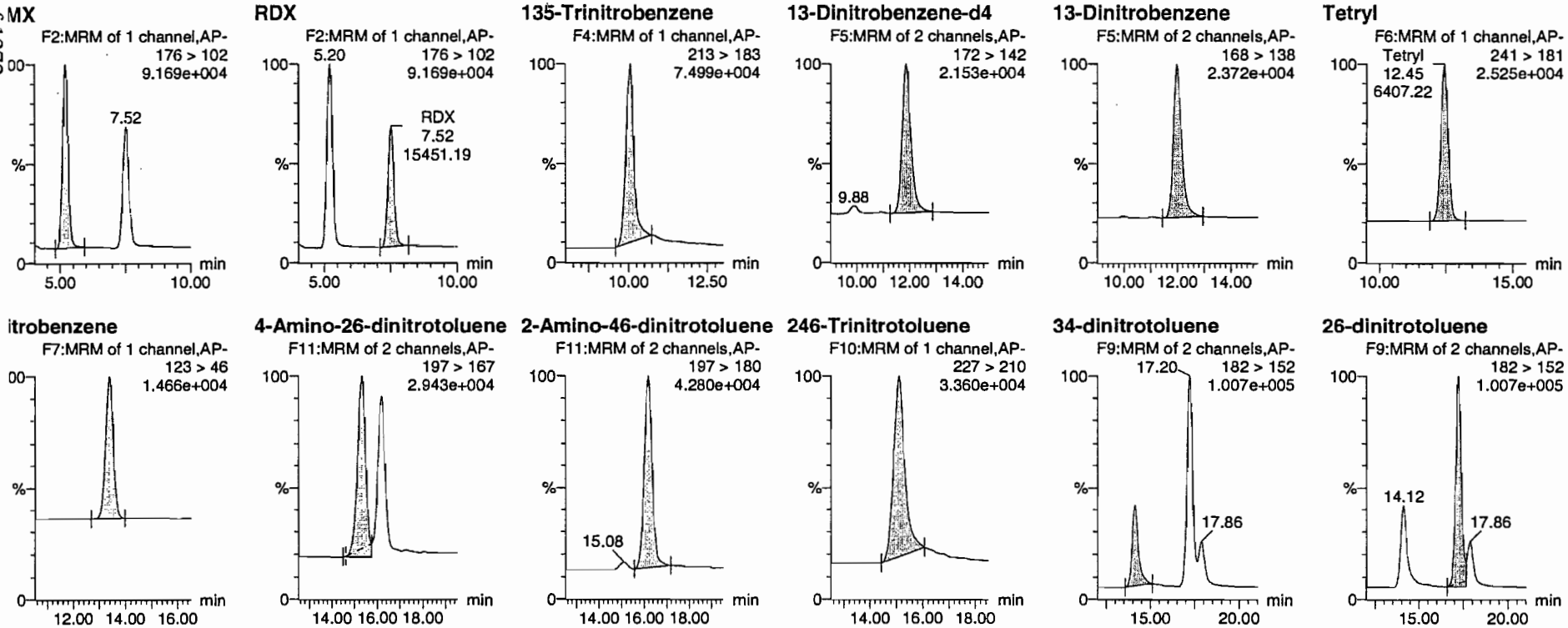

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ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

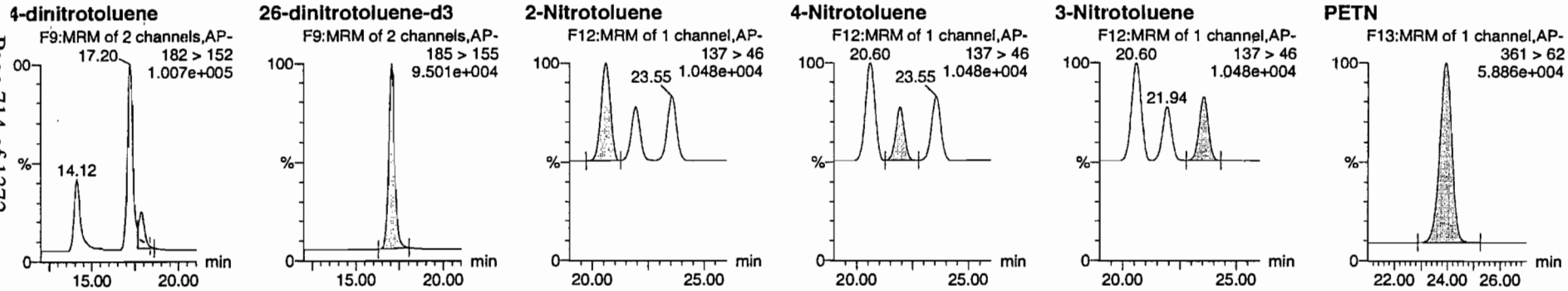

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
VXX100412-04	HMX	176 > 102	5.20	21938.941	6268.085	21938.941	1750.051	bb			412.8779	103.2	3.2	1181.1
VXX100412-04	RDX	176 > 102	7.52	15451.193	6268.085	15451.193	1232.529	bb			430.6228	107.7	7.7	774.0
VXX100412-04	135-Trinitrobenzene	213 > 183	10.05	20647.080	6268.085	20647.080	1647.001	bb			380.9874	95.2	-4.8	633.9
VXX100412-04	13-Dinitrobenzene-d4	172 > 142	11.87	6268.085		6268.085	6268.085	bb			532.9674	106.6	6.6	295.2
VXX100412-04	13-Dinitrobenzene	168 > 138	11.97	6698.587	6268.085	6698.587	534.341	bb			399.6358	99.9	-0.1	215.0
VXX100412-04	Tetryl	241 > 181	12.45	6407.221	6268.085	6407.221	511.099	bb			394.2832	98.6	-1.4	634.9
VXX100412-04	Nitrobenzene	123 > 46	13.37	3319.640	6268.085	3319.640	264.805	bb			422.1368	105.5	5.5	348.9
VXX100412-04	4-Amino-26-dinitrotoluene	197 > 167	15.32	10028.896	37460.551	10028.896	133.859	MM	13-Apr-10	11:01:17	396.3123	99.1	-0.9	209.8
VXX100412-04	2-Amino-46-dinitrotoluene	197 > 180	16.16	15422.835	37460.551	15422.835	205.854	bb			401.9043	100.5	0.5	648.1
VXX100412-04	246-Trinitrotoluene	227 > 210	15.10	13461.486	37460.551	13461.486	179.675	bb			413.0159	103.3	3.3	442.8
VXX100412-04	34-dinitrotoluene	182 > 152	14.12	15596.024	37460.551	15596.024	208.166	bb			201.8818	100.9	0.9	470.0
VXX100412-04	26-dinitrotoluene	182 > 152	17.20	35659.953	37460.551	35659.953	475.967	MM	13-Apr-10	11:06:27	402.1558	100.5	0.5	1229.6
VXX100412-04	24-dinitrotoluene	182 > 152	17.86	7671.085	37460.551	7671.085	102.389	MM	13-Apr-10	11:09:25	392.2886	98.1	-1.9	246.0
VXX100412-04	26-dinitrotoluene-d3	185 > 155	17.05	37460.551		37460.551	37460.551	bb			535.4081	107.1	7.1	2261.8
VXX100412-04	2-Nitrotoluene	137 > 46	20.60	2509.765	37460.551	2509.765	33.499	bb			386.8746	96.7	-3.3	348.5
VXX100412-04	4-Nitrotoluene	137 > 46	21.94	1274.233	37460.551	1274.233	17.008	bb			410.0270	102.5	2.5	188.4
VXX100412-04	3-Nitrotoluene	137 > 46	23.55	1589.720	37460.551	1589.720	21.219	bb			363.9425	91.0	-9.0	224.0
VXX100412-04	PETN	361 > 62	23.94	28870.779	37460.551	28870.779	385.349	bb			410.0384	102.5	2.5	7754.2

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412007a
Date: 12-Apr-2010
Time: 18:37:36
ID: WXX100412-05
Vial: 1:2,E

MT 4/13/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.711e+005
7.52

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.711e+005
5.20
RDX
7.52
30341.64

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.448e+005

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.147e+004
9.91

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
4.102e+004

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
4.313e+004

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
2.274e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
5.148e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
7.937e+004

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
6.076e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.856e+005
17.22
17.88

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.856e+005
14.12
17.88

HMW 04/14/10

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ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

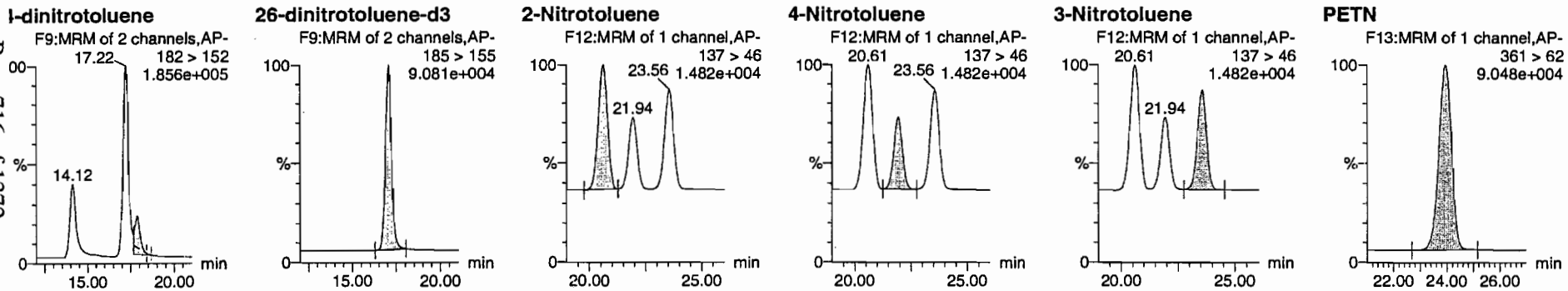

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'XX100412-05	HMX	176 > 102	5.20	42697.836	6170.529	42697.836	3459.820	bb			816.2521	102.0	2.0	1570.9
'XX100412-05	RDX	176 > 102	7.52	30341.643	6170.529	30341.643	2458.593	bb			858.9869	107.4	7.4	1029.6
'XX100412-05	135-Trinitrobenzene	213 > 183	10.05	40826.719	6170.529	40826.719	3308.203	bb			765.2598	95.7	-4.3	2677.4
'XX100412-05	13-Dinitrobenzene-d4	172 > 142	11.87	6170.529		6170.529	6170.529	bb			524.6724	104.9	4.9	557.9
'XX100412-05	13-Dinitrobenzene	168 > 138	11.97	12954.135	6170.529	12954.135	1049.678	bb			785.0586	98.1	-1.9	1128.1
'XX100412-05	Tetryl	241 > 181	12.45	12242.499	6170.529	12242.499	992.014	bb			765.2813	95.7	-4.3	1109.0
'XX100412-05	Nitrobenzene	123 > 46	13.37	6168.525	6170.529	6168.525	499.838	bb			796.8123	99.6	-0.4	488.0
'XX100412-05	4-Amino-26-dinitrotoluene	197 > 167	15.32	19289.736	35471.285	19289.736	271.906	MM	13-Apr-10	11:01:25	805.0223	100.6	0.6	817.7
'XX100412-05	2-Amino-46-dinitrotoluene	197 > 180	16.19	30352.727	35471.285	30352.727	427.849	bb			835.3211	104.4	4.4	513.9
'XX100412-05	246-Trinitrotoluene	227 > 210	15.10	26145.549	35471.285	26145.549	368.545	bb			847.1664	105.9	5.9	539.0
'XX100412-05	34-dinitrotoluene	182 > 152	14.12	29129.992	35471.285	29129.992	410.614	bb			398.2181	99.6	-0.4	595.3
'XX100412-05	26-dinitrotoluene	182 > 152	17.22	68260.867	35471.285	68260.867	962.199	MM	13-Apr-10	11:06:37	812.9851	101.6	1.6	1572.2
'XX100412-05	24-dinitrotoluene	182 > 152	17.88	14884.956	35471.285	14884.956	209.817	MM	13-Apr-10	11:09:33	803.8845	100.5	0.5	325.6
'XX100412-05	26-dinitrotoluene-d3	185 > 155	17.05	35471.285		35471.285	35471.285	bb			506.9763	101.4	1.4	2145.4
'XX100412-05	2-Nitrotoluene	137 > 46	20.61	4498.135	35471.285	4498.135	63.405	bb			732.2626	91.5	-8.5	1331.5
'XX100412-05	4-Nitrotoluene	137 > 46	21.94	2372.772	35471.285	2372.772	33.446	bb			806.3375	100.8	0.8	756.5
'XX100412-05	3-Nitrotoluene	137 > 46	23.56	3460.828	35471.285	3460.828	48.784	bb			836.7379	104.6	4.6	1057.7
'XX100412-05	PETN	361 > 62	23.94	46927.074	35471.285	46927.074	661.480	bb			780.9557	97.6	-2.4	3923.5

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ataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412008a
ate: 12-Apr-2010
me: 19:07:04
: WXX100412-06
ial: 1:2,F

MM 4/13/10

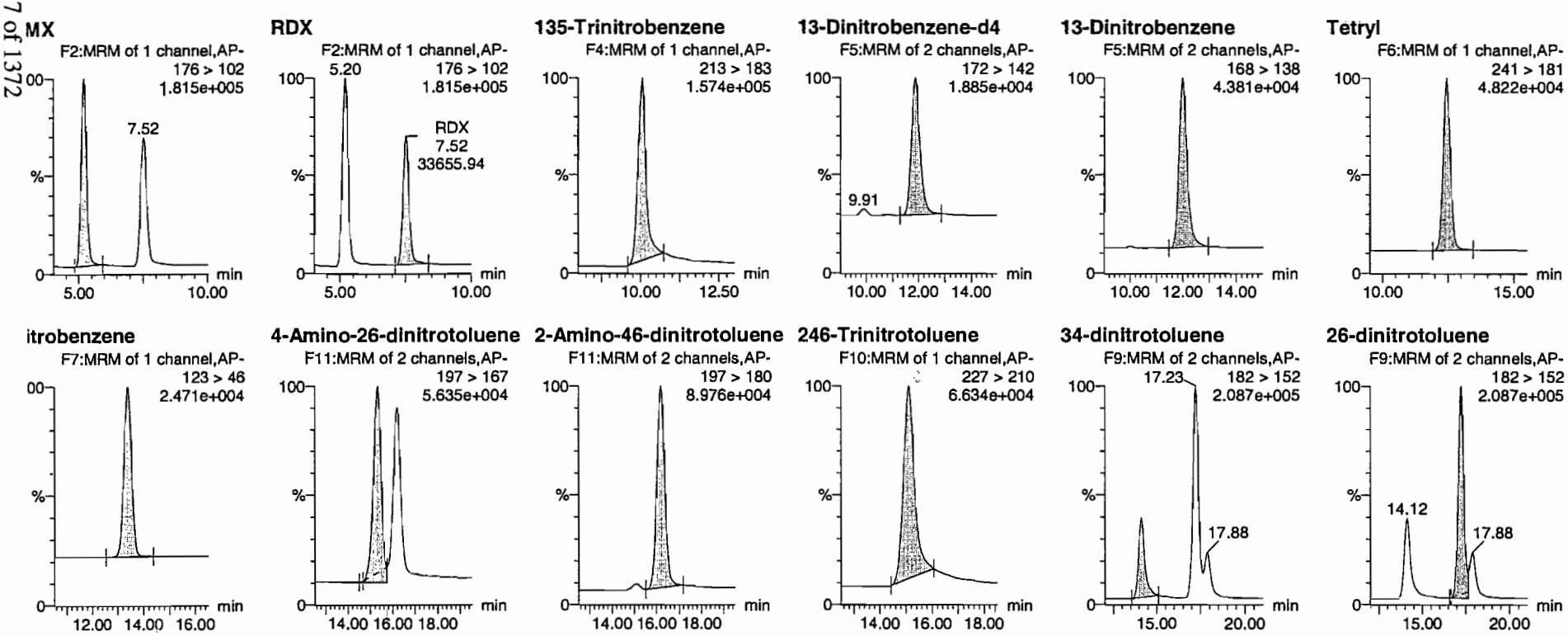

Hmm 04/14/10

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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ıtaset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

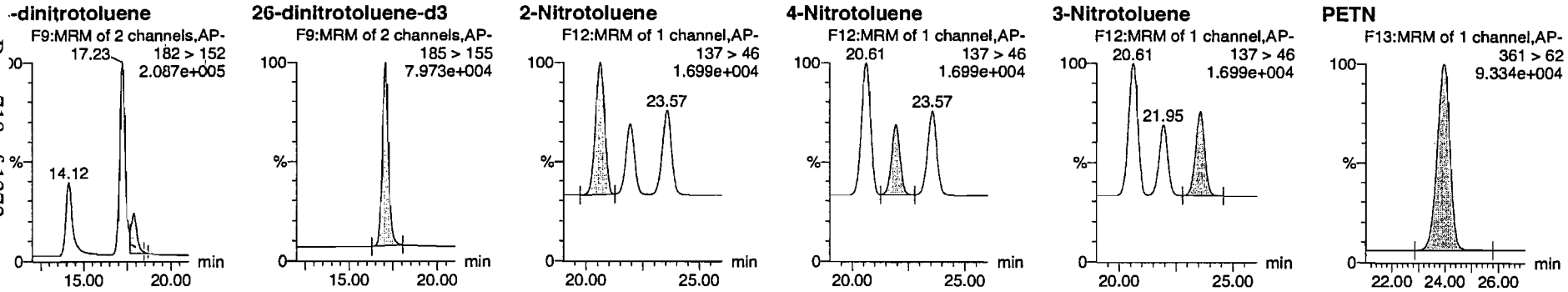

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
XX100412-06	HMX	176 > 102	5.20	44954.926	5007.691	44954.926	4488.588	bb			1058.9...	105.9	5.9	1055.8
XX100412-06	RDX	176 > 102	7.52	33655.938	5007.691	33655.938	3360.425	bb			1174.0...	117.4	17.4	721.1
XX100412-06	135-Trinitrobenzene	213 > 183	10.05	44671.801	5007.691	44671.801	4460.319	bb			1031.7...	103.2	3.2	2013.0
XX100412-06	13-Dinitrobenzene-d4	172 > 142	11.87	5007.691		5007.691	5007.691	bb			425.7977	85.2	-14.8	577.2
XX100412-06	13-Dinitrobenzene	168 > 138	12.00	13936.076	5007.691	13936.076	1391.467	bb			1040.6...	104.1	4.1	1057.3
XX100412-06	Tetryl	241 > 181	12.45	13724.574	5007.691	13724.574	1370.350	bb			1057.1...	105.7	5.7	1759.7
XX100412-06	Nitrobenzene	123 > 46	13.41	6754.345	5007.691	6754.345	674.397	bb			1075.0...	107.5	7.5	711.0
XX100412-06	4-Amino-26-dinitrotoluene	197 > 167	15.32	21193.145	30765.707	21193.145	344.428	MM	13-Apr-10	11:01:37	1019.7...	102.0	2.0	333.9
XX100412-06	2-Amino-46-dinitrotoluene	197 > 180	16.19	34180.871	30765.707	34180.871	555.503	bb			1084.5...	108.5	8.5	1989.8
XX100412-06	246-Trinitrotoluene	227 > 210	15.10	28837.420	30765.707	28837.420	468.662	bb			1077.3...	107.7	7.7	1377.4
XX100412-06	34-dinitrotoluene	182 > 152	14.12	32128.707	30765.707	32128.707	522.151	bb			506.3885	101.3	1.3	816.7
XX100412-06	26-dinitrotoluene	182 > 152	17.23	75050.953	30765.707	75050.953	1219.718	MM	13-Apr-10	11:06:46	1030.5...	103.1	3.1	2179.3
XX100412-06	24-dinitrotoluene	182 > 152	17.88	17169.697	30765.707	17169.697	279.040	MM	13-Apr-10	11:09:44	1069.1...	106.9	6.9	453.0
XX100412-06	26-dinitrotoluene-d3	185 > 155	17.07	30765.707		30765.707	30765.707	bb			439.7214	87.9	-12.1	2457.3
XX100412-06	2-Nitrotoluene	137 > 46	20.61	5424.529	30765.707	5424.529	88.159	bb			1018.1...	101.8	1.8	733.5
XX100412-06	4-Nitrotoluene	137 > 46	21.95	2691.478	30765.707	2691.478	43.742	bb			1054.5...	105.5	5.5	393.4
XX100412-06	3-Nitrotoluene	137 > 46	23.57	3457.417	30765.707	3457.417	56.189	bb			963.7651	96.4	-3.6	468.2
XX100412-06	PETN	361 > 62	23.96	49397.086	30765.707	49397.086	802.795	bb			1011.8...	101.2	1.2	8899.2

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Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2057

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXP0412010a

Analysis Date: 12-APR-10 20:06

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	600	593.013	99	
1,3-Dinitrobenzene-d4	500	528.009	106	
2,4,6-Trinitrotoluene	600	674.734	112	
2,4-Dinitrotoluene	600	608.204	101	
2,6-Dinitrotoluene	600	599.148	100	
2,6-Dinitrotoluene-d3	500	574.331	115	
2-Amino-4,6-dinitrotoluene	600	592.511	99	
3,4-Dinitrotoluene	300	280.228	93	
4-Amino-2,6-dinitrotoluene	600	600.345	100	
HMX	600	642.971	107	
Nitrobenzene	600	610.074	102	
PETN	600	527.609	88	
RDX	600	753.124	126	*
Tetryl	600	604.19	101	
m-Dinitrobenzene	600	606.979	101	
m-Nitrotoluene	600	475.553	79	*
o-Nitrotoluene	600	492.414	82	
p-Nitrotoluene	600	547.628	91	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412010a
Date: 12-Apr-2010
Time: 20:06:00
ID: WXX100412-07ICV
Vial: 1:1,B

MMT 4/13/10

HMX

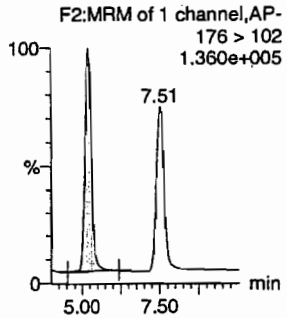

RDX

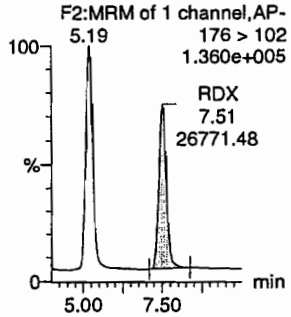

135-Trinitrobenzene

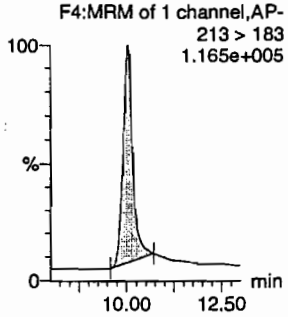

13-Dinitrobenzene-d4

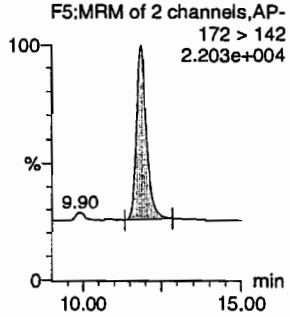

13-Dinitrobenzene

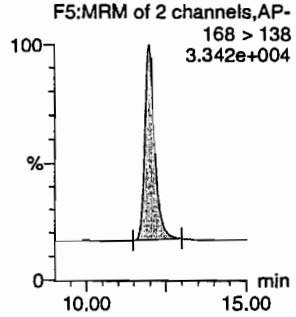

Tetryl

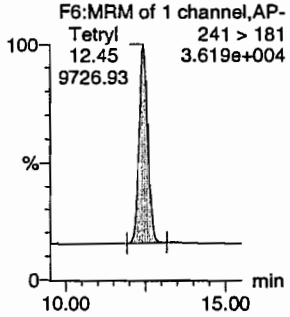

Nitrobenzene

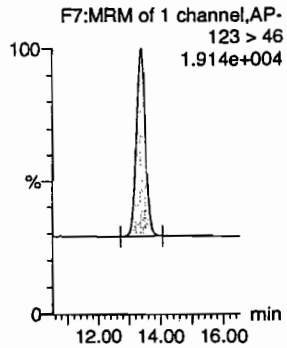

4-Amino-26-dinitrotoluene

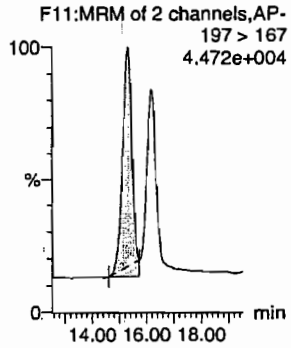

2-Amino-46-dinitrotoluene

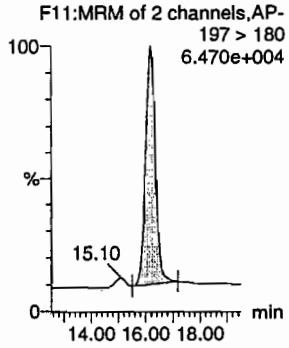

246-Trinitrotoluene

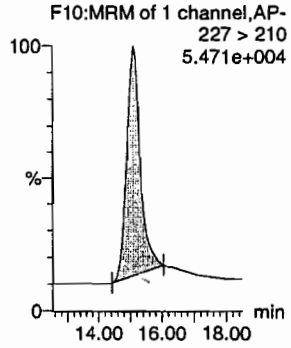

34-dinitrotoluene

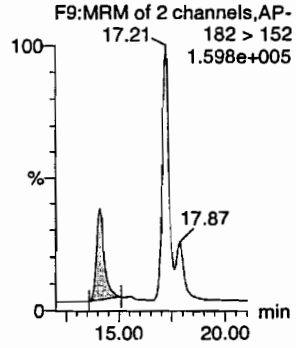

26-dinitrotoluene

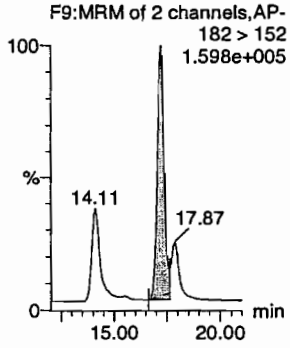

thm 04/14/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

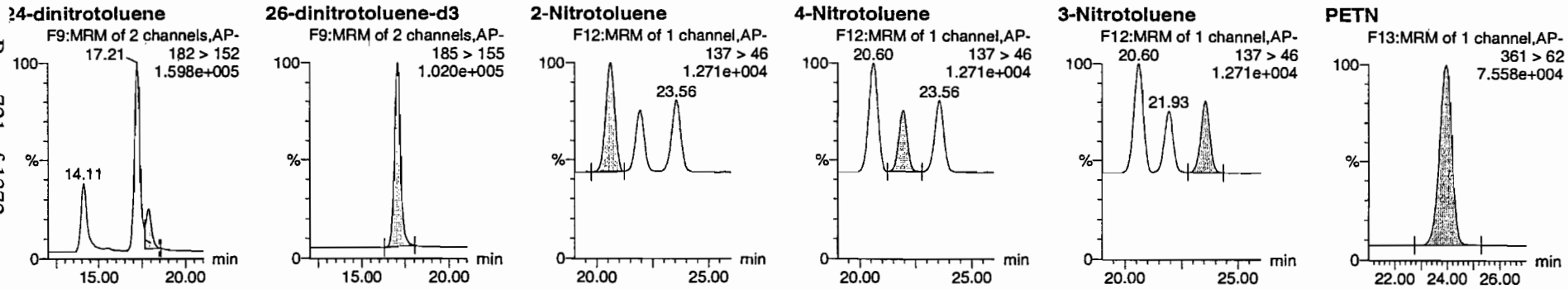

ID	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
WXX100412-07ICV	HMX	176 > 102	5.19	33847.480	6209.775	33847.480	2725.339	bb			642.9709	107.2	7.2	3326.4
WXX100412-07ICV	RDX	176 > 102	7.51	26771.480	6209.775	26771.480	2155.592	bb			753.1238	125.5	25.5	2433.7
WXX100412-07ICV	135-Trinitrobenzene	213 > 183	10.03	31838.539	6209.775	31838.539	2563.582	bb			593.0128	98.8	-1.2	1379.9
WXX100412-07ICV	13-Dinitrobenzene-d4	172 > 142	11.86	6209.775		6209.775	6209.775	bb			528.0094	105.6	5.6	836.0
WXX100412-07ICV	13-Dinitrobenzene	168 > 138	11.97	10079.378	6209.775	10079.378	811.574	bb			606.9793	101.2	1.2	1025.2
WXX100412-07ICV	Tetryl	241 > 181	12.45	9726.927	6209.775	9726.927	783.195	bb			604.1896	100.7	0.7	1063.3
WXX100412-07ICV	Nitrobenzene	123 > 46	13.39	4752.931	6209.775	4752.931	382.698	bb			610.0743	101.7	1.7	361.4
WXX100412-07ICV	4-Amino-26-dinitrotoluene	197 > 167	15.31	16296.482	40183.859	16296.482	202.774	MM	13-Apr-10	11:01:46	600.3448	100.1	0.1	397.8
WXX100412-07ICV	2-Amino-46-dinitrotoluene	197 > 180	16.18	24390.191	40183.859	24390.191	303.482	bb			592.5107	98.8	-1.2	968.8
WXX100412-07ICV	246-Trinitrotoluene	227 > 210	15.09	23590.451	40183.859	23590.451	293.531	bb			674.7339	112.5	12.5	1164.7
WXX100412-07ICV	34-dinitrotoluene	182 > 152	14.11	23222.357	40183.859	23222.357	288.951	bb			280.2284	93.4	-6.6	253.4
WXX100412-07ICV	26-dinitrotoluene	182 > 152	17.21	56989.934	40183.859	56989.934	709.115	MM	13-Apr-10	11:06:55	599.1482	99.9	-0.1	713.0
WXX100412-07ICV	24-dinitrotoluene	182 > 152	17.87	12757.857	40183.859	12757.857	158.744	MM	13-Apr-10	11:09:56	608.2038	101.4	1.4	150.4
WXX100412-07ICV	26-dinitrotoluene-d3	185 > 155	17.06	40183.859		40183.859	40183.859	bb			574.3312	114.9	14.9	5693.5
WXX100412-07ICV	2-Nitrotoluene	137 > 46	20.60	3426.659	40183.859	3426.659	42.637	bb			492.4141	82.1	-17.9	1017.5
WXX100412-07ICV	4-Nitrotoluene	137 > 46	21.93	1825.573	40183.859	1825.573	22.715	bb			547.6276	91.3	-8.7	574.9
WXX100412-07ICV	3-Nitrotoluene	137 > 46	23.56	2228.251	40183.859	2228.251	27.726	bb			475.5529	79.3	-20.7	669.8
WXX100412-07ICV	PETN	361 > 62	23.94	38530.590	40183.859	38530.590	479.429	bb			527.6090	87.9	-12.1	6724.3

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/12/10
Time of Injection: 2006
Standard Number: WXX100412-07ICV
Data File: EXP0412010a

HMX	107.2
RDX	125.5
135-TNB	98.8
13-DNB	101.2
Tetryl	100.7
Nitrobenzene	101.7
4A-26-DNT	100.1
2A-46-DNT	98.8
246-TNT	112.5
34-DNT(surr)	93.4
26-DNT	99.9
24-DNT	101.4
2-NT	82.1
4-NT	91.3
3-NT	79.3
PETN	87.9
Total	1581.8
Average	98.9

HMW 04/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2057

Lab Code: GEL

Run Date: 05-APR-10,08-APR-10,09-APR-10,12-APR-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8O

Calibration Type: Average RF

Calibration Level:	19	20	21	22	23	24	25	Ave RF	RSD	Q
Data File:	EXS04050003.w	EXS04050004.w	EXS04050005.w	EXS04050006.w	EXS04050007.w	EXS04050008.w	EXS04050009.w			
Parmname										
tris(o-cresyl) phosphate	20900	20400	18800	18100	17100	17000	13900	18028.571	13	

Q column used to flag RSD values outside of Limit (>20%)
* Values outside of QC Limit

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Explosives Initial Calibration

Form 6

Lab Name: GEL Laboratories LLC

GEL Job No: 10-2057

Lab Code: GEL

Run Date: 05-APR-10.08-APR-10.09-APR-10.12-APR-10

LCMSMS Instrument ID: LCMSMS4

Method: 8321A Modified

HPLC Column: YMC J-Sphere ODS-H8O

Calibration Type: 2nd Order

Calibration Level:	19	20	21	22	23	24	25	X	X^2	Intercept	COD	Q
Data File:	EXS04050003.wifl	EXS04050004.wifl	EXS04050005.wifl	EXS04050006.wifl	EXS04050007.wifl	EXS04050008.wifl	EXS04050009.wifl					
Parmname:												
2,4-Diamino-6-nitrotoluene	107000	194000	514000	984000	1450000	2300000	3930000	-53800	2320	-.159	.9969	
2,6-Diamino-4-nitrotoluene	135000	256000	636000	1310000	1840000	3070000	4880000	-99700	3190	-.339	.9946	
3,4-Dinitrotoluene	217000	415000	947000	1910000	2920000	4200000	7540000	-91400	9310	-1.66	.9988	
3,5-Dinitroaniline	375000	679000	1590000	3210000	4580000	6550000	10500000	-89200	7310	-1.01	.9987	
TATB	35600	73300	184000	399000	594000	809000	1570000	-12100	830	-.019	.9999	

Quadradic Fit: y = Ax^2 + Bx + C
where X^2 column above is coefficient A
X column above is coefficient B
intercept is C

COD is Coefficient of Determination

Q column used to flag COD outside of Limit (<0.990)
* Values outside of QC Limit

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Peak Name: TATB
No Internal Standard
Q1/Q3 Masses: 257.20/204.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-1.21e+004			
a1	830			
a2	-0.0188			

Correlation coefficient 0.9999
Use Area

Peak Name: 35-Dinitroaniline
No Internal Standard
Q1/Q3 Masses: 182.00/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-8.92e+004			
a1	7.31e+003			
a2	-1.01			

Correlation coefficient 0.9987
Use Area

Peak Name: 34-Dinitrotoluene
No Internal Standard
Q1/Q3 Masses: 182.08/151.90 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-9.14e+004			
a1	9.31e+003			
a2	-1.66			

Correlation coefficient 0.9988
Use Area

Peak Name: 26-Diamino-4-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Fit	Quadratic	Weighting	None	Iterate No
a0	-9.97e+004			
a1	3.19e+003			
a2	-0.339			

Correlation coefficient 0.9946
Use Area

Peak Name: 24-Diamino-6-nitrotoluene
No Internal Standard
Q1/Q3 Masses: 165.97/46.00 amu

Kan 4/7/10

HNM 04/08/10

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Fit Quadratic Weighting None Iterate No
a0 -5.38e+004
a1 2.32e+003
a2 -0.159
Correlation coefficient 0.9969
Use Area

Peak Name: tris(o-cresyl) phosphate
No Internal Standard
Q1/Q3 Masses: 369.15/91.00 amu

Fit Mean Response Factor Weighting None Iterate No
Factor 1.8e+004
Standard deviation 2.35e+003
%RSD 13
Use Area

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040510.rdb (TATB): "Quadratic" Regression ("No" weighting): y = -0.0188 x^2 + 830 x + -1.21e+004 (r = 0.9999)

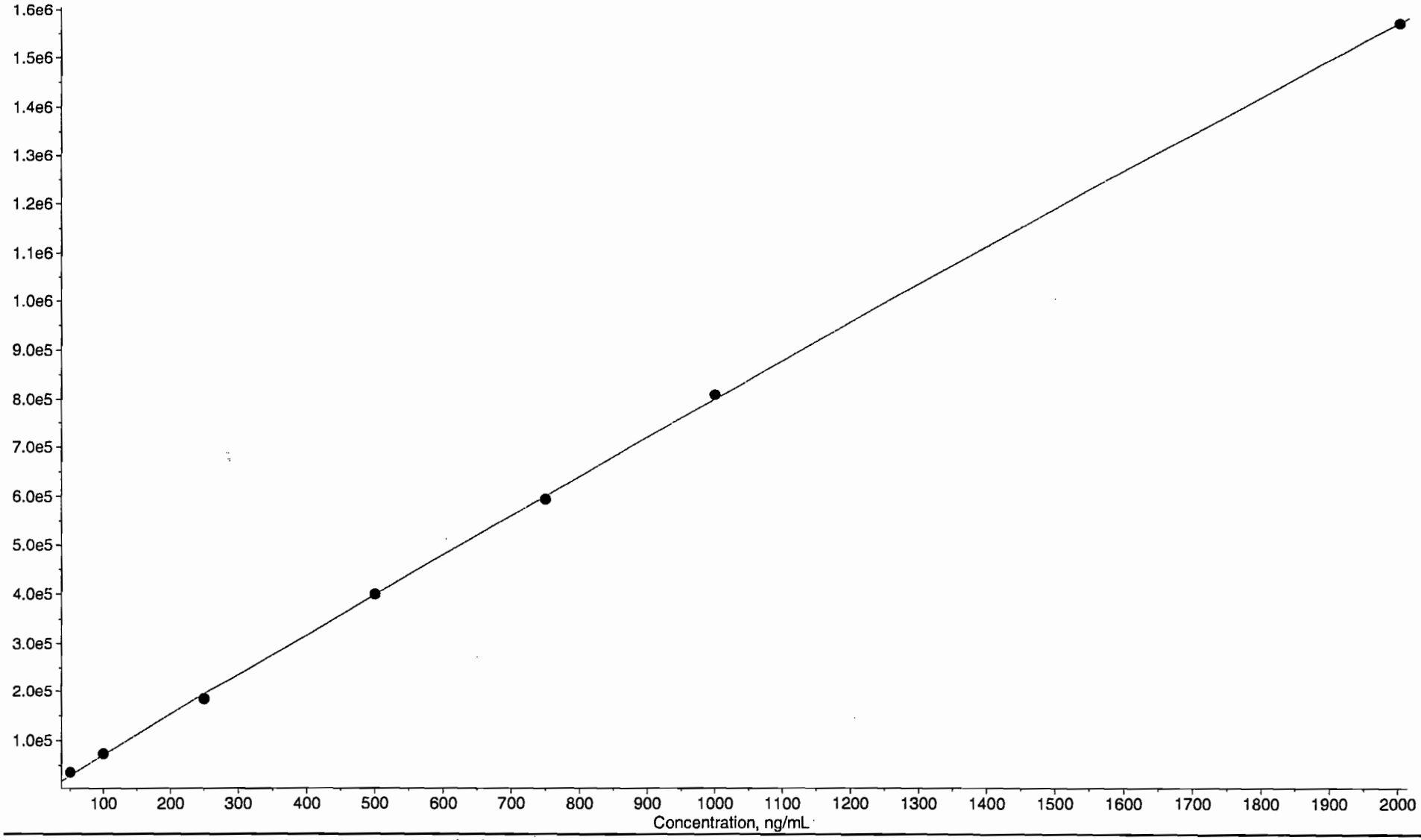

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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040510.rdb (35-Dinitroaniline): "Quadratic" Regression ("No" weighting): y = -1.01 x^2 + 7.31e+003 x + -8.92e+004 (r = 0.9987)

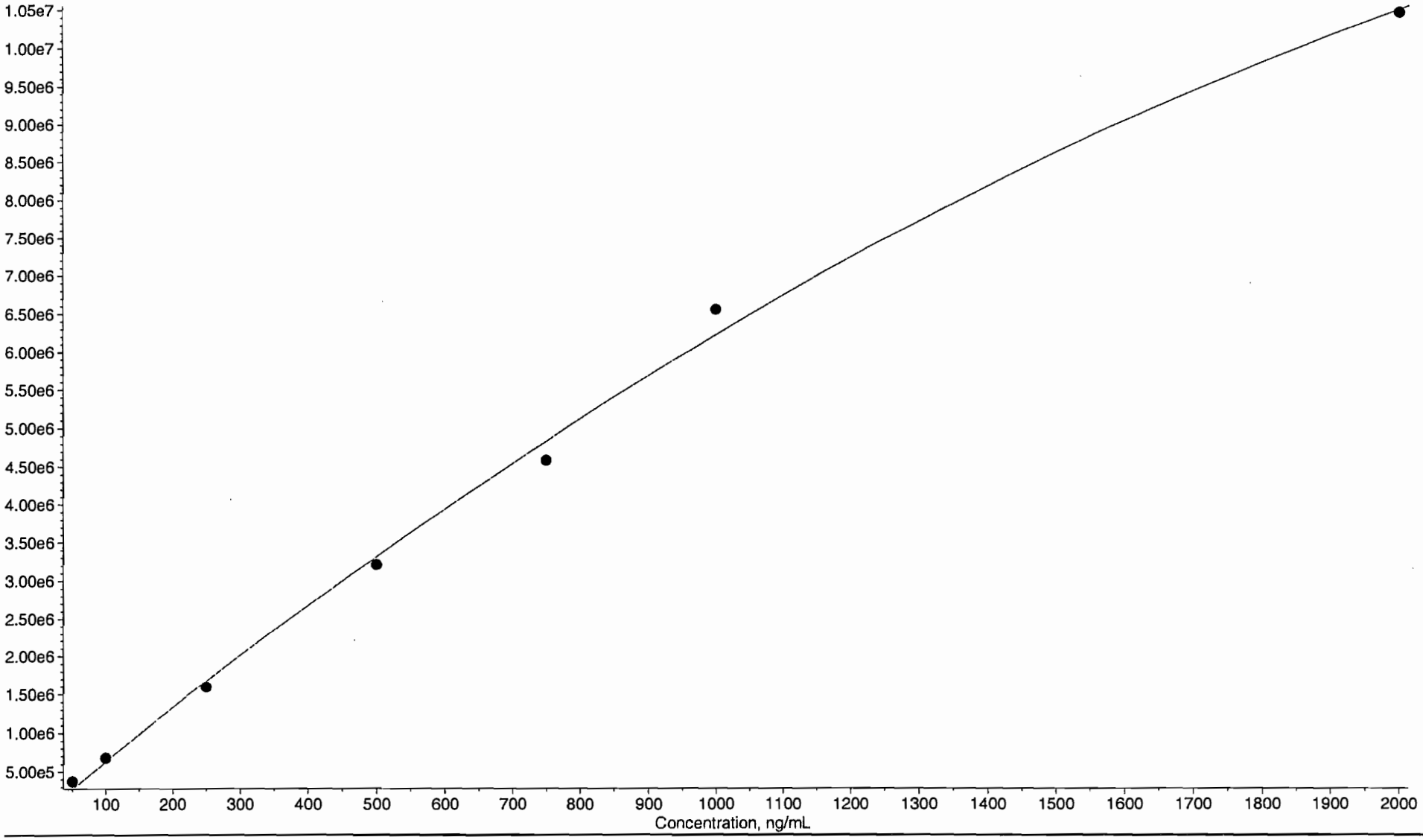

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

040510.rdb (34-Dinitrotoluene): "Quadratic" Regression ("No" weighting): y = -1.66 x^2 + 9.31e+003 x + -9.14e+004 (r = 0.9988)

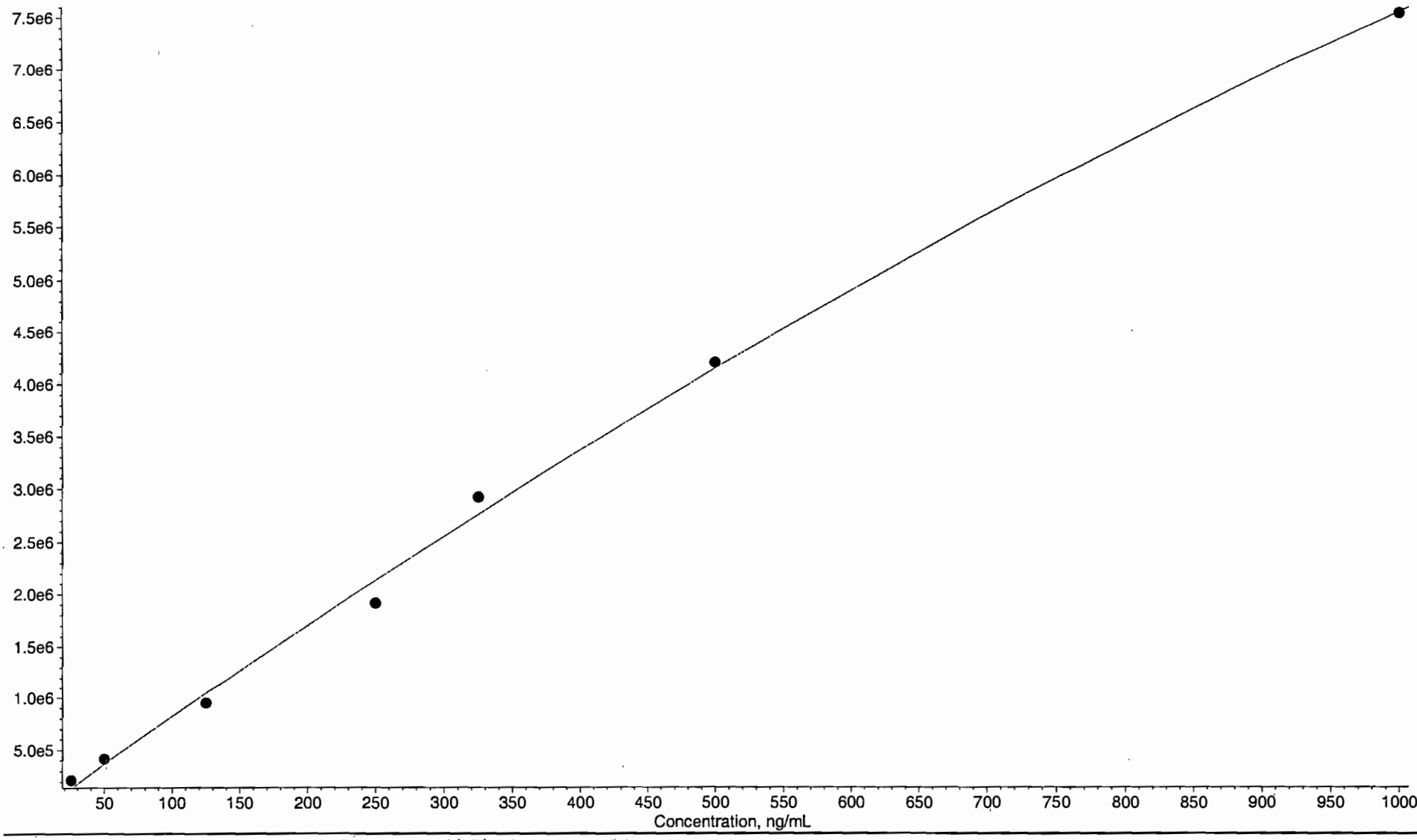

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040510.rdb (26-Diamino-4-nitrotoluene): "Quadratic" Regression ("No" weighting): y = -0.339 x^2 + 3.19e+003 x + -9.97e+004 (r = 0.9946)

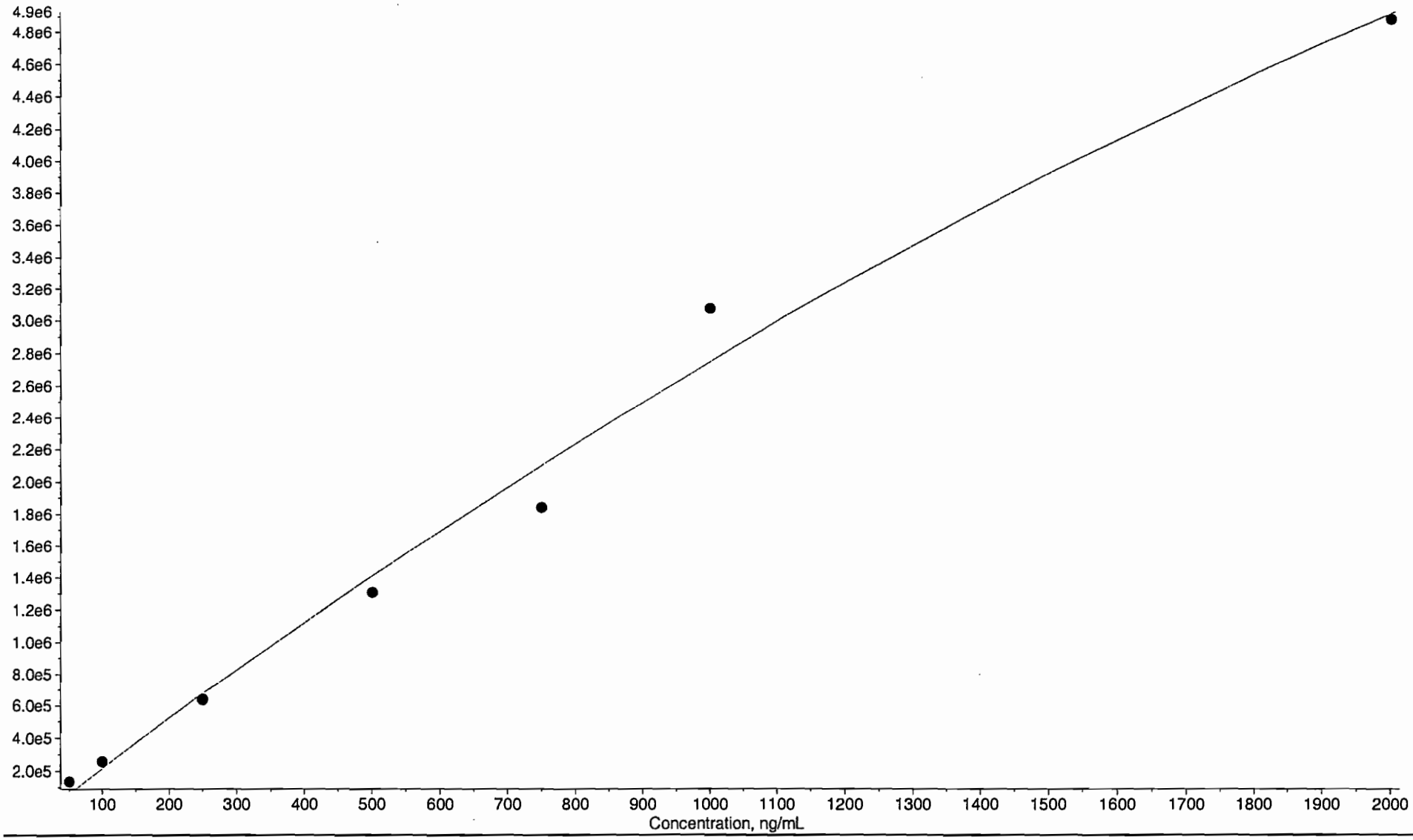

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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040510.rdb (24-Diamino-6-nitrotoluene): "Quadratic" Regression ("No" weighting): y = -0.159 x^2 + 2.32e+003 x + -5.38e+004 (r = 0.9969)

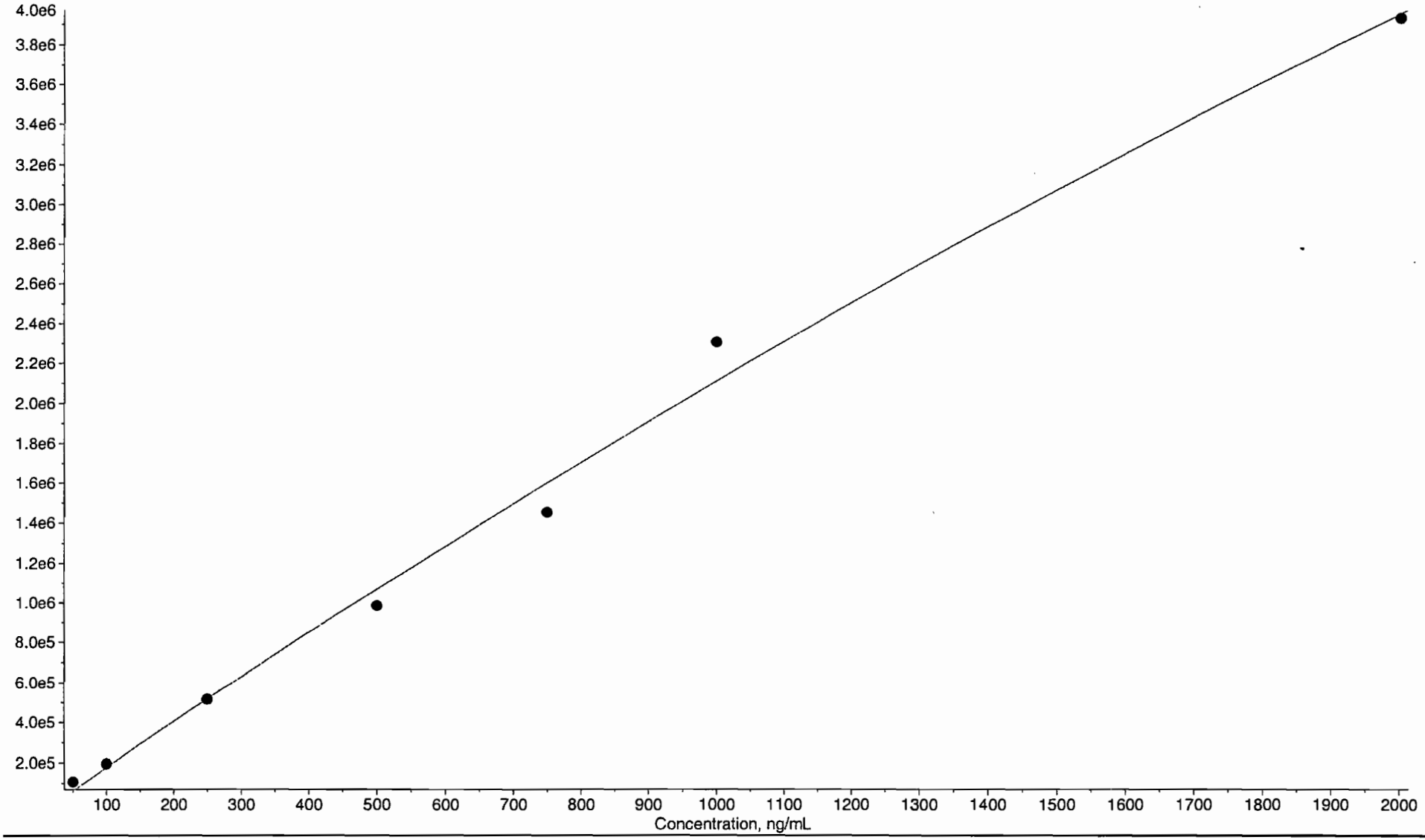

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040510.rdb (tris(o-cresyl) phosphate): "Mean Response Factor" Regression ("No" weighting): y = 1.8e+004 x (std. dev. = 2.35e+003)

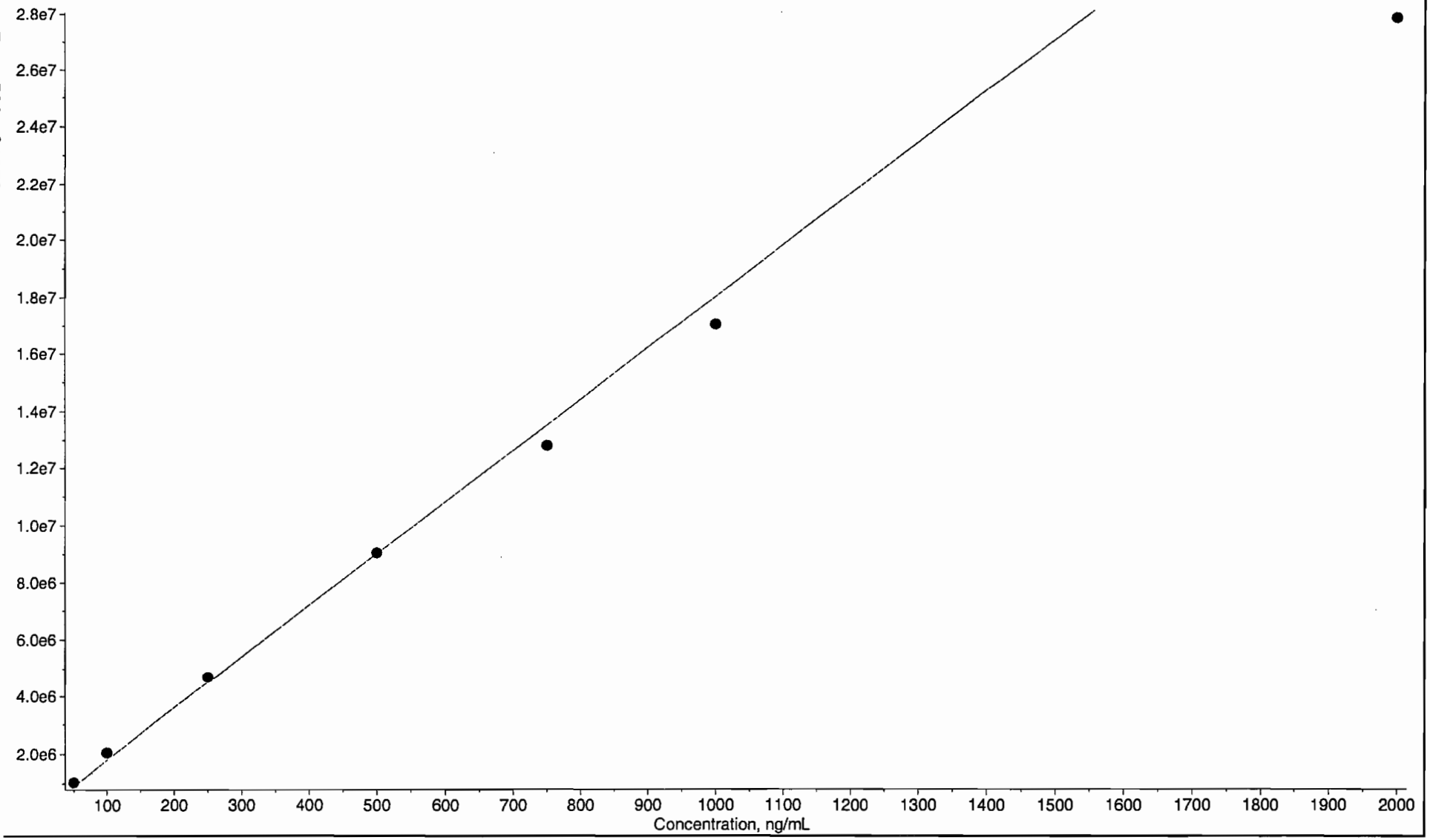

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Lcm 4/7/10

Sample Name: "WXX100405-19" Sample ID: "[1]LER" File: "EXS04050003.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	50.0	ng/mL
Calculated Conc:	57.5	ng/mL
Acq. Date:	4/5/2010	
Acq. Time:	1:15:16 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2500.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	6.86	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	6.85	min
Area:	3.56e+004	counts
Height:	8351.204	cps
Start Time:	6.76	min
End Time:	7.35	min

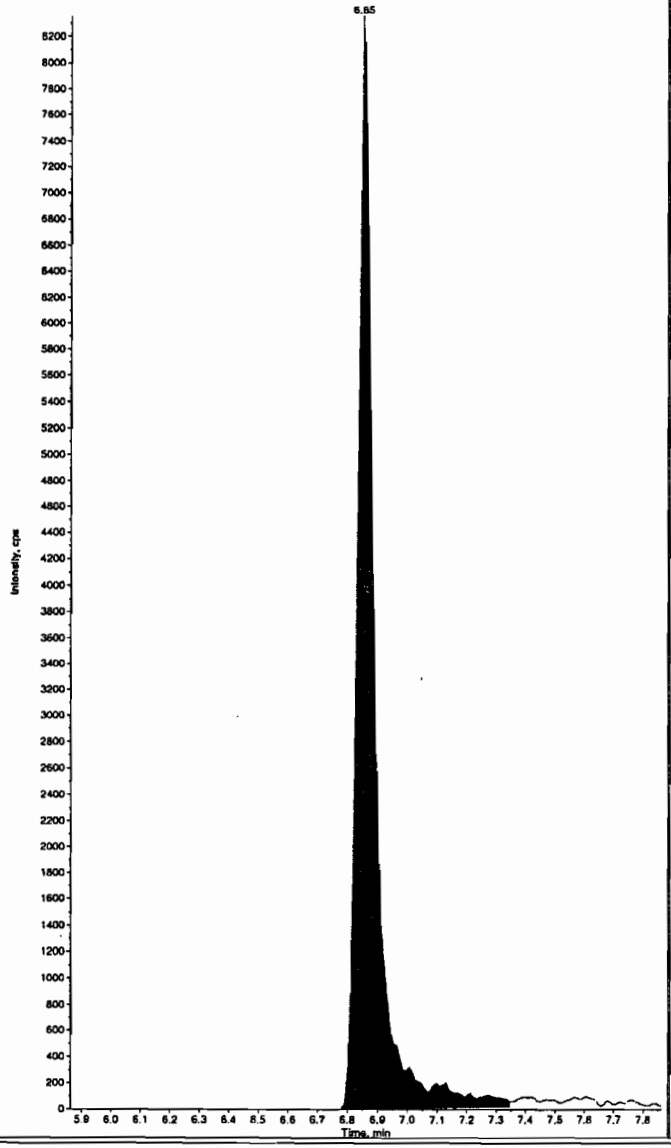

Sample Name: "WXX100405-19" Sample ID: "[1]LER" File: "EXS04050003.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	50.0	ng/mL
Calculated Conc:	64.1	ng/mL
Acq. Date:	4/5/2010	
Acq. Time:	1:15:16 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.10	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.08	min
Area:	3.75e+005	counts
Height:	97419.548	cps
Start Time:	7.91	min
End Time:	8.21	min

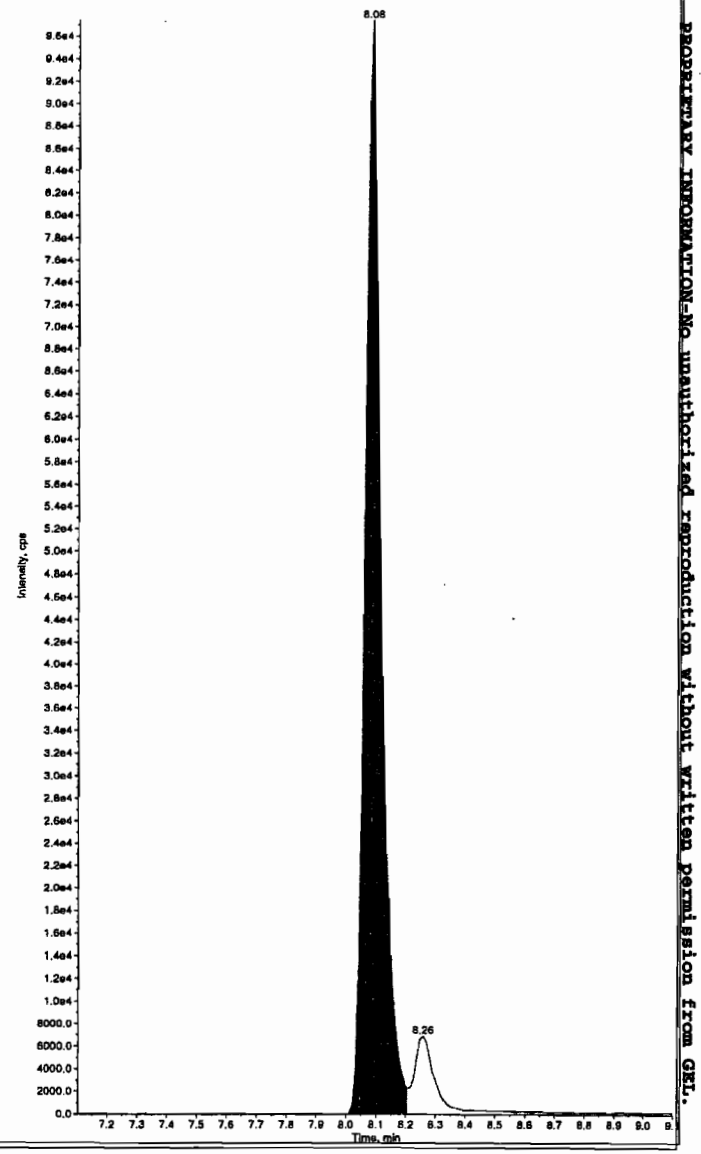

Hnm 04/08/10

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Sample Name: "WXX100405-19" Sample ID: "[1]LER" File: "EXS04050003.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

mple Index: 1
mple Type: Standard
ncentration: 25.0 ng/mL
lculated Conc: 33.4 ng/mL
q. Date: 4/5/2010
q. Time: 1:15:16 PM

dified: No
oc. Algorithm: IntelliQuan - IQA
n. Peak Height: 1460.00 cps
n. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
pected RT: 8.28 min
e Relative RT: No

t. Type: Valley
tention Time: 8.25 min
ea: 2.17e+005 counts
ight: 56255.928 cps
art Time: 8.19 min
d Time: 8.61 min

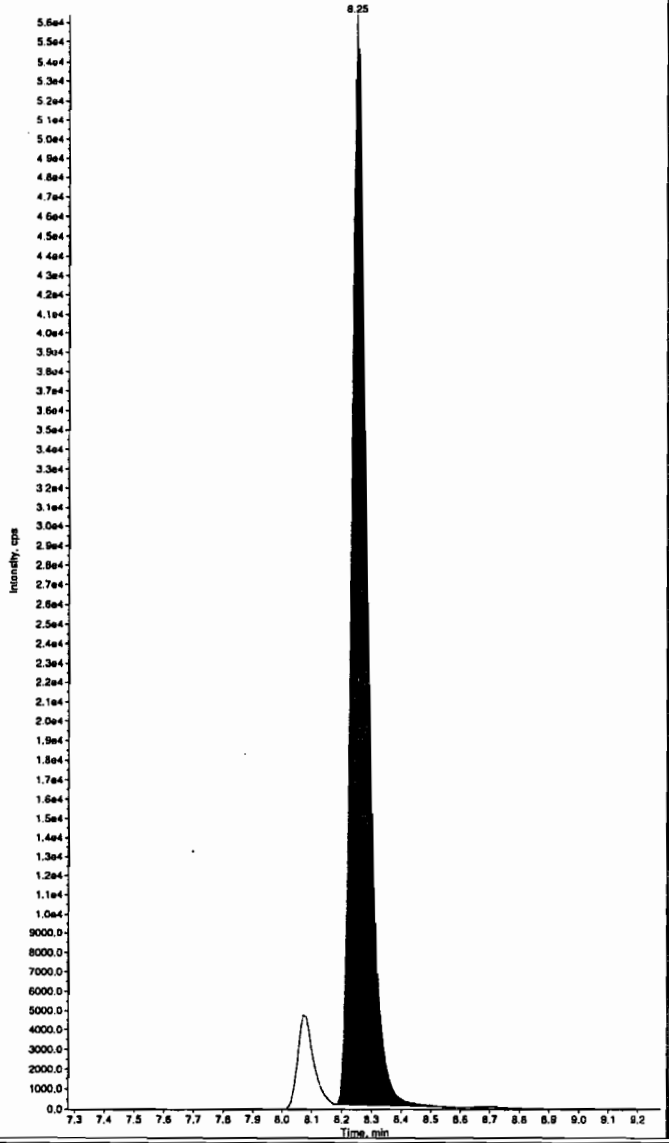

Sample Name: "WXX100405-19" Sample ID: "[1]LER" File: "EXS04050003.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 50.0 ng/mL
Calculated Conc: 74.3 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 1:15:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.93 min
Area: 1.35e+005 counts
Height: 30302.437 cps
Start Time: 4.83 min
End Time: 5.22 min

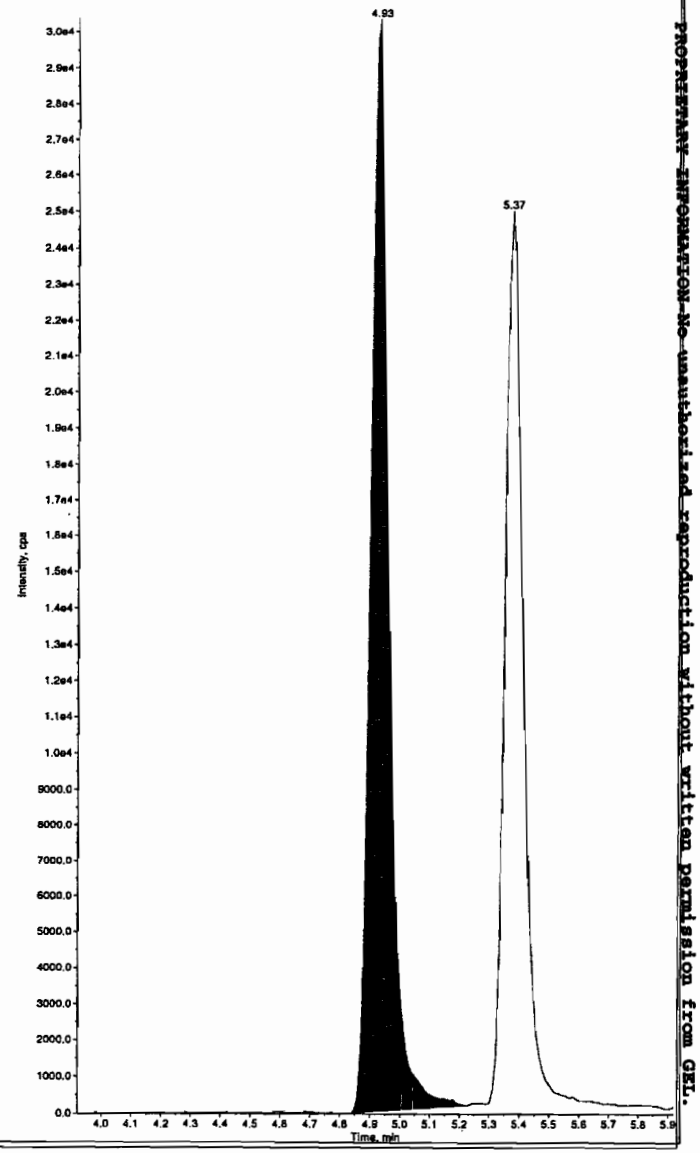

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nple Name: "WXX100405-19" Sample ID: "[1|LER" File: "EXS04050003.wiff"
k Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nment: "LCMSEXP_I" Annotation: ""
le Index: 1
le Type: Standard
entration: 50.0 ng/mL
ulated Conc: 69.5 ng/mL
Date: 4/5/2010
Time: 1:15:16 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.37 min
Relative RT: No

Type: Valley
ntion Time: 5.37 min
: 1.07e+005 counts
ht: 24765.348 cps
: Time: 5.29 min
Time: 5.77 min

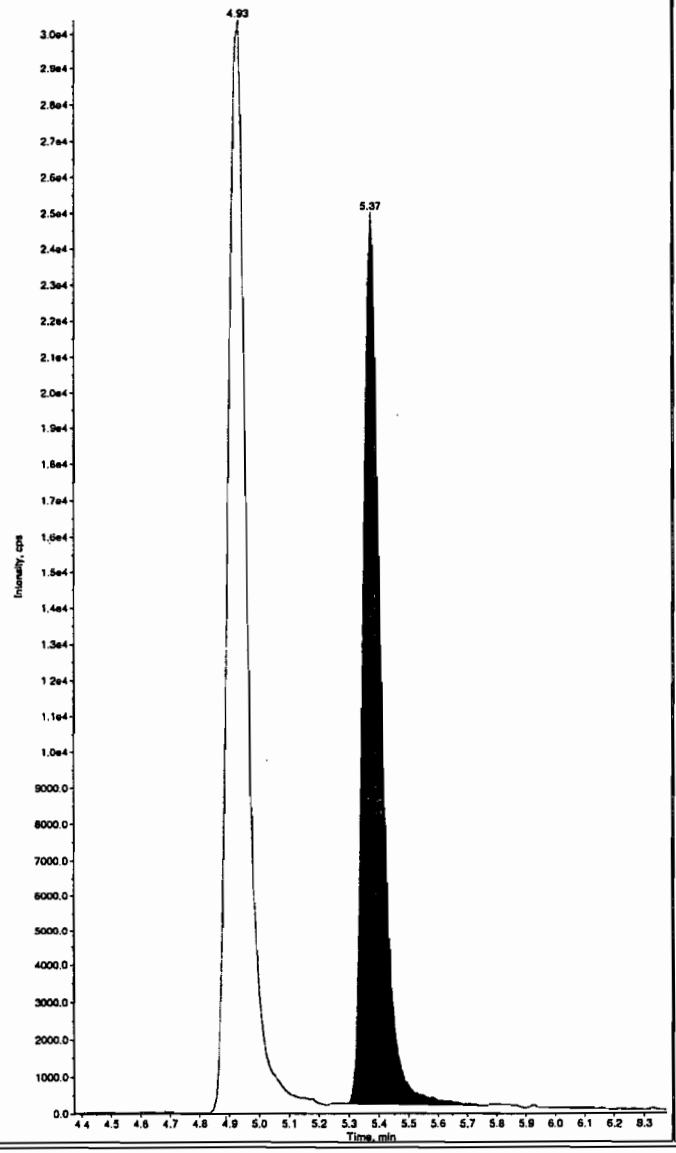

Sample Name: "WXX100405-19" Sample ID: "[1|LER" File: "EXS04050003.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 50.0 ng/mL
Calculated Conc: 57.9 ng/mL
Acq. Date: 4/5/2010
Acq. Time: 1:15:16 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.04e+006 counts
Height: 265380.920 cps
Start Time: 10.7 min
End Time: 11.1 min

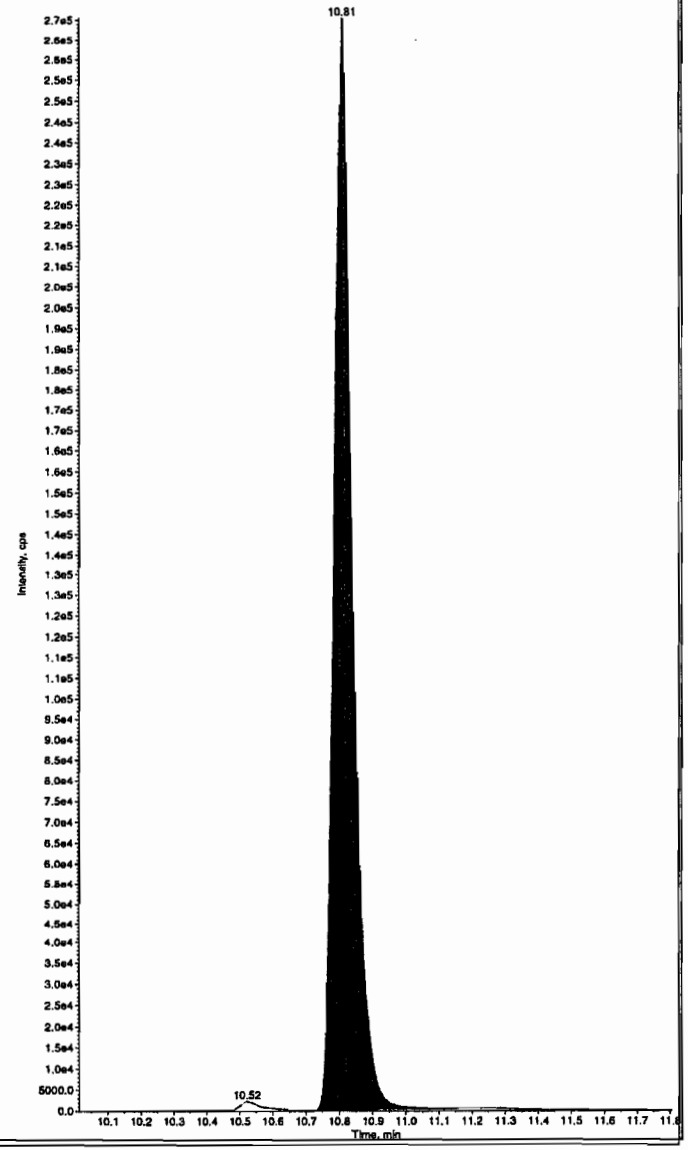

Before LCer 4/7/10

ample Name: "WXX100405-20" Sample ID: "|1|LER" File: "EXS04050004.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_I" Annotation: ""
ple Index: 1
ple Type: Standard
centration: 100. ng/mL
culated Conc: 103. ng/mL
. Date: 4/5/2010
. Time: 1:30:59 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 6.86 min
Relative RT: No

. Type: Valley
ention Time: 6.85 min
s: 7.33e+004 counts
ght: 16754.706 cps
rt Time: 6.76 min
Time: 7.38 min

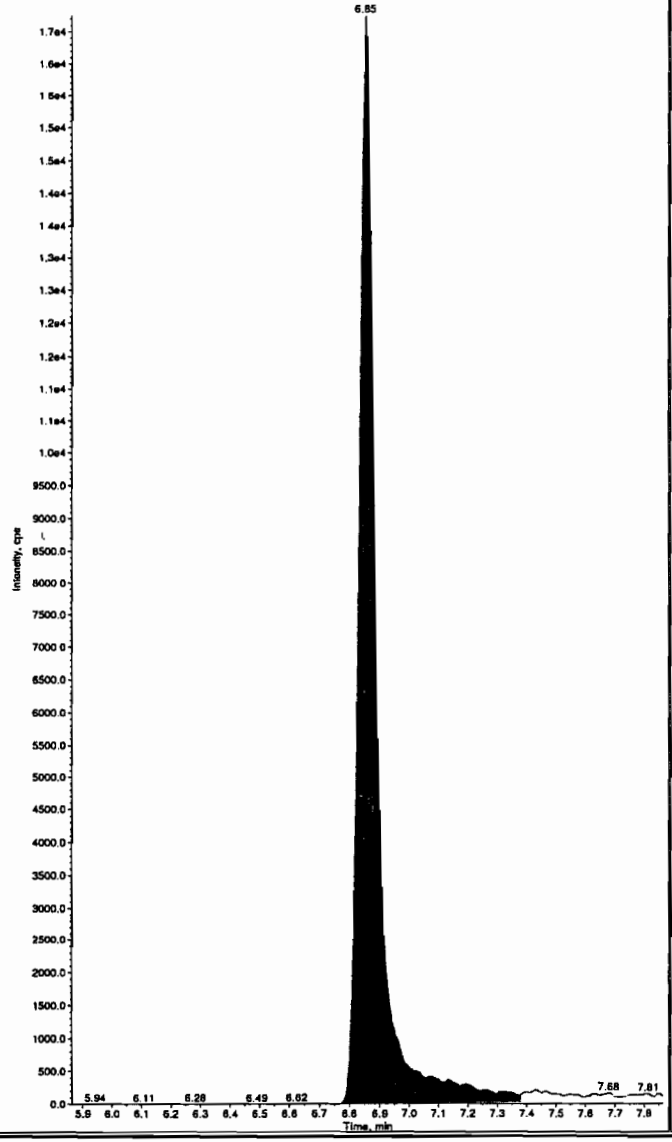

Sample Name: "WXX100405-20" Sample ID: "|1|LER" File: "EXS04050004.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 100. ng/mL
Calculated Conc: 103. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 1:30:59 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.09 min
Area: 6.57e+005 counts
Height: 169749.405 cps
Start Time: 8.02 min
End Time: 8.22 min

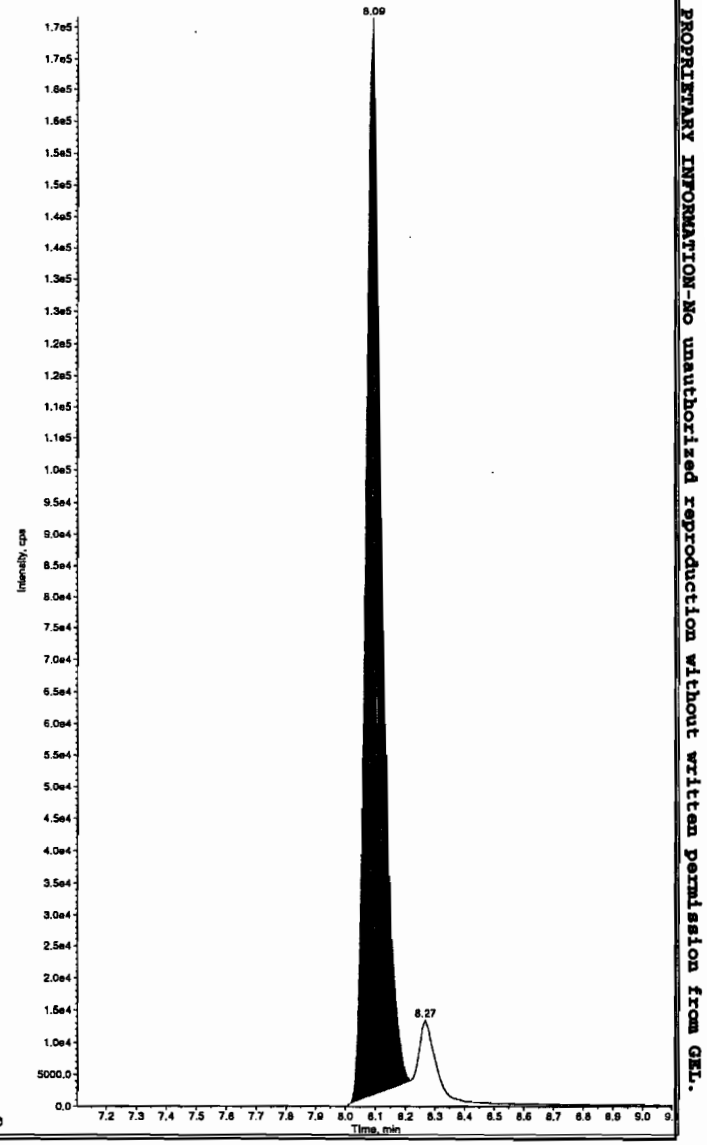

HMM 04/08/10

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after Lan 4/7/10

Sample Name: "WXX100405-20" Sample ID: "|1|LER" File: "EXS04050004.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

ple Index:	1	
ple Type:	Standard	
centration:	100.	ng/mL
culated Conc:	103.	ng/mL
. Date:	4/5/2010	
. Time:	1:30:59 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	6.86	min
Relative RT:	No	
. Type:	Valley	
ention Time:	6.85	min
a:	7.33e+004	counts
ght:	16754.704	cps
rt Time:	6.76	min
Time:	7.38	min

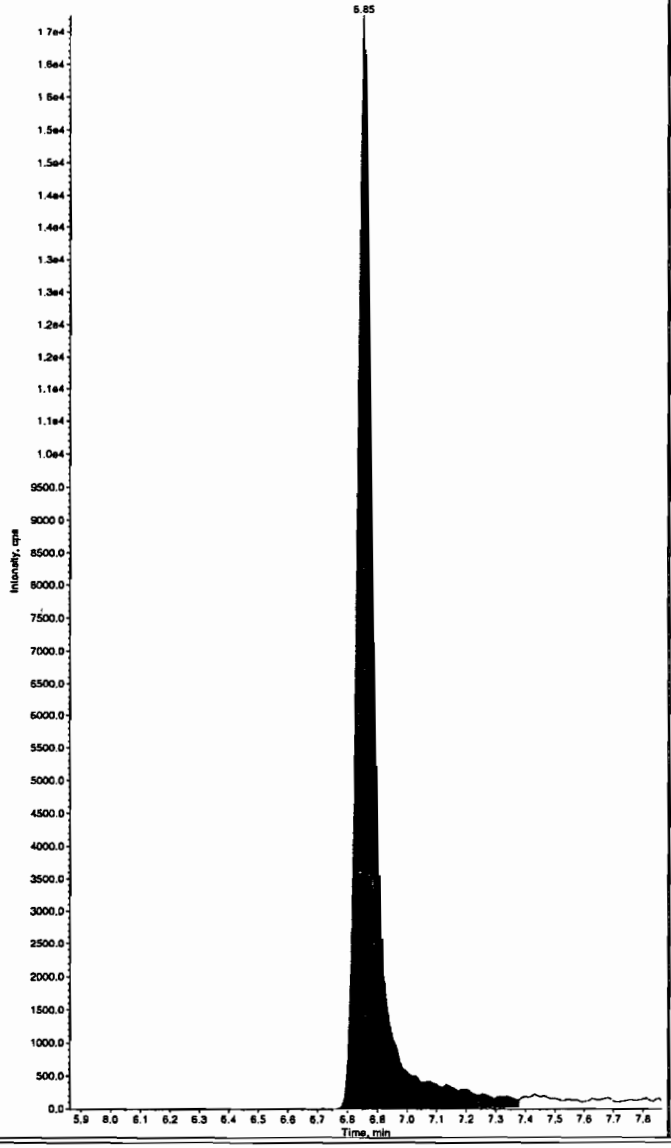

Sample Name: "WXX100405-20" Sample ID: "|1|LER" File: "EXS04050004.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	100.	ng/mL
Calculated Conc:	107.	ng/mL
Acq. Date:	4/5/2010	
Acq. Time:	1:30:59 PM	
Modified:	Yes	
RT Window:	15.0	sec
Expected RT:	8.10	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	8.09	min
Area:	6.79e+005	counts
Height:	171641.745	cps
Start Time:	8.01	min
End Time:	8.22	min

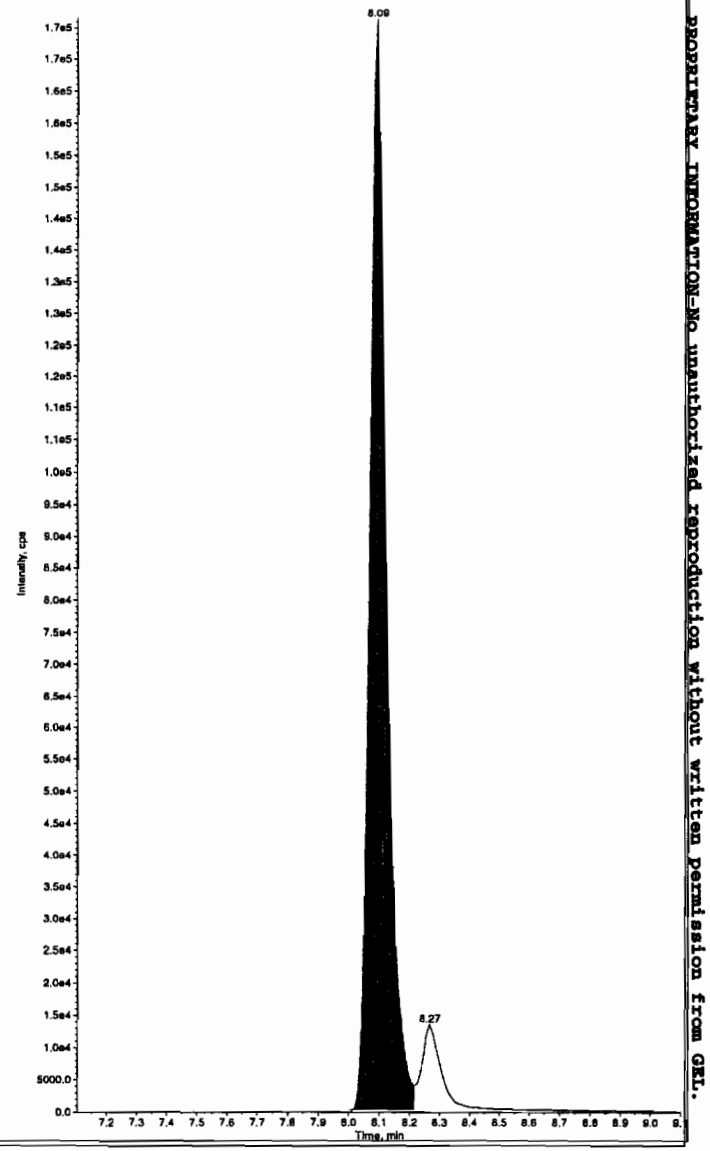

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Sample Name: "WXX100405-20" Sample ID: "[1|LER" File: "EXS04050004.wiff"
Peak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	50.0	ng/mL
Calculated Conc:	55.0	ng/mL
Acq. Date:	4/5/2010	
Acq. Time:	1:30:59 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	1460.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.28	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.27	min
Area:	4.15e+005	counts
Height:	103014.786	cps
Start Time:	8.20	min
End Time:	8.59	min

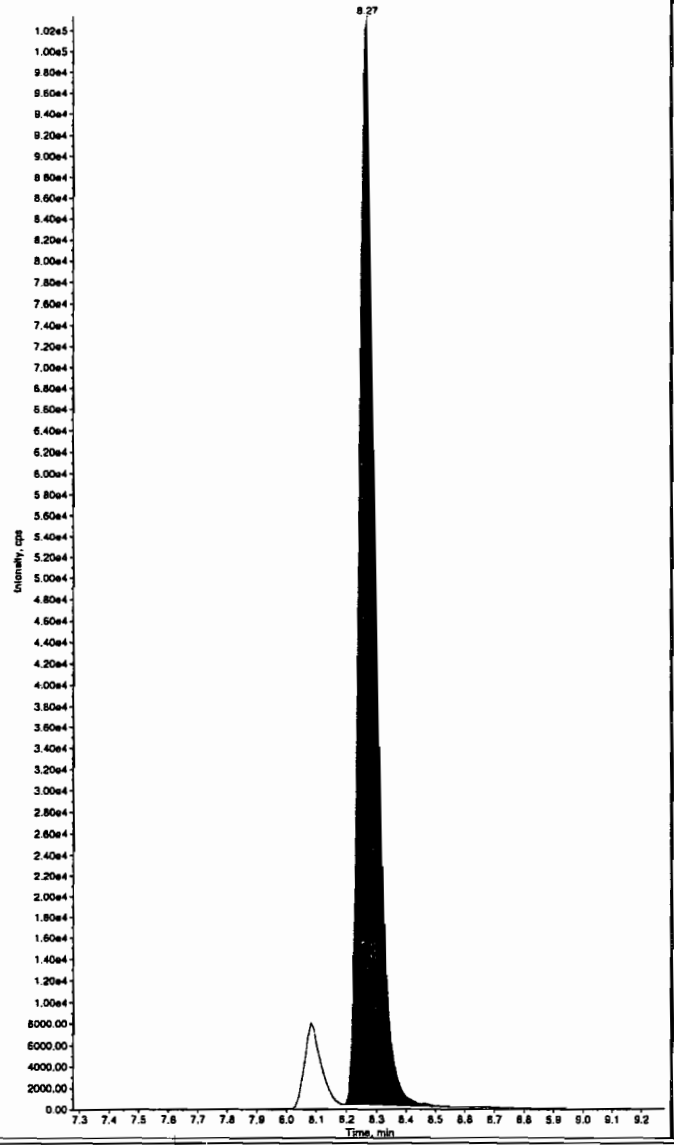

Sample Name: "WXX100405-20" Sample ID: "[1|LER" File: "EXS04050004.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/45.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	100.	ng/mL
Calculated Conc:	113.	ng/mL
Acq. Date:	4/5/2010	
Acq. Time:	1:30:59 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	4.92	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	4.92	min
Area:	2.56e+005	counts
Height:	61762.894	cps
Start Time:	4.84	min
End Time:	5.22	min

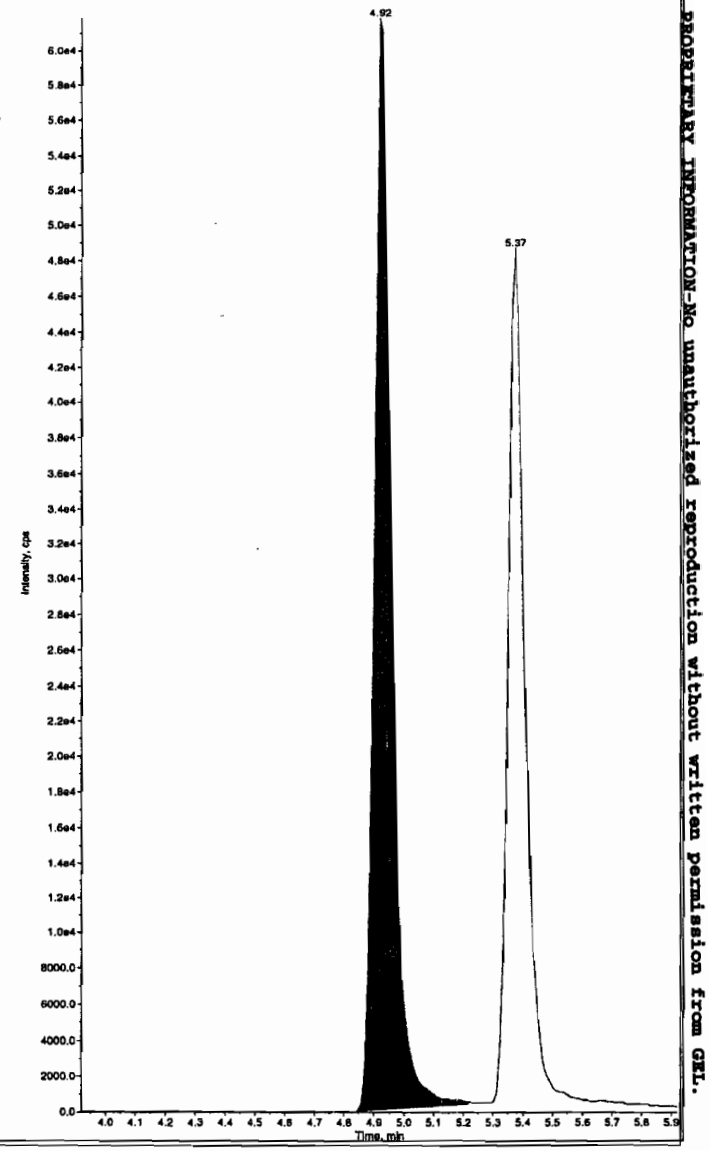

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mple Name: "WXX100405-20" Sample ID: "|1|LER" File: "EXS04050004.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_I" Annotation: ""

```
ple Index:        1
ple Type:      Standard
entration:       100.    ng/mL
ulated Conc:     108.    ng/mL
Date:        4/5/2010
Time:        1:30:59 PM

fied:            No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00   cps
Peak Width:    0.00   sec
thing Width:  3       points
indow:         30.0   sec
cted RT:        5.37  min
Relative RT:    No

Type:         Valley
ntion Time:     5.37  min
:          1.94e-005  counts
ht:        48113.998  cps
t Time:         5.26  min
Time:           5.62  min
```

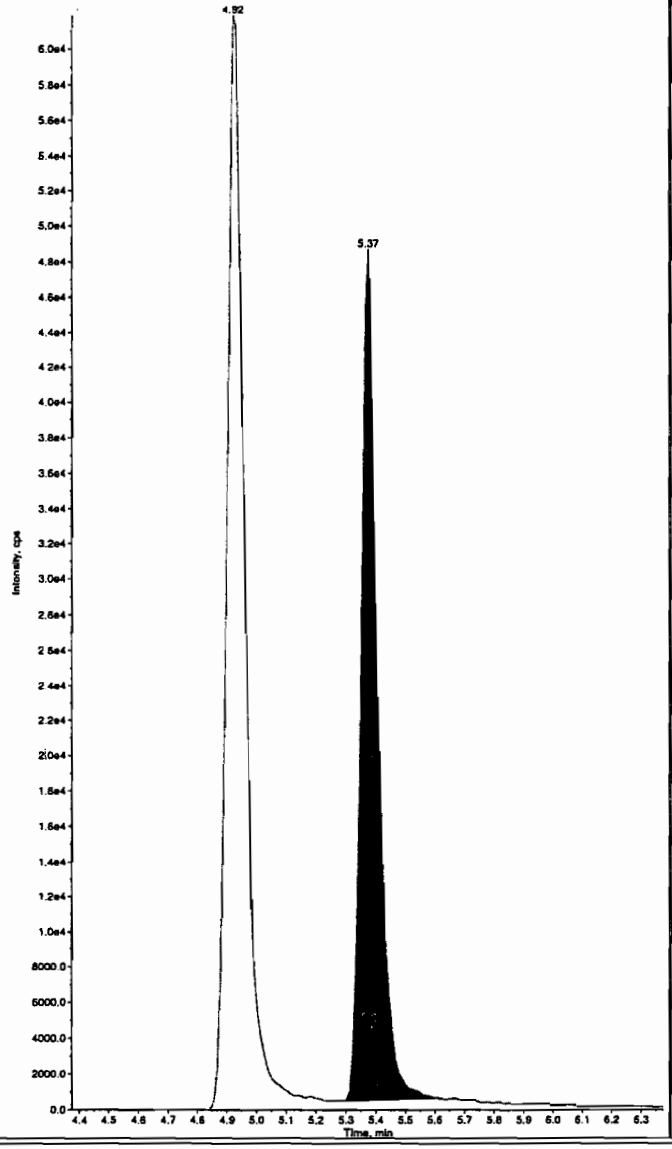

Sample Name: "WXX100405-20" Sample ID: "|1|LER" File: "EXS04050004.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:       100.    ng/mL
Calculated Conc:     113.    ng/mL
Acq. Date:        4/5/2010
Acq. Time:        1:30:59 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:        10.8   min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.8   min
Area:          2.04e+006   counts
Height:        508941.681  cps
Start Time:         10.7   min
End Time:           11.1   min
```

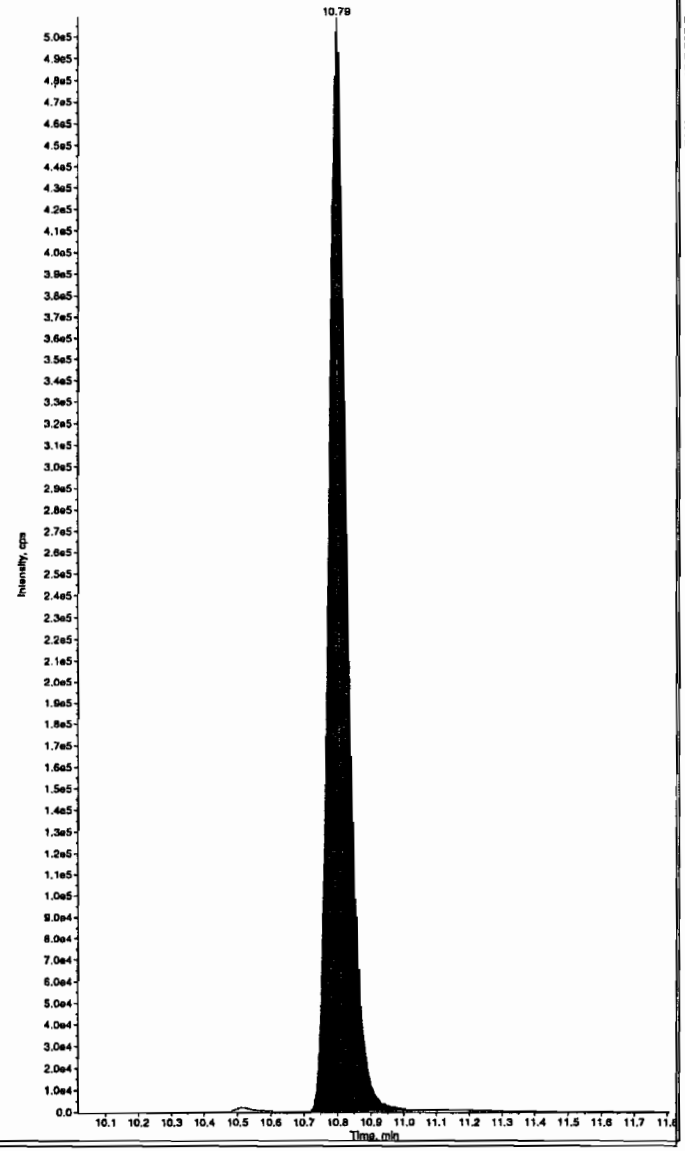

Lcn 4/7/10

mple Name: "WXX100405-21" Sample ID: "|1|LER" File: "EXS04050005.wiff"
ek Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_I" Annotation: ""

le Index:	1
le Type:	Standard
entration:	250. ng/mL
ulated Conc:	237. ng/mL
Date:	4/5/2010
Time:	1:46:41 PM
fied:	No
. Algorithm:	IntelliQuan - IQA
Peak Height:	2500.00 cps
Peak Width:	0.00 sec
thing Width:	3 points
indow:	30.0 sec
cted RT:	6.86 min
Relative RT:	No
Type:	Valley
ntion Time:	6.86 min
:	1.84e+005 counts
ht:	40719.627 cps
t Time:	6.76 min
Time:	7.50 min

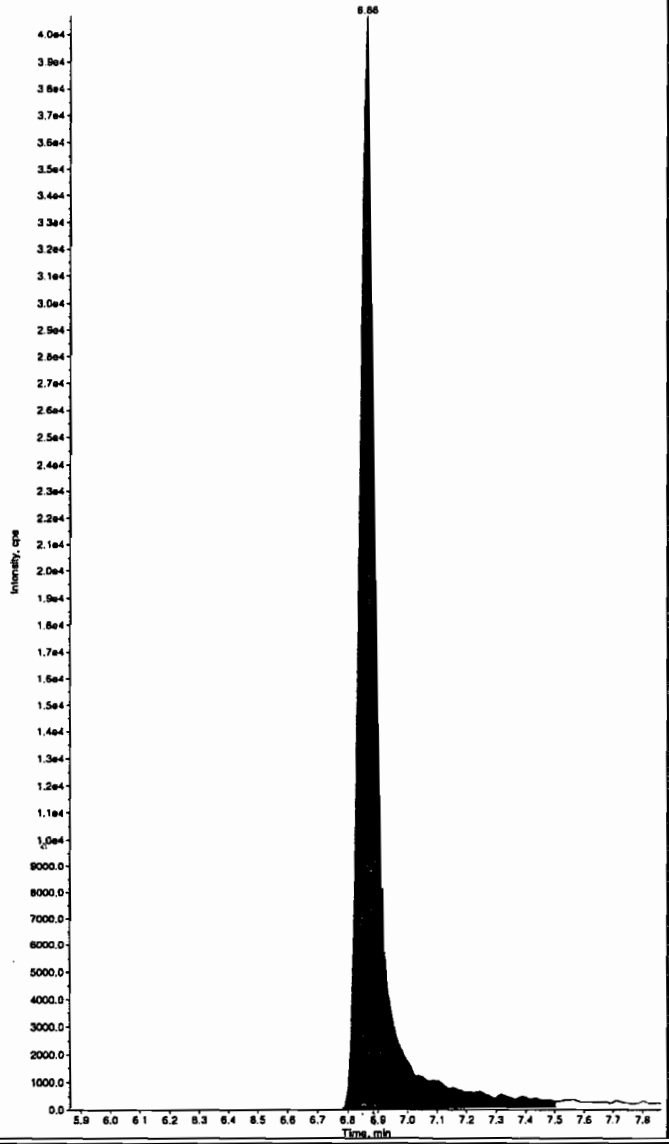

Sample Name: "WXX100405-21" Sample ID: "|1|LER" File: "EXS04050005.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1
Sample Type:	Standard
Concentration:	250. ng/mL
Calculated Conc:	238. ng/mL
Acq. Date:	4/5/2010
Acq. Time:	1:46:41 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	2000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	15.0 sec
Expected RT:	8.10 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	8.10 min
Area:	1.59e+006 counts
Height:	390353.088 cps
Start Time:	8.01 min
End Time:	8.23 min

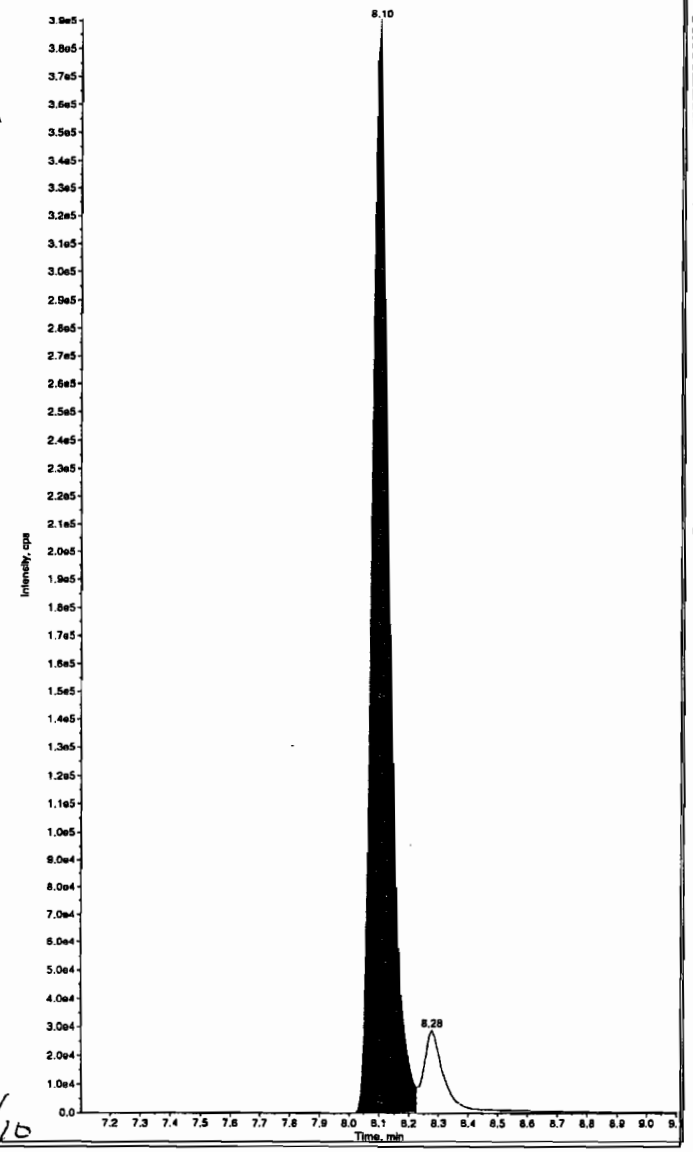

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ımple Name: "WXX100405-21" Sample ID: "|1|LER" File: "EXS04050005.wiff"
ıak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
ɔmment: "LCMSEXP_I" Annotation: ""
ɔle Index: 1
ɔle Type: Standard
ɔentration: 125. ng/mL
ɔulated Conc: 114. ng/mL
. Date: 4/5/2010
. Time: 1:46:41 PM

ıfied: No
:. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
ɔthing Width: 3 points
ɔindow: 15.0 sec
ɔcted RT: 8.28 min
Relative RT: No

Type: Valley
ɔntion Time: 8.27 min
ı: 9.47e+005 counts
ıht: 235964.630 cps
ɔt Time: 8.20 min
Time: 8.65 min

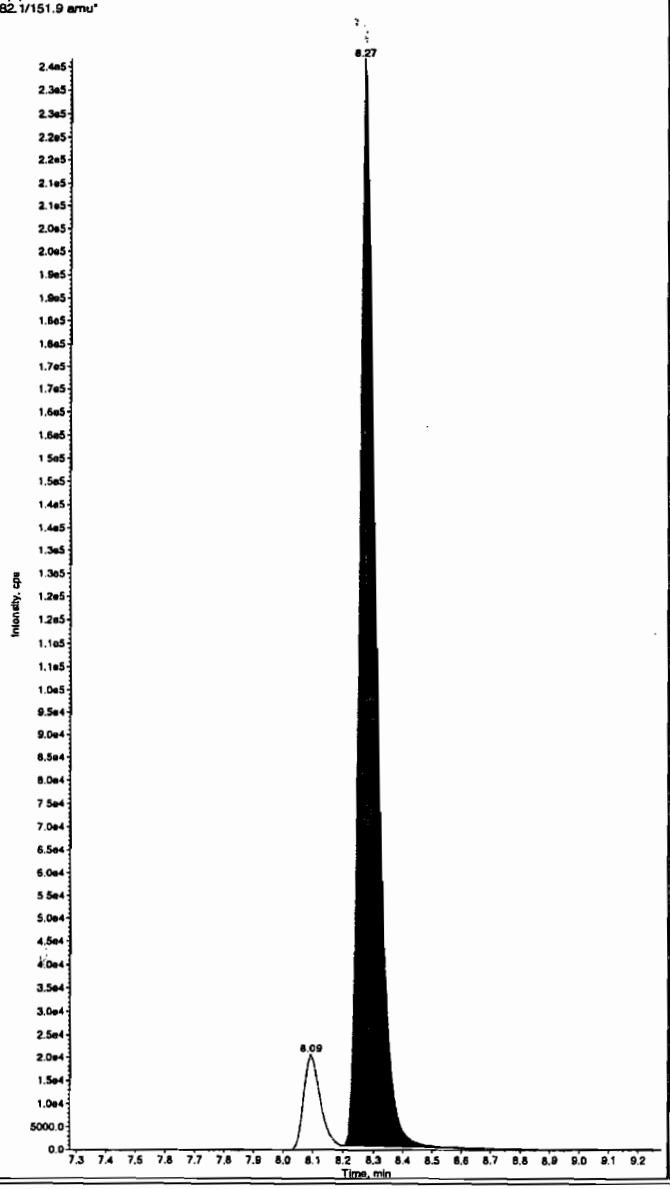

Sample Name: "WXX100405-21" Sample ID: "|1|LER" File: "EXS04050005.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 250. ng/mL
Calculated Conc: 237. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 1:46:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.92 min
Area: 6.36e+005 counts
Height: 150953.735 cps
Start Time: 4.83 min
End Time: 5.22 min

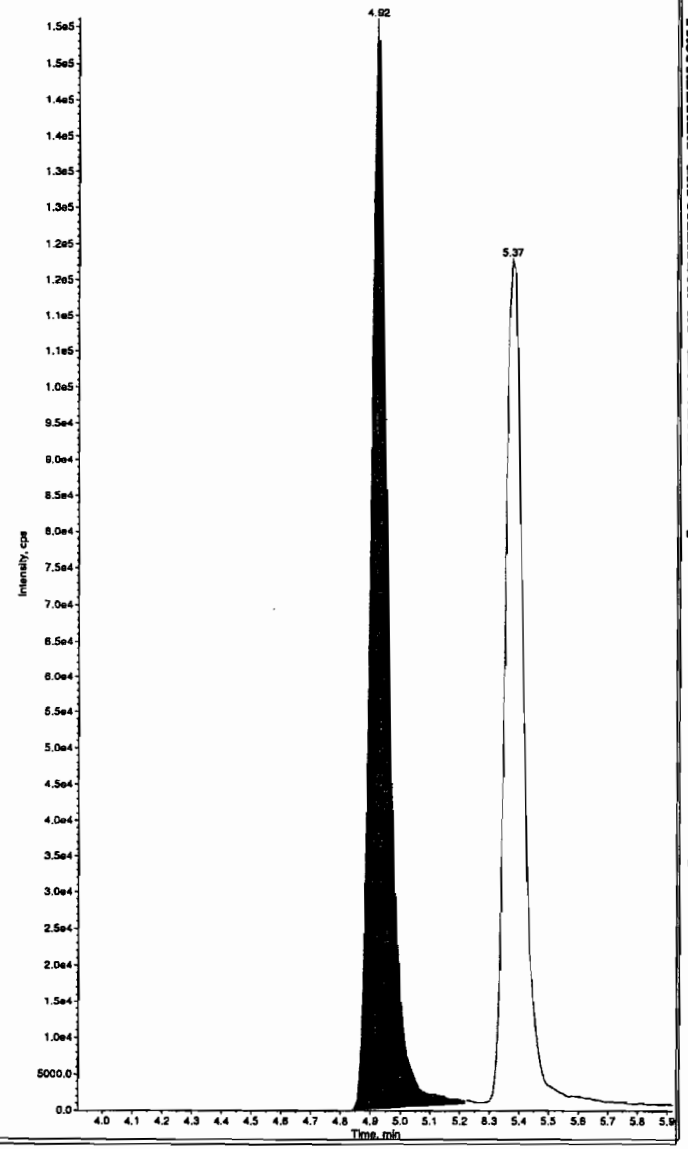

.L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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ample Name: "WXX100405-21" Sample ID: "[1]LER" File: "EXS04050005.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_I" Annotation: ""
ple Index: 1
ple Type: Standard
centration: 250. ng/mL
culated Conc: 249. ng/mL
. Date: 4/5/2010
. Time: 1:46:41 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
window: 30.0 sec
ected RT: 5.37 min
Relative RT: No

. Type: Valley
ention Time: 5.37 min
a: 5.14e+005 counts
ght: 117008.331 cps
rt Time: 5.27 min
Time: 5.83 min

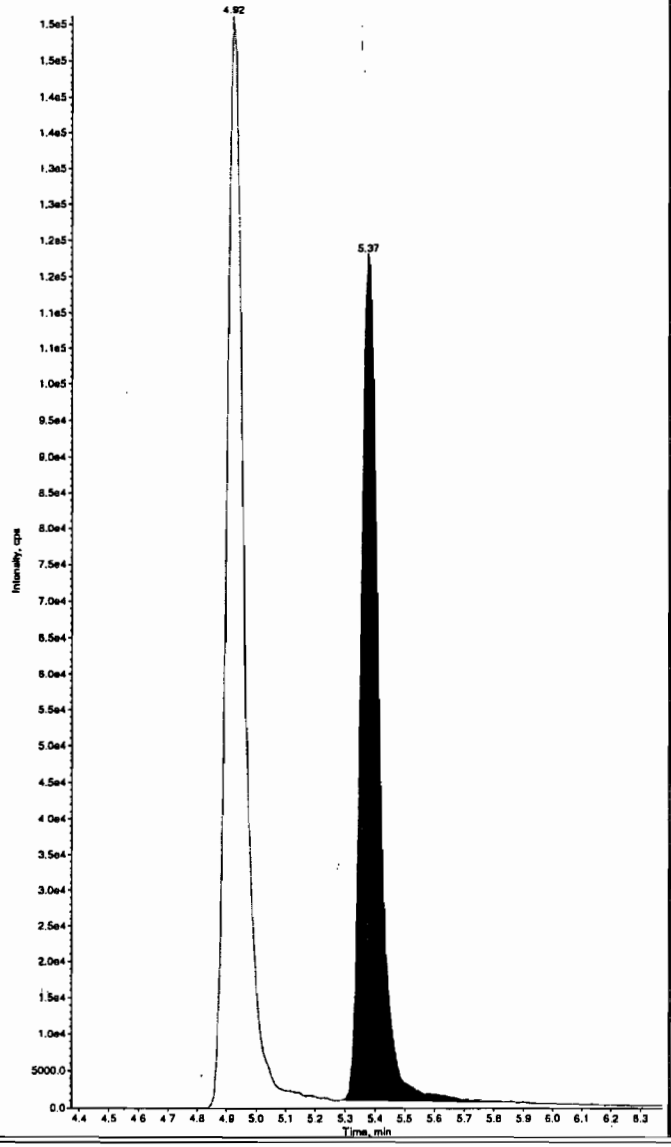

Sample Name: "WXX100405-21" Sample ID: "[1]LER" File: "EXS04050005.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 250. ng/mL
Calculated Conc: 261. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 1:46:41 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 4.70e+006 counts
Height: 1154838.867 cps
Start Time: 10.7 min
End Time: 11.1 min

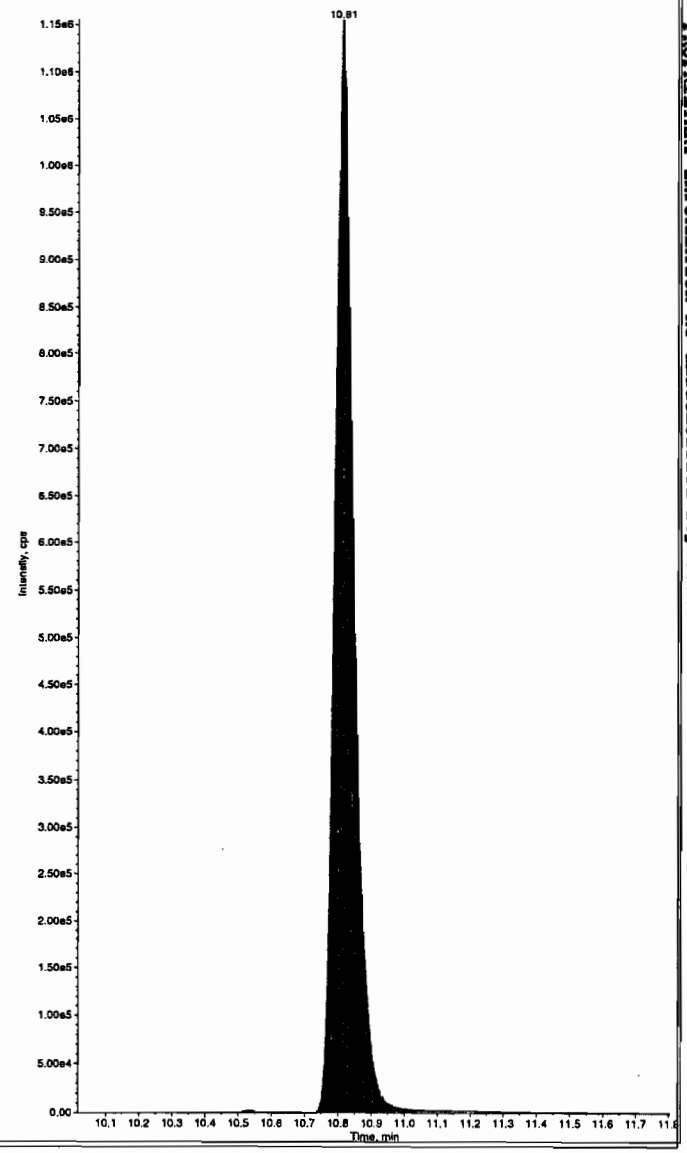

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

LER 4/7/10

Sample Name: "WXX100405-22" Sample ID: "|1|LER" File: "EXS04050006.wiff"
Peak Name: "TATB" Mass(es): "257.2/204.9 amu"
Comment: "LCMSEXP_I" Annotation: ""

aple Index: 1
aple Type: Standard
ıcentration: 500. ng/mL
ıculated Conc: 501. ng/mL
ı. Date: 4/5/2010
ı. Time: 2:02:24 PM

ified: No
ɔc. Algorithm: IntelliQuan - IQA
ı. Peak Height: 2500.00 cps
ı. Peak Width: 0.00 sec
ɔothing Width: 3 points
Window: 30.0 sec
ıected RT: 6.86 min
: Relative RT: No

:. Type: Valley
.ention Time: 6.85 min
:a: 3.99e+005 counts
ght: 85503.746 cps
.rt Time: 6.75 min
| Time: 7.52 min

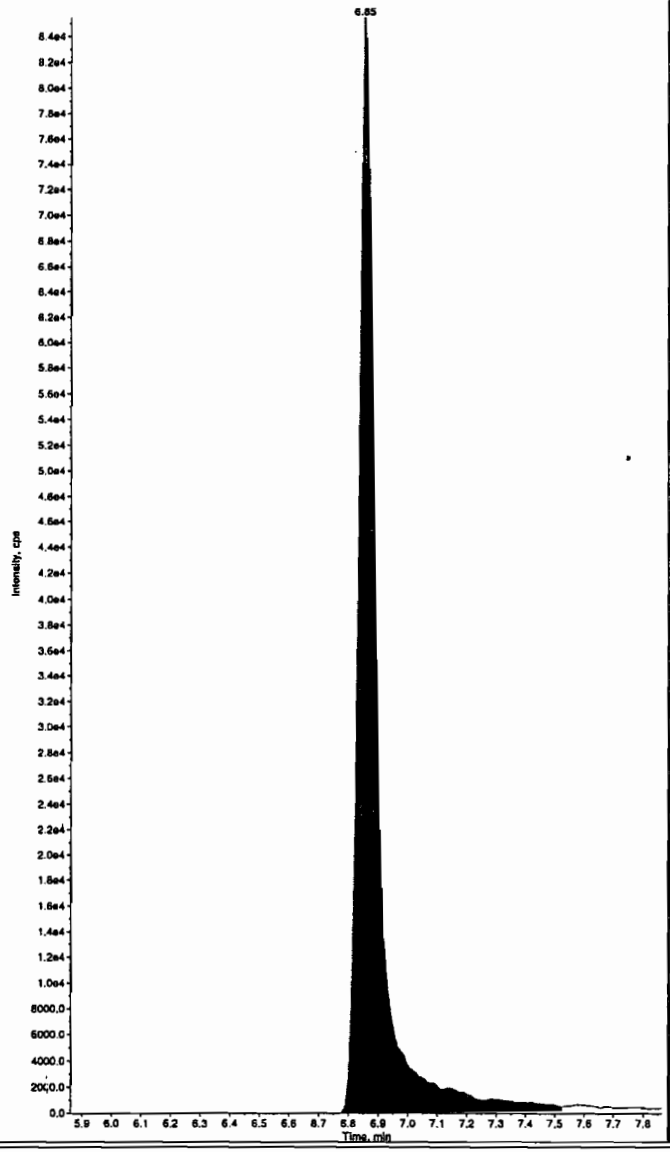

Sample Name: "WXX100405-22" Sample ID: "|1|LER" File: "EXS04050006.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 500. ng/mL
Calculated Conc: 483. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 2:02:24 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.09 min
Area: 3.21e+006 counts
Height: 773351.685 cps
Start Time: 7.99 min
End Time: 8.23 min

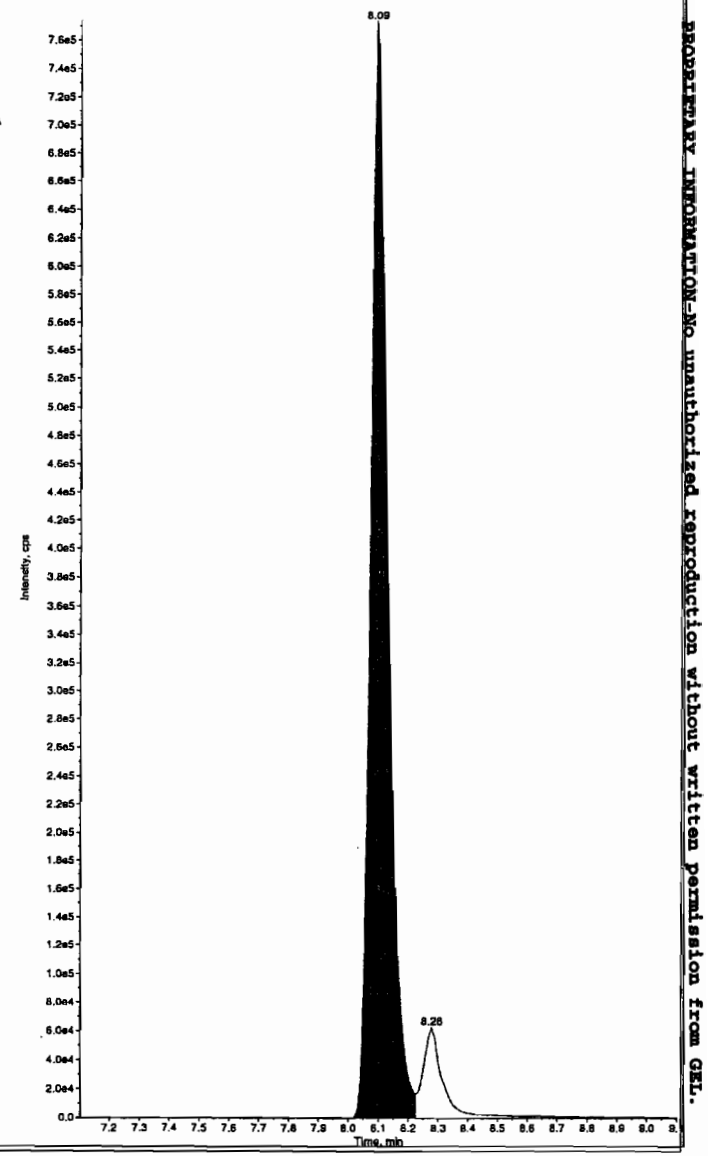

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ample Name: "WXX100405-22" Sample ID: "|1|LER" File: "EXS04050006.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_I" Annotation: ""

ple Index:	1
ple Type:	Standard
centration:	250. ng/mL
culated Conc:	224. ng/mL
. Date:	4/5/2010
. Time:	2:02:24 PM
ified:	No
c. Algorithm:	IntelliQuan - IQA
. Peak Height:	1460.00 cps
. Peak Width:	0.00 sec
othing Width:	3 points
Window:	15.0 sec
ected RT:	8.28 min
Relative RT:	No
. Type:	Valley
ention Time:	8.27 min
a:	1.91e+006 counts
ght:	490479.004 cps
rt Time:	8.20 min
Time:	8.62 min

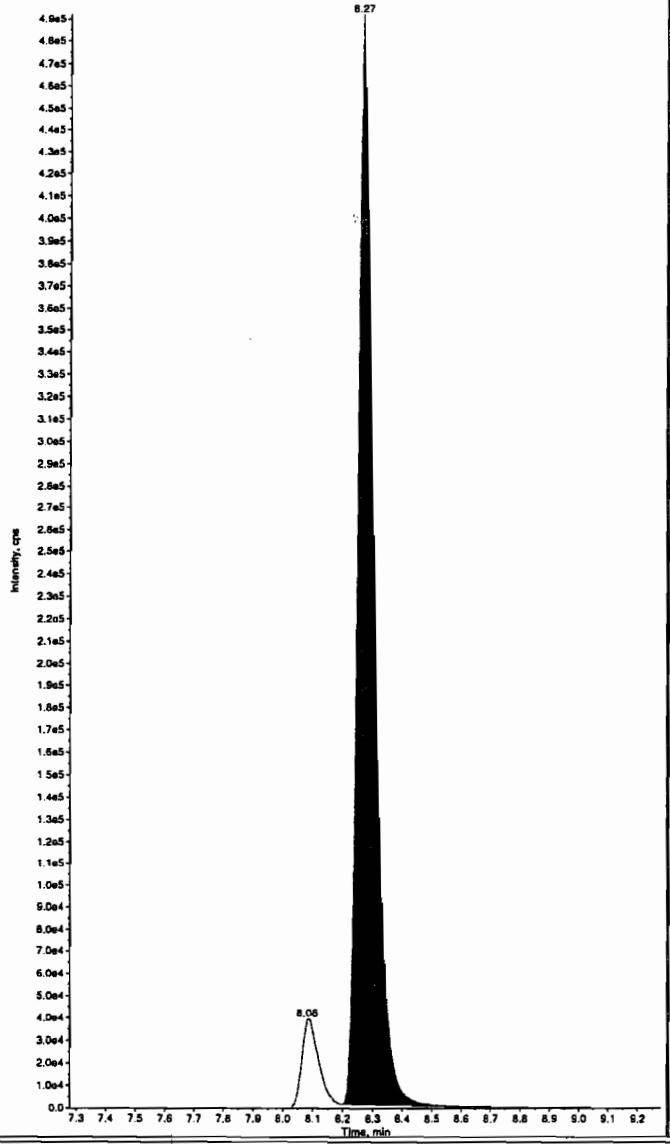

Sample Name: "WXX100405-22" Sample ID: "|1|LER" File: "EXS04050006.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1
Sample Type:	Standard
Concentration:	500. ng/mL
Calculated Conc:	464. ng/mL
Acq. Date:	4/5/2010
Acq. Time:	2:02:24 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	450.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	4.92 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	4.92 min
Area:	1.31e+006 counts
Height:	301903.534 cps
Start Time:	4.83 min
End Time:	5.23 min

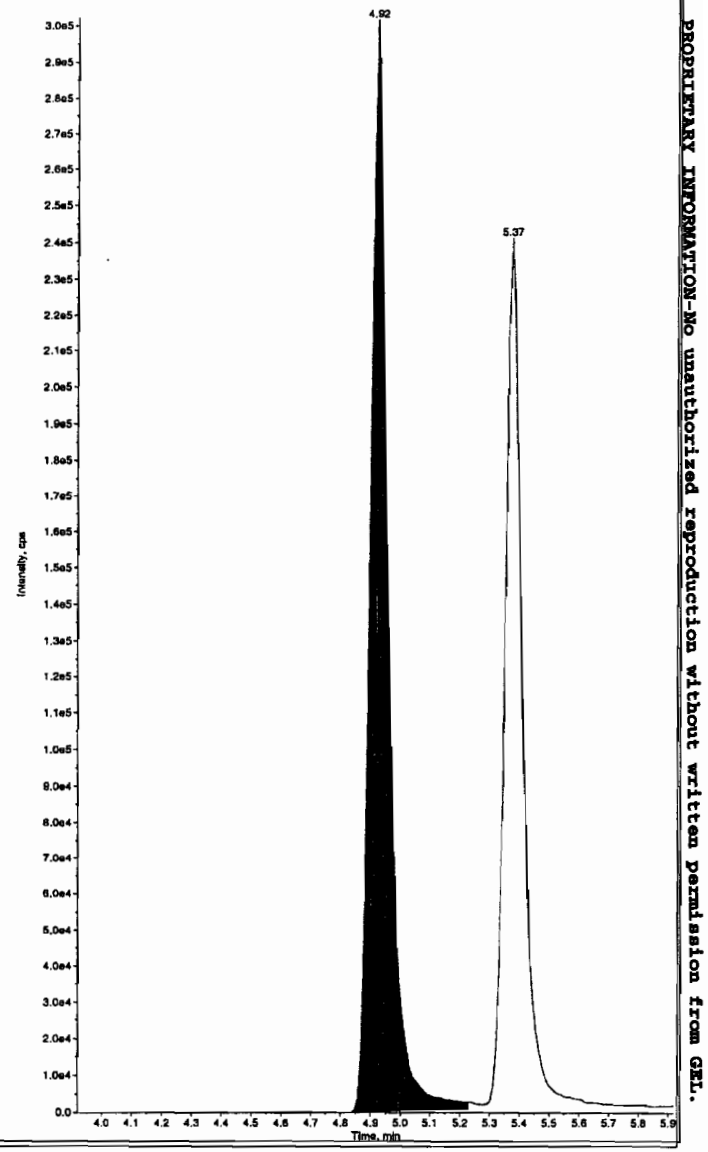

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mple Name: "WXX100405-22" Sample ID: "|1|LER" File: "EXS04050006.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_|" Annotation: ""

```
le Index:        1
le Type:      Standard
entration:      500.     ng/mL
ulated Conc:    461.     ng/mL
 Date:       4/5/2010
 Time:       2:02:24 PM

fied:            No
. Algorithm: IntelliQuan - IQA
 Peak Height: 350.00    cps
 Peak Width:    0.00    sec
thing Width:  3        points
indow:         30.0     sec
cted RT:        5.37    min
Relative RT:    No

 Type:         Valley
ntion Time:     5.37    min
:          9.84e+005   counts
ht:          239447.601  cps
t Time:         5.28    min
Time:           5.73    min
```

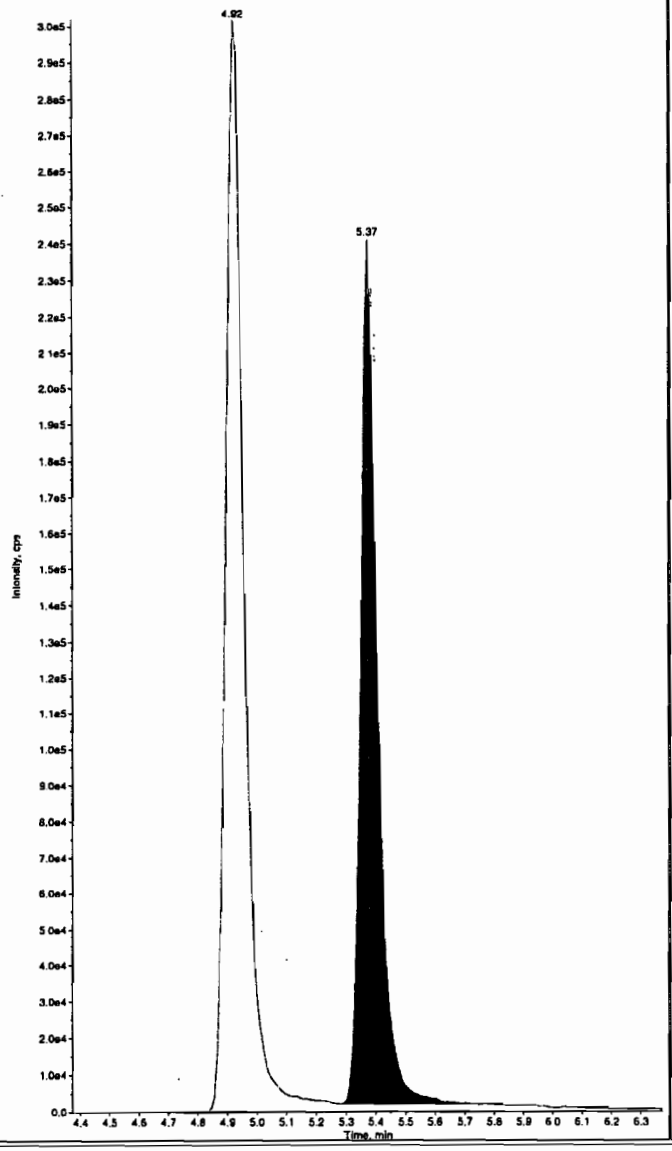

Sample Name: "WXX100405-22" Sample ID: "|1|LER" File: "EXS04050006.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_|" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:      500.     ng/mL
Calculated Conc:    501.     ng/mL
Acq. Date:       4/5/2010
Acq. Time:       2:02:24 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:        10.8    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.8    min
Area:          9.03e+006   counts
Height:        2142805.908  cps
Start Time:         10.7    min
End Time:           11.2    min
```

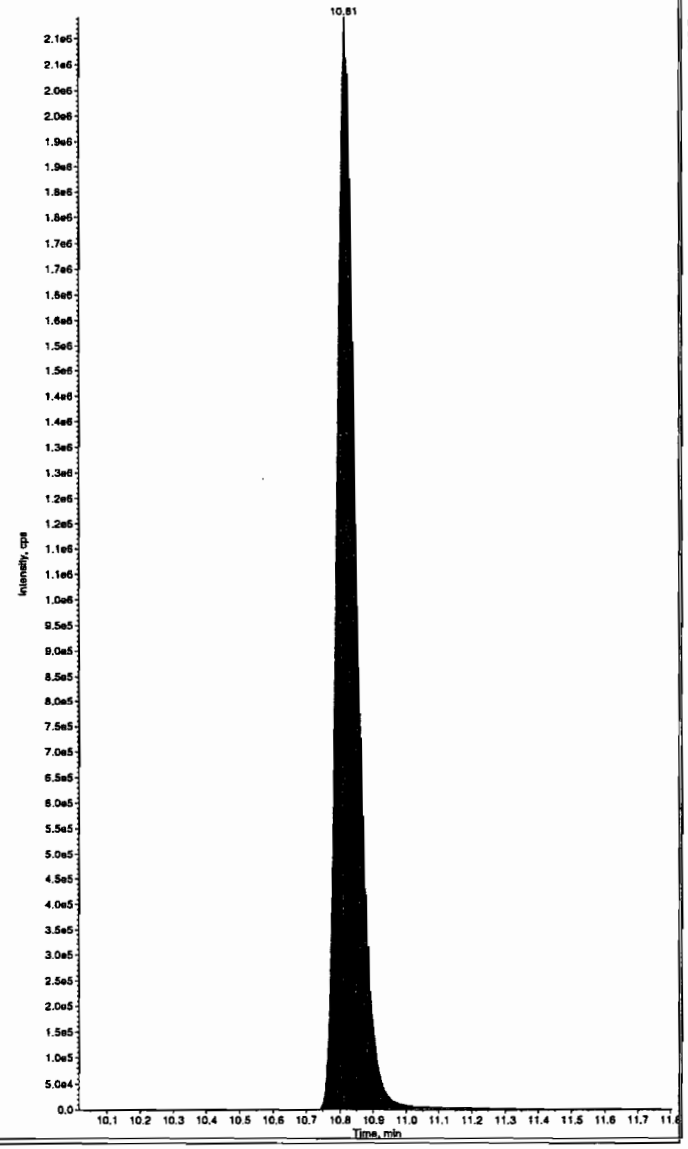

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

Lan 4/7/10

ample Name: "WXX100405-23" Sample ID: "[1]LER" File: "EXS04050007.wiff"
eak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_I" Annotation: ""
ple Index: 1
ple Type: Standard
centration: 750. ng/mL
culated Conc: 742. ng/mL
. Date: 4/5/2010
. Time: 2:18:08 PM

ified: No
. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
window: 30.0 sec
ected RT: 6.86 min
Relative RT: No

. Type: Valley
ention Time: 6.86 min
a: 5.94e+005 counts
ght: 126529.671 cps
rt Time: 6.77 min
Time: 7.56 min

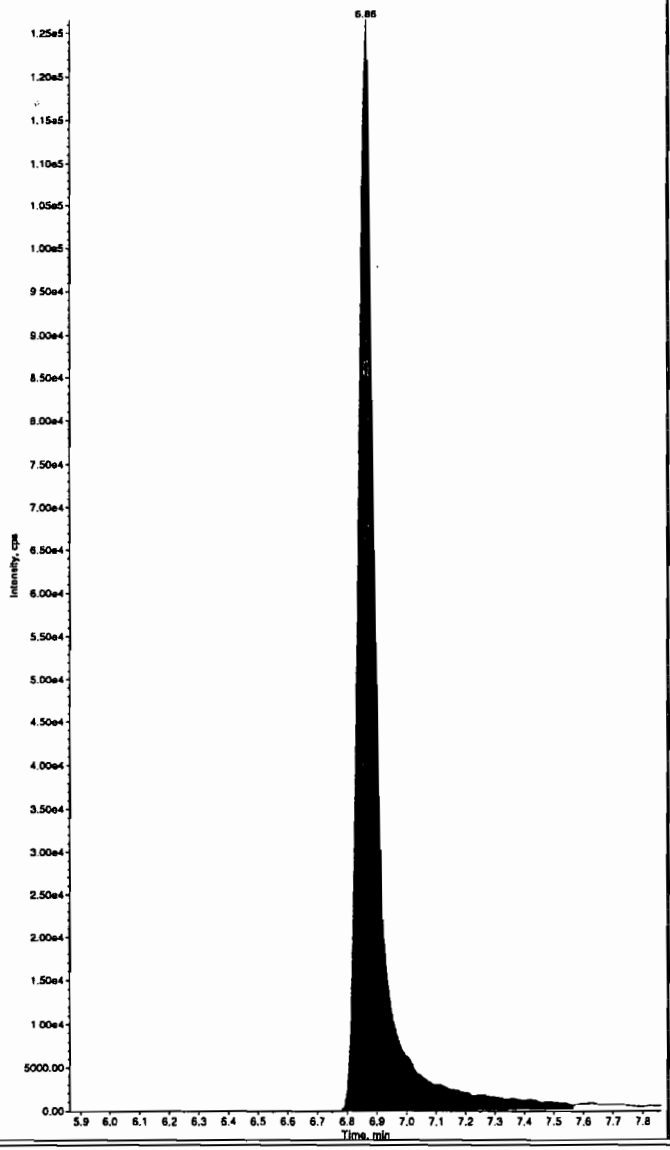

Sample Name: "WXX100405-23" Sample ID: "[1]LER" File: "EXS04050007.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 750. ng/mL
Calculated Conc: 707. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 2:18:08 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.10 min
Area: 4.58e+006 counts
Height: 1059052.368 cps
Start Time: 8.00 min
End Time: 8.23 min

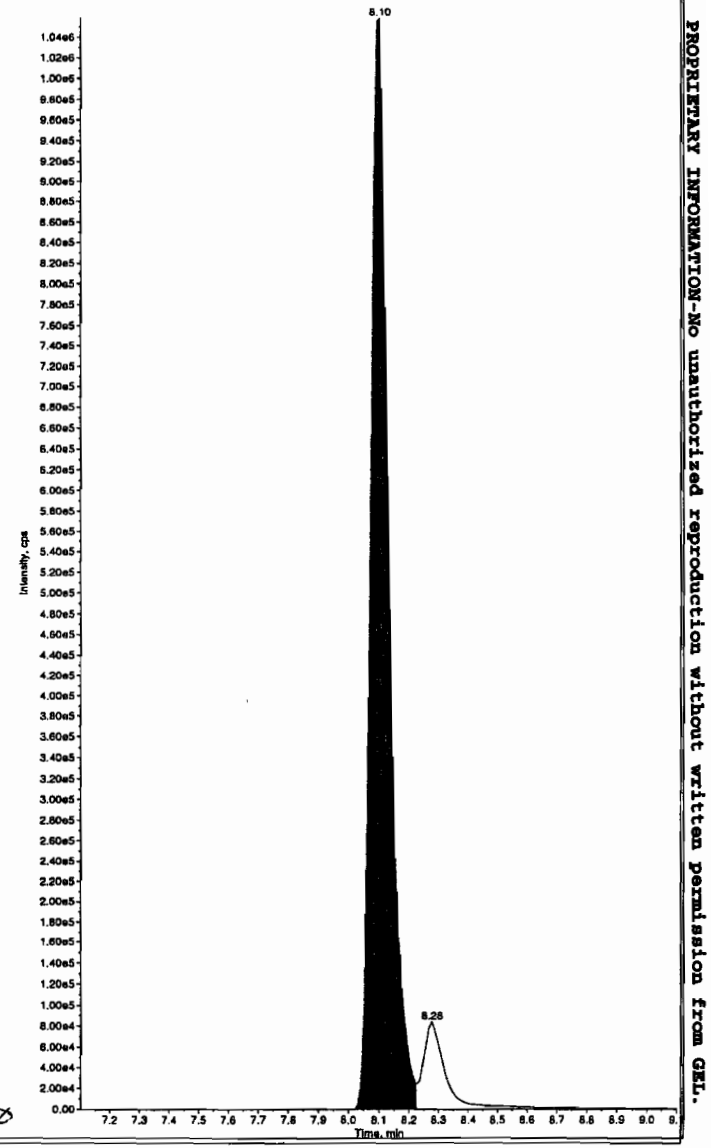

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ample Name: "WXX100405-23" Sample ID: "[1]LER" File: "EXS04050007.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_I" Annotation: ""

ple Index:	1	
ple Type:	Standard	
centration:	325.	ng/mL
culated Conc:	345.	ng/mL
. Date:	4/5/2010	
. Time:	2:18:08 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	1460.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	15.0	sec
ected RT:	8.28	min
Relative RT:	No	
. Type:	Valley	
ention Time:	8.28	min
a:	2.92e+006	counts
ght:	691066.833	cps
rt Time:	8.20	min
Time:	8.76	min

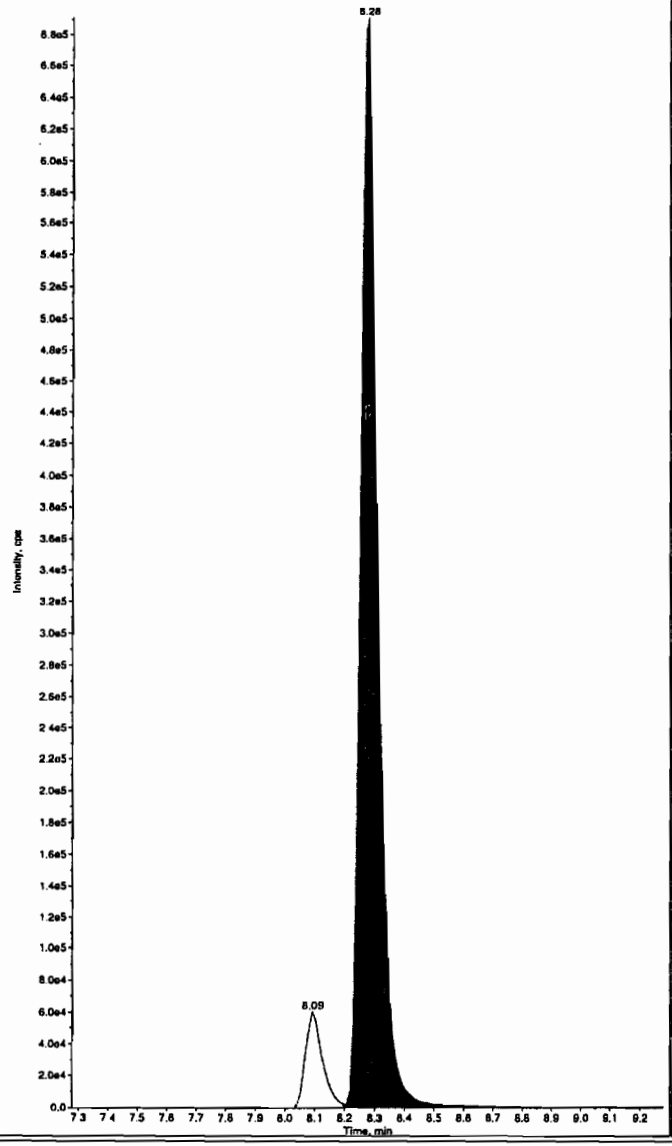

Sample Name: "WXX100405-23" Sample ID: "[1]LER" File: "EXS04050007.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	750.	ng/mL
Calculated Conc:	654.	ng/mL
Acq. Date:	4/5/2010	
Acq. Time:	2:18:08 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	4.92	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	4.92	min
Area:	1.84e+006	counts
Height:	424109.924	cps
Start Time:	4.84	min
End Time:	5.21	min

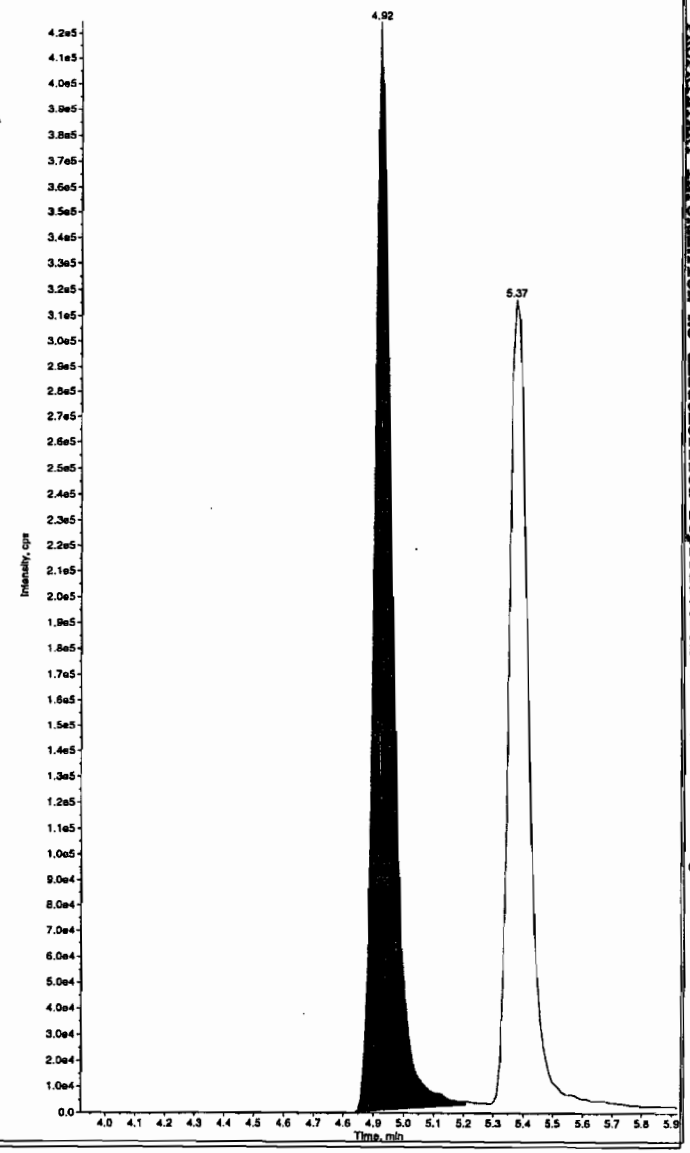

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ample Name: "WXX100405-23" Sample ID: "|1|LER" File: "EXS04050007.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_I" Annotation: ""

ple Index:	1	
ple Type:	Standard	
centration:	750.	ng/mL
culated Conc:	680.	ng/mL
. Date:	4/5/2010	
. Time:	2:18:08 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	350.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	5.37	min
Relative RT:	No	
. Type:	Valley	
ention Time:	5.37	min
a:	1.45e+006	counts
ght:	313016.113	cps
rt Time:	5.28	min
Time:	5.80	min

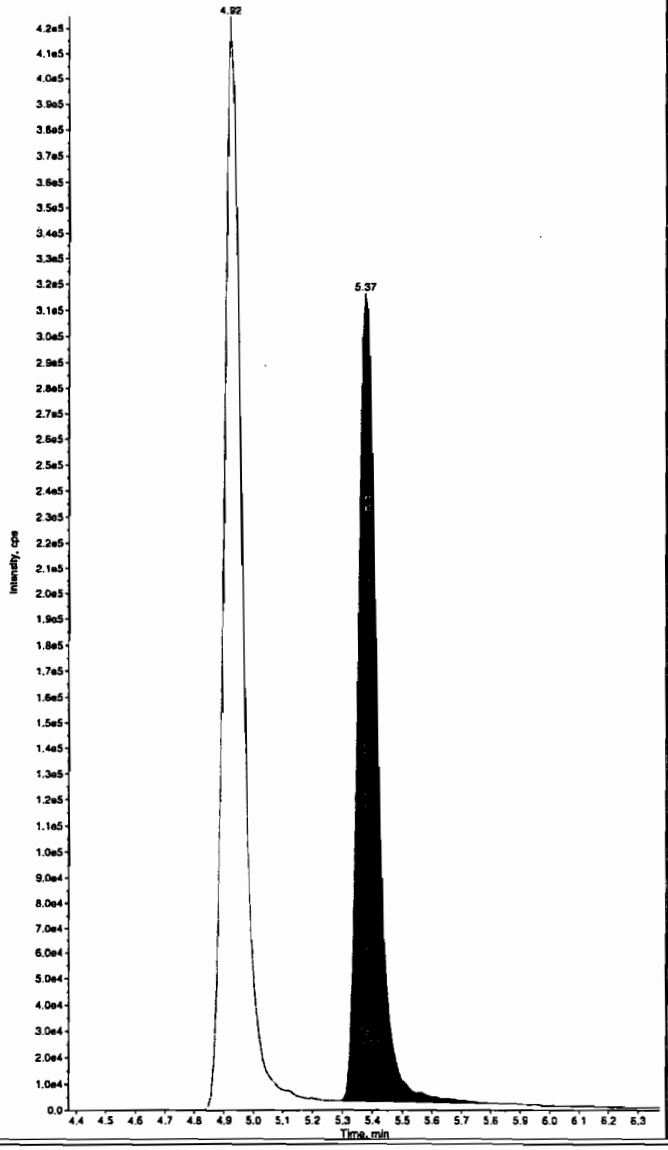

Sample Name: "WXX100405-23" Sample ID: "|1|LER" File: "EXS04050007.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	750.	ng/mL
Calculated Conc:	710.	ng/mL
Acq. Date:	4/5/2010	
Acq. Time:	2:18:08 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.8	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.8	min
Area:	1.28e+007	counts
Height:	2974220.215	cps
Start Time:	10.7	min
End Time:	11.2	min

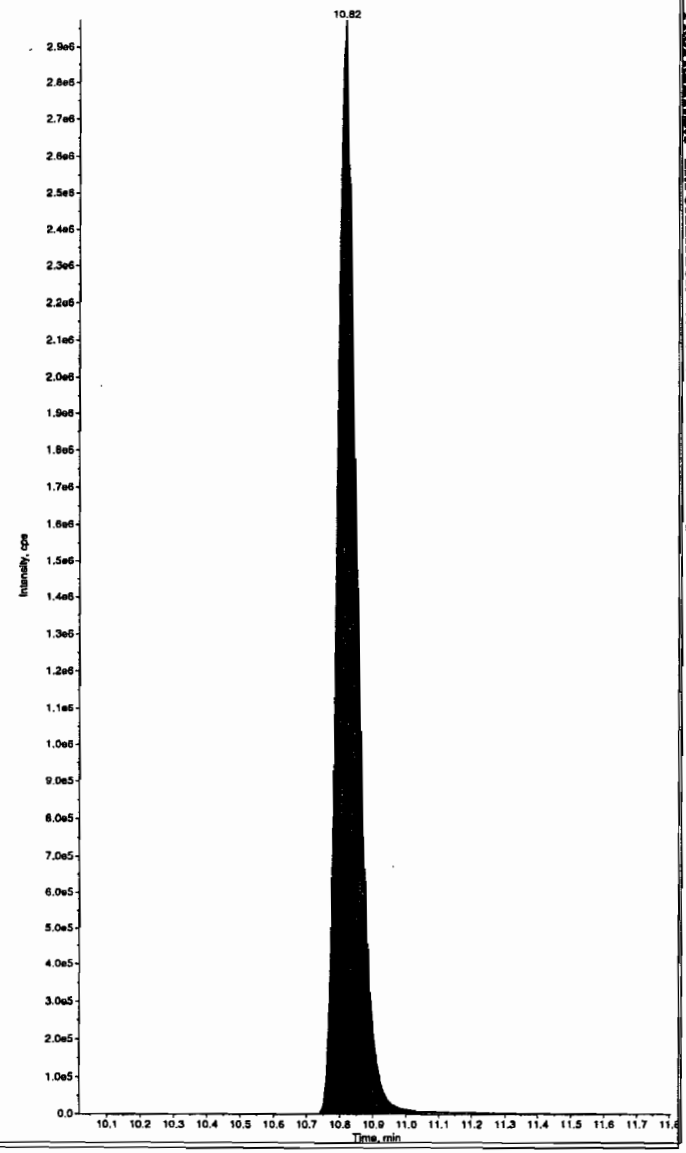

Before Ker 4/7/10

ample Name: "WXX100405-24" Sample ID: "|1|LER" File: "EXS04050008.wiff"
ak Name: "TATB" Mass(as): "257.2/204.9 amu"
omment: "LCMSEXP_I" Annotation: ""

ple Index:	1	
ple Type:	Standard	
centration:	1000.	ng/mL
culated Conc:	1010.	ng/mL
. Date:	4/5/2010	
. Time:	2:33:50 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	2500.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	30.0	sec
ected RT:	6.86	min
Relative RT:	No	
. Type:	Valley	
ntion Time:	6.86	min
:	8.09e+005	counts
ght:	170960.968	cps
t Time:	6.75	min
Time:	7.77	min

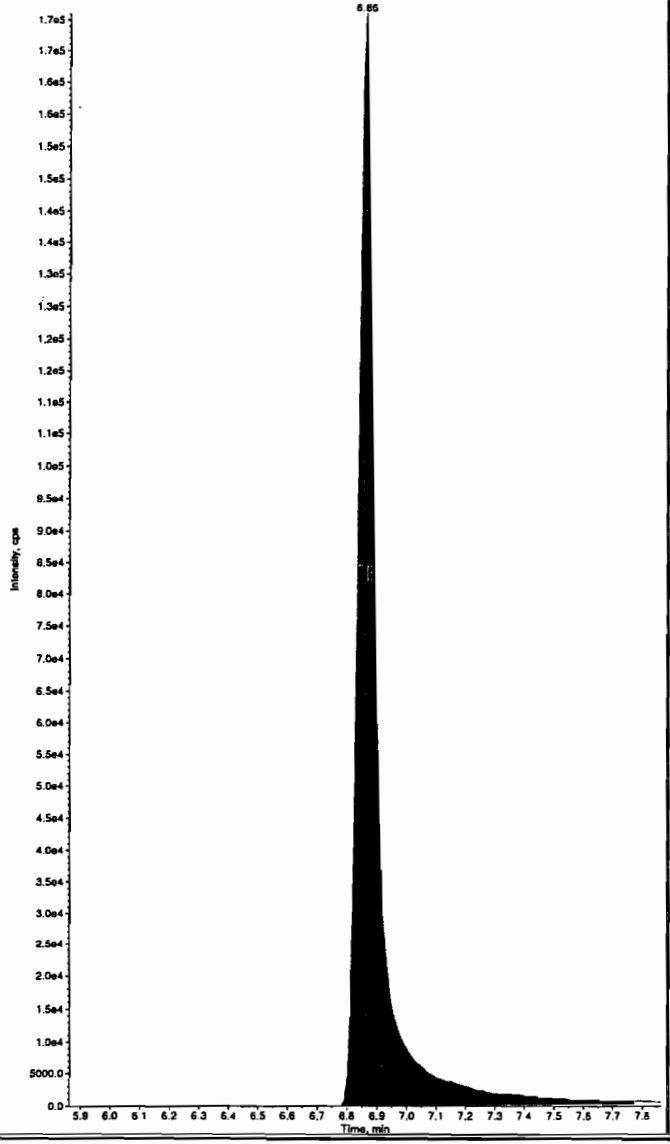

Sample Name: "WXX100405-24" Sample ID: "|1|LER" File: "EXS04050008.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	1000.	ng/mL
Calculated Conc:	1050.	ng/mL
Acq. Date:	4/5/2010	
Acq. Time:	2:33:50 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.10	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.09	min
Area:	6.36e+006	counts
Height:	1572094.727	cps
Start Time:	8.02	min
End Time:	8.23	min

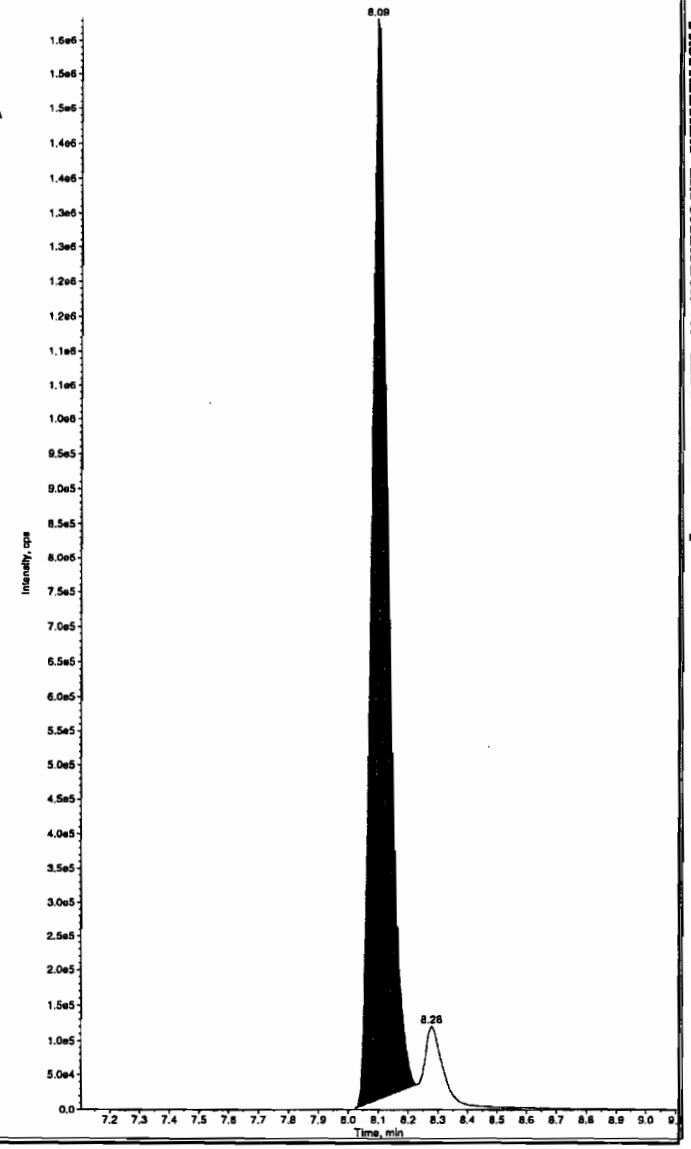

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mple Name: "WXX100405-24" Sample ID: "[1]LER" File: "EXS04050008.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_I" Annotation: ""

```
ple Index:        1
ple Type:       Standard
centration:      1000.     ng/mL
culated Conc:    1010.     ng/mL
. Date:        4/5/2010
. Time:        2:33:50 PM

ified:            No
:. Algorithm: IntelliQuan - IQA
. Peak Height:2500.00    cps
. Peak Width:     0.00    sec
othing Width:  3         points
Window:          30.0     sec
ected RT:         6.86    min
Relative RT:      No

. Type:         Valley
ention Time:      6.86    min
:          8.09e+005    counts
ght:          170960.968  cps
t Time:           6.75    min
Time:             7.77    min
```

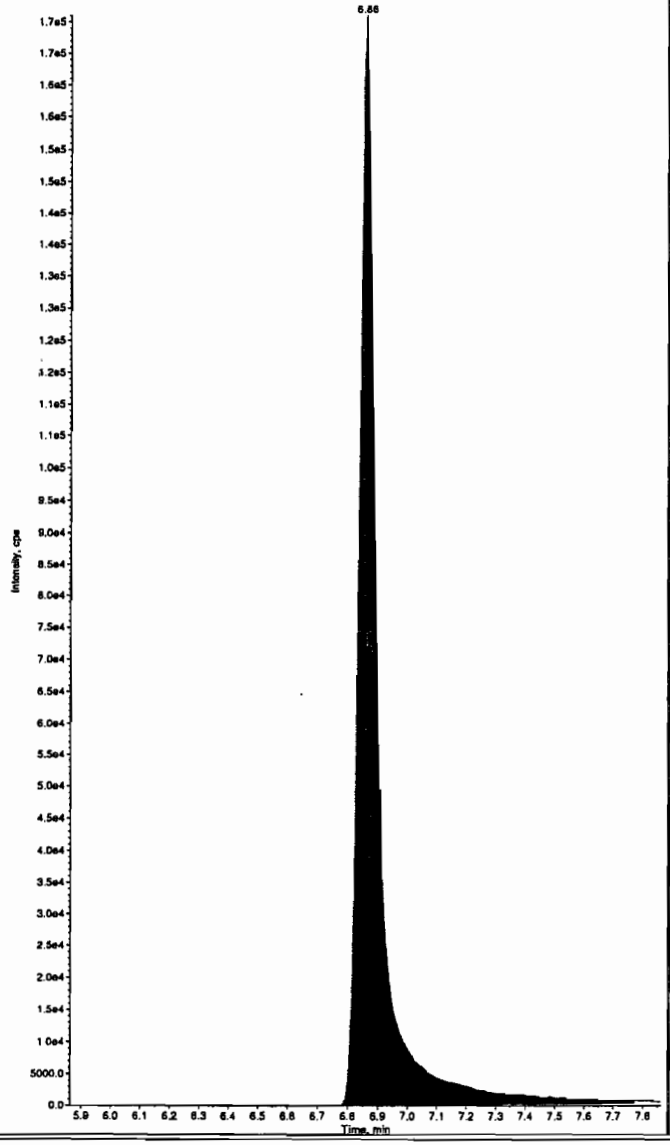

Sample Name: "WXX100405-24" Sample ID: "[1]LER" File: "EXS04050008.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:       Standard
Concentration:      1000.     ng/mL
Calculated Conc:    1060.     ng/mL
Acq. Date:        4/5/2010
Acq. Time:        2:33:50 PM

Modified:            Yes
RT Window:          15.0     sec
Expected RT:         8.10    min
Use Relative RT:     No

Int. Type:         Manual
Retention Time:      8.10    min
Area:          6.55e+006    counts
Height:        1619094.293  cps
Start Time:          8.02    min
End Time:            8.23    min
```

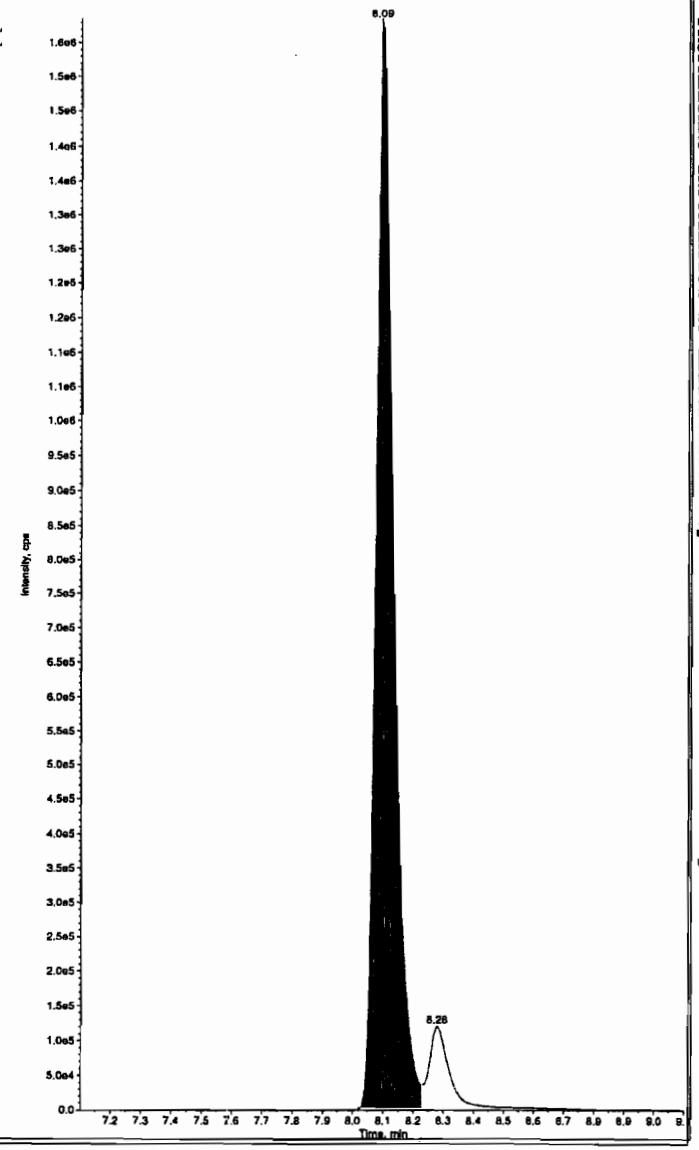

ample Name: "WXX100405-24" Sample ID: "|1|LER" File: "EXS04050008.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_I" Annotation: ""

ple Index: 1
ple Type: Standard
centration: 500. ng/mL
culated Conc: 507. ng/mL
. Date: 4/5/2010
. Time: 2:33:50 PM

ified: No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 1460.00 cps
. Peak Width: 0.00 sec
oothing Width: 3 points
Window: 15.0 sec
ected RT: 8.28 min
Relative RT: No

. Type: Valley
ention Time: 8.28 min
a: 4.20e+006 counts
ght: 1054543.091 cps
t Time: 8.20 min
Time: 8.63 min

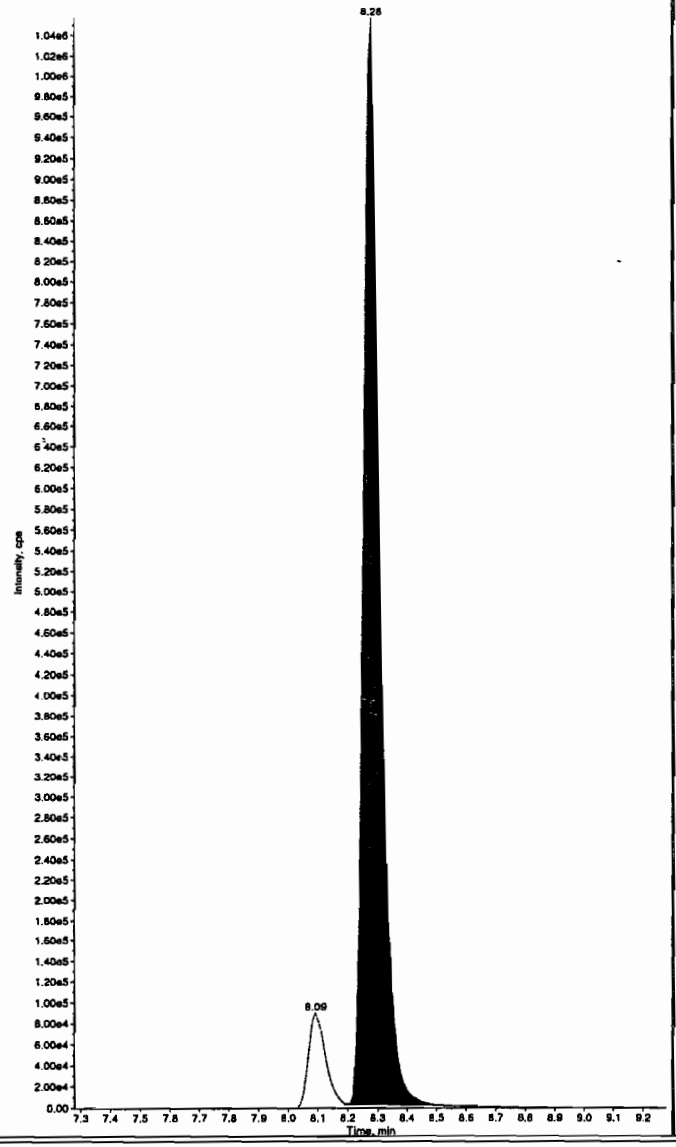

Sample Name: "WXX100405-24" Sample ID: "|1|LER" File: "EXS04050008.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 1000. ng/mL
Calculated Conc: 1130. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 2:33:50 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.92 min
Area: 3.07e+006 counts
Height: 724911.865 cps
Start Time: 4.84 min
End Time: 5.22 min

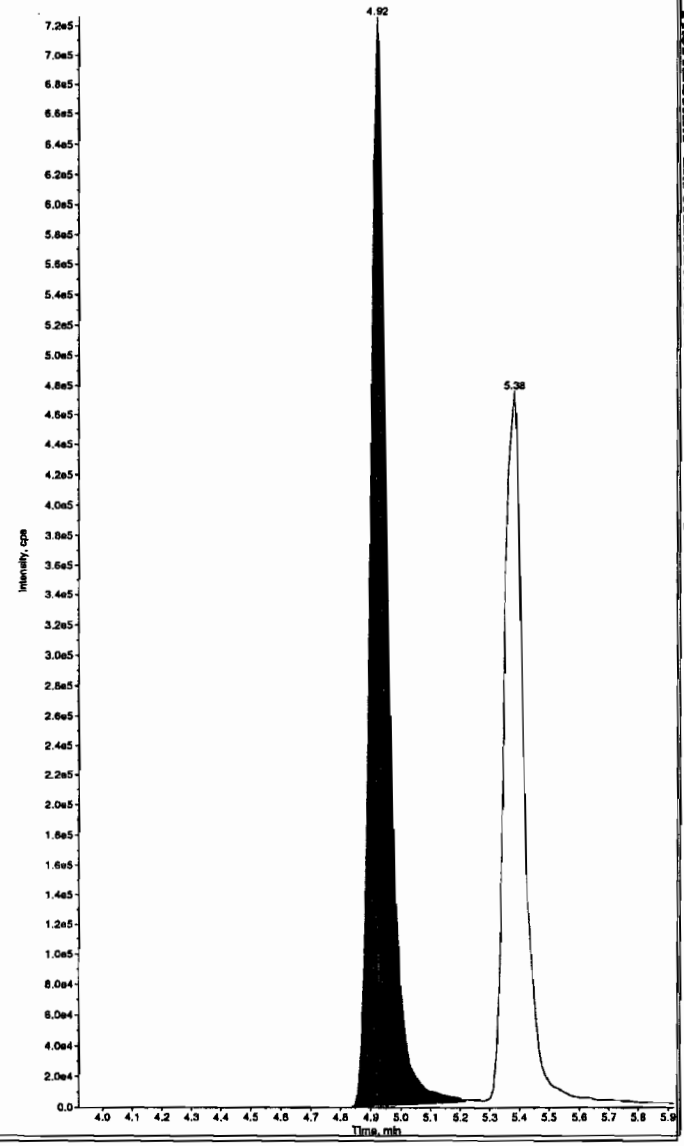

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ample Name: "WXX100405-24" Sample ID: "[1]LER" File: "EXS04050008.wiff"
eak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
omment: "LCMSEXP_I" Annotation: ""

```
ple Index:        1
ple Type:      Standard
centration:      1000.     ng/mL
culated Conc:    1100.     ng/mL
. Date:        4/5/2010
. Time:        2:33:50 PM

ified:            No
c. Algorithm: IntelliQuan - IQA
. Peak Height: 350.00    cps
. Peak Width:    0.00    sec
oothing Width:  3        points
Window:         30.0     sec
ected RT:        5.37    min
 Relative RT:    No

. Type:         Valley
ention Time:     5.38    min
a:          2.30e+006    counts
ght:         475367.523  cps
rt Time:         5.28    min
 Time:           6.14    min
```

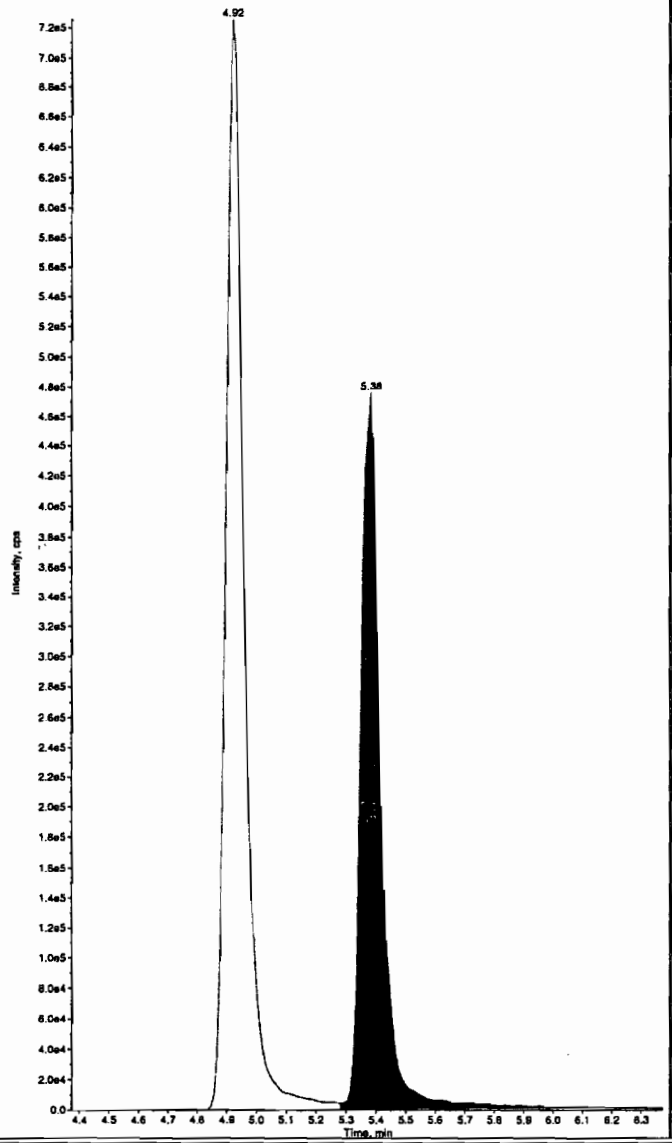

Sample Name: "WXX100405-24" Sample ID: "[1]LER" File: "EXS04050008.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

```
Sample Index:        1
Sample Type:      Standard
Concentration:      1000.     ng/mL
Calculated Conc:     946.     ng/mL
Acq. Date:        4/5/2010
Acq. Time:        2:33:50 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:       10.8     min
Use Relative RT:   No

Int. Type:         Valley
Retention Time:    10.8     min
Area:          1.70e+007    counts
Height:        3861770.508  cps
Start Time:        10.7     min
End Time:          11.2     min
```

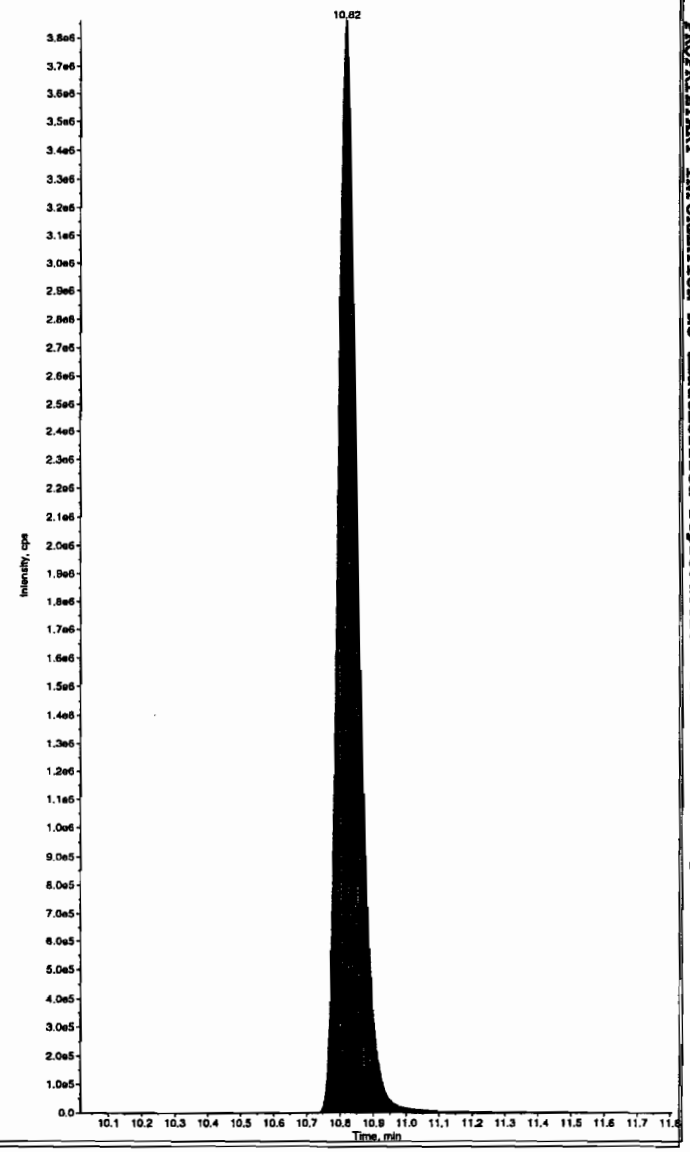

Before Lcn 4/7/10

nple Name: "WXX100405-25" Sample ID: "[1]LER" File: "EXS04050009.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
nment: "LCMSEXP_I" Annotation: ""

le Index: 1
le Type: Standard
entration: 2000. ng/mL
ulated Conc: 2000. ng/mL
Date: 4/5/2010
Time: 2:51:27 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 2500.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 6.86 min
Relative RT: No

Type: Valley
ntion Time: 6.86 min
: 1.57e+006 counts
nt: 329989.990 cps
t Time: 6.76 min
Time: 7.90 min

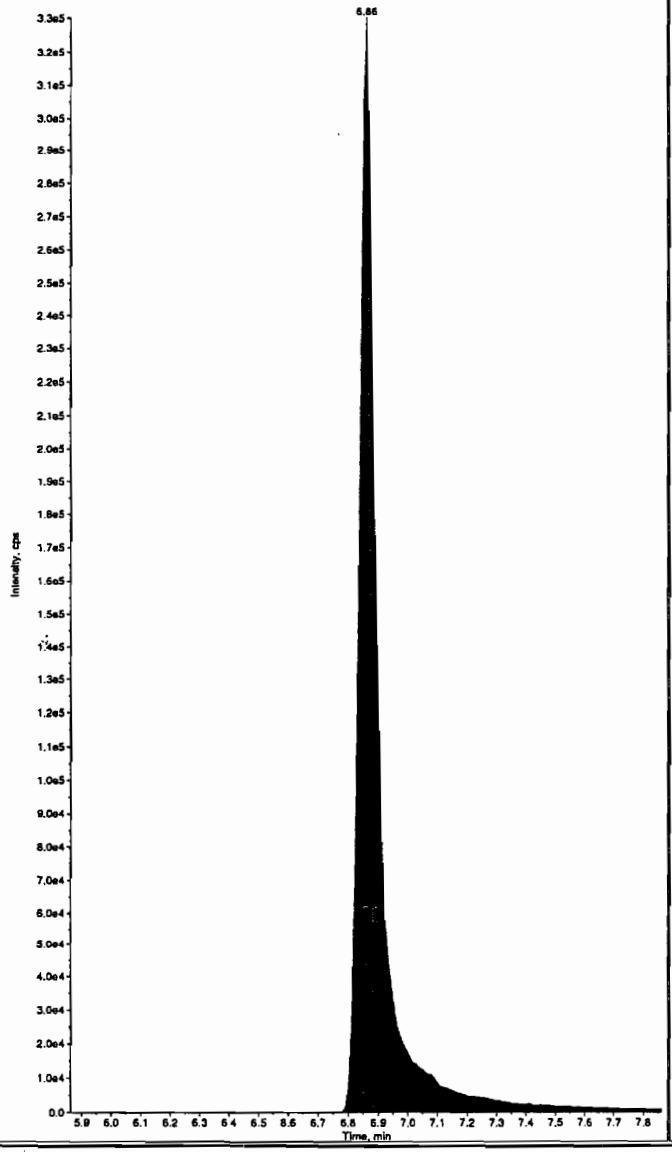

Sample Name: "WXX100405-25" Sample ID: "[1]LER" File: "EXS04050009.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 2000. ng/mL
Calculated Conc: 1980. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 2:51:27 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.10 min
Area: 1.01e+007 counts
Height: 2287882.813 cps
Start Time: 8.02 min
End Time: 8.24 min

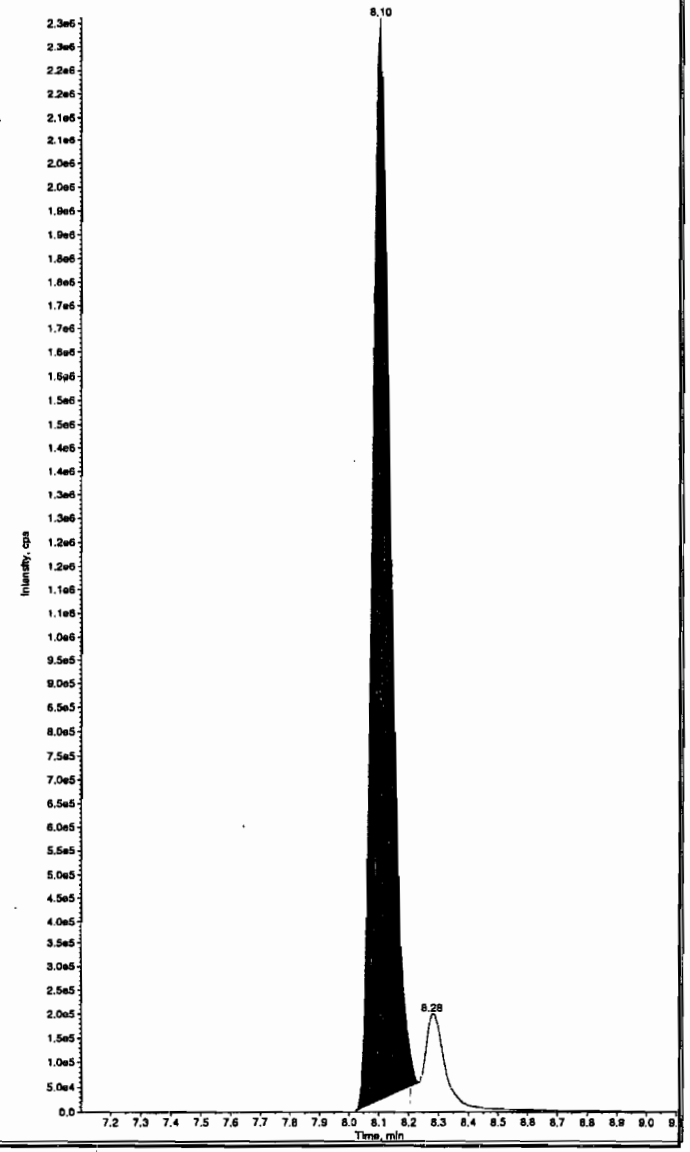

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after Lan 4/7/10

mple Name: "WXX100405-25" Sample ID: "|1|LER" File: "EXS04050009.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
mment: "LCMSEXP_I" Annotation: ""

ple Index:	1	
ple Type:	Standard	
centration:	2000.	ng/mL
culated Conc:	2000.	ng/mL
Date:	4/5/2010	
Time:	2:51:27 PM	
fied:	No	
. Algorithm:	IntelliQuan - IQA	
Peak Height:	2500.00	cps
Peak Width:	0.00	sec
thing Width:	3	points
Window:	30.0	sec
cted RT:	6.86	min
Relative RT:	No	
Type:	Valley	
ntion Time:	6.86	min
:	1.57e+006	counts
ht:	329989.990	cps
t Time:	6.76	min
Time:	7.90	min

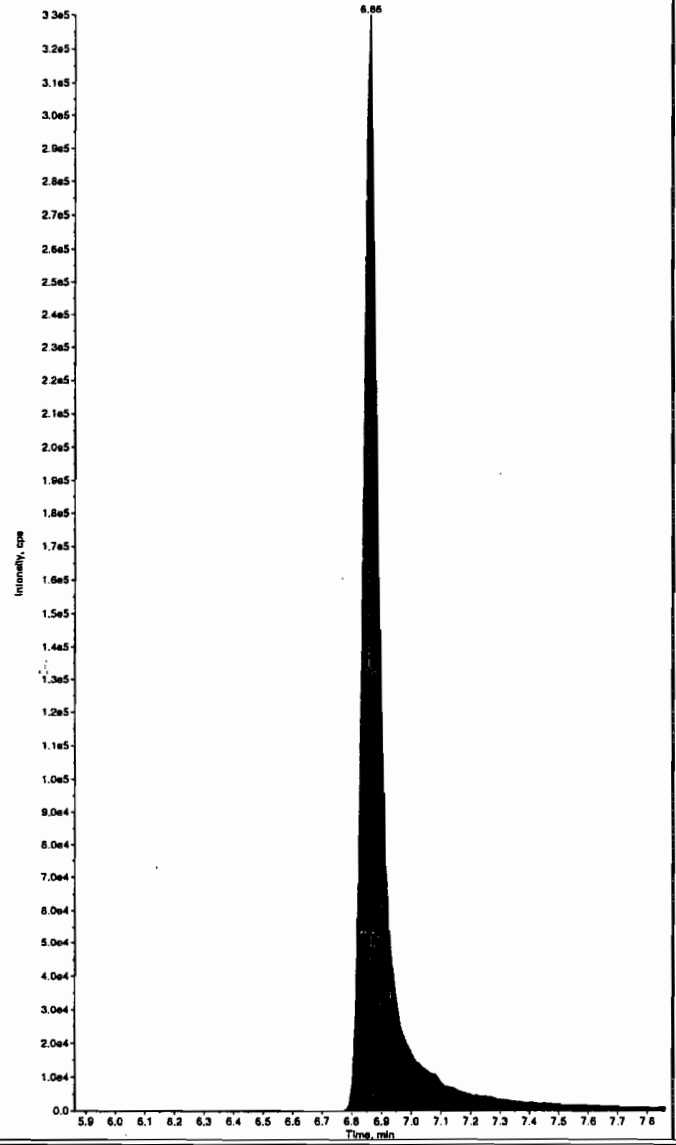

Sample Name: "WXX100405-25" Sample ID: "|1|LER" File: "EXS04050009.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	2000.	ng/mL
Calculated Conc:	1990.	ng/mL
Acq. Date:	4/5/2010	
Acq. Time:	2:51:27 PM	
Modified:	Yes	
RT Window:	15.0	sec
Expected RT:	8.10	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	8.10	min
Area:	1.05e+007	counts
Height:	2308394.985	cps
Start Time:	8.02	min
End Time:	8.24	min

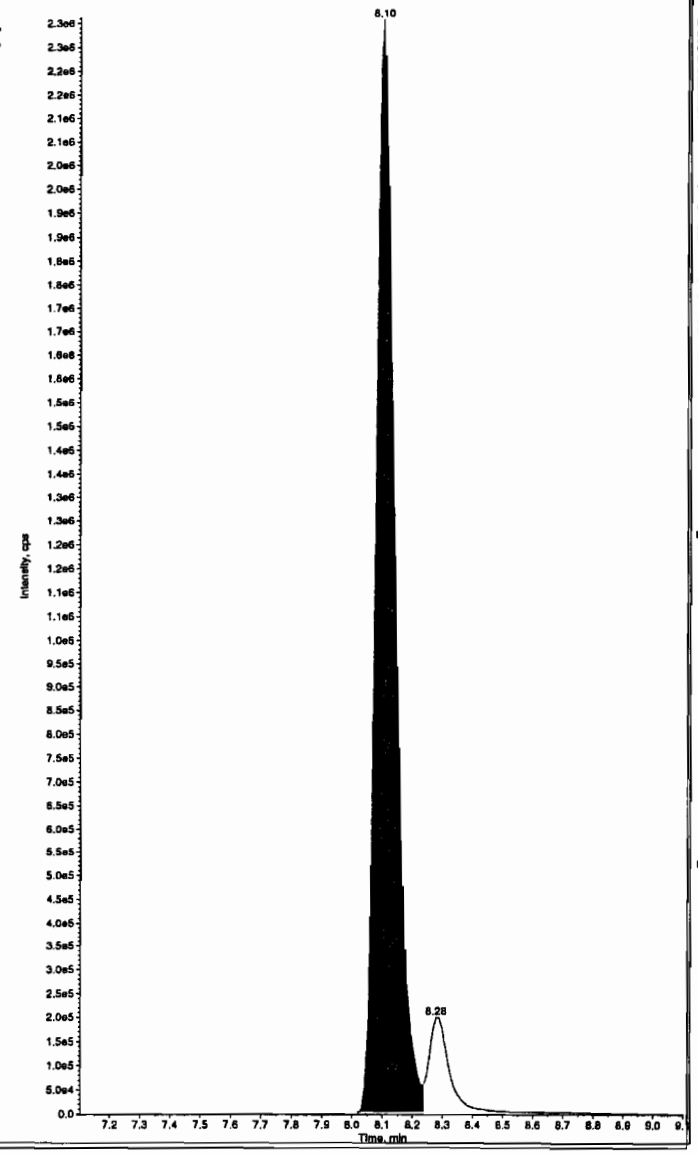

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

nple Name: "WXX100405-25" Sample ID: "|1|LER" File: "EXS04050009.wiff"
ak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
mment: "LCMSEXP_I" Annotation: ""

le Index: 1
le Type: Standard
entration: 1000. ng/mL
ulated Conc: 997. ng/mL
Date: 4/5/2010
Time: 2:51:27 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 1460.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 15.0 sec
cted RT: 8.28 min
Relative RT: No

Type: Valley
ntion Time: 8.28 min
: 7.54e+006 counts
ht: 1863350.342 cps
t Time: 8.21 min
Time: 8.74 min

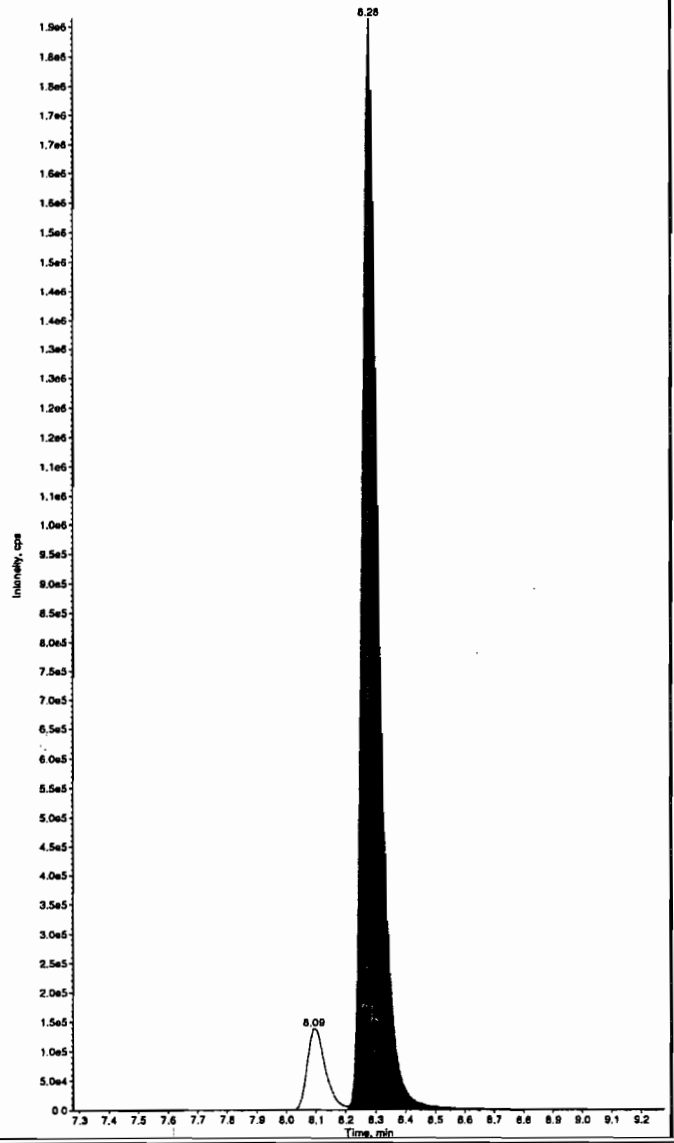

Sample Name: "WXX100405-25" Sample ID: "|1|LER" File: "EXS04050009.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 2000. ng/mL
Calculated Conc: 1980. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 2:51:27 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.92 min
Area: 4.88e+006 counts
Height: 1169048.340 cps
Start Time: 4.83 min
End Time: 5.22 min

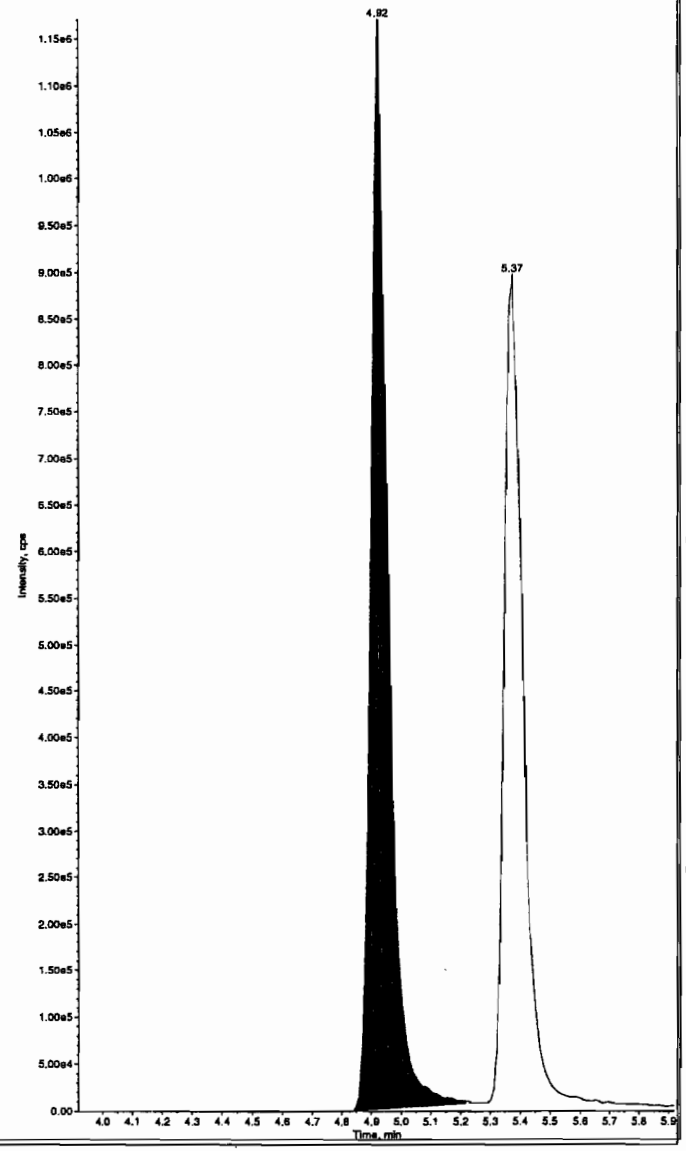

EL SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100405-25" Sample ID: "[1]LER" File: "EXS04050009.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
mment: "LCMSEXP_I" Annotation: ""

le Index: 1
le Type: Standard
entration: 2000. ng/mL
ulated Conc: 1990. ng/mL
Date: 4/5/2010
Time: 2:51:27 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.37 min
Relative RT: No

Type: Valley
ntion Time: 5.37 min
: 3.93e+006 counts
ht: 889730.042 cps
t Time: 5.27 min
Time: 5.73 min

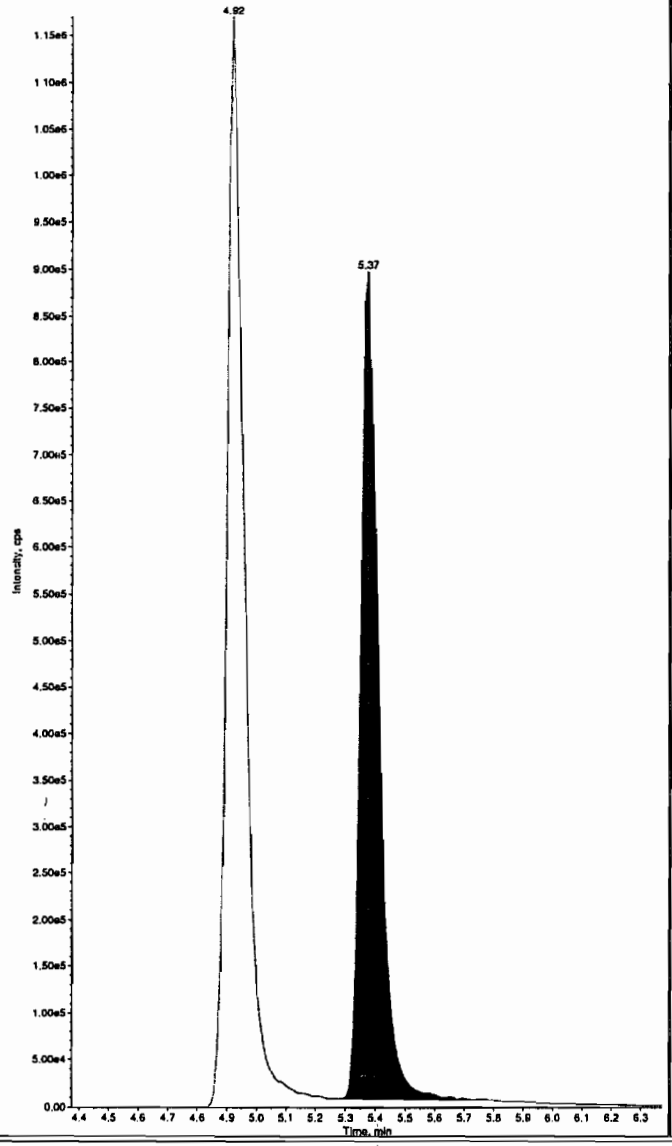

Sample Name: "WXX100405-25" Sample ID: "[1]LER" File: "EXS04050009.wiff"
Peak Name: "Iris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_I" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 2000. ng/mL
Calculated Conc: 1540. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 2:51:27 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 2.78e+007 counts
Height: 5625722.656 cps
Start Time: 10.7 min
End Time: 11.2 min

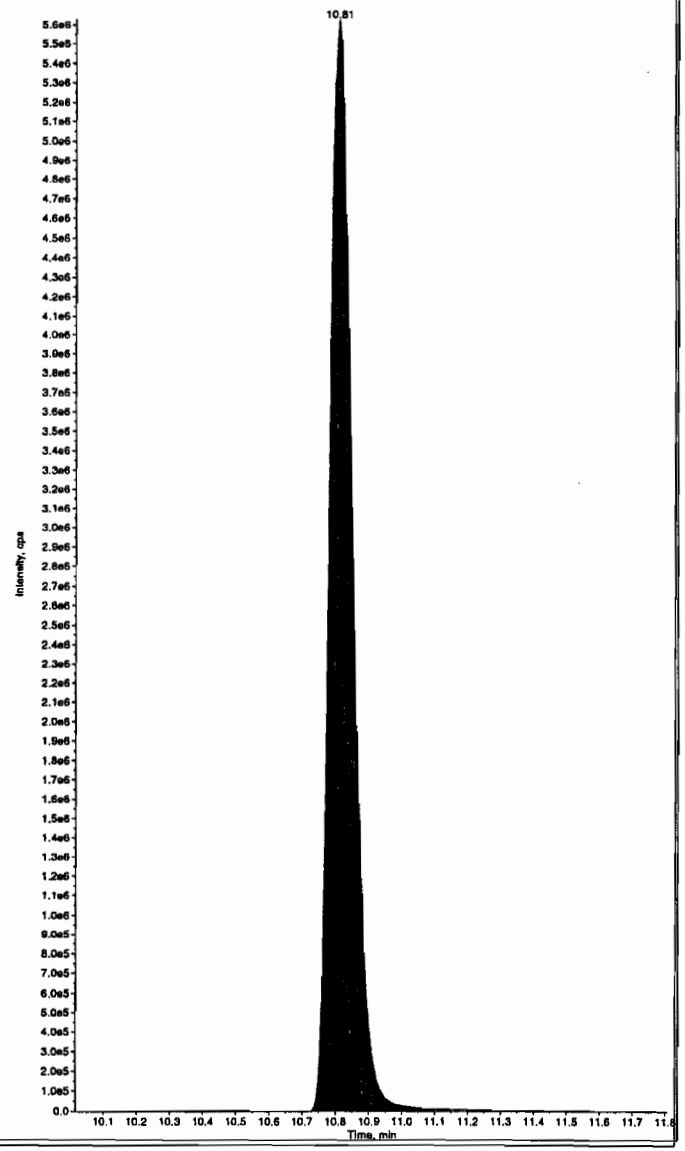

:L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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7

Explosives Initial Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXICV

GEL Data File EXS04050011.wiff

Analysis Date: 05–APR–10 15:22

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	461	92	
2,6–Diamino–4–nitrotoluene	500	436	87	
3,4–Dinitrotoluene	250	235	94	
3,5–Dinitroaniline	500	445	89	
TATB	500	483	97	
tris(o–cresyl) phosphate	500	502	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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ımple Name: "WXX100405-26ICV" Sample ID: "|1|LER" File: "EXS04050011.wiff"
ak Name: "TATB" Mass(es): "257.2/204.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index: 1
ple Type: QC
centration: 500. ng/mL
culated Conc: 483. ng/mL
. Date: 4/5/2010
. Time: 3:22:54 PM

ified: No
. Algorithm: IntelliQuan - IQA
. Peak Height: 2500.00 cps
. Peak Width: 0.00 sec
othing Width: 3 points
Window: 30.0 sec
ected RT: 6.86 min
Relative RT: No

Type: Valley
ention Time: 6.86 min
: 3.85e+005 counts
ght: 80153.030 cps
t Time: 6.74 min
Time: 8.08 min

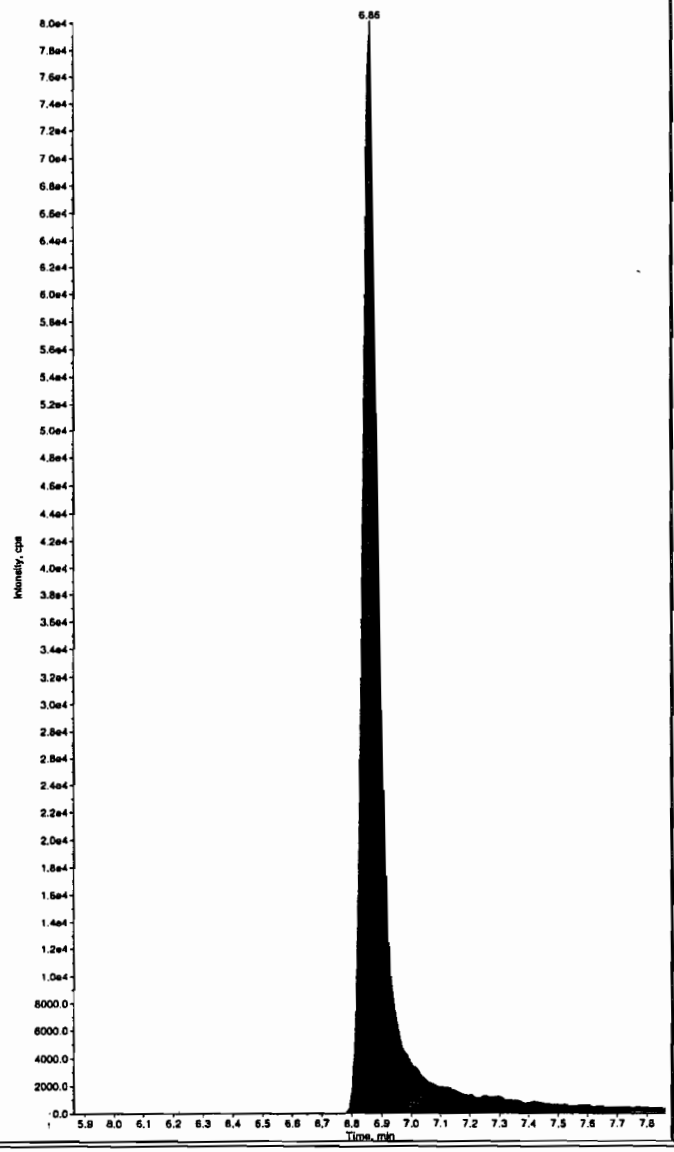

Sample Name: "WXX100405-26ICV" Sample ID: "|1|LER" File: "EXS04050011.wiff"
Peak Name: "35-Dinitroaniline". Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 445. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 3:22:54 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.10 min
Area: 2.97e+006 counts
Height: 675177.673 cps
Start Time: 7.98 min
End Time: 8.23 min

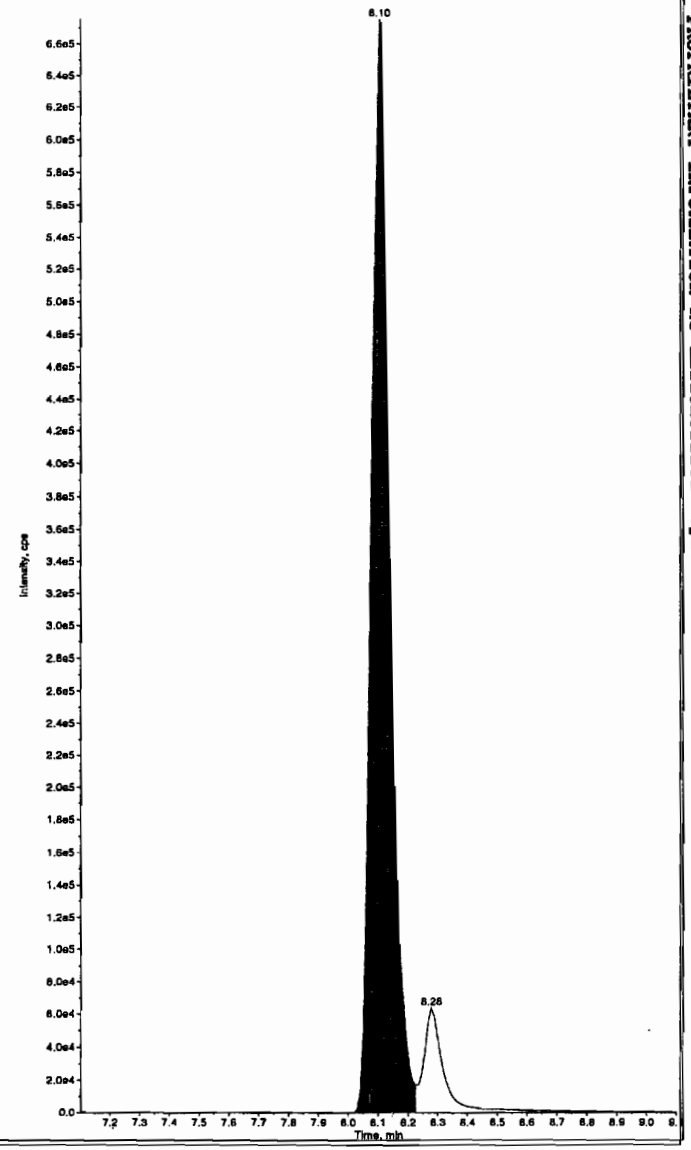

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L SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

ample Name: "WXX100405-26ICV" Sample ID: "|1|LER" File: "EXS04050011.wiff"
eak Name: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
omment: "LCMSEXP_C" Annotation: ""

ple Index:	1	
ple Type:	QC	
centration:	250.	ng/mL
culated Conc:	235.	ng/mL
. Date:	4/5/2010	
. Time:	3:22:54 PM	
ified:	No	
c. Algorithm:	IntelliQuan - IQA	
. Peak Height:	1460.00	cps
. Peak Width:	0.00	sec
othing Width:	3	points
Window:	15.0	sec
ected RT:	8.28	min
Relative RT:	No	
. Type:	Valley	
ention Time:	8.28	min
a:	2.00e+006	counts
ght:	514956.970	cps
rt Time:	8.21	min
Time:	8.64	min

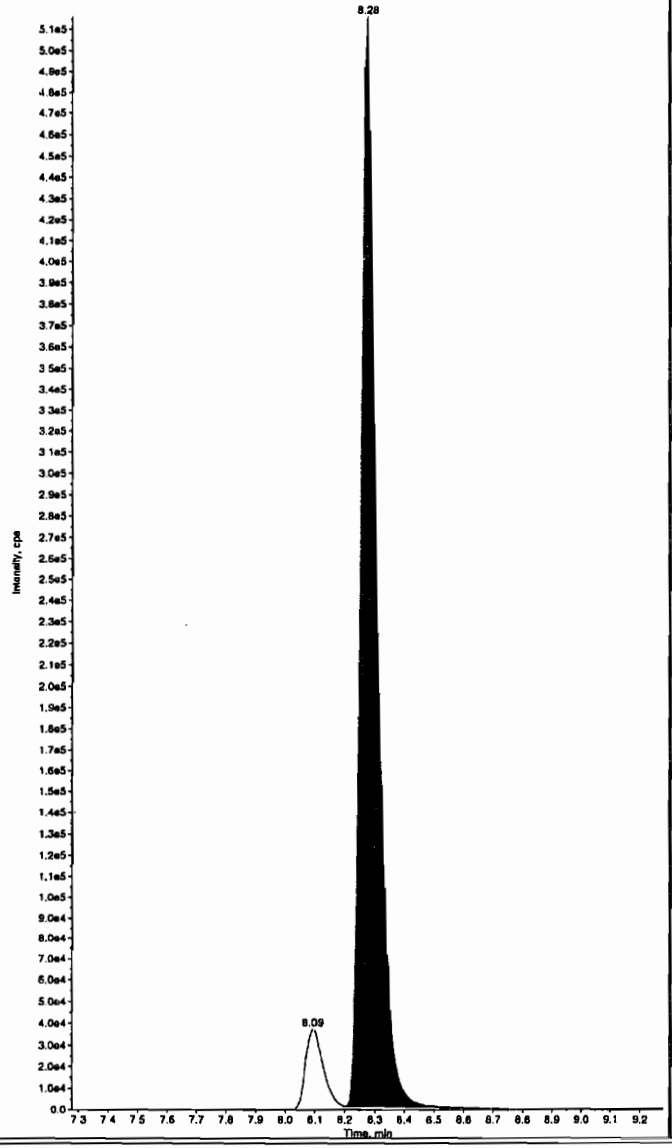

Sample Name: "WXX100405-26ICV" Sample ID: "|1|LER" File: "EXS04050011.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	436.	ng/mL
Acq. Date:	4/5/2010	
Acq. Time:	3:22:54 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	450.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	4.92	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	4.92	min
Area:	1.23e+006	counts
Height:	282532.837	cps
Start Time:	4.84	min
End Time:	5.22	min

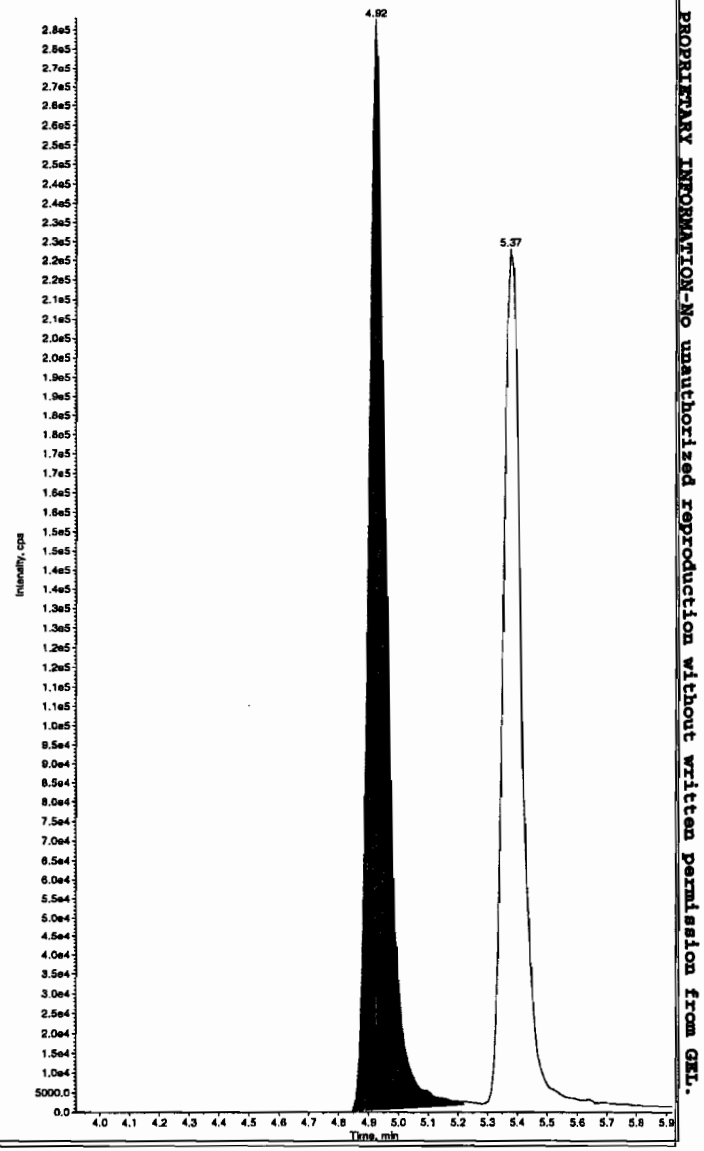

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

mple Name: "WXX100405-26ICV" Sample ID: "[1]LER" File: "EXS04050011.wiff"
ak Name: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
mment: "LCMSEXP_C" Annotation: ""

le Index: 1
le Type: QC
entration: 500. ng/mL
ulated Conc: 461. ng/mL
Date: 4/5/2010
Time: 3:22:54 PM

fied: No
. Algorithm: IntelliQuan - IQA
Peak Height: 350.00 cps
Peak Width: 0.00 sec
thing Width: 3 points
indow: 30.0 sec
cted RT: 5.37 min
Relative RT: No

Type: Valley
ntion Time: 5.37 min
: 9.82e+005 counts
ht: 221252.670 cps
t Time: 5.28 min
Time: 5.84 min

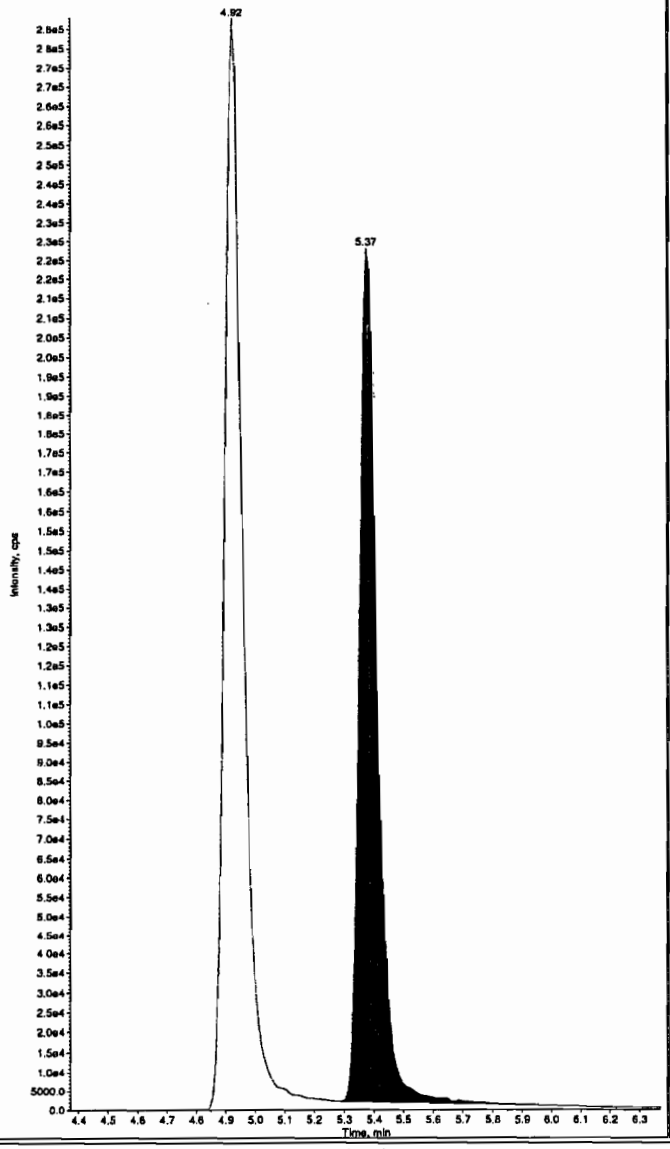

Sample Name: "WXX100405-26ICV" Sample ID: "[1]LER" File: "EXS04050011.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 502. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 3:22:54 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 9.04e+006 counts
Height: 2144218.262 cps
Start Time: 10.7 min
End Time: 11.2 min

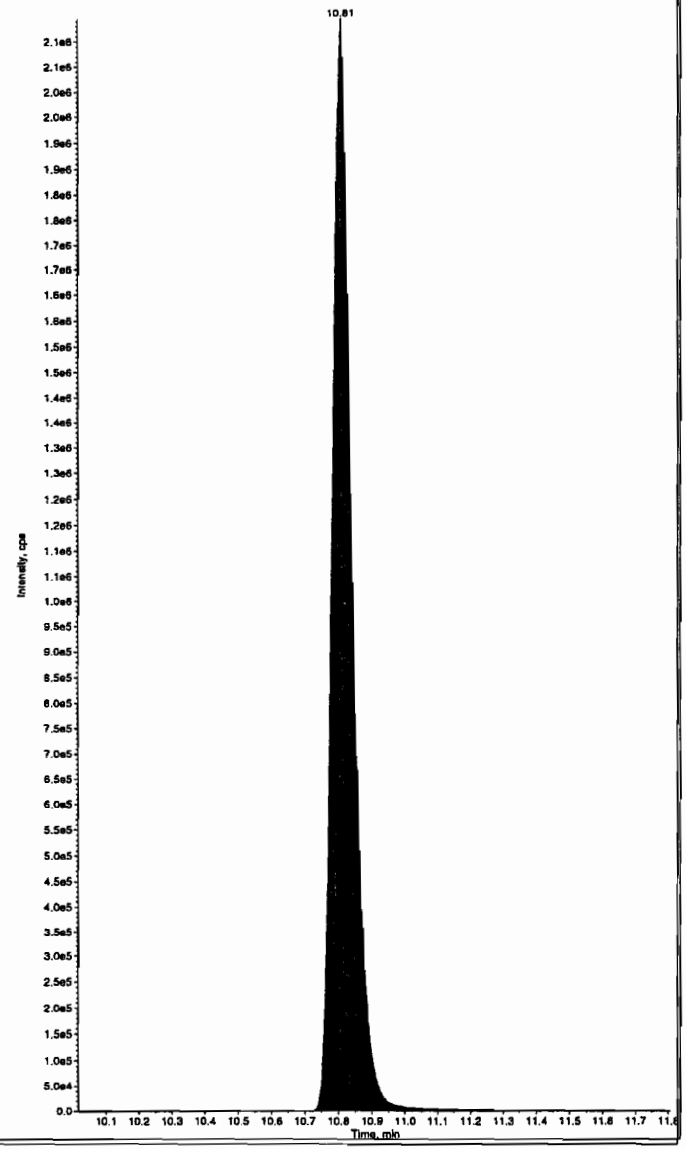

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0408012a

Analysis Date: 09–APR–10 02:57

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
o–Nitrotoluene	40	40.786	102	
p–Nitrotoluene	40	44.935	112	
1,3,5–Trinitrobenzene	40	40.125	100	
1,3–Dinitrobenzene–d4	500	550.578	110	
2,4,6–Trinitrotoluene	40	38.456	96	
2,4–Dinitrotoluene	40	38.733	97	
2,6–Dinitrotoluene	40	40.684	102	
2,6–Dinitrotoluene–d3	500	538.431	108	
2–Amino–4,6–dinitrotoluene	40	38.144	95	
3,4–Dinitrotoluene	20	21.449	107	
4–Amino–2,6–dinitrotoluene	40	42.093	105	
HMX	40	42.773	107	
Nitrobenzene	40	44.561	111	
PETN	40	43.336	108	
RDX	40	42.104	105	
Tetryl	40	39.686	99	
m–Dinitrobenzene	40	41.454	104	
m–Nitrotoluene	40	38.638	97	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408012a
Date: 09-Apr-2010
Time: 02:57:06
ID: WXX100408-08CRI
Vial: 1:1,C

MM 4/10/10

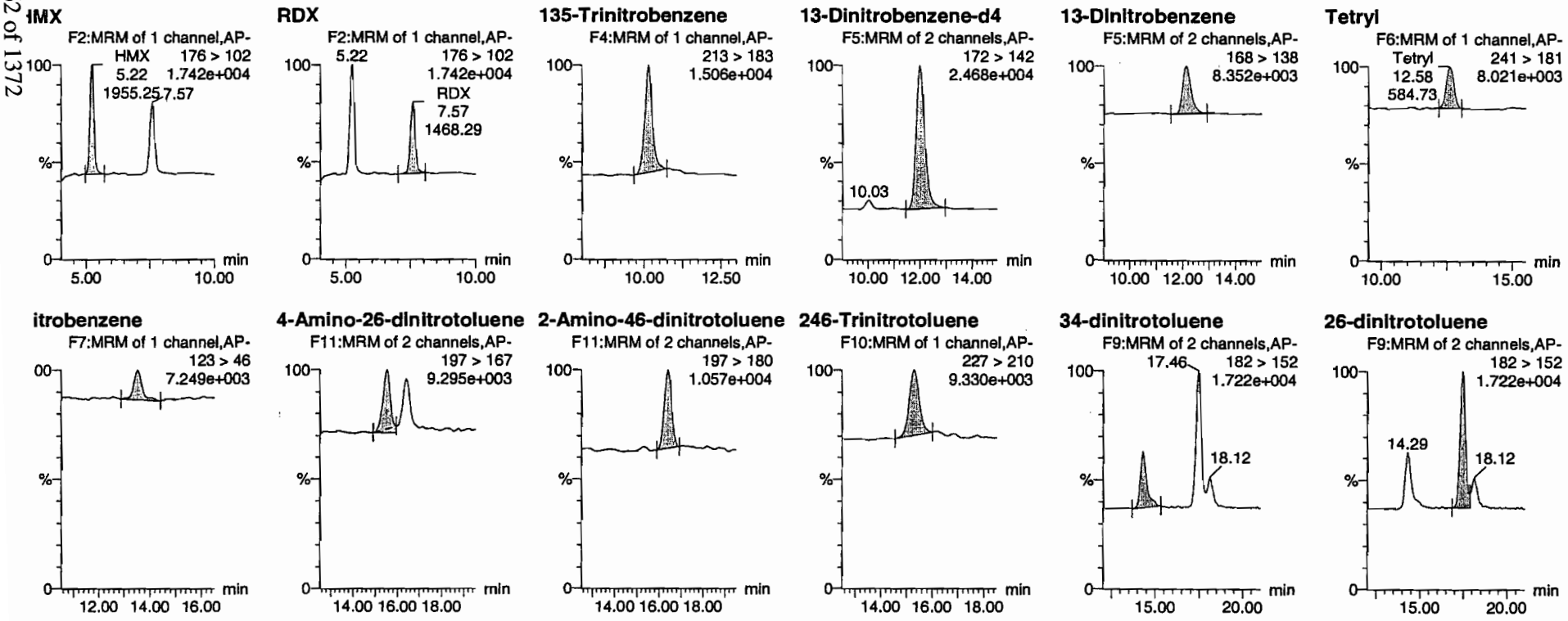

HMM 04/11/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

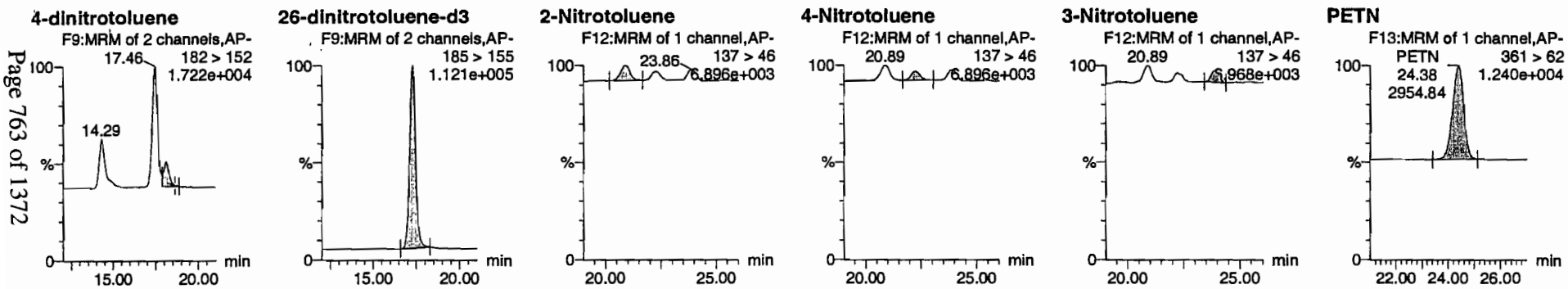

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
/XX100408-08CRI	HMX	176 > 102	5.22	1955.254	7155.368	1955.254	136.628	bb			42.7734	106.9	6.9	205.0
/XX100408-08CRI	RDX	176 > 102	7.57	1468.288	7155.368	1468.288	102.600	bb			42.1035	105.3	5.3	134.3
/XX100408-08CRI	135-Trinitrobenzene	213 > 183	10.13	2425.125	7155.368	2425.125	169.462	bb			40.1250	100.3	0.3	134.0
/XX100408-08CRI	13-Dinitrobenzene-d4	172 > 142	11.97	7155.368		7155.368	7155.368	bb			550.5781	110.1	10.1	503.1
/XX100408-08CRI	13-Dinitrobenzene	168 > 138	12.10	764.006	7155.368	764.006	53.387	bb			41.4536	103.6	3.6	129.7
/XX100408-08CRI	Tetryl	241 > 181	12.58	584.727	7155.368	584.727	40.859	bb			39.6858	99.2	-0.8	63.7
/XX100408-08CRI	Nitrobenzene	123 > 46	13.53	383.258	7155.368	383.258	26.781	bb			44.5607	111.4	11.4	21.5
/XX100408-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.52	1114.118	42512.996	1114.118	13.103	MM	09-Apr-10	10:44:22	42.0931	105.2	5.2	45.7
/XX100408-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.40	1481.604	42512.996	1481.604	17.425	bb			38.1440	95.4	-4.6	61.2
/XX100408-08CRI	246-Trinitrotoluene	227 > 210	15.30	1258.172	42512.996	1258.172	14.797	bb			38.4557	96.1	-3.9	102.4
/XX100408-08CRI	34-dinitrotoluene	182 > 152	14.29	1870.371	42512.996	1870.371	21.998	bb			21.4490	107.2	7.2	70.8
/XX100408-08CRI	26-dinitrotoluene	182 > 152	17.46	3934.310	42512.996	3934.310	46.272	MM	09-Apr-10	10:46:56	40.6842	101.7	1.7	174.3
/XX100408-08CRI	24-dinitrotoluene	182 > 152	18.12	871.853	42512.996	871.853	10.254	MM	09-Apr-10	10:51:02	38.7330	96.8	-3.2	36.8
/XX100408-08CRI	26-dinitrotoluene-d3	185 > 155	17.29	42512.996		42512.996	42512.996	bb			538.4311	107.7	7.7	2811.2
/XX100408-08CRI	2-Nitrotoluene	137 > 46	20.89	266.200	42512.996	266.200	3.131	bb			40.7862	102.0	2.0	57.8
/XX100408-08CRI	4-Nitrotoluene	137 > 46	22.23	148.485	42512.996	148.485	1.746	bb			44.9351	112.3	12.3	33.1
/XX100408-08CRI	3-Nitrotoluene	137 > 46	23.86	179.365	42512.996	179.365	2.110	bb			38.6381	96.6	-3.4	34.4
/XX100408-08CRI	PETN	361 > 62	24.38	2954.841	42512.996	2954.841	34.752	bb			43.3357	108.3	8.3	1075.4

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/09/10
Time of Injection	0257
Standard Number	WXX100408-08CRI
Data File	EXP0408012a

HMX	106.9
RDX	105.3
135-TNB	100.3
13-DNB	103.6
Tetryl	99.2
Nitrobenzene	111.4
4A-26-DNT	105.2
2A-46-DNT	95.4
246-TNT	96.1
34-DNT(surr)	107.2
26-DNT	101.7
24-DNT	96.8
2-NT	102.0
4-NT	112.3
3-NT	96.6
PETN	108.3
Total	1648.3
Average	103.0

4/10/10

4/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2057

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0408023a

Analysis Date: 09-APR-10 08:21

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3-Dinitrobenzene-d4	500	509.39	102	
2,4,6-Trinitrotoluene	600	715.187	119	
2,4-Dinitrotoluene	600	602.1	100	
2,6-Dinitrotoluene	600	602.02	100	
2,6-Dinitrotoluene-d3	500	495.787	99	
2-Amino-4,6-dinitrotoluene	600	644.303	107	
3,4-Dinitrotoluene	300	301.84	101	
4-Amino-2,6-dinitrotoluene	600	630.065	105	
HMX	600	635.768	106	
Nitrobenzene	600	572.021	95	
PETN	600	626.401	104	
RDX	600	690.522	115	
Tetryl	600	685.312	114	
m-Dinitrobenzene	600	617.8	103	
m-Nitrotoluene	600	521.623	87	
o-Nitrotoluene	600	549.165	92	
p-Nitrotoluene	600	580.011	97	
1,3,5-Trinitrobenzene	600	602.085	100	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408023a
ate: 09-Apr-2010
ime: 08:21:23
): WXX100408-07CCV
ial: 1:1,B

MM 4/10/10

MX
F2:MRM of 1 channel,AP-
176 > 102
1.432e+005
7.57

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.432e+005
5.22
RDX
7.57
22279.36

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.241e+005

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.307e+004
10.01

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
3.374e+004

Tetryl
F6:MRM of 1 channel,AP-
241 > 181
3.351e+004
Tetryl
12.63
9341.95

itrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.946e+004

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
4.344e+004

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
6.359e+004
15.29

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
5.126e+004

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.528e+005
17.46
18.12

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.528e+005
14.30
18.12

Hmm 04/11/10

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

24-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.528e+005
17.46
14.30

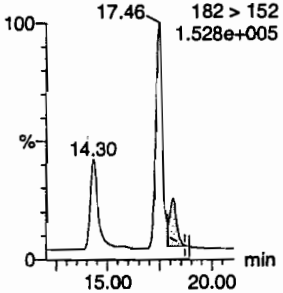

26-dinitrotoluene-d3
F9:MRM of 2 channels,AP-
185 > 155
1.027e+005

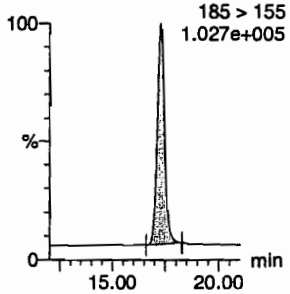

2-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
1.327e+004
23.90

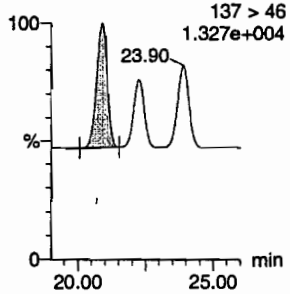

4-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
1.327e+004
20.89
23.90

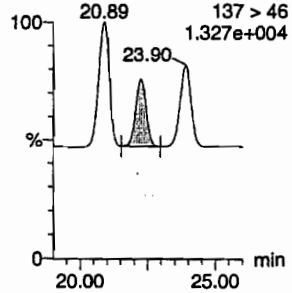

3-Nitrotoluene
F12:MRM of 1 channel,AP-
137 > 46
1.435e+004
20.89
22.26

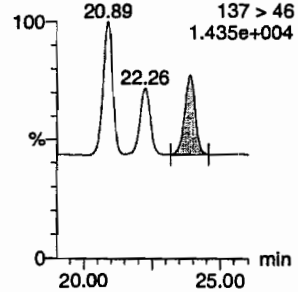

PETN
F13:MRM of 1 channel,AP-
361 > 62
6.659e+004
PETN
24.37
32053.59

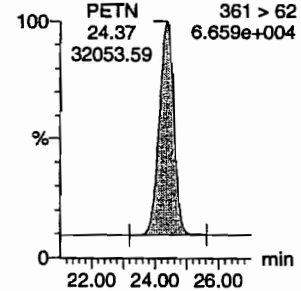

D	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
VXX100408-07CCV	HMX	176 > 102	5.22	26888.053	6620.083	26888.053	2030.794	db			635.7683	106.0	6.0	1389.4
VXX100408-07CCV	RDX	176 > 102	7.57	22279.355	6620.083	22279.355	1682.710	bb			690.5222	115.1	15.1	990.2
VXX100408-07CCV	135-Trinitrobenzene	213 > 183	10.14	33667.313	6620.083	33667.313	2542.817	bb			602.0854	100.3	0.3	1443.6
VXX100408-07CCV	13-Dinitrobenzene-d4	172 > 142	11.97	6620.083		6620.083	6620.083	bb			509.3900	101.9	1.9	394.9
VXX100408-07CCV	13-Dinitrobenzene	168 > 138	12.14	10534.502	6620.083	10534.502	795.647	bb			617.8002	103.0	3.0	1362.8
VXX100408-07CCV	Tetryl	241 > 181	12.63	9341.951	6620.083	9341.951	705.577	bb			685.3125	114.2	14.2	879.0
VXX100408-07CCV	Nitrobenzene	123 > 46	13.54	4551.790	6620.083	4551.790	343.786	bb			572.0208	95.3	-4.7	352.5
VXX100408-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.53	15355.744	39145.949	15355.744	196.135	MM	09-Apr-10	10:45:05	630.0651	105.0	5.0	341.5
VXX100408-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.41	23044.184	39145.949	23044.184	294.337	bb			644.3029	107.4	7.4	825.3
VXX100408-07CCV	246-Trinitrotoluene	227 > 210	15.31	21545.883	39145.949	21545.883	275.199	bb			715.1871	119.2	19.2	461.9
VXX100408-07CCV	34-dinitrotoluene	182 > 152	14.30	24236.105	39145.949	24236.105	309.561	bb			301.8397	100.6	0.6	485.9
VXX100408-07CCV	26-dinitrotoluene	182 > 152	17.46	53606.605	39145.949	53606.605	684.702	MM	09-Apr-10	10:47:53	602.0199	100.3	0.3	1241.1
VXX100408-07CCV	24-dinitrotoluene	182 > 152	18.12	12479.443	39145.949	12479.443	159.396	MM	09-Apr-10	10:50:30	602.0996	100.3	0.3	264.8
VXX100408-07CCV	26-dinitrotoluene-d3	185 > 155	17.29	39145.949		39145.949	39145.949	bb			495.7871	99.2	-0.8	2624.1
VXX100408-07CCV	2-Nitrotoluene	137 > 46	20.89	3300.370	39145.949	3300.370	42.155	bb			549.1649	91.5	-8.5	193.1
VXX100408-07CCV	4-Nitrotoluene	137 > 46	22.26	1764.813	39145.949	1764.813	22.541	bb			580.0114	96.7	-3.3	105.3
VXX100408-07CCV	3-Nitrotoluene	137 > 46	23.90	2229.690	39145.949	2229.690	28.479	bb			521.6233	86.9	-13.1	145.6
VXX100408-07CCV	PETN	361 > 62	24.37	32053.586	39145.949	32053.586	409.411	bb			626.4013	104.4	4.4	14663.5

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/09/10
Time of Injection: 0821
Standard Number: WXX100408-07CCV
Data File: EXP0408023a

HMX	106.0
RDX	115.1
135-TNB	100.3
13-DNB	103.0
Tetryl	114.2
Nitrobenzene	95.3
4A-26-DNT	105.0
2A-46-DNT	107.4
246-TNT	119.2
34-DNT(surr)	100.6
26-DNT	100.3
24-DNT	100.3
2-NT	91.5
4-NT	96.7
3-NT	86.9
PETN	104.4
Total	1646.2
Average	102.9

MJP 4/12/10

HJM 04/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0408025a

Analysis Date: 09–APR–10 09:20

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	45.5	114	
1,3–Dinitrobenzene–d4	500	551.868	110	
2,4,6–Trinitrotoluene	40	38.744	97	
2,4–Dinitrotoluene	40	39.839	100	
2,6–Dinitrotoluene	40	40.632	102	
2,6–Dinitrotoluene–d3	500	534.081	107	
2–Amino–4,6–dinitrotoluene	40	41.315	103	
3,4–Dinitrotoluene	20	19.176	96	
4–Amino–2,6–dinitrotoluene	40	39.827	100	
HMX	40	38.969	97	
Nitrobenzene	40	33.805	85	
PETN	40	41.785	104	
RDX	40	36.3	91	
Tetryl	40	44.096	110	
m–Dinitrobenzene	40	39.708	99	
m–Nitrotoluene	40	39.704	99	
o–Nitrotoluene	40	43.509	109	
p–Nitrotoluene	40	44.305	111	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408025a
Date: 09-Apr-2010
Time: 09:20:28
ID: WXX100408-08CRI
Vial: 1:1,C

MM 4/12/10

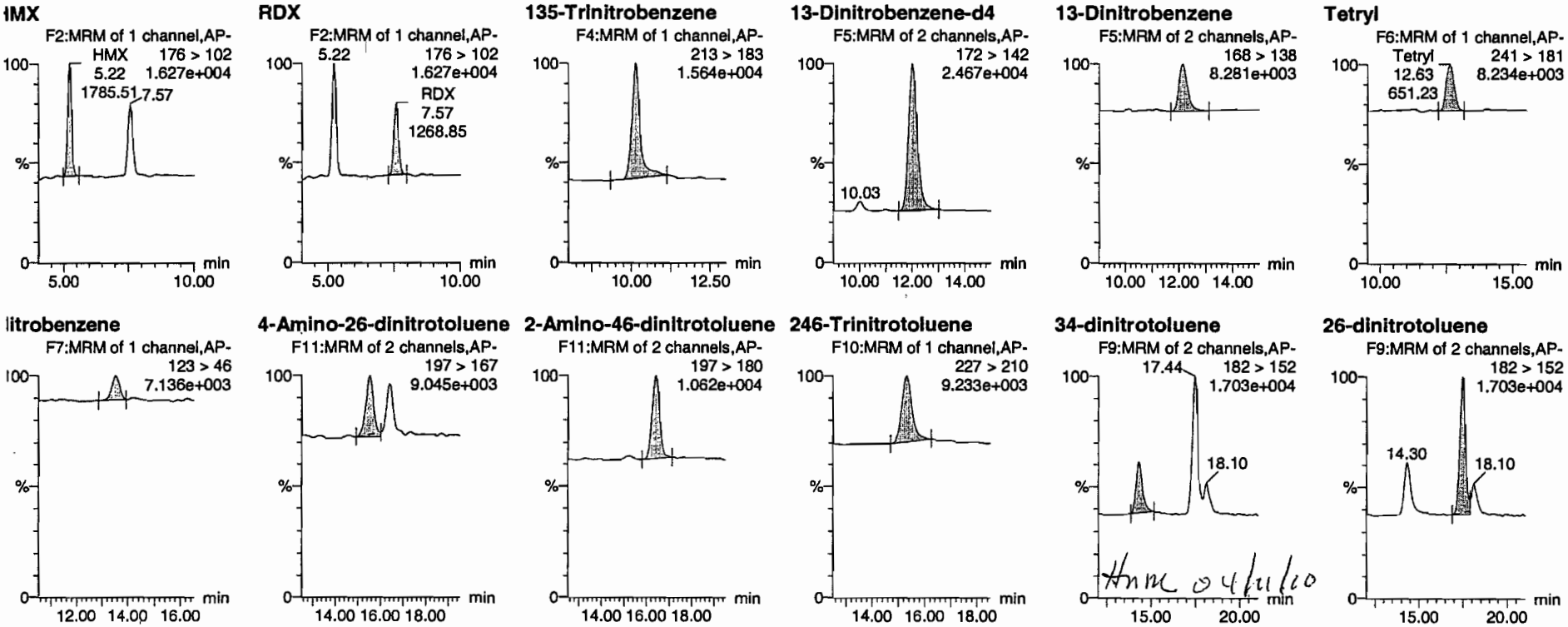

HMM 04/11/10

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\040810expA.qld, Time: Fri Apr 09 10:54:52 2010

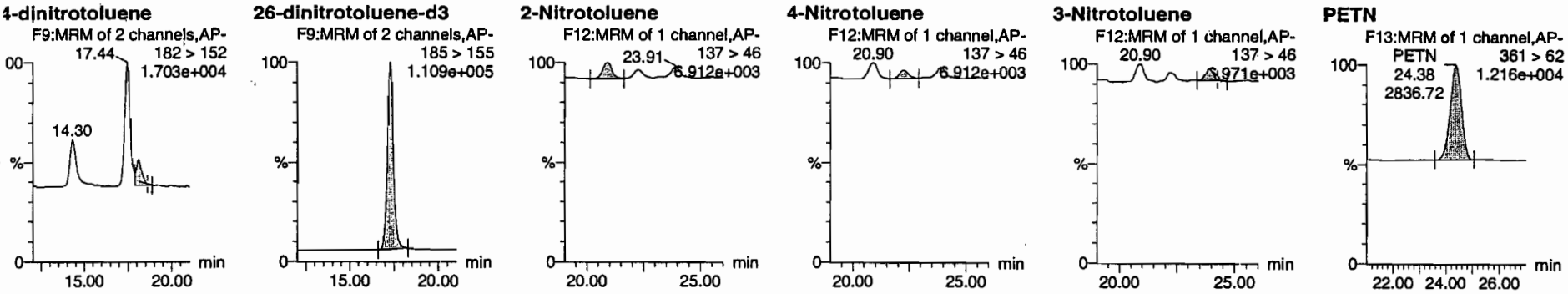

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
/XX100408-08CRI	HMX	176 > 102	5.22	1785.509	7172.133	1785.509	124.475	bb			38.9688	97.4	-2.6	182.8
/XX100408-08CRI	RDX	176 > 102	7.57	1268.851	7172.133	1268.851	88.457	bb			36.2995	90.7	-9.3	116.8
/XX100408-08CRI	135-Trinitrobenzene	213 > 183	10.14	2756.432	7172.133	2756.432	192.163	bb			45.5001	113.8	13.8	137.2
/XX100408-08CRI	13-Dinitrobenzene-d4	172 > 142	12.00	7172.133		7172.133	7172.133	bb			551.8681	110.4	10.4	1479.4
/XX100408-08CRI	13-Dinitrobenzene	168 > 138	12.14	733.552	7172.133	733.552	51.139	bb			39.7082	99.3	-0.7	102.6
/XX100408-08CRI	Tetryl	241 > 181	12.63	651.230	7172.133	651.230	45.400	bb			44.0961	110.2	10.2	75.9
/XX100408-08CRI	Nitrobenzene	123 > 46	13.54	291.435	7172.133	291.435	20.317	bb			33.8054	84.5	-15.5	26.1
/XX100408-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.53	1045.621	42169.504	1045.621	12.398	MM	09-Apr-10	10:45:13	39.8270	99.6	-0.4	31.0
/XX100408-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.41	1591.803	42169.504	1591.803	18.874	bb			41.3149	103.3	3.3	93.8
/XX100408-08CRI	246-Trinitrotoluene	227 > 210	15.31	1257.368	42169.504	1257.368	14.908	bb			38.7441	96.9	-3.1	158.0
/XX100408-08CRI	34-dinitrotoluene	182 > 152	14.30	1658.674	42169.504	1658.674	19.667	bb			19.1762	95.9	-4.1	79.4
/XX100408-08CRI	26-dinitrotoluene	182 > 152	17.44	3897.471	42169.504	3897.471	46.212	MM	09-Apr-10	10:48:07	40.6316	101.6	1.6	214.1
/XX100408-08CRI	24-dinitrotoluene	182 > 152	18.10	889.509	42169.504	889.509	10.547	MM	09-Apr-10	10:50:47	39.8393	99.6	-0.4	46.6
/XX100408-08CRI	26-dinitrotoluene-d3	185 > 155	17.29	42169.504		42169.504	42169.504	bb			534.0807	106.8	6.8	2957.1
/XX100408-08CRI	2-Nitrotoluene	137 > 46	20.90	281.676	42169.504	281.676	3.340	bb			43.5089	108.8	8.8	67.2
/XX100408-08CRI	4-Nitrotoluene	137 > 46	22.24	145.220	42169.504	145.220	1.722	bb			44.3050	110.8	10.8	36.0
/XX100408-08CRI	3-Nitrotoluene	137 > 46	23.90	182.823	42169.504	182.823	2.168	MM	09-Apr-10	10:52:03	39.7038	99.3	-0.7	41.3
/XX100408-08CRI	PETN	361 > 62	24.38	2836.721	42169.504	2836.721	33.635	bb			41.7853	104.5	4.5	1189.4

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/09/10
Time of Injection	0920
Standard Number	WXX100408-08CRI
Data File	EXP0408025a

HMX	97.4
RDX	90.7
135-TNB	113.8
13-DNB	99.3
Tetryl	110.2
Nitrobenzene	84.5
4A-26-DNT	99.6
2A-46-DNT	103.3
246-TNT	96.9
34-DNT(surr)	95.9
26-DNT	101.6
24-DNT	99.6
2-NT	108.8
4-NT	110.8
3-NT	99.3
PETN	104.5
Total	1616.2
Average	101.0

4/10/10

4/10/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0408036a

Analysis Date: 09–APR–10 14:44

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
RDX	600	715.89	119	
Tetryl	600	687.697	115	
m–Dinitrobenzene	600	604.247	101	
m–Nitrotoluene	600	522.415	87	
o–Nitrotoluene	600	540.297	90	
p–Nitrotoluene	600	575.108	96	
PETN	600	633.087	106	
1,3,5–Trinitrobenzene	600	615.039	103	
1,3–Dinitrobenzene–d4	500	422.177	84	
2,4,6–Trinitrotoluene	600	700.231	117	
2,4–Dinitrotoluene	600	598.551	100	
2,6–Dinitrotoluene	600	601.126	100	
2,6–Dinitrotoluene–d3	500	415.826	83	
2–Amino–4,6–dinitrotoluene	600	671.115	112	
3,4–Dinitrotoluene	300	297.202	99	
4–Amino–2,6–dinitrotoluene	600	629.291	105	
HMX	600	668.293	111	
Nitrobenzene	600	565.065	94	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

luantify Sample Report
iEL Laboratories, LLC / Analyst : Michael A. Penny

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ate: 09-Apr-2010
ime: 14:44:48
): WXX100408-07CCV
ial: 1:1,B

MATT 4/10/10

MX

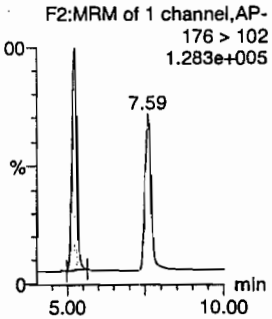

RDX

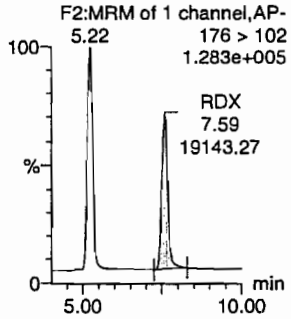

135-Trinitrobenzene

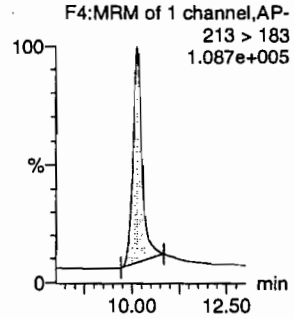

13-Dinitrobenzene-d4

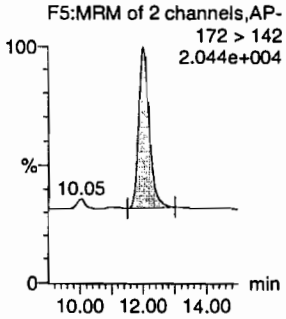

13-Dinitrobenzene

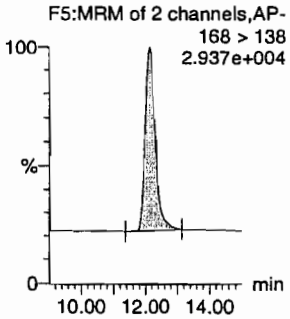

Tetryl

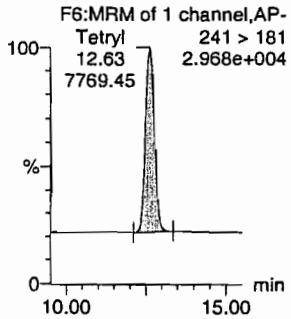

itrobenzene

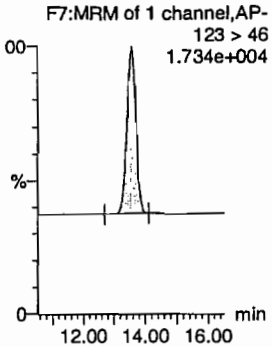

4-Amino-26-dinitrotoluene

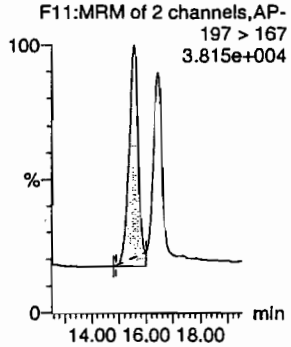

2-Amino-46-dinitrotoluene

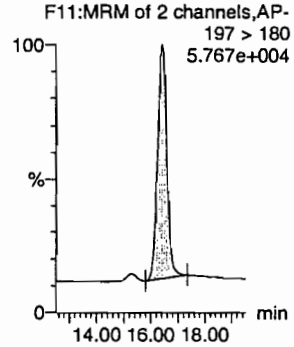

246-Trinitrotoluene

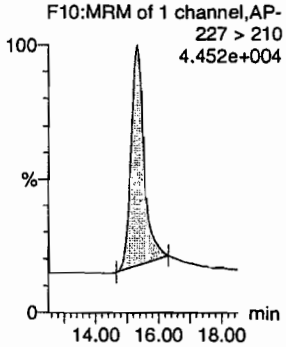

34-dinitrotoluene

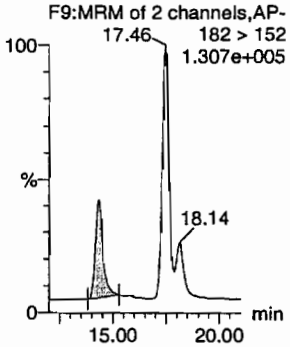

HNM 04/11/10

26-dinitrotoluene

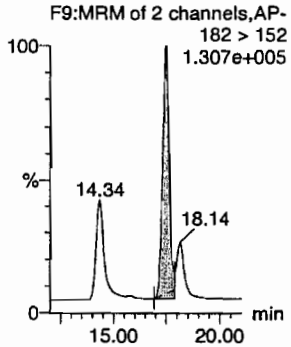

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uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ıtaset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

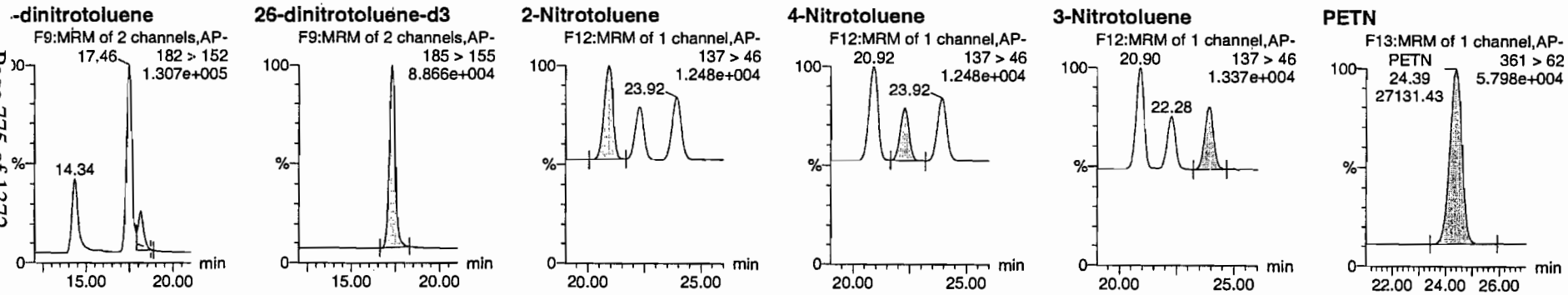

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
XX100408-07CCV	HMX	176 > 102	5.22	23424.582	5486.660	23424.582	2134.685	bb			668.2927	111.4	11.4	955.9
XX100408-07CCV	RDX	176 > 102	7.59	19143.270	5486.660	19143.270	1744.529	bb			715.8904	119.3	19.3	670.4
XX100408-07CCV	135-Trinitrobenzene	213 > 183	10.14	28503.471	5486.660	28503.471	2597.525	bb			615.0391	102.5	2.5	608.2
XX100408-07CCV	13-Dinitrobenzene-d4	172 > 142	12.00	5486.660		5486.660	5486.660	bb			422.1774	84.4	-15.6	856.5
XX100408-07CCV	13-Dinitrobenzene	168 > 138	12.14	8539.355	5486.660	8539.355	778.192	bb			604.2470	100.7	0.7	640.0
XX100408-07CCV	Tetryl	241 > 181	12.63	7769.454	5486.660	7769.454	708.031	bb			687.6967	114.6	14.6	505.4
XX100408-07CCV	Nitrobenzene	123 > 46	13.54	3726.606	5486.660	3726.606	339.606	bb			565.0651	94.2	-5.8	329.8
XX100408-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.53	12863.338	32832.465	12863.338	195.894	MM	10-Apr-10	11:39:04	629.2910	104.9	4.9	336.0
XX100408-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.41	20131.918	32832.465	20131.918	306.586	bb			671.1155	111.9	11.9	952.0
XX100408-07CCV	246-Trinitrotoluene	227 > 210	15.31	17693.051	32832.465	17693.051	269.444	bb			700.2311	116.7	16.7	1173.6
XX100408-07CCV	34-dinitrotoluene	182 > 152	14.34	20014.955	32832.465	20014.955	304.804	bb			297.2019	99.1	-0.9	440.5
XX100408-07CCV	26-dinitrotoluene	182 > 152	17.46	44894.105	32832.465	44894.105	683.685	MM	10-Apr-10	11:35:00	601.1256	100.2	0.2	1130.5
XX100408-07CCV	24-dinitrotoluene	182 > 152	18.14	10405.064	32832.465	10405.064	158.457	MM	10-Apr-10	11:34:31	598.5511	99.8	-0.2	239.4
XX100408-07CCV	26-dinitrotoluene-d3	185 > 155	17.29	32832.465		32832.465	32832.465	bb			415.8263	83.2	-16.8	3041.7
XX100408-07CCV	2-Nitrotoluene	137 > 46	20.92	2723.384	32832.465	2723.384	41.474	bb			540.2967	90.0	-10.0	635.6
XX100408-07CCV	4-Nitrotoluene	137 > 46	22.28	1467.669	32832.465	1467.669	22.351	bb			575.1078	95.9	-4.1	349.0
XX100408-07CCV	3-Nitrotoluene	137 > 46	23.92	1872.924	32832.465	1872.924	28.522	bb			522.4154	87.1	-12.9	163.1
XX100408-07CCV	PETN	361 > 62	24.39	27131.430	32832.465	27131.430	413.180	bb			633.0871	105.5	5.5	12891.7

L SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/09/10
Time of Injection: 1444
Standard Number: WXX100408-07CCV
Data File: EXP0408036a

HMX	111.4
RDX	119.3
135-TNB	102.5
13-DNB	100.7
Tetryl	114.6
Nitrobenzene	94.2
4A-26-DNT	104.9
2A-46-DNT	111.9
246-TNT	116.7
34-DNT(surr)	99.1
26-DNT	100.2
24-DNT	99.8
2-NT	90.0
4-NT	95.9
3-NT	87.1
PETN	105.5
Total	1653.8
Average	103.4

MDT 4/10/10

Hmm 04/10/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–2057

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0408038a **Analysis Date:** 09–APR–10 15:43

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
4–Amino–2,6–dinitrotoluene	40	40.006	100	
HMX	40	42.186	105	
Nitrobenzene	40	41.813	105	
PETN	40	40.909	102	
RDX	40	39.856	100	
Tetryl	40	45.95	115	
m–Dinitrobenzene	40	39.657	99	
m–Nitrotoluene	40	41.758	104	
o–Nitrotoluene	40	40.293	101	
p–Nitrotoluene	40	48.523	121	
1,3,5–Trinitrobenzene	40	42.597	106	
1,3–Dinitrobenzene–d4	500	488.04	98	
2,4,6–Trinitrotoluene	40	44.653	112	
2,4–Dinitrotoluene	40	41.901	105	
2,6–Dinitrotoluene	40	40.578	101	
2,6–Dinitrotoluene–d3	500	467.068	93	
2–Amino–4,6–dinitrotoluene	40	43.801	110	
3,4–Dinitrotoluene	20	20.469	102	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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ial: 1:1,C

MM 4/12/10

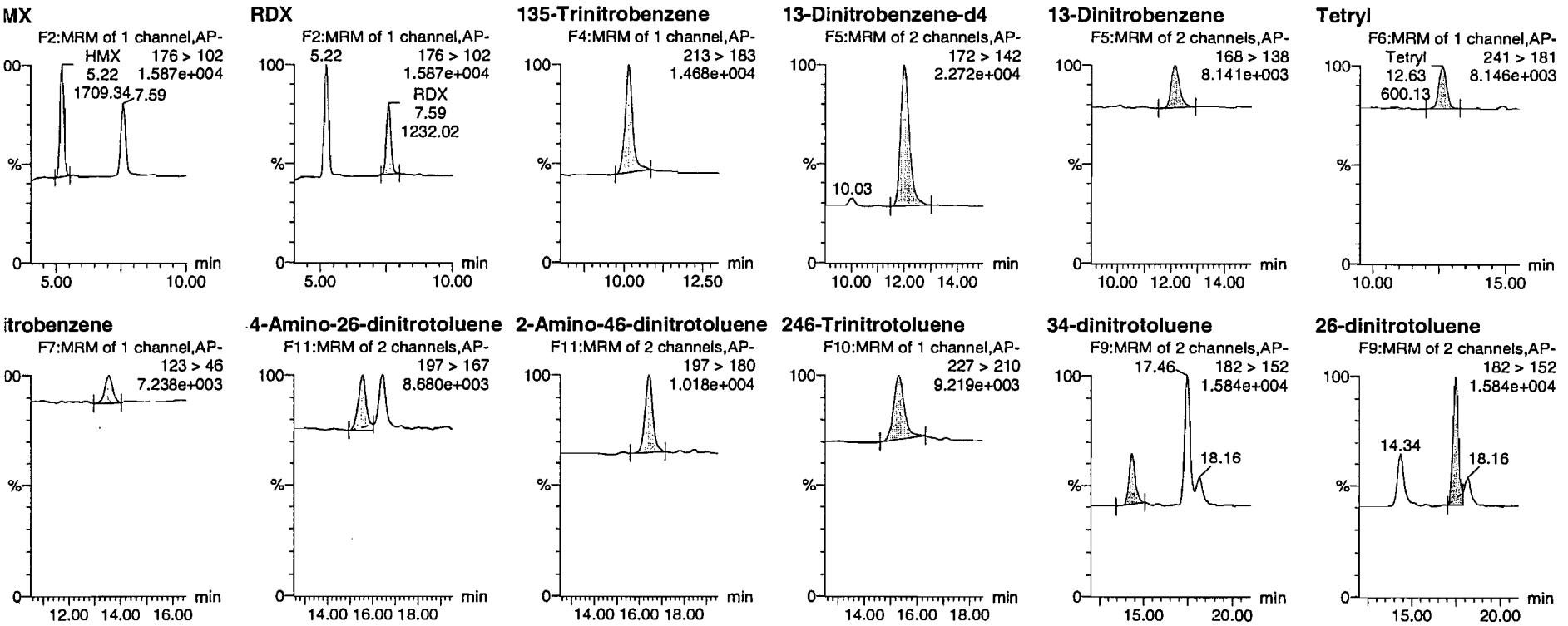

Hrme 04/11/10

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Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

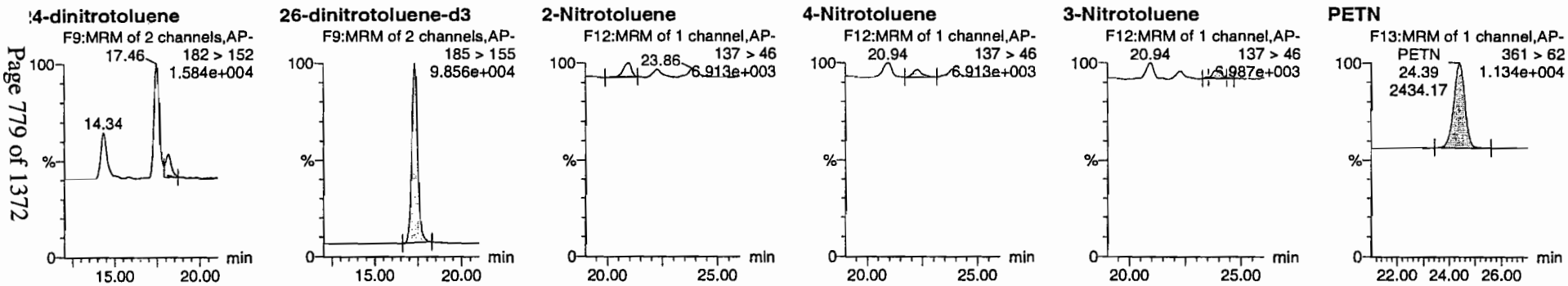

D	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
VXX100408-08CRI	HMX	176 > 102	5.22	1709.343	6342.622	1709.343	134.751	bb			42.1855	105.5	5.5	183.0
VXX100408-08CRI	RDX	176 > 102	7.59	1232.022	6342.622	1232.022	97.122	bb			39.8555	99.6	-0.4	116.2
VXX100408-08CRI	135-Trinitrobenzene	213 > 183	10.14	2282.100	6342.622	2282.100	179.902	bb			42.5970	106.5	6.5	213.1
VXX100408-08CRI	13-Dinitrobenzene-d4	172 > 142	12.00	6342.622		6342.622	6342.622	bb			488.0404	97.6	-2.4	546.0
VXX100408-08CRI	13-Dinitrobenzene	168 > 138	12.14	647.869	6342.622	647.869	51.073	bb			39.6566	99.1	-0.9	29.3
VXX100408-08CRI	Tetryl	241 > 181	12.63	600.128	6342.622	600.128	47.309	bb			45.9504	114.9	14.9	52.9
VXX100408-08CRI	Nitrobenzene	123 > 46	13.54	318.776	6342.622	318.776	25.130	bb			41.8129	104.5	4.5	50.7
VXX100408-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.53	918.544	36878.363	918.544	12.454	MM	10-Apr-10	11:38:52	40.0064	100.0	0.0	30.3
VXX100408-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.44	1475.851	36878.363	1475.851	20.010	bb			43.8012	109.5	9.5	52.7
VXX100408-08CRI	246-Trinitrotoluene	227 > 210	15.31	1267.309	36878.363	1267.309	17.182	bb			44.6532	111.6	11.6	129.8
VXX100408-08CRI	34-dinitrotoluene	182 > 152	14.34	1548.369	36878.363	1548.369	20.993	bb			20.4693	102.3	2.3	59.4
VXX100408-08CRI	26-dinitrotoluene	182 > 152	17.46	3403.954	36878.363	3403.954	46.151	MM	10-Apr-10	11:35:07	40.5781	101.4	1.4	148.1
VXX100408-08CRI	24-dinitrotoluene	182 > 152	18.16	818.160	36878.363	818.160	11.093	MM	10-Apr-10	11:34:24	41.9012	104.8	4.8	31.0
VXX100408-08CRI	26-dinitrotoluene-d3	185 > 155	17.29	36878.363		36878.363	36878.363	bb			467.0679	93.4	-6.6	2402.7
VXX100408-08CRI	2-Nitrotoluene	137 > 46	20.94	228.128	36878.363	228.128	3.093	bb			40.2934	100.7	0.7	71.1
VXX100408-08CRI	4-Nitrotoluene	137 > 46	22.27	139.089	36878.363	139.089	1.886	bb			48.5228	121.3	21.3	40.0
VXX100408-08CRI	3-Nitrotoluene	137 > 46	23.83	168.156	36878.363	168.156	2.280	MM	10-Apr-10	11:30:16	41.7580	104.4	4.4	14.1
VXX100408-08CRI	PETN	361 > 62	24.39	2434.169	36878.363	2434.169	33.003	bb			40.9088	102.3	2.3	1075.7

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/09/10
Time of Injection	1543
Standard Number	WXX100408-08CRI
Data File	EXP0408038a

HMX	105.5
RDX	99.6
135-TNB	106.5
13-DNB	99.1
Tetryl	114.9
Nitrobenzene	104.5
4A-26-DNT	100.0
2A-46-DNT	109.5
246-TNT	111.6
34-DNT(surr)	102.3
26-DNT	101.4
24-DNT	104.8
2-NT	100.7
4-NT	121.3
3-NT	104.4
PETN	102.3
Total	1688.4
Average	105.5

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0408046a

Analysis Date: 09–APR–10 19:43

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	626.151	104	
1,3–Dinitrobenzene–d4	500	411.022	82	
2,4,6–Trinitrotoluene	600	720.578	120	*
2,4–Dinitrotoluene	600	610.114	102	
2,6–Dinitrotoluene	600	610.942	102	
2,6–Dinitrotoluene–d3	500	390.069	78	*
2–Amino–4,6–dinitrotoluene	600	714.631	119	
3,4–Dinitrotoluene	300	314.02	105	
4–Amino–2,6–dinitrotoluene	600	619.274	103	
HMX	600	698.805	116	
Nitrobenzene	600	573.858	96	
PETN	600	681.011	114	
RDX	600	745.866	124	*
Tetryl	600	716.114	119	
m–Dinitrobenzene	600	600.408	100	
m–Nitrotoluene	600	529.621	88	
o–Nitrotoluene	600	550.66	92	
p–Nitrotoluene	600	590.579	98	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Quantify Sample Report
GEL Laboratories, LLC / Analyst : Michael A. Penny

Dataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

Name: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408046a
Date: 09-Apr-2010
Time: 19:43:09
ID: WXX100408-07CCV
Vial: 1:1,B

MM 4/10/10

HMX
F2:MRM of 1 channel,AP-
176 > 102
1.287e+005
7.59

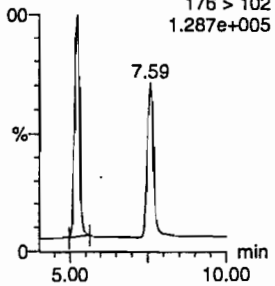

RDX
F2:MRM of 1 channel,AP-
176 > 102
1.287e+005
5.22
RDX
7.59
19417.79

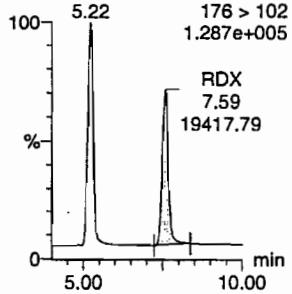

135-Trinitrobenzene
F4:MRM of 1 channel,AP-
213 > 183
1.046e+005

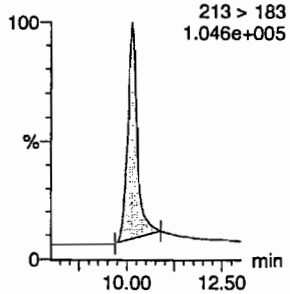

13-Dinitrobenzene-d4
F5:MRM of 2 channels,AP-
172 > 142
2.021e+004
10.01

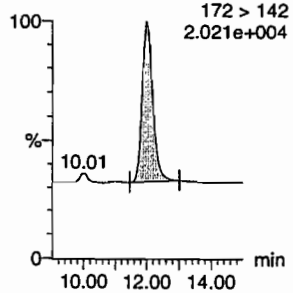

13-Dinitrobenzene
F5:MRM of 2 channels,AP-
168 > 138
2.812e+004

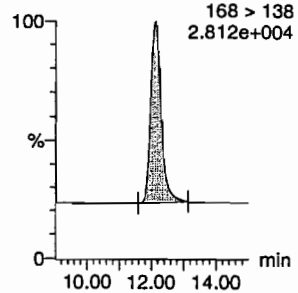

Tetryl
F6:MRM of 1 channel,AP-
Tetryl
12.63
7876.72
241 > 181
2.932e+004

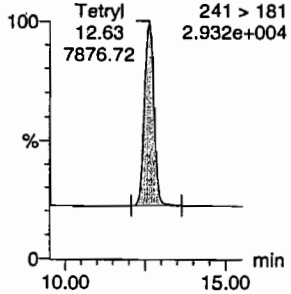

Nitrobenzene
F7:MRM of 1 channel,AP-
123 > 46
1.681e+004

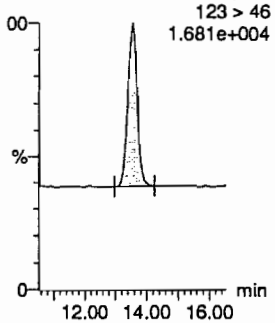

4-Amino-26-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 167
3.549e+004

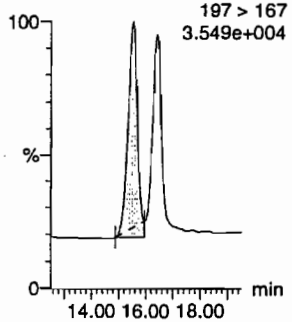

2-Amino-46-dinitrotoluene
F11:MRM of 2 channels,AP-
197 > 180
5.677e+004

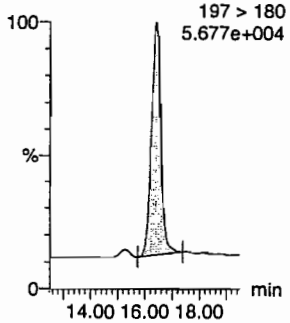

246-Trinitrotoluene
F10:MRM of 1 channel,AP-
227 > 210
4.259e+004

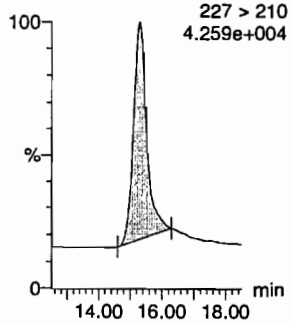

34-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.191e+005
17.46
18.14

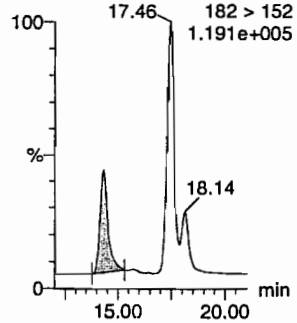

26-dinitrotoluene
F9:MRM of 2 channels,AP-
182 > 152
1.191e+005
14.34
18.14

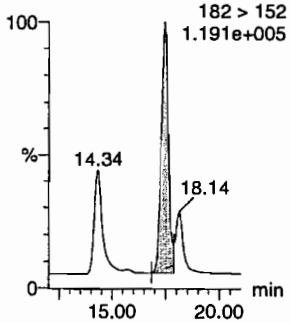

Hmm 04/11/10

GEL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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uantify Sample Report
EL Laboratories, LLC / Analyst : Michael A. Penny

ataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

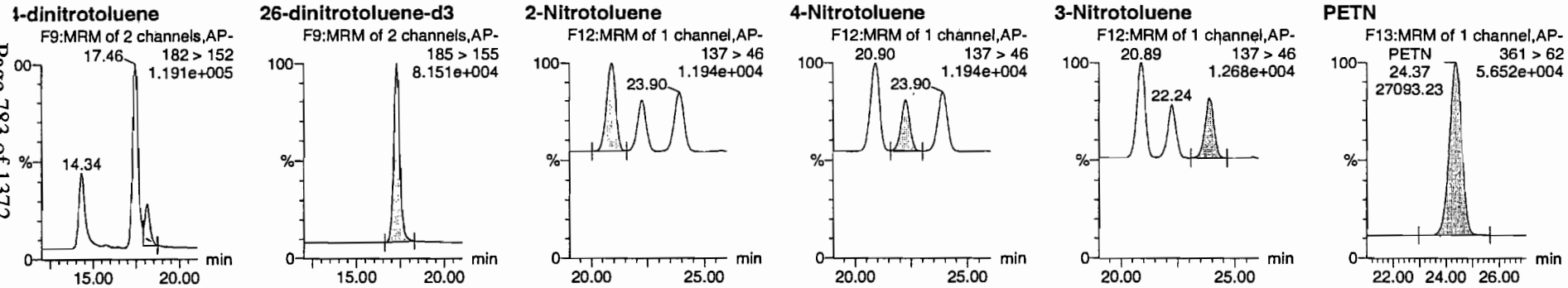

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
'XX100408-07CCV	HMX	176 > 102	5.22	23846.848	5341.678	23846.848	2232.150	bb			698.8053	116.5	16.5	2793.1
'XX100408-07CCV	RDX	176 > 102	7.59	19417.789	5341.678	19417.789	1817.574	bb			745.8655	124.3	24.3	1942.5
'XX100408-07CCV	135-Trinitrobenzene	213 > 183	10.14	28251.629	5341.678	28251.629	2644.453	bb			626.1507	104.4	4.4	3005.7
'XX100408-07CCV	13-Dinitrobenzene-d4	172 > 142	11.97	5341.678		5341.678	5341.678	bb			411.0216	82.2	-17.8	549.3
'XX100408-07CCV	13-Dinitrobenzene	168 > 138	12.14	8260.887	5341.678	8260.887	773.248	bb			600.4080	100.1	0.1	773.1
'XX100408-07CCV	Tetryl	241 > 181	12.63	7876.723	5341.678	7876.723	737.289	bb			716.1143	119.4	19.4	646.1
'XX100408-07CCV	Nitrobenzene	123 > 46	13.54	3684.591	5341.678	3684.591	344.891	bb			573.8582	95.6	-4.4	346.3
'XX100408-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.53	11874.462	30798.709	11874.462	192.775	MM	10-Apr-10	11:38:34	619.2739	103.2	3.2	467.1
'XX100408-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.41	20109.385	30798.709	20109.385	326.465	bb			714.6310	119.1	19.1	591.6
'XX100408-07CCV	246-Trinitrotoluene	227 > 210	15.31	17079.340	30798.709	17079.340	277.274	bb			720.5776	120.1	20.1	938.9
'XX100408-07CCV	34-dinitrotoluene	182 > 152	14.34	19837.617	30798.709	19837.617	322.053	bb			314.0201	104.7	4.7	600.8
'XX100408-07CCV	26-dinitrotoluene	182 > 152	17.46	42800.914	30798.709	42800.914	694.849	MM	10-Apr-10	11:35:20	610.9419	101.8	1.8	1478.7
XX100408-07CCV	24-dinitrotoluene	182 > 152	18.14	9949.095	30798.709	9949.095	161.518	MM	10-Apr-10	11:34:13	610.1140	101.7	1.7	344.3
XX100408-07CCV	26-dinitrotoluene-d3	185 > 155	17.29	30798.709		30798.709	30798.709	bb			390.0686	78.0	-22.0	1409.6
XX100408-07CCV	2-Nitrotoluene	137 > 46	20.90	2603.687	30798.709	2603.687	42.269	bb			550.6596	91.8	-8.2	150.7
XX100408-07CCV	4-Nitrotoluene	137 > 46	22.25	1413.793	30798.709	1413.793	22.952	bb			590.5789	98.4	-1.6	85.8
XX100408-07CCV	3-Nitrotoluene	137 > 46	23.88	1781.142	30798.709	1781.142	28.916	bb			529.6212	88.3	-11.7	81.1
XX100408-07CCV	PETN	361 > 62	24.37	27093.227	30798.709	27093.227	439.844	bb			681.0113	113.5	13.5	552.1

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/09/10
Time of Injection: 1943
Standard Number: WXX100408-07CCV
Data File: EXP0408046a

HMX	116.5
RDX	124.3
135-TNB	104.4
13-DNB	100.1
Tetryl	119.4
Nitrobenzene	95.6
4A-26-DNT	103.2
2A-46-DNT	119.1
246-TNT	120.1
34-DNT(surr)	104.7
26-DNT	101.8
24-DNT	101.7
2-NT	91.8
4-NT	98.4
3-NT	88.3
PETN	113.5
Total	1702.9
Average	106.4

MJT 4/10/10

Hmc 04/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0408048a

Analysis Date: 09–APR–10 20:42

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	46.817	117	
1,3–Dinitrobenzene–d4	500	425.431	85	
2,4,6–Trinitrotoluene	40	45.785	114	
2,4–Dinitrotoluene	40	39.222	98	
2,6–Dinitrotoluene	40	40.808	102	
2,6–Dinitrotoluene–d3	500	413.788	83	
2–Amino–4,6–dinitrotoluene	40	41.709	104	
3,4–Dinitrotoluene	20	19.877	99	
4–Amino–2,6–dinitrotoluene	40	40.41	101	
HMX	40	49.707	124	
Nitrobenzene	40	37.314	93	
PETN	40	45.798	114	
RDX	40	48.995	122	
Tetryl	40	47.57	119	
m–Dinitrobenzene	40	38.146	95	
m–Nitrotoluene	40	37.735	94	
o–Nitrotoluene	40	38.37	96	
p–Nitrotoluene	40	36.579	91	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

ataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

ame: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408048a
ate: 09-Apr-2010
me: 20:42:06
: WXX100408-08CRI
al: 1:1,C

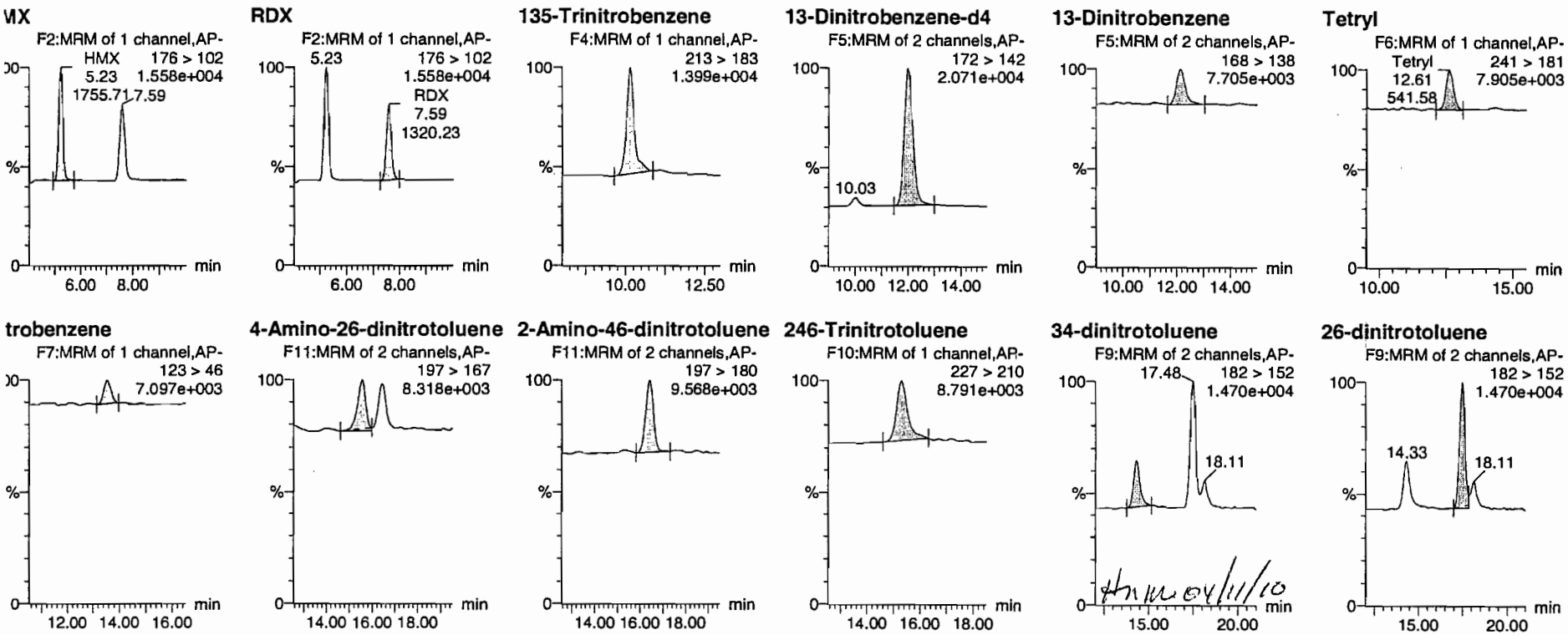

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ataset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

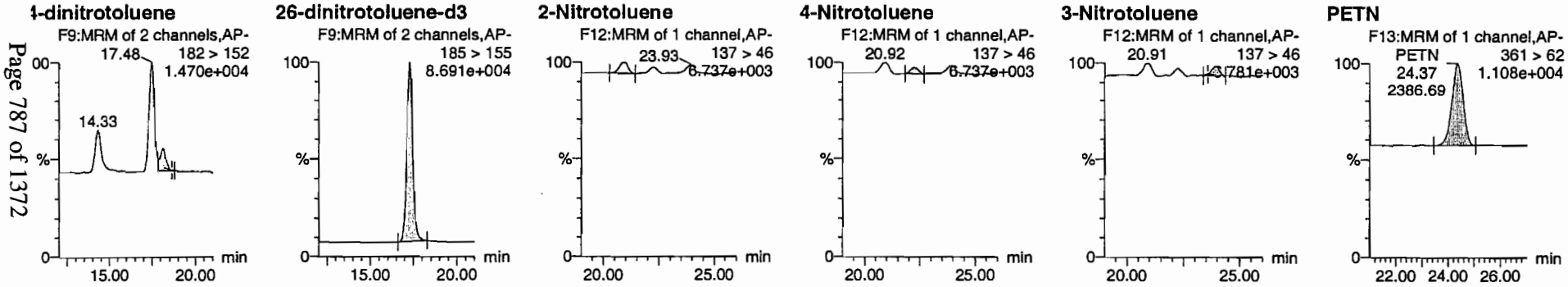

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
'XX100408-08CRI	HMX	176 > 102	5.23	1755.715	5528.944	1755.715	158.775	bb			49.7067	124.3	24.3	253.8
'XX100408-08CRI	RDX	176 > 102	7.59	1320.235	5528.944	1320.235	119.393	bb			48.9945	122.5	22.5	167.2
'XX100408-08CRI	135-Trinitrobenzene	213 > 183	10.14	2186.401	5528.944	2186.401	197.723	bb			46.8167	117.0	17.0	134.1
'XX100408-08CRI	13-Dinitrobenzene-d4	172 > 142	12.00	5528.944		5528.944	5528.944	bb			425.4310	85.1	-14.9	244.1
'XX100408-08CRI	13-Dinitrobenzene	168 > 138	12.13	543.243	5528.944	543.243	49.127	bb			38.1460	95.4	-4.6	40.7
'XX100408-08CRI	Tetryl	241 > 181	12.61	541.575	5528.944	541.575	48.976	bb			47.5698	118.9	18.9	43.5
'XX100408-08CRI	Nitrobenzene	123 > 46	13.53	247.982	5528.944	247.982	22.426	bb			37.3139	93.3	-6.7	21.6
'XX100408-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.54	821.968	32671.566	821.968	12.579	MM	10-Apr-10	11:38:26	40.4098	101.0	1.0	26.3
'XX100408-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.42	1245.053	32671.566	1245.053	19.054	bb			41.7094	104.3	4.3	75.5
'XX100408-08CRI	246-Trinitrotoluene	227 > 210	15.30	1151.209	32671.566	1151.209	17.618	bb			45.7853	114.5	14.5	99.7
XX100408-08CRI	34-dinitrotoluene	182 > 152	14.33	1332.043	32671.566	1332.043	20.385	bb			19.8769	99.4	-0.6	64.0
XX100408-08CRI	26-dinitrotoluene	182 > 152	17.48	3032.749	32671.566	3032.749	46.413	MM	10-Apr-10	11:35:30	40.8081	102.0	2.0	171.2
XX100408-08CRI	24-dinitrotoluene	182 > 152	18.11	678.479	32671.566	678.479	10.383	MM	10-Apr-10	11:34:04	39.2217	98.1	-1.9	34.6
XX100408-08CRI	26-dinitrotoluene-d3	185 > 155	17.30	32671.566		32671.566	32671.566	bb			413.7885	82.8	-17.2	3953.5
XX100408-08CRI	2-Nitrotoluene	137 > 46	20.92	192.459	32671.566	192.459	2.945	bb			38.3703	95.9	-4.1	53.9
XX100408-08CRI	4-Nitrotoluene	137 > 46	22.24	92.891	32671.566	92.891	1.422	bb			36.5787	91.4	-8.6	30.6
XX100408-08CRI	3-Nitrotoluene	137 > 46	23.95	134.623	32671.566	134.623	2.060	MM	10-Apr-10	11:30:24	37.7354	94.3	-5.7	30.4
XX100408-08CRI	PETN	361 > 62	24.37	2386.693	32671.566	2386.693	36.526	bb			45.7979	114.5	14.5	598.9

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/09/10
Time of Injection	2042
Standard Number	WXX100408-08CRI
Data File	EXP0408048a

HMX	124.3
RDX	122.5
135-TNB	117.0
13-DNB	95.4
Tetryl	118.9
Nitrobenzene	93.3
4A-26-DNT	101.0
2A-46-DNT	104.3
246-TNT	114.5
34-DNT(surr)	99.4
26-DNT	102.0
24-DNT	98.1
2-NT	95.9
4-NT	91.4
3-NT	94.3
PETN	114.5
Total	1686.8
Average	105.4

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0408059a

Analysis Date: 10–APR–10 02:06

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4–Dinitrotoluene	600	611.885	102	
2,6–Dinitrotoluene	600	605.131	101	
2,6–Dinitrotoluene–d3	500	399.227	80	*
2–Amino–4,6–dinitrotoluene	600	658.874	110	
3,4–Dinitrotoluene	300	306.732	102	
4–Amino–2,6–dinitrotoluene	600	652.267	109	
HMX	600	711.322	119	
Nitrobenzene	600	579.312	97	
PETN	600	690.737	115	
RDX	600	755.934	126	*
Tetryl	600	720.544	120	*
m–Dinitrobenzene	600	636.143	106	
m–Nitrotoluene	600	533.946	89	
o–Nitrotoluene	600	552.318	92	
p–Nitrotoluene	600	573.913	96	
1,3,5–Trinitrobenzene	600	637.472	106	
1,3–Dinitrobenzene–d4	500	406.896	81	
2,4,6–Trinitrotoluene	600	750.861	125	*

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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MM 4/10/10

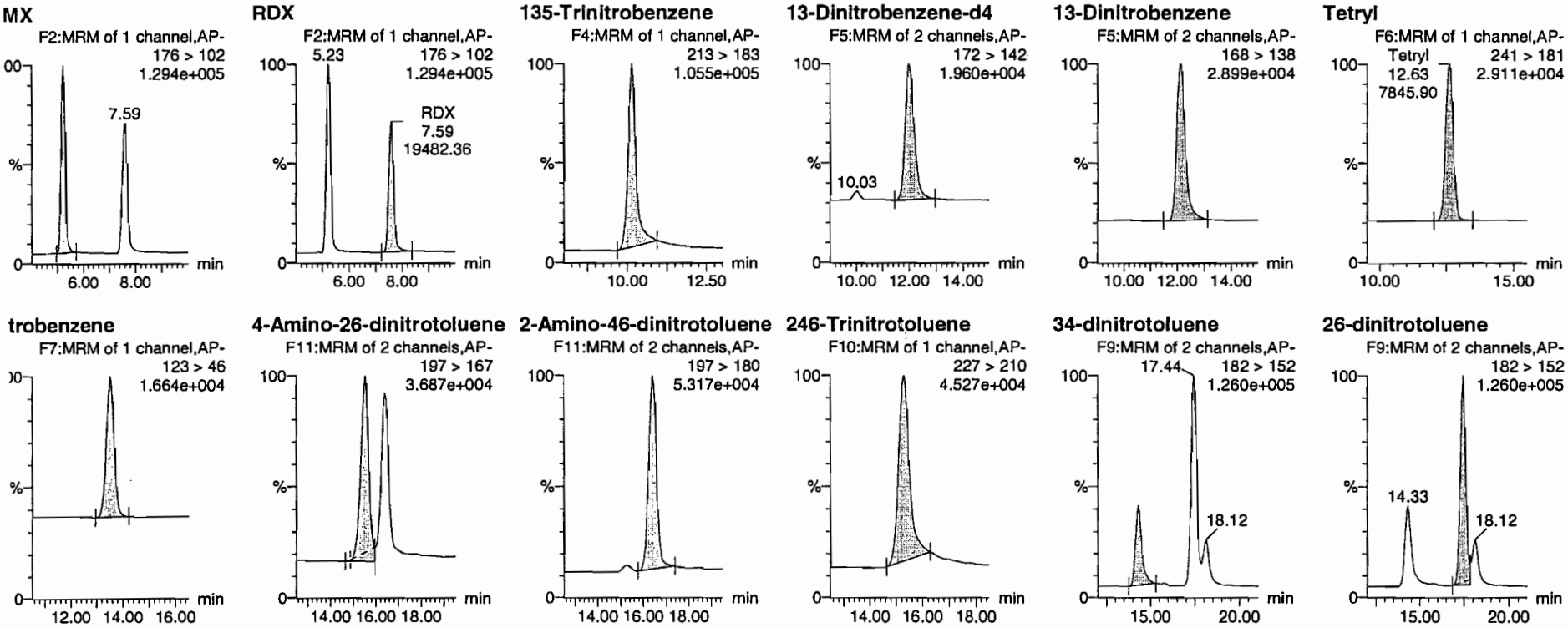

HMW 04/11/10

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iEL Laboratories, LLC / Analyst : Michael A. Penny

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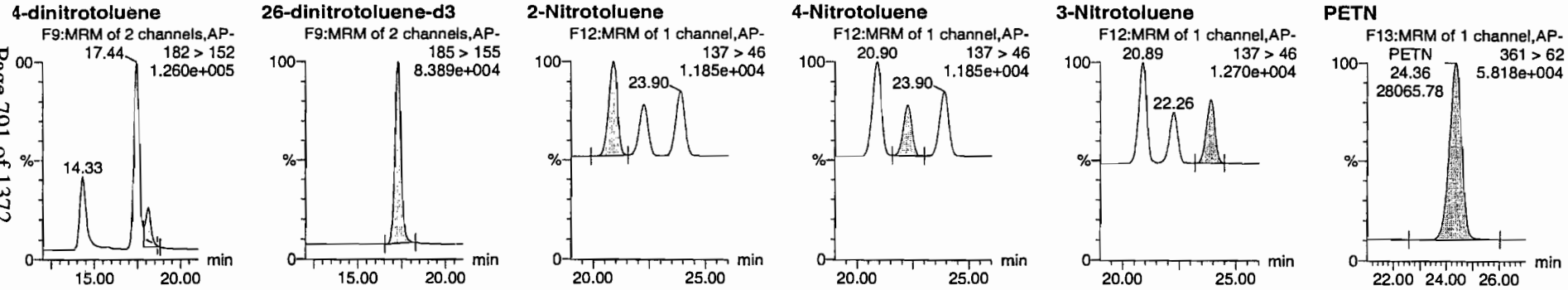

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
'XX100408-07CCV	HMX	176 > 102	5.23	24030.314	5288.059	24030.314	2272.130	bb			711.3217	118.6	18.6	1694.3
'XX100408-07CCV	RDX	176 > 102	7.59	19482.361	5288.059	19482.361	1842.109	bb			755.9338	126.0	26.0	1174.8
'XX100408-07CCV	135-Trinitrobenzene	213 > 183	10.14	28473.727	5288.059	28473.727	2692.266	bb			637.4719	106.2	6.2	2781.8
'XX100408-07CCV	13-Dinitrobenzene-d4	172 > 142	12.00	5288.059		5288.059	5288.059	bb			406.8959	81.4	-18.6	698.2
XX100408-07CCV	13-Dinitrobenzene	168 > 138	12.14	8664.705	5288.059	8664.705	819.271	bb			636.1433	106.0	6.0	1286.5
XX100408-07CCV	Tetryl	241 > 181	12.63	7845.897	5288.059	7845.897	741.850	bb			720.5445	120.1	20.1	390.5
XX100408-07CCV	Nitrobenzene	123 > 46	13.53	3682.273	5288.059	3682.273	348.169	bb			579.3123	96.6	-3.4	419.6
XX100408-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.52	12800.769	31521.859	12800.769	203.046	MM	10-Apr-10	11:37:42	652.2673	108.7	8.7	297.6
XX100408-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.40	18975.732	31521.859	18975.732	300.993	bb			658.8739	109.8	9.8	436.8
XX100408-07CCV	246-Trinitrotoluene	227 > 210	15.30	18214.992	31521.859	18214.992	288.926	bb			750.8607	125.1	25.1	499.2
XX100408-07CCV	34-dinitrotoluene	182 > 152	14.33	19832.203	31521.859	19832.203	314.579	bb			306.7323	102.2	2.2	620.8
XX100408-07CCV	26-dinitrotoluene	182 > 152	17.44	43389.195	31521.859	43389.195	688.240	MM	10-Apr-10	11:36:00	605.1306	100.9	0.9	1620.8
XX100408-07CCV	24-dinitrotoluene	182 > 152	18.12	10212.255	31521.859	10212.255	161.987	MM	10-Apr-10	11:33:20	611.8850	102.0	2.0	342.7
XX100408-07CCV	26-dinitrotoluene-d3	185 > 155	17.29	31521.859		31521.859	31521.859	bb			399.2273	79.8	-20.2	1622.7
XX100408-07CCV	2-Nitrotoluene	137 > 46	20.90	2672.846	31521.859	2672.846	42.397	bb			552.3178	92.1	-7.9	334.0
XX100408-07CCV	4-Nitrotoluene	137 > 46	22.26	1406.156	31521.859	1406.156	22.304	bb			573.9133	95.7	-4.3	181.9
XX100408-07CCV	3-Nitrotoluene	137 > 46	23.90	1837.850	31521.859	1837.850	29.152	bb			533.9463	89.0	-11.0	289.4
XX100408-07CCV	PETN	361 > 62	24.36	28065.779	31521.859	28065.779	445.180	bb			690.7370	115.1	15.1	8205.5

L SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/10/10
Time of Injection: 0206
Standard Number: WXX100408-07CCV
Data File: EXP0408059a

HMX		118.6
RDX		126.0
135-TNB		106.2
13-DNB		106.0
Tetryl		120.1
Nitrobenzene		96.6
4A-26-DNT		108.7
2A-46-DNT		109.8
246-TNT		125.1
34-DNT(surr)		102.2
26-DNT		100.9
24-DNT		102.0
2-NT		92.1
4-NT		95.7
3-NT		89.0
PETN		115.1
Total		1714.1
Average		107.1

4/10/10

Hmm 04/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–2057

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0408061a **Analysis Date:** 10–APR–10 03:05

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3–Dinitrobenzene–d4	500	441.96	88	
2,4,6–Trinitrotoluene	40	47.365	118	
2,4–Dinitrotoluene	40	44.761	112	
2,6–Dinitrotoluene	40	41.465	104	
2,6–Dinitrotoluene–d3	500	430.1	86	
2–Amino–4,6–dinitrotoluene	40	46.162	115	
3,4–Dinitrotoluene	20	21.13	106	
4–Amino–2,6–dinitrotoluene	40	42.51	106	
HMX	40	47.562	119	
Nitrobenzene	40	35.292	88	
PETN	40	48.648	122	
RDX	40	45.14	113	
Tetryl	40	47.002	118	
m–Dinitrobenzene	40	40.574	101	
m–Nitrotoluene	40	32.853	82	
o–Nitrotoluene	40	40.889	102	
p–Nitrotoluene	40	37.144	93	
1,3,5–Trinitrobenzene	40	46.393	116	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

luantify Sample Report
iEL Laboratories, LLC / Analyst : Michael A. Penny

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MM 4/10/10

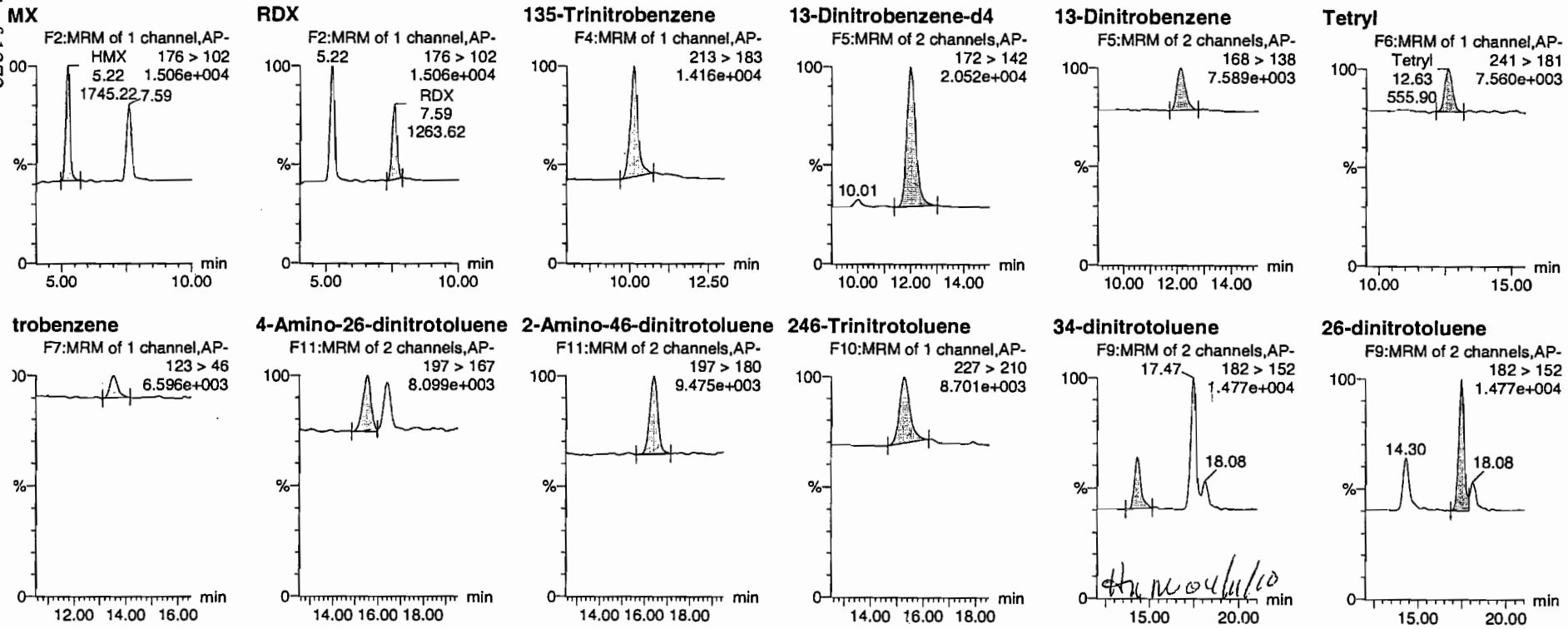

MM 04/11/10

:L SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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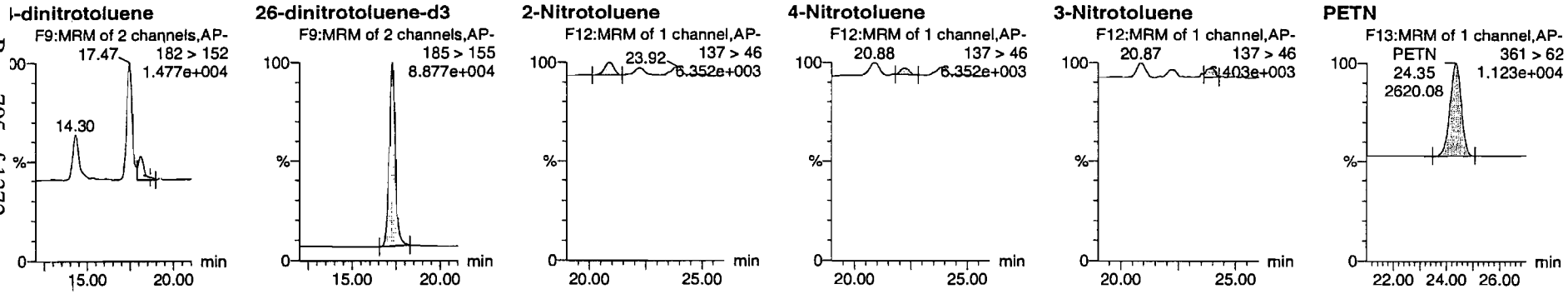

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
'XX100408-08CRI	HMX	176 > 102	5.22	1745.218	5743.754	1745.218	151.923	bb			47.5616	118.9	18.9	215.4
'XX100408-08CRI	RDX	176 > 102	7.59	1263.616	5743.754	1263.616	109.999	bb			45.1396	112.8	12.8	140.6
'XX100408-08CRI	135-Trinitrobenzene	213 > 183	10.13	2250.808	5743.754	2250.808	195.935	bb			46.3933	116.0	16.0	125.9
'XX100408-08CRI	13-Dinitrobenzene-d4	172 > 142	11.97	5743.754		5743.754	5743.754	bb			441.9598	88.4	-11.6	425.1
'XX100408-08CRI	13-Dinitrobenzene	168 > 138	12.10	600.272	5743.754	600.272	52.254	bb			40.5742	101.4	1.4	50.7
'XX100408-08CRI	Tetryl	241 > 181	12.63	555.897	5743.754	555.897	48.391	bb			47.0016	117.5	17.5	44.6
'XX100408-08CRI	Nitrobenzene	123 > 46	13.54	243.654	5743.754	243.654	21.210	bb			35.2916	88.2	-11.8	20.9
'XX100408-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.53	898.775	33959.496	898.775	13.233	MM	10-Apr-10	11:37:24	42.5100	106.3	6.3	48.0
'XX100408-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.41	1432.301	33959.496	1432.301	21.088	bb			46.1624	115.4	15.4	39.1
'XX100408-08CRI	246-Trinitrotoluene	227 > 210	15.28	1237.884	33959.496	1237.884	18.226	bb			47.3654	118.4	18.4	23.7
'XX100408-08CRI	34-dinitrotoluene	182 > 152	14.30	1471.854	33959.496	1471.854	21.671	bb			21.1302	105.7	5.7	67.8
'XX100408-08CRI	26-dinitrotoluene	182 > 152	17.47	3203.022	33959.496	3203.022	47.159	MM	10-Apr-10	11:36:06	41.4647	103.7	3.7	175.2
'XX100408-08CRI	24-dinitrotoluene	182 > 152	18.08	804.818	33959.496	804.818	11.850	MM	10-Apr-10	11:33:08	44.7607	111.9	11.9	37.0
'XX100408-08CRI	26-dinitrotoluene-d3	185 > 155	17.27	33959.496		33959.496	33959.496	bb			430.1002	86.0	-14.0	2024.8
'XX100408-08CRI	2-Nitrotoluene	137 > 46	20.88	213.177	33959.496	213.177	3.139	bb			40.8890	102.2	2.2	49.3
'XX100408-08CRI	4-Nitrotoluene	137 > 46	22.23	98.046	33959.496	98.046	1.444	bb			37.1444	92.9	-7.1	25.1
'XX100408-08CRI	3-Nitrotoluene	137 > 46	24.00	121.825	33959.496	121.825	1.794	db			32.8530	82.1	-17.9	11.1
'XX100408-08CRI	PETN	361 > 62	24.35	2620.083	33959.496	2620.083	38.577	bb			48.6484	121.6	21.6	379.5

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/10/10
Time of Injection	0305
Standard Number	WXX100408-08CRI
Data File	EXP0408061a

HMX	118.9
RDX	112.8
135-TNB	116.0
13-DNB	101.4
Tetryl	117.5
Nitrobenzene	88.2
4A-26-DNT	106.3
2A-46-DNT	115.4
246-TNT	118.4
34-DNT(surr)	105.7
26-DNT	103.7
24-DNT	111.9
2-NT	102.2
4-NT	92.9
3-NT	82.1
PETN	121.6
Total	1715.0
Average	107.2

4/10/10

4/10/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0408072a

Analysis Date: 10–APR–10 08:30

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Tetryl	600	856.18	143	*
m–Dinitrobenzene	600	587.331	98	
m–Nitrotoluene	600	507.624	85	
o–Nitrotoluene	600	528.075	88	
p–Nitrotoluene	600	578.663	96	
1,3,5–Trinitrobenzene	600	582.253	97	
1,3–Dinitrobenzene–d4	500	448.35	90	
2,4,6–Trinitrotoluene	600	753.785	126	*
2,4–Dinitrotoluene	600	638.151	106	
2,6–Dinitrotoluene	600	616.994	103	
2,6–Dinitrotoluene–d3	500	402.197	80	
2–Amino–4,6–dinitrotoluene	600	686.265	114	
3,4–Dinitrotoluene	300	310.058	103	
4–Amino–2,6–dinitrotoluene	600	642.746	107	
HMX	600	660.224	110	
Nitrobenzene	600	526.993	88	
PETN	600	719.605	120	
RDX	600	678.872	113	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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MM 4/10/10

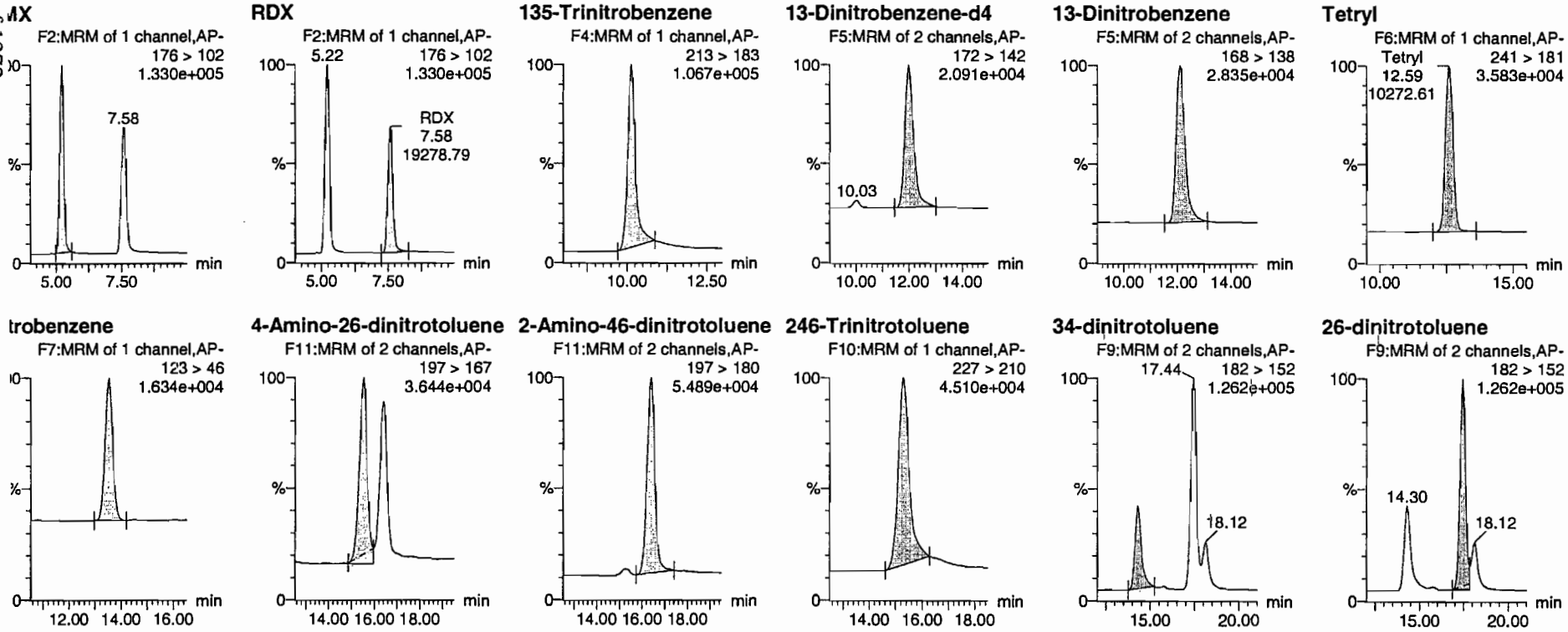

HM 04/11/10

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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EL Laboratories, LLC / Analyst : Michael A. Penny

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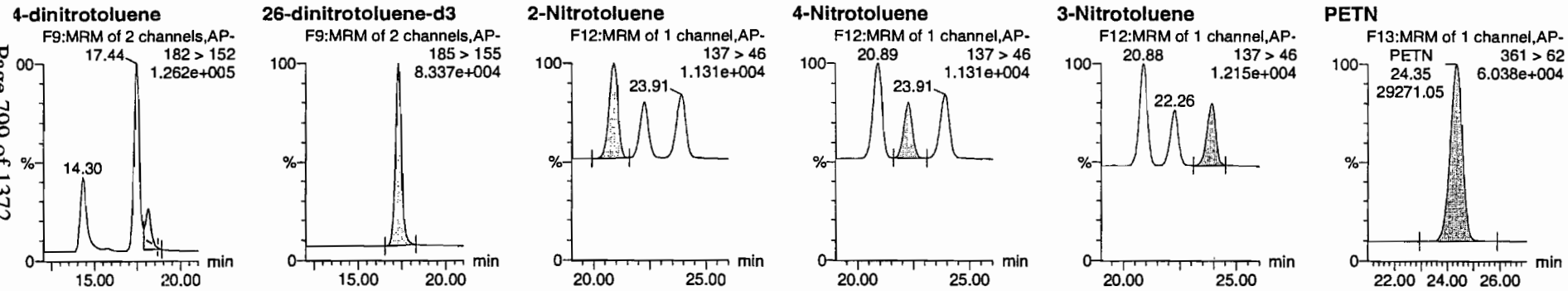

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
'XX100408-07CCV	HMX	176 > 102	5.22	24576.387	5826.798	24576.387	2108.910	bb			660.2235	110.0	10.0	2536.6
'XX100408-07CCV	RDX	176 > 102	7.58	19278.787	5826.798	19278.787	1654.321	bb			678.8725	113.1	13.1	1691.0
'XX100408-07CCV	135-Trinitrobenzene	213 > 183	10.13	28656.854	5826.798	28656.854	2459.057	bb			582.2528	97.0	-3.0	2546.3
'XX100408-07CCV	13-Dinitrobenzene-d4	172 > 142	11.98	5826.798		5826.798	5826.798	bb			448.3498	89.7	-10.3	468.6
'XX100408-07CCV	13-Dinitrobenzene	168 > 138	12.11	8814.859	5826.798	8814.859	756.407	bb			587.3309	97.9	-2.1	882.3
'XX100408-07CCV	Tetryl	241 > 181	12.59	10272.608	5826.798	10272.608	881.497	bb			856.1803	142.7	42.7	680.1
'XX100408-07CCV	Nitrobenzene	123 > 46	13.54	3690.978	5826.798	3690.978	316.724	bb			526.9926	87.8	-12.2	293.6
'XX100408-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.53	12707.749	31756.346	12707.749	200.082	MM	10-Apr-10	11:37:15	642.7461	107.1	7.1	272.5
'XX100408-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.41	19911.619	31756.346	19911.619	313.506	bb			686.2647	114.4	14.4	1139.7
'XX100408-07CCV	246-Trinitrotoluene	227 > 210	15.28	18421.951	31756.346	18421.951	290.051	bb			753.7846	125.6	25.6	829.6
'XX100408-07CCV	34-dinitrotoluene	182 > 152	14.30	20196.369	31756.346	20196.369	317.989	bb			310.0582	103.4	3.4	821.6
'XX100408-07CCV	26-dinitrotoluene	182 > 152	17.44	44568.953	31756.346	44568.953	701.733	MM	10-Apr-10	11:36:17	616.9945	102.8	2.8	2086.3
XX100408-07CCV	24-dinitrotoluene	182 > 152	18.12	10729.860	31756.346	10729.860	168.940	MM	10-Apr-10	11:32:52	638.1510	106.4	6.4	452.2
XX100408-07CCV	26-dinitrotoluene-d3	185 > 155	17.27	31756.346		31756.346	31756.346	bb			402.1971	80.4	-19.6	2832.3
XX100408-07CCV	2-Nitrotoluene	137 > 46	20.89	2574.537	31756.346	2574.537	40.536	bb			528.0749	88.0	-12.0	350.0
XX100408-07CCV	4-Nitrotoluene	137 > 46	22.26	1428.339	31756.346	1428.339	22.489	bb			578.6626	96.4	-3.6	203.4
XX100408-07CCV	3-Nitrotoluene	137 > 46	23.91	1760.246	31756.346	1760.246	27.715	bb			507.6240	84.6	-15.4	82.9
XX100408-07CCV	PETN	361 > 62	24.35	29271.053	31756.346	29271.053	460.869	bb			719.6051	119.9	19.9	6628.8

EL SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/10/10
Time of Injection: 0830
Standard Number: WXX100408-07CCV
Data File: EXP0408072a

HMX	110.0
RDX	113.1
135-TNB	97.0
13-DNB	97.9
Tetryl	142.7
Nitrobenzene	87.8
4A-26-DNT	107.1
2A-46-DNT	114.4
246-TNT	125.6
34-DNT(surr)	103.4
26-DNT	102.8
24-DNT	106.4
2-NT	88.0
4-NT	96.4
3-NT	84.6
PETN	119.9
Total	1697.1
Average	106.1

MAT 4/10/10

Hmm 04/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0408074a

Analysis Date: 10–APR–10 09:29

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
PETN	40	47.507	119	
RDX	40	46.162	115	
Tetryl	40	47.137	118	
m–Dinitrobenzene	40	43.479	109	
m–Nitrotoluene	40	30.676	77	
o–Nitrotoluene	40	37.061	93	
p–Nitrotoluene	40	36.459	91	
1,3,5–Trinitrobenzene	40	46.83	117	
1,3–Dinitrobenzene–d4	500	462.781	93	
2,4,6–Trinitrotoluene	40	43.139	108	
2,4–Dinitrotoluene	40	40.465	101	
2,6–Dinitrotoluene	40	41.672	104	
2,6–Dinitrotoluene–d3	500	459.746	92	
2–Amino–4,6–dinitrotoluene	40	40.75	102	
3,4–Dinitrotoluene	20	19.792	99	
4–Amino–2,6–dinitrotoluene	40	41.358	103	
HMX	40	50.292	126	
Nitrobenzene	40	40.128	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

ne: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408074a
e: 10-Apr-2010
e: 09:29:16
WXX100408-08CRI
: 1:1,C

MAP 4/10/10

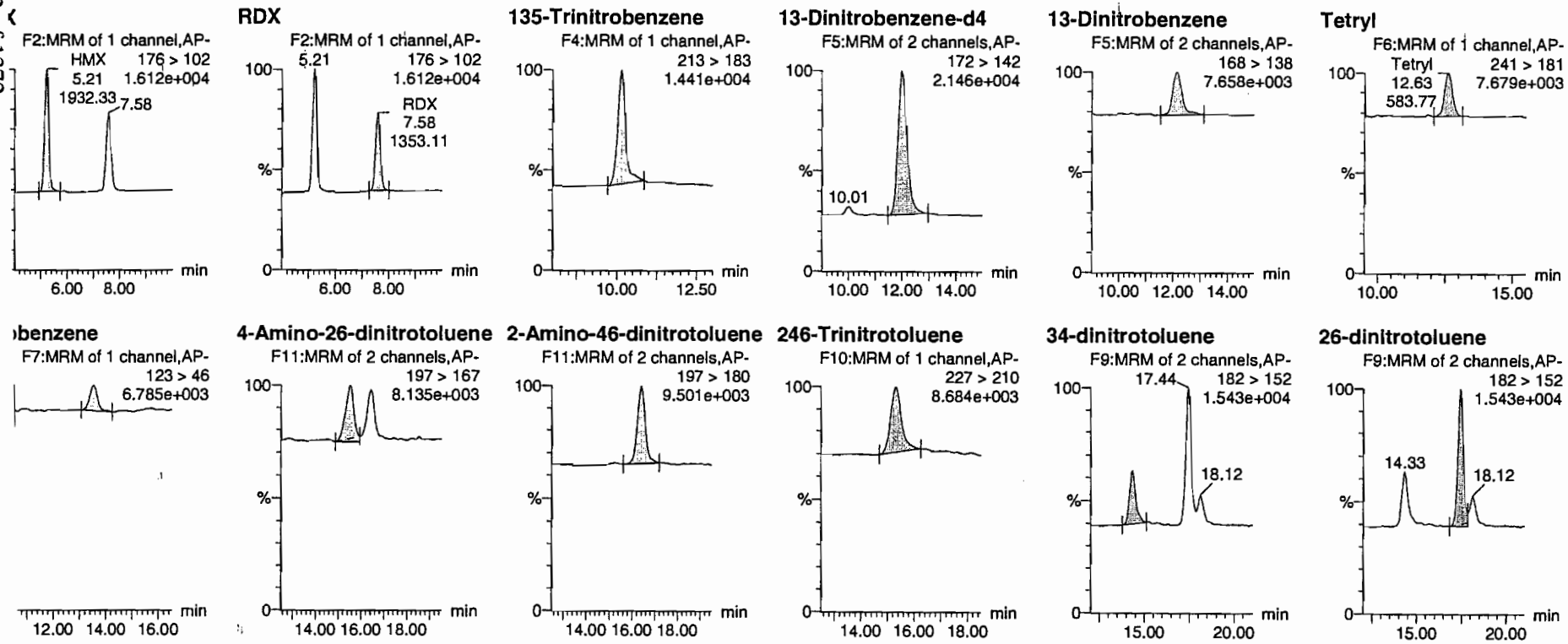

HMM 04/11/10

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ıntify Sample Report
. Laboratories, LLC / Analyst : Michael A. Penny

ıset: C:\MASSLYNX\New_Exp.PRO\040810expA1.qld, Time: Sat Apr 10 11:40:36 2010

lınıtrotoluene

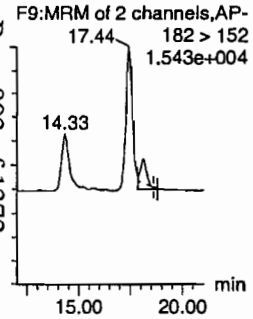

26-dinitrotoluene-d3

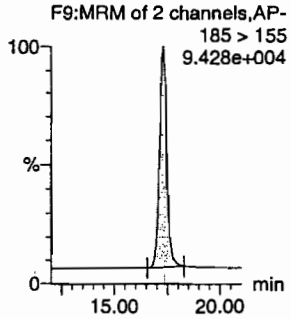

2-Nitrotoluene

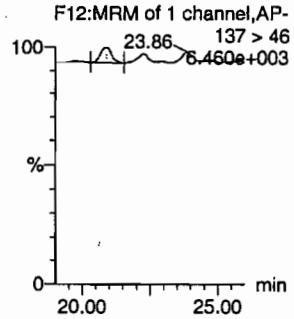

4-Nitrotoluene

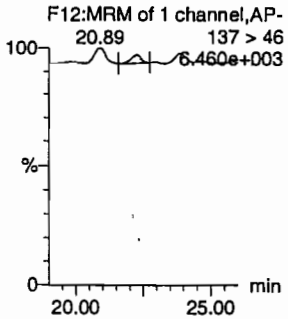

3-Nitrotoluene

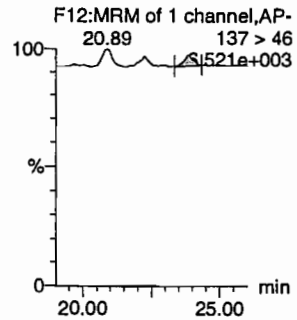

PETN

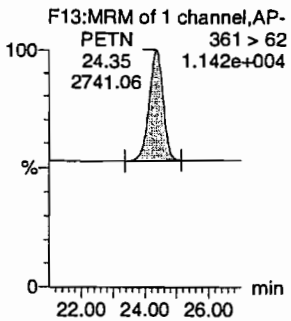

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
:100408-08CRI	HMX	176 > 102	5.21	1932.331	6014.345	1932.331	160.644	bb			50.2917	125.7	25.7	269.5
:100408-08CRI	RDX	176 > 102	7.58	1353.113	6014.345	1353.113	112.490	bb			46.1620	115.4	15.4	170.3
:100408-08CRI	135-Trinitrobenzene	213 > 183	10.14	2379.034	6014.345	2379.034	197.780	bb			46.8301	117.1	17.1	320.6
:100408-08CRI	13-Dinitrobenzene-d4	172 > 142	11.97	6014.345		6014.345	6014.345	bb			462.7808	92.6	-7.4	585.4
:100408-08CRI	13-Dinitrobenzene	168 > 138	12.14	673.543	6014.345	673.543	55.995	bb			43.4785	108.7	8.7	107.4
:100408-08CRI	Tetryl	241 > 181	12.63	583.766	6014.345	583.766	48.531	bb			47.1373	117.8	17.8	43.9
:100408-08CRI	Nitrobenzene	123 > 46	13.53	290.097	6014.345	290.097	24.117	bb			40.1280	100.3	0.3	26.9
:100408-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.52	934.681	36300.254	934.681	12.874	MM	10-Apr-10	11:36:54	41.3576	103.4	3.4	52.1
:100408-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.40	1351.508	36300.254	1351.508	18.616	bb			40.7497	101.9	1.9	110.4
:100408-08CRI	246-Trinitrotoluene	227 > 210	15.30	1205.129	36300.254	1205.129	16.599	bb			43.1386	107.8	7.8	53.1
:100408-08CRI	34-dinitrotoluene	182 > 152	14.33	1473.642	36300.254	1473.642	20.298	bb			19.7917	99.0	-1.0	73.1
:100408-08CRI	26-dinitrotoluene	182 > 152	17.44	3440.934	36300.254	3440.934	47.395	MM	10-Apr-10	11:36:23	41.6722	104.2	4.2	191.5
100408-08CRI	24-dinitrotoluene	182 > 152	18.12	777.731	36300.254	777.731	10.712	MM	10-Apr-10	11:32:43	40.4650	101.2	1.2	39.8
100408-08CRI	26-dinitrotoluene-d3	185 > 155	17.26	36300.254		36300.254	36300.254	bb			459.7461	91.9	-8.1	3232.9
100408-08CRI	2-Nitrotoluene	137 > 46	20.89	206.536	36300.254	206.536	2.845	bb			37.0606	92.7	-7.3	64.5
100408-08CRI	4-Nitrotoluene	137 > 46	22.25	102.871	36300.254	102.871	1.417	bb			36.4593	91.1	-8.9	34.7
100408-08CRI	3-Nitrotoluene	137 > 46	23.85	121.594	36300.254	121.594	1.675	bb			30.6762	76.7	-23.3	14.3
100408-08CRI	PETN	361 > 62	24.35	2741.064	36300.254	2741.064	37.755	bb			47.5068	118.8	18.8	161.9

SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/10/10
Time of Injection	0929
Standard Number	WXX100408-08CRI
Data File	EXP0408074a

HMX	125.7
RDX	115.4
135-TNB	117.1
13-DNB	108.7
Tetryl	117.8
Nitrobenzene	100.3
4A-26-DNT	103.4
2A-46-DNT	101.9
246-TNT	107.8
34-DNT(surr)	99.0
26-DNT	104.2
24-DNT	101.2
2-NT	92.7
4-NT	91.1
3-NT	76.7
PETN	118.8
Total	1681.8
Average	105.1

MPP 4/10/10

Hmc 04/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0408085a

Analysis Date: 10–APR–10 14:53

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	636.106	106	
1,3–Dinitrobenzene–d4	500	371.009	74	*
2,4,6–Trinitrotoluene	600	748.482	125	*
2,4–Dinitrotoluene	600	589.616	98	
2,6–Dinitrotoluene	600	594.847	99	
2,6–Dinitrotoluene–d3	500	366.196	73	*
2–Amino–4,6–dinitrotoluene	600	651.106	109	
3,4–Dinitrotoluene	300	290.529	97	
4–Amino–2,6–dinitrotoluene	600	623.686	104	
HMX	600	695.105	116	
Nitrobenzene	600	579.84	97	
PETN	600	689.507	115	
RDX	600	723.103	121	*
Tetryl	600	762.469	127	*
m–Dinitrobenzene	600	619.292	103	
m–Nitrotoluene	600	493.304	82	
o–Nitrotoluene	600	535.244	89	
p–Nitrotoluene	600	572.407	95	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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WXX100410-07CCV
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MAT 4/11/10

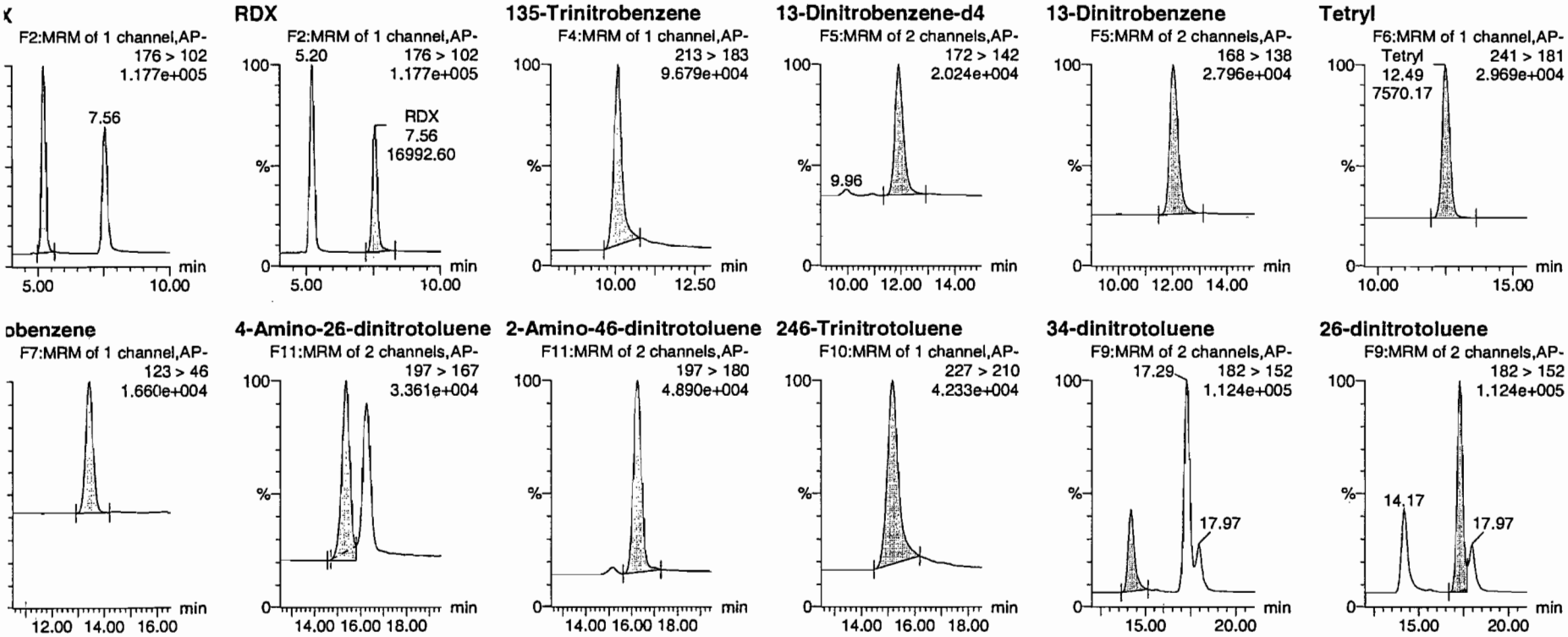

HMM 04/11/10

SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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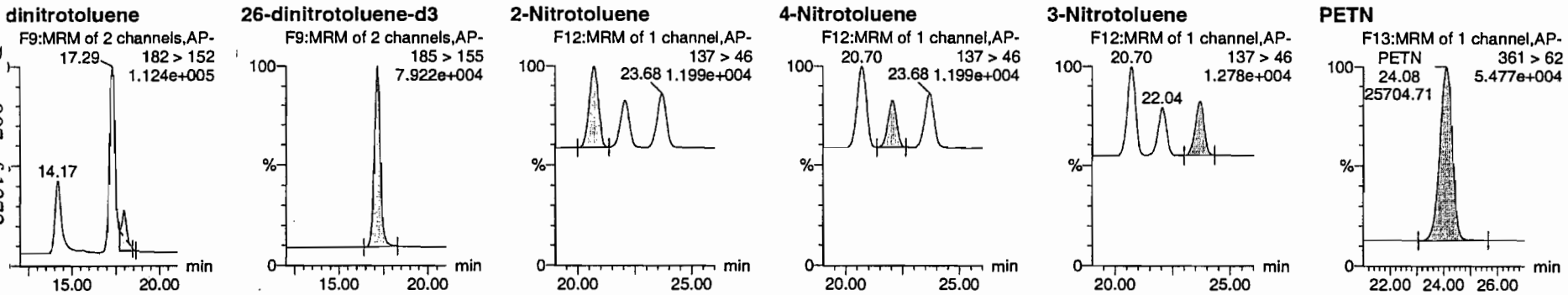

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
X100410-07CCV	HMX	176 > 102	5.20	21411.418	4821.674	21411.418	2220.330	bb			695.1052	115.9	15.9	1690.9
X100410-07CCV	RDX	176 > 102	7.56	16992.596	4821.674	16992.596	1762.105	bb			723.1033	120.5	20.5	1143.0
X100410-07CCV	135-Trinitrobenzene	213 > 183	10.09	25906.832	4821.674	25906.832	2686.498	bb			636.1060	106.0	6.0	471.5
X100410-07CCV	13-Dinitrobenzene-d4	172 > 142	11.92	4821.674		4821.674	4821.674	bb			371.0093	74.2	-25.8	338.5
X100410-07CCV	13-Dinitrobenzene	168 > 138	12.03	7691.231	4821.674	7691.231	797.569	bb			619.2920	103.2	3.2	268.0
X100410-07CCV	Tetryl	241 > 181	12.49	7570.172	4821.674	7570.172	785.015	bb			762.4693	127.1	27.1	633.9
X100410-07CCV	Nitrobenzene	123 > 46	13.45	3360.572	4821.674	3360.572	348.486	bb			579.8403	96.6	-3.4	220.4
X100410-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.39	11227.153	28913.775	11227.153	194.149	MM	11-Apr-10	11:37:03	623.6863	103.9	3.9	224.7
X100410-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.26	17200.504	28913.775	17200.504	297.445	bb			651.1064	108.5	8.5	1039.3
X100410-07CCV	246-Trinitrotoluene	227 > 210	15.18	16654.984	28913.775	16654.984	288.011	bb			748.4824	124.7	24.7	821.7
X100410-07CCV	34-dinitrotoluene	182 > 152	14.17	17230.328	28913.775	17230.328	297.961	bb			290.5288	96.8	-3.2	509.9
X100410-07CCV	26-dinitrotoluene	182 > 152	17.29	39122.848	28913.775	39122.848	676.543	MM	11-Apr-10	11:40:59	594.8467	99.1	-0.9	1327.1
X100410-07CCV	24-dinitrotoluene	182 > 152	17.97	9026.385	28913.775	9026.385	156.091	MM	11-Apr-10	11:42:24	589.6157	98.3	-1.7	288.6
X100410-07CCV	26-dinitrotoluene-d3	185 > 155	17.14	28913.775		28913.775	28913.775	bb			366.1957	73.2	-26.8	3387.6
X100410-07CCV	2-Nitrotoluene	137 > 46	20.70	2375.910	28913.775	2375.910	41.086	bb			535.2444	89.2	-10.8	104.4
X100410-07CCV	4-Nitrotoluene	137 > 46	22.05	1286.426	28913.775	1286.426	22.246	bb			572.4066	95.4	-4.6	59.8
X100410-07CCV	3-Nitrotoluene	137 > 46	23.69	1557.471	28913.775	1557.471	26.933	bb			493.3038	82.2	-17.8	35.2
X100410-07CCV	PETN	361 > 62	24.08	25704.707	28913.775	25704.707	444.506	bb			689.5071	114.9	14.9	7447.5

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/10/10
Time of Injection: 1453
Standard Number: WXX100410-07CCV
Data File: EXP0408085a

HMX		115.9
RDX		120.5
135-TNB		106.0
13-DNB		103.2
Tetryl		127.1
Nitrobenzene		96.6
4A-26-DNT		103.9
2A-46-DNT		108.5
246-TNT		124.7
34-DNT(surr)		96.8
26-DNT		99.1
24-DNT		98.3
2-NT		89.2
4-NT		95.4
3-NT		82.2
PETN		114.9
Total		1682.3
Average		105.1

MJT 4/11/10

Hmm 04/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0408087a

Analysis Date: 10–APR–10 15:52

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	49.672	124	
1,3–Dinitrobenzene–d4	500	444.755	89	
2,4,6–Trinitrotoluene	40	47.969	120	
2,4–Dinitrotoluene	40	39.334	98	
2,6–Dinitrotoluene	40	39.88	100	
2,6–Dinitrotoluene–d3	500	421.031	84	
2–Amino–4,6–dinitrotoluene	40	42.049	105	
3,4–Dinitrotoluene	20	20.099	100	
4–Amino–2,6–dinitrotoluene	40	40.256	101	
HMX	40	43.574	109	
Nitrobenzene	40	41.715	104	
PETN	40	48.304	121	
RDX	40	44.899	112	
Tetryl	40	46.92	117	
m–Dinitrobenzene	40	40.108	100	
m–Nitrotoluene	40	37.251	93	
o–Nitrotoluene	40	35.231	88	
p–Nitrotoluene	40	34.204	86	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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MMT 4/11/10

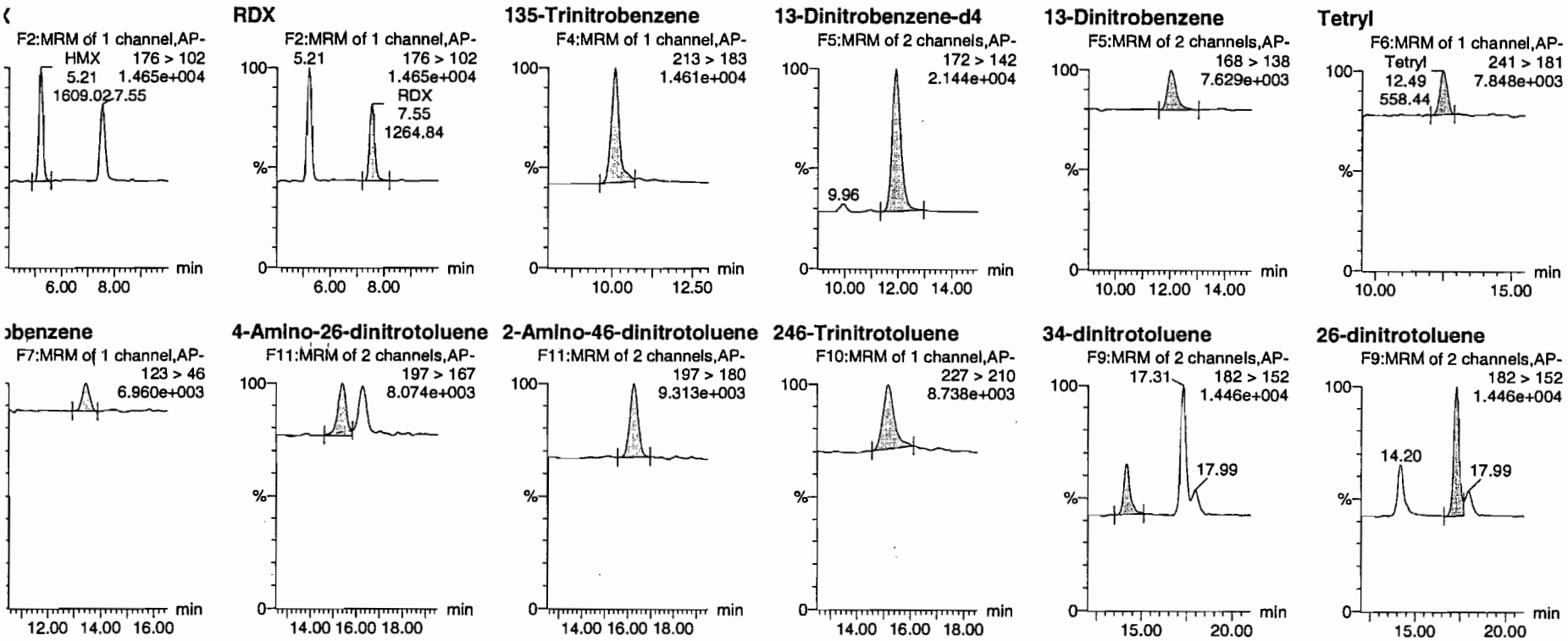

04/11/10

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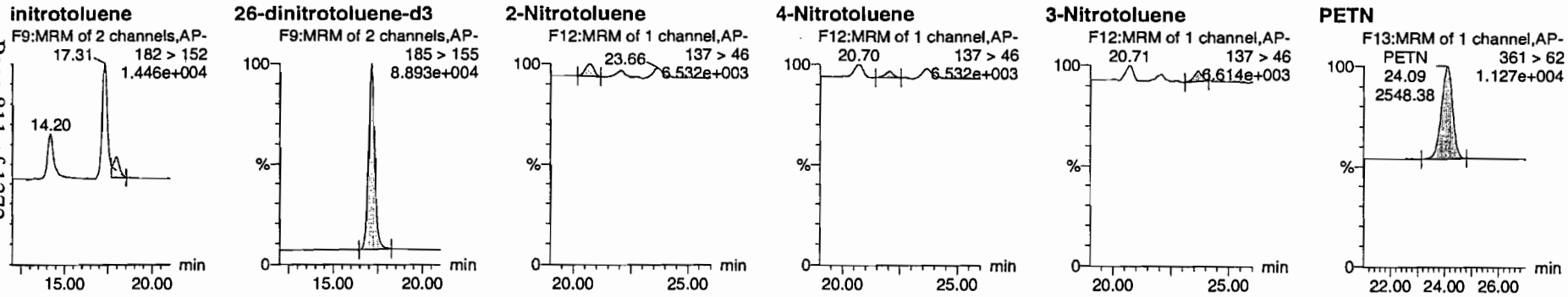

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
:100410-08CRI	HMX	176 > 102	5.21	1609.024	5780.081	1609.024	139.187	bb			43.5744	108.9	8.9	133.4
:100410-08CRI	RDX	176 > 102	7.55	1264.841	5780.081	1264.841	109.414	bb			44.8994	112.2	12.2	89.0
:100410-08CRI	135-Trinitrobenzene	213 > 183	10.09	2425.127	5780.081	2425.127	209.783	bd			49.6722	124.2	24.2	294.1
:100410-08CRI	13-Dinitrobenzene-d4	172 > 142	11.92	5780.081		5780.081	5780.081	bb			444.7551	89.0	-11.0	1113.8
:100410-08CRI	13-Dinitrobenzene	168 > 138	12.03	597.128	5780.081	597.128	51.654	bb			40.1080	100.3	0.3	57.3
:100410-08CRI	Tetryl	241 > 181	12.49	558.444	5780.081	558.444	48.308	bb			46.9202	117.3	17.3	42.1
:100410-08CRI	Nitrobenzene	123 > 46	13.45	289.821	5780.081	289.821	25.071	bb			41.7147	104.3	4.3	22.9
:100410-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.38	833.179	33243.383	833.179	12.532	MM	11-Apr-10	11:37:10	40.2564	100.6	0.6	40.4
:100410-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.25	1277.164	33243.383	1277.164	19.209	bb			42.0491	105.1	5.1	94.2
:100410-08CRI	246-Trinitrotoluene	227 > 210	15.17	1227.224	33243.383	1227.224	18.458	bb			47.9690	119.9	19.9	91.5
:100410-08CRI	34-dinitrotoluene	182 > 152	14.20	1370.500	33243.383	1370.500	20.613	bb			20.0990	100.5	0.5	67.1
:100410-08CRI	26-dinitrotoluene	182 > 152	17.31	3015.613	33243.383	3015.613	45.357	MM	11-Apr-10	11:40:45	39.8795	99.7	-0.3	171.7
:100410-08CRI	24-dinitrotoluene	182 > 152	17.99	692.322	33243.383	692.322	10.413	MM	11-Apr-10	11:42:36	39.3335	98.3	-1.7	32.3
:100410-08CRI	26-dinitrotoluene-d3	185 > 155	17.13	33243.383		33243.383	33243.383	bb			421.0306	84.2	-15.8	1433.9
:100410-08CRI	2-Nitrotoluene	137 > 46	20.70	179.806	33243.383	179.806	2.704	bb			35.2311	88.1	-11.9	47.3
:100410-08CRI	4-Nitrotoluene	137 > 46	22.06	88.380	33243.383	88.380	1.329	bb			34.2037	85.5	-14.5	23.4
:100410-08CRI	3-Nitrotoluene	137 > 46	23.66	135.222	33243.383	135.222	2.034	bb			37.2513	93.1	-6.9	20.4
:100410-08CRI	PETN	361 > 62	24.09	2548.383	33243.383	2548.383	38.329	bb			48.3044	120.8	20.8	505.8

. SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/10/10
Time of Injection	1552
Standard Number	WXX100410-08CRI
Data File	EXP0408087a

HMX	108.9
RDX	112.2
135-TNB	124.2
13-DNB	100.3
Tetryl	117.3
Nitrobenzene	104.3
4A-26-DNT	100.6
2A-46-DNT	105.1
246-TNT	119.9
34-DNT(surr)	100.5
26-DNT	99.7
24-DNT	98.3
2-NT	88.1
4-NT	85.5
3-NT	93.1
PETN	120.8
Total	1678.8
Average	104.9

MATT 4/11/10

HMM 04/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0408098a

Analysis Date: 10–APR–10 21:17

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6–Dinitrotoluene–d3	500	393.84	79	*
2–Amino–4,6–dinitrotoluene	600	749.422	125	*
3,4–Dinitrotoluene	300	310.007	103	
4–Amino–2,6–dinitrotoluene	600	634.972	106	
HMX	600	661.858	110	
Nitrobenzene	600	525.792	88	
PETN	600	688.502	115	
RDX	600	680.282	113	
Tetryl	600	768.016	128	*
m–Dinitrobenzene	600	586.468	98	
m–Nitrotoluene	600	477.054	80	*
o–Nitrotoluene	600	525.095	88	
p–Nitrotoluene	600	585.867	98	
1,3,5–Trinitrobenzene	600	603.626	101	
1,3–Dinitrobenzene–d4	500	428.998	86	
2,4,6–Trinitrotoluene	600	755.113	126	*
2,4–Dinitrotoluene	600	601.811	100	
2,6–Dinitrotoluene	600	602.552	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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MMT 4/11/10

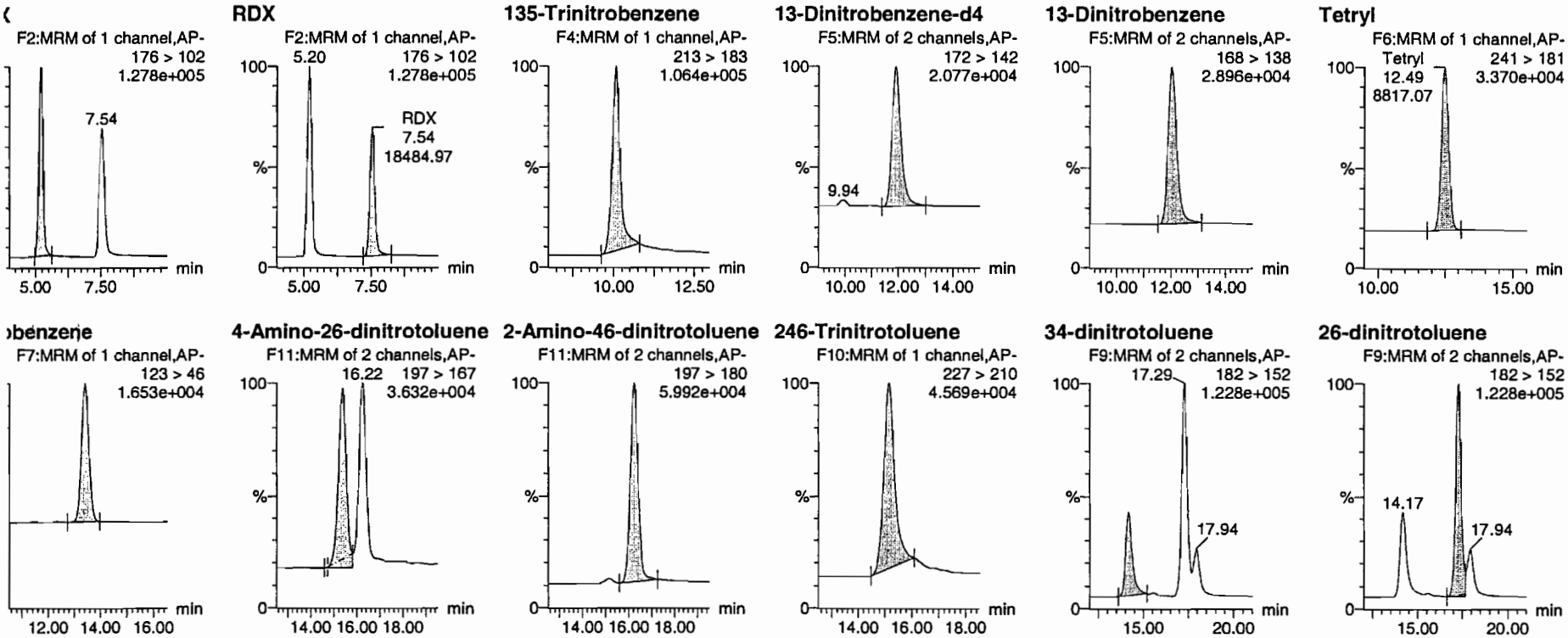

atm 04/11/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

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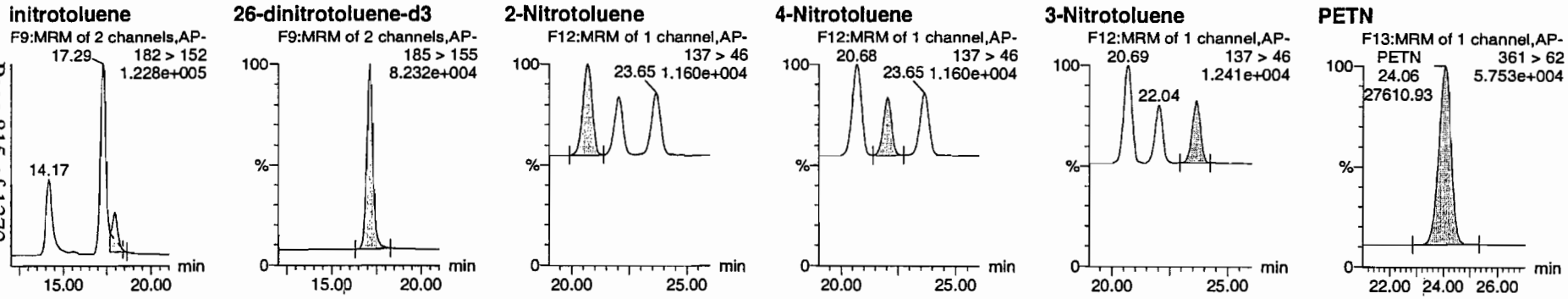

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
100410-07CCV	HMX	176 > 102	5.20	23573.832	5575.298	23573.832	2114.132	bb			661.8583	110.3	10.3	1652.1
100410-07CCV	RDX	176 > 102	7.54	18484.973	5575.298	18484.973	1657.757	bb			680.2824	113.4	13.4	1116.8
100410-07CCV	135-Trinitrobenzene	213 > 183	10.08	28426.451	5575.298	28426.451	2549.321	bb			603.6255	100.6	0.6	1655.4
100410-07CCV	13-Dinitrobenzene-d4	172 > 142	11.90	5575.298		5575.298	5575.298	bb			428.9978	85.8	-14.2	615.5
100410-07CCV	13-Dinitrobenzene	168 > 138	12.04	8422.001	5575.298	8422.001	755.296	bb			586.4685	97.7	-2.3	513.2
100410-07CCV	Tetryl	241 > 181	12.49	8817.065	5575.298	8817.065	790.726	bb			768.0163	128.0	28.0	546.7
100410-07CCV	Nitrobenzene	123 > 46	13.41	3523.622	5575.298	3523.622	316.003	bb			525.7923	87.6	-12.4	206.9
100410-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.36	12293.203	31096.508	12293.203	197.662	MM	11-Apr-10	11:37:28	634.9723	105.8	5.8	266.4
100410-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.22	21292.291	31096.508	21292.291	342.358	bb			749.4219	124.9	24.9	878.5
100410-07CCV	246-Trinitrotoluene	227 > 210	15.14	18070.973	31096.508	18070.973	290.563	bb			755.1133	125.9	25.9	371.2
100410-07CCV	34-dinitrotoluene	182 > 152	14.17	19773.480	31096.508	19773.480	317.937	bb			310.0073	103.3	3.3	497.1
100410-07CCV	26-dinitrotoluene	182 > 152	17.29	42621.277	31096.508	42621.277	685.306	MM	11-Apr-10	11:40:14	602.5515	100.4	0.4	1250.3
100410-07CCV	24-dinitrotoluene	182 > 152	17.94	9908.590	31096.508	9908.590	159.320	MM	11-Apr-10	11:43:05	601.8111	100.3	0.3	262.4
100410-07CCV	26-dinitrotoluene-d3	185 > 155	17.11	31096.508		31096.508	31096.508	bb			393.8402	78.8	-21.2	2049.1
100410-07CCV	2-Nitrotoluene	137 > 46	20.68	2506.817	31096.508	2506.817	40.307	bb			525.0951	87.5	-12.5	356.2
100410-07CCV	4-Nitrotoluene	137 > 46	22.04	1416.075	31096.508	1416.075	22.769	bb			585.8673	97.6	-2.4	226.3
100410-07CCV	3-Nitrotoluene	137 > 46	23.66	1619.868	31096.508	1619.868	26.046	bb			477.0537	79.5	-20.5	66.5
100410-07CCV	PETN	361 > 62	24.06	27610.934	31096.508	27610.934	443.956	bb			688.5018	114.8	14.8	2179.7

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/10/10
Time of Injection: 2117
Standard Number: WXX100410-07CCV
Data File: EXP0408098a

HMX	110.3
RDX	113.4
135-TNB	100.6
13-DNB	97.7
Tetryl	128.0
Nitrobenzene	87.6
4A-26-DNT	105.8
2A-46-DNT	124.9
246-TNT	125.9
34-DNT(surr)	103.3
26-DNT	100.4
24-DNT	100.3
2-NT	87.5
4-NT	97.6
3-NT	79.5
PETN	114.8
Total	1677.6
Average	104.9

MJT 4/11/10

4/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEI

GEL Sample ID: WXXCRI

GEL Data File EXP0408100a

Analysis Date: 10–APR–10 22:16

LCMSMS ID: 903

Column ID Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,6–Dinitrotoluene	40	41.252	103	
2,6–Dinitrotoluene–d3	500	413.828	83	
2–Amino–4,6–dinitrotoluene	40	45.114	113	
3,4–Dinitrotoluene	20	20.385	102	
4–Amino–2,6–dinitrotoluene	40	38.377	96	
HMX	40	45.045	113	
Nitrobenzene	40	39.471	99	
PETN	40	52.652	132	*
RDX	40	41.618	104	
Tetryl	40	46.813	117	
m–Dinitrobenzene	40	40.978	102	
m–Nitrotoluene	40	44.372	111	
o–Nitrotoluene	40	34.205	86	
p–Nitrotoluene	40	43.836	110	
1,3,5–Trinitrobenzene	40	49.218	123	
1,3–Dinitrobenzene–d4	500	454.205	91	
2,4,6–Trinitrotoluene	40	50.277	126	
2,4–Dinitrotoluene	40	44.306	111	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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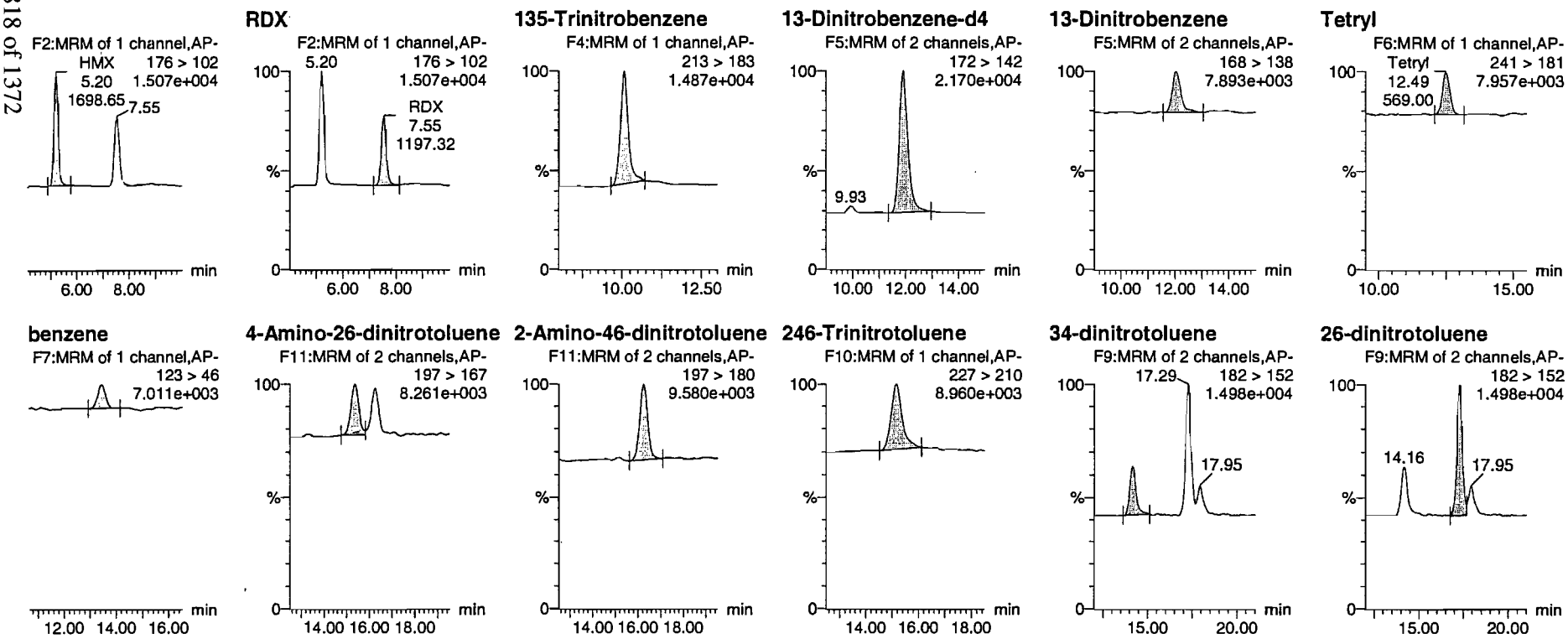

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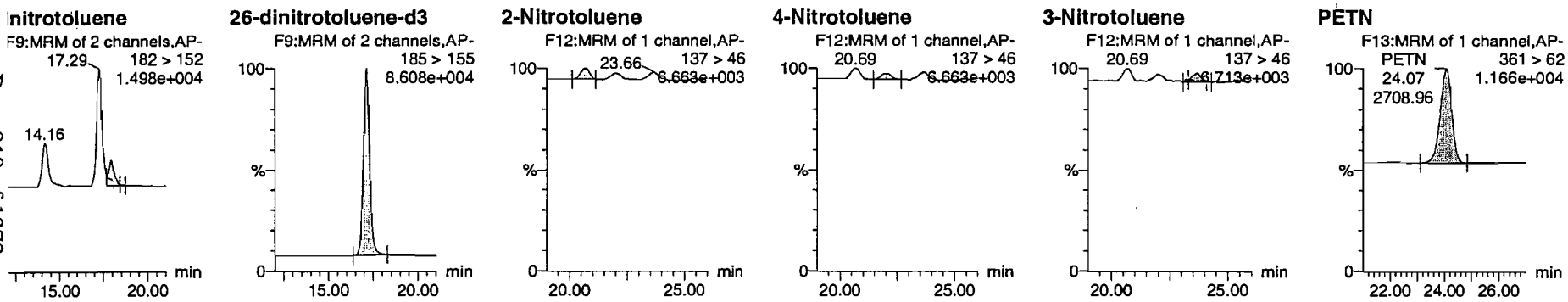

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
100410-08CRI	HMX	176 > 102	5.20	1698.652	5902.887	1698.652	143.883	bb			45.0446	112.6	12.6	132.8
100410-08CRI	RDX	176 > 102	7.55	1197.322	5902.887	1197.322	101.418	bb			41.6184	104.0	4.0	80.4
100410-08CRI	135-Trinitrobenzene	213 > 183	10.07	2453.998	5902.887	2453.998	207.864	bb			49.2179	123.0	23.0	389.5
100410-08CRI	13-Dinitrobenzene-d4	172 > 142	11.90	5902.887		5902.887	5902.887	bb			454.2045	90.8	-9.2	182.2
100410-08CRI	13-Dinitrobenzene	168 > 138	12.04	623.047	5902.887	623.047	52.775	bb			40.9783	102.4	2.4	38.5
100410-08CRI	Tetryl	241 > 181	12.49	568.999	5902.887	568.999	48.197	bb			46.8125	117.0	17.0	65.6
100410-08CRI	Nitrobenzene	123 > 46	13.45	280.058	5902.887	280.058	23.722	bb			39.4709	98.7	-1.3	19.0
100410-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.35	780.686	32674.670	780.686	11.946	MM	11-Apr-10	11:37:34	38.3766	95.9	-4.1	39.8
100410-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.25	1346.796	32674.670	1346.796	20.609	bb			45.1135	112.8	12.8	127.8
100410-08CRI	246-Trinitrotoluene	227 > 210	15.17	1264.256	32674.670	1264.256	19.346	bb			50.2766	125.7	25.7	93.6
100410-08CRI	34-dinitrotoluene	182 > 152	14.16	1366.228	32674.670	1366.228	20.907	bb			20.3851	101.9	1.9	67.2
100410-08CRI	26-dinitrotoluene	182 > 152	17.29	3066.021	32674.670	3066.021	46.917	MM	11-Apr-10	11:40:06	41.2518	103.1	3.1	180.9
100410-08CRI	24-dinitrotoluene	182 > 152	17.95	766.497	32674.670	766.497	11.729	MM	11-Apr-10	11:43:17	44.3057	110.8	10.8	40.7
100410-08CRI	26-dinitrotoluene-d3	185 > 155	17.14	32674.670		32674.670	32674.670	bb			413.8278	82.8	-17.2	2023.0
100410-08CRI	2-Nitrotoluene	137 > 46	20.69	171.583	32674.670	171.583	2.626	bb			34.2050	85.5	-14.5	40.5
100410-08CRI	4-Nitrotoluene	137 > 46	22.01	111.332	32674.670	111.332	1.704	bb			43.8363	109.6	9.6	23.1
100410-08CRI	3-Nitrotoluene	137 > 46	23.68	158.315	32674.670	158.315	2.423	MM	11-Apr-10	11:35:33	44.3721	110.9	10.9	27.5
100410-08CRI	PETN	361 > 62	24.07	2708.960	32674.670	2708.960	41.454	bb			52.6519	131.6	31.6	688.5

SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/10/10
Time of Injection	2216
Standard Number	WXX100410-08CRI
Data File	EXP0408100a

HMX		112.6
RDX		104.0
135-TNB		123.0
13-DNB		102.4
Tetryl		117.0
Nitrobenzene		98.7
4A-26-DNT		95.9
2A-46-DNT		112.8
246-TNT		125.7
34-DNT(surr)		101.9
26-DNT		103.1
24-DNT		110.8
2-NT		85.5
4-NT		109.6
3-NT		110.9
PETN		131.6
Total		1745.5
Average		109.1

MAT 4/11/10

HMK 04/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2057

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0408107a

Analysis Date: 11-APR-10 01:42

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m-Nitrotoluene	600	478.023	80	*
o-Nitrotoluene	600	588.163	98	
p-Nitrotoluene	600	547.16	91	
1,3,5-Trinitrobenzene	600	611.107	102	
1,3-Dinitrobenzene-d4	500	422.479	84	
2,4,6-Trinitrotoluene	600	775.43	129	*
2,4-Dinitrotoluene	600	578.962	96	
2,6-Dinitrotoluene	600	615.772	103	
2,6-Dinitrotoluene-d3	500	395.737	79	*
2-Amino-4,6-dinitrotoluene	600	706.692	118	
3,4-Dinitrotoluene	300	350.467	117	
4-Amino-2,6-dinitrotoluene	600	646.193	108	
HMX	600	717.969	120	
Nitrobenzene	600	555.155	93	
PETN	600	737.11	123	*
RDX	600	723.373	121	*
Tetryl	600	757.322	126	*
m-Dinitrobenzene	600	592.316	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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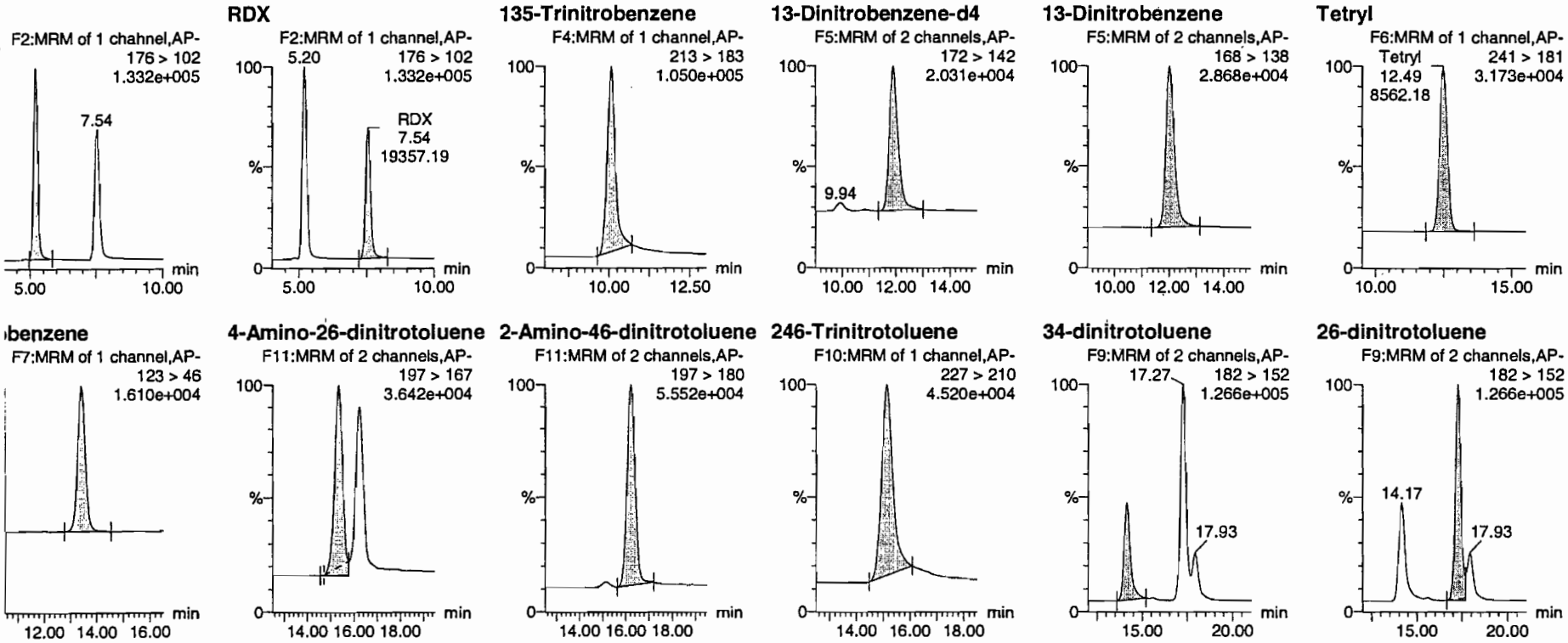

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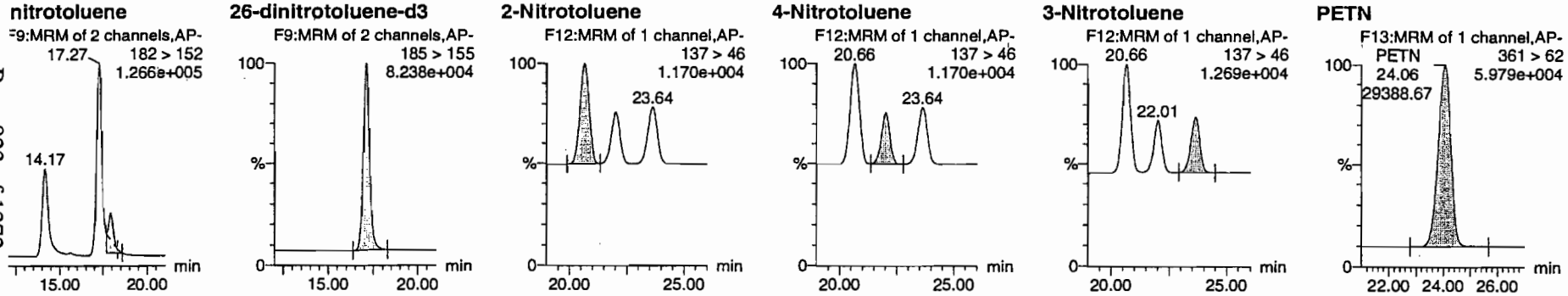

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
100410-07CCV	HMX	176 > 102	5.20	25183.777	5490.582	25183.777	2293.361	db			717.9685	119.7	19.7	2346.3
100410-07CCV	RDX	176 > 102	7.54	19357.186	5490.582	19357.186	1762.763	bb			723.3730	120.6	20.6	1583.2
100410-07CCV	135-Trinitrobenzene	213 > 183	10.07	28341.465	5490.582	28341.465	2580.916	bb			611.1066	101.9	1.9	1403.4
100410-07CCV	13-Dinitrobenzene-d4	172 > 142	11.89	5490.582		5490.582	5490.582	bb			422.4792	84.5	-15.5	181.9
100410-07CCV	13-Dinitrobenzene	168 > 138	12.03	8376.726	5490.582	8376.726	762.827	bb			592.3159	98.7	-1.3	560.4
100410-07CCV	Tetryl	241 > 181	12.49	8562.182	5490.582	8562.182	779.715	bb			757.3220	126.2	26.2	490.3
100410-07CCV	Nitrobenzene	123 > 46	13.41	3663.865	5490.582	3663.865	333.650	bb			555.1548	92.5	-7.5	387.7
100410-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.36	12570.697	31246.273	12570.697	201.155	MM	11-Apr-10	11:37:46	646.1934	107.7	7.7	548.0
100410-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.23	20174.973	31246.273	20174.973	322.838	bb			706.6922	117.8	17.8	945.1
100410-07CCV	246-Trinitrotoluene	227 > 210	15.14	18646.559	31246.273	18646.559	298.381	bb			775.4301	129.2	29.2	662.0
100410-07CCV	34-dinitrotoluene	182 > 152	14.17	22461.801	31246.273	22461.801	359.432	bb			350.4667	116.8	16.8	352.0
100410-07CCV	26-dinitrotoluene	182 > 152	17.27	43766.207	31246.273	43766.207	700.343	MM	11-Apr-10	11:39:57	615.7722	102.6	2.6	787.9
100410-07CCV	24-dinitrotoluene	182 > 152	17.93	9578.303	31246.273	9578.303	153.271	MM	11-Apr-10	11:43:35	578.9623	96.5	-3.5	162.2
100410-07CCV	26-dinitrotoluene-d3	185 > 155	17.12	31246.273		31246.273	31246.273	bb			395.7370	79.1	-20.9	3090.2
100410-07CCV	2-Nitrotoluene	137 > 46	20.66	2821.429	31246.273	2821.429	45.148	bb			588.1632	98.0	-2.0	617.4
100410-07CCV	4-Nitrotoluene	137 > 46	22.01	1328.886	31246.273	1328.886	21.265	bb			547.1598	91.2	-8.8	320.2
100410-07CCV	3-Nitrotoluene	137 > 46	23.65	1630.978	31246.273	1630.978	26.099	bb			478.0234	79.7	-20.3	190.4
100410-07CCV	PETN	361 > 62	24.06	29388.670	31246.273	29388.670	470.275	bb			737.1103	122.9	22.9	9396.1

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/11/10
Time of Injection: 0142
Standard Number: WXX100410-07CCV
Data File: EXP0408107a

HMX		119.7
RDX		120.6
135-TNB		101.9
13-DNB		98.7
Tetryl		126.2
Nitrobenzene		92.5
4A-26-DNT		107.7
2A-46-DNT		117.8
246-TNT		129.2
34-DNT(surr)		116.8
26-DNT		102.6
24-DNT		96.5
2-NT		98.0
4-NT		91.2
3-NT		79.7
PETN		122.9
Total		1722.0
Average		107.6

MAT 4/11/10

HMK 04/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–2057

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0408109a **Analysis Date:** 11–APR–10 02:41

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
m–Nitrotoluene	40	38.857	97	
o–Nitrotoluene	40	38.013	95	
p–Nitrotoluene	40	43.648	109	
1,3,5–Trinitrobenzene	40	46.822	117	
1,3–Dinitrobenzene–d4	500	457.172	91	
2,4,6–Trinitrotoluene	40	50.631	127	
2,4–Dinitrotoluene	40	38.936	97	
2,6–Dinitrotoluene	40	40.782	102	
2,6–Dinitrotoluene–d3	500	438.501	88	
2–Amino–4,6–dinitrotoluene	40	41.564	104	
3,4–Dinitrotoluene	20	20.26	101	
4–Amino–2,6–dinitrotoluene	40	42.035	105	
HMX	40	48.764	122	
Nitrobenzene	40	38.239	96	
PETN	40	54.13	135	*
RDX	40	44.404	111	
Tetryl	40	55.433	139	*
m–Dinitrobenzene	40	41.871	105	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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MATP 4/11/10

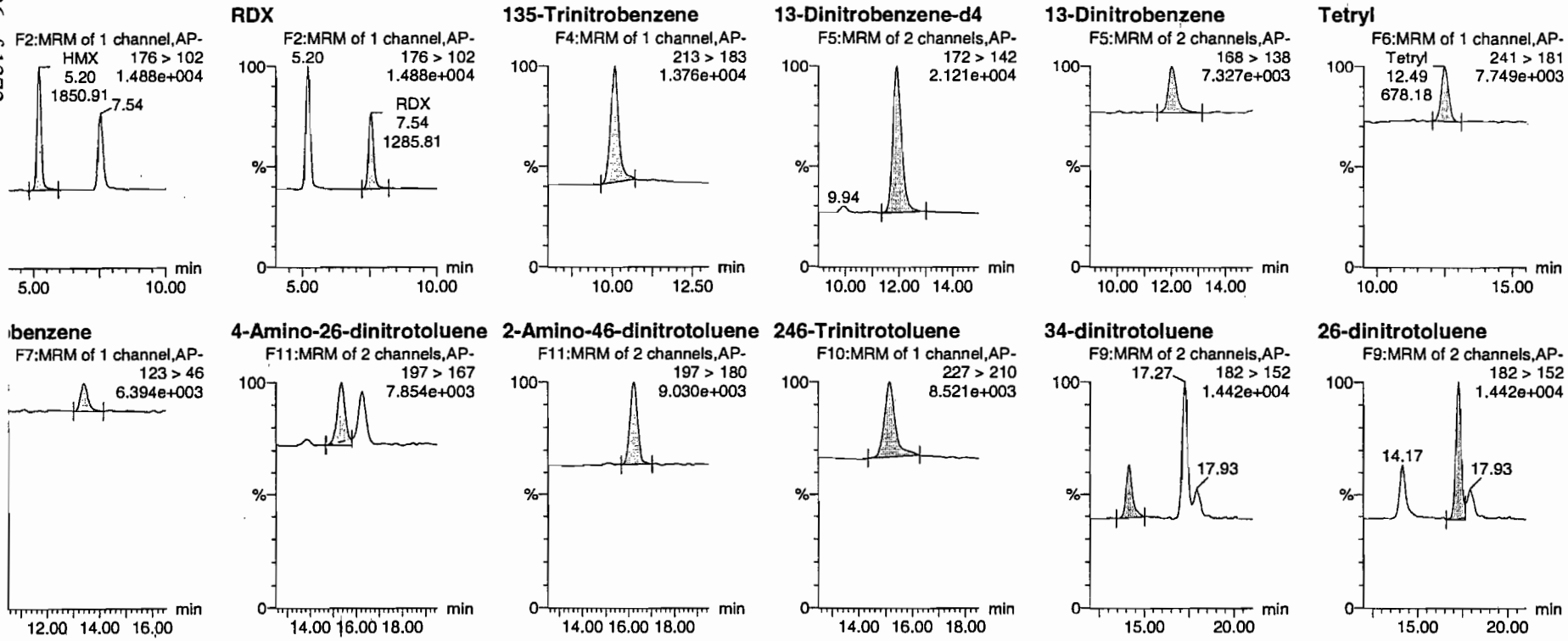

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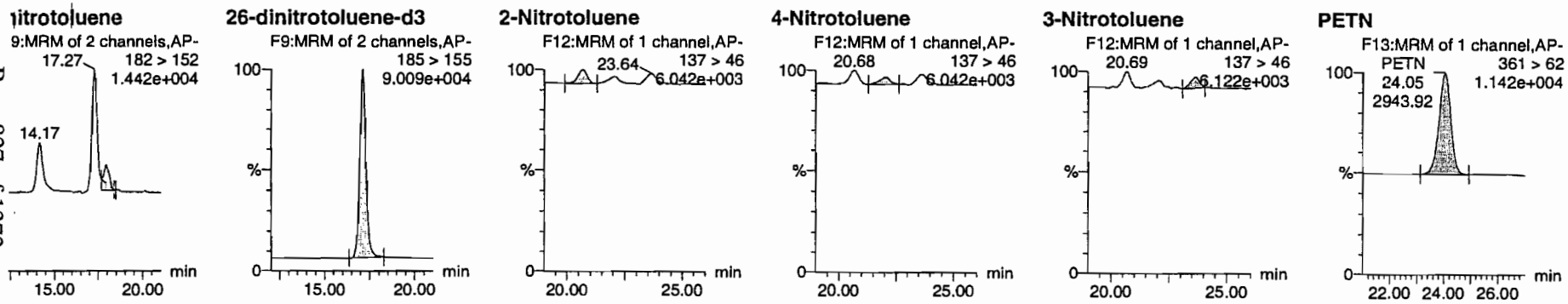

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
00410-08CRI	HMX	176 > 102	5.20	1850.906	5941.449	1850.906	155.762	bb			48.7635	121.9	21.9	401.6
00410-08CRI	RDX	176 > 102	7.54	1285.814	5941.449	1285.814	108.207	bb			44.4042	111.0	11.0	246.4
00410-08CRI	135-Trinitrobenzene	213 > 183	10.07	2349.771	5941.449	2349.771	197.744	bb			46.8216	117.1	17.1	266.4
00410-08CRI	13-Dinitrobenzene-d4	172 > 142	11.92	5941.449		5941.449	5941.449	bb			457.1717	91.4	-8.6	256.3
00410-08CRI	13-Dinitrobenzene	168 > 138	12.00	640.779	5941.449	640.779	53.924	bb			41.8710	104.7	4.7	86.4
00410-08CRI	Tetryl	241 > 181	12.49	678.176	5941.449	678.176	57.072	bb			55.4325	138.6	38.6	74.8
00410-08CRI	Nitrobenzene	123 > 46	13.41	273.090	5941.449	273.090	22.982	bb			38.2390	95.6	-4.4	28.2
00410-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.36	906.098	34622.781	906.098	13.085	MM	11-Apr-10	11:37:55	42.0353	105.1	5.1	37.1
00410-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.23	1314.819	34622.781	1314.819	18.988	bb			41.5642	103.9	3.9	101.8
00410-08CRI	246-Trinitrotoluene	227 > 210	15.14	1349.075	34622.781	1349.075	19.482	bb			50.6310	126.6	26.6	156.9
00410-08CRI	34-dinitrotoluene	182 > 152	14.17	1438.829	34622.781	1438.829	20.779	bb			20.2604	101.3	1.3	88.8
00410-08CRI	26-dinitrotoluene	182 > 152	17.27	3211.783	34622.781	3211.783	46.383	MM	11-Apr-10	11:39:49	40.7815	102.0	2.0	227.2
00410-08CRI	24-dinitrotoluene	182 > 152	17.93	713.761	34622.781	713.761	10.308	MM	11-Apr-10	11:43:46	38.9360	97.3	-2.7	46.1
00410-08CRI	26-dinitrotoluene-d3	185 > 155	17.12	34622.781		34622.781	34622.781	bb			438.5008	87.7	-12.3	2433.0
00410-08CRI	2-Nitrotoluene	137 > 46	20.68	202.052	34622.781	202.052	2.918	bb			38.0126	95.0	-5.0	52.4
00410-08CRI	4-Nitrotoluene	137 > 46	22.07	117.463	34622.781	117.463	1.696	bb			43.6479	109.1	9.1	26.4
00410-08CRI	3-Nitrotoluene	137 > 46	23.65	146.904	34622.781	146.904	2.121	bb			38.8572	97.1	-2.9	5.8
00410-08CRI	PETN	361 > 62	24.05	2943.921	34622.781	2943.921	42.514	bb			54.1295	135.3	35.3	545.9

SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/11/10
Time of Injection	0241
Standard Number	WXX100410-08CRI
Data File	EXP0408109a

HMX	121.9
RDX	111.0
135-TNB	117.1
13-DNB	104.7
Tetryl	138.6
Nitrobenzene	95.6
4A-26-DNT	105.1
2A-46-DNT	103.9
246-TNT	126.6
34-DNT(surr)	101.3
26-DNT	102.0
24-DNT	97.3
2-NT	95.0
4-NT	109.1
3-NT	97.1
PETN	135.3
Total	1761.6
Average	110.1

4/12/10

Hmm 04/12/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0408120a

Analysis Date: 11–APR–10 08:06

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	598.182	100	
1,3–Dinitrobenzene–d4	500	448.765	90	
2,4,6–Trinitrotoluene	600	747.622	125	*
2,4–Dinitrotoluene	600	607.542	101	
2,6–Dinitrotoluene	600	606.591	101	
2,6–Dinitrotoluene–d3	500	430.552	86	
2–Amino–4,6–dinitrotoluene	600	716.087	119	
3,4–Dinitrotoluene	300	311.125	104	
4–Amino–2,6–dinitrotoluene	600	646.645	108	
HMX	600	706.32	118	
Nitrobenzene	600	540.216	90	
PETN	600	660.216	110	
RDX	600	721.735	120	*
Tetryl	600	700.31	117	
m–Dinitrobenzene	600	611.278	102	
m–Nitrotoluene	600	482.609	80	
o–Nitrotoluene	600	495.433	83	
p–Nitrotoluene	600	534.721	89	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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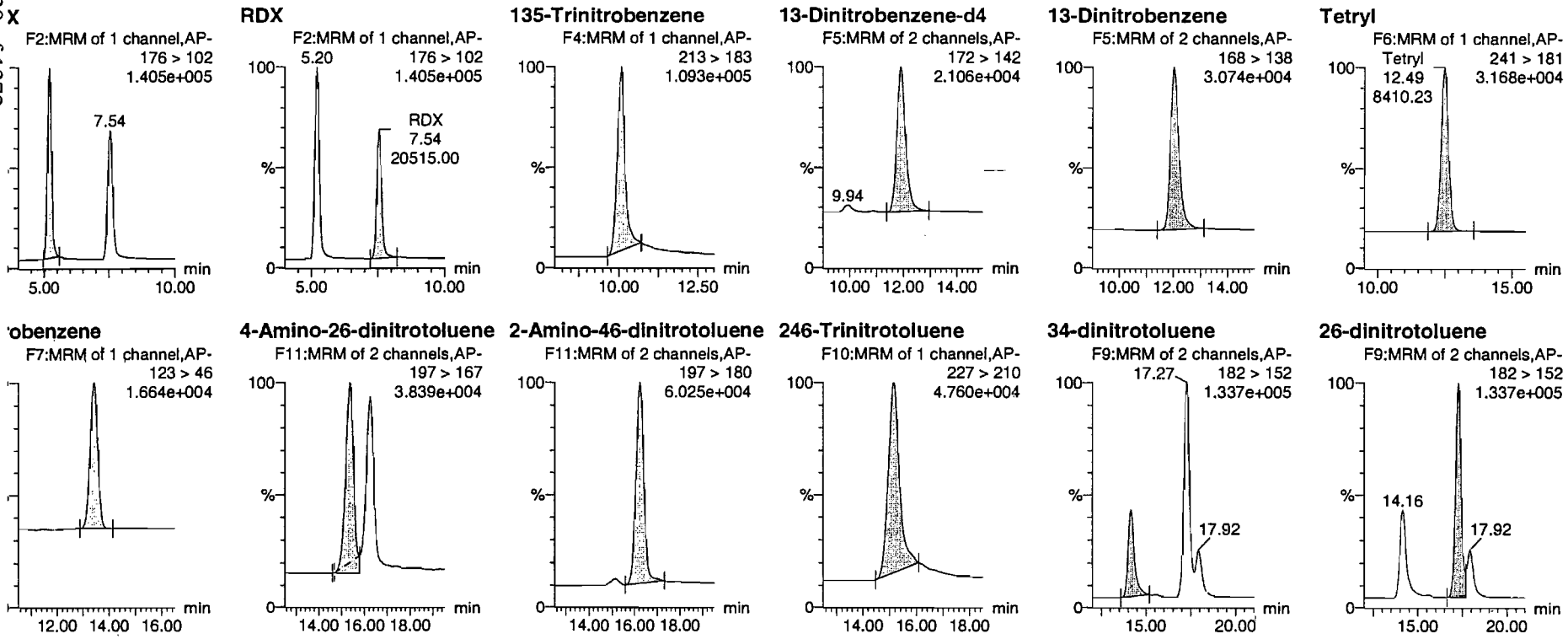

L SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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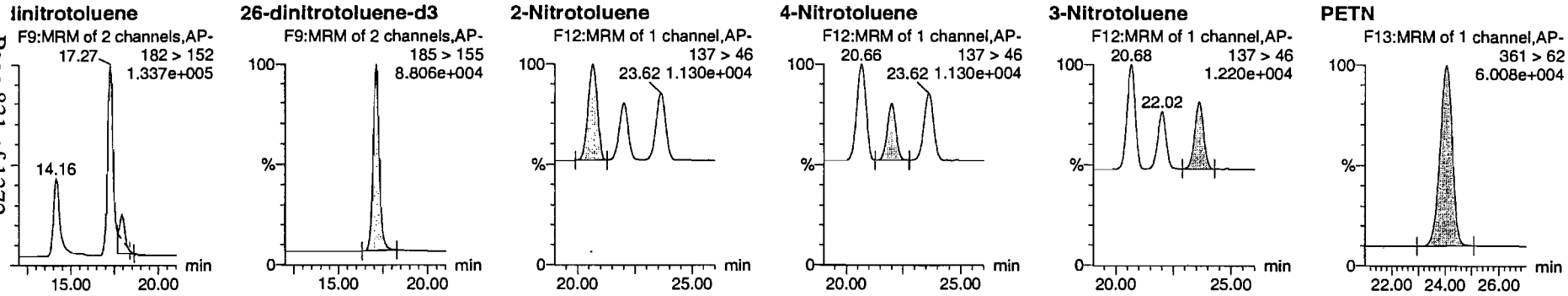

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
X100410-07CCV	HMX	176 > 102	5.20	26316.664	5832.194	26316.664	2256.155	bb			706.3205	117.7	17.7	2918.5
X100410-07CCV	RDX	176 > 102	7.54	20515.000	5832.194	20515.000	1758.772	bb			721.7354	120.3	20.3	1980.9
X100410-07CCV	135-Trinitrobenzene	213 > 183	10.07	29468.121	5832.194	29468.121	2526.332	bb			598.1823	99.7	-0.3	2342.4
X100410-07CCV	13-Dinitrobenzene-d4	172 > 142	11.90	5832.194		5832.194	5832.194	bb			448.7650	89.8	-10.2	600.3
X100410-07CCV	13-Dinitrobenzene	168 > 138	12.03	9182.754	5832.194	9182.754	787.247	bb			611.2776	101.9	1.9	630.0
X100410-07CCV	Tetryl	241 > 181	12.49	8410.231	5832.194	8410.231	721.018	bb			700.3102	116.7	16.7	730.6
X100410-07CCV	Nitrobenzene	123 > 46	13.45	3787.096	5832.194	3787.096	324.672	bb			540.2159	90.0	-10.0	464.2
X100410-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.35	13686.177	33995.191	13686.177	201.296	MM	11-Apr-10	11:38:46	646.6451	107.8	7.8	243.2
X100410-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.25	22241.670	33995.191	22241.670	327.130	bb			716.0865	119.3	19.3	484.8
X100410-07CCV	246-Trinitrotoluene	227 > 210	15.13	19559.494	33995.191	19559.494	287.680	bb			747.6224	124.6	24.6	314.1
X100410-07CCV	34-dinitrotoluene	182 > 152	14.16	21694.615	33995.191	21694.615	319.084	bb			311.1250	103.7	3.7	630.7
X100410-07CCV	26-dinitrotoluene	182 > 152	17.27	46906.645	33995.191	46906.645	689.901	MM	11-Apr-10	11:39:15	606.5914	101.1	1.1	1560.0
X100410-07CCV	24-dinitrotoluene	182 > 152	17.92	10935.371	33995.191	10935.371	160.837	MM	11-Apr-10	11:44:49	607.5416	101.3	1.3	328.6
X100410-07CCV	26-dinitrotoluene-d3	185 > 155	17.11	33995.191		33995.191	33995.191	bb			430.5523	86.1	-13.9	1418.2
X100410-07CCV	2-Nitrotoluene	137 > 46	20.66	2585.682	33995.191	2585.682	38.030	bb			495.4326	82.6	-17.4	487.3
X100410-07CCV	4-Nitrotoluene	137 > 46	22.01	1412.927	33995.191	1412.927	20.781	bb			534.7206	89.1	-10.9	282.9
X100410-07CCV	3-Nitrotoluene	137 > 46	23.63	1791.488	33995.191	1791.488	26.349	bb			482.6093	80.4	-19.6	114.0
X100410-07CCV	PETN	361 > 62	24.04	29123.605	33995.191	29123.605	428.349	bb			660.2156	110.0	10.0	3998.4

L SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/11/10
Time of Injection: 0806
Standard Number: WXX100410-07CCV
Data File: EXP0408120a

HMX	117.7
RDX	120.3
135-TNB	99.7
13-DNB	101.9
Tetryl	116.7
Nitrobenzene	90.0
4A-26-DNT	107.8
2A-46-DNT	119.3
246-TNT	124.6
34-DNT(surr)	103.7
26-DNT	101.1
24-DNT	101.3
2-NT	82.6
4-NT	89.1
3-NT	80.4
PETN	110.0
Total	1666.2
Average	104.1

MTP 4/11/10

HMM 04/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%

No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–2057

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0408122a **Analysis Date:** 11–APR–10 09:05

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	43.065	108	
1,3–Dinitrobenzene–d4	500	498.79	100	
2,4,6–Trinitrotoluene	40	47.605	119	
2,4–Dinitrotoluene	40	41.387	103	
2,6–Dinitrotoluene	40	39.655	99	
2,6–Dinitrotoluene–d3	500	484.368	97	
2–Amino–4,6–dinitrotoluene	40	45.143	113	
3,4–Dinitrotoluene	20	19.345	97	
4–Amino–2,6–dinitrotoluene	40	38.12	95	
HMX	40	47.637	119	
Nitrobenzene	40	38.04	95	
PETN	40	46.767	117	
RDX	40	45.046	113	
Tetryl	40	46.369	116	
m–Dinitrobenzene	40	43.533	109	
m–Nitrotoluene	40	32.773	82	
o–Nitrotoluene	40	29.265	73	
p–Nitrotoluene	40	37.363	93	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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MMT 4/11/10

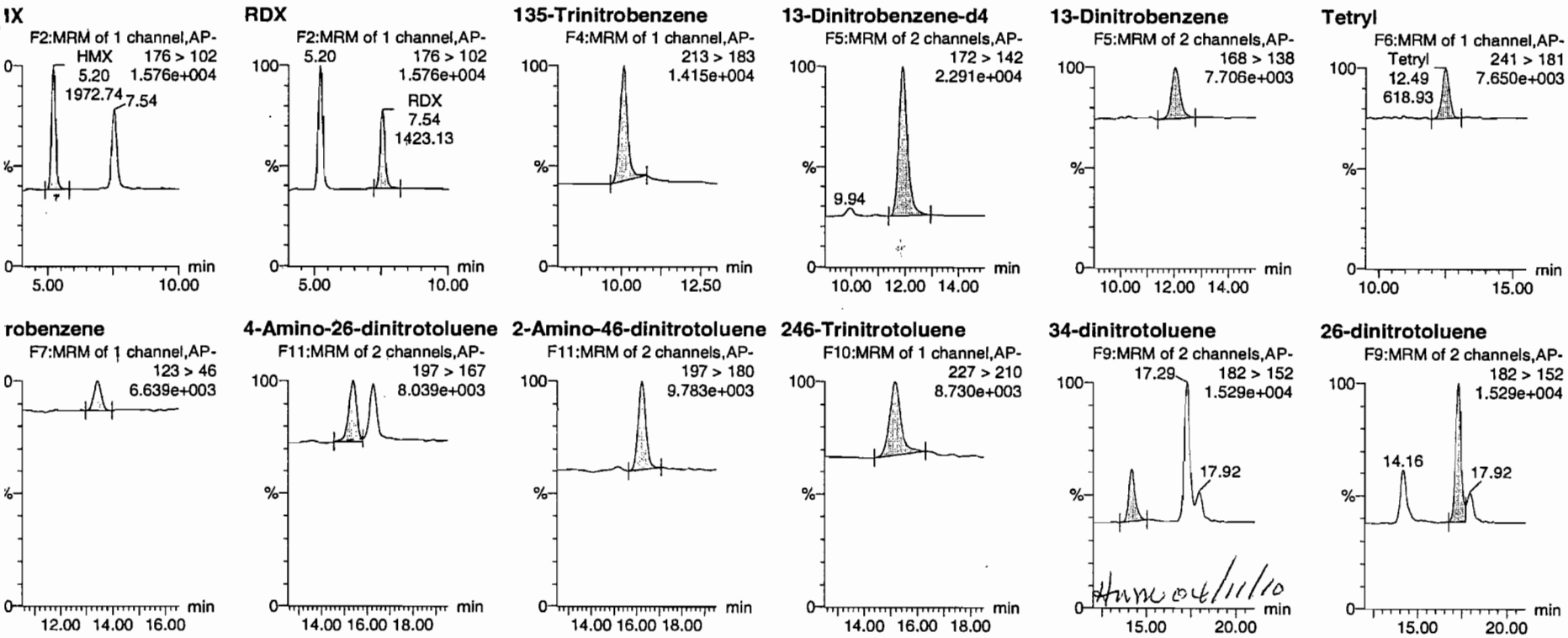

HMM 04/11/10

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ıantify Sample Report
:L Laboratories, LLC / Analyst : Michael A. Penny

taset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

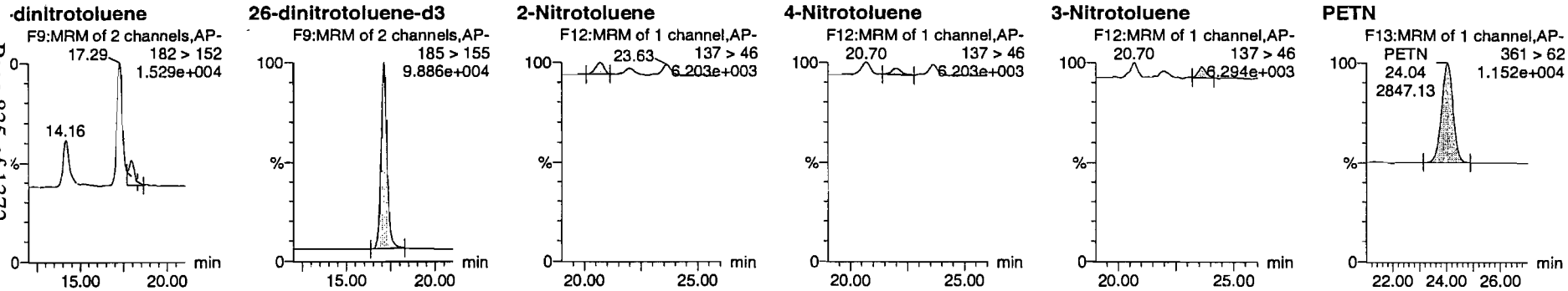

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
(X100410-08CRI	HMX	176 > 102	5.20	1972.745	6482.321	1972.745	152.163	bb			47.6369	119.1	19.1	244.9
(X100410-08CRI	RDX	176 > 102	7.54	1423.132	6482.321	1423.132	109.770	bb			45.0457	112.6	12.6	155.5
(X100410-08CRI	135-Trinitrobenzene	213 > 183	10.07	2358.014	6482.321	2358.014	181.880	bb			43.0654	107.7	7.7	336.3
(X100410-08CRI	13-Dinitrobenzene-d4	172 > 142	11.89	6482.321		6482.321	6482.321	bb			498.7897	99.8	-0.2	386.7
(X100410-08CRI	13-Dinitrobenzene	168 > 138	12.03	726.859	6482.321	726.859	56.065	bb			43.5329	108.8	8.8	80.9
(X100410-08CRI	Tetryl	241 > 181	12.49	618.931	6482.321	618.931	47.740	bb			46.3688	115.9	15.9	42.7
(X100410-08CRI	Nitrobenzene	123 > 46	13.40	296.398	6482.321	296.398	22.862	bb			38.0398	95.1	-4.9	31.9
(X100410-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.38	907.640	38244.344	907.640	11.866	MM	11-Apr-10	11:38:55	38.1196	95.3	-4.7	33.8
(X100410-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.22	1577.408	38244.344	1577.408	20.623	bb			45.1432	112.9	12.9	37.7
(X100410-08CRI	246-Trinitrotoluene	227 > 210	15.17	1401.128	38244.344	1401.128	18.318	bb			47.6050	119.0	19.0	77.0
(X100410-08CRI	34-dinitrotoluene	182 > 152	14.16	1517.544	38244.344	1517.544	19.840	bb			19.3453	96.7	-3.3	93.1
(X100410-08CRI	26-dinitrotoluene	182 > 152	17.29	3449.773	38244.344	3449.773	45.102	MM	11-Apr-10	11:39:07	39.6554	99.1	-0.9	245.5
(X100410-08CRI	24-dinitrotoluene	182 > 152	17.92	838.055	38244.344	838.055	10.957	MM	11-Apr-10	11:45:05	41.3871	103.5	3.5	51.6
(X100410-08CRI	26-dinitrotoluene-d3	185 > 155	17.11	38244.344		38244.344	38244.344	bb			484.3682	96.9	-3.1	2680.5
(X100410-08CRI	2-Nitrotoluene	137 > 46	20.70	171.826	38244.344	171.826	2.246	bb			29.2650	73.2	-26.8	20.0
(X100410-08CRI	4-Nitrotoluene	137 > 46	21.99	111.068	38244.344	111.068	1.452	bb			37.3634	93.4	-6.6	10.9
(X100410-08CRI	3-Nitrotoluene	137 > 46	23.63	136.864	38244.344	136.864	1.789	bb			32.7734	81.9	-18.1	12.1
(X100410-08CRI	PETN	361 > 62	24.04	2847.129	38244.344	2847.129	37.223	bb			46.7667	116.9	16.9	1392.9

L SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/11/10
Time of Injection	0905
Standard Number	WXX100410-08CRI
Data File	EXP0408122a

HMX	119.1
RDX	112.6
135-TNB	107.7
13-DNB	108.8
Tetryl	115.9
Nitrobenzene	95.1
4A-26-DNT	95.3
2A-46-DNT	112.9
246-TNT	119.0
34-DNT(surr)	96.7
26-DNT	99.1
24-DNT	103.5
2-NT	73.2
4-NT	93.4
3-NT	81.9
PETN	116.9
Total	1651.1
Average	103.2

MATT 4/11/10

HM 04/11/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412012a

Analysis Date: 12–APR–10 21:04

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
3,4–Dinitrotoluene	20	20.822	104	
4–Amino–2,6–dinitrotoluene	40	41.22	103	
HMX	40	40.936	102	
Nitrobenzene	40	40.412	101	
PETN	40	38.904	97	
RDX	40	42.279	106	
Tetryl	40	38.735	97	
m–Dinitrobenzene	40	40.013	100	
m–Nitrotoluene	40	37.251	93	
o–Nitrotoluene	40	34.615	87	
p–Nitrotoluene	40	40.573	101	
1,3,5–Trinitrobenzene	40	42.014	105	
1,3–Dinitrobenzene–d4	500	533.484	107	
2,4,6–Trinitrotoluene	40	37.92	95	
2,4–Dinitrotoluene	40	39.009	98	
2,6–Dinitrotoluene	40	41.835	105	
2,6–Dinitrotoluene–d3	500	543.299	109	
2–Amino–4,6–dinitrotoluene	40	37.957	95	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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MMP 4/13/10

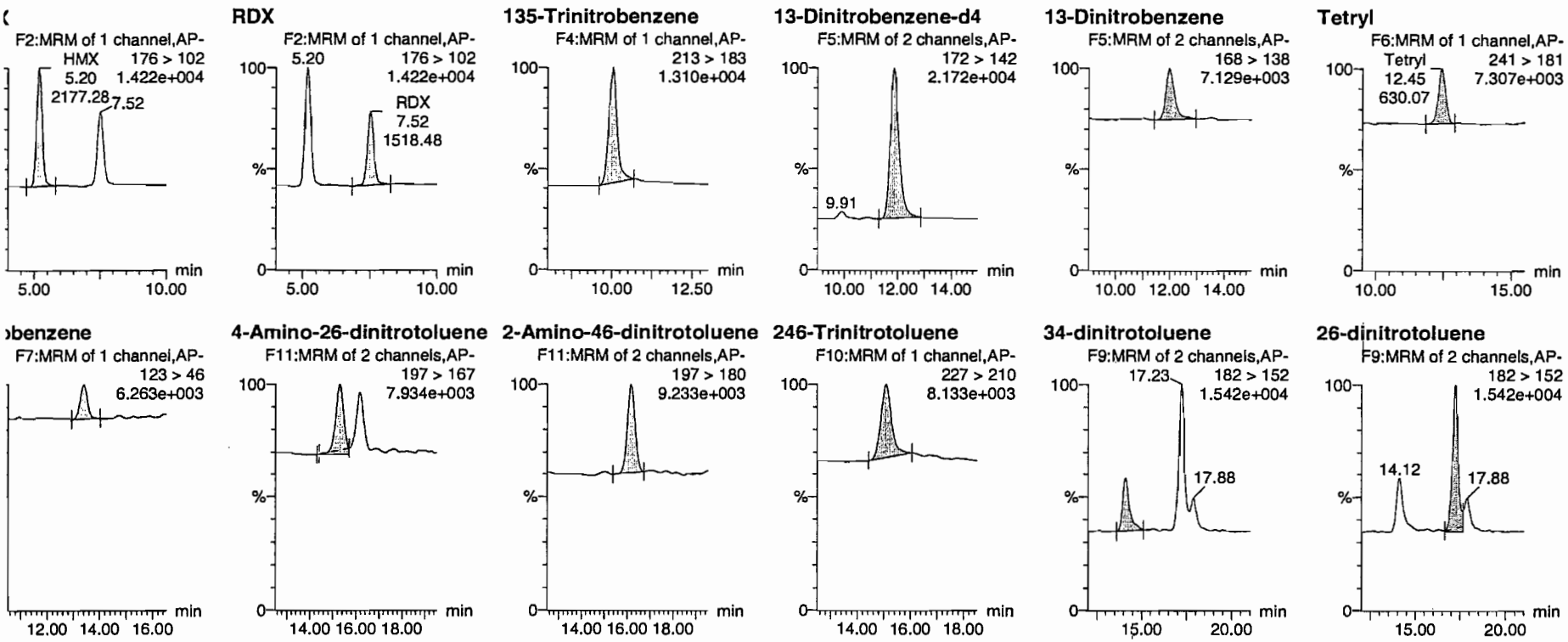

HMM 04/14/10

SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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ıntify Sample Report
. Laboratories, LLC / Analyst : Michael A. Penny

ıset: C:\MASSLYNX\New_Exp.PRO\041210expA.qld, Time: Tue Apr 13 11:12:22 2010

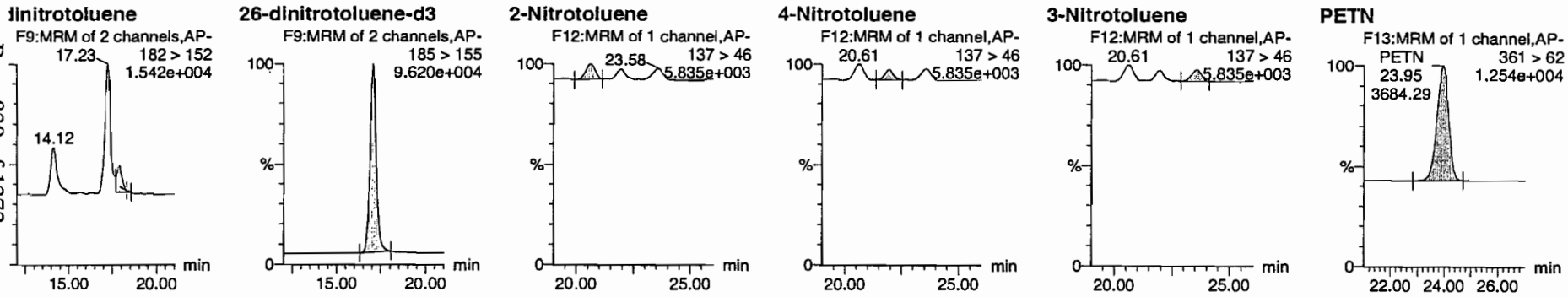

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
(100412-08CRI	HMX	176 > 102	5.20	2177.283	6274.155	2177.283	173.512	bb			40.9355	102.3	2.3	314.4
(100412-08CRI	RDX	176 > 102	7.52	1518.477	6274.155	1518.477	121.010	bb			42.2788	105.7	5.7	197.0
(100412-08CRI	135-Trinitrobenzene	213 > 183	10.05	2279.088	6274.155	2279.088	181.625	bb			42.0139	105.0	5.0	180.1
(100412-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	6274.155		6274.155	6274.155	bb			533.4836	106.7	6.7	322.2
(100412-08CRI	13-Dinitrobenzene	168 > 138	11.97	671.328	6274.155	671.328	53.499	bb			40.0125	100.0	0.0	50.5
(100412-08CRI	Tetryl	241 > 181	12.45	630.065	6274.155	630.065	50.211	bb			38.7350	96.8	-3.2	54.0
(100412-08CRI	Nitrobenzene	123 > 46	13.41	318.106	6274.155	318.106	25.351	bb			40.4123	101.0	1.0	29.3
(100412-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.32	1058.459	38012.648	1058.459	13.922	MM	13-Apr-10	11:01:55	41.2197	103.0	3.0	59.2
(100412-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.16	1478.048	38012.648	1478.048	19.442	bb			37.9571	94.9	-5.1	88.4
(100412-08CRI	246-Trinitrotoluene	227 > 210	15.10	1254.134	38012.648	1254.134	16.496	bb			37.9196	94.8	-5.2	135.3
(100412-08CRI	34-dinitrotoluene	182 > 152	14.12	1632.265	38012.648	1632.265	21.470	bb			20.8219	104.1	4.1	82.1
(100412-08CRI	26-dinitrotoluene	182 > 152	17.23	3764.256	38012.648	3764.256	49.513	MM	13-Apr-10	11:07:00	41.8349	104.6	4.6	228.6
(100412-08CRI	24-dinitrotoluene	182 > 152	17.88	774.045	38012.648	774.045	10.181	MM	13-Apr-10	11:10:08	39.0087	97.5	-2.5	47.6
(100412-08CRI	26-dinitrotoluene-d3	185 > 155	17.05	38012.648		38012.648	38012.648	bb			543.2989	108.7	8.7	2463.8
(100412-08CRI	2-Nitrotoluene	137 > 46	20.61	227.869	38012.648	227.869	2.997	bb			34.6153	86.5	-13.5	59.0
(100412-08CRI	4-Nitrotoluene	137 > 46	21.95	127.946	38012.648	127.946	1.683	bb			40.5729	101.4	1.4	37.2
(100412-08CRI	3-Nitrotoluene	137 > 46	23.58	165.114	38012.648	165.114	2.172	bb			37.2514	93.1	-6.9	41.7
(100412-08CRI	PETN	361 > 62	23.95	3684.286	38012.648	3684.286	48.461	bb			38.9040	97.3	-2.7	585.0

✓

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/12/10
Time of Injection	2104
Standard Number	WXX100412-08CRI
Data File	EXP0412012a

HMX	102.3
RDX	105.7
135-TNB	105.0
13-DNB	100.0
Tetryl	96.8
Nitrobenzene	101.0
4A-26-DNT	103.0
2A-46-DNT	94.9
246-TNT	94.8
34-DNT(surr)	104.1
26-DNT	104.6
24-DNT	97.5
2-NT	86.5
4-NT	101.4
3-NT	93.1
PETN	97.3
Total	1588.0
Average	99.3

4/13/10

Hmc 04/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412023a

Analysis Date: 13–APR–10 02:29

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
3,4–Dinitrotoluene	300	294.567	98	
4–Amino–2,6–dinitrotoluene	600	565.953	94	
HMX	600	591.074	99	
Nitrobenzene	600	587.411	98	
PETN	600	688.871	115	
RDX	600	698.421	116	
Tetryl	600	569.67	95	
m–Dinitrobenzene	600	606.197	101	
m–Nitrotoluene	600	540.313	90	
o–Nitrotoluene	600	558.159	93	
p–Nitrotoluene	600	614.491	102	
1,3,5–Trinitrobenzene	600	557.713	93	
1,3–Dinitrobenzene–d4	500	483.478	97	
2,4,6–Trinitrotoluene	600	638.191	106	
2,4–Dinitrotoluene	600	647.757	108	
2,6–Dinitrotoluene	600	603.464	101	
2,6–Dinitrotoluene–d3	500	472.429	94	
2–Amino–4,6–dinitrotoluene	600	581.719	97	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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MMT 4/13/10

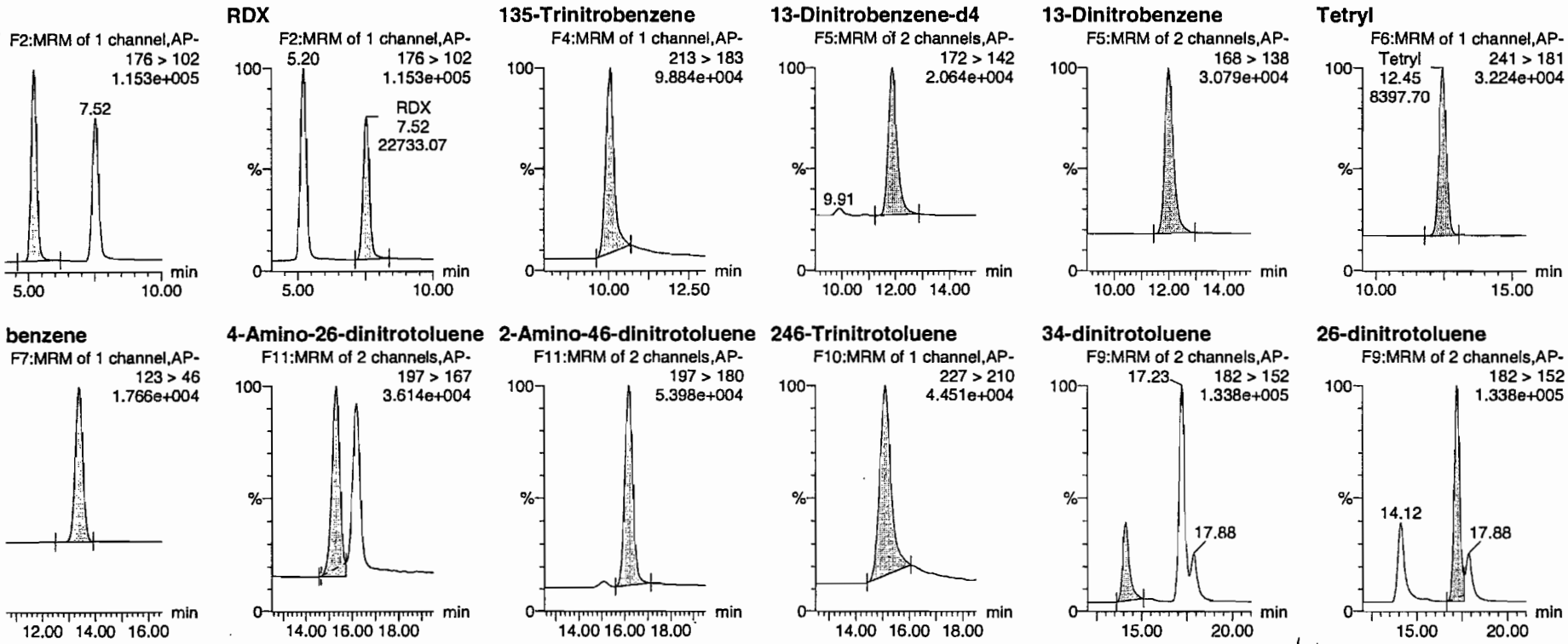

tmm 04/14/10

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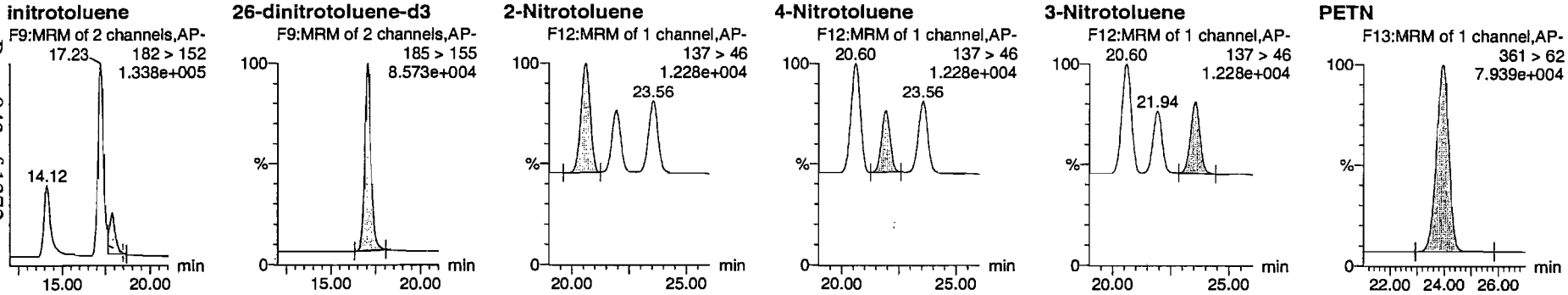

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
100412-07CCV	HMX	176 > 102	5.20	28491.268	5686.049	28491.268	2505.366	bb			591.0742	98.5	-1.5	2424.2
100412-07CCV	RDX	176 > 102	7.52	22733.072	5686.049	22733.072	1999.022	bb			698.4212	116.4	16.4	1800.1
100412-07CCV	135-Trinitrobenzene	213 > 183	10.05	27417.908	5686.049	27417.908	2410.981	bb			557.7127	93.0	-7.0	985.8
100412-07CCV	13-Dinitrobenzene-d4	172 > 142	11.87	5686.049		5686.049	5686.049	bb			483.4777	96.7	-3.3	419.8
100412-07CCV	13-Dinitrobenzene	168 > 138	11.97	9217.395	5686.049	9217.395	810.527	bb			606.1968	101.0	1.0	1027.7
100412-07CCV	Tetryl	241 > 181	12.45	8397.697	5686.049	8397.697	738.447	bd			569.6696	94.9	-5.1	1109.4
100412-07CCV	Nitrobenzene	123 > 46	13.37	4190.401	5686.049	4190.401	368.481	bd			587.4110	97.9	-2.1	482.0
100412-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.32	12637.104	33054.137	12637.104	191.158	MM	13-Apr-10	11:02:49	565.9529	94.3	-5.7	550.6
100412-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.16	19697.299	33054.137	19697.299	297.955	bb			581.7193	97.0	-3.0	507.4
100412-07CCV	246-Trinitrotoluene	227 > 210	15.10	18353.908	33054.137	18353.908	277.634	bb			638.1909	106.4	6.4	574.4
100412-07CCV	34-dinitrotoluene	182 > 152	14.12	20079.451	33054.137	20079.451	303.736	bb			294.5666	98.2	-1.8	472.2
100412-07CCV	26-dinitrotoluene	182 > 152	17.23	47216.063	33054.137	47216.063	714.223	MM	13-Apr-10	11:07:54	603.4644	100.6	0.6	1300.6
100412-07CCV	24-dinitrotoluene	182 > 152	17.88	11176.726	33054.137	11176.726	169.067	MM	13-Apr-10	11:10:49	647.7566	108.0	8.0	280.1
100412-07CCV	26-dinitrotoluene-d3	185 > 155	17.05	33054.137		33054.137	33054.137	bb			472.4290	94.5	-5.5	2808.6
100412-07CCV	2-Nitrotoluene	137 > 46	20.60	3195.010	33054.137	3195.010	48.330	bb			558.1587	93.0	-7.0	343.3
100412-07CCV	4-Nitrotoluene	137 > 46	21.94	1685.013	33054.137	1685.013	25.489	bb			614.4905	102.4	2.4	193.2
100412-07CCV	3-Nitrotoluene	137 > 46	23.56	2082.501	33054.137	2082.501	31.501	bb			540.3134	90.1	-9.9	224.9
100412-07CCV	PETN	361 > 62	23.94	39570.852	33054.137	39570.852	598.576	bb			688.8709	114.8	14.8	6418.5

SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/13/10
Time of Injection: 0229
Standard Number: WXX100412-07CCV
Data File: EXP0412023a

HMX	98.5
RDX	116.4
135-TNB	93.0
13-DNB	101.0
Tetryl	94.9
Nitrobenzene	97.9
4A-26-DNT	94.3
2A-46-DNT	97.0
246-TNT	106.4
34-DNT(surr)	98.2
26-DNT	100.6
24-DNT	108.0
2-NT	93.0
4-NT	102.4
3-NT	90.1
PETN	114.8
Total	1606.5
Average	100.4

MAT 4/13/10

Hmc 04/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412025a

Analysis Date: 13–APR–10 03:28

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	44.517	111	
1,3–Dinitrobenzene–d4	500	492.919	99	
2,4,6–Trinitrotoluene	40	39.436	99	
2,4–Dinitrotoluene	40	43.525	109	
2,6–Dinitrotoluene	40	39.656	99	
2,6–Dinitrotoluene–d3	500	514.01	103	
2–Amino–4,6–dinitrotoluene	40	37.309	93	
3,4–Dinitrotoluene	20	19.281	96	
4–Amino–2,6–dinitrotoluene	40	37.529	94	
HMX	40	42.31	106	
Nitrobenzene	40	35.496	89	
PETN	40	42.974	107	
RDX	40	45.439	114	
Tetryl	40	42.386	106	
m–Dinitrobenzene	40	46.427	116	
m–Nitrotoluene	40	39.933	100	
o–Nitrotoluene	40	37.946	95	
p–Nitrotoluene	40	42.692	107	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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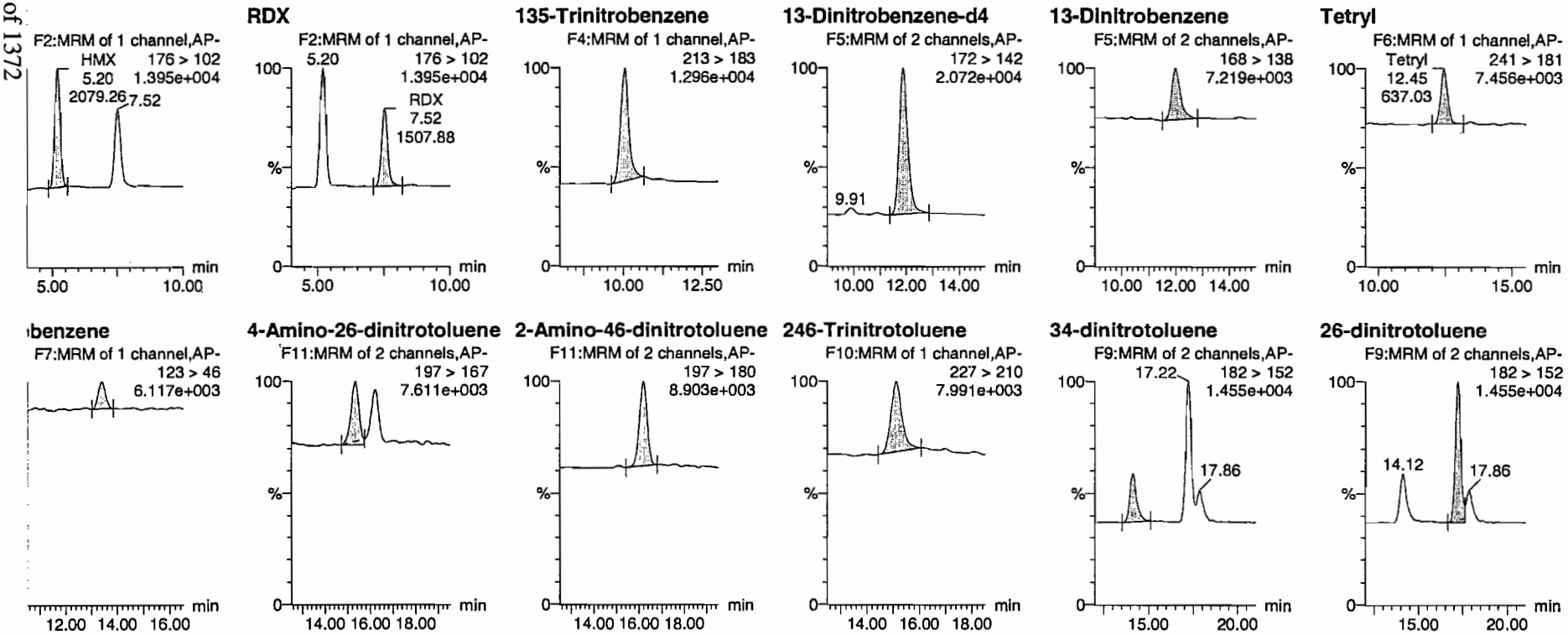

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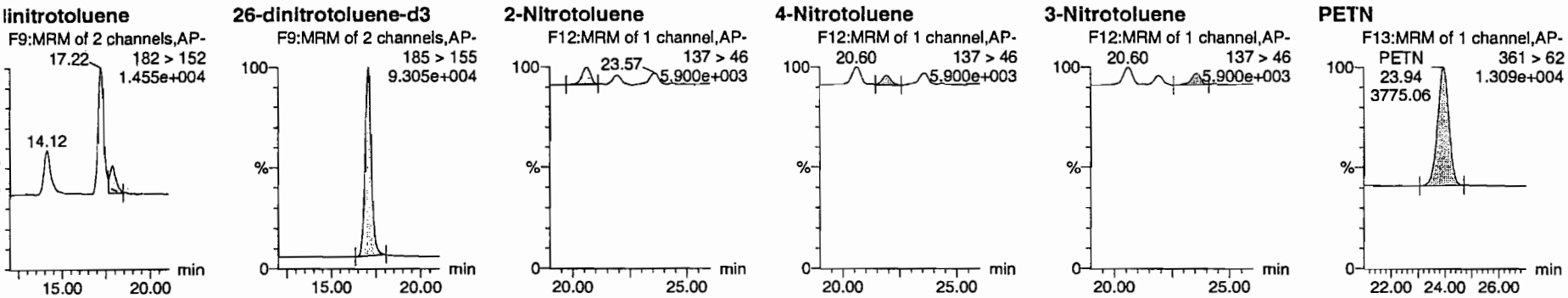

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/ml	%Rec	%Dev	S/N
:100412-08CRI	HMX	176 > 102	5.20	2079.264	5797.090	2079.264	179.337	bb			42.3097	105.8	5.8	348.3
:100412-08CRI	RDX	176 > 102	7.52	1507.880	5797.090	1507.880	130.055	bb			45.4388	113.6	13.6	225.5
:100412-08CRI	135-Trinitrobenzene	213 > 183	10.05	2231.265	5797.090	2231.265	192.447	bb			44.5172	111.3	11.3	130.5
:100412-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	5797.090		5797.090	5797.090	bb			492.9193	98.6	-1.4	771.9
:100412-08CRI	13-Dinitrobenzene	168 > 138	11.97	719.725	5797.090	719.725	62.076	bb			46.4272	116.1	16.1	67.2
:100412-08CRI	Tetryl	241 > 181	12.45	637.032	5797.090	637.032	54.944	bb			42.3862	106.0	6.0	45.1
:100412-08CRI	Nitrobenzene	123 > 46	13.41	258.161	5797.090	258.161	22.266	bb			35.4959	88.7	-11.3	32.0
:100412-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.32	911.734	35963.441	911.734	12.676	MM	13-Apr-10	11:02:58	37.5289	93.8	-6.2	44.8
:100412-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.19	1374.488	35963.441	1374.488	19.110	bb			37.3089	93.3	-6.7	102.4
:100412-08CRI	246-Trinitrotoluene	227 > 210	15.10	1233.959	35963.441	1233.959	17.156	bb			39.4355	98.6	-1.4	52.3
:100412-08CRI	34-dinitrotoluene	182 > 152	14.12	1430.000	35963.441	1430.000	19.881	bb			19.2811	96.4	-3.6	68.9
:100412-08CRI	26-dinitrotoluene	182 > 152	17.22	3375.872	35963.441	3375.872	46.935	MM	13-Apr-10	11:08:02	39.6563	99.1	-0.9	198.4
:100412-08CRI	24-dinitrotoluene	182 > 152	17.86	817.109	35963.441	817.109	11.360	MM	13-Apr-10	11:10:56	43.5253	108.8	8.8	43.1
:100412-08CRI	26-dinitrotoluene-d3	185 > 155	17.05	35963.441		35963.441	35963.441	bb			514.0105	102.8	2.8	1763.8
:100412-08CRI	2-Nitrotoluene	137 > 46	20.60	236.329	35963.441	236.329	3.286	bb			37.9461	94.9	-5.1	26.8
:100412-08CRI	4-Nitrotoluene	137 > 46	21.92	127.371	35963.441	127.371	1.771	bb			42.6921	106.7	6.7	14.4
:100412-08CRI	3-Nitrotoluene	137 > 46	23.57	167.459	35963.441	167.459	2.328	bb			39.9332	99.8	-0.2	17.3
:100412-08CRI	PETN	361 > 62	23.94	3775.057	35963.441	3775.057	52.485	bb			42.9742	107.4	7.4	1684.5

SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/13/10
Time of Injection	0328
Standard Number	WXX100412-08CRI
Data File	EXP0412025a

HMX	105.8
RDX	113.6
135-TNB	111.3
13-DNB	116.1
Tetryl	106.0
Nitrobenzene	88.7
4A-26-DNT	93.8
2A-46-DNT	93.3
246-TNT	98.6
34-DNT(surr)	96.4
26-DNT	99.1
24-DNT	108.8
2-NT	94.9
4-NT	106.7
3-NT	99.8
PETN	107.4
Total	1640.3
Average	102.5

LWT 4/13/10

HMW 04/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412036a

Analysis Date: 13–APR–10 08:52

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
p–Nitrotoluene	600	594.454	99	
1,3,5–Trinitrobenzene	600	622.986	104	
1,3–Dinitrobenzene–d4	500	495.434	99	
2,4,6–Trinitrotoluene	600	635.68	106	
2,4–Dinitrotoluene	600	609.665	102	
2,6–Dinitrotoluene	600	616.741	103	
2,6–Dinitrotoluene–d3	500	514.162	103	
2–Amino–4,6–dinitrotoluene	600	599.331	100	
3,4–Dinitrotoluene	300	294.405	98	
4–Amino–2,6–dinitrotoluene	600	576.117	96	
HMX	600	602.928	100	
Nitrobenzene	600	645.578	108	
PETN	600	634.783	106	
RDX	600	702.566	117	
Tetryl	600	604.875	101	
m–Dinitrobenzene	600	626.308	104	
m–Nitrotoluene	600	515.069	86	
o–Nitrotoluene	600	519.467	87	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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MM 4/13/10

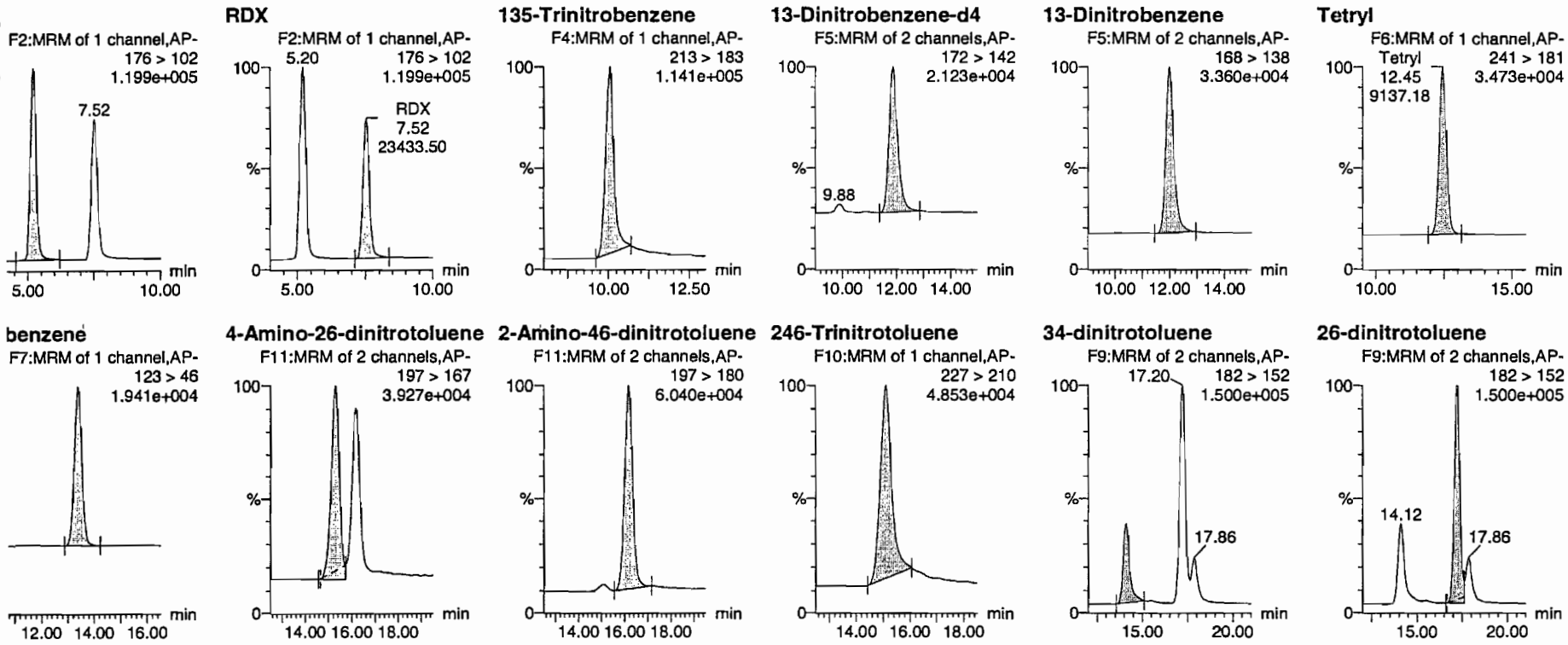

Hnw 04/14/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

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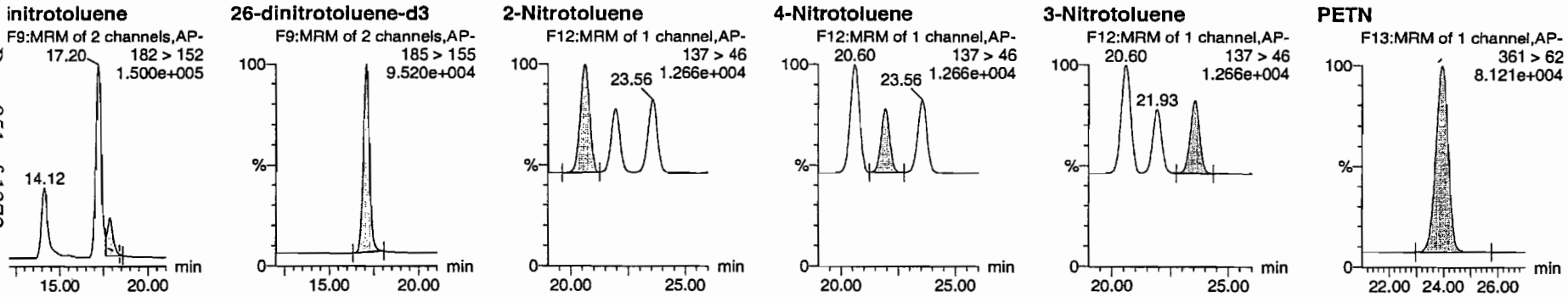

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
100408-07CCV	HMX	176 > 102	5.20	29781.385	5826.664	29781.385	2555.612	bb			602.9284	100.5	0.5	621.5
100408-07CCV	RDX	176 > 102	7.52	23433.498	5826.664	23433.498	2010.885	bb			702.5658	117.1	17.1	454.8
100408-07CCV	135-Trinitrobenzene	213 > 183	10.05	31384.221	5826.664	31384.221	2693.155	bb			622.9859	103.8	3.8	1221.3
100408-07CCV	13-Dinitrobenzene-d4	172 > 142	11.87	5826.664		5826.664	5826.664	bb			495.4340	99.1	-0.9	856.5
100408-07CCV	13-Dinitrobenzene	168 > 138	11.97	9758.702	5826.664	9758.702	837.418	bb			626.3082	104.4	4.4	1223.2
100408-07CCV	Tetryl	241 > 181	12.45	9137.179	5826.664	9137.179	784.083	bb			604.8749	100.8	0.8	997.4
100408-07CCV	Nitrobenzene	123 > 46	13.37	4719.232	5826.664	4719.232	404.969	bb			645.5776	107.6	7.6	430.6
100408-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.29	14000.422	35974.031	14000.422	194.591	MM	13-Apr-10	11:03:12	576.1169	96.0	-4.0	564.0
100408-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.16	22086.311	35974.031	22086.311	306.976	bb			599.3310	99.9	-0.1	644.5
100408-07CCV	246-Trinitrotoluene	227 > 210	15.10	19896.646	35974.031	19896.646	276.542	bb			635.6802	105.9	5.9	463.0
100408-07CCV	34-dinitrotoluene	182 > 152	14.12	21841.178	35974.031	21841.178	303.569	bb			294.4045	98.1	-1.9	603.2
100408-07CCV	26-dinitrotoluene	182 > 152	17.20	52517.492	35974.031	52517.492	729.936	MM	13-Apr-10	11:08:37	616.7407	102.8	2.8	1677.9
100408-07CCV	24-dinitrotoluene	182 > 152	17.86	11448.733	35974.031	11448.733	159.125	MM	13-Apr-10	11:11:06	609.6651	101.6	1.6	331.4
100408-07CCV	26-dinitrotoluene-d3	185 > 155	17.05	35974.031		35974.031	35974.031	bb			514.1618	102.8	2.8	2057.8
100408-07CCV	2-Nitrotoluene	137 > 46	20.60	3236.203	35974.031	3236.203	44.980	bb			519.4669	86.6	-13.4	654.9
100408-07CCV	4-Nitrotoluene	137 > 46	21.93	1774.065	35974.031	1774.065	24.658	bb			594.4539	99.1	-0.9	382.8
100408-07CCV	3-Nitrotoluene	137 > 46	23.56	2160.571	35974.031	2160.571	30.030	bb			515.0694	85.8	-14.2	438.3
100408-07CCV	PETN	361 > 62	23.94	40282.918	35974.031	40282.918	559.889	bb			634.7825	105.8	5.8	10168.9

SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/13/10
Time of Injection: 0852
Standard Number: WXX100412-07CCV
Data File: EXP0412036a

HMX		100.5
RDX		117.1
135-TNB		103.8
13-DNB		104.4
Tetryl		100.8
Nitrobenzene		107.6
4A-26-DNT		96.0
2A-46-DNT		99.9
246-TNT		105.9
34-DNT(surr)		98.1
26-DNT		102.8
24-DNT		101.6
2-NT		86.6
4-NT		99.1
3-NT		85.8
PETN		105.8
Total		1615.8
Average		101.0

MTP 4/13/10

Hmc 04/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–2057

Lab Code: GEL **GEL Sample ID:** WXXCRI

GEL Data File EXP0412038a **Analysis Date:** 13–APR–10 09:51

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	40	45.739	114	
1,3–Dinitrobenzene–d4	500	533	107	
2,4,6–Trinitrotoluene	40	38.169	95	
2,4–Dinitrotoluene	40	45.21	113	
2,6–Dinitrotoluene	40	40.851	102	
2,6–Dinitrotoluene–d3	500	511.74	102	
2–Amino–4,6–dinitrotoluene	40	38.558	96	
3,4–Dinitrotoluene	20	21.488	107	
4–Amino–2,6–dinitrotoluene	40	37.158	93	
HMX	40	39.698	99	
Nitrobenzene	40	39.676	99	
PETN	40	46.251	116	
RDX	40	44.563	111	
Tetryl	40	40.879	102	
m–Dinitrobenzene	40	43.824	110	
m–Nitrotoluene	40	36.581	91	
o–Nitrotoluene	40	36.682	92	
p–Nitrotoluene	40	38.153	95	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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VXX100408-08CRI
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MT 4/13/10

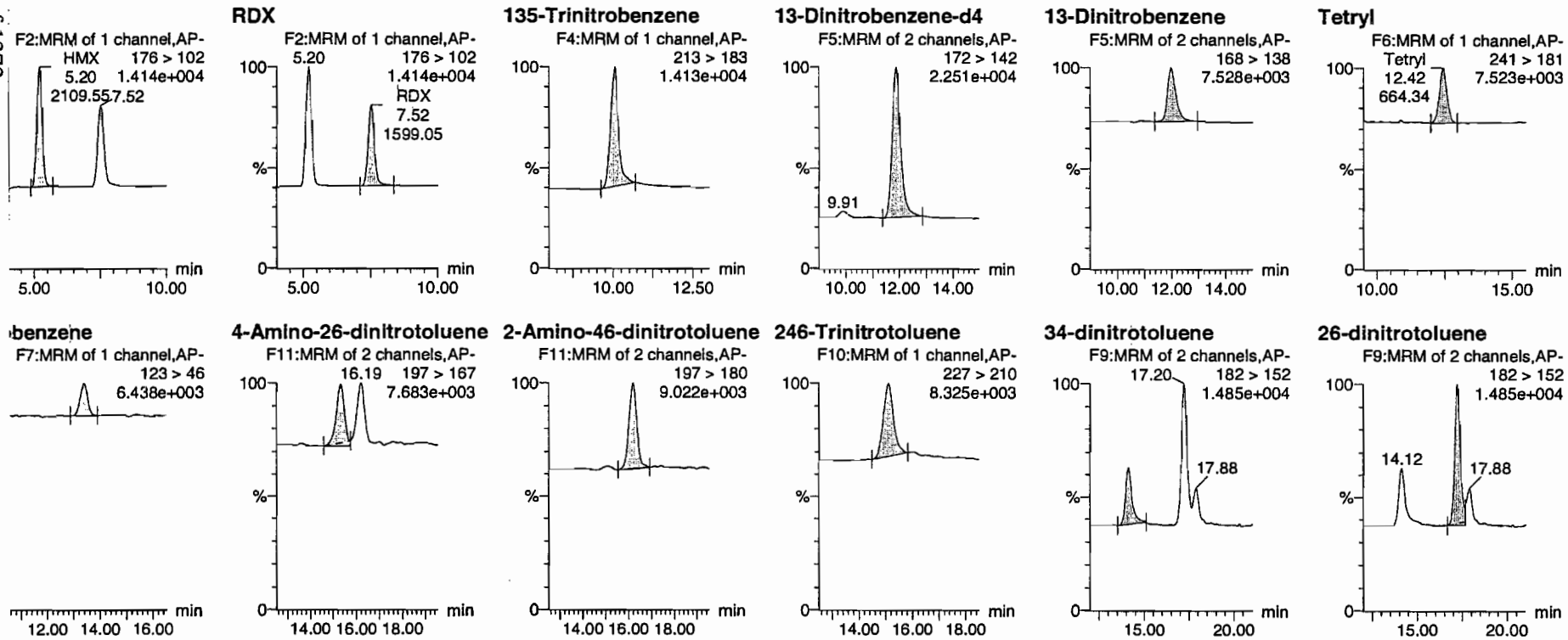

Hmm 04/14/10

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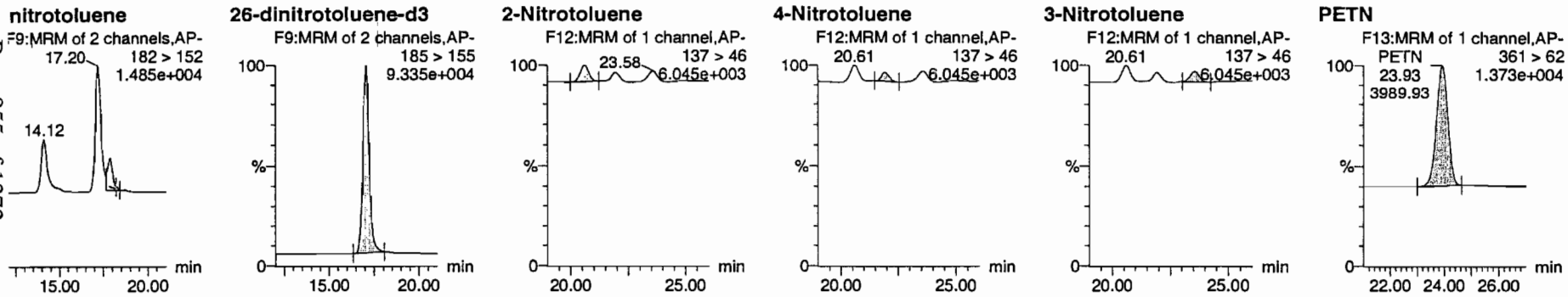

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
100408-08CRI	HMX	176 > 102	5.20	2109.553	6268.472	2109.553	168.267	bb			39.6981	99.2	-0.8	344.7
100408-08CRI	RDX	176 > 102	7.52	1599.046	6268.472	1599.046	127.547	bb			44.5625	111.4	11.4	232.6
100408-08CRI	135-Trinitrobenzene	213 > 183	10.05	2478.890	6268.472	2478.890	197.727	bb			45.7385	114.3	14.3	445.4
100408-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	6268.472		6268.472	6268.472	bb			533.0004	106.6	6.6	316.8
100408-08CRI	13-Dinitrobenzene	168 > 138	11.97	734.612	6268.472	734.612	58.596	bb			43.8240	109.6	9.6	56.6
100408-08CRI	Tetryl	241 > 181	12.42	664.339	6268.472	664.339	52.991	bb			40.8791	102.2	2.2	77.0
100408-08CRI	Nitrobenzene	123 > 46	13.37	312.027	6268.472	312.027	24.889	bb			39.6760	99.2	-0.8	26.2
100408-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.32	898.733	35804.613	898.733	12.551	MM	13-Apr-10	11:03:18	37.1578	92.9	-7.1	46.5
100408-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.16	1414.235	35804.613	1414.235	19.749	bb			38.5581	96.4	-3.6	64.1
100408-08CRI	246-Trinitrotoluene	227 > 210	15.10	1189.063	35804.613	1189.063	16.605	bb			38.1693	95.4	-4.6	105.0
100408-08CRI	34-dinitrotoluene	182 > 152	14.12	1586.630	35804.613	1586.630	22.157	bb			21.4879	107.4	7.4	45.9
100408-08CRI	26-dinitrotoluene	182 > 152	17.20	3462.203	35804.613	3462.203	48.349	MM	13-Apr-10	11:08:46	40.8509	102.1	2.1	112.8
100408-08CRI	24-dinitrotoluene	182 > 152	17.88	844.986	35804.613	844.986	11.800	MM	13-Apr-10	11:11:14	45.2099	113.0	13.0	28.2
100408-08CRI	26-dinitrotoluene-d3	185 > 155	17.05	35804.613		35804.613	35804.613	bb			511.7404	102.3	2.3	2742.4
100408-08CRI	2-Nitrotoluene	137 > 46	20.61	227.450	35804.613	227.450	3.176	bb			36.6824	91.7	-8.3	42.8
100408-08CRI	4-Nitrotoluene	137 > 46	21.94	113.326	35804.613	113.326	1.583	bb			38.1530	95.4	-4.6	23.5
100408-08CRI	3-Nitrotoluene	137 > 46	23.58	152.725	35804.613	152.725	2.133	bb			36.5812	91.5	-8.5	27.1
100408-08CRI	PETN	361 > 62	23.93	3989.934	35804.613	3989.934	55.718	bb			46.2507	115.6	15.6	239.5

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/13/10
Time of Injection	0951
Standard Number	WXX100412-08CRI
Data File	EXP0412038a

HMX	99.2
RDX	111.4
135-TNB	114.3
13-DNB	109.6
Tetryl	102.2
Nitrobenzene	99.2
4A-26-DNT	92.9
2A-46-DNT	96.4
246-TNT	95.4
34-DNT(surr)	107.4
26-DNT	102.1
24-DNT	113.0
2-NT	91.7
4-NT	95.4
3-NT	91.5
PETN	115.6
Total	1637.3
Average	102.3

MJP 4/13/10

HMK 04/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412049a

Analysis Date: 13–APR–10 15:16

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	571.573	95	
1,3–Dinitrobenzene–d4	500	506.928	101	
2,4,6–Trinitrotoluene	600	673.095	112	
2,4–Dinitrotoluene	600	690.861	115	
2,6–Dinitrotoluene	600	617.582	103	
2,6–Dinitrotoluene–d3	500	498.886	100	
2–Amino–4,6–dinitrotoluene	600	607.095	101	
3,4–Dinitrotoluene	300	303.099	101	
4–Amino–2,6–dinitrotoluene	600	604.473	101	
HMX	600	617.414	103	
Nitrobenzene	600	582.952	97	
PETN	600	664.135	111	
RDX	600	727.871	121	*
Tetryl	600	602.021	100	
m–Dinitrobenzene	600	604.378	101	
m–Nitrotoluene	600	551.203	92	
o–Nitrotoluene	600	525.761	88	
p–Nitrotoluene	600	663.98	111	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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MAT 4/14/10

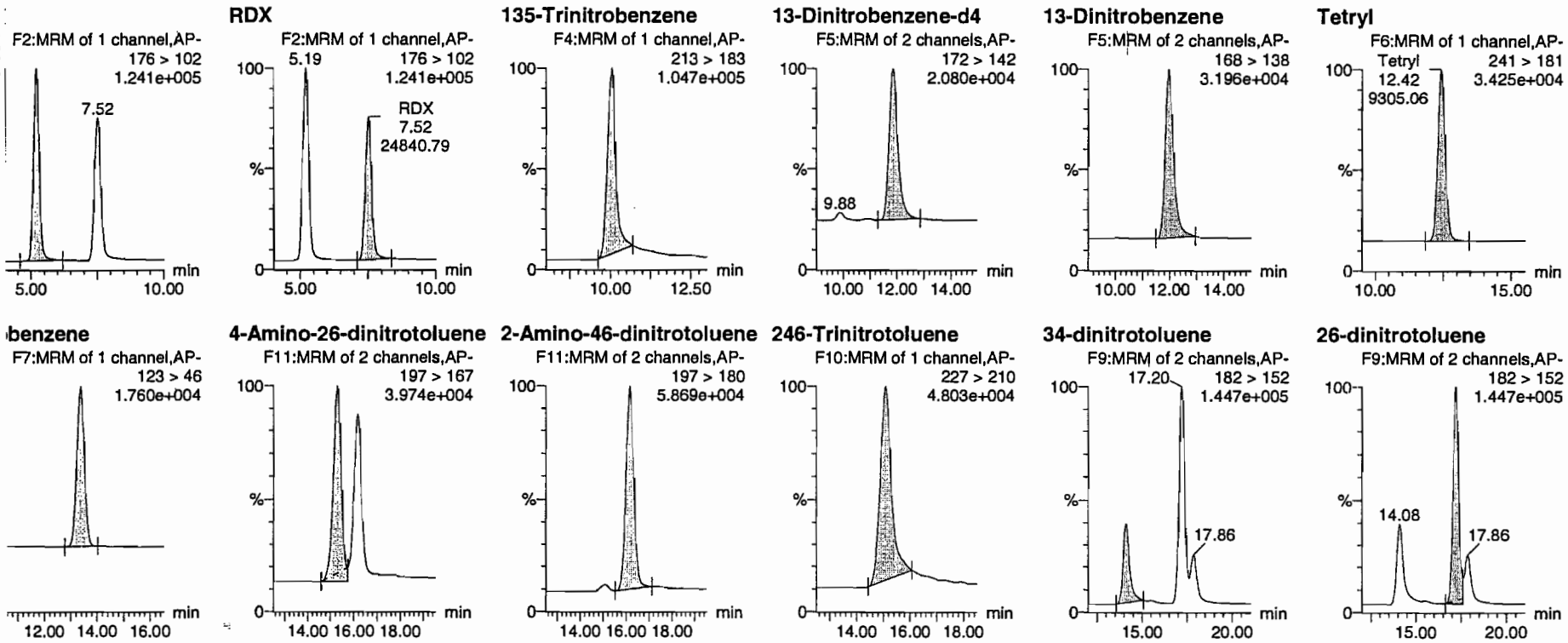

tmm 4/14/10

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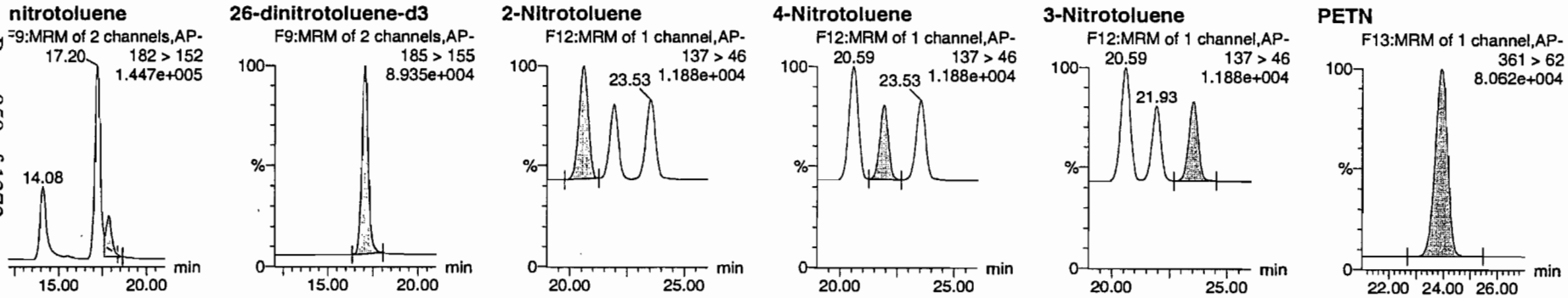

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
100412-07CCV	HMX	176 > 102	5.19	31204.445	5961.844	31204.445	2617.013	bb			617.4143	102.9	2.9	5202.5
100412-07CCV	RDX	176 > 102	7.52	24840.789	5961.844	24840.789	2083.314	bb			727.8714	121.3	21.3	3835.8
100412-07CCV	135-Trinitrobenzene	213 > 183	10.05	29462.223	5961.844	29462.223	2470.899	bb			571.5730	95.3	-4.7	761.1
100412-07CCV	13-Dinitrobenzene-d4	172 > 142	11.84	5961.844		5961.844	5961.844	bb			506.9282	101.4	1.4	721.9
100412-07CCV	13-Dinitrobenzene	168 > 138	11.97	9635.484	5961.844	9635.484	808.096	bb			604.3784	100.7	0.7	772.5
100412-07CCV	Tetryl	241 > 181	12.42	9305.055	5961.844	9305.055	780.384	bb			602.0212	100.3	0.3	1125.5
100412-07CCV	Nitrobenzene	123 > 46	13.37	4360.299	5961.844	4360.299	365.684	bb			582.9519	97.2	-2.8	615.4
100412-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.28	14253.106	34905.266	14253.106	204.168	MM	14-Apr-10	09:10:21	604.4733	100.7	0.7	347.8
100412-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.16	21707.760	34905.266	21707.760	310.953	bb			607.0951	101.2	1.2	960.5
100412-07CCV	246-Trinitrotoluene	227 > 210	15.10	20441.820	34905.266	20441.820	292.819	bb			673.0952	112.2	12.2	677.4
100412-07CCV	34-dinitrotoluene	182 > 152	14.08	21818.158	34905.266	21818.158	312.534	bb			303.0991	101.0	1.0	485.6
100412-07CCV	26-dinitrotoluene	182 > 152	17.20	51026.781	34905.266	51026.781	730.932	MM	14-Apr-10	09:11:45	617.5825	102.9	2.9	1319.3
100412-07CCV	24-dinitrotoluene	182 > 152	17.86	12588.055	34905.266	12588.055	180.317	MM	14-Apr-10	09:15:38	690.8611	115.1	15.1	286.1
100412-07CCV	26-dinitrotoluene-d3	185 > 155	17.05	34905.266		34905.266	34905.266	bb			498.8864	99.8	-0.2	2214.7
100412-07CCV	2-Nitrotoluene	137 > 46	20.59	3178.106	34905.266	3178.106	45.525	bb			525.7614	87.6	-12.4	666.3
100412-07CCV	4-Nitrotoluene	137 > 46	21.93	1922.686	34905.266	1922.686	27.541	bb			663.9803	110.7	10.7	437.1
100412-07CCV	3-Nitrotoluene	137 > 46	23.53	2243.447	34905.266	2243.447	32.136	bb			551.2025	91.9	-8.1	464.9
100412-07CCV	PETN	361 > 62	23.92	40562.969	34905.266	40562.969	581.044	bb			664.1354	110.7	10.7	10315.8

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/13/10
Time of Injection: 1516
Standard Number: WXX100412-07CCV
Data File: EXP0412049a

HMX	102.9
RDX	121.3
135-TNB	95.3
13-DNB	100.7
Tetryl	100.3
Nitrobenzene	97.2
4A-26-DNT	100.7
2A-46-DNT	101.2
246-TNT	112.2
34-DNT(surr)	101.0
26-DNT	102.9
24-DNT	115.1
2-NT	87.6
4-NT	110.7
3-NT	91.9
PETN	110.7
Total	1651.7
Average	103.2

MATT 4/14/10

HMM 04/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412051a

Analysis Date: 13–APR–10 16:15

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Nitrobenzene	40	39.951	100	
PETN	40	48.006	120	
RDX	40	40.505	101	
Tetryl	40	40.745	102	
m–Dinitrobenzene	40	41.507	104	
m–Nitrotoluene	40	38.882	97	
o–Nitrotoluene	40	38.71	97	
p–Nitrotoluene	40	41.261	103	
1,3,5–Trinitrobenzene	40	43.445	109	
1,3–Dinitrobenzene–d4	500	578.682	116	
2,4,6–Trinitrotoluene	40	41.977	105	
2,4–Dinitrotoluene	40	41.352	103	
2,6–Dinitrotoluene	40	41.013	103	
2,6–Dinitrotoluene–d3	500	540.214	108	
2–Amino–4,6–dinitrotoluene	40	38.681	97	
3,4–Dinitrotoluene	20	22.076	110	
4–Amino–2,6–dinitrotoluene	40	40.59	101	
HMX	40	38.797	97	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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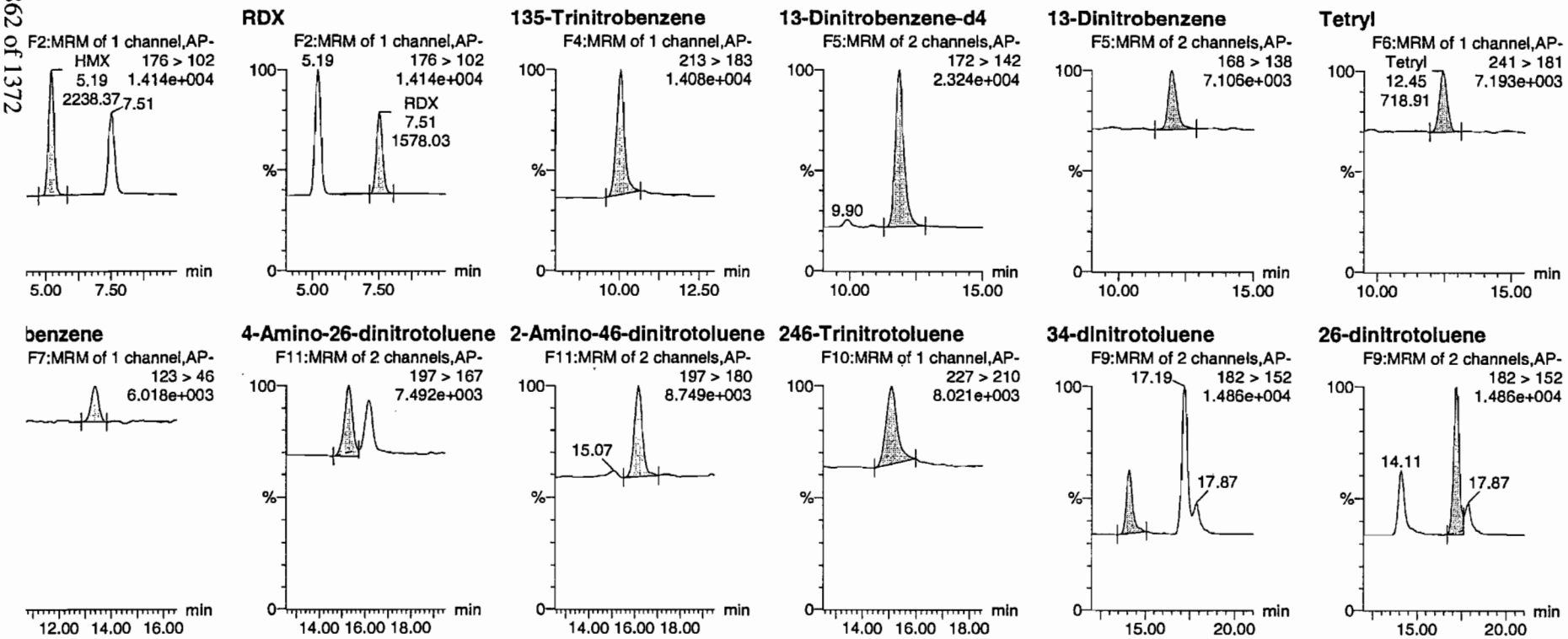

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

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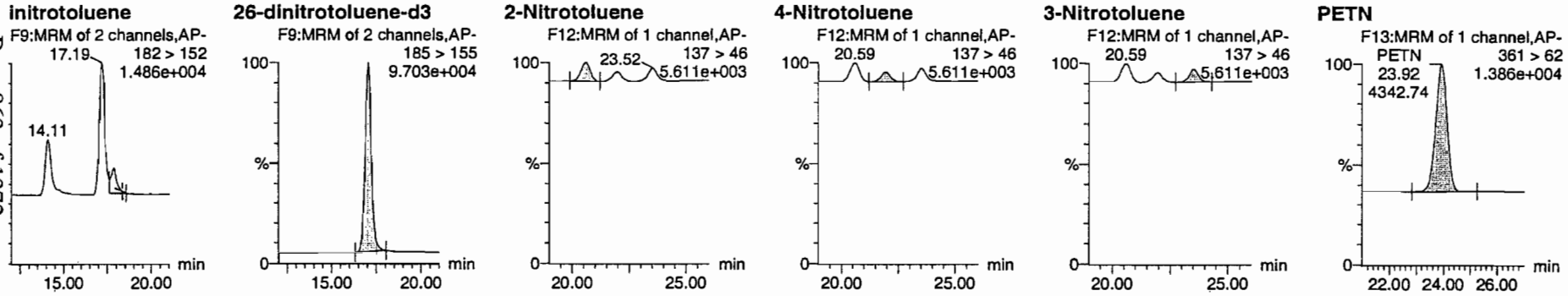

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
100412-08CRI	HMX	176 > 102	5.19	2238.372	6805.720	2238.372	164.448	bb			38.7971	97.0	-3.0	208.5
100412-08CRI	RDX	176 > 102	7.51	1578.030	6805.720	1578.030	115.934	bb			40.5052	101.3	1.3	135.6
100412-08CRI	135-Trinitrobenzene	213 > 183	10.03	2556.376	6805.720	2556.376	187.811	bb			43.4448	108.6	8.6	179.0
100412-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	6805.720		6805.720	6805.720	bb			578.6819	115.7	15.7	507.4
100412-08CRI	13-Dinitrobenzene	168 > 138	11.97	755.409	6805.720	755.409	55.498	bb			41.5073	103.8	3.8	74.5
100412-08CRI	Tetryl	241 > 181	12.45	718.910	6805.720	718.910	52.817	bb			40.7450	101.9	1.9	73.1
100412-08CRI	Nitrobenzene	123 > 46	13.35	341.116	6805.720	341.116	25.061	bb			39.9508	99.9	-0.1	27.5
100412-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.27	1036.367	37796.773	1036.367	13.710	MM	14-Apr-10	09:10:14	40.5898	101.5	1.5	59.1
100412-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.15	1497.691	37796.773	1497.691	19.812	bb			38.6812	96.7	-3.3	67.3
100412-08CRI	246-Trinitrotoluene	227 > 210	15.09	1380.441	37796.773	1380.441	18.261	bb			41.9770	104.9	4.9	85.1
100412-08CRI	34-dinitrotoluene	182 > 152	14.11	1720.770	37796.773	1720.770	22.763	bb			22.0763	110.4	10.4	91.2
100412-08CRI	26-dinitrotoluene	182 > 152	17.19	3669.359	37796.773	3669.359	48.541	MM	14-Apr-10	09:11:53	41.0132	102.5	2.5	216.3
100412-08CRI	24-dinitrotoluene	182 > 152	17.87	815.884	37796.773	815.884	10.793	MM	14-Apr-10	09:15:28	41.3520	103.4	3.4	43.1
100412-08CRI	26-dinitrotoluene-d3	185 > 155	17.04	37796.773		37796.773	37796.773	bb			540.2135	108.0	8.0	1682.3
100412-08CRI	2-Nitrotoluene	137 > 46	20.59	253.376	37796.773	253.376	3.352	bb			38.7099	96.8	-3.2	70.2
100412-08CRI	4-Nitrotoluene	137 > 46	21.96	129.377	37796.773	129.377	1.711	bb			41.2610	103.2	3.2	35.2
100412-08CRI	3-Nitrotoluene	137 > 46	23.52	171.362	37796.773	171.362	2.267	bb			38.8818	97.2	-2.8	48.1
100412-08CRI	PETN	361 > 62	23.92	4342.742	37796.773	4342.742	57.449	bb			48.0061	120.0	20.0	1612.5

SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/13/10
Time of Injection	1615
Standard Number	WXX100412-08CRI
Data File	EXP0412051a

HMX	97.0
RDX	101.3
135-TNB	108.6
13-DNB	103.8
Tetryl	101.9
Nitrobenzene	99.9
4A-26-DNT	101.5
2A-46-DNT	96.7
246-TNT	104.9
34-DNT(surr)	110.4
26-DNT	102.5
24-DNT	103.4
2-NT	96.8
4-NT	103.2
3-NT	97.2
PETN	120.0
Total	1649.1
Average	103.1

HMM 04/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2057

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412060a

Analysis Date: 13-APR-10 20:41

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
Nitrobenzene	600	608.894	101	
PETN	600	646.401	108	
RDX	600	735.804	123	*
Tetryl	600	668.888	111	
m-Dinitrobenzene	600	610.208	102	
m-Nitrotoluene	600	514.808	86	
o-Nitrotoluene	600	527.178	88	
p-Nitrotoluene	600	571.151	95	
HMX	600	611.301	102	
1,3,5-Trinitrobenzene	600	599.334	100	
1,3-Dinitrobenzene-d4	500	499.969	100	
2,4,6-Trinitrotoluene	600	660.453	110	
2,4-Dinitrotoluene	600	684.197	114	
2,6-Dinitrotoluene	600	612.271	102	
2,6-Dinitrotoluene-d3	500	510.451	102	
2-Amino-4,6-dinitrotoluene	600	614.276	102	
3,4-Dinitrotoluene	300	313.494	104	
4-Amino-2,6-dinitrotoluene	600	595.541	99	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 70-130%
OtherTarget Analytes 80-120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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MMT 4/14/10

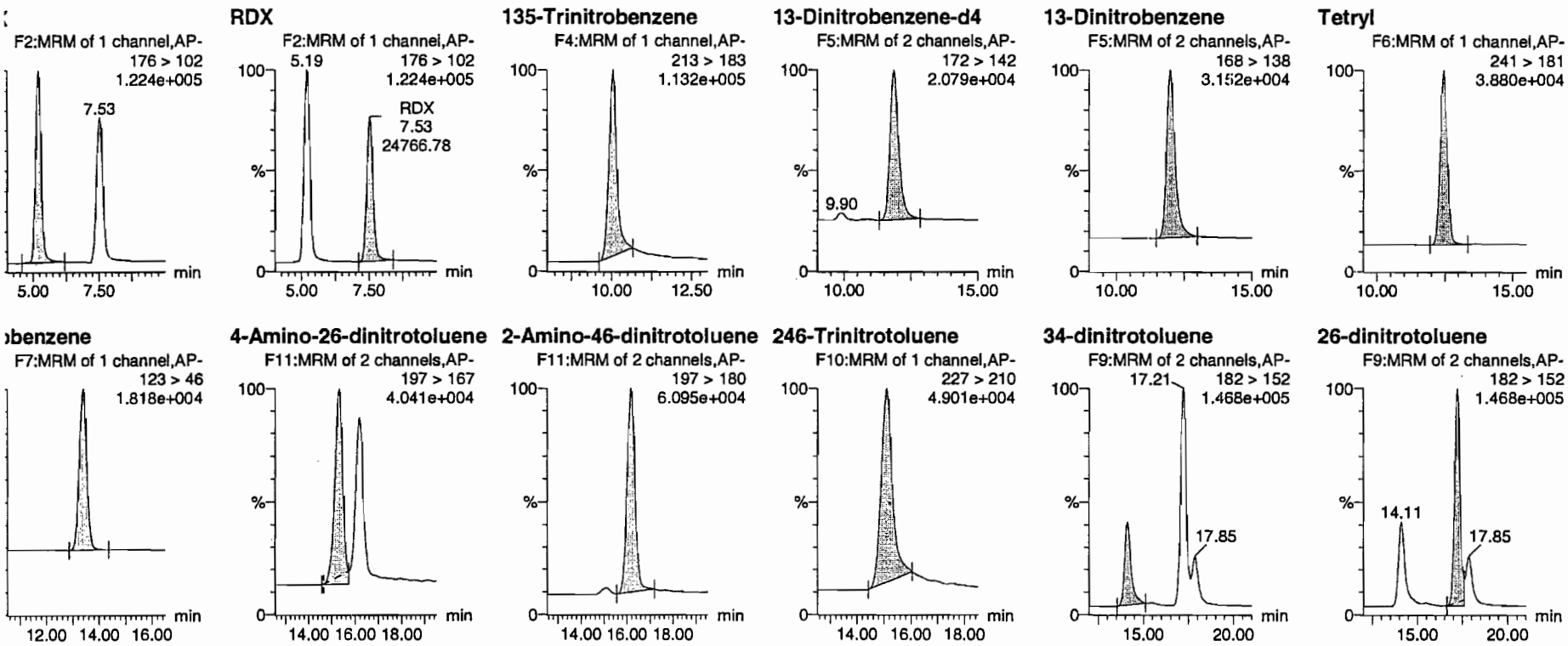

Hmc 04/14/10

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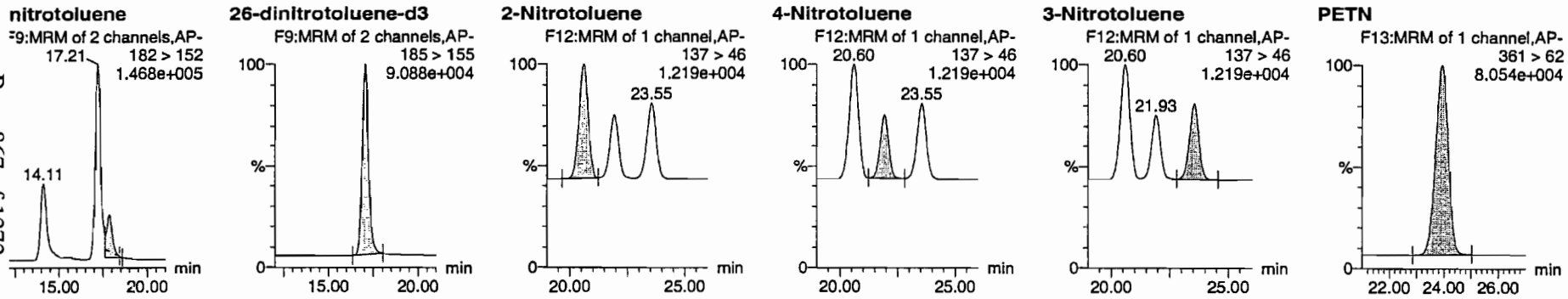

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
100412-07CCV	HMX	176 > 102	5.19	30471.305	5879.997	30471.305	2591.099	bb			611.3005	101.9	1.9	4888.6
100412-07CCV	RDX	176 > 102	7.53	24766.781	5879.997	24766.781	2106.020	bb			735.8043	122.6	22.6	3663.0
100412-07CCV	135-Trinitrobenzene	213 > 183	10.03	30469.059	5879.997	30469.059	2590.908	bb			599.3338	99.9	-0.1	527.0
100412-07CCV	13-Dinitrobenzene-d4	172 > 142	11.86	5879.997		5879.997	5879.997	bb			499.9688	100.0	-0.0	312.1
100412-07CCV	13-Dinitrobenzene	168 > 138	11.97	9594.861	5879.997	9594.861	815.890	bb			610.2076	101.7	1.7	589.3
100412-07CCV	Tetryl	241 > 181	12.45	10196.647	5879.997	10196.647	867.062	bb			668.8885	111.5	11.5	797.0
100412-07CCV	Nitrobenzene	123 > 46	13.39	4491.814	5879.997	4491.814	381.957	bb			608.8941	101.5	1.5	423.9
100412-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.31	14368.022	35714.422	14368.022	201.152	MM	14-Apr-10	09:10:06	595.5413	99.3	-0.7	278.9
100412-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.18	22473.705	35714.422	22473.705	314.631	bb			614.2762	102.4	2.4	791.6
100412-07CCV	246-Trinitrotoluene	227 > 210	15.09	20522.861	35714.422	20522.861	287.319	bb			660.4534	110.1	10.1	1440.2
100412-07CCV	34-dinitrotoluene	182 > 152	14.11	23089.531	35714.422	23089.531	323.252	bb			313.4938	104.5	4.5	574.1
100412-07CCV	26-dinitrotoluene	182 > 152	17.21	51760.656	35714.422	51760.656	724.646	MM	14-Apr-10	09:12:05	612.2713	102.0	2.0	1480.7
100412-07CCV	24-dinitrotoluene	182 > 152	17.85	12755.632	35714.422	12755.632	178.578	MM	14-Apr-10	09:15:11	684.1974	114.0	14.0	325.1
100412-07CCV	26-dinitrotoluene-d3	185 > 155	17.04	35714.422		35714.422	35714.422	bb			510.4514	102.1	2.1	1565.0
100412-07CCV	2-Nitrotoluene	137 > 46	20.60	3260.543	35714.422	3260.543	45.647	bb			527.1784	87.9	-12.1	489.2
100412-07CCV	4-Nitrotoluene	137 > 46	21.93	1692.219	35714.422	1692.219	23.691	bb			571.1507	95.2	-4.8	274.5
100412-07CCV	3-Nitrotoluene	137 > 46	23.55	2143.889	35714.422	2143.889	30.014	bb			514.8077	85.8	-14.2	326.3
100412-07CCV	PETN	361 > 62	23.93	40593.559	35714.422	40593.559	568.308	bb			646.4009	107.7	7.7	8856.6

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/13/10
Time of Injection: 2041
Standard Number: WXX100412-07CCV
Data File: EXP0412060a

HMX		101.9
RDX		122.6
135-TNB		99.9
13-DNB		101.7
Tetryl		111.5
Nitrobenzene		101.5
4A-26-DNT		99.3
2A-46-DNT		102.4
246-TNT		110.1
34-DNT(surr)		104.5
26-DNT		102.0
24-DNT		114.0
2-NT		87.9
4-NT		95.2
3-NT		85.8
PETN		107.7
Total		1648.0
Average		103.0

HMM 04/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2057

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXP0412062a

Analysis Date: 13-APR-10 21:40

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5-Trinitrobenzene	40	44.068	110	
1,3-Dinitrobenzene-d4	500	557.026	111	
2,4,6-Trinitrotoluene	40	47.263	118	
2,4-Dinitrotoluene	40	43.24	108	
2,6-Dinitrotoluene	40	42.432	106	
2,6-Dinitrotoluene-d3	500	543.492	109	
2-Amino-4,6-dinitrotoluene	40	41.373	103	
3,4-Dinitrotoluene	20	20.458	102	
4-Amino-2,6-dinitrotoluene	40	42.964	107	
HMX	40	45.559	114	
Nitrobenzene	40	43.255	108	
PETN	40	44.881	112	
RDX	40	44.011	110	
Tetryl	40	38.121	95	
m-Dinitrobenzene	40	42.827	107	
m-Nitrotoluene	40	31.848	80	
o-Nitrotoluene	40	44.099	110	
p-Nitrotoluene	40	40.569	101	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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MAT 4/14/10

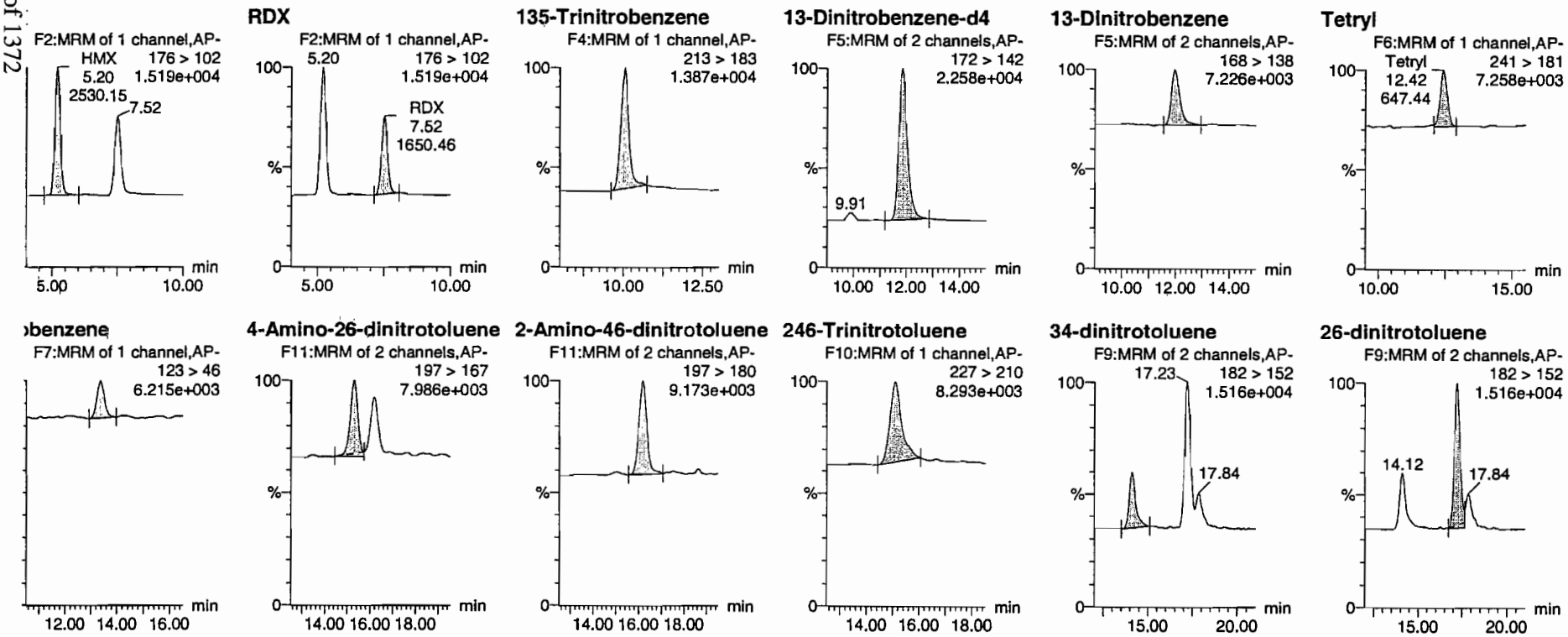

Hmm 04/14/10

. SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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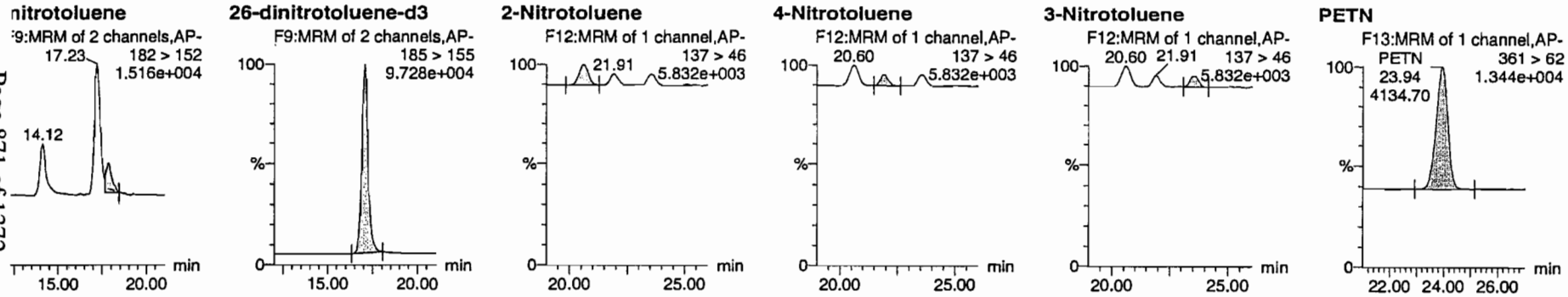

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
100412-08CRI	HMX	176 > 102	5.20	2530.148	6551.026	2530.148	193.111	bb			45.5593	113.9	13.9	260.0
100412-08CRI	RDX	176 > 102	7.52	1650.456	6551.026	1650.456	125.969	bb			44.0113	110.0	10.0	158.1
100412-08CRI	135-Trinitrobenzene	213 > 183	10.05	2495.999	6551.026	2495.999	190.504	bb			44.0679	110.2	10.2	102.3
100412-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	6551.026		6551.026	6551.026	bb			557.0256	111.4	11.4	567.3
100412-08CRI	13-Dinitrobenzene	168 > 138	11.97	750.260	6551.026	750.260	57.263	bb			42.8271	107.1	7.1	65.8
100412-08CRI	Tetryl	241 > 181	12.42	647.438	6551.026	647.438	49.415	db			38.1208	95.3	-4.7	95.8
100412-08CRI	Nitrobenzene	123 > 46	13.37	355.510	6551.026	355.510	27.134	bb			43.2553	108.1	8.1	41.0
100412-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.28	1103.634	38026.156	1103.634	14.512	MM	14-Apr-10	09:09:52	42.9637	107.4	7.4	52.5
100412-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.16	1611.644	38026.156	1611.644	21.191	bb			41.3732	103.4	3.4	158.1
100412-08CRI	246-Trinitrotoluene	227 > 210	15.10	1563.702	38026.156	1563.702	20.561	bb			47.2628	118.2	18.2	169.3
100412-08CRI	34-dinitrotoluene	182 > 152	14.12	1604.344	38026.156	1604.344	21.095	bb			20.4584	102.3	2.3	75.6
100412-08CRI	26-dinitrotoluene	182 > 152	17.23	3819.371	38026.156	3819.371	50.220	MM	14-Apr-10	09:12:11	42.4324	106.1	6.1	195.8
100412-08CRI	24-dinitrotoluene	182 > 152	17.84	858.314	38026.156	858.314	11.286	MM	14-Apr-10	09:14:59	43.2401	108.1	8.1	43.5
100412-08CRI	26-dinitrotoluene-d3	185 > 155	17.05	38026.156		38026.156	38026.156	bb			543.4920	108.7	8.7	2125.4
100412-08CRI	2-Nitrotoluene	137 > 46	20.60	290.400	38026.156	290.400	3.818	bb			44.0987	110.2	10.2	85.6
100412-08CRI	4-Nitrotoluene	137 > 46	21.91	127.979	38026.156	127.979	1.683	bb			40.5690	101.4	1.4	45.5
100412-08CRI	3-Nitrotoluene	137 > 46	23.55	141.213	38026.156	141.213	1.857	bb			31.8477	79.6	-20.4	45.1
100412-08CRI	PETN	361 > 62	23.94	4134.703	38026.156	4134.703	54.367	bb			44.8806	112.2	12.2	1420.3

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/13/10
Time of Injection	2140
Standard Number	WXX100412-08CRI
Data File	EXP0412062a

HMX	113.9
RDX	110.0
135-TNB	100.2
13-DNB	107.1
Tetryl	95.3
Nitrobenzene	108.1
4A-26-DNT	107.4
2A-46-DNT	103.4
246-TNT	118.2
34-DNT(surr)	102.3
26-DNT	106.1
24-DNT	108.1
2-NT	110.2
4-NT	101.4
3-NT	79.6
PETN	112.2
Total	1683.5
Average	105.2

MMT 4/14/10

Hum 04/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXP0412073a

Analysis Date: 14–APR–10 03:04

LCMSMS ID: 903

Column ID: Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
1,3,5–Trinitrobenzene	600	472.089	79	*
1,3–Dinitrobenzene–d4	500	626.494	125	*
2,4,6–Trinitrotoluene	600	708.507	118	
2,4–Dinitrotoluene	600	663.973	111	
2,6–Dinitrotoluene	600	597.091	100	
2,6–Dinitrotoluene–d3	500	580.114	116	
2–Amino–4,6–dinitrotoluene	600	639.825	107	
3,4–Dinitrotoluene	300	311.029	104	
4–Amino–2,6–dinitrotoluene	600	618.565	103	
HMX	600	509.641	85	
Nitrobenzene	600	538.682	90	
PETN	600	487.21	81	
RDX	600	549.332	92	
Tetryl	600	547.985	91	
m–Dinitrobenzene	600	597.924	100	
m–Nitrotoluene	600	459.65	77	*
o–Nitrotoluene	600	486.57	81	
p–Nitrotoluene	600	543.675	91	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

ıet: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

ɜ: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412073a
14-Apr-2010
: 03:04:45
'XX100412-07CCV
1:1,B

MTT 4/14/10

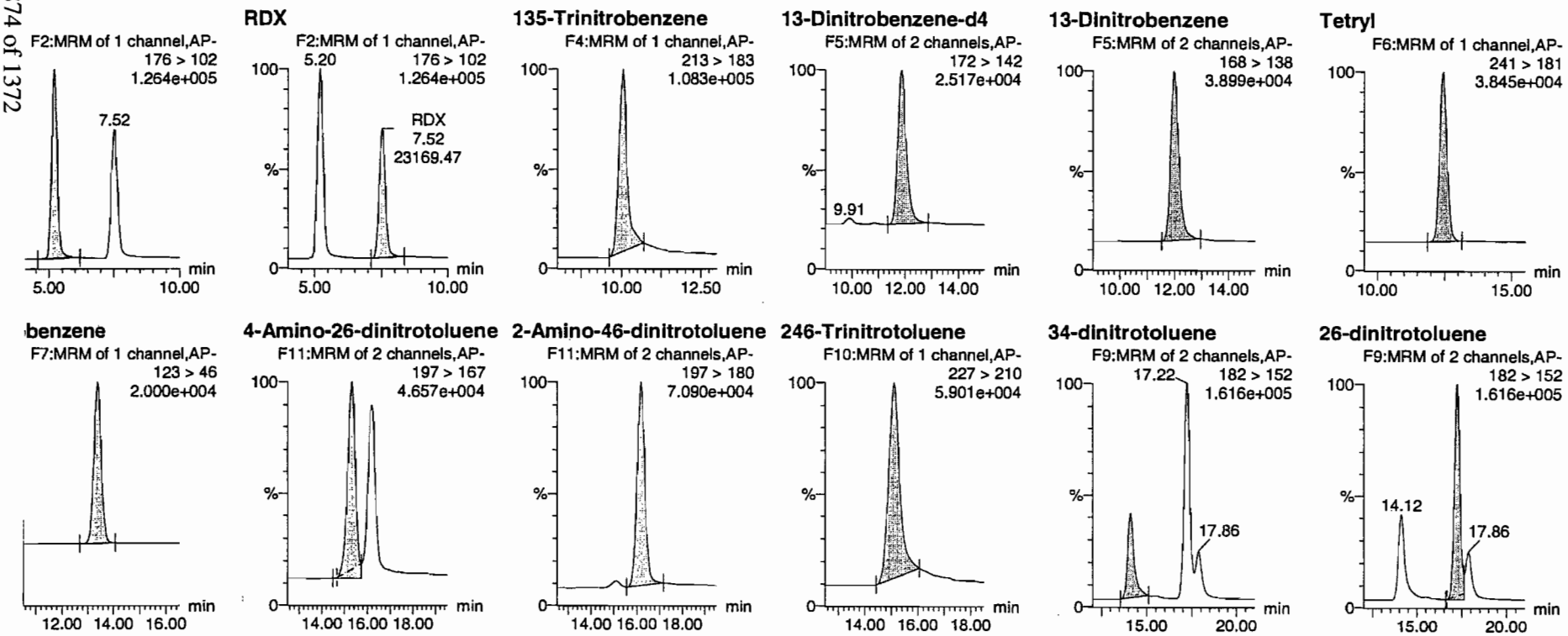

HMW 04/14/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

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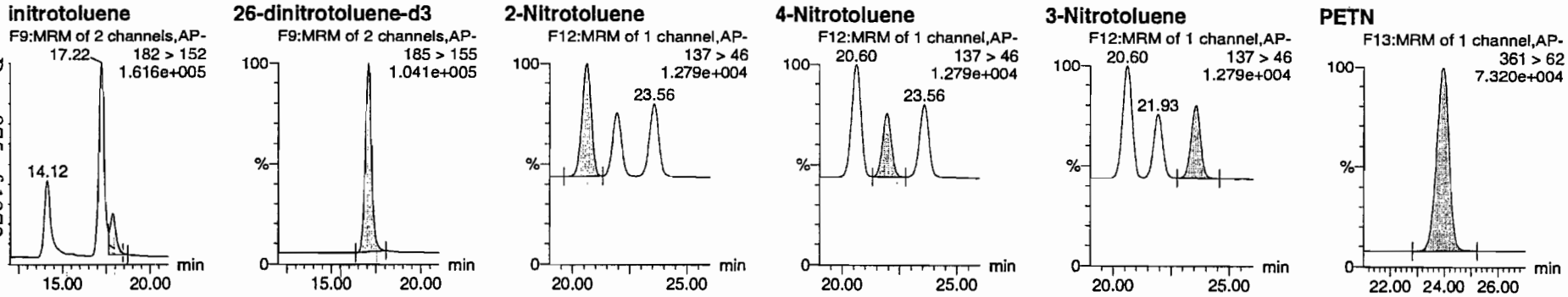

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
100412-07CCV	HMX	176 > 102	5.20	31832.770	7368.023	31832.770	2160.198	bb			509.6409	84.9	-15.1	1916.2
100412-07CCV	RDX	176 > 102	7.52	23169.469	7368.023	23169.469	1572.299	bb			549.3321	91.6	-8.4	1306.0
100412-07CCV	135-Trinitrobenzene	213 > 183	10.05	30073.756	7368.023	30073.756	2040.829	bb			472.0886	78.7	-21.3	986.1
100412-07CCV	13-Dinitrobenzene-d4	172 > 142	11.87	7368.023		7368.023	7368.023	bb			626.4938	125.3	25.3	1409.6
100412-07CCV	13-Dinitrobenzene	168 > 138	11.97	11780.970	7368.023	11780.970	799.466	bb			597.9242	99.7	-0.3	1288.9
100412-07CCV	Tetryl	241 > 181	12.45	10467.578	7368.023	10467.578	710.338	bb			547.9850	91.3	-8.7	772.4
100412-07CCV	Nitrobenzene	123 > 46	13.37	4979.505	7368.023	4979.505	337.913	bb			538.6818	89.8	-10.2	292.9
100412-07CCV	4-Amino-26-dinitrotoluene	197 > 167	15.32	16960.145	40588.496	16960.145	208.928	MM	14-Apr-10	09:09:15	618.5647	103.1	3.1	633.7
100412-07CCV	2-Amino-46-dinitrotoluene	197 > 180	16.16	26603.059	40588.496	26603.059	327.717	bb			639.8251	106.6	6.6	986.9
100412-07CCV	246-Trinitrotoluene	227 > 210	15.10	25020.701	40588.496	25020.701	308.224	bb			708.5074	118.1	18.1	796.5
100412-07CCV	34-dinitrotoluene	182 > 152	14.12	26034.324	40588.496	26034.324	320.711	bb			311.0290	103.7	3.7	890.6
100412-07CCV	26-dinitrotoluene	182 > 152	17.22	57366.180	40588.496	57366.180	706.680	MM	14-Apr-10	09:13:05	597.0912	99.5	-0.5	2275.1
100412-07CCV	24-dinitrotoluene	182 > 152	17.86	14067.942	40588.496	14067.942	173.300	MM	14-Apr-10	09:13:38	663.9733	110.7	10.7	492.2
100412-07CCV	26-dinitrotoluene-d3	185 > 155	17.05	40588.496		40588.496	40588.496	bb			580.1145	116.0	16.0	2359.9
100412-07CCV	2-Nitrotoluene	137 > 46	20.60	3420.089	40588.496	3420.089	42.131	bb			486.5704	81.1	-18.9	455.8
100412-07CCV	4-Nitrotoluene	137 > 46	21.93	1830.648	40588.496	1830.648	22.551	bb			543.6754	90.6	-9.4	255.7
100412-07CCV	3-Nitrotoluene	137 > 46	23.56	2175.422	40588.496	2175.422	26.799	bb			459.6496	76.6	-23.4	292.3
100412-07CCV	PETN	361 > 62	23.94	36350.066	40588.496	36350.066	447.788	bb			487.2104	81.2	-18.8	8314.8

SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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GRAND MEAN AVERAGE

Vendor: Restek
Date of Analysis: 04/14/10
Time of Injection: 0304
Standard Number: WXX100412-07CCV
Data File: EXP0412073a

HMX	84.9
RDX	91.6
135-TNB	78.7
13-DNB	99.7
Tetryl	91.3
Nitrobenzene	89.8
4A-26-DNT	103.1
2A-46-DNT	106.6
246-TNT	118.1
34-DNT(surr)	103.7
26-DNT	99.5
24-DNT	110.7
2-NT	81.1
4-NT	90.6
3-NT	76.6
PETN	81.2
Total	1507.2
Average	94.2

MHT 4/14/10

HMM 04/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC **GEL Job No (SDG):** 10–2057

Lab Code: GEI **GEL Sample ID:** WXXCRI

GEL Data File EXP0412075a **Analysis Date:** 14–APR–10 04:03

LCMSMS ID: 903 **Column ID:** Phenomenex Ultracarb 5u ODS(20)

Compound	True	Found	Recovery	Q
2,4–Dinitrotoluene	40	41.479	104	
2,6–Dinitrotoluene	40	42.183	105	
2,6–Dinitrotoluene–d3	500	507.877	102	
2–Amino–4,6–dinitrotoluene	40	34.458	86	
3,4–Dinitrotoluene	20	20.138	101	
4–Amino–2,6–dinitrotoluene	40	39.725	99	
HMX	40	43.75	109	
Nitrobenzene	40	38.532	96	
PETN	40	44.475	111	
RDX	40	45.796	114	
Tetryl	40	45.012	113	
m–Dinitrobenzene	40	43.704	109	
m–Nitrotoluene	40	41.256	103	
o–Nitrotoluene	40	41.975	105	
p–Nitrotoluene	40	32.405	81	
1,3,5–Trinitrobenzene	40	45.32	113	
1,3–Dinitrobenzene–d4	500	496.282	99	
2,4,6–Trinitrotoluene	40	44.024	110	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

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ɜ: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412075a
: 14-Apr-2010
: 04:03:43
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1:1,C

MMT 4/14/10

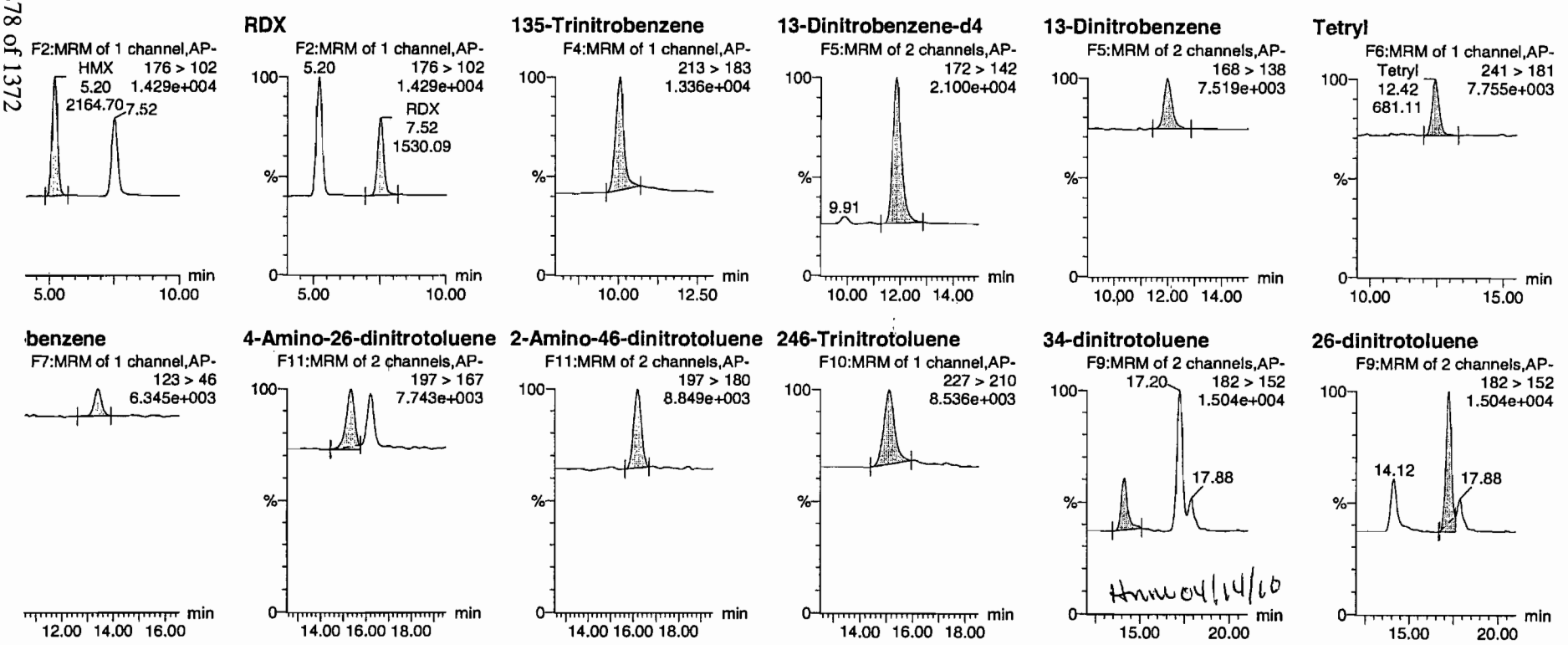

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

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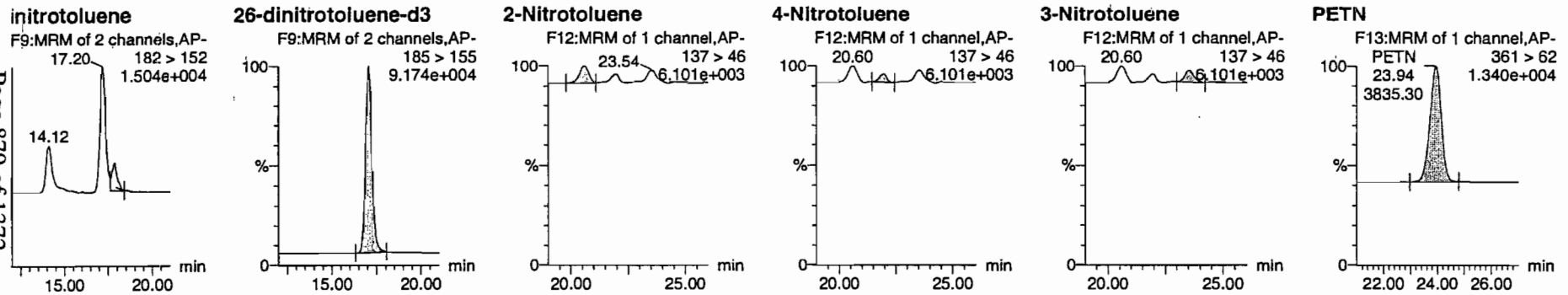

	Name	Trace	RT	Area	S Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
:100412-08CRI	HMX	176 > 102	5.20	2164.698	5836.638	2164.698	185.440	bb			43.7497	109.4	9.4	227.3
:100412-08CRI	RDX	176 > 102	7.52	1530.086	5836.638	1530.086	131.076	bb			45.7955	114.5	14.5	146.7
:100412-08CRI	135-Trinitrobenzene	213 > 183	10.05	2287.016	5836.638	2287.016	195.919	bb			45.3204	113.3	13.3	203.2
:100412-08CRI	13-Dinitrobenzene-d4	172 > 142	11.87	5836.638		5836.638	5836.638	bb			496.2820	99.3	-0.7	961.4
:100412-08CRI	13-Dinitrobenzene	168 > 138	11.97	682.124	5836.638	682.124	58.435	bb			43.7035	109.3	9.3	83.6
:100412-08CRI	Tetryl	241 > 181	12.42	681.107	5836.638	681.107	58.348	bb			45.0118	112.5	12.5	100.8
:100412-08CRI	Nitrobenzene	123 > 46	13.37	282.153	5836.638	282.153	24.171	bb			38.5318	96.3	-3.7	23.5
:100412-08CRI	4-Amino-26-dinitrotoluene	197 > 167	15.32	953.577	35534.277	953.577	13.418	MM	14-Apr-10	09:09:02	39.7253	99.3	-0.7	57.5
:100412-08CRI	2-Amino-46-dinitrotoluene	197 > 180	16.16	1254.325	35534.277	1254.325	17.650	bb			34.4584	86.1	-13.9	90.0
:100412-08CRI	246-Trinitrotoluene	227 > 210	15.10	1361.084	35534.277	1361.084	19.152	bb			44.0236	110.1	10.1	47.0
:100412-08CRI	34-dinitrotoluene	182 > 152	14.12	1475.733	35534.277	1475.733	20.765	bb			20.1381	100.7	0.7	71.1
:100412-08CRI	26-dinitrotoluene	182 > 152	17.20	3548.120	35534.277	3548.120	49.925	MM	14-Apr-10	09:13:15	42.1831	105.5	5.5	195.5
:100412-08CRI	24-dinitrotoluene	182 > 152	17.88	769.393	35534.277	769.393	10.826	MM	14-Apr-10	09:13:26	41.4786	103.7	3.7	43.1
:100412-08CRI	26-dinitrotoluene-d3	185 > 155	17.05	35534.277		35534.277	35534.277	bb			507.8766	101.6	1.6	2476.2
:100412-08CRI	2-Nitrotoluene	137 > 46	20.60	258.301	35534.277	258.301	3.635	bb			41.9749	104.9	4.9	51.8
:100412-08CRI	4-Nitrotoluene	137 > 46	21.97	95.525	35534.277	95.525	1.344	bb			32.4046	81.0	-19.0	24.9
:100412-08CRI	3-Nitrotoluene	137 > 46	23.54	170.943	35534.277	170.943	2.405	bb			41.2563	103.1	3.1	35.7
:100412-08CRI	PETN	361 > 62	23.94	3835.305	35534.277	3835.305	53.966	bb			44.4749	111.2	11.2	290.1

. SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

GRAND MEAN AVERAGE

Vendor:	UltraScientific
Date of Analysis	04/14/10
Time of Injection	0403
Standard Number	WXX100412-08CRI
Data File	EXP0412075a

HMX	109.4
RDX	114.5
135-TNB	113.3
13-DNB	109.3
Tetryl	112.5
Nitrobenzene	96.3
4A-26-DNT	99.3
2A-46-DNT	86.1
246-TNT	110.1
34-DNT(surr)	100.7
26-DNT	105.5
24-DNT	103.7
2-NT	104.9
4-NT	81.0
3-NT	103.1
PETN	111.2
Total	1660.9
Average	103.8

MTT 4/14/10

4/14/10

ICV Limits 85-115%
CRI Limits 70-130%
CCV Limits 85-115%
No single analyte > +/- 60%

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04050013.wiff

Analysis Date: 05–APR–10 15:54

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	121	121	
2,6–Diamino–4–nitrotoluene	100	128	128	
3,4–Dinitrotoluene	50	58.4	117	
3,5–Dinitroaniline	100	118	118	
TATB	100	103	103	
tris(o–cresyl) phosphate	100	116	116	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

LCW 4/7/10

Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050013.wiff"
me: "TATB" Mass(es): "257.2/204.9 amu"
t: "LCMSEXP_C" Annotation: ""

ndex: 1
ype: QC
ation: 100. ng/mL
ed Conc: 103. ng/mL
e: 4/5/2010
e: 3:54:18 PM

: No
gorithm: IntelliQuan - IQA
k Height: 2500.00 cps
k Width: 0.00 sec
g Width: 3 points
w: 30.0 sec
RT: 6.86 min
tive RT: No

e: Valley
n Time: 6.85 min
7.33e+004 counts
16694.073 cps
me: 6.76 min
: 7.32 min

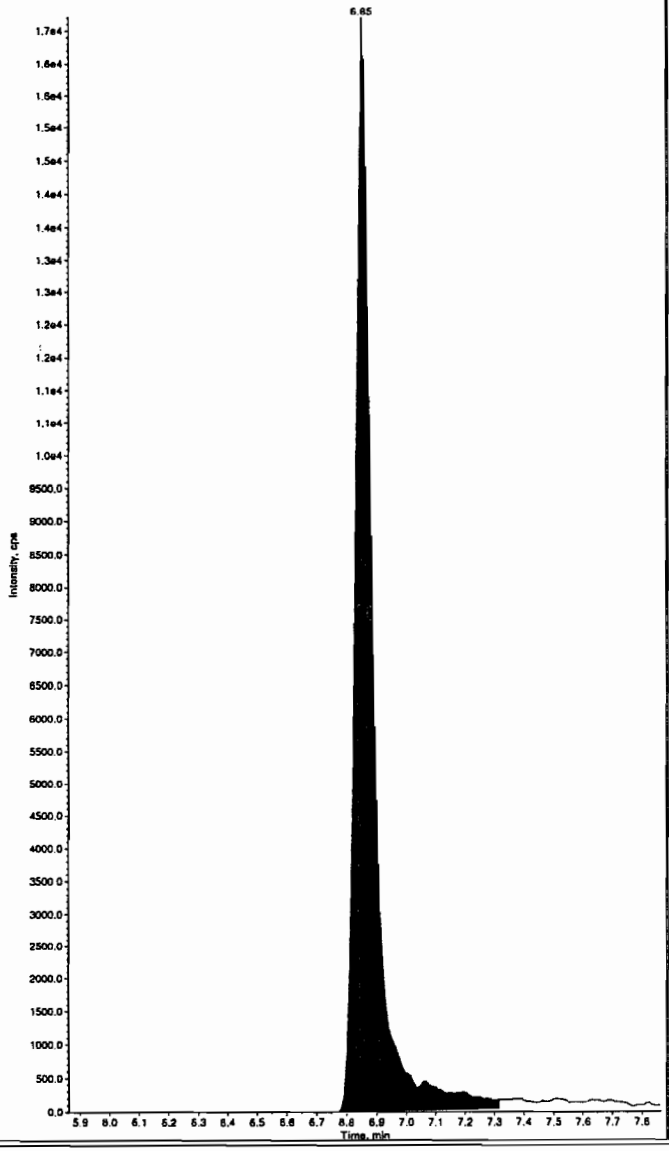

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050013.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 118. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 3:54:18 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.09 min
Area: 7.60e+005 counts
Height: 187125.595 cps
Start Time: 7.96 min
End Time: 8.23 min

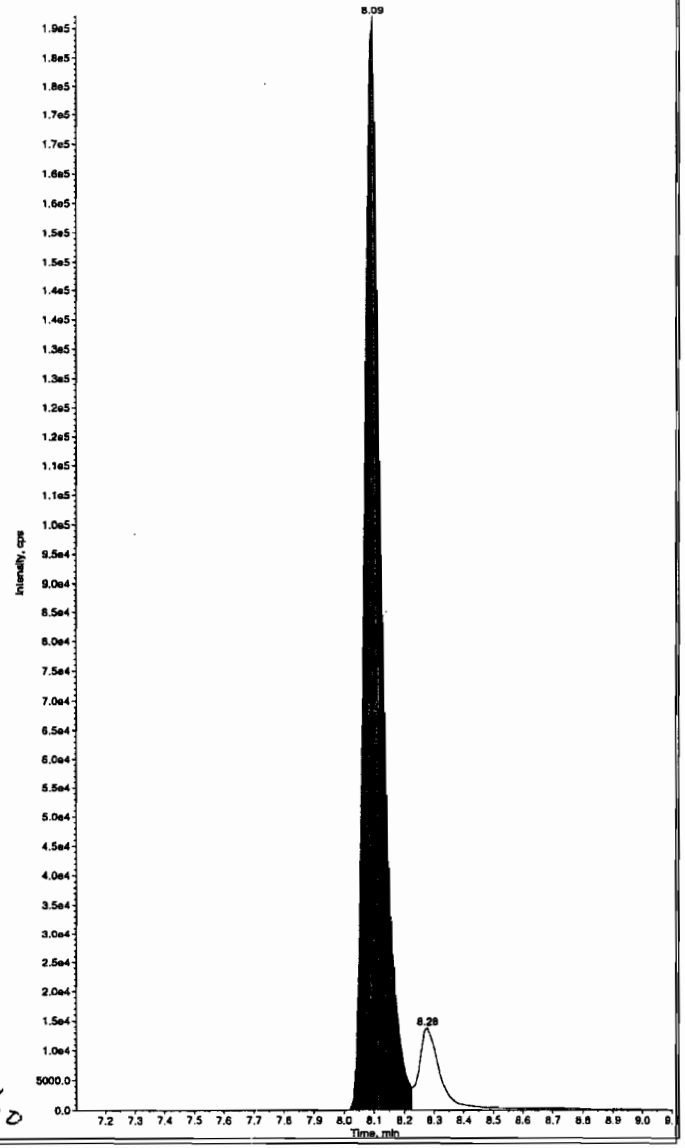

HM 04/08/10

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050013.wiff"
me: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
nt: "LCMSEXP_C" Annotation: ""
ndex: 1
Type: QC
ation: 50.0 ng/mL
ed Conc: 58.4 ng/mL
e: 4/5/2010
e: 3:54:18 PM

d: No
gorithm: IntelliQuan - IQA
k Height: 1460.00 cps
k Width: 0.00 sec
g Width: 3 points
w: 15.0 sec
RT: 8.28 min
tive RT: No

e: Valley
n Time: 8.27 min
4.47e+005 counts
116610.817 cps
me: 8.20 min
: 8.60 min

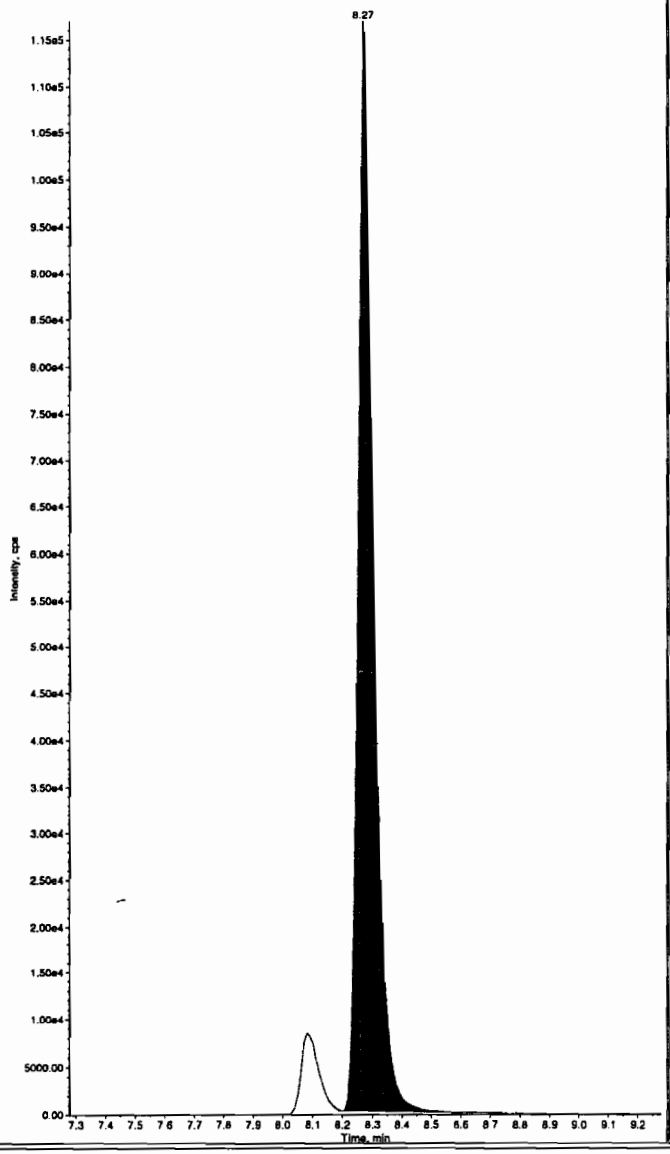

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050013.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 128. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 3:54:18 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.92 min
Area: 3.01e+005 counts
Height: 69398.758 cps
Start Time: 4.82 min
End Time: 5.21 min

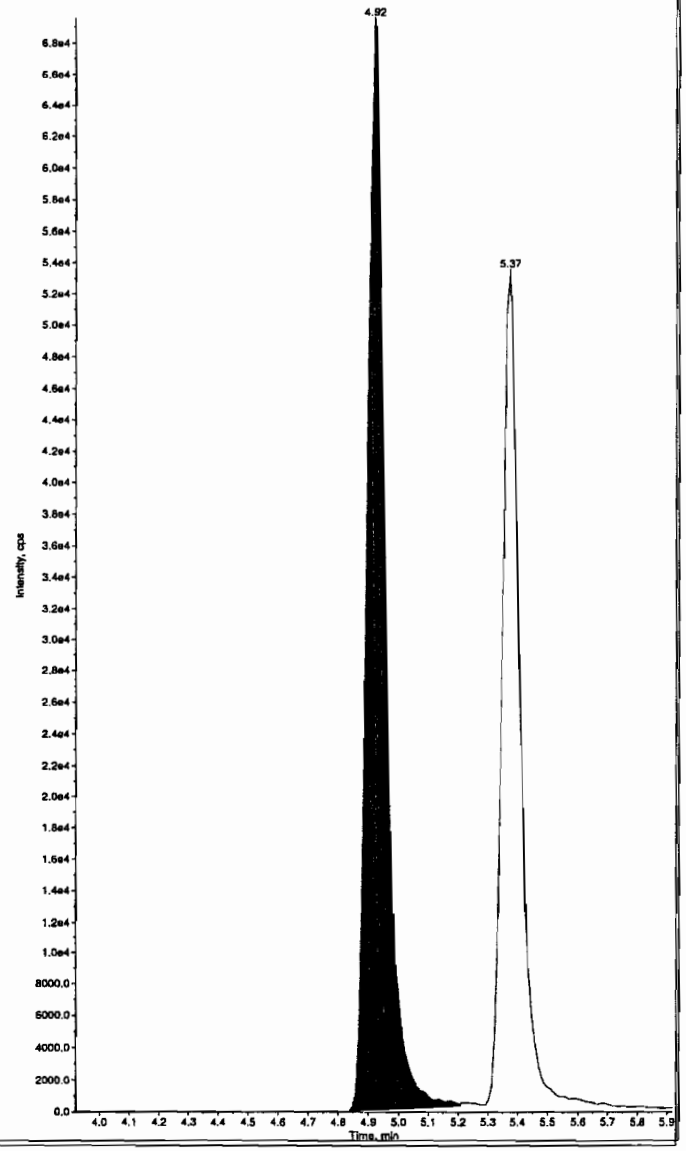

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Name: "WXX100405-27CRI" Sample ID: "]1|LER" File: "EXS04050013.wiff"
me: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
n: "LCMSEXP_C" Annotation: ""

ndex: 1
ype: QC
ation: 100. ng/mL
ed Conc: 121. ng/mL
e: 4/5/2010
e: 3:54:18 PM

: No
gorithm: IntelliQuan - IQA
k Height: 350.00 cps
k Width: 0.00 sec
g Width: 3 points
w: 30.0 sec
RT: 5.37 min
tive RT: No

e: Valley
n Time: 5.37 min
2.25e+005 counts
53163.490 cps
me: 5.29 min
: 5.88 min

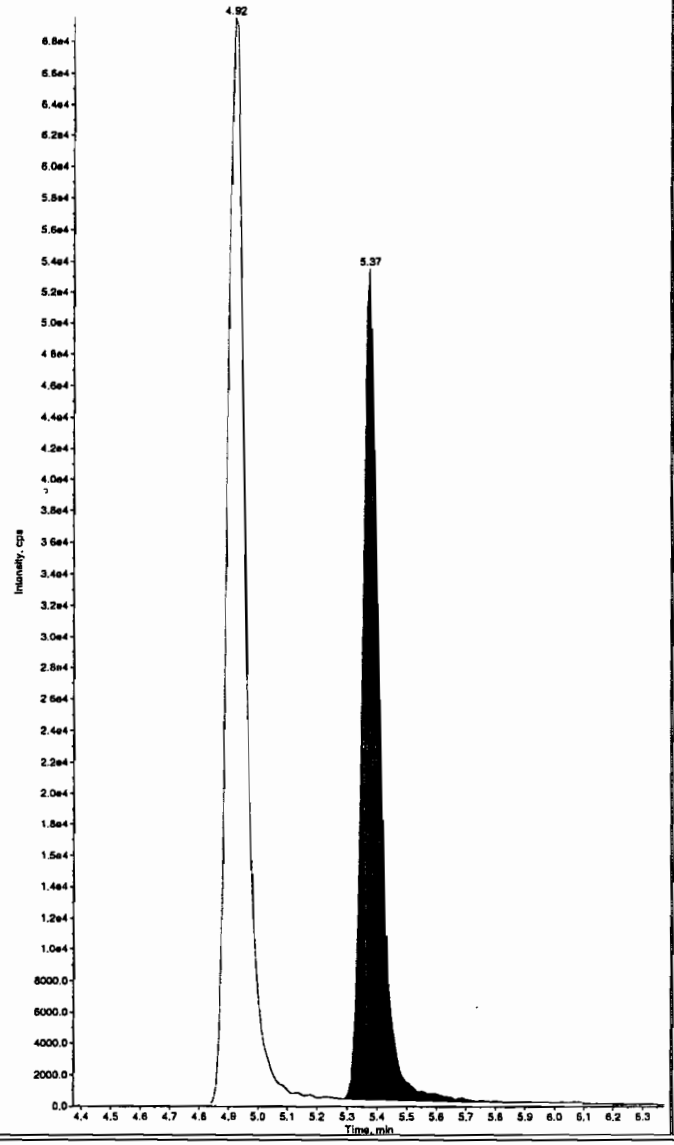

Sample Name: "WXX100405-27CRI" Sample ID: "]1|LER" File: "EXS04050013.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 116. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 3:54:18 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 2.10e+006 counts
Height: 514259.460 cps
Start Time: 10.7 min
End Time: 11.1 min

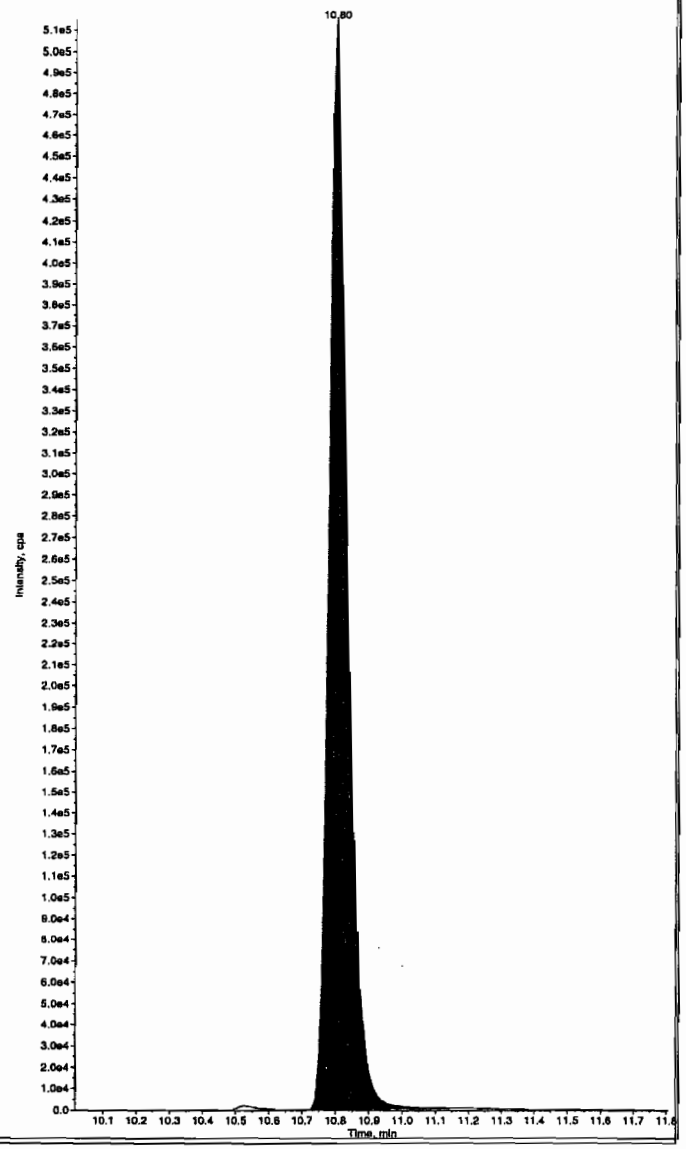

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04050024.wiff

Analysis Date: 05–APR–10 18:47

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
3,4–Dinitrotoluene	250	233	93	
3,5–Dinitroaniline	500	503	101	
TATB	500	470	94	
tris(o–cresyl) phosphate	500	487	97	
2,4–Diamino–6–nitrotoluene	500	458	92	
2,6–Diamino–4–nitrotoluene	500	468	94	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Lcx 4/7/10

Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050024.wiff"
me: "TATB" Mass(es): "257.2/204.9 amu"
t: "LCMSEXP_C" Annotation: ""

ndex: 1
ype: QC
ation: 500. ng/mL
ed Conc: 470. ng/mL
e: 4/5/2010
e: 6:47:03 PM

: No
gorithm: IntelliQuan - IQA
k Height: 2500.00 cps
k Width: 0.00 sec
g Width: 3 points
w: 30.0 sec
RT: 6.86 min
tive RT: No

e: Valley
n Time: 6.87 min
3.74e+005 counts
83803.894 cps
me: 6.78 min
: 7.70 min

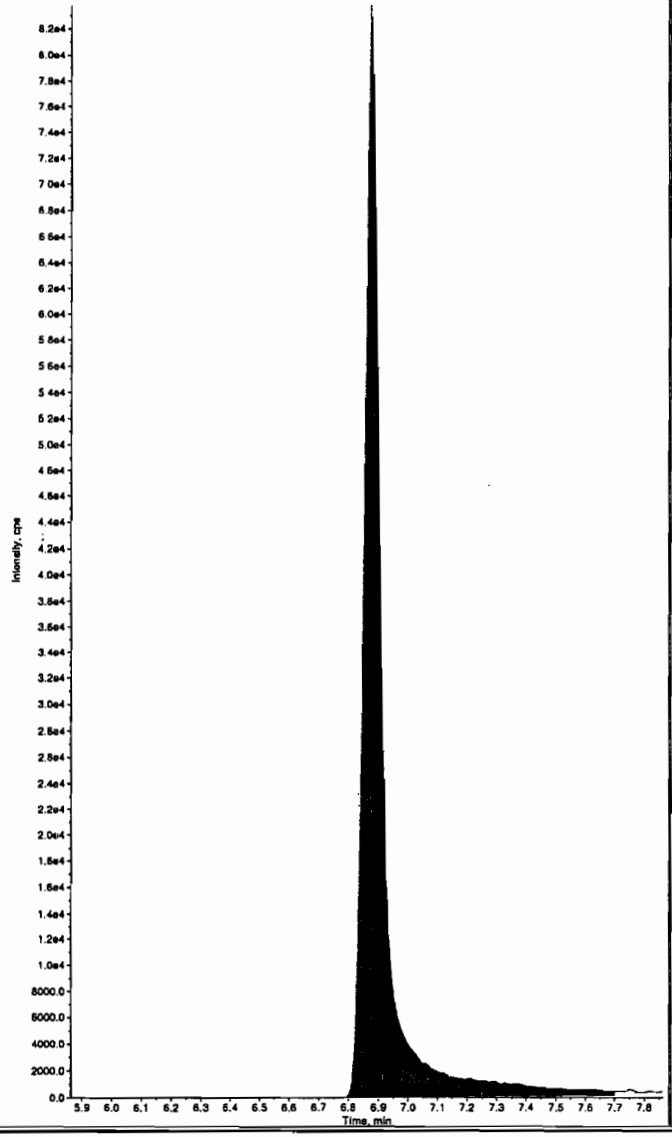

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 488. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 6:47:03 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.10 min
Area: 3.24e+006 counts
Height: 825998.291 cps
Start Time: 8.03 min
End Time: 8.24 min

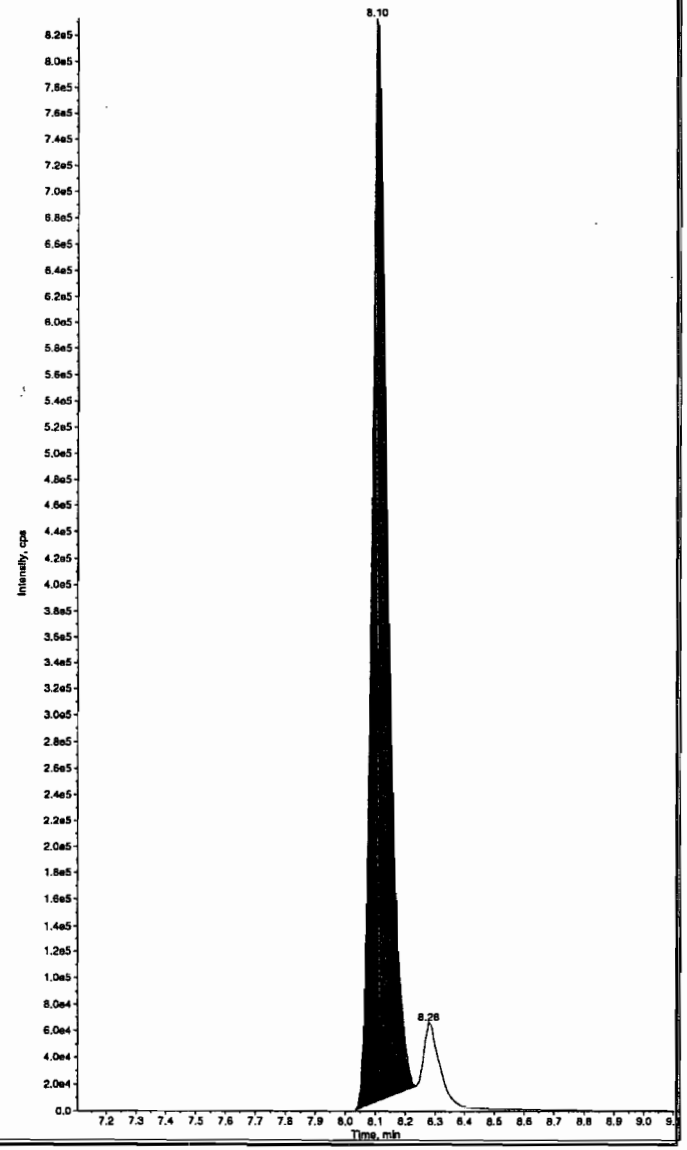

Hmm 04/06/10

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after LER 4/7/10

Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050024.wiff"
me: "TATB" Mass(es): "257.2/204.9 amu"
l: "LCMSEXP_C" Annotation: ""

ndex: 1
ype: OC
ation: 500. ng/mL
ed Conc: 470. ng/mL
e: 4/5/2010
e: 6:47:03 PM

: No
gorithm: IntelliQuan - IQA
k Height: 2500.00 cps
k Width: 0.00 sec
g Width: 3 points
w: 30.0 sec
RT: 6.86 min
tive RT: No

e: Valley
n Time: 6.87 min
3.74e+005 counts
83803.894 cps
ne: 6.78 min
: 7.70 min

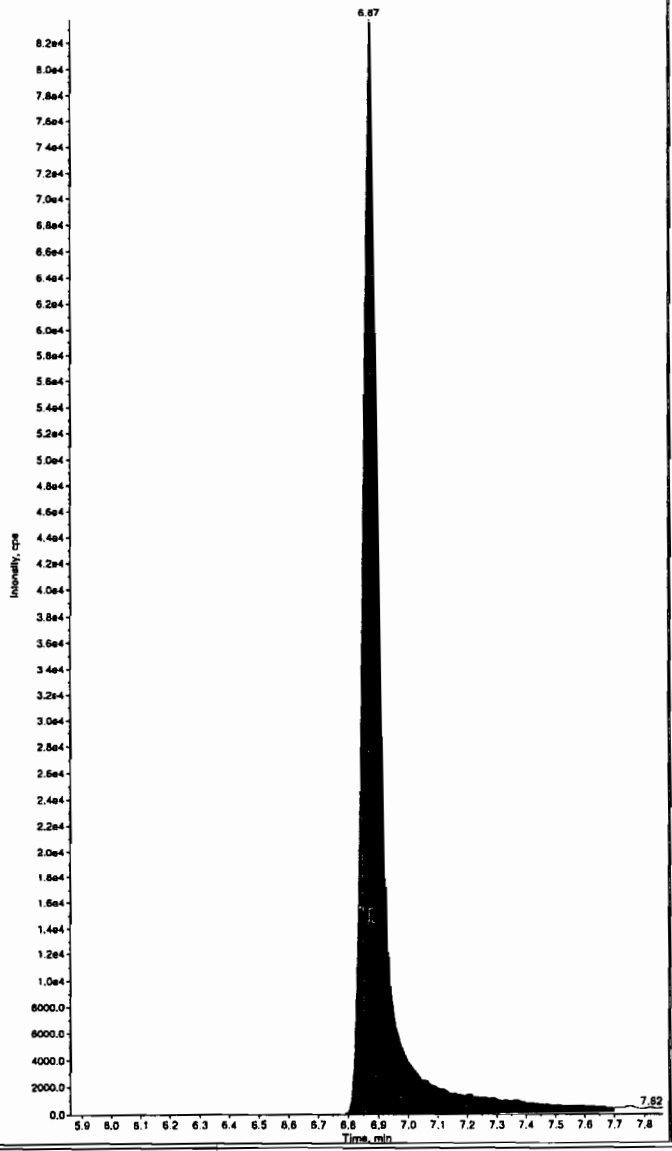

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050024.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: OC
Concentration: 500. ng/mL
Calculated Conc: 503. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 6:47:03 PM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.11 min
Area: 3.34e+006 counts
Height: 853504.468 cps
Start Time: 8.03 min
End Time: 8.24 min

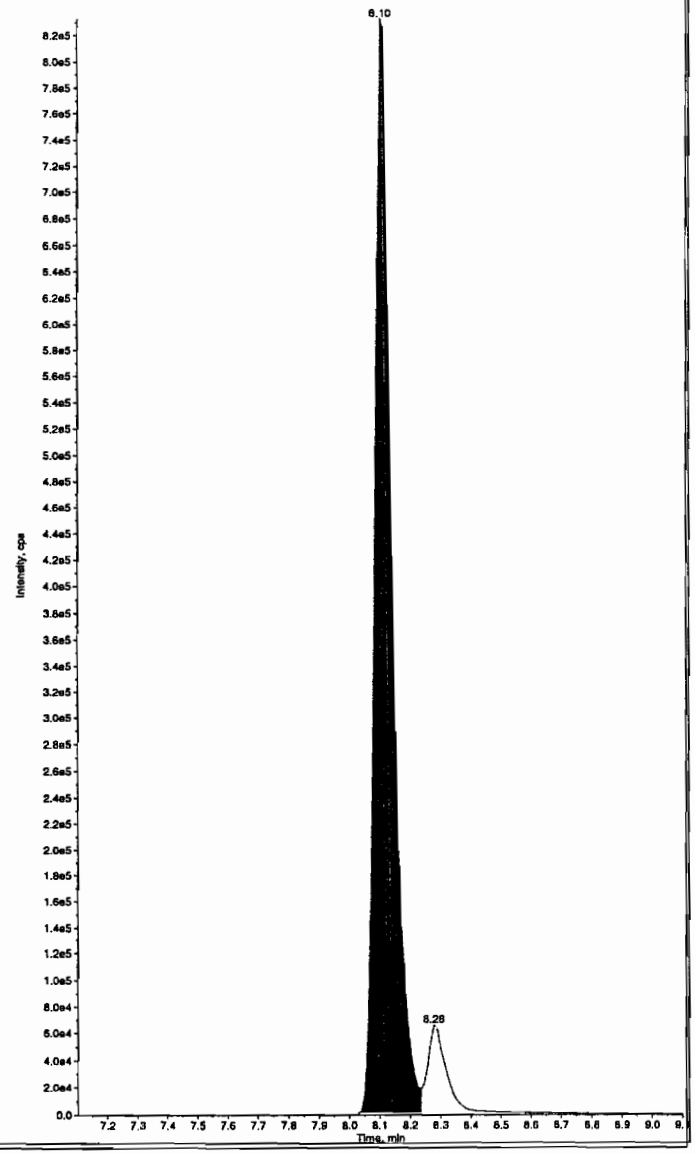

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050024.wiff"
me: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
t: "LCMSEXP_C" Annotation: ""

ndex: 1
ype: QC
ation: 250. ng/mL
ed Conc: 233. ng/mL
e: 4/5/2010
e: 6:47:03 PM

: No
gorithm: IntelliQuan - IQA
k Height: 1460.00 cps
k Width: 0.00 sec
g Width: 3 points
w: 15.0 sec
RT: 8.28 min
tive RT: No

e: Valley
Time: 8.28 min
1.99e+006 counts
497923.370 cps
ne: 8.21 min
: 8.78 min

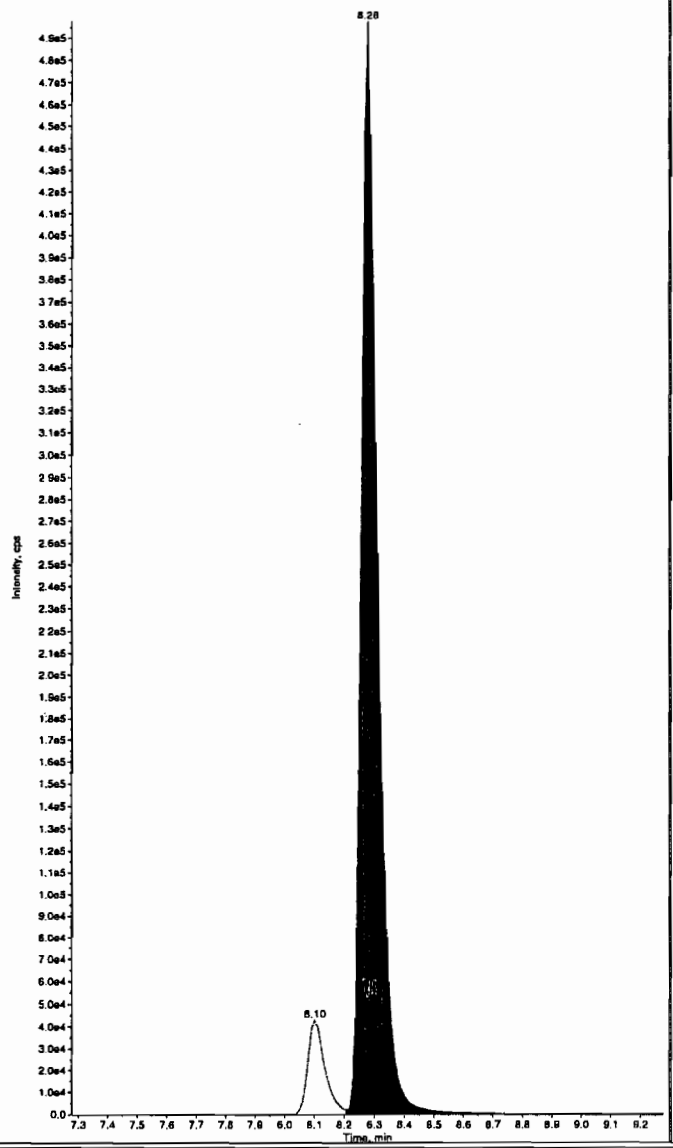

Sample Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050024.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 468. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 6:47:03 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.93 min
Area: 1.32e+006 counts
Height: 311772.186 cps
Start Time: 4.84 min
End Time: 5.19 min

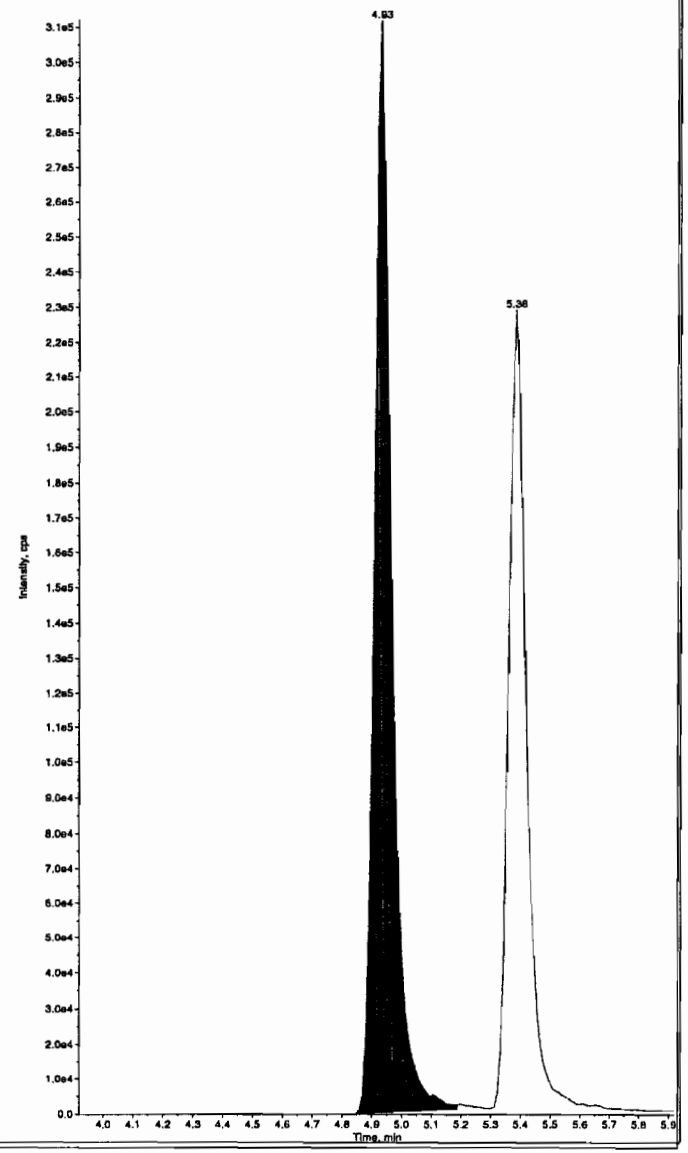

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Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050024.wiff"
me: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
l: "LCMSEXP_C" Annotation: ""

```
ndex:          1
ype:          QC
ation:       500.    ng/mL
ed Conc:     458.    ng/mL
e:        4/5/2010
e:        6:47:03 PM

l:            No
gorithm: IntelliQuan - IQA
k Height: 350.00   cps
k Width:    0.00   sec
g Width:  3       points
w:         30.0    sec
 RT:        5.37   min
tive RT:     No

e:        Valley
n Time:     5.38   min
        9.77e+005  counts
         227877.625  cps
me:         5.29   min
:           5.86   min
```

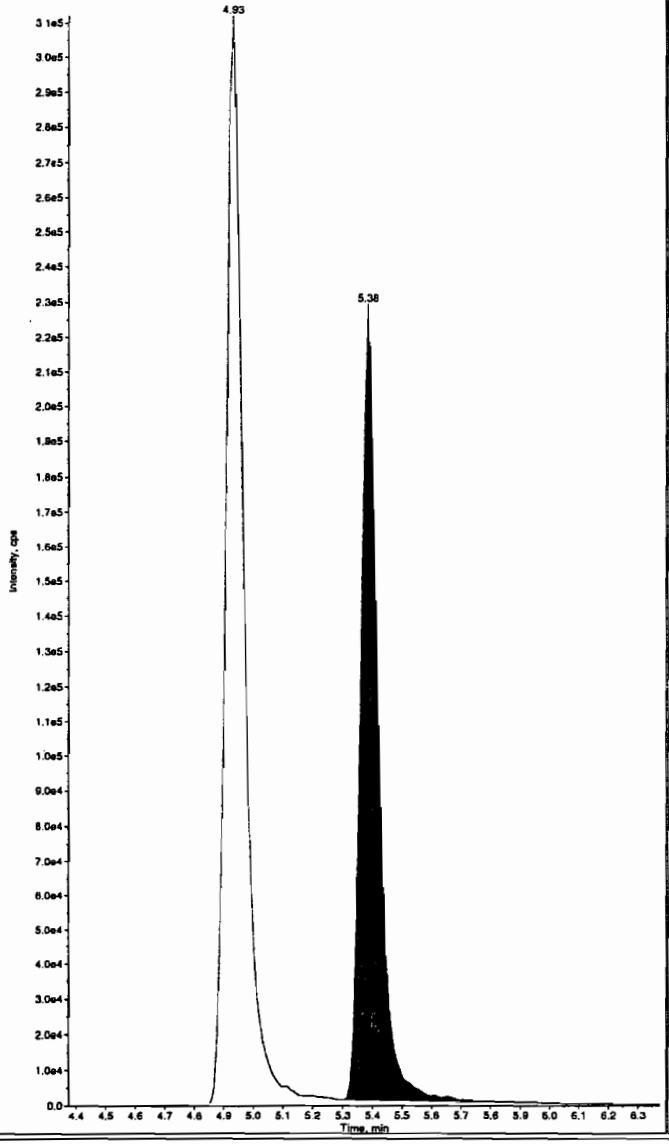

Sample Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050024.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       500.    ng/mL
Calculated Conc:     487.    ng/mL
Acq. Date:        4/5/2010
Acq. Time:        6:47:03 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         30.0    sec
Expected RT:        10.8   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.8   min
Area:         8.77e+006  counts
Height:       2090834.961  cps
Start Time:         10.7   min
End Time:           11.2   min
```

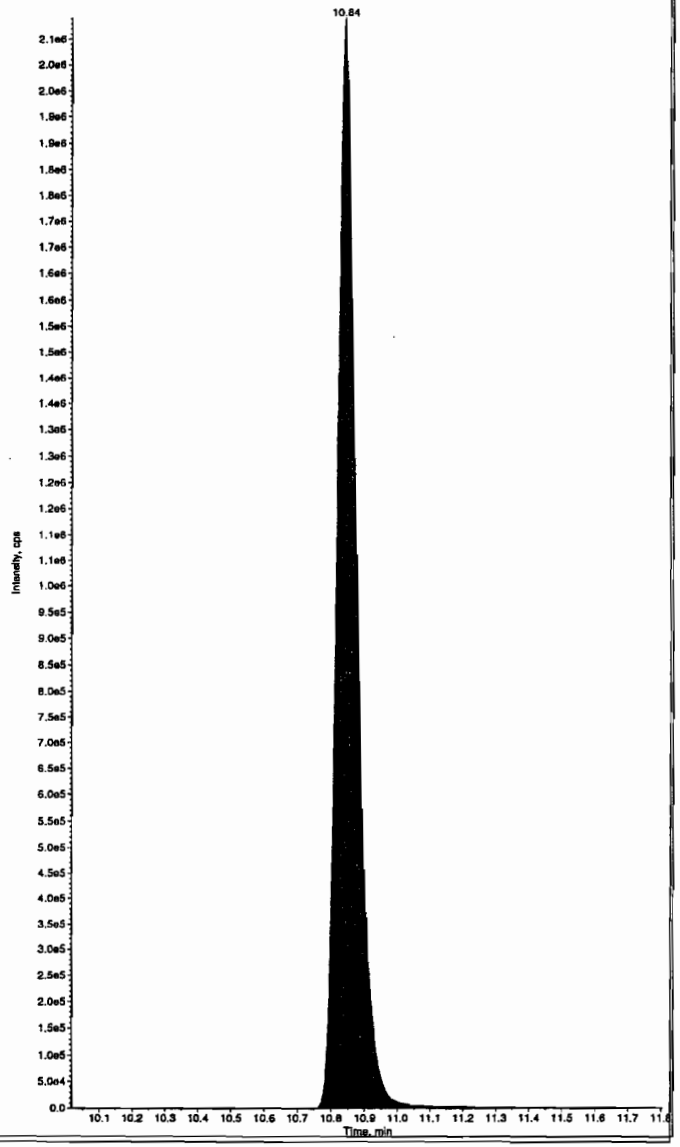

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04050026.wiff

Analysis Date: 05–APR–10 19:18

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	116	116	
2,6–Diamino–4–nitrotoluene	100	114	114	
3,4–Dinitrotoluene	50	54.3	109	
3,5–Dinitroaniline	100	109	109	
TATB	100	101	101	
tris(o–cresyl) phosphate	100	112	112	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

LCM 4/7/10

Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050026.wiff"
me: "TATB" Mass(es): "257.2/204.9 amu"
l: "LCMSEXP_C" Annotation: ""

ndex: 1
ype: QC
ation: 100. ng/mL
ed Conc: 101. ng/mL
e: 4/5/2010
e: 7:18:27 PM

: No
gorithm: IntelliQuan - IQA
k Height: 2500.00 cps
k Width: 0.00 sec
g Width: 3 points
w: 30.0 sec
RT: 6.86 min
tive RT: No

e: Valley
n Time: 6.88 min
7.14e+004 counts
16154.438 cps
me: 6.79 min
: 7.44 min

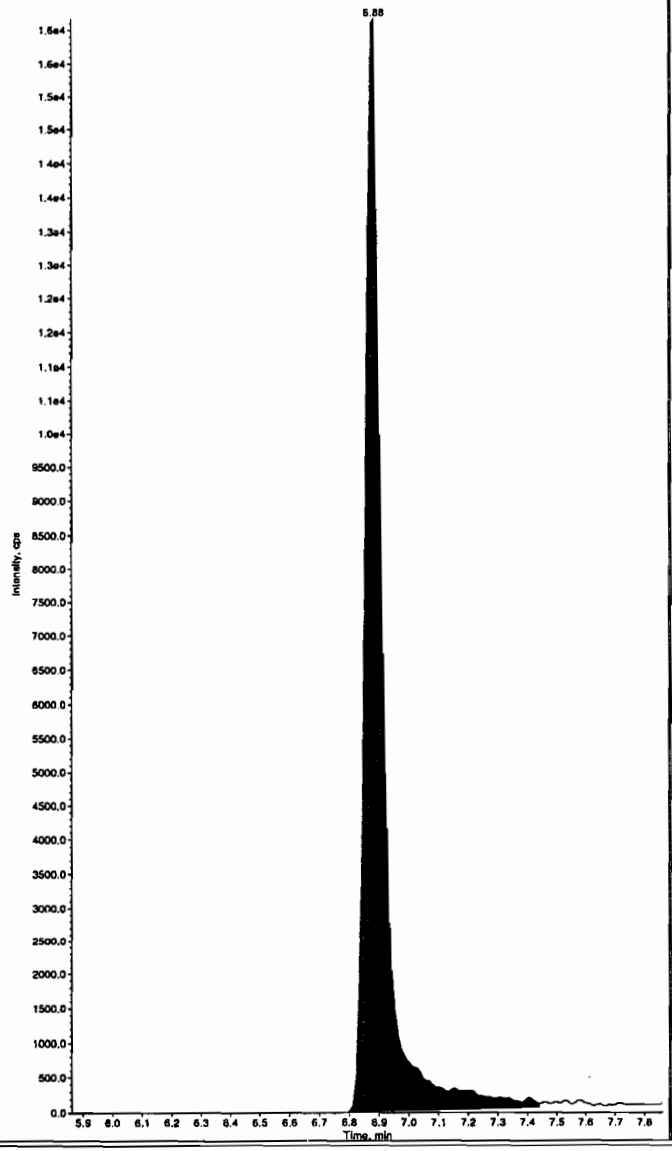

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050026.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 109. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 7:18:27 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.11 min
Area: 6.95e+005 counts
Height: 173170.486 cps
Start Time: 7.99 min
End Time: 8.25 min

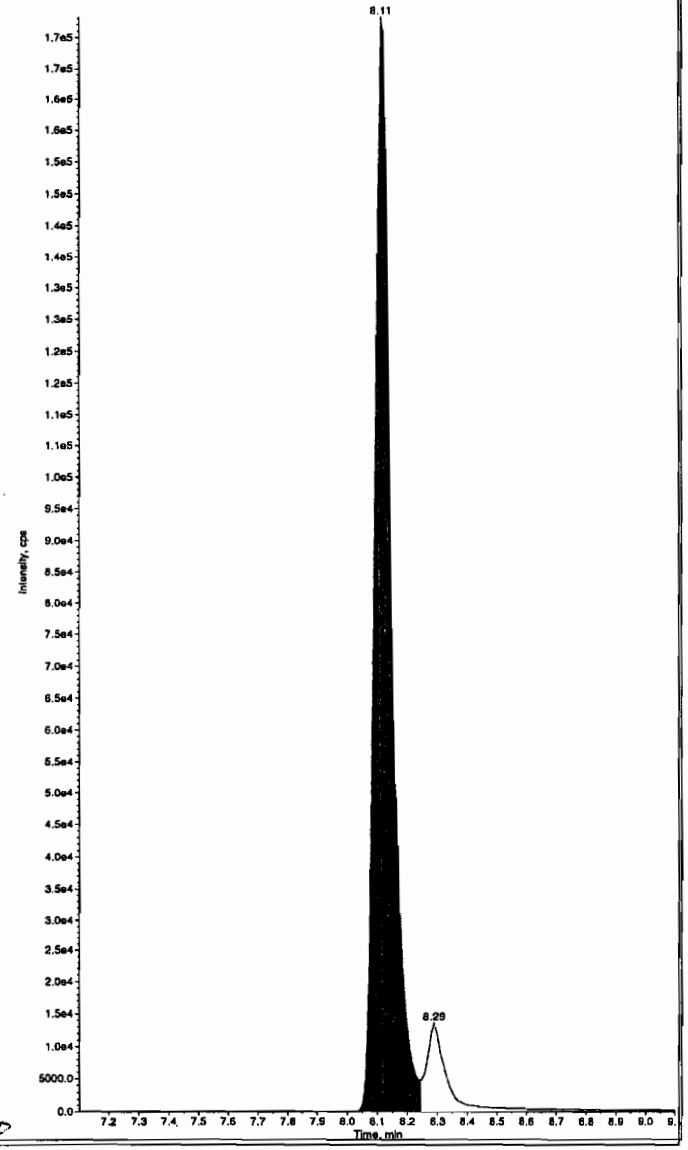

HMW 04/08/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Name: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050026.wiff"
me: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
t: "LCMSEXP_C" Annotation: ""

```
ndex:          1
ype:           QC
ation:         50.0     ng/mL
ed Conc:       54.3     ng/mL
e:         4/5/2010
e:         7:18:27 PM

:              No
gorithm: IntelliQuan - IQA
k Height:1460.00    cps
k Width:     0.00    sec
g Width:  3        points
w:          15.0    sec
 RT:         8.28   min
tive RT:     No

e:          Valley
n Time:      8.29   min
       4.09e+005   counts
         104017.250  cps
me:          8.22   min
:            8.63   min
```

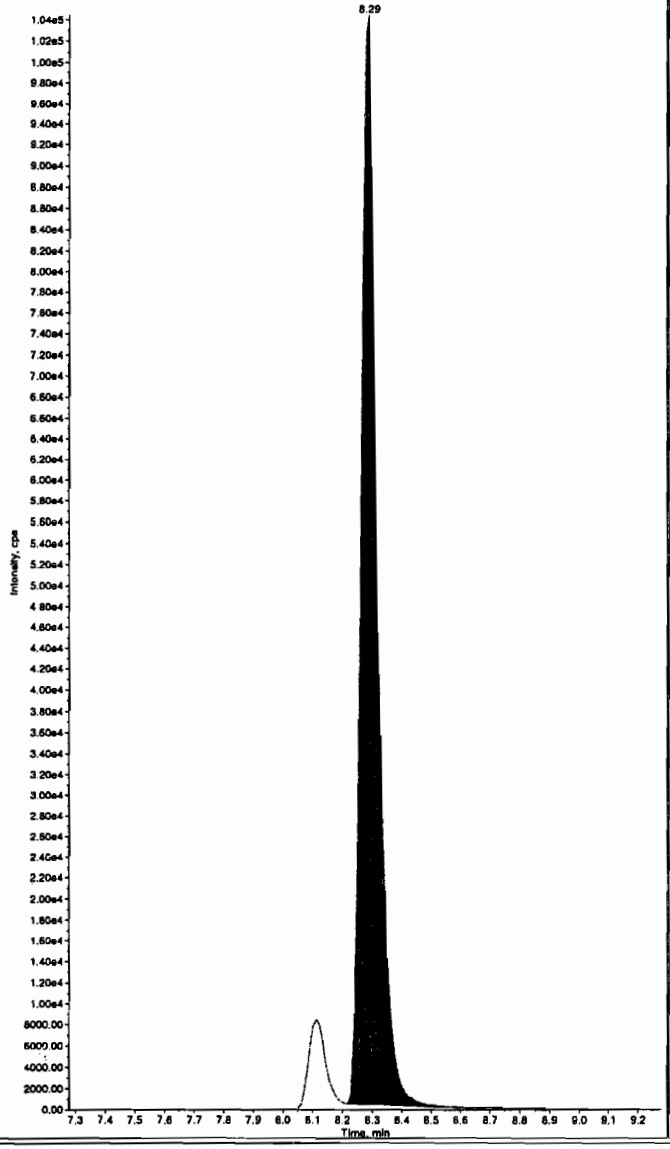

Sample Name: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050026.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         100.     ng/mL
Calculated Conc:       114.     ng/mL
Acq. Date:         4/5/2010
Acq. Time:         7:18:27 PM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:         4.92   min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      4.93   min
Area:          2.59e+005   counts
Height:        56403.187   cps
Start Time:          4.82   min
End Time:            5.22   min
```

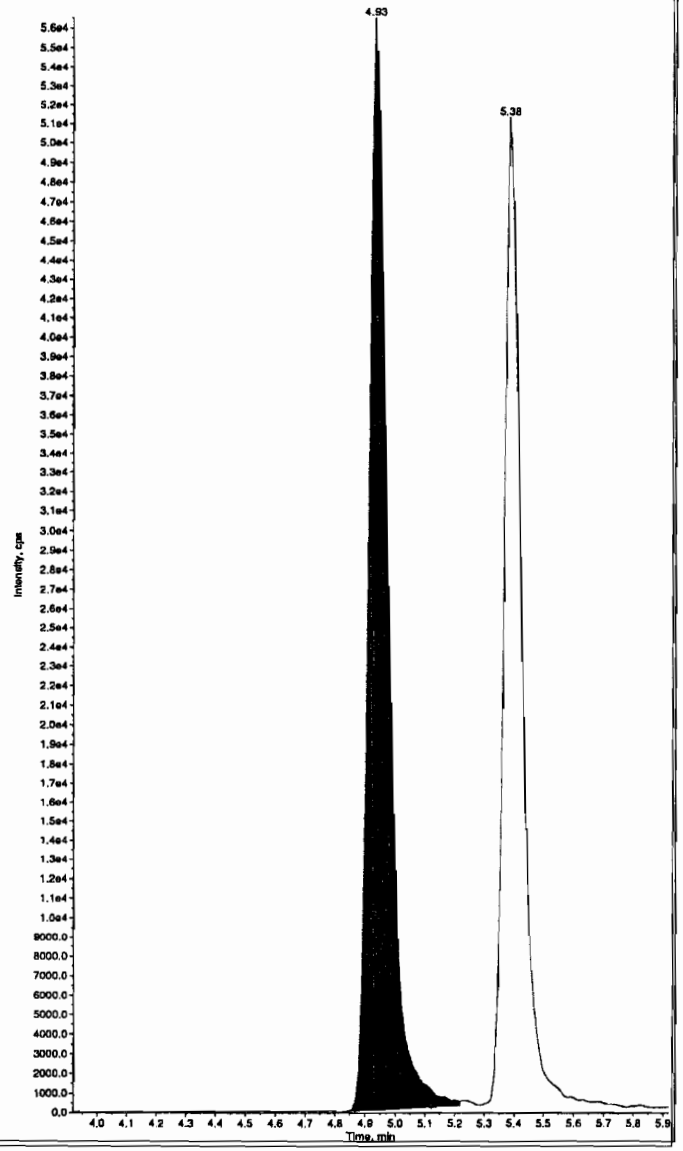

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ame: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050026.wiff"
e: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
: "LCMSEXP_C" Annotation: ""

dex:	1	
pe:	QC	
tion:	100.	ng/mL
d Conc:	116.	ng/mL
:	4/5/2010	
:	7:18:27 PM	
	No	
orithm:	IntelliQuan - IQA	
Height:	350.00	cps
Width:	0.00	sec
Width:	3	points
:	30.0	sec
RT:	5.37	min
ive RT:	No	
:	Valley	
Time:	5.38	min
	2.13e+005	counts
	50992.790	cps
e:	5.28	min
	5.78	min

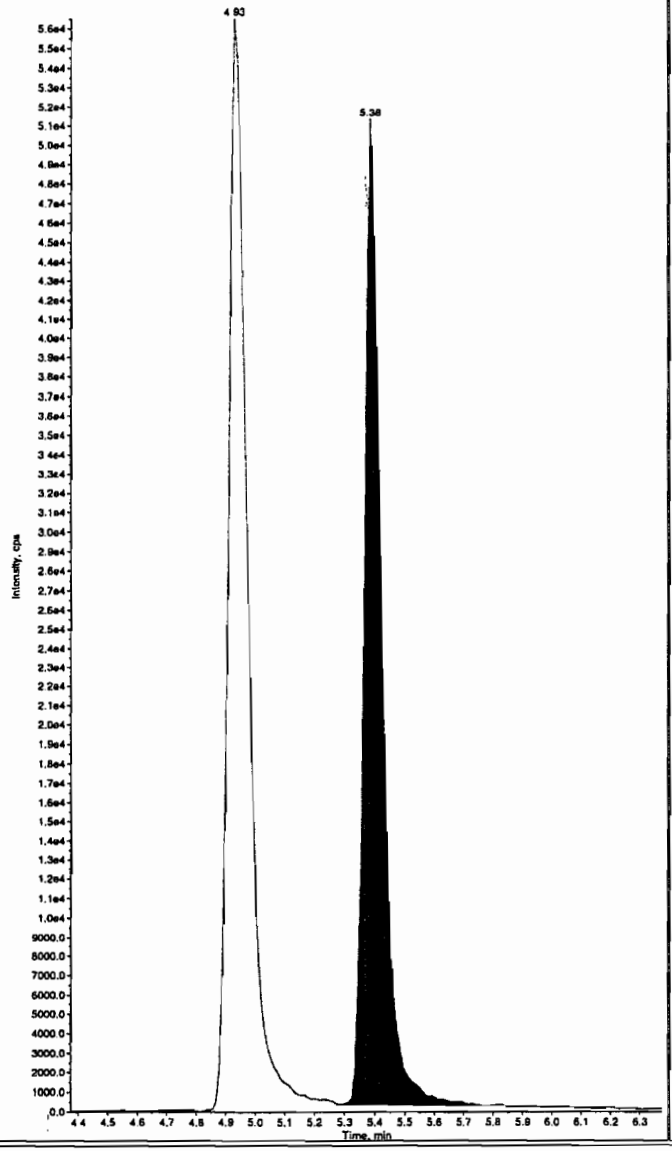

Sample Name: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050026.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	112.	ng/mL
Acq. Date:	4/5/2010	
Acq. Time:	7:18:27 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.8	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.8	min
Area:	2.01e+006	counts
Height:	491896.027	cps
Start Time:	10.7	min
End Time:	11.2	min

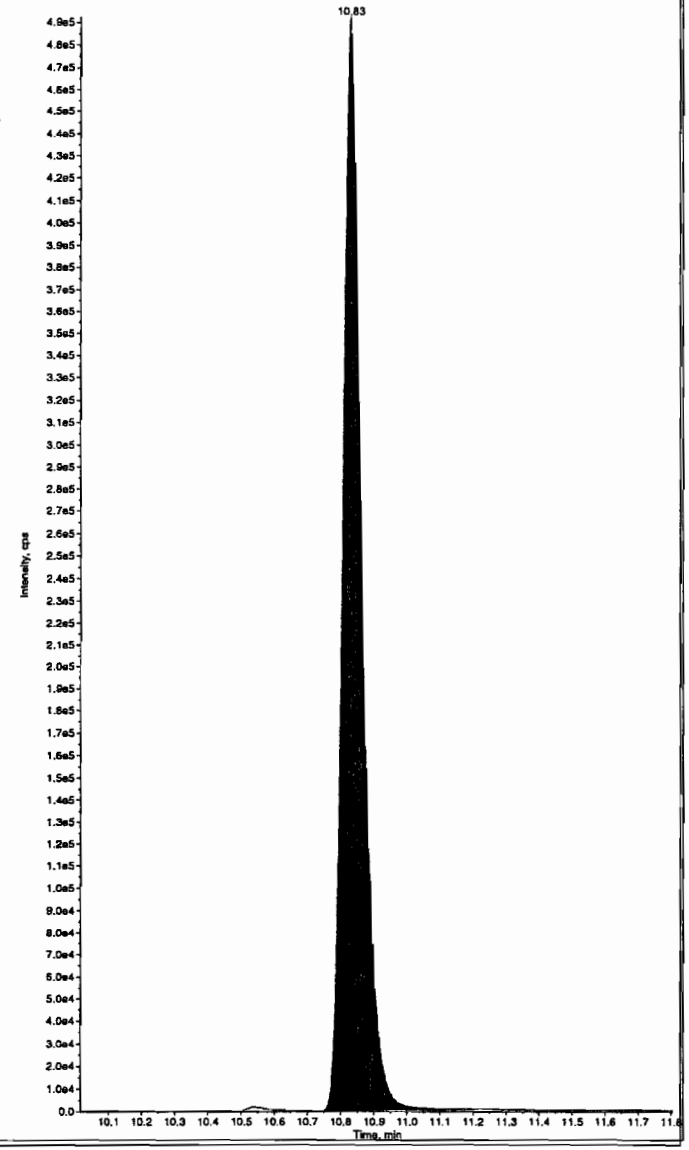

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04050037.wiff

Analysis Date: 05–APR–10 22:11

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	545	109	
2,6–Diamino–4–nitrotoluene	500	513	103	
3,4–Dinitrotoluene	250	238	95	
3,5–Dinitroaniline	500	533	107	
TATB	500	511	102	
tris(o–cresyl) phosphate	500	496	99	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Ker 4/7/10

Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050037.wiff"
me: "TATB" Mass(es): "257.2/204.9 amu"
t: "LCMSEXP_C" Annotation: ""
ndex: 1
ype: QC
ation: 500. ng/mL
ed Conc: 511. ng/mL
e: 4/5/2010
e: 10:11:19 PM
: No
gorithm: IntelliQuan - IQA
k Height: 2500.00 cps
k Width: 0.00 sec
g Width: 3 points
w: 30.0 sec
RT: 6.86 min
tive RT: No
e: Valley
n Time: 6.88 min
4.08e+005 counts
87499.840 cps
me: 6.75 min
: 7.67 min

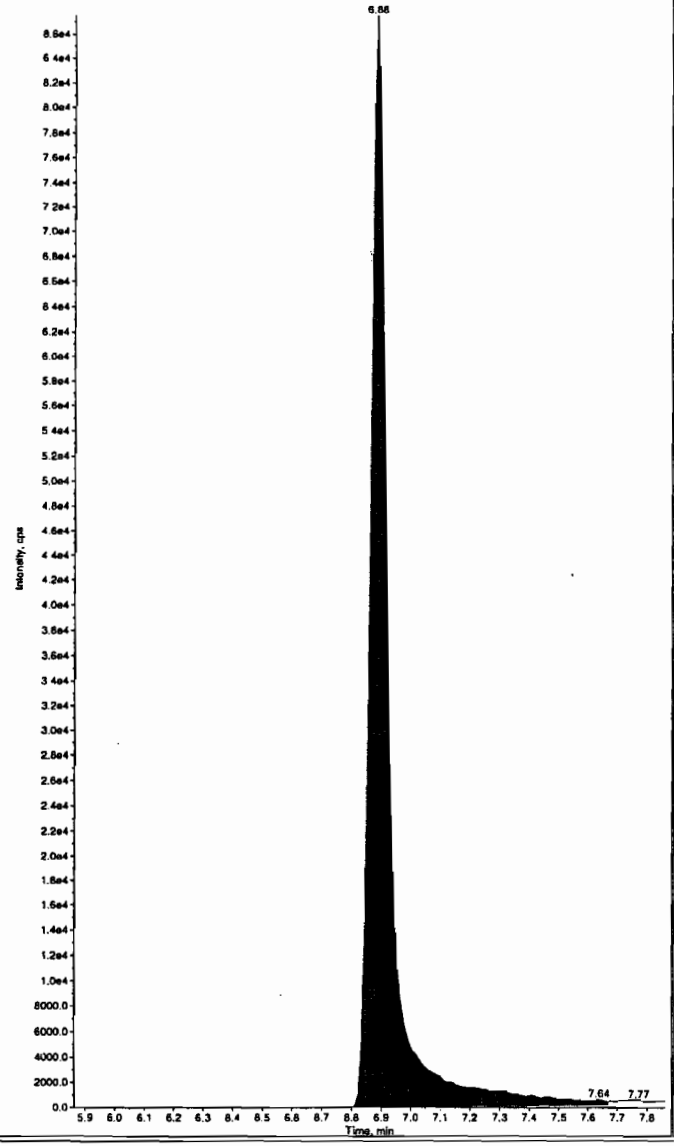

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050037.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 533. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 10:11:19 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.12 min
Area: 3.52e+006 counts
Height: 846138.245 cps
Start Time: 8.03 min
End Time: 8.25 min

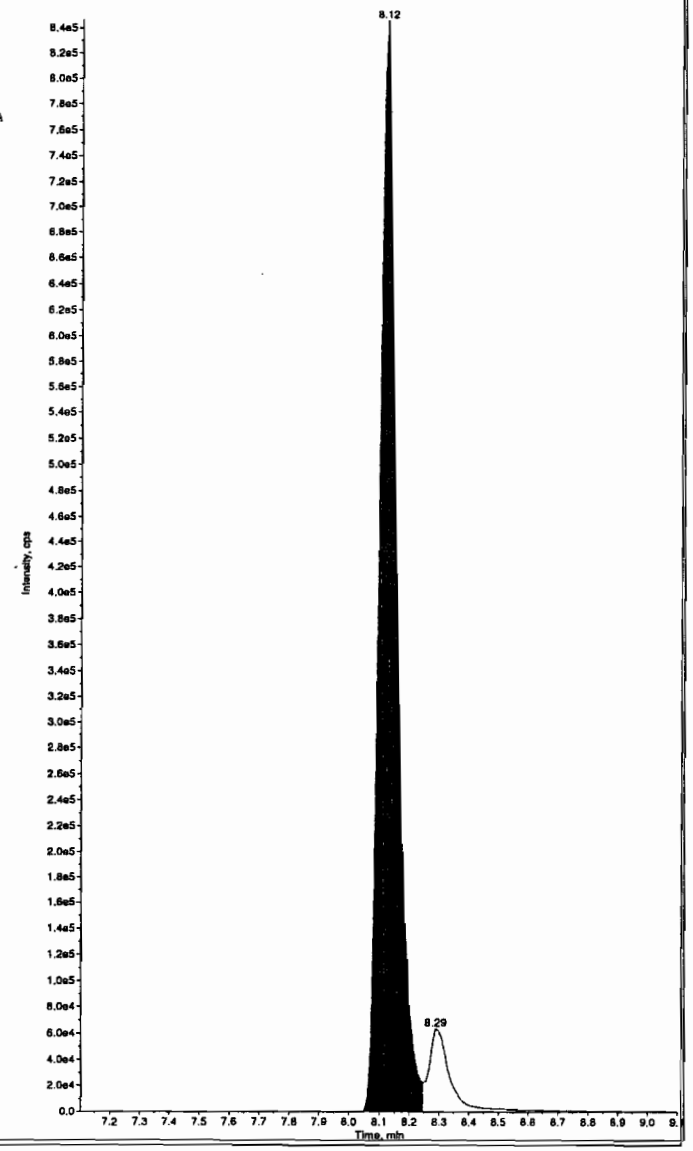

HMM 04/08/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ame: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050037.wiff"
ne: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
: "LCMSEXP_C" Annotation: ""

```
ndex:          1
rpe:          QC
ation:      250.    ng/mL
d Conc:     238.    ng/mL
:        4/5/2010
:        10:11:19 PM

            No
orithm: IntelliQuan - IQA
: Height:1460.00   cps
: Width:    0.00   sec
 Width:  3        points
:          15.0    sec
RT:         8.28   min
ive RT:     No

:         Valley
Time:      8.30   min
      2.03e+006   counts
      499160.309  cps
e:         8.22   min
           8.62   min
```

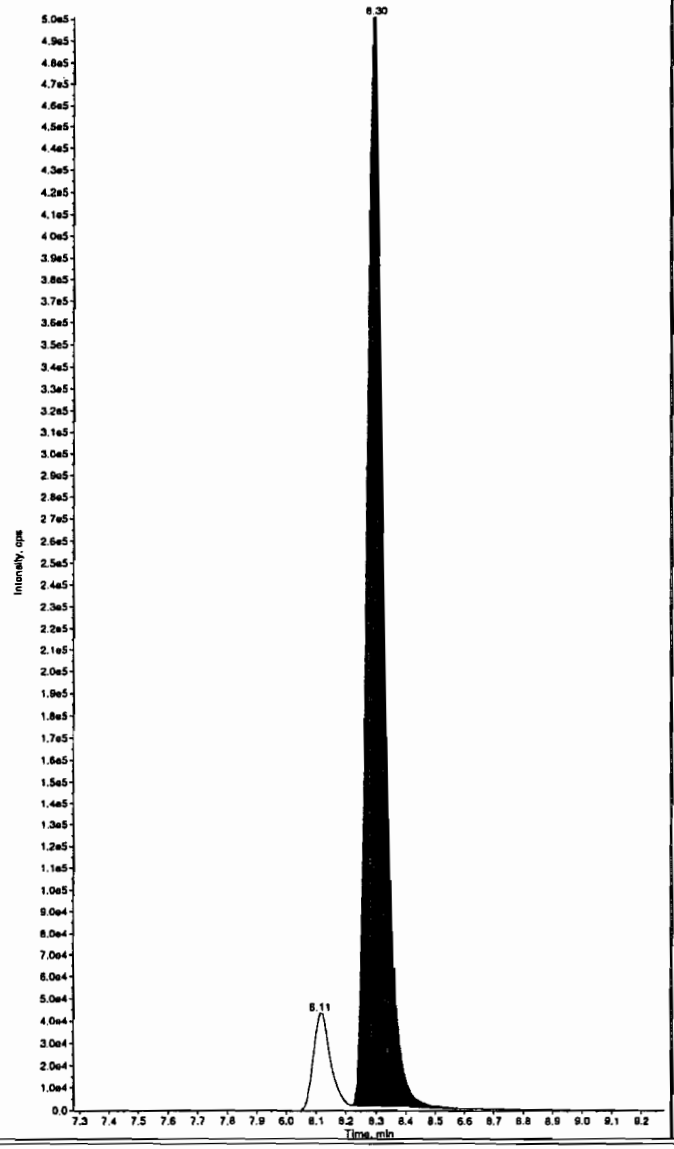

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050037.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:      500.    ng/mL
Calculated Conc:    513.    ng/mL
Acq. Date:       4/5/2010
Acq. Time:       10:11:19 PM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:        4.92   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     4.94   min
Area:        1.45e+006   counts
Height:      319630.280  cps
Start Time:         4.85   min
End Time:           5.24   min
```

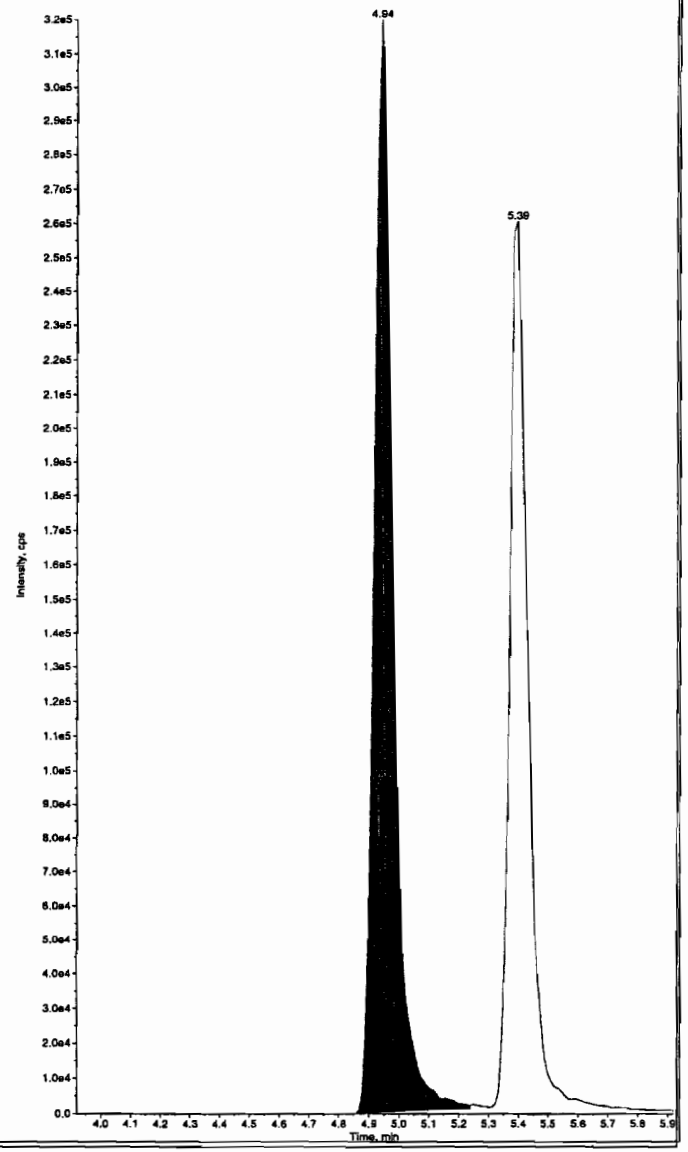

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

lame: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050037.wiff"
ne: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
: "LCMSEXP_C" Annotation: ""

```
idex:          1
rpe:           QC
ation:         500.     ng/mL
d Conc:        545.     ng/mL
::         4/5/2010
::         10:11:19 PM

           No
orithm: IntelliQuan - IQA
: Height: 350.00    cps
: Width:    0.00    sec
: Width:  3        points
::         30.0     sec
RT:         5.37    min
ive RT:    No

::         Valley
Time:       5.39    min
      1.16e+006    counts
        260275.818  cps
e:          5.30    min
            5.96    min
```

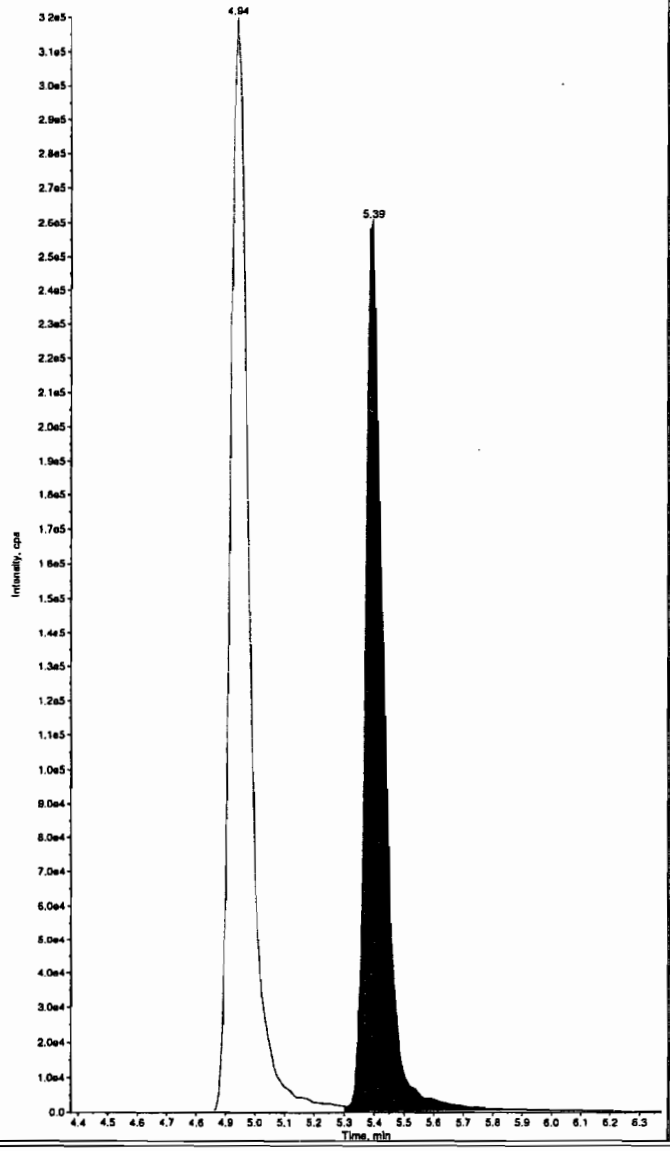

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050037.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:         500.     ng/mL
Calculated Conc:       496.     ng/mL
Acq. Date:         4/5/2010
Acq. Time:         10:11:19 PM

Modified:              No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:        10.8    min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:     10.8    min
Area:          8.93e+006    counts
Height:        2088964.844  cps
Start Time:         10.7    min
End Time:           11.2    min
```

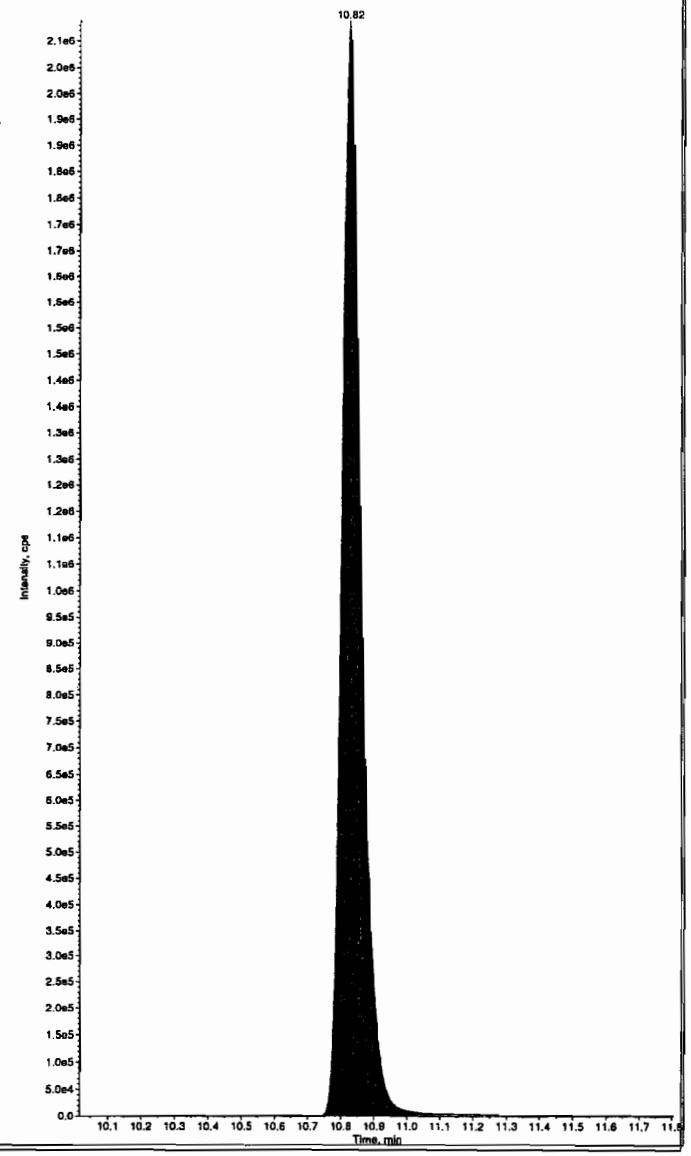

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04050039.wiff

Analysis Date: 05–APR–10 22:42

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	137	137	
2,6–Diamino–4–nitrotoluene	100	129	129	
3,4–Dinitrotoluene	50	55.5	111	
3,5–Dinitroaniline	100	122	122	
TATB	100	108	108	
tris(o–cresyl) phosphate	100	113	113	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

LCW 4/7/10

lame: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050039.wiff"
ne: "TATB" Mass(es): "257.2/204.9 amu"
: "LCMSEXP_C" Annotation: ""
ndex: 1
/pe: QC
ation: 100. ng/mL
ed Conc: 108. ng/mL
: 4/5/2010
: 10:42:44 PM

: No
gorithm: IntelliQuan - IQA
: Height: 2500.00 cps
: Width: 0.00 sec
Width: 3 points
: 30.0 sec
RT: 6.86 min
ive RT: No

: Valley
Time: 6.89 min
7.77e+004 counts
16630.148 cps
e: 6.78 min
7.55 min

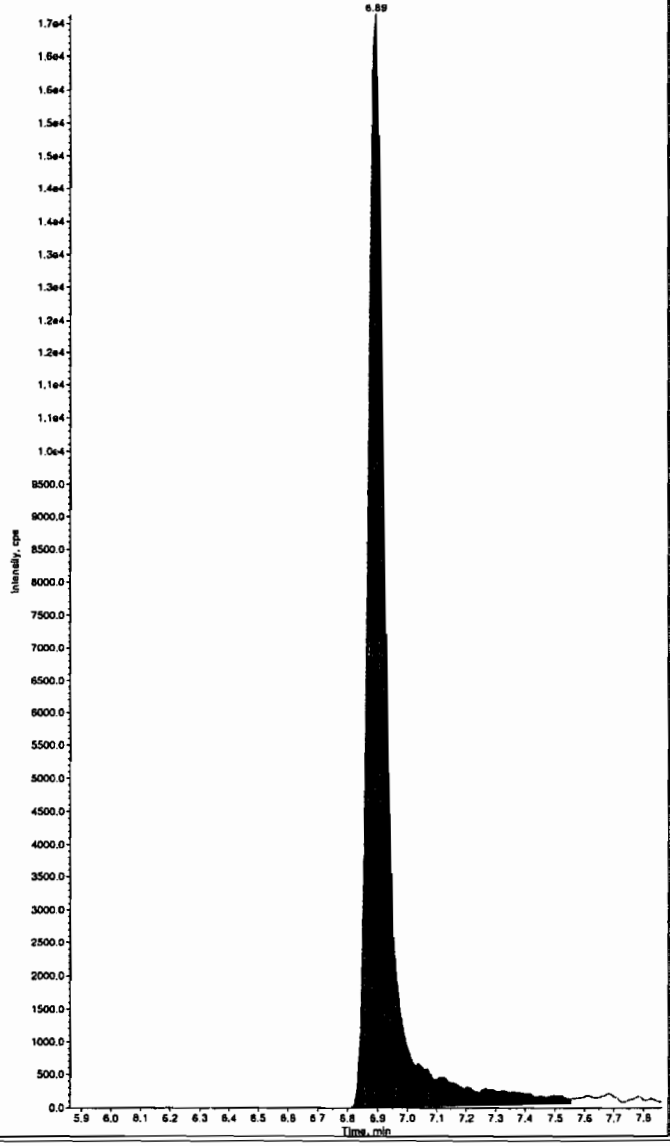

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050039.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 122. ng/mL
Acq. Date: 4/5/2010
Acq. Time: 10:42:44 PM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.12 min
Area: 7.90e+005 counts
Height: 193252.884 cps
Start Time: 7.99 min
End Time: 8.25 min

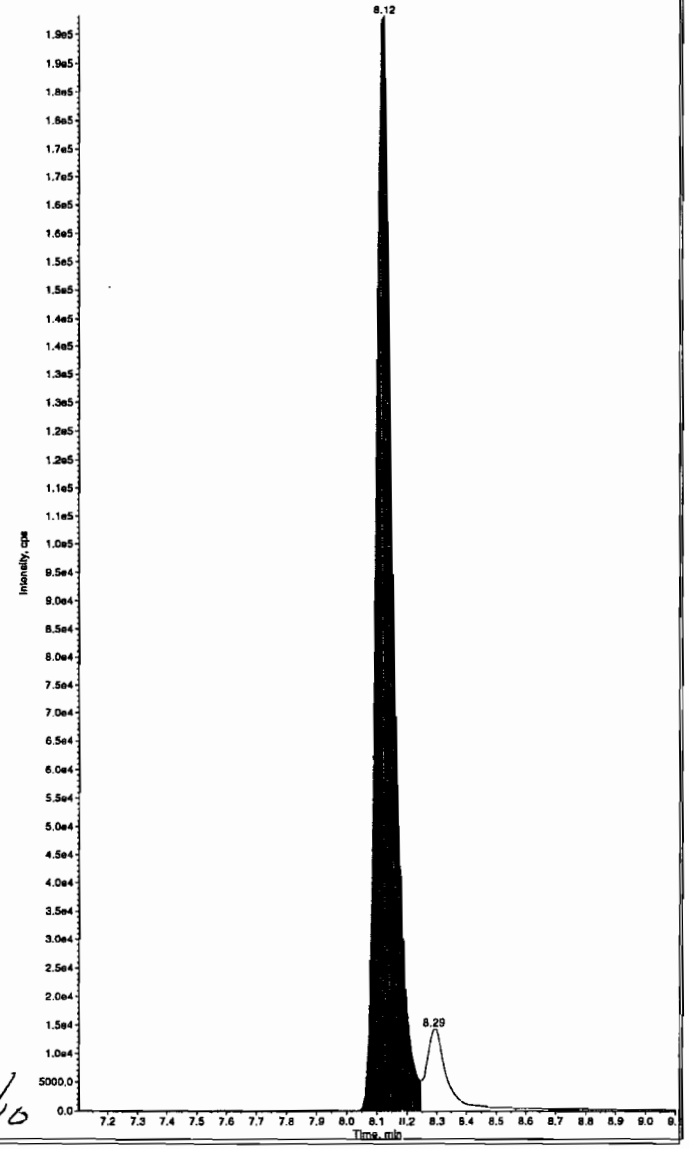

Hum 04/08/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

me: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050039.wiff"
e: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
"LCMSEXP_C" Annotation: ""

dex:	1
pe:	QC
tion:	50.0 ng/mL
d Conc:	55.5 ng/mL
:	4/5/2010
:	10:42:44 PM
	No
orithm:	IntelliQuan - IQA
Height:	1460.00 cps
Width:	0.00 sec
Width:	3 points
	15.0 sec
RT:	8.28 min
ive RT:	No
	Valley
Time:	8.29 min
	4.20e+005 counts
	106636.589 cps
:	8.22 min
	8.62 min

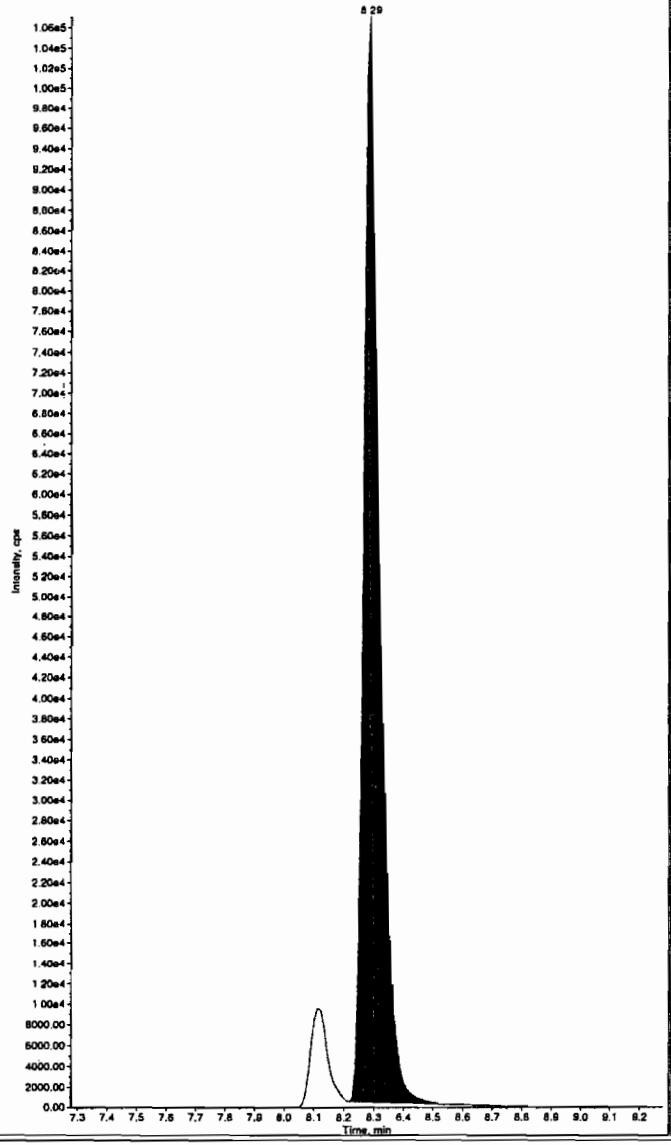

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050039.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	100. ng/mL
Calculated Conc:	129. ng/mL
Acq. Date:	4/5/2010
Acq. Time:	10:42:44 PM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	450.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	4.92 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	4.95 min
Area:	3.04e+005 counts
Height:	70480.820 cps
Start Time:	4.85 min
End Time:	5.25 min

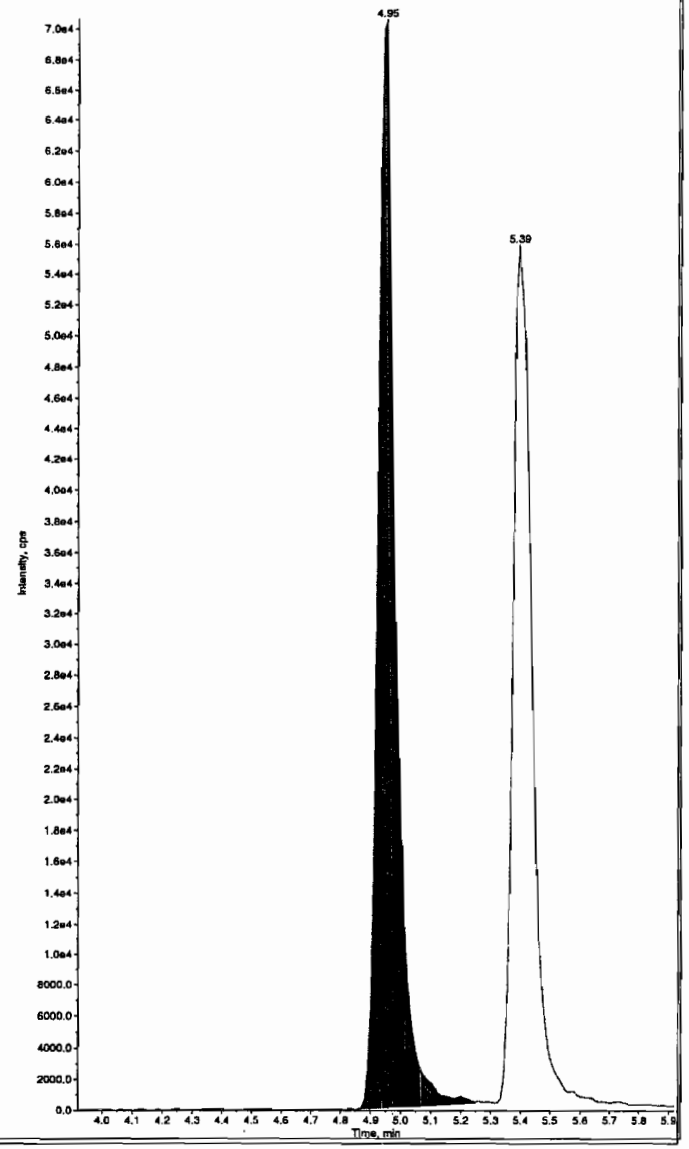

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050039.wiff"
me: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
nt: "LCMSEXP_C" Annotation: ""

ndex:	1	
ype:	QC	
ation:	100.	ng/mL
ed Conc:	137.	ng/mL
e:	4/5/2010	
e:	10:42:44 PM	
:	No	
gorithm:	IntelliQuan - IQA	
k Height:	350.00	cps
k Width:	0.00	sec
g Width:	3	points
w:	30.0	sec
RT:	5.37	min
tive RT:	No	
e:	Valley	
n Time:	5.39	min
	2.62e+005	counts
	55825.851	cps
ne:	5.31	min
:	5.97	min

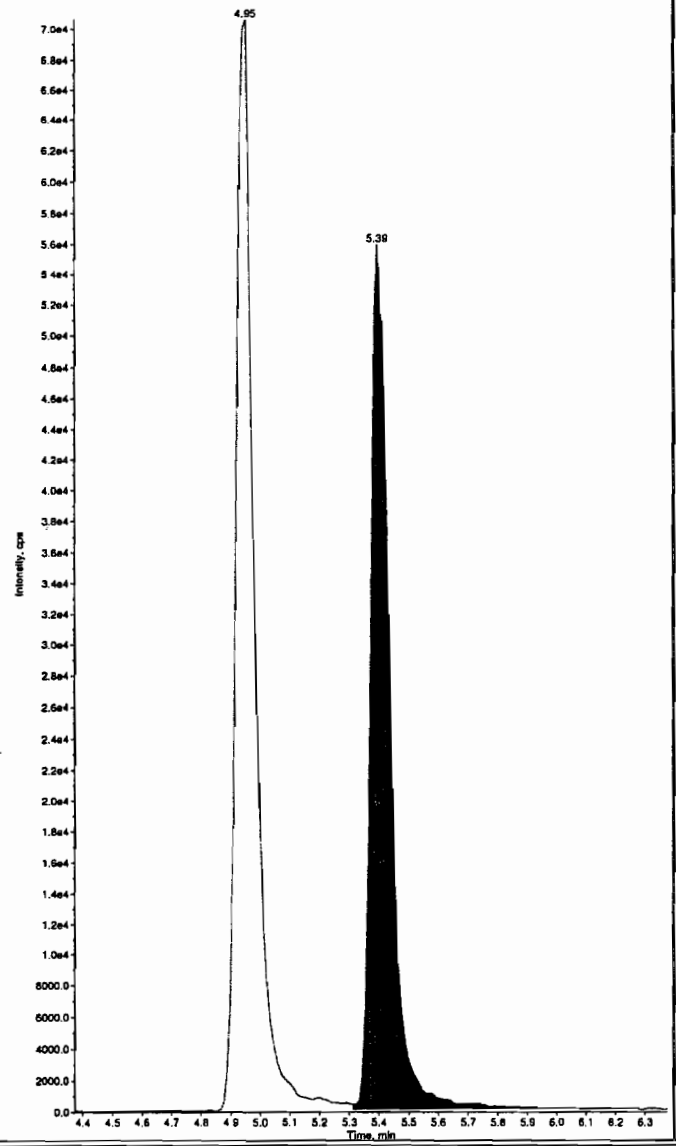

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050039.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	113.	ng/mL
Acq. Date:	4/5/2010	
Acq. Time:	10:42:44 PM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	8000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	30.0	sec
Expected RT:	10.8	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	10.8	min
Area:	2.03e+006	counts
Height:	510147.522	cps
Start Time:	10.7	min
End Time:	11.1	min

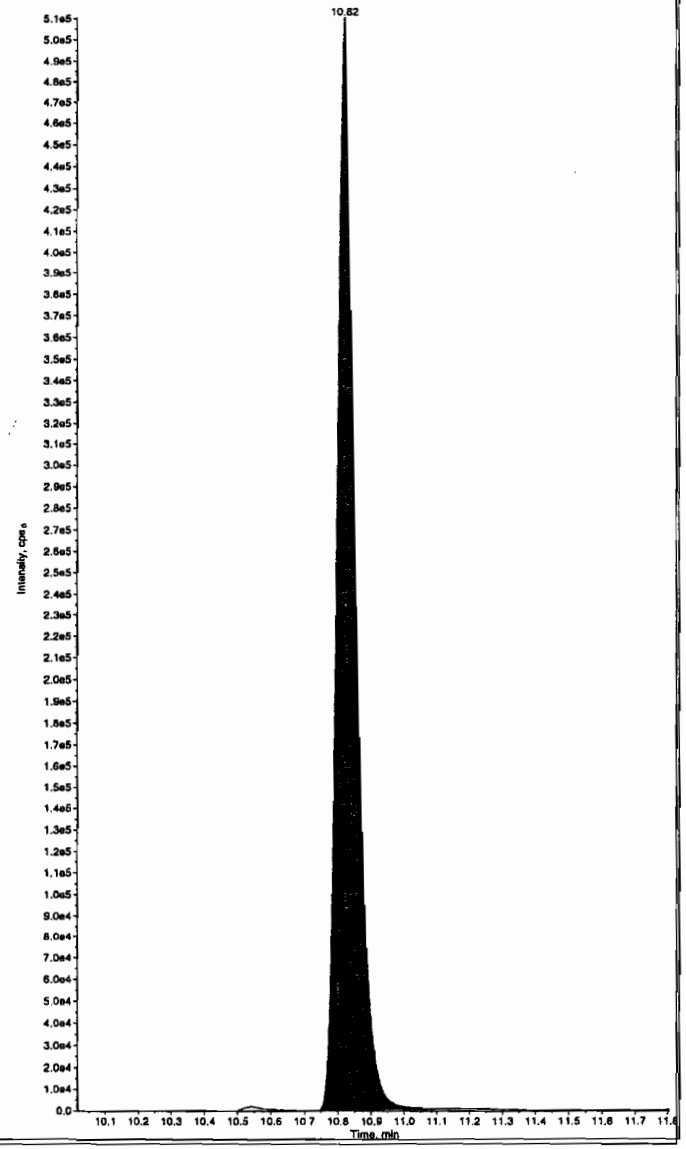

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEI

GEL Sample ID: WXXCCV

GEL Data File EXS04050050.wiff

Analysis Date: 06–APR–10 01:35

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	615	123	
2,6–Diamino–4–nitrotoluene	500	532	106	
3,4–Dinitrotoluene	250	248	99	
3,5–Dinitroaniline	500	555	111	
TATB	500	515	103	
tris(o–cresyl) phosphate	500	498	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Dan 4/7/10

Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050050.wiff"
me: "TATB" Mass(es): "257.2/204.9 amu"
t: "LCMSEXP_C" Annotation: ""
ndex: 1
ype: QC
ation: 500. ng/mL
ed Conc: 515. ng/mL
e: 4/6/2010
e: 1:35:36 AM

: No
gorithm: IntelliQuan - IQA
k Height: 2500.00 cps
k Width: 0.00 sec
g Width: 3 points
w: 30.0 sec
RT: 6.86 min
tive RT: No

e: Valley
n Time: 6.89 min
4.10e+005 counts
86094.841 cps
me: 6.79 min
: 7.70 min

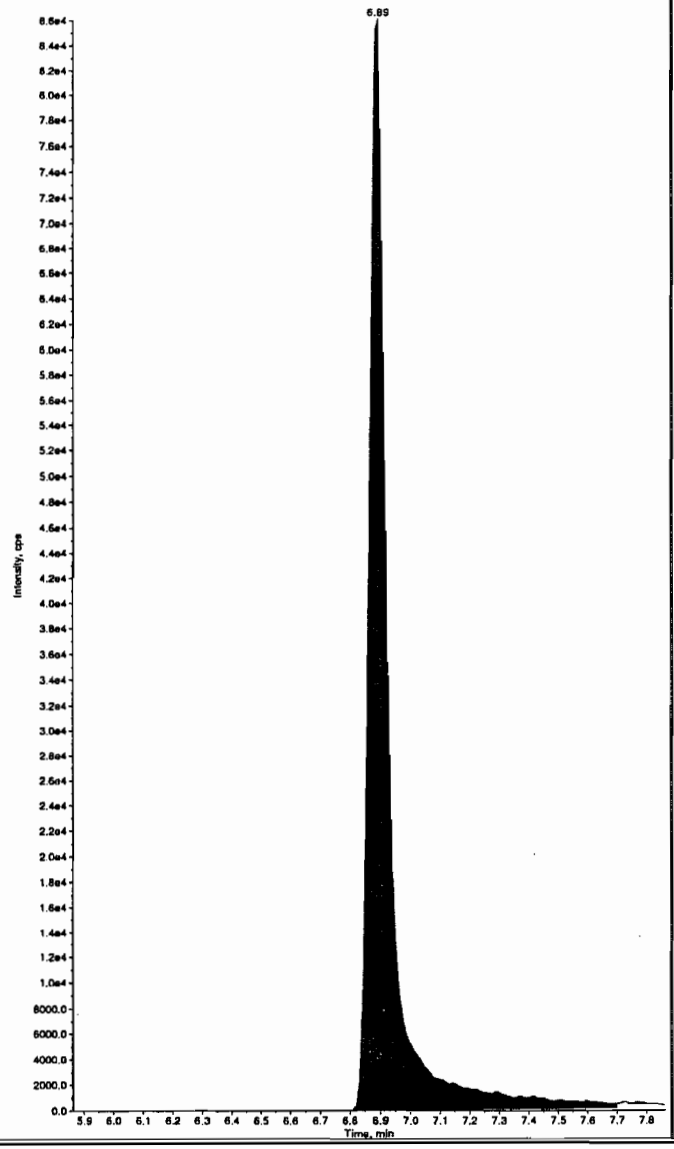

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050050.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 534. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 1:35:36 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.12 min
Area: 3.53e+006 counts
Height: 894474.854 cps
Start Time: 8.05 min
End Time: 8.25 min

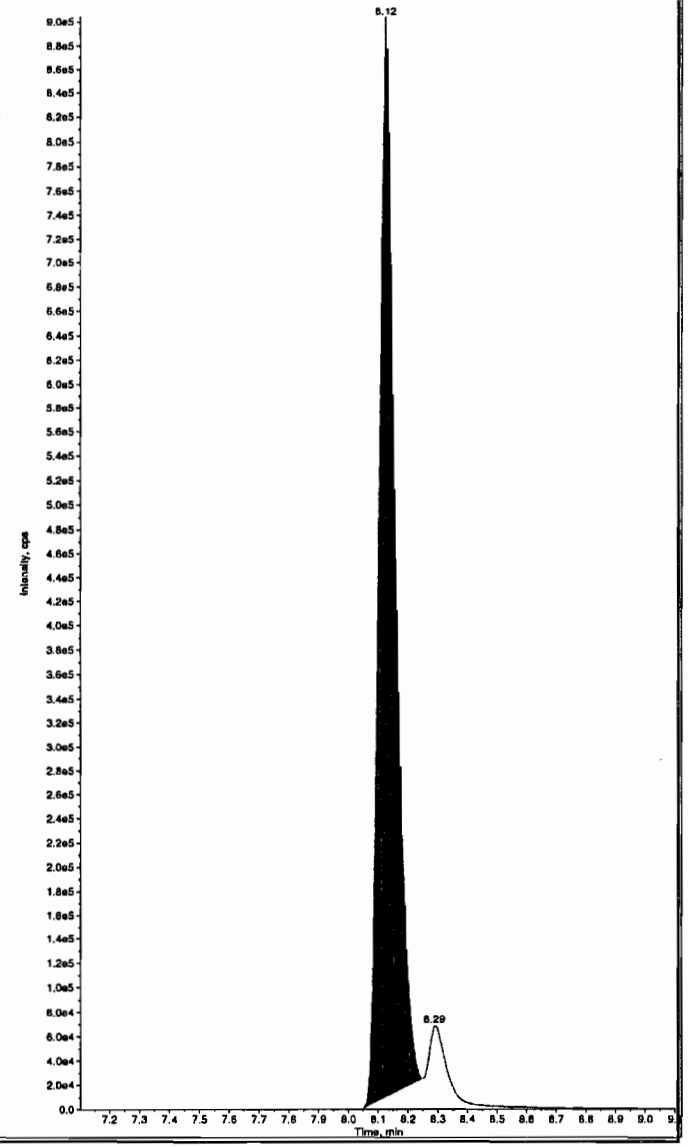

Hmm 04/08/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

after Dan 4/7/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

lame: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050050.wiff"
ne: "TATB" Mass(es): "257.2/204.9 amu"
t: "LCMSEXP_C" Annotation: ""

ndex:	1	
/pe:	QC	
ation:	500.	ng/mL
ed Conc:	515.	ng/mL
e:	4/6/2010	
e:	1:35:36 AM	
:	No	
orithm:	IntelliQuan - IQA	
Height:	2500.00	cps
Width:	0.00	sec
Width:	3	points
v:	30.0	sec
RT:	6.86	min
tive RT:	No	
e:	Valley	
Time:	6.89	min
	4.10e+005	counts
	86094.841	cps
me:	6.79	min
:	7.70	min

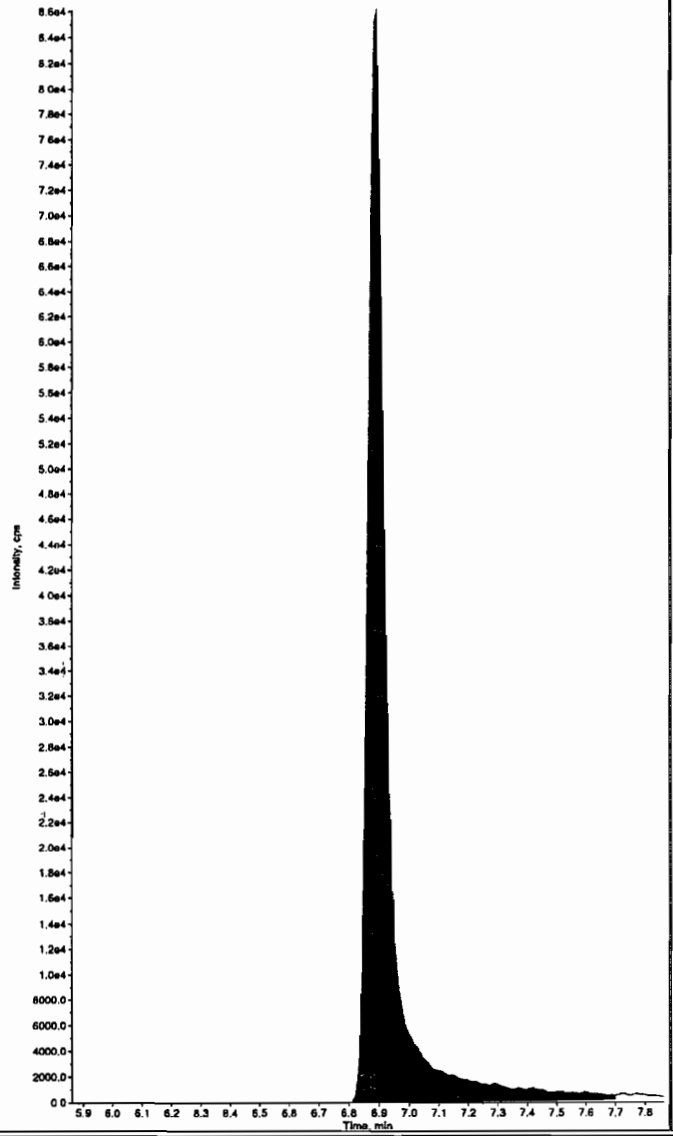

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050050.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	555.	ng/mL
Acq. Date:	4/6/2010	
Acq. Time:	1:35:36 AM	
Modified:	Yes	
RT Window:	15.0	sec
Expected RT:	8.10	min
Use Relative RT:	No	
Int. Type:	Manual	
Retention Time:	8.13	min
Area:	3.66e+006	counts
Height:	912078.807	cps
Start Time:	8.05	min
End Time:	8.25	min

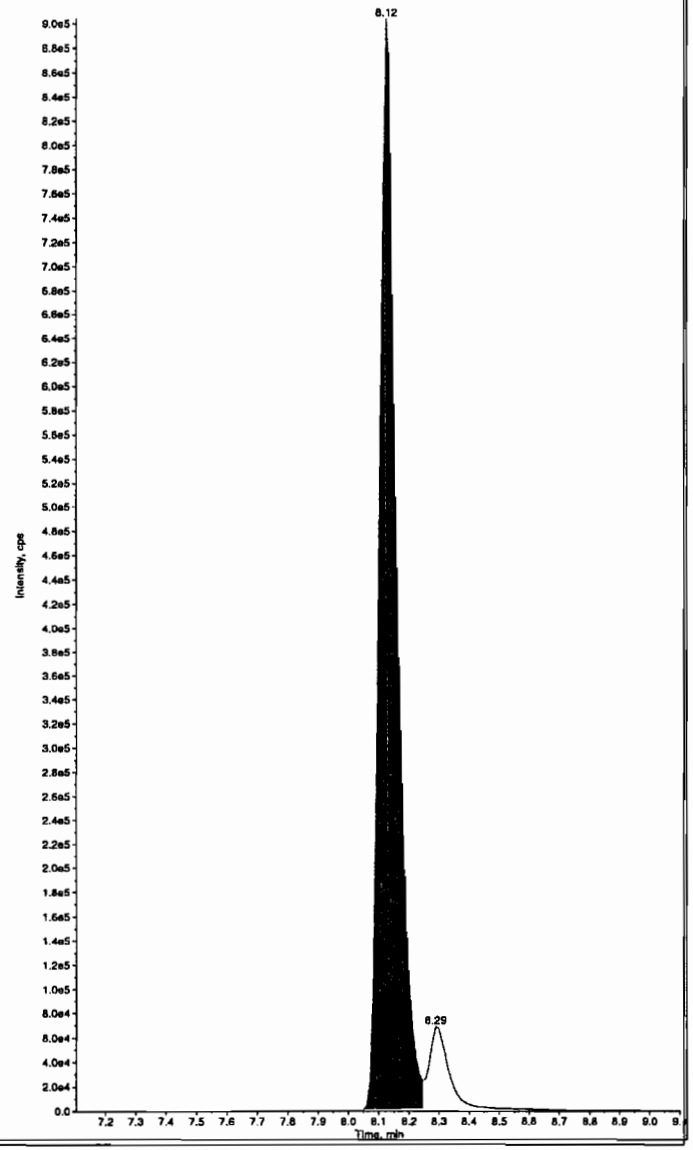

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

lame: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050050.wiff"
ne: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
: "LCMSEXP_C" Annotation: ""

```
idex:          1
/pe:          QC
ition:       250.    ng/mL
d Conc:      248.    ng/mL
::        4/6/2010
::        1:35:36 AM

             No
orithm: IntelliQuan - IQA
: Height:1460.00   cps
: Width:    0.00   sec
 Width:  3        points
::          15.0   sec
 RT:         8.28  min
ive RT:      No

::          Valley
 Time:       8.29  min
        2.11e+006  counts
          546261.353  cps
e:          8.22  min
            8.57  min
```

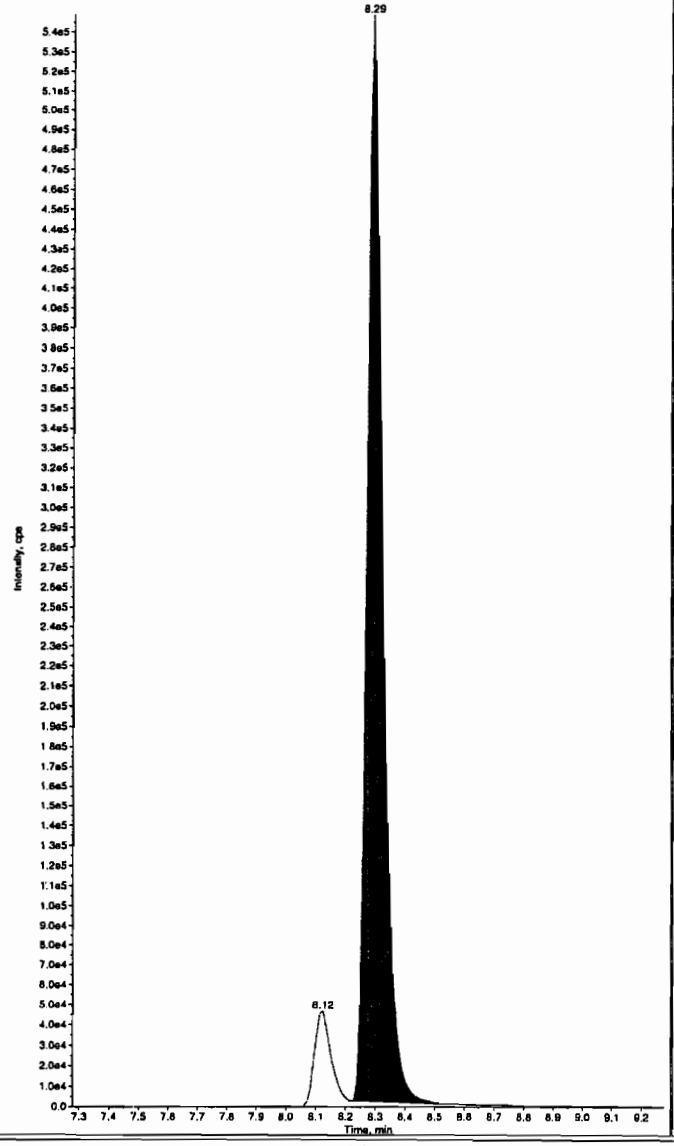

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050050.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       500.    ng/mL
Calculated Conc:     532.    ng/mL
Acq. Date:        4/6/2010
Acq. Time:        1:35:36 AM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:          30.0   sec
Expected RT:         4.92  min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      4.94  min
Area:          1.50e+006  counts
Height:         324945.679  cps
Start Time:          4.85  min
End Time:            5.24  min
```

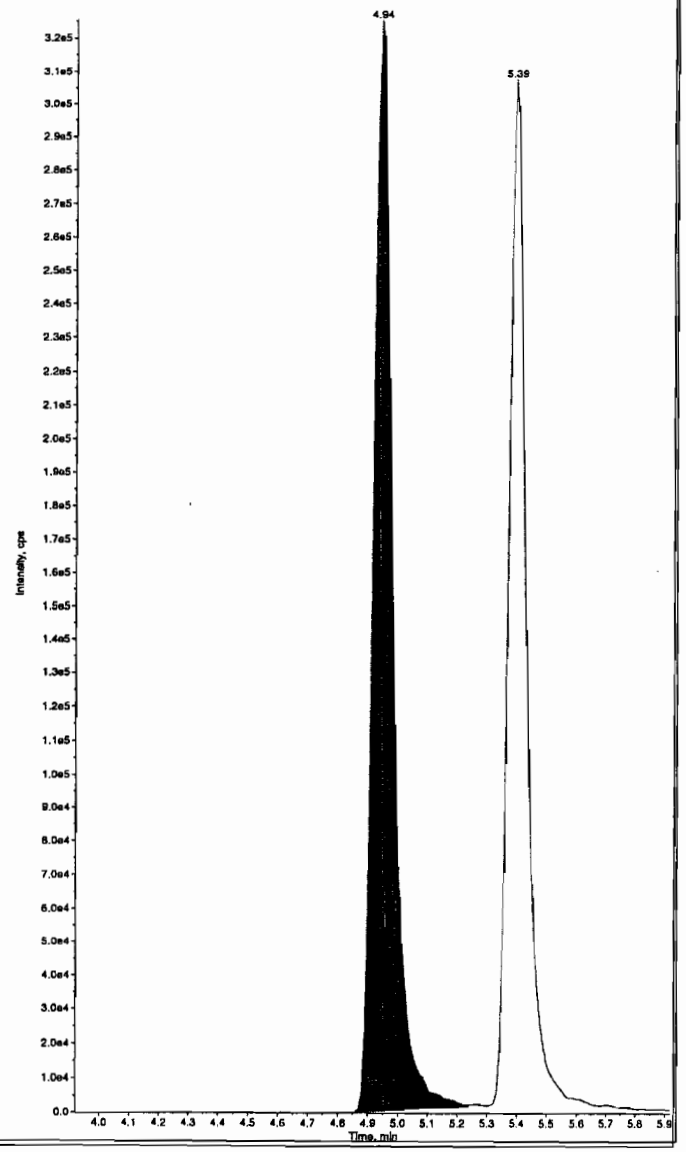

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ame: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050050.wiff"
e: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
"LCMSEXP_C" Annotation: ""

dex: 1
pe: QC
tion: 500. ng/mL
d Conc: 615. ng/mL
: 4/6/2010
: 1:35:36 AM

No
orithm: IntelliQuan - IQA
Height: 350.00 cps
Width: 0.00 sec
Width: 3 points
: 30.0 sec
RT: 5.37 min
ive RT: No

: Valley
Time: 5.39 min
1.31e+006 counts
307594.788 cps
e: 5.30 min
6.03 min

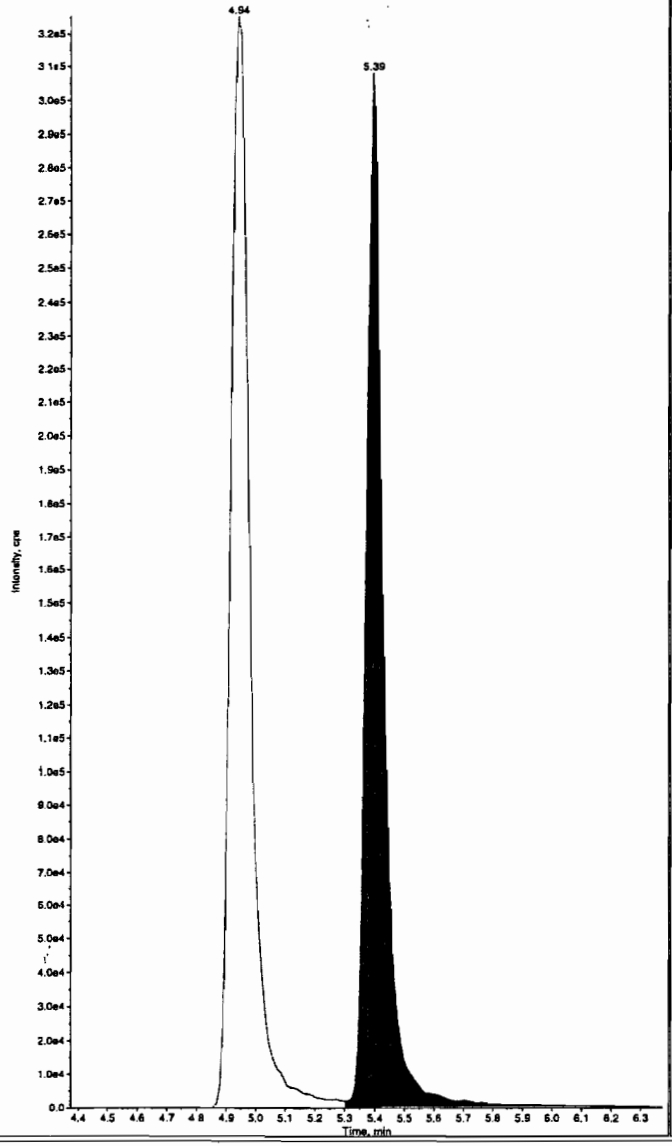

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050050.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 498. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 1:35:36 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 8.97e+006 counts
Height: 2130288.574 cps
Start Time: 10.7 min
End Time: 11.2 min

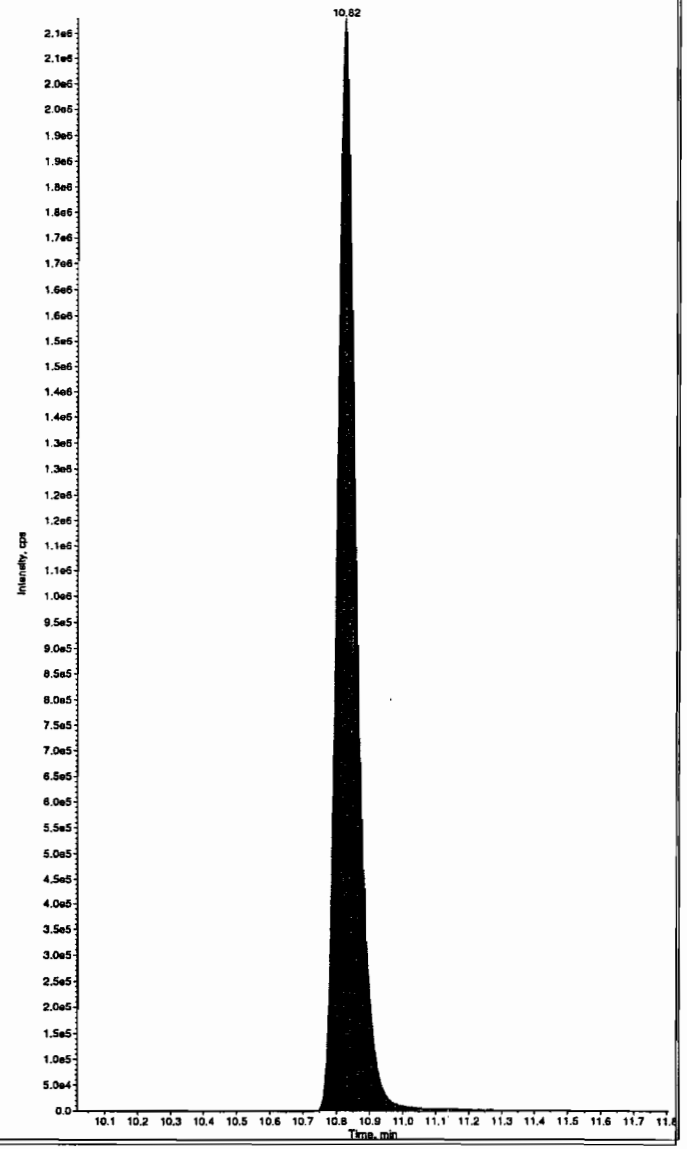

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04050052.wiff

Analysis Date: 06–APR–10 02:06

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	129	129	
2,6–Diamino–4–nitrotoluene	100	130	130	
3,4–Dinitrotoluene	50	57.7	115	
3,5–Dinitroaniline	100	125	125	
TATB	100	110	110	
tris(o–cresyl) phosphate	100	113	113	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

LCer 4/7/10

lame: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050052.wiff"
ne: "TATB" Mass(as): "257.2/204.9 amu"
l: "LCMSEXP_C" Annotation: ""
ndex: 1
ype: QC
ation: 100. ng/mL
ed Conc: 110. ng/mL
e: 4/6/2010
e: 2:06:59 AM

: No
gorithm: IntelliQuan - IQA
: Height: 2500.00 cps
: Width: 0.00 sec
Width: 3 points
: 30.0 sec
RT: 6.86 min
ive RT: No

: Valley
Time: 6.89 min
7.87e+004 counts
18809.593 cps
e: 6.78 min
7.33 min

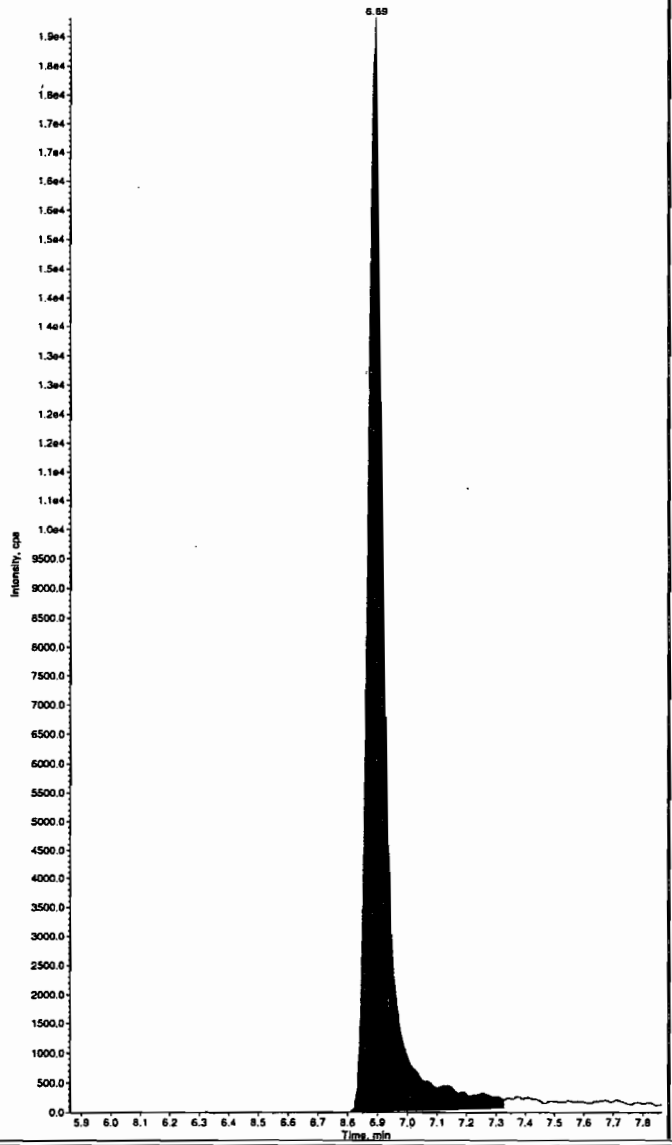

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050052.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 125. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 2:06:59 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.13 min
Area: 8.11e+005 counts
Height: 193015.747 cps
Start Time: 8.04 min
End Time: 8.26 min

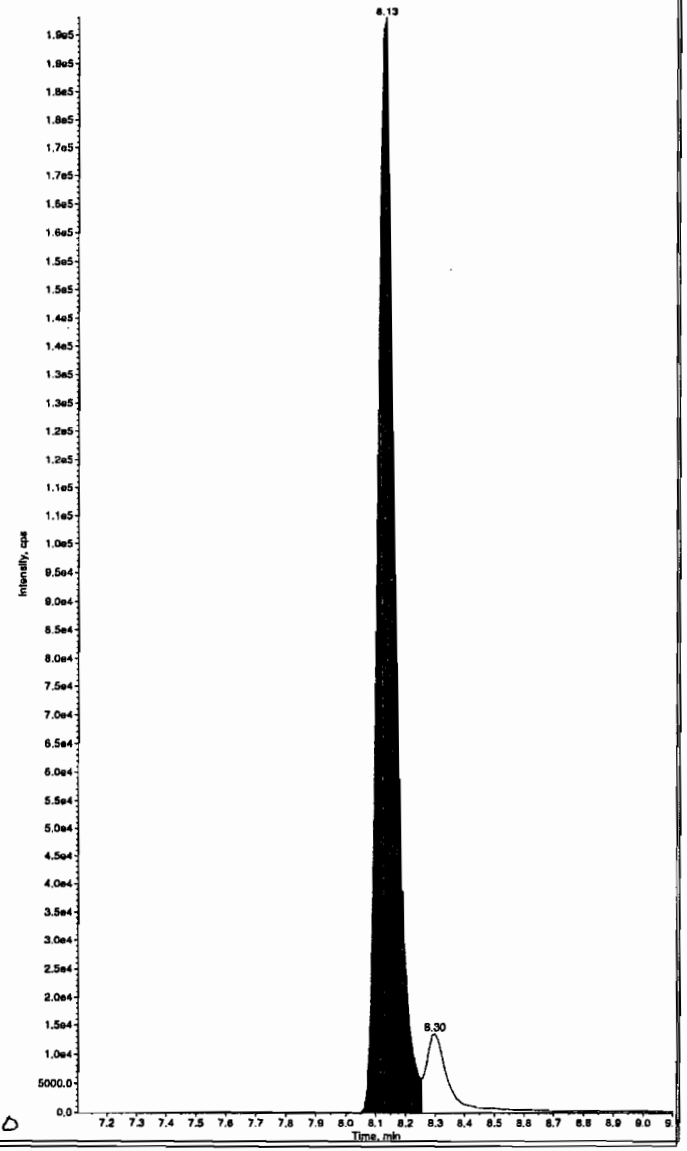

HMM 04/08/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ıme: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050052.wiff"
e: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
"LCMSEXP_C" Annotation: ""

dex: 1
pe: QC
tion: 50.0 ng/mL
d Conc: 57.7 ng/mL
: 4/6/2010
: 2:06:59 AM

No
orithm: IntelliQuan - IQA
Height:1460.00 cps
Width: 0.00 sec
Width: 3 points
: 15.0 sec
RT: 8.28 min
ive RT: No

: Valley
Time: 8.30 min
4.40e+005 counts
113012.001 cps
: 8.23 min
8.59 min

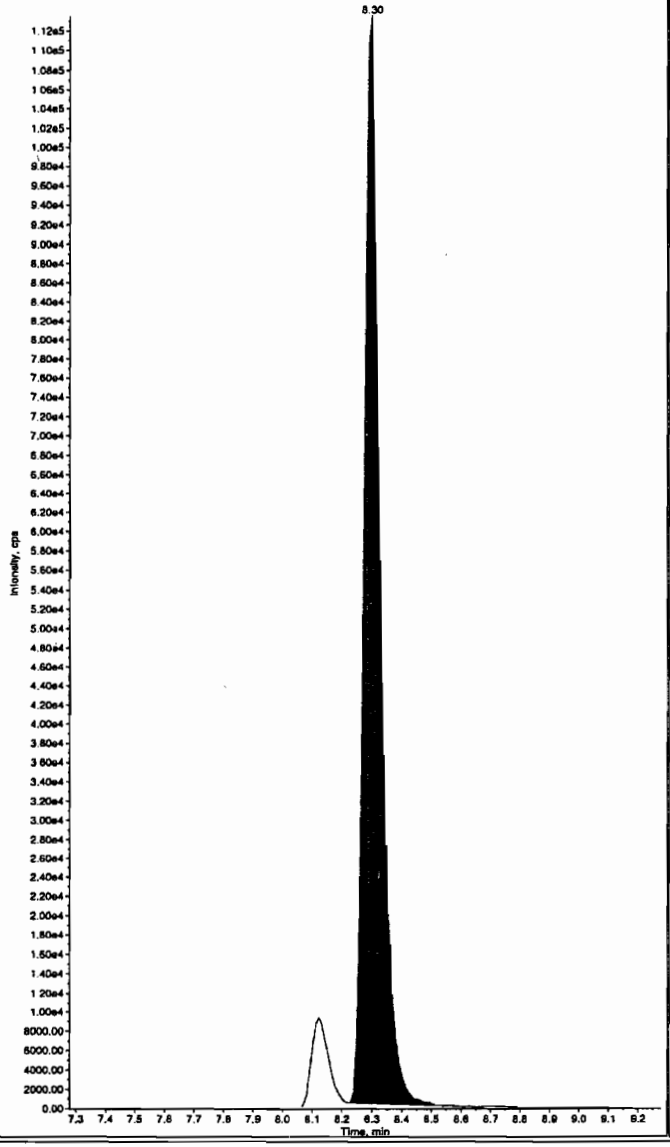

Sample Name: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050052.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 130. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 2:06:59 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.94 min
Area: 3.09e+005 counts
Height: 70719.780 cps
Start Time: 4.85 min
End Time: 5.21 min

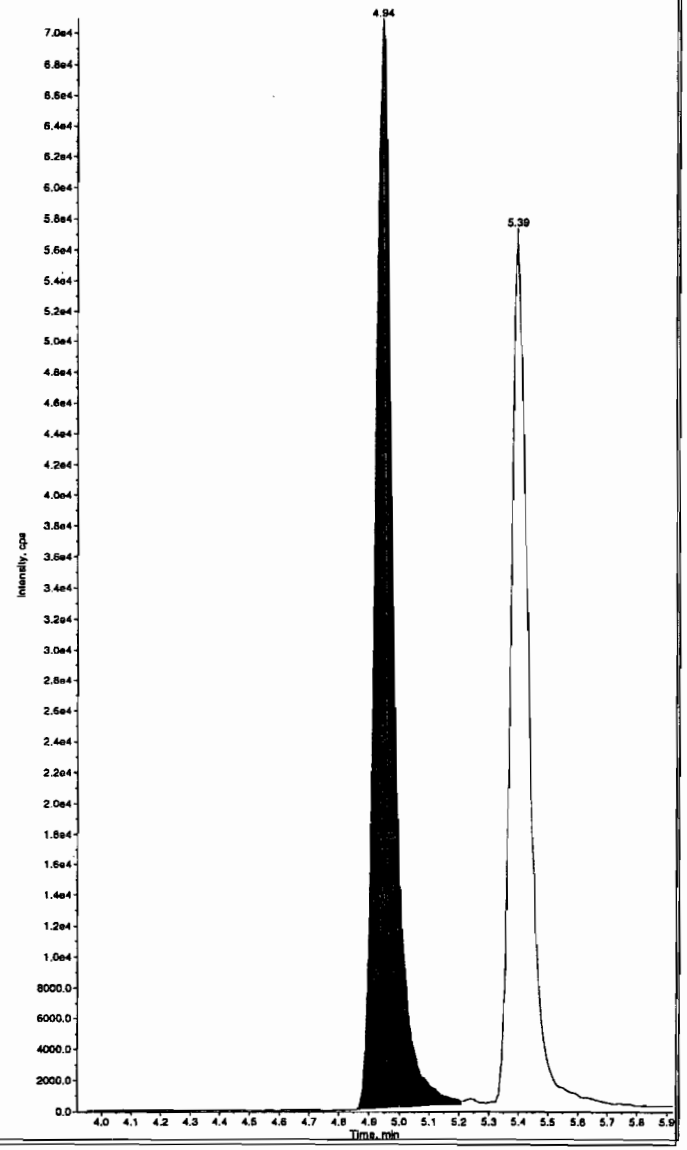

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me: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050052.wiff"
e: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
"LCMSEXP_C" Annotation: ""

```
dex:          1
pe:           QC
tion:       100.     ng/mL
d Conc:     129.     ng/mL
:        4/6/2010
:        2:06:59 AM

            No
orithm: IntelliQuan - IQA
 Height: 350.00    cps
 Width:    0.00    sec
 Width:  3        points
:         30.0     sec
RT:        5.37    min
ive RT:    No

:         Valley
 Time:      5.39    min
     2.44e+005    counts
       56857.601  cps
e:         5.29    min
           5.81    min
```

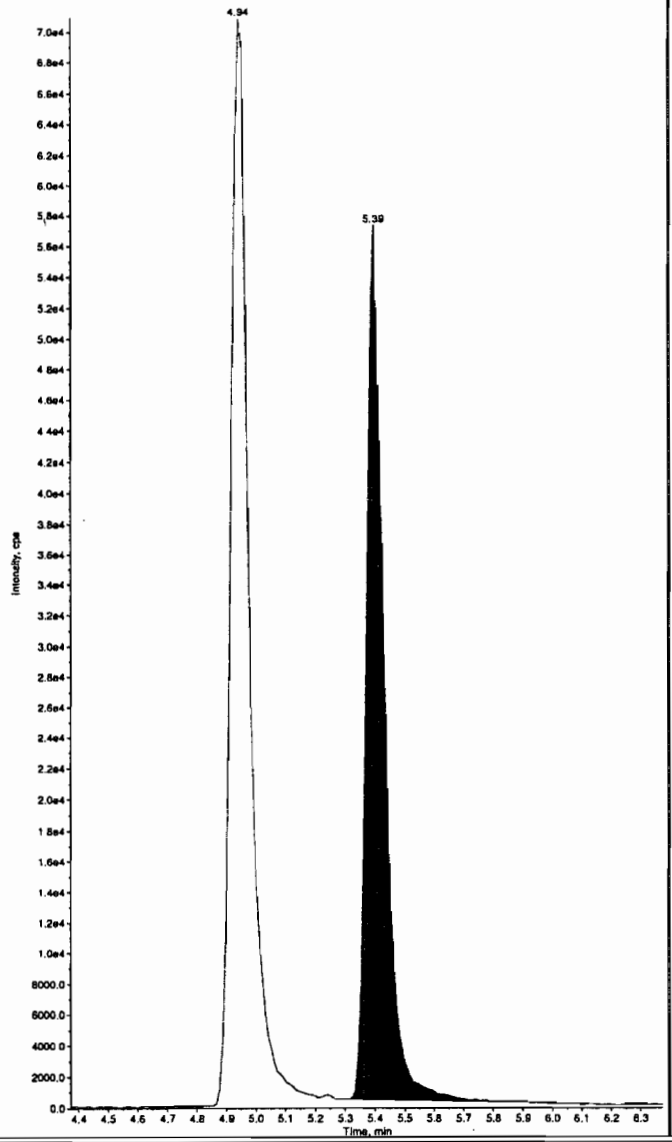

Sample Name: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050052.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       100.     ng/mL
Calculated Conc:     113.     ng/mL
Acq. Date:        4/6/2010
Acq. Time:        2:06:59 AM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3        points
RT Window:          30.0     sec
Expected RT:        10.8     min
Use Relative RT:    No

Int. Type:         Valley
Retention Time:      10.8    min
Area:          2.03e+006    counts
Height:        500741.028   cps
Start Time:          10.7   min
End Time:            11.2   min
```

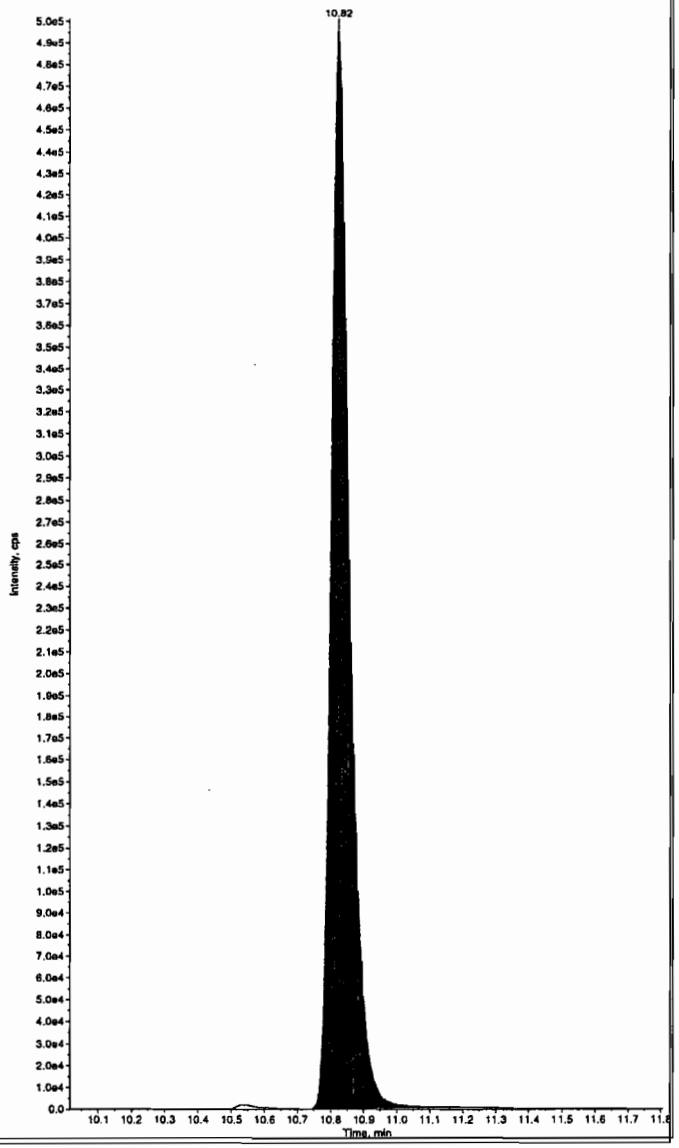

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04050063.wiff

Analysis Date: 06–APR–10 04:59

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	545	109	
2,6–Diamino–4–nitrotoluene	500	510	102	
3,4–Dinitrotoluene	250	245	98	
3,5–Dinitroaniline	500	513	103	
TATB	500	511	102	
tris(o–cresyl) phosphate	500	500	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before ICAL 4/7/10

me: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050063.wiff"
: "TATB" Mass(es): "257.2/204.9 amu"
"LCMSEXP_C" Annotation: ""
lex: 1
e: QC
ion: 500. ng/mL
l Conc: 511. ng/mL
4/6/2010
: 4:59:55 AM

No
orithm: IntelliQuan - IQA
Height: 2500.00 cps
Width: 0.00 sec
Width: 3 points
30.0 sec
T: 6.86 min
ve RT: No

Valley
Time: 6.89 min
4.07e+005 counts
90371.147 cps
: 6.80 min
7.51 min

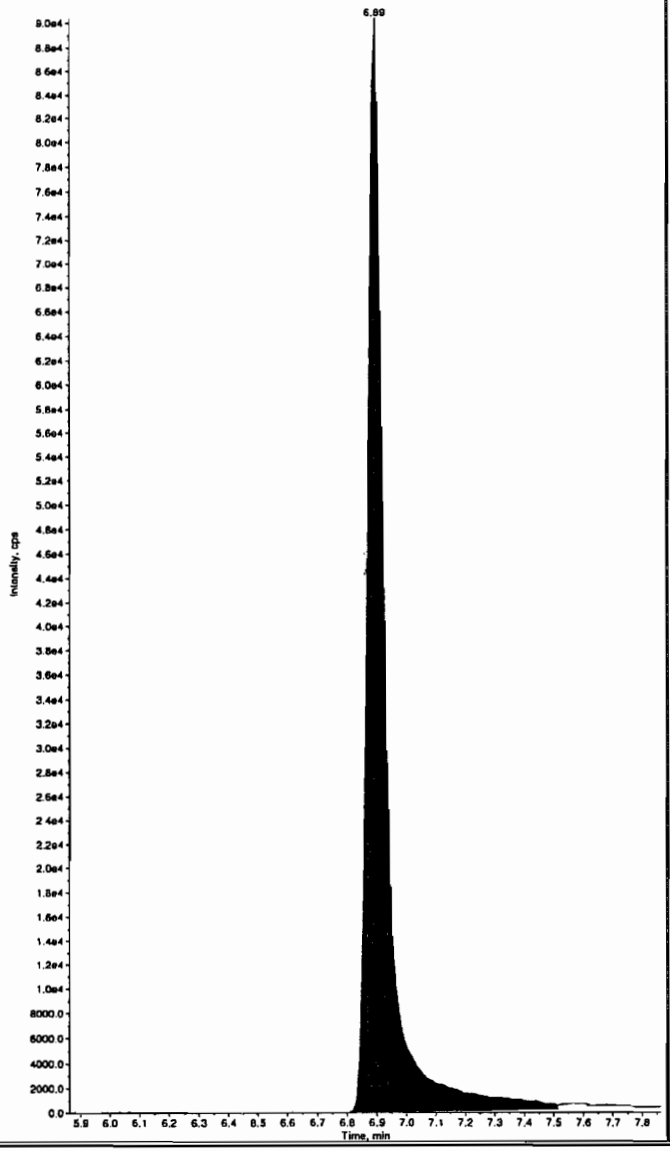

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050063.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 493. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 4:59:55 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.13 min
Area: 3.27e+006 counts
Height: 824554.504 cps
Start Time: 8.06 min
End Time: 8.26 min

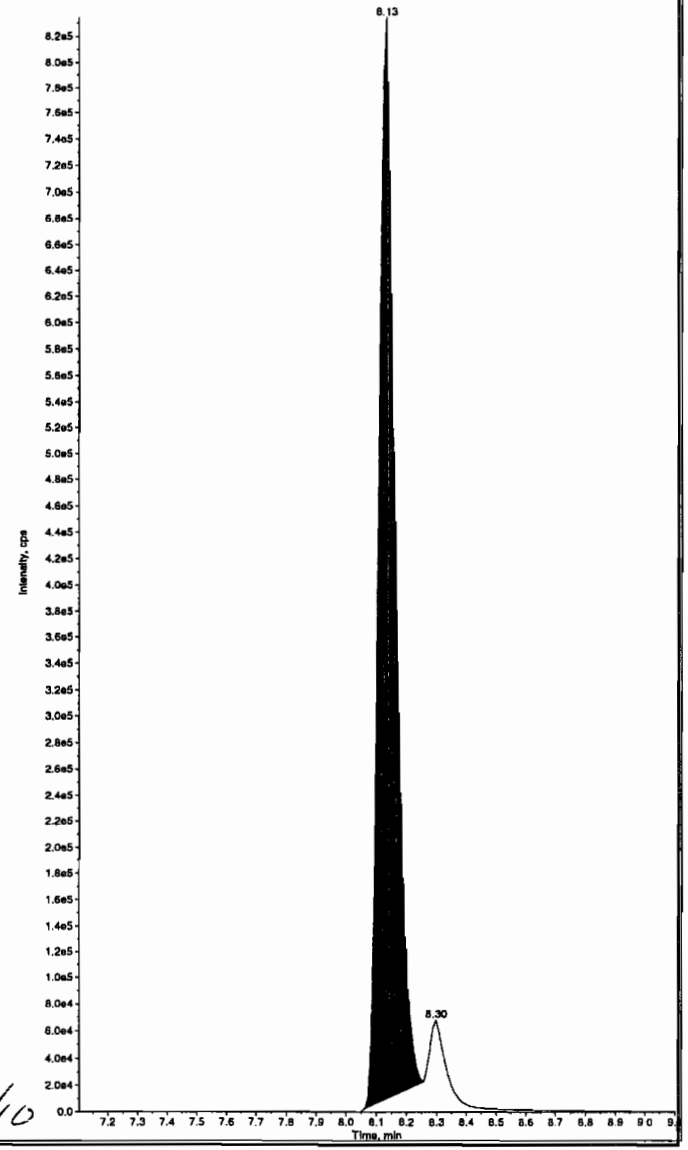

HMM 04/08/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

after dar 4/7/10

Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050063.wiff"
me: "TATB" Mass(es): "257.2/204.9 amu"
t: "LCMSEXP_C" Annotation: ""
ndex: 1
ype: QC
ation: 500. ng/mL
ed Conc: 511. ng/mL
e: 4/6/2010
e: 4:59:55 AM

: No
gorithm: IntelliQuan - IQA
k Height: 2500.00 cps
k Width: 0.00 sec
g Width: 3 points
w: 30.0 sec
RT: 6.86 min
tive RT: No

e: Valley
n Time: 6.89 min
4.07e+005 counts
90371.147 cps
me: 6.80 min
: 7.51 min

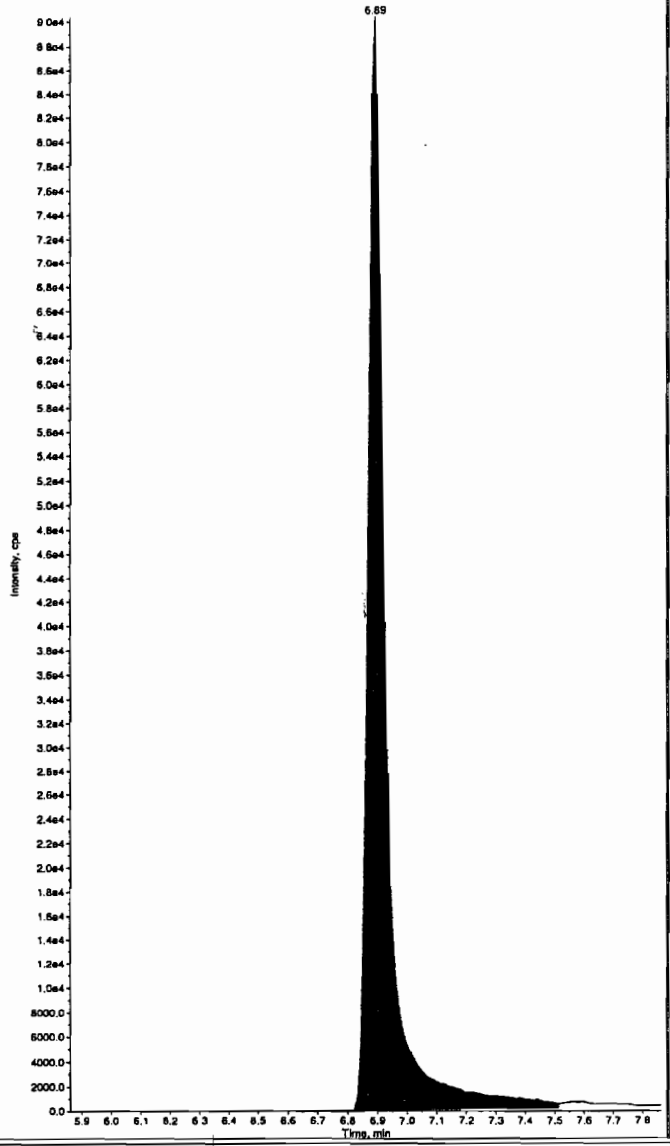

Sample Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050063.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 513. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 4:59:55 AM

Modified: Yes
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Manual
Retention Time: 8.13 min
Area: 3.40e+006 counts
Height: 836100.132 cps
Start Time: 8.06 min
End Time: 8.26 min

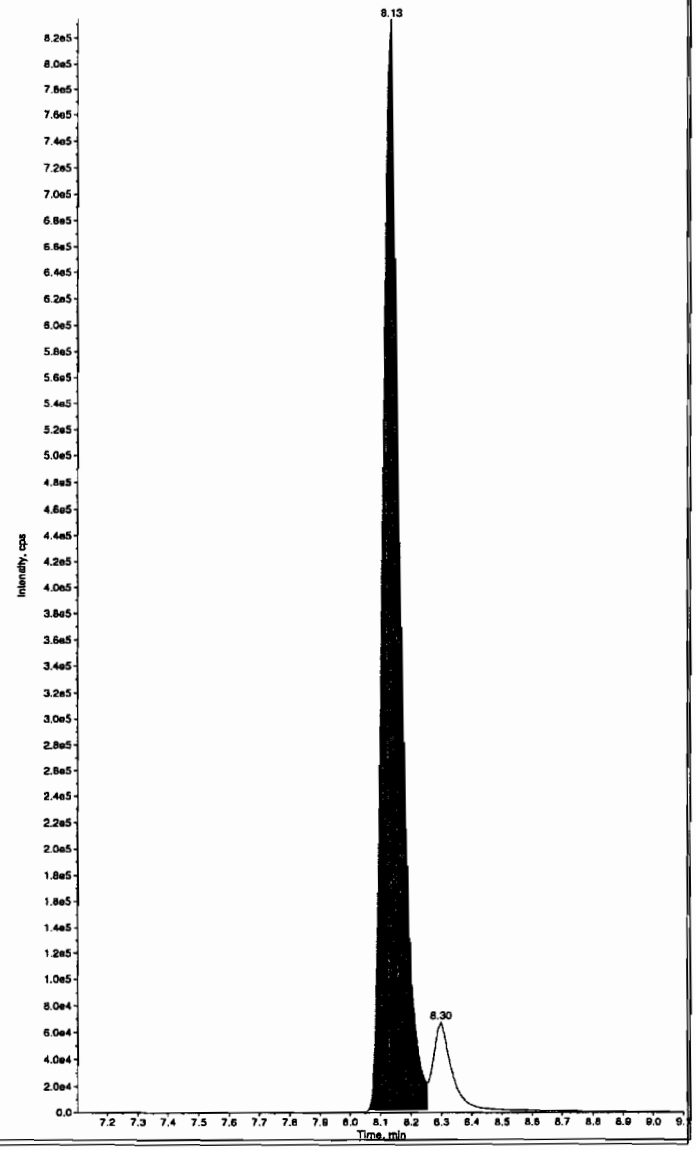

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ame: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050063.wiff"
e: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
: "LCMSEXP_C" Annotation: ""

```
idex:          1
pe:           QC
tion:       250.    ng/mL
d Conc:     245.    ng/mL
::        4/6/2010
::        4:59:55 AM

            No
orithm: IntelliQuan - IQA
: Height:1460.00   cps
: Width:    0.00   sec
Width:  3        points
::         15.0    sec
RT:         8.28   min
ive RT:     No

::         Valley
Time:       8.29   min
      2.09e+006   counts
        531466.980  cps
e:          8.23   min
            8.65   min
```

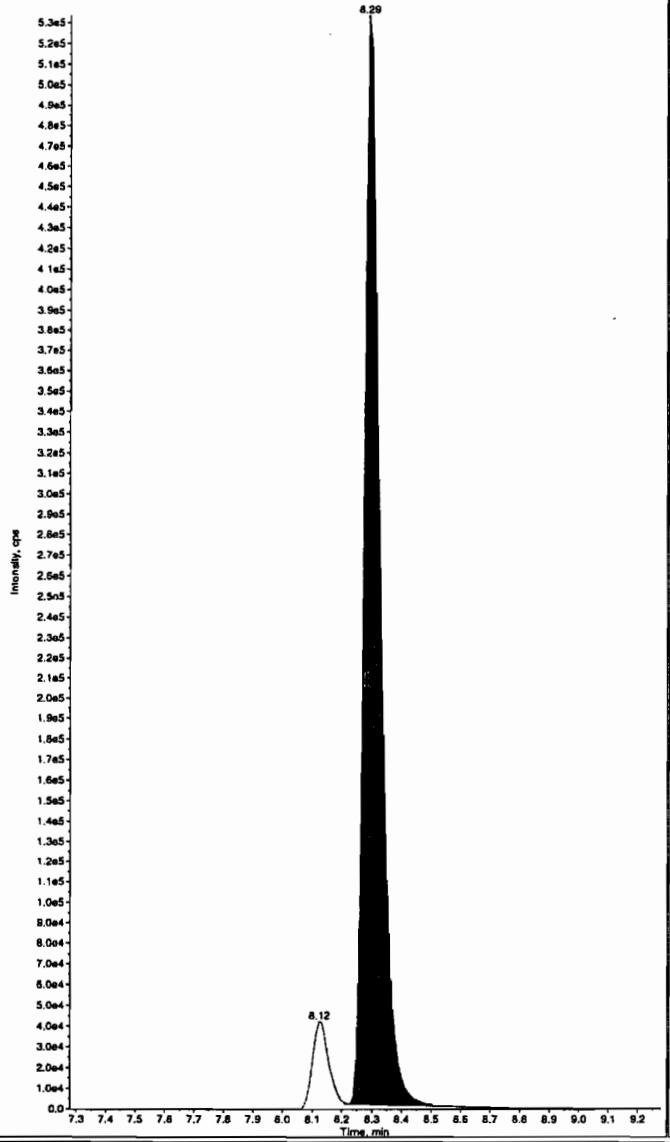

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050063.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:      500.    ng/mL
Calculated Conc:    510.    ng/mL
Acq. Date:        4/6/2010
Acq. Time:        4:59:55 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         30.0    sec
Expected RT:        4.92   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     4.94   min
Area:         1.44e+006   counts
Height:        324868.744  cps
Start Time:         4.86   min
End Time:           5.24   min
```

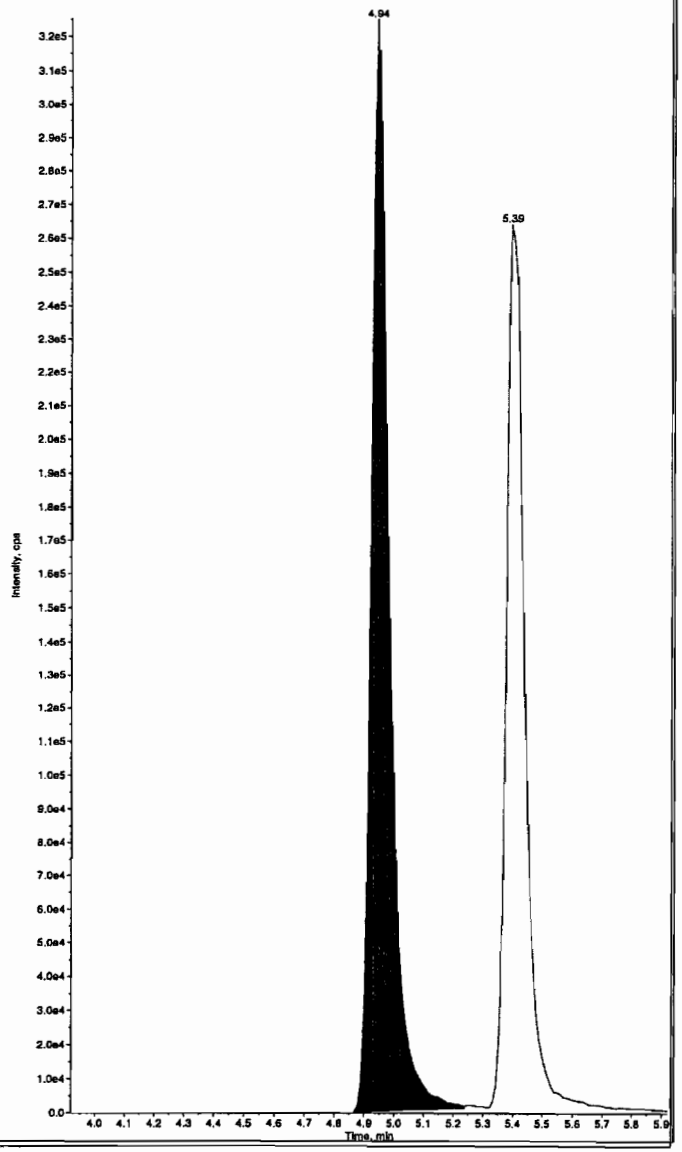

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050063.wiff"
me: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
t: "LCMSEXP_C" Annotation: ""

ndex: 1
ype: QC
ation: 500. ng/mL
ed Conc: 545. ng/mL
e: 4/6/2010
e: 4:59:55 AM

: No
gorithm: IntelliQuan - IQA
k Height: 350.00 cps
k Width: 0.00 sec
g Width: 3 points
w: 30.0 sec
RT: 5.37 min
tive RT: No

e: Valley
n Time: 5.39 min
1.17e+006 counts
262686.584 cps
me: 5.32 min
: 5.75 min

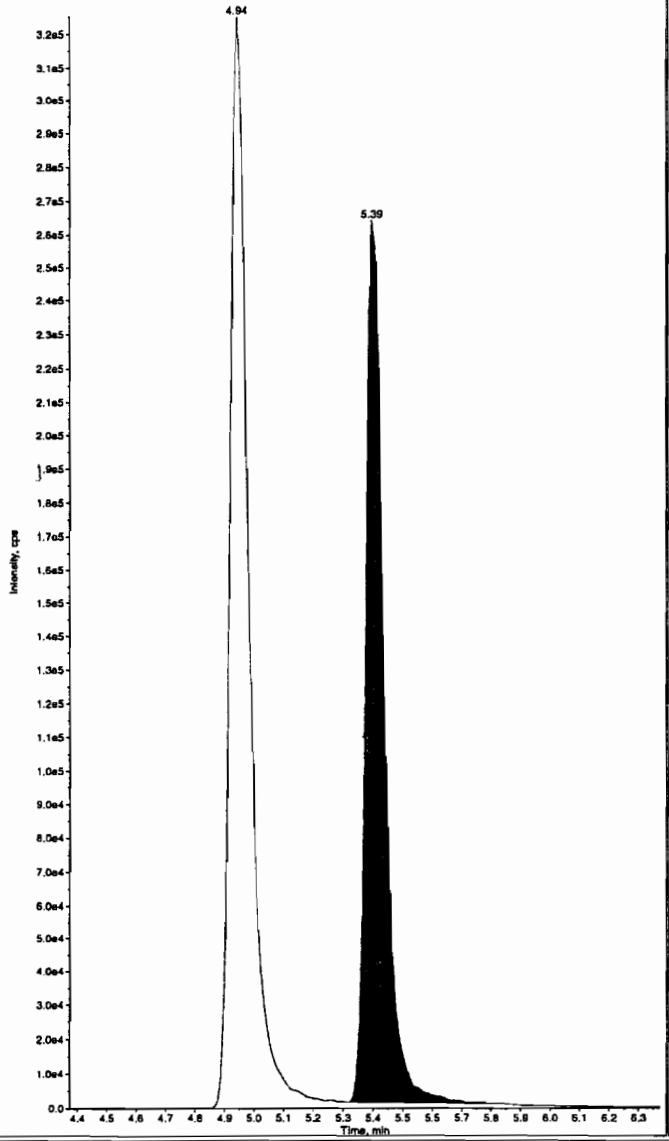

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050063.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 500. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 4:59:55 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 9.00e+006 counts
Height: 2150083.496 cps
Start Time: 10.7 min
End Time: 11.1 min

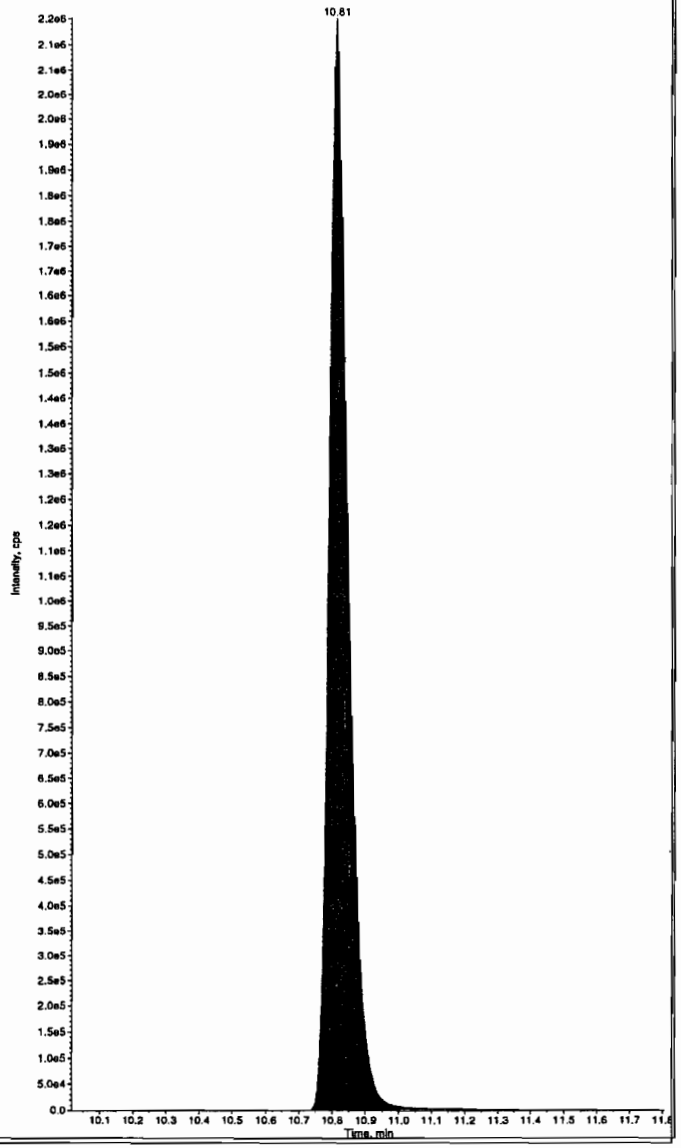

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10-2057

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04050065.wiff

Analysis Date: 06-APR-10 05:31

LCMSMS ID: 1358

Column ID: JSphere ODS-H80

Compound	True	Found	Recovery	Q
TATB	100	102	102	
tris(o-cresyl) phosphate	100	112	112	
2,4-Diamino-6-nitrotoluene	100	127	127	
2,6-Diamino-4-nitrotoluene	100	120	120	
3,4-Dinitrotoluene	50	55.5	111	
3,5-Dinitroaniline	100	115	115	

Recovery Limits:
3,4-Dinitrotoluene (Surrogate),TATB, tris(o-cresyl)phosphate, 3,5-Dinitroaniline, 2,6-Diamino-4-nitrotoluene , 2,4-Diamino-6-nitrotoluene 50-150%
OtherTarget Analytes 70-130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dan 4/7/10

ame: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050065.wiff"
e: "TATB" Mass(es): "257.2/204.9 amu"
: "LCMSEXP_C" Annotation: ""

```
ndex:          1
ype:           QC
ation:       100.    ng/mL
d Conc:      102.    ng/mL
:        4/6/2010
:        5:31:18 AM

          No
orithm: IntelliQuan - IQA
: Height:2500.00   cps
: Width:    0.00   sec
Width:  3        points
:         30.0     sec
RT:        6.86    min
ive RT:    No

:        Valley
Time:      6.89    min
      7.28e+004   counts
        17437.691  cps
e:         6.80    min
           7.22    min
```

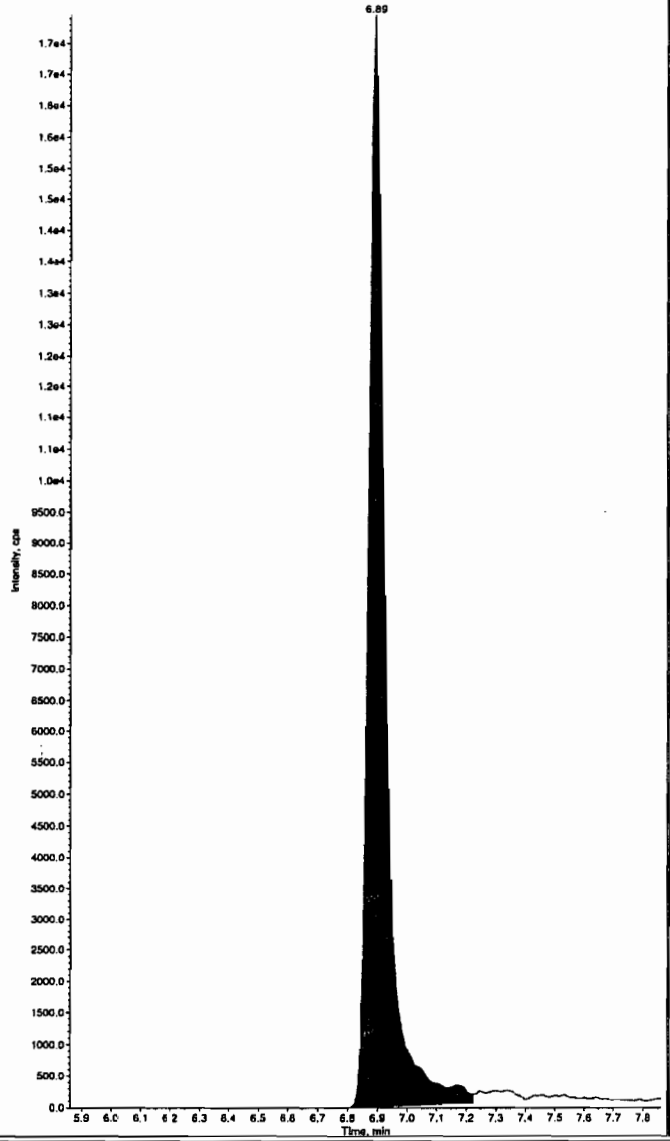

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050065.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:           QC
Concentration:       100.    ng/mL
Calculated Conc:     115.    ng/mL
Acq. Date:        4/6/2010
Acq. Time:        5:31:18 AM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2000.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3        points
RT Window:         15.0    sec
Expected RT:        8.10   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     8.12   min
Area:         7.36e+005   counts
Height:        176065.170  cps
Start Time:         8.04   min
End Time:           8.26   min
```

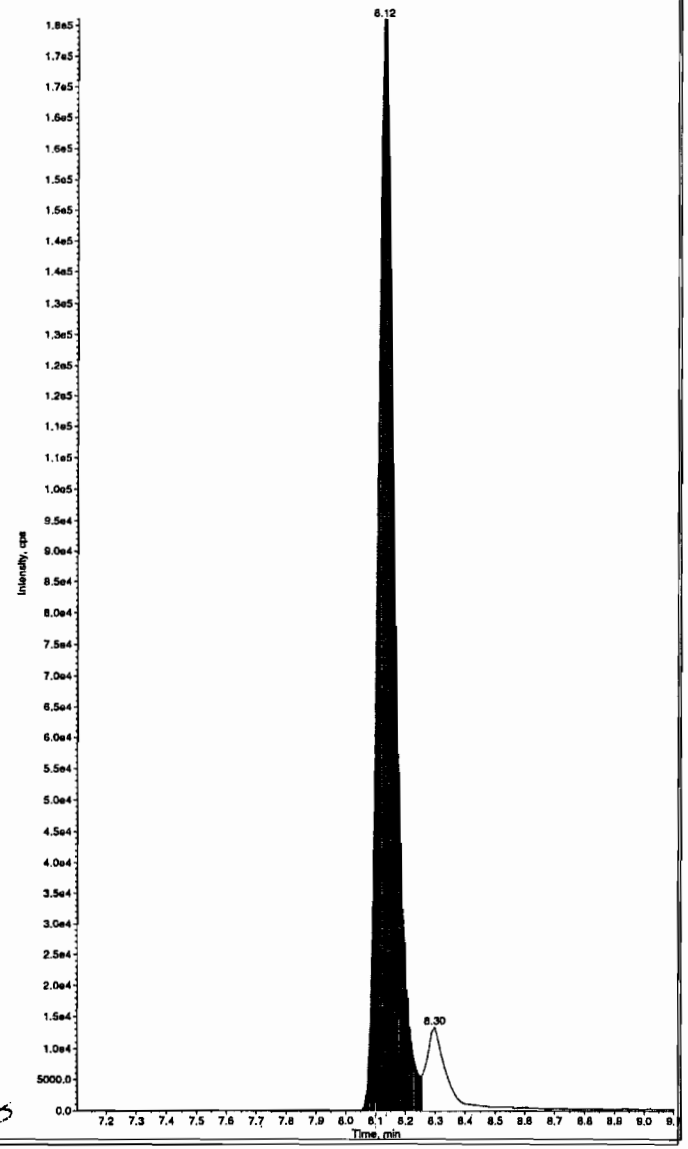

Hmm 04/08/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ame: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050065.wiff"
e: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
"LCMSEXP_C" Annotation: ""

```
dex:          1
pe:          QC
tion:        50.0     ng/mL
d Conc:      55.5     ng/mL
:         4/6/2010
:         5:31:18 AM

             No
orithm: IntelliQuan - IQA
 Height:1460.00    cps
 Width:     0.00    sec
 Width:  3         points
:          15.0     sec
RT:         8.28    min
ive RT:     No

:          Valley
 Time:      8.29    min
     4.20e+005    counts
       108718.582  cps
e:          8.22    min
            8.59    min
```

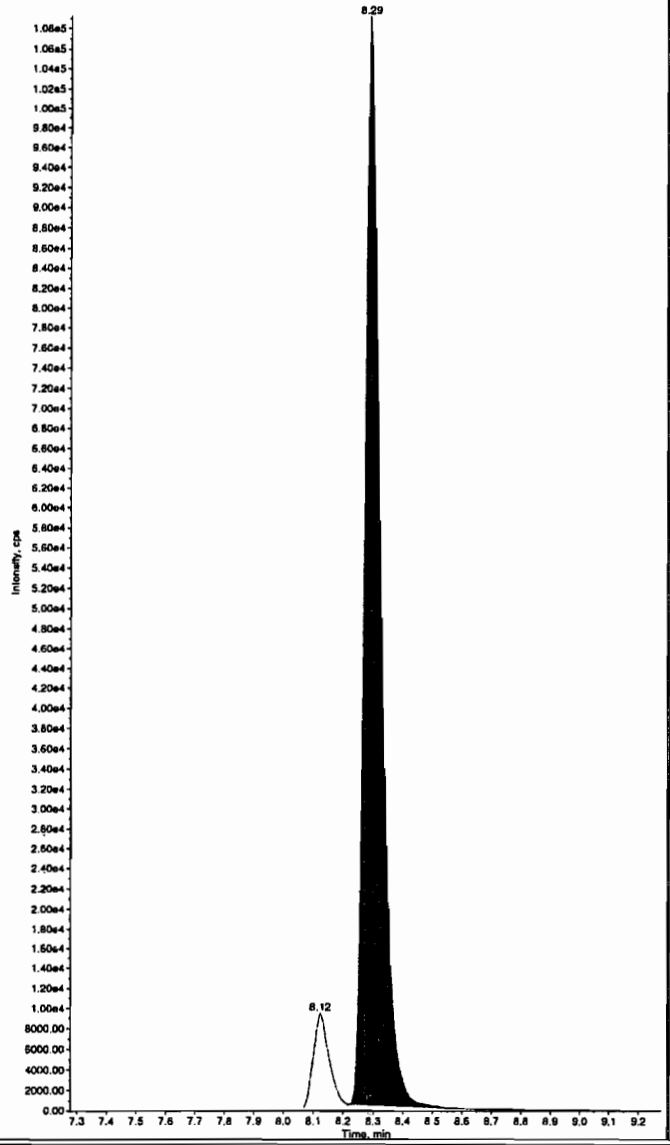

Sample Name: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050065.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       100.     ng/mL
Calculated Conc:     120.     ng/mL
Acq. Date:        4/6/2010
Acq. Time:        5:31:18 AM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3         points
RT Window:         30.0     sec
Expected RT:        4.92    min
Use Relative RT:    No

Int. Type:         Valley
Retantion Time:     4.94    min
Area:          2.78e+005    counts
Height:        57544.590    cps
Start Time:         4.86    min
End Time:           5.24    min
```

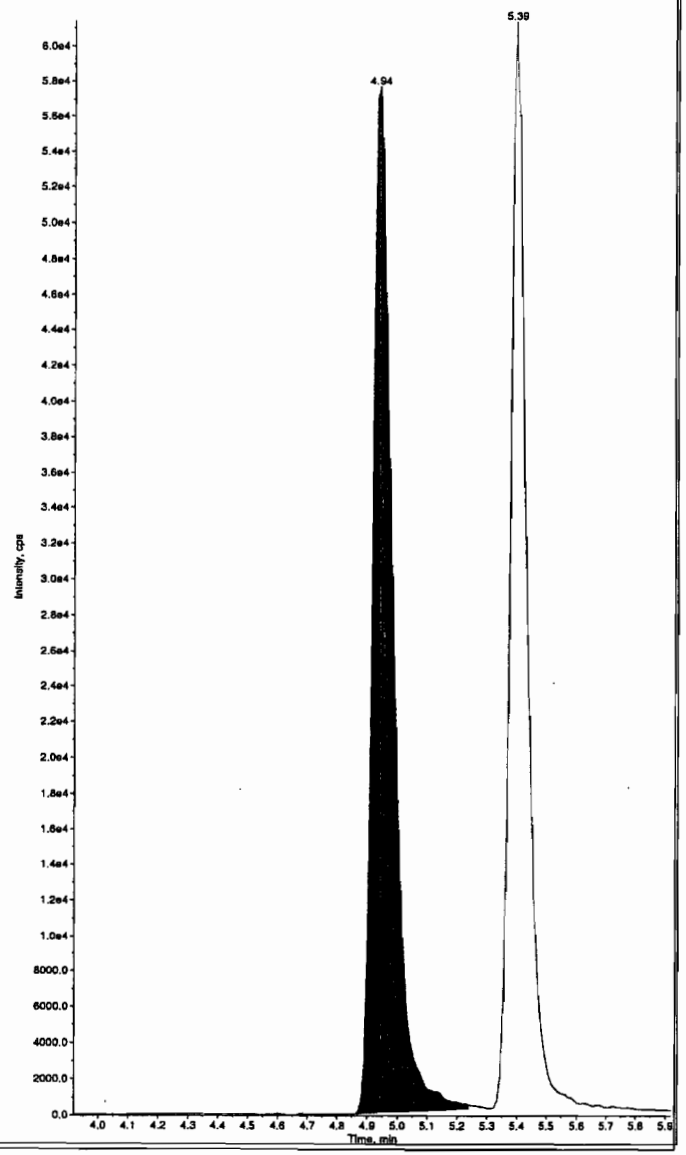

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ame: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050065.wiff"
e: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
: "LCMSEXP_C" Annotation: ""
dex: 1
pe: QC
tion: 100. ng/mL
d Conc: 127. ng/mL
: 4/6/2010
: 5:31:18 AM

No
orithm: IntelliQuan - IQA
. Height: 350.00 cps
. Width: 0.00 sec
Width: 3 points
: 30.0 sec
RT: 5.37 min
ive RT: No

: Valley
Time: 5.39 min
2.40e+005 counts
60972.054 cps
e: 5.31 min
5.70 min

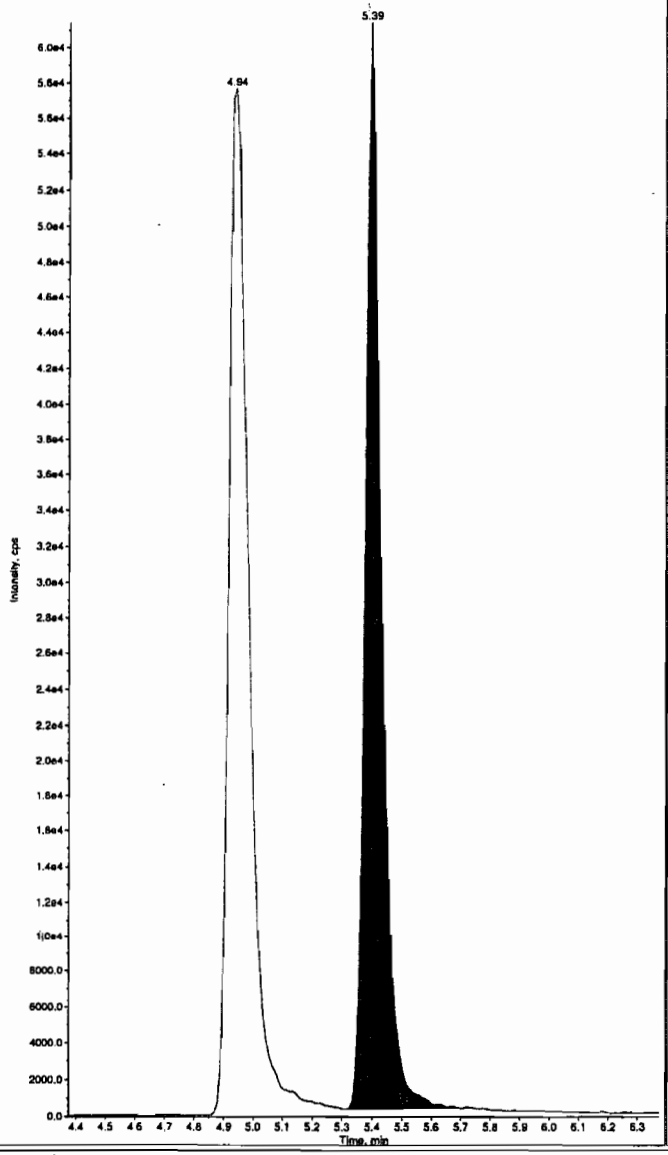

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050065.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 112. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 5:31:18 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 2.03e+006 counts
Height: 499661.285 cps
Start Time: 10.7 min
End Time: 11.2 min

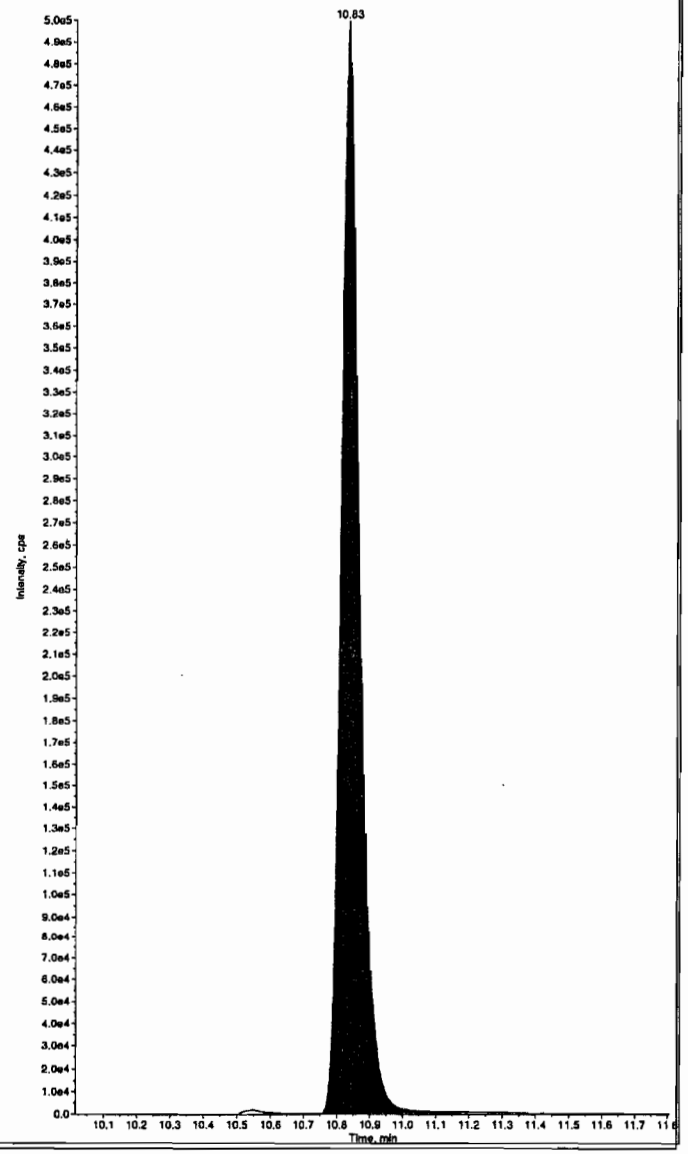

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04050071.wiff

Analysis Date: 06–APR–10 07:05

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	500	529	106	
2,6–Diamino–4–nitrotoluene	500	498	100	
3,4–Dinitrotoluene	250	232	93	
3,5–Dinitroaniline	500	508	102	
TATB	500	485	97	
tris(o–cresyl) phosphate	500	500	100	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Before Lcr 4/7/10

lame: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050071.wiff"
ne: "TATB" Mass(es). "257.2/204.9 amu"
: "LCMSEXP_C" Annotation: ""

ıdex:	1	
/pe:	QC	
ıtion:	500.	ng/mL
ɜd Conc:	485.	ng/mL
ɜ:	4/6/2010	
ɜ:	7:05:35 AM	
:	No	
ɟorithm:	IntelliQuan - IQA	
: Height:	2500.00	cps
: Width:	0.00	sec
; Width:	3	points
v:	30.0	sec
RT:	6.86	min
:ive RT:	No	
ɜ:	Valley	
ı Time:	6.89	min
	3.86e+005	counts
	81972.862	cps
ıe:	6.79	min
:	7.60	min

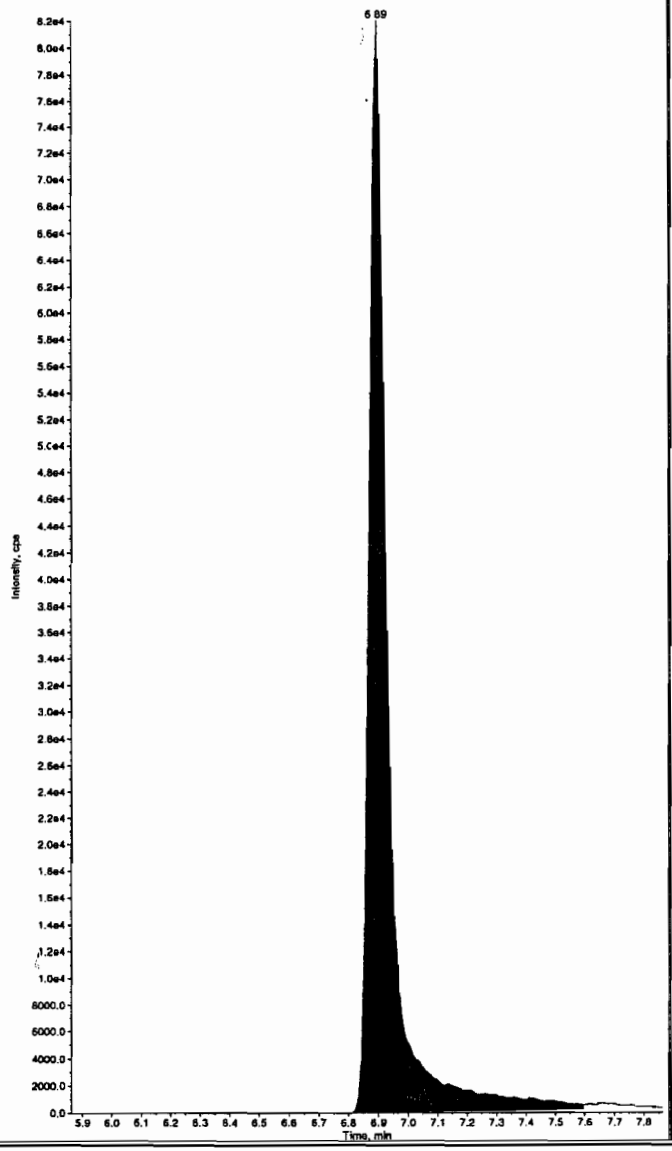

Sample Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050071.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	500.	ng/mL
Calculated Conc:	490.	ng/mL
Acq. Date:	4/6/2010	
Acq. Time:	7:05:35 AM	
Modified:	Yes	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.13	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.13	min
Area:	3.25e+006	counts
Height:	819595.947	cps
Start Time:	8.06	min
End Time:	8.26	min

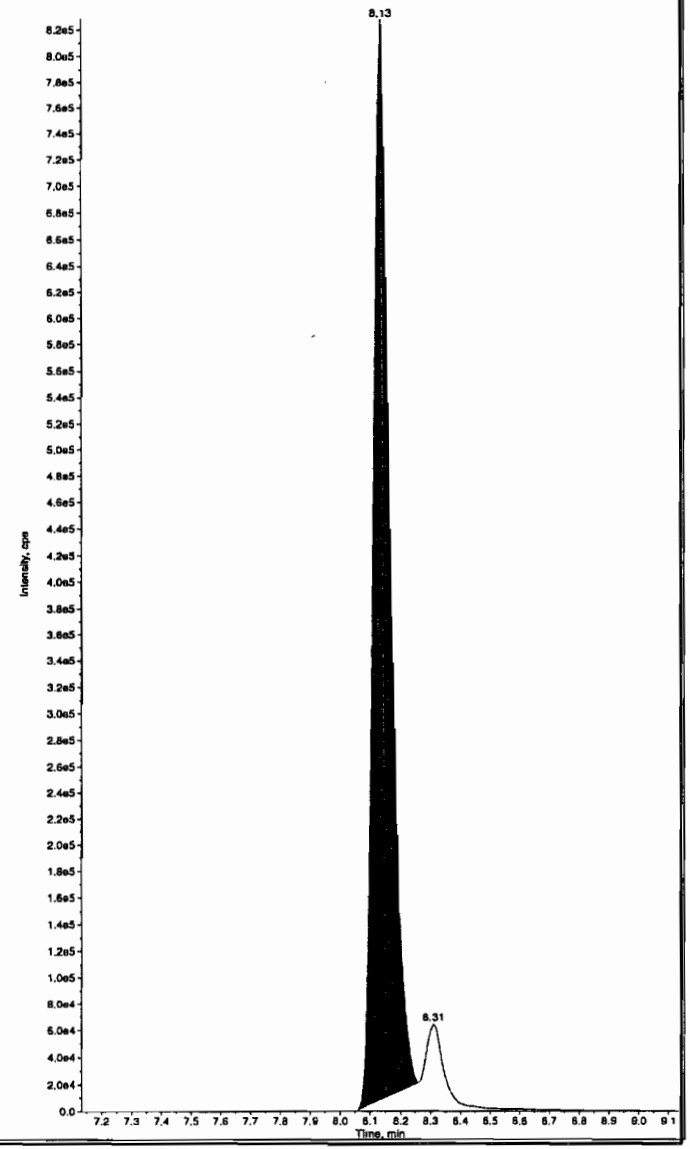

HMM 04/08/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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aftm Lan 4/7/10

ame: "WXX100405-26CCV" Sample ID: "]1|LER" File: "EXS04050071.wiff"
e: "TATB" Mass(es): "257.2/204.9 amu"
: "LCMSEXP_C" Annotation: ""

```
idex:          1
pe:           QC
ation:       500.    ng/mL
d Conc:      485.    ng/mL
::        4/6/2010
::        7:05:35 AM

           No
orithm: IntelliQuan - IQA
: Height:2500.00   cps
: Width:    0.00   sec
: Width:  3        points
::         30.0    sec
RT:         6.86   min
ive RT:     No

::        Valley
Time:       6.89   min
      3.86e+005   counts
      81972.862   cps
e:          6.79   min
            7.60   min
```

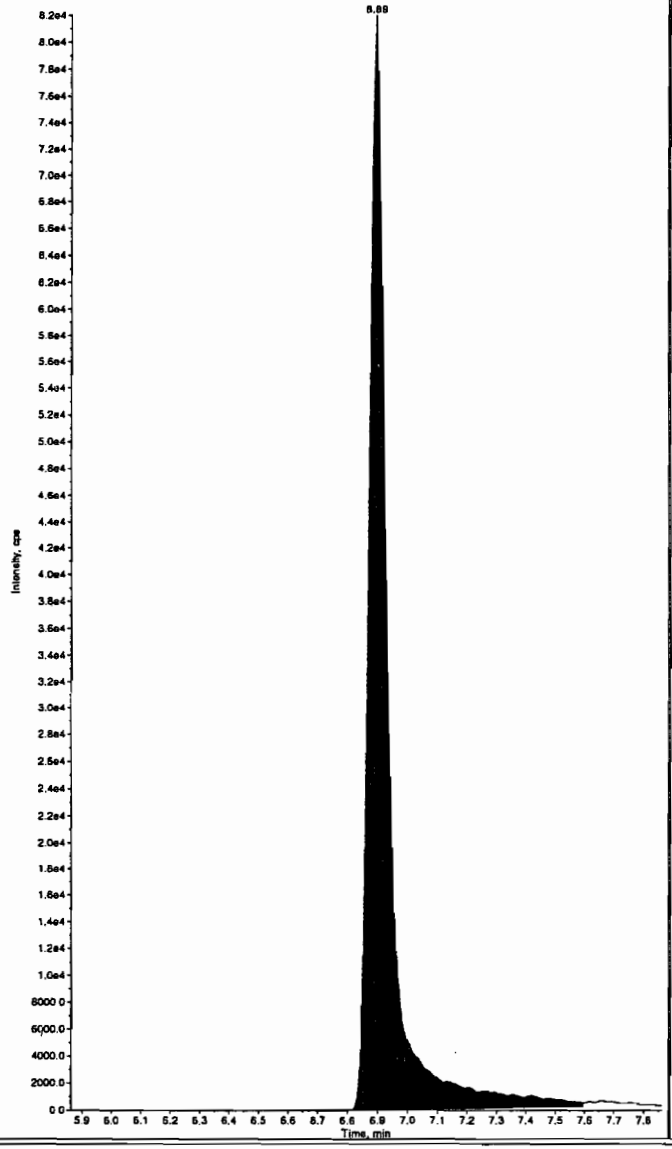

Sample Name: "WXX100405-26CCV" Sample ID: "]1|LER" File: "EXS04050071.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       500.    ng/mL
Calculated Conc:     508.    ng/mL
Acq. Date:        4/6/2010
Acq. Time:        7:05:35 AM

Modified:            Yes
RT Window:          15.0    sec
Expected RT:         8.13   min
Use Relative RT:     No

Int. Type:         Manual
Retention Time:      8.13   min
Area:          3.36e+006   counts
Height:         826410.027  cps
Start Time:          8.06   min
End Time:            8.26   min
```

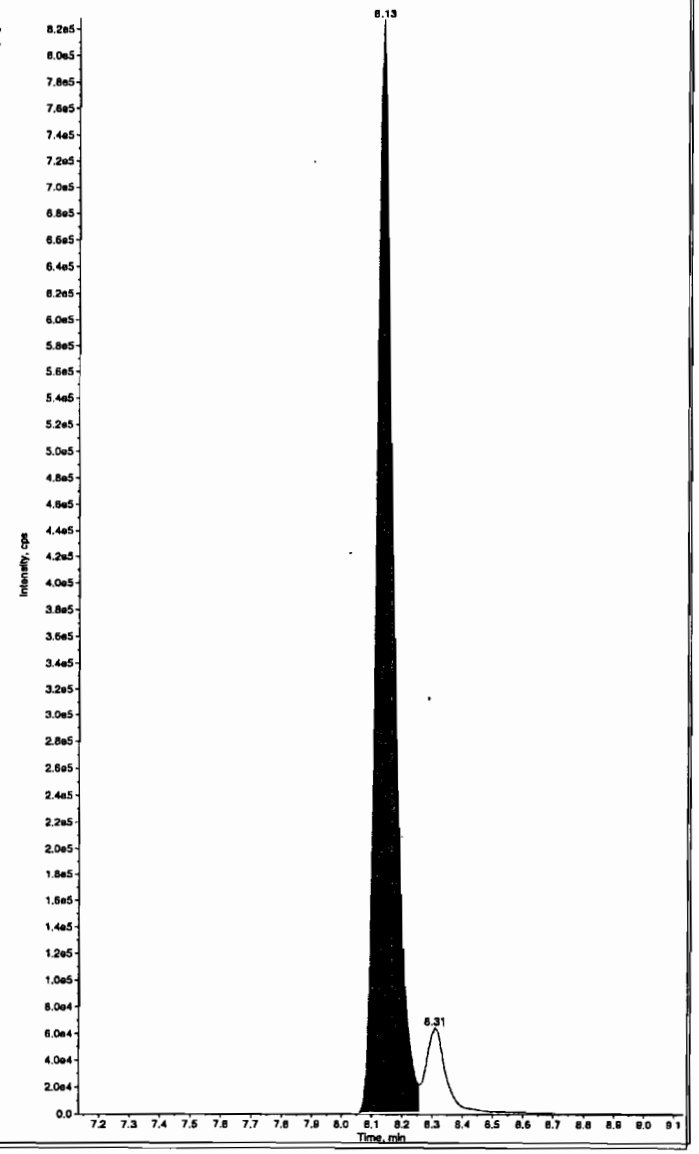

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

lame: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050071.wiff"
ne: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
: "LCMSEXP_C" Annotation: ""

ndex:	1
ype:	QC
ation:	250. ng/mL
d Conc:	232. ng/mL
e:	4/6/2010
e:	7:05:35 AM
	No
gorithm:	IntelliQuan - IQA
: Height:	1460.00 cps
: Width:	0.00 sec
Width:	3 points
:	15.0 sec
RT:	8.28 min
tive RT:	No
e:	Valley
Time:	8.30 min
	1.98e+006 counts
	500423.340 cps
e:	8.23 min
	8.56 min

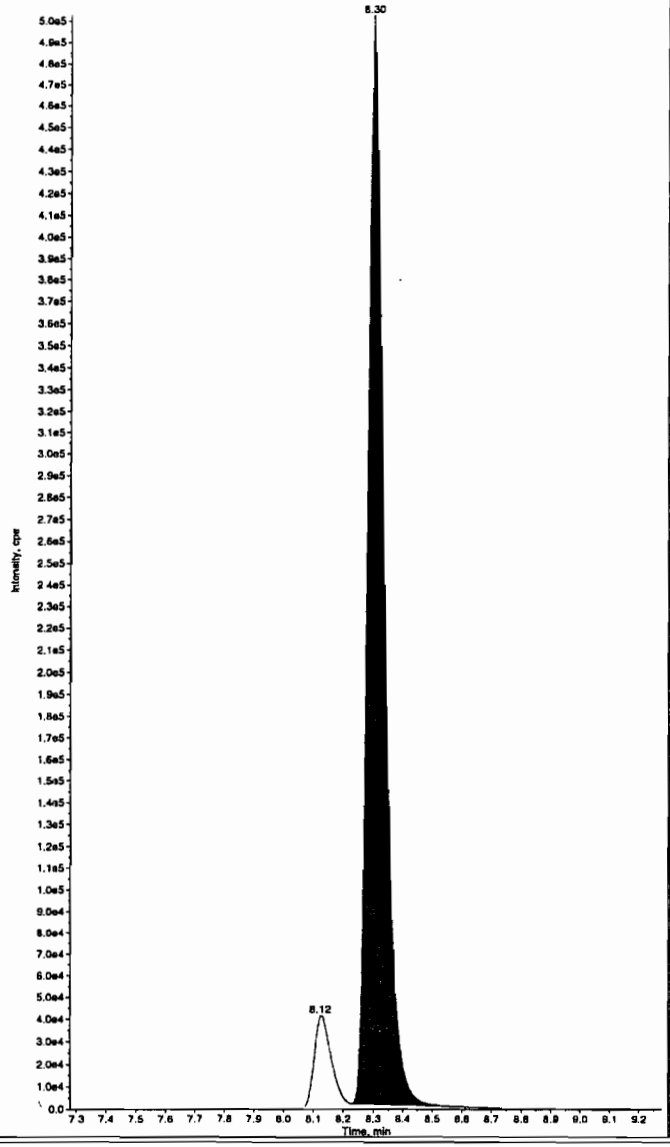

Sample Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050071.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1
Sample Type:	QC
Concentration:	500. ng/mL
Calculated Conc:	498. ng/mL
Acq. Date:	4/6/2010
Acq. Time:	7:05:35 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	450.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	4.92 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	4.94 min
Area:	1.40e+006 counts
Height:	330309.174 cps
Start Time:	4.85 min
End Time:	5.25 min

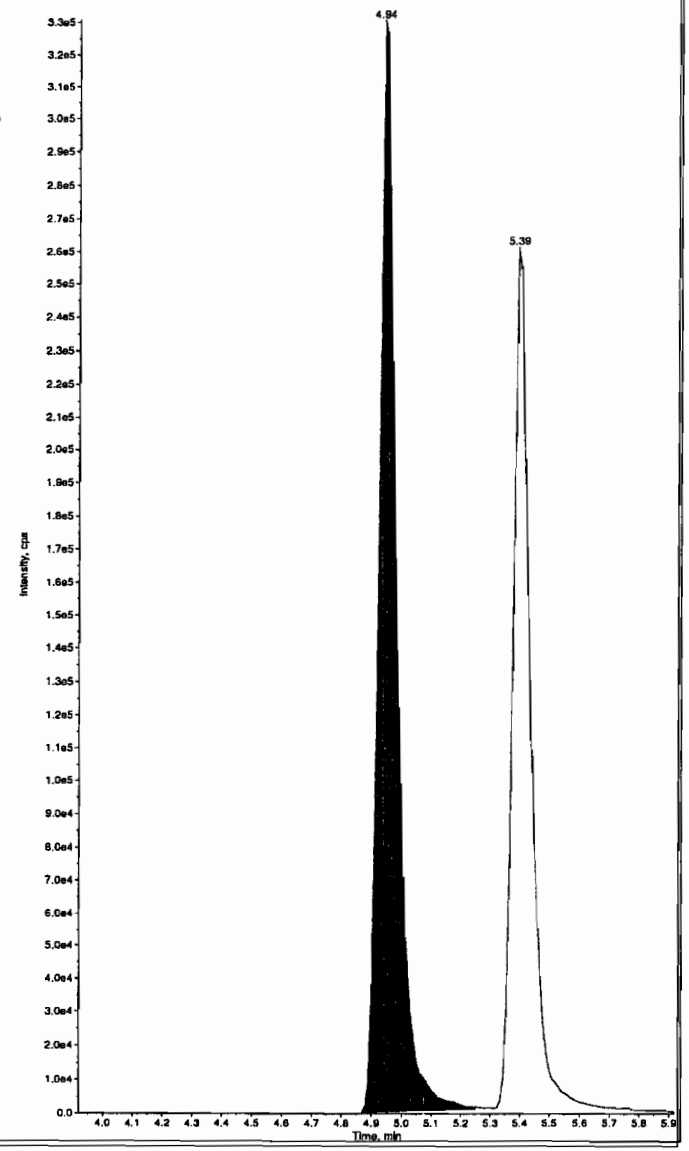

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ame: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050071.wiff"
e: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
"LCMSEXP_C" Annotation: ""

```
dex:          1
pe:          QC
tion:       500.     ng/mL
d Conc:     529.     ng/mL
:        4/6/2010
:        7:05:35 AM

            No
orithm: IntelliQuan - IQA
 Height: 350.00    cps
 Width:    0.00    sec
 Width:  3        points
:          30.0    sec
RT:         5.37   min
ive RT:     No

:          Valley
 Time:      5.39   min
     1.13e+006   counts
       261575.287  cps
e:          5.31   min
            6.14   min
```

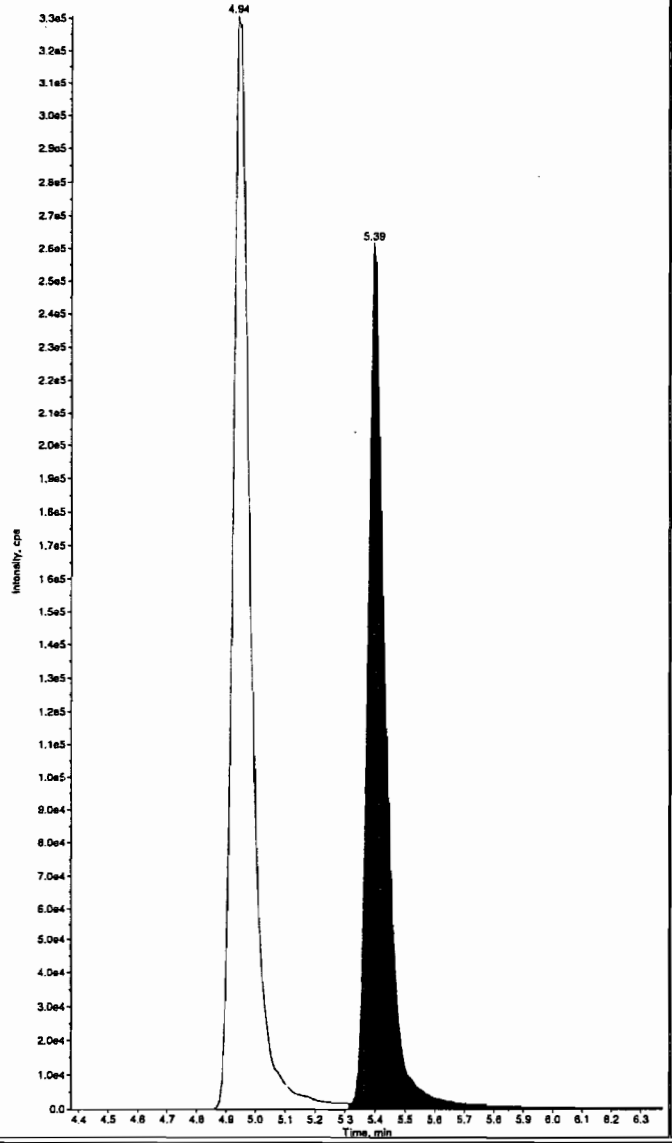

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050071.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:      500.     ng/mL
Calculated Conc:    500.     ng/mL
Acq. Date:       4/6/2010
Acq. Time:       7:05:35 AM

Modified:           No
Proc. Algorithm:  IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:        10.8    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.8    min
Area:         9.00e+006   counts
Height:       2106493.408  cps
Start Time:         10.7    min
End Time:           11.2    min
```

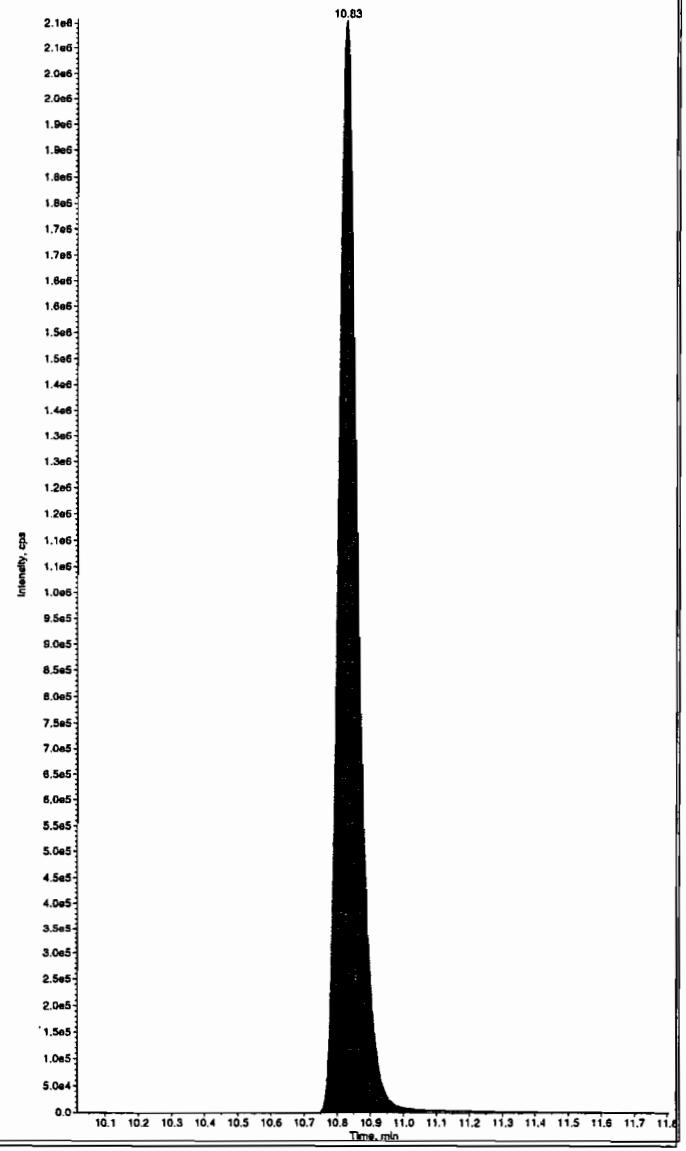

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04050073.wiff

Analysis Date: 06–APR–10 07:37

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	131	131	
2,6–Diamino–4–nitrotoluene	100	124	124	
3,4–Dinitrotoluene	50	54.8	110	
3,5–Dinitroaniline	100	119	119	
TATB	100	109	109	
tris(o–cresyl) phosphate	100	113	113	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene ,
2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Sar 4/7/10

ame: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050073.wiff"
e: "TATB" Mass(es): "257.2/204.9 amu"
: "LCMSEXP_C" Annotation: ""

ndex:	1	
pe:	QC	
ation:	100.	ng/mL
d Conc:	109.	ng/mL
:	4/6/2010	
:	7:37:00 AM	
	No	
orithm:	IntelliQuan - IQA	
: Height:	2500.00	cps
: Width:	0.00	sec
: Width:	3	points
:	30.0	sec
RT:	6.86	min
ive RT:	No	
:	Valley	
: Time:	6.90	min
	7.82e+004	counts
	17356.895	cps
e:	6.78	min
	7.59	min

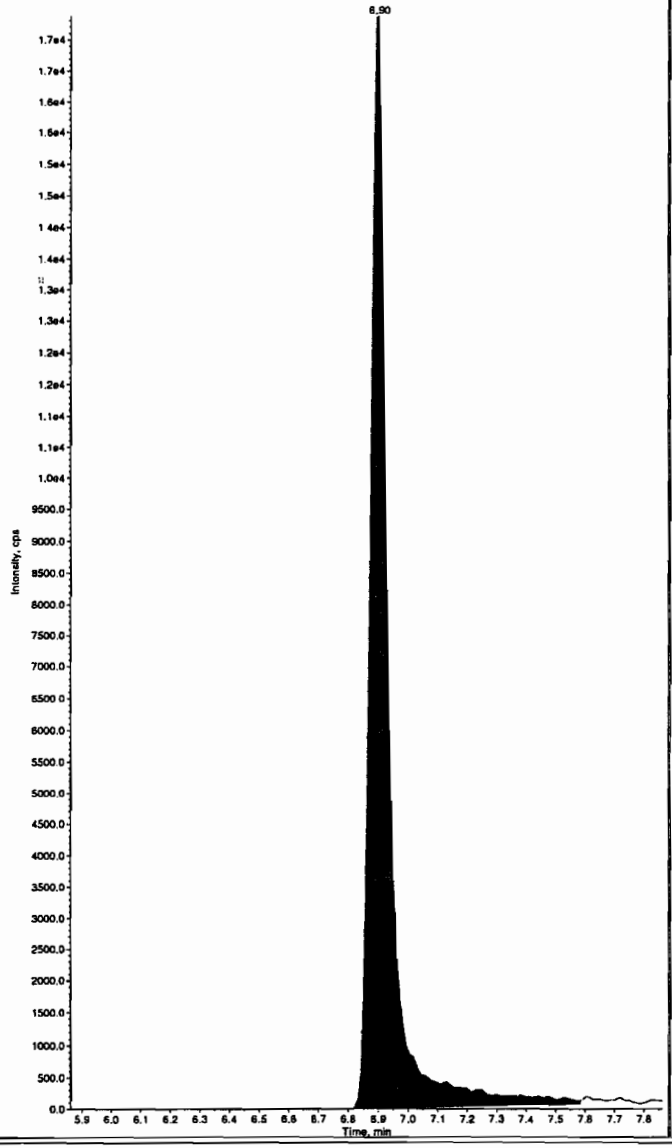

Sample Name: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050073.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index:	1	
Sample Type:	QC	
Concentration:	100.	ng/mL
Calculated Conc:	119.	ng/mL
Acq. Date:	4/6/2010	
Acq. Time:	7:37:00 AM	
Modified:	No	
Proc. Algorithm:	IntelliQuan - IQA	
Min. Peak Height:	2000.00	cps
Min. Peak Width:	0.00	sec
Smoothing Width:	3	points
RT Window:	15.0	sec
Expected RT:	8.10	min
Use Relative RT:	No	
Int. Type:	Valley	
Retention Time:	8.13	min
Area:	7.70e+005	counts
Height:	188518.494	cps
Start Time:	8.04	min
End Time:	8.27	min

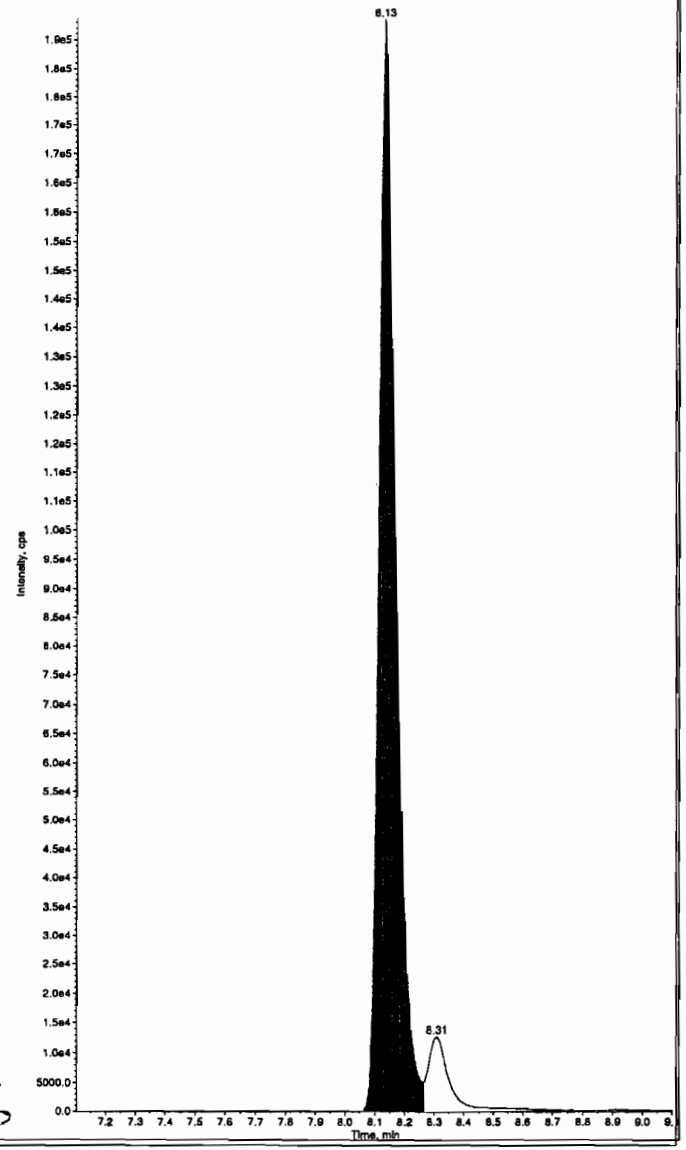

HMM 04/08/10

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ame: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050073.wiff"
e: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
: "LCMSEXP_C" Annotation: "

```
ndex:          1
pe:           QC
tion:       50.0    ng/mL
d Conc:     54.8    ng/mL
::        4/6/2010
::        7:37:00 AM

          No
orithm: IntelliQuan - IQA
 Height:1460.00   cps
 Width:    0.00   sec
 Width:  3       points
::         15.0   sec
RT:         8.28  min
ive RT:    No

:         Valley
 Time:      8.30  min
     4.13e+005   counts
      105831.650  cps
e:          8.23  min
            8.64  min
```

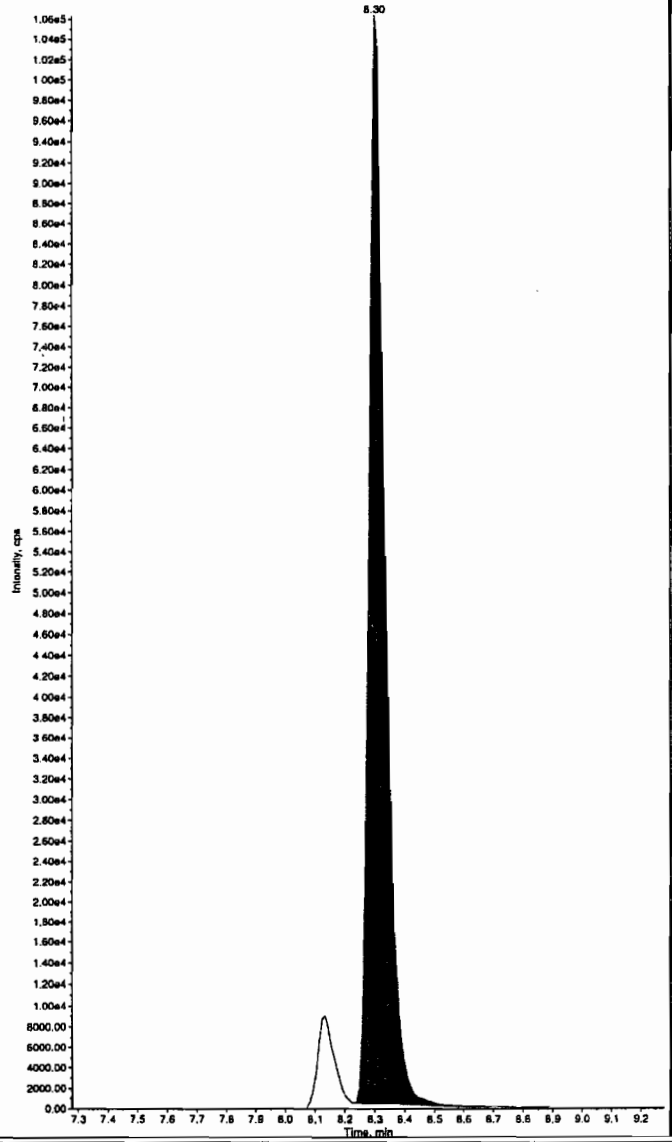

Sample Name: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050073.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:          1
Sample Type:          QC
Concentration:       100.    ng/mL
Calculated Conc:     124.    ng/mL
Acq. Date:        4/6/2010
Acq. Time:        7:37:00 AM

Modified:            No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         30.0    sec
Expected RT:        4.92   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     4.95   min
Area:         2.92e+005   counts
Height:        61837.967  cps
Start Time:         4.85   min
End Time:           5.21   min
```

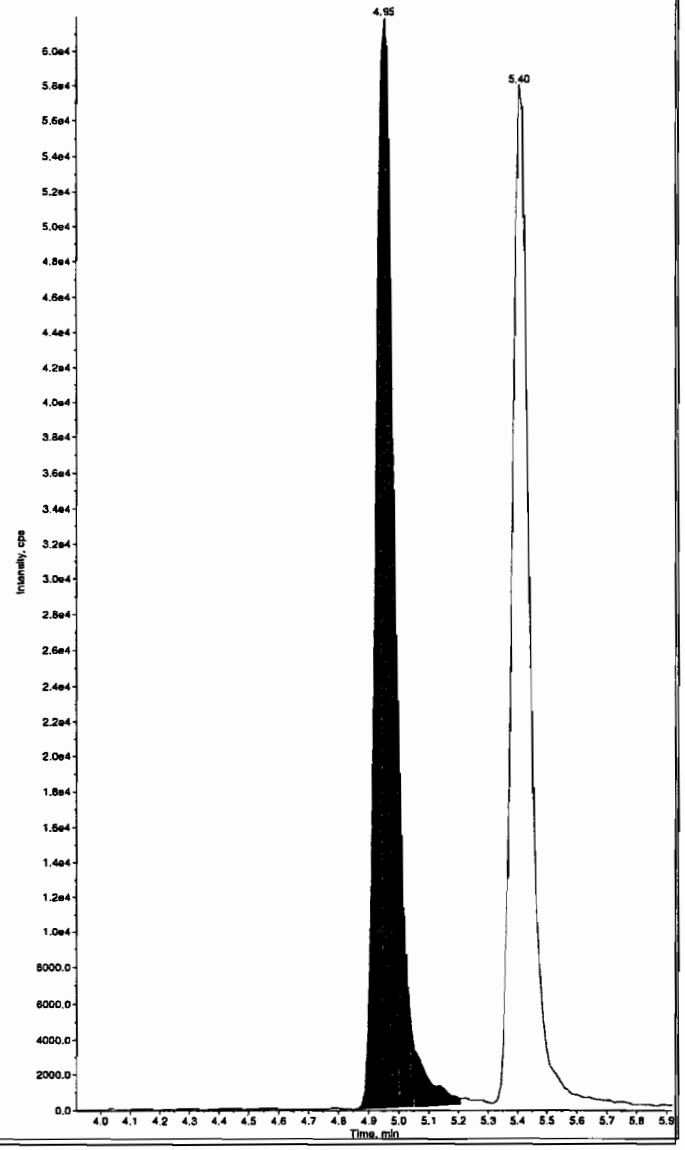

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ıme: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050073.wiff"
a: "24-Diamino-6-nitrotoluene" Mass(as): "166.0/46.0 amu"
"LCMSEXP_C" Annotation: ""

```
dex:          1
pe:          QC
tion:      100.     ng/mL
d Conc:    131.     ng/mL
:        4/6/2010
:        7:37:00 AM

           No
orithm: IntelliQuan - IQA
 Height: 350.00    cps
 Width:    0.00    sec
 Width:  3        points
:         30.0     sec
RT:        5.37    min
ive RT:    No

:         Valley
 Time:     5.40    min
     2.48e+005    counts
       57708.473  cps
e:         5.31    min
           5.86    min
```

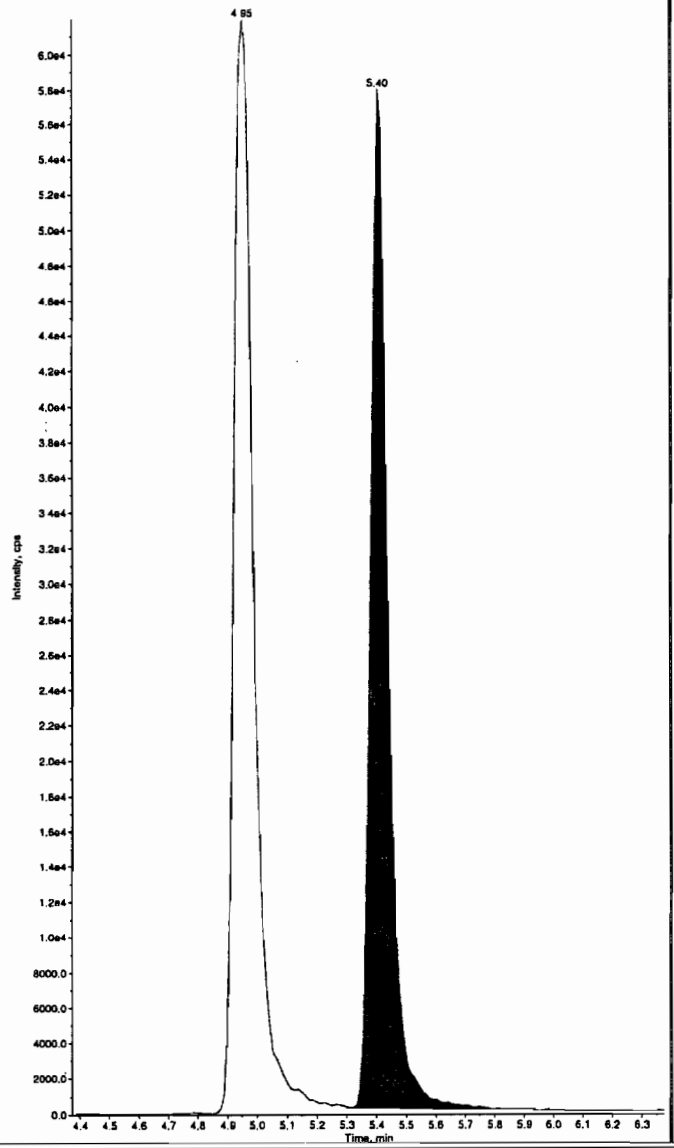

Sample Name: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050073.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(as): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

```
Sample Index:        1
Sample Type:        QC
Concentration:     100.     ng/mL
Calculated Conc:   113.     ng/mL
Acq. Date:       4/6/2010
Acq. Time:       7:37:00 AM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:    0.00    sec
Smoothing Width:  3        points
RT Window:         30.0     sec
Expected RT:       10.8     min
Use Relative RT:   No

Int. Type:        Valley
Retention Time:    10.8     min
Area:        2.04e+006    counts
Height:        491745.026  cps
Start Time:        10.7     min
End Time:          11.2     min
```

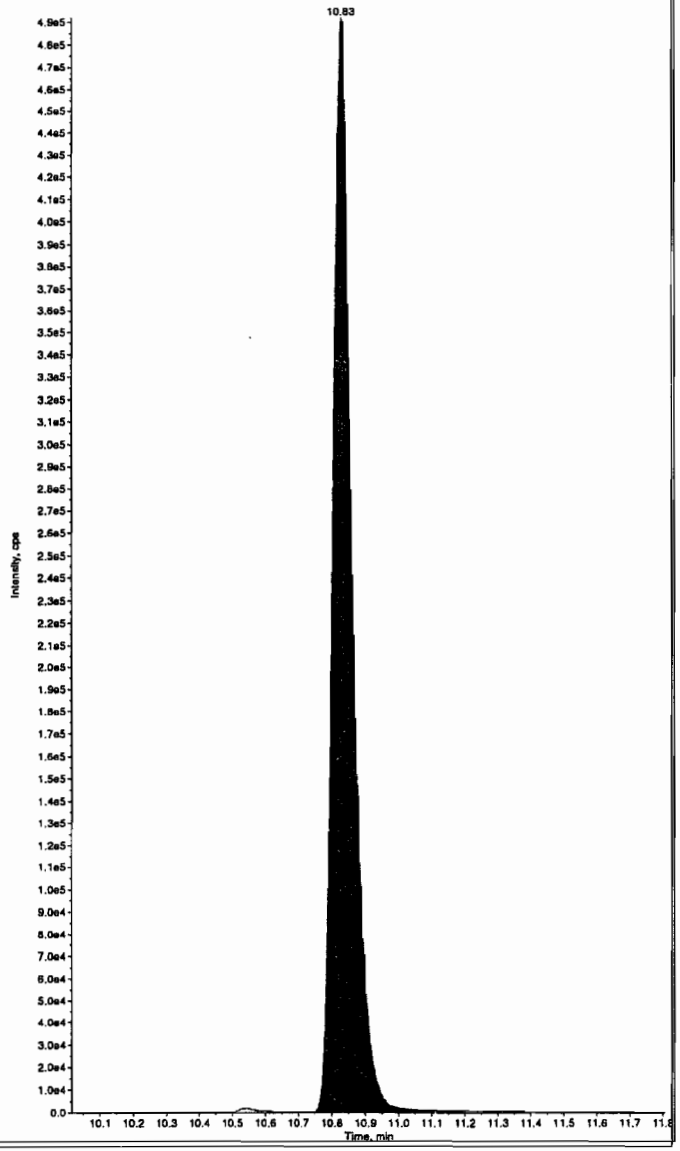

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7A
Explosives Continuing Calibration Verification

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCCV

GEL Data File EXS04050084.wiff

Analysis Date: 06–APR–10 10:29

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
3,5–Dinitroaniline	500	526	105	
TATB	500	521	104	
tris(o–cresyl) phosphate	500	491	98	
2,4–Diamino–6–nitrotoluene	500	566	113	
2,6–Diamino–4–nitrotoluene	500	502	100	
3,4–Dinitrotoluene	250	227	91	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 70–130%
OtherTarget Analytes 80–120%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Dan 4/7/10

ıme: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050084.wiff"
e: "TATB" Mass(as): "257.2/204.9 amu"
"LCMSEXP_C" Annotation: "

dex: 1
pe: QC
tion: 500. ng/mL
d Conc: 521. ng/mL
: 4/6/2010
: 10:29:45 AM

No
orithm: IntelliQuan - IQA
Height: 2500.00 cps
Width: 0.00 sec
Width: 3 points
: 30.0 sec
RT: 6.86 min
ive RT: No

: Valley
Time: 6.88 min
4.15e+005 counts
86418.762 cps
e: 6.77 min
7.89 min

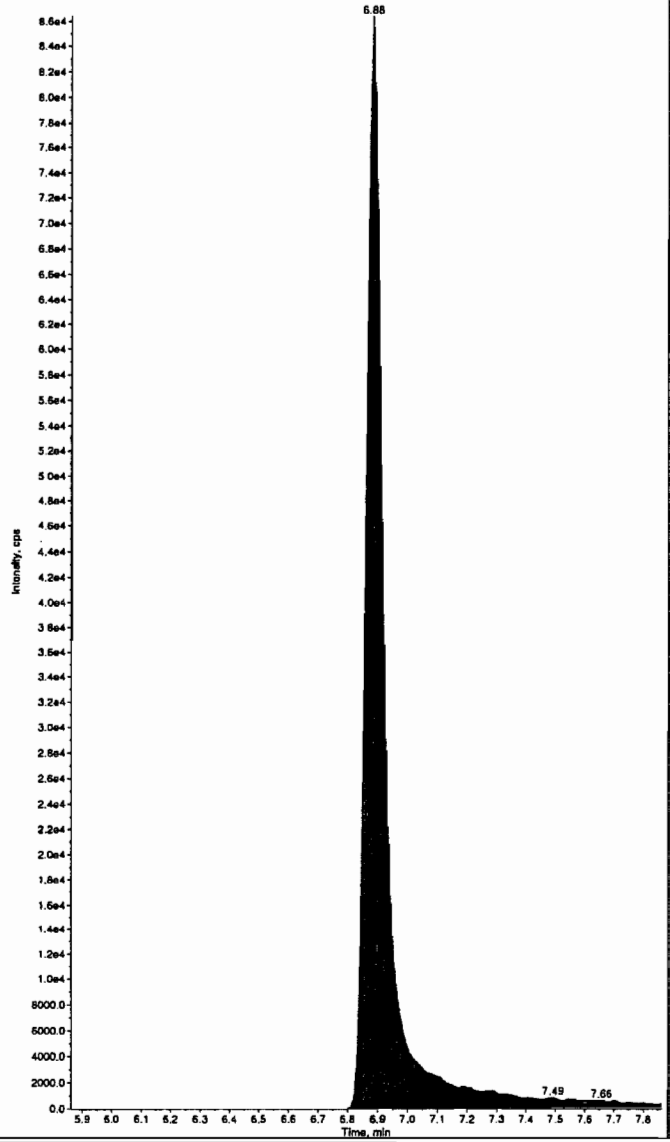

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050084.wiff"
Peak Name: "35-Dinitroaniline" Mass(as): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 526. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 10:29:45 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.12 min
Area: 3.48e+006 counts
Height: 830225.952 cps
Start Time: 8.03 min
End Time: 8.25 min

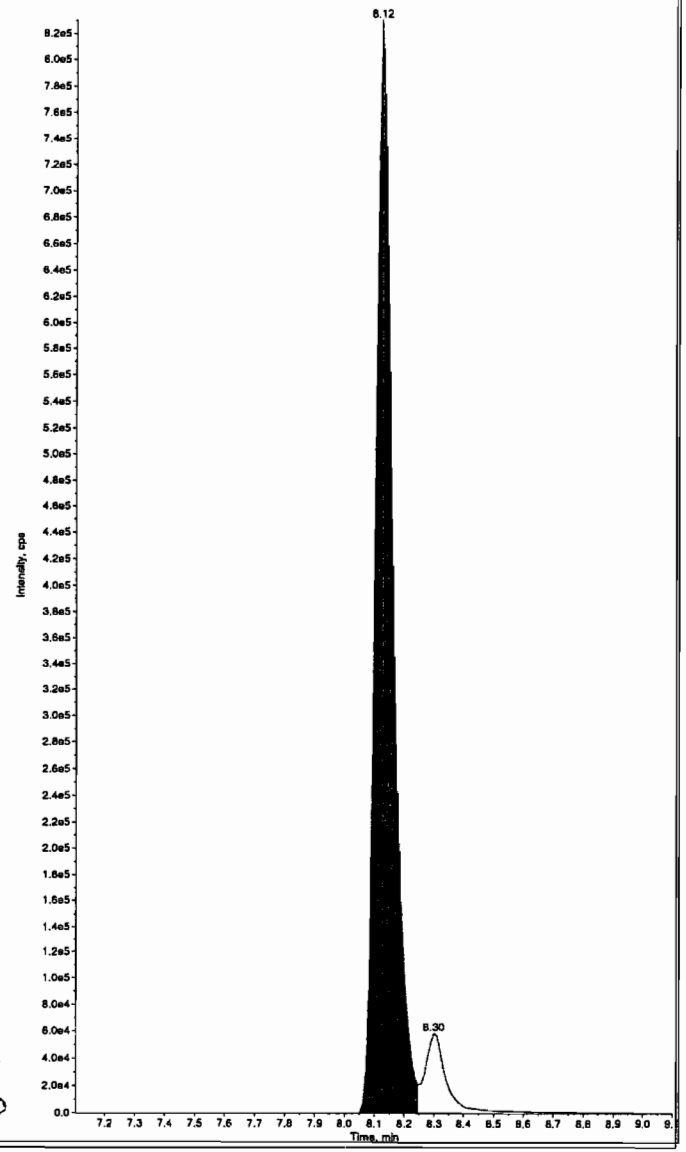

Hmm 04/08/10

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ame: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050084.wiff"
e: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
. "LCMSEXP_C" Annotation: ""

:dex: 1
pe: QC
tion: 250. ng/mL
d Conc: 227. ng/mL
: 4/6/2010
: 10:29:45 AM

No
orithm: IntelliQuan - IQA
Height:1460.00 cps
Width: 0.00 sec
Width: 3 points
: 15.0 sec
RT: 8.28 min
ive RT: No

: Valley
Time: 8.30 min
1.93e+006 counts
486268.158 cps
e: 8.23 min
8.66 min

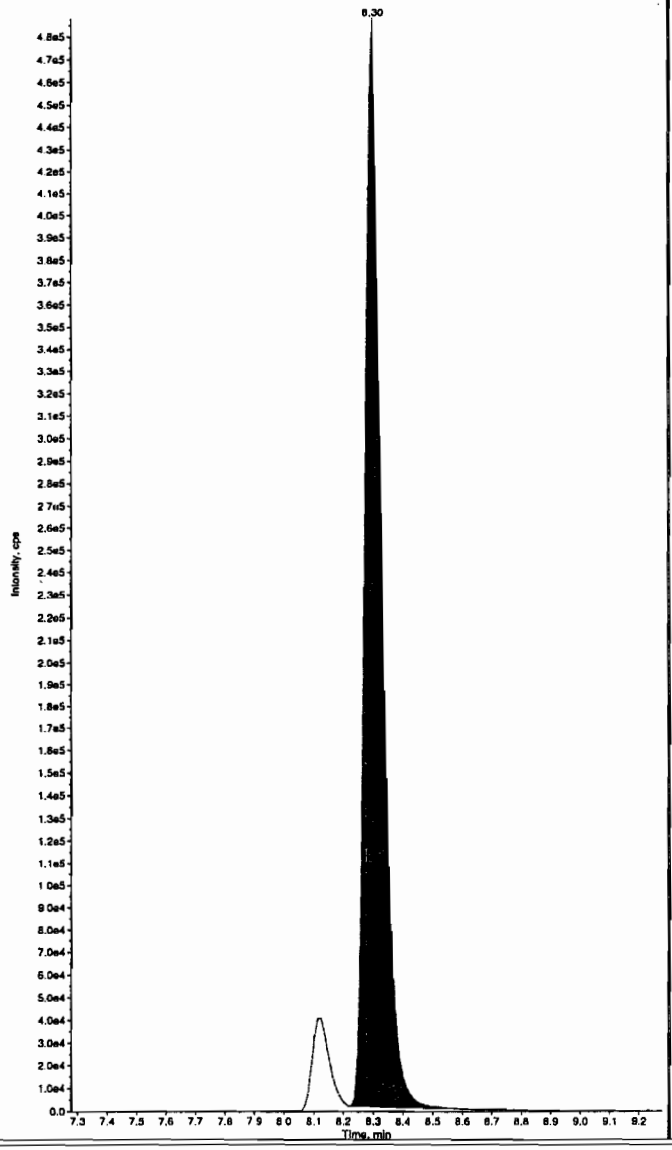

Sample Name: "WXX100405-26CCV" Sample ID: "|1|LER" File: "EXS04050084.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 502. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 10:29:45 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.94 min
Area: 1.42e+006 counts
Height: 327911.011 cps
Start Time: 4.84 min
End Time: 5.24 min

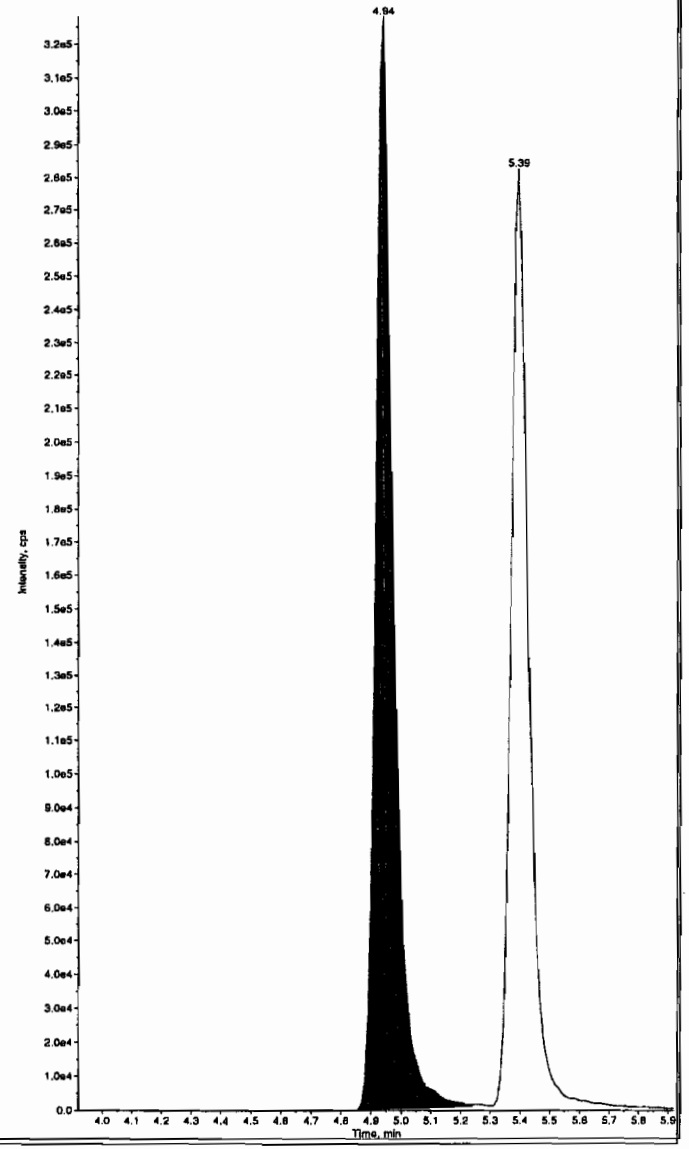

me: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050084.wiff"
: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
"LCMSEXP_C" Annotation: ""
dex: 1
e: QC
ion: 500. ng/mL
Conc: 566. ng/mL
: 4/6/2010
: 10:29:45 AM

No
orithm: IntelliQuan - IQA
Height: 350.00 cps
Width: 0.00 sec
Width: 3 points
: 30.0 sec
RT: 5.37 min
ive RT: No

: Valley
Time: 5.39 min
1.21e+006 counts
282343.506 cps
e: 5.30 min
5.91 min

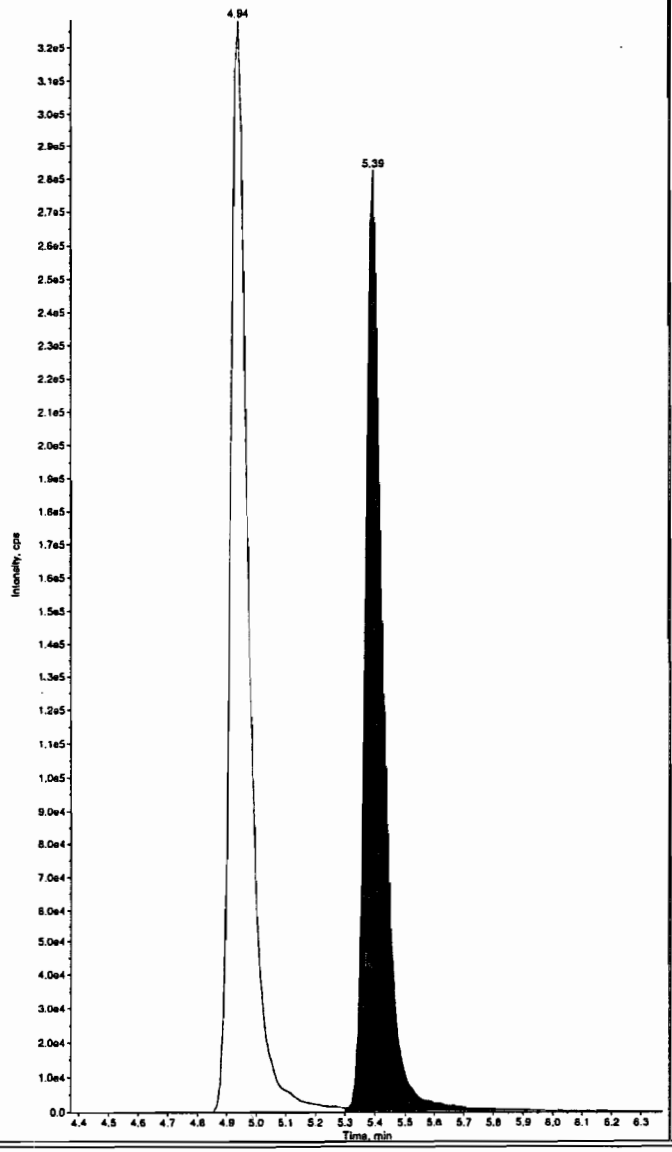

Sample Name: "WXX100405-26CCV" Sample ID: "[1]LER" File: "EXS04050084.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 500. ng/mL
Calculated Conc: 491. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 10:29:45 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 8.84e+006 counts
Height: 2101439.941 cps
Start Time: 10.7 min
End Time: 11.2 min

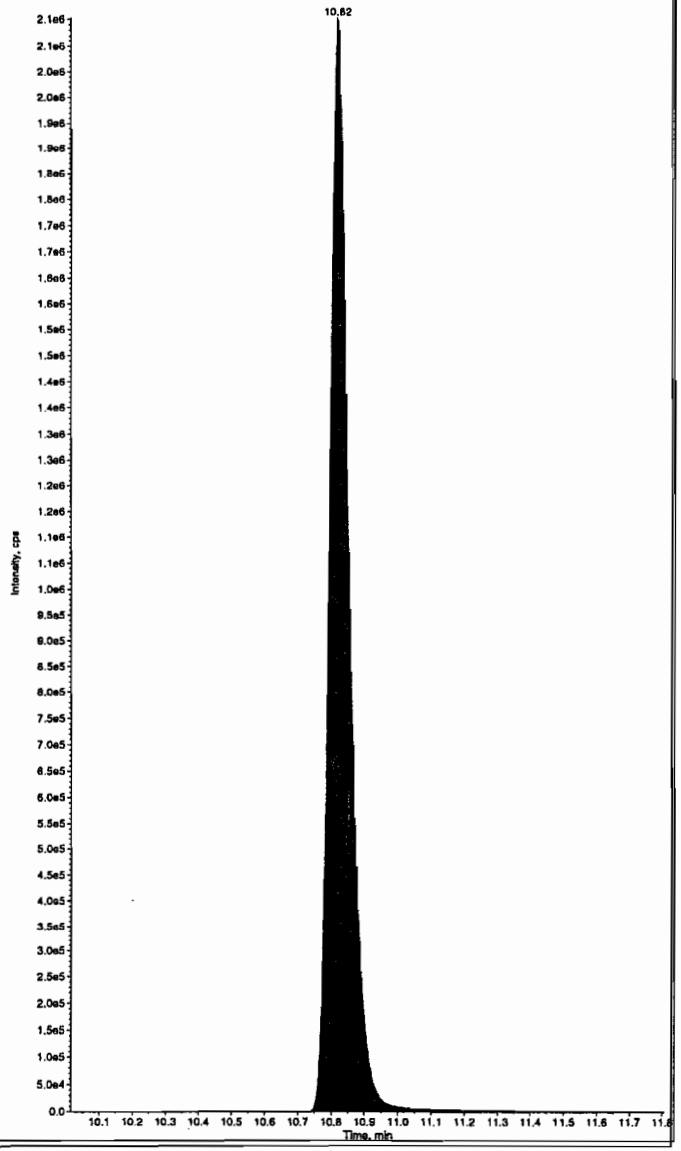

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7B
Explosives CRI Standard

Lab Name: GEL Laboratories LLC

GEL Job No (SDG): 10–2057

Lab Code: GEL

GEL Sample ID: WXXCRI

GEL Data File EXS04050086.wiff

Analysis Date: 06–APR–10 11:01

LCMSMS ID: 1358

Column ID: JSphere ODS–H80

Compound	True	Found	Recovery	Q
2,4–Diamino–6–nitrotoluene	100	121	121	
2,6–Diamino–4–nitrotoluene	100	122	122	
3,4–Dinitrotoluene	50	54.1	108	
3,5–Dinitroaniline	100	114	114	
TATB	100	98.7	99	
tris(o–cresyl) phosphate	100	109	109	

Recovery Limits:
3,4–Dinitrotoluene (Surrogate),TATB, tris(o–cresyl)phosphate, 3,5–Dinitroaniline, 2,6–Diamino–4–nitrotoluene , 2,4–Diamino–6–nitrotoluene 50–150%
OtherTarget Analytes 70–130%
Column used to flag Recovery outside of Limits
* Value outside of Recovery Limits

Lcu 4/7/10

ne: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050086.wiff"
: "TATB" Mass(es): "257.2/204.9 amu"
LCMSEXP_C" Annotation: ""
ex: 1
e: QC
ion: 100. ng/mL
Conc: 98.7 ng/mL
4/6/2010
11:01:10 AM

No
rithm: IntelliQuan - IQA
Height: 2500.00 cps
Width: 0.00 sec
Width: 3 points
30.0 sec
T: 6.86 min
ve RT: No

Valley
Time: 6.88 min
6.97e+004 counts
16181.147 cps
: 6.79 min
7.32 min

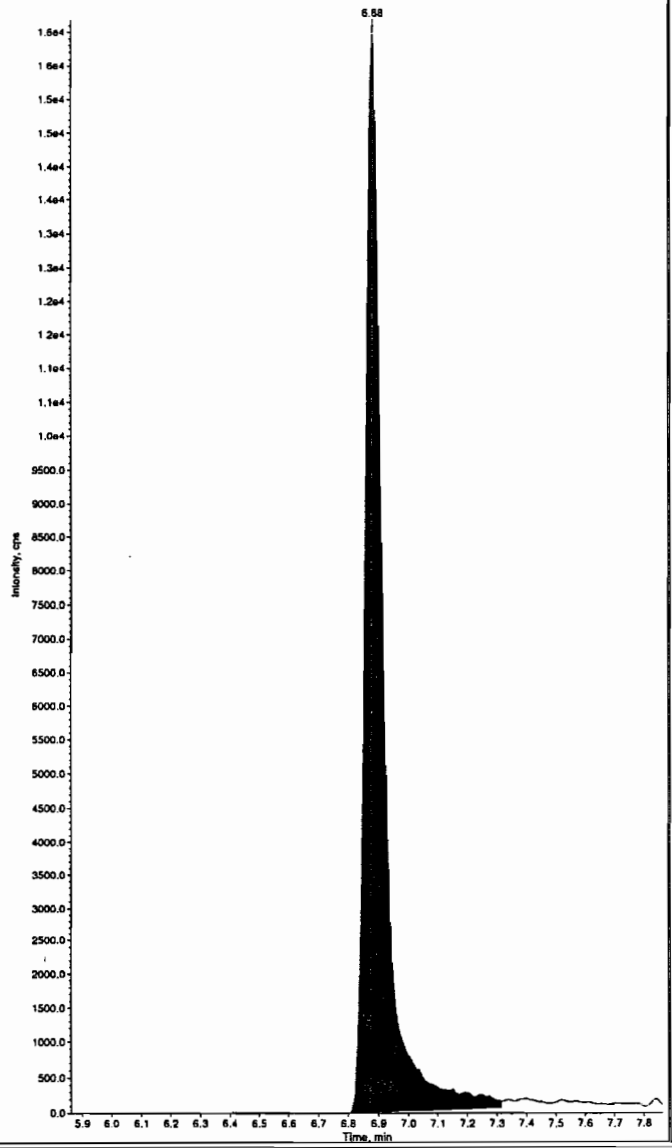

Sample Name: "WXX100405-27CRI" Sample ID: "|1|LER" File: "EXS04050086.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: ""
Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 114. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 11:01:10 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.10 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.13 min
Area: 7.31e+005 counts
Height: 176888.672 cps
Start Time: 8.00 min
End Time: 8.26 min

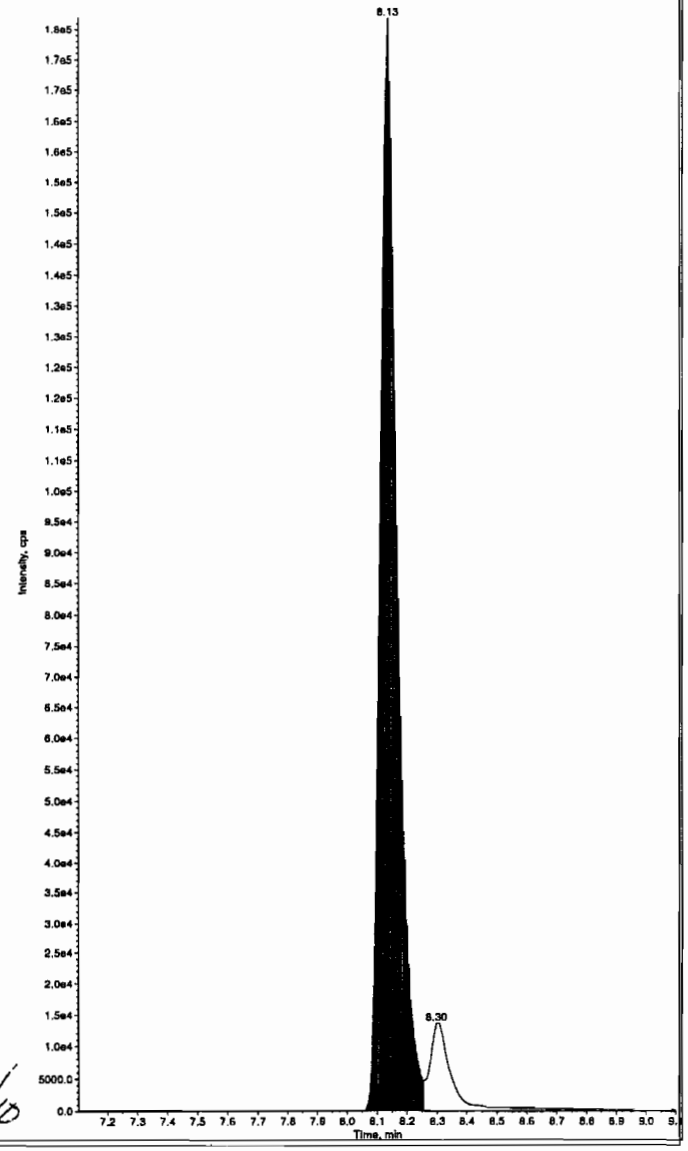

HMM 04/08/10

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PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

me: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050086.wiff"
: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
"LCMSEXP_C" Annotation: "

```
dex:          1
pe:          QC
tion:      50.0    ng/mL
l Conc:    54.1    ng/mL
:        4/6/2010
:       11:01:10 AM

           No
orithm: IntelliQuan - IQA
 Height:1460.00   cps
 Width:    0.00   sec
 Width:  3       points
:         15.0    sec
RT:        8.28   min
ive RT:    No

:        Valley
 Time:     8.30   min
     4.07e+005   counts
     106456.566  cps
::         8.23   min
           8.61   min
```

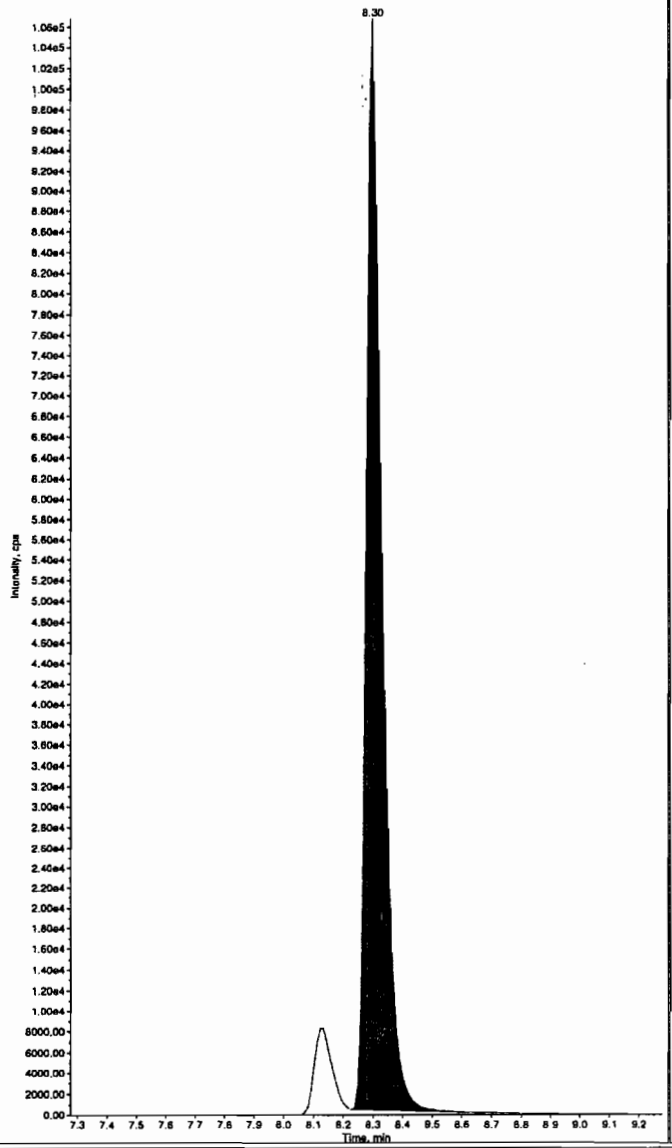

Sample Name: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050086.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCMSEXP_C" Annotation: "

```
Sample Index:          1
Sample Type:          QC
Concentration:      100.    ng/mL
Calculated Conc:    122.    ng/mL
Acq. Date:       4/6/2010
Acq. Time:      11:01:10 AM

Modified:           No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00   cps
Min. Peak Width:    0.00   sec
Smoothing Width:  3       points
RT Window:         30.0    sec
Expected RT:        4.92   min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     4.93   min
Area:         2.86e+005   counts
Height:        63735.477  cps
Start Time:         4.84   min
End Time:           5.23   min
```

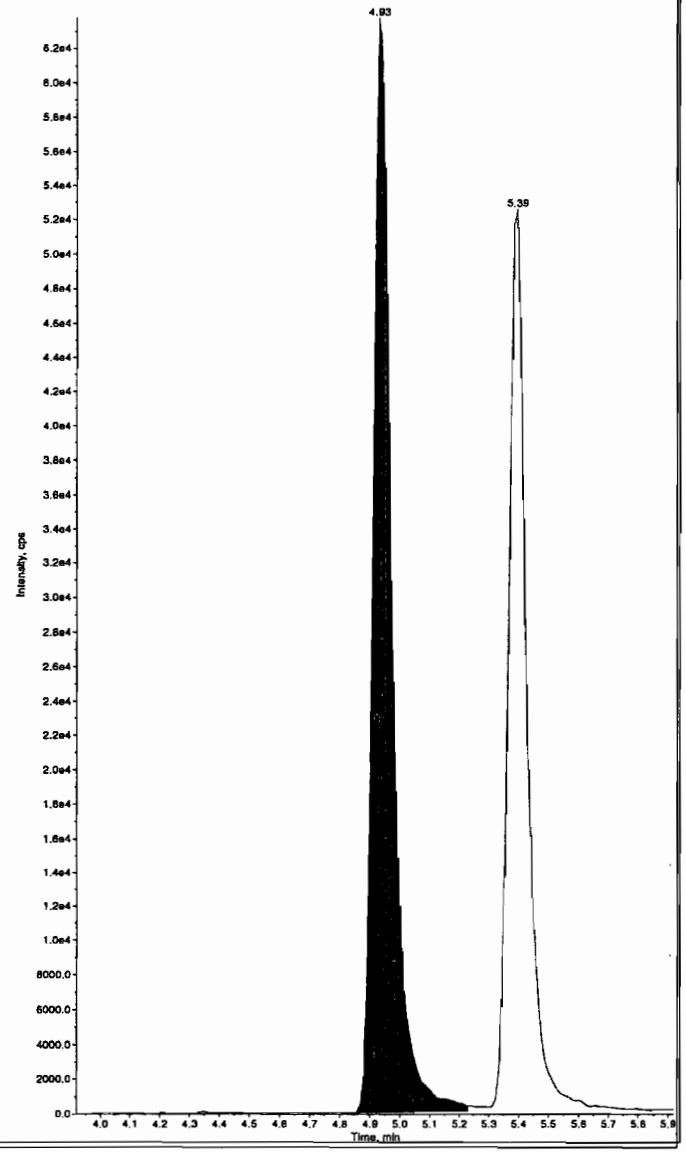

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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e Name: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050086.wiff"
lame: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
ent: "LCMSEXP_C" Annotation: ""

Index: 1
Type: QC
ration: 100. ng/mL
ated Conc: 121. ng/mL
ate: 4/6/2010
ime: 11:01:10 AM

ed: No
algorithm: IntelliQuan - IQA
eak Height: 350.00 cps
eak Width: 0.00 sec
ing Width: 3 points
low: 30.0 sec
ed RT: 5.37 min
ative RT: No

ype: Valley
on Time: 5.39 min
2.25e+005 counts
52219.002 cps
ime: 5.30 min
e: 5.76 min

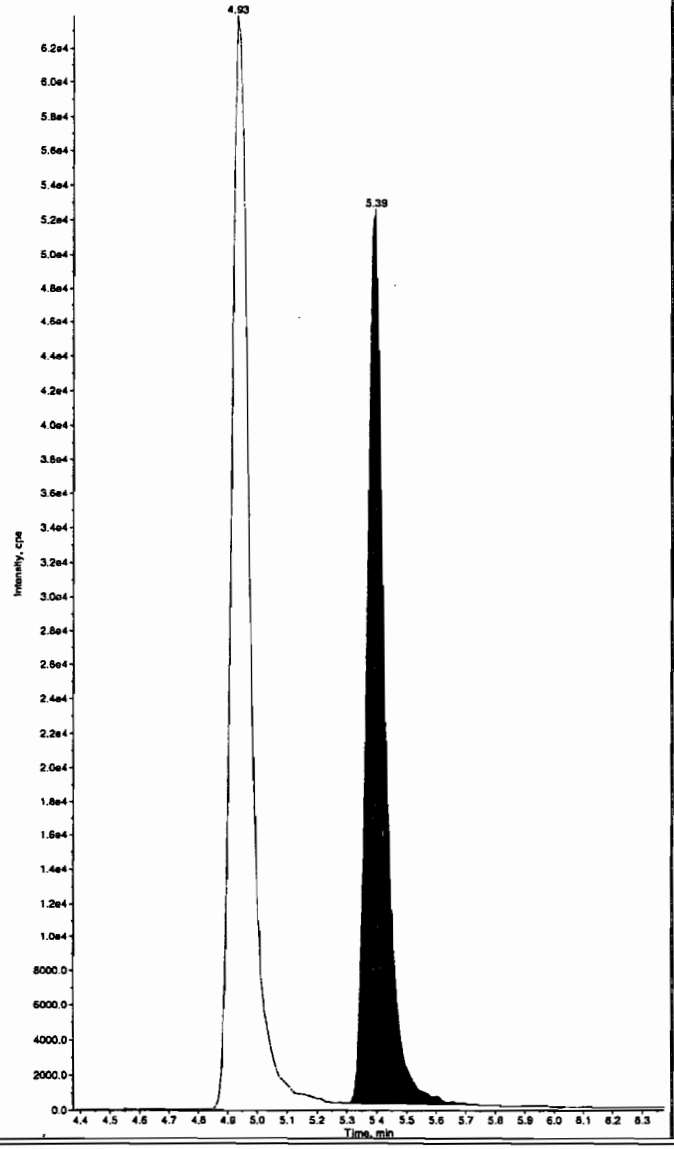

Sample Name: "WXX100405-27CRI" Sample ID: "[1]LER" File: "EXS04050086.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCMSEXP_C" Annotation: ""

Sample Index: 1
Sample Type: QC
Concentration: 100. ng/mL
Calculated Conc: 109. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 11:01:10 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 1.96e+006 counts
Height: 479932.922 cps
Start Time: 10.7 min
End Time: 11.2 min

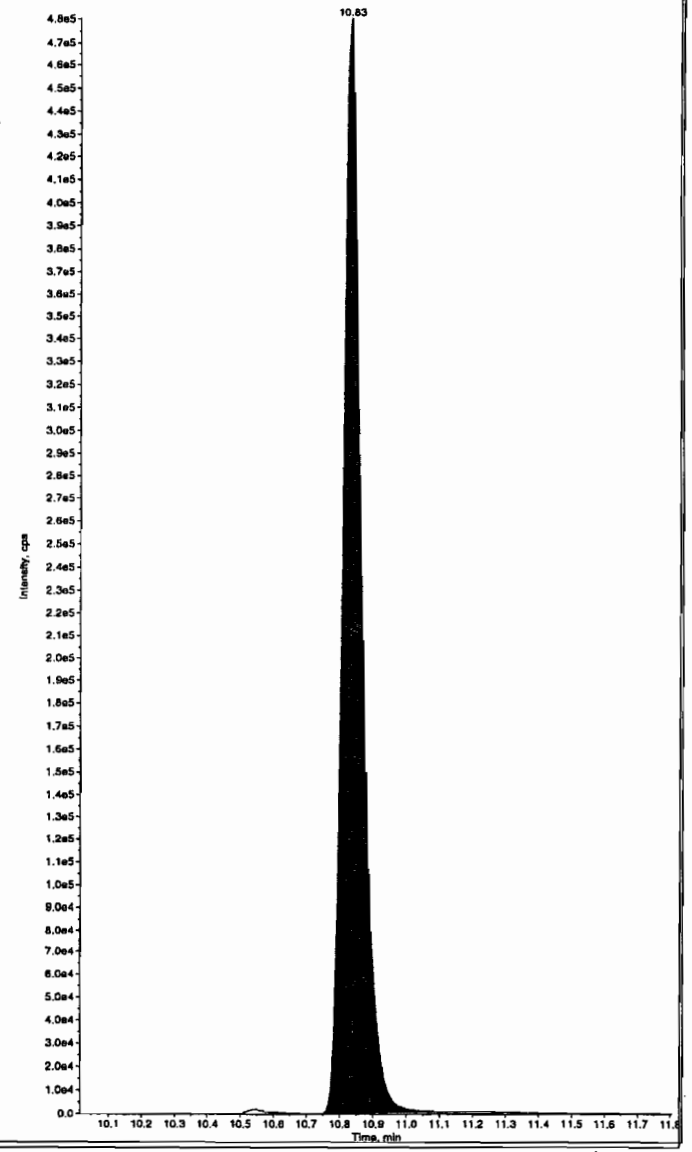

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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QUALITY CONTROL DATA

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 958278

Lab Code: GEL

GEL Job No (SDG) 10–2057

Matrix: GROUND WATER

GEL Sample ID: 1202055078

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 26–FEB–10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01–MAR–10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0412063a

Date Analyzed: 13–APR–10 22:09

Units: ug/L

Cas No.	Compound	Concentration*	Q
118–96–7	2,4,6–Trinitrotoluene	0.325	U
121–14–2	2,4–Dinitrotoluene	0.325	U
121–82–4	RDX	0.325	U
19406–51–0	4–Amino–2,6–dinitrotoluene	0.325	U
2691–41–0	HMX	0.325	U
35572–78–2	2–Amino–4,6–dinitrotoluene	0.325	U
479–45–8	Tetryl	0.649	U
606–20–2	2,6–Dinitrotoluene	0.325	U
78–11–5	PETN	1.3	U
88–72–2	o–Nitrotoluene	0.325	U
98–95–3	Nitrobenzene	0.325	U
99–08–1	m–Nitrotoluene	0.325	U
99–35–4	1,3,5–Trinitrobenzene	0.325	U
99–65–0	m–Dinitrobenzene	0.325	U
99–99–0	p–Nitrotoluene	0.649	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

ntify Sample Report
. Laboratories, LLC / Analyst : Michael A. Penny

ıset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

ıe: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412063a
ɜ: 13-Apr-2010
e: 22:09:49
l202055078 | LAW | 958282 | LZO | MB | 2 |
: 1:4,A

MM 4/14/10

PZD #2

XQ: EXP0408110a

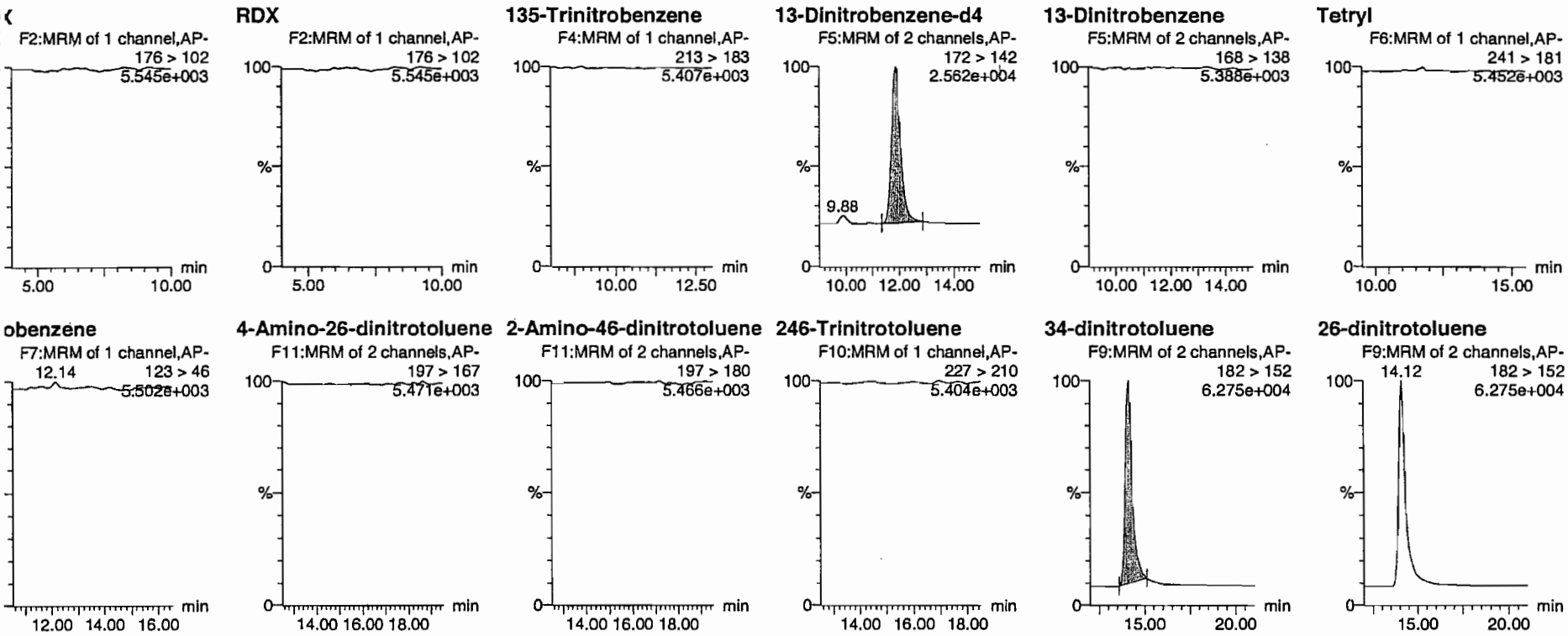

dmm 04/14/10

SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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antify Sample Report Printed: Wed Apr 14 09:18:04 2010, Page 50 of 75

'L Laboratories, LLC / Analyst : Michael A. Penny

taset: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

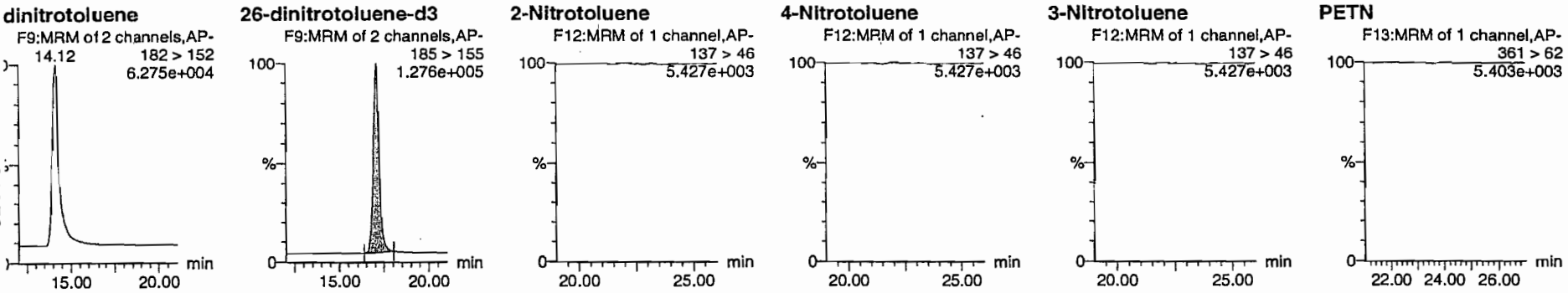

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
2055078	HMX	176 > 102			7603.256									
2055078	RDX	176 > 102			7603.256									
2055078	135-Trinitrobenzene	213 > 183			7603.256									
2055078	13-Dinitrobenzene-d4	172 > 142	11.87	7603.256		7603.256	7603.256	bb			646.4954	129.3	29.3	884.1
2055078	13-Dinitrobenzene	168 > 138			7603.256									
2055078	Tetryl	241 > 181			7603.256									
2055078	Nitrobenzene	123 > 46			7603.256									
2055078	4-Amino-26-dinitrotoluene	197 > 167			49087.559									
2055078	2-Amino-46-dinitrotoluene	197 > 180			49087.559									
2055078	246-Trinitrotoluene	227 > 210			49087.559									
2055078	34-dinitrotoluene	182 > 152	14.12	24147.678	49087.559	24147.678	245.965	bb		3.09	238.5401	95.4	-4.6	1198.6
2055078	26-dinitrotoluene	182 > 152			49087.559									
2055078	24-dinitrotoluene	182 > 152			49087.559									
2055078	26-dinitrotoluene-d3	185 > 155	17.07	49087.559		49087.559	49087.559	bb			701.5880	140.3	40.3	1812.3
2055078	2-Nitrotoluene	137 > 46			49087.559									
2055078	4-Nitrotoluene	137 > 46			49087.559									
2055078	3-Nitrotoluene	137 > 46			49087.559									
2055078	PETN	361 > 62			49087.559									

. SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: MB for batch 958278

Lab Code: GEL

GEL Job No (SDG) 10-2057

Matrix: GROUND WATER

GEL Sample ID: 1202055078

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 26-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050074.wiff

Date Analyzed: 06-APR-10 07:52

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058-38-6	TATB	1.3	U
59229-75-3	2,6-Diamino-4-nitrotoluene	1.3	U
618-87-1	3,5-Dinitroaniline	1.3	U
6629-29-4	2,4-Diamino-6-nitrotoluene	1.3	U
78-30-8	tris(o-cresyl) phosphate	1.3	U

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

Lan 4/7/10

Name: "1202055078" Sample ID: "958282|2|LER" File: "EXS04050074.wiff"
ime: "TATB" Mass(es): "257.2/204.9 amu"
nt: "LCX83212L" Annotation: ""
Index: 1
Type: Unknown
ation: N/A
ed Conc: 0.00 ng/mL
e: 4/6/2010
e: 7:52:43 AM
l: No

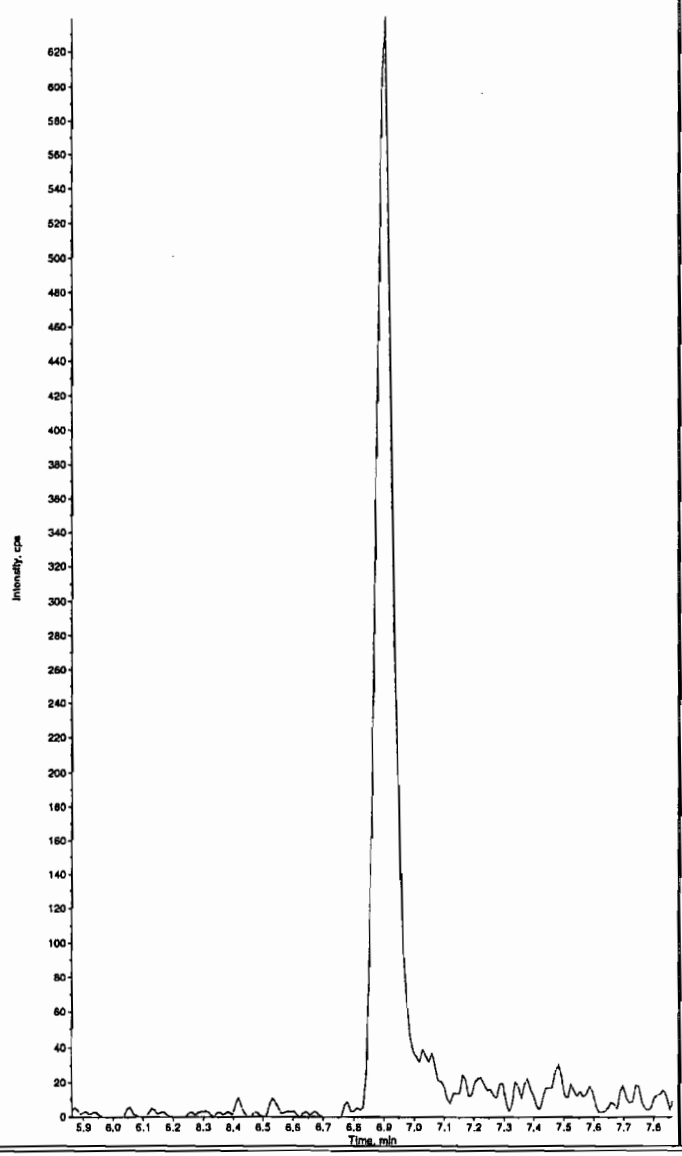

Sample Name: "1202055078" Sample ID: "958282|2|LER" File: "EXS04050074.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 7:52:43 AM

Modified: No

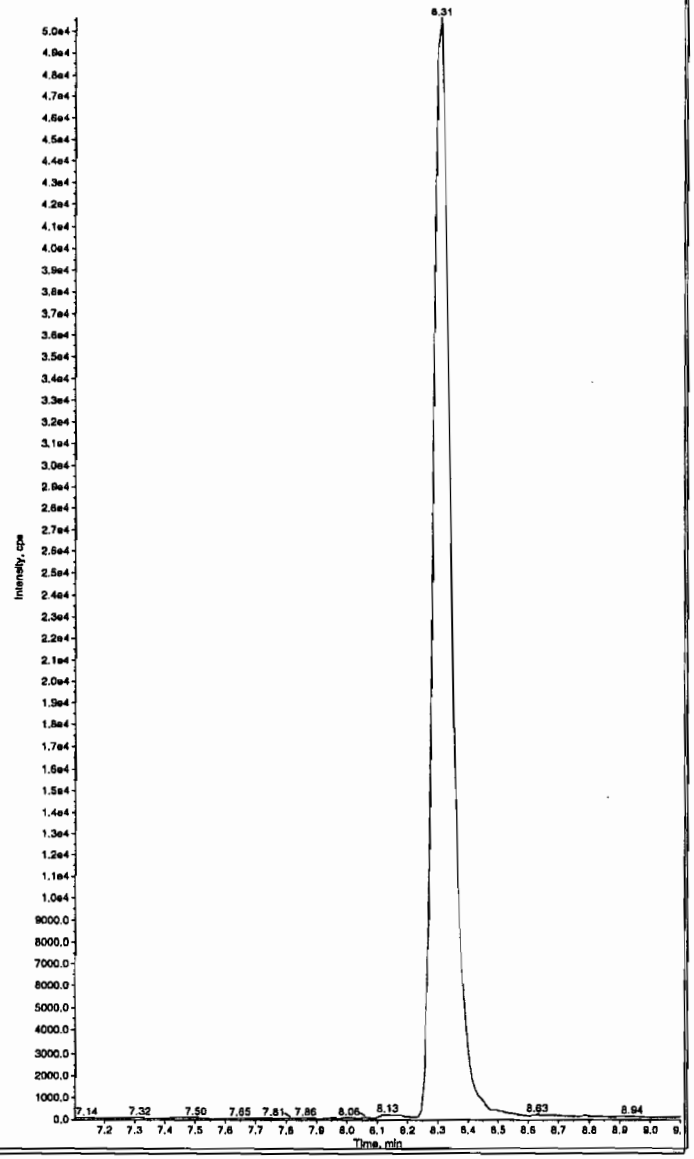

Hnm 04/08/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Name: "1202055078" Sample ID: "958282|2|LER" File: "EXS04050074.wiff"
me: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
t: "LCX83212L" Annotation: ""
ndex: 1
ype: Unknown 3,12
ation: N/A
ed Conc: 240. ng/mL
e: 4/6/2010
e: 7:52:43 AM

: No
gorithm: IntelliQuan - IQA
k Height: 1460.00 cps
k Width: 0.00 sec
g Width: 3 points
w: 15.0 sec
RT: 8.28 min
tive RT: No

e: Valley
n Time: 8.30 min
2.04e+006 counts
483867.310 cps
me: 8.20 min
: 8.91 min

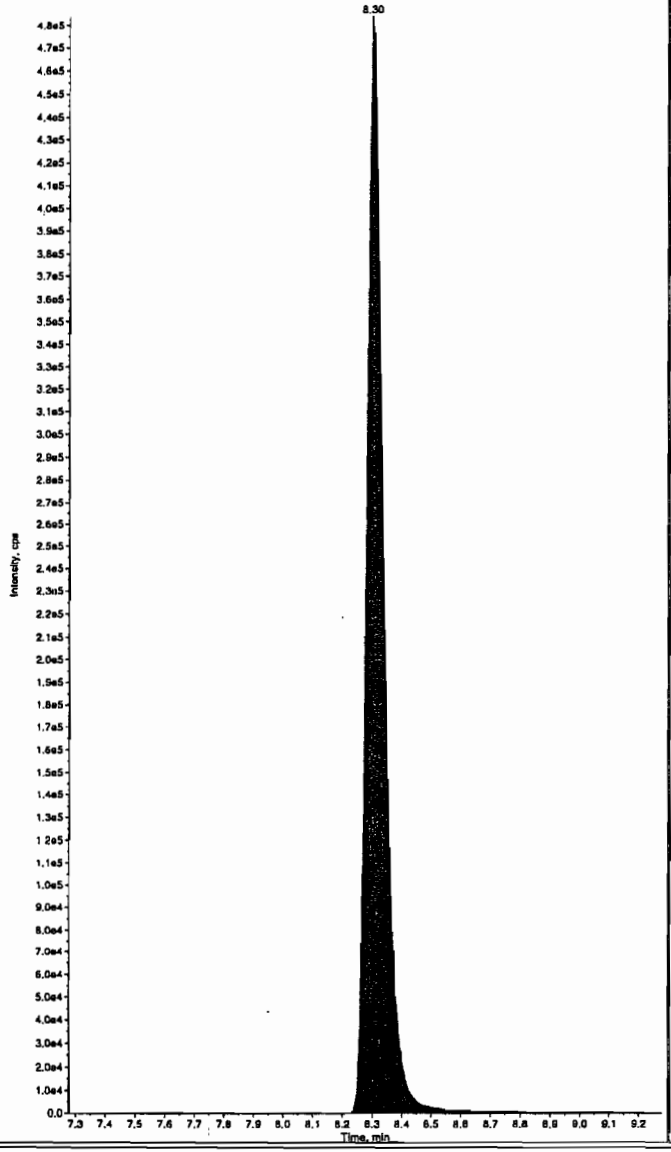

Sample Name: "1202055078" Sample ID: "958282|2|LER" File: "EXS04050074.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.00 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 7:52:43 AM

Modified: No

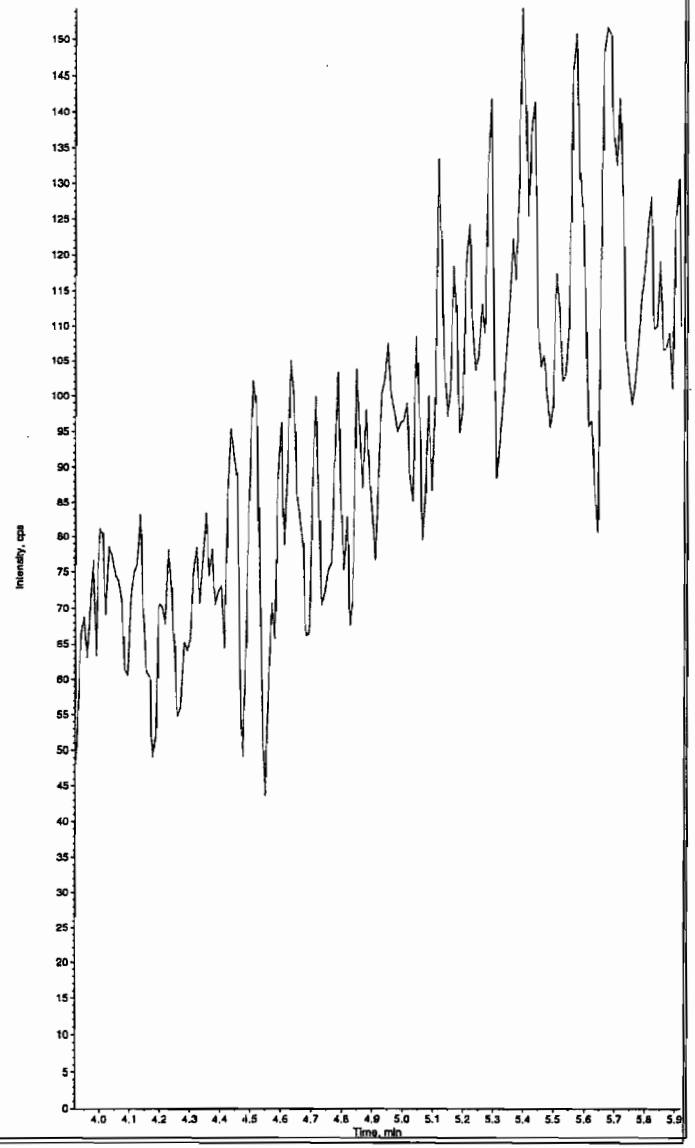

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Name: "1202055078" Sample ID: "958282|2|LER" File: "EXS04050074.wiff"
me: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
t: "LCX83212L" Annotation: ""
:ndex: 1
ype: Unknown
ation: N/A
ed Conc: 0.00 ng/mL
e: 4/6/2010
e: 7:52:43 AM
l: No

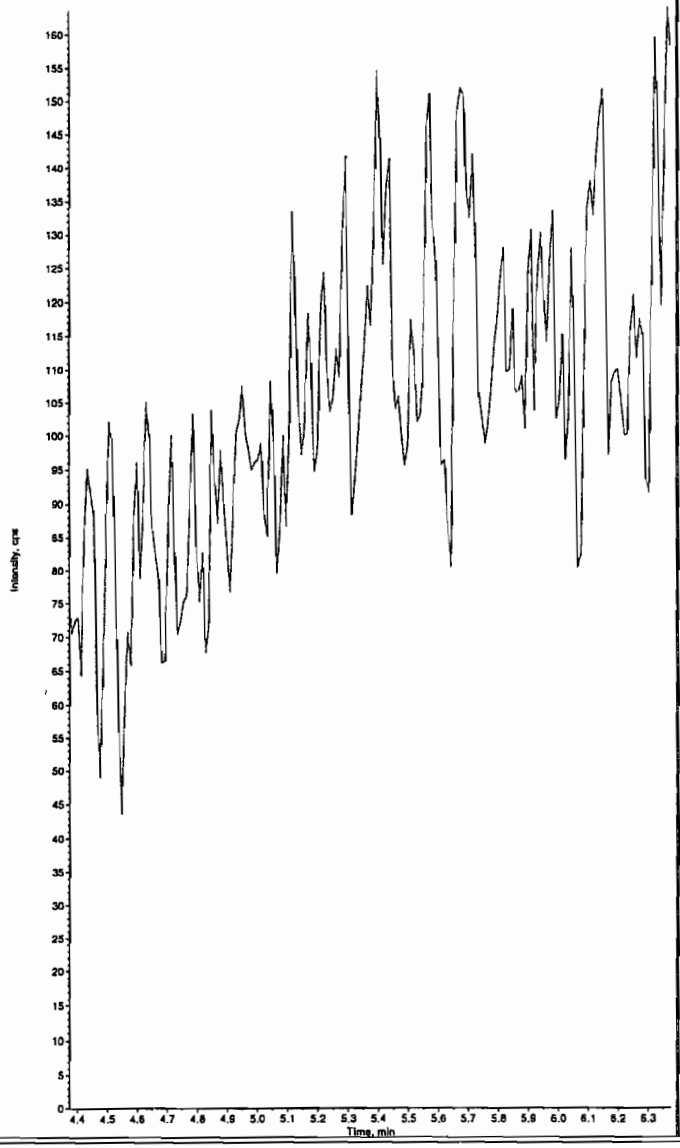

Sample Name: "1202055078" Sample ID: "958282|2|LER" File: "EXS04050074.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 2.95 ng/mL
Acq. Date: 4/6/2010
Acq. Time: 7:52:43 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 8000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 10.8 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 10.8 min
Area: 5.32e+004 counts
Height: 12935.064 cps
Start Time: 10.8 min
End Time: 11.0 min

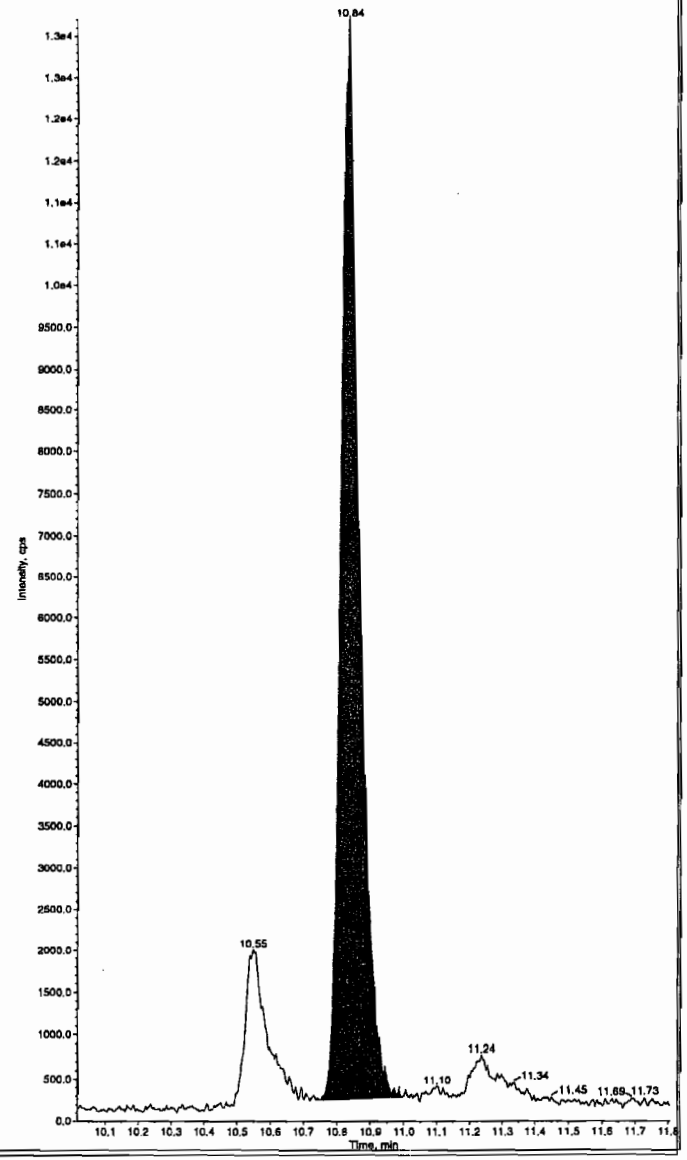

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 958278

Lab Code: GEL

GEL Job No (SDG) 10-2057

Matrix: GROUND WATER

GEL Sample ID: 1202055079

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 26-FEB-10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01-MAR-10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXP0408111a

Date Analyzed: 11-APR-10 03:40

Units: ug/L

Cas No.	Compound	Concentration*	Q
118-96-7	2,4,6-Trinitrotoluene	6.9	
121-14-2	2,4-Dinitrotoluene	6.28	
121-82-4	RDX	6.77	
19406-51-0	4-Amino-2,6-dinitrotoluene	6.21	
2691-41-0	HMX	6.26	
35572-78-2	2-Amino-4,6-dinitrotoluene	6.56	
479-45-8	Tetryl	6.22	
606-20-2	2,6-Dinitrotoluene	5.79	
78-11-5	PETN	6.83	
88-72-2	o-Nitrotoluene	4.97	
98-95-3	Nitrobenzene	5.12	
99-08-1	m-Nitrotoluene	4.59	
99-35-4	1,3,5-Trinitrobenzene	5.95	
99-65-0	m-Dinitrobenzene	5.57	
99-99-0	p-Nitrotoluene	5.03	

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

aset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

ne: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408111a
e: 11-Apr-2010
ıe: 03:40:59
1202055079
: 3:1,B

LANL | 958282 | LIQ | LCS | 2

MATT 4/14/10

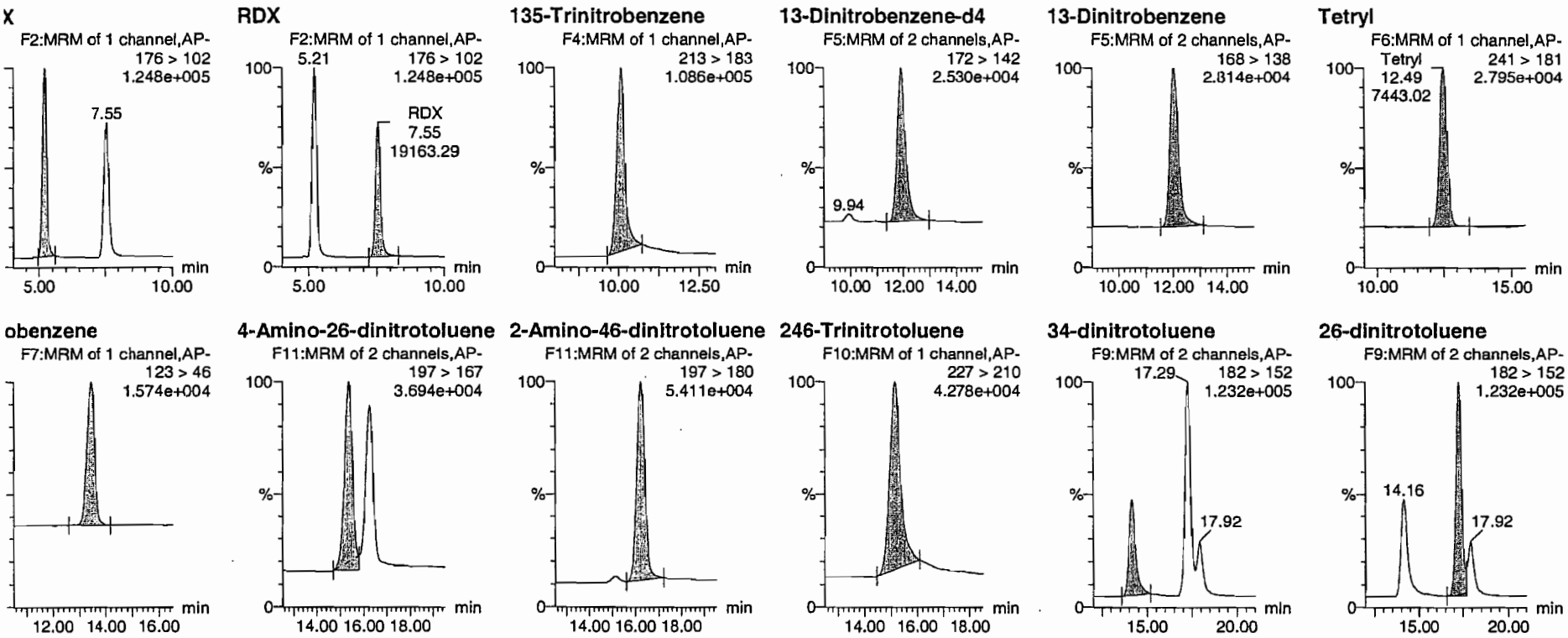

Hmm 04/14/10

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aset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

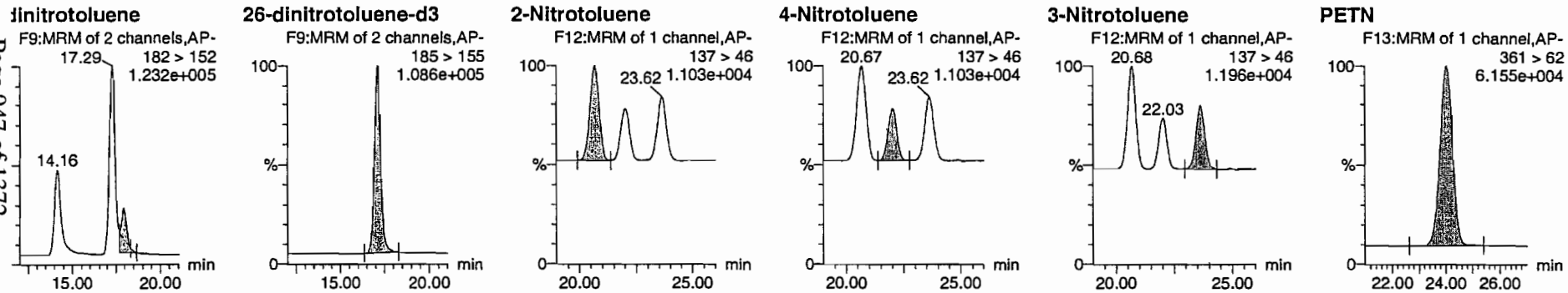

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/ml	%Rec	%Dev	S/N
2055079	HMX	176 > 102	5.21	23209.354	7542.349	23209.354	1538.602	bb			481.6808	96.3	-3.7	1519.3
2055079	RDX	176 > 102	7.55	19163.291	7542.349	19163.291	1270.379	bb			521.3171	104.3	4.3	1076.5
2055079	135-Trinitrobenzene	213 > 183	10.07	29211.203	7542.349	29211.203	1936.479	bb			458.5174	91.7	-8.3	1978.3
2055079	13-Dinitrobenzene-d4	172 > 142	11.90	7542.349		7542.349	7542.349	bb			580.3548	116.1	16.1	608.0
2055079	13-Dinitrobenzene	168 > 138	12.04	8338.093	7542.349	8338.093	552.752	bb			429.1979	85.8	-14.2	637.6
2055079	Tetryl	241 > 181	12.49	7443.022	7542.349	7443.022	493.415	bb			479.2445	95.8	-4.2	467.0
2055079	Nitrobenzene	123 > 46	13.40	3573.180	7542.349	3573.180	236.874	bb			394.1316	78.8	-21.2	319.1
2055079	4-Amino-26-dinitrotoluene	197 > 167	15.35	12786.243	42973.742	12786.243	148.768	MM	11-Apr-10	11:38:02	477.9045	95.6	-4.4	530.0
2055079	2-Amino-46-dinitrotoluene	197 > 180	16.22	19834.250	42973.742	19834.250	230.772	bb			505.1591	101.0	1.0	496.9
2055079	246-Trinitrotoluene	227 > 210	15.13	17567.518	42973.742	17567.518	204.398	bb			531.1894	106.2	6.2	1072.0
2055079	34-dinitrotoluene	182 > 152	14.16	22795.137	42973.742	22795.137	265.222	bb		3.35	258.6065	103.4	3.4	559.2
2055079	26-dinitrotoluene	182 > 152	17.29	43595.148	42973.742	43595.148	507.230	MM	11-Apr-10	11:39:35	445.9789	89.2	-10.8	1245.6
2055079	24-dinitrotoluene	182 > 152	17.92	10999.102	42973.742	10999.102	127.975	MM	11-Apr-10	11:44:00	483.4082	96.7	-3.3	299.6
2055079	26-dinitrotoluene-d3	185 > 155	17.12	42973.742		42973.742	42973.742	bb			544.2665	108.9	8.9	4306.4
2055079	2-Nitrotoluene	137 > 46	20.67	2523.566	42973.742	2523.566	29.362	bb			382.5062	76.5	-23.5	83.0
2055079	4-Nitrotoluene	137 > 46	22.01	1294.099	42973.742	1294.099	15.057	bb			387.4262	77.5	-22.5	44.6
2055079	3-Nitrotoluene	137 > 46	23.63	1659.118	42973.742	1659.118	19.304	bb			353.5684	70.7	-29.3	43.0
2055079	PETN	361 > 62	24.04	30186.615	42973.742	30186.615	351.222	bb			525.7336	105.1	5.1	11706.6

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1

High Explosives Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Client Sample ID: LCS for batch 958278

Lab Code: GEL

GEL Job No (SDG) 10–2057

Matrix: GROUND WATER

GEL Sample ID: 1202055079

Sample Amount 770

Moisture:

Amount Units mL

Date Received: 26–FEB–10

Extraction Type Sol Exchange

Extraction Batch ID: 958278

Concentrated Extract Volume (mL) 5

Date Extracted: 01–MAR–10

Dilution Factor: 2

Injection Volume (uL): 50

GEL data file: EXS04050075.wiff

Date Analyzed: 06–APR–10 08:08

Units: ug/L

Cas No.	Compound	Concentration*	Q
3058–38–6	TATB	5.78	
59229–75–3	2,6–Diamino–4–nitrotoluene	5.27	
618–87–1	3,5–Dinitroaniline	5.88	
6629–29–4	2,4–Diamino–6–nitrotoluene	5.35	
78–30–8	tris(o–cresyl) phosphate	1.17	J

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Sample Amoun}} \times \text{Dilution Factor}$$

LCL 4/7/10

Name: "1202055079" Sample ID: "958282|2|LER" File: "EXS04050075.wiff"
me: "TATB" Mass(es): "257.2/204.9 amu"
t: "LCX83212L" Annotation: ""
ndex: 1
ype: Unknown
ation: N/A
ed Conc: 445. ng/mL
e: 4/6/2010
e: 8:08:30 AM

: No
gorithm: IntelliQuan - ICA
k Height: 2500.00 cps
k Width: 0.00 sec
g Width: 3 points
w: 30.0 sec
RT: 6.86 min
tive RT: No

e: Valley
n Time: 6.89 min
3.53e+005 counts
75127.907 cps
me: 6.80 min
: 7.47 min

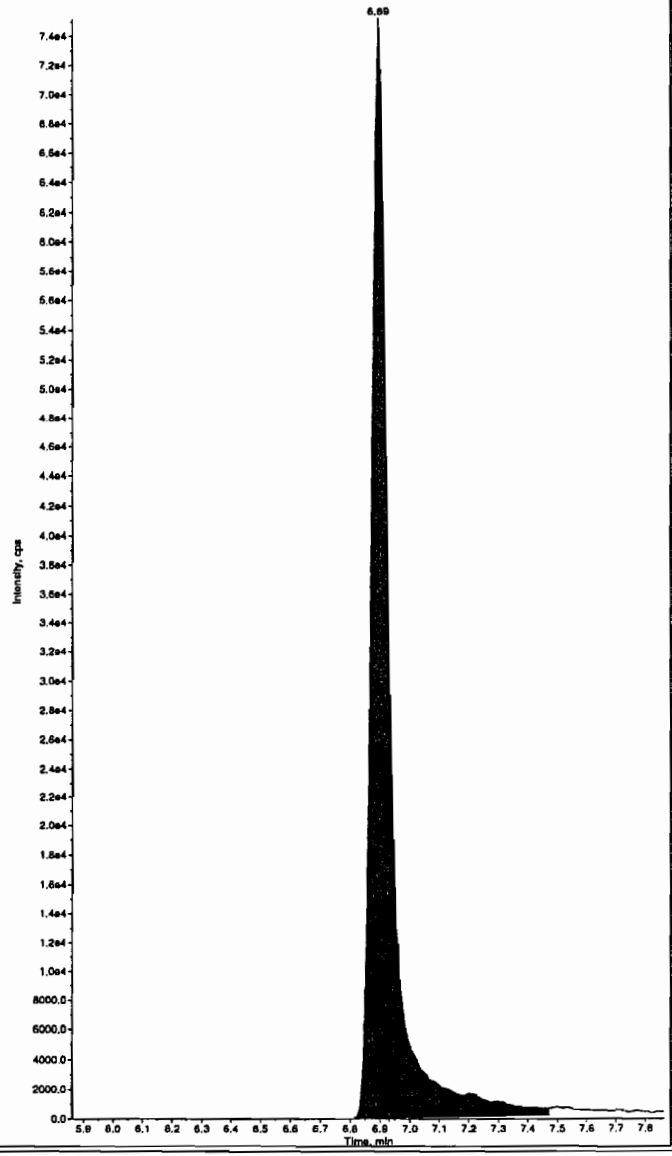

Sample Name: "1202055079" Sample ID: "958282|2|LER" File: "EXS04050075.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 453. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 8:08:30 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.13 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.13 min
Area: 3.02e+006 counts
Height: 781179.504 cps
Start Time: 8.06 min
End Time: 8.26 min

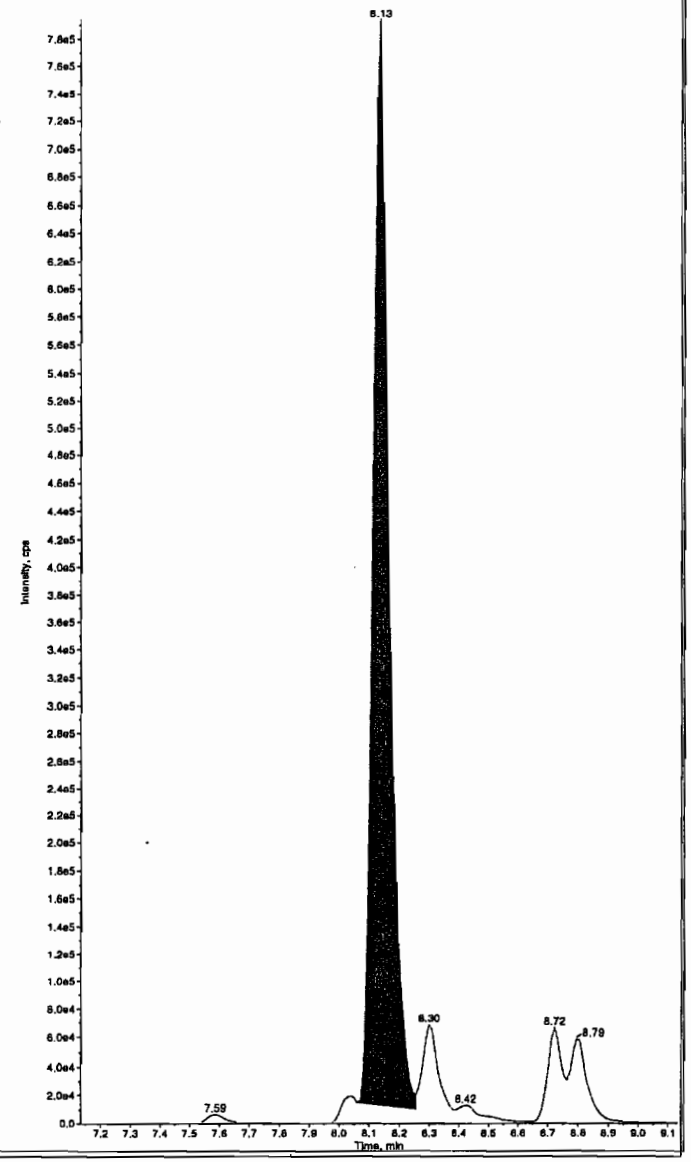

HMM 04/08/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

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Name: "1202055079" Sample ID: "958282|2|LER" File: "EXS04050075.wiff"
me: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
t: "LCX83212L" Annotation: ""
:ndex: 1
ype: Unknown
ation: N/A 3.06
ed Conc: 236. ng/mL
e: 4/6/2010
e: 8:08:30 AM

l: No
gorithm: IntelliQuan - IQA
k Height: 1460.00 cps
k Width: 0.00 sec
g Width: 3 points
w: 15.0 sec
RT: 8.28 min
tive RT: No

e: Valley
n Time: 8.30 min
2.01e+006 counts
503905.467 cps
me: 8.23 min
: 8.54 min

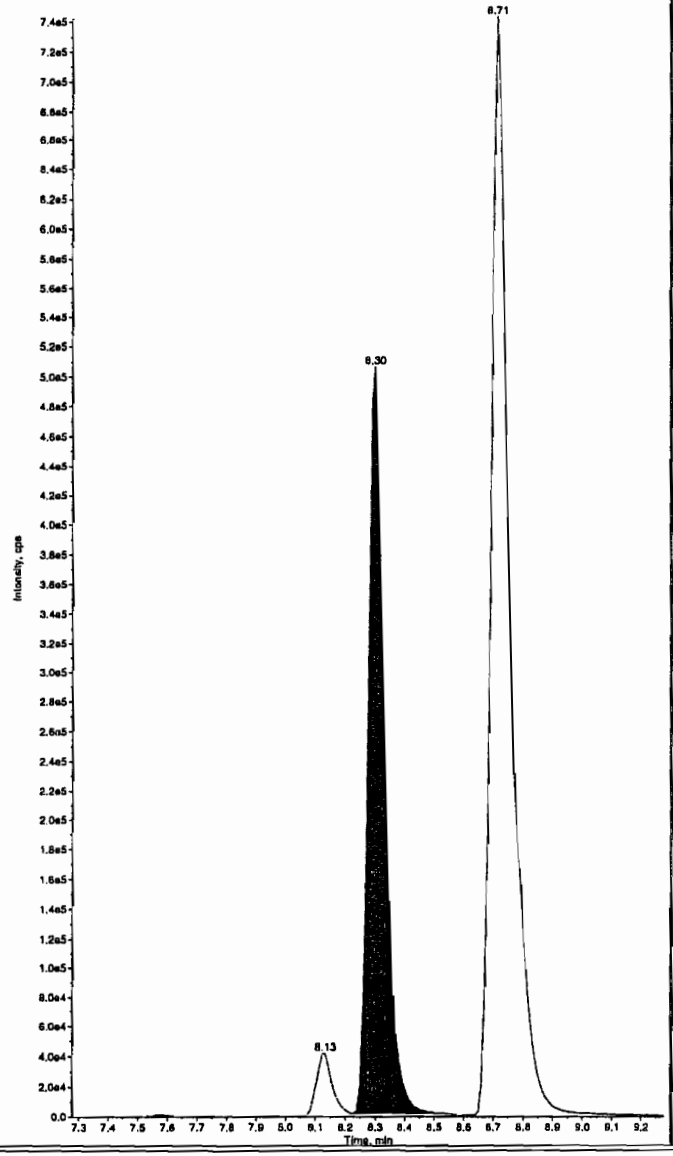

Sample Name: "1202055079" Sample ID: "958282|2|LER" File: "EXS04050075.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 406. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 8:08:30 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.94 min
Area: 1.14e+006 counts
Height: 262868.958 cps
Start Time: 4.85 min
End Time: 5.25 min

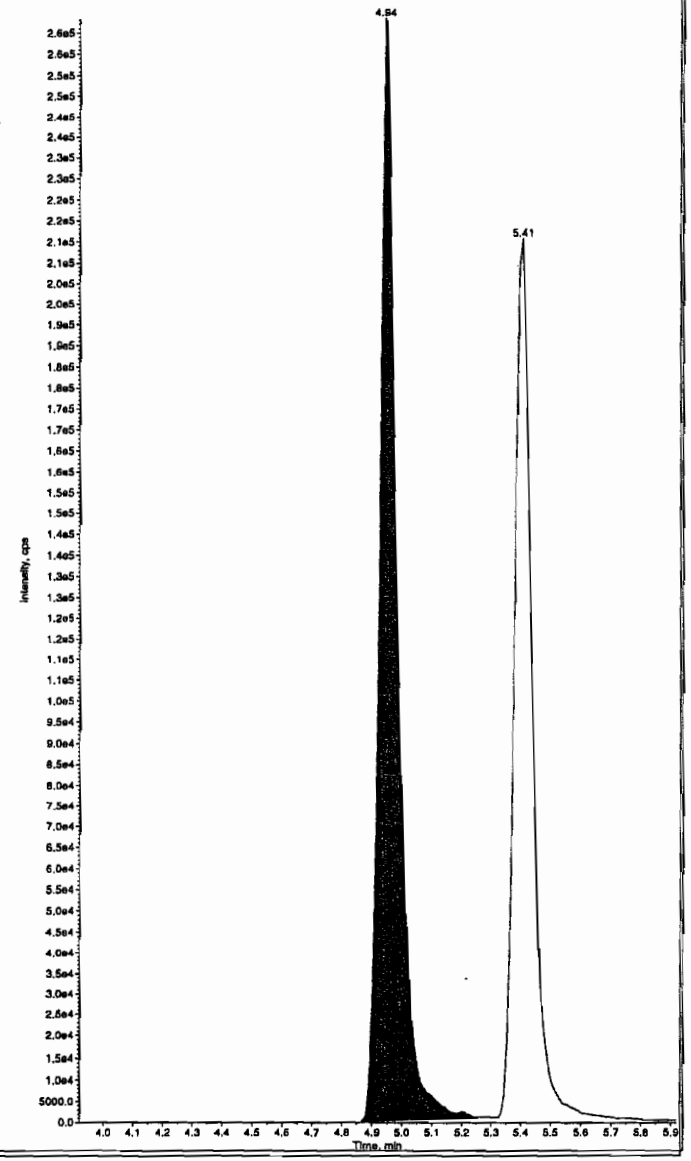

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

lame: "1202055079" Sample ID: "958282|2|LER" File: "EXS04050075.wiff"
ne: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
: "LCX83212L" Annotation: ""

ndex:	1
rpe:	Unknown
ation:	N/A
d Conc:	412. ng/mL
:	4/6/2010
:	8:08:30 AM
	No
gorithm:	IntelliQuan - IQA
: Height:	350.00 cps
: Width:	0.00 sec
Width:	3 points
:	30.0 sec
RT:	5.37 min
tive RT:	No
:	Valley
Time:	5.41 min
	8.76e+005 counts
	209306.091 cps
e:	5.32 min
	5.81 min

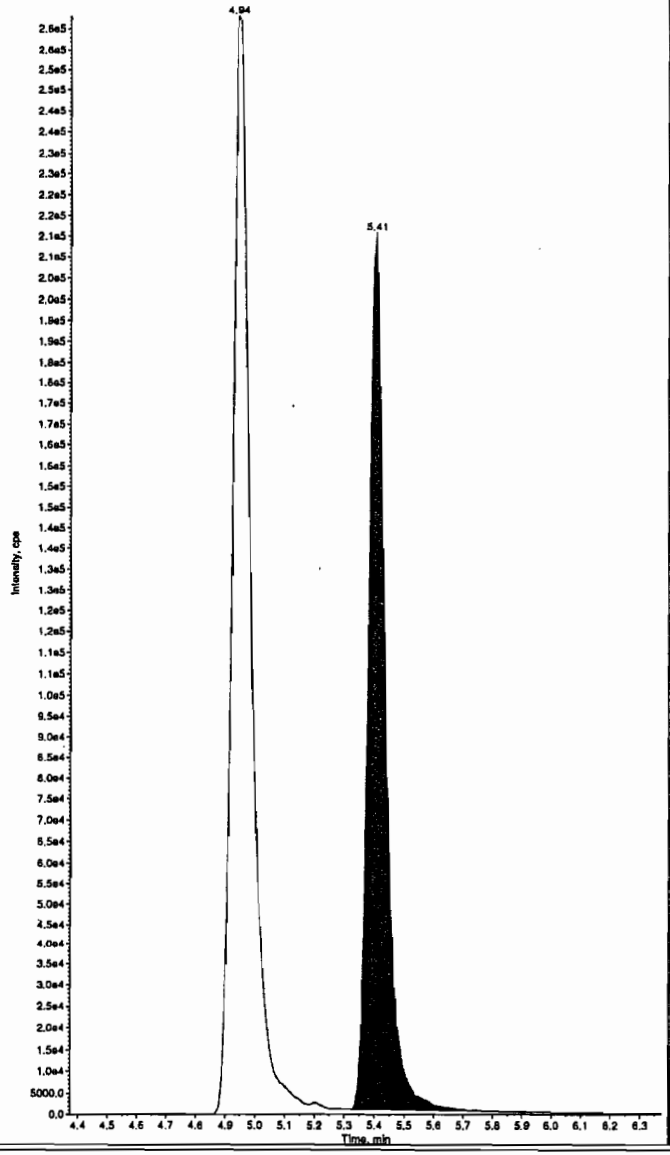

Sample Name: "1202055079" Sample ID: "958282|2|LER" File: "EXS04050075.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	89.8 ng/mL
Acq. Date:	4/6/2010
Acq. Time:	8:08:30 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.8 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.8 min
Area:	1.62e+006 counts
Height:	392861.267 cps
Start Time:	10.7 min
End Time:	11.2 min

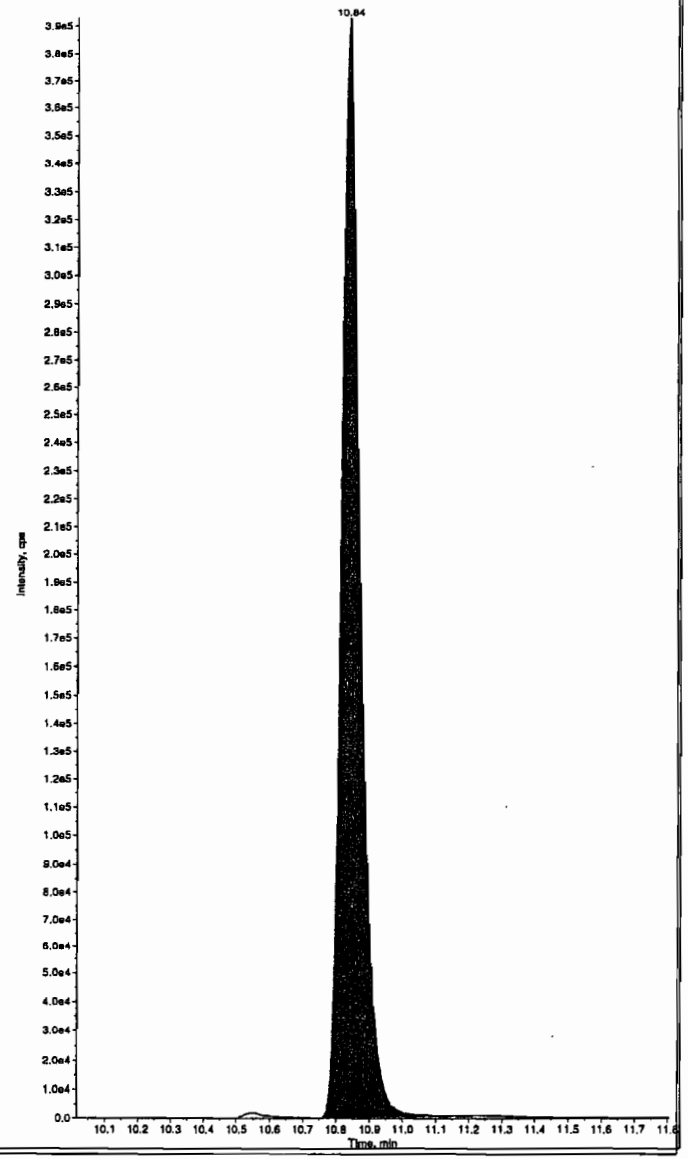

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MISCELLANEOUS DATA

Prep Logbook

Nitroaromatics and Nitramines by High Performance Liquid Chromatography (HPLC)

Batch ID: 958278 **Verified by:** _____

Analyst: Sirena White

Method: SW846 Method 3535

Lab SOP: GL-OA-E-033 REV# 17

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Ph 1	Final Volume (mL)	Prepped Factor (mL/mL)
1202055078 MB	01-MAR-2010 09:38:00	770	5	5	0.00649
1202055079 LCS	01-MAR-2010 09:38:00	770	5	5	0.00649
248017003	01-MAR-2010 09:38:00	770	6	5	0.00649
1202055080 MS (248017003)	01-MAR-2010 09:38:00	770	6	5	0.00649
1202055081 MSD (248017003)	01-MAR-2010 09:38:00	770	6	5	0.00649
248042002	01-MAR-2010 09:38:00	770	6	5	0.00649
248042008	01-MAR-2010 09:38:00	770	6	5	0.00649
248042010	01-MAR-2010 09:38:00	770	5	5	0.00649
248047003	01-MAR-2010 09:38:00	770	6	5	0.00649
248047007	01-MAR-2010 09:38:00	770	6	5	0.00649

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202055079	8321 Explosives LCS	IXX100225-03	.05	mL
LCS	1202055079	8321 LANL Explosives Mix 10mg/L	UXX100122-01.4	.5	mL
MS	1202055080	8321 Explosives LCS	IXX100225-03	.05	mL
MS	1202055080	8321 LANL Explosives Mix 10mg/L	UXX100122-01.4	.5	mL
MSD	1202055081	8321 Explosives LCS	IXX100225-03	.05	mL
MSD	1202055081	8321 LANL Explosives Mix 10mg/L	UXX100122-01.4	.5	mL
SURR	All	3,4-Dinitrotoluene (8330 Surr.) 100ppm	IXP100223-02	.025	mL

Comments:

SPE Cartridge:003339260A

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 04/08/10
Extr. Injection Volume: 50uL
Sequence Number: 040810expA
Initial Calibration Date: 04/08/10

Method: SW846 8321A-Modified
Int. Std.: UXX100324-02.2
Mobile Phase Lot#: 1296548, 1289686
Standard-Samp Reagent Lot#: 1292884, 1293274

Reviewed BY: [illegible]
Date: 04/14/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100408-07 & WXX100410-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0408001a	XIBLK01	MAP	4/8/10 21:32			1		USE	B
EXP0408002a	XIBLK01	MAP	4/8/10 22:02			1		USE	B
EXP0408003a	WXXICAL-01	MAP	4/8/10 22:31			1		USE	I
EXP0408004a	WXXICAL-02	MAP	4/8/10 23:01			1		USE	I
EXP0408005a	WXXICAL-03	MAP	4/8/10 23:30			1		USE	I
EXP0408006a	WXXICAL-04	MAP	4/9/10 0:00			1		USE	I
EXP0408007a	WXXICAL-05	MAP	4/9/10 0:29			1		USE	I
EXP0408008a	WXXICAL-06	MAP	4/9/10 0:59			1		USE	I
EXP0408009a	XIBLK02	MAP	4/9/10 1:28			1		USE	B
EXP0408010a	WXXICV	MAP	4/9/10 1:58			1		USE	C
EXP0408011a	XIBLK03	MAP	4/9/10 2:27			1		USE	B
EXP0408012a	WXXCRI	MAP	4/9/10 2:57			1		USE	C
EXP0408013a	1202053627	MAP	4/9/10 3:26	957700	10-2009	2	LANL	USE	S
EXP0408014a	1202053628	MAP	4/9/10 3:56	957700	10-2009	2	LANL	USE	S
EXP0408015a	247897001	MAP	4/9/10 4:25	957700	10-2009	2	LANL	USE	S
EXP0408016a	1202053629	MAP	4/9/10 4:55	957700	10-2009	2	LANL	USE	S
EXP0408017a	1202053630	MAP	4/9/10 5:24	957700	10-2009	2	LANL	USE	S
EXP0408018a	247897002	MAP	4/9/10 5:54	957700	10-2009	2	LANL	USE	S
EXP0408019a	247897003	MAP	4/9/10 6:23	957700	10-2009	2	LANL	USE	S
EXP0408020a	247897004	MAP	4/9/10 6:52	957700	10-2009	2	LANL	USE	S
EXP0408021a	247897005	MAP	4/9/10 7:22	957700	10-2009	2	LANL	USE	S
EXP0408022a	247897006	MAP	4/9/10 7:51	957700	10-2009	2	LANL	USE	S
EXP0408023a	WXXCCV	MAP	4/9/10 8:21			1		USE	C
EXP0408024a	XIBLK04	MAP	4/9/10 8:50			1		USE	B
EXP0408025a	WXXCRI	MAP	4/9/10 9:20			1		USE	C
EXP0408026a	247897007	MAP	4/9/10 9:49	957700	10-2009	2	LANL	USE	S
EXP0408027a	247897008	MAP	4/9/10 10:19	957700	10-2009	2	LANL	USE	S
EXP0408028a	247897009	MAP	4/9/10 10:48	957700	10-2009	2	LANL	DUSE-RA	S
EXP0408029a	247897010	MAP	4/9/10 11:18	957700	10-2009	2	LANL	DUSE-RA	S

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EXP0408030a	247897011	MAP	4/9/10 11:47	957700	10-2009	2	LANL	DUSE-RA	S
EXP0408031a	247897012	MAP	4/9/10 12:17	957700	10-2009	2	LANL	USE	S
EXP0408032a	247897013	MAP	4/9/10 12:46	957700	10-2009	2	LANL	USE	S
EXP0408033a	247897014	MAP	4/9/10 13:16	957700	10-2009	2	LANL	USE	S
EXP0408034a	247897015	MAP	4/9/10 13:45	957700	10-2009	2	LANL	USE	S
EXP0408035a	247897016	MAP	4/9/10 14:15	957700	10-2009	2	LANL	USE	S
EXP0408036a	WXXCCV	MAP	4/9/10 14:44			1		USE	C
EXP0408037a	XIBLK05	MAP	4/9/10 15:14			1		USE	B
EXP0408038a	WXXCRI	MAP	4/9/10 15:43			1		USE	C
EXP0408039a	247897017	MAP	4/9/10 16:13	957700	10-2009	2	LANL	USE	S
EXP0408040a	247897018	MAP	4/9/10 16:46	957700	10-2009	2	LANL	USE	S
EXP0408041a	247897019	MAP	4/9/10 17:15	957700	10-2009	2	LANL	USE	S
EXP0408042a	247897020	MAP	4/9/10 17:45	957700	10-2009	2	LANL	USE	S
EXP0408043a	247897009	MAP	4/9/10 18:14	957700	10-2009	2	LANL	DUSE	S
EXP0408044a	247897010	MAP	4/9/10 18:44	957700	10-2009	2	LANL	DUSE	S
EXP0408045a	247897011	MAP	4/9/10 19:13	957700	10-2009	2	LANL	DUSE	S
EXP0408046a	WXXCCV	MAP	4/9/10 19:43			1		USE	C
EXP0408047a	XIBLK06	MAP	4/9/10 20:12			1		USE	B
EXP0408048a	WXXCRI	MAP	4/9/10 20:42			1		USE	C
EXP0408049a	1202053631	MAP	4/9/10 21:11	957702	10-2012	2	LANL	USE	S
EXP0408050a	1202053632	MAP	4/9/10 21:41	957702	10-2012	2	LANL	USE	S
EXP0408051a	247904001	MAP	4/9/10 22:10	957702	10-2012	2	LANL	USE	S
EXP0408052a	1202053633	MAP	4/9/10 22:40	957702	10-2012	2	LANL	USE	S
EXP0408053a	1202053634	MAP	4/9/10 23:09	957702	10-2012	2	LANL	USE	S
EXP0408054a	247904002	MAP	4/9/10 23:39	957702	10-2012	2	LANL	USE	S
EXP0408055a	247904003	MAP	4/10/10 0:08	957702	10-2012	2	LANL	USE	S
EXP0408056a	247904004	MAP	4/10/10 0:38	957702	10-2012	2	LANL	USE	S
EXP0408057a	247904005	MAP	4/10/10 1:07	957702	10-2012	2	LANL	USE	S
EXP0408058a	247904006	MAP	4/10/10 1:37	957702	10-2012	2	LANL	USE	S
EXP0408059a	WXXCCV	MAP	4/10/10 2:06			1		USE	C
EXP0408060a	XIBLK07	MAP	4/10/10 2:36			1		USE	B
EXP0408061a	WXXCRI	MAP	4/10/10 3:05			1		USE	C
EXP0408062a	247904007	MAP	4/10/10 3:35	957702	10-2012	2	LANL	USE	S
EXP0408063a	247904008	MAP	4/10/10 4:04	957702	10-2012	2	LANL	USE	S
EXP0408064a	247904009	MAP	4/10/10 4:34	957702	10-2012	2	LANL	USE	S
EXP0408065a	247904010	MAP	4/10/10 5:03	957702	10-2012	2	LANL	USE	S
EXP0408066a	247904011	MAP	4/10/10 5:33	957702	10-2012	2	LANL	USE	S

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EXP0408067a	247904012	MAP	4/10/10 6:02	957702	10-2012	2	LANL	USE	S
EXP0408068a	247904013	MAP	4/10/10 6:32	957702	10-2012	2	LANL	USE	S
EXP0408069a	247904014	MAP	4/10/10 7:01	957702	10-2012	2	LANL	USE	S
EXP0408070a	247904015	MAP	4/10/10 7:31	957702	10-2012	2	LANL	USE	S
EXP0408071a	247904016	MAP	4/10/10 8:00	957702	10-2012	2	LANL	USE	S
EXP0408072a	WXXCCV	MAP	4/10/10 8:30			1		USE	C
EXP0408073a	XIBLK08	MAP	4/10/10 8:59			1		USE	B
EXP0408074a	WXXCRI	MAP	4/10/10 9:29			1		USE	C
EXP0408075a	247904017	MAP	4/10/10 9:58	957702	10-2012	2	LANL	USE	S
EXP0408076a	XIBLK09	MAP	4/10/10 10:28			1		USE	B
EXP0408077a	1202055003	MAP	4/10/10 10:57	958247	Various	2	LANL	USE	S
EXP0408078a	1202055004	MAP	4/10/10 11:27	958247	Various	2	LANL	USE	S
EXP0408079a	248004002	MAP	4/10/10 11:57	958247	10-2024	2	LANL	USE	S
EXP0408080a	1202055005	MAP	4/10/10 12:26	958247	10-2024	2	LANL	USE	S
EXP0408081a	1202055006	MAP	4/10/10 12:55	958247	10-2024	2	LANL	USE	S
EXP0408082a	247897009	MAP	4/10/10 13:25	957700	10-2009	2	LANL	USE	S
EXP0408083a	247897010	MAP	4/10/10 13:54	957700	10-2009	2	LANL	USE	S
EXP0408084a	247897011	MAP	4/10/10 14:24	957700	10-2009	2	LANL	USE	S
EXP0408085a	WXXCCV	MAP	4/10/10 14:53			1		USE	C
EXP0408086a	XIBLK10	MAP	4/10/10 15:23			1		USE	B
EXP0408087a	WXXCRI	MAP	4/10/10 15:52			1		USE	C
EXP0408088a	248004003	MAP	4/10/10 16:22	958247	10-2024	2	LANL	USE	S
EXP0408089a	248004004	MAP	4/10/10 16:51	958247	10-2024	2	LANL	USE	S
EXP0408090a	248004005	MAP	4/10/10 17:21	958247	10-2024	2	LANL	USE	S
EXP0408091a	248004006	MAP	4/10/10 17:50	958247	10-2024	2	LANL	USE	S
EXP0408092a	248012002	MAP	4/10/10 18:20	958247	10-2027	2	LANL	USE	S
EXP0408093a	248012003	MAP	4/10/10 18:49	958247	10-2027	2	LANL	USE	S
EXP0408094a	248012004	MAP	4/10/10 19:19	958247	10-2027	2	LANL	USE	S
EXP0408095a	248012005	MAP	4/10/10 19:48	958247	10-2027	2	LANL	USE	S
EXP0408096a	248012006	MAP	4/10/10 20:18	958247	10-2027	2	LANL	USE	S
EXP0408097a	248012007	MAP	4/10/10 20:47	958247	10-2027	2	LANL	USE	S
EXP0408098a	WXXCCV	MAP	4/10/10 21:17			1		USE	C
EXP0408099a	XIBLK11	MAP	4/10/10 21:46			1		USE	B
EXP0408100a	WXXCRI	MAP	4/10/10 22:16			1		USE	C
EXP0408101a	248012008	MAP	4/10/10 22:45	958247	10-2027	2	LANL	USE	S
EXP0408102a	248012009	MAP	4/10/10 23:15	958247	10-2027	2	LANL	USE	S
EXP0408103a	248013001	MAP	4/10/10 23:44	958247	10-2034	2	LANL	USE	S

EXP0408104a	248013002	MAP	4/11/10 0:14	958247	10-2034	2	LANL	USE	S
EXP0408105a	248013003	MAP	4/11/10 0:43	958247	10-2034	2	LANL	USE	S
EXP0408106a	248013004	MAP	4/11/10 1:13	958247	10-2034	2	LANL	USE	S
EXP0408107a	WXXCCV	MAP	4/11/10 1:42			1		USE	C
EXP0408108a	XIBLK12	MAP	4/11/10 2:12			1		USE	B
EXP0408109a	WXXCRI	MAP	4/11/10 2:41			1		USE	C
EXP0408110a	1202055078	MAP	4/11/10 3:11	958282	Various	2	LANL	DUSE-RA	S
EXP0408111a	1202055079	MAP	4/11/10 3:40	958282	Various	2	LANL	USE	S
EXP0408112a	248017003	MAP	4/11/10 4:10	958282	10-2039	2	LANL	DUSE-RA	S
EXP0408113a	1202055080	MAP	4/11/10 4:39	958282	10-2039	2	LANL	USE	S
EXP0408114a	1202055081	MAP	4/11/10 5:09	958282	10-2039	2	LANL	DUSE-RA	S
EXP0408115a	248042002	MAP	4/11/10 5:38	958282	10-2057	2	LANL	DUSE-RA	S
EXP0408116a	248042008	MAP	4/11/10 6:08	958282	10-2057	2	LANL	DUSE-RA	S
EXP0408117a	248042010	MAP	4/11/10 6:37	958282	10-2057	2	LANL	USE	S
EXP0408118a	248047003	MAP	4/11/10 7:07	958282	10-2045	2	LANL	DUSE-RA	S
EXP0408119a	248047007	MAP	4/11/10 7:36	958282	10-2045	2	LANL	DUSE-RA	S
EXP0408120a	WXXCCV	MAP	4/11/10 8:06			1		USE	C
EXP0408121a	XIBLK13	MAP	4/11/10 8:35			1		USE	B
EXP0408122a	WXXCRI	MAP	4/11/10 9:05			1		USE	C
EXP0408123a	1202055028	MAP	4/11/10 9:34	958257	Various	2	LANL	USE	S
EXP0408124a	1202055031	MAP	4/11/10 10:04	958257	Various	2	LANL	USE	S
EXP0408125a	248027002	MAP	4/11/10 10:33	958257	10-2068	2	LANL	USE	S
EXP0408126a	1202055029	MAP	4/11/10 11:03	958257	10-2068	2	LANL	USE	S
EXP0408127a	1202055030	MAP	4/11/10 11:32	958257	10-2068	2	LANL	USE	S
EXP0408128a	248027003	MAP	4/11/10 12:02	958257	10-2068	2	LANL	USE	S
EXP0408129a	248027004	MAP	4/11/10 12:31	958257	10-2068	2	LANL	USE	S
EXP0408130a	248027005	MAP	4/11/10 13:01	958257	10-2068	2	LANL	USE	S
EXP0408131a	248027006	MAP	4/11/10 13:30	958257	10-2068	2	LANL	USE	S
EXP0408132a	248029001	MAP	4/11/10 14:00	958257	10-2071	2	LANL	USE	S
EXP0408133a	WXXCCV	MAP	4/11/10 14:29			1		USE	C
EXP0408134a	XIBLK14	MAP	4/11/10 14:59			1		USE	B
EXP0408135a	WXXCRI	MAP	4/11/10 15:28			1		USE	C
EXP0408136a	248029002	MAP	4/11/10 15:58	958257	10-2071	2	LANL	USE	S
EXP0408137a	248029003	MAP	4/11/10 16:27	958257	10-2071	2	LANL	USE	S
EXP0408138a	248029004	MAP	4/11/10 16:57	958257	10-2071	2	LANL	USE	S
EXP0408139a	248029005	MAP	4/11/10 17:26	958257	10-2071	2	LANL	USE	S
EXP0408140a	248029006	MAP	4/11/10 17:56	958257	10-2071	2	LANL	USE	S

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EXP0408141a	248029007	MAP	4/11/10 18:25	958257	10-2071	2	LANL	USE	S
EXP0408142a	248029008	MAP	4/11/10 18:55	958257	10-2071	2	LANL	USE	S
EXP0408143a	248029009	MAP	4/11/10 19:24	958257	10-2071	2	LANL	USE	S
EXP0408144a	248068001	MAP	4/11/10 19:54	958257	10-2088	2	LANL	USE	S
EXP0408145a	248068002	MAP	4/11/10 20:23	958257	10-2088	2	LANL	USE	S
EXP0408146a	WXXCCV	MAP	4/11/10 20:53			1		USE	C
EXP0408147a	XIBLK15	MAP	4/11/10 21:22			1		USE	B
EXP0408148a	WXXCRI	MAP	4/11/10 21:52			1		USE	C
EXP0408149a	1202055038	MAP	4/11/10 22:21	958267	10-2077	2	LANL	USE	S
EXP0408150a	1202055039	MAP	4/11/10 22:51	958267	10-2077	2	LANL	USE	S
EXP0408151a	248052001	MAP	4/11/10 23:20	958267	10-2077	2	LANL	USE	S
EXP0408152a	1202055040	MAP	4/11/10 23:50	958267	10-2077	2	LANL	USE	S
EXP0408153a	1202055041	MAP	4/12/10 0:19	958267	10-2077	2	LANL	USE	S
EXP0408154a	248052002	MAP	4/12/10 0:49	958267	10-2077	2	LANL	USE	S
EXP0408155a	248052003	MAP	4/12/10 1:18	958267	10-2077	2	LANL	USE	S
EXP0408156a	248052004	MAP	4/12/10 1:48	958267	10-2077	2	LANL	USE	S
EXP0408157a	248052005	MAP	4/12/10 2:17	958267	10-2077	2	LANL	USE	S
EXP0408158a	248052006	MAP	4/12/10 2:47	958267	10-2077	2	LANL	USE	S
EXP0408159a	WXXCCV	MAP	4/12/10 3:16			1		USE	C
EXP0408160a	XIBLK16	MAP	4/12/10 3:46			1		USE	B
EXP0408161a	WXXCRI	MAP	4/12/10 4:15			1		USE	C
EXP0408162a	248052007	MAP	4/12/10 4:45	958267	10-2077	2	LANL	USE	S
EXP0408163a	248052008	MAP	4/12/10 5:14	958267	10-2077	2	LANL	USE	S
EXP0408164a	248052009	MAP	4/12/10 5:44	958267	10-2077	2	LANL	USE	S
EXP0408165a	248052010	MAP	4/12/10 6:13	958267	10-2077	2	LANL	USE	S
EXP0408166a	248052011	MAP	4/12/10 6:43	958267	10-2077	2	LANL	USE	S
EXP0408167a	248052012	MAP	4/12/10 7:12	958267	10-2077	2	LANL	USE	S
EXP0408168a	248052013	MAP	4/12/10 7:42	958267	10-2077	2	LANL	USE	S
EXP0408169a	248052014	MAP	4/12/10 8:11	958267	10-2077	2	LANL	USE	S
EXP0408170a	248052015	MAP	4/12/10 8:41	958267	10-2077	2	LANL	USE	S
EXP0408171a	248052016	MAP	4/12/10 9:10	958267	10-2077	2	LANL	USE	S
EXP0408172a	WXXCCV	MAP	4/12/10 9:40			1		USE	C
EXP0408173a	XIBLK17	MAP	4/12/10 10:09			1		USE	B
EXP0408174a	WXXCRI	MAP	4/12/10 10:39			1		USE	C
EXP0408175a	248052017	MAP	4/12/10 11:08	958267	10-2077	2	LANL	USE	S
EXP0408176a	248052018	MAP	4/12/10 11:38	958267	10-2077	2	LANL	USE	S
EXP0408177a	248052019	MAP	4/12/10 12:08	958267	10-2077	2	LANL	USE	S

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EXP0408178a	248052020	MAP	4/12/10 12:37	958267	10-2077	2	LANL	USE	S
EXP0408179a	WXXCCV	MAP	4/12/10 13:07			1		USE	C
EXP0408180a	XIBLK18	MAP	4/12/10 13:36			1		USE	B
EXP0408181a	WXXCRI	MAP	4/12/10 14:06			1		USE	C

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS #1

Date: 04/12/10
Extr. Injection Volume: 50uL
Sequence Number: 041210expA
Initial Calibration Date: 04/12/10

Method: SW846 8321A-Modified
Int. Std.: UXX100324-02.3
Mobile Phase Lot#: 1296548, 1289686
Standard-Samp Reagent Lot#: 1299881, 1284736

Reviewed BY: HMM
Date: 04/14/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100412-07

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
EXP0412001a	XIBLK01	MAP	4/12/10 15:40			1		USE	B
EXP0412002a	XIBLK01	MAP	4/12/10 16:10			1		USE	B
EXP0412003a	WXXICAL-01	MAP	4/12/10 16:39			1		USE	I
EXP0412004a	WXXICAL-02	MAP	4/12/10 17:09			1		USE	I
EXP0412005a	WXXICAL-03	MAP	4/12/10 17:38			1		USE	I
EXP0412006a	WXXICAL-04	MAP	4/12/10 18:08			1		USE	I
EXP0412007a	WXXICAL-05	MAP	4/12/10 18:37			1		USE	I
EXP0412008a	WXXICAL-06	MAP	4/12/10 19:07			1		USE	I
EXP0412009a	XIBLK02	MAP	4/12/10 19:36			1		USE	B
EXP0412010a	WXXICV	MAP	4/12/10 20:06			1		USE	C
EXP0412011a	XIBLK03	MAP	4/12/10 20:35			1		USE	B
EXP0412012a	WXXCRI	MAP	4/12/10 21:04			1		USE	C
EXP0412013a	1202047525	MAP	4/12/10 21:34	955063	Various	2	LANL	USE	S
EXP0412014a	1202047526	MAP	4/12/10 22:04	955063	Various	2	LANL	USE	S
EXP0412015a	247332002	MAP	4/12/10 22:33	955063	10-1905	2	LANL	USE	S
EXP0412016a	1202047527	MAP	4/12/10 23:02	955063	10-1905	2	LANL	USE	S
EXP0412017a	1202047528	MAP	4/12/10 23:32	955063	10-1905	2	LANL	USE	S
EXP0412018a	247332003	MAP	4/13/10 0:01	955063	10-1905	2	LANL	USE	S
EXP0412019a	247332004	MAP	4/13/10 0:31	955063	10-1905	2	LANL	USE	S
EXP0412020a	247332005	MAP	4/13/10 1:00	955063	10-1905	2	LANL	USE	S
EXP0412021a	247332006	MAP	4/13/10 1:30	955063	10-1905	2	LANL	USE	S
EXP0412022a	247332007	MAP	4/13/10 1:59	955063	10-1905	2	LANL	USE	S
EXP0412023a	WXXCCV	MAP	4/13/10 2:29			1		USE	C
EXP0412024a	XIBLK04	MAP	4/13/10 2:58			1		USE	B
EXP0412025a	WXXCRI	MAP	4/13/10 3:28			1		USE	C
EXP0412026a	247332008	MAP	4/13/10 3:57	955063	10-1905	2	LANL	USE	S
EXP0412027a	247343001	MAP	4/13/10 4:27	955063	10-1908	2	LANL	USE	S
EXP0412028a	247343002	MAP	4/13/10 4:56	955063	10-1908	2	LANL	USE	S
EXP0412029a	247343003	MAP	4/13/10 5:26	955063	10-1908	2	LANL	USE	S

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EXP0412030a	247343004	MAP	4/13/10 5:55	955063	10-1908	2	LANL	USE	S
EXP0412031a	247343005	MAP	4/13/10 6:25	955063	10-1908	2	LANL	USE	S
EXP0412032a	247343006	MAP	4/13/10 6:54	955063	10-1908	2	LANL	USE	S
EXP0412033a	247343007	MAP	4/13/10 7:24	955063	10-1908	2	LANL	USE	S
EXP0412034a	247343008	MAP	4/13/10 7:53	955063	10-1908	2	LANL	USE	S
EXP0412035a	247343009	MAP	4/13/10 8:23	955063	10-1908	2	LANL	USE	S
EXP0412036a	WXXCCV	MAP	4/13/10 8:52			1		USE	C
EXP0412037a	XIBLK05	MAP	4/13/10 9:22			1		USE	B
EXP0412038a	WXXCRI	MAP	4/13/10 9:51			1		USE	C
EXP0412039a	247343010	MAP	4/13/10 10:21	955063	10-1908	2	LANL	USE	S
EXP0412040a	247343011	MAP	4/13/10 10:50	955063	10-1908	2	LANL	USE	S
EXP0412041a	XIBLK06	MAP	4/13/10 11:20			1		USE	B
EXP0412042a	1202052398	MAP	4/13/10 11:50	957196	10-1972	2	LANL	USE	S
EXP0412043a	1202052399	MAP	4/13/10 12:19	957196	10-1972	2	LANL	USE	S
EXP0412044a	247767001	MAP	4/13/10 12:49	957196	10-1972	2	LANL	USE	S
EXP0412045a	1202052401	MAP	4/13/10 13:18	957196	10-1972	2	LANL	USE	S
EXP0412046a	1202052402	MAP	4/13/10 13:48	957196	10-1972	2	LANL	USE	S
EXP0412047a	247767002	MAP	4/13/10 14:17	957196	10-1972	2	LANL	USE	S
EXP0412048a	247767003	MAP	4/13/10 14:47	957196	10-1972	2	LANL	USE	S
EXP0412049a	WXXCCV	MAP	4/13/10 15:16			1		USE	C
EXP0412050a	XIBLK07	MAP	4/13/10 15:46			1		USE	B
EXP0412051a	WXXCRI	MAP	4/13/10 16:15			1		USE	C
EXP0412052a	247767004	MAP	4/13/10 16:45	957196	10-1972	2	LANL	USE	S
EXP0412053a	247767005	MAP	4/13/10 17:14	957196	10-1972	2	LANL	USE	S
EXP0412054a	247767006	MAP	4/13/10 17:44	957196	10-1972	2	LANL	USE	S
EXP0412055a	247767007	MAP	4/13/10 18:13	957196	10-1972	2	LANL	USE	S
EXP0412056a	247767008	MAP	4/13/10 18:43	957196	10-1972	2	LANL	USE	S
EXP0412057a	247767009	MAP	4/13/10 19:12	957196	10-1972	2	LANL	USE	S
EXP0412058a	247767010	MAP	4/13/10 19:42	957196	10-1972	2	LANL	USE	S
EXP0412059a	247767011	MAP	4/13/10 20:11	957196	10-1972	2	LANL	USE	S
EXP0412060a	WXXCCV	MAP	4/13/10 20:41			1		USE	C
EXP0412061a	XIBLK08	MAP	4/13/10 21:10			1		USE	B
EXP0412062a	WXXCRI	MAP	4/13/10 21:40			1		USE	C
EXP0412063a	1202055078	MAP	4/13/10 22:09	958282	Various	2	LANL	USE	S
EXP0412064a	1202055079	MAP	4/13/10 22:39	958282	Various	2	LANL	DUSE	S
EXP0412065a	248017003	MAP	4/13/10 23:08	958282	10-2039	2	LANL	USE	S
EXP0412066a	1202055080	MAP	4/13/10 23:38	958282	10-2039	2	LANL	DUSE	S

EXP0412067a	1202055081	MAP	4/14/10 0:07	958282	10-2039	2	LANL	USE	S
EXP0412068a	248042002	MAP	4/14/10 0:37	958282	10-2057	2	LANL	USE	S
EXP0412069a	248042008	MAP	4/14/10 1:06	958282	10-2057	2	LANL	USE	S
EXP0412070a	248042010	MAP	4/14/10 1:36	958282	10-2057	2	LANL	DUSE	S
EXP0412071a	248047003	MAP	4/14/10 2:05	958282	10-2045	2	LANL	USE	S
EXP0412072a	248047007	MAP	4/14/10 2:35	958282	10-2045	2	LANL	USE	S
EXP0412073a	WXXCCV	MAP	4/14/10 3:04			1		USE	C
EXP0412074a	XIBLK09	MAP	4/14/10 3:34			1		USE	B
EXP0412075a	WXXCRI	MAP	4/14/10 4:03			1		USE	C

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GEL ORGANIC RUN LOG

INSTRUMENT ID: LCMSMS4

Date: 04/05/10
Extr. Injection Volume: 10uL
Sequence Number: 040510exs
Initial Calibration Date: 040510

Method: 8321A-Modified
Int. Std.: N/A
Mobile Phase Lot#:1268566, 1268568
Standard-Samp Reagent Lot# :1292884, 1284736

Reviewed By: [illegible]
Date: 04/08/10
SOP: GL-OA-E-056 Rev.12
Alt Check Std. ID: WXX100405-26

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC Flag
EXS04050001.wiff	XIBLK01	LER	4/5/2010 12:43			1		USE	B
EXS04050002.wiff	XIBLK01	LER	4/5/2010 12:59			1		USE	B
EXS04050003.wiff	WXXICAL-19	LER	4/5/2010 13:15			1		USE	I
EXS04050004.wiff	WXXICAL-20	LER	4/5/2010 13:30			1		USE	I
EXS04050005.wiff	WXXICAL-21	LER	4/5/2010 13:46			1		USE	I
EXS04050006.wiff	WXXICAL-22	LER	4/5/2010 14:02			1		USE	I
EXS04050007.wiff	WXXICAL-23	LER	4/5/2010 14:18			1		USE	I
EXS04050008.wiff	WXXICAL-24	LER	4/5/2010 14:33			1		USE	I
EXS04050009.wiff	WXXICAL-25	LER	4/5/2010 14:51			1		USE	I
EXS04050010.wiff	XIBLK02	LER	4/5/2010 15:07			1		USE	B
EXS04050011.wiff	WXXICV	LER	4/5/2010 15:22			1		USE	C
EXS04050012.wiff	XIBLK03	LER	4/5/2010 15:38			1		USE	B
EXS04050013.wiff	WXXCRI	LER	4/5/2010 15:54			1		USE	C
EXS04050014.wiff	1202059808	LER	4/5/2010 16:09	960305	10-2150	2	LANL	USE	S
EXS04050015.wiff	1202059809	LER	4/5/2010 16:25	960305	10-2150	2	LANL	USE	S
EXS04050016.wiff	248370001	LER	4/5/2010 16:41	960305	10-2150	2	LANL	USE	S
EXS04050017.wiff	1202059810	LER	4/5/2010 16:57	960305	10-2150	2	LANL	USE	S
EXS04050018.wiff	1202059811	LER	4/5/2010 17:12	960305	10-2150	2	LANL	USE	S
EXS04050019.wiff	248370002	LER	4/5/2010 17:28	960305	10-2150	2	LANL	USE	S
EXS04050020.wiff	248370003	LER	4/5/2010 17:44	960305	10-2150	2	LANL	USE	S
EXS04050021.wiff	248370004	LER	4/5/2010 17:59	960305	10-2150	2	LANL	USE	S
EXS04050022.wiff	248370005	LER	4/5/2010 18:15	960305	10-2150	2	LANL	USE	S
EXS04050023.wiff	248370006	LER	4/5/2010 18:31	960305	10-2150	2	LANL	USE	S
EXS04050024.wiff	WXXCCV	LER	4/5/2010 18:47			1		USE	C
EXS04050025.wiff	XIBLK04	LER	4/5/2010 19:02			1		USE	B
EXS04050026.wiff	WXXCRI	LER	4/5/2010 19:18			1		USE	C
EXS04050027.wiff	248370007	LER	4/5/2010 19:34	960305	10-2150	2	LANL	USE	S
EXS04050028.wiff	248370008	LER	4/5/2010 19:49	960305	10-2150	2	LANL	USE	S
EXS04050029.wiff	248370009	LER	4/5/2010 20:05	960305	10-2150	2	LANL	USE	S
EXS04050030.wiff	248370010	LER	4/5/2010 20:21	960305	10-2150	2	LANL	USE	S

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EXS04050031.wiff	248370011	LER	4/5/2010 20:37	960305	10-2150	2	LANL	USE	S
EXS04050032.wiff	248370012	LER	4/5/2010 20:52	960305	10-2150	2	LANL	USE	S
EXS04050033.wiff	248370013	LER	4/5/2010 21:08	960305	10-2150	2	LANL	USE	S
EXS04050034.wiff	248370014	LER	4/5/2010 21:24	960305	10-2150	2	LANL	USE	S
EXS04050035.wiff	248370015	LER	4/5/2010 21:39	960305	10-2150	2	LANL	USE	S
EXS04050036.wiff	248370016	LER	4/5/2010 21:55	960305	10-2150	2	LANL	USE	S
EXS04050037.wiff	WXXCCV	LER	4/5/2010 22:11			1		USE	C
EXS04050038.wiff	XIBLK05	LER	4/5/2010 22:27			1		USE	B
EXS04050039.wiff	WXXCRI	LER	4/5/2010 22:42			1		USE	C
EXS04050040.wiff	248370017	LER	4/5/2010 22:58	960305	10-2150	2	LANL	USE	S
EXS04050041.wiff	248370018	LER	4/5/2010 23:14	960305	10-2150	2	LANL	USE	S
EXS04050042.wiff	248370019	LER	4/5/2010 23:29	960305	10-2150	2	LANL	USE	S
EXS04050043.wiff	248370020	LER	4/5/2010 23:45	960305	10-2150	2	LANL	USE	S
EXS04050044.wiff	XIBLK06	LER	4/6/2010 0:01			1		USE	B
EXS04050045.wiff	1202064670	LER	4/6/2010 0:17	962462	VARIOUS	2	LANL	USE	S
EXS04050046.wiff	1202064671	LER	4/6/2010 0:32	962462	VARIOUS	2	LANL	USE	S
EXS04050047.wiff	248790001	LER	4/6/2010 0:48	962462	10-2286-1	2	LANL	USE	S
EXS04050048.wiff	1202064672	LER	4/6/2010 1:04	962462	10-2286-1	2	LANL	USE	S
EXS04050049.wiff	1202064673	LER	4/6/2010 1:19	962462	10-2286-1	2	LANL	USE	S
EXS04050050.wiff	WXXCCV	LER	4/6/2010 1:35			1		USE	C
EXS04050051.wiff	XIBLK07	LER	4/6/2010 1:51			1		USE	B
EXS04050052.wiff	WXXCRI	LER	4/6/2010 2:06			1		USE	C
EXS04050053.wiff	248790002	LER	4/6/2010 2:22	962462	10-2286-1	2	LANL	USE	S
EXS04050054.wiff	248790003	LER	4/6/2010 2:38	962462	10-2286-1	2	LANL	USE	S
EXS04050055.wiff	248790004	LER	4/6/2010 2:54	962462	10-2286-1	2	LANL	USE	S
EXS04050056.wiff	248794002	LER	4/6/2010 3:09	962462	10-2288	2	LANL	USE	S
EXS04050057.wiff	248794003	LER	4/6/2010 3:25	962462	10-2288	2	LANL	USE	S
EXS04050058.wiff	248794004	LER	4/6/2010 3:41	962462	10-2288	2	LANL	USE	S
EXS04050059.wiff	248794005	LER	4/6/2010 3:57	962462	10-2288	2	LANL	USE	S
EXS04050060.wiff	248794006	LER	4/6/2010 4:12	962462	10-2288	2	LANL	USE	S
EXS04050061.wiff	248794007	LER	4/6/2010 4:28	962462	10-2288	2	LANL	USE	S
EXS04050062.wiff	248794008	LER	4/6/2010 4:44	962462	10-2288	2	LANL	USE	S
EXS04050063.wiff	WXXCCV	LER	4/6/2010 4:59			1		USE	C
EXS04050064.wiff	XIBLK08	LER	4/6/2010 5:15			1		USE	B
EXS04050065.wiff	WXXCRI	LER	4/6/2010 5:31			1		USE	C
EXS04050066.wiff	248794009	LER	4/6/2010 5:47	962462	10-2288	2	LANL	USE	S
EXS04050067.wiff	248794010	LER	4/6/2010 6:02	962462	10-2288	2	LANL	USE	S

EXS04050068.wiff	248794011	LER	4/6/2010 6:18	962462	10-2288	2	LANL	USE	S
EXS04050069.wiff	248794012	LER	4/6/2010 6:34	962462	10-2288	2	LANL	USE	S
EXS04050070.wiff	248794013	LER	4/6/2010 6:49	962462	10-2288	2	LANL	USE	S
EXS04050071.wiff	WXXCCV	LER	4/6/2010 7:05			1		USE	C
EXS04050072.wiff	XIBLK09	LER	4/6/2010 7:21			1		USE	B
EXS04050073.wiff	WXXCRI	LER	4/6/2010 7:37			1		USE	C
EXS04050074.wiff	1202055078	LER	4/6/2010 7:52	958282	VARIOUS	2	LANL	USE	S
EXS04050075.wiff	1202055079	LER	4/6/2010 8:08	958282	VARIOUS	2	LANL	USE	S
EXS04050076.wiff	248017003	LER	4/6/2010 8:24	958282	10-2039	2	LANL	USE	S
EXS04050077.wiff	1202055080	LER	4/6/2010 8:39	958282	10-2039	2	LANL	USE	S
EXS04050078.wiff	1202055081	LER	4/6/2010 8:55	958282	10-2039	2	LANL	USE	S
EXS04050079.wiff	248042002	LER	4/6/2010 9:11	958282	10-2057	2	LANL	USE	S
EXS04050080.wiff	248042008	LER	4/6/2010 9:26	958282	10-2057	2	LANL	USE	S
EXS04050081.wiff	248042010	LER	4/6/2010 9:42	958282	10-2057	2	LANL	USE	S
EXS04050082.wiff	248047003	LER	4/6/2010 9:58	958282	10-2045	2	LANL	USE	S
EXS04050083.wiff	248047007	LER	4/6/2010 10:14	958282	10-2045	2	LANL	USE	S
EXS04050084.wiff	WXXCCV	LER	4/6/2010 10:29			1		USE	C
EXS04050085.wiff	XIBLK10	LER	4/6/2010 10:45			1		USE	B
EXS04050086.wiff	WXXCRI	LER	4/6/2010 11:01			1		USE	C
EXS04050087.wiff	1202057500	LER	4/6/2010 11:16	959338	VARIOUS	2	LANL	USE	S
EXS04050088.wiff	1202057501	LER	4/6/2010 11:32	959338	VARIOUS	2	LANL	USE	S
EXS04050089.wiff	248244001	LER	4/6/2010 11:48	959338	10-2137	2	LANL	USE	S
EXS04050090.wiff	248244002	LER	4/6/2010 12:04	959338	10-2137	2	LANL	USE	S
EXS04050091.wiff	248244003	LER	4/6/2010 12:19	959338	10-2137	2	LANL	USE	S
EXS04050092.wiff	248244004	LER	4/6/2010 12:35	959338	10-2137	2	LANL	USE	S
EXS04050093.wiff	248244005	LER	4/6/2010 12:51	959338	10-2137	2	LANL	USE	S
EXS04050094.wiff	248244006	LER	4/6/2010 13:06	959338	10-2137	2	LANL	USE	S
EXS04050095.wiff	248244007	LER	4/6/2010 13:22	959338	10-2137	2	LANL	USE	S
EXS04050096.wiff	248244008	LER	4/6/2010 13:38	959338	10-2137	2	LANL	DUSE-RA	S
EXS04050097.wiff	WXXCCV	LER	4/6/2010 13:53			1		USE	C
EXS04050098.wiff	XIBLK11	LER	4/6/2010 14:09			1		USE	B
EXS04050099.wiff	WXXCRI	LER	4/6/2010 14:25			1		USE	C
EXS04050100.wiff	248249001	LER	4/6/2010 14:41	959338	10-2140	2	LANL	USE	S
EXS04050101.wiff	1202057502	LER	4/6/2010 14:56	959338	10-2140	2	LANL	USE	S
EXS04050102.wiff	1202057503	LER	4/6/2010 15:12	959338	10-2140	2	LANL	USE	S
EXS04050103.wiff	248249002	LER	4/6/2010 15:28	959338	10-2140	2	LANL	USE	S
EXS04050104.wiff	248249003	LER	4/6/2010 15:43	959338	10-2140	2	LANL	USE	S

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EXS04050105.wiff	248249004	LER	4/6/2010 15:59	959338	10-2140	2	LANL	USE	S
EXS04050106.wiff	WXXCCV	LER	4/6/2010 16:15			1		USE	C
EXS04050107.wiff	XIBLK12	LER	4/6/2010 16:30			1		USE	B
EXS04050108.wiff	WXXCRI	LER	4/6/2010 16:46			1		USE	C

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set: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

e: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408113a
: 11-Apr-2010
: 04:39:55
202055080 | LANL | 958282 | LSD | 248017003LLS | 2 |
3:1,D

MAH 4/14/10

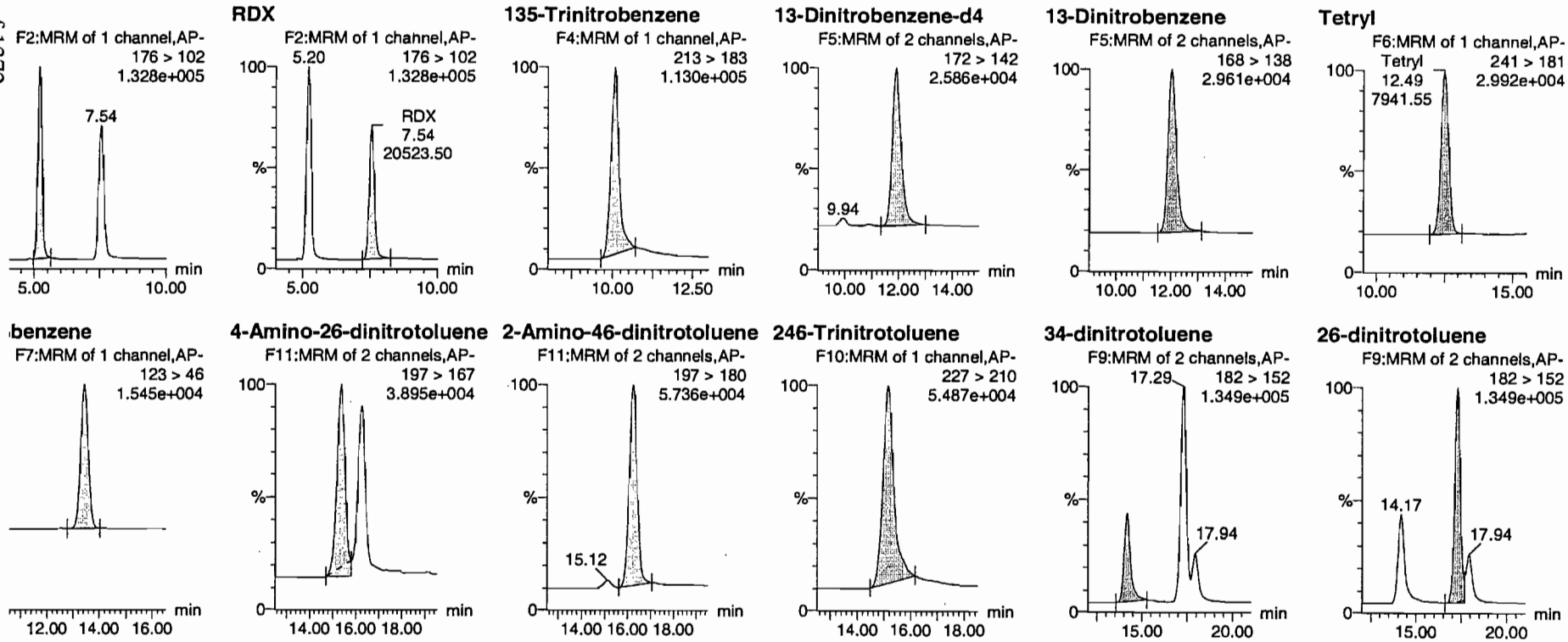

dmm 04/14/10

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set: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

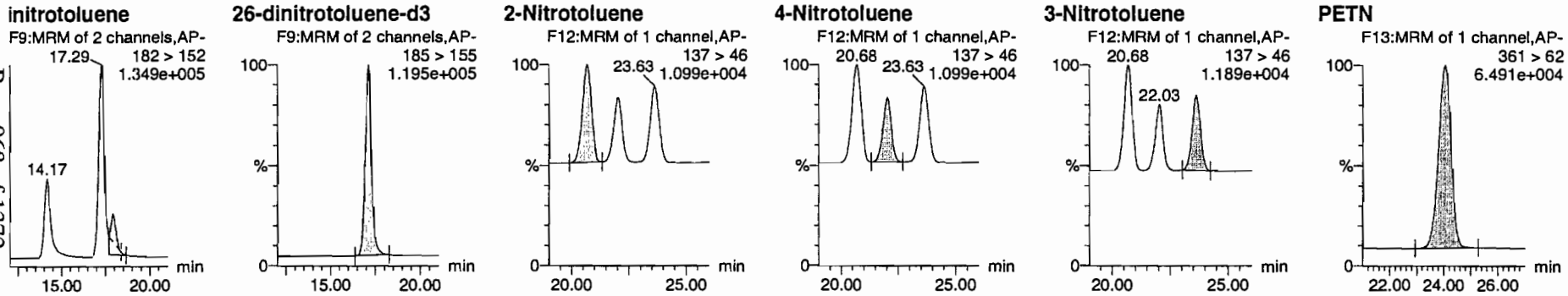

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
)55080	HMX	176 > 102	5.20	24889.580	7736.037	24889.580	1608.678	bb			503.6188	100.7	0.7	2963.8
)55080	RDX	176 > 102	7.54	20523.500	7736.037	20523.500	1326.487	bb			544.3414	108.9	8.9	2068.7
)55080	135-Trinitrobenzene	213 > 183	10.07	30827.141	7736.037	30827.141	1992.438	bb			471.7672	94.4	-5.6	1985.1
)55080	13-Dinitrobenzene-d4	172 > 142	11.89	7736.037		7736.037	7736.037	bb			595.2584	119.1	19.1	180.2
)55080	13-Dinitrobenzene	168 > 138	12.03	8783.742	7736.037	8783.742	567.716	bb			440.8172	88.2	-11.8	752.7
)55080	Tetryl	241 > 181	12.49	7941.549	7736.037	7941.549	513.283	bb			498.5413	99.7	-0.3	728.7
)55080	Nitrobenzene	123 > 46	13.41	3479.032	7736.037	3479.032	224.859	bb			374.1389	74.8	-25.2	434.3
)55080	4-Amino-26-dinitrotoluene	197 > 167	15.36	14107.492	46381.922	14107.492	152.080	MM	11-Apr-10	11:38:11	488.5426	97.7	-2.3	146.4
)55080	2-Amino-46-dinitrotoluene	197 > 180	16.22	20935.064	46381.922	20935.064	225.681	bb			494.0161	98.8	-1.2	1044.3
)55080	246-Trinitrotoluene	227 > 210	15.14	22955.270	46381.922	22955.270	247.459	bb			643.0961	128.6	28.6	599.5
)55080	34-dinitrotoluene	182 > 152	14.17	22653.432	46381.922	22653.432	244.205	bb		3.09	238.1144	95.2	-4.8	731.2
)55080	26-dinitrotoluene	182 > 152	17.29	48322.281	46381.922	48322.281	520.917	MM	11-Apr-10	11:39:29	458.0133	91.6	-8.4	1780.7
)55080	24-dinitrotoluene	182 > 152	17.94	11011.858	46381.922	11011.858	118.709	MM	11-Apr-10	11:44:11	448.4064	89.7	-10.3	384.5
)55080	26-dinitrotoluene-d3	185 > 155	17.11	46381.922		46381.922	46381.922	bb			587.4314	117.5	17.5	3335.6
)55080	2-Nitrotoluene	137 > 46	20.68	2537.071	46381.922	2537.071	27.350	bb			356.2959	71.3	-28.7	959.0
)55080	4-Nitrotoluene	137 > 46	22.02	1510.532	46381.922	1510.532	16.284	bb			418.9921	83.8	-16.2	633.1
)55080	3-Nitrotoluene	137 > 46	23.63	1876.091	46381.922	1876.091	20.224	bb			370.4286	74.1	-25.9	227.0
)55080	PETN	361 > 62	24.04	32140.332	46381.922	32140.332	346.475	bb			517.7230	103.5	3.5	3192.2

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Lan 4/7/10

ame: "1202055080" Sample ID: "958282|2|LER" File: "EXS04050077.wiff"
e: "TATB" Mass(es): "257.2/204.9 amu"
"LCX83212L" Annotation: ""
dex: 1
pe: Unknown
tion: N/A
d Conc: 407. ng/mL
: 4/6/2010
: 8:39:54 AM

No
orithm: IntelliQuan - IQA
Height: 2500.00 cps
Width: 0.00 sec
Width: 3 points
: 30.0 sec
RT: 6.86 min
ive RT: No

: Valley
Time: 6.90 min
3.23e+005 counts
64742.882 cps
e: 6.80 min
7.77 min

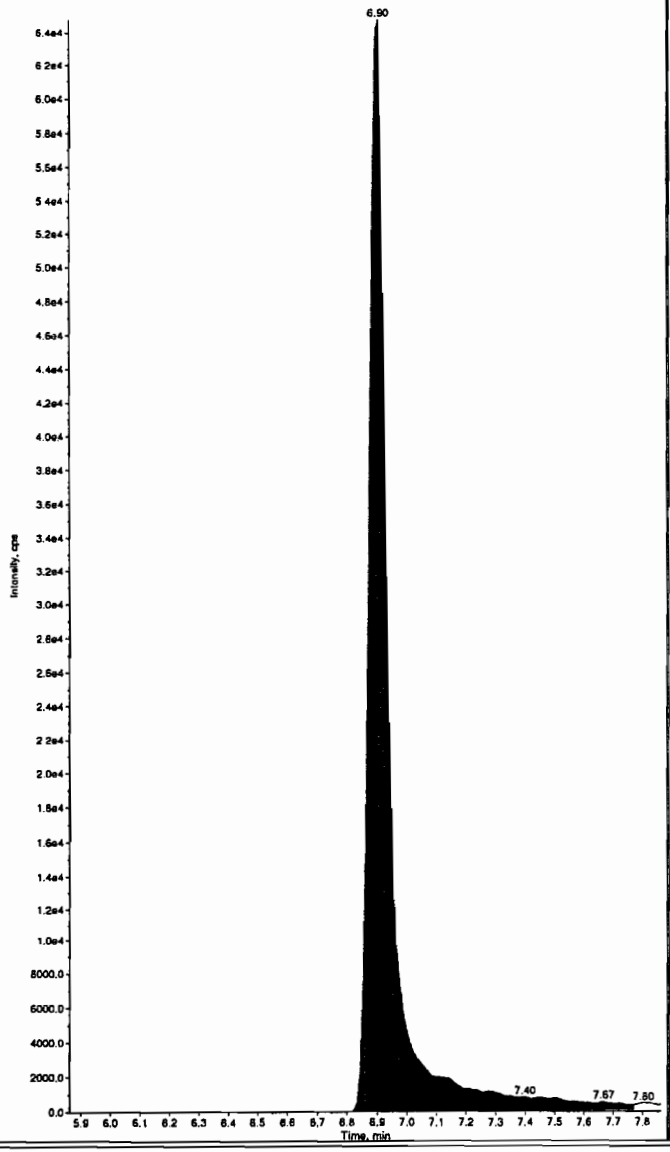

Sample Name: "1202055080" Sample ID: "958282|2|LER" File: "EXS04050077.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""
Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 406. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 8:39:54 AM

Modified: Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 2000.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 15.0 sec
Expected RT: 8.13 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 8.13 min
Area: 2.71e+006 counts
Height: 647303.650 cps
Start Time: 8.06 min
End Time: 8.26 min

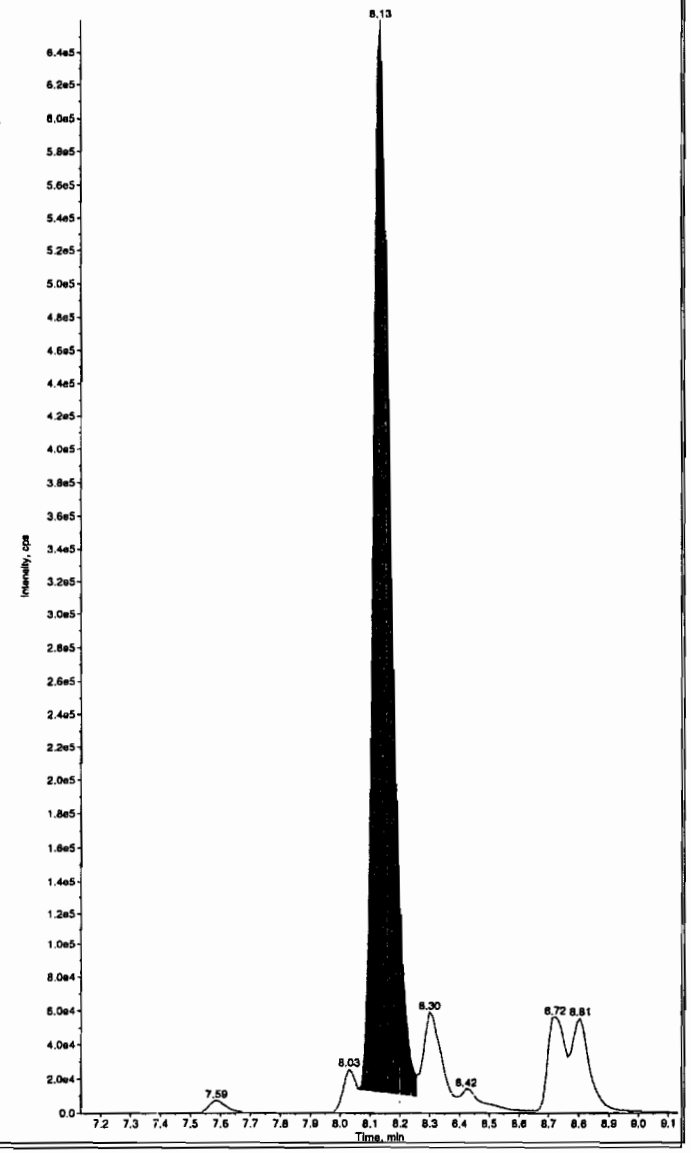

Hnm 04/08/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ame: "1202055080" Sample ID: "958282|2|LER" File: "EXS04050077.wiff"
e: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
"LCX83212L" Annotation: ""

305

dex: 1
pe: Unknown
tion: N/A
d Conc: 235. ng/mL
: 4/6/2010
: 8:39:54 AM

No
orithm: IntelliQuan - IQA
Height: 1460.00 cps
Width: 0.00 sec
Width: 3 points
: 15.0 sec
RT: 8.28 min
ive RT: No

: Valley
Time: 8.30 min
2.00e+006 counts
494139.343 cps
e: 8.23 min
8.55 min

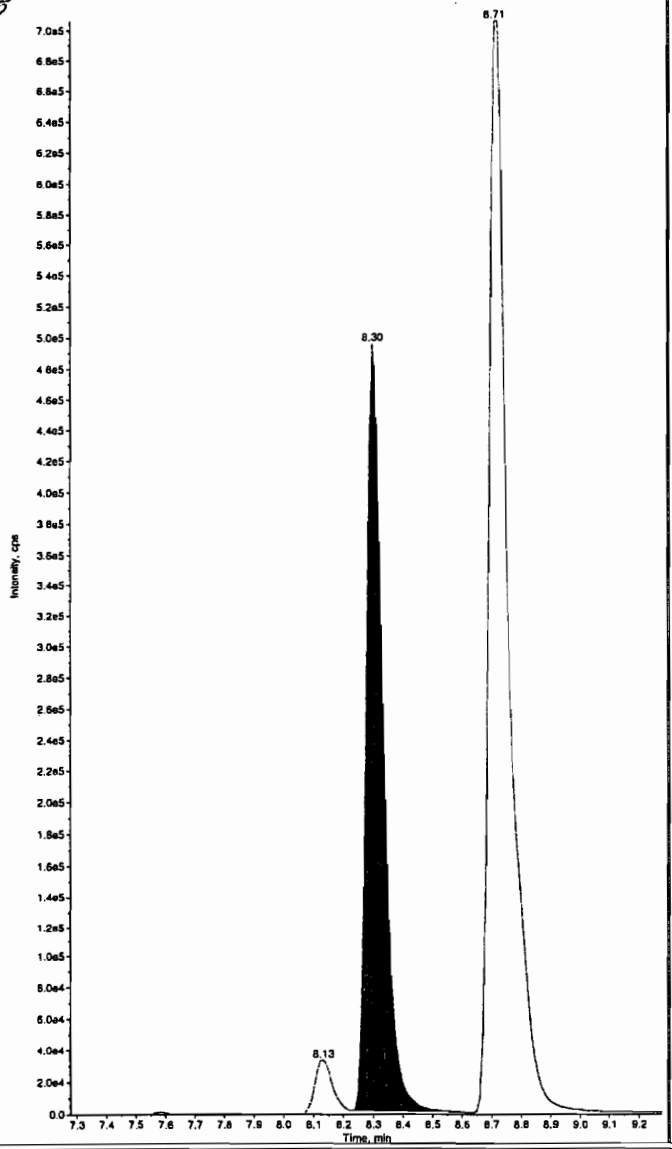

Sample Name: "1202055080" Sample ID: "958282|2|LER" File: "EXS04050077.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 443. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 8:39:54 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.95 min
Area: 1.24e+006 counts
Height: 273645.782 cps
Start Time: 4.86 min
End Time: 5.24 min

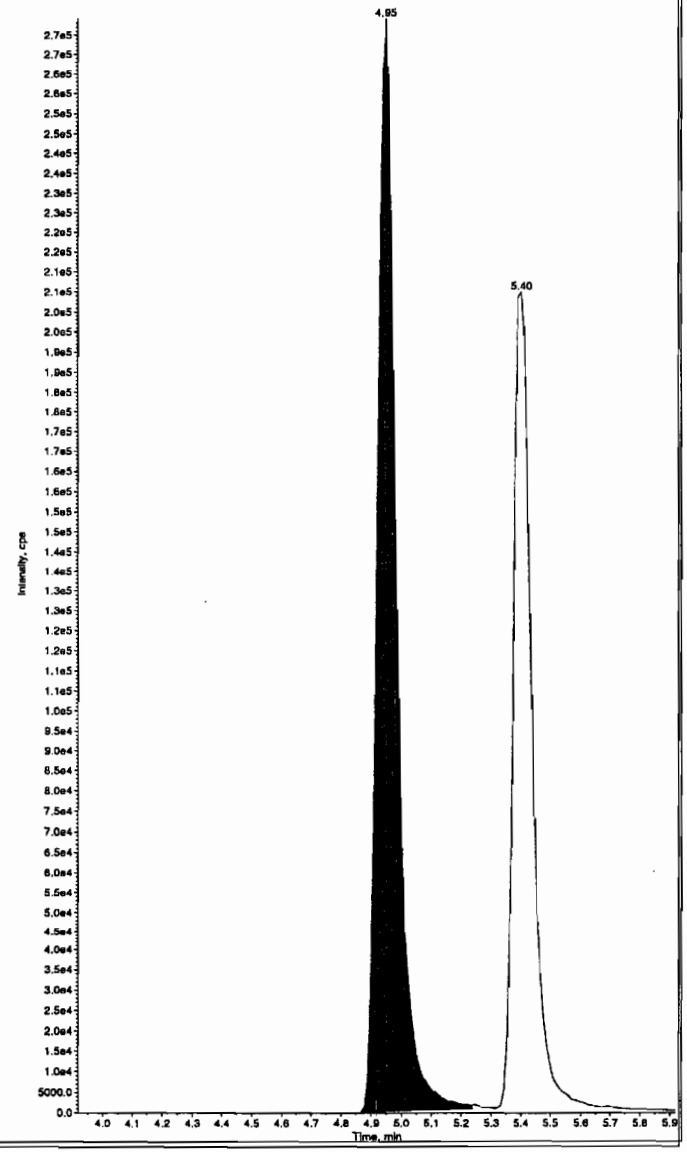

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ame: "1202055080" Sample ID: "958282|2|LER" File: "EXS04050077.wiff"
e: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
"LCX83212L" Annotation: ""

```
dex:          1
pe:       Unknown
tion:        N/A
d Conc:      423.     ng/mL
:         4/6/2010
:         8:39:54 AM

             No
orithm: IntelliQuan - IQA
 Height: 350.00    cps
 Width:    0.00    sec
 Width:  3        points
:          30.0    sec
RT:         5.37   min
ive RT:     No

:         Valley
 Time:      5.40   min
     9.00e+005    counts
       203896.118  cps
e:          5.31   min
            5.81   min
```

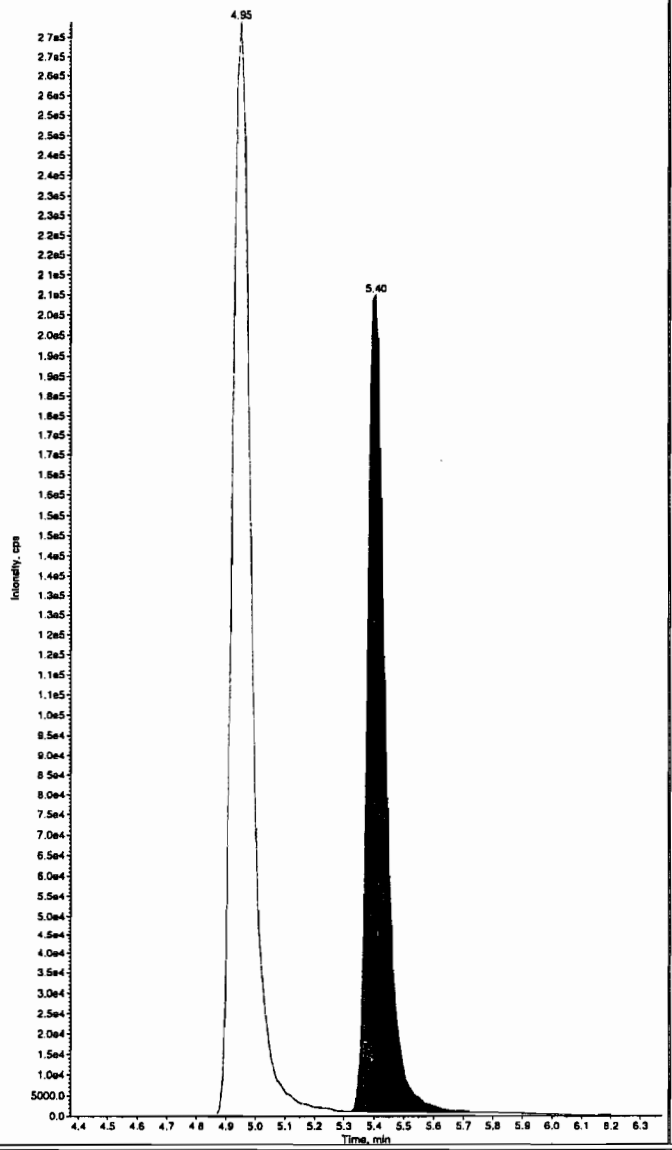

Sample Name: "1202055080" Sample ID: "958282|2|LER" File: "EXS04050077.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""

```
Sample Index:          1
Sample Type:       Unknown
Concentration:       N/A
Calculated Conc:     201.     ng/mL
Acq. Date:        4/6/2010
Acq. Time:        8:39:54 AM

Modified:             No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:8000.00    cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3        points
RT Window:          30.0    sec
Expected RT:        10.8    min
Use Relative RT:    No

Int. Type:        Valley
Retention Time:     10.8    min
Area:         3.62e+006    counts
Height:        875412.231  cps
Start Time:         10.7   min
End Time:           11.2   min
```

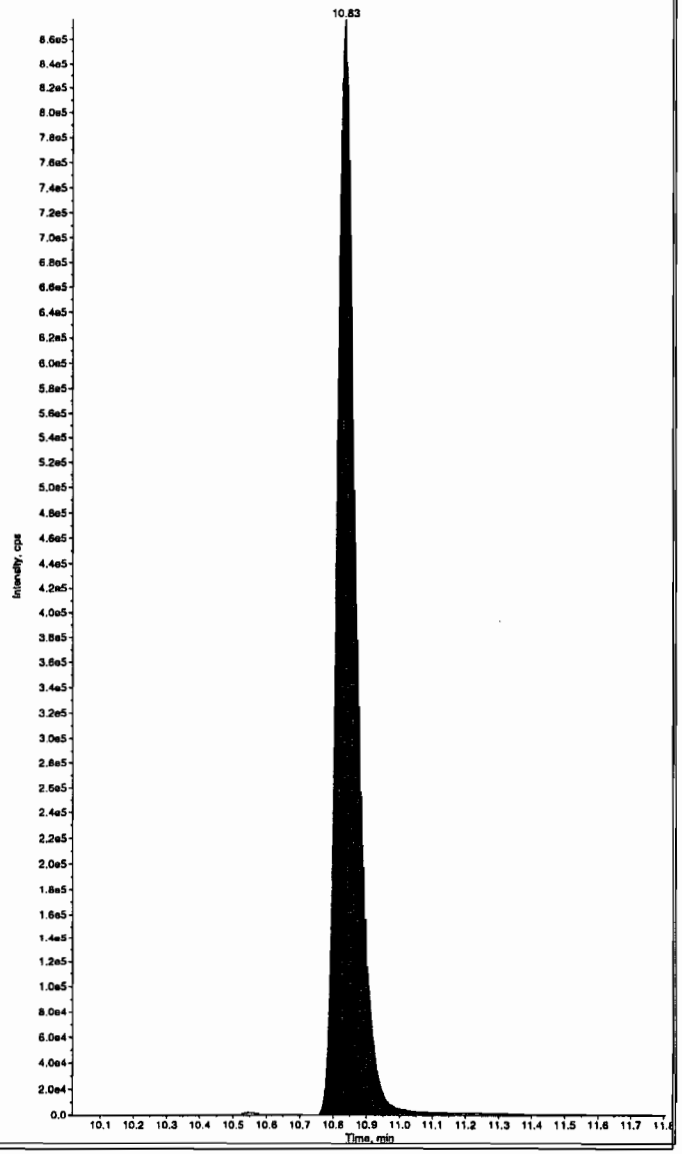

set: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

A28

e: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0412067a
: 14-Apr-2010
: 00:07:48
202055081
1:4,E

| LANL | 958282 | LIQ | 248017003 WSD | 2 |

4/14/10

XQ: EXP0408114a

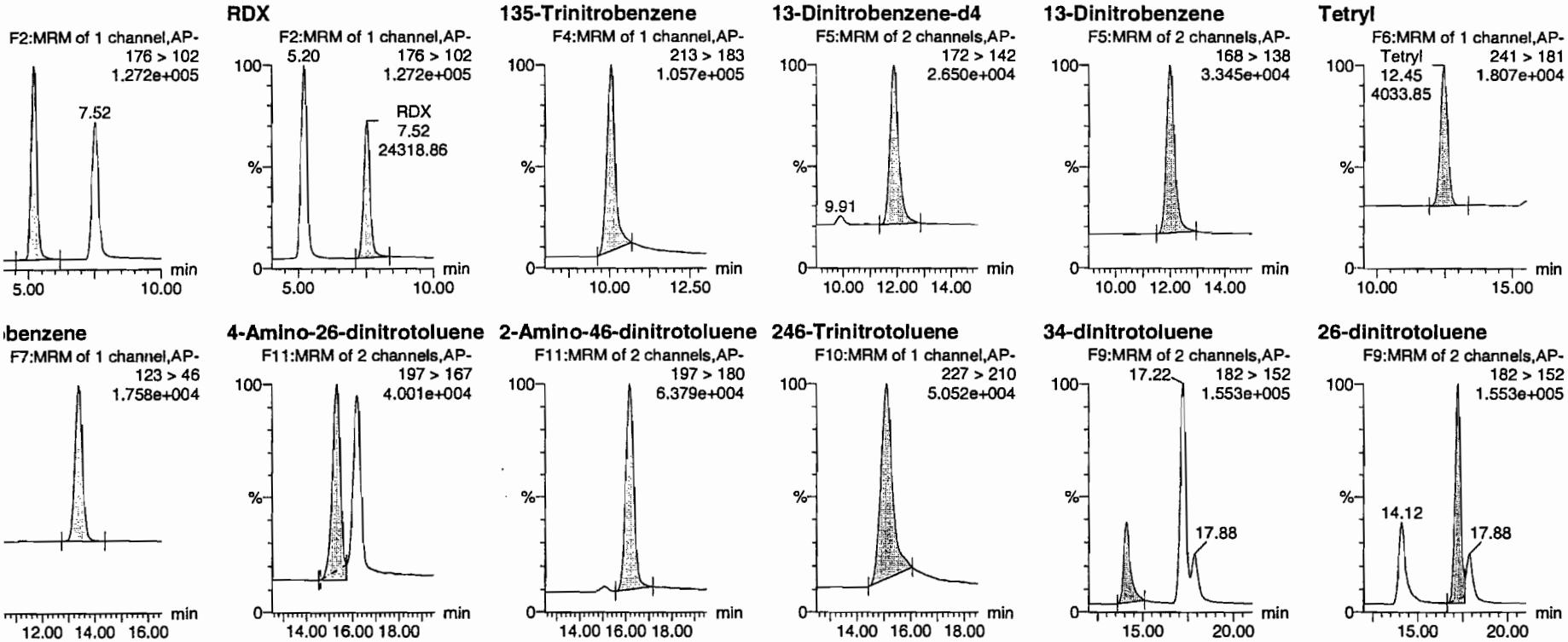

4/14/10

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ɜet: C:\MASSLYNX\New_Exp.PRO\041210expA1.qld, Time: Wed Apr 14 09:16:31 2010

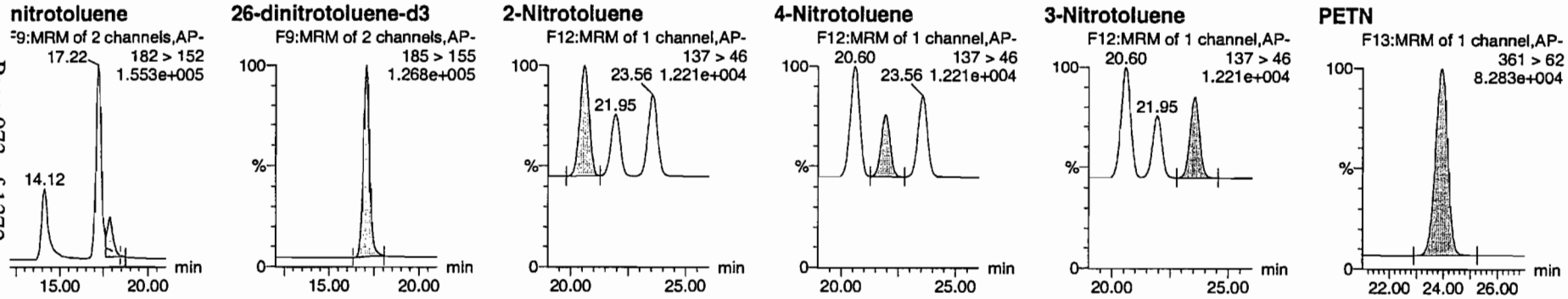

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
)55081	HMX	176 > 102	5.20	31888.916	7934.125	31888.916	2009.605	bb			474.1127	94.8	-5.2	2669.8
)55081	RDX	176 > 102	7.52	24318.857	7934.125	24318.857	1532.548	bb			535.4439	107.1	7.1	1887.4
)55081	135-Trinitrobenzene	213 > 183	10.05	29399.398	7934.125	29399.398	1852.718	bb			428.5744	85.7	-14.3	1192.8
)55081	13-Dinitrobenzene-d4	172 > 142	11.87	7934.125		7934.125	7934.125	bb			674.6287	134.9	34.9	996.5
)55081	13-Dinitrobenzene	168 > 138	11.97	9988.182	7934.125	9988.182	629.444	bb			470.7642	94.2	-5.8	820.5
)55081	Tetryl	241 > 181	12.45	4033.852	7934.125	4033.852	254.209	bb			196.1076	39.2	-60.8	402.5
)55081	Nitrobenzene	123 > 46	13.37	4220.272	7934.125	4220.272	265.957	bb			423.9733	84.8	-15.2	342.0
)55081	4-Amino-26-dinitrotoluene	197 > 167	15.32	14410.682	49730.031	14410.682	144.889	MM	14-Apr-10	09:09:24	428.9675	85.8	-14.2	473.2
)55081	2-Amino-46-dinitrotoluene	197 > 180	16.16	23516.303	49730.031	23516.303	236.440	bb			461.6182	92.3	-7.7	1210.9
)55081	246-Trinitrotoluene	227 > 210	15.10	21357.152	49730.031	21357.152	214.731	bb			493.5970	98.7	-1.3	761.4
)55081	34-dinitrotoluene	182 > 152	14.12	23995.795	49730.031	23995.795	241.261	bb		3.02	233.9774	93.6	-6.4	826.1
)55081	26-dinitrotoluene	182 > 152	17.22	54598.902	49730.031	54598.902	548.953	MM	14-Apr-10	09:12:51	463.8237	92.8	-7.2	2279.5
)55081	24-dinitrotoluene	182 > 152	17.88	13461.175	49730.031	13461.175	135.343	MM	14-Apr-10	09:13:55	518.5460	103.7	3.7	486.6
)55081	26-dinitrotoluene-d3	185 > 155	17.05	49730.031		49730.031	49730.031	bb			710.7706	142.2	42.2	2173.1
)55081	2-Nitrotoluene	137 > 46	20.60	3195.753	49730.031	3195.753	32.131	bb			371.0785	74.2	-25.8	289.0
)55081	4-Nitrotoluene	137 > 46	21.95	1714.694	49730.031	1714.694	17.240	bb			415.6288	83.1	-16.9	161.0
)55081	3-Nitrotoluene	137 > 46	23.56	2336.375	49730.031	2336.375	23.491	bb			402.9120	80.6	-19.4	213.1
)55081	PETN	361 > 62	23.94	41677.180	49730.031	41677.180	419.034	bb			451.2692	90.3	-9.7	13612.8

SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

Lcn 4/7/10

me: "1202055081" Sample ID: "958282|2|LER" File: "EXS04050078.wiff"
: "TATB" Mass(es): "257.2/204.9 amu"
"LCX83212L" Annotation: ""

```
dex:          1
pe:       Unknown
tion:       N/A
1 Conc:     418.     ng/mL
:         4/6/2010
:         8:55:36 AM

            No
orithm: IntelliQuan - IQA
 Height:2500.00   cps
 Width:     0.00   sec
 Width:  3        points
:          30.0    sec
RT:         6.86   min
ive RT:     No

:         Valley
 Time:      6.89   min
      3.31e+005   counts
      74494.469   cps
:          6.78   min
           7.48   min
```

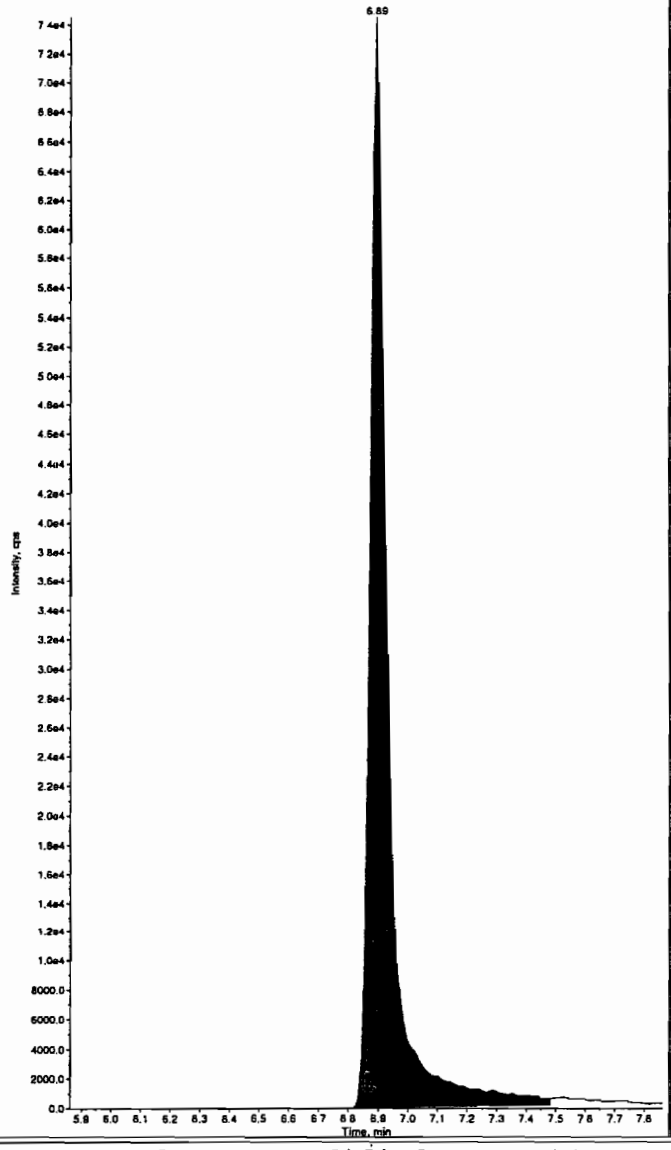

Sample Name: "1202055081" Sample ID: "958282|2|LER" File: "EXS04050078.wiff"
Peak Name: "35-Dinitroaniline" Mass(es): "182.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

```
Sample Index:          1
Sample Type:       Unknown
Concentration:       N/A
Calculated Conc:     473.     ng/mL
Acq. Date:        4/6/2010
Acq. Time:        8:55:36 AM

Modified:             Yes
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height:2000.00   cps
Min. Peak Width:     0.00   sec
Smoothing Width:  3        points
RT Window:          15.0    sec
Expected RT:         8.12   min
Use Relative RT:     No

Int. Type:         Valley
Retention Time:      8.12   min
Area:          3.14e+006   counts
Height:        755054.504   cps
Start Time:          8.06   min
End Time:            8.26   min
```

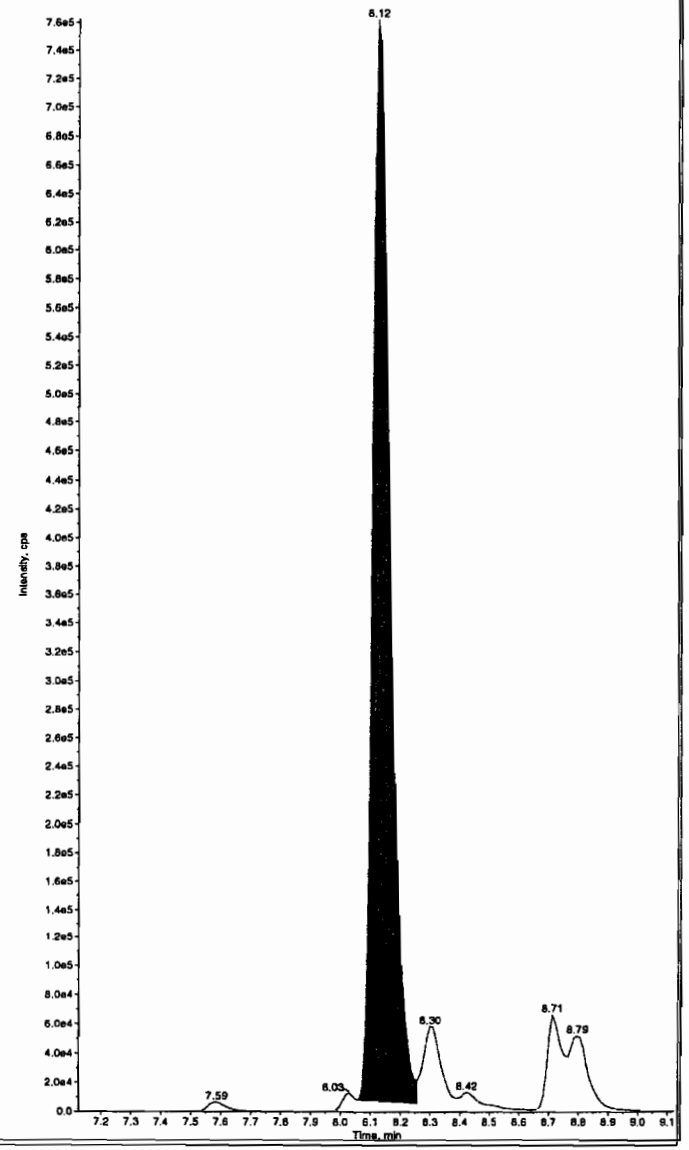

HMM 04/08/10

SOP GL-OA-E-056, Method 8321A-Modified LCMSMS#4

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

ame: "1202055081" Sample ID: "958282|2|LER" File: "EXS04050078.wiff"
e: "34-Dinitrotoluene" Mass(es): "182.1/151.9 amu"
"LCX83212L" Annotation: ""

dex: 1
pe: Unknown 2,93
tion: N/A
d Conc: 226. ng/mL
: 4/6/2010
: 8:55:36 AM

No
orithm: IntelliQuan - IQA
Height:1460.00 cps
Width: 0.00 sec
Width: 3 points
: 15.0 sec
RT: 8.28 min
ive RT: No

: Valley
Time: 8.30 min
1.93e+006 counts
464223.114 cps
e: 8.23 min
8.54 min

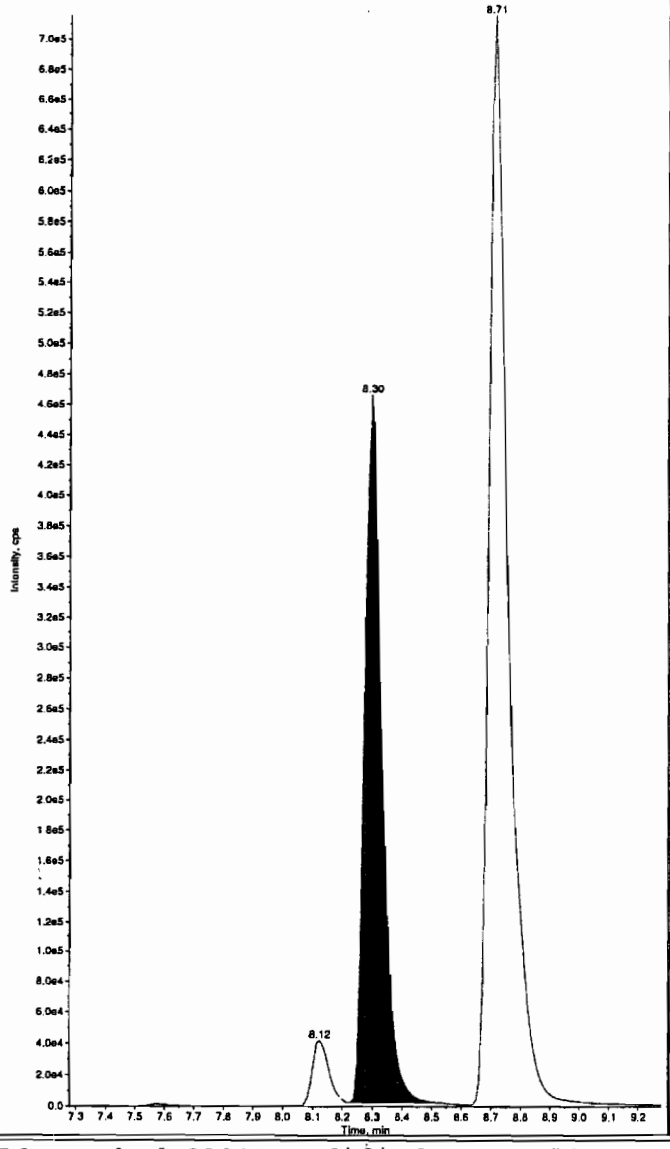

Sample Name: "1202055081" Sample ID: "958282|2|LER" File: "EXS04050078.wiff"
Peak Name: "26-Diamino-4-nitrotoluene" Mass(es): "166.0/46.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index: 1
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 431. ng/mL
Acq. Date: 4/6/2010
Acq. Time: 8:55:36 AM

Modified: No
Proc. Algorithm: IntelliQuan - IQA
Min. Peak Height: 450.00 cps
Min. Peak Width: 0.00 sec
Smoothing Width: 3 points
RT Window: 30.0 sec
Expected RT: 4.92 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.95 min
Area: 1.21e+006 counts
Height: 278627.289 cps
Start Time: 4.85 min
End Time: 5.25 min

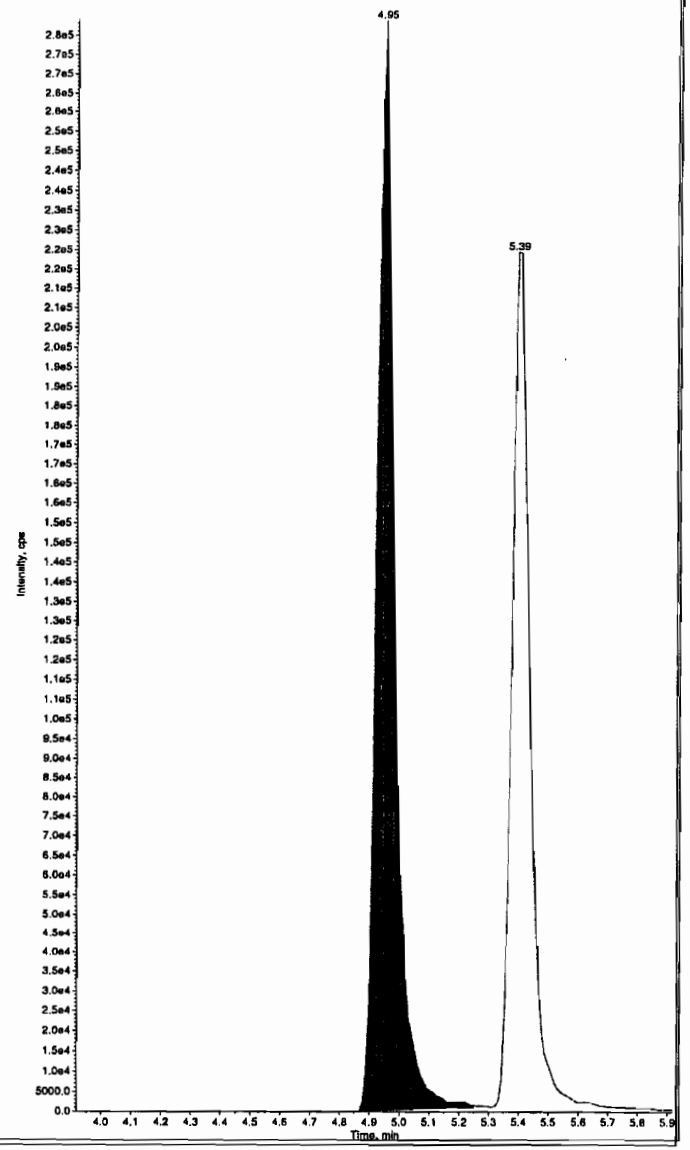

PROPRIETARY INFORMATION-No unauthorized reproduction without written permission from GEL.

me: "1202055081" Sample ID: "958282|2|LER" File: "EXS04050078.wiff"
: "24-Diamino-6-nitrotoluene" Mass(es): "166.0/46.0 amu"
LCX83212L" Annotation: ""
ex: 1
e: Unknown
ion: N/A
Conc: 446. ng/mL
4/6/2010
8:55:36 AM

No
rithm: IntelliQuan - IQA
Height: 350.00 cps
Width: 0.00 sec
Width: 3 points
30.0 sec
T: 5.37 min
ve RT: No

Valley
Time: 5.39 min
9.50e+005 counts
219264.404 cps
: 5.31 min
5.98 min

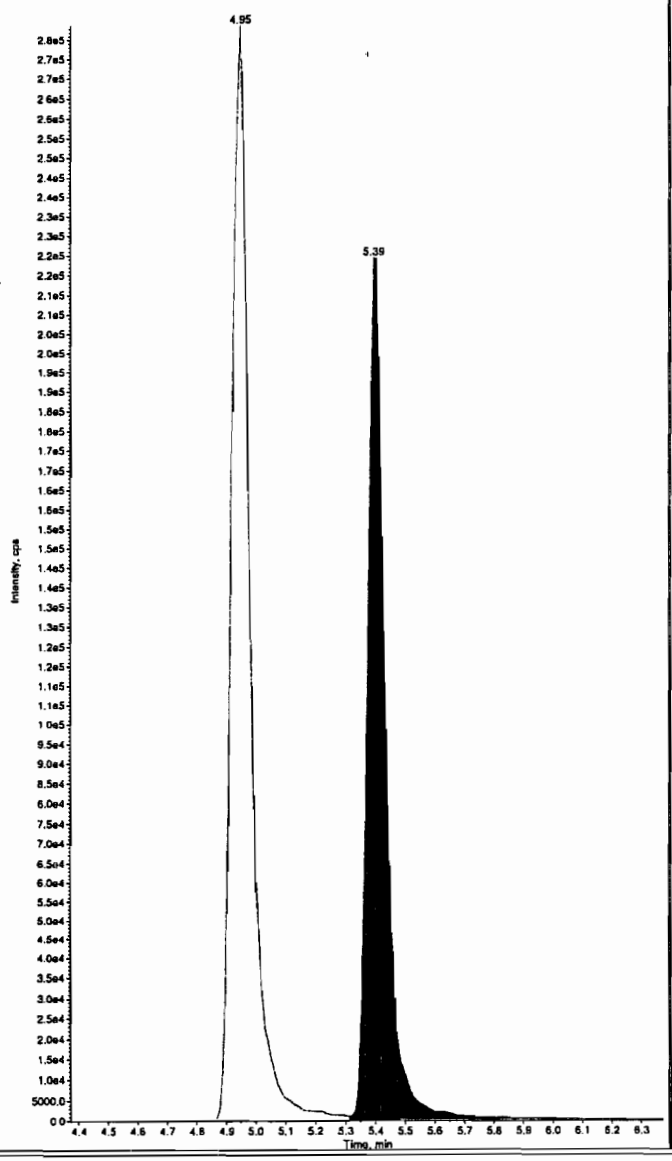

Sample Name: "1202055081" Sample ID: "958282|2|LER" File: "EXS04050078.wiff"
Peak Name: "tris(o-cresyl) phosphate" Mass(es): "369.1/91.0 amu"
Comment: "LCX83212L" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	233. ng/mL
Acq. Date:	4/6/2010
Acq. Time:	8:55:36 AM
Modified:	No
Proc. Algorithm:	IntelliQuan - IQA
Min. Peak Height:	8000.00 cps
Min. Peak Width:	0.00 sec
Smoothing Width:	3 points
RT Window:	30.0 sec
Expected RT:	10.8 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	10.8 min
Area:	4.20e+006 counts
Height:	1014281.494 cps
Start Time:	10.8 min
End Time:	11.2 min

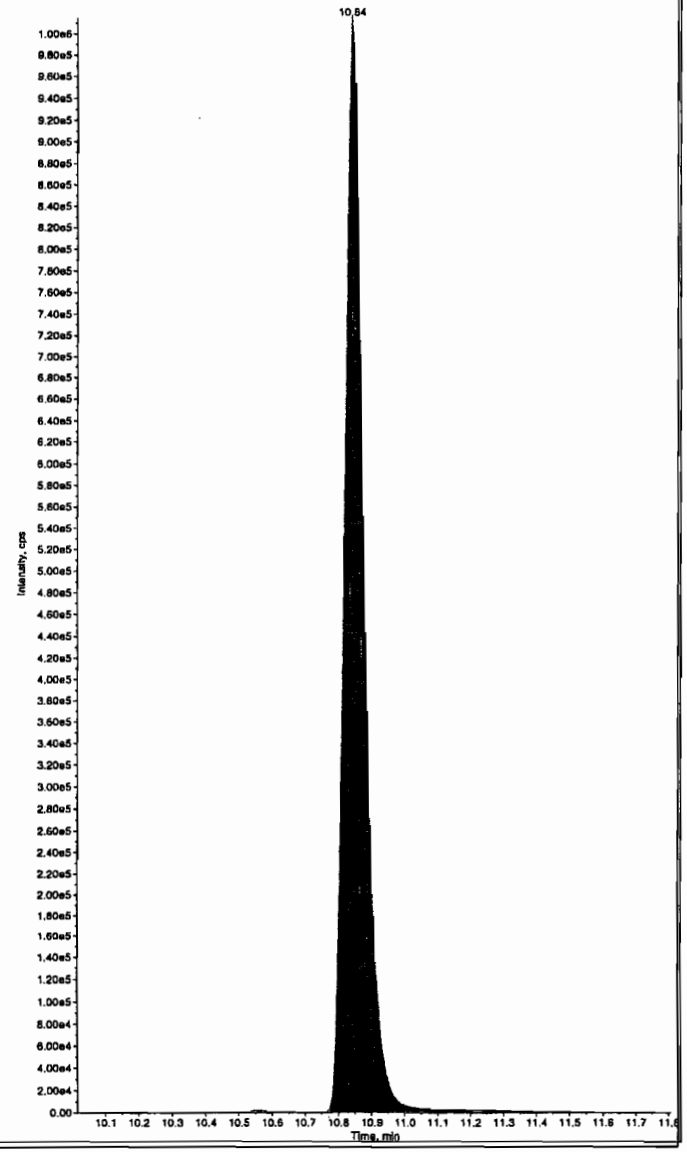

antify Sample Report
:L Laboratories, LLC / Analyst : Michael A. Penny

taset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

me: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408110a
te: 11-Apr-2010
ne: 03:11:25
1202055078 | LANL | 958282 | LAB | MB | 2 |
l: 3:1,A

MB 4/14/10

KLB/RA - ARS

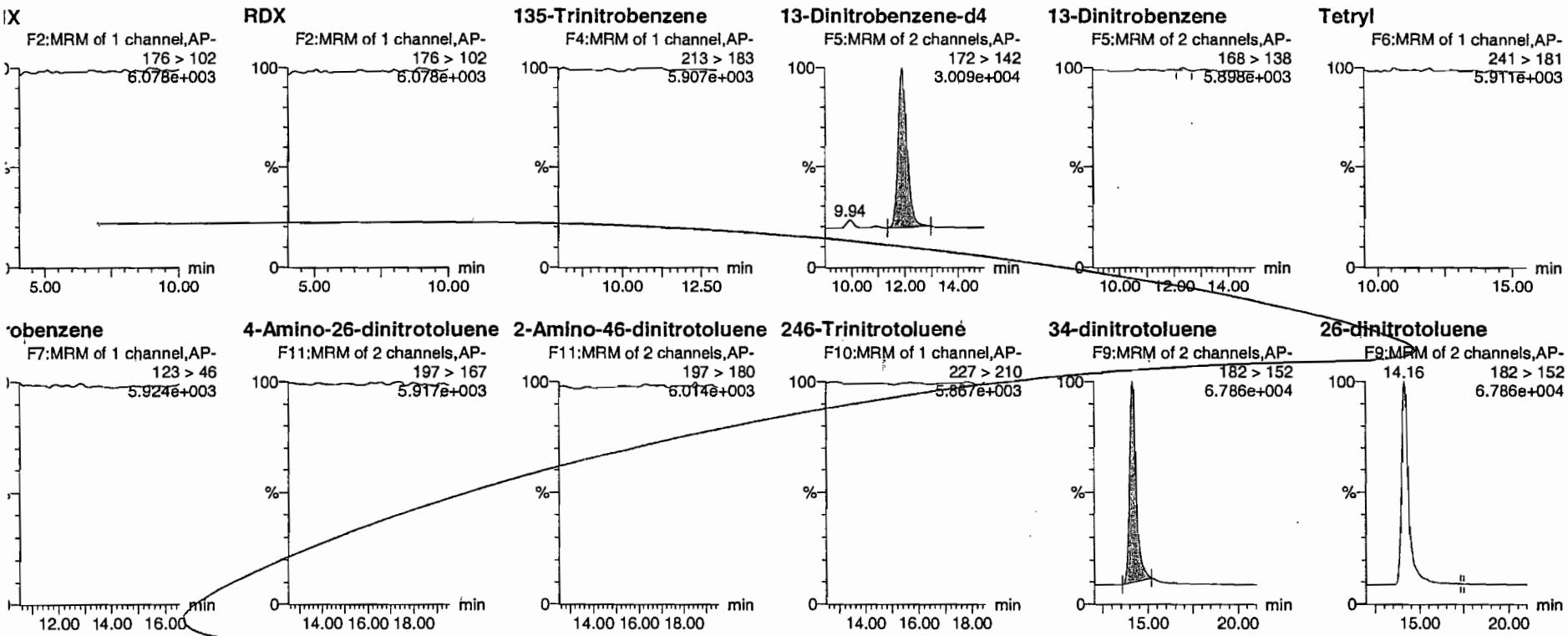

Hnm 04/14/10

SOP GL-OA-E-056, Method 8321A-Modified / MM = Manual Modification

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ntify Sample Report Printed: Sun Apr 11 11:47:08 2010, Page 72 of 97

_ Laboratories, LLC / Analyst : Michael A. Penny

aset: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

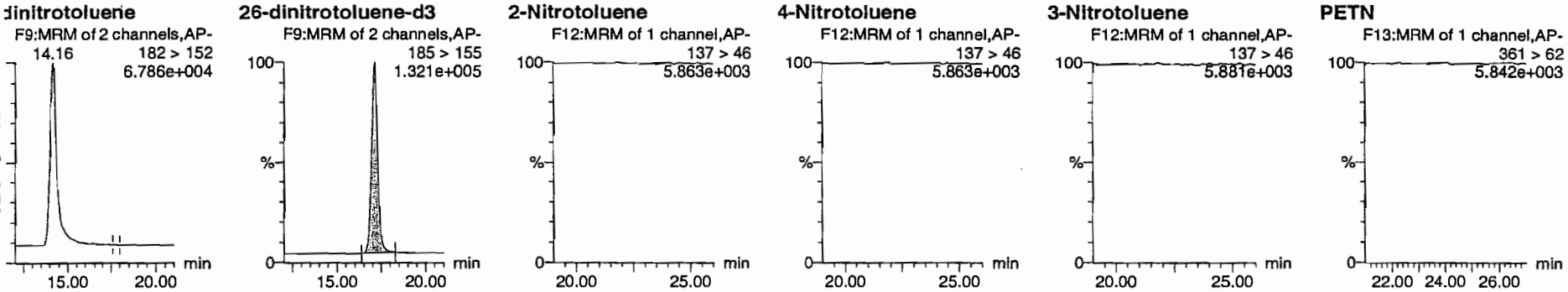

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	Ug/ml	%Rec	%Dev	S/N
2055078	HMX	176 > 102			9171.783									
2055078	RDX	176 > 102			9171.783									
2055078	135-Trinitrobenzene	213 > 183			9171.783									
2055078	13-Dinitrobenzene-d4	172 > 142	11.90	9171.783		9171.783	9171.783	bb			705.7335	141.1	41.1	368.8
2055078	13-Dinitrobenzene	168 > 138			9171.783			MM-	11-Apr-10	11:32:56				
2055078	Tetryl	241 > 181			9171.783									
2055078	Nitrobenzene	123 > 46			9171.783									
2055078	4-Amino-26-dinitrotoluene	197 > 167			52450.625									
2055078	2-Amino-46-dinitrotoluene	197 > 180			52450.625									
2055078	246-Trinitrotoluene	227 > 210			52450.625									
2055078	34-dinitrotoluene	182 > 152	14.16	26053.695	52450.625	26053.695	248.364	bb			242.1693	96.9	-3.1	942.9
2055078	26-dinitrotoluene	182 > 152			52450.625			MM-	11-Apr-10	11:39:39				
2055078	24-dinitrotoluene	182 > 152			52450.625			MM-	11-Apr-10	11:43:51				
2055078	26-dinitrotoluene-d3	185 > 155	17.12	52450.625		52450.625	52450.625	bb			664.2921	132.9	32.9	3368.5
2055078	2-Nitrotoluene	137 > 46			52450.625									
2055078	4-Nitrotoluene	137 > 46			52450.625									
2055078	3-Nitrotoluene	137 > 46			52450.625									
2055078	PETN	361 > 62			52450.625									

3.14

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set: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

e: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408115a
: 11-Apr-2010
: 05:38:50
48042002
3:1,F

LANL/958282/LOB/2/

MM 4/14/10

DUSE/RA-P28#1

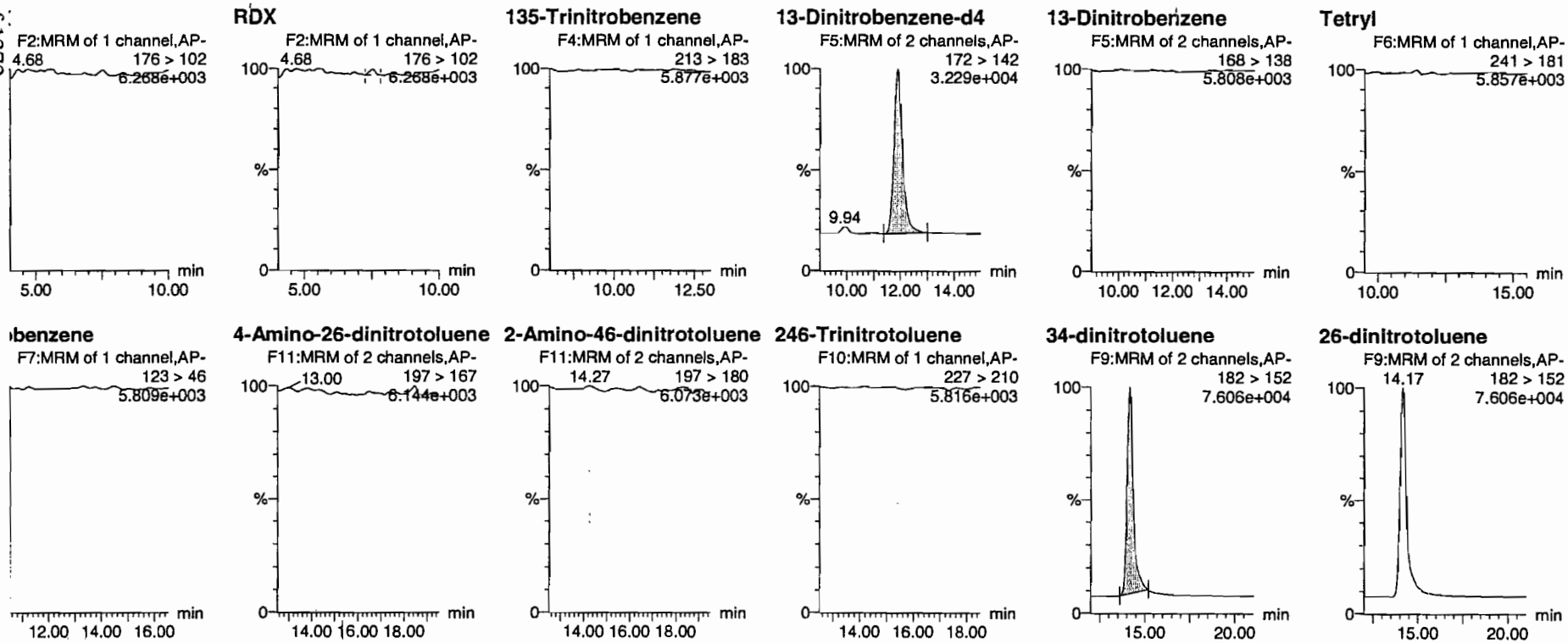

HMM 04/14/10

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set: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

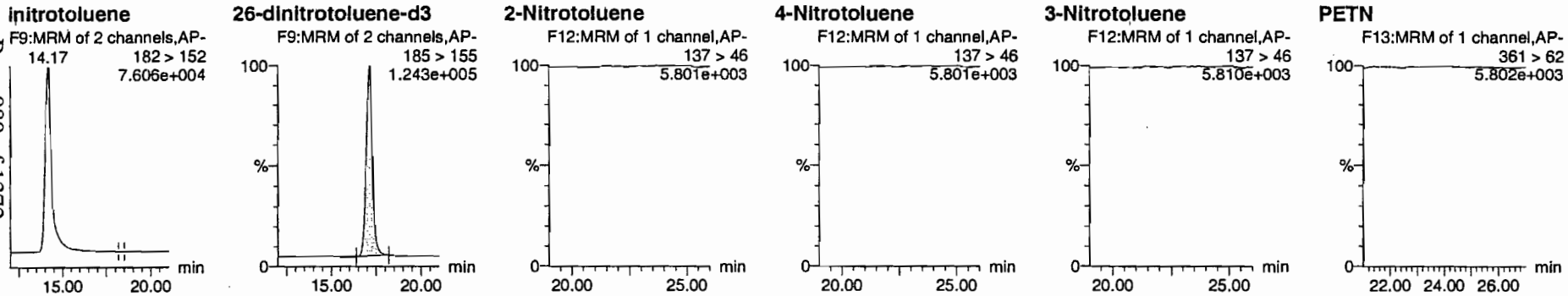

	Name	Trace	RT	Area	IS Area	Abs.Resp	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N
42002	HMX	176 > 102			9939.878									
42002	RDX	176 > 102			9939.878			MM-	11-Apr-10	11:32:22				
42002	135-Trinitrobenzene	213 > 183			9939.878									
42002	13-Dinitrobenzene-d4	172 > 142	11.89	9939.878		9939.878	9939.878	bb			764.8355	153.0	53.0	780.2
42002	13-Dinitrobenzene	168 > 138			9939.878									
42002	Tetryl	241 > 181			9939.878									
42002	Nitrobenzene	123 > 46			9939.878									
42002	4-Amino-26-dinitrotoluene	197 > 167			48668.879									
42002	2-Amino-46-dinitrotoluene	197 > 180			48668.879									
42002	246-Trinitrotoluene	227 > 210			48668.879									
42002	34-dinitrotoluene	182 > 152	14.17	28399.600	48668.879	28399.600	291.763	bb		3.49	284.4863	113.8	13.8	1120.4
42002	26-dinitrotoluene	182 > 152			48668.879									
42002	24-dinitrotoluene	182 > 152			48668.879			MM-	11-Apr-10	11:44:30				
42002	26-dinitrotoluene-d3	185 > 155	17.12	48668.879		48668.879	48668.879	bb			616.3959	123.3	23.3	3773.2
42002	2-Nitrotoluene	137 > 46			48668.879									
42002	4-Nitrotoluene	137 > 46			48668.879									
42002	3-Nitrotoluene	137 > 46			48668.879									
42002	PETN	361 > 62			48668.879									

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set: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

ie: C:\MASSLYNX\NEW_EXP.PRO\Data\EXP0408116a
: 11-Apr-2010
: 06:08:18
48042008
3:2,A

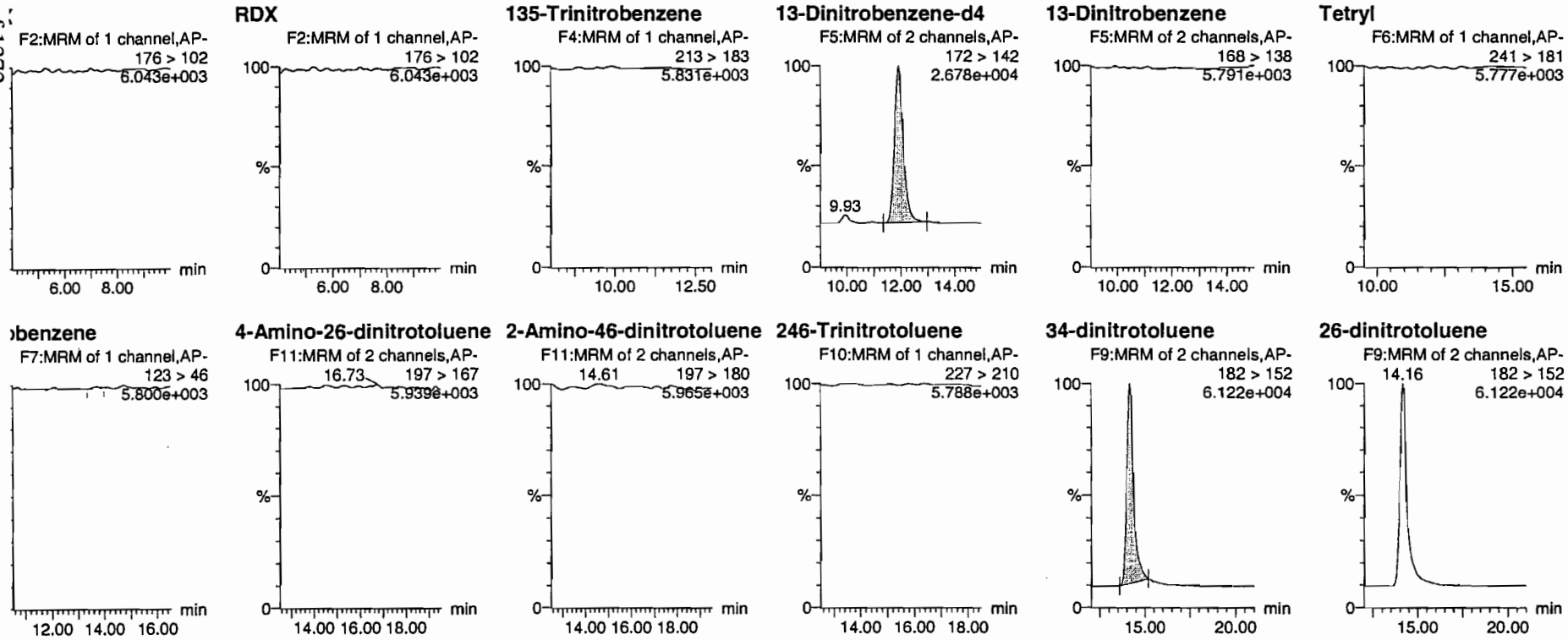

Page 981 of 1372

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ɜet: C:\MASSLYNX\New_Exp.PRO\040810expA2.qld, Time: Sun Apr 11 11:45:05 2010

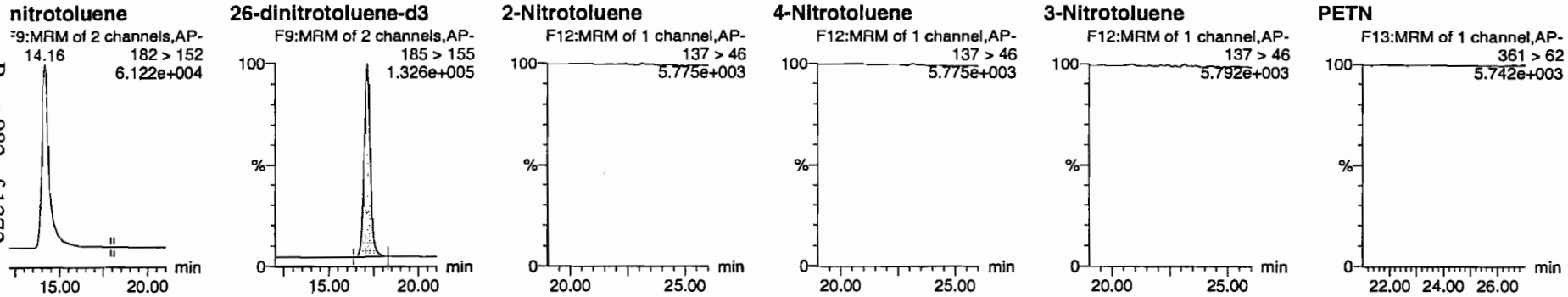

	Name	Trace	RT	Area	IS Area	Abs Resp	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N
42008	HMX	176 > 102			8022.880									
42008	RDX	176 > 102			8022.880									
42008	135-Trinitrobenzene	213 > 183			8022.880									
42008	13-Dinitrobenzene-d4	172 > 142	11.90	8022.880		8022.880	8022.880	bb			617.3298	123.5	23.5	1208.3
42008	13-Dinitrobenzene	168 > 138			8022.880									
42008	Tetryl	241 > 181			8022.880									
42008	Nitrobenzene	123 > 46			8022.880			MM-	11-Apr-10	11:34:08				
42008	4-Amino-26-dinitrotoluene	197 > 167			51853.355									
42008	2-Amino-46-dinitrotoluene	197 > 180			51853.355									
42008	246-Trinitrotoluene	227 > 210			51853.355									
42008	34-dinitrotoluene	182 > 152	14.16	23800.031	51853.355	23800.031	229.494	bb		2.89	223.7696	89.5	-10.5	1309.2
42008	26-dinitrotoluene	182 > 152			51853.355									
42008	24-dinitrotoluene	182 > 152			51853.355			MM-	11-Apr-10	11:44:34				
42008	26-dinitrotoluene-d3	185 > 155	17.12	51853.355		51853.355	51853.355	bb			656.7276	131.3	31.3	5494.5
42008	2-Nitrotoluene	137 > 46			51853.355									
42008	4-Nitrotoluene	137 > 46			51853.355									
42008	3-Nitrotoluene	137 > 46			51853.355									
42008	PETN	361 > 62			51853.355									

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GEL Laboratories LLC
Form GEL-DER

DER Report No.: 817080
Revision No.: 3

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
14-APR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LC-MS/MS	SW846 3535/8321A Modified	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
958282	See Below		

Potentially affected work order(s)(SDG): 248017(10-2039),248042(10-2057),248047(10-2045)

Application Issues:

Sample Analyzed out of Holding

Other

Failed RPD for MS/MSD, or PS/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. The following samples and QC were analyzed out of holding for the Primary analyte analysis: 248017003, 248042002, 248042008, 248042010, 248047003, 248047007, 1202055080(MS) and 1202055081(MSD).	1. The analytical holding times for the samples in this batch were exceeded due to limitations of instrument capacity. However, these samples were analyzed within two times the analytical holding time of the method. The client was notified of this situation and is in agreement to receive these qualified data. The data are reported with the appropriate DER. The discrepancies are noted in the case narrative.
2. The MS/MSD pair (1202055080/081) did not meet RPD acceptance limits for Tetryl at 39.2%. The acceptance limits are 0-30%.	2. Since all other RPD recoveries met acceptance criteria, the noted exceptions are attributed to vagaries in the analytical and/or extraction process. The data are reported with the appropriate DER. The discrepancy is noted in the case narrative.
3. The internal standard responses were outside of the acceptance criteria in the following samples: 248017003, 248042002, 248042008, 1202055078(MB) and 1202055081(MSD). Please see the Form 8 in the data package for the exact recoveries.	3. The samples were re-analyzed and similar recoveries were observed. The re-analysis data are reported with the appropriate DER. The discrepancies are noted in the case narrative. The confirmation raw data are located in the Miscellaneous Section of the data package.

Originator's Name:

Michael Penny 14-APR-10

Data Validator/Group Leader:

Herbert Maier 14-APR-10

GC SEMIVOLATILE PESTICIDE ANALYSIS

Pesticide Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2057

Method/Analysis Information

Procedure:	**Analysis of Organochlorine Pesticides and Chlorinated Hydrocarbons by ECD**
Analytical Method:	SW846 8081A
Prep Method:	SW846 3510C
Analytical Batch Number:	958413
Prep Batch Number:	958412

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8081A:

Sample ID	Client ID
248042003	CAPA-10-12771
248042011	CAPA-10-13085
248042014	CAPA-10-13320
1202055366	Method Blank (MB)
1202055367	Laboratory Control Sample (LCS)
1202055370	Laboratory Control Sample (LCS)
1202057240	248017004(CAPA-10-12917) Matrix Spike (MS)
1202057241	248017004(CAPA-10-12917) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-041 REV# 10.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y

axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
The calibration verification standards (CVS, ICV, or CCV) requirements have not been met for this SDG.

Some target analytes failed to meet the acceptance criteria with a positive bias on in the standards bracketing the sample in this SDG. The positive bias for the analytical data is a result of instrument response increasing after the initial calibration. These target analytes were not detected in the associated samples; therefore, the non-compliance has no adverse effects on the data.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
Samples 248042003 (CAPA-10-12771), 248042011 (CAPA-10-13085) and 248042014 (CAPA-10-13320) did not meet the surrogate recovery acceptance criteria with a positive bias for 4-cmx. There were no target analytes detected in the associated samples. See DER #799343 located in the Miscellaneous Data section.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries did not meet the acceptance limits for the Toxaphene LCS with a positive bias. There were no target analytes detected in the associated samples; therefore, this non-compliance had no adverse effects on the data. See DER #799343 located in the Miscellaneous Data section.

QC Sample Designation
A LANL sample of similar matrix associated with another SDG (#10-2039) was selected for the matrix spike and matrix spike duplicate analysis. A Form III and QC raw data are included in the package summarizing the results.

Matrix Spike (MS) Recovery Statement
The MS recoveries were not within the established acceptance limits for Beta-BHC with a positive bias. There were no target analytes detected in the associated samples.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were not within the established acceptance limits for Beta-BHC with a positive bias. There were no target analytes detected in the associated samples

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information:

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Florisil
Florisil clean-up was necessary for this batch.

Miscellaneous Information:

Electronic Package Comment

This package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative.

Data Exception (DER) Documentation
Data Exception Reports (DERs) are for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. DER # 799343 was generated for this SDG. A copy is included in the Miscellaneous Data section of this package.

Manual Integrations
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this pesticide fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The lower results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-Pesticide analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD7A.I_1	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide I)
ECD7A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticide II)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

Reviewer: _____ **Date:** 03-26-10

Roadmap for LANL 10-2057 PEST

This roadmap was analyzed by jam00798 on 03-04-2010, 14:43.
This roadmap was reviewed by jcb on 03-04-2010, 18:52.
This roadmap was packaged by yml on 03-26-2010, 13:42.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd7a.i/030210a.b/051f5101.d	248042003	sample	02-MAR-2010	23:36	10-2057.sub	CAPA-10-12771	1.00000	958413	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
□	N	/chem/ecd7a.i/030310.b/016f1601.d	248042003	sample	03-MAR-2010	13:44	10-2057.sub	CAPA-10-12771	1.00000	958413	USE: LOWER
■	N	/chem/ecd7a.i/030210a.b/052f5201.d	248042011	sample	02-MAR-2010	23:53	10-2057.sub	CAPA-10-13085	1.00000	958413	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
□	N	/chem/ecd7a.i/030310.b/017f1701.d	248042011	sample	03-MAR-2010	14:01	10-2057.sub	CAPA-10-13085	1.00000	958413	USE: LOWER
■	N	/chem/ecd7a.i/030210a.b/053f5301.d	248042014	sample	03-MAR-2010	00:10	10-2057.sub	CAPA-10-13320	1.00000	958413	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
□	N	/chem/ecd7a.i/030310.b/018f1801.d	248042014	sample	03-MAR-2010	14:18	10-2057.sub	CAPA-10-13320	1.00000	958413	USE: LOWER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
■	N	/chem/ecd7a.i/030210a.b/051b5101.d	248042003	sample	02-MAR-2010	23:36	10-2057.sub	CAPA-10-12771	1.00000	958413	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
□	N	/chem/ecd7a.i/030310.b/016b1601.d	248042003	sample	03-MAR-2010	13:44	10-2057.sub	CAPA-10-12771	1.00000	958413	USE: LOWER
■	N	/chem/ecd7a.i/030210a.b/052b5201.d	248042011	sample	02-MAR-2010	23:53	10-2057.sub	CAPA-10-13085	1.00000	958413	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
□	N	/chem/ecd7a.i/030310.b/017b1701.d	248042011	sample	03-MAR-2010	14:01	10-2057.sub	CAPA-10-13085	1.00000	958413	USE: LOWER
■	N	/chem/ecd7a.i/030210a.b/053b5301.d	248042014	sample	03-MAR-2010	00:10	10-2057.sub	CAPA-10-13320	1.00000	958413	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
□	N	/chem/ecd7a.i/030310.b/018b1801.d	248042014	sample	03-MAR-2010	14:18	10-2057.sub	CAPA-10-13320	1.00000	958413	USE: LOWER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
□	N	/chem/ecd7a.i/030310.b/009f0901B.d	1202055366	mb	03-MAR-2010	11:44	10-2057.sub	PBLK01	1.00000	958413	USE: LOWER
□	N	/chem/ecd7a.i/030310.b/010f1001B.d	1202055367	lcs	03-MAR-2010	12:01	10-2057.sub	PBLK01LCS	1.00000	958413	USE: LOWER
□	N	/chem/ecd7a.i/030310.b/011f1101B.d	1202055370	lcs	03-MAR-2010	12:18	10-2057.sub	PBLK01TLCS	1.00000	958413	USE: LOWER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
□	N	/chem/ecd7a.i/030310.b/009b0901B.d	1202055366	mb	03-MAR-2010	11:44	10-2057.sub	PBLK01	1.00000	958413	USE: LOWER
□	N	/chem/ecd7a.i/030310.b/010b1001B.d	1202055367	lcs	03-MAR-2010	12:01	10-2057.sub	PBLK01LCS	1.00000	958413	USE: LOWER
□	N	/chem/ecd7a.i/030310.b/011b1101B.d	1202055370	lcs	03-MAR-2010	12:18	10-2057.sub	PBLK01TLCS	1.00000	958413	USE: LOWER

SAMPLE DATA SUMMARY

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042003**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12771**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**958413**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 13:44**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/01/2010 18:08**	**Aliquot:**	**870 mL**	**Final Volume:**	**5 mL**
Data File:	**016f1601.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	016b1601.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.023	ug/L	0.00575	0.023	1
58-89-9	gamma-BHC (Lindane)	U	0.023	ug/L	0.00575	0.023	1
319-85-7	beta-BHC	U	0.023	ug/L	0.0069	0.023	1
319-86-8	delta-BHC	U	0.023	ug/L	0.00575	0.023	1
76-44-8	Heptachlor	U	0.023	ug/L	0.00575	0.023	1
309-00-2	Aldrin	U	0.023	ug/L	0.00575	0.023	1
1024-57-3	Heptachlor epoxide	U	0.023	ug/L	0.00575	0.023	1
5103-74-2	gamma-Chlordane	U	0.023	ug/L	0.00575	0.023	1
5103-71-9	alpha-Chlordane	U	0.023	ug/L	0.00575	0.023	1
959-98-8	Endosulfan I	U	0.023	ug/L	0.00575	0.023	1
72-55-9	4,4'-DDE	U	0.046	ug/L	0.00575	0.046	1
60-57-1	Dieldrin	U	0.046	ug/L	0.0115	0.046	1
72-20-8	Endrin	U	0.046	ug/L	0.0115	0.046	1
72-54-8	4,4'-DDD	U	0.046	ug/L	0.0115	0.046	1
33213-65-9	Endosulfan II	U	0.046	ug/L	0.0115	0.046	1
7421-93-4	Endrin aldehyde	U	0.046	ug/L	0.00575	0.046	1
50-29-3	4,4'-DDT	U	0.046	ug/L	0.0115	0.046	1
1031-07-8	Endosulfan sulfate	U	0.046	ug/L	0.0115	0.046	1
72-43-5	Methoxychlor	U	0.230	ug/L	0.0575	0.230	1
53494-70-5	Endrin ketone	U	0.046	ug/L	0.0115	0.046	1
8001-35-2	Toxaphene	U	0.575	ug/L	0.172	0.575	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%		Acceptable Limits
4cmx	1.22	1.15	ug/L	106	*	(30%-105%)
Decachlorobiphenyl	0.886	1.15	ug/L	77.1		(30%-126%)

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042011**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA–10–13085**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**958413**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 14:01**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/01/2010 18:08**	**Aliquot:**	**780 mL**	**Final Volume:**	**5 mL**
Data File:	**017f1701.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	017b1701.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC	U	0.0256	ug/L	0.00641	0.0256	1
58–89–9	gamma–BHC (Lindane)	U	0.0256	ug/L	0.00641	0.0256	1
319–85–7	beta–BHC	U	0.0256	ug/L	0.00769	0.0256	1
319–86–8	delta–BHC	U	0.0256	ug/L	0.00641	0.0256	1
76–44–8	Heptachlor	U	0.0256	ug/L	0.00641	0.0256	1
309–00–2	Aldrin	U	0.0256	ug/L	0.00641	0.0256	1
1024–57–3	Heptachlor epoxide	U	0.0256	ug/L	0.00641	0.0256	1
5103–74–2	gamma–Chlordane	U	0.0256	ug/L	0.00641	0.0256	1
5103–71–9	alpha–Chlordane	U	0.0256	ug/L	0.00641	0.0256	1
959–98–8	Endosulfan I	U	0.0256	ug/L	0.00641	0.0256	1
72–55–9	4,4'–DDE	U	0.0513	ug/L	0.00641	0.0513	1
60–57–1	Dieldrin	U	0.0513	ug/L	0.0128	0.0513	1
72–20–8	Endrin	U	0.0513	ug/L	0.0128	0.0513	1
72–54–8	4,4'–DDD	U	0.0513	ug/L	0.0128	0.0513	1
33213–65–9	Endosulfan II	U	0.0513	ug/L	0.0128	0.0513	1
7421–93–4	Endrin aldehyde	U	0.0513	ug/L	0.00641	0.0513	1
50–29–3	4,4'–DDT	U	0.0513	ug/L	0.0128	0.0513	1
1031–07–8	Endosulfan sulfate	U	0.0513	ug/L	0.0128	0.0513	1
72–43–5	Methoxychlor	U	0.256	ug/L	0.0641	0.256	1
53494–70–5	Endrin ketone	U	0.0513	ug/L	0.0128	0.0513	1
8001–35–2	Toxaphene	U	0.641	ug/L	0.192	0.641	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	1.31	1.28	ug/L	102	(30%–105%)
Decachlorobiphenyl	1.05	1.28	ug/L	81.6	(30%–126%)

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042014**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13320**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**958413**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 14:18**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/01/2010 18:08**	**Aliquot:**	**980 mL**	**Final Volume:**	**5 mL**
Data File:	**018f1801.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	018b1801.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.0204	ug/L	0.0051	0.0204	1
58-89-9	gamma-BHC (Lindane)	U	0.0204	ug/L	0.0051	0.0204	1
319-85-7	beta-BHC	U	0.0204	ug/L	0.00612	0.0204	1
319-86-8	delta-BHC	U	0.0204	ug/L	0.0051	0.0204	1
76-44-8	Heptachlor	U	0.0204	ug/L	0.0051	0.0204	1
309-00-2	Aldrin	U	0.0204	ug/L	0.0051	0.0204	1
1024-57-3	Heptachlor epoxide	U	0.0204	ug/L	0.0051	0.0204	1
5103-74-2	gamma-Chlordane	U	0.0204	ug/L	0.0051	0.0204	1
5103-71-9	alpha-Chlordane	U	0.0204	ug/L	0.0051	0.0204	1
959-98-8	Endosulfan I	U	0.0204	ug/L	0.0051	0.0204	1
72-55-9	4,4'-DDE	U	0.0408	ug/L	0.0051	0.0408	1
60-57-1	Dieldrin	U	0.0408	ug/L	0.0102	0.0408	1
72-20-8	Endrin	U	0.0408	ug/L	0.0102	0.0408	1
72-54-8	4,4'-DDD	U	0.0408	ug/L	0.0102	0.0408	1
33213-65-9	Endosulfan II	U	0.0408	ug/L	0.0102	0.0408	1
7421-93-4	Endrin aldehyde	U	0.0408	ug/L	0.0051	0.0408	1
50-29-3	4,4'-DDT	U	0.0408	ug/L	0.0102	0.0408	1
1031-07-8	Endosulfan sulfate	U	0.0408	ug/L	0.0102	0.0408	1
72-43-5	Methoxychlor	U	0.204	ug/L	0.051	0.204	1
53494-70-5	Endrin ketone	U	0.0408	ug/L	0.0102	0.0408	1
8001-35-2	Toxaphene	U	0.510	ug/L	0.153	0.510	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.406	1.02	ug/L	39.8	(30%-105%)
Decachlorobiphenyl	1.03	1.02	ug/L	101	(30%-126%)

QUALITY CONTROL SUMMARY

Pesticide

Surrogate Recovery Report

SDG Number: 10-2057

Matrix Type: LIQUID

CAP Column (1) : CLP-1 **CAP Column (2) : CLP-2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202055366	MB for batch 958412	86	90	95	95
1202055367	LCS for batch 958412	78	82	111	99
1202055370	LCS for batch 958412	92	97	111	110
248042003	CAPA-10-12771	106 *	111 *	78	77
248042011	CAPA-10-13085	102	106 *	82	83
248042014	CAPA-10-13320	40	119 *	102	101

Surrogate	Acceptance Limits
4CMX = 4cmx	(30%-105%)
DCB = Decachlorobiphenyl	(30%-126%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057
Client ID: LCS for batch 958412
Lab Sample ID: 1202055367
Instrument: ECD7A.I
Analyst: JXM
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/03/2010 12:01
Prep Batch ID: 958412
Batch ID: 958413
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
319-84-6	LCS	alpha-BHC	0.500	0.0	0.543	109	43-132
58-89-9	LCS	gamma-BHC (Lindane)	0.500	0.0	0.553	111	41-133
319-85-7	LCS	beta-BHC	0.500	0.0	0.546	109	44-130
319-86-8	LCS	delta-BHC	0.500	0.0	0.591	118	45-132
76-44-8	LCS	Heptachlor	0.500	0.0	0.498	100	31-118
309-00-2	LCS	Aldrin	0.500	0.0	0.450	90	30-113
1024-57-3	LCS	Heptachlor epoxide	0.500	0.0	0.540	108	42-121
5103-74-2	LCS	gamma-Chlordane	0.500	0.0	0.499	100	40-128
5103-71-9	LCS	alpha-Chlordane	0.500	0.0	0.515	103	45-127
959-98-8	LCS	Endosulfan I	0.500	0.0	0.536	107	40-128
72-55-9	LCS	4,4'-DDE	1.25	0.0	1.41	112	43-130
60-57-1	LCS	Dieldrin	1.25	0.0	1.33	106	44-129
72-20-8	LCS	Endrin	1.25	0.0	1.66	133	53-141
72-54-8	LCS	4,4'-DDD	1.25	0.0	1.46	117	48-138
33213-65-9	LCS	Endosulfan II	1.25	0.0	1.18	94	42-133
7421-93-4	LCS	Endrin aldehyde	1.25	0.0	1.24	99	39-128
50-29-3	LCS	4,4'-DDT	1.25	0.0	1.52	122	43-157
1031-07-8	LCS	Endosulfan sulfate	1.25	0.0	1.44	115	51-140
72-43-5	LCS	Methoxychlor	5.00	0.0	6.09	122	55-142
53494-70-5	LCS	Endrin ketone	1.25	0.0	1.39	112	47-140

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2057
Client ID: LCS for batch 958412
Lab Sample ID: 1202055370
Instrument: ECD7A.I
Analyst: JXM
Inj. Vol: 1 uL

Sample Type: Laboratory Control Sample
Matrix: GROUND WATER
Analysis Date: 03/03/2010 12:18
Dilution: 1
Prep Batch ID: 958412
Batch ID: 958413

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
8001-35-2	LCS Toxaphene	4.00	0.0	5.93	148 *	33-136

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2039
Client ID: CAPA–10–12917MS
Lab Sample ID: 1202057240
Instrument: ECD7A.I
Analyst: JXM
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 03/03/2010 12:53
Prep Batch ID: 958412
Batch ID: 958413
Dilution: 1

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
319–84–6	MS	alpha–BHC	0.500	0.00	U	0.525	105	33–129
58–89–9	MS	gamma–BHC (Lindane)	0.500	0.00	U	0.539	108	38–125
319–85–7	MS	beta–BHC	0.500	0.00	U	0.792	158 *	33–131
319–86–8	MS	delta–BHC	0.500	0.00	U	0.571	114	31–130
76–44–8	MS	Heptachlor	0.500	0.00	U	0.541	108	27–118
309–00–2	MS	Aldrin	0.500	0.00	U	0.479	96	29–115
1024–57–3	MS	Heptachlor epoxide	0.500	0.00	U	0.527	105	33–118
5103–74–2	MS	gamma–Chlordane	0.500	0.00	U	0.514	103	31–128
5103–71–9	MS	alpha–Chlordane	0.500	0.00	U	0.522	104	31–129
959–98–8	MS	Endosulfan I	0.500	0.00	U	0.535	107	26–132
72–55–9	MS	4,4'–DDE	1.25	0.00	U	1.35	108	31–129
60–57–1	MS	Dieldrin	1.25	0.00	U	1.32	105	31–127
72–20–8	MS	Endrin	1.25	0.00	U	1.63	131	43–139
72–54–8	MS	4,4'–DDD	1.25	0.00	U	1.47	118	38–137
33213–65–9	MS	Endosulfan II	1.25	0.00	U	1.26	101	31–132
7421–93–4	MS	Endrin aldehyde	1.25	0.00	U	1.23	98	25–125
50–29–3	MS	4,4'–DDT	1.25	0.00	U	1.60	128	31–157
1031–07–8	MS	Endosulfan sulfate	1.25	0.00	U	1.44	115	31–143
72–43–5	MS	Methoxychlor	5.00	0.00	U	6.28	126	42–156
53494–70–5	MS	Endrin ketone	1.25	0.00	U	1.35	108	32–141

Pesticide

Quality Control Summary
Spike Recovery Report

SDG Number: 10-2039
Client ID: CAPA-10-12917MSD
Lab Sample ID: 1202057241
Instrument: ECD7A.I
Analyst: JXM
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 03/03/2010 13:10
Prep Batch ID: 958412
Batch ID: 958413
Dilution: 1

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
319-84-6	MSD alpha-BHC	0.500	0.00	U	0.531	106	33-129	1	0-28
58-89-9	MSD gamma-BHC (Lindane)	0.500	0.00	U	0.546	109	38-125	1	0-22
319-85-7	MSD beta-BHC	0.500	0.00	U	0.888	178 *	33-131	11	0-28
319-86-8	MSD delta-BHC	0.500	0.00	U	0.565	113	31-130	1	0-29
76-44-8	MSD Heptachlor	0.500	0.00	U	0.534	107	27-118	1	0-23
309-00-2	MSD Aldrin	0.500	0.00	U	0.465	93	29-115	3	0-28
1024-57-3	MSD Heptachlor epoxide	0.500	0.00	U	0.526	105	33-118	0	0-23
5103-74-2	MSD gamma-Chlordane	0.500	0.00	U	0.510	102	31-128	1	0-29
5103-71-9	MSD alpha-Chlordane	0.500	0.00	U	0.518	104	31-129	1	0-30
959-98-8	MSD Endosulfan I	0.500	0.00	U	0.533	107	26-132	0	0-27
72-55-9	MSD 4,4'-DDE	1.25	0.00	U	1.31	105	31-129	3	0-27
60-57-1	MSD Dieldrin	1.25	0.00	U	1.32	105	31-127	0	0-29
72-20-8	MSD Endrin	1.25	0.00	U	1.64	131	43-139	0	0-22
72-54-8	MSD 4,4'-DDD	1.25	0.00	U	1.48	118	38-137	0	0-28
33213-65-9	MSD Endosulfan II	1.25	0.00	U	1.35	108	31-132	7	0-28
7421-93-4	MSD Endrin aldehyde	1.25	0.00	U	1.27	102	25-125	3	0-31
50-29-3	MSD 4,4'-DDT	1.25	0.00	U	1.59	127	31-157	1	0-29
1031-07-8	MSD Endosulfan sulfate	1.25	0.00	U	1.47	117	31-143	2	0-29
72-43-5	MSD Methoxychlor	5.00	0.00	U	6.28	126	42-156	0	0-23
53494-70-5	MSD Endrin ketone	1.25	0.00	U	1.37	109	32-141	1	0-30

Method Blank Summary

SDG Number:	10–2057	Client:	LANL010	Matrix:	GROUND WATER
Client ID:	MB for batch 958412	Instrument ID:	ECD7A.I_2 ECD7A.I_1	Data File:	009b0901.d 009f0901.d
Lab Sample ID:	1202055366				
Column:	CLP–2 CLP–1	Prep Date:	03/01/2010 18:08	Analyzed:	03/03/10 11:44
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

	Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01	LCS for batch 958412	1202055367	010f1001.d 010b1001.d	03/03/10	1201
02	LCS for batch 958412	1202055370	011f1101.d 011b1101.d	03/03/10	1218
05	CAPA–10–12771	248042003	016f1601.d 016b1601.d	03/03/10	1344
06	CAPA–10–13085	248042011	017f1701.d 017b1701.d	03/03/10	1401
07	CAPA–10–13320	248042014	018f1801.d 018b1801.d	03/03/10	1418

SAMPLE DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042003**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-12771**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**958413**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 13:44**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/01/2010 18:08**	**Aliquot:**	**870 mL**	**Final Volume:**	**5 mL**
Data File:	**016f1601.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	016b1601.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.023	ug/L	0.00575	0.023	1
58-89-9	gamma-BHC (Lindane)	U	0.023	ug/L	0.00575	0.023	1
319-85-7	beta-BHC	U	0.023	ug/L	0.0069	0.023	1
319-86-8	delta-BHC	U	0.023	ug/L	0.00575	0.023	1
76-44-8	Heptachlor	U	0.023	ug/L	0.00575	0.023	1
309-00-2	Aldrin	U	0.023	ug/L	0.00575	0.023	1
1024-57-3	Heptachlor epoxide	U	0.023	ug/L	0.00575	0.023	1
5103-74-2	gamma-Chlordane	U	0.023	ug/L	0.00575	0.023	1
5103-71-9	alpha-Chlordane	U	0.023	ug/L	0.00575	0.023	1
959-98-8	Endosulfan I	U	0.023	ug/L	0.00575	0.023	1
72-55-9	4,4'-DDE	U	0.046	ug/L	0.00575	0.046	1
60-57-1	Dieldrin	U	0.046	ug/L	0.0115	0.046	1
72-20-8	Endrin	U	0.046	ug/L	0.0115	0.046	1
72-54-8	4,4'-DDD	U	0.046	ug/L	0.0115	0.046	1
33213-65-9	Endosulfan II	U	0.046	ug/L	0.0115	0.046	1
7421-93-4	Endrin aldehyde	U	0.046	ug/L	0.00575	0.046	1
50-29-3	4,4'-DDT	U	0.046	ug/L	0.0115	0.046	1
1031-07-8	Endosulfan sulfate	U	0.046	ug/L	0.0115	0.046	1
72-43-5	Methoxychlor	U	0.230	ug/L	0.0575	0.230	1
53494-70-5	Endrin ketone	U	0.046	ug/L	0.0115	0.046	1
8001-35-2	Toxaphene	U	0.575	ug/L	0.172	0.575	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%		Acceptable Limits
4cmx	1.22	1.15	ug/L	106	*	(30%-105%)
Decachlorobiphenyl	0.886	1.15	ug/L	77.1		(30%-126%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/030310.b/016f1601.d
Lab Smp Id: 248042003 Client Smp ID: CAPA-10-12771
Inj Date : 03-MAR-2010 13:44
Operator : JXM Inst ID: ecd7a.i
Smp Info : |248042003|1|
Misc Info : |ECD81A_1L|958413|SVP|LANL|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 03-Mar-2010 14:03 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2057.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	870.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.876	2.877	-0.001	170804616	212.749	1.22	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.095	8.096	-0.001	93594830	156.054	0.897	80.00- 120.00	100.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/030310.b/016f1601.d

Page 1

Date : 03-MAR-2010 13:44

Client ID: CAPA-10-12771

Instrument: ecd7a.i

Sample Info: |248042003|1|

Volume Injected (uL): 1.0

Operator: JXM

Column phase: CLP-1

Column diameter: 0.25

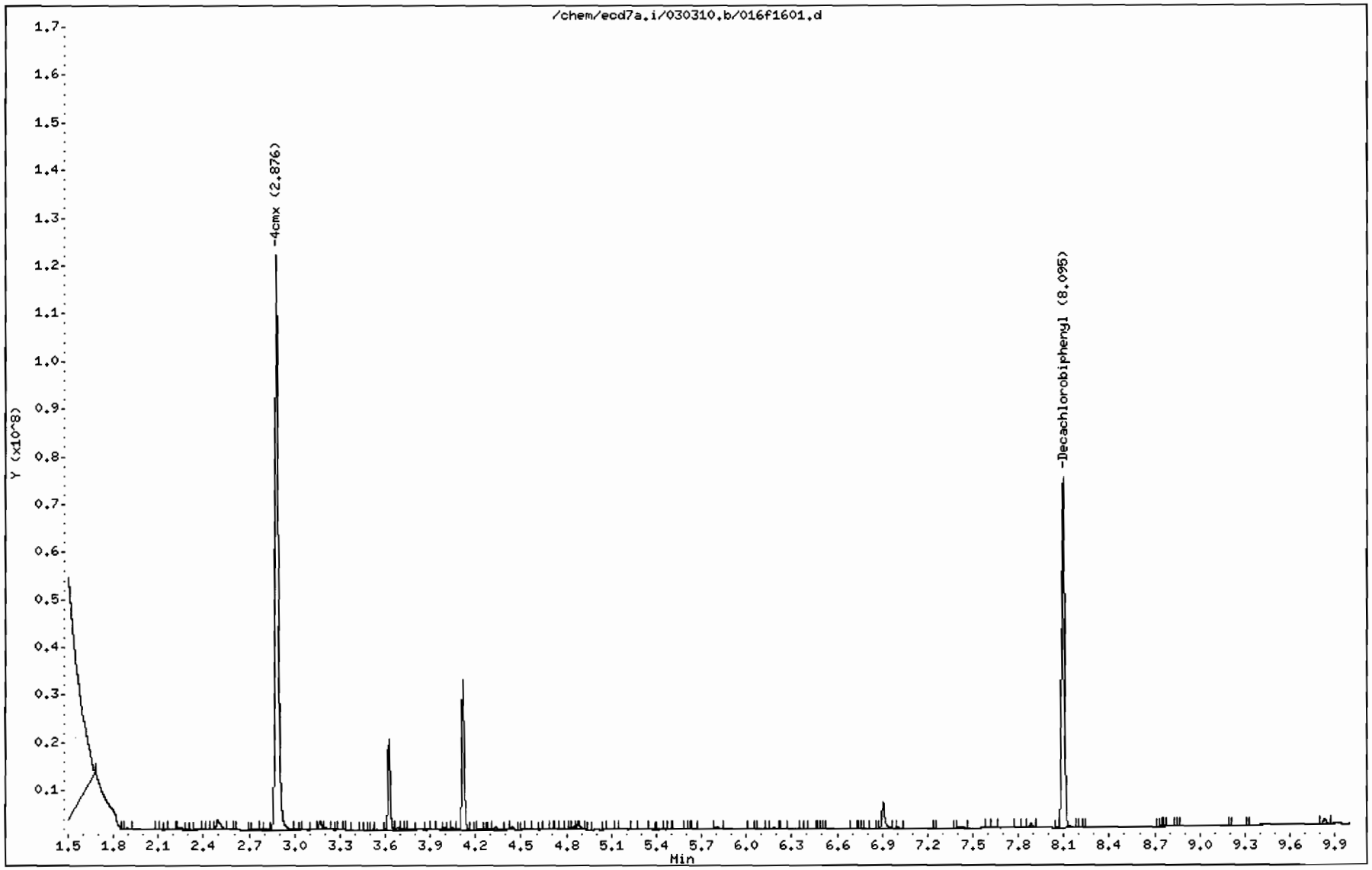

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/016b1601.d
Lab Smp Id: 248042003 Client Smp ID: CAPA-10-12771
Inj Date : 03-MAR-2010 13:44
Operator : JXM Inst ID: ecd7a.i
Smp Info : |248042003|1|
Misc Info : |ECD81A_1L|958413|SVP|LANL|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 03-Mar-2010 14:03 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 16
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2057.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	870.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.195	3.195	0.000	124338750	221.479	1.27	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.292	9.292	0.000	55417820	154.210	0.886	80.00- 120.00	100.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/030310.b/016b1601.d

Date : 03-MAR-2010 13:44

Client ID: CAPA-10-12771

Sample Info: |248042003|1|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

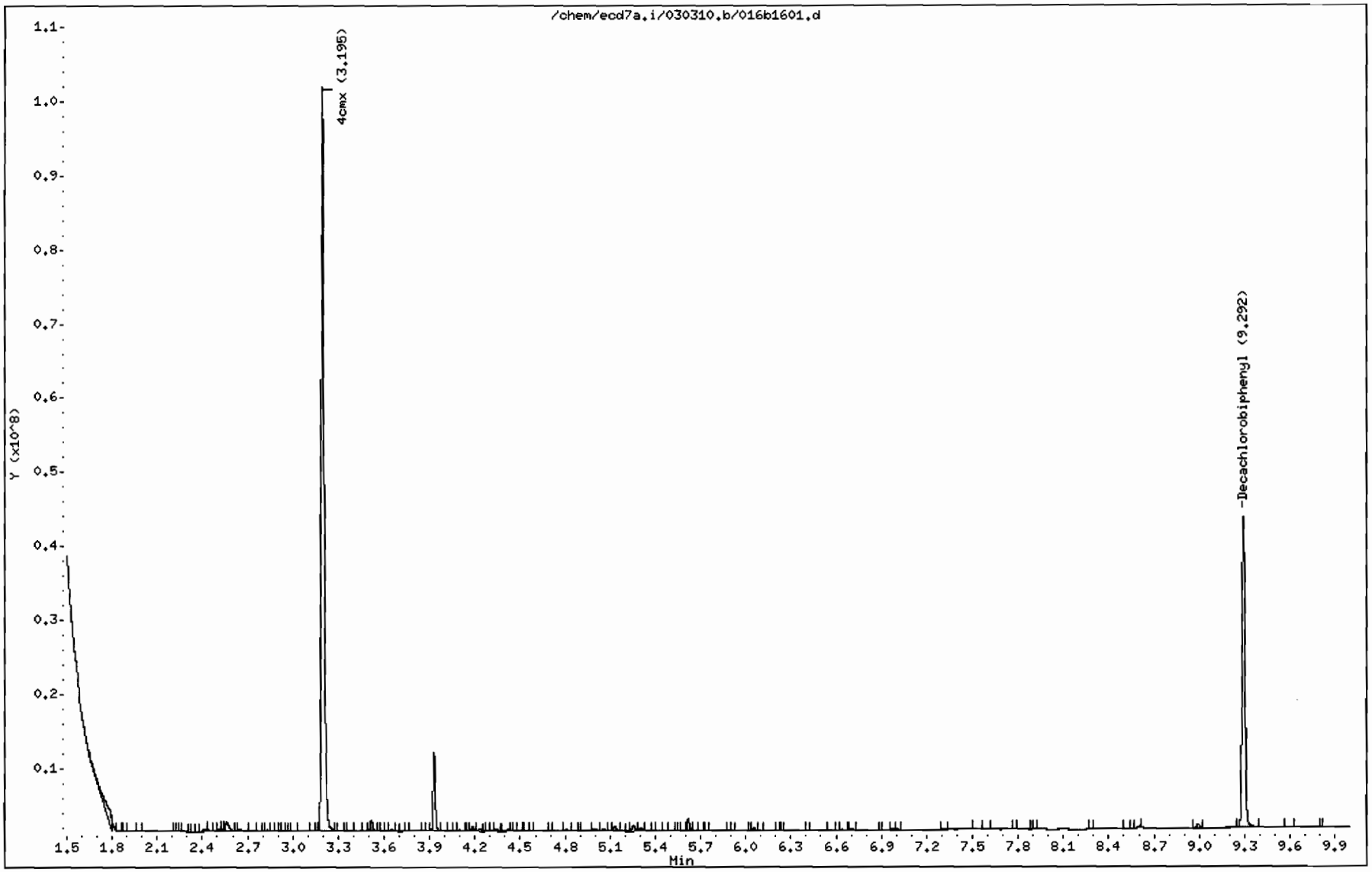

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042011**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13085**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**958413**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 14:01**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/01/2010 18:08**	**Aliquot:**	**780 mL**	**Final Volume:**	**5 mL**
Data File:	**017f1701.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	017b1701.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.0256	ug/L	0.00641	0.0256	1
58-89-9	gamma-BHC (Lindane)	U	0.0256	ug/L	0.00641	0.0256	1
319-85-7	beta-BHC	U	0.0256	ug/L	0.00769	0.0256	1
319-86-8	delta-BHC	U	0.0256	ug/L	0.00641	0.0256	1
76-44-8	Heptachlor	U	0.0256	ug/L	0.00641	0.0256	1
309-00-2	Aldrin	U	0.0256	ug/L	0.00641	0.0256	1
1024-57-3	Heptachlor epoxide	U	0.0256	ug/L	0.00641	0.0256	1
5103-74-2	gamma-Chlordane	U	0.0256	ug/L	0.00641	0.0256	1
5103-71-9	alpha-Chlordane	U	0.0256	ug/L	0.00641	0.0256	1
959-98-8	Endosulfan I	U	0.0256	ug/L	0.00641	0.0256	1
72-55-9	4,4'-DDE	U	0.0513	ug/L	0.00641	0.0513	1
60-57-1	Dieldrin	U	0.0513	ug/L	0.0128	0.0513	1
72-20-8	Endrin	U	0.0513	ug/L	0.0128	0.0513	1
72-54-8	4,4'-DDD	U	0.0513	ug/L	0.0128	0.0513	1
33213-65-9	Endosulfan II	U	0.0513	ug/L	0.0128	0.0513	1
7421-93-4	Endrin aldehyde	U	0.0513	ug/L	0.00641	0.0513	1
50-29-3	4,4'-DDT	U	0.0513	ug/L	0.0128	0.0513	1
1031-07-8	Endosulfan sulfate	U	0.0513	ug/L	0.0128	0.0513	1
72-43-5	Methoxychlor	U	0.256	ug/L	0.0641	0.256	1
53494-70-5	Endrin ketone	U	0.0513	ug/L	0.0128	0.0513	1
8001-35-2	Toxaphene	U	0.641	ug/L	0.192	0.641	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	1.31	1.28	ug/L	102	(30%-105%)
Decachlorobiphenyl	1.05	1.28	ug/L	81.6	(30%-126%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/030310.b/017f1701.d
Lab Smp Id: 248042011 Client Smp ID: CAPA-10-13085
Inj Date : 03-MAR-2010 14:01
Operator : JXM Inst ID: ecd7a.i
Smp Info : |248042011|1|
Misc Info : |ECD81A_1L|958413|SVP|LANL|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 03-Mar-2010 14:03 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2057.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	780.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.877	2.877	0.000	163925329	204.181	1.31	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.095	8.096	-0.001	97832835	163.120	1.04	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/030310.b/017f1701.d

Date : 03-MAR-2010 14:01

Client ID: CAPA-10-13085

Sample Info: |248042011|1|

Volume Injected (uL): 1.0

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

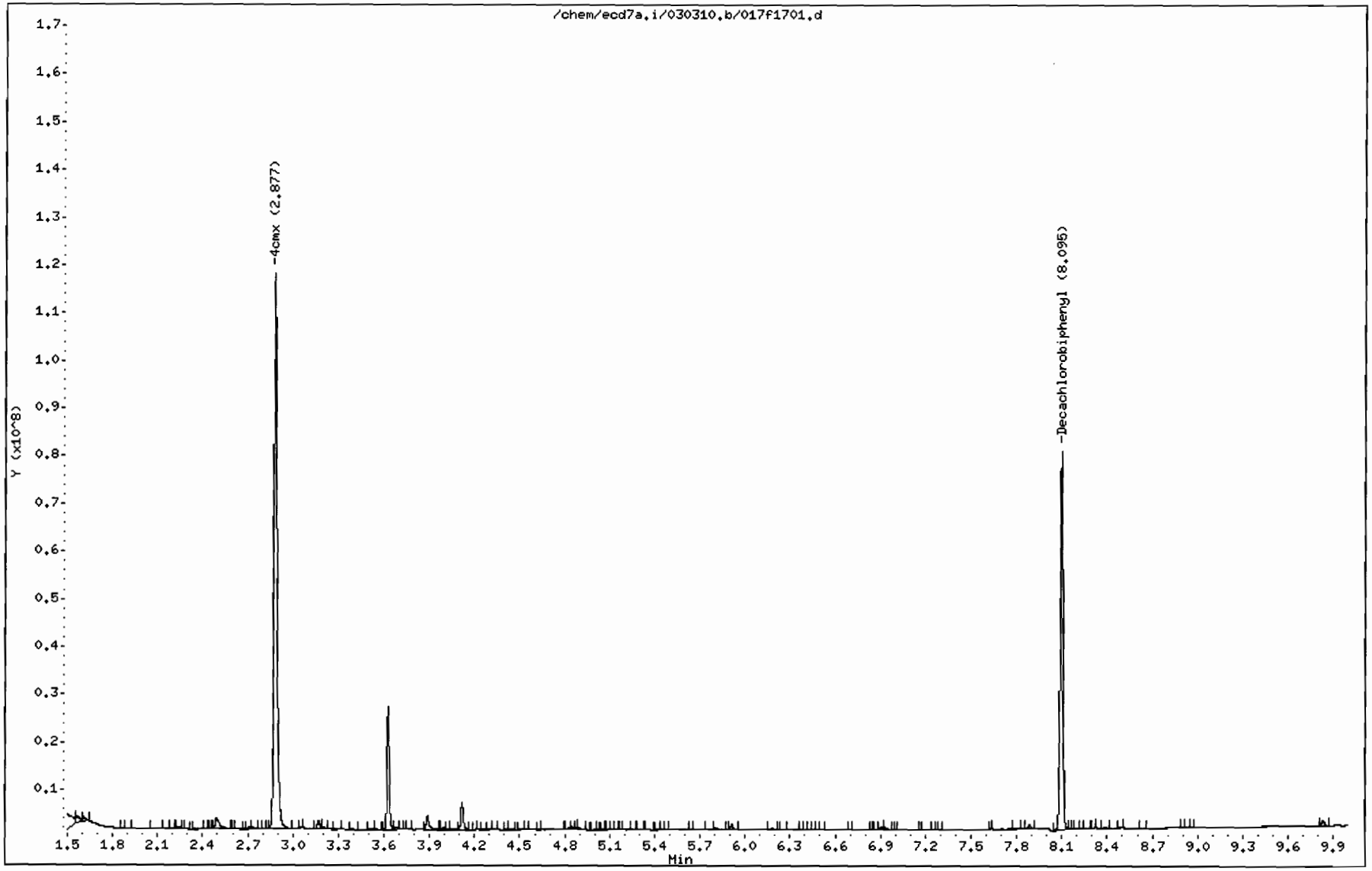

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/017b1701.d
Lab Smp Id: 248042011 Client Smp ID: CAPA-10-13085
Inj Date : 03-MAR-2010 14:01
Operator : JXM Inst ID: ecd7a.i
Smp Info : |248042011|1|
Misc Info : |ECD81A_1L|958413|SVP|LANL|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 03-Mar-2010 14:03 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 17
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2057.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	780.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.195	3.195	0.000	119554654	212.957	1.36	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.292	9.292	0.000	59296041	165.002	1.06	80.00- 120.00	100.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/030310.b/017b1701.d

Date : 03-MAR-2010 14:01

Client ID: CAPA-10-13085

Sample Info: |2480420111|1|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

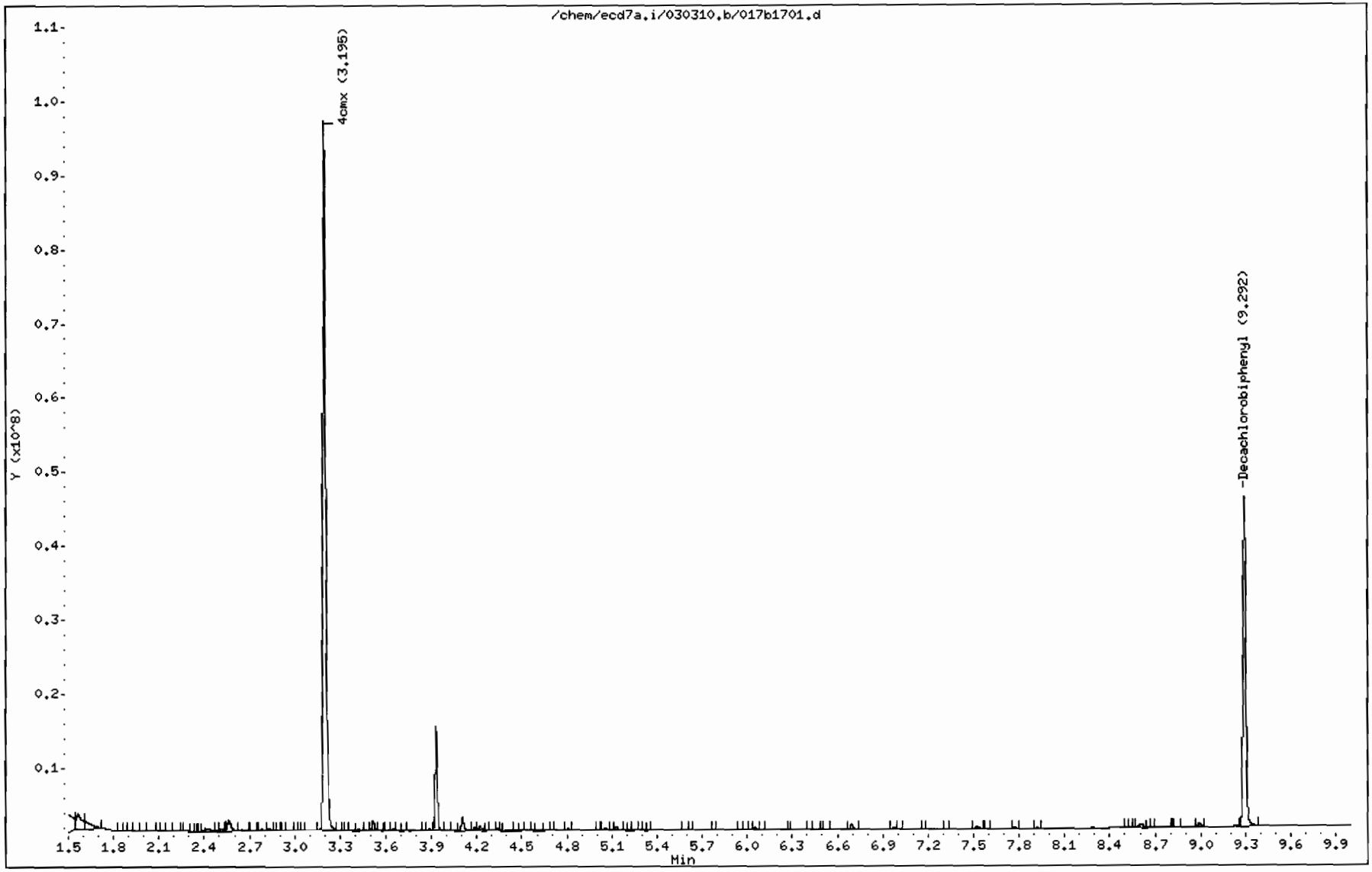

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042014**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13320**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**958413**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 14:18**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/01/2010 18:08**	**Aliquot:**	**980 mL**	**Final Volume:**	**5 mL**
Data File:	**018f1801.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	018b1801.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.0204	ug/L	0.0051	0.0204	1
58-89-9	gamma-BHC (Lindane)	U	0.0204	ug/L	0.0051	0.0204	1
319-85-7	beta-BHC	U	0.0204	ug/L	0.00612	0.0204	1
319-86-8	delta-BHC	U	0.0204	ug/L	0.0051	0.0204	1
76-44-8	Heptachlor	U	0.0204	ug/L	0.0051	0.0204	1
309-00-2	Aldrin	U	0.0204	ug/L	0.0051	0.0204	1
1024-57-3	Heptachlor epoxide	U	0.0204	ug/L	0.0051	0.0204	1
5103-74-2	gamma-Chlordane	U	0.0204	ug/L	0.0051	0.0204	1
5103-71-9	alpha-Chlordane	U	0.0204	ug/L	0.0051	0.0204	1
959-98-8	Endosulfan I	U	0.0204	ug/L	0.0051	0.0204	1
72-55-9	4,4'-DDE	U	0.0408	ug/L	0.0051	0.0408	1
60-57-1	Dieldrin	U	0.0408	ug/L	0.0102	0.0408	1
72-20-8	Endrin	U	0.0408	ug/L	0.0102	0.0408	1
72-54-8	4,4'-DDD	U	0.0408	ug/L	0.0102	0.0408	1
33213-65-9	Endosulfan II	U	0.0408	ug/L	0.0102	0.0408	1
7421-93-4	Endrin aldehyde	U	0.0408	ug/L	0.0051	0.0408	1
50-29-3	4,4'-DDT	U	0.0408	ug/L	0.0102	0.0408	1
1031-07-8	Endosulfan sulfate	U	0.0408	ug/L	0.0102	0.0408	1
72-43-5	Methoxychlor	U	0.204	ug/L	0.051	0.204	1
53494-70-5	Endrin ketone	U	0.0408	ug/L	0.0102	0.0408	1
8001-35-2	Toxaphene	U	0.510	ug/L	0.153	0.510	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.406	1.02	ug/L	39.8	(30%-105%)
Decachlorobiphenyl	1.03	1.02	ug/L	101	(30%-126%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/030310.b/018f1801.d
Lab Smp Id: 248042014 Client Smp ID: CAPA-10-13320
Inj Date : 03-MAR-2010 14:18
Operator : JXM Inst ID: ecd7a.i
Smp Info : |248042014|1|
Misc Info : |ECD81A_1L|958413|SVP|LANL|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 03-Mar-2010 14:03 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2057.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	980.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.877	2.877	0.000	63862342	79.5452	0.406	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.096	8.096	0.000	122894338	204.906	1.04	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/030310.b/018f1801.d

Page 1

Date : 03-MAR-2010 14:18

Client ID: CAPA-10-13320

Instrument: ecd7a.i

Sample Info: |248042014|1|

Volume Injected (uL): 1.0

Operator: JXM

Column phase: CLP-1

Column diameter: 0.25

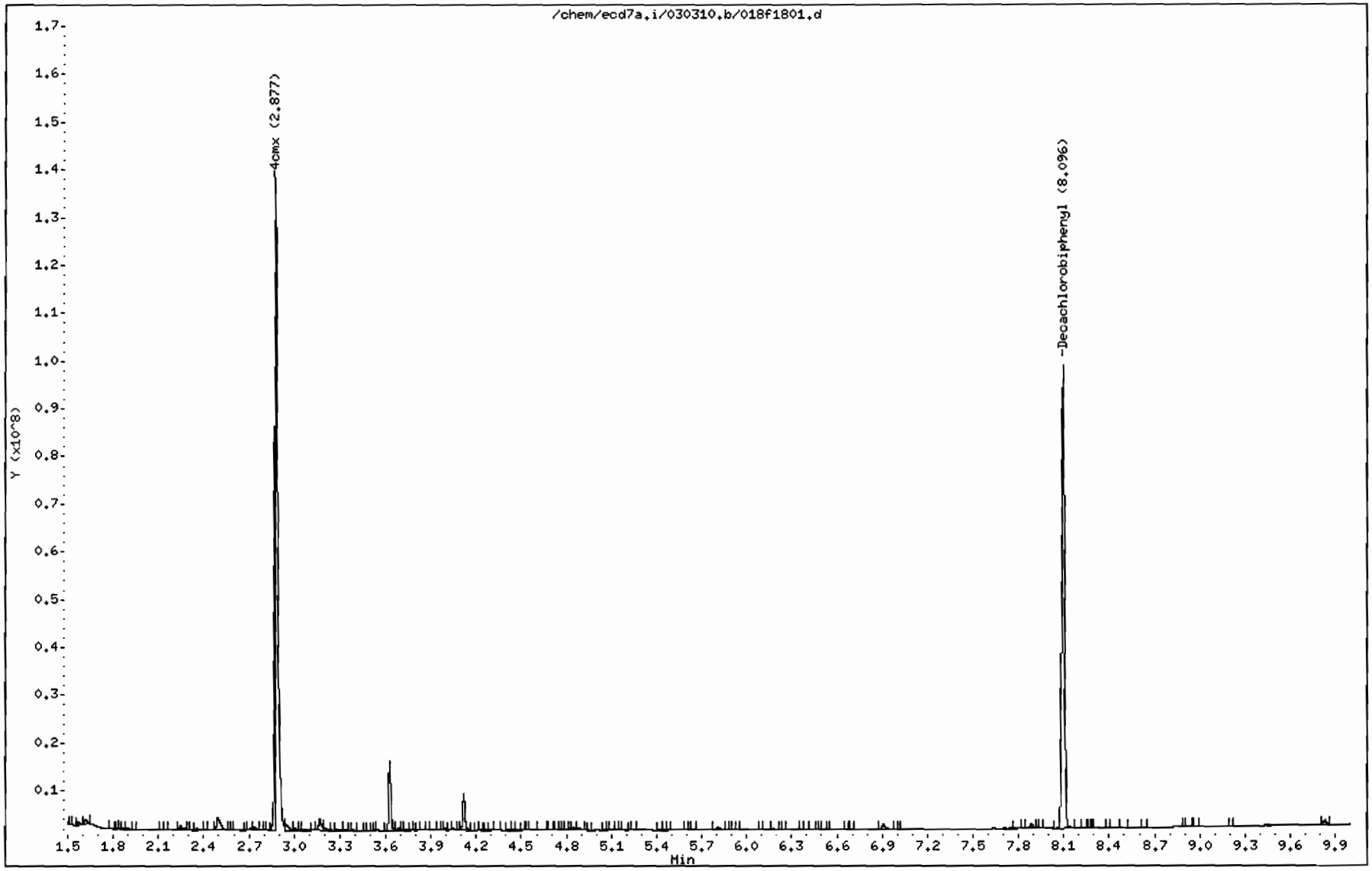

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/018b1801.d
Lab Smp Id: 248042014 Client Smp ID: CAPA-10-13320
Inj Date : 03-MAR-2010 14:18
Operator : JXM Inst ID: ecd7a.i
Smp Info : |248042014|1|
Misc Info : |ECD81A_1L|958413|SVP|LANL|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 03-Mar-2010 14:03 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2057.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	980.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.196	3.195	0.001	133259937	237.370	1.21	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.292	9.292	0.000	72747140	202.432	1.03	80.00- 120.00	100.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/030310.b/018b1801.d
Date : 03-MAR-2010 14:18
Client ID: CAPA-10-13320
Sample Info: |248042014|1|
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

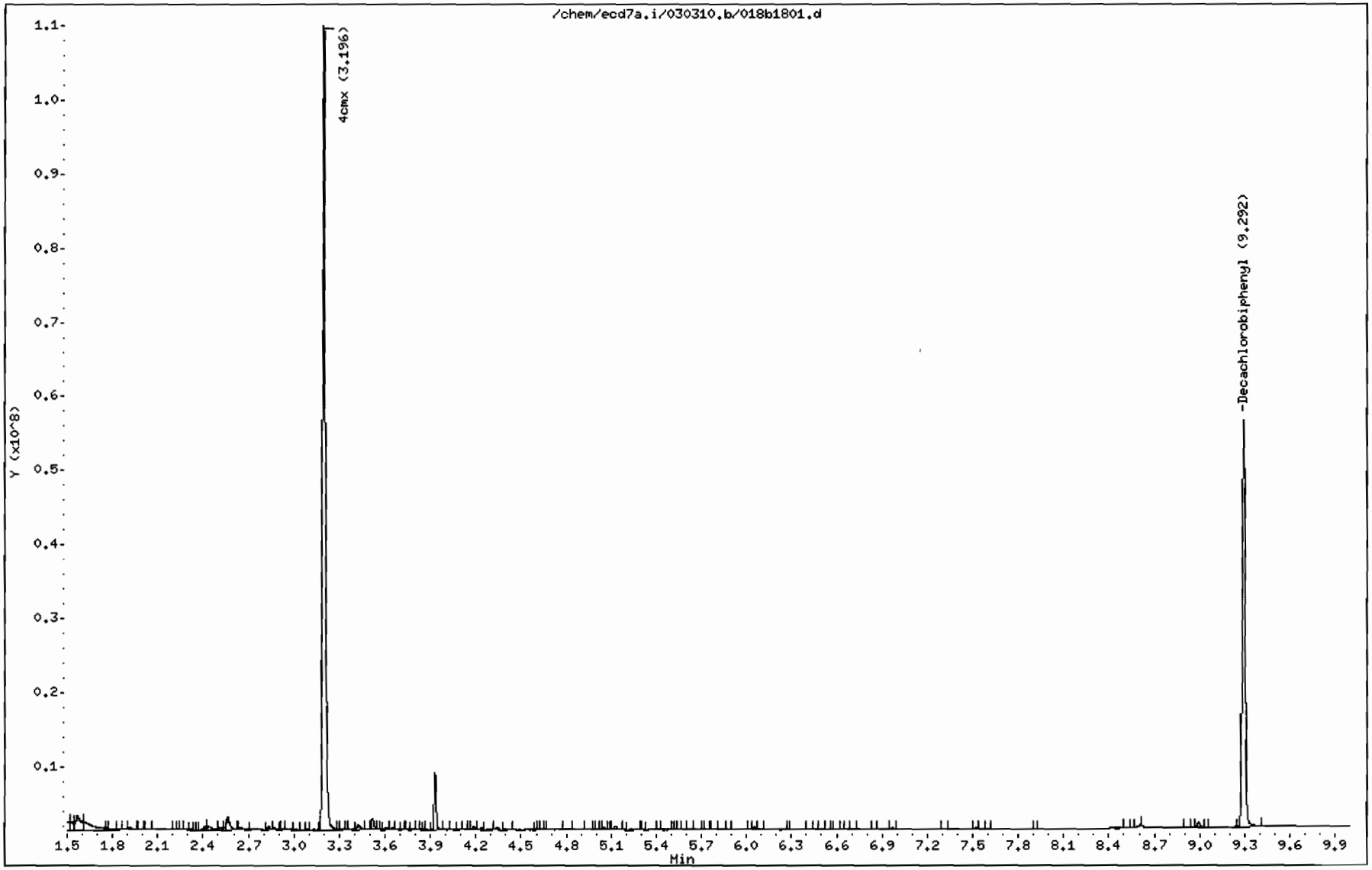

STANDARDS DATA

Report Date: 03-Mar-2010 11:45

Calibration History

Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Start Cal Date: 23-FEB-2010 13:01
End Cal Date : 02-MAR-2010 12:29

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
23-FEB-2010 18:09	gapa	/chem/ecd7a.i/022310a.b/021f2101.d
24-FEB-2010 19:06	chlor	/chem/ecd7a.i/022410.b/019f1901.d
24-FEB-2010 17:24	tox	/chem/ecd7a.i/022410.b/013f1301.d
02-MAR-2010 11:20	indab	/chem/ecd7a.i/030210a.b/008f0801.d
Cal Level: 2 , Cal Amount: 10.00000		
23-FEB-2010 18:26	gapa	/chem/ecd7a.i/022310a.b/022f2201.d
24-FEB-2010 19:23	chlor	/chem/ecd7a.i/022410.b/020f2001.d
24-FEB-2010 17:41	tox	/chem/ecd7a.i/022410.b/014f1401.d
02-MAR-2010 11:37	indab	/chem/ecd7a.i/030210a.b/009f0901.d
Cal Level: 3 , Cal Amount: 50.00000		
23-FEB-2010 18:43	gapa	/chem/ecd7a.i/022310a.b/023f2301.d
24-FEB-2010 19:40	chlor	/chem/ecd7a.i/022410.b/021f2101.d
24-FEB-2010 17:58	tox	/chem/ecd7a.i/022410.b/015f1501.d
02-MAR-2010 11:54	indab	/chem/ecd7a.i/030210a.b/010f1001.d
Cal Level: 4 , Cal Amount: 100.00000		
23-FEB-2010 19:00	gapa	/chem/ecd7a.i/022310a.b/024f2401.d
24-FEB-2010 19:57	chlor	/chem/ecd7a.i/022410.b/022f2201.d
24-FEB-2010 18:15	tox	/chem/ecd7a.i/022410.b/016f1601.d
02-MAR-2010 12:11	indab	/chem/ecd7a.i/030210a.b/011f1101.d
Cal Level: 5 , Cal Amount: 200.00000		
23-FEB-2010 19:17	gapa	/chem/ecd7a.i/022310a.b/025f2501.d
24-FEB-2010 20:14	chlor	/chem/ecd7a.i/022410.b/023f2301.d
24-FEB-2010 18:32	tox	/chem/ecd7a.i/022410.b/017f1701.d
02-MAR-2010 12:29	indab	/chem/ecd7a.i/030210a.b/012f1201.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
03-MAR-2010 10:53	gapa	/chem/ecd7a.i/030310.b/006f0601.d

```
| Ccal Level: 4 , Ccal Amount: 100                                                |
+=================================================================================+
|03-MAR-2010 10:36 |chlor            |/chem/ecd7a.i/030310.b/005f0501.d            |
+------------------+-----------------+-------------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                                |
+=================================================================================+
|03-MAR-2010 10:19 |tox              |/chem/ecd7a.i/030310.b/004f0401.d            |
+------------------+-----------------+-------------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                                |
+=================================================================================+
|03-MAR-2010 10:02 |indab            |/chem/ecd7a.i/030310.b/003f0301.d            |
+------------------+-----------------+-------------------------------------------+
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Report Date: 03-Mar-2010 11:45

Calibration History

Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Start Cal Date: 23-FEB-2010 13:01
End Cal Date : 02-MAR-2010 12:29

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 2.00000		
23-FEB-2010 18:09	gapa	/chem/ecd7a.i/022310a.b/021b2101.d
24-FEB-2010 19:06	chlor	/chem/ecd7a.i/022410.b/019b1901.d
24-FEB-2010 17:24	tox	/chem/ecd7a.i/022410.b/013b1301.d
02-MAR-2010 11:20	indab	/chem/ecd7a.i/030210a.b/008b0801.d
Cal Level: 2 , Cal Amount: 10.00000		
23-FEB-2010 18:26	gapa	/chem/ecd7a.i/022310a.b/022b2201.d
24-FEB-2010 19:23	chlor	/chem/ecd7a.i/022410.b/020b2001.d
24-FEB-2010 17:41	tox	/chem/ecd7a.i/022410.b/014b1401.d
02-MAR-2010 11:37	indab	/chem/ecd7a.i/030210a.b/009b0901.d
Cal Level: 3 , Cal Amount: 50.00000		
23-FEB-2010 18:43	gapa	/chem/ecd7a.i/022310a.b/023b2301.d
24-FEB-2010 19:40	chlor	/chem/ecd7a.i/022410.b/021b2101.d
24-FEB-2010 17:58	tox	/chem/ecd7a.i/022410.b/015b1501.d
02-MAR-2010 11:54	indab	/chem/ecd7a.i/030210a.b/010b1001.d
Cal Level: 4 , Cal Amount: 100.00000		
23-FEB-2010 19:00	gapa	/chem/ecd7a.i/022310a.b/024b2401.d
24-FEB-2010 19:57	chlor	/chem/ecd7a.i/022410.b/022b2201.d
24-FEB-2010 18:15	tox	/chem/ecd7a.i/022410.b/016b1601.d
02-MAR-2010 12:11	indab	/chem/ecd7a.i/030210a.b/011b1101.d
Cal Level: 5 , Cal Amount: 200.00000		
23-FEB-2010 19:17	gapa	/chem/ecd7a.i/022310a.b/025b2501.d
24-FEB-2010 20:14	chlor	/chem/ecd7a.i/022410.b/023b2301.d
24-FEB-2010 18:32	tox	/chem/ecd7a.i/022410.b/017b1701.d
02-MAR-2010 12:29	indab	/chem/ecd7a.i/030210a.b/012b1201.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 100		
03-MAR-2010 10:53	gapa	/chem/ecd7a.i/030310.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 100		
03-MAR-2010 10:36	chlor	/chem/ecd7a.i/030310.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 100		

```
+==================================================================================+
|03-MAR-2010 10:19 |tox               |/chem/ecd7a.i/030310.b/004b0401.d            |
+------------------+-----------------+-----------------------------------------+
| Ccal Level: 4 , Ccal Amount: 100                                                 |
+==================================================================================+
|03-MAR-2010 10:02 |indab             |/chem/ecd7a.i/030310.b/003b0301.d            |
+------------------+-----------------+-----------------------------------------+
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GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Quant Method : ESTD Target Version : 3.50
Last Update : 03-Mar-2010 11:06 Number of Cpnds : 42
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1814.000000
Initial:End Threshold	907.000000
Initial:Area Threshold	18140.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	4.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	2.877	2.847-2.907	8.028e+05
61 2,4,5-TCP	2.900	2.800-3.000	
59 Hexachlorobenzene	3.172	3.072-3.272	9.401e+05
2 Aroclor-1221	3.011	2.981-3.041	
	3.120	3.090-3.150	
	3.152	3.122-3.182	
3 Aroclor-1016	3.421	3.391-3.451	
	3.794	3.764-3.824	
	3.905	3.875-3.935	
	3.958	3.928-3.988	
	4.250	4.220-4.280	
4 Aroclor-1232	3.421	3.391-3.451	
	3.904	3.874-3.934	
	3.956	3.926-3.986	
	4.248	4.218-4.278	
	4.651	4.621-4.681	
5 alpha-BHC	3.297	3.267-3.327	1.127e+06
6 Aroclor-1242	3.422	3.322-3.522	
	3.903	3.803-4.003	
	3.956	3.856-4.056	
	4.247	4.147-4.347	
	4.623	4.523-4.723	
7 gamma-BHC (Lindane)	3.549	3.519-3.579	1.012e+06

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	3.877	3.777-3.977	3.333e+04
	4.696	4.596-4.796	2.026e+04
	4.874	4.774-4.974	1.083e+05
	4.998	4.898-5.098	8.838e+04
	5.756	5.656-5.856	2.539e+04
9 Aroclor-1248	3.794	3.694-3.894	
	4.051	3.951-4.151	
	4.248	4.148-4.348	
	4.623	4.523-4.723	
	4.652	4.552-4.752	
10 Heptachlor	3.945	3.914-3.974	7.859e+05
11 Aldrin	4.210	4.180-4.240	9.777e+05
12 beta-BHC	3.614	3.583-3.644	4.616e+05
13 delta-BHC	3.768	3.738-3.798	9.872e+05
14 Heptachlor epoxide	4.756	4.726-4.786	8.694e+05
15 Aroclor-1254	4.584	4.554-4.614	
	4.819	4.789-4.849	
	5.086	5.056-5.116	
	5.202	5.172-5.232	
	5.472	5.442-5.502	
16 Endosulfan I	5.133	5.104-5.163	7.748e+05
17 gamma-Chlordane	4.873	4.843-4.903	8.762e+05
18 alpha-Chlordane	4.998	4.968-5.028	8.725e+05
19 4,4'-DDE	5.061	5.031-5.091	7.991e+05
20 Dieldrin	5.365	5.335-5.395	8.079e+05
21 Aroclor-1260	5.379	5.279-5.479	
	5.651	5.551-5.751	
	6.311	6.211-6.411	
	6.633	6.533-6.733	
	6.939	6.839-7.039	
22 Endrin	5.598	5.568-5.628	6.172e+05
23 Toxaphene	5.265	5.235-5.295	7.335e+03
	5.370	5.340-5.400	1.043e+04
	5.458	5.428-5.488	1.217e+04
	5.516	5.486-5.546	1.589e+04
	5.619	5.589-5.649	1.554e+04
24 Endosulfan II	5.823	5.793-5.853	7.085e+05
25 4,4'-DDD	5.651	5.620-5.681	6.169e+05
26 4,4'-DDT	5.934	5.904-5.963	5.657e+05
27 Endrin aldehyde	6.251	6.221-6.281	5.951e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m

Compound	RT	RT Window	RF
28 Methoxychlor	6.433	6.403-6.463	2.415e+05
29 Endosulfan sulfate	6.706	6.676-6.736	6.071e+05
30 Aroclor-1268	13.480	13.380-13.580	
	13.587	13.487-13.687	
	13.984	13.884-14.084	
	14.586	14.486-14.686	
	15.182	15.082-15.282	
31 Endrin ketone	7.010	6.980-7.040	7.767e+05
51 Mirex	6.600	6.570-6.630	5.726e+05
52 C-Nonachlor	5.627	5.597-5.657	8.841e+05
53 O-Chlordane	4.663	4.633-4.693	6.747e+05
54 T-Nonachlor	4.981	4.951-5.011	8.527e+05
55 1,2-Dichlorobenzene	6.525	6.495-6.555	
56 2,4-DDE	4.737	4.707-4.767	5.210e+05
58 2,4-DDD	5.233	5.203-5.263	4.258e+05
57 2,4-DDT	5.482	5.452-5.512	4.439e+05
$ 32 Decachlorobiphenyl	8.096	8.066-8.126	5.998e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Quant Method : ESTD Target Version : 3.50
Last Update : 03-Mar-2010 11:06 Number of Cpnds : 42
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	1475.000000
Initial:End Threshold	737.500000
Initial:Area Threshold	14750.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	4.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.000000

Compound	RT	RT Window	RF
$ 1 4cmx	3.195	3.165-3.225	5.614e+05
60 2,4,5-TCP	3.116	3.016-3.216	
59 Hexachlorobenzene	3.612	3.582-3.642	5.280e+05
2 Aroclor-1221	3.435	3.405-3.465	
	3.555	3.525-3.585	
	3.609	3.579-3.639	
3 Aroclor-1016	3.965	3.935-3.995	
	4.391	4.361-4.421	
	4.518	4.488-4.548	
	4.618	4.588-4.648	
	4.970	4.940-5.000	
4 Aroclor-1232	4.193	4.163-4.223	
	4.388	4.358-4.418	
	4.515	4.485-4.545	
	4.614	4.584-4.644	
	4.966	4.936-4.996	
5 alpha-BHC	3.722	3.692-3.752	7.407e+05
6 Aroclor-1242	3.962	3.932-3.992	
	4.387	4.357-4.417	
	4.514	4.484-4.544	
	4.615	4.585-4.645	
	4.966	4.936-4.996	
7 gamma-BHC (Lindane)	4.051	4.021-4.081	6.499e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m

Compound	RT	RT Window	RF
8 Chlordane (tech.)	4.345	4.315-4.375	2.312e+04
	5.343	5.313-5.373	1.500e+04
	5.583	5.553-5.613	6.466e+04
	5.733	5.703-5.763	5.550e+04
	6.700	6.670-6.730	1.601e+04
9 Aroclor-1248	4.695	4.665-4.725	
	4.966	4.936-4.996	
	5.091	5.061-5.121	
	5.342	5.312-5.372	
	5.393	5.363-5.423	
10 Heptachlor	4.487	4.457-4.517	4.698e+05
11 Aldrin	4.817	4.787-4.847	6.670e+05
12 beta-BHC	4.115	4.085-4.145	3.037e+05
13 delta-BHC	4.404	4.374-4.434	6.360e+05
14 Heptachlor epoxide	5.386	5.356-5.416	5.577e+05
15 Aroclor-1254	5.387	5.357-5.417	
	5.573	5.543-5.603	
	5.941	5.911-5.971	
	6.065	6.035-6.095	
	6.301	6.271-6.331	
16 Endosulfan I	5.802	5.772-5.832	5.128e+05
17 gamma-Chlordane	5.581	5.551-5.611	5.824e+05
18 alpha-Chlordane	5.731	5.701-5.761	5.794e+05
19 4,4'-DDE	5.883	5.853-5.913	4.836e+05
20 Dieldrin	6.089	6.059-6.119	4.955e+05
21 Aroclor-1260	6.274	6.244-6.304	
	6.490	6.460-6.520	
	7.316	7.286-7.346	
	7.586	7.556-7.616	
	8.006	7.976-8.036	
22 Endrin	6.419	6.389-6.449	3.672e+05
23 Toxaphene	6.053	6.023-6.083	9.735e+03
	6.121	6.091-6.151	4.393e+03
	6.184	6.154-6.214	4.991e+03
	6.248	6.218-6.278	5.740e+03
	6.380	6.350-6.410	7.716e+03
24 Endosulfan II	6.643	6.613-6.673	4.606e+05
25 4,4'-DDD	6.501	6.471-6.531	3.581e+05
26 4,4'-DDT	6.847	6.817-6.877	3.068e+05
27 Endrin aldehyde	7.004	6.974-7.034	3.682e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m

Compound	RT	RT Window	RF
28 Methoxychlor	7.591	7.561-7.621	1.285e+05
29 Endosulfan sulfate	7.310	7.280-7.340	3.964e+05
30 Aroclor-1268	13.562	13.532-13.592	
	13.571	13.541-13.601	
	13.999	13.969-14.029	
	14.579	14.549-14.609	
	15.083	15.053-15.113	
31 Endrin ketone	7.919	7.889-7.949	4.682e+05
51 Mirex	7.895	7.865-7.925	2.898e+05
52 C-Nonachlor	6.497	6.467-6.527	5.805e+05
53 O-Chlordane	5.294	5.264-5.324	3.342e+05
54 T-Nonachlor	5.676	5.646-5.706	5.521e+05
55 1,2-Dichlorobenzene	6.621	6.591-6.651	
56 2,4-DDE	5.561	5.531-5.591	2.577e+05
58 2,4-DDD	6.100	6.070-6.130	1.980e+05
57 2,4-DDT	6.433	6.403-6.463	2.542e+05
$ 32 Decachlorobiphenyl	9.292	9.262-9.322	3.594e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 02-MAR-2010 12:29
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Cal Date : 03-Mar-2010 11:06 jam00798
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd7a.i/022310a.b/021f2101.d
Level 2: /chem/ecd7a.i/022310a.b/022f2201.d
Level 3: /chem/ecd7a.i/022310a.b/023f2301.d
Level 4: /chem/ecd7a.i/022310a.b/024f2401.d
Level 5: /chem/ecd7a.i/022310a.b/025f2501.d

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
61 2,4,5-TCP	+++++	+++++	+++++	+++++	+++++	+++++	+++++
59 Hexachlorobenzene	1129401	1000386	891531	860661	818675	940131	13.337
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Aroclor-1016(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
5 alpha-BHC	1122437	1146574	1154608	1134252	1075947	1126764	2.744
6 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
7 gamma-BHC (Lindane)	1038943	1041899	1024450	1004359	951441	1012218	3.663
8 Chlordane (tech.)(1)	34622	33771	32986	33199	32077	33331	2.834
(2)	21744	21010	19842	19723	18997	20263	5.418
(3)	112269	112390	110378	107641	98782	108292	5.220
(4)	95313	91465	90506	86624	77994	88380	7.442
(5)	26568	25613	25637	25419	23729	25393	4.063

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 02-MAR-2010 12:29
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Cal Date : 03-Mar-2010 11:06 jam00798
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
9 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
10 Heptachlor	846982	817680	783090	764546	717060	785872	6.344
11 Aldrin	1023542	1026396	997018	956492	884855	977661	6.033
12 beta-BHC	528095	494500	447201	432072	406343	461642	10.632
13 delta-BHC	1002434	1009596	1003082	985702	934997	987162	3.086
14 Heptachlor epoxide	942769	923472	875890	835209	769470	869362	8.032
15 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
16 Endosulfan I	845132	828805	771414	741561	686992	774781	8.337
17 gamma-Chlordane	928372	909772	885714	857559	799537	876191	5.753
18 alpha-Chlordane	937736	919838	874931	844057	786094	872531	6.966
19 4,4'-DDE	883955	881151	796644	748311	685292	799071	10.742
20 Dieldrin	879447	874549	811480	765896	708128	807900	9.031
21 Aroclor-1260(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
22 Endrin	676269	659925	617690	584942	546934	617152	8.609
23 Toxaphene(1)	7957	7295	7283	7045	7094	7335	4.980
(2)	11571	10418	10358	9779	10028	10431	6.595
(3)	12288	12015	12280	12047	12234	12173	1.079
(4)	16641	15882	16067	15356	15514	15892	3.181
(5)	15812	15134	15478	15587	15695	15541	1.667
24 Endosulfan II	792604	770853	701693	666078	611059	708458	10.540
25 4,4'-DDD	681218	663087	616553	584322	539463	616929	9.357

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 02-MAR-2010 12:29
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Cal Date : 03-Mar-2010 11:06 jam00798
Curve Type : Average

Compound	2.000 Level 1	10.000 Level 2	50.000 Level 3	100.000 Level 4	200.000 Level 5	RRF	% RSD
26 4,4'-DDT	609221	593407	564270	547142	514641	565736	6.623
27 Endrin aldehyde	686113	649988	585584	553652	500294	595126	12.488
28 Methoxychlor	296296	271367	224471	212832	202743	241541	16.700
29 Endosulfan sulfate	670181	643067	604990	579160	537886	607057	8.579
30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(5)	+++++	+++++	+++++	+++++	+++++	+++++	+++++
31 Endrin ketone	904662	860251	757312	710830	650338	776679	13.509
51 Mirex	707843	605806	537595	517866	494032	572628	15.070
52 C-Nonachlor	990298	937215	873288	833591	785863	884051	9.193
53 O-Chlordane	804507	729313	648327	615262	576312	674744	13.612
54 T-Nonachlor	977240	915229	830723	794583	745732	852701	10.926
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++
56 2,4-DDE	627075	571273	502019	471483	432927	520955	14.976
58 2,4-DDD	525722	465282	405634	380713	351639	425798	16.390
57 2,4-DDT	509524	462465	434205	418130	395126	443890	9.941
$ 1 4cmx	897851	867869	797029	754719	696750	802844	10.207
$ 32 Decachlorobiphenyl	715235	656111	574576	546309	506567	599760	14.120

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 02-MAR-2010 12:29
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Cal Date : 03-Mar-2010 11:06 jam00798

Calibration File Names:
Level 1: /chem/ecd7a.i/022310a.b/021b2101.d
Level 2: /chem/ecd7a.i/022310a.b/022b2201.d
Level 3: /chem/ecd7a.i/022310a.b/023b2301.d
Level 4: /chem/ecd7a.i/022310a.b/024b2401.d
Level 5: /chem/ecd7a.i/022310a.b/025b2501.d

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
60 2,4,5-TCP	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
59 Hexachlorobenzene	3534732	14953267	61966341	116772758	212736548	LINR	-10.49049	527996		0.99731
2 Aroclor-1221 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
3 Aroclor-1016 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
4 Aroclor-1232 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
5 alpha-BHC	777233	776738	751002	722962	675400	AVRG		740667		5.77499
6 Aroclor-1242 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 02-MAR-2010 12:29
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Cal Date : 03-Mar-2010 11:06 jam00798

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
7 gamma-BHC (Lindane)	701087	686934	650083	626645	584958	AVRG		649941		7.19612
8 Chlordane (tech.) (1)	25554	24460	22809	22245	20552	AVRG		23124		8.42473
(2)	17050	16566	14462	14002	12919	AVRG		15000		11.67570
(3)	71986	70600	65114	61817	53803	AVRG		64664		11.34100
(4)	62754	60569	55337	52956	45860	AVRG		55495		12.01192
(5)	18359	17195	15539	14974	13959	AVRG		16005		11.01051
9 Aroclor-1248 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
10 Heptachlor	530165	501465	459666	444755	413034	AVRG		469817		9.86878
11 Aldrin	717820	712220	675485	642548	586759	AVRG		666966		8.12129
12 beta-BHC	361665	333706	289659	275921	257528	AVRG		303696		14.12532
13 delta-BHC	683352	671811	637174	615051	572752	AVRG		636028		7.01603
14 Heptachlor epoxide	621447	597750	556230	527987	485192	AVRG		557721		9.74265
15 Aroclor-1254 (1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
16 Endosulfan I	568642	549155	508685	487262	450131	AVRG		512775		9.26929
17 gamma-Chlordane	629626	617092	584848	560695	519897	AVRG		582432		7.59030
18 alpha-Chlordane	642271	619258	574910	550425	510135	AVRG		579400		9.13222

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 02-MAR-2010 12:29
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Cal Date : 03-Mar-2010 11:06 jam00798

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
19 4,4'-DDE	551633	538862	481712	446740	399140	AVRG		483617		13.15021
20 Dieldrin	554898	538049	496797	464910	422627	AVRG		495456		10.86275
21 Aroclor-1260(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
22 Endrin	422175	398589	360526	340102	314544	AVRG		367187		11.83896
23 Toxaphene(1)	11160	9968	9728	8931	8887	AVRG		9735		9.53987
(2)	4748	4921	4254	4179	3865	AVRG		4393		9.84663
(3)	5497	5059	4969	4777	4652	AVRG		4991		6.50824
(4)	6075	5866	5949	5498	5312	AVRG		5740		5.60471
(5)	8372	7798	7678	7446	7287	AVRG		7716		5.40292
24 Endosulfan II	525868	502187	455124	428696	391068	AVRG		460589		11.82819
25 4,4'-DDD	416792	392286	350490	330066	300963	AVRG		358120		13.03916
26 4,4'-DDT	341613	322945	301261	292924	275162	AVRG		306781		8.46381
27 Endrin aldehyde	439121	411578	357269	333588	299432	AVRG		368197		15.45819
28 Methoxychlor	161239	145456	120420	111757	103809	AVRG		128536		18.71469
29 Endosulfan sulfate	444778	422056	394842	375999	344161	AVRG		396367		9.88952
30 Aroclor-1268(1)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(2)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(3)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(4)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
(5)	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
End Cal Date : 02-MAR-2010 12:29
Quant Method : ESTD
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Cal Date : 03-Mar-2010 11:06 jam00798

Compound	2 Level 1	10 Level 2	50 Level 3	100 Level 4	200 Level 5	Curve	Coefficients b	m1	m2	%RSD or R^2
31 Endrin ketone	561863	519813	454303	421521	383599	AVRG		468220		15.46242
51 Mirex	1967628	7984153	33372685	63134808	116876543	LINR	-9.32687	289808		0.99821
52 C-Nonachlor	732794	648092	549502	510459	461589	AVRG		580487		18.82559
53 O-Chlordane	2279545	9683402	40637135	74751518	134708141	LINR	-12.01542	334227		0.99620
54 T-Nonachlor	705195	614513	523390	481961	435531	AVRG		552118		19.56304
55 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+00		0.000e+00
56 2,4-DDE	1821857	7770505	32067536	58513265	103872394	LINR	-13.53426	257740		0.99496
58 2,4-DDD	1489772	6031823	24578358	44052303	80168461	LINR	-13.12656	197966		0.99644
57 2,4-DDT	316646	275217	240561	227383	211109	AVRG		254183		16.57864
$ 1 4cmx	650868	623691	553183	513555	465713	AVRG		561402		13.62325
$ 32 Decachlorobiphenyl	451411	398426	334846	316607	295541	AVRG		359366		17.87270

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 23-FEB-2010 13:01
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Quant Method : ESTD
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Integrator : Falcon
Method file : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Cal Date : 03-Mar-2010 11:06 jam00798

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2057

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 03/02/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :03/03/10

Lab Sample ID (PEM): WPE100211-99 Time Analyzed :0945

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.21	4.18	4.24	108	100	8.0
4,4'-DDE						
Endrin	5.60	5.57	5.63	123	100	23.0
4,4'-DDD						
4,4'-DDT	5.93	5.90	5.96	111	100	11.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 2.10 Endrin % breakdown (1): 3.50

Combined % breakdown (1): 5.60

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2057

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 03/02/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM01 Date Analyzed :03/03/10

Lab Sample ID (PEM): WPE100211-99 Time Analyzed :0945

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.82	4.79	4.85	104	100	4.0
4,4'-DDE						
Endrin	6.42	6.39	6.45	120	100	20.0
4,4'-DDD						
4,4'-DDT	6.85	6.82	6.88	106	100	6.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 2.80 Endrin % breakdown (1): 3.90

Combined % breakdown (1): 6.70

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2057

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 03/02/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM02 Date Analyzed :03/03/10

Lab Sample ID (PEM): WPE100211-99 Time Analyzed :1127

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.21	4.18	4.24	110	100	10.0
4,4'-DDE						
Endrin	5.60	5.57	5.63	123	100	23.0
4,4'-DDD						
4,4'-DDT	5.93	5.90	5.96	110	100	10.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 3.00 Endrin % breakdown (1): 3.90

Combined % breakdown (1): 6.90

FORM VII PEST-1 OLM03.0

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2057

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 03/02/10

EPA Sample No.(PIBLK): _____ Date Analyzed :_____

Lab Sample ID (PIBLK): _____ Time Analyzed :_____

EPA Sample No.(PEM): PEM02 Date Analyzed :03/03/10

Lab Sample ID (PEM): WPE100211-99 Time Analyzed :1127

PEM COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT (ng)	NOM AMOUNT (ng)	%D
Aldrin	4.82	4.79	4.85	107	100	7.0
4,4'-DDE						
Endrin	6.42	6.39	6.45	122	100	22.0
4,4'-DDD						
4,4'-DDT	6.85	6.82	6.88	106	100	6.0
Endrin ketone						
Endrin aldehyde						

4,4'-DDT % breakdown (1): 4.20 Endrin % breakdown (1): 4.30

Combined % breakdown (1): 8.50

FORM VII PEST-1 OLM03.0

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2057

Instrument ID: ECD7A Calibration Date: 03/03/10 Time: 1002

Lab File ID: 003F0301 Init. Calib. Date(s): 03/02/10 03/02/10

Heated Purge: (Y/N) N Init. Calib. Times: 1120 1229

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	1126763.7	1123225.7	0.01	-0.3	15.0
beta-BHC	461642.18	429995.36	0.01	-6.8	15.0
delta-BHC	987162.23	1014416.3	0.01	2.8	15.0
gamma-BHC (Lindane)	1012218.4	1033993.6	0.01	2.2	15.0
Heptachlor	785871.63	784505.23	0.01	-0.2	15.0
Aldrin	977660.59	886289.32	0.01	-9.3	15.0
Heptachlor epoxide	869362.40	833957.90	0.01	-4.1	15.0
Endosulfan I	774780.82	781733.51	0.01	0.9	15.0
Dieldrin	807900.18	793005.54	0.01	-1.8	15.0
4,4'-DDE	799070.59	772442.33	0.01	-3.3	15.0
Endrin	617152.03	705371.75	0.01	14.3	15.0
Endosulfan II	708457.57	696686.13	0.01	-1.7	15.0
4,4'-DDD	616928.70	637291.92	0.01	3.3	15.0
Endosulfan sulfate	607056.81	611893.71	0.01	0.8	15.0
4,4'-DDT	565736.33	642591.61	0.01	13.6	15.0
Methoxychlor	241541.47	268538.18	0.01	11.2	15.0
Endrin ketone	776678.54	752296.58	0.01	-3.1	15.0
Endrin aldehyde	595126.05	559207.87	0.01	-6.0	15.0
gamma-Chlordane	876190.78	883401.18	0.01	0.8	15.0
alpha-Chlordane	872531.34	778168.42	0.01	-10.8	15.0
4cmx	802843.84	720941.32	0.01	-10.2	15.0
Decachlorobiphenyl	599759.74	571345.80	0.01	-4.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2057

Instrument ID: ECD7A Calibration Date: 03/03/10 Time: 1002

Lab File ID: 003B0301 Init. Calib. Date(s): 03/02/10 03/02/10

Heated Purge: (Y/N) N Init. Calib. Times: 1120 1229

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
alpha-BHC	740666.92	731012.89	0.01	-1.3	15.0
beta-BHC	303695.66	286701.19	0.01	-5.6	15.0
delta-BHC	636028.09	648635.81	0.01	2.0	15.0
gamma-BHC (Lindane)	649941.45	658178.07	0.01	1.3	15.0
Heptachlor	469816.98	443278.45	0.01	-5.6	15.0
Aldrin	666966.34	582174.56	0.01	-12.7	15.0
Heptachlor epoxide	557721.12	528127.78	0.01	-5.3	15.0
Endosulfan I	512774.88	499524.57	0.01	-2.6	15.0
Dieldrin	495456.27	480222.56	0.01	-3.1	15.0
4,4'-DDE	483617.45	490568.65	0.01	1.4	15.0
Endrin	367187.11	412170.45	0.01	12.2	15.0
Endosulfan II	460588.58	436949.04	0.01	-5.1	15.0
4,4'-DDD	358119.52	367157.67	0.01	2.5	15.0
Endosulfan sulfate	396367.19	386853.90	0.01	-2.4	15.0
4,4'-DDT	306781.15	338306.74	0.01	10.3	15.0
Methoxychlor	128536.15	137162.95	0.01	6.7	15.0
Endrin ketone	468219.90	441147.42	0.01	-5.8	15.0
Endrin aldehyde	368197.37	333417.42	0.01	-9.4	15.0
gamma-Chlordane	582431.63	568634.53	0.01	-2.4	15.0
alpha-Chlordane	579399.85	495791.05	0.01	-14.4	15.0
4cmx	561402.02	508541.49	0.01	-9.4	15.0
Decachlorobiphenyl	359366.27	335482.62	0.01	-6.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2057

Instrument ID: ECD7A Calibration Date: 03/03/10 Time: 1019

Lab File ID: 004F0401 Init. Calib. Date(s): 02/24/10 02/24/10

Heated Purge: (Y/N) N Init. Calib. Times: 1724 1832

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D
Toxaphene	7334.695	6897.510	0.01	-6.0	15.0
(2)	10430.832	10106.138	0.01	-3.1	15.0
(3)	12172.864	13192.155	0.01	8.4	15.0
(4)	15891.838	15000.108	0.01	-5.6	15.0
(5)	15541.028	15993.948	0.01	2.9	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2057

Instrument ID: ECD7A Calibration Date: 03/03/10 Time: 1019

Lab File ID: 004B0401 Init. Calib. Date(s): 02/24/10 02/24/10

Heated Purge: (Y/N) N Init. Calib. Times: 1724 1832

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D
Toxaphene	9734.966	9292.030	0.01	-4.5	15.0
(2)	4393.318	3968.314	0.01	-9.7	15.0
(3)	4991.011	5063.310	0.01	1.4	15.0
(4)	5740.025	4881.922	0.01	-14.9	15.0
(5)	7715.898	7204.078	0.01	-6.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2057

Instrument ID: ECD7A Calibration Date: 03/03/10 Time: 1435

Lab File ID: 019F1901 Init. Calib. Date(s): 03/02/10 03/02/10

Heated Purge: (Y/N) N Init. Calib. Times: 1120 1229

GC Column: CLP-1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF100	MIN RRF	%D	MAX %D	
alpha-BHC	1126763.7	1195799.6	0.01	6.1	15.0	
beta-BHC	461642.18	458138.58	0.01	-0.8	15.0	
delta-BHC	987162.23	1077207.5	0.01	9.1	15.0	
gamma-BHC (Lindane)	1012218.4	1098349.9	0.01	8.5	15.0	
Heptachlor	785871.63	827277.62	0.01	5.3	15.0	
Aldrin	977660.59	944328.92	0.01	-3.4	15.0	
Heptachlor epoxide	869362.40	874622.05	0.01	0.6	15.0	
Endosulfan I	774780.82	823490.52	0.01	6.3	15.0	
Dieldrin	807900.18	831676.51	0.01	2.9	15.0	
4,4'-DDE	799070.59	817903.00	0.01	2.4	15.0	
Endrin	617152.03	715861.35	0.01	16.0	15.0	<-
Endosulfan II	708457.57	728250.37	0.01	2.8	15.0	
4,4'-DDD	616928.70	674534.73	0.01	9.3	15.0	
Endosulfan sulfate	607056.81	638685.73	0.01	5.2	15.0	
4,4'-DDT	565736.33	656494.16	0.01	16.0	15.0	<-
Methoxychlor	241541.47	268894.31	0.01	11.3	15.0	
Endrin ketone	776678.54	785551.00	0.01	1.1	15.0	
Endrin aldehyde	595126.05	589325.20	0.01	-1.0	15.0	
gamma-Chlordane	876190.78	925282.71	0.01	5.6	15.0	
alpha-Chlordane	872531.34	812373.14	0.01	-6.9	15.0	
4cmx	802843.84	771354.56	0.01	-3.9	15.0	
Decachlorobiphenyl	599759.74	578081.84	0.01	-3.6	15.0	

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: Case No.: N/A SAS No.: N/A SDG No.: 10-2057

Instrument ID: ECD7A Calibration Date: 03/03/10 Time: 1435

Lab File ID: 019B1901 Init. Calib. Date(s): 03/02/10 03/02/10

Heated Purge: (Y/N) N Init. Calib. Times: 1120 1229

GC Column: CLP-2 ID: 0.25 (mm)

COMPOUND	RRF	RRF100	MIN RRF	%D	MAX %D	
alpha-BHC	740666.92	786223.48	0.01	6.2	15.0	
beta-BHC	303695.66	307916.88	0.01	1.4	15.0	
delta-BHC	636028.09	696036.65	0.01	9.4	15.0	
gamma-BHC (Lindane)	649941.45	704854.06	0.01	8.4	15.0	
Heptachlor	469816.98	474082.49	0.01	0.9	15.0	
Aldrin	666966.34	622555.72	0.01	-6.6	15.0	
Heptachlor epoxide	557721.12	561542.28	0.01	0.7	15.0	
Endosulfan I	512774.88	531638.76	0.01	3.7	15.0	
Dieldrin	495456.27	508294.58	0.01	2.6	15.0	
4,4'-DDE	483617.45	526092.61	0.01	8.8	15.0	
Endrin	367187.11	423382.70	0.01	15.3	15.0	<-
Endosulfan II	460588.58	463971.48	0.01	0.7	15.0	
4,4'-DDD	358119.52	390591.11	0.01	9.1	15.0	
Endosulfan sulfate	396367.19	408734.06	0.01	3.1	15.0	
4,4'-DDT	306781.15	349493.28	0.01	13.9	15.0	
Methoxychlor	128536.15	141471.08	0.01	10.1	15.0	
Endrin ketone	468219.90	467725.67	0.01	-0.1	15.0	
Endrin aldehyde	368197.37	357943.08	0.01	-2.8	15.0	
gamma-Chlordane	582431.63	599003.49	0.01	2.8	15.0	
alpha-Chlordane	579399.85	526131.24	0.01	-9.2	15.0	
4cmx	561402.02	546926.58	0.01	-2.6	15.0	
Decachlorobiphenyl	359366.27	341947.56	0.01	-4.8	15.0	

FORM VII PEST

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/030310.b/002f0201.d
Lab Smp Id: WPE100211-99DG Client Smp ID: PEM01
Inj Date : 03-MAR-2010 09:45
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100211-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 03-Mar-2010 11:06 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.209	4.210	-0.001	105880759	108.300	108	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.061	5.061	0.000	542153	0.67848	0.678	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.598	5.598	0.000	75924587	123.024	123	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.651	5.651	0.000	808243	1.31011	1.31	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
6.253	6.251	0.002	1136461	1.90961	1.91	80.00- 120.00	100.00(M)
26 4,4'-DDT					CAS #: 50-29-3		
5.934	5.934	0.000	62703116	110.835	111	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.011	7.010	0.001	1579567	2.03375	2.03	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.876	2.877	-0.001	144026177	179.395	179	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.095	8.096	-0.001	113597138	189.404	189	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/030310.b/002f0201.d

Date : 03-MAR-2010 09:45

Client ID: PEM01

Sample Info: IWPE100211-99DG

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

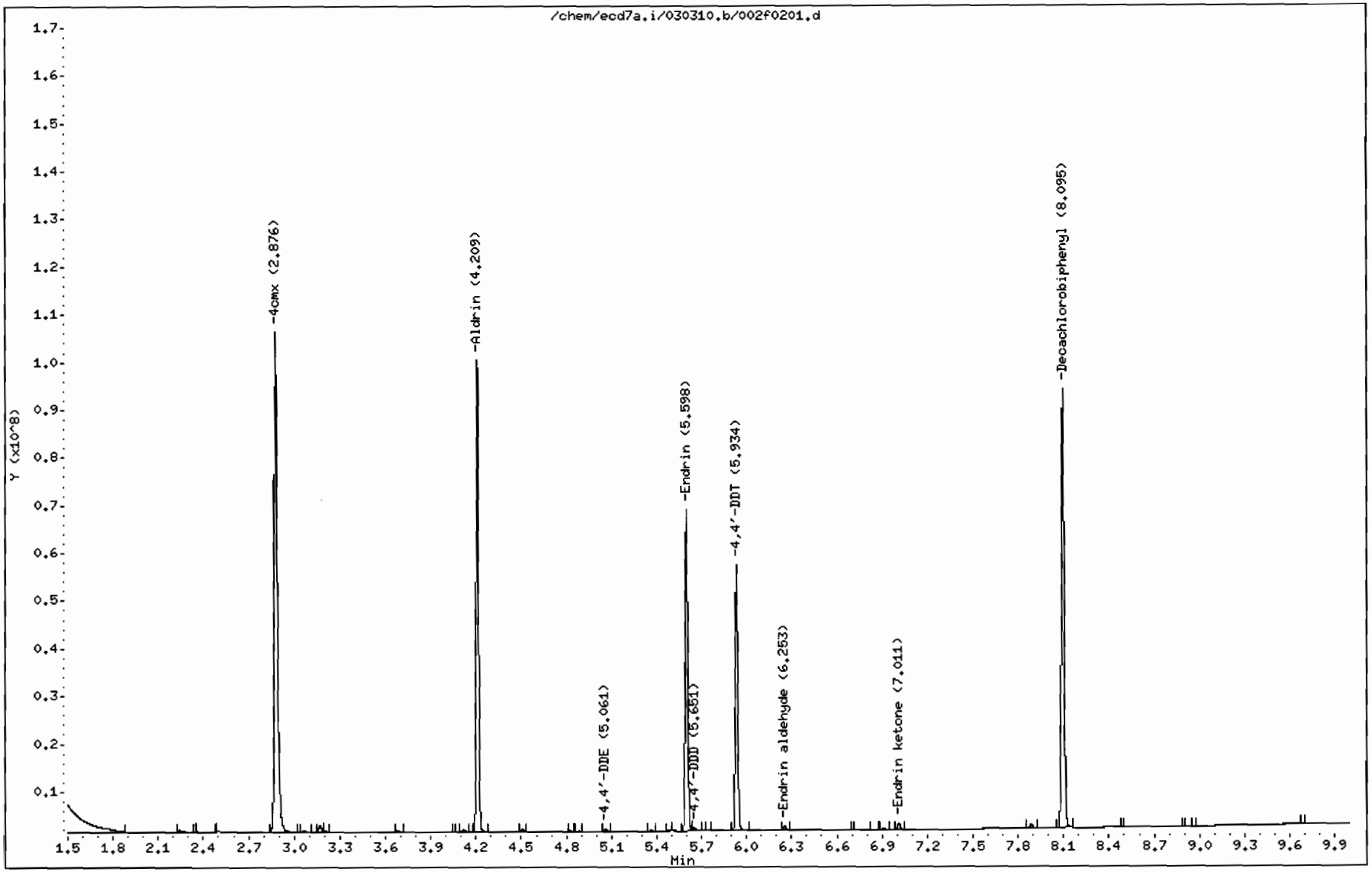

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/002b0201.d
Lab Smp Id: WPE100211-99DG Client Smp ID: PEM01
Inj Date : 03-MAR-2010 09:45
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100211-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 03-Mar-2010 11:06 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 2 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.816	4.817	-0.001	69446340	104.123	104	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.882	5.883	-0.001	363768	0.75218	0.752	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
6.417	6.419	-0.002	44150358	120.239	120	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.500	6.501	-0.001	579053	1.61693	1.62	80.00- 120.00	100.00(M)
27 Endrin aldehyde					CAS #: 7421-93-4		
7.004	7.004	0.000	754310	2.04866	2.05	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.846	6.847	-0.001	32580938	106.203	106	80.00- 120.00	100.00(M)
31 Endrin ketone					CAS #: 53494-70-5		
7.917	7.919	-0.002	1022573	2.18396	2.18	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.195	3.195	0.000	101654007	181.072	181	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.291	9.292	-0.001	66917983	186.211	186	80.00- 120.00	100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/030310.b/002b0201.d

Date : 03-MAR-2010 09:45

Client ID: PEM01

Sample Info: IWPE100211-99DG

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

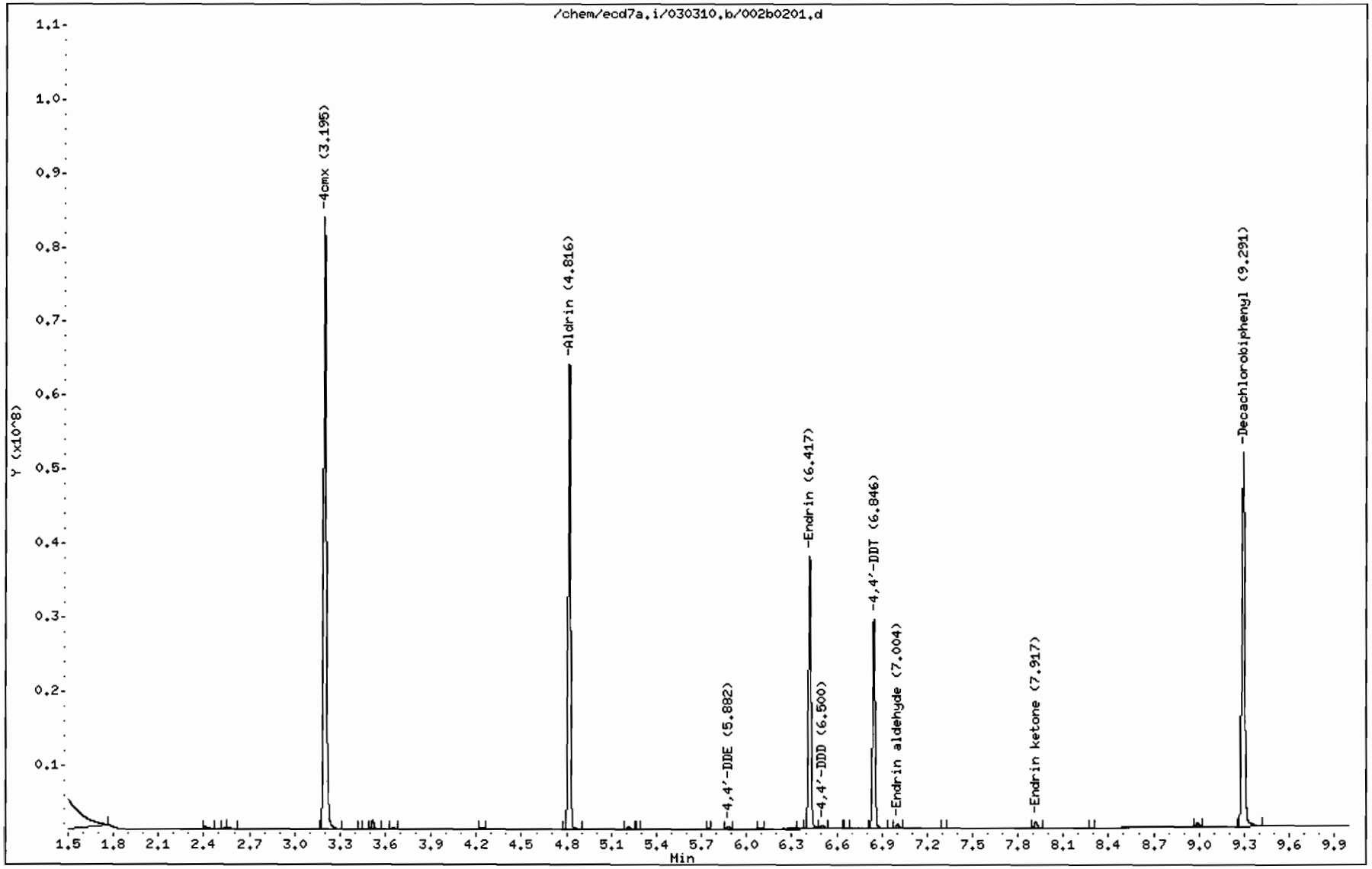

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CLP-1

Data file : /chem/ecd7a.i/030310.b/008f0801.d
Lab Smp Id: WPE100211-99DG Client Smp ID: PEM02
Inj Date : 03-MAR-2010 11:27
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100211-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 03-Mar-2010 11:06 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 8 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.210	4.210	0.000	107861888	110.327	110	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.063	5.061	0.002	505450	0.63255	0.632	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
5.599	5.598	0.001	75980884	123.115	123	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.653	5.651	0.002	1424578	2.30915	2.31	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.253	6.251	0.002	1112803	1.86986	1.87	80.00- 120.00	100.00(M)
26 4,4'-DDT					CAS #: 50-29-3		
5.935	5.934	0.001	62387569	110.277	110	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.011	7.010	0.001	1969742	2.53611	2.54	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.878	2.877	0.001	145910653	181.742	182	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.095	8.096	-0.001	113440724	189.144	189	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/030310.b/008f0801.d
Date : 03-MAR-2010 11:27
Client ID: PEM02
Sample Info: IWPE100211-99DG
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

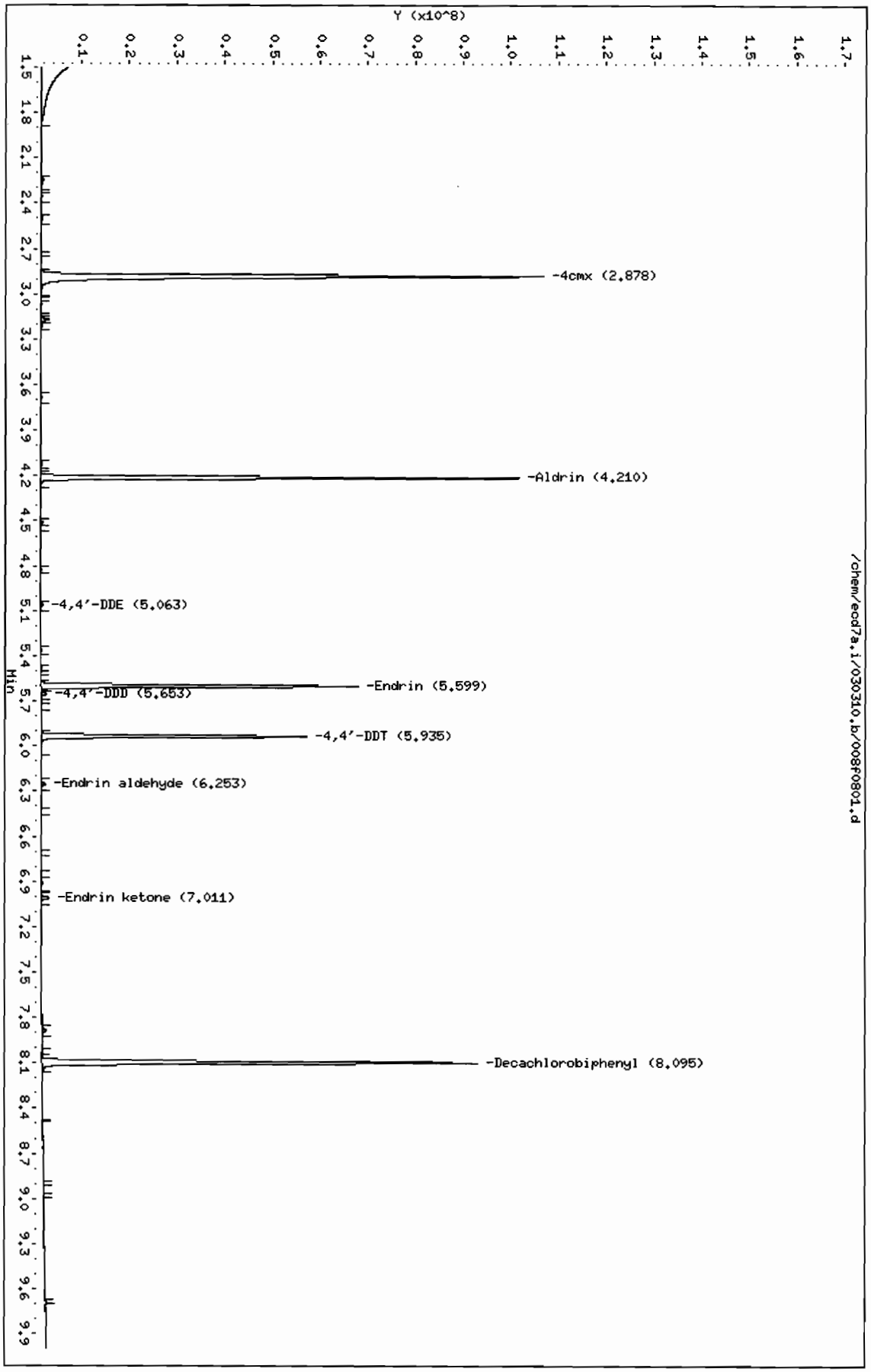

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/008b0801.d
Lab Smp Id: WPE100211-99DG Client Smp ID: PEM02
Inj Date : 03-MAR-2010 11:27
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100211-99DG
Misc Info :
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 03-Mar-2010 11:06 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 8 QC Sample: PEM
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: pem.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
11 Aldrin					CAS #: 309-00-2		
4.818	4.817	0.001	71114369	106.624	107	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.884	5.883	0.001	354866	0.73377	0.734	80.00- 120.00	100.00(M)
22 Endrin					CAS #: 72-20-8		
6.419	6.419	0.000	44644529	121.585	122	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.502	6.501	0.001	1081845	3.02090	3.02	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.005	7.004	0.001	740129	2.01014	2.01	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.847	6.847	0.000	32643173	106.405	106	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.920	7.919	0.001	1257140	2.68493	2.68	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.195	0.002	103191554	183.810	184	80.00- 120.00	100.00(R)
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.292	9.292	0.000	67341716	187.390	187	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/030310.b/008b0801.d

Date : 03-MAR-2010 11:27

Client ID: PEM02

Sample Info: IWPE100211-99DG

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

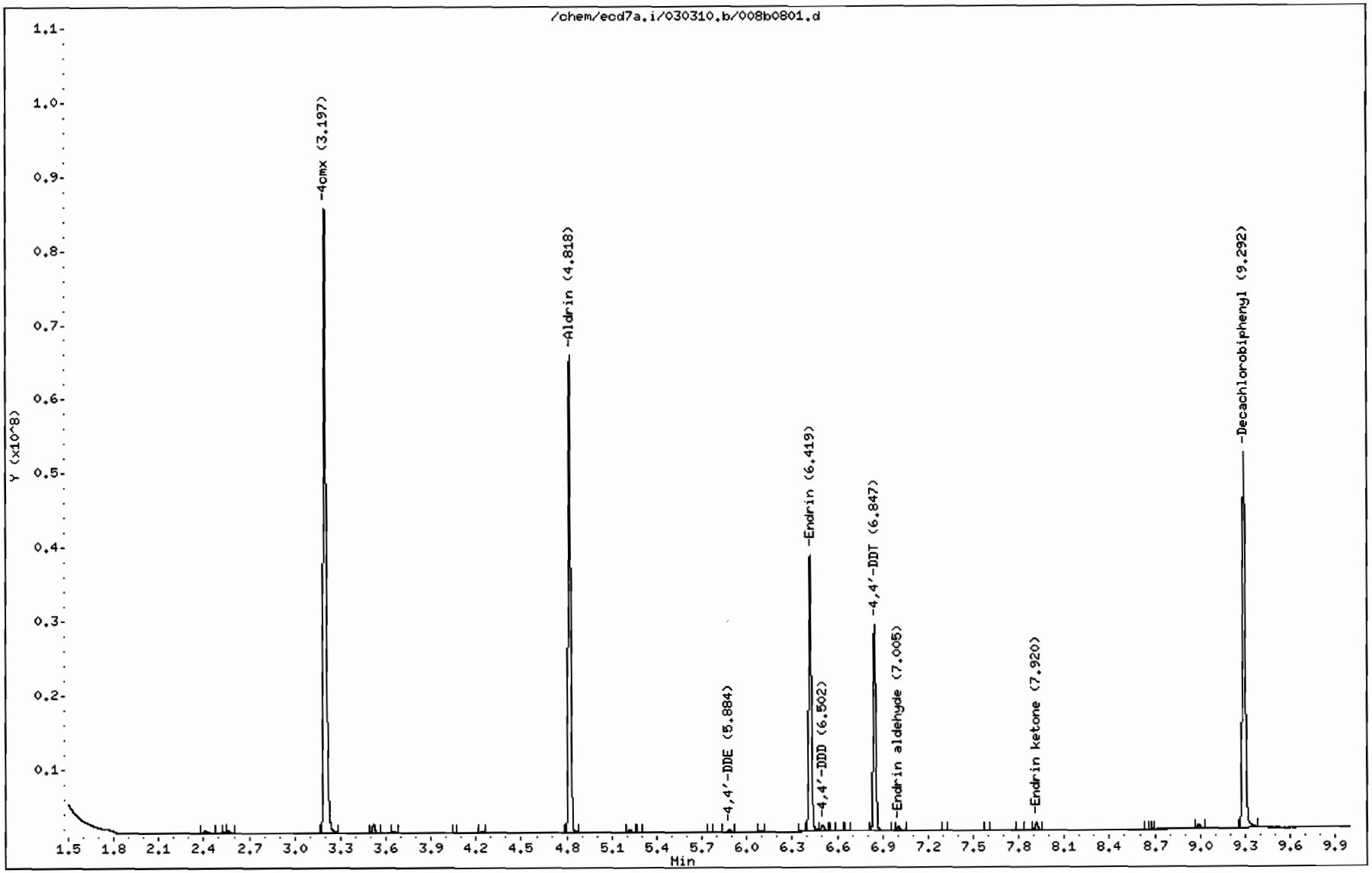

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/030310.b/003f0301.d
Lab Smp Id: WPE100211-10AB Client Smp ID: INDAB01
Inj Date : 03-MAR-2010 10:02
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100211-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 03-Mar-2010 11:06 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.297	3.297	0.000	112322574	100.000	99.7	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.549	3.549	0.000	103399361	100.000	102	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.614	3.614	0.000	42999535	100.000	93.1	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.945	3.945	0.000	78450523	100.000	99.8	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.768	3.768	0.000	101441629	100.000	103	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.210	4.210	0.000	88628932	100.000	90.6	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.756	4.756	0.000	83395790	100.000	95.9	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.873	4.873	0.000	88340118	100.000	101	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.998	4.998	0.000	77816841	100.000	89.2	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.133	5.133	0.000	78173351	100.000	101	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.061	5.061	0.000	154488466	200.000	193	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.365	5.365	0.000	158601108	200.000	196	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.598	5.598	0.000	141074349	200.000	228	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.651	5.651	0.000	127458383	200.000	207	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.823	5.823	0.000	139337226	200.000	197	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.251	6.251	0.000	111841574	200.000	188	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.934	5.934	0.000	128518322	200.000	227	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.706	6.706	0.000	122378741	200.000	202	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.433	6.433	0.000	268538178	1000.00	1110	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.010	7.010	0.000	150459316	200.000	194	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.877	2.877	0.000	144188264	200.000	180	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.096	8.096	0.000	114269159	200.000	190	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/030310.b/003f0301.d
Date : 03-MAR-2010 10:02
Client ID: INDAB01
Sample Info: IWPE100211-10AB
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

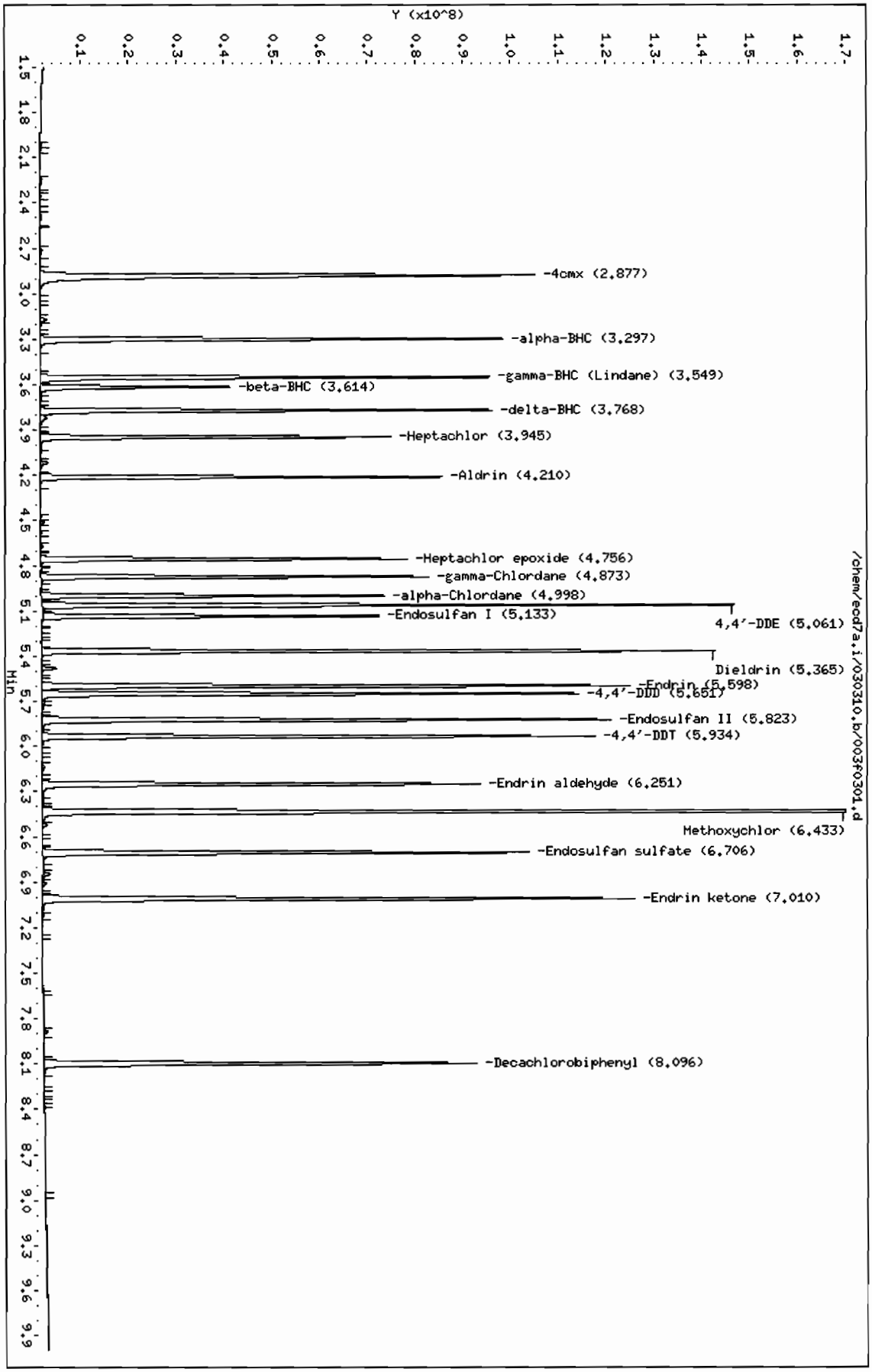

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/003b0301.d
Lab Smp Id: WPE100211-10AB Client Smp ID: INDAB01
Inj Date : 03-MAR-2010 10:02
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100211-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 03-Mar-2010 11:06 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.722	3.722	0.000	73101288	100.000	98.7	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.051	4.051	0.000	65817807	100.000	101	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.115	4.115	0.000	28670119	100.000	94.4	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.487	4.487	0.000	44327844	100.000	94.4	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.404	4.404	0.000	64863580	100.000	102	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.817	4.817	0.000	58217455	100.000	87.3	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.386	5.386	0.000	52812778	100.000	94.7	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.581	5.581	0.000	56863452	100.000	97.6	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.731	5.731	0.000	49579104	100.000	85.6	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.802	5.802	0.000	49952456	100.000	97.4	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.883	5.883	0.000	98113730	200.000	203	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.089	6.089	0.000	96044511	200.000	194	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.419	6.419	0.000	82434089	200.000	224	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.501	6.501	0.000	73431533	200.000	205	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.643	6.643	0.000	87389807	200.000	190	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.004	7.004	0.000	66683483	200.000	181	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.847	6.847	0.000	67661347	200.000	220	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.310	7.310	0.000	77370779	200.000	195	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.591	7.591	0.000	137162952	1000.00	1070	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.919	7.919	0.000	88229484	200.000	188	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.195	3.195	0.000	101708299	200.000	181	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.292	9.292	0.000	67096525	200.000	187	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/030310.b/003b0301.d
Date : 03-MAR-2010 10:02
Client ID: INDAB01
Sample Info: IWPE100211-10AB

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

Column phase: CLP-2

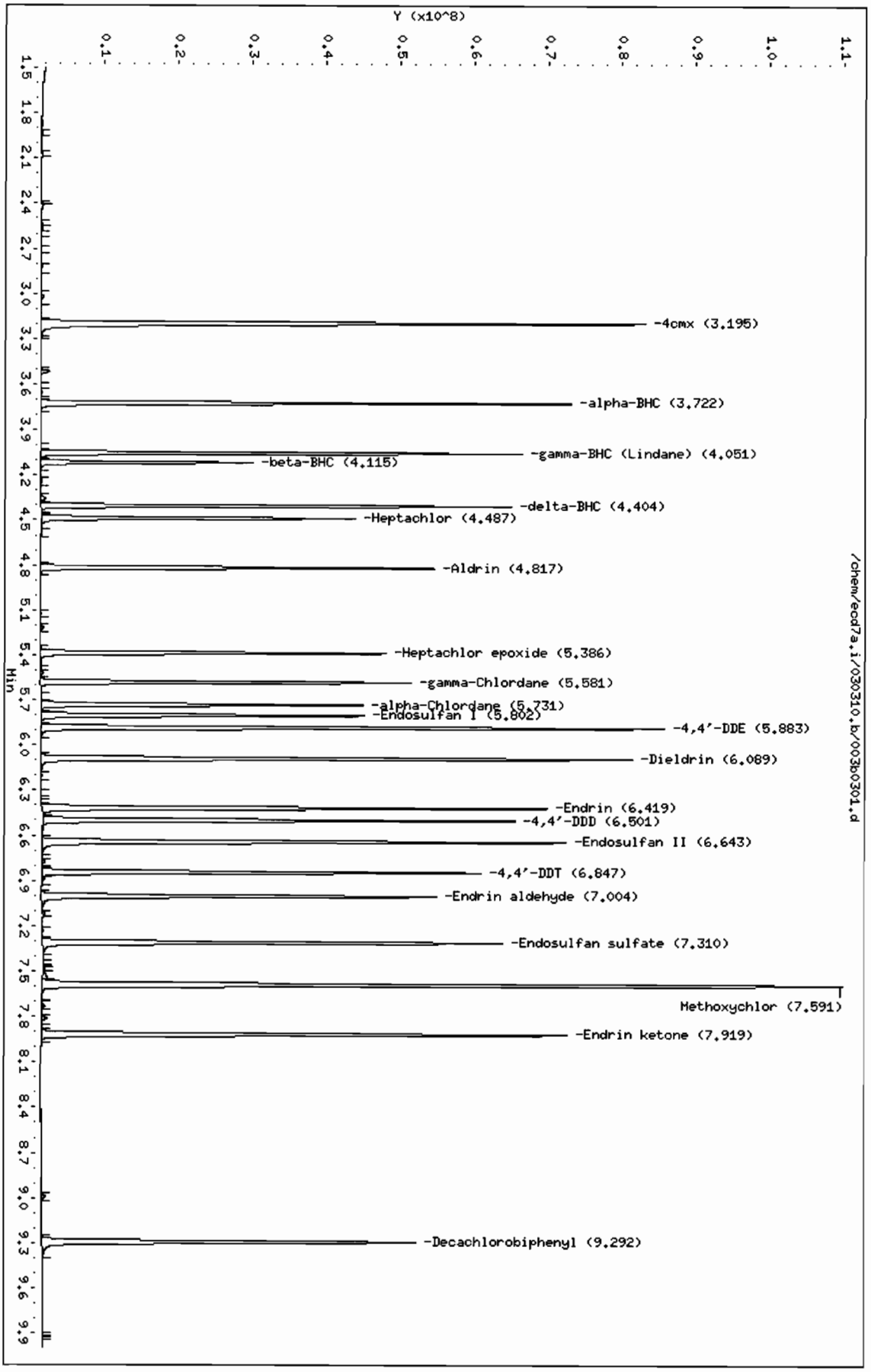

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GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/030310.b/004f0401.d
Lab Smp Id: WPE100125-52TX Client Smp ID: TOXAPH01
Inj Date : 03-MAR-2010 10:19
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100125-52TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 03-Mar-2010 11:06 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
5.265	5.265	0.000	13795020	2000.00	1880	80.00- 120.00	100.00(M)
5.370	5.370	0.000	20212276	2000.00	1940	126.52- 166.52	146.52
5.458	5.458	0.000	26384310	2000.00	2170	171.26- 211.26	191.26
5.516	5.516	0.000	30000215	2000.00	1890	197.47- 237.47	217.47
5.619	5.619	0.000	31987897	2000.00	2060	211.88- 251.88	231.88

Average of Peak Amounts = 1.99e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/030310.b/004f0401.d

Date : 03-MAR-2010 10:19

Client ID: TOXAPH01

Sample Info: IWPE100125-52TX

Column phase: CLP-1

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

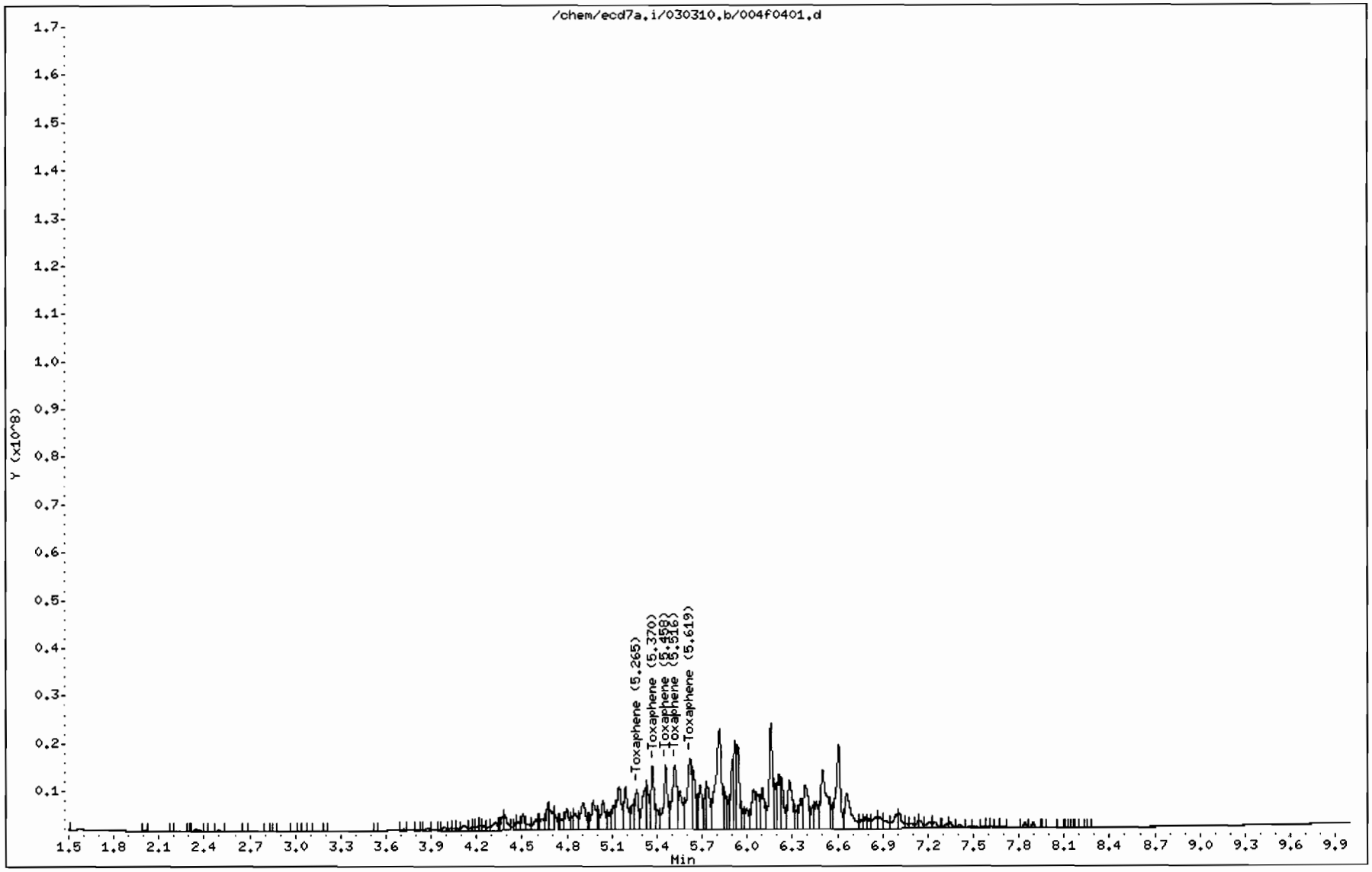

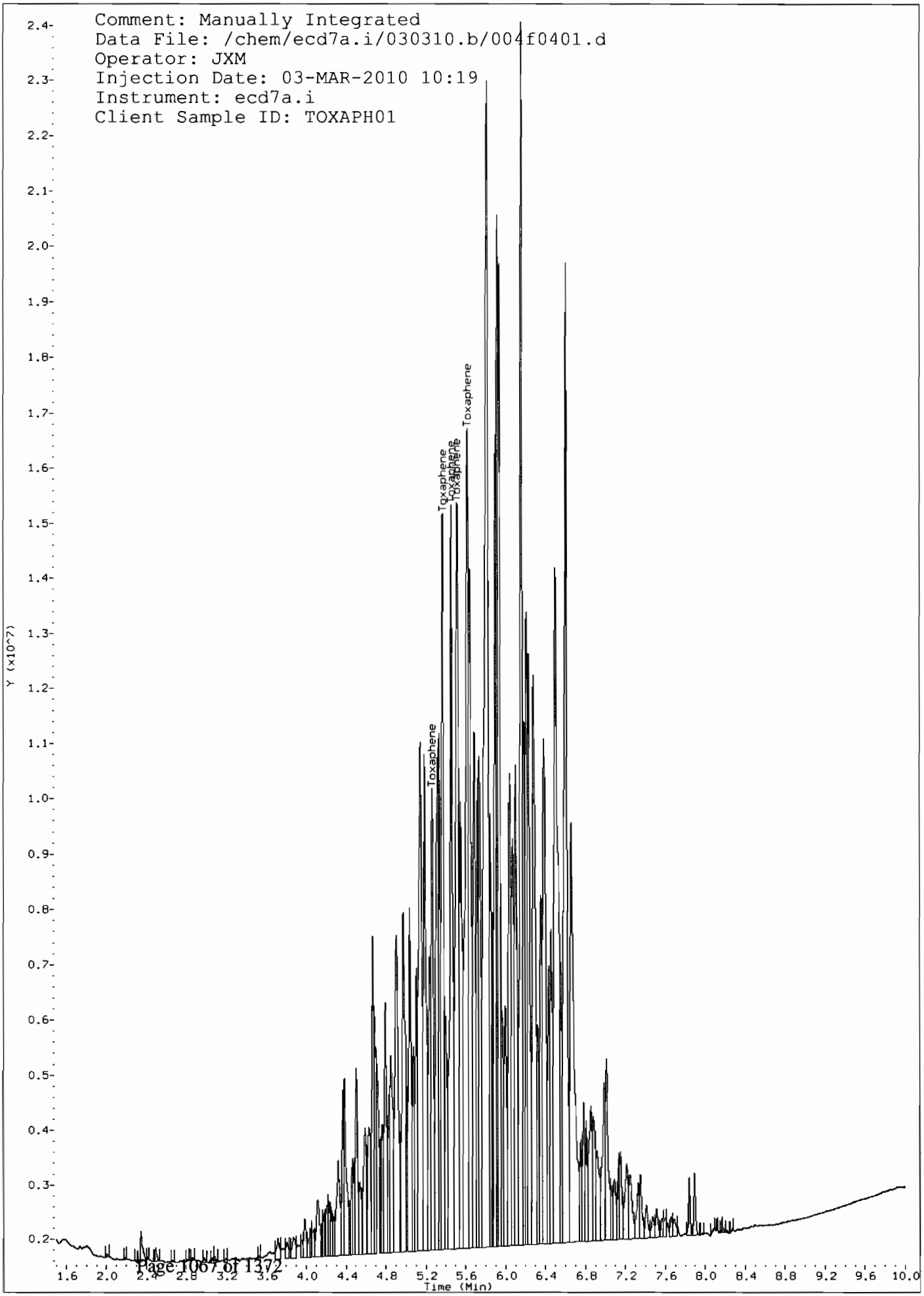
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Operator: JXM
Injection Date: 03-MAR-2010 10:19
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

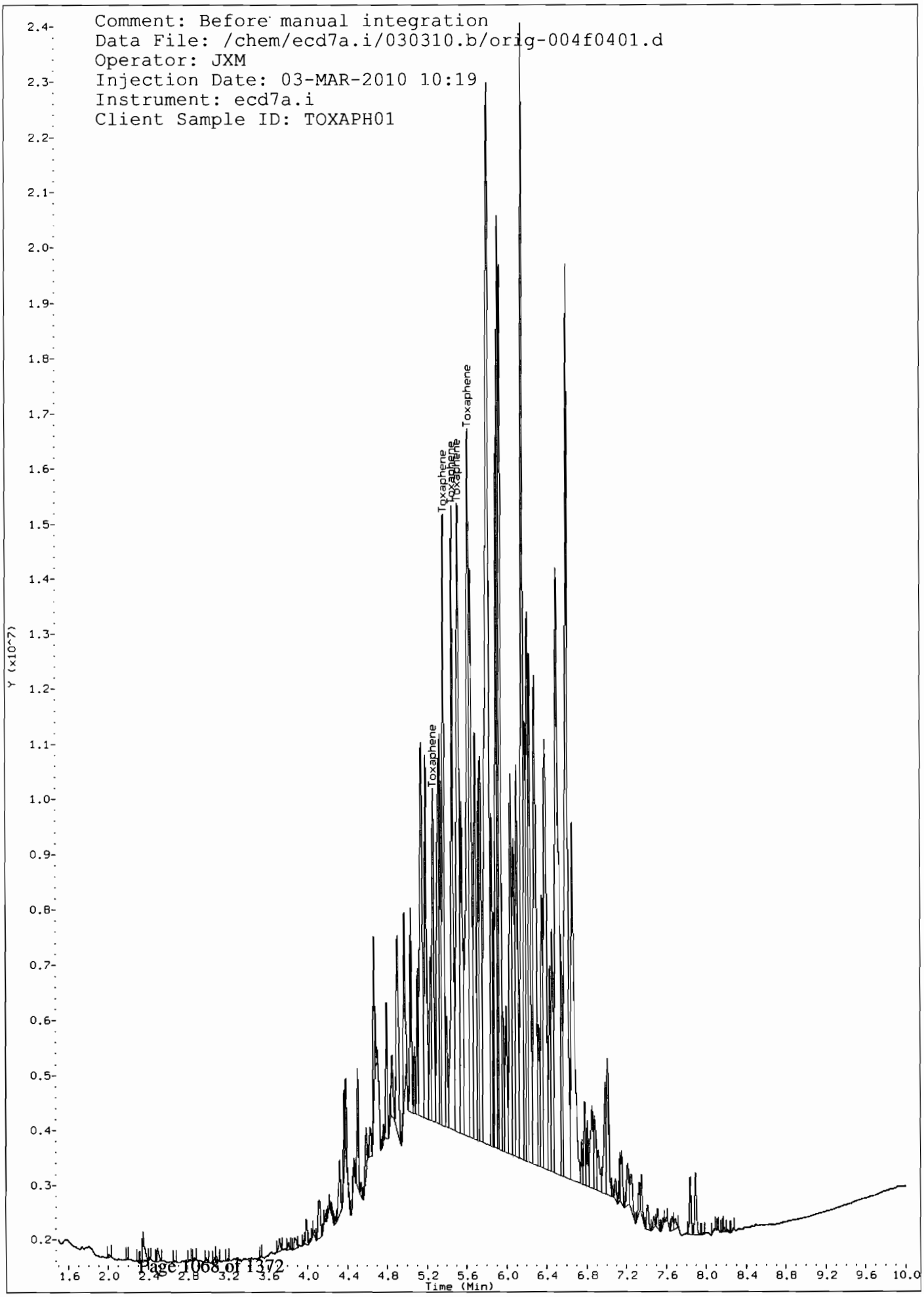
Comment: Before manual integration
Data File: /chem/ecd7a.i/030310.b/orig-004f0401.d
Operator: JXM
Injection Date: 03-MAR-2010 10:19
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/004b0401.d
Lab Smp Id: WPE100125-52TX Client Smp ID: TOXAPH01
Inj Date : 03-MAR-2010 10:19
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100125-52TX
Misc Info :
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 03-Mar-2010 11:06 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: tox.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
23 Toxaphene					CAS #: 8001-35-2		
6.053	6.053	0.000	18584061	2000.00	1910	80.00- 120.00	100.00(M)
6.121	6.121	0.000	7936628	2000.00	1810	22.71- 62.71	42.71
6.184	6.184	0.000	10126619	2000.00	2030	34.49- 74.49	54.49
6.248	6.248	0.000	9763844	2000.00	1700	32.54- 72.54	52.54
6.380	6.380	0.000	14408156	2000.00	1870	57.53- 97.53	77.53

Average of Peak Amounts = 1.86e+03

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd7a.i/030310.b/004b0401.d

Page 1

Date : 03-MAR-2010 10:19

Client ID: TOXAPH01

Instrument: ecd7a.i

Sample Info: IWPE100125-52TX

Operator: JXM

Column phase: CLP-2

Column diameter: 0.25

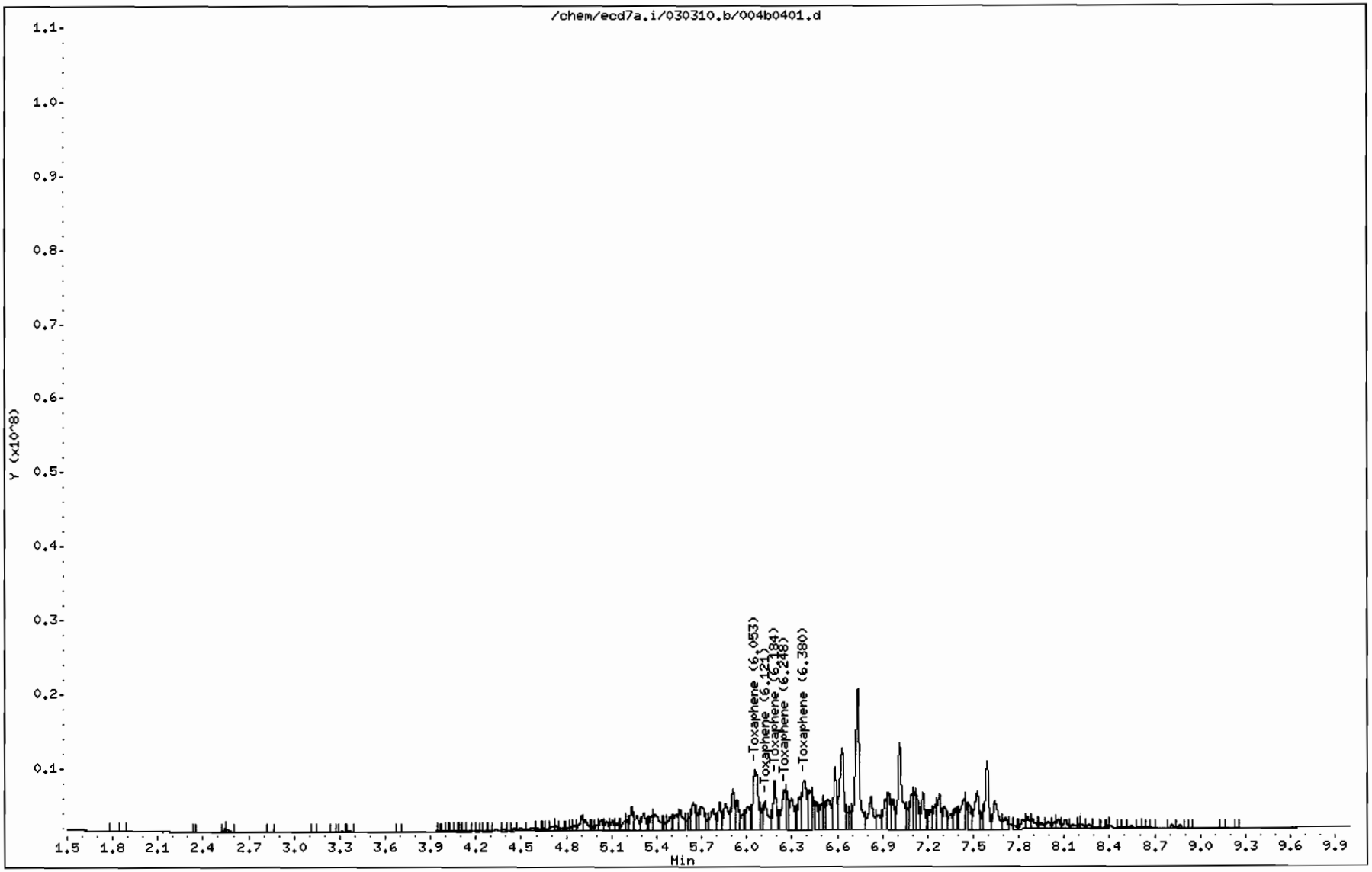

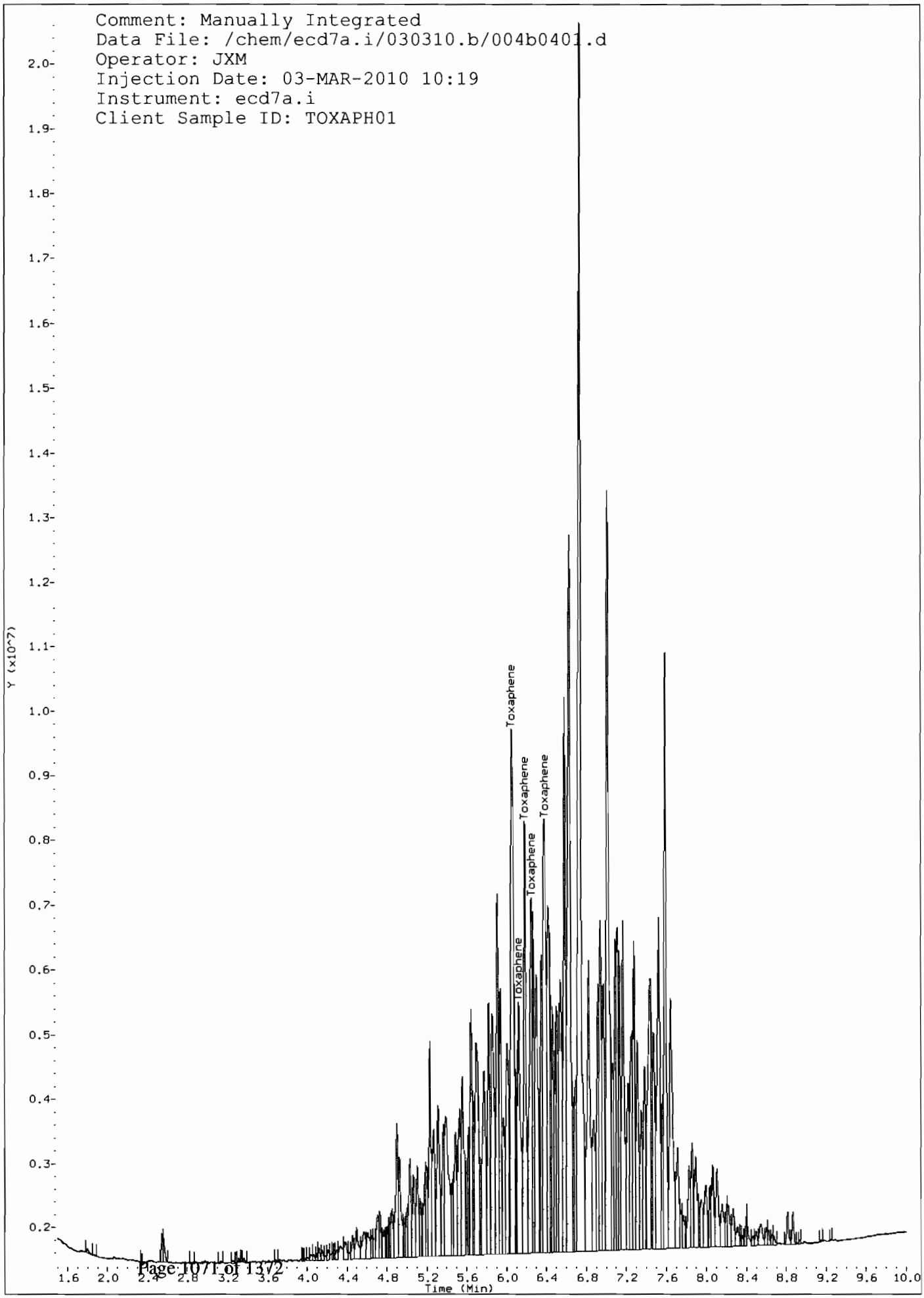
Comment: Manually Integrated
Data File: /chem/ecd7a.i/030310.b/004b0401.d
Operator: JXM
Injection Date: 03-MAR-2010 10:19
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

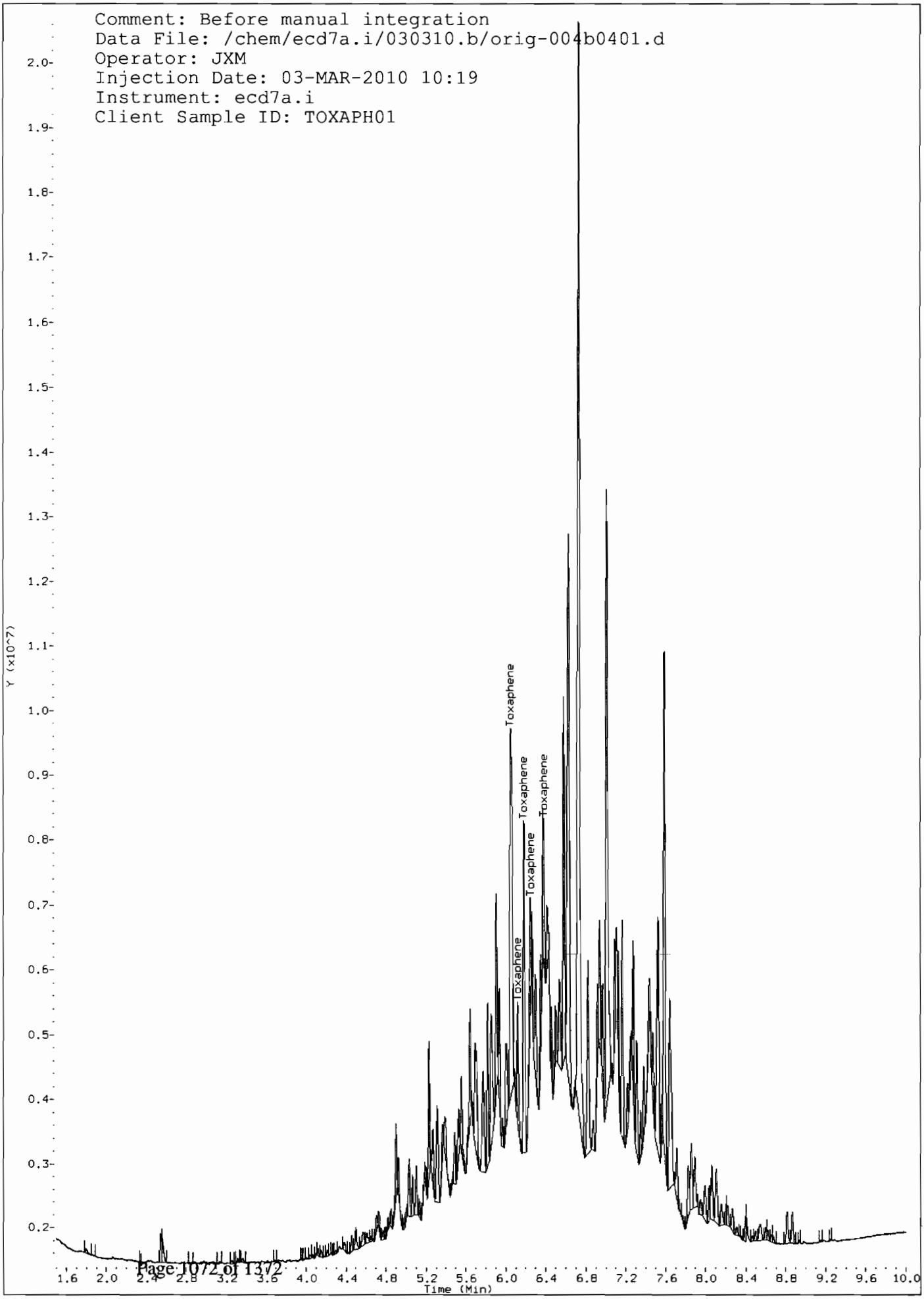
Comment: Before manual integration
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Operator: JXM
Injection Date: 03-MAR-2010 10:19
Instrument: ecd7a.i
Client Sample ID: TOXAPH01
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^7)
Time (Min)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/030310.b/019f1901.d
Lab Smp Id: WPE100211-10AB Client Smp ID: INDAB02
Inj Date : 03-MAR-2010 14:35
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100211-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 03-Mar-2010 14:50 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.296	3.297	-0.001	119579963	100.000	106	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.548	3.549	-0.001	109834987	100.000	108	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.613	3.614	-0.001	45813857	100.000	99.2	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.943	3.945	-0.002	82727761	100.000	105	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.767	3.768	-0.001	107720746	100.000	109	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.208	4.210	-0.002	94432891	100.000	96.6	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.755	4.756	-0.001	87462204	100.000	101	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.872	4.873	-0.001	92528270	100.000	106	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.997	4.998	-0.001	81237314	100.000	93.1	80.00- 120.00	100.00

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.132	5.133	-0.001	82349051	100.000	106	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.059	5.061	-0.002	163580600	200.000	205	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.363	5.365	-0.002	166335302	200.000	206	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.596	5.598	-0.002	143172271	200.000	232	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.649	5.651	-0.002	134906945	200.000	219	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.822	5.823	-0.001	145650073	200.000	206	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.249	6.251	-0.002	117865040	200.000	198	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.932	5.934	-0.002	131298831	200.000	232	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.705	6.706	-0.001	127737145	200.000	210	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.432	6.433	-0.001	268894313	1000.00	1110	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.008	7.010	-0.002	157110199	200.000	202	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
2.876	2.877	-0.001	154270913	200.000	192	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.095	8.096	-0.001	115616368	200.000	193	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/030310.b/019f1901.d
Date : 03-MAR-2010 14:35
Client ID: INDAB02
Sample Info: IWPE100211-10AB
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

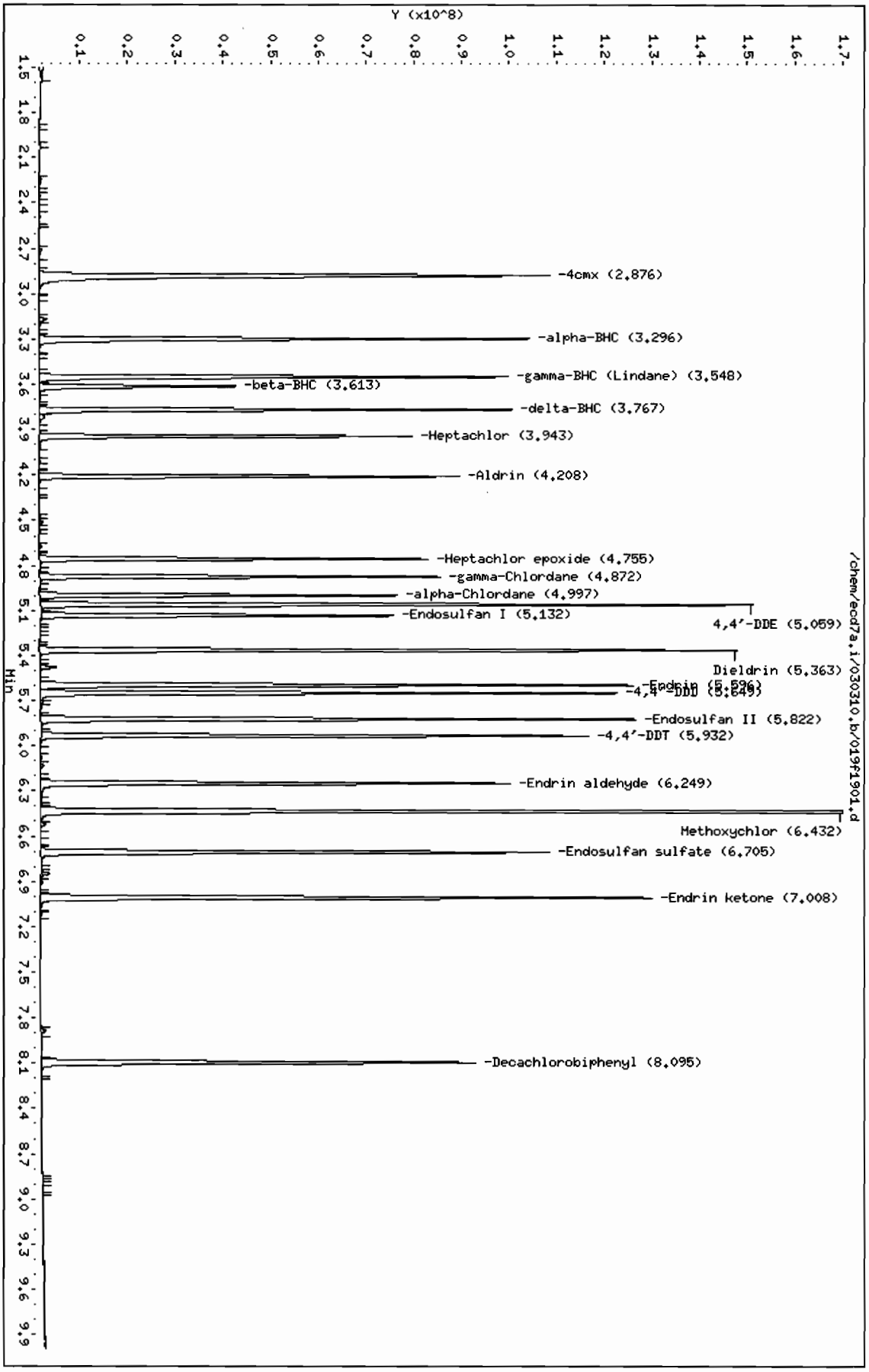

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/019b1901.d
Lab Smp Id: WPE100211-10AB Client Smp ID: INDAB02
Inj Date : 03-MAR-2010 14:35
Operator : JXM Inst ID: ecd7a.i
Smp Info : |WPE100211-10AB
Misc Info :
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 03-Mar-2010 14:50 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 19 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: indab.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 alpha-BHC					CAS #: 319-84-6		
3.721	3.722	-0.001	78622347	100.000	106	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.050	4.051	-0.001	70485405	100.000	108	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.114	4.115	-0.001	30791687	100.000	101	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.486	4.487	-0.001	47408249	100.000	101	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.403	4.404	-0.001	69603664	100.000	109	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.816	4.817	-0.001	62255572	100.000	93.3	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.384	5.386	-0.002	56154227	100.000	101	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.581	5.581	0.000	59900349	100.000	103	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.731	5.731	0.000	52613124	100.000	90.8	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
16 Endosulfan I					CAS #: 959-98-8		
5.801	5.802	-0.001	53163875	100.000	104	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.881	5.883	-0.002	105218521	200.000	218	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.088	6.089	-0.001	101658916	200.000	205	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.418	6.419	-0.001	84676539	200.000	231	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.500	6.501	-0.001	78118221	200.000	218	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.643	6.643	0.000	92794296	200.000	201	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.003	7.004	-0.001	71588616	200.000	194	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.846	6.847	-0.001	69898656	200.000	228	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.309	7.310	-0.001	81746811	200.000	206	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.590	7.591	-0.001	141471083	1000.00	1100	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.918	7.919	-0.001	93545134	200.000	200	80.00- 120.00	100.00
$ 1 4cmx					CAS #: 877-09-8		
3.195	3.195	0.000	109385317	200.000	195	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.292	9.292	0.000	68389512	200.000	190	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/030310.b/019b1901.d
Date : 03-MAR-2010 14:35
Client ID: INDAB02
Sample Info: WPE100211-10AB
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

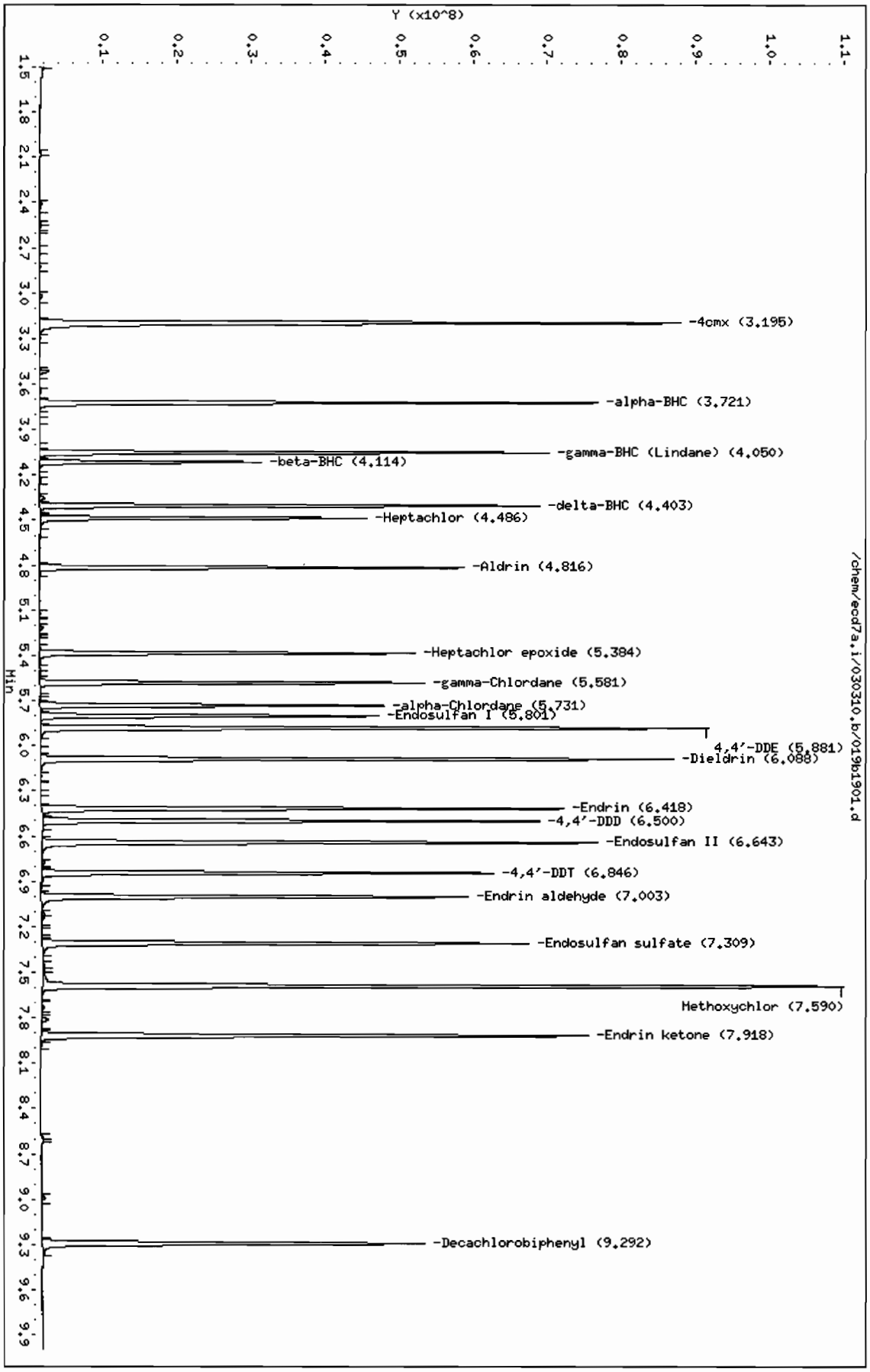

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8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2057

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 02/24/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.88 DCB: 8.10

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/24/10	1359	2.88	8.10
02	PEM01	WPE100211-99	02/24/10	1416	2.87	8.10
03	ZZZZZ	ZZZZZ	02/24/10	1433	2.88	8.10
04	ZZZZZ	ZZZZZ	02/24/10	1450		
05	GAPA01	WPE100114-05	02/24/10	1507	2.88	8.10
06	ZZZZZ	ZZZZZ	02/24/10	1524	2.88	8.10
07	INDAB01	WPE100224-01	02/24/10	1541	2.88	8.10
08	INDAB02	WPE100224-02	02/24/10	1558	2.88	8.10
09	INDAB03	WPE100224-03	02/24/10	1615	2.88	8.10
10	INDAB04	WPE100224-04	02/24/10	1632	2.88	8.10
11	INDAB05	IPE100204-02	02/24/10	1649	2.88	8.10
12	INDAB01	WPE100211-10	02/24/10	1706	2.88	8.10
13	TOXAPH01	WPE100224-11	02/24/10	1724		
14	TOXAPH02	WPE100224-12	02/24/10	1741		
15	TOXAPH03	WPE100224-13	02/24/10	1758		
16	TOXAPH04	WPE100224-14	02/24/10	1815		
17	TOXAPH05	IPE100204-40	02/24/10	1832		
18	TOXAPH01	WPE100125-52	02/24/10	1849		
19	CHLOR01	WPE100224-21	02/24/10	1906	2.87	8.10
20	CHLOR02	WPE100224-22	02/24/10	1923	2.87	8.10
21	CHLOR03	WPE100224-23	02/24/10	1940	2.87	8.10
22	CHLOR04	WPE100224-24	02/24/10	1957	2.88	8.10
23	CHLOR05	IPE100116-06	02/24/10	2014	2.88	8.10
24	CHLOR01	WPE100116-00	02/24/10	2031	2.88	8.10
25	PIBLK02	WAR100219-99	02/24/10	2048	2.88	8.10
26	PEM02	WPE100211-99	02/24/10	2105	2.87	8.10
27	ZZZZZ	ZZZZZ	02/24/10	2122	2.88	8.10
28	ZZZZZ	ZZZZZ	02/24/10	2139	2.88	8.10
29	ZZZZZ	ZZZZZ	02/24/10	2156	2.88	8.10
30	ZZZZZ	ZZZZZ	02/24/10	2214	2.88	8.10
31	PIBLK03	WAR100219-99	02/24/10	2231	2.88	8.10
32	INDAB02	WPE100211-10	02/24/10	2248	2.88	8.10

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2057

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 02/24/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.19 DCB: 9.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/24/10	1359	3.20	9.29
02	PEM01	WPE100211-99	02/24/10	1416	3.19	9.30
03	ZZZZZ	ZZZZZ	02/24/10	1433	3.19	9.30
04	ZZZZZ	ZZZZZ	02/24/10	1450		
05	GAPA01	WPE100114-05	02/24/10	1507	3.19	9.30
06	ZZZZZ	ZZZZZ	02/24/10	1524	3.19	9.30
07	INDAB01	WPE100224-01	02/24/10	1541	3.19	9.30
08	INDAB02	WPE100224-02	02/24/10	1558	3.19	9.30
09	INDAB03	WPE100224-03	02/24/10	1615	3.19	9.30
10	INDAB04	WPE100224-04	02/24/10	1632	3.19	9.30
11	INDAB05	IPE100204-02	02/24/10	1649	3.19	9.30
12	INDAB01	WPE100211-10	02/24/10	1706	3.19	9.30
13	TOXAPH01	WPE100224-11	02/24/10	1724		
14	TOXAPH02	WPE100224-12	02/24/10	1741		
15	TOXAPH03	WPE100224-13	02/24/10	1758		
16	TOXAPH04	WPE100224-14	02/24/10	1815		
17	TOXAPH05	IPE100204-40	02/24/10	1832		
18	TOXAPH01	WPE100125-52	02/24/10	1849		
19	CHLOR01	WPE100224-21	02/24/10	1906	3.19	9.30
20	CHLOR02	WPE100224-22	02/24/10	1923	3.19	9.30
21	CHLOR03	WPE100224-23	02/24/10	1940	3.19	9.30
22	CHLOR04	WPE100224-24	02/24/10	1957	3.19	9.30
23	CHLOR05	IPE100116-06	02/24/10	2014	3.19	9.30
24	CHLOR01	WPE100116-00	02/24/10	2031	3.19	9.30
25	PIBLK02	WAR100219-99	02/24/10	2048	3.19	9.30
26	PEM02	WPE100211-99	02/24/10	2105	3.19	9.30
27	ZZZZZ	ZZZZZ	02/24/10	2122	3.20	9.30
28	ZZZZZ	ZZZZZ	02/24/10	2139	3.20	9.30
29	ZZZZZ	ZZZZZ	02/24/10	2156	3.20	9.30
30	ZZZZZ	ZZZZZ	02/24/10	2214	3.20	9.30
31	PIBLK03	WAR100219-99	02/24/10	2231	3.19	9.30
32	INDAB02	WPE100211-10	02/24/10	2248	3.19	9.30

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2057

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 03/02/10 03/02/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.88 DCB: 8.10

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/02/10	0913	2.88	8.10
02	PEM01	WPE100211-99	03/02/10	0930	2.88	8.10
03	ZZZZZ	ZZZZZ	03/02/10	0947	2.88	8.10
04	TOXAPH01	WPE100125-52	03/02/10	1004		
05	CHLOR01	WPE100116-00	03/02/10	1021	2.88	8.10
06	ZZZZZ	ZZZZZ	03/02/10	1038	2.88	8.10
07	GAPA01	WPE100114-05	03/02/10	1103	2.88	8.10
08	INDAB01	WPE100302-01	03/02/10	1120	2.88	8.10
09	INDAB02	WPE100302-02	03/02/10	1137	2.88	8.10
10	INDAB03	WPE100302-03	03/02/10	1154	2.88	8.10
11	INDAB04	WPE100302-04	03/02/10	1211	2.88	8.10
12	INDAB05	IPE100204-02	03/02/10	1229	2.88	8.10
13	INDAB01	WPE100211-10	03/02/10	1246	2.88	8.10
14	PIBLK02	WAR100219-99	03/02/10	1303	2.88	8.10
15	ZZZZZ	ZZZZZ	03/02/10	1320	2.88	8.10
16	ZZZZZ	ZZZZZ	03/02/10	1337	2.88	8.10
17	ZZZZZ	ZZZZZ	03/02/10	1354	2.88	8.10
18	ZZZZZ	ZZZZZ	03/02/10	1411	2.88	8.10
19	ZZZZZ	ZZZZZ	03/02/10	1428	2.89	8.10
20	ZZZZZ	ZZZZZ	03/02/10	1445	2.88	8.10
21	ZZZZZ	ZZZZZ	03/02/10	1503	2.88	8.10
22	PIBLK03	WAR100219-99	03/02/10	1520	2.88	8.10
23	INDAB02	WPE100211-10	03/02/10	1537	2.88	8.10
24	PIBLK04	WAR100219-99	03/02/10	1554	2.88	8.10
25	ZZZZZ	ZZZZZ	03/02/10	1611	2.88	8.10
26	ZZZZZ	ZZZZZ	03/02/10	1628	2.88	8.10
27	ZZZZZ	ZZZZZ	03/02/10	1645	2.88	8.10
28	ZZZZZ	ZZZZZ	03/02/10	1702	2.88	8.10
29	ZZZZZ	ZZZZZ	03/02/10	1720	2.88	8.10
30	ZZZZZ	ZZZZZ	03/02/10	1737	2.88	8.10
31	ZZZZZ	ZZZZZ	03/02/10	1754	2.88	8.10
32	ZZZZZ	ZZZZZ	03/02/10	1811	2.88	8.10

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2057

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 03/02/10 03/02/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.20 DCB: 9.30

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/02/10	0913	3.20	9.30
02	PEM01	WPE100211-99	03/02/10	0930	3.19	9.29
03	ZZZZZ	ZZZZZ	03/02/10	0947	3.19	9.30
04	TOXAPH01	WPE100125-52	03/02/10	1004		
05	CHLOR01	WPE100116-00	03/02/10	1021	3.20	9.30
06	ZZZZZ	ZZZZZ	03/02/10	1038	3.19	9.30
07	GAPA01	WPE100114-05	03/02/10	1103	3.20	9.30
08	INDAB01	WPE100302-01	03/02/10	1120	3.20	9.30
09	INDAB02	WPE100302-02	03/02/10	1137	3.20	9.30
10	INDAB03	WPE100302-03	03/02/10	1154	3.20	9.30
11	INDAB04	WPE100302-04	03/02/10	1211	3.20	9.30
12	INDAB05	IPE100204-02	03/02/10	1229	3.20	9.30
13	INDAB01	WPE100211-10	03/02/10	1246	3.20	9.30
14	PIBLK02	WAR100219-99	03/02/10	1303	3.20	9.30
15	ZZZZZ	ZZZZZ	03/02/10	1320	3.20	9.30
16	ZZZZZ	ZZZZZ	03/02/10	1337	3.20	9.30
17	ZZZZZ	ZZZZZ	03/02/10	1354	3.20	9.30
18	ZZZZZ	ZZZZZ	03/02/10	1411	3.20	9.30
19	ZZZZZ	ZZZZZ	03/02/10	1428	3.20	9.30
20	ZZZZZ	ZZZZZ	03/02/10	1445	3.20	9.30
21	ZZZZZ	ZZZZZ	03/02/10	1503	3.20	9.30
22	PIBLK03	WAR100219-99	03/02/10	1520	3.20	9.30
23	INDAB02	WPE100211-10	03/02/10	1537	3.20	9.30
24	PIBLK04	WAR100219-99	03/02/10	1554	3.20	9.30
25	ZZZZZ	ZZZZZ	03/02/10	1611	3.20	9.30
26	ZZZZZ	ZZZZZ	03/02/10	1628	3.20	9.30
27	ZZZZZ	ZZZZZ	03/02/10	1645	3.20	9.30
28	ZZZZZ	ZZZZZ	03/02/10	1702	3.20	9.30
29	ZZZZZ	ZZZZZ	03/02/10	1720	3.20	9.30
30	ZZZZZ	ZZZZZ	03/02/10	1737	3.20	9.30
31	ZZZZZ	ZZZZZ	03/02/10	1754	3.20	9.30
32	ZZZZZ	ZZZZZ	03/02/10	1811	3.20	9.30

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2057

GC Column: CLP-1 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 03/02/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.88 DCB: 8.10

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/03/10	0928	2.89	8.10
02	PEM01	WPE100211-99	03/03/10	0945	2.88	8.10
03	INDAB01	WPE100211-10	03/03/10	1002	2.88	8.10
04	TOXAPH01	WPE100125-52	03/03/10	1019		
05	CHLOR01	WPE100116-00	03/03/10	1036	2.88	8.10
06	GAPA01	WPE100114-05	03/03/10	1053	2.88	8.10
07	PIBLK02	WAR100219-99	03/03/10	1110	2.88	8.10
08	PEM02	WPE100211-99	03/03/10	1127	2.88	8.10
09	PBLK01	1202055366	03/03/10	1144	2.88	8.09
10	PBLK01LCS	1202055367	03/03/10	1201	2.88	8.09
11	PBLK01TLCS	1202055370	03/03/10	1218	2.88	8.10
12	ZZZZZ	ZZZZZ	03/03/10	1235	2.88	8.09
13	ZZZZZ	ZZZZZ	03/03/10	1253	2.88	8.09
14	ZZZZZ	ZZZZZ	03/03/10	1310	2.88	8.10
15	ZZZZZ	ZZZZZ	03/03/10	1327	2.88	8.09
16	CAPA-10-12771	248042003	03/03/10	1344	2.88	8.09
17	CAPA-10-13085	248042011	03/03/10	1401	2.88	8.10
18	CAPA-10-13320	248042014	03/03/10	1418	2.88	8.10
19	INDAB02	WPE100211-10	03/03/10	1435	2.88	8.10
20	PIBLK03	WAR100219-99	03/03/10	1452	2.88	8.10
21	ZZZZZ	ZZZZZ	03/03/10	1509	2.88	8.09
22	ZZZZZ	ZZZZZ	03/03/10	1526	2.88	8.10
23	ZZZZZ	ZZZZZ	03/03/10	1543	2.88	8.10
24	INDAB03	WPE100211-10	03/03/10	1601	2.88	8.10
25	PIBLK04	WAR100219-99	03/03/10	1618	2.88	8.10
26	ZZZZZ	ZZZZZ	03/03/10	1635	2.88	8.10
27	ZZZZZ	ZZZZZ	03/03/10	1652	2.88	8.09
28	ZZZZZ	ZZZZZ	03/03/10	1709	2.88	8.09
29	ZZZZZ	ZZZZZ	03/03/10	1726	2.88	8.09
30	ZZZZZ	ZZZZZ	03/03/10	1743	2.88	8.09
31	ZZZZZ	ZZZZZ	03/03/10	1800	2.88	8.09
32	PIBLK05	WAR100219-99	03/03/10	1817	2.88	8.10

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobipheny1	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII SV OLM03.0

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LABOR Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2057

GC Column: CLP-2 ID: 0.25 (mm) Init. Calib. Date(s): 02/24/10 03/02/10

Instrument ID: ECD7A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 3.19 DCB: 9.29

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/03/10	0928	3.20	9.29
02	PEM01	WPE100211-99	03/03/10	0945	3.20	9.29
03	INDAB01	WPE100211-10	03/03/10	1002	3.20	9.29
04	TOXAPH01	WPE100125-52	03/03/10	1019		
05	CHLOR01	WPE100116-00	03/03/10	1036	3.20	9.29
06	GAPA01	WPE100114-05	03/03/10	1053	3.20	9.29
07	PIBLK02	WAR100219-99	03/03/10	1110	3.20	9.29
08	PEM02	WPE100211-99	03/03/10	1127	3.20	9.29
09	PBLK01	1202055366	03/03/10	1144	3.20	9.29
10	PBLK01LCS	1202055367	03/03/10	1201	3.20	9.29
11	PBLK01TLCS	1202055370	03/03/10	1218	3.20	9.29
12	ZZZZZ	ZZZZZ	03/03/10	1235	3.20	9.29
13	ZZZZZ	ZZZZZ	03/03/10	1253	3.20	9.29
14	ZZZZZ	ZZZZZ	03/03/10	1310	3.20	9.29
15	ZZZZZ	ZZZZZ	03/03/10	1327	3.20	9.29
16	CAPA-10-12771	248042003	03/03/10	1344	3.19	9.29
17	CAPA-10-13085	248042011	03/03/10	1401	3.19	9.29
18	CAPA-10-13320	248042014	03/03/10	1418	3.20	9.29
19	INDAB02	WPE100211-10	03/03/10	1435	3.19	9.29
20	PIBLK03	WAR100219-99	03/03/10	1452	3.19	9.29
21	ZZZZZ	ZZZZZ	03/03/10	1509	3.19	9.29
22	ZZZZZ	ZZZZZ	03/03/10	1526	3.19	9.29
23	ZZZZZ	ZZZZZ	03/03/10	1543	3.20	9.29
24	INDAB03	WPE100211-10	03/03/10	1601	3.19	9.29
25	PIBLK04	WAR100219-99	03/03/10	1618	3.19	9.29
26	ZZZZZ	ZZZZZ	03/03/10	1635	3.19	9.29
27	ZZZZZ	ZZZZZ	03/03/10	1652	3.19	9.29
28	ZZZZZ	ZZZZZ	03/03/10	1709	3.19	9.29
29	ZZZZZ	ZZZZZ	03/03/10	1726	3.19	9.29
30	ZZZZZ	ZZZZZ	03/03/10	1743	3.19	9.29
31	ZZZZZ	ZZZZZ	03/03/10	1800	3.19	9.29
32	PIBLK05	WAR100219-99	03/03/10	1817	3.20	9.29

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10–2057 **Client ID:** LCS for batch 958412

Lab Sample ID: 1202055367

Data File:	010f1001.d	**Data File:**	010b1001.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	03–MAR–10 12:01	**Analyzed:**	03–MAR–10 12:01

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
alpha–BHC							.0588
Column 1	1	3.3	3.27 – 3.33	.543		ug/L	
Column 2	1	3.72	3.69 – 3.75	.543		ug/L	
gamma–BHC (Lindane)							1.18
Column 1	1	3.55	3.52 – 3.58	.56		ug/L	
Column 2	1	4.05	4.02 – 4.08	.553		ug/L	
beta–BHC							1.37
Column 1	1	3.61	3.58 – 3.64	.553		ug/L	
Column 2	1	4.11	4.08 – 4.14	.546		ug/L	
delta–BHC							.1
Column 1	1	3.77	3.74 – 3.8	.591		ug/L	
Column 2	1	4.4	4.37 – 4.43	.591		ug/L	
Heptachlor							6.34
Column 1	1	3.94	3.91 – 3.97	.531		ug/L	
Column 2	1	4.49	4.46 – 4.52	.498		ug/L	

Identification Summary

SDG Number: 10–2057 **Client ID:** LCS for batch 958412

Lab Sample ID: 1202055367

Data File:	010f1001.d	**Data File:**	010b1001.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	03–MAR–10 12:01	**Analyzed:**	03–MAR–10 12:01

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aldrin								3.2
	Column 1	1	4.21	4.18 – 4.24	.465		ug/L	
	Column 2	1	4.82	4.79 – 4.85	.45		ug/L	
Heptachlor epoxide								1.56
	Column 1	1	4.76	4.73 – 4.79	.54		ug/L	
	Column 2	1	5.39	5.36 – 5.42	.548		ug/L	
gamma–Chlordane								4.58
	Column 1	1	4.87	4.84 – 4.9	.499		ug/L	
	Column 2	1	5.58	5.55 – 5.61	.522		ug/L	
alpha–Chlordane								2.18
	Column 1	1	5	4.97 – 5.03	.526		ug/L	
	Column 2	1	5.73	5.7 – 5.76	.515		ug/L	
Endosulfan I								1.7
	Column 1	1	5.13	5.1 – 5.16	.545		ug/L	
	Column 2	1	5.8	5.77 – 5.83	.536		ug/L	

Identification Summary

SDG Number: 10–2057 **Client ID:** LCS for batch 958412

Lab Sample ID: 1202055367

Data File:	010f1001.d	**Data File:**	010b1001.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	03–MAR–10 12:01	**Analyzed:**	03–MAR–10 12:01

Analyte		Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
4,4'–DDE								1.12
	Column 1	1	5.06	5.03 – 5.09	1.41		ug/L	
	Column 2	1	5.88	5.85 – 5.91	1.42		ug/L	
Dieldrin								2.87
	Column 1	1	5.36	5.33 – 5.39	1.33		ug/L	
	Column 2	1	6.09	6.06 – 6.12	1.37		ug/L	
Endrin								3.15
	Column 1	1	5.6	5.57 – 5.63	1.66		ug/L	
	Column 2	1	6.42	6.39 – 6.45	1.72		ug/L	
4,4'–DDD								.762
	Column 1	1	5.65	5.62 – 5.68	1.47		ug/L	
	Column 2	1	6.5	6.47 – 6.53	1.46		ug/L	
Endosulfan II								14.1
	Column 1	1	5.82	5.79 – 5.85	1.18		ug/L	
	Column 2	1	6.64	6.61 – 6.67	1.36		ug/L	

Identification Summary

SDG Number: 10–2057 **Client ID:** LCS for batch 958412

Lab Sample ID: 1202055367

Data File:	010f1001.d	**Data File:**	010b1001.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	03–MAR–10 12:01	**Analyzed:**	03–MAR–10 12:01

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Endrin aldehyde							4.1
Column 1	1	6.25	6.22 – 6.28	1.29		ug/L	
Column 2	1	7	6.97 – 7.03	1.24		ug/L	
4,4'–DDT							9.05
Column 1	1	5.93	5.9 – 5.96	1.67		ug/L	
Column 2	1	6.85	6.82 – 6.88	1.52		ug/L	
Endosulfan sulfate							2.72
Column 1	1	6.7	6.68 – 6.74	1.48		ug/L	
Column 2	1	7.31	7.28 – 7.34	1.44		ug/L	
Methoxychlor							4.49
Column 1	1	6.43	6.4 – 6.46	6.37		ug/L	
Column 2	1	7.59	7.56 – 7.62	6.09		ug/L	
Endrin ketone							15.2
Column 1	1	7.01	6.98 – 7.04	1.39		ug/L	
Column 2	1	7.92	7.89 – 7.95	1.62		ug/L	

Identification Summary

SDG Number: 10–2057 **Client ID:** LCS for batch 958412

Lab Sample ID: 1202055370

Data File:	011f1101.d	**Data File:**	011b1101.d
Inst:	ECD7A.I_1	**Inst:**	ECD7A.I_2
Column:	CLP–1	**Column:**	CLP–2
Analyzed:	03–MAR–10 12:18	**Analyzed:**	03–MAR–10 12:18

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Toxaphene							1.67
Column 1	1	5.26	5.23 – 5.29	6.27		ug/L	
	2	5.37	5.34 – 5.4	5.68		ug/L	
	3	5.46	5.43 – 5.49	6.4		ug/L	
	4	5.52	5.49 – 5.55	5.79		ug/L	
	5	5.62	5.59 – 5.65	6.01		ug/L	
					6.03		
Column 2	1	6.06	6.02 – 6.08	5.83		ug/L	
	2	6.12	6.09 – 6.15	5.87		ug/L	
	3	6.18	6.15 – 6.21	6.39		ug/L	
	4	6.25	6.22 – 6.28	5.84		ug/L	
	5	6.38	6.35 – 6.41	5.73		ug/L	
					5.93		

QUALITY CONTROL DATA

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202055366**				
Client Sample:	**QC for batch 958412**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 958412**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**958413**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 11:44**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/01/2010 18:08**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**009f0901.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	009b0901.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.020	ug/L	0.005	0.020	1
58-89-9	gamma-BHC (Lindane)	U	0.020	ug/L	0.005	0.020	1
319-85-7	beta-BHC	U	0.020	ug/L	0.006	0.020	1
319-86-8	delta-BHC	U	0.020	ug/L	0.005	0.020	1
76-44-8	Heptachlor	U	0.020	ug/L	0.005	0.020	1
309-00-2	Aldrin	U	0.020	ug/L	0.005	0.020	1
1024-57-3	Heptachlor epoxide	U	0.020	ug/L	0.005	0.020	1
5103-74-2	gamma-Chlordane	U	0.020	ug/L	0.005	0.020	1
5103-71-9	alpha-Chlordane	U	0.020	ug/L	0.005	0.020	1
959-98-8	Endosulfan I	U	0.020	ug/L	0.005	0.020	1
72-55-9	4,4'-DDE	U	0.040	ug/L	0.005	0.040	1
60-57-I	Dieldrin	U	0.040	ug/L	0.010	0.040	1
72-20-8	Endrin	U	0.040	ug/L	0.010	0.040	1
72-54-8	4,4'-DDD	U	0.040	ug/L	0.010	0.040	1
33213-65-9	Endosulfan II	U	0.040	ug/L	0.010	0.040	1
7421-93-4	Endrin aldehyde	U	0.040	ug/L	0.005	0.040	1
50-29-3	4,4'-DDT	U	0.040	ug/L	0.010	0.040	1
1031-07-8	Endosulfan sulfate	U	0.040	ug/L	0.010	0.040	1
72-43-5	Methoxychlor	U	0.200	ug/L	0.050	0.200	1
53494-70-5	Endrin ketone	U	0.040	ug/L	0.010	0.040	1
8001-35-2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.859	1.00	ug/L	85.9	(30%-105%)
Decachlorobiphenyl	0.950	1.00	ug/L	95.0	(30%-126%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/030310.b/009f0901B.d
Lab Smp Id: 1202055366 Client Smp ID: PBLK01
Inj Date : 03-MAR-2010 11:44
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202055366|1|
Misc Info : |ECD81A_1L|958413|SVP|MB|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 04-Mar-2010 07:41 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 9 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2057.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.878	2.877	0.001	137936971	171.810	0.859	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.095	8.096	-0.001	114498153	190.907	0.954	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/030310.b/009f0901B.d

Page 1

Date : 03-MAR-2010 11:44

Client ID: PBLK01

Instrument: ecd7a.i

Sample Info: |1202055366|1|

Volume Injected (uL): 1.0

Operator: JXM

Column phase: CLP-1

Column diameter: 0.25

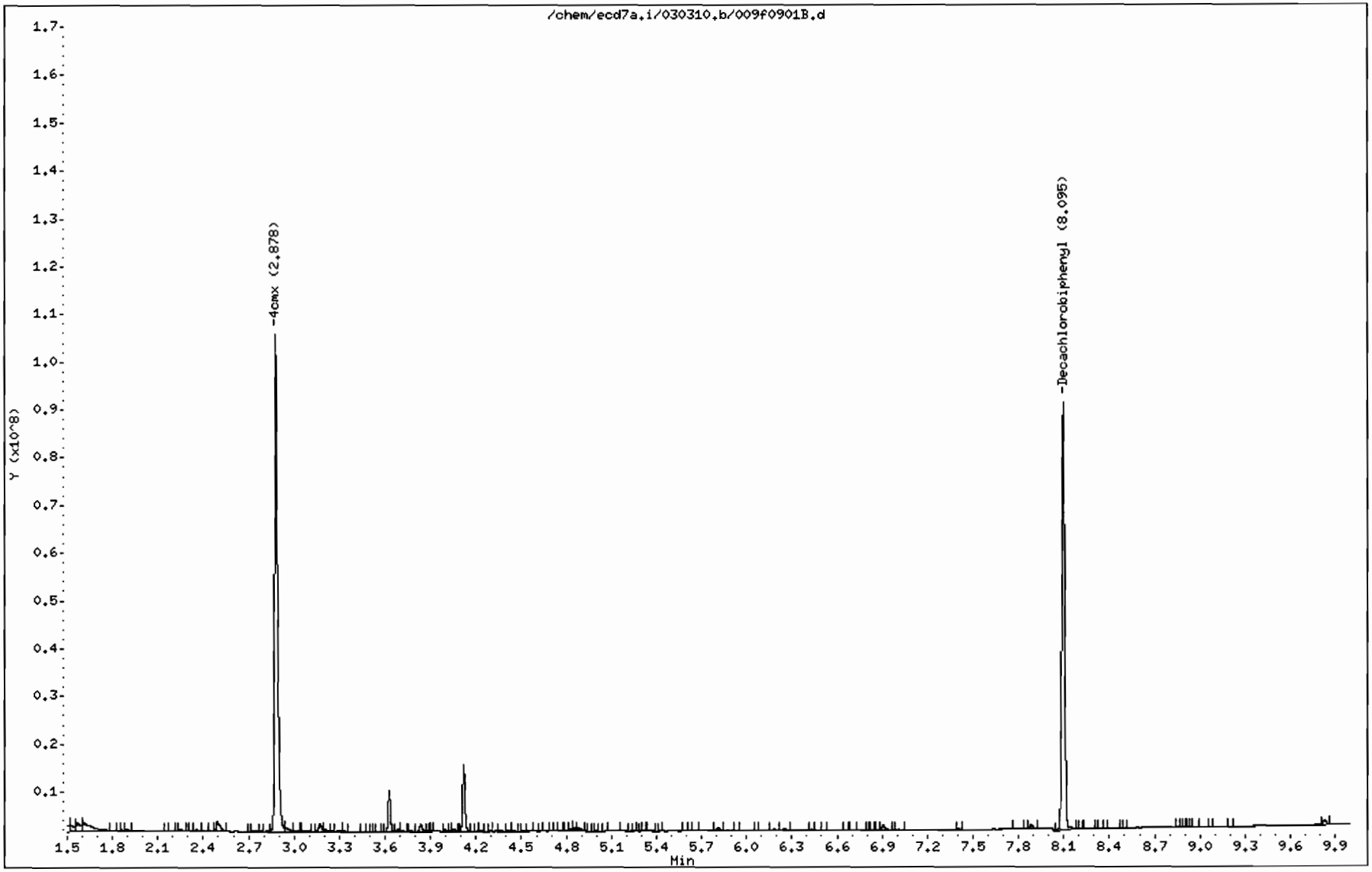

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/009b0901B.d
Lab Smp Id: 1202055366 Client Smp ID: PBLK01
Inj Date : 03-MAR-2010 11:44
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202055366|1|
Misc Info : |ECD81A_1L|958413|SVP|MB|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 04-Mar-2010 07:41 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 9 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2057.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.195	0.002	101211221	180.283	0.901	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.292	9.292	0.000	68302966	190.065	0.950	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/030310.b/009b0901B.d

Date : 03-MAR-2010 11:44

Client ID: PBLK01

Sample Info: |1202055366|1|

Volume Injected (uL): 1.0

Column phase: CLP-2

Instrument: ecd7a.i

Operator: JXM

Column diameter: 0.25

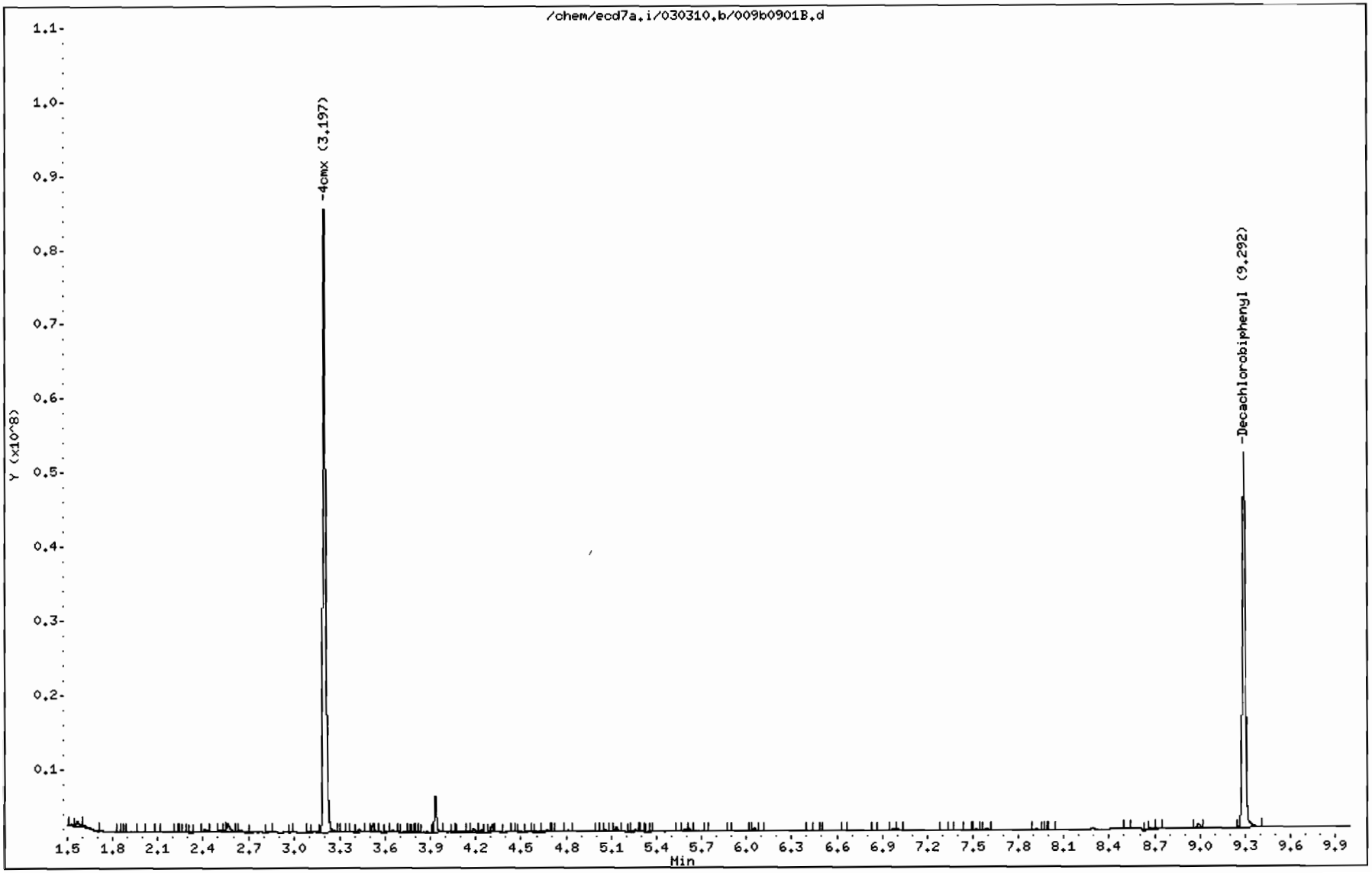

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10–2057**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202055367**				
Client Sample:	**QC for batch 958412**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 958412**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL–OA–E–041**
Batch ID:	**958413**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 12:01**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/01/2010 18:08**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**010f1001.d**	**Column:**	**1 CLP–1**	**Level:**	**LOW**
	010b1001.d		**2 CLP–2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319–84–6	alpha–BHC		0.543	ug/L	0.005	0.020	1
58–89–9	gamma–BHC (Lindane)		0.553	ug/L	0.005	0.020	2
319–85–7	beta–BHC		0.546	ug/L	0.006	0.020	2
319–86–8	delta–BHC		0.591	ug/L	0.005	0.020	2
76–44–8	Heptachlor		0.498	ug/L	0.005	0.020	2
309–00–2	Aldrin		0.450	ug/L	0.005	0.020	2
1024–57–3	Heptachlor epoxide		0.540	ug/L	0.005	0.020	1
5103–74–2	gamma–Chlordane		0.499	ug/L	0.005	0.020	1
5103–71–9	alpha–Chlordane		0.515	ug/L	0.005	0.020	2
959–98–8	Endosulfan I		0.536	ug/L	0.005	0.020	2
72–55–9	4,4'–DDE		1.41	ug/L	0.005	0.040	1
60–57–1	Dieldrin		1.33	ug/L	0.010	0.040	1
72–20–8	Endrin		1.66	ug/L	0.010	0.040	1
72–54–8	4,4'–DDD		1.46	ug/L	0.010	0.040	2
33213–65–9	Endosulfan II		1.18	ug/L	0.010	0.040	1
7421–93–4	Endrin aldehyde		1.24	ug/L	0.005	0.040	2
50–29–3	4,4'–DDT		1.52	ug/L	0.010	0.040	2
1031–07–8	Endosulfan sulfate		1.44	ug/L	0.010	0.040	2
72–43–5	Methoxychlor		6.09	ug/L	0.050	0.200	2
53494–70–5	Endrin ketone		1.39	ug/L	0.010	0.040	1
8001–35–2	Toxaphene	U	0.500	ug/L	0.150	0.500	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.784	1.00	ug/L	78.4	(30%–105%)
Decachlorobiphenyl	0.995	1.00	ug/L	99.5	(30%–126%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/030310.b/010f1001B.d
Lab Smp Id: 1202055367 Client Smp ID: PBLK01LCS
Inj Date : 03-MAR-2010 12:01
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202055367|1|
Misc Info : |ECD81A_1L|958413|SVP|LCS|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 04-Mar-2010 07:41 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 10 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2057.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.877	2.877	0.000	125850020	156.755	0.784	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.094	8.096	-0.002	133078177	221.886	1.11	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.297	3.297	0.000	122317978	108.557	0.543	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.549	3.549	0.000	113314072	111.946	0.560	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
3.614	3.614	0.000	51066827	110.620	0.553	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
3.768	3.768	0.000	116721351	118.239	0.591	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.944	3.945	-0.001	83430503	106.163	0.531	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.209	4.210	-0.001	90946648	93.0248	0.465	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.756	4.756	0.000	93860709	107.965	0.540	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.872	4.873	-0.001	87412123	99.7638	0.499	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.997	4.998	-0.001	91817036	105.231	0.526	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.133	5.133	0.000	84488096	109.048	0.545	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.060	5.061	-0.001	224640108	281.127	1.40	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.364	5.365	-0.001	214674579	265.719	1.33	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.597	5.598	-0.001	205365253	332.763	1.66	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.649	5.651	-0.002	181656078	294.452	1.47	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.822	5.823	-0.001	166991674	235.712	1.18	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.249	6.251	-0.002	153354625	257.684	1.29	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.932	5.934	-0.002	188789682	333.706	1.67	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.704	6.706	-0.002	180110375	296.694	1.48	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
6.432	6.433	-0.001	307566891	1273.35	6.37	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.007	7.010	-0.003	216566592	278.837	1.39	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/030310.b/010f1001B.d
Date : 03-MAR-2010 12:01
Client ID: PBLK01LCS
Sample Info: 1120205536711
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

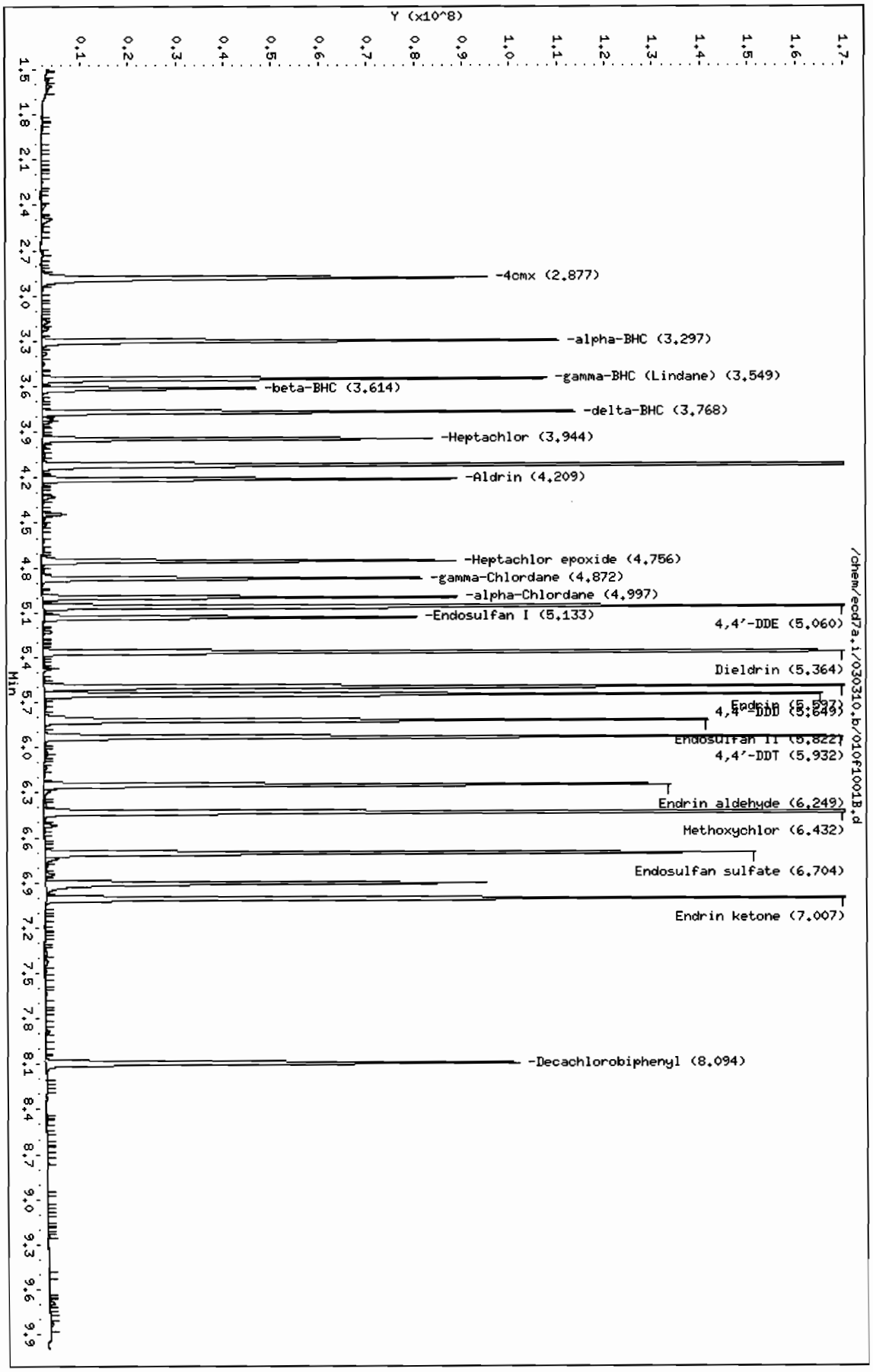

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/010b1001B.d
Lab Smp Id: 1202055367 Client Smp ID: PBLK01LCS
Inj Date : 03-MAR-2010 12:01
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202055367|1|
Misc Info : |ECD81A_1L|958413|SVP|LCS|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 04-Mar-2010 07:41 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 10 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2057.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpc1p1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.195	3.195	0.000	91958238	163.801	0.819	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.292	9.292	0.000	71488160	198.928	0.995	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.722	3.722	0.000	80451789	108.621	0.543	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.051	4.051	0.000	71908129	110.638	0.553	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
12 beta-BHC					CAS #: 319-85-7		
4.114	4.115	-0.001	33137975	109.116	0.546	80.00- 120.00	100.00
13 delta-BHC					CAS #: 319-86-8		
4.404	4.404	0.000	75128169	118.121	0.591	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.486	4.487	-0.001	46813699	99.6424	0.498	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.817	4.817	0.000	60090908	90.0959	0.450	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.385	5.386	-0.001	61158401	109.658	0.548	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.581	5.581	0.000	60831633	104.444	0.522	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.732	5.731	0.001	59655809	102.961	0.515	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.801	5.802	-0.001	54971857	107.205	0.536	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.881	5.883	-0.002	137494448	284.304	1.42	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.089	6.089	0.000	135486606	273.458	1.37	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.419	6.419	0.000	126101953	343.427	1.72	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.500	6.501	-0.001	104648452	292.217	1.46	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.642	6.643	-0.001	125004029	271.401	1.36	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.004	7.004	0.000	91064116	247.324	1.24	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.846	6.847	-0.001	93507730	304.803	1.52	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.309	7.310	-0.001	114446478	288.739	1.44	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
28 Methoxychlor					CAS #: 72-43-5		
7.589	7.591	-0.002	156478246	1217.39	6.09	80.00- 120.00	100.00
31 Endrin ketone					CAS #: 53494-70-5		
7.917	7.919	-0.002	152052369	324.746	1.62	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/030310.b/010b1001B.d
Date : 03-MAR-2010 12:01
Client ID: PBLK01LCS
Sample Info: 1120205536711
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

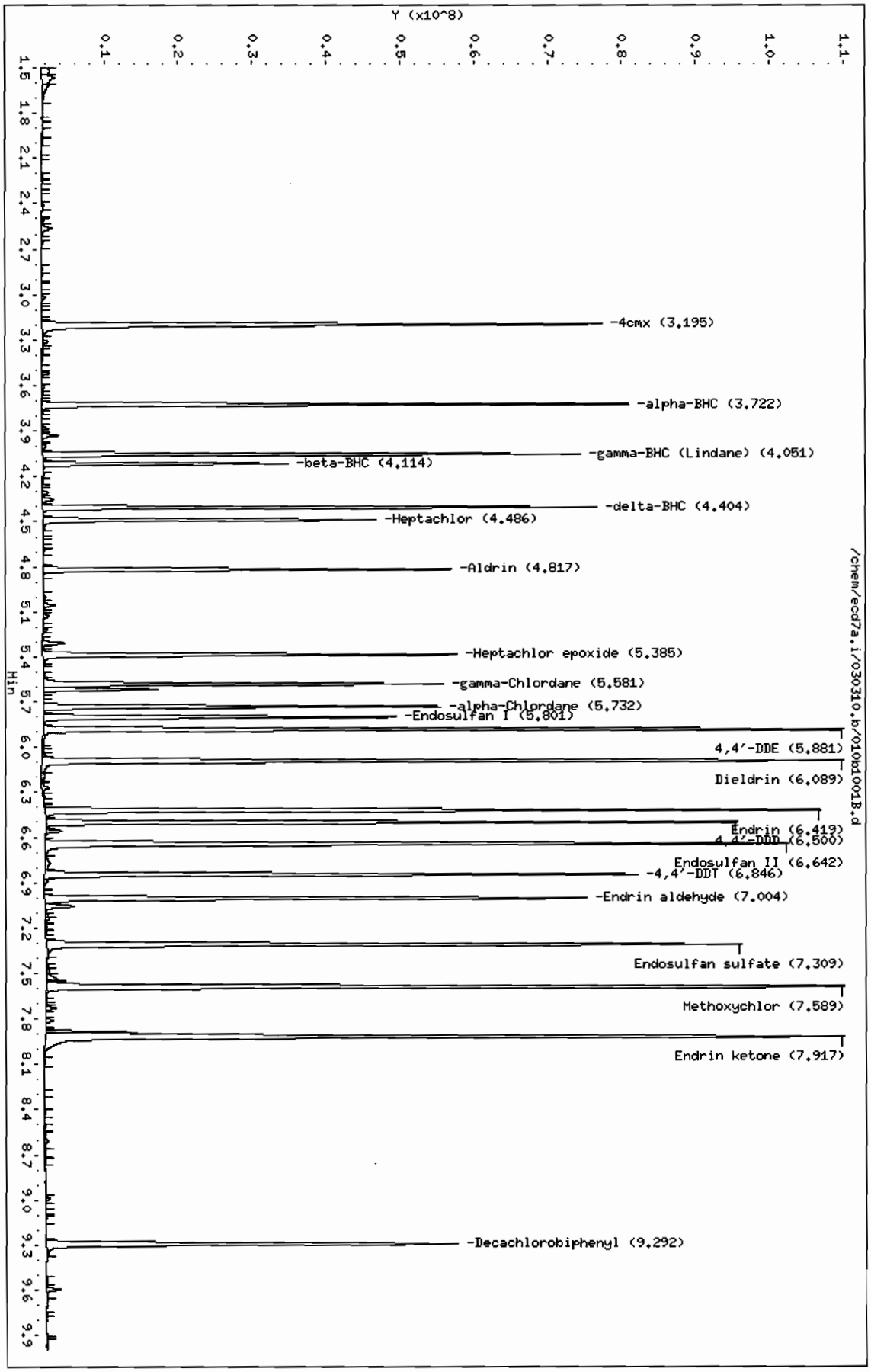

Page 1

Pesticide
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**			**Matrix:**	**GROUND WATER**
Lab Sample ID:	**1202055370**				
Client Sample:	**QC for batch 958412**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 958412**	**Method:**	**SW846 8081A**	**SOP Ref:**	**GL-OA-E-041**
Batch ID:	**958413**	**Inst:**	**ECD7A.I**	**Dilution:**	**1**
Run Date:	**03/03/2010 12:18**	**Analyst:**	**JXM**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/01/2010 18:08**	**Aliquot:**	**1000 mL**	**Final Volume:**	**5 mL**
Data File:	**011f1101.d**	**Column:**	**1 CLP-1**	**Level:**	**LOW**
	011b1101.d		**2 CLP-2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
319-84-6	alpha-BHC	U	0.020	ug/L	0.005	0.020	1
58-89-9	gamma-BHC (Lindane)	U	0.020	ug/L	0.005	0.020	1
319-85-7	beta-BHC	U	0.020	ug/L	0.006	0.020	1
319-86-8	delta-BHC	U	0.020	ug/L	0.005	0.020	1
76-44-8	Heptachlor	U	0.020	ug/L	0.005	0.020	1
309-00-2	Aldrin	U	0.020	ug/L	0.005	0.020	1
1024-57-3	Heptachlor epoxide	U	0.020	ug/L	0.005	0.020	1
5103-74-2	gamma-Chlordane	U	0.020	ug/L	0.005	0.020	1
5103-71-9	alpha-Chlordane	U	0.020	ug/L	0.005	0.020	1
959-98-8	Endosulfan I	U	0.020	ug/L	0.005	0.020	1
72-55-9	4,4'-DDE	U	0.040	ug/L	0.005	0.040	1
60-57-1	Dieldrin	U	0.040	ug/L	0.010	0.040	1
72-20-8	Endrin	U	0.040	ug/L	0.010	0.040	1
72-54-8	4,4'-DDD	U	0.040	ug/L	0.010	0.040	1
33213-65-9	Endosulfan II	U	0.040	ug/L	0.010	0.040	1
7421-93-4	Endrin aldehyde	U	0.040	ug/L	0.005	0.040	1
50-29-3	4,4'-DDT	U	0.040	ug/L	0.010	0.040	1
1031-07-8	Endosulfan sulfate	U	0.040	ug/L	0.010	0.040	1
72-43-5	Methoxychlor	U	0.200	ug/L	0.050	0.200	1
53494-70-5	Endrin ketone	U	0.040	ug/L	0.010	0.040	1
8001-35-2	Toxaphene		5.93	ug/L	0.150	0.500	2

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.917	1.00	ug/L	91.7	(30%-105%)
Decachlorobiphenyl	1.10	1.00	ug/L	110	(30%-126%)

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/030310.b/011f1101B.d
Lab Smp Id: 1202055370 Client Smp ID: PBLK01TLCS
Inj Date : 03-MAR-2010 12:18
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202055370|1|
Misc Info : |ECD81A_1L|958413|SVP|TLCS|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 04-Mar-2010 07:41 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 11 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2057.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.878	2.877	0.001	147273747	183.440	0.917	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.095	8.096	-0.001	133236871	222.150	1.11	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
5.264	5.265	-0.001	9195390	1253.68	6.27	80.00- 120.00	100.00(RM)
5.369	5.370	-0.001	11859729	1136.99	5.68	126.52- 166.52	128.97
5.457	5.458	-0.001	15593286	1280.99	6.40	171.26- 211.26	169.58
5.519	5.516	0.003	18410414	1158.48	5.79	197.47- 237.47	200.21
5.618	5.619	-0.001	18682841	1202.16	6.01	211.88- 251.88	203.18

Average of Peak Concentrations = 6.03

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/030310.b/011f1101B.d
Date : 03-MAR-2010 12:18
Client ID: PBLK01TLCS
Sample Info: |1202055370|1|
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

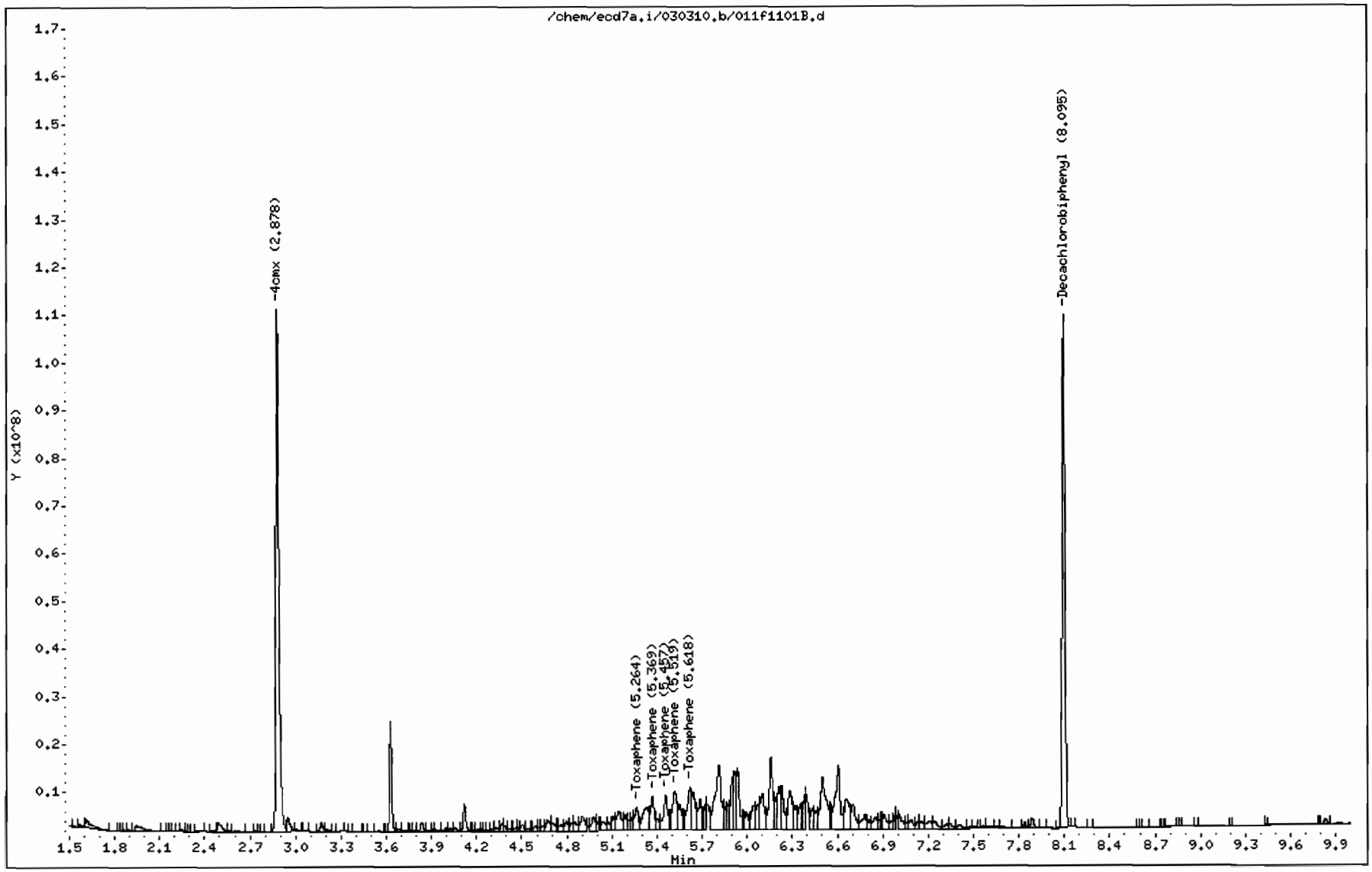

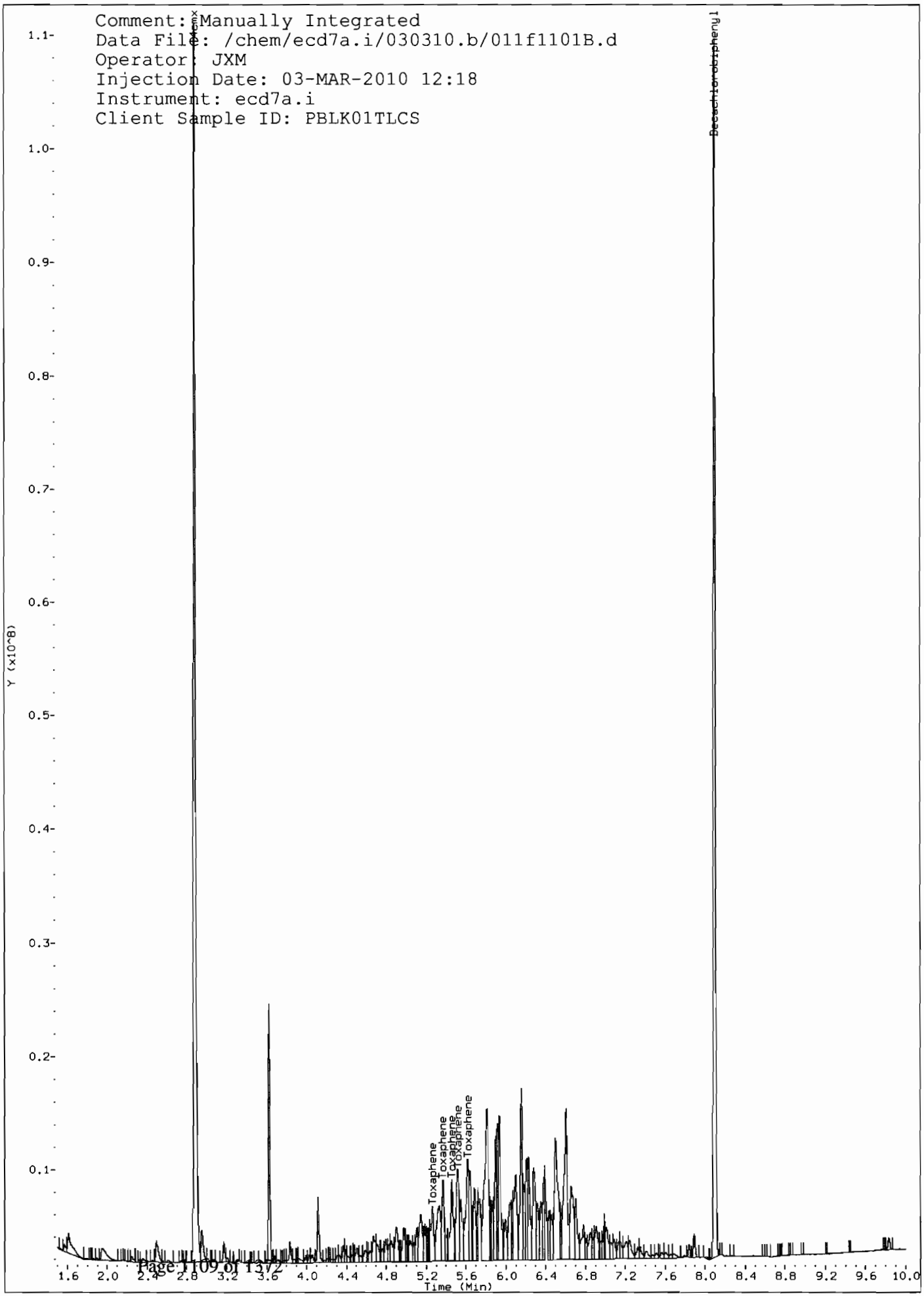
Comment: Manually Integrated
Data File: /chem/ecd7a.i/030310.b/011f1101B.d
Operator: JXM
Injection Date: 03-MAR-2010 12:18
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS
Mirex
Decachlorobiphenyl
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Toxaphene
Y (x10^8)
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
1.6 2.0 2.4 2.8 3.2 3.6 4.0 4.4 4.8 5.2 5.6 6.0 6.4 6.8 7.2 7.6 8.0 8.4 8.8 9.2 9.6 10.0
Time (Min)

Comment: Before manual integration
Data File: /chem/ecd7a.i/030310.b/orig-011f1101B.d
Operator: JXM
Injection Date: 03-MAR-2010 12:18
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS

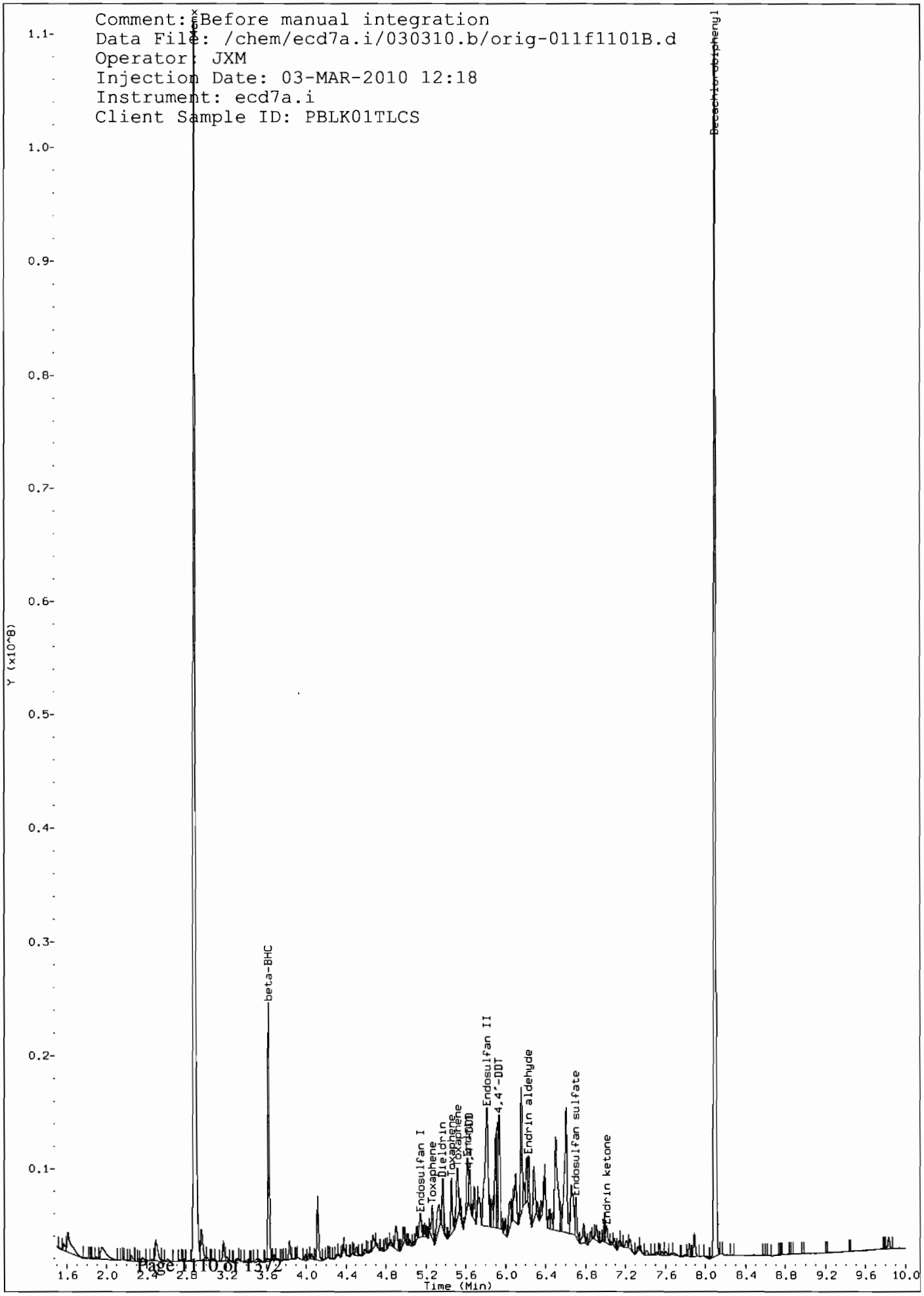

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/011b1101B.d
Lab Smp Id: 1202055370 Client Smp ID: PBLK01TLCS
Inj Date : 03-MAR-2010 12:18
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202055370|1|
Misc Info : |ECD81A_1L|958413|SVP|TLCS|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 04-Mar-2010 07:41 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 11 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2057.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	5.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.196	3.195	0.001	108503639	193.273	0.966	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.292	9.292	0.000	79082826	220.062	1.10	80.00- 120.00	100.00
23 Toxaphene					CAS #: 8001-35-2		
6.062	6.053	0.009	11348711	1165.77	5.83	80.00- 120.00	100.00(RM)
6.120	6.121	-0.001	5159007	1174.28	5.87	22.71- 62.71	45.46
6.184	6.184	0.000	6379473	1278.19	6.39	34.49- 74.49	56.21
6.246	6.248	-0.002	6703127	1167.79	5.84	32.54- 72.54	59.07
6.378	6.380	-0.002	8845136	1146.35	5.73	57.53- 97.53	77.94
Average of Peak Concentrations =					5.93		

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Data File: /chem/ecd7a.i/030310.b/011b1101B.d

Page 1

Date : 03-MAR-2010 12:18

Client ID: PBLK01TLCS

Instrument: ecd7a.i

Sample Info: |1202055370|1|

Volume Injected (uL): 1.0

Operator: JXM

Column phase: CLP-2

Column diameter: 0.25

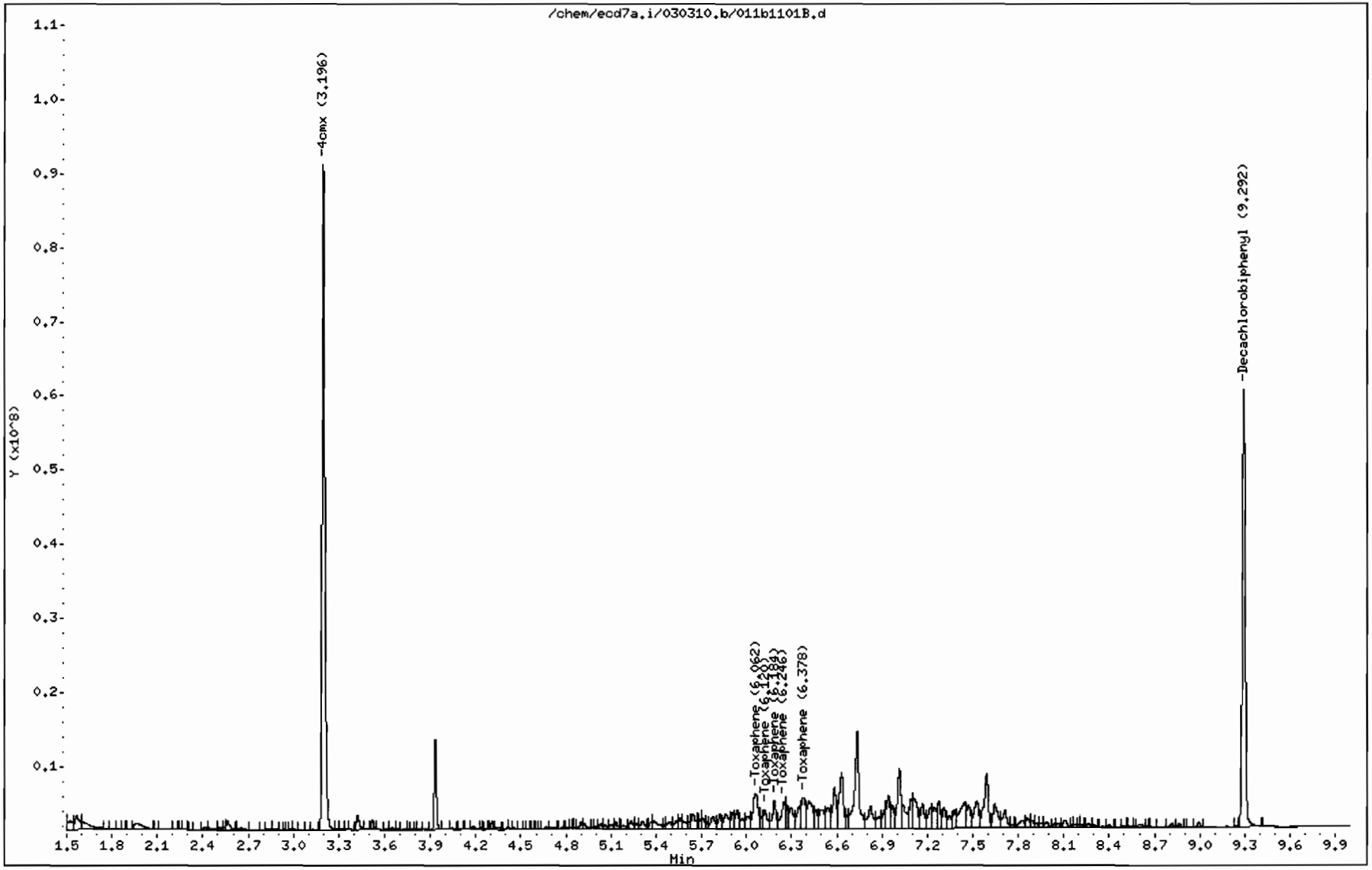

Comment: Manually Integrated
Data File: /chem/ecd7a.i/030310.b/011b1101B.d
Operator: JXM
Injection Date: 03-MAR-2010 12:18
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS

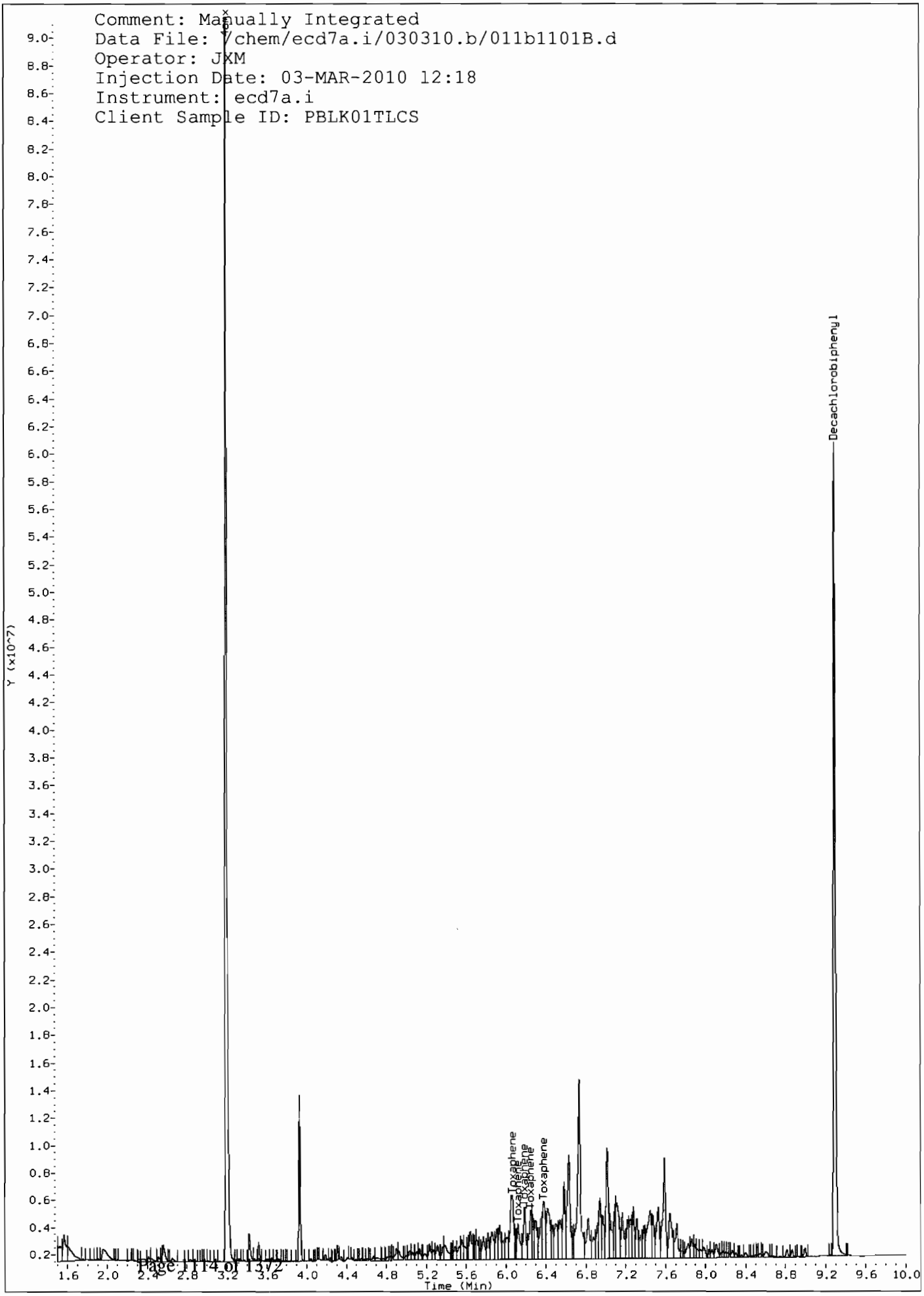

Comment: Before manual integration
Data File: /chem/ecd7a.i/030310.b/orig-011b1101B.d
Operator: JXM
Injection Date: 03-MAR-2010 12:18
Instrument: ecd7a.i
Client Sample ID: PBLK01TLCS

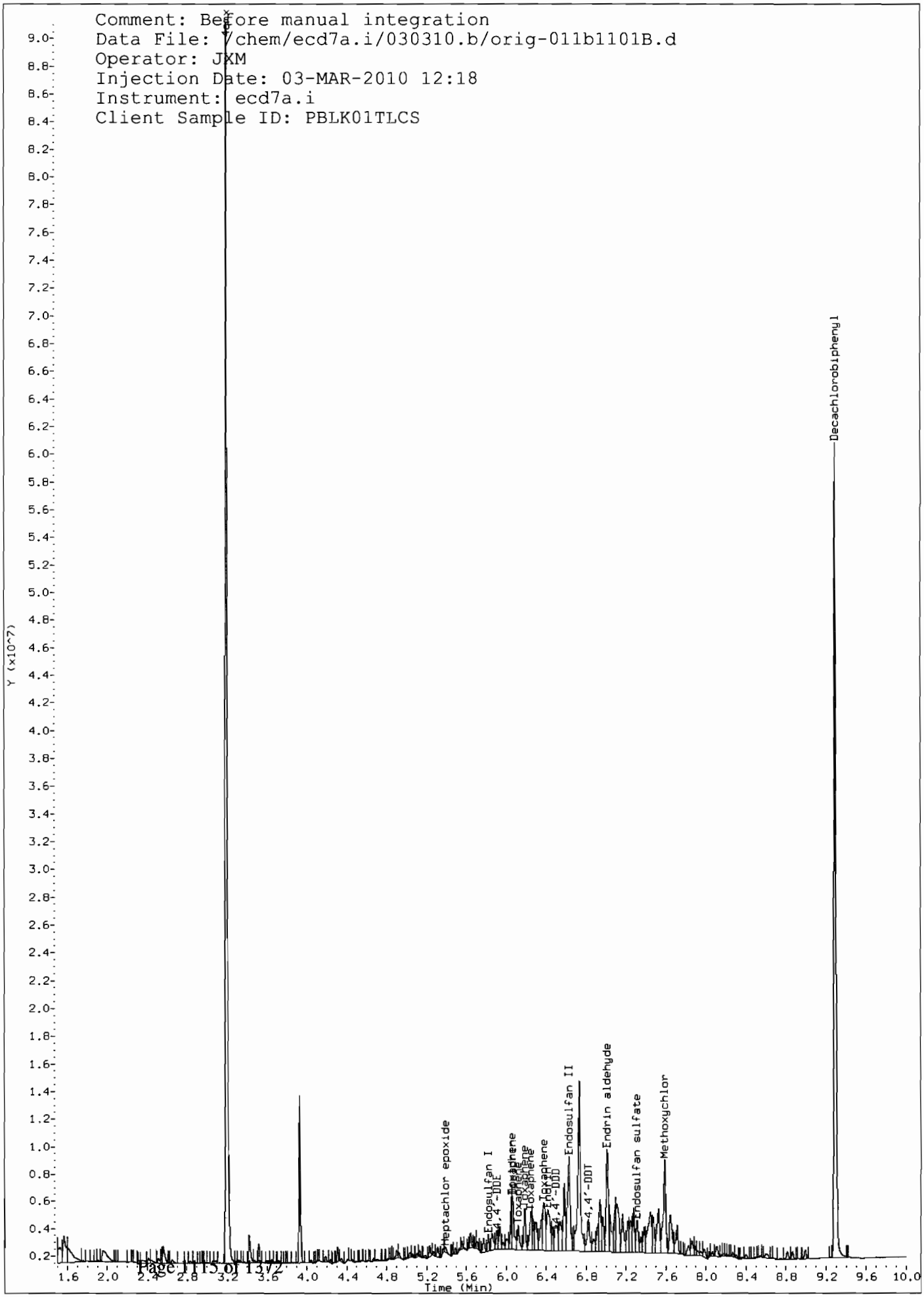

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD7

DATE: 02/24/2010 METHOD: ECD7-B-8081-022310.m OPERATOR:JXM REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT
MERCURY LOT

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-041 Organochlorine Pesticides and Chlorinated Hydrocarbons: EPA 8081
8121
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, BD-Percent Endrin and 4,4'-DDT Breakdown, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd7a.i/022410.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR100219-99IB	JXM	24-FEB-2010 13:59		022410	1.0		CLEAN
002b0201.d	WPE100211-99DG	JXM	24-FEB-2010 14:16		022410	1.0		(B)DDT 5.2, ENDRIN 5.8 (F)DDT 2.7, ENDRIN 4.9
003b0301.d	WPE100211-10AB	JXM	24-FEB-2010 14:33		022410	1.0		DUSE
004b0401.d	WPE100125-52TX	JXM	24-FEB-2010 14:50		022410	1.0		DUSE
005b0501.d	WPE100114-05GA	JXM	24-FEB-2010 15:07		022410	1.0		PASSES FOR CARE
006b0601.d	WPE100116-00CL	JXM	24-FEB-2010 15:24		022410	1.0		DUSE
007b0701.d	WPE100224-01AB	JXM	24-FEB-2010 15:41		022410	1.0		INDAB LEVEL 1
008b0801.d	WPE100224-02AB	JXM	24-FEB-2010 15:58		022410	1.0		INDAB LEVEL 2
009b0901.d	WPE100224-03AB	JXM	24-FEB-2010 16:15		022410	1.0		INDAB LEVEL 3
010b1001.d	WPE100224-04AB	JXM	24-FEB-2010 16:32		022410	1.0		INDAB LEVEL 4
011b1101.d	IPE100204-02AB	JXM	24-FEB-2010 16:49		022410	1.0		INDAB LEVEL 5
012b1201.d	WPE100211-10AB	JXM	24-FEB-2010 17:06		022410	1.0		PASSES BOTH COLUMNS
013b1301.d	WPE100224-11TX	JXM	24-FEB-2010 17:24		022410	1.0		TOXAPH LEVEL 1
014b1401.d	WPE100224-12TX	JXM	24-FEB-2010 17:41		022410	1.0		TOXAPH LEVEL 2
015b1501.d	WPE100224-13TX	JXM	24-FEB-2010 17:58		022410	1.0		TOXAPH LEVEL 3

Instrument Batch: /chem/ecd7a.i/022410.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016b1601.d	WPE100224-14TX	JXM	24-FEB-2010 18:15		022410		1.0		TOXAPH LEVEL 4
017b1701.d	IPE100204-40TX	JXM	24-FEB-2010 18:32		022410		1.0		TOXAPH LEVEL 5
018b1801.d	WPE100125-52TX	JXM	24-FEB-2010 18:49		022410		1.0		PASSES BOTH COLUMNS
019b1901.d	WPE100224-21CL	JXM	24-FEB-2010 19:06		022410		1.0		CHLOR LEVEL 1
020b2001.d	WPE100224-22CL	JXM	24-FEB-2010 19:23		022410		1.0		CHLOR LEVEL 2
021b2101.d	WPE100224-23CL	JXM	24-FEB-2010 19:40		022410		1.0		CHLOR LEVEL 3
022b2201.d	WPE100224-24CL	JXM	24-FEB-2010 19:57		022410		1.0		CHLOR LEVEL 4
023b2301.d	IPE100116-06CL	JXM	24-FEB-2010 20:14		022410		1.0		CHLOR LEVEL 5
024b2401.d	WPE100116-00CL	JXM	24-FEB-2010 20:31		022410		1.0		PASSES BOTH COLUMNS
025b2501.d	WAR100219-99IB	JXM	24-FEB-2010 20:48		022410		1.0		CLEAN
026b2601.d	WPE100211-99DG	JXM	24-FEB-2010 21:05		022410		1.0		(B)DDT 8.0, ENDRIN 7.7 (F)DDT 6.0, ENDRIN 6.5
027b2701.d	1202050661	JXM	24-FEB-2010 21:22	956349	EUI-7516		1.0	MB	USE: HIGHER
028b2801.d	1202050662	JXM	24-FEB-2010 21:39	956349	EUI-7516		1.0	LCS	USE: HIGHER
029b2901.d	1202050663	JXM	24-FEB-2010 21:56	956349	EUI-7516		1.0	LCSD	USE: HIGHER
030b3001.d	247409001	JXM	24-FEB-2010 22:14	956349	EUI-7516		1.0	CARE	USE: HIGHER
031b3101.d	WAR100219-99IB	JXM	24-FEB-2010 22:31		022410		1.0		CLEAN
032b3201.d	WPE100211-10AB	JXM	24-FEB-2010 22:48		022410		1.0		PASSES BOTH COLUMNS
033b3301.d	WAR100219-99IB	JXM	24-FEB-2010 23:05		022410		1.0		CLEAN
034b3401.d	1202048141	JXM	24-FEB-2010 23:22	955272	247009		1.0	MB	USE: HIGHER
035b3501.d	1202048142	JXM	24-FEB-2010 23:39	955272	247009		1.0	LCS	USE: HIGHER

Instrument Batch: /chem/ecd7a.i/022410.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	247009002	JXM	24-FEB-2010 23:56	955272	247009	1.0	CLSS	USE: HIGHER
037b3701.d	1202048143	JXM	25-FEB-2010 00:13	955272	247009	1.0	MS	USE: HIGHER
038b3801.d	1202048144	JXM	25-FEB-2010 00:30	955272	247009	1.0	MSD	USE: HIGHER
039b3901.d	247009003	JXM	25-FEB-2010 00:47	955272	247009	1.0	CLSS	USE: HIGHER
040b4001.d	WAR100219-99IB	JXM	25-FEB-2010 01:04		022410	1.0		MATRIX CARRYOVER

041b4101.d	WPE100211-10AB	JXM	25-FEB-2010 01:21		022410		1.0		PASSES BOTH COLUMNS
042b4201.d	WAR100219-99IB	JXM	25-FEB-2010 01:38		022410		1.0		SLIGHT MATRIX CARRYOVER
043b4301.d	245420001	JXM	25-FEB-2010 01:55	955536	NY-330_SHW		5.0	PTQA	USE: HIGHER
044b4401.d	1202048594	JXM	25-FEB-2010 02:12	955536	NY-330_SHW		5.0	DUP	USE: HIGHER
045b4501.d	WAR100219-99IB	JXM	25-FEB-2010 02:29		022410		1.0		SLIGHT MATRIX CARRYOVER
046b4601.d	245420001	JXM	25-FEB-2010 02:46	955536	NY-330_SHW		10.0	SVP	DUSE: WRONG SAMPLE DILUTED AND ANALYZED
047b4701.d	1202048594	JXM	25-FEB-2010 03:03	955536	NY-330_SHW		10.0	SVP	DUSE: WRONG SAMPLE DILUTED AND ANALYZED
048b4801.d	WAR100219-99IB	JXM	25-FEB-2010 03:20		022410		1.0		MATRIX CARRYOVER
049b4901.d	WPE100211-10AB	JXM	25-FEB-2010 03:37		022410		1.0		DDT AND METH. LOW ON FRONT
050b5001.d	WAR100219-99IB	JXM	25-FEB-2010 03:54		022410		1.0		CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD7

DATE: 03/02/2010 METHOD: ECD7-B-8081-022310.m OPERATOR:JXM REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT DA936

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-041 Organochlorine Pesticides and Chlorinated Hydrocarbons: EPA 8081
8121
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, BD-Percent Endrin and 4,4'-DDT Breakdown, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd7a.i/030210a.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR100219-99IB	JXM	02-MAR-2010 09:13		030210a	1.0		Clean
002b0201.d	WPE100211-99DG	JXM	02-MAR-2010 09:30		030210a	1.0		(b) DDT 6.3%, Endrin 7.3%; (f) DDT 5.3%, Endrin 6.5%
003b0301.d	WPE100211-10AB	JXM	02-MAR-2010 09:47		030210a	1.0		DUSE
004b0401.d	WPE100125-52TX	JXM	02-MAR-2010 10:04		030210a	1.0		Passes on average for 8081A (All okay 8081B)
005b0501.d	WPE100116-00CL	JXM	02-MAR-2010 10:21		030210a	1.0		All okay
006b0601.d	WPE100211-10AB	JXM	02-MAR-2010 10:38		030210a	1.0		DUSE
007b0701.d	WPE100114-05GA	JXM	02-MAR-2010 11:03		030210a	1.0		All okay
008b0801.d	WPE100302-01AB	JXM	02-MAR-2010 11:20		030210a	1.0		INDAB ICAL level 1
009b0901.d	WPE100302-02AB	JXM	02-MAR-2010 11:37		030210a	1.0		INDAB ICAL level 2
010b1001.d	WPE100302-03AB	JXM	02-MAR-2010 11:54		030210a	1.0		INDAB ICAL level 3
011b1101.d	WPE100302-04AB	JXM	02-MAR-2010 12:11		030210a	1.0		INDAB ICAL level 4
012b1201.d	IPE100204-02AB	JXM	02-MAR-2010 12:29		030210a	1.0		INDAB ICAL level 5
013b1301.d	WPE100211-10AB	JXM	02-MAR-2010 12:46		030210a	1.0		All okay
014b1401.d	WAR100219-99IB	JXM	02-MAR-2010 13:03		030210a	1.0		Clean
015b1501.d	1202051515	JXM	02-MAR-2010 13:20	958404	EUI-7509	1.0	TB	USE, uploaded both columns, reporting higher result

Instrument Batch: /chem/ecd7a.i/030210a.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016b1601.d	1202052746	JXM	02-MAR-2010 13:37	958404	EUI-7515		1.0	TB	USE, uploaded both columns, reporting higher result
017b1701.d	1202055351	JXM	02-MAR-2010 13:54	958404	EUI-7509		1.0	MB	USE, uploaded both columns, reporting higher result NCR - 4cmx low - passes in samples
018b1801.d	1202055358	JXM	02-MAR-2010 14:11	958404	EUI-7509		1.0	LCS	USE, uploaded both columns, reporting higher result
019b1901.d	1202055359	JXM	02-MAR-2010 14:28	958404	EUI-7509		1.0	TLCS	USE, uploaded both columns, reporting higher result
020b2001.d	1202055360	JXM	02-MAR-2010 14:45	958404	EUI-7509		1.0	CLCS	USE, uploaded both columns, reporting higher result
021b2101.d	247407001	JXM	02-MAR-2010 15:03	958404	EUI-7514		1.0	CARE	USE, uploaded both columns, reporting higher result
022b2201.d	WAR100219-99IB	JXM	02-MAR-2010 15:20		030210a		1.0		Clean
023b2301.d	WPE100211-10AB	JXM	02-MAR-2010 15:37		030210a		1.0		All okay
024b2401.d	WAR100219-99IB	JXM	02-MAR-2010 15:54		030210a		1.0		Clean
025b2501.d	247294001	JXM	02-MAR-2010 16:11	958404	EUI-7509		1.0	CARE	USE: HIGHER
026b2601.d	1202055352	JXM	02-MAR-2010 16:28	958404	EUI-7509		1.0	MS	USE: HIGHER
027b2701.d	1202055355	JXM	02-MAR-2010 16:45	958404	EUI-7509		1.0	MSD	USE: HIGHER
028b2801.d	1202055353	JXM	02-MAR-2010 17:02	958404	EUI-7509		1.0	TMS	USE: HIGHER
029b2901.d	1202055356	JXM	02-MAR-2010 17:20	958404	EUI-7509		1.0	TMSD	USE: HIGHER
030b3001.d	1202055354	JXM	02-MAR-2010 17:37	958404	EUI-7509		1.0	CMS	USE: HIGHER
031b3101.d	1202055357	JXM	02-MAR-2010 17:54	958404	EUI-7509		1.0	CMSD	USE: HIGHER
032b3201.d	247408001	JXM	02-MAR-2010 18:11	958404	EUI-7515		1.0	CARE	USE: HIGHER
033b3301.d	WAR100219-99IB	JXM	02-MAR-2010 18:28		030210a		1.0		CLEAN
034b3401.d	WPE100211-10AB	JXM	02-MAR-2010 18:45		030210a		1.0		PASSES BOTH COLUMNS
035b3501.d	WAR100219-99IB	JXM	02-MAR-2010 19:02		030210a		1.0		CLEAN

10H

Instrument Batch: /chem/ecd7a.i/030210a.b Page: 2

10H16.6H

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	1202055375	JXM	02-MAR-2010 19:19	958418	EUI-7519	1.0	MB	USE: HIGHER
037b3701.d	1202055376	JXM	02-MAR-2010 19:36	958418	EUI-7519	1.0	LCS	USE: HIGHER
038b3801.d	1202055379	JXM	02-MAR-2010 19:54	958418	EUI-7519	1.0	LCSD	USE: HIGHER
039b3901.d	247819001	JXM	02-MAR-2010 20:11	958418	EUI-7519	1.0	CARE	USE: HIGHER

040b4001.d	WAR100219-99IB	JXM	02-MAR-2010 20:28			030210a		1.0	MATRIX CARRYOVER
041b4101.d	WPE100211-10AB	JXM	02-MAR-2010 20:45			030210a		1.0	PASSES BOTH COLUMNS
042b4201.d	WAR100219-99IB	JXM	02-MAR-2010 21:02			030210a		1.0	SLIGHT MATRIX CARRYOVER
043b4301.d	WPE100211-99DG	JXM	02-MAR-2010 21:19			030210a		1.0	(b) DDT 22%, Endrin 7.5%; (f) DDT 20%, Endrin 7.1%
044b4401.d	1202055366	JXM	02-MAR-2010 21:36	958413	10-2039			1.0	MB DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
045b4501.d	1202055367	JXM	02-MAR-2010 21:53	958413	10-2039			1.0	LCS DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
046b4601.d	1202055370	JXM	02-MAR-2010 22:10	958413	10-2039			1.0	TLCS DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
047b4701.d	248017004	JXM	02-MAR-2010 22:27	958413	10-2039			1.0	LANL DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
048b4801.d	1202057240	JXM	02-MAR-2010 22:44	958413	10-2039			1.0	MS DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
049b4901.d	1202057241	JXM	02-MAR-2010 23:02	958413	10-2039			1.0	MSD DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
050b5001.d	248040003	JXM	02-MAR-2010 23:19	958413	10-2051			1.0	LANL DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
051b5101.d	248042003	JXM	02-MAR-2010 23:36	958413	10-2057			1.0	LANL DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
052b5201.d	248042011	JXM	02-MAR-2010 23:53	958413	10-2057			1.0	LANL DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
053b5301.d	248042014	JXM	03-MAR-2010 00:10	958413	10-2057			1.0	LANL DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
054b5401.d	WPE100211-10AB	JXM	03-MAR-2010 00:27			030210a		1.0	PASSES BOTH COLUMNS
055b5501.d	WAR100219-99IB	JXM	03-MAR-2010 00:44			030210a		1.0	CLEAN

10H

Instrument Batch: /chem/ecd7a.i/030210a.b Page: 3

10H16.6H

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
056b5601.d	248047004	JXM	03-MAR-2010 01:01	958413	10-2045		1.0	LANL DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
057b5701.d	248047008	JXM	03-MAR-2010 01:18	958413	10-2045		1.0	LANL DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
058b5801.d	248047010	JXM	03-MAR-2010 01:35	958413	10-2045		1.0	LANL DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
059b5901.d	WPE100211-10AB	JXM	03-MAR-2010 01:52			030210a		1.0	PASSES BOTH COLUMNS
060b6001.d	WAR100219-99IB	JXM	03-MAR-2010 02:09			030210a		1.0	CLEAN
061b6101.d	1202056014	JXM	03-MAR-2010 02:26	958674	10-1876		1.0	MB DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
062b6201.d	1202056015	JXM	03-MAR-2010 02:44	958674	10-1876		1.0	LCS DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
063b6301.d	1202056018	JXM	03-MAR-2010 03:01	958674	10-1876		1.0	TLCS DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
064b6401.d	247552002	JXM	03-MAR-2010 03:18	958674	10-1970		1.0	LANL DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310

065b6501.d	1202056016	JXM	03-MAR-2010 03:35	958674	10-1970		1.0	MS	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
066b6601.d	1202056017	JXM	03-MAR-2010 03:52	958674	10-1970		1.0	MSD	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
067b6701.d	WAR100219-99IB	JXM	03-MAR-2010 04:09		030210a		1.0		CLEAN
068b6801.d	WPE100211-10AB	JXM	03-MAR-2010 04:26		030210a		1.0		PASSES BOTH COLUMNS
069b6901.d	WAR100219-99IB	JXM	03-MAR-2010 04:43		030210a		1.0		CLEAN
070b7001.d	247245001	JXM	03-MAR-2010 05:00	958674	10-1876		10.0	LANL	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
071b7101.d	247245002	JXM	03-MAR-2010 05:17	958674	10-1876		10.0	LANL	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
072b7201.d	247245003	JXM	03-MAR-2010 05:34	958674	10-1876		10.0	LANL	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
073b7301.d	247245004	JXM	03-MAR-2010 05:51	958674	10-1876		10.0	LANL	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
074b7401.d	247245006	JXM	03-MAR-2010 06:08	958674	10-1876		10.0	LANL	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310
075b7501.d	247325001	JXM	03-MAR-2010 06:25	958674	10-1896		10.0	LANL	DUSE: BREAKDOWN FAILS, SEE SEQUENCE 030310

10H

Instrument Batch: /chem/ecd7a.i/030210a.b Page: 4

10H16.6H

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
076b7601.d	WAR100219-99IB	JXM	03-MAR-2010 06:42		030210a		1.0	MATRIX CARRYOVER
077b7701.d	WPE100211-10AB	JXM	03-MAR-2010 06:59		030210a		1.0	DDT AND METHOXYCHLOR LOW ON BOTH COLUMNS
078b7801.d	WAR100219-99IB	JXM	03-MAR-2010 07:16		030210a		1.0	CLEAN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD7

DATE: 03/03/2010 METHOD: ECD7-B-8081-022310.m OPERATOR:JXM REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1 SOLVENT LOT
MERCURY LOT

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-041 Organochlorine Pesticides and Chlorinated Hydrocarbons: EPA 8081
8121
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak, BD-Percent Endrin and 4,4'-DDT Breakdown, DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time, BF-Before, AF-After.

Sequence Number: /chem/ecd7a.i/030310.b Injection Volume: 1.0 uL

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001b0101.d	WAR100219-99IB	JXM	03-MAR-2010 09:28		030310	1.0		CLEAN
002b0201.d	WPE100211-99DG	JXM	03-MAR-2010 09:45		030310	1.0		(B)DDT 2.8, ENDRIN 3.9 (F)DDT 2.1, ENDRIN 3.5
003b0301.d	WPE100211-10AB	JXM	03-MAR-2010 10:02		030310	1.0		PASSES BOTH COLUMNS
004b0401.d	WPE100125-52TX	JXM	03-MAR-2010 10:19		030310	1.0		PASSES BOTH COLUMNS
005b0501.d	WPE100116-00CL	JXM	03-MAR-2010 10:36		030310	1.0		PASSES AVERAGE
006b0601.d	WPE100114-05GA	JXM	03-MAR-2010 10:53		030310	1.0		DUSE
007b0701.d	WAR100219-99IB	JXM	03-MAR-2010 11:10		030310	1.0		CLEAN
008b0801.d	WPE100211-99DG	JXM	03-MAR-2010 11:27		030310	1.0		(B)DDT 4.2, ENDRIN 4.3 (F)DDT 3.0, ENDRIN 3.9
009b0901.d	1202055366	JXM	03-MAR-2010 11:44	958413	10-2039	1.0	MB	USE: LOWER
010b1001.d	1202055367	JXM	03-MAR-2010 12:01	958413	10-2039	1.0	LCS	USE: LOWER
011b1101.d	1202055370	JXM	03-MAR-2010 12:18	958413	10-2039	1.0	TLCS	USE: LOWER
012b1201.d	248017004	JXM	03-MAR-2010 12:35	958413	10-2039	1.0	LANL	USE: LOWER
013b1301.d	1202057240	JXM	03-MAR-2010 12:53	958413	10-2039	1.0	MS	USE: LOWER
014b1401.d	1202057241	JXM	03-MAR-2010 13:10	958413	10-2039	1.0	MSD	USE: LOWER
015b1501.d	248040003	JXM	03-MAR-2010 13:27	958413	10-2051	1.0	LANL	USE: LOWER

Instrument Batch: /chem/ecd7a.i/030310.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016b1601.d	248042003	JXM	03-MAR-2010 13:44	958413	10-2057		1.0	LANL	USE: LOWER
017b1701.d	248042011	JXM	03-MAR-2010 14:01	958413	10-2057		1.0	LANL	USE: LOWER
018b1801.d	248042014	JXM	03-MAR-2010 14:18	958413	10-2057		1.0	LANL	USE: LOWER
019b1901.d	WPE100211-10AB	JXM	03-MAR-2010 14:35		030310		1.0		(B)ENDRIN HIGH (F)ENDRIN AND DDT HIGH
020b2001.d	WAR100219-99IB	JXM	03-MAR-2010 14:52		030310		1.0		CLEAN
021b2101.d	248047004	JXM	03-MAR-2010 15:09	958413	10-2045		1.0	LANL	USE: LOWER
022b2201.d	248047008	JXM	03-MAR-2010 15:26	958413	10-2045		1.0	LANL	USE: LOWER
023b2301.d	248047010	JXM	03-MAR-2010 15:43	958413	10-2045		1.0	LANL	USE: LOWER
024b2401.d	WPE100211-10AB	JXM	03-MAR-2010 16:01		030310		1.0		PASSES BOTH COLUMNS
025b2501.d	WAR100219-99IB	JXM	03-MAR-2010 16:18		030310		1.0		CLEAN
026b2601.d	1202058092	JXM	03-MAR-2010 16:35	959604	247808		1.0	MB	USE: HIGHER
027b2701.d	1202058093	JXM	03-MAR-2010 16:52	959604	247808		1.0	LCS	USE: HIGHER
028b2801.d	1202058096	JXM	03-MAR-2010 17:09	959604	247808		1.0	TLCS	USE: HIGHER
029b2901.d	247808011	JXM	03-MAR-2010 17:26	959604	247808		10.0	BY12	USE: HIGHER
030b3001.d	1202058094	JXM	03-MAR-2010 17:43	959604	247808		10.0	MS	USE: HIGHER
031b3101.d	1202058095	JXM	03-MAR-2010 18:00	959604	247808		10.0	MSD	USE: HIGHER
032b3201.d	WAR100219-99IB	JXM	03-MAR-2010 18:17		030310		1.0		SLIGHT MATRIX CARRYOVER
033b3301.d	WPE100211-10AB	JXM	03-MAR-2010 18:34		030310		1.0		DDT HIGH ON FRONT, PASSES ON BACK
034b3401.d	WAR100219-99IB	JXM	03-MAR-2010 18:51		030310		1.0		CLEAN
035b3501.d	1202056014	JXM	03-MAR-2010 19:08	958674	10-1876		1.0	MB	USE: LOWER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036b3601.d	1202056015	JXM	03-MAR-2010 19:25	958674	10-1876	1.0	LCS	USE: LOWER
037b3701.d	1202056018	JXM	03-MAR-2010 19:43	958674	10-1876	1.0	TLCS	USE: LOWER
038b3801.d	247552002	JXM	03-MAR-2010 20:00	958674	10-1970	1.0	LANL	USE: LOWER
039b3901.d	1202056016	JXM	03-MAR-2010 20:17	958674	10-1970	1.0	MS	USE: LOWER
040b4001.d	1202056017	JXM	03-MAR-2010 20:34	958674	10-1970	1.0	MSD	USE: LOWER

041b4101.d	WAR100219-99IB	JXM	03-MAR-2010 20:51		030310	1.0		SLIGHT MATRIX CARRYOVER
042b4201.d	WPE100211-10AB	JXM	03-MAR-2010 21:08		030310	1.0		PASSES BOTH COLUMNS
043b4301.d	WAR100219-99IB	JXM	03-MAR-2010 21:25		030310	1.0		CLEAN
044b4401.d	247245001	JXM	03-MAR-2010 21:42	958674	10-1876	10.0	LANL	USE: LOWER
045b4501.d	247245002	JXM	03-MAR-2010 21:59	958674	10-1876	10.0	LANL	USE: LOWER
046b4601.d	247245003	JXM	03-MAR-2010 22:16	958674	10-1876	10.0	LANL	USE: LOWER
047b4701.d	247245004	JXM	03-MAR-2010 22:33	958674	10-1876	10.0	LANL	USE: LOWER
048b4801.d	247245006	JXM	03-MAR-2010 22:49	958674	10-1876	10.0	LANL	USE: LOWER
049b4901.d	247325001	JXM	03-MAR-2010 23:06	958674	10-1896	10.0	LANL	USE: LOWER
050b5001.d	UE100302-09	JXM	03-MAR-2010 23:23	SCREEN	030310	1.0	PESTSURR	SCREEN
051b5101.d	WAR100219-99IB	JXM	03-MAR-2010 23:40		030310	1.0		SLIGHT MATRIX CARRYOVER
052b5201.d	WPE100211-10AB	JXM	03-MAR-2010 23:57		030310	1.0		ENDRIN AND DDD HIGH ON BOTH COLUMNS
053b5301.d	WAR100219-99IB	JXM	04-MAR-2010 00:14		030310	1.0		SLIGHT MATRIX CARRYOVER

GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/013b1301.d
Lab Smp Id: 1202057240 Client Smp ID: CAPA-10-12917MS
Inj Date : 03-MAR-2010 12:53
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202057240|1|
Misc Info : |ECD81A_1L|958413|SVP|MS|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 03-Mar-2010 14:03 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 13 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2039.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.197	3.195	0.002	96556409	171.992	0.860	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.292	9.292	0.000	67123489	186.783	0.934	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.723	3.722	0.001	77745323	104.967	0.525	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.052	4.051	0.001	69848251	107.469	0.537	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.115	4.115	0.000	32205432	106.045	0.530	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
13 delta-BHC					CAS #: 319-86-8		
4.405	4.404	0.001	72712700	114.323	0.572	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.488	4.487	0.001	46913988	99.8559	0.499	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.817	4.817	0.000	61489175	92.1923	0.461	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.386	5.386	0.000	58600217	105.071	0.525	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.581	5.581	0.000	60587319	104.025	0.520	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.731	5.731	0.000	60147713	103.810	0.519	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.802	5.802	0.000	53710635	104.745	0.524	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.882	5.883	-0.001	136048042	281.313	1.41	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.090	6.089	0.001	131847130	266.113	1.33	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.419	6.419	0.000	120326235	327.697	1.64	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.500	6.501	-0.001	103181086	288.119	1.44	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.643	6.643	0.000	121049706	262.815	1.31	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.003	7.004	-0.001	87901348	238.734	1.19	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.845	6.847	-0.002	90389226	294.637	1.47	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.309	7.310	-0.001	109843404	277.125	1.38	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.590	7.591	-0.001	155398258	1208.98	6.04	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.917	7.919	-0.002	126542149	270.262	1.35	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/030310.b/013b1301.d
Date : 03-MAR-2010 12:53
Client ID: CAPA-10-12917MS
Sample Info: 1120205724011
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

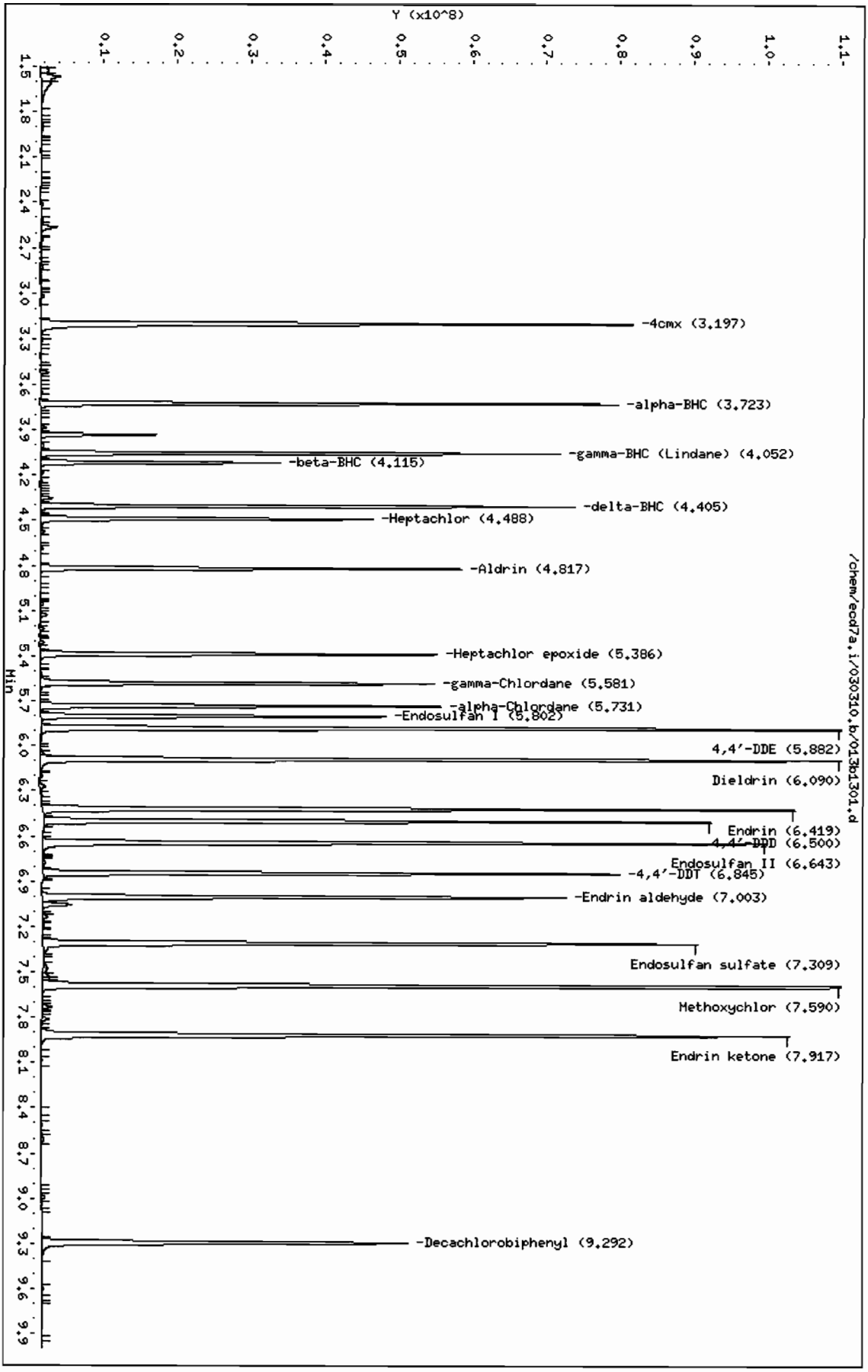

GEL Laboratories LLC

CLP-1

Data file : /chem/ecd7a.i/030310.b/013f1301.d
Lab Smp Id: 1202057240 Client Smp ID: CAPA-10-12917MS
Inj Date : 03-MAR-2010 12:53
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202057240|1|
Misc Info : |ECD81A_1L|958413|SVP|MS|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 03-Mar-2010 14:03 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 13 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2039.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.878	2.877	0.001	131276517	163.514	0.818	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.095	8.096	-0.001	114415358	190.769	0.954	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.298	3.297	0.001	118225647	104.925	0.525	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.550	3.549	0.001	109028242	107.712	0.538	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.618	3.614	0.004	73110323	158.370	0.792	80.00- 120.00	100.00(R)

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
13 delta-BHC					CAS #: 319-86-8		
3.769	3.768	0.001	112816256	114.283	0.571	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.945	3.945	0.000	84956081	108.104	0.540	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.210	4.210	0.000	93586010	95.7244	0.479	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.756	4.756	0.000	91712331	105.494	0.527	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.874	4.873	0.001	89999415	102.717	0.514	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.998	4.998	0.000	91124234	104.437	0.522	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.134	5.133	0.001	82895869	106.993	0.535	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.061	5.061	0.000	216226929	270.598	1.35	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.365	5.365	0.000	212755912	263.344	1.32	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.599	5.598	0.001	201783704	326.959	1.63	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.649	5.651	-0.002	181609239	294.376	1.47	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.823	5.823	0.000	178514945	251.977	1.26	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.249	6.251	-0.002	146361332	245.933	1.23	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.932	5.934	-0.002	181343294	320.544	1.60	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.705	6.706	-0.001	174771305	287.899	1.44	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.432	6.433	-0.001	303440965	1256.27	6.28	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.008	7.010	-0.002	210452380	270.965	1.35	80.00- 120.00	100.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/030310.b/013f1301.d
Date : 03-MAR-2010 12:53
Client ID: CAPA-10-129117MS
Sample Info: 1120205724011
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

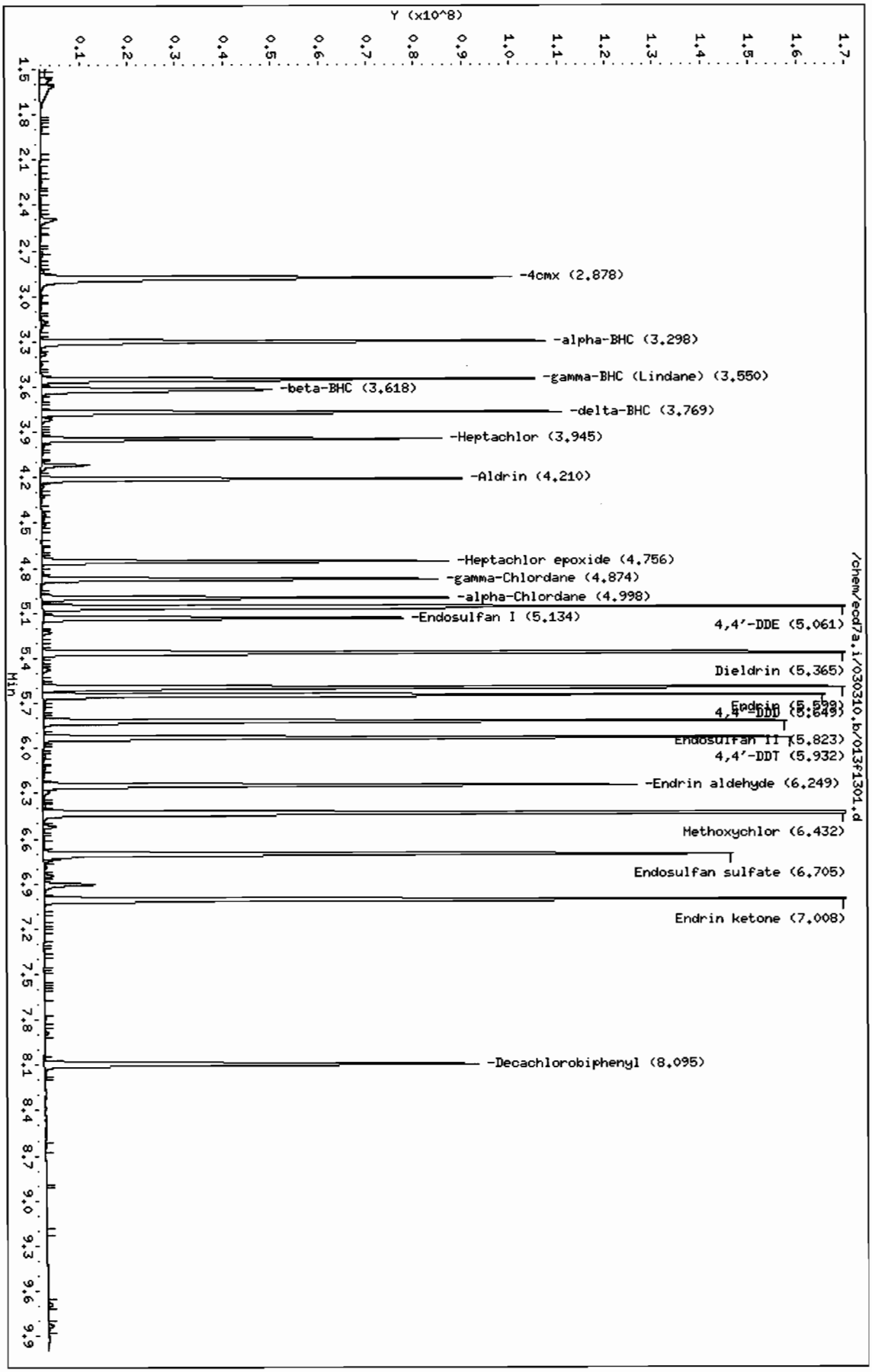

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GEL Laboratories LLC

CLP-2

Data file : /chem/ecd7a.i/030310.b/014b1401.d
Lab Smp Id: 1202057241 Client Smp ID: CAPA-10-12917MSD
Inj Date : 03-MAR-2010 13:10
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202057241|1|
Misc Info : |ECD81A_1L|958413|SVP|MSD|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-B-8081-022310.m
Meth Date : 03-Mar-2010 14:03 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025b2501.d
Als bottle: 14 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2039.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
3.196	3.195	0.001	92691717	165.108	0.826	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
9.293	9.292	0.001	64629980	179.844	0.899	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.723	3.722	0.001	79011572	106.676	0.533	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
4.052	4.051	0.001	71008545	109.254	0.546	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
4.115	4.115	0.000	32387629	106.645	0.533	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
13 delta-BHC					CAS #: 319-86-8		
4.406	4.404	0.002	72900374	114.618	0.573	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
4.488	4.487	0.001	46128948	98.1849	0.491	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.817	4.817	0.000	59998667	89.9576	0.450	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
5.386	5.386	0.000	57623379	103.319	0.516	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
5.582	5.581	0.001	60090325	103.171	0.516	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
5.731	5.731	0.000	59986231	103.532	0.518	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.802	5.802	0.000	53740552	104.803	0.524	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.882	5.883	-0.001	135183016	279.525	1.40	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
6.090	6.089	0.001	130635987	263.668	1.32	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
6.419	6.419	0.000	118737668	323.371	1.62	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
6.500	6.501	-0.001	103865403	290.030	1.45	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
6.643	6.643	0.000	121585039	263.978	1.32	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
7.004	7.004	0.000	91539998	248.617	1.24	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
6.846	6.847	-0.001	91149618	297.116	1.48	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
7.309	7.310	-0.001	111947251	282.433	1.41	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
7.590	7.591	-0.001	154556267	1202.43	6.01	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.918	7.919	-0.001	124372781	265.629	1.33	80.00- 120.00	100.00

Data File: /chem/ecd7a.i/030310.b/014b1401.d
Date : 03-MAR-2010 13:10
Client ID: CAPA-10-12917MSD
Sample Info: 1120205724111
Volume Injected (uL): 1.0
Column phase: CLP-2

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

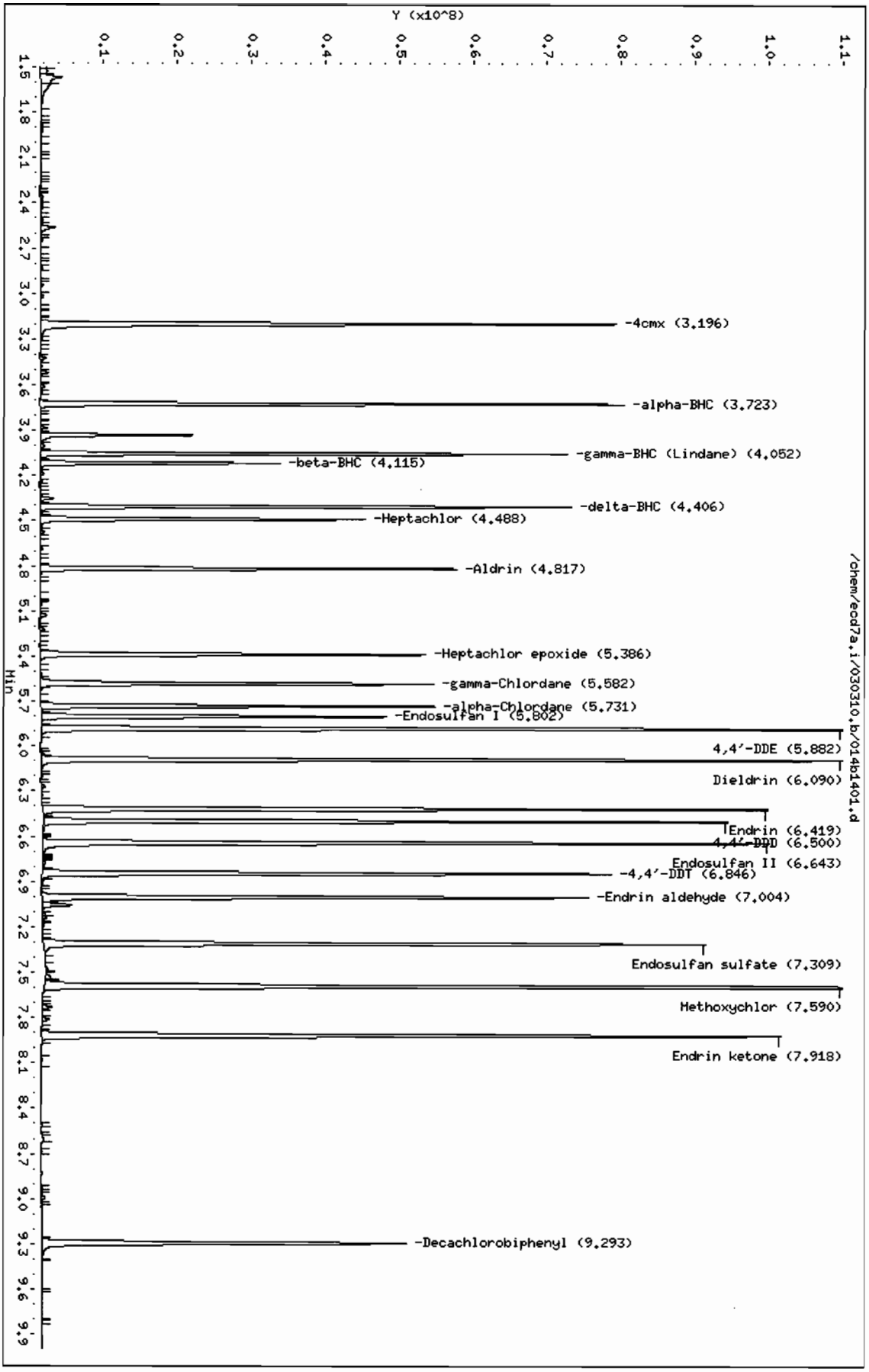

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CLP-1

Data file : /chem/ecd7a.i/030310.b/014f1401.d
Lab Smp Id: 1202057241 Client Smp ID: CAPA-10-12917MSD
Inj Date : 03-MAR-2010 13:10
Operator : JXM Inst ID: ecd7a.i
Smp Info : |1202057241|1|
Misc Info : |ECD81A_1L|958413|SVP|MSD|
Comment :
Method : /chem/ecd7a.i/030310.b/ECD7-F-8081-022310.m
Meth Date : 03-Mar-2010 14:03 jam00798 Quant Type: ESTD
Cal Date : 23-FEB-2010 19:17 Cal File: 025f2501.d
Als bottle: 14 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2039.sub
Target Version: 3.50 Sample Matrix: Ground Water

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	2.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 1 4cmx					CAS #: 877-09-8		
2.878	2.877	0.001	124594598	155.192	0.776	80.00- 120.00	100.00
$ 32 Decachlorobiphenyl					CAS #: 2051-24-3		
8.096	8.096	0.000	108697549	181.235	0.906	80.00- 120.00	100.00
5 alpha-BHC					CAS #: 319-84-6		
3.298	3.297	0.001	119703412	106.236	0.531	80.00- 120.00	100.00
7 gamma-BHC (Lindane)					CAS #: 58-89-9		
3.550	3.549	0.001	110523449	109.189	0.546	80.00- 120.00	100.00
12 beta-BHC					CAS #: 319-85-7		
3.623	3.614	0.009	81963850	177.548	0.888	80.00- 120.00	100.00(R)

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
13 delta-BHC					CAS #: 319-86-8		
3.769	3.768	0.001	111646647	113.099	0.565	80.00- 120.00	100.00
10 Heptachlor					CAS #: 76-44-8		
3.945	3.945	0.000	83865662	106.717	0.534	80.00- 120.00	100.00
11 Aldrin					CAS #: 309-00-2		
4.211	4.210	0.001	90910431	92.9877	0.465	80.00- 120.00	100.00
14 Heptachlor epoxide					CAS #: 1024-57-3		
4.757	4.756	0.001	91474739	105.220	0.526	80.00- 120.00	100.00
17 gamma-Chlordane					CAS #: 5103-74-2		
4.873	4.873	0.000	89334959	101.958	0.510	80.00- 120.00	100.00
18 alpha-Chlordane					CAS #: 5103-71-9		
4.999	4.998	0.001	90474730	103.692	0.518	80.00- 120.00	100.00
16 Endosulfan I					CAS #: 959-98-8		
5.134	5.133	0.001	82665605	106.695	0.533	80.00- 120.00	100.00
19 4,4'-DDE					CAS #: 72-55-9		
5.061	5.061	0.000	209980495	262.781	1.31	80.00- 120.00	100.00
20 Dieldrin					CAS #: 60-57-1		
5.365	5.365	0.000	212946740	263.581	1.32	80.00- 120.00	100.00
22 Endrin					CAS #: 72-20-8		
5.598	5.598	0.000	202074996	327.431	1.64	80.00- 120.00	100.00
25 4,4'-DDD					CAS #: 72-54-8		
5.650	5.651	-0.001	182137396	295.232	1.48	80.00- 120.00	100.00
24 Endosulfan II					CAS #: 33213-65-9		
5.822	5.823	-0.001	191737087	270.640	1.35	80.00- 120.00	100.00
27 Endrin aldehyde					CAS #: 7421-93-4		
6.250	6.251	-0.001	151107125	253.908	1.27	80.00- 120.00	100.00
26 4,4'-DDT					CAS #: 50-29-3		
5.933	5.934	-0.001	179942540	318.068	1.59	80.00- 120.00	100.00
29 Endosulfan sulfate					CAS #: 1031-07-8		
6.706	6.706	0.000	178278101	293.676	1.47	80.00- 120.00	100.00
28 Methoxychlor					CAS #: 72-43-5		
6.432	6.433	-0.001	303183431	1255.20	6.28	80.00- 120.00	100.00

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
31 Endrin ketone					CAS #: 53494-70-5		
7.008	7.010	-0.002	212067781	273.044	1.36	80.00- 120.00	100.00

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd7a.i/030310.b/014f1401.d
Date : 03-MAR-2010 13:10
Client ID: CAPA-10-12917MSD
Sample Info: 1120205724111
Volume Injected (uL): 1.0
Column phase: CLP-1

Instrument: ecd7a.i
Operator: JXM
Column diameter: 0.25

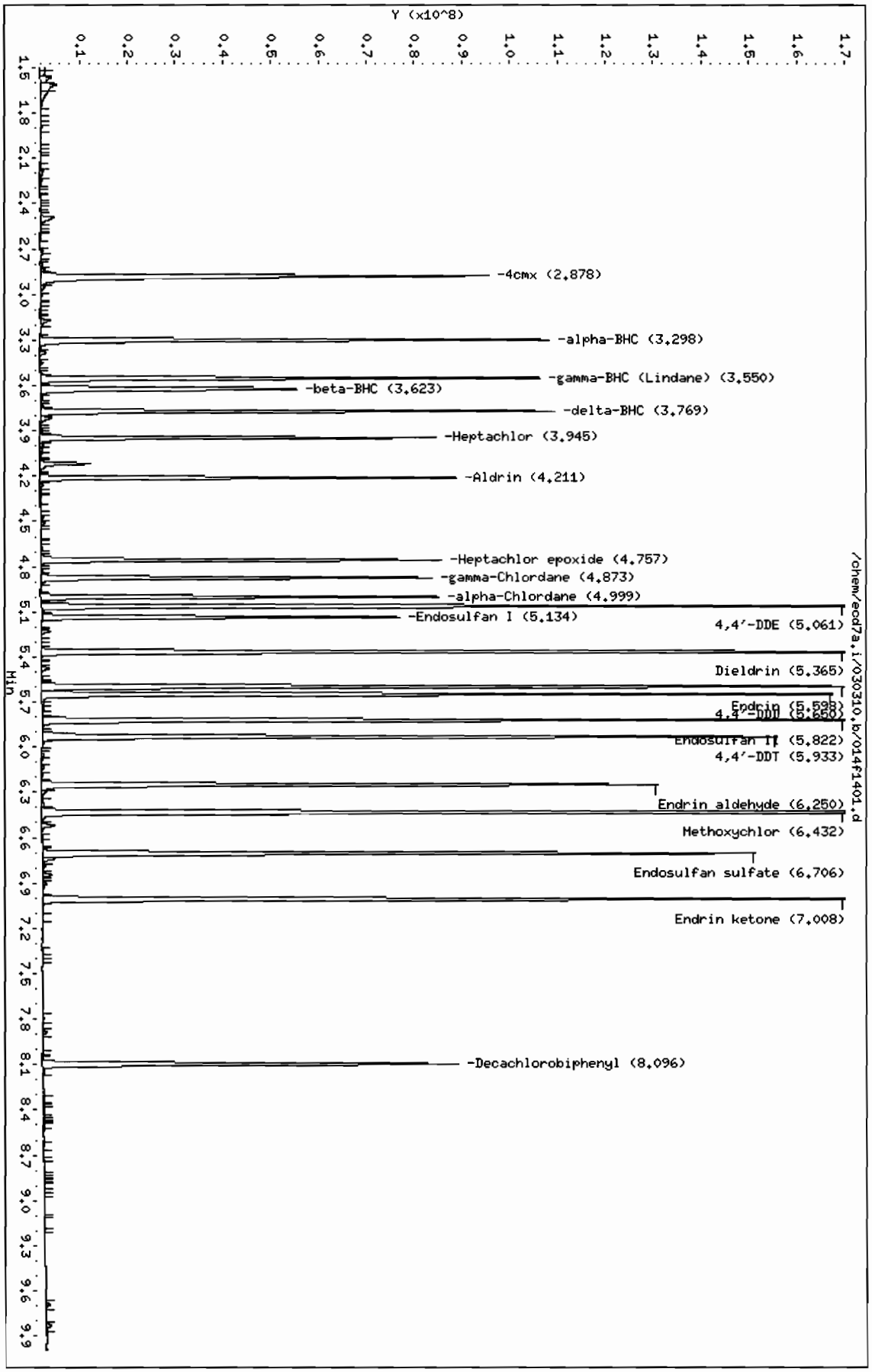

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Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 958412 **Verified by:** _____

Analyst: Sophia Cox

Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202055366 MB	01-MAR-2010 18:08:00	1000	5	5	Florisil	5	1	10	5	0.005
1202055367 LCS	01-MAR-2010 18:08:00	1000	5	5	Florisil	5	1	10	5	0.005
1202055370 LCS	01-MAR-2010 18:08:00	1000	5	5	Florisil	5	1	10	5	0.005
248017004	01-MAR-2010 18:08:00	800	5	5	Florisil	5	1	10	5	0.00625
1202057240 MS (248017004)	01-MAR-2010 18:08:00	500	5	5	Florisil	2.5	1	10	2.5	0.005
1202057241 MSD (248017004)	01-MAR-2010 18:08:00	500	5	5	Florisil	2.5	1	10	2.5	0.005
248040003	01-MAR-2010 18:08:00	900	5	5	Florisil	5	1	10	5	0.00556
248042003	01-MAR-2010 18:08:00	870	5	5	Florisil	5	1	10	5	0.00575
248042011	01-MAR-2010 18:08:00	780	5	5	Florisil	5	1	10	5	0.00641
248042014	01-MAR-2010 18:08:00	980	5	5	Florisil	5	1	10	5	0.0051
248047004	01-MAR-2010 18:08:00	890	5	5	Florisil	5	1	10	5	0.00562
248047008	01-MAR-2010 18:08:00	900	5	5	Florisil	5	1	10	5	0.00556
248047010	01-MAR-2010 18:08:00	870	5	5	Florisil	5	1	10	5	0.00575

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202055367	PESTSPIKE	UE100218-04	1	mL
LCS	1202055370	Toxaphene TCLP LCS	WE100105-11	2	mL
MS	1202057240	PESTSPIKE	UE100218-04	.5	mL
MSD	1202057241	PESTSPIKE	UE100218-04	.5	mL
SURR	All	PEST SURROGATE 1000 UG/L	UE100217-08	.5	mL
SURR	All	PEST SURROGATE 1000 UG/L	UE100217-08	1	mL
REGNT	All	Hexane	100211-B2	5	mL
REGNT	All	Methylene Chloride	100301-D	180	mL
REGNT	All	Florisil cartridge 1000mg per cartridge	1269340-28	1	g
SOURC	All	SODIUM SULFATE	1269268	30	g

Comments:

Clean up Date: 01-MAR-2010
Clean up Initials: SCC
Verified By: JAC
Final Solvent: Hexane
Clean Up SOP: GL-OA-E-036

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
04-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GC/ECD	SW846 8081A	Liquid	ESHL, LANL
Batch ID:	**Sample Numbers:**		
958413	See Below		

Potentially affected work order(s)(SDG): 248017(10-2039),248040(10-2051),248042(10-2057),248047(10-2045)

Application Issues:

Failed Recovery for MSD/PSD

Failed Recovery for LCS/LCSD

Failed Recovery for MS/PS

Failed Yield for Surrogates

Specification and Requirements Exception Description:	DER Disposition:
1. The MS(1202057240) did not meet spike recovery acceptance limits.	1. The MS failed the spike recovery high on one column while passing on the other. There were no detects of target analytes in the samples.
2. The Tox LCS(1202055370) did not meet spike recovery acceptance limits.	2. The Toxaphene LCS failed spike recovery high. Since there were no detects in the samples and the spike was biased high, the data were reported.
3. Samples 248042003, 011, 014, and 248047008 did not meet surrogate recovery acceptance limits.	3. The samples failed the surrogates high. Since there were no detects in the samples and the surrogates were biased high, the data were reported.
4. The MS(1202057240) and MSD(1202057241) did not meet RPD criteria.	4. The MSD failed the spike recovery high on one column while passing on the other. As a result, the RPD criteria were not met.

Originator's Name:

James Maestas 04-MAR-10

Data Validator/Group Leader:

Cameron Bearden 04-MAR-10

GC SEMIVOLATILE PCB ANALYSIS

PCB Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2057

Method/Analysis Information

Procedure:	**Analysis of Polychlorinated Biphenyls by ECD**
Analytical Method:	SW846 8082
Prep Method:	SW846 3510C
Analytical Batch Number:	961887
Prep Batch Number:	961885

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 8082:

Sample ID	Client ID
248042004	CAPA-10-12771
248042012	CAPA-10-13085
1202063177	Method Blank (MB)
1202063178	Laboratory Control Sample (LCS)
1202064344	247824001(CAPA-10-13498) Matrix Spike (MS)
1202064345	247824001(CAPA-10-13498) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-040 REV# 15.

Raw data reports are processed and reviewed by the analyst using the Target software package. False positives have been removed from the Target quantitation reports per standard operating procedures (SOP) section 23.0.

Calibration Information

Please note that the 'Cal Date' indicated on each quantitation report reflects the date and time of the most recent calibrated analyte(s) in the Target processing method. Since the laboratory may calibrate with multiple solutions on different days using the same processing method, the Target software will update the 'Cal Date' to the last calibration file, date and time. The correct dates and times for all calibration files are located on the Calibration History report in the Standard Data section in the data package.

Due to software limitations, the Calibration Summary Form 6 may not indicate all the calibration files comprising the initial calibration. A complete list of the initial calibration data files are shown in the Calibration History report located in the Standard Data section of the data package.

Initial Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

The linear equation used in Target and indicated on the initial calibration summary form is not a conventional linear equation (slope intercept formula) and does not match the equation found in SW-846 method 8000B. The x and y axes are inversed in Target, so that the instrument response is treated as the independent variable (x) and the concentration ratio is treated as the dependent variable (y). The equation used in Target to calculate sample results is adjusted to account for the linear equation inversion and reciprocal slope. The adjusted calculation has been independently verified to produce valid results.

Continuing Calibration Verification (CCV) Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Surrogate Recoveries
All the surrogate recoveries were within the established acceptance criteria for this SDG.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
A LANL sample of similar matrix from another SDG (10-2005) was selected for the matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the MS and MSD met the acceptance limits.

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

Miscellaneous Information

Electronic Package Comment

The following package was generated using an electronic data processing program referred to as "virtual packaging". In an effort to increase quality and efficiency, the laboratory is developing systems to eventually generate all data packages electronically. The following change from "traditional" packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. An electronic signature page inserted after the case narrative of each electronic package will indicate the analyst, reviewer, and report specialist names associated with the generation of the data and package. The

data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception report (DER) is for documentation of any procedural anomalies that may deviate from referenced SOP or contractual document. A DER was not required for this SDG.

Manual Integration
Certain standards and samples may have required manual integration to correctly position the baseline as set in the calibration standard injections. If manual integration was performed, copies of all manual integration peak profiles are included in the raw data section of this PCB fraction.

Additional Comments
The additional comments field is used to address special issues associated with each analysis, clarify method/contractual issues pertaining to the analysis, and to list any report documents generated as a result of sample analysis or review. The following additional comments were required:

The higher results from either column have been chosen and reported in the data package for the client samples, MB and LCS.

The data reported on the form I and III may differ slightly from the data reported on the form X. This is due to software limitations in rounding differences between the forms.

Aroclors quantitated on the raw data report by the Target data system do not necessarily represent positive Aroclor identification. In order for positive identification to be made, the Aroclor must match in pattern and retention time; as well as quantitate relatively close between the primary and confirmation columns, as specified in SW846 method 8000. When these conditions are not met, the Aroclor is reported as a non-detect on the data report. These situations will be noted on the raw data as DMP, representing does not match pattern, or DNC does not confirm.

Due to software limitation, the Form VIIs will display the results either in the % difference or % drift depending on the type of the calibration curve. If the curve of all analytes is generated using an average response factor (RF), the Form VII will display results using the %difference calculation (RF). If the curve of one or more analytes is generated using a linear curve, the Form VII will display results using the % drift calculation (by concentration) for all analytes.

System Configuration

The Semi-Volatiles-PCB analysis was performed on the following instrument configuration:

Instrument ID	Instrument	System Configuration	Column ID	Column Description
ECD1A.I_I	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP I	30m x 0.25mm, 0.25um (Rtx-CLPesticide)
ECD1A.I_2	HP Gas Chromatograph	HP6890 Series ECD	Rtx-CLP II	30m x 0.25mm, 0.20um (Rtx-CLPesticideII)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Jimmi Cao Date: 3/26/10

Roadmap for LANL 10-2057 PCB

This roadmap was analyzed by yip00818 on 03-10-2010, 07:06.
This roadmap was reviewed by jim01140 on 03-10-2010, 11:39.
This roadmap was packaged by sha01289 on 03-26-2010, 07:36.
This roadmap was validated by jim01140 on 03-26-2010, 14:49.

Front Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/030910.b/034f3401.d	248042004	sample	09-MAR-2010	11:58	10-2057.sub	CAPA-10-12771	1.00000	961887	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/030910.b/035f3501.d	248042012	sample	09-MAR-2010	12:11	10-2057.sub	CAPA-10-13085	1.00000	961887	UPLOAD BOTH COLUMNS, USE HIGHER

Back Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/030910.b/034b3401.d	248042004	sample	09-MAR-2010	11:58	10-2057.sub	CAPA-10-12771	1.00000	961887	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/030910.b/035b3501.d	248042012	sample	09-MAR-2010	12:11	10-2057.sub	CAPA-10-13085	1.00000	961887	UPLOAD BOTH COLUMNS, USE HIGHER

Front QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/030910.b/027f2701.d	1202063177	mb	09-MAR-2010	10:42	10-2057.sub	PBLK01	1.00000	961887	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/030910.b/028f2801.d	1202063178	lcs	09-MAR-2010	10:53	10-2057.sub	PBLK01LCS	1.00000	961887	UPLOAD BOTH COLUMNS, USE HIGHER

Back QC Sample Column

exclude	manual	datafile	smpid	sampletype	injdate	injtime	sublist	clientid	dilution	prepbatchid	comment
☐	N	/chem/ecd1a.i/030910.b/027b2701.d	1202063177	mb	09-MAR-2010	10:42	10-2057.sub	PBLK01	1.00000	961887	UPLOAD BOTH COLUMNS, USE HIGHER
☐	N	/chem/ecd1a.i/030910.b/028b2801.d	1202063178	lcs	09-MAR-2010	10:53	10-2057.sub	PBLK01LCS	1.00000	961887	UPLOAD BOTH COLUMNS, USE HIGHER

SAMPLE DATA SUMMARY

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042004**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA–10–12771**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**961887**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 11:58**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/08/2010 14:29**	**Aliquot:**	**860 mL**	**Final Volume:**	**1 mL**
Data File:	**034f3401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	034b3401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	0.116	ug/L	0.0387	0.116	1
11104–28–2	Aroclor–1221	U	0.116	ug/L	0.0387	0.116	1
11141–16–5	Aroclor–1232	U	0.116	ug/L	0.0387	0.116	1
53469–21–9	Aroclor–1242	U	0.116	ug/L	0.0387	0.116	1
12672–29–6	Aroclor–1248	U	0.116	ug/L	0.0387	0.116	1
11097–69–1	Aroclor–1254	U	0.116	ug/L	0.0387	0.116	1
11096–82–5	Aroclor–1260	U	0.116	ug/L	0.0387	0.116	1
37324–23–5	Aroclor–1262	U	0.116	ug/L	0.0387	0.116	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.131	0.233	ug/L	56.2	(30%–105%)
Decachlorobiphenyl	0.120	0.233	ug/L	51.6	(30%–126%)

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042012**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA–10–13085**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**961887**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 12:11**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/08/2010 14:29**	**Aliquot:**	**870 mL**	**Final Volume:**	**1 mL**
Data File:	**035f3501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	035b3501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	0.115	ug/L	0.0383	0.115	1
11104–28–2	Aroclor–1221	U	0.115	ug/L	0.0383	0.115	1
11141–16–5	Aroclor–1232	U	0.115	ug/L	0.0383	0.115	1
53469–21–9	Aroclor–1242	U	0.115	ug/L	0.0383	0.115	1
12672–29–6	Aroclor–1248	U	0.115	ug/L	0.0383	0.115	1
11097–69–1	Aroclor–1254	U	0.115	ug/L	0.0383	0.115	1
11096–82–5	Aroclor–1260	U	0.115	ug/L	0.0383	0.115	1
37324–23–5	Aroclor–1262	U	0.115	ug/L	0.0383	0.115	1

Surrogate/Tracer recovery	Result	Nominal		Recovery %	Acceptable Limits
Decachlorobiphenyl	0.0752	0.230	ug/L	32.7	(30%–126%)
4cmx	0.076	0.230	ug/L	33.1	(30%–105%)

QUALITY CONTROL SUMMARY

PCB

Surrogate Recovery Report

SDG Number: 10–2057

Matrix Type: LIQUID

CAP Column (1) : CLP1 **CAP Column (2) : CLP2**

Sample ID	Client ID	4CMX 1 %REC #	4CMX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #
1202063177	MB for batch 961885	48	47	64	59
1202063178	LCS for batch 961885	48	47	67	63
248042004	CAPA–10–12771	56	56	52	49
248042012	CAPA–10–13085	33	33	33	32

Surrogate	Acceptance Limits
4CMX = 4cmx	(30%–105%)
DCB = Decachlorobiphenyl	(30%–126%)

* Recovery outside Acceptance Limits

\# Column to be used to flag recovery values

D Sample Diluted

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: **10–2057**
Sample Type: **Laboratory Control Sample**
Client ID: **LCS for batch 961885**
Matrix: **WATER**
Lab Sample ID: **1202063178**
Instrument: **ECD1A.I**
Analysis Date: **03/09/2010 10:53**
Dilution: 1
Analyst: **YS1**
Prep Batch ID: **961885**
Inj. Vol: **1 uL**
Batch ID: **961887**

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L	Spike Conc. ug/L	Recovery %	Acceptance Limits
12674–11–2	LCS	Aroclor–1016	1.00	0.0	0.660	66	40–110
11096–82–5	LCS	Aroclor–1260	1.00	0.0	0.840	84	48–110

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2005
Client ID: CAPA–10–13498MS
Lab Sample ID: 1202064344
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike
Matrix: GROUND WATER
Analysis Date: 03/09/2010 11:14
Dilution: 1
Prep Batch ID: 961885
Batch ID: 961887

CAS No		Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits
12674–11–2	MS	Aroclor–1016	1.00	0.00	U	0.690	69	25–116
11096–82–5	MS	Aroclor–1260	1.00	0.00	U	0.880	88	34–116

PCB

Quality Control Summary
Spike Recovery Report

SDG Number: 10–2005
Client ID: CAPA–10–13498MSD
Lab Sample ID: 1202064345
Instrument: ECD1A.I
Analyst: YS1
Inj. Vol: 1 uL

Sample Type: Matrix Spike Duplicate
Matrix: GROUND WATER
Analysis Date: 03/09/2010 11:24
Prep Batch ID: 961885
Batch ID: 961887
Dilution: 1

CAS No	Parmname	Amount Added ug/L	Sample Conc. ug/L		Spike Conc. ug/L	Recovery %	Acceptance Limits	RPD %	Acceptance Limits
12674–11–2	MSD Aroclor–1016	1.00	0.00	U	0.660	66	25–116	4	0–31
11096–82–5	MSD Aroclor–1260	1.00	0.00	U	0.840	84	34–116	5	0–29

Method Blank Summary

SDG Number:	10–2057	Client:	LANL010	Matrix:	WATER
Client ID:	MB for batch 961885	Instrument ID:	ECD1A.I_2 ECD1A.I_1	Data File:	027b2701–1.d 027f2701–1.d
Lab Sample ID:	1202063177				
Column:	CLP2 CLP1	Prep Date:	03/08/2010 14:29	Analyzed:	03/09/10 10:42
		Level:	LOW		

This method blank applies to the following samples and quality control samples:

Client Sample ID	Lab Sample ID	File ID	Date Analyzed	Time Analyzed
01 LCS for batch 961885	1202063178	028f2801–1.d 028b2801–1.d	03/09/10	1053
04 CAPA–10–12771	248042004	034f3401.d 034b3401.d	03/09/10	1158
05 CAPA–10–13085	248042012	035f3501.d 035b3501.d	03/09/10	1211

SAMPLE DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10–2057**	**Date Collected:**	**02/22/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042004**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA–10–12771**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL–OA–E–040**
Batch ID:	**961887**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 11:58**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/08/2010 14:29**	**Aliquot:**	**860 mL**	**Final Volume:**	**1 mL**
Data File:	**034f3401.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	034b3401.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674–11–2	Aroclor–1016	U	0.116	ug/L	0.0387	0.116	1
11104–28–2	Aroclor–1221	U	0.116	ug/L	0.0387	0.116	1
11141–16–5	Aroclor–1232	U	0.116	ug/L	0.0387	0.116	1
53469–21–9	Aroclor–1242	U	0.116	ug/L	0.0387	0.116	1
12672–29–6	Aroclor–1248	U	0.116	ug/L	0.0387	0.116	1
11097–69–1	Aroclor–1254	U	0.116	ug/L	0.0387	0.116	1
11096–82–5	Aroclor–1260	U	0.116	ug/L	0.0387	0.116	1
37324–23–5	Aroclor–1262	U	0.116	ug/L	0.0387	0.116	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.131	0.233	ug/L	56.2	(30%–105%)
Decachlorobiphenyl	0.120	0.233	ug/L	51.6	(30%–126%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/034f3401.d
Lab Smp Id: 248042004 Client Smp ID: CAPA-10-12771
Inj Date : 09-MAR-2010 11:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248042004|1|
Misc Info : |ECD82P_1L|961887|SVA|LANL|GROUND WATER|CAPA-10-12771||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 10:55 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 34
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2057.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	860.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.919	1.916	0.003	48386480	112.360	0.13	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.220	5.223	-0.003	31723815	103.238	0.12	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/034f3401.d
Date : 09-MAR-2010 11:58
Client ID: CAPA-10-12771
Sample Info: |248042004|1|
Volume Injected (uL): 1.0
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

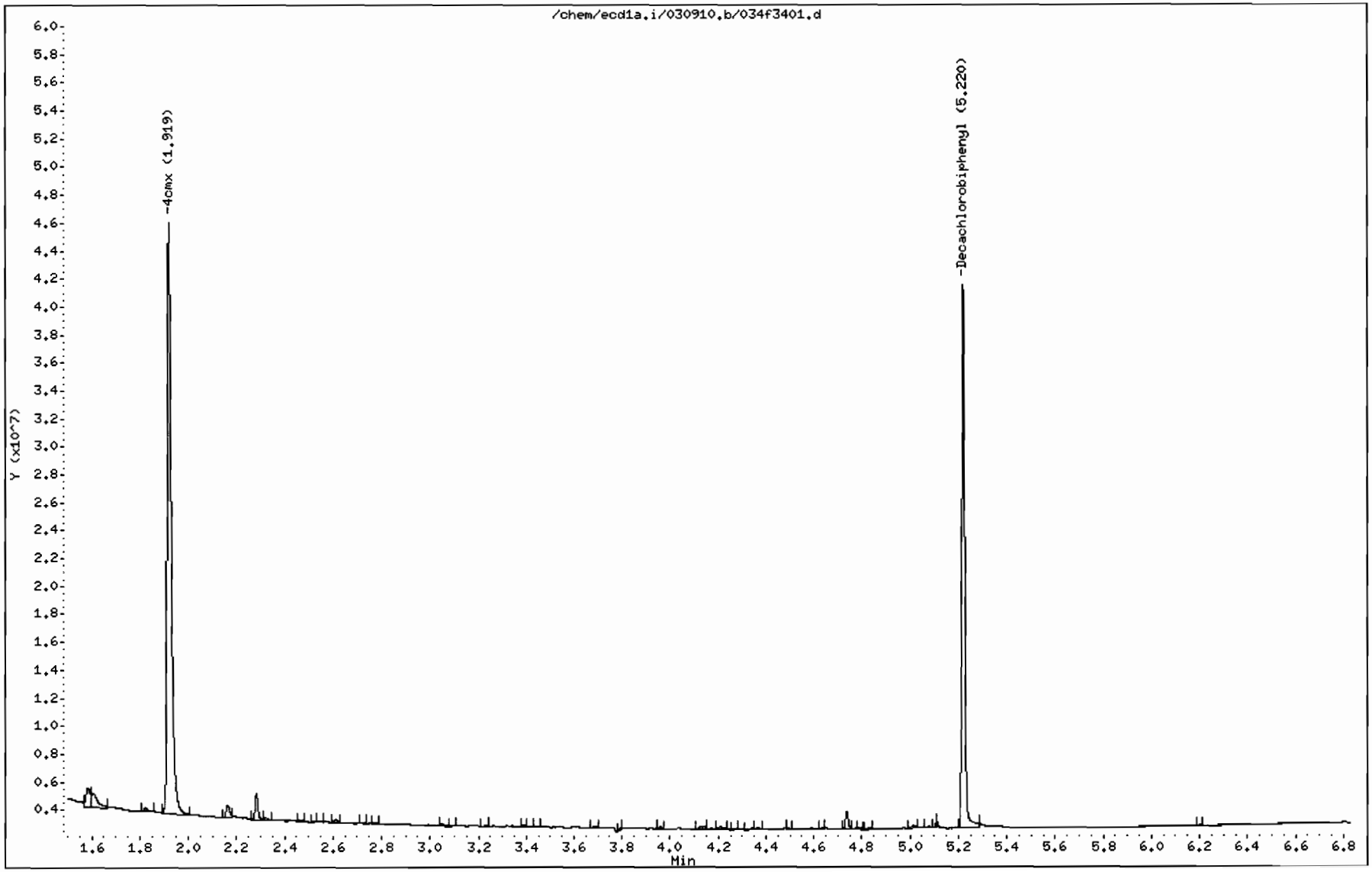

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/034b3401.d
Lab Smp Id: 248042004 Client Smp ID: CAPA-10-12771
Inj Date : 09-MAR-2010 11:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248042004|1|
Misc Info : |ECD82P_1L|961887|SVA|LANL|GROUND WATER|CAPA-10-12771||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 10:54 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 34
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2057.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclpl

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	860.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.276	2.276	0.000	33249061	111.800	0.13	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.916	5.918	-0.002	20558402	97.2036	0.11	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/034b3401.d
Date : 09-MAR-2010 11:58
Client ID: CAPA-10-12771
Sample Info: |248042004|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

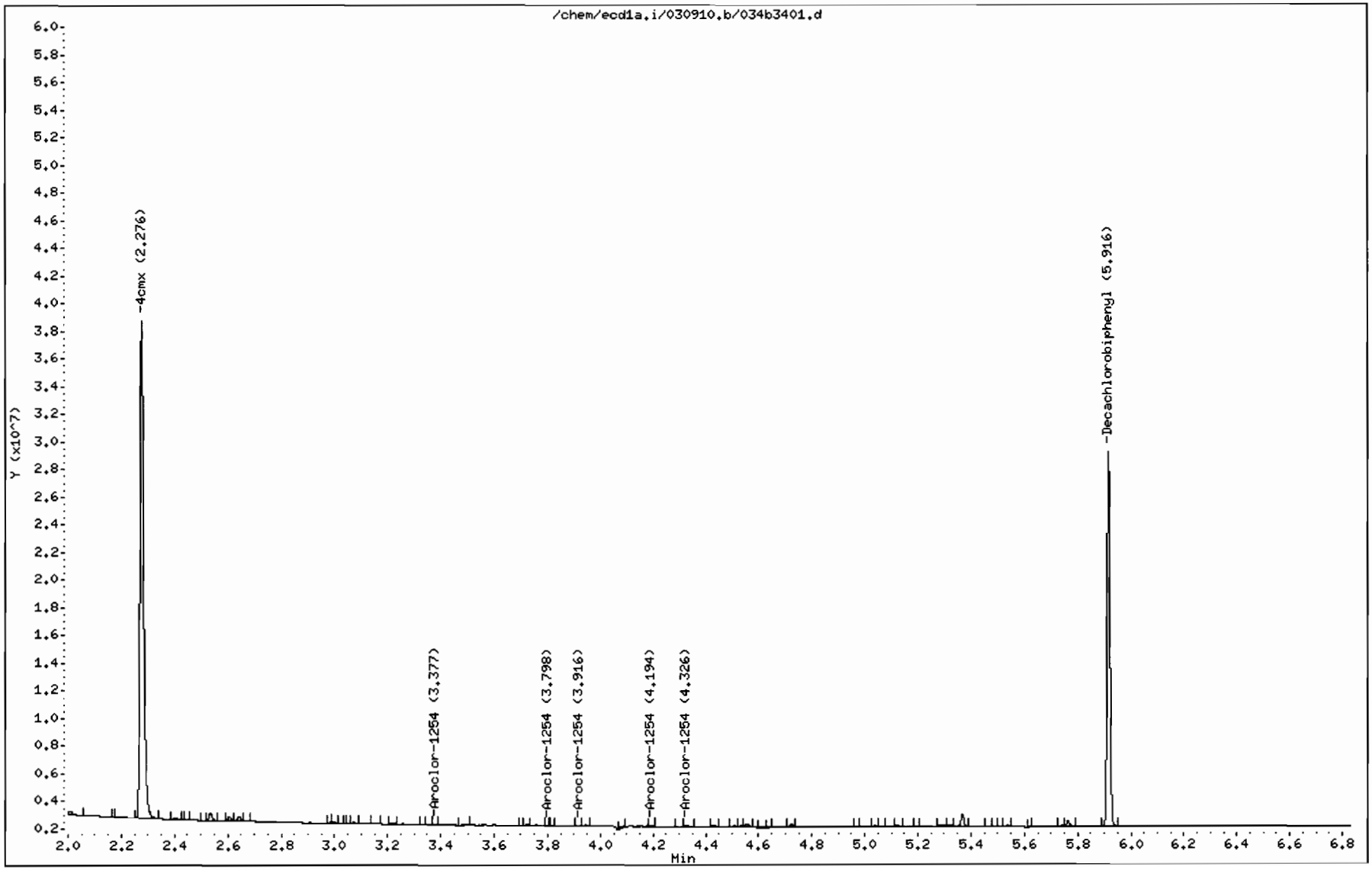

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**	**Date Collected:**	**02/23/2010 12:00**	**Matrix:**	**GROUND WATER**
Lab Sample ID:	**248042012**	**Date Received:**	**02/25/2010 08:45**		
		Client:	**LANL010**	**Project:**	**ESHL01000**
Client ID:	**CAPA-10-13085**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**961887**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 12:11**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/08/2010 14:29**	**Aliquot:**	**870 mL**	**Final Volume:**	**1 mL**
Data File:	**035f3501.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	035b3501.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.115	ug/L	0.0383	0.115	1
11104-28-2	Aroclor-1221	U	0.115	ug/L	0.0383	0.115	1
11141-16-5	Aroclor-1232	U	0.115	ug/L	0.0383	0.115	1
53469-21-9	Aroclor-1242	U	0.115	ug/L	0.0383	0.115	1
12672-29-6	Aroclor-1248	U	0.115	ug/L	0.0383	0.115	1
11097-69-1	Aroclor-1254	U	0.115	ug/L	0.0383	0.115	1
11096-82-5	Aroclor-1260	U	0.115	ug/L	0.0383	0.115	1
37324-23-5	Aroclor-1262	U	0.115	ug/L	0.0383	0.115	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
Decachlorobiphenyl	0.0752	0.230	ug/L	32.7	(30%-126%)
4cmx	0.076	0.230	ug/L	33.1	(30%-105%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/035f3501.d
Lab Smp Id: 248042012 Client Smp ID: CAPA-10-13085
Inj Date : 09-MAR-2010 12:11
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248042012|1|
Misc Info : |ECD82P_1L|961887|SVA|LANL|GROUND WATER|CAPA-10-13085||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 10:55 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2057.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	870.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.917	1.916	0.001	28209448	65.5063	0.075	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.219	5.223	-0.004	20101079	65.4142	0.075	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/035f3501.d

Page 1

Date : 09-MAR-2010 12:11

Client ID: CAPA-10-13085

Instrument: ecd1a.i

Sample Info: |248042012|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

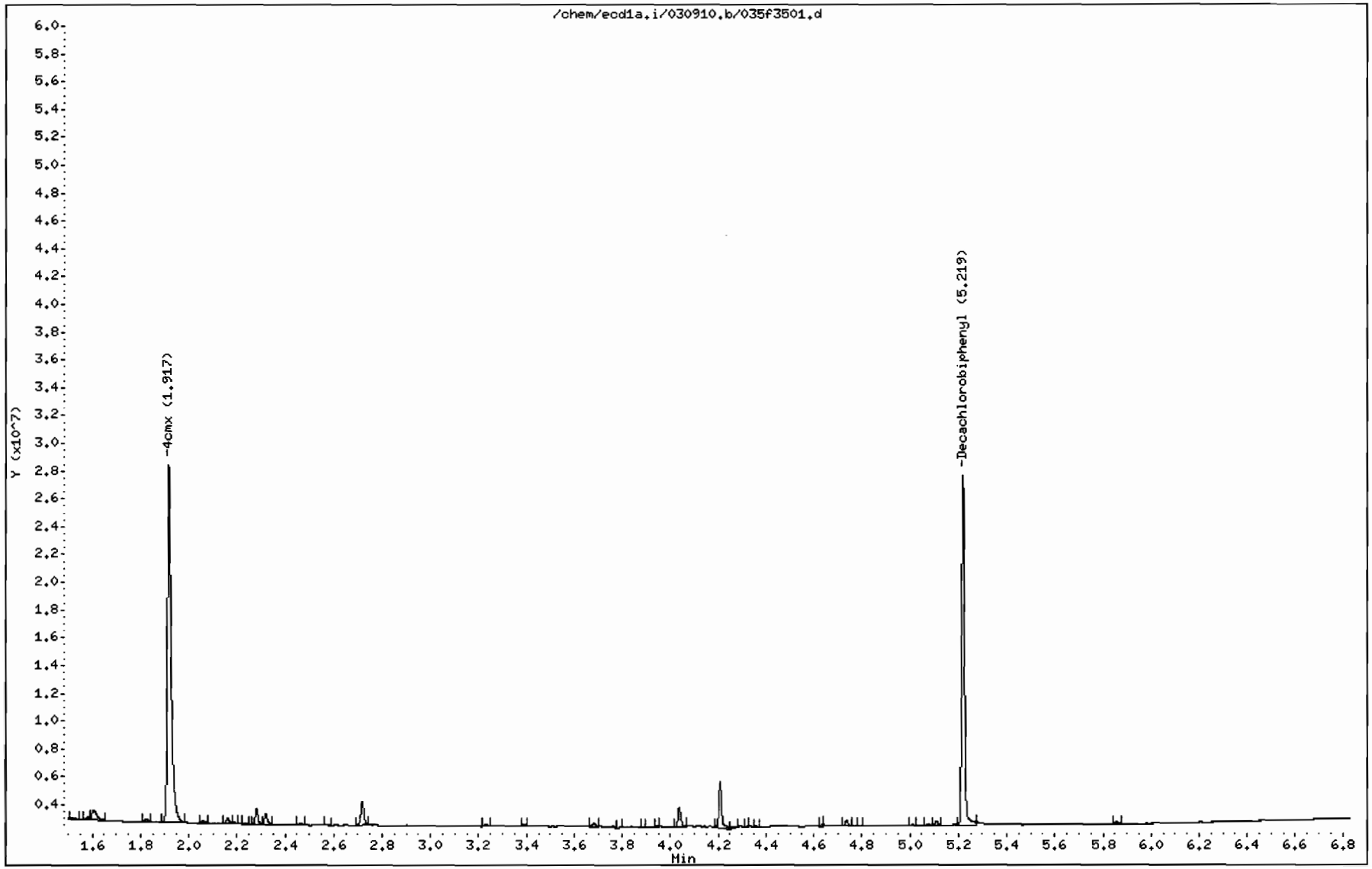

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/035b3501.d
Lab Smp Id: 248042012 Client Smp ID: CAPA-10-13085
Inj Date : 09-MAR-2010 12:11
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |248042012|1|
Misc Info : |ECD82P_1L|961887|SVA|LANL|GROUND WATER|CAPA-10-13085||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 35
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2057.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	870.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.275	2.276	-0.001	19665065	66.1240	0.076	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.915	5.918	-0.003	13609429	64.3477	0.074	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/035b3501.d

Date : 09-MAR-2010 12:11

Client ID: CAPA-10-13085

Sample Info: |248042012|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

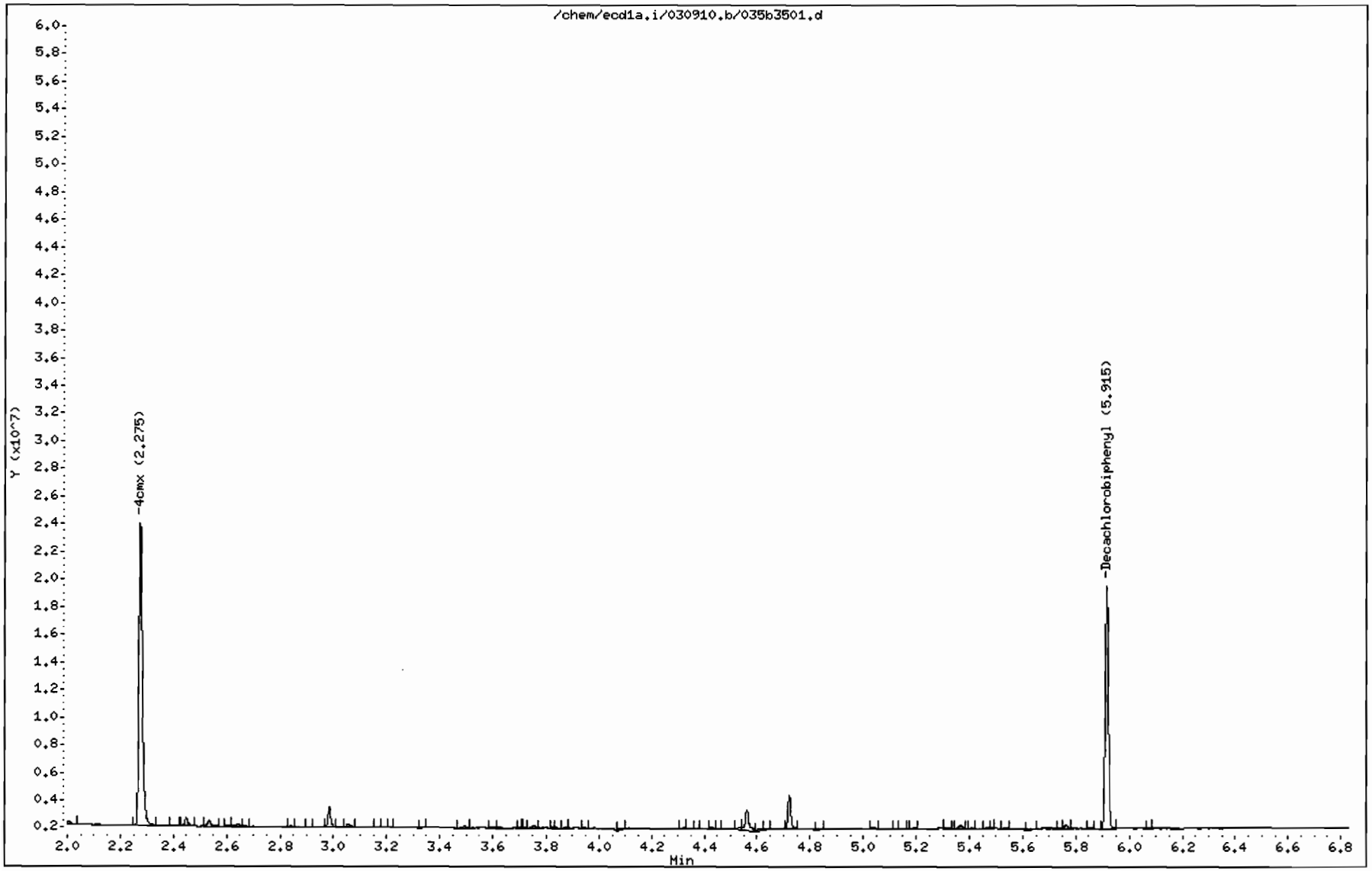

STANDARDS DATA

Report Date: 09-Mar-2010 14:38

Calibration History

Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032f3201.d
22-FEB-2010 10:23	AR1248	/chem/ecd1a.i/022210.b/026f2601.d
22-FEB-2010 09:20	AR1242	/chem/ecd1a.i/022210.b/020f2001.d
22-FEB-2010 08:16	AR1254	/chem/ecd1a.i/022210.b/014f1401.d
22-FEB-2010 07:13	AR1660	/chem/ecd1a.i/022210.b/008f0801.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033f3301.d
22-FEB-2010 10:33	AR1248	/chem/ecd1a.i/022210.b/027f2701.d
22-FEB-2010 09:30	AR1242	/chem/ecd1a.i/022210.b/021f2101.d
22-FEB-2010 08:27	AR1254	/chem/ecd1a.i/022210.b/015f1501.d
22-FEB-2010 07:24	AR1660	/chem/ecd1a.i/022210.b/009f0901.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034f3401.d
22-FEB-2010 10:44	AR1248	/chem/ecd1a.i/022210.b/028f2801.d
22-FEB-2010 09:41	AR1242	/chem/ecd1a.i/022210.b/022f2201.d
22-FEB-2010 08:37	AR1254	/chem/ecd1a.i/022210.b/016f1601.d
22-FEB-2010 07:34	AR1660	/chem/ecd1a.i/022210.b/010f1001.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035f3501.d
22-FEB-2010 11:05	AR1248	/chem/ecd1a.i/022210.b/030f3001.d
22-FEB-2010 09:51	AR1242	/chem/ecd1a.i/022210.b/023f2301.d
22-FEB-2010 08:48	AR1254	/chem/ecd1a.i/022210.b/017f1701.d
22-FEB-2010 07:45	AR1660	/chem/ecd1a.i/022210.b/011f1101.d
22-FEB-2010 07:03	AR1262	/chem/ecd1a.i/022210.b/007f0701.d
22-FEB-2010 06:52	AR1221	/chem/ecd1a.i/022210.b/006f0601.d
22-FEB-2010 06:41	AR1232	/chem/ecd1a.i/022210.b/005f0501.d
22-FEB-2010 06:31	DDTANALOGSTD	/chem/ecd1a.i/022210.b/004f0401.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036f3601.d
22-FEB-2010 10:54	AR1248	/chem/ecd1a.i/022210.b/029f2901.d
22-FEB-2010 10:02	AR1242	/chem/ecd1a.i/022210.b/024f2401.d
22-FEB-2010 08:59	AR1254	/chem/ecd1a.i/022210.b/018f1801.d
22-FEB-2010 07:55	AR1660	/chem/ecd1a.i/022210.b/012f1201.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:58	AR1232	/chem/ecd1a.i/030910.b/007f0701.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 13:35	AR1660	/chem/ecd1a.i/030910.b/042f4201.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 12:23	AR1660	/chem/ecd1a.i/030910.b/036f3601.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 10:21	AR1660	/chem/ecd1a.i/030910.b/025f2501.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 09:12	AR1660	/chem/ecd1a.i/030910.b/019f1901.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 07:19	AR1262	/chem/ecd1a.i/030910.b/009f0901.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 07:08	AR1221	/chem/ecd1a.i/030910.b/008f0801.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:47	AR1268	/chem/ecd1a.i/030910.b/006f0601.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:37	AR1248	/chem/ecd1a.i/030910.b/005f0501.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:26	AR1242	/chem/ecd1a.i/030910.b/004f0401.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:16	AR1254	/chem/ecd1a.i/030910.b/003f0301.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:05	AR1660	/chem/ecd1a.i/030910.b/002f0201.d

Report Date: 09-Mar-2010 14:37

Calibration History

Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Start Cal Date: 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 100.00000		
22-FEB-2010 11:26	AR1268	/chem/ecd1a.i/022210.b/032b3201.d
22-FEB-2010 10:23	AR1248	/chem/ecd1a.i/022210.b/026b2601.d
22-FEB-2010 09:20	AR1242	/chem/ecd1a.i/022210.b/020b2001.d
22-FEB-2010 08:16	AR1254	/chem/ecd1a.i/022210.b/014b1401.d
22-FEB-2010 07:13	AR1660	/chem/ecd1a.i/022210.b/008b0801.d
Cal Level: 2 , Cal Amount: 250.00000		
22-FEB-2010 11:37	AR1268	/chem/ecd1a.i/022210.b/033b3301.d
22-FEB-2010 10:33	AR1248	/chem/ecd1a.i/022210.b/027b2701.d
22-FEB-2010 09:30	AR1242	/chem/ecd1a.i/022210.b/021b2101.d
22-FEB-2010 08:27	AR1254	/chem/ecd1a.i/022210.b/015b1501.d
22-FEB-2010 07:24	AR1660	/chem/ecd1a.i/022210.b/009b0901.d
Cal Level: 3 , Cal Amount: 500.00000		
22-FEB-2010 11:47	AR1268	/chem/ecd1a.i/022210.b/034b3401.d
22-FEB-2010 10:44	AR1248	/chem/ecd1a.i/022210.b/028b2801.d
22-FEB-2010 09:41	AR1242	/chem/ecd1a.i/022210.b/022b2201.d
22-FEB-2010 08:37	AR1254	/chem/ecd1a.i/022210.b/016b1601.d
22-FEB-2010 07:34	AR1660	/chem/ecd1a.i/022210.b/010b1001.d
Cal Level: 4 , Cal Amount: 1000.00000		
22-FEB-2010 11:58	AR1268	/chem/ecd1a.i/022210.b/035b3501.d
22-FEB-2010 11:05	AR1248	/chem/ecd1a.i/022210.b/030b3001.d
22-FEB-2010 09:51	AR1242	/chem/ecd1a.i/022210.b/023b2301.d
22-FEB-2010 08:48	AR1254	/chem/ecd1a.i/022210.b/017b1701.d
22-FEB-2010 07:45	AR1660	/chem/ecd1a.i/022210.b/011b1101.d
22-FEB-2010 07:03	AR1262	/chem/ecd1a.i/022210.b/007b0701.d
22-FEB-2010 06:52	AR1221	/chem/ecd1a.i/022210.b/006b0601.d
22-FEB-2010 06:41	AR1232	/chem/ecd1a.i/022210.b/005b0501.d
22-FEB-2010 06:31	DDTANALOGSTD	/chem/ecd1a.i/022210.b/004b0401.d
Cal Level: 5 , Cal Amount: 4000.00000		
22-FEB-2010 12:08	AR1268	/chem/ecd1a.i/022210.b/036b3601.d
22-FEB-2010 10:54	AR1248	/chem/ecd1a.i/022210.b/029b2901.d
22-FEB-2010 10:02	AR1242	/chem/ecd1a.i/022210.b/024b2401.d
22-FEB-2010 08:59	AR1254	/chem/ecd1a.i/022210.b/018b1801.d
22-FEB-2010 07:55	AR1660	/chem/ecd1a.i/022210.b/012b1201.d

Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 4

| Ccal Level: 4 , Ccal Amount: 1000 |

09-MAR-2010 13:35	AR1660	/chem/ecd1a.i/030910.b/042b4201.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 12:23	AR1660	/chem/ecd1a.i/030910.b/036b3601.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 10:21	AR1660	/chem/ecd1a.i/030910.b/025b2501.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 09:12	AR1660	/chem/ecd1a.i/030910.b/019b1901.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 07:19	AR1262	/chem/ecd1a.i/030910.b/009b0901.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 07:08	AR1221	/chem/ecd1a.i/030910.b/008b0801.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:58	AR1232	/chem/ecd1a.i/030910.b/007b0701.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:47	AR1268	/chem/ecd1a.i/030910.b/006b0601.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:37	AR1248	/chem/ecd1a.i/030910.b/005b0501.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:26	AR1242	/chem/ecd1a.i/030910.b/004b0401.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:16	AR1254	/chem/ecd1a.i/030910.b/003b0301.d
Ccal Level: 4 , Ccal Amount: 1000		
09-MAR-2010 06:05	AR1660	/chem/ecd1a.i/030910.b/002b0201.d

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Quant Method : ESTD Target Version : 3.50
Last Update : 09-Mar-2010 14:23 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	12031.000000
Initial:End Threshold	6015.500000
Initial:Area Threshold	15489.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	2.370	2.340-2.400	1.538e+04
	2.656	2.626-2.686	1.824e+04
	2.736	2.706-2.766	1.207e+04
	2.774	2.744-2.804	7.096e+03
	2.984	2.954-3.014	8.912e+03
63 4,4-DDD	3.900	3.880-3.920	3.060e+05
64 4,4-DDE	3.551	3.531-3.571	3.552e+05
62 4,4-DDT	4.064	4.044-4.084	2.080e+05
2 Aroclor-1221	2.030	2.000-2.060	4.398e+03
	2.123	2.093-2.153	2.431e+03
	2.148	2.118-2.178	1.042e+04
3 Aroclor-1232	2.370	2.340-2.400	6.218e+03
	2.656	2.626-2.686	7.488e+03
	2.737	2.707-2.767	4.887e+03
	2.851	2.821-2.881	2.191e+03
	3.238	3.208-3.268	2.731e+03
4 Aroclor-1242	2.370	2.340-2.400	1.256e+04
	2.658	2.628-2.688	1.461e+04
	2.775	2.745-2.805	5.629e+03
	2.985	2.955-3.015	7.310e+03
	3.238	3.208-3.268	6.183e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m

Compound	RT	RT Window	RF
5 Aroclor-1248	2.851	2.821-2.881	9.301e+03
	2.985	2.955-3.015	1.241e+04
	3.238	3.208-3.268	1.220e+04
	3.370	3.340-3.400	1.042e+04
	3.603	3.573-3.633	6.820e+03
6 Aroclor-1254	3.213	3.183-3.243	1.201e+04
	3.368	3.338-3.398	1.583e+04
	3.602	3.572-3.632	1.952e+04
	3.764	3.734-3.794	1.381e+04
	3.874	3.844-3.904	1.428e+04
7 Aroclor-1260	3.710	3.680-3.740	1.707e+04
	3.873	3.843-3.903	2.364e+04
	4.035	4.005-4.065	2.497e+04
	4.102	4.072-4.132	1.441e+04
	4.246	4.216-4.276	1.443e+04
8 Aroclor-1262	3.711	3.681-3.741	1.261e+04
	3.874	3.844-3.904	1.569e+04
	4.104	4.074-4.134	1.995e+04
	4.246	4.216-4.276	1.798e+04
	4.425	4.395-4.455	3.725e+04
9 Aroclor-1268	4.609	4.579-4.639	4.848e+04
	4.632	4.602-4.662	5.448e+04
	4.745	4.715-4.775	3.862e+04
	4.947	4.917-4.977	1.635e+04
	5.113	5.083-5.143	1.121e+05
M 10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	1.916	1.886-1.946	4.306e+05
$ 12 Decachlorobiphenyl	5.223	5.193-5.253	3.073e+05

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Quant Method : ESTD Target Version : 3.50
Last Update : 09-Mar-2010 14:09 Number of Cpnds : 15
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	7222.000000
Initial:End Threshold	3611.000000
Initial:Area Threshold	6833.000000
Initial:P-P Resolution	0.000000
Initial:Bunch Factor	2.000000
Initial:Negative Peaks	OFF
Initial:Tension	0.500000

Compound	RT	RT Window	RF
1 Aroclor-1016	3.170	3.140-3.200	1.279e+04
	3.253	3.223-3.283	8.918e+03
	3.316	3.286-3.346	5.406e+03
	3.544	3.514-3.574	6.916e+03
	3.619	3.589-3.649	6.425e+03
62 4,4-DDT	4.660	4.640-4.680	1.000e+05
63 4,4-DDE	4.128	4.108-4.148	2.505e+05
64 4,4-DDD	4.473	4.453-4.493	2.085e+05
2 Aroclor-1221	2.473	2.443-2.503	3.431e+03
	2.567	2.537-2.597	2.152e+03
	2.607	2.577-2.637	7.328e+03
3 Aroclor-1232	2.873	2.843-2.903	4.920e+03
	3.171	3.141-3.201	5.252e+03
	3.254	3.224-3.284	3.768e+03
	3.544	3.514-3.574	2.699e+03
	3.778	3.748-3.808	2.631e+03
4 Aroclor-1242	3.171	3.141-3.201	1.035e+04
	3.254	3.224-3.284	7.279e+03
	3.544	3.514-3.574	5.768e+03
	3.778	3.748-3.808	5.788e+03
	3.805	3.775-3.835	6.641e+03

GEL Laboratories LLC

COMPOUND LISTING

Method file : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m

Compound	RT	RT Window	RF
5 Aroclor-1248	3.380	3.350-3.410	7.602e+03
	3.545	3.515-3.575	9.360e+03
	3.778	3.748-3.808	1.065e+04
	3.805	3.775-3.835	1.210e+04
	3.942	3.912-3.972	1.150e+04
6 Aroclor-1254	3.378	3.348-3.408	6.068e+03
	3.801	3.771-3.831	1.074e+04
	3.918	3.888-3.948	1.164e+04
	4.193	4.163-4.223	1.590e+04
	4.329	4.299-4.359	1.198e+04
7 Aroclor-1260	4.309	4.279-4.339	1.321e+04
	4.435	4.405-4.465	1.557e+04
	4.700	4.670-4.730	1.184e+04
	4.873	4.843-4.903	1.220e+04
	5.021	4.991-5.051	2.653e+04
8 Aroclor-1262	4.434	4.404-4.464	1.126e+04
	4.700	4.670-4.730	1.550e+04
	4.874	4.844-4.904	1.407e+04
	5.020	4.990-5.050	2.845e+04
	5.234	5.204-5.264	1.972e+04
9 Aroclor-1268	5.231	5.201-5.261	3.730e+04
	5.260	5.230-5.290	3.492e+04
	5.409	5.379-5.439	2.658e+04
	5.574	5.544-5.604	1.223e+04
	5.766	5.736-5.796	7.433e+04
10 Aroclor-Total	1.000	0.980-1.020	
$ 11 4cmx	2.276	2.246-2.306	2.974e+05
$ 12 Decachlorobiphenyl	5.918	5.888-5.948	2.115e+05

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Cal Date : 09-Mar-2010 14:23 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032f3201.d
Level 2: /chem/ecd1a.i/022210.b/033f3301.d
Level 3: /chem/ecd1a.i/022210.b/034f3401.d
Level 4: /chem/ecd1a.i/022210.b/035f3501.d
Level 5: /chem/ecd1a.i/022210.b/036f3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	___ RRF	% RSD
1 Aroclor-1016(1)	18473	16312	15150	14238	12749	15384	14.060
(2)	20194	18537	17759	17625	17070	18237	6.651
(3)	14170	12473	11875	11163	10646	12065	11.317
(4)	8163	7198	6933	6624	6564	7096	9.135
(5)	10345	9178	8623	8273	8142	8912	10.051
63 4,4-DDD	+++++	+++++	+++++	305990	+++++	305990	0.000
64 4,4-DDE	+++++	+++++	+++++	355239	+++++	355239	0.000
62 4,4-DDT	+++++	+++++	+++++	208015	+++++	208015	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	4398	+++++	4398	0.000
(2)	+++++	+++++	+++++	2431	+++++	2431	0.000
(3)	+++++	+++++	+++++	10418	+++++	10418	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	6218	+++++	6218	0.000
(2)	+++++	+++++	+++++	7488	+++++	7488	0.000
(3)	+++++	+++++	+++++	4887	+++++	4887	0.000
(4)	+++++	+++++	+++++	2191	+++++	2191	0.000
(5)	+++++	+++++	+++++	2731	+++++	2731	0.000
4 Aroclor-1242(1)	14895	13406	12308	11554	10624	12557	13.200
(2)	15940	15326	14418	13613	13761	14612	6.870
(3)	6066	5934	5542	5337	5267	5629	6.326
(4)	8523	7616	7127	6725	6562	7310	10.814
(5)	6824	6256	5999	5817	6020	6183	6.317
5 Aroclor-1248(1)	10594	9810	9017	8885	8199	9301	9.911
(2)	14228	12736	11895	11712	11476	12409	9.043
(3)	12841	12156	11815	11785	12410	12201	3.615
(4)	11297	10503	10013	9956	10333	10420	5.179
(5)	7445	6917	6453	6460	6824	6820	5.977

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Cal Date : 09-Mar-2010 14:23 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	13496	12213	11744	11466	11117	12007	7.694
(2)	16789	15969	15727	15423	15253	15832	3.802
(3)	20267	19353	19208	19481	19310	19524	2.185
(4)	14142	13669	13487	13772	13976	13809	1.858
(5)	15228	14234	13851	14228	13864	14281	3.932
7 Aroclor-1260(1)	19445	17307	16758	16208	15645	17072	8.574
(2)	25625	23757	23316	22992	22528	23643	5.056
(3)	27164	24948	24176	24127	24442	24971	5.079
(4)	16166	14596	13941	13551	13775	14406	7.345
(5)	15672	14437	13986	13647	14411	14431	5.316
8 Aroclor-1262(1)	+++++	+++++	+++++	12612	+++++	12612	0.000
(2)	+++++	+++++	+++++	15693	+++++	15693	0.000
(3)	+++++	+++++	+++++	19946	+++++	19946	0.000
(4)	+++++	+++++	+++++	17981	+++++	17981	0.000
(5)	+++++	+++++	+++++	37250	+++++	37250	0.000
9 Aroclor-1268(1)	49163	48928	48151	48132	48019	48478	1.086
(2)	55254	54719	54718	54649	53075	54483	1.512
(3)	39937	38826	38121	38191	38006	38616	2.083
(4)	16234	16191	16152	16347	16815	16348	1.657
(5)	114910	115297	111446	111050	107804	112101	2.753
M 10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	457836	439032	431646	423676	400995	430637	4.841
$ 12 Decachlorobiphenyl	331580	312081	303953	298909	289924	307289	5.135

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Cal Date : 09-Mar-2010 14:09 yip00818
Curve Type : Average

Calibration File Names:
Level 1: /chem/ecd1a.i/022210.b/032b3201.d
Level 2: /chem/ecd1a.i/022210.b/033b3301.d
Level 3: /chem/ecd1a.i/022210.b/034b3401.d
Level 4: /chem/ecd1a.i/022210.b/035b3501.d
Level 5: /chem/ecd1a.i/022210.b/036b3601.d

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
1 Aroclor-1016(1)	14790	13406	12599	11956	11198	12790	10.807
(2)	11020	9550	8735	8081	7204	8918	16.336
(3)	6667	5702	5261	4923	4477	5406	15.464
(4)	8469	7466	6811	6206	5627	6916	15.991
(5)	7861	6755	6366	5845	5300	6425	15.123
62 4,4-DDT	+++++	+++++	+++++	100019	+++++	100019	0.000
63 4,4-DDE	+++++	+++++	+++++	250510	+++++	250510	0.000
64 4,4-DDD	+++++	+++++	+++++	208527	+++++	208527	0.000
2 Aroclor-1221(1)	+++++	+++++	+++++	3431	+++++	3431	0.000
(2)	+++++	+++++	+++++	2152	+++++	2152	0.000
(3)	+++++	+++++	+++++	7328	+++++	7328	0.000
3 Aroclor-1232(1)	+++++	+++++	+++++	4920	+++++	4920	0.000
(2)	+++++	+++++	+++++	5252	+++++	5252	0.000
(3)	+++++	+++++	+++++	3768	+++++	3768	0.000
(4)	+++++	+++++	+++++	2699	+++++	2699	0.000
(5)	+++++	+++++	+++++	2631	+++++	2631	0.000
4 Aroclor-1242(1)	12162	10602	10267	9852	8873	10351	11.615
(2)	8972	7860	7095	6551	5917	7279	16.286
(3)	7172	6222	5595	5138	4714	5768	16.707
(4)	7092	6149	5608	5215	4876	5788	15.018
(5)	8262	7049	6439	5944	5512	6641	16.138
5 Aroclor-1248(1)	9375	8130	7334	6873	6297	7602	15.743
(2)	11273	9902	9059	8609	7955	9360	13.704
(3)	12356	11118	10348	9982	9432	10647	10.657
(4)	14147	12783	11698	11327	10532	12097	11.596
(5)	13387	12032	11069	10719	10286	11499	10.750

GEL Laboratories LLC

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2010 06:31
End Cal Date : 24-FEB-2010 02:39
Quant Method : ESTD
Origin : Disabled
Target Version : 3.50
Integrator : Falcon
Method file : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Cal Date : 09-Mar-2010 14:09 yip00818
Curve Type : Average

Compound	100.000 Level 1	250.000 Level 2	500.000 Level 3	1000.000 Level 4	4000.000 Level 5	RRF	% RSD
6 Aroclor-1254(1)	7593	6474	5915	5463	4897	6068	16.986
(2)	13079	11278	10543	9836	8978	10743	14.511
(3)	14023	12144	11373	10769	9907	11643	13.419
(4)	18579	16173	15683	15087	13972	15899	10.745
(5)	14693	12059	11530	11303	10291	11975	13.772
7 Aroclor-1260(1)	16156	14478	12627	11898	10869	13206	15.988
(2)	18308	16389	15401	14483	13254	15567	12.332
(3)	14169	12468	11644	10875	10061	11844	13.319
(4)	14677	12787	11930	11182	10430	12201	13.416
(5)	30570	27429	26347	25126	23163	26527	10.405
8 Aroclor-1262(1)	+++++	+++++	+++++	11265	+++++	11265	0.000
(2)	+++++	+++++	+++++	15504	+++++	15504	0.000
(3)	+++++	+++++	+++++	14070	+++++	14070	0.000
(4)	+++++	+++++	+++++	28448	+++++	28448	0.000
(5)	+++++	+++++	+++++	19723	+++++	19723	0.000
9 Aroclor-1268(1)	41829	39003	36612	35751	33294	37298	8.721
(2)	39747	36378	33891	33096	31474	34917	9.246
(3)	30202	27679	25801	25188	24032	26580	9.093
(4)	14370	12834	11677	11309	10971	12232	11.329
(5)	81955	77588	73073	71224	67792	74326	7.452
10 Aroclor-Total	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 11 4cmx	335261	308362	295849	285028	262485	297397	9.098
$ 12 Decachlorobiphenyl	252219	220293	206273	196840	181867	211498	12.633

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022210.b/008f0801.d
Lab Smp Id: WAR100222-01 60 Client Smp ID: AR166001
Inj Date : 22-FEB-2010 07:13
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-01 60
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 11:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:26 Cal File: 032f3201.d
Als bottle: 8 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
11 4cmx					CAS #: 877-09-8		
1.925	1.925	0.000	4578363	10.0000	10.5	80.00- 120.00	100.00
12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.235	5.235	0.000	3315798	10.0000	10.2	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.378	2.378	0.000	1847306	100.000	117	80.00- 120.00	100.00(M)
2.665	2.665	0.000	2019408	100.000	106	89.32- 129.32	109.32
2.746	2.746	0.000	1416950	100.000	112	56.70- 96.70	76.70
2.784	2.784	0.000	816253	100.000	107	24.19- 64.19	44.19
2.995	2.995	0.000	1034535	100.000	107	36.00- 76.00	56.00
Average of Peak Amounts =					110		
7 Aroclor-1260					CAS #: 11096-82-5		
3.721	3.721	0.000	1944546	100.000	104	80.00- 120.00	100.00(M)
3.884	3.884	0.000	2562485	100.000	97.0	111.78- 151.78	131.78
4.046	4.046	0.000	2716424	100.000	95.8	119.69- 159.69	139.69
4.115	4.115	0.000	1616569	100.000	98.7	63.13- 103.13	83.13
4.257	4.257	0.000	1567229	100.000	94.2	60.60- 100.60	80.60
Average of Peak Amounts =					97.9		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/022210.b/008f0801.d

Date : 22-FEB-2010 07:13

Client ID: AR166001

Sample Info: IWAR100222-01 60

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

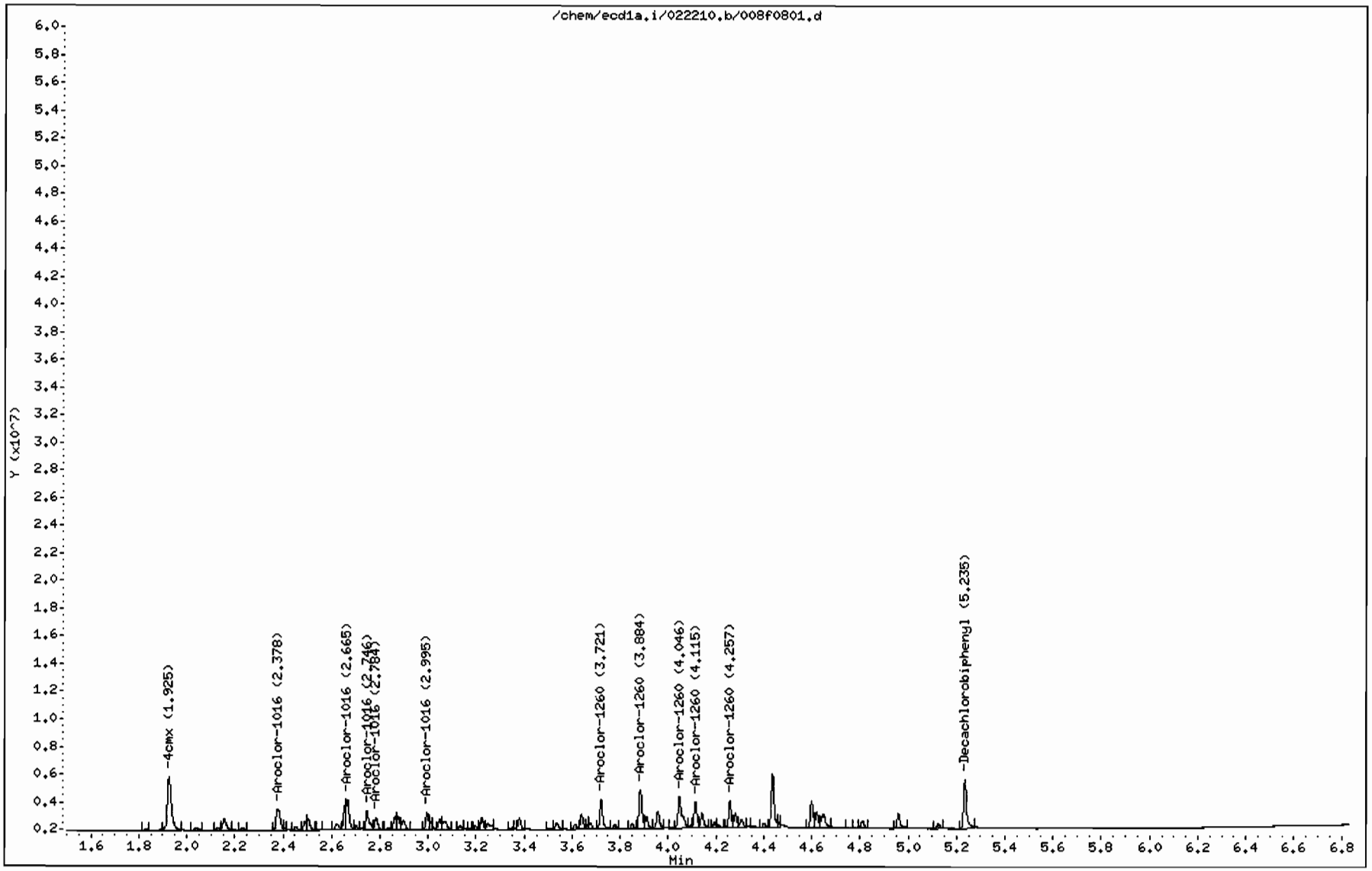

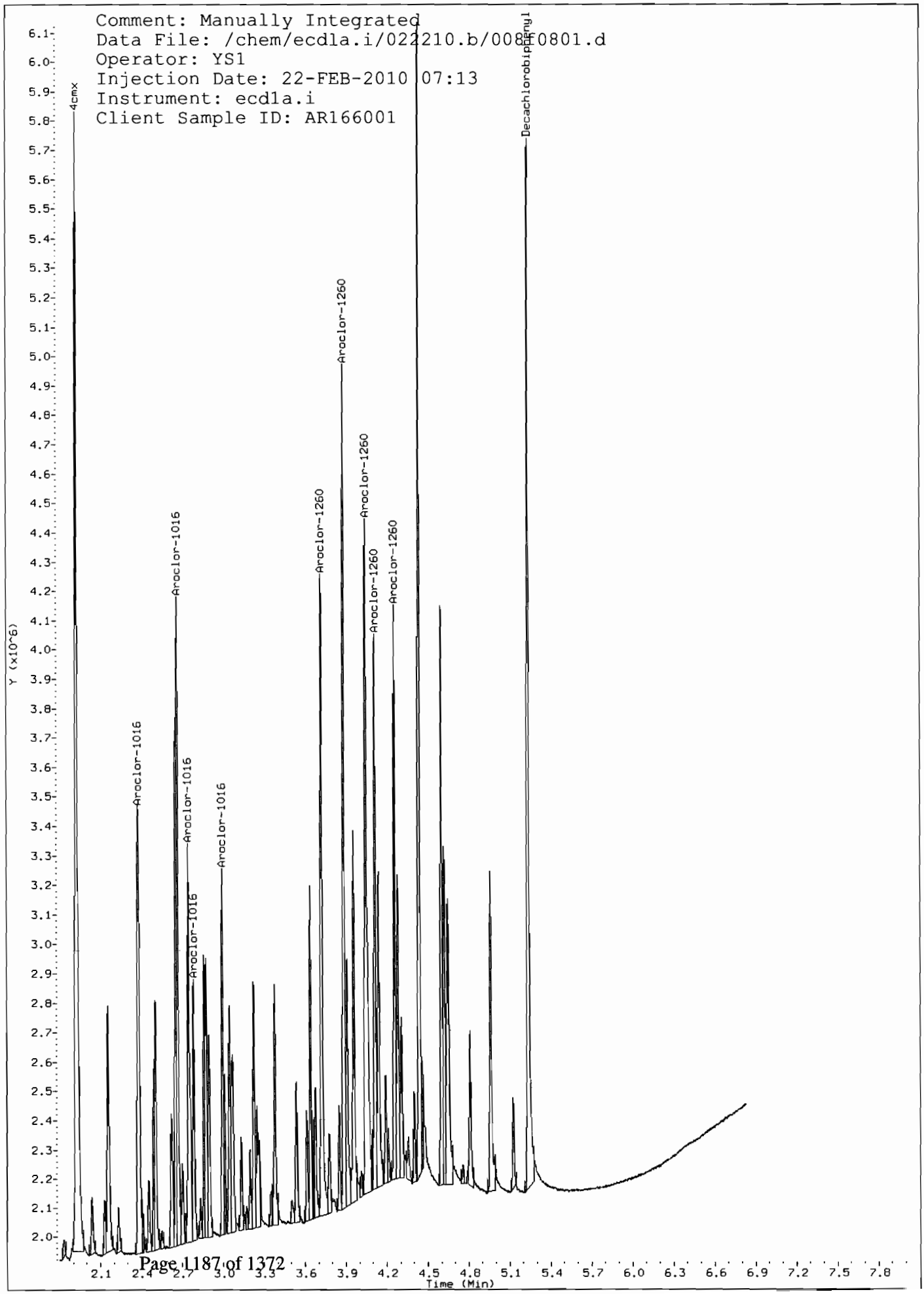
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Data File: /chem/ecd1a.i/022210.b/0080801.d
Operator: YS1
Injection Date: 22-FEB-2010 07:13
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^6)
Time (Min)

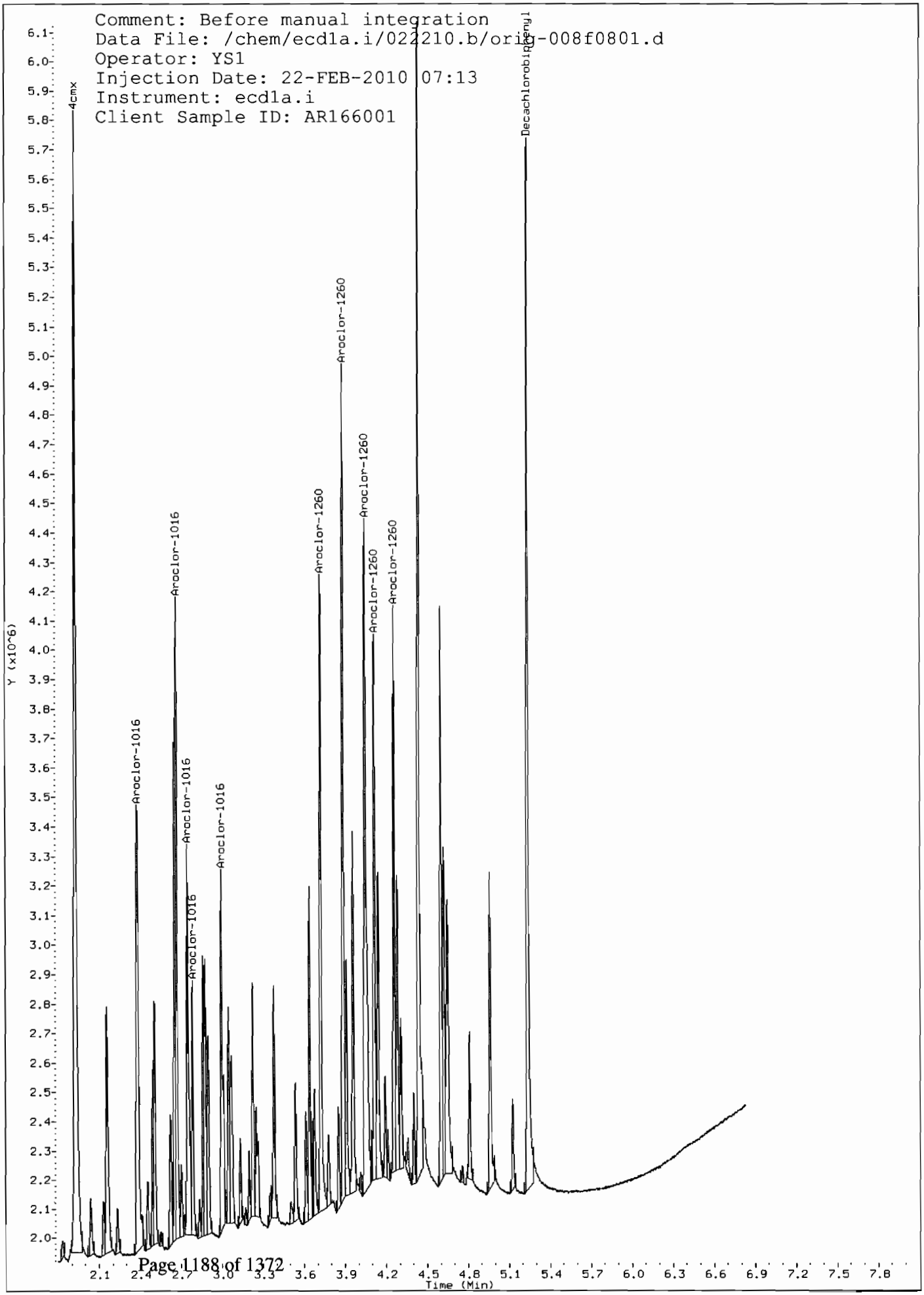
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Data File: /chem/ecd1a.i/022210.b/orig-008f0801.d
Operator: YS1
Injection Date: 22-FEB-2010 07:13
Instrument: ecd1a.i
Client Sample ID: AR166001
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^6)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022210.b/008b0801.d
Lab Smp Id: WAR100222-01 60 Client Smp ID: AR166001
Inj Date : 22-FEB-2010 07:13
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-01 60
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 11:13 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:26 Cal File: 032b3201.d
Als bottle: 8 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
11 4cmx					CAS #: 877-09-8		
2.290	2.290	0.000	3352610	10.0000	11.3	80.00- 120.00	100.00
12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.937	5.937	0.000	2522193	10.0000	11.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.185	3.185	0.000	1478950	100.000	114	80.00- 120.00	100.00(M)
3.269	3.269	0.000	1101966	100.000	123	54.51- 94.51	74.51
3.333	3.333	0.000	666707	100.000	120	25.08- 65.08	45.08
3.560	3.560	0.000	846904	100.000	119	37.26- 77.26	57.26
3.635	3.635	0.000	786085	100.000	119	33.15- 73.15	53.15
Average of Peak Amounts =					119		
7 Aroclor-1260					CAS #: 11096-82-5		
4.326	4.326	0.000	1615650	100.000	122	80.00- 120.00	100.00
4.451	4.451	0.000	1830766	100.000	115	93.31- 133.31	113.31
4.717	4.717	0.000	1416900	100.000	117	67.70- 107.70	87.70
4.891	4.891	0.000	1467662	100.000	116	70.84- 110.84	90.84
5.038	5.038	0.000	3057043	100.000	112	169.21- 209.21	189.21
Average of Peak Amounts =					116		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/022210.b/008b0801.d

Page 1

Date : 22-FEB-2010 07:13

Client ID: AR166001

Instrument: ecd1a.i

Sample Info: IWAR100222-01 60

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

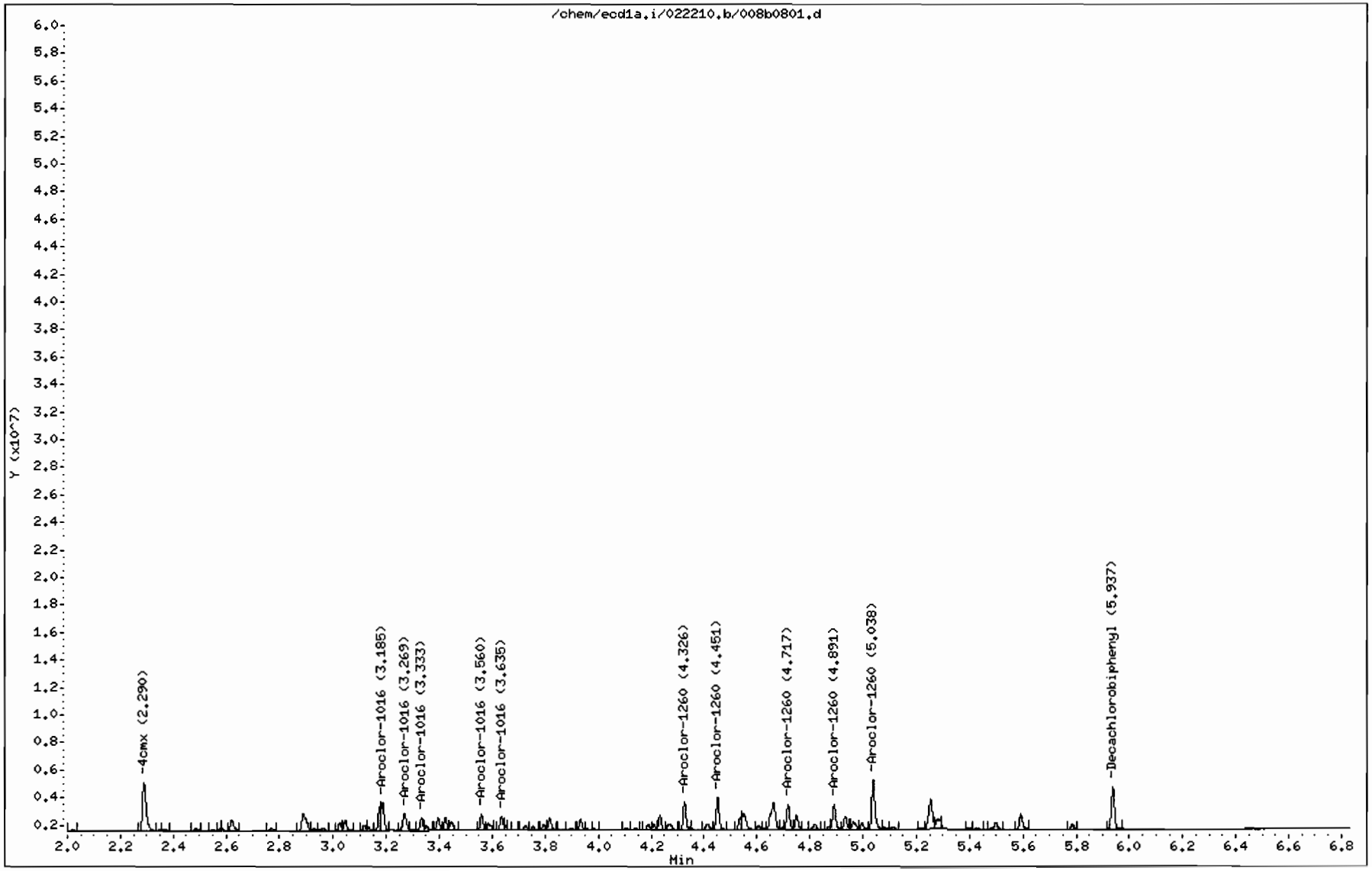

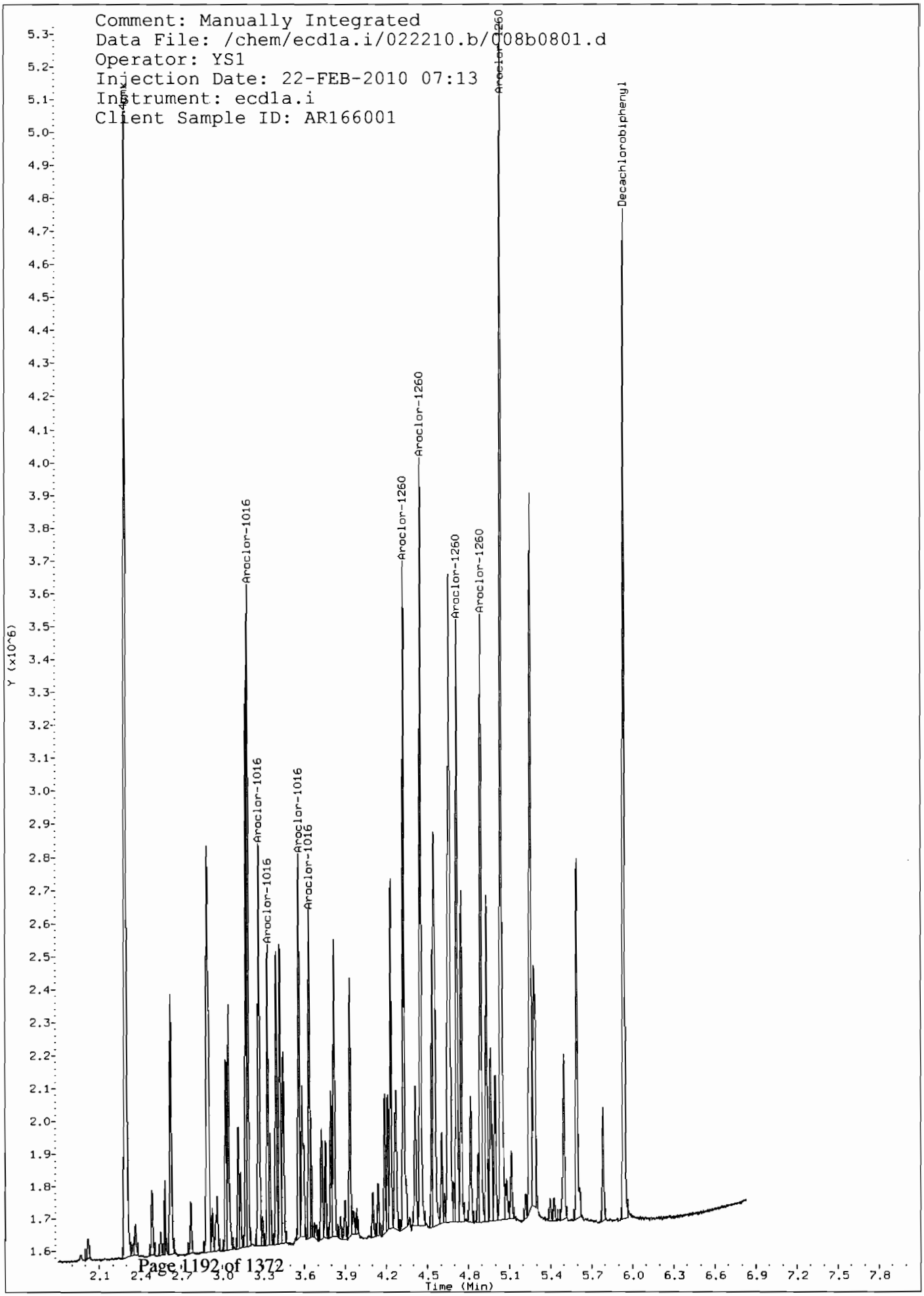
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Data File: /chem/ecd1a.i/022210.b/008b0801.d
Operator: YS1
Injection Date: 22-FEB-2010 07:13
Instrument: ecd1a.i
Client Sample ID: AR166001
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^6)
Time (Min)

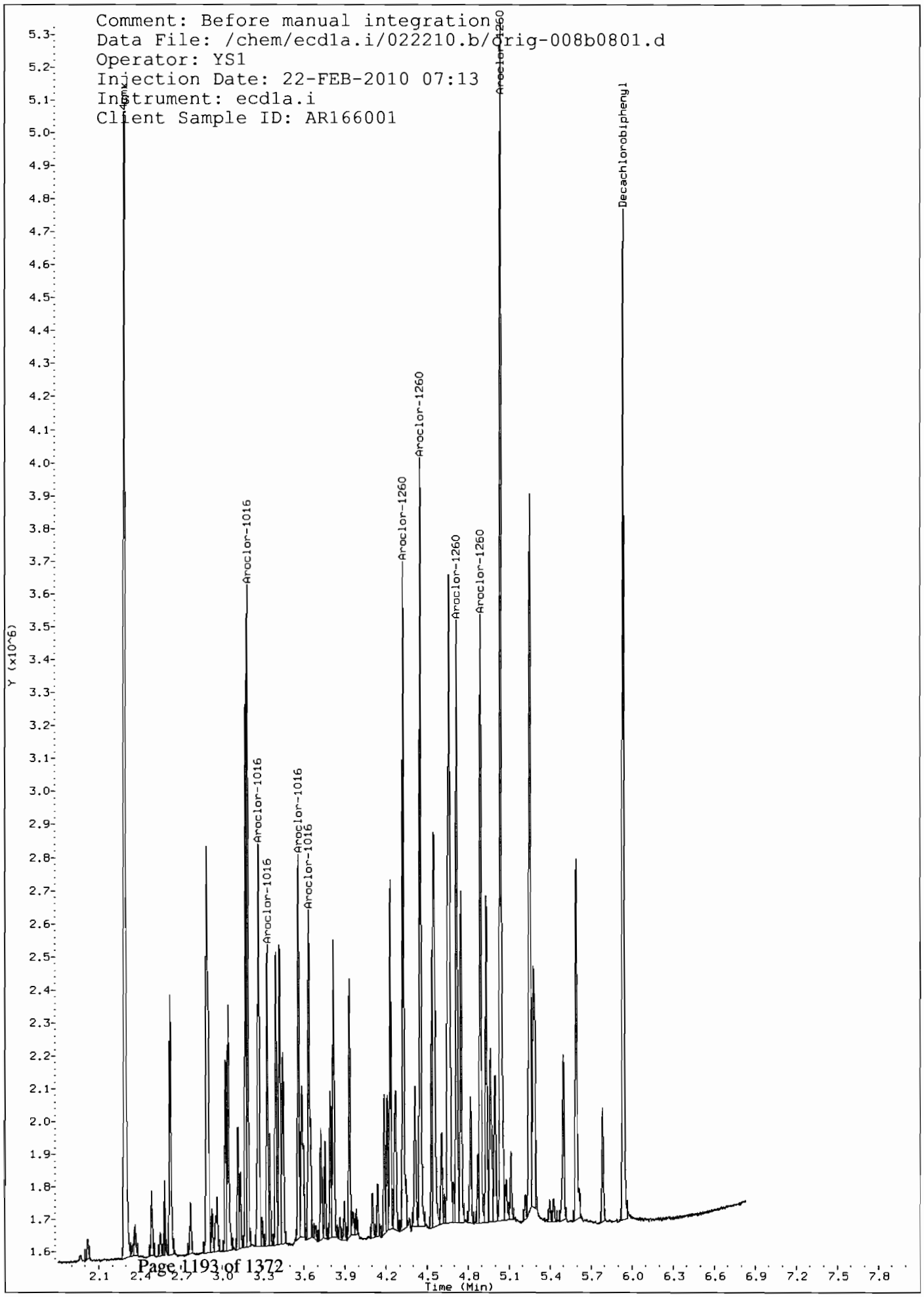
Comment: Before manual integration
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Operator: YS1
Injection Date: 22-FEB-2010 07:13
Instrument: ecd1a.i
Client Sample ID: AR166001
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^6)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022210.b/009f0901.d
Lab Smp Id: WAR100222-02 60 Client Smp ID: AR166002
Inj Date : 22-FEB-2010 07:24
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-02 60
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 11:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:37 Cal File: 033f3301.d
Als bottle: 9 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
11 4cmx					CAS #: 877-09-8		
1.924	1.924	0.000	10975795	25.0000	25.3	80.00- 120.00	100.00
12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.234	5.234	0.000	7802016	25.0000	24.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.379	2.379	0.000	4078048	250.000	260	80.00- 120.00	100.00(M)
2.665	2.665	0.000	4634296	250.000	248	93.64- 133.64	113.64
2.746	2.746	0.000	3118320	250.000	250	56.47- 96.47	76.47
2.784	2.784	0.000	1799428	250.000	243	24.12- 64.12	44.12
2.994	2.994	0.000	2294379	250.000	244	36.26- 76.26	56.26
Average of Peak Amounts =					249		
7 Aroclor-1260					CAS #: 11096-82-5		
3.720	3.720	0.000	4326627	250.000	238	80.00- 120.00	100.00(M)
3.883	3.883	0.000	5939258	250.000	232	117.27- 157.27	137.27
4.045	4.045	0.000	6236926	250.000	228	124.15- 164.15	144.15
4.114	4.114	0.000	3649052	250.000	231	64.34- 104.34	84.34
4.257	4.257	0.000	3609150	250.000	226	63.42- 103.42	83.42
Average of Peak Amounts =					231		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/022210.b/009f0901.d

Page 1

Date : 22-FEB-2010 07:24

Client ID: AR166002

Instrument: ecd1a.i

Sample Info: IWAR100222-02 60

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

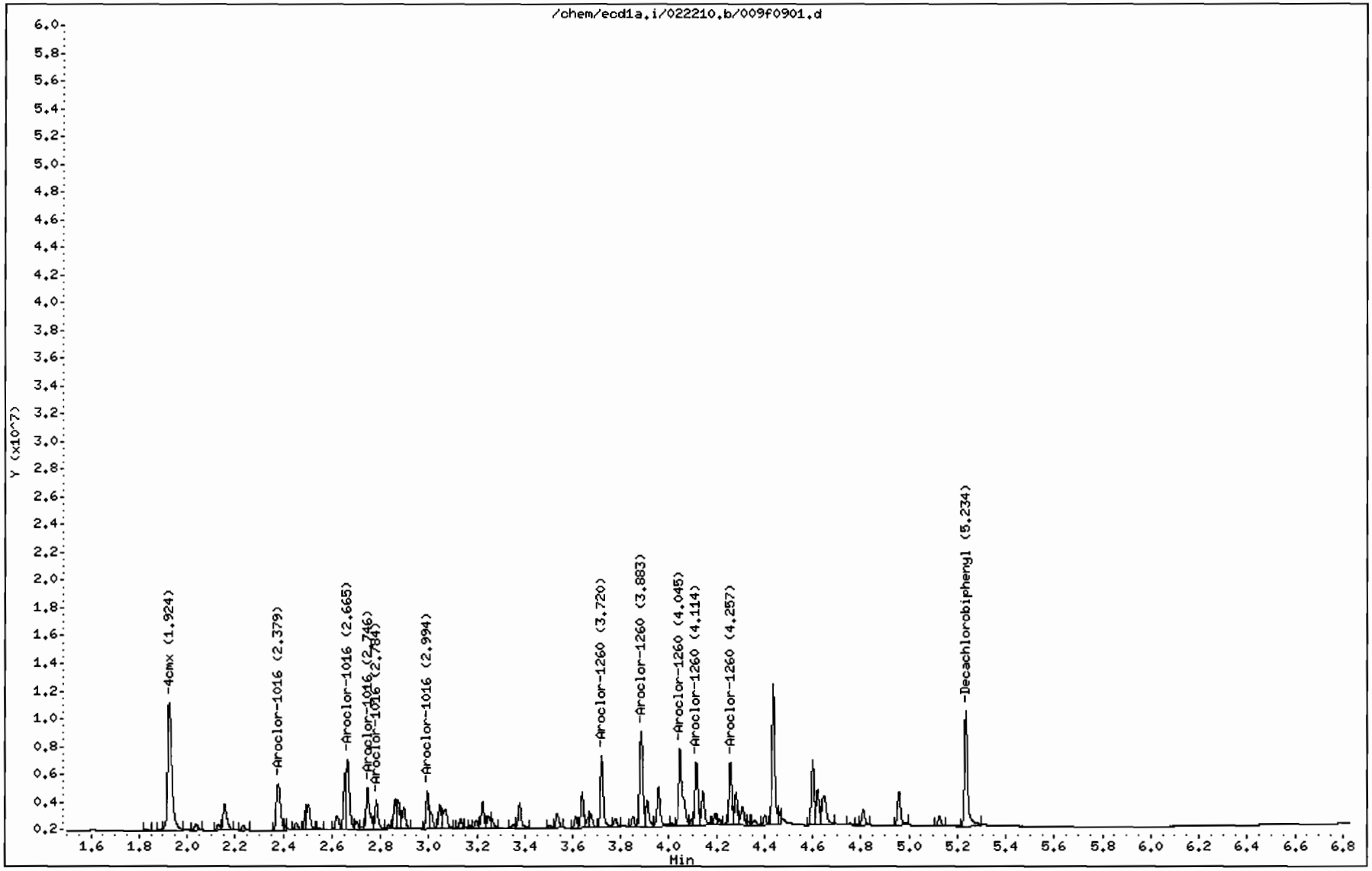

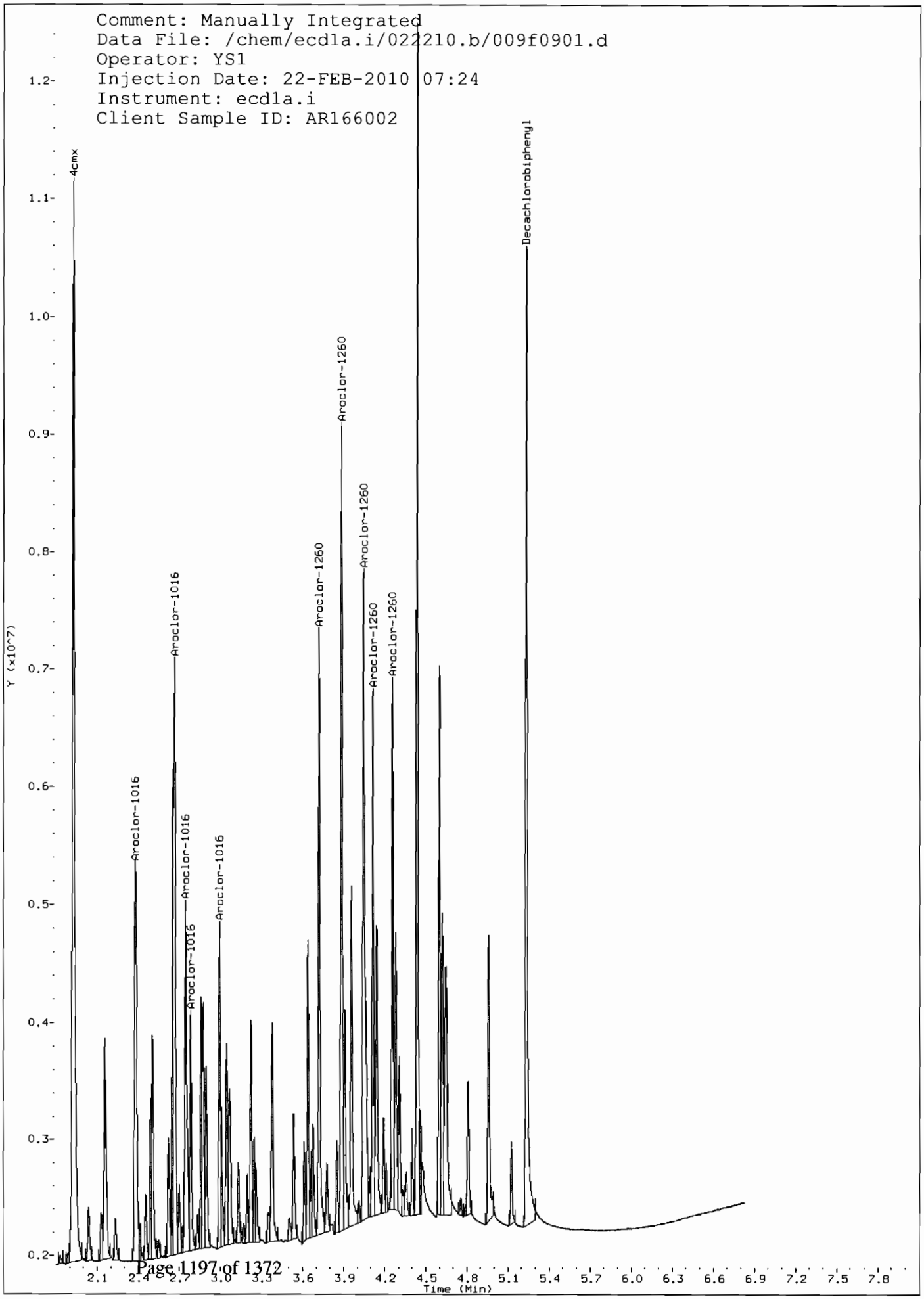
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Data File: /chem/ecd1a.i/022210.b/009f0901.d
Operator: YS1
Injection Date: 22-FEB-2010 07:24
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2
4.5
4.8
5.1
5.4
5.7
6.0
6.3
6.6
6.9
7.2
7.5
7.8
Time (Min)

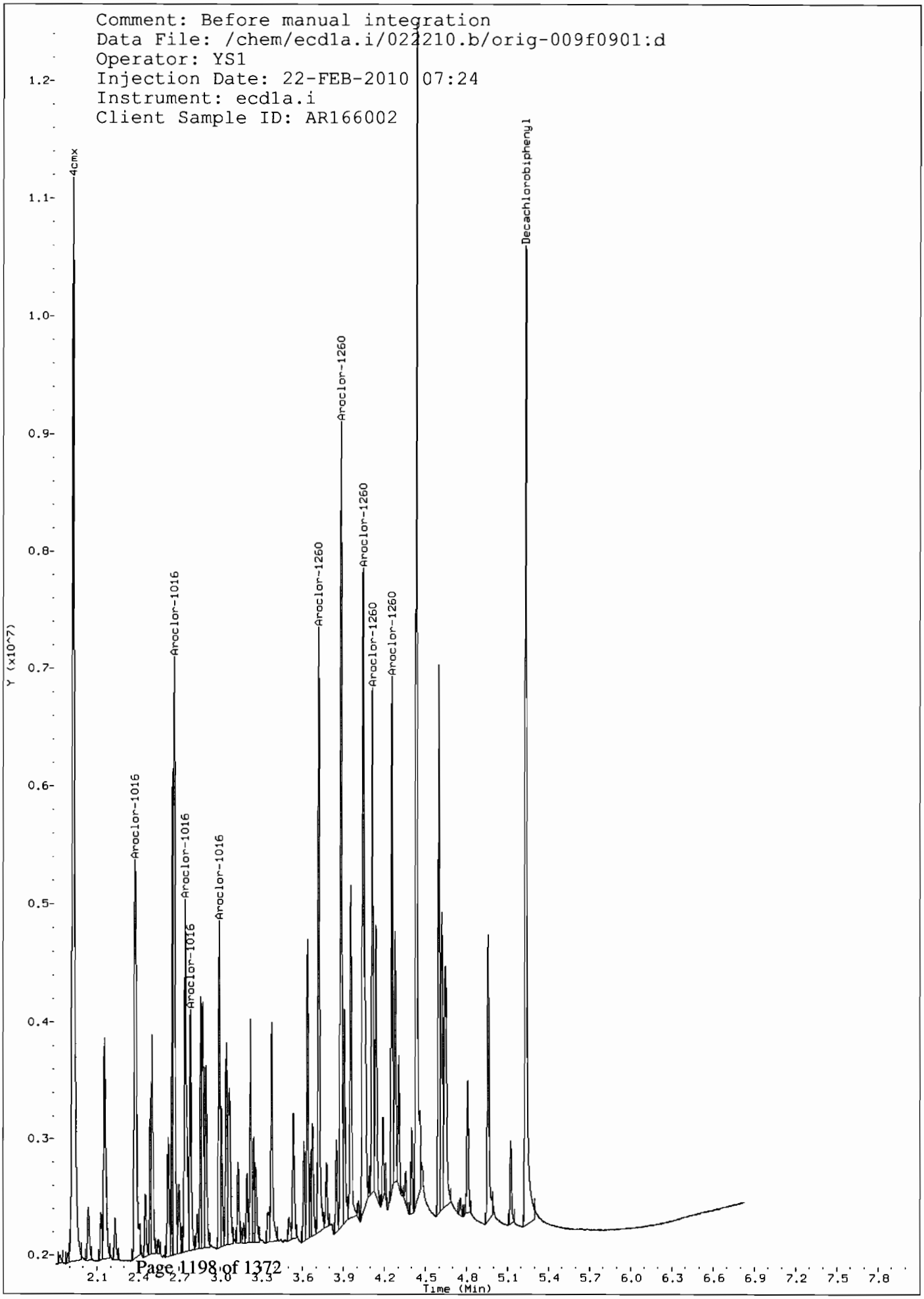
Comment: Before manual integration
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Operator: YS1
Injection Date: 22-FEB-2010 07:24
Instrument: ecd1a.i
Client Sample ID: AR166002
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2
4.5
4.8
5.1
5.4
5.7
6.0
6.3
6.6
6.9
7.2
7.5
7.8
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022210.b/009b0901.d
Lab Smp Id: WAR100222-02 60 Client Smp ID: AR166002
Inj Date : 22-FEB-2010 07:24
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-02 60
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 11:13 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:37 Cal File: 033b3301.d
Als bottle: 9 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
11 4cmx					CAS #: 877-09-8		
2.289	2.289	0.000	7709042	25.0000	25.9	80.00- 120.00	100.00
12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.937	5.937	0.000	5507321	25.0000	25.4	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.185	3.185	0.000	3351403	250.000	258	80.00- 120.00	100.00(M)
3.269	3.269	0.000	2387580	250.000	266	51.24- 91.24	71.24
3.332	3.332	0.000	1425521	250.000	259	22.54- 62.54	42.54
3.559	3.559	0.000	1866432	250.000	263	35.69- 75.69	55.69
3.634	3.634	0.000	1688630	250.000	257	30.39- 70.39	50.39
Average of Peak Amounts =					261		
7 Aroclor-1260					CAS #: 11096-82-5		
4.325	4.325	0.000	3619434	250.000	270	80.00- 120.00	100.00
4.450	4.450	0.000	4097261	250.000	258	93.20- 133.20	113.20
4.717	4.717	0.000	3117037	250.000	258	66.12- 106.12	86.12
4.890	4.890	0.000	3196628	250.000	256	68.32- 108.32	88.32
5.038	5.038	0.000	6857256	250.000	252	169.46- 209.46	189.46
Average of Peak Amounts =					259		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/022210.b/009b0901.d

Page 1

Date : 22-FEB-2010 07:24

Client ID: AR166002

Instrument: ecd1a.i

Sample Info: IWAR100222-02 60

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

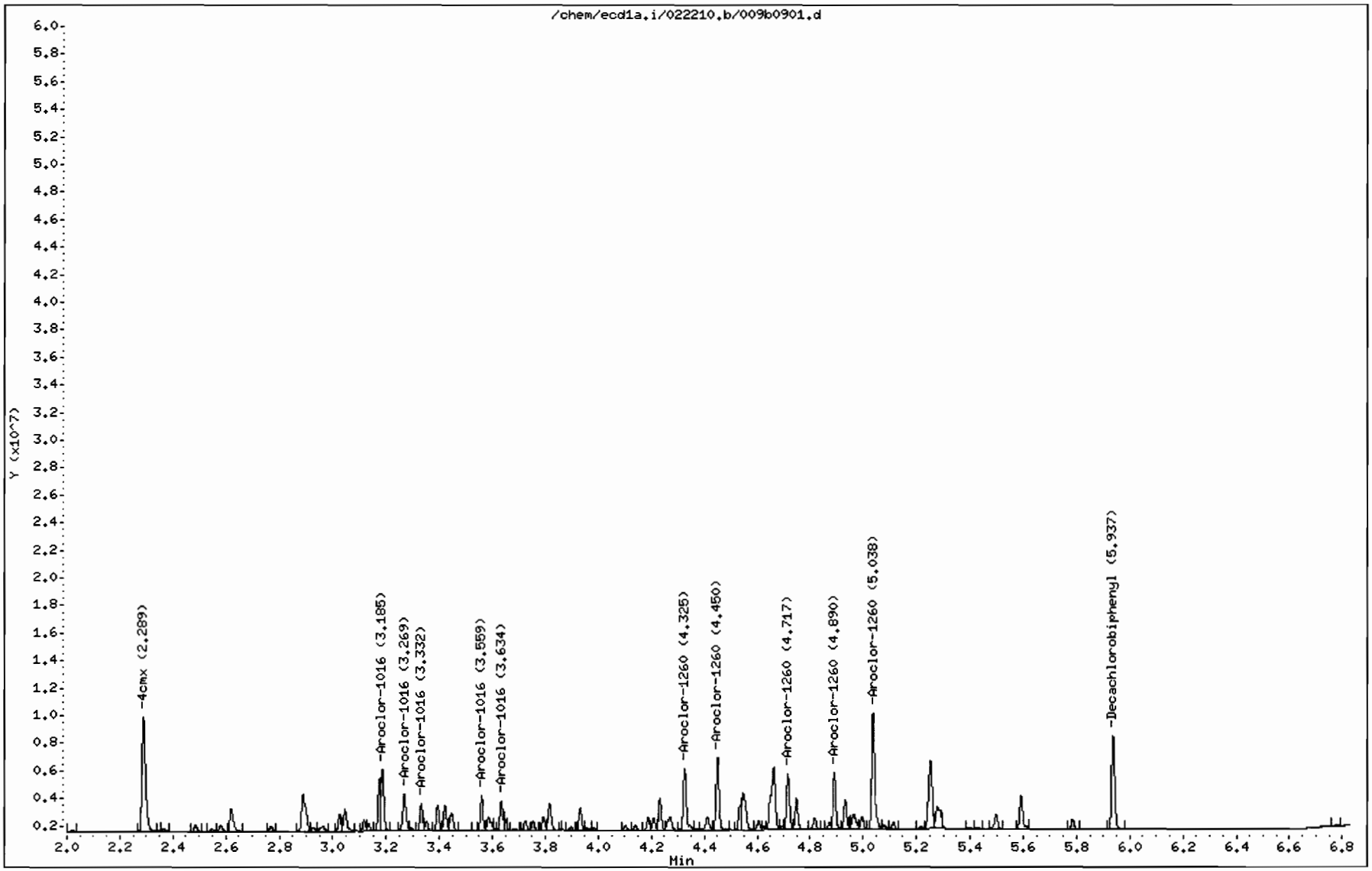

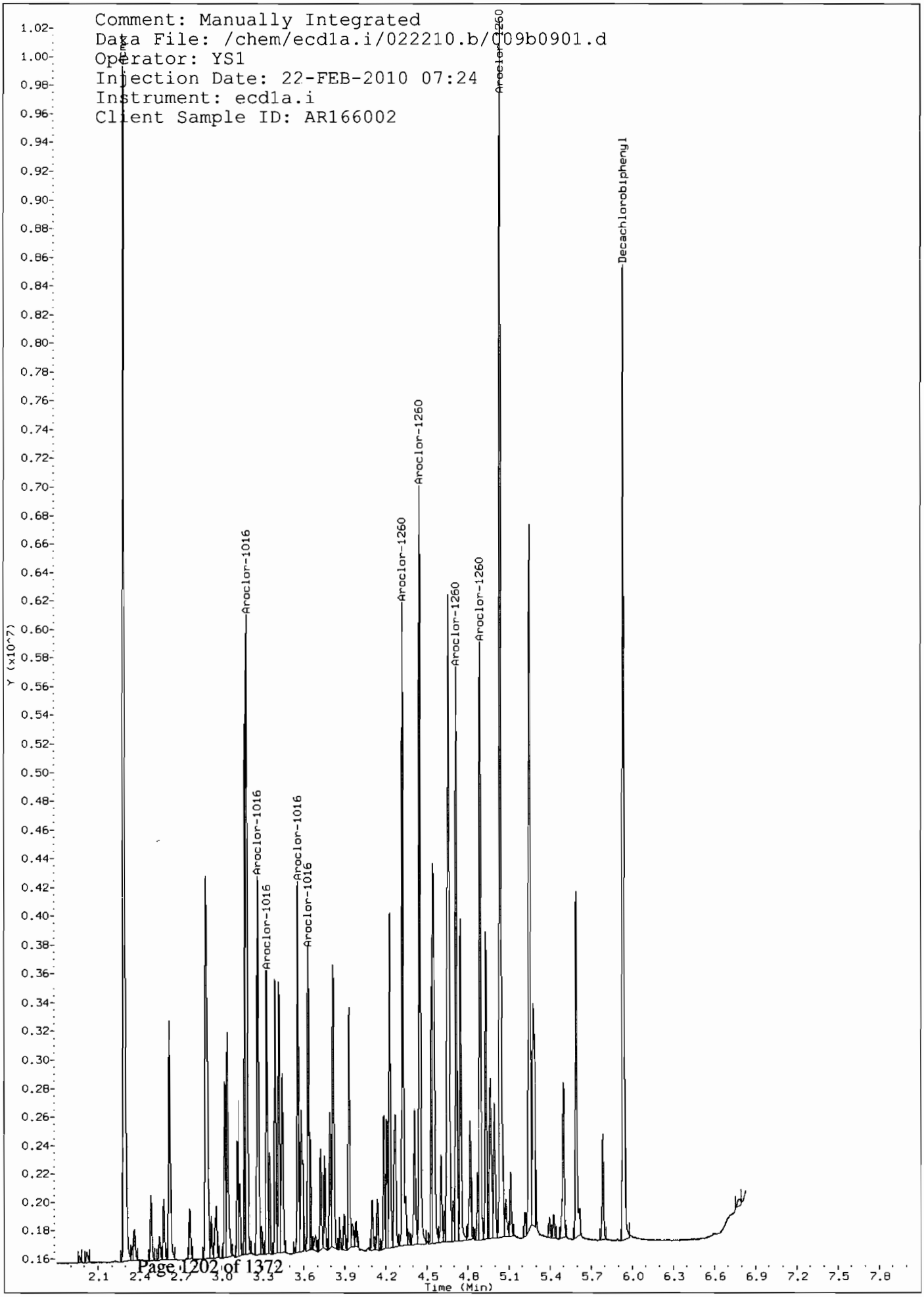
Comment: Manually Integrated
Data File: /chem/ecd1a.i/022210.b/C09b0901.d
Operator: YS1
Injection Date: 22-FEB-2010 07:24
Instrument: ecd1a.i
Client Sample ID: AR166002
Aroclor-1260
Decachlorobiphenyl
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Y (x10^7)
Time (Min)

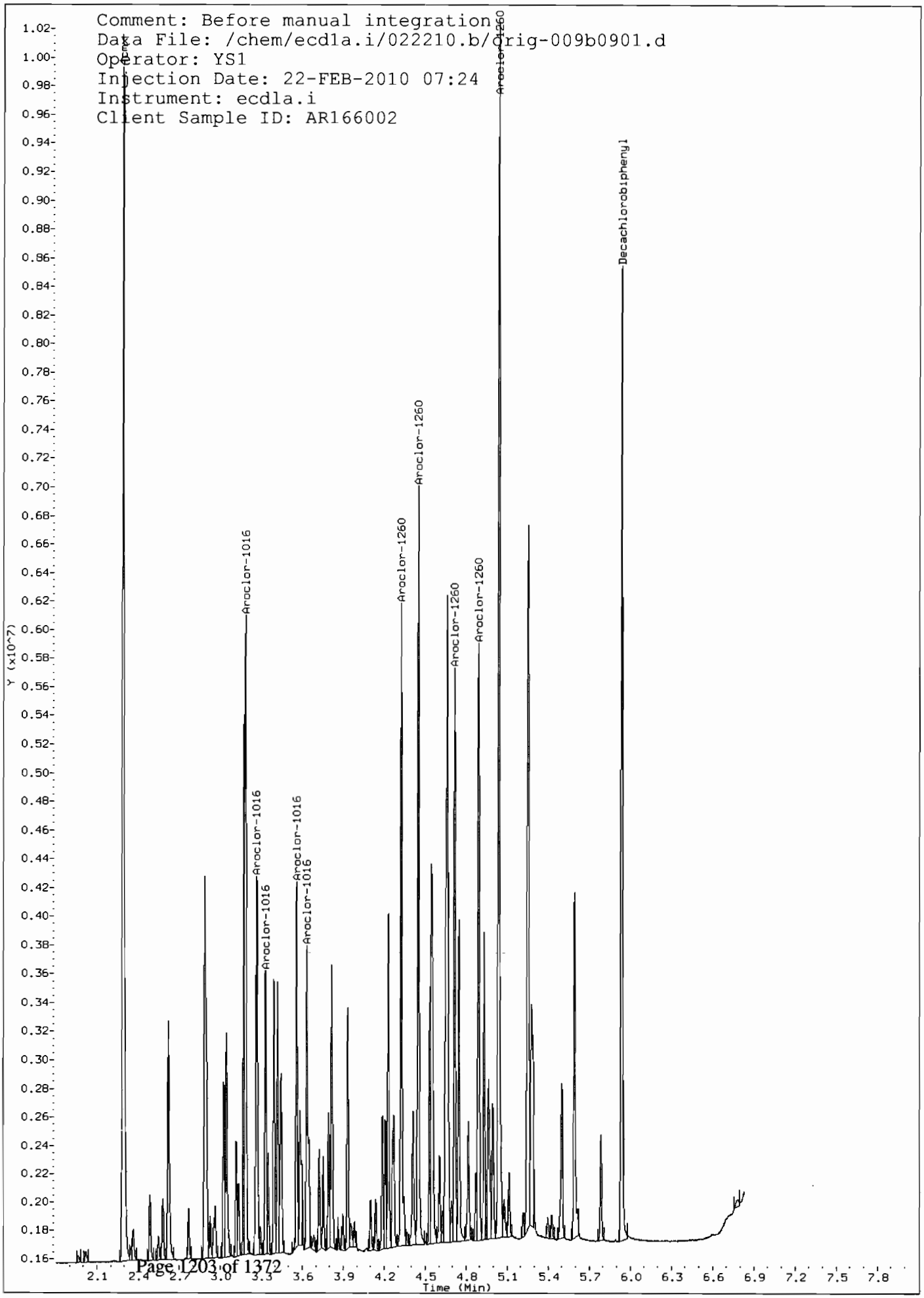
Comment: Before manual integration
Data File: /chem/ecd1a.i/022210.b/Orig-009b0901.d
Operator: YS1
Injection Date: 22-FEB-2010 07:24
Instrument: ecd1a.i
Client Sample ID: AR166002
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022210.b/010f1001.d
Lab Smp Id: WAR100222-03 60 Client Smp ID: AR166003
Inj Date : 22-FEB-2010 07:34
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-03 60
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 11:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:47 Cal File: 034f3401.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
11 4cmx					CAS #: 877-09-8		
1.924	1.924	0.000	21582276	50.0000	49.9	80.00- 120.00	100.00
12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.233	5.233	0.000	15197649	50.0000	48.6	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.378	2.378	0.000	7574913	500.000	484	80.00- 120.00	100.00
2.666	2.666	0.000	8879539	500.000	477	97.22- 137.22	117.22
2.746	2.746	0.000	5937626	500.000	480	58.39- 98.39	78.39
2.783	2.783	0.000	3466386	500.000	474	25.76- 65.76	45.76
2.994	2.994	0.000	4311342	500.000	465	36.92- 76.92	56.92
Average of Peak Amounts =					476		
7 Aroclor-1260					CAS #: 11096-82-5		
3.721	3.721	0.000	8378812	500.000	469	80.00- 120.00	100.00
3.882	3.882	0.000	11657767	500.000	467	119.13- 159.13	139.13
4.046	4.046	0.000	12088128	500.000	455	124.27- 164.27	144.27
4.113	4.113	0.000	6970364	500.000	455	63.19- 103.19	83.19
4.256	4.256	0.000	6992796	500.000	453	63.46- 103.46	83.46
Average of Peak Amounts =					460		

Data File: /chem/ecd1a.i/022210.b/010f1001.d

Page 1

Date : 22-FEB-2010 07:34

Client ID: AR166003

Instrument: ecd1a.i

Sample Info: IWAR100222-03 60

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

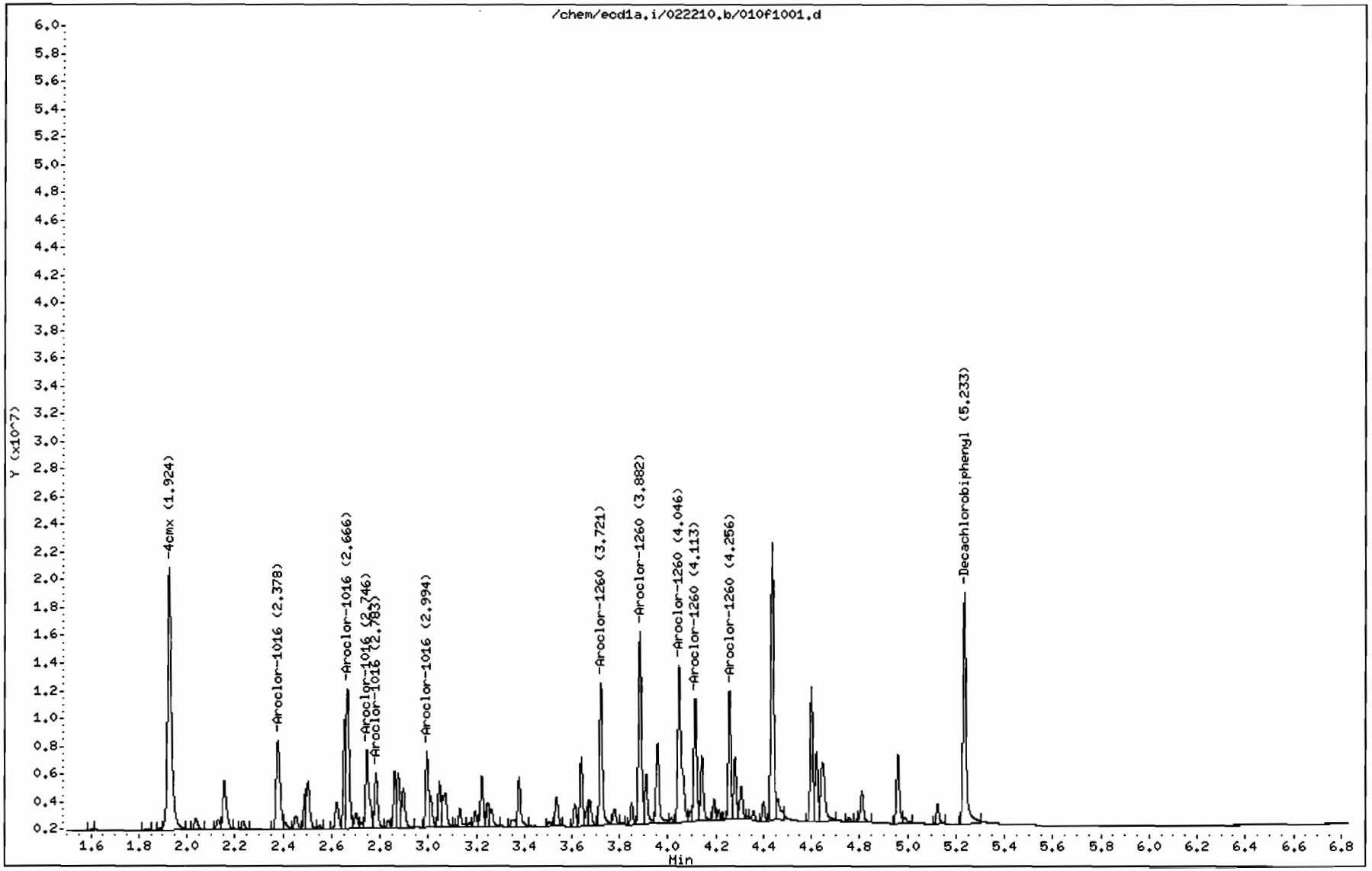

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022210.b/010b1001.d
Lab Smp Id: WAR100222-03 60 Client Smp ID: AR166003
Inj Date : 22-FEB-2010 07:34
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-03 60
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 11:13 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:47 Cal File: 034b3401.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
11 4cmx					CAS #: 877-09-8		
2.289	2.289	0.000	14792456	50.0000	49.5	80.00- 120.00	100.00
12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.936	5.936	0.000	10313627	50.0000	47.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.186	3.186	0.000	6299648	500.000	486	80.00- 120.00	100.00(M)
3.268	3.268	0.000	4367414	500.000	485	49.33- 89.33	69.33
3.332	3.332	0.000	2630441	500.000	479	21.76- 61.76	41.76
3.559	3.559	0.000	3405446	500.000	480	34.06- 74.06	54.06
3.635	3.635	0.000	3183012	500.000	484	30.53- 70.53	50.53
Average of Peak Amounts =					483		
7 Aroclor-1260					CAS #: 11096-82-5		
4.326	4.326	0.000	6313347	500.000	471	80.00- 120.00	100.00
4.450	4.450	0.000	7700403	500.000	486	101.97- 141.97	121.97
4.716	4.716	0.000	5822220	500.000	483	72.22- 112.22	92.22
4.891	4.891	0.000	5965035	500.000	478	74.48- 114.48	94.48
5.037	5.037	0.000	13173608	500.000	487	188.66- 228.66	208.66
Average of Peak Amounts =					481		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecdia.i/022210.b/010b1001.d
Date : 22-FEB-2010 07:34
Client ID: AR166003
Sample Info: IWAR100222-03 60
Column phase: CLP2

Instrument: ecdia.i
Operator: YS1
Column diameter: 0.25

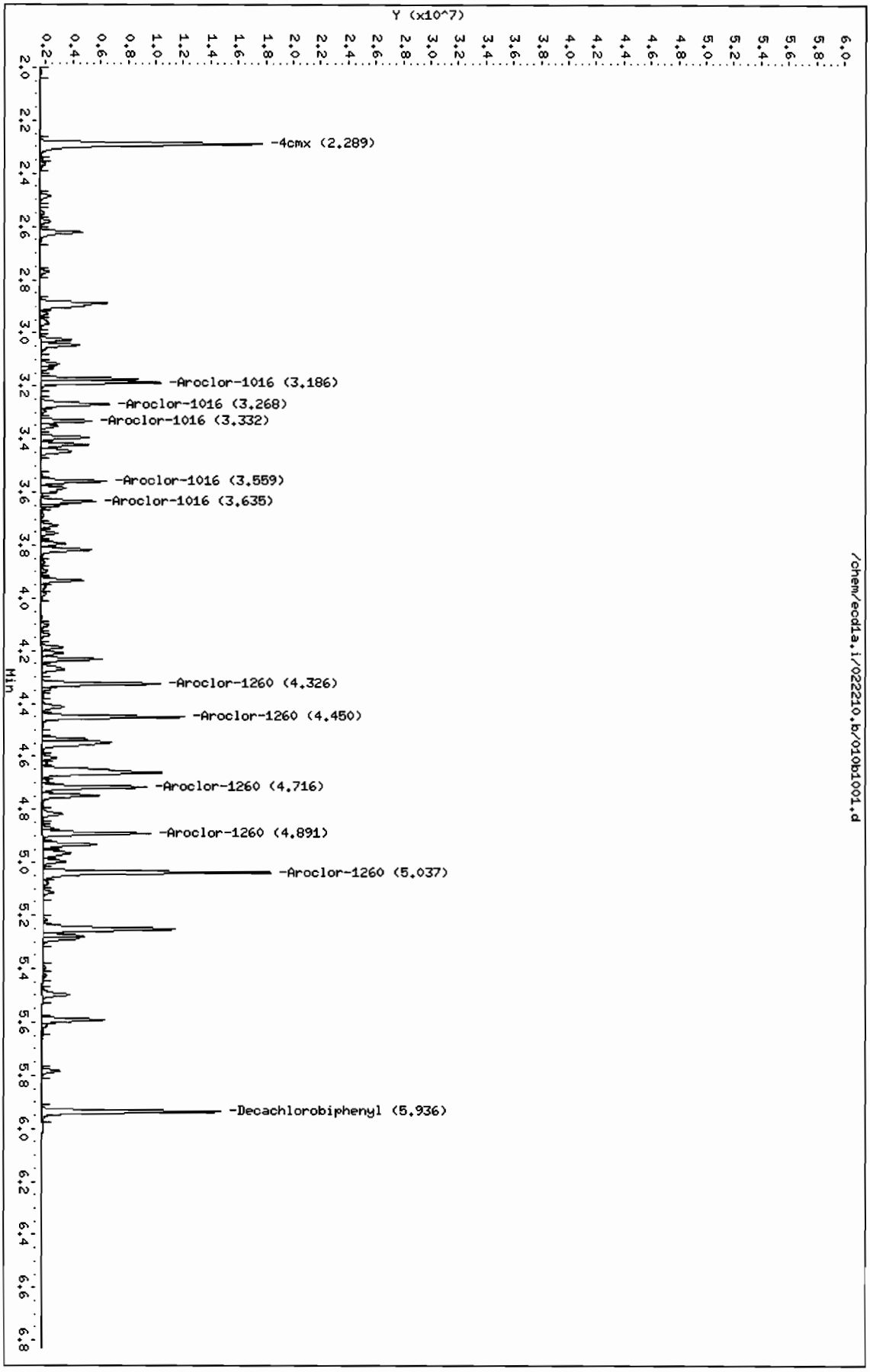

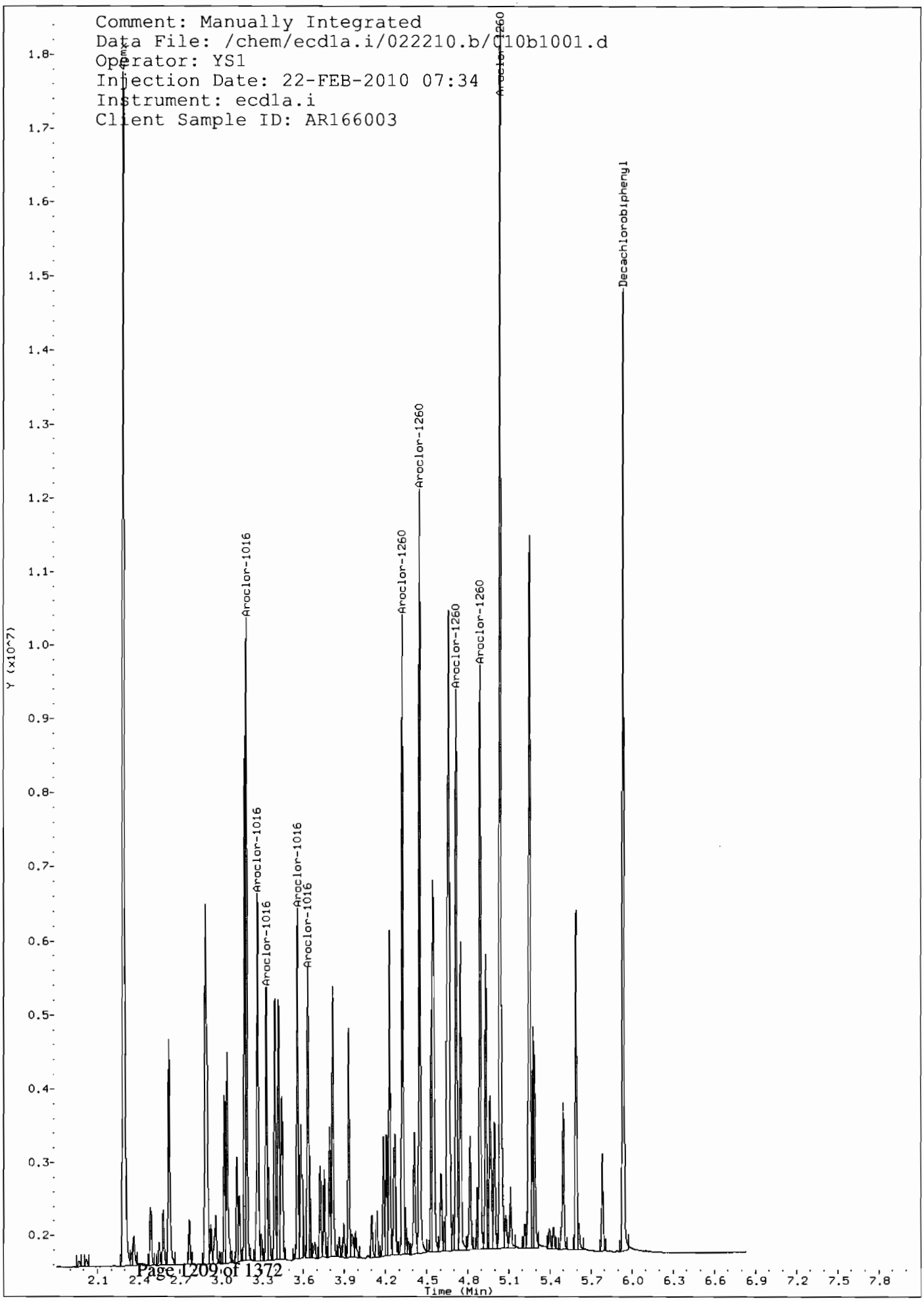
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Operator: YS1
Injection Date: 22-FEB-2010 07:34
Instrument: ecd1a.i
Client Sample ID: AR166003
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

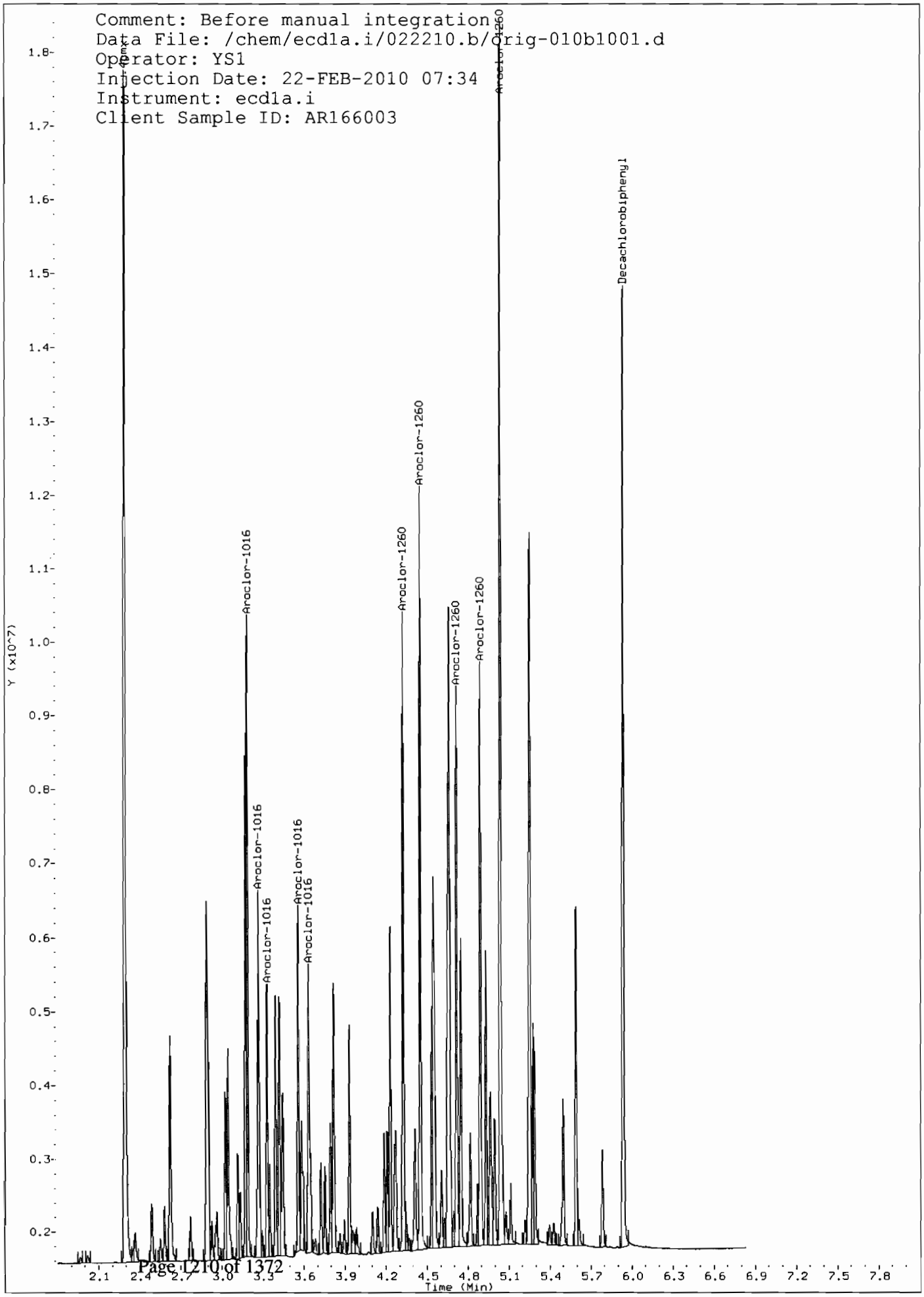
Comment: Before manual integration
Data File: /chem/ecd1a.i/022210.b/orig-010b1001.d
Operator: YS1
Injection Date: 22-FEB-2010 07:34
Instrument: ecd1a.i
Client Sample ID: AR166003
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022210.b/011f1101.d
Lab Smp Id: WAR100222-04 60 Client Smp ID: AR166004
Inj Date : 22-FEB-2010 07:45
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-04 60
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 11:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:58 Cal File: 035f3501.d
Als bottle: 11 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
11 4cmx					CAS #: 877-09-8		
1.924	1.924	0.000	42367613	100.000	98.4	80.00- 120.00	100.00
12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.234	5.234	0.000	29890895	100.000	97.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.377	2.377	0.000	14237597	1000.00	915	80.00- 120.00	100.00
2.665	2.665	0.000	17624553	1000.00	956	103.79- 143.79	123.79
2.746	2.746	0.000	11163464	1000.00	912	58.41- 98.41	78.41
2.783	2.783	0.000	6623837	1000.00	918	26.52- 66.52	46.52
2.994	2.994	0.000	8272910	1000.00	908	38.11- 78.11	58.11
Average of Peak Amounts =					922		
7 Aroclor-1260					CAS #: 11096-82-5		
3.721	3.721	0.000	16208013	1000.00	927	80.00- 120.00	100.00
3.883	3.883	0.000	22991581	1000.00	946	121.85- 161.85	141.85
4.046	4.046	0.000	24126610	1000.00	936	128.86- 168.86	148.86
4.113	4.113	0.000	13550533	1000.00	913	63.60- 103.60	83.60
4.257	4.257	0.000	13647181	1000.00	917	64.20- 104.20	84.20
Average of Peak Amounts =					928		

Data File: /chem/ecd1a.i/022210.b/011f1101.d
Date : 22-FEB-2010 07:45
Client ID: AR166004
Sample Info: IWAR100222-04 60
Column phase: CLP1

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

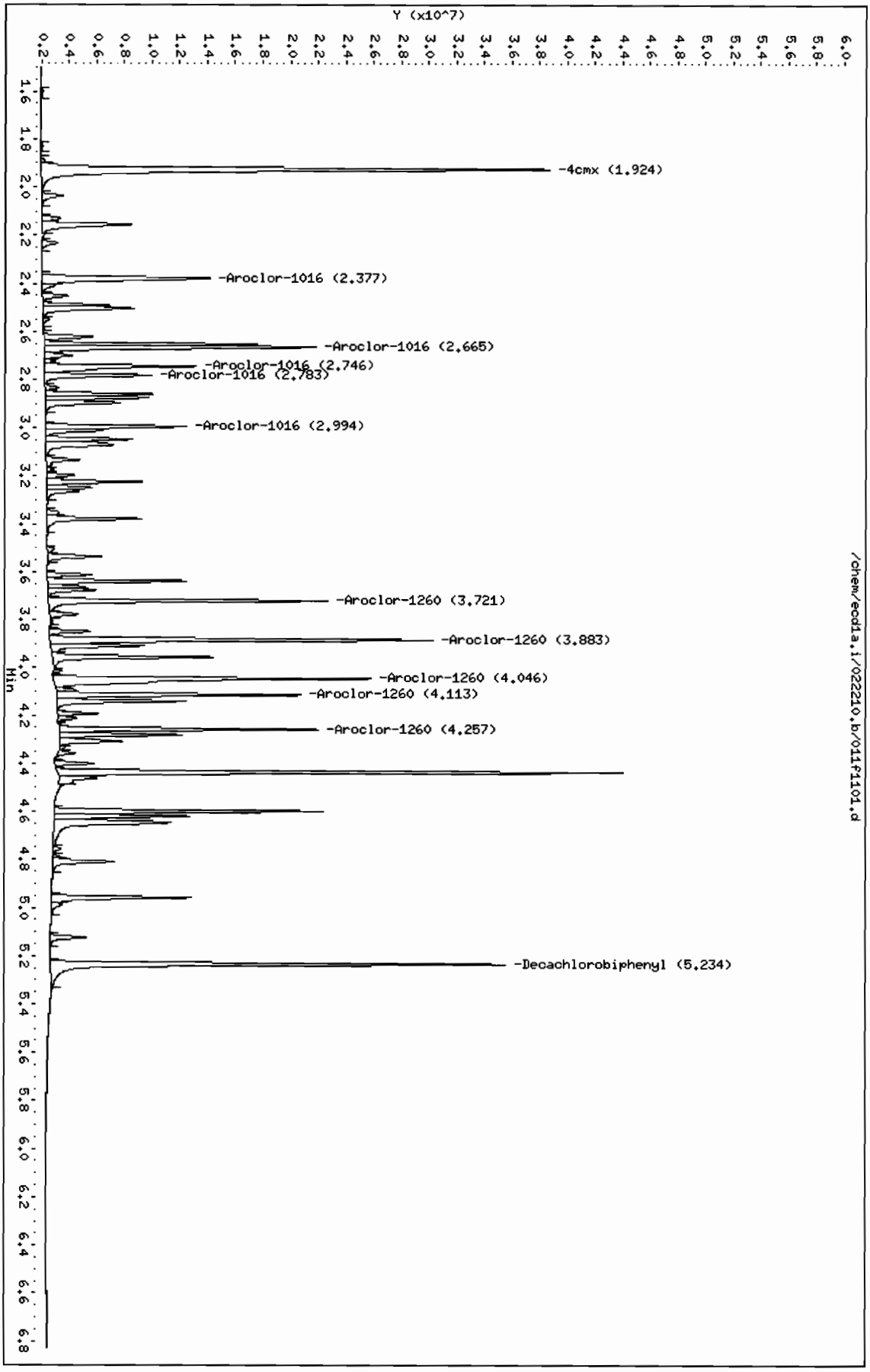

Page 1

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022210.b/011b1101.d
Lab Smp Id: WAR100222-04 60 Client Smp ID: AR166004
Inj Date : 22-FEB-2010 07:45
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-04 60
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 11:13 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 11:58 Cal File: 035b3501.d
Als bottle: 11 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
11 4cmx					CAS #: 877-09-8		
2.289	2.289	0.000	28502775	100.000	95.2	80.00- 120.00	100.00
12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.937	5.937	0.000	19684032	100.000	91.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.186	3.186	0.000	11956444	1000.00	925	80.00- 120.00	100.00
3.268	3.268	0.000	8080910	1000.00	899	47.59- 87.59	67.59
3.332	3.332	0.000	4923229	1000.00	899	21.18- 61.18	41.18
3.559	3.559	0.000	6205765	1000.00	884	31.90- 71.90	51.90
3.635	3.635	0.000	5845165	1000.00	895	28.89- 68.89	48.89
Average of Peak Amounts =					900		
7 Aroclor-1260					CAS #: 11096-82-5		
4.326	4.326	0.000	11898455	1000.00	891	80.00- 120.00	100.00
4.451	4.451	0.000	14482885	1000.00	919	101.72- 141.72	121.72
4.717	4.717	0.000	10874794	1000.00	907	71.40- 111.40	91.40
4.891	4.891	0.000	11182340	1000.00	904	73.98- 113.98	93.98
5.038	5.038	0.000	25126266	1000.00	935	191.17- 231.17	211.17
Average of Peak Amounts =					911		

Data File: /chem/ecd1a.i/022210.b/011b1101.d

Date : 22-FEB-2010 07:45

Client ID: AR166004

Sample Info: IWAR100222-04 60

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

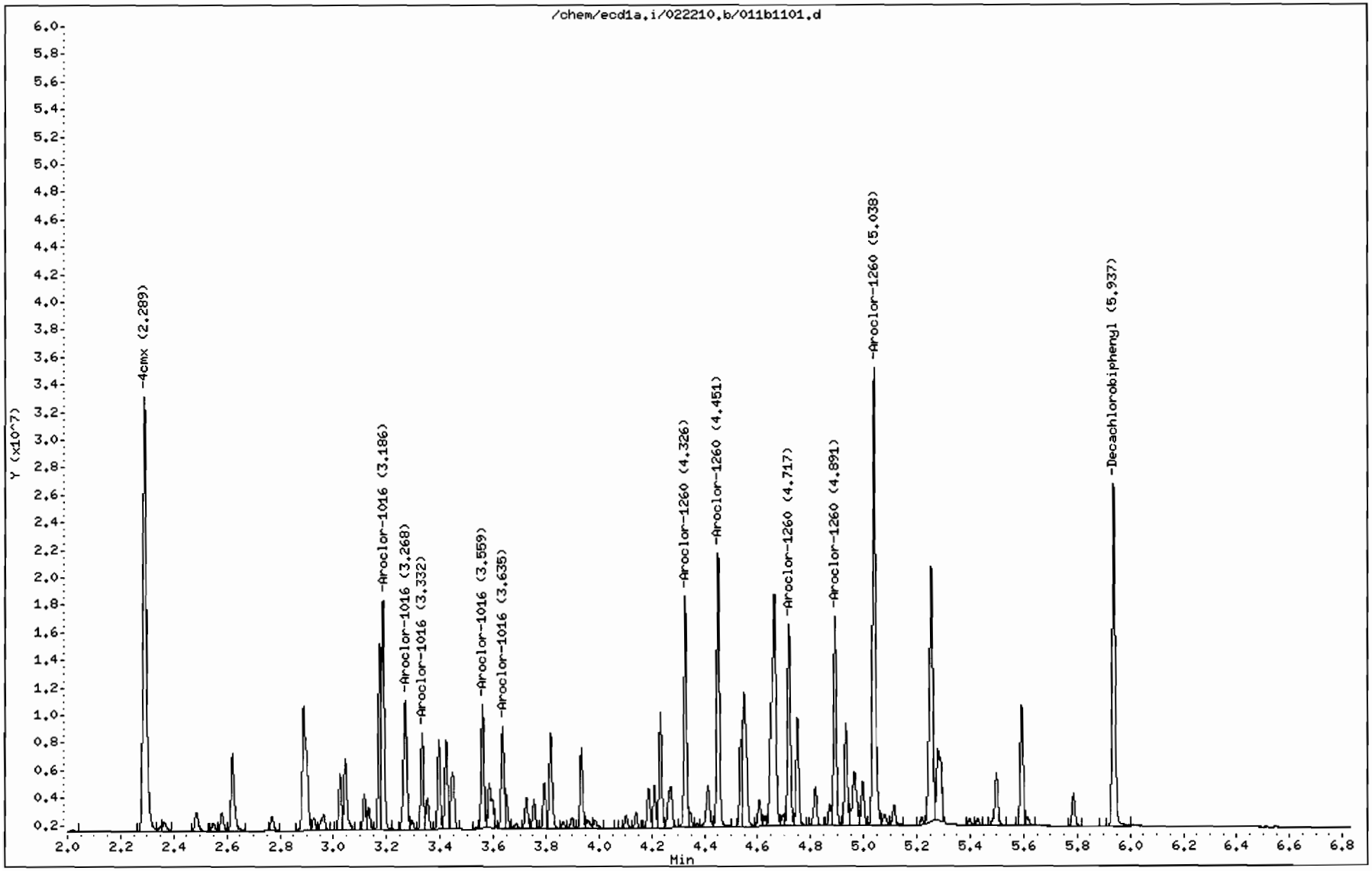

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022210.b/012f1201.d
Lab Smp Id: IAR100104-01 Client Smp ID: AR166005
Inj Date : 22-FEB-2010 07:55
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |IAR100104-01
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-F-8082-022210.m
Meth Date : 24-Feb-2010 11:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 12 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclpl

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
11 4cmx					CAS #: 877-09-8		
1.925	1.925	0.000	160397915	400.000	372	80.00- 120.00	100.00
12 Decachlorobipheny1					CAS #: 2051-24-3		
5.233	5.233	0.000	115969744	400.000	377	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.378	2.378	0.000	50996207	4000.00	3310	80.00- 120.00	100.00(M)
2.665	2.665	0.000	68280653	4000.00	3740	113.89- 153.89	133.89
2.745	2.745	0.000	42583666	4000.00	3530	63.50- 103.50	83.50
2.782	2.782	0.000	26254695	4000.00	3700	31.48- 71.48	51.48
2.994	2.994	0.000	32570000	4000.00	3650	43.87- 83.87	63.87
Average of Peak Amounts =				3.59e+03			
7 Aroclor-1260					CAS #: 11096-82-5		
3.720	3.720	0.000	62578007	4000.00	3660	80.00- 120.00	100.00(M)
3.882	3.882	0.000	90112997	4000.00	3810	124.00- 164.00	144.00
4.045	4.045	0.000	97767462	4000.00	3920	136.23- 176.23	156.23
4.112	4.112	0.000	55100856	4000.00	3820	68.05- 108.05	88.05
4.256	4.256	0.000	57643898	4000.00	3990	72.12- 112.12	92.12
Average of Peak Amounts =				3.84e+03			

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/022210.b/012f1201.d

Date : 22-FEB-2010 07:55

Client ID: AR166005

Sample Info: IIAR100104-01

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

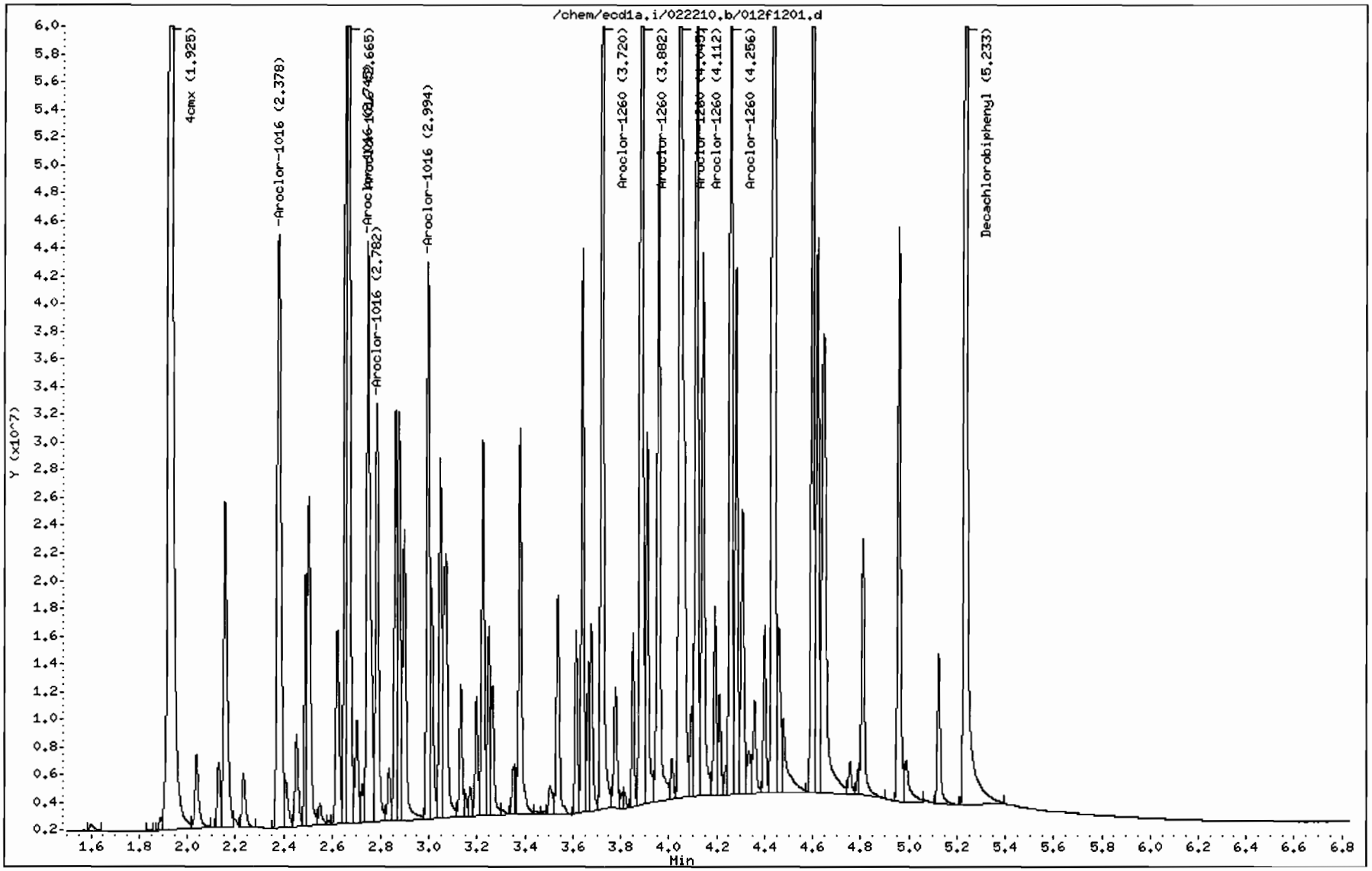

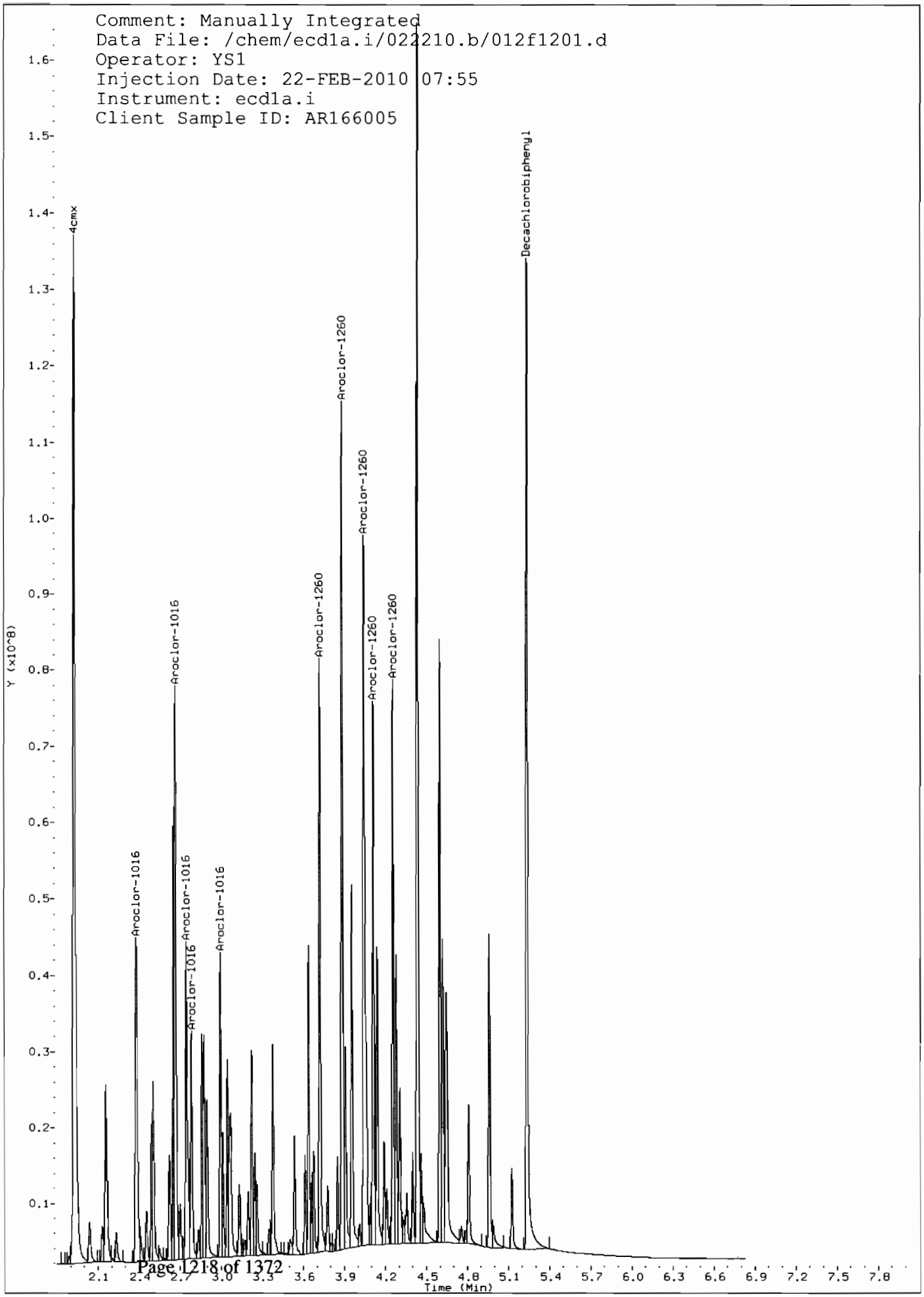
Comment: Manually Integrated
Data File: /chem/ecd1a.i/022210.b/012f1201.d
Operator: YS1
Injection Date: 22-FEB-2010 07:55
Instrument: ecd1a.i
Client Sample ID: AR166005
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^8)
Time (Min)

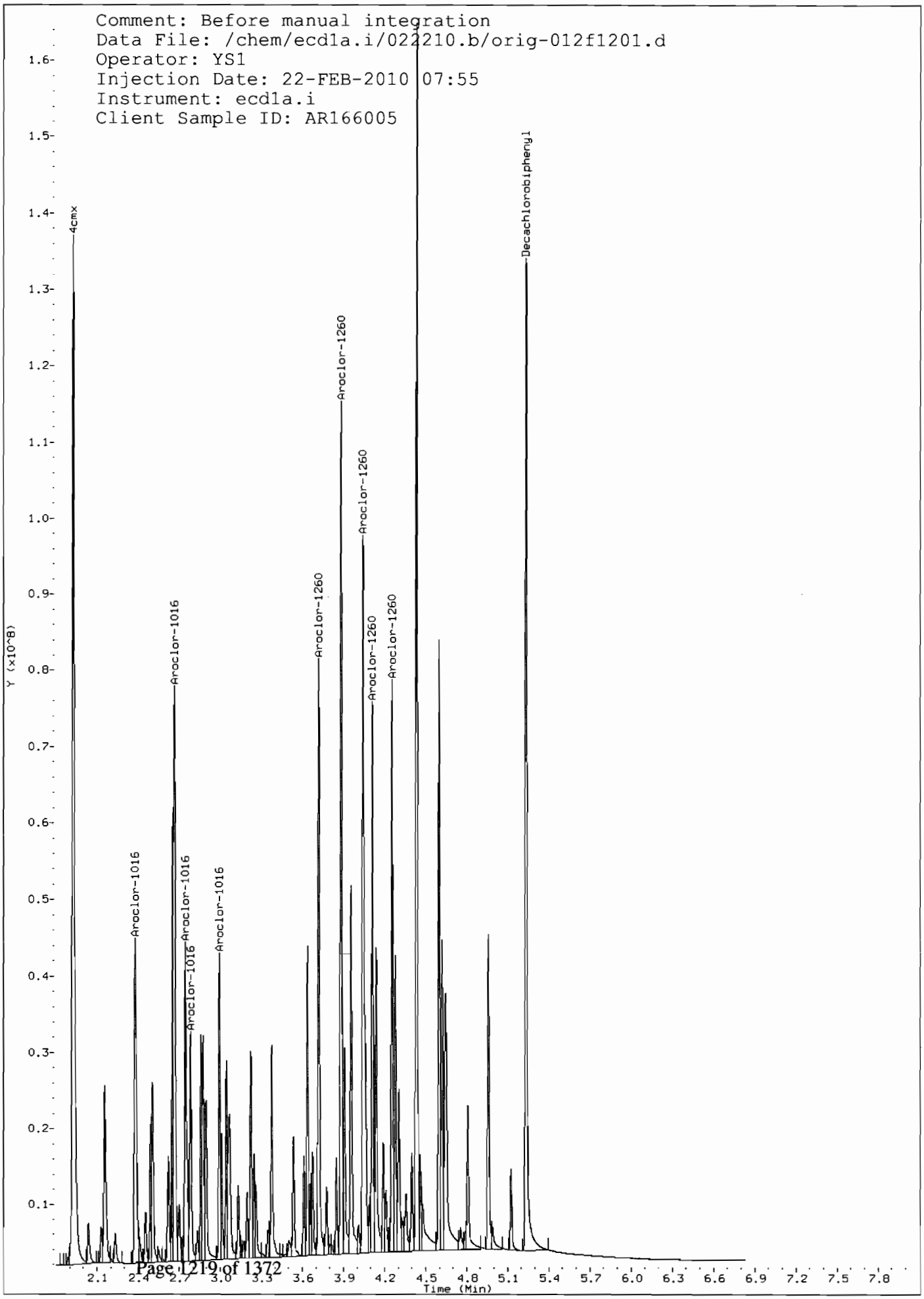
Comment: Before manual integration
Data File: /chem/ecd1a.i/022210.b/orig-012f1201.d
Operator: YS1
Injection Date: 22-FEB-2010 07:55
Instrument: ecd1a.i
Client Sample ID: AR166005
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^8)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/022210.b/012b1201.d
Lab Smp Id: IAR100104-01 Client Smp ID: AR166005
Inj Date : 22-FEB-2010 07:55
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |IAR100104-01
Misc Info :
Comment :
Method : /chem/ecd1a.i/022410.b/ECD1-B-8082-022210.m
Meth Date : 24-Feb-2010 11:13 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 12 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpc1p1

AMOUNTS

RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
11 4cmx					CAS #: 877-09-8		
2.289	2.289	0.000	104994049	400.000	353	80.00- 120.00	100.00
12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.937	5.937	0.000	72746678	400.000	344	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.185	3.185	0.000	44792225	4000.00	3500	80.00- 120.00	100.00
3.268	3.268	0.000	28815644	4000.00	3230	44.33- 84.33	64.33
3.332	3.332	0.000	17907155	4000.00	3310	19.98- 59.98	39.98
3.558	3.558	0.000	22507063	4000.00	3250	30.25- 70.25	50.25
3.634	3.634	0.000	21198018	4000.00	3300	27.33- 67.33	47.33
Average of Peak Amounts =					3.32e+03		
7 Aroclor-1260					CAS #: 11096-82-5		
4.326	4.326	0.000	43475293	4000.00	3290	80.00- 120.00	100.00
4.450	4.450	0.000	53014703	4000.00	3400	101.94- 141.94	121.94
4.717	4.717	0.000	40244483	4000.00	3400	72.57- 112.57	92.57
4.890	4.890	0.000	41721699	4000.00	3420	75.97- 115.97	95.97
5.037	5.037	0.000	92651700	4000.00	3490	193.11- 233.11	213.11
Average of Peak Amounts =					3.4e+03		

Data File: /chem/ecd1a.i/022210.b/012b1201.d

Date : 22-FEB-2010 07:55

Client ID: AR166005

Sample Info: IIAR100104-01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

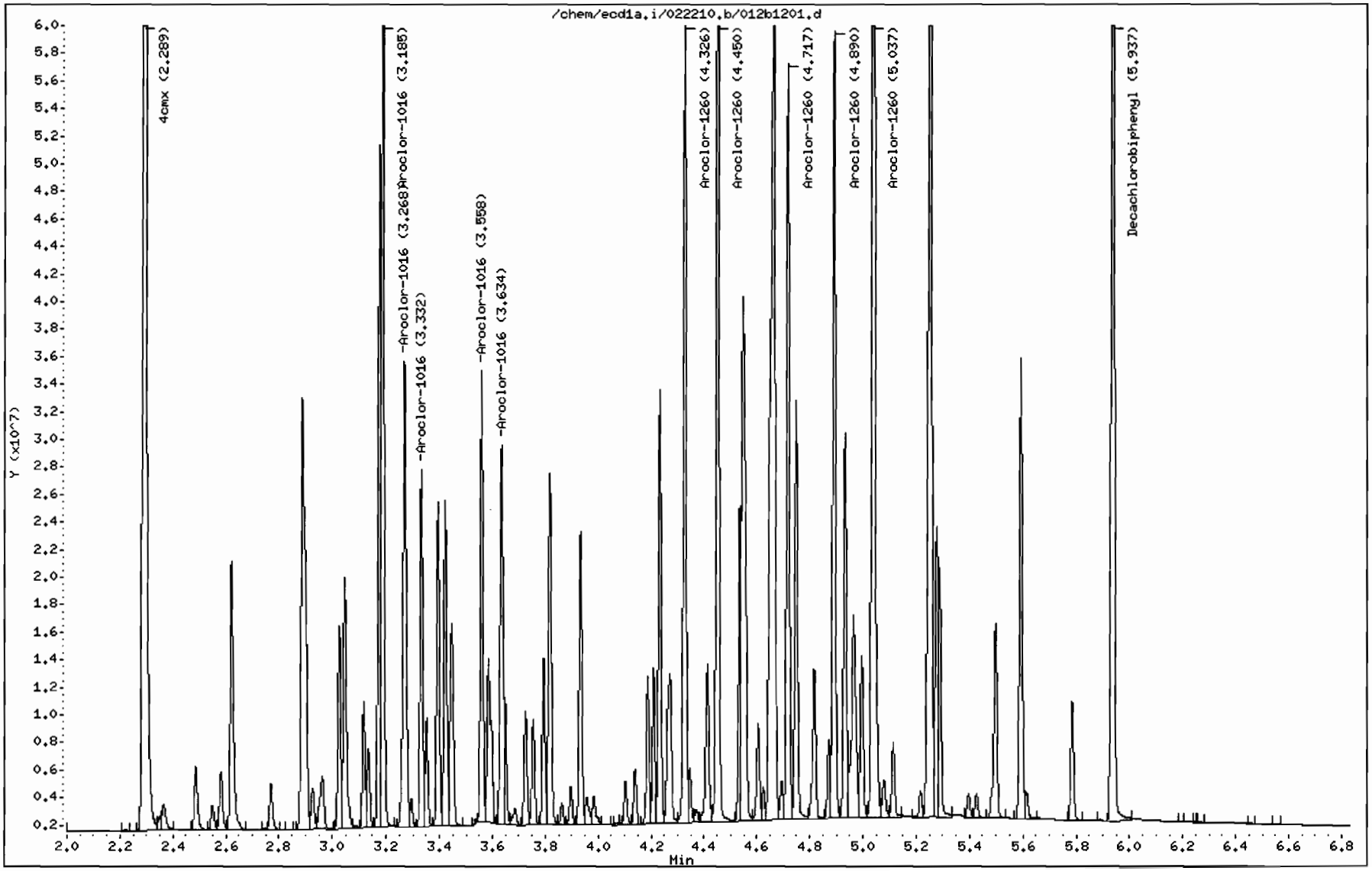

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2057

Instrument ID: ECD1A Calibration Date: 03/09/10 Time: 0605

Lab File ID: 002F0201 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15384.345	13476.079	0.01	-12.4	15.0
(2)	18237.012	17118.774	0.01	-6.1	15.0
(3)	12065.482	10856.453	0.01	-10.0	15.0
(4)	7096.105	6531.897	0.01	-8.0	15.0
(5)	8912.192	8268.348	0.01	-7.2	15.0
Aroclor-1260	17072.421	16301.721	0.01	-4.5	15.0
(2)	23643.449	24329.087	0.01	2.9	15.0
(3)	24971.335	26072.574	0.01	4.4	15.0
(4)	14405.675	14699.904	0.01	2.0	15.0
(5)	14430.527	15333.852	0.01	6.2	15.0
4cmx	430636.91	381155.79	0.01	-11.5	15.0
Decachlorobiphenyl	307289.35	296054.84	0.01	-3.6	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2057

Instrument ID: ECD1A Calibration Date: 03/09/10 Time: 0605

Lab File ID: 002B0201 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	12184.528	0.01	-4.7	15.0
(2)	8917.926	7823.059	0.01	-12.3	15.0
(3)	5406.011	4862.200	0.01	-10.0	15.0
(4)	6915.638	6333.733	0.01	-8.4	15.0
(5)	6425.213	5855.276	0.01	-8.9	15.0
Aroclor-1260	13205.642	11874.381	0.01	-10.1	15.0
(2)	15566.814	14523.516	0.01	-6.7	15.0
(3)	11843.501	10940.143	0.01	-7.6	15.0
(4)	12201.193	11358.948	0.01	-6.9	15.0
(5)	26527.172	25417.207	0.01	-4.2	15.0
4cmx	297396.93	265127.64	0.01	-10.8	15.0
Decachlorobiphenyl	211498.34	189933.73	0.01	-10.2	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2057

Instrument ID: ECD1A Calibration Date: 03/09/10 Time: 1021

Lab File ID: 025F2501 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15384.345	14060.684	0.01	-8.6	15.0
(2)	18237.012	17777.120	0.01	-2.5	15.0
(3)	12065.482	11271.847	0.01	-6.6	15.0
(4)	7096.105	6815.126	0.01	-4.0	15.0
(5)	8912.192	8730.276	0.01	-2.0	15.0
Aroclor-1260	17072.421	17016.414	0.01	-0.3	15.0
(2)	23643.449	25400.273	0.01	7.4	15.0
(3)	24971.335	27114.496	0.01	8.6	15.0
(4)	14405.675	15286.706	0.01	6.1	15.0
(5)	14430.527	15918.474	0.01	10.3	15.0
4cmx	430636.91	396802.26	0.01	-7.8	15.0
Decachlorobiphenyl	307289.35	309415.76	0.01	0.7	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2057

Instrument ID: ECD1A Calibration Date: 03/09/10 Time: 1021

Lab File ID: 025B2501 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	RRF	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	12193.531	0.01	-4.7	15.0
(2)	8917.926	7901.532	0.01	-11.4	15.0
(3)	5406.011	4934.564	0.01	-8.7	15.0
(4)	6915.638	6203.624	0.01	-10.3	15.0
(5)	6425.213	5825.015	0.01	-9.3	15.0
Aroclor-1260	13205.642	11974.228	0.01	-9.3	15.0
(2)	15566.814	14696.750	0.01	-5.6	15.0
(3)	11843.501	11082.986	0.01	-6.4	15.0
(4)	12201.193	11537.123	0.01	-5.4	15.0
(5)	26527.172	25747.290	0.01	-2.9	15.0
4cmx	297396.93	267436.61	0.01	-10.1	15.0
Decachlorobiphenyl	211498.34	193873.52	0.01	-8.3	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2057

Instrument ID: ECD1A Calibration Date: 03/09/10 Time: 1223

Lab File ID: 036F3601 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP1 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	15384.345	14278.137	0.01	-7.2	15.0
(2)	18237.012	18701.586	0.01	2.5	15.0
(3)	12065.482	11479.585	0.01	-4.8	15.0
(4)	7096.105	6956.938	0.01	-2.0	15.0
(5)	8912.192	8887.593	0.01	-0.3	15.0
Aroclor-1260	17072.421	17231.278	0.01	0.9	15.0
(2)	23643.449	25747.342	0.01	8.9	15.0
(3)	24971.335	27594.766	0.01	10.5	15.0
(4)	14405.675	15539.148	0.01	7.9	15.0
(5)	14430.527	16196.327	0.01	12.2	15.0
4cmx	430636.91	404714.44	0.01	-6.0	15.0
Decachlorobiphenyl	307289.35	318067.20	0.01	3.5	15.0

FORM VII PEST

FORM 7
PESTICIDE CONTINUING CALIBRATION CHECK

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2057

Instrument ID: ECD1A Calibration Date: 03/09/10 Time: 1223

Lab File ID: 036B3601 Init. Calib. Date(s): 02/22/10 02/22/10

Heated Purge: (Y/N) N Init. Calib. Times: 0713 0755

GC Column: CLP2 ID: 0.25 (mm)

COMPOUND	$\overline{RRF}$	RRF 1000	MIN RRF	%D	MAX %D
Aroclor-1016	12789.782	12542.512	0.01	-1.9	15.0
(2)	8917.926	8094.605	0.01	-9.2	15.0
(3)	5406.011	5066.938	0.01	-6.3	15.0
(4)	6915.638	6566.448	0.01	-5.0	15.0
(5)	6425.213	6086.252	0.01	-5.3	15.0
Aroclor-1260	13205.642	12295.985	0.01	-6.9	15.0
(2)	15566.814	15078.122	0.01	-3.1	15.0
(3)	11843.501	11370.329	0.01	-4.0	15.0
(4)	12201.193	11877.501	0.01	-2.6	15.0
(5)	26527.172	26534.899	0.01	0.0	15.0
4cmx	297396.93	275451.91	0.01	-7.4	15.0
Decachlorobiphenyl	211498.34	199844.80	0.01	-5.5	15.0

FORM VII PEST

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/002f0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 09-MAR-2010 06:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.916	1.916	0.000	38115579	100.000	88.5	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.223	5.223	0.000	29605484	100.000	96.3	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.370	2.370	0.000	13476078	1000.00	876	80.00- 120.00	100.00
2.656	2.656	0.000	17118773	1000.00	939	107.03- 147.03	127.03
2.736	2.736	0.000	10856452	1000.00	900	60.56- 100.56	80.56
2.774	2.774	0.000	6531897	1000.00	920	28.47- 68.47	48.47
2.984	2.984	0.000	8268347	1000.00	928	41.36- 81.36	61.36
Average of Peak Amounts =					913		
7 Aroclor-1260					CAS #: 11096-82-5		
3.710	3.710	0.000	16301721	1000.00	955	80.00- 120.00	100.00
3.873	3.873	0.000	24329086	1000.00	1030	129.24- 169.24	149.24
4.035	4.035	0.000	26072574	1000.00	1040	139.94- 179.94	159.94
4.102	4.102	0.000	14699904	1000.00	1020	70.17- 110.17	90.17
4.246	4.246	0.000	15333852	1000.00	1060	74.06- 114.06	94.06
Average of Peak Amounts =					1.02e+03		

Data File: /chem/ecd1a.i/030910.b/002f0201.d

Date : 09-MAR-2010 06:05

Client ID: AR166001

Sample Info: IWAR100222-60 01

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

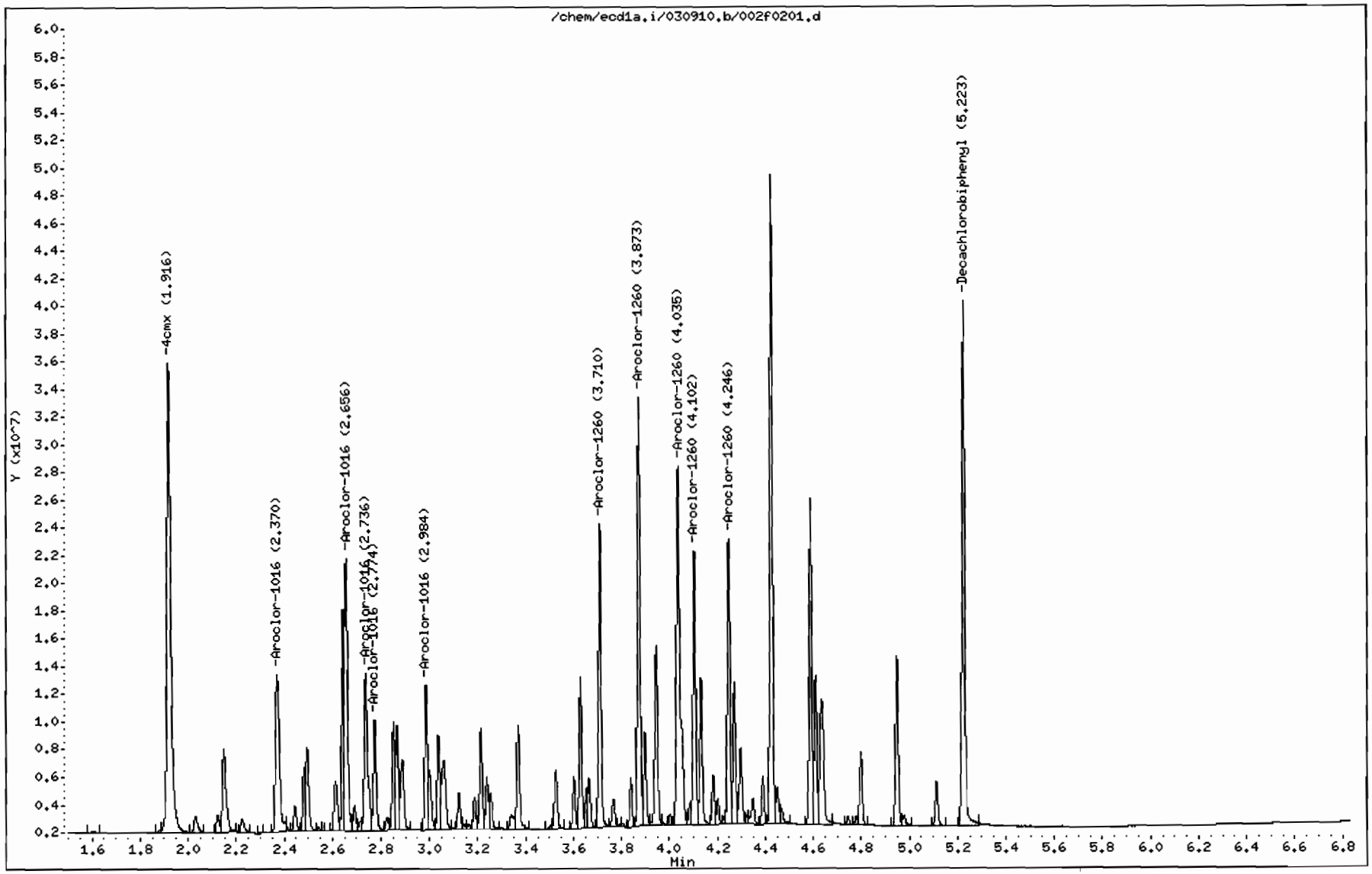

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/002b0201.d
Lab Smp Id: WAR100222-60 01 Client Smp ID: AR166001
Inj Date : 09-MAR-2010 06:05
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.276	2.276	0.000	26512764	100.000	89.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.918	5.918	0.000	18993373	100.000	89.8	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.170	3.170	0.000	12184528	1000.00	953	80.00- 120.00	100.00
3.253	3.253	0.000	7823059	1000.00	877	44.20- 84.20	64.20
3.316	3.316	0.000	4862199	1000.00	899	19.90- 59.90	39.90
3.544	3.544	0.000	6333733	1000.00	916	31.98- 71.98	51.98
3.619	3.619	0.000	5855276	1000.00	911	28.06- 68.06	48.06
Average of Peak Amounts =					911		
7 Aroclor-1260					CAS #: 11096-82-5		
4.309	4.309	0.000	11874381	1000.00	899	80.00- 120.00	100.00
4.435	4.435	0.000	14523516	1000.00	933	102.31- 142.31	122.31
4.700	4.700	0.000	10940143	1000.00	924	72.13- 112.13	92.13
4.873	4.873	0.000	11358947	1000.00	931	75.66- 115.66	95.66
5.021	5.021	0.000	25417206	1000.00	958	194.05- 234.05	214.05
Average of Peak Amounts =					929		

Data File: /chem/ecd1a.i/030910.b/002b0201.d

Date : 09-MAR-2010 06:05

Client ID: AR166001

Sample Info: IWAR100222-60 01

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

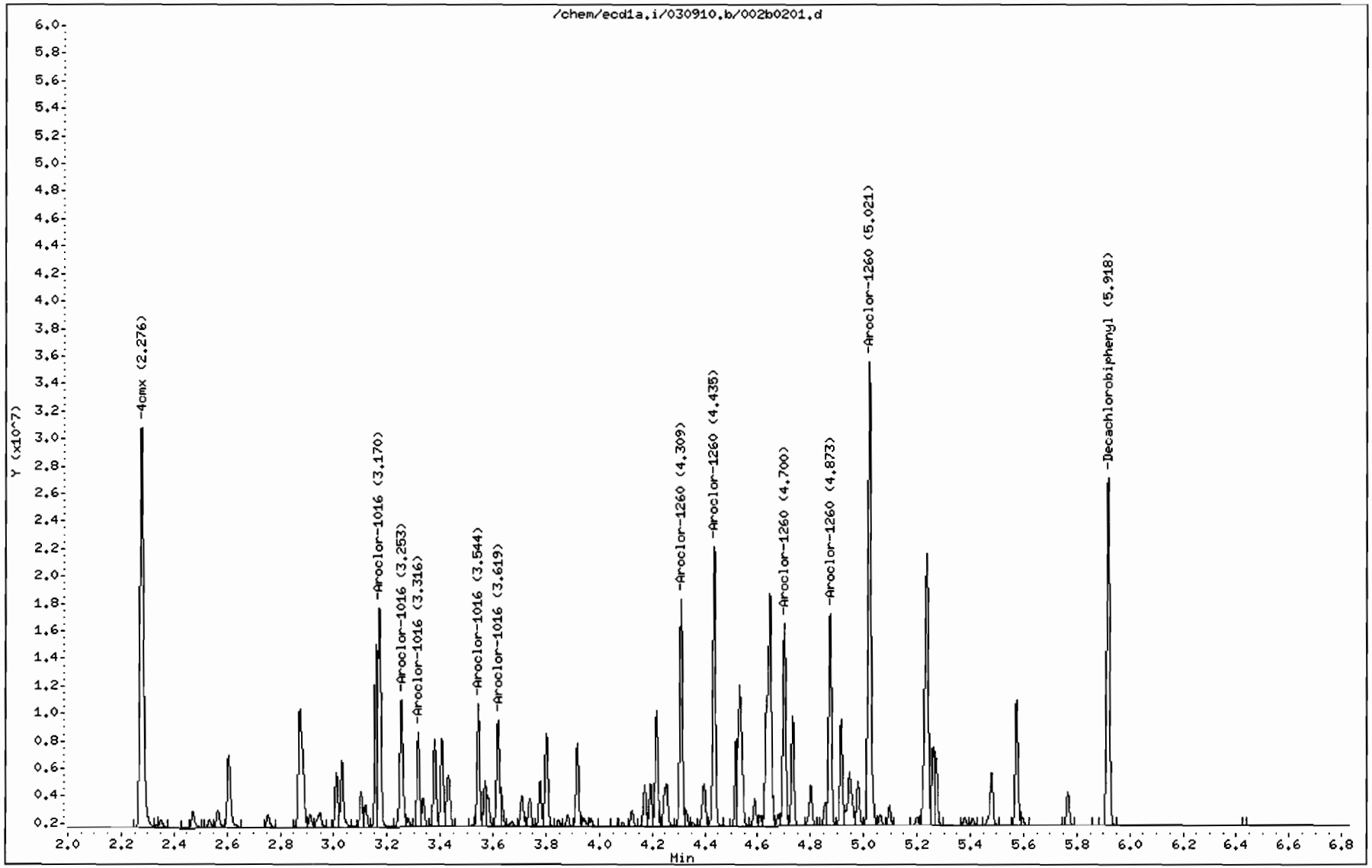

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/003f0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 09-MAR-2010 06:16
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.213	3.213	0.000	11735254	1000.00	977	80.00- 120.00	100.00
3.368	3.368	0.000	15987053	1000.00	1010	116.23- 156.23	136.23
3.602	3.602	0.000	20709681	1000.00	1060	156.47- 196.47	176.47
3.764	3.764	0.000	15509457	1000.00	1120	112.16- 152.16	132.16
3.874	3.874	0.000	15125872	1000.00	1060	108.89- 148.89	128.89

Average of Peak Amounts = 1.05e+03

Data File: /chem/ecd1a.i/030910.b/003f0301.d
Date : 09-MAR-2010 06:16
Client ID: AR125401
Sample Info: IWAR100219-54

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

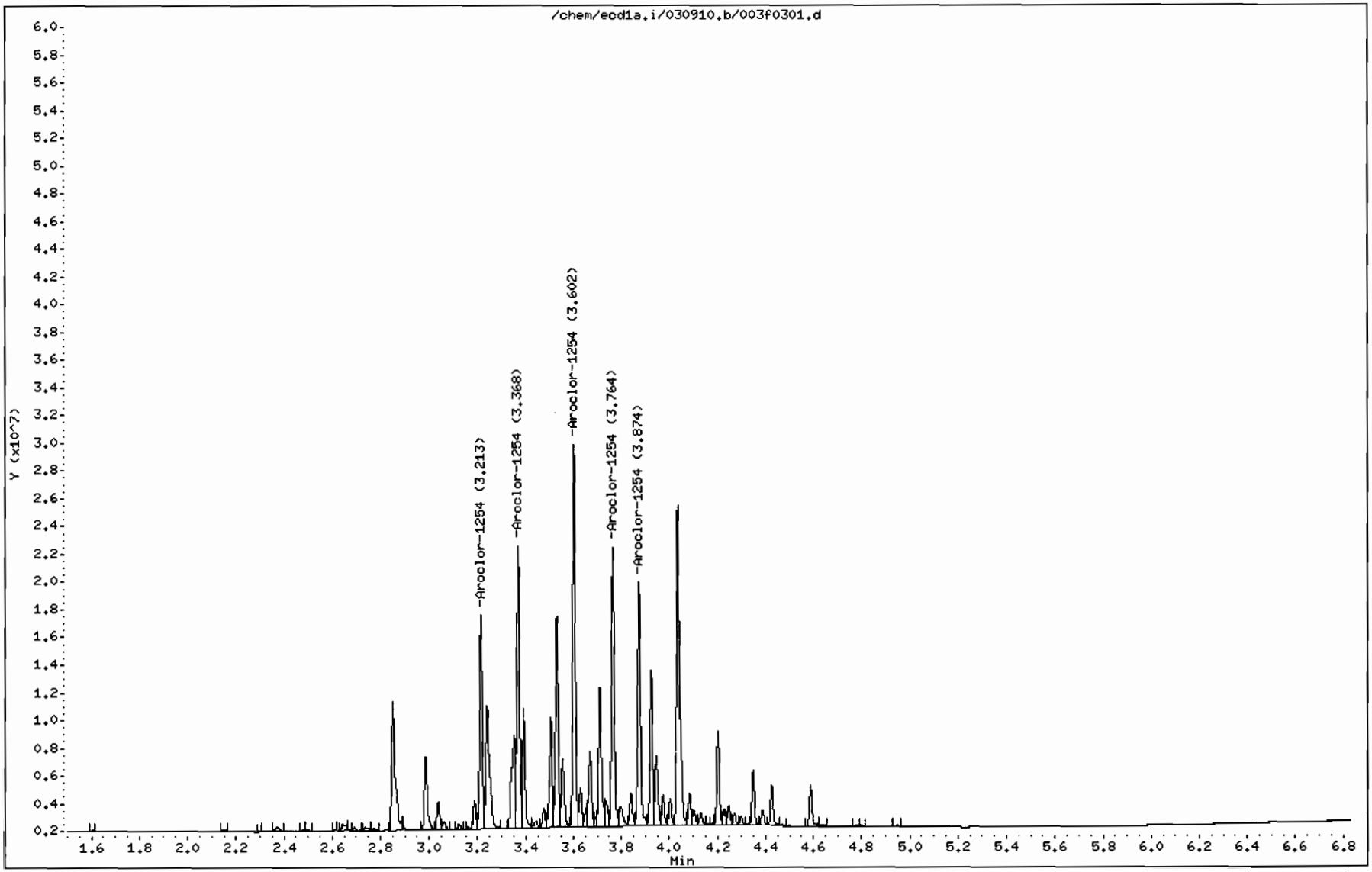

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/003b0301.d
Lab Smp Id: WAR100219-54 Client Smp ID: AR125401
Inj Date : 09-MAR-2010 06:16
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-54
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1254.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
6 Aroclor-1254					CAS #: 11097-69-1		
3.378	3.378	0.000	5407963	1000.00	891	80.00- 120.00	100.00
3.801	3.801	0.000	9772511	1000.00	910	160.71- 200.71	180.71
3.918	3.918	0.000	10919160	1000.00	938	181.91- 221.91	201.91
4.193	4.193	0.000	15360930	1000.00	966	264.04- 304.04	284.04
4.329	4.329	0.000	11283940	1000.00	942	188.65- 228.65	208.65
Average of Peak Amounts =					929		

Data File: /chem/ecd1a.i/030910.b/003b0301.d

Date : 09-MAR-2010 06:16

Client ID: AR125401

Sample Info: IWAR100219-54

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

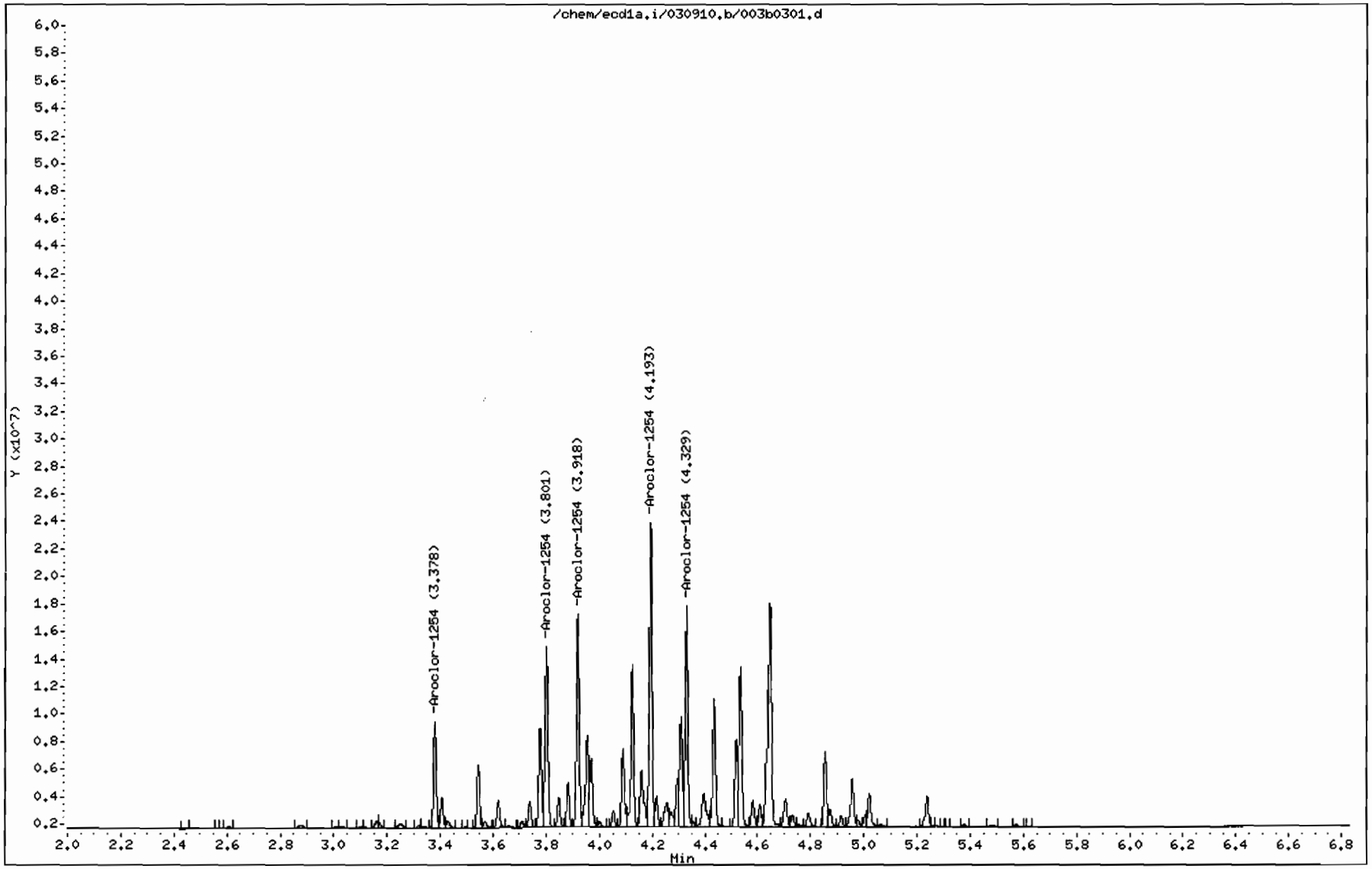

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/004f0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 09-MAR-2010 06:26
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
2.370	2.370	0.000	11459185	1000.00	912	80.00- 120.00	100.00
2.658	2.658	0.000	14227469	1000.00	974	104.16- 144.16	124.16
2.775	2.775	0.000	5440640	1000.00	966	27.48- 67.48	47.48
2.985	2.985	0.000	7044792	1000.00	964	41.48- 81.48	61.48
3.238	3.238	0.000	6798015	1000.00	1100	39.32- 79.32	59.32
Average of Peak Amounts =					983		

Data File: /chem/ecd1a.i/030910.b/004f0401.d

Date : 09-MAR-2010 06:26

Client ID: AR124201

Sample Info: IWAR100219-42

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

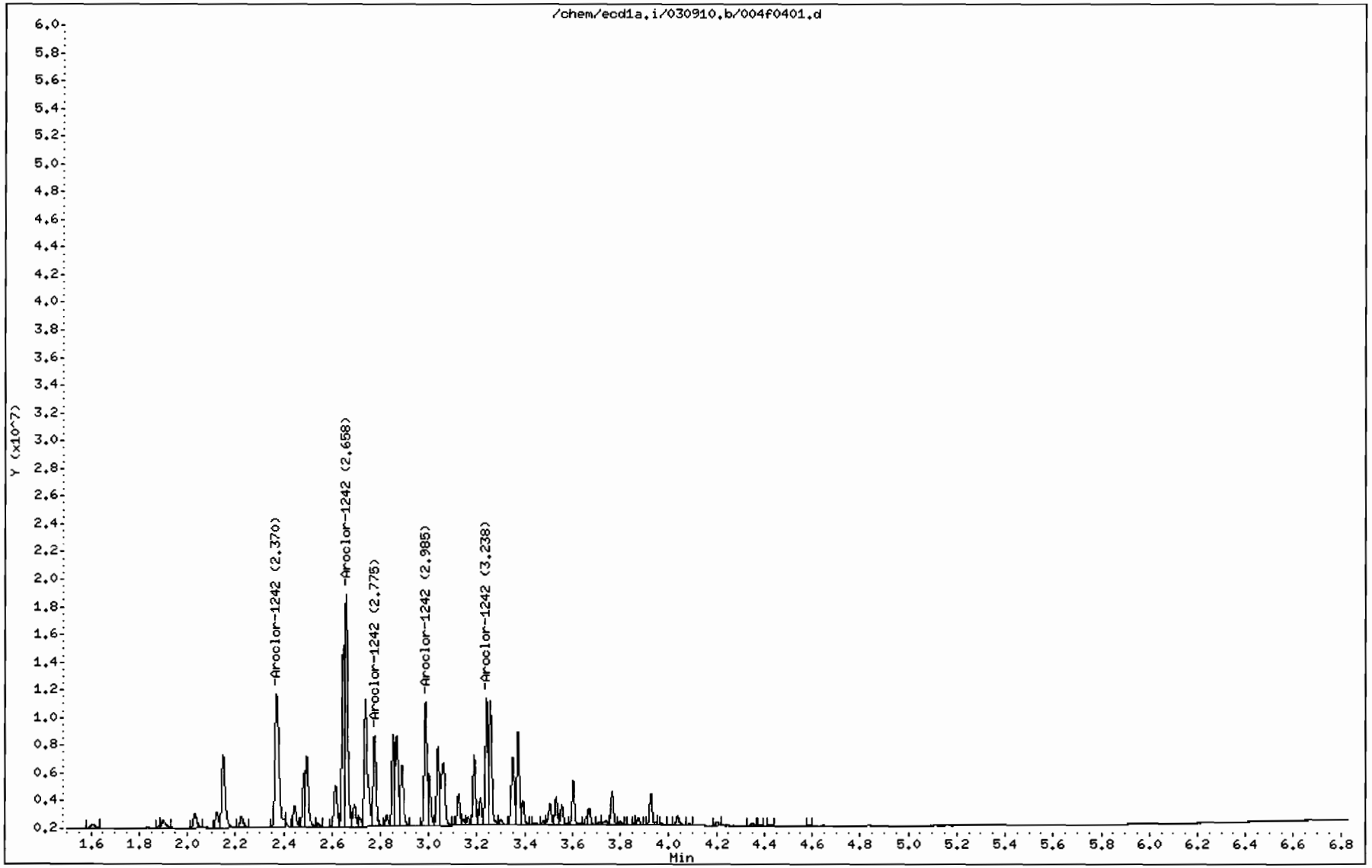

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/004b0401.d
Lab Smp Id: WAR100219-42 Client Smp ID: AR124201
Inj Date : 09-MAR-2010 06:26
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-42
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1242.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
4 Aroclor-1242					CAS #: 53469-21-9		
3.171	3.171	0.000	9957580	1000.00	962	80.00- 120.00	100.00
3.254	3.254	0.000	6501639	1000.00	893	45.29- 85.29	65.29
3.544	3.544	0.000	5151963	1000.00	893	31.74- 71.74	51.74
3.778	3.778	0.000	5458701	1000.00	943	34.82- 74.82	54.82
3.805	3.805	0.000	6051465	1000.00	911	40.77- 80.77	60.77
		Average of Peak Amounts =			921		

Data File: /chem/ecd1a.i/030910.b/004b0401.d

Page 1

Date : 09-MAR-2010 06:26

Client ID: AR124201

Instrument: ecd1a.i

Sample Info: IWAR100219-42

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

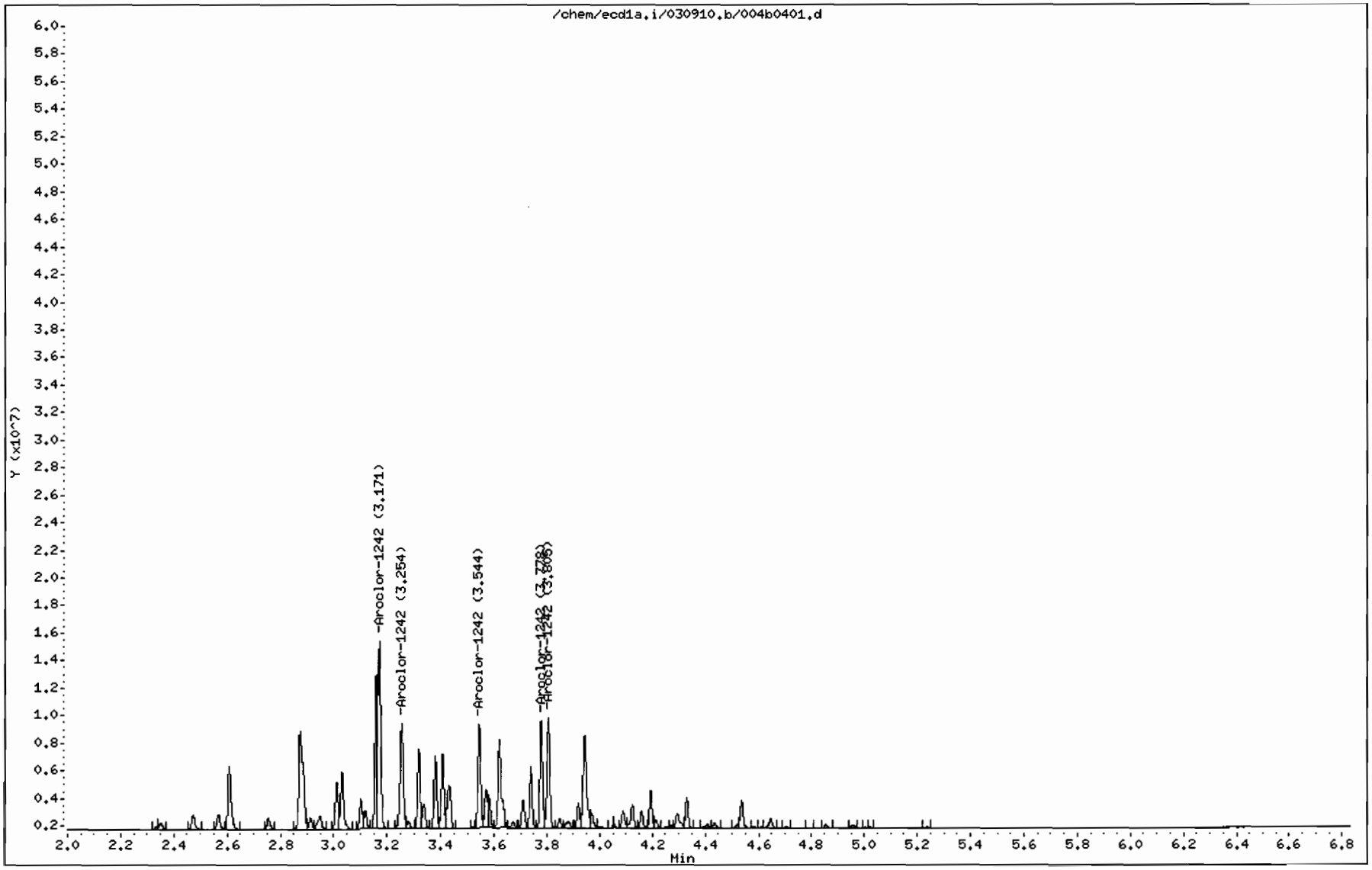

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/005f0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 09-MAR-2010 06:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
2.851	2.851	0.000	9046016	1000.00	972	80.00- 120.00	100.00
2.985	2.985	0.000	12081884	1000.00	974	113.56- 153.56	133.56
3.238	3.238	0.000	13581353	1000.00	1110	130.14- 170.14	150.14
3.370	3.370	0.000	10896732	1000.00	1040	100.46- 140.46	120.46
3.603	3.603	0.000	7304707	1000.00	1070	60.75- 100.75	80.75

Average of Peak Amounts = 1.04e+03

Data File: /chem/ecd1a.i/030910.b/005f0501.d

Page 1

Date : 09-MAR-2010 06:37

Client ID: AR124801

Instrument: ecd1a.i

Sample Info: IWAR100223-48

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

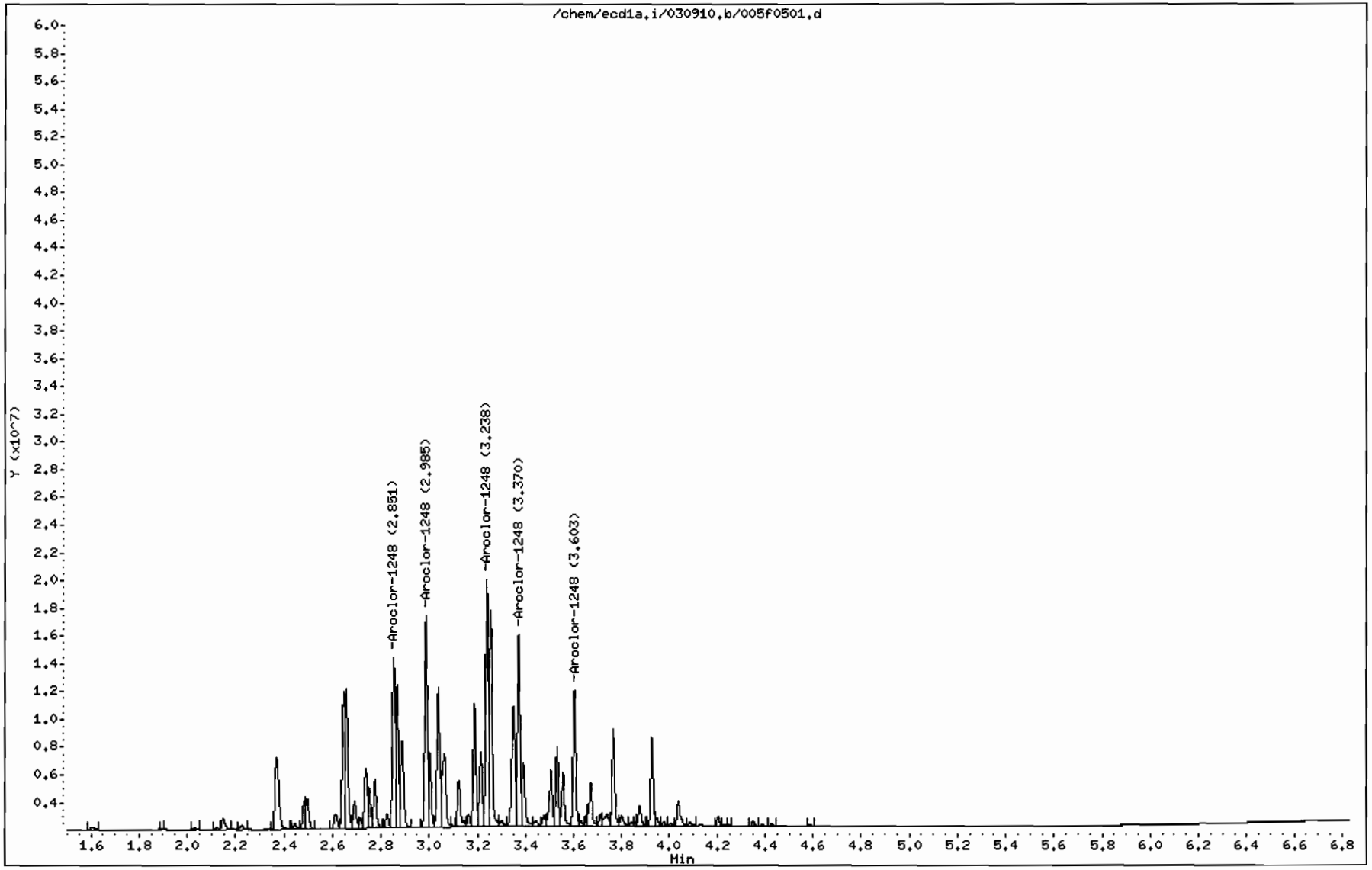

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/005b0501.d
Lab Smp Id: WAR100223-48 Client Smp ID: AR124801
Inj Date : 09-MAR-2010 06:37
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100223-48
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 5 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1248.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
5 Aroclor-1248					CAS #: 12672-29-6		
3.380	3.380	0.000	6929850	1000.00	912	80.00- 120.00	100.00
3.545	3.545	0.000	8715802	1000.00	931	105.77- 145.77	125.77
3.778	3.778	0.000	10291134	1000.00	966	128.50- 168.50	148.50
3.805	3.805	0.000	11463962	1000.00	948	145.43- 185.43	165.43
3.942	3.942	0.000	11102138	1000.00	966	140.21- 180.21	160.21
Average of Peak Amounts =					945		

Data File: /chem/ecd1a.i/030910.b/005b0501.d

Date : 09-MAR-2010 06:37

Client ID: AR124801

Sample Info: IWAR100223-48

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

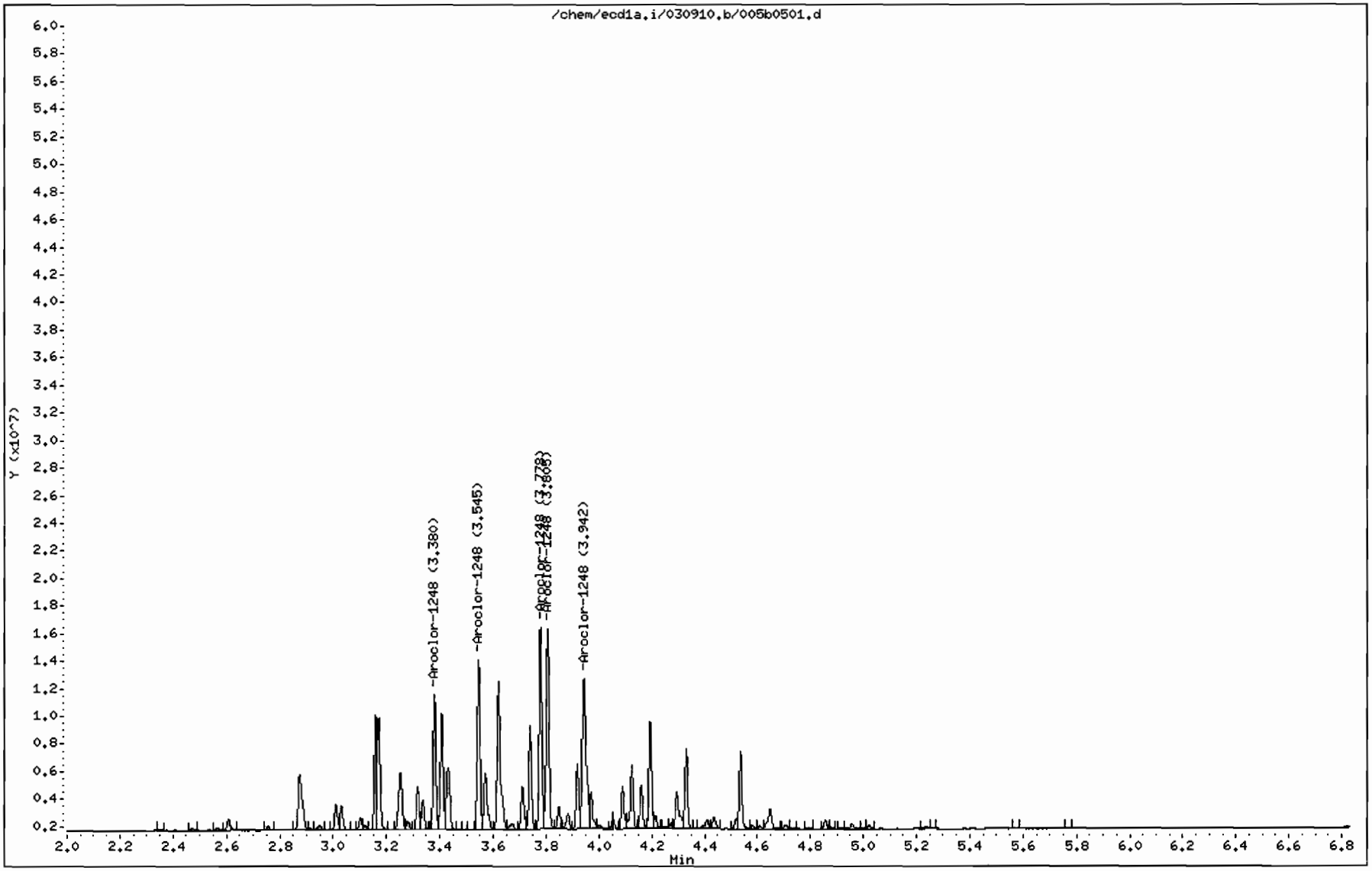

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/007f0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 09-MAR-2010 06:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 14:23 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.370	2.370	0.000	7033576	1000.00	1130	80.00- 120.00	100.00
2.656	2.656	0.000	9006580	1000.00	1200	108.05- 148.05	128.05
2.737	2.737	0.000	5844017	1000.00	1200	63.09- 103.09	83.09
2.851	2.851	0.000	2829786	1000.00	1290	20.23- 60.23	40.23
3.238	3.238	0.000	3889364	1000.00	1420	35.30- 75.30	55.30

Average of Peak Amounts = 1.25e+03

Data File: /chem/ecd1a.i/030910.b/007f0701.d

Date : 09-MAR-2010 06:58

Client ID: AR123201

Sample Info: IWAR100104-32

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

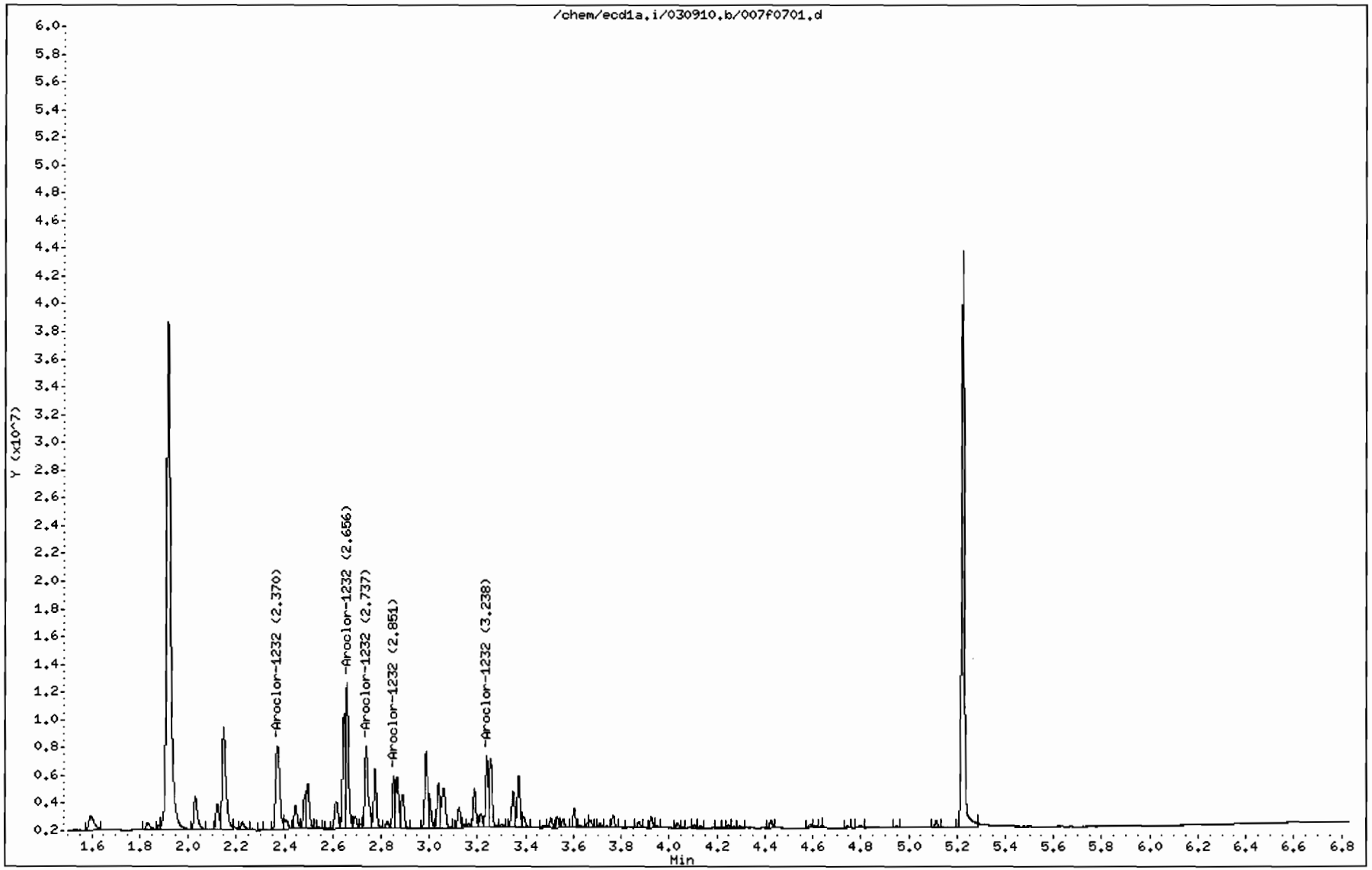

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/007b0701.d
Lab Smp Id: WAR100104-32 Client Smp ID: AR123201
Inj Date : 09-MAR-2010 06:58
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-32
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 7 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1232.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
3 Aroclor-1232					CAS #: 11141-16-5		
2.873	2.873	0.000	5540248	1000.00	1120	80.00- 120.00	100.00
3.171	3.171	0.000	6241262	1000.00	1190	92.65- 132.65	112.65
3.254	3.254	0.000	4271702	1000.00	1130	57.10- 97.10	77.10
3.544	3.544	0.000	3194463	1000.00	1180	37.66- 77.66	57.66
3.778	3.778	0.000	3209215	1000.00	1220	37.93- 77.93	57.93

Average of Peak Amounts = 1.17e+03

Data File: /chem/ecd1a.i/030910.b/007b0701.d

Page 1

Date : 09-MAR-2010 06:58

Client ID: AR123201

Instrument: ecd1a.i

Sample Info: IWAR100104-32

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

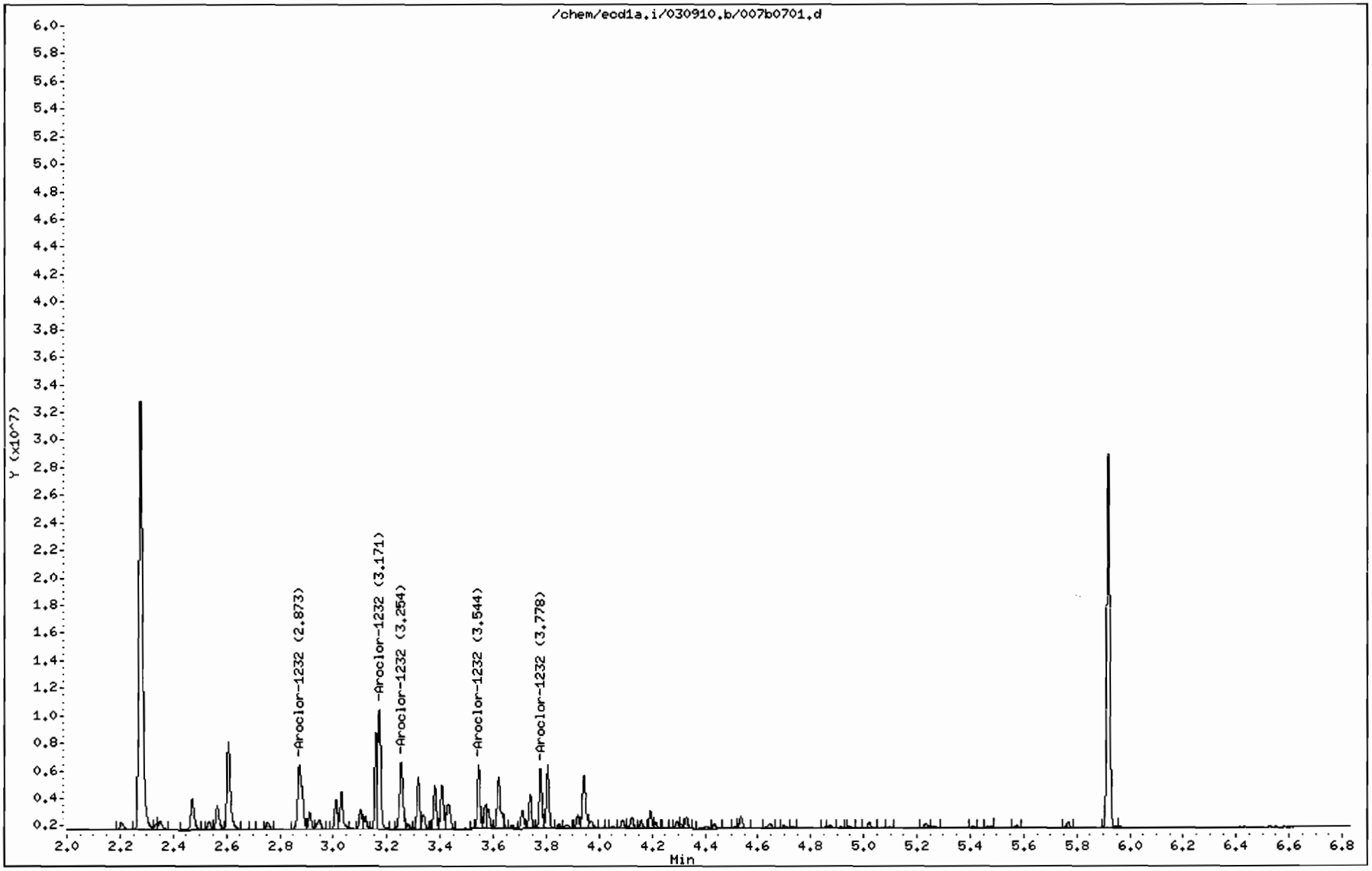

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/008f0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 09-MAR-2010 07:08
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.030	2.030	0.000	4834593	1000.00	1100	80.00- 120.00	100.00
2.123	2.123	0.000	2705775	1000.00	1110	35.97- 75.97	55.97
2.148	2.148	0.000	11738563	1000.00	1130	222.80- 262.80	242.80

Average of Peak Amounts = 1.11e+03

Data File: /chem/ecd1a.i/030910.b/008f0801.d

Page 1

Date : 09-MAR-2010 07:08

Client ID: AR122101

Instrument: ecd1a.i

Sample Info: !WAR100104-21

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

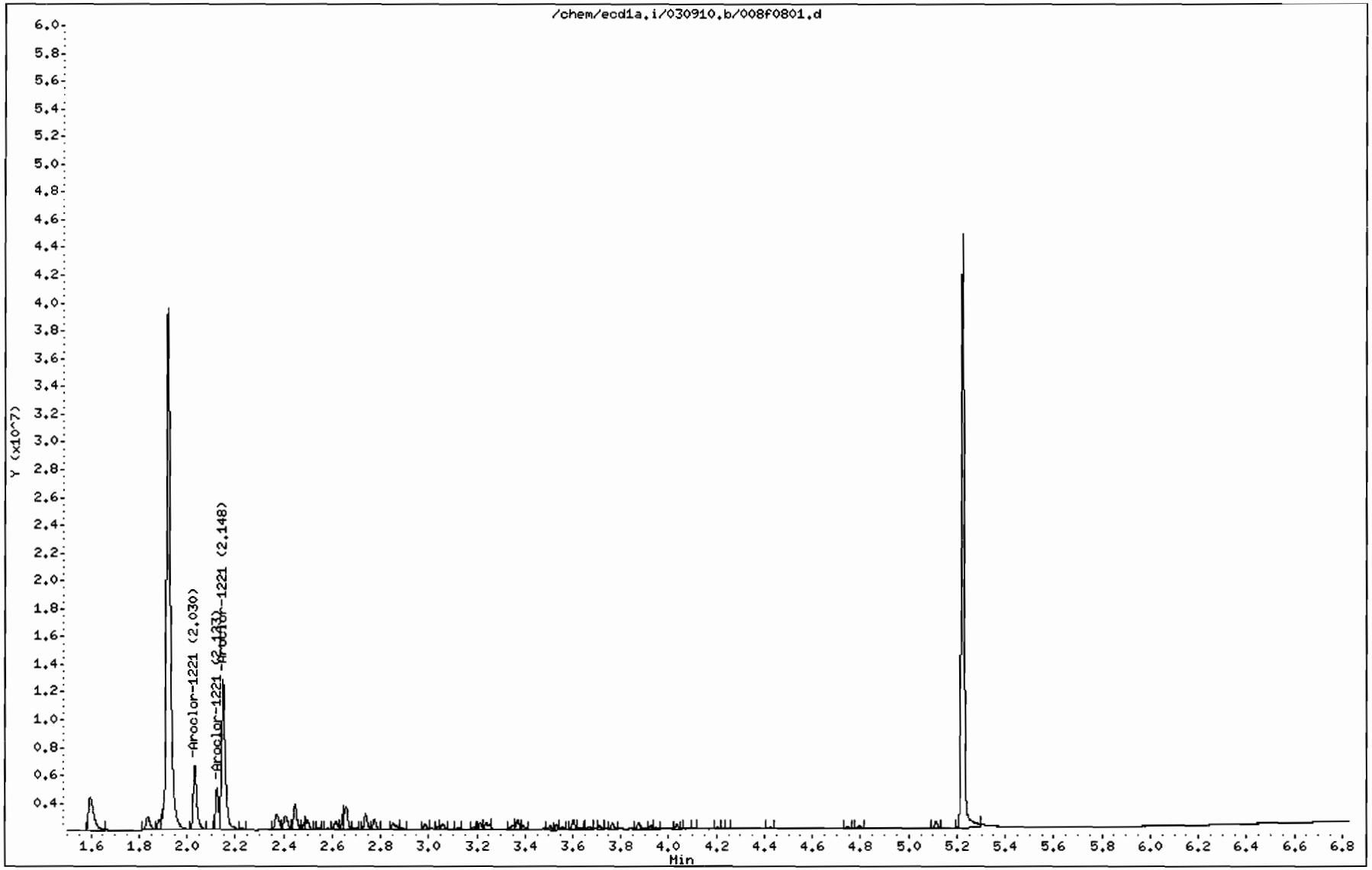

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/008b0801.d
Lab Smp Id: WAR100104-21 Client Smp ID: AR122101
Inj Date : 09-MAR-2010 07:08
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-21
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 8 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1221.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
2 Aroclor-1221					CAS #: 11104-28-2		
2.473	2.473	0.000	3800281	1000.00	1110	80.00- 120.00	100.00
2.567	2.567	0.000	2374760	1000.00	1100	42.49- 82.49	62.49
2.607	2.607	0.000	8102035	1000.00	1100	193.20- 233.20	213.20

Average of Peak Amounts = 1.11e+03

Data File: /chem/ecd1a.i/030910.b/008b0801.d

Date : 09-MAR-2010 07:08

Client ID: AR122101

Sample Info: IWAR100104-21

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

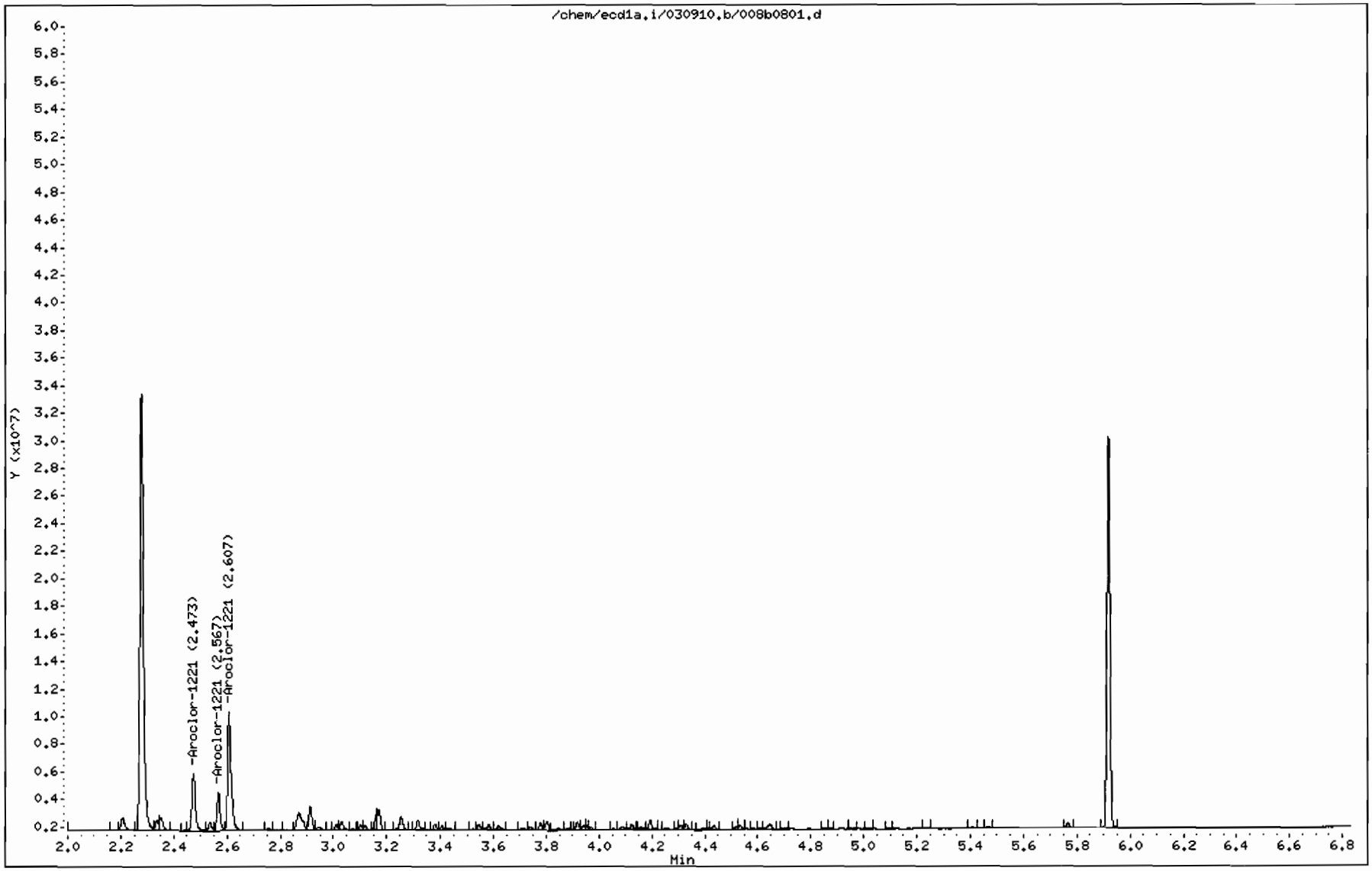

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/030910.b/009f0901.d
Lab Smp Id: WAR100104-62 Client Smp ID: AR126201
Inj Date : 09-MAR-2010 07:19
Operator : YS1 Inst ID: ecdla.i
Smp Info : |WAR100104-62
Misc Info :
Comment :
Method : /chem/ecdla.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1262.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
8 Aroclor-1262					CAS #: 37324-23-5		
3.711	3.711	0.000	15005429	1000.00	1190	80.00- 120.00	100.00
3.874	3.874	0.000	19920997	1000.00	1270	112.76- 152.76	132.76
4.104	4.104	0.000	24923261	1000.00	1250	146.09- 186.09	166.09
4.246	4.246	0.000	22573182	1000.00	1260	130.43- 170.43	150.43
4.425	4.425	0.000	46923136	1000.00	1260	292.71- 332.71	312.71

Average of Peak Amounts = 1.24e+03

Data File: /chem/ecd1a.i/030910.b/009f0901.d
Date : 09-MAR-2010 07:19
Client ID: AR126201
Sample Info: IWAR100104-62

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1
Column diameter: 0.25

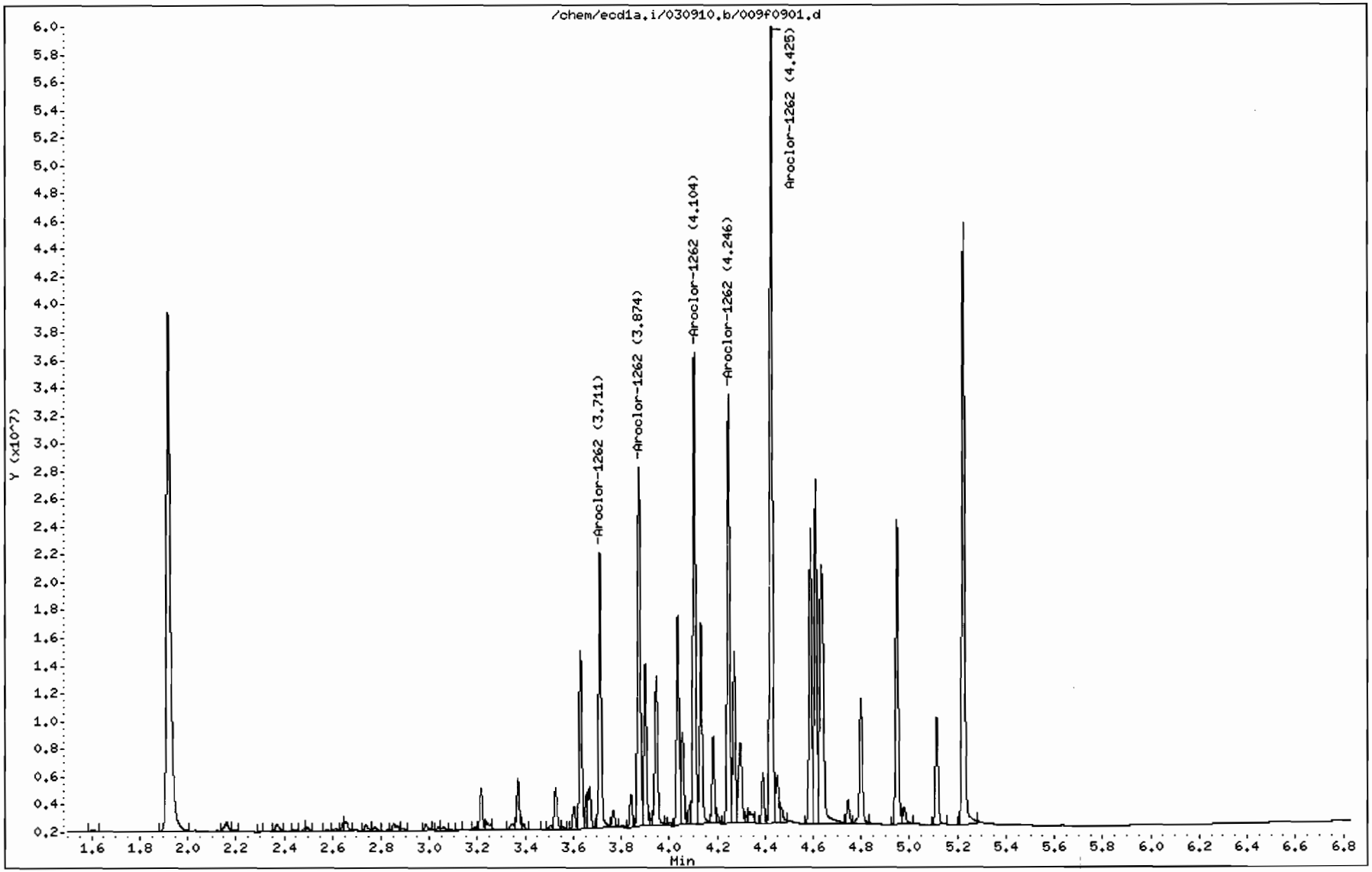

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/009b0901.d
Lab Smp Id: WAR100104-62 Client Smp ID: AR126201
Inj Date : 09-MAR-2010 07:19
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100104-62
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1262.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
8 Aroclor-1262					CAS #: 37324-23-5		
4.434	4.434	0.000	12789626	1000.00	1140	80.00- 120.00	100.00
4.700	4.700	0.000	17676136	1000.00	1140	118.21- 158.21	138.21
4.874	4.874	0.000	16181286	1000.00	1150	106.52- 146.52	126.52
5.020	5.020	0.000	32756762	1000.00	1150	236.12- 276.12	256.12
5.234	5.234	0.000	23091642	1000.00	1170	160.55- 200.55	180.55

Average of Peak Amounts = 1.15e+03

Data File: /chem/ecd1a.i/030910.b/009b0901.d

Date : 09-MAR-2010 07:19

Client ID: AR126201

Sample Info: IWAR100104-62

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

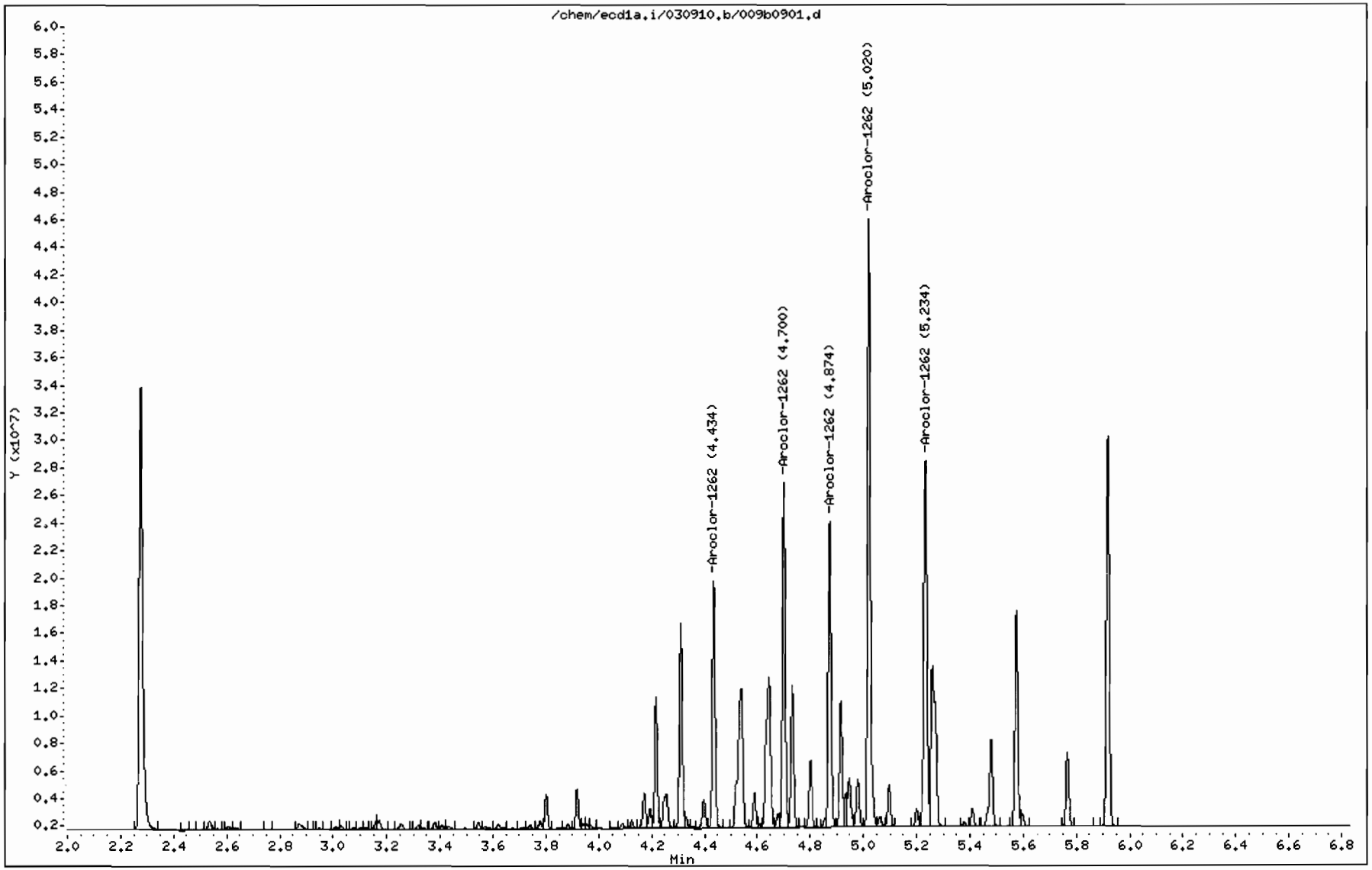

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/025f2501.d
Lab Smp Id: WAR100222-60 03 Client Smp ID: AR166003
Inj Date : 09-MAR-2010 10:21
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 03
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 10:55 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.917	1.916	0.001	39680226	100.000	92.1	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.220	5.223	-0.003	30941576	100.000	101	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.369	2.370	-0.001	14060683	1000.00	914	80.00- 120.00	100.00
2.656	2.656	0.000	17777120	1000.00	975	106.43- 146.43	126.43
2.736	2.736	0.000	11271846	1000.00	934	60.17- 100.17	80.17
2.773	2.774	-0.001	6815125	1000.00	960	28.47- 68.47	48.47
2.983	2.984	-0.001	8730275	1000.00	980	42.09- 82.09	62.09
Average of Peak Amounts =					953		
7 Aroclor-1260					CAS #: 11096-82-5		
3.708	3.710	-0.002	17016413	1000.00	997	80.00- 120.00	100.00
3.871	3.873	-0.002	25400273	1000.00	1070	129.27- 169.27	149.27
4.033	4.035	-0.002	27114495	1000.00	1080	139.34- 179.34	159.34
4.102	4.102	0.000	15286706	1000.00	1060	69.84- 109.84	89.84
4.244	4.246	-0.002	15918473	1000.00	1100	73.55- 113.55	93.55
Average of Peak Amounts =					1.06e+03		

Data File: /chem/ecd1a.i/030910.b/025f2501.d

Date : 09-MAR-2010 10:21

Client ID: AR166003

Sample Info: IWAR100222-60 03

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

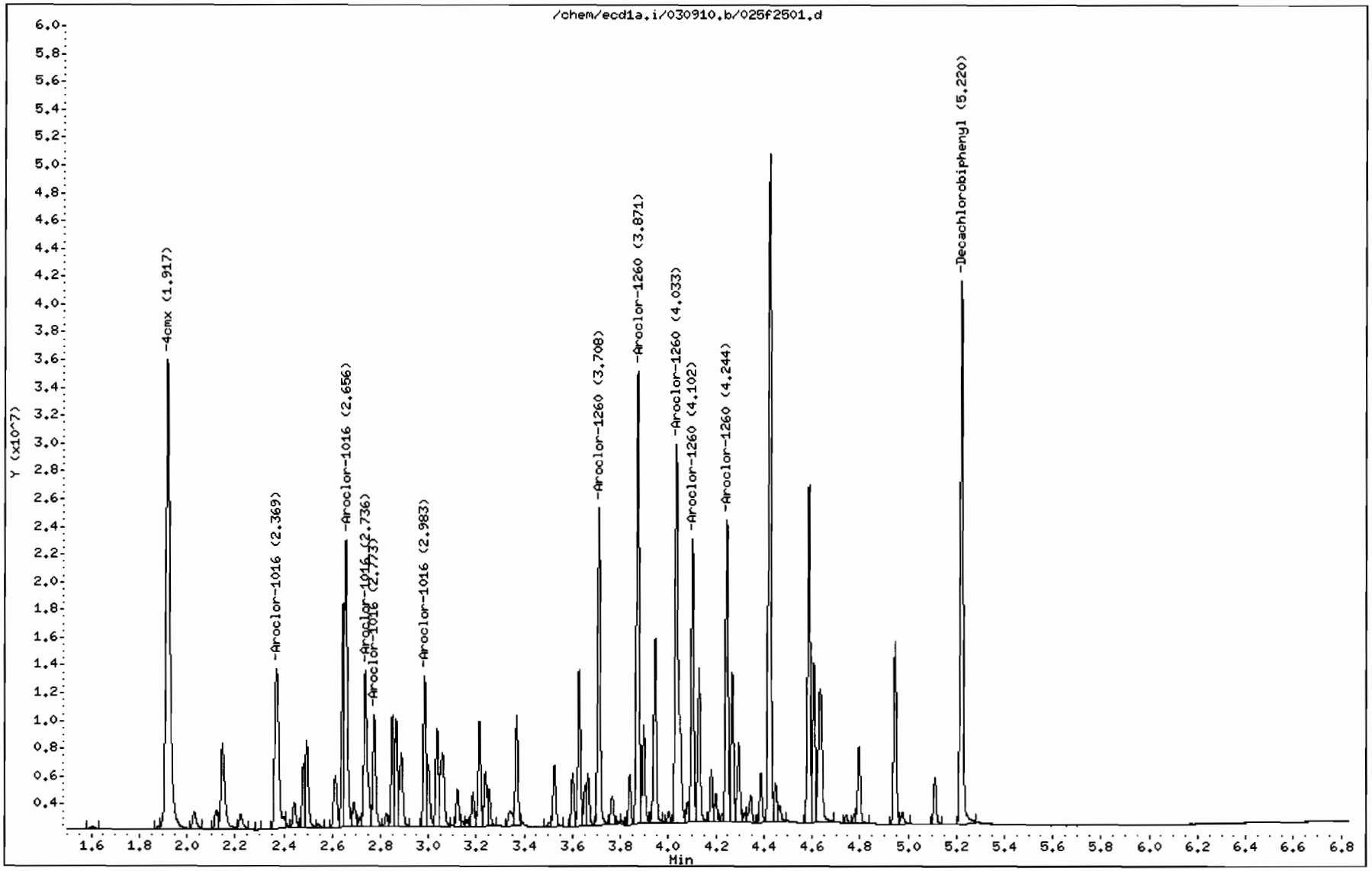

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecdla.i/030910.b/025b2501.d
Lab Smp Id: WAR100222-60 03 Client Smp ID: AR166003
Inj Date : 09-MAR-2010 10:21
Operator : YS1 Inst ID: ecdla.i
Smp Info : |WAR100222-60 03
Misc Info :
Comment :
Method : /chem/ecdla.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 10:54 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.275	2.276	-0.001	26743661	100.000	89.9	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.916	5.918	-0.002	19387352	100.000	91.7	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.169	3.170	-0.001	12193531	1000.00	953	80.00- 120.00	100.00(M)
3.252	3.253	-0.001	7901532	1000.00	886	44.80- 84.80	64.80
3.316	3.316	0.000	4934564	1000.00	913	20.47- 60.47	40.47
3.542	3.544	-0.002	6203624	1000.00	897	30.88- 70.88	50.88
3.617	3.619	-0.002	5825015	1000.00	906	37.60- 77.60	57.60
Average of Peak Amounts =					911		
7 Aroclor-1260					CAS #: 11096-82-5		
4.307	4.309	-0.002	11974228	1000.00	907	80.00- 120.00	100.00
4.432	4.435	-0.003	14696750	1000.00	944	102.74- 142.74	122.74
4.697	4.700	-0.003	11082986	1000.00	936	72.56- 112.56	92.56
4.871	4.873	-0.002	11537123	1000.00	946	76.35- 116.35	96.35
5.018	5.021	-0.003	25747290	1000.00	971	195.02- 235.02	215.02
Average of Peak Amounts =					941		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/030910.b/025b2501.d
Date : 09-MAR-2010 10:21
Client ID: AR166003
Sample Info: IWAR100222-60 03

Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

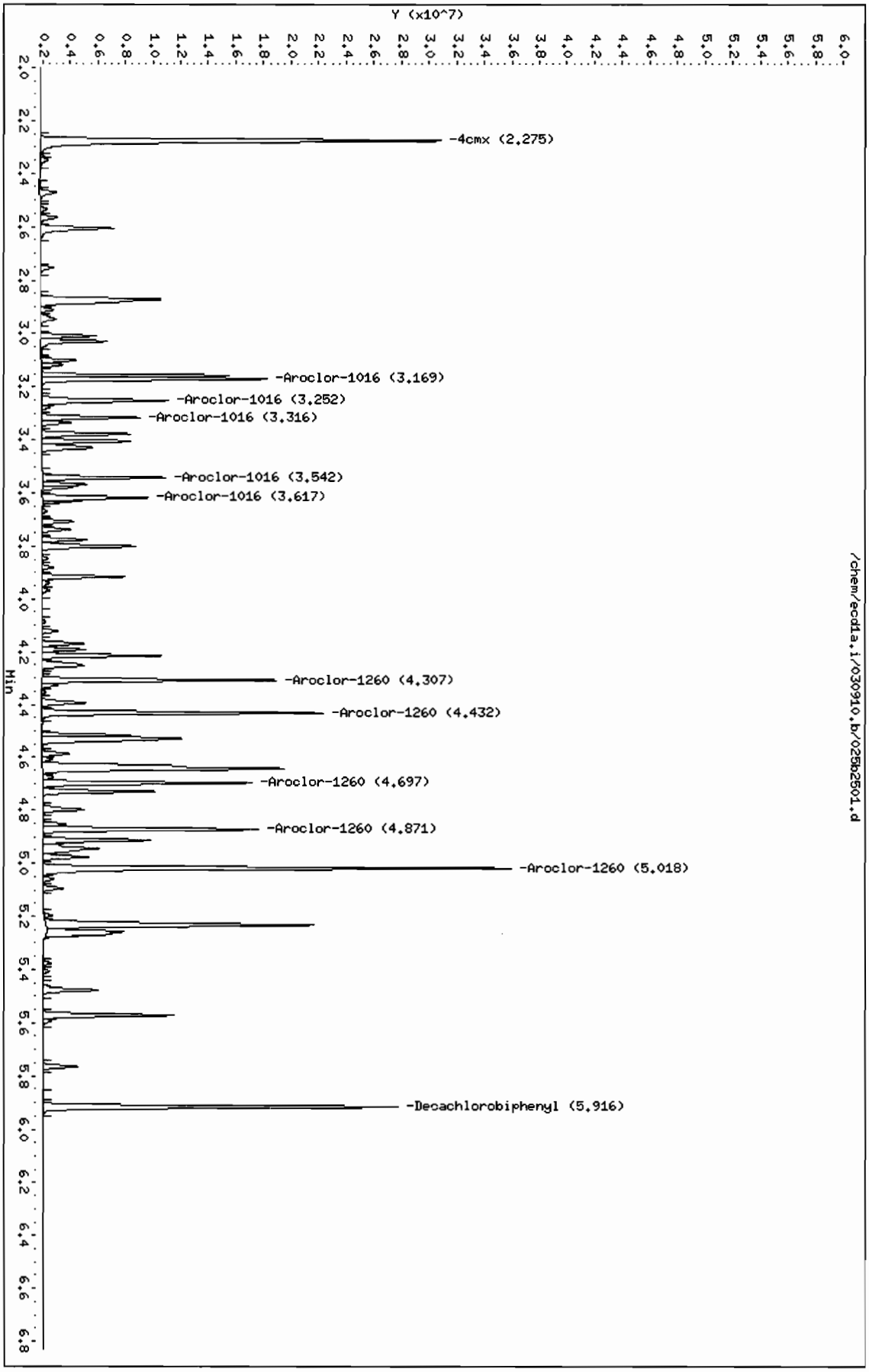

Page 1

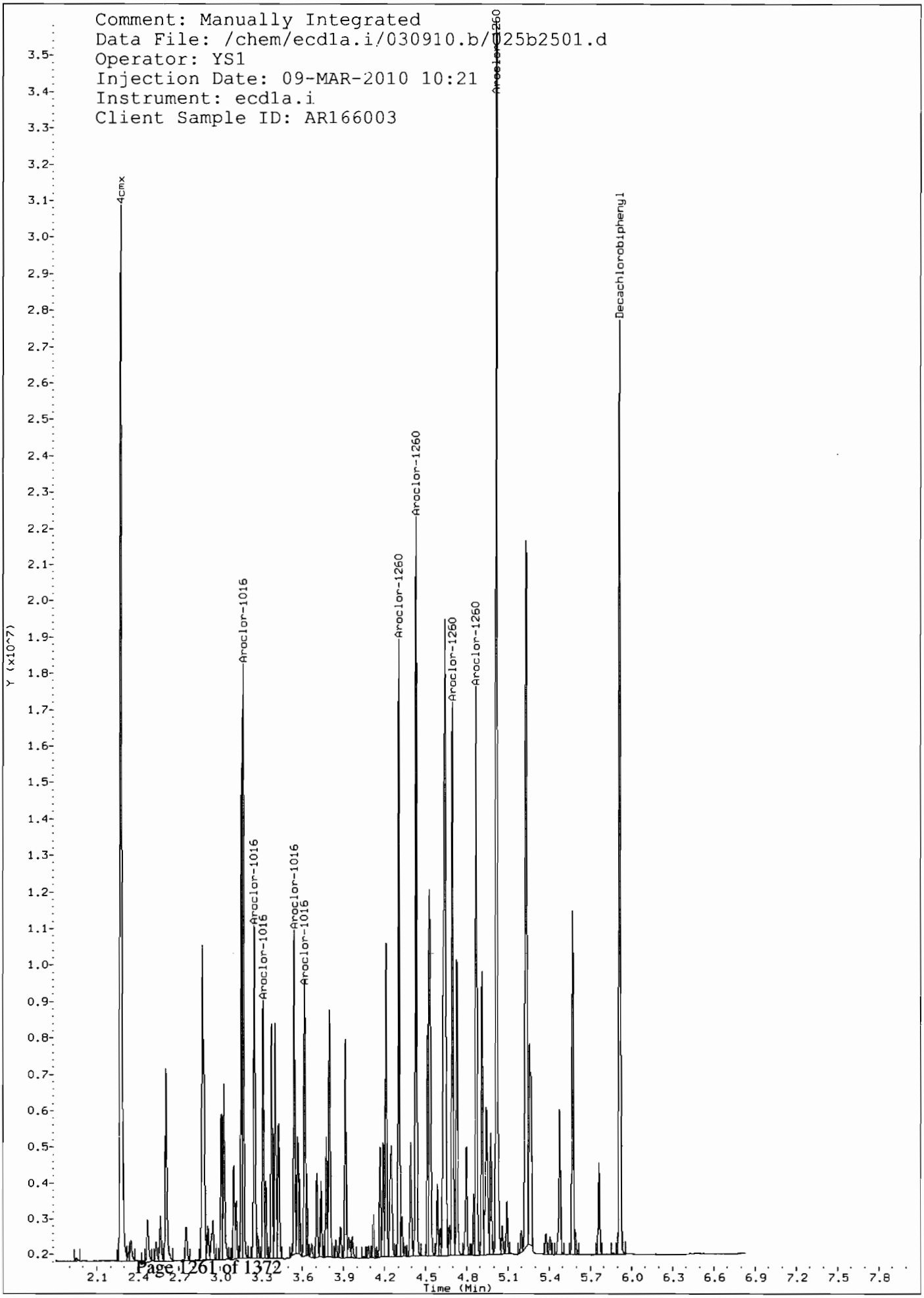
Comment: Manually Integrated
Data File: /chem/ecd1a.i/030910.b/025b2501.d
Operator: YS1
Injection Date: 09-MAR-2010 10:21
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

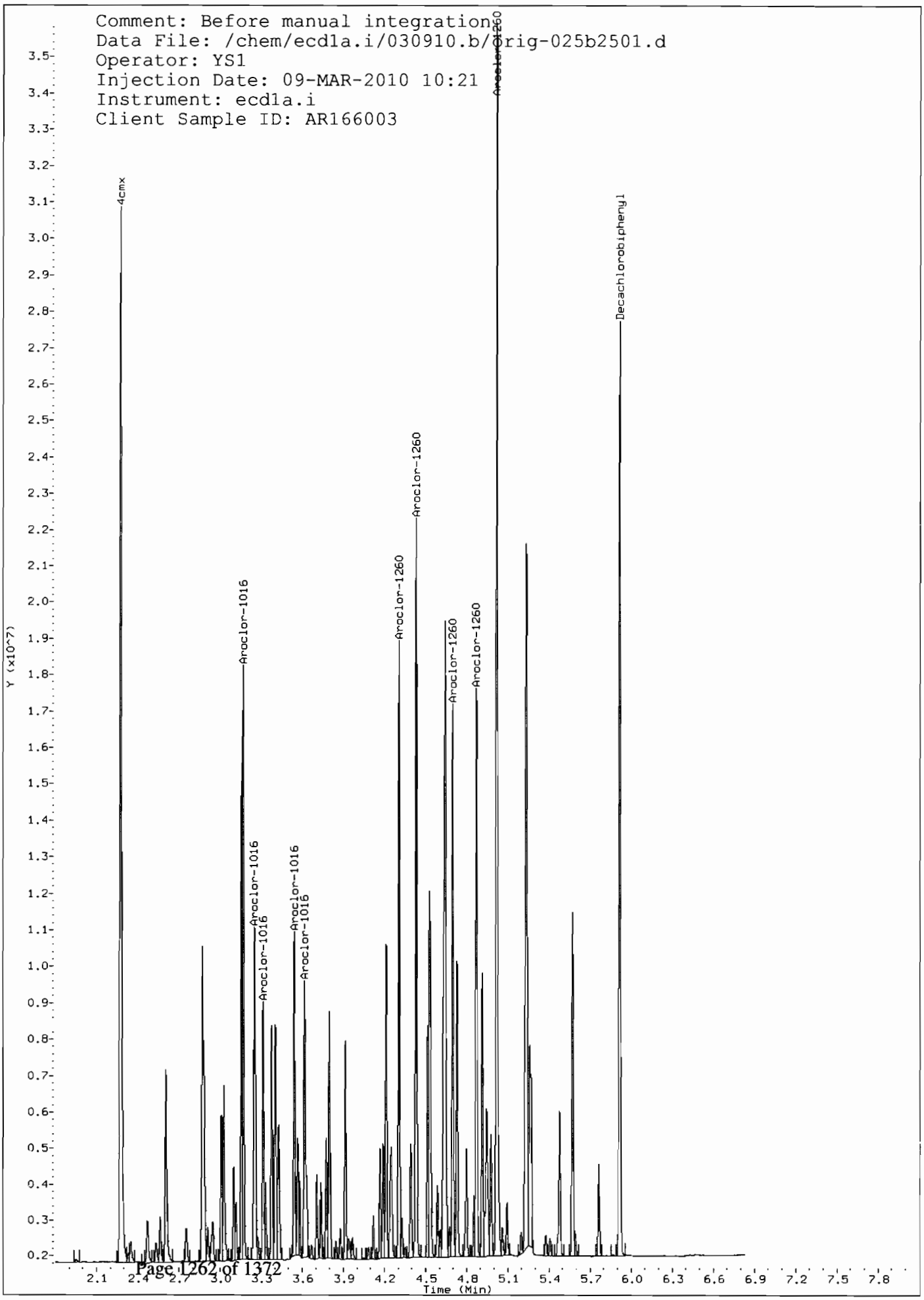
Comment: Before manual integration
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Operator: YS1
Injection Date: 09-MAR-2010 10:21
Instrument: ecd1a.i
Client Sample ID: AR166003
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/036f3601.d
Lab Smp Id: WAR100222-60 04 Client Smp ID: AR166004
Inj Date : 09-MAR-2010 12:23
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 36 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.916	1.916	0.000	40471444	100.000	94.0	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.220	5.223	-0.003	31806720	100.000	104	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.368	2.370	-0.002	14278137	1000.00	928	80.00- 120.00	100.00
2.656	2.656	0.000	18701586	1000.00	1020	110.98- 150.98	130.98
2.736	2.736	0.000	11479585	1000.00	951	60.40- 100.40	80.40
2.773	2.774	-0.001	6956937	1000.00	980	28.72- 68.72	48.72
2.983	2.984	-0.001	8887592	1000.00	997	42.25- 82.25	62.25
Average of Peak Amounts =					977		
7 Aroclor-1260					CAS #: 11096-82-5		
3.708	3.710	-0.002	17231278	1000.00	1010	80.00- 120.00	100.00
3.871	3.873	-0.002	25747341	1000.00	1090	129.42- 169.42	149.42
4.032	4.035	-0.003	27594765	1000.00	1100	140.14- 180.14	160.14
4.101	4.102	-0.001	15539147	1000.00	1080	70.18- 110.18	90.18
4.243	4.246	-0.003	16196326	1000.00	1120	73.99- 113.99	93.99
Average of Peak Amounts =					1.08e+03		

Data File: /chem/ecd1a.i/030910.b/036f3601.d
Date : 09-MAR-2010 12:23
Client ID: AR166004
Sample Info: IWAR100222-60 04

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

Column phase: CLP1

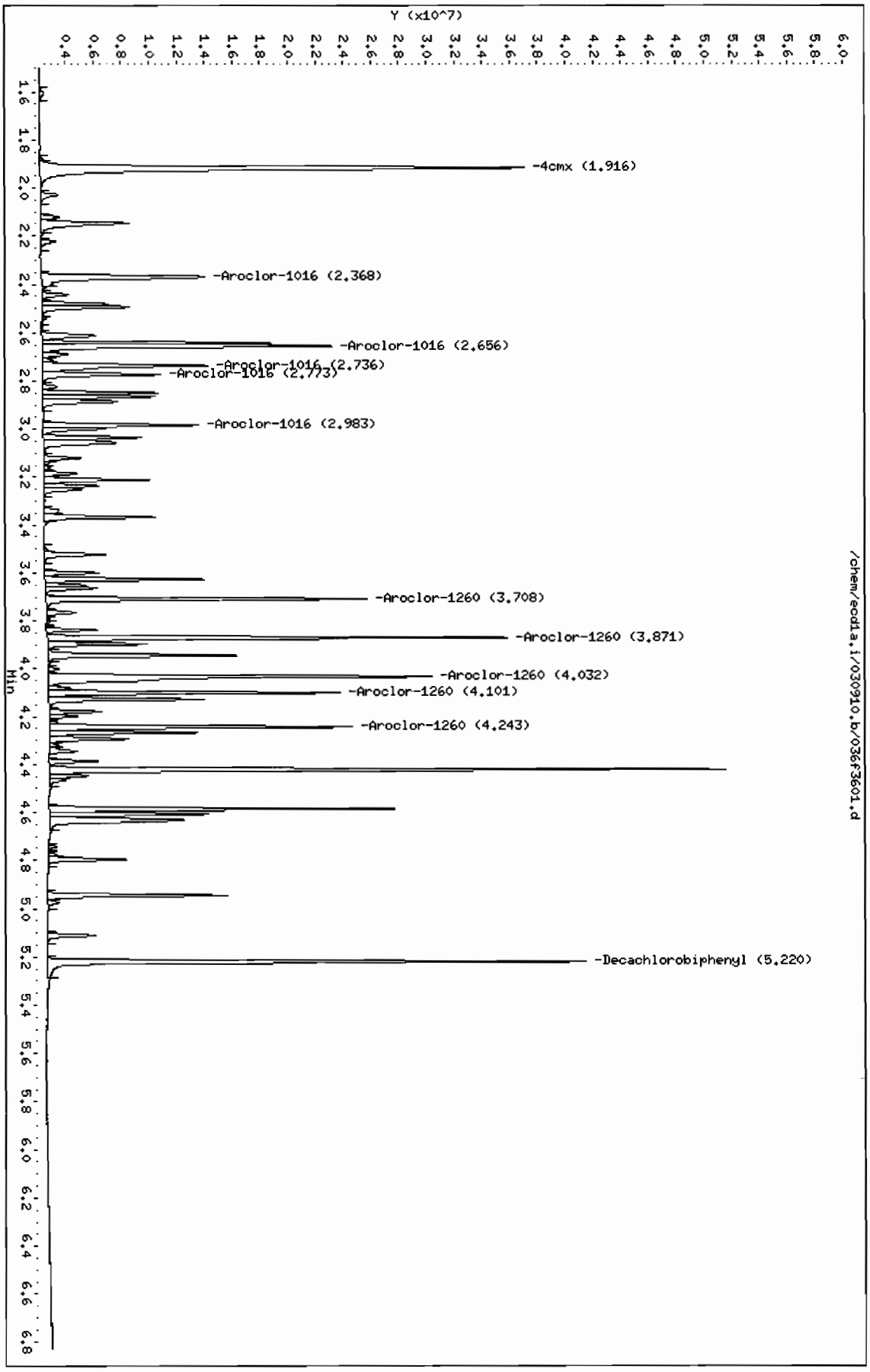

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/036b3601.d
Lab Smp Id: WAR100222-60 04 Client Smp ID: AR166004
Inj Date : 09-MAR-2010 12:23
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100222-60 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 36 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.50 Sample Matrix: None
Processing Host: hpclp1

RT	EXP RT	DLT RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.275	2.276	-0.001	27545191	100.000	92.6	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.915	5.918	-0.003	19984480	100.000	94.5	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.169	3.170	-0.001	12542512	1000.00	981	80.00- 120.00	100.00(M)
3.252	3.253	-0.001	8094605	1000.00	908	44.54- 84.54	64.54
3.316	3.316	0.000	5066938	1000.00	937	20.40- 60.40	40.40
3.542	3.544	-0.002	6566448	1000.00	950	30.67- 70.67	52.35
3.617	3.619	-0.002	6086252	1000.00	947	37.45- 77.45	48.52
Average of Peak Amounts =					944		
7 Aroclor-1260					CAS #: 11096-82-5		
4.307	4.309	-0.002	12295985	1000.00	931	80.00- 120.00	100.00
4.432	4.435	-0.003	15078122	1000.00	969	102.63- 142.63	122.63
4.697	4.700	-0.003	11370329	1000.00	960	72.47- 112.47	92.47
4.871	4.873	-0.002	11877501	1000.00	973	76.60- 116.60	96.60
5.018	5.021	-0.003	26534899	1000.00	1000	195.80- 235.80	215.80
Average of Peak Amounts =					967		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/030910.b/036b3601.d
Date : 09-MAR-2010 12:23
Client ID: AR166004
Sample Info: IWAR100222-60 04
Column phase: CLP2

Instrument: ecd1a.i
Operator: YSI
Column diameter: 0.25

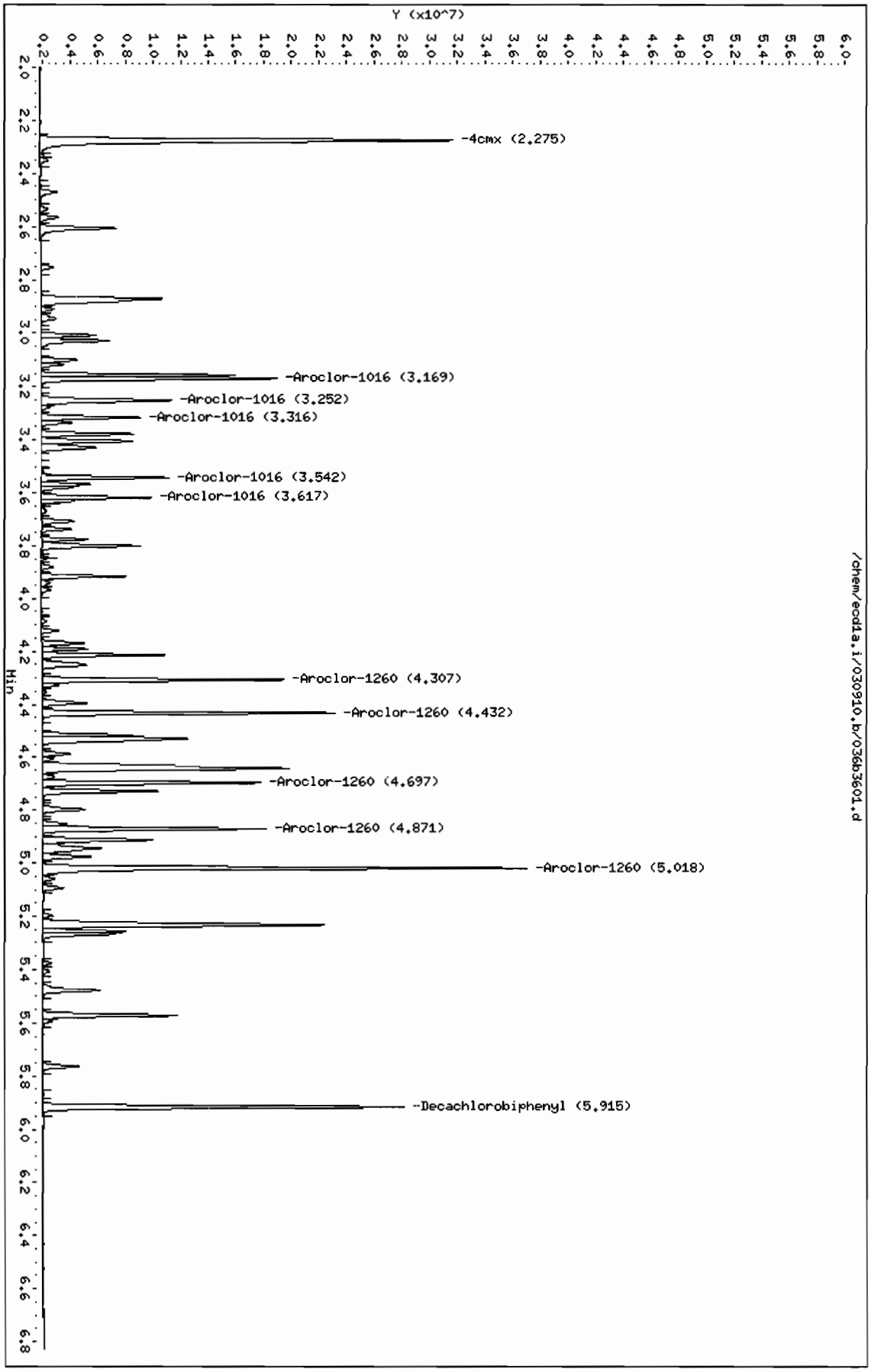

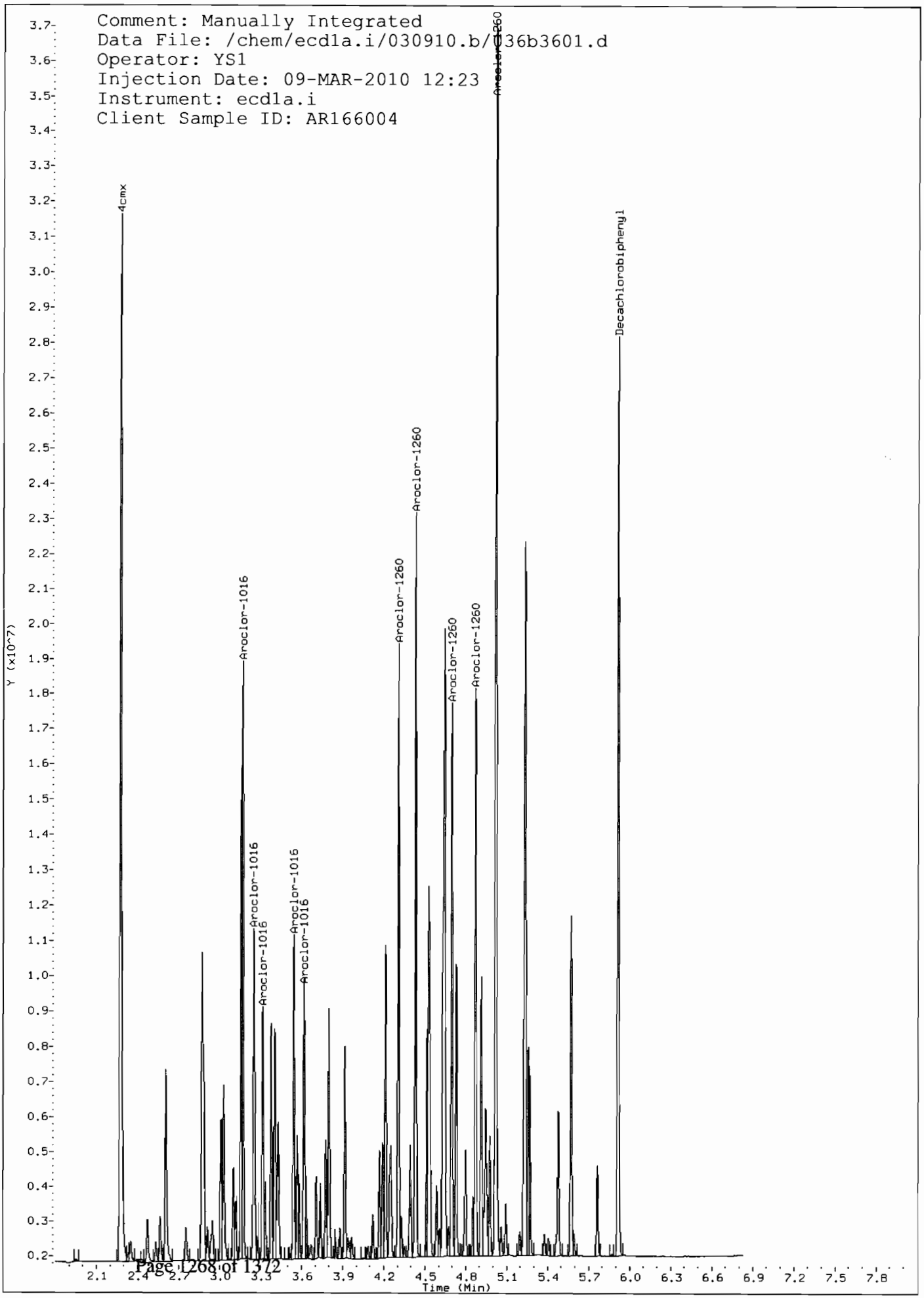
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Operator: YS1
Injection Date: 09-MAR-2010 12:23
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
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Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

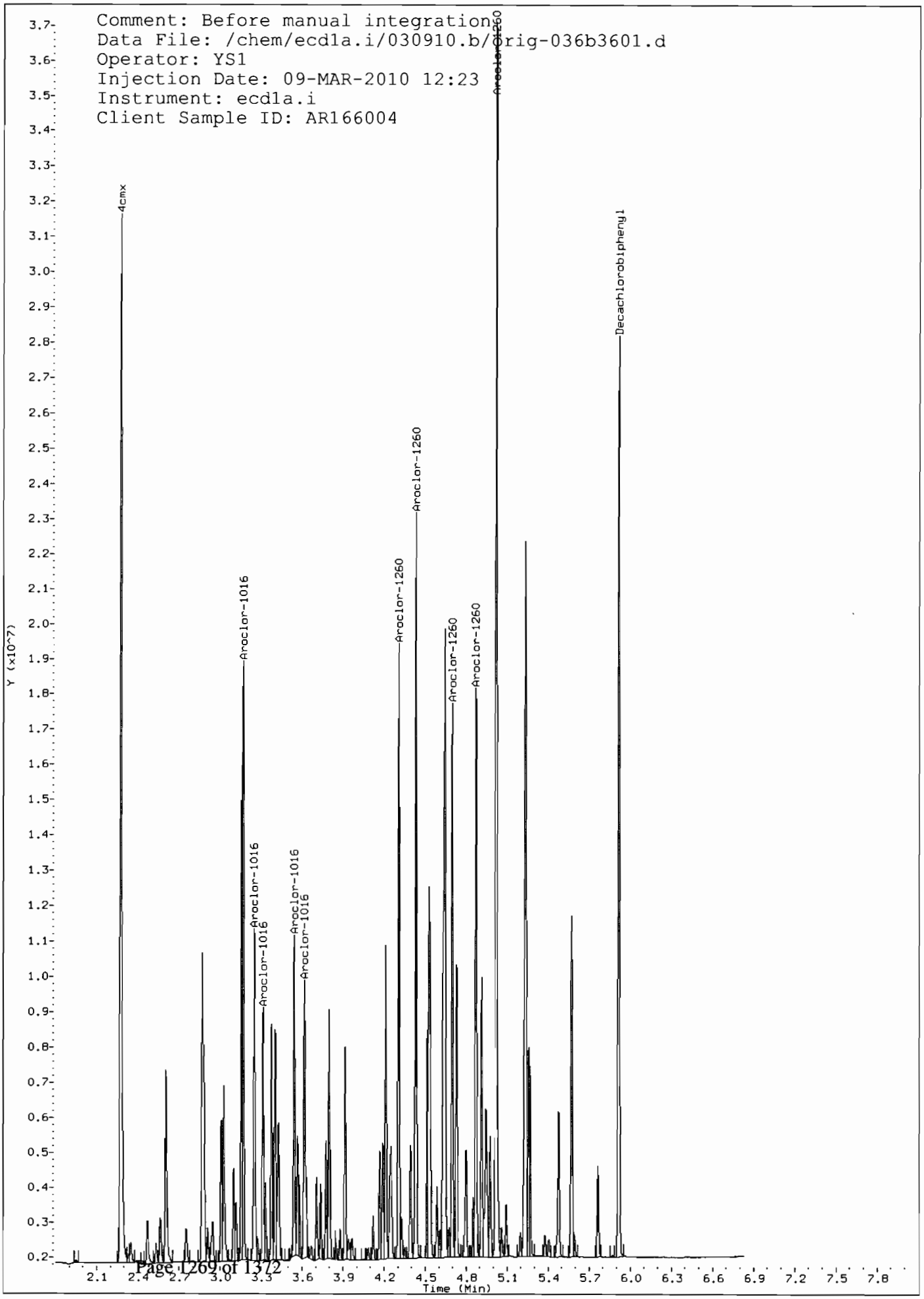
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Data File: /chem/ecd1a.i/030910.b/Orig-036b3601.d
Operator: YS1
Injection Date: 09-MAR-2010 12:23
Instrument: ecd1a.i
Client Sample ID: AR166004
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
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Aroclor-1260
Aroclor-1260
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Decachlorobiphenyl
Y (x10^7)
Time (Min)

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2057

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.92 DCB: 5.23

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/22/10	0559	1.92	5.23
02	DUSE	WAR100203-60	02/22/10	0610	1.92	5.23
03	ZZZZZ	ZZZZZ	02/22/10	0620	1.92	5.23
04	DDTANALOGSTD	WAR091219-DD	02/22/10	0631		
05	AR123201	WAR100104-32	02/22/10	0641		
06	AR122101	WAR100104-21	02/22/10	0652		
07	AR126201	WAR100104-62	02/22/10	0703		
08	AR166001	WAR100222-01	02/22/10	0713	1.92	5.23
09	AR166002	WAR100222-02	02/22/10	0724	1.92	5.23
10	AR166003	WAR100222-03	02/22/10	0734	1.92	5.23
11	AR166004	WAR100222-04	02/22/10	0745	1.92	5.23
12	AR166005	IAR100104-01	02/22/10	0755	1.92	5.23
13	AR166001	WAR100203-60	02/22/10	0806	1.92	5.23
14	AR125401	WAR100222-05	02/22/10	0816		
15	AR125402	WAR100222-06	02/22/10	0827		
16	AR125403	WAR100222-07	02/22/10	0837		
17	AR125404	WAR100222-08	02/22/10	0848		
18	AR125405	IAR100219-02	02/22/10	0859		
19	AR125401	WAR100219-54	02/22/10	0909		
20	AR124201	WAR100222-09	02/22/10	0920		
21	AR124202	WAR100222-10	02/22/10	0930		
22	AR124203	WAR100222-11	02/22/10	0941		
23	AR124204	WAR100222-12	02/22/10	0951		
24	AR124205	IAR100219-01	02/22/10	1002		
25	AR124201	WAR100219-42	02/22/10	1012		
26	AR124801	WAR100222-13	02/22/10	1023		
27	AR124802	WAR100222-14	02/22/10	1033		
28	AR124803	WAR100222-15	02/22/10	1044		
29	AR124805	IAR100211-01	02/22/10	1054		
30	AR124804	WAR100222-16	02/22/10	1105		
31	AR124801	WAR091217-48	02/22/10	1116		
32	AR126801	WAR100222-17	02/22/10	1126		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2057

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.92 DCB: 5.23

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR126802	WAR100222-18	02/22/10	1137		
02	AR126803	WAR100222-19	02/22/10	1147		
03	AR126804	WAR100222-20	02/22/10	1158		
04	AR126805	IAR100104-05	02/22/10	1208		
05	AR126801	WAR100107-68	02/22/10	1219		
06	PIBLK02	WAR100219-99	02/22/10	1229	1.92	5.23
07	ZZZZZ	ZZZZZ	02/22/10	1240	1.92	5.23
08	ZZZZZ	ZZZZZ	02/22/10	1250	1.93	5.23
09	ZZZZZ	ZZZZZ	02/22/10	1301	1.92	5.23
10	ZZZZZ	ZZZZZ	02/22/10	1314	1.92	5.23
11	ZZZZZ	ZZZZZ	02/22/10	1326	1.92	5.23
12	ZZZZZ	ZZZZZ	02/22/10	1339	1.92	5.23
13	ZZZZZ	ZZZZZ	02/22/10	1351	1.92	5.23
14	ZZZZZ	ZZZZZ	02/22/10	1404	1.92	5.23
15	ZZZZZ	ZZZZZ	02/22/10	1417	1.92	5.23
16	ZZZZZ	ZZZZZ	02/22/10	1430	1.92	5.23
17	AR166002	WAR100203-60	02/22/10	1442	1.92	5.23
18	PIBLK03	WAR100219-99	02/22/10	1453	1.92	5.23
19	ZZZZZ	ZZZZZ	02/22/10	1503	1.92	5.23
20	ZZZZZ	ZZZZZ	02/22/10	1516	1.92	5.23
21	ZZZZZ	ZZZZZ	02/22/10	1528	1.92	5.23
22	ZZZZZ	ZZZZZ	02/22/10	1541	1.92	5.23
23	ZZZZZ	ZZZZZ	02/22/10	1554	1.92	5.23
24	ZZZZZ	ZZZZZ	02/22/10	1606	1.92	5.23
25	ZZZZZ	ZZZZZ	02/22/10	1619	1.92	5.23
26	ZZZZZ	ZZZZZ	02/22/10	1632	1.92	5.23
27	ZZZZZ	ZZZZZ	02/22/10	1644	1.92	5.23
28	ZZZZZ	ZZZZZ	02/22/10	1657	1.92	5.23
29	AR166003	WAR100203-60	02/22/10	1710	1.92	5.23
30	PIBLK04	WAR100219-99	02/22/10	1722	1.92	5.23
31	ZZZZZ	ZZZZZ	02/22/10	1735	1.92	5.23
32	ZZZZZ	ZZZZZ	02/22/10	1748	1.92	5.23

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2057

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	02/22/10	0559	2.29	5.93
02	DUSE	WAR100203-60	02/22/10	0610	2.29	5.94
03	ZZZZZ	ZZZZZ	02/22/10	0620	2.29	5.94
04	DDTANALOGSTD	WAR091219-DD	02/22/10	0631		
05	AR123201	WAR100104-32	02/22/10	0641		
06	AR122101	WAR100104-21	02/22/10	0652		
07	AR126201	WAR100104-62	02/22/10	0703		
08	AR166001	WAR100222-01	02/22/10	0713	2.29	5.94
09	AR166002	WAR100222-02	02/22/10	0724	2.29	5.94
10	AR166003	WAR100222-03	02/22/10	0734	2.29	5.94
11	AR166004	WAR100222-04	02/22/10	0745	2.29	5.94
12	AR166005	IAR100104-01	02/22/10	0755	2.29	5.94
13	AR166001	WAR100203-60	02/22/10	0806	2.29	5.94
14	AR125401	WAR100222-05	02/22/10	0816		
15	AR125402	WAR100222-06	02/22/10	0827		
16	AR125403	WAR100222-07	02/22/10	0837		
17	AR125404	WAR100222-08	02/22/10	0848		
18	AR125405	IAR100219-02	02/22/10	0859		
19	AR125401	WAR100219-54	02/22/10	0909		
20	AR124201	WAR100222-09	02/22/10	0920		
21	AR124202	WAR100222-10	02/22/10	0930		
22	AR124203	WAR100222-11	02/22/10	0941		
23	AR124204	WAR100222-12	02/22/10	0951		
24	AR124205	IAR100219-01	02/22/10	1002		
25	AR124201	WAR100219-42	02/22/10	1012		
26	AR124801	WAR100222-13	02/22/10	1023		
27	AR124802	WAR100222-14	02/22/10	1033		
28	AR124803	WAR100222-15	02/22/10	1044		
29	AR124805	IAR100211-01	02/22/10	1054		
30	AR124804	WAR100222-16	02/22/10	1105		
31	AR124801	WAR091217-48	02/22/10	1116		
32	AR126801	WAR100222-17	02/22/10	1126		

QC LIMITS
S1 = 4cmx (+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2057

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.29 DCB: 5.94

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	AR126802	WAR100222-18	02/22/10	1137		
02	AR126803	WAR100222-19	02/22/10	1147		
03	AR126804	WAR100222-20	02/22/10	1158		
04	AR126805	IAR100104-05	02/22/10	1208		
05	AR126801	WAR100107-68	02/22/10	1219		
06	PIBLK02	WAR100219-99	02/22/10	1229	2.29	5.94
07	ZZZZZ	ZZZZZ	02/22/10	1240	2.29	5.94
08	ZZZZZ	ZZZZZ	02/22/10	1250	2.29	5.94
09	ZZZZZ	ZZZZZ	02/22/10	1301	2.29	5.94
10	ZZZZZ	ZZZZZ	02/22/10	1314	2.29	5.94
11	ZZZZZ	ZZZZZ	02/22/10	1326	2.29	5.94
12	ZZZZZ	ZZZZZ	02/22/10	1339	2.29	5.93
13	ZZZZZ	ZZZZZ	02/22/10	1351	2.29	5.93
14	ZZZZZ	ZZZZZ	02/22/10	1404	2.29	5.94
15	ZZZZZ	ZZZZZ	02/22/10	1417	2.29	5.93
16	ZZZZZ	ZZZZZ	02/22/10	1430	2.29	5.93
17	AR166002	WAR100203-60	02/22/10	1442	2.29	5.94
18	PIBLK03	WAR100219-99	02/22/10	1453	2.29	5.94
19	ZZZZZ	ZZZZZ	02/22/10	1503	2.29	5.94
20	ZZZZZ	ZZZZZ	02/22/10	1516	2.29	5.93
21	ZZZZZ	ZZZZZ	02/22/10	1528	2.29	5.93
22	ZZZZZ	ZZZZZ	02/22/10	1541	2.29	5.94
23	ZZZZZ	ZZZZZ	02/22/10	1554	2.29	5.93
24	ZZZZZ	ZZZZZ	02/22/10	1606	2.29	5.93
25	ZZZZZ	ZZZZZ	02/22/10	1619	2.29	5.94
26	ZZZZZ	ZZZZZ	02/22/10	1632	2.29	5.93
27	ZZZZZ	ZZZZZ	02/22/10	1644	2.29	5.93
28	ZZZZZ	ZZZZZ	02/22/10	1657	2.29	5.93
29	AR166003	WAR100203-60	02/22/10	1710	2.29	5.93
30	PIBLK04	WAR100219-99	02/22/10	1722	2.29	5.93
31	ZZZZZ	ZZZZZ	02/22/10	1735	2.29	5.93
32	ZZZZZ	ZZZZZ	02/22/10	1748	2.29	5.94

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2057

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.92 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/09/10	0555	1.91	5.22
02	AR166001	WAR100222-60	03/09/10	0605	1.92	5.22
03	AR125401	WAR100219-54	03/09/10	0616		
04	AR124201	WAR100219-42	03/09/10	0626		
05	AR124801	WAR100223-48	03/09/10	0637		
06	AR126801	WAR100107-68	03/09/10	0647		
07	AR123201	WAR100104-32	03/09/10	0658		
08	AR122101	WAR100104-21	03/09/10	0708		
09	AR126201	WAR100104-62	03/09/10	0719		
10	DDTANALOGSTD	WAR091219-DD	03/09/10	0729		
11	PIBLK02	WAR100219-99	03/09/10	0740	1.92	5.22
12	ZZZZZ	ZZZZZ	03/09/10	0750	1.92	5.22
13	ZZZZZ	ZZZZZ	03/09/10	0801	1.92	5.22
14	ZZZZZ	ZZZZZ	03/09/10	0811	1.92	5.22
15	ZZZZZ	ZZZZZ	03/09/10	0822	1.92	5.22
16	ZZZZZ	ZZZZZ	03/09/10	0834	1.92	5.22
17	ZZZZZ	ZZZZZ	03/09/10	0847	1.92	5.22
18	ZZZZZ	ZZZZZ	03/09/10	0859	1.92	5.22
19	AR166002	WAR100222-60	03/09/10	0912	1.92	5.22
20	PIBLK03	WAR100219-99	03/09/10	0923	1.92	5.22
21	ZZZZZ	ZZZZZ	03/09/10	0933	1.92	5.22
22	ZZZZZ	ZZZZZ	03/09/10	0944	1.92	5.22
23	ZZZZZ	ZZZZZ	03/09/10	0956	1.92	5.22
24	ZZZZZ	ZZZZZ	03/09/10	1009	1.92	5.22
25	AR166003	WAR100222-60	03/09/10	1021	1.92	5.22
26	PIBLK04	WAR100219-99	03/09/10	1032	1.92	5.22
27	PBLK01	1202063177	03/09/10	1042	1.92	5.22
28	PBLK01LCS	1202063178	03/09/10	1053	1.92	5.22
29	ZZZZZ	ZZZZZ	03/09/10	1103	1.92	5.22
30	ZZZZZ	ZZZZZ	03/09/10	1114	1.92	5.22
31	ZZZZZ	ZZZZZ	03/09/10	1124	1.92	5.22
32	ZZZZZ	ZZZZZ	03/09/10	1135	1.92	5.22

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PEST OLM03.0

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2057

GC Column: CLP1 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 1.92 DCB: 5.22

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/09/10	1146	1.92	5.22
02	CAPA-10-12771	248042004	03/09/10	1158	1.92	5.22
03	CAPA-10-13085	248042012	03/09/10	1211	1.92	5.22
04	AR166004	WAR100222-60	03/09/10	1223	1.92	5.22
05	PIBLK05	WAR100219-99	03/09/10	1234	1.92	5.22
06	ZZZZZ	ZZZZZ	03/09/10	1244	1.92	5.22
07	ZZZZZ	ZZZZZ	03/09/10	1257	1.92	5.22
08	ZZZZZ	ZZZZZ	03/09/10	1309	1.92	5.22
09	ZZZZZ	ZZZZZ	03/09/10	1322	1.92	5.22
10	AR166005	WAR100222-60	03/09/10	1335	1.92	5.22
11	PIBLK06	WAR100219-99	03/09/10	1345	1.92	5.22
12	ZZZZZ	ZZZZZ	03/09/10	1404	1.92	5.23
13	ZZZZZ	ZZZZZ	03/09/10	1431	1.92	5.23
14	ZZZZZ	ZZZZZ	03/09/10	1442	1.92	5.22
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32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2057

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.28 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	PIBLK01	WAR100219-99	03/09/10	0555	2.27	5.92
02	AR166001	WAR100222-60	03/09/10	0605	2.28	5.92
03	AR125401	WAR100219-54	03/09/10	0616		
04	AR124201	WAR100219-42	03/09/10	0626		
05	AR124801	WAR100223-48	03/09/10	0637		
06	AR126801	WAR100107-68	03/09/10	0647		
07	AR123201	WAR100104-32	03/09/10	0658		
08	AR122101	WAR100104-21	03/09/10	0708		
09	AR126201	WAR100104-62	03/09/10	0719		
10	DDTANALOGSTD	WAR091219-DD	03/09/10	0729		
11	PIBLK02	WAR100219-99	03/09/10	0740	2.28	5.92
12	ZZZZZ	ZZZZZ	03/09/10	0750	2.28	5.92
13	ZZZZZ	ZZZZZ	03/09/10	0801	2.27	5.92
14	ZZZZZ	ZZZZZ	03/09/10	0811	2.28	5.92
15	ZZZZZ	ZZZZZ	03/09/10	0822	2.28	5.92
16	ZZZZZ	ZZZZZ	03/09/10	0834	2.28	5.92
17	ZZZZZ	ZZZZZ	03/09/10	0847	2.27	5.92
18	ZZZZZ	ZZZZZ	03/09/10	0859	2.27	5.92
19	AR166002	WAR100222-60	03/09/10	0912	2.28	5.92
20	PIBLK03	WAR100219-99	03/09/10	0923	2.28	5.92
21	ZZZZZ	ZZZZZ	03/09/10	0933	2.28	5.92
22	ZZZZZ	ZZZZZ	03/09/10	0944	2.28	5.92
23	ZZZZZ	ZZZZZ	03/09/10	0956	2.28	5.91
24	ZZZZZ	ZZZZZ	03/09/10	1009	2.27	5.91
25	AR166003	WAR100222-60	03/09/10	1021	2.27	5.92
26	PIBLK04	WAR100219-99	03/09/10	1032	2.28	5.92
27	PBLK01	1202063177	03/09/10	1042	2.28	5.92
28	PBLK01LCS	1202063178	03/09/10	1053	2.28	5.92
29	ZZZZZ	ZZZZZ	03/09/10	1103	2.28	5.92
30	ZZZZZ	ZZZZZ	03/09/10	1114	2.28	5.92
31	ZZZZZ	ZZZZZ	03/09/10	1124	2.28	5.92
32	ZZZZZ	ZZZZZ	03/09/10	1135	2.28	5.92

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

8D
PCB ANALYTICAL SEQUENCE

Lab Name: GENERAL ENGINEERING LAB, Contract: N/A

Lab Code: N/A Case No.: N/A SAS No.: N/A SDG No.: 10-2057

GC Column: CLP2 ID: 0.25 (mm) Init. Calib. Date(s): 02/22/10 02/22/10

Instrument ID: ECD1A

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 2.28 DCB: 5.92

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	DCB RT #
01	ZZZZZ	ZZZZZ	03/09/10	1146	2.28	5.92
02	CAPA-10-12771	248042004	03/09/10	1158	2.28	5.92
03	CAPA-10-13085	248042012	03/09/10	1211	2.28	5.92
04	AR166004	WAR100222-60	03/09/10	1223	2.27	5.91
05	PIBLK05	WAR100219-99	03/09/10	1234	2.28	5.92
06	ZZZZZ	ZZZZZ	03/09/10	1244	2.28	5.92
07	ZZZZZ	ZZZZZ	03/09/10	1257	2.28	5.92
08	ZZZZZ	ZZZZZ	03/09/10	1309	2.28	5.92
09	ZZZZZ	ZZZZZ	03/09/10	1322	2.27	5.92
10	AR166005	WAR100222-60	03/09/10	1335	2.27	5.91
11	PIBLK06	WAR100219-99	03/09/10	1345	2.28	5.92
12	ZZZZZ	ZZZZZ	03/09/10	1404	2.27	5.92
13	ZZZZZ	ZZZZZ	03/09/10	1431	2.28	5.92
14	ZZZZZ	ZZZZZ	03/09/10	1442	2.28	5.92
15						
16						
17						
18						
19						
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21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

	QC LIMITS
S1 = 4cmx	(+/- 0.03 MINUTES)
DCB = Decachlorobiphenyl	(+/- 0.03 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Identification Summary

SDG Number: 10–2057 **Client ID:** LCS for batch 961885

Lab Sample ID: 1202063178

Data File:	028f2801.d	**Data File:**	028b2801.d
Inst:	ECD1A.I_1	**Inst:**	ECD1A.I_2
Column:	CLP1	**Column:**	CLP2
Analyzed:	09–MAR–10 10:53	**Analyzed:**	09–MAR–10 10:53

Analyte	Peak	RT	RT Window	Conc.	Ave Conc.	Units	RPD
Aroclor–1016							2.7
Column 1	1	2.37	2.34 – 2.4	.604		ug/L	
	2	2.66	2.63 – 2.69	.671		ug/L	
	3	2.74	2.71 – 2.77	.648		ug/L	
	4	2.77	2.74 – 2.8	.694		ug/L	
	5	2.98	2.95 – 3.01	.674		ug/L	
					.658		
Column 2	1	3.17	3.14 – 3.2	.64		ug/L	
	2	3.25	3.22 – 3.28	.607		ug/L	
	3	3.32	3.29 – 3.35	.609		ug/L	
	4	3.54	3.51 – 3.57	.672		ug/L	
	5	3.62	3.59 – 3.65	.675		ug/L	
					.641		
Aroclor–1260							9.9
Column 1	1	3.71	3.68 – 3.74	.78		ug/L	
	2	3.87	3.84 – 3.9	.859		ug/L	
	3	4.03	4 – 4.06	.879		ug/L	
	4	4.1	4.07 – 4.13	.856		ug/L	
	5	4.24	4.22 – 4.28	.803		ug/L	
					.835		
Column 2	1	4.31	4.28 – 4.34	.725		ug/L	
	2	4.43	4.4 – 4.46	.761		ug/L	
	3	4.7	4.67 – 4.73	.75		ug/L	
	4	4.87	4.84 – 4.9	.758		ug/L	
	5	5.02	4.99 – 5.05	.789		ug/L	
					.757		

QUALITY CONTROL DATA

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**			**Matrix:**	**WATER**
Lab Sample ID:	**1202063177**				
Client Sample:	**QC for batch 961885**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**MB for batch 961885**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**961887**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 10:42**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/08/2010 14:29**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**027f2701-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	027b2701-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016	U	0.100	ug/L	0.0333	0.100	1
11104-28-2	Aroclor-1221	U	0.100	ug/L	0.0333	0.100	1
11141-16-5	Aroclor-1232	U	0.100	ug/L	0.0333	0.100	1
53469-21-9	Aroclor-1242	U	0.100	ug/L	0.0333	0.100	1
12672-29-6	Aroclor-1248	U	0.100	ug/L	0.0333	0.100	1
11097-69-1	Aroclor-1254	U	0.100	ug/L	0.0333	0.100	1
11096-82-5	Aroclor-1260	U	0.100	ug/L	0.0333	0.100	1
37324-23-5	Aroclor-1262	U	0.100	ug/L	0.0333	0.100	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.096	0.200	ug/L	48.0	(30%-105%)
Decachlorobiphenyl	0.127	0.200	ug/L	63.6	(30%-126%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/027f2701.d
Lab Smp Id: 1202063177 Client Smp ID: PBLK01
Inj Date : 09-MAR-2010 10:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202063177|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|WATER|MB|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 10:55 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 27 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2057.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.918	1.916	0.002	41338476	95.9938	0.096	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.222	5.223	-0.001	39087168	127.200	0.13	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/027f2701.d

Date : 09-MAR-2010 10:42

Client ID: PBLK01

Sample Info: |1202063177|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

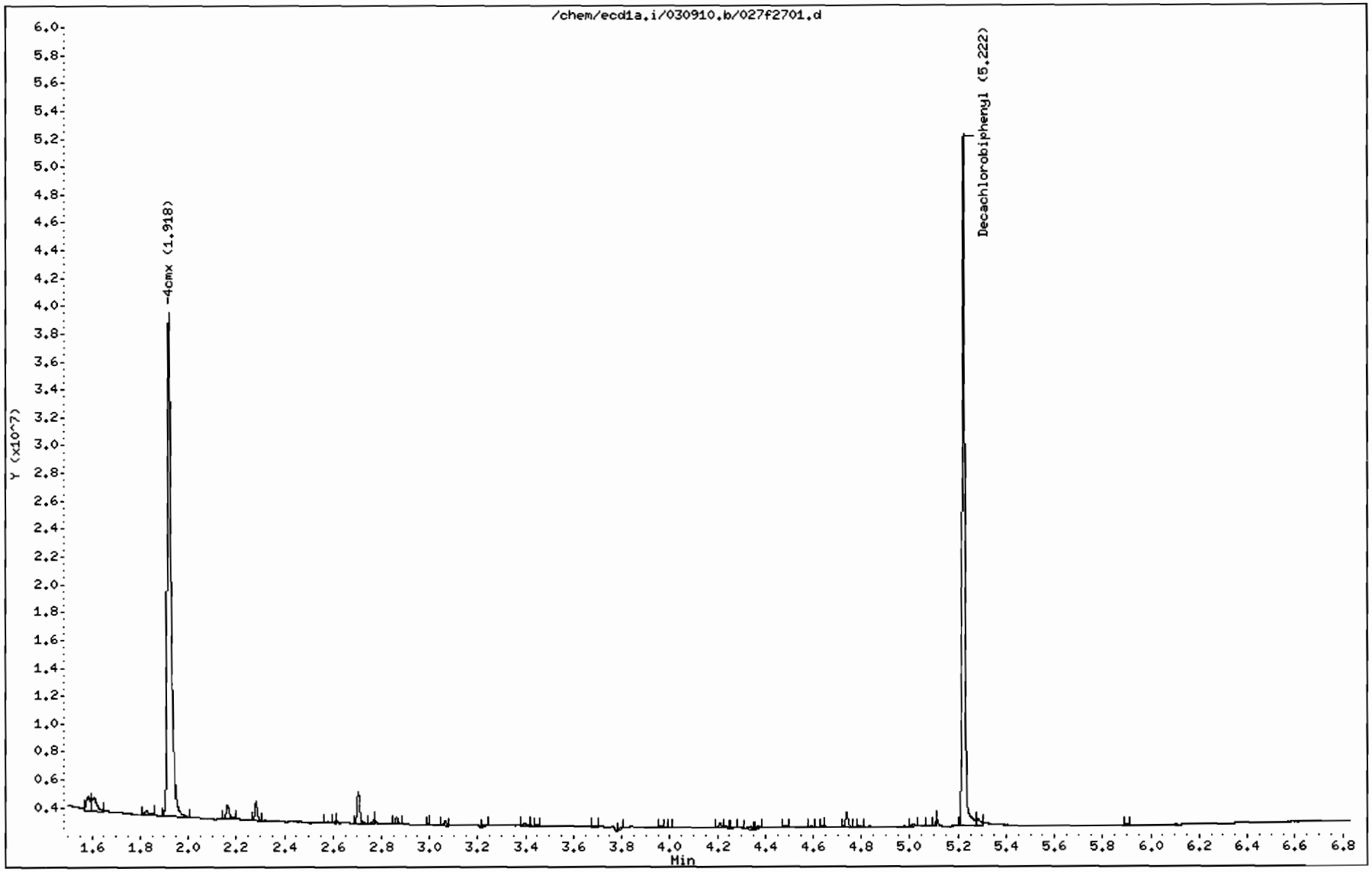

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/027b2701.d
Lab Smp Id: 1202063177 Client Smp ID: PBLK01
Inj Date : 09-MAR-2010 10:42
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202063177|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|WATER|MB|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 27 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2057.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.277	2.276	0.001	27948784	93.9781	0.094	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.917	5.918	-0.001	25157063	118.947	0.12	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/027b2701.d
Date : 09-MAR-2010 10:42
Client ID: PBLK01
Sample Info: |1202063177|1|
Volume Injected (uL): 1.0
Column phase: CLP2

Instrument: ecd1a.i
Operator: YS1
Column diameter: 0.25

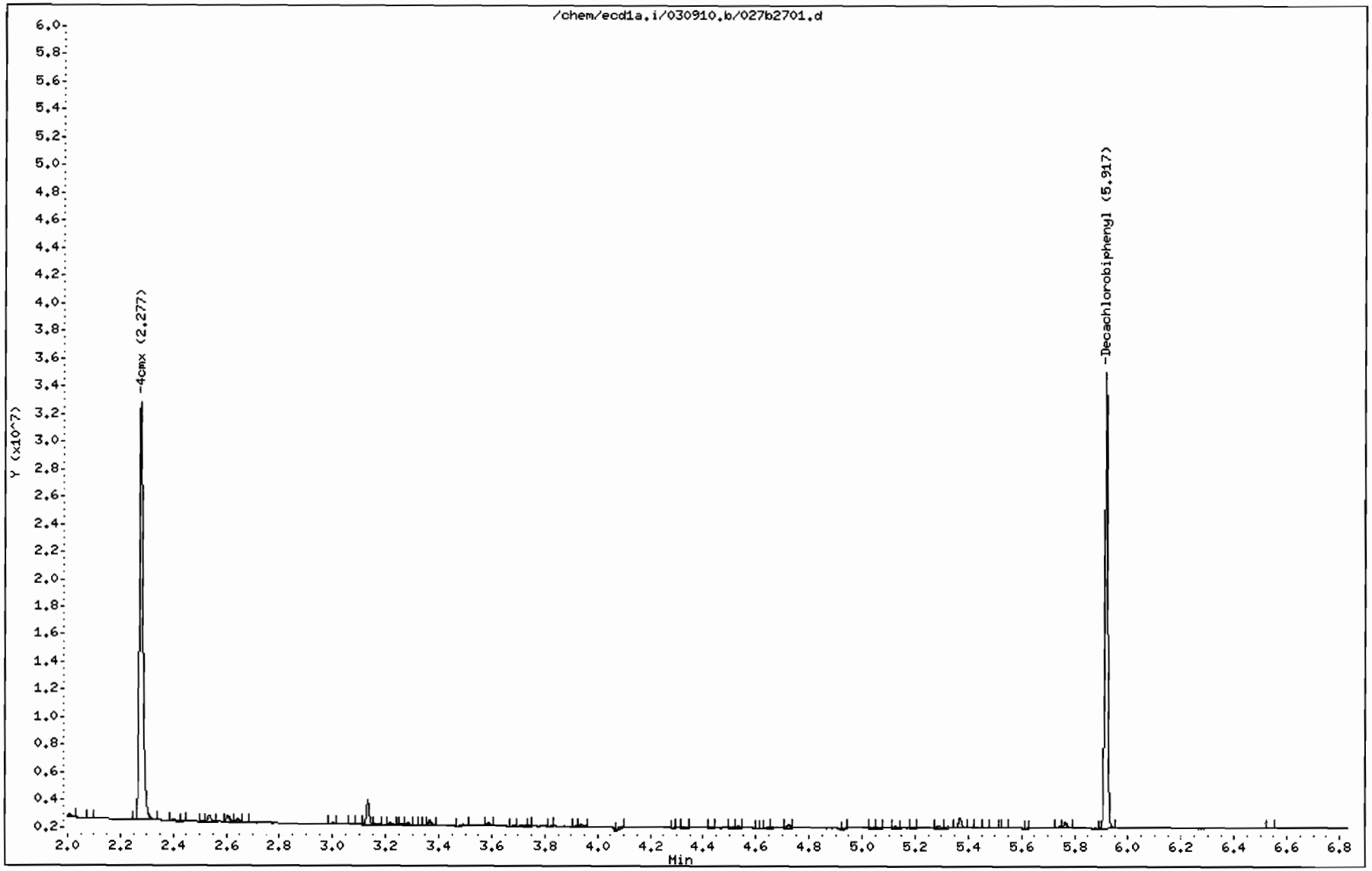

PCB
Certificate of Analysis
Sample Summary

SDG Number:	**10-2057**			**Matrix:**	**WATER**
Lab Sample ID:	**1202063178**				
Client Sample:	**QC for batch 961885**	**Client:**	**LANL010**	**Project:**	**QC**
Client ID:	**LCS for batch 961885**	**Method:**	**SW846 8082**	**SOP Ref:**	**GL-OA-E-040**
Batch ID:	**961887**	**Inst:**	**ECD1A.I**	**Dilution:**	**1**
Run Date:	**03/09/2010 10:53**	**Analyst:**	**YS1**	**Inj. Vol:**	**1 uL**
Prep Date:	**03/08/2010 14:29**	**Aliquot:**	**1000 mL**	**Final Volume:**	**1 mL**
Data File:	**028f2801-1.d**	**Column:**	**1 CLP1**	**Level:**	**LOW**
	028b2801-1.d		**2 CLP2**		

CAS No.	Parmname	Qualifier	Result	Units	MDL/LOD	PQL/LOQ	Column
12674-11-2	Aroclor-1016		0.660	ug/L	0.0333	0.100	1
11104-28-2	Aroclor-1221	U	0.100	ug/L	0.0333	0.100	1
11141-16-5	Aroclor-1232	U	0.100	ug/L	0.0333	0.100	1
53469-21-9	Aroclor-1242	U	0.100	ug/L	0.0333	0.100	1
12672-29-6	Aroclor-1248	U	0.100	ug/L	0.0333	0.100	1
11097-69-1	Aroclor-1254	U	0.100	ug/L	0.0333	0.100	1
11096-82-5	Aroclor-1260		0.840	ug/L	0.0333	0.100	1
37324-23-5	Aroclor-1262	U	0.100	ug/L	0.0333	0.100	1

Surrogate/Tracer recovery	Result	Nominal		Recovery%	Acceptable Limits
4cmx	0.0958	0.200	ug/L	47.9	(30%-105%)
Decachlorobiphenyl	0.133	0.200	ug/L	66.6	(30%-126%)

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/028f2801.d
Lab Smp Id: 1202063178 Client Smp ID: PBLK01LCS
Inj Date : 09-MAR-2010 10:53
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202063178|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|WATER|LCS|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 28 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2057.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.918	1.916	0.002	41264077	95.8210	0.096	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.221	5.223	-0.002	40956540	133.283	0.13	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.371	2.370	0.001	9296537	604.286	0.60	80.00- 120.00	100.00
2.657	2.656	0.001	12229349	670.579	0.67	110.98- 150.98	131.55
2.737	2.736	0.001	7813553	647.596	0.65	60.40- 100.40	84.05
2.775	2.774	0.001	4924710	694.002	0.69	28.72- 68.72	52.97
2.985	2.984	0.001	6007674	674.096	0.67	42.25- 82.25	64.62

Average of Peak Concentrations = 0.66

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.711	3.710	0.001	13319133	780.155	0.78	80.00- 120.00	100.00
3.872	3.873	-0.001	20308318	858.941	0.86	129.42- 169.42	152.47
4.035	4.035	0.000	21944681	878.795	0.88	140.14- 180.14	164.76
4.102	4.102	0.000	12330186	855.926	0.86	70.18- 110.18	92.57
4.245	4.246	-0.001	11594596	803.477	0.80	73.99- 113.99	87.05
Average of Peak Concentrations =					0.84		

Data File: /chem/ecd1a.i/030910.b/028f2801.d

Date : 09-MAR-2010 10:53

Client ID: PBLK01LCS

Sample Info: |1202063178|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

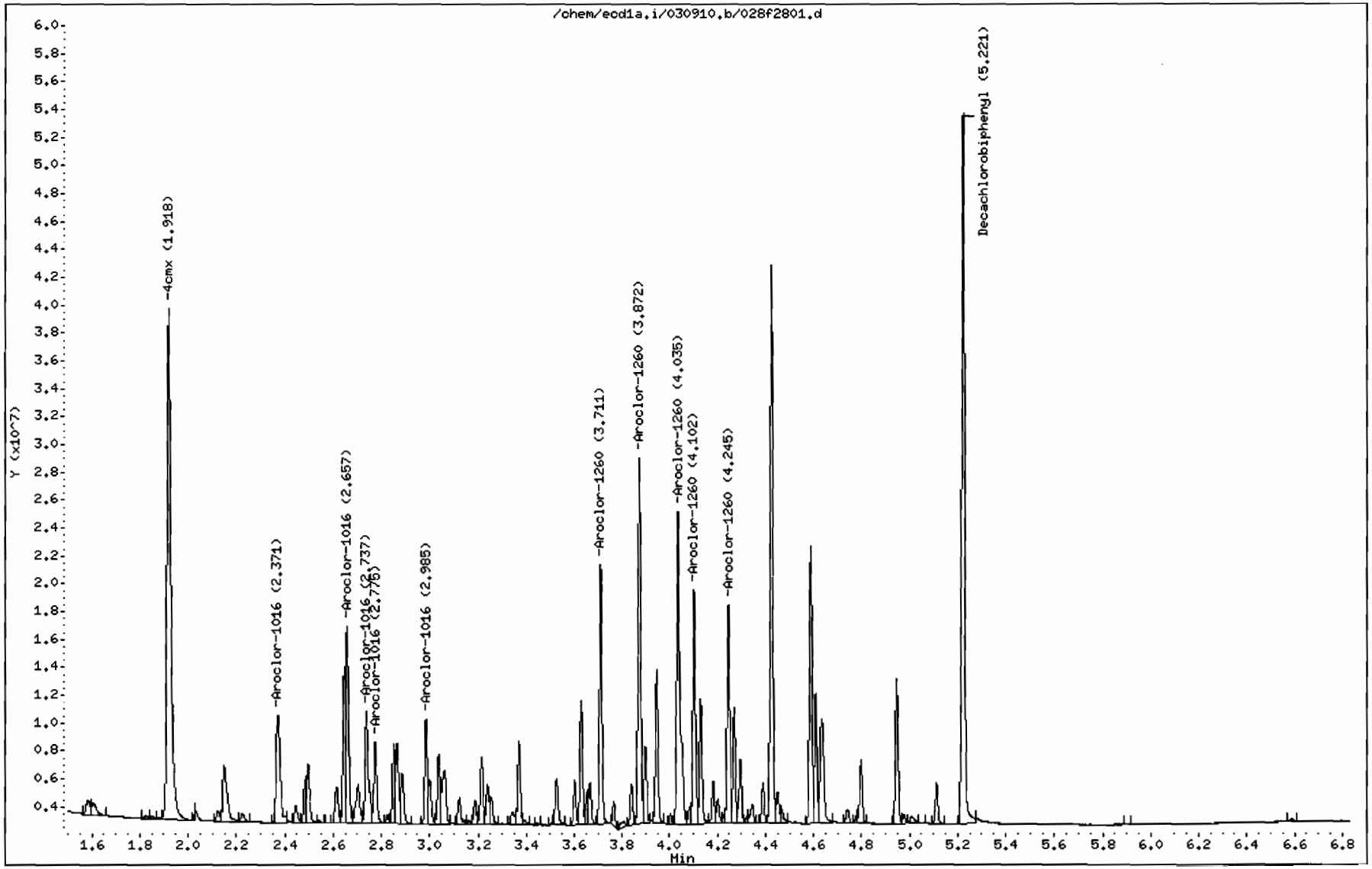

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/028b2801.d
Lab Smp Id: 1202063178 Client Smp ID: PBLK01LCS
Inj Date : 09-MAR-2010 10:53
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202063178|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|WATER|LCS|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 28 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2057.sub
Target Version: 3.50 Sample Matrix: Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	1.00000	Volume of final extract (mL)
Vo	1000.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.276	2.276	0.000	27998758	94.1461	0.094	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.916	5.918	-0.002	26852663	126.964	0.13	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.171	3.170	0.001	8185562	640.008	0.64	80.00- 120.00	100.00(M)
3.253	3.253	0.000	5415527	607.263	0.61	44.54- 84.54	66.16
3.316	3.316	0.000	3290453	608.666	0.61	20.40- 60.40	40.20
3.544	3.544	0.000	4644758	671.631	0.67	30.67- 70.67	56.74
3.619	3.619	0.000	4340137	675.485	0.68	37.45- 77.45	53.02

Average of Peak Concentrations = 0.64

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.309	4.309	0.000	9579346	725.398	0.72	80.00- 120.00	100.00
4.433	4.435	-0.002	11851829	761.352	0.76	102.63- 142.63	123.72
4.699	4.700	-0.001	8879850	749.766	0.75	72.47- 112.47	92.70
4.872	4.873	-0.001	9243424	757.584	0.76	76.60- 116.60	96.49
5.020	5.021	-0.001	20935579	789.213	0.79	195.80- 235.80	218.55
			Average of Peak Concentrations =		0.76		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/030910.b/028b2801.d

Date : 09-MAR-2010 10:53

Client ID: PBLK01LCS

Sample Info: |120206317811|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

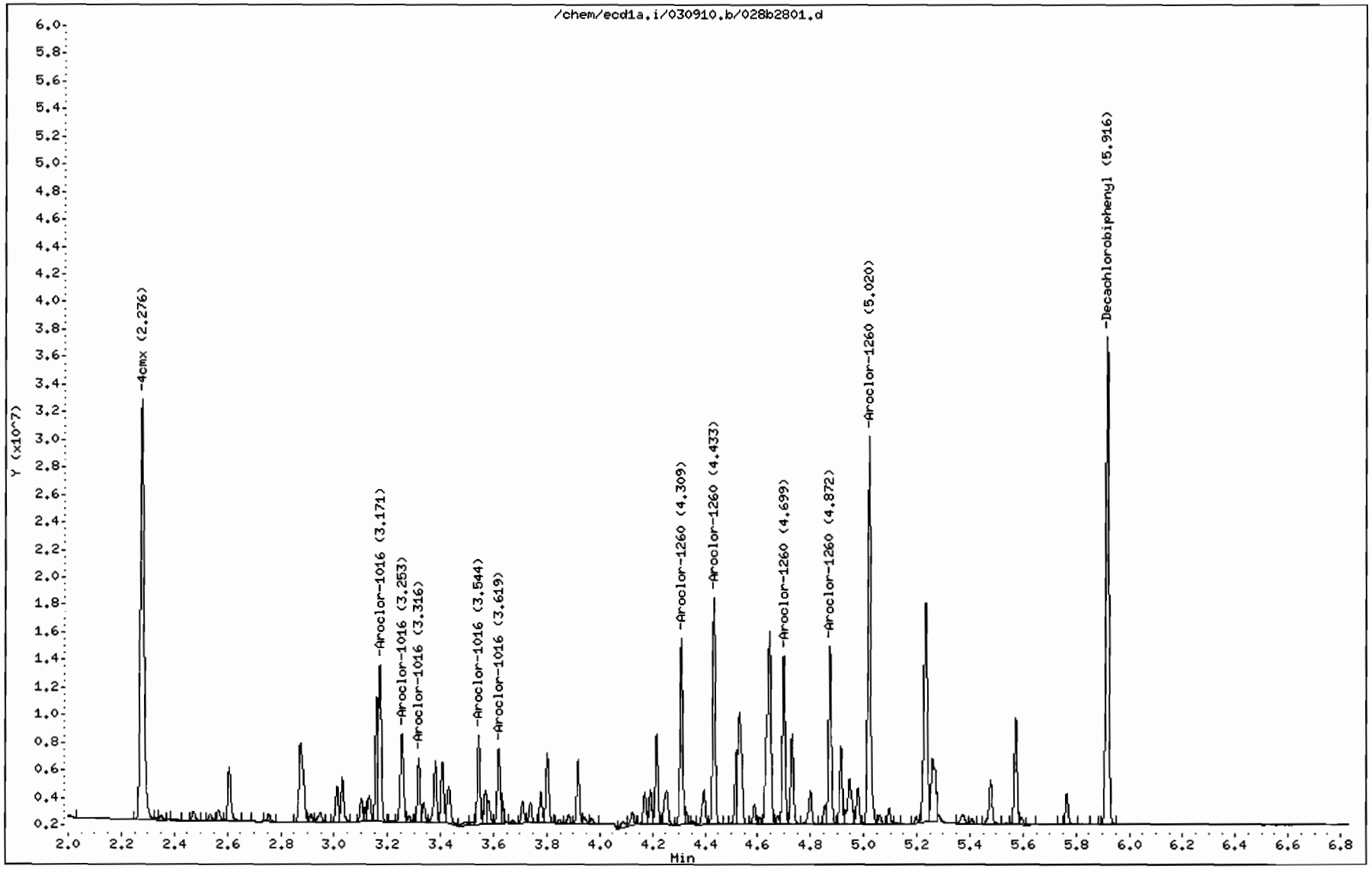

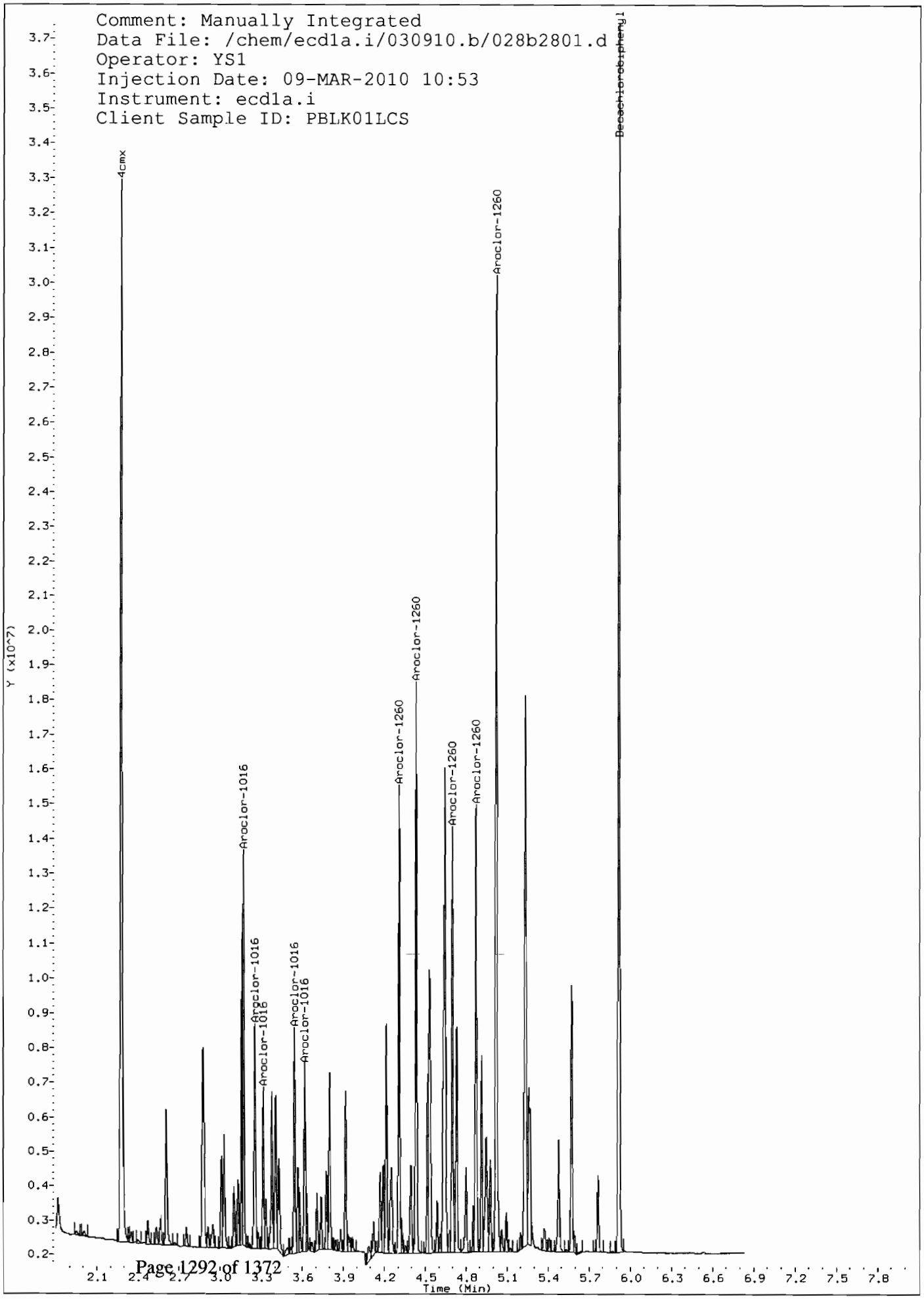
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Data File: /chem/ecd1a.i/030910.b/028b2801.d
Operator: YS1
Injection Date: 09-MAR-2010 10:53
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
4cmx
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1016
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Aroclor-1260
Decachlorobiphenyl
Y (x10^7)
Time (Min)

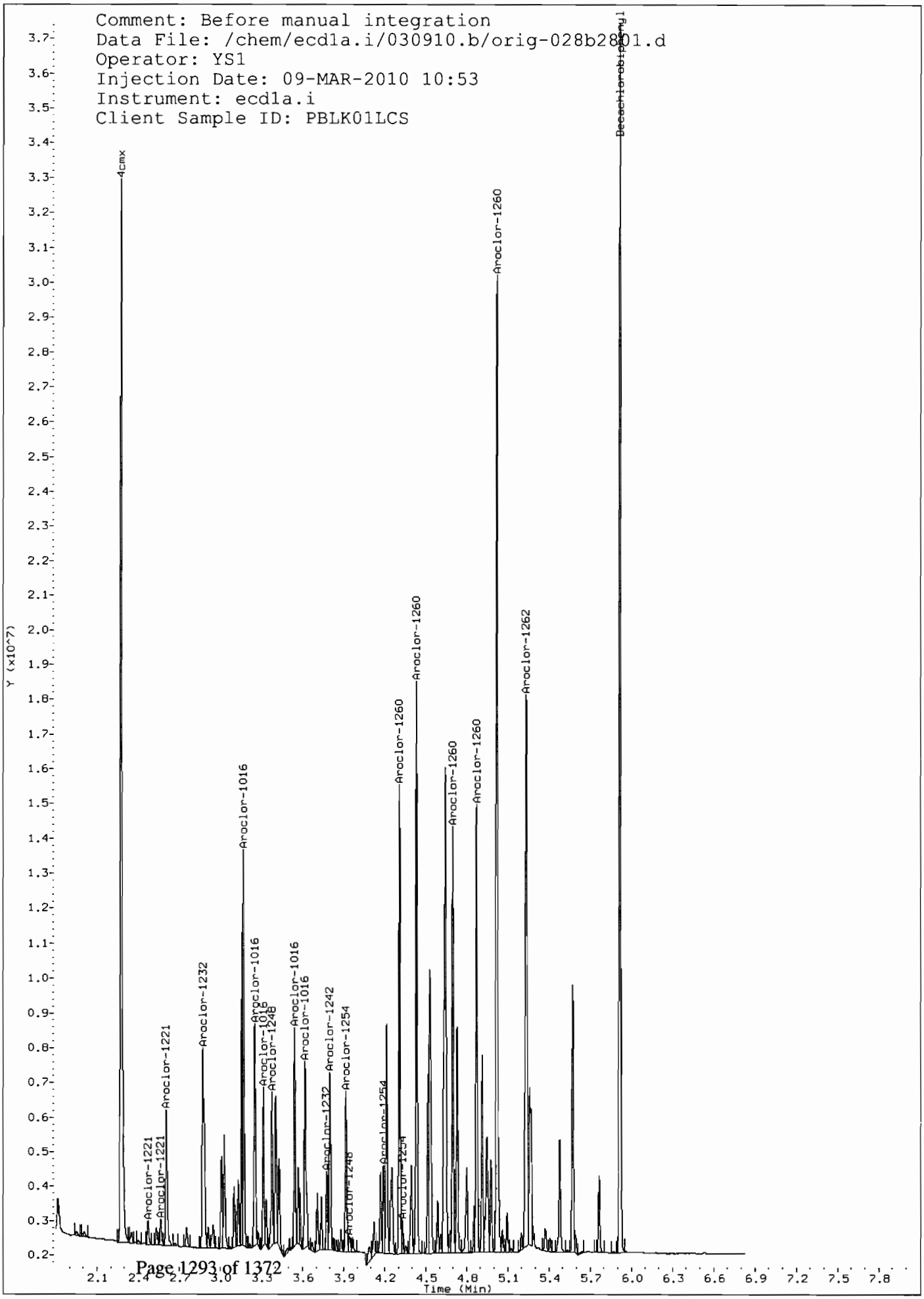
Comment: Before manual integration
Data File: /chem/ecd1a.i/030910.b/orig-028b28801.d
Operator: YS1
Injection Date: 09-MAR-2010 10:53
Instrument: ecd1a.i
Client Sample ID: PBLK01LCS
4cmx
Decachlorobiphenyl
Aroclor-1260
Aroclor-1262
Aroclor-1016
Aroclor-1232
Aroclor-1221
Aroclor-1248
Aroclor-1242
Aroclor-1254
Y (x10^7)
Time (Min)

MISCELLANEOUS DATA

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 02/23/2010 METHOD: ECD1-F-8082-022210.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA699
ALUMINA LOT 1240553-A
COPPER LOT 236547-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/022210.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	22-FEB-2010 05:59		022210	1.0		CLEAN
002f0201.d	WAR100203-60 01	YS1	22-FEB-2010 06:10		022210	1.0		DUSE RE-ICAL
003f0301.d	AR1660-4	YS1	22-FEB-2010 06:20		022210	1.0		DUSE SCREEN
004f0401.d	WAR091219-DDT	YS1	22-FEB-2010 06:31		022210	1.0		DDT ANALOG STANDARD
005f0501.d	WAR100104-32	YS1	22-FEB-2010 06:41		022210	1.0		PATTERN ONLY
006f0601.d	WAR100104-21	YS1	22-FEB-2010 06:52		022210	1.0		PATTERN ONLY
007f0701.d	WAR100104-62	YS1	22-FEB-2010 07:03		022210	1.0		PATTERN ONLY
008f0801.d	WAR100222-01 60	YS1	22-FEB-2010 07:13		022210	1.0		AR1660 I-CAL LEVEL 1
009f0901.d	WAR100222-02 60	YS1	22-FEB-2010 07:24		022210	1.0		AR1660 I-CAL LEVEL 2
010f1001.d	WAR100222-03 60	YS1	22-FEB-2010 07:34		022210	1.0		AR1660 I-CAL LEVEL 3
011f1101.d	WAR100222-04 60	YS1	22-FEB-2010 07:45		022210	1.0		AR1660 I-CAL LEVEL 4
012f1201.d	IAR100104-01	YS1	22-FEB-2010 07:55		022210	1.0		AR1660 I-CAL LEVEL 5
013f1301.d	WAR100203-60 01	YS1	22-FEB-2010 08:06		022210	1.0		PASSED ON BOTH COLUMNS
014f1401.d	WAR100222-05 54	YS1	22-FEB-2010 08:16		022210	1.0		AR1254 I-CAL LEVEL 1
015f1501.d	WAR100222-06 54	YS1	22-FEB-2010 08:27		022210	1.0		AR1254 I-CAL LEVEL 2

Instrument Batch: /chem/ecd1a.i/022210.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments

016f1601.d	WAR100222-07 54	YS1	22-FEB-2010 08:37		022210	1.0		AR1254 I-CAL LEVEL 3
017f1701.d	WAR100222-08 54	YS1	22-FEB-2010 08:48		022210	1.0		AR1254 I-CAL LEVEL 4
018f1801.d	IAR100219-02	YS1	22-FEB-2010 08:59		022210	1.0		AR1254 I-CAL LEVEL 5
019f1901.d	WAR100219-54	YS1	22-FEB-2010 09:09		022210	1.0		PASSED ON BOTH COLUMNS
020f2001.d	WAR100222-09 42	YS1	22-FEB-2010 09:20		022210	1.0		AR1242 I-CAL LEVEL 1
021f2101.d	WAR100222-10 42	YS1	22-FEB-2010 09:30		022210	1.0		AR1242 I-CAL LEVEL 2
022f2201.d	WAR100222-11 42	YS1	22-FEB-2010 09:41		022210	1.0		AR1242 I-CAL LEVEL 3
023f2301.d	WAR100222-12 42	YS1	22-FEB-2010 09:51		022210	1.0		AR1242 I-CAL LEVEL 4
024f2401.d	IAR100219-01	YS1	22-FEB-2010 10:02		022210	1.0		AR1242 I-CAL LEVEL 5
025f2501.d	WAR100219-42	YS1	22-FEB-2010 10:12		022210	1.0		PASSED ON BOTH COLUMNS
026f2601.d	WAR100222-13 48	YS1	22-FEB-2010 10:23		022210	1.0		AR1248 I-CAL LEVEL 1
027f2701.d	WAR100222-14 48	YS1	22-FEB-2010 10:33		022210	1.0		AR1248 I-CAL LEVEL 2
028f2801.d	WAR100222-15 48	YS1	22-FEB-2010 10:44		022210	1.0		AR1248 I-CAL LEVEL 3
029f2901.d	IAR100211-01	YS1	22-FEB-2010 10:54		022210	1.0		AR1248 I-CAL LEVEL 5
030f3001.d	WAR100222-16	YS1	22-FEB-2010 11:05		022210	1.0		AR1248 I-CAL LEVEL 4
031f3101.d	WAR091217-48	YS1	22-FEB-2010 11:16		022210	1.0		PASSED ON BOTH COLUMNS
032f3201.d	WAR100222-17 68	YS1	22-FEB-2010 11:26		022210	1.0		AR1268 I-CAL LEVEL 1
033f3301.d	WAR100222-18 68	YS1	22-FEB-2010 11:37		022210	1.0		AR1268 I-CAL LEVEL 2
034f3401.d	WAR100222-19 68	YS1	22-FEB-2010 11:47		022210	1.0		AR1268 I-CAL LEVEL 3
035f3501.d	WAR100222-20 68	YS1	22-FEB-2010 11:58		022210	1.0		AR1268 I-CAL LEVEL 4

Instrument Batch: /chem/ecd1a.i/022210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
036f3601.d	IAR100104-05	YS1	22-FEB-2010 12:08		022210	1.0		AR1268 I-CAL LEVEL 5
037f3701.d	WAR100107-68	YS1	22-FEB-2010 12:19		022210	1.0		PASSED ON BOTH COLUMNS
038f3801.d	WAR100219-99 02	YS1	22-FEB-2010 12:29		022210	1.0		CLEAN
039f3901-1.d	1202046866	YS1	22-FEB-2010 12:40	954781	10-1846	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901-2.d	1202046866	YS1	22-FEB-2010 12:40	954781	10-1848	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

039f3901.d	1202046866	YS1	22-FEB-2010 12:40	954781	10-1808	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001-1.d	1202046867	YS1	22-FEB-2010 12:50	954781	10-1846	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001-2.d	1202046867	YS1	22-FEB-2010 12:50	954781	10-1848	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	1202046867	YS1	22-FEB-2010 12:50	954781	10-1808	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
041f4101.d	246968001	YS1	22-FEB-2010 13:01	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
042f4201.d	246968002	YS1	22-FEB-2010 13:14	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
043f4301.d	246968003	YS1	22-FEB-2010 13:26	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
044f4401.d	246968004	YS1	22-FEB-2010 13:39	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
045f4501.d	246968005	YS1	22-FEB-2010 13:51	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
046f4601.d	246968006	YS1	22-FEB-2010 14:04	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
047f4701.d	246968007	YS1	22-FEB-2010 14:17	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
048f4801.d	246968008	YS1	22-FEB-2010 14:30	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
049f4901.d	WAR100203-60 02	YS1	22-FEB-2010 14:42		022210	1.0		PASSED ON BOTH COLUMNS
050f5001.d	WAR100219-99 03	YS1	22-FEB-2010 14:53		022210	1.0		CLEAN
051f5101.d	246968009	YS1	22-FEB-2010 15:03	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
052f5201.d	246968010	YS1	22-FEB-2010 15:16	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
053f5301.d	246968011	YS1	22-FEB-2010 15:28	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
054f5401.d	246968012	YS1	22-FEB-2010 15:41	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
055f5501.d	246968013	YS1	22-FEB-2010 15:54	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
056f5601.d	246968014	YS1	22-FEB-2010 16:06	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
057f5701.d	246968015	YS1	22-FEB-2010 16:19	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
058f5801.d	246968016	YS1	22-FEB-2010 16:32	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
059f5901.d	246968017	YS1	22-FEB-2010 16:44	954781	10-1808	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
060f6001.d	247121002	YS1	22-FEB-2010 16:57	954781	10-1846	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

061f6101.d	WAR100203-60 03	YS1	22-FEB-2010 17:10		022210		1.0		PASSED ON BOTH COLUMNS
062f6201.d	WAR100219-99 04	YS1	22-FEB-2010 17:22		022210		1.0		CLEAN
063f6301.d	247123001	YS1	22-FEB-2010 17:35	954781	10-1848		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
064f6401.d	1202046868	YS1	22-FEB-2010 17:48	954781	10-1848		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
065f6501.d	1202046869	YS1	22-FEB-2010 18:00	954781	10-1848		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
066f6601.d	WAR100203-60 04	YS1	22-FEB-2010 18:13		022210		1.0		PASSED ON BOTH COLUMNS
067f6701.d	WAR100219-99 05	YS1	22-FEB-2010 18:26		022210		1.0		CLEAN
068f6801.d	1202048527	YS1	22-FEB-2010 18:38	955479	10-1818		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
069f6901.d	1202048528	YS1	22-FEB-2010 18:51	955479	10-1818		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
070f7001.d	247043003	YS1	22-FEB-2010 19:04	955479	10-1818		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
071f7101.d	1202048529	YS1	22-FEB-2010 19:16	955479	10-1818		1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/022210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
072f7201.d	1202048530	YS1	22-FEB-2010 19:29	955479	10-1818	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
073f7301.d	247043004	YS1	22-FEB-2010 19:42	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
074f7401.d	247043005	YS1	22-FEB-2010 19:54	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
075f7501.d	247043006	YS1	22-FEB-2010 20:07	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
076f7601.d	247043007	YS1	22-FEB-2010 20:20	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
077f7701.d	247043008	YS1	22-FEB-2010 20:32	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
078f7801.d	WAR100203-60 05	YS1	22-FEB-2010 20:45		022210	1.0		PASSED ON BOTH COLUMNS
079f7901.d	WAR100219-99 06	YS1	22-FEB-2010 20:58		022210	1.0		CLEAN
080f8001.d	247043009	YS1	22-FEB-2010 21:10	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
081f8101.d	247043010	YS1	22-FEB-2010 21:23	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
082f8201.d	247043011	YS1	22-FEB-2010 21:35	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
083f8301.d	247043012	YS1	22-FEB-2010 21:48	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
084f8401.d	247043013	YS1	22-FEB-2010 22:01	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
085f8501.d	247043014	YS1	22-FEB-2010 22:13	955479	10-1818	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

086f8601.d	247043015	YS1	22-FEB-2010 22:26	955479	10-1818		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
087f8701.d	247043016	YS1	22-FEB-2010 22:39	955479	10-1818		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
088f8801.d	247043017	YS1	22-FEB-2010 22:51	955479	10-1818		1.0	LANL	SURROGATE LOW RE
089f8901.d	247043018	YS1	22-FEB-2010 23:04	955479	10-1818		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
090f9001.d	WAR100203-60 06	YS1	22-FEB-2010 23:17		022210		1.0		PASSED ON BOTH COLUMNS
091f9101.d	WAR100219-99 07	YS1	22-FEB-2010 23:29		022210		1.0		CLEAN

Instrument Batch: /chem/ecd1a.i/022210.b

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
092f9201.d	1660	YS1	22-FEB-2010 23:42		022210	1.0		DUSE SCREEN
093f9301.d	1660-4	YS1	22-FEB-2010 23:55		022210	1.0		DUSE SCREEN

GEL ORGANIC RUN LOG INSTRUMENT ID: ECD1

DATE: 03/09/2010 METHOD: ECD1-F-8082-022210.m OPERATOR:YS1 REVIEWED BY:_____
DATE:_____

HARDWARE CONFIGURATION & METHOD SUMMARY: No. 1 on pg. 1

SOLVENT LOT DA936
ALUMINA LOT 1273992-A
COPPER LOT 1249397-A

Calibration & QC Information
Initial Calibration Dates: See Calibration History and Standard Logbook.
Initial Calibration Std ID's: See Calibration History and Standard Logbook.
GEL SOP GL-OA-E-040 Polychlorinated Biphenyl: EPA 8082
Chromatogram Abbreviation Legend: AB-Assign Baseline, AP-Assign Peak,
DNC-Do Not Call, DMP-Doesn't Match Pattern, NC-Not Confirmed, RT-Retention Time,
BF-Before, AF-After.

Sequence Number: /chem/ecd1a.i/030910.b Injection Volume: 0.5 ul

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
001f0101.d	WAR100219-99 01	YS1	09-MAR-2010 05:55		030910	1.0		CLEAN
002f0201.d	WAR100222-60 01	YS1	09-MAR-2010 06:05		030910	1.0		PASSED ON BOTH COLUMNS
003f0301.d	WAR100219-54	YS1	09-MAR-2010 06:16		030910	1.0		PASSED ON BOTH COLUMNS
004f0401.d	WAR100219-42	YS1	09-MAR-2010 06:26		030910	1.0		PASSED ON BOTH COLUMNS
005f0501.d	WAR100223-48	YS1	09-MAR-2010 06:37		030910	1.0		PASSED ON BOTH COLUMNS
006f0601.d	WAR100107-68	YS1	09-MAR-2010 06:47		030910	1.0		PASSED ON BOTH COLUMNS
007f0701.d	WAR100104-32	YS1	09-MAR-2010 06:58		030910	1.0		PATTERN ONLY
008f0801.d	WAR100104-21	YS1	09-MAR-2010 07:08		030910	1.0		PATTERN ONLY
009f0901.d	WAR100104-62	YS1	09-MAR-2010 07:19		030910	1.0		PATTERN ONLY
010f1001.d	WAR091219-DDT	YS1	09-MAR-2010 07:29		030910	1.0		DDT ANALOG STANDARD
011f1101.d	WAR100219-99 02	YS1	09-MAR-2010 07:40		030910	1.0		CLEAN
012f1201.d	1202065484	YS1	09-MAR-2010 07:50	962782	EUI-7541	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
013f1301.d	1202065485	YS1	09-MAR-2010 08:01	962782	EUI-7541	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
014f1401.d	1202065498	YS1	09-MAR-2010 08:11	962782	EUI-7541	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
015f1501.d	248721001	YS1	09-MAR-2010 08:22	962782	EUI-7541	1.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
016f1601.d	1202065486	YS1	09-MAR-2010 08:34	962782	EUI-7541	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER

Instrument Batch: /chem/ecd1a.i/030910.b Page: 1

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
017f1701.d	1202065487	YS1	09-MAR-2010 08:47	962782	EUI-7541	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
018f1801.d	248721002	YS1	09-MAR-2010 08:59	962782	EUI-7541	1.0	CARE	UPLOAD BOTH COLUMNS, USE HIGHER
019f1901.d	WAR100222-60 02	YS1	09-MAR-2010 09:12		030910	1.0		PASSED ON BOTH COLUMNS
020f2001.d	WAR100219-99 03	YS1	09-MAR-2010 09:23		030910	1.0		CLEAN
021f2101.d	018004	YS1	09-MAR-2010 09:33		030910	1.0		DUSE SCERRN
022f2201.d	018005	YS1	09-MAR-2010 09:44		030910	1.0		DUSE SCERRN
023f2301.d	018007	YS1	09-MAR-2010 09:56		030910	1.0		DUSE SCERRN
024f2401.d	018008	YS1	09-MAR-2010 10:09		030910	1.0		DUSE SCERRN
025f2501.d	WAR100222-60 03	YS1	09-MAR-2010 10:21		030910	1.0		PASSED ON BOTH COLUMNS
026f2601.d	WAR100219-99 04	YS1	09-MAR-2010 10:32		030910	1.0		CLEAN
027f2701.d	1202063177	YS1	09-MAR-2010 10:42	961887	10-2057	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
028f2801.d	1202063178	YS1	09-MAR-2010 10:53	961887	10-2057	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
029f2901.d	247824001	YS1	09-MAR-2010 11:03	961887	10-2005	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
030f3001.d	1202064344	YS1	09-MAR-2010 11:14	961887	10-2005	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
031f3101.d	1202064345	YS1	09-MAR-2010 11:24	961887	10-2005	1.0	QC A	UPLOAD BOTH COLUMNS, USE HIGHER
032f3201.d	247828001	YS1	09-MAR-2010 11:35	961887	10-2000	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
033f3301.d	248017005	YS1	09-MAR-2010 11:46	961887	10-2039	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
034f3401.d	248042004	YS1	09-MAR-2010 11:58	961887	10-2057	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
035f3501.d	248042012	YS1	09-MAR-2010 12:11	961887	10-2057	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
036f3601.d	WAR100222-60 04	YS1	09-MAR-2010 12:23		030910	1.0		PASSED ON BOTH COLUMNS

Data File	GEL Lab Sample ID	Analyst	Injection Date/Time	Batch	SDG	Dilution	Client	Comments
037f3701.d	WAR100219-99 05	YS1	09-MAR-2010 12:34		030910	1.0		CLEAN
038f3801.d	248047005	YS1	09-MAR-2010 12:44	961887	10-2045	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
039f3901.d	248047009	YS1	09-MAR-2010 12:57	961887	10-2045	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
040f4001.d	248047011	YS1	09-MAR-2010 13:09	961887	10-2045	1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER

041f4101.d	248254001	YS1	09-MAR-2010 13:22	961887	10-2144		1.0	LANL	UPLOAD BOTH COLUMNS, USE HIGHER
042f4201.d	WAR100222-60 05	YS1	09-MAR-2010 13:35		030910		1.0		PASSED ON BOTH COLUMNS
043f4301.d	WAR100219-99 06	YS1	09-MAR-2010 13:45		030910		1.0		CLEAN

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/030f3001.d
Lab Smp Id: 1202064344 Client Smp ID: CAPA-10-13498MS
Inj Date : 09-MAR-2010 11:14
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202064344|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|GROUND WATER|MS|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 30 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.917	1.916	0.001	47591284	110.514	0.11	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.222	5.223	-0.001	33398484	108.687	0.11	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.370	2.370	0.000	9893183	643.068	0.64	80.00- 120.00	100.00
2.657	2.656	0.001	12749305	699.090	0.70	110.98- 150.98	128.87
2.737	2.736	0.001	8295359	687.528	0.69	60.40- 100.40	83.85
2.774	2.774	0.000	5055397	712.419	0.71	28.72- 68.72	51.10
2.984	2.984	0.000	6380526	715.932	0.72	42.25- 82.25	64.49

Average of Peak Concentrations = 0.69

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.709	3.710	-0.001	17819358	1043.75	1.0	80.00- 120.00	100.00
3.873	3.873	0.000	20518802	867.843	0.87	129.42- 169.42	115.15
4.034	4.035	-0.001	21815926	873.639	0.87	140.14- 180.14	122.43
4.103	4.102	0.001	11791923	818.561	0.82	70.18- 110.18	66.17
4.245	4.246	-0.001	12434935	861.710	0.86	73.99- 113.99	69.78
Average of Peak Concentrations =					0.88		

Data File: /chem/ecd1a.i/030910.b/030f3001.d

Page 1

Date : 09-MAR-2010 11:14

Client ID: CAPA-10-13498MS

Instrument: ecd1a.i

Sample Info: |1202064344|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

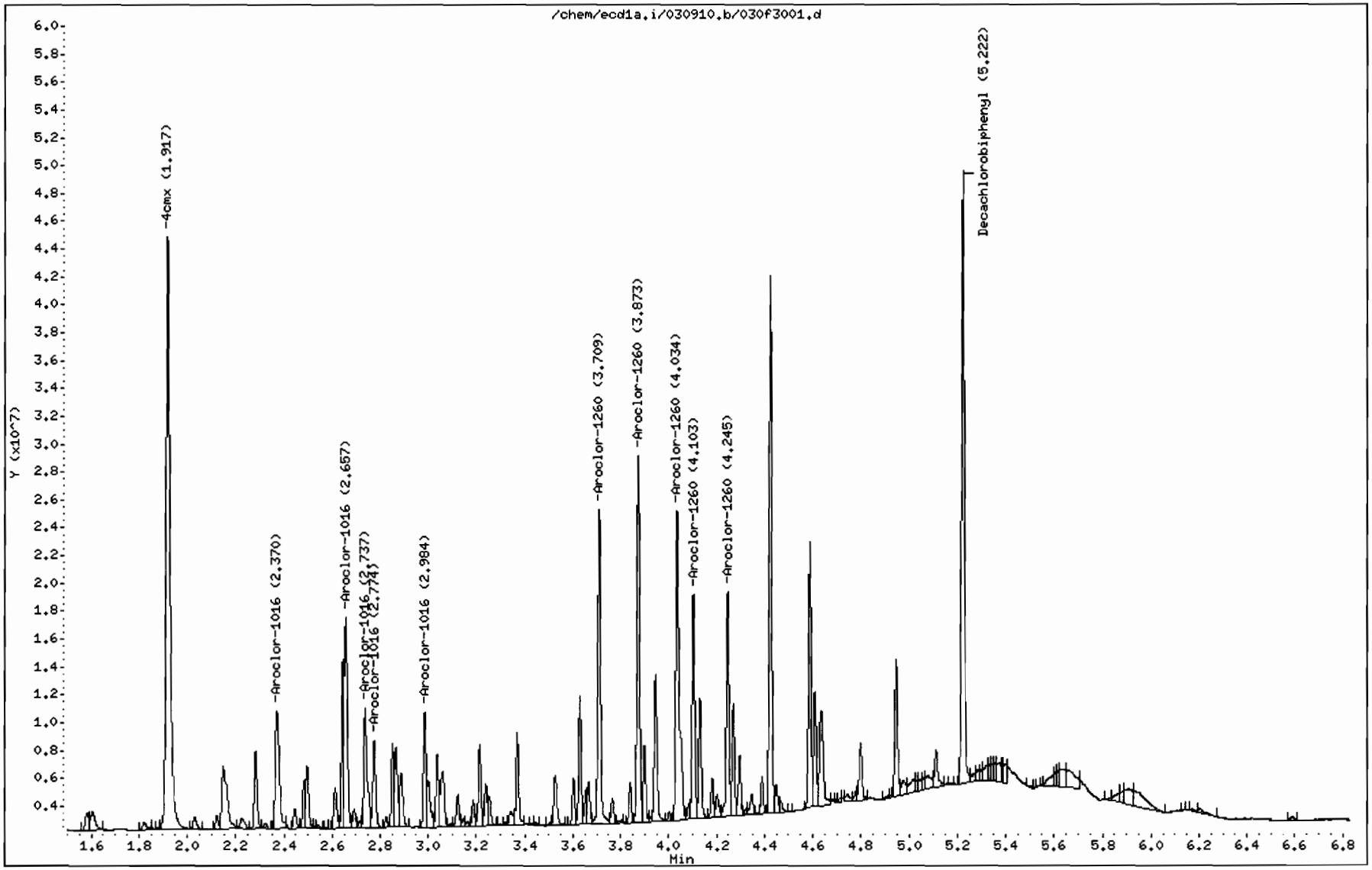

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/030b3001.d
Lab Smp Id: 1202064344 Client Smp ID: CAPA-10-13498MS
Inj Date : 09-MAR-2010 11:14
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202064344|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|GROUND WATER|MS|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 30 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.275	2.276	-0.001	32057930	107.795	0.11	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.918	5.918	0.000	22696873	107.315	0.11	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.170	3.170	0.000	9193222	718.794	0.72	80.00- 120.00	100.00(M)
3.254	3.253	0.001	6030752	676.251	0.68	44.54- 84.54	65.60
3.316	3.316	0.000	3462212	640.438	0.64	20.40- 60.40	37.66
3.544	3.544	0.000	4661986	674.122	0.67	30.67- 70.67	50.71
3.619	3.619	0.000	4326553	673.371	0.67	37.45- 77.45	56.81
Average of Peak Concentrations =					0.68		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.309	4.309	0.000	9367882	709.385	0.71	80.00- 120.00	100.00
4.434	4.435	-0.001	11434085	734.517	0.73	102.63- 142.63	122.06
4.699	4.700	-0.001	8226890	694.633	0.69	72.47- 112.47	87.82
4.873	4.873	0.000	8742121	716.497	0.72	76.60- 116.60	93.32
5.019	5.021	-0.002	20141504	759.278	0.76	195.80- 235.80	215.01
			Average of Peak Concentrations =		0.72		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/030910.b/030b3001.d

Date : 09-MAR-2010 11:14

Client ID: CAPA-10-13498MS

Sample Info: |1202064344|1|

Volume Injected (uL): 1.0

Column phase: CLP2

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

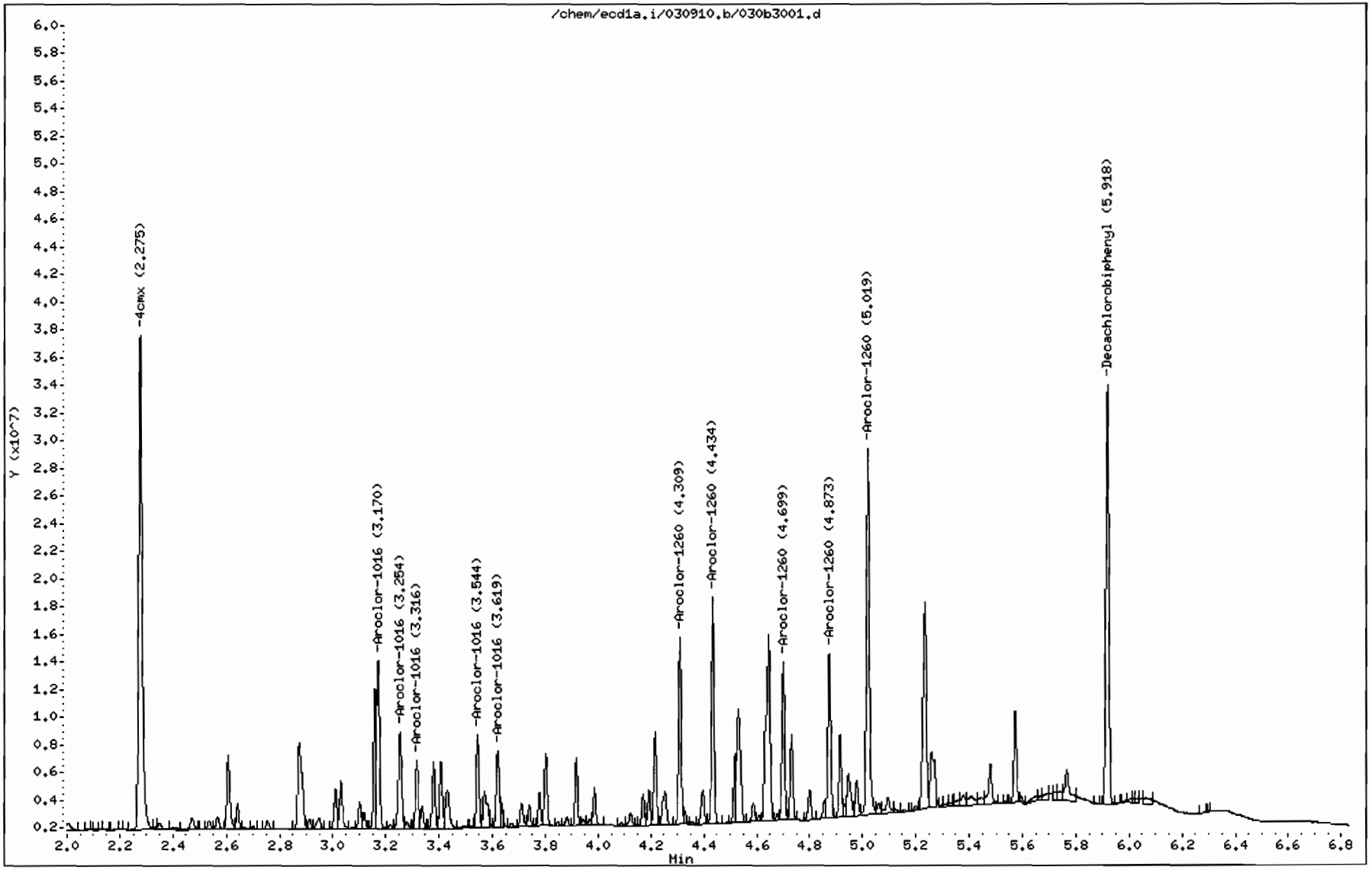

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/031f3101.d
Lab Smp Id: 1202064345 Client Smp ID: CAPA-10-13498MSD
Inj Date : 09-MAR-2010 11:24
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202064345|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|GROUND WATER|MSD|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 31 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.917	1.916	0.001	44063297	102.321	0.10	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.221	5.223	-0.002	32570646	105.993	0.10	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
2.370	2.370	0.000	9475701	615.931	0.62	80.00- 120.00	100.00
2.656	2.656	0.000	12057560	661.159	0.66	110.98- 150.98	127.25
2.737	2.736	0.001	8070058	668.855	0.67	60.40- 100.40	85.17
2.774	2.774	0.000	4866560	685.807	0.68	28.72- 68.72	51.36
2.985	2.984	0.001	6133904	688.260	0.69	42.25- 82.25	64.73
Average of Peak Concentrations =					0.66		

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
3.709	3.710	-0.001	16433416	962.571	0.96	80.00- 120.00	100.00
3.872	3.873	-0.001	19617120	829.706	0.83	129.42- 169.42	119.37
4.034	4.035	-0.001	20750712	830.981	0.83	140.14- 180.14	126.27
4.102	4.102	0.000	11220565	778.899	0.78	70.18- 110.18	68.28
4.244	4.246	-0.002	11430386	792.098	0.79	73.99- 113.99	69.56
Average of Peak Concentrations =					0.84		

Data File: /chem/ecd1a.i/030910.b/031f3101.d

Date : 09-MAR-2010 11:24

Client ID: CAPA-10-13498MSD

Sample Info: |1202064345|1|

Volume Injected (uL): 1.0

Column phase: CLP1

Instrument: ecd1a.i

Operator: YS1

Column diameter: 0.25

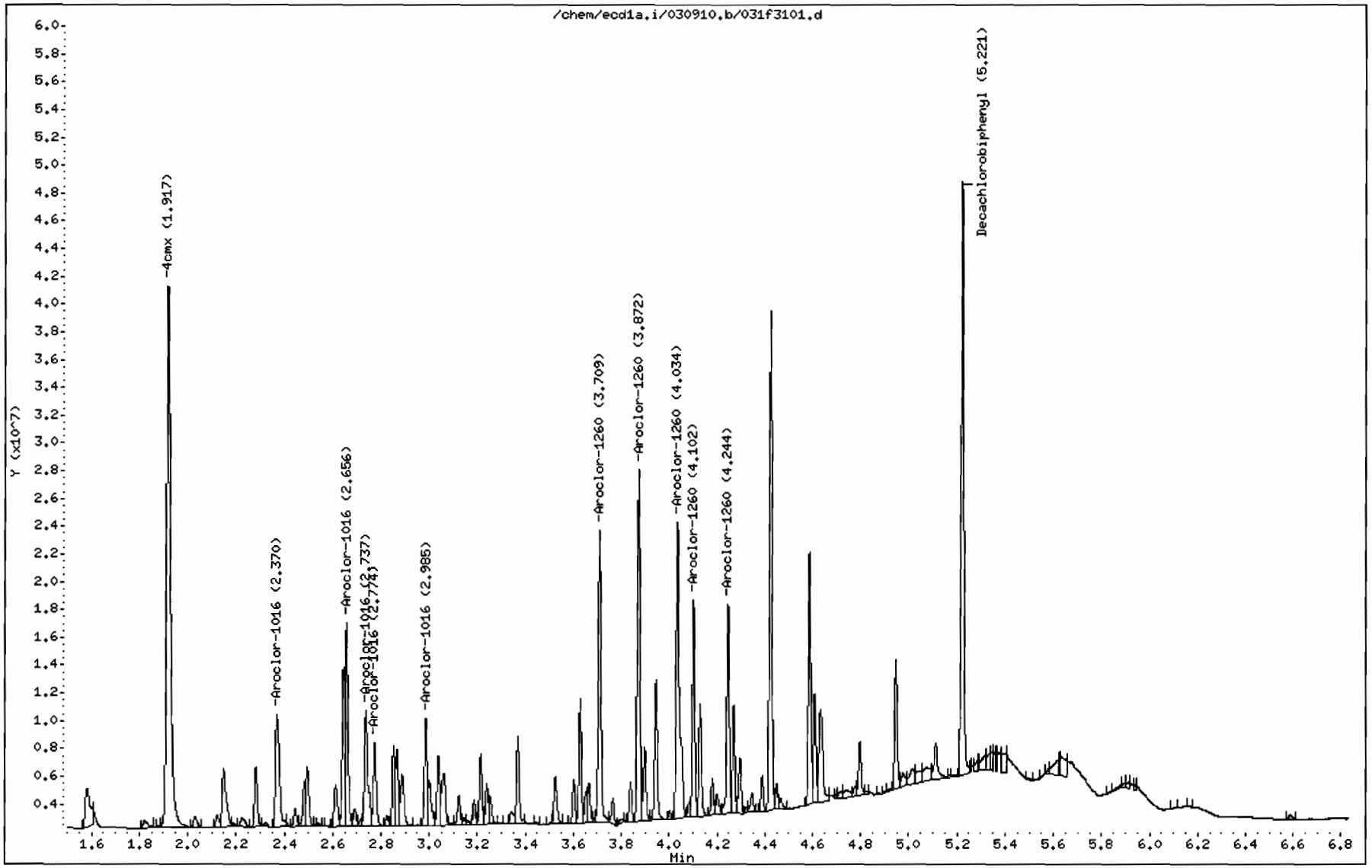

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/031b3101.d
Lab Smp Id: 1202064345 Client Smp ID: CAPA-10-134980MSD
Inj Date : 09-MAR-2010 11:24
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |1202064345|1|
Misc Info : |ECD82P_1L|961887|SVA|QC A|GROUND WATER|MSD|||
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 13:14 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 31 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 10-2005.sub
Target Version: 3.50 Sample Matrix: Ground Water
Processing Host: hpclp1

Concentration Formula: Amt * DF * Uf * Vt/(Vo * Vi) * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	Correction factor
Vt	0.50000	Volume of final extract (mL)
Vo	500.00000	Volume of sample extracted (mL)
Vi	1.00000	Volume injected (uL)

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.276	2.276	0.000	29887809	100.498	0.10	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.916	5.918	-0.002	21350593	100.949	0.10	80.00- 120.00	100.00
1 Aroclor-1016					CAS #: 12674-11-2		
3.171	3.170	0.001	8522856	666.380	0.67	80.00- 120.00	100.00(M)
3.253	3.253	0.000	5675559	636.421	0.64	44.54- 84.54	66.59
3.316	3.316	0.000	3224988	596.556	0.60	20.40- 60.40	37.84
3.544	3.544	0.000	4514145	652.745	0.65	30.67- 70.67	52.97
3.619	3.619	0.000	4079951	634.991	0.63	37.45- 77.45	57.99

Average of Peak Concentrations = 0.64

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
7 Aroclor-1260					CAS #: 11096-82-5		
4.309	4.309	0.000	9059472	686.030	0.69	80.00- 120.00	100.00
4.434	4.435	-0.001	11045449	709.551	0.71	102.63- 142.63	121.92
4.699	4.700	-0.001	7633008	644.489	0.64	72.47- 112.47	84.25
4.872	4.873	-0.001	8050204	659.788	0.66	76.60- 116.60	88.86
5.020	5.021	-0.001	18819313	709.435	0.71	195.80- 235.80	207.73
			Average of Peak Concentrations =		0.68		

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ecd1a.i/030910.b/031b3101.d

Page 1

Date : 09-MAR-2010 11:24

Client ID: CAPA-10-134980MSD

Instrument: ecd1a.i

Sample Info: |1202064345|1|

Volume Injected (uL): 1.0

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

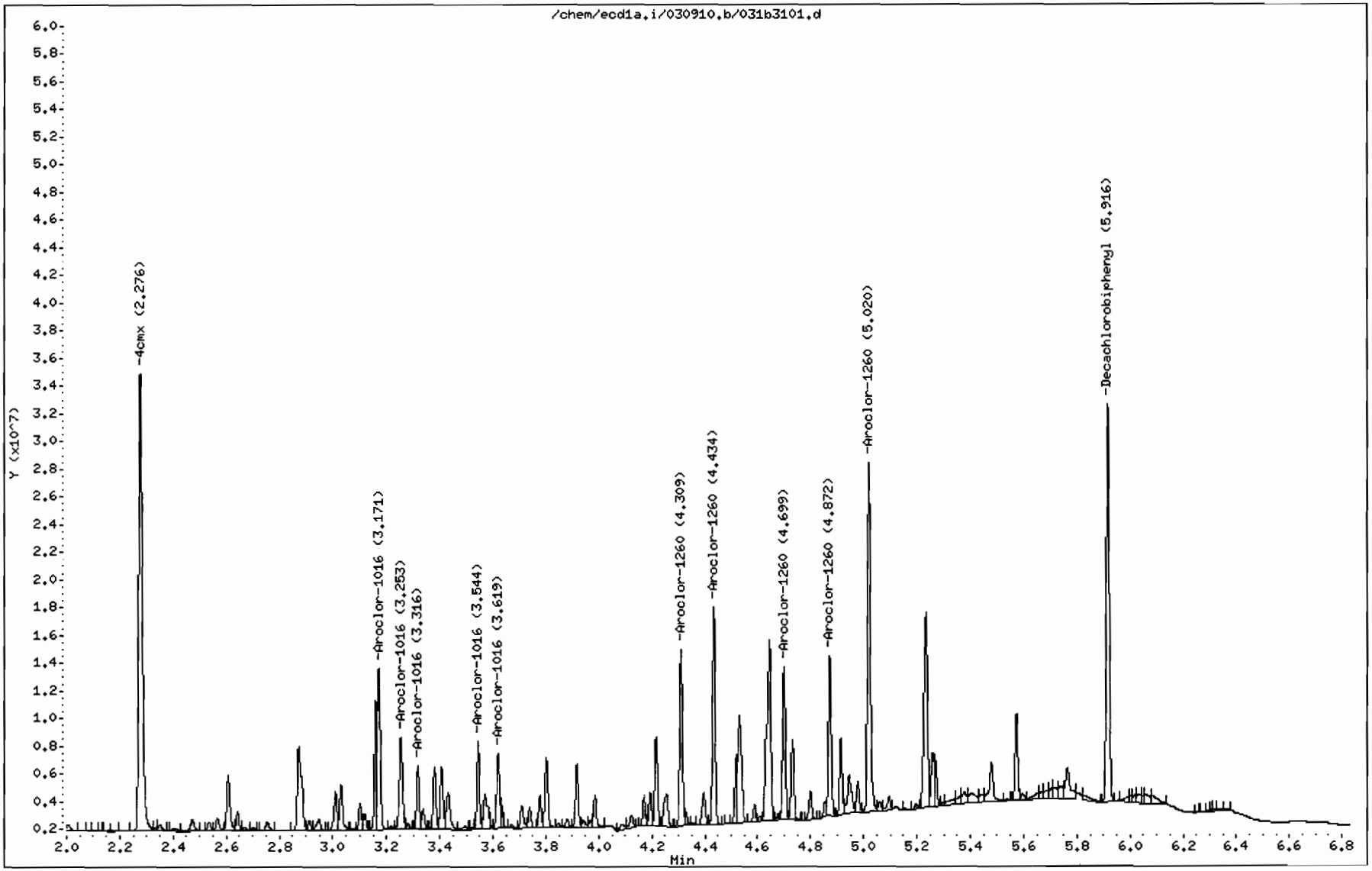

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/001f0101.d
Lab Smp Id: WAR100219-99 01 Client Smp ID: PIBLK01
Inj Date : 09-MAR-2010 05:55
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-99 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 07:39 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.914	1.916	-0.002	81368399	188.949	189	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.218	5.223	-0.005	63194167	205.650	206	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/001f0101.d

Page 1

Date : 09-MAR-2010 05:55

Client ID: PIBLK01

Instrument: ecd1a.i

Sample Info: IWAR100219-99 01

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

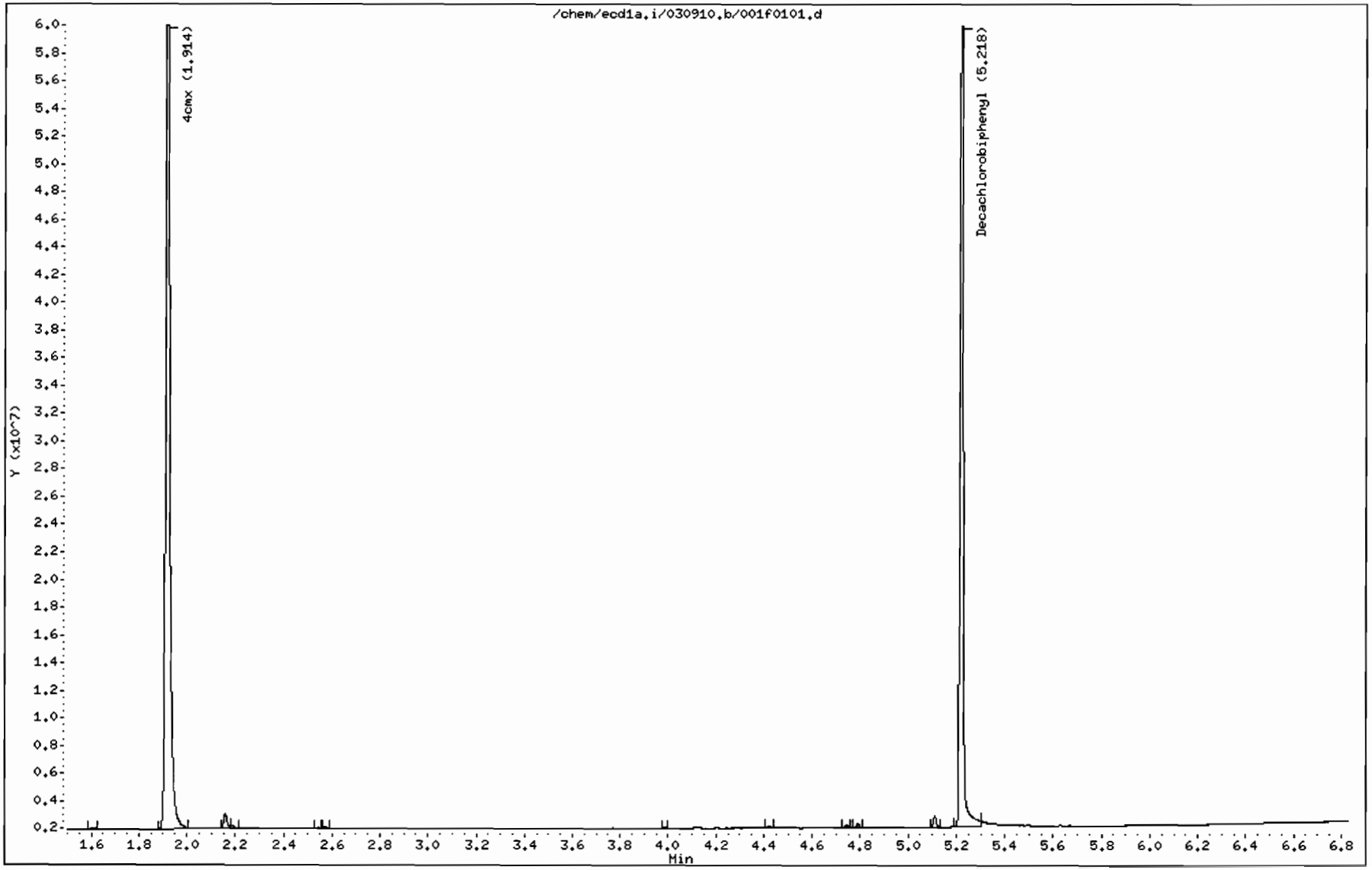

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/001b0101.d
Lab Smp Id: WAR100219-99 01 Client Smp ID: PIBLK01
Inj Date : 09-MAR-2010 05:55
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-99 01
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 07:38 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 1 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.273	2.276	-0.003	56445477	189.798	190	80.00- 120.00	100.00
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.915	5.918	-0.003	40227061	190.200	190	80.00- 120.00	100.00

Data File: /chem/ecd1a.i/030910.b/001b0101.d

Page 1

Date : 09-MAR-2010 05:55

Client ID: PIBLK01

Instrument: ecd1a.i

Sample Info: IWAR100219-99 01

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

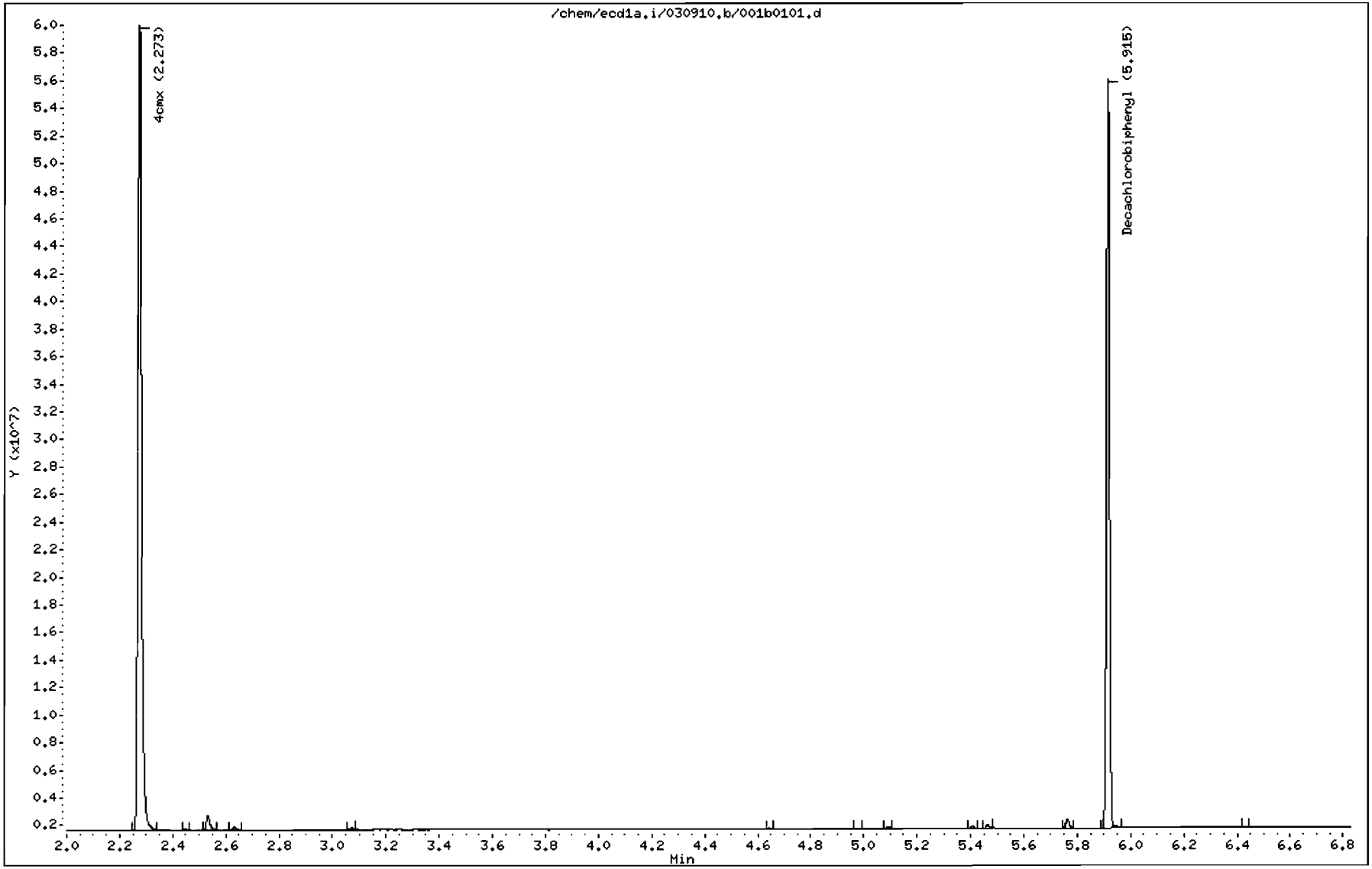

GEL Laboratories LLC

RTX-CLPEST1 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/026f2601.d
Lab Smp Id: WAR100219-99 04 Client Smp ID: PIBLK04
Inj Date : 09-MAR-2010 10:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-99 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-F-8082-022210.m
Meth Date : 09-Mar-2010 10:55 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036f3601.d
Als bottle: 26 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
1.917	1.916	0.001	86693797	201.315	201	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.221	5.223	-0.002	65245841	212.327	212	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd1a.i/030910.b/026f2601.d

Page 1

Date : 09-MAR-2010 10:32

Client ID: PIBLK04

Instrument: ecd1a.i

Sample Info: IWAR100219-99 04

Operator: YS1

Column phase: CLP1

Column diameter: 0.25

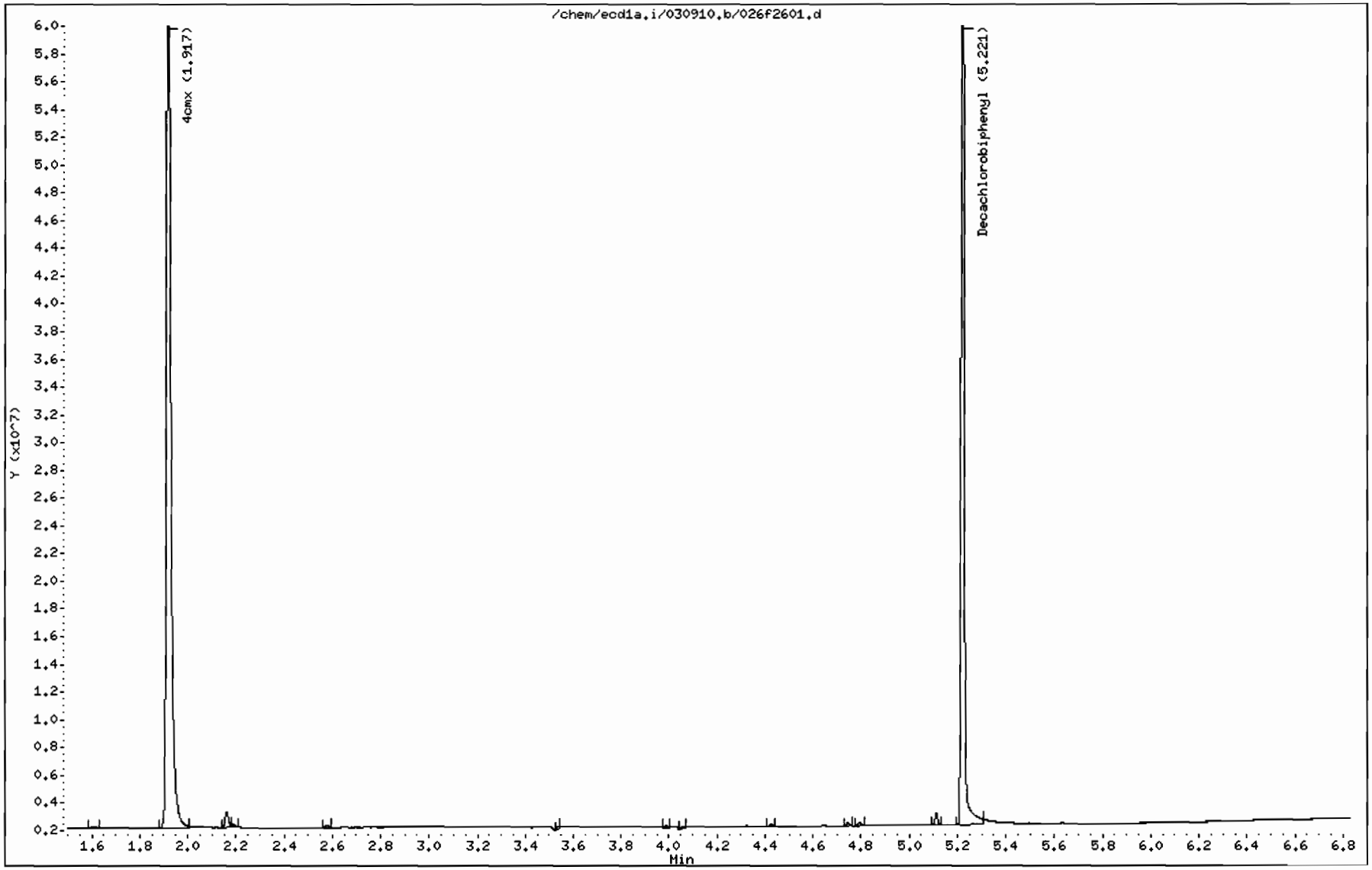

GEL Laboratories LLC

RTX-CLPEST2 30m/0.25 mm 1.0 INJ VOL

Data file : /chem/ecd1a.i/030910.b/026b2601.d
Lab Smp Id: WAR100219-99 04 Client Smp ID: PIBLK04
Inj Date : 09-MAR-2010 10:32
Operator : YS1 Inst ID: ecd1a.i
Smp Info : |WAR100219-99 04
Misc Info :
Comment :
Method : /chem/ecd1a.i/030910.b/ECD1-B-8082-022210.m
Meth Date : 09-Mar-2010 10:54 yip00818 Quant Type: ESTD
Cal Date : 22-FEB-2010 12:08 Cal File: 036b3601.d
Als bottle: 26 QC Sample: INSTBLK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 3.50 Sample Matrix: None

RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
$ 11 4cmx					CAS #: 877-09-8		
2.275	2.276	-0.001	57829684	194.453	194	80.00- 120.00	100.00(R)
$ 12 Decachlorobiphenyl					CAS #: 2051-24-3		
5.916	5.918	-0.002	42028829	198.719	199	80.00- 120.00	100.00(R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/ecd1a.i/030910.b/026b2601.d

Page 1

Date : 09-MAR-2010 10:32

Client ID: PIBLK04

Instrument: ecd1a.i

Sample Info: IWAR100219-99 04

Operator: YS1

Column phase: CLP2

Column diameter: 0.25

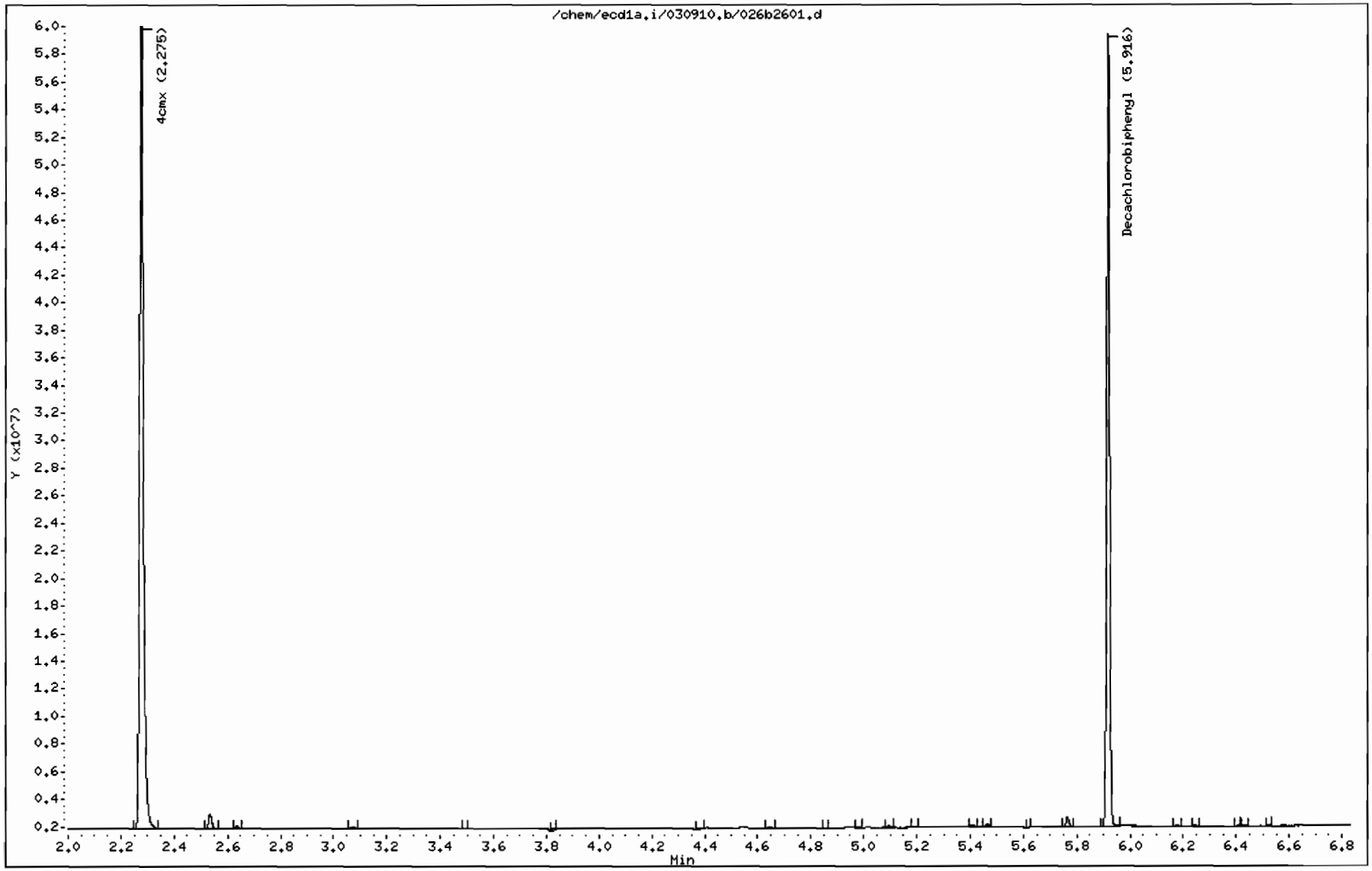

Prep Logbook

Extraction of Semivolatile and Nonvolatile Organic Compounds from Groundwater, Wastewater, and Other Aqueous Samples

Batch ID: 961885 **Verified by:** _____

Analyst: Sophia Cox

Method: SW846 3510C

Lab SOP: GL-OA-E-013 REV# 21

Instrument: Semi-Volatiles Manual

Sample ID	Run Date	Initial Volume (mL)	Initial pH	Int Ext pH	Clean Up	Prior to Clean up (mL)	Amount Cleaned (mL)	After Clean up (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202063177 MB	08-MAR-2010 14:29:00	1000	5	5	H2SO4/KMi2		2	8	1	0.001
1202063178 LCS	08-MAR-2010 14:29:00	1000	5	5	H2SO4/KMi2		2	8	1	0.001
247824001	08-MAR-2010 14:29:00	900	5	5	H2SO4/KMi2		2	8	1	0.00111
1202064344 MS (247824001)	08-MAR-2010 14:29:00	500	5	5	H2SO4/KMi2		2	8	0.5	0.001
1202064345 MSD (247824001)	08-MAR-2010 14:29:00	500	5	5	H2SO4/KMi2		2	8	0.5	0.001
247828001	08-MAR-2010 14:29:00	920	5	5	H2SO4/KMi2		2	8	1	0.00109
248017005	08-MAR-2010 14:29:00	940	5	5	H2SO4/KMi2		2	8	1	0.00106
248042004	08-MAR-2010 14:29:00	860	5	5	H2SO4/KMi2		2	8	1	0.00116
248042012	08-MAR-2010 14:29:00	870	5	5	H2SO4/KMi2		2	8	1	0.00115
248047005	08-MAR-2010 14:29:00	860	5	5	H2SO4/KMi2		2	8	1	0.00116
248047009	08-MAR-2010 14:29:00	920	6	6	H2SO4/KMi2		2	8	1	0.00109
248047011	08-MAR-2010 14:29:00	850	5	5	H2SO4/KMi2		2	8	1	0.00118
248254001	08-MAR-2010 14:29:00	980	5	5	H2SO4/KMi2		2	8	1	0.00102

Type	Sample Id	Description	Serial Number	Spike Amt	Units
LCS	1202063178	PCB Laboratory Control	WE100224-07	1	mL
MS	1202064344	PCB Laboratory Control	WE100224-07	.5	mL
MSD	1202064345	PCB Laboratory Control	WE100224-07	.5	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100222-15	.5	mL
SURR	All	PEST LOW LEVEL SURROGATE 200 UG/L	UE100222-15	1	mL
REGNT	All	Hexane	100211-B2	5	mL
REGNT	All	Methylene Chloride	100301-D	180	mL
REGNT	All	Sulfuric Acid Sol., 1:1	1271216	5	mL
REGNT	All	5% Potassium Permanganate	B1275177-F	5	mL
SOURC	All	SODIUM SULFATE	1269268	30	g

Comments:

Clean up Date: 03-08-10

Clean up Initials: SCC

Verified By: JAC

Final Solvent: HEXANE

Clean Up SOP: GL-OA-E-037

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2057

Method/Analysis Information

Product: **Carbon, Total Organic**

Analytical Batch: 959246 **Method:** SW 9060 Total Organic Carbon

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SW846 9060:

Sample ID	Client ID
248042002	CAPA-10-12771
248042010	CAPA-10-13085
248042013	CAPA-10-13320
1202057266	Method Blank (MB)
1202057267	246959005(CAMO-10-9370) Sample Duplicate (DUP)
1202057268	248126003(WSTPU-10-13398) Sample Duplicate (DUP)
1202057269	246959005(CAMO-10-9370) Post Spike (PS)
1202057270	248126003(WSTPU-10-13398) Post Spike (PS)
1202057271	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-093 REV# 9.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Carbon analysis was performed on a O-I Analytical Model 1010 Total Organic Carbon Analyzer.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within

acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 246959005 (CAMO-10-9370) and 248126003 (WSTPU-10-13398).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202057267 (CAMO-10-9370).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1202057268 (WSTPU-10-13398) and 1202057270 (WSTPU-10-13398).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
A 15 mg/L Total Inorganic Carbon check standard is analyzed with each analytical run to prove that the instrument is effectively sparging away the inorganic carbon.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Total Kjeldahl Nitrogen**		
Analytical Batch:	958135	**Method:**	Nitrogen and Total Kjeldahl (TKN)
Prep Batch :	958133	**Method:**	EEPA 351.2 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 351.2:

Sample ID	Client ID
248042002	CAPA-10-12771
248042010	CAPA-10-13085
248042013	CAPA-10-13320
1202054670	Method Blank (MB)
1202054671	246959005(CAMO-10-9370) Sample Duplicate (DUP)
1202054672	248074001(SWWS46-10-13636) Sample Duplicate (DUP)
1202054673	246959005(CAMO-10-9370) Matrix Spike (MS)
1202054674	248074001(SWWS46-10-13636) Matrix Spike (MS)
1202054675	246959005(CAMO-10-9370) Matrix Spike Duplicate (MSD)
1202054676	248074001(SWWS46-10-13636) Matrix Spike Duplicate (MSD)
1202054677	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-104 REV# 8.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 246959005 (CAMO-10-9370) and 248074001 (SWWS46-10-13636).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202054673 (CAMO-10-9370) and 1202054674 (SWWS46-10-13636).

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202054675 (CAMO-10-9370) and 1202054676 (SWWS46-10-13636).

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202054671 (CAMO-10-9370).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following samples were re-analyzed due to LCS failure: 1202054670 (MB), 1202054671 (CAMO-10-9370), 1202054673 (CAMO-10-9370), 1202054675 (CAMO-10-9370), 1202054677 (LCS), 248042002 (CAPA-10-12771) and 248042010 (CAPA-10-13085).

Miscellaneous Information

Data Exception (DER) Documentation

The following DER was generated for this SDG: 798784 1202054673 (CAMO-10-9370), 1202054674 (SWWS46-10-13636), 1202054675 (CAMO-10-9370) and 1202054676 (SWWS46-10-13636).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Nick-Cole A. Elmore **Date:** 3·24·10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2057 GEL Work Order: 248042

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Nick-Cole A. Elmore 3.24.10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2057

Client Sample ID:	CAPA-10-12771	Project:	ESHL01000
Sample ID:	248042002	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	22-FEB-10 12:00		
Receive Date:	25-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis											
SW 9060 Total Organic Carbon "As Received"											
Total Organic Carbon Average		1.97	0.330	1.00	mg/L	1	TSM	03/02/10	1854	959246	1
Nutrient Analysis											
Nitrogen, Total Kjeldahl (TKN) "As Received"											
Nitrogen, Total Kjeldahl	U	ND	0.033	0.100	mg/L	1	AXH3	03/03/10	1434	958135	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 351.2 Prep	EPA 351.2 Total Kjeldahl Nitrogen Prep	SXJ1	03/01/10	1100	958133

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9060	
2	EPA 351.2	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2057

Client Sample ID:	CAPA-10-13085	Project:	ESHL01000
Sample ID:	248042010	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	23-FEB-10 12:00		
Receive Date:	25-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Carbon Analysis										
SW 9060 Total Organic Carbon "As Received"										
Total Organic Carbon Average	J	0.853	0.330	1.00	mg/L	1	TSM 03/02/10	1945	959246	1
Nutrient Analysis										
Nitrogen, Total Kjeldahl (TKN) "As Received"										
Nitrogen, Total Kjeldahl	J	0.085	0.033	0.100	mg/L	1	AXH3 03/03/10	1434	958135	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 351.2 Prep	EPA 351.2 Total Kjeldahl Nitrogen Prep	SXJ1	03/01/10	1100	958133

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9060	
2	EPA 351.2	

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2057

Client Sample ID:	CAPA-10-13320	Project:	ESHL01000
Sample ID:	248042013	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	23-FEB-10 12:00		
Receive Date:	25-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Carbon Analysis											
SW 9060 Total Organic Carbon "As Received"											
Total Organic Carbon Average	J	0.781	0.330	1.00	mg/L	1	TSM	03/02/10	2019	959246	1
Nutrient Analysis											
Nitrogen, Total Kjeldahl (TKN) "As Received"											
Nitrogen, Total Kjeldahl	J	0.059	0.033	0.100	mg/L	1	AXH3	03/03/10	1435	958135	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 351.2 Prep	EPA 351.2 Total Kjeldahl Nitrogen Prep	SXJ1	03/01/10	1100	958133

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 9060	
2	EPA 351.2	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: March 24, 2010
Page 1 of 2

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 248042

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Carbon Analysis											
Batch 959246											
QC1202057267 246959005 DUP											
Total Organic Carbon Average		J	0.346	J	0.491	mg/L	34.6 ^		(+/-1.00)	TSM	03/02/10 16:11
QC1202057268 248126003 DUP											
Total Organic Carbon Average			28.5		27.7	mg/L	2.67		(0%-20%)		03/03/10 15:00
QC1202057271 LCS											
Total Organic Carbon Average	10.0				9.94	mg/L		99.4	(85%-115%)		03/02/10 15:29
QC1202057266 MB											
Total Organic Carbon Average				U	ND	mg/L					03/02/10 15:20
QC1202057269 246959005 PS											
Total Organic Carbon Average	10.0	J	0.346		10.0	mg/L		96.8	(65%-121%)		03/02/10 16:31
QC1202057270 248126003 PS											
Total Organic Carbon Average	10.0		14.2		22.6	mg/L		84.2	(65%-121%)		03/03/10 15:20
Nutrient Analysis											
Batch 958135											
QC1202054671 246959005 DUP											
Nitrogen, Total Kjeldahl		J	0.042	U	ND	mg/L	200 ^			AXH3	03/03/10 14:22
QC1202054672 248074001 DUP											
Nitrogen, Total Kjeldahl			1.26		1.14	mg/L	10.6		(0%-20%)		03/03/10 14:26
QC1202054677 LCS											
Nitrogen, Total Kjeldahl	1.00				1.03	mg/L		103	(90%-110%)		03/03/10 14:21
QC1202054670 MB											
Nitrogen, Total Kjeldahl				J	0.084	mg/L					03/03/10 14:20
QC1202054673 246959005 MS											
Nitrogen, Total Kjeldahl	1.00	J	0.042		0.898	mg/L		85.6*	(90%-110%)		03/03/10 14:23
QC1202054674 248074001 MS											
Nitrogen, Total Kjeldahl	1.00		1.26		2.02	mg/L		75.3*	(90%-110%)		03/03/10 14:26
QC1202054675 246959005 MSD											
Nitrogen, Total Kjeldahl	1.00	J	0.042		0.897	mg/L	0.111	85.5*	(0%-20%)		03/03/10 14:24
QC1202054676 248074001 MSD											
Nitrogen, Total Kjeldahl	1.00		1.26		2.42	mg/L	18.1	115*	(0%-20%)		03/03/10 14:27

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample

QC Summary

Workorder: 248042

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
JNX	Non Calibrated Compound
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UJ	Compound cannot be extracted
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 24-MAR-2010 15:40

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-2057

Carbon Analysis

Method: SW846 9060 Concentration Units:mg/L

Instrument: O-I Analytical Model 1010 Total Organic Carbon Analyzer

Parmname: Total Organic Carbon
Average

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**02-MAR-2010 11:24:00**	**XQ054.rlt**	**9.934**	**10**	**99.3**	**(90%-110%)**	**Yes**
CCV	02-MAR-2010 15:02:00	XQ063.rlt	9.939	10	99.4	(90%-110%)	Yes
CCV	02-MAR-2010 19:28:00	XQ075.rlt	10.244	10	102	(90%-110%)	Yes
CCV	03-MAR-2010 00:09:00	XQ086.rlt	10.78	10	108	(90%-110%)	Yes
ICV	**03-MAR-2010 12:17:00**	**XQ111.rlt**	**9.898**	**10**	**99**	**(90%-110%)**	**Yes**
CCV	03-MAR-2010 13:35:00	XQ114.rlt	10.333	10	103	(90%-110%)	Yes
CCV	03-MAR-2010 15:29:00	XQ120.rlt	10.662	10	107	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**02-MAR-2010 11:33:00**	**XQ055.rlt**	**0.084**	**1**	**Yes**
CCB	02-MAR-2010 15:11:00	XQ064.rlt	0.023	1	Yes
CCB	02-MAR-2010 19:37:00	XQ076.rlt	0.054	1	Yes
CCB	03-MAR-2010 00:18:00	XQ087.rlt	0.053	1	Yes
ICB	**03-MAR-2010 12:26:00**	**XQ112.rlt**	**0.186**	**1**	**Yes**
CCB	03-MAR-2010 13:44:00	XQ115.rlt	0.167	1	Yes
CCB	03-MAR-2010 15:38:00	XQ121.rlt	0.256	1	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 24-MAR-2010 15:40

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-2057

Nutrient Analysis

Method: EPA 351.2 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Nitrogen, Total Kjeldahl

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**03-MAR-2010 14:04:16**	**OM_3-3-2010_13-56-41**	**0.975**	**1**	**97.5**	**(90%-110%)**	**Yes**
CCV	03-MAR-2010 14:16:25	OM_3-3-2010_13-56-41	0.963	1	96.3	(90%-110%)	Yes
CCV	03-MAR-2010 14:28:36	OM_3-3-2010_13-56-41	1.002	1	100	(90%-110%)	Yes
CCV	03-MAR-2010 14:41:42	OM_3-3-2010_13-56-41	0.977	1	97.7	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**03-MAR-2010 14:06:12**	**OM_3-3-2010_13-56-41**	**-0.035**	**0.1**	**Yes**
CCB	03-MAR-2010 14:18:20	OM_3-3-2010_13-56-41	0.014	0.1	Yes
CCB	03-MAR-2010 14:30:32	OM_3-3-2010_13-56-41	-0.008	0.1	Yes
CCB	03-MAR-2010 14:43:37	OM_3-3-2010_13-56-41	0.007	0.1	Yes

Carbon, Total Organic

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
ICAL-01		1	TSM	2-Mar-10 10:39	XQ049.rlt
ICAL-02		1	TSM	2-Mar-10 10:48	XQ050.rlt
ICAL-03		1	TSM	2-Mar-10 10:57	XQ051.rlt
ICAL-04		1	TSM	2-Mar-10 11:06	XQ052.rlt
ICAL-05		1	TSM	2-Mar-10 11:15	XQ053.rlt
ICV		1	TSM	2-Mar-10 11:24	XQ054.rlt
ICB		1	TSM	2-Mar-10 11:33	XQ055.rlt
TIC	959246	1	TSM	2-Mar-10 11:43	XQ056.rlt
CCV		1	TSM	2-Mar-10 15:02	XQ063.rlt
CCB		1	TSM	2-Mar-10 15:11	XQ064.rlt
1202057266	959246	1	TSM	2-Mar-10 15:20	XQ065.rlt
1202057271	959246	1	TSM	2-Mar-10 15:29	XQ066.rlt
246959005	959246	1	TSM	2-Mar-10 15:38	XQ067.rlt
1202057267	959246	1	TSM	2-Mar-10 16:11	XQ068.rlt
1202057269	959246	1	TSM	2-Mar-10 16:31	XQ069.rlt
246959010	959246	1	TSM	2-Mar-10 16:40	XQ070.rlt
247824003	959246	1	TSM	2-Mar-10 17:13	XQ071.rlt
247828003	959246	1	TSM	2-Mar-10 17:47	XQ072.rlt
24817003	959246	1	TSM	2-Mar-10 18:20	XQ073.rlt
248042002	959246	1	TSM	2-Mar-10 18:54	XQ074.rlt
CCV		1	TSM	2-Mar-10 19:28	XQ075.rlt
CCB		1	TSM	2-Mar-10 19:37	XQ076.rlt
248042010	959246	1	TSM	2-Mar-10 19:45	XQ077.rlt
248042013	959246	1	TSM	2-Mar-10 20:19	XQ078.rlt
248047003	959246	1	TSM	2-Mar-10 20:52	XQ079.rlt
248047007	959246	1	TSM	2-Mar-10 21:26	XQ080.rlt
248126003	959246	1	TSM	2-Mar-10 21:59	XQ081.rlt
1202057268	959246	1	TSM	2-Mar-10 22:33	XQ082.rlt
1202057270	959246	1	TSM	2-Mar-10 22:53	XQ083.rlt
248170003	959246	1	TSM	2-Mar-10 23:01	XQ084.rlt
248170004	959246	1	TSM	2-Mar-10 23:35	XQ085.rlt
CCV		1	TSM	3-Mar-10 0:09	XQ086.rlt
CCB		1	TSM	3-Mar-10 0:18	XQ087.rlt
CCV		1	TSM	3-Mar-10 0:27	XQ088.rlt
CCB		1	TSM	3-Mar-10 0:36	XQ089.rlt
1202058021	959561	1	TSM	3-Mar-10 0:45	XQ090.rlt
1202058024	959561	1	TSM	3-Mar-10 0:53	XQ091.rlt
248133001	959561	1	TSM	3-Mar-10 1:02	XQ092.rlt
1202058022	959561	1	TSM	3-Mar-10 1:35	XQ093.rlt
1202058023	959561	1	TSM	3-Mar-10 1:55	XQ094.rlt
248133004	959561	1	TSM	3-Mar-10 2:04	XQ095.rlt
248133005	959561	1	TSM	3-Mar-10 2:37	XQ096.rlt
248139001	959561	1	TSM	3-Mar-10 3:11	XQ097.rlt
248139002	959561	1	TSM	3-Mar-10 3:44	XQ098.rlt
248139003	959561	1	TSM	3-Mar-10 4:18	XQ099.rlt
CCV		1	TSM	3-Mar-10 4:52	XQ100.rlt
CCB		1	TSM	3-Mar-10 5:01	XQ101.rlt
248139004	959561	1	TSM	3-Mar-10 5:09	XQ102.rlt
CCV		1	TSM	3-Mar-10 5:43	XQ103.rlt
CCB		1	TSM	3-Mar-10 5:52	XQ104.rlt

```
*******************************************************************
**                          CONFIGURATION                        **
*******************************************************************

Analysis Mode:  TOC         Spl Intro:  Autosampler 53
Remote Start :  OFF

Loop Size:  5 mL        Actual Volume  1mL   5mL   10mL   25mL
                        -------------  ----  ----  -----  -----
                         Loop A (uL):  1000  4900  10000  25000
                         Loop B (uL):  1000  4900  10000  25000

Tray Type:              53 Vial  Vial Option:                 Neither
Needle Depth:           97 %     Preacid Volume (uL):             200
Wash Needle Depth:      94 %     Preacid Purge Time (min:sec):   0:30

            TIC    TOC    TC
Blank      ----   ----   ----            Linearization Coeff:  53000
 Average:   141    788   2269

                          Sample Transfer Times (sec)
          Initial Fill          |        Loop Fill        | Sample Inject
     Non-AS    AS  AS w/Sep | Non-AS    AS  AS w/Sep |    (all)
     ------  ----- -------- | ------  ----- -------- | -------------
1mL:    6.0    4.5      3.5 |    1.2    1.2      1.0 |      4.5
5mL:    8.1    7.0      8.0 |    5.1    3.0      5.5 |     10.3
10mL:  14.2   12.2     11.0 |   10.5   10.5     11.0 |     16.5
25mL:  35.0   35.0     32.0 |    n/a    n/a      n/a |     38.0

Analog Concentration Signal indicates TOC
Analog Conc. Signal Timer is OFF, Timer duration (h:m:s): 00:00:00
Min Signal Range:   0.000 ppmC,  Max Signal Range:   0.000 ppmC

Alarms DISABLED
Alarm Relay Timer is OFF, Timer duration (h:m:s): 00:00:00
       Conc. Alarm Setpoints (ppm C)
          Low       |    High
      -----------   | -----------
TIC:     0.000          0.000
TOC:     0.000          0.000
TC:      0.000          0.000
```

```
*******************************************************************
**                          CALIBRATION                          **
*******************************************************************
```

03/02/10 Tue Mar 02 11:15:21 2010

Std. #	Used	Conc. (ppm)	Volume (mL)
1	Yes	20.000	5.000
2	Yes	10.000	5.000
3	Yes	1.000	5.000
4	Yes	0.200	5.000
5	Yes	0.000	5.000

RF (ugC/k-cts):	1.156
R-Squared:	0.9998
Offset (cts):	1069
Offset (ugC):	-1.237
Calibration Mode:	TOC
Allow Editing:	No

Rep	Std. 1	Std. 2	Std. 3	Std. 4	Std. 5
1	86301	42467	5320	2063	1420
2	-	-	-	-	-
3	-	-	-	-	-
4	-	-	-	-	-
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	-
9	-	-	-	-	-
10	-	-	-	-	-

(* = unused)

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
1	Blk	1	02Mar2010	10:08	-	-	-	590	-	-	-	-	-
1	Blk	2	02Mar2010	10:15	-	-	-	974	-	-	-	-	-
1	Blk	3	02Mar2010	10:21	-	-	-	1016	-	-	-	-	-
1	Blk	4	02Mar2010	10:30	-	-	-	615	-	-	-	-	-

** Std1 Name: ICAL-01 Data File: XQ049
Remarks: 959246|1|1| WTC100302-01 ID:TOC267

1	Std1	1	02Mar2010	10:39	-	-	-	86301	98.000	20.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.147
R-Squared: 1.0000
Offset (cts): 0
Offset (ugC): 0.000

** Std2 Name: ICAL-02 Data File: XQ050
Remarks: 959246|1|1| WTC100302-02 ID:TOC267

2	Std2	1	02Mar2010	10:48	-	-	-	42467	49.000	10.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.118
R-Squared: 1.0000
Offset (cts): -1367
Offset (ugC): 1.528

** Std3 Name: ICAL-03 Data File: XQ051
Remarks: 959246|1|1| WTC100302-03 ID:TOC267

3	Std3	1	02Mar2010	10:57	-	-	-	5320	4.900	1.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.149
R-Squared: 0.9997
Offset (cts): 617
Offset (ugC): -0.709

** Std4 Name: ICAL-04 Data File: XQ052
Remarks: 959246|1|1| WTC100302-04 ID:TOC267

4	Std4	1	02Mar2010	11:06	-	-	-	2063	0.980	0.200	-	-	-

** Calibration:
RF (ugC/k-cts): 1.153
R-Squared: 0.9998
Offset (cts): 900
Offset (ugC): -1.039

** Std5 Name: ICAL-05 Data File: XQ053
Remarks: 959246|1|1| ID:TOC267

5	Std5	1	02Mar2010	11:15	-	-	-	1420	0.000	0.000	-	-	-

** Calibration:
RF (ugC/k-cts): 1.156
R-Squared: 0.9998
Offset (cts): 1069
Offset (ugC): -1.237

```
** Chk2      Name:    ICV                          Data File: XQ054
             Remarks: 959246|1|1| WTC100302-05 ID:TOC267

6    Chk2    1 02Mar2010 11:24      -       -          -    43167  48.674      9.934      -       -          -

** Chk5      Name:    ICB                          Data File: XQ055
             Remarks: 959246|1|1| ID:TOC267

7    Chk5    1 02Mar2010 11:33      -       -          -     1424   0.410      0.084      -       -          -

** Spl       Name:    TIC                          Data File: XQ056
             Remarks: 959246|1|1| WIC100302-01 ID:TOC267

8    Spl     1 02Mar2010 11:43      -       -          -     1892   1.184      0.242      -       -          -
```

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
9	Blk	1	02Mar2010	14:54	-	-	-	465	-	-	-	-	-
** Chk2	Name: CCV						Data File: XQ063						
	Remarks: 959246|1|1| WTC100302-02 ID:TOC267												
9	Chk2	1	02Mar2010	15:02	-	-	-	43189	48.700	9.939	-	-	-
** Chk5	Name: CCB						Data File: XQ064						
	Remarks: 959246|1|1| ID:TOC267												
10	Chk5	1	02Mar2010	15:11	-	-	-	1168	0.114	0.023	-	-	-
** Chk5	Name: 1202057266						Data File: XQ065						
	Remarks: 959246|1|1| MB ID:TOC267												
11	Chk5	1	02Mar2010	15:20	-	-	-	1249	0.207	0.042	-	-	-
** Chk2	Name: 1202057271						Data File: XQ066						
	Remarks: 959246|1|1| WTC100302-05:LCS ID:TOC267												
12	Chk2	1	02Mar2010	15:29	-	-	-	43186	48.696	9.938	-	-	-
** Spl	Name: 246959005						Data File: XQ067						
	Remarks: 959246|1|1| ID:TOC267												
13	Spl	1	02Mar2010	15:38	-	-	-	2158	1.688	0.345	-	-	-
13	Spl	2	02Mar2010	15:46	-	-	-	2164	1.695	0.346	-	-	-
13	Spl	3	02Mar2010	15:53	-	-	-	2131	1.657	0.338	-	-	-
13	Spl	4	02Mar2010	16:03	-	-	-	2207	1.745	0.356	-	-	-
13	Spl	Avg						2165	1.696	0.346			
13	Spl	SDev						31.464					
13	Spl	%RSD						1.45					
** Spl	Name: 1202057267						Data File: XQ068						
	Remarks: 959246|1|1| 246959005:DUP ID:TOC267												
14	Spl	1	02Mar2010	16:11	-	-	-	2723	2.341	0.478	-	-	-
14	Spl	2	02Mar2010	16:21	-	-	-	2834	2.470	0.504	-	-	-
14	Spl	Avg						2778	2.406	0.491			
14	Spl	SDev						78.489					
14	Spl	%RSD						2.82					
** Spl	Name: 1202057269						Data File: XQ069						
	Remarks: 959246|1|1| 246959005:PS ID:TOC267												
15	Spl	1	02Mar2010	16:31	-	-	-	43192	49.133	10.027	-	-	-
** Spl	Name: 246959010						Data File: XQ070						
	Remarks: 959246|1|1| ID:TOC267												
16	Spl	1	02Mar2010	16:40	-	-	-	3328	3.041	0.621	-	-	-
16	Spl	2	02Mar2010	16:47	-	-	-	3561	3.310	0.676	-	-	-
16	Spl	3	02Mar2010	16:55	-	-	-	3373	3.093	0.631	-	-	-

16	Spl	4 02Mar2010 17:05	-	-	-	3339	3.054	0.623	-	-	-
16	Spl	Avg				3400	3.124	0.638			
16	Spl	SDev				108.865					
16	Spl	%RSD				3.20					

** Spl Name: 247824003 Data File: XQ071
Remarks: 959246|1|1| ID:TOC267

17	Spl	1 02Mar2010 17:13	-	-	-	4436	4.322	0.882	-	-	-
17	Spl	2 02Mar2010 17:21	-	-	-	4801	4.744	0.968	-	-	-
17	Spl	3 02Mar2010 17:29	-	-	-	4840	4.789	0.977	-	-	-
17	Spl	4 02Mar2010 17:38	-	-	-	4876	4.831	0.986	-	-	-
17	Spl	Avg				4738	4.671	0.953			
17	Spl	SDev				203.814					
17	Spl	%RSD				4.30					

** Spl Name: 247828003 Data File: XQ072
Remarks: 959246|1|1| ID:TOC267

18	Spl	1 02Mar2010 17:47	-	-	-	3737	3.514	0.717	-	-	-
18	Spl	2 02Mar2010 17:54	-	-	-	4117	3.953	0.807	-	-	-
18	Spl	3 02Mar2010 18:02	-	-	-	3974	3.788	0.773	-	-	-
18	Spl	4 02Mar2010 18:12	-	-	-	3940	3.748	0.765	-	-	-
18	Spl	Avg				3942	3.751	0.766			
18	Spl	SDev				156.714					
18	Spl	%RSD				3.98					

** Spl Name: 24817003 Data File: XQ073
Remarks: 959246|1|1| ID:TOC267

19	Spl	1 02Mar2010 18:20	-	-	-	4667	4.589	0.937	-	-	-
19	Spl	2 02Mar2010 18:28	-	-	-	5120	5.113	1.043	-	-	-
19	Spl	3 02Mar2010 18:36	-	-	-	4870	4.824	0.984	-	-	-
19	Spl	4 02Mar2010 18:45	-	-	-	4985	4.957	1.012	-	-	-
19	Spl	Avg				4910	4.871	0.994			
19	Spl	SDev				191.810					
19	Spl	%RSD				3.91					

** Spl Name: 248042002 Data File: XQ074
Remarks: 959246|1|1| ID:TOC267

20	Spl	1 02Mar2010 18:54	-	-	-	8401	8.906	1.818	-	-	-
20	Spl	2 02Mar2010 19:01	-	-	-	9249	9.887	2.018	-	-	-
20	Spl	3 02Mar2010 19:09	-	-	-	9185	9.813	2.003	-	-	-
20	Spl	4 02Mar2010 19:19	-	-	-	9324	9.974	2.035	-	-	-
20	Spl	Avg				9039	9.645	1.968			
20	Spl	SDev				429.606					
20	Spl	%RSD				4.75					

** Chk2 Name: CCV Data File: XQ075
Remarks: 959246|1|1| WTC100302-02 ID:TOC267

21	Chk2	1 02Mar2010 19:28	-	-	-	44483	50.196	10.244	-	-	-

** Chk5 Name: CCB Data File: XQ076
Remarks: 959246|1|1| ID:TOC267

22	Chk5	1 02Mar2010 19:37	-	-	-	1300	0.266	0.054	-	-	-

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** Spl      Name:    248042010                    Data File: XQ077
            Remarks: 959246|1|1| ID:TOC267

23   Spl    1 02Mar2010 19:45      -       -          -     4053   3.879      0.792      -       -          -
23   Spl    2 02Mar2010 19:53      -       -          -     4437   4.323      0.882      -       -          -
23   Spl    3 02Mar2010 20:01      -       -          -     4379   4.256      0.869      -       -          -
23   Spl    4 02Mar2010 20:10      -       -          -     4376   4.253      0.868      -       -          -
23   Spl  Avg                                             4311   4.178      0.853
23   Spl  SDev                                         174.441
23   Spl  %RSD                                            4.05


** Spl      Name:    248042013                    Data File: XQ078
            Remarks: 959246|1|1| ID:TOC267

24   Spl    1 02Mar2010 20:19      -       -          -     3952   3.762      0.768      -       -          -
24   Spl    2 02Mar2010 20:26      -       -          -     3951   3.761      0.768      -       -          -
24   Spl    3 02Mar2010 20:34      -       -          -     4122   3.959      0.808      -       -          -
24   Spl    4 02Mar2010 20:44      -       -          -     4004   3.822      0.780      -       -          -
24   Spl  Avg                                             4007   3.826      0.781
24   Spl  SDev                                          80.405
24   Spl  %RSD                                            2.01


** Spl      Name:    248047003                    Data File: XQ079
            Remarks: 959246|1|1| ID:TOC267

25   Spl    1 02Mar2010 20:52      -       -          -     8014   8.459      1.726      -       -          -
25   Spl    2 02Mar2010 21:00      -       -          -     8665   9.212      1.880      -       -          -
25   Spl    3 02Mar2010 21:08      -       -          -     8638   9.180      1.874      -       -          -
25   Spl    4 02Mar2010 21:17      -       -          -     8637   9.179      1.873      -       -          -
25   Spl  Avg                                             8488   9.008      1.838
25   Spl  SDev                                         316.599
25   Spl  %RSD                                            3.73


** Spl      Name:    248047007                    Data File: XQ080
            Remarks: 959246|1|1| ID:TOC267

26   Spl    1 02Mar2010 21:26      -       -          -     7428   7.781      1.588      -       -          -
26   Spl    2 02Mar2010 21:34      -       -          -     8195   8.668      1.769      -       -          -
26   Spl    3 02Mar2010 21:41      -       -          -     8062   8.514      1.738      -       -          -
26   Spl    4 02Mar2010 21:51      -       -          -     8059   8.511      1.737      -       -          -
26   Spl  Avg                                             7936   8.369      1.708
26   Spl  SDev                                         344.553
26   Spl  %RSD                                            4.34


** Spl      Name:    248126003                    Data File: XQ081
            Remarks: 959246|1|1| ID:TOC267

27   Spl    1 02Mar2010 21:59      -       -          -   102842 118.102     24.102      -       -          -
27   Spl    2 02Mar2010 22:07      -       -          -   121676 139.878     28.547      -       -          -
27   Spl    3 02Mar2010 22:15      -       -          -   122928 141.326     28.842      -       -          -
27   Spl    4 02Mar2010 22:24      -       -          -   123832 142.371     29.055      -       -          -
27   Spl  Avg                                           117819 135.419     27.637
27   Spl  SDev                                        10024.055
27   Spl  %RSD                                            8.51


** Spl      Name:    1202057268                   Data File: XQ082
            Remarks: 959246|1|1| 248126003:DUP ID:TOC267

28   Spl    1 02Mar2010 22:33      -       -          -   106870 122.759     25.053      -       -          -
```

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28   Spl    2 02Mar2010 22:42      -       -          -   122243 140.534     28.680      -       -          -
28   Spl  Avg                                             114556 131.646     26.867
28   Spl  SDev                                          10870.353
28   Spl  %RSD                                               9.49


** Spl      Name:    1202057270                    Data File: XQ083
            Remarks: 959246|1|1| 248126003:PS ID:TOC267

29   Spl    1 02Mar2010 22:53      -       -          -   158372 182.307     37.206      -       -          -


** Spl      Name:    248170003                     Data File: XQ084
            Remarks: 959246|1|1|  ID:TOC267

30   Spl    1 02Mar2010 23:01      -       -          -     9913  10.655      2.174      -       -          -
30   Spl    2 02Mar2010 23:09      -       -          -    10393  11.210      2.288      -       -          -
30   Spl    3 02Mar2010 23:17      -       -          -    10007  10.763      2.197      -       -          -
30   Spl    4 02Mar2010 23:26      -       -          -    10092  10.862      2.217      -       -          -
30   Spl  Avg                                              10101  10.872      2.219
30   Spl  SDev                                            207.786
30   Spl  %RSD                                               2.06


** Spl      Name:    248170004                     Data File: XQ085
            Remarks: 959246|1|1|  ID:TOC267

31   Spl    1 02Mar2010 23:35      -       -          -     9442  10.110      2.063      -       -          -
31   Spl    2 02Mar2010 23:42      -       -          -    10397  11.214      2.289      -       -          -
31   Spl    3 02Mar2010 23:50      -       -          -    10365  11.177      2.281      -       -          -
31   Spl    4 03Mar2010 00:00      -       -          -    10415  11.235      2.293      -       -          -
31   Spl  Avg                                              10154  10.934      2.231
31   Spl  SDev                                            475.616
31   Spl  %RSD                                               4.68


** Chk2     Name:    CCV                           Data File: XQ086
            Remarks: 959246|1|1| WTC100302-02  ID:TOC267

32   Chk2   1 03Mar2010 00:09      -       -          -    46755  52.823     10.780      -       -          -


** Chk5     Name:    CCB                           Data File: XQ087
            Remarks: 959246|1|1|  ID:TOC267

33   Chk5   1 03Mar2010 00:18      -       -          -     1295   0.261      0.053      -       -          -


** Chk2     Name:    CCV                           Data File: XQ088
            Remarks: 959561|1|1| WTC100302-02  ID:TOC267

34   Chk2   1 03Mar2010 00:27      -       -          -    46162  52.137     10.640      -       -          -


** Chk5     Name:    CCB                           Data File: XQ089
            Remarks: 959561|1|1|  ID:TOC267

35   Chk5   1 03Mar2010 00:36      -       -          -     1291   0.256      0.052      -       -          -


** Chk5     Name:    1202058021                    Data File: XQ090
            Remarks: 959561|1|1| MB ID:TOC267

36   Chk5   1 03Mar2010 00:45      -       -          -     1176   0.123      0.025      -       -          -
```

```
** Chk2      Name:    1202058024                    Data File: XQ091
             Remarks: 959561|1|1| WTC100302-05:LCS ID:TOC267

37   Chk2    1 03Mar2010 00:53      -       -          -    45800  51.719     10.555      -       -          -


** Sp1       Name:    248133001                     Data File: XQ092
             Remarks: 959561|1|1|  ID:TOC267

38   Sp1     1 03Mar2010 01:02      -       -          -     7480   7.842      1.600      -       -          -
38   Sp1     2 03Mar2010 01:10      -       -          -     9683  10.389      2.120      -       -          -
38   Sp1     3 03Mar2010 01:17      -       -          -     9732  10.445      2.132      -       -          -
38   Sp1     4 03Mar2010 01:27      -       -          -     9545  10.229      2.088      -       -          -
38   Sp1   Avg                                           9110   9.726      1.985
38   Sp1   SDev                                       1089.547
38   Sp1   %RSD                                          11.96


** Sp1       Name:    1202058022                    Data File: XQ093
             Remarks: 959561|1|1| 248133001:DUP ID:TOC267

39   Sp1     1 03Mar2010 01:35      -       -          -     7746   8.149      1.663      -       -          -
39   Sp1     2 03Mar2010 01:45      -       -          -     9965  10.715      2.187      -       -          -
39   Sp1   Avg                                           8855   9.432      1.925
39   Sp1   SDev                                       1569.070
39   Sp1   %RSD                                          17.72


** Sp1       Name:    1202058023                    Data File: XQ094
             Remarks: 959561|1|1| 248133001:PS ID:TOC267

40   Sp1     1 03Mar2010 01:55      -       -          -    49264  56.153     11.460      -       -          -


** Sp1       Name:    248133004                     Data File: XQ095
             Remarks: 959561|1|1| ID:TOC267

41   Sp1     1 03Mar2010 02:04      -       -          -    24806  27.874      5.689      -       -          -
41   Sp1     2 03Mar2010 02:11      -       -          -    30691  34.679      7.077      -       -          -
41   Sp1     3 03Mar2010 02:19      -       -          -    30709  34.700      7.082      -       -          -
41   Sp1     4 03Mar2010 02:29      -       -          -    30703  34.693      7.080      -       -          -
41   Sp1   Avg                                          29227  32.986      6.732
41   Sp1   SDev                                       2947.509
41   Sp1   %RSD                                          10.08


** Sp1       Name:    248133005                     Data File: XQ096
             Remarks: 959561|1|1| ID:TOC267

42   Sp1     1 03Mar2010 02:37      -       -          -    13693  15.025      3.066      -       -          -
42   Sp1     2 03Mar2010 02:45      -       -          -    17344  19.247      3.928      -       -          -
42   Sp1     3 03Mar2010 02:53      -       -          -    16857  18.684      3.813      -       -          -
42   Sp1     4 03Mar2010 03:02      -       -          -    16419  18.177      3.710      -       -          -
42   Sp1   Avg                                          16078  17.783      3.629
42   Sp1   SDev                                       1634.432
42   Sp1   %RSD                                          10.17


** Sp1       Name:    248139001                     Data File: XQ097
             Remarks: 959561|1|1| ID:TOC267

43   Sp1     1 03Mar2010 03:11      -       -          -    70702  80.941     16.518      -       -          -
43   Sp1     2 03Mar2010 03:18      -       -          -    84712  97.139     19.824      -       -          -
43   Sp1     3 03Mar2010 03:26      -       -          -    85989  98.616     20.126      -       -          -
```

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43   Sp1    4 03Mar2010 03:36      -       -          -    87955 100.889     20.590      -       -          -
43   Sp1  Avg                                             82339  94.396     19.264
43   Sp1  SDev                                          7872.163
43   Sp1  %RSD                                             9.56

** Sp1      Name:    248139002                    Data File: XQ098
            Remarks: 959561|1|1| ID:TOC267

44   Sp1    1 03Mar2010 03:44      -       -          -    12982  14.203      2.899      -       -          -
44   Sp1    2 03Mar2010 03:52      -       -          -    13647  14.972      3.056      -       -          -
44   Sp1    3 03Mar2010 04:00      -       -          -    13377  14.660      2.992      -       -          -
44   Sp1    4 03Mar2010 04:09      -       -          -    13397  14.683      2.997      -       -          -
44   Sp1  Avg                                             13350  14.629      2.986
44   Sp1  SDev                                           274.814
44   Sp1  %RSD                                              2.06

** Sp1      Name:    248139003                    Data File: XQ099
            Remarks: 959561|1|1| ID:TOC267

45   Sp1    1 03Mar2010 04:18      -       -          -     9371  10.028      2.046      -       -          -
45   Sp1    2 03Mar2010 04:26      -       -          -    10393  11.210      2.288      -       -          -
45   Sp1    3 03Mar2010 04:33      -       -          -    10243  11.036      2.252      -       -          -
45   Sp1    4 03Mar2010 04:43      -       -          -    10309  11.113      2.268      -       -          -
45   Sp1  Avg                                             10079  10.847      2.214
45   Sp1  SDev                                           475.975
45   Sp1  %RSD                                              4.72

** Chk2     Name:    CCV                          Data File: XQ100
            Remarks: 959561|1|1| WTC100302-02 ID:TOC267

46   Chk2   1 03Mar2010 04:52      -       -          -    45520  51.395     10.489      -       -          -

** Chk5     Name:    CCB                          Data File: XQ101
            Remarks: 959561|1|1| ID:TOC267

47   Chk5   1 03Mar2010 05:01      -       -          -     1397   0.379      0.077      -       -          -

** Sp1      Name:    248139004                    Data File: XQ102
            Remarks: 959561|1|1| ID:TOC267

48   Sp1    1 03Mar2010 05:09      -       -          -    21982  24.609      5.022      -       -          -
48   Sp1    2 03Mar2010 05:17      -       -          -    26719  30.086      6.140      -       -          -
48   Sp1    3 03Mar2010 05:25      -       -          -    27225  30.671      6.259      -       -          -
48   Sp1    4 03Mar2010 05:34      -       -          -    27179  30.618      6.249      -       -          -
48   Sp1  Avg                                             25776  28.996      5.918
48   Sp1  SDev                                          2539.796
48   Sp1  %RSD                                              9.85

** Chk2     Name:    CCV                          Data File: XQ103
            Remarks: 959561|1|1| WTC100302-02 ID:TOC267

49   Chk2   1 03Mar2010 05:43      -       -          -    47890  54.135     11.048      -       -          -

** Chk5     Name:    CCB                          Data File: XQ104
            Remarks: 959561|1|1| ID:TOC267

50   Chk5   1 03Mar2010 05:52      -       -          -     1615   0.631      0.129      -       -          -
```

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
ICAL-01		1	TSM	3-Mar-10 11:32	XQ106.rlt
ICAL-02		1	TSM	3-Mar-10 11:41	XQ107.rlt
ICAL-03		1	TSM	3-Mar-10 11:50	XQ108.rlt
ICAL-04		1	TSM	3-Mar-10 11:59	XQ109.rlt
ICAL-05		1	TSM	3-Mar-10 12:08	XQ110.rlt
ICV		1	TSM	3-Mar-10 12:17	XQ111.rlt
ICB		1	TSM	3-Mar-10 12:26	XQ112.rlt
TIC	960019	1	TSM	3-Mar-10 12:36	XQ113.rlt
CCV		1	TSM	3-Mar-10 13:35	XQ114.rlt
CCB		1	TSM	3-Mar-10 13:44	XQ115.rlt
248139001	959561	2	TSM	3-Mar-10 13:53	XQ116.rlt
248126003	959246	2	TSM	3-Mar-10 14:26	XQ117.rlt
1202057268	959246	2	TSM	3-Mar-10 15:00	XQ118.rlt
1202057270	959246	2	TSM	3-Mar-10 15:20	XQ119.rlt
CCV		1	TSM	3-Mar-10 15:29	XQ120.rlt
CCB		1	TSM	3-Mar-10 15:38	XQ121.rlt
CCV		1	TSM	3-Mar-10 15:47	XQ122.rlt
CCB		1	TSM	3-Mar-10 15:55	XQ123.rlt
1202059114	960019	1	TSM	3-Mar-10 16:04	XQ124.rlt
1202059117	960019	1	TSM	3-Mar-10 16:13	XQ125.rlt
248157002	960019	1	TSM	3-Mar-10 16:22	XQ126.rlt
248157003	960019	1	TSM	3-Mar-10 16:55	XQ127.rlt
248157004	960019	1	TSM	3-Mar-10 17:29	XQ128.rlt
248157005	960019	1	TSM	3-Mar-10 18:02	XQ129.rlt
248157006	960019	1	TSM	3-Mar-10 18:36	XQ130.rlt
248157007	960019	1	TSM	3-Mar-10 19:09	XQ131.rlt
248268003	960019	1	TSM	3-Mar-10 19:43	XQ132.rlt
248298001	960019	1	TSM	3-Mar-10 20:16	XQ133.rlt
CCV		1	TSM	3-Mar-10 20:51	XQ134.rlt
CCB		1	TSM	3-Mar-10 20:59	XQ135.rlt
248298002	960019	1	TSM	3-Mar-10 21:08	XQ136.rlt
248298003	960019	1	TSM	3-Mar-10 21:41	XQ137.rlt
1202059115	960019	1	TSM	3-Mar-10 22:15	XQ138.rlt
1202059116	960019	1	TSM	3-Mar-10 22:35	XQ139.rlt
CCV		1	TSM	3-Mar-10 22:44	XQ140.rlt
CCB		1	TSM	3-Mar-10 22:53	XQ141.rlt

```
*********************************************************************
**                          CALIBRATION                            **
*********************************************************************
```

03/03/10 Wed Mar 03 12:08:15 2010

Std. #	Used	Conc. (ppm)	Volume (mL)
1	Yes	20.000	5.000
2	Yes	10.000	5.000
3	Yes	1.000	5.000
4	Yes	0.200	5.000
5	Yes	0.000	5.000

RF (ugC/k-cts):	1.186
R-Squared:	0.9977
Offset (cts):	555
Offset (ugC):	-0.660
Calibration Mode:	TOC
Allow Editing:	No

Rep	Std. 1	Std. 2	Std. 3	Std. 4	Std. 5
1	84504	38786	5246	1950	1143
2	-	-	-	-	-
3	-	-	-	-	-
4	-	-	-	-	-
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	-
9	-	-	-	-	-
10	-	-	-	-	-

(* = unused)

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
1	Blk	1	03Mar2010	10:48	-	-	-	659	-	-	-	-	-
1	Blk	2	03Mar2010	10:54	-	-	-	545	-	-	-	-	-
1	Blk	3	03Mar2010	11:01	-	-	-	1019	-	-	-	-	-
1	Blk	4	03Mar2010	11:08	-	-	-	518	-	-	-	-	-
1	Blk	5	03Mar2010	11:14	-	-	-	411	-	-	-	-	-
1	Blk	6	03Mar2010	11:23	-	-	-	405	-	-	-	-	-

** Std1 Name: ICAL-01 Data File: XQ106
Remarks: 960019|1|1| WTC100303-01 ID:TOC267

1	Std1	1	03Mar2010	11:32	-	-	-	84504	98.000	20.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.166
R-Squared: 1.0000
Offset (cts): 0
Offset (ugC): 0.000

** Std2 Name: ICAL-02 Data File: XQ107
Remarks: 960019|1|1| WTC100303-02 ID:TOC267

2	Std2	1	03Mar2010	11:41	-	-	-	38786	49.000	10.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.072
R-Squared: 1.0000
Offset (cts): -6932
Offset (ugC): 7.430

** Std3 Name: ICAL-03 Data File: XQ108
Remarks: 960019|1|1| WTC100303-03 ID:TOC267

3	Std3	1	03Mar2010	11:50	-	-	-	5246	4.900	1.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.169
R-Squared: 0.9966
Offset (cts): -482
Offset (ugC): 0.564

** Std4 Name: ICAL-04 Data File: XQ109
Remarks: 960019|1|1| WTC100303-04 ID:TOC267

4	Std4	1	03Mar2010	11:59	-	-	-	1950	0.980	0.200	-	-	-

** Calibration: RF (ugC/k-cts): 1.182
R-Squared: 0.9973
Offset (cts): 273
Offset (ugC): -0.324

** Std5 Name: ICAL-05 Data File: XQ110
Remarks: 960019|1|1| WTC100303-05 ID:TOC267

5	Std5	1	03Mar2010	12:08	-	-	-	1143	0.000	0.000	-	-	-

** Calibration: RF (ugC/k-cts): 1.186
R-Squared: 0.9977
Offset (cts): 555
Offset (ugC): -0.660

```
** Chk2      Name:    ICV                          Data File: XQ111
             Remarks: 960019|1|1| WTC100303-05 ID:TOC267

6    Chk2    1 03Mar2010 12:17      -       -          -     41433  48.501      9.898      -       -          -

** Chk5      Name:    ICB                          Data File: XQ112
             Remarks: 960019|1|1| ID:TOC267

7    Chk5    1 03Mar2010 12:26      -       -          -      1325   0.913      0.186      -       -          -

** Spl       Name:    TIC                          Data File: XQ113
             Remarks: 960019|1|1| WIC100303-01 ID:TOC267

8    Spl     1 03Mar2010 12:36      -       -          -      1281   0.993      0.203      -       -          -
```

Pos/ Vial	Run Type	Rep #	Run Date	Run Time	TIC Area (cts)	TIC Mass (ugC)	TIC Conc (ppm)	TOC Area (cts)	TOC Mass (ugC)	TOC Conc (ppm)	TC Area (cts)	TC Mass (ugC)	TC Conc (ppm)
** Chk2		Name: CCV					Data File: XQ114						
		Remarks: 959561|1|2| WTC100303-02 ID:TOC267											
9	Chk2	1	03Mar2010	13:35	-	-	-	43228	50.630	10.333	-	-	-
** Chk5		Name: CCB					Data File: XQ115						
		Remarks: 959561|1|2| ID:TOC267											
10	Chk5	1	03Mar2010	13:44	-	-	-	1244	0.816	0.167	-	-	-
** Spl		Name: 248139001					Data File: XQ116						
		Remarks: 959561|2|2| ID:TOC267											
11	Spl	1	03Mar2010	13:53	-	-	-	35336	41.399	8.449	-	-	-
11	Spl	2	03Mar2010	14:00	-	-	-	41116	48.257	9.848	-	-	-
11	Spl	3	03Mar2010	14:08	-	-	-	41760	49.021	10.004	-	-	-
11	Spl	4	03Mar2010	14:18	-	-	-	42168	49.506	10.103	-	-	-
11	Spl	Avg						40095	47.046	9.601			
11	Spl	SDev						3202.087					
11	Spl	%RSD						7.99					
** Spl		Name: 248126003					Data File: XQ117						
		Remarks: 959246|2|2| ID:TOC267											
12	Spl	1	03Mar2010	14:26	-	-	-	53261	62.667	12.789	-	-	-
12	Spl	2	03Mar2010	14:34	-	-	-	61591	72.551	14.806	-	-	-
12	Spl	3	03Mar2010	14:42	-	-	-	61016	71.869	14.667	-	-	-
12	Spl	4	03Mar2010	14:51	-	-	-	60945	71.784	14.650	-	-	-
12	Spl	Avg						59203	69.718	14.228			
12	Spl	SDev						3972.046					
12	Spl	%RSD						6.71					
** Spl		Name: 1202057268					Data File: XQ118						
		Remarks: 959246|2|2| 248126003:DUP ID:TOC267											
13	Spl	1	03Mar2010	15:00	-	-	-	53909	63.436	12.946	-	-	-
13	Spl	2	03Mar2010	15:09	-	-	-	61397	72.321	14.759	-	-	-
13	Spl	Avg						57653	67.878	13.853			
13	Spl	SDev						5294.816					
13	Spl	%RSD						9.18					
** Spl		Name: 1202057270					Data File: XQ119						
		Remarks: 959246|2|2| 248126003:PS ID:TOC267											
14	Spl	1	03Mar2010	15:20	-	-	-	93980	110.980	22.649	-	-	-
** Chk2		Name: CCV					Data File: XQ120						
		Remarks: 959246|1|2| WTC100303-02 ID:TOC267											
15	Chk2	1	03Mar2010	15:29	-	-	-	44589	52.245	10.662	-	-	-
** Chk5		Name: CCB					Data File: XQ121						
		Remarks: 959246|1|2| ID:TOC267											

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16   Chk5   1 03Mar2010 15:38      -       -          -     1613   1.254      0.256      -       -          -

** Chk2     Name:    CCV                          Data File: XQ122
           Remarks: 960019|1|1| WTC100303-02 ID:TOC267

17   Chk2   1 03Mar2010 15:47      -       -          -    42982  50.339     10.273      -       -          -

** Chk5     Name:    CCB                          Data File: XQ123
           Remarks: 960019|1|1| ID:TOC267

18   Chk5   1 03Mar2010 15:55      -       -          -     1257   0.832      0.170      -       -          -

** Chk5     Name:    1202059114                   Data File: XQ124
           Remarks: 960019|1|1| MB ID:TOC267

19   Chk5   1 03Mar2010 16:04      -       -          -     1360   0.954      0.195      -       -          -

** Chk2     Name:    1202059117                   Data File: XQ125
           Remarks: 960019|1|1| WTC100303-05:LCS ID:TOC267

20   Chk2   1 03Mar2010 16:13      -       -          -    42389  49.635     10.130      -       -          -

** Spl      Name:    248157002                    Data File: XQ126
           Remarks: 960019|1|1| ID:TOC267

21   Spl    1 03Mar2010 16:22      -       -          -    85357 100.749     20.561      -       -          -
21   Spl    2 03Mar2010 16:29      -       -          -   104991 124.045     25.315      -       -          -
21   Spl    3 03Mar2010 16:37      -       -          -   102889 121.551     24.806      -       -          -
21   Spl    4 03Mar2010 16:47      -       -          -   106367 125.678     25.649      -       -          -
21   Spl  Avg                                          99901 118.006     24.083
21   Spl  SDev                                      9800.907
21   Spl  %RSD                                          9.81

** Spl      Name:    248157003                    Data File: XQ127
           Remarks: 960019|1|1| ID:TOC267

22   Spl    1 03Mar2010 16:55      -       -          -     8699   9.795      1.999      -       -          -
22   Spl    2 03Mar2010 17:03      -       -          -     9627  10.896      2.224      -       -          -
22   Spl    3 03Mar2010 17:11      -       -          -     9203  10.393      2.121      -       -          -
22   Spl    4 03Mar2010 17:20      -       -          -     9306  10.515      2.146      -       -          -
22   Spl  Avg                                           9208  10.399      2.122
22   Spl  SDev                                        384.824
22   Spl  %RSD                                          4.18

** Spl      Name:    248157004                    Data File: XQ128
           Remarks: 960019|1|1| ID:TOC267

23   Spl    1 03Mar2010 17:29      -       -          -    12729  14.576      2.975      -       -          -
23   Spl    2 03Mar2010 17:37      -       -          -    14436  16.602      3.388      -       -          -
23   Spl    3 03Mar2010 17:44      -       -          -    14492  16.668      3.402      -       -          -
23   Spl    4 03Mar2010 17:54      -       -          -    14379  16.534      3.374      -       -          -
23   Spl  Avg                                          14009  16.095      3.285
23   Spl  SDev                                        854.579
23   Spl  %RSD                                          6.10

** Spl      Name:    248157005                    Data File: XQ129
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            Remarks: 960019|1|1| ID:TOC267

24   Spl    1 03Mar2010 18:02      -       -          -    10666  12.128      2.475      -       -          -
24   Spl    2 03Mar2010 18:10      -       -          -    11929  13.627      2.781      -       -          -
24   Spl    3 03Mar2010 18:18      -       -          -    11664  13.313      2.717      -       -          -
24   Spl    4 03Mar2010 18:28      -       -          -    11571  13.202      2.694      -       -          -
24   Spl  Avg                                             11457  13.068      2.667
24   Spl  SDev                                          549.032
24   Spl  %RSD                                             4.79

** Spl      Name:    248157006                    Data File: XQ130
            Remarks: 960019|1|1| ID:TOC267

25   Spl    1 03Mar2010 18:36      -       -          -    15997  18.454      3.766      -       -          -
25   Spl    2 03Mar2010 18:44      -       -          -    18532  21.461      4.380      -       -          -
25   Spl    3 03Mar2010 18:51      -       -          -    18173  21.035      4.293      -       -          -
25   Spl    4 03Mar2010 19:01      -       -          -    18060  20.901      4.266      -       -          -
25   Spl  Avg                                             17690  20.463      4.176
25   Spl  SDev                                         1146.793
25   Spl  %RSD                                             6.48

** Spl      Name:    248157007                    Data File: XQ131
            Remarks: 960019|1|1| ID:TOC267

26   Spl    1 03Mar2010 19:09      -       -          -    19688  22.833      4.660      -       -          -
26   Spl    2 03Mar2010 19:17      -       -          -    22501  26.171      5.341      -       -          -
26   Spl    3 03Mar2010 19:25      -       -          -    21733  25.259      5.155      -       -          -
26   Spl    4 03Mar2010 19:35      -       -          -    21926  25.488      5.202      -       -          -
26   Spl  Avg                                             21462  24.938      5.089
26   Spl  SDev                                         1226.830
26   Spl  %RSD                                             5.72

** Spl      Name:    248268003                    Data File: XQ132
            Remarks: 960019|1|1| ID:TOC267

27   Spl    1 03Mar2010 19:43      -       -          -     5501   6.000      1.224      -       -          -
27   Spl    2 03Mar2010 19:51      -       -          -     5928   6.507      1.328      -       -          -
27   Spl    3 03Mar2010 19:58      -       -          -     5763   6.311      1.288      -       -          -
27   Spl    4 03Mar2010 20:08      -       -          -     5695   6.230      1.271      -       -          -
27   Spl  Avg                                              5721   6.262      1.278
27   Spl  SDev                                          176.717
27   Spl  %RSD                                             3.09

** Spl      Name:    248298001                    Data File: XQ133
            Remarks: 960019|1|1| ID:TOC267

28   Spl    1 03Mar2010 20:16      -       -          -     3194   3.263      0.666      -       -          -
28   Spl    2 03Mar2010 20:24      -       -          -     3344   3.441      0.702      -       -          -
28   Spl    3 03Mar2010 20:32      -       -          -     3131   3.188      0.651      -       -          -
28   Spl    4 03Mar2010 20:42      -       -          -     3210   3.282      0.670      -       -          -
28   Spl  Avg                                              3219   3.293      0.672
28   Spl  SDev                                           89.578
28   Spl  %RSD                                             2.78

** Chk2     Name:    CCV                          Data File: XQ134
            Remarks: 960019|1|1| WTC100303-02 ID:TOC267

29   Chk2   1 03Mar2010 20:51      -       -          -    44961  52.687     10.752      -       -          -
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** Chk5     Name:    CCB                          Data File: XQ135
            Remarks: 960019|1|1| ID:TOC267

30   Chk5   1 03Mar2010 20:59      -       -          -     1208   0.774      0.158      -       -          -


** Sp1      Name:    248298002                    Data File: XQ136
            Remarks: 960019|1|1| ID:TOC267

31   Sp1    1 03Mar2010 21:08      -       -          -     4413   4.709      0.961      -       -          -
31   Sp1    2 03Mar2010 21:16      -       -          -     4399   4.693      0.958      -       -          -
31   Sp1    3 03Mar2010 21:23      -       -          -     4489   4.799      0.979      -       -          -
31   Sp1    4 03Mar2010 21:33      -       -          -     4639   4.977      1.016      -       -          -
31   Sp1  Avg                                            4485   4.795      0.979
31   Sp1  SDev                                        110.018
31   Sp1  %RSD                                           2.45


** Sp1      Name:    248298003                    Data File: XQ137
            Remarks: 960019|1|1| ID:TOC267

32   Sp1    1 03Mar2010 21:41      -       -          -     3180   3.246      0.663      -       -          -
32   Sp1    2 03Mar2010 21:49      -       -          -     3475   3.596      0.734      -       -          -
32   Sp1    3 03Mar2010 21:57      -       -          -     3271   3.354      0.684      -       -          -
32   Sp1    4 03Mar2010 22:06      -       -          -     3472   3.593      0.733      -       -          -
32   Sp1  Avg                                            3349   3.447      0.703
32   Sp1  SDev                                        147.929
32   Sp1  %RSD                                           4.42


** Sp1      Name:    1202059115                   Data File: XQ138
            Remarks: 960019|1|1| 248298003:DUP ID:TOC267

33   Sp1    1 03Mar2010 22:15      -       -          -     3470   3.590      0.733      -       -          -
33   Sp1    2 03Mar2010 22:24      -       -          -     3725   3.893      0.794      -       -          -
33   Sp1  Avg                                            3597   3.742      0.764
33   Sp1  SDev                                        180.312
33   Sp1  %RSD                                           5.01


** Sp1      Name:    1202059116                   Data File: XQ139
            Remarks: 960019|1|1| 248298003:PS ID:TOC267

34   Sp1    1 03Mar2010 22:35      -       -          -    44281  52.013     10.615      -       -          -


** Chk2     Name:    CCV                          Data File: XQ140
            Remarks: 960019|1|1| WTC100303-02 ID:TOC267

35   Chk2   1 03Mar2010 22:44      -       -          -    47858  56.124     11.454      -       -          -


** Chk5     Name:    CCB                          Data File: XQ141
            Remarks: 960019|1|1|  ID:TOC267

36   Chk5   1 03Mar2010 22:53      -       -          -     1192   0.755      0.154      -       -          -
```

Total Kjeldahl Nitrogen

Prep Logbook

Total Phosphorous and Total Kjeldahl Nitrogen Sample Preparation

Batch ID: **958133.0** Verified by: _____

Analyst: Stephanie Jackson

Method: EPA 351.2 Prep

Lab SOP: GL-GC-E-071 REV# 10

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202054677	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054673	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054674	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054675	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054676	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202054670 MB	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
1202054677 LCS	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
246959005	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
1202054671 DUP (246959005)	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
1202054673 MS (246959005)	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
1202054675 MSD (246959005)	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
246959010	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
248017003	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
248042002	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
248042010	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
248042013	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
248047003	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
248047007	01-MAR-2010 11:00:00	Ground Water	20	20	1	<2
248074001	01-MAR-2010 11:00:00	Waste Water	20	20	1	<2
1202054672 DUP (248074001)	01-MAR-2010 11:00:00	Waste Water	20	20	1	<2
1202054674 MS (248074001)	01-MAR-2010 11:00:00	Waste Water	20	20	1	<2
1202054676 MSD (248074001)	01-MAR-2010 11:00:00	Waste Water	20	20	1	<2
248074002	01-MAR-2010 11:00:00	Waste Water	20	20	1	<2
248074003	01-MAR-2010 11:00:00	Waste Water	20	20	1	<2

Reagent/Solvent Lot ID	Description	Amount
1269276-C	TKN/PO4 Digestion Solution	4 mL

Comments:

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
5.0 ppm Std.		1	axh3	3/3/2010 13:58:13	OM_3-3-2010_13-56-41
3.0 ppm Std.		1	axh3	3/3/2010 13:59:00	OM_3-3-2010_13-56-41
1.0 ppm Std.		1	axh3	3/3/2010 13:59:49	OM_3-3-2010_13-56-41
0.5 ppm Std		1	axh3	3/3/2010 14:00:38	OM_3-3-2010_13-56-41
0.1 ppm Std		1	axh3	3/3/2010 14:01:28	OM_3-3-2010_13-56-41
ICAL-00		1	axh3	3/3/2010 14:02:20	OM_3-3-2010_13-56-41
ICV		1	axh3	3/3/2010 14:04:16	OM_3-3-2010_13-56-41
ICB		1	axh3	3/3/2010 14:06:12	OM_3-3-2010_13-56-41
1202054670*	958135	1	axh3	3/3/2010 14:08:07	OM_3-3-2010_13-56-41
1202054677*	958135	1	axh3	3/3/2010 14:08:58	OM_3-3-2010_13-56-41
246959005*	958135	1	axh3	3/3/2010 14:09:49	OM_3-3-2010_13-56-41
1202054671*	958135	1	axh3	3/3/2010 14:10:40	OM_3-3-2010_13-56-41
1202054673*	958135	1	axh3	3/3/2010 14:11:30	OM_3-3-2010_13-56-41
1202054675*	958135	1	axh3	3/3/2010 14:12:20	OM_3-3-2010_13-56-41
246959010*	958135	1	axh3	3/3/2010 14:13:10	OM_3-3-2010_13-56-41
248017003*	958135	1	axh3	3/3/2010 14:13:59	OM_3-3-2010_13-56-41
248042002*	958135	1	axh3	3/3/2010 14:14:48	OM_3-3-2010_13-56-41
248042010*	958135	1	axh3	3/3/2010 14:15:37	OM_3-3-2010_13-56-41
CCV		1	axh3	3/3/2010 14:16:25	OM_3-3-2010_13-56-41
CCB		1	axh3	3/3/2010 14:18:20	OM_3-3-2010_13-56-41
1202054670	958135	1	axh3	3/3/2010 14:20:15	OM_3-3-2010_13-56-41
1202054677	958135	1	axh3	3/3/2010 14:21:07	OM_3-3-2010_13-56-41
246959005	958135	1	axh3	3/3/2010 14:21:57	OM_3-3-2010_13-56-41
1202054671	958135	1	axh3	3/3/2010 14:22:48	OM_3-3-2010_13-56-41
1202054673	958135	1	axh3	3/3/2010 14:23:39	OM_3-3-2010_13-56-41
1202054675	958135	1	axh3	3/3/2010 14:24:29	OM_3-3-2010_13-56-41
248074001	958135	1	axh3	3/3/2010 14:25:17	OM_3-3-2010_13-56-41
1202054672	958135	1	axh3	3/3/2010 14:26:04	OM_3-3-2010_13-56-41
1202054674	958135	1	axh3	3/3/2010 14:26:54	OM_3-3-2010_13-56-41
1202054676	958135	1	axh3	3/3/2010 14:27:46	OM_3-3-2010_13-56-41
CCV		1	axh3	3/3/2010 14:28:36	OM_3-3-2010_13-56-41
CCB		1	axh3	3/3/2010 14:30:32	OM_3-3-2010_13-56-41
246959010*	958135	1	axh3	3/3/2010 14:32:26	OM_3-3-2010_13-56-41
248017003	958135	1	axh3	3/3/2010 14:33:15	OM_3-3-2010_13-56-41
248042002	958135	1	axh3	3/3/2010 14:34:04	OM_3-3-2010_13-56-41
248042010	958135	1	axh3	3/3/2010 14:34:53	OM_3-3-2010_13-56-41
248042013	958135	1	axh3	3/3/2010 14:35:41	OM_3-3-2010_13-56-41
248047003	958135	1	axh3	3/3/2010 14:36:29	OM_3-3-2010_13-56-41
248047007	958135	1	axh3	3/3/2010 14:37:17	OM_3-3-2010_13-56-41
248074002	958135	1	axh3	3/3/2010 14:38:06	OM_3-3-2010_13-56-41
248074003	958135	1	axh3	3/3/2010 14:38:57	OM_3-3-2010_13-56-41
246959010	958135	1	axh3	3/3/2010 14:39:48	OM_3-3-2010_13-56-41
CCV		1	axh3	3/3/2010 14:41:42	OM_3-3-2010_13-56-41
CCB		1	axh3	3/3/2010 14:43:37	OM_3-3-2010_13-56-41

Author: axh3 Date : 3/3/2010

Original Run Filename: OM_3-3-2010_13-56-41.OMN created 3/3/2010 13:56:41
Original Run Author's Signature: [axh3]
Current Run Filename: OM_3-3-2010_13-56-41.OMN last modified 3/3/2010 14:44:47
Current Run Author's Signature: [axh3]
Description: TKN EPA Method 351.2 GEL SOP: GL-GC-E-104
Detection 660 nM
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TKN Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100303-12	1	S1	5.000	8.913	3/3/2010@13:58:13			5.0 ppm Std.
WTR100303-13	1	S2	3.000	5.269	3/3/2010@13:59:00			3.0 ppm Std.
WTR100303-14	1	S3	1.000	1.718	3/3/2010@13:59:49			1.0 ppm Std.
WTR100303-15	1	S4	0.500	0.909	3/3/2010@14:00:38			0.5 ppm Std
WTR100303-16	1	S5	0.100	0.233	3/3/2010@14:01:28			0.1 ppm Std
WTR100303-19 0.0 ppm	1	S7	0.000	0.042	3/3/2010@14:02:20			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99990 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR100303-18 ICV	1	S8	0.975	1.741	3/3/2010@14:04:16			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	0.975 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.975 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR100303-19 ICB	1	S7	-0.035	-0.048	3/3/2010@14:06:12			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.035 < 0.100					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.035 > -0.100					
		Message	ICB Passed					
		Action	Continue					
1202054670|958135|MB	1	1	0.078	0.152	3/3/2010@14:08:07			
1202054677||LCS	1	2	1.117	1.992	3/3/2010@14:08:58			
246959005	1	3	0.058	0.116	3/3/2010@14:09:49			
1202054671||DUP	1	4	-0.051	-0.076	3/3/2010@14:10:40			
1202054673||MS	1	5	0.523	0.941	3/3/2010@14:11:30			
1202054675||MSD	1	6	0.874	1.562	3/3/2010@14:12:20			
246959010	1	7	-0.044	-0.064	3/3/2010@14:13:10			
248017003	1	8	-0.056	-0.085	3/3/2010@14:13:59			
248042002	1	9	0.008	0.027	3/3/2010@14:14:48			
248042010	1	10	0.082	0.159	3/3/2010@14:15:37			
WTR100303-14 CCV	1	S3	0.963	1.719	3/3/2010@14:16:25			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	0.963 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.963 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100303-19 CCB	1	S7	0.014	0.040	3/3/2010@14:18:20			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	0.014 < 0.099					
		Message	CCB Passed					

			Action	Continue					
				DQM Test: < - Concentration Limit					
			Result:	0.014 > -0.100					
			Message	CCB Passed					
			Action	Continue					
1202054670|958135|MB	1	1		0.084	0.162	3/3/2010@14:20:15			
1202054677||LCS	1	2		1.027	1.833	3/3/2010@14:21:07			
246959005	1	3		0.042	0.088	3/3/2010@14:21:57			
1202054671||DUP	1	4		-0.060	-0.093	3/3/2010@14:22:48			
1202054673||MS	1	5		0.898	1.605	3/3/2010@14:23:39			
1202054675||MSD	1	6		0.897	1.602	3/3/2010@14:24:29			
248074001	1	14		1.263	2.250	3/3/2010@14:25:17			
1202054672||DUP	1	15		1.136	2.026	3/3/2010@14:26:04			
1202054674||MS	1	16		2.016	3.584	3/3/2010@14:26:54			
1202054676||MSD	1	17		2.417	4.295	3/3/2010@14:27:46			
WTR100303-14 CCV	1	S3		1.002	1.789	3/3/2010@14:28:36			CCV
			Known Conc:	1.000					
				DQM Test: > + Concentration Limit					
			Result:	1.002 < 1.104					
			Message	CCV Passed					
			Action	Continue					
				DQM Test: < - Concentration Limit					
			Result:	1.002 > 0.895					
			Message	CCV Passed					
			Action	Continue					
WTR100303-19 CCB	1	S7		-0.008	-2.588e-4	3/3/2010@14:30:32			CCB
			Known Conc:	0.000					
				DQM Test: > + Concentration Limit					
			Result:	-0.008 < 0.099					
			Message	CCB Passed					
			Action	Continue					
				DQM Test: < - Concentration Limit					
			Result:	-0.008 > -0.100					
			Message	CCB Passed					
			Action	Continue					
246959010	1	7		-0.537	-0.936	3/3/2010@14:32:26			
248017003	1	8		-0.060	-0.092	3/3/2010@14:33:15			
248042002	1	9		0.010	0.031	3/3/2010@14:34:04			
248042010	1	10		0.085	0.164	3/3/2010@14:34:53			
248042013	1	11		0.059	0.118	3/3/2010@14:35:41			
248047003	1	12		0.143	0.268	3/3/2010@14:36:29			
248047007	1	13		0.147	0.274	3/3/2010@14:37:17			
248074002	1	18		0.551	0.989	3/3/2010@14:38:06			
248074003	1	19		0.051	0.103	3/3/2010@14:38:57			
246959010	1	7		-0.048	-0.072	3/3/2010@14:39:48			
WTR100303-14 CCV	1	S3		0.977	1.744	3/3/2010@14:41:42			CCV
			Known Conc:	1.000					
				DQM Test: > + Concentration Limit					
			Result:	0.977 < 1.104					
			Message	CCV Passed					
			Action	Continue					
				DQM Test: < - Concentration Limit					
			Result:	0.977 > 0.895					
			Message	CCV Passed					
			Action	Continue					
WTR100303-19 CCB	1	S7		0.007	0.026	3/3/2010@14:43:37			CCB
			Known Conc:	0.000					
				DQM Test: > + Concentration Limit					
			Result:	0.007 < 0.099					
			Message	CCB Passed					
			Action	Continue					
				DQM Test: < - Concentration Limit					
			Result:	0.007 > -0.100					
			Message	CCB Passed					
			Action	Continue					

Author: axh3 Date : 3/3/2010

Channel 1 (TKN) : Current View

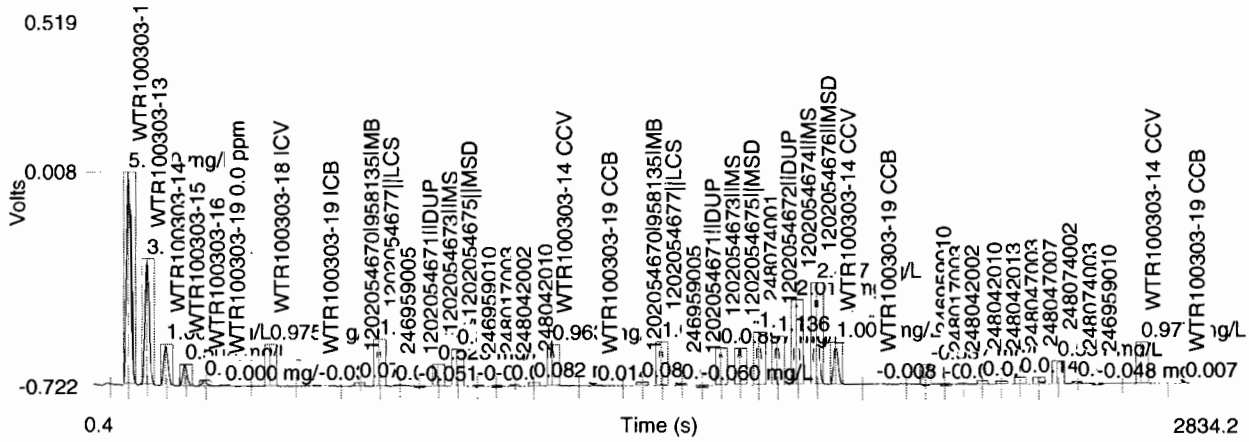

Table 1: TKN

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	5.000	1	8.913	0.716	-0.5	3/3/2010	13:59:21
2	3.000	1	5.269	0.423	1.1	3/3/2010	14:00:08
3	1.000	1	1.718	0.139	3.8	3/3/2010	14:00:57
4	0.500	1	0.909	0.072	-1.0	3/3/2010	14:01:46
5	0.100	1	0.233	0.018	-21.8	3/3/2010	14:02:37
6	0.000	1	0.042	0.003		3/3/2010	14:03:28

Figure 1: TKN

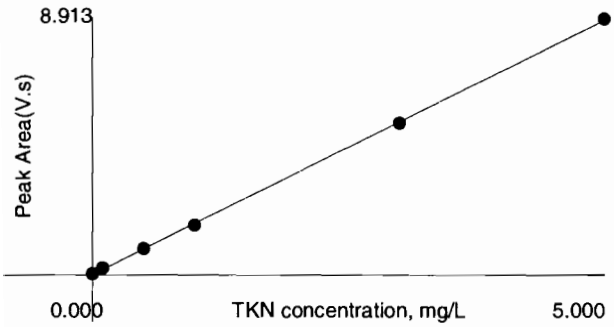

Area = 1.771 * Conc + 0.014
Conc = 0.565 * Area - 0.008
Correlation Coefficient (r) = 0.99990

No Weighting

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
03-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 351.2	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
958135	See Below		

Potentially affected work order(s)(SDG): 246959(10-1801),248017(10-2039),248042(10-2057),248047(10-2045),248074(10-2050)

Application Issues:

Failed Recovery for MS/PS

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/MSD: QC 1202054673MS,1202054674MS, 1202054675MSD, 1202054676MSD	1. The spike and spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits.

Originator's Name:

Aubrey Kingsbury 03-MAR-10

Data Validator/Group Leader:

Elzbieta Szulc 03-MAR-10

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2040

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2040

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/24/2010

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-12916	WG	2/23/2010	
	EPA:150.1	1	CAPA-10-12916	WG	2/23/2010	
	EPA:160.1	1	CAPA-10-12916	WG	2/23/2010	
	EPA:245.2	1	CAPA-10-12916	WG	2/23/2010	
		1	CAPA-10-12917	WG	2/23/2010	
	EPA:300.0	1	CAPA-10-12916	WG	2/23/2010	
	EPA:310.1	1	CAPA-10-12916	WG	2/23/2010	
	EPA:335.3	1	CAPA-10-12917	WG	2/23/2010	
	EPA:350.1	1	CAPA-10-12916	WG	2/23/2010	

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2040

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:353.2	1	CAPA-10-12916	WG	2/23/2010	
	EPA:365.4	1	CAPA-10-12916	WG	2/23/2010	
	EPA:900	1	CAPA-10-12917	WG	2/23/2010	
	EPA:901.1	1	CAPA-10-12917	WG	2/23/2010	
	EPA:903.1	1	CAPA-10-12917	WG	2/23/2010	
	EPA:904	1	CAPA-10-12917	WG	2/23/2010	
	EPA:905.0	1	CAPA-10-12917	WG	2/23/2010	
	HASL-300:AM-241	1	CAPA-10-12917	WG	2/23/2010	
	HASL-300:ISOPU	1	CAPA-10-12917	WG	2/23/2010	
	HASL-300:ISOU	1	CAPA-10-12917	WG	2/23/2010	
	SM:A2340B	1	CAPA-10-12916	WG	2/23/2010	
		1	CAPA-10-12917	WG	2/23/2010	
	SW-846:6010B	1	CAPA-10-12916	WG	2/23/2010	
		1	CAPA-10-12917	WG	2/23/2010	
	SW-846:6020	1	CAPA-10-12916	WG	2/23/2010	
		1	CAPA-10-12917	WG	2/23/2010	
	SW-846:6850	1	CAPA-10-12916	WG	2/23/2010	

Final Page of REQUEST NUMBER 10-2040

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2040

REQUEST NUMBER: 10-2040

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12916	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-12916	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-12916	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-12917	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-12917	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-12917	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-12917	1	POLY	WSP-RAD	Nitric Acid	WG
CAPA-10-12917	1	POLY	Ra226+228	Nitric Acid	WG

Relinquished By:		Date	Time	Received By:		Date	Time
		2/24/10	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-12915 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/23/2010	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		15:06	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSI	
LOCATION ID:	R-40		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / (NA)		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / (NA)

BOREHOLE: YES / NO / (NA) **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH < 2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of CAPA-10-12917

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) M Green, D Wooly **REVIEWED BY (PRINT)** M Green

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Wooly	02/23/10	(Printed Name) Sherri Sherwood	02/23/10
(Signature) D. Wooly	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-12916 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/23/11	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1506	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-40		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid		1H L2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		1H L2
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice		

SAMPLE DESC:

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) D Worly, M. Green **REVIEWED BY (PRINT)** M Green

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D Worly	02/23/10	(Printed Name) Sherri Sherwood	02/23/10
(Signature) D. Worly	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-12917 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/23/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1506	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	GSP	
LOCATION ID:	R-40		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH <2
3		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice		
3		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice		
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide		pH >12
1		WSP-GrossA/B	1 LITER POLY	None		
2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice		
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid		pH <2
1		WSP-RAD	1 GAL POLY	Nitric Acid		pH <2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		pH <2
1		WSP-LL-H-3	1 LITER POLY	None		
3		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice		
3		WSP-8082-PCB	1 LITER AMBER GLASS	Ice		
2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice		
2		WSP-D2H+O18O16	40 ML SEPTUM AMBER GLASS	Ice		
1		Ra226+228	1 GAL POLY	Nitric Acid		pH <2

SAMPLE DESC:

SAMPLE COMMENTS: 4th full suite sample.
Collected 50' from Pajarito Rd.

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH (STU)	T (°C)	SC ($\frac{\mu S}{cm}$)	DO ($\frac{mg}{L}$)	Turb (NTU)	ORP (mV)	Q (gpm)
7.31	15.48	105	6.77	1.83	63.6	2.1

COLLECTED BY (PRINT) D. Worthy, M Green

REVIEWED BY (PRINT) M Green

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) D. Worthy	02/23/10	(Printed Name) Sherri Sherwood	02/23/10
(Signature) D. Worthy	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-12918 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/23/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1506	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	~~GST~~ NA DW 02/23/10	
LOCATION ID:	R-40		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P2A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1-2	DW 02/23/10	WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	1 of 2

SAMPLE DESC: QC Sample of CAPA-10-12917

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) M. Green, J. Wooly **REVIEWED BY (PRINT)** M Green

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) J. Wooly	02/23/10	(Printed Name) Sherri Sherwood	02/23/10
(Signature) J. Wooly	1630	(Signature) Sherri Sherwood	1630
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

DATA VALIDATION COVER SHEET

5121-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-2040 VALIDATION DATE: 05/19/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☒ LCMSMS PERCHLORATES
☐ TPH-DRO	☐ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the MS/MSD analyses were performed on a LANL sample from another RN and that the raw data for the parent sample were not included in the data package. No sample results were qualified.

Reviewed by: Allison Felix Level: 1 Date: 5/20/10

VALIDATOR'S SIGNATURE:	DATE: 05/19/10
Form 5121-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1942

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☒	☐	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☒	☐	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-12916

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2040

GEL Sample ID: 248023001

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.247	ug/L		1	14-MAR-10 22:25	per0314051a
	Perchlorate Isotope Ratio			2.97			1	14-MAR-10 22:25	per0314051a
14797-73-0	Perchlorate-101	.05	.2	0.257	ug/L		1	14-MAR-10 22:25	per0314051a
	Perchlorate-O(18)			0.444	ug/L		1	14-MAR-10 22:25	per0314051a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

MLH 5/19/10

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DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-2040 VALIDATION DATE: 05/19/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☒ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the QC analyses for ICP and CVAA were performed on a LANL sample from another RN. No sample results were qualified.
2. Some filtered sample results were slightly greater than corresponding unfiltered sample results. No sample data were qualified as a result.

Reviewed by: Allison Felix Level: 1 Date: 5/20/10

DATA VALIDATION COVER SHEET	
5118-1 **Data Validation Cover Sheet**	Records Use only Los Alamos NATIONAL LABORATORY EST 1943
VALIDATOR'S SIGNATURE:	DATE: 05/19/10
Form 5118-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☐	☒	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☐	☒	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2040 **METHOD TYPE:** EPA

SAMPLE ID: 248023001 **CLIENT ID:** CAPA-10-12916

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	030210W3-8
7631-86-9	Silica	69.6	mg/L			P	0.053	1	OPTIMA4	032910C-1
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA4	032910C-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS6	100506-2
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS6	100506-2
7440-39-3	Barium	24	ug/L			P	1	1	OPTIMA4	032910C-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA4	032910C-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS6	100506-2
7440-70-2	Calcium	10900	ug/L			P	50	1	OPTIMA4	032910C-1
7440-47-3	Chromium	5	ug/L	J		MS	2.5	1	ICPMS6	100506-2
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA4	032910C-1
7439-89-6	Iron	44.4	ug/L	J		P	30	1	OPTIMA4	032910C-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS6	100506-2
7439-95-4	Magnesium	2910	ug/L			P	85	1	OPTIMA4	032910C-1
7439-96-5	Manganese	2	ug/L	U		P	2	1	OPTIMA4	032910C-1
7439-98-7	Molybdenum	2.33	ug/L			MS	0.1	1	ICPMS6	100506-2
7440-02-0	Nickel	0.987	ug/L	J		MS	0.5	1	ICPMS6	100507-7
7440-09-7	Potassium	1450	ug/L			P	50	1	OPTIMA4	032910C-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS6	100506-2
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS6	100506-2
7440-23-5	Sodium	10900	ug/L			P	100	1	OPTIMA4	032910C-1
7440-24-6	Strontium	51.8	ug/L			P	1	1	OPTIMA4	032910C-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS6	100506-2
7440-31-5	Tin	2.5	ug/L	U		P	2.5	1	OPTIMA4	032910C-1

MLH
5/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2040 **METHOD TYPE:** EPA

SAMPLE ID: 248023001 **CLIENT ID:** CAPA-10-12916

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	0.29	ug/L			MS	0.05	1	ICPMS6	100507-3
7440-62-2	Vanadium	4.12	ug/L	J		P	1	1	OPTIMA4	032910C-1
7440-66-6	Zinc	3.8	ug/L	J		P	3.3	1	OPTIMA4	032910C-1
	Hardness as CaCO3	39.1	mg/L				0.35	1	CALC001	

MLH
5/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2040 **METHOD TYPE:** EPA

SAMPLE ID: 248023002 **CLIENT ID:** CAPA-10-12917

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	030210W3-8
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA4	032910C-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS6	100506-2
7440-38-2	Arsenic	1.95	ug/L	J		MS	1.5	1	ICPMS6	100506-2
7440-39-3	Barium	24.9	ug/L			P	1	1	OPTIMA4	032910C-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA4	032910C-I
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS6	100506-2
7440-70-2	Calcium	11000	ug/L			P	50	1	OPTIMA4	032910C-1
7440-47-3	Chromium	5.45	ug/L	J		MS	2.5	1	ICPMS6	100506-2
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA4	032910C-1
7439-89-6	Iron	91.9	ug/L	J		P	30	1	OPTIMA4	032910C-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS6	100506-2
7439-95-4	Magnesium	2940	ug/L			P	85	1	OPTIMA4	032910C-1
7439-96-5	Manganese	2	ug/L	U		P	2	1	OPTIMA4	032910C-1
7439-98-7	Molybdenum	2.29	ug/L			MS	0.1	1	ICPMS6	100506-2
7440-02-0	Nickel	1.09	ug/L	J		MS	0.5	1	ICPMS6	100507-7
7440-09-7	Potassium	1460	ug/L			P	50	1	OPTIMA4	032910C-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS6	100506-2
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS6	100506-2
7440-23-5	Sodium	11000	ug/L			P	100	1	OPTIMA4	032910C-1
7440-24-6	Strontium	52.2	ug/L			P	1	1	OPTIMA4	032910C-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS6	100506-2
7440-31-5	Tin	2.5	ug/L	U		P	2.5	1	OPTIMA4	032910C-1
7440-61-1	Uranium	0.301	ug/L			MS	0.05	1	ICPMS6	100507-3

MLH
5/19/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2040 **METHOD TYPE:** EPA

SAMPLE ID: 248023002 **CLIENT ID:** CAPA-10-12917

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	4.16	ug/L	J		P	1	1	OPTIMA4	032910C-1
7440-66-6	Zinc	12	ug/L			P	3.3	1	OPTIMA4	032910C-1
	Hardness as CaCO3	39.5	mg/L				0.35	1	CALC001	

MLH
5/19/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-2040 VALIDATION DATE: 05/19/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☐ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☒ GENERAL CHEMISTRY	☐ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☒	☐	☐	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the MB total phosphorus, ammonia as nitrogen, and nitrate/nitrite were detected. The sample result for total phosphorus was ≤5X the MB concentration and was qualified U,I4. The sample result for nitrate/nitrite was >5X but ≤50X the MB concentration and was qualified J,I4a. The sample result for ammonia as nitrogen was ND and was not qualified.

   In the ICB/CCB total phosphorus was detected. The associated sample result was ≤5X the ICB/CCB concentrations and was qualified U,I4b.

2. The MS %Rs for fluoride and ammonia as nitrogen were < the laboratory LAL but > 10%. The sample result for fluoride was a detect and was qualified J-,I6a. The result for ammonia as was ND and was qualified UJ,I6a.

3. It should be noted that the matrix QC analyses for specific conductivity, pH, total cyanide, nitrate/nitrite, and total phosphorus were performed on LANL samples from other RNs. No sample results were qualified.

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

4. The analysis of pH was performed >2X past the method specified HT. The associated sample result was qualified J-,I9a, based on professional judgment.

   Reviewed by: Allison Felix Level: 1 Date: 5/20/10

VALIDATOR'S SIGNATURE _____ DATE: 05/19/10

Form 5120-1, Revision 0.0

LOS ALAMOS
Environmental Restoration Project

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☒	☐	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☒	☐	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☐	☐	☒	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2040

Client Sample ID:	CAPA-10-12916	Project:	ESHL01000
Sample ID:	248023001	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	23-FEB-10 12:00		
Receive Date:	25-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Conductivity Analysis											
EPA120.1 Specific Conductivity "As Received"											
Conductivity		123		1.00	1.00	umhos/cm	1	TXT1 03/03/10	1627	960274	1
Electrode Analysis											
EPA 150.1 pH "As Received"											
pH at Temp 15.3C	H	7.91	J-,I9a	0.010	0.100	SU	1	LXA1 03/01/10	1841	959606	2
Ion Chromatography											
EPA 300.0 Anions Liquid 28 day "As Received"											
Bromide	U	ND		0.066	0.200	mg/L	1	VH1 03/21/10	0159	966823	3
Chloride		1.75		0.066	0.200	mg/L	1				
Fluoride		0.233	J-,I6a	0.033	0.100	mg/L	1				
Sulfate		2.47		0.100	0.400	mg/L	1				
Nutrient Analysis											
EPA 350.1 Nitrogen, Ammonia L "As Received"											
Nitrogen, Ammonia	U	ND	UJ,I6a	0.016	0.050	mg/L	1	AXH3 03/01/10	1349	958142	4
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"											
Nitrogen, Nitrate/Nitrite		0.422	J,I4a	0.050	0.250	mg/L	5	AXH3 03/03/10	1059	958150	5
EPA 365.4 Phosphorus, Total in "As Received"											
Phosphorus, Total as P		0.067	U,I4	0.015	0.050	mg/L	1	AXH3 03/05/10	0946	958139	6
Solids Analysis											
EPA 160.1 Solids, Dissolved-F "As Received"											
Total Dissolved Solids		134		2.38	10.0	mg/L		SDS 03/01/10	1356	959189	7
Titration Analysis											
EPA 310.1 Total Alkalinity "As Received"											
Alkalinity, Total as CaCO3		53.8		0.725	1.00	mg/L		LXA1 03/02/10	1615	959999	8
Carbonate alkalinity (CaCO3)	U	ND		0.725	1.00	mg/L					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	SXJ1	03/01/10	0930	958141
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	SXJ1	03/02/10	1030	958136

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 120.1	

MLH
5/19/10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2040

Client Sample ID:	CAPA-10-12917	Project:	ESHL01000
Sample ID:	248023002	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	23-FEB-10 12:00		
Receive Date:	25-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
EPA 335.4 Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/08/10	1046	958168	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	03/05/10	1535	958167

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

MLH
5/19/10

DATA VALIDATION COVER SHEET

5119-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Section I.

REQUEST NUMBER: 10-2040 VALIDATION DATE: 5/19/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Marcia Hilchey ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

☐ TPH-GRO	☐ HIGH EXPLOSIVES	☐ DIOXIN FURANS	☐ LCMSMS PERCHLORATES
☐ TPH-DRO	☐ METALS	☐ PCB CONGENERS	☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
☐ GENERAL CHEMISTRY	☒ RADIOCHEMISTRY	☐ LCMSMS HIGH EXPLOSIVES	

☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. It should be noted that the matrix QC for Am-241, gross alpha/beta, Ra-228, Sr-90, and Ra-226 analyses were performed on LANL samples from another RN. No sample results were qualified.

Reviewed by: Allison Felix Level: 1 Date: 5/20/10

VALIDATOR'S SIGNATURE:	DATE: 5/19/10
Form 5119-1, Revision 0.0	LOS ALAMOS Environmental Restoration Project

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, R9	J-, R9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, R9a	J-, R9a
☐	☐	☒	3. The results for the affected analytes are considered not detected (U) because the associated sample concentration was less than or equal to the MDC.	U, R5	N/A
☐	☒	☐	4. The analyte should be regarded as rejected because spectral interferences prevent positive identification of the analytes.	R, R5a	R, R5a
☐	☒	☐	5. The MDC and/or TPU documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R5b	J-, R5b
☐	☐	☒	6. The results for the affected analytes should be regarded as not detected (U) because the associated sample concentration was less than 3X the 1 sigma TPU.	U, R11	N/A
☐	☒	☐	7. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, R4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, R4a
☐	☐	☒	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, R4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R4e	R, R4e
☐	☒	☐	11. The tracer is <10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3	R, R3

RAD ANALYTICAL DATA VALIDATION CHECKLIST	
5119-2 **Rad Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	12. The tracer is < the Lower Acceptance Level (LAL) but ≥10%R. Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	UJ, R3a	J-, R3a
☐	☒	☐	13. The Tracer%R value is > the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package. Tracer%R is not applicable for Gamma Spectroscopy.	N/A	J+, R3b
☐	☒	☐	14. Required tracer information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Tracer%R is not applicable for Gamma Spectroscopy.	R, R3d	R, R3d
☐	☒	☐	15. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, R12	R, R12
☐	☒	☐	16. The LCS percent recovery was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, R12a	J-, R12a
☐	☒	☐	17. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, R12b
☐	☒	☐	18. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R12c	R, R12c
☐	☒	☐	19. Associated duplicate sample has DER or RER > the analytical laboratory's acceptance limits.	R, R10	J, J10
☐	☒	☐	20. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, R6	R, R6

RAD ANALYTICAL DATA VALIDATION CHECKLIST

5119-2

Rad Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	21. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6	R, R6
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6a	J-, R6a
☐	☒	☐	23. The associated matrix spike recovery was above the UAL. Follow the external laboratory limits. MS/MSD is not applicable to Gamma Spectroscopy.	UJ, R6b	J+, R6b
☐	☒	☐	24. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not Reject. Qualify data based on LCS information. MS/MSD is not applicable to Gamma Spectroscopy.	R, R6c	R, R6c
☐	☒	☐	25. Duplicate, dilution, or reanalysis.	UJ, R88	J, R88
☐	☒	☐	26. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, R19	J, R, R19
☒	☐	☐	27. Quantification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: March 24, 2010

Client Sample ID:	CAPA-10-12917	Project:	ESHL01000
Sample ID:	248023002	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	23-FEB-10		
Receive Date:	25-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
Alphaspec Am241 Liquid "As Received"												
Americium-241	U	-0.000952	0.0466	+/-0.00431	0.050	pCi/L		KXM4	03/20/10	1135	962412	1
Alphaspec Pu, Liquid "As Received"												
Plutonium-238	U	0.0301	0.0425	+/-0.0099	0.050	pCi/L		KXM4	03/23/10	2143	968210	2
Plutonium-239/240	U	0.00333	0.0297	+/-0.00413	0.050	pCi/L						
Alphaspec U, Liquid "As Received"												
Uranium-234		0.312	0.0531	+/-0.0386	1.00	pCi/L		KXM4	03/23/10	2141	967762	4
Uranium-235/236	U	0.000241	0.0417	+/-0.00513	1.00	pCi/L						
Uranium-238		0.103	0.0376	+/-0.0201	0.500	pCi/L						
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Liquid "As Received"												
Cesium-137	U	0.202	5.71	+/-1.71	8.00	pCi/L		KXG3	03/03/10	1649	958213	6
Cobalt-60	U	0.701	5.81	+/-1.70	8.00	pCi/L						
Gross Gamma		75.3	63.1	+/-20.0	120	pCi/L						
Neptunium-237	U	11.5	36.1	+/-11.0	10.0	pCi/L						
Potassium-40	U	15.3	72.9	+/-19.8	10.0	pCi/L						
Sodium-22	U	-0.919	5.53	+/-1.75	10.0	pCi/L						
Rad Gas Flow Proportional Counting												
GFPC, Gross A/B, liquid "As Received"												
Beta	U	-0.00872	2.78	+/-0.789	3.00	pCi/L		DXF3	03/05/10	0920	959739	7
Alpha	U	0.350	2.12	+/-0.524	3.00	pCi/L		DXF3	03/06/10	0423	959739	8
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	0.238	0.720	+/-0.210	1.00	pCi/L		JXC5	03/08/10	1338	959731	9
GFPC, Sr90, liquid "As Received"												
Strontium-90	U	-0.111	0.475	+/-0.127	0.500	pCi/L		JXR1	03/04/10	1516	959738	10
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226	U	0.184	0.595	+/-0.171	1.00	pCi/L		KSD1	03/11/10	1215	958234	11

The following Analytical Methods were performed

Method	Description

MLH
5/19/10

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2040

REQUEST NUMBER: 10-2040

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 248023

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12916	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-12916	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-12916	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-12917	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-12917	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-12917	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-12917	1	POLY	WSP-RAD	Nitric Acid	WG
CAPA-10-12917	1	POLY	Ra226+228	Nitric Acid	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]		2/24/10	1400	Dionne Franco	[illegible]	2/25/10	0845
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2040

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2040
Per Agreement Number:126310011
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/24/2010
TURNAROUND/REPORT DUE: 3/26/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-12916	WG	2/23/2010	
	EPA:150.1	1	CAPA-10-12916	WG	2/23/2010	
	EPA:160.1	1	CAPA-10-12916	WG	2/23/2010	
	EPA:245.2	1	CAPA-10-12916	WG	2/23/2010	
		1	CAPA-10-12917	WG	2/23/2010	
	EPA:300.0	1	CAPA-10-12916	WG	2/23/2010	
	EPA:310.1	1	CAPA-10-12916	WG	2/23/2010	
	EPA:335.3	1	CAPA-10-12917	WG	2/23/2010	
	EPA:350.1	1	CAPA-10-12916	WG	2/23/2010	

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2040

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:353.2	1	CAPA-10-12916	WG	2/23/2010	
	EPA:365.4	1	CAPA-10-12916	WG	2/23/2010	
	EPA:900	1	CAPA-10-12917	WG	2/23/2010	
	EPA:901.1	1	CAPA-10-12917	WG	2/23/2010	
	EPA:903.1	1	CAPA-10-12917	WG	2/23/2010	
	EPA:904	1	CAPA-10-12917	WG	2/23/2010	
	EPA:905.0	1	CAPA-10-12917	WG	2/23/2010	
	HASL-300:AM-241	1	CAPA-10-12917	WG	2/23/2010	
	HASL-300:ISOPU	1	CAPA-10-12917	WG	2/23/2010	
	HASL-300:ISOU	1	CAPA-10-12917	WG	2/23/2010	
	SM:A2340B	1	CAPA-10-12916	WG	2/23/2010	
		1	CAPA-10-12917	WG	2/23/2010	
	SW-846:6010B	1	CAPA-10-12916	WG	2/23/2010	
		1	CAPA-10-12917	WG	2/23/2010	
	SW-846:6020	1	CAPA-10-12916	WG	2/23/2010	
		1	CAPA-10-12917	WG	2/23/2010	
	SW-846:6850	1	CAPA-10-12916	WG	2/23/2010	

Final Page of REQUEST NUMBER 10-2040

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

March 04, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL-WQH Water Samples
Work Order: 248023
SDG: 10-2040

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 25, 2010, and analyzed for General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2040
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 248023
SDG # : 10-2040

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Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 248023
SDG # : 10-2040

March 04, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 25, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. The Gross A/B container was preserved prior to analysis. The containers for radiochemistry were received at 12-14C temperatures. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
248023001	CAPA-10-12916
248023002	CAPA-10-12917

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals, Perchlorates by LCMSMS and Radiochemistry.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis

Project Manager

List of current GEL Certifications as of 04 March 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California – NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida – NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois – NELAP	200029
Indiana	C-SC-01
Kansas – NELAP	E-10332
Kentucky	90129
Louisiana – NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey – NELAP	SC002
New Mexico	FL NELAP E87156
New York – NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania – NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas – NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah – NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2040

REQUEST NUMBER: 10-2040

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 248023

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12916	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-12916	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-12916	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-12917	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-12917	1	POLY	WSP-GrossA/B	None	WG
CAPA-10-12917	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-12917	1	POLY	WSP-RAD	Nitric Acid	WG
CAPA-10-12917	1	POLY	Ra226+228	Nitric Acid	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	2/24/10	1400	Dionne Franco	[illegible]	2/25/10	0845
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2040

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis
General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2040
Per Agreement Number:126310011
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/24/2010
TURNAROUND/REPORT DUE: 3/26/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-12916	WG	2/23/2010	
	EPA:150.1	1	CAPA-10-12916	WG	2/23/2010	
	EPA:160.1	1	CAPA-10-12916	WG	2/23/2010	
	EPA:245.2	1	CAPA-10-12916	WG	2/23/2010	
		1	CAPA-10-12917	WG	2/23/2010	
	EPA:300.0	1	CAPA-10-12916	WG	2/23/2010	
	EPA:310.1	1	CAPA-10-12916	WG	2/23/2010	
	EPA:335.3	1	CAPA-10-12917	WG	2/23/2010	
	EPA:350.1	1	CAPA-10-12916	WG	2/23/2010	

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2040

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:353.2	1	CAPA-10-12916	WG	2/23/2010	
	EPA:365.4	1	CAPA-10-12916	WG	2/23/2010	
	EPA:900	1	CAPA-10-12917	WG	2/23/2010	
	EPA:901.1	1	CAPA-10-12917	WG	2/23/2010	
	EPA:903.1	1	CAPA-10-12917	WG	2/23/2010	
	EPA:904	1	CAPA-10-12917	WG	2/23/2010	
	EPA:905.0	1	CAPA-10-12917	WG	2/23/2010	
	HASL-300:AM-241	1	CAPA-10-12917	WG	2/23/2010	
	HASL-300:ISOPU	1	CAPA-10-12917	WG	2/23/2010	
	HASL-300:ISOU	1	CAPA-10-12917	WG	2/23/2010	
	SM:A2340B	1	CAPA-10-12916	WG	2/23/2010	
		1	CAPA-10-12917	WG	2/23/2010	
	SW-846:6010B	1	CAPA-10-12916	WG	2/23/2010	
		1	CAPA-10-12917	WG	2/23/2010	
	SW-846:6020	1	CAPA-10-12916	WG	2/23/2010	
		1	CAPA-10-12917	WG	2/23/2010	
	SW-846:6850	1	CAPA-10-12916	WG	2/23/2010	

Final Page of REQUEST NUMBER 10-2040

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-2040**
Received By: Dionne Francis	**Date Received: 2/25/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **80CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe) **0-6C** **12-14C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?			X	Sample ID's, containers affected and observed pH: **CAPA-10-12917** **Gross A/B** If Preservation added, Lot#: **H51025**
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **time not listed on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#s

7209 7850 1919 0C	**7209 7850 2076 2C**	**7209 7850 2238 3C**	**7209 7850 1893 12C**
7209 7850 2146 1C	**7209 7850 2065 2C**	**7209 7850 2124 3C**	**7209 7850 1849 12C**
7209 7850 1952 1C	**7209 7850 1996 3C**	**7209 7850 1974 4C**	**7209 7850 1838 13C**
7209 7850 2054 1C	**7209 7850 2135 3C**	**7209 7850 1985 4C**	**7209 7850 1860 13C**
7209 7850 1963 1C	**7209 7850 2032 3C**	**7209 7850 2000 4C**	**7209 7850 1850 13C**
7209 7850 2021 2C	**7209 7850 2249 3C**	**7209 7850 2087 4C**	**7209 7850 2098 13C**
7209 7850 2113 2C	**7209 7850 2168 3C**	**7209 7850 2010 5C**	**7209 7850 1908 14C**
7209 7850 2102 2C	**7209 7850 1941 3C**	**7209 7850 2157 6C**	
7209 7850 1882 2C	**7209 7850 2043 3C**	**7209 7850 1871 12C**	

PM (or PMA) review: Initials JAR Date 2-26-10

Subject: Sample Receipt for 2/25/10
From: Dionne Francis <Dionne.Francis@gel.com>
Date: Thu, 25 Feb 2010 20:59:32 -0500
To: "Keith R. Greene" <kgreene@lanl.gov>, Joylene Valdez <joylenev@lanl.gov>, Valerie Davis <vsd@gel.com>

Keith,

RN 10-2059 2052, 2046 and 2040: the Gross A/B containers will be preserved prior to analysis.

RN 10-2051: the lab rec'd (1) 40ml vial 8260B container for sample WST05-10-12495 instead of (2) as indicated on the COC.

RN 10-2057: the lab rec'd (2) 1L amber glass HEXP container for sample CAPA-10-13803 instead of (3) as indicated on the COC.

RN 10-2069: the lab did not receive a NO3NO2 container for sample RE15-10-8406.
RN 10-2075: the lab did not receive a NO3NO2 container for sample RE36-10-7528 and 7527. An aliquot will be taken from the perchlorate container and preserved prior to analysis.

The following containers were received without a COC:
RE36-10-7404, 7405, 7425, 7426, 7431, 7433, 7434, 8281, 8482 - 500ml glass containers for 8270C+NMED Exp

RE36-10-7403, 7406, 7516, 7429, 7432 - 125ml poly containers for Metals

RE36-10-8928 - (2) 500ml glass containers for 8270C+8082+TPH-DRO, TCLP P/H/S/V

Thanks,
Dionne

--
Dionne Francis
Project Manager Assistant
GEL Laboratories, LLC
2040 Savage Road
Charleston, SC (USA) 29407
Direct: 843.769.7376 Ext. 4432
Main: 843.556.8171
Fax: 843.766.1178
E-mail: daf@gel.com
Web: www.gel.com

Let the Bible fill the memory, rule the heart, and guide the feet.

LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 49.0 LB MA
CAD: 0014176/CAFE2

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VACO

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FedEx Express

2 of 2
MPS# 7209 7850 1919
Mstr# 7209 7850 1903 0201

THU - 25FEB
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JOYLENE VALDEZ (505) 665-9968
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWMO

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2 of 2
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0263
Mstr# 7209 7850 2135 0201

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PRIORITY OVERNIGHT

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LOS ALAMOS, NM 87545
UNITED STATES US

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

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2 of 3
MPS# 7209 7850 1932
0263
Mstr# 7209 7850 1941 0201

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UNITED STATES US

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWMO

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PRIORITY OVERNIGHT

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ALAMOS NATL LAB
3 BLDG 1237 DPU 03
ALAMOS, NM 87545
ED STATES US

ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

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NERAL ENGINEERING LAB
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NERAL ENGINEERING LAB
40 SAVAGE RD

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3) 558-8171
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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
IA00 BLDG 1237 DPU 03
LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 49.0 LB MAN
CAD 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 558-8171
REF: 6B010AMR2A0515BYD0

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FedEx Express

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PRIORITY OVERNIGHT

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TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 558-8171
REF: 6B010AMR1A015AGWMO

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FedEx Express

2 of 2
MPS# 0263 7209 7850 2102
Mstr# 7209 7850 2098 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE:
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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2 of 3
MPS# 0263 7209 7850 1882
Mstr# 7209 7850 1871 0201

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LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

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TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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1 of 2
TRK# 0201 7209 7850 2076
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PRIORITY OVERNIGHT

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LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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Mstr# 7209 7850 2054 0201

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PRIORITY OVERNIGHT

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VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWMO

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Part # 156148-434 NAIT V3.04.05

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWMO

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MPS# 0263 7209 7850 2249
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PRIORITY OVERNIGHT
Mstr# 7209 7850 2238 0201
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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 61.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0223KY10

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1 of 2
TRK# 0201 7209 7850 2032
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Part # 156148-434 NAIT V3.04.05

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AAREW0140T500

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LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

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1 of 3
TRK# 0201 7209 7850 1941
MASTER

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0223KY10

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2 of 2
MPS# 0263 7209 7850 2043
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THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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PRIORITY OVERNIGH

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 57.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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2 of 2
MPS# 0263 7209 7850 2124
MstrW 7209 7850 2113 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

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LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014178/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

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FedEx Express

TRK# 0201 7209 7850 1974

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
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TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014178/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

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FedEx Express

1 of 2
TRK# 0201 7209 7850 1985
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THU - 25FEB A1
PRIORITY OVERNIGHT

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LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

4c

FedEx Express

1 of 2
TRK# 0201 7209 7850 2000
MASTER

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID:
VALENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 66.0 LB MAN
CAD: 0014178/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

4c

FedEx Express

2 of 2
MPS# 0263 7209 7850 2087
Mstr# 7209 7850 2076 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE24

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYDO

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FedEx Express

2 of 2
MPS# 0263 7209 7850 2010
Mstr# 7209 7850 2000 0201

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PRIORITY OVERNIG

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF1-6B010AWESL11570000

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FedEx Express

TRK# 0201 7209 7850 2157

THU - 25FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VADO

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1 of 3
TRK# 0201 7209 7850 1871
MASTER

THU - 25FEB
PRIORITY OVERNI

294
SC

XX CHSA

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VADO

12C

FedEx Express

3 of 3
MPS# 0263 7209 7850 1893
Mstr# 7209 7850 1871 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

12c

FedEx Express

3 of 3
MPS# 0263 7209 7850 1849
Mstr# 7209 7850 1827 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

2940
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XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

13c

FedEx Express

2 of 3
MPS# 0263 7209 7850 1838
Mstr# 7209 7850 1827 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

13c

FedEx Express

2 of 2
MPS# 0263 7209 7850 1860
Mstr# 7209 7850 1850 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB.
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

13c

FedEx Express

1 of 2
TRK# 0201 7209 7850 1850
** MASTER **

THU - 25FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

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JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2450

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TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
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1 of 2
TRK# 0201 7209 7850 1908
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DATA REVIEW QUALIFIER FLAG DEFINITION SHEET

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-2040

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	959038
Prep Batch Number:	959037

Sample Analysis

Sample ID	Client ID
248023001	CAPA-10-12916
1202056709	Interference Check Sample (ICS)
1202056703	Method Blank (MB)
1202056704	Laboratory Control Sample (LCS)
1202056707	248044001(CAPA-10-12770) Matrix Spike (MS)
1202056708	248044001(CAPA-10-12770) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

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Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 248044001 (CAPA-10-12770) was chosen for matrix spike and matrix spike duplicate analysis. Please see the raw data in the Miscellaneous Section.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG.

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Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value. The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column: Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Pat Fitts **Date:** 3/18/2010

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SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-12916

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2040

GEL Sample ID: 248023001

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.247	ug/L		1	14-MAR-10 22:25	per0314051a
	Perchlorate Isotope Ratio			2.97			1	14-MAR-10 22:25	per0314051a
14797-73-0	Perchlorate-101	.05	.2	0.257	ug/L		1	14-MAR-10 22:25	per0314051a
	Perchlorate-O(18)			0.444	ug/L		1	14-MAR-10 22:25	per0314051a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2040

Extract Batch Code: 959037

Date Filtered: 06–MAR–10

Matrix: GROUND WATER

Sample ID: 1202056704

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.2	ug/L	99.9		85 – 115
Perchlorate Isotope Ratio		3.13				–
Perchlorate–101	0.200	.197	ug/L	98.5		85 – 115
Perchlorate–O(18)		.464	ug/L			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2040

Extract Batch Code: 959037

Date Filtered: 06–MAR–10

Matrix: GROUND WATER

Sample ID: 1202056709

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.205	ug/L	102		70 – 130
Perchlorate Isotope Ratio		2.88				
Perchlorate–101	0.200	.22	ug/L	110		70 – 130
Perchlorate–O(18)		.488	ug/L			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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uantify Sample Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Charlers W. Wilson

ıtaset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

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inted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

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erchlorate

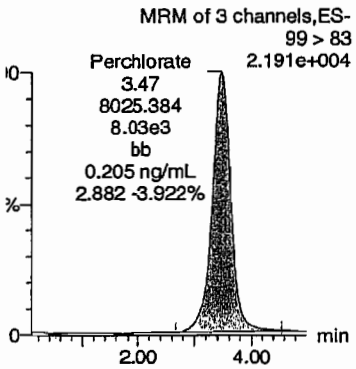

Perchlorate

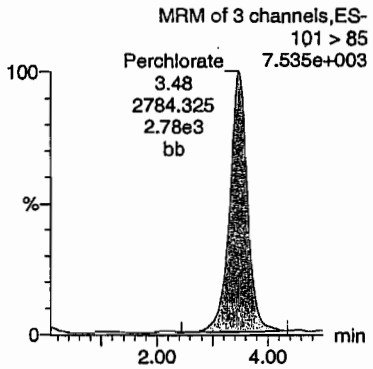

Perchlorate-101

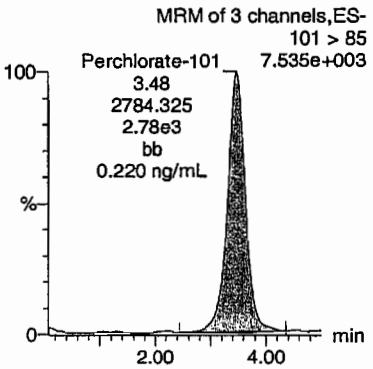

Perchlorate-O(18)

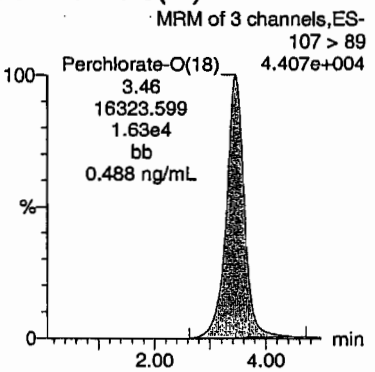

	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
02056709	Perchlorate	99 > 83	3.47	8025.384	8025.384	bb			0.2050	102.48	2.48	895.049	2.88
02056709	Perchlorate-101	101 > 85	3.48	2784.325	2784.325	bb			0.2196	109.80	9.80	474.575	
02056709	Perchlorate-O(18)	107 > 89	3.46	16323.599	16323.599	bb			0.4878	97.56	-2.44	3776.4...	

MAT 3/16/10

$$\frac{8025.384}{2784.325} = 2.8823$$

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Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–2040

Extract Batch Code: 959037

Date Extracted: 06–MAR–10

GEL MS/PS ID: 1202056707

Client ID: CAPA–10–12770

GEL MSD/PSD ID: 1202056708

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	0.200	0.302	ug/L	0.484	90.9	.496	97.2	2.58	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		2.88		3.04		0		–
Perchlorate–101	0.200	0.310	ug/L	0.519	105	.504	97	2.99	30	75 – 125
Perchlorate–O(18)	0	0.505	ug/L	0.471		.476		1.08		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2040

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	14–MAR–10	per0314001a	IPB001
Perchlorate–101	0.00	0	NA	14–MAR–10	per0314001a	IPB001
Perchlorate	0.00	0	NA	14–MAR–10	per0314002a	IPB001
Perchlorate–101	0.00	0	NA	14–MAR–10	per0314002a	IPB001

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antify Sample Report MassLynx 4.0 SP4
: GEL Group, LLC Analyst: Charlers W. Wilson

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ıted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

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IPB001
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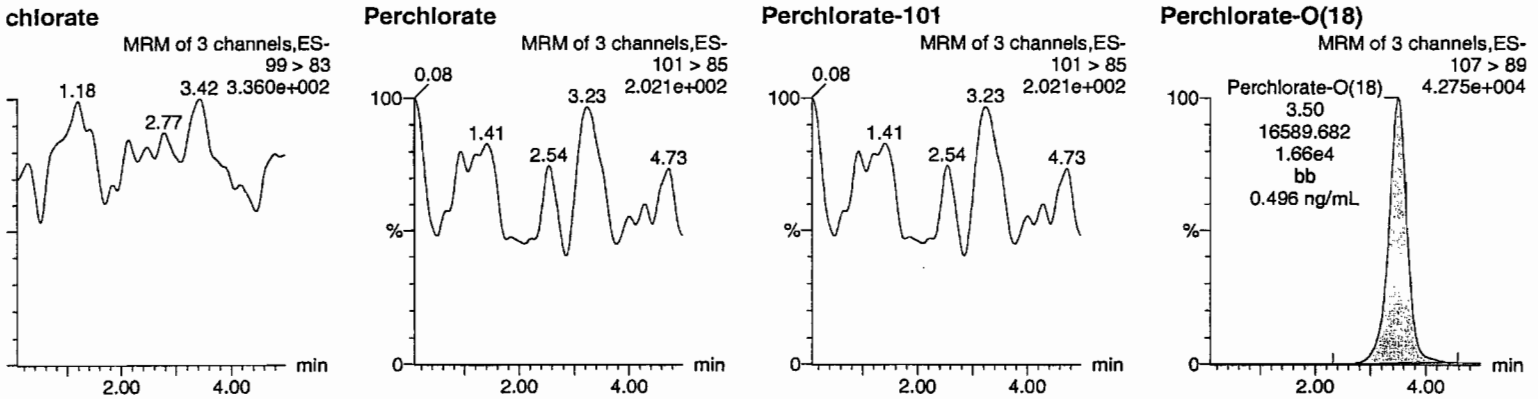

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
)01	Perchlorate	99 > 83											0.00
)01	Perchlorate-101	101 > 85											
)01	Perchlorate-O(18)	107 > 89	3.50	16589.682	16589.682	bb			0.4958	99.15	-0.85	1780.0...	

MHT 3/16/10

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antify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

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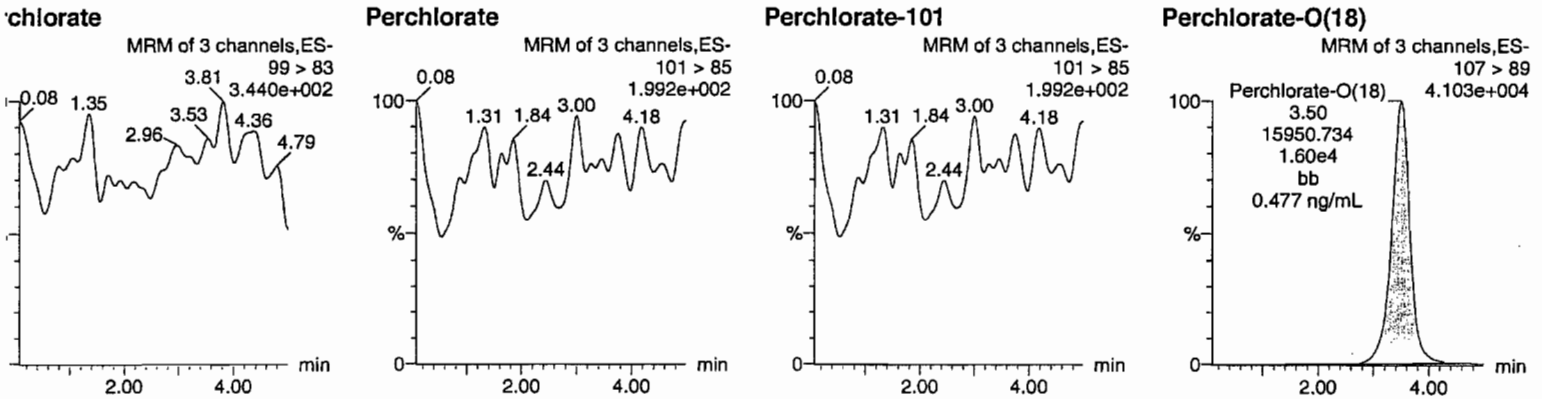

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)01	Perchlorate	99 > 83											0.00
)01	Perchlorate-101	101 > 85											
)01	Perchlorate-O(18)	107 > 89	3.50	15950.734	15950.734	bb			0.4767	95.34	-4.66	1555.8...	

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. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2040

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	14–MAR–10	per0314008a	IPB002
Perchlorate–101	0.00	0	NA	14–MAR–10	per0314008a	IPB002
Perchlorate	0.00	0	NA	14–MAR–10	per0314010a	IPB003
Perchlorate–101	0.00	0	NA	14–MAR–10	per0314010a	IPB003
Perchlorate	0.00	0	NA	14–MAR–10	per0314023a	IPB004
Perchlorate–101	0.00	0	NA	14–MAR–10	per0314023a	IPB004
Perchlorate	0.00	0	NA	14–MAR–10	per0314036a	IPB005
Perchlorate–101	0.00	0	NA	14–MAR–10	per0314036a	IPB005
Perchlorate	0.00	0	NA	14–MAR–10	per0314041a	IPB006
Perchlorate–101	0.00	0	NA	14–MAR–10	per0314041a	IPB006
Perchlorate	0.00	0	NA	14–MAR–10	per0314049a	IPB007
Perchlorate–101	0.00	0	NA	14–MAR–10	per0314049a	IPB007
Perchlorate	0.00	0	NA	14–MAR–10	per0314062a	IPB008

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2040

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate–101	0.00	0	NA	14–MAR–10	per0314062a	IPB008

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: GEL Group, LLC Analyst: Charlers W. Wilson

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ıted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

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ıe: 16:37:25
IPB002
ı: 1:1,A

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chlorate

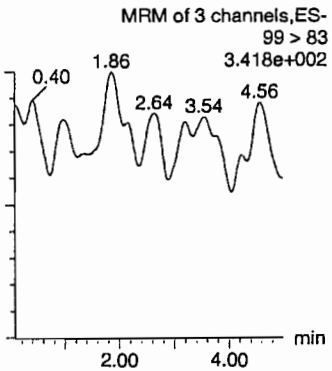

Perchlorate

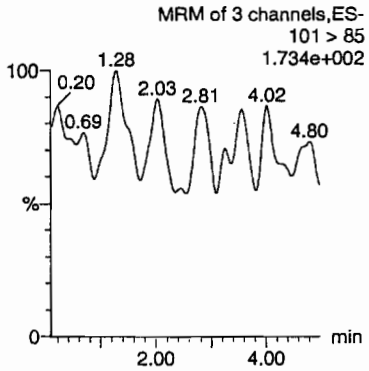

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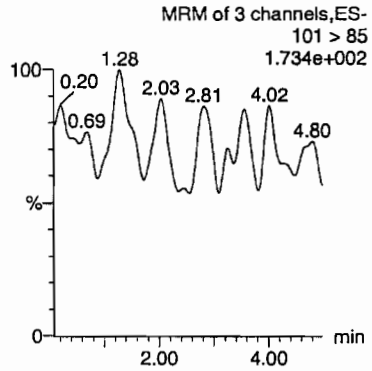

Perchlorate-O(18)

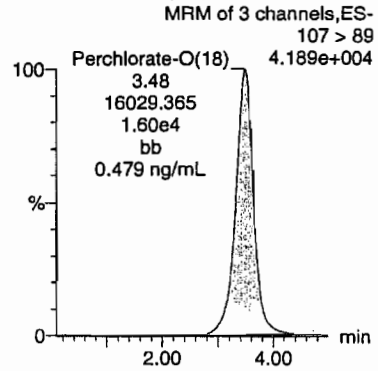

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
)02	Perchlorate	99 > 83											0.00
)02	Perchlorate-101	101 > 85											
)02	Perchlorate-O(18)	107 > 89	3.48	16029.365	16029.365	bb			0.4790	95.81	-4.19	1104.5...	

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. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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antify Sample Report MassLynx 4.0 SP4
ɜ GEL Group, LLC Analyst: Charlers W. Wilson

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ıted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ne: per0314010a
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ıe: 16:53:41
IPB003
l: 1:1,A

03-15-10

chlorate

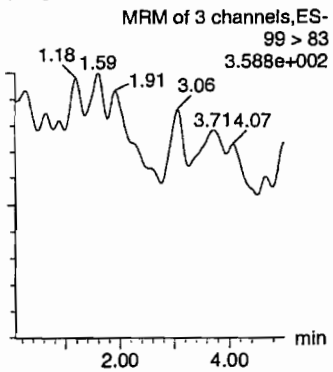

Perchlorate

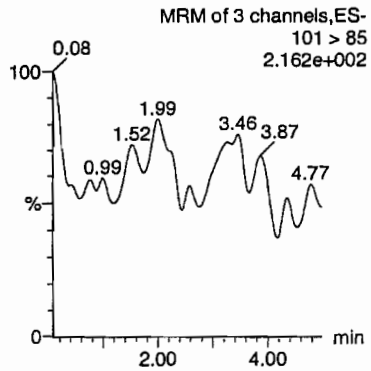

Perchlorate-101

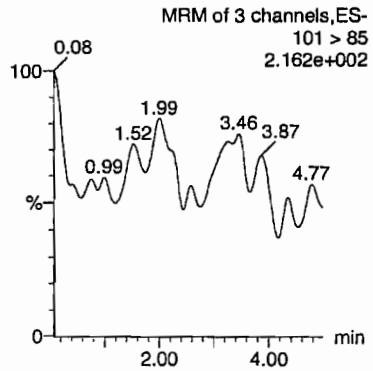

Perchlorate-O(18)

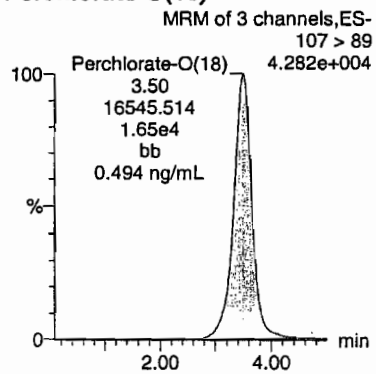

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
03	Perchlorate	99 > 83											0.00
03	Perchlorate-101	101 > 85											
03	Perchlorate-O(18)	107 > 89	3.50	16545.514	16545.514	bb			0.4945	98.89	-1.11	1258.9...	

MAT 3/16/10

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

antify Sample Report MassLynx 4.0 SP4

e GEL Group, LLC Analyst: Charlers W. Wilson

taset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

st Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
nted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

me: per0314023a
te: 14-Mar-2010
ne: 18:38:13
IPB004
l: 1:1,A

CWW
03-570

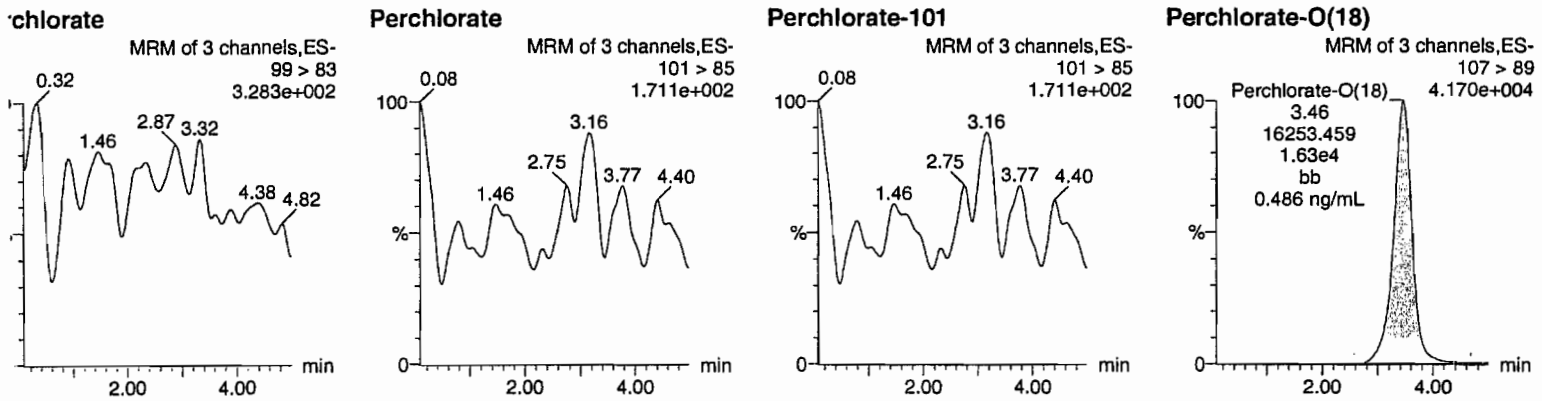

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
)04	Perchlorate	99 > 83											0.00
)04	Perchlorate-101	101 > 85											
)04	Perchlorate-O(18)	107 > 89	3.46	16253.459	16253.459	bb			0.4857	97.14	-2.86	1623.8...	

MAT
3/16/10

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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antify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

:aset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

:t Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

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e: 20:23:35
IPB005
l: 1:1,A

330
03-15-10

chlorate

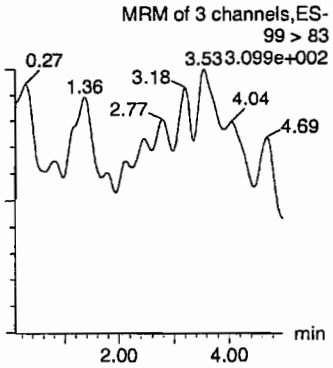

Perchlorate

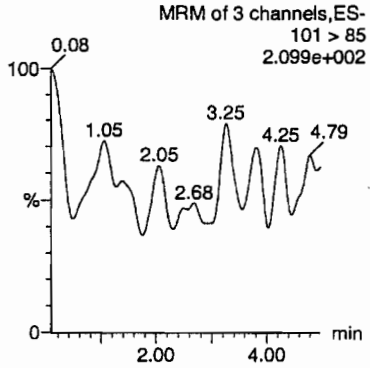

Perchlorate-101

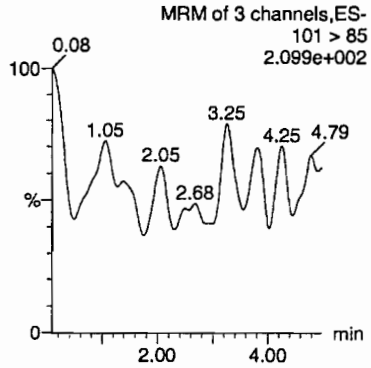

Perchlorate-O(18)

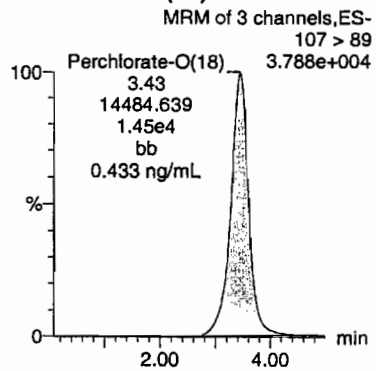

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
05	Perchlorate	99 > 83											0.00
05	Perchlorate-101	101 > 85											
05	Perchlorate-O(18)	107 > 89	3.43	14484.639	14484.639	bb			0.4329	86.57	-13.43	330.725	

MAP
3/16/10

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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antify Sample Report MassLynx 4.0 SP4
: GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

t Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

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e: 14-Mar-2010
e: 21:04:20
IPB006
: 1:1,A

CWO
03-15-10

chlorate

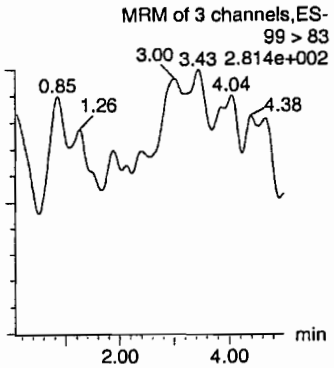

Perchlorate

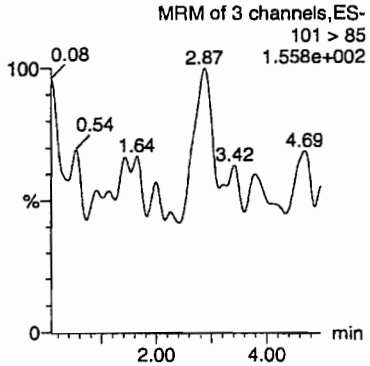

Perchlorate-101

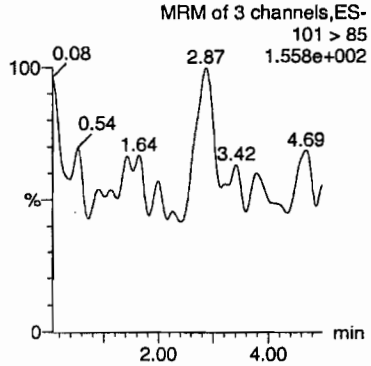

Perchlorate-O(18)

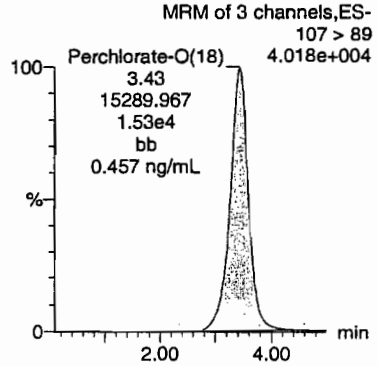

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
)06	Perchlorate	99 > 83											0.00
)06	Perchlorate-101	101 > 85											
)06	Perchlorate-O(18)	107 > 89	3.43	15289.967	15289.967	bb			0.4569	91.39	-8.61	4719.0...	

MAP
3/16/10

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GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

: Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

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ɜ: 14-Mar-2010
e: 22:09:28
PB007
: 1:1,A

CWO 03-15-10

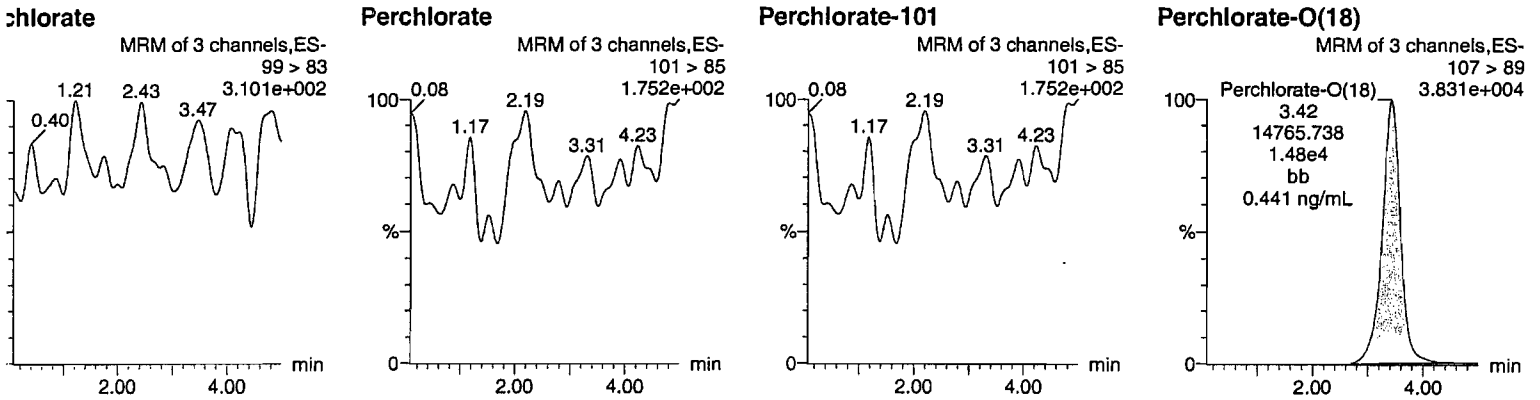

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
ı07	Perchlorate	99 > 83											0.00
ı07	Perchlorate-101	101 > 85											
ı07	Perchlorate-O(18)	107 > 89	3.42	14765.738	14765.738	bb			0.4413	88.25	-11.75	2275.0...	

MAT 3/16/10

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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antify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

t Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

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e: 14-Mar-2010
e: 23:54:34
IPB008
l: 1:1,A

03-5-10

chlorate

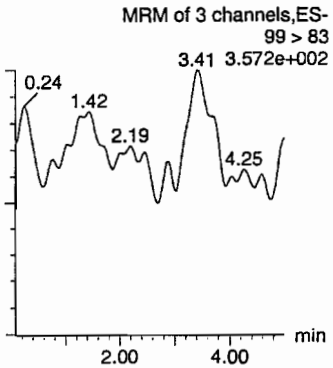

Perchlorate

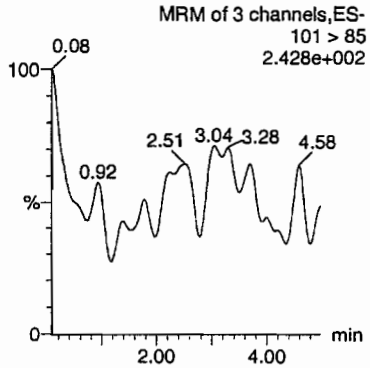

Perchlorate-101

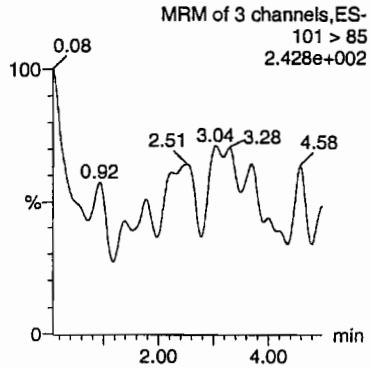

Perchlorate-O(18)

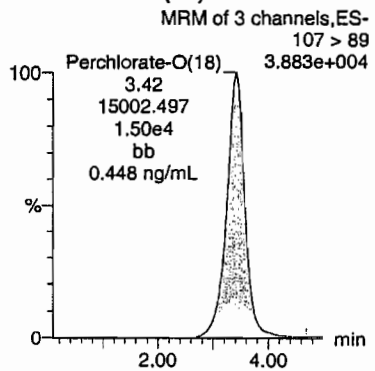

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
)08	Perchlorate	99 > 83											0.00
)08	Perchlorate-101	101 > 85											
)08	Perchlorate-O(18)	107 > 89	3.42	15002.497	15002.497	bb			0.4483	89.67	-10.33	1644.4...	

MJT 3/16/10

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/RbI (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATTRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static **Page 1 of 1**

Printed: **Tue Jan 08 12:19:12 2008**

PEAKS HIGHLIGHTED BY CWW 01-09-08

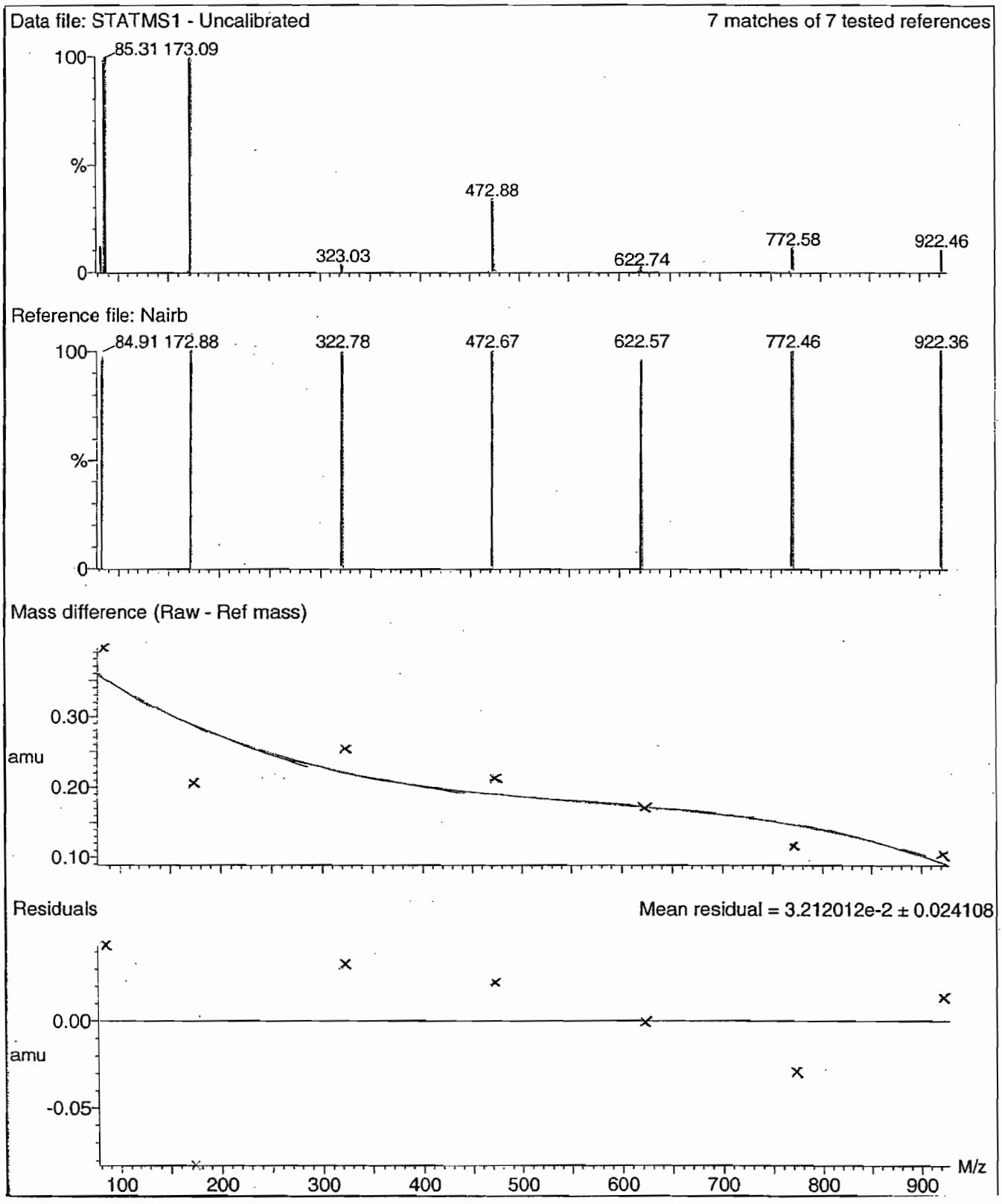

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scanning

Printed: **Tue Jan 08 12:20:09 2008**

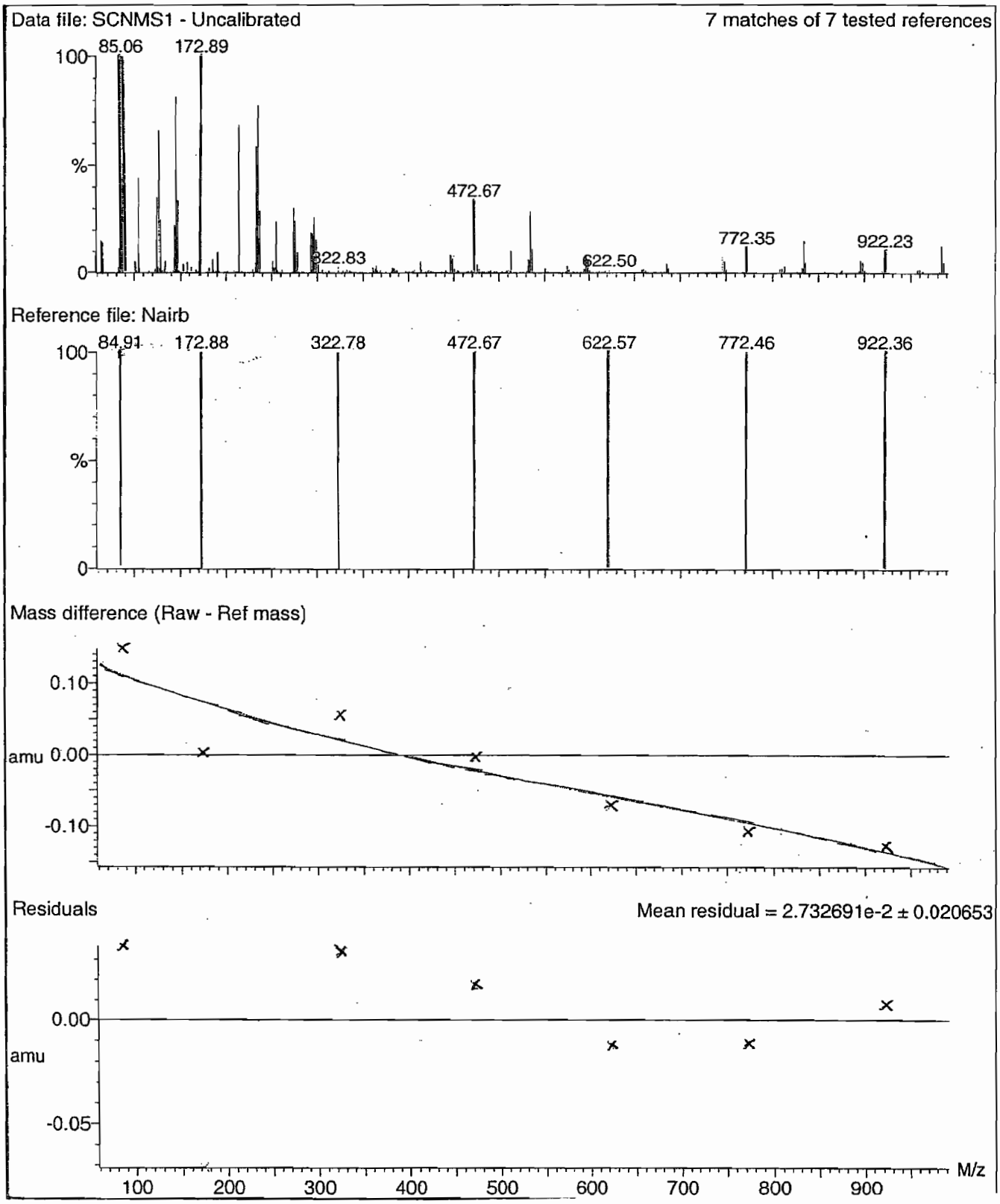

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS1 Scan Speed Compensation

Printed: **Tue Jan 08 12:21:04 2008**

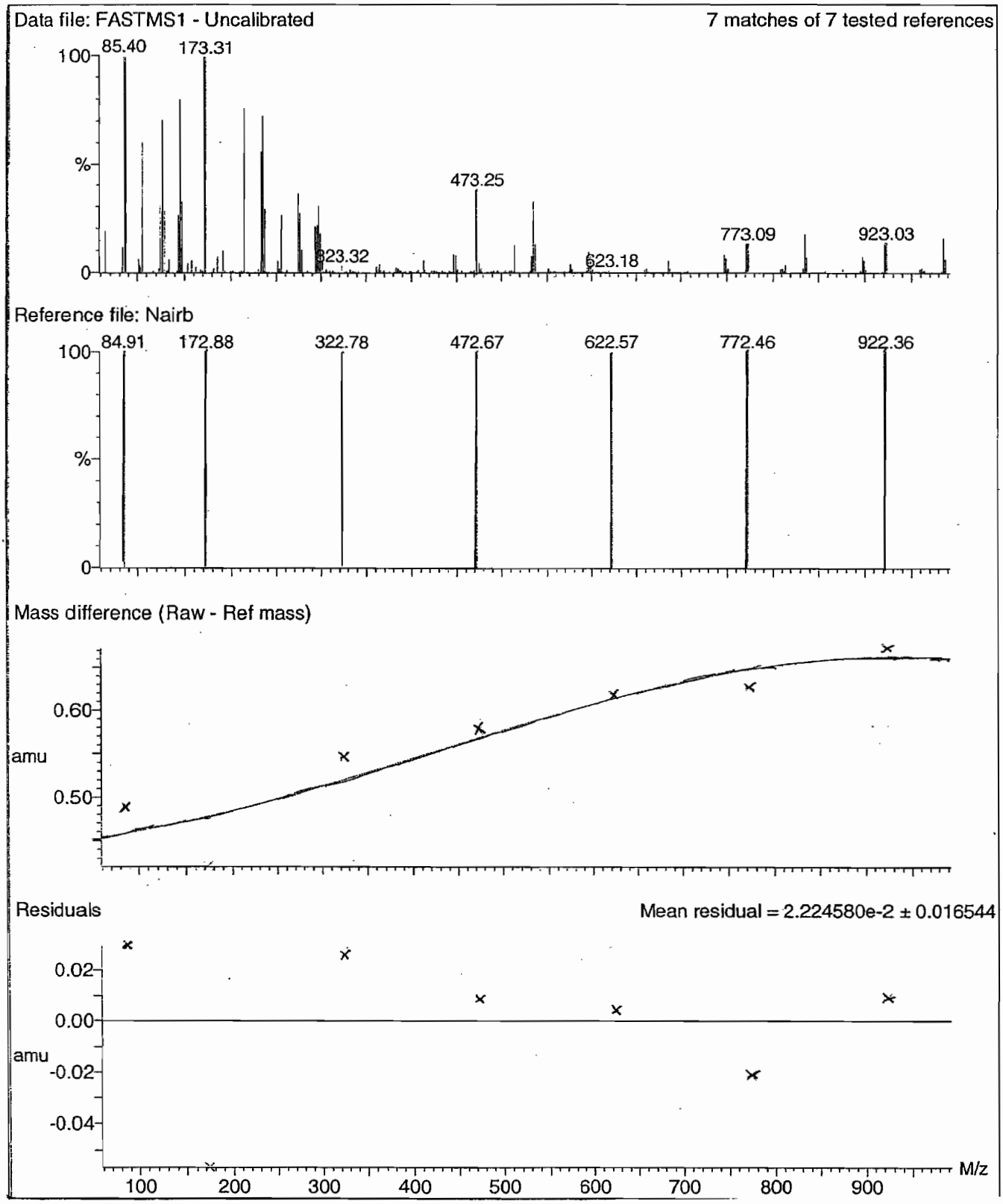

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scan Speed Compensation

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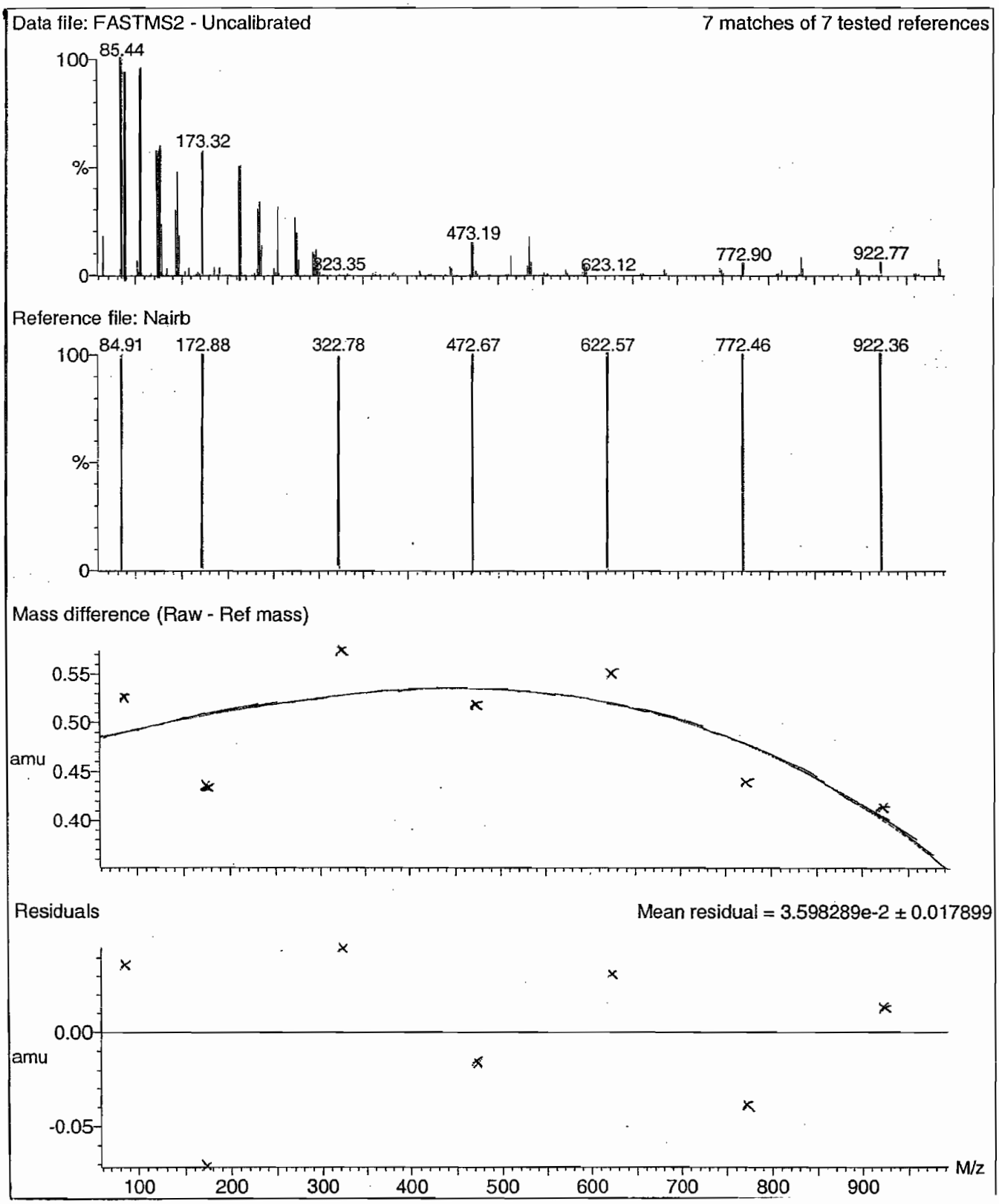

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Scanning

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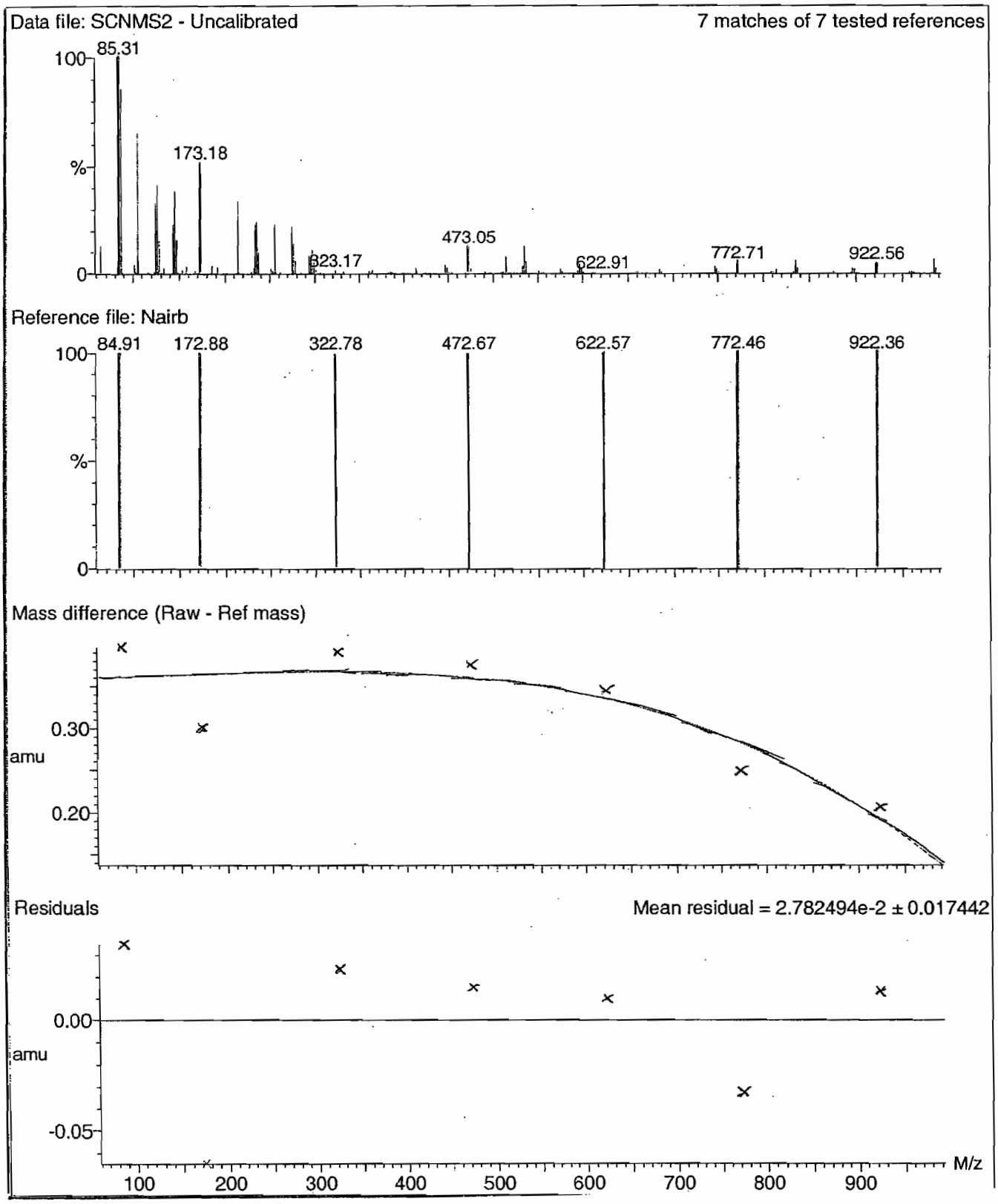

PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Calibration Report - MS2 Static

Printed: **Tue Jan 08 12:21:59 2008**

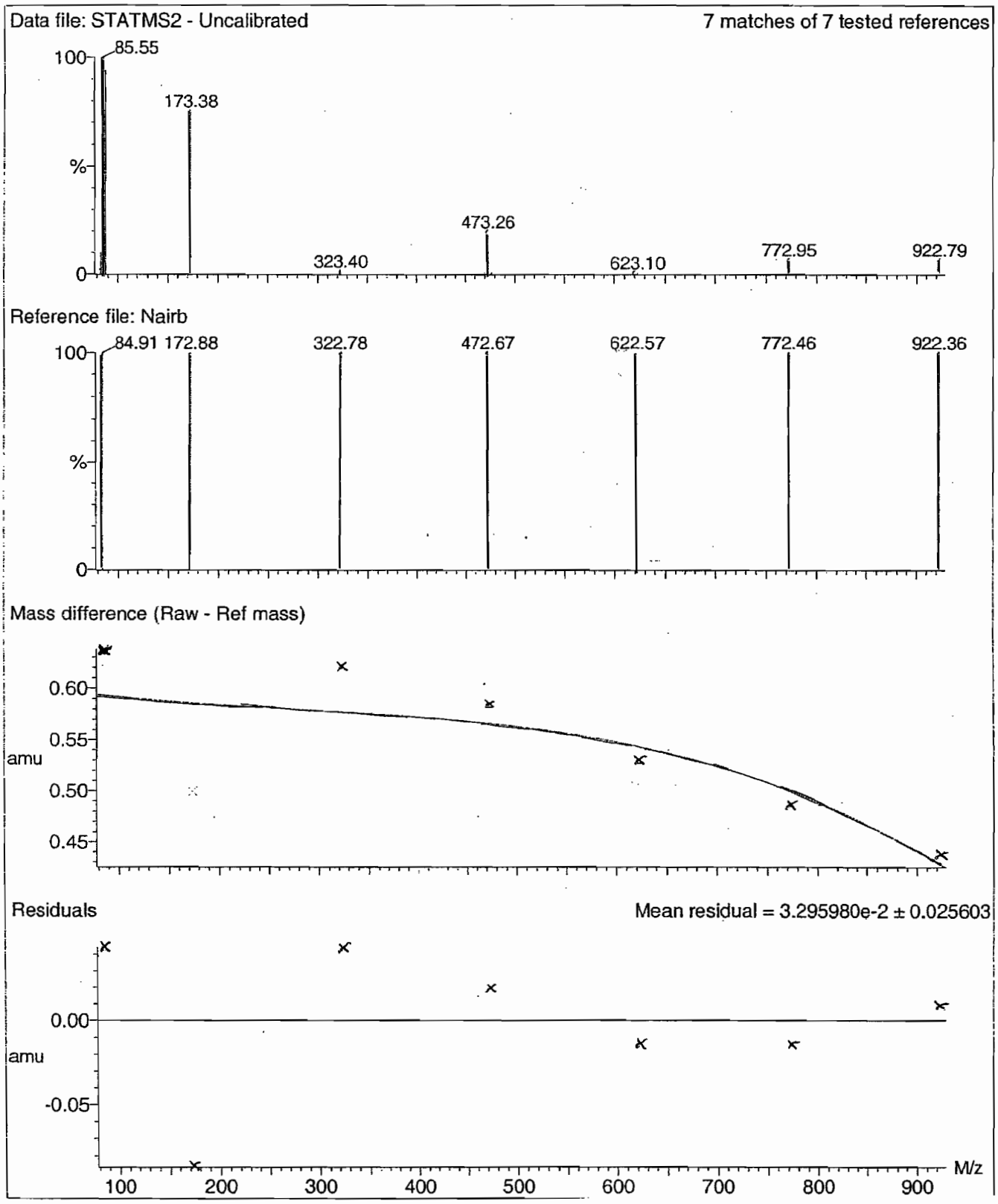

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File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Sunday, March 14, 2010 11:36:48 Eastern Standard Time

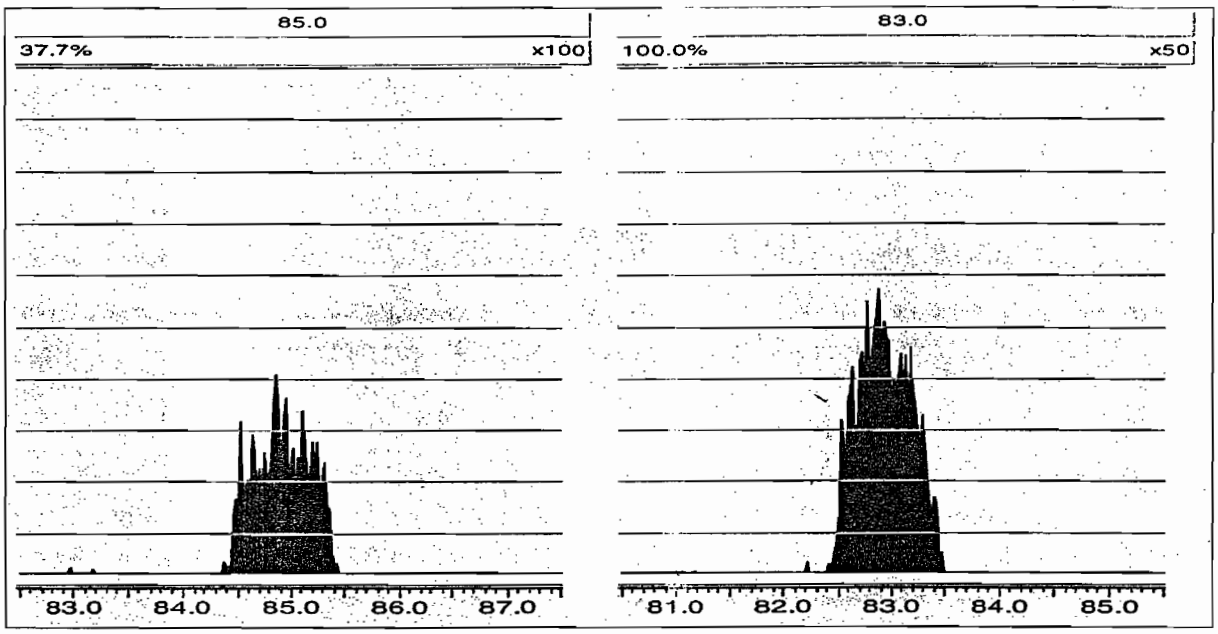

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2040

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0314006a**	**14–MAR–10**	**17326**				
Lower Area Limit			**8663**				
Upper Area Limit			**34652**				
1202056703	per0314042a	14–MAR–10 21:12	14003.5	3.43			
1202056704	per0314043a	14–MAR–10 21:20	15542.5	3.42	3.44547	1.007	
1202056709	per0314044a	14–MAR–10 21:28	16323.6	3.46	3.47045	1.003	
248023001	per0314051a	14–MAR–10 22:25	14870.1	3.42	3.43315	1.004	

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SAMPLE
DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-12916

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2040

GEL Sample ID: 248023001

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.247	ug/L		1	14-MAR-10 22:25	per0314051a
	Perchlorate Isotope Ratio			2.97			1	14-MAR-10 22:25	per0314051a
14797-73-0	Perchlorate-101	.05	.2	0.257	ug/L		1	14-MAR-10 22:25	per0314051a
	Perchlorate-O(18)			0.444	ug/L		1	14-MAR-10 22:25	per0314051a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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ıantify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

.taset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

st Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
nted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

me: per0314051a
te: 14-Mar-2010
ne: 22:25:48
: 248023001
ıl: 2:2,A

LCMS | 959038 | L2Q | 11

WO 03-15-10

rchlorate

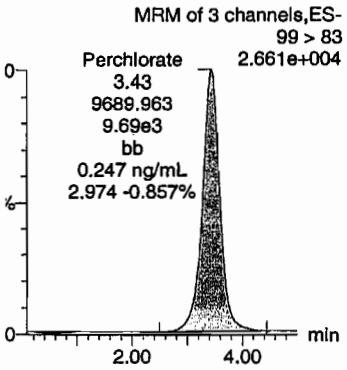

Perchlorate

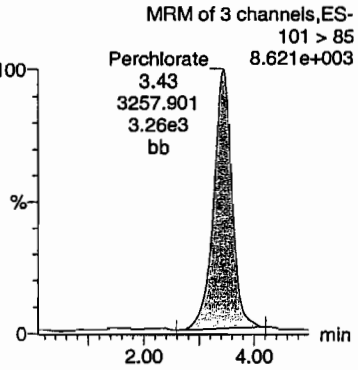

Perchlorate-101

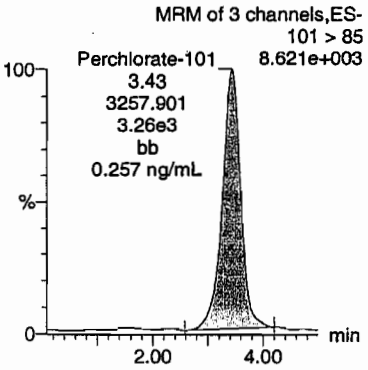

Perchlorate-O(18)

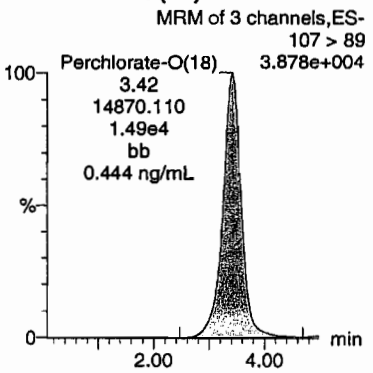

	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
3023001	Perchlorate	99 > 83	3.43	9689.963	9689.963	bb			0.2475			1162.7...	2.97
3023001	Perchlorate-101	101 > 85	3.43	3257.901	3257.901	bb			0.2570			177.138	
3023001	Perchlorate-O(18)	107 > 89	3.42	14870.110	14870.110	bb			0.4444	88.88	-11.12	2321.2...	

MMT 3/16/10

$$\frac{9689.963}{39154.1} = 0.2475$$

:L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2040

Lab Code: GEL

Instrument ID: LCMSMS **Date Analvzed:** 14–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 39154.12

Response Type: External Standard

Curve Type: RF

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Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2040

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 14–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 12679.04

Response Type: External Standard

Curve Type: RF

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ıantify Calibration Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

taset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

st Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
nted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

thod: C:\MassLynx\Perchlorate.PRO\MethDB\per031410a.mdb 15 Mar 2010 08:54:46
libration: C:\MassLynx\Perchlorate.PRO\CurveDB\per031410a.cdb 15 Mar 2010 08:56:54

mpound name: Perchlorate
sponse Factor: 39154.1
F SD: 1960.58, % Relative SD: 5.00734
sponse type: External Std, Area
rve type: RF

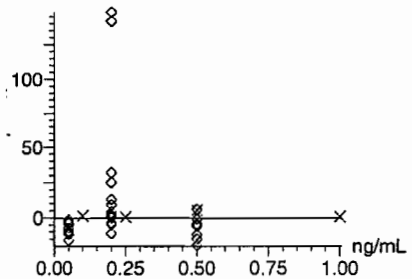

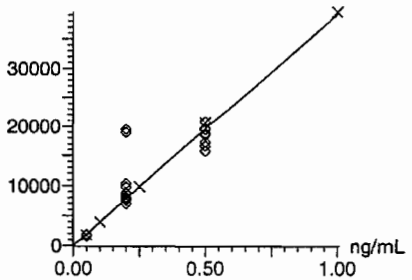

CWJ
03-15-10

npound name: Perchlorate-101
sponse Factor: 12679
F SD: 1159.92, % Relative SD: 9.14836
sponse type: External Std, Area
ve type: RF

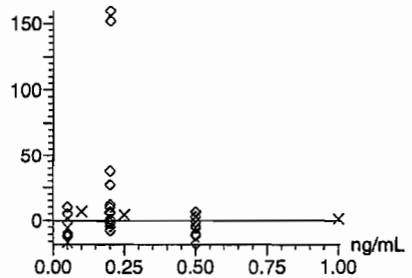

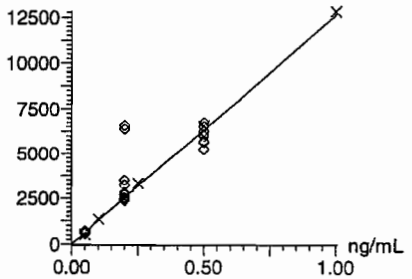

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MAT
3/16/10

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antify Calibration Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

t Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

npound name: Perchlorate-O(18)
sponse Factor: 33462.4
SD: 678.465, % Relative SD: 2.02755
sponse type: External Std, Area
ve type: RF

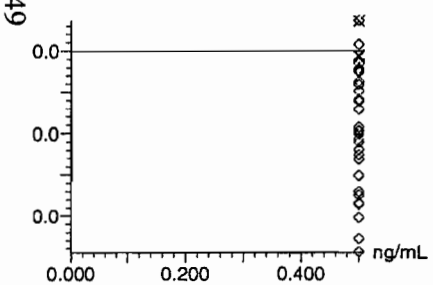

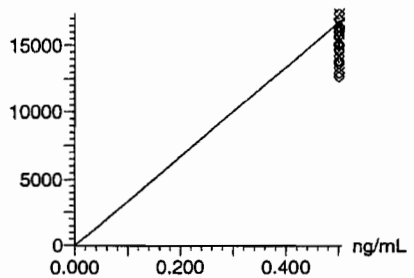

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Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2040

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.53	105.94	14–MAR–10 16:45	per0314009a
Perchlorate Isotope Ratio		3.07		14–MAR–10 16:45	per0314009a
Perchlorate–101	.5	.53	106.4	14–MAR–10 16:45	per0314009a

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

Last Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
Printed: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

Name: per0314009a
Date: 14-Mar-2010
Time: 16:45:39
ID: WCL100309-06ICV
Vial: 1:2,A

Perc
03-1510

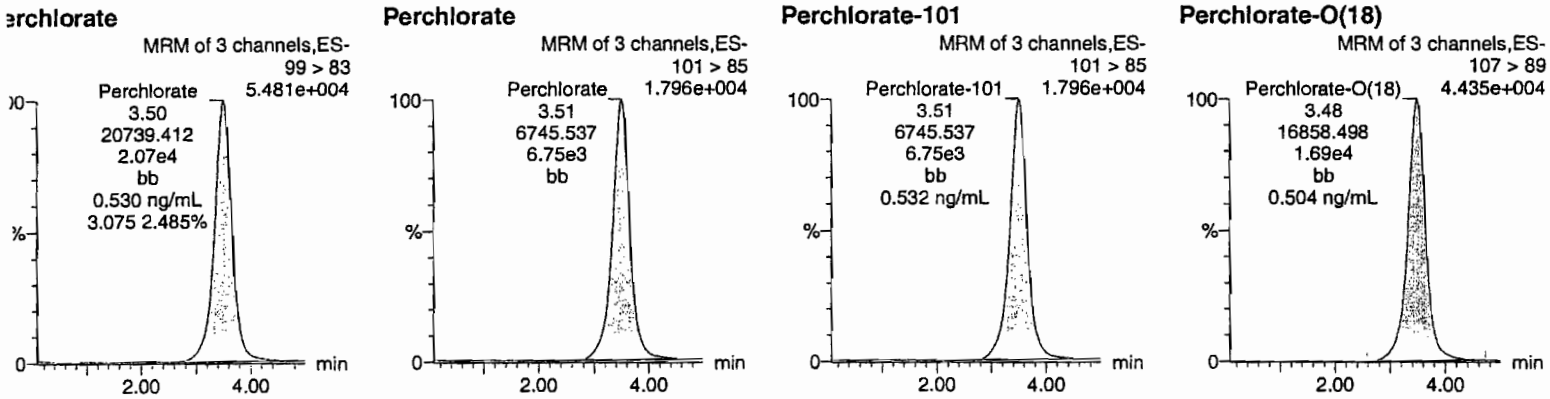

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100309-06ICV	Perchlorate	99 > 83	3.50	20739.412	20739.412	bb			0.5297	105.94	5.94	4083.9...	3.07
CL100309-06ICV	Perchlorate-101	101 > 85	3.51	6745.537	6745.537	bb			0.5320	106.40	6.40	253.341	
CL100309-06ICV	Perchlorate-O(18)	107 > 89	3.48	16858.498	16858.498	bb			0.5038	100.76	0.76	7322.5...	

MM 3/16/10

$\frac{20739.412}{39154.1} = 0.5297$

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2040

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	99.52	14–MAR–10 18:30	per0314022a
Perchlorate Isotope Ratio		3.12		14–MAR–10 18:30	per0314022a
Perchlorate–101	.5	.49	98.56	14–MAR–10 18:30	per0314022a
Perchlorate	.5	.5	99.03	14–MAR–10 20:15	per0314035a
Perchlorate Isotope Ratio		2.97		14–MAR–10 20:15	per0314035a
Perchlorate–101	.5	.52	103.01	14–MAR–10 20:15	per0314035a
Perchlorate	.5	.5	99.09	14–MAR–10 22:01	per0314048a
Perchlorate Isotope Ratio		3.18		14–MAR–10 22:01	per0314048a
Perchlorate–101	.5	.48	96.26	14–MAR–10 22:01	per0314048a
Perchlorate	.5	.48	95.03	14–MAR–10 23:46	per0314061a
Perchlorate Isotope Ratio		3.05		14–MAR–10 23:46	per0314061a
Perchlorate–101	.5	.48	96.29	14–MAR–10 23:46	per0314061a

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antify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

taset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

st Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
nted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

me: per0314022a
te: 14-Mar-2010
ne: 18:30:11
WCL100309-06CCV
l: 1:2,A

Pass
03-15-10

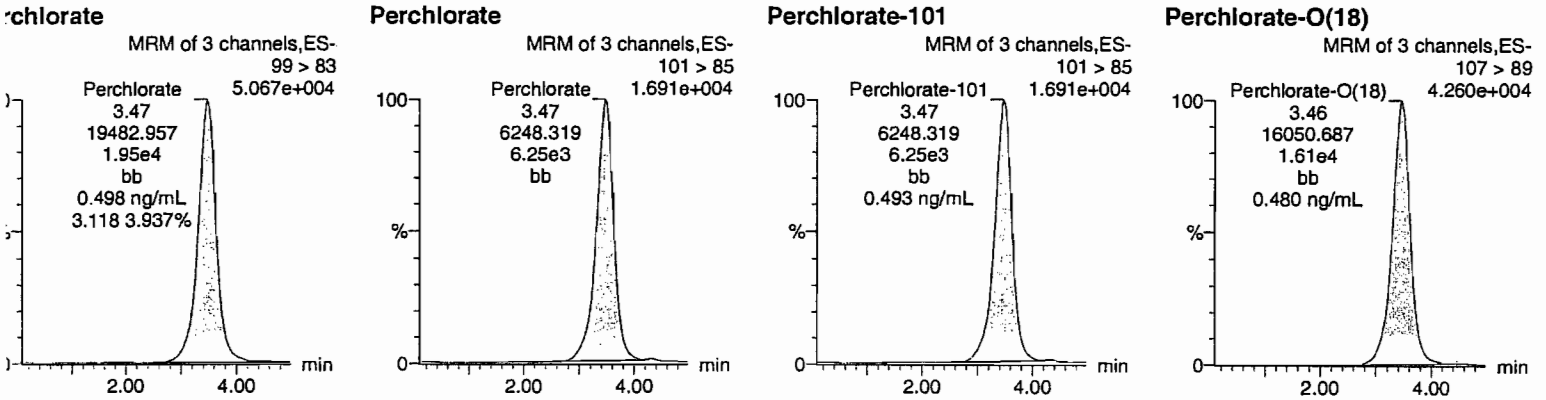

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
:L100309-06CCV	Perchlorate	99 > 83	3.47	19482.957	19482.957	bb			0.4976	99.52	-0.48	1472.0...	3.12
:L100309-06CCV	Perchlorate-101	101 > 85	3.47	6248.319	6248.319	bb			0.4928	98.56	-1.44	709.723	
:L100309-06CCV	Perchlorate-O(18)	107 > 89	3.46	16050.687	16050.687	bb			0.4797	95.93	-4.07	2122.7...	

MM 3/16/10

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uantify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

taset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

st Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
inted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

me: per0314035a
te: 14-Mar-2010
ne: 20:15:24
: WCL100309-06CCV
al: 1:2,A

Pass
ano
03-15-10

rchlorate

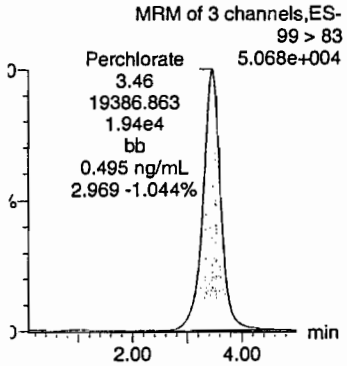

Perchlorate

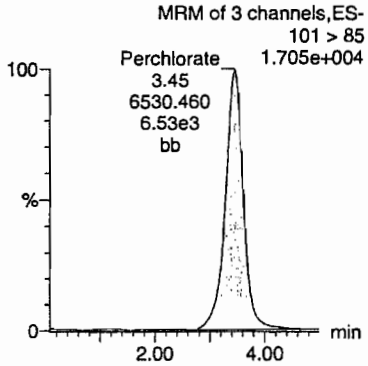

Perchlorate-101

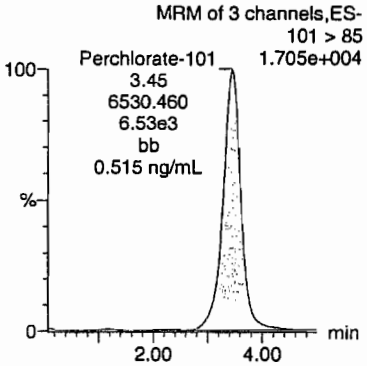

Perchlorate-O(18)

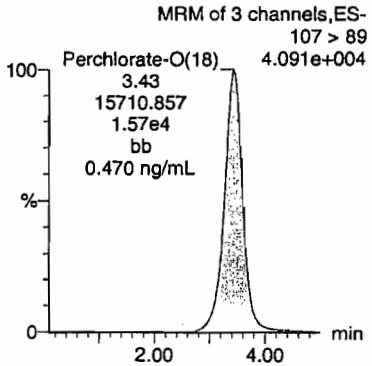

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
:L100309-06CCV	Perchlorate	99 > 83	3.46	19386.863	19386.863	bb			0.4951	99.03	-0.97	5888.7...	2.97
:L100309-06CCV	Perchlorate-101	101 > 85	3.45	6530.460	6530.460	bb			0.5151	103.01	3.01	2522.5...	
:L100309-06CCV	Perchlorate-O(18)	107 > 89	3.43	15710.857	15710.857	bb			0.4695	93.90	-6.10	4011.6...	

MATT
3/16/10

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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ıantify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

ıtaset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

st Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
nted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

me: per0314048a
te: 14-Mar-2010
ne: 22:01:03
WCL100309-06CCV
ıl: 1:2,A

Perc
03-15-10

rchlorate

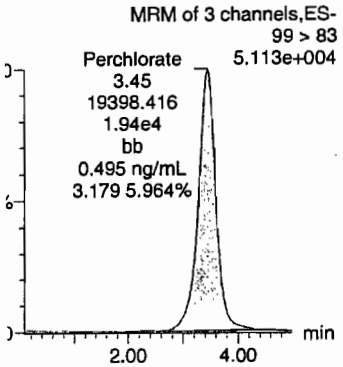

Perchlorate

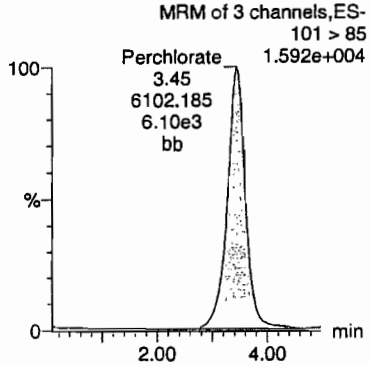

Perchlorate-101

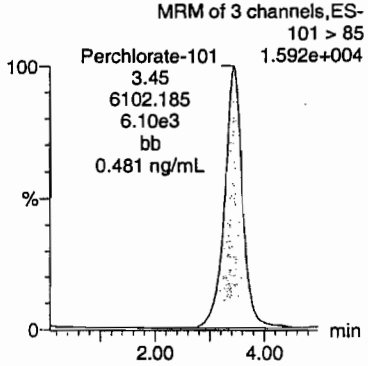

Perchlorate-O(18)

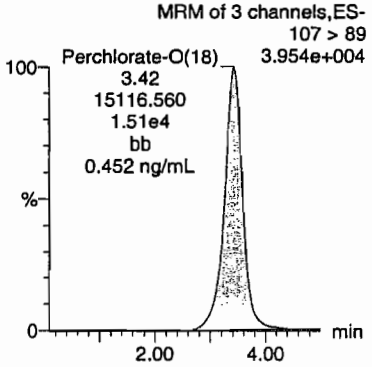

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
:L100309-06CCV	Perchlorate	99 > 83	3.45	19398.416	19398.416	bb			0.4954	99.09	-0.91	1156.9...	3.18
:L100309-06CCV	Perchlorate-101	101 > 85	3.45	6102.185	6102.185	bb			0.4813	96.26	-3.74	549.321	
:L100309-06CCV	Perchlorate-O(18)	107 > 89	3.42	15116.560	15116.560	bb			0.4517	90.35	-9.65	2164.6...	

MMP
3/16/10

_ SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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uantify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

taset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

st Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
inted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

me: per0314061a
te: 14-Mar-2010
ne: 23:46:17
: WCL100309-06CCV
l: 1:2,A

Rss
aw
03-15-10

rchlorate

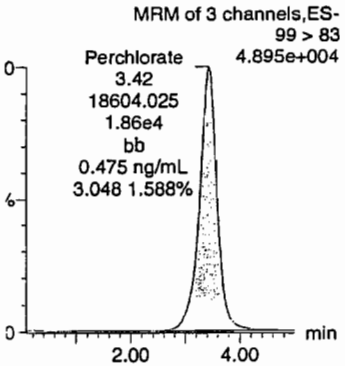

Perchlorate

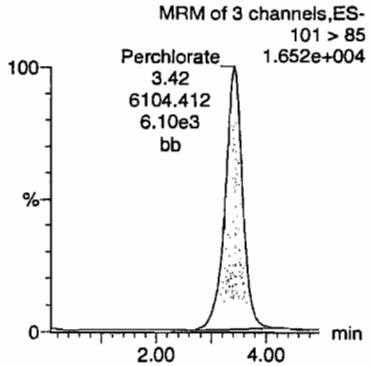

Perchlorate-101

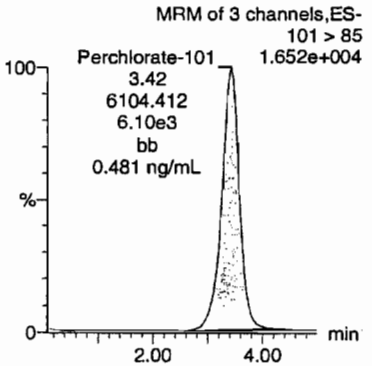

Perchlorate-O(18)

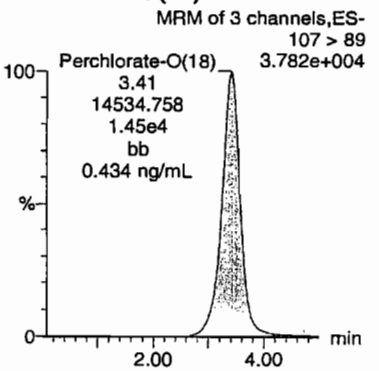

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100309-06CCV	Perchlorate	99 > 83	3.42	18604.025	18604.025	bb			0.4751	95.03	-4.97	1515.8...	3.05
CL100309-06CCV	Perchlorate-101	101 > 85	3.42	6104.412	6104.412	bb			0.4815	96.29	-3.71	357.264	
CL100309-06CCV	Perchlorate-O(18)	107 > 89	3.41	14534.758	14534.758	bb			0.4344	86.87	-13.13	1454.4...	

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2040

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	97.03	14–MAR–10 17:01	per0314011a
Perchlorate Isotope Ratio		2.72		14–MAR–10 17:01	per0314011a
Perchlorate–101	.05	.06	110.09	14–MAR–10 17:01	per0314011a
Perchlorate	.05	.05	98.74	14–MAR–10 18:46	per0314024a
Perchlorate Isotope Ratio		2.77		14–MAR–10 18:46	per0314024a
Perchlorate–101	.05	.06	110.06	14–MAR–10 18:46	per0314024a
Perchlorate	.05	.05	93.02	14–MAR–10 20:32	per0314037a
Perchlorate Isotope Ratio		2.73		14–MAR–10 20:32	per0314037a
Perchlorate–101	.05	.05	105.06	14–MAR–10 20:32	per0314037a
Perchlorate	.05	.05	98.54	14–MAR–10 22:17	per0314050a
Perchlorate Isotope Ratio		3.35		14–MAR–10 22:17	per0314050a

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2040

Lab Code: GEL

Reporting Units: ug/L

Perchlorate–101	.05	.05	90.8	14–MAR–10 22:17	per0314050a
Perchlorate	.05	.05	92.88	15–MAR–10 00:02	per0314063a
Perchlorate Isotope Ratio		3.19		15–MAR–10 00:02	per0314063a
Perchlorate–101	.05	.04	89.83	15–MAR–10 00:02	per0314063a

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uantify Sample Report MassLynx 4.0 SP4
ıe GEL Group, LLC Analyst: Charlers W. Wilson

ıataset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

ıst Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ɪinted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ıme: per0314011a
ıte: 14-Mar-2010
me: 17:01:44
: WCL100309-07CRI
al: 1:2,B

03-15-10

ɪrchlorate

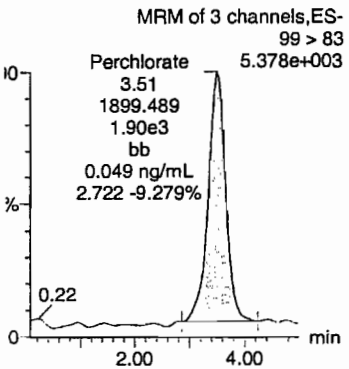

Perchlorate

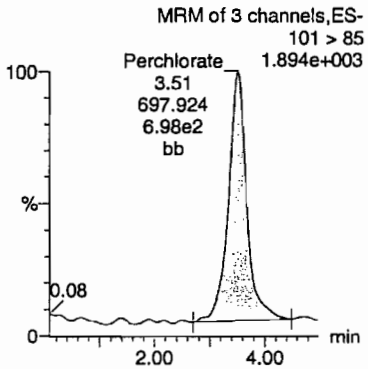

Perchlorate-101

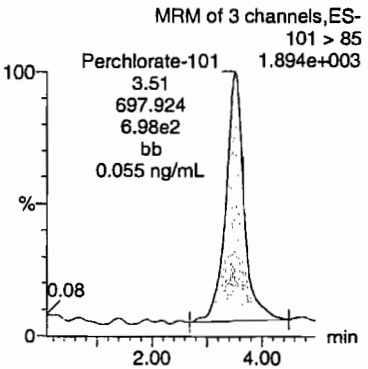

Perchlorate-O(18)

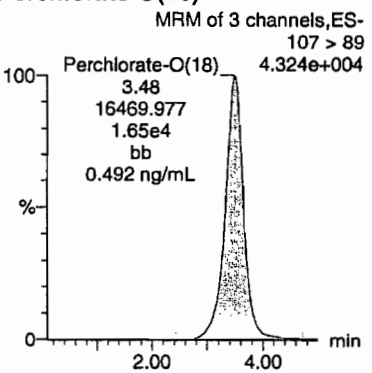

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100309-07CRI	Perchlorate	99 > 83	3.51	1899.489	1899.489	bb			0.0485	97.03	-2.97	100.911	2.72
CL100309-07CRI	Perchlorate-101	101 > 85	3.51	697.924	697.924	bb			0.0550	110.09	10.09	108.979	
CL100309-07CRI	Perchlorate-O(18)	107 > 89	3.48	16469.977	16469.977	bb			0.4922	98.44	-1.56	5729.9...	

MM 3/16/10

$\frac{1899.489}{39154.1} = 0.0485$

ɪL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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ataset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

ast Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
rinted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ame: per0314024a
ate: 14-Mar-2010
me: 18:46:16
: WCL100309-07CRI
al: 1:2,B

Pw
ano
03-15-10

erchlorate

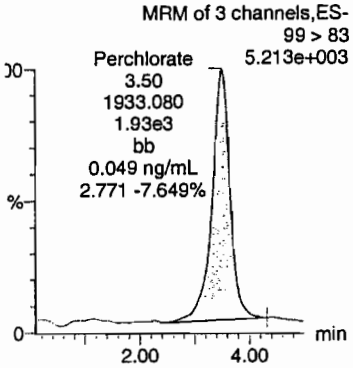

Perchlorate

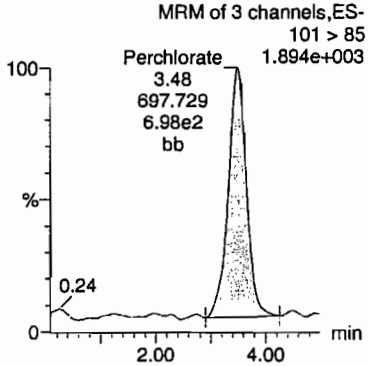

Perchlorate-101

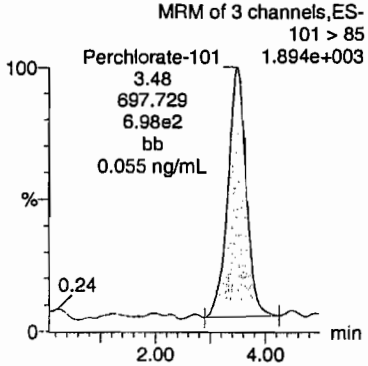

Perchlorate-O(18)

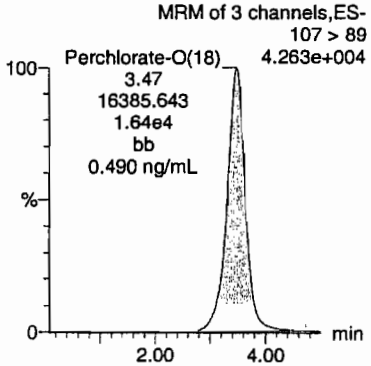

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100309-07CRI	Perchlorate	99 > 83	3.50	1933.080	1933.080	bb			0.0494	98.74	-1.26	118.141	2.77
CL100309-07CRI	Perchlorate-101	101 > 85	3.48	697.729	697.729	bb			0.0550	110.06	10.06	138.112	
CL100309-07CRI	Perchlorate-O(18)	107 > 89	3.47	16385.643	16385.643	bb			0.4897	97.93	-2.07	1621.0...	

MH
3/16/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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ataset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

ast Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
rinted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ame: per0314037a
ate: 14-Mar-2010
ime: 20:32:00
): WCL100309-07CRI
ial: 1:2,B

Perp
03-15-10

erchlorate

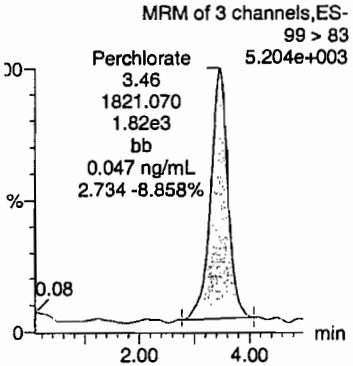

Perchlorate

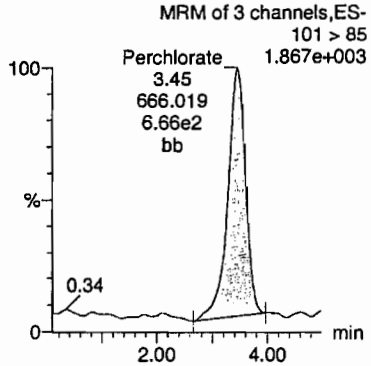

Perchlorate-101

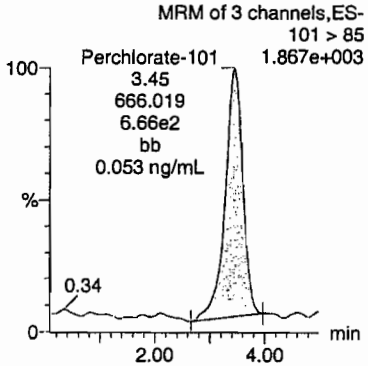

Perchlorate-O(18)

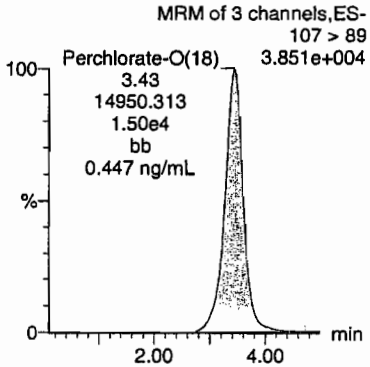

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100309-07CRI	Perchlorate	99 > 83	3.46	1821.070	1821.070	bb			0.0465	93.02	-6.98	81.504	2.73
CL100309-07CRI	Perchlorate-101	101 > 85	3.45	666.019	666.019	bb			0.0525	105.06	5.06	97.852	
CL100309-07CRI	Perchlorate-O(18)	107 > 89	3.43	14950.313	14950.313	bb			0.4468	89.36	-10.64	701.016	

MAT
3/16/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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)uantify Sample Report MassLynx 4.0 SP4
he GEL Group, LLC Analyst: Charlers W. Wilson

)ataset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

ast Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
rinted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ame: per0314050a
ate: 14-Mar-2010
ime: 22:17:38
): WCL100309-07CRI
ial: 1:2,B

Page 03-15-10

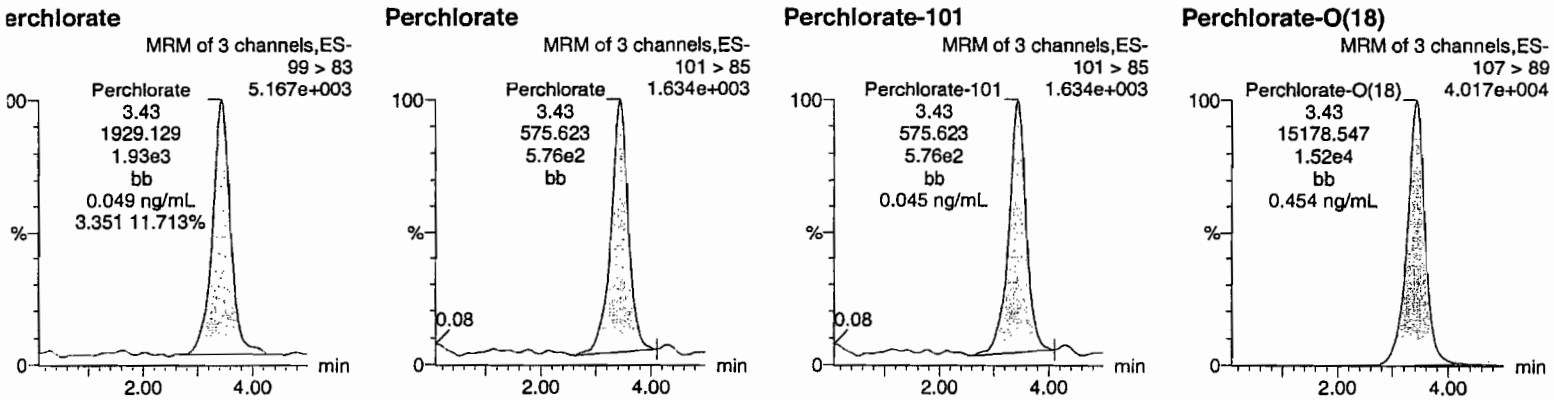

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100309-07CRI	Perchlorate	99 > 83	3.43	1929.129	1929.129	bb			0.0493	98.54	-1.46	139.995	3.35
CL100309-07CRI	Perchlorate-101	101 > 85	3.43	575.623	575.623	bb			0.0454	90.80	-9.20	79.878	
CL100309-07CRI	Perchlorate-O(18)	107 > 89	3.43	15178.547	15178.547	bb			0.4536	90.72	-9.28	3402.8...	

MHT 3/16/10

:L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

Last Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
Printed: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

Name: per0314063a
Date: 15-Mar-2010
Time: 00:02:44
ID: WCL100309-07CRI
Vial: 1:2,B

Pwo
aw
03-15-10

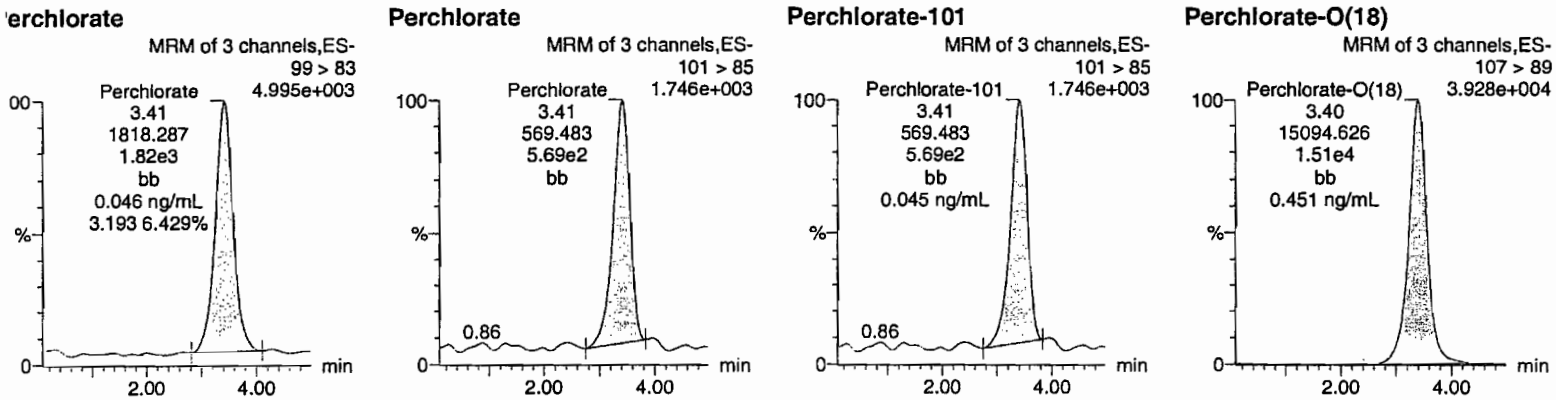

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
CL100309-07CRI	Perchlorate	99 > 83	3.41	1818.287	1818.287	bb			0.0464	92.88	-7.12	192.354	3.19
CL100309-07CRI	Perchlorate-101	101 > 85	3.41	569.483	569.483	bb			0.0449	89.83	-10.17	82.964	
CL100309-07CRI	Perchlorate-O(18)	107 > 89	3.40	15094.626	15094.626	bb			0.4511	90.22	-9.78	3053.1...	

MMP
5/16/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
MB

Date Received: 06–MAR–10

GEL Job No (SDG): 10–2040

GEL Sample ID: 1202056703

Date Filtered: 06–MAR–10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797–73–0	Perchlorate	.05	.2	0.050	ug/L	U	1	14–MAR–10 21:12	per0314042a
	Perchlorate Isotope Ratio						1	14–MAR–10 21:12	per0314042a
14797–73–0	Perchlorate–101	.05	.2	0.050	ug/L	U	1	14–MAR–10 21:12	per0314042a
	Perchlorate–O(18)			0.418	ug/L		1	14–MAR–10 21:12	per0314042a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

Last Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
Printed: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

Name: per0314042a
Date: 14-Mar-2010
Time: 21:12:22
ID: 1202056703
Vial: 2:1,A

|LCMS|959038|LCS|MB|1|

CWJ 03-15-10

Perchlorate

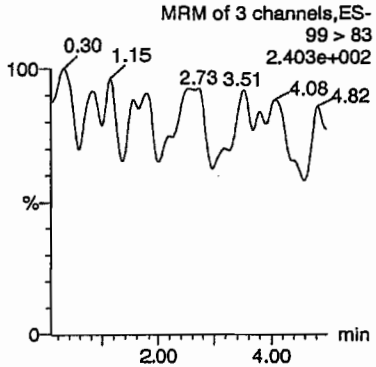

Perchlorate

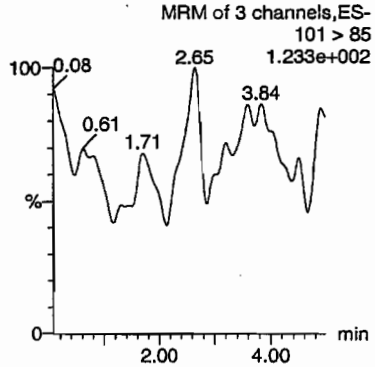

Perchlorate-101

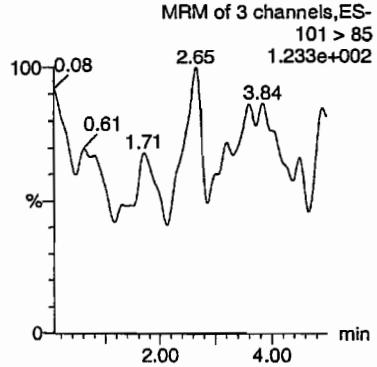

Perchlorate-O(18)

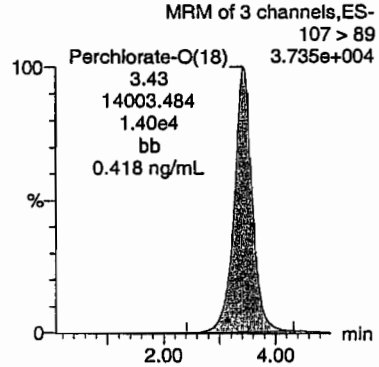

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202056703	Perchlorate	99 > 83											0.00
1202056703	Perchlorate-101	101 > 85											
1202056703	Perchlorate-O(18)	107 > 89	3.43	14003.484	14003.484	bb			0.4185	83.70	-16.30	1297.1...	

MM 3/16/10

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
LCS

Date Received: 06-MAR-10

GEL Job No (SDG): 10-2040

GEL Sample ID: 1202056704

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.200	ug/L	J	1	14-MAR-10 21:20	per0314043a
	Perchlorate Isotope Ratio			3.13			1	14-MAR-10 21:20	per0314043a
14797-73-0	Perchlorate-101	.05	.2	0.197	ug/L	J	1	14-MAR-10 21:20	per0314043a
	Perchlorate-O(18)			0.464	ug/L		1	14-MAR-10 21:20	per0314043a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Quantify Sample Report **MassLynx 4.0 SP4**
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

Last Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
Printed: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

Name: per0314043a
Date: 14-Mar-2010
Time: 21:20:36
ID: 1202056704
Vial: 2:1,B

|LAB| 959038 |LZQ|LCS|1|

CWD 03-15-10

Perchlorate

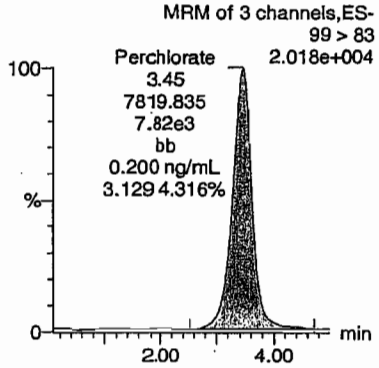

Perchlorate

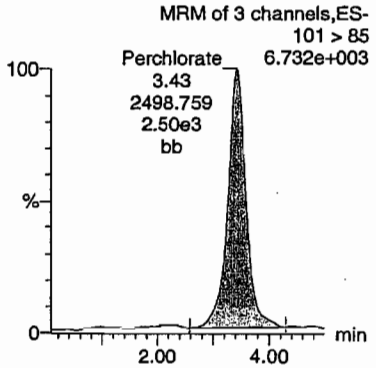

Perchlorate-101

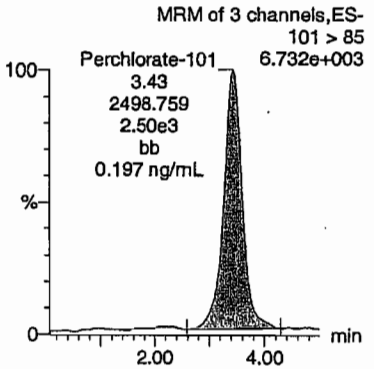

Perchlorate-O(18)

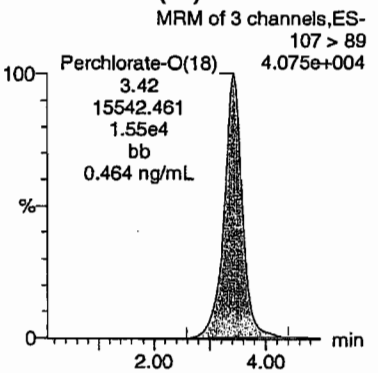

ID	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
1202056704	Perchlorate	99 > 83	3.45	7819.835	7819.835	bb			0.1997	99.86	-0.14	519.894	3.13
1202056704	Perchlorate-101	101 > 85	3.43	2498.759	2498.759	bb			0.1971	98.54	-1.46	412.227	
1202056704	Perchlorate-O(18)	107 > 89	3.42	15542.461	15542.461	bb			0.4645	92.90	-7.10	1036.5...	

MWT 3/16/10

$$\frac{7819.835}{39154.1} = 0.1997$$

GEL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 959037 **Verified by:** _____

Analyst: Jareth Shirley

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202056703 MB	06-MAR-2010 16:48:00	10	10	1
1202056704 LCS	06-MAR-2010 16:48:00	10	10	1
247431002	06-MAR-2010 16:48:00	10	10	1
247817001	06-MAR-2010 16:48:00	10	10	1
247829001	06-MAR-2010 16:48:00	10	10	1
248023001	06-MAR-2010 16:48:00	10	10	1
248024002	06-MAR-2010 16:48:00	10	10	1
248024004	06-MAR-2010 16:48:00	10	10	1
248044001	06-MAR-2010 16:48:00	10	10	1
1202056707 MS (248044001)	06-MAR-2010 16:48:00	10	10	1
1202056708 MSD (248044001)	06-MAR-2010 16:48:00	10	10	1
248044003	06-MAR-2010 16:48:00	10	10	1
248044005	06-MAR-2010 16:48:00	10	10	1
248044006	06-MAR-2010 16:48:00	10	10	1
248164001	06-MAR-2010 16:48:00	10	10	1
248164003	06-MAR-2010 16:48:00	10	10	1
1202056709 ICS	06-MAR-2010 16:48:00	10	10	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202056709	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
LCS	1202056704	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
MS	1202056707	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
MSD	1202056708	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1262643	10	mL
RGNT	All	O2SI HPLC Grade Water	1271949	10	mL

Comments:

Desalting cartridges used: 100217-1-H & 100204-1-Ba

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS#2

Date: 03/14/10
Extr. Injection Volume: 20uL
Sequence Number: per031410a
Initial Calibration Date: 03/14/10

Method: EPA 6850-Modified
Int. Std.: UCL100210-01
Mobile Phase Lot#: 1278668, 1271949
Standard-Samp Reagent Lot#:: 1271949

Reviewed BY: MAH
Date: 3/16/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100309-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0314001a	IPB001	CWW	3/14/2010 15:41			1		USE	B
per0314002a	IPB001	CWW	3/14/2010 15:49			1		USE	B
per0314003a	WCLICAL-01	CWW	3/14/2010 15:57			1		USE	I
per0314004a	WCLICAL-02	CWW	3/14/2010 16:05			1		USE	I
per0314005a	WCLICAL-03	CWW	3/14/2010 16:13			1		USE	I
per0314006a	WCLICAL-04	CWW	3/14/2010 16:21			1		USE	I
per0314007a	WCLICAL-05	CWW	3/14/2010 16:29			1		USE	I
per0314008a	IPB002	CWW	3/14/2010 16:37			1		USE	B
per0314009a	WCLICV	CWW	3/14/2010 16:45			1		USE	C
per0314010a	IPB003	CWW	3/14/2010 16:53			1		USE	B
per0314011a	WCLCRI	CWW	3/14/2010 17:01			1		USE	C
per0314012a	1202054222	CWW	3/14/2010 17:09	957943	VARIOUS	1	LANL	USE	S
per0314013a	1202054223	CWW	3/14/2010 17:17	957943	VARIOUS	1	LANL	USE	S
per0314014a	1202054226	CWW	3/14/2010 17:25	957943	VARIOUS	1	LANL	USE	S
per0314015a	247539001	CWW	3/14/2010 17:33	957943	10-1960	1	LANL	USE	S
per0314016a	247539002	CWW	3/14/2010 17:41	957943	10-1960	1	LANL	USE	S
per0314017a	1202054224	CWW	3/14/2010 17:49	957943	10-1960	1	LANL	USE	S
per0314018a	1202054225	CWW	3/14/2010 17:58	957943	10-1960	1	LANL	USE	S
per0314019a	247539003	CWW	3/14/2010 18:06	957943	10-1960	1	LANL	USE	S
per0314020a	247539004	CWW	3/14/2010 18:14	957943	10-1960	1	LANL	USE	S
per0314021a	247539005	CWW	3/14/2010 18:22	957943	10-1960	1	LANL	USE	S
per0314022a	WCLCCV	CWW	3/14/2010 18:30			1		USE	C
per0314023a	IPB004	CWW	3/14/2010 18:38			1		USE	B
per0314024a	WCLCRI	CWW	3/14/2010 18:46			1		USE	C
per0314025a	247539006	CWW	3/14/2010 18:54	957943	10-1960	1	LANL	USE	S
per0314026a	247539007	CWW	3/14/2010 19:02	957943	10-1960	1	LANL	USE	S
per0314027a	247539008	CWW	3/14/2010 19:10	957943	10-1960	1	LANL	USE	S
per0314028a	247539009	CWW	3/14/2010 19:18	957943	10-1960	1	LANL	USE	S
per0314029a	247539010	CWW	3/14/2010 19:26	957943	10-1960	1	LANL	USE	S

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per0314030a	247539011	CWW	3/14/2010 19:34	957943	10-1960	1	LANL	USE	S
per0314031a	247790002	CWW	3/14/2010 19:42	957943	10-1981	1	LANL	USE	S
per0314032a	247790003	CWW	3/14/2010 19:51	957943	10-1981	1	LANL	USE	S
per0314033a	247794001	CWW	3/14/2010 19:59	957943	10-1983-1	1	LANL	USE	S
per0314034a	247794002	CWW	3/14/2010 20:07	957943	10-1983-1	1	LANL	USE	S
per0314035a	WCLCCV	CWW	3/14/2010 20:15			1		USE	C
per0314036a	IPB005	CWW	3/14/2010 20:23			1		USE	B
per0314037a	WCLCRI	CWW	3/14/2010 20:32			1		USE	C
per0314038a	247794003	CWW	3/14/2010 20:40	957943	10-1983-1	1	LANL	USE	S
per0314039a	247794004	CWW	3/14/2010 20:48	957943	10-1983-1	1	LANL	USE	S
per0314040a	247794005	CWW	3/14/2010 20:56	957943	10-1983-1	1	LANL	USE	S
per0314041a	IPB006	CWW	3/14/2010 21:04			1		USE	B
per0314042a	1202056703	CWW	3/14/2010 21:12	959038	VARIOUS	1	LANL	USE	S
per0314043a	1202056704	CWW	3/14/2010 21:20	959038	VARIOUS	1	LANL	USE	S
per0314044a	1202056709	CWW	3/14/2010 21:28	959038	VARIOUS	1	LANL	USE	S
per0314045a	247431002	CWW	3/14/2010 21:36	959038	10-1927	1	LANL	USE	S
per0314046a	247817001	CWW	3/14/2010 21:44	959038	10-2001	1	LANL	USE	S
per0314047a	247829001	CWW	3/14/2010 21:53	959038	10-2006	1	LANL	USE	S
per0314048a	WCLCCV	CWW	3/14/2010 22:01			1		USE	C
per0314049a	IPB007	CWW	3/14/2010 22:09			1		USE	B
per0314050a	WCLCRI	CWW	3/14/2010 22:17			1		USE	C
per0314051a	248023001	CWW	3/14/2010 22:25	959038	10-2040	1	LANL	USE	S
per0314052a	248024002	CWW	3/14/2010 22:34	959038	10-2046	1	LANL	USE	S
per0314053a	248024004	CWW	3/14/2010 22:42	959038	10-2046	1	LANL	USE	S
per0314054a	248044001	CWW	3/14/2010 22:50	959038	10-2058	1	LANL	USE	S
per0314055a	1202056707	CWW	3/14/2010 22:58	959038	10-2058	1	LANL	USE	S
per0314056a	1202056708	CWW	3/14/2010 23:06	959038	10-2058	1	LANL	USE	S
per0314057a	248044003	CWW	3/14/2010 23:14	959038	10-2058	1	LANL	USE	S
per0314058a	248044005	CWW	3/14/2010 23:22	959038	10-2058	1	LANL	USE	S
per0314059a	248044006	CWW	3/14/2010 23:30	959038	10-2058	1	LANL	USE	S
per0314060a	248164001	CWW	3/14/2010 23:38	959038	10-2111	1	LANL	USE	S
per0314061a	WCLCCV	CWW	3/14/2010 23:46			1		USE	C
per0314062a	IPB008	CWW	3/14/2010 23:54			1		USE	B
per0314063a	WCLCRI	CWW	3/15/2010 0:02			1		USE	C
per0314064a	248164003	CWW	3/15/2010 0:10	959038	10-2111	1	LANL	USE	S
per0314065a	IPB009	CWW	3/15/2010 0:19			1		USE	B
per0314066a	1202056594	CWW	3/15/2010 0:27	958963	VARIOUS	1	LANL	USE	S

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per0314067a	1202056595	CWW	3/15/2010 0:35	958963	VARIOUS	1	LANL	USE	S
per0314068a	1202056598	CWW	3/15/2010 0:43	958963	VARIOUS	1	LANL	USE	S
per0314069a	248041001	CWW	3/15/2010 0:51	958963	10-2069-1	1	LANL	USE	S
per0314070a	248041002	CWW	3/15/2010 0:59	958963	10-2069-1	1	LANL	USE	S
per0314071a	248041003	CWW	3/15/2010 1:07	958963	10-2069-1	1	LANL	USE	S
per0314072a	248041004	CWW	3/15/2010 1:15	958963	10-2069-1	1	LANL	USE	S
per0314073a	248041005	CWW	3/15/2010 1:24	958963	10-2069-1	1	LANL	USE	S
per0314074a	WCLCCV	CWW	3/15/2010 1:32			1		USE	C
per0314075a	IPB010	CWW	3/15/2010 1:40			1		USE	B
per0314076a	WCLCRI	CWW	3/15/2010 1:48			1		USE	C
per0314077a	248054001	CWW	3/15/2010 1:56	958963	10-2081-1	1	LANL	USE	S
per0314078a	248054002	CWW	3/15/2010 2:04	958963	10-2081-1	1	LANL	USE	S
per0314079a	248054003	CWW	3/15/2010 2:12	958963	10-2081-1	1	LANL	USE	S
per0314080a	248054004	CWW	3/15/2010 2:21	958963	10-2081-1	1	LANL	USE	S
per0314081a	248068001	CWW	3/15/2010 2:29	958963	10-2088	1	LANL	USE	S
per0314082a	248068002	CWW	3/15/2010 2:37	958963	10-2088	1	LANL	USE	S
per0314083a	248110001	CWW	3/15/2010 2:45	958963	10-2090-1	1	LANL	USE	S
per0314084a	1202056596	CWW	3/15/2010 2:53	958963	10-2090-1	1	LANL	USE	S
per0314085a	1202056597	CWW	3/15/2010 3:01	958963	10-2090-1	1	LANL	USE	S
per0314086a	248110002	CWW	3/15/2010 3:09	958963	10-2090-1	1	LANL	USE	S
per0314087a	WCLCCV	CWW	3/15/2010 3:17			1		USE	C
per0314088a	IPB011	CWW	3/15/2010 3:25			1		USE	B
per0314089a	WCLCRI	CWW	3/15/2010 3:34			1		USE	C
per0314090a	248110003	CWW	3/15/2010 3:42	958963	10-2090-1	1	LANL	USE	S
per0314091a	248110004	CWW	3/15/2010 3:50	958963	10-2090-1	1	LANL	USE	S
per0314092a	248110005	CWW	3/15/2010 3:58	958963	10-2090-1	1	LANL	USE	S
per0314093a	248110006	CWW	3/15/2010 4:06	958963	10-2090-1	1	LANL	USE	S
per0314094a	248110007	CWW	3/15/2010 4:14	958963	10-2090-1	1	LANL	USE	S
per0314095a	248110008	CWW	3/15/2010 4:22	958963	10-2090-1	1	LANL	USE	S
per0314096a	WCLCCV	CWW	3/15/2010 4:30			1		USE	C
per0314097a	IPB012	CWW	3/15/2010 4:39			1		USE	B
per0314098a	WCLCRI	CWW	3/15/2010 4:47			1		USE	C
per0314099a	1202056604	CWW	3/15/2010 4:55	958968	VARIOUS	1	LANL	DUSE_RA	S
per0314100a	1202056605	CWW	3/15/2010 5:03	958968	VARIOUS	1	LANL	DUSE_RA	S
per0314101a	1202056613	CWW	3/15/2010 5:11	958968	VARIOUS	1	LANL	DUSE_RA	S
per0314102a	248058001	CWW	3/15/2010 5:19	958968	10-2083	1	LANL	DUSE_RA	S
per0314103a	248058002	CWW	3/15/2010 5:27	958968	10-2083	1	LANL	DUSE_RA	S

per0314104a	248058003	CWW	3/15/2010 5:35	958968	10-2083	1	LANL	DUSE_RA	S
per0314105a	248058004	CWW	3/15/2010 5:43	958968	10-2083	1	LANL	DUSE_RA	S
per0314106a	WCLCCV	CWW	3/15/2010 5:52			1		DUSE	C
per0314107a	IPB013	CWW	3/15/2010 6:00			1		DUSE	B
per0314108a	WCLCRI	CWW	3/15/2010 6:08			1		DUSE	C
per0314109a	248058005	CWW	3/15/2010 6:16	958968	10-2093	1	LANL	DUSE-RA	S
per0314110a	248058006	CWW	3/15/2010 6:24	958968	10-2093	1	LANL	DUSE-RA	S
per0314111a	248058007	CWW	3/15/2010 6:32	958968	10-2093	1	LANL	DUSE-RA	S
per0314112a	248058008	CWW	3/15/2010 6:40	958968	10-2093	1	LANL	DUSE-RA	S
per0314113a	248065001	CWW	3/15/2010 6:49	958968	10-2086	1	LANL	DUSE-RA	S
per0314114a	1202056606	CWW	3/15/2010 6:57	958968	10-2086	1	LANL	DUSE-RA	S
per0314115a	1202056607	CWW	3/15/2010 7:05	958968	10-2086	1	LANL	DUSE-RA	S
per0314116a	WCLCCV	CWW	3/15/2010 7:13			1		DUSE	C
per0314117a	IPB014	CWW	3/15/2010 7:21			1		DUSE	B
per0314118a	WCLCRI	CWW	3/15/2010 7:29			1		DUSE	C

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

Last Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
Printed: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

Name: per0314055a
Date: 14-Mar-2010
Time: 22:58:06
ID: 1202056707
Vial: 2:2,E

|LANL|954032|LCC|MS|1|

CWJ 03-15-10

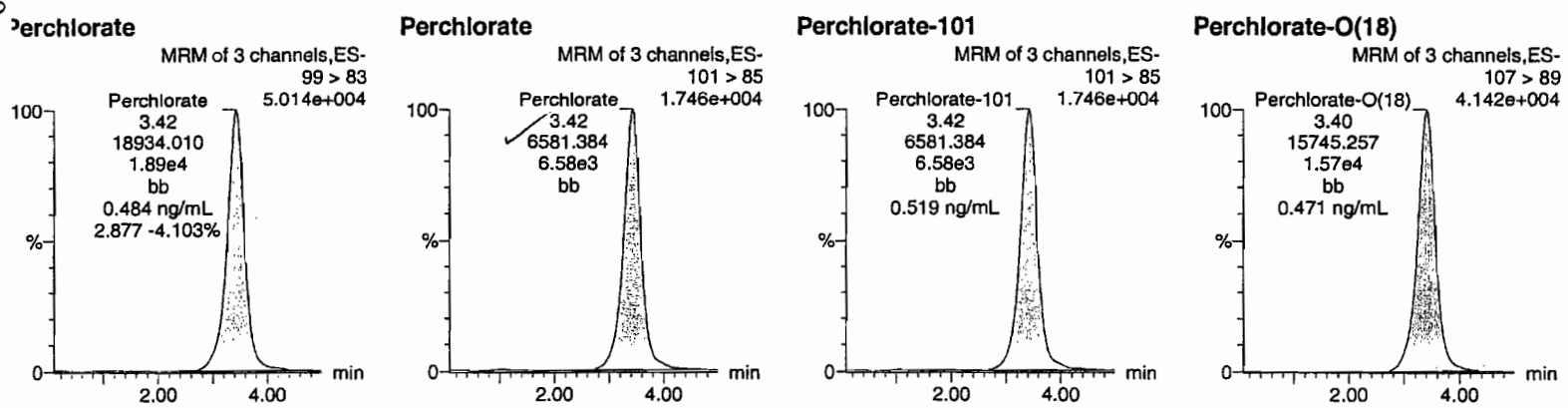

D	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202056707	Perchlorate	99 > 83	3.42	18934.010	18934.010	bb			0.4836	241.79	141.79	2481.1...	2.88
202056707	Perchlorate-101	101 > 85	3.42	6581.384	6581.384	bb			0.5191	259.54	159.54	2177.8...	
202056707	Perchlorate-O(18)	107 > 89	3.40	15745.257	15745.257	bb			0.4705	94.11	-5.89	2191.4...	

MMT 3/16/10

$$\frac{18934.010}{6581.384} = 2.9769$$

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Quantify Sample Report MassLynx 4.0 SP4
The GEL Group, LLC Analyst: Charlers W. Wilson

Dataset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

Last Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
Printed: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

Name: per0314056a
Date: 14-Mar-2010
Time: 23:06:07
ID: 1202056708
Vial: 2:2,F

|LAW|959038|LZQ|MSD|1|

GW 03-15-10

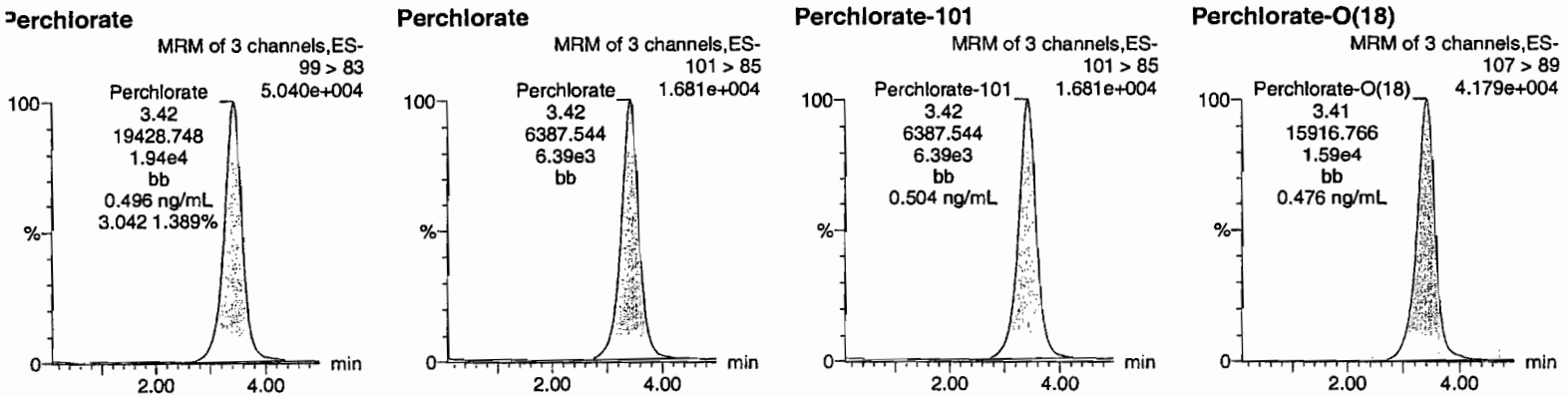

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
202056708	Perchlorate	99 > 83	3.42	19428.748	19428.748	bb			0.4962	248.11	148.11	2325.4...	3.04
202056708	Perchlorate-101	101 > 85	3.42	6387.544	6387.544	bb			0.5038	251.89	151.89	1673.1...	
202056708	Perchlorate-O(18)	107 > 89	3.41	15916.766	15916.766	bb			0.4757	95.13	-4.87	3074.5...	

MAT 3/16/10

EL SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2040

Sample Analysis

Sample ID	Client ID
248023001	CAPA-10-12916
248023002	CAPA-10-12917
1202056945	Method Blank (MB) **ICP**
1202056946	Laboratory Control Sample (LCS)
1202056949	248044001(CAPA-10-12770L) Serial Dilution (SD)
1202056947	248044001(CAPA-10-12770D) Sample Duplicate (DUP)
1202056948	248044001(CAPA-10-12770S) Matrix Spike (MS)
1202056952	Method Blank (MB) **ICP-MS**
1202056953	Laboratory Control Sample (LCS)
1202056956	248023001(CAPA-10-12916L) Serial Dilution (SD)
1202056954	248023001(CAPA-10-12916D) Sample Duplicate (DUP)
1202056955	248023001(CAPA-10-12916S) Matrix Spike (MS)
1202055833	Method Blank (MB) **CVAA**
1202055834	Laboratory Control Sample (LCS)
1202055837	247817001(CAPA-10-13094L) Serial Dilution (SD)
1202055835	247817001(CAPA-10-13094D) Sample Duplicate (DUP)
1202055836	247817001(CAPA-10-13094S) Matrix Spike (MS)

Method/Analysis Information

Analytical Batch:	959137, 959139, 958581 and 970515
Prep Batch :	959136, 959138 and 958580
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21, GL-MA-E-010 REV# 23 and GL-GC-E-107 REV# 5
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 DOE-AL, EPA 245.1/245.2 and SM 2340 B
Prep Method :	SW846 3005A and EPA 245.1/245.2 Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Hardness as CaCO3 is calculated from Calcium and Magnesium results.

The Metals analysis-ICP was performed on a P E 7300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standards met the advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 248044001 (CAPA-10-12770)-ICP, 248023001 (CAPA-10-12916)-ICP-MS and 247817001 (CAPA-10-13094)-CVAA.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this SDG.
Total Hardness by Calculation is determined using the results of Total Calcium (Ca) and Total Magnesium (Mg) determined by ICP or ICP-MS.

Hardness = 2.497 (Ca) + 4.118 (Mg)

Please refer to the Total Ca and Total Mg data to validate results appearing on the Hardness Summary sheet. Both results are in the Inorganic/metals section of the package. There is no Batch QC for calculated results, and thus no QC Summary for the Hardness by Calculation Batch. The MDLs and PQLs are calculated using the higher of the two calculated values of Ca or Mg.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Nick Cole A. Elmore **Date:** 5-11-10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2040 **METHOD TYPE:** EPA

SAMPLE ID: 248023001 **CLIENT ID:** CAPA-10-12916

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	030210W3-8
7631-86-9	Silica	69.6	mg/L			P	0.053	1	OPTIMA4	032910C-1
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA4	032910C-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS6	100506-2
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS6	100506-2
7440-39-3	Barium	24	ug/L			P	1	1	OPTIMA4	032910C-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA4	032910C-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS6	100506-2
7440-70-2	Calcium	10900	ug/L			P	50	1	OPTIMA4	032910C-1
7440-47-3	Chromium	5	ug/L	J		MS	2.5	1	ICPMS6	100506-2
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA4	032910C-1
7439-89-6	Iron	44.4	ug/L	J		P	30	1	OPTIMA4	032910C-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS6	100506-2
7439-95-4	Magnesium	2910	ug/L			P	85	1	OPTIMA4	032910C-1
7439-96-5	Manganese	2	ug/L	U		P	2	1	OPTIMA4	032910C-1
7439-98-7	Molybdenum	2.33	ug/L			MS	0.1	1	ICPMS6	100506-2
7440-02-0	Nickel	0.987	ug/L	J		MS	0.5	1	ICPMS6	100507-7
7440-09-7	Potassium	1450	ug/L			P	50	1	OPTIMA4	032910C-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS6	100506-2
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS6	100506-2
7440-23-5	Sodium	10900	ug/L			P	100	1	OPTIMA4	032910C-1
7440-24-6	Strontium	51.8	ug/L			P	1	1	OPTIMA4	032910C-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS6	100506-2
7440-31-5	Tin	2.5	ug/L	U		P	2.5	1	OPTIMA4	032910C-1

METALS
–1–
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10–2040 **METHOD TYPE:** EPA

SAMPLE ID: 248023001 **CLIENT ID:** CAPA–10–12916

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25–FEB–10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440–61–1	Uranium	0.29	ug/L			MS	0.05	1	ICPMS6	100507–3
7440–62–2	Vanadium	4.12	ug/L	J		P	1	1	OPTIMA4	032910C–1
7440–66–6	Zinc	3.8	ug/L	J		P	3.3	1	OPTIMA4	032910C–1
	Hardness as CaCO3	39.1	mg/L				0.35	1	CALC001	

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2040 **METHOD TYPE:** EPA

SAMPLE ID: 248023002 **CLIENT ID:** CAPA-10-12917

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	030210W3-8
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA4	032910C-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS6	100506-2
7440-38-2	Arsenic	1.95	ug/L	J		MS	1.5	1	ICPMS6	100506-2
7440-39-3	Barium	24.9	ug/L			P	1	1	OPTIMA4	032910C-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA4	032910C-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS6	100506-2
7440-70-2	Calcium	11000	ug/L			P	50	1	OPTIMA4	032910C-1
7440-47-3	Chromium	5.45	ug/L	J		MS	2.5	1	ICPMS6	100506-2
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA4	032910C-1
7439-89-6	Iron	91.9	ug/L	J		P	30	1	OPTIMA4	032910C-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS6	100506-2
7439-95-4	Magnesium	2940	ug/L			P	85	1	OPTIMA4	032910C-1
7439-96-5	Manganese	2	ug/L	U		P	2	1	OPTIMA4	032910C-1
7439-98-7	Molybdenum	2.29	ug/L			MS	0.1	1	ICPMS6	100506-2
7440-02-0	Nickel	1.09	ug/L	J		MS	0.5	1	ICPMS6	100507-7
7440-09-7	Potassium	1460	ug/L			P	50	1	OPTIMA4	032910C-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS6	100506-2
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS6	100506-2
7440-23-5	Sodium	11000	ug/L			P	100	1	OPTIMA4	032910C-1
7440-24-6	Strontium	52.2	ug/L			P	1	1	OPTIMA4	032910C-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS6	100506-2
7440-31-5	Tin	2.5	ug/L	U		P	2.5	1	OPTIMA4	032910C-1
7440-61-1	Uranium	0.301	ug/L			MS	0.05	1	ICPMS6	100507-3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2040 **METHOD TYPE:** EPA

SAMPLE ID: 248023002 **CLIENT ID:** CAPA-10-12917

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	4.16	ug/L	J		P	1	1	OPTIMA4	032910C-1
7440-66-6	Zinc	12	ug/L			P	3.3	1	OPTIMA4	032910C-1
	Hardness as CaCO3	39.5	mg/L				0.35	1	CALC001	

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2040

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.2	ug/L	5	ug/L	104	90.0 – 110.0	AV	02–MAR–10 08:39	030210W3–8
	Aluminum	5140	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Barium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Beryllium	257	ug/L	250	ug/L	102.6	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Boron	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Calcium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Cobalt	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Copper	510	ug/L	500	ug/L	102	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Iron	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Magnesium	5200	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Manganese	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Potassium	2470	ug/L	2500	ug/L	98.7	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Silica	10500	ug/L	10700	ug/L	98.5	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Sodium	2460	ug/L	2500	ug/L	98.5	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Strontium	531	ug/L	500	ug/L	106.1	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Tin	521	ug/L	500	ug/L	104.2	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Vanadium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Zinc	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Antimony	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	07–MAY–10 13:36	100506–2
	Arsenic	54.1	ug/L	50	ug/L	108.3	90.0 – 110.0	MS	07–MAY–10 13:36	100506–2
	Cadmium	52.4	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	07–MAY–10 13:36	100506–2
	Chromium	52.7	ug/L	50	ug/L	105.5	90.0 – 110.0	MS	07–MAY–10 13:36	100506–2
	Lead	53	ug/L	50	ug/L	106	90.0 – 110.0	MS	07–MAY–10 13:36	100506–2
	Molybdenum	52.3	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	07–MAY–10 13:36	100506–2
	Selenium	53.7	ug/L	50	ug/L	107.4	90.0 – 110.0	MS	07–MAY–10 13:36	100506–2
	Silver	52.8	ug/L	50	ug/L	105.5	90.0 – 110.0	MS	07–MAY–10 13:36	100506–2
	Thallium	52.9	ug/L	50	ug/L	105.8	90.0 – 110.0	MS	07–MAY–10 13:36	100506–2
	Uranium	54.6	ug/L	50	ug/L	109.1	90.0 – 110.0	MS	08–MAY–10 05:01	100507–3
	Nickel	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	08–MAY–10 13:13	100507–7

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2040

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV01										
	Mercury	5.16	ug/L	5	ug/L	103.1	80.0 – 120.0	AV	02–MAR–10 08:45	030210W3–8
	Aluminum	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Barium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Beryllium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Boron	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Calcium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Cobalt	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Copper	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Iron	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Magnesium	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Manganese	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Potassium	5440	ug/L	5000	ug/L	108.7	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Silica	5280	ug/L	5350	ug/L	98.7	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Sodium	10000	ug/L	10000	ug/L	100	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Strontium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Tin	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Vanadium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Zinc	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Antimony	52	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	07–MAY–10 14:08	100506–2
	Arsenic	53	ug/L	50	ug/L	106	90.0 – 110.0	MS	07–MAY–10 14:08	100506–2
	Cadmium	51.8	ug/L	50	ug/L	103.7	90.0 – 110.0	MS	07–MAY–10 14:08	100506–2
	Chromium	52.3	ug/L	50	ug/L	104.6	90.0 – 110.0	MS	07–MAY–10 14:08	100506–2
	Lead	53.6	ug/L	50	ug/L	107.2	90.0 – 110.0	MS	07–MAY–10 14:08	100506–2
	Molybdenum	52.3	ug/L	50	ug/L	104.6	90.0 – 110.0	MS	07–MAY–10 14:08	100506–2
	Selenium	52.8	ug/L	50	ug/L	105.7	90.0 – 110.0	MS	07–MAY–10 14:08	100506–2
	Silver	53	ug/L	50	ug/L	106	90.0 – 110.0	MS	07–MAY–10 14:08	100506–2
	Thallium	52.9	ug/L	50	ug/L	105.7	90.0 – 110.0	MS	07–MAY–10 14:08	100506–2
	Uranium	49.2	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	08–MAY–10 05:20	100507–3
	Nickel	53.3	ug/L	50	ug/L	106.5	90.0 – 110.0	MS	08–MAY–10 13:30	100507–7

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2040

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV02										
	Mercury	5.13	ug/L	5	ug/L	102.6	80.0 – 120.0	AV	02–MAR–10 09:08	030210W3–8
	Aluminum	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Barium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Beryllium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Boron	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Calcium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Cobalt	490	ug/L	500	ug/L	98	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Copper	495	ug/L	500	ug/L	99	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Iron	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Magnesium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Manganese	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Potassium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Silica	5260	ug/L	5350	ug/L	98.3	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Sodium	9880	ug/L	10000	ug/L	98.8	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Strontium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Tin	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Vanadium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Zinc	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Antimony	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	07–MAY–10 14:28	100506–2
	Arsenic	53.3	ug/L	50	ug/L	106.6	90.0 – 110.0	MS	07–MAY–10 14:28	100506–2
	Cadmium	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	07–MAY–10 14:28	100506–2
	Chromium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	07–MAY–10 14:28	100506–2
	Lead	54.3	ug/L	50	ug/L	108.7	90.0 – 110.0	MS	07–MAY–10 14:28	100506–2
	Molybdenum	52	ug/L	50	ug/L	104.1	90.0 – 110.0	MS	07–MAY–10 14:28	100506–2
	Selenium	51.8	ug/L	50	ug/L	103.7	90.0 – 110.0	MS	07–MAY–10 14:28	100506–2
	Silver	53.2	ug/L	50	ug/L	106.3	90.0 – 110.0	MS	07–MAY–10 14:28	100506–2
	Thallium	53.8	ug/L	50	ug/L	107.6	90.0 – 110.0	MS	07–MAY–10 14:28	100506–2
	Uranium	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	08–MAY–10 06:01	100507–3
	Nickel	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	08–MAY–10 14:08	100507–7

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2040

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV03										
	Mercury	5.06	ug/L	5	ug/L	101.1	80.0 – 120.0	AV	02–MAR–10 09:31	030210W3–8
	Aluminum	5160	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Barium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Beryllium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Boron	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Calcium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Cobalt	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Iron	4930	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Magnesium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Manganese	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Potassium	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Silica	5220	ug/L	5350	ug/L	97.7	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Sodium	9860	ug/L	10000	ug/L	98.6	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Strontium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Tin	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Vanadium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Zinc	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Antimony	53.6	ug/L	50	ug/L	107.2	90.0 – 110.0	MS	07–MAY–10 15:33	100506–2
	Arsenic	54.1	ug/L	50	ug/L	108.2	90.0 – 110.0	MS	07–MAY–10 15:33	100506–2
	Cadmium	53.3	ug/L	50	ug/L	106.6	90.0 – 110.0	MS	07–MAY–10 15:33	100506–2
	Chromium	52.4	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	07–MAY–10 15:33	100506–2
	Lead	54.1	ug/L	50	ug/L	108.1	90.0 – 110.0	MS	07–MAY–10 15:33	100506–2
	Molybdenum	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	07–MAY–10 15:33	100506–2
	Selenium	54.4	ug/L	50	ug/L	108.7	90.0 – 110.0	MS	07–MAY–10 15:33	100506–2
	Silver	53.3	ug/L	50	ug/L	106.5	90.0 – 110.0	MS	07–MAY–10 15:33	100506–2
	Thallium	52.9	ug/L	50	ug/L	105.8	90.0 – 110.0	MS	07–MAY–10 15:33	100506–2
CCV04										
	Mercury	5.02	ug/L	5	ug/L	100.3	80.0 – 120.0	AV	02–MAR–10 09:54	030210W3–8
	Aluminum	5160	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2040

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Beryllium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Boron	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Calcium	4950	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Cobalt	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Copper	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Iron	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Magnesium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Manganese	490	ug/L	500	ug/L	98	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Potassium	4830	ug/L	5000	ug/L	96.7	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Silica	5220	ug/L	5350	ug/L	97.6	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Sodium	9860	ug/L	10000	ug/L	98.6	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Strontium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Tin	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Vanadium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Zinc	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
CCV05										
	Mercury	5	ug/L	5	ug/L	99.9	80.0 – 120.0	AV	02–MAR–10 10:17	030210W3–8
	Aluminum	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Beryllium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Boron	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Calcium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Cobalt	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Copper	495	ug/L	500	ug/L	99	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Iron	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Magnesium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Manganese	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Potassium	4780	ug/L	5000	ug/L	95.7	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Silica	5250	ug/L	5350	ug/L	98.2	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2040

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	9800	ug/L	10000	ug/L	98	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Strontium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Tin	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Vanadium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Zinc	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
CCV06										
	Aluminum	5180	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Barium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Beryllium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Boron	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Calcium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Cobalt	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Copper	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Iron	4870	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Magnesium	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Manganese	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Potassium	4730	ug/L	5000	ug/L	94.6	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Silica	5210	ug/L	5350	ug/L	97.4	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Sodium	9760	ug/L	10000	ug/L	97.6	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Strontium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Tin	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Vanadium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Zinc	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
CCV07										
	Aluminum	5210	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Barium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Beryllium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Boron	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Calcium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2040

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Iron	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Magnesium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Manganese	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Potassium	4790	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Silica	5210	ug/L	5350	ug/L	97.4	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Sodium	9820	ug/L	10000	ug/L	98.3	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Strontium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Tin	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Vanadium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Zinc	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
CCV08										
	Aluminum	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Barium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Beryllium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Boron	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Calcium	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Cobalt	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Copper	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Iron	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Magnesium	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Manganese	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Potassium	4820	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Silica	5230	ug/L	5350	ug/L	97.8	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Sodium	9850	ug/L	10000	ug/L	98.5	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Strontium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Tin	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Vanadium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Zinc	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1

METALS
-2a-
Initial and Continuing Calibration Verification

SDG No: 10-2040

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV09										
	Aluminum	5260	ug/L	5000	ug/L	105.1	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Beryllium	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Boron	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Calcium	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Iron	4940	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Magnesium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Manganese	490	ug/L	500	ug/L	98	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Potassium	4830	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Silica	5220	ug/L	5350	ug/L	97.6	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Sodium	9870	ug/L	10000	ug/L	98.7	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Strontium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Tin	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Vanadium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
	Zinc	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	29-MAR-10 21:41	032910C-1
CCV10										
	Aluminum	5280	ug/L	5000	ug/L	105.6	90.0 – 110.0	P	29-MAR-10 22:01	032910C-1
	Barium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	29-MAR-10 22:01	032910C-1
	Beryllium	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	29-MAR-10 22:01	032910C-1
	Boron	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	29-MAR-10 22:01	032910C-1
	Calcium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	29-MAR-10 22:01	032910C-1
	Cobalt	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	29-MAR-10 22:01	032910C-1
	Copper	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	29-MAR-10 22:01	032910C-1
	Iron	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	29-MAR-10 22:01	032910C-1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	29-MAR-10 22:01	032910C-1
	Manganese	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	29-MAR-10 22:01	032910C-1
	Potassium	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	29-MAR-10 22:01	032910C-1
	Silica	5230	ug/L	5350	ug/L	97.8	90.0 – 110.0	P	29-MAR-10 22:01	032910C-1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2040

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	9910	ug/L	10000	ug/L	99.1	90.0 – 110.0	P	29–MAR–10 22:01	032910C–1
	Strontium	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	29–MAR–10 22:01	032910C–1
	Tin	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	29–MAR–10 22:01	032910C–1
	Vanadium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	29–MAR–10 22:01	032910C–1
	Zinc	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	29–MAR–10 22:01	032910C–1
CCV11										
	Aluminum	5250	ug/L	5000	ug/L	104.9	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Barium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Beryllium	515	ug/L	500	ug/L	103	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Boron	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Calcium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Cobalt	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Copper	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Iron	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Magnesium	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Manganese	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Potassium	4850	ug/L	5000	ug/L	96.9	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Silica	5250	ug/L	5350	ug/L	98.1	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Sodium	9930	ug/L	10000	ug/L	99.3	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Strontium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Tin	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Zinc	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
CCV12										
	Aluminum	5270	ug/L	5000	ug/L	105.5	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Barium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Beryllium	515	ug/L	500	ug/L	103	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Boron	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Calcium	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Cobalt	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2040

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Copper	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Iron	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Magnesium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Manganese	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Potassium	4860	ug/L	5000	ug/L	97.2	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Silica	5250	ug/L	5350	ug/L	98.1	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Sodium	9910	ug/L	10000	ug/L	99.1	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Strontium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Tin	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Vanadium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Zinc	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–2040

Contract: ESHL01000 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.24	ug/L	.2	ug/L	120	70.0 – 130.0	AV	02–MAR–10 08:43	030210W3–8
	Lead	2.32	ug/L	2	ug/L	115.8	70.0 – 130.0	MS	07–MAY–10 13:49	100506–2
	Silver	1	ug/L	1	ug/L	100.3	70.0 – 130.0	MS	07–MAY–10 13:49	100506–2
	Antimony	3.15	ug/L	3	ug/L	105.1	70.0 – 130.0	MS	07–MAY–10 13:49	100506–2
	Chromium	11.6	ug/L	10	ug/L	116.3	70.0 – 130.0	MS	07–MAY–10 13:49	100506–2
	Cadmium	1.15	ug/L	1	ug/L	114.6	70.0 – 130.0	MS	07–MAY–10 13:49	100506–2
	Arsenic	5.73	ug/L	5	ug/L	114.6	70.0 – 130.0	MS	07–MAY–10 13:49	100506–2
	Thallium	1.12	ug/L	1	ug/L	112.1	70.0 – 130.0	MS	07–MAY–10 13:49	100506–2
	Selenium	6.48	ug/L	5	ug/L	129.6	70.0 – 130.0	MS	07–MAY–10 13:49	100506–2
	Molybdenum	.551	ug/L	.5	ug/L	110.2	70.0 – 130.0	MS	07–MAY–10 13:49	100506–2
	Uranium	.259	ug/L	.2	ug/L	129.5	70.0 – 130.0	MS	08–MAY–10 05:09	100507–3
	Nickel	2.22	ug/L	2	ug/L	110.9	70.0 – 130.0	MS	08–MAY–10 13:20	100507–7
PQL01										
	Silica	213	ug/L	213	ug/L	99.9	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Aluminum	201	ug/L	200	ug/L	100.4	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Iron	103	ug/L	100	ug/L	103.4	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Magnesium	303	ug/L	300	ug/L	101.1	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Manganese	10.3	ug/L	10	ug/L	103.4	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Potassium	170	ug/L	150	ug/L	113.4	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Sodium	260	ug/L	300	ug/L	86.8	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Barium	5.16	ug/L	5	ug/L	103.1	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Beryllium	5.02	ug/L	5	ug/L	100.4	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Cobalt	5.14	ug/L	5	ug/L	102.7	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Copper	10.1	ug/L	10	ug/L	101.4	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Vanadium	4.53	ug/L	5	ug/L	90.6	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Zinc	9.92	ug/L	10	ug/L	99.2	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Calcium	204	ug/L	200	ug/L	101.8	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Boron	46.1	ug/L	50	ug/L	92.3	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Tin	9.94	ug/L	10	ug/L	99.4	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Strontium	5.84	ug/L	5	ug/L	116.9	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2040

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 08:41	030210W3–8
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 18:37	032910C–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:37	032910C–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:37	032910C–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 18:37	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 18:37	032910C–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:37	032910C–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 18:37	032910C–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 18:37	032910C–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 18:37	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 18:37	032910C–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	29–MAR–10 18:37	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 18:37	032910C–1
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 18:37	032910C–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:37	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 18:37	032910C–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:37	032910C–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 18:37	032910C–1
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	07–MAY–10 13:42	100506–2
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	07–MAY–10 13:42	100506–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	07–MAY–10 13:42	100506–2
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	07–MAY–10 13:42	100506–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	07–MAY–10 13:42	100506–2
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	07–MAY–10 13:42	100506–2
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	07–MAY–10 13:42	100506–2
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	07–MAY–10 13:42	100506–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	07–MAY–10 13:42	100506–2
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	08–MAY–10 05:05	100507–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	08–MAY–10 13:17	100507–7
CCB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 08:47	030210W3–8

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2040

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 18:51	032910C–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:51	032910C–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:51	032910C–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 18:51	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 18:51	032910C–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:51	032910C–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 18:51	032910C–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 18:51	032910C–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 18:51	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 18:51	032910C–1
	Potassium	152.39	+/–150		50.0	150	LIQ	P	29–MAR–10 18:51	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 18:51	032910C–1
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 18:51	032910C–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:51	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 18:51	032910C–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:51	032910C–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 18:51	032910C–1
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	07–MAY–10 14:15	100506–2
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	07–MAY–10 14:15	100506–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	07–MAY–10 14:15	100506–2
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	07–MAY–10 14:15	100506–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	07–MAY–10 14:15	100506–2
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	07–MAY–10 14:15	100506–2
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	07–MAY–10 14:15	100506–2
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	07–MAY–10 14:15	100506–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	07–MAY–10 14:15	100506–2
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	08–MAY–10 05:24	100507–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	08–MAY–10 13:34	100507–7
CCB02										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 09:10	030210W3–8
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 18:59	032910C–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2040

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:59	032910C–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:59	032910C–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 18:59	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 18:59	032910C–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:59	032910C–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 18:59	032910C–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 18:59	032910C–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 18:59	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 18:59	032910C–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	29–MAR–10 18:59	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 18:59	032910C–1
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 18:59	032910C–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:59	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 18:59	032910C–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:59	032910C–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 18:59	032910C–1
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	07–MAY–10 14:35	100506–2
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	07–MAY–10 14:35	100506–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	07–MAY–10 14:35	100506–2
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	07–MAY–10 14:35	100506–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	07–MAY–10 14:35	100506–2
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	07–MAY–10 14:35	100506–2
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	07–MAY–10 14:35	100506–2
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	07–MAY–10 14:35	100506–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	07–MAY–10 14:35	100506–2
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	08–MAY–10 06:05	100507–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	08–MAY–10 14:12	100507–7
CCB03										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 09:33	030210W3–8
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 19:33	032910C–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 19:33	032910C–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2040

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 19:33	032910C–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 19:33	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 19:33	032910C–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 19:33	032910C–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 19:33	032910C–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 19:33	032910C–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 19:33	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 19:33	032910C–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	29–MAR–10 19:33	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 19:33	032910C–1
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 19:33	032910C–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 19:33	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 19:33	032910C–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 19:33	032910C–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 19:33	032910C–1
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	07–MAY–10 15:40	100506–2
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	07–MAY–10 15:40	100506–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	07–MAY–10 15:40	100506–2
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	07–MAY–10 15:40	100506–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	07–MAY–10 15:40	100506–2
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	07–MAY–10 15:40	100506–2
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	07–MAY–10 15:40	100506–2
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	07–MAY–10 15:40	100506–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	07–MAY–10 15:40	100506–2
CCB04										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 09:56	030210W3–8
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 19:54	032910C–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 19:54	032910C–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 19:54	032910C–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 19:54	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 19:54	032910C–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2040

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 19:54	032910C–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 19:54	032910C–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 19:54	032910C–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 19:54	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 19:54	032910C–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	29–MAR–10 19:54	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 19:54	032910C–1
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 19:54	032910C–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 19:54	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 19:54	032910C–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 19:54	032910C–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 19:54	032910C–1
CCB05										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 10:19	030210W3–8
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 20:16	032910C–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 20:16	032910C–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 20:16	032910C–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 20:16	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 20:16	032910C–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 20:16	032910C–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 20:16	032910C–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 20:16	032910C–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 20:16	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 20:16	032910C–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	29–MAR–10 20:16	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 20:16	032910C–1
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 20:16	032910C–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 20:16	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 20:16	032910C–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 20:16	032910C–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 20:16	032910C–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2040

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB06										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 20:41	032910C–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 20:41	032910C–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 20:41	032910C–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 20:41	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 20:41	032910C–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 20:41	032910C–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 20:41	032910C–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 20:41	032910C–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 20:41	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 20:41	032910C–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	29–MAR–10 20:41	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 20:41	032910C–1
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 20:41	032910C–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 20:41	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 20:41	032910C–1
	Vanadium	–1.05	+/–5	J	1.0	5.0	LIQ	P	29–MAR–10 20:41	032910C–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 20:41	032910C–1
CCB07										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 21:05	032910C–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:05	032910C–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:05	032910C–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 21:05	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 21:05	032910C–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:05	032910C–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 21:05	032910C–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 21:05	032910C–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 21:05	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 21:05	032910C–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	29–MAR–10 21:05	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 21:05	032910C–1
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 21:05	032910C–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2040

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:05	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 21:05	032910C–1
	Vanadium	–1.02	+/–5	J	1.0	5.0	LIQ	P	29–MAR–10 21:05	032910C–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 21:05	032910C–1
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 21:23	032910C–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:23	032910C–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:23	032910C–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 21:23	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 21:23	032910C–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:23	032910C–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 21:23	032910C–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 21:23	032910C–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 21:23	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 21:23	032910C–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	29–MAR–10 21:23	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 21:23	032910C–1
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 21:23	032910C–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:23	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 21:23	032910C–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:23	032910C–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 21:23	032910C–1
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 21:43	032910C–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:43	032910C–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:43	032910C–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 21:43	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 21:43	032910C–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:43	032910C–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 21:43	032910C–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 21:43	032910C–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2040

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 21:43	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 21:43	032910C–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	29–MAR–10 21:43	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 21:43	032910C–1
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 21:43	032910C–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:43	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 21:43	032910C–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:43	032910C–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 21:43	032910C–1
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 22:03	032910C–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:03	032910C–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:03	032910C–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 22:03	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 22:03	032910C–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:03	032910C–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 22:03	032910C–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 22:03	032910C–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 22:03	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 22:03	032910C–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	29–MAR–10 22:03	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 22:03	032910C–1
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 22:03	032910C–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:03	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 22:03	032910C–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:03	032910C–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 22:03	032910C–1
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 22:21	032910C–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:21	032910C–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:21	032910C–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2040

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 22:21	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 22:21	032910C–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:21	032910C–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 22:21	032910C–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 22:21	032910C–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 22:21	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 22:21	032910C–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	29–MAR–10 22:21	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 22:21	032910C–1
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 22:21	032910C–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:21	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 22:21	032910C–1
	Vanadium	–1.16	+/–5	J	1.0	5.0	LIQ	P	29–MAR–10 22:21	032910C–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 22:21	032910C–1
CCB12										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 22:44	032910C–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:44	032910C–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:44	032910C–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 22:44	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 22:44	032910C–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:44	032910C–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 22:44	032910C–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 22:44	032910C–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 22:44	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 22:44	032910C–1
	Potassium	–50.36	+/–150	J	50.0	150	LIQ	P	29–MAR–10 22:44	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 22:44	032910C–1
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 22:44	032910C–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:44	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 22:44	032910C–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:44	032910C–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2040

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 22:44	032910C–1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–2040

Contract: ESHL01000

Matrix: GROUND WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202055833								
	Mercury	0.066	ug/L	+/–0.2	U	AV	0.066	0.2
1202056945								
	Strontium	1	ug/L	+/–5	U	P	1	5
	Tin	2.5	ug/L	+/–10	U	P	2.5	10
	Vanadium	1	ug/L	+/–5	U	P	1	5
	Zinc	3.3	ug/L	+/–10	U	P	3.3	10
	Magnesium	85	ug/L	+/–300	U	P	85	300
	Potassium	50	ug/L	+/–150	U	P	50	150
	Aluminum	68	ug/L	+/–200	U	P	68	200
	Beryllium	1	ug/L	+/–5	U	P	1	5
	Iron	30	ug/L	+/–100	U	P	30	100
	Copper	3	ug/L	+/–10	U	P	3	10
	Cobalt	1	ug/L	+/–5	U	P	1	5
	Calcium	50	ug/L	+/–200	U	P	50	200
	Boron	15	ug/L	+/–50	U	P	15	50
	Barium	1	ug/L	+/–5	U	P	1	5
	Sodium	100	ug/L	+/–300	U	P	100	300
	Silica	0.053	mg/L	+/–0.213	U	P	0.053	0.213
	Manganese	2	ug/L	+/–10	U	P	2	10
1202056952								
	Antimony	0.5	ug/L	+/–3	U	MS	0.5	3
	Arsenic	1.5	ug/L	+/–5	U	MS	1.5	5
	Cadmium	0.11	ug/L	+/–1	U	MS	0.11	1
	Chromium	2.5	ug/L	+/–10	U	MS	2.5	10
	Lead	0.5	ug/L	+/–2	U	MS	0.5	2
	Molybdenum	0.1	ug/L	+/–0.5	U	MS	0.1	0.5
	Nickel	0.5	ug/L	+/–2	U	MS	0.5	2
	Selenium	1	ug/L	+/–5	U	MS	1	5
	Silver	0.2	ug/L	+/–1	U	MS	0.2	1
	Thallium	0.3	ug/L	+/–1	U	MS	0.3	1
	Uranium	0.05	ug/L	+/–0.2	U	MS	0.05	0.2

METALS
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Interference Check Sample

SDG No: 10–2040

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	511000	ug/L	500000	ug/L	102	80.0 – 120.0	29–MAR–10 18:43	032910C–1
	Barium	0.49	ug/L					29–MAR–10 18:43	032910C–1
	Beryllium	–0.031	ug/L					29–MAR–10 18:43	032910C–1
	Boron	1.67	ug/L					29–MAR–10 18:43	032910C–1
	Calcium	479000	ug/L	500000	ug/L	95.7	80.0 – 120.0	29–MAR–10 18:43	032910C–1
	Cobalt	–6.27	ug/L					29–MAR–10 18:43	032910C–1
	Copper	–2.45	ug/L					29–MAR–10 18:43	032910C–1
	Iron	189000	ug/L	200000	ug/L	94.6	80.0 – 120.0	29–MAR–10 18:43	032910C–1
	Magnesium	481000	ug/L	500000	ug/L	96.2	80.0 – 120.0	29–MAR–10 18:43	032910C–1
	Manganese	2.08	ug/L					29–MAR–10 18:43	032910C–1
	Potassium	–157.0	ug/L					29–MAR–10 18:43	032910C–1
	Silica	6.55	ug/L					29–MAR–10 18:43	032910C–1
	Sodium	12.5	ug/L					29–MAR–10 18:43	032910C–1
	Strontium	0.29	ug/L					29–MAR–10 18:43	032910C–1
	Tin	0.508	ug/L					29–MAR–10 18:43	032910C–1
	Vanadium	1.57	ug/L					29–MAR–10 18:43	032910C–1
	Zinc	7.6	ug/L					29–MAR–10 18:43	032910C–1
ICSAB01									
	Aluminum	520000	ug/L	500000	ug/L	104	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Barium	500	ug/L	500	ug/L	100	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Beryllium	246	ug/L	250	ug/L	98.4	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Boron	514	ug/L	500	ug/L	103	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Calcium	487000	ug/L	500000	ug/L	97.4	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Cobalt	437	ug/L	500	ug/L	87.5	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Copper	537	ug/L	500	ug/L	107	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Iron	191000	ug/L	200000	ug/L	95.3	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Magnesium	483000	ug/L	500000	ug/L	96.6	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Manganese	478	ug/L	500	ug/L	95.7	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Potassium	5450	ug/L	5000	ug/L	109	80.0 – 120.0	29–MAR–10 18:45	032910C–1

METALS
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Interference Check Sample

SDG No: 10–2040

Contract: ESHL01000 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Silica	11000	ug/L	10700	ug/L	103	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Sodium	5320	ug/L	5000	ug/L	106	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Strontium	518	ug/L	500	ug/L	104	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Tin	476	ug/L	500	ug/L	95.2	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Vanadium	517	ug/L	500	ug/L	103	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Zinc	484	ug/L	500	ug/L	96.8	80.0 – 120.0	29–MAR–10 18:45	032910C–1

METALS
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Interference Check Sample

SDG No: 10–2040

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.051	ug/L					07–MAY–10 13:55	100506–2
	Arsenic	0.564	ug/L					07–MAY–10 13:55	100506–2
	Cadmium	0.429	ug/L					07–MAY–10 13:55	100506–2
	Chromium	2.76	ug/L					07–MAY–10 13:55	100506–2
	Lead	0.248	ug/L					07–MAY–10 13:55	100506–2
	Molybdenum	2310	ug/L	2000	ug/L	116	80.0 – 120.0	07–MAY–10 13:55	100506–2
	Selenium	–0.79	ug/L					07–MAY–10 13:55	100506–2
	Silver	0.102	ug/L					07–MAY–10 13:55	100506–2
	Thallium	0.004	ug/L					07–MAY–10 13:55	100506–2
ICSAB01									
	Antimony	21.8	ug/L	20	ug/L	109	80.0 – 120.0	07–MAY–10 14:02	100506–2
	Arsenic	21.7	ug/L	20	ug/L	109	80.0 – 120.0	07–MAY–10 14:02	100506–2
	Cadmium	22.1	ug/L	20.44	ug/L	108	80.0 – 120.0	07–MAY–10 14:02	100506–2
	Chromium	24.4	ug/L	23.3	ug/L	105	80.0 – 120.0	07–MAY–10 14:02	100506–2
	Lead	21.5	ug/L	20.19	ug/L	107	80.0 – 120.0	07–MAY–10 14:02	100506–2
	Molybdenum	2280	ug/L	2000	ug/L	114	80.0 – 120.0	07–MAY–10 14:02	100506–2
	Selenium	22.2	ug/L	20	ug/L	111	80.0 – 120.0	07–MAY–10 14:02	100506–2
	Silver	21.2	ug/L	20	ug/L	106	80.0 – 120.0	07–MAY–10 14:02	100506–2
	Thallium	20.6	ug/L	20	ug/L	103	80.0 – 120.0	07–MAY–10 14:02	100506–2

METALS
–4–
Interference Check Sample

SDG No: 10–2040

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	0.001	ug/L					08–MAY–10 05:13	100507–3
ICSAB01									
	Uranium	20.6	ug/L	20	ug/L	103	80.0 – 120.0	08–MAY–10 05:16	100507–3

METALS
–4–
Interference Check Sample

SDG No: 10–2040

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Nickel	2.36	ug/L					08–MAY–10 13:24	100507–7
ICSAB01									
	Nickel	21.1	ug/L	23.31	ug/L	90.5	80.0 – 120.0	08–MAY–10 13:27	100507–7

METALS
-5a-
Matrix Spike Summary

SDG NO. 10-2040 **Client ID** CAPA-10-13094S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 247817001 **Spike ID:** 1202055836

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75-125	2.16		0.066	U	2	106		AV

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2040 **Client ID** CAPA–10–12770S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 248044001 **Spike ID:** 1202056948

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Potassium	ug/L	75–125	8290		3360		5000	98.5		P
Silica	mg/L	75–125	45		33.3		10.7	109		P
Sodium	ug/L	75–125	21000		16000		5000	99.2		P
Strontium	ug/L	75–125	613		107		500	101		P
Tin	ug/L	75–125	499		2.5	U	500	99.8		P
Vanadium	ug/L	75–125	511		1	U	500	102		P
Zinc	ug/L	75–125	476		3.3	U	500	94.6		P
Aluminum	ug/L	75–125	6270		890		5000	108		P
Barium	ug/L	75–125	593		82.1		500	102		P
Beryllium	ug/L	75–125	520		1	U	500	104		P
Boron	ug/L	75–125	506		15	U	500	98.5		P
Calcium	ug/L	75–125	18700		13800		5000	98.1		P
Cobalt	ug/L	75–125	477		1	U	500	95.3		P
Copper	ug/L	75–125	510		3	U	500	102		P
Iron	ug/L	75–125	5360		404		5000	99.2		P
Magnesium	ug/L	75–125	9850		4700		5000	103		P
Manganese	ug/L	75–125	491		4.02	J	500	97.3		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2040 **Client ID** CAPA–10–12916S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 248023001 **Spike ID:** 1202056955

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Antimony	ug/L	75–125	220		0.5	U	200	110		MS
Arsenic	ug/L	75–125	86.4		1.5	U	80	108		MS
Cadmium	ug/L	75–125	11.8		0.11	U	10	118		MS
Chromium	ug/L	75–125	55.7		5	J	50	101		MS
Lead	ug/L	75–125	43.8		0.5	U	40	109		MS
Molybdenum	ug/L	75–125	57.3		2.33		50	110		MS
Nickel	ug/L	75–125	46.2		0.987	J	50	90.5		MS
Selenium	ug/L	75–125	20.1		1	U	20	101		MS
Silver	ug/L	75–125	57.3		0.2	U	50	115		MS
Thallium	ug/L	75–125	104		0.3	U	100	103		MS
Uranium	ug/L	75–125	48		0.29		50	95.5		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2040

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAPA–10–13094D

Sample ID: 247817001 **Duplicate ID:** 1202055835 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2040

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAPA–10–12770D

Sample ID: 248044001 **Duplicate ID:** 1202056947 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	+/–200	890		888		.274		P
Barium	ug/L	+/–20%	82.1		83.2		1.37		P
Beryllium	ug/L		1	U	1	U			P
Boron	ug/L		15	U	15	U			P
Calcium	ug/L	+/–20%	13800		13900		.759		P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L	+/–100	404		414		2.31		P
Magnesium	ug/L	+/–20%	4700		4820		2.55		P
Manganese	ug/L	+/–10	4.02	J	4.04	J	.573		P
Potassium	ug/L	+/–20%	3360		3460		2.88		P
Silica	mg/L	+/–20%	33.3		33.8		1.28		P
Sodium	ug/L	+/–20%	16000		16200		1.14		P
Strontium	ug/L	+/–20%	107		108		.904		P
Tin	ug/L		2.5	U	2.5	U			P
Vanadium	ug/L		1	U	1	U			P
Zinc	ug/L		3.3	U	3.3	U			P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2040

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAPA–10–12916D

Sample ID: 248023001 **Duplicate ID:** 1202056954 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		0.5	U	0.5	U			MS
Arsenic	ug/L		1.5	U	1.5	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Chromium	ug/L	+/–10	5	J	5.17	J	3.32		MS
Lead	ug/L		0.5	U	0.5	U			MS
Molybdenum	ug/L	+/–.5	2.33		2.3		1.08		MS
Nickel	ug/L	+/–2	0.987	J	1.05	J	5.71		MS
Selenium	ug/L		1	U	1	U			MS
Silver	ug/L		0.2	U	0.2	U			MS
Thallium	ug/L		0.3	U	0.3	U			MS
Uranium	ug/L	+/–.2	0.29		0.295		1.71		MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2040

Contract: ESHL01000

Aqueous LCS Source:GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202055834								
	Mercury	ug/L	2	2.18		109	85–115	AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2040

Contract: ESHL01000

Aqueous LCS Source: OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202056946								
	Aluminum	ug/L	5000	5370		107	80–120	P
	Barium	ug/L	500	522		104	80–120	P
	Beryllium	ug/L	500	524		105	80–120	P
	Boron	ug/L	500	487		97.3	80–120	P
	Calcium	ug/L	5000	5030		101	80–120	P
	Cobalt	ug/L	500	489		97.9	80–120	P
	Copper	ug/L	500	509		102	80–120	P
	Iron	ug/L	5000	5000		100	80–120	P
	Magnesium	ug/L	5000	5220		104	80–120	P
	Manganese	ug/L	500	499		99.8	80–120	P
	Potassium	ug/L	5000	4920		98.3	80–120	P
	Silica	mg/L	10.7	10.4		97.5	80–120	P
	Sodium	ug/L	5000	5020		100	80–120	P
	Strontium	ug/L	500	513		103	80–120	P
	Tin	ug/L	500	497		99.4	80–120	P
	Vanadium	ug/L	500	511		102	80–120	P
	Zinc	ug/L	500	480		96	80–120	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2040

Contract: ESHL01000

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202056953								
	Antimony	ug/L	50	58		116	80–120	MS
	Arsenic	ug/L	50	57		114	80–120	MS
	Cadmium	ug/L	50	58		116	80–120	MS
	Chromium	ug/L	50	58.6		117	80–120	MS
	Lead	ug/L	50	58.4		117	80–120	MS
	Molybdenum	ug/L	50	58.1		116	80–120	MS
	Nickel	ug/L	50	48.6		97.1	80–120	MS
	Selenium	ug/L	50	58.8		118	80–120	MS
	Silver	ug/L	50	59.9		120	80–120	MS
	Thallium	ug/L	50	55.3		111	80–120	MS
	Uranium	ug/L	50	48.7		97.3	80–120	MS

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2040 **Client ID** CAPA-10-13094L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 247817001 **Serial Dilution ID:** 1202055837

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2040 **Client ID** CAPA–10–12770L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 248044001 **Serial Dilution ID:** 1202056949

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	890		930	J	4.49			P
Barium	82.1		83.5		1.71		10	P
Beryllium	1	U	5	U				P
Boron	15	U	75	U				P
Calcium	13800		13900		.725		10	P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	404		435	J	7.55			P
Magnesium	4700		4840		2.87		10	P
Manganese	4.02	J	10	U	100			P
Potassium	3360		3530		5.06		10	P
Silica	33300		33000		.901		10	P
Sodium	16000		16600		3.44		10	P
Strontium	107		109		1.4		10	P
Tin	2.5	U	12.5	U				P
Vanadium	1	U	5	U				P
Zinc	3.3	U	16.5	U				P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2040 **Client ID** CAPA–10–12916L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 248023001 **Serial Dilution ID:** 1202056956

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	.5	U	2.5	U				MS
Arsenic	1.5	U	7.5	U				MS
Cadmium	.11	U	.55	U				MS
Chromium	5	J	12.5	U	100			MS
Lead	.5	U	2.5	U				MS
Molybdenum	2.33		2.12	J	9.01			MS
Nickel	.987	J	2.5	U	100			MS
Selenium	1	U	5	U				MS
Silver	.2	U	1	U				MS
Thallium	.3	U	1.5	U				MS
Uranium	.29		.3	J	3.45			MS

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2040 **Method Type:** P

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	959136						
1202056945	MB for batch 959136	MB	G	06–MAR–10	50mL	50mL	
1202056946	LCS for batch 959136	LCS	G	06–MAR–10	50mL	50mL	
1202056948	CAPA–10–12770S	MS	G	06–MAR–10	50mL	50mL	
1202056947	CAPA–10–12770D	DUP	G	06–MAR–10	50mL	50mL	
248023001	CAPA–10–12916	SAMPLE	G	06–MAR–10	50mL	50mL	
248023002	CAPA–10–12917	SAMPLE	G	06–MAR–10	50mL	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2040 **Method Type:** MS

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	959138						
1202056952	MB for batch 959138	MB	G	06–MAR–10	50mL	50mL	
1202056953	LCS for batch 959138	LCS	G	06–MAR–10	50mL	50mL	
1202056955	CAPA–10–12916S	MS	G	06–MAR–10	50mL	50mL	
1202056954	CAPA–10–12916D	DUP	G	06–MAR–10	50mL	50mL	
248023001	CAPA–10–12916	SAMPLE	G	06–MAR–10	50mL	50mL	
248023002	CAPA–10–12917	SAMPLE	G	06–MAR–10	50mL	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2040 **Method Type:** AV

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	958580						
1202055833	MB for batch 958580	MB	G	01–MAR–10	20mL	20mL	
1202055834	LCS for batch 958580	LCS	G	01–MAR–10	20mL	20mL	
1202055836	CAPA–10–13094S	MS	G	01–MAR–10	20mL	20mL	
1202055835	CAPA–10–13094D	DUP	G	01–MAR–10	20mL	20mL	
248023001	CAPA–10–12916	SAMPLE	G	01–MAR–10	20mL	20mL	
248023002	CAPA–10–12917	SAMPLE	G	01–MAR–10	20mL	20mL	

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 07–MAY–10 **End Date:** 07–MAY–10

Client Sdg: 10–2040
Method MS
Data File: 100506–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	13:16:00		X	X				X		X					X				X			X		X			X				
S10	1	13:23:00		X	X				X		X					X				X			X		X			X				
S100	1	13:29:00		X	X				X		X					X				X			X		X			X				
ICV01	1	13:36:00		X	X				X		X					X				X			X		X			X				
ICB01	1	13:42:00		X	X				X		X					X				X			X		X			X				
CRDL01	1	13:49:00		X	X				X		X					X				X			X		X			X				
ICSA01	1	13:55:00		X	X				X		X					X				X			X		X			X				
ICSAB01	1	14:02:00		X	X				X		X					X				X			X		X			X				
CCV01	1	14:08:00		X	X				X		X					X				X			X		X			X				
CCB01	1	14:15:00		X	X				X		X					X				X			X		X			X				
LR01	1	14:21:00		X	X				X		X					X				X			X		X			X				
CCV02	1	14:28:00		X	X				X		X					X				X			X		X			X				
CCB02	1	14:35:00		X	X				X		X					X				X			X		X			X				
1202056952	1	14:41:00		X	X				X		X					X				X			X		X			X				
1202056953	1	14:48:00		X	X				X		X					X				X			X		X			X				
248023001	1	14:54:00		X	X				X		X					X				X			X		X			X				
1202056954	1	15:01:00		X	X				X		X					X				X			X		X			X				
1202056955	1	15:07:00		X	X				X		X					X				X			X		X			X				
1202056956	5	15:14:00		X	X				X		X					X				X			X		X			X				
248023002	1	15:20:00		X	X				X		X					X				X			X		X			X				
ZZZZZZ	1	15:27:00																														
CCV03	1	15:33:00		X	X				X		X					X				X			X		X			X				
CCB03	1	15:40:00		X	X				X		X					X				X			X		X			X				

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 08–MAY–10 **End Date:** 08–MAY–10

Client Sdg: 10–2040
Method MS
Data File: 100507–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	04:49:00																												X		
S10	1	04:53:00																												X		
S100	1	04:57:00																												X		
ICV01	1	05:01:00																												X		
ICB01	1	05:05:00																												X		
CRDL01	1	05:09:00																												X		
ICSA01	1	05:13:00																												X		
ICSAB01	1	05:16:00																												X		
CCV01	1	05:20:00																												X		
CCB01	1	05:24:00																												X		
1202056952	1	05:28:00																												X		
1202056953	1	05:34:00																												X		
248023001	1	05:37:00																												X		
1202056954	1	05:41:00																												X		
1202056955	1	05:45:00																												X		
1202056956	5	05:49:00																												X		
248023002	1	05:53:00																												X		
ZZZZZZ	1	05:57:00																														
CCV02	1	06:01:00																												X		
CCB02	1	06:05:00																												X		

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 08–MAY–10 **End Date:** 08–MAY–10

Client Sdg: 10–2040
Method MS
Data File: 100507–7

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	13:03:00																			X											
S10	1	13:07:00																			X											
S100	1	13:10:00																			X											
ICV01	1	13:13:00																			X											
ICB01	1	13:17:00																			X											
CRDL01	1	13:20:00																			X											
ICSA01	1	13:24:00																			X											
ICSAB01	1	13:27:00																			X											
CCV01	1	13:30:00																			X											
CCB01	1	13:34:00																			X											
1202056952	1	13:37:00																			X											
1202056953	1	13:41:00																			X											
248023001	1	13:45:00																			X											
1202056954	1	13:49:00																			X											
1202056955	1	13:53:00																			X											
1202056956	5	13:57:00																			X											
248023002	1	14:01:00																			X											
ZZZZZZ	1	14:04:00																														
CCV02	1	14:08:00																			X											
CCB02	1	14:12:00																			X											

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: HG3
Start Date: 02–MAR–10 **End Date:** 02–MAR–10

Client Sdg: 10–2040
Method AV
Data File: 030210W3–8

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	08:28:00																	X													
S0.2	1	08:30:00																	X													
S0.5	1	08:31:00																	X													
S2.0	1	08:33:00																	X													
S5.0	1	08:35:00																	X													
S10.0	1	08:37:00																	X													
ICV01	1	08:39:00																	X													
ICB01	1	08:41:00																	X													
CRDL01	1	08:43:00																	X													
CCV01	1	08:45:00																	X													
CCB01	1	08:47:00																	X													
ZZZZZZ	1	08:49:00																														
ZZZZZZ	1	08:51:00																														
ZZZZZZ	1	08:53:00																														
ZZZZZZ	1	08:55:00																														
ZZZZZZ	1	08:57:00																														
ZZZZZZ	5	08:58:00																														
ZZZZZZ	1	09:00:00																														
ZZZZZZ	1	09:02:00																														
ZZZZZZ	1	09:04:00																														
ZZZZZZ	1	09:06:00																														
CCV02	1	09:08:00																	X													
CCB02	1	09:10:00																	X													
ZZZZZZ	1	09:12:00																														
ZZZZZZ	1	09:14:00																														
ZZZZZZ	1	09:16:00																														
ZZZZZZ	1	09:18:00																														
ZZZZZZ	1	09:20:00																														
ZZZZZZ	1	09:21:00																														
ZZZZZZ	1	09:23:00																														
ZZZZZZ	1	09:25:00																														
ZZZZZZ	5	09:27:00																														
ZZZZZZ	1	09:29:00																														
CCV03	1	09:31:00																	X													
CCB03	1	09:33:00																	X													
ZZZZZZ	1	09:35:00																														
ZZZZZZ	1	09:37:00																														
ZZZZZZ	1	09:39:00																														
ZZZZZZ	1	09:41:00																														
ZZZZZZ	1	09:43:00																														

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																													
ZZZZZZ	1	09:45:00																													
ZZZZZZ	1	09:47:00																													
ZZZZZZ	1	09:48:00																													
1202055833	1	09:50:00															X														
1202055834	1	09:52:00															X														
CCV04	1	09:54:00															X														
CCB04	1	09:56:00															X														
ZZZZZZ	1	09:58:00																													
1202055835	1	10:00:00															X														
1202055836	1	10:02:00															X														
1202055837	5	10:04:00															X														
ZZZZZZ	1	10:06:00																													
ZZZZZZ	1	10:08:00																													
ZZZZZZ	1	10:10:00																													
ZZZZZZ	1	10:12:00																													
248023001	1	10:13:00															X														
248023002	1	10:15:00															X														
CCV05	1	10:17:00															X														
CCB05	1	10:19:00															X														

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 29–MAR–10 **End Date:** 29–MAR–10

Client Sdg: 10–2040
Method P
Data File: 032910C–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	18:25:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
S0.1	1	18:28:00				X	X	X				X	X					X				X		X			X		X		X	X
S0.5	1	18:30:00	X			X	X	X		X		X	X				X	X				X		X			X		X		X	X
SCAL	1	18:32:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
S10	1	18:34:00	X							X					X		X									X						
ICV01	1	18:35:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ICB01	1	18:37:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
PQL01	1	18:40:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ICSA01	1	18:43:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ICSAB01	1	18:45:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
LR01	1	18:46:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
LR02	1	18:48:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCV01	1	18:49:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB01	1	18:51:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCV02	1	18:57:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB02	1	18:59:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	19:17:00																														
ZZZZZZ	1	19:20:00																														
ZZZZZZ	1	19:21:00																														
ZZZZZZ	1	19:23:00																														
ZZZZZZ	1	19:25:00																														
ZZZZZZ	1	19:26:00																														
ZZZZZZ	5	19:29:00																														
CCV03	1	19:31:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB03	1	19:33:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	19:36:00																														
ZZZZZZ	1	19:38:00																														
ZZZZZZ	1	19:40:00																														
ZZZZZZ	1	19:42:00																														
ZZZZZZ	1	19:44:00																														
ZZZZZZ	1	19:46:00																														
ZZZZZZ	1	19:48:00																														
ZZZZZZ	1	19:50:00																														
CCV04	1	19:52:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB04	1	19:54:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	19:57:00																														
ZZZZZZ	1	19:59:00																														
ZZZZZZ	1	20:02:00																														
ZZZZZZ	1	20:04:00																														
ZZZZZZ	1	20:06:00																														

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																													
ZZZZZZ	1	20:08:00																													
ZZZZZZ	1	20:10:00																													
ZZZZZZ	1	20:12:00																													
CCV05	1	20:14:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB05	1	20:16:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	20:20:00																													
ZZZZZZ	1	20:23:00																													
ZZZZZZ	1	20:25:00																													
ZZZZZZ	1	20:28:00																													
ZZZZZZ	1	20:31:00																													
ZZZZZZ	5	20:33:00																													
ZZZZZZ	1	20:36:00																													
CCV06	1	20:39:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB06	1	20:41:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	20:44:00																													
ZZZZZZ	1	20:47:00																													
ZZZZZZ	1	20:50:00																													
ZZZZZZ	1	20:52:00																													
ZZZZZZ	1	20:55:00																													
ZZZZZZ	1	20:57:00																													
ZZZZZZ	1	21:00:00																													
CCV07	1	21:03:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB07	1	21:05:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	21:08:00																													
ZZZZZZ	1	21:11:00																													
ZZZZZZ	1	21:12:00																													
ZZZZZZ	1	21:14:00																													
ZZZZZZ	1	21:16:00																													
ZZZZZZ	1	21:18:00																													
ZZZZZZ	5	21:19:00																													
CCV08	1	21:21:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB08	1	21:23:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	21:26:00																													
ZZZZZZ	1	21:28:00																													
ZZZZZZ	1	21:30:00																													
ZZZZZZ	1	21:32:00																													
ZZZZZZ	1	21:34:00																													
ZZZZZZ	1	21:37:00																													
ZZZZZZ	1	21:39:00																													
CCV09	1	21:41:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
CCB09	1	21:43:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	21:46:00																														
ZZZZZZ	1	21:48:00																														
ZZZZZZ	1	21:50:00																														
ZZZZZZ	1	21:52:00																														
ZZZZZZ	1	21:54:00																														
ZZZZZZ	1	21:56:00																														
ZZZZZZ	1	21:58:00																														
CCV10	1	22:01:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB10	1	22:03:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
1202056945	1	22:06:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
1202056946	1	22:08:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	22:10:00																														
1202056947	1	22:13:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
1202056948	1	22:15:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
1202056949	5	22:17:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCV11	1	22:19:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB11	1	22:21:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
248023001	1	22:24:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
248023002	1	22:27:00	X			X	X	X		X		X	X		X		X	X				X				X	X		X		X	X
ZZZZZZ	1	22:29:00																														
ZZZZZZ	1	22:31:00																														
ZZZZZZ	1	22:34:00																														
ZZZZZZ	1	22:36:00																														
ZZZZZZ	1	22:39:00																														
CCV12	1	22:42:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB12	1	22:44:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2040

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01–FEB–09
Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01–MAR–10

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		10.0	30
	Antimony		0.5	3
	Arsenic		1.5	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.11	1
	Calcium		20.0	200
	Chromium		2.5	10
	Cobalt		0.1	1
	Iron		10.0	100
	Lead		0.5	2
	Magnesium		5.0	15
	Manganese		1.0	5
	Molybdenum		0.1	.5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Strontium		2.0	10
	Thallium		0.3	1
	Tin		1.0	5
	Uranium		0.05	.2
	Vanadium		3.0	10
LIQUID	Copper		0.14	1
	Zinc		2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2040

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
MERCURY				
LIQUID	Mercury		0.066	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2040

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	15.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Molybdenum	202.031	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silica		53.0	213
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Strontium	421.552	1.0	5
	Thallium	190.801	5.0	20
	Tin	189.927	2.5	10
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2040
Effective Dates: 22-MAR-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00676	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.98369	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.06206	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.22134	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.22220	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	-0.01674	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2040
Effective Dates: 22-MAR-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	14.9992	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	-9.49960	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	3.47778	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	-0.18390	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	-0.60088	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.04741	0.32747
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	10.9289
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	-0.07359	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.02864	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.33675	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.18768	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-4.30004	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.03286	0.12442	0.79397

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2040
Effective Dates: 22-MAR-10

Parmname	Wavelength	Lead	Magnesium	Manganese	Molybdenum	Phosphorous
Aluminum	396.153	0.00000	0.00000	0.00000	46.4438	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-14.0269	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	-2.84596	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-0.32136	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.01216	0.24903	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	-0.02702	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	-2.77286	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	-24.4630	0.00000
Manganese	257.61	0.00000	0.03966	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.01826	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	10.3832	0.00000
Potassium	766.49	0.00000	0.07568	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	13.3443	0.00000
Silver	328.068	0.00000	0.00000	0.28019	-0.03095	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	-8.43314	0.00000
Thallium	190.801	0.00000	0.00000	-2.58065	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.08144	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	-6.48399	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	-10.3466	0.00000
Zinc	213.857	0.00000	0.00000	0.06887	-0.04597	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2040
Effective Dates: 22-MAR-10

Parmname	Wavelength	Potassium	Selenium	Silicon	Silver	Sodium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.16274
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.88937	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2040
Effective Dates: 22-MAR-10

Parmname	Wavelength	Strontium	Sulfur	Thallium	Tin	Titanium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-1.82716	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	-1.32991
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	-8.61809	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	6.59640	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	-10.0432
Tin	189.927	0.00000	0.00000	0.00000	0.00000	-3.37234
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.92753
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	-0.56798

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2040
Effective Dates: 22-MAR-10

Parmname	Wavelength	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	-1.62578	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000
Barium	233.527	0.00000	-0.63442	0.00000
Beryllium	313.107	-0.30229	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000
Chromium	267.716	0.78601	-0.47146	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000
Copper	324.752	-0.82619	0.00000	0.00000
Lead	220.353	0.74521	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.33953	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000
Selenium	196.026	-0.96499	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000
Silver	328.068	-1.22996	-11.9401	0.00000
Sodium	589.592	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-7.37871	0.00000
Tin	189.927	0.00000	0.00000	0.00000
Titanium	334.94	0.40930	0.00000	0.00000
Uranium	409.014	0.00000	-57.5852	0.00000
Vanadium	292.402	-0.67226	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–2040

Contract: ESHL01000 **Lab Code: GEL**

Instrument ID ICPMS6

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Boron	1000	200	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Molybdenum	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Strontium	1000	1000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Tin	1000	1000	ug/L	01–FEB–10
Uranium	1000	5000	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–2040

Contract: ESHL01000 **Lab Code: GEL**

Instrument ID OPTIMA4

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Thallium	20	10000	ug/L	01–FEB–10
Tin	20	10000	ug/L	01–FEB–10
Uranium	20	15000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Boron	20	5000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Molybdenum	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silica	20	107000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Strontium	20	10000	ug/L	01–FEB–10

Raw Data

Calculation Data Logbook

Report run on: May 11, 2010 2:20 PM

Batch Id: 970515 **Sop:** GL-GC-E-107
Employee: Octavia Doster
Instrument: No instrument-calculation method

Samp Id	Sample Type	Parmname	Run Date	Calcium mg/L	Magnesium mg/L	Result	Units
248023001	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	10.9	2.91	39.1	mg/L
248023002	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	11.0	2.94	39.5	mg/L
248044001	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	13.8	4.70	53.8	mg/L
248044002	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	14.3	5.28	57.4	mg/L
248044003	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	21.6	6.44	80.4	mg/L
248044004	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	22.0	6.70	82.6	mg/L
248044005	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	0.00	0.00	0.00	mg/L
248044006	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	0.0579	0.00	0.145	mg/L
248164001	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	14.0	2.70	46.2	mg/L
248164002	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	14.4	2.75	47.2	mg/L
248164003	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	14.3	2.73	46.9	mg/L
248164004	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	14.3	2.81	47.4	mg/L
248261001	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	41.8	1.57	111	mg/L

Calculation: **(2.497 * Calcium) + (4.118 * Magnesium)**

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Reprocessing Begun
Logged In Analyst: optima4 **Technique: ICP Continuous**

Results Data Set (original): 032910B
Results Library (original): C:\pe\optima4\Results\Results.mdb
Results Data Set (reprocessed): 032910C
Results Library (reprocessed): C:\pe\optima4\Results\Results.mdb

==========

Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 3/29/2010 19:12:39**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 3/29/2010 18:25:17**
Analyst: **Data Type: Reprocessed on 3/29/2010 19:14:31**
Logged In Analyst (Original) : optima4
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	1675486.4	1675486.4	100.16	%	18:27:09
1	Sc RADIAL	146509.4	146509.4	101	%	18:25:47
1	Y 371.029	1022720.1	1022720.1	100.01	%	18:27:09
1	Ag 328.068†	2983.2	2978.4	[0.00]	µg/L	18:27:11
1	Al 396.153Radial†	-35.1	-35.0	[0.00]	µg/L	18:26:07
1	As 188.979†	-19.2	-19.2	[0.00]	µg/L	18:27:31

1	B 249.677†	3447.9	3442.3	[0.00] µg/L	18:27:11
1	Ba 233.527†	-170.9	-170.6	[0.00] µg/L	18:27:31
1	Be 313.107†	-760.2	-759.0	[0.00] µg/L	18:27:11
1	Ca 317.933Radial†	609.6	606.5	[0.00] µg/L	18:26:07
1	Cd 226.502†	-94.3	-94.2	[0.00] µg/L	18:27:31
1	Co 228.616†	-177.2	-176.9	[0.00] µg/L	18:27:31
1	Cr 267.716†	191.1	190.8	[0.00] µg/L	18:27:31
1	Cu 324.752†	2447.0	2443.1	[0.00] µg/L	18:27:11
1	Fe 238.204 Radial†	120.7	120.1	[0.00] µg/L	18:26:07
1	K 766.490 Radial†	1409.9	1402.7	[0.00] µg/L	18:25:47
1	Mg 279.077 IEC†	182.4	181.4	[0.00] µg/L	18:26:07
1	Mn 257.610†	83.5	83.4	[0.00] µg/L	18:27:31
1	Mo 202.031†	-61.5	-61.4	[0.00] µg/L	18:27:31
1	Na 589.592 Radial†	1727.7	1718.8	[0.00] µg/L	18:25:47
1	Ni 231.604†	-12.7	-12.7	[0.00] µg/L	18:27:31
1	P 214.914†	74.6	74.5	[0.00] µg/L	18:27:31
1	Pb 220.353†	124.0	123.8	[0.00] µg/L	18:27:31
1	S 181.975 Axial†	92.2	92.1	[0.00] µg/L	18:27:31
1	Sb 206.836†	94.8	94.7	[0.00] µg/L	18:27:31
1	Se 196.026†	10.9	10.9	[0.00] µg/L	18:27:31
1	SiO2†	1567.1	1564.5	[0.00] µg/L	18:27:31
1	Si 251.611†	683.3	682.2	[0.00] µg/L	18:27:11
1	Sn 189.927†	-0.3	-0.3	[0.00] µg/L	18:27:31
1	Sr 421.552†	-242.7	-241.5	[0.00] µg/L	18:25:47
1	Ti 334.940†	661.0	659.9	[0.00] µg/L	18:27:11
1	Tl 190.801†	-125.7	-125.5	[0.00] µg/L	18:27:31
1	U 409.014†	-452.8	-452.0	[0.00] µg/L	18:27:11
1	V 292.402†	515.3	514.5	[0.00] µg/L	18:27:11
1	Zn 213.857†	458.0	457.2	[0.00] µg/L	18:27:31
2	Sc 361.383	1673882.1	1673882.1	100.07 %	18:27:33
2	Sc RADIAL	143614.2	143614.2	98.5 %	18:26:09
2	Y 371.029	1022767.5	1022767.5	100.02 %	18:27:33
2	Ag 328.068†	3053.8	3051.7	[0.00] µg/L	18:27:35
2	Al 396.153Radial†	-38.9	-39.5	[0.00] µg/L	18:26:29
2	As 188.979†	-15.1	-15.1	[0.00] µg/L	18:27:55
2	B 249.677†	3293.2	3291.1	[0.00] µg/L	18:27:35
2	Ba 233.527†	-175.9	-175.8	[0.00] µg/L	18:27:55
2	Be 313.107†	-530.4	-530.1	[0.00] µg/L	18:27:35
2	Ca 317.933Radial†	602.3	611.3	[0.00] µg/L	18:26:29
2	Cd 226.502†	-94.9	-94.9	[0.00] µg/L	18:27:55
2	Co 228.616†	-169.1	-169.0	[0.00] µg/L	18:27:55
2	Cr 267.716†	157.6	157.5	[0.00] µg/L	18:27:55
2	Cu 324.752†	2326.2	2324.7	[0.00] µg/L	18:27:35
2	Fe 238.204 Radial†	112.7	114.4	[0.00] µg/L	18:26:29
2	K 766.490 Radial†	1475.1	1497.1	[0.00] µg/L	18:26:09
2	Mg 279.077 IEC†	191.8	194.7	[0.00] µg/L	18:26:29
2	Mn 257.610†	69.4	69.3	[0.00] µg/L	18:27:55
2	Mo 202.031†	-55.1	-55.0	[0.00] µg/L	18:27:55
2	Na 589.592 Radial†	1691.1	1716.3	[0.00] µg/L	18:26:09
2	Ni 231.604†	-51.5	-51.5	[0.00] µg/L	18:27:55
2	P 214.914†	99.0	98.9	[0.00] µg/L	18:27:55
2	Pb 220.353†	108.5	108.4	[0.00] µg/L	18:27:55
2	S 181.975 Axial†	90.3	90.2	[0.00] µg/L	18:27:55
2	Sb 206.836†	81.0	81.0	[0.00] µg/L	18:27:55
2	Se 196.026†	15.5	15.5	[0.00] µg/L	18:27:55
2	SiO2†	1541.6	1540.6	[0.00] µg/L	18:27:55
2	Si 251.611†	721.8	721.4	[0.00] µg/L	18:27:35
2	Sn 189.927†	7.0	7.0	[0.00] µg/L	18:27:55
2	Sr 421.552†	-264.2	-268.1	[0.00] µg/L	18:26:09
2	Ti 334.940†	533.5	533.1	[0.00] µg/L	18:27:35
2	Tl 190.801†	-121.5	-121.4	[0.00] µg/L	18:27:55
2	U 409.014†	-565.6	-565.2	[0.00] µg/L	18:27:35
2	V 292.402†	425.8	425.5	[0.00] µg/L	18:27:35
2	Zn 213.857†	466.7	466.4	[0.00] µg/L	18:27:55
3	Sc 361.383	1668955.0	1668955.0	99.772 %	18:27:57
3	Sc RADIAL	147139.1	147139.1	101 %	18:26:31
3	Y 371.029	1022257.2	1022257.2	99.968 %	18:27:57
3	Ag 328.068†	2864.4	2871.0	[0.00] µg/L	18:27:59
3	Al 396.153Radial†	-21.4	-21.2	[0.00] µg/L	18:26:51
3	As 188.979†	-8.4	-8.4	[0.00] µg/L	18:28:20
3	B 249.677†	3326.1	3333.7	[0.00] µg/L	18:27:59

3	Ba 233.527†	-178.4	-178.8	[0.00] µg/L	18:28:20
3	Be 313.107†	-689.7	-691.3	[0.00] µg/L	18:27:59
3	Ca 317.933Radial†	636.8	630.8	[0.00] µg/L	18:26:51
3	Cd 226.502†	-94.0	-94.2	[0.00] µg/L	18:28:20
3	Co 228.616†	-183.5	-183.9	[0.00] µg/L	18:28:20
3	Cr 267.716†	132.1	132.4	[0.00] µg/L	18:28:20
3	Cu 324.752†	2501.2	2506.9	[0.00] µg/L	18:27:59
3	Fe 238.204 Radial†	106.3	105.3	[0.00] µg/L	18:26:51
3	K 766.490 Radial†	1479.1	1465.2	[0.00] µg/L	18:26:31
3	Mg 279.077 IEC†	185.6	183.9	[0.00] µg/L	18:26:51
3	Mn 257.610†	87.1	87.3	[0.00] µg/L	18:28:20
3	Mo 202.031†	-49.1	-49.2	[0.00] µg/L	18:28:20
3	Na 589.592 Radial†	1664.8	1649.1	[0.00] µg/L	18:26:31
3	Ni 231.604†	-58.4	-58.5	[0.00] µg/L	18:28:20
3	P 214.914†	65.2	65.3	[0.00] µg/L	18:28:20
3	Pb 220.353†	104.9	105.1	[0.00] µg/L	18:28:20
3	S 181.975 Axial†	101.9	102.2	[0.00] µg/L	18:28:20
3	Sb 206.836†	84.1	84.3	[0.00] µg/L	18:28:20
3	Se 196.026†	6.3	6.3	[0.00] µg/L	18:28:20
3	SiO2†	1609.7	1613.4	[0.00] µg/L	18:28:20
3	Si 251.611†	624.2	625.6	[0.00] µg/L	18:27:59
3	Sn 189.927†	-0.6	-0.6	[0.00] µg/L	18:28:20
3	Sr 421.552†	-327.4	-324.4	[0.00] µg/L	18:26:31
3	Ti 334.940†	714.3	716.0	[0.00] µg/L	18:27:59
3	Tl 190.801†	-113.7	-113.9	[0.00] µg/L	18:28:20
3	U 409.014†	-419.1	-420.1	[0.00] µg/L	18:27:59
3	V 292.402†	354.6	355.5	[0.00] µg/L	18:27:59
3	Zn 213.857†	468.5	469.6	[0.00] µg/L	18:28:20

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1672774.5	3403.67	0.20%	100.00	%
Sc RADIAL	145754.2	1879.88	1.29%	100	%
Y 371.029	1022581.6	281.95	0.03%	100.00	%
Ag 328.068†	2967.0	90.92	3.06%	[0.00]	µg/L
Al 396.153Radial†	-31.9	9.54	29.92%	[0.00]	µg/L
As 188.979†	-14.2	5.41	37.98%	[0.00]	µg/L
B 249.677†	3355.7	78.00	2.32%	[0.00]	µg/L
Ba 233.527†	-175.1	4.13	2.36%	[0.00]	µg/L
Be 313.107†	-660.1	117.60	17.82%	[0.00]	µg/L
Ca 317.933Radial†	616.2	12.87	2.09%	[0.00]	µg/L
Cd 226.502†	-94.4	0.38	0.41%	[0.00]	µg/L
Co 228.616†	-176.6	7.48	4.23%	[0.00]	µg/L
Cr 267.716†	160.2	29.32	18.30%	[0.00]	µg/L
Cu 324.752†	2424.9	92.45	3.81%	[0.00]	µg/L
Fe 238.204 Radial†	113.3	7.45	6.58%	[0.00]	µg/L
K 766.490 Radial†	1455.0	48.06	3.30%	[0.00]	µg/L
Mg 279.077 IEC†	186.7	7.04	3.77%	[0.00]	µg/L
Mn 257.610†	80.0	9.46	11.83%	[0.00]	µg/L
Mo 202.031†	-55.2	6.06	10.98%	[0.00]	µg/L
Na 589.592 Radial†	1694.7	39.52	2.33%	[0.00]	µg/L
Ni 231.604†	-40.9	24.66	60.28%	[0.00]	µg/L
P 214.914†	79.6	17.37	21.83%	[0.00]	µg/L
Pb 220.353†	112.4	9.96	8.86%	[0.00]	µg/L
S 181.975 Axial†	94.8	6.43	6.78%	[0.00]	µg/L
Sb 206.836†	86.6	7.13	8.23%	[0.00]	µg/L
Se 196.026†	10.9	4.59	42.08%	[0.00]	µg/L
SiO2†	1572.9	37.13	2.36%	[0.00]	µg/L
Si 251.611†	676.4	48.15	7.12%	[0.00]	µg/L
Sn 189.927†	2.0	4.32	214.20%	[0.00]	µg/L
Sr 421.552†	-278.0	42.30	15.22%	[0.00]	µg/L
Ti 334.940†	636.3	93.67	14.72%	[0.00]	µg/L
Tl 190.801†	-120.3	5.87	4.88%	[0.00]	µg/L
U 409.014†	-479.1	76.26	15.92%	[0.00]	µg/L
V 292.402†	431.8	79.70	18.46%	[0.00]	µg/L
Zn 213.857†	464.4	6.40	1.38%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 3/29/2010 18:28:28
Data Type: Reprocessed on 3/29/2010 19:14:33

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	1661946.1	1661946.1	99.353	%	18:29:20
1	Sc RADIAL	142262.8	142262.8	97.6	%	18:28:58
1	Y 371.029	1013636.7	1013636.7	99.125	%	18:29:20
1	Ag 328.068†	28004.5	25219.9	[100]	µg/L	18:29:22
1	As 188.979†	214.7	230.4	[100]	µg/L	18:29:42
1	B 249.677†	9080.8	5784.2	[100]	µg/L	18:29:22
1	Ba 233.527†	21988.9	22307.2	[100]	µg/L	18:29:22
1	Be 313.107†	303759.0	306398.2	[100]	µg/L	18:29:20
1	Cd 226.502†	14418.1	14606.5	[100]	µg/L	18:29:22
1	Co 228.616†	7233.5	7457.2	[100]	µg/L	18:29:42
1	Cr 267.716†	11824.2	11741.0	[100]	µg/L	18:29:22
1	Cu 324.752†	25515.5	23256.9	[100]	µg/L	18:29:22
1	K 766.490 Radial†	3700.4	2336.2	[1000]	µg/L	18:28:58
1	Mn 257.610†	75396.6	75807.8	[100]	µg/L	18:29:22
1	Mo 202.031†	3080.8	3156.1	[100]	µg/L	18:29:42
1	Ni 231.604†	8001.7	8094.7	[100]	µg/L	18:29:22
1	P 214.914†	2111.9	2046.0	[500]	µg/L	18:29:42
1	Pb 220.353†	1769.2	1668.3	[100]	µg/L	18:29:42
1	S 181.975 Axial†	329.8	237.2	[200]	µg/L	18:29:42
1	Sb 206.836†	823.1	741.9	[100]	µg/L	18:29:42
1	Se 196.026†	270.2	261.0	[100]	µg/L	18:29:42
1	SiO2†	11219.8	9720.0	[1069.5]	µg/L	18:29:22
1	Si 251.611†	30808.9	30333.3	[500]	µg/L	18:29:22
1	Sn 189.927†	1389.8	1396.8	[100]	µg/L	18:29:42
1	Sr 421.552†	43261.6	44601.3	[100]	µg/L	18:28:58
1	Ti 334.940†	97625.2	97625.0	[100]	µg/L	18:29:22
1	Tl 190.801†	629.9	754.3	[100]	µg/L	18:29:42
1	U 409.014†	1288.2	1775.7	[100]	µg/L	18:29:22
1	V 292.402†	18219.3	17906.2	[100]	µg/L	18:29:22
1	Zn 213.857†	16338.0	15980.0	[100]	µg/L	18:29:22
2	Sc 361.383	1666549.8	1666549.8	99.628	%	18:29:44
2	Sc RADIAL	146980.5	146980.5	101	%	18:29:00
2	Y 371.029	1017353.0	1017353.0	99.489	%	18:29:44
2	Ag 328.068†	28245.8	25384.2	[100]	µg/L	18:29:47
2	As 188.979†	216.8	231.9	[100]	µg/L	18:30:07
2	B 249.677†	9095.6	5773.9	[100]	µg/L	18:29:47
2	Ba 233.527†	22220.1	22478.2	[100]	µg/L	18:29:47
2	Be 313.107†	301592.1	303378.7	[100]	µg/L	18:29:44
2	Cd 226.502†	14444.4	14592.7	[100]	µg/L	18:29:47
2	Co 228.616†	7194.5	7397.9	[100]	µg/L	18:30:07
2	Cr 267.716†	11989.4	11874.0	[100]	µg/L	18:29:47
2	Cu 324.752†	25454.5	23124.7	[100]	µg/L	18:29:47
2	K 766.490 Radial†	3828.6	2341.7	[1000]	µg/L	18:29:00
2	Mn 257.610†	75955.3	76159.0	[100]	µg/L	18:29:47
2	Mo 202.031†	3072.9	3139.6	[100]	µg/L	18:30:07
2	Ni 231.604†	7945.1	8015.7	[100]	µg/L	18:29:47
2	P 214.914†	2095.0	2023.3	[500]	µg/L	18:30:07
2	Pb 220.353†	1806.4	1700.7	[100]	µg/L	18:30:07
2	S 181.975 Axial†	328.8	235.2	[200]	µg/L	18:30:07
2	Sb 206.836†	831.1	747.6	[100]	µg/L	18:30:07
2	Se 196.026†	268.7	258.8	[100]	µg/L	18:30:07
2	SiO2†	11380.9	9850.6	[1069.5]	µg/L	18:29:47
2	Si 251.611†	30908.3	30347.4	[500]	µg/L	18:29:47
2	Sn 189.927†	1386.9	1390.0	[100]	µg/L	18:30:07
2	Sr 421.552†	43897.3	43809.0	[100]	µg/L	18:29:00
2	Ti 334.940†	97949.2	97678.7	[100]	µg/L	18:29:47
2	Tl 190.801†	629.9	752.6	[100]	µg/L	18:30:07
2	U 409.014†	1127.3	1610.7	[100]	µg/L	18:29:47

2	V 292.402†	18287.8	17924.3	[100]	µg/L	18:29:47
2	Zn 213.857†	16478.9	16076.1	[100]	µg/L	18:29:47
3	Sc 361.383	1678711.7	1678711.7	100.35	%	18:30:09
3	Sc RADIAL	143945.0	143945.0	98.8	%	18:29:02
3	Y 371.029	1024374.9	1024374.9	100.18	%	18:30:09
3	Ag 328.068†	27960.9	24894.9	[100]	µg/L	18:30:11
3	As 188.979†	221.3	234.7	[100]	µg/L	18:30:31
3	B 249.677†	9088.4	5700.5	[100]	µg/L	18:30:11
3	Ba 233.527†	21982.2	22079.5	[100]	µg/L	18:30:11
3	Be 313.107†	305374.6	304954.6	[100]	µg/L	18:30:09
3	Cd 226.502†	14449.3	14492.6	[100]	µg/L	18:30:11
3	Co 228.616†	7225.7	7376.7	[100]	µg/L	18:30:31
3	Cr 267.716†	11783.4	11581.4	[100]	µg/L	18:30:11
3	Cu 324.752†	25635.6	23120.1	[100]	µg/L	18:30:11
3	K 766.490 Radial†	3785.9	2378.5	[1000]	µg/L	18:29:02
3	Mn 257.610†	75567.2	75219.9	[100]	µg/L	18:30:11
3	Mo 202.031†	3088.5	3132.8	[100]	µg/L	18:30:31
3	Ni 231.604†	7999.7	8012.3	[100]	µg/L	18:30:11
3	P 214.914†	2091.9	2004.9	[500]	µg/L	18:30:31
3	Pb 220.353†	1784.3	1665.6	[100]	µg/L	18:30:31
3	S 181.975 Axial†	327.0	231.0	[200]	µg/L	18:30:31
3	Sb 206.836†	817.3	727.8	[100]	µg/L	18:30:31
3	Se 196.026†	251.7	239.9	[100]	µg/L	18:30:31
3	SiO2†	11327.9	9715.0	[1069.5]	µg/L	18:30:11
3	Si 251.611†	30819.3	30033.9	[500]	µg/L	18:30:11
3	Sn 189.927†	1401.4	1394.4	[100]	µg/L	18:30:31
3	Sr 421.552†	43851.5	44680.7	[100]	µg/L	18:29:02
3	Ti 334.940†	97740.3	96758.3	[100]	µg/L	18:30:11
3	Tl 190.801†	620.5	738.6	[100]	µg/L	18:30:31
3	U 409.014†	1269.9	1744.5	[100]	µg/L	18:30:11
3	V 292.402†	18059.5	17563.8	[100]	µg/L	18:30:11
3	Zn 213.857†	16510.7	15987.9	[100]	µg/L	18:30:11

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1669069.2	8662.09	0.52%	99.778	%
Sc RADIAL	144396.1	2390.99	1.66%	99.1	%
Y 371.029	1018454.9	5453.26	0.54%	99.596	%
Ag 328.068†	25166.4	249.02	0.99%	[100]	µg/L
As 188.979†	232.3	2.20	0.95%	[100]	µg/L
B 249.677†	5752.9	45.63	0.79%	[100]	µg/L
Ba 233.527†	22288.3	200.02	0.90%	[100]	µg/L
Be 313.107†	304910.5	1510.27	0.50%	[100]	µg/L
Cd 226.502†	14563.9	62.13	0.43%	[100]	µg/L
Co 228.616†	7410.6	41.70	0.56%	[100]	µg/L
Cr 267.716†	11732.1	146.47	1.25%	[100]	µg/L
Cu 324.752†	23167.2	77.70	0.34%	[100]	µg/L
K 766.490 Radial†	2352.1	22.98	0.98%	[1000]	µg/L
Mn 257.610†	75728.9	474.50	0.63%	[100]	µg/L
Mo 202.031†	3142.8	11.99	0.38%	[100]	µg/L
Ni 231.604†	8040.9	46.63	0.58%	[100]	µg/L
P 214.914†	2024.7	20.61	1.02%	[500]	µg/L
Pb 220.353†	1678.2	19.56	1.17%	[100]	µg/L
S 181.975 Axial†	234.4	3.15	1.34%	[200]	µg/L
Sb 206.836†	739.1	10.21	1.38%	[100]	µg/L
Se 196.026†	253.2	11.62	4.59%	[100]	µg/L
SiO2†	9761.9	76.87	0.79%	[1069.5]	µg/L
Si 251.611†	30238.2	177.02	0.59%	[500]	µg/L
Sn 189.927†	1393.8	3.45	0.25%	[100]	µg/L
Sr 421.552†	44363.6	481.98	1.09%	[100]	µg/L
Ti 334.940†	97354.0	516.57	0.53%	[100]	µg/L
Tl 190.801†	748.5	8.62	1.15%	[100]	µg/L
U 409.014†	1710.3	87.69	5.13%	[100]	µg/L
V 292.402†	17798.1	203.14	1.14%	[100]	µg/L
Zn 213.857†	16014.7	53.32	0.33%	[100]	µg/L

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Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/29/2010 18:30:39**
Analyst: **Data Type: Reprocessed on 3/29/2010 19:14:34**
Logged In Analyst (Original) : optima4
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	1666330.4	1666330.4	99.615	%	18:31:37
1	Sc RADIAL	146255.9	146255.9	100	%	18:31:10
1	Y 371.029	1010770.4	1010770.4	98.845	%	18:31:37
1	Ag 328.068†	124810.0	122325.6	[500]	µg/L	18:31:37
1	Al 396.153Radial†	22730.9	22684.8	[5000]	µg/L	18:31:10
1	As 188.979†	1130.3	1148.9	[500]	µg/L	18:31:57
1	B 249.677†	32443.2	29213.0	[500]	µg/L	18:31:37
1	Ba 233.527†	108021.9	108614.7	[500]	µg/L	18:31:37
1	Be 313.107†	1516563.3	1523088.3	[500]	µg/L	18:31:37
1	Ca 317.933Radial†	86179.3	85267.4	[5000]	µg/L	18:31:10
1	Cd 226.502†	71219.1	71589.0	[500]	µg/L	18:31:37
1	Co 228.616†	35394.0	35707.4	[500]	µg/L	18:31:57
1	Cr 267.716†	57615.1	57677.6	[500]	µg/L	18:31:37
1	Cu 324.752†	116290.7	114315.5	[500]	µg/L	18:31:37
1	K 766.490 Radial†	13629.8	12128.1	[5000]	µg/L	18:31:10
1	Mg 279.077 IEC†	12468.2	12238.8	[5000]	µg/L	18:31:10
1	Mn 257.610†	362696.8	364019.5	[500]	µg/L	18:31:37
1	Mo 202.031†	15371.1	15485.8	[500]	µg/L	18:31:57
1	Ni 231.604†	38767.1	38957.9	[500]	µg/L	18:31:37
1	P 214.914†	10122.4	10082.0	[2500]	µg/L	18:31:57
1	Pb 220.353†	8161.6	8080.8	[500]	µg/L	18:31:57
1	S 181.975 Axial†	1278.6	1188.7	[1000]	µg/L	18:31:57
1	Sb 206.836†	3687.2	3614.8	[500]	µg/L	18:31:57
1	Se 196.026†	1225.0	1218.8	[500]	µg/L	18:31:57
1	SiO2†	49926.4	48546.6	[5347.5]	µg/L	18:31:37
1	Si 251.611†	150511.0	150416.7	[2500]	µg/L	18:31:37
1	Sn 189.927†	6828.0	6852.4	[500]	µg/L	18:31:57
1	Sr 421.552†	212817.9	212365.9	[500]	µg/L	18:31:08
1	Ti 334.940†	484276.9	485513.3	[500]	µg/L	18:31:37
1	Tl 190.801†	3503.2	3637.1	[500]	µg/L	18:31:57
1	U 409.014†	6910.1	7415.9	[500]	µg/L	18:31:37
1	V 292.402†	89155.4	89068.4	[500]	µg/L	18:31:37
1	Zn 213.857†	79249.5	79091.5	[500]	µg/L	18:31:37
2	Sc 361.383	1656377.5	1656377.5	99.020	%	18:32:00
2	Sc RADIAL	143364.9	143364.9	98.4	%	18:31:14
2	Y 371.029	1005040.5	1005040.5	98.285	%	18:32:00
2	Ag 328.068†	123893.4	122152.8	[500]	µg/L	18:32:00
2	Al 396.153Radial†	22411.8	22817.2	[5000]	µg/L	18:31:14
2	As 188.979†	1160.9	1186.7	[500]	µg/L	18:32:21
2	B 249.677†	32166.0	29128.7	[500]	µg/L	18:32:00
2	Ba 233.527†	106821.0	108053.5	[500]	µg/L	18:32:00
2	Be 313.107†	1497872.7	1513360.7	[500]	µg/L	18:32:00
2	Ca 317.933Radial†	83955.9	84739.0	[5000]	µg/L	18:31:14
2	Cd 226.502†	70376.7	71167.8	[500]	µg/L	18:32:00
2	Co 228.616†	35865.0	36396.7	[500]	µg/L	18:32:21
2	Cr 267.716†	57094.1	57499.1	[500]	µg/L	18:32:00
2	Cu 324.752†	115218.7	113934.4	[500]	µg/L	18:32:00
2	K 766.490 Radial†	13146.4	11910.5	[5000]	µg/L	18:31:14
2	Mg 279.077 IEC†	12081.5	12096.2	[5000]	µg/L	18:31:14
2	Mn 257.610†	359096.8	362571.6	[500]	µg/L	18:32:00
2	Mo 202.031†	15556.5	15765.7	[500]	µg/L	18:32:21
2	Ni 231.604†	38151.2	38569.7	[500]	µg/L	18:32:00
2	P 214.914†	10250.6	10272.5	[2500]	µg/L	18:32:21
2	Pb 220.353†	8247.6	8216.9	[500]	µg/L	18:32:21
2	S 181.975 Axial†	1295.5	1213.5	[1000]	µg/L	18:32:21
2	Sb 206.836†	3729.7	3679.9	[500]	µg/L	18:32:21
2	Se 196.026†	1259.6	1261.2	[500]	µg/L	18:32:21
2	SiO2†	49488.1	48405.1	[5347.5]	µg/L	18:32:00

2	Si 251.611†	149066.4	149865.6	[2500]	µg/L	18:32:00
2	Sn 189.927†	6928.0	6994.5	[500]	µg/L	18:32:21
2	Sr 421.552†	210571.1	214358.5	[500]	µg/L	18:31:12
2	Ti 334.940†	480119.5	484236.0	[500]	µg/L	18:32:00
2	Tl 190.801†	3520.8	3676.0	[500]	µg/L	18:32:21
2	U 409.014†	6871.4	7418.6	[500]	µg/L	18:32:00
2	V 292.402†	88228.0	88669.5	[500]	µg/L	18:32:00
2	Zn 213.857†	78116.6	78425.5	[500]	µg/L	18:32:00
3	Sc 361.383	1678591.9	1678591.9	100.35	%	18:32:24
3	Sc RADIAL	148088.8	148088.8	102	%	18:31:18
3	Y 371.029	1018746.9	1018746.9	99.625	%	18:32:24
3	Ag 328.068†	125886.3	122483.0	[500]	µg/L	18:32:24
3	Al 396.153Radial†	22914.6	22585.2	[5000]	µg/L	18:31:18
3	As 188.979†	1161.2	1171.4	[500]	µg/L	18:32:44
3	B 249.677†	32821.8	29352.3	[500]	µg/L	18:32:24
3	Ba 233.527†	108685.7	108484.1	[500]	µg/L	18:32:24
3	Be 313.107†	1528160.6	1523524.6	[500]	µg/L	18:32:24
3	Ca 317.933Radial†	86630.7	84648.8	[5000]	µg/L	18:31:18
3	Cd 226.502†	72351.9	72195.6	[500]	µg/L	18:32:24
3	Co 228.616†	36165.4	36216.7	[500]	µg/L	18:32:44
3	Cr 267.716†	58224.7	57862.7	[500]	µg/L	18:32:24
3	Cu 324.752†	117068.1	114237.5	[500]	µg/L	18:32:24
3	K 766.490 Radial†	13544.3	11875.7	[5000]	µg/L	18:31:18
3	Mg 279.077 IEC†	12711.0	12323.9	[5000]	µg/L	18:31:18
3	Mn 257.610†	365977.4	364629.0	[500]	µg/L	18:32:24
3	Mo 202.031†	15658.0	15658.9	[500]	µg/L	18:32:44
3	Ni 231.604†	38949.9	38855.9	[500]	µg/L	18:32:24
3	P 214.914†	10378.5	10262.9	[2500]	µg/L	18:32:44
3	Pb 220.353†	8301.3	8160.1	[500]	µg/L	18:32:44
3	S 181.975 Axial†	1298.3	1199.0	[1000]	µg/L	18:32:44
3	Sb 206.836†	3757.3	3657.7	[500]	µg/L	18:32:44
3	Se 196.026†	1268.4	1253.0	[500]	µg/L	18:32:44
3	SiO2†	50453.3	48705.6	[5347.5]	µg/L	18:32:24
3	Si 251.611†	151847.8	150645.2	[2500]	µg/L	18:32:24
3	Sn 189.927†	6976.6	6950.4	[500]	µg/L	18:32:44
3	Sr 421.552†	212729.2	209653.5	[500]	µg/L	18:31:16
3	Ti 334.940†	487904.2	485577.0	[500]	µg/L	18:32:24
3	Tl 190.801†	3573.5	3681.5	[500]	µg/L	18:32:44
3	U 409.014†	7083.7	7538.2	[500]	µg/L	18:32:24
3	V 292.402†	89928.1	89184.6	[500]	µg/L	18:32:24
3	Zn 213.857†	79862.3	79121.1	[500]	µg/L	18:32:24

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1667099.9	11127.18	0.67%	99.661	%
Sc RADIAL	145903.2	2381.65	1.63%	100	%
Y 371.029	1011519.3	6883.81	0.68%	98.918	%
Ag 328.068†	122320.5	165.15	0.14%	[500]	µg/L
Al 396.153Radial†	22695.7	116.36	0.51%	[5000]	µg/L
As 188.979†	1169.0	19.01	1.63%	[500]	µg/L
B 249.677†	29231.4	112.94	0.39%	[500]	µg/L
Ba 233.527†	108384.1	293.66	0.27%	[500]	µg/L
Be 313.107†	1519991.2	5746.30	0.38%	[500]	µg/L
Ca 317.933Radial†	84885.1	334.21	0.39%	[5000]	µg/L
Cd 226.502†	71650.8	516.66	0.72%	[500]	µg/L
Co 228.616†	36106.9	357.49	0.99%	[500]	µg/L
Cr 267.716†	57679.8	181.81	0.32%	[500]	µg/L
Cu 324.752†	114162.5	201.35	0.18%	[500]	µg/L
K 766.490 Radial†	11971.4	136.75	1.14%	[5000]	µg/L
Mg 279.077 IEC†	12219.6	115.04	0.94%	[5000]	µg/L
Mn 257.610†	363740.0	1056.77	0.29%	[500]	µg/L
Mo 202.031†	15636.8	141.25	0.90%	[500]	µg/L
Ni 231.604†	38794.5	201.22	0.52%	[500]	µg/L
P 214.914†	10205.8	107.31	1.05%	[2500]	µg/L
Pb 220.353†	8152.6	68.35	0.84%	[500]	µg/L
S 181.975 Axial†	1200.4	12.45	1.04%	[1000]	µg/L
Sb 206.836†	3650.8	33.08	0.91%	[500]	µg/L
Se 196.026†	1244.3	22.47	1.81%	[500]	µg/L
SiO2†	48552.4	150.29	0.31%	[5347.5]	µg/L

Si 251.611†	150309.2	400.75	0.27%	[2500] µg/L
Sn 189.927†	6932.4	72.76	1.05%	[500] µg/L
Sr 421.552†	212126.0	2361.66	1.11%	[500] µg/L
Ti 334.940†	485108.8	756.53	0.16%	[500] µg/L
Tl 190.801†	3664.9	24.20	0.66%	[500] µg/L
U 409.014†	7457.6	69.86	0.94%	[500] µg/L
V 292.402†	88974.2	270.15	0.30%	[500] µg/L
Zn 213.857†	78879.4	393.36	0.50%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 3/29/2010 18:32:52
Data Type: Reprocessed on 3/29/2010 19:14:34

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	1695274.3	1695274.3	101.35	%	18:33:51
1	Sc RADIAL	148093.8	148093.8	102	%	18:33:23
1	Y 371.029	1024428.2	1024428.2	100.18	%	18:33:51
1	Ag 328.068†	253437.3	247106.6	[1000]	µg/L	18:33:51
1	Al 396.153Radial†	47074.8	46363.0	[10000]	µg/L	18:33:23
1	As 188.979†	2423.7	2405.8	[1000]	µg/L	18:33:53
1	B 249.677†	64171.5	59964.1	[1000]	µg/L	18:33:51
1	Ba 233.527†	222696.0	219915.4	[1000]	µg/L	18:33:51
1	Be 313.107†	3125497.2	3084675.4	[1000]	µg/L	18:33:51
1	Ca 317.933Radial†	175989.6	172593.1	[10000]	µg/L	18:33:23
1	Cd 226.502†	147319.9	145459.1	[1000]	µg/L	18:33:51
1	Co 228.616†	73285.4	72489.3	[1000]	µg/L	18:33:53
1	Cr 267.716†	118453.3	116720.9	[1000]	µg/L	18:33:51
1	Cu 324.752†	236158.0	230598.8	[1000]	µg/L	18:33:51
1	Fe 238.204 Radial†	153305.8	150770.6	[10000]	µg/L	18:33:23
1	K 766.490 Radial†	26333.7	24462.7	[10000]	µg/L	18:33:23
1	Mg 279.077 IEC†	25539.7	24949.5	[10000]	µg/L	18:33:23
1	Mn 257.610†	742700.4	732763.2	[1000]	µg/L	18:33:51
1	Mo 202.031†	31916.7	31548.3	[1000]	µg/L	18:33:53
1	Na 589.592 Radial†	67840.0	65073.6	[10000]	µg/L	18:33:23
1	Ni 231.604†	79543.1	78528.3	[1000]	µg/L	18:33:51
1	P 214.914†	21051.1	20692.1	[5000]	µg/L	18:33:53
1	Pb 220.353†	16751.4	16416.6	[1000]	µg/L	18:33:53
1	S 181.975 Axial†	2600.1	2470.7	[2000]	µg/L	18:33:53
1	Sb 206.836†	7615.0	7427.3	[1000]	µg/L	18:33:53
1	Se 196.026†	2517.5	2473.2	[1000]	µg/L	18:33:53
1	SiO2†	101024.7	98111.1	[10695]	µg/L	18:33:51
1	Si 251.611†	307939.1	303175.7	[5000]	µg/L	18:33:51
1	Sn 189.927†	14211.0	14020.4	[1000]	µg/L	18:33:53
1	Sr 421.552†	434456.1	427870.5	[1000]	µg/L	18:33:21
1	Ti 334.940†	997481.3	983606.3	[1000]	µg/L	18:33:51
1	Tl 190.801†	7335.9	7358.9	[1000]	µg/L	18:33:53
1	U 409.014†	16212.4	16476.3	[1000]	µg/L	18:33:51
1	V 292.402†	183867.8	180995.7	[1000]	µg/L	18:33:51
1	Zn 213.857†	161925.8	159312.2	[1000]	µg/L	18:33:51
2	Sc 361.383	1690996.4	1690996.4	101.09	%	18:33:57
2	Sc RADIAL	145999.7	145999.7	100	%	18:33:27
2	Y 371.029	1021922.1	1021922.1	99.936	%	18:33:57
2	Ag 328.068†	252044.6	246361.5	[1000]	µg/L	18:33:57
2	Al 396.153Radial†	46624.8	46578.3	[10000]	µg/L	18:33:27
2	As 188.979†	2403.1	2391.4	[1000]	µg/L	18:33:59
2	B 249.677†	63843.6	59800.0	[1000]	µg/L	18:33:57
2	Ba 233.527†	221227.7	219018.9	[1000]	µg/L	18:33:57
2	Be 313.107†	3107291.9	3074468.3	[1000]	µg/L	18:33:57
2	Ca 317.933Radial†	173656.9	172748.8	[10000]	µg/L	18:33:27
2	Cd 226.502†	146575.4	145090.3	[1000]	µg/L	18:33:57
2	Co 228.616†	74805.8	74176.3	[1000]	µg/L	18:33:59
2	Cr 267.716†	118015.5	116583.5	[1000]	µg/L	18:33:57
2	Cu 324.752†	235118.6	230160.1	[1000]	µg/L	18:33:57
2	Fe 238.204 Radial†	151211.1	150843.6	[10000]	µg/L	18:33:27
2	K 766.490 Radial†	25931.4	24432.8	[10000]	µg/L	18:33:27
2	Mg 279.077 IEC†	24969.0	24740.4	[10000]	µg/L	18:33:27
2	Mn 257.610†	740445.3	732386.4	[1000]	µg/L	18:33:57
2	Mo 202.031†	32495.1	32200.2	[1000]	µg/L	18:33:59
2	Na 589.592 Radial†	67249.4	65441.6	[10000]	µg/L	18:33:27
2	Ni 231.604†	79100.3	78288.9	[1000]	µg/L	18:33:57
2	P 214.914†	21690.5	21377.2	[5000]	µg/L	18:33:59
2	Pb 220.353†	17172.9	16875.4	[1000]	µg/L	18:33:59

2	S 181.975 Axial†	2679.6	2555.9	[2000]	µg/L	18:33:59
2	Sb 206.836†	7635.7	7466.8	[1000]	µg/L	18:33:59
2	Se 196.026†	2666.5	2626.9	[1000]	µg/L	18:33:59
2	SiO2†	100664.8	98007.2	[10695]	µg/L	18:33:57
2	Si 251.611†	306502.8	302523.6	[5000]	µg/L	18:33:57
2	Sn 189.927†	14443.7	14286.0	[1000]	µg/L	18:33:59
2	Sr 421.552†	430963.7	430517.1	[1000]	µg/L	18:33:25
2	Ti 334.940†	993955.9	982608.8	[1000]	µg/L	18:33:57
2	Tl 190.801†	7531.3	7570.4	[1000]	µg/L	18:33:59
2	U 409.014†	16040.6	16346.9	[1000]	µg/L	18:33:57
2	V 292.402†	183235.5	180829.1	[1000]	µg/L	18:33:57
2	Zn 213.857†	161264.5	159062.3	[1000]	µg/L	18:33:57
3	Sc 361.383	1679595.4	1679595.4	100.41	%	18:34:04
3	Sc RADIAL	149693.3	149693.3	103	%	18:33:31
3	Y 371.029	1015550.9	1015550.9	99.312	%	18:34:04
3	Ag 328.068†	251016.5	247030.1	[1000]	µg/L	18:34:04
3	Al 396.153Radial†	47551.4	46332.0	[10000]	µg/L	18:33:31
3	As 188.979†	2421.2	2425.6	[1000]	µg/L	18:34:06
3	B 249.677†	63426.3	59813.0	[1000]	µg/L	18:34:04
3	Ba 233.527†	219963.3	219245.0	[1000]	µg/L	18:34:04
3	Be 313.107†	3093622.9	3081719.7	[1000]	µg/L	18:34:04
3	Ca 317.933Radial†	178184.0	172879.1	[10000]	µg/L	18:33:31
3	Cd 226.502†	145509.3	145012.8	[1000]	µg/L	18:34:04
3	Co 228.616†	73160.7	73040.2	[1000]	µg/L	18:34:06
3	Cr 267.716†	117369.2	116732.4	[1000]	µg/L	18:34:04
3	Cu 324.752†	233979.9	230604.8	[1000]	µg/L	18:34:04
3	Fe 238.204 Radial†	154947.1	150756.5	[10000]	µg/L	18:33:31
3	K 766.490 Radial†	26410.5	24260.6	[10000]	µg/L	18:33:31
3	Mg 279.077 IEC†	25740.2	24876.2	[10000]	µg/L	18:33:31
3	Mn 257.610†	735902.7	732834.1	[1000]	µg/L	18:34:04
3	Mo 202.031†	31675.9	31602.5	[1000]	µg/L	18:34:06
3	Na 589.592 Radial†	68591.3	65091.7	[10000]	µg/L	18:33:31
3	Ni 231.604†	78372.8	78095.4	[1000]	µg/L	18:34:04
3	P 214.914†	21100.1	20934.8	[5000]	µg/L	18:34:06
3	Pb 220.353†	16565.8	16386.1	[1000]	µg/L	18:34:06
3	S 181.975 Axial†	2538.8	2433.7	[2000]	µg/L	18:34:06
3	Sb 206.836†	7547.1	7429.8	[1000]	µg/L	18:34:06
3	Se 196.026†	2534.8	2513.6	[1000]	µg/L	18:34:06
3	SiO2†	99973.5	97994.7	[10695]	µg/L	18:34:04
3	Si 251.611†	304718.9	302805.0	[5000]	µg/L	18:34:04
3	Sn 189.927†	14107.2	14047.9	[1000]	µg/L	18:34:06
3	Sr 421.552†	434068.2	422924.1	[1000]	µg/L	18:33:29
3	Ti 334.940†	988596.9	983945.8	[1000]	µg/L	18:34:04
3	Tl 190.801†	7419.8	7510.0	[1000]	µg/L	18:34:06
3	U 409.014†	16237.0	16650.2	[1000]	µg/L	18:34:04
3	V 292.402†	181988.8	180817.9	[1000]	µg/L	18:34:04
3	Zn 213.857†	160057.9	158943.5	[1000]	µg/L	18:34:04

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1688622.0	8104.65	0.48%	100.95	%
Sc RADIAL	147928.9	1852.30	1.25%	101	%
Y 371.029	1020633.7	4576.76	0.45%	99.810	%
Ag 328.068†	246832.7	409.85	0.17%	[1000]	µg/L
Al 396.153Radial†	46424.4	134.12	0.29%	[10000]	µg/L
As 188.979†	2407.6	17.16	0.71%	[1000]	µg/L
B 249.677†	59859.0	91.23	0.15%	[1000]	µg/L
Ba 233.527†	219393.1	466.22	0.21%	[1000]	µg/L
Be 313.107†	3080287.8	5252.04	0.17%	[1000]	µg/L
Ca 317.933Radial†	172740.3	143.17	0.08%	[10000]	µg/L
Cd 226.502†	145187.4	238.43	0.16%	[1000]	µg/L
Co 228.616†	73235.3	860.22	1.17%	[1000]	µg/L
Cr 267.716†	116678.9	82.81	0.07%	[1000]	µg/L
Cu 324.752†	230454.6	255.03	0.11%	[1000]	µg/L
Fe 238.204 Radial†	150790.2	46.73	0.03%	[10000]	µg/L
K 766.490 Radial†	24385.4	109.10	0.45%	[10000]	µg/L
Mg 279.077 IEC†	24855.4	106.12	0.43%	[10000]	µg/L
Mn 257.610†	732661.3	240.63	0.03%	[1000]	µg/L
Mo 202.031†	31783.7	361.73	1.14%	[1000]	µg/L

Na 589.592 Radial†	65202.3	207.44	0.32%	[10000] µg/L
Ni 231.604†	78304.2	216.83	0.28%	[1000] µg/L
P 214.914†	21001.4	347.34	1.65%	[5000] µg/L
Pb 220.353†	16559.4	274.11	1.66%	[1000] µg/L
S 181.975 Axial†	2486.8	62.65	2.52%	[2000] µg/L
Sb 206.836†	7441.3	22.10	0.30%	[1000] µg/L
Se 196.026†	2537.9	79.67	3.14%	[1000] µg/L
SiO2†	98037.6	63.89	0.07%	[10695] µg/L
Si 251.611†	302834.8	327.07	0.11%	[5000] µg/L
Sn 189.927†	14118.1	146.08	1.03%	[1000] µg/L
Sr 421.552†	427103.9	3854.12	0.90%	[1000] µg/L
Ti 334.940†	983387.0	694.94	0.07%	[1000] µg/L
Tl 190.801†	7479.8	108.97	1.46%	[1000] µg/L
U 409.014†	16491.1	152.21	0.92%	[1000] µg/L
V 292.402†	180880.9	99.54	0.06%	[1000] µg/L
Zn 213.857†	159106.0	188.24	0.12%	[1000] µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/29/2010 18:34:14
Data Type: Reprocessed on 3/29/2010 19:14:35

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	1647889.5	1647889.5	98.512	%	18:35:05
1	Sc RADIAL	147922.0	147922.0	101	%	18:34:43
1	Y 371.029	997984.1	997984.1	97.595	%	18:35:05
1	Al 396.153Radial†	231630.6	228268.0	[50000]	µg/L	18:34:43
1	Ca 317.933Radial†	864405.0	851121.2	[50000]	µg/L	18:34:43
1	Fe 238.204 Radial†	304562.8	299986.3	[20000]	µg/L	18:34:43
1	Mg 279.077 IEC†	122786.4	120800.3	[50000]	µg/L	18:34:43
1	Na 589.592 Radial†	134121.8	130461.6	[20000]	µg/L	18:34:43
2	Sc 361.383	1646965.2	1646965.2	98.457	%	18:35:08
2	Sc RADIAL	147135.1	147135.1	101	%	18:34:45
2	Y 371.029	998151.2	998151.2	97.611	%	18:35:08
2	Al 396.153Radial†	231070.3	228933.5	[50000]	µg/L	18:34:45
2	Ca 317.933Radial†	860622.6	851929.2	[50000]	µg/L	18:34:45
2	Fe 238.204 Radial†	303079.0	300121.2	[20000]	µg/L	18:34:45
2	Mg 279.077 IEC†	122393.7	121058.3	[50000]	µg/L	18:34:45
2	Na 589.592 Radial†	133483.0	130535.5	[20000]	µg/L	18:34:45
3	Sc 361.383	1642134.3	1642134.3	98.168	%	18:35:10
3	Sc RADIAL	146873.2	146873.2	101	%	18:34:47
3	Y 371.029	994617.7	994617.7	97.265	%	18:35:10
3	Al 396.153Radial†	231391.3	229660.2	[50000]	µg/L	18:34:47
3	Ca 317.933Radial†	862939.8	855749.1	[50000]	µg/L	18:34:47
3	Fe 238.204 Radial†	304238.1	301806.9	[20000]	µg/L	18:34:47
3	Mg 279.077 IEC†	122676.5	121555.2	[50000]	µg/L	18:34:47
3	Na 589.592 Radial†	134070.7	131354.5	[20000]	µg/L	18:34:47

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1645663.0	3090.68	0.19%	98.379	%
Sc RADIAL	147310.1	545.84	0.37%	101	%
Y 371.029	996917.7	1993.60	0.20%	97.490	%
Al 396.153Radial†	228953.9	696.32	0.30%	[50000]	µg/L
Ca 317.933Radial†	852933.2	2471.89	0.29%	[50000]	µg/L
Fe 238.204 Radial†	300638.1	1014.46	0.34%	[20000]	µg/L
Mg 279.077 IEC†	121137.9	383.71	0.32%	[50000]	µg/L
Na 589.592 Radial†	130783.9	495.57	0.38%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	246.4	0.00000	0.999992	
Al 396.153Radial	3	Lin Thru 0	0.0	4.581	0.00000	0.999996	
As 188.979	3	Lin Thru 0	0.0	2.393	0.00000	0.999929	
B 249.677	3	Lin Thru 0	0.0	59.56	0.00000	0.999952	
Ba 233.527	3	Lin Thru 0	0.0	218.9	0.00000	0.999987	
Be 313.107	3	Lin Thru 0	0.0	3072	0.00000	0.999986	
Ca 317.933Radial	3	Lin Thru 0	0.0	17.07	0.00000	0.999997	
Cd 226.502	3	Lin Thru 0	0.0	144.8	0.00000	0.999986	
Co 228.616	3	Lin Thru 0	0.0	73.04	0.00000	0.999984	
Cr 267.716	3	Lin Thru 0	0.0	116.4	0.00000	0.999990	
Cu 324.752	3	Lin Thru 0	0.0	230.0	0.00000	0.999993	
Fe 238.204 Radia	2	Lin Thru 0	0.0	15.04	0.00000	0.999999	
K 766.490 Radial	3	Lin Thru 0	0.0	2.429	0.00000	0.999970	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.425	0.00000	0.999987	
Mn 257.610	3	Lin Thru 0	0.0	731.8	0.00000	0.999991	
Mo 202.031	3	Lin Thru 0	0.0	31.68	0.00000	0.999979	

Na 589.592 Radia	2	Lin Thru 0	0.0	6.535	0.00000	0.999999
Ni 231.604	3	Lin Thru 0	0.0	78.18	0.00000	0.999990
P 214.914	3	Lin Thru 0	0.0	4.176	0.00000	0.999933
Pb 220.353	3	Lin Thru 0	0.0	16.51	0.00000	0.999980
S 181.975 Axial	3	Lin Thru 0	0.0	1.234	0.00000	0.999894
Sb 206.836	3	Lin Thru 0	0.0	7.413	0.00000	0.999972
Se 196.026	3	Lin Thru 0	0.0	2.528	0.00000	0.999970
SiO2	3	Lin Thru 0	0.0	9.149	0.00000	0.999993
Si 251.611	3	Lin Thru 0	0.0	60.48	0.00000	0.999996
Sn 189.927	3	Lin Thru 0	0.0	14.07	0.00000	0.999974
Sr 421.552	3	Lin Thru 0	0.0	426.7	0.00000	0.999990
Ti 334.940	3	Lin Thru 0	0.0	980.7	0.00000	0.999985
Tl 190.801	3	Lin Thru 0	0.0	7.450	0.00000	0.999968
U 409.014	3	Lin Thru 0	0.0	16.18	0.00000	0.999235
V 292.402	3	Lin Thru 0	0.0	180.3	0.00000	0.999978
Zn 213.857	3	Lin Thru 0	0.0	158.8	0.00000	0.999994

Sequence No.: 6
Sample ID: ICV
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/29/2010 18:35:18
Data Type: Reprocessed on 3/29/2010 19:14:36

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc 361.383	1701844.8	1701844.8	101.74	%			18:36:17
1	Sc RADIAL	151216.0	151216.0	104	%			18:35:50
1	Y 371.029	1036585.9	1036585.9	101.37	%			18:36:17
1	Ag 328.068†	65858.6	61766.5	256.87	µg/L	256.87	ppb	18:36:17
1	Al 396.153Radial†	24486.5	23634.0	5134.9	µg/L	5134.9	ppb	18:35:50
1	As 188.979†	1140.6	1135.4	481.67	µg/L	481.67	ppb	18:36:37
1	B 249.677†	34168.2	30228.9	505.75	µg/L	505.75	ppb	18:36:17
1	Ba 233.527†	112714.3	110964.0	507.33	µg/L	507.33	ppb	18:36:17
1	Be 313.107†	798269.6	785294.0	255.76	µg/L	255.76	ppb	18:36:17
1	Ca 317.933Radial†	89164.4	85327.7	4999.8	µg/L	4999.8	ppb	18:35:50
1	Cd 226.502†	72993.3	71840.9	495.79	µg/L	495.79	ppb	18:36:17
1	Co 228.616†	37444.2	36981.2	506.64	µg/L	506.64	ppb	18:36:17
1	Cr 267.716†	57873.1	56724.3	487.10	µg/L	487.10	ppb	18:36:17
1	Cu 324.752†	121386.5	116888.2	509.66	µg/L	509.66	ppb	18:36:17
1	Fe 238.204 Radial†	78431.6	75485.5	5018.5	µg/L	5018.5	ppb	18:35:50
1	K 766.490 Radial†	7725.2	5991.2	2463.6	µg/L	2463.6	ppb	18:35:50
1	Mg 279.077 IEC†	13310.9	12643.4	5221.4	µg/L	5221.4	ppb	18:35:50
1	Mn 257.610†	376288.9	369781.3	505.06	µg/L	505.06	ppb	18:36:17
1	Mo 202.031†	16673.6	16444.0	519.54	µg/L	519.54	ppb	18:36:37
1	Na 589.592 Radial†	18471.5	16109.6	2462.8	µg/L	2462.8	ppb	18:35:50
1	Ni 231.604†	39283.0	38652.9	494.42	µg/L	494.42	ppb	18:36:17
1	P 214.914†	10554.2	10294.3	2456.6	µg/L	2456.6	ppb	18:36:37
1	Pb 220.353†	8472.5	8215.3	499.30	µg/L	499.30	ppb	18:36:37
1	S 181.975 Axial†	3123.6	2975.4	2415.0	µg/L	2415.0	ppb	18:36:37
1	Sb 206.836†	3775.1	3624.0	490.49	µg/L	490.49	ppb	18:36:37
1	Se 196.026†	6364.3	6244.7	2470	µg/L	2470	ppb	18:36:37
1	SiO2†	99568.8	96295.2	10503	µg/L	10503	ppb	18:36:17
1	Si 251.611†	303093.3	297239.6	4904.5	µg/L	4904.5	ppb	18:36:17
1	Sn 189.927†	7432.7	7303.7	520.86	µg/L	520.86	ppb	18:36:37
1	Sr 421.552†	233447.1	225293.2	527.99	µg/L	527.99	ppb	18:35:48
1	Ti 334.940†	482527.6	473648.9	482.33	µg/L	482.33	ppb	18:36:17
1	Tl 190.801†	3799.6	3855.0	524.73	µg/L	524.73	ppb	18:36:37
1	U 409.014†	6773.0	7136.4	471.37	µg/L	471.37	ppb	18:36:17
1	V 292.402†	91625.4	89628.5	503.69	µg/L	503.69	ppb	18:36:17
1	Zn 213.857†	81346.1	79492.2	496.47	µg/L	496.47	ppb	18:36:17
2	Sc 361.383	1701980.9	1701980.9	101.75	%			18:36:40
2	Sc RADIAL	148848.9	148848.9	102	%			18:35:54
2	Y 371.029	1036246.9	1036246.9	101.34	%			18:36:40
2	Ag 328.068†	66063.0	61962.3	257.67	µg/L	257.67	ppb	18:36:40
2	Al 396.153Radial†	24189.6	23718.6	5153.2	µg/L	5153.2	ppb	18:35:54
2	As 188.979†	1141.1	1135.8	481.85	µg/L	481.85	ppb	18:37:00
2	B 249.677†	34342.1	30397.1	508.57	µg/L	508.57	ppb	18:36:40
2	Ba 233.527†	113003.6	111239.5	508.60	µg/L	508.60	ppb	18:36:40
2	Be 313.107†	803326.2	790201.1	257.35	µg/L	257.35	ppb	18:36:40
2	Ca 317.933Radial†	87776.3	85335.2	5000.3	µg/L	5000.3	ppb	18:35:54
2	Cd 226.502†	73305.6	72142.1	497.87	µg/L	497.87	ppb	18:36:40
2	Co 228.616†	37456.8	36990.6	506.77	µg/L	506.77	ppb	18:36:40
2	Cr 267.716†	58033.0	56876.9	488.42	µg/L	488.42	ppb	18:36:40
2	Cu 324.752†	121826.1	117310.6	511.48	µg/L	511.48	ppb	18:36:40
2	Fe 238.204 Radial†	77113.3	75396.8	5012.6	µg/L	5012.6	ppb	18:35:54
2	K 766.490 Radial†	7618.8	6005.4	2469.4	µg/L	2469.4	ppb	18:35:54
2	Mg 279.077 IEC†	12970.7	12514.3	5168.3	µg/L	5168.3	ppb	18:35:54
2	Mn 257.610†	377832.0	371268.3	507.10	µg/L	507.10	ppb	18:36:40
2	Mo 202.031†	16755.0	16522.7	522.02	µg/L	522.02	ppb	18:37:00
2	Na 589.592 Radial†	18069.9	15999.5	2445.9	µg/L	2445.9	ppb	18:35:54
2	Ni 231.604†	39447.3	38811.3	496.44	µg/L	496.44	ppb	18:36:40
2	P 214.914†	10626.3	10364.3	2473.3	µg/L	2473.3	ppb	18:37:00
2	Pb 220.353†	8494.9	8236.7	500.61	µg/L	500.61	ppb	18:37:00

2	S 181.975 Axial†	3125.4	2976.9	2416.3 µg/L	2416.3 ppb	18:37:00
2	Sb 206.836†	3806.5	3654.5	494.63 µg/L	494.63 ppb	18:37:00
2	Se 196.026†	6410.3	6289.4	2490 µg/L	2490 ppb	18:37:00
2	SiO2†	100159.6	96868.0	10565 µg/L	10565 ppb	18:36:40
2	Si 251.611†	304136.0	298240.5	4921.0 µg/L	4921.0 ppb	18:36:40
2	Sn 189.927†	7468.1	7337.9	523.29 µg/L	523.29 ppb	18:37:00
2	Sr 421.552†	233080.0	228512.0	535.53 µg/L	535.53 ppb	18:35:52
2	Ti 334.940†	484116.4	475172.5	483.90 µg/L	483.90 ppb	18:36:40
2	Tl 190.801†	3811.9	3866.8	526.34 µg/L	526.34 ppb	18:37:00
2	U 409.014†	6593.5	6959.4	460.57 µg/L	460.57 ppb	18:36:40
2	V 292.402†	92020.5	90009.6	505.83 µg/L	505.83 ppb	18:36:40
2	Zn 213.857†	81495.2	79632.3	497.34 µg/L	497.34 ppb	18:36:40
3	Sc 361.383	1720635.0	1720635.0	102.86 %		18:37:03
3	Sc RADIAL	149044.6	149044.6	102 %		18:35:58
3	Y 371.029	1046771.8	1046771.8	102.37 %		18:37:03
3	Ag 328.068†	66524.8	61707.3	256.63 µg/L	256.63 ppb	18:37:03
3	Al 396.153Radial†	24064.3	23565.0	5120.0 µg/L	5120.0 ppb	18:35:58
3	As 188.979†	1131.9	1114.6	473.00 µg/L	473.00 ppb	18:37:23
3	B 249.677†	34751.0	30428.7	509.10 µg/L	509.10 ppb	18:37:03
3	Ba 233.527†	114119.3	111120.0	508.05 µg/L	508.05 ppb	18:37:03
3	Be 313.107†	809136.9	787290.3	256.41 µg/L	256.41 ppb	18:37:03
3	Ca 317.933Radial†	87762.2	85208.6	4992.9 µg/L	4992.9 ppb	18:35:58
3	Cd 226.502†	74233.6	72263.2	498.71 µg/L	498.71 ppb	18:37:03
3	Co 228.616†	37810.4	36935.2	506.02 µg/L	506.02 ppb	18:37:03
3	Cr 267.716†	58579.7	56790.0	487.67 µg/L	487.67 ppb	18:37:03
3	Cu 324.752†	122627.9	116792.1	509.24 µg/L	509.24 ppb	18:37:03
3	Fe 238.204 Radial†	77211.6	75393.8	5012.4 µg/L	5012.4 ppb	18:35:58
3	K 766.490 Radial†	7631.8	6008.3	2470.6 µg/L	2470.6 ppb	18:35:58
3	Mg 279.077 IEC†	13062.0	12587.0	5198.1 µg/L	5198.1 ppb	18:35:58
3	Mn 257.610†	380724.0	370053.9	505.44 µg/L	505.44 ppb	18:37:03
3	Mo 202.031†	16767.7	16356.5	516.77 µg/L	516.77 ppb	18:37:23
3	Na 589.592 Radial†	18288.4	16189.9	2475.1 µg/L	2475.1 ppb	18:35:58
3	Ni 231.604†	39680.9	38618.1	493.97 µg/L	493.97 ppb	18:37:03
3	P 214.914†	10598.2	10223.8	2439.7 µg/L	2439.7 ppb	18:37:23
3	Pb 220.353†	8535.0	8185.1	497.46 µg/L	497.46 ppb	18:37:23
3	S 181.975 Axial†	3153.8	2971.2	2411.6 µg/L	2411.6 ppb	18:37:23
3	Sb 206.836†	3795.0	3602.8	487.58 µg/L	487.58 ppb	18:37:23
3	Se 196.026†	6408.5	6219.4	2460 µg/L	2460 ppb	18:37:23
3	SiO2†	100969.8	96588.4	10535 µg/L	10535 ppb	18:37:03
3	Si 251.611†	306927.5	297713.8	4912.4 µg/L	4912.4 ppb	18:37:03
3	Sn 189.927†	7476.5	7266.5	518.21 µg/L	518.21 ppb	18:37:23
3	Sr 421.552†	230245.5	225440.5	528.33 µg/L	528.33 ppb	18:35:56
3	Ti 334.940†	487355.2	473162.7	481.84 µg/L	481.84 ppb	18:37:03
3	Tl 190.801†	3807.3	3821.7	520.26 µg/L	520.26 ppb	18:37:23
3	U 409.014†	6788.8	7079.0	467.87 µg/L	467.87 ppb	18:37:03
3	V 292.402†	92755.7	89743.8	504.30 µg/L	504.30 ppb	18:37:03
3	Zn 213.857†	82290.5	79537.1	496.75 µg/L	496.75 ppb	18:37:03

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1708153.5	102.11	%	0.646				0.63%
Sc RADIAL	149703.2	103	%	0.9				0.88%
Y 371.029	1039868.2	101.69	%	0.585				0.58%
Ag 328.068†	61812.1	257.06	µg/L	0.547	257.06	ppb	0.547	0.21%
QC value within limits for Ag 328.068 Recovery = 102.82%								
Al 396.153Radial†	23639.2	5136.0	µg/L	16.67	5136.0	ppb	16.67	0.32%
QC value within limits for Al 396.153Radial Recovery = 102.72%								
As 188.979†	1128.6	478.84	µg/L	5.057	478.84	ppb	5.057	1.06%
QC value within limits for As 188.979 Recovery = 95.77%								
B 249.677†	30351.6	507.81	µg/L	1.804	507.81	ppb	1.804	0.36%
QC value within limits for B 249.677 Recovery = 101.56%								
Ba 233.527†	111107.9	507.99	µg/L	0.632	507.99	ppb	0.632	0.12%
QC value within limits for Ba 233.527 Recovery = 101.60%								
Be 313.107†	787595.1	256.51	µg/L	0.802	256.51	ppb	0.802	0.31%
QC value within limits for Be 313.107 Recovery = 102.60%								
Ca 317.933Radial†	85290.5	4997.7	µg/L	4.16	4997.7	ppb	4.16	0.08%
QC value within limits for Ca 317.933Radial Recovery = 99.95%								
Cd 226.502†	72082.0	497.46	µg/L	1.502	497.46	ppb	1.502	0.30%
QC value within limits for Cd 226.502 Recovery = 99.49%								

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Co 228.616†            36969.0      506.48 µg/L        0.406      506.48 ppb          0.406   0.08%
   QC value within limits for Co 228.616  Recovery = 101.30%
Cr 267.716†            56797.1      487.73 µg/L        0.662      487.73 ppb          0.662   0.14%
   QC value within limits for Cr 267.716  Recovery = 97.55%
Cu 324.752†           116997.0      510.13 µg/L        1.195      510.13 ppb          1.195   0.23%
   QC value within limits for Cu 324.752  Recovery = 102.03%
Fe 238.204 Radial†     75425.3      5014.5 µg/L         3.46      5014.5 ppb           3.46   0.07%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.29%
K 766.490 Radial†       6001.6      2467.9 µg/L         3.77      2467.9 ppb           3.77   0.15%
   QC value within limits for K 766.490 Radial  Recovery = 98.71%
Mg 279.077 IEC†        12581.6      5195.9 µg/L        26.65      5195.9 ppb          26.65   0.51%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.92%
Mn 257.610†           370367.8      505.87 µg/L        1.083      505.87 ppb          1.083   0.21%
   QC value within limits for Mn 257.610  Recovery = 101.17%
Mo 202.031†            16441.1      519.44 µg/L        2.624      519.44 ppb          2.624   0.51%
   QC value within limits for Mo 202.031  Recovery = 103.89%
Na 589.592 Radial†     16099.7      2461.3 µg/L        14.63      2461.3 ppb          14.63   0.59%
   QC value within limits for Na 589.592 Radial  Recovery = 98.45%
Ni 231.604†            38694.1      494.94 µg/L        1.317      494.94 ppb          1.317   0.27%
   QC value within limits for Ni 231.604  Recovery = 98.99%
P 214.914†             10294.2      2456.5 µg/L        16.81      2456.5 ppb          16.81   0.68%
   QC value within limits for P 214.914  Recovery = 98.26%
Pb 220.353†             8212.4      499.12 µg/L        1.581      499.12 ppb          1.581   0.32%
   QC value within limits for Pb 220.353  Recovery = 99.82%
S 181.975 Axial†        2974.5      2414.3 µg/L         2.40      2414.3 ppb           2.40   0.10%
   QC value within limits for S 181.975 Axial  Recovery = 96.57%
Sb 206.836†             3627.1      490.90 µg/L        3.546      490.90 ppb          3.546   0.72%
   QC value within limits for Sb 206.836  Recovery = 98.18%
Se 196.026†             6251.2        2470 µg/L         14.0        2470 ppb           14.0   0.57%
   QC value within limits for Se 196.026  Recovery = 98.99%
SiO2†                  96583.8       10534 µg/L         31.3       10534 ppb           31.3   0.30%
   QC value within limits for SiO2  Recovery = 98.50%
Si 251.611†           297731.3      4912.6 µg/L         8.25      4912.6 ppb           8.25   0.17%
   QC value within limits for Si 251.611  Recovery = 98.25%
Sn 189.927†             7302.7      520.79 µg/L        2.541      520.79 ppb          2.541   0.49%
   QC value within limits for Sn 189.927  Recovery = 104.16%
Sr 421.552†           226415.3      530.62 µg/L        4.259      530.62 ppb          4.259   0.80%
   QC value within limits for Sr 421.552  Recovery = 106.12%
Ti 334.940†           473994.7      482.69 µg/L        1.073      482.69 ppb          1.073   0.22%
   QC value within limits for Ti 334.940  Recovery = 96.54%
Tl 190.801†             3847.8      523.78 µg/L        3.151      523.78 ppb          3.151   0.60%
   QC value within limits for Tl 190.801  Recovery = 104.76%
U 409.014†              7058.3      466.61 µg/L        5.511      466.61 ppb          5.511   1.18%
   QC value within limits for U 409.014  Recovery = 93.32%
V 292.402†             89793.9      504.61 µg/L        1.101      504.61 ppb          1.101   0.22%
   QC value within limits for V 292.402  Recovery = 100.92%
Zn 213.857†            79553.9      496.85 µg/L        0.443      496.85 ppb          0.443   0.09%
   QC value within limits for Zn 213.857  Recovery = 99.37%
All analyte(s) passed QC.
```

Sequence No.: 7
Sample ID: ICB
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 3/29/2010 18:37:32
Data Type: Reprocessed on 3/29/2010 19:14:36

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	1718110.5	1718110.5	102.71	%			18:39:24
1	Sc RADIAL	149870.1	149870.1	103	%			18:38:01
1	Y 371.029	1056124.6	1056124.6	103.28	%			18:39:24
1	Ag 328.068†	2764.1	-275.9	-1.1170	µg/L	-1.1170	ppb	18:39:26
1	Al 396.153Radial†	-34.1	-1.3	-0.3025	µg/L	-0.3025	ppb	18:38:21
1	As 188.979†	-13.9	0.8	0.3158	µg/L	0.3158	ppb	18:39:46
1	B 249.677†	3290.8	-151.7	-2.5477	µg/L	-2.5477	ppb	18:39:46
1	Ba 233.527†	-149.3	29.7	0.1352	µg/L	0.1352	ppb	18:39:46
1	Be 313.107†	-642.8	34.2	0.0134	µg/L	0.0134	ppb	18:39:26
1	Ca 317.933Radial†	601.2	-31.5	-1.8457	µg/L	-1.8457	ppb	18:38:21
1	Cd 226.502†	-82.2	14.4	0.0988	µg/L	0.0988	ppb	18:39:46
1	Co 228.616†	-179.0	2.3	0.0321	µg/L	0.0321	ppb	18:39:46
1	Cr 267.716†	164.4	-0.2	-0.0075	µg/L	-0.0075	ppb	18:39:46
1	Cu 324.752†	2372.4	-115.1	-0.4939	µg/L	-0.4939	ppb	18:39:26
1	Fe 238.204 Radial†	141.5	24.3	1.6170	µg/L	1.6170	ppb	18:38:21
1	K 766.490 Radial†	1569.1	71.0	29.223	µg/L	29.223	ppb	18:38:01
1	Mg 279.077 IEC†	162.3	-28.9	-11.902	µg/L	-11.902	ppb	18:38:21
1	Mn 257.610†	162.2	77.9	0.1069	µg/L	0.1069	ppb	18:39:46
1	Mo 202.031†	-48.8	7.7	0.2416	µg/L	0.2416	ppb	18:39:46
1	Na 589.592 Radial†	1595.3	-143.3	-21.948	µg/L	-21.948	ppb	18:38:01
1	Ni 231.604†	-74.2	-31.3	-0.4003	µg/L	-0.4003	ppb	18:39:46
1	P 214.914†	77.1	-4.5	-1.0788	µg/L	-1.0788	ppb	18:39:46
1	Pb 220.353†	105.8	-9.5	-0.5776	µg/L	-0.5776	ppb	18:39:46
1	S 181.975 Axial†	96.4	-1.0	-0.8082	µg/L	-0.8082	ppb	18:39:46
1	Sb 206.836†	76.9	-11.8	-1.5863	µg/L	-1.5863	ppb	18:39:46
1	Se 196.026†	30.3	18.6	7.35	µg/L	7.35	ppb	18:39:46
1	SiO2†	1615.4	-0.1	-0.0156	µg/L	-0.0156	ppb	18:39:46
1	Si 251.611†	756.3	60.0	0.9881	µg/L	0.9881	ppb	18:39:26
1	Sn 189.927†	2.2	0.2	0.0117	µg/L	0.0117	ppb	18:39:46
1	Sr 421.552†	-232.4	51.9	0.1217	µg/L	0.1217	ppb	18:38:01
1	Ti 334.940†	823.7	165.6	0.1667	µg/L	0.1667	ppb	18:39:26
1	Tl 190.801†	-129.5	-5.8	-0.7821	µg/L	-0.7821	ppb	18:39:46
1	U 409.014†	-365.4	123.4	7.5895	µg/L	7.5895	ppb	18:39:26
1	V 292.402†	336.7	-104.0	-0.5695	µg/L	-0.5695	ppb	18:39:26
1	Zn 213.857†	481.8	4.7	0.0326	µg/L	0.0326	ppb	18:39:46
2	Sc 361.383	1718304.1	1718304.1	102.72	%			18:39:48
2	Sc RADIAL	149819.8	149819.8	103	%			18:38:23
2	Y 371.029	1056622.1	1056622.1	103.33	%			18:39:48
2	Ag 328.068†	3062.4	14.3	0.0846	µg/L	0.0846	ppb	18:39:50
2	Al 396.153Radial†	-45.4	-12.3	-2.7171	µg/L	-2.7171	ppb	18:38:44
2	As 188.979†	-10.9	3.6	1.5162	µg/L	1.5162	ppb	18:40:10
2	B 249.677†	3277.0	-165.5	-2.7792	µg/L	-2.7792	ppb	18:40:10
2	Ba 233.527†	-168.1	11.4	0.0526	µg/L	0.0526	ppb	18:40:10
2	Be 313.107†	-415.9	255.2	0.0882	µg/L	0.0882	ppb	18:39:50
2	Ca 317.933Radial†	633.4	0.0	0.0016	µg/L	0.0016	ppb	18:38:44
2	Cd 226.502†	-115.3	-17.9	-0.1235	µg/L	-0.1235	ppb	18:40:10
2	Co 228.616†	-162.9	18.1	0.2472	µg/L	0.2472	ppb	18:40:10
2	Cr 267.716†	189.3	24.1	0.1939	µg/L	0.1939	ppb	18:40:10
2	Cu 324.752†	2490.6	-0.2	0.0132	µg/L	0.0132	ppb	18:39:50
2	Fe 238.204 Radial†	132.2	15.4	1.0215	µg/L	1.0215	ppb	18:38:44
2	K 766.490 Radial†	1519.5	23.3	9.5884	µg/L	9.5884	ppb	18:38:23
2	Mg 279.077 IEC†	195.8	3.8	1.5733	µg/L	1.5733	ppb	18:38:44
2	Mn 257.610†	168.0	83.5	0.1141	µg/L	0.1141	ppb	18:40:10
2	Mo 202.031†	-35.6	20.5	0.6489	µg/L	0.6489	ppb	18:40:10
2	Na 589.592 Radial†	1651.7	-87.8	-13.450	µg/L	-13.450	ppb	18:38:23
2	Ni 231.604†	-55.2	-12.8	-0.1641	µg/L	-0.1641	ppb	18:40:10
2	P 214.914†	83.6	1.8	0.4344	µg/L	0.4344	ppb	18:40:10
2	Pb 220.353†	94.6	-20.3	-1.2399	µg/L	-1.2399	ppb	18:40:10

2	S 181.975 Axial†	84.2	-12.9	-10.416 µg/L	-10.416 ppb	18:40:10
2	Sb 206.836†	72.7	-15.8	-2.1296 µg/L	-2.1296 ppb	18:40:10
2	Se 196.026†	25.1	13.5	5.37 µg/L	5.37 ppb	18:40:10
2	SiO2†	1629.2	13.2	1.4227 µg/L	1.4227 ppb	18:40:10
2	Si 251.611†	776.2	79.3	1.3023 µg/L	1.3023 ppb	18:39:50
2	Sn 189.927†	1.7	-0.4	-0.0258 µg/L	-0.0258 ppb	18:40:10
2	Sr 421.552†	-119.9	161.3	0.3781 µg/L	0.3781 ppb	18:38:23
2	Ti 334.940†	906.1	245.8	0.2435 µg/L	0.2435 ppb	18:39:50
2	Tl 190.801†	-120.0	3.5	0.4698 µg/L	0.4698 ppb	18:40:10
2	U 409.014†	-211.2	273.5	16.929 µg/L	16.929 ppb	18:39:50
2	V 292.402†	536.3	90.3	0.5193 µg/L	0.5193 ppb	18:39:50
2	Zn 213.857†	461.1	-15.5	-0.0967 µg/L	-0.0967 ppb	18:40:10
3	Sc 361.383	1698930.8	1698930.8	101.56 %		18:40:12
3	Sc RADIAL	152143.2	152143.2	104 %		18:38:46
3	Y 371.029	1045315.3	1045315.3	102.22 %		18:40:12
3	Ag 328.068†	3085.7	71.1	0.2837 µg/L	0.2837 ppb	18:40:14
3	Al 396.153Radial†	-62.8	-28.3	-6.2230 µg/L	-6.2230 ppb	18:39:06
3	As 188.979†	-25.2	-10.6	-4.4173 µg/L	-4.4173 ppb	18:40:34
3	B 249.677†	3266.7	-139.3	-2.3411 µg/L	-2.3411 ppb	18:40:34
3	Ba 233.527†	-163.9	13.7	0.0623 µg/L	0.0623 ppb	18:40:34
3	Be 313.107†	-627.7	42.1	0.0141 µg/L	0.0141 ppb	18:40:14
3	Ca 317.933Radial†	630.0	-12.6	-0.7399 µg/L	-0.7399 ppb	18:39:06
3	Cd 226.502†	-76.1	19.4	0.1339 µg/L	0.1339 ppb	18:40:34
3	Co 228.616†	-133.4	45.2	0.6195 µg/L	0.6195 ppb	18:40:34
3	Cr 267.716†	156.7	-5.9	-0.0523 µg/L	-0.0523 ppb	18:40:34
3	Cu 324.752†	2540.5	76.5	0.3341 µg/L	0.3341 ppb	18:40:14
3	Fe 238.204 Radial†	134.4	15.5	1.0313 µg/L	1.0313 ppb	18:39:06
3	K 766.490 Radial†	1520.9	2.1	0.8535 µg/L	0.8535 ppb	18:38:46
3	Mg 279.077 IEC†	186.1	-8.4	-3.4269 µg/L	-3.4269 ppb	18:39:06
3	Mn 257.610†	142.8	60.6	0.0829 µg/L	0.0829 ppb	18:40:34
3	Mo 202.031†	-28.7	26.9	0.8495 µg/L	0.8495 ppb	18:40:34
3	Na 589.592 Radial†	1594.0	-167.7	-25.662 µg/L	-25.662 ppb	18:38:46
3	Ni 231.604†	-74.3	-32.3	-0.4127 µg/L	-0.4127 ppb	18:40:34
3	P 214.914†	71.0	-9.6	-2.3151 µg/L	-2.3151 ppb	18:40:34
3	Pb 220.353†	138.9	24.3	1.4738 µg/L	1.4738 ppb	18:40:34
3	S 181.975 Axial†	87.7	-8.5	-6.8917 µg/L	-6.8917 ppb	18:40:34
3	Sb 206.836†	71.9	-15.8	-2.1234 µg/L	-2.1234 ppb	18:40:34
3	Se 196.026†	21.3	10.1	3.99 µg/L	3.99 ppb	18:40:34
3	SiO2†	1618.8	21.0	2.2686 µg/L	2.2686 ppb	18:40:34
3	Si 251.611†	788.9	100.3	1.6458 µg/L	1.6458 ppb	18:40:14
3	Sn 189.927†	6.3	4.2	0.2956 µg/L	0.2956 ppb	18:40:34
3	Sr 421.552†	-237.8	50.2	0.1176 µg/L	0.1176 ppb	18:38:46
3	Ti 334.940†	556.8	-88.1	-0.0902 µg/L	-0.0902 ppb	18:40:14
3	Tl 190.801†	-119.8	2.3	0.3073 µg/L	0.3073 ppb	18:40:34
3	U 409.014†	-464.1	22.2	1.3392 µg/L	1.3392 ppb	18:40:14
3	V 292.402†	338.6	-98.5	-0.5367 µg/L	-0.5367 ppb	18:40:14
3	Zn 213.857†	460.6	-10.9	-0.0662 µg/L	-0.0662 ppb	18:40:34

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1711781.8	102.33	%	0.665				0.65%
Sc RADIAL	150611.1	103	%	0.9				0.88%
Y 371.029	1052687.3	102.94	%	0.625				0.61%
Ag 328.068†	-63.5	-0.2496	µg/L	0.75780	-0.2496	ppb	0.75780	303.64%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-14.0	-3.0809	µg/L	2.97697	-3.0809	ppb	2.97697	96.63%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.1	-0.8618	µg/L	3.13716	-0.8618	ppb	3.13716	364.04%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-152.2	-2.5560	µg/L	0.21918	-2.5560	ppb	0.21918	8.58%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	18.2	0.0834	µg/L	0.04516	0.0834	ppb	0.04516	54.17%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	110.5	0.0386	µg/L	0.04296	0.0386	ppb	0.04296	111.35%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-14.7	-0.8613	µg/L	0.92961	-0.8613	ppb	0.92961	107.93%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.3	0.0364	µg/L	0.13959	0.0364	ppb	0.13959	383.42%
QC value within limits for Cd 226.502 Recovery = Not calculated								

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Co 228.616†                21.9      0.2996 µg/L       0.29720      0.2996 ppb        0.29720  99.21%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 6.0      0.0447 µg/L       0.13112      0.0447 ppb        0.13112 293.47%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               -12.9     -0.0489 µg/L       0.41746     -0.0489 ppb        0.41746 854.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         18.4      1.2233 µg/L       0.34099      1.2233 ppb        0.34099  27.88%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          32.1      13.222 µg/L       14.5294      13.222 ppb        14.5294 109.89%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -11.2     -4.5853 µg/L       6.81203     -4.5853 ppb        6.81203 148.56%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                74.0      0.1013 µg/L       0.01630      0.1013 ppb        0.01630  16.09%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                18.4      0.5800 µg/L       0.30975      0.5800 ppb        0.30975  53.40%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†       -132.9     -20.353 µg/L        6.2604     -20.353 ppb         6.2604  30.76%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -25.5     -0.3257 µg/L       0.14010     -0.3257 ppb        0.14010  43.01%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -4.1     -0.9865 µg/L       1.37705     -0.9865 ppb        1.37705 139.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -1.8     -0.1146 µg/L       1.41489     -0.1146 ppb        1.41489 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -7.5     -6.0387 µg/L       4.86046     -6.0387 ppb        4.86046  80.49%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -14.5     -1.9465 µg/L       0.31193     -1.9465 ppb        0.31193  16.03%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                14.1        5.57 µg/L         1.688        5.57 ppb          1.688  30.30%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      11.4      1.2252 µg/L       1.15483      1.2252 ppb        1.15483  94.25%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                79.9      1.3121 µg/L       0.32896      1.3121 ppb        0.32896  25.07%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 1.3      0.0938 µg/L       0.17571      0.0938 ppb        0.17571 187.29%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                87.8      0.2058 µg/L       0.14923      0.2058 ppb        0.14923  72.50%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               107.7      0.1067 µg/L       0.17474      0.1067 ppb        0.17474 163.81%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 0.0     -0.0017 µg/L       0.68072     -0.0017 ppb        0.68072 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                139.7      8.6193 µg/L       7.84577      8.6193 ppb        7.84577  91.03%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -37.4     -0.1957 µg/L       0.61936     -0.1957 ppb        0.61936 316.55%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                -7.2     -0.0435 µg/L       0.06758     -0.0435 ppb        0.06758 155.53%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 3/29/2010 18:40:43
Data Type: Reprocessed on 3/29/2010 19:14:37

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc 361.383	1721442.6	1721442.6	102.91	%			18:41:40
1	Sc RADIAL	147903.8	147903.8	101	%			18:41:13
1	Y 371.029	1058404.9	1058404.9	103.50	%			18:41:40
1	Ag 328.068†	4025.6	944.7	3.9659	µg/L	3.9659	ppb	18:41:43
1	Al 396.153Radial†	922.6	941.1	204.98	µg/L	204.98	ppb	18:41:15
1	As 188.979†	70.2	82.5	34.551	µg/L	34.551	ppb	18:42:03
1	B 249.677†	6252.3	2719.8	45.645	µg/L	45.645	ppb	18:41:43
1	Ba 233.527†	968.6	1116.3	5.1042	µg/L	5.1042	ppb	18:42:03
1	Be 313.107†	14893.3	15132.4	4.9477	µg/L	4.9477	ppb	18:41:43
1	Ca 317.933Radial†	4243.5	3565.6	208.93	µg/L	208.93	ppb	18:41:15
1	Cd 226.502†	637.3	713.7	4.9197	µg/L	4.9197	ppb	18:42:03
1	Co 228.616†	202.6	373.5	5.1141	µg/L	5.1141	ppb	18:42:03
1	Cr 267.716†	729.0	548.1	4.6505	µg/L	4.6505	ppb	18:42:03
1	Cu 324.752†	4895.4	2332.1	10.224	µg/L	10.224	ppb	18:41:43
1	Fe 238.204 Radial†	1705.5	1567.4	104.21	µg/L	104.21	ppb	18:41:15
1	K 766.490 Radial†	1904.1	421.4	173.34	µg/L	173.34	ppb	18:41:13
1	Mg 279.077 IEC†	935.0	734.7	303.09	µg/L	303.09	ppb	18:41:15
1	Mn 257.610†	7824.8	7523.6	10.268	µg/L	10.268	ppb	18:41:43
1	Mo 202.031†	258.6	306.5	9.6870	µg/L	9.6870	ppb	18:42:03
1	Na 589.592 Radial†	3412.3	1667.9	255.06	µg/L	255.06	ppb	18:41:15
1	Ni 231.604†	353.8	384.7	4.9210	µg/L	4.9210	ppb	18:42:03
1	P 214.914†	701.3	601.9	143.99	µg/L	143.99	ppb	18:42:03
1	Pb 220.353†	285.3	164.8	9.9640	µg/L	9.9640	ppb	18:42:03
1	S 181.975 Axial†	217.5	116.6	94.518	µg/L	94.518	ppb	18:42:03
1	Sb 206.836†	151.7	60.8	8.2873	µg/L	8.2873	ppb	18:42:03
1	Se 196.026†	93.5	79.9	31.7	µg/L	31.7	ppb	18:42:03
1	SiO2†	3528.6	1856.0	202.45	µg/L	202.45	ppb	18:41:43
1	Si 251.611†	7008.2	6133.7	101.23	µg/L	101.23	ppb	18:41:43
1	Sn 189.927†	141.3	135.3	9.6379	µg/L	9.6379	ppb	18:42:03
1	Sr 421.552†	2328.3	2572.4	6.0274	µg/L	6.0274	ppb	18:41:15
1	Ti 334.940†	5694.2	4896.9	4.9428	µg/L	4.9428	ppb	18:41:43
1	Tl 190.801†	28.4	147.9	19.934	µg/L	19.934	ppb	18:42:03
1	U 409.014†	713.0	1172.0	72.715	µg/L	72.715	ppb	18:41:43
1	V 292.402†	1246.9	779.8	4.4736	µg/L	4.4736	ppb	18:41:43
1	Zn 213.857†	2077.4	1554.3	9.7365	µg/L	9.7365	ppb	18:42:03
2	Sc 361.383	1724623.2	1724623.2	103.10	%			18:42:05
2	Sc RADIAL	148676.2	148676.2	102	%			18:41:17
2	Y 371.029	1060877.7	1060877.7	103.75	%			18:42:05
2	Ag 328.068†	4441.5	1340.9	5.5444	µg/L	5.5444	ppb	18:42:07
2	Al 396.153Radial†	882.0	896.6	195.25	µg/L	195.25	ppb	18:41:19
2	As 188.979†	60.0	72.5	30.385	µg/L	30.385	ppb	18:42:27
2	B 249.677†	6195.0	2653.1	44.524	µg/L	44.524	ppb	18:42:07
2	Ba 233.527†	972.4	1118.3	5.1130	µg/L	5.1130	ppb	18:42:27
2	Be 313.107†	15035.6	15243.7	4.9775	µg/L	4.9775	ppb	18:42:07
2	Ca 317.933Radial†	4053.9	3358.0	196.76	µg/L	196.76	ppb	18:41:19
2	Cd 226.502†	642.0	717.1	4.9432	µg/L	4.9432	ppb	18:42:27
2	Co 228.616†	195.2	365.9	5.0104	µg/L	5.0104	ppb	18:42:27
2	Cr 267.716†	741.9	559.4	4.7640	µg/L	4.7640	ppb	18:42:27
2	Cu 324.752†	4804.6	2235.3	9.7851	µg/L	9.7851	ppb	18:42:07
2	Fe 238.204 Radial†	1689.7	1543.2	102.60	µg/L	102.60	ppb	18:41:19
2	K 766.490 Radial†	1941.0	447.8	184.20	µg/L	184.20	ppb	18:41:17
2	Mg 279.077 IEC†	934.9	729.8	301.08	µg/L	301.08	ppb	18:41:19
2	Mn 257.610†	7840.1	7524.4	10.269	µg/L	10.269	ppb	18:42:07
2	Mo 202.031†	268.7	315.9	9.9813	µg/L	9.9813	ppb	18:42:27
2	Na 589.592 Radial†	3585.8	1820.6	278.41	µg/L	278.41	ppb	18:41:19
2	Ni 231.604†	360.6	390.7	4.9969	µg/L	4.9969	ppb	18:42:27
2	P 214.914†	704.9	604.1	144.53	µg/L	144.53	ppb	18:42:27
2	Pb 220.353†	256.9	136.7	8.2831	µg/L	8.2831	ppb	18:42:27

2	S 181.975 Axial†	211.0	109.8	89.075 µg/L	89.075 ppb	18:42:27
2	Sb 206.836†	139.1	48.3	6.6025 µg/L	6.6025 ppb	18:42:27
2	Se 196.026†	85.2	71.7	28.4 µg/L	28.4 ppb	18:42:27
2	SiO2†	3666.3	1983.3	216.34 µg/L	216.34 ppb	18:42:07
2	Si 251.611†	6987.0	6100.5	100.67 µg/L	100.67 ppb	18:42:07
2	Sn 189.927†	148.9	142.4	10.142 µg/L	10.142 ppb	18:42:27
2	Sr 421.552†	2257.8	2491.4	5.8378 µg/L	5.8378 ppb	18:41:19
2	Ti 334.940†	5599.5	4794.8	4.8474 µg/L	4.8474 ppb	18:42:07
2	Tl 190.801†	28.5	147.9	19.938 µg/L	19.938 ppb	18:42:27
2	U 409.014†	356.1	824.5	51.229 µg/L	51.229 ppb	18:42:07
2	V 292.402†	1199.8	731.9	4.1969 µg/L	4.1969 ppb	18:42:07
2	Zn 213.857†	2110.9	1583.0	9.9172 µg/L	9.9172 ppb	18:42:27
3	Sc 361.383	1709181.0	1709181.0	102.18 %		18:42:29
3	Sc RADIAL	148765.1	148765.1	102 %		18:41:21
3	Y 371.029	1051117.1	1051117.1	102.79 %		18:42:29
3	Ag 328.068†	4096.5	1042.2	4.3518 µg/L	4.3518 ppb	18:42:31
3	Al 396.153Radial†	913.9	927.3	201.93 µg/L	201.93 ppb	18:41:23
3	As 188.979†	45.1	58.4	24.503 µg/L	24.503 ppb	18:42:51
3	B 249.677†	6365.0	2873.8	48.229 µg/L	48.229 ppb	18:42:31
3	Ba 233.527†	993.8	1147.7	5.2479 µg/L	5.2479 ppb	18:42:51
3	Be 313.107†	15404.4	15736.4	5.1406 µg/L	5.1406 ppb	18:42:31
3	Ca 317.933Radial†	4204.3	3503.0	205.26 µg/L	205.26 ppb	18:41:23
3	Cd 226.502†	656.9	737.3	5.0831 µg/L	5.0831 ppb	18:42:51
3	Co 228.616†	214.1	386.1	5.2868 µg/L	5.2868 ppb	18:42:51
3	Cr 267.716†	776.9	600.1	5.1070 µg/L	5.1070 ppb	18:42:51
3	Cu 324.752†	4905.4	2376.0	10.405 µg/L	10.405 ppb	18:42:31
3	Fe 238.204 Radial†	1701.7	1554.0	103.31 µg/L	103.31 ppb	18:41:23
3	K 766.490 Radial†	1863.7	371.0	152.58 µg/L	152.58 ppb	18:41:21
3	Mg 279.077 IEC†	946.2	740.4	305.43 µg/L	305.43 ppb	18:41:23
3	Mn 257.610†	7932.9	7683.9	10.487 µg/L	10.487 ppb	18:42:31
3	Mo 202.031†	276.9	326.2	10.308 µg/L	10.308 ppb	18:42:51
3	Na 589.592 Radial†	3380.4	1617.2	247.32 µg/L	247.32 ppb	18:41:23
3	Ni 231.604†	372.2	405.1	5.1823 µg/L	5.1823 ppb	18:42:51
3	P 214.914†	693.9	599.5	143.42 µg/L	143.42 ppb	18:42:51
3	Pb 220.353†	299.1	180.3	10.914 µg/L	10.914 ppb	18:42:51
3	S 181.975 Axial†	216.9	117.4	95.241 µg/L	95.241 ppb	18:42:51
3	Sb 206.836†	178.2	87.8	11.935 µg/L	11.935 ppb	18:42:51
3	Se 196.026†	84.3	71.6	28.4 µg/L	28.4 ppb	18:42:51
3	SiO2†	3665.9	2015.0	219.80 µg/L	219.80 ppb	18:42:31
3	Si 251.611†	7292.1	6460.4	106.62 µg/L	106.62 ppb	18:42:31
3	Sn 189.927†	146.0	140.9	10.035 µg/L	10.035 ppb	18:42:51
3	Sr 421.552†	2185.8	2419.5	5.6692 µg/L	5.6692 ppb	18:41:23
3	Ti 334.940†	5763.7	5004.6	5.0573 µg/L	5.0573 ppb	18:42:31
3	Tl 190.801†	37.2	156.7	21.117 µg/L	21.117 ppb	18:42:51
3	U 409.014†	504.2	972.6	60.421 µg/L	60.421 ppb	18:42:31
3	V 292.402†	1321.2	861.3	4.9254 µg/L	4.9254 ppb	18:42:31
3	Zn 213.857†	2122.4	1612.8	10.103 µg/L	10.103 ppb	18:42:51

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1718415.6	102.73	%	0.487				0.47%
Sc RADIAL	148448.4	102	%	0.3				0.32%
Y 371.029	1056799.9	103.35	%	0.496				0.48%
Ag 328.068†	1109.3	4.6207	µg/L	0.82285	4.6207	ppb	0.82285	17.81%
QC value within limits for Ag 328.068 Recovery = 92.41%								
Al 396.153Radial†	921.7	200.72	µg/L	4.978	200.72	ppb	4.978	2.48%
QC value within limits for Al 396.153Radial Recovery = 100.36%								
As 188.979†	71.1	29.813	µg/L	5.0483	29.813	ppb	5.0483	16.93%
QC value within limits for As 188.979 Recovery = 99.38%								
B 249.677†	2748.9	46.133	µg/L	1.8998	46.133	ppb	1.8998	4.12%
QC value within limits for B 249.677 Recovery = 92.27%								
Ba 233.527†	1127.4	5.1550	µg/L	0.08056	5.1550	ppb	0.08056	1.56%
QC value within limits for Ba 233.527 Recovery = 103.10%								
Be 313.107†	15370.8	5.0219	µg/L	0.10386	5.0219	ppb	0.10386	2.07%
QC value within limits for Be 313.107 Recovery = 100.44%								
Ca 317.933Radial†	3475.5	203.65	µg/L	6.241	203.65	ppb	6.241	3.06%
QC value within limits for Ca 317.933Radial Recovery = 101.83%								
Cd 226.502†	722.7	4.9820	µg/L	0.08834	4.9820	ppb	0.08834	1.77%
QC value within limits for Cd 226.502 Recovery = 99.64%								

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Co 228.616†              375.2      5.1371 µg/L       0.13962      5.1371 ppb        0.13962   2.72%
   QC value within limits for Co 228.616  Recovery = 102.74%
Cr 267.716†              569.2      4.8405 µg/L       0.23770      4.8405 ppb        0.23770   4.91%
   QC value within limits for Cr 267.716  Recovery = 96.81%
Cu 324.752†             2314.5      10.138 µg/L        0.3187      10.138 ppb         0.3187   3.14%
   QC value within limits for Cu 324.752  Recovery = 101.38%
Fe 238.204 Radial†      1554.9      103.37 µg/L         0.806      103.37 ppb          0.806   0.78%
   QC value within limits for Fe 238.204 Radial  Recovery = 103.37%
K 766.490 Radial†        413.4      170.04 µg/L        16.070      170.04 ppb         16.070   9.45%
   QC value within limits for K 766.490 Radial  Recovery = 113.36%
Mg 279.077 IEC†          735.0      303.20 µg/L         2.180      303.20 ppb          2.180   0.72%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.07%
Mn 257.610†             7577.3      10.342 µg/L        0.1261      10.342 ppb         0.1261   1.22%
   QC value within limits for Mn 257.610  Recovery = 103.42%
Mo 202.031†              316.2      9.9921 µg/L       0.31074      9.9921 ppb        0.31074   3.11%
   QC value within limits for Mo 202.031  Recovery = 99.92%
Na 589.592 Radial†      1701.9      260.27 µg/L        16.186      260.27 ppb         16.186   6.22%
   QC value within limits for Na 589.592 Radial  Recovery = 86.76%
Ni 231.604†              393.5      5.0334 µg/L       0.13439      5.0334 ppb        0.13439   2.67%
   QC value within limits for Ni 231.604  Recovery = 100.67%
P 214.914†               601.9      143.98 µg/L         0.554      143.98 ppb          0.554   0.38%
   QC value within limits for P 214.914  Recovery = 95.99%
Pb 220.353†              160.6      9.7204 µg/L       1.33235      9.7204 ppb        1.33235  13.71%
   QC value within limits for Pb 220.353  Recovery = 97.20%
S 181.975 Axial†         114.6      92.945 µg/L        3.3708      92.945 ppb         3.3708   3.63%
   QC value within limits for S 181.975 Axial  Recovery = 92.94%
Sb 206.836†               65.6      8.9415 µg/L       2.72562      8.9415 ppb        2.72562  30.48%
   QC value within limits for Sb 206.836  Recovery = 89.41%
Se 196.026†               74.4        29.5 µg/L          1.90        29.5 ppb           1.90   6.42%
   QC value within limits for Se 196.026  Recovery = 98.43%
SiO2†                   1951.4      212.86 µg/L         9.186      212.86 ppb          9.186   4.32%
   QC value within limits for SiO2  Recovery = 99.94%
Si 251.611†             6231.5      102.84 µg/L         3.285      102.84 ppb          3.285   3.19%
   QC value within limits for Si 251.611  Recovery = 102.84%
Sn 189.927†              139.6      9.9381 µg/L       0.26552      9.9381 ppb        0.26552   2.67%
   QC value within limits for Sn 189.927  Recovery = 99.38%
Sr 421.552†             2494.5      5.8448 µg/L       0.17922      5.8448 ppb        0.17922   3.07%
   QC value within limits for Sr 421.552  Recovery = 116.90%
Ti 334.940†             4898.8      4.9492 µg/L       0.10510      4.9492 ppb        0.10510   2.12%
   QC value within limits for Ti 334.940  Recovery = 98.98%
Tl 190.801†              150.8      20.330 µg/L        0.6817      20.330 ppb         0.6817   3.35%
   QC value within limits for Tl 190.801  Recovery = 101.65%
U 409.014†               989.7      61.455 µg/L       10.7804      61.455 ppb        10.7804  17.54%
   QC value within limits for U 409.014  Recovery = 122.91%
V 292.402†               791.0      4.5320 µg/L       0.36774      4.5320 ppb        0.36774   8.11%
   QC value within limits for V 292.402  Recovery = 90.64%
Zn 213.857†             1583.4      9.9190 µg/L       0.18336      9.9190 ppb        0.18336   1.85%
   QC value within limits for Zn 213.857  Recovery = 99.19%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: ICSA
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 3/29/2010 18:43:01
Data Type: Reprocessed on 3/29/2010 19:14:38

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	1519975.5	1519975.5	90.866	%			18:44:01
1	Sc RADIAL	137750.3	137750.3	94.5	%			18:43:34
1	Y 371.029	919968.6	919968.6	89.965	%			18:44:01
1	Ag 328.068†	5916.7	3544.4	1.2267	µg/L	1.2267	ppb	18:44:01
1	Al 396.153Radial†	2228558.9	2358079.9	514740	µg/L	514740	ppb	18:43:31
1	As 188.979†	-88.3	-82.9	8.1301	µg/L	8.1301	ppb	18:44:21
1	B 249.677†	3032.6	-18.3	-0.3191	µg/L	-0.3191	ppb	18:44:01
1	Ba 233.527†	439.8	659.1	0.5804	µg/L	0.5804	ppb	18:44:21
1	Be 313.107†	-620.0	-22.3	0.0066	µg/L	0.0066	ppb	18:44:01
1	Ca 317.933Radial†	7783821.6	8235480.1	482560	µg/L	482560	ppb	18:43:31
1	Cd 226.502†	2257.8	2579.2	-2.2506	µg/L	-2.2506	ppb	18:44:21
1	Co 228.616†	76.3	260.5	-6.3814	µg/L	-6.3814	ppb	18:44:21
1	Cr 267.716†	306.4	176.9	2.2002	µg/L	2.2002	ppb	18:44:21
1	Cu 324.752†	-6875.9	-9992.0	-2.5122	µg/L	-2.5122	ppb	18:44:01
1	Fe 238.204 Radial†	2712004.8	2869471.1	190770	µg/L	190770	ppb	18:43:31
1	K 766.490 Radial†	1538.5	172.9	-171.54	µg/L	-171.54	ppb	18:43:34
1	Mg 279.077 IEC†	1111575.2	1175976.0	484700	µg/L	484700	ppb	18:43:31
1	Mn 257.610†	14620.3	16010.1	2.1476	µg/L	2.1476	ppb	18:44:01
1	Mo 202.031†	-501.7	-496.9	0.7251	µg/L	0.7251	ppb	18:44:01
1	Na 589.592 Radial†	1635.3	35.6	5.3873	µg/L	5.3873	ppb	18:43:34
1	Ni 231.604†	146.0	201.6	2.5791	µg/L	2.5791	ppb	18:44:21
1	P 214.914†	148.1	83.5	4.8563	µg/L	4.8563	ppb	18:44:21
1	Pb 220.353†	-247.5	-384.9	2.4276	µg/L	2.4276	ppb	18:44:21
1	S 181.975 Axial†	166.5	88.4	71.471	µg/L	71.471	ppb	18:44:21
1	Sb 206.836†	109.8	34.2	-1.4541	µg/L	-1.4541	ppb	18:44:21
1	Se 196.026†	-143.9	-169.3	-0.728	µg/L	-0.728	ppb	18:44:21
1	SiO2†	1500.4	78.4	8.9950	µg/L	8.9950	ppb	18:44:21
1	Si 251.611†	379.6	-258.7	-4.0756	µg/L	-4.0756	ppb	18:44:21
1	Sn 189.927†	17.0	16.7	1.2650	µg/L	1.2650	ppb	18:44:21
1	Sr 421.552†	1360.0	1717.1	0.2472	µg/L	0.2472	ppb	18:43:34
1	Ti 334.940†	20973.2	22445.2	-4.0421	µg/L	-4.0421	ppb	18:44:01
1	Tl 190.801†	-165.7	-62.0	-7.8287	µg/L	-7.8287	ppb	18:44:21
1	U 409.014†	239.9	743.1	25.180	µg/L	25.180	ppb	18:44:01
1	V 292.402†	5463.3	5580.7	0.4848	µg/L	0.4848	ppb	18:44:01
1	Zn 213.857†	3868.4	3792.8	7.6857	µg/L	7.6857	ppb	18:44:21
2	Sc 361.383	1532514.6	1532514.6	91.615	%			18:44:24
2	Sc RADIAL	139244.5	139244.5	95.5	%			18:43:38
2	Y 371.029	927898.5	927898.5	90.741	%			18:44:24
2	Ag 328.068†	5725.2	3282.1	0.2956	µg/L	0.2956	ppb	18:44:24
2	Al 396.153Radial†	2228857.8	2333088.7	509290	µg/L	509290	ppb	18:43:36
2	As 188.979†	-96.0	-90.5	4.5139	µg/L	4.5139	ppb	18:44:44
2	B 249.677†	3203.6	141.1	2.3574	µg/L	2.3574	ppb	18:44:24
2	Ba 233.527†	417.7	631.0	0.4768	µg/L	0.4768	ppb	18:44:44
2	Be 313.107†	-855.2	-273.4	-0.0781	µg/L	-0.0781	ppb	18:44:24
2	Ca 317.933Radial†	7791433.2	8155066.3	477850	µg/L	477850	ppb	18:43:36
2	Cd 226.502†	2233.3	2532.1	-2.3767	µg/L	-2.3767	ppb	18:44:44
2	Co 228.616†	66.6	249.3	-6.4368	µg/L	-6.4368	ppb	18:44:44
2	Cr 267.716†	246.3	108.6	1.6057	µg/L	1.6057	ppb	18:44:44
2	Cu 324.752†	-6872.9	-9926.8	-2.6212	µg/L	-2.6212	ppb	18:44:24
2	Fe 238.204 Radial†	2714288.8	2841068.4	188880	µg/L	188880	ppb	18:43:36
2	K 766.490 Radial†	1618.0	238.7	-142.04	µg/L	-142.04	ppb	18:43:38
2	Mg 279.077 IEC†	1114260.0	1166165.0	480660	µg/L	480660	ppb	18:43:36
2	Mn 257.610†	14586.8	15841.8	2.0830	µg/L	2.0830	ppb	18:44:24
2	Mo 202.031†	-508.1	-499.4	0.4957	µg/L	0.4957	ppb	18:44:24
2	Na 589.592 Radial†	1714.1	99.5	15.141	µg/L	15.141	ppb	18:43:38
2	Ni 231.604†	152.3	207.2	2.6500	µg/L	2.6500	ppb	18:44:44
2	P 214.914†	105.5	35.5	-6.5606	µg/L	-6.5606	ppb	18:44:44
2	Pb 220.353†	-290.5	-429.6	-0.5500	µg/L	-0.5500	ppb	18:44:44

2	S 181.975 Axial†	171.6	92.5	74.799 µg/L	74.799	ppb	18:44:44
2	Sb 206.836†	130.7	56.0	1.5606 µg/L	1.5606	ppb	18:44:44
2	Se 196.026†	-155.0	-180.1	-5.67 µg/L	-5.67	ppb	18:44:44
2	SiO2†	1504.6	69.4	8.0425 µg/L	8.0425	ppb	18:44:44
2	Si 251.611†	375.1	-267.0	-4.2014 µg/L	-4.2014	ppb	18:44:44
2	Sn 189.927†	-4.2	-6.6	-0.3924 µg/L	-0.3924	ppb	18:44:44
2	Sr 421.552†	1366.5	1708.4	0.2637 µg/L	0.2637	ppb	18:43:38
2	Ti 334.940†	21214.1	22519.4	-3.7556 µg/L	-3.7556	ppb	18:44:24
2	Tl 190.801†	-155.0	-48.9	-6.0537 µg/L	-6.0537	ppb	18:44:44
2	U 409.014†	96.2	584.1	15.646 µg/L	15.646	ppb	18:44:24
2	V 292.402†	5684.6	5773.1	1.8417 µg/L	1.8417	ppb	18:44:24
2	Zn 213.857†	3858.3	3747.0	7.5506 µg/L	7.5506	ppb	18:44:44
3	Sc 361.383	1531662.1	1531662.1	91.564 %			18:44:46
3	Sc RADIAL	139848.7	139848.7	95.9 %			18:43:42
3	Y 371.029	927170.5	927170.5	90.670 %			18:44:46
3	Ag 328.068†	5762.9	3326.8	0.5251 µg/L	0.5251	ppb	18:44:46
3	Al 396.153Radial†	2231390.2	2325648.7	507660 µg/L	507660	ppb	18:43:40
3	As 188.979†	-103.4	-98.7	0.8735 µg/L	0.8735	ppb	18:45:06
3	B 249.677†	3235.4	177.8	2.9710 µg/L	2.9710	ppb	18:44:46
3	Ba 233.527†	402.4	614.5	0.4137 µg/L	0.4137	ppb	18:45:06
3	Be 313.107†	-678.3	-80.7	-0.0209 µg/L	-0.0209	ppb	18:44:46
3	Ca 317.933Radial†	7787439.6	8115669.6	475540 µg/L	475540	ppb	18:43:40
3	Cd 226.502†	2245.5	2546.8	-2.1709 µg/L	-2.1709	ppb	18:45:06
3	Co 228.616†	93.2	278.4	-5.9871 µg/L	-5.9871	ppb	18:45:06
3	Cr 267.716†	275.9	141.1	1.8999 µg/L	1.8999	ppb	18:45:06
3	Cu 324.752†	-6732.3	-9777.4	-2.2074 µg/L	-2.2074	ppb	18:44:46
3	Fe 238.204 Radial†	2711795.4	2826195.2	187900 µg/L	187900	ppb	18:43:40
3	K 766.490 Radial†	1584.0	195.9	-158.63 µg/L	-158.63	ppb	18:43:42
3	Mg 279.077 IEC†	1112495.6	1159287.1	477830 µg/L	477830	ppb	18:43:40
3	Mn 257.610†	14462.2	15714.6	2.0242 µg/L	2.0242	ppb	18:44:46
3	Mo 202.031†	-593.4	-592.8	-2.5422 µg/L	-2.5422	ppb	18:44:46
3	Na 589.592 Radial†	1732.7	111.2	16.939 µg/L	16.939	ppb	18:43:42
3	Ni 231.604†	209.1	269.3	3.4450 µg/L	3.4450	ppb	18:45:06
3	P 214.914†	118.4	49.8	-2.8056 µg/L	-2.8056	ppb	18:45:06
3	Pb 220.353†	-264.9	-401.8	1.0704 µg/L	1.0704	ppb	18:45:06
3	S 181.975 Axial†	171.3	92.2	74.546 µg/L	74.546	ppb	18:45:06
3	Sb 206.836†	101.8	24.6	-2.6986 µg/L	-2.6986	ppb	18:45:06
3	Se 196.026†	-151.8	-176.7	-4.70 µg/L	-4.70	ppb	18:45:06
3	SiO2†	1457.7	19.2	2.6178 µg/L	2.6178	ppb	18:45:06
3	Si 251.611†	375.6	-266.2	-4.1555 µg/L	-4.1555	ppb	18:45:06
3	Sn 189.927†	9.2	8.1	0.6527 µg/L	0.6527	ppb	18:45:06
3	Sr 421.552†	1404.5	1741.8	0.3601 µg/L	0.3601	ppb	18:43:42
3	Ti 334.940†	21500.8	22845.3	-3.2450 µg/L	-3.2450	ppb	18:44:46
3	Tl 190.801†	-148.3	-41.6	-5.0807 µg/L	-5.0807	ppb	18:45:06
3	U 409.014†	-176.5	286.3	-2.6068 µg/L	-2.6068	ppb	18:44:46
3	V 292.402†	5753.1	5851.3	2.3911 µg/L	2.3911	ppb	18:44:46
3	Zn 213.857†	3845.3	3735.2	7.5699 µg/L	7.5699	ppb	18:45:06

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1528050.7	91.348	%	0.4188				0.46%
Sc RADIAL	138947.9	95.3	%	0.74				0.78%
Y 371.029	925012.6	90.459	%	0.4287				0.47%
Ag 328.068†	3384.5	0.6825	µg/L	0.48505	0.6825	ppb	0.48505	71.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2338939.1	510560	µg/L	3708.4	510560	ppb	3708.4	0.73%
QC value within limits for Al 396.153Radial Recovery = 102.11%								
As 188.979†	-90.7	4.5059	µg/L	3.62830	4.5059	ppb	3.62830	80.52%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	100.2	1.6697	µg/L	1.74948	1.6697	ppb	1.74948	104.78%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	634.8	0.4903	µg/L	0.08415	0.4903	ppb	0.08415	17.16%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-125.5	-0.0308	µg/L	0.04321	-0.0308	ppb	0.04321	140.33%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8168738.7	478650	µg/L	3578.1	478650	ppb	3578.1	0.75%
QC value within limits for Ca 317.933Radial Recovery = 95.73%								
Cd 226.502†	2552.7	-2.2661	µg/L	0.10379	-2.2661	ppb	0.10379	4.58%
QC value within limits for Cd 226.502 Recovery = Not calculated								

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Co 228.616†              262.7     -6.2685 µg/L       0.24520     -6.2685 ppb        0.24520   3.91%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              142.2      1.9019 µg/L       0.29723      1.9019 ppb        0.29723  15.63%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -9898.7     -2.4469 µg/L       0.21446     -2.4469 ppb        0.21446   8.76%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   2845578.2      189180 µg/L        1461.8      189180 ppb         1461.8   0.77%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.59%
K 766.490 Radial†        202.5     -157.40 µg/L        14.790     -157.40 ppb         14.790   9.40%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†      1167142.7      481060 µg/L        3456.9      481060 ppb         3456.9   0.72%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.21%
Mn 257.610†            15855.5      2.0849 µg/L       0.06170      2.0849 ppb        0.06170   2.96%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -529.7     -0.4405 µg/L       1.82378     -0.4405 ppb        1.82378 414.05%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        82.1      12.489 µg/L        6.2157      12.489 ppb         6.2157  49.77%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              226.0      2.8914 µg/L       0.48079      2.8914 ppb        0.48079  16.63%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                56.3     -1.5033 µg/L       5.81883     -1.5033 ppb        5.81883 387.07%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -405.4      0.9827 µg/L       1.49074      0.9827 ppb        1.49074 151.70%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          91.0      73.605 µg/L        1.8528      73.605 ppb         1.8528   2.52%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               38.3     -0.8640 µg/L       2.19006     -0.8640 ppb        2.19006 253.47%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -175.4       -3.70 µg/L         2.618       -3.70 ppb          2.618  70.77%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     55.7      6.5518 µg/L       3.44005      6.5518 ppb        3.44005  52.51%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -264.0     -4.1441 µg/L       0.06368     -4.1441 ppb        0.06368   1.54%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                6.1      0.5084 µg/L       0.83805      0.5084 ppb        0.83805 164.84%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             1722.4      0.2904 µg/L       0.06098      0.2904 ppb        0.06098  21.00%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            22603.3     -3.6809 µg/L       0.40375     -3.6809 ppb        0.40375  10.97%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -50.8     -6.3210 µg/L       1.39339     -6.3210 ppb        1.39339  22.04%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               537.8      12.740 µg/L       14.1197      12.740 ppb        14.1197 110.83%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              5735.0      1.5725 µg/L       0.98127      1.5725 ppb        0.98127  62.40%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             3758.3      7.6020 µg/L       0.07306      7.6020 ppb        0.07306   0.96%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 10
Sample ID: ICSAB
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 3/29/2010 18:45:15
Data Type: Reprocessed on 3/29/2010 19:14:39

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	1510684.4	1510684.4	90.310	%			18:46:21
1	Sc RADIAL	137128.2	137128.2	94.1	%			18:45:49
1	Y 371.029	915417.0	915417.0	89.520	%			18:46:21
1	Ag 328.068†	64579.9	68542.0	271.32	µg/L	271.32	ppb	18:46:21
1	Al 396.153Radial†	2257035.7	2399046.7	523660	µg/L	523660	ppb	18:45:45
1	As 188.979†	1040.4	1166.3	536.34	µg/L	536.34	ppb	18:46:23
1	B 249.677†	30637.0	30568.6	511.66	µg/L	511.66	ppb	18:46:21
1	Ba 233.527†	99072.5	109877.7	499.99	µg/L	499.99	ppb	18:46:21
1	Be 313.107†	681148.0	754892.4	245.89	µg/L	245.89	ppb	18:46:21
1	Ca 317.933Radial†	7888724.1	8384349.0	491290	µg/L	491290	ppb	18:45:45
1	Cd 226.502†	63574.5	70490.2	466.80	µg/L	466.80	ppb	18:46:21
1	Co 228.616†	29268.7	32585.7	436.71	µg/L	436.71	ppb	18:46:23
1	Cr 267.716†	51261.8	56601.7	486.64	µg/L	486.64	ppb	18:46:23
1	Cu 324.752†	105042.3	113888.0	536.82	µg/L	536.82	ppb	18:46:21
1	Fe 238.204 Radial†	2714615.2	2885265.2	191820	µg/L	191820	ppb	18:45:47
1	K 766.490 Radial†	14492.6	13949.3	5495.4	µg/L	5495.4	ppb	18:45:49
1	Mg 279.077 IEC†	1107607.9	1177095.4	485180	µg/L	485180	ppb	18:45:49
1	Mn 257.610†	329092.8	364323.1	478.08	µg/L	478.08	ppb	18:46:21
1	Mo 202.031†	13229.8	14704.5	480.80	µg/L	480.80	ppb	18:46:23
1	Na 589.592 Radial†	34394.1	34862.9	5329.4	µg/L	5329.4	ppb	18:45:49
1	Ni 231.604†	31853.0	35311.6	451.68	µg/L	451.68	ppb	18:46:23
1	P 214.914†	9576.1	10524.0	2499.6	µg/L	2499.6	ppb	18:46:23
1	Pb 220.353†	6597.4	7192.9	463.36	µg/L	463.36	ppb	18:46:23
1	S 181.975 Axial†	3009.0	3237.0	2626.5	µg/L	2626.5	ppb	18:46:23
1	Sb 206.836†	3499.0	3787.8	505.98	µg/L	505.98	ppb	18:46:23
1	Se 196.026†	5309.9	5868.7	2390	µg/L	2390	ppb	18:46:23
1	SiO2†	92256.7	100582.6	10974	µg/L	10974	ppb	18:46:21
1	Si 251.611†	281270.8	310773.6	5129.3	µg/L	5129.3	ppb	18:46:21
1	Sn 189.927†	6022.0	6666.1	475.68	µg/L	475.68	ppb	18:46:23
1	Sr 421.552†	210049.1	223540.3	520.07	µg/L	520.07	ppb	18:45:49
1	Ti 334.940†	468269.2	517876.1	500.97	µg/L	500.97	ppb	18:46:21
1	Tl 190.801†	2818.9	3241.7	443.45	µg/L	443.45	ppb	18:46:23
1	U 409.014†	7133.6	8378.1	528.93	µg/L	528.93	ppb	18:46:21
1	V 292.402†	88326.4	97371.6	516.38	µg/L	516.38	ppb	18:46:21
1	Zn 213.857†	72620.0	79947.4	483.88	µg/L	483.88	ppb	18:46:21
2	Sc 361.383	1518034.6	1518034.6	90.750	%			18:46:26
2	Sc RADIAL	136837.3	136837.3	93.9	%			18:45:56
2	Y 371.029	919619.6	919619.6	89.931	%			18:46:26
2	Ag 328.068†	64494.6	68101.8	269.69	µg/L	269.69	ppb	18:46:26
2	Al 396.153Radial†	2229777.5	2375110.8	518440	µg/L	518440	ppb	18:45:52
2	As 188.979†	1016.8	1134.7	522.67	µg/L	522.67	ppb	18:46:28
2	B 249.677†	30917.4	30713.3	514.09	µg/L	514.09	ppb	18:46:26
2	Ba 233.527†	99392.7	109699.3	499.19	µg/L	499.19	ppb	18:46:26
2	Be 313.107†	684598.1	755042.2	245.93	µg/L	245.93	ppb	18:46:26
2	Ca 317.933Radial†	7784991.4	8291677.2	485860	µg/L	485860	ppb	18:45:52
2	Cd 226.502†	63805.9	70404.3	466.38	µg/L	466.38	ppb	18:46:26
2	Co 228.616†	29275.9	32436.7	434.76	µg/L	434.76	ppb	18:46:28
2	Cr 267.716†	50741.5	55753.6	479.35	µg/L	479.35	ppb	18:46:28
2	Cu 324.752†	105439.6	113762.6	535.91	µg/L	535.91	ppb	18:46:26
2	Fe 238.204 Radial†	2684811.7	2859651.8	190120	µg/L	190120	ppb	18:45:54
2	K 766.490 Radial†	14227.4	13699.5	5395.1	µg/L	5395.1	ppb	18:45:56
2	Mg 279.077 IEC†	1095117.9	1166293.6	480720	µg/L	480720	ppb	18:45:56
2	Mn 257.610†	330574.5	364191.4	478.08	µg/L	478.08	ppb	18:46:26
2	Mo 202.031†	13322.6	14735.9	481.64	µg/L	481.64	ppb	18:46:28
2	Na 589.592 Radial†	34233.3	34769.4	5315.2	µg/L	5315.2	ppb	18:45:56
2	Ni 231.604†	31592.4	34853.7	445.82	µg/L	445.82	ppb	18:46:28
2	P 214.914†	9407.5	10286.9	2442.8	µg/L	2442.8	ppb	18:46:28
2	Pb 220.353†	6453.4	6998.8	451.34	µg/L	451.34	ppb	18:46:28

2	S 181.975 Axial†	2940.7	3145.6	2552.4 µg/L	2552.4 ppb	18:46:28
2	Sb 206.836†	3475.9	3743.6	500.18 µg/L	500.18 ppb	18:46:28
2	Se 196.026†	5145.8	5659.4	2310 µg/L	2310 ppb	18:46:28
2	SiO2†	92799.3	100685.9	10985 µg/L	10985 ppb	18:46:26
2	Si 251.611†	282521.5	310643.8	5127.1 µg/L	5127.1 ppb	18:46:26
2	Sn 189.927†	5996.0	6605.2	471.35 µg/L	471.35 ppb	18:46:28
2	Sr 421.552†	208807.5	222692.2	518.13 µg/L	518.13 ppb	18:45:56
2	Ti 334.940†	470515.6	517840.9	501.16 µg/L	501.16 ppb	18:46:26
2	Tl 190.801†	2878.3	3292.0	450.21 µg/L	450.21 ppb	18:46:28
2	U 409.014†	7163.0	8372.3	528.73 µg/L	528.73 ppb	18:46:26
2	V 292.402†	88754.8	97370.2	516.63 µg/L	516.63 ppb	18:46:26
2	Zn 213.857†	72903.7	79870.6	483.58 µg/L	483.58 ppb	18:46:26
3	Sc 361.383	1509678.5	1509678.5	90.250 %		18:46:31
3	Sc RADIAL	138373.5	138373.5	94.9 %		18:46:03
3	Y 371.029	914674.1	914674.1	89.448 %		18:46:31
3	Ag 328.068†	64587.4	68598.0	271.77 µg/L	271.77 ppb	18:46:31
3	Al 396.153Radial†	2250390.9	2370456.7	517420 µg/L	517420 ppb	18:45:58
3	As 188.979†	1006.1	1129.0	520.40 µg/L	520.40 ppb	18:46:33
3	B 249.677†	30857.6	30835.5	516.13 µg/L	516.13 ppb	18:46:31
3	Ba 233.527†	99227.6	110122.6	501.13 µg/L	501.13 ppb	18:46:31
3	Be 313.107†	682431.3	756816.9	246.51 µg/L	246.51 ppb	18:46:31
3	Ca 317.933Radial†	7834035.4	8251280.0	483490 µg/L	483490 ppb	18:45:58
3	Cd 226.502†	63517.1	70473.5	466.87 µg/L	466.87 ppb	18:46:31
3	Co 228.616†	29487.3	32849.5	440.42 µg/L	440.42 ppb	18:46:33
3	Cr 267.716†	51368.6	56757.9	487.95 µg/L	487.95 ppb	18:46:33
3	Cu 324.752†	105432.6	114397.9	538.71 µg/L	538.71 ppb	18:46:31
3	Fe 238.204 Radial†	2714742.3	2859431.1	190100 µg/L	190100 ppb	18:46:01
3	K 766.490 Radial†	14507.9	13826.8	5448.0 µg/L	5448.0 ppb	18:46:03
3	Mg 279.077 IEC†	1111196.5	1170280.1	482370 µg/L	482370 ppb	18:46:03
3	Mn 257.610†	329292.9	364787.6	478.83 µg/L	478.83 ppb	18:46:31
3	Mo 202.031†	13311.3	14804.5	483.83 µg/L	483.83 ppb	18:46:33
3	Na 589.592 Radial†	34668.7	34823.2	5323.3 µg/L	5323.3 ppb	18:46:03
3	Ni 231.604†	31996.5	35494.2	454.01 µg/L	454.01 ppb	18:46:33
3	P 214.914†	9605.6	10563.7	2508.9 µg/L	2508.9 ppb	18:46:33
3	Pb 220.353†	6567.4	7164.5	461.32 µg/L	461.32 ppb	18:46:33
3	S 181.975 Axial†	2974.8	3201.4	2597.7 µg/L	2597.7 ppb	18:46:33
3	Sb 206.836†	3463.3	3750.8	501.08 µg/L	501.08 ppb	18:46:33
3	Se 196.026†	5291.7	5852.5	2380 µg/L	2380 ppb	18:46:33
3	SiO2†	92489.2	100908.3	11009 µg/L	11009 ppb	18:46:31
3	Si 251.611†	281639.3	311389.5	5139.4 µg/L	5139.4 ppb	18:46:31
3	Sn 189.927†	6087.5	6743.1	481.17 µg/L	481.17 ppb	18:46:33
3	Sr 421.552†	210738.5	222257.1	517.13 µg/L	517.13 ppb	18:46:03
3	Ti 334.940†	470683.6	520896.9	504.08 µg/L	504.08 ppb	18:46:31
3	Tl 190.801†	2864.6	3294.4	450.54 µg/L	450.54 ppb	18:46:33
3	U 409.014†	7145.1	8396.1	530.14 µg/L	530.14 ppb	18:46:31
3	V 292.402†	88390.3	97507.5	517.45 µg/L	517.45 ppb	18:46:31
3	Zn 213.857†	72542.0	79914.6	483.81 µg/L	483.81 ppb	18:46:31

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1512799.2	90.437	%	0.2727				0.30%
Sc RADIAL	137446.3	94.3	%	0.56				0.59%
Y 371.029	916570.2	89.633	%	0.2608				0.29%
Ag 328.068†	68413.9	270.93	µg/L	1.098	270.93	ppb	1.098	0.41%
QC value within limits for Ag 328.068 Recovery = 108.37%								
Al 396.153Radial†	2381538.1	519840	µg/L	3348.7	519840	ppb	3348.7	0.64%
QC value within limits for Al 396.153Radial Recovery = 103.97%								
As 188.979†	1143.3	526.47	µg/L	8.621	526.47	ppb	8.621	1.64%
QC value within limits for As 188.979 Recovery = 105.29%								
B 249.677†	30705.8	513.96	µg/L	2.238	513.96	ppb	2.238	0.44%
QC value within limits for B 249.677 Recovery = 102.79%								
Ba 233.527†	109899.8	500.10	µg/L	0.973	500.10	ppb	0.973	0.19%
QC value within limits for Ba 233.527 Recovery = 100.02%								
Be 313.107†	755583.8	246.11	µg/L	0.349	246.11	ppb	0.349	0.14%
QC value within limits for Be 313.107 Recovery = 98.44%								
Ca 317.933Radial†	8309102.1	486880	µg/L	3997.7	486880	ppb	3997.7	0.82%
QC value within limits for Ca 317.933Radial Recovery = 97.38%								
Cd 226.502†	70456.0	466.68	µg/L	0.262	466.68	ppb	0.262	0.06%
QC value within limits for Cd 226.502 Recovery = 93.34%								

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Co 228.616†            32623.9      437.30 µg/L        2.873      437.30 ppb          2.873   0.66%
   QC value within limits for Co 228.616  Recovery = 87.46%
Cr 267.716†            56371.1      484.65 µg/L        4.635      484.65 ppb          4.635   0.96%
   QC value within limits for Cr 267.716  Recovery = 96.93%
Cu 324.752†           114016.2      537.15 µg/L        1.432      537.15 ppb          1.432   0.27%
   QC value within limits for Cu 324.752  Recovery = 107.43%
Fe 238.204 Radial†   2868116.0      190680 µg/L        987.4      190680 ppb          987.4   0.52%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.34%
K 766.490 Radial†      13825.2      5446.2 µg/L        50.18      5446.2 ppb          50.18   0.92%
   QC value within limits for K 766.490 Radial  Recovery = 108.92%
Mg 279.077 IEC†      1171223.1      482760 µg/L       2251.4      482760 ppb         2251.4   0.47%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.55%
Mn 257.610†           364434.0      478.33 µg/L        0.433      478.33 ppb          0.433   0.09%
   QC value within limits for Mn 257.610  Recovery = 95.67%
Mo 202.031†            14748.3      482.09 µg/L        1.569      482.09 ppb          1.569   0.33%
   QC value within limits for Mo 202.031  Recovery = 96.42%
Na 589.592 Radial†     34818.5      5322.6 µg/L         7.14      5322.6 ppb           7.14   0.13%
   QC value within limits for Na 589.592 Radial  Recovery = 106.45%
Ni 231.604†            35219.8      450.50 µg/L        4.221      450.50 ppb          4.221   0.94%
   QC value within limits for Ni 231.604  Recovery = 90.10%
P 214.914†             10458.2      2483.8 µg/L        35.79      2483.8 ppb          35.79   1.44%
   QC value within limits for P 214.914  Recovery = 99.35%
Pb 220.353†             7118.7      458.68 µg/L        6.431      458.68 ppb          6.431   1.40%
   QC value within limits for Pb 220.353  Recovery = 91.74%
S 181.975 Axial†        3194.7      2592.2 µg/L        37.32      2592.2 ppb          37.32   1.44%
   QC value within limits for S 181.975 Axial  Recovery = 103.69%
Sb 206.836†             3760.7      502.41 µg/L        3.120      502.41 ppb          3.120   0.62%
   QC value within limits for Sb 206.836  Recovery = 100.48%
Se 196.026†             5793.5        2360 µg/L         46.2        2360 ppb           46.2   1.96%
   QC value within limits for Se 196.026  Recovery = 94.33%
SiO2†                 100725.6       10989 µg/L         18.1       10989 ppb           18.1   0.16%
   QC value within limits for SiO2  Recovery = 102.75%
Si 251.611†           310935.6      5131.9 µg/L         6.54      5131.9 ppb           6.54   0.13%
   QC value within limits for Si 251.611  Recovery = 102.64%
Sn 189.927†             6671.5      476.07 µg/L        4.919      476.07 ppb          4.919   1.03%
   QC value within limits for Sn 189.927  Recovery = 95.21%
Sr 421.552†           222829.9      518.44 µg/L        1.498      518.44 ppb          1.498   0.29%
   QC value within limits for Sr 421.552  Recovery = 103.69%
Ti 334.940†           518871.3      502.07 µg/L        1.741      502.07 ppb          1.741   0.35%
   QC value within limits for Ti 334.940  Recovery = 100.41%
Tl 190.801†             3276.0      448.07 µg/L        4.004      448.07 ppb          4.004   0.89%
   QC value within limits for Tl 190.801  Recovery = 89.61%
U 409.014†              8382.2      529.27 µg/L        0.763      529.27 ppb          0.763   0.14%
   QC value within limits for U 409.014  Recovery = 105.85%
V 292.402†             97416.4      516.82 µg/L        0.558      516.82 ppb          0.558   0.11%
   QC value within limits for V 292.402  Recovery = 103.36%
Zn 213.857†            79910.9      483.76 µg/L        0.156      483.76 ppb          0.156   0.03%
   QC value within limits for Zn 213.857  Recovery = 96.75%
All analyte(s) passed QC.
```

Sequence No.: 11
Sample ID: LR1
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 3/29/2010 18:46:42
Data Type: Reprocessed on 3/29/2010 19:14:40

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	1475217.1	1475217.1	88.190	%			18:47:41
1	Sc RADIAL	134988.0	134988.0	92.6	%			18:47:14
1	Y 371.029	890652.0	890652.0	87.098	%			18:47:41
1	Ag 328.068†	2600.2	-18.7	4.2300	µg/L	4.2300	ppb	18:47:41
1	Al 396.153Radial†	2173247.9	2346612.0	512240	µg/L	512240	ppb	18:47:12
1	As 188.979†	-221.7	-237.2	2.3463	µg/L	2.3463	ppb	18:47:43
1	B 249.677†	3640.1	771.9	12.918	µg/L	12.918	ppb	18:47:41
1	Ba 233.527†	451.6	687.2	-2.6252	µg/L	-2.6252	ppb	18:47:43
1	Be 313.107†	-13095.3	-14188.9	-0.0322	µg/L	-0.0322	ppb	18:47:41
1	Ca 317.933Radial†	7559025.2	8161296.1	478220	µg/L	478220	ppb	18:47:12
1	Cd 226.502†	5610.9	6456.7	-2.9745	µg/L	-2.9745	ppb	18:47:43
1	Co 228.616†	613.3	872.0	-11.650	µg/L	-11.650	ppb	18:47:43
1	Cr 267.716†	908.0	869.3	5.4318	µg/L	5.4318	ppb	18:47:43
1	Cu 324.752†	-17506.0	-22275.2	-5.5587	µg/L	-5.5587	ppb	18:47:43
1	Fe 238.204 Radial†	6300456.2	6802850.0	452280	µg/L	452280	ppb	18:47:12
1	K 766.490 Radial†	1898.7	595.1	-78.007	µg/L	-78.007	ppb	18:47:14
1	Mg 279.077 IEC†	1069506.5	1154620.7	475670	µg/L	475670	ppb	18:47:12
1	Mn 257.610†	14951.4	16873.6	2.9939	µg/L	2.9939	ppb	18:47:41
1	Mo 202.031†	-853.5	-912.6	-2.2055	µg/L	-2.2055	ppb	18:47:41
1	Na 589.592 Radial†	3064907.6	3307661.5	506110	µg/L	506110	ppb	18:47:12
1	Ni 231.604†	241.8	315.0	4.0298	µg/L	4.0298	ppb	18:47:43
1	P 214.914†	851.2	885.7	19.361	µg/L	19.361	ppb	18:47:43
1	Pb 220.353†	111.2	13.7	6.6643	µg/L	6.6643	ppb	18:47:43
1	S 181.975 Axial†	199.5	131.4	106.18	µg/L	106.18	ppb	18:47:43
1	Sb 206.836†	173.5	110.1	5.3162	µg/L	5.3162	ppb	18:47:43
1	Se 196.026†	-269.6	-316.6	46.3	µg/L	46.3	ppb	18:47:43
1	SiO2†	1875.2	553.5	61.247	µg/L	61.247	ppb	18:47:43
1	Si 251.611†	-2234.1	-3209.7	-52.717	µg/L	-52.717	ppb	18:47:43
1	Sn 189.927†	58.5	64.3	4.6670	µg/L	4.6670	ppb	18:47:43
1	Sr 421.552†	4787.3	5447.1	9.0235	µg/L	9.0235	ppb	18:47:14
1	Ti 334.940†	25472.1	28246.9	-3.7159	µg/L	-3.7159	ppb	18:47:41
1	Tl 190.801†	-294.1	-213.1	-27.836	µg/L	-27.836	ppb	18:47:43
1	U 409.014†	216123.9	245545.7	15094	µg/L	15094	ppb	18:47:41
1	V 292.402†	10776.3	11787.7	3.3989	µg/L	3.3989	ppb	18:47:43
1	Zn 213.857†	7832.8	8417.4	9.2023	µg/L	9.2023	ppb	18:47:43
2	Sc 361.383	1474797.5	1474797.5	88.165	%			18:47:46
2	Sc RADIAL	136487.8	136487.8	93.6	%			18:47:19
2	Y 371.029	890090.9	890090.9	87.044	%			18:47:46
2	Ag 328.068†	2591.0	-28.2	4.2336	µg/L	4.2336	ppb	18:47:46
2	Al 396.153Radial†	2181204.6	2329323.3	508460	µg/L	508460	ppb	18:47:17
2	As 188.979†	-251.7	-271.3	-12.460	µg/L	-12.460	ppb	18:47:48
2	B 249.677†	3729.3	874.2	14.628	µg/L	14.628	ppb	18:47:46
2	Ba 233.527†	527.6	773.5	-2.2009	µg/L	-2.2009	ppb	18:47:48
2	Be 313.107†	-13474.2	-14622.9	-0.1807	µg/L	-0.1807	ppb	18:47:46
2	Ca 317.933Radial†	7600178.4	8115555.5	475540	µg/L	475540	ppb	18:47:17
2	Cd 226.502†	5683.2	6540.6	-2.1393	µg/L	-2.1393	ppb	18:47:48
2	Co 228.616†	752.5	1030.1	-9.3590	µg/L	-9.3590	ppb	18:47:48
2	Cr 267.716†	724.6	661.7	3.6080	µg/L	3.6080	ppb	18:47:48
2	Cu 324.752†	-17459.2	-22227.9	-5.7811	µg/L	-5.7811	ppb	18:47:48
2	Fe 238.204 Radial†	6336284.1	6766355.5	449850	µg/L	449850	ppb	18:47:17
2	K 766.490 Radial†	1981.3	660.8	-49.077	µg/L	-49.077	ppb	18:47:19
2	Mg 279.077 IEC†	1076643.1	1149552.1	473590	µg/L	473590	ppb	18:47:17
2	Mn 257.610†	15045.5	16985.2	3.2356	µg/L	3.2356	ppb	18:47:46
2	Mo 202.031†	-881.3	-944.4	-3.3453	µg/L	-3.3453	ppb	18:47:46
2	Na 589.592 Radial†	3084400.4	3292112.6	503740	µg/L	503740	ppb	18:47:17
2	Ni 231.604†	341.9	428.7	5.4833	µg/L	5.4833	ppb	18:47:48
2	P 214.914†	888.6	928.3	30.390	µg/L	30.390	ppb	18:47:48
2	Pb 220.353†	63.3	-40.6	3.2317	µg/L	3.2317	ppb	18:47:48

2	S 181.975 Axial†	169.7	97.6	78.843 µg/L	78.843 ppb	18:47:48
2	Sb 206.836†	95.2	21.4	-6.5888 µg/L	-6.5888 ppb	18:47:48
2	Se 196.026†	-403.3	-468.4	-14.6 µg/L	-14.6 ppb	18:47:48
2	SiO2†	1816.0	486.9	54.020 µg/L	54.020 ppb	18:47:48
2	Si 251.611†	-2084.7	-3041.0	-49.906 µg/L	-49.906 ppb	18:47:48
2	Sn 189.927†	43.9	47.8	3.4920 µg/L	3.4920 ppb	18:47:48
2	Sr 421.552†	4824.6	5430.1	9.0047 µg/L	9.0047 ppb	18:47:19
2	Ti 334.940†	25083.7	27814.6	-4.0459 µg/L	-4.0459 ppb	18:47:46
2	Tl 190.801†	-241.3	-153.4	-19.840 µg/L	-19.840 ppb	18:47:48
2	U 409.014†	215721.0	245158.5	15071 µg/L	15071 ppb	18:47:46
2	V 292.402†	10612.7	11605.5	2.7405 µg/L	2.7405 ppb	18:47:48
2	Zn 213.857†	7898.7	8494.6	9.8973 µg/L	9.8973 ppb	18:47:48
3	Sc 361.383	1482973.9	1482973.9	88.654 %		18:47:51
3	Sc RADIAL	135581.7	135581.7	93.0 %		18:47:23
3	Y 371.029	894893.3	894893.3	87.513 %		18:47:51
3	Ag 328.068†	2907.1	312.1	5.3159 µg/L	5.3159 ppb	18:47:51
3	Al 396.153Radial†	2198157.6	2363115.2	515840 µg/L	515840 ppb	18:47:21
3	As 188.979†	-166.7	-173.8	30.035 µg/L	30.035 ppb	18:47:53
3	B 249.677†	3819.0	952.0	15.940 µg/L	15.940 ppb	18:47:51
3	Ba 233.527†	467.2	702.0	-2.6283 µg/L	-2.6283 ppb	18:47:53
3	Be 313.107†	-13583.2	-14661.6	-0.1997 µg/L	-0.1997 ppb	18:47:51
3	Ca 317.933Radial†	7679845.3	8255440.6	483730 µg/L	483730 ppb	18:47:21
3	Cd 226.502†	5523.3	6324.6	-4.4547 µg/L	-4.4547 ppb	18:47:53
3	Co 228.616†	665.1	926.8	-11.181 µg/L	-11.181 ppb	18:47:53
3	Cr 267.716†	895.3	849.6	5.3942 µg/L	5.3942 ppb	18:47:53
3	Cu 324.752†	-17409.5	-22062.6	-3.6839 µg/L	-3.6839 ppb	18:47:53
3	Fe 238.204 Radial†	6403813.8	6884172.5	457680 µg/L	457680 ppb	18:47:21
3	K 766.490 Radial†	2077.2	778.0	-6.1386 µg/L	-6.1386 ppb	18:47:23
3	Mg 279.077 IEC†	1090892.1	1172554.0	483060 µg/L	483060 ppb	18:47:21
3	Mn 257.610†	15096.7	16948.9	2.7894 µg/L	2.7894 ppb	18:47:51
3	Mo 202.031†	-879.5	-936.8	-2.6225 µg/L	-2.6225 ppb	18:47:51
3	Na 589.592 Radial†	3116499.7	3348632.9	512380 µg/L	512380 ppb	18:47:21
3	Ni 231.604†	249.4	322.2	4.1219 µg/L	4.1219 ppb	18:47:53
3	P 214.914†	734.4	748.9	-16.245 µg/L	-16.245 ppb	18:47:53
3	Pb 220.353†	-96.4	-221.1	-7.4793 µg/L	-7.4793 ppb	18:47:53
3	S 181.975 Axial†	169.9	96.8	78.205 µg/L	78.205 ppb	18:47:53
3	Sb 206.836†	73.9	-3.3	-10.074 µg/L	-10.074 ppb	18:47:53
3	Se 196.026†	-324.5	-376.9	24.3 µg/L	24.3 ppb	18:47:53
3	SiO2†	1980.5	661.1	72.973 µg/L	72.973 ppb	18:47:53
3	Si 251.611†	-1826.1	-2736.2	-44.905 µg/L	-44.905 ppb	18:47:53
3	Sn 189.927†	110.7	122.9	8.8298 µg/L	8.8298 ppb	18:47:53
3	Sr 421.552†	4811.0	5449.9	8.9869 µg/L	8.9869 ppb	18:47:23
3	Ti 334.940†	25226.4	27818.7	-4.5924 µg/L	-4.5924 ppb	18:47:51
3	Tl 190.801†	-184.7	-88.0	-11.070 µg/L	-11.070 ppb	18:47:53
3	U 409.014†	216613.9	244816.6	15048 µg/L	15048 ppb	18:47:51
3	V 292.402†	10498.6	11410.5	0.4086 µg/L	0.4086 ppb	18:47:53
3	Zn 213.857†	7725.4	8249.7	7.5805 µg/L	7.5805 ppb	18:47:53

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1477662.9	88.336	%	0.2752				0.31%
Sc RADIAL	135685.8	93.1	%	0.52				0.56%
Y 371.029	891878.7	87.218	%	0.2568				0.29%
Ag 328.068†	88.4	4.5932	µg/L	0.62588	4.5932	ppb	0.62588	13.63%
Al 396.153Radial†	2346350.2	512180	µg/L	3688.5	512180	ppb	3688.5	0.72%
QC value within limits for Al 396.153Radial Recovery = 102.44%								
As 188.979†	-227.4	6.6405	µg/L	21.57070	6.6405	ppb	21.57070	324.83%
B 249.677†	866.1	14.495	µg/L	1.5153	14.495	ppb	1.5153	10.45%
Ba 233.527†	720.9	-2.4848	µg/L	0.24586	-2.4848	ppb	0.24586	9.89%
Be 313.107†	-14491.1	-0.1375	µg/L	0.09171	-0.1375	ppb	0.09171	66.68%
Ca 317.933Radial†	8177430.7	479160	µg/L	4179.3	479160	ppb	4179.3	0.87%
QC value within limits for Ca 317.933Radial Recovery = 95.83%								
Cd 226.502†	6440.6	-3.1895	µg/L	1.17255	-3.1895	ppb	1.17255	36.76%
Co 228.616†	943.0	-10.730	µg/L	1.2103	-10.730	ppb	1.2103	11.28%
Cr 267.716†	793.5	4.8113	µg/L	1.04230	4.8113	ppb	1.04230	21.66%
Cu 324.752†	-22188.5	-5.0079	µg/L	1.15199	-5.0079	ppb	1.15199	23.00%
Fe 238.204 Radial†	6817792.7	453270	µg/L	4009.8	453270	ppb	4009.8	0.88%
QC value within limits for Fe 238.204 Radial Recovery = 90.65%								
K 766.490 Radial†	678.0	-44.408	µg/L	36.1609	-44.408	ppb	36.1609	81.43%

Mg 279.077 IEC†	1158908.9	477440	µg/L	4979.6	477440	ppb	4979.6	1.04%
QC value within limits for Mg 279.077 IEC Recovery = 95.49%								
Mn 257.610†	16935.9	3.0063	µg/L	0.22334	3.0063	ppb	0.22334	7.43%
Mo 202.031†	-931.3	-2.7244	µg/L	0.57668	-2.7244	ppb	0.57668	21.17%
Na 589.592 Radial†	3316135.7	507410	µg/L	4467.6	507410	ppb	4467.6	0.88%
QC value within limits for Na 589.592 Radial Recovery = 101.48%								
Ni 231.604†	355.3	4.5450	µg/L	0.81388	4.5450	ppb	0.81388	17.91%
P 214.914†	854.3	11.169	µg/L	24.3729	11.169	ppb	24.3729	218.22%
Pb 220.353†	-82.7	0.8056	µg/L	7.37729	0.8056	ppb	7.37729	915.80%
S 181.975 Axial†	108.6	87.742	µg/L	15.9697	87.742	ppb	15.9697	18.20%
Sb 206.836†	42.7	-3.7822	µg/L	8.06989	-3.7822	ppb	8.06989	213.36%
Se 196.026†	-387.3	18.7	µg/L	30.84	18.7	ppb	30.84	165.04%
SiO2†	567.2	62.747	µg/L	9.5648	62.747	ppb	9.5648	15.24%
Si 251.611†	-2995.6	-49.176	µg/L	3.9567	-49.176	ppb	3.9567	8.05%
Sn 189.927†	78.3	5.6629	µg/L	2.80476	5.6629	ppb	2.80476	49.53%
Sr 421.552†	5442.4	9.0050	µg/L	0.01831	9.0050	ppb	0.01831	0.20%
Ti 334.940†	27960.1	-4.1181	µg/L	0.44268	-4.1181	ppb	0.44268	10.75%
Tl 190.801†	-151.5	-19.582	µg/L	8.3859	-19.582	ppb	8.3859	42.82%
U 409.014†	245173.6	15071	µg/L	23.1	15071	ppb	23.1	0.15%
QC value within limits for U 409.014 Recovery = 100.47%								
V 292.402†	11601.2	2.1827	µg/L	1.57124	2.1827	ppb	1.57124	71.99%
Zn 213.857†	8387.2	8.8934	µg/L	1.18890	8.8934	ppb	1.18890	13.37%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 3/29/2010 18:48:01
Data Type: Reprocessed on 3/29/2010 19:14:40

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	1698380.4	1698380.4	101.53	%			18:49:13
1	Sc RADIAL	151205.1	151205.1	104	%			18:48:34
1	Y 371.029	1017103.0	1017103.0	99.464	%			18:49:13
1	Ag 328.068†	-18686.1	-21371.4	31.131	µg/L	31.131	ppb	18:49:15
1	Al 396.153Radial†	2338.4	2286.0	66.356	µg/L	66.356	ppb	18:48:36
1	As 188.979†	24060.3	23711.8	10160	µg/L	10160	ppb	18:49:15
1	B 249.677†	302290.6	294377.4	4910.3	µg/L	4910.3	ppb	18:49:13
1	Ba 233.527†	3091920.0	3045479.3	13922	µg/L	13922	ppb	18:49:13
1	Be 313.107†	8967503.4	8832963.6	2875.2	µg/L	2875.2	ppb	18:49:09
1	Ca 317.933Radial†	1386.8	720.6	42.226	µg/L	42.226	ppb	18:48:36
1	Cd 226.502†	1391850.4	1370960.3	9471.5	µg/L	9471.5	ppb	18:49:13
1	Co 228.616†	680530.5	670447.0	9197.3	µg/L	9197.3	ppb	18:49:13
1	Cr 267.716†	2796482.2	2754160.4	23659	µg/L	23659	ppb	18:49:13
1	Cu 324.752†	4652514.4	4579945.2	19914	µg/L	19914	ppb	18:49:13
1	Fe 238.204 Radial†	-1093.2	-1167.1	-77.594	µg/L	-77.594	ppb	18:48:36
1	K 766.490 Radial†	735082.9	707128.4	291110	µg/L	291110	ppb	18:48:34
1	Mg 279.077 IEC†	-573.2	-739.2	-76.817	µg/L	-76.817	ppb	18:48:36
1	Mn 257.610†	6850554.7	6747191.3	9219.6	µg/L	9219.6	ppb	18:49:13
1	Mo 202.031†	299568.0	295106.7	9318.7	µg/L	9318.7	ppb	18:49:15
1	Na 589.592 Radial†	4106.1	2263.3	87.417	µg/L	87.417	ppb	18:48:36
1	Ni 231.604†	759020.4	747617.8	9562.9	µg/L	9562.9	ppb	18:49:13
1	P 214.914†	61793.1	60781.8	14324	µg/L	14324	ppb	18:49:15
1	Pb 220.353†	385088.4	379170.1	22997	µg/L	22997	ppb	18:49:13
1	S 181.975 Axial†	62300.3	61266.2	49715	µg/L	49715	ppb	18:49:15
1	Sb 206.836†	72365.8	71188.1	9412.3	µg/L	9412.3	ppb	18:49:15
1	Se 196.026†	23983.3	23610.8	9340	µg/L	9340	ppb	18:49:15
1	SiO2†	927224.5	911672.2	99243	µg/L	99243	ppb	18:49:13
1	Si 251.611†	2845330.8	2801756.4	46140	µg/L	46140	ppb	18:49:13
1	Sn 189.927†	135952.5	133900.7	9552.3	µg/L	9552.3	ppb	18:49:15
1	Sr 421.552†	4291141.6	4136725.5	9695.4	µg/L	9695.4	ppb	18:48:32
1	Ti 334.940†	9795412.6	9647094.3	9829.2	µg/L	9829.2	ppb	18:49:09
1	Tl 190.801†	68839.1	67921.6	9266.8	µg/L	9266.8	ppb	18:49:15
1	U 409.014†	-6352.9	-5778.0	247.84	µg/L	247.84	ppb	18:49:15
1	V 292.402†	1822287.8	1794382.0	10142	µg/L	10142	ppb	18:49:13
1	Zn 213.857†	2271454.5	2236744.1	14006	µg/L	14006	ppb	18:49:13
2	Sc 361.383	1692355.1	1692355.1	101.17	%			18:49:22
2	Sc RADIAL	148148.5	148148.5	102	%			18:48:40
2	Y 371.029	1013670.4	1013670.4	99.129	%			18:49:22
2	Ag 328.068†	-18902.0	-21650.3	30.241	µg/L	30.241	ppb	18:49:25
2	Al 396.153Radial†	2166.1	2162.9	32.480	µg/L	32.480	ppb	18:48:43
2	As 188.979†	24382.8	24114.9	10329	µg/L	10329	ppb	18:49:25
2	B 249.677†	301947.2	295098.0	4922.4	µg/L	4922.4	ppb	18:49:22
2	Ba 233.527†	3087006.8	3051465.1	13949	µg/L	13949	ppb	18:49:22
2	Be 313.107†	8888938.4	8786753.2	2860.1	µg/L	2860.1	ppb	18:49:19
2	Ca 317.933Radial†	1193.0	557.5	32.668	µg/L	32.668	ppb	18:48:43
2	Cd 226.502†	1387271.1	1371314.7	9474.0	µg/L	9474.0	ppb	18:49:22
2	Co 228.616†	679503.2	671817.9	9216.1	µg/L	9216.1	ppb	18:49:22
2	Cr 267.716†	2791317.7	2758861.8	23700	µg/L	23700	ppb	18:49:22
2	Cu 324.752†	4645173.2	4589003.5	19954	µg/L	19954	ppb	18:49:22
2	Fe 238.204 Radial†	-1141.0	-1235.9	-82.165	µg/L	-82.165	ppb	18:48:43
2	K 766.490 Radial†	723724.6	710573.4	292530	µg/L	292530	ppb	18:48:40
2	Mg 279.077 IEC†	-594.9	-771.9	-86.616	µg/L	-86.616	ppb	18:48:43
2	Mn 257.610†	6838819.1	6759613.7	9236.6	µg/L	9236.6	ppb	18:49:22
2	Mo 202.031†	303352.5	299897.9	9470.0	µg/L	9470.0	ppb	18:49:25
2	Na 589.592 Radial†	3886.9	2129.3	65.648	µg/L	65.648	ppb	18:48:43
2	Ni 231.604†	757365.3	748643.5	9576.0	µg/L	9576.0	ppb	18:49:22
2	P 214.914†	62941.1	62133.3	14647	µg/L	14647	ppb	18:49:25
2	Pb 220.353†	383628.9	379077.8	22992	µg/L	22992	ppb	18:49:22

2	S 181.975 Axial†	63093.2	62268.3	50529 µg/L	50529 ppb	18:49:25
2	Sb 206.836†	73391.6	72455.9	9585.2 µg/L	9585.2 ppb	18:49:25
2	Se 196.026†	24264.9	23973.2	9480 µg/L	9480 ppb	18:49:25
2	SiO2†	925612.2	913330.0	99418 µg/L	99418 ppb	18:49:22
2	Si 251.611†	2841383.2	2807831.9	46237 µg/L	46237 ppb	18:49:22
2	Sn 189.927†	137626.2	136031.8	9703.7 µg/L	9703.7 ppb	18:49:25
2	Sr 421.552†	4251704.3	4183270.4	9804.5 µg/L	9804.5 ppb	18:48:38
2	Ti 334.940†	9732958.3	9619711.2	9801.3 µg/L	9801.3 ppb	18:49:19
2	Tl 190.801†	69796.1	69108.9	9426.0 µg/L	9426.0 ppb	18:49:25
2	U 409.014†	-6518.6	-5964.1	237.63 µg/L	237.63 ppb	18:49:25
2	V 292.402†	1819682.2	1798196.6	10165 µg/L	10165 ppb	18:49:22
2	Zn 213.857†	2265596.7	2238919.2	14019 µg/L	14019 ppb	18:49:22
3	Sc 361.383	1700875.8	1700875.8	101.68 %		18:49:32
3	Sc RADIAL	149241.8	149241.8	102 %		18:48:47
3	Y 371.029	1018743.4	1018743.4	99.625 %		18:49:32
3	Ag 328.068†	-19043.0	-21695.4	29.614 µg/L	29.614 ppb	18:49:34
3	Al 396.153Radial†	2183.6	2164.5	34.118 µg/L	34.118 ppb	18:48:49
3	As 188.979†	24384.9	23996.2	10278 µg/L	10278 ppb	18:49:34
3	B 249.677†	302272.0	293922.3	4902.7 µg/L	4902.7 ppb	18:49:32
3	Ba 233.527†	3092416.4	3041499.6	13904 µg/L	13904 ppb	18:49:32
3	Be 313.107†	8907241.5	8760739.0	2851.7 µg/L	2851.7 ppb	18:49:28
3	Ca 317.933Radial†	1218.9	574.2	33.647 µg/L	33.647 ppb	18:48:49
3	Cd 226.502†	1391102.2	1368213.3	9452.5 µg/L	9452.5 ppb	18:49:32
3	Co 228.616†	681435.9	670354.0	9196.0 µg/L	9196.0 ppb	18:49:32
3	Cr 267.716†	2794875.2	2748538.9	23611 µg/L	23611 ppb	18:49:32
3	Cu 324.752†	4650199.8	4570945.8	19875 µg/L	19875 ppb	18:49:32
3	Fe 238.204 Radial†	-1251.6	-1335.7	-88.800 µg/L	-88.800 ppb	18:48:49
3	K 766.490 Radial†	729684.2	711177.7	292780 µg/L	292780 ppb	18:48:47
3	Mg 279.077 IEC†	-664.5	-835.6	-113.55 µg/L	-113.55 ppb	18:48:49
3	Mn 257.610†	6850008.1	6736754.4	9205.4 µg/L	9205.4 ppb	18:49:32
3	Mo 202.031†	303976.8	299009.8	9441.9 µg/L	9441.9 ppb	18:49:34
3	Na 589.592 Radial†	3504.7	1728.1	4.0327 µg/L	4.0327 ppb	18:48:49
3	Ni 231.604†	758972.5	746473.9	9548.3 µg/L	9548.3 ppb	18:49:32
3	P 214.914†	62994.4	61874.1	14586 µg/L	14586 ppb	18:49:34
3	Pb 220.353†	384992.3	378519.2	22958 µg/L	22958 ppb	18:49:32
3	S 181.975 Axial†	63225.2	62085.8	50381 µg/L	50381 ppb	18:49:34
3	Sb 206.836†	73461.5	72161.1	9546.2 µg/L	9546.2 ppb	18:49:34
3	Se 196.026†	24345.1	23931.9	9470 µg/L	9470 ppb	18:49:34
3	SiO2†	927967.0	911062.6	99172 µg/L	99172 ppb	18:49:32
3	Si 251.611†	2848954.5	2801208.6	46128 µg/L	46128 ppb	18:49:32
3	Sn 189.927†	137708.4	135431.2	9660.9 µg/L	9660.9 ppb	18:49:34
3	Sr 421.552†	4283363.5	4183546.2	9805.1 µg/L	9805.1 ppb	18:48:45
3	Ti 334.940†	9739101.8	9577559.1	9758.3 µg/L	9758.3 ppb	18:49:28
3	Tl 190.801†	69743.1	68711.1	9371.9 µg/L	9371.9 ppb	18:49:34
3	U 409.014†	-6372.0	-5787.7	246.22 µg/L	246.22 ppb	18:49:34
3	V 292.402†	1821804.8	1791273.7	10126 µg/L	10126 ppb	18:49:32
3	Zn 213.857†	2271404.4	2233412.6	13985 µg/L	13985 ppb	18:49:32

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1697203.7	101.46	%	0.262				0.26%
Sc RADIAL	149531.8	103	%	1.1				1.04%
Y 371.029	1016505.6	99.406	%	0.2532				0.25%
Ag 328.068†	-21572.4	30.328	µg/L	0.7622	30.328	ppb	0.7622	2.51%
Al 396.153Radial†	2204.5	44.318	µg/L	19.1029	44.318	ppb	19.1029	43.10%
As 188.979†	23941.0	10256	µg/L	86.9	10256	ppb	86.9	0.85%
QC value within limits for As 188.979 Recovery = 102.56%								
B 249.677†	294465.9	4911.8	µg/L	9.92	4911.8	ppb	9.92	0.20%
QC value within limits for B 249.677 Recovery = 98.24%								
Ba 233.527†	3046148.0	13925	µg/L	22.9	13925	ppb	22.9	0.16%
QC value within limits for Ba 233.527 Recovery = 92.83%								
Be 313.107†	8793485.2	2862.3	µg/L	11.91	2862.3	ppb	11.91	0.42%
QC value within limits for Be 313.107 Recovery = 95.41%								
Ca 317.933Radial†	617.5	36.181	µg/L	5.2587	36.181	ppb	5.2587	14.53%
Cd 226.502†	1370162.8	9466.0	µg/L	11.73	9466.0	ppb	11.73	0.12%
QC value within limits for Cd 226.502 Recovery = 94.66%								
Co 228.616†	670873.0	9203.1	µg/L	11.25	9203.1	ppb	11.25	0.12%
QC value within limits for Co 228.616 Recovery = 92.03%								
Cr 267.716†	2753853.7	23657	µg/L	44.4	23657	ppb	44.4	0.19%

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   QC value within limits for Cr 267.716  Recovery = 94.63%
Cu 324.752†          4579964.8       19914 µg/L          39.3       19914 ppb          39.3   0.20%
   QC value within limits for Cu 324.752  Recovery = 99.57%
Fe 238.204 Radial†     -1246.2     -82.853 µg/L        5.6347     -82.853 ppb        5.6347   6.80%
K 766.490 Radial†     709626.5      292140 µg/L         899.3      292140 ppb         899.3   0.31%
   QC value within limits for K 766.490 Radial  Recovery = 97.38%
Mg 279.077 IEC†         -782.2     -92.329 µg/L       19.0229     -92.329 ppb       19.0229  20.60%
Mn 257.610†          6747853.1      9220.5 µg/L         15.64      9220.5 ppb         15.64   0.17%
   QC value within limits for Mn 257.610  Recovery = 92.21%
Mo 202.031†           298004.8      9410.2 µg/L         80.46      9410.2 ppb         80.46   0.86%
   QC value within limits for Mo 202.031  Recovery = 94.10%
Na 589.592 Radial†      2040.3      52.366 µg/L       43.2497      52.366 ppb       43.2497  82.59%
Ni 231.604†           747578.4      9562.4 µg/L         13.88      9562.4 ppb         13.88   0.15%
   QC value within limits for Ni 231.604  Recovery = 95.62%
P 214.914†             61596.4       14519 µg/L         171.5       14519 ppb         171.5   1.18%
   QC value within limits for P 214.914  Recovery = 96.79%
Pb 220.353†           378922.4       22983 µg/L          21.3       22983 ppb          21.3   0.09%
   QC value within limits for Pb 220.353  Recovery = 91.93%
S 181.975 Axial†       61873.4       50208 µg/L         433.1       50208 ppb         433.1   0.86%
   QC value within limits for S 181.975 Axial  Recovery = 100.42%
Sb 206.836†            71935.0      9514.6 µg/L         90.66      9514.6 ppb         90.66   0.95%
   QC value within limits for Sb 206.836  Recovery = 95.15%
Se 196.026†            23838.7        9430 µg/L          78.5        9430 ppb          78.5   0.83%
   QC value within limits for Se 196.026  Recovery = 94.29%
SiO2†                 912021.6       99278 µg/L         126.7       99278 ppb         126.7   0.13%
   QC value within limits for SiO2  Recovery = 92.78%
Si 251.611†          2803599.0       46168 µg/L          59.8       46168 ppb          59.8   0.13%
   QC value within limits for Si 251.611  Recovery = 92.34%
Sn 189.927†           135121.2      9639.0 µg/L         78.05      9639.0 ppb         78.05   0.81%
   QC value within limits for Sn 189.927  Recovery = 96.39%
Sr 421.552†          4167847.3      9768.3 µg/L         63.17      9768.3 ppb         63.17   0.65%
   QC value within limits for Sr 421.552  Recovery = 97.68%
Ti 334.940†          9614788.2      9796.3 µg/L         35.71      9796.3 ppb         35.71   0.36%
   QC value within limits for Ti 334.940  Recovery = 97.96%
Tl 190.801†            68580.5      9354.9 µg/L         80.95      9354.9 ppb         80.95   0.87%
   QC value within limits for Tl 190.801  Recovery = 93.55%
U 409.014†             -5843.2      243.90 µg/L         5.490      243.90 ppb         5.490   2.25%
V 292.402†           1794617.4       10145 µg/L          19.6       10145 ppb          19.6   0.19%
   QC value within limits for V 292.402  Recovery = 101.45%
Zn 213.857†          2236358.7       14003 µg/L          17.3       14003 ppb          17.3   0.12%
   QC value within limits for Zn 213.857  Recovery = 93.36%
All analyte(s) passed QC.
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Sequence No.: 13
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/29/2010 18:49:43
Data Type: Reprocessed on 3/29/2010 19:14:41

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	1716469.7	1716469.7	102.61	%			18:50:43
1	Sc RADIAL	154139.7	154139.7	106	%			18:50:16
1	Y 371.029	1044074.8	1044074.8	102.10	%			18:50:43
1	Ag 328.068†	127602.5	121387.1	498.79	µg/L	498.79	ppb	18:50:43
1	Al 396.153Radial†	24715.7	23403.0	5085.7	µg/L	5085.7	ppb	18:50:16
1	As 188.979†	1226.4	1209.4	512.57	µg/L	512.57	ppb	18:51:03
1	B 249.677†	33333.5	29129.3	487.34	µg/L	487.34	ppb	18:50:43
1	Ba 233.527†	111436.2	108774.4	497.32	µg/L	497.32	ppb	18:50:43
1	Be 313.107†	1573483.9	1534088.7	499.51	µg/L	499.51	ppb	18:50:43
1	Ca 317.933Radial†	90206.4	84682.8	4962.0	µg/L	4962.0	ppb	18:50:16
1	Cd 226.502†	72401.2	70652.6	487.60	µg/L	487.60	ppb	18:50:43
1	Co 228.616†	36477.3	35725.3	489.45	µg/L	489.45	ppb	18:50:43
1	Cr 267.716†	59006.8	57344.5	492.41	µg/L	492.41	ppb	18:50:43
1	Cu 324.752†	119200.3	113741.0	495.97	µg/L	495.97	ppb	18:50:43
1	Fe 238.204 Radial†	78399.3	74021.0	4921.2	µg/L	4921.2	ppb	18:50:16
1	K 766.490 Radial†	15543.8	13243.2	5447.9	µg/L	5447.9	ppb	18:50:16
1	Mg 279.077 IEC†	13152.3	12250.1	5058.7	µg/L	5058.7	ppb	18:50:16
1	Mn 257.610†	370669.7	361153.8	493.28	µg/L	493.28	ppb	18:50:43
1	Mo 202.031†	15969.2	15617.9	493.45	µg/L	493.45	ppb	18:51:03
1	Na 589.592 Radial†	70596.7	65061.3	9950.4	µg/L	9950.4	ppb	18:50:16
1	Ni 231.604†	39349.5	38388.8	491.04	µg/L	491.04	ppb	18:50:43
1	P 214.914†	10515.6	10168.3	2426.7	µg/L	2426.7	ppb	18:51:03
1	Pb 220.353†	8561.1	8230.7	500.15	µg/L	500.15	ppb	18:51:03
1	S 181.975 Axial†	1372.2	1242.5	1010.8	µg/L	1010.8	ppb	18:51:03
1	Sb 206.836†	3825.6	3641.6	492.37	µg/L	492.37	ppb	18:51:03
1	Se 196.026†	1275.8	1232.4	490	µg/L	490	ppb	18:51:03
1	SiO2†	51362.9	48482.5	5278.0	µg/L	5278.0	ppb	18:50:43
1	Si 251.611†	154098.4	149499.2	2462.1	µg/L	2462.1	ppb	18:50:43
1	Sn 189.927†	7147.3	6963.3	496.69	µg/L	496.69	ppb	18:51:03
1	Sr 421.552†	225096.8	213129.1	499.48	µg/L	499.48	ppb	18:50:14
1	Ti 334.940†	496998.7	483710.6	492.59	µg/L	492.59	ppb	18:50:43
1	Tl 190.801†	3658.8	3685.9	502.16	µg/L	502.16	ppb	18:51:03
1	U 409.014†	7304.5	7597.6	499.58	µg/L	499.58	ppb	18:50:43
1	V 292.402†	91666.3	88901.0	499.43	µg/L	499.43	ppb	18:50:43
1	Zn 213.857†	80718.2	78199.0	488.38	µg/L	488.38	ppb	18:50:43
2	Sc 361.383	1735506.8	1735506.8	103.75	%			18:51:06
2	Sc RADIAL	152000.4	152000.4	104	%			18:50:20
2	Y 371.029	1054226.6	1054226.6	103.09	%			18:51:06
2	Ag 328.068†	129107.7	121473.9	499.12	µg/L	499.12	ppb	18:51:06
2	Al 396.153Radial†	24426.5	23454.6	5097.3	µg/L	5097.3	ppb	18:50:20
2	As 188.979†	1211.7	1182.2	501.18	µg/L	501.18	ppb	18:51:26
2	B 249.677†	33876.9	29296.7	490.15	µg/L	490.15	ppb	18:51:06
2	Ba 233.527†	112976.1	109067.5	498.66	µg/L	498.66	ppb	18:51:06
2	Be 313.107†	1597015.9	1539949.6	501.42	µg/L	501.42	ppb	18:51:06
2	Ca 317.933Radial†	89516.0	85221.3	4993.6	µg/L	4993.6	ppb	18:50:20
2	Cd 226.502†	73594.6	71028.9	490.19	µg/L	490.19	ppb	18:51:06
2	Co 228.616†	37103.5	35939.0	492.37	µg/L	492.37	ppb	18:51:06
2	Cr 267.716†	59788.6	57467.2	493.47	µg/L	493.47	ppb	18:51:06
2	Cu 324.752†	121059.6	114258.9	498.22	µg/L	498.22	ppb	18:51:06
2	Fe 238.204 Radial†	77655.1	74350.7	4943.1	µg/L	4943.1	ppb	18:50:20
2	K 766.490 Radial†	15260.2	13178.1	5421.1	µg/L	5421.1	ppb	18:50:20
2	Mg 279.077 IEC†	13002.7	12281.7	5071.5	µg/L	5071.5	ppb	18:50:20
2	Mn 257.610†	375944.4	362275.4	494.81	µg/L	494.81	ppb	18:51:06
2	Mo 202.031†	15890.3	15371.2	485.66	µg/L	485.66	ppb	18:51:26
2	Na 589.592 Radial†	70215.3	65635.2	10038	µg/L	10038	ppb	18:50:20
2	Ni 231.604†	40047.6	38641.0	494.26	µg/L	494.26	ppb	18:51:06
2	P 214.914†	10471.7	10013.6	2389.6	µg/L	2389.6	ppb	18:51:26
2	Pb 220.353†	8484.3	8065.2	490.12	µg/L	490.12	ppb	18:51:26

2	S 181.975 Axial†	1365.8	1221.6	993.82 µg/L	993.82 ppb	18:51:26
2	Sb 206.836†	3834.3	3609.1	487.85 µg/L	487.85 ppb	18:51:26
2	Se 196.026†	1280.6	1223.4	486 µg/L	486 ppb	18:51:26
2	SiO2†	52085.9	48630.3	5294.5 µg/L	5294.5 ppb	18:51:06
2	Si 251.611†	156279.7	149954.3	2469.8 µg/L	2469.8 ppb	18:51:06
2	Sn 189.927†	7113.5	6854.4	488.96 µg/L	488.96 ppb	18:51:26
2	Sr 421.552†	226242.9	217223.8	509.08 µg/L	509.08 ppb	18:50:18
2	Ti 334.940†	504866.7	485981.2	494.91 µg/L	494.91 ppb	18:51:06
2	Tl 190.801†	3631.8	3620.9	493.44 µg/L	493.44 ppb	18:51:26
2	U 409.014†	7123.0	7344.6	483.95 µg/L	483.95 ppb	18:51:06
2	V 292.402†	92685.9	88903.8	499.36 µg/L	499.36 ppb	18:51:06
2	Zn 213.857†	81781.8	78361.2	489.37 µg/L	489.37 ppb	18:51:06
3	Sc 361.383	1735485.3	1735485.3	103.75 %		18:51:29
3	Sc RADIAL	153403.0	153403.0	105 %		18:50:24
3	Y 371.029	1055021.0	1055021.0	103.17 %		18:51:29
3	Ag 328.068†	128496.4	120886.2	496.73 µg/L	496.73 ppb	18:51:29
3	Al 396.153Radial†	24553.1	23360.7	5076.8 µg/L	5076.8 ppb	18:50:24
3	As 188.979†	1228.3	1198.2	507.85 µg/L	507.85 ppb	18:51:49
3	B 249.677†	33764.7	29188.9	488.34 µg/L	488.34 ppb	18:51:29
3	Ba 233.527†	112730.4	108832.0	497.58 µg/L	497.58 ppb	18:51:29
3	Be 313.107†	1593609.1	1536684.9	500.35 µg/L	500.35 ppb	18:51:29
3	Ca 317.933Radial†	90597.1	85463.7	5007.8 µg/L	5007.8 ppb	18:50:24
3	Cd 226.502†	73406.3	70848.2	488.94 µg/L	488.94 ppb	18:51:29
3	Co 228.616†	37011.7	35850.9	491.16 µg/L	491.16 ppb	18:51:29
3	Cr 267.716†	59666.8	57350.6	492.47 µg/L	492.47 ppb	18:51:29
3	Cu 324.752†	120307.7	113535.5	495.08 µg/L	495.08 ppb	18:51:29
3	Fe 238.204 Radial†	78518.4	74490.1	4952.4 µg/L	4952.4 ppb	18:50:24
3	K 766.490 Radial†	15451.9	13226.5	5441.0 µg/L	5441.0 ppb	18:50:24
3	Mg 279.077 IEC†	13189.3	12345.0	5097.6 µg/L	5097.6 ppb	18:50:24
3	Mn 257.610†	374488.1	360876.2	492.90 µg/L	492.90 ppb	18:51:29
3	Mo 202.031†	15929.3	15408.9	486.85 µg/L	486.85 ppb	18:51:49
3	Na 589.592 Radial†	70596.2	65381.5	9999.4 µg/L	9999.4 ppb	18:50:24
3	Ni 231.604†	39740.3	38345.2	490.48 µg/L	490.48 ppb	18:51:29
3	P 214.914†	10488.7	10030.1	2393.6 µg/L	2393.6 ppb	18:51:49
3	Pb 220.353†	8512.5	8092.5	491.77 µg/L	491.77 ppb	18:51:49
3	S 181.975 Axial†	1342.5	1199.2	975.68 µg/L	975.68 ppb	18:51:49
3	Sb 206.836†	3856.9	3630.9	490.82 µg/L	490.82 ppb	18:51:49
3	Se 196.026†	1283.1	1225.8	487 µg/L	487 ppb	18:51:49
3	SiO2†	51906.7	48458.3	5275.6 µg/L	5275.6 ppb	18:51:29
3	Si 251.611†	155757.0	149452.4	2461.5 µg/L	2461.5 ppb	18:51:29
3	Sn 189.927†	7131.5	6871.8	490.19 µg/L	490.19 ppb	18:51:49
3	Sr 421.552†	223596.8	212726.1	498.53 µg/L	498.53 ppb	18:50:22
3	Ti 334.940†	502794.3	483989.7	492.88 µg/L	492.88 ppb	18:51:29
3	Tl 190.801†	3635.4	3624.3	493.87 µg/L	493.87 ppb	18:51:49
3	U 409.014†	7197.3	7416.4	488.32 µg/L	488.32 ppb	18:51:29
3	V 292.402†	92498.4	88724.2	498.37 µg/L	498.37 ppb	18:51:29
3	Zn 213.857†	81445.8	78038.4	487.36 µg/L	487.36 ppb	18:51:29

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1729154.0	103.37	%	0.657				0.64%
Sc RADIAL	153181.0	105	%	0.7				0.71%
Y 371.029	1051107.5	102.79	%	0.597				0.58%
Ag 328.068†	121249.1	498.21	µg/L	1.295	498.21	ppb	1.295	0.26%
QC value within limits for Ag 328.068 Recovery = 99.64%								
Al 396.153Radial†	23406.1	5086.6	µg/L	10.30	5086.6	ppb	10.30	0.20%
QC value within limits for Al 396.153Radial Recovery = 101.73%								
As 188.979†	1196.6	507.20	µg/L	5.724	507.20	ppb	5.724	1.13%
QC value within limits for As 188.979 Recovery = 101.44%								
B 249.677†	29205.0	488.61	µg/L	1.419	488.61	ppb	1.419	0.29%
QC value within limits for B 249.677 Recovery = 97.72%								
Ba 233.527†	108891.3	497.85	µg/L	0.708	497.85	ppb	0.708	0.14%
QC value within limits for Ba 233.527 Recovery = 99.57%								
Be 313.107†	1536907.7	500.43	µg/L	0.954	500.43	ppb	0.954	0.19%
QC value within limits for Be 313.107 Recovery = 100.09%								
Ca 317.933Radial†	85122.6	4987.8	µg/L	23.42	4987.8	ppb	23.42	0.47%
QC value within limits for Ca 317.933Radial Recovery = 99.76%								
Cd 226.502†	70843.2	488.91	µg/L	1.299	488.91	ppb	1.299	0.27%
QC value within limits for Cd 226.502 Recovery = 97.78%								

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Co 228.616†            35838.4      490.99 µg/L        1.470      490.99 ppb          1.470   0.30%
   QC value within limits for Co 228.616  Recovery = 98.20%
Cr 267.716†            57387.4      492.78 µg/L        0.599      492.78 ppb          0.599   0.12%
   QC value within limits for Cr 267.716  Recovery = 98.56%
Cu 324.752†           113845.1      496.42 µg/L        1.617      496.42 ppb          1.617   0.33%
   QC value within limits for Cu 324.752  Recovery = 99.28%
Fe 238.204 Radial†     74287.3      4938.9 µg/L       16.02      4938.9 ppb         16.02   0.32%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.78%
K 766.490 Radial†      13215.9      5436.6 µg/L       13.92      5436.6 ppb         13.92   0.26%
   QC value within limits for K 766.490 Radial  Recovery = 108.73%
Mg 279.077 IEC†        12292.3      5076.0 µg/L       19.85      5076.0 ppb         19.85   0.39%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.52%
Mn 257.610†           361435.1      493.67 µg/L        1.013      493.67 ppb          1.013   0.21%
   QC value within limits for Mn 257.610  Recovery = 98.73%
Mo 202.031†            15466.0      488.65 µg/L        4.194      488.65 ppb          4.194   0.86%
   QC value within limits for Mo 202.031  Recovery = 97.73%
Na 589.592 Radial†     65359.4      9996.0 µg/L       44.02      9996.0 ppb         44.02   0.44%
   QC value within limits for Na 589.592 Radial  Recovery = 99.96%
Ni 231.604†            38458.3      491.93 µg/L        2.043      491.93 ppb          2.043   0.42%
   QC value within limits for Ni 231.604  Recovery = 98.39%
P 214.914†             10070.7      2403.3 µg/L       20.35      2403.3 ppb         20.35   0.85%
   QC value within limits for P 214.914  Recovery = 96.13%
Pb 220.353†             8129.5      494.02 µg/L        5.379      494.02 ppb          5.379   1.09%
   QC value within limits for Pb 220.353  Recovery = 98.80%
S 181.975 Axial†        1221.1      993.43 µg/L       17.559      993.43 ppb         17.559   1.77%
   QC value within limits for S 181.975 Axial  Recovery = 99.34%
Sb 206.836†             3627.2      490.35 µg/L        2.300      490.35 ppb          2.300   0.47%
   QC value within limits for Sb 206.836  Recovery = 98.07%
Se 196.026†             1227.2         488 µg/L          1.8         488 ppb            1.8   0.38%
   QC value within limits for Se 196.026  Recovery = 97.52%
SiO2†                  48523.7      5282.7 µg/L       10.27      5282.7 ppb         10.27   0.19%
   QC value within limits for SiO2  Recovery = 98.79%
Si 251.611†           149635.3      2464.5 µg/L        4.63      2464.5 ppb          4.63   0.19%
   QC value within limits for Si 251.611  Recovery = 98.58%
Sn 189.927†             6896.5      491.95 µg/L        4.158      491.95 ppb          4.158   0.85%
   QC value within limits for Sn 189.927  Recovery = 98.39%
Sr 421.552†           214359.7      502.36 µg/L        5.833      502.36 ppb          5.833   1.16%
   QC value within limits for Sr 421.552  Recovery = 100.47%
Ti 334.940†           484560.5      493.46 µg/L        1.265      493.46 ppb          1.265   0.26%
   QC value within limits for Ti 334.940  Recovery = 98.69%
Tl 190.801†             3643.7      496.49 µg/L        4.915      496.49 ppb          4.915   0.99%
   QC value within limits for Tl 190.801  Recovery = 99.30%
U 409.014†              7452.9      490.62 µg/L        8.063      490.62 ppb          8.063   1.64%
   QC value within limits for U 409.014  Recovery = 98.12%
V 292.402†             88843.0      499.05 µg/L        0.592      499.05 ppb          0.592   0.12%
   QC value within limits for V 292.402  Recovery = 99.81%
Zn 213.857†            78199.5      488.37 µg/L        1.004      488.37 ppb          1.004   0.21%
   QC value within limits for Zn 213.857  Recovery = 97.67%
All analyte(s) passed QC.
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Sequence No.: 14
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/29/2010 18:51:58
Data Type: Reprocessed on 3/29/2010 19:14:42
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	1728897.1	1728897.1	103.36	%			18:53:35
1	Sc RADIAL	154974.9	154974.9	106	%			18:52:27
1	Y 371.029	1063835.8	1063835.8	104.03	%			18:53:35
1	Ag 328.068†	3134.9	66.1	0.2939	µg/L	0.2939	ppb	18:53:37
1	Al 396.153Radial†	-26.1	7.3	1.5617	µg/L	1.5617	ppb	18:52:47
1	As 188.979†	-6.1	8.3	3.4794	µg/L	3.4794	ppb	18:53:57
1	B 249.677†	3279.3	-182.9	-3.0715	µg/L	-3.0715	ppb	18:53:57
1	Ba 233.527†	-172.5	8.1	0.0372	µg/L	0.0372	ppb	18:53:57
1	Be 313.107†	-265.8	402.9	0.1379	µg/L	0.1379	ppb	18:53:37
1	Ca 317.933Radial†	701.7	43.7	2.5615	µg/L	2.5615	ppb	18:52:47
1	Cd 226.502†	-78.0	18.9	0.1302	µg/L	0.1302	ppb	18:53:57
1	Co 228.616†	-150.4	31.1	0.4253	µg/L	0.4253	ppb	18:53:57
1	Cr 267.716†	165.7	0.1	-0.0163	µg/L	-0.0163	ppb	18:53:57
1	Cu 324.752†	2708.5	195.7	0.8692	µg/L	0.8692	ppb	18:53:37
1	Fe 238.204 Radial†	162.5	39.6	2.6306	µg/L	2.6306	ppb	18:52:47
1	K 766.490 Radial†	1937.4	367.1	151.11	µg/L	151.11	ppb	18:52:27
1	Mg 279.077 IEC†	162.4	-33.9	-13.972	µg/L	-13.972	ppb	18:52:47
1	Mn 257.610†	174.4	88.7	0.1218	µg/L	0.1218	ppb	18:53:57
1	Mo 202.031†	-30.8	25.4	0.8010	µg/L	0.8010	ppb	18:53:57
1	Na 589.592 Radial†	2342.1	508.0	77.603	µg/L	77.603	ppb	18:52:27
1	Ni 231.604†	-58.4	-15.6	-0.1996	µg/L	-0.1996	ppb	18:53:57
1	P 214.914†	71.2	-10.7	-2.5700	µg/L	-2.5700	ppb	18:53:57
1	Pb 220.353†	154.2	36.7	2.2095	µg/L	2.2095	ppb	18:53:57
1	S 181.975 Axial†	101.6	3.4	2.7893	µg/L	2.7893	ppb	18:53:57
1	Sb 206.836†	90.3	0.8	0.1164	µg/L	0.1164	ppb	18:53:57
1	Se 196.026†	18.0	6.5	2.59	µg/L	2.59	ppb	18:53:57
1	SiO2†	1694.9	67.0	7.2702	µg/L	7.2702	ppb	18:53:57
1	Si 251.611†	856.4	152.3	2.4932	µg/L	2.4932	ppb	18:53:57
1	Sn 189.927†	32.2	29.2	2.0730	µg/L	2.0730	ppb	18:53:57
1	Sr 421.552†	-130.0	155.7	0.3650	µg/L	0.3650	ppb	18:52:27
1	Ti 334.940†	561.4	-93.1	-0.1029	µg/L	-0.1029	ppb	18:53:37
1	Tl 190.801†	-112.5	11.5	1.5393	µg/L	1.5393	ppb	18:53:57
1	U 409.014†	-122.5	360.6	22.274	µg/L	22.274	ppb	18:53:37
1	V 292.402†	422.0	-23.5	-0.1074	µg/L	-0.1074	ppb	18:53:37
1	Zn 213.857†	665.5	179.5	1.1304	µg/L	1.1304	ppb	18:53:57
2	Sc 361.383	1739415.6	1739415.6	103.98	%			18:53:59
2	Sc RADIAL	153949.0	153949.0	106	%			18:52:49
2	Y 371.029	1070599.7	1070599.7	104.70	%			18:53:59
2	Ag 328.068†	3011.7	-70.7	-0.2648	µg/L	-0.2648	ppb	18:54:01
2	Al 396.153Radial†	-22.1	11.0	2.3766	µg/L	2.3766	ppb	18:53:09
2	As 188.979†	-13.6	1.2	0.4948	µg/L	0.4948	ppb	18:54:21
2	B 249.677†	3226.1	-253.2	-4.2510	µg/L	-4.2510	ppb	18:54:21
2	Ba 233.527†	-183.8	-1.7	-0.0082	µg/L	-0.0082	ppb	18:54:21
2	Be 313.107†	-497.9	181.3	0.0661	µg/L	0.0661	ppb	18:54:01
2	Ca 317.933Radial†	683.5	30.9	1.8113	µg/L	1.8113	ppb	18:53:09
2	Cd 226.502†	-81.2	16.3	0.1120	µg/L	0.1120	ppb	18:54:21
2	Co 228.616†	-169.3	13.8	0.1886	µg/L	0.1886	ppb	18:54:21
2	Cr 267.716†	203.3	35.3	0.2845	µg/L	0.2845	ppb	18:54:21
2	Cu 324.752†	2932.9	395.7	1.7397	µg/L	1.7397	ppb	18:54:01
2	Fe 238.204 Radial†	156.9	35.2	2.3419	µg/L	2.3419	ppb	18:53:09
2	K 766.490 Radial†	1851.5	297.9	122.64	µg/L	122.64	ppb	18:52:49
2	Mg 279.077 IEC†	181.3	-15.0	-6.1810	µg/L	-6.1810	ppb	18:53:09
2	Mn 257.610†	185.1	98.0	0.1342	µg/L	0.1342	ppb	18:54:21
2	Mo 202.031†	-40.6	16.1	0.5093	µg/L	0.5093	ppb	18:54:21
2	Na 589.592 Radial†	2203.5	391.5	59.792	µg/L	59.792	ppb	18:52:49
2	Ni 231.604†	-87.1	-42.9	-0.5483	µg/L	-0.5483	ppb	18:54:21
2	P 214.914†	70.7	-11.6	-2.7920	µg/L	-2.7920	ppb	18:54:21
2	Pb 220.353†	120.5	3.4	0.1904	µg/L	0.1904	ppb	18:54:21

2	S 181.975 Axial†	93.2	-5.2	-4.2193 µg/L	-4.2193 ppb		18:54:21
2	Sb 206.836†	93.2	3.0	0.4017 µg/L	0.4017 ppb		18:54:21
2	Se 196.026†	16.5	5.0	1.99 µg/L	1.99 ppb		18:54:21
2	SiO2†	1661.9	25.3	2.7424 µg/L	2.7424 ppb		18:54:21
2	Si 251.611†	798.6	91.6	1.5029 µg/L	1.5029 ppb		18:54:21
2	Sn 189.927†	13.9	11.4	0.8082 µg/L	0.8082 ppb		18:54:21
2	Sr 421.552†	-162.3	124.3	0.2914 µg/L	0.2914 ppb		18:52:49
2	Ti 334.940†	589.0	-69.9	-0.0804 µg/L	-0.0804 ppb		18:54:01
2	Tl 190.801†	-123.3	1.7	0.2267 µg/L	0.2267 ppb		18:54:21
2	U 409.014†	-105.6	377.6	23.300 µg/L	23.300 ppb		18:54:01
2	V 292.402†	344.7	-100.3	-0.5347 µg/L	-0.5347 ppb		18:54:01
2	Zn 213.857†	642.6	153.6	0.9689 µg/L	0.9689 ppb		18:54:21
3	Sc 361.383	1736015.7	1736015.7	103.78 %			18:54:23
3	Sc RADIAL	153754.9	153754.9	105 %			18:53:11
3	Y 371.029	1068282.8	1068282.8	104.47 %			18:54:23
3	Ag 328.068†	2964.9	-110.2	-0.4509 µg/L	-0.4509 ppb		18:54:26
3	Al 396.153Radial†	-16.1	16.6	3.5986 µg/L	3.5986 ppb		18:53:31
3	As 188.979†	-20.3	-5.3	-2.2272 µg/L	-2.2272 ppb		18:54:46
3	B 249.677†	3208.4	-264.2	-4.4364 µg/L	-4.4364 ppb		18:54:46
3	Ba 233.527†	-175.6	5.8	0.0262 µg/L	0.0262 ppb		18:54:46
3	Be 313.107†	-146.9	518.6	0.1704 µg/L	0.1704 ppb		18:54:26
3	Ca 317.933Radial†	709.7	56.6	3.3147 µg/L	3.3147 ppb		18:53:31
3	Cd 226.502†	-66.7	30.1	0.2078 µg/L	0.2078 ppb		18:54:46
3	Co 228.616†	-149.7	32.3	0.4424 µg/L	0.4424 ppb		18:54:46
3	Cr 267.716†	183.5	16.6	0.1380 µg/L	0.1380 ppb		18:54:46
3	Cu 324.752†	2785.8	259.4	1.1323 µg/L	1.1323 ppb		18:54:26
3	Fe 238.204 Radial†	167.4	45.4	3.0195 µg/L	3.0195 ppb		18:53:31
3	K 766.490 Radial†	2004.9	445.6	183.43 µg/L	183.43 ppb		18:53:11
3	Mg 279.077 IEC†	164.0	-31.2	-12.871 µg/L	-12.871 ppb		18:53:31
3	Mn 257.610†	141.8	56.6	0.0779 µg/L	0.0779 ppb		18:54:46
3	Mo 202.031†	-43.5	13.3	0.4189 µg/L	0.4189 ppb		18:54:46
3	Na 589.592 Radial†	2025.0	224.9	34.251 µg/L	34.251 ppb		18:53:11
3	Ni 231.604†	-54.8	-11.9	-0.1527 µg/L	-0.1527 ppb		18:54:46
3	P 214.914†	63.8	-18.1	-4.3341 µg/L	-4.3341 ppb		18:54:46
3	Pb 220.353†	149.8	31.9	1.9285 µg/L	1.9285 ppb		18:54:46
3	S 181.975 Axial†	104.0	5.4	4.3655 µg/L	4.3655 ppb		18:54:46
3	Sb 206.836†	91.0	1.1	0.1457 µg/L	0.1457 ppb		18:54:46
3	Se 196.026†	19.4	7.7	3.06 µg/L	3.06 ppb		18:54:46
3	SiO2†	1644.1	11.4	1.2195 µg/L	1.2195 ppb		18:54:46
3	Si 251.611†	797.5	92.1	1.5112 µg/L	1.5112 ppb		18:54:46
3	Sn 189.927†	13.8	11.3	0.8038 µg/L	0.8038 ppb		18:54:46
3	Sr 421.552†	-194.0	94.1	0.2206 µg/L	0.2206 ppb		18:53:11
3	Ti 334.940†	849.4	182.1	0.1846 µg/L	0.1846 ppb		18:54:26
3	Tl 190.801†	-118.6	6.0	0.7978 µg/L	0.7978 ppb		18:54:46
3	U 409.014†	-409.0	85.0	5.2024 µg/L	5.2024 ppb		18:54:26
3	V 292.402†	290.0	-152.4	-0.8373 µg/L	-0.8373 ppb		18:54:26
3	Zn 213.857†	615.7	128.9	0.8114 µg/L	0.8114 ppb		18:54:46

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1734776.2	103.71	%	0.321				0.31%
Sc RADIAL	154226.3	106	%	0.4				0.43%
Y 371.029	1067572.8	104.40	%	0.336				0.32%
Ag 328.068†	-38.3	-0.1406	µg/L	0.38763	-0.1406	ppb	0.38763	275.71%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	11.6	2.5123	µg/L	1.02521	2.5123	ppb	1.02521	40.81%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.4	0.5823	µg/L	2.85430	0.5823	ppb	2.85430	490.14%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-233.4	-3.9196	µg/L	0.74029	-3.9196	ppb	0.74029	18.89%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.1	0.0184	µg/L	0.02367	0.0184	ppb	0.02367	128.49%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	367.6	0.1248	µg/L	0.05339	0.1248	ppb	0.05339	42.78%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	43.7	2.5625	µg/L	0.75170	2.5625	ppb	0.75170	29.33%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	21.8	0.1500	µg/L	0.05085	0.1500	ppb	0.05085	33.90%
QC value within limits for Cd 226.502 Recovery = Not calculated								

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Co 228.616†                25.7      0.3521 µg/L       0.14188      0.3521 ppb        0.14188  40.30%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                17.3      0.1354 µg/L       0.15041      0.1354 ppb        0.15041 111.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               283.6      1.2471 µg/L       0.44643      1.2471 ppb        0.44643  35.80%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         40.1      2.6640 µg/L       0.34002      2.6640 ppb        0.34002  12.76%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         370.2      152.39 µg/L        30.414      152.39 ppb         30.414  19.96%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -26.7     -11.008 µg/L        4.2166     -11.008 ppb         4.2166  38.30%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                81.1      0.1113 µg/L       0.02959      0.1113 ppb        0.02959  26.59%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                18.3      0.5764 µg/L       0.19971      0.5764 ppb        0.19971  34.65%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        374.8      57.216 µg/L       21.7906      57.216 ppb        21.7906  38.09%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -23.5     -0.3002 µg/L       0.21614     -0.3002 ppb        0.21614  72.00%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -13.5     -3.2320 µg/L       0.96088     -3.2320 ppb        0.96088  29.73%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                24.0      1.4428 µg/L       1.09369      1.4428 ppb        1.09369  75.80%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.2      0.9785 µg/L       4.56987      0.9785 ppb        4.56987 467.04%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.6      0.2213 µg/L       0.15695      0.2213 ppb        0.15695  70.93%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 6.4        2.55 µg/L         0.537        2.55 ppb          0.537  21.07%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      34.6      3.7440 µg/L       3.14725      3.7440 ppb        3.14725  84.06%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               112.0      1.8358 µg/L       0.56935      1.8358 ppb        0.56935  31.01%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                17.3      1.2284 µg/L       0.73152      1.2284 ppb        0.73152  59.55%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               124.7      0.2923 µg/L       0.07221      0.2923 ppb        0.07221  24.70%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 6.3      0.0004 µg/L       0.15987      0.0004 ppb        0.15987 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 6.4      0.8546 µg/L       0.65815      0.8546 ppb        0.65815  77.01%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                274.4      16.925 µg/L       10.1653      16.925 ppb        10.1653  60.06%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -92.1     -0.4931 µg/L       0.36672     -0.4931 ppb        0.36672  74.37%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               154.0      0.9702 µg/L       0.15951      0.9702 ppb        0.15951  16.44%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 15
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/29/2010 18:57:39
Data Type: Reprocessed on 3/29/2010 19:14:43

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	1742170.7	1742170.7	104.15	%			18:58:39
1	Sc RADIAL	154515.3	154515.3	106	%			18:58:11
1	Y 371.029	1059060.1	1059060.1	103.57	%			18:58:39
1	Ag 328.068†	129322.6	121204.2	498.05	µg/L	498.05	ppb	18:58:39
1	Al 396.153Radial†	24823.0	23447.4	5095.8	µg/L	5095.8	ppb	18:58:11
1	As 188.979†	1217.4	1183.1	501.56	µg/L	501.56	ppb	18:58:59
1	B 249.677†	33548.3	28856.2	482.76	µg/L	482.76	ppb	18:58:39
1	Ba 233.527†	113126.0	108794.9	497.41	µg/L	497.41	ppb	18:58:39
1	Be 313.107†	1604803.7	1541539.3	501.94	µg/L	501.94	ppb	18:58:39
1	Ca 317.933Radial†	90245.5	84512.4	4952.1	µg/L	4952.1	ppb	18:58:11
1	Cd 226.502†	73575.0	70738.7	488.19	µg/L	488.19	ppb	18:58:39
1	Co 228.616†	37114.9	35813.1	490.65	µg/L	490.65	ppb	18:58:39
1	Cr 267.716†	59986.2	57436.6	493.20	µg/L	493.20	ppb	18:58:39
1	Cu 324.752†	120959.5	113716.5	495.86	µg/L	495.86	ppb	18:58:39
1	Fe 238.204 Radial†	78194.0	73647.1	4896.3	µg/L	4896.3	ppb	18:58:11
1	K 766.490 Radial†	14176.6	11917.8	4902.2	µg/L	4902.2	ppb	18:58:11
1	Mg 279.077 IEC†	13187.4	12253.0	5059.7	µg/L	5059.7	ppb	18:58:11
1	Mn 257.610†	376145.4	361082.3	493.18	µg/L	493.18	ppb	18:58:39
1	Mo 202.031†	15919.4	15340.5	484.69	µg/L	484.69	ppb	18:58:59
1	Na 589.592 Radial†	70146.9	64474.8	9861.1	µg/L	9861.1	ppb	18:58:11
1	Ni 231.604†	39988.6	38436.6	491.65	µg/L	491.65	ppb	18:58:39
1	P 214.914†	10512.2	10013.9	2389.7	µg/L	2389.7	ppb	18:58:59
1	Pb 220.353†	8436.4	7988.0	485.43	µg/L	485.43	ppb	18:58:59
1	S 181.975 Axial†	1318.2	1170.9	952.74	µg/L	952.74	ppb	18:58:59
1	Sb 206.836†	3856.6	3616.3	488.81	µg/L	488.81	ppb	18:58:59
1	Se 196.026†	1269.9	1208.4	480	µg/L	480	ppb	18:58:59
1	SiO2†	51891.1	48251.3	5253.1	µg/L	5253.1	ppb	18:58:39
1	Si 251.611†	155814.4	148931.5	2452.9	µg/L	2452.9	ppb	18:58:39
1	Sn 189.927†	7088.8	6804.4	485.40	µg/L	485.40	ppb	18:58:59
1	Sr 421.552†	226055.0	213515.6	500.39	µg/L	500.39	ppb	18:58:09
1	Ti 334.940†	505203.6	484443.4	493.34	µg/L	493.34	ppb	18:58:39
1	Tl 190.801†	3627.2	3603.0	491.03	µg/L	491.03	ppb	18:58:59
1	U 409.014†	7391.3	7576.0	498.27	µg/L	498.27	ppb	18:58:39
1	V 292.402†	93133.5	88991.9	499.85	µg/L	499.85	ppb	18:58:39
1	Zn 213.857†	81243.9	77543.3	484.25	µg/L	484.25	ppb	18:58:39
2	Sc 361.383	1731918.8	1731918.8	103.54	%			18:59:02
2	Sc RADIAL	153334.6	153334.6	105	%			18:58:15
2	Y 371.029	1053099.9	1053099.9	102.98	%			18:59:02
2	Ag 328.068†	128679.2	121317.8	498.52	µg/L	498.52	ppb	18:59:02
2	Al 396.153Radial†	24533.3	23352.3	5074.9	µg/L	5074.9	ppb	18:58:15
2	As 188.979†	1225.6	1198.0	507.75	µg/L	507.75	ppb	18:59:22
2	B 249.677†	33340.5	28846.3	482.59	µg/L	482.59	ppb	18:59:02
2	Ba 233.527†	112441.8	108777.0	497.33	µg/L	497.33	ppb	18:59:02
2	Be 313.107†	1592364.8	1538646.2	501.00	µg/L	501.00	ppb	18:59:02
2	Ca 317.933Radial†	89792.3	84737.0	4965.2	µg/L	4965.2	ppb	18:58:15
2	Cd 226.502†	73051.4	70651.1	487.59	µg/L	487.59	ppb	18:59:02
2	Co 228.616†	36781.7	35702.2	489.13	µg/L	489.13	ppb	18:59:02
2	Cr 267.716†	59502.2	57310.0	492.11	µg/L	492.11	ppb	18:59:02
2	Cu 324.752†	119947.4	113426.4	494.60	µg/L	494.60	ppb	18:59:02
2	Fe 238.204 Radial†	77968.6	74000.8	4919.8	µg/L	4919.8	ppb	18:58:15
2	K 766.490 Radial†	14058.0	11908.0	4898.2	µg/L	4898.2	ppb	18:58:15
2	Mg 279.077 IEC†	13036.1	12205.0	5039.9	µg/L	5039.9	ppb	18:58:15
2	Mn 257.610†	373427.3	360594.9	492.52	µg/L	492.52	ppb	18:59:02
2	Mo 202.031†	15910.1	15421.9	487.26	µg/L	487.26	ppb	18:59:22
2	Na 589.592 Radial†	69792.3	64647.2	9887.5	µg/L	9887.5	ppb	18:58:15
2	Ni 231.604†	39642.4	38329.5	490.28	µg/L	490.28	ppb	18:59:02
2	P 214.914†	10490.2	10052.4	2398.9	µg/L	2398.9	ppb	18:59:22
2	Pb 220.353†	8461.2	8059.8	489.79	µg/L	489.79	ppb	18:59:22

2	S 181.975 Axial†	1332.4	1192.1	969.89 µg/L	969.89 ppb	18:59:22
2	Sb 206.836†	3845.4	3627.4	490.36 µg/L	490.36 ppb	18:59:22
2	Se 196.026†	1281.0	1226.3	487 µg/L	487 ppb	18:59:22
2	SiO2†	51762.5	48422.0	5271.6 µg/L	5271.6 ppb	18:59:02
2	Si 251.611†	154651.7	148694.0	2448.9 µg/L	2448.9 ppb	18:59:02
2	Sn 189.927†	7107.0	6862.3	489.51 µg/L	489.51 ppb	18:59:22
2	Sr 421.552†	226773.0	215840.0	505.83 µg/L	505.83 ppb	18:58:13
2	Ti 334.940†	500715.6	482980.0	491.85 µg/L	491.85 ppb	18:59:02
2	Tl 190.801†	3643.2	3639.1	495.88 µg/L	495.88 ppb	18:59:22
2	U 409.014†	7329.7	7558.5	497.20 µg/L	497.20 ppb	18:59:02
2	V 292.402†	92631.5	89036.3	500.12 µg/L	500.12 ppb	18:59:02
2	Zn 213.857†	80666.5	77447.4	483.65 µg/L	483.65 ppb	18:59:02
3	Sc 361.383	1731636.7	1731636.7	103.52 %		18:59:25
3	Sc RADIAL	154205.4	154205.4	106 %		18:58:20
3	Y 371.029	1052626.8	1052626.8	102.94 %		18:59:25
3	Ag 328.068†	128532.9	121196.7	498.02 µg/L	498.02 ppb	18:59:25
3	Al 396.153Radial†	24950.8	23615.3	5132.4 µg/L	5132.4 ppb	18:58:20
3	As 188.979†	1233.7	1206.0	511.11 µg/L	511.11 ppb	18:59:45
3	B 249.677†	33475.9	28982.3	484.88 µg/L	484.88 ppb	18:59:25
3	Ba 233.527†	112293.7	108651.6	496.76 µg/L	496.76 ppb	18:59:25
3	Be 313.107†	1590952.1	1537532.1	500.63 µg/L	500.63 ppb	18:59:25
3	Ca 317.933Radial†	90838.5	85244.0	4994.9 µg/L	4994.9 ppb	18:58:20
3	Cd 226.502†	73036.3	70648.1	487.56 µg/L	487.56 ppb	18:59:25
3	Co 228.616†	36829.8	35754.4	489.84 µg/L	489.84 ppb	18:59:25
3	Cr 267.716†	59440.0	57259.2	491.68 µg/L	491.68 ppb	18:59:25
3	Cu 324.752†	119916.0	113414.9	494.56 µg/L	494.56 ppb	18:59:25
3	Fe 238.204 Radial†	78885.0	74448.4	4949.6 µg/L	4949.6 ppb	18:58:20
3	K 766.490 Radial†	14076.3	11849.9	4874.3 µg/L	4874.3 ppb	18:58:20
3	Mg 279.077 IEC†	13322.3	12405.5	5122.6 µg/L	5122.6 ppb	18:58:20
3	Mn 257.610†	373424.5	360651.0	492.59 µg/L	492.59 ppb	18:59:25
3	Mo 202.031†	15880.4	15395.8	486.44 µg/L	486.44 ppb	18:59:45
3	Na 589.592 Radial†	70305.8	64758.0	9904.5 µg/L	9904.5 ppb	18:58:20
3	Ni 231.604†	39803.4	38491.3	492.35 µg/L	492.35 ppb	18:59:25
3	P 214.914†	10482.3	10046.4	2397.5 µg/L	2397.5 ppb	18:59:45
3	Pb 220.353†	8408.9	8010.6	486.81 µg/L	486.81 ppb	18:59:45
3	S 181.975 Axial†	1326.3	1186.4	965.31 µg/L	965.31 ppb	18:59:45
3	Sb 206.836†	3839.9	3622.7	489.73 µg/L	489.73 ppb	18:59:45
3	Se 196.026†	1268.7	1214.6	483 µg/L	483 ppb	18:59:45
3	SiO2†	51614.7	48287.3	5257.0 µg/L	5257.0 ppb	18:59:25
3	Si 251.611†	154566.1	148635.7	2448.0 µg/L	2448.0 ppb	18:59:25
3	Sn 189.927†	7092.3	6849.2	488.58 µg/L	488.58 ppb	18:59:45
3	Sr 421.552†	224060.1	212058.6	496.97 µg/L	496.97 ppb	18:58:17
3	Ti 334.940†	500694.3	483038.2	491.90 µg/L	491.90 ppb	18:59:25
3	Tl 190.801†	3646.3	3642.7	496.35 µg/L	496.35 ppb	18:59:45
3	U 409.014†	7327.6	7557.6	497.15 µg/L	497.15 ppb	18:59:25
3	V 292.402†	92621.5	89041.2	500.13 µg/L	500.13 ppb	18:59:25
3	Zn 213.857†	80736.0	77527.2	484.14 µg/L	484.14 ppb	18:59:25

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1735242.1	103.73	%	0.359				0.35%
Sc RADIAL	154018.4	106	%	0.4				0.40%
Y 371.029	1054928.9	103.16	%	0.351				0.34%
Ag 328.068†	121239.6	498.20	µg/L	0.276	498.20	ppb	0.276	0.06%
QC value within limits for Ag 328.068 Recovery = 99.64%								
Al 396.153Radial†	23471.7	5101.0	µg/L	29.08	5101.0	ppb	29.08	0.57%
QC value within limits for Al 396.153Radial Recovery = 102.02%								
As 188.979†	1195.7	506.81	µg/L	4.846	506.81	ppb	4.846	0.96%
QC value within limits for As 188.979 Recovery = 101.36%								
B 249.677†	28895.0	483.41	µg/L	1.273	483.41	ppb	1.273	0.26%
QC value within limits for B 249.677 Recovery = 96.68%								
Ba 233.527†	108741.2	497.17	µg/L	0.357	497.17	ppb	0.357	0.07%
QC value within limits for Ba 233.527 Recovery = 99.43%								
Be 313.107†	1539239.2	501.19	µg/L	0.673	501.19	ppb	0.673	0.13%
QC value within limits for Be 313.107 Recovery = 100.24%								
Ca 317.933Radial†	84831.1	4970.7	µg/L	21.96	4970.7	ppb	21.96	0.44%
QC value within limits for Ca 317.933Radial Recovery = 99.41%								
Cd 226.502†	70679.3	487.78	µg/L	0.358	487.78	ppb	0.358	0.07%
QC value within limits for Cd 226.502 Recovery = 97.56%								

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Co 228.616†            35756.6      489.87 µg/L        0.760      489.87 ppb          0.760   0.16%
   QC value within limits for Co 228.616  Recovery = 97.97%
Cr 267.716†            57335.3      492.33 µg/L        0.783      492.33 ppb          0.783   0.16%
   QC value within limits for Cr 267.716  Recovery = 98.47%
Cu 324.752†           113519.3      495.01 µg/L        0.740      495.01 ppb          0.740   0.15%
   QC value within limits for Cu 324.752  Recovery = 99.00%
Fe 238.204 Radial†     74032.1      4921.9 µg/L        26.70      4921.9 ppb          26.70   0.54%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.44%
K 766.490 Radial†      11891.9      4891.6 µg/L        15.12      4891.6 ppb          15.12   0.31%
   QC value within limits for K 766.490 Radial  Recovery = 97.83%
Mg 279.077 IEC†        12287.8      5074.1 µg/L        43.14      5074.1 ppb          43.14   0.85%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.48%
Mn 257.610†           360776.1      492.77 µg/L        0.365      492.77 ppb          0.365   0.07%
   QC value within limits for Mn 257.610  Recovery = 98.55%
Mo 202.031†            15386.1      486.13 µg/L        1.313      486.13 ppb          1.313   0.27%
   QC value within limits for Mo 202.031  Recovery = 97.23%
Na 589.592 Radial†     64626.7      9884.4 µg/L        21.84      9884.4 ppb          21.84   0.22%
   QC value within limits for Na 589.592 Radial  Recovery = 98.84%
Ni 231.604†            38419.1      491.43 µg/L        1.053      491.43 ppb          1.053   0.21%
   QC value within limits for Ni 231.604  Recovery = 98.29%
P 214.914†             10037.5      2395.4 µg/L         4.95      2395.4 ppb           4.95   0.21%
   QC value within limits for P 214.914  Recovery = 95.81%
Pb 220.353†             8019.5      487.34 µg/L        2.227      487.34 ppb          2.227   0.46%
   QC value within limits for Pb 220.353  Recovery = 97.47%
S 181.975 Axial†        1183.1      962.65 µg/L        8.881      962.65 ppb          8.881   0.92%
   QC value within limits for S 181.975 Axial  Recovery = 96.26%
Sb 206.836†             3622.2      489.63 µg/L        0.781      489.63 ppb          0.781   0.16%
   QC value within limits for Sb 206.836  Recovery = 97.93%
Se 196.026†             1216.4         483 µg/L          3.6         483 ppb            3.6   0.75%
   QC value within limits for Se 196.026  Recovery = 96.66%
SiO2†                  48320.2      5260.6 µg/L         9.78      5260.6 ppb           9.78   0.19%
   QC value within limits for SiO2  Recovery = 98.37%
Si 251.611†           148753.7      2449.9 µg/L         2.62      2449.9 ppb           2.62   0.11%
   QC value within limits for Si 251.611  Recovery = 98.00%
Sn 189.927†             6838.6      487.83 µg/L        2.157      487.83 ppb          2.157   0.44%
   QC value within limits for Sn 189.927  Recovery = 97.57%
Sr 421.552†           213804.8      501.06 µg/L        4.470      501.06 ppb          4.470   0.89%
   QC value within limits for Sr 421.552  Recovery = 100.21%
Ti 334.940†           483487.2      492.36 µg/L        0.845      492.36 ppb          0.845   0.17%
   QC value within limits for Ti 334.940  Recovery = 98.47%
Tl 190.801†             3628.3      494.42 µg/L        2.943      494.42 ppb          2.943   0.60%
   QC value within limits for Tl 190.801  Recovery = 98.88%
U 409.014†              7564.0      497.54 µg/L        0.636      497.54 ppb          0.636   0.13%
   QC value within limits for U 409.014  Recovery = 99.51%
V 292.402†             89023.2      500.03 µg/L        0.157      500.03 ppb          0.157   0.03%
   QC value within limits for V 292.402  Recovery = 100.01%
Zn 213.857†            77506.0      484.01 µg/L        0.318      484.01 ppb          0.318   0.07%
   QC value within limits for Zn 213.857  Recovery = 96.80%
All analyte(s) passed QC.
```

Sequence No.: 16
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/29/2010 18:59:54
Data Type: Reprocessed on 3/29/2010 19:14:44

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Units	Sample Conc.	Units	Analysis Time
1	Sc 361.383	1743930.9	1743930.9	104.25	%			19:01:45
1	Sc RADIAL	157207.9	157207.9	108	%			19:00:23
1	Y 371.029	1072817.8	1072817.8	104.91	%			19:01:45
1	Ag 328.068†	2785.5	-295.2	-1.1824	µg/L	-1.1824	ppb	19:01:47
1	Al 396.153Radial†	-35.9	-1.4	-0.3269	µg/L	-0.3269	ppb	19:00:43
1	As 188.979†	-9.7	4.9	2.0592	µg/L	2.0592	ppb	19:02:07
1	B 249.677†	3169.2	-315.8	-5.3028	µg/L	-5.3028	ppb	19:02:07
1	Ba 233.527†	-172.8	9.3	0.0423	µg/L	0.0423	ppb	19:02:07
1	Be 313.107†	-580.2	103.6	0.0392	µg/L	0.0392	ppb	19:01:47
1	Ca 317.933Radial†	703.1	35.6	2.0888	µg/L	2.0888	ppb	19:00:43
1	Cd 226.502†	-117.2	-18.0	-0.1248	µg/L	-0.1248	ppb	19:02:07
1	Co 228.616†	-175.0	8.7	0.1195	µg/L	0.1195	ppb	19:02:07
1	Cr 267.716†	174.7	7.4	0.0489	µg/L	0.0489	ppb	19:02:07
1	Cu 324.752†	2833.3	292.9	1.2883	µg/L	1.2883	ppb	19:01:47
1	Fe 238.204 Radial†	147.5	23.5	1.5605	µg/L	1.5605	ppb	19:00:43
1	K 766.490 Radial†	1652.9	77.5	31.907	µg/L	31.907	ppb	19:00:23
1	Mg 279.077 IEC†	179.9	-19.9	-8.1726	µg/L	-8.1726	ppb	19:00:43
1	Mn 257.610†	174.5	87.4	0.1197	µg/L	0.1197	ppb	19:02:07
1	Mo 202.031†	-38.4	18.4	0.5797	µg/L	0.5797	ppb	19:02:07
1	Na 589.592 Radial†	1931.7	96.3	14.699	µg/L	14.699	ppb	19:00:23
1	Ni 231.604†	-49.3	-6.4	-0.0822	µg/L	-0.0822	ppb	19:02:07
1	P 214.914†	78.3	-4.5	-1.0824	µg/L	-1.0824	ppb	19:02:07
1	Pb 220.353†	116.5	-0.7	-0.0551	µg/L	-0.0551	ppb	19:02:07
1	S 181.975 Axial†	92.5	-6.1	-4.9234	µg/L	-4.9234	ppb	19:02:07
1	Sb 206.836†	87.4	-2.8	-0.3729	µg/L	-0.3729	ppb	19:02:07
1	Se 196.026†	21.5	9.7	3.85	µg/L	3.85	ppb	19:02:07
1	SiO2†	1662.9	22.2	2.3983	µg/L	2.3983	ppb	19:02:07
1	Si 251.611†	781.9	73.6	1.2037	µg/L	1.2037	ppb	19:02:07
1	Sn 189.927†	15.0	12.4	0.8828	µg/L	0.8828	ppb	19:02:07
1	Sr 421.552†	-145.8	142.8	0.3347	µg/L	0.3347	ppb	19:00:23
1	Ti 334.940†	822.4	152.5	0.1487	µg/L	0.1487	ppb	19:01:47
1	Tl 190.801†	-112.5	12.4	1.6651	µg/L	1.6651	ppb	19:02:07
1	U 409.014†	-191.3	295.6	18.231	µg/L	18.231	ppb	19:01:47
1	V 292.402†	340.4	-105.3	-0.5658	µg/L	-0.5658	ppb	19:01:47
1	Zn 213.857†	528.4	42.4	0.2666	µg/L	0.2666	ppb	19:02:07
2	Sc 361.383	1749880.6	1749880.6	104.61	%			19:02:09
2	Sc RADIAL	154607.9	154607.9	106	%			19:00:45
2	Y 371.029	1075429.4	1075429.4	105.17	%			19:02:09
2	Ag 328.068†	2854.9	-238.0	-0.9266	µg/L	-0.9266	ppb	19:02:11
2	Al 396.153Radial†	-53.8	-18.9	-4.1894	µg/L	-4.1894	ppb	19:01:05
2	As 188.979†	-8.5	6.1	2.5641	µg/L	2.5641	ppb	19:02:31
2	B 249.677†	3184.7	-311.3	-5.2277	µg/L	-5.2277	ppb	19:02:31
2	Ba 233.527†	-166.1	16.2	0.0743	µg/L	0.0743	ppb	19:02:31
2	Be 313.107†	-429.5	249.5	0.0921	µg/L	0.0921	ppb	19:02:11
2	Ca 317.933Radial†	674.2	19.4	1.1395	µg/L	1.1395	ppb	19:01:05
2	Cd 226.502†	-92.3	6.1	0.0422	µg/L	0.0422	ppb	19:02:31
2	Co 228.616†	-147.4	35.7	0.4889	µg/L	0.4889	ppb	19:02:31
2	Cr 267.716†	146.6	-20.1	-0.2010	µg/L	-0.2010	ppb	19:02:31
2	Cu 324.752†	2740.1	194.5	0.8753	µg/L	0.8753	ppb	19:02:11
2	Fe 238.204 Radial†	152.9	30.9	2.0532	µg/L	2.0532	ppb	19:01:05
2	K 766.490 Radial†	1696.1	144.0	59.261	µg/L	59.261	ppb	19:00:45
2	Mg 279.077 IEC†	164.9	-31.2	-12.828	µg/L	-12.828	ppb	19:01:05
2	Mn 257.610†	159.3	72.2	0.0992	µg/L	0.0992	ppb	19:02:31
2	Mo 202.031†	-10.4	45.2	1.4272	µg/L	1.4272	ppb	19:02:31
2	Na 589.592 Radial†	1913.7	109.4	16.687	µg/L	16.687	ppb	19:00:45
2	Ni 231.604†	-34.9	7.5	0.0960	µg/L	0.0960	ppb	19:02:31
2	P 214.914†	88.9	5.5	1.2769	µg/L	1.2769	ppb	19:02:31
2	Pb 220.353†	116.9	-0.7	-0.0641	µg/L	-0.0641	ppb	19:02:31

2	S 181.975 Axial†	98.1	-1.0	-0.8273 µg/L	-0.8273 ppb	19:02:31
2	Sb 206.836†	79.8	-10.4	-1.3806 µg/L	-1.3806 ppb	19:02:31
2	Se 196.026†	23.1	11.2	4.46 µg/L	4.46 ppb	19:02:31
2	SiO2†	1662.3	16.2	1.7388 µg/L	1.7388 ppb	19:02:31
2	Si 251.611†	771.7	61.4	0.9975 µg/L	0.9975 ppb	19:02:31
2	Sn 189.927†	-2.4	-4.3	-0.3060 µg/L	-0.3060 ppb	19:02:31
2	Sr 421.552†	-168.4	119.2	0.2795 µg/L	0.2795 ppb	19:00:45
2	Ti 334.940†	843.2	169.7	0.1595 µg/L	0.1595 ppb	19:02:11
2	Tl 190.801†	-115.5	9.9	1.3206 µg/L	1.3206 ppb	19:02:31
2	U 409.014†	109.4	583.7	36.043 µg/L	36.043 ppb	19:02:11
2	V 292.402†	368.0	-80.0	-0.4063 µg/L	-0.4063 ppb	19:02:11
2	Zn 213.857†	532.3	44.4	0.2783 µg/L	0.2783 ppb	19:02:31
3	Sc 361.383	1734424.8	1734424.8	103.69 %		19:02:33
3	Sc RADIAL	152171.1	152171.1	104 %		19:01:07
3	Y 371.029	1067156.7	1067156.7	104.36 %		19:02:33
3	Ag 328.068†	2902.9	-167.4	-0.6806 µg/L	-0.6806 ppb	19:02:36
3	Al 396.153Radial†	-58.9	-24.5	-5.3555 µg/L	-5.3555 ppb	19:01:27
3	As 188.979†	-18.7	-3.8	-1.5762 µg/L	-1.5762 ppb	19:02:56
3	B 249.677†	3166.5	-301.7	-5.0666 µg/L	-5.0666 ppb	19:02:56
3	Ba 233.527†	-187.7	-6.0	-0.0277 µg/L	-0.0277 ppb	19:02:56
3	Be 313.107†	-333.0	339.0	0.1115 µg/L	0.1115 ppb	19:02:36
3	Ca 317.933Radial†	709.2	63.1	3.6954 µg/L	3.6954 ppb	19:01:27
3	Cd 226.502†	-99.5	-1.5	-0.0105 µg/L	-0.0105 ppb	19:02:56
3	Co 228.616†	-170.8	11.9	0.1624 µg/L	0.1624 ppb	19:02:56
3	Cr 267.716†	184.7	17.9	0.1506 µg/L	0.1506 ppb	19:02:56
3	Cu 324.752†	2715.6	194.2	0.8472 µg/L	0.8472 ppb	19:02:36
3	Fe 238.204 Radial†	137.1	18.1	1.2007 µg/L	1.2007 ppb	19:01:27
3	K 766.490 Radial†	1528.8	9.4	3.8507 µg/L	3.8507 ppb	19:01:07
3	Mg 279.077 IEC†	173.3	-20.7	-8.5238 µg/L	-8.5238 ppb	19:01:27
3	Mn 257.610†	141.1	56.1	0.0769 µg/L	0.0769 ppb	19:02:56
3	Mo 202.031†	-52.8	4.2	0.1336 µg/L	0.1336 ppb	19:02:56
3	Na 589.592 Radial†	1839.9	67.6	10.341 µg/L	10.341 ppb	19:01:07
3	Ni 231.604†	-39.3	3.0	0.0386 µg/L	0.0386 ppb	19:02:56
3	P 214.914†	57.3	-24.3	-5.8246 µg/L	-5.8246 ppb	19:02:56
3	Pb 220.353†	120.4	3.6	0.2179 µg/L	0.2179 ppb	19:02:56
3	S 181.975 Axial†	88.1	-9.8	-7.9574 µg/L	-7.9574 ppb	19:02:56
3	Sb 206.836†	87.1	-2.6	-0.3549 µg/L	-0.3549 ppb	19:02:56
3	Se 196.026†	3.8	-7.2	-2.85 µg/L	-2.85 ppb	19:02:56
3	SiO2†	1649.9	18.4	1.9980 µg/L	1.9980 ppb	19:02:56
3	Si 251.611†	767.7	64.1	1.0530 µg/L	1.0530 ppb	19:02:56
3	Sn 189.927†	11.8	9.4	0.6667 µg/L	0.6667 ppb	19:02:56
3	Sr 421.552†	-198.5	87.9	0.2060 µg/L	0.2060 ppb	19:01:07
3	Ti 334.940†	650.8	-8.7	-0.0097 µg/L	-0.0097 ppb	19:02:36
3	Tl 190.801†	-110.3	13.9	1.8642 µg/L	1.8642 ppb	19:02:56
3	U 409.014†	-434.4	60.1	3.6852 µg/L	3.6852 ppb	19:02:36
3	V 292.402†	355.5	-88.9	-0.4890 µg/L	-0.4890 ppb	19:02:36
3	Zn 213.857†	538.0	54.5	0.3420 µg/L	0.3420 ppb	19:02:56

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1742745.4	104.18	%	0.466				0.45%
Sc RADIAL	154662.3	106	%	1.7				1.63%
Y 371.029	1071801.3	104.81	%	0.414				0.39%
Ag 328.068†	-233.5	-0.9298	µg/L	0.25091	-0.9298	ppb	0.25091	26.98%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-14.9	-3.2906	µg/L	2.63203	-3.2906	ppb	2.63203	79.99%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.4	1.0157	µg/L	2.25883	1.0157	ppb	2.25883	222.39%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-309.6	-5.1990	µg/L	0.12069	-5.1990	ppb	0.12069	2.32%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.5	0.0297	µg/L	0.05216	0.0297	ppb	0.05216	175.89%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	230.7	0.0809	µg/L	0.03739	0.0809	ppb	0.03739	46.19%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	39.4	2.3079	µg/L	1.29199	2.3079	ppb	1.29199	55.98%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-4.5	-0.0310	µg/L	0.08537	-0.0310	ppb	0.08537	275.14%
QC value within limits for Cd 226.502 Recovery = Not calculated								

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Co 228.616†                18.8      0.2569 µg/L       0.20203      0.2569 ppb        0.20203  78.63%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 1.7     -0.0005 µg/L       0.18092     -0.0005 ppb        0.18092 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               227.2      1.0036 µg/L       0.24693      1.0036 ppb        0.24693  24.60%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         24.1      1.6048 µg/L       0.42799      1.6048 ppb        0.42799  26.67%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          76.9      31.673 µg/L       27.7059      31.673 ppb        27.7059  87.48%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -23.9     -9.8414 µg/L       2.59218     -9.8414 ppb        2.59218  26.34%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                71.9      0.0986 µg/L       0.02141      0.0986 ppb        0.02141  21.70%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                22.6      0.7135 µg/L       0.65711      0.7135 ppb        0.65711  92.10%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         91.1      13.909 µg/L        3.2461      13.909 ppb         3.2461  23.34%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 1.4      0.0175 µg/L       0.09096      0.0175 ppb        0.09096 520.03%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -7.8     -1.8767 µg/L       3.61681     -1.8767 ppb        3.61681 192.72%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.8      0.0329 µg/L       0.16029      0.0329 ppb        0.16029 486.83%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -5.6     -4.5694 µg/L       3.57820     -4.5694 ppb        3.57820  78.31%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -5.3     -0.7028 µg/L       0.58704     -0.7028 ppb        0.58704  83.53%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 4.6       1.82 µg/L         4.054        1.82 ppb          4.054 222.54%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      19.0      2.0451 µg/L       0.33227      2.0451 ppb        0.33227  16.25%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                66.3      1.0847 µg/L       0.10673      1.0847 ppb        0.10673   9.84%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.8      0.4145 µg/L       0.63329      0.4145 ppb        0.63329 152.78%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               116.6      0.2734 µg/L       0.06458      0.2734 ppb        0.06458  23.62%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               104.5      0.0995 µg/L       0.09469      0.0995 ppb        0.09469  95.16%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                12.1      1.6167 µg/L       0.27502      1.6167 ppb        0.27502  17.01%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                313.1      19.320 µg/L       16.2065      19.320 ppb        16.2065  83.89%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -91.4     -0.4870 µg/L       0.07980     -0.4870 ppb        0.07980  16.39%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                47.1      0.2956 µg/L       0.04054      0.2956 ppb        0.04054  13.71%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/29/2010 19:31:23**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	154889.6	154889.6	106	%			19:31:56
1	Al 396.153Radial†	25248.9	23791.6	5171.1	µg/L	5171.1	ppb	19:31:56
1	Ca 317.933Radial†	90787.7	84816.9	4969.9	µg/L	4969.9	ppb	19:31:56
1	Fe 238.204 Radial†	79020.5	74246.6	4936.2	µg/L	4936.2	ppb	19:31:56
1	K 766.490 Radial†	14072.9	11787.9	4848.7	µg/L	4848.7	ppb	19:31:56
1	Mg 279.077 IEC†	13305.1	12333.7	5092.8	µg/L	5092.8	ppb	19:31:56
1	Na 589.592 Radial†	70517.8	64663.9	9890.1	µg/L	9890.1	ppb	19:31:56
1	Sr 421.552†	229051.2	215819.7	505.79	µg/L	505.79	ppb	19:31:54
1	Sc 361.383	1743822.4	1743822.4	104.25	%			19:32:23
1	Y 371.029	1059163.2	1059163.2	103.58	%			19:32:23
1	Ag 328.068†	128580.1	120374.3	494.64	µg/L	494.64	ppb	19:32:23
1	As 188.979†	1249.3	1212.6	513.82	µg/L	513.82	ppb	19:32:43
1	B 249.677†	33313.2	28600.3	478.47	µg/L	478.47	ppb	19:32:23
1	Ba 233.527†	113123.6	108689.7	496.93	µg/L	496.93	ppb	19:32:23
1	Be 313.107†	1610699.9	1545735.8	503.30	µg/L	503.30	ppb	19:32:23
1	Cd 226.502†	72730.5	69861.7	482.13	µg/L	482.13	ppb	19:32:23
1	Co 228.616†	36860.0	35534.8	486.84	µg/L	486.84	ppb	19:32:23
1	Cr 267.716†	59413.7	56832.8	488.02	µg/L	488.02	ppb	19:32:23
1	Cu 324.752†	120074.9	112757.8	491.69	µg/L	491.69	ppb	19:32:23
1	Mn 257.610†	374470.1	359133.2	490.52	µg/L	490.52	ppb	19:32:23
1	Mo 202.031†	15834.2	15244.3	481.66	µg/L	481.66	ppb	19:32:43
1	Ni 231.604†	39808.6	38227.6	488.98	µg/L	488.98	ppb	19:32:23
1	P 214.914†	10378.9	9876.5	2356.8	µg/L	2356.8	ppb	19:32:43
1	Pb 220.353†	8316.1	7864.8	477.97	µg/L	477.97	ppb	19:32:43
1	S 181.975 Axial†	1303.7	1155.8	940.47	µg/L	940.47	ppb	19:32:43
1	Sb 206.836†	3839.6	3596.5	486.17	µg/L	486.17	ppb	19:32:43
1	Se 196.026†	1266.7	1204.2	478	µg/L	478	ppb	19:32:43
1	SiO2†	51618.1	47942.2	5219.4	µg/L	5219.4	ppb	19:32:23
1	Si 251.611†	154593.2	147618.3	2431.2	µg/L	2431.2	ppb	19:32:23
1	Sn 189.927†	7080.7	6790.2	484.38	µg/L	484.38	ppb	19:32:43
1	Ti 334.940†	502894.8	481769.2	490.61	µg/L	490.61	ppb	19:32:23
1	Tl 190.801†	3593.0	3566.9	486.15	µg/L	486.15	ppb	19:32:43
1	U 409.014†	7303.3	7484.9	492.46	µg/L	492.46	ppb	19:32:23
1	V 292.402†	92682.1	88474.1	496.92	µg/L	496.92	ppb	19:32:23
1	Zn 213.857†	80453.5	76711.2	479.02	µg/L	479.02	ppb	19:32:23
2	Sc RADIAL	155203.4	155203.4	106	%			19:32:01
2	Al 396.153Radial†	25234.3	23729.9	5157.5	µg/L	5157.5	ppb	19:32:01
2	Ca 317.933Radial†	90949.0	84795.6	4968.7	µg/L	4968.7	ppb	19:32:01
2	Fe 238.204 Radial†	79090.7	74162.2	4930.6	µg/L	4930.6	ppb	19:32:01
2	K 766.490 Radial†	13942.4	11638.6	4787.3	µg/L	4787.3	ppb	19:32:01
2	Mg 279.077 IEC†	13250.9	12257.5	5061.5	µg/L	5061.5	ppb	19:32:01
2	Na 589.592 Radial†	70292.0	64317.7	9837.2	µg/L	9837.2	ppb	19:32:01
2	Sr 421.552†	228066.3	214459.1	502.60	µg/L	502.60	ppb	19:31:59
2	Sc 361.383	1737215.7	1737215.7	103.85	%			19:32:47
2	Y 371.029	1054931.1	1054931.1	103.16	%			19:32:47
2	Ag 328.068†	128483.5	120750.5	496.17	µg/L	496.17	ppb	19:32:47
2	As 188.979†	1256.3	1223.9	518.55	µg/L	518.55	ppb	19:33:07
2	B 249.677†	33149.8	28564.4	477.87	µg/L	477.87	ppb	19:32:47
2	Ba 233.527†	112832.9	108822.5	497.54	µg/L	497.54	ppb	19:32:47
2	Be 313.107†	1606762.7	1547820.7	503.98	µg/L	503.98	ppb	19:32:47
2	Cd 226.502†	72368.9	69778.8	481.56	µg/L	481.56	ppb	19:32:47
2	Co 228.616†	36711.4	35526.2	486.72	µg/L	486.72	ppb	19:32:47
2	Cr 267.716†	59192.4	56836.4	488.05	µg/L	488.05	ppb	19:32:47
2	Cu 324.752†	119958.6	113083.9	493.10	µg/L	493.10	ppb	19:32:47
2	Mn 257.610†	372915.3	359002.2	490.34	µg/L	490.34	ppb	19:32:47
2	Mo 202.031†	15840.2	15307.8	483.66	µg/L	483.66	ppb	19:33:07
2	Ni 231.604†	39651.1	38221.1	488.89	µg/L	488.89	ppb	19:32:47
2	P 214.914†	10418.1	9952.1	2374.9	µg/L	2374.9	ppb	19:33:07
2	Pb 220.353†	8335.8	7914.1	480.97	µg/L	480.97	ppb	19:33:07

2	S 181.975 Axial†	1310.0	1166.6	949.21 µg/L	949.21 ppb	19:33:07
2	Sb 206.836†	3818.2	3589.9	485.30 µg/L	485.30 ppb	19:33:07
2	Se 196.026†	1256.0	1198.5	476 µg/L	476 ppb	19:33:07
2	SiO2†	51436.2	47955.4	5220.8 µg/L	5220.8 ppb	19:32:47
2	Si 251.611†	154237.0	147839.3	2434.9 µg/L	2434.9 ppb	19:32:47
2	Sn 189.927†	7075.7	6811.2	485.88 µg/L	485.88 ppb	19:33:07
2	Ti 334.940†	501670.2	482424.6	491.29 µg/L	491.29 ppb	19:32:47
2	Tl 190.801†	3598.0	3584.8	488.57 µg/L	488.57 ppb	19:33:07
2	U 409.014†	7114.9	7330.1	482.93 µg/L	482.93 ppb	19:32:47
2	V 292.402†	92447.3	88586.2	497.56 µg/L	497.56 ppb	19:32:47
2	Zn 213.857†	80237.4	76796.6	479.56 µg/L	479.56 ppb	19:32:47
3	Sc RADIAL	152343.2	152343.2	105 %		19:32:05
3	Al 396.153Radial†	24790.2	23749.9	5162.0 µg/L	5162.0 ppb	19:32:05
3	Ca 317.933Radial†	88711.7	84258.7	4937.2 µg/L	4937.2 ppb	19:32:05
3	Fe 238.204 Radial†	77301.6	73844.9	4909.5 µg/L	4909.5 ppb	19:32:05
3	K 766.490 Radial†	13851.3	11797.3	4852.6 µg/L	4852.6 ppb	19:32:05
3	Mg 279.077 IEC†	12897.2	12152.7	5018.2 µg/L	5018.2 ppb	19:32:05
3	Na 589.592 Radial†	69172.5	64486.0	9862.9 µg/L	9862.9 ppb	19:32:05
3	Sr 421.552†	226674.9	217149.0	508.90 µg/L	508.90 ppb	19:32:03
3	Sc 361.383	1739184.0	1739184.0	103.97 %		19:33:10
3	Y 371.029	1056341.4	1056341.4	103.30 %		19:33:10
3	Ag 328.068†	128938.9	121048.4	497.41 µg/L	497.41 ppb	19:33:10
3	As 188.979†	1242.3	1209.1	512.38 µg/L	512.38 ppb	19:33:30
3	B 249.677†	33322.5	28694.4	480.05 µg/L	480.05 ppb	19:33:10
3	Ba 233.527†	113432.0	109275.8	499.61 µg/L	499.61 ppb	19:33:10
3	Be 313.107†	1612377.9	1551470.5	505.17 µg/L	505.17 ppb	19:33:10
3	Cd 226.502†	72852.6	70165.2	484.23 µg/L	484.23 ppb	19:33:10
3	Co 228.616†	36901.2	35668.8	488.67 µg/L	488.67 ppb	19:33:10
3	Cr 267.716†	59397.9	56969.5	489.19 µg/L	489.19 ppb	19:33:10
3	Cu 324.752†	120225.9	113210.3	493.66 µg/L	493.66 ppb	19:33:10
3	Mn 257.610†	374839.5	360446.6	492.32 µg/L	492.32 ppb	19:33:10
3	Mo 202.031†	15729.4	15184.0	479.75 µg/L	479.75 ppb	19:33:30
3	Ni 231.604†	40031.5	38543.8	493.02 µg/L	493.02 ppb	19:33:10
3	P 214.914†	10307.1	9834.0	2346.7 µg/L	2346.7 ppb	19:33:30
3	Pb 220.353†	8288.5	7859.6	477.65 µg/L	477.65 ppb	19:33:30
3	S 181.975 Axial†	1283.8	1140.0	927.63 µg/L	927.63 ppb	19:33:30
3	Sb 206.836†	3807.3	3575.3	483.25 µg/L	483.25 ppb	19:33:30
3	Se 196.026†	1249.7	1191.1	473 µg/L	473 ppb	19:33:30
3	SiO2†	51607.6	48064.2	5232.9 µg/L	5232.9 ppb	19:33:10
3	Si 251.611†	155270.1	148664.8	2448.6 µg/L	2448.6 ppb	19:33:10
3	Sn 189.927†	7010.2	6740.5	480.86 µg/L	480.86 ppb	19:33:30
3	Ti 334.940†	504064.8	484181.1	493.08 µg/L	493.08 ppb	19:33:10
3	Tl 190.801†	3573.6	3557.4	484.91 µg/L	484.91 ppb	19:33:30
3	U 409.014†	7322.0	7521.5	494.86 µg/L	494.86 ppb	19:33:10
3	V 292.402†	92839.2	88862.3	499.06 µg/L	499.06 ppb	19:33:10
3	Zn 213.857†	80753.8	77205.9	482.11 µg/L	482.11 ppb	19:33:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1740074.0	104.02	%	0.203				0.19%
Sc RADIAL	154145.4	106	%	1.1				1.02%
Y 371.029	1056811.9	103.35	%	0.211				0.20%
Ag 328.068†	120724.4	496.07	µg/L	1.385	496.07	ppb	1.385	0.28%
QC value within limits for Ag 328.068 Recovery = 99.21%								
Al 396.153Radial†	23757.1	5163.5	µg/L	6.91	5163.5	ppb	6.91	0.13%
QC value within limits for Al 396.153Radial Recovery = 103.27%								
As 188.979†	1215.2	514.92	µg/L	3.230	514.92	ppb	3.230	0.63%
QC value within limits for As 188.979 Recovery = 102.98%								
B 249.677†	28619.7	478.80	µg/L	1.123	478.80	ppb	1.123	0.23%
QC value within limits for B 249.677 Recovery = 95.76%								
Ba 233.527†	108929.3	498.02	µg/L	1.404	498.02	ppb	1.404	0.28%
QC value within limits for Ba 233.527 Recovery = 99.60%								
Be 313.107†	1548342.3	504.15	µg/L	0.946	504.15	ppb	0.946	0.19%
QC value within limits for Be 313.107 Recovery = 100.83%								
Ca 317.933Radial†	84623.7	4958.6	µg/L	18.54	4958.6	ppb	18.54	0.37%
QC value within limits for Ca 317.933Radial Recovery = 99.17%								
Cd 226.502†	69935.2	482.64	µg/L	1.407	482.64	ppb	1.407	0.29%
QC value within limits for Cd 226.502 Recovery = 96.53%								
Co 228.616†	35576.6	487.41	µg/L	1.097	487.41	ppb	1.097	0.23%

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   QC value within limits for Co 228.616  Recovery = 97.48%
Cr 267.716†            56879.6      488.42 µg/L         0.666      488.42 ppb          0.666   0.14%
   QC value within limits for Cr 267.716  Recovery = 97.68%
Cu 324.752†           113017.4      492.82 µg/L         1.012      492.82 ppb          1.012   0.21%
   QC value within limits for Cu 324.752  Recovery = 98.56%
Fe 238.204 Radial†     74084.6      4925.4 µg/L         14.08      4925.4 ppb          14.08   0.29%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.51%
K 766.490 Radial†      11741.2      4829.6 µg/L         36.64      4829.6 ppb          36.64   0.76%
   QC value within limits for K 766.490 Radial  Recovery = 96.59%
Mg 279.077 IEC†        12248.0      5057.5 µg/L         37.48      5057.5 ppb          37.48   0.74%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.15%
Mn 257.610†           359527.3      491.06 µg/L         1.093      491.06 ppb          1.093   0.22%
   QC value within limits for Mn 257.610  Recovery = 98.21%
Mo 202.031†            15245.4      481.69 µg/L         1.954      481.69 ppb          1.954   0.41%
   QC value within limits for Mo 202.031  Recovery = 96.34%
Na 589.592 Radial†     64489.2      9863.4 µg/L         26.47      9863.4 ppb          26.47   0.27%
   QC value within limits for Na 589.592 Radial  Recovery = 98.63%
Ni 231.604†            38330.9      490.30 µg/L         2.360      490.30 ppb          2.360   0.48%
   QC value within limits for Ni 231.604  Recovery = 98.06%
P 214.914†              9887.5      2359.5 µg/L         14.32      2359.5 ppb          14.32   0.61%
   QC value within limits for P 214.914  Recovery = 94.38%
Pb 220.353†             7879.5      478.86 µg/L         1.831      478.86 ppb          1.831   0.38%
   QC value within limits for Pb 220.353  Recovery = 95.77%
S 181.975 Axial†        1154.1      939.11 µg/L        10.857      939.11 ppb         10.857   1.16%
   QC value within limits for S 181.975 Axial  Recovery = 93.91%
Sb 206.836†             3587.2      484.91 µg/L         1.496      484.91 ppb          1.496   0.31%
   QC value within limits for Sb 206.836  Recovery = 96.98%
Se 196.026†             1197.9         476 µg/L           2.6         476 ppb            2.6   0.55%
   QC value within limits for Se 196.026  Recovery = 95.20%
SiO2†                  47987.3      5224.4 µg/L          7.40      5224.4 ppb           7.40   0.14%
   QC value within limits for SiO2  Recovery = 97.70%
Si 251.611†           148040.8      2438.2 µg/L          9.16      2438.2 ppb           9.16   0.38%
   QC value within limits for Si 251.611  Recovery = 97.53%
Sn 189.927†             6780.7      483.70 µg/L         2.578      483.70 ppb          2.578   0.53%
   QC value within limits for Sn 189.927  Recovery = 96.74%
Sr 421.552†           215809.3      505.76 µg/L         3.152      505.76 ppb          3.152   0.62%
   QC value within limits for Sr 421.552  Recovery = 101.15%
Ti 334.940†           482791.6      491.66 µg/L         1.273      491.66 ppb          1.273   0.26%
   QC value within limits for Ti 334.940  Recovery = 98.33%
Tl 190.801†             3569.7      486.55 µg/L         1.860      486.55 ppb          1.860   0.38%
   QC value within limits for Tl 190.801  Recovery = 97.31%
U 409.014†              7445.5      490.08 µg/L         6.310      490.08 ppb          6.310   1.29%
   QC value within limits for U 409.014  Recovery = 98.02%
V 292.402†             88640.9      497.85 µg/L         1.100      497.85 ppb          1.100   0.22%
   QC value within limits for V 292.402  Recovery = 99.57%
Zn 213.857†            76904.5      480.23 µg/L         1.651      480.23 ppb          1.651   0.34%
   QC value within limits for Zn 213.857  Recovery = 96.05%
All analyte(s) passed QC.
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Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/29/2010 19:33:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	154440.8	154440.8	106	%			19:34:06
1	Al 396.153Radial†	-43.3	-9.0	-2.0043	µg/L	-2.0043	ppb	19:34:26
1	Ca 317.933Radial†	696.6	41.2	2.4138	µg/L	2.4138	ppb	19:34:26
1	Fe 238.204 Radial†	166.8	44.1	2.9352	µg/L	2.9352	ppb	19:34:26
1	K 766.490 Radial†	1613.3	67.6	27.814	µg/L	27.814	ppb	19:34:06
1	Mg 279.077 IEC†	157.8	-37.7	-15.541	µg/L	-15.541	ppb	19:34:26
1	Na 589.592 Radial†	1722.8	-68.9	-10.561	µg/L	-10.561	ppb	19:34:06
1	Sr 421.552†	-120.8	163.9	0.3842	µg/L	0.3842	ppb	19:34:06
1	Sc 361.383	1731581.1	1731581.1	103.52	%			19:35:14
1	Y 371.029	1065562.9	1065562.9	104.20	%			19:35:14
1	Ag 328.068†	3216.9	140.6	0.5847	µg/L	0.5847	ppb	19:35:16
1	As 188.979†	-11.7	2.9	1.2300	µg/L	1.2300	ppb	19:35:36
1	B 249.677†	3120.0	-341.7	-5.7362	µg/L	-5.7362	ppb	19:35:36
1	Ba 233.527†	-175.6	5.4	0.0247	µg/L	0.0247	ppb	19:35:36
1	Be 313.107†	-246.2	422.2	0.1424	µg/L	0.1424	ppb	19:35:16
1	Cd 226.502†	-69.1	27.7	0.1908	µg/L	0.1908	ppb	19:35:36
1	Co 228.616†	-181.3	1.5	0.0198	µg/L	0.0198	ppb	19:35:36
1	Cr 267.716†	175.8	9.6	0.0693	µg/L	0.0693	ppb	19:35:36
1	Cu 324.752†	2669.4	153.9	0.6825	µg/L	0.6825	ppb	19:35:16
1	Mn 257.610†	196.9	110.2	0.1512	µg/L	0.1512	ppb	19:35:36
1	Mo 202.031†	-29.9	26.3	0.8305	µg/L	0.8305	ppb	19:35:36
1	Ni 231.604†	-61.5	-18.5	-0.2372	µg/L	-0.2372	ppb	19:35:36
1	P 214.914†	55.3	-26.1	-6.2662	µg/L	-6.2662	ppb	19:35:36
1	Pb 220.353†	115.1	-1.2	-0.0837	µg/L	-0.0837	ppb	19:35:36
1	S 181.975 Axial†	87.6	-10.2	-8.2246	µg/L	-8.2246	ppb	19:35:36
1	Sb 206.836†	73.1	-16.1	-2.1571	µg/L	-2.1571	ppb	19:35:36
1	Se 196.026†	13.4	2.0	0.826	µg/L	0.826	ppb	19:35:36
1	SiO2†	1671.5	41.8	4.5433	µg/L	4.5433	ppb	19:35:36
1	Si 251.611†	796.8	93.3	1.5290	µg/L	1.5290	ppb	19:35:36
1	Sn 189.927†	8.8	6.4	0.4582	µg/L	0.4582	ppb	19:35:36
1	Ti 334.940†	627.3	-30.4	-0.0364	µg/L	-0.0364	ppb	19:35:16
1	Tl 190.801†	-118.4	5.9	0.7913	µg/L	0.7913	ppb	19:35:36
1	U 409.014†	-222.3	264.4	16.308	µg/L	16.308	ppb	19:35:16
1	V 292.402†	354.1	-89.7	-0.4781	µg/L	-0.4781	ppb	19:35:16
1	Zn 213.857†	527.0	44.7	0.2818	µg/L	0.2818	ppb	19:35:36
2	Sc RADIAL	154279.9	154279.9	106	%			19:34:28
2	Al 396.153Radial†	-70.9	-35.1	-7.7094	µg/L	-7.7094	ppb	19:34:48
2	Ca 317.933Radial†	709.7	54.3	3.1826	µg/L	3.1826	ppb	19:34:48
2	Fe 238.204 Radial†	178.3	55.2	3.6708	µg/L	3.6708	ppb	19:34:48
2	K 766.490 Radial†	1463.8	-72.1	-29.690	µg/L	-29.690	ppb	19:34:28
2	Mg 279.077 IEC†	161.8	-33.8	-13.912	µg/L	-13.912	ppb	19:34:48
2	Na 589.592 Radial†	1747.5	-43.7	-6.6675	µg/L	-6.6675	ppb	19:34:28
2	Sr 421.552†	-216.0	73.9	0.1732	µg/L	0.1732	ppb	19:34:28
2	Sc 361.383	1751103.4	1751103.4	104.68	%			19:35:38
2	Y 371.029	1076583.0	1076583.0	105.28	%			19:35:38
2	Ag 328.068†	2689.9	-397.5	-1.6314	µg/L	-1.6314	ppb	19:35:40
2	As 188.979†	-19.4	-4.3	-1.7955	µg/L	-1.7955	ppb	19:36:00
2	B 249.677†	3164.1	-333.1	-5.5927	µg/L	-5.5927	ppb	19:36:00
2	Ba 233.527†	-177.8	5.3	0.0236	µg/L	0.0236	ppb	19:36:00
2	Be 313.107†	-520.5	162.9	0.0516	µg/L	0.0516	ppb	19:35:40
2	Cd 226.502†	-104.5	-5.4	-0.0378	µg/L	-0.0378	ppb	19:36:00
2	Co 228.616†	-170.5	13.7	0.1872	µg/L	0.1872	ppb	19:36:00
2	Cr 267.716†	176.6	8.5	0.0762	µg/L	0.0762	ppb	19:36:00
2	Cu 324.752†	2448.1	-86.2	-0.3785	µg/L	-0.3785	ppb	19:35:40
2	Mn 257.610†	240.0	149.3	0.2045	µg/L	0.2045	ppb	19:36:00
2	Mo 202.031†	-29.0	27.5	0.8664	µg/L	0.8664	ppb	19:36:00
2	Ni 231.604†	-48.2	-5.1	-0.0655	µg/L	-0.0655	ppb	19:36:00
2	P 214.914†	58.0	-24.2	-5.7906	µg/L	-5.7906	ppb	19:36:00
2	Pb 220.353†	124.4	6.4	0.3918	µg/L	0.3918	ppb	19:36:00

2	S 181.975 Axial†	90.4	-8.5	-6.8756 µg/L	-6.8756 ppb	19:36:00
2	Sb 206.836†	78.1	-12.0	-1.6140 µg/L	-1.6140 ppb	19:36:00
2	Se 196.026†	15.0	3.5	1.36 µg/L	1.36 ppb	19:36:00
2	SiO2†	1656.1	9.2	0.9709 µg/L	0.9709 ppb	19:36:00
2	Si 251.611†	759.0	48.7	0.7903 µg/L	0.7903 ppb	19:36:00
2	Sn 189.927†	8.2	5.8	0.4148 µg/L	0.4148 ppb	19:36:00
2	Ti 334.940†	745.1	75.4	0.0800 µg/L	0.0800 ppb	19:35:40
2	Tl 190.801†	-111.6	13.7	1.8304 µg/L	1.8304 ppb	19:36:00
2	U 409.014†	-582.4	-77.2	-4.8304 µg/L	-4.8304 ppb	19:35:40
2	V 292.402†	254.3	-188.9	-1.0423 µg/L	-1.0423 ppb	19:35:40
2	Zn 213.857†	524.9	37.0	0.2333 µg/L	0.2333 ppb	19:36:00
3	Sc RADIAL	154300.7	154300.7	106 %		19:34:50
3	Al 396.153Radial†	-22.9	10.3	2.2225 µg/L	2.2225 ppb	19:35:10
3	Ca 317.933Radial†	702.8	47.7	2.7963 µg/L	2.7963 ppb	19:35:10
3	Fe 238.204 Radial†	157.6	35.6	2.3638 µg/L	2.3638 ppb	19:35:10
3	K 766.490 Radial†	1363.4	-167.1	-68.805 µg/L	-68.805 ppb	19:34:50
3	Mg 279.077 IEC†	165.1	-30.7	-12.669 µg/L	-12.669 ppb	19:35:10
3	Na 589.592 Radial†	1617.5	-166.8	-25.467 µg/L	-25.467 ppb	19:34:50
3	Sr 421.552†	-166.5	120.7	0.2829 µg/L	0.2829 ppb	19:34:50
3	Sc 361.383	1756722.7	1756722.7	105.02 %		19:36:02
3	Y 371.029	1079825.4	1079825.4	105.60 %		19:36:02
3	Ag 328.068†	3226.0	104.8	0.4137 µg/L	0.4137 ppb	19:36:04
3	As 188.979†	-24.9	-9.5	-3.9669 µg/L	-3.9669 ppb	19:36:25
3	B 249.677†	3162.1	-344.7	-5.7874 µg/L	-5.7874 ppb	19:36:25
3	Ba 233.527†	-158.1	24.5	0.1116 µg/L	0.1116 ppb	19:36:25
3	Be 313.107†	-509.5	174.9	0.0572 µg/L	0.0572 ppb	19:36:04
3	Cd 226.502†	-104.2	-4.8	-0.0337 µg/L	-0.0337 ppb	19:36:25
3	Co 228.616†	-161.9	22.4	0.3068 µg/L	0.3068 ppb	19:36:25
3	Cr 267.716†	163.5	-4.5	-0.0399 µg/L	-0.0399 ppb	19:36:25
3	Cu 324.752†	2579.5	31.3	0.1372 µg/L	0.1372 ppb	19:36:04
3	Mn 257.610†	210.9	120.8	0.1656 µg/L	0.1656 ppb	19:36:25
3	Mo 202.031†	-42.5	14.8	0.4652 µg/L	0.4652 ppb	19:36:25
3	Ni 231.604†	-54.2	-10.7	-0.1372 µg/L	-0.1372 ppb	19:36:25
3	P 214.914†	63.9	-18.7	-4.4865 µg/L	-4.4865 ppb	19:36:25
3	Pb 220.353†	88.7	-28.0	-1.6935 µg/L	-1.6935 ppb	19:36:25
3	S 181.975 Axial†	84.6	-14.3	-11.562 µg/L	-11.562 ppb	19:36:25
3	Sb 206.836†	89.1	-1.8	-0.2346 µg/L	-0.2346 ppb	19:36:25
3	Se 196.026†	11.7	0.2	0.100 µg/L	0.100 ppb	19:36:25
3	SiO2†	1684.0	30.6	3.3325 µg/L	3.3325 ppb	19:36:25
3	Si 251.611†	773.1	59.7	0.9802 µg/L	0.9802 ppb	19:36:25
3	Sn 189.927†	5.3	3.0	0.2161 µg/L	0.2161 ppb	19:36:25
3	Ti 334.940†	867.2	189.4	0.1939 µg/L	0.1939 ppb	19:36:04
3	Tl 190.801†	-113.0	12.7	1.7012 µg/L	1.7012 ppb	19:36:25
3	U 409.014†	-487.5	14.9	0.8641 µg/L	0.8641 ppb	19:36:04
3	V 292.402†	257.1	-187.1	-1.0329 µg/L	-1.0329 ppb	19:36:04
3	Zn 213.857†	501.2	12.8	0.0813 µg/L	0.0813 ppb	19:36:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1746469.1	104.41	%	0.789				0.76%
Sc RADIAL	154340.5	106	%	0.1				0.06%
Y 371.029	1073990.4	105.03	%	0.731				0.70%
Ag 328.068†	-50.7	-0.2110	µg/L	1.23303	-0.2110	ppb	1.23303	584.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-11.3	-2.4971	µg/L	4.98426	-2.4971	ppb	4.98426	199.60%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.6	-1.5108	µg/L	2.61013	-1.5108	ppb	2.61013	172.77%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-339.8	-5.7054	µg/L	0.10093	-5.7054	ppb	0.10093	1.77%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.7	0.0533	µg/L	0.05049	0.0533	ppb	0.05049	94.76%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	253.3	0.0837	µg/L	0.05087	0.0837	ppb	0.05087	60.76%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	47.7	2.7975	µg/L	0.38440	2.7975	ppb	0.38440	13.74%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.8	0.0397	µg/L	0.13082	0.0397	ppb	0.13082	329.26%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	12.5	0.1713	µg/L	0.14419	0.1713	ppb	0.14419	84.18%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 4.5      0.0352 µg/L       0.06512      0.0352 ppb        0.06512 185.02%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                33.0      0.1470 µg/L       0.53058      0.1470 ppb        0.53058 360.82%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         45.0      2.9899 µg/L       0.65521      2.9899 ppb        0.65521  21.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -57.2     -23.560 µg/L       48.6004     -23.560 ppb        48.6004 206.28%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -34.1     -14.041 µg/L        1.4406     -14.041 ppb         1.4406  10.26%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               126.8      0.1738 µg/L       0.02760      0.1738 ppb        0.02760  15.88%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                22.8      0.7207 µg/L       0.22201      0.7207 ppb        0.22201  30.81%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -93.1     -14.232 µg/L        9.9226     -14.232 ppb         9.9226  69.72%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -11.5      -0.1466 µg/L       0.08623      -0.1466 ppb        0.08623  58.80%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -23.0      -5.5144 µg/L       0.92145      -5.5144 ppb        0.92145  16.71%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -7.6      -0.4618 µg/L       1.09284      -0.4618 ppb        1.09284 236.66%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -11.0      -8.8875 µg/L       2.41268      -8.8875 ppb        2.41268  27.15%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -10.0      -1.3353 µg/L       0.99108      -1.3353 ppb        0.99108  74.22%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.9       0.763 µg/L        0.6334       0.763 ppb         0.6334  83.06%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      27.2      2.9489 µg/L       1.81680      2.9489 ppb        1.81680  61.61%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                67.2      1.0998 µg/L       0.38363      1.0998 ppb        0.38363  34.88%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.1      0.3630 µg/L       0.12911      0.3630 ppb        0.12911  35.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               119.5      0.2801 µg/L       0.10556      0.2801 ppb        0.10556  37.69%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                78.1      0.0792 µg/L       0.11512      0.0792 ppb        0.11512 145.40%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                10.8      1.4410 µg/L       0.56631      1.4410 ppb        0.56631  39.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 67.4      4.1140 µg/L      10.93772      4.1140 ppb       10.93772 265.87%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -155.2      -0.8511 µg/L       0.32304      -0.8511 ppb        0.32304  37.96%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                31.5      0.1988 µg/L       0.10458      0.1988 ppb        0.10458  52.60%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 18 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/29/2010 19:52:48**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	155882.7	155882.7	107	%			19:53:21
1	Al 396.153Radial†	25404.5	23785.7	5169.7	µg/L	5169.7	ppb	19:53:21
1	Ca 317.933Radial†	90923.1	84399.2	4945.4	µg/L	4945.4	ppb	19:53:21
1	Fe 238.204 Radial†	79031.3	73782.9	4905.3	µg/L	4905.3	ppb	19:53:21
1	K 766.490 Radial†	14120.7	11748.2	4832.4	µg/L	4832.4	ppb	19:53:21
1	Mg 279.077 IEC†	13276.7	12227.4	5049.1	µg/L	5049.1	ppb	19:53:21
1	Na 589.592 Radial†	70685.1	64397.5	9849.3	µg/L	9849.3	ppb	19:53:21
1	Sr 421.552†	229627.1	214985.0	503.83	µg/L	503.83	ppb	19:53:19
1	Sc 361.383	1753609.4	1753609.4	104.83	%			19:53:33
1	Y 371.029	1065335.0	1065335.0	104.18	%			19:53:33
1	Ag 328.068†	129859.6	120906.6	496.82	µg/L	496.82	ppb	19:53:33
1	As 188.979†	1259.2	1215.4	515.01	µg/L	515.01	ppb	19:53:54
1	B 249.677†	33439.0	28541.9	477.50	µg/L	477.50	ppb	19:53:33
1	Ba 233.527†	114213.7	109124.0	498.92	µg/L	498.92	ppb	19:53:33
1	Be 313.107†	1623855.4	1549661.7	504.58	µg/L	504.58	ppb	19:53:33
1	Cd 226.502†	73102.1	69826.8	481.89	µg/L	481.89	ppb	19:53:33
1	Co 228.616†	36982.2	35454.0	485.73	µg/L	485.73	ppb	19:53:33
1	Cr 267.716†	59867.3	56947.4	489.01	µg/L	489.01	ppb	19:53:33
1	Cu 324.752†	121039.4	113035.1	492.88	µg/L	492.88	ppb	19:53:33
1	Mn 257.610†	376767.1	359319.5	490.78	µg/L	490.78	ppb	19:53:33
1	Mo 202.031†	15963.8	15283.1	482.88	µg/L	482.88	ppb	19:53:54
1	Ni 231.604†	39977.6	38175.7	488.31	µg/L	488.31	ppb	19:53:33
1	P 214.914†	10457.3	9895.7	2361.5	µg/L	2361.5	ppb	19:53:54
1	Pb 220.353†	8391.8	7892.5	479.66	µg/L	479.66	ppb	19:53:54
1	S 181.975 Axial†	1293.9	1139.4	927.23	µg/L	927.23	ppb	19:53:54
1	Sb 206.836†	3874.2	3609.0	487.86	µg/L	487.86	ppb	19:53:54
1	Se 196.026†	1272.9	1203.3	478	µg/L	478	ppb	19:53:54
1	SiO2†	51967.3	47999.0	5225.6	µg/L	5225.6	ppb	19:53:33
1	Si 251.611†	156115.9	148243.1	2441.5	µg/L	2441.5	ppb	19:53:33
1	Sn 189.927†	7141.4	6810.1	485.80	µg/L	485.80	ppb	19:53:54
1	Ti 334.940†	507174.4	483159.2	492.04	µg/L	492.04	ppb	19:53:33
1	Tl 190.801†	3640.2	3592.7	489.65	µg/L	489.65	ppb	19:53:54
1	U 409.014†	7175.3	7323.6	482.62	µg/L	482.62	ppb	19:53:33
1	V 292.402†	93601.0	88854.5	499.04	µg/L	499.04	ppb	19:53:33
1	Zn 213.857†	81005.3	76806.8	479.63	µg/L	479.63	ppb	19:53:33
2	Sc RADIAL	156189.6	156189.6	107	%			19:53:25
2	Al 396.153Radial†	25453.6	23784.9	5169.5	µg/L	5169.5	ppb	19:53:25
2	Ca 317.933Radial†	91189.7	84480.9	4950.2	µg/L	4950.2	ppb	19:53:25
2	Fe 238.204 Radial†	79453.6	74031.8	4921.9	µg/L	4921.9	ppb	19:53:25
2	K 766.490 Radial†	14048.5	11654.9	4794.0	µg/L	4794.0	ppb	19:53:25
2	Mg 279.077 IEC†	13352.4	12273.6	5068.1	µg/L	5068.1	ppb	19:53:25
2	Na 589.592 Radial†	70950.0	64514.9	9867.3	µg/L	9867.3	ppb	19:53:25
2	Sr 421.552†	232352.0	217106.1	508.80	µg/L	508.80	ppb	19:53:23
2	Sc 361.383	1749571.1	1749571.1	104.59	%			19:53:57
2	Y 371.029	1062777.0	1062777.0	103.93	%			19:53:57
2	Ag 328.068†	129030.1	120399.3	494.76	µg/L	494.76	ppb	19:53:57
2	As 188.979†	1277.4	1235.6	523.42	µg/L	523.42	ppb	19:54:17
2	B 249.677†	33289.1	28472.2	476.33	µg/L	476.33	ppb	19:53:57
2	Ba 233.527†	113708.3	108892.2	497.86	µg/L	497.86	ppb	19:53:57
2	Be 313.107†	1621134.0	1550635.2	504.90	µg/L	504.90	ppb	19:53:57
2	Cd 226.502†	72772.0	69672.1	480.82	µg/L	480.82	ppb	19:53:57
2	Co 228.616†	36900.7	35457.5	485.78	µg/L	485.78	ppb	19:53:57
2	Cr 267.716†	59600.3	56824.0	487.94	µg/L	487.94	ppb	19:53:57
2	Cu 324.752†	120397.9	112688.2	491.39	µg/L	491.39	ppb	19:53:57
2	Mn 257.610†	375323.1	358768.5	490.02	µg/L	490.02	ppb	19:53:57
2	Mo 202.031†	15936.5	15292.2	483.17	µg/L	483.17	ppb	19:54:17
2	Ni 231.604†	39772.4	38067.5	486.93	µg/L	486.93	ppb	19:53:57
2	P 214.914†	10473.9	9934.6	2370.8	µg/L	2370.8	ppb	19:54:17
2	Pb 220.353†	8398.2	7917.1	481.14	µg/L	481.14	ppb	19:54:17

2	S 181.975 Axial†	1310.8	1158.5	942.63 µg/L	942.63 ppb	19:54:17
2	Sb 206.836†	3846.2	3590.8	485.41 µg/L	485.41 ppb	19:54:17
2	Se 196.026†	1265.1	1198.6	476 µg/L	476 ppb	19:54:17
2	SiO2†	51895.6	48044.8	5230.6 µg/L	5230.6 ppb	19:53:57
2	Si 251.611†	155321.7	147827.6	2434.7 µg/L	2434.7 ppb	19:53:57
2	Sn 189.927†	7131.0	6815.9	486.21 µg/L	486.21 ppb	19:54:17
2	Ti 334.940†	504709.9	481919.6	490.77 µg/L	490.77 ppb	19:53:57
2	Tl 190.801†	3621.3	3582.7	488.28 µg/L	488.28 ppb	19:54:17
2	U 409.014†	7284.6	7443.9	490.00 µg/L	490.00 ppb	19:53:57
2	V 292.402†	93209.2	88686.0	498.11 µg/L	498.11 ppb	19:53:57
2	Zn 213.857†	80533.7	76534.3	477.93 µg/L	477.93 ppb	19:53:57
3	Sc RADIAL	155078.4	155078.4	106 %		19:53:29
3	Al 396.153Radial†	25069.2	23593.8	5127.8 µg/L	5127.8 ppb	19:53:29
3	Ca 317.933Radial†	90380.5	84330.2	4941.4 µg/L	4941.4 ppb	19:53:29
3	Fe 238.204 Radial†	78812.3	73960.4	4917.1 µg/L	4917.1 ppb	19:53:29
3	K 766.490 Radial†	14162.7	11856.1	4876.9 µg/L	4876.9 ppb	19:53:29
3	Mg 279.077 IEC†	13255.0	12271.4	5067.2 µg/L	5067.2 ppb	19:53:29
3	Na 589.592 Radial†	70378.5	64452.3	9857.7 µg/L	9857.7 ppb	19:53:29
3	Sr 421.552†	229789.0	216250.9	506.80 µg/L	506.80 ppb	19:53:27
3	Sc 361.383	1754221.5	1754221.5	104.87 %		19:54:20
3	Y 371.029	1065517.6	1065517.6	104.20 %		19:54:20
3	Ag 328.068†	129249.8	120281.8	494.30 µg/L	494.30 ppb	19:54:20
3	As 188.979†	1278.2	1233.1	522.37 µg/L	522.37 ppb	19:54:40
3	B 249.677†	33485.8	28575.4	478.06 µg/L	478.06 ppb	19:54:20
3	Ba 233.527†	113649.5	108547.9	496.28 µg/L	496.28 ppb	19:54:20
3	Be 313.107†	1620552.1	1545971.4	503.38 µg/L	503.38 ppb	19:54:20
3	Cd 226.502†	72839.4	69552.0	479.99 µg/L	479.99 ppb	19:54:20
3	Co 228.616†	36967.6	35427.9	485.37 µg/L	485.37 ppb	19:54:20
3	Cr 267.716†	59675.2	56744.3	487.25 µg/L	487.25 ppb	19:54:20
3	Cu 324.752†	120775.4	112743.0	491.64 µg/L	491.64 ppb	19:54:20
3	Mn 257.610†	375706.0	358182.3	489.22 µg/L	489.22 ppb	19:54:20
3	Mo 202.031†	15964.1	15278.1	482.72 µg/L	482.72 ppb	19:54:40
3	Ni 231.604†	39857.9	38048.2	486.68 µg/L	486.68 ppb	19:54:20
3	P 214.914†	10507.5	9940.1	2372.1 µg/L	2372.1 ppb	19:54:40
3	Pb 220.353†	8449.2	7944.5	482.78 µg/L	482.78 ppb	19:54:40
3	S 181.975 Axial†	1329.7	1173.2	954.54 µg/L	954.54 ppb	19:54:40
3	Sb 206.836†	3845.9	3580.7	484.06 µg/L	484.06 ppb	19:54:40
3	Se 196.026†	1261.3	1191.8	474 µg/L	474 ppb	19:54:40
3	SiO2†	51759.5	47783.5	5202.0 µg/L	5202.0 ppb	19:54:20
3	Si 251.611†	155480.2	147585.0	2430.6 µg/L	2430.6 ppb	19:54:20
3	Sn 189.927†	7188.1	6852.4	488.80 µg/L	488.80 ppb	19:54:40
3	Ti 334.940†	505136.1	481046.7	489.87 µg/L	489.87 ppb	19:54:20
3	Tl 190.801†	3646.0	3597.0	490.19 µg/L	490.19 ppb	19:54:40
3	U 409.014†	7585.0	7711.9	506.54 µg/L	506.54 ppb	19:54:20
3	V 292.402†	93415.0	88646.0	497.89 µg/L	497.89 ppb	19:54:20
3	Zn 213.857†	80914.4	76693.2	478.93 µg/L	478.93 ppb	19:54:20

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1752467.3	104.76	%	0.151				0.14%
Sc RADIAL	155716.9	107	%	0.4				0.37%
Y 371.029	1064543.2	104.10	%	0.150				0.14%
Ag 328.068†	120529.2	495.29	µg/L	1.342	495.29	ppb	1.342	0.27%
QC value within limits for Ag 328.068 Recovery = 99.06%								
Al 396.153Radial†	23721.5	5155.7	µg/L	24.12	5155.7	ppb	24.12	0.47%
QC value within limits for Al 396.153Radial Recovery = 103.11%								
As 188.979†	1228.0	520.27	µg/L	4.583	520.27	ppb	4.583	0.88%
QC value within limits for As 188.979 Recovery = 104.05%								
B 249.677†	28529.8	477.29	µg/L	0.884	477.29	ppb	0.884	0.19%
QC value within limits for B 249.677 Recovery = 95.46%								
Ba 233.527†	108854.7	497.68	µg/L	1.325	497.68	ppb	1.325	0.27%
QC value within limits for Ba 233.527 Recovery = 99.54%								
Be 313.107†	1548756.1	504.29	µg/L	0.798	504.29	ppb	0.798	0.16%
QC value within limits for Be 313.107 Recovery = 100.86%								
Ca 317.933Radial†	84403.4	4945.7	µg/L	4.42	4945.7	ppb	4.42	0.09%
QC value within limits for Ca 317.933Radial Recovery = 98.91%								
Cd 226.502†	69683.6	480.90	µg/L	0.952	480.90	ppb	0.952	0.20%
QC value within limits for Cd 226.502 Recovery = 96.18%								
Co 228.616†	35446.5	485.63	µg/L	0.223	485.63	ppb	0.223	0.05%

```
   QC value within limits for Co 228.616  Recovery = 97.13%
Cr 267.716†            56838.6      488.07 µg/L         0.888      488.07 ppb          0.888   0.18%
   QC value within limits for Cr 267.716  Recovery = 97.61%
Cu 324.752†           112822.1      491.97 µg/L         0.803      491.97 ppb          0.803   0.16%
   QC value within limits for Cu 324.752  Recovery = 98.39%
Fe 238.204 Radial†     73925.1      4914.8 µg/L          8.52      4914.8 ppb           8.52   0.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.30%
K 766.490 Radial†      11753.1      4834.4 µg/L         41.46      4834.4 ppb          41.46   0.86%
   QC value within limits for K 766.490 Radial  Recovery = 96.69%
Mg 279.077 IEC†        12257.5      5061.5 µg/L         10.75      5061.5 ppb          10.75   0.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.23%
Mn 257.610†           358756.8      490.01 µg/L         0.777      490.01 ppb          0.777   0.16%
   QC value within limits for Mn 257.610  Recovery = 98.00%
Mo 202.031†            15284.5      482.92 µg/L         0.226      482.92 ppb          0.226   0.05%
   QC value within limits for Mo 202.031  Recovery = 96.58%
Na 589.592 Radial†     64454.9      9858.1 µg/L          9.01      9858.1 ppb           9.01   0.09%
   QC value within limits for Na 589.592 Radial  Recovery = 98.58%
Ni 231.604†            38097.1      487.31 µg/L         0.879      487.31 ppb          0.879   0.18%
   QC value within limits for Ni 231.604  Recovery = 97.46%
P 214.914†              9923.5      2368.1 µg/L          5.81      2368.1 ppb           5.81   0.25%
   QC value within limits for P 214.914  Recovery = 94.72%
Pb 220.353†             7918.0      481.20 µg/L         1.563      481.20 ppb          1.563   0.32%
   QC value within limits for Pb 220.353  Recovery = 96.24%
S 181.975 Axial†        1157.0      941.47 µg/L        13.693      941.47 ppb         13.693   1.45%
   QC value within limits for S 181.975 Axial  Recovery = 94.15%
Sb 206.836†             3593.5      485.78 µg/L         1.923      485.78 ppb          1.923   0.40%
   QC value within limits for Sb 206.836  Recovery = 97.16%
Se 196.026†             1197.9         476 µg/L           2.3         476 ppb            2.3   0.48%
   QC value within limits for Se 196.026  Recovery = 95.20%
SiO2†                  47942.4      5219.4 µg/L         15.27      5219.4 ppb          15.27   0.29%
   QC value within limits for SiO2  Recovery = 97.60%
Si 251.611†           147885.2      2435.6 µg/L          5.51      2435.6 ppb           5.51   0.23%
   QC value within limits for Si 251.611  Recovery = 97.42%
Sn 189.927†             6826.1      486.94 µg/L         1.623      486.94 ppb          1.623   0.33%
   QC value within limits for Sn 189.927  Recovery = 97.39%
Sr 421.552†           216114.0      506.48 µg/L         2.501      506.48 ppb          2.501   0.49%
   QC value within limits for Sr 421.552  Recovery = 101.30%
Ti 334.940†           482041.8      490.89 µg/L         1.088      490.89 ppb          1.088   0.22%
   QC value within limits for Ti 334.940  Recovery = 98.18%
Tl 190.801†             3590.8      489.38 µg/L         0.983      489.38 ppb          0.983   0.20%
   QC value within limits for Tl 190.801  Recovery = 97.88%
U 409.014†              7493.2      493.05 µg/L        12.247      493.05 ppb         12.247   2.48%
   QC value within limits for U 409.014  Recovery = 98.61%
V 292.402†             88728.8      498.35 µg/L         0.611      498.35 ppb          0.611   0.12%
   QC value within limits for V 292.402  Recovery = 99.67%
Zn 213.857†            76678.1      478.83 µg/L         0.858      478.83 ppb          0.858   0.18%
   QC value within limits for Zn 213.857  Recovery = 95.77%
All analyte(s) passed QC.
```

Sequence No.: 19 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/29/2010 19:54:47**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	157224.0	157224.0	108	%			19:55:16
1	Al 396.153Radial†	-32.4	1.9	0.3819	µg/L	0.3819	ppb	19:55:36
1	Ca 317.933Radial†	709.9	41.9	2.4560	µg/L	2.4560	ppb	19:55:36
1	Fe 238.204 Radial†	168.7	43.1	2.8662	µg/L	2.8662	ppb	19:55:36
1	K 766.490 Radial†	1483.0	-80.2	-33.015	µg/L	-33.015	ppb	19:55:16
1	Mg 279.077 IEC†	179.6	-20.2	-8.3135	µg/L	-8.3135	ppb	19:55:36
1	Na 589.592 Radial†	1705.0	-114.1	-17.428	µg/L	-17.428	ppb	19:55:16
1	Sr 421.552†	-122.3	164.6	0.3859	µg/L	0.3859	ppb	19:55:16
1	Sc 361.383	1744373.3	1744373.3	104.28	%			19:56:24
1	Y 371.029	1071958.2	1071958.2	104.83	%			19:56:24
1	Ag 328.068†	3041.9	-50.0	-0.2039	µg/L	-0.2039	ppb	19:56:26
1	As 188.979†	-16.7	-1.8	-0.7391	µg/L	-0.7391	ppb	19:56:46
1	B 249.677†	3115.7	-367.9	-6.1751	µg/L	-6.1751	ppb	19:56:46
1	Ba 233.527†	-172.9	9.3	0.0420	µg/L	0.0420	ppb	19:56:46
1	Be 313.107†	-510.3	170.7	0.0584	µg/L	0.0584	ppb	19:56:26
1	Cd 226.502†	-91.2	6.9	0.0476	µg/L	0.0476	ppb	19:56:46
1	Co 228.616†	-200.7	-15.9	-0.2172	µg/L	-0.2172	ppb	19:56:46
1	Cr 267.716†	193.2	25.0	0.2074	µg/L	0.2074	ppb	19:56:46
1	Cu 324.752†	2573.6	43.1	0.1952	µg/L	0.1952	ppb	19:56:26
1	Mn 257.610†	146.1	60.1	0.0824	µg/L	0.0824	ppb	19:56:46
1	Mo 202.031†	-38.9	17.9	0.5656	µg/L	0.5656	ppb	19:56:46
1	Ni 231.604†	-15.8	25.7	0.3290	µg/L	0.3290	ppb	19:56:46
1	P 214.914†	40.8	-40.5	-9.7010	µg/L	-9.7010	ppb	19:56:46
1	Pb 220.353†	105.0	-11.7	-0.7153	µg/L	-0.7153	ppb	19:56:46
1	S 181.975 Axial†	80.4	-17.8	-14.383	µg/L	-14.383	ppb	19:56:46
1	Sb 206.836†	78.7	-11.2	-1.5082	µg/L	-1.5082	ppb	19:56:46
1	Se 196.026†	26.3	14.3	5.65	µg/L	5.65	ppb	19:56:46
1	SiO2†	1648.2	7.7	0.8224	µg/L	0.8224	ppb	19:56:46
1	Si 251.611†	791.8	83.0	1.3617	µg/L	1.3617	ppb	19:56:46
1	Sn 189.927†	7.8	5.5	0.3882	µg/L	0.3882	ppb	19:56:46
1	Ti 334.940†	798.2	129.1	0.1285	µg/L	0.1285	ppb	19:56:26
1	Tl 190.801†	-105.6	19.0	2.5510	µg/L	2.5510	ppb	19:56:46
1	U 409.014†	-340.6	152.4	9.3589	µg/L	9.3589	ppb	19:56:26
1	V 292.402†	251.4	-190.7	-1.0454	µg/L	-1.0454	ppb	19:56:26
1	Zn 213.857†	524.6	38.6	0.2408	µg/L	0.2408	ppb	19:56:46
2	Sc RADIAL	153604.9	153604.9	105	%			19:55:38
2	Al 396.153Radial†	-40.7	-6.7	-1.5003	µg/L	-1.5003	ppb	19:55:58
2	Ca 317.933Radial†	698.2	46.3	2.7145	µg/L	2.7145	ppb	19:55:58
2	Fe 238.204 Radial†	160.1	38.6	2.5686	µg/L	2.5686	ppb	19:55:58
2	K 766.490 Radial†	1640.2	101.4	41.741	µg/L	41.741	ppb	19:55:38
2	Mg 279.077 IEC†	170.0	-25.4	-10.448	µg/L	-10.448	ppb	19:55:58
2	Na 589.592 Radial†	1652.3	-126.9	-19.447	µg/L	-19.447	ppb	19:55:38
2	Sr 421.552†	-170.5	116.2	0.2723	µg/L	0.2723	ppb	19:55:38
2	Sc 361.383	1769862.2	1769862.2	105.80	%			19:56:48
2	Y 371.029	1086957.3	1086957.3	106.30	%			19:56:48
2	Ag 328.068†	3055.4	-79.2	-0.3279	µg/L	-0.3279	ppb	19:56:50
2	As 188.979†	-3.9	10.5	4.3943	µg/L	4.3943	ppb	19:57:10
2	B 249.677†	3116.6	-410.1	-6.8860	µg/L	-6.8860	ppb	19:57:10
2	Ba 233.527†	-159.5	24.3	0.1105	µg/L	0.1105	ppb	19:57:10
2	Be 313.107†	-578.9	112.9	0.0378	µg/L	0.0378	ppb	19:56:50
2	Cd 226.502†	-100.7	-0.8	-0.0060	µg/L	-0.0060	ppb	19:57:10
2	Co 228.616†	-154.1	30.9	0.4233	µg/L	0.4233	ppb	19:57:10
2	Cr 267.716†	158.7	-10.2	-0.0909	µg/L	-0.0909	ppb	19:57:10
2	Cu 324.752†	2676.8	105.1	0.4602	µg/L	0.4602	ppb	19:56:50
2	Mn 257.610†	145.1	57.2	0.0785	µg/L	0.0785	ppb	19:57:10
2	Mo 202.031†	-36.1	21.0	0.6639	µg/L	0.6639	ppb	19:57:10
2	Ni 231.604†	-68.7	-24.1	-0.3078	µg/L	-0.3078	ppb	19:57:10
2	P 214.914†	59.6	-23.2	-5.5807	µg/L	-5.5807	ppb	19:57:10
2	Pb 220.353†	97.2	-20.5	-1.2440	µg/L	-1.2440	ppb	19:57:10

2	S 181.975 Axial†	84.9	-14.6	-11.787 µg/L	-11.787 ppb	19:57:10
2	Sb 206.836†	96.3	4.4	0.6052 µg/L	0.6052 ppb	19:57:10
2	Se 196.026†	0.8	-10.2	-4.02 µg/L	-4.02 ppb	19:57:10
2	SiO2†	1672.2	7.6	0.8120 µg/L	0.8120 ppb	19:57:10
2	Si 251.611†	794.7	74.7	1.2254 µg/L	1.2254 ppb	19:57:10
2	Sn 189.927†	4.2	1.9	0.1385 µg/L	0.1385 ppb	19:57:10
2	Ti 334.940†	903.8	217.9	0.2217 µg/L	0.2217 ppb	19:56:50
2	Tl 190.801†	-111.2	15.2	2.0307 µg/L	2.0307 ppb	19:57:10
2	U 409.014†	-447.5	56.1	3.4153 µg/L	3.4153 ppb	19:56:50
2	V 292.402†	287.1	-160.5	-0.8820 µg/L	-0.8820 ppb	19:56:50
2	Zn 213.857†	515.3	22.6	0.1440 µg/L	0.1440 ppb	19:57:10
3	Sc RADIAL	153703.8	153703.8	105 %		19:56:00
3	Al 396.153Radial†	-49.3	-14.8	-3.2844 µg/L	-3.2844 ppb	19:56:20
3	Ca 317.933Radial†	710.1	57.2	3.3512 µg/L	3.3512 ppb	19:56:20
3	Fe 238.204 Radial†	142.7	22.1	1.4665 µg/L	1.4665 ppb	19:56:20
3	K 766.490 Radial†	1683.5	141.5	58.243 µg/L	58.243 ppb	19:56:00
3	Mg 279.077 IEC†	155.1	-39.6	-16.319 µg/L	-16.319 ppb	19:56:20
3	Na 589.592 Radial†	1574.2	-202.0	-30.955 µg/L	-30.955 ppb	19:56:00
3	Sr 421.552†	-284.4	8.3	0.0193 µg/L	0.0193 ppb	19:56:00
3	Sc 361.383	1752547.4	1752547.4	104.77 %		19:57:12
3	Y 371.029	1077428.7	1077428.7	105.36 %		19:57:12
3	Ag 328.068†	3055.4	-50.7	-0.2129 µg/L	-0.2129 ppb	19:57:14
3	As 188.979†	-12.7	2.2	0.9041 µg/L	0.9041 ppb	19:57:35
3	B 249.677†	3085.6	-410.5	-6.8921 µg/L	-6.8921 ppb	19:57:35
3	Ba 233.527†	-169.6	13.1	0.0597 µg/L	0.0597 ppb	19:57:35
3	Be 313.107†	-482.0	200.1	0.0664 µg/L	0.0664 ppb	19:57:14
3	Cd 226.502†	-116.9	-17.2	-0.1188 µg/L	-0.1188 ppb	19:57:35
3	Co 228.616†	-195.4	-9.9	-0.1357 µg/L	-0.1357 ppb	19:57:35
3	Cr 267.716†	143.5	-23.2	-0.2031 µg/L	-0.2031 ppb	19:57:35
3	Cu 324.752†	2562.2	20.7	0.0929 µg/L	0.0929 ppb	19:57:14
3	Mn 257.610†	158.6	71.4	0.0982 µg/L	0.0982 ppb	19:57:35
3	Mo 202.031†	-25.3	31.1	0.9808 µg/L	0.9808 ppb	19:57:35
3	Ni 231.604†	-42.1	0.8	0.0099 µg/L	0.0099 ppb	19:57:35
3	P 214.914†	71.3	-11.5	-2.7700 µg/L	-2.7700 ppb	19:57:35
3	Pb 220.353†	104.0	-13.2	-0.8002 µg/L	-0.8002 ppb	19:57:35
3	S 181.975 Axial†	83.8	-14.8	-11.977 µg/L	-11.977 ppb	19:57:35
3	Sb 206.836†	75.3	-14.7	-1.9710 µg/L	-1.9710 ppb	19:57:35
3	Se 196.026†	23.6	11.6	4.60 µg/L	4.60 ppb	19:57:35
3	SiO2†	1653.5	5.4	0.5590 µg/L	0.5590 ppb	19:57:35
3	Si 251.611†	763.9	52.8	0.8589 µg/L	0.8589 ppb	19:57:35
3	Sn 189.927†	2.7	0.5	0.0386 µg/L	0.0386 ppb	19:57:35
3	Ti 334.940†	894.4	217.4	0.2215 µg/L	0.2215 ppb	19:57:14
3	Tl 190.801†	-118.7	7.0	0.9364 µg/L	0.9364 ppb	19:57:35
3	U 409.014†	-431.7	67.1	4.0863 µg/L	4.0863 ppb	19:57:14
3	V 292.402†	259.2	-184.4	-1.0115 µg/L	-1.0115 ppb	19:57:14
3	Zn 213.857†	491.0	4.2	0.0263 µg/L	0.0263 ppb	19:57:35

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1755594.3	104.95	%	0.778				0.74%
Sc RADIAL	154844.2	106	%	1.4				1.33%
Y 371.029	1078781.4	105.50	%	0.742				0.70%
Ag 328.068†	-60.0	-0.2482	µg/L	0.06913	-0.2482	ppb	0.06913	27.85%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.6	-1.4676	µg/L	1.83335	-1.4676	ppb	1.83335	124.92%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.6	1.5198	µg/L	2.62149	1.5198	ppb	2.62149	172.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-396.2	-6.6511	µg/L	0.41221	-6.6511	ppb	0.41221	6.20%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	15.6	0.0707	µg/L	0.03556	0.0707	ppb	0.03556	50.28%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	161.2	0.0542	µg/L	0.01474	0.0542	ppb	0.01474	27.20%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	48.5	2.8406	µg/L	0.46071	2.8406	ppb	0.46071	16.22%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-3.7	-0.0257	µg/L	0.08491	-0.0257	ppb	0.08491	330.30%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	1.7	0.0235	µg/L	0.34867	0.0235	ppb	0.34867	>999.9%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -2.8     -0.0289 µg/L       0.21215     -0.0289 ppb        0.21215 734.89%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              56.3      0.2495 µg/L       0.18957      0.2495 ppb        0.18957  75.99%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       34.6      2.3004 µg/L       0.73735      2.3004 ppb        0.73735  32.05%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        54.2      22.323 µg/L       48.6295      22.323 ppb        48.6295 217.84%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         -28.4     -11.693 µg/L        4.1454     -11.693 ppb         4.1454  35.45%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              62.9      0.0864 µg/L       0.01044      0.0864 ppb        0.01044  12.09%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              23.4      0.7368 µg/L       0.21697      0.7368 ppb        0.21697  29.45%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†     -147.6     -22.610 µg/L        7.2970     -22.610 ppb         7.2970  32.27%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.8      0.0104 µg/L       0.31844      0.0104 ppb        0.31844 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -25.1     -6.0172 µg/L       3.48607     -6.0172 ppb        3.48607  57.93%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -15.2     -0.9198 µg/L       0.28391     -0.9198 ppb        0.28391  30.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -15.7     -12.716 µg/L        1.4469     -12.716 ppb         1.4469  11.38%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -7.2     -0.9580 µg/L       1.37341     -0.9580 ppb        1.37341 143.36%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               5.2        2.08 µg/L         5.305        2.08 ppb          5.305 255.01%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     6.9      0.7311 µg/L       0.14916      0.7311 ppb        0.14916  20.40%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              70.1      1.1487 µg/L       0.26000      1.1487 ppb        0.26000  22.64%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.6      0.1884 µg/L       0.18007      0.1884 ppb        0.18007  95.55%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              96.4      0.2258 µg/L       0.18764      0.2258 ppb        0.18764  83.09%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             188.1      0.1905 µg/L       0.05374      0.1905 ppb        0.05374  28.21%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              13.7      1.8394 µg/L       0.82412      1.8394 ppb        0.82412  44.80%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               91.9      5.6202 µg/L       3.25513      5.6202 ppb        3.25513  57.92%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -178.5     -0.9796 µg/L       0.08622     -0.9796 ppb        0.08622   8.80%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              21.8      0.1370 µg/L       0.10743      0.1370 ppb        0.10743  78.42%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 28 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/29/2010 20:14:40**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	158830.4	158830.4	109	%			20:15:13
1	Al 396.153Radial†	25834.9	23739.9	5159.6	µg/L	5159.6	ppb	20:15:13
1	Ca 317.933Radial†	92141.6	83939.6	4918.5	µg/L	4918.5	ppb	20:15:13
1	Fe 238.204 Radial†	80227.4	73509.2	4887.1	µg/L	4887.1	ppb	20:15:13
1	K 766.490 Radial†	14250.9	11622.7	4780.8	µg/L	4780.8	ppb	20:15:13
1	Mg 279.077 IEC†	13509.5	12210.6	5042.2	µg/L	5042.2	ppb	20:15:13
1	Na 589.592 Radial†	71473.6	63894.6	9772.4	µg/L	9772.4	ppb	20:15:13
1	Sr 421.552†	233067.3	214157.3	501.89	µg/L	501.89	ppb	20:15:11
1	Sc 361.383	1758890.2	1758890.2	105.15	%			20:15:40
1	Y 371.029	1068006.2	1068006.2	104.44	%			20:15:40
1	Ag 328.068†	130795.7	121424.9	498.97	µg/L	498.97	ppb	20:15:40
1	As 188.979†	1305.1	1255.5	531.78	µg/L	531.78	ppb	20:16:00
1	B 249.677†	33757.2	28748.7	480.95	µg/L	480.95	ppb	20:15:40
1	Ba 233.527†	115387.0	109912.7	502.52	µg/L	502.52	ppb	20:15:40
1	Be 313.107†	1647211.3	1567223.6	510.30	µg/L	510.30	ppb	20:15:40
1	Cd 226.502†	73776.2	70258.5	484.88	µg/L	484.88	ppb	20:15:40
1	Co 228.616†	37405.4	35750.6	489.80	µg/L	489.80	ppb	20:15:40
1	Cr 267.716†	60425.3	57306.6	492.09	µg/L	492.09	ppb	20:15:40
1	Cu 324.752†	122063.0	113661.9	495.62	µg/L	495.62	ppb	20:15:40
1	Mn 257.610†	380412.8	361707.7	494.04	µg/L	494.04	ppb	20:15:40
1	Mo 202.031†	16080.3	15348.2	484.94	µg/L	484.94	ppb	20:16:00
1	Ni 231.604†	40320.7	38387.5	491.02	µg/L	491.02	ppb	20:15:40
1	P 214.914†	10614.3	10015.1	2390.0	µg/L	2390.0	ppb	20:16:00
1	Pb 220.353†	8478.6	7951.1	483.21	µg/L	483.21	ppb	20:16:00
1	S 181.975 Axial†	1339.7	1179.2	959.49	µg/L	959.49	ppb	20:16:00
1	Sb 206.836†	3893.5	3616.2	488.83	µg/L	488.83	ppb	20:16:00
1	Se 196.026†	1283.0	1209.3	480	µg/L	480	ppb	20:16:00
1	SiO2†	52444.4	48303.9	5258.8	µg/L	5258.8	ppb	20:15:40
1	Si 251.611†	157396.1	149013.5	2454.2	µg/L	2454.2	ppb	20:15:40
1	Sn 189.927†	7240.5	6884.0	491.06	µg/L	491.06	ppb	20:16:00
1	Ti 334.940†	511382.1	485708.4	494.63	µg/L	494.63	ppb	20:15:40
1	Tl 190.801†	3660.5	3601.6	490.88	µg/L	490.88	ppb	20:16:00
1	U 409.014†	7375.4	7493.4	493.30	µg/L	493.30	ppb	20:15:40
1	V 292.402†	94413.5	89359.2	501.88	µg/L	501.88	ppb	20:15:40
1	Zn 213.857†	81706.6	77241.8	482.36	µg/L	482.36	ppb	20:15:40
2	Sc RADIAL	157495.3	157495.3	108	%			20:15:18
2	Al 396.153Radial†	25706.5	23822.0	5177.5	µg/L	5177.5	ppb	20:15:18
2	Ca 317.933Radial†	91510.6	84072.4	4926.3	µg/L	4926.3	ppb	20:15:18
2	Fe 238.204 Radial†	79745.5	73687.3	4899.0	µg/L	4899.0	ppb	20:15:18
2	K 766.490 Radial†	14109.0	11602.1	4772.3	µg/L	4772.3	ppb	20:15:18
2	Mg 279.077 IEC†	13430.6	12242.7	5055.5	µg/L	5055.5	ppb	20:15:18
2	Na 589.592 Radial†	70962.0	63977.1	9785.1	µg/L	9785.1	ppb	20:15:18
2	Sr 421.552†	232192.9	215161.2	504.24	µg/L	504.24	ppb	20:15:16
2	Sc 361.383	1762035.0	1762035.0	105.34	%			20:16:04
2	Y 371.029	1068713.1	1068713.1	104.51	%			20:16:04
2	Ag 328.068†	130782.3	121190.1	498.00	µg/L	498.00	ppb	20:16:04
2	As 188.979†	1306.9	1255.0	531.56	µg/L	531.56	ppb	20:16:24
2	B 249.677†	33992.4	28914.7	483.74	µg/L	483.74	ppb	20:16:04
2	Ba 233.527†	115511.3	109834.8	502.16	µg/L	502.16	ppb	20:16:04
2	Be 313.107†	1645684.7	1562978.3	508.91	µg/L	508.91	ppb	20:16:04
2	Cd 226.502†	74022.3	70366.9	485.63	µg/L	485.63	ppb	20:16:04
2	Co 228.616†	37443.2	35723.0	489.42	µg/L	489.42	ppb	20:16:04
2	Cr 267.716†	60364.6	57146.4	490.71	µg/L	490.71	ppb	20:16:04
2	Cu 324.752†	122082.7	113473.4	494.80	µg/L	494.80	ppb	20:16:04
2	Mn 257.610†	380150.5	360813.0	492.82	µg/L	492.82	ppb	20:16:04
2	Mo 202.031†	16156.3	15393.1	486.35	µg/L	486.35	ppb	20:16:24
2	Ni 231.604†	40290.4	38290.3	489.78	µg/L	489.78	ppb	20:16:04
2	P 214.914†	10621.1	10003.5	2387.2	µg/L	2387.2	ppb	20:16:24
2	Pb 220.353†	8535.7	7990.8	485.62	µg/L	485.62	ppb	20:16:24

2	S 181.975 Axial†	1326.2	1164.2	947.33 µg/L	947.33 ppb	20:16:24
2	Sb 206.836†	3900.6	3616.4	488.88 µg/L	488.88 ppb	20:16:24
2	Se 196.026†	1284.8	1208.8	480 µg/L	480 ppb	20:16:24
2	SiO2†	52491.8	48259.9	5253.9 µg/L	5253.9 ppb	20:16:04
2	Si 251.611†	157382.7	148733.6	2449.6 µg/L	2449.6 ppb	20:16:04
2	Sn 189.927†	7227.9	6859.8	489.33 µg/L	489.33 ppb	20:16:24
2	Ti 334.940†	511020.6	484497.1	493.40 µg/L	493.40 ppb	20:16:04
2	Tl 190.801†	3689.6	3623.0	493.72 µg/L	493.72 ppb	20:16:24
2	U 409.014†	7356.3	7462.8	491.32 µg/L	491.32 ppb	20:16:04
2	V 292.402†	94327.3	89117.0	500.55 µg/L	500.55 ppb	20:16:04
2	Zn 213.857†	81870.2	77258.4	482.47 µg/L	482.47 ppb	20:16:04
3	Sc RADIAL	156537.6	156537.6	107 %		20:15:22
3	Al 396.153Radial†	25645.9	23911.1	5196.9 µg/L	5196.9 ppb	20:15:22
3	Ca 317.933Radial†	91188.8	84290.9	4939.1 µg/L	4939.1 ppb	20:15:22
3	Fe 238.204 Radial†	79529.7	73937.9	4915.6 µg/L	4915.6 ppb	20:15:22
3	K 766.490 Radial†	14092.0	11666.3	4798.7 µg/L	4798.7 ppb	20:15:22
3	Mg 279.077 IEC†	13237.8	12139.2	5012.8 µg/L	5012.8 ppb	20:15:22
3	Na 589.592 Radial†	70964.3	64381.0	9846.9 µg/L	9846.9 ppb	20:15:22
3	Sr 421.552†	233615.3	217800.3	510.43 µg/L	510.43 ppb	20:15:20
3	Sc 361.383	1760601.0	1760601.0	105.25 %		20:16:27
3	Y 371.029	1068160.3	1068160.3	104.46 %		20:16:27
3	Ag 328.068†	130523.2	121045.1	497.39 µg/L	497.39 ppb	20:16:27
3	As 188.979†	1312.2	1261.0	534.08 µg/L	534.08 ppb	20:16:47
3	B 249.677†	33684.6	28648.5	479.28 µg/L	479.28 ppb	20:16:27
3	Ba 233.527†	115155.8	109586.4	501.03 µg/L	501.03 ppb	20:16:27
3	Be 313.107†	1645527.7	1564101.6	509.28 µg/L	509.28 ppb	20:16:27
3	Cd 226.502†	73929.1	70335.6	485.41 µg/L	485.41 ppb	20:16:27
3	Co 228.616†	37338.0	35652.0	488.45 µg/L	488.45 ppb	20:16:27
3	Cr 267.716†	60447.8	57272.2	491.80 µg/L	491.80 ppb	20:16:27
3	Cu 324.752†	121740.8	113243.0	493.79 µg/L	493.79 ppb	20:16:27
3	Mn 257.610†	379672.2	360652.5	492.60 µg/L	492.60 ppb	20:16:27
3	Mo 202.031†	16168.3	15416.9	487.10 µg/L	487.10 ppb	20:16:47
3	Ni 231.604†	40268.9	38301.0	489.91 µg/L	489.91 ppb	20:16:27
3	P 214.914†	10675.3	10063.2	2401.6 µg/L	2401.6 ppb	20:16:47
3	Pb 220.353†	8520.4	7982.9	485.15 µg/L	485.15 ppb	20:16:47
3	S 181.975 Axial†	1321.3	1160.6	944.41 µg/L	944.41 ppb	20:16:47
3	Sb 206.836†	3929.7	3647.1	493.02 µg/L	493.02 ppb	20:16:47
3	Se 196.026†	1275.2	1200.7	477 µg/L	477 ppb	20:16:47
3	SiO2†	52357.5	48172.8	5244.4 µg/L	5244.4 ppb	20:16:27
3	Si 251.611†	157210.8	148692.0	2448.9 µg/L	2448.9 ppb	20:16:27
3	Sn 189.927†	7259.6	6895.4	491.87 µg/L	491.87 ppb	20:16:47
3	Ti 334.940†	509954.6	483879.4	492.77 µg/L	492.77 ppb	20:16:27
3	Tl 190.801†	3695.1	3631.0	494.80 µg/L	494.80 ppb	20:16:47
3	U 409.014†	7240.3	7358.2	484.82 µg/L	484.82 ppb	20:16:27
3	V 292.402†	94156.3	89027.6	500.06 µg/L	500.06 ppb	20:16:27
3	Zn 213.857†	81777.8	77234.0	482.31 µg/L	482.31 ppb	20:16:27

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1760508.7	105.24	%	0.094				0.09%
Sc RADIAL	157621.1	108	%	0.8				0.73%
Y 371.029	1068293.2	104.47	%	0.036				0.03%
Ag 328.068†	121220.0	498.12	µg/L	0.794	498.12	ppb	0.794	0.16%
QC value within limits for Ag 328.068 Recovery = 99.62%								
Al 396.153Radial†	23824.3	5178.0	µg/L	18.65	5178.0	ppb	18.65	0.36%
QC value within limits for Al 396.153Radial Recovery = 103.56%								
As 188.979†	1257.1	532.47	µg/L	1.398	532.47	ppb	1.398	0.26%
QC value within limits for As 188.979 Recovery = 106.49%								
B 249.677†	28770.7	481.32	µg/L	2.255	481.32	ppb	2.255	0.47%
QC value within limits for B 249.677 Recovery = 96.26%								
Ba 233.527†	109778.0	501.91	µg/L	0.779	501.91	ppb	0.779	0.16%
QC value within limits for Ba 233.527 Recovery = 100.38%								
Be 313.107†	1564767.8	509.50	µg/L	0.717	509.50	ppb	0.717	0.14%
QC value within limits for Be 313.107 Recovery = 101.90%								
Ca 317.933Radial†	84101.0	4928.0	µg/L	10.39	4928.0	ppb	10.39	0.21%
QC value within limits for Ca 317.933Radial Recovery = 98.56%								
Cd 226.502†	70320.3	485.30	µg/L	0.384	485.30	ppb	0.384	0.08%
QC value within limits for Cd 226.502 Recovery = 97.06%								
Co 228.616†	35708.6	489.22	µg/L	0.698	489.22	ppb	0.698	0.14%

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   QC value within limits for Co 228.616  Recovery = 97.84%
Cr 267.716†            57241.7      491.53 µg/L         0.725      491.53 ppb          0.725   0.15%
   QC value within limits for Cr 267.716  Recovery = 98.31%
Cu 324.752†           113459.4      494.74 µg/L         0.914      494.74 ppb          0.914   0.18%
   QC value within limits for Cu 324.752  Recovery = 98.95%
Fe 238.204 Radial†     73711.5      4900.6 µg/L         14.32      4900.6 ppb          14.32   0.29%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.01%
K 766.490 Radial†      11630.4      4783.9 µg/L         13.48      4783.9 ppb          13.48   0.28%
   QC value within limits for K 766.490 Radial  Recovery = 95.68%
Mg 279.077 IEC†        12197.5      5036.8 µg/L         21.85      5036.8 ppb          21.85   0.43%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.74%
Mn 257.610†           361057.7      493.15 µg/L         0.777      493.15 ppb          0.777   0.16%
   QC value within limits for Mn 257.610  Recovery = 98.63%
Mo 202.031†            15386.1      486.13 µg/L         1.101      486.13 ppb          1.101   0.23%
   QC value within limits for Mo 202.031  Recovery = 97.23%
Na 589.592 Radial†     64084.3      9801.5 µg/L         39.82      9801.5 ppb          39.82   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 98.01%
Ni 231.604†            38326.3      490.24 µg/L         0.682      490.24 ppb          0.682   0.14%
   QC value within limits for Ni 231.604  Recovery = 98.05%
P 214.914†             10027.2      2392.9 µg/L          7.59      2392.9 ppb           7.59   0.32%
   QC value within limits for P 214.914  Recovery = 95.72%
Pb 220.353†             7974.9      484.66 µg/L         1.279      484.66 ppb          1.279   0.26%
   QC value within limits for Pb 220.353  Recovery = 96.93%
S 181.975 Axial†        1168.0      950.41 µg/L         8.003      950.41 ppb          8.003   0.84%
   QC value within limits for S 181.975 Axial  Recovery = 95.04%
Sb 206.836†             3626.6      490.24 µg/L         2.403      490.24 ppb          2.403   0.49%
   QC value within limits for Sb 206.836  Recovery = 98.05%
Se 196.026†             1206.3         479 µg/L           1.9         479 ppb            1.9   0.40%
   QC value within limits for Se 196.026  Recovery = 95.86%
SiO2†                  48245.5      5252.4 µg/L          7.33      5252.4 ppb           7.33   0.14%
   QC value within limits for SiO2  Recovery = 98.22%
Si 251.611†           148813.1      2450.9 µg/L          2.90      2450.9 ppb           2.90   0.12%
   QC value within limits for Si 251.611  Recovery = 98.04%
Sn 189.927†             6879.7      490.75 µg/L         1.293      490.75 ppb          1.293   0.26%
   QC value within limits for Sn 189.927  Recovery = 98.15%
Sr 421.552†           215706.3      505.52 µg/L         4.410      505.52 ppb          4.410   0.87%
   QC value within limits for Sr 421.552  Recovery = 101.10%
Ti 334.940†           484695.0      493.60 µg/L         0.946      493.60 ppb          0.946   0.19%
   QC value within limits for Ti 334.940  Recovery = 98.72%
Tl 190.801†             3618.5      493.13 µg/L         2.027      493.13 ppb          2.027   0.41%
   QC value within limits for Tl 190.801  Recovery = 98.63%
U 409.014†              7438.1      489.81 µg/L         4.433      489.81 ppb          4.433   0.91%
   QC value within limits for U 409.014  Recovery = 97.96%
V 292.402†             89167.9      500.83 µg/L         0.945      500.83 ppb          0.945   0.19%
   QC value within limits for V 292.402  Recovery = 100.17%
Zn 213.857†            77244.7      482.38 µg/L         0.080      482.38 ppb          0.080   0.02%
   QC value within limits for Zn 213.857  Recovery = 96.48%
All analyte(s) passed QC.
```

Sequence No.: 29 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/29/2010 20:16:54**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	158157.7	158157.7	109	%			20:17:23
1	Al 396.153Radial†	-63.6	-26.8	-5.8638	µg/L	-5.8638	ppb	20:17:43
1	Ca 317.933Radial†	734.1	60.4	3.5365	µg/L	3.5365	ppb	20:17:43
1	Fe 238.204 Radial†	186.1	58.3	3.8728	µg/L	3.8728	ppb	20:17:43
1	K 766.490 Radial†	1649.8	65.4	26.926	µg/L	26.926	ppb	20:17:23
1	Mg 279.077 IEC†	176.6	-23.9	-9.8603	µg/L	-9.8603	ppb	20:17:43
1	Na 589.592 Radial†	1600.7	-219.6	-33.624	µg/L	-33.624	ppb	20:17:23
1	Sr 421.552†	-113.7	173.2	0.4058	µg/L	0.4058	ppb	20:17:23
1	Sc 361.383	1797162.4	1797162.4	107.44	%			20:18:45
1	Y 371.029	1101535.0	1101535.0	107.72	%			20:18:45
1	Ag 328.068†	3189.5	1.7	0.0181	µg/L	0.0181	ppb	20:18:47
1	As 188.979†	-18.7	-3.2	-1.3282	µg/L	-1.3282	ppb	20:19:07
1	B 249.677†	3164.5	-410.2	-6.8868	µg/L	-6.8868	ppb	20:19:07
1	Ba 233.527†	-166.3	20.3	0.0925	µg/L	0.0925	ppb	20:19:07
1	Be 313.107†	-796.9	-81.6	-0.0232	µg/L	-0.0232	ppb	20:18:47
1	Cd 226.502†	-88.5	12.1	0.0830	µg/L	0.0830	ppb	20:19:07
1	Co 228.616†	-182.6	6.7	0.0913	µg/L	0.0913	ppb	20:19:07
1	Cr 267.716†	146.8	-23.6	-0.2111	µg/L	-0.2111	ppb	20:19:07
1	Cu 324.752†	2533.1	-67.1	-0.2822	µg/L	-0.2822	ppb	20:18:47
1	Mn 257.610†	189.2	96.1	0.1316	µg/L	0.1316	ppb	20:19:07
1	Mo 202.031†	-43.6	14.6	0.4617	µg/L	0.4617	ppb	20:19:07
1	Ni 231.604†	-36.3	7.1	0.0912	µg/L	0.0912	ppb	20:19:07
1	P 214.914†	33.9	-48.0	-11.496	µg/L	-11.496	ppb	20:19:07
1	Pb 220.353†	106.6	-13.2	-0.8080	µg/L	-0.8080	ppb	20:19:07
1	S 181.975 Axial†	94.0	-7.3	-5.9118	µg/L	-5.9118	ppb	20:19:07
1	Sb 206.836†	77.5	-14.5	-1.9423	µg/L	-1.9423	ppb	20:19:07
1	Se 196.026†	26.1	13.3	5.29	µg/L	5.29	ppb	20:19:07
1	SiO2†	1703.2	12.4	1.3407	µg/L	1.3407	ppb	20:19:07
1	Si 251.611†	757.0	28.3	0.4592	µg/L	0.4592	ppb	20:19:07
1	Sn 189.927†	6.4	3.9	0.2796	µg/L	0.2796	ppb	20:19:07
1	Ti 334.940†	1092.2	380.2	0.3841	µg/L	0.3841	ppb	20:18:47
1	Tl 190.801†	-110.1	17.8	2.3981	µg/L	2.3981	ppb	20:19:07
1	U 409.014†	-322.2	179.2	11.064	µg/L	11.064	ppb	20:18:47
1	V 292.402†	429.3	-32.2	-0.1685	µg/L	-0.1685	ppb	20:18:47
1	Zn 213.857†	497.4	-1.5	-0.0099	µg/L	-0.0099	ppb	20:19:07
2	Sc RADIAL	155691.2	155691.2	107	%			20:17:45
2	Al 396.153Radial†	-30.3	3.5	0.7196	µg/L	0.7196	ppb	20:18:05
2	Ca 317.933Radial†	713.2	51.5	3.0148	µg/L	3.0148	ppb	20:18:05
2	Fe 238.204 Radial†	162.5	38.8	2.5826	µg/L	2.5826	ppb	20:18:05
2	K 766.490 Radial†	1523.5	-28.7	-11.809	µg/L	-11.809	ppb	20:17:45
2	Mg 279.077 IEC†	195.4	-3.7	-1.5189	µg/L	-1.5189	ppb	20:18:05
2	Na 589.592 Radial†	1538.6	-254.3	-38.906	µg/L	-38.906	ppb	20:17:45
2	Sr 421.552†	-172.2	116.8	0.2737	µg/L	0.2737	ppb	20:17:45
2	Sc 361.383	1776190.8	1776190.8	106.18	%			20:19:09
2	Y 371.029	1089581.5	1089581.5	106.55	%			20:19:09
2	Ag 328.068†	3209.2	55.3	0.2233	µg/L	0.2233	ppb	20:19:11
2	As 188.979†	-18.8	-3.4	-1.4319	µg/L	-1.4319	ppb	20:19:31
2	B 249.677†	3163.9	-376.0	-6.3128	µg/L	-6.3128	ppb	20:19:31
2	Ba 233.527†	-158.5	25.8	0.1177	µg/L	0.1177	ppb	20:19:31
2	Be 313.107†	-622.2	74.1	0.0253	µg/L	0.0253	ppb	20:19:11
2	Cd 226.502†	-71.9	26.7	0.1839	µg/L	0.1839	ppb	20:19:31
2	Co 228.616†	-183.6	3.7	0.0500	µg/L	0.0500	ppb	20:19:31
2	Cr 267.716†	166.1	-3.8	-0.0355	µg/L	-0.0355	ppb	20:19:31
2	Cu 324.752†	2626.6	48.8	0.2155	µg/L	0.2155	ppb	20:19:11
2	Mn 257.610†	203.0	111.2	0.1519	µg/L	0.1519	ppb	20:19:31
2	Mo 202.031†	-29.4	27.5	0.8686	µg/L	0.8686	ppb	20:19:31
2	Ni 231.604†	-58.1	-13.8	-0.1766	µg/L	-0.1766	ppb	20:19:31
2	P 214.914†	38.3	-43.5	-10.438	µg/L	-10.438	ppb	20:19:31
2	Pb 220.353†	142.1	21.4	1.2928	µg/L	1.2928	ppb	20:19:31

2	S 181.975 Axial†	84.7	-15.1	-12.191	µg/L	-12.191	ppb	20:19:31
2	Sb 206.836†	90.2	-1.7	-0.2231	µg/L	-0.2231	ppb	20:19:31
2	Se 196.026†	16.7	4.8	1.90	µg/L	1.90	ppb	20:19:31
2	SiO2†	1687.5	16.4	1.7745	µg/L	1.7745	ppb	20:19:31
2	Si 251.611†	744.1	24.4	0.3950	µg/L	0.3950	ppb	20:19:31
2	Sn 189.927†	-5.5	-7.2	-0.5152	µg/L	-0.5152	ppb	20:19:31
2	Ti 334.940†	590.2	-80.5	-0.0834	µg/L	-0.0834	ppb	20:19:11
2	Tl 190.801†	-116.1	11.0	1.4736	µg/L	1.4736	ppb	20:19:31
2	U 409.014†	-444.6	60.4	3.7028	µg/L	3.7028	ppb	20:19:11
2	V 292.402†	365.2	-87.9	-0.4766	µg/L	-0.4766	ppb	20:19:11
2	Zn 213.857†	508.8	14.8	0.0938	µg/L	0.0938	ppb	20:19:31
3	Sc RADIAL	155889.7	155889.7	107	%			20:18:07
3	Al 396.153Radial†	-21.6	11.7	2.4989	µg/L	2.4989	ppb	20:18:27
3	Ca 317.933Radial†	710.6	48.2	2.8268	µg/L	2.8268	ppb	20:18:27
3	Fe 238.204 Radial†	176.6	51.8	3.4464	µg/L	3.4464	ppb	20:18:27
3	K 766.490 Radial†	1522.8	-31.2	-12.835	µg/L	-12.835	ppb	20:18:07
3	Mg 279.077 IEC†	169.6	-28.1	-11.582	µg/L	-11.582	ppb	20:18:27
3	Na 589.592 Radial†	1514.3	-278.9	-42.658	µg/L	-42.658	ppb	20:18:07
3	Sr 421.552†	-115.2	170.3	0.3991	µg/L	0.3991	ppb	20:18:07
3	Sc 361.383	1775735.1	1775735.1	106.16	%			20:19:33
3	Y 371.029	1090212.1	1090212.1	106.61	%			20:19:33
3	Ag 328.068†	3310.5	151.5	0.6044	µg/L	0.6044	ppb	20:19:35
3	As 188.979†	-18.3	-3.0	-1.2478	µg/L	-1.2478	ppb	20:19:55
3	B 249.677†	3162.1	-376.9	-6.3290	µg/L	-6.3290	ppb	20:19:55
3	Ba 233.527†	-165.4	19.2	0.0872	µg/L	0.0872	ppb	20:19:55
3	Be 313.107†	-659.6	38.8	0.0140	µg/L	0.0140	ppb	20:19:35
3	Cd 226.502†	-97.0	3.1	0.0206	µg/L	0.0206	ppb	20:19:55
3	Co 228.616†	-161.6	24.4	0.3340	µg/L	0.3340	ppb	20:19:55
3	Cr 267.716†	177.4	6.9	0.0553	µg/L	0.0553	ppb	20:19:55
3	Cu 324.752†	2774.4	188.7	0.8244	µg/L	0.8244	ppb	20:19:35
3	Mn 257.610†	182.4	91.8	0.1259	µg/L	0.1259	ppb	20:19:55
3	Mo 202.031†	-25.4	31.3	0.9879	µg/L	0.9879	ppb	20:19:55
3	Ni 231.604†	-68.5	-23.6	-0.3019	µg/L	-0.3019	ppb	20:19:55
3	P 214.914†	51.6	-31.0	-7.4391	µg/L	-7.4391	ppb	20:19:55
3	Pb 220.353†	84.6	-32.7	-1.9844	µg/L	-1.9844	ppb	20:19:55
3	S 181.975 Axial†	85.3	-14.4	-11.697	µg/L	-11.697	ppb	20:19:55
3	Sb 206.836†	54.5	-35.3	-4.7507	µg/L	-4.7507	ppb	20:19:55
3	Se 196.026†	0.8	-10.1	-4.01	µg/L	-4.01	ppb	20:19:55
3	SiO2†	1675.1	5.1	0.5352	µg/L	0.5352	ppb	20:19:55
3	Si 251.611†	757.0	36.7	0.5978	µg/L	0.5978	ppb	20:19:55
3	Sn 189.927†	-6.1	-7.8	-0.5522	µg/L	-0.5522	ppb	20:19:55
3	Ti 334.940†	761.4	80.9	0.0816	µg/L	0.0816	ppb	20:19:35
3	Tl 190.801†	-108.3	18.3	2.4419	µg/L	2.4419	ppb	20:19:55
3	U 409.014†	-429.2	74.8	4.5456	µg/L	4.5456	ppb	20:19:35
3	V 292.402†	201.6	-241.9	-1.3288	µg/L	-1.3288	ppb	20:19:35
3	Zn 213.857†	514.6	20.3	0.1291	µg/L	0.1291	ppb	20:19:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1783029.4	106.59	%	0.732				0.69%
Sc RADIAL	156579.5	107	%	0.9				0.88%
Y 371.029	1093776.2	106.96	%	0.658				0.61%
Ag 328.068†	69.5	0.2819	µg/L	0.29754	0.2819	ppb	0.29754	105.55%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.9	-0.8818	µg/L	4.40531	-0.8818	ppb	4.40531	499.59%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.2	-1.3360	µg/L	0.09228	-1.3360	ppb	0.09228	6.91%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-387.7	-6.5095	µg/L	0.32684	-6.5095	ppb	0.32684	5.02%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	21.7	0.0991	µg/L	0.01628	0.0991	ppb	0.01628	16.43%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	10.4	0.0053	µg/L	0.02537	0.0053	ppb	0.02537	474.55%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	53.3	3.1261	µg/L	0.36770	3.1261	ppb	0.36770	11.76%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	13.9	0.0958	µg/L	0.08241	0.0958	ppb	0.08241	85.99%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.6	0.1584	µg/L	0.15343	0.1584	ppb	0.15343	96.85%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -6.8     -0.0638 µg/L       0.13543     -0.0638 ppb        0.13543 212.32%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              56.8      0.2526 µg/L       0.55423      0.2526 ppb        0.55423 219.45%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       49.6      3.3006 µg/L       0.65736      3.3006 ppb        0.65736  19.92%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         1.8      0.7609 µg/L      22.66551      0.7609 ppb       22.66551 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         -18.6     -7.6537 µg/L       5.38218     -7.6537 ppb        5.38218  70.32%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              99.7      0.1365 µg/L       0.01367      0.1365 ppb        0.01367  10.02%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              24.5      0.7728 µg/L       0.27588      0.7728 ppb        0.27588  35.70%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -250.9    -38.396 µg/L        4.5384    -38.396 ppb         4.5384  11.82%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -10.1     -0.1291 µg/L       0.20080     -0.1291 ppb        0.20080 155.54%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -40.8     -9.7910 µg/L       2.10426     -9.7910 ppb        2.10426  21.49%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -8.2     -0.4998 µg/L       1.66019     -0.4998 ppb        1.66019 332.15%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -12.3     -9.9332 µg/L       3.49134     -9.9332 ppb        3.49134  35.15%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -17.2     -2.3053 µg/L       2.28550     -2.3053 ppb        2.28550  99.14%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.7       1.06 µg/L         4.705       1.06 ppb          4.705 444.44%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    11.3      1.2168 µg/L       0.62889      1.2168 ppb        0.62889  51.68%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              29.8      0.4840 µg/L       0.10365      0.4840 ppb        0.10365  21.42%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -3.7     -0.2626 µg/L       0.46990     -0.2626 ppb        0.46990 178.94%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             153.4      0.3595 µg/L       0.07442      0.3595 ppb        0.07442  20.70%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             126.9      0.1275 µg/L       0.23711      0.1275 ppb        0.23711 186.03%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              15.7      2.1045 µg/L       0.54683      2.1045 ppb        0.54683  25.98%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              104.8      6.4375 µg/L       4.02889      6.4375 ppb        4.02889  62.58%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -120.7     -0.6580 µg/L       0.60105     -0.6580 ppb        0.60105  91.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              11.2      0.0710 µg/L       0.07224      0.0710 ppb        0.07224 101.73%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 37
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/29/2010 20:39:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	158480.3	158480.3	109	%			20:39:46
1	Al 396.153Radial†	25899.3	23851.4	5184.2	µg/L	5184.2	ppb	20:39:46
1	Ca 317.933Radial†	91372.8	83419.3	4888.0	µg/L	4888.0	ppb	20:39:46
1	Fe 238.204 Radial†	79864.5	73338.0	4875.8	µg/L	4875.8	ppb	20:39:46
1	K 766.490 Radial†	13976.2	11398.9	4688.7	µg/L	4688.7	ppb	20:39:46
1	Mg 279.077 IEC†	13513.6	12241.7	5054.9	µg/L	5054.9	ppb	20:39:46
1	Na 589.592 Radial†	70984.5	63589.7	9725.9	µg/L	9725.9	ppb	20:39:46
1	Sr 421.552†	231158.4	212874.2	498.88	µg/L	498.88	ppb	20:39:44
1	Sc 361.383	1746203.9	1746203.9	104.39	%			20:40:13
1	Y 371.029	1060403.2	1060403.2	103.70	%			20:40:13
1	Ag 328.068†	129222.9	120821.9	496.49	µg/L	496.49	ppb	20:40:13
1	As 188.979†	1283.9	1244.1	526.99	µg/L	526.99	ppb	20:40:33
1	B 249.677†	33276.5	28521.6	477.15	µg/L	477.15	ppb	20:40:13
1	Ba 233.527†	114363.4	109729.4	501.68	µg/L	501.68	ppb	20:40:13
1	Be 313.107†	1632572.9	1564581.9	509.43	µg/L	509.43	ppb	20:40:13
1	Cd 226.502†	72628.8	69669.1	480.81	µg/L	480.81	ppb	20:40:13
1	Co 228.616†	36875.4	35501.3	486.39	µg/L	486.39	ppb	20:40:13
1	Cr 267.716†	59790.0	57115.6	490.45	µg/L	490.45	ppb	20:40:13
1	Cu 324.752†	120808.8	113303.8	494.05	µg/L	494.05	ppb	20:40:13
1	Mn 257.610†	375213.3	359355.3	490.82	µg/L	490.82	ppb	20:40:13
1	Mo 202.031†	15789.8	15181.1	479.66	µg/L	479.66	ppb	20:40:33
1	Ni 231.604†	39738.4	38108.3	487.45	µg/L	487.45	ppb	20:40:13
1	P 214.914†	10363.4	9848.0	2350.1	µg/L	2350.1	ppb	20:40:33
1	Pb 220.353†	8305.0	7843.4	476.67	µg/L	476.67	ppb	20:40:33
1	S 181.975 Axial†	1299.5	1150.0	935.75	µg/L	935.75	ppb	20:40:33
1	Sb 206.836†	3827.9	3580.3	483.91	µg/L	483.91	ppb	20:40:33
1	Se 196.026†	1246.7	1183.4	470	µg/L	470	ppb	20:40:33
1	SiO2†	51835.7	48083.1	5234.9	µg/L	5234.9	ppb	20:40:13
1	Si 251.611†	155248.2	148043.5	2438.3	µg/L	2438.3	ppb	20:40:13
1	Sn 189.927†	7083.7	6783.8	483.93	µg/L	483.93	ppb	20:40:33
1	Ti 334.940†	505298.5	483413.9	492.29	µg/L	492.29	ppb	20:40:13
1	Tl 190.801†	3587.5	3556.9	484.85	µg/L	484.85	ppb	20:40:33
1	U 409.014†	7184.1	7361.1	484.98	µg/L	484.98	ppb	20:40:13
1	V 292.402†	93312.1	88956.4	499.59	µg/L	499.59	ppb	20:40:13
1	Zn 213.857†	80758.5	76898.2	480.22	µg/L	480.22	ppb	20:40:13
2	Sc RADIAL	157839.6	157839.6	108	%			20:39:50
2	Al 396.153Radial†	25654.3	23721.9	5156.0	µg/L	5156.0	ppb	20:39:50
2	Ca 317.933Radial†	90857.8	83284.8	4880.1	µg/L	4880.1	ppb	20:39:50
2	Fe 238.204 Radial†	79351.6	73162.6	4864.1	µg/L	4864.1	ppb	20:39:50
2	K 766.490 Radial†	14108.1	11572.9	4760.3	µg/L	4760.3	ppb	20:39:50
2	Mg 279.077 IEC†	13317.1	12110.8	5000.9	µg/L	5000.9	ppb	20:39:50
2	Na 589.592 Radial†	70889.1	63766.6	9752.9	µg/L	9752.9	ppb	20:39:50
2	Sr 421.552†	232019.8	214532.6	502.77	µg/L	502.77	ppb	20:39:48
2	Sc 361.383	1748401.5	1748401.5	104.52	%			20:40:36
2	Y 371.029	1060574.0	1060574.0	103.72	%			20:40:36
2	Ag 328.068†	128320.4	119802.8	492.33	µg/L	492.33	ppb	20:40:36
2	As 188.979†	1300.9	1258.8	533.09	µg/L	533.09	ppb	20:40:56
2	B 249.677†	33199.5	28407.7	475.25	µg/L	475.25	ppb	20:40:36
2	Ba 233.527†	113312.8	108586.5	496.46	µg/L	496.46	ppb	20:40:36
2	Be 313.107†	1626044.8	1556370.4	506.76	µg/L	506.76	ppb	20:40:36
2	Cd 226.502†	71814.6	68802.6	474.82	µg/L	474.82	ppb	20:40:36
2	Co 228.616†	36702.1	35291.2	483.50	µg/L	483.50	ppb	20:40:36
2	Cr 267.716†	59191.4	56470.8	484.90	µg/L	484.90	ppb	20:40:36
2	Cu 324.752†	120253.9	112627.4	491.11	µg/L	491.11	ppb	20:40:36
2	Mn 257.610†	372516.4	356323.3	486.68	µg/L	486.68	ppb	20:40:36
2	Mo 202.031†	15750.8	15124.7	477.88	µg/L	477.88	ppb	20:40:56
2	Ni 231.604†	39612.3	37939.8	485.29	µg/L	485.29	ppb	20:40:36
2	P 214.914†	10343.5	9816.5	2342.6	µg/L	2342.6	ppb	20:40:56
2	Pb 220.353†	8312.4	7840.4	476.48	µg/L	476.48	ppb	20:40:56

2	S 181.975 Axial†	1287.8	1137.3	925.44 µg/L	925.44 ppb	20:40:56
2	Sb 206.836†	3843.7	3590.8	485.39 µg/L	485.39 ppb	20:40:56
2	Se 196.026†	1243.8	1179.1	469 µg/L	469 ppb	20:40:56
2	SiO2†	51279.8	47488.8	5170.0 µg/L	5170.0 ppb	20:40:36
2	Si 251.611†	154265.1	146916.0	2419.7 µg/L	2419.7 ppb	20:40:36
2	Sn 189.927†	7111.0	6801.4	485.17 µg/L	485.17 ppb	20:40:56
2	Ti 334.940†	501677.3	479340.9	488.14 µg/L	488.14 ppb	20:40:36
2	Tl 190.801†	3591.8	3556.8	484.78 µg/L	484.78 ppb	20:40:56
2	U 409.014†	7373.9	7534.0	495.49 µg/L	495.49 ppb	20:40:36
2	V 292.402†	92934.7	88483.0	496.93 µg/L	496.93 ppb	20:40:36
2	Zn 213.857†	80169.9	76237.8	476.08 µg/L	476.08 ppb	20:40:36
3	Sc RADIAL	156089.6	156089.6	107 %		20:39:54
3	Al 396.153Radial†	25631.8	23966.5	5209.3 µg/L	5209.3 ppb	20:39:54
3	Ca 317.933Radial†	90218.0	83628.1	4900.2 µg/L	4900.2 ppb	20:39:54
3	Fe 238.204 Radial†	78756.2	73428.1	4881.8 µg/L	4881.8 ppb	20:39:54
3	K 766.490 Radial†	13885.5	11511.0	4734.8 µg/L	4734.8 ppb	20:39:54
3	Mg 279.077 IEC†	13155.9	12098.2	4995.8 µg/L	4995.8 ppb	20:39:54
3	Na 589.592 Radial†	70406.1	64049.4	9796.2 µg/L	9796.2 ppb	20:39:54
3	Sr 421.552†	227678.4	212880.7	498.90 µg/L	498.90 ppb	20:39:52
3	Sc 361.383	1750051.7	1750051.7	104.62 %		20:40:59
3	Y 371.029	1061656.2	1061656.2	103.82 %		20:40:59
3	Ag 328.068†	129101.5	120433.7	494.92 µg/L	494.92 ppb	20:40:59
3	As 188.979†	1318.4	1274.5	539.66 µg/L	539.66 ppb	20:41:19
3	B 249.677†	33442.7	28610.3	478.64 µg/L	478.64 ppb	20:40:59
3	Ba 233.527†	114533.5	109651.1	501.32 µg/L	501.32 ppb	20:40:59
3	Be 313.107†	1637681.6	1566026.4	509.91 µg/L	509.91 ppb	20:40:59
3	Cd 226.502†	72370.3	69269.0	478.04 µg/L	478.04 ppb	20:40:59
3	Co 228.616†	36966.6	35510.9	486.52 µg/L	486.52 ppb	20:40:59
3	Cr 267.716†	59644.0	56850.1	488.16 µg/L	488.16 ppb	20:40:59
3	Cu 324.752†	121321.2	113539.1	495.08 µg/L	495.08 ppb	20:40:59
3	Mn 257.610†	375810.6	359135.9	490.53 µg/L	490.53 ppb	20:40:59
3	Mo 202.031†	15874.8	15229.0	481.17 µg/L	481.17 ppb	20:41:19
3	Ni 231.604†	39836.0	38117.9	487.57 µg/L	487.57 ppb	20:40:59
3	P 214.914†	10423.7	9883.8	2358.6 µg/L	2358.6 ppb	20:41:19
3	Pb 220.353†	8358.7	7877.1	478.72 µg/L	478.72 ppb	20:41:19
3	S 181.975 Axial†	1303.9	1151.5	936.96 µg/L	936.96 ppb	20:41:19
3	Sb 206.836†	3860.5	3603.4	487.09 µg/L	487.09 ppb	20:41:19
3	Se 196.026†	1260.6	1194.1	474 µg/L	474 ppb	20:41:19
3	SiO2†	51807.0	47946.5	5219.9 µg/L	5219.9 ppb	20:40:59
3	Si 251.611†	155533.5	147989.2	2437.4 µg/L	2437.4 ppb	20:40:59
3	Sn 189.927†	7141.0	6823.7	486.76 µg/L	486.76 ppb	20:41:19
3	Ti 334.940†	505758.7	482789.5	491.66 µg/L	491.66 ppb	20:40:59
3	Tl 190.801†	3621.3	3581.7	488.18 µg/L	488.18 ppb	20:41:19
3	U 409.014†	7328.7	7484.2	492.60 µg/L	492.60 ppb	20:40:59
3	V 292.402†	93571.4	89007.7	499.88 µg/L	499.88 ppb	20:40:59
3	Zn 213.857†	80716.3	76687.7	478.89 µg/L	478.89 ppb	20:40:59

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1748219.0	104.51	%	0.115				0.11%
Sc RADIAL	157469.8	108	%	0.8				0.79%
Y 371.029	1060877.8	103.75	%	0.066				0.06%
Ag 328.068†	120352.8	494.58	µg/L	2.097	494.58	ppb	2.097	0.42%
QC value within limits for Ag 328.068 Recovery = 98.92%								
Al 396.153Radial†	23846.6	5183.2	µg/L	26.63	5183.2	ppb	26.63	0.51%
QC value within limits for Al 396.153Radial Recovery = 103.66%								
As 188.979†	1259.1	533.25	µg/L	6.336	533.25	ppb	6.336	1.19%
QC value within limits for As 188.979 Recovery = 106.65%								
B 249.677†	28513.2	477.02	µg/L	1.699	477.02	ppb	1.699	0.36%
QC value within limits for B 249.677 Recovery = 95.40%								
Ba 233.527†	109322.4	499.82	µg/L	2.918	499.82	ppb	2.918	0.58%
QC value within limits for Ba 233.527 Recovery = 99.96%								
Be 313.107†	1562326.2	508.70	µg/L	1.694	508.70	ppb	1.694	0.33%
QC value within limits for Be 313.107 Recovery = 101.74%								
Ca 317.933Radial†	83444.1	4889.5	µg/L	10.13	4889.5	ppb	10.13	0.21%
QC value within limits for Ca 317.933Radial Recovery = 97.79%								
Cd 226.502†	69246.9	477.89	µg/L	2.994	477.89	ppb	2.994	0.63%
QC value within limits for Cd 226.502 Recovery = 95.58%								
Co 228.616†	35434.5	485.47	µg/L	1.703	485.47	ppb	1.703	0.35%

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   QC value within limits for Co 228.616  Recovery = 97.09%
Cr 267.716†            56812.2      487.84 µg/L         2.787      487.84 ppb          2.787   0.57%
   QC value within limits for Cr 267.716  Recovery = 97.57%
Cu 324.752†           113156.8      493.41 µg/L         2.057      493.41 ppb          2.057   0.42%
   QC value within limits for Cu 324.752  Recovery = 98.68%
Fe 238.204 Radial†     73309.6      4873.9 µg/L          8.98      4873.9 ppb           8.98   0.18%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.48%
K 766.490 Radial†      11494.3      4727.9 µg/L         36.31      4727.9 ppb          36.31   0.77%
   QC value within limits for K 766.490 Radial  Recovery = 94.56%
Mg 279.077 IEC†        12150.2      5017.2 µg/L         32.78      5017.2 ppb          32.78   0.65%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.34%
Mn 257.610†           358271.5      489.35 µg/L         2.310      489.35 ppb          2.310   0.47%
   QC value within limits for Mn 257.610  Recovery = 97.87%
Mo 202.031†            15178.3      479.57 µg/L         1.650      479.57 ppb          1.650   0.34%
   QC value within limits for Mo 202.031  Recovery = 95.91%
Na 589.592 Radial†     63801.9      9758.3 µg/L         35.47      9758.3 ppb          35.47   0.36%
   QC value within limits for Na 589.592 Radial  Recovery = 97.58%
Ni 231.604†            38055.3      486.77 µg/L         1.281      486.77 ppb          1.281   0.26%
   QC value within limits for Ni 231.604  Recovery = 97.35%
P 214.914†              9849.4      2350.4 µg/L          8.04      2350.4 ppb           8.04   0.34%
   QC value within limits for P 214.914  Recovery = 94.02%
Pb 220.353†             7853.6      477.29 µg/L         1.242      477.29 ppb          1.242   0.26%
   QC value within limits for Pb 220.353  Recovery = 95.46%
S 181.975 Axial†        1146.3      932.72 µg/L         6.328      932.72 ppb          6.328   0.68%
   QC value within limits for S 181.975 Axial  Recovery = 93.27%
Sb 206.836†             3591.5      485.47 µg/L         1.590      485.47 ppb          1.590   0.33%
   QC value within limits for Sb 206.836  Recovery = 97.09%
Se 196.026†             1185.5         471 µg/L           3.0         471 ppb            3.0   0.65%
   QC value within limits for Se 196.026  Recovery = 94.21%
SiO2†                  47839.5      5208.2 µg/L         33.99      5208.2 ppb          33.99   0.65%
   QC value within limits for SiO2  Recovery = 97.40%
Si 251.611†           147649.6      2431.8 µg/L         10.49      2431.8 ppb          10.49   0.43%
   QC value within limits for Si 251.611  Recovery = 97.27%
Sn 189.927†             6803.0      485.29 µg/L         1.421      485.29 ppb          1.421   0.29%
   QC value within limits for Sn 189.927  Recovery = 97.06%
Sr 421.552†           213429.2      500.18 µg/L         2.240      500.18 ppb          2.240   0.45%
   QC value within limits for Sr 421.552  Recovery = 100.04%
Ti 334.940†           481848.1      490.70 µg/L         2.236      490.70 ppb          2.236   0.46%
   QC value within limits for Ti 334.940  Recovery = 98.14%
Tl 190.801†             3565.2      485.94 µg/L         1.942      485.94 ppb          1.942   0.40%
   QC value within limits for Tl 190.801  Recovery = 97.19%
U 409.014†              7459.8      491.02 µg/L         5.432      491.02 ppb          5.432   1.11%
   QC value within limits for U 409.014  Recovery = 98.20%
V 292.402†             88815.7      498.80 µg/L         1.625      498.80 ppb          1.625   0.33%
   QC value within limits for V 292.402  Recovery = 99.76%
Zn 213.857†            76607.9      478.40 µg/L         2.115      478.40 ppb          2.115   0.44%
   QC value within limits for Zn 213.857  Recovery = 95.68%
All analyte(s) passed QC.
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Sequence No.: 38 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/29/2010 20:41:27**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	159642.2	159642.2	110	%			20:41:56
1	Al 396.153Radial†	-31.9	2.8	0.5753	µg/L	0.5753	ppb	20:42:16
1	Ca 317.933Radial†	722.9	43.8	2.5682	µg/L	2.5682	ppb	20:42:16
1	Fe 238.204 Radial†	156.5	29.6	1.9698	µg/L	1.9698	ppb	20:42:16
1	K 766.490 Radial†	1376.5	-198.2	-81.588	µg/L	-81.588	ppb	20:41:56
1	Mg 279.077 IEC†	160.5	-40.1	-16.536	µg/L	-16.536	ppb	20:42:16
1	Na 589.592 Radial†	1426.6	-392.2	-59.938	µg/L	-59.938	ppb	20:41:56
1	Sr 421.552†	-236.3	62.2	0.1458	µg/L	0.1458	ppb	20:41:56
1	Sc 361.383	1761363.3	1761363.3	105.30	%			20:43:04
1	Y 371.029	1082249.7	1082249.7	105.84	%			20:43:04
1	Ag 328.068†	2961.0	-154.9	-0.6438	µg/L	-0.6438	ppb	20:43:06
1	As 188.979†	-17.6	-2.5	-1.0426	µg/L	-1.0426	ppb	20:43:26
1	B 249.677†	3116.7	-395.7	-6.6440	µg/L	-6.6440	ppb	20:43:26
1	Ba 233.527†	-177.6	6.4	0.0281	µg/L	0.0281	ppb	20:43:26
1	Be 313.107†	-787.6	-87.9	-0.0270	µg/L	-0.0270	ppb	20:43:06
1	Cd 226.502†	-97.6	1.7	0.0116	µg/L	0.0116	ppb	20:43:26
1	Co 228.616†	-177.8	7.8	0.1062	µg/L	0.1062	ppb	20:43:26
1	Cr 267.716†	140.3	-27.0	-0.2369	µg/L	-0.2369	ppb	20:43:26
1	Cu 324.752†	2779.8	215.1	0.9395	µg/L	0.9395	ppb	20:43:06
1	Mn 257.610†	177.4	88.5	0.1216	µg/L	0.1216	ppb	20:43:26
1	Mo 202.031†	-33.7	23.2	0.7311	µg/L	0.7311	ppb	20:43:26
1	Ni 231.604†	-52.7	-9.1	-0.1163	µg/L	-0.1163	ppb	20:43:26
1	P 214.914†	64.5	-18.3	-4.4052	µg/L	-4.4052	ppb	20:43:26
1	Pb 220.353†	118.6	0.2	0.0090	µg/L	0.0090	ppb	20:43:26
1	S 181.975 Axial†	91.5	-7.9	-6.4221	µg/L	-6.4221	ppb	20:43:26
1	Sb 206.836†	85.6	-5.4	-0.7134	µg/L	-0.7134	ppb	20:43:26
1	Se 196.026†	17.8	6.0	2.38	µg/L	2.38	ppb	20:43:26
1	SiO2†	1758.9	97.6	10.643	µg/L	10.643	ppb	20:43:26
1	Si 251.611†	831.5	113.3	1.8631	µg/L	1.8631	ppb	20:43:26
1	Sn 189.927†	4.0	1.8	0.1284	µg/L	0.1284	ppb	20:43:26
1	Ti 334.940†	1053.8	364.4	0.3709	µg/L	0.3709	ppb	20:43:06
1	Tl 190.801†	-105.5	20.1	2.6847	µg/L	2.6847	ppb	20:43:26
1	U 409.014†	-413.2	86.7	5.2550	µg/L	5.2550	ppb	20:43:06
1	V 292.402†	111.6	-325.8	-1.7979	µg/L	-1.7979	ppb	20:43:06
1	Zn 213.857†	508.2	18.2	0.1146	µg/L	0.1146	ppb	20:43:26
2	Sc RADIAL	156186.9	156186.9	107	%			20:42:18
2	Al 396.153Radial†	-15.2	17.7	3.8291	µg/L	3.8291	ppb	20:42:38
2	Ca 317.933Radial†	693.6	31.0	1.8191	µg/L	1.8191	ppb	20:42:38
2	Fe 238.204 Radial†	162.9	38.7	2.5747	µg/L	2.5747	ppb	20:42:38
2	K 766.490 Radial†	1472.5	-80.8	-33.270	µg/L	-33.270	ppb	20:42:18
2	Mg 279.077 IEC†	190.1	-9.2	-3.7954	µg/L	-3.7954	ppb	20:42:38
2	Na 589.592 Radial†	1486.0	-308.0	-47.099	µg/L	-47.099	ppb	20:42:18
2	Sr 421.552†	-366.4	-64.0	-0.1499	µg/L	-0.1499	ppb	20:42:18
2	Sc 361.383	1768341.2	1768341.2	105.71	%			20:43:28
2	Y 371.029	1086167.8	1086167.8	106.22	%			20:43:28
2	Ag 328.068†	2860.7	-260.9	-1.0681	µg/L	-1.0681	ppb	20:43:30
2	As 188.979†	-12.8	2.1	0.8941	µg/L	0.8941	ppb	20:43:50
2	B 249.677†	3095.0	-428.0	-7.1869	µg/L	-7.1869	ppb	20:43:50
2	Ba 233.527†	-192.4	-6.9	-0.0315	µg/L	-0.0315	ppb	20:43:50
2	Be 313.107†	-460.5	224.5	0.0719	µg/L	0.0719	ppb	20:43:30
2	Cd 226.502†	-94.7	4.9	0.0334	µg/L	0.0334	ppb	20:43:50
2	Co 228.616†	-140.7	43.5	0.5958	µg/L	0.5958	ppb	20:43:50
2	Cr 267.716†	149.4	-18.9	-0.1596	µg/L	-0.1596	ppb	20:43:50
2	Cu 324.752†	2666.0	97.1	0.4194	µg/L	0.4194	ppb	20:43:30
2	Mn 257.610†	165.4	76.4	0.1046	µg/L	0.1046	ppb	20:43:50
2	Mo 202.031†	-30.4	26.4	0.8348	µg/L	0.8348	ppb	20:43:50
2	Ni 231.604†	-24.5	17.7	0.2263	µg/L	0.2263	ppb	20:43:50
2	P 214.914†	45.9	-36.2	-8.6751	µg/L	-8.6751	ppb	20:43:50
2	Pb 220.353†	89.4	-27.9	-1.6824	µg/L	-1.6824	ppb	20:43:50

2	S 181.975 Axial†	94.2	-5.7	-4.6425 µg/L	-4.6425 ppb		20:43:50
2	Sb 206.836†	72.8	-17.8	-2.3809 µg/L	-2.3809 ppb		20:43:50
2	Se 196.026†	8.4	-3.0	-1.17 µg/L	-1.17 ppb		20:43:50
2	SiO2†	1693.5	29.1	3.1523 µg/L	3.1523 ppb		20:43:50
2	Si 251.611†	804.4	84.5	1.3841 µg/L	1.3841 ppb		20:43:50
2	Sn 189.927†	8.2	5.7	0.4069 µg/L	0.4069 ppb		20:43:50
2	Ti 334.940†	839.4	157.7	0.1627 µg/L	0.1627 ppb		20:43:30
2	Tl 190.801†	-101.0	24.8	3.3258 µg/L	3.3258 ppb		20:43:50
2	U 409.014†	-571.5	-61.5	-3.8245 µg/L	-3.8245 ppb		20:43:30
2	V 292.402†	384.6	-68.0	-0.3725 µg/L	-0.3725 ppb		20:43:30
2	Zn 213.857†	520.5	28.0	0.1740 µg/L	0.1740 ppb		20:43:50
3	Sc RADIAL	157025.4	157025.4	108 %			20:42:40
3	Al 396.153Radial†	-41.8	-6.9	-1.5626 µg/L	-1.5626 ppb		20:43:00
3	Ca 317.933Radial†	735.1	66.2	3.8771 µg/L	3.8771 ppb		20:43:00
3	Fe 238.204 Radial†	156.0	31.5	2.0942 µg/L	2.0942 ppb		20:43:00
3	K 766.490 Radial†	1504.7	-58.3	-23.989 µg/L	-23.989 ppb		20:42:40
3	Mg 279.077 IEC†	175.7	-23.6	-9.6897 µg/L	-9.6897 ppb		20:43:00
3	Na 589.592 Radial†	1490.0	-311.7	-47.668 µg/L	-47.668 ppb		20:42:40
3	Sr 421.552†	-200.3	92.1	0.2158 µg/L	0.2158 ppb		20:42:40
3	Sc 361.383	1802169.8	1802169.8	107.74 %			20:43:52
3	Y 371.029	1105477.1	1105477.1	108.11 %			20:43:52
3	Ag 328.068†	2995.0	-187.1	-0.7466 µg/L	-0.7466 ppb		20:43:54
3	As 188.979†	-15.0	0.3	0.1424 µg/L	0.1424 ppb		20:44:15
3	B 249.677†	3108.4	-470.5	-7.8995 µg/L	-7.8995 ppb		20:44:15
3	Ba 233.527†	-173.6	13.9	0.0633 µg/L	0.0633 ppb		20:44:15
3	Be 313.107†	-686.3	23.1	0.0136 µg/L	0.0136 ppb		20:43:54
3	Cd 226.502†	-87.9	12.8	0.0881 µg/L	0.0881 ppb		20:44:15
3	Co 228.616†	-169.8	19.0	0.2599 µg/L	0.2599 ppb		20:44:15
3	Cr 267.716†	170.2	-2.2	-0.0351 µg/L	-0.0351 ppb		20:44:15
3	Cu 324.752†	2724.0	103.6	0.4670 µg/L	0.4670 ppb		20:43:54
3	Mn 257.610†	180.6	87.6	0.1201 µg/L	0.1201 ppb		20:44:15
3	Mo 202.031†	-18.7	37.8	1.1943 µg/L	1.1943 ppb		20:44:15
3	Ni 231.604†	-67.6	-21.8	-0.2790 µg/L	-0.2790 ppb		20:44:15
3	P 214.914†	48.5	-34.6	-8.3057 µg/L	-8.3057 ppb		20:44:15
3	Pb 220.353†	111.7	-8.7	-0.5419 µg/L	-0.5419 ppb		20:44:15
3	S 181.975 Axial†	82.0	-18.7	-15.128 µg/L	-15.128 ppb		20:44:15
3	Sb 206.836†	86.7	-6.1	-0.8115 µg/L	-0.8115 ppb		20:44:15
3	Se 196.026†	20.9	8.5	3.37 µg/L	3.37 ppb		20:44:15
3	SiO2†	1699.8	4.9	0.5106 µg/L	0.5106 ppb		20:44:15
3	Si 251.611†	817.9	82.8	1.3569 µg/L	1.3569 ppb		20:44:15
3	Sn 189.927†	-7.0	-8.5	-0.6027 µg/L	-0.6027 ppb		20:44:15
3	Ti 334.940†	578.4	-99.5	-0.1088 µg/L	-0.1088 ppb		20:43:54
3	Tl 190.801†	-115.5	13.1	1.7476 µg/L	1.7476 ppb		20:44:15
3	U 409.014†	-166.7	324.4	19.989 µg/L	19.989 ppb		20:43:54
3	V 292.402†	270.2	-181.0	-0.9785 µg/L	-0.9785 ppb		20:43:54
3	Zn 213.857†	519.3	17.6	0.1119 µg/L	0.1119 ppb		20:44:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1777291.5	106.25	%	1.305				1.23%
Sc RADIAL	157618.2	108	%	1.2				1.14%
Y 371.029	1091298.2	106.72	%	1.216				1.14%
Ag 328.068†	-201.0	-0.8195	µg/L	0.22133	-0.8195	ppb	0.22133	27.01%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.5	0.9472	µg/L	2.71501	0.9472	ppb	2.71501	286.62%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.0	-0.0020	µg/L	0.97639	-0.0020	ppb	0.97639	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-431.4	-7.2435	µg/L	0.62967	-7.2435	ppb	0.62967	8.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.5	0.0200	µg/L	0.04797	0.0200	ppb	0.04797	240.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	53.2	0.0195	µg/L	0.04972	0.0195	ppb	0.04972	254.94%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	47.0	2.7548	µg/L	1.04159	2.7548	ppb	1.04159	37.81%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	6.5	0.0444	µg/L	0.03942	0.0444	ppb	0.03942	88.81%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	23.4	0.3206	µg/L	0.25038	0.3206	ppb	0.25038	78.09%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -16.1     -0.1439 µg/L       0.10181     -0.1439 ppb        0.10181  70.75%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              138.6      0.6086 µg/L       0.28751      0.6086 ppb        0.28751  47.24%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        33.3      2.2129 µg/L       0.31946      2.2129 ppb        0.31946  14.44%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -112.4     -46.282 µg/L       30.9255     -46.282 ppb        30.9255  66.82%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -24.3     -10.007 µg/L        6.3764     -10.007 ppb         6.3764  63.72%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               84.2      0.1154 µg/L       0.00942      0.1154 ppb        0.00942   8.16%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               29.2      0.9200 µg/L       0.24309      0.9200 ppb        0.24309  26.42%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -337.3     -51.568 µg/L        7.2542     -51.568 ppb         7.2542  14.07%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -4.4     -0.0563 µg/L       0.25791     -0.0563 ppb        0.25791 457.85%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -29.7     -7.1287 µg/L       2.36584     -7.1287 ppb        2.36584  33.19%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -12.1     -0.7384 µg/L       0.86263     -0.7384 ppb        0.86263 116.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -10.8     -8.7308 µg/L       5.61093     -8.7308 ppb        5.61093  64.27%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -9.7     -1.3019 µg/L       0.93572     -1.3019 ppb        0.93572  71.87%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.8        1.53 µg/L         2.391        1.53 ppb          2.391 156.61%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     43.9      4.7687 µg/L       5.25620      4.7687 ppb        5.25620 110.22%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               93.5      1.5347 µg/L       0.28470      1.5347 ppb        0.28470  18.55%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.3     -0.0225 µg/L       0.52147     -0.0225 ppb        0.52147 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               30.1      0.0706 µg/L       0.19411      0.0706 ppb        0.19411 275.10%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              140.8      0.1416 µg/L       0.24052      0.1416 ppb        0.24052 169.85%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               19.3      2.5860 µg/L       0.79369      2.5860 ppb        0.79369  30.69%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               116.5      7.1397 µg/L      12.01791      7.1397 ppb       12.01791 168.33%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -191.6     -1.0496 µg/L       0.71539     -1.0496 ppb        0.71539  68.16%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               21.3      0.1335 µg/L       0.03514      0.1335 ppb        0.03514  26.32%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 46
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/29/2010 21:03:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	154851.7	154851.7	106	%			21:03:53
1	Al 396.153Radial†	25485.8	24020.4	5220.8	µg/L	5220.8	ppb	21:03:53
1	Ca 317.933Radial†	90010.8	84106.5	4928.3	µg/L	4928.3	ppb	21:03:53
1	Fe 238.204 Radial†	78533.5	73806.4	4906.9	µg/L	4906.9	ppb	21:03:53
1	K 766.490 Radial†	13939.7	11665.7	4798.5	µg/L	4798.5	ppb	21:03:53
1	Mg 279.077 IEC†	13229.3	12265.4	5064.8	µg/L	5064.8	ppb	21:03:53
1	Na 589.592 Radial†	69846.3	64048.1	9795.9	µg/L	9795.9	ppb	21:03:53
1	Sr 421.552†	228674.2	215517.6	505.08	µg/L	505.08	ppb	21:03:51
1	Sc 361.383	1713248.9	1713248.9	102.42	%			21:04:06
1	Y 371.029	1039105.6	1039105.6	101.62	%			21:04:06
1	Ag 328.068†	126578.4	120621.1	495.66	µg/L	495.66	ppb	21:04:06
1	As 188.979†	1286.8	1270.6	538.07	µg/L	538.07	ppb	21:04:26
1	B 249.677†	32552.7	28428.0	475.59	µg/L	475.59	ppb	21:04:06
1	Ba 233.527†	111768.2	109302.8	499.73	µg/L	499.73	ppb	21:04:06
1	Be 313.107†	1595894.5	1558852.6	507.57	µg/L	507.57	ppb	21:04:06
1	Cd 226.502†	71067.7	69483.2	479.52	µg/L	479.52	ppb	21:04:06
1	Co 228.616†	36010.7	35336.6	484.13	µg/L	484.13	ppb	21:04:06
1	Cr 267.716†	58430.3	56889.7	488.51	µg/L	488.51	ppb	21:04:06
1	Cu 324.752†	118439.2	113216.3	493.68	µg/L	493.68	ppb	21:04:06
1	Mn 257.610†	368025.4	359251.0	490.68	µg/L	490.68	ppb	21:04:06
1	Mo 202.031†	15706.6	15390.8	486.28	µg/L	486.28	ppb	21:04:26
1	Ni 231.604†	38854.0	37977.0	485.77	µg/L	485.77	ppb	21:04:06
1	P 214.914†	10314.2	9990.9	2384.3	µg/L	2384.3	ppb	21:04:26
1	Pb 220.353†	8262.0	7954.4	483.41	µg/L	483.41	ppb	21:04:26
1	S 181.975 Axial†	1274.3	1149.4	935.31	µg/L	935.31	ppb	21:04:26
1	Sb 206.836†	3786.5	3610.4	488.11	µg/L	488.11	ppb	21:04:26
1	Se 196.026†	1247.6	1207.2	480	µg/L	480	ppb	21:04:26
1	SiO2†	50572.1	47804.5	5204.1	µg/L	5204.1	ppb	21:04:06
1	Si 251.611†	152175.1	147903.7	2435.8	µg/L	2435.8	ppb	21:04:06
1	Sn 189.927†	7069.4	6900.4	492.22	µg/L	492.22	ppb	21:04:26
1	Ti 334.940†	495105.0	482772.1	491.64	µg/L	491.64	ppb	21:04:06
1	Tl 190.801†	3560.4	3596.6	490.17	µg/L	490.17	ppb	21:04:26
1	U 409.014†	7150.7	7460.8	491.07	µg/L	491.07	ppb	21:04:06
1	V 292.402†	91336.8	88747.2	498.49	µg/L	498.49	ppb	21:04:06
1	Zn 213.857†	78849.4	76522.2	477.86	µg/L	477.86	ppb	21:04:06
2	Sc RADIAL	153431.3	153431.3	105	%			21:03:57
2	Al 396.153Radial†	25174.7	23947.0	5204.9	µg/L	5204.9	ppb	21:03:57
2	Ca 317.933Radial†	89019.4	83949.0	4919.1	µg/L	4919.1	ppb	21:03:57
2	Fe 238.204 Radial†	77673.0	73673.3	4898.1	µg/L	4898.1	ppb	21:03:57
2	K 766.490 Radial†	13736.1	11593.9	4768.9	µg/L	4768.9	ppb	21:03:57
2	Mg 279.077 IEC†	13051.1	12211.4	5042.5	µg/L	5042.5	ppb	21:03:57
2	Na 589.592 Radial†	69569.0	64393.3	9848.8	µg/L	9848.8	ppb	21:03:57
2	Sr 421.552†	230380.7	219131.5	513.55	µg/L	513.55	ppb	21:03:55
2	Sc 361.383	1723240.0	1723240.0	103.02	%			21:04:29
2	Y 371.029	1044358.9	1044358.9	102.13	%			21:04:29
2	Ag 328.068†	127680.9	120974.7	497.13	µg/L	497.13	ppb	21:04:29
2	As 188.979†	1279.6	1256.3	532.10	µg/L	532.10	ppb	21:04:49
2	B 249.677†	32914.0	28594.4	478.37	µg/L	478.37	ppb	21:04:29
2	Ba 233.527†	112872.1	109741.6	501.74	µg/L	501.74	ppb	21:04:29
2	Be 313.107†	1612082.1	1565532.0	509.75	µg/L	509.75	ppb	21:04:29
2	Cd 226.502†	71525.6	69525.3	479.81	µg/L	479.81	ppb	21:04:29
2	Co 228.616†	36504.1	35611.7	487.90	µg/L	487.90	ppb	21:04:29
2	Cr 267.716†	58865.9	56981.8	489.29	µg/L	489.29	ppb	21:04:29
2	Cu 324.752†	119296.1	113377.7	494.39	µg/L	494.39	ppb	21:04:29
2	Mn 257.610†	370507.0	359576.6	491.13	µg/L	491.13	ppb	21:04:29
2	Mo 202.031†	15700.9	15296.3	483.30	µg/L	483.30	ppb	21:04:49
2	Ni 231.604†	39299.1	38189.1	488.48	µg/L	488.48	ppb	21:04:29
2	P 214.914†	10271.7	9891.3	2360.4	µg/L	2360.4	ppb	21:04:49
2	Pb 220.353†	8221.9	7868.7	478.21	µg/L	478.21	ppb	21:04:49

2	S 181.975 Axial†	1283.0	1150.6	936.30 µg/L	936.30 ppb	21:04:49
2	Sb 206.836†	3813.2	3614.9	488.65 µg/L	488.65 ppb	21:04:49
2	Se 196.026†	1244.9	1197.5	476 µg/L	476 ppb	21:04:49
2	SiO2†	51026.3	47959.1	5221.2 µg/L	5221.2 ppb	21:04:29
2	Si 251.611†	153367.0	148199.2	2440.8 µg/L	2440.8 ppb	21:04:29
2	Sn 189.927†	7028.6	6820.7	486.55 µg/L	486.55 ppb	21:04:49
2	Ti 334.940†	498901.8	483655.0	492.54 µg/L	492.54 ppb	21:04:29
2	Tl 190.801†	3590.9	3606.0	491.45 µg/L	491.45 ppb	21:04:49
2	U 409.014†	7310.8	7575.8	498.29 µg/L	498.29 ppb	21:04:29
2	V 292.402†	92221.6	89089.0	500.36 µg/L	500.36 ppb	21:04:29
2	Zn 213.857†	79595.3	76799.9	479.59 µg/L	479.59 ppb	21:04:29
3	Sc RADIAL	153860.9	153860.9	106 %		21:04:01
3	Al 396.153Radial†	25294.4	23993.6	5215.1 µg/L	5215.1 ppb	21:04:01
3	Ca 317.933Radial†	89754.2	84409.0	4946.0 µg/L	4946.0 ppb	21:04:01
3	Fe 238.204 Radial†	78247.7	74011.6	4920.6 µg/L	4920.6 ppb	21:04:01
3	K 766.490 Radial†	13894.4	11707.3	4815.6 µg/L	4815.6 ppb	21:04:01
3	Mg 279.077 IEC†	13234.5	12350.5	5099.8 µg/L	5099.8 ppb	21:04:01
3	Na 589.592 Radial†	69626.7	64263.4	9828.8 µg/L	9828.8 ppb	21:04:01
3	Sr 421.552†	228028.2	216291.8	506.89 µg/L	506.89 ppb	21:03:59
3	Sc 361.383	1732745.4	1732745.4	103.59 %		21:04:52
3	Y 371.029	1050125.7	1050125.7	102.69 %		21:04:52
3	Ag 328.068†	127692.6	120306.0	494.38 µg/L	494.38 ppb	21:04:52
3	As 188.979†	1285.3	1255.0	531.54 µg/L	531.54 ppb	21:05:12
3	B 249.677†	33066.4	28566.3	477.91 µg/L	477.91 ppb	21:04:52
3	Ba 233.527†	113084.6	109345.8	499.93 µg/L	499.93 ppb	21:04:52
3	Be 313.107†	1614930.2	1559697.0	507.85 µg/L	507.85 ppb	21:04:52
3	Cd 226.502†	71595.2	69211.7	477.64 µg/L	477.64 ppb	21:04:52
3	Co 228.616†	36541.6	35453.5	485.73 µg/L	485.73 ppb	21:04:52
3	Cr 267.716†	58957.8	56757.0	487.36 µg/L	487.36 ppb	21:04:52
3	Cu 324.752†	119675.9	113109.0	493.23 µg/L	493.23 ppb	21:04:52
3	Mn 257.610†	371477.0	358540.1	489.71 µg/L	489.71 ppb	21:04:52
3	Mo 202.031†	15758.3	15268.1	482.41 µg/L	482.41 ppb	21:05:12
3	Ni 231.604†	39365.4	38043.9	486.63 µg/L	486.63 ppb	21:04:52
3	P 214.914†	10350.1	9912.3	2365.5 µg/L	2365.5 ppb	21:05:12
3	Pb 220.353†	8278.4	7879.4	478.85 µg/L	478.85 ppb	21:05:12
3	S 181.975 Axial†	1296.2	1156.5	941.02 µg/L	941.02 ppb	21:05:12
3	Sb 206.836†	3820.2	3601.3	486.84 µg/L	486.84 ppb	21:05:12
3	Se 196.026†	1245.9	1191.9	474 µg/L	474 ppb	21:05:12
3	SiO2†	51139.5	47796.6	5203.5 µg/L	5203.5 ppb	21:04:52
3	Si 251.611†	153580.9	147589.1	2430.7 µg/L	2430.7 ppb	21:04:52
3	Sn 189.927†	7084.4	6837.2	487.72 µg/L	487.72 ppb	21:05:12
3	Ti 334.940†	499459.5	481536.7	490.37 µg/L	490.37 ppb	21:04:52
3	Tl 190.801†	3572.9	3569.5	486.51 µg/L	486.51 ppb	21:05:12
3	U 409.014†	7416.3	7638.8	501.99 µg/L	501.99 ppb	21:04:52
3	V 292.402†	92167.5	88545.7	497.33 µg/L	497.33 ppb	21:04:52
3	Zn 213.857†	79634.5	76413.9	477.17 µg/L	477.17 ppb	21:04:52

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1723078.1	103.01 %	0.583			0.57%
Sc RADIAL	154048.0	106 %	0.5			0.47%
Y 371.029	1044530.0	102.15 %	0.539			0.53%
Ag 328.068†	120633.9	495.73 µg/L	1.374	495.73 ppb	1.374	0.28%
QC value within limits for Ag 328.068 Recovery = 99.15%						
Al 396.153Radial†	23987.0	5213.6 µg/L	8.05	5213.6 ppb	8.05	0.15%
QC value within limits for Al 396.153Radial Recovery = 104.27%						
As 188.979†	1260.7	533.90 µg/L	3.620	533.90 ppb	3.620	0.68%
QC value within limits for As 188.979 Recovery = 106.78%						
B 249.677†	28529.6	477.29 µg/L	1.490	477.29 ppb	1.490	0.31%
QC value within limits for B 249.677 Recovery = 95.46%						
Ba 233.527†	109463.4	500.47 µg/L	1.106	500.47 ppb	1.106	0.22%
QC value within limits for Ba 233.527 Recovery = 100.09%						
Be 313.107†	1561360.5	508.39 µg/L	1.184	508.39 ppb	1.184	0.23%
QC value within limits for Be 313.107 Recovery = 101.68%						
Ca 317.933Radial†	84154.8	4931.1 µg/L	13.70	4931.1 ppb	13.70	0.28%
QC value within limits for Ca 317.933Radial Recovery = 98.62%						
Cd 226.502†	69406.7	478.99 µg/L	1.177	478.99 ppb	1.177	0.25%
QC value within limits for Cd 226.502 Recovery = 95.80%						
Co 228.616†	35467.2	485.92 µg/L	1.892	485.92 ppb	1.892	0.39%

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   QC value within limits for Co 228.616  Recovery = 97.18%
Cr 267.716†            56876.2      488.38 µg/L         0.973      488.38 ppb          0.973   0.20%
   QC value within limits for Cr 267.716  Recovery = 97.68%
Cu 324.752†           113234.3      493.76 µg/L         0.585      493.76 ppb          0.585   0.12%
   QC value within limits for Cu 324.752  Recovery = 98.75%
Fe 238.204 Radial†     73830.5      4908.5 µg/L         11.33      4908.5 ppb          11.33   0.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.17%
K 766.490 Radial†      11655.6      4794.3 µg/L         23.63      4794.3 ppb          23.63   0.49%
   QC value within limits for K 766.490 Radial  Recovery = 95.89%
Mg 279.077 IEC†        12275.8      5069.1 µg/L         28.89      5069.1 ppb          28.89   0.57%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.38%
Mn 257.610†           359122.6      490.51 µg/L         0.726      490.51 ppb          0.726   0.15%
   QC value within limits for Mn 257.610  Recovery = 98.10%
Mo 202.031†            15318.4      483.99 µg/L         2.029      483.99 ppb          2.029   0.42%
   QC value within limits for Mo 202.031  Recovery = 96.80%
Na 589.592 Radial†     64235.0      9824.5 µg/L         26.69      9824.5 ppb          26.69   0.27%
   QC value within limits for Na 589.592 Radial  Recovery = 98.25%
Ni 231.604†            38070.0      486.96 µg/L         1.387      486.96 ppb          1.387   0.28%
   QC value within limits for Ni 231.604  Recovery = 97.39%
P 214.914†              9931.5      2370.0 µg/L         12.59      2370.0 ppb          12.59   0.53%
   QC value within limits for P 214.914  Recovery = 94.80%
Pb 220.353†             7900.8      480.16 µg/L         2.839      480.16 ppb          2.839   0.59%
   QC value within limits for Pb 220.353  Recovery = 96.03%
S 181.975 Axial†        1152.2      937.54 µg/L         3.050      937.54 ppb          3.050   0.33%
   QC value within limits for S 181.975 Axial  Recovery = 93.75%
Sb 206.836†             3608.9      487.87 µg/L         0.930      487.87 ppb          0.930   0.19%
   QC value within limits for Sb 206.836  Recovery = 97.57%
Se 196.026†             1198.9         476 µg/L           3.1         476 ppb            3.1   0.64%
   QC value within limits for Se 196.026  Recovery = 95.27%
SiO2†                  47853.4      5209.6 µg/L         10.06      5209.6 ppb          10.06   0.19%
   QC value within limits for SiO2  Recovery = 97.42%
Si 251.611†           147897.3      2435.8 µg/L          5.04      2435.8 ppb           5.04   0.21%
   QC value within limits for Si 251.611  Recovery = 97.43%
Sn 189.927†             6852.8      488.83 µg/L         2.990      488.83 ppb          2.990   0.61%
   QC value within limits for Sn 189.927  Recovery = 97.77%
Sr 421.552†           216980.3      508.51 µg/L         4.460      508.51 ppb          4.460   0.88%
   QC value within limits for Sr 421.552  Recovery = 101.70%
Ti 334.940†           482654.6      491.52 µg/L         1.088      491.52 ppb          1.088   0.22%
   QC value within limits for Ti 334.940  Recovery = 98.30%
Tl 190.801†             3590.7      489.37 µg/L         2.564      489.37 ppb          2.564   0.52%
   QC value within limits for Tl 190.801  Recovery = 97.87%
U 409.014†              7558.5      497.12 µg/L         5.554      497.12 ppb          5.554   1.12%
   QC value within limits for U 409.014  Recovery = 99.42%
V 292.402†             88794.0      498.73 µg/L         1.529      498.73 ppb          1.529   0.31%
   QC value within limits for V 292.402  Recovery = 99.75%
Zn 213.857†            76578.7      478.21 µg/L         1.247      478.21 ppb          1.247   0.26%
   QC value within limits for Zn 213.857  Recovery = 95.64%
All analyte(s) passed QC.
```

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/29/2010 21:05:20**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	154996.4	154996.4	106	%			21:05:49
1	Al 396.153Radial†	-63.3	-27.7	-6.1097	µg/L	-6.1097	ppb	21:06:09
1	Ca 317.933Radial†	693.4	35.9	2.1034	µg/L	2.1034	ppb	21:06:09
1	Fe 238.204 Radial†	151.1	28.8	1.9138	µg/L	1.9138	ppb	21:06:09
1	K 766.490 Radial†	1597.5	47.3	19.463	µg/L	19.463	ppb	21:05:49
1	Mg 279.077 IEC†	208.9	9.8	4.0702	µg/L	4.0702	ppb	21:06:09
1	Na 589.592 Radial†	1678.5	-116.3	-17.818	µg/L	-17.818	ppb	21:05:49
1	Sr 421.552†	-227.7	63.9	0.1497	µg/L	0.1497	ppb	21:05:49
1	Sc 361.383	1725992.9	1725992.9	103.18	%			21:06:57
1	Y 371.029	1059747.2	1059747.2	103.63	%			21:06:57
1	Ag 328.068†	3051.7	-9.4	-0.0382	µg/L	-0.0382	ppb	21:06:59
1	As 188.979†	-12.6	2.0	0.8526	µg/L	0.8526	ppb	21:07:19
1	B 249.677†	3056.4	-393.5	-6.6077	µg/L	-6.6077	ppb	21:07:19
1	Ba 233.527†	-168.8	11.5	0.0524	µg/L	0.0524	ppb	21:07:19
1	Be 313.107†	-508.1	167.7	0.0571	µg/L	0.0571	ppb	21:06:59
1	Cd 226.502†	-60.4	35.9	0.2479	µg/L	0.2479	ppb	21:07:19
1	Co 228.616†	-169.8	12.0	0.1644	µg/L	0.1644	ppb	21:07:19
1	Cr 267.716†	146.1	-18.7	-0.1673	µg/L	-0.1673	ppb	21:07:19
1	Cu 324.752†	2666.8	159.7	0.7014	µg/L	0.7014	ppb	21:06:59
1	Mn 257.610†	177.8	92.3	0.1259	µg/L	0.1259	ppb	21:07:19
1	Mo 202.031†	-5.1	50.3	1.5872	µg/L	1.5872	ppb	21:07:19
1	Ni 231.604†	-16.9	24.5	0.3133	µg/L	0.3133	ppb	21:07:19
1	P 214.914†	22.6	-57.6	-13.826	µg/L	-13.826	ppb	21:07:19
1	Pb 220.353†	90.0	-25.2	-1.5281	µg/L	-1.5281	ppb	21:07:19
1	S 181.975 Axial†	71.1	-25.9	-21.007	µg/L	-21.007	ppb	21:07:19
1	Sb 206.836†	85.9	-3.3	-0.4268	µg/L	-0.4268	ppb	21:07:19
1	Se 196.026†	19.1	7.6	3.00	µg/L	3.00	ppb	21:07:19
1	SiO2†	1671.8	47.4	5.1244	µg/L	5.1244	ppb	21:07:19
1	Si 251.611†	772.8	72.6	1.1761	µg/L	1.1761	ppb	21:07:19
1	Sn 189.927†	9.7	7.4	0.5233	µg/L	0.5233	ppb	21:07:19
1	Ti 334.940†	780.1	119.7	0.1184	µg/L	0.1184	ppb	21:06:59
1	Tl 190.801†	-117.8	6.2	0.8248	µg/L	0.8248	ppb	21:07:19
1	U 409.014†	-356.1	134.0	8.2316	µg/L	8.2316	ppb	21:06:59
1	V 292.402†	287.8	-152.9	-0.8274	µg/L	-0.8274	ppb	21:06:59
1	Zn 213.857†	507.5	27.4	0.1698	µg/L	0.1698	ppb	21:07:19
2	Sc RADIAL	152412.0	152412.0	105	%			21:06:11
2	Al 396.153Radial†	-24.5	8.4	1.8014	µg/L	1.8014	ppb	21:06:31
2	Ca 317.933Radial†	694.0	47.5	2.7825	µg/L	2.7825	ppb	21:06:31
2	Fe 238.204 Radial†	146.8	27.1	1.7992	µg/L	1.7992	ppb	21:06:31
2	K 766.490 Radial†	1385.9	-129.6	-53.361	µg/L	-53.361	ppb	21:06:11
2	Mg 279.077 IEC†	168.1	-25.9	-10.680	µg/L	-10.680	ppb	21:06:31
2	Na 589.592 Radial†	1601.9	-162.8	-24.860	µg/L	-24.860	ppb	21:06:11
2	Sr 421.552†	-193.2	93.2	0.2184	µg/L	0.2184	ppb	21:06:11
2	Sc 361.383	1730228.9	1730228.9	103.43	%			21:07:21
2	Y 371.029	1062056.7	1062056.7	103.86	%			21:07:21
2	Ag 328.068†	3294.6	218.2	0.8697	µg/L	0.8697	ppb	21:07:23
2	As 188.979†	-7.8	6.7	2.7923	µg/L	2.7923	ppb	21:07:43
2	B 249.677†	3121.5	-337.9	-5.6726	µg/L	-5.6726	ppb	21:07:43
2	Ba 233.527†	-196.4	-14.9	-0.0686	µg/L	-0.0686	ppb	21:07:43
2	Be 313.107†	-630.3	50.7	0.0170	µg/L	0.0170	ppb	21:07:23
2	Cd 226.502†	-85.2	12.1	0.0830	µg/L	0.0830	ppb	21:07:43
2	Co 228.616†	-178.5	4.0	0.0551	µg/L	0.0551	ppb	21:07:43
2	Cr 267.716†	146.8	-18.3	-0.1593	µg/L	-0.1593	ppb	21:07:43
2	Cu 324.752†	2640.7	128.1	0.5583	µg/L	0.5583	ppb	21:07:23
2	Mn 257.610†	136.5	52.0	0.0714	µg/L	0.0714	ppb	21:07:43
2	Mo 202.031†	-31.2	25.1	0.7914	µg/L	0.7914	ppb	21:07:43
2	Ni 231.604†	-64.5	-21.4	-0.2741	µg/L	-0.2741	ppb	21:07:43
2	P 214.914†	43.5	-37.5	-8.9955	µg/L	-8.9955	ppb	21:07:43
2	Pb 220.353†	100.4	-15.4	-0.9295	µg/L	-0.9295	ppb	21:07:43

2	S 181.975 Axial†	84.3	-13.3	-10.766	µg/L	-10.766 ppb	21:07:43
2	Sb 206.836†	56.9	-31.6	-4.2573	µg/L	-4.2573 ppb	21:07:43
2	Se 196.026†	21.3	9.7	3.82	µg/L	3.82 ppb	21:07:43
2	SiO2†	1625.1	-1.7	-0.2117	µg/L	-0.2117 ppb	21:07:43
2	Si 251.611†	795.8	92.9	1.5262	µg/L	1.5262 ppb	21:07:43
2	Sn 189.927†	2.5	0.4	0.0269	µg/L	0.0269 ppb	21:07:43
2	Ti 334.940†	1026.5	356.1	0.3635	µg/L	0.3635 ppb	21:07:23
2	Tl 190.801†	-125.8	-1.3	-0.1808	µg/L	-0.1808 ppb	21:07:43
2	U 409.014†	-469.0	25.7	1.5015	µg/L	1.5015 ppb	21:07:23
2	V 292.402†	173.5	-264.1	-1.4569	µg/L	-1.4569 ppb	21:07:23
2	Zn 213.857†	498.1	17.1	0.1092	µg/L	0.1092 ppb	21:07:43
3	Sc RADIAL	153579.1	153579.1	105	%		21:06:33
3	Al 396.153Radial†	-58.8	-23.9	-5.2607	µg/L	-5.2607 ppb	21:06:53
3	Ca 317.933Radial†	673.1	22.6	1.3237	µg/L	1.3237 ppb	21:06:53
3	Fe 238.204 Radial†	131.8	11.8	0.7823	µg/L	0.7823 ppb	21:06:53
3	K 766.490 Radial†	1453.7	-75.3	-31.005	µg/L	-31.005 ppb	21:06:33
3	Mg 279.077 IEC†	180.2	-15.7	-6.4370	µg/L	-6.4370 ppb	21:06:53
3	Na 589.592 Radial†	1585.7	-189.9	-29.024	µg/L	-29.024 ppb	21:06:33
3	Sr 421.552†	-259.8	31.4	0.0737	µg/L	0.0737 ppb	21:06:33
3	Sc 361.383	1727714.6	1727714.6	103.28	%		21:07:45
3	Y 371.029	1060914.8	1060914.8	103.75	%		21:07:45
3	Ag 328.068†	3064.7	0.2	-0.0004	µg/L	-0.0004 ppb	21:07:47
3	As 188.979†	-17.3	-2.5	-1.0488	µg/L	-1.0488 ppb	21:08:08
3	B 249.677†	3076.5	-377.0	-6.3309	µg/L	-6.3309 ppb	21:08:08
3	Ba 233.527†	-187.7	-6.7	-0.0307	µg/L	-0.0307 ppb	21:08:08
3	Be 313.107†	-530.7	146.3	0.0497	µg/L	0.0497 ppb	21:07:47
3	Cd 226.502†	-118.4	-20.2	-0.1396	µg/L	-0.1396 ppb	21:08:08
3	Co 228.616†	-159.8	21.9	0.3001	µg/L	0.3001 ppb	21:08:08
3	Cr 267.716†	166.1	0.6	-0.0009	µg/L	-0.0009 ppb	21:08:08
3	Cu 324.752†	2799.8	285.9	1.2487	µg/L	1.2487 ppb	21:07:47
3	Mn 257.610†	156.9	71.9	0.0985	µg/L	0.0985 ppb	21:08:08
3	Mo 202.031†	-29.4	26.7	0.8435	µg/L	0.8435 ppb	21:08:08
3	Ni 231.604†	-49.4	-6.9	-0.0885	µg/L	-0.0885 ppb	21:08:08
3	P 214.914†	34.7	-45.9	-11.027	µg/L	-11.027 ppb	21:08:08
3	Pb 220.353†	99.2	-16.4	-0.9975	µg/L	-0.9975 ppb	21:08:08
3	S 181.975 Axial†	91.1	-6.6	-5.3466	µg/L	-5.3466 ppb	21:08:08
3	Sb 206.836†	84.8	-4.6	-0.6054	µg/L	-0.6054 ppb	21:08:08
3	Se 196.026†	15.6	4.2	1.65	µg/L	1.65 ppb	21:08:08
3	SiO2†	1696.3	69.5	7.5803	µg/L	7.5803 ppb	21:08:08
3	Si 251.611†	783.8	82.5	1.3544	µg/L	1.3544 ppb	21:08:08
3	Sn 189.927†	-1.7	-3.7	-0.2629	µg/L	-0.2629 ppb	21:08:08
3	Ti 334.940†	938.9	272.7	0.2758	µg/L	0.2758 ppb	21:07:47
3	Tl 190.801†	-117.7	6.3	0.8448	µg/L	0.8448 ppb	21:08:08
3	U 409.014†	-379.0	112.2	6.8863	µg/L	6.8863 ppb	21:07:47
3	V 292.402†	296.9	-144.3	-0.7876	µg/L	-0.7876 ppb	21:07:47
3	Zn 213.857†	483.2	3.5	0.0213	µg/L	0.0213 ppb	21:08:08

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1727978.8	103.30	%	0.127				0.12%
Sc RADIAL	153662.5	105	%	0.9				0.84%
Y 371.029	1060906.2	103.75	%	0.113				0.11%
Ag 328.068†	69.6	0.2771	µg/L	0.51363	0.2771	ppb	0.51363	185.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-14.4	-3.1897	µg/L	4.34321	-3.1897	ppb	4.34321	136.17%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.1	0.8654	µg/L	1.92055	0.8654	ppb	1.92055	221.93%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-369.5	-6.2037	µg/L	0.48034	-6.2037	ppb	0.48034	7.74%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.3	-0.0156	µg/L	0.06185	-0.0156	ppb	0.06185	395.65%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	121.6	0.0413	µg/L	0.02134	0.0413	ppb	0.02134	51.70%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	35.3	2.0699	µg/L	0.72997	2.0699	ppb	0.72997	35.27%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	9.3	0.0638	µg/L	0.19446	0.0638	ppb	0.19446	304.95%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	12.7	0.1732	µg/L	0.12276	0.1732	ppb	0.12276	70.87%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -12.2     -0.1092 µg/L       0.09382     -0.1092 ppb        0.09382  85.93%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              191.2      0.8362 µg/L       0.36438      0.8362 ppb        0.36438  43.58%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        22.5      1.4984 µg/L       0.62279      1.4984 ppb        0.62279  41.56%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -52.6     -21.634 µg/L       37.3056     -21.634 ppb        37.3056 172.44%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -10.6     -4.3490 µg/L       7.59366     -4.3490 ppb        7.59366 174.61%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               72.1      0.0986 µg/L       0.02726      0.0986 ppb        0.02726  27.63%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               34.0      1.0741 µg/L       0.44518      1.0741 ppb        0.44518  41.45%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -156.3     -23.901 µg/L        5.6641     -23.901 ppb         5.6641  23.70%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -1.3     -0.0164 µg/L       0.30026     -0.0164 ppb        0.30026 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -47.0     -11.283 µg/L        2.4255     -11.283 ppb         2.4255  21.50%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -19.0     -1.1517 µg/L       0.32775     -1.1517 ppb        0.32775  28.46%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -15.3     -12.373 µg/L        7.9530     -12.373 ppb         7.9530  64.28%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -13.2     -1.7632 µg/L       2.16182     -1.7632 ppb        2.16182 122.61%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                7.1       2.83 µg/L         1.094        2.83 ppb          1.094  38.72%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     38.4      4.1643 µg/L       3.98373      4.1643 ppb        3.98373  95.66%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               82.7      1.3522 µg/L       0.17505      1.3522 ppb        0.17505  12.95%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.3      0.0958 µg/L       0.39756      0.0958 ppb        0.39756 415.11%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               62.8      0.1473 µg/L       0.07240      0.1473 ppb        0.07240  49.16%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              249.5      0.2525 µg/L       0.12417      0.2525 ppb        0.12417  49.17%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.7      0.4963 µg/L       0.58643      0.4963 ppb        0.58643 118.16%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                90.6      5.5398 µg/L       3.56137      5.5398 ppb        3.56137  64.29%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -187.1     -1.0240 µg/L       0.37548     -1.0240 ppb        0.37548  36.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               16.0      0.1001 µg/L       0.07465      0.1001 ppb        0.07465  74.57%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 55
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/29/2010 21:21:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	154714.0	154714.0	106	%			21:21:59
1	Al 396.153Radial†	25548.1	24100.5	5238.5	µg/L	5238.5	ppb	21:21:59
1	Ca 317.933Radial†	89497.2	83698.1	4904.3	µg/L	4904.3	ppb	21:21:59
1	Fe 238.204 Radial†	78346.3	73695.8	4899.6	µg/L	4899.6	ppb	21:21:59
1	K 766.490 Radial†	13948.1	11685.3	4806.5	µg/L	4806.5	ppb	21:21:59
1	Mg 279.077 IEC†	13187.8	12237.4	5053.2	µg/L	5053.2	ppb	21:21:59
1	Na 589.592 Radial†	69758.3	64023.7	9792.2	µg/L	9792.2	ppb	21:21:59
1	Sr 421.552†	228178.1	215241.9	504.43	µg/L	504.43	ppb	21:21:57
1	Sc 361.383	1735452.7	1735452.7	103.75	%			21:22:12
1	Y 371.029	1050791.1	1050791.1	102.76	%			21:22:12
1	Ag 328.068†	128429.5	120824.1	496.54	µg/L	496.54	ppb	21:22:12
1	As 188.979†	1304.3	1271.4	538.44	µg/L	538.44	ppb	21:22:32
1	B 249.677†	33357.7	28797.2	481.77	µg/L	481.77	ppb	21:22:12
1	Ba 233.527†	114396.7	110440.2	504.93	µg/L	504.93	ppb	21:22:12
1	Be 313.107†	1635862.4	1577441.1	513.62	µg/L	513.62	ppb	21:22:12
1	Cd 226.502†	72815.3	70279.9	485.02	µg/L	485.02	ppb	21:22:12
1	Co 228.616†	36981.4	35822.4	490.78	µg/L	490.78	ppb	21:22:12
1	Cr 267.716†	59642.9	57328.5	492.28	µg/L	492.28	ppb	21:22:12
1	Cu 324.752†	120492.9	113716.2	495.85	µg/L	495.85	ppb	21:22:12
1	Mn 257.610†	375406.7	361768.4	494.12	µg/L	494.12	ppb	21:22:12
1	Mo 202.031†	15724.6	15211.9	480.63	µg/L	480.63	ppb	21:22:32
1	Ni 231.604†	39726.7	38332.8	490.32	µg/L	490.32	ppb	21:22:12
1	P 214.914†	10354.3	9900.7	2362.7	µg/L	2362.7	ppb	21:22:32
1	Pb 220.353†	8256.8	7846.2	476.85	µg/L	476.85	ppb	21:22:32
1	S 181.975 Axial†	1288.8	1147.5	933.70	µg/L	933.70	ppb	21:22:32
1	Sb 206.836†	3841.8	3616.4	488.79	µg/L	488.79	ppb	21:22:32
1	Se 196.026†	1256.4	1200.2	477	µg/L	477	ppb	21:22:32
1	SiO2†	51655.1	48216.6	5249.4	µg/L	5249.4	ppb	21:22:12
1	Si 251.611†	155313.5	149027.7	2454.5	µg/L	2454.5	ppb	21:22:12
1	Sn 189.927†	7082.5	6824.6	486.84	µg/L	486.84	ppb	21:22:32
1	Ti 334.940†	504215.8	485369.0	494.29	µg/L	494.29	ppb	21:22:12
1	Tl 190.801†	3584.2	3575.1	487.32	µg/L	487.32	ppb	21:22:32
1	U 409.014†	7243.0	7460.5	491.31	µg/L	491.31	ppb	21:22:12
1	V 292.402†	93303.5	89501.9	502.63	µg/L	502.63	ppb	21:22:12
1	Zn 213.857†	80568.9	77194.6	482.06	µg/L	482.06	ppb	21:22:12
2	Sc RADIAL	155802.8	155802.8	107	%			21:22:03
2	Al 396.153Radial†	25671.7	24047.8	5226.9	µg/L	5226.9	ppb	21:22:03
2	Ca 317.933Radial†	90704.0	84237.8	4936.0	µg/L	4936.0	ppb	21:22:03
2	Fe 238.204 Radial†	79350.7	74119.7	4927.7	µg/L	4927.7	ppb	21:22:03
2	K 766.490 Radial†	14028.1	11668.4	4799.6	µg/L	4799.6	ppb	21:22:03
2	Mg 279.077 IEC†	13391.2	12340.9	5095.9	µg/L	5095.9	ppb	21:22:03
2	Na 589.592 Radial†	70468.8	64229.1	9823.6	µg/L	9823.6	ppb	21:22:03
2	Sr 421.552†	228226.2	213784.6	501.02	µg/L	501.02	ppb	21:22:01
2	Sc 361.383	1718458.2	1718458.2	102.73	%			21:22:35
2	Y 371.029	1040541.3	1040541.3	101.76	%			21:22:35
2	Ag 328.068†	127122.8	120776.3	496.30	µg/L	496.30	ppb	21:22:35
2	As 188.979†	1315.4	1294.6	548.12	µg/L	548.12	ppb	21:22:55
2	B 249.677†	32820.6	28592.4	478.34	µg/L	478.34	ppb	21:22:35
2	Ba 233.527†	112822.5	109998.3	502.91	µg/L	502.91	ppb	21:22:35
2	Be 313.107†	1612596.5	1570387.2	511.32	µg/L	511.32	ppb	21:22:35
2	Cd 226.502†	71251.1	69451.4	479.30	µg/L	479.30	ppb	21:22:35
2	Co 228.616†	36408.8	35617.5	487.97	µg/L	487.97	ppb	21:22:35
2	Cr 267.716†	58690.5	56970.0	489.20	µg/L	489.20	ppb	21:22:35
2	Cu 324.752†	118859.8	113275.1	493.93	µg/L	493.93	ppb	21:22:35
2	Mn 257.610†	369770.3	359860.3	491.51	µg/L	491.51	ppb	21:22:35
2	Mo 202.031†	15667.6	15306.3	483.62	µg/L	483.62	ppb	21:22:55
2	Ni 231.604†	39105.3	38106.6	487.43	µg/L	487.43	ppb	21:22:35
2	P 214.914†	10294.9	9941.7	2372.5	µg/L	2372.5	ppb	21:22:55
2	Pb 220.353†	8226.7	7895.5	479.85	µg/L	479.85	ppb	21:22:55

2	S 181.975 Axial†	1280.0	1151.2	936.74 µg/L	936.74 ppb	21:22:55
2	Sb 206.836†	3824.3	3636.0	491.52 µg/L	491.52 ppb	21:22:55
2	Se 196.026†	1243.4	1199.4	477 µg/L	477 ppb	21:22:55
2	SiO2†	50957.3	48029.8	5228.9 µg/L	5228.9 ppb	21:22:35
2	Si 251.611†	152847.9	148108.2	2439.3 µg/L	2439.3 ppb	21:22:35
2	Sn 189.927†	7068.4	6878.5	490.66 µg/L	490.66 ppb	21:22:55
2	Ti 334.940†	497011.6	483162.6	492.04 µg/L	492.04 ppb	21:22:35
2	Tl 190.801†	3575.6	3600.9	490.75 µg/L	490.75 ppb	21:22:55
2	U 409.014†	7042.3	7334.2	483.35 µg/L	483.35 ppb	21:22:35
2	V 292.402†	91957.7	89081.3	500.31 µg/L	500.31 ppb	21:22:35
2	Zn 213.857†	79391.5	76816.5	479.70 µg/L	479.70 ppb	21:22:35
3	Sc RADIAL	153629.1	153629.1	105 %		21:22:07
3	Al 396.153Radial†	25706.1	24420.3	5308.2 µg/L	5308.2 ppb	21:22:07
3	Ca 317.933Radial†	90217.9	84977.2	4979.3 µg/L	4979.3 ppb	21:22:07
3	Fe 238.204 Radial†	78896.4	74739.0	4968.9 µg/L	4968.9 ppb	21:22:07
3	K 766.490 Radial†	14006.0	11833.0	4867.3 µg/L	4867.3 ppb	21:22:07
3	Mg 279.077 IEC†	13233.2	12368.3	5107.1 µg/L	5107.1 ppb	21:22:07
3	Na 589.592 Radial†	70244.8	64949.4	9933.8 µg/L	9933.8 ppb	21:22:07
3	Sr 421.552†	231320.2	219741.0	514.98 µg/L	514.98 ppb	21:22:05
3	Sc 361.383	1729039.4	1729039.4	103.36 %		21:22:58
3	Y 371.029	1047411.6	1047411.6	102.43 %		21:22:58
3	Ag 328.068†	127427.9	120314.2	494.42 µg/L	494.42 ppb	21:22:58
3	As 188.979†	1312.7	1284.2	543.77 µg/L	543.77 ppb	21:23:18
3	B 249.677†	33004.1	28574.4	478.04 µg/L	478.04 ppb	21:22:58
3	Ba 233.527†	113024.4	109521.5	500.73 µg/L	500.73 ppb	21:22:58
3	Be 313.107†	1619574.1	1567531.4	510.39 µg/L	510.39 ppb	21:22:58
3	Cd 226.502†	71668.9	69431.2	479.16 µg/L	479.16 ppb	21:22:58
3	Co 228.616†	36487.7	35476.9	486.05 µg/L	486.05 ppb	21:22:58
3	Cr 267.716†	59071.0	56988.5	489.36 µg/L	489.36 ppb	21:22:58
3	Cu 324.752†	119482.8	113169.8	493.48 µg/L	493.48 ppb	21:22:58
3	Mn 257.610†	371130.6	358973.6	490.30 µg/L	490.30 ppb	21:22:58
3	Mo 202.031†	15756.3	15298.8	483.38 µg/L	483.38 ppb	21:23:18
3	Ni 231.604†	39442.5	38199.9	488.62 µg/L	488.62 ppb	21:22:58
3	P 214.914†	10384.3	9966.8	2378.5 µg/L	2378.5 ppb	21:23:18
3	Pb 220.353†	8281.8	7899.8	480.11 µg/L	480.11 ppb	21:23:18
3	S 181.975 Axial†	1288.9	1152.1	937.49 µg/L	937.49 ppb	21:23:18
3	Sb 206.836†	3835.5	3624.1	489.90 µg/L	489.90 ppb	21:23:18
3	Se 196.026†	1254.5	1202.8	478 µg/L	478 ppb	21:23:18
3	SiO2†	51174.5	47936.4	5218.7 µg/L	5218.7 ppb	21:22:58
3	Si 251.611†	153310.8	147645.6	2431.6 µg/L	2431.6 ppb	21:22:58
3	Sn 189.927†	7110.2	6876.8	490.54 µg/L	490.54 ppb	21:23:18
3	Ti 334.940†	498783.5	481916.1	490.77 µg/L	490.77 ppb	21:22:58
3	Tl 190.801†	3617.1	3619.7	493.26 µg/L	493.26 ppb	21:23:18
3	U 409.014†	7080.7	7329.4	482.98 µg/L	482.98 ppb	21:22:58
3	V 292.402†	92337.1	88900.5	499.30 µg/L	499.30 ppb	21:22:58
3	Zn 213.857†	79755.1	76695.4	478.93 µg/L	478.93 ppb	21:22:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Sc 361.383	1727650.1	103.28 %	0.513			0.50%
Sc RADIAL	154715.3	106 %	0.7			0.70%
Y 371.029	1046248.0	102.31 %	0.511			0.50%
Ag 328.068†	120638.2	495.75 µg/L	1.163	495.75 ppb	1.163	0.23%
QC value within limits for Ag 328.068 Recovery = 99.15%						
Al 396.153Radial†	24189.5	5257.9 µg/L	43.98	5257.9 ppb	43.98	0.84%
QC value within limits for Al 396.153Radial Recovery = 105.16%						
As 188.979†	1283.4	543.44 µg/L	4.846	543.44 ppb	4.846	0.89%
QC value within limits for As 188.979 Recovery = 108.69%						
B 249.677†	28654.7	479.38 µg/L	2.070	479.38 ppb	2.070	0.43%
QC value within limits for B 249.677 Recovery = 95.88%						
Ba 233.527†	109986.6	502.86 µg/L	2.100	502.86 ppb	2.100	0.42%
QC value within limits for Ba 233.527 Recovery = 100.57%						
Be 313.107†	1571786.6	511.78 µg/L	1.662	511.78 ppb	1.662	0.32%
QC value within limits for Be 313.107 Recovery = 102.36%						
Ca 317.933Radial†	84304.4	4939.9 µg/L	37.63	4939.9 ppb	37.63	0.76%
QC value within limits for Ca 317.933Radial Recovery = 98.80%						
Cd 226.502†	69720.8	481.16 µg/L	3.348	481.16 ppb	3.348	0.70%
QC value within limits for Cd 226.502 Recovery = 96.23%						
Co 228.616†	35638.9	488.27 µg/L	2.383	488.27 ppb	2.383	0.49%

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   QC value within limits for Co 228.616  Recovery = 97.65%
Cr 267.716†            57095.7      490.28 µg/L         1.730      490.28 ppb          1.730   0.35%
   QC value within limits for Cr 267.716  Recovery = 98.06%
Cu 324.752†           113387.0      494.42 µg/L         1.260      494.42 ppb          1.260   0.25%
   QC value within limits for Cu 324.752  Recovery = 98.88%
Fe 238.204 Radial†     74184.8      4932.1 µg/L         34.88      4932.1 ppb          34.88   0.71%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.64%
K 766.490 Radial†      11728.9      4824.5 µg/L         37.26      4824.5 ppb          37.26   0.77%
   QC value within limits for K 766.490 Radial  Recovery = 96.49%
Mg 279.077 IEC†        12315.5      5085.4 µg/L         28.47      5085.4 ppb          28.47   0.56%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.71%
Mn 257.610†           360200.8      491.98 µg/L         1.953      491.98 ppb          1.953   0.40%
   QC value within limits for Mn 257.610  Recovery = 98.40%
Mo 202.031†            15272.3      482.54 µg/L         1.658      482.54 ppb          1.658   0.34%
   QC value within limits for Mo 202.031  Recovery = 96.51%
Na 589.592 Radial†     64400.7      9849.8 µg/L         74.35      9849.8 ppb          74.35   0.75%
   QC value within limits for Na 589.592 Radial  Recovery = 98.50%
Ni 231.604†            38213.1      488.79 µg/L         1.454      488.79 ppb          1.454   0.30%
   QC value within limits for Ni 231.604  Recovery = 97.76%
P 214.914†              9936.4      2371.2 µg/L          7.98      2371.2 ppb           7.98   0.34%
   QC value within limits for P 214.914  Recovery = 94.85%
Pb 220.353†             7880.5      478.93 µg/L         1.813      478.93 ppb          1.813   0.38%
   QC value within limits for Pb 220.353  Recovery = 95.79%
S 181.975 Axial†        1150.2      935.98 µg/L         2.006      935.98 ppb          2.006   0.21%
   QC value within limits for S 181.975 Axial  Recovery = 93.60%
Sb 206.836†             3625.5      490.07 µg/L         1.373      490.07 ppb          1.373   0.28%
   QC value within limits for Sb 206.836  Recovery = 98.01%
Se 196.026†             1200.8         477 µg/L           0.7         477 ppb            0.7   0.15%
   QC value within limits for Se 196.026  Recovery = 95.42%
SiO2†                  48060.9      5232.3 µg/L         15.67      5232.3 ppb          15.67   0.30%
   QC value within limits for SiO2  Recovery = 97.85%
Si 251.611†           148260.5      2441.8 µg/L         11.67      2441.8 ppb          11.67   0.48%
   QC value within limits for Si 251.611  Recovery = 97.67%
Sn 189.927†             6860.0      489.35 µg/L         2.170      489.35 ppb          2.170   0.44%
   QC value within limits for Sn 189.927  Recovery = 97.87%
Sr 421.552†           216255.8      506.81 µg/L         7.277      506.81 ppb          7.277   1.44%
   QC value within limits for Sr 421.552  Recovery = 101.36%
Ti 334.940†           483482.6      492.36 µg/L         1.782      492.36 ppb          1.782   0.36%
   QC value within limits for Ti 334.940  Recovery = 98.47%
Tl 190.801†             3598.6      490.44 µg/L         2.982      490.44 ppb          2.982   0.61%
   QC value within limits for Tl 190.801  Recovery = 98.09%
U 409.014†              7374.7      485.88 µg/L         4.704      485.88 ppb          4.704   0.97%
   QC value within limits for U 409.014  Recovery = 97.18%
V 292.402†             89161.2      500.74 µg/L         1.709      500.74 ppb          1.709   0.34%
   QC value within limits for V 292.402  Recovery = 100.15%
Zn 213.857†            76902.2      480.23 µg/L         1.635      480.23 ppb          1.635   0.34%
   QC value within limits for Zn 213.857  Recovery = 96.05%
All analyte(s) passed QC.
```

Sequence No.: 56 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/29/2010 21:23:26**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	155306.1	155306.1	107	%			21:23:55
1	Al 396.153Radial†	-24.3	9.1	1.9543	µg/L	1.9543	ppb	21:24:15
1	Ca 317.933Radial†	683.7	25.5	1.4938	µg/L	1.4938	ppb	21:24:15
1	Fe 238.204 Radial†	158.4	35.3	2.3500	µg/L	2.3500	ppb	21:24:15
1	K 766.490 Radial†	1643.9	87.8	36.134	µg/L	36.134	ppb	21:23:55
1	Mg 279.077 IEC†	167.4	-29.6	-12.187	µg/L	-12.187	ppb	21:24:15
1	Na 589.592 Radial†	1516.3	-271.7	-41.602	µg/L	-41.602	ppb	21:23:55
1	Sr 421.552†	-242.4	50.5	0.1183	µg/L	0.1183	ppb	21:23:55
1	Sc 361.383	1748094.6	1748094.6	104.50	%			21:25:03
1	Y 371.029	1071566.5	1071566.5	104.79	%			21:25:03
1	Ag 328.068†	3427.1	312.3	1.2793	µg/L	1.2793	ppb	21:25:05
1	As 188.979†	-13.5	1.3	0.5449	µg/L	0.5449	ppb	21:25:25
1	B 249.677†	3112.2	-377.5	-6.3385	µg/L	-6.3385	ppb	21:25:25
1	Ba 233.527†	-154.2	27.5	0.1256	µg/L	0.1256	ppb	21:25:25
1	Be 313.107†	-701.4	-11.1	0.0002	µg/L	0.0002	ppb	21:25:05
1	Cd 226.502†	-80.7	17.1	0.1180	µg/L	0.1180	ppb	21:25:25
1	Co 228.616†	-180.0	4.3	0.0591	µg/L	0.0591	ppb	21:25:25
1	Cr 267.716†	154.7	-12.2	-0.1146	µg/L	-0.1146	ppb	21:25:25
1	Cu 324.752†	2711.0	169.4	0.7467	µg/L	0.7467	ppb	21:25:05
1	Mn 257.610†	174.7	87.2	0.1196	µg/L	0.1196	ppb	21:25:25
1	Mo 202.031†	-33.7	22.9	0.7232	µg/L	0.7232	ppb	21:25:25
1	Ni 231.604†	-63.8	-20.2	-0.2580	µg/L	-0.2580	ppb	21:25:25
1	P 214.914†	25.7	-55.0	-13.175	µg/L	-13.175	ppb	21:25:25
1	Pb 220.353†	88.4	-27.8	-1.6943	µg/L	-1.6943	ppb	21:25:25
1	S 181.975 Axial†	88.7	-10.0	-8.0713	µg/L	-8.0713	ppb	21:25:25
1	Sb 206.836†	103.6	12.5	1.6953	µg/L	1.6953	ppb	21:25:25
1	Se 196.026†	29.5	17.3	6.85	µg/L	6.85	ppb	21:25:25
1	SiO2†	1690.4	44.8	4.8636	µg/L	4.8636	ppb	21:25:25
1	Si 251.611†	812.1	100.8	1.6531	µg/L	1.6531	ppb	21:25:25
1	Sn 189.927†	9.4	7.0	0.4982	µg/L	0.4982	ppb	21:25:25
1	Ti 334.940†	734.9	66.9	0.0641	µg/L	0.0641	ppb	21:25:05
1	Tl 190.801†	-117.2	8.2	1.0976	µg/L	1.0976	ppb	21:25:25
1	U 409.014†	-286.2	205.2	12.661	µg/L	12.661	ppb	21:25:05
1	V 292.402†	393.2	-55.5	-0.2928	µg/L	-0.2928	ppb	21:25:05
1	Zn 213.857†	542.6	54.8	0.3462	µg/L	0.3462	ppb	21:25:25
2	Sc RADIAL	153477.3	153477.3	105	%			21:24:17
2	Al 396.153Radial†	-47.4	-13.1	-2.9442	µg/L	-2.9442	ppb	21:24:37
2	Ca 317.933Radial†	711.1	59.1	3.4638	µg/L	3.4638	ppb	21:24:37
2	Fe 238.204 Radial†	171.6	49.7	3.3060	µg/L	3.3060	ppb	21:24:37
2	K 766.490 Radial†	1553.5	20.3	8.3817	µg/L	8.3817	ppb	21:24:17
2	Mg 279.077 IEC†	185.8	-10.2	-4.1787	µg/L	-4.1787	ppb	21:24:37
2	Na 589.592 Radial†	1510.8	-259.9	-39.777	µg/L	-39.777	ppb	21:24:17
2	Sr 421.552†	-111.6	172.0	0.4031	µg/L	0.4031	ppb	21:24:17
2	Sc 361.383	1741520.5	1741520.5	104.11	%			21:25:27
2	Y 371.029	1067626.4	1067626.4	104.41	%			21:25:27
2	Ag 328.068†	3414.4	312.6	1.2772	µg/L	1.2772	ppb	21:25:29
2	As 188.979†	-19.8	-4.8	-1.9816	µg/L	-1.9816	ppb	21:25:49
2	B 249.677†	3071.8	-405.2	-6.8037	µg/L	-6.8037	ppb	21:25:49
2	Ba 233.527†	-157.9	23.4	0.1075	µg/L	0.1075	ppb	21:25:49
2	Be 313.107†	-655.5	30.5	0.0121	µg/L	0.0121	ppb	21:25:29
2	Cd 226.502†	-93.0	5.0	0.0343	µg/L	0.0343	ppb	21:25:49
2	Co 228.616†	-157.6	25.2	0.3454	µg/L	0.3454	ppb	21:25:49
2	Cr 267.716†	146.2	-19.8	-0.1753	µg/L	-0.1753	ppb	21:25:49
2	Cu 324.752†	2664.3	134.2	0.5901	µg/L	0.5901	ppb	21:25:29
2	Mn 257.610†	201.1	113.2	0.1548	µg/L	0.1548	ppb	21:25:49
2	Mo 202.031†	-3.9	51.4	1.6241	µg/L	1.6241	ppb	21:25:49
2	Ni 231.604†	-71.2	-27.4	-0.3510	µg/L	-0.3510	ppb	21:25:49
2	P 214.914†	49.3	-32.2	-7.7507	µg/L	-7.7507	ppb	21:25:49
2	Pb 220.353†	105.7	-10.9	-0.6592	µg/L	-0.6592	ppb	21:25:49

2	S 181.975 Axial†	91.8	-6.6	-5.3552	µg/L	-5.3552 ppb	21:25:49
2	Sb 206.836†	83.1	-6.8	-0.8931	µg/L	-0.8931 ppb	21:25:49
2	Se 196.026†	11.8	0.5	0.191	µg/L	0.191 ppb	21:25:49
2	SiO2†	1682.8	43.5	4.7163	µg/L	4.7163 ppb	21:25:49
2	Si 251.611†	832.1	122.9	2.0124	µg/L	2.0124 ppb	21:25:49
2	Sn 189.927†	-2.3	-4.2	-0.2990	µg/L	-0.2990 ppb	21:25:49
2	Ti 334.940†	806.8	138.6	0.1389	µg/L	0.1389 ppb	21:25:29
2	Tl 190.801†	-103.8	20.6	2.7680	µg/L	2.7680 ppb	21:25:49
2	U 409.014†	-377.6	116.4	7.1940	µg/L	7.1940 ppb	21:25:29
2	V 292.402†	451.2	1.6	0.0290	µg/L	0.0290 ppb	21:25:29
2	Zn 213.857†	515.7	30.9	0.1963	µg/L	0.1963 ppb	21:25:49
3	Sc RADIAL	150012.7	150012.7	103	%		21:24:39
3	Al 396.153Radial†	-29.8	2.9	0.5867	µg/L	0.5867 ppb	21:24:59
3	Ca 317.933Radial†	710.4	74.0	4.3369	µg/L	4.3369 ppb	21:24:59
3	Fe 238.204 Radial†	151.9	34.3	2.2797	µg/L	2.2797 ppb	21:24:59
3	K 766.490 Radial†	1399.3	-95.4	-39.262	µg/L	-39.262 ppb	21:24:39
3	Mg 279.077 IEC†	165.1	-26.3	-10.817	µg/L	-10.817 ppb	21:24:59
3	Na 589.592 Radial†	1639.2	-102.0	-15.574	µg/L	-15.574 ppb	21:24:39
3	Sr 421.552†	-287.8	-1.6	-0.0038	µg/L	-0.0038 ppb	21:24:39
3	Sc 361.383	1723128.2	1723128.2	103.01	%		21:25:51
3	Y 371.029	1057308.7	1057308.7	103.40	%		21:25:51
3	Ag 328.068†	3346.0	281.2	1.1646	µg/L	1.1646 ppb	21:25:53
3	As 188.979†	-18.6	-3.8	-1.5909	µg/L	-1.5909 ppb	21:26:14
3	B 249.677†	3052.0	-392.9	-6.5974	µg/L	-6.5974 ppb	21:26:14
3	Ba 233.527†	-170.9	9.2	0.0418	µg/L	0.0418 ppb	21:26:14
3	Be 313.107†	-474.6	199.4	0.0725	µg/L	0.0725 ppb	21:25:53
3	Cd 226.502†	-97.7	-0.4	-0.0033	µg/L	-0.0033 ppb	21:26:14
3	Co 228.616†	-155.6	25.6	0.3503	µg/L	0.3503 ppb	21:26:14
3	Cr 267.716†	182.3	16.7	0.1237	µg/L	0.1237 ppb	21:26:14
3	Cu 324.752†	2711.9	207.8	0.9243	µg/L	0.9243 ppb	21:25:53
3	Mn 257.610†	171.1	86.1	0.1180	µg/L	0.1180 ppb	21:26:14
3	Mo 202.031†	-16.8	38.9	1.2275	µg/L	1.2275 ppb	21:26:14
3	Ni 231.604†	-81.5	-38.2	-0.4887	µg/L	-0.4887 ppb	21:26:14
3	P 214.914†	37.1	-43.6	-10.455	µg/L	-10.455 ppb	21:26:14
3	Pb 220.353†	81.7	-33.1	-2.0187	µg/L	-2.0187 ppb	21:26:14
3	S 181.975 Axial†	91.8	-5.7	-4.6479	µg/L	-4.6479 ppb	21:26:14
3	Sb 206.836†	81.4	-7.6	-1.0134	µg/L	-1.0134 ppb	21:26:14
3	Se 196.026†	21.3	9.8	3.89	µg/L	3.89 ppb	21:26:14
3	SiO2†	1680.3	58.3	6.3388	µg/L	6.3388 ppb	21:26:14
3	Si 251.611†	807.9	107.9	1.7669	µg/L	1.7669 ppb	21:26:14
3	Sn 189.927†	3.7	1.6	0.1137	µg/L	0.1137 ppb	21:26:14
3	Ti 334.940†	1049.1	382.1	0.3802	µg/L	0.3802 ppb	21:25:53
3	Tl 190.801†	-103.5	19.8	2.6620	µg/L	2.6620 ppb	21:26:14
3	U 409.014†	-71.7	409.5	25.265	µg/L	25.265 ppb	21:25:53
3	V 292.402†	327.3	-114.1	-0.6031	µg/L	-0.6031 ppb	21:25:53
3	Zn 213.857†	513.6	34.2	0.2177	µg/L	0.2177 ppb	21:26:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1737581.1	103.87	%	0.774				0.74%
Sc RADIAL	152932.0	105	%	1.8				1.76%
Y 371.029	1065500.5	104.20	%	0.720				0.69%
Ag 328.068†	302.0	1.2404	µg/L	0.06566	1.2404	ppb	0.06566	5.29%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.4	-0.1344	µg/L	2.52760	-0.1344	ppb	2.52760	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.4	-1.0092	µg/L	1.36000	-1.0092	ppb	1.36000	134.76%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-391.9	-6.5799	µg/L	0.23305	-6.5799	ppb	0.23305	3.54%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	20.0	0.0916	µg/L	0.04412	0.0916	ppb	0.04412	48.14%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	72.9	0.0283	µg/L	0.03879	0.0283	ppb	0.03879	137.14%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	52.9	3.0982	µg/L	1.45639	3.0982	ppb	1.45639	47.01%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	7.3	0.0497	µg/L	0.06207	0.0497	ppb	0.06207	124.90%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.4	0.2516	µg/L	0.16669	0.2516	ppb	0.16669	66.25%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -5.1     -0.0554 µg/L       0.15802     -0.0554 ppb        0.15802 285.26%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             170.5      0.7537 µg/L       0.16723      0.7537 ppb        0.16723  22.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       39.8      2.6452 µg/L       0.57333      2.6452 ppb        0.57333  21.67%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         4.2      1.7511 µg/L      38.13273      1.7511 ppb       38.13273 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         -22.0     -9.0611 µg/L       4.28341     -9.0611 ppb        4.28341  47.27%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              95.5      0.1308 µg/L       0.02079      0.1308 ppb        0.02079  15.90%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              37.8      1.1916 µg/L       0.45152      1.1916 ppb        0.45152  37.89%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -211.2    -32.318 µg/L       14.5288     -32.318 ppb        14.5288  44.96%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -28.6     -0.3659 µg/L       0.11605     -0.3659 ppb        0.11605  31.72%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -43.6     -10.460 µg/L        2.7120     -10.460 ppb         2.7120  25.93%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -23.9     -1.4574 µg/L       0.70999     -1.4574 ppb        0.70999  48.72%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -7.4     -6.0248 µg/L       1.80725     -6.0248 ppb        1.80725  30.00%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.6     -0.0704 µg/L       1.53036     -0.0704 ppb        1.53036 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               9.2        3.64 µg/L         3.337        3.64 ppb          3.337  91.59%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    48.9      5.3062 µg/L       0.89725      5.3062 ppb        0.89725  16.91%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             110.5      1.8108 µg/L       0.18363      1.8108 ppb        0.18363  10.14%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.5      0.1043 µg/L       0.39868      0.1043 ppb        0.39868 382.19%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              73.6      0.1725 µg/L       0.20882      0.1725 ppb        0.20882 121.03%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             195.9      0.1944 µg/L       0.16524      0.1944 ppb        0.16524  85.00%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              16.2      2.1759 µg/L       0.93532      2.1759 ppb        0.93532  42.99%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              243.7      15.040 µg/L        9.2675      15.040 ppb         9.2675  61.62%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -56.0     -0.2890 µg/L       0.31607     -0.2890 ppb        0.31607 109.37%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              40.0      0.2534 µg/L       0.08112      0.2534 ppb        0.08112  32.01%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 64
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/29/2010 21:41:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	155141.6	155141.6	106	%			21:41:56
1	Al 396.153Radial†	25732.1	24207.0	5261.9	µg/L	5261.9	ppb	21:41:56
1	Ca 317.933Radial†	90696.3	84592.2	4956.7	µg/L	4956.7	ppb	21:41:56
1	Fe 238.204 Radial†	79315.9	74403.3	4946.6	µg/L	4946.6	ppb	21:41:56
1	K 766.490 Radial†	13939.8	11641.4	4788.4	µg/L	4788.4	ppb	21:41:56
1	Mg 279.077 IEC†	13393.7	12396.6	5118.7	µg/L	5118.7	ppb	21:41:56
1	Na 589.592 Radial†	70468.0	64509.4	9866.5	µg/L	9866.5	ppb	21:41:56
1	Sr 421.552†	232398.2	218614.1	512.33	µg/L	512.33	ppb	21:41:53
1	Sc 361.383	1769586.3	1769586.3	105.79	%			21:42:08
1	Y 371.029	1071797.7	1071797.7	104.81	%			21:42:08
1	Ag 328.068†	129603.3	119545.9	491.31	µg/L	491.31	ppb	21:42:08
1	As 188.979†	1329.3	1270.8	538.12	µg/L	538.12	ppb	21:42:28
1	B 249.677†	33677.3	28479.2	476.45	µg/L	476.45	ppb	21:42:08
1	Ba 233.527†	115439.2	109298.8	499.71	µg/L	499.71	ppb	21:42:08
1	Be 313.107†	1651472.1	1561782.3	508.53	µg/L	508.53	ppb	21:42:08
1	Cd 226.502†	73101.7	69196.8	477.54	µg/L	477.54	ppb	21:42:08
1	Co 228.616†	37176.9	35319.6	483.89	µg/L	483.89	ppb	21:42:08
1	Cr 267.716†	60164.7	56712.9	486.98	µg/L	486.98	ppb	21:42:08
1	Cu 324.752†	121865.1	112773.1	491.76	µg/L	491.76	ppb	21:42:08
1	Mn 257.610†	378134.2	357367.0	488.10	µg/L	488.10	ppb	21:42:08
1	Mo 202.031†	15933.4	15116.9	477.64	µg/L	477.64	ppb	21:42:28
1	Ni 231.604†	40031.5	37882.3	484.56	µg/L	484.56	ppb	21:42:08
1	P 214.914†	10529.6	9874.0	2356.3	µg/L	2356.3	ppb	21:42:28
1	Pb 220.353†	8381.8	7810.8	474.69	µg/L	474.69	ppb	21:42:28
1	S 181.975 Axial†	1319.0	1152.0	937.38	µg/L	937.38	ppb	21:42:28
1	Sb 206.836†	3878.6	3579.8	483.87	µg/L	483.87	ppb	21:42:28
1	Se 196.026†	1271.4	1191.0	473	µg/L	473	ppb	21:42:28
1	SiO2†	52156.9	47730.6	5196.4	µg/L	5196.4	ppb	21:42:08
1	Si 251.611†	156637.6	147391.8	2427.5	µg/L	2427.5	ppb	21:42:08
1	Sn 189.927†	7201.5	6805.5	485.46	µg/L	485.46	ppb	21:42:28
1	Ti 334.940†	508354.7	479906.9	488.71	µg/L	488.71	ppb	21:42:08
1	Tl 190.801†	3635.0	3556.4	484.75	µg/L	484.75	ppb	21:42:28
1	U 409.014†	7495.6	7564.6	497.45	µg/L	497.45	ppb	21:42:08
1	V 292.402†	94313.8	88722.2	498.25	µg/L	498.25	ppb	21:42:08
1	Zn 213.857†	81212.0	76304.6	476.49	µg/L	476.49	ppb	21:42:08
2	Sc RADIAL	152571.4	152571.4	105	%			21:42:00
2	Al 396.153Radial†	25314.1	24214.9	5263.2	µg/L	5263.2	ppb	21:42:00
2	Ca 317.933Radial†	88626.2	84050.0	4925.0	µg/L	4925.0	ppb	21:42:00
2	Fe 238.204 Radial†	77784.9	74196.0	4932.8	µg/L	4932.8	ppb	21:42:00
2	K 766.490 Radial†	13885.1	11809.7	4857.7	µg/L	4857.7	ppb	21:42:00
2	Mg 279.077 IEC†	13015.3	12247.1	5057.3	µg/L	5057.3	ppb	21:42:00
2	Na 589.592 Radial†	69451.8	64653.8	9888.5	µg/L	9888.5	ppb	21:42:00
2	Sr 421.552†	226457.0	216616.4	507.65	µg/L	507.65	ppb	21:41:58
2	Sc 361.383	1736903.3	1736903.3	103.83	%			21:42:32
2	Y 371.029	1053285.4	1053285.4	103.00	%			21:42:32
2	Ag 328.068†	128049.4	120354.6	494.59	µg/L	494.59	ppb	21:42:32
2	As 188.979†	1336.9	1301.8	551.11	µg/L	551.11	ppb	21:42:52
2	B 249.677†	32949.6	28377.4	474.74	µg/L	474.74	ppb	21:42:32
2	Ba 233.527†	113487.1	109472.1	500.51	µg/L	500.51	ppb	21:42:32
2	Be 313.107†	1622396.8	1563155.8	508.97	µg/L	508.97	ppb	21:42:32
2	Cd 226.502†	71970.0	69407.2	478.99	µg/L	478.99	ppb	21:42:32
2	Co 228.616†	36579.3	35405.4	485.07	µg/L	485.07	ppb	21:42:32
2	Cr 267.716†	59093.3	56751.3	487.32	µg/L	487.32	ppb	21:42:32
2	Cu 324.752†	119729.1	112883.6	492.24	µg/L	492.24	ppb	21:42:32
2	Mn 257.610†	371985.4	358171.2	489.21	µg/L	489.21	ppb	21:42:32
2	Mo 202.031†	15973.6	15439.0	487.80	µg/L	487.80	ppb	21:42:52
2	Ni 231.604†	39464.7	38048.6	486.69	µg/L	486.69	ppb	21:42:32
2	P 214.914†	10515.6	10047.8	2397.9	µg/L	2397.9	ppb	21:42:52
2	Pb 220.353†	8420.5	7997.2	486.01	µg/L	486.01	ppb	21:42:52

2	S 181.975 Axial†	1316.9	1173.4	954.81 µg/L	954.81 ppb	21:42:52
2	Sb 206.836†	3875.7	3646.0	492.95 µg/L	492.95 ppb	21:42:52
2	Se 196.026†	1265.9	1208.2	480 µg/L	480 ppb	21:42:52
2	SiO2†	51399.8	47929.2	5217.7 µg/L	5217.7 ppb	21:42:32
2	Si 251.611†	153711.9	147360.2	2426.8 µg/L	2426.8 ppb	21:42:32
2	Sn 189.927†	7192.7	6925.1	493.97 µg/L	493.97 ppb	21:42:52
2	Ti 334.940†	500404.8	481292.9	490.13 µg/L	490.13 ppb	21:42:32
2	Tl 190.801†	3631.2	3617.4	492.94 µg/L	492.94 ppb	21:42:52
2	U 409.014†	7251.0	7462.4	491.17 µg/L	491.17 ppb	21:42:32
2	V 292.402†	92671.4	88818.0	498.89 µg/L	498.89 ppb	21:42:32
2	Zn 213.857†	79943.3	76527.3	477.88 µg/L	477.88 ppb	21:42:32
3	Sc RADIAL	153899.6	153899.6	106 %		21:42:04
3	Al 396.153Radial†	25427.3	24113.4	5241.3 µg/L	5241.3 ppb	21:42:04
3	Ca 317.933Radial†	89584.3	84226.7	4935.3 µg/L	4935.3 ppb	21:42:04
3	Fe 238.204 Radial†	78451.3	74185.8	4932.1 µg/L	4932.1 ppb	21:42:04
3	K 766.490 Radial†	13947.9	11754.7	4835.1 µg/L	4835.1 ppb	21:42:04
3	Mg 279.077 IEC†	13129.1	12247.5	5057.3 µg/L	5057.3 ppb	21:42:04
3	Na 589.592 Radial†	69867.9	64475.3	9861.2 µg/L	9861.2 ppb	21:42:04
3	Sr 421.552†	230570.5	218645.2	512.41 µg/L	512.41 ppb	21:42:02
3	Sc 361.383	1756529.9	1756529.9	105.01 %		21:42:55
3	Y 371.029	1063628.8	1063628.8	104.01 %		21:42:55
3	Ag 328.068†	129932.1	120769.6	496.30 µg/L	496.30 ppb	21:42:55
3	As 188.979†	1327.9	1278.8	541.51 µg/L	541.51 ppb	21:43:15
3	B 249.677†	33771.3	28805.3	481.91 µg/L	481.91 ppb	21:42:55
3	Ba 233.527†	115375.4	110049.1	503.14 µg/L	503.14 ppb	21:42:55
3	Be 313.107†	1656355.2	1578036.4	513.82 µg/L	513.82 ppb	21:42:55
3	Cd 226.502†	73621.8	70205.8	484.51 µg/L	484.51 ppb	21:42:55
3	Co 228.616†	37314.4	35711.8	489.27 µg/L	489.27 ppb	21:42:55
3	Cr 267.716†	60209.2	57178.1	490.99 µg/L	490.99 ppb	21:42:55
3	Cu 324.752†	121793.5	113561.3	495.18 µg/L	495.18 ppb	21:42:55
3	Mn 257.610†	379257.5	361093.6	493.20 µg/L	493.20 ppb	21:42:55
3	Mo 202.031†	15953.4	15247.9	481.77 µg/L	481.77 ppb	21:43:15
3	Ni 231.604†	40238.5	38360.8	490.68 µg/L	490.68 ppb	21:42:55
3	P 214.914†	10528.4	9946.8	2373.7 µg/L	2373.7 ppb	21:43:15
3	Pb 220.353†	8392.4	7879.8	478.89 µg/L	478.89 ppb	21:43:15
3	S 181.975 Axial†	1322.2	1164.3	947.34 µg/L	947.34 ppb	21:43:15
3	Sb 206.836†	3881.7	3610.0	487.96 µg/L	487.96 ppb	21:43:15
3	Se 196.026†	1265.3	1194.1	474 µg/L	474 ppb	21:43:15
3	SiO2†	52227.4	48164.2	5243.6 µg/L	5243.6 ppb	21:42:55
3	Si 251.611†	156492.0	148353.7	2443.4 µg/L	2443.4 ppb	21:42:55
3	Sn 189.927†	7205.6	6860.0	489.35 µg/L	489.35 ppb	21:43:15
3	Ti 334.940†	508571.1	483684.9	492.57 µg/L	492.57 ppb	21:42:55
3	Tl 190.801†	3639.0	3585.7	488.73 µg/L	488.73 ppb	21:43:15
3	U 409.014†	7286.8	7418.4	488.63 µg/L	488.63 ppb	21:42:55
3	V 292.402†	94216.9	89292.6	501.47 µg/L	501.47 ppb	21:42:55
3	Zn 213.857†	81432.1	77084.8	481.37 µg/L	481.37 ppb	21:42:55

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1754339.8	104.88	%	0.983				0.94%
Sc RADIAL	153870.9	106	%	0.9				0.84%
Y 371.029	1062904.0	103.94	%	0.907				0.87%
Ag 328.068†	120223.3	494.06	µg/L	2.537	494.06	ppb	2.537	0.51%
QC value within limits for Ag 328.068 Recovery = 98.81%								
Al 396.153Radial†	24178.4	5255.5	µg/L	12.29	5255.5	ppb	12.29	0.23%
QC value within limits for Al 396.153Radial Recovery = 105.11%								
As 188.979†	1283.8	543.58	µg/L	6.739	543.58	ppb	6.739	1.24%
QC value within limits for As 188.979 Recovery = 108.72%								
B 249.677†	28554.0	477.70	µg/L	3.745	477.70	ppb	3.745	0.78%
QC value within limits for B 249.677 Recovery = 95.54%								
Ba 233.527†	109606.6	501.12	µg/L	1.796	501.12	ppb	1.796	0.36%
QC value within limits for Ba 233.527 Recovery = 100.22%								
Be 313.107†	1567658.2	510.44	µg/L	2.933	510.44	ppb	2.933	0.57%
QC value within limits for Be 313.107 Recovery = 102.09%								
Ca 317.933Radial†	84289.7	4939.0	µg/L	16.20	4939.0	ppb	16.20	0.33%
QC value within limits for Ca 317.933Radial Recovery = 98.78%								
Cd 226.502†	69603.2	480.35	µg/L	3.678	480.35	ppb	3.678	0.77%
QC value within limits for Cd 226.502 Recovery = 96.07%								
Co 228.616†	35478.9	486.07	µg/L	2.825	486.07	ppb	2.825	0.58%

```
   QC value within limits for Co 228.616  Recovery = 97.21%
Cr 267.716†            56880.8      488.43 µg/L         2.221      488.43 ppb          2.221   0.45%
   QC value within limits for Cr 267.716  Recovery = 97.69%
Cu 324.752†           113072.7      493.06 µg/L         1.852      493.06 ppb          1.852   0.38%
   QC value within limits for Cu 324.752  Recovery = 98.61%
Fe 238.204 Radial†     74261.7      4937.2 µg/L          8.16      4937.2 ppb           8.16   0.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.74%
K 766.490 Radial†      11735.3      4827.1 µg/L         35.34      4827.1 ppb          35.34   0.73%
   QC value within limits for K 766.490 Radial  Recovery = 96.54%
Mg 279.077 IEC†        12297.1      5077.8 µg/L         35.42      5077.8 ppb          35.42   0.70%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.56%
Mn 257.610†           358877.3      490.17 µg/L         2.681      490.17 ppb          2.681   0.55%
   QC value within limits for Mn 257.610  Recovery = 98.03%
Mo 202.031†            15267.9      482.40 µg/L         5.112      482.40 ppb          5.112   1.06%
   QC value within limits for Mo 202.031  Recovery = 96.48%
Na 589.592 Radial†     64546.2      9872.1 µg/L         14.48      9872.1 ppb          14.48   0.15%
   QC value within limits for Na 589.592 Radial  Recovery = 98.72%
Ni 231.604†            38097.2      487.31 µg/L         3.107      487.31 ppb          3.107   0.64%
   QC value within limits for Ni 231.604  Recovery = 97.46%
P 214.914†              9956.2      2376.0 µg/L         20.89      2376.0 ppb          20.89   0.88%
   QC value within limits for P 214.914  Recovery = 95.04%
Pb 220.353†             7895.9      479.86 µg/L         5.722      479.86 ppb          5.722   1.19%
   QC value within limits for Pb 220.353  Recovery = 95.97%
S 181.975 Axial†        1163.3      946.51 µg/L         8.747      946.51 ppb          8.747   0.92%
   QC value within limits for S 181.975 Axial  Recovery = 94.65%
Sb 206.836†             3611.9      488.26 µg/L         4.549      488.26 ppb          4.549   0.93%
   QC value within limits for Sb 206.836  Recovery = 97.65%
Se 196.026†             1197.8         476 µg/L           3.6         476 ppb            3.6   0.76%
   QC value within limits for Se 196.026  Recovery = 95.19%
SiO2†                  47941.4      5219.2 µg/L         23.65      5219.2 ppb          23.65   0.45%
   QC value within limits for SiO2  Recovery = 97.60%
Si 251.611†           147701.9      2432.6 µg/L          9.35      2432.6 ppb           9.35   0.38%
   QC value within limits for Si 251.611  Recovery = 97.30%
Sn 189.927†             6863.5      489.59 µg/L         4.258      489.59 ppb          4.258   0.87%
   QC value within limits for Sn 189.927  Recovery = 97.92%
Sr 421.552†           217958.6      510.80 µg/L         2.724      510.80 ppb          2.724   0.53%
   QC value within limits for Sr 421.552  Recovery = 102.16%
Ti 334.940†           481628.2      490.47 µg/L         1.952      490.47 ppb          1.952   0.40%
   QC value within limits for Ti 334.940  Recovery = 98.09%
Tl 190.801†             3586.5      488.81 µg/L         4.099      488.81 ppb          4.099   0.84%
   QC value within limits for Tl 190.801  Recovery = 97.76%
U 409.014†              7481.8      492.42 µg/L         4.540      492.42 ppb          4.540   0.92%
   QC value within limits for U 409.014  Recovery = 98.48%
V 292.402†             88944.2      499.54 µg/L         1.704      499.54 ppb          1.704   0.34%
   QC value within limits for V 292.402  Recovery = 99.91%
Zn 213.857†            76638.9      478.58 µg/L         2.509      478.58 ppb          2.509   0.52%
   QC value within limits for Zn 213.857  Recovery = 95.72%
All analyte(s) passed QC.
```

Sequence No.: 65
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/29/2010 21:43:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	155956.8	155956.8	107	%			21:43:51
1	Al 396.153Radial†	-16.8	16.2	3.4619	µg/L	3.4619	ppb	21:44:11
1	Ca 317.933Radial†	700.6	38.5	2.2587	µg/L	2.2587	ppb	21:44:11
1	Fe 238.204 Radial†	158.1	34.5	2.2919	µg/L	2.2919	ppb	21:44:11
1	K 766.490 Radial†	1477.7	-74.0	-30.465	µg/L	-30.465	ppb	21:43:51
1	Mg 279.077 IEC†	161.1	-36.2	-14.868	µg/L	-14.868	ppb	21:44:11
1	Na 589.592 Radial†	1643.2	-159.1	-24.311	µg/L	-24.311	ppb	21:43:51
1	Sr 421.552†	-196.3	94.6	0.2216	µg/L	0.2216	ppb	21:43:51
1	Sc 361.383	1765629.9	1765629.9	105.55	%			21:45:13
1	Y 371.029	1081668.4	1081668.4	105.78	%			21:45:13
1	Ag 328.068†	3343.9	201.0	0.8287	µg/L	0.8287	ppb	21:45:15
1	As 188.979†	-0.7	13.6	5.6736	µg/L	5.6736	ppb	21:45:35
1	B 249.677†	3087.2	-430.8	-7.2342	µg/L	-7.2342	ppb	21:45:35
1	Ba 233.527†	-174.6	9.6	0.0437	µg/L	0.0437	ppb	21:45:35
1	Be 313.107†	-668.1	27.1	0.0159	µg/L	0.0159	ppb	21:45:15
1	Cd 226.502†	-91.4	7.8	0.0536	µg/L	0.0536	ppb	21:45:35
1	Co 228.616†	-169.6	15.9	0.2174	µg/L	0.2174	ppb	21:45:35
1	Cr 267.716†	125.9	-40.9	-0.3702	µg/L	-0.3702	ppb	21:45:35
1	Cu 324.752†	2790.6	219.0	0.9713	µg/L	0.9713	ppb	21:45:15
1	Mn 257.610†	190.9	100.8	0.1384	µg/L	0.1384	ppb	21:45:35
1	Mo 202.031†	-5.1	50.4	1.5908	µg/L	1.5908	ppb	21:45:35
1	Ni 231.604†	-58.3	-14.3	-0.1833	µg/L	-0.1833	ppb	21:45:35
1	P 214.914†	44.9	-37.1	-8.9068	µg/L	-8.9068	ppb	21:45:35
1	Pb 220.353†	100.6	-17.1	-1.0500	µg/L	-1.0500	ppb	21:45:35
1	S 181.975 Axial†	88.1	-11.4	-9.1903	µg/L	-9.1903	ppb	21:45:35
1	Sb 206.836†	84.0	-7.1	-0.9269	µg/L	-0.9269	ppb	21:45:35
1	Se 196.026†	15.6	3.8	1.54	µg/L	1.54	ppb	21:45:35
1	SiO2†	1680.5	19.3	2.0584	µg/L	2.0584	ppb	21:45:35
1	Si 251.611†	824.6	104.8	1.7121	µg/L	1.7121	ppb	21:45:35
1	Sn 189.927†	2.6	0.4	0.0311	µg/L	0.0311	ppb	21:45:35
1	Ti 334.940†	807.6	128.8	0.1231	µg/L	0.1231	ppb	21:45:15
1	Tl 190.801†	-115.4	11.0	1.4674	µg/L	1.4674	ppb	21:45:35
1	U 409.014†	-105.6	379.0	23.345	µg/L	23.345	ppb	21:45:15
1	V 292.402†	205.8	-236.8	-1.2834	µg/L	-1.2834	ppb	21:45:15
1	Zn 213.857†	546.7	53.5	0.3372	µg/L	0.3372	ppb	21:45:35
2	Sc RADIAL	155375.0	155375.0	107	%			21:44:13
2	Al 396.153Radial†	-68.3	-32.2	-7.0550	µg/L	-7.0550	ppb	21:44:33
2	Ca 317.933Radial†	709.4	49.3	2.8889	µg/L	2.8889	ppb	21:44:33
2	Fe 238.204 Radial†	170.5	46.7	3.1031	µg/L	3.1031	ppb	21:44:33
2	K 766.490 Radial†	1698.0	137.8	56.753	µg/L	56.753	ppb	21:44:13
2	Mg 279.077 IEC†	155.9	-40.4	-16.664	µg/L	-16.664	ppb	21:44:33
2	Na 589.592 Radial†	1687.7	-111.6	-17.120	µg/L	-17.120	ppb	21:44:13
2	Sr 421.552†	-289.5	6.4	0.0151	µg/L	0.0151	ppb	21:44:13
2	Sc 361.383	1758365.8	1758365.8	105.12	%			21:45:38
2	Y 371.029	1078074.0	1078074.0	105.43	%			21:45:38
2	Ag 328.068†	3122.4	3.3	0.0229	µg/L	0.0229	ppb	21:45:40
2	As 188.979†	-17.5	-2.4	-0.9870	µg/L	-0.9870	ppb	21:46:00
2	B 249.677†	3114.5	-392.8	-6.5943	µg/L	-6.5943	ppb	21:46:00
2	Ba 233.527†	-174.5	9.1	0.0411	µg/L	0.0411	ppb	21:46:00
2	Be 313.107†	-678.6	14.5	0.0087	µg/L	0.0087	ppb	21:45:40
2	Cd 226.502†	-106.7	-7.1	-0.0492	µg/L	-0.0492	ppb	21:46:00
2	Co 228.616†	-181.1	4.3	0.0589	µg/L	0.0589	ppb	21:46:00
2	Cr 267.716†	186.4	17.1	0.1365	µg/L	0.1365	ppb	21:46:00
2	Cu 324.752†	2877.2	312.3	1.3685	µg/L	1.3685	ppb	21:45:40
2	Mn 257.610†	194.2	104.8	0.1438	µg/L	0.1438	ppb	21:46:00
2	Mo 202.031†	-37.8	19.2	0.6071	µg/L	0.6071	ppb	21:46:00
2	Ni 231.604†	-60.1	-16.3	-0.2082	µg/L	-0.2082	ppb	21:46:00
2	P 214.914†	32.8	-48.4	-11.617	µg/L	-11.617	ppb	21:46:00
2	Pb 220.353†	87.7	-29.0	-1.7681	µg/L	-1.7681	ppb	21:46:00

2	S 181.975 Axial†	91.7	-7.6	-6.1290 µg/L	-6.1290 ppb	21:46:00
2	Sb 206.836†	84.8	-5.9	-0.7957 µg/L	-0.7957 ppb	21:46:00
2	Se 196.026†	18.7	6.9	2.73 µg/L	2.73 ppb	21:46:00
2	SiO2†	1682.8	28.0	3.0520 µg/L	3.0520 ppb	21:46:00
2	Si 251.611†	805.7	90.1	1.4833 µg/L	1.4833 ppb	21:46:00
2	Sn 189.927†	-1.8	-3.8	-0.2671 µg/L	-0.2671 ppb	21:46:00
2	Ti 334.940†	866.0	187.5	0.1872 µg/L	0.1872 ppb	21:45:40
2	Tl 190.801†	-106.3	19.2	2.5714 µg/L	2.5714 ppb	21:46:00
2	U 409.014†	-280.2	212.6	13.103 µg/L	13.103 ppb	21:45:40
2	V 292.402†	347.0	-101.7	-0.5490 µg/L	-0.5490 ppb	21:45:40
2	Zn 213.857†	514.2	24.8	0.1559 µg/L	0.1559 ppb	21:46:00
3	Sc RADIAL	154236.9	154236.9	106 %		21:44:35
3	Al 396.153Radial†	-27.1	6.3	1.3236 µg/L	1.3236 ppb	21:44:55
3	Ca 317.933Radial†	725.7	69.6	4.0774 µg/L	4.0774 ppb	21:44:55
3	Fe 238.204 Radial†	170.1	47.5	3.1556 µg/L	3.1556 ppb	21:44:55
3	K 766.490 Radial†	1418.1	-114.9	-47.294 µg/L	-47.294 ppb	21:44:35
3	Mg 279.077 IEC†	159.9	-35.5	-14.632 µg/L	-14.632 ppb	21:44:55
3	Na 589.592 Radial†	1547.3	-232.5	-35.541 µg/L	-35.541 ppb	21:44:35
3	Sr 421.552†	-316.6	-21.2	-0.0498 µg/L	-0.0498 ppb	21:44:35
3	Sc 361.383	1753936.7	1753936.7	104.85 %		21:46:02
3	Y 371.029	1074322.0	1074322.0	105.06 %		21:46:02
3	Ag 328.068†	3311.5	191.2	0.7816 µg/L	0.7816 ppb	21:46:04
3	As 188.979†	-21.8	-6.6	-2.7393 µg/L	-2.7393 ppb	21:46:24
3	B 249.677†	3129.0	-371.5	-6.2368 µg/L	-6.2368 ppb	21:46:24
3	Ba 233.527†	-162.2	20.3	0.0929 µg/L	0.0929 ppb	21:46:24
3	Be 313.107†	-901.0	-199.2	-0.0620 µg/L	-0.0620 ppb	21:46:04
3	Cd 226.502†	-95.1	3.7	0.0249 µg/L	0.0249 ppb	21:46:24
3	Co 228.616†	-174.5	10.2	0.1392 µg/L	0.1392 ppb	21:46:24
3	Cr 267.716†	174.7	6.4	0.0473 µg/L	0.0473 ppb	21:46:24
3	Cu 324.752†	2668.6	120.3	0.5307 µg/L	0.5307 ppb	21:46:04
3	Mn 257.610†	187.9	99.2	0.1361 µg/L	0.1361 ppb	21:46:24
3	Mo 202.031†	-24.5	31.8	1.0050 µg/L	1.0050 ppb	21:46:24
3	Ni 231.604†	-80.3	-35.6	-0.4559 µg/L	-0.4559 ppb	21:46:24
3	P 214.914†	36.8	-44.4	-10.662 µg/L	-10.662 ppb	21:46:24
3	Pb 220.353†	101.1	-16.0	-0.9738 µg/L	-0.9738 ppb	21:46:24
3	S 181.975 Axial†	84.3	-14.4	-11.695 µg/L	-11.695 ppb	21:46:24
3	Sb 206.836†	73.7	-16.4	-2.1934 µg/L	-2.1934 ppb	21:46:24
3	Se 196.026†	9.7	-1.7	-0.644 µg/L	-0.644 ppb	21:46:24
3	SiO2†	1725.4	72.7	7.9170 µg/L	7.9170 ppb	21:46:24
3	Si 251.611†	849.4	133.7	2.1983 µg/L	2.1983 ppb	21:46:24
3	Sn 189.927†	1.0	-1.1	-0.0738 µg/L	-0.0738 ppb	21:46:24
3	Ti 334.940†	975.6	294.1	0.2973 µg/L	0.2973 ppb	21:46:04
3	Tl 190.801†	-110.8	14.6	1.9610 µg/L	1.9610 ppb	21:46:24
3	U 409.014†	-341.5	153.4	9.4487 µg/L	9.4487 ppb	21:46:04
3	V 292.402†	361.9	-86.7	-0.4648 µg/L	-0.4648 ppb	21:46:04
3	Zn 213.857†	519.6	31.1	0.1983 µg/L	0.1983 ppb	21:46:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1759310.8	105.17	%	0.353				0.34%
Sc RADIAL	155189.5	106	%	0.6				0.56%
Y 371.029	1078021.5	105.42	%	0.359				0.34%
Ag 328.068†	131.9	0.5444	µg/L	0.45227	0.5444	ppb	0.45227	83.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.2	-0.7565	µg/L	5.55848	-0.7565	ppb	5.55848	734.76%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.5	0.6491	µg/L	4.43866	0.6491	ppb	4.43866	683.80%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-398.4	-6.6884	µg/L	0.50530	-6.6884	ppb	0.50530	7.55%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	13.0	0.0592	µg/L	0.02918	0.0592	ppb	0.02918	49.24%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-52.5	-0.0125	µg/L	0.04303	-0.0125	ppb	0.04303	345.39%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	52.5	3.0750	µg/L	0.92355	3.0750	ppb	0.92355	30.03%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	1.5	0.0098	µg/L	0.05303	0.0098	ppb	0.05303	543.11%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	10.1	0.1385	µg/L	0.07927	0.1385	ppb	0.07927	57.23%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -5.8     -0.0621 µg/L       0.27051     -0.0621 ppb        0.27051 435.31%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             217.2      0.9568 µg/L       0.41909      0.9568 ppb        0.41909  43.80%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       42.9      2.8502 µg/L       0.48420      2.8502 ppb        0.48420  16.99%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -17.0     -7.0019 µg/L      55.85109     -7.0019 ppb       55.85109 797.66%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         -37.4     -15.388 µg/L        1.1111     -15.388 ppb         1.1111   7.22%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             101.6      0.1394 µg/L       0.00394      0.1394 ppb        0.00394   2.82%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              33.8      1.0676 µg/L       0.49486      1.0676 ppb        0.49486  46.35%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -167.7     -25.657 µg/L        9.2837     -25.657 ppb         9.2837  36.18%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -22.1     -0.2825 µg/L       0.15069     -0.2825 ppb        0.15069  53.35%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -43.3     -10.395 µg/L        1.3745     -10.395 ppb         1.3745  13.22%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -20.7     -1.2640 µg/L       0.43823     -1.2640 ppb        0.43823  34.67%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -11.1     -9.0047 µg/L       2.78752     -9.0047 ppb        2.78752  30.96%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -9.8     -1.3053 µg/L       0.77187     -1.3053 ppb        0.77187  59.13%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.0        1.21 µg/L         1.710        1.21 ppb          1.710 141.69%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    40.0      4.3425 µg/L       3.13523      4.3425 ppb        3.13523  72.20%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             109.6      1.7979 µg/L       0.36513      1.7979 ppb        0.36513  20.31%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -1.5     -0.1033 µg/L       0.15126     -0.1033 ppb        0.15126 146.44%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              26.6      0.0623 µg/L       0.14172      0.0623 ppb        0.14172 227.53%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             203.5      0.2025 µg/L       0.08808      0.2025 ppb        0.08808  43.49%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              14.9      1.9999 µg/L       0.55303      1.9999 ppb        0.55303  27.65%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              248.3      15.299 µg/L        7.2039      15.299 ppb         7.2039  47.09%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -141.7     -0.7657 µg/L       0.45029     -0.7657 ppb        0.45029  58.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              36.5      0.2305 µg/L       0.09482      0.2305 ppb        0.09482  41.14%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 73
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/29/2010 22:01:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	158049.5	158049.5	108	%			22:01:37
1	Al 396.153Radial†	26411.5	24388.7	5301.6	µg/L	5301.6	ppb	22:01:37
1	Ca 317.933Radial†	92553.1	84736.9	4965.2	µg/L	4965.2	ppb	22:01:37
1	Fe 238.204 Radial†	80932.2	74522.9	4954.5	µg/L	4954.5	ppb	22:01:37
1	K 766.490 Radial†	14535.0	11949.3	4915.2	µg/L	4915.2	ppb	22:01:37
1	Mg 279.077 IEC†	13642.6	12394.6	5117.9	µg/L	5117.9	ppb	22:01:37
1	Na 589.592 Radial†	72124.5	64818.9	9913.8	µg/L	9913.8	ppb	22:01:37
1	Sr 421.552†	236566.4	218441.0	511.93	µg/L	511.93	ppb	22:01:35
1	Sc 361.383	1796532.1	1796532.1	107.40	%			22:01:50
1	Y 371.029	1087433.5	1087433.5	106.34	%			22:01:50
1	Ag 328.068†	132761.6	120649.0	495.79	µg/L	495.79	ppb	22:01:50
1	As 188.979†	1379.4	1298.6	549.79	µg/L	549.79	ppb	22:02:10
1	B 249.677†	34327.9	28607.5	478.59	µg/L	478.59	ppb	22:01:50
1	Ba 233.527†	118329.1	110352.8	504.53	µg/L	504.53	ppb	22:01:50
1	Be 313.107†	1697099.0	1580851.1	514.73	µg/L	514.73	ppb	22:01:50
1	Cd 226.502†	75099.3	70020.3	483.23	µg/L	483.23	ppb	22:01:50
1	Co 228.616†	38144.6	35693.5	489.02	µg/L	489.02	ppb	22:01:50
1	Cr 267.716†	61551.1	57150.8	490.75	µg/L	490.75	ppb	22:01:50
1	Cu 324.752†	125230.0	114178.5	497.87	µg/L	497.87	ppb	22:01:50
1	Mn 257.610†	387183.9	360432.0	492.29	µg/L	492.29	ppb	22:01:50
1	Mo 202.031†	16175.9	15116.8	477.63	µg/L	477.63	ppb	22:02:10
1	Ni 231.604†	40995.7	38212.6	488.78	µg/L	488.78	ppb	22:01:50
1	P 214.914†	10701.6	9884.8	2358.9	µg/L	2358.9	ppb	22:02:10
1	Pb 220.353†	8517.0	7817.8	475.13	µg/L	475.13	ppb	22:02:10
1	S 181.975 Axial†	1332.8	1146.2	932.66	µg/L	932.66	ppb	22:02:10
1	Sb 206.836†	3939.5	3581.5	484.05	µg/L	484.05	ppb	22:02:10
1	Se 196.026†	1279.3	1180.3	469	µg/L	469	ppb	22:02:10
1	SiO2†	53216.1	47977.4	5223.3	µg/L	5223.3	ppb	22:01:50
1	Si 251.611†	160303.4	148584.2	2447.2	µg/L	2447.2	ppb	22:01:50
1	Sn 189.927†	7334.9	6827.6	487.05	µg/L	487.05	ppb	22:02:10
1	Ti 334.940†	519977.9	483521.9	492.40	µg/L	492.40	ppb	22:01:50
1	Tl 190.801†	3694.6	3560.4	485.32	µg/L	485.32	ppb	22:02:10
1	U 409.014†	7392.0	7361.9	485.07	µg/L	485.07	ppb	22:01:50
1	V 292.402†	96188.6	89130.7	500.52	µg/L	500.52	ppb	22:01:50
1	Zn 213.857†	83802.2	77564.9	484.40	µg/L	484.40	ppb	22:01:50
2	Sc RADIAL	156901.2	156901.2	108	%			22:01:41
2	Al 396.153Radial†	26045.7	24227.1	5266.1	µg/L	5266.1	ppb	22:01:41
2	Ca 317.933Radial†	91463.8	84349.6	4942.5	µg/L	4942.5	ppb	22:01:41
2	Fe 238.204 Radial†	80200.4	74389.3	4945.7	µg/L	4945.7	ppb	22:01:41
2	K 766.490 Radial†	14394.1	11916.4	4901.6	µg/L	4901.6	ppb	22:01:41
2	Mg 279.077 IEC†	13524.6	12377.1	5110.8	µg/L	5110.8	ppb	22:01:41
2	Na 589.592 Radial†	71678.0	64891.0	9924.8	µg/L	9924.8	ppb	22:01:41
2	Sr 421.552†	232732.3	216475.9	507.32	µg/L	507.32	ppb	22:01:39
2	Sc 361.383	1783616.2	1783616.2	106.63	%			22:02:13
2	Y 371.029	1079542.4	1079542.4	105.57	%			22:02:13
2	Ag 328.068†	131412.3	120278.7	494.27	µg/L	494.27	ppb	22:02:13
2	As 188.979†	1380.3	1308.7	554.01	µg/L	554.01	ppb	22:02:33
2	B 249.677†	34427.1	28932.0	484.03	µg/L	484.03	ppb	22:02:13
2	Ba 233.527†	116944.7	109852.3	502.24	µg/L	502.24	ppb	22:02:13
2	Be 313.107†	1678543.6	1574891.6	512.79	µg/L	512.79	ppb	22:02:13
2	Cd 226.502†	74410.0	69880.2	482.26	µg/L	482.26	ppb	22:02:13
2	Co 228.616†	37848.5	35673.1	488.73	µg/L	488.73	ppb	22:02:13
2	Cr 267.716†	60832.9	56892.2	488.54	µg/L	488.54	ppb	22:02:13
2	Cu 324.752†	123762.6	113646.6	495.55	µg/L	495.55	ppb	22:02:13
2	Mn 257.610†	383763.1	359834.4	491.48	µg/L	491.48	ppb	22:02:13
2	Mo 202.031†	16215.3	15262.8	482.24	µg/L	482.24	ppb	22:02:33
2	Ni 231.604†	40715.4	38226.1	488.96	µg/L	488.96	ppb	22:02:13
2	P 214.914†	10801.6	10050.8	2398.6	µg/L	2398.6	ppb	22:02:33
2	Pb 220.353†	8589.1	7942.9	482.72	µg/L	482.72	ppb	22:02:33

2	S 181.975 Axial†	1344.2	1165.8	948.58 µg/L	948.58 ppb	22:02:33
2	Sb 206.836†	3942.2	3610.6	488.08 µg/L	488.08 ppb	22:02:33
2	Se 196.026†	1283.6	1192.9	474 µg/L	474 ppb	22:02:33
2	SiO2†	52849.8	47992.6	5224.8 µg/L	5224.8 ppb	22:02:13
2	Si 251.611†	158621.6	148087.7	2438.9 µg/L	2438.9 ppb	22:02:13
2	Sn 189.927†	7373.6	6913.4	493.14 µg/L	493.14 ppb	22:02:33
2	Ti 334.940†	514397.9	481794.6	490.64 µg/L	490.64 ppb	22:02:13
2	Tl 190.801†	3715.3	3604.7	491.24 µg/L	491.24 ppb	22:02:33
2	U 409.014†	7243.6	7272.5	479.51 µg/L	479.51 ppb	22:02:13
2	V 292.402†	95349.6	88992.3	499.79 µg/L	499.79 ppb	22:02:13
2	Zn 213.857†	82609.2	77011.1	480.91 µg/L	480.91 ppb	22:02:13
3	Sc RADIAL	156463.7	156463.7	107 %		22:01:45
3	Al 396.153Radial†	25995.3	24247.8	5270.6 µg/L	5270.6 ppb	22:01:45
3	Ca 317.933Radial†	91157.7	84302.0	4939.7 µg/L	4939.7 ppb	22:01:45
3	Fe 238.204 Radial†	79790.6	74215.9	4934.1 µg/L	4934.1 ppb	22:01:45
3	K 766.490 Radial†	14295.4	11862.0	4879.2 µg/L	4879.2 ppb	22:01:45
3	Mg 279.077 IEC†	13441.9	12335.1	5093.5 µg/L	5093.5 ppb	22:01:45
3	Na 589.592 Radial†	71245.2	64673.9	9891.6 µg/L	9891.6 ppb	22:01:45
3	Sr 421.552†	235650.6	219799.0	515.11 µg/L	515.11 ppb	22:01:43
3	Sc 361.383	1779354.1	1779354.1	106.37 %		22:02:36
3	Y 371.029	1076400.2	1076400.2	105.26 %		22:02:36
3	Ag 328.068†	130833.4	120029.7	493.27 µg/L	493.27 ppb	22:02:36
3	As 188.979†	1382.7	1314.1	556.25 µg/L	556.25 ppb	22:02:57
3	B 249.677†	34071.7	28675.2	479.73 µg/L	479.73 ppb	22:02:36
3	Ba 233.527†	116809.2	109987.6	502.86 µg/L	502.86 ppb	22:02:36
3	Be 313.107†	1674596.4	1574951.7	512.81 µg/L	512.81 ppb	22:02:36
3	Cd 226.502†	73969.6	69633.4	480.55 µg/L	480.55 ppb	22:02:36
3	Co 228.616†	37628.2	35550.9	487.06 µg/L	487.06 ppb	22:02:36
3	Cr 267.716†	60619.6	56828.4	487.98 µg/L	487.98 ppb	22:02:36
3	Cu 324.752†	123542.2	113717.4	495.86 µg/L	495.86 ppb	22:02:36
3	Mn 257.610†	382395.5	359410.8	490.90 µg/L	490.90 ppb	22:02:36
3	Mo 202.031†	16173.8	15260.2	482.16 µg/L	482.16 ppb	22:02:57
3	Ni 231.604†	40421.3	38041.0	486.59 µg/L	486.59 ppb	22:02:36
3	P 214.914†	10736.5	10013.9	2389.8 µg/L	2389.8 ppb	22:02:57
3	Pb 220.353†	8554.5	7929.6	481.90 µg/L	481.90 ppb	22:02:57
3	S 181.975 Axial†	1335.2	1160.4	944.20 µg/L	944.20 ppb	22:02:57
3	Sb 206.836†	3941.0	3618.3	489.13 µg/L	489.13 ppb	22:02:57
3	Se 196.026†	1288.0	1199.9	477 µg/L	477 ppb	22:02:57
3	SiO2†	52993.8	48246.8	5252.6 µg/L	5252.6 ppb	22:02:36
3	Si 251.611†	158759.4	148573.6	2447.0 µg/L	2447.0 ppb	22:02:36
3	Sn 189.927†	7362.8	6919.8	493.59 µg/L	493.59 ppb	22:02:57
3	Ti 334.940†	513521.6	482126.3	490.98 µg/L	490.98 ppb	22:02:36
3	Tl 190.801†	3708.7	3606.8	491.53 µg/L	491.53 ppb	22:02:57
3	U 409.014†	7457.8	7490.2	492.90 µg/L	492.90 ppb	22:02:36
3	V 292.402†	94935.5	88817.2	498.83 µg/L	498.83 ppb	22:02:36
3	Zn 213.857†	82507.8	77101.4	481.50 µg/L	481.50 ppb	22:02:36

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1786500.8	106.80	%	0.535				0.50%
Sc RADIAL	157138.2	108	%	0.6				0.52%
Y 371.029	1081125.4	105.73	%	0.556				0.53%
Ag 328.068†	120319.2	494.45	µg/L	1.270	494.45	ppb	1.270	0.26%
QC value within limits for Ag 328.068 Recovery = 98.89%								
Al 396.153Radial†	24287.9	5279.4	µg/L	19.31	5279.4	ppb	19.31	0.37%
QC value within limits for Al 396.153Radial Recovery = 105.59%								
As 188.979†	1307.2	553.35	µg/L	3.278	553.35	ppb	3.278	0.59%
QC value greater than the upper limit for As 188.979 Recovery = 110.67%								
B 249.677†	28738.2	480.78	µg/L	2.873	480.78	ppb	2.873	0.60%
QC value within limits for B 249.677 Recovery = 96.16%								
Ba 233.527†	110064.3	503.21	µg/L	1.182	503.21	ppb	1.182	0.23%
QC value within limits for Ba 233.527 Recovery = 100.64%								
Be 313.107†	1576898.2	513.44	µg/L	1.114	513.44	ppb	1.114	0.22%
QC value within limits for Be 313.107 Recovery = 102.69%								
Ca 317.933Radial†	84462.8	4949.2	µg/L	13.98	4949.2	ppb	13.98	0.28%
QC value within limits for Ca 317.933Radial Recovery = 98.98%								
Cd 226.502†	69844.6	482.01	µg/L	1.352	482.01	ppb	1.352	0.28%
QC value within limits for Cd 226.502 Recovery = 96.40%								
Co 228.616†	35639.2	488.27	µg/L	1.056	488.27	ppb	1.056	0.22%

```
   QC value within limits for Co 228.616  Recovery = 97.65%
Cr 267.716†            56957.1      489.09 µg/L         1.468      489.09 ppb          1.468   0.30%
   QC value within limits for Cr 267.716  Recovery = 97.82%
Cu 324.752†           113847.5      496.43 µg/L         1.257      496.43 ppb          1.257   0.25%
   QC value within limits for Cu 324.752  Recovery = 99.29%
Fe 238.204 Radial†     74376.0      4944.8 µg/L         10.23      4944.8 ppb          10.23   0.21%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.90%
K 766.490 Radial†      11909.2      4898.7 µg/L         18.15      4898.7 ppb          18.15   0.37%
   QC value within limits for K 766.490 Radial  Recovery = 97.97%
Mg 279.077 IEC†        12368.9      5107.4 µg/L         12.54      5107.4 ppb          12.54   0.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.15%
Mn 257.610†           359892.4      491.56 µg/L         0.701      491.56 ppb          0.701   0.14%
   QC value within limits for Mn 257.610  Recovery = 98.31%
Mo 202.031†            15213.3      480.68 µg/L         2.637      480.68 ppb          2.637   0.55%
   QC value within limits for Mo 202.031  Recovery = 96.14%
Na 589.592 Radial†     64794.6      9910.0 µg/L         16.90      9910.0 ppb          16.90   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 99.10%
Ni 231.604†            38159.9      488.11 µg/L         1.320      488.11 ppb          1.320   0.27%
   QC value within limits for Ni 231.604  Recovery = 97.62%
P 214.914†              9983.2      2382.4 µg/L         20.89      2382.4 ppb          20.89   0.88%
   QC value within limits for P 214.914  Recovery = 95.30%
Pb 220.353†             7896.8      479.91 µg/L         4.167      479.91 ppb          4.167   0.87%
   QC value within limits for Pb 220.353  Recovery = 95.98%
S 181.975 Axial†        1157.5      941.82 µg/L         8.224      941.82 ppb          8.224   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 94.18%
Sb 206.836†             3603.5      487.09 µg/L         2.680      487.09 ppb          2.680   0.55%
   QC value within limits for Sb 206.836  Recovery = 97.42%
Se 196.026†             1191.0         473 µg/L           3.9         473 ppb            3.9   0.83%
   QC value within limits for Se 196.026  Recovery = 94.65%
SiO2†                  48072.3      5233.6 µg/L         16.47      5233.6 ppb          16.47   0.31%
   QC value within limits for SiO2  Recovery = 97.87%
Si 251.611†           148415.2      2444.4 µg/L          4.72      2444.4 ppb           4.72   0.19%
   QC value within limits for Si 251.611  Recovery = 97.78%
Sn 189.927†             6886.9      491.26 µg/L         3.655      491.26 ppb          3.655   0.74%
   QC value within limits for Sn 189.927  Recovery = 98.25%
Sr 421.552†           218238.6      511.45 µg/L         3.916      511.45 ppb          3.916   0.77%
   QC value within limits for Sr 421.552  Recovery = 102.29%
Ti 334.940†           482481.0      491.34 µg/L         0.934      491.34 ppb          0.934   0.19%
   QC value within limits for Ti 334.940  Recovery = 98.27%
Tl 190.801†             3590.7      489.36 µg/L         3.506      489.36 ppb          3.506   0.72%
   QC value within limits for Tl 190.801  Recovery = 97.87%
U 409.014†              7374.9      485.83 µg/L         6.730      485.83 ppb          6.730   1.39%
   QC value within limits for U 409.014  Recovery = 97.17%
V 292.402†             88980.1      499.71 µg/L         0.850      499.71 ppb          0.850   0.17%
   QC value within limits for V 292.402  Recovery = 99.94%
Zn 213.857†            77225.8      482.27 µg/L         1.867      482.27 ppb          1.867   0.39%
   QC value within limits for Zn 213.857  Recovery = 96.45%
QC Failed.  Continue with analysis.
```

Sequence No.: 74 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 3/29/2010 22:03:04**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	160449.4	160449.4	110	%			22:03:34
1	Al 396.153Radial†	-23.3	10.7	2.2857	µg/L	2.2857	ppb	22:03:54
1	Ca 317.933Radial†	663.3	-13.6	-0.7986	µg/L	-0.7986	ppb	22:03:54
1	Fe 238.204 Radial†	178.8	49.2	3.2692	µg/L	3.2692	ppb	22:03:54
1	K 766.490 Radial†	1550.2	-46.8	-19.248	µg/L	-19.248	ppb	22:03:34
1	Mg 279.077 IEC†	188.3	-15.6	-6.4221	µg/L	-6.4221	ppb	22:03:54
1	Na 589.592 Radial†	1720.0	-132.3	-20.226	µg/L	-20.226	ppb	22:03:34
1	Sr 421.552†	-107.7	180.2	0.4223	µg/L	0.4223	ppb	22:03:34
1	Sc 361.383	1782990.1	1782990.1	106.59	%			22:04:42
1	Y 371.029	1090676.4	1090676.4	106.66	%			22:04:42
1	Ag 328.068†	3540.4	354.5	1.4358	µg/L	1.4358	ppb	22:04:44
1	As 188.979†	-23.8	-8.1	-3.3731	µg/L	-3.3731	ppb	22:05:04
1	B 249.677†	3170.3	-381.3	-6.4031	µg/L	-6.4031	ppb	22:05:04
1	Ba 233.527†	-164.7	20.5	0.0937	µg/L	0.0937	ppb	22:05:04
1	Be 313.107†	-523.0	169.4	0.0564	µg/L	0.0564	ppb	22:04:44
1	Cd 226.502†	-92.5	7.6	0.0522	µg/L	0.0522	ppb	22:05:04
1	Co 228.616†	-166.7	20.2	0.2761	µg/L	0.2761	ppb	22:05:04
1	Cr 267.716†	144.9	-24.3	-0.2125	µg/L	-0.2125	ppb	22:05:04
1	Cu 324.752†	3308.1	678.7	2.9543	µg/L	2.9543	ppb	22:04:44
1	Mn 257.610†	226.5	132.5	0.1813	µg/L	0.1813	ppb	22:05:04
1	Mo 202.031†	-22.2	34.4	1.0857	µg/L	1.0857	ppb	22:05:04
1	Ni 231.604†	-71.5	-26.2	-0.3353	µg/L	-0.3353	ppb	22:05:04
1	P 214.914†	17.7	-63.0	-15.122	µg/L	-15.122	ppb	22:05:04
1	Pb 220.353†	110.9	-8.4	-0.5118	µg/L	-0.5118	ppb	22:05:04
1	S 181.975 Axial†	97.2	-3.6	-2.9298	µg/L	-2.9298	ppb	22:05:04
1	Sb 206.836†	92.1	-0.2	-0.0106	µg/L	-0.0106	ppb	22:05:04
1	Se 196.026†	10.0	-1.5	-0.603	µg/L	-0.603	ppb	22:05:04
1	SiO2†	1743.7	63.1	6.8545	µg/L	6.8545	ppb	22:05:04
1	Si 251.611†	838.2	110.0	1.8012	µg/L	1.8012	ppb	22:05:04
1	Sn 189.927†	10.0	7.4	0.5254	µg/L	0.5254	ppb	22:05:04
1	Ti 334.940†	839.9	151.6	0.1534	µg/L	0.1534	ppb	22:04:44
1	Tl 190.801†	-122.2	5.6	0.7511	µg/L	0.7511	ppb	22:05:04
1	U 409.014†	-437.1	69.0	4.2258	µg/L	4.2258	ppb	22:04:44
1	V 292.402†	331.6	-120.7	-0.6569	µg/L	-0.6569	ppb	22:04:44
1	Zn 213.857†	604.8	103.0	0.6478	µg/L	0.6478	ppb	22:05:04
2	Sc RADIAL	156747.2	156747.2	108	%			22:03:56
2	Al 396.153Radial†	-29.6	4.3	0.8879	µg/L	0.8879	ppb	22:04:16
2	Ca 317.933Radial†	666.7	3.7	0.2175	µg/L	0.2175	ppb	22:04:16
2	Fe 238.204 Radial†	175.2	49.7	3.3017	µg/L	3.3017	ppb	22:04:16
2	K 766.490 Radial†	1470.5	-87.7	-36.090	µg/L	-36.090	ppb	22:03:56
2	Mg 279.077 IEC†	169.6	-29.0	-11.920	µg/L	-11.920	ppb	22:04:16
2	Na 589.592 Radial†	1750.9	-66.6	-10.165	µg/L	-10.165	ppb	22:03:56
2	Sr 421.552†	-135.6	151.9	0.3559	µg/L	0.3559	ppb	22:03:56
2	Sc 361.383	1797191.3	1797191.3	107.44	%			22:05:06
2	Y 371.029	1098454.4	1098454.4	107.42	%			22:05:06
2	Ag 328.068†	3408.6	205.6	0.8469	µg/L	0.8469	ppb	22:05:08
2	As 188.979†	-12.7	2.4	1.0155	µg/L	1.0155	ppb	22:05:28
2	B 249.677†	3164.7	-410.0	-6.8848	µg/L	-6.8848	ppb	22:05:28
2	Ba 233.527†	-163.4	23.0	0.1052	µg/L	0.1052	ppb	22:05:28
2	Be 313.107†	-678.6	28.5	0.0135	µg/L	0.0135	ppb	22:05:08
2	Cd 226.502†	-87.1	13.3	0.0914	µg/L	0.0914	ppb	22:05:28
2	Co 228.616†	-175.3	13.5	0.1843	µg/L	0.1843	ppb	22:05:28
2	Cr 267.716†	187.5	14.3	0.1122	µg/L	0.1122	ppb	22:05:28
2	Cu 324.752†	3253.3	603.2	2.6341	µg/L	2.6341	ppb	22:05:08
2	Mn 257.610†	189.8	96.7	0.1326	µg/L	0.1326	ppb	22:05:28
2	Mo 202.031†	-18.9	37.7	1.1886	µg/L	1.1886	ppb	22:05:28
2	Ni 231.604†	-71.9	-26.0	-0.3327	µg/L	-0.3327	ppb	22:05:28
2	P 214.914†	32.5	-49.3	-11.863	µg/L	-11.863	ppb	22:05:28
2	Pb 220.353†	101.8	-17.6	-1.0762	µg/L	-1.0762	ppb	22:05:28

2	S 181.975 Axial†	94.3	-7.1	-5.7195 µg/L	-5.7195 ppb	22:05:28
2	Sb 206.836†	73.5	-18.2	-2.4456 µg/L	-2.4456 ppb	22:05:28
2	Se 196.026†	11.7	0.0	0.017 µg/L	0.017 ppb	22:05:28
2	SiO2†	1699.5	9.0	0.9499 µg/L	0.9499 ppb	22:05:28
2	Si 251.611†	884.5	146.9	2.4136 µg/L	2.4136 ppb	22:05:28
2	Sn 189.927†	-0.8	-2.7	-0.1939 µg/L	-0.1939 ppb	22:05:28
2	Ti 334.940†	738.9	51.4	0.0476 µg/L	0.0476 ppb	22:05:08
2	Tl 190.801†	-120.9	7.8	1.0385 µg/L	1.0385 ppb	22:05:28
2	U 409.014†	-272.9	225.1	13.889 µg/L	13.889 ppb	22:05:08
2	V 292.402†	392.8	-66.2	-0.3457 µg/L	-0.3457 ppb	22:05:08
2	Zn 213.857†	590.9	85.6	0.5385 µg/L	0.5385 ppb	22:05:28
3	Sc RADIAL	159177.1	159177.1	109 %		22:04:18
3	Al 396.153Radial†	-32.3	2.3	0.4484 µg/L	0.4484 ppb	22:04:38
3	Ca 317.933Radial†	661.7	-10.3	-0.6042 µg/L	-0.6042 ppb	22:04:38
3	Fe 238.204 Radial†	157.7	31.1	2.0666 µg/L	2.0666 ppb	22:04:38
3	K 766.490 Radial†	1654.5	60.0	24.710 µg/L	24.710 ppb	22:04:18
3	Mg 279.077 IEC†	173.1	-28.1	-11.572 µg/L	-11.572 ppb	22:04:38
3	Na 589.592 Radial†	1670.7	-164.9	-25.257 µg/L	-25.257 ppb	22:04:18
3	Sr 421.552†	-81.8	203.1	0.4761 µg/L	0.4761 ppb	22:04:18
3	Sc 361.383	1802721.6	1802721.6	107.77 %		22:05:30
3	Y 371.029	1101871.3	1101871.3	107.75 %		22:05:30
3	Ag 328.068†	3236.7	36.3	0.1614 µg/L	0.1614 ppb	22:05:33
3	As 188.979†	-14.2	1.1	0.4596 µg/L	0.4596 ppb	22:05:53
3	B 249.677†	3175.4	-409.2	-6.8698 µg/L	-6.8698 ppb	22:05:53
3	Ba 233.527†	-172.2	15.3	0.0698 µg/L	0.0698 ppb	22:05:53
3	Be 313.107†	-906.9	-181.5	-0.0538 µg/L	-0.0538 ppb	22:05:33
3	Cd 226.502†	-107.7	-5.6	-0.0386 µg/L	-0.0386 ppb	22:05:53
3	Co 228.616†	-189.6	0.7	0.0092 µg/L	0.0092 ppb	22:05:53
3	Cr 267.716†	175.9	3.0	0.0117 µg/L	0.0117 ppb	22:05:53
3	Cu 324.752†	3047.7	403.1	1.7668 µg/L	1.7668 ppb	22:05:33
3	Mn 257.610†	198.6	104.3	0.1430 µg/L	0.1430 ppb	22:05:53
3	Mo 202.031†	-19.7	36.9	1.1654 µg/L	1.1654 ppb	22:05:53
3	Ni 231.604†	-45.7	-1.5	-0.0189 µg/L	-0.0189 ppb	22:05:53
3	P 214.914†	24.9	-56.4	-13.551 µg/L	-13.551 ppb	22:05:53
3	Pb 220.353†	87.5	-31.3	-1.9030 µg/L	-1.9030 ppb	22:05:53
3	S 181.975 Axial†	90.3	-11.0	-8.9087 µg/L	-8.9087 ppb	22:05:53
3	Sb 206.836†	80.8	-11.6	-1.5550 µg/L	-1.5550 ppb	22:05:53
3	Se 196.026†	19.6	7.3	2.90 µg/L	2.90 ppb	22:05:53
3	SiO2†	1704.6	8.9	0.9407 µg/L	0.9407 ppb	22:05:53
3	Si 251.611†	850.1	112.5	1.8467 µg/L	1.8467 ppb	22:05:53
3	Sn 189.927†	-3.2	-5.0	-0.3566 µg/L	-0.3566 ppb	22:05:53
3	Ti 334.940†	849.3	151.7	0.1485 µg/L	0.1485 ppb	22:05:33
3	Tl 190.801†	-126.9	2.6	0.3427 µg/L	0.3427 ppb	22:05:53
3	U 409.014†	-211.7	282.7	17.431 µg/L	17.431 ppb	22:05:33
3	V 292.402†	343.3	-113.2	-0.6046 µg/L	-0.6046 ppb	22:05:33
3	Zn 213.857†	574.3	68.5	0.4296 µg/L	0.4296 ppb	22:05:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1794301.0	107.26	%	0.608				0.57%
Sc RADIAL	158791.2	109	%	1.3				1.18%
Y 371.029	1097000.7	107.28	%	0.561				0.52%
Ag 328.068†	198.8	0.8147	µg/L	0.63786	0.8147	ppb	0.63786	78.29%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.8	1.2073	µg/L	0.95936	1.2073	ppb	0.95936	79.46%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.5	-0.6327	µg/L	2.38947	-0.6327	ppb	2.38947	377.69%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-400.2	-6.7193	µg/L	0.27389	-6.7193	ppb	0.27389	4.08%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	19.6	0.0896	µg/L	0.01809	0.0896	ppb	0.01809	20.20%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	5.5	0.0054	µg/L	0.05556	0.0054	ppb	0.05556	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-6.7	-0.3951	µg/L	0.53934	-0.3951	ppb	0.53934	136.51%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.1	0.0350	µg/L	0.06666	0.0350	ppb	0.06666	190.46%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.4	0.1565	µg/L	0.13561	0.1565	ppb	0.13561	86.64%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -2.3     -0.0296 µg/L       0.16621     -0.0296 ppb        0.16621 562.40%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             561.7      2.4517 µg/L       0.61441      2.4517 ppb        0.61441  25.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       43.3      2.8792 µg/L       0.70386      2.8792 ppb        0.70386  24.45%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -24.8     -10.209 µg/L       31.3914     -10.209 ppb        31.3914 307.48%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         -24.2     -9.9713 µg/L       3.07868     -9.9713 ppb        3.07868  30.88%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             111.1      0.1523 µg/L       0.02563      0.1523 ppb        0.02563  16.83%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              36.3      1.1466 µg/L       0.05397      1.1466 ppb        0.05397   4.71%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -121.3     -18.549 µg/L        7.6848     -18.549 ppb         7.6848  41.43%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -17.9     -0.2290 µg/L       0.18194     -0.2290 ppb        0.18194  79.46%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -56.3     -13.512 µg/L        1.6296     -13.512 ppb         1.6296  12.06%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -19.1     -1.1637 µg/L       0.69972     -1.1637 ppb        0.69972  60.13%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -7.2     -5.8527 µg/L       2.99169     -5.8527 ppb        2.99169  51.12%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -10.0     -1.3371 µg/L       1.23203     -1.3371 ppb        1.23203  92.14%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.9       0.771 µg/L        1.8678       0.771 ppb         1.8678 242.41%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    27.0      2.9150 µg/L       3.41170      2.9150 ppb        3.41170 117.04%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             123.1      2.0205 µg/L       0.34120      2.0205 ppb        0.34120  16.89%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.1     -0.0084 µg/L       0.46934     -0.0084 ppb        0.46934 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             178.4      0.4181 µg/L       0.06020      0.4181 ppb        0.06020  14.40%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             118.2      0.1165 µg/L       0.05971      0.1165 ppb        0.05971  51.25%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.3      0.7108 µg/L       0.34967      0.7108 ppb        0.34967  49.20%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              192.3      11.848 µg/L        6.8347      11.848 ppb         6.8347  57.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -100.0     -0.5357 µg/L       0.16666     -0.5357 ppb        0.16666  31.11%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              85.7      0.5387 µg/L       0.10910      0.5387 ppb        0.10910  20.25%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 75 **Autosampler Location: 359**
Sample ID: 1202056945|959137|1 **Date Collected: 3/29/2010 22:06:00**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202056945|959137|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	161779.6	161779.6	111	%			22:06:31
1	Al 396.153Radial†	-45.6	-9.2	-2.0422	µg/L	-2.0422	ppb	22:06:51
1	Ca 317.933Radial†	739.8	50.3	2.9497	µg/L	2.9497	ppb	22:06:51
1	Fe 238.204 Radial†	227.8	91.9	6.1124	µg/L	6.1124	ppb	22:06:51
1	K 766.490 Radial†	1499.3	-104.2	-42.885	µg/L	-42.885	ppb	22:06:31
1	Mg 279.077 IEC†	159.2	-43.2	-17.824	µg/L	-17.824	ppb	22:06:51
1	Na 589.592 Radial†	1668.4	-191.6	-29.277	µg/L	-29.277	ppb	22:06:31
1	Sr 421.552†	-247.5	55.0	0.1289	µg/L	0.1289	ppb	22:06:31
1	Sc 361.383	1768982.3	1768982.3	105.75	%			22:07:39
1	Y 371.029	1078641.4	1078641.4	105.48	%			22:07:39
1	Ag 328.068†	3003.5	-126.9	-0.5101	µg/L	-0.5101	ppb	22:07:41
1	As 188.979†	-28.0	-12.3	-5.1193	µg/L	-5.1193	ppb	22:08:01
1	B 249.677†	3163.0	-364.7	-6.1225	µg/L	-6.1225	ppb	22:08:01
1	Ba 233.527†	-180.1	4.7	0.0210	µg/L	0.0210	ppb	22:08:01
1	Be 313.107†	-830.5	-125.2	-0.0362	µg/L	-0.0362	ppb	22:07:41
1	Cd 226.502†	-108.2	-8.0	-0.0556	µg/L	-0.0556	ppb	22:08:01
1	Co 228.616†	-201.1	-13.6	-0.1865	µg/L	-0.1865	ppb	22:08:01
1	Cr 267.716†	148.2	-20.1	-0.1846	µg/L	-0.1846	ppb	22:08:01
1	Cu 324.752†	3150.2	554.0	2.4209	µg/L	2.4209	ppb	22:07:41
1	Mn 257.610†	350.2	251.2	0.3439	µg/L	0.3439	ppb	22:08:01
1	Mo 202.031†	-41.4	16.0	0.5057	µg/L	0.5057	ppb	22:08:01
1	Ni 231.604†	-48.0	-4.5	-0.0578	µg/L	-0.0578	ppb	22:08:01
1	P 214.914†	30.6	-50.6	-12.158	µg/L	-12.158	ppb	22:08:01
1	Pb 220.353†	113.7	-4.9	-0.3094	µg/L	-0.3094	ppb	22:08:01
1	S 181.975 Axial†	85.5	-14.0	-11.332	µg/L	-11.332	ppb	22:08:01
1	Sb 206.836†	81.3	-9.8	-1.3144	µg/L	-1.3144	ppb	22:08:01
1	Se 196.026†	20.6	8.6	3.41	µg/L	3.41	ppb	22:08:01
1	SiO2†	1966.3	286.5	31.290	µg/L	31.290	ppb	22:08:01
1	Si 251.611†	1459.7	703.9	11.629	µg/L	11.629	ppb	22:07:41
1	Sn 189.927†	10.6	8.0	0.5696	µg/L	0.5696	ppb	22:08:01
1	Ti 334.940†	955.3	267.0	0.2676	µg/L	0.2676	ppb	22:07:41
1	Tl 190.801†	-127.0	0.2	0.0214	µg/L	0.0214	ppb	22:08:01
1	U 409.014†	-247.0	245.6	15.110	µg/L	15.110	ppb	22:07:41
1	V 292.402†	241.3	-203.7	-1.1163	µg/L	-1.1163	ppb	22:07:41
1	Zn 213.857†	654.3	154.3	0.9692	µg/L	0.9692	ppb	22:08:01
2	Sc RADIAL	157981.0	157981.0	108	%			22:06:53
2	Al 396.153Radial†	-38.5	-3.7	-0.8374	µg/L	-0.8374	ppb	22:07:13
2	Ca 317.933Radial†	777.5	101.2	5.9281	µg/L	5.9281	ppb	22:07:13
2	Fe 238.204 Radial†	225.6	94.9	6.3061	µg/L	6.3061	ppb	22:07:13
2	K 766.490 Radial†	1416.3	-148.3	-61.037	µg/L	-61.037	ppb	22:06:53
2	Mg 279.077 IEC†	189.5	-11.8	-4.8700	µg/L	-4.8700	ppb	22:07:13
2	Na 589.592 Radial†	1646.8	-175.4	-26.780	µg/L	-26.780	ppb	22:06:53
2	Sr 421.552†	-166.3	124.6	0.2919	µg/L	0.2919	ppb	22:06:53
2	Sc 361.383	1769118.1	1769118.1	105.76	%			22:08:03
2	Y 371.029	1078935.3	1078935.3	105.51	%			22:08:03
2	Ag 328.068†	2898.7	-226.2	-0.9095	µg/L	-0.9095	ppb	22:08:05
2	As 188.979†	-13.6	1.3	0.5674	µg/L	0.5674	ppb	22:08:25
2	B 249.677†	3172.3	-356.2	-5.9797	µg/L	-5.9797	ppb	22:08:25
2	Ba 233.527†	-135.4	47.0	0.2143	µg/L	0.2143	ppb	22:08:25
2	Be 313.107†	-284.7	390.9	0.1320	µg/L	0.1320	ppb	22:08:05
2	Cd 226.502†	-109.8	-9.4	-0.0655	µg/L	-0.0655	ppb	22:08:25
2	Co 228.616†	-187.1	-0.3	-0.0042	µg/L	-0.0042	ppb	22:08:25
2	Cr 267.716†	181.6	11.5	0.0860	µg/L	0.0860	ppb	22:08:25
2	Cu 324.752†	3096.8	503.3	2.2014	µg/L	2.2014	ppb	22:08:05
2	Mn 257.610†	325.5	227.7	0.3114	µg/L	0.3114	ppb	22:08:25
2	Mo 202.031†	-33.5	23.5	0.7430	µg/L	0.7430	ppb	22:08:25
2	Ni 231.604†	-27.4	15.0	0.1916	µg/L	0.1916	ppb	22:08:25
2	P 214.914†	39.5	-42.2	-10.150	µg/L	-10.150	ppb	22:08:25
2	Pb 220.353†	95.7	-22.0	-1.3399	µg/L	-1.3399	ppb	22:08:25

2	S 181.975 Axial†	101.3	0.9	0.7574 µg/L	0.7574 ppb	22:08:25
2	Sb 206.836†	76.0	-14.8	-1.9914 µg/L	-1.9914 ppb	22:08:25
2	Se 196.026†	23.6	11.4	4.52 µg/L	4.52 ppb	22:08:25
2	SiO2†	1948.9	270.0	29.488 µg/L	29.488 ppb	22:08:25
2	Si 251.611†	1466.6	710.4	11.737 µg/L	11.737 ppb	22:08:05
2	Sn 189.927†	-0.4	-2.4	-0.1712 µg/L	-0.1712 ppb	22:08:25
2	Ti 334.940†	1010.8	319.4	0.3198 µg/L	0.3198 ppb	22:08:05
2	Tl 190.801†	-105.4	20.6	2.7658 µg/L	2.7658 ppb	22:08:25
2	U 409.014†	-239.4	252.7	15.564 µg/L	15.564 ppb	22:08:05
2	V 292.402†	287.2	-160.3	-0.8718 µg/L	-0.8718 ppb	22:08:05
2	Zn 213.857†	622.9	124.6	0.7807 µg/L	0.7807 ppb	22:08:25
3	Sc RADIAL	156699.0	156699.0	108 %		22:07:15
3	Al 396.153Radial†	-34.0	0.3	0.0076 µg/L	0.0076 ppb	22:07:35
3	Ca 317.933Radial†	743.1	75.0	4.3931 µg/L	4.3931 ppb	22:07:35
3	Fe 238.204 Radial†	211.3	83.3	5.5364 µg/L	5.5364 ppb	22:07:35
3	K 766.490 Radial†	1658.5	87.6	36.084 µg/L	36.084 ppb	22:07:15
3	Mg 279.077 IEC†	178.6	-20.5	-8.4353 µg/L	-8.4353 ppb	22:07:35
3	Na 589.592 Radial†	1516.0	-284.6	-43.586 µg/L	-43.586 ppb	22:07:15
3	Sr 421.552†	-196.0	95.7	0.2243 µg/L	0.2243 ppb	22:07:15
3	Sc 361.383	1756576.4	1756576.4	105.01 %		22:08:28
3	Y 371.029	1071740.3	1071740.3	104.81 %		22:08:28
3	Ag 328.068†	3135.6	19.0	0.0740 µg/L	0.0740 ppb	22:08:30
3	As 188.979†	-17.3	-2.3	-0.9435 µg/L	-0.9435 ppb	22:08:50
3	B 249.677†	3119.8	-384.7	-6.4592 µg/L	-6.4592 ppb	22:08:50
3	Ba 233.527†	-177.6	5.9	0.0270 µg/L	0.0270 ppb	22:08:50
3	Be 313.107†	-619.7	70.0	0.0233 µg/L	0.0233 ppb	22:08:30
3	Cd 226.502†	-92.7	6.1	0.0415 µg/L	0.0415 ppb	22:08:50
3	Co 228.616†	-171.9	12.9	0.1769 µg/L	0.1769 ppb	22:08:50
3	Cr 267.716†	195.3	25.7	0.2197 µg/L	0.2197 ppb	22:08:50
3	Cu 324.752†	3174.4	598.1	2.6020 µg/L	2.6020 ppb	22:08:30
3	Mn 257.610†	333.8	237.9	0.3254 µg/L	0.3254 ppb	22:08:50
3	Mo 202.031†	-19.3	36.8	1.1623 µg/L	1.1623 ppb	22:08:50
3	Ni 231.604†	-68.8	-24.6	-0.3152 µg/L	-0.3152 ppb	22:08:50
3	P 214.914†	38.2	-43.2	-10.381 µg/L	-10.381 ppb	22:08:50
3	Pb 220.353†	63.2	-52.2	-3.1611 µg/L	-3.1611 ppb	22:08:50
3	S 181.975 Axial†	99.6	0.0	0.0155 µg/L	0.0155 ppb	22:08:50
3	Sb 206.836†	95.9	4.7	0.6517 µg/L	0.6517 ppb	22:08:50
3	Se 196.026†	23.3	11.3	4.46 µg/L	4.46 ppb	22:08:50
3	SiO2†	1901.3	237.7	25.936 µg/L	25.936 ppb	22:08:50
3	Si 251.611†	1465.1	718.8	11.864 µg/L	11.864 ppb	22:08:30
3	Sn 189.927†	16.2	13.4	0.9546 µg/L	0.9546 ppb	22:08:50
3	Ti 334.940†	1023.0	337.8	0.3445 µg/L	0.3445 ppb	22:08:30
3	Tl 190.801†	-110.1	15.5	2.0817 µg/L	2.0817 ppb	22:08:50
3	U 409.014†	-473.0	28.7	1.7487 µg/L	1.7487 ppb	22:08:30
3	V 292.402†	372.5	-77.1	-0.4146 µg/L	-0.4146 ppb	22:08:30
3	Zn 213.857†	642.4	147.3	0.9270 µg/L	0.9270 ppb	22:08:50

Mean Data: 1202056945|959137|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1764892.3	105.51	%	0.431				0.41%
Sc RADIAL	158819.9	109	%	1.8				1.66%
Y 371.029	1076439.0	105.27	%	0.398				0.38%
Ag 328.068†	-111.4	-0.4485	µg/L	0.49462	-0.4485	ppb	0.49462	110.27%
Al 396.153Radial†	-4.2	-0.9573	µg/L	1.03017	-0.9573	ppb	1.03017	107.61%
As 188.979†	-4.4	-1.8318	µg/L	2.94560	-1.8318	ppb	2.94560	160.80%
B 249.677†	-368.5	-6.1871	µg/L	0.24618	-6.1871	ppb	0.24618	3.98%
Ba 233.527†	19.2	0.0875	µg/L	0.10993	0.0875	ppb	0.10993	125.70%
Be 313.107†	111.9	0.0397	µg/L	0.08526	0.0397	ppb	0.08526	214.75%
Ca 317.933Radial†	75.5	4.4236	µg/L	1.48943	4.4236	ppb	1.48943	33.67%
Cd 226.502†	-3.7	-0.0265	µg/L	0.05914	-0.0265	ppb	0.05914	222.97%
Co 228.616†	-0.3	-0.0046	µg/L	0.18169	-0.0046	ppb	0.18169	>999.9%
Cr 267.716†	5.7	0.0403	µg/L	0.20596	0.0403	ppb	0.20596	510.46%
Cu 324.752†	551.8	2.4081	µg/L	0.20064	2.4081	ppb	0.20064	8.33%
Fe 238.204 Radial†	90.0	5.9850	µg/L	0.40036	5.9850	ppb	0.40036	6.69%
K 766.490 Radial†	-54.9	-22.613	µg/L	51.6367	-22.613	ppb	51.6367	228.35%
Mg 279.077 IEC†	-25.2	-10.376	µg/L	6.6914	-10.376	ppb	6.6914	64.49%
Mn 257.610†	238.9	0.3269	µg/L	0.01633	0.3269	ppb	0.01633	4.99%
Mo 202.031†	25.5	0.8037	µg/L	0.33243	0.8037	ppb	0.33243	41.37%
Na 589.592 Radial†	-217.2	-33.214	µg/L	9.0684	-33.214	ppb	9.0684	27.30%

Ni 231.604†	-4.7	-0.0605	µg/L	0.25339	-0.0605	ppb	0.25339 419.00%
P 214.914†	-45.4	-10.896	µg/L	1.0985	-10.896	ppb	1.0985 10.08%
Pb 220.353†	-26.4	-1.6035	µg/L	1.44401	-1.6035	ppb	1.44401 90.06%
S 181.975 Axial†	-4.4	-3.5198	µg/L	6.77611	-3.5198	ppb	6.77611 192.51%
Sb 206.836†	-6.6	-0.8847	µg/L	1.37295	-0.8847	ppb	1.37295 155.18%
Se 196.026†	10.4	4.13	µg/L	0.623	4.13	ppb	0.623 15.08%
SiO2†	264.7	28.905	µg/L	2.7241	28.905	ppb	2.7241 9.42%
Si 251.611†	711.0	11.743	µg/L	0.1175	11.743	ppb	0.1175 1.00%
Sn 189.927†	6.3	0.4510	µg/L	0.57220	0.4510	ppb	0.57220 126.87%
Sr 421.552†	91.8	0.2150	µg/L	0.08188	0.2150	ppb	0.08188 38.08%
Ti 334.940†	308.1	0.3106	µg/L	0.03925	0.3106	ppb	0.03925 12.64%
Tl 190.801†	12.1	1.6230	µg/L	1.42859	1.6230	ppb	1.42859 88.02%
U 409.014†	175.6	10.808	µg/L	7.8486	10.808	ppb	7.8486 72.62%
V 292.402†	-147.0	-0.8009	µg/L	0.35618	-0.8009	ppb	0.35618 44.47%
Zn 213.857†	142.1	0.8923	µg/L	0.09888	0.8923	ppb	0.09888 11.08%

Sequence No.: 76
Sample ID: 1202056946|959137|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 360
Date Collected: 3/29/2010 22:08:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202056946|959137|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	154016.6	154016.6	106	%			22:09:29
1	Al 396.153Radial†	25931.4	24572.1	5341.4	µg/L	5341.4	ppb	22:09:29
1	Ca 317.933Radial†	91072.9	85571.0	5014.1	µg/L	5014.1	ppb	22:09:29
1	Fe 238.204 Radial†	79556.4	75175.2	4997.9	µg/L	4997.9	ppb	22:09:29
1	K 766.490 Radial†	14036.8	11828.8	4866.3	µg/L	4866.3	ppb	22:09:29
1	Mg 279.077 IEC†	13574.3	12659.4	5227.1	µg/L	5227.1	ppb	22:09:29
1	Na 589.592 Radial†	36522.1	32868.1	5024.9	µg/L	5024.9	ppb	22:09:29
1	Sr 421.552†	231778.1	219622.1	514.70	µg/L	514.70	ppb	22:09:27
1	Sc 361.383	1728513.0	1728513.0	103.33	%			22:09:42
1	Y 371.029	1045386.6	1045386.6	102.23	%			22:09:42
1	Ag 328.068†	125689.0	118668.9	487.93	µg/L	487.93	ppb	22:09:42
1	As 188.979†	1372.2	1342.2	568.09	µg/L	568.09	ppb	22:10:02
1	B 249.677†	33511.6	29075.3	486.44	µg/L	486.44	ppb	22:09:42
1	Ba 233.527†	118038.3	114407.1	523.06	µg/L	523.06	ppb	22:09:42
1	Be 313.107†	1665225.1	1612187.5	524.94	µg/L	524.94	ppb	22:09:42
1	Cd 226.502†	73237.8	70970.6	489.79	µg/L	489.79	ppb	22:09:42
1	Co 228.616†	36798.8	35788.8	490.34	µg/L	490.34	ppb	22:09:42
1	Cr 267.716†	60206.7	58105.0	498.93	µg/L	498.93	ppb	22:09:42
1	Cu 324.752†	123174.5	116777.7	509.20	µg/L	509.20	ppb	22:09:42
1	Mn 257.610†	378168.9	365894.3	499.75	µg/L	499.75	ppb	22:09:42
1	Mo 202.031†	15696.5	15245.6	481.71	µg/L	481.71	ppb	22:10:02
1	Ni 231.604†	40501.6	39236.5	501.88	µg/L	501.88	ppb	22:09:42
1	P 214.914†	2195.4	2045.1	481.27	µg/L	481.27	ppb	22:10:02
1	Pb 220.353†	8424.9	8040.8	488.62	µg/L	488.62	ppb	22:10:02
1	S 181.975 Axial†	6220.7	5925.2	4804.6	µg/L	4804.6	ppb	22:10:02
1	Sb 206.836†	3873.5	3662.0	494.88	µg/L	494.88	ppb	22:10:02
1	Se 196.026†	1231.6	1181.0	469	µg/L	469	ppb	22:10:02
1	SiO2†	100615.8	95798.5	10450	µg/L	10450	ppb	22:09:42
1	Si 251.611†	305339.6	294817.1	4865.1	µg/L	4865.1	ppb	22:09:42
1	Sn 189.927†	7198.8	6964.7	496.81	µg/L	496.81	ppb	22:10:02
1	Ti 334.940†	505040.5	488118.4	497.06	µg/L	497.06	ppb	22:09:42
1	Tl 190.801†	3655.0	3657.5	498.49	µg/L	498.49	ppb	22:10:02
1	U 409.014†	7671.6	7903.3	519.23	µg/L	519.23	ppb	22:09:42
1	V 292.402†	94714.1	91228.1	512.24	µg/L	512.24	ppb	22:09:42
1	Zn 213.857†	80255.6	77203.2	482.02	µg/L	482.02	ppb	22:09:42
2	Sc RADIAL	154133.6	154133.6	106	%			22:09:33
2	Al 396.153Radial†	26020.4	24637.6	5355.7	µg/L	5355.7	ppb	22:09:33
2	Ca 317.933Radial†	91229.6	85653.7	5018.9	µg/L	5018.9	ppb	22:09:33
2	Fe 238.204 Radial†	79495.3	75060.2	4990.3	µg/L	4990.3	ppb	22:09:33
2	K 766.490 Radial†	14172.4	11946.9	4914.9	µg/L	4914.9	ppb	22:09:33
2	Mg 279.077 IEC†	13528.0	12605.9	5205.1	µg/L	5205.1	ppb	22:09:33
2	Na 589.592 Radial†	36422.2	32747.4	5006.4	µg/L	5006.4	ppb	22:09:33
2	Sr 421.552†	230712.8	218448.2	511.95	µg/L	511.95	ppb	22:09:31
2	Sc 361.383	1723929.1	1723929.1	103.06	%			22:10:05
2	Y 371.029	1042465.9	1042465.9	101.94	%			22:10:05
2	Ag 328.068†	125241.8	118558.4	487.47	µg/L	487.47	ppb	22:10:05
2	As 188.979†	1361.0	1334.9	565.03	µg/L	565.03	ppb	22:10:25
2	B 249.677†	33491.7	29142.2	487.55	µg/L	487.55	ppb	22:10:05
2	Ba 233.527†	117615.3	114300.3	522.57	µg/L	522.57	ppb	22:10:05
2	Be 313.107†	1660790.7	1612169.7	524.93	µg/L	524.93	ppb	22:10:05
2	Cd 226.502†	72704.6	70641.7	487.52	µg/L	487.52	ppb	22:10:05
2	Co 228.616†	36779.0	35864.3	491.37	µg/L	491.37	ppb	22:10:05
2	Cr 267.716†	59868.6	57931.9	497.44	µg/L	497.44	ppb	22:10:05
2	Cu 324.752†	122938.6	116865.7	509.58	µg/L	509.58	ppb	22:10:05
2	Mn 257.610†	377237.4	365963.5	499.85	µg/L	499.85	ppb	22:10:05
2	Mo 202.031†	15719.1	15307.9	483.67	µg/L	483.67	ppb	22:10:25
2	Ni 231.604†	40387.0	39229.5	501.79	µg/L	501.79	ppb	22:10:05
2	P 214.914†	2195.1	2050.4	482.54	µg/L	482.54	ppb	22:10:25
2	Pb 220.353†	8431.5	8068.8	490.33	µg/L	490.33	ppb	22:10:25

2	S 181.975 Axial†	6265.9	5985.1	4853.1 µg/L	4853.1 ppb	22:10:25
2	Sb 206.836†	3863.2	3661.9	494.92 µg/L	494.92 ppb	22:10:25
2	Se 196.026†	1233.6	1186.1	471 µg/L	471 ppb	22:10:25
2	SiO2†	100425.3	95872.5	10458 µg/L	10458 ppb	22:10:05
2	Si 251.611†	304953.0	295227.6	4871.8 µg/L	4871.8 ppb	22:10:05
2	Sn 189.927†	7208.6	6992.7	498.80 µg/L	498.80 ppb	22:10:25
2	Ti 334.940†	503603.5	488023.6	496.97 µg/L	496.97 ppb	22:10:05
2	Tl 190.801†	3638.5	3650.9	497.59 µg/L	497.59 ppb	22:10:25
2	U 409.014†	7615.8	7868.9	517.05 µg/L	517.05 ppb	22:10:05
2	V 292.402†	94267.2	91038.2	511.20 µg/L	511.20 ppb	22:10:05
2	Zn 213.857†	79714.5	76884.7	480.02 µg/L	480.02 ppb	22:10:05
3	Sc RADIAL	153985.4	153985.4	106 %		22:09:37
3	Al 396.153Radial†	26231.1	24860.8	5404.5 µg/L	5404.5 ppb	22:09:37
3	Ca 317.933Radial†	91673.2	86156.7	5048.4 µg/L	5048.4 ppb	22:09:37
3	Fe 238.204 Radial†	79685.6	75312.8	5007.1 µg/L	5007.1 ppb	22:09:37
3	K 766.490 Radial†	14288.8	12070.0	4965.6 µg/L	4965.6 ppb	22:09:37
3	Mg 279.077 IEC†	13569.9	12657.9	5226.5 µg/L	5226.5 ppb	22:09:37
3	Na 589.592 Radial†	36578.0	32928.0	5034.0 µg/L	5034.0 ppb	22:09:37
3	Sr 421.552†	231125.1	219048.5	513.35 µg/L	513.35 ppb	22:09:35
3	Sc 361.383	1722027.0	1722027.0	102.94 %		22:10:28
3	Y 371.029	1041393.5	1041393.5	101.84 %		22:10:28
3	Ag 328.068†	124480.2	117952.8	484.98 µg/L	484.98 ppb	22:10:28
3	As 188.979†	1353.0	1328.5	562.34 µg/L	562.34 ppb	22:10:48
3	B 249.677†	33352.2	29042.6	485.90 µg/L	485.90 ppb	22:10:28
3	Ba 233.527†	117071.9	113898.6	520.73 µg/L	520.73 ppb	22:10:28
3	Be 313.107†	1650478.2	1603932.2	522.25 µg/L	522.25 ppb	22:10:28
3	Cd 226.502†	72224.5	70253.2	484.83 µg/L	484.83 ppb	22:10:28
3	Co 228.616†	36387.2	35523.1	486.70 µg/L	486.70 ppb	22:10:28
3	Cr 267.716†	59543.7	57680.4	495.29 µg/L	495.29 ppb	22:10:28
3	Cu 324.752†	122402.2	116476.4	507.88 µg/L	507.88 ppb	22:10:28
3	Mn 257.610†	375352.4	364536.8	497.90 µg/L	497.90 ppb	22:10:28
3	Mo 202.031†	15626.4	15234.7	481.36 µg/L	481.36 ppb	22:10:48
3	Ni 231.604†	40074.1	38968.8	498.46 µg/L	498.46 ppb	22:10:28
3	P 214.914†	2166.5	2024.9	476.46 µg/L	476.46 ppb	22:10:48
3	Pb 220.353†	8397.0	8044.4	488.85 µg/L	488.85 ppb	22:10:48
3	S 181.975 Axial†	6204.2	5931.9	4810.0 µg/L	4810.0 ppb	22:10:48
3	Sb 206.836†	3866.3	3669.1	495.88 µg/L	495.88 ppb	22:10:48
3	Se 196.026†	1223.2	1177.3	468 µg/L	468 ppb	22:10:48
3	SiO2†	99937.4	95506.1	10418 µg/L	10418 ppb	22:10:28
3	Si 251.611†	303080.5	293735.6	4847.2 µg/L	4847.2 ppb	22:10:28
3	Sn 189.927†	7157.1	6950.4	495.78 µg/L	495.78 ppb	22:10:48
3	Ti 334.940†	501887.0	486896.0	495.83 µg/L	495.83 ppb	22:10:28
3	Tl 190.801†	3618.1	3634.9	495.44 µg/L	495.44 ppb	22:10:48
3	U 409.014†	7421.9	7688.8	505.81 µg/L	505.81 ppb	22:10:28
3	V 292.402†	93848.3	90732.3	509.47 µg/L	509.47 ppb	22:10:28
3	Zn 213.857†	79231.1	76500.5	477.62 µg/L	477.62 ppb	22:10:28

Mean Data: 1202056946|959137|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1724823.0	103.11	%	0.199				0.19%
Sc RADIAL	154045.2	106	%	0.1				0.05%
Y 371.029	1043082.0	102.00	%	0.202				0.20%
Ag 328.068†	118393.4	486.79	µg/L	1.590	486.79	ppb	1.590	0.33%
Al 396.153Radial†	24690.2	5367.2	µg/L	33.06	5367.2	ppb	33.06	0.62%
As 188.979†	1335.2	565.15	µg/L	2.878	565.15	ppb	2.878	0.51%
B 249.677†	29086.7	486.63	µg/L	0.845	486.63	ppb	0.845	0.17%
Ba 233.527†	114202.0	522.12	µg/L	1.226	522.12	ppb	1.226	0.23%
Be 313.107†	1609429.8	524.04	µg/L	1.552	524.04	ppb	1.552	0.30%
Ca 317.933Radial†	85793.8	5027.1	µg/L	18.57	5027.1	ppb	18.57	0.37%
Cd 226.502†	70621.8	487.38	µg/L	2.481	487.38	ppb	2.481	0.51%
Co 228.616†	35725.4	489.47	µg/L	2.456	489.47	ppb	2.456	0.50%
Cr 267.716†	57905.8	497.22	µg/L	1.829	497.22	ppb	1.829	0.37%
Cu 324.752†	116706.6	508.89	µg/L	0.893	508.89	ppb	0.893	0.18%
Fe 238.204 Radial†	75182.7	4998.4	µg/L	8.41	4998.4	ppb	8.41	0.17%
K 766.490 Radial†	11948.6	4915.6	µg/L	49.64	4915.6	ppb	49.64	1.01%
Mg 279.077 IEC†	12641.1	5219.6	µg/L	12.54	5219.6	ppb	12.54	0.24%
Mn 257.610†	365464.8	499.17	µg/L	1.100	499.17	ppb	1.100	0.22%
Mo 202.031†	15262.7	482.25	µg/L	1.247	482.25	ppb	1.247	0.26%
Na 589.592 Radial†	32847.8	5021.8	µg/L	14.06	5021.8	ppb	14.06	0.28%

Ni 231.604†	39144.9	500.71 µg/L	1.951	500.71 ppb	1.951	0.39%
P 214.914†	2040.1	480.09 µg/L	3.204	480.09 ppb	3.204	0.67%
Pb 220.353†	8051.4	489.27 µg/L	0.926	489.27 ppb	0.926	0.19%
S 181.975 Axial†	5947.4	4822.6 µg/L	26.61	4822.6 ppb	26.61	0.55%
Sb 206.836†	3664.3	495.22 µg/L	0.565	495.22 ppb	0.565	0.11%
Se 196.026†	1181.5	470 µg/L	1.7	470 ppb	1.7	0.37%
SiO2†	95725.7	10442 µg/L	21.1	10442 ppb	21.1	0.20%
Si 251.611†	294593.4	4861.4 µg/L	12.72	4861.4 ppb	12.72	0.26%
Sn 189.927†	6969.2	497.13 µg/L	1.532	497.13 ppb	1.532	0.31%
Sr 421.552†	219039.6	513.33 µg/L	1.376	513.33 ppb	1.376	0.27%
Ti 334.940†	487679.3	496.62 µg/L	0.690	496.62 ppb	0.690	0.14%
Tl 190.801†	3647.7	497.18 µg/L	1.565	497.18 ppb	1.565	0.31%
U 409.014†	7820.3	514.03 µg/L	7.205	514.03 ppb	7.205	1.40%
V 292.402†	90999.5	510.97 µg/L	1.404	510.97 ppb	1.404	0.27%
Zn 213.857†	76862.8	479.89 µg/L	2.203	479.89 ppb	2.203	0.46%

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Sequence No.: 78 **Autosampler Location: 402**
Sample ID: 1202056947|959137|1 **Date Collected: 3/29/2010 22:13:07**
Analyst: HSC **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: 1202056947|959137|1

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	149907.4	149907.4	103	%			22:13:36
1	Al 396.153Radial†	4243.8	4158.1	907.64	µg/L	907.64	ppb	22:13:38
1	Ca 317.933Radial†	243995.9	236619.8	13865	µg/L	13865	ppb	22:13:36
1	Fe 238.204 Radial†	6575.0	6279.6	417.49	µg/L	417.49	ppb	22:13:38
1	K 766.490 Radial†	10177.9	8440.9	3469.1	µg/L	3469.1	ppb	22:13:38
1	Mg 279.077 IEC†	12336.0	11807.6	4868.1	µg/L	4868.1	ppb	22:13:38
1	Na 589.592 Radial†	110810.7	106046.0	16223	µg/L	16223	ppb	22:13:36
1	Sr 421.552†	47117.7	46090.3	107.91	µg/L	107.91	ppb	22:13:36
1	Sc 361.383	1700046.3	1700046.3	101.63	%			22:13:50
1	Y 371.029	1028230.0	1028230.0	100.55	%			22:13:50
1	Ag 328.068†	3009.4	-5.9	-0.3874	µg/L	-0.3874	ppb	22:13:50
1	As 188.979†	-13.5	0.9	0.4990	µg/L	0.4990	ppb	22:14:11
1	B 249.677†	4244.0	820.2	13.767	µg/L	13.767	ppb	22:14:11
1	Ba 233.527†	18408.0	18287.8	83.539	µg/L	83.539	ppb	22:14:11
1	Be 313.107†	-382.1	284.1	0.0890	µg/L	0.0890	ppb	22:13:50
1	Cd 226.502†	-113.4	-17.2	-0.1623	µg/L	-0.1623	ppb	22:14:11
1	Co 228.616†	-109.4	68.9	1.0043	µg/L	1.0043	ppb	22:14:11
1	Cr 267.716†	263.7	99.2	0.8160	µg/L	0.8160	ppb	22:14:11
1	Cu 324.752†	2814.5	344.4	1.6807	µg/L	1.6807	ppb	22:14:11
1	Mn 257.610†	3233.1	3101.2	4.0435	µg/L	4.0435	ppb	22:14:11
1	Mo 202.031†	-39.5	16.4	0.6227	µg/L	0.6227	ppb	22:14:11
1	Ni 231.604†	-12.0	29.1	0.3723	µg/L	0.3723	ppb	22:14:11
1	P 214.914†	186.9	104.3	24.872	µg/L	24.872	ppb	22:14:11
1	Pb 220.353†	110.6	-3.6	-0.1539	µg/L	-0.1539	ppb	22:14:11
1	S 181.975 Axial†	4536.4	4368.8	3539.6	µg/L	3539.6	ppb	22:14:11
1	Sb 206.836†	86.5	-1.5	-0.2212	µg/L	-0.2212	ppb	22:14:11
1	Se 196.026†	17.0	5.8	2.44	µg/L	2.44	ppb	22:14:11
1	SiO2†	314735.3	308113.5	33677	µg/L	33677	ppb	22:13:50
1	Si 251.611†	963543.3	947409.9	15665	µg/L	15665	ppb	22:13:50
1	Sn 189.927†	-2.5	-4.4	-0.2793	µg/L	-0.2793	ppb	22:14:11
1	Ti 334.940†	11188.3	10372.5	10.546	µg/L	10.546	ppb	22:13:50
1	Tl 190.801†	-118.0	4.2	0.6808	µg/L	0.6808	ppb	22:14:11
1	U 409.014†	-676.8	-186.9	-10.973	µg/L	-10.973	ppb	22:13:50
1	V 292.402†	589.1	147.8	0.7449	µg/L	0.7449	ppb	22:14:11
1	Zn 213.857†	893.3	414.6	2.4486	µg/L	2.4486	ppb	22:14:11
2	Sc RADIAL	152971.2	152971.2	105	%			22:13:40
2	Al 396.153Radial†	4176.1	4010.9	875.51	µg/L	875.51	ppb	22:13:42
2	Ca 317.933Radial†	248790.6	236436.8	13854	µg/L	13854	ppb	22:13:40
2	Fe 238.204 Radial†	6586.8	6162.8	409.72	µg/L	409.72	ppb	22:13:42
2	K 766.490 Radial†	10242.8	8304.6	3413.0	µg/L	3413.0	ppb	22:13:42
2	Mg 279.077 IEC†	12414.6	11642.2	4799.9	µg/L	4799.9	ppb	22:13:42
2	Na 589.592 Radial†	112707.8	105695.7	16170	µg/L	16170	ppb	22:13:40
2	Sr 421.552†	47826.4	45848.0	107.35	µg/L	107.35	ppb	22:13:40
2	Sc 361.383	1709834.8	1709834.8	102.22	%			22:14:13
2	Y 371.029	1032316.1	1032316.1	100.95	%			22:14:13
2	Ag 328.068†	3414.5	373.5	1.1267	µg/L	1.1267	ppb	22:14:13
2	As 188.979†	-10.3	4.2	1.8377	µg/L	1.8377	ppb	22:14:33
2	B 249.677†	4247.0	799.3	13.416	µg/L	13.416	ppb	22:14:33
2	Ba 233.527†	18471.7	18246.4	83.350	µg/L	83.350	ppb	22:14:33
2	Be 313.107†	-424.3	245.0	0.0700	µg/L	0.0700	ppb	22:14:13
2	Cd 226.502†	-87.1	9.2	0.0209	µg/L	0.0209	ppb	22:14:33
2	Co 228.616†	-118.8	60.3	0.8869	µg/L	0.8869	ppb	22:14:33
2	Cr 267.716†	242.7	77.2	0.6434	µg/L	0.6434	ppb	22:14:33
2	Cu 324.752†	2859.6	372.8	1.7836	µg/L	1.7836	ppb	22:14:33
2	Mn 257.610†	3248.6	3098.2	4.0420	µg/L	4.0420	ppb	22:14:33
2	Mo 202.031†	-40.8	15.3	0.5882	µg/L	0.5882	ppb	22:14:33
2	Ni 231.604†	-3.0	38.0	0.4855	µg/L	0.4855	ppb	22:14:33
2	P 214.914†	198.2	114.3	27.269	µg/L	27.269	ppb	22:14:33
2	Pb 220.353†	100.3	-14.3	-0.7882	µg/L	-0.7882	ppb	22:14:33

2	S 181.975 Axial†	4535.2	4342.1	3517.9	µg/L	3517.9 ppb	22:14:33
2	Sb 206.836†	72.2	-16.0	-2.1745	µg/L	-2.1745 ppb	22:14:33
2	Se 196.026†	11.1	-0.0	0.094	µg/L	0.094 ppb	22:14:33
2	SiO2†	318593.5	310115.2	33896	µg/L	33896 ppb	22:14:13
2	Si 251.611†	975534.3	953713.4	15770	µg/L	15770 ppb	22:14:13
2	Sn 189.927†	4.9	2.8	0.2367	µg/L	0.2367 ppb	22:14:33
2	Ti 334.940†	11473.7	10588.6	10.780	µg/L	10.780 ppb	22:14:13
2	Tl 190.801†	-126.8	-3.7	-0.3769	µg/L	-0.3769 ppb	22:14:33
2	U 409.014†	-1021.9	-520.6	-31.596	µg/L	-31.596 ppb	22:14:13
2	V 292.402†	585.1	140.6	0.6909	µg/L	0.6909 ppb	22:14:33
2	Zn 213.857†	882.3	398.8	2.3488	µg/L	2.3488 ppb	22:14:33
3	Sc RADIAL	151408.5	151408.5	104	%		22:13:44
3	Al 396.153Radial†	4154.9	4031.6	880.02	µg/L	880.02 ppb	22:13:46
3	Ca 317.933Radial†	248246.7	238359.8	13967	µg/L	13967 ppb	22:13:44
3	Fe 238.204 Radial†	6595.7	6236.1	414.60	µg/L	414.60 ppb	22:13:46
3	K 766.490 Radial†	10363.8	8521.7	3502.4	µg/L	3502.4 ppb	22:13:46
3	Mg 279.077 IEC†	12294.0	11648.2	4802.3	µg/L	4802.3 ppb	22:13:46
3	Na 589.592 Radial†	112388.1	106496.3	16292	µg/L	16292 ppb	22:13:44
3	Sr 421.552†	47653.6	46152.0	108.06	µg/L	108.06 ppb	22:13:44
3	Sc 361.383	1719531.6	1719531.6	102.80	%		22:14:36
3	Y 371.029	1038892.9	1038892.9	101.60	%		22:14:36
3	Ag 328.068†	2910.0	-136.2	-0.9151	µg/L	-0.9151 ppb	22:14:36
3	As 188.979†	-16.2	-1.6	-0.5474	µg/L	-0.5474 ppb	22:14:56
3	B 249.677†	4250.0	778.7	13.071	µg/L	13.071 ppb	22:14:56
3	Ba 233.527†	18442.0	18115.6	82.753	µg/L	82.753 ppb	22:14:56
3	Be 313.107†	-369.4	300.7	0.0957	µg/L	0.0957 ppb	22:14:36
3	Cd 226.502†	-95.8	1.2	-0.0354	µg/L	-0.0354 ppb	22:14:56
3	Co 228.616†	-111.7	68.0	0.9903	µg/L	0.9903 ppb	22:14:56
3	Cr 267.716†	267.4	99.9	0.8187	µg/L	0.8187 ppb	22:14:56
3	Cu 324.752†	2821.1	319.5	1.5735	µg/L	1.5735 ppb	22:14:56
3	Mn 257.610†	3272.6	3103.6	4.0494	µg/L	4.0494 ppb	22:14:56
3	Mo 202.031†	-30.6	25.4	0.9060	µg/L	0.9060 ppb	22:14:56
3	Ni 231.604†	-15.5	25.9	0.3310	µg/L	0.3310 ppb	22:14:56
3	P 214.914†	194.5	109.7	26.159	µg/L	26.159 ppb	22:14:56
3	Pb 220.353†	129.8	13.9	0.9027	µg/L	0.9027 ppb	22:14:56
3	S 181.975 Axial†	4574.7	4355.5	3528.8	µg/L	3528.8 ppb	22:14:56
3	Sb 206.836†	92.1	2.9	0.3818	µg/L	0.3818 ppb	22:14:56
3	Se 196.026†	2.7	-8.3	-3.16	µg/L	-3.16 ppb	22:14:56
3	SiO2†	318641.9	308404.6	33709	µg/L	33709 ppb	22:14:36
3	Si 251.611†	975179.6	947986.3	15675	µg/L	15675 ppb	22:14:36
3	Sn 189.927†	10.6	8.3	0.6247	µg/L	0.6247 ppb	22:14:56
3	Ti 334.940†	11407.0	10460.4	10.642	µg/L	10.642 ppb	22:14:36
3	Tl 190.801†	-109.6	13.7	1.9587	µg/L	1.9587 ppb	22:14:56
3	U 409.014†	-614.1	-118.3	-6.7414	µg/L	-6.7414 ppb	22:14:36
3	V 292.402†	567.7	120.4	0.5992	µg/L	0.5992 ppb	22:14:56
3	Zn 213.857†	896.1	407.3	2.4023	µg/L	2.4023 ppb	22:14:56

Mean Data: 1202056947|959137|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1709804.2	102.21	%	0.582				0.57%
Sc RADIAL	151429.0	104	%	1.1				1.01%
Y 371.029	1033146.3	101.03	%	0.526				0.52%
Ag 328.068†	77.1	-0.0586	µg/L	1.05986	-0.0586	ppb	1.05986	>999.9%
Al 396.153Radial†	4066.9	887.72	µg/L	17.398	887.72	ppb	17.398	1.96%
As 188.979†	1.2	0.5964	µg/L	1.19551	0.5964	ppb	1.19551	200.44%
B 249.677†	799.4	13.418	µg/L	0.3481	13.418	ppb	0.3481	2.59%
Ba 233.527†	18216.6	83.214	µg/L	0.4105	83.214	ppb	0.4105	0.49%
Be 313.107†	276.6	0.0849	µg/L	0.01331	0.0849	ppb	0.01331	15.68%
Ca 317.933Radial†	237138.8	13895	µg/L	62.2	13895	ppb	62.2	0.45%
Cd 226.502†	-2.3	-0.0589	µg/L	0.09386	-0.0589	ppb	0.09386	159.27%
Co 228.616†	65.7	0.9605	µg/L	0.06409	0.9605	ppb	0.06409	6.67%
Cr 267.716†	92.1	0.7593	µg/L	0.10043	0.7593	ppb	0.10043	13.23%
Cu 324.752†	345.6	1.6793	µg/L	0.10506	1.6793	ppb	0.10506	6.26%
Fe 238.204 Radial†	6226.2	413.94	µg/L	3.923	413.94	ppb	3.923	0.95%
K 766.490 Radial†	8422.4	3461.5	µg/L	45.16	3461.5	ppb	45.16	1.30%
Mg 279.077 IEC†	11699.3	4823.4	µg/L	38.67	4823.4	ppb	38.67	0.80%
Mn 257.610†	3101.0	4.0449	µg/L	0.00390	4.0449	ppb	0.00390	0.10%
Mo 202.031†	19.0	0.7056	µg/L	0.17441	0.7056	ppb	0.17441	24.72%
Na 589.592 Radial†	106079.3	16228	µg/L	61.4	16228	ppb	61.4	0.38%

Ni 231.604†	31.0	0.3963	µg/L	0.08002	0.3963	ppb	0.08002 20.19%
P 214.914†	109.4	26.100	µg/L	1.1998	26.100	ppb	1.1998 4.60%
Pb 220.353†	-1.4	-0.0131	µg/L	0.85417	-0.0131	ppb	0.85417 >999.9%
S 181.975 Axial†	4355.5	3528.7	µg/L	10.84	3528.7	ppb	10.84 0.31%
Sb 206.836†	-4.9	-0.6713	µg/L	1.33624	-0.6713	ppb	1.33624 199.06%
Se 196.026†	-0.8	-0.209	µg/L	2.8081	-0.209	ppb	2.8081 >999.9%
SiO2†	308877.8	33761	µg/L	118.2	33761	ppb	118.2 0.35%
Si 251.611†	949703.2	15703	µg/L	57.6	15703	ppb	57.6 0.37%
Sn 189.927†	2.2	0.1940	µg/L	0.45353	0.1940	ppb	0.45353 233.74%
Sr 421.552†	46030.1	107.77	µg/L	0.376	107.77	ppb	0.376 0.35%
Ti 334.940†	10473.9	10.656	µg/L	0.1177	10.656	ppb	0.1177 1.10%
Tl 190.801†	4.7	0.7542	µg/L	1.16952	0.7542	ppb	1.16952 155.07%
U 409.014†	-275.3	-16.437	µg/L	13.2977	-16.437	ppb	13.2977 80.90%
V 292.402†	136.3	0.6783	µg/L	0.07364	0.6783	ppb	0.07364 10.86%
Zn 213.857†	406.9	2.3999	µg/L	0.04997	2.3999	ppb	0.04997 2.08%

Sequence No.: 79
Sample ID: 1202056948|959137|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 403
Date Collected: 3/29/2010 22:15:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202056948|959137|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	153672.8	153672.8	105	%			22:15:35
1	Al 396.153Radial†	30332.1	28801.0	6264.3	µg/L	6264.3	ppb	22:15:35
1	Ca 317.933Radial†	337286.1	319290.1	18709	µg/L	18709	ppb	22:15:35
1	Fe 238.204 Radial†	85114.2	80615.1	5359.6	µg/L	5359.6	ppb	22:15:35
1	K 766.490 Radial†	22746.3	20119.2	8273.6	µg/L	8273.6	ppb	22:15:35
1	Mg 279.077 IEC†	25366.4	23872.7	9850.3	µg/L	9850.3	ppb	22:15:35
1	Na 589.592 Radial†	146182.1	136954.9	20948	µg/L	20948	ppb	22:15:35
1	Sr 421.552†	276436.1	262469.7	615.01	µg/L	615.01	ppb	22:15:33
1	Sc 361.383	1695405.7	1695405.7	101.35	%			22:16:02
1	Y 371.029	1022849.6	1022849.6	100.03	%			22:16:02
1	Ag 328.068†	121421.8	116833.9	480.09	µg/L	480.09	ppb	22:16:02
1	As 188.979†	1351.1	1347.3	570.27	µg/L	570.27	ppb	22:16:22
1	B 249.677†	34032.9	30222.9	505.74	µg/L	505.74	ppb	22:16:02
1	Ba 233.527†	131260.2	129683.1	592.84	µg/L	592.84	ppb	22:16:02
1	Be 313.107†	1619728.8	1598767.9	520.57	µg/L	520.57	ppb	22:16:02
1	Cd 226.502†	70370.9	69525.9	479.77	µg/L	479.77	ppb	22:16:02
1	Co 228.616†	35236.2	34942.4	478.80	µg/L	478.80	ppb	22:16:02
1	Cr 267.716†	58175.0	57238.2	491.46	µg/L	491.46	ppb	22:16:02
1	Cu 324.752†	120972.9	116933.3	510.03	µg/L	510.03	ppb	22:16:02
1	Mn 257.610†	365134.4	360180.4	491.76	µg/L	491.76	ppb	22:16:02
1	Mo 202.031†	15553.9	15401.5	486.73	µg/L	486.73	ppb	22:16:22
1	Ni 231.604†	38596.4	38122.2	487.63	µg/L	487.63	ppb	22:16:02
1	P 214.914†	2295.4	2185.2	514.77	µg/L	514.77	ppb	22:16:22
1	Pb 220.353†	8129.6	7908.7	480.71	µg/L	480.71	ppb	22:16:22
1	S 181.975 Axial†	10642.2	10405.3	8434.3	µg/L	8434.3	ppb	22:16:22
1	Sb 206.836†	3816.0	3678.4	497.27	µg/L	497.27	ppb	22:16:22
1	Se 196.026†	1214.4	1187.3	472	µg/L	472	ppb	22:16:22
1	SiO2†	419893.2	412715.4	45089	µg/L	45089	ppb	22:16:02
1	Si 251.611†	1286377.6	1268529.9	20965	µg/L	20965	ppb	22:16:02
1	Sn 189.927†	7119.3	7022.2	500.93	µg/L	500.93	ppb	22:16:22
1	Ti 334.940†	504153.5	496787.5	505.90	µg/L	505.90	ppb	22:16:02
1	Tl 190.801†	3508.6	3582.1	488.49	µg/L	488.49	ppb	22:16:22
1	U 409.014†	7124.9	7508.9	495.25	µg/L	495.25	ppb	22:16:02
1	V 292.402†	92677.5	91008.6	510.96	µg/L	510.96	ppb	22:16:02
1	Zn 213.857†	77841.0	76337.5	476.52	µg/L	476.52	ppb	22:16:02
2	Sc RADIAL	152073.4	152073.4	104	%			22:15:39
2	Al 396.153Radial†	30172.7	28950.8	6297.2	µg/L	6297.2	ppb	22:15:39
2	Ca 317.933Radial†	333985.5	319491.0	18721	µg/L	18721	ppb	22:15:39
2	Fe 238.204 Radial†	84341.4	80723.5	5366.8	µg/L	5366.8	ppb	22:15:39
2	K 766.490 Radial†	22618.4	20223.5	8316.5	µg/L	8316.5	ppb	22:15:39
2	Mg 279.077 IEC†	25096.1	23866.6	9847.7	µg/L	9847.7	ppb	22:15:39
2	Na 589.592 Radial†	145426.5	137688.8	21061	µg/L	21061	ppb	22:15:39
2	Sr 421.552†	274975.1	263826.8	618.19	µg/L	618.19	ppb	22:15:37
2	Sc 361.383	1696304.5	1696304.5	101.41	%			22:16:25
2	Y 371.029	1023274.0	1023274.0	100.07	%			22:16:25
2	Ag 328.068†	121108.0	116461.0	478.59	µg/L	478.59	ppb	22:16:25
2	As 188.979†	1333.5	1329.3	562.69	µg/L	562.69	ppb	22:16:45
2	B 249.677†	33994.9	30167.7	504.82	µg/L	504.82	ppb	22:16:25
2	Ba 233.527†	131315.1	129668.7	592.77	µg/L	592.77	ppb	22:16:25
2	Be 313.107†	1617947.8	1596164.8	519.72	µg/L	519.72	ppb	22:16:25
2	Cd 226.502†	70128.9	69250.5	477.86	µg/L	477.86	ppb	22:16:25
2	Co 228.616†	35138.3	34827.5	477.22	µg/L	477.22	ppb	22:16:25
2	Cr 267.716†	57953.3	56989.2	489.31	µg/L	489.31	ppb	22:16:25
2	Cu 324.752†	121192.6	117086.6	510.71	µg/L	510.71	ppb	22:16:25
2	Mn 257.610†	363932.5	358804.3	489.88	µg/L	489.88	ppb	22:16:25
2	Mo 202.031†	15456.8	15297.6	483.45	µg/L	483.45	ppb	22:16:45
2	Ni 231.604†	38506.9	38013.7	486.24	µg/L	486.24	ppb	22:16:25
2	P 214.914†	2273.8	2162.7	509.39	µg/L	509.39	ppb	22:16:45
2	Pb 220.353†	8084.9	7860.3	477.76	µg/L	477.76	ppb	22:16:45

2	S 181.975 Axial†	10595.4	10353.6	8392.4 µg/L	8392.4 ppb	22:16:45
2	Sb 206.836†	3803.0	3663.7	495.26 µg/L	495.26 ppb	22:16:45
2	Se 196.026†	1194.9	1167.4	464 µg/L	464 ppb	22:16:45
2	SiO2†	419027.8	411642.4	44972 µg/L	44972 ppb	22:16:25
2	Si 251.611†	1283762.6	1265278.7	20911 µg/L	20911 ppb	22:16:25
2	Sn 189.927†	7095.0	6994.6	498.96 µg/L	498.96 ppb	22:16:45
2	Ti 334.940†	503499.8	495879.2	504.97 µg/L	504.97 ppb	22:16:25
2	Tl 190.801†	3486.3	3558.3	485.29 µg/L	485.29 ppb	22:16:45
2	U 409.014†	7326.0	7703.5	507.24 µg/L	507.24 ppb	22:16:25
2	V 292.402†	92657.3	90940.2	510.55 µg/L	510.55 ppb	22:16:25
2	Zn 213.857†	77810.6	76266.8	476.08 µg/L	476.08 ppb	22:16:25
3	Sc RADIAL	154544.1	154544.1	106 %		22:15:43
3	Al 396.153Radial†	30490.3	28788.1	6261.7 µg/L	6261.7 ppb	22:15:43
3	Ca 317.933Radial†	338268.3	318412.8	18658 µg/L	18658 ppb	22:15:43
3	Fe 238.204 Radial†	85599.2	80617.4	5359.7 µg/L	5359.7 ppb	22:15:43
3	K 766.490 Radial†	22871.8	20116.0	8272.2 µg/L	8272.2 ppb	22:15:43
3	Mg 279.077 IEC†	25545.2	23905.6	9863.7 µg/L	9863.7 ppb	22:15:43
3	Na 589.592 Radial†	147398.6	137320.4	21004 µg/L	21004 ppb	22:15:43
3	Sr 421.552†	273558.2	258277.3	605.19 µg/L	605.19 ppb	22:15:41
3	Sc 361.383	1707775.2	1707775.2	102.09 %		22:16:49
3	Y 371.029	1029988.8	1029988.8	100.72 %		22:16:49
3	Ag 328.068†	122065.8	116597.1	479.13 µg/L	479.13 ppb	22:16:49
3	As 188.979†	1328.8	1315.8	557.05 µg/L	557.05 ppb	22:17:09
3	B 249.677†	34335.0	30275.7	506.64 µg/L	506.64 ppb	22:16:49
3	Ba 233.527†	132247.6	129712.2	592.97 µg/L	592.97 ppb	22:16:49
3	Be 313.107†	1628486.8	1595771.2	519.59 µg/L	519.59 ppb	22:16:49
3	Cd 226.502†	70543.3	69191.9	477.46 µg/L	477.46 ppb	22:16:49
3	Co 228.616†	35312.5	34765.4	476.37 µg/L	476.37 ppb	22:16:49
3	Cr 267.716†	58229.6	56876.0	488.34 µg/L	488.34 ppb	22:16:49
3	Cu 324.752†	121860.6	116938.2	510.06 µg/L	510.06 ppb	22:16:49
3	Mn 257.610†	366549.6	358957.2	490.09 µg/L	490.09 ppb	22:16:49
3	Mo 202.031†	15511.5	15248.8	481.91 µg/L	481.91 ppb	22:17:09
3	Ni 231.604†	38910.4	38153.8	488.03 µg/L	488.03 ppb	22:16:49
3	P 214.914†	2282.1	2155.8	507.74 µg/L	507.74 ppb	22:17:09
3	Pb 220.353†	8137.8	7858.6	477.65 µg/L	477.65 ppb	22:17:09
3	S 181.975 Axial†	10618.4	10306.0	8353.8 µg/L	8353.8 ppb	22:17:09
3	Sb 206.836†	3823.8	3658.8	494.59 µg/L	494.59 ppb	22:17:09
3	Se 196.026†	1203.4	1167.9	464 µg/L	464 ppb	22:17:09
3	SiO2†	422077.3	411854.0	44995 µg/L	44995 ppb	22:16:49
3	Si 251.611†	1293666.0	1266476.0	20931 µg/L	20931 ppb	22:16:49
3	Sn 189.927†	7117.8	6969.9	497.20 µg/L	497.20 ppb	22:17:09
3	Ti 334.940†	506330.7	495317.1	504.39 µg/L	504.39 ppb	22:16:49
3	Tl 190.801†	3506.7	3555.1	484.86 µg/L	484.86 ppb	22:17:09
3	U 409.014†	7290.9	7620.6	502.09 µg/L	502.09 ppb	22:16:49
3	V 292.402†	93182.2	90840.6	509.97 µg/L	509.97 ppb	22:16:49
3	Zn 213.857†	78248.3	76180.1	475.52 µg/L	475.52 ppb	22:16:49

Mean Data: 1202056948|959137|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1699828.5	101.62	%	0.412				0.41%
Sc RADIAL	153430.1	105	%	0.9				0.82%
Y 371.029	1025370.8	100.27	%	0.392				0.39%
Ag 328.068†	116630.7	479.27	µg/L	0.761	479.27	ppb	0.761	0.16%
Al 396.153Radial†	28846.6	6274.4	µg/L	19.76	6274.4	ppb	19.76	0.31%
As 188.979†	1330.8	563.34	µg/L	6.631	563.34	ppb	6.631	1.18%
B 249.677†	30222.1	505.73	µg/L	0.908	505.73	ppb	0.908	0.18%
Ba 233.527†	129688.0	592.86	µg/L	0.101	592.86	ppb	0.101	0.02%
Be 313.107†	1596901.3	519.96	µg/L	0.529	519.96	ppb	0.529	0.10%
Ca 317.933Radial†	319064.6	18696	µg/L	33.6	18696	ppb	33.6	0.18%
Cd 226.502†	69322.8	478.37	µg/L	1.232	478.37	ppb	1.232	0.26%
Co 228.616†	34845.1	477.47	µg/L	1.230	477.47	ppb	1.230	0.26%
Cr 267.716†	57034.5	489.70	µg/L	1.595	489.70	ppb	1.595	0.33%
Cu 324.752†	116986.0	510.26	µg/L	0.383	510.26	ppb	0.383	0.08%
Fe 238.204 Radial†	80652.0	5362.0	µg/L	4.12	5362.0	ppb	4.12	0.08%
K 766.490 Radial†	20152.9	8287.4	µg/L	25.16	8287.4	ppb	25.16	0.30%
Mg 279.077 IEC†	23881.6	9853.9	µg/L	8.62	9853.9	ppb	8.62	0.09%
Mn 257.610†	359314.0	490.58	µg/L	1.031	490.58	ppb	1.031	0.21%
Mo 202.031†	15316.0	484.03	µg/L	2.461	484.03	ppb	2.461	0.51%
Na 589.592 Radial†	137321.3	21005	µg/L	56.1	21005	ppb	56.1	0.27%

Ni 231.604†	38096.5	487.30 µg/L	0.940	487.30 ppb	0.940	0.19%
P 214.914†	2167.9	510.63 µg/L	3.679	510.63 ppb	3.679	0.72%
Pb 220.353†	7875.9	478.71 µg/L	1.733	478.71 ppb	1.733	0.36%
S 181.975 Axial†	10355.0	8393.5 µg/L	40.26	8393.5 ppb	40.26	0.48%
Sb 206.836†	3666.9	495.70 µg/L	1.395	495.70 ppb	1.395	0.28%
Se 196.026†	1174.2	467 µg/L	4.5	467 ppb	4.5	0.96%
SiO2†	412070.6	45019 µg/L	62.0	45019 ppb	62.0	0.14%
Si 251.611†	1266761.5	20936 µg/L	27.2	20936 ppb	27.2	0.13%
Sn 189.927†	6995.6	499.03 µg/L	1.865	499.03 ppb	1.865	0.37%
Sr 421.552†	261524.6	612.80 µg/L	6.780	612.80 ppb	6.780	1.11%
Ti 334.940†	495994.6	505.09 µg/L	0.759	505.09 ppb	0.759	0.15%
Tl 190.801†	3565.2	486.21 µg/L	1.987	486.21 ppb	1.987	0.41%
U 409.014†	7611.0	501.53 µg/L	6.015	501.53 ppb	6.015	1.20%
V 292.402†	90929.8	510.50 µg/L	0.497	510.50 ppb	0.497	0.10%
Zn 213.857†	76261.5	476.04 µg/L	0.498	476.04 ppb	0.498	0.10%

Sequence No.: 80
Sample ID: 1202056949|959137|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 404
Date Collected: 3/29/2010 22:17:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202056949|959137|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	153986.4	153986.4	106	%			22:17:45
1	Al 396.153Radial†	903.9	887.4	193.67	µg/L	193.67	ppb	22:17:47
1	Ca 317.933Radial†	50315.5	47009.4	2754.6	µg/L	2754.6	ppb	22:17:47
1	Fe 238.204 Radial†	1468.3	1276.5	84.867	µg/L	84.867	ppb	22:17:47
1	K 766.490 Radial†	3282.3	1651.8	678.85	µg/L	678.85	ppb	22:17:45
1	Mg 279.077 IEC†	2695.1	2364.4	974.80	µg/L	974.80	ppb	22:17:47
1	Na 589.592 Radial†	24497.6	21493.2	3288.1	µg/L	3288.1	ppb	22:17:45
1	Sr 421.552†	9467.9	9239.8	21.634	µg/L	21.634	ppb	22:17:45
1	Sc 361.383	1752381.1	1752381.1	104.76	%			22:17:59
1	Y 371.029	1065447.3	1065447.3	104.19	%			22:17:59
1	Ag 328.068†	3048.4	-57.1	-0.3318	µg/L	-0.3318	ppb	22:17:59
1	As 188.979†	-17.1	-2.1	-0.8383	µg/L	-0.8383	ppb	22:18:20
1	B 249.677†	3424.7	-86.5	-1.4548	µg/L	-1.4548	ppb	22:18:20
1	Ba 233.527†	3621.5	3632.0	16.591	µg/L	16.591	ppb	22:18:20
1	Be 313.107†	-683.6	7.5	-0.0033	µg/L	-0.0033	ppb	22:17:59
1	Cd 226.502†	-94.0	4.7	0.0234	µg/L	0.0234	ppb	22:18:20
1	Co 228.616†	-136.4	46.4	0.6472	µg/L	0.6472	ppb	22:18:20
1	Cr 267.716†	226.3	55.7	0.4845	µg/L	0.4845	ppb	22:18:20
1	Cu 324.752†	2876.0	320.5	1.4163	µg/L	1.4163	ppb	22:18:20
1	Mn 257.610†	843.4	725.0	0.9518	µg/L	0.9518	ppb	22:18:20
1	Mo 202.031†	-26.0	30.4	0.9815	µg/L	0.9815	ppb	22:18:20
1	Ni 231.604†	-48.0	-4.9	-0.0623	µg/L	-0.0623	ppb	22:18:20
1	P 214.914†	72.6	-10.2	-2.4808	µg/L	-2.4808	ppb	22:18:20
1	Pb 220.353†	88.1	-28.3	-1.6847	µg/L	-1.6847	ppb	22:18:20
1	S 181.975 Axial†	974.9	835.8	677.16	µg/L	677.16	ppb	22:18:20
1	Sb 206.836†	65.2	-24.4	-3.2915	µg/L	-3.2915	ppb	22:18:20
1	Se 196.026†	10.3	-1.1	-0.434	µg/L	-0.434	ppb	22:18:20
1	SiO2†	64823.7	60306.1	6591.5	µg/L	6591.5	ppb	22:17:59
1	Si 251.611†	194264.4	184763.0	3055.0	µg/L	3055.0	ppb	22:17:59
1	Sn 189.927†	16.3	13.5	0.9702	µg/L	0.9702	ppb	22:18:20
1	Ti 334.940†	3216.1	2433.7	2.4817	µg/L	2.4817	ppb	22:17:59
1	Tl 190.801†	-120.0	5.8	0.7932	µg/L	0.7932	ppb	22:18:20
1	U 409.014†	-827.2	-310.5	-19.109	µg/L	-19.109	ppb	22:17:59
1	V 292.402†	370.6	-78.0	-0.4495	µg/L	-0.4495	ppb	22:18:20
1	Zn 213.857†	653.0	158.9	0.9684	µg/L	0.9684	ppb	22:18:20
2	Sc RADIAL	151618.7	151618.7	104	%			22:17:49
2	Al 396.153Radial†	891.4	888.8	193.97	µg/L	193.97	ppb	22:17:51
2	Ca 317.933Radial†	50994.3	48405.7	2836.4	µg/L	2836.4	ppb	22:17:51
2	Fe 238.204 Radial†	1516.1	1344.2	89.366	µg/L	89.366	ppb	22:17:51
2	K 766.490 Radial†	3297.8	1715.2	704.93	µg/L	704.93	ppb	22:17:49
2	Mg 279.077 IEC†	2645.1	2356.2	971.42	µg/L	971.42	ppb	22:17:51
2	Na 589.592 Radial†	24427.4	21787.8	3333.2	µg/L	3333.2	ppb	22:17:49
2	Sr 421.552†	9441.4	9354.2	21.902	µg/L	21.902	ppb	22:17:49
2	Sc 361.383	1742098.3	1742098.3	104.14	%			22:18:22
2	Y 371.029	1059067.2	1059067.2	103.57	%			22:18:22
2	Ag 328.068†	3215.8	120.7	0.3786	µg/L	0.3786	ppb	22:18:22
2	As 188.979†	-15.1	-0.2	-0.0750	µg/L	-0.0750	ppb	22:18:42
2	B 249.677†	3374.8	-115.2	-1.9334	µg/L	-1.9334	ppb	22:18:42
2	Ba 233.527†	3618.5	3649.6	16.671	µg/L	16.671	ppb	22:18:42
2	Be 313.107†	-591.1	92.5	0.0225	µg/L	0.0225	ppb	22:18:22
2	Cd 226.502†	-125.4	-26.0	-0.1890	µg/L	-0.1890	ppb	22:18:42
2	Co 228.616†	-187.4	-3.3	-0.0340	µg/L	-0.0340	ppb	22:18:42
2	Cr 267.716†	166.6	-0.3	0.0084	µg/L	0.0084	ppb	22:18:42
2	Cu 324.752†	2847.8	309.6	1.3643	µg/L	1.3643	ppb	22:18:42
2	Mn 257.610†	844.9	731.3	0.9605	µg/L	0.9605	ppb	22:18:42
2	Mo 202.031†	-24.3	31.9	1.0277	µg/L	1.0277	ppb	22:18:42
2	Ni 231.604†	-53.6	-10.5	-0.1344	µg/L	-0.1344	ppb	22:18:42
2	P 214.914†	71.0	-11.4	-2.7734	µg/L	-2.7734	ppb	22:18:42
2	Pb 220.353†	109.8	-7.0	-0.3889	µg/L	-0.3889	ppb	22:18:42

2	S 181.975 Axial†	976.4	842.7	682.77 µg/L	682.77 ppb	22:18:42
2	Sb 206.836†	72.5	-17.0	-2.2863 µg/L	-2.2863 ppb	22:18:42
2	Se 196.026†	12.7	1.3	0.524 µg/L	0.524 ppb	22:18:42
2	SiO2†	64454.0	60316.3	6592.6 µg/L	6592.6 ppb	22:18:22
2	Si 251.611†	193548.7	185170.4	3061.8 µg/L	3061.8 ppb	22:18:22
2	Sn 189.927†	2.8	0.7	0.0577 µg/L	0.0577 ppb	22:18:42
2	Ti 334.940†	2911.7	2159.5	2.2071 µg/L	2.2071 ppb	22:18:22
2	Tl 190.801†	-116.4	8.5	1.1664 µg/L	1.1664 ppb	22:18:42
2	U 409.014†	-925.2	-409.3	-25.215 µg/L	-25.215 ppb	22:18:22
2	V 292.402†	343.3	-102.1	-0.5894 µg/L	-0.5894 ppb	22:18:42
2	Zn 213.857†	623.1	133.9	0.8102 µg/L	0.8102 ppb	22:18:42
3	Sc RADIAL	154205.0	154205.0	106 %		22:17:53
3	Al 396.153Radial†	786.2	775.0	169.11 µg/L	169.11 ppb	22:17:55
3	Ca 317.933Radial†	50258.0	46887.6	2747.4 µg/L	2747.4 ppb	22:17:55
3	Fe 238.204 Radial†	1494.0	1298.8	86.350 µg/L	86.350 ppb	22:17:55
3	K 766.490 Radial†	3428.5	1785.6	733.91 µg/L	733.91 ppb	22:17:53
3	Mg 279.077 IEC†	2647.2	2315.4	954.64 µg/L	954.64 ppb	22:17:55
3	Na 589.592 Radial†	24573.6	21532.1	3294.0 µg/L	3294.0 ppb	22:17:53
3	Sr 421.552†	9428.4	9189.7	21.517 µg/L	21.517 ppb	22:17:53
3	Sc 361.383	1737032.4	1737032.4	103.84 %		22:18:45
3	Y 371.029	1055930.5	1055930.5	103.26 %		22:18:45
3	Ag 328.068†	3204.2	118.6	0.4065 µg/L	0.4065 ppb	22:18:45
3	As 188.979†	-3.9	10.5	4.3995 µg/L	4.3995 ppb	22:19:05
3	B 249.677†	3399.9	-81.6	-1.3701 µg/L	-1.3701 ppb	22:19:05
3	Ba 233.527†	3631.0	3671.8	16.773 µg/L	16.773 ppb	22:19:05
3	Be 313.107†	-407.5	267.7	0.0872 µg/L	0.0872 ppb	22:18:45
3	Cd 226.502†	-79.1	18.2	0.1170 µg/L	0.1170 ppb	22:19:05
3	Co 228.616†	-167.2	15.6	0.2260 µg/L	0.2260 ppb	22:19:05
3	Cr 267.716†	238.6	69.5	0.5878 µg/L	0.5878 ppb	22:19:05
3	Cu 324.752†	2752.7	226.0	1.0208 µg/L	1.0208 ppb	22:19:05
3	Mn 257.610†	869.9	757.7	0.9973 µg/L	0.9973 ppb	22:19:05
3	Mo 202.031†	-20.4	35.6	1.1432 µg/L	1.1432 ppb	22:19:05
3	Ni 231.604†	-22.0	19.7	0.2518 µg/L	0.2518 ppb	22:19:05
3	P 214.914†	74.4	-7.9	-1.9407 µg/L	-1.9407 ppb	22:19:05
3	Pb 220.353†	103.6	-12.7	-0.7538 µg/L	-0.7538 ppb	22:19:05
3	S 181.975 Axial†	979.6	848.5	687.47 µg/L	687.47 ppb	22:19:05
3	Sb 206.836†	75.0	-14.4	-1.9390 µg/L	-1.9390 ppb	22:19:05
3	Se 196.026†	5.5	-5.6	-2.19 µg/L	-2.19 ppb	22:19:05
3	SiO2†	64503.9	60544.9	6617.6 µg/L	6617.6 ppb	22:18:45
3	Si 251.611†	193655.0	185814.7	3072.4 µg/L	3072.4 ppb	22:18:45
3	Sn 189.927†	-10.2	-11.9	-0.8362 µg/L	-0.8362 ppb	22:19:05
3	Ti 334.940†	3205.2	2450.3	2.4921 µg/L	2.4921 ppb	22:18:45
3	Tl 190.801†	-114.5	10.0	1.3707 µg/L	1.3707 ppb	22:19:05
3	U 409.014†	-496.0	1.4	0.1739 µg/L	0.1739 ppb	22:18:45
3	V 292.402†	390.6	-55.7	-0.3106 µg/L	-0.3106 ppb	22:19:05
3	Zn 213.857†	634.2	146.4	0.8875 µg/L	0.8875 ppb	22:19:05

Mean Data: 1202056949|959137|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1743837.2	104.25	%	0.468				0.45%
Sc RADIAL	153270.0	105	%	1.0				0.94%
Y 371.029	1060148.3	103.67	%	0.474				0.46%
Ag 328.068†	60.7	0.1511	µg/L	0.41846	0.1511	ppb	0.41846	276.96%
Al 396.153Radial†	850.4	185.58	µg/L	14.264	185.58	ppb	14.264	7.69%
As 188.979†	2.7	1.1621	µg/L	2.82953	1.1621	ppb	2.82953	243.49%
B 249.677†	-94.4	-1.5861	µg/L	0.30373	-1.5861	ppb	0.30373	19.15%
Ba 233.527†	3651.1	16.678	µg/L	0.0911	16.678	ppb	0.0911	0.55%
Be 313.107†	122.6	0.0354	µg/L	0.04663	0.0354	ppb	0.04663	131.63%
Ca 317.933Radial†	47434.2	2779.4	µg/L	49.43	2779.4	ppb	49.43	1.78%
Cd 226.502†	-1.0	-0.0162	µg/L	0.15681	-0.0162	ppb	0.15681	967.42%
Co 228.616†	19.6	0.2797	µg/L	0.34379	0.2797	ppb	0.34379	122.89%
Cr 267.716†	41.7	0.3602	µg/L	0.30903	0.3602	ppb	0.30903	85.79%
Cu 324.752†	285.3	1.2671	µg/L	0.21487	1.2671	ppb	0.21487	16.96%
Fe 238.204 Radial†	1306.5	86.861	µg/L	2.2924	86.861	ppb	2.2924	2.64%
K 766.490 Radial†	1717.5	705.90	µg/L	27.543	705.90	ppb	27.543	3.90%
Mg 279.077 IEC†	2345.3	966.95	µg/L	10.799	966.95	ppb	10.799	1.12%
Mn 257.610†	738.0	0.9699	µg/L	0.02414	0.9699	ppb	0.02414	2.49%
Mo 202.031†	32.6	1.0508	µg/L	0.08326	1.0508	ppb	0.08326	7.92%
Na 589.592 Radial†	21604.4	3305.1	µg/L	24.49	3305.1	ppb	24.49	0.74%

Ni 231.604†	1.4	0.0184	µg/L	0.20533	0.0184	ppb	0.20533	>999.9%
P 214.914†	-9.8	-2.3983	µg/L	0.42241	-2.3983	ppb	0.42241	17.61%
Pb 220.353†	-16.0	-0.9425	µg/L	0.66816	-0.9425	ppb	0.66816	70.89%
S 181.975 Axial†	842.3	682.46	µg/L	5.162	682.46	ppb	5.162	0.76%
Sb 206.836†	-18.6	-2.5056	µg/L	0.70239	-2.5056	ppb	0.70239	28.03%
Se 196.026†	-1.8	-0.701	µg/L	1.3772	-0.701	ppb	1.3772	196.55%
SiO2†	60389.1	6600.5	µg/L	14.76	6600.5	ppb	14.76	0.22%
Si 251.611†	185249.4	3063.1	µg/L	8.77	3063.1	ppb	8.77	0.29%
Sn 189.927†	0.8	0.0639	µg/L	0.90321	0.0639	ppb	0.90321	>999.9%
Sr 421.552†	9261.2	21.684	µg/L	0.1972	21.684	ppb	0.1972	0.91%
Ti 334.940†	2347.8	2.3936	µg/L	0.16160	2.3936	ppb	0.16160	6.75%
Tl 190.801†	8.1	1.1101	µg/L	0.29280	1.1101	ppb	0.29280	26.38%
U 409.014†	-239.5	-14.717	µg/L	13.2520	-14.717	ppb	13.2520	90.05%
V 292.402†	-78.6	-0.4498	µg/L	0.13944	-0.4498	ppb	0.13944	31.00%
Zn 213.857†	146.4	0.8887	µg/L	0.07909	0.8887	ppb	0.07909	8.90%

Sequence No.: 81
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/29/2010 22:19:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	152312.7	152312.7	104	%			22:19:45
1	Al 396.153Radial†	25257.2	24201.5	5260.5	µg/L	5260.5	ppb	22:19:45
1	Ca 317.933Radial†	88990.6	84542.6	4953.8	µg/L	4953.8	ppb	22:19:45
1	Fe 238.204 Radial†	77715.5	74255.9	4936.8	µg/L	4936.8	ppb	22:19:45
1	K 766.490 Radial†	13912.9	11858.9	4877.9	µg/L	4877.9	ppb	22:19:45
1	Mg 279.077 IEC†	13152.4	12399.4	5120.0	µg/L	5120.0	ppb	22:19:45
1	Na 589.592 Radial†	69880.5	65176.8	9968.5	µg/L	9968.5	ppb	22:19:45
1	Sr 421.552†	228320.8	218767.5	512.69	µg/L	512.69	ppb	22:19:43
1	Sc 361.383	1737411.7	1737411.7	103.86	%			22:19:58
1	Y 371.029	1050981.5	1050981.5	102.78	%			22:19:58
1	Ag 328.068†	128476.0	120729.2	496.13	µg/L	496.13	ppb	22:19:58
1	As 188.979†	1340.1	1304.5	552.24	µg/L	552.24	ppb	22:20:18
1	B 249.677†	33219.3	28627.8	478.94	µg/L	478.94	ppb	22:19:58
1	Ba 233.527†	114183.4	110110.5	503.42	µg/L	503.42	ppb	22:19:58
1	Be 313.107†	1633886.1	1573760.5	512.42	µg/L	512.42	ppb	22:19:58
1	Cd 226.502†	72231.0	69638.2	480.59	µg/L	480.59	ppb	22:19:58
1	Co 228.616†	36690.0	35501.6	486.39	µg/L	486.39	ppb	22:19:58
1	Cr 267.716†	59371.2	57002.2	489.48	µg/L	489.48	ppb	22:19:58
1	Cu 324.752†	120429.1	113523.9	495.02	µg/L	495.02	ppb	22:19:58
1	Mn 257.610†	373880.7	359891.1	491.55	µg/L	491.55	ppb	22:19:58
1	Mo 202.031†	15806.6	15273.7	482.59	µg/L	482.59	ppb	22:20:18
1	Ni 231.604†	39682.8	38247.4	489.23	µg/L	489.23	ppb	22:19:58
1	P 214.914†	10452.4	9984.0	2382.6	µg/L	2382.6	ppb	22:20:18
1	Pb 220.353†	8370.1	7946.2	482.91	µg/L	482.91	ppb	22:20:18
1	S 181.975 Axial†	1298.7	1155.6	940.31	µg/L	940.31	ppb	22:20:18
1	Sb 206.836†	3840.2	3610.7	488.09	µg/L	488.09	ppb	22:20:18
1	Se 196.026†	1269.8	1211.6	481	µg/L	481	ppb	22:20:18
1	SiO2†	51583.1	48091.2	5235.5	µg/L	5235.5	ppb	22:19:58
1	Si 251.611†	154617.6	148188.9	2440.6	µg/L	2440.6	ppb	22:19:58
1	Sn 189.927†	7196.6	6926.8	494.09	µg/L	494.09	ppb	22:20:18
1	Ti 334.940†	501274.3	481988.9	490.84	µg/L	490.84	ppb	22:19:58
1	Tl 190.801†	3622.3	3607.9	491.69	µg/L	491.69	ppb	22:20:18
1	U 409.014†	7175.0	7387.1	486.68	µg/L	486.68	ppb	22:19:58
1	V 292.402†	93168.0	89270.1	501.35	µg/L	501.35	ppb	22:19:58
1	Zn 213.857†	80276.7	76825.8	479.74	µg/L	479.74	ppb	22:19:58
2	Sc RADIAL	154831.9	154831.9	106	%			22:19:49
2	Al 396.153Radial†	25587.3	24119.0	5242.1	µg/L	5242.1	ppb	22:19:49
2	Ca 317.933Radial†	90429.6	84511.6	4952.0	µg/L	4952.0	ppb	22:19:49
2	Fe 238.204 Radial†	79228.1	74469.7	4951.0	µg/L	4951.0	ppb	22:19:49
2	K 766.490 Radial†	14006.7	11730.5	4825.1	µg/L	4825.1	ppb	22:19:49
2	Mg 279.077 IEC†	13348.5	12379.3	5111.8	µg/L	5111.8	ppb	22:19:49
2	Na 589.592 Radial†	70589.6	64756.3	9904.2	µg/L	9904.2	ppb	22:19:49
2	Sr 421.552†	229160.8	216003.2	506.22	µg/L	506.22	ppb	22:19:47
2	Sc 361.383	1714461.6	1714461.6	102.49	%			22:20:21
2	Y 371.029	1037130.3	1037130.3	101.42	%			22:20:21
2	Ag 328.068†	127395.8	121331.1	498.59	µg/L	498.59	ppb	22:20:21
2	As 188.979†	1344.4	1326.0	561.27	µg/L	561.27	ppb	22:20:41
2	B 249.677†	32990.6	28832.7	482.36	µg/L	482.36	ppb	22:20:21
2	Ba 233.527†	113263.4	110684.5	506.05	µg/L	506.05	ppb	22:20:21
2	Be 313.107†	1625203.6	1586346.8	516.52	µg/L	516.52	ppb	22:20:21
2	Cd 226.502†	71591.7	69945.4	482.71	µg/L	482.71	ppb	22:20:21
2	Co 228.616†	36606.2	35892.7	491.75	µg/L	491.75	ppb	22:20:21
2	Cr 267.716†	58947.1	57353.6	492.50	µg/L	492.50	ppb	22:20:21
2	Cu 324.752†	119611.8	114278.5	498.30	µg/L	498.30	ppb	22:20:21
2	Mn 257.610†	371366.8	362257.0	494.79	µg/L	494.79	ppb	22:20:21
2	Mo 202.031†	15850.0	15519.8	490.36	µg/L	490.36	ppb	22:20:41
2	Ni 231.604†	39310.2	38395.3	491.12	µg/L	491.12	ppb	22:20:21
2	P 214.914†	10467.4	10133.3	2418.3	µg/L	2418.3	ppb	22:20:41
2	Pb 220.353†	8392.4	8075.9	490.79	µg/L	490.79	ppb	22:20:41

2	S 181.975 Axial†	1313.6	1186.9	965.72 µg/L	965.72 ppb	22:20:41
2	Sb 206.836†	3868.7	3688.0	498.60 µg/L	498.60 ppb	22:20:41
2	Se 196.026†	1246.3	1205.1	479 µg/L	479 ppb	22:20:41
2	SiO2†	51189.2	48371.7	5265.9 µg/L	5265.9 ppb	22:20:21
2	Si 251.611†	153640.7	149228.5	2457.6 µg/L	2457.6 ppb	22:20:21
2	Sn 189.927†	7204.7	7027.5	501.26 µg/L	501.26 ppb	22:20:41
2	Ti 334.940†	498506.7	485749.2	494.67 µg/L	494.67 ppb	22:20:21
2	Tl 190.801†	3638.8	3670.6	500.15 µg/L	500.15 ppb	22:20:41
2	U 409.014†	7086.3	7393.1	487.16 µg/L	487.16 ppb	22:20:21
2	V 292.402†	92241.8	89567.1	503.08 µg/L	503.08 ppb	22:20:21
2	Zn 213.857†	79665.1	77263.6	482.48 µg/L	482.48 ppb	22:20:21
3	Sc RADIAL	154090.6	154090.6	106 %		22:19:53
3	Al 396.153Radial†	25424.6	24080.9	5233.9 µg/L	5233.9 ppb	22:19:53
3	Ca 317.933Radial†	89815.0	84339.8	4941.9 µg/L	4941.9 ppb	22:19:53
3	Fe 238.204 Radial†	78583.1	74218.4	4934.3 µg/L	4934.3 ppb	22:19:53
3	K 766.490 Radial†	13957.7	11747.6	4832.1 µg/L	4832.1 ppb	22:19:53
3	Mg 279.077 IEC†	13296.6	12390.6	5116.5 µg/L	5116.5 ppb	22:19:53
3	Na 589.592 Radial†	70420.8	64916.2	9928.7 µg/L	9928.7 ppb	22:19:53
3	Sr 421.552†	227165.2	215153.4	504.22 µg/L	504.22 ppb	22:19:51
3	Sc 361.383	1727606.5	1727606.5	103.28 %		22:20:44
3	Y 371.029	1045815.5	1045815.5	102.27 %		22:20:44
3	Ag 328.068†	127723.5	120702.7	496.03 µg/L	496.03 ppb	22:20:44
3	As 188.979†	1349.6	1321.0	559.18 µg/L	559.18 ppb	22:21:05
3	B 249.677†	33234.8	28824.3	482.23 µg/L	482.23 ppb	22:20:44
3	Ba 233.527†	114068.8	110623.4	505.77 µg/L	505.77 ppb	22:20:44
3	Be 313.107†	1634139.1	1582933.7	515.41 µg/L	515.41 ppb	22:20:44
3	Cd 226.502†	72201.5	70004.3	483.12 µg/L	483.12 ppb	22:20:44
3	Co 228.616†	36622.8	35637.0	488.24 µg/L	488.24 ppb	22:20:44
3	Cr 267.716†	59398.0	57352.5	492.49 µg/L	492.49 ppb	22:20:44
3	Cu 324.752†	119868.0	113638.7	495.52 µg/L	495.52 ppb	22:20:44
3	Mn 257.610†	373060.7	361140.2	493.26 µg/L	493.26 ppb	22:20:44
3	Mo 202.031†	15888.1	15439.1	487.81 µg/L	487.81 ppb	22:21:05
3	Ni 231.604†	39594.7	38378.9	490.91 µg/L	490.91 ppb	22:20:44
3	P 214.914†	10522.4	10108.9	2412.5 µg/L	2412.5 ppb	22:21:05
3	Pb 220.353†	8403.6	8024.5	487.67 µg/L	487.67 ppb	22:21:05
3	S 181.975 Axial†	1310.6	1174.2	955.43 µg/L	955.43 ppb	22:21:05
3	Sb 206.836†	3889.0	3678.9	497.34 µg/L	497.34 ppb	22:21:05
3	Se 196.026†	1271.0	1219.8	485 µg/L	485 ppb	22:21:05
3	SiO2†	51423.3	48218.3	5249.2 µg/L	5249.2 ppb	22:20:44
3	Si 251.611†	154582.4	148999.8	2453.9 µg/L	2453.9 ppb	22:20:44
3	Sn 189.927†	7242.6	7010.7	500.07 µg/L	500.07 ppb	22:21:05
3	Ti 334.940†	501288.0	484741.5	493.64 µg/L	493.64 ppb	22:20:44
3	Tl 190.801†	3618.0	3623.5	493.81 µg/L	493.81 ppb	22:21:05
3	U 409.014†	7090.5	7344.5	484.10 µg/L	484.10 ppb	22:20:44
3	V 292.402†	92797.7	89420.5	502.24 µg/L	502.24 ppb	22:20:44
3	Zn 213.857†	80147.9	77139.7	481.71 µg/L	481.71 ppb	22:20:44

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1726493.3	103.21	%	0.688				0.67%
Sc RADIAL	153745.1	105	%	0.9				0.84%
Y 371.029	1044642.4	102.16	%	0.685				0.67%
Ag 328.068†	120921.0	496.92	µg/L	1.451	496.92	ppb	1.451	0.29%
QC value within limits for Ag 328.068 Recovery = 99.38%								
Al 396.153Radial†	24133.8	5245.5	µg/L	13.60	5245.5	ppb	13.60	0.26%
QC value within limits for Al 396.153Radial Recovery = 104.91%								
As 188.979†	1317.2	557.56	µg/L	4.727	557.56	ppb	4.727	0.85%
QC value greater than the upper limit for As 188.979 Recovery = 111.51%								
B 249.677†	28761.6	481.17	µg/L	1.939	481.17	ppb	1.939	0.40%
QC value within limits for B 249.677 Recovery = 96.23%								
Ba 233.527†	110472.8	505.08	µg/L	1.442	505.08	ppb	1.442	0.29%
QC value within limits for Ba 233.527 Recovery = 101.02%								
Be 313.107†	1581013.7	514.78	µg/L	2.119	514.78	ppb	2.119	0.41%
QC value within limits for Be 313.107 Recovery = 102.96%								
Ca 317.933Radial†	84464.7	4949.3	µg/L	6.40	4949.3	ppb	6.40	0.13%
QC value within limits for Ca 317.933Radial Recovery = 98.99%								
Cd 226.502†	69862.6	482.14	µg/L	1.358	482.14	ppb	1.358	0.28%
QC value within limits for Cd 226.502 Recovery = 96.43%								
Co 228.616†	35677.1	488.79	µg/L	2.721	488.79	ppb	2.721	0.56%

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   QC value within limits for Co 228.616  Recovery = 97.76%
Cr 267.716†            57236.1      491.49 µg/L         1.741      491.49 ppb          1.741   0.35%
   QC value within limits for Cr 267.716  Recovery = 98.30%
Cu 324.752†           113813.7      496.28 µg/L         1.771      496.28 ppb          1.771   0.36%
   QC value within limits for Cu 324.752  Recovery = 99.26%
Fe 238.204 Radial†     74314.7      4940.7 µg/L          9.01      4940.7 ppb           9.01   0.18%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.81%
K 766.490 Radial†      11779.0      4845.0 µg/L         28.69      4845.0 ppb          28.69   0.59%
   QC value within limits for K 766.490 Radial  Recovery = 96.90%
Mg 279.077 IEC†        12389.7      5116.1 µg/L          4.08      5116.1 ppb           4.08   0.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.32%
Mn 257.610†           361096.1      493.20 µg/L         1.617      493.20 ppb          1.617   0.33%
   QC value within limits for Mn 257.610  Recovery = 98.64%
Mo 202.031†            15410.9      486.92 µg/L         3.960      486.92 ppb          3.960   0.81%
   QC value within limits for Mo 202.031  Recovery = 97.38%
Na 589.592 Radial†     64949.8      9933.8 µg/L         32.45      9933.8 ppb          32.45   0.33%
   QC value within limits for Na 589.592 Radial  Recovery = 99.34%
Ni 231.604†            38340.5      490.42 µg/L         1.037      490.42 ppb          1.037   0.21%
   QC value within limits for Ni 231.604  Recovery = 98.08%
P 214.914†             10075.4      2404.5 µg/L         19.15      2404.5 ppb          19.15   0.80%
   QC value within limits for P 214.914  Recovery = 96.18%
Pb 220.353†             8015.5      487.12 µg/L         3.967      487.12 ppb          3.967   0.81%
   QC value within limits for Pb 220.353  Recovery = 97.42%
S 181.975 Axial†        1172.2      953.82 µg/L        12.785      953.82 ppb         12.785   1.34%
   QC value within limits for S 181.975 Axial  Recovery = 95.38%
Sb 206.836†             3659.2      494.68 µg/L         5.740      494.68 ppb          5.740   1.16%
   QC value within limits for Sb 206.836  Recovery = 98.94%
Se 196.026†             1212.2         482 µg/L           2.9         482 ppb            2.9   0.60%
   QC value within limits for Se 196.026  Recovery = 96.33%
SiO2†                  48227.1      5250.2 µg/L         15.19      5250.2 ppb          15.19   0.29%
   QC value within limits for SiO2  Recovery = 98.18%
Si 251.611†           148805.7      2450.7 µg/L          8.96      2450.7 ppb           8.96   0.37%
   QC value within limits for Si 251.611  Recovery = 98.03%
Sn 189.927†             6988.3      498.47 µg/L         3.841      498.47 ppb          3.841   0.77%
   QC value within limits for Sn 189.927  Recovery = 99.69%
Sr 421.552†           216641.4      507.71 µg/L         4.429      507.71 ppb          4.429   0.87%
   QC value within limits for Sr 421.552  Recovery = 101.54%
Ti 334.940†           484159.9      493.05 µg/L         1.985      493.05 ppb          1.985   0.40%
   QC value within limits for Ti 334.940  Recovery = 98.61%
Tl 190.801†             3634.0      495.22 µg/L         4.399      495.22 ppb          4.399   0.89%
   QC value within limits for Tl 190.801  Recovery = 99.04%
U 409.014†              7374.9      485.98 µg/L         1.643      485.98 ppb          1.643   0.34%
   QC value within limits for U 409.014  Recovery = 97.20%
V 292.402†             89419.2      502.22 µg/L         0.868      502.22 ppb          0.868   0.17%
   QC value within limits for V 292.402  Recovery = 100.44%
Zn 213.857†            77076.4      481.31 µg/L         1.413      481.31 ppb          1.413   0.29%
   QC value within limits for Zn 213.857  Recovery = 96.26%
QC Failed.  Continue with analysis.
```

Sequence No.: 82
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/29/2010 22:21:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	153048.9	153048.9	105	%			22:21:43
1	Al 396.153Radial†	-46.2	-12.1	-2.7027	µg/L	-2.7027	ppb	22:22:03
1	Ca 317.933Radial†	641.8	-5.0	-0.2911	µg/L	-0.2911	ppb	22:22:03
1	Fe 238.204 Radial†	160.0	39.1	2.6003	µg/L	2.6003	ppb	22:22:03
1	K 766.490 Radial†	1587.0	56.4	23.221	µg/L	23.221	ppb	22:21:43
1	Mg 279.077 IEC†	160.9	-33.5	-13.768	µg/L	-13.768	ppb	22:22:03
1	Na 589.592 Radial†	1749.0	-29.1	-4.4718	µg/L	-4.4718	ppb	22:21:43
1	Sr 421.552†	-135.3	149.1	0.3494	µg/L	0.3494	ppb	22:21:43
1	Sc 361.383	1742642.1	1742642.1	104.18	%			22:23:05
1	Y 371.029	1066501.3	1066501.3	104.29	%			22:23:05
1	Ag 328.068†	3331.6	231.0	0.9172	µg/L	0.9172	ppb	22:23:07
1	As 188.979†	-18.4	-3.4	-1.4062	µg/L	-1.4062	ppb	22:23:27
1	B 249.677†	3114.2	-366.4	-6.1519	µg/L	-6.1519	ppb	22:23:27
1	Ba 233.527†	-147.0	33.9	0.1544	µg/L	0.1544	ppb	22:23:27
1	Be 313.107†	-699.4	-11.3	-0.0042	µg/L	-0.0042	ppb	22:23:07
1	Cd 226.502†	-105.1	-6.5	-0.0448	µg/L	-0.0448	ppb	22:23:27
1	Co 228.616†	-157.7	25.3	0.3459	µg/L	0.3459	ppb	22:23:27
1	Cr 267.716†	174.6	7.4	0.0642	µg/L	0.0642	ppb	22:23:27
1	Cu 324.752†	2824.4	286.3	1.2434	µg/L	1.2434	ppb	22:23:07
1	Mn 257.610†	185.8	98.4	0.1350	µg/L	0.1350	ppb	22:23:27
1	Mo 202.031†	-12.5	43.2	1.3628	µg/L	1.3628	ppb	22:23:27
1	Ni 231.604†	-33.1	9.1	0.1168	µg/L	0.1168	ppb	22:23:27
1	P 214.914†	23.7	-56.8	-13.626	µg/L	-13.626	ppb	22:23:27
1	Pb 220.353†	94.6	-21.6	-1.3058	µg/L	-1.3058	ppb	22:23:27
1	S 181.975 Axial†	90.7	-7.8	-6.2749	µg/L	-6.2749	ppb	22:23:27
1	Sb 206.836†	85.8	-4.3	-0.5625	µg/L	-0.5625	ppb	22:23:27
1	Se 196.026†	15.2	3.7	1.47	µg/L	1.47	ppb	22:23:27
1	SiO2†	1707.1	65.8	7.1504	µg/L	7.1504	ppb	22:23:27
1	Si 251.611†	834.7	124.8	2.0451	µg/L	2.0451	ppb	22:23:27
1	Sn 189.927†	4.0	1.8	0.1301	µg/L	0.1301	ppb	22:23:27
1	Ti 334.940†	654.1	-8.5	-0.0069	µg/L	-0.0069	ppb	22:23:07
1	Tl 190.801†	-117.5	7.5	0.9902	µg/L	0.9902	ppb	22:23:27
1	U 409.014†	-528.2	-28.0	-1.8141	µg/L	-1.8141	ppb	22:23:07
1	V 292.402†	165.6	-272.9	-1.5009	µg/L	-1.5009	ppb	22:23:07
1	Zn 213.857†	513.9	28.9	0.1799	µg/L	0.1799	ppb	22:23:27
2	Sc RADIAL	151679.0	151679.0	104	%			22:22:05
2	Al 396.153Radial†	-28.1	4.8	0.9816	µg/L	0.9816	ppb	22:22:25
2	Ca 317.933Radial†	626.5	-14.1	-0.8283	µg/L	-0.8283	ppb	22:22:25
2	Fe 238.204 Radial†	161.3	41.8	2.7763	µg/L	2.7763	ppb	22:22:25
2	K 766.490 Radial†	1640.2	121.1	49.867	µg/L	49.867	ppb	22:22:05
2	Mg 279.077 IEC†	170.3	-23.0	-9.4578	µg/L	-9.4578	ppb	22:22:25
2	Na 589.592 Radial†	1597.3	-159.9	-24.506	µg/L	-24.506	ppb	22:22:05
2	Sr 421.552†	-216.8	69.7	0.1633	µg/L	0.1633	ppb	22:22:05
2	Sc 361.383	1717045.6	1717045.6	102.65	%			22:23:29
2	Y 371.029	1051770.0	1051770.0	102.85	%			22:23:29
2	Ag 328.068†	3191.7	142.4	0.5609	µg/L	0.5609	ppb	22:23:31
2	As 188.979†	-14.9	-0.3	-0.1085	µg/L	-0.1085	ppb	22:23:51
2	B 249.677†	3102.8	-332.9	-5.5892	µg/L	-5.5892	ppb	22:23:51
2	Ba 233.527†	-171.7	7.8	0.0352	µg/L	0.0352	ppb	22:23:51
2	Be 313.107†	-760.6	-80.9	-0.0263	µg/L	-0.0263	ppb	22:23:31
2	Cd 226.502†	-75.1	21.3	0.1466	µg/L	0.1466	ppb	22:23:51
2	Co 228.616†	-175.4	5.7	0.0784	µg/L	0.0784	ppb	22:23:51
2	Cr 267.716†	170.4	5.8	0.0490	µg/L	0.0490	ppb	22:23:51
2	Cu 324.752†	3002.5	500.2	2.1749	µg/L	2.1749	ppb	22:23:31
2	Mn 257.610†	187.0	102.2	0.1400	µg/L	0.1400	ppb	22:23:51
2	Mo 202.031†	-6.1	49.2	1.5540	µg/L	1.5540	ppb	22:23:51
2	Ni 231.604†	-67.8	-25.2	-0.3219	µg/L	-0.3219	ppb	22:23:51
2	P 214.914†	19.7	-60.4	-14.507	µg/L	-14.507	ppb	22:23:51
2	Pb 220.353†	107.1	-8.1	-0.4886	µg/L	-0.4886	ppb	22:23:51

2	S 181.975 Axial†	88.2	-8.9	-7.1659 µg/L	-7.1659 ppb	22:23:51
2	Sb 206.836†	81.5	-7.3	-0.9613 µg/L	-0.9613 ppb	22:23:51
2	Se 196.026†	13.5	2.2	0.889 µg/L	0.889 ppb	22:23:51
2	SiO2†	1716.0	98.9	10.765 µg/L	10.765 ppb	22:23:51
2	Si 251.611†	860.2	161.6	2.6514 µg/L	2.6514 ppb	22:23:51
2	Sn 189.927†	2.5	0.4	0.0292 µg/L	0.0292 ppb	22:23:51
2	Ti 334.940†	705.6	51.1	0.0527 µg/L	0.0527 ppb	22:23:31
2	Tl 190.801†	-114.7	8.6	1.1402 µg/L	1.1402 ppb	22:23:51
2	U 409.014†	-487.9	3.8	0.1533 µg/L	0.1533 ppb	22:23:31
2	V 292.402†	179.2	-257.2	-1.4109 µg/L	-1.4109 ppb	22:23:31
2	Zn 213.857†	508.9	31.4	0.1979 µg/L	0.1979 ppb	22:23:51
3	Sc RADIAL	151305.2	151305.2	104 %		22:22:27
3	Al 396.153Radial†	-37.6	-4.4	-1.0405 µg/L	-1.0405 ppb	22:22:47
3	Ca 317.933Radial†	634.0	-5.4	-0.3182 µg/L	-0.3182 ppb	22:22:47
3	Fe 238.204 Radial†	145.7	27.0	1.7971 µg/L	1.7971 ppb	22:22:47
3	K 766.490 Radial†	1457.1	-51.4	-21.154 µg/L	-21.154 ppb	22:22:27
3	Mg 279.077 IEC†	160.0	-32.5	-13.375 µg/L	-13.375 ppb	22:22:47
3	Na 589.592 Radial†	1632.9	-121.7	-18.602 µg/L	-18.602 ppb	22:22:27
3	Sr 421.552†	-158.8	125.0	0.2930 µg/L	0.2930 ppb	22:22:27
3	Sc 361.383	1696452.4	1696452.4	101.42 %		22:23:54
3	Y 371.029	1039324.0	1039324.0	101.64 %		22:23:54
3	Ag 328.068†	3361.8	347.9	1.3916 µg/L	1.3916 ppb	22:23:56
3	As 188.979†	-22.4	-7.8	-3.2622 µg/L	-3.2622 ppb	22:24:16
3	B 249.677†	3155.6	-244.2	-4.0995 µg/L	-4.0995 ppb	22:24:16
3	Ba 233.527†	-185.2	-7.6	-0.0344 µg/L	-0.0344 ppb	22:24:16
3	Be 313.107†	-556.9	110.9	0.0329 µg/L	0.0329 ppb	22:23:56
3	Cd 226.502†	-87.0	8.7	0.0596 µg/L	0.0596 ppb	22:24:16
3	Co 228.616†	-172.6	6.4	0.0881 µg/L	0.0881 ppb	22:24:16
3	Cr 267.716†	143.3	-18.9	-0.1543 µg/L	-0.1543 ppb	22:24:16
3	Cu 324.752†	2803.5	339.5	1.4669 µg/L	1.4669 ppb	22:23:56
3	Mn 257.610†	199.4	116.6	0.1599 µg/L	0.1599 ppb	22:24:16
3	Mo 202.031†	1.4	56.6	1.7870 µg/L	1.7870 ppb	22:24:16
3	Ni 231.604†	-50.6	-8.9	-0.1143 µg/L	-0.1143 ppb	22:24:16
3	P 214.914†	39.3	-40.8	-9.8087 µg/L	-9.8087 ppb	22:24:16
3	Pb 220.353†	108.5	-5.4	-0.3153 µg/L	-0.3153 ppb	22:24:16
3	S 181.975 Axial†	90.6	-5.5	-4.4474 µg/L	-4.4474 ppb	22:24:16
3	Sb 206.836†	74.1	-13.6	-1.8066 µg/L	-1.8066 ppb	22:24:16
3	Se 196.026†	28.5	17.2	6.79 µg/L	6.79 ppb	22:24:16
3	SiO2†	1717.2	120.3	13.094 µg/L	13.094 ppb	22:24:16
3	Si 251.611†	817.8	130.0	2.1214 µg/L	2.1214 ppb	22:24:16
3	Sn 189.927†	10.4	8.2	0.5861 µg/L	0.5861 ppb	22:24:16
3	Ti 334.940†	751.3	104.5	0.1120 µg/L	0.1120 ppb	22:23:56
3	Tl 190.801†	-109.7	12.1	1.6251 µg/L	1.6251 ppb	22:24:16
3	U 409.014†	-660.7	-172.4	-10.683 µg/L	-10.683 ppb	22:23:56
3	V 292.402†	331.5	-104.9	-0.5717 µg/L	-0.5717 ppb	22:23:56
3	Zn 213.857†	511.3	39.8	0.2498 µg/L	0.2498 ppb	22:24:16

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1718713.4	102.75	%	1.383				1.35%
Sc RADIAL	152011.1	104	%	0.6				0.60%
Y 371.029	1052531.7	102.93	%	1.330				1.29%
Ag 328.068†	240.4	0.9566	µg/L	0.41670	0.9566	ppb	0.41670	43.56%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.9	-0.9205	µg/L	1.84510	-0.9205	ppb	1.84510	200.44%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.8	-1.5923	µg/L	1.58505	-1.5923	ppb	1.58505	99.54%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-314.5	-5.2802	µg/L	1.06050	-5.2802	ppb	1.06050	20.08%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.4	0.0517	µg/L	0.09546	0.0517	ppb	0.09546	184.53%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	6.3	0.0008	µg/L	0.02989	0.0008	ppb	0.02989	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-8.2	-0.4792	µg/L	0.30265	-0.4792	ppb	0.30265	63.16%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	7.8	0.0538	µg/L	0.09583	0.0538	ppb	0.09583	178.12%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	12.5	0.1708	µg/L	0.15171	0.1708	ppb	0.15171	88.81%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -1.9     -0.0137 µg/L       0.12202     -0.0137 ppb        0.12202 890.26%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             375.3      1.6284 µg/L       0.48629      1.6284 ppb        0.48629  29.86%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       36.0      2.3913 µg/L       0.52198      2.3913 ppb        0.52198  21.83%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        42.0      17.311 µg/L       35.8774      17.311 ppb        35.8774 207.25%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         -29.7     -12.200 µg/L        2.3830     -12.200 ppb         2.3830  19.53%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             105.7      0.1449 µg/L       0.01317      0.1449 ppb        0.01317   9.09%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              49.7      1.5679 µg/L       0.21243      1.5679 ppb        0.21243  13.55%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -103.5     -15.860 µg/L       10.2945     -15.860 ppb        10.2945  64.91%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -8.3     -0.1065 µg/L       0.21945     -0.1065 ppb        0.21945 206.12%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -52.7     -12.647 µg/L        2.4974     -12.647 ppb         2.4974  19.75%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -11.7     -0.7032 µg/L       0.52900     -0.7032 ppb        0.52900  75.22%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -7.4     -5.9627 µg/L       1.38586     -5.9627 ppb        1.38586  23.24%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -8.4     -1.1101 µg/L       0.63531     -1.1101 ppb        0.63531  57.23%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               7.7        3.05 µg/L         3.254        3.05 ppb          3.254 106.62%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    95.0      10.336 µg/L        2.9948      10.336 ppb         2.9948  28.97%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             138.8      2.2727 µg/L       0.33024      2.2727 ppb        0.33024  14.53%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.5      0.2485 µg/L       0.29673      0.2485 ppb        0.29673 119.41%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             114.6      0.2685 µg/L       0.09545      0.2685 ppb        0.09545  35.54%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              49.0      0.0526 µg/L       0.05945      0.0526 ppb        0.05945 112.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               9.4      1.2518 µg/L       0.33186      1.2518 ppb        0.33186  26.51%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -65.5     -4.1145 µg/L       5.77269     -4.1145 ppb        5.77269 140.30%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -211.7     -1.1612 µg/L       0.51246     -1.1612 ppb        0.51246  44.13%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              33.4      0.2092 µg/L       0.03629      0.2092 ppb        0.03629  17.35%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 83
Sample ID: 248023001|959137|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 405
Date Collected: 3/29/2010 22:24:24
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248023001|959137|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	150747.4	150747.4	103	%			22:24:55
1	Al 396.153Radial†	67.7	97.4	21.142	µg/L	21.142	ppb	22:25:15
1	Ca 317.933Radial†	192557.0	185562.7	10873	µg/L	10873	ppb	22:24:55
1	Fe 238.204 Radial†	821.6	681.1	45.283	µg/L	45.283	ppb	22:25:15
1	K 766.490 Radial†	5045.7	3423.5	1405.3	µg/L	1405.3	ppb	22:24:55
1	Mg 279.077 IEC†	7570.5	7133.1	2941.1	µg/L	2941.1	ppb	22:25:15
1	Na 589.592 Radial†	75507.2	71311.4	10910	µg/L	10910	ppb	22:24:55
1	Sr 421.552†	22535.8	22067.3	51.635	µg/L	51.635	ppb	22:24:55
1	Sc 361.383	1713163.2	1713163.2	102.41	%			22:26:04
1	Y 371.029	1035689.9	1035689.9	101.28	%			22:26:04
1	Ag 328.068†	3111.0	70.6	0.0484	µg/L	0.0484	ppb	22:26:04
1	As 188.979†	-8.0	6.4	2.7152	µg/L	2.7152	ppb	22:26:24
1	B 249.677†	3826.3	380.4	6.3857	µg/L	6.3857	ppb	22:26:24
1	Ba 233.527†	5240.8	5292.3	24.180	µg/L	24.180	ppb	22:26:24
1	Be 313.107†	-450.5	220.2	0.0689	µg/L	0.0689	ppb	22:26:04
1	Cd 226.502†	-115.6	-18.5	-0.1317	µg/L	-0.1317	ppb	22:26:24
1	Co 228.616†	-168.6	12.0	0.1857	µg/L	0.1857	ppb	22:26:24
1	Cr 267.716†	400.2	230.5	1.9549	µg/L	1.9549	ppb	22:26:24
1	Cu 324.752†	2990.1	494.7	2.2291	µg/L	2.2291	ppb	22:26:04
1	Mn 257.610†	705.1	608.5	0.7147	µg/L	0.7147	ppb	22:26:24
1	Mo 202.031†	22.2	76.9	2.4843	µg/L	2.4843	ppb	22:26:24
1	Ni 231.604†	48.8	88.5	1.1325	µg/L	1.1325	ppb	22:26:24
1	P 214.914†	189.7	105.7	25.228	µg/L	25.228	ppb	22:26:24
1	Pb 220.353†	134.1	18.5	1.1354	µg/L	1.1354	ppb	22:26:24
1	S 181.975 Axial†	1160.5	1038.3	841.23	µg/L	841.23	ppb	22:26:24
1	Sb 206.836†	81.6	-6.9	-0.9248	µg/L	-0.9248	ppb	22:26:24
1	Se 196.026†	25.6	14.1	5.58	µg/L	5.58	ppb	22:26:24
1	SiO2†	654292.4	637294.3	69657	µg/L	69657	ppb	22:26:04
1	Si 251.611†	1997506.4	1949737.7	32239	µg/L	32239	ppb	22:26:04
1	Sn 189.927†	4.3	2.2	0.1569	µg/L	0.1569	ppb	22:26:24
1	Ti 334.940†	856.8	200.3	0.2512	µg/L	0.2512	ppb	22:26:04
1	Tl 190.801†	-120.3	2.9	0.4185	µg/L	0.4185	ppb	22:26:24
1	U 409.014†	-644.7	-150.4	-8.5824	µg/L	-8.5824	ppb	22:26:04
1	V 292.402†	1249.7	788.4	4.3934	µg/L	4.3934	ppb	22:26:24
1	Zn 213.857†	1139.2	648.0	3.9603	µg/L	3.9603	ppb	22:26:24
2	Sc RADIAL	153029.4	153029.4	105	%			22:25:17
2	Al 396.153Radial†	53.8	83.1	18.045	µg/L	18.045	ppb	22:25:37
2	Ca 317.933Radial†	194331.8	184476.8	10810	µg/L	10810	ppb	22:25:17
2	Fe 238.204 Radial†	812.4	660.5	43.911	µg/L	43.911	ppb	22:25:37
2	K 766.490 Radial†	5185.8	3484.3	1430.4	µg/L	1430.4	ppb	22:25:17
2	Mg 279.077 IEC†	7575.4	7028.6	2898.0	µg/L	2898.0	ppb	22:25:37
2	Na 589.592 Radial†	76536.6	71203.2	10894	µg/L	10894	ppb	22:25:17
2	Sr 421.552†	22882.5	22072.6	51.648	µg/L	51.648	ppb	22:25:17
2	Sc 361.383	1718844.4	1718844.4	102.75	%			22:26:26
2	Y 371.029	1039324.1	1039324.1	101.64	%			22:26:26
2	Ag 328.068†	3114.0	63.5	-0.0048	µg/L	-0.0048	ppb	22:26:26
2	As 188.979†	-14.3	0.4	0.1913	µg/L	0.1913	ppb	22:26:46
2	B 249.677†	3798.7	341.2	5.7260	µg/L	5.7260	ppb	22:26:46
2	Ba 233.527†	5231.9	5266.8	24.063	µg/L	24.063	ppb	22:26:46
2	Be 313.107†	-547.3	127.5	0.0332	µg/L	0.0332	ppb	22:26:26
2	Cd 226.502†	-107.3	-10.0	-0.0731	µg/L	-0.0731	ppb	22:26:46
2	Co 228.616†	-138.8	41.5	0.5898	µg/L	0.5898	ppb	22:26:46
2	Cr 267.716†	436.6	264.7	2.2631	µg/L	2.2631	ppb	22:26:46
2	Cu 324.752†	3104.8	596.7	2.6563	µg/L	2.6563	ppb	22:26:26
2	Mn 257.610†	673.7	575.6	0.6715	µg/L	0.6715	ppb	22:26:46
2	Mo 202.031†	12.6	67.5	2.1863	µg/L	2.1863	ppb	22:26:46
2	Ni 231.604†	35.7	75.6	0.9673	µg/L	0.9673	ppb	22:26:46
2	P 214.914†	182.7	98.2	23.437	µg/L	23.437	ppb	22:26:46
2	Pb 220.353†	124.3	8.5	0.5419	µg/L	0.5419	ppb	22:26:46

2	S 181.975 Axial†	1161.3	1035.4	838.88	µg/L	838.88 ppb	22:26:46
2	Sb 206.836†	83.1	-5.8	-0.7772	µg/L	-0.7772 ppb	22:26:46
2	Se 196.026†	8.9	-2.2	-0.888	µg/L	-0.888 ppb	22:26:46
2	SiO2†	659018.9	639782.5	69929	µg/L	69929 ppb	22:26:26
2	Si 251.611†	2010048.3	1955496.9	32334	µg/L	32334 ppb	22:26:26
2	Sn 189.927†	-3.7	-5.6	-0.3984	µg/L	-0.3984 ppb	22:26:46
2	Ti 334.940†	796.0	138.3	0.1972	µg/L	0.1972 ppb	22:26:26
2	Tl 190.801†	-120.6	3.0	0.4313	µg/L	0.4313 ppb	22:26:46
2	U 409.014†	-946.7	-442.2	-26.635	µg/L	-26.635 ppb	22:26:26
2	V 292.402†	1192.3	728.5	4.0474	µg/L	4.0474 ppb	22:26:46
2	Zn 213.857†	1099.5	605.7	3.6953	µg/L	3.6953 ppb	22:26:46
3	Sc RADIAL	152591.3	152591.3	105	%		22:25:39
3	Al 396.153Radial†	25.7	56.4	12.183	µg/L	12.183 ppb	22:25:59
3	Ca 317.933Radial†	196180.8	186774.4	10944	µg/L	10944 ppb	22:25:39
3	Fe 238.204 Radial†	810.9	661.3	43.967	µg/L	43.967 ppb	22:25:59
3	K 766.490 Radial†	5385.9	3689.6	1514.8	µg/L	1514.8 ppb	22:25:39
3	Mg 279.077 IEC†	7549.6	7024.7	2896.4	µg/L	2896.4 ppb	22:25:59
3	Na 589.592 Radial†	77052.9	71905.7	11001	µg/L	11001 ppb	22:25:39
3	Sr 421.552†	23023.3	22269.7	52.109	µg/L	52.109 ppb	22:25:39
3	Sc 361.383	1741205.1	1741205.1	104.09	%		22:26:49
3	Y 371.029	1052987.4	1052987.4	102.97	%		22:26:49
3	Ag 328.068†	3015.7	-69.8	-0.5313	µg/L	-0.5313 ppb	22:26:49
3	As 188.979†	-8.3	6.3	2.6538	µg/L	2.6538 ppb	22:27:09
3	B 249.677†	3771.9	268.0	4.4976	µg/L	4.4976 ppb	22:27:09
3	Ba 233.527†	5204.1	5174.6	23.642	µg/L	23.642 ppb	22:27:09
3	Be 313.107†	-753.0	-63.3	-0.0241	µg/L	-0.0241 ppb	22:26:49
3	Cd 226.502†	-129.4	-29.9	-0.2106	µg/L	-0.2106 ppb	22:27:09
3	Co 228.616†	-143.5	38.7	0.5516	µg/L	0.5516 ppb	22:27:09
3	Cr 267.716†	422.4	245.6	2.0861	µg/L	2.0861 ppb	22:27:09
3	Cu 324.752†	3058.8	513.7	2.3086	µg/L	2.3086 ppb	22:26:49
3	Mn 257.610†	696.2	588.8	0.6896	µg/L	0.6896 ppb	22:27:09
3	Mo 202.031†	30.2	84.2	2.7150	µg/L	2.7150 ppb	22:27:09
3	Ni 231.604†	23.9	63.9	0.8168	µg/L	0.8168 ppb	22:27:09
3	P 214.914†	197.8	110.4	26.366	µg/L	26.366 ppb	22:27:09
3	Pb 220.353†	118.3	1.2	0.0854	µg/L	0.0854 ppb	22:27:09
3	S 181.975 Axial†	1151.1	1011.0	819.13	µg/L	819.13 ppb	22:27:09
3	Sb 206.836†	64.2	-25.0	-3.3624	µg/L	-3.3624 ppb	22:27:09
3	Se 196.026†	8.6	-2.6	-1.03	µg/L	-1.03 ppb	22:27:09
3	SiO2†	660428.2	632900.0	69176	µg/L	69176 ppb	22:26:49
3	Si 251.611†	2013871.4	1934048.4	31979	µg/L	31979 ppb	22:26:49
3	Sn 189.927†	-3.5	-5.4	-0.3836	µg/L	-0.3836 ppb	22:27:09
3	Ti 334.940†	653.5	-8.5	0.0446	µg/L	0.0446 ppb	22:26:49
3	Tl 190.801†	-121.7	3.3	0.4775	µg/L	0.4775 ppb	22:27:09
3	U 409.014†	-690.7	-184.4	-10.709	µg/L	-10.709 ppb	22:26:49
3	V 292.402†	1182.4	704.2	3.9279	µg/L	3.9279 ppb	22:27:09
3	Zn 213.857†	1121.4	612.9	3.7407	µg/L	3.7407 ppb	22:27:09

Mean Data: 248023001|959137|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1724404.3	103.09	%	0.886				0.86%
Sc RADIAL	152122.7	104	%	0.8				0.80%
Y 371.029	1042667.2	101.96	%	0.892				0.87%
Ag 328.068†	21.4	-0.1626	µg/L	0.32046	-0.1626	ppb	0.32046	197.11%
Al 396.153Radial†	79.0	17.123	µg/L	4.5497	17.123	ppb	4.5497	26.57%
As 188.979†	4.3	1.8534	µg/L	1.43975	1.8534	ppb	1.43975	77.68%
B 249.677†	329.9	5.5364	µg/L	0.95826	5.5364	ppb	0.95826	17.31%
Ba 233.527†	5244.6	23.962	µg/L	0.2829	23.962	ppb	0.2829	1.18%
Be 313.107†	94.8	0.0260	µg/L	0.04688	0.0260	ppb	0.04688	180.15%
Ca 317.933Radial†	185604.7	10876	µg/L	67.3	10876	ppb	67.3	0.62%
Cd 226.502†	-19.4	-0.1385	µg/L	0.06902	-0.1385	ppb	0.06902	49.85%
Co 228.616†	30.7	0.4424	µg/L	0.22312	0.4424	ppb	0.22312	50.44%
Cr 267.716†	246.9	2.1014	µg/L	0.15466	2.1014	ppb	0.15466	7.36%
Cu 324.752†	535.0	2.3980	µg/L	0.22717	2.3980	ppb	0.22717	9.47%
Fe 238.204 Radial†	667.6	44.387	µg/L	0.7767	44.387	ppb	0.7767	1.75%
K 766.490 Radial†	3532.5	1450.2	µg/L	57.38	1450.2	ppb	57.38	3.96%
Mg 279.077 IEC†	7062.1	2911.8	µg/L	25.36	2911.8	ppb	25.36	0.87%
Mn 257.610†	591.0	0.6920	µg/L	0.02172	0.6920	ppb	0.02172	3.14%
Mo 202.031†	76.2	2.4619	µg/L	0.26504	2.4619	ppb	0.26504	10.77%
Na 589.592 Radial†	71473.5	10935	µg/L	57.8	10935	ppb	57.8	0.53%

Ni 231.604†	76.0	0.9722	µg/L	0.15789	0.9722	ppb	0.15789	16.24%
P 214.914†	104.8	25.010	µg/L	1.4766	25.010	ppb	1.4766	5.90%
Pb 220.353†	9.4	0.5876	µg/L	0.52647	0.5876	ppb	0.52647	89.60%
S 181.975 Axial†	1028.2	833.08	µg/L	12.136	833.08	ppb	12.136	1.46%
Sb 206.836†	-12.6	-1.6881	µg/L	1.45183	-1.6881	ppb	1.45183	86.00%
Se 196.026†	3.1	1.22	µg/L	3.777	1.22	ppb	3.777	309.69%
SiO2†	636658.9	69587	µg/L	380.9	69587	ppb	380.9	0.55%
Si 251.611†	1946427.7	32184	µg/L	183.6	32184	ppb	183.6	0.57%
Sn 189.927†	-2.9	-0.2084	µg/L	0.31642	-0.2084	ppb	0.31642	151.84%
Sr 421.552†	22136.5	51.797	µg/L	0.2699	51.797	ppb	0.2699	0.52%
Ti 334.940†	110.0	0.1644	µg/L	0.10714	0.1644	ppb	0.10714	65.19%
Tl 190.801†	3.1	0.4424	µg/L	0.03105	0.4424	ppb	0.03105	7.02%
U 409.014†	-259.0	-15.309	µg/L	9.8663	-15.309	ppb	9.8663	64.45%
V 292.402†	740.4	4.1229	µg/L	0.24174	4.1229	ppb	0.24174	5.86%
Zn 213.857†	622.2	3.7988	µg/L	0.14170	3.7988	ppb	0.14170	3.73%

Sequence No.: 84
Sample ID: 248023002|959137|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 406
Date Collected: 3/29/2010 22:27:17
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248023002|959137|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	155109.2	155109.2	106	%			22:27:46
1	Al 396.153Radial†	268.3	284.0	61.885	µg/L	61.885	ppb	22:27:48
1	Ca 317.933Radial†	200229.8	187537.4	10989	µg/L	10989	ppb	22:27:46
1	Fe 238.204 Radial†	1575.6	1367.3	90.905	µg/L	90.905	ppb	22:27:48
1	K 766.490 Radial†	5339.9	3562.9	1462.7	µg/L	1462.7	ppb	22:27:46
1	Mg 279.077 IEC†	7677.2	7027.5	2897.5	µg/L	2897.5	ppb	22:27:48
1	Na 589.592 Radial†	78276.1	71860.4	10994	µg/L	10994	ppb	22:27:46
1	Sr 421.552†	23417.2	22282.8	52.139	µg/L	52.139	ppb	22:27:46
1	Sc 361.383	1710908.7	1710908.7	102.28	%			22:28:14
1	Y 371.029	1035052.1	1035052.1	101.22	%			22:28:14
1	Ag 328.068†	2992.8	-40.9	-0.4351	µg/L	-0.4351	ppb	22:28:14
1	As 188.979†	-12.1	2.4	1.0724	µg/L	1.0724	ppb	22:28:35
1	B 249.677†	3795.1	354.8	5.9562	µg/L	5.9562	ppb	22:28:35
1	Ba 233.527†	5394.3	5449.2	24.896	µg/L	24.896	ppb	22:28:35
1	Be 313.107†	-702.5	-26.7	-0.0176	µg/L	-0.0176	ppb	22:28:14
1	Cd 226.502†	-89.4	7.0	0.0394	µg/L	0.0394	ppb	22:28:35
1	Co 228.616†	-159.8	20.3	0.2985	µg/L	0.2985	ppb	22:28:35
1	Cr 267.716†	484.1	313.1	2.6816	µg/L	2.6816	ppb	22:28:35
1	Cu 324.752†	2744.8	258.8	1.1922	µg/L	1.1922	ppb	22:28:35
1	Mn 257.610†	1318.8	1209.4	1.5374	µg/L	1.5374	ppb	22:28:35
1	Mo 202.031†	17.2	72.1	2.3329	µg/L	2.3329	ppb	22:28:35
1	Ni 231.604†	59.8	99.4	1.2709	µg/L	1.2709	ppb	22:28:35
1	P 214.914†	193.0	109.1	26.050	µg/L	26.050	ppb	22:28:35
1	Pb 220.353†	132.5	17.1	1.0632	µg/L	1.0632	ppb	22:28:35
1	S 181.975 Axial†	1167.0	1046.1	847.57	µg/L	847.57	ppb	22:28:35
1	Sb 206.836†	92.5	3.8	0.5077	µg/L	0.5077	ppb	22:28:35
1	Se 196.026†	5.3	-5.7	-2.27	µg/L	-2.27	ppb	22:28:35
1	SiO2†	663678.0	647312.5	70752	µg/L	70752	ppb	22:28:14
1	Si 251.611†	2022873.5	1977109.5	32691	µg/L	32691	ppb	22:28:14
1	Sn 189.927†	1.6	-0.5	-0.0333	µg/L	-0.0333	ppb	22:28:35
1	Ti 334.940†	1340.9	674.7	0.7495	µg/L	0.7495	ppb	22:28:14
1	Tl 190.801†	-117.6	5.3	0.7512	µg/L	0.7512	ppb	22:28:35
1	U 409.014†	-976.5	-475.7	-28.696	µg/L	-28.696	ppb	22:28:14
1	V 292.402†	1204.0	745.3	4.1345	µg/L	4.1345	ppb	22:28:35
1	Zn 213.857†	2421.3	1902.9	11.855	µg/L	11.855	ppb	22:28:35
2	Sc RADIAL	153586.5	153586.5	105	%			22:27:50
2	Al 396.153Radial†	260.0	278.6	60.692	µg/L	60.692	ppb	22:27:52
2	Ca 317.933Radial†	198042.2	187326.8	10977	µg/L	10977	ppb	22:27:50
2	Fe 238.204 Radial†	1556.4	1363.8	90.669	µg/L	90.669	ppb	22:27:52
2	K 766.490 Radial†	5193.0	3473.2	1425.7	µg/L	1425.7	ppb	22:27:50
2	Mg 279.077 IEC†	7685.0	7106.4	2930.0	µg/L	2930.0	ppb	22:27:52
2	Na 589.592 Radial†	77489.1	71842.8	10992	µg/L	10992	ppb	22:27:50
2	Sr 421.552†	23243.9	22336.5	52.265	µg/L	52.265	ppb	22:27:50
2	Sc 361.383	1707822.5	1707822.5	102.10	%			22:28:37
2	Y 371.029	1033001.0	1033001.0	101.02	%			22:28:37
2	Ag 328.068†	3196.1	163.4	0.4129	µg/L	0.4129	ppb	22:28:37
2	As 188.979†	-17.1	-2.5	-0.9963	µg/L	-0.9963	ppb	22:28:57
2	B 249.677†	3839.1	404.7	6.7929	µg/L	6.7929	ppb	22:28:57
2	Ba 233.527†	5456.6	5519.7	25.218	µg/L	25.218	ppb	22:28:57
2	Be 313.107†	-481.9	188.1	0.0571	µg/L	0.0571	ppb	22:28:37
2	Cd 226.502†	-132.2	-35.1	-0.2511	µg/L	-0.2511	ppb	22:28:57
2	Co 228.616†	-162.3	17.6	0.2613	µg/L	0.2613	ppb	22:28:57
2	Cr 267.716†	466.5	296.7	2.5285	µg/L	2.5285	ppb	22:28:57
2	Cu 324.752†	2683.2	203.3	0.9649	µg/L	0.9649	ppb	22:28:57
2	Mn 257.610†	1350.9	1243.2	1.5823	µg/L	1.5823	ppb	22:28:57
2	Mo 202.031†	31.2	85.8	2.7660	µg/L	2.7660	ppb	22:28:57
2	Ni 231.604†	60.2	99.8	1.2771	µg/L	1.2771	ppb	22:28:57
2	P 214.914†	192.3	108.8	25.969	µg/L	25.969	ppb	22:28:57
2	Pb 220.353†	92.4	-21.9	-1.3079	µg/L	-1.3079	ppb	22:28:57

2	S 181.975 Axial†	1165.0	1046.3	847.70	µg/L	847.70 ppb	22:28:57
2	Sb 206.836†	79.8	-8.5	-1.1405	µg/L	-1.1405 ppb	22:28:57
2	Se 196.026†	11.9	0.8	0.328	µg/L	0.328 ppb	22:28:57
2	SiO2†	661555.0	646405.7	70653	µg/L	70653 ppb	22:28:37
2	Si 251.611†	2017515.4	1975435.6	32664	µg/L	32664 ppb	22:28:37
2	Sn 189.927†	-3.4	-5.3	-0.3776	µg/L	-0.3776 ppb	22:28:57
2	Ti 334.940†	1154.3	494.2	0.5562	µg/L	0.5562 ppb	22:28:37
2	Tl 190.801†	-130.8	-7.8	-1.0037	µg/L	-1.0037 ppb	22:28:57
2	U 409.014†	-715.4	-221.6	-13.000	µg/L	-13.000 ppb	22:28:37
2	V 292.402†	1188.2	731.9	4.0750	µg/L	4.0750 ppb	22:28:57
2	Zn 213.857†	2471.5	1956.3	12.192	µg/L	12.192 ppb	22:28:57
3	Sc RADIAL	152022.0	152022.0	104	%		22:27:54
3	Al 396.153Radial†	323.0	341.5	74.427	µg/L	74.427 ppb	22:27:56
3	Ca 317.933Radial†	195935.8	187241.3	10972	µg/L	10972 ppb	22:27:54
3	Fe 238.204 Radial†	1594.7	1415.6	94.117	µg/L	94.117 ppb	22:27:56
3	K 766.490 Radial†	5300.9	3627.4	1489.2	µg/L	1489.2 ppb	22:27:54
3	Mg 279.077 IEC†	7733.8	7228.3	2980.3	µg/L	2980.3 ppb	22:27:56
3	Na 589.592 Radial†	76854.0	71990.7	11014	µg/L	11014 ppb	22:27:54
3	Sr 421.552†	22993.1	22323.1	52.234	µg/L	52.234 ppb	22:27:54
3	Sc 361.383	1744184.4	1744184.4	104.27	%		22:29:00
3	Y 371.029	1054025.4	1054025.4	103.07	%		22:29:00
3	Ag 328.068†	3115.0	20.4	-0.1647	µg/L	-0.1647 ppb	22:29:00
3	As 188.979†	-20.0	-4.9	-2.0104	µg/L	-2.0104 ppb	22:29:20
3	B 249.677†	3821.5	309.4	5.1938	µg/L	5.1938 ppb	22:29:20
3	Ba 233.527†	5450.9	5402.8	24.684	µg/L	24.684 ppb	22:29:20
3	Be 313.107†	-758.2	-67.0	-0.0259	µg/L	-0.0259 ppb	22:29:00
3	Cd 226.502†	-106.4	-7.7	-0.0622	µg/L	-0.0622 ppb	22:29:20
3	Co 228.616†	-177.6	6.2	0.1053	µg/L	0.1053 ppb	22:29:20
3	Cr 267.716†	532.1	350.0	2.9859	µg/L	2.9859 ppb	22:29:20
3	Cu 324.752†	2705.4	169.7	0.8209	µg/L	0.8209 ppb	22:29:20
3	Mn 257.610†	1318.5	1184.5	1.5001	µg/L	1.5001 ppb	22:29:20
3	Mo 202.031†	30.3	84.3	2.7198	µg/L	2.7198 ppb	22:29:20
3	Ni 231.604†	67.9	106.0	1.3561	µg/L	1.3561 ppb	22:29:20
3	P 214.914†	204.1	116.2	27.735	µg/L	27.735 ppb	22:29:20
3	Pb 220.353†	85.6	-30.4	-1.8199	µg/L	-1.8199 ppb	22:29:20
3	S 181.975 Axial†	1167.7	1025.1	830.55	µg/L	830.55 ppb	22:29:20
3	Sb 206.836†	89.5	-0.8	-0.1181	µg/L	-0.1181 ppb	22:29:20
3	Se 196.026†	8.2	-3.0	-1.17	µg/L	-1.17 ppb	22:29:20
3	SiO2†	677251.4	647950.7	70821	µg/L	70821 ppb	22:29:00
3	Si 251.611†	2065792.1	1980538.7	32748	µg/L	32748 ppb	22:29:00
3	Sn 189.927†	-7.8	-9.5	-0.6761	µg/L	-0.6761 ppb	22:29:20
3	Ti 334.940†	1300.4	610.9	0.6706	µg/L	0.6706 ppb	22:29:00
3	Tl 190.801†	-118.1	7.0	0.9806	µg/L	0.9806 ppb	22:29:20
3	U 409.014†	-727.7	-218.8	-12.819	µg/L	-12.819 ppb	22:29:00
3	V 292.402†	1250.4	767.4	4.2725	µg/L	4.2725 ppb	22:29:20
3	Zn 213.857†	2472.9	1907.3	11.883	µg/L	11.883 ppb	22:29:20

Mean Data: 248023002|959137|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1720971.9	102.88	%	1.205				1.17%
Sc RADIAL	153572.5	105	%	1.1				1.01%
Y 371.029	1040692.8	101.77	%	1.134				1.11%
Ag 328.068†	47.6	-0.0623	µg/L	0.43320	-0.0623	ppb	0.43320	695.20%
Al 396.153Radial†	301.4	65.668	µg/L	7.6087	65.668	ppb	7.6087	11.59%
As 188.979†	-1.7	-0.6448	µg/L	1.57116	-0.6448	ppb	1.57116	243.67%
B 249.677†	356.3	5.9810	µg/L	0.79984	5.9810	ppb	0.79984	13.37%
Ba 233.527†	5457.2	24.933	µg/L	0.2689	24.933	ppb	0.2689	1.08%
Be 313.107†	31.4	0.0045	µg/L	0.04571	0.0045	ppb	0.04571	>999.9%
Ca 317.933Radial†	187368.5	10979	µg/L	8.9	10979	ppb	8.9	0.08%
Cd 226.502†	-11.9	-0.0913	µg/L	0.14746	-0.0913	ppb	0.14746	161.50%
Co 228.616†	14.7	0.2217	µg/L	0.10252	0.2217	ppb	0.10252	46.25%
Cr 267.716†	319.9	2.7320	µg/L	0.23281	2.7320	ppb	0.23281	8.52%
Cu 324.752†	210.6	0.9927	µg/L	0.18720	0.9927	ppb	0.18720	18.86%
Fe 238.204 Radial†	1382.3	91.897	µg/L	1.9258	91.897	ppb	1.9258	2.10%
K 766.490 Radial†	3554.5	1459.2	µg/L	31.87	1459.2	ppb	31.87	2.18%
Mg 279.077 IEC†	7120.7	2935.9	µg/L	41.70	2935.9	ppb	41.70	1.42%
Mn 257.610†	1212.4	1.5399	µg/L	0.04119	1.5399	ppb	0.04119	2.67%
Mo 202.031†	80.7	2.6062	µg/L	0.23780	2.6062	ppb	0.23780	9.12%
Na 589.592 Radial†	71898.0	11000	µg/L	12.3	11000	ppb	12.3	0.11%

Ni 231.604†	101.7	1.3014	µg/L	0.04748	1.3014	ppb	0.04748	3.65%
P 214.914†	111.4	26.585	µg/L	0.9973	26.585	ppb	0.9973	3.75%
Pb 220.353†	-11.7	-0.6882	µg/L	1.53825	-0.6882	ppb	1.53825	223.52%
S 181.975 Axial†	1039.2	841.94	µg/L	9.864	841.94	ppb	9.864	1.17%
Sb 206.836†	-1.8	-0.2503	µg/L	0.83203	-0.2503	ppb	0.83203	332.40%
Se 196.026†	-2.7	-1.04	µg/L	1.303	-1.04	ppb	1.303	125.76%
SiO2†	647223.0	70742	µg/L	84.9	70742	ppb	84.9	0.12%
Si 251.611†	1977694.6	32701	µg/L	43.0	32701	ppb	43.0	0.13%
Sn 189.927†	-5.1	-0.3623	µg/L	0.32169	-0.3623	ppb	0.32169	88.79%
Sr 421.552†	22314.1	52.213	µg/L	0.0656	52.213	ppb	0.0656	0.13%
Ti 334.940†	593.3	0.6588	µg/L	0.09723	0.6588	ppb	0.09723	14.76%
Tl 190.801†	1.5	0.2427	µg/L	1.08548	0.2427	ppb	1.08548	447.27%
U 409.014†	-305.4	-18.171	µg/L	9.1150	-18.171	ppb	9.1150	50.16%
V 292.402†	748.2	4.1607	µg/L	0.10128	4.1607	ppb	0.10128	2.43%
Zn 213.857†	1922.2	11.977	µg/L	0.1869	11.977	ppb	0.1869	1.56%

Sequence No.: 90
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/29/2010 22:42:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	153670.6	153670.6	105	%			22:43:01
1	Al 396.153Radial†	25532.3	24248.9	5270.5	µg/L	5270.5	ppb	22:43:01
1	Ca 317.933Radial†	89233.6	84020.5	4923.2	µg/L	4923.2	ppb	22:43:01
1	Fe 238.204 Radial†	78366.9	74216.5	4934.2	µg/L	4934.2	ppb	22:43:01
1	K 766.490 Radial†	13951.5	11777.8	4844.6	µg/L	4844.6	ppb	22:43:01
1	Mg 279.077 IEC†	13259.2	12389.5	5116.1	µg/L	5116.1	ppb	22:43:01
1	Na 589.592 Radial†	70022.2	64720.3	9898.7	µg/L	9898.7	ppb	22:43:01
1	Sr 421.552†	229045.7	217524.4	509.78	µg/L	509.78	ppb	22:42:59
1	Sc 361.383	1713229.0	1713229.0	102.42	%			22:43:14
1	Y 371.029	1036548.2	1036548.2	101.37	%			22:43:14
1	Ag 328.068†	127511.9	121534.0	499.48	µg/L	499.48	ppb	22:43:14
1	As 188.979†	1343.6	1326.1	561.34	µg/L	561.34	ppb	22:43:34
1	B 249.677†	32986.3	28851.7	482.68	µg/L	482.68	ppb	22:43:14
1	Ba 233.527†	113774.1	111262.6	508.69	µg/L	508.69	ppb	22:43:14
1	Be 313.107†	1631598.6	1593731.7	518.93	µg/L	518.93	ppb	22:43:14
1	Cd 226.502†	71789.2	70188.4	484.39	µg/L	484.39	ppb	22:43:14
1	Co 228.616†	36461.6	35777.2	490.17	µg/L	490.17	ppb	22:43:14
1	Cr 267.716†	59082.6	57527.2	493.98	µg/L	493.98	ppb	22:43:14
1	Cu 324.752†	120035.3	114776.0	500.47	µg/L	500.47	ppb	22:43:14
1	Mn 257.610†	372176.7	363308.5	496.22	µg/L	496.22	ppb	22:43:14
1	Mo 202.031†	15824.6	15506.1	489.92	µg/L	489.92	ppb	22:43:34
1	Ni 231.604†	39287.7	38400.9	491.19	µg/L	491.19	ppb	22:43:14
1	P 214.914†	10456.8	10130.3	2417.6	µg/L	2417.6	ppb	22:43:34
1	Pb 220.353†	8326.6	8017.5	487.25	µg/L	487.25	ppb	22:43:34
1	S 181.975 Axial†	1304.8	1179.1	959.43	µg/L	959.43	ppb	22:43:34
1	Sb 206.836†	3849.6	3672.0	496.42	µg/L	496.42	ppb	22:43:34
1	Se 196.026†	1254.9	1214.3	483	µg/L	483	ppb	22:43:34
1	SiO2†	51326.3	48541.5	5284.5	µg/L	5284.5	ppb	22:43:14
1	Si 251.611†	154043.3	149729.5	2465.9	µg/L	2465.9	ppb	22:43:14
1	Sn 189.927†	7190.3	7018.5	500.63	µg/L	500.63	ppb	22:43:34
1	Ti 334.940†	500662.7	488204.2	497.17	µg/L	497.17	ppb	22:43:14
1	Tl 190.801†	3597.1	3632.4	495.09	µg/L	495.09	ppb	22:43:34
1	U 409.014†	7277.7	7584.9	499.24	µg/L	499.24	ppb	22:43:14
1	V 292.402†	92881.7	90256.7	506.92	µg/L	506.92	ppb	22:43:14
1	Zn 213.857†	79753.5	77405.8	483.38	µg/L	483.38	ppb	22:43:14
2	Sc RADIAL	153338.2	153338.2	105	%			22:43:05
2	Al 396.153Radial†	25484.3	24255.7	5272.5	µg/L	5272.5	ppb	22:43:05
2	Ca 317.933Radial†	89276.4	84244.7	4936.4	µg/L	4936.4	ppb	22:43:05
2	Fe 238.204 Radial†	78452.2	74458.8	4950.3	µg/L	4950.3	ppb	22:43:05
2	K 766.490 Radial†	14131.6	11977.7	4926.8	µg/L	4926.8	ppb	22:43:05
2	Mg 279.077 IEC†	13272.8	12429.7	5132.4	µg/L	5132.4	ppb	22:43:05
2	Na 589.592 Radial†	70049.9	64890.6	9924.7	µg/L	9924.7	ppb	22:43:05
2	Sr 421.552†	227233.2	216272.5	506.85	µg/L	506.85	ppb	22:43:03
2	Sc 361.383	1742064.1	1742064.1	104.14	%			22:43:37
2	Y 371.029	1053661.3	1053661.3	103.04	%			22:43:37
2	Ag 328.068†	128515.8	120437.1	494.94	µg/L	494.94	ppb	22:43:37
2	As 188.979†	1335.3	1296.4	548.84	µg/L	548.84	ppb	22:43:57
2	B 249.677†	33342.8	28660.9	479.49	µg/L	479.49	ppb	22:43:37
2	Ba 233.527†	114630.7	110246.4	504.04	µg/L	504.04	ppb	22:43:37
2	Be 313.107†	1643078.7	1578386.3	513.93	µg/L	513.93	ppb	22:43:37
2	Cd 226.502†	72541.4	69750.5	481.36	µg/L	481.36	ppb	22:43:37
2	Co 228.616†	36852.9	35563.7	487.24	µg/L	487.24	ppb	22:43:37
2	Cr 267.716†	59491.9	56965.4	489.16	µg/L	489.16	ppb	22:43:37
2	Cu 324.752†	120802.1	113572.4	495.23	µg/L	495.23	ppb	22:43:37
2	Mn 257.610†	375411.3	360399.5	492.25	µg/L	492.25	ppb	22:43:37
2	Mo 202.031†	15759.6	15187.9	479.88	µg/L	479.88	ppb	22:43:57
2	Ni 231.604†	39775.9	38234.8	489.07	µg/L	489.07	ppb	22:43:37
2	P 214.914†	10394.9	9901.9	2362.9	µg/L	2362.9	ppb	22:43:57
2	Pb 220.353†	8272.7	7831.2	475.94	µg/L	475.94	ppb	22:43:57

2	S 181.975 Axial†	1293.3	1147.1	933.39 µg/L	933.39 ppb	22:43:57
2	Sb 206.836†	3828.2	3589.3	485.17 µg/L	485.17 ppb	22:43:57
2	Se 196.026†	1246.5	1186.1	471 µg/L	471 ppb	22:43:57
2	SiO2†	51780.7	48148.3	5241.9 µg/L	5241.9 ppb	22:43:37
2	Si 251.611†	155219.0	148368.9	2443.6 µg/L	2443.6 ppb	22:43:37
2	Sn 189.927†	7132.8	6847.1	488.43 µg/L	488.43 ppb	22:43:57
2	Ti 334.940†	503531.9	482867.8	491.73 µg/L	491.73 ppb	22:43:37
2	Tl 190.801†	3581.7	3559.5	485.21 µg/L	485.21 ppb	22:43:57
2	U 409.014†	7146.8	7341.7	483.86 µg/L	483.86 ppb	22:43:37
2	V 292.402†	93375.5	89229.7	501.09 µg/L	501.09 ppb	22:43:37
2	Zn 213.857†	80733.7	77058.2	481.21 µg/L	481.21 ppb	22:43:37
3	Sc RADIAL	153918.1	153918.1	106 %		22:43:09
3	Al 396.153Radial†	25598.5	24272.6	5276.1 µg/L	5276.1 ppb	22:43:09
3	Ca 317.933Radial†	89923.4	84537.6	4953.5 µg/L	4953.5 ppb	22:43:09
3	Fe 238.204 Radial†	78639.1	74354.7	4943.4 µg/L	4943.4 ppb	22:43:09
3	K 766.490 Radial†	13877.1	11686.1	4806.8 µg/L	4806.8 ppb	22:43:09
3	Mg 279.077 IEC†	13270.8	12380.3	5112.0 µg/L	5112.0 ppb	22:43:09
3	Na 589.592 Radial†	70254.6	64833.6	9916.1 µg/L	9916.1 ppb	22:43:09
3	Sr 421.552†	228786.4	216929.5	508.39 µg/L	508.39 ppb	22:43:07
3	Sc 361.383	1738165.6	1738165.6	103.91 %		22:44:00
3	Y 371.029	1052043.8	1052043.8	102.88 %		22:44:00
3	Ag 328.068†	128389.3	120592.1	495.57 µg/L	495.57 ppb	22:44:00
3	As 188.979†	1343.6	1307.3	553.39 µg/L	553.39 ppb	22:44:20
3	B 249.677†	33214.1	28608.9	478.62 µg/L	478.62 ppb	22:44:00
3	Ba 233.527†	113962.7	109850.4	502.23 µg/L	502.23 ppb	22:44:00
3	Be 313.107†	1635274.2	1574414.0	512.64 µg/L	512.64 ppb	22:44:00
3	Cd 226.502†	72141.5	69521.9	479.78 µg/L	479.78 ppb	22:44:00
3	Co 228.616†	36635.4	35433.7	485.46 µg/L	485.46 ppb	22:44:00
3	Cr 267.716†	59220.7	56832.5	488.01 µg/L	488.01 ppb	22:44:00
3	Cu 324.752†	120354.6	113401.9	494.50 µg/L	494.50 ppb	22:44:00
3	Mn 257.610†	373061.4	358946.6	490.26 µg/L	490.26 ppb	22:44:00
3	Mo 202.031†	15720.2	15184.0	479.76 µg/L	479.76 ppb	22:44:20
3	Ni 231.604†	39617.8	38168.2	488.22 µg/L	488.22 ppb	22:44:00
3	P 214.914†	10370.4	9900.6	2362.7 µg/L	2362.7 ppb	22:44:20
3	Pb 220.353†	8273.8	7850.1	477.07 µg/L	477.07 ppb	22:44:20
3	S 181.975 Axial†	1305.4	1161.5	945.06 µg/L	945.06 ppb	22:44:20
3	Sb 206.836†	3838.2	3607.2	487.59 µg/L	487.59 ppb	22:44:20
3	Se 196.026†	1253.8	1195.7	475 µg/L	475 ppb	22:44:20
3	SiO2†	51493.2	47983.1	5223.9 µg/L	5223.9 ppb	22:44:00
3	Si 251.611†	154605.0	148112.3	2439.4 µg/L	2439.4 ppb	22:44:00
3	Sn 189.927†	7146.9	6876.0	490.48 µg/L	490.48 ppb	22:44:20
3	Ti 334.940†	501550.0	482044.9	490.89 µg/L	490.89 ppb	22:44:00
3	Tl 190.801†	3584.4	3569.9	486.57 µg/L	486.57 ppb	22:44:20
3	U 409.014†	7451.7	7650.5	502.82 µg/L	502.82 ppb	22:44:00
3	V 292.402†	92793.5	88870.7	499.10 µg/L	499.10 ppb	22:44:00
3	Zn 213.857†	80130.4	76651.4	478.65 µg/L	478.65 ppb	22:44:00

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1731152.9	103.49	%	0.935				0.90%
Sc RADIAL	153642.3	105	%	0.2				0.19%
Y 371.029	1047417.8	102.43	%	0.924				0.90%
Ag 328.068†	120854.4	496.66	µg/L	2.458	496.66	ppb	2.458	0.49%
QC value within limits for Ag 328.068 Recovery = 99.33%								
Al 396.153Radial†	24259.1	5273.0	µg/L	2.86	5273.0	ppb	2.86	0.05%
QC value within limits for Al 396.153Radial Recovery = 105.46%								
As 188.979†	1309.9	554.52	µg/L	6.329	554.52	ppb	6.329	1.14%
QC value greater than the upper limit for As 188.979 Recovery = 110.90%								
B 249.677†	28707.2	480.26	µg/L	2.138	480.26	ppb	2.138	0.45%
QC value within limits for B 249.677 Recovery = 96.05%								
Ba 233.527†	110453.1	504.99	µg/L	3.332	504.99	ppb	3.332	0.66%
QC value within limits for Ba 233.527 Recovery = 101.00%								
Be 313.107†	1582177.3	515.17	µg/L	3.321	515.17	ppb	3.321	0.64%
QC value within limits for Be 313.107 Recovery = 103.03%								
Ca 317.933Radial†	84267.6	4937.7	µg/L	15.19	4937.7	ppb	15.19	0.31%
QC value within limits for Ca 317.933Radial Recovery = 98.75%								
Cd 226.502†	69820.3	481.85	µg/L	2.340	481.85	ppb	2.340	0.49%
QC value within limits for Cd 226.502 Recovery = 96.37%								
Co 228.616†	35591.5	487.62	µg/L	2.378	487.62	ppb	2.378	0.49%

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   QC value within limits for Co 228.616  Recovery = 97.52%
Cr 267.716†            57108.4      490.38 µg/L         3.167      490.38 ppb          3.167   0.65%
   QC value within limits for Cr 267.716  Recovery = 98.08%
Cu 324.752†           113916.7      496.74 µg/L         3.258      496.74 ppb          3.258   0.66%
   QC value within limits for Cu 324.752  Recovery = 99.35%
Fe 238.204 Radial†     74343.3      4942.6 µg/L          8.08      4942.6 ppb           8.08   0.16%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.85%
K 766.490 Radial†      11813.8      4859.4 µg/L         61.38      4859.4 ppb          61.38   1.26%
   QC value within limits for K 766.490 Radial  Recovery = 97.19%
Mg 279.077 IEC†        12399.8      5120.2 µg/L         10.79      5120.2 ppb          10.79   0.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.40%
Mn 257.610†           360884.9      492.91 µg/L         3.035      492.91 ppb          3.035   0.62%
   QC value within limits for Mn 257.610  Recovery = 98.58%
Mo 202.031†            15292.7      483.19 µg/L         5.836      483.19 ppb          5.836   1.21%
   QC value within limits for Mo 202.031  Recovery = 96.64%
Na 589.592 Radial†     64814.8      9913.2 µg/L         13.23      9913.2 ppb          13.23   0.13%
   QC value within limits for Na 589.592 Radial  Recovery = 99.13%
Ni 231.604†            38268.0      489.49 µg/L         1.533      489.49 ppb          1.533   0.31%
   QC value within limits for Ni 231.604  Recovery = 97.90%
P 214.914†              9977.6      2381.1 µg/L         31.64      2381.1 ppb          31.64   1.33%
   QC value within limits for P 214.914  Recovery = 95.24%
Pb 220.353†             7899.6      480.09 µg/L         6.228      480.09 ppb          6.228   1.30%
   QC value within limits for Pb 220.353  Recovery = 96.02%
S 181.975 Axial†        1162.6      945.96 µg/L        13.047      945.96 ppb         13.047   1.38%
   QC value within limits for S 181.975 Axial  Recovery = 94.60%
Sb 206.836†             3622.8      489.72 µg/L         5.923      489.72 ppb          5.923   1.21%
   QC value within limits for Sb 206.836  Recovery = 97.94%
Se 196.026†             1198.7         476 µg/L           5.7         476 ppb            5.7   1.19%
   QC value within limits for Se 196.026  Recovery = 95.26%
SiO2†                  48224.3      5250.1 µg/L         31.11      5250.1 ppb          31.11   0.59%
   QC value within limits for SiO2  Recovery = 98.18%
Si 251.611†           148736.9      2449.7 µg/L         14.25      2449.7 ppb          14.25   0.58%
   QC value within limits for Si 251.611  Recovery = 97.99%
Sn 189.927†             6913.8      493.18 µg/L         6.535      493.18 ppb          6.535   1.33%
   QC value within limits for Sn 189.927  Recovery = 98.64%
Sr 421.552†           216908.8      508.34 µg/L         1.468      508.34 ppb          1.468   0.29%
   QC value within limits for Sr 421.552  Recovery = 101.67%
Ti 334.940†           484372.3      493.26 µg/L         3.408      493.26 ppb          3.408   0.69%
   QC value within limits for Ti 334.940  Recovery = 98.65%
Tl 190.801†             3587.3      488.96 µg/L         5.353      488.96 ppb          5.353   1.09%
   QC value within limits for Tl 190.801  Recovery = 97.79%
U 409.014†              7525.7      495.31 µg/L        10.074      495.31 ppb         10.074   2.03%
   QC value within limits for U 409.014  Recovery = 99.06%
V 292.402†             89452.4      502.37 µg/L         4.061      502.37 ppb          4.061   0.81%
   QC value within limits for V 292.402  Recovery = 100.47%
Zn 213.857†            77038.5      481.08 µg/L         2.367      481.08 ppb          2.367   0.49%
   QC value within limits for Zn 213.857  Recovery = 96.22%
QC Failed.  Continue with analysis.
```

Sequence No.: 91
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/29/2010 22:44:29
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	154912.0	154912.0	106	%			22:44:59
1	Al 396.153Radial†	-35.0	-1.1	-0.2804	µg/L	-0.2804	ppb	22:45:19
1	Ca 317.933Radial†	642.9	-11.3	-0.6631	µg/L	-0.6631	ppb	22:45:19
1	Fe 238.204 Radial†	163.6	40.6	2.6994	µg/L	2.6994	ppb	22:45:19
1	K 766.490 Radial†	1426.7	-112.7	-46.378	µg/L	-46.378	ppb	22:44:59
1	Mg 279.077 IEC†	180.0	-17.3	-7.1267	µg/L	-7.1267	ppb	22:45:19
1	Na 589.592 Radial†	1706.5	-89.1	-13.586	µg/L	-13.586	ppb	22:44:59
1	Sr 421.552†	-175.2	113.1	0.2652	µg/L	0.2652	ppb	22:44:59
1	Sc 361.383	1763263.5	1763263.5	105.41	%			22:46:07
1	Y 371.029	1078054.6	1078054.6	105.42	%			22:46:07
1	Ag 328.068†	3459.8	315.2	1.2970	µg/L	1.2970	ppb	22:46:09
1	As 188.979†	-24.9	-9.4	-3.9329	µg/L	-3.9329	ppb	22:46:29
1	B 249.677†	3110.0	-405.3	-6.8044	µg/L	-6.8044	ppb	22:46:29
1	Ba 233.527†	-155.7	27.4	0.1251	µg/L	0.1251	ppb	22:46:29
1	Be 313.107†	-549.3	139.0	0.0510	µg/L	0.0510	ppb	22:46:09
1	Cd 226.502†	-95.9	3.4	0.0231	µg/L	0.0231	ppb	22:46:29
1	Co 228.616†	-186.7	-0.5	-0.0073	µg/L	-0.0073	ppb	22:46:29
1	Cr 267.716†	177.6	8.2	0.0553	µg/L	0.0553	ppb	22:46:29
1	Cu 324.752†	2872.9	300.6	1.3229	µg/L	1.3229	ppb	22:46:09
1	Mn 257.610†	184.1	94.6	0.1296	µg/L	0.1296	ppb	22:46:29
1	Mo 202.031†	-26.2	30.4	0.9589	µg/L	0.9589	ppb	22:46:29
1	Ni 231.604†	-47.7	-4.3	-0.0553	µg/L	-0.0553	ppb	22:46:29
1	P 214.914†	31.9	-49.3	-11.833	µg/L	-11.833	ppb	22:46:29
1	Pb 220.353†	75.9	-40.5	-2.4620	µg/L	-2.4620	ppb	22:46:29
1	S 181.975 Axial†	96.5	-3.3	-2.6691	µg/L	-2.6691	ppb	22:46:29
1	Sb 206.836†	94.3	2.8	0.3918	µg/L	0.3918	ppb	22:46:29
1	Se 196.026†	22.1	10.1	4.01	µg/L	4.01	ppb	22:46:29
1	SiO2†	1729.5	67.9	7.3789	µg/L	7.3789	ppb	22:46:29
1	Si 251.611†	852.7	132.5	2.1731	µg/L	2.1731	ppb	22:46:29
1	Sn 189.927†	14.1	11.4	0.8115	µg/L	0.8115	ppb	22:46:29
1	Ti 334.940†	920.6	237.0	0.2344	µg/L	0.2344	ppb	22:46:09
1	Tl 190.801†	-118.0	8.4	1.1222	µg/L	1.1222	ppb	22:46:29
1	U 409.014†	-177.4	310.8	19.177	µg/L	19.177	ppb	22:46:09
1	V 292.402†	364.3	-86.2	-0.4555	µg/L	-0.4555	ppb	22:46:09
1	Zn 213.857†	511.7	21.0	0.1315	µg/L	0.1315	ppb	22:46:29
2	Sc RADIAL	153548.1	153548.1	105	%			22:45:21
2	Al 396.153Radial†	-31.3	2.2	0.4081	µg/L	0.4081	ppb	22:45:41
2	Ca 317.933Radial†	642.0	-6.8	-0.3982	µg/L	-0.3982	ppb	22:45:41
2	Fe 238.204 Radial†	145.2	24.6	1.6337	µg/L	1.6337	ppb	22:45:41
2	K 766.490 Radial†	1418.9	-108.1	-44.492	µg/L	-44.492	ppb	22:45:21
2	Mg 279.077 IEC†	174.6	-20.9	-8.5921	µg/L	-8.5921	ppb	22:45:41
2	Na 589.592 Radial†	1677.9	-102.0	-15.567	µg/L	-15.567	ppb	22:45:21
2	Sr 421.552†	-164.6	121.7	0.2853	µg/L	0.2853	ppb	22:45:21
2	Sc 361.383	1742152.7	1742152.7	104.15	%			22:46:31
2	Y 371.029	1065618.3	1065618.3	104.21	%			22:46:31
2	Ag 328.068†	3303.4	204.8	0.8259	µg/L	0.8259	ppb	22:46:34
2	As 188.979†	-13.5	1.3	0.5289	µg/L	0.5289	ppb	22:46:54
2	B 249.677†	3107.7	-371.7	-6.2409	µg/L	-6.2409	ppb	22:46:54
2	Ba 233.527†	-159.2	22.2	0.1013	µg/L	0.1013	ppb	22:46:54
2	Be 313.107†	-751.4	-61.3	-0.0185	µg/L	-0.0185	ppb	22:46:34
2	Cd 226.502†	-95.8	2.4	0.0166	µg/L	0.0166	ppb	22:46:54
2	Co 228.616†	-177.5	6.1	0.0840	µg/L	0.0840	ppb	22:46:54
2	Cr 267.716†	192.1	24.2	0.2038	µg/L	0.2038	ppb	22:46:54
2	Cu 324.752†	2839.7	301.7	1.3157	µg/L	1.3157	ppb	22:46:34
2	Mn 257.610†	146.4	60.5	0.0831	µg/L	0.0831	ppb	22:46:54
2	Mo 202.031†	-13.5	42.2	1.3326	µg/L	1.3326	ppb	22:46:54
2	Ni 231.604†	-63.6	-20.2	-0.2583	µg/L	-0.2583	ppb	22:46:54
2	P 214.914†	31.2	-49.6	-11.901	µg/L	-11.901	ppb	22:46:54
2	Pb 220.353†	82.8	-32.9	-1.9932	µg/L	-1.9932	ppb	22:46:54

2	S 181.975 Axial†	81.5	-16.6	-13.406 µg/L	-13.406 ppb	22:46:54
2	Sb 206.836†	82.0	-7.9	-1.0565 µg/L	-1.0565 ppb	22:46:54
2	Se 196.026†	7.9	-3.3	-1.32 µg/L	-1.32 ppb	22:46:54
2	SiO2†	1731.4	89.6	9.7506 µg/L	9.7506 ppb	22:46:54
2	Si 251.611†	850.1	139.9	2.2935 µg/L	2.2935 ppb	22:46:54
2	Sn 189.927†	5.1	2.9	0.2036 µg/L	0.2036 ppb	22:46:54
2	Ti 334.940†	788.8	121.0	0.1220 µg/L	0.1220 ppb	22:46:34
2	Tl 190.801†	-114.7	10.2	1.3610 µg/L	1.3610 ppb	22:46:54
2	U 409.014†	-416.9	78.8	4.8158 µg/L	4.8158 ppb	22:46:34
2	V 292.402†	274.8	-168.0	-0.9142 µg/L	-0.9142 ppb	22:46:34
2	Zn 213.857†	471.1	-12.1	-0.0756 µg/L	-0.0756 ppb	22:46:54
3	Sc RADIAL	154388.4	154388.4	106 %		22:45:43
3	Al 396.153Radial†	-29.7	3.8	0.7678 µg/L	0.7678 ppb	22:46:03
3	Ca 317.933Radial†	650.1	-2.5	-0.1455 µg/L	-0.1455 ppb	22:46:03
3	Fe 238.204 Radial†	160.3	38.1	2.5315 µg/L	2.5315 ppb	22:46:03
3	K 766.490 Radial†	1386.3	-146.2	-60.200 µg/L	-60.200 ppb	22:45:43
3	Mg 279.077 IEC†	169.5	-26.7	-10.958 µg/L	-10.958 ppb	22:46:03
3	Na 589.592 Radial†	1530.6	-249.7	-38.157 µg/L	-38.157 ppb	22:45:43
3	Sr 421.552†	-237.9	53.4	0.1250 µg/L	0.1250 ppb	22:45:43
3	Sc 361.383	1750459.2	1750459.2	104.64 %		22:46:56
3	Y 371.029	1070679.8	1070679.8	104.70 %		22:46:56
3	Ag 328.068†	3084.2	-19.7	-0.0766 µg/L	-0.0766 ppb	22:46:58
3	As 188.979†	-5.5	9.0	3.7759 µg/L	3.7759 ppb	22:47:18
3	B 249.677†	3100.0	-393.3	-6.6028 µg/L	-6.6028 ppb	22:47:18
3	Ba 233.527†	-155.7	26.3	0.1198 µg/L	0.1198 ppb	22:47:18
3	Be 313.107†	-710.6	-18.9	-0.0028 µg/L	-0.0028 ppb	22:46:58
3	Cd 226.502†	-91.7	6.8	0.0466 µg/L	0.0466 ppb	22:47:18
3	Co 228.616†	-175.2	9.2	0.1261 µg/L	0.1261 ppb	22:47:18
3	Cr 267.716†	129.8	-36.2	-0.3199 µg/L	-0.3199 ppb	22:47:18
3	Cu 324.752†	2844.0	292.9	1.2827 µg/L	1.2827 ppb	22:46:58
3	Mn 257.610†	164.1	76.9	0.1055 µg/L	0.1055 ppb	22:47:18
3	Mo 202.031†	-10.2	45.5	1.4349 µg/L	1.4349 ppb	22:47:18
3	Ni 231.604†	-50.8	-7.6	-0.0975 µg/L	-0.0975 ppb	22:47:18
3	P 214.914†	34.6	-46.5	-11.157 µg/L	-11.157 ppb	22:47:18
3	Pb 220.353†	85.4	-30.8	-1.8707 µg/L	-1.8707 ppb	22:47:18
3	S 181.975 Axial†	93.1	-5.9	-4.7394 µg/L	-4.7394 ppb	22:47:18
3	Sb 206.836†	89.1	-1.5	-0.1726 µg/L	-0.1726 ppb	22:47:18
3	Se 196.026†	18.1	6.3	2.52 µg/L	2.52 ppb	22:47:18
3	SiO2†	1733.5	83.7	9.1075 µg/L	9.1075 ppb	22:47:18
3	Si 251.611†	819.6	106.9	1.7472 µg/L	1.7472 ppb	22:47:18
3	Sn 189.927†	3.7	1.6	0.1115 µg/L	0.1115 ppb	22:47:18
3	Ti 334.940†	816.3	143.8	0.1431 µg/L	0.1431 ppb	22:46:58
3	Tl 190.801†	-122.0	3.7	0.4965 µg/L	0.4965 ppb	22:47:18
3	U 409.014†	-315.7	177.4	10.912 µg/L	10.912 ppb	22:46:58
3	V 292.402†	292.4	-152.4	-0.8252 µg/L	-0.8252 ppb	22:46:58
3	Zn 213.857†	509.1	22.1	0.1383 µg/L	0.1383 ppb	22:47:18

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1751958.5	104.73	%	0.636				0.61%
Sc RADIAL	154282.8	106	%	0.5				0.45%
Y 371.029	1071450.9	104.78	%	0.612				0.58%
Ag 328.068†	166.8	0.6821	µg/L	0.69799	0.6821	ppb	0.69799	102.33%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.6	0.2985	µg/L	0.53261	0.2985	ppb	0.53261	178.41%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.3	0.1240	µg/L	3.87033	0.1240	ppb	3.87033	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-390.1	-6.5494	µg/L	0.28549	-6.5494	ppb	0.28549	4.36%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	25.3	0.1154	µg/L	0.01249	0.1154	ppb	0.01249	10.82%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	19.6	0.0099	µg/L	0.03648	0.0099	ppb	0.03648	368.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-6.9	-0.4023	µg/L	0.25879	-0.4023	ppb	0.25879	64.33%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.2	0.0288	µg/L	0.01577	0.0288	ppb	0.01577	54.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.9	0.0676	µg/L	0.06820	0.0676	ppb	0.06820	100.91%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -1.3     -0.0203 µg/L      0.26989     -0.0203 ppb       0.26989 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             298.4      1.3071 µg/L      0.02146      1.3071 ppb       0.02146   1.64%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       34.4      2.2882 µg/L      0.57300      2.2882 ppb       0.57300  25.04%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -122.3     -50.357 µg/L       8.5766     -50.357 ppb        8.5766  17.03%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         -21.6     -8.8922 µg/L      1.93304     -8.8922 ppb       1.93304  21.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              77.3      0.1060 µg/L      0.02325      0.1060 ppb       0.02325  21.93%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              39.4      1.2422 µg/L      0.25054      1.2422 ppb       0.25054  20.17%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†     -146.9     -22.437 µg/L      13.6499     -22.437 ppb      13.6499  60.84%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -10.7     -0.1370 µg/L      0.10709     -0.1370 ppb       0.10709  78.15%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -48.5     -11.630 µg/L       0.4111     -11.630 ppb        0.4111   3.54%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -34.7     -2.1086 µg/L      0.31210     -2.1086 ppb       0.31210  14.80%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -8.6     -6.9382 µg/L      5.69617     -6.9382 ppb       5.69617  82.10%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -2.2     -0.2791 µg/L      0.73004     -0.2791 ppb       0.73004 261.58%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               4.4       1.74 µg/L        2.749       1.74 ppb         2.749 158.29%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    80.4      8.7457 µg/L      1.22656      8.7457 ppb       1.22656  14.02%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             126.4      2.0713 µg/L      0.28701      2.0713 ppb       0.28701  13.86%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               5.3      0.3755 µg/L      0.38038      0.3755 ppb       0.38038 101.29%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              96.1      0.2252 µg/L      0.08730      0.2252 ppb       0.08730  38.77%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             167.3      0.1665 µg/L      0.05972      0.1665 ppb       0.05972  35.87%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               7.4      0.9932 µg/L      0.44647      0.9932 ppb       0.44647  44.95%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              189.0      11.635 µg/L       7.2080      11.635 ppb        7.2080  61.95%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -135.5     -0.7316 µg/L      0.24321     -0.7316 ppb       0.24321  33.24%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              10.3      0.0648 µg/L      0.12157      0.0648 ppb       0.12157 187.70%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, May 07, 2010 04:35:33
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100422\Sample.275
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2953.9	2953.906	77.050	2.6
	Mg	24.0	389627.2	389627.207	2456.462	0.6
	Co	58.9	33755.8	33755.839	413.455	1.2
	Rh	102.9	72606.2	72606.246	422.264	0.6
	In	114.9	84922.1	84922.088	941.339	1.1
	Pb	208.0	59665.5	59665.546	482.527	0.8
⌈>	Ba	137.9	99744.3	99744.336	714.050	0.7
⌊	Ba++	69.0	1512.3	0.015	0.000	1.2
⌈>	Ce	139.9	99525.5	99525.488	418.442	0.4
⌊	CeO	155.9	1670.4	0.017	0.000	2.2
	Bkgd	220.0	26.7	26.700	2.080	7.8

Current Optimization File Data

Current Value	Description
0.72	Nebulizer Gas Flow
9.00	Lens Voltage
1450.00	ICP RF Power
-2300.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
60.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	7.8	3617.5
Co	59	17	8.5	30984.6
In	115	17	9.8	84760.7

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	582	2080	0.644
Be	9.0	8.9	2014	2080	0.677
Mg	24.0	24.0	5690	2120	0.679
Mg	25.0	25.0	5893	2080	0.665
Mg	26.0	26.0	6179	2120	0.672
Co	58.9	58.9	14168	2170	0.646
Rh	102.9	102.9	24855	2230	0.702
In	114.9	114.9	27768	2260	0.683
Ce	139.9	139.9	33856	2280	0.759
Pb	206.0	206.0	49948	2422	0.761
Pb	207.0	207.0	50125	2385	0.676
Pb	208.0	208.0	50463	2430	0.720
U	238.1	238.0	57727	2470	0.715

Report Date/Time: Friday, May 07, 2010 04:34:31

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, May 07, 2010 13:16:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\Blank.153

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		572107	
|	Cr	52		ug/L		1187	
⌊	Cr	53		ug/L		59418	
⌈>	Ge	74		ug/L		196081	
|	As	75		ug/L		419	
|	Se	77		ug/L		4859	
|	Se	82		ug/L		-46	
⌊	Kr	83		ug/L		137	
⌈	Mo	98		ug/L		73	
|	Ag	107		ug/L		78	
|	Cd	111		ug/L		24	
|	Cd	114		ug/L		51	
|>	In	115		ug/L		109110	
|	Sb	121		ug/L		90	
⌊	Sb	123		ug/L		102	
⌈>	Lu	175		ug/L		162187	
|	Tl	205		ug/L		204	
|	Pb	208		ug/L		343	
⌊	U	238		ug/L		221	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45					
	Cr	52					
	Cr	53					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, May 07, 2010 13:23:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\Standard 1.154

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		582229	582228.522
	Cr	52	10.000	ug/L	0.151	24276	0.040
	Cr	53		ug/L		61120	0.001
>	Ge	74		ug/L		199473	199472.862
	As	75	10.000	ug/L	3.399	5817	0.027
	Se	77		ug/L		5249	0.002
	Se	82	10.000	ug/L	4.312	357	0.002
	Kr	83		ug/L		123	-0.000
	Mo	98	10.000	ug/L	1.675	14572	0.131
	Ag	107	10.000	ug/L	1.491	22980	0.208
	Cd	111	10.000	ug/L	3.459	5589	0.050
	Cd	114		ug/L		12897	0.116
>	In	115		ug/L		110306	110305.594
	Sb	121	10.000	ug/L	1.873	24068	0.217
	Sb	123		ug/L		18908	0.171
>	Lu	175		ug/L		165565	165564.942
	Tl	205	10.000	ug/L	2.363	53579	0.322
	Pb	208	10.000	ug/L	2.126	83520	0.502
	U	238	10.000	ug/L	0.487	87730	0.528

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45					
	Cr	52					
	Cr	53					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, May 07, 2010 13:29:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\Standard 2.155

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		554419	554418.619
|	Cr	52	**100.027**	**ug/L**	1.570	226894	0.407
⌊	Cr	53		**ug/L**		84359	0.048
⌈>	Ge	74		**ug/L**		192412	192411.883
|	As	75	**100.089**	**ug/L**	0.739	57557	0.297
|	Se	77		**ug/L**		7929	0.016
|	Se	82	**100.006**	**ug/L**	2.819	3875	0.020
⌊	Kr	83		**ug/L**		139	0.000
⌈	Mo	98	**100.034**	**ug/L**	2.442	145149	1.362
|	Ag	107	**100.021**	**ug/L**	2.510	226074	2.122
|	Cd	111	**100.022**	**ug/L**	2.893	54965	0.516
|	Cd	114		**ug/L**		127072	1.192
|>	In	115		**ug/L**		106542	106541.614
|	Sb	121	**100.033**	**ug/L**	3.576	239649	2.250
⌊	Sb	123		**ug/L**		185973	1.745
⌈>	Lu	175		**ug/L**		162271	162271.473
|	Tl	205	**99.998**	**ug/L**	0.202	522634	3.220
|	Pb	208	**100.026**	**ug/L**	2.511	837771	5.161
⌊	U	238	**100.010**	**ug/L**	1.183	866622	5.340

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45					
	Cr	52					
	Cr	53					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, May 07, 2010 13:36:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 1.156

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		557681	557680.800
	Cr	52	52.729	ug/L	2.371	120808	0.215
	Cr	53		ug/L		72404	0.026
>	Ge	74		ug/L		189983	189982.875
	As	75	54.135	ug/L	2.283	30921	0.161
	Se	77		ug/L		6560	0.010
	Se	82	53.686	ug/L	0.454	2033	0.011
	Kr	83		ug/L		136	0.000
	Mo	98	52.248	ug/L	2.083	75924	0.711
	Ag	107	52.763	ug/L	0.946	119429	1.119
	Cd	111	52.423	ug/L	1.946	28853	0.270
	Cd	114		ug/L		67506	0.633
>	In	115		ug/L		106645	106644.920
	Sb	121	51.758	ug/L	2.767	124196	1.164
	Sb	123		ug/L		98442	0.922
>	Lu	175		ug/L		163021	163020.886
	Tl	205	52.882	ug/L	2.640	277715	1.703
	Pb	208	53.008	ug/L	1.425	446217	2.735
	U	238	55.457	ug/L	0.104	482925	2.961

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		97.5			
	Cr	52	105.458				
	Cr	53					
>	Ge	74		96.9			
	As	75	108.270				
	Se	77					
	Se	82	107.372				
	Kr	83					
	Mo	98	104.496				
	Ag	107	105.525				
	Cd	111	104.847				
	Cd	114					
>	In	115		97.7			
	Sb	121	103.516				
	Sb	123					
>	Lu	175		100.5			
	Tl	205	105.765				
	Pb	208	106.016				
	U	238	110.914				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	U	238	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, May 07, 2010 13:42:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 2.157

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		568344	568343.694
	Cr	52	0.082	ug/L	30.172	1368	0.000
	Cr	53		ug/L		57852	-0.002
>	Ge	74		ug/L		192624	192624.234
	As	75	-0.353	ug/L	78.995	209	-0.001
	Se	77		ug/L		5037	0.001
	Se	82	0.033	ug/L	1627.849	-44	0.000
	Kr	83		ug/L		133	-0.000
	Mo	98	0.010	ug/L	63.361	87	0.000
	Ag	107	0.002	ug/L	154.205	81	0.000
	Cd	111	0.005	ug/L	384.756	26	0.000
	Cd	114		ug/L		56	0.000
>	In	115		ug/L		107228	107228.011
	Sb	121	0.034	ug/L	13.490	170	0.001
	Sb	123		ug/L		170	0.001
>	Lu	175		ug/L		160465	160464.551
	Tl	205	0.027	ug/L	18.134	342	0.001
	Pb	208	0.002	ug/L	109.351	354	0.000
	U	238	0.004	ug/L	24.056	251	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		99.3			
	Cr	52					
	Cr	53					
>	Ge	74		98.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.3			
	Sb	121					
	Sb	123					
>	Lu	175		98.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, May 07, 2010 13:49:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 3.158

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		559055	559055.134
	Cr	52	**11.630**	ug/L	1.300	27623	0.047
	Cr	53		ug/L		60797	0.005
>	Ge	74		ug/L		189319	189319.327
	As	75	**5.728**	ug/L	2.589	3623	0.017
	Se	77		ug/L		5096	0.002
	Se	82	**6.478**	ug/L	11.760	206	0.001
	Kr	83		ug/L		130	-0.000
	Mo	98	**0.551**	ug/L	3.964	877	0.008
	Ag	107	**1.003**	ug/L	1.774	2359	0.021
	Cd	111	**1.146**	ug/L	4.357	658	0.006
	Cd	114		ug/L		1527	0.014
>	In	115		ug/L		107258	107257.572
	Sb	121	**3.154**	ug/L	3.007	7693	0.071
	Sb	123		ug/L		5880	0.054
>	Lu	175		ug/L		160090	160089.816
	Tl	205	**1.121**	ug/L	3.100	5979	0.036
	Pb	208	**2.315**	ug/L	1.062	19458	0.119
	U	238	**0.319**	ug/L	1.155	2950	0.017

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		97.7			
	Cr	52	116.299				
	Cr	53					
>	Ge	74		96.6			
	As	75	114.552				
	Se	77					
	Se	82	129.556				
	Kr	83					
	Mo	98	110.284				
	Ag	107	100.319				
	Cd	111	114.641				
	Cd	114					
>	In	115		98.3			
	Sb	121	157.693				
	Sb	123					
>	Lu	175		98.7			
	Tl	205	112.131				
	Pb	208	115.739				
	U	238	159.748				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Sb	121	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, May 07, 2010 13:55:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 4.159

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		502435	502435.343
	Cr	52	**2.755**	ug/L	2.576	6676	0.011
	Cr	53		ug/L		56914	0.009
>	Ge	74		ug/L		169909	169908.584
	As	75	**0.564**	ug/L	112.080	650	0.002
	Se	77		ug/L		6568	0.014
	Se	82	**-0.790**	ug/L	40.241	-67	-0.000
	Kr	83		ug/L		159	0.000
	Mo	98	**2314.451**	ug/L	1.306	2932193	31.511
	Ag	107	**0.102**	ug/L	9.336	268	0.002
	Cd	111	**0.429**	ug/L	29.411	227	0.002
	Cd	114		ug/L		2500	0.026
>	In	115		ug/L		93052	93051.813
	Sb	121	**0.051**	ug/L	24.670	184	0.001
	Sb	123		ug/L		167	0.001
>	Lu	175		ug/L		147090	147089.772
	Tl	205	**0.004**	ug/L	79.229	203	0.000
	Pb	208	**0.248**	ug/L	5.775	2194	0.013
	U	238	**-0.018**	ug/L	5.876	62	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		87.8			
	Cr	52	74.446				
	Cr	53					
>	Ge	74		86.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98	115.723				
	Ag	107					
	Cd	111	107.333				
	Cd	114					
>	In	115		85.3			
	Sb	121	50.942				
	Sb	123					
>	Lu	175		90.7			
	Tl	205					
	Pb	208	124.151				
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, May 07, 2010 14:02:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 5.160

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		496221	496220.665
	Cr	52	**24.433**	**ug/L**	1.511	50379	0.099
	Cr	53		**ug/L**		59995	0.017
>	Ge	74		**ug/L**		168814	168814.053
	As	75	**21.733**	**ug/L**	3.572	11249	0.064
	Se	77		**ug/L**		6823	0.016
	Se	82	**22.217**	**ug/L**	3.022	724	0.005
	Kr	83		**ug/L**		153	0.000
	Mo	98	**2275.151**	**ug/L**	1.530	2890579	30.976
	Ag	107	**21.173**	**ug/L**	1.640	41979	0.449
	Cd	111	**22.048**	**ug/L**	1.645	10632	0.114
	Cd	114		**ug/L**		26646	0.285
>	In	115		**ug/L**		93324	93323.573
	Sb	121	**21.769**	**ug/L**	2.181	45757	0.490
	Sb	123		**ug/L**		35769	0.382
>	Lu	175		**ug/L**		146568	146568.326
	Tl	205	**20.549**	**ug/L**	1.422	97137	0.662
	Pb	208	**21.510**	**ug/L**	1.262	162970	1.110
	U	238	**23.313**	**ug/L**	0.786	182631	1.245

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		86.7			
	Cr	52	103.094				
	Cr	53					
>	Ge	74		86.1			
	As	75	108.663				
	Se	77					
	Se	82	111.086				
	Kr	83					
	Mo	98	113.758				
	Ag	107	105.867				
	Cd	111	108.079				
	Cd	114					
>	In	115		85.5			
	Sb	121	108.302				
	Sb	123					
>	Lu	175		90.4			
	Tl	205	102.743				
	Pb	208	106.486				
	U	238	116.565				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, May 07, 2010 14:08:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 6.161

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		553009	553008.867
	Cr	52	**52.284**	**ug/L**	1.670	118838	0.213
	Cr	53		**ug/L**		73140	0.028
>	Ge	74		**ug/L**		187750	187750.341
	As	75	**53.005**	**ug/L**	0.310	29929	0.157
	Se	77		**ug/L**		6867	0.012
	Se	82	**52.842**	**ug/L**	5.143	1977	0.011
	Kr	83		**ug/L**		121	-0.000
	Mo	98	**52.292**	**ug/L**	0.105	75529	0.712
	Ag	107	**52.998**	**ug/L**	2.386	119228	1.124
	Cd	111	**51.841**	**ug/L**	2.373	28358	0.267
	Cd	114		**ug/L**		66494	0.627
>	In	115		**ug/L**		105987	105987.140
	Sb	121	**51.945**	**ug/L**	1.586	123890	1.168
	Sb	123		**ug/L**		96338	0.908
>	Lu	175		**ug/L**		160862	160862.447
	Tl	205	**52.871**	**ug/L**	1.057	273990	1.702
	Pb	208	**53.585**	**ug/L**	1.642	445040	2.765
	U	238	**55.735**	**ug/L**	0.908	478974	2.976

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		96.7			
	Cr	52	104.569				
	Cr	53					
>	Ge	74		95.8			
	As	75	106.010				
	Se	77					
	Se	82	105.683				
	Kr	83					
	Mo	98	104.583				
	Ag	107	105.997				
	Cd	111	103.681				
	Cd	114					
>	In	115		97.1			
	Sb	121	103.889				
	Sb	123					
>	Lu	175		99.2			
	Tl	205	105.743				
	Pb	208	107.169				
	U	238	111.471				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, May 07, 2010 14:15:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 7.162

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		561026	561026.045
	Cr	52	-0.120	ug/L	22.510	889	-0.000
	Cr	53		ug/L		60339	0.004
>	Ge	74		ug/L		188927	188927.053
	As	75	-0.603	ug/L	38.395	66	-0.002
	Se	77		ug/L		5367	0.004
	Se	82	0.390	ug/L	142.020	-29	0.000
	Kr	83		ug/L		123	-0.000
	Mo	98	0.045	ug/L	17.585	135	0.001
	Ag	107	0.003	ug/L	203.825	82	0.000
	Cd	111	-0.015	ug/L	85.305	15	-0.000
	Cd	114		ug/L		56	0.000
>	In	115		ug/L		105173	105173.268
	Sb	121	0.031	ug/L	11.866	160	0.001
	Sb	123		ug/L		168	0.001
>	Lu	175		ug/L		159021	159020.773
	Tl	205	0.029	ug/L	10.716	346	0.001
	Pb	208	0.005	ug/L	78.222	374	0.000
	U	238	0.000	ug/L	7042.257	217	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		98.1			
	Cr	52					
	Cr	53					
>	Ge	74		96.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.4			
	Sb	121					
	Sb	123					
>	Lu	175		98.0			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Friday, May 07, 2010 14:21:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 10.163

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		532235	532235.287
	Cr	52	**1035.628**	**ug/L**	5.017	2240878	4.215
	Cr	53		**ug/L**		302160	0.465
>	Ge	74		**ug/L**		173890	173890.023
	As	75	**988.318**	**ug/L**	1.496	510266	2.933
	Se	77		**ug/L**		18834	0.084
	Se	82	**512.964**	**ug/L**	1.905	18129	0.105
	Kr	83		**ug/L**		232	0.001
	Mo	98	**1185.073**	**ug/L**	3.145	1482595	16.135
	Ag	107	**273.511**	**ug/L**	1.223	533385	5.802
	Cd	111	**1049.942**	**ug/L**	2.148	497640	5.415
	Cd	114		**ug/L**		1320840	14.372
>	In	115		**ug/L**		91918	91918.315
	Sb	121	**282.403**	**ug/L**	1.726	583741	6.351
	Sb	123		**ug/L**		455937	4.960
>	Lu	175		**ug/L**		156167	156166.586
	Tl	205	**554.199**	**ug/L**	1.348	2786563	17.843
	Pb	208	**5704.978**	**ug/L**	0.616	45975302	294.383
	U	238	**6182.206**	**ug/L**	1.122	51545034	330.081

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		93.0			
	Cr	52	103.563				
	Cr	53					
>	Ge	74		88.7			
	As	75	98.832				
	Se	77					
	Se	82	102.593				
	Kr	83					
	Mo	98	118.507				
	Ag	107	109.405				
	Cd	111	104.994				
	Cd	114					
>	In	115		84.2			
	Sb	121	112.961				
	Sb	123					
>	Lu	175		96.3			
	Tl	205	110.840				
	Pb	208	114.100				
	U	238	123.644				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Mo	98	LRS is out of limits (+/- 10%)
QC Std 10	Sb	121	LRS is out of limits (+/- 10%)
QC Std 10	Tl	205	LRS is out of limits (+/- 10%)
QC Std 10	Pb	208	LRS is out of limits (+/- 10%)
QC Std 10	U	238	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Friday, May 07, 2010 14:28:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 11.164

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		543611	543611.281
	Cr	52	**51.762**	ug/L	0.312	115663	0.211
	Cr	53		ug/L		69413	0.024
>	Ge	74		ug/L		184489	184488.886
	As	75	**53.309**	ug/L	2.618	29575	0.158
	Se	77		ug/L		6392	0.010
	Se	82	**51.837**	ug/L	0.642	1905	0.011
	Kr	83		ug/L		155	0.000
	Mo	98	**52.039**	ug/L	2.667	73992	0.709
	Ag	107	**53.152**	ug/L	2.462	117724	1.127
	Cd	111	**52.177**	ug/L	1.984	28101	0.269
	Cd	114		ug/L		65601	0.628
>	In	115		ug/L		104359	104358.800
	Sb	121	**52.582**	ug/L	2.530	123463	1.183
	Sb	123		ug/L		95054	0.910
>	Lu	175		ug/L		159511	159511.189
	Tl	205	**53.801**	ug/L	1.518	276487	1.732
	Pb	208	**54.328**	ug/L	1.269	447501	2.803
	U	238	**56.547**	ug/L	2.264	481778	3.019

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
>	Sc	45		95.0			
	Cr	52	103.523				
	Cr	53					
>	Ge	74		94.1			
	As	75	106.617				
	Se	77					
	Se	82	103.673				
	Kr	83					
	Mo	98	104.078				
	Ag	107	106.304				
	Cd	111	104.354				
	Cd	114					
>	In	115		95.6			
	Sb	121	105.165				
	Sb	123					
>	Lu	175		98.3			
	Tl	205	107.602				
	Pb	208	108.657				
	U	238	113.093				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Friday, May 07, 2010 14:35:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 12.165

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		551887	551887.273
	Cr	52	-0.069	ug/L	57.667	990	-0.000
	Cr	53		ug/L		57344	0.000
>	Ge	74		ug/L		187699	187698.848
	As	75	-0.064	ug/L	1372.644	368	-0.000
	Se	77		ug/L		4955	0.002
	Se	82	-0.005	ug/L	4829.249	-44	-0.000
	Kr	83		ug/L		136	0.000
	Mo	98	0.075	ug/L	8.661	178	0.001
	Ag	107	0.016	ug/L	18.487	110	0.000
	Cd	111	0.014	ug/L	193.777	31	0.000
	Cd	114		ug/L		59	0.000
>	In	115		ug/L		104961	104961.137
	Sb	121	0.078	ug/L	11.533	272	0.002
	Sb	123		ug/L		239	0.001
>	Lu	175		ug/L		159726	159726.093
	Tl	205	0.069	ug/L	11.325	556	0.002
	Pb	208	0.019	ug/L	2.048	493	0.001
	U	238	0.027	ug/L	11.951	448	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		96.5			
	Cr	52					
	Cr	53					
>	Ge	74		95.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.2			
	Sb	121					
	Sb	123					
>	Lu	175		98.5			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056952
Sample Date/Time: Friday, May 07, 2010 14:41:33
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\1202056952.166

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		572245	572245.332
	Cr	52	**2.283**	ug/L	2.934	6507	0.009
	Cr	53		ug/L		170020	0.193
>	Ge	74		ug/L		185298	185298.434
	As	75	**0.608**	ug/L	222.858	730	0.002
	Se	77		ug/L		18925	0.077
	Se	82	**-0.347**	ug/L	167.432	-57	-0.000
	Kr	83		ug/L		141	0.000
	Mo	98	**0.049**	ug/L	36.614	134	0.001
	Ag	107	**0.029**	ug/L	31.271	135	0.001
	Cd	111	**0.090**	ug/L	67.652	69	0.000
	Cd	114		ug/L		9	-0.000
>	In	115		ug/L		100543	100542.952
	Sb	121	**0.127**	ug/L	6.950	371	0.003
	Sb	123		ug/L		365	0.003
>	Lu	175		ug/L		151632	151632.073
	Tl	205	**0.017**	ug/L	17.948	275	0.001
	Pb	208	**-0.008**	ug/L	15.287	256	-0.000
	U	238	**-0.007**	ug/L	19.963	147	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		100.0			
	Cr	52					
	Cr	53					
>	Ge	74		94.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.1			
	Sb	121					
	Sb	123					
>	Lu	175		93.5			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056953
Sample Date/Time: Friday, May 07, 2010 14:48:03
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\1202056953.167

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		559567	559566.779
	Cr	52	58.611	ug/L	2.170	134641	0.239
	Cr	53		ug/L		188671	0.233
>	Ge	74		ug/L		180686	180685.983
	As	75	56.963	ug/L	2.367	30923	0.169
	Se	77		ug/L		20614	0.089
	Se	82	58.802	ug/L	0.940	2122	0.012
	Kr	83		ug/L		162	0.000
	Mo	98	58.130	ug/L	3.460	76472	0.791
	Ag	107	59.883	ug/L	1.638	122721	1.270
	Cd	111	57.983	ug/L	1.923	28896	0.299
	Cd	114		ug/L		66607	0.689
>	In	115		ug/L		96563	96563.251
	Sb	121	58.004	ug/L	2.253	126021	1.304
	Sb	123		ug/L		97184	1.006
>	Lu	175		ug/L		146691	146690.910
	Tl	205	55.291	ug/L	0.812	261292	1.780
	Pb	208	58.411	ug/L	1.438	442370	3.014
	U	238	61.559	ug/L	2.374	482226	3.287

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		97.8			
	Cr	52					
	Cr	53					
>	Ge	74		92.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		88.5			
	Sb	121					
	Sb	123					
>	Lu	175		90.4			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248023001
Sample Date/Time: Friday, May 07, 2010 14:54:34
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\248023001.168

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		600404	600403.639
	Cr	52	**4.999**	**ug/L**	5.007	13461	0.020
	Cr	53		**ug/L**		173906	0.186
>	Ge	74		**ug/L**		184528	184528.027
	As	75	**0.373**	**ug/L**	604.414	604	0.001
	Se	77		**ug/L**		19086	0.079
	Se	82	**-0.489**	**ug/L**	98.777	-61	-0.000
	Kr	83		**ug/L**		168	0.000
	Mo	98	**2.326**	**ug/L**	2.375	3250	0.032
	Ag	107	**0.017**	**ug/L**	23.250	107	0.000
	Cd	111	**0.044**	**ug/L**	47.283	45	0.000
	Cd	114		**ug/L**		50	0.000
>	In	115		**ug/L**		100527	100526.963
	Sb	121	**0.162**	**ug/L**	6.534	450	0.004
	Sb	123		**ug/L**		389	0.003
>	Lu	175		**ug/L**		150860	150859.762
	Tl	205	**0.133**	**ug/L**	14.909	837	0.004
	Pb	208	**0.012**	**ug/L**	17.131	415	0.001
	U	238	**0.328**	**ug/L**	3.149	2847	0.018

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
>	Sc	45		104.9			
	Cr	52					
	Cr	53					
>	Ge	74		94.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.1			
	Sb	121					
	Sb	123					
>	Lu	175		93.0			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056954
Sample Date/Time: Friday, May 07, 2010 15:01:05
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\1202056954.169

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		601162	601161.973
	Cr	52	5.168	ug/L	2.026	13892	0.021
	Cr	53		ug/L		174482	0.186
>	Ge	74		ug/L		185054	185054.097
	As	75	-0.329	ug/L	781.949	213	-0.001
	Se	77		ug/L		19612	0.081
	Se	82	-0.622	ug/L	39.112	-67	-0.000
	Kr	83		ug/L		166	0.000
	Mo	98	2.301	ug/L	3.338	3245	0.031
	Ag	107	0.004	ug/L	77.721	80	0.000
	Cd	111	0.034	ug/L	86.520	40	0.000
	Cd	114		ug/L		26	-0.000
>	In	115		ug/L		101451	101451.370
	Sb	121	0.131	ug/L	3.264	384	0.003
	Sb	123		ug/L		355	0.003
>	Lu	175		ug/L		151883	151882.761
	Tl	205	0.038	ug/L	9.747	379	0.001
	Pb	208	0.011	ug/L	29.547	409	0.001
	U	238	0.334	ug/L	1.082	2913	0.018

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		105.1			
	Cr	52					
	Cr	53					
>	Ge	74		94.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.0			
	Sb	121					
	Sb	123					
>	Lu	175		93.6			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056955
Sample Date/Time: Friday, May 07, 2010 15:07:36
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\1202056955.170

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		595641	595641.467
	Cr	52	**55.748**	**ug/L**	1.083	136384	0.227
	Cr	53		**ug/L**		187024	0.210
>	Ge	74		**ug/L**		182515	182514.613
	As	75	**86.413**	**ug/L**	2.482	47176	0.256
	Se	77		**ug/L**		19937	0.084
	Se	82	**20.122**	**ug/L**	1.418	705	0.004
	Kr	83		**ug/L**		195	0.000
	Mo	98	**57.337**	**ug/L**	1.021	75739	0.781
	Ag	107	**57.322**	**ug/L**	1.857	117937	1.216
	Cd	111	**11.825**	**ug/L**	4.338	5933	0.061
	Cd	114		**ug/L**		12827	0.132
>	In	115		**ug/L**		96937	96937.329
	Sb	121	**219.616**	**ug/L**	1.932	478818	4.939
	Sb	123		**ug/L**		373017	3.847
>	Lu	175		**ug/L**		150875	150874.698
	Tl	205	**103.500**	**ug/L**	2.975	502915	3.332
	Pb	208	**43.783**	**ug/L**	1.681	341185	2.259
	U	238	**58.489**	**ug/L**	0.372	471370	3.123

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		104.1			
	Cr	52					
	Cr	53					
>	Ge	74		93.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		88.8			
	Sb	121					
	Sb	123					
>	Lu	175		93.0			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056956
Sample Date/Time: Friday, May 07, 2010 15:14:07
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 959139|5|rmj
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\1202056956.171

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		553818	553817.773
	Cr	52	**1.215**	ug/L	8.028	3887	0.005
	Cr	53		ug/L		87378	0.054
>	Ge	74		ug/L		178605	178604.685
	As	75	**-0.668**	ug/L	72.400	28	-0.002
	Se	77		ug/L		8204	0.021
	Se	82	**-0.410**	ug/L	161.529	-57	-0.000
	Kr	83		ug/L		151	0.000
	Mo	98	**0.424**	ug/L	10.259	643	0.006
	Ag	107	**-0.008**	ug/L	75.511	55	-0.000
	Cd	111	**0.003**	ug/L	634.331	24	0.000
	Cd	114		ug/L		45	-0.000
>	In	115		ug/L		99822	99822.009
	Sb	121	**0.043**	ug/L	26.723	178	0.001
	Sb	123		ug/L		181	0.001
>	Lu	175		ug/L		147097	147097.082
	Tl	205	**0.197**	ug/L	12.682	1116	0.006
	Pb	208	**0.009**	ug/L	69.069	382	0.000
	U	238	**0.046**	ug/L	6.854	558	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
>	Sc	45		96.8			
	Cr	52					
	Cr	53					
>	Ge	74		91.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.5			
	Sb	121					
	Sb	123					
>	Lu	175		90.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248023002
Sample Date/Time: Friday, May 07, 2010 15:20:39
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\248023002.172

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		604977	604976.669
	Cr	52	**5.445**	ug/L	1.756	14662	0.022
	Cr	53		ug/L		166470	0.171
>	Ge	74		ug/L		184541	184541.321
	As	75	**1.952**	ug/L	92.899	1470	0.006
	Se	77		ug/L		18982	0.078
	Se	82	**-0.603**	ug/L	53.721	-66	-0.000
	Kr	83		ug/L		166	0.000
	Mo	98	**2.286**	ug/L	3.744	3201	0.031
	Ag	107	**-0.006**	ug/L	21.142	59	-0.000
	Cd	111	**-0.014**	ug/L	92.693	15	-0.000
	Cd	114		ug/L		37	-0.000
>	In	115		ug/L		100691	100691.095
	Sb	121	**0.106**	ug/L	10.443	323	0.002
	Sb	123		ug/L		346	0.003
>	Lu	175		ug/L		150348	150347.704
	Tl	205	**0.070**	ug/L	1.520	530	0.002
	Pb	208	**0.108**	ug/L	2.461	1155	0.006
	U	238	**0.350**	ug/L	2.071	3011	0.019

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		105.7			
	Cr	52					
	Cr	53					
>	Ge	74		94.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.3			
	Sb	121					
	Sb	123					
>	Lu	175		92.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, May 07, 2010 15:33:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 8.174

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		555412	555412.146
	Cr	52	52.353	ug/L	2.604	119489	0.213
	Cr	53		ug/L		77411	0.036
>	Ge	74		ug/L		183513	183513.186
	As	75	54.076	ug/L	0.822	29837	0.160
	Se	77		ug/L		6916	0.013
	Se	82	54.365	ug/L	2.337	1990	0.011
	Kr	83		ug/L		150	0.000
	Mo	98	52.101	ug/L	1.292	72717	0.709
	Ag	107	53.257	ug/L	1.319	115771	1.130
	Cd	111	53.291	ug/L	1.213	28170	0.275
	Cd	114		ug/L		66178	0.646
>	In	115		ug/L		102415	102414.628
	Sb	121	53.578	ug/L	1.855	123482	1.205
	Sb	123		ug/L		95055	0.927
>	Lu	175		ug/L		156161	156160.767
	Tl	205	52.911	ug/L	1.011	266212	1.703
	Pb	208	54.045	ug/L	1.152	435830	2.789
	U	238	57.230	ug/L	0.542	477380	3.056

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		97.1			
	Cr	52	104.706				
	Cr	53					
>	Ge	74		93.6			
	As	75	108.151				
	Se	77					
	Se	82	108.731				
	Kr	83					
	Mo	98	104.201				
	Ag	107	106.515				
	Cd	111	106.583				
	Cd	114					
>	In	115		93.9			
	Sb	121	107.155				
	Sb	123					
>	Lu	175		96.3			
	Tl	205	105.822				
	Pb	208	108.090				
	U	238	114.460				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, May 07, 2010 15:40:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 9.175

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		569385	569385.177
	Cr	52	0.099	ug/L	45.092	1410	0.000
	Cr	53		ug/L		59944	0.001
>	Ge	74		ug/L		186994	186994.101
	As	75	0.157	ug/L	336.828	489	0.000
	Se	77		ug/L		5123	0.003
	Se	82	-0.459	ug/L	29.447	-61	-0.000
	Kr	83		ug/L		139	0.000
	Mo	98	0.022	ug/L	25.642	102	0.000
	Ag	107	0.002	ug/L	187.438	79	0.000
	Cd	111	0.015	ug/L	171.371	31	0.000
	Cd	114		ug/L		49	-0.000
>	In	115		ug/L		104425	104425.453
	Sb	121	0.032	ug/L	2.738	161	0.001
	Sb	123		ug/L		165	0.001
>	Lu	175		ug/L		155593	155593.165
	Tl	205	0.047	ug/L	11.485	429	0.001
	Pb	208	0.008	ug/L	45.382	395	0.000
	U	238	0.009	ug/L	4.486	288	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		99.5			
	Cr	52					
	Cr	53					
>	Ge	74		95.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.7			
	Sb	121					
	Sb	123					
>	Lu	175		95.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Saturday, May 08, 2010 00:08:07
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100506\Sample.240
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2284.6	2284.583	48.965	2.1
	Mg	24.0	317292.5	317292.525	6701.235	2.1
	Co	58.9	27600.6	27600.647	584.552	2.1
	Rh	102.9	55924.1	55924.051	301.450	0.5
	In	114.9	65837.0	65836.970	636.520	1.0
	Pb	208.0	45715.8	45715.836	429.021	0.9
⌈>	Ba	137.9	78143.4	78143.376	1381.108	1.8
⌊	Ba++	69.0	827.6	0.011	0.000	2.6
⌈>	Ce	139.9	78074.6	78074.579	685.417	0.9
⌊	CeO	155.9	1034.2	0.013	0.000	2.3
	Bkgd	220.0	22.8	22.800	0.908	4.0

Current Optimization File Data

Current Value	Description
0.74	Nebulizer Gas Flow
9.00	Lens Voltage
1450.00	ICP RF Power
-2300.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	7.5	2694.3
Co	59	17	8.0	25560.5
In	115	17	9.5	60337.8

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	576	2080	0.650
Be	9.0	9.1	2045	2080	0.682
Mg	24.0	24.0	5684	2120	0.640
Mg	25.0	25.0	5911	2080	0.669
Mg	26.0	26.0	6174	2120	0.672
Co	58.9	58.9	14162	2170	0.634
Rh	102.9	102.9	24858	2230	0.690
In	114.9	115.0	27785	2260	0.675
Ce	139.9	139.9	33847	2280	0.746
Pb	206.0	206.0	49948	2424	0.758
Pb	207.0	207.0	50125	2385	0.678
Pb	208.0	208.0	50463	2430	0.704
U	238.1	238.1	57733	2470	0.700

Report Date/Time: Friday, May 07, 2010 23:53:54

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, May 08, 2010 04:49:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\Blank.068

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		157393	
⌊	U	238		ug/L		57	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, May 08, 2010 04:53:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\Standard 1.069

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		157806	157805.814
⌊	U	238	10.000	ug/L	0.391	98776	0.626

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, May 08, 2010 04:57:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\Standard 2.070

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		154438	154438.154
⌊	U	238	**99.989**	**ug/L**	1.267	955296	6.186

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175					
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, May 08, 2010 05:01:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 1.071

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		153121	153121.433
	U	238	54.557	ug/L	0.089	516915	3.375

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		97.3			
	U	238	109.114				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, May 08, 2010 05:05:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 2.072

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		153313	153312.824
	U	238	0.006	ug/L	18.999	108	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		97.4			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, May 08, 2010 05:09:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 3.073

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		153344	153344.162
⌊	U	238	0.259	ug/L	2.091	2516	0.016

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		97.4			
⌊	U	238	129.635				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, May 08, 2010 05:13:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 4.074

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		154429	154429.098
	U	238	0.001	ug/L	52.850	62	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		98.1			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, May 08, 2010 05:16:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 5.075

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		155101	155101.381
	U	238	**20.571**	**ug/L**	1.174	197444	1.273

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		98.5			
	U	238	102.855				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 08, 2010 05:20:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 6.076

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		161542	161542.188
	U	238	49.235	ug/L	0.407	492136	3.046

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		102.6			
	U	238	98.469				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 08, 2010 05:24:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 7.077

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		158134	158134.027
⌊	U	238	**0.004**	**ug/L**	28.355	92	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		100.5			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056952
Sample Date/Time: Saturday, May 08, 2010 05:28:38
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\1202056952.078

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		167499	167498.817
⌊	U	238	0.002	ug/L	27.714	81	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		106.4			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056953
Sample Date/Time: Saturday, May 08, 2010 05:34:01
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\1202056953.079

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		169708	169707.893
⌊	U	238	48.651	ug/L	1.270	510856	3.010

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		107.8			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248023001
Sample Date/Time: Saturday, May 08, 2010 05:37:54
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\248023001.080

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
[>	Lu	175		ug/L		171222	171222.397
[	U	238	0.290	ug/L	2.524	3136	0.018

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
[>	Lu	175		108.8			
[	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056954
Sample Date/Time: Saturday, May 08, 2010 05:41:48
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\1202056954.081

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		170575	170575.028
⌊	U	238	**0.295**	**ug/L**	1.010	3171	0.018

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		108.4			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056955
Sample Date/Time: Saturday, May 08, 2010 05:45:41
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\1202056955.082

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		170832	170832.393
	U	238	**48.025**	**ug/L**	0.306	507665	2.971

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		108.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056956
Sample Date/Time: Saturday, May 08, 2010 05:49:35
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 959139|5|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\1202056956.083

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		170435	170434.744
	U	238	0.060	ug/L	3.208	692	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		108.3			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248023002
Sample Date/Time: Saturday, May 08, 2010 05:53:30
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\248023002.084

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		171652	171652.316
	U	238	0.301	ug/L	1.441	3261	0.019

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		109.1			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 08, 2010 06:01:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 6.086

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		163778	163778.259
	U	238	49.497	ug/L	0.592	501586	3.062

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		104.1			
	U	238	98.993				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 08, 2010 06:05:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 7.087

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		165072	165072.241
⌊	U	238	**0.004**	**ug/L**	6.678	99	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
⌈>	Lu	175		104.9			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, May 08, 2010 13:03:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\Blank.189

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		555913	
⌊	Ni	60		ug/L		168	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45					
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, May 08, 2010 13:07:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\Standard 1.190

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		522746	522745.783
	Ni	60	10.000	ug/L	1.510	5472	0.010

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
>	Sc	45					
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, May 08, 2010 13:10:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\Standard 2.191

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		512836	512835.837
⌊	Ni	60	99.995	ug/L	1.821	52040	0.101

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45					
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, May 08, 2010 13:13:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 1.192

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		515781	515781.185
	Ni	60	52.422	ug/L	1.952	27512	0.053

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		92.8			
	Ni	60	104.844				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, May 08, 2010 13:17:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 2.193

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		574668	574667.797
⌊	Ni	60	-0.005	ug/L	800.107	170	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45		103.4			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, May 08, 2010 13:20:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 3.194

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		517050	517049.582
	Ni	60	2.217	ug/L	1.604	1316	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		93.0			
	Ni	60	110.850				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, May 08, 2010 13:24:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 4.195

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		491976	491976.228
	Ni	60	2.358	ug/L	4.592	1322	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		88.5			
	Ni	60	71.231				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, May 08, 2010 13:27:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 5.196

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		488644	488643.668
	Ni	60	**21.090**	**ug/L**	1.026	10576	0.021

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		87.9			
	Ni	60	92.907				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 08, 2010 13:30:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 6.197

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		504200	504200.361
	Ni	60	53.246	ug/L	0.247	27317	0.054

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		90.7			
	Ni	60	106.491				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 08, 2010 13:34:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 7.198

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		541910	541909.763
⌊	Ni	60	-0.030	ug/L	65.091	148	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45		97.5			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056952
Sample Date/Time: Saturday, May 08, 2010 13:37:41
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\1202056952.199

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		575327	575327.443
	Ni	60	-0.029	ug/L	63.160	157	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		103.5			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056953
Sample Date/Time: Saturday, May 08, 2010 13:41:34
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\1202056953.200

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		581647	581646.863
	Ni	60	48.558	ug/L	0.688	28755	0.049

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		104.6			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248023001
Sample Date/Time: Saturday, May 08, 2010 13:45:27
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\248023001.201

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		606573	606572.847
	Ni	60	**0.987**	**ug/L**	6.431	789	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		109.1			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056954
Sample Date/Time: Saturday, May 08, 2010 13:49:21
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\1202056954.202

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		618421	618420.514
	Ni	60	1.045	ug/L	2.091	841	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		111.2			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056955
Sample Date/Time: Saturday, May 08, 2010 13:53:14
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\1202056955.203

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		613833	613832.585
⌊	Ni	60	46.217	ug/L	0.597	28893	0.047

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		110.4			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056956
Sample Date/Time: Saturday, May 08, 2010 13:57:08
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 959139|5|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\1202056956.204

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		579292	579292.386
	Ni	60	0.133	ug/L	12.417	253	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		104.2			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248023002
Sample Date/Time: Saturday, May 08, 2010 14:01:03
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\248023002.205

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		596895	596894.797
⌊	Ni	60	**1.088**	**ug/L**	2.919	838	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		107.4			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 08, 2010 14:08:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 6.207

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		537568	537567.552
	Ni	60	50.821	ug/L	1.491	27809	0.051

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		96.7			
	Ni	60	101.642				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 08, 2010 14:12:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 7.208

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		587918	587917.530
	Ni	60	-0.057	ug/L	28.328	144	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		105.8			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\030210W1.SIF
Batch ID:
Results Data Set: 030210W3
Results Library: C:\data-AA\Administrator\Results\Results.mdb

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 3/2/2010 08:26:33**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0006	0.0027	0.0006	08:27:33	Yes
2		[0.00]	0.0006	0.0025	0.0006	08:28:08	Yes
Mean:		[0.00]	0.0006				
SD:		0.00	0.0000				
%RSD:		0.00	8.04				

Auto-zero performed.

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 3/2/2010 08:28:26**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0021	0.0131	0.0027	08:29:27	Yes
2		[0.2]	0.0021	0.0122	0.0028	08:30:02	Yes
Mean:		[0.2]	0.0021				
SD:		0.0	0.0000				
%RSD:		0.0	0.35				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01068 Intercept: 0.00000

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/2/2010 08:30:21**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0054	0.0299	0.0060	08:31:22	Yes
2		[0.5]	0.0055	0.0282	0.0061	08:31:57	Yes
Mean:		[0.5]	0.0055				
SD:		0.0	0.0001				
%RSD:		0.0	1.42				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999936 Slope: 0.01097 Intercept: -0.00002

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 3/2/2010 08:32:17**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	[2.0]	0.0209	0.1041	0.0215	08:33:18	Yes
2	[2.0]	0.0206	0.1004	0.0212	08:33:53	Yes
Mean:	[2.0]	0.0207				
SD:	0.0	0.0002				
%RSD:	0.0	0.90				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999896 Slope: 0.01034 Intercept: 0.00011

==========

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 3/2/2010 08:34:13**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0520	0.2558	0.0526	08:35:15	Yes
2		[5.0]	0.0500	0.2379	0.0506	08:35:49	Yes
Mean:		[5.0]	0.0510				
SD:		0.0	0.0014				
%RSD:		0.0	2.77				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999965 Slope: 0.01018 Intercept: 0.00020

==========

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 3/2/2010 08:36:10**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1058	0.5210	0.1064	08:37:10	Yes
2		[10.0]	0.1077	0.5459	0.1083	08:37:45	Yes
Mean:		[10.0]	0.1068				
SD:		0.0	0.0014				
%RSD:		0.0	1.27				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999746 Slope: 0.01062 Intercept: -0.00030

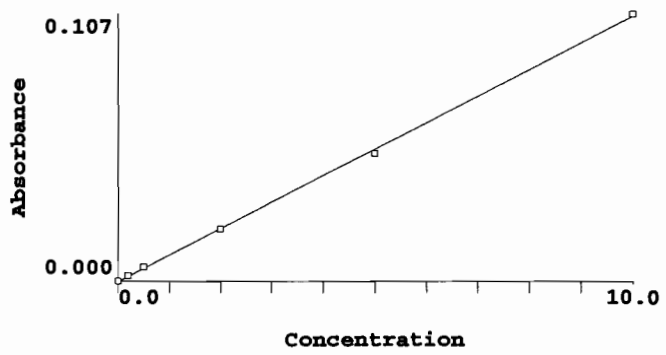

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	0.028	0.00	8.0
S0.2	0.0021	0.2	0.229	0.00	0.4
S0.5	0.0055	0.5	0.544	0.00	1.4
S2.0	0.0207	2.0	1.982	0.00	0.9
S5.0	0.0510	5.0	4.832	0.00	2.8
S10.0	0.1068	10.0	10.085	0.00	1.3

Correlation Coef.: 0.999746 Slope: 0.01062 Intercept: -0.00030

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 3/2/2010 08:38:04**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.221	5.221	0.0551	0.2819	0.0557	08:39:05	Yes
2	5.176	5.176	0.0547	0.2755	0.0553	08:39:40	Yes
Mean:	5.199	5.199	0.0549				
SD:	0.032	0.032	0.0003				
%RSD:	0.612	0.612	0.61				

QC value within limits for Hg 253.7 Recovery = 103.98%
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 3/2/2010 08:40:00**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.031	0.031	0.0000	0.0024	0.0006	08:41:01	Yes
2	0.039	0.039	0.0001	0.0036	0.0007	08:41:36	Yes
Mean:	0.035	0.035	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	15.89	15.89	82.13				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 3/2/2010 08:41:56**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.234	0.234	0.0022	0.0142	0.0028	08:42:57	Yes
2	0.245	0.245	0.0023	0.0156	0.0029	08:43:32	Yes
Mean:	0.240	0.240	0.0022				
SD:	0.008	0.008	0.0001				
%RSD:	3.187	3.187	3.61				

QC value within limits for Hg 253.7 Recovery = 119.76%
All analyte(s) passed QC.

==========

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 08:43:52**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.182	5.182	0.0547	0.2774	0.0553	08:44:52	Yes
2	5.128	5.128	0.0542	0.2734	0.0548	08:45:27	Yes
Mean:	5.155	5.155	0.0544				
SD:	0.038	0.038	0.0004				
%RSD:	0.738	0.738	0.74				

QC value within limits for Hg 253.7 Recovery = 103.11%
All analyte(s) passed QC.

==========

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 08:45:46**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	-0.0002	-0.0000	0.0004	08:46:47	Yes
2	0.012	0.012	-0.0002	-0.0001	0.0004	08:47:22	Yes
Mean:	0.012	0.012	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.848	0.848	0.63				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202055823|958575|1 **Date Collected: 3/2/2010 08:47:41**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055823|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	-0.0002	-0.0000	0.0004	08:48:43	Yes
2	0.016	0.016	-0.0001	0.0004	0.0005	08:49:17	Yes
Mean:	0.014	0.014	-0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	18.17	18.17	19.03				

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1202055824|958575|1 **Date Collected: 3/2/2010 08:49:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055824|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.127	2.127	0.0223	0.1129	0.0229	08:50:40	Yes
2	2.104	2.104	0.0220	0.1110	0.0227	08:51:14	Yes
Mean:	2.116	2.116	0.0222				
SD:	0.016	0.016	0.0002				
%RSD:	0.778	0.778	0.79				

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 247037001|958575|1 **Date Collected: 3/2/2010 08:51:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 247037001|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.028	0.028	-0.0000	0.0025	0.0006	08:52:35	Yes
2	0.045	0.045	0.0002	0.0048	0.0008	08:53:11	Yes
Mean:	0.037	0.037	0.0001				
SD:	0.012	0.012	0.0001				
%RSD:	34.19	34.19	145.41				

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 1202055825|958575|1 **Date Collected: 3/2/2010 08:53:30**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055825|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.019	0.019	-0.0001	0.0021	0.0005	08:54:30	Yes
2	0.028	0.028	-0.0000	0.0030	0.0006	08:55:05	Yes
Mean:	0.024	0.024	-0.0000				
SD:	0.006	0.006	0.0001				

1	0.032	0.032	0.0000	0.0035	0.0007	09:04:04	Yes
2	0.032	0.032	0.0000	0.0030	0.0007	09:04:39	Yes
Mean:	0.032	0.032	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	0.786	0.786	6.22				

==========

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 247042004|958575|1 **Date Collected: 3/2/2010 09:04:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 247042004|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.028	0.028	0.0000	0.0031	0.0006	09:05:59	Yes
2	0.030	0.030	0.0000	0.0036	0.0006	09:06:34	Yes
Mean:	0.029	0.029	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.826	4.826	93.90				

==========

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 09:06:54**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.128	5.128	0.0541	0.2768	0.0548	09:07:54	Yes
2	5.127	5.127	0.0541	0.2755	0.0547	09:08:29	Yes
Mean:	5.128	5.128	0.0541				
SD:	0.001	0.001	0.0000				
%RSD:	0.015	0.015	0.02				

QC value within limits for Hg 253.7 Recovery = 102.55%
All analyte(s) passed QC.

==========

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 09:08:48**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.032	0.032	0.0000	0.0035	0.0007	09:09:49	Yes
2	0.037	0.037	0.0001	0.0040	0.0007	09:10:24	Yes
Mean:	0.035	0.035	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	10.44	10.44	53.94				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 247042005|958575|1 **Date Collected: 3/2/2010 09:10:43**
Analyst: JXL **Data Type: Original**

Replicate Data: 247042005|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.029	0.029	0.0000	0.0033	0.0006	09:11:44	Yes
2	0.033	0.033	0.0001	0.0036	0.0007	09:12:19	Yes
Mean:	0.031	0.031	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	8.235	8.235	83.29				

==========

SD:	0.003	0.003	0.0000
%RSD:	9.252	9.252	154.88

==========

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 1202055830|958578|1 **Date Collected: 3/2/2010 09:22:19**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055830|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.029	0.029	0.0000	0.0034	0.0006	09:23:19	Yes
2	0.026	0.026	-0.0000	0.0025	0.0006	09:23:54	Yes
Mean:	0.027	0.027	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	7.825	7.825	359.08				

==========

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 1202055831|958578|1 **Date Collected: 3/2/2010 09:24:13**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055831|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.105	2.105	0.0221	0.1147	0.0227	09:25:14	Yes
2	2.105	2.105	0.0221	0.1146	0.0227	09:25:49	Yes
Mean:	2.105	2.105	0.0221				
SD:	0.000	0.000	0.0000				
%RSD:	0.010	0.010	0.01				

==========

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 1202055832|958278|5 **Date Collected: 3/2/2010 09:26:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055832|958278|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.026	0.026	-0.0000	0.0028	0.0006	09:27:08	Yes
2	0.025	0.025	-0.0000	0.0026	0.0006	09:27:43	Yes
Mean:	0.025	0.025	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	3.125	3.125	27.93				

==========

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 247036002|958578|1 **Date Collected: 3/2/2010 09:28:02**
Analyst: JXL **Data Type: Original**

Replicate Data: 247036002|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.023	0.023	-0.0001	0.0026	0.0006	09:29:03	Yes
2	0.029	0.029	0.0000	0.0031	0.0006	09:29:38	Yes
Mean:	0.026	0.026	-0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	16.58	16.58	246.20				

==========

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 09:29:57**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.092	5.092	0.0538	0.2718	0.0544	09:30:58	Yes
2	5.019	5.019	0.0530	0.2655	0.0536	09:31:32	Yes
Mean:	5.056	5.056	0.0534				
SD:	0.051	0.051	0.0005				
%RSD:	1.013	1.013	1.02				

QC value within limits for Hg 253.7 Recovery = 101.11%
All analyte(s) passed QC.

==========

Sequence No.: 35 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 09:31:51**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.048	0.048	0.0002	0.0039	0.0008	09:32:52	Yes
2	0.033	0.033	0.0001	0.0029	0.0007	09:33:27	Yes
Mean:	0.040	0.040	0.0001				
SD:	0.010	0.010	0.0001				
%RSD:	25.10	25.10	81.63				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 36 **Autosampler Location: 32**
Sample ID: 247036003|958578|1 **Date Collected: 3/2/2010 09:33:47**
Analyst: JXL **Data Type: Original**

Replicate Data: 247036003|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.026	0.026	-0.0000	0.0027	0.0006	09:34:48	Yes
2	0.029	0.029	0.0000	0.0030	0.0006	09:35:23	Yes
Mean:	0.028	0.028	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	8.511	8.511	602.34				

==========

Sequence No.: 37 **Autosampler Location: 33**
Sample ID: 247036004|958578|1 **Date Collected: 3/2/2010 09:35:42**
Analyst: JXL **Data Type: Original**

Replicate Data: 247036004|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.023	0.023	-0.0000	0.0024	0.0006	09:36:43	Yes
2	0.037	0.037	0.0001	0.0036	0.0007	09:37:18	Yes
Mean:	0.030	0.030	0.0000				
SD:	0.009	0.009	0.0001				
%RSD:	31.23	31.23	437.06				

==========

Sequence No.: 38 **Autosampler Location: 34**
Sample ID: 247036005|958578|1 **Date Collected: 3/2/2010 09:37:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 247036005|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.027	0.027	-0.0000	0.0029	0.0006	09:38:39	Yes
2	0.025	0.025	-0.0000	0.0028	0.0006	09:39:14	Yes
Mean:	0.026	0.026	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.570	4.570	52.14				

Mean:	0.029	0.029	0.0000
SD:	0.004	0.004	0.0000
%RSD:	15.71	15.71	746.11

==========

Sequence No.: 44 **Autosampler Location: 40**
Sample ID: 1202055833|958581|1 **Date Collected: 3/2/2010 09:49:16**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055833|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.021	0.021	-0.0001	0.0024	0.0005	09:50:17	Yes
2	0.029	0.029	0.0000	0.0030	0.0006	09:50:51	Yes
Mean:	0.025	0.025	-0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	21.51	21.51	171.71				

==========

Sequence No.: 45 **Autosampler Location: 41**
Sample ID: 1202055834|958581|1 **Date Collected: 3/2/2010 09:51:11**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055834|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.186	2.186	0.0229	0.1196	0.0235	09:52:12	Yes
2	2.183	2.183	0.0229	0.1194	0.0235	09:52:47	Yes
Mean:	2.184	2.184	0.0229				
SD:	0.003	0.003	0.0000				
%RSD:	0.123	0.123	0.12				

==========

Sequence No.: 46 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 09:53:06**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.016	5.016	0.0530	0.2735	0.0536	09:54:06	Yes
2	5.018	5.018	0.0530	0.2717	0.0536	09:54:41	Yes
Mean:	5.017	5.017	0.0530				
SD:	0.001	0.001	0.0000				
%RSD:	0.023	0.023	0.02				

QC value within limits for Hg 253.7 Recovery = 100.34%
All analyte(s) passed QC.

==========

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 09:55:00**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.035	0.035	0.0001	0.0033	0.0007	09:56:01	Yes
2	0.032	0.032	0.0000	0.0031	0.0007	09:56:36	Yes
Mean:	0.034	0.034	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	5.467	5.467	32.35				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 48 **Autosampler Location: 42**
Sample ID: 247817001|958581|1 **Date Collected: 3/2/2010 09:56:55**

Analyst: JXL Data Type: Original

Replicate Data: 247817001|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.038	0.038	0.0001	0.0034	0.0007	09:57:56	Yes
2	0.045	0.045	0.0002	0.0041	0.0008	09:58:31	Yes
Mean:	0.042	0.042	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	13.38	13.38	40.85				

Sequence No.: 49 Autosampler Location: 43
Sample ID: 1202055835|958581|1 Date Collected: 3/2/2010 09:58:50
Analyst: JXL Data Type: Original

Replicate Data: 1202055835|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.029	0.029	0.0000	0.0029	0.0006	09:59:51	Yes
2	0.033	0.033	0.0001	0.0033	0.0007	10:00:26	Yes
Mean:	0.031	0.031	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	9.334	9.334	96.53				

Sequence No.: 50 Autosampler Location: 44
Sample ID: 1202055836|958581|1 Date Collected: 3/2/2010 10:00:46
Analyst: JXL Data Type: Original

Replicate Data: 1202055836|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.161	2.161	0.0226	0.1194	0.0233	10:01:47	Yes
2	2.162	2.162	0.0227	0.1189	0.0233	10:02:21	Yes
Mean:	2.161	2.161	0.0227				
SD:	0.001	0.001	0.0000				
%RSD:	0.032	0.032	0.03				

Sequence No.: 51 Autosampler Location: 45
Sample ID: 1202055837|958581|5 Date Collected: 3/2/2010 10:02:41
Analyst: JXL Data Type: Original

Replicate Data: 1202055837|958581|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.033	0.033	0.0001	0.0033	0.0007	10:03:42	Yes
2	0.027	0.027	-0.0000	0.0028	0.0006	10:04:17	Yes
Mean:	0.030	0.030	0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	13.36	13.36	192.48				

Sequence No.: 52 Autosampler Location: 46
Sample ID: 247817002|958581|1 Date Collected: 3/2/2010 10:04:36
Analyst: JXL Data Type: Original

Replicate Data: 247817002|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.027	0.027	-0.0000	0.0029	0.0006	10:05:38	Yes
2	0.035	0.035	0.0001	0.0034	0.0007	10:06:13	Yes
Mean:	0.031	0.031	0.0000				
SD:	0.006	0.006	0.0001				
%RSD:	18.10	18.10	191.43				

Sequence No.: 53 Autosampler Location: 47
Sample ID: 247829001|958581|1 Date Collected: 3/2/2010 10:06:33
Analyst: JXL Data Type: Original

Replicate Data: 247829001|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.027	0.027	-0.0000	0.0027	0.0006	10:07:34	Yes
2	0.031	0.031	0.0000	0.0031	0.0006	10:08:09	Yes
Mean:	0.029	0.029	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	11.64	11.64	344.25				

Sequence No.: 54 Autosampler Location: 48
Sample ID: 247829002|958581|1 Date Collected: 3/2/2010 10:08:29
Analyst: JXL Data Type: Original

Replicate Data: 247829002|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.028	0.028	-0.0000	0.0029	0.0006	10:09:31	Yes
2	0.032	0.032	0.0000	0.0034	0.0007	10:10:05	Yes
Mean:	0.030	0.030	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	10.28	10.28	177.73				

Sequence No.: 55 Autosampler Location: 49
Sample ID: 247922004|958581|1 Date Collected: 3/2/2010 10:10:26
Analyst: JXL Data Type: Original

Replicate Data: 247922004|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.035	0.035	0.0001	0.0035	0.0007	10:11:27	Yes
2	0.037	0.037	0.0001	0.0034	0.0007	10:12:02	Yes
Mean:	0.036	0.036	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	4.563	4.563	20.73				

Sequence No.: 56 Autosampler Location: 50
Sample ID: 248023001|958581|1 Date Collected: 3/2/2010 10:12:23
Analyst: JXL Data Type: Original

Replicate Data: 248023001|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.031	0.031	0.0000	0.0033	0.0006	10:13:24	Yes
2	0.032	0.032	0.0000	0.0031	0.0007	10:13:59	Yes
Mean:	0.031	0.031	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	3.412	3.412	30.68				

Sequence No.: 57 Autosampler Location: 51
Sample ID: 248023002|958581|1 Date Collected: 3/2/2010 10:14:19
Analyst: JXL Data Type: Original

Replicate Data: 248023002|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.036	0.036	0.0001	0.0037	0.0007	10:15:20	Yes

2	0.038	0.038	0.0001	0.0037	0.0007	10:15:55	Yes
Mean:	0.037	0.037	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	4.045	4.045	16.44				

==========

Sequence No.: 58 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 10:16:14**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.001	5.001	0.0528	0.2739	0.0534	10:17:15	Yes
2	4.992	4.992	0.0527	0.2715	0.0533	10:17:50	Yes
Mean:	4.997	4.997	0.0528				
SD:	0.006	0.006	0.0001				
%RSD:	0.126	0.126	0.13				

QC value within limits for Hg 253.7 Recovery = 99.93%
All analyte(s) passed QC.

==========

Sequence No.: 59 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 10:18:09**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.031	0.031	0.0000	0.0030	0.0006	10:19:09	Yes
2	0.033	0.033	0.0001	0.0032	0.0007	10:19:45	Yes
Mean:	0.032	0.032	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	5.084	5.084	37.73				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 60 **Autosampler Location: 52**
Sample ID: 1202055843|958587|1 **Date Collected: 3/2/2010 10:20:04**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055843|958587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.028	0.028	-0.0000	0.0029	0.0006	10:21:05	Yes
2	0.032	0.032	0.0000	0.0035	0.0007	10:21:41	Yes
Mean:	0.030	0.030	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	11.19	11.19	167.05				

==========

Sequence No.: 61 **Autosampler Location: 53**
Sample ID: 1202055844|958587|1 **Date Collected: 3/2/2010 10:22:00**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055844|958587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.176	2.176	0.0228	0.1196	0.0234	10:23:01	Yes
2	2.169	2.169	0.0227	0.1186	0.0233	10:23:36	Yes
Mean:	2.173	2.173	0.0228				
SD:	0.005	0.005	0.0001				
%RSD:	0.228	0.228	0.23				

==========

Sequence No.: 62 **Autosampler Location: 54**

Miscellaneous

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **959136.0** Verified by: _____

Analyst: Barry Audain

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202056946	Metals Spike Mix I	U1100205-01	.25	mL
LCS	1202056946	Metals Spike Mix II	U1100205-06	.25	mL
MS	1202056948	Metals Spike Mix I	U1100205-01	.25	mL
MS	1202056948	Metals Spike Mix II	U1100205-06	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202056945 MB	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2
1202056946 LCS	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2
248023001	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2
248023002	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2
248044001	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2
1202056947 DUP (248044001)	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2
1202056948 MS (248044001)	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2
1202056949 SDILT (248044001)	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2
248044002	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2
248044003	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2
248044004	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2
248044005	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2
248044006	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1277916	HYDROCHLORIC ACID	2.5 mL
1277919	Nitric Acid CONC.	1 mL

Comments:

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **959138.0** Verified by: _____

Analyst: Barry Audain

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202056953	ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).	UI100205-A	.5	mL
LCS	1202056953	MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).	UI100205-B	.5	mL
MS	1202056955	ICP-MS DOE liquid Spike Solution A	UI090930-A	.5	mL
MS	1202056955	ICP-MS DOE Liquid Spike Solution B	UI090930-B	.5	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202056952 MB	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2
1202056953 LCS	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2
248023001	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2
1202056954 DUP (248023001)	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2
1202056955 MS (248023001)	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2
1202056956 SDILT (248023001)	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2
248023002	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2
248044001	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2
248044002	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2
248044003	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2
248044004	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2
248044005	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2
248044006	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1274969	Nitric Acid CONC.	1 mL
1277916	HYDROCHLORIC ACID	2.5 mL

Comments:

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **958580.0** Verified by: _____

Analyst: Tara Griffin

Method: EPA 245.1/245.2 Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: No analytical instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202055834	Mercury working intermediate standard for LCS/MS	WHG100301-13	.2	mL
MS	1202055836	Mercury working intermediate standard for LCS/MS	WHG100301-13	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202055833 MB	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
1202055834 LCS	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
247817001	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
1202055835 DUP (247817001)	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
1202055836 MS (247817001)	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
1202055837 SDILT (247817001)	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
247817002	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
247829001	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
247829002	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
247922004	01-MAR-2010 12:20:00	Water	20	20	1	<2
248023001	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
248023002	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2

Reagent/Solvent Lot ID	Description	Amount
1176183	Sulfuric Acid, Concentrated	1 mL
1255532-C	Hg reducing agent	1 mL
1274391-1	NITRIC ACID	.5 mL
1274397-C	5% KMnO4 solution	3 mL
1276435-C	5% Potassium Persulfate	1.5 mL
WHG100301-01a	Mercury Working 1st Source CAL 0.2/CRA	20 uL
WHG100301-02	Mercury Working 1st Source CAL 0.5	50 mL
WHG100301-03	Mercury Working 1st Source CAL 2.0	200 uL
WHG100301-04	Mercury Working 1st Source CAL 5.0/CCV	500 uL
WHG100301-05	Mercury Working 1st Source CAL 10.0	1 mL
WHG100301-06	Mercury Working 2nd Source 5.0/ICV	500 uL

Comments:

Digestion Start Date: 01-MAR-10 12:20

Digestion End Date: 01-MAR-10 14:20

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 22-APR-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Standard Logbook

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L

Analyte	Concentration	Analyte	Concentration
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL St **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Standard Logbook

Serial ID: UI090925-41 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX39-500B
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909130
Employee: Helen Camello **Solvent :** 5%HNO3,TR.HF
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID: UI090930-A **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE liquid Spike Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090930-B **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100205-01 **Opened:** 05-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Standard Logbook

Serial ID: UI100205-06 **Opened:** 05-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI100205-A **Opened:** 05-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 05-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI100205-B **Opened:** 05-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 05-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI100310-48 **Opened:** 19-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 12-MAR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 19-MAR-11 **Lot Number :** 1019141
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100310-49.11 **Opened:** 29-MAR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 12-MAR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 30-MAR-10 **Lot Number :** 1019142
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L

Analyte	Concentration	Analyte	Concentration
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100325-40 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100325-41 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Standard Logbook

Serial ID: UI100405-12 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 05-APR-10 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019466
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI100405-13 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 05-APR-10 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019467
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100415-11 **Opened:** 15-APR-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 15-APR-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 15-APR-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L

Analyte	Concentration	Analyte	Concentration
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UMS100415-01 **Opened:** 15-APR-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 15-APR-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-20JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100415-02 **Opened:** 15-APR-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 15-APR-10 **Lot Number :** 22-21JB
Type: Source Material **Expires:** 28-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100415-03 **Opened:** 15-APR-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 15-APR-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-22JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100301-01 **Opened:** 01-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 01-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 02-MAR-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100301-02 **Opened:** 01-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 02-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100301-01a **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG100301-02 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100301-03 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG100301-04 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100301-05 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG100301-06 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100301-13 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100329-42 **Opened:** 29-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 30-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100329-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100329-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100329-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100329-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100329-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100329-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100329-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100329-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100329-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100329-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100329-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100329-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100329-43 **Opened:** 29-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 30-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP O.5/CCV CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100329-44 **Opened:** 29-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 30-MAR-10 **Solvent :** 3%HCL and 1 %HNO3-1293083
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100329-45 **Opened:** 29-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 30-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100329-46 **Opened:** 29-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 30-MAR-10 **Solvent :** 3%HCL AND 1%HNO3-1293083
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100329-47 **Opened:** 29-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 30-MAR-10 **Solvent :** 3%HCL &1%HNO3-1293083
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100506-04AB **Opened:** 06-MAY-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 06-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 07-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100506-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100506-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100506-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100506-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100506-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100506-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100506-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100506-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100506-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100506-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100506-04B **Opened:** 06-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 06-MAY-10 **Balance Id :** 40245216
Type: Working **Expires:** 07-MAY-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1333263
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100506-06B **Opened:** 06-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 06-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 07-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100506-07B **Opened:** 06-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 06-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 07-MAY-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1333263
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100506-08B **Opened:** 06-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 06-MAY-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 07-MAY-10 **Solvent :** 2%HNO3/1%HCl- 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100507-04 **Opened:** 07-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 07-MAY-10 **Balance Id :** 4025216
Type: Working **Expires:** 08-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1333263
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100507-04AB **Opened:** 07-MAY-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 07-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 08-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100507-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100507-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100507-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100507-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100507-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100507-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100507-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100507-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100507-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100507-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100507-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100507-04B **Opened:** 07-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 07-MAY-10 **Balance Id :** 40245216
Type: Working **Expires:** 08-MAY-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1333263
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100507-06B **Opened:** 07-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 07-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 08-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100507-07B **Opened:** 07-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 07-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 08-MAY-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1333263
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS100507-08B **Opened:** 07-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 07-MAY-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 08-MAY-10 **Solvent :** 2%HNO3/1%HCl- 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-08
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Standard Logbook

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1274397-C **Opened:** 24-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 24-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1274969 **Opened:** 24-FEB-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 24-FEB-10
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1276435-C **Opened:** 28-FEB-10 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 28-FEB-10
Type: Reagent/Solvent **Expires:** 28-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1277916 **Opened:** 02-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 02-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 02-MAR-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID

Comments: None

Serial ID: 1277919 **Opened:** 02-MAR-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 02-MAR-10
Type: Reagent/Solvent **Expires:** 02-MAR-11
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1293083 **Opened:** 29-MAR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 29-MAR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 04-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1302252 **Opened:** 15-APR-10 **Lot Number :** J 10027 L
Name: I-HNO3 **Received:** 15-APR-10
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1302255 **Opened:** 15-APR-10 **Lot Number :** J07033
Name: I-HCL **Received:** 15-APR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1333263 **Opened:** 03-MAY-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 03-MAY-10
Type: Reagent/Solvent **Expires:** 10-MAY-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	8 l	N/A
1302255	I-HCL	36.5-38.0	80 mL	8 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2040

Method/Analysis Information

Product: **Specific Conductivity**

Analytical Batch: 960274 **Method:** EPA120.1 Specific Conductivity

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 120.1:

Sample ID	Client ID
248023001	CAPA-10-12916
1202059732	247817001(CAPA-10-13094) Sample Duplicate (DUP)
1202059733	247922004(WST29-10-13281) Sample Duplicate (DUP)
1202059735	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-009 REV# 9.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Conductivity analysis was performed on a Orion 160 Conductivity Meter.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 247817001 (CAPA-10-13094) and 247922004 (WST29-10-13281).

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **pH**

Analytical Batch: 959606 **Method:** EPA 150.1 pH

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 150.1:

Sample ID	Client ID
248023001	CAPA-10-12916
1202058097	248019001(WST05-10-12492) Sample Duplicate (DUP)
1202058098	248024002(CAPA-10-12872) Sample Duplicate (DUP)
1202058099	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-008 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Electrode analysis was performed on a PerpHect pH Meter Orion 370.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 248019001 (WST05-10-12492) and 248024002 (CAPA-10-12872).

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
The following sample from this sample group was received by the lab outside of the method specified holding time: 248023001 (CAPA-10-12916).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	958168	**Method:**	EPA 335.4 Cyanide and Total
Prep Batch :	958167	**Method:**	EEPA 335.4

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 335.4:

Sample ID	Client ID
248023002	CAPA-10-12917
1202054789	Method Blank (MB)
1202054790	248010001(RE46-10-13185) Sample Duplicate (DUP)
1202054791	248044002(CAPA-10-12771) Sample Duplicate (DUP)
1202054792	248010001(RE46-10-13185) Matrix Spike (MS)
1202054793	248044002(CAPA-10-12771) Matrix Spike (MS)
1202054794	248010001(RE46-10-13185) Matrix Spike Duplicate (MSD)
1202054795	248044002(CAPA-10-12771) Matrix Spike Duplicate (MSD)
1202054796	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 248010001 (RE46-10-13185) and 248044002 (CAPA-10-12771).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Ion Chromatography**

Analytical Batch: 966823 **Method:** EPA 300.0 Anions Liquid 28 day

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
248023001	CAPA-10-12916
1202074932	Method Blank (MB)
1202074933	248023001(CAPA-10-12916) Sample Duplicate (DUP)
1202074934	248023001(CAPA-10-12916) Post Spike (PS)
1202074935	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-086 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Ion Chromatography analysis was performed on a Dionex ICS-3000 Ion Chromatograph.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 248023001 (CAPA-10-12916).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the GEL acceptance limits for Fluoride, but within the client specified limits of 75%-125% due to matrix interference. Of the remaining anions in the PS, all meet required acceptance limits. The deviation is noted in the Case Narrative and DER, and the data has been reported. 1202074934 (CAPA-10-12916).

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 808270 1202074934 (CAPA-10-12916).

Manual Integrations
The following samples from this sample group had to be manually integrated due to errors in the instrument software peak integration: 1202074933 (CAPA-10-12916), 1202074934 (CAPA-10-12916) and 248023001 (CAPA-10-12916).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Ammonia Nitrogen**		
Analytical Batch:	958142	**Method:**	EPA 350.1 Nitrogen and Ammonia L
Prep Batch :	958141	**Method:**	EEPA 350.2 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 350.1:

Sample ID	Client ID
248023001	CAPA-10-12916
1202054694	Method Blank (MB)
1202054695	248074001(SWWS46-10-13636) Sample Duplicate (DUP)
1202054697	248074001(SWWS46-10-13636) Matrix Spike (MS)
1202054699	248074001(SWWS46-10-13636) Matrix Spike Duplicate (MSD)
1202054701	Laboratory Control Sample (LCS)
1202054719	248023001(CAPA-10-12916) Sample Duplicate (DUP)
1202054720	248019001(WST05-10-12492) Sample Duplicate (DUP)
1202054721	248023001(CAPA-10-12916) Matrix Spike (MS)
1202054722	248019001(WST05-10-12492) Matrix Spike (MS)
1202054723	248023001(CAPA-10-12916) Matrix Spike Duplicate (MSD)
1202054724	248019001(WST05-10-12492) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-106 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 248019001 (WST05-10-12492), 248023001 (CAPA-10-12916) and 248074001 (SWWS46-10-13636).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the established acceptance limits due to matrix interference: 1202054697 (SWWS46-10-13636). The spike recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202054721 (CAPA-10-12916) and 1202054722 (WST05-10-12492).

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the established acceptance limits due to matrix interference: 1202054699 (SWWS46-10-13636). The spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202054723 (CAPA-10-12916) and 1202054724 (WST05-10-12492).

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
One or more of the values for the sample and/or duplicate are less than 5 times the Practical Quantitation Limit (PQL), and the difference is within one PQL value; therefore, the RPD is not applicable. 1202054695 (SWWS46-10-13636). The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202054719 (CAPA-10-12916) and 1202054720 (WST05-10-12492).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following samples were re-analyzed due to instrument failure: 1202054699 (SWWS46-10-13636) and 1202054723 (CAPA-10-12916).

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 797320 1202054697 (SWWS46-10-13636), 1202054699 (SWWS46-10-13636), 1202054721 (CAPA-10-12916), 1202054722 (WST05-10-12492), 1202054723 (CAPA-10-12916) and 1202054724 (WST05-10-12492).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Nitrate Nitrite by Cadmium Reduction**		
Analytical Batch:	958150	**Method:**	EPA 353.2 Nitrogen and Nitrate/Nitrite

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 353.2:

Sample ID	Client ID
248023001	CAPA-10-12916
1202054725	Method Blank (MB)
1202054726	247793001(RE15-10-8330) Sample Duplicate (DUP)
1202054727	248044001(CAPA-10-12770) Sample Duplicate (DUP)
1202054728	248074001(SWWS46-10-13636) Sample Duplicate (DUP)
1202054729	247793001(RE15-10-8330) Post Spike (PS)
1202054730	248044001(CAPA-10-12770) Post Spike (PS)
1202054731	248074001(SWWS46-10-13636) Post Spike (PS)
1202054732	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-128 REV# 5.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8500 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 247793001 (RE15-10-8330), 248044001 (CAPA-10-12770) and 248074001 (SWWS46-10-13636).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202054726 (RE15-10-8330).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1202054728 (SWWS46-10-13636) and 1202054731 (SWWS46-10-13636). The following samples in this sample group were diluted due to matrix interference: 1202054726 (RE15-10-8330), 1202054727 (CAPA-10-12770), 1202054729 (RE15-10-8330), 1202054730 (CAPA-10-12770) and 248023001 (CAPA-10-12916).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Total Phosphorus**		
Analytical Batch:	958139	**Method:**	EPA 365.4 Phosphorus and Total in
Prep Batch :	958136	**Method:**	EEPA 365.4 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 365.4:

Sample ID	Client ID
248023001	CAPA-10-12916
1202054686	Method Blank (MB)
1202054687	247817001(CAPA-10-13094) Sample Duplicate (DUP)
1202054689	247817001(CAPA-10-13094) Matrix Spike (MS)
1202054691	247817001(CAPA-10-13094) Matrix Spike Duplicate (MSD)
1202054693	Laboratory Control Sample (LCS)
1202054716	248019001(WST05-10-12492) Sample Duplicate (DUP)
1202054717	248019001(WST05-10-12492) Matrix Spike (MS)
1202054718	248019001(WST05-10-12492) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-103 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 247817001 (CAPA-10-13094) and 248019001 (WST05-10-12492).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following samples were re-analyzed due to CCB failure: 1202054717 (WST05-10-12492), 1202054718 (WST05-10-12492) and 248023001 (CAPA-10-12916).

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment

This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Solids, Total Dissolved**

Analytical Batch: 959189 **Method:** EPA 160.1 Solids and Dissolved-F

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 160.1:

Sample ID	Client ID
248023001	CAPA-10-12916
1202057049	Method Blank (MB)
1202057050	248023001(CAPA-10-12916) Sample Duplicate (DUP)
1202057051	248019001(WST05-10-12492) Sample Duplicate (DUP)
1202057052	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-001 REV# 10.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Solids analysis was performed on a Sartorius Balance BAL216. Solids lab

Initial Calibration

All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 248019001 (WST05-10-12492) and 248023001 (CAPA-10-12916).

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Sample Aliquot
A sufficient amount of sample was provided by the client for analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Alkalinity**

Analytical Batch: 959999 **Method:** EPA 310.1 Total Alkalinity

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 310.1:

Sample ID	Client ID
248023001	CAPA-10-12916
1202059079	Method Blank (MB)
1202059080	Laboratory Control Sample (LCS)
1202059082	248023001(CAPA-10-12916) Sample Duplicate (DUP)
1202059083	248127001(WSTPU-10-13394) Sample Duplicate (DUP)
1202059085	248023001(CAPA-10-12916) Matrix Spike (MS)
1202059086	248127001(WSTPU-10-13394) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-033 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Titration analysis was performed on a manually operated buret.

Initial Standardization

The titrant was properly standardized

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 248023001 (CAPA-10-12916) and 248127001 (WSTPU-10-13394).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Nik-Cole A Elmore **Date:** 3.25.10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2040 GEL Work Order: 248023

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____ 3-25-10

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2040

Client Sample ID: CAPA-10-12916
Sample ID: 248023001
Matrix: Ground Water
Collect Date: 23-FEB-10 12:00
Receive Date: 25-FEB-10
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Conductivity Analysis										
EPA120.1 Specific Conductivity "As Received"										
Conductivity		123	1.00	1.00	umhos/cm	1	TXT1 03/03/10	1627	960274	1
Electrode Analysis										
EPA 150.1 pH "As Received"										
pH at Temp 15.3C	H	7.91	0.010	0.100	SU	1	LXA1 03/01/10	1841	959606	2
Ion Chromatography										
EPA 300.0 Anions Liquid 28 day "As Received"										
Bromide	U	ND	0.066	0.200	mg/L	1	VH1 03/21/10	0159	966823	3
Chloride		1.75	0.066	0.200	mg/L	1				
Fluoride		0.233	0.033	0.100	mg/L	1				
Sulfate		2.47	0.100	0.400	mg/L	1				
Nutrient Analysis										
EPA 350.1 Nitrogen, Ammonia L "As Received"										
Nitrogen, Ammonia	U	ND	0.016	0.050	mg/L	1	AXH3 03/01/10	1349	958142	4
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"										
Nitrogen, Nitrate/Nitrite		0.422	0.050	0.250	mg/L	5	AXH3 03/03/10	1059	958150	5
EPA 365.4 Phosphorus, Total in "As Received"										
Phosphorus, Total as P		0.067	0.015	0.050	mg/L	1	AXH3 03/05/10	0946	958139	6
Solids Analysis										
EPA 160.1 Solids, Dissolved-F "As Received"										
Total Dissolved Solids		134	2.38	10.0	mg/L		SDS 03/01/10	1356	959189	7
Titration Analysis										
EPA 310.1 Total Alkalinity "As Received"										
Alkalinity, Total as CaCO3		53.8	0.725	1.00	mg/L		LXA1 03/02/10	1615	959999	8
Carbonate alkalinity (CaCO3)	U	ND	0.725	1.00	mg/L					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	SXJ1	03/01/10	0930	958141
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	SXJ1	03/02/10	1030	958136

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 120.1	

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2040

Client Sample ID: CAPA-10-12916
Sample ID: 248023001

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
2	EPA 150.1									
3	EPA 300.0									
4	EPA 350.1									
5	EPA 353.2									
6	EPA 365.4									
7	EPA 160.1									
8	EPA 310.1									

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2040

Client Sample ID:	CAPA-10-12917	Project:	ESHL01000
Sample ID:	248023002	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	23-FEB-10 12:00		
Receive Date:	25-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
EPA 335.4 Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/08/10	1046	958168	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	03/05/10	1535	958167

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: March 24, 2010

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 248023

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Conductivity Analysis											
Batch 960274											
QC1202059732 247817001 DUP											
Conductivity			122		122	umhos/cm	0.164		(0%-10%)	TXT1	03/03/10 16:25
QC1202059733 247922004 DUP											
Conductivity			281		282	umhos/cm	0.355		(0%-10%)		03/03/10 16:27
QC1202059735 LCS											
Conductivity	1410				1380	umhos/cm		97.4	(95%-105%)		03/03/10 16:24
Electrode Analysis											
Batch 959606											
QC1202058097 248019001 DUP											
pH		H	8.43	H	8.46	SU	0.355		(0%-10%)	LXA1	03/01/10 18:40
QC1202058098 248024002 DUP											
pH		H	7.07	H	7.10	SU	0.423		(0%-10%)		03/01/10 18:45
QC1202058099 LCS											
pH	7.00				6.99	SU		99.9	(95%-105%)		03/01/10 18:38
Flow Injection Analysis											
Batch 958168											
QC1202054790 248010001 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A			AXC2	03/08/10 10:41
QC1202054791 248044002 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A				03/08/10 10:53
QC1202054796 LCS											
Cyanide, Total	50.0				50.4	ug/L		101	(90%-110%)		03/08/10 10:39
QC1202054789 MB											
Cyanide, Total				U	ND	ug/L					03/08/10 10:38
QC1202054792 248010001 MS											
Cyanide, Total	100	U	ND		114	ug/L		114	(60%-144%)		03/08/10 10:41
QC1202054793 248044002 MS											
Cyanide, Total	100	U	ND		113	ug/L		113	(60%-144%)		03/08/10 10:54
QC1202054794 248010001 MSD											
Cyanide, Total	100	U	ND		111	ug/L	2.67	111	(0%-20%)		03/08/10 10:42
QC1202054795 248044002 MSD											
Cyanide, Total	100	U	ND		94.5	ug/L	17.8	94.5	(0%-20%)		03/08/10 10:55
Ion Chromatography											
Batch 966823											
QC1202074933 248023001 DUP											
Bromide		U	ND	U	ND	mg/L	N/A			VH1	03/21/10 02:25
Chloride			1.75		1.74	mg/L	0.441		(0%-20%)		
Fluoride			0.233		0.214	mg/L	8.59 ^		(+/-0.100)		
Sulfate			2.47		2.48	mg/L	0.529		(0%-20%)		
QC1202074935 LCS											
Bromide	2.50				2.53	mg/L		101	(90%-110%)		03/21/10 01:33

QC Summary

Workorder: 248023

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Ion Chromatography											
Batch 966823											
Chloride	10.0				9.08	mg/L		90.8	(90%-110%)		
Fluoride	5.00				4.68	mg/L		93.6	(90%-110%)	VH1	03/21/10 01:33
Sulfate	20.0				18.8	mg/L		93.9	(90%-110%)		
QC1202074932 MB											
Bromide				U	ND	mg/L					03/21/10 01:07
Chloride				U	ND	mg/L					
Fluoride				U	ND	mg/L					
Sulfate				U	ND	mg/L					
QC1202074934 248023001 PS											
Bromide	2.50	U	ND		2.51	mg/L		100	(90%-110%)		03/21/10 02:51
Chloride	10.0		1.75		10.8	mg/L		90.5	(90%-110%)		
Fluoride	5.00		0.233		4.69	mg/L		89.2*	(90%-110%)		
Sulfate	20.0		2.47		20.8	mg/L		91.6	(90%-110%)		
Nutrient Analysis											
Batch 958139											
QC1202054687 247817001 DUP											
Phosphorus, Total as P			0.060		0.050	mg/L	18.2 ^		(+/-0.050)	AXH3	03/05/10 08:57
QC1202054716 248019001 DUP											
Phosphorus, Total as P			0.102		0.096	mg/L	6.06 ^		(+/-0.050)		03/05/10 09:02
QC1202054693 LCS											
Phosphorus, Total as P	1.00				1.09	mg/L		109	(86%-120%)		03/05/10 08:55
QC1202054686 MB											
Phosphorus, Total as P				J	0.027	mg/L					03/05/10 08:54
QC1202054689 247817001 MS											
Phosphorus, Total as P	1.00		0.060		1.07	mg/L		107	(42%-150%)		03/05/10 08:58
QC1202054717 248019001 MS											
Phosphorus, Total as P	1.00		0.102		1.14	mg/L		104	(42%-150%)		03/05/10 09:44
QC1202054691 247817001 MSD											
Phosphorus, Total as P	1.00		0.060		1.05	mg/L	1.88	105	(0%-26%)		03/05/10 08:58
QC1202054718 248019001 MSD											
Phosphorus, Total as P	1.00		0.102		1.15	mg/L	1.48	105	(0%-26%)		03/05/10 09:44
Batch 958142											
QC1202054695 248074001 DUP											
Nitrogen, Ammonia			0.077		0.055	mg/L	33.3 ^		(+/-0.050)	AXH3	03/01/10 13:53
QC1202054719 248023001 DUP											
Nitrogen, Ammonia		U	ND	U	ND	mg/L	N/A				03/01/10 13:50
QC1202054720 248019001 DUP											
Nitrogen, Ammonia		J	0.039	J	0.028	mg/L	32.8 ^		(+/-0.050)		03/01/10 13:43
QC1202054701 LCS											
Nitrogen, Ammonia	1.00				1.01	mg/L		101	(90%-110%)		03/01/10 13:41
QC1202054694 MB											
Nitrogen, Ammonia				J	0.017	mg/L					03/01/10 13:41
QC1202054697 248074001 MS											
Nitrogen, Ammonia	1.00		0.077		0.784	mg/L		70.7*	(90%-110%)		03/01/10 13:54
QC1202054721 248023001 MS											
Nitrogen, Ammonia	1.00	U	ND		0.798	mg/L		78.3*	(90%-110%)		03/01/10 13:51
QC1202054722 248019001 MS											

QC Summary

Workorder: 248023

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Nutrient Analysis											
Batch 958142											
Nitrogen, Ammonia	1.00	J	0.039		0.820	mg/L		78.1 *	(90%-110%)		03/01/10 13:44
QC1202054699 248074001 MSD											
Nitrogen, Ammonia	1.00		0.077		0.783	mg/L	0.128	70.6 *	(0%-15%)	AXH3	03/01/10 14:04
QC1202054723 248023001 MSD											
Nitrogen, Ammonia	1.00	U	ND		0.802	mg/L	0.500	78.7 *	(0%-15%)		03/01/10 14:03
QC1202054724 248019001 MSD											
Nitrogen, Ammonia	1.00	J	0.039		0.828	mg/L	0.971	78.9 *	(0%-15%)		03/01/10 13:48
Batch 958150											
QC1202054726 247793001 DUP											
Nitrogen, Nitrate/Nitrite		U	ND	J	0.111	mg/L	200		(+/-0.500)	AXH3	03/03/10 11:38
QC1202054727 248044001 DUP											
Nitrogen, Nitrate/Nitrite			0.446		0.428	mg/L	4.12 ^		(+/-0.250)		03/03/10 11:11
QC1202054728 248074001 DUP											
Nitrogen, Nitrate/Nitrite			1.97		1.94	mg/L	1.28		(0%-20%)		03/03/10 11:28
QC1202054732 LCS											
Nitrogen, Nitrate/Nitrite	1.00				0.986	mg/L		98.6	(90%-110%)		03/03/10 10:50
QC1202054725 MB											
Nitrogen, Nitrate/Nitrite				J	0.0124	mg/L					03/03/10 10:49
QC1202054729 247793001 PS											
Nitrogen, Nitrate/Nitrite	1.00	U	ND		1.01	mg/L		100	(90%-110%)		03/03/10 11:40
QC1202054730 248044001 PS											
Nitrogen, Nitrate/Nitrite	1.00		0.0892		1.05	mg/L		96.1	(90%-110%)		03/03/10 11:12
QC1202054731 248074001 PS											
Nitrogen, Nitrate/Nitrite	1.00		0.393		1.39	mg/L		99.7	(90%-110%)		03/03/10 11:29
Solids Analysis											
Batch 959189											
QC1202057050 248023001 DUP											
Total Dissolved Solids			134		137	mg/L	1.45		(0%-10%)	SDS	03/01/10 13:56
QC1202057051 248019001 DUP											
Total Dissolved Solids			205		205	mg/L	1.93		(0%-10%)		03/01/10 13:56
QC1202057052 LCS											
Total Dissolved Solids	300				295	mg/L		98.3	(95%-105%)		03/01/10 13:56
QC1202057049 MB											
Total Dissolved Solids				U	ND	mg/L					03/01/10 13:56
Titration Analysis											
Batch 959999											
QC1202059082 248023001 DUP											
Alkalinity, Total as CaCO3			53.8		53.3	mg/L	0.889		(0%-20%)	LXA1	03/02/10 16:24
Carbonate alkalinity (CaCO3)		U	ND	U	ND	mg/L	N/A				
QC1202059083 248127001 DUP											
Alkalinity, Total as CaCO3			114		114	mg/L	0.418		(0%-20%)		03/02/10 17:18
Carbonate alkalinity (CaCO3)			33.3		32.4	mg/L	2.90		(0%-20%)		
QC1202059080 LCS											
Alkalinity, Total as CaCO3	50.0				49.5	mg/L		99.1	(90%-110%)		03/02/10 15:27
QC1202059079 MB											
Alkalinity, Total as CaCO3				J	0.953	mg/L					03/02/10 15:24
Carbonate alkalinity (CaCO3)				U	ND	mg/L					

QC Summary

Workorder: 248023

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Titration Analysis										
Batch 959999										
QC1202059085 248023001 MS										
Alkalinity, Total as CaCO3	50.0	53.8		101	mg/L		95.3	(80%-120%)	LXA1	03/02/10 16:27
QC1202059086 248127001 MS										
Alkalinity, Total as CaCO3	50.0	114		162	mg/L		96.2	(80%-120%)		03/02/10 17:25

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M M if above MDC and less than LLD
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- P Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- UJ Gamma Spectroscopy--Uncertain identification
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y QC Samples were not spiked with this compound
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

QC Summary

Workorder: **248023**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

d 5-day BOD--The 2:1 depletion requirement was not met for this sample

h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 24-MAR-2010 12:20

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-2040

Flow Injection Analysis

Method: EPA 335.4 Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**08-MAR-2010 10:32:54**	**OM_3-8-2010_10-24-48**	**147**	**150**	**98**	**(90%-110%)**	**Yes**
CCV	08-MAR-2010 10:47:11	OM_3-8-2010_10-24-48	105	100	105	(90%-110%)	Yes
CCV	08-MAR-2010 10:59:36	OM_3-8-2010_10-24-48	107	100	107	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**08-MAR-2010 10:34:44**	**OM_3-8-2010_10-24-48**	**-1.65**	**10**	**Yes**
CCB	08-MAR-2010 10:49:01	OM_3-8-2010_10-24-48	-1.67	10	Yes
CCB	08-MAR-2010 11:01:27	OM_3-8-2010_10-24-48	-1.82	10	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 24-MAR-2010 12:20

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-2040

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Bromide

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**20-MAR-2010 17:43:00**	**100320**	**2.5536**	**2.5**	**102**	**(90%-110%)**	**Yes**
CCV	21-MAR-2010 00:15:00	100320	3.7803	3.75	101	(90%-110%)	Yes
CCV	21-MAR-2010 05:28:00	100320	2.5444	2.5	102	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**20-MAR-2010 18:09:00**	**100320**	**0**	**0.2**	**Yes**
CCB	21-MAR-2010 00:41:00	100320	0	0.2	Yes
CCB	21-MAR-2010 05:54:00	100320	0	0.2	Yes

Parmname: Chloride

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**20-MAR-2010 17:43:00**	**100320**	**9.063**	**10**	**90.6**	**(90%-110%)**	**Yes**
CCV	21-MAR-2010 00:15:00	100320	14.0241	15	93.5	(90%-110%)	Yes
CCV	21-MAR-2010 05:28:00	100320	9.099	10	91	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**20-MAR-2010 18:09:00**	**100320**	**0**	**0.2**	**Yes**
CCB	21-MAR-2010 00:41:00	100320	0	0.2	Yes
CCB	21-MAR-2010 05:54:00	100320	0	0.2	Yes

Parmname: Fluoride

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**20-MAR-2010 17:43:00**	**100320**	**4.6807**	**5**	**93.6**	**(90%-110%)**	**Yes**
CCV	21-MAR-2010 00:15:00	100320	7.1264	7.5	95	(90%-110%)	Yes
CCV	21-MAR-2010 05:28:00	100320	4.7025	5	94.1	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**20-MAR-2010 18:09:00**	**100320**	**0**	**0.1**	**Yes**
CCB	21-MAR-2010 00:41:00	100320	0	0.1	Yes
CCB	21-MAR-2010 05:54:00	100320	0	0.1	Yes

Parmname: Sulfate

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**20-MAR-2010 17:43:00**	**100320**	**18.705**	**20**	**93.5**	**(90%-110%)**	**Yes**
CCV	21-MAR-2010 00:15:00	100320	28.8793	30	96.3	(90%-110%)	Yes
CCV	21-MAR-2010 05:28:00	100320	18.8073	20	94	(90%-110%)	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 24-MAR-2010 12:20

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-2040

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Sulfate

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**20-MAR-2010 18:09:00**	**100320**	**0**	**0.4**	**Yes**
CCB	21-MAR-2010 00:41:00	100320	0	0.4	Yes
CCB	21-MAR-2010 05:54:00	100320	0	0.4	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 24-MAR-2010 12:20

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-2040

Nutrient Analysis

Method: EPA 350.1 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Nitrogen, Ammonia

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**01-MAR-2010 13:09:24**	**OM_3-1-2010_12-59-59**	**0.997**	**1**	**99.7**	**(90%-110%)**	**Yes**
CCV	01-MAR-2010 13:33:21	OM_3-1-2010_12-59-59	1.025	1	103	(90%-110%)	Yes
CCV	01-MAR-2010 13:45:05	OM_3-1-2010_12-59-59	1.027	1	103	(90%-110%)	Yes
CCV	01-MAR-2010 13:57:05	OM_3-1-2010_12-59-59	1.024	1	102	(90%-110%)	Yes
CCV	01-MAR-2010 14:09:05	OM_3-1-2010_12-59-59	1.021	1	102	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**01-MAR-2010 13:11:14**	**OM_3-1-2010_12-59-59**	**-0.011**	**0.05**	**Yes**
CCB	01-MAR-2010 13:35:12	OM_3-1-2010_12-59-59	-0.01	0.05	Yes
CCB	01-MAR-2010 13:46:56	OM_3-1-2010_12-59-59	-0.009	0.05	Yes
CCB	01-MAR-2010 13:58:56	OM_3-1-2010_12-59-59	-0.009	0.05	Yes
CCB	01-MAR-2010 14:10:56	OM_3-1-2010_12-59-59	-0.009	0.05	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 24-MAR-2010 12:20

GEL Laboratories LLC

Contract: **ESHL01000**

SDG #: **10-2040**

Nutrient Analysis

Method: EPA 353.2 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8500 Series

Parmname: Nitrogen, Nitrate/Nitrite

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**03-MAR-2010 10:40:18**	**OM_3-3-2010_10-30-06**	**0.983**	**1**	**98.3**	**(90%-110%)**	**Yes**
CCV	03-MAR-2010 11:01:46	OM_3-3-2010_10-30-06	0.983	1	98.3	(90%-110%)	Yes
CCV	03-MAR-2010 11:17:24	OM_3-3-2010_10-30-06	1	1	100	(90%-110%)	Yes
CCV	03-MAR-2010 11:34:09	OM_3-3-2010_10-30-06	0.985	1	98.5	(90%-110%)	Yes
CCV	03-MAR-2010 11:50:55	OM_3-3-2010_10-30-06	0.968	1	96.8	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**03-MAR-2010 10:42:40**	**OM_3-3-2010_10-30-06**	**0.00396**	**0.05**	**Yes**
CCB	03-MAR-2010 11:04:08	OM_3-3-2010_10-30-06	0.00204	0.05	Yes
CCB	03-MAR-2010 11:19:46	OM_3-3-2010_10-30-06	0.00357	0.05	Yes
CCB	03-MAR-2010 11:36:31	OM_3-3-2010_10-30-06	0.00385	0.05	Yes
CCB	03-MAR-2010 11:53:16	OM_3-3-2010_10-30-06	0.00438	0.05	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 24-MAR-2010 12:20

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-2040

Nutrient Analysis

Method: EPA 365.4 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Phosphorus, Total as P

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**05-MAR-2010 08:50:31**	**OM_3-5-2010_08-40-57**	**1.021**	**1**	**102**	**(90%-110%)**	**Yes**
CCV	05-MAR-2010 09:02:59	OM_3-5-2010_08-40-57	1.002	1	100	(90%-110%)	Yes
CCV	05-MAR-2010 09:40:00	OM_3-5-2010_09-38-31	0.987	1	98.7	(90%-110%)	Yes
CCV	05-MAR-2010 09:52:23	OM_3-5-2010_09-38-31	0.966	1	96.6	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**05-MAR-2010 08:52:36**	**OM_3-5-2010_08-40-57**	**0.024**	**0.05**	**Yes**
CCB	05-MAR-2010 09:05:03	OM_3-5-2010_08-40-57	0.016	0.05	Yes
CCB	05-MAR-2010 09:42:04	OM_3-5-2010_09-38-31	0.017	0.05	Yes
CCB	05-MAR-2010 09:54:27	OM_3-5-2010_09-38-31	0.017	0.05	Yes

Alkalinity

Alkalinity LogBook

Analyst: LXA1
Batch: 959999
Lab SOP: GL-GC-E-033 REV# 6
SOP Description: Alkalinity: Total, Bicarbonate, Carbonate, Hydroxide, and Phenolphthalein
Run Date: 02-MAR-2010

Type	Sample Id	Lot Id	Nc(mg/L)	Recovery(%)
LCS	1202059080	IMM100107-ALK	50	99.06
MS	1202059084	IMM100107-ALK	100	35.243
MS	1202059085	IMM100107-ALK	50	95.25
MS	1202059086	IMM100107-ALK	50	96.203
MSD	1202059113	IMM100107-ALK	100	35.243

Type	Sample Id	Rpd(%)	Parmname
DUP	1202059081	0	Alkalinity, Total as CaCO3
DUP	1202059081	0	Bicarbonate alkalinity (CaCO3)
DUP	1202059081	0	Carbonate alkalinity (CaCO3)
DUP	1202059082	.889	Alkalinity, Total as CaCO3
DUP	1202059082	0	Carbonate alkalinity (CaCO3)
DUP	1202059083	.418	Alkalinity, Total as CaCO3
DUP	1202059083	2.899	Carbonate alkalinity (CaCO3)

Type	Sample id	Parent Sample Id	Time	Ph	Aliquot	Units	Normality H2SO4	H2SO4 Ph 8.3 (mL)	H2SO4 Ph 4.5(mL)	Alkalinity	Bicarbonate	CO2 Dissolved	CO2 Free	CO2 Total	Carbonate	Hydroxide	Phenol phthalein	Units
MB	1202059079		15:24	6.2	100	mL	0.01905	0	0.1	0.95250	0.95250				0.0000			mg/L
LCS	1202059080		15:27	9.16	100	mL	0.01905	0	5.2	49.530								mg/L
SAMPLE	247966010		15:32	3.5	50	mL	0.01905	0	0	0.0000	0.0000				0.0000			mg/L
DUP	1202059081	247966010	15:35	3.51	50	mL	0.01905	0	0	0.0000	0.0000				0.0000			mg/L
MS	1202059084	247966010	15:38	6.19	50	mL	0.01905	0	1.85	35.243								mg/L
MSD	1202059113	247966010	15:49	6.16	50	mL	0.01905	0	1.85	35.243								mg/L
SAMPLE	248005001		15:55	6.98	100	mL	0.01905	0	6.45	61.436								mg/L
SAMPLE	248005002		16:08	6.09	100	mL	0.01905	0	3.1	29.528								mg/L
SAMPLE	248023001		16:15	7.82	100	mL	0.01905	0	5.65	53.816					0.0000			mg/L
DUP	1202059082	248023001	16:24	7.81	100	mL	0.01905	0	5.6	53.340	53.340				0.0000			mg/L
MS	1202059085	248023001	16:27	8.95	100	mL	0.01905	0	10.65	101.44								mg/L
SAMPLE	248024002		16:35	6.9	100	mL	0.01905	0	5.9	56.198					0.0000			mg/L
SAMPLE	248024004		16:42	6.93	100	mL	0.01905	0	5.95	56.674					0.0000			mg/L
SAMPLE	248044001		16:47	6.61	100	mL	0.01905	0	4.8	45.720					0.0000			mg/L
SAMPLE	248044003		16:51	7.71	100	mL	0.01905	0	9.85	93.821					0.0000			mg/L
SAMPLE	248044005		17:03	5.63	100	mL	0.01905	0	0.15	1.4288					0.0000			mg/L
SAMPLE	248044006		17:03	5.76	100	mL	0.01905	0	0.2	1.9050					0.0000			mg/L
SAMPLE	248127001		17:06	8.96	100	mL	0.01905	1.75	12	114.30					33.338			mg/L
DUP	1202059083	248127001	17:18	8.95	100	mL	0.01905	1.7	11.95	113.82	81.439				32.385			mg/L
MS	1202059086	248127001	17:25	9.1	100	mL	0.01905	0	17.05	162.40								mg/L
SAMPLE	248157002		17:52	6.47	100	mL	0.01905	0	13.65	130.02								mg/L
SAMPLE	248157003		18:05	8.21	100	mL	0.01905	0	10.6	100.97								mg/L

Alkalinity LogBook

Analyst: LXA1
Batch: 959999
Lab SOP: GL-GC-E-033 REV# 6
SOP Description: Alkalinity: Total, Bicarbonate, Carbonate, Hydroxide, and Phenolphthalein
Run Date: 02-MAR-2010

Type	Sample Id	Lot Id	Nc(mg/L)	Recovery(%)
LCS	1202059080	IMM100107-ALK	50	99.06
MS	1202059084	IMM100107-ALK	100	35.243
MS	1202059085	IMM100107-ALK	50	95.25
MS	1202059086	IMM100107-ALK	50	96.203
MSD	1202059113	IMM100107-ALK	100	35.243

Type	Sample Id	Rpd(%)	Parmname
DUP	1202059081	0	Alkalinity, Total as CaCO3
DUP	1202059081	0	Bicarbonate alkalinity (CaCO3)
DUP	1202059081	0	Carbonate alkalinity (CaCO3)
DUP	1202059082	.889	Alkalinity, Total as CaCO3
DUP	1202059082	0	Carbonate alkalinity (CaCO3)
DUP	1202059083	.418	Alkalinity, Total as CaCO3
DUP	1202059083	2.899	Carbonate alkalinity (CaCO3)

Type	Sample id	Parent Sample Id	Time	Ph	Aliquot	Units	Normality H2SO4	H2SO4 Ph 8.3 (mL)	H2SO4 Ph 4.5(mL)	Alkalinity	Bicarbonate	CO2 Dissolved	CO2 Free	CO2 Total	Carbonate	Hydroxide	Phenol phthalein	Units
SAMPLE	248157004		18:12	6.03	100	mL	0.01905	0	2.15	20.479								mg/L
SAMPLE	248157005		18:21	5.54	100	mL	0.01905	0	1.25	11.906								mg/L
SAMPLE	248157006		18:21	5.83	100	mL	0.01905	0	1.65	15.716								mg/L
SAMPLE	248157007		18:24	5.52	100	mL	0.01905	0	1.4	13.335								mg/L
SAMPLE	248164001		18:27	7.96	100	mL	0.01905	0	7.05	67.151					0.0000			mg/L
SAMPLE	248164003		18:29	8	100	mL	0.01905	0	6.95	66.199					0.0000			mg/L
SAMPLE	248169004		18:32	7.15	100	mL	0.01905	0	14.55	138.59					0.0000			mg/L

Run Date: 02-MAR-10 11:20
Instrument: PHX370
Analyst: LXA1

Standard	Observed	Theoretical		%Recovery
UPH100302-PH3	10.01	10	SU	100.1
UPH100302-PH5	12.01	12	SU	100.08
UPH100302-PH4	2.04	2	SU	102
IMM100302-PH1	4.01	4	SU	100.25
IMM100302-PH2	7.02	7	SU	100.29
IMM100302-PH6	7.02	7	SU	100.29

Comments:

Run Date: 11-FEB-2010 18:08
Instrument: TIT001
Analyst: LXA1

Na2CO3 Std. ID	Na2CO3, 0.05 N g Na2C03/L	H2SO4 N (approx.)	NA2CO3 titrated	H2SO4 to pH 3.7	Actual Normality	Normality Average
1071836	2.5214	.02	15	37.4	.01903	.01905
	2.5214	.02	15	37.45	.01905	
	2.5214	.02	15	37.5	.01908	

Alkalinity LogBook

Normality of H_2SO_4 solution
A x B / 53.00 x C
where:
A = grams of Na_2CO_3
B = volume (mL) of the Na_2CO_3 solution
C = Total volume of the 0.02 N H_2SO_4 acid titrant used to reach a pH of 3.7

Total Alkalinity (mg/L)
Vt x N x 50000 / Vs
Where:
Vt = volume (mL) of H_2SO_4 used to reach the pH 4.5 endpoint
N = normality of the H_2SO_4 titrant
Vs = volume (mL) of sample used

Phenolphthalein alkalinity (mg/L)
Vt x N x 50000 / Vs
Where:
Vt = volume (mL) of H_2SO_4 used to reach the pH 8.3 endpoint
N = normality of the H_2SO_4 titrant
Vs = volume (mL) of sample used

Bicarbonate Alkalinity
Relationship Table SM2320B

Carbonate Alkalinity
Relationship Table SM2320B

Hydroxide Alkalinity
Relationship Table SM2320B

Free Carbon Dioxide
mg CO_2/L = 2.0 x B x 10 (6-pH)
Where B = Bicarbonate Alkalinity

Total Carbon Dioxide
mg total CO_2/L = A + 0.44(2B + C)
Where:
A = mg Free CO_2/L
B = Bicarbonate Alkalinity
C = Carbonate Alkalinity

Relationship Table SM2320B

P = 0	then H = 0,	C = 0,	B = T
P < 1/2 T	then H = 0,	C = 2P,	B = T - 2P
P = 1/2 T	then H = 0,	C = 2P,	B = 0
P > 1/2 T	then H = 2P - T,	C = 2(T - P),	B = 0
P = T	then H = T,	C = 0,	B = 0

Ammonia Nitrogen

Prep Logbook

Ammonia-Nitrogen Sample Preparation

Batch ID: **958141.0** Verified by: _____

Analyst: Stephanie Jackson

Method: EPA 350.2 Prep

Lab SOP: GL-GC-E-072 REV# 11

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202054701	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202054697	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202054698	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202054721	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202054722	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202054699	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202054700	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202054723	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202054724	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202054694 MB	01-MAR-2010 09:30:00	Waste Water	25	25	1	9.5
1202054701 LCS	01-MAR-2010 09:30:00	Waste Water	25	25	1	9.5
247957001	01-MAR-2010 09:30:00	Surface Water	25	25	1	9.5
248019001	01-MAR-2010 09:30:00	Water	25	25	1	9.5
1202054720 DUP (248019001)	01-MAR-2010 09:30:00	Water	25	25	1	9.5
1202054722 MS (248019001)	01-MAR-2010 09:30:00	Water	25	25	1	9.5
1202054724 MSD (248019001)	01-MAR-2010 09:30:00	Water	25	25	1	9.5
248023001	01-MAR-2010 09:30:00	Ground Water	25	25	1	9.5
1202054719 DUP (248023001)	01-MAR-2010 09:30:00	Ground Water	25	25	1	9.5
1202054721 MS (248023001)	01-MAR-2010 09:30:00	Ground Water	25	25	1	9.5
1202054723 MSD (248023001)	01-MAR-2010 09:30:00	Ground Water	25	25	1	9.5
248024002	01-MAR-2010 09:30:00	Ground Water	25	25	1	9.5
248024004	01-MAR-2010 09:30:00	Ground Water	25	25	1	9.5
248044001	01-MAR-2010 09:30:00	Ground Water	25	25	1	9.5
248044003	01-MAR-2010 09:30:00	Ground Water	25	25	1	9.5
248044005	01-MAR-2010 09:30:00	Ground Water	25	25	1	9.5
248044006	01-MAR-2010 09:30:00	Ground Water	25	25	1	9.5

Prep Logbook

Batch ID: **958141.0** Verified by:
Analyst: Stephanie Jackson
Method: EPA 350.2 Prep
Lab SOP: GL-GC-E-072 REV# 11
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202054701	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202054697	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202054698	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202054721	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202054722	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202054699	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202054700	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202054723	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202054724	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
248074001	01-MAR-2010 09:30:00	Waste Water	25	25	1	9.5
1202054695 DUP (248074001)	01-MAR-2010 09:30:00	Waste Water	25	25	1	9.5
1202054697 MS (248074001)	01-MAR-2010 09:30:00	Waste Water	25	25	1	9.5
1202054699 MSD (248074001)	01-MAR-2010 09:30:00	Waste Water	25	25	1	9.5
248074002	01-MAR-2010 09:30:00	Waste Water	25	25	1	9.5
248074003	01-MAR-2010 09:30:00	Waste Water	25	25	1	9.5
248078001	01-MAR-2010 09:30:00	Misc Liquid	25	25	1	9.5
1202054696 DUP (248078001)	01-MAR-2010 09:30:00	Misc Liquid	25	25	1	9.5
1202054698 MS (248078001)	01-MAR-2010 09:30:00	Misc Liquid	25	25	1	9.5
1202054700 MSD (248078001)	01-MAR-2010 09:30:00	Misc Liquid	25	25	1	9.5
248078002	01-MAR-2010 09:30:00	Misc Liquid	25	25	1	9.5
248078003	01-MAR-2010 09:30:00	Misc Liquid	25	25	1	9.5
248078004	01-MAR-2010 09:30:00	Misc Liquid	25	25	1	9.5

Reagent/Solvent Lot ID	Description	Amount
1271208-C	Borate Buffer	1.25 mL
1271210-C	50% NaOH Solution	1 mL

Comments:

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
2.0 ppm Std.		1	axh3	3/1/2010 13:03:18	OM_3-1-2010_12-59-59
1.0 ppm Std.		1	axh3	3/1/2010 13:04:07	OM_3-1-2010_12-59-59
0.5 ppm Std		1	axh3	3/1/2010 13:04:58	OM_3-1-2010_12-59-59
0.1 ppm Std		1	axh3	3/1/2010 13:05:49	OM_3-1-2010_12-59-59
0.05 ppm Std		1	axh3	3/1/2010 13:06:40	OM_3-1-2010_12-59-59
ICAL-00		1	axh3	3/1/2010 13:07:33	OM_3-1-2010_12-59-59
ICV		1	axh3	3/1/2010 13:09:24	OM_3-1-2010_12-59-59
ICB		1	axh3	3/1/2010 13:11:14	OM_3-1-2010_12-59-59
1202053234	957558	1	axh3	3/1/2010 13:13:03	OM_3-1-2010_12-59-59
1202053241	957558	1	axh3	3/1/2010 13:13:54	OM_3-1-2010_12-59-59
247865012	957558	1	axh3	3/1/2010 13:14:45	OM_3-1-2010_12-59-59
1202053235	957558	1	axh3	3/1/2010 13:15:35	OM_3-1-2010_12-59-59
1202053237	957558	1	axh3	3/1/2010 13:16:25	OM_3-1-2010_12-59-59
1202053239	957558	1	axh3	3/1/2010 13:17:15	OM_3-1-2010_12-59-59
247866001	957558	1	axh3	3/1/2010 13:18:05	OM_3-1-2010_12-59-59
1202053236	957558	1	axh3	3/1/2010 13:18:56	OM_3-1-2010_12-59-59
1202053238	957558	1	axh3	3/1/2010 13:19:48	OM_3-1-2010_12-59-59
1202053240	957558	1	axh3	3/1/2010 13:20:38	OM_3-1-2010_12-59-59
CCV		1	axh3	3/1/2010 13:21:29	OM_3-1-2010_12-59-59
CCB		1	axh3	3/1/2010 13:23:19	OM_3-1-2010_12-59-59
247913001*	957558	1	axh3	3/1/2010 13:25:07	OM_3-1-2010_12-59-59
1202053332	957558	1	axh3	3/1/2010 13:25:58	OM_3-1-2010_12-59-59
1202053333	957558	1	axh3	3/1/2010 13:26:48	OM_3-1-2010_12-59-59
1202053334	957558	1	axh3	3/1/2010 13:27:38	OM_3-1-2010_12-59-59
247865010	957558	1	axh3	3/1/2010 13:28:27	OM_3-1-2010_12-59-59
247865013	957558	1	axh3	3/1/2010 13:29:17	OM_3-1-2010_12-59-59
247865014	957558	1	axh3	3/1/2010 13:30:07	OM_3-1-2010_12-59-59
247865015	957558	1	axh3	3/1/2010 13:30:55	OM_3-1-2010_12-59-59
247865016	957558	1	axh3	3/1/2010 13:31:44	OM_3-1-2010_12-59-59
247865017	957558	1	axh3	3/1/2010 13:32:32	OM_3-1-2010_12-59-59
CCV		1	axh3	3/1/2010 13:33:21	OM_3-1-2010_12-59-59
CCB		1	axh3	3/1/2010 13:35:12	OM_3-1-2010_12-59-59
247865018	957558	1	axh3	3/1/2010 13:36:59	OM_3-1-2010_12-59-59
247865019	957558	1	axh3	3/1/2010 13:37:47	OM_3-1-2010_12-59-59
247865020	957558	1	axh3	3/1/2010 13:38:35	OM_3-1-2010_12-59-59
247913002	957558	1	axh3	3/1/2010 13:39:23	OM_3-1-2010_12-59-59
247913001	957558	1	axh3	3/1/2010 13:40:13	OM_3-1-2010_12-59-59
1202054694	958142	1	axh3	3/1/2010 13:41:03	OM_3-1-2010_12-59-59
1202054701	958142	1	axh3	3/1/2010 13:41:52	OM_3-1-2010_12-59-59
248019001	958142	1	axh3	3/1/2010 13:42:41	OM_3-1-2010_12-59-59
1202054720	958142	1	axh3	3/1/2010 13:43:29	OM_3-1-2010_12-59-59
1202054722	958142	1	axh3	3/1/2010 13:44:16	OM_3-1-2010_12-59-59
CCV		1	axh3	3/1/2010 13:45:05	OM_3-1-2010_12-59-59
CCB		1	axh3	3/1/2010 13:46:56	OM_3-1-2010_12-59-59
1202054724	958142	1	axh3	3/1/2010 13:48:46	OM_3-1-2010_12-59-59
248023001	958142	1	axh3	3/1/2010 13:49:37	OM_3-1-2010_12-59-59
1202054719	958142	1	axh3	3/1/2010 13:50:28	OM_3-1-2010_12-59-59
1202054721	958142	1	axh3	3/1/2010 13:51:19	OM_3-1-2010_12-59-59
1202054723*	958142	1	axh3	3/1/2010 13:52:10	OM_3-1-2010_12-59-59
248074001	958142	1	axh3	3/1/2010 13:53:00	OM_3-1-2010_12-59-59
1202054695	958142	1	axh3	3/1/2010 13:53:49	OM_3-1-2010_12-59-59
1202054697	958142	1	axh3	3/1/2010 13:54:37	OM_3-1-2010_12-59-59
1202054699*	958142	1	axh3	3/1/2010 13:55:25	OM_3-1-2010_12-59-59
248078001	958142	1	axh3	3/1/2010 13:56:15	OM_3-1-2010_12-59-59
CCV		1	axh3	3/1/2010 13:57:05	OM_3-1-2010_12-59-59
CCB		1	axh3	3/1/2010 13:58:56	OM_3-1-2010_12-59-59
1202054696	958142	1	axh3	3/1/2010 14:00:45	OM_3-1-2010_12-59-59
1202054698	958142	1	axh3	3/1/2010 14:01:36	OM_3-1-2010_12-59-59

1202054700	958142	1	axh3	3/1/2010	14:02:27	OM_3-1-2010_12-59-59
1202054723	958142	1	axh3	3/1/2010	14:03:18	OM_3-1-2010_12-59-59
1202054699	958142	1	axh3	3/1/2010	14:04:07	OM_3-1-2010_12-59-59
247957001	958142	1	axh3	3/1/2010	14:04:56	OM_3-1-2010_12-59-59
248024002	958142	1	axh3	3/1/2010	14:05:45	OM_3-1-2010_12-59-59
248024004	958142	1	axh3	3/1/2010	14:06:36	OM_3-1-2010_12-59-59
248044001	958142	1	axh3	3/1/2010	14:07:26	OM_3-1-2010_12-59-59
248044003	958142	1	axh3	3/1/2010	14:08:16	OM_3-1-2010_12-59-59
CCV		1	axh3	3/1/2010	14:09:05	OM_3-1-2010_12-59-59
CCB		1	axh3	3/1/2010	14:10:56	OM_3-1-2010_12-59-59
248044005	958142	1	axh3	3/1/2010	14:12:45	OM_3-1-2010_12-59-59
248044006	958142	1	axh3	3/1/2010	14:13:34	OM_3-1-2010_12-59-59
248074002	958142	1	axh3	3/1/2010	14:14:25	OM_3-1-2010_12-59-59
248074003	958142	1	axh3	3/1/2010	14:15:16	OM_3-1-2010_12-59-59
248078002	958142	1	axh3	3/1/2010	14:16:08	OM_3-1-2010_12-59-59
248078003	958142	1	axh3	3/1/2010	14:16:58	OM_3-1-2010_12-59-59
248078004	958142	1	axh3	3/1/2010	14:17:49	OM_3-1-2010_12-59-59
CCV		1	axh3	3/1/2010	14:19:37	OM_3-1-2010_12-59-59
CCB		1	axh3	3/1/2010	14:21:28	OM_3-1-2010_12-59-59

Author: axh3 Date : 3/1/2010

Original Run Filename: OM_3-1-2010_12-59-59.OMN created 3/1/2010 12:59:59
Original Run Author's Signature: [axh3]
Current Run Filename: OM_3-1-2010_12-59-59.OMN last modified 3/1/2010 14:22:32
Current Run Author's Signature: [axh3]
Description: Ammonia EPA Method 350.1 GEL SOP: GL-GC-E-106
Detection Wavelength: 630nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 NH3 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100301-03	1	S10	2.000	14.709	3/1/2010@13:03:18			2.0 ppm Std.
WTR100301-04	1	S11	1.000	7.601	3/1/2010@13:04:07			1.0 ppm Std.
WTR100301-05	1	S12	0.500	3.934	3/1/2010@13:04:58			0.5 ppm Std
WTR100301-06	1	S13	0.100	0.889	3/1/2010@13:05:49			0.1 ppm Std
WTR100301-07	1	S14	0.050	0.474	3/1/2010@13:06:40			0.05 ppm Std
WTR100301-10 0.0 ppm	1	S15	0.000	0.029	3/1/2010@13:07:33			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99983 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR100301-08 ICV	1	S16	0.997	7.455	3/1/2010@13:09:24			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	0.997 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.997 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR100301-10 ICB	1	S15	-0.011	0.065	3/1/2010@13:11:14			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.011 < 0.050					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.011 > -0.050					
		Message	ICB Passed					
		Action	Continue					
1202053234|957558|MB	1	1	0.028	0.352	3/1/2010@13:13:03			
1202053241||LCS	1	2	1.004	7.504	3/1/2010@13:13:54			
247865012	1	4	0.559	4.245	3/1/2010@13:14:45			
1202053235||DUP	1	5	0.470	3.592	3/1/2010@13:15:35			
1202053237||MS	1	6	1.331	9.901	3/1/2010@13:16:25			
1202053239||MSD	1	7	1.207	8.990	3/1/2010@13:17:15			
247866001	1	16	0.648	4.899	3/1/2010@13:18:05			
1202053236||DUP	1	17	0.543	4.124	3/1/2010@13:18:56			
1202053238||MS	1	18	1.451	10.779	3/1/2010@13:19:48			
1202053240||MSD	1	19	1.602	11.892	3/1/2010@13:20:38			
WTR100301-04 CCV	1	S11	1.041	7.774	3/1/2010@13:21:29			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.041 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.041 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-10 CCB	1	S15	-0.010	0.077	3/1/2010@13:23:19			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.010 < 0.049					

		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.010 > -0.050					
		Message	CCB Passed					
		Action	Continue					
247913001	1	20	1.299	9.667	3/1/2010@13:25:07			
1202053332||DUP	1	21	0.981	7.340	3/1/2010@13:25:58			
1202053333||MS	1	22	1.786	13.239	3/1/2010@13:26:48			
1202053334||MSD	1	23	1.960	14.511	3/1/2010@13:27:38			
247865010	1	3	0.031	0.375	3/1/2010@13:28:27			
247865013	1	8	0.439	3.362	3/1/2010@13:29:17			
247865014	1	9	0.549	4.168	3/1/2010@13:30:07			
247865015	1	10	0.825	6.196	3/1/2010@13:30:55			
247865016	1	11	0.091	0.818	3/1/2010@13:31:44			
247865017	1	12	0.654	4.944	3/1/2010@13:32:32			
WTR100301-04 CCV	1	S11	1.025	7.657	3/1/2010@13:33:21			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.025 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.025 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-10 CCB	1	S15	-0.010	0.075	3/1/2010@13:35:12			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.010 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.010 > -0.050					
		Message	CCB Passed					
		Action	Continue					
247865018	1	13	0.486	3.707	3/1/2010@13:36:59			
247865019	1	14	0.204	1.643	3/1/2010@13:37:47			
247865020	1	15	-8.006e-4	0.142	3/1/2010@13:38:35			
247913002	1	24	1.004	7.509	3/1/2010@13:39:23			
247913001	1	20	0.973	7.278	3/1/2010@13:40:13			
1202054694|958142|MB	1	25	0.017	0.274	3/1/2010@13:41:03			
1202054701||LCS	1	26	1.011	7.554	3/1/2010@13:41:52			
248019001	1	28	0.039	0.437	3/1/2010@13:42:41			
1202054720||DUP	1	29	0.028	0.355	3/1/2010@13:43:29			
1202054722||MS	1	30	0.820	6.160	3/1/2010@13:44:16			
WTR100301-04 CCV	1	S11	1.027	7.676	3/1/2010@13:45:05			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.027 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.027 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-10 CCB	1	S15	-0.009	0.079	3/1/2010@13:46:56			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.009 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.009 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1202054724||MSD	1	31	0.828	6.214	3/1/2010@13:48:46			
248023001	1	32	0.015	0.258	3/1/2010@13:49:37			

1202054719||DUP	1	33	0.006	0.195	3/1/2010@13:50:28			
1202054721||MS	1	34	0.798	5.993	3/1/2010@13:51:19			
1202054723||MSD	1	35	0.648	4.896	3/1/2010@13:52:10			
248074001	1	42	0.077	0.712	3/1/2010@13:53:00			
1202054695||DUP	1	43	0.055	0.553	3/1/2010@13:53:49			
1202054697||MS	1	44	0.784	5.897	3/1/2010@13:54:37			
1202054699||MSD	1	45	0.526	4.000	3/1/2010@13:55:25			
248078001	1	48	0.301	2.353	3/1/2010@13:56:15			
WTR100301-04 CCV	1	S11	1.024	7.651	3/1/2010@13:57:05			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.024 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.024 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-10 CCB	1	S15	-0.009	0.085	3/1/2010@13:58:56			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.009 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.009 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1202054696||DUP	1	49	0.204	1.644	3/1/2010@14:00:45			
1202054698||MS	1	50	0.995	7.442	3/1/2010@14:01:36			
1202054700||MSD	1	51	1.114	8.309	3/1/2010@14:02:27			
1202054723||MSD	1	35	0.802	6.028	3/1/2010@14:03:18			
1202054699||MSD	1	45	0.783	5.885	3/1/2010@14:04:07			
247957001	1	27	0.088	0.795	3/1/2010@14:04:56			
248024002	1	36	0.009	0.216	3/1/2010@14:05:45			
248024004	1	37	0.006	0.191	3/1/2010@14:06:36			
248044001	1	38	-0.017	0.025	3/1/2010@14:07:26			
248044003	1	39	0.008	0.204	3/1/2010@14:08:16			
WTR100301-04 CCV	1	S11	1.021	7.630	3/1/2010@14:09:05			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.021 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.021 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-10 CCB	1	S15	-0.009	0.082	3/1/2010@14:10:56			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.009 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.009 > -0.050					
		Message	CCB Passed					
		Action	Continue					
248044005	1	40	0.016	0.267	3/1/2010@14:12:45			
248044006	1	41	-0.013	0.050	3/1/2010@14:13:34			
248074002	1	46	0.035	0.405	3/1/2010@14:14:25			
248074003	1	47	0.016	0.262	3/1/2010@14:15:16			
248078002	1	52	0.287	2.250	3/1/2010@14:16:08			
248078003	1	53	0.399	3.074	3/1/2010@14:16:58			
248078004	1	54	0.205	1.653	3/1/2010@14:17:49			
WTR100301-04 CCV	1	S11	1.023	7.647	3/1/2010@14:19:37			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					

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		Result:	1.023 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.023 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-10 CCB	1	S15	-0.008	0.091	3/1/2010@14:21:28			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.008 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.008 > -0.050					
		Message	CCB Passed					
		Action	Continue					

Channel 1 (NH3) : Current View

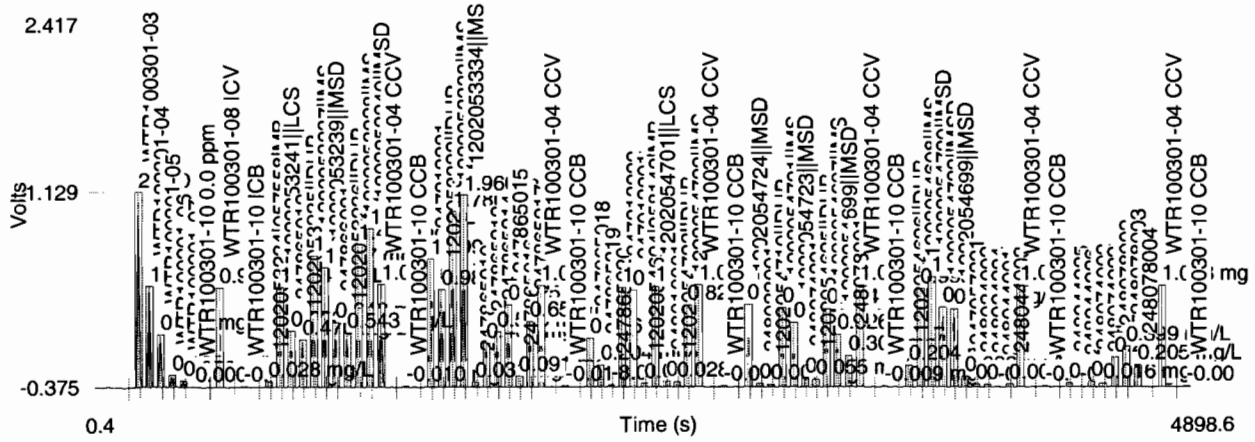

Table 1: NH3

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	2.000	1	14.709	1.494	0.6	3/1/2010	13:04:21
2	1.000	1	7.601	0.771	-1.7	3/1/2010	13:05:10
3	0.500	1	3.934	0.403	-3.2	3/1/2010	13:06:00
4	0.100	1	0.889	0.090	-0.8	3/1/2010	13:06:51
5	0.050	1	0.474	0.048	8.1	3/1/2010	13:07:43
6	0.000	1	0.029	0.003		3/1/2010	13:08:36

Author: axh3

Date : 3/1/2010

Figure 1: NH3

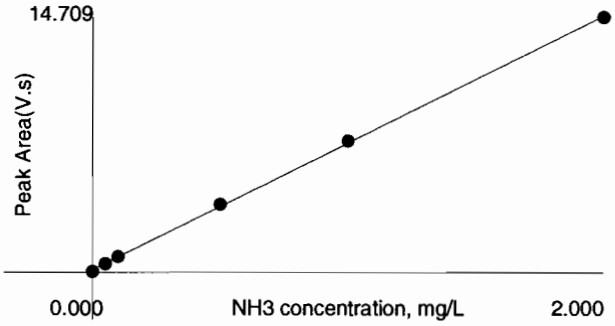

Area = 7.326 * Conc + 0.149
Conc = 0.136 * Area - 0.020
Correlation Coefficient (r) = 0.99983

No Weighting

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **958167.0** Verified by: _____

Analyst: Alan Stanley

Method: SW846 9010B Prep EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202054796	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202054792	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202054793	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202054794	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202054795	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202054789 MB	05-MAR-2010 15:35:00	Water	25	25	1	>12
1202054796 LCS	05-MAR-2010 15:35:00	Water	25	25	1	>12
248010001	05-MAR-2010 15:35:00	Water	25	25	1	>12
1202054790 DUP (248010001)	05-MAR-2010 15:35:00	Water	25	25	1	>12
1202054792 MS (248010001)	05-MAR-2010 15:35:00	Water	25	25	1	>12
1202054794 MSD (248010001)	05-MAR-2010 15:35:00	Water	25	25	1	>12
248010002	05-MAR-2010 15:35:00	Water	25	25	1	>12
248019001	05-MAR-2010 15:35:00	Water	25	25	1	>12
248019002	05-MAR-2010 15:35:00	Water	25	25	1	>12
248023002	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
248024001	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
248024003	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
248044002	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
1202054791 DUP (248044002)	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
1202054793 MS (248044002)	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
1202054795 MSD (248044002)	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
248401005	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
248516001	05-MAR-2010 15:35:00	Water	25	25	1	>12
248516002	05-MAR-2010 15:35:00	Water	25	25	1	>12
248518001	05-MAR-2010 15:35:00	Water	25	25	1	>12

Prep Logbook

Batch ID: **958167.0** Verified by:
Analyst: Alan Stanley
Method: SW846 9010B Prep EPA 335.4
Lab SOP: GL-GC-E-067 REV# 13
Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202054796	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202054792	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202054793	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202054794	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202054795	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
248533001	05-MAR-2010 15:35:00	Water	25	25	1	>12
248548001	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
248548003	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
248551001	05-MAR-2010 15:35:00	Water	25	25	1	>12
248551002	05-MAR-2010 15:35:00	Water	25	25	1	>12
248555002	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL
WCN100305-07	150 ppb CN Distilled ICV Standard	.0375 mL

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/8/2010 10:25:45	OM_3-8-2010_10-24-48
150 ppb		1	axc2	3/8/2010 10:26:37	OM_3-8-2010_10-24-48
100 ppb		1	axc2	3/8/2010 10:27:29	OM_3-8-2010_10-24-48
50 ppb		1	axc2	3/8/2010 10:28:22	OM_3-8-2010_10-24-48
10 ppb		1	axc2	3/8/2010 10:29:15	OM_3-8-2010_10-24-48
CRDL 5.0 ppb		1	axc2	3/8/2010 10:30:09	OM_3-8-2010_10-24-48
ICAL-00		1	axc2	3/8/2010 10:31:03	OM_3-8-2010_10-24-48
ICV		1	axc2	3/8/2010 10:32:54	OM_3-8-2010_10-24-48
ICB		1	axc2	3/8/2010 10:34:44	OM_3-8-2010_10-24-48
CRDL		1	axc2	3/8/2010 10:36:34	OM_3-8-2010_10-24-48
1202054789	958168	1	axc2	3/8/2010 10:38:23	OM_3-8-2010_10-24-48
1202054796	958168	1	axc2	3/8/2010 10:39:17	OM_3-8-2010_10-24-48
248010001	958168	1	axc2	3/8/2010 10:40:10	OM_3-8-2010_10-24-48
1202054790	958168	1	axc2	3/8/2010 10:41:03	OM_3-8-2010_10-24-48
1202054792	958168	1	axc2	3/8/2010 10:41:56	OM_3-8-2010_10-24-48
1202054794	958168	1	axc2	3/8/2010 10:42:48	OM_3-8-2010_10-24-48
248010002	958168	1	axc2	3/8/2010 10:43:42	OM_3-8-2010_10-24-48
248019001	958168	1	axc2	3/8/2010 10:44:34	OM_3-8-2010_10-24-48
248019002	958168	1	axc2	3/8/2010 10:45:26	OM_3-8-2010_10-24-48
248023002	958168	1	axc2	3/8/2010 10:46:19	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010 10:47:11	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010 10:49:01	OM_3-8-2010_10-24-48
248024001	958168	1	axc2	3/8/2010 10:50:50	OM_3-8-2010_10-24-48
248024003	958168	1	axc2	3/8/2010 10:51:41	OM_3-8-2010_10-24-48
248044002	958168	1	axc2	3/8/2010 10:52:34	OM_3-8-2010_10-24-48
1202054791	958168	1	axc2	3/8/2010 10:53:25	OM_3-8-2010_10-24-48
1202054793	958168	1	axc2	3/8/2010 10:54:17	OM_3-8-2010_10-24-48
1202054795	958168	1	axc2	3/8/2010 10:55:10	OM_3-8-2010_10-24-48
248401005	958168	1	axc2	3/8/2010 10:56:04	OM_3-8-2010_10-24-48
248516001	958168	1	axc2	3/8/2010 10:56:58	OM_3-8-2010_10-24-48
248516002	958168	1	axc2	3/8/2010 10:57:51	OM_3-8-2010_10-24-48
248518001	958168	1	axc2	3/8/2010 10:58:44	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010 10:59:36	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010 11:01:27	OM_3-8-2010_10-24-48
248533001	958168	1	axc2	3/8/2010 11:03:16	OM_3-8-2010_10-24-48
248548001	958168	1	axc2	3/8/2010 11:04:09	OM_3-8-2010_10-24-48
248548003	958168	1	axc2	3/8/2010 11:05:01	OM_3-8-2010_10-24-48
248551001	958168	1	axc2	3/8/2010 11:05:54	OM_3-8-2010_10-24-48
248551002	958168	1	axc2	3/8/2010 11:06:46	OM_3-8-2010_10-24-48
248555002	958168	1	axc2	3/8/2010 11:07:39	OM_3-8-2010_10-24-48
1202059721	960271	1	axc2	3/8/2010 11:08:31	OM_3-8-2010_10-24-48
1202059731	960271	1	axc2	3/8/2010 11:09:23	OM_3-8-2010_10-24-48
248072001	960271	1	axc2	3/8/2010 11:10:15	OM_3-8-2010_10-24-48
1202059722	960271	1	axc2	3/8/2010 11:11:06	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010 11:11:59	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010 11:13:49	OM_3-8-2010_10-24-48
1202059725	960271	1	axc2	3/8/2010 11:15:40	OM_3-8-2010_10-24-48
1202059728	960271	1	axc2	3/8/2010 11:16:33	OM_3-8-2010_10-24-48
248072002	960271	1	axc2	3/8/2010 11:17:27	OM_3-8-2010_10-24-48
248072003	960271	1	axc2	3/8/2010 11:18:21	OM_3-8-2010_10-24-48
248097001	960271	1	axc2	3/8/2010 11:19:14	OM_3-8-2010_10-24-48
1202059724	960271	1	axc2	3/8/2010 11:20:07	OM_3-8-2010_10-24-48
1202059727	960271	1	axc2	3/8/2010 11:21:00	OM_3-8-2010_10-24-48
1202059730	960271	1	axc2	3/8/2010 11:21:53	OM_3-8-2010_10-24-48
248097002	960271	1	axc2	3/8/2010 11:22:47	OM_3-8-2010_10-24-48
248097003	960271	1	axc2	3/8/2010 11:23:38	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010 11:24:31	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010 11:26:21	OM_3-8-2010_10-24-48

248097004	960271	1	axc2	3/8/2010	11:28:09	OM_3-8-2010_10-24-48
248298001	960271	1	axc2	3/8/2010	11:29:02	OM_3-8-2010_10-24-48
248298002	960271	1	axc2	3/8/2010	11:29:53	OM_3-8-2010_10-24-48
248298003	960271	1	axc2	3/8/2010	11:30:46	OM_3-8-2010_10-24-48
248303001	960271	1	axc2	3/8/2010	11:31:38	OM_3-8-2010_10-24-48
248337001	960271	1	axc2	3/8/2010	11:32:32	OM_3-8-2010_10-24-48
248375001	960271	1	axc2	3/8/2010	11:33:26	OM_3-8-2010_10-24-48
248375002	960271	1	axc2	3/8/2010	11:34:19	OM_3-8-2010_10-24-48
248397001	960271	1	axc2	3/8/2010	11:35:14	OM_3-8-2010_10-24-48
248397002	960271	1	axc2	3/8/2010	11:36:06	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010	11:37:00	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010	11:38:51	OM_3-8-2010_10-24-48
248407001	960271	1	axc2	3/8/2010	11:40:39	OM_3-8-2010_10-24-48
1202059723	960271	1	axc2	3/8/2010	11:41:33	OM_3-8-2010_10-24-48
1202059726	960271	1	axc2	3/8/2010	11:42:26	OM_3-8-2010_10-24-48
1202059729	960271	1	axc2	3/8/2010	11:43:19	OM_3-8-2010_10-24-48
248419001	960271	1	axc2	3/8/2010	11:44:11	OM_3-8-2010_10-24-48
248419002	960271	1	axc2	3/8/2010	11:45:04	OM_3-8-2010_10-24-48
1202053300	957584	1	axc2	3/8/2010	11:45:57	OM_3-8-2010_10-24-48
1202053310	957584	1	axc2	3/8/2010	11:46:49	OM_3-8-2010_10-24-48
247829002	957584	1	axc2	3/8/2010	11:47:41	OM_3-8-2010_10-24-48
1202053302	957584	1	axc2	3/8/2010	11:48:33	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010	11:49:26	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010	11:51:15	OM_3-8-2010_10-24-48
1202053305	957584	1	axc2	3/8/2010	11:53:05	OM_3-8-2010_10-24-48
1202053308	957584	1	axc2	3/8/2010	11:54:00	OM_3-8-2010_10-24-48
247865010	957584	1	axc2	3/8/2010	11:54:55	OM_3-8-2010_10-24-48
247865012	957584	1	axc2	3/8/2010	11:55:48	OM_3-8-2010_10-24-48
1202053303	957584	1	axc2	3/8/2010	11:56:41	OM_3-8-2010_10-24-48
1202053306	957584	1	axc2	3/8/2010	11:57:35	OM_3-8-2010_10-24-48
1202053309	957584	1	axc2	3/8/2010	11:58:28	OM_3-8-2010_10-24-48
247865013	957584	1	axc2	3/8/2010	11:59:21	OM_3-8-2010_10-24-48
247865014	957584	1	axc2	3/8/2010	12:00:15	OM_3-8-2010_10-24-48
247865015	957584	1	axc2	3/8/2010	12:01:07	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010	12:02:00	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010	12:03:51	OM_3-8-2010_10-24-48
247865016	957584	1	axc2	3/8/2010	12:05:41	OM_3-8-2010_10-24-48
247865017	957584	1	axc2	3/8/2010	12:06:33	OM_3-8-2010_10-24-48
247865018	957584	1	axc2	3/8/2010	12:07:25	OM_3-8-2010_10-24-48
247865019	957584	1	axc2	3/8/2010	12:08:18	OM_3-8-2010_10-24-48
247865020	957584	1	axc2	3/8/2010	12:09:10	OM_3-8-2010_10-24-48
247866001	957584	1	axc2	3/8/2010	12:10:05	OM_3-8-2010_10-24-48
247919001	957584	1	axc2	3/8/2010	12:10:59	OM_3-8-2010_10-24-48
247919002	957584	1	axc2	3/8/2010	12:11:53	OM_3-8-2010_10-24-48
247922004	957584	1	axc2	3/8/2010	12:12:48	OM_3-8-2010_10-24-48
1202053301	957584	1	axc2	3/8/2010	12:13:41	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010	12:14:34	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010	12:16:24	OM_3-8-2010_10-24-48
1202053304	957584	1	axc2	3/8/2010	12:18:14	OM_3-8-2010_10-24-48
1202053307	957584	1	axc2	3/8/2010	12:19:07	OM_3-8-2010_10-24-48
248164004	957584	1	axc2	3/8/2010	12:20:01	OM_3-8-2010_10-24-48
248382002	957584	1	axc2	3/8/2010	12:20:54	OM_3-8-2010_10-24-48
248382003	957584	1	axc2	3/8/2010	12:21:47	OM_3-8-2010_10-24-48
248401002	957584	1	axc2	3/8/2010	12:22:40	OM_3-8-2010_10-24-48
248401004	957584	1	axc2	3/8/2010	12:23:33	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010	12:24:25	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010	12:26:15	OM_3-8-2010_10-24-48

Author: axc2 Date : 3/8/2010

Original Run Filename: OM_3-8-2010_10-24-48.OMN created 3/8/2010 10:24:48
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-8-2010_10-24-48.OMN last modified 3/8/2010 12:27:20
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100308-01	1	S1	200	10.4	3/8/2010@10:25:45			200 ppb
WCN100308-02	1	S2	150	7.82	3/8/2010@10:26:37			150 ppb
WCN100308-03	1	S3	100	5.36	3/8/2010@10:27:29			100 ppb
WCN100308-04	1	S4	50.0	2.85	3/8/2010@10:28:22			50 ppb
WCN100308-05	1	S5	10.0	0.644	3/8/2010@10:29:15			10 ppb
WCN100308-06	1	S6	5.00	0.400	3/8/2010@10:30:09			CRDL 5.0 ppb
WCN100308-08	1	S7	0.00	-0.0189	3/8/2010@10:31:03			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99976 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100308-07	1	S8	147	7.72	3/8/2010@10:32:54			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-2.1 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-2.1 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100308-08	1	S7	-1.65	0.0363	3/8/2010@10:34:44			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.65 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.65 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100308-06	1	S6	5.25	0.393	3/8/2010@10:36:34			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.25 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.25 > 2.50					
		Message	Pass					
		Action	None					
1202054789|958168|MB	1	1	-1.83	0.0269	3/8/2010@10:38:23			
1202054796||LCS	1	2	50.4	2.73	3/8/2010@10:39:17			
248010001	1	3	-1.53	0.0427	3/8/2010@10:40:10			
1202054790||DUP	1	4	-1.69	0.0344	3/8/2010@10:41:03			
1202054792||MS	1	5	114	6.01	3/8/2010@10:41:56			
1202054794||MSD	1	6	111	5.86	3/8/2010@10:42:48			
248010002	1	7	-1.44	0.0471	3/8/2010@10:43:42			
248019001	1	8	-1.39	0.0498	3/8/2010@10:44:34			
248019002	1	9	-1.40	0.0491	3/8/2010@10:45:26			
248023002	1	10	-1.75	0.0312	3/8/2010@10:46:19			
WCN100308-03	1	S3	105	5.54	3/8/2010@10:47:11			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.8 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.67	0.0352	3/8/2010@10:49:01			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.67 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.67 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248024001	1	11	-2.29	0.00319	3/8/2010@10:50:50			
248024003	1	12	-0.940	0.0730	3/8/2010@10:51:41			
248044002	1	13	-1.78	0.0297	3/8/2010@10:52:34			
1202054791||DUP	1	14	-1.89	0.0237	3/8/2010@10:53:25			
1202054793||MS	1	15	113	5.97	3/8/2010@10:54:17			
1202054795||MSD	1	16	94.5	5.01	3/8/2010@10:55:10			
248401005	1	17	-2.36	-4.50e-4	3/8/2010@10:56:04			
248516001	1	18	-1.70	0.0336	3/8/2010@10:56:58			
248516002	1	19	-2.03	0.0168	3/8/2010@10:57:51			
248518001	1	20	-2.35	3.13e-4	3/8/2010@10:58:44			
WCN100308-03	1	S3	107	5.64	3/8/2010@10:59:36			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.82	0.0275	3/8/2010@11:01:27			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.82 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.82 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248533001	1	21	-1.85	0.0260	3/8/2010@11:03:16			
248548001	1	22	-2.24	0.00579	3/8/2010@11:04:09			
248548003	1	23	-1.45	0.0465	3/8/2010@11:05:01			
248551001	1	24	-0.552	0.0931	3/8/2010@11:05:54			
248551002	1	25	-1.81	0.0281	3/8/2010@11:06:46			
248555002	1	26	-1.99	0.0185	3/8/2010@11:07:39			
1202059721|960271|MB	1	27	-1.70	0.0339	3/8/2010@11:08:31			
1202059731||LCS	1	28	49.0	2.66	3/8/2010@11:09:23			
248072001	1	29	-2.36	-5.25e-4	3/8/2010@11:10:15			
1202059722||DUP	1	30	-1.95	0.0206	3/8/2010@11:11:06			
WCN100308-03	1	S3	105	5.54	3/8/2010@11:11:59			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.72	0.0325	3/8/2010@11:13:49			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
Result:			-1.72 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.72 > -5.00					
Message			CCB Passed					
Action			Continue					
1202059725||MS	1	31	102	5.41	3/8/2010@11:15:40			
1202059728||MSD	1	32	101	5.33	3/8/2010@11:16:33			
248072002	1	33	-1.30	0.0543	3/8/2010@11:17:27			
248072003	1	34	-2.90	-0.0286	3/8/2010@11:18:21			
248097001	1	35	-1.88	0.0245	3/8/2010@11:19:14			
1202059724||DUP	1	36	-1.58	0.0398	3/8/2010@11:20:07			
1202059727||MS	1	37	100	5.32	3/8/2010@11:21:00			
1202059730||MSD	1	38	102	5.39	3/8/2010@11:21:53			
248097002	1	39	12.3	0.757	3/8/2010@11:22:47			
248097003	1	40	-1.04	0.0680	3/8/2010@11:23:38			
WCN100308-03	1	S3	106	5.63	3/8/2010@11:24:31			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			6.4 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			6.4 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100308-08	1	S7	-1.68	0.0346	3/8/2010@11:26:21			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-1.68 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-1.68 > -5.00					
Message			CCB Passed					
Action			Continue					
248097004	1	41	-0.871	0.0766	3/8/2010@11:28:09			
248298001	1	42	-1.67	0.0350	3/8/2010@11:29:02			
248298002	1	43	-1.93	0.0216	3/8/2010@11:29:53			
248298003	1	44	-0.109	0.116	3/8/2010@11:30:46			
248303001	1	45	2.92	0.273	3/8/2010@11:31:38			
248337001	1	46	-2.49	-0.00692	3/8/2010@11:32:32			
248375001	1	47	-2.35	1.70e-4	3/8/2010@11:33:26			
248375002	1	48	-2.05	0.0157	3/8/2010@11:34:19			
248397001	1	49	-1.87	0.0247	3/8/2010@11:35:14			
248397002	1	50	-2.17	0.00925	3/8/2010@11:36:06			
WCN100308-03	1	S3	106	5.62	3/8/2010@11:37:00			CCV
Known Conc:			100					
DQM Test: > + Percent Relative Difference								
Result:			6.2 < 10.0					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Percent Relative Difference								
Result:			6.2 < 10.0					
Message			CCV Passed					
Action			Continue					
WCN100308-08	1	S7	-2.34	8.36e-4	3/8/2010@11:38:51			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			-2.34 < 5.00					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-2.34 > -5.00					
Message			CCB Passed					
Action			Continue					

248407001	1	51	-1.69	0.0345	3/8/2010@11:40:39			
1202059723||DUP	1	52	-2.37	-0.00102	3/8/2010@11:41:33			
1202059726||MS	1	53	104	5.51	3/8/2010@11:42:26			
1202059729||MSD	1	54	82.4	4.39	3/8/2010@11:43:19			
248419001	1	55	-1.45	0.0465	3/8/2010@11:44:11			
248419002	1	56	-1.82	0.0276	3/8/2010@11:45:04			
1202053300|957584|MB	1	57	-1.77	0.0301	3/8/2010@11:45:57			
1202053310||LCS	1	58	52.0	2.81	3/8/2010@11:46:49			
247829002	1	59	-1.36	0.0515	3/8/2010@11:47:41			
1202053302||DUP	1	60	-1.35	0.0518	3/8/2010@11:48:33			
WCN100308-03	1	S3	107	5.65	3/8/2010@11:49:26			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		6.9 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		6.9 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100308-08	1	S7	-1.71	0.0332	3/8/2010@11:51:15			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.71 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.71 > -5.00					
	Message		CCB Passed					
	Action		Continue					
1202053305||MS	1	61	108	5.71	3/8/2010@11:53:05			
1202053308||MSD	1	62	108	5.72	3/8/2010@11:54:00			
247865010	1	63	-1.12	0.0636	3/8/2010@11:54:55			
247865012	1	64	-1.20	0.0593	3/8/2010@11:55:48			
1202053303||DUP	1	65	-1.53	0.0427	3/8/2010@11:56:41			
1202053306||MS	1	66	86.3	4.59	3/8/2010@11:57:35			
1202053309||MSD	1	67	102	5.39	3/8/2010@11:58:28			
247865013	1	68	-1.42	0.0483	3/8/2010@11:59:21			
247865014	1	69	-1.44	0.0472	3/8/2010@12:00:15			
247865015	1	70	-1.50	0.0439	3/8/2010@12:01:07			
WCN100308-03	1	S3	106	5.63	3/8/2010@12:02:00			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		6.4 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		6.4 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100308-08	1	S7	-1.63	0.0372	3/8/2010@12:03:51			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.63 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.63 > -5.00					
	Message		CCB Passed					
	Action		Continue					
247865016	1	71	-1.63	0.0374	3/8/2010@12:05:41			
247865017	1	72	-1.38	0.0501	3/8/2010@12:06:33			
247865018	1	73	-2.31	0.00203	3/8/2010@12:07:25			
247865019	1	74	-1.70	0.0337	3/8/2010@12:08:18			
247865020	1	75	-1.21	0.0589	3/8/2010@12:09:10			
247866001	1	76	-1.82	0.0273	3/8/2010@12:10:05			
247919001	1	77	-1.59	0.0392	3/8/2010@12:10:59			
247919002	1	78	-1.41	0.0486	3/8/2010@12:11:53			

247922004	1	79	0.739	0.160	3/8/2010@12:12:48			
1202053301||DUP	1	80	0.641	0.155	3/8/2010@12:13:41			
WCN100308-03	1	S3	107	5.65	3/8/2010@12:14:34			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.86	0.0256	3/8/2010@12:16:24			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202053304||MS	1	81	98.2	5.21	3/8/2010@12:18:14			
1202053307||MSD	1	82	98.4	5.21	3/8/2010@12:19:07			
248164004	1	83	-1.49	0.0445	3/8/2010@12:20:01			
248382002	1	84	-1.58	0.0400	3/8/2010@12:20:54			
248382003	1	85	-1.82	0.0273	3/8/2010@12:21:47			
248401002	1	86	-1.52	0.0428	3/8/2010@12:22:40			
248401004	1	87	-1.38	0.0501	3/8/2010@12:23:33			
WCN100308-03	1	S3	106	5.59	3/8/2010@12:24:25			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.71	0.0334	3/8/2010@12:26:15			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.71 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.71 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_3-8-2010_10-24-48.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 3/8/2010

Channel 1: Current View

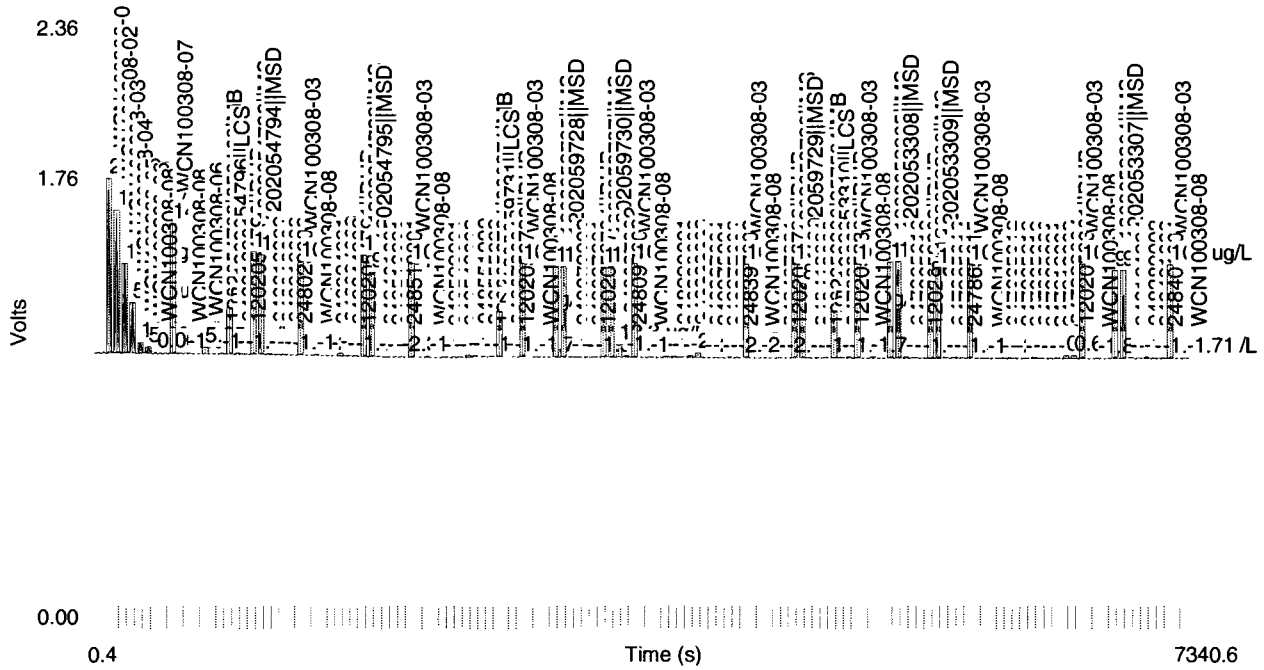

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.4	0.692	0.2	3/8/2010	10:26:48
2	150	1	7.82	0.567	0.7	3/8/2010	10:27:40
3	100	1	5.36	0.353	-1.3	3/8/2010	10:28:32
4	50.0	1	2.85	0.199	-5.1	3/8/2010	10:29:25
5	10.0	1	0.644	0.0420	-0.6	3/8/2010	10:30:18
6	5.00	1	0.400	0.0240	-4.6	3/8/2010	10:31:12
7	0.00	1	-0.0189	-0.00306		3/8/2010	10:32:06

Figure 1: TCYANIDE

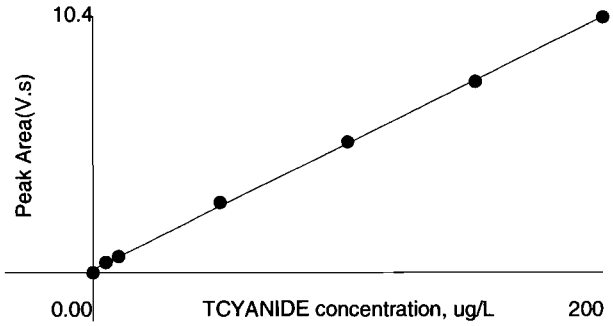

Area = 0.0517 * Conc + 0.124
Conc = 19.3 * Area - 2.35
Correlation Coefficient (r) = 0.99976

No Weighting

Ion Chromatography

This is runlog for Sequence 100303.seq for IC5

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	01/07/10 12:11		1	100303	MAR1
ICAL-06	01/07/10 12:37		1	100303	MAR1
ICAL-05	01/07/10 13:03		1	100303	MAR1
ICAL-04	01/07/10 13:29		1	100303	MAR1
ICAL-03	01/07/10 13:55		1	100303	MAR1
ICAL-02	01/07/10 14:21		1	100303	MAR1
ICAL-01	01/07/10 14:47		1	100303	MAR1

2 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	53	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	010710an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 12:11	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

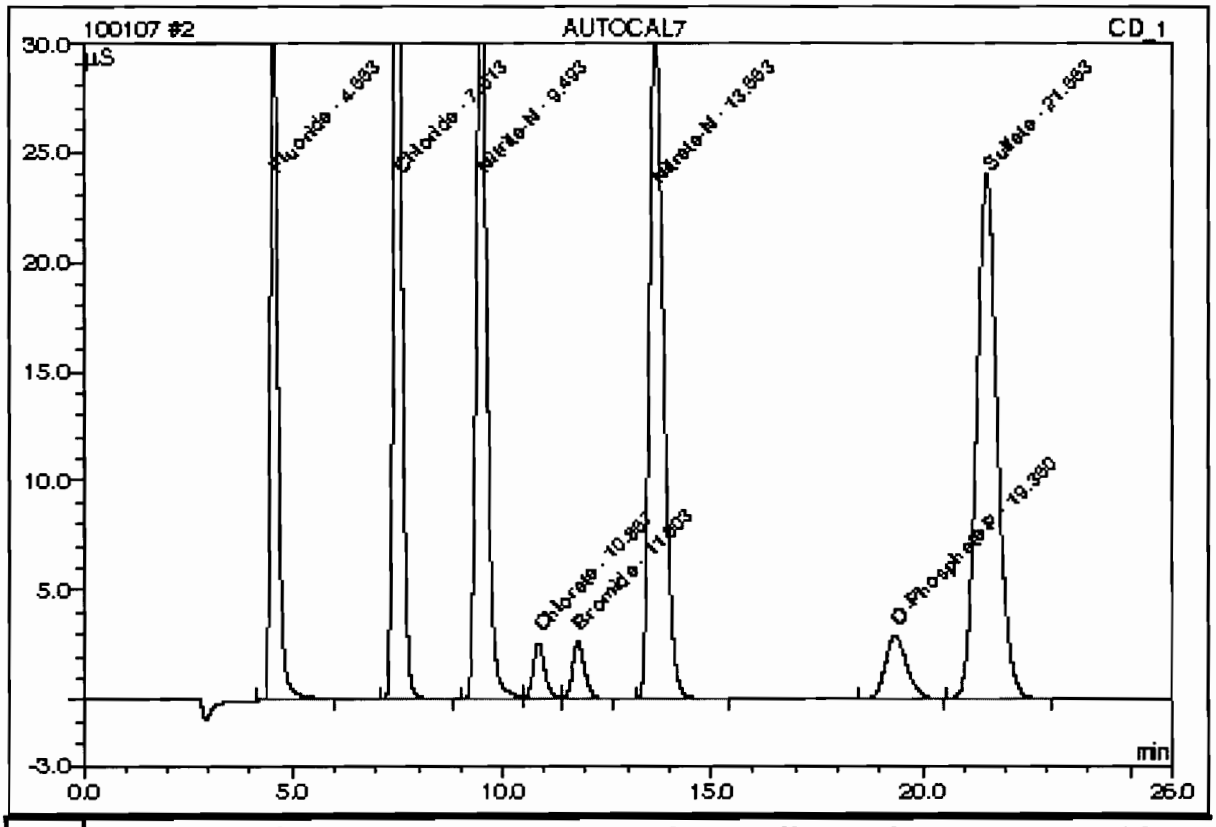

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.56	Fluoride	10.0000	10.0075		6.88790	12.27
2	7.51	Chloride	20.0000	20.0306		10.19791	18.17
3	9.49	Nitrite-N	10.0000	10.0066		9.94253	17.71
4	10.86	Chlorate	5.0000	5.0308		0.84412	1.50
5	11.80	Bromide	5.0000	4.9892		0.88842	1.58
6	13.66	Nitrate-N	10.0000	10.0122		11.85102	21.11
7	19.36	O-Phosphate-P	5.0000	4.9839		1.70262	3.03
8	21.55	Sulfate	40.0000	40.0367		13.81159	24.61
Total:				105.0974	0.000	56.126	100.00

3 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	010710an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 12:37	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

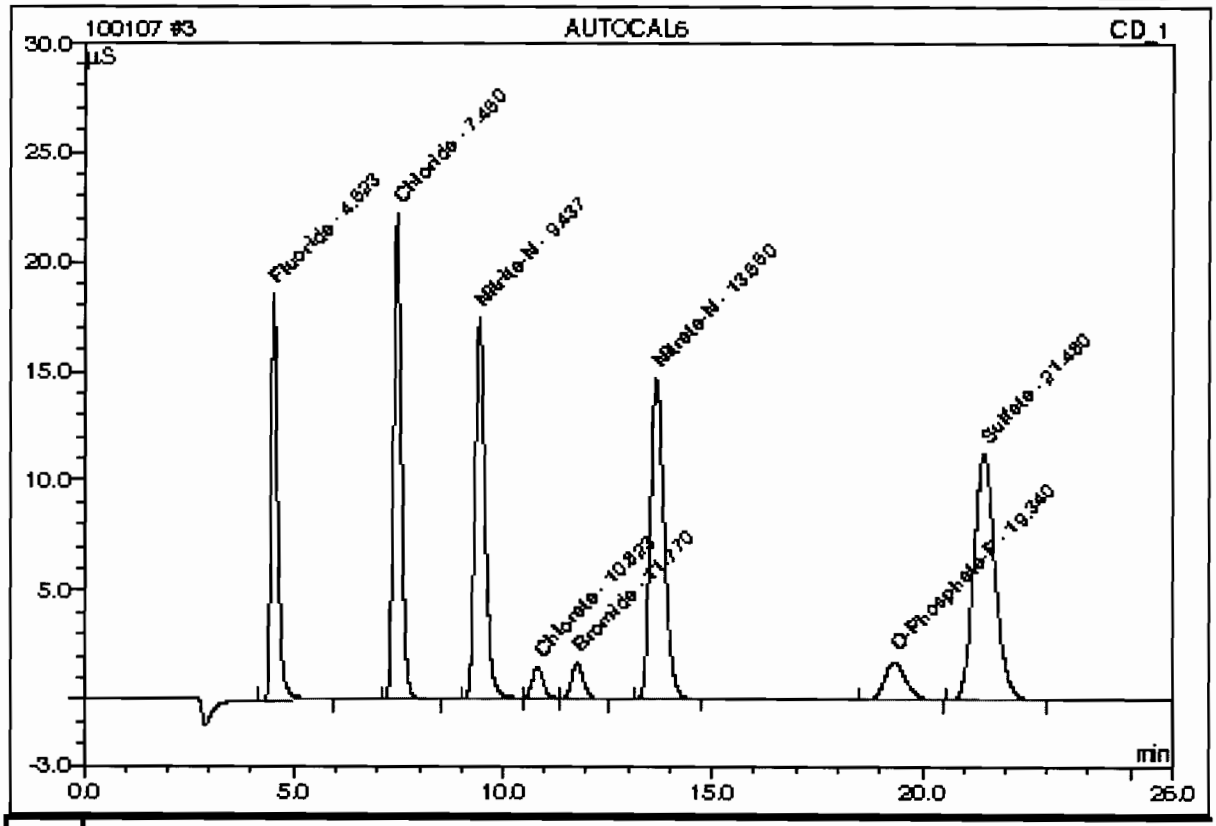

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.52	Fluoride	5.0000	4.9368		3.40433	12.43
2	7.46	Chloride	10.0000	9.5089		4.75068	17.34
3	9.44	Nitrite-N	5.0000	4.9800		4.92907	17.99
4	10.82	Chlorate	3.0000	2.9496		0.49135	1.79
5	11.77	Bromide	3.0000	3.0803		0.55111	2.01
6	13.66	Nitrate-N	5.0000	4.8040		5.59683	20.43
7	19.34	O-Phosphate-P	3.0000	3.0605		1.03825	3.79
8	21.48	Sulfate	20.0000	19.4326		6.63459	24.22
Total:				52.7527	0.000	27.396	100.00

4 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	55	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	010710an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 13:03	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

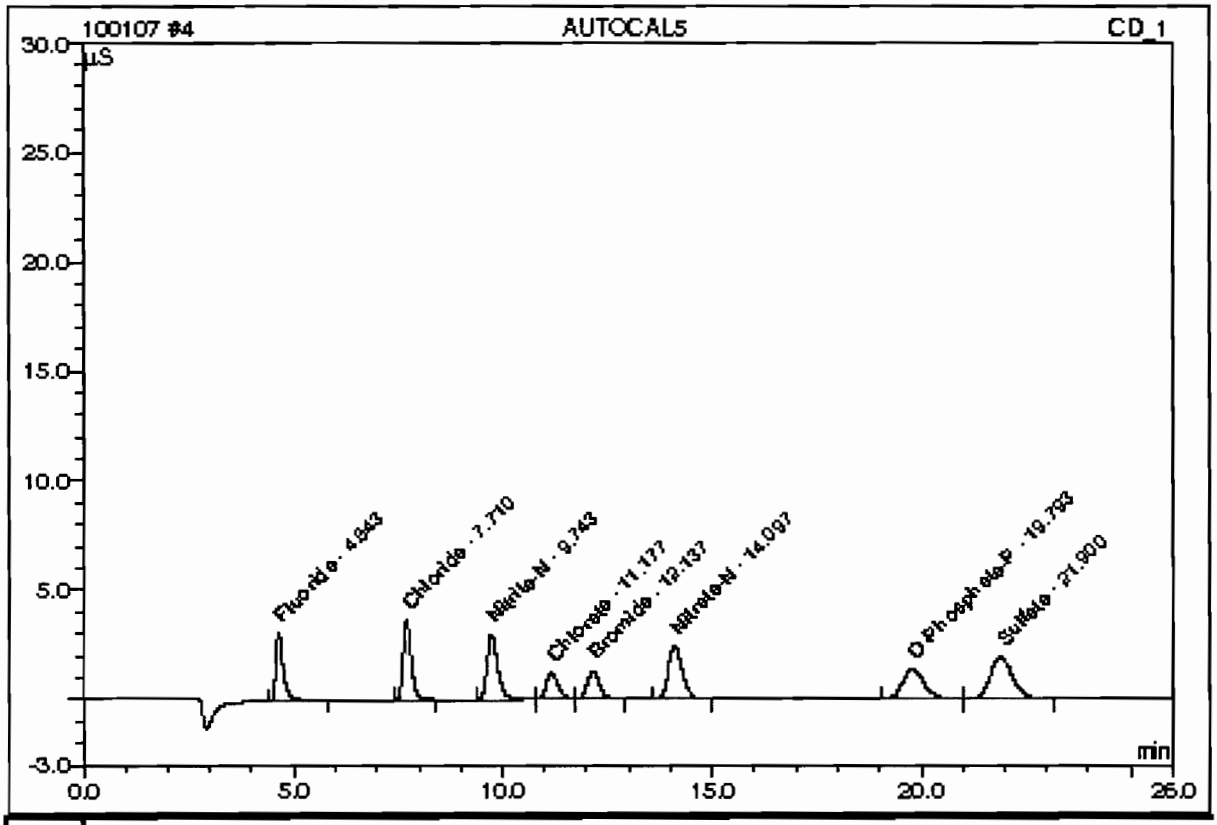

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.64	Fluoride	1.0000	0.9154		0.64332	10.50
2	7.71	Chloride	2.0000	1.8128		0.83397	13.62
3	9.74	Nitrite-N	1.0000	0.9201		0.87392	14.27
4	11.18	Chlorate	2.5000	2.3781		0.39167	6.39
5	12.14	Bromide	2.5000	2.4494		0.43690	7.13
6	14.10	Nitrate-N	1.0000	0.8948		0.95658	15.62
7	19.79	O-Phosphate-P	2.5000	2.4211		0.81248	13.26
8	21.90	Sulfate	4.0000	3.6452		1.17625	19.20
Total:				15.4369	0.000	6.125	100.00

5 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	55	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	010710an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 13:29	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

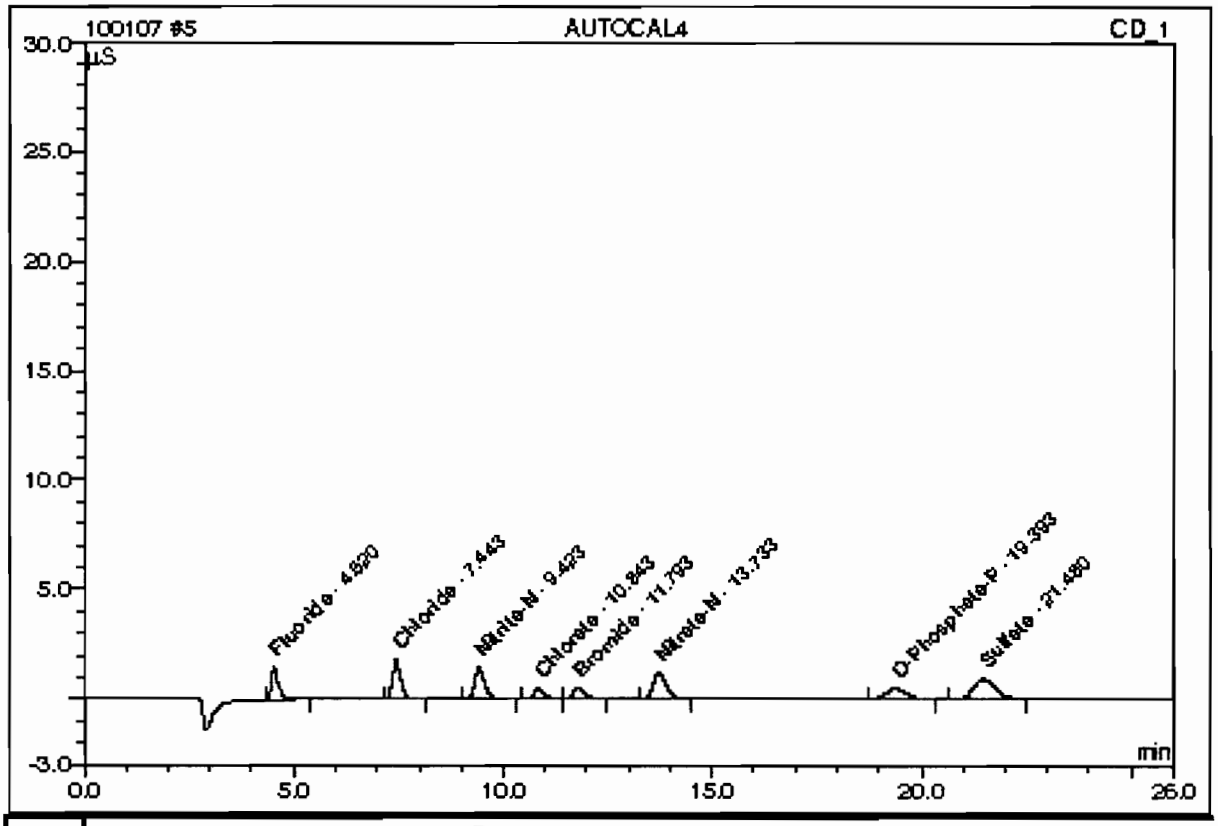

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.52	Fluoride	0.5000	0.4527		0.30488	10.95
2	7.44	Chloride	1.0000	1.0099		0.41158	14.79
3	9.42	Nitrite-N	0.5000	0.4737		0.41905	15.06
4	10.84	Chlorate	1.0000	0.9582		0.15127	5.43
5	11.79	Bromide	1.0000	0.9660		0.16997	6.11
6	13.73	Nitrate-N	0.5000	0.4907		0.46258	16.62
7	19.39	O-Phosphate-P	1.0000	0.9122		0.28586	10.27
8	21.48	Sulfate	2.0000	1.9700		0.57823	20.77
Total:				7.2333	0.000	2.783	100.00

6 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	55	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	010710an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 13:55	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

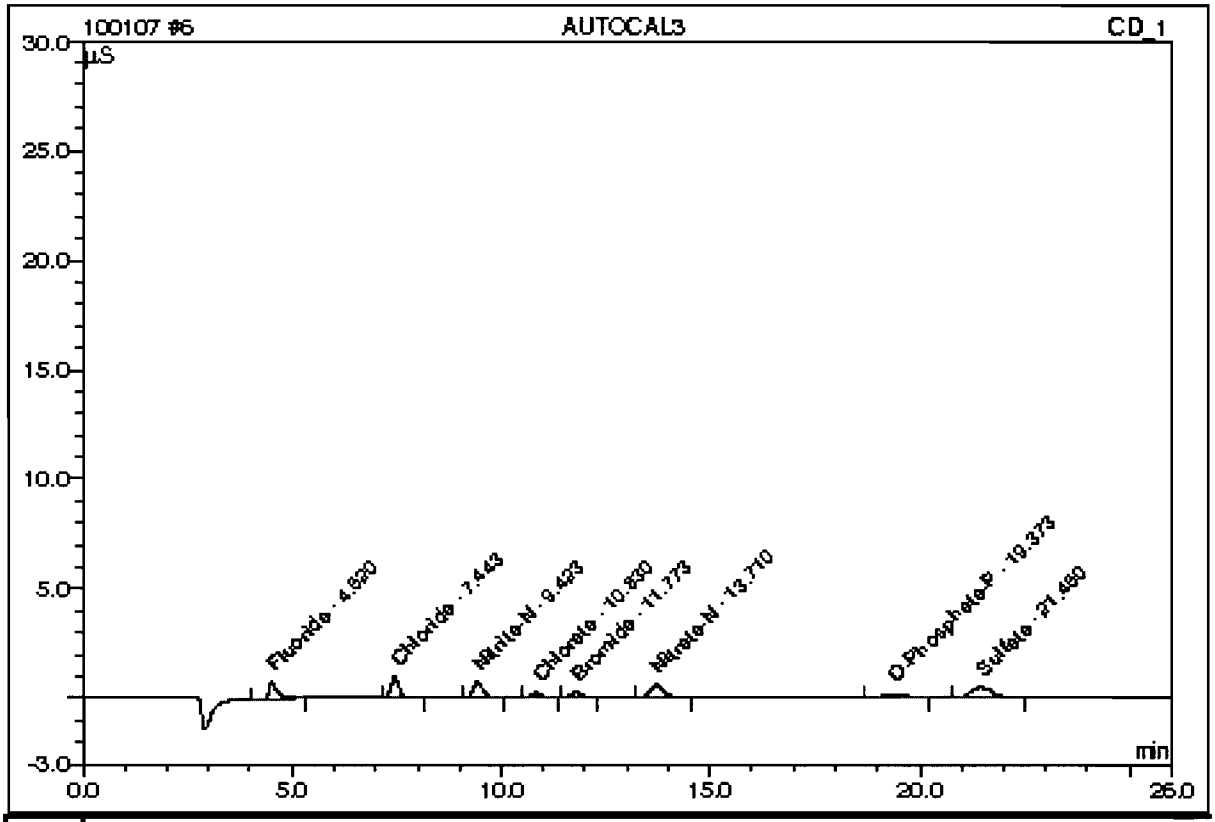

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.52	Fluoride	0.2500	0.2796		0.16814	12.03
2	7.44	Chloride	0.5000	0.6410		0.21925	15.69
3	9.42	Nitrite-N	0.2500	0.2661		0.20381	14.58
4	10.83	Chlorate	0.5000	0.5141		0.07443	5.33
5	11.77	Bromide	0.5000	0.4808		0.08197	5.87
6	13.71	Nitrate-N	0.2500	0.3053		0.23198	16.60
7	19.37	O-Phosphate-P	0.5000	0.4584		0.12529	8.96
8	21.45	Sulfate	1.0000	1.1715		0.29267	20.94
Total:				4.1168	0.000	1.398	100.00

7 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	010710an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 14:21	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

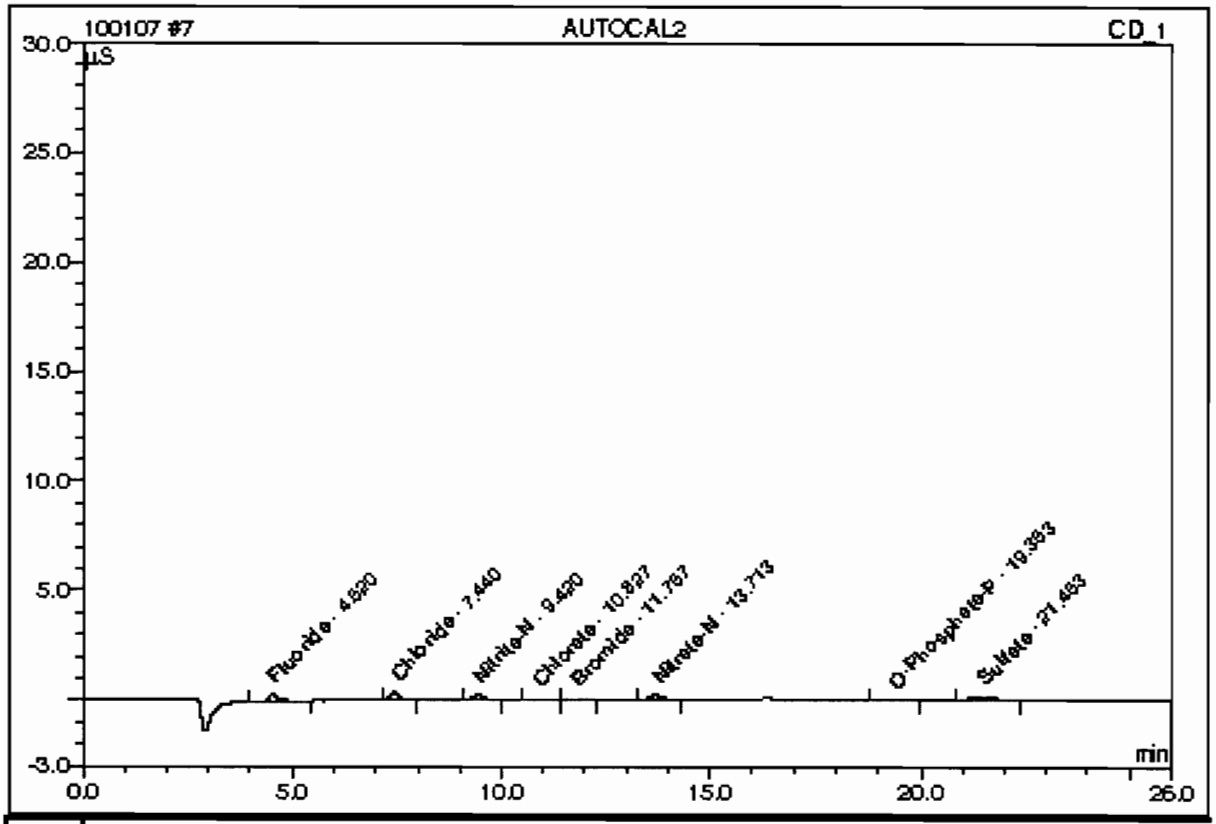

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.52	Fluoride	0.1000	0.1357		0.07521	13.10
2	7.44	Chloride	0.2000	0.3610		0.09754	16.98
3	9.42	Nitrite-N	0.1000	0.1350		0.08179	14.24
4	10.83	Chlorate	0.2000	0.2454		0.03169	5.52
5	11.77	Bromide	0.2000	0.2079		0.03346	5.83
6	13.71	Nitrate-N	0.1000	0.1706		0.09348	16.28
7	19.35	O-Phosphate-P	0.2000	0.1882		0.02997	5.22
8	21.45	Sulfate	0.4000	0.6425		0.13113	22.83
Total:				2.0864	0.000	0.574	100.00

8 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	010710an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 14:47	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

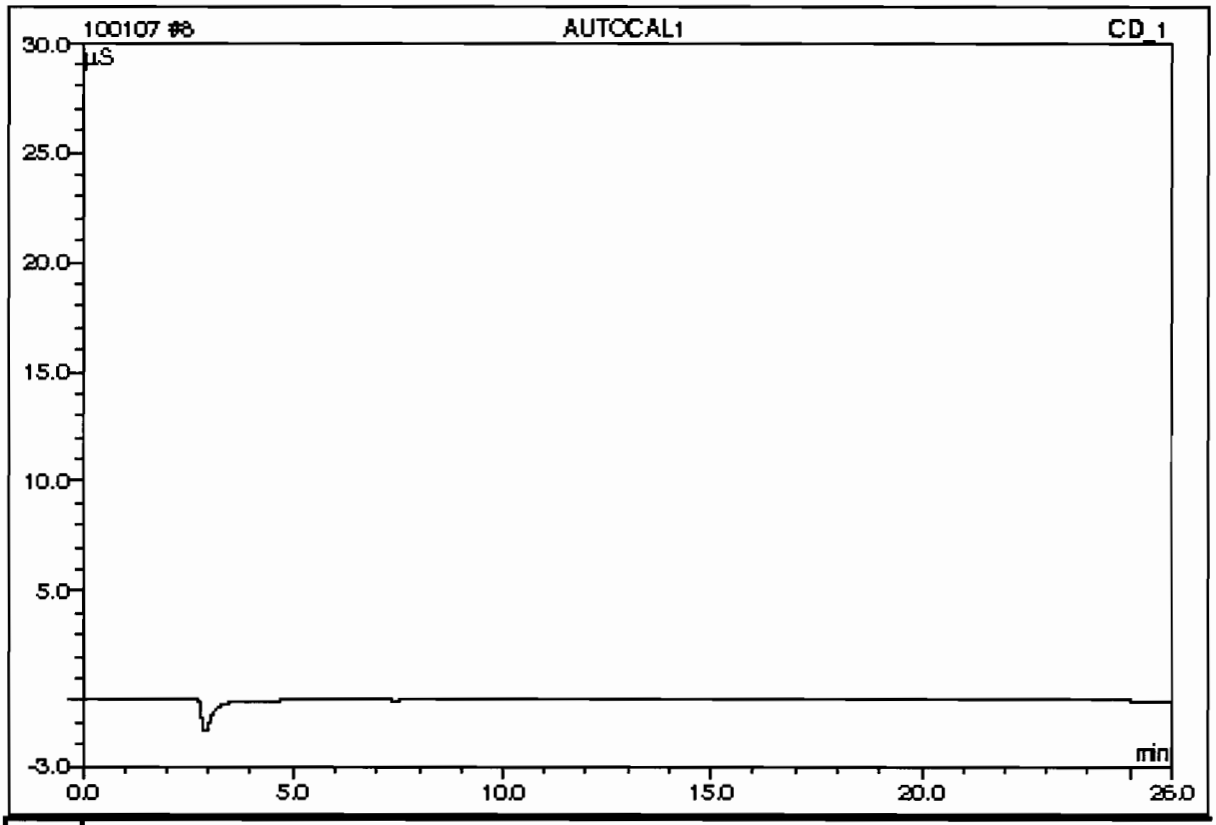

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

8 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	010710an	*Sample Amount:*	1.0000
Recording Time:	1/7/2010 14:47	Analyst:	MAR1
Run Time (min):	26.00	Column:	AS23-002588; GLGCB086;300;9056

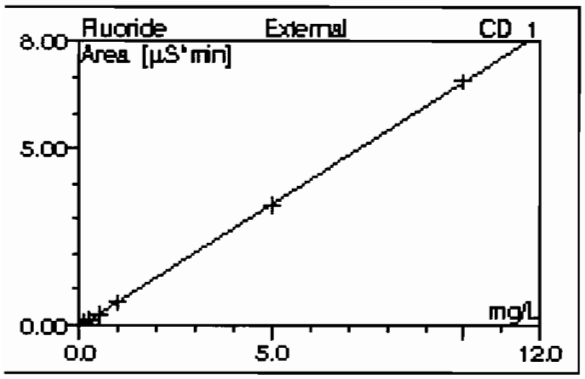

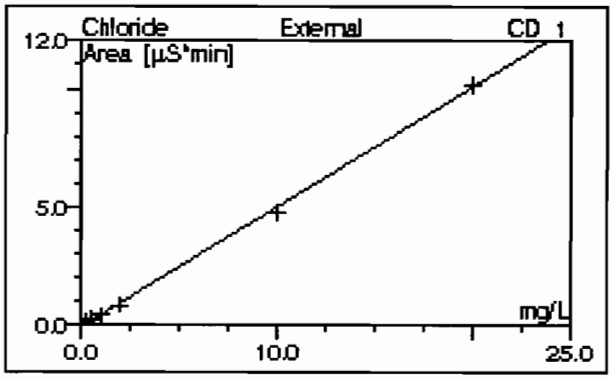

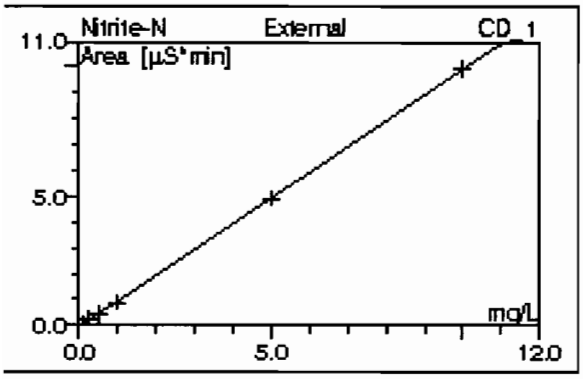

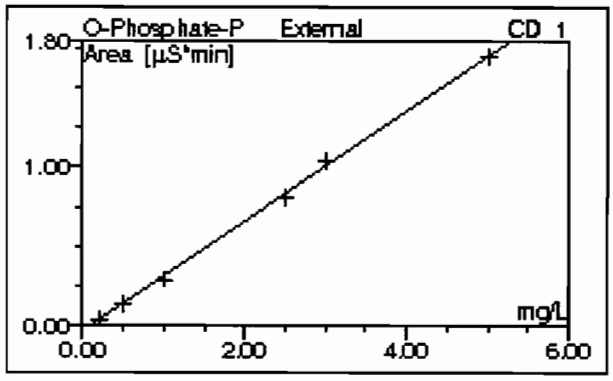

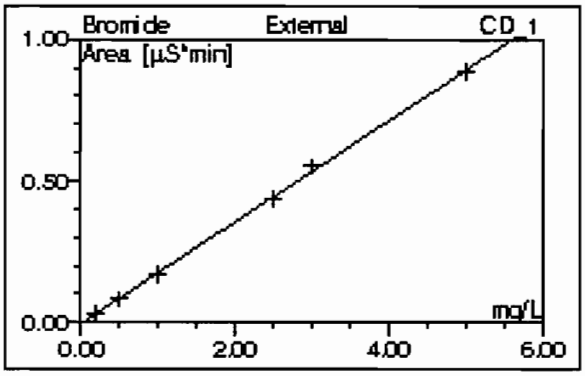

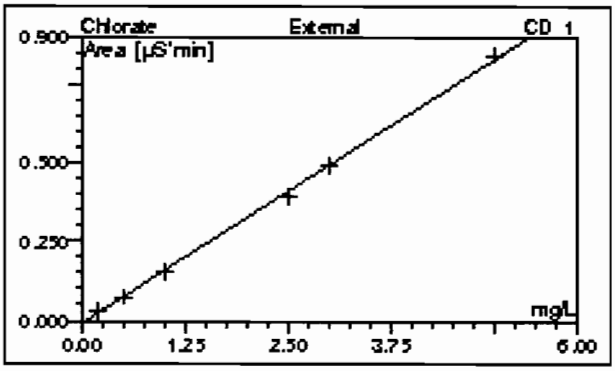

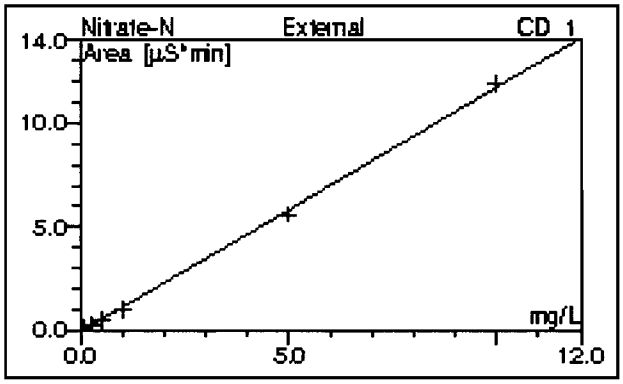

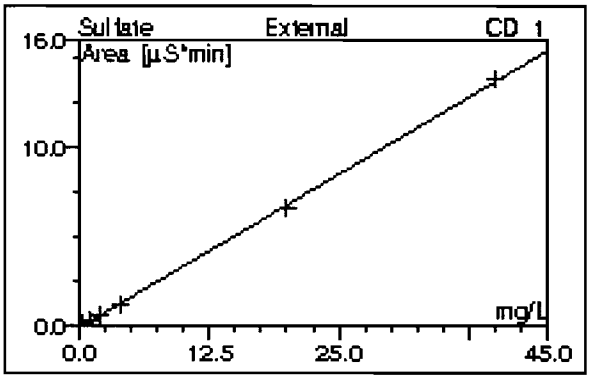

No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	0LOff	99.9926	-0.0183	0.6891	0.0000
n.a.	n.a.	Chloride	0LOff	99.8864	-0.0858	0.5078	0.0000
n.a.	n.a.	Nitrite-N	0LOff	99.9907	-0.0530	0.9983	0.0000
n.a.	n.a.	Chlorate	0LOff	99.8631	-0.0096	0.1682	0.0000
n.a.	n.a.	Bromide	0LOff	99.9240	-0.0038	0.1794	0.0000
n.a.	n.a.	Nitrate-N	0LOff	99.9248	-0.1085	1.1841	0.0000
n.a.	n.a.	O-Phosphate-P	0LOff	99.8904	-0.0355	0.3478	0.0000
n.a.	n.a.	Sulfate	0LOff	99.9585	-0.0906	0.3451	0.0000
Average:				99.9288	-0.0506	0.5525	0.0000

This is runlog for Sequence 100108.seq for IC5

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	01/08/10 08:36		1	100108	GXM3
BLK	01/08/10 09:02		1	100108	GXM3
ICV	01/08/10 09:29		1	100108	GXM3
ICB	01/08/10 09:55		1	100108	GXM3
CVH	01/08/10 10:21		1	100108	GXM3
CCV	01/08/10 10:47		1	100108	GXM3
CCB_blue	01/08/10 11:13		1	100108	GXM3
CCB_red	01/08/10 11:39		1	100108	GXM3
CCB newred	01/08/10 12:13		1	100108	GXM3
CCV	01/08/10 12:39		1	100108	GXM3
CCB	01/08/10 13:05		1	100108	GXM3
1202002251	01/08/10 13:31	935759	1	100108	GXM3
1202002258	01/08/10 13:57	935759	1	100108	GXM3
243267001	01/08/10 14:24	935759	1	100108	GXM3
1202002252	01/08/10 14:50	935759	1	100108	GXM3
1202002254	01/08/10 15:16	935759	1	100108	GXM3
1202002256	01/08/10 15:42	935759	1	100108	GXM3
243267002	01/08/10 16:08	935759	1	100108	GXM3
243267003	01/08/10 16:34	935759	1	100108	GXM3
243267004	01/08/10 17:00	935759	1	100108	GXM3
243267005	01/08/10 17:26	935759	1	100108	GXM3
CVH	01/08/10 17:52		1	100108	GXM3
CCB	01/08/10 18:18		1	100108	GXM3
243267006	01/08/10 18:44	935759	1	100108	GXM3
243267007	01/08/10 19:11	935759	1	100108	GXM3
243267008	01/08/10 19:37	935759	1	100108	GXM3
243267009	01/08/10 20:03	935759	1	100108	GXM3
243267010	01/08/10 20:29	935759	1	100108	GXM3

243267011	01/08/10	20:55	935759	1	100108	GXM3
243267012	01/08/10	21:21	935759	1	100108	GXM3
243267013	01/08/10	21:47	935759	1	100108	GXM3
CCV	01/08/10	22:13		1	100108	GXM3
CCB	01/08/10	22:39		1	100108	GXM3
243267014	01/08/10	23:05	935759	1	100108	GXM3
1202002253	01/08/10	23:31	935759	1	100108	GXM3
1202002255	01/08/10	23:58	935759	1	100108	GXM3

11 WIC100108-02ICV

Sample Name:	WIC100108-02ICV	*Injection Volume:*	50.0
Vial Number:	57	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	010710an	*Sample Amount:*	1.0000
Recording Time:	1/8/2010 9:29	Analyst:	GXM3
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

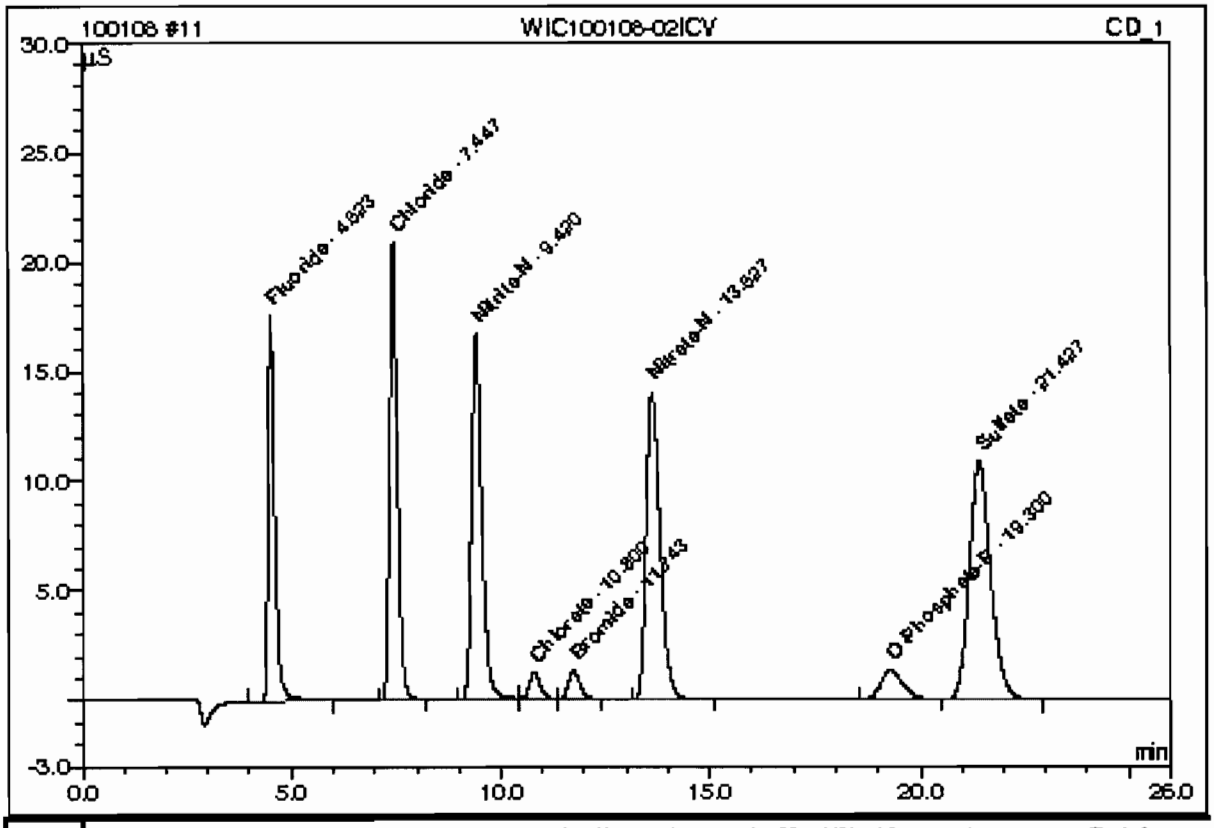

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.52	Fluoride	n.a.	4.7674		3.26709	12.58
2	7.45	Chloride	n.a.	9.0159		4.49213	17.30
3	9.42	Nitrite-N	n.a.	4.8040		4.74281	18.27
4	10.80	Chlorate	n.a.	2.4366		0.40017	1.54
5	11.74	Bromide	n.a.	2.4111		0.42871	1.65
6	13.63	Nitrate-N	n.a.	4.6467		5.39362	20.78
7	19.30	O-Phosphate-P	n.a.	2.4327		0.81053	3.12
8	21.43	Sulfate	n.a.	18.8842		6.42603	24.75
Total:				49.3986	0.000	25.961	100.00

12 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	58	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	010710an	*Sample Amount:*	1.0000
Recording Time:	1/8/2010 9:55	Analyst:	GXM3
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

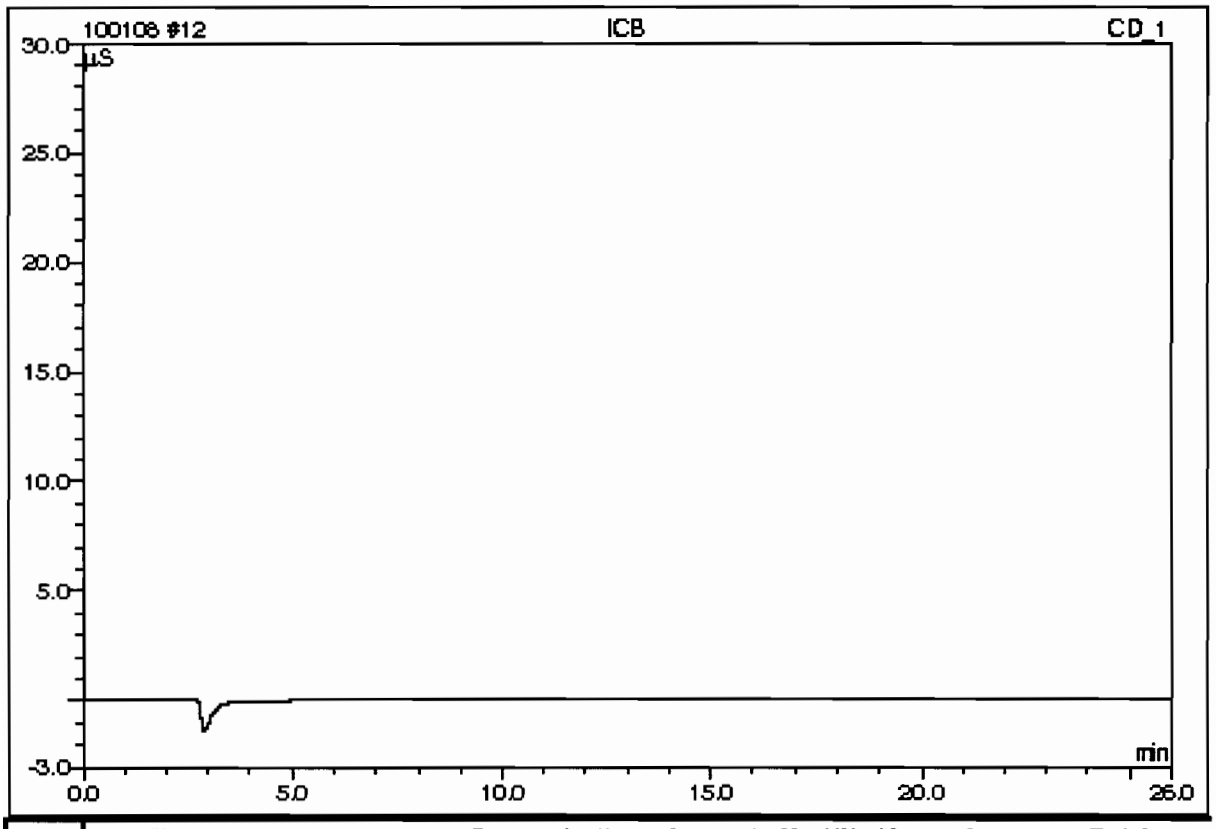

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100320.seq for IC5

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/20/10 16:51		1	100320	VH1
BLK	03/20/10 17:17		1	100320	VH1
ICV	03/20/10 17:43		1	100320	VH1
ICB	03/20/10 18:09		1	100320	VH1
1202070174	03/20/10 18:35	964916	1	100320	VH1
1202070177	03/20/10 19:02	964916	1	100320	VH1
249318001	03/20/10 19:28	964916	50	100320	VH1
1202070175	03/20/10 19:54	964916	50	100320	VH1
1202070176	03/20/10 20:20	964916	50	100320	VH1
249318002	03/20/10 20:46	964916	50	100320	VH1
249318003	03/20/10 21:12	964916	50	100320	VH1
249318004	03/20/10 21:38	964916	50	100320	VH1
249318005	03/20/10 22:04	964916	50	100320	VH1
249318006	03/20/10 22:30	964916	50	100320	VH1
CCV	03/20/10 22:56		1	100320	VH1
CCB	03/20/10 23:22		1	100320	VH1
249318007	03/20/10 23:49	964916	50	100320	VH1

23 WIC100320-02ICV

Sample Name:	WIC100320-02ICV	*Injection Volume:*	50.0
Vial Number:	93	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/20/2010 17:43	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

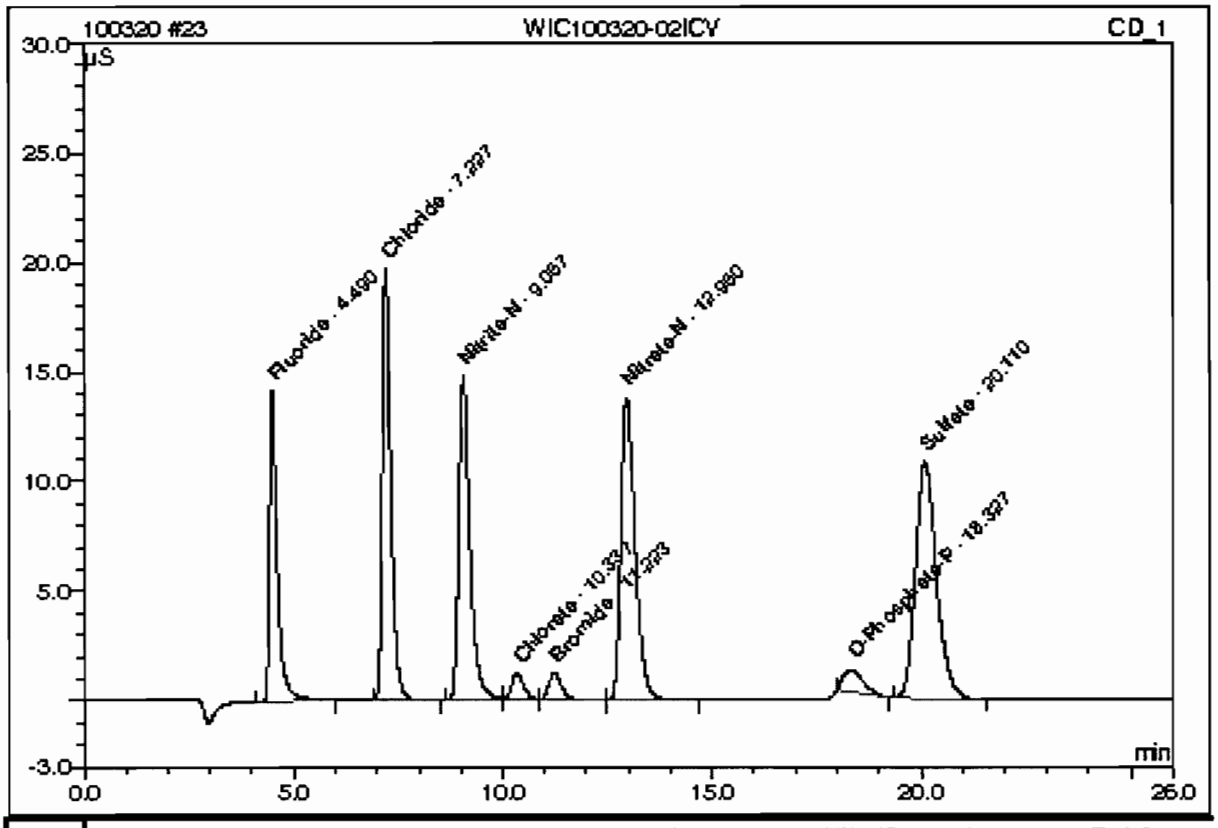

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.49	Fluoride	n.a.	4.6807		3.11959	12.24
2	7.23	Chloride	n.a.	9.0630		4.58983	18.01
3	9.07	Nitrite-N	n.a.	4.7940		4.57231	17.94
4	10.34	Chlorate	n.a.	2.5620		0.41952	1.65
5	11.22	Bromide	n.a.	2.5536		0.44720	1.75
6	12.96	Nitrate-N	n.a.	4.6858		5.41987	21.27
7	18.33	O-Phosphate-P	n.a.	1.8137		0.54278	2.13
8	20.11	Sulfate	n.a.	18.7050		6.37140	25.00
Total:				48.8579	0.000	25.483	100.00

24 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	90	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/20/2010 18:09	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

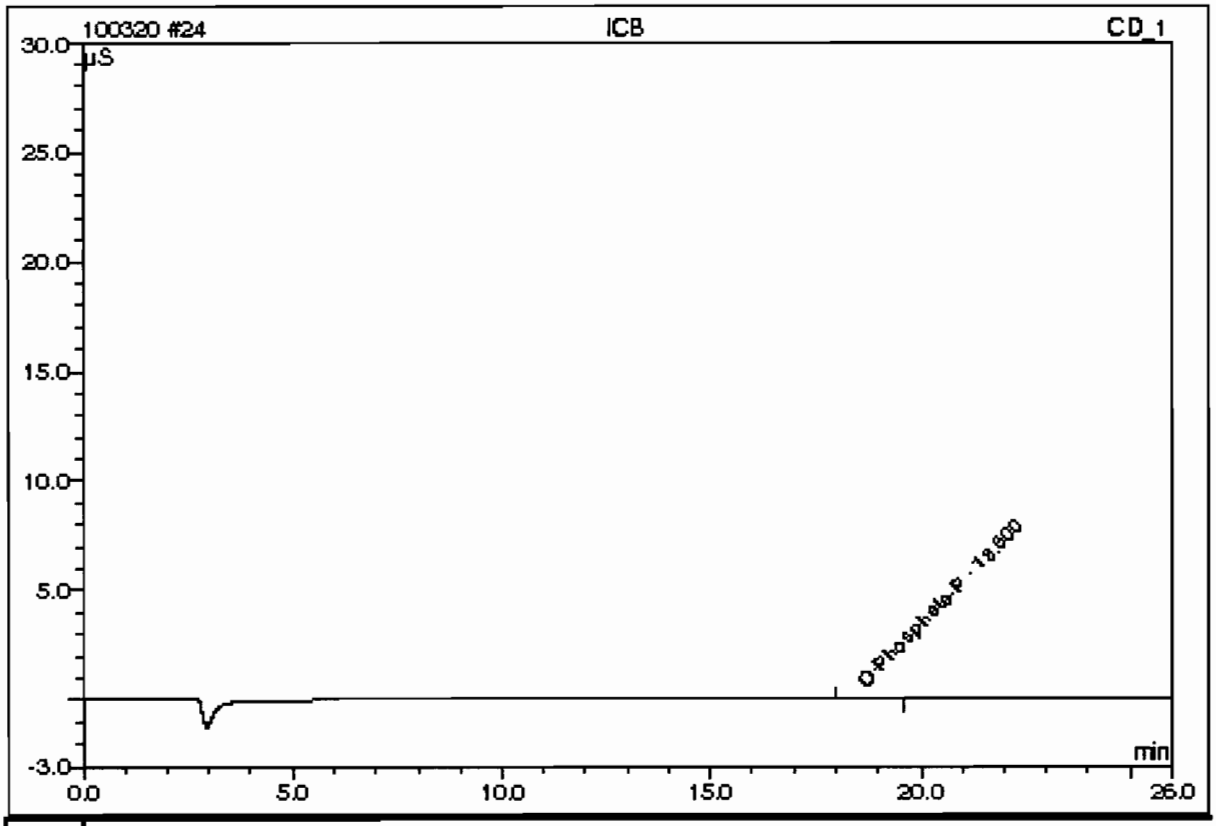

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
1	18.60	O-Phosphate-P	n.a.	0.2159		0.03694	100.00
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.2159	0.000	0.037	100.00

This is runlog for Sequence 100320.seq for IC5

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
CVH	03/21/10 00:15		1	100320	VH1
CCB	03/21/10 00:41		1	100320	VH1
1202074932	03/21/10 01:07	966823	1	100320	VH1
1202074935	03/21/10 01:33	966823	1	100320	VH1
248023001	03/21/10 01:59	966823	1	100320	VH1
1202074933	03/21/10 02:25	966823	1	100320	VH1
1202074934	03/21/10 02:51	966823	1	100320	VH1
248044001	03/21/10 03:17	966823	1	100320	VH1
248044003	03/21/10 03:43	966823	1	100320	VH1
248044005	03/21/10 04:10	966823	1	100320	VH1
248044006	03/21/10 04:36	966823	1	100320	VH1
248164001	03/21/10 05:02	966823	1	100320	VH1
CCV	03/21/10 05:28		1	100320	VH1
CCB	03/21/10 05:54		1	100320	VH1
248164003	03/21/10 06:20	966823	1	100320	VH1
CVH	03/21/10 06:46		1	100320	VH1
CCB	03/21/10 07:12		1	100320	VH1
1202069031	03/21/10 07:38	964420	1	100320	VH1
1202069034	03/21/10 08:04	964420	10	100320	VH1
248999001	03/21/10 08:30	964420	1	100320	VH1
1202069032	03/21/10 08:57	964420	1	100320	VH1
1202069033	03/21/10 09:23	964420	1	100320	VH1
CVH	03/21/10 09:49		1	100320	VH1
CCB	03/21/10 10:15		1	100320	VH1
BLK	03/21/10 10:41		1	100320	VH1
BLK	03/21/10 11:16		1	100320	VH1
BLK	03/21/10 11:51		1	100320	VH1
ICV	03/21/10 12:26		1	100320	VH1

ICB	03/21/10 13:01		1	100320	VH1
1202070164	03/21/10 13:36	964914	1	100320	VH1
1202070169	03/21/10 14:11	964914	1	100320	VH1
248778001	03/21/10 14:47	964914	1	100320	VH1
1202070165	03/21/10 15:22	964914	1	100320	VH1
1202070167	03/21/10 15:57	964914	1	100320	VH1
248783001	03/21/10 16:32	964914	1	100320	VH1
248792001	03/21/10 17:07	964914	1	100320	VH1
248799001	03/21/10 17:42	964914	1	100320	VH1
249057004	03/21/10 18:17	964914	1	100320	VH1
249064001	03/21/10 18:52	964914	1	100320	VH1
CCV	03/21/10 19:27		1	100320	VH1
CCB	03/21/10 20:02		1	100320	VH1
249072001	03/21/10 20:37	964914	1	100320	VH1
249076001	03/21/10 21:13	964914	1	100320	VH1
249076002	03/21/10 21:48	964914	1	100320	VH1
249097001	03/21/10 22:23	964914	1	100320	VH1
249102001	03/21/10 22:58	964914	1	100320	VH1
249248005	03/21/10 23:33	964914	1	100320	VH1

38 WIC100320-02CVH

Sample Name:	WIC100320-02CVH	*Injection Volume:*	50.0
Vial Number:	93	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 0:15	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

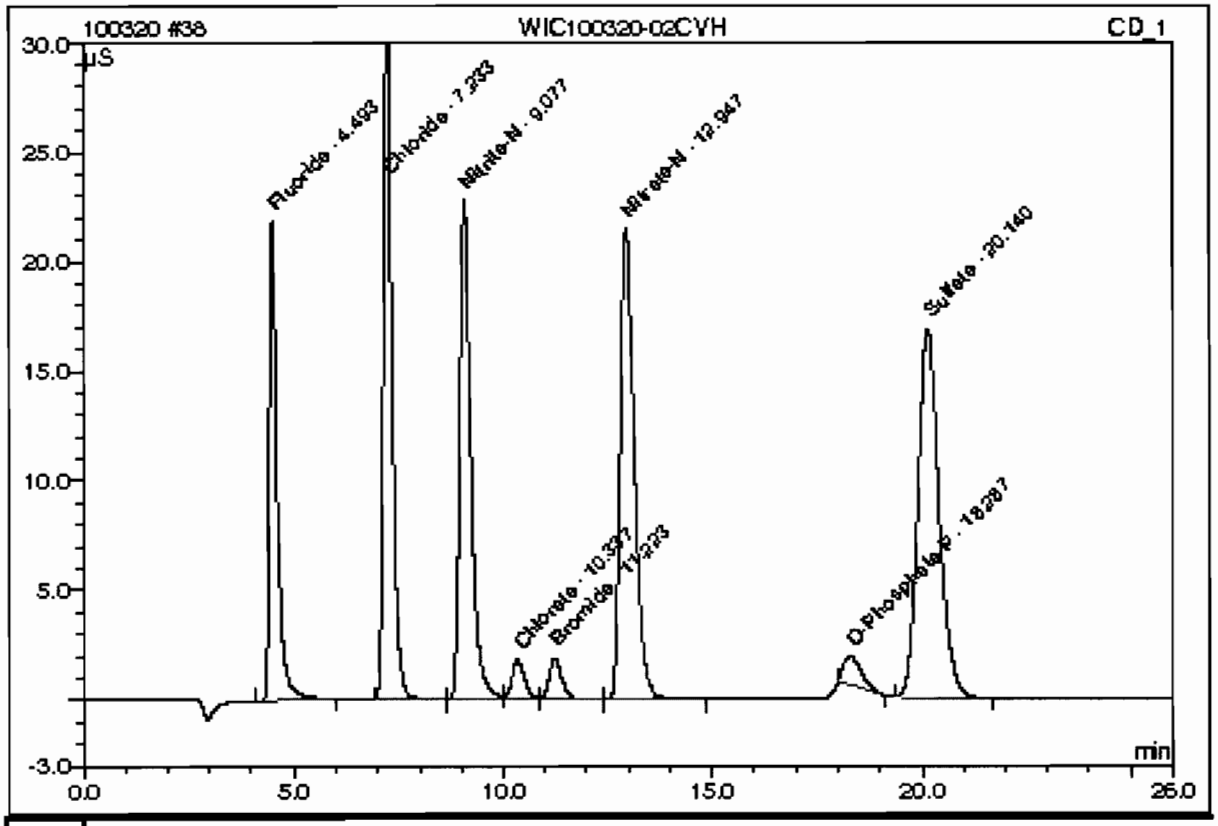

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.49	Fluoride	n.a.	7.1264		4.77431	12.17
2	7.23	Chloride	n.a.	14.0241		7.13072	18.18
3	9.08	Nitrite-N	n.a.	7.3120		7.01040	17.88
4	10.34	Chlorate	n.a.	3.8002		0.62789	1.60
5	11.22	Bromide	n.a.	3.7803		0.66576	1.70
6	12.95	Nitrate-N	n.a.	7.2743		8.47896	21.62
7	18.29	O-Phosphate-P	n.a.	2.0917		0.63081	1.61
8	20.14	Sulfate	n.a.	28.8793		9.89591	25.24
Total:				74.2884	0.000	39.215	100.00

39 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	90	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 0:41	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

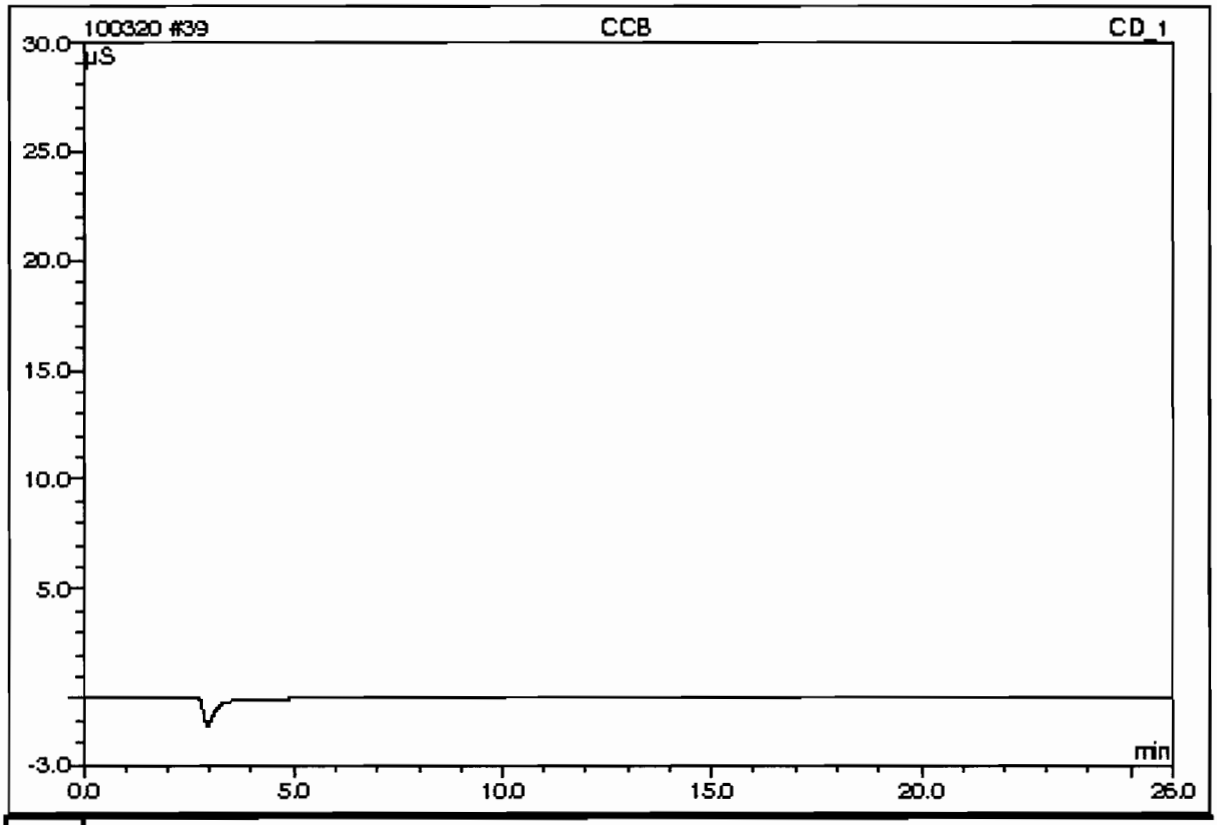

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

40 1202074932/966823/1/1/MB

Sample Name:	1202074932/966823/1/1/MB	*Injection Volume:*	50.0
Vial Number:	91	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 1:07	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

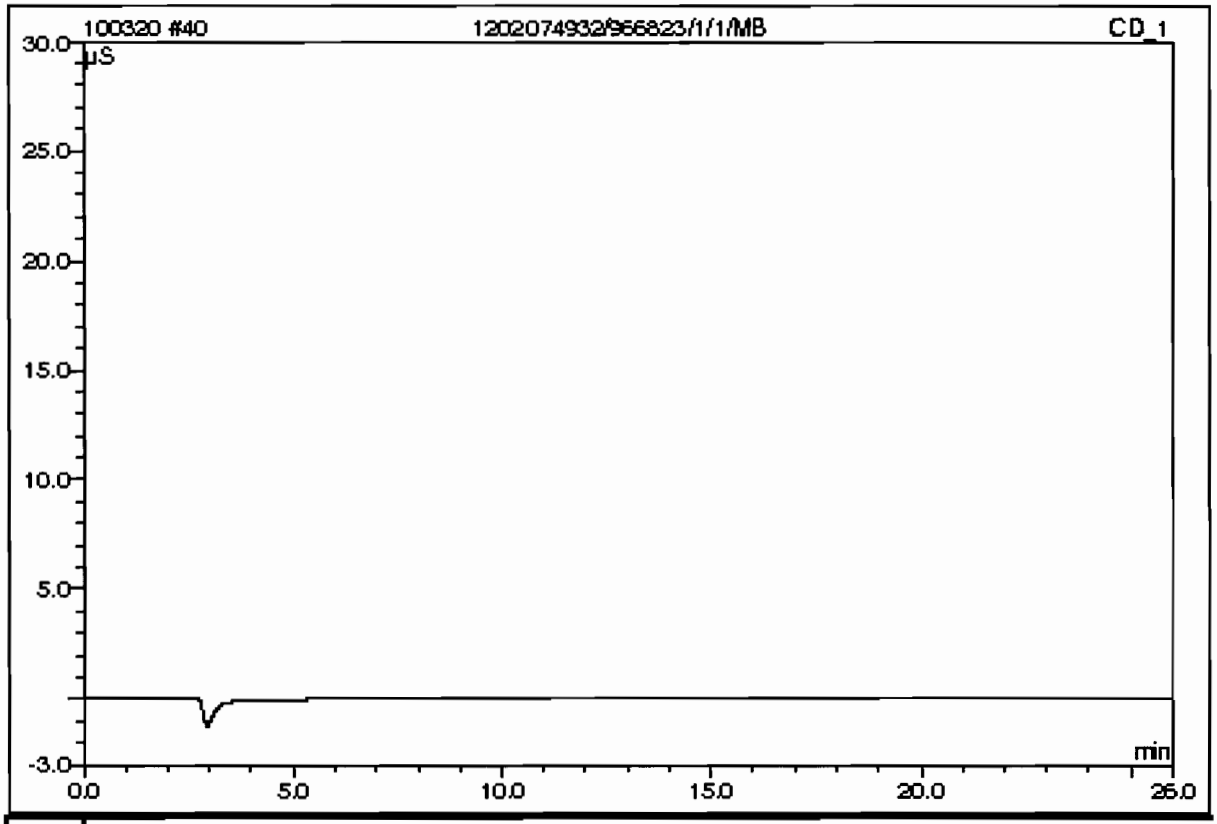

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

41 1202074935/966823/1/1/LCS

Sample Name:	1202074935/966823/1/1/LCS	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 1:33	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

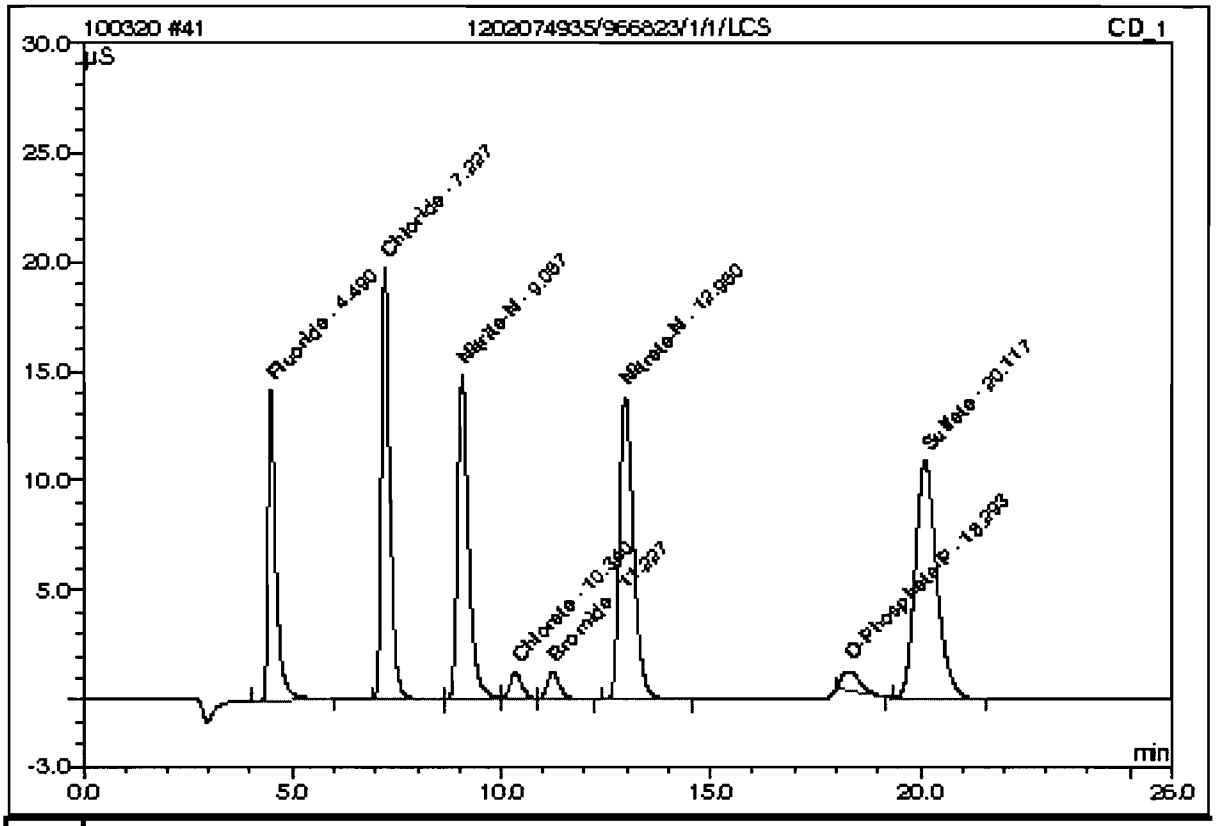

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.49	Fluoride	n.a.	4.6807		3.11957	12.27
2	7.23	Chloride	n.a.	9.0781		4.59758	18.09
3	9.07	Nitrite-N	n.a.	4.7993		4.57750	18.01
4	10.34	Chlorate	n.a.	2.5528		0.41797	1.64
5	11.23	Bromide	n.a.	2.5273		0.44250	1.74
6	12.96	Nitrate-N	n.a.	4.6932		5.42860	21.36
7	18.29	O-Phosphate-P	n.a.	1.4831		0.43814	1.72
8	20.12	Sulfate	n.a.	18.7774		6.39647	25.16
Total:				48.5920	0.000	25.418	100.00

42 248023001/966823/1/1/

Sample Name:	248023001/966823/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 1:59	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

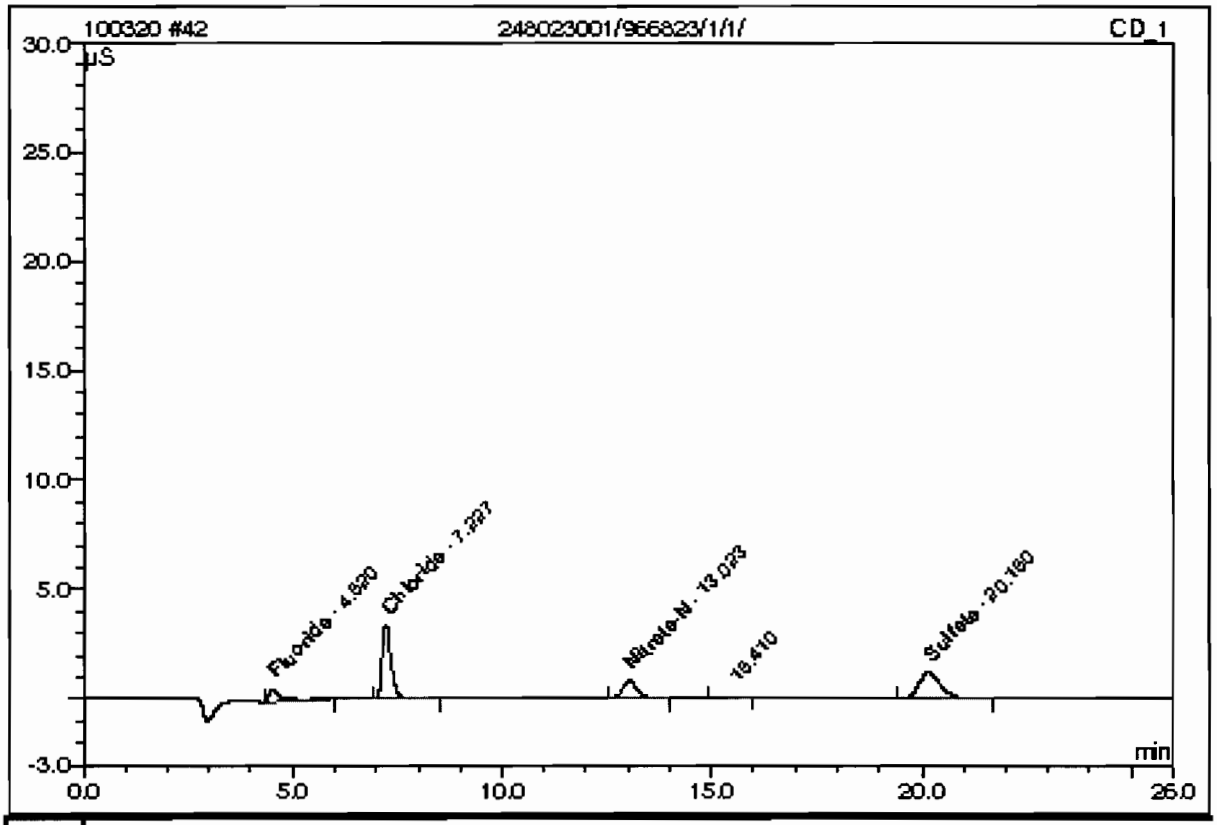

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.52	Fluoride	n.a.	0.3749		0.20634	9.46
2	7.23	Chloride	n.a.	1.7509		0.84486	38.75
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.02	Nitrate-N	n.a.	0.3883		0.34104	15.64
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	20.16	Sulfate	n.a.	2.4711		0.74774	34.29
Total:				4.9853	0.000	2.140	98.14

42 248023001/966823/1/1/

Sample Name:	248023001/966823/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 1:59	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

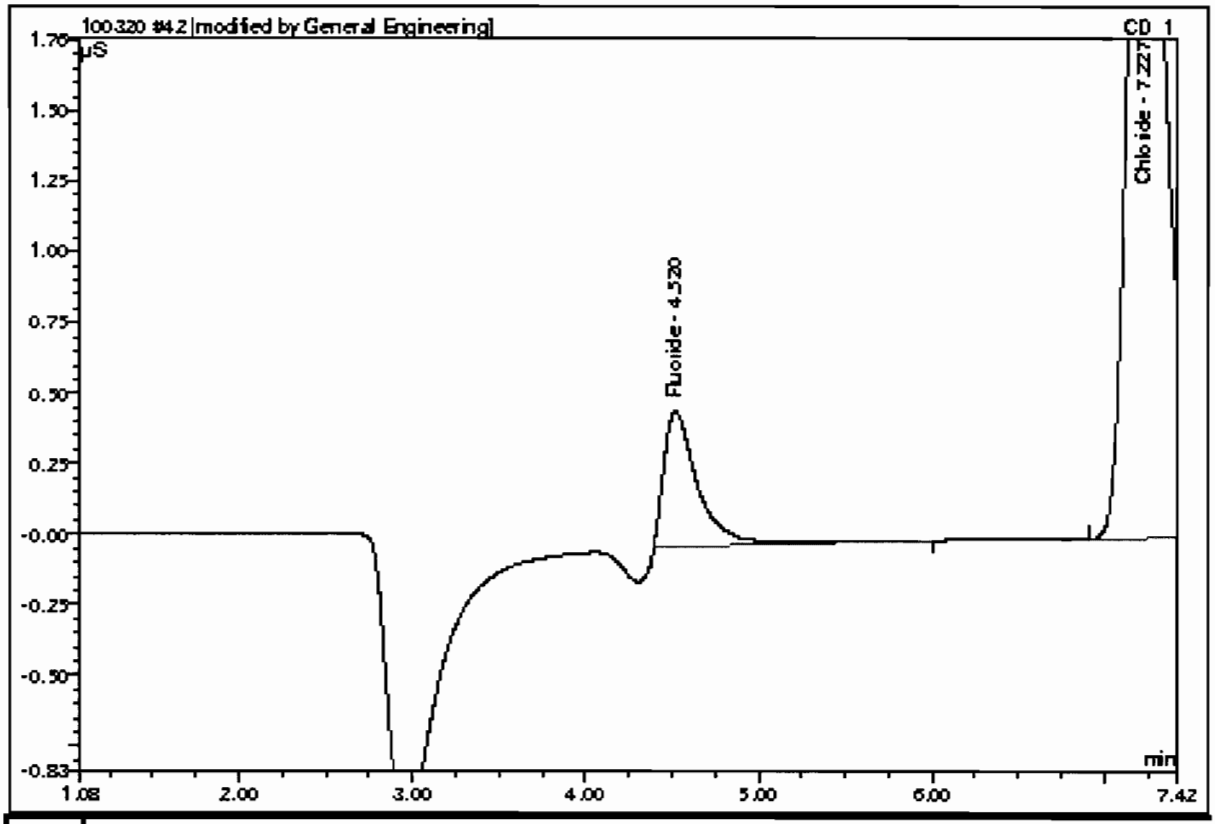

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.52	Fluoride	n.a.	0.2330		0.11029	5.29
2	7.23	Chloride	n.a.	1.7509		0.84486	40.53
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.02	Nitrate-N	n.a.	0.3883		0.34104	16.36
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	20.16	Sulfate	n.a.	2.4711		0.74774	35.87
Total:				4.8433	0.000	2.044	98.05

42 248023001/966823/1/1/

Sample Name:	248023001/966823/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 1:59	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

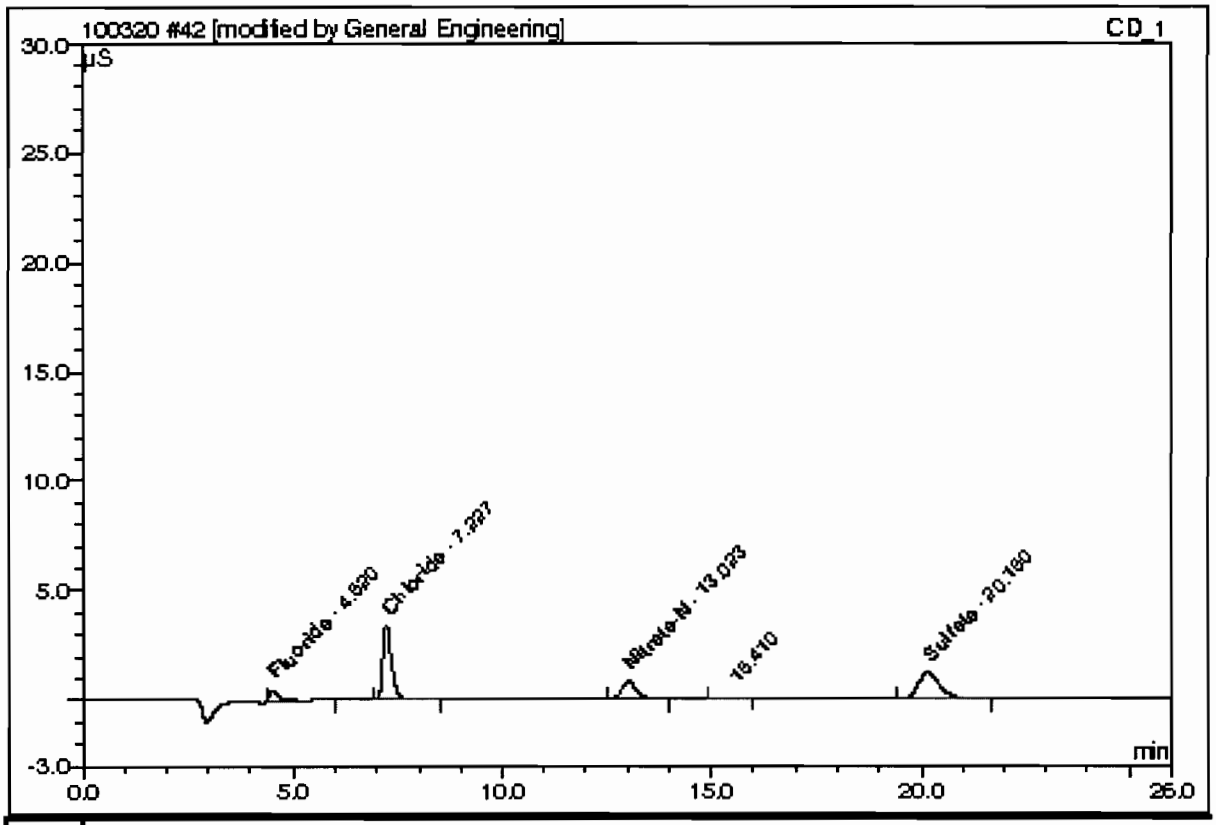

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.52	Fluoride	n.a.	0.2330		0.11029	5.29
2	7.23	Chloride	n.a.	1.7509		0.84486	40.53
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.02	Nitrate-N	n.a.	0.3883		0.34104	16.36
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	20.16	Sulfate	n.a.	2.4711		0.74774	35.87
Total:				4.8433	0.000	2.044	98.05

43 1202074933/966823/1/1/DUP

Sample Name:	1202074933/966823/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 2:25	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

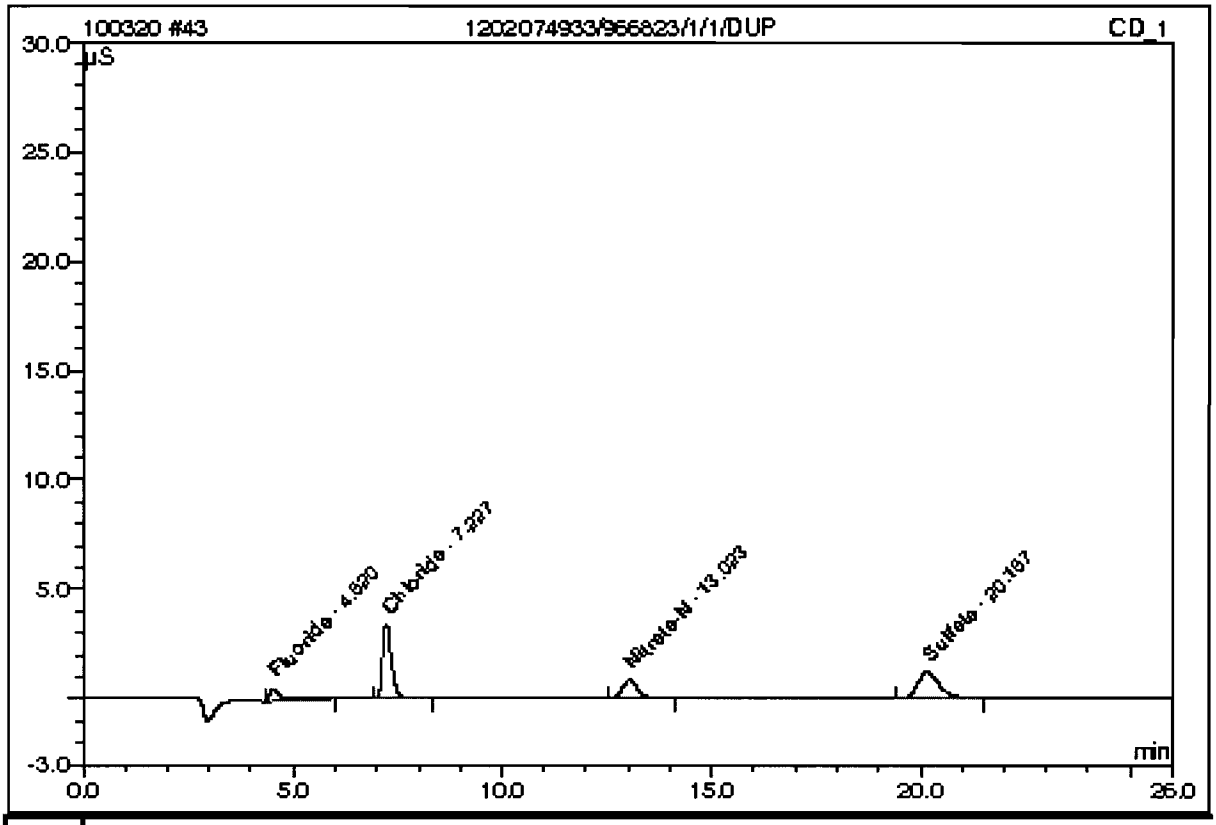

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.52	Fluoride	n.a.	0.3736		0.20546	9.59
2	7.23	Chloride	n.a.	1.7432		0.84094	39.24
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.02	Nitrate-N	n.a.	0.3910		0.34420	16.06
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	20.17	Sulfate	n.a.	2.4842		0.75226	35.11
Total:				4.9920	0.000	2.143	100.00

43 1202074933/966823/1/1/DUP

Sample Name:	1202074933/966823/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 2:25	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

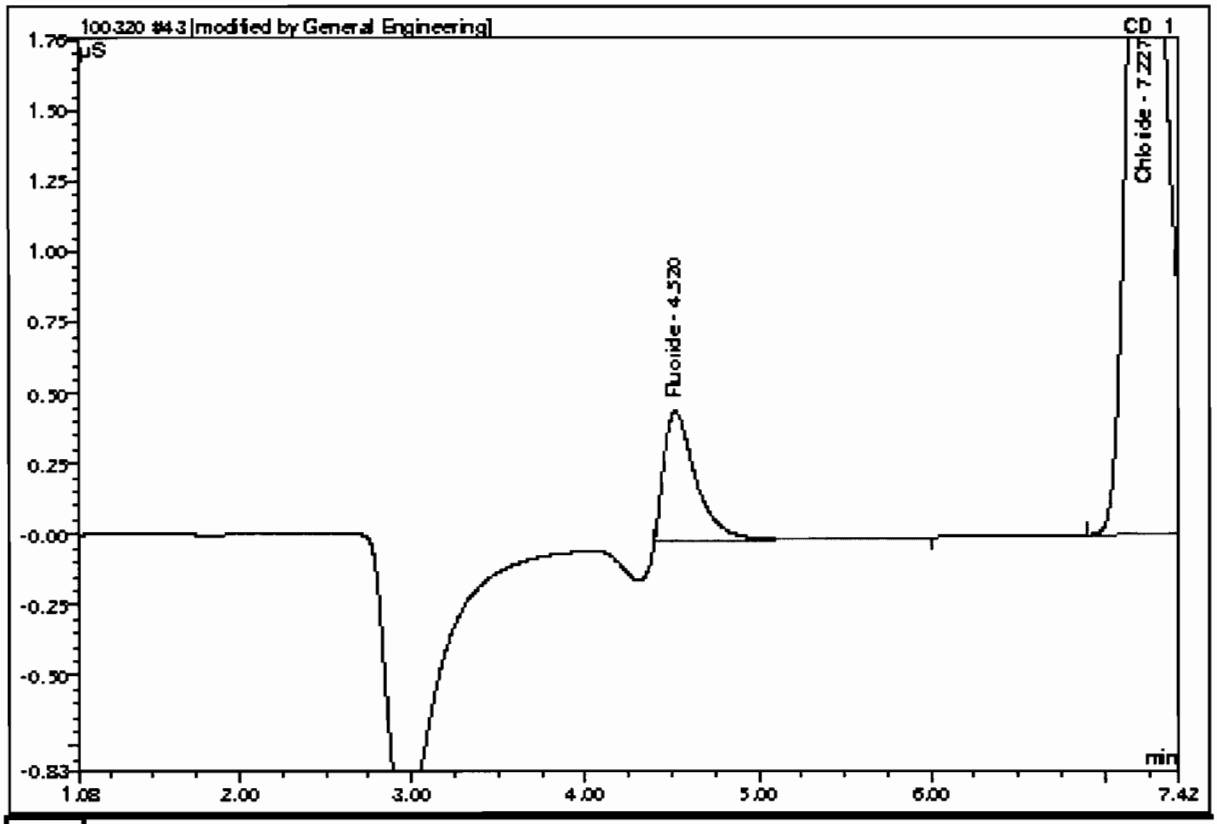

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.52	Fluoride	n.a.	0.2138		0.09729	4.78
2	7.23	Chloride	n.a.	1.7432		0.84094	41.33
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.02	Nitrate-N	n.a.	0.3910		0.34420	16.92
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	20.17	Sulfate	n.a.	2.4842		0.75226	36.97
Total:				4.8321	0.000	2.035	100.00

43 1202074933/966823/1/1/DUP

Sample Name:	1202074933/966823/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 2:25	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

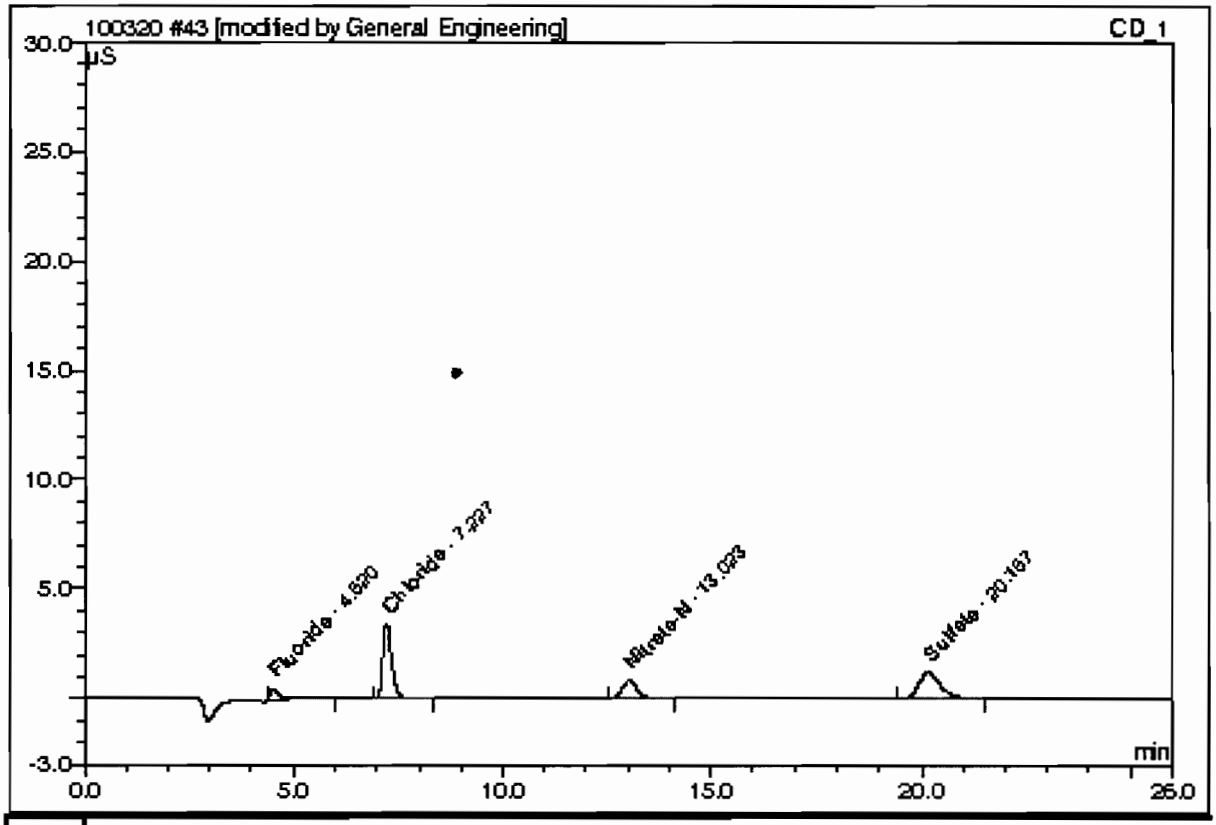

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.52	Fluoride	n.a.	0.2138		0.09729	4.78
2	7.23	Chloride	n.a.	1.7432		0.84094	41.33
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.02	Nitrate-N	n.a.	0.3910		0.34420	16.92
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	20.17	Sulfate	n.a.	2.4842		0.75226	36.97
Total:				4.8321	0.000	2.035	100.00

44 1202074934/966823/1/1/PS

Sample Name:	1202074934/966823/1/1/PS	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 2:51	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

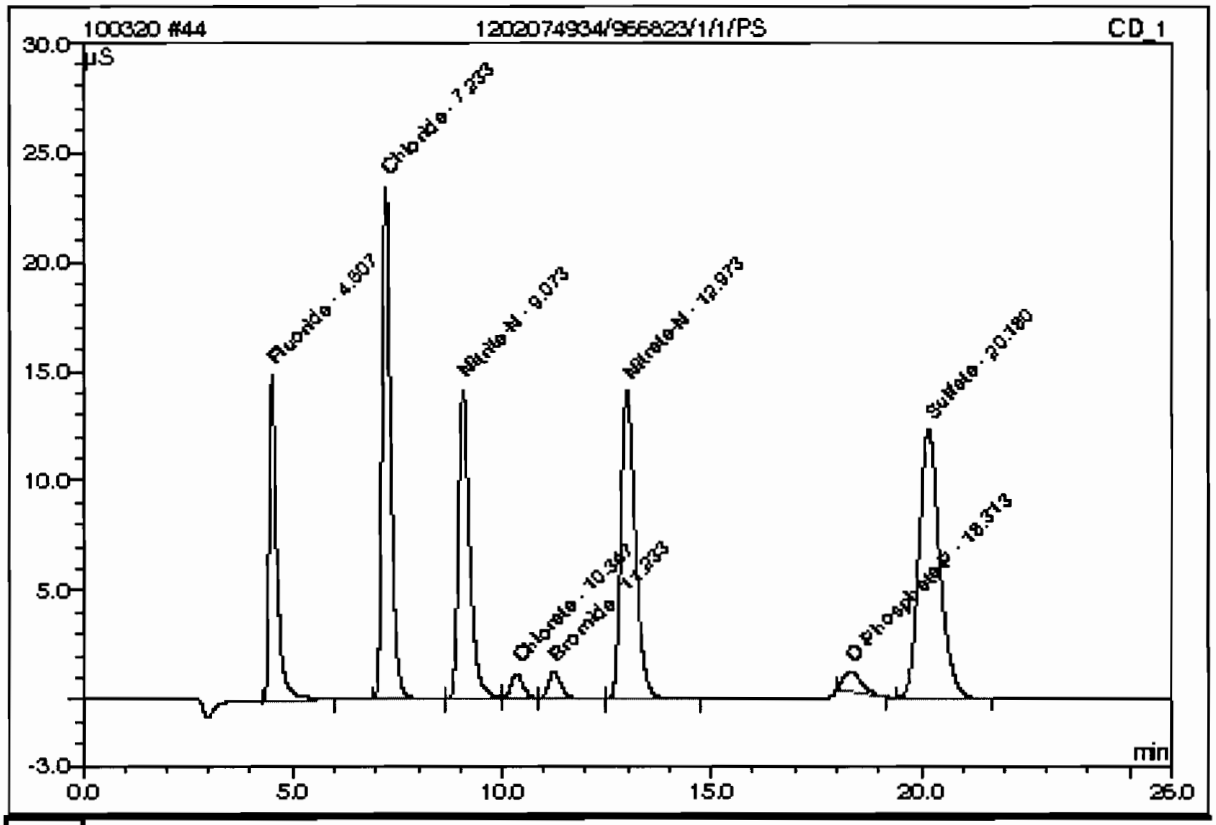

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.51	Fluoride	n.a.	4.8605		3.24122	11.90
2	7.23	Chloride	n.a.	10.8058		5.48243	20.12
3	9.07	Nitrite-N	n.a.	4.6446		4.42772	16.25
4	10.35	Chlorate	n.a.	2.4947		0.40819	1.50
5	11.23	Bromide	n.a.	2.5107		0.43955	1.61
6	12.97	Nitrate-N	n.a.	4.9142		5.68972	20.88
7	18.31	O-Phosphate-P	n.a.	1.5545		0.46073	1.69
8	20.18	Sulfate	n.a.	20.7998		7.09706	26.05
Total:				52.5848	0.000	27.247	100.00

44 1202074934/966823/1/1/PS

Sample Name:	1202074934/966823/1/1/PS	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 2:51	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

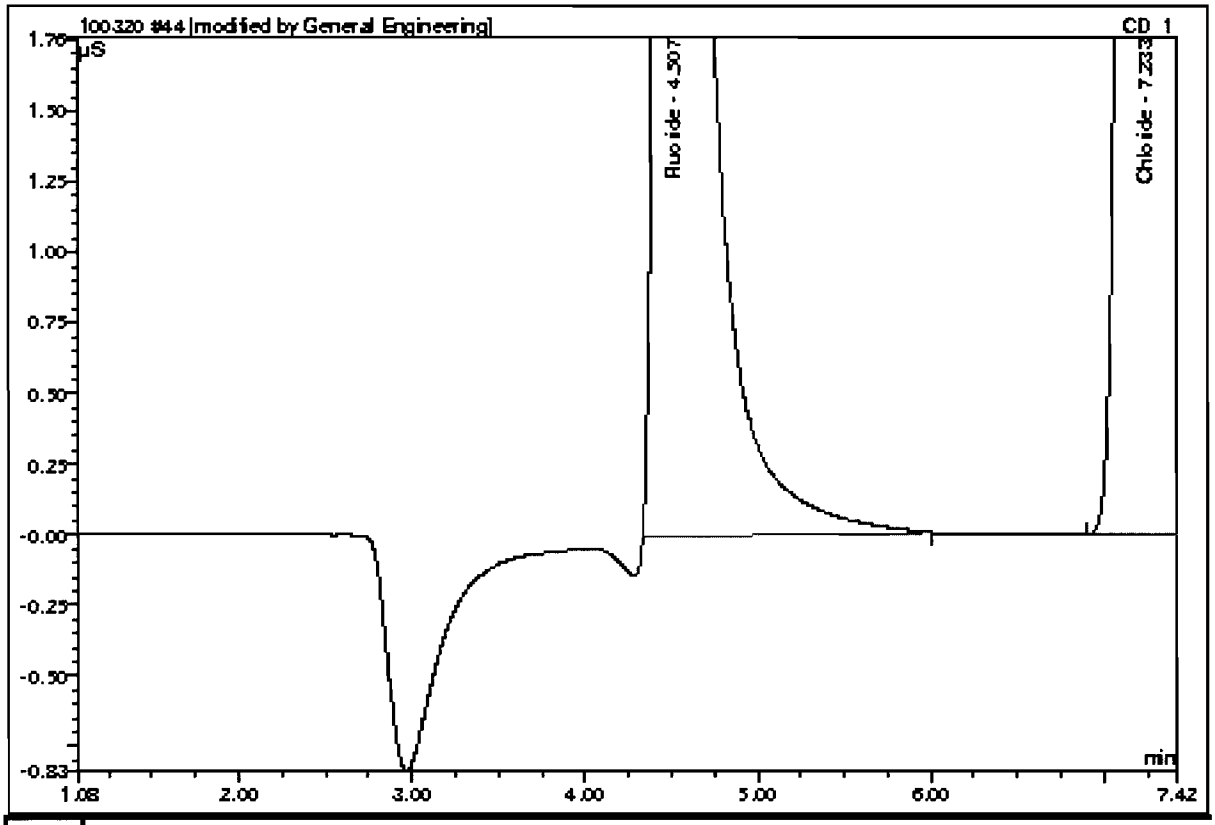

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.51	Fluoride	n.a.	4.6939		3.12847	11.53
2	7.23	Chloride	n.a.	10.8058		5.48243	20.21
3	9.07	Nitrite-N	n.a.	4.6446		4.42772	16.32
4	10.35	Chlorate	n.a.	2.4947		0.40819	1.50
5	11.23	Bromide	n.a.	2.5107		0.43955	1.62
6	12.97	Nitrate-N	n.a.	4.9142		5.68972	20.97
7	18.31	O-Phosphate-P	n.a.	1.5545		0.46073	1.70
8	20.18	Sulfate	n.a.	20.7998		7.09706	26.16
Total:				52.4182	0.000	27.134	100.00

44 1202074934/966823/1/1/PS

Sample Name:	1202074934/966823/1/1/PS	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 2:51	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

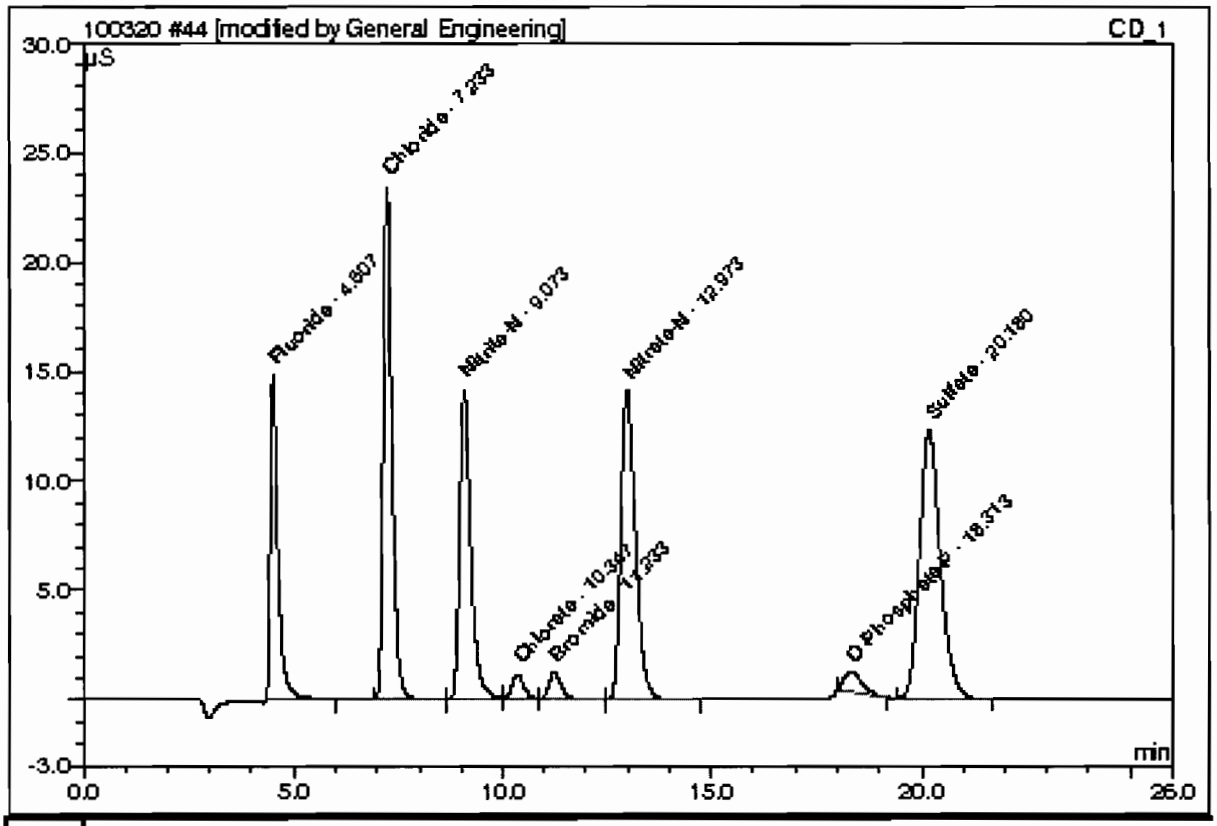

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.51	Fluoride	n.a.	4.6939		3.12847	11.53
2	7.23	Chloride	n.a.	10.8058		5.48243	20.21
3	9.07	Nitrite-N	n.a.	4.6446		4.42772	16.32
4	10.35	Chlorate	n.a.	2.4947		0.40819	1.50
5	11.23	Bromide	n.a.	2.5107		0.43955	1.62
6	12.97	Nitrate-N	n.a.	4.9142		5.68972	20.97
7	18.31	O-Phosphate-P	n.a.	1.5545		0.46073	1.70
8	20.18	Sulfate	n.a.	20.7998		7.09706	26.16
Total:				52.4182	0.000	27.134	100.00

50 WIC100320-02CCV

Sample Name:	WIC100320-02CCV	*Injection Volume:*	50.0
Vial Number:	93	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 5:28	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

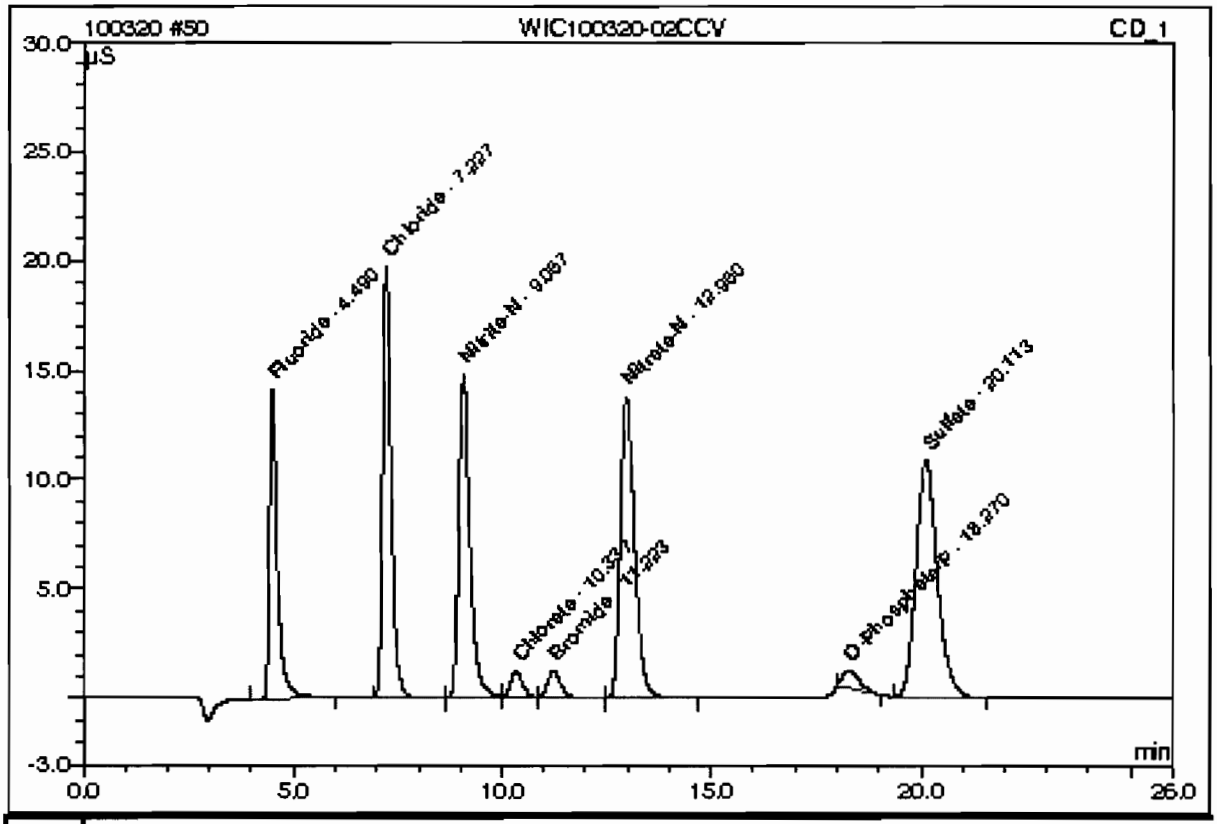

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.49	Fluoride	n.a.	4.7025		3.13432	12.34
2	7.23	Chloride	n.a.	9.0990		4.60826	18.14
3	9.07	Nitrite-N	n.a.	4.8075		4.58545	18.05
4	10.34	Chlorate	n.a.	2.5828		0.42302	1.67
5	11.22	Bromide	n.a.	2.5444		0.44556	1.75
6	12.96	Nitrate-N	n.a.	4.7001		5.43670	21.40
7	18.27	O-Phosphate-P	n.a.	1.2488		0.36393	1.43
8	20.11	Sulfate	n.a.	18.8073		6.40681	25.22
Total:				48.4923	0.000	25.404	100.00

51 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	90	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 5:54	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

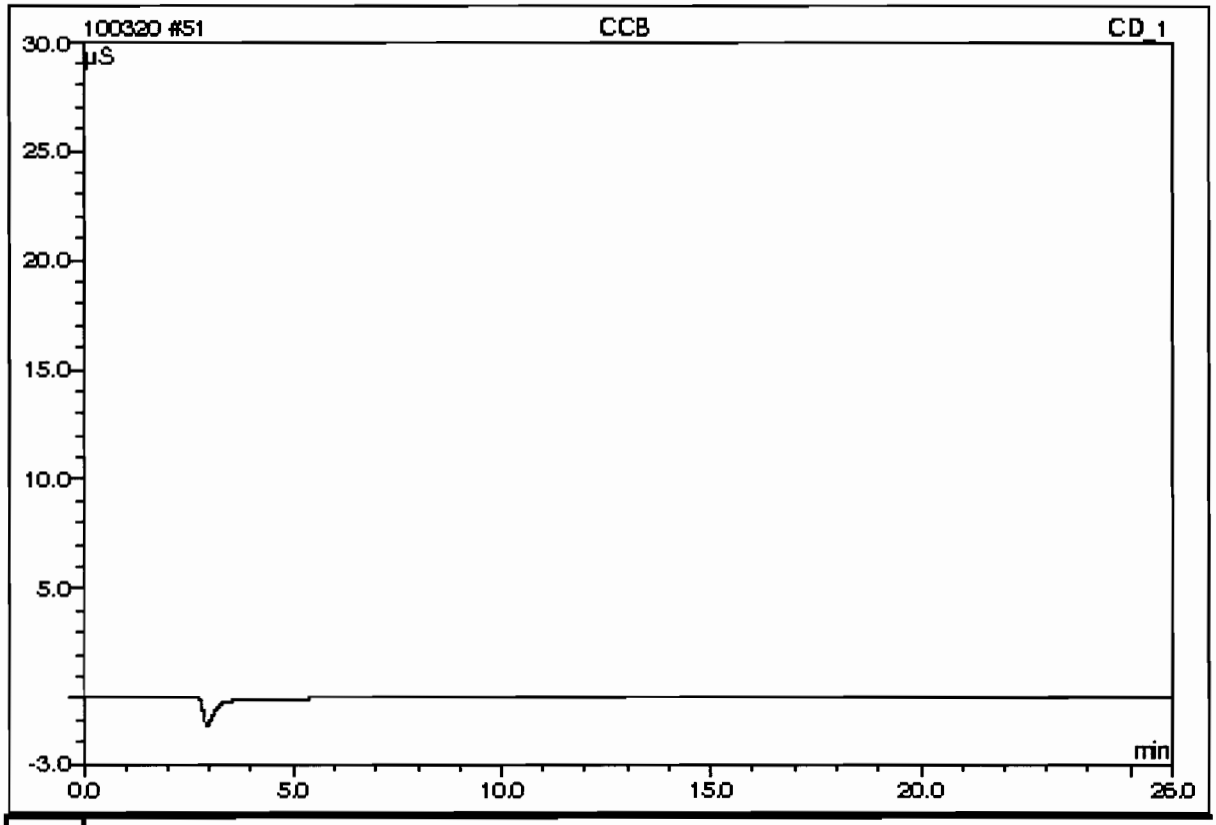

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

Nitrate Nitrite by Cadmium Reduction

This is runlog lachat3

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
1.5 PPM		1	axh3	3/3/2010 10:31:50	OM_3-3-2010_10-30-06
1.0 PPM		1	axh3	3/3/2010 10:33:02	OM_3-3-2010_10-30-06
0.5 ppm		1	axh3	3/3/2010 10:34:15	OM_3-3-2010_10-30-06
0.1 ppm		1	axh3	3/3/2010 10:35:29	OM_3-3-2010_10-30-06
0.05 ppm		1	axh3	3/3/2010 10:36:42	OM_3-3-2010_10-30-06
ICAL-00		1	axh3	3/3/2010 10:37:56	OM_3-3-2010_10-30-06
1.0 ppm ICV		1	axh3	3/3/2010 10:40:18	OM_3-3-2010_10-30-06
ICB		1	axh3	3/3/2010 10:42:40	OM_3-3-2010_10-30-06
Nitrate 1.0 ppm		1	axh3	3/3/2010 10:44:59	OM_3-3-2010_10-30-06
Nitrite 1.0 ppm		1	axh3	3/3/2010 10:47:19	OM_3-3-2010_10-30-06
1202054725	958150	1	axh3	3/3/2010 10:49:40	OM_3-3-2010_10-30-06
1202054732	958150	1	axh3	3/3/2010 10:50:53	OM_3-3-2010_10-30-06
247793001	958150	5	axh3	3/3/2010 10:52:06	OM_3-3-2010_10-30-06
1202054726	958150	5	axh3	3/3/2010 10:53:20	OM_3-3-2010_10-30-06
1202054729	958150	5	axh3	3/3/2010 10:54:32	OM_3-3-2010_10-30-06
247997001	958150	5	axh3	3/3/2010 10:55:44	OM_3-3-2010_10-30-06
248001001	958150	5	axh3	3/3/2010 10:56:57	OM_3-3-2010_10-30-06
248019001	958150	5	axh3	3/3/2010 10:58:10	OM_3-3-2010_10-30-06
248023001	958150	5	axh3	3/3/2010 10:59:22	OM_3-3-2010_10-30-06
248024002	958150	10	axh3	3/3/2010 11:00:34	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010 11:01:46	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010 11:04:08	OM_3-3-2010_10-30-06
248024004	958150	10	axh3	3/3/2010 11:05:20	OM_3-3-2010_10-30-06
248038001	958150	5	axh3	3/3/2010 11:06:32	OM_3-3-2010_10-30-06
248038002	958150	5	axh3	3/3/2010 11:07:44	OM_3-3-2010_10-30-06
248039001	958150	5	axh3	3/3/2010 11:08:55	OM_3-3-2010_10-30-06
248044001*	958150	5	axh3	3/3/2010 11:10:07	OM_3-3-2010_10-30-06
1202054727	958150	5	axh3	3/3/2010 11:11:20	OM_3-3-2010_10-30-06
1202054730	958150	5	axh3	3/3/2010 11:12:34	OM_3-3-2010_10-30-06
248044003	958150	5	axh3	3/3/2010 11:13:47	OM_3-3-2010_10-30-06
248046001	958150	5	axh3	3/3/2010 11:14:59	OM_3-3-2010_10-30-06
248046002	958150	5	axh3	3/3/2010 11:16:12	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010 11:17:24	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010 11:19:46	OM_3-3-2010_10-30-06
248044001	958150	5	axh3	3/3/2010 11:22:05	OM_3-3-2010_10-30-06
248053001	958150	5	axh3	3/3/2010 11:23:18	OM_3-3-2010_10-30-06
248053002	958150	5	axh3	3/3/2010 11:24:30	OM_3-3-2010_10-30-06
248053003	958150	5	axh3	3/3/2010 11:25:43	OM_3-3-2010_10-30-06
248074001	958150	5	axh3	3/3/2010 11:26:55	OM_3-3-2010_10-30-06
1202054728	958150	5	axh3	3/3/2010 11:28:07	OM_3-3-2010_10-30-06
1202054731	958150	5	axh3	3/3/2010 11:29:19	OM_3-3-2010_10-30-06
248074002	958150	5	axh3	3/3/2010 11:30:31	OM_3-3-2010_10-30-06
248074003	958150	5	axh3	3/3/2010 11:31:43	OM_3-3-2010_10-30-06
247793001	958150	10	axh3	3/3/2010 11:32:57	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010 11:34:09	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010 11:36:31	OM_3-3-2010_10-30-06
1202054726	958150	10	axh3	3/3/2010 11:38:51	OM_3-3-2010_10-30-06
1202054729	958150	10	axh3	3/3/2010 11:40:03	OM_3-3-2010_10-30-06
248039001	958150	10	axh3	3/3/2010 11:41:15	OM_3-3-2010_10-30-06
248046001	958150	10	axh3	3/3/2010 11:42:28	OM_3-3-2010_10-30-06
1202057088	959199	1	axh3	3/3/2010 11:43:39	OM_3-3-2010_10-30-06
1202057095	959199	1	axh3	3/3/2010 11:44:50	OM_3-3-2010_10-30-06
247853003	959199	5	axh3	3/3/2010 11:46:04	OM_3-3-2010_10-30-06
1202057089	959199	5	axh3	3/3/2010 11:47:17	OM_3-3-2010_10-30-06
1202057092	959199	5	axh3	3/3/2010 11:48:30	OM_3-3-2010_10-30-06
247853006	959199	25	axh3	3/3/2010 11:49:43	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010 11:50:55	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010 11:53:16	OM_3-3-2010_10-30-06

247853009	959199	5	axh3	3/3/2010	11:55:37	OM_3-3-2010_10-30-06
247853012	959199	10	axh3	3/3/2010	11:56:49	OM_3-3-2010_10-30-06
247853015	959199	10	axh3	3/3/2010	11:58:02	OM_3-3-2010_10-30-06
247853018	959199	50	axh3	3/3/2010	11:59:14	OM_3-3-2010_10-30-06
247966003	959199	5	axh3	3/3/2010	12:00:27	OM_3-3-2010_10-30-06
1202057096	959199	5	axh3	3/3/2010	12:01:39	OM_3-3-2010_10-30-06
1202057097	959199	5	axh3	3/3/2010	12:02:51	OM_3-3-2010_10-30-06
247966011	959199	5	axh3	3/3/2010	12:04:03	OM_3-3-2010_10-30-06
248044005	959199	5	axh3	3/3/2010	12:05:15	OM_3-3-2010_10-30-06
1202059915	959199	5	axh3	3/3/2010	12:06:27	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010	12:07:39	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010	12:10:01	OM_3-3-2010_10-30-06
1202059916	959199	5	axh3	3/3/2010	12:12:21	OM_3-3-2010_10-30-06
248072001	959199	5	axh3	3/3/2010	12:13:31	OM_3-3-2010_10-30-06
1202057091	959199	5	axh3	3/3/2010	12:14:43	OM_3-3-2010_10-30-06
1202057094	959199	5	axh3	3/3/2010	12:15:56	OM_3-3-2010_10-30-06
248072002	959199	5	axh3	3/3/2010	12:17:09	OM_3-3-2010_10-30-06
248072003	959199	5	axh3	3/3/2010	12:18:23	OM_3-3-2010_10-30-06
248103003	959199	5	axh3	3/3/2010	12:19:36	OM_3-3-2010_10-30-06
248108001	959199	5	axh3	3/3/2010	12:20:48	OM_3-3-2010_10-30-06
1202057090	959199	5	axh3	3/3/2010	12:22:01	OM_3-3-2010_10-30-06
1202057093	959199	5	axh3	3/3/2010	12:23:13	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010	12:24:25	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010	12:26:48	OM_3-3-2010_10-30-06
248117001	959199	5	axh3	3/3/2010	12:29:08	OM_3-3-2010_10-30-06
248126003	959199	5	axh3	3/3/2010	12:30:20	OM_3-3-2010_10-30-06
248127001	959199	5	axh3	3/3/2010	12:31:32	OM_3-3-2010_10-30-06
248199001	959199	5	axh3	3/3/2010	12:32:44	OM_3-3-2010_10-30-06
248238001	959199	5	axh3	3/3/2010	12:33:56	OM_3-3-2010_10-30-06
248238002	959199	5	axh3	3/3/2010	12:35:08	OM_3-3-2010_10-30-06
247966003	959199	5	axh3	3/3/2010	12:36:20	OM_3-3-2010_10-30-06
1202057096	959199	5	axh3	3/3/2010	12:37:32	OM_3-3-2010_10-30-06
1202057097	959199	5	axh3	3/3/2010	12:38:45	OM_3-3-2010_10-30-06
248108001	959199	10	axh3	3/3/2010	12:39:57	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010	12:41:09	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010	12:43:31	OM_3-3-2010_10-30-06
1202057090	959199	10	axh3	3/3/2010	12:45:52	OM_3-3-2010_10-30-06
1202057093	959199	10	axh3	3/3/2010	12:47:05	OM_3-3-2010_10-30-06
1202058290	959715	1	axh3	3/3/2010	12:48:17	OM_3-3-2010_10-30-06
1202058297	959715	1	axh3	3/3/2010	12:49:29	OM_3-3-2010_10-30-06
248044006	959715	5	axh3	3/3/2010	12:50:42	OM_3-3-2010_10-30-06
1202058291	959715	5	axh3	3/3/2010	12:51:54	OM_3-3-2010_10-30-06
1202058294	959715	5	axh3	3/3/2010	12:53:07	OM_3-3-2010_10-30-06
248164001	959715	5	axh3	3/3/2010	12:54:19	OM_3-3-2010_10-30-06
248164003	959715	5	axh3	3/3/2010	12:55:31	OM_3-3-2010_10-30-06
248261001	959715	5	axh3	3/3/2010	12:56:43	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010	12:57:55	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010	13:00:17	OM_3-3-2010_10-30-06
1202058292	959715	5	axh3	3/3/2010	13:02:37	OM_3-3-2010_10-30-06
1202058295	959715	5	axh3	3/3/2010	13:03:49	OM_3-3-2010_10-30-06
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1202058293	959715	5	axh3	3/3/2010	13:06:15	OM_3-3-2010_10-30-06
1202058296	959715	5	axh3	3/3/2010	13:07:28	OM_3-3-2010_10-30-06
248298002	959715	5	axh3	3/3/2010	13:08:41	OM_3-3-2010_10-30-06
248298003	959715	5	axh3	3/3/2010	13:09:53	OM_3-3-2010_10-30-06
248382001	959715	5	axh3	3/3/2010	13:11:06	OM_3-3-2010_10-30-06
248382004	959715	5	axh3	3/3/2010	13:12:19	OM_3-3-2010_10-30-06
248401001	959715	5	axh3	3/3/2010	13:13:31	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010	13:14:44	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010	13:17:05	OM_3-3-2010_10-30-06

248401003	959715	5	axh3	3/3/2010 13:19:26	OM_3-3-2010_10-30-06
248401006	959715	5	axh3	3/3/2010 13:20:37	OM_3-3-2010_10-30-06
248407001	959715	5	axh3	3/3/2010 13:21:49	OM_3-3-2010_10-30-06
248419001	959715	5	axh3	3/3/2010 13:23:01	OM_3-3-2010_10-30-06
248419002	959715	5	axh3	3/3/2010 13:24:13	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010 13:26:33	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010 13:28:56	OM_3-3-2010_10-30-06

Author: lachat

Date : 3/3/2010

Original Run Filename: OM_3-3-2010_10-30-06.OMN created 3/3/2010 10:30:06
Original Run Author's Signature: [lachat]
Current Run Filename: OM_3-3-2010_10-30-06.OMN last modified 3/3/2010 13:30:17
Current Run Author's Signature: [lachat]
Description: EPA 353.2
Cadmium Colum 9056CAJ
LCS nominal 1.0 mg/L

Sample	Rep.	Cup No.	Channel 1 NO3 + NO2 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100303-26	1	S9	1.50	14.8	3/3/2010@10:31:50			1.5 PPM
WTR100303-25	1	S10	1.00	9.68	3/3/2010@10:33:02			1.0 PPM
WTR100303-24	1	S11	0.500	4.89	3/3/2010@10:34:15			0.5 ppm
WTR100303-23	1	S12	0.100	1.02	3/3/2010@10:35:29			0.1 ppm
WTR100303-21	1	S13	0.0500	0.312	3/3/2010@10:36:42			0.05 ppm
0.0ppm	1	S15	0.00	-0.0280	3/3/2010@10:37:56			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99989 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR100303-27 ICV	1	S16	0.983	9.62	3/3/2010@10:40:18			1.0 ppm ICV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.983 < 1.10					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.983 > 0.894					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
ICB	1	S15	0.00396	-0.0247	3/3/2010@10:42:40			ICB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.00396 < 0.0500					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.00396 > -0.0500					
		Message	ICB Passed					
		Action	Continue					
WTR100303-22	1	S1	0.943	9.22	3/3/2010@10:44:59			Nitrate 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.943 < 1.10					
		Message	Nitrate Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.943 > 0.894					
		Message	Nitrate Standard Passed					
		Action	Continue					
WTR100303-28	1	S2	0.937	9.17	3/3/2010@10:47:19			Nitrite 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.937 < 1.10					
		Message	Nitrite Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.937 > 0.894					
		Message	Nitrite Standard Passed					
		Action	Continue					
1202054725|958150|MB	1	1	0.0124	0.0582	3/3/2010@10:49:40			
1202054732||LCS	1	2	0.986	9.65	3/3/2010@10:50:53			
247793001	1	3	-0.0329	-0.388	3/3/2010@10:52:06		5.00	
1202054726||DUP	1	4	-0.0360	-0.419	3/3/2010@10:53:20		5.00	
1202054729||PS	1	5	0.348	3.36	3/3/2010@10:54:32		5.00	

247997001	1	6	0.0124	0.0585	3/3/2010@10:55:44		5.00	
248001001	1	7	0.0131	0.0653	3/3/2010@10:56:57		5.00	
248019001	1	8	0.196	1.87	3/3/2010@10:58:10		5.00	
248023001	1	9	0.0844	0.767	3/3/2010@10:59:22		5.00	
248024002	1	10	0.425	4.12	3/3/2010@11:00:34		10.00	
WTR100303-25 CCV	1	S10	0.983	9.62	3/3/2010@11:01:46			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.983 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.983 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	0.00204	-0.0437	3/3/2010@11:04:08			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.00204 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.00204 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
248024004	1	11	0.430	4.17	3/3/2010@11:05:20		10.00	
248038001	1	12	0.0214	0.147	3/3/2010@11:06:32		5.00	
248038002	1	13	0.0741	0.666	3/3/2010@11:07:44		5.00	
248039001	1	14	-0.0529	-0.584	3/3/2010@11:08:55		5.00	
248044001	1	15	2.97	29.2	3/3/2010@11:10:07		5.00	
1202054727||DUP	1	16	0.0856	0.779	3/3/2010@11:11:20		5.00	
1202054730||PS	1	17	1.05	10.3	3/3/2010@11:12:34		5.00	
248044003	1	18	0.0366	0.297	3/3/2010@11:13:47		5.00	
248046001	1	19	-0.0557	-0.613	3/3/2010@11:14:59		5.00	
248046002	1	20	-0.0479	-0.535	3/3/2010@11:16:12		5.00	
WTR100303-25 CCV	1	S10	1.00	9.80	3/3/2010@11:17:24			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.00 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.00 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	0.00357	-0.0286	3/3/2010@11:19:46			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.00357 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.00357 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
248044001	1	15	0.0892	0.815	3/3/2010@11:22:05		5.00	
248053001	1	21	0.0149	0.0826	3/3/2010@11:23:18		5.00	
248053002	1	22	0.0149	0.0834	3/3/2010@11:24:30		5.00	
248053003	1	23	0.0120	0.0547	3/3/2010@11:25:43		5.00	
248074001	1	24	0.393	3.81	3/3/2010@11:26:55		5.00	
1202054728||DUP	1	25	0.388	3.76	3/3/2010@11:28:07		5.00	
1202054731||PS	1	26	1.39	13.6	3/3/2010@11:29:19		5.00	
248074002	1	27	0.131	1.23	3/3/2010@11:30:31		5.00	
248074003	1	28	0.276	2.66	3/3/2010@11:31:43		5.00	
247793001	1	3	0.00533	-0.0112	3/3/2010@11:32:57		10.00	
WTR100303-25 CCV	1	S10	0.985	9.64	3/3/2010@11:34:09			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								

		Result:	0.985 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.985 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	0.00385	-0.0258	3/3/2010@11:36:31			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.00385 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.00385 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202054726||DUP	1	4	0.0111	0.0460	3/3/2010@11:38:51		10.00	
1202054729||PS	1	5	1.01	9.86	3/3/2010@11:40:03		10.00	
248039001	1	14	-0.0350	-0.408	3/3/2010@11:41:15		10.00	
248046001	1	19	-0.0330	-0.389	3/3/2010@11:42:28		10.00	
1202057088|959199|MB	1	29	0.0116	0.0509	3/3/2010@11:43:39			
1202057095||LCS	1	30	1.00	9.79	3/3/2010@11:44:50			
247853003	1	31	0.0341	0.272	3/3/2010@11:46:04		5.00	
1202057089||DUP	1	32	0.0331	0.263	3/3/2010@11:47:17		5.00	
1202057092||PS	1	33	1.02	10.0	3/3/2010@11:48:30		5.00	
247853006	1	34	0.196	1.87	3/3/2010@11:49:43		25.00	
WTR100303-25 CCV	1	S10	0.968	9.47	3/3/2010@11:50:55			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.968 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.968 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	0.00438	-0.0206	3/3/2010@11:53:16			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.00438 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.00438 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
247853009	1	35	0.0177	0.110	3/3/2010@11:55:37		5.00	
247853012	1	36	0.204	1.94	3/3/2010@11:56:49		10.00	
247853015	1	37	0.219	2.09	3/3/2010@11:58:02		10.00	
247853018	1	38	0.268	2.58	3/3/2010@11:59:14		50.00	
247966003	1	39	-0.0241	-0.301	3/3/2010@12:00:27		5.00	
1202057096||DUP	1	40	-0.0245	-0.305	3/3/2010@12:01:39		5.00	
1202057097||PS	1	41	0.767	7.49	3/3/2010@12:02:51		5.00	
247966011	1	42	-0.0241	-0.301	3/3/2010@12:04:03		5.00	
248044005	1	43	0.00946	0.0294	3/3/2010@12:05:15		5.00	
1202059915||DUP	1	89	0.00965	0.0313	3/3/2010@12:06:27		5.00	
WTR100303-25 CCV	1	S10	0.981	9.60	3/3/2010@12:07:39			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.981 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.981 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	0.00404	-0.0239	3/3/2010@12:10:01			CCB

		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.00404 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.00404 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202059916||PS	1	90	1.04	10.2	3/3/2010@12:12:21		5.00	
248072001	1	44	0.170	1.61	3/3/2010@12:13:31		5.00	
1202057091||DUP	1	45	0.165	1.56	3/3/2010@12:14:43		5.00	
1202057094||PS	1	46	1.18	11.6	3/3/2010@12:15:56		5.00	
248072002	1	47	0.165	1.56	3/3/2010@12:17:09		5.00	
248072003	1	48	0.184	1.75	3/3/2010@12:18:23		5.00	
248103003	1	49	0.00535	-0.0110	3/3/2010@12:19:36		5.00	
248108001	1	50	-0.0372	-0.430	3/3/2010@12:20:48		5.00	
1202057090||DUP	1	51	-0.0370	-0.429	3/3/2010@12:22:01		5.00	
1202057093||PS	1	52	0.357	3.45	3/3/2010@12:23:13		5.00	
WTR100303-25 CCV	1	S10	1.01	9.89	3/3/2010@12:24:25			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.01 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.01 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	0.00458	-0.0186	3/3/2010@12:26:48			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.00458 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.00458 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
248117001	1	53	-0.0357	-0.415	3/3/2010@12:29:08		5.00	
248126003	1	54	0.138	1.29	3/3/2010@12:30:20		5.00	
248127001	1	55	0.126	1.17	3/3/2010@12:31:32		5.00	
248199001	1	56	-0.0330	-0.389	3/3/2010@12:32:44		5.00	
248238001	1	57	0.0119	0.0531	3/3/2010@12:33:56		5.00	
248238002	1	58	0.0133	0.0676	3/3/2010@12:35:08		5.00	
247966003	1	39	-0.0228	-0.288	3/3/2010@12:36:20		5.00	
1202057096||DUP	1	40	-0.0241	-0.301	3/3/2010@12:37:32		5.00	
1202057097||PS	1	41	0.737	7.19	3/3/2010@12:38:45		5.00	
248108001	1	50	0.00805	0.0156	3/3/2010@12:39:57		10.00	
WTR100303-25 CCV	1	S10	1.02	10.0	3/3/2010@12:41:09			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.02 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.02 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	0.00556	-0.00893	3/3/2010@12:43:31			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.00556 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.00556 > -0.0500					
		Message	CCB Passed					

		Action	Continue					
1202057090||DUP	1	51	0.0123	0.0576	3/3/2010@12:45:52		10.00	
1202057093||PS	1	52	1.10	10.8	3/3/2010@12:47:05		10.00	
1202058290|959715|MB	1	66	0.0112	0.0462	3/3/2010@12:48:17			
1202058297||LCS	1	67	1.02	10.0	3/3/2010@12:49:29			
248044006	1	68	0.00987	0.0335	3/3/2010@12:50:42		5.00	
1202058291||DUP	1	69	0.00950	0.0299	3/3/2010@12:51:54		5.00	
1202058294||PS	1	70	1.03	10.1	3/3/2010@12:53:07		5.00	
248164001	1	71	0.0321	0.253	3/3/2010@12:54:19		5.00	
248164003	1	72	0.0323	0.254	3/3/2010@12:55:31		5.00	
248261001	1	73	0.0490	0.418	3/3/2010@12:56:43		5.00	
WTR100303-25 CCV	1	S10	1.01	9.92	3/3/2010@12:57:55			1.0 ppm CCV
		Known Conc:	1.00					
			DQM Test: > + Concentration Limit					
		Result:	1.01 < 1.10					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.01 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	0.00422	-0.0221	3/3/2010@13:00:17			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	0.00422 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.00422 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202058292||DUP	1	74	0.0484	0.413	3/3/2010@13:02:37		5.00	
1202058295||PS	1	75	1.11	10.8	3/3/2010@13:03:49		5.00	
248298001	1	76	0.132	1.24	3/3/2010@13:05:01		5.00	
1202058293||DUP	1	77	0.126	1.18	3/3/2010@13:06:15		5.00	
1202058296||PS	1	78	1.18	11.6	3/3/2010@13:07:28		5.00	
248298002	1	79	0.127	1.19	3/3/2010@13:08:41		5.00	
248298003	1	80	0.152	1.44	3/3/2010@13:09:53		5.00	
248382001	1	81	0.146	1.37	3/3/2010@13:11:06		5.00	
248382004	1	82	0.151	1.42	3/3/2010@13:12:19		5.00	
248401001	1	83	0.0983	0.904	3/3/2010@13:13:31		5.00	
WTR100303-25 CCV	1	S10	1.02	9.94	3/3/2010@13:14:44			1.0 ppm CCV
		Known Conc:	1.00					
			DQM Test: > + Concentration Limit					
		Result:	1.02 < 1.10					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.02 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	0.00434	-0.0210	3/3/2010@13:17:05			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	0.00434 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.00434 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
248401003	1	84	0.0611	0.538	3/3/2010@13:19:26		5.00	
248401006	1	85	0.0756	0.681	3/3/2010@13:20:37		5.00	
248407001	1	86	0.0122	0.0564	3/3/2010@13:21:49		5.00	
248419001	1	87	0.0150	0.0844	3/3/2010@13:23:01		5.00	
248419002	1	88	0.0129	0.0637	3/3/2010@13:24:13		5.00	
WTR100303-25 CCV	1	S10	0.994	9.72	3/3/2010@13:26:33			1.0 ppm CCV
		Known Conc:	1.00					

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DQM Test: > + Concentration Limit								
			Result:	0.994 < 1.10				
			Message	CCV Passed				
			Action	Continue				
DQM Test: < - Concentration Limit								
			Result:	0.994 > 0.894				
			Message	CCV Passed				
			Action	Continue				
CCB		1	S15	0.00455	-0.0189	3/3/2010@13:28:56		CCB
			Known Conc:	0.00				
DQM Test: > + Concentration Limit								
			Result:	0.00455 < 0.0500				
			Message	CCB Passed				
			Action	Continue				
DQM Test: < - Concentration Limit								
			Result:	0.00455 > -0.0500				
			Message	CCB Passed				
			Action	Continue				

Channel 1 (NO3 + NO2) : Current View

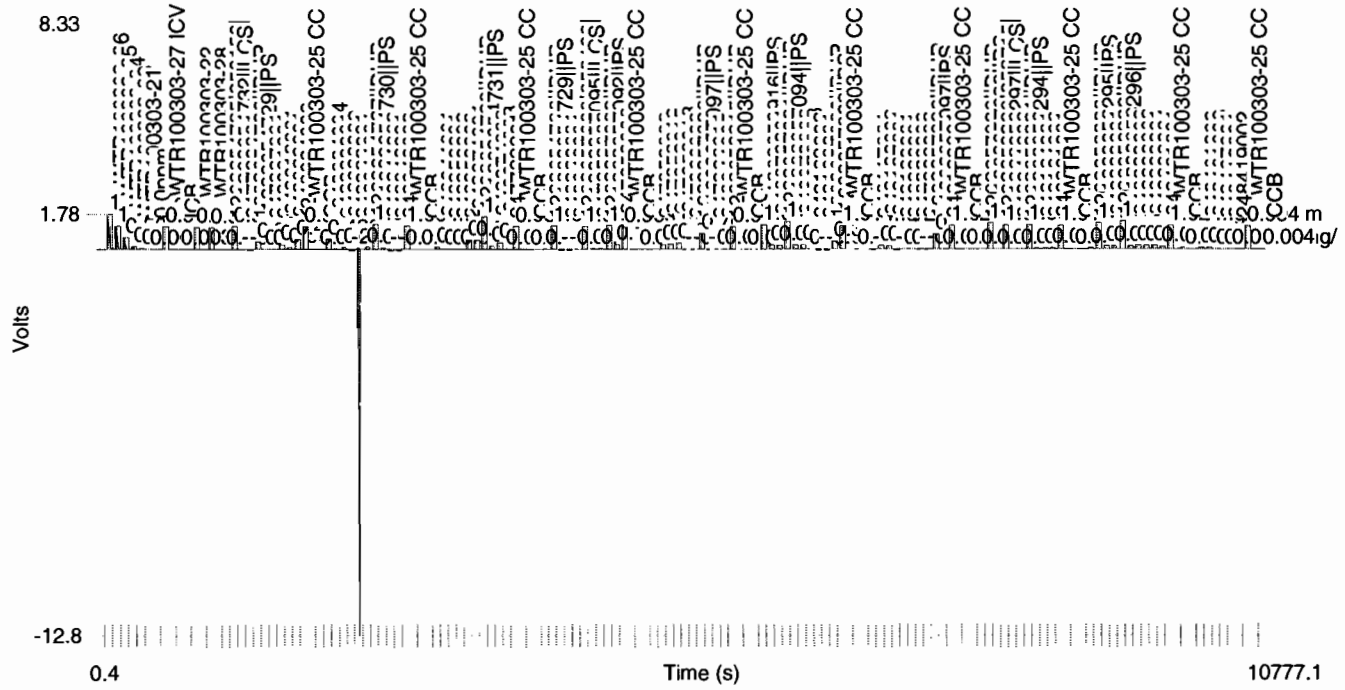

Table 1: NO3 + NO2

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	1.50	1	14.8	1.22	-0.4	3/3/2010	10:33:10
2	1.00	1	9.68	0.804	1.1	3/3/2010	10:34:23
3	0.500	1	4.89	0.403	-0.6	3/3/2010	10:35:35
4	0.100	1	1.02	0.0833	-10.8	3/3/2010	10:36:48
5	0.0500	1	0.312	0.0247	27.4	3/3/2010	10:38:02
6	0.00	1	-0.0280	-0.00133		3/3/2010	10:39:16

Author: lachat

Date : 3/3/2010

Figure 1: NO3 + NO2

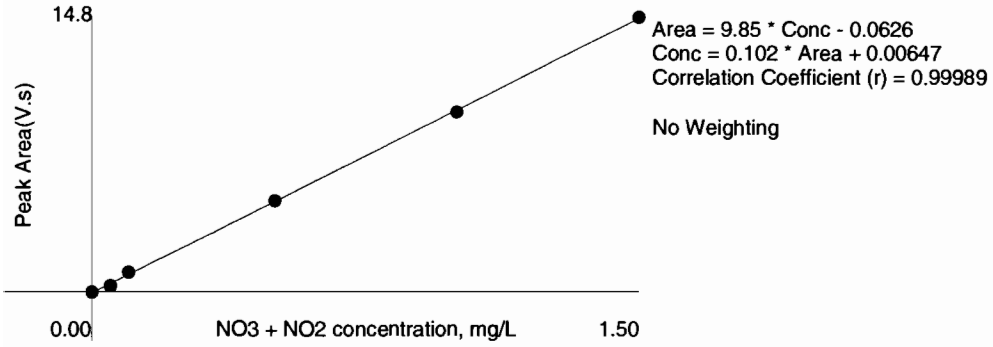

Solids, Total Dissolved

Batch: 959189.0
Analyst:SDS

TDS/TS/VS LogBook

Procedure Code BALDSEP_L
Procedure Description EPA 160.1 Solids, Dissolved
Lab Sop GL-GC-E-001

Sample Type	Sample Id	Lot Id	Nc(mg/L)	Recovery(%)
LCS	1202057052	WTD1254191-01	300	98.333

Sample Type	Sample Id	Rpd(%)
DUP	1202057050	1.4492753623188
DUP	1202057051	1.9323671497585

Sample Id	Sample Type	Original Hsn	Instrument	Run Date	Crucible ID	Aliquot (L)	Crucible Wt(g)	Final Wt Event 1	Final Wt Event 2	Final Wt Event 3	Final Wt Event 4	Result	Units
1202057049	MB		BAL216	01-MAR-2010 13:56	S3	0.1	52.3415	52.3417	52.3417			2	mg/L
1202057052	LCS		BAL216	01-MAR-2010 13:56	SOS	0.1	49.6795	49.7091	49.709			295	mg/L
248019001	SAMPLE		BAL216	01-MAR-2010 13:56	ILL	0.1	50.9313	50.9522	50.9518			205	mg/L
1202057051	DUP	248019001	BAL216	01-MAR-2010 13:56	NUT	0.1	55.6526	55.6735	55.6731			205	mg/L
248023001	SAMPLE		BAL216	01-MAR-2010 13:56	EYE	0.1	54.8608	54.8747	54.8742			134	mg/L
1202057050	DUP	248023001	BAL216	01-MAR-2010 13:56	ORB	0.1	49.8064	49.8205	49.8201			137	mg/L
248024002	SAMPLE		BAL216	01-MAR-2010 13:56	KGB	0.1	51.9272	51.9734	51.9736			464	mg/L
248024004	SAMPLE		BAL216	01-MAR-2010 13:56	RUG	0.1	48.7819	48.8274	48.8271			452	mg/L
248044001	SAMPLE		BAL216	01-MAR-2010 13:56	13	0.1	53.0301	53.0447	53.0447			146	mg/L
248044003	SAMPLE		BAL216	01-MAR-2010 13:56	GO	0.1	54.9148	54.9318	54.9315			167	mg/L
248044005	SAMPLE		BAL216	01-MAR-2010 13:56	ANT	0.1	48.8342	48.8343	48.8341			-1	mg/L
248044006	SAMPLE		BAL216	01-MAR-2010 13:56	LOG	0.1	47.7247	47.7249	47.7244			-3	mg/L
248127001	SAMPLE		BAL216	01-MAR-2010 13:56	10	0.1	53.6995	53.7265	53.726			265	mg/L
248164001	SAMPLE		BAL216	01-MAR-2010 13:56	ALF	0.1	48.1084	48.1242	48.124			156	mg/L
248164003	SAMPLE		BAL216	01-MAR-2010 13:56	RA M	0.1	51.2724	51.2882	51.2881			157	mg/L
248168006	SAMPLE		BAL216	01-MAR-2010 13:56	ABC	0.1	52.0037	52.0204	52.0201			164	mg/L
248169004	SAMPLE		BAL216	01-MAR-2010 13:56	WE	0.1	49.5179	49.5468	49.5463			284	mg/L
248261001	SAMPLE		BAL216	01-MAR-2010 13:56	BAD	0.1	48.7132	48.7295	48.729			158	mg/L

Comments: **All Weights are in Grams**

A) Result = (Final - Crucible)/Aliquot * 1000

B) Prep Factor = 0.5 / Aliquot

Date: 01-MAR-10 14:30:12
Date: 02-MAR-10 07:30:12
Temperature: 104 C
Temperature: 180 C

Note: Aliquot is used for the determination of the effective MDL and PQL in LIMS

Specific Conductivity

Analytical Logbook

Conductivity and Salinity

Batch ID: 960274.0
Analyst: Travis Tola
Method: EPA 120.1 (gk) SW846 9050A (jj)
Lab SOP: GL-GC-E-009 REV# 9
Instrument: Orion 160 Conductivity Meter

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
CCV	240	Conductivity LCS	WCO091117-06	25	mL
LCS	1202059735	Conductivity LCS	WCO091117-06	25	mL

Sample ID	Run Date	Dilution	Temperature (C)	Conductivity Result (umhos/cm)
1202059735 LCS	03-MAR-2010 16:24:37	1	25.1	1376
247817001 (gk)	03-MAR-2010 16:25:06	1	25.3	121.6
1202059732 DUP (247817001)	03-MAR-2010 16:25:27	1	25.8	121.8
247829001 (gk)	03-MAR-2010 16:25:59	1	25.3	141.9
247922004 (gk)	03-MAR-2010 16:26:42	1	24.8	281
CCV	03-MAR-2010 16:26:56	1	25.2	1381
1202059733 DUP (247922004)	03-MAR-2010 16:27:09	1	24.9	282
248019001 (gk)	03-MAR-2010 16:27:26	1	24.7	239
248023001 (gk)	03-MAR-2010 16:27:45	1	24.4	122.5
248024002 (gk)	03-MAR-2010 16:28:02	1	24.5	658
248024004 (gk)	03-MAR-2010 16:28:24	1	25.7	677
CCV	03-MAR-2010 16:29:37	1	25.4	1386
248044001 (gk)	03-MAR-2010 16:30:17	1	25.8	203
248044003 (gk)	03-MAR-2010 16:30:34	1	25.4	211
248044005 (gk)	03-MAR-2010 16:30:54	1	25	1.18
248044006 (gk)	03-MAR-2010 16:31:13	1	24.6	1.39
248127001 (gk)	03-MAR-2010 16:31:33	1	24.1	283
CCV	03-MAR-2010 16:31:58	1	25.6	1384
248164001 (gk)	03-MAR-2010 16:32:14	1	24.3	143.1
248164003 (gk)	03-MAR-2010 16:32:31	1	24.3	142.1
248168006 (gk)	03-MAR-2010 16:32:51	1	24.5	157.5
248169004 (gk)	03-MAR-2010 16:33:15	1	24.5	400
248362006 (jj)	03-MAR-2010 16:33:35	1	26.1	2.17
CCV	03-MAR-2010 16:33:55	1	25.4	1378
1202059734 DUP (248362006)	03-MAR-2010 16:34:19	1	26	2.18
248362007 (jj)	03-MAR-2010 16:34:33	1	24.3	1.38
248382001 (gk)	03-MAR-2010 16:34:47	1	24.2	135.4
248382004 (gk)	03-MAR-2010 16:35:35	1	24.2	163
CCV	03-MAR-2010 16:35:50	1	25	1372

Comments:

Analytical Logbook

Batch ID: 960274.0
Analyst: Travis Tola
Method: EPA 120.1 (gk) SW846 9050A (jj)
Lab SOP: GL-GC-E-009 REV# 9
Instrument: Orion 160 Conductivity Meter

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
CCV	240	Conductivity LCS	WCO091117-06	25	mL
LCS	1202059735	Conductivity LCS	WCO091117-06	25	mL

Sample ID	Run Date	Dilution	Temperature (C)	Conductivity Result (umhos/cm)

Calibration Information:

Run Date: 03-MAR-10 16:0
Instrument: CON160
Analyst: TXT1

Standard	Observed	Theoretical		%Recovery
WCO100303-07	15.58	14.5	umhos/cm	107.45
WD100303-03	1394	1413	umhos/cm	98.655
WCO100303-04	1785	1900	umhos/cm	93.947
WCO100303-08	23300	24800	umhos/cm	93.952
WCO100303-01	250	250	umhos/cm	100
WCO100303-02	731	750	umhos/cm	97.467

Total Phosphorus

Prep Logbook

Total Phosphorous and Total Kjeldahl Nitrogen Sample Preparation

Batch ID: **958136.0** Verified by: _____

Analyst: Stephanie Jackson

Method: EPA 365.4 Prep

Lab SOP: GL-GC-E-071 REV# 10

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202054693	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054689	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054690	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054717	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054691	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054692	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054718	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202054686 MB	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
1202054693 LCS	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
247817001	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
1202054687 DUP (247817001)	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
1202054689 MS (247817001)	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
1202054691 MSD (247817001)	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
247829001	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
247957001	02-MAR-2010 10:30:00	Surface Water	20	20	1	< 2
248019001	02-MAR-2010 10:30:00	Water	20	20	1	< 2
1202054716 DUP (248019001)	02-MAR-2010 10:30:00	Water	20	20	1	< 2
1202054717 MS (248019001)	02-MAR-2010 10:30:00	Water	20	20	1	< 2
1202054718 MSD (248019001)	02-MAR-2010 10:30:00	Water	20	20	1	< 2
248023001	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248024002	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248024004	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248044001	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248044003	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248044005	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248044006	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248072001	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2

Prep Logbook

Batch ID: **958136.0** Verified by: _____

Analyst: Stephanie Jackson

Method: EPA 365.4 Prep

Lab SOP: GL-GC-E-071 REV# 10

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202054693	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054689	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054690	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054717	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054691	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054692	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054718	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202054688 DUP (248072001)	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
1202054690 MS (248072001)	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
1202054692 MSD (248072001)	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248072002	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248072003	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248298001	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248298002	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248298003	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2

Reagent/Solvent Lot ID	Description	Amount
1269276-C	TKN/PO4 Digestion Solution	4 mL

Comments:

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
3.0 ppm Std.		1	axh3	3/5/2010 8:44:15	OM_3-5-2010_08-40-57
1.0 ppm Std.		1	axh3	3/5/2010 8:45:03	OM_3-5-2010_08-40-57
0.5 ppm Std		1	axh3	3/5/2010 8:45:53	OM_3-5-2010_08-40-57
0.1 ppm Std		1	axh3	3/5/2010 8:46:43	OM_3-5-2010_08-40-57
0.05 ppm Std		1	axh3	3/5/2010 8:47:34	OM_3-5-2010_08-40-57
ICAL-00		1	axh3	3/5/2010 8:48:26	OM_3-5-2010_08-40-57
ICV		1	axh3	3/5/2010 8:50:31	OM_3-5-2010_08-40-57
ICB		1	axh3	3/5/2010 8:52:36	OM_3-5-2010_08-40-57
1202054686	958139	1	axh3	3/5/2010 8:54:40	OM_3-5-2010_08-40-57
1202054693	958139	1	axh3	3/5/2010 8:55:31	OM_3-5-2010_08-40-57
247817001*	958139	1	axh3	3/5/2010 8:56:22	OM_3-5-2010_08-40-57
1202054687	958139	1	axh3	3/5/2010 8:57:12	OM_3-5-2010_08-40-57
1202054689	958139	1	axh3	3/5/2010 8:58:03	OM_3-5-2010_08-40-57
1202054691	958139	1	axh3	3/5/2010 8:58:53	OM_3-5-2010_08-40-57
247829001	958139	1	axh3	3/5/2010 8:59:43	OM_3-5-2010_08-40-57
247957001	958139	1	axh3	3/5/2010 9:00:32	OM_3-5-2010_08-40-57
248019001	958139	1	axh3	3/5/2010 9:01:21	OM_3-5-2010_08-40-57
1202054716	958139	1	axh3	3/5/2010 9:02:09	OM_3-5-2010_08-40-57
CCV		1	axh3	3/5/2010 9:02:59	OM_3-5-2010_08-40-57
CCB		1	axh3	3/5/2010 9:05:03	OM_3-5-2010_08-40-57
1202054717*	958139	1	axh3	3/5/2010 9:07:05	OM_3-5-2010_08-40-57
1202054718*	958139	1	axh3	3/5/2010 9:07:54	OM_3-5-2010_08-40-57
247817001*	958139	1	axh3	3/5/2010 9:08:43	OM_3-5-2010_08-40-57
248023001*	958139	1	axh3	3/5/2010 9:09:33	OM_3-5-2010_08-40-57
248024002*	958139	1	axh3	3/5/2010 9:10:21	OM_3-5-2010_08-40-57
248024004*	958139	1	axh3	3/5/2010 9:11:08	OM_3-5-2010_08-40-57
248044001*	958139	1	axh3	3/5/2010 9:11:58	OM_3-5-2010_08-40-57
248044003*	958139	1	axh3	3/5/2010 9:12:49	OM_3-5-2010_08-40-57
248044005*	958139	1	axh3	3/5/2010 9:13:41	OM_3-5-2010_08-40-57
248044006*	958139	1	axh3	3/5/2010 9:14:32	OM_3-5-2010_08-40-57
CCV		1	axh3	3/5/2010 9:15:22	OM_3-5-2010_08-40-57
CCB		1	axh3	3/5/2010 9:17:26	OM_3-5-2010_08-40-57

Author: axh3 Date : 3/5/2010

Original Run Filename: OM_3-5-2010_08-40-57.OMN created 3/5/2010 8:40:57
Original Run Author's Signature: [axh3]
Current Run Filename: OM_3-5-2010_08-40-57.OMN last modified 3/5/2010 9:18:48
Current Run Author's Signature: [axh3]
Description: Total Phosphorous EPA Method 365.4 GEL SOP: GL-GC-E-103
Detection Wavelength: 880nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TLPOS Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100305-13	1	S2	3.000	14.147	3/5/2010@8:44:15			3.0 ppm Std.
WTR100305-14	1	S3	1.000	4.748	3/5/2010@8:45:03			1.0 ppm Std.
WTR100305-15	1	S4	0.500	2.331	3/5/2010@8:45:53			0.5 ppm Std
WTR100305-16	1	S5	0.100	0.389	3/5/2010@8:46:43			0.1 ppm Std
WTR100305-17	1	S6	0.050	0.183	3/5/2010@8:47:34			0.05 ppm Std
WTR100305-19 0.0	1	S7	0.000	0.034	3/5/2010@8:48:26			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99997 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR100305-18 ICV	1	S8	1.021	4.800	3/5/2010@8:50:31			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.021 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.021 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR100305-19 ICB	1	S7	0.024	0.089	3/5/2010@8:52:36			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	0.024 < 0.050					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.024 > -0.050					
		Message	ICB Passed					
		Action	Continue					
1202054686|958139|MB	1	1	0.027	0.102	3/5/2010@8:54:40			
1202054693||LCS	1	2	1.093	5.145	3/5/2010@8:55:31			
247817001	1	3	0.336	1.563	3/5/2010@8:56:22			
1202054687||DUP	1	4	0.050	0.211	3/5/2010@8:57:12			
1202054689||MS	1	5	1.072	5.045	3/5/2010@8:58:03			
1202054691||MSD	1	6	1.052	4.949	3/5/2010@8:58:53			
247829001	1	7	0.064	0.275	3/5/2010@8:59:43			
247957001	1	8	0.067	0.292	3/5/2010@9:00:32			
248019001	1	9	0.102	0.455	3/5/2010@9:01:21			
1202054716||DUP	1	10	0.096	0.429	3/5/2010@9:02:09			
WTR100305-14 CCV	1	S3	1.002	4.711	3/5/2010@9:02:59			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.002 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.002 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100305-19 CCB	1	S7	0.016	0.049	3/5/2010@9:05:03			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								

		Result:	0.016 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.016 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1202054717||MS	1	11	1.148	5.403	3/5/2010@9:07:05			
1202054718||MSD	1	12	1.158	5.451	3/5/2010@9:07:54			
247817001	1	3	0.061	0.263	3/5/2010@9:08:43			
248023001	1	13	0.066	0.284	3/5/2010@9:09:33			
248024002	1	14	0.057	0.244	3/5/2010@9:10:21			
248024004	1	15	0.060	0.256	3/5/2010@9:11:08			
248044001	1	16	0.067	0.292	3/5/2010@9:11:58			
248044003	1	17	0.046	0.194	3/5/2010@9:12:49			
248044005	1	18	0.029	0.113	3/5/2010@9:13:41			
248044006	1	19	0.022	0.078	3/5/2010@9:14:32			
WTR100305-14 CCV	1	S3	0.971	4.565	3/5/2010@9:15:22			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.971 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.971 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100305-19 CCB	1	S7	0.100	0.447	3/5/2010@9:17:26			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.100 > 0.050					
		Message	CCB Failed					
		Action	Stop Run					
			DQM Test: < - Concentration Limit					
		Result:	0.100 > -0.050					
		Message	CCB Passed					
		Action	Continue					

Channel 1 (TLPOS) : Current View

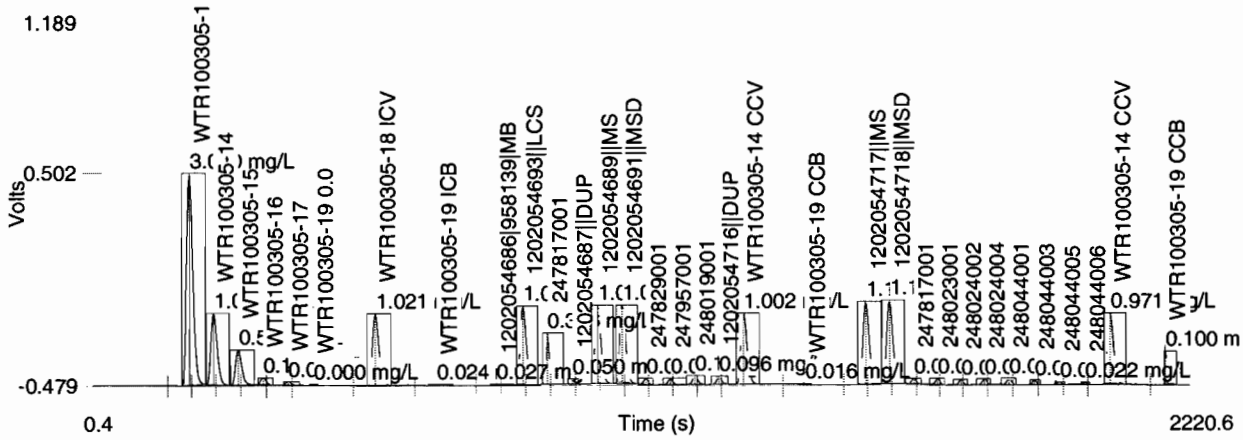

Author: axh3 Date : 3/5/2010

Table 1: TLPOS

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	3.000	1	14.147	0.976	0.1	3/5/2010	8:45:35
2	1.000	1	4.748	0.331	-1.0	3/5/2010	8:46:23
3	0.500	1	2.331	0.164	0.3	3/5/2010	8:47:13
4	0.100	1	0.389	0.032	13.0	3/5/2010	8:48:03
5	0.050	1	0.183	0.015	13.3	3/5/2010	8:48:55
6	0.000	1	0.034	0.004		3/5/2010	8:49:47

Figure 1: TLPOS

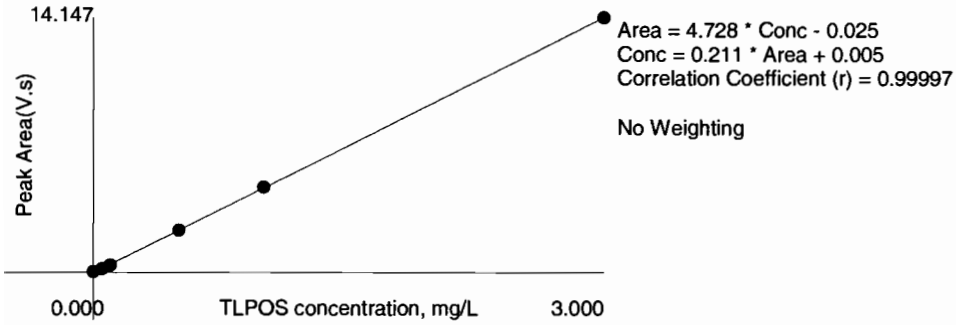

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axh3	3/5/2010 9:40:00	OM_3-5-2010_09-38-31
CCB		1	axh3	3/5/2010 9:42:04	OM_3-5-2010_09-38-31
1202054717	958139	1	axh3	3/5/2010 9:44:07	OM_3-5-2010_09-38-31
1202054718	958139	1	axh3	3/5/2010 9:44:55	OM_3-5-2010_09-38-31
247817001	958139	1	axh3	3/5/2010 9:45:45	OM_3-5-2010_09-38-31
248023001	958139	1	axh3	3/5/2010 9:46:34	OM_3-5-2010_09-38-31
248024002	958139	1	axh3	3/5/2010 9:47:22	OM_3-5-2010_09-38-31
248024004	958139	1	axh3	3/5/2010 9:48:09	OM_3-5-2010_09-38-31
248044001	958139	1	axh3	3/5/2010 9:48:59	OM_3-5-2010_09-38-31
248044003*	958139	1	axh3	3/5/2010 9:49:50	OM_3-5-2010_09-38-31
248044005	958139	1	axh3	3/5/2010 9:50:41	OM_3-5-2010_09-38-31
248044006	958139	1	axh3	3/5/2010 9:51:32	OM_3-5-2010_09-38-31
CCV		1	axh3	3/5/2010 9:52:23	OM_3-5-2010_09-38-31
CCB		1	axh3	3/5/2010 9:54:27	OM_3-5-2010_09-38-31
248072001	958139	1	axh3	3/5/2010 9:56:31	OM_3-5-2010_09-38-31
1202054688	958139	1	axh3	3/5/2010 9:57:22	OM_3-5-2010_09-38-31
1202054690	958139	1	axh3	3/5/2010 9:58:12	OM_3-5-2010_09-38-31
1202054692	958139	1	axh3	3/5/2010 9:59:01	OM_3-5-2010_09-38-31
248072002	958139	1	axh3	3/5/2010 9:59:51	OM_3-5-2010_09-38-31
248072003	958139	1	axh3	3/5/2010 10:00:40	OM_3-5-2010_09-38-31
248298001	958139	1	axh3	3/5/2010 10:01:29	OM_3-5-2010_09-38-31
248298002	958139	1	axh3	3/5/2010 10:02:18	OM_3-5-2010_09-38-31
248298003	958139	1	axh3	3/5/2010 10:03:07	OM_3-5-2010_09-38-31
248044003	958139	1	axh3	3/5/2010 10:03:56	OM_3-5-2010_09-38-31
CCV		1	axh3	3/5/2010 10:04:47	OM_3-5-2010_09-38-31
CCB		1	axh3	3/5/2010 10:06:51	OM_3-5-2010_09-38-31
1202057080*	959198	1	axh3	3/5/2010 10:08:53	OM_3-5-2010_09-38-31
1202057087*	959198	1	axh3	3/5/2010 10:09:41	OM_3-5-2010_09-38-31
248005001*	959198	1	axh3	3/5/2010 10:10:31	OM_3-5-2010_09-38-31
248005002*	959198	1	axh3	3/5/2010 10:11:23	OM_3-5-2010_09-38-31
248127001*	959198	1	axh3	3/5/2010 10:12:14	OM_3-5-2010_09-38-31
248164001*	959198	1	axh3	3/5/2010 10:13:03	OM_3-5-2010_09-38-31
1202057080	959198	1	axh3	3/5/2010 10:13:53	OM_3-5-2010_09-38-31
1202057087	959198	1	axh3	3/5/2010 10:14:40	OM_3-5-2010_09-38-31
248005001	959198	1	axh3	3/5/2010 10:15:30	OM_3-5-2010_09-38-31
248005002	959198	1	axh3	3/5/2010 10:16:22	OM_3-5-2010_09-38-31
CCV		1	axh3	3/5/2010 10:17:12	OM_3-5-2010_09-38-31
CCB		1	axh3	3/5/2010 10:19:17	OM_3-5-2010_09-38-31
248127001*	959198	1	axh3	3/5/2010 10:21:20	OM_3-5-2010_09-38-31
248164001*	959198	1	axh3	3/5/2010 10:22:11	OM_3-5-2010_09-38-31
1202057082*	959198	1	axh3	3/5/2010 10:23:00	OM_3-5-2010_09-38-31
1202057084*	959198	1	axh3	3/5/2010 10:23:50	OM_3-5-2010_09-38-31
1202057086*	959198	1	axh3	3/5/2010 10:24:39	OM_3-5-2010_09-38-31
248321001*	959198	1	axh3	3/5/2010 10:25:27	OM_3-5-2010_09-38-31
1202059637*	959198	1	axh3	3/5/2010 10:26:16	OM_3-5-2010_09-38-31
1202059638*	959198	1	axh3	3/5/2010 10:27:04	OM_3-5-2010_09-38-31
1202059639*	959198	1	axh3	3/5/2010 10:27:54	OM_3-5-2010_09-38-31
248547001*	959198	1	axh3	3/5/2010 10:28:45	OM_3-5-2010_09-38-31
CCV		1	axh3	3/5/2010 10:29:35	OM_3-5-2010_09-38-31
CCB		1	axh3	3/5/2010 10:31:39	OM_3-5-2010_09-38-31

Author: axh3 Date : 3/5/2010

Original Run Filename: OM_3-5-2010_09-38-31.OMN created 3/5/2010 9:38:31
Original Run Author's Signature: [axh3]
Current Run Filename: OM_3-5-2010_09-38-31.OMN last modified 3/5/2010 10:33:03
Current Run Author's Signature: [axh3]
Description: Total Phosphorous EPA Method 365.4 GEL SOP: GL-GC-E-103
Detection Wavelength: 880nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TLPOS Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100305-14 CCV	1	S3	0.987	4.641	3/5/2010@9:40:00			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.987 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.987 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100305-19 CCB	1	S7	0.017	0.056	3/5/2010@9:42:04			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.017 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.017 > -0.050					
		Message	CCB Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
1202054717|958139|MS	1	11	1.137	5.350	3/5/2010@9:44:07			
1202054718||MSD	1	12	1.154	5.429	3/5/2010@9:44:55			
247817001	1	3	0.060	0.260	3/5/2010@9:45:45			
248023001	1	13	0.067	0.291	3/5/2010@9:46:34			
248024002	1	14	0.058	0.248	3/5/2010@9:47:22			
248024004	1	15	0.062	0.268	3/5/2010@9:48:09			
248044001	1	16	0.061	0.261	3/5/2010@9:48:59			
248044003	1	17	0.281	1.304	3/5/2010@9:49:50			
248044005	1	18	0.028	0.107	3/5/2010@9:50:41			
248044006	1	19	0.005	-6.549e-5	3/5/2010@9:51:32			
WTR100305-14 CCV	1	S3	0.966	4.542	3/5/2010@9:52:23			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.966 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.966 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100305-19 CCB	1	S7	0.017	0.057	3/5/2010@9:54:27			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.017 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.017 > -0.050					
		Message	CCB Passed					
		Action	Continue					
248072001	1	20	0.199	0.918	3/5/2010@9:56:31			
1202054688||DUP	1	21	0.162	0.741	3/5/2010@9:57:22			
1202054690||MS	1	22	1.201	5.654	3/5/2010@9:58:12			
1202054692||MSD	1	23	1.136	5.344	3/5/2010@9:59:01			

248072002	1	24	0.050	0.212	3/5/2010@9:59:51			
248072003	1	25	0.038	0.156	3/5/2010@10:00:40			
248298001	1	26	0.042	0.174	3/5/2010@10:01:29			
248298002	1	27	0.035	0.140	3/5/2010@10:02:18			
248298003	1	28	0.037	0.150	3/5/2010@10:03:07			
248044003	1	17	0.062	0.267	3/5/2010@10:03:56			
WTR100305-14 CCV	1	S3	0.961	4.519	3/5/2010@10:04:47			CCV
	Known Conc:		1.000					
DQM Test: > + Concentration Limit								
Result:			0.961 < 1.104					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.961 > 0.895					
Message			CCV Passed					
Action			Continue					
WTR100305-19 CCB	1	S7	-0.008	-0.064	3/5/2010@10:06:51			CCB
	Known Conc:		0.000					
DQM Test: > + Concentration Limit								
Result:			-0.008 < 0.050					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			-0.008 > -0.050					
Message			CCB Passed					
Action			Continue					
1202057080|959198|MB	1	29	0.018	0.058	3/5/2010@10:08:53			
1202057087||LCS	1	30	0.215	0.991	3/5/2010@10:09:41			
248005001	1	31	0.042	0.172	3/5/2010@10:10:31			
248005002	1	32	0.025	0.094	3/5/2010@10:11:23			
248127001	1	37	0.399	1.861	3/5/2010@10:12:14			
248164001	1	38	0.080	0.352	3/5/2010@10:13:03			
1202057080|959198|MB	1	29	0.018	0.058	3/5/2010@10:13:53			
1202057087||LCS	1	30	1.089	5.126	3/5/2010@10:14:40			
248005001	1	31	0.044	0.183	3/5/2010@10:15:30			
248005002	1	32	0.026	0.096	3/5/2010@10:16:22			
WTR100305-14 CCV	1	S3	0.980	4.607	3/5/2010@10:17:12			CCV
	Known Conc:		1.000					
DQM Test: > + Concentration Limit								
Result:			0.980 < 1.104					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.980 > 0.895					
Message			CCV Passed					
Action			Continue					
WTR100305-19 CCB	1	S7	0.023	0.083	3/5/2010@10:19:17			CCB
	Known Conc:		0.000					
DQM Test: > + Concentration Limit								
Result:			0.023 < 0.050					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.023 > -0.050					
Message			CCB Passed					
Action			Continue					
248127001	1	37	0.411	1.920	3/5/2010@10:21:20			
248164001	1	38	0.077	0.338	3/5/2010@10:22:11			
1202057082||DUP	1	39	0.152	0.696	3/5/2010@10:23:00			
1202057084||MS	1	40	0.681	3.194	3/5/2010@10:23:50			
1202057086||MSD	1	41	0.926	4.355	3/5/2010@10:24:39			
248321001	1	43	0.898	4.220	3/5/2010@10:25:27			
1202059637||DUP	1	44	0.433	2.023	3/5/2010@10:26:16			
1202059638||MS	1	45	1.013	4.765	3/5/2010@10:27:04			
1202059639||MSD	1	46	1.129	5.312	3/5/2010@10:27:54			
248547001	1	54	0.070	0.305	3/5/2010@10:28:45			
WTR100305-14 CCV	1	S3	1.042	4.901	3/5/2010@10:29:35			CCV
	Known Conc:		1.000					

Author: axh3 Date : 3/5/2010

DQM Test: > + Concentration Limit							
Result:			1.042 < 1.104				
Message			CCV Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			1.042 > 0.895				
Message			CCV Passed				
Action			Continue				
WTR100305-19 CCB	1	S7	-0.412	-1.975	3/5/2010@10:31:39		CCB
Known Conc:			0.000				
DQM Test: > + Concentration Limit							
Result:			-0.412 < 0.050				
Message			CCB Passed				
Action			Continue				
DQM Test: < - Concentration Limit							
Result:			-0.412 < -0.050				
Message			CCB Failed				
Action			Stop Run				

Channel 1 (TLPOS) : Current View

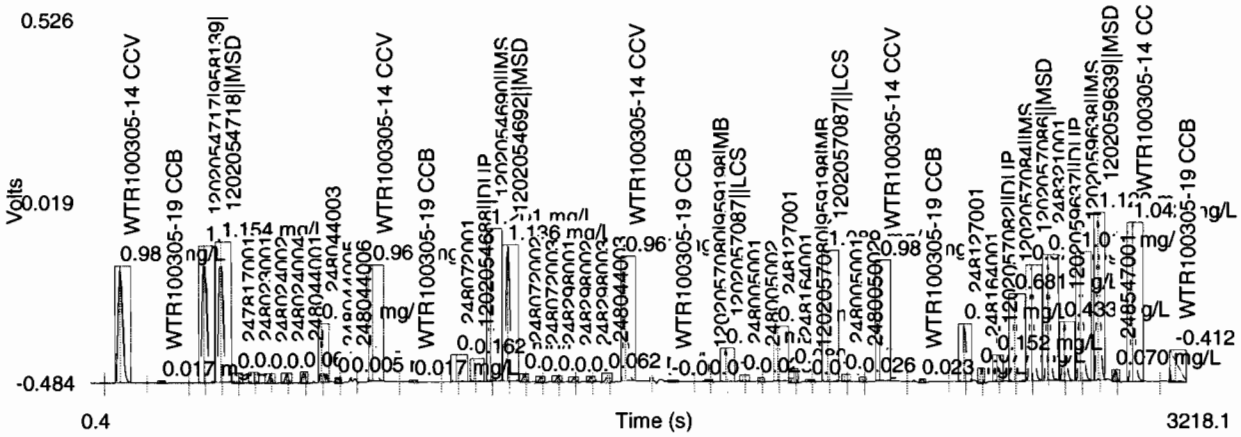

Table 1: TLPOS

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	3.000	1	14.147	0.976	0.1	3/5/2010	8:45:35
2	1.000	1	4.748	0.331	-1.0	3/5/2010	8:46:23
3	0.500	1	2.331	0.164	0.3	3/5/2010	8:47:13
4	0.100	1	0.389	0.032	13.0	3/5/2010	8:48:03
5	0.050	1	0.183	0.015	13.3	3/5/2010	8:48:55
6	0.000	1	0.034	0.004		3/5/2010	8:49:47

Author: axh3 Date : 3/5/2010

Figure 1: TLPOS

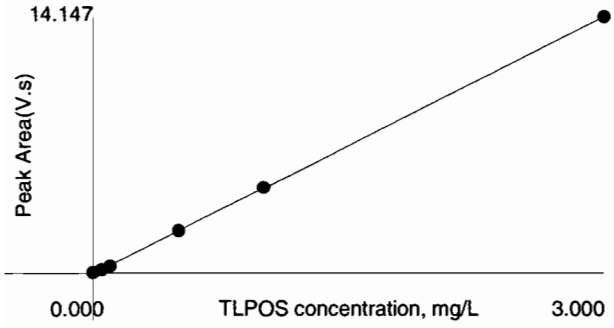

Area = 4.728 * Conc - 0.025
Conc = 0.211 * Area + 0.005
Correlation Coefficient (r) = 0.99997

No Weighting

pH

pH / Corrosivity LogBook

Analyst: LXA1
Batch: 959606
Lab SOP: GL-GC-E-008 REV# 17
Description: pH
Method: EPA 150.1

Type	Sample Id	Serial Number	Description
CCV	240	IMM091029-PH	PH 7 BUFFER FOR PH
LCS	1202058099	IMM100209-01	LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parmname	Initial Wt()	Final Vol()	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
1202058099 LCS		Water			01-MAR-10 18:38	pH			6.99	19.3'C	7	99.857	
1202058099 LCS		Water			01-MAR-10 18:38	pH 2			6.99	19.3'C	7	99.857	
248019001		Water			01-MAR-10 18:39	pH			8.43	15.8'C			
248019001		Water			01-MAR-10 18:39	pH 2			8.44	15.8'C			
1202058097 DUP	248019001	Water			01-MAR-10 18:40	pH			8.46	14.9'C			.355
1202058097 DUP	248019001	Water			01-MAR-10 18:40	pH 2			8.46	14.9'C			.237
248023001		Ground Water			01-MAR-10 18:41	pH			7.91	15.3'C			
248023001		Ground Water			01-MAR-10 18:41	pH 2			7.9	15.4'C			
248024002		Ground Water			01-MAR-10 18:42	pH			7.07	15.9'C			
248024002		Ground Water			01-MAR-10 18:42	pH 2			7.08	15.9'C			
CCV					01-MAR-10 18:44	pH			7.02	18.6'C	7	100.286	
CCV					01-MAR-10 18:44	pH 2			7.02	18.6'C	7	100.286	
1202058098 DUP	248024002	Ground Water			01-MAR-10 18:45	pH			7.1	15.8'C			.423
1202058098 DUP	248024002	Ground Water			01-MAR-10 18:45	pH 2			7.1	15.9'C			.282
248024004		Ground Water			01-MAR-10 18:47	pH			7.13	16.4'C			
248024004		Ground Water			01-MAR-10 18:47	pH 2			7.13	16.4'C			
248044001		Ground Water			01-MAR-10 18:49	pH			6.78	15.8'C			
248044001		Ground Water			01-MAR-10 18:49	pH 2			6.79	15.8'C			
248044003		Ground Water			01-MAR-10 18:51	pH			7.84	16.3'C			
248044003		Ground Water			01-MAR-10 18:51	pH 2			7.84	16.3'C			
248044005		Ground Water			01-MAR-10 18:53	pH			5.96	16.3'C			
248044005		Ground Water			01-MAR-10 18:53	pH 2			5.98	16.3'C			
CCV					01-MAR-10 18:54	pH			7.02	18.9'C	7	100.286	
CCV					01-MAR-10 18:54	pH 2			7.02	18.9'C	7	100.286	

pH / Corrosivity LogBook

Analyst: LXA1
Batch: 959606
Lab SOP: GL-GC-E-008 REV# 17
Description: pH
Method: EPA 150.1

Type	Sample Id	Serial Number	Description
CCV	240	IMM091029-PH	PH 7 BUFFER FOR PH
LCS	1202058099	IMM100209-01	LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parmname	Initial Wt()	Final Vol()	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
248044006		Ground Water			01-MAR-10 18:56	pH			6.31	15.6'C			
248044006		Ground Water			01-MAR-10 18:56	pH 2			6.3	15.6'C			
248127001		Water			01-MAR-10 18:57	pH			9.01	15.4'C			
248127001		Water			01-MAR-10 18:57	pH 2			9.01	15.5'C			
248164001		Ground Water			01-MAR-10 18:59	pH			8.09	15.3'C			
248164001		Ground Water			01-MAR-10 18:59	pH 2			8.09	15.2'C			
248164003		Ground Water			01-MAR-10 18:59	pH			8.08	15.2'C			
248164003		Ground Water			01-MAR-10 18:59	pH 2			8.08	15.3'C			
248168006		Water			01-MAR-10 19:00	pH			7.24	15.4'C			
248168006		Water			01-MAR-10 19:00	pH 2			7.26	15.4'C			
CCV					01-MAR-10 19:01	pH			7.03	19.9'C	7	100.429	
CCV					01-MAR-10 19:01	pH 2			7.03	19.9'C	7	100.429	
248169004		Water			01-MAR-10 19:02	pH			8.02	15.7'C			
248169004		Water			01-MAR-10 19:02	pH 2			8.02	15.7'C			
CCV					01-MAR-10 19:03	pH			7.03	20.0'C	7	100.429	
CCV					01-MAR-10 19:03	pH 2			7.03	20.0'C	7	100.429	

Calibration Information:
Run Date: 01-MAR-10 11:24
Instrument: PHX370
Analyst: LXA1

	Standard	Observed	Theoretical		C	%Recovery
11:24	IMM100301-PH1	4.01	4	SU	20.5	100.25
11:24	IMM100301-PH2	7.04	7	SU	20.5	100.57
11:24	UPH100301-PH3	10.05	10	SU	20.5	100.5
11:24	UPH100301-PH4	2.04	2	SU	20.5	102
11:24	UPH100301-PH5	12.08	12	SU	20.5	100.67
11:24	IMM100301-PH6	7.02	7	SU	20.5	100.29

Comments:

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
01-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 350.1	Liquid	ESHL, LANL, UDSL, WSRB
Batch ID:	**Sample Numbers:**		
958142	See Below		

Potentially affected work order(s)(SDG): 247957,248019(10-2052),248023(10-2040),248024(10-2046),248044(10-2058),248074(10-2050),248078

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/MSD: QC 1202054697MS,1202054699MSD, 1202054698MS,1202054700MSD	1. The matrix spike was outside of the required acceptance limits due to matrix interference. The matrix spike duplicate verified the result with a passing RPD.
2. Failed RPD for DUP: QC 1202054696DUP	2. The Relative Percent Difference (RPD) between the sample and its duplicate were outside of the normal acceptance limits because of the heterogeneous matrix of the sample(misc.liquid).
3. Failed Recovery for MSD/MSD: QC 1202054721MS,1202054722MS, 1202054723MSD,1202054724MSD	3. The spike and spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits.

Originator's Name:

Aubrey Kingsbury 01-MAR-10

Data Validator/Group Leader:

Elzbieta Szulc 02-MAR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
23-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
IC	EPA 300.0	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
966823	See Below		

Potentially affected work order(s)(SDG): 248023(10-2040),248044(10-2058),248164(10-2111)

Application Issues:

Failed Recovery for MS/PS

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for PS: QC 1202074934PS	1. The spike recovery falls outside of the GEL acceptance limits for Fluoride, but within the client specified limits of 75%-125% due to matrix interference. Of the remaining anions in the PS, all meet required acceptance limits. The deviation is noted in the Case Narrative and DER, and the data has been reported.

Originator's Name:

Virginia Wininger 23-MAR-10

Data Validator/Group Leader:

Elzbieta Szulc 23-MAR-10

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2040

Method/Analysis Information

Product:	**Alphaspec Am241 Liquid**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Analytical Batch Number:	962412

Sample ID	Client ID
248023002	CAPA-10-12917
1202064543	Method Blank (MB)
1202064544	248806001(CAPA-10-12903) Sample Duplicate (DUP)
1202064545	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202064543 (MB) and 1202064545 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248806001 (CAPA-10-12903). The QC was from LANL work order 248806.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec Pu, Liquid**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	968210

Sample ID	Client ID
248023002	CAPA-10-12917
1202078499	Method Blank (MB)
1202078500	248023002(CAPA-10-12917) Sample Duplicate (DUP)
1202078501	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202078499 (MB) and 1202078501 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248023002 (CAPA-10-12917). The QC was from LANL work order 248023.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were reprepped due to low carrier/tracer yield.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec U, Liquid**
Analytical Method:	DOE EML HASL-300, U-02-RC Modified
Analytical Batch Number:	967762

Sample ID	Client ID
248023002	CAPA-10-12917
1202077305	Method Blank (MB)
1202077306	248023002(CAPA-10-12917) Sample Duplicate (DUP)
1202077307	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-011 REV# 18.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. Calibrations are performed monthly using mixed alpha standards comprised of the following: Gd-148, Np-237, and Cm-244.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202077305 (MB) and 1202077307 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248023002 (CAPA-10-12917). The QC was from LANL work order 248023.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The U-238 blank, 1202077305 (MB), result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Samples were reprepped due to low carrier/tracer yield.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integration
No manual integrations were performed on data in this batch.

Additional Comments
The MDCs are calculated using a blank population.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Gammaspec, Gamma, Liquid**
Analytical Method:	EPA 901.1
Analytical Batch Number:	958213

Sample ID	Client ID
248023002	CAPA-10-12917
1202054942	Method Blank (MB)
1202054944	248023002(CAPA-10-12917) Sample Duplicate (DUP)
1202054946	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-013 REV# 19.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in April 2009, June 2009, July 2009 and January 2010.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used

before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
The blank volume is representative of the sample volume in this batch.

Designated QC
The following sample was used for QC: 248023002 (CAPA-10-12917). The QC was from LANL work order 248023.

QC Information
All of the QC samples met the required acceptance limits.

CSU
Blank, 1202054942 (MB), results for gross gamma and Pb-214 were greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
Blank, 1202054942 (MB), results for gross gamma and Pb-214 were greater than the decision level, but less than the MDC.

Qualifier information

Qualifier	Reason	Analyte	Sample	Client Sample
UI	Data rejected due to interference.	Bismuth-211	1202054944	CAPA-10-12917(248023002DUP)
UI	Data rejected due to low abundance.	Lead-214	1202054944	CAPA-10-12917(248023002DUP)
UI	Data rejected due to no valid peak.	Bismuth-211	1202054942	MB for batch 958213

Method/Analysis Information

Product:	**GFPC, Gross A/B, liquid**
Analytical Method:	EPA 900.0
Analytical Batch Number:	959739

Sample ID	Client ID
248023002	CAPA-10-12917
1202058390	Method Blank (MB)
1202058391	248020003(CAPA-10-13085) Sample Duplicate (DUP)
1202058392	248020003(CAPA-10-13085) Matrix Spike (MS)
1202058393	248020003(CAPA-10-13085) Matrix Spike Duplicate (MSD)
1202058394	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-001 REV# 12.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in July 2009. The discrimination settings are calibrated in beta discriminating mode to reduce beta to alpha crosstalk.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202058390 (MB) and 1202058394 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248020003 (CAPA-10-13085). The QC was from LANL work order 248020.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
Sample 1202058391 (CAPA-10-13085) was recounted due to a negative result greater than three times the error. Second count being reported.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Gross Alpha/Beta Preparation Information
High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating, especially to a dull red heat. For this sample set, the prepared planchet was counted for beta activity before being flamed. After flaming, the planchet was counted for alpha activity.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Ra228, Liquid**
Analytical Method:	EPA 904.0/SW846 9320 Modified
Analytical Batch Number:	959731

Sample ID	Client ID
248023002	CAPA-10-12917
1202058357	Method Blank (MB)
1202058358	248020002(CAPA-10-13083) Sample Duplicate (DUP)
1202058359	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-009 REV# 15.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in July 2009.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202058357 (MB) and 1202058359 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248020002 (CAPA-10-13083). The QC was from LANL work order 248020.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Sr90, liquid**
Analytical Method:	EPA 905.0 Modified
Analytical Batch Number:	959738

Sample ID	Client ID
248023002	CAPA-10-12917
1202058386	Method Blank (MB)
1202058387	248024003(CAPA-10-12873) Sample Duplicate (DUP)
1202058388	248024003(CAPA-10-12873) Matrix Spike (MS)
1202058389	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-004 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibration was performed in February 2010.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202058386 (MB) and 1202058389 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248024003 (CAPA-10-12873). The QC was from LANL work order 248024.

QC Information

All of the QC samples met the required acceptance limits.

CSU
The blank result is less than 1.65 times the CSU.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Chemical Recoveries
All chemical recoveries meet the required acceptance limits for this sample set.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank result is less than the decision level.

Qualifier information

Manual qualifiers were not required.

Method/Analysis Information

Product:	**Lucas Cell, Ra226, liquid**
Analytical Method:	EPA 903.1 Modified
Analytical Batch Number:	958234

Sample ID	Client ID
248023002	CAPA-10-12917
1202054976	Method Blank (MB)
1202054977	248020001(CAPA-10-12771) Sample Duplicate (DUP)
1202054978	248020001(CAPA-10-12771) Matrix Spike (MS)
1202054979	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with

GL-RAD-A-008 REV# 13.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met. The initial Calibrations were performed in December 2008, August 2009, September 2009, December 2009 and February 2010.

Standards Information
Standard solutions for these analysis are NIST traceable or verified with a NIST traceable standard and used before the expiration dates.

Sample Geometry
All counting sources were prepared in the same geometry as the calibration standards.

Quality Control (QC) Information:

Blank Information
Aliquots for samples 1202054976 (MB) and 1202054979 (LCS) were changed to 1.0 per client request.

Designated QC
The following sample was used for QC: 248020001 (CAPA-10-12771). The QC was from LANL work order 248020.

QC Information
All of the QC samples met the required acceptance limits.

CSU
The blank 1202054976 (MB) result is greater than 1.65 times the CSU but less than the MDC.

Technical Information:

Holding Time
All sample procedures for this sample set were performed within the required holding time.

Sample Re-prep/Re-analysis
None of the samples in this sample set required reprep or reanalysis.

Miscellaneous Information:

Data Exception (DER) Documentation
Data exception reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Additional comments were not required for this sample set.

Blank Decision Level
The blank 1202054976 (MB) result is greater than the decision level but less than the MDC.

Qualifier information

Manual qualifiers were not required.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer/Date: Theresa L Arnette 3/24/2010

SAMPLE DATA SUMMARY

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2040 GEL Work Order: 248023

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by Theresa L Austin

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: March 24, 2010

Client Sample ID:	CAPA-10-12917	Project:	ESHL01000
Sample ID:	248023002	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	23-FEB-10		
Receive Date:	25-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis												
Alphaspec Am241 Liquid "As Received"												
Americium-241	U	-0.000952	0.0466	+/-0.00431	0.050	pCi/L		KXM4	03/20/10	1135	962412	1
Alphaspec Pu, Liquid "As Received"												
Plutonium-238	U	0.0301	0.0425	+/-0.0099	0.050	pCi/L		KXM4	03/23/10	2143	968210	2
Plutonium-239/240	U	0.00333	0.0297	+/-0.00413	0.050	pCi/L						
Alphaspec U, Liquid "As Received"												
Uranium-234		0.312	0.0531	+/-0.0386	1.00	pCi/L		KXM4	03/23/10	2141	967762	4
Uranium-235/236	U	0.000241	0.0417	+/-0.00513	1.00	pCi/L						
Uranium-238		0.103	0.0376	+/-0.0201	0.500	pCi/L						
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Liquid "As Received"												
Cesium-137	U	0.202	5.71	+/-1.71	8.00	pCi/L		KXG3	03/03/10	1649	958213	6
Cobalt-60	U	0.701	5.81	+/-1.70	8.00	pCi/L						
Gross Gamma		75.3	63.1	+/-20.0	120	pCi/L						
Neptunium-237	U	11.5	36.1	+/-11.0	10.0	pCi/L						
Potassium-40	U	15.3	72.9	+/-19.8	10.0	pCi/L						
Sodium-22	U	-0.919	5.53	+/-1.75	10.0	pCi/L						
Rad Gas Flow Proportional Counting												
GFPC, Gross A/B, liquid "As Received"												
Beta	U	-0.00872	2.78	+/-0.789	3.00	pCi/L		DXF3	03/05/10	0920	959739	7
Alpha	U	0.350	2.12	+/-0.524	3.00	pCi/L		DXF3	03/06/10	0423	959739	8
GFPC, Ra228, Liquid "As Received"												
Radium-228	U	0.238	0.720	+/-0.210	1.00	pCi/L		JXC5	03/08/10	1338	959731	9
GFPC, Sr90, liquid "As Received"												
Strontium-90	U	-0.111	0.475	+/-0.127	0.500	pCi/L		JXR1	03/04/10	1516	959738	10
Rad Radium-226												
Lucas Cell, Ra226, liquid "As Received"												
Radium-226	U	0.184	0.595	+/-0.171	1.00	pCi/L		KSD1	03/11/10	1215	958234	11

The following Analytical Methods were performed

Method	Description

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: March 24, 2010

Client Sample ID: CAPA-10-12917
Sample ID: 248023002

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.
1	DOE EML HASL-300, Am-05-RC Modified											
2	DOE EML HASL-300, Pu-11-RC Modified											
3	DOE EML HASL-300, Pu-11-RC Modified											
4	DOE EML HASL-300, U-02-RC Modified											
5	DOE EML HASL-300, U-02-RC Modified											
6	EPA 901.1											
7	EPA 900.0											
8	EPA 900.0											
9	EPA 904.0/SW846 9320 Modified											
10	EPA 905.0 Modified											
11	EPA 903.1 Modified											

Surrogate/Tracer recovery	Test	Recovery %	Acceptable Limits
Americium-243 Tracer	Alphaspec Am241 Liquid "As Rec	84.9	(50%-105%)
Plutonium-236 Tracer	Alphaspec Pu, Liquid "As Receive	89.9	(50%-105%)
Uranium-232 Tracer	Alphaspec U, Liquid "As Received	77.1	(50%-105%)
Barium-133 Tracer	GFPC, Ra228, Liquid "As Receive	67.0	(50%-105%)
Strontium Carrier	GFPC, Sr90, liquid "As Received"	82.9	(50%-105%)

Notes:
TPU is calculated at the 67% confidence level (1-sigma).
The Qualifiers in this report are defined as follows :

** Analyte is a surrogate compound
< Result is less than value reported
> Result is greater than value reported
A The TIC is a suspected aldol-condensation product
B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD Results are either below the MDC or tracer recovery is low
C Analyte has been confirmed by GC/MS analysis
D Results are reported from a diluted aliquot of the sample
E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
F Estimated Value
H Analytical holding time was exceeded
J Value is estimated
M M if above MDC and less than LLD
M Matrix Related Failure
N/A RPD or %Recovery limits do not apply.
ND Analyte concentration is not detected above the detection limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: LANL-WQH Water Samples

Report Date: March 24, 2010

Client Sample ID: CAPA-10-12917
Sample ID: 248023002

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	Mtd.

NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
R Sample results are rejected
U Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI Gamma Spectroscopy--Uncertain identification
UJ Gamma Spectroscopy--Uncertain identification
X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y QC Samples were not spiked with this compound
Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d 5-day BOD--The 2:1 depletion requirement was not met for this sample
h Preparation or preservation holding time was exceeded
The above sample is reported on an "as received" basis.

QUALITY CONTROL DATA

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: March 24, 2010

Client : Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 248023

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 962412										
QC1202064544 248806001 DUP										
Americium-241	U	0.0101	U	0.00472	pCi/L	0.233		(0-1)	KXM4	03/20/1011:11
TPU:		+/-0.00732		+/-0.00424						
Yield:		53.8		75.6						
QC1202064545 LCS										
Americium-241	2.84			2.69	pCi/L		94.7	(80%-120%)		03/20/1011:35
TPU:				+/-0.201						
Yield:				101						
QC1202064543 MB										
Americium-241			U	0.00238	pCi/L					03/20/1011:11
TPU:				+/-0.00374						
Yield:				95.8						
Batch 967762										
QC1202077306 248023002 DUP										
Uranium-234		0.312		0.218	pCi/L	0.688		(0-1)	KXM4	03/23/1021:42
TPU:		+/-0.0386		+/-0.0302						
Yield:		77.1		75.4						
Uranium-235/236	U	0.000241	U	0.00396	pCi/L	0.162		(0-1)		
TPU:		+/-0.00513		+/-0.00633						
Yield:		77.1		75.4						
Uranium-238		0.103		0.103	pCi/L	0.00656		(0-1)		
TPU:		+/-0.0201		+/-0.0196						
Yield:		77.1		75.4						
QC1202077307 LCS										
Uranium-234				2.47	pCi/L					03/23/1021:42
TPU:				+/-0.196						
Yield:				78.2						
Uranium-235/236				0.139	pCi/L					
TPU:				+/-0.0226						
Yield:				78.2						
Uranium-238	2.59			2.54	pCi/L		97.9	(80%-120%)		
TPU:				+/-0.201						
Yield:				78.2						
QC1202077305 MB										

QC Summary

Workorder: 248023

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 967762										
Uranium-234			U	0.00504	pCi/L					
	TPU:			+/-0.00551						
	Yield:			85.1						
Uranium-235/236			U	0.00562	pCi/L					
	TPU:			+/-0.004						
	Yield:			85.1						
Uranium-238			U	0.0091	pCi/L					
	TPU:			+/-0.0046						
	Yield:			85.1						
Batch 968210										
QC1202078500 248023002 DUP										
Plutonium-238	U	0.0301	U	0.0248	pCi/L	0.121		(0-1)	KXM4	03/23/1021:43
	TPU:	+/-0.0099		+/-0.0119						
	Yield:	89.9		96.0						
Plutonium-239/240	U	0.00333	U	0.00218	pCi/L	0.059		(0-1)		
	TPU:	+/-0.00413		+/-0.00555						
	Yield:	89.9		96.0						
QC1202078501 LCS										
Plutonium-238			U	0.00813	pCi/L			(80%-120%)		
	TPU:			+/-0.00563						
	Yield:			83.6						
Plutonium-239/240	2.27			2.20	pCi/L		96.9	(80%-120%)		
	TPU:			+/-0.147						
	Yield:			83.6						
QC1202078499 MB										
Plutonium-238			U	0.00483	pCi/L					03/23/1021:43
	TPU:			+/-0.00849						
	Yield:			86.8						
Plutonium-239/240			U	-0.000327	pCi/L					
	TPU:			+/-0.00386						
	Yield:			86.8						
Rad Gamma Spec										
Batch 958213										
QC1202054944 248023002 DUP										
Cesium-137	U	0.202	U	-1.32	pCi/L	0.245		(0-1)	KXG3	03/03/1019:16
	TPU:	+/-1.71		+/-1.40						
Cobalt-60	U	0.701	U	-1.52	pCi/L	0.367		(0-1)		

QC Summary

Workorder: 248023

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 958213										
	TPU:	+/-1.70		+/-1.33						
Gross Gamma		75.3	U	67.5	pCi/L	0.106		(0-1)		
	TPU:	+/-20.0		+/-16.7						
Neptunium-237	U	11.5	U	-2.55	pCi/L	0.324		(0-1)		
	TPU:	+/-11.0		+/-10.6						
Potassium-40	U	15.3	U	5.62	pCi/L	0.125		(0-1)		
	TPU:	+/-19.8		+/-18.9						
Sodium-22	U	-0.919	U	0.265	pCi/L	0.188		(0-1)		
	TPU:	+/-1.75		+/-1.40						
QC1202054946 LCS										
Americium-241	1240			1270	pCi/L		102	(75%-125%)		03/03/1019:39
	TPU:			+/-72.3						
Cesium-137	432			468	pCi/L		109	(75%-125%)		
	TPU:			+/-26.9						
Cobalt-60	493			526	pCi/L		107	(75%-125%)		
	TPU:			+/-31.4						
Gross Gamma	2180			2090	pCi/L		95.9	(75%-125%)		
	TPU:			+/-175						
Neptunium-237				287	pCi/L					
	TPU:			+/-44.1						
Potassium-40			U	-3.74	pCi/L					
	TPU:			+/-22.9						
Sodium-22			U	-0.639	pCi/L					
	TPU:			+/-3.79						
QC1202054942 MB										
Cesium-137			U	0.514	pCi/L					03/03/1019:13
	TPU:			+/-1.55						
Cobalt-60			U	0.946	pCi/L					
	TPU:			+/-1.35						
Gross Gamma			U	11.5	pCi/L					
	TPU:			+/-4.40						
Neptunium-237			U	-4.96	pCi/L					
	TPU:			+/-9.24						
Potassium-40			U	-12.5	pCi/L					

QC Summary

Workorder: 248023

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 958213										
	TPU:			+/-19.6						
Sodium-22			U	-0.45	pCi/L					
	TPU:			+/-1.20						
Rad Gas Flow										
Batch 959731										
QC1202058358 248020002 DUP										
Radium-228	U	-0.0107		0.778	pCi/L	0.853		(0-1)	JXC5	03/08/1013:38
	TPU:	+/-0.185		+/-0.278						
	Yield:	65.0		62.1						
QC1202058359 LCS										
Radium-228	7.58			9.08	pCi/L		120	(80%-120%)		03/08/1013:38
	TPU:			+/-1.28						
	Yield:			74.5						
QC1202058357 MB										
Radium-228			U	0.254	pCi/L					03/08/1013:38
	TPU:			+/-0.154						
	Yield:			76.5						
Batch 959738										
QC1202058387 248024003 DUP										
Strontium-90	U	0.0327	U	0.329	pCi/L	0.521		(0-1)	JXR1	03/04/1015:15
	TPU:	+/-0.134		+/-0.151						
	Yield:	78.4		86.3						
QC1202058389 LCS										
Strontium-90	22.2			19.3	pCi/L		86.9	(80%-120%)		03/04/1015:15
	TPU:			+/-1.66						
	Yield:			85.2						
QC1202058386 MB										
Strontium-90			U	0.0999	pCi/L					03/04/1018:04
	TPU:			+/-0.0688						
	Yield:			78.4						
QC1202058388 248024003 MS										
Strontium-90	222 U	0.0327		234	pCi/L		105	(75%-125%)		03/04/1016:38
	TPU:	+/-0.134		+/-19.9						
	Yield:	78.4		82.9						
Batch 959739										
QC1202058391 248020003 DUP										
Alpha	U	0.261	U	-0.387	pCi/L	0.373		(0-1)	DXF3	03/06/1015:27
	TPU:	+/-0.393		+/-0.476						

QC Summary

Workorder: 248023

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 959739										
Beta	U	-0.762	U	-0.705	pCi/L	0.0179		(0-1)		
	TPU:	+/-0.739		+/-0.832						
QC1202058394 LCS										
Alpha	12.6			12.2	pCi/L		97	(80%-120%)		03/06/1004:00
	TPU:			+/-1.45						
Beta	38.5			42.5	pCi/L		111	(80%-120%)		03/05/1009:22
	TPU:			+/-3.72						
QC1202058390 MB										
Alpha			U	0.0674	pCi/L					03/06/1004:00
	TPU:			+/-0.0742						
Beta			U	-0.242	pCi/L					03/05/1009:44
	TPU:			+/-0.117						
QC1202058392 248020003 MS										
Alpha	252 U	0.261		304	pCi/L		121	(75%-125%)		03/06/1004:00
	TPU:	+/-0.393		+/-30.0						
Beta	769 U	-0.762		791	pCi/L		103	(75%-125%)		03/05/1009:22
	TPU:	+/-0.739		+/-68.5						
QC1202058393 248020003 MSD										
Alpha	252 U	0.261		310	pCi/L	0.045	123	(0-1)		03/06/1004:00
	TPU:	+/-0.393		+/-35.7						
Beta	769 U	-0.762		824	pCi/L	0.119	107	(0-1)		03/05/1009:22
	TPU:	+/-0.739		+/-71.6						
Rad Ra-226										
Batch 958234										
QC1202054977 248020001 DUP										
Radium-226	U	0.508	U	0.0905	pCi/L	0.510		(0-1)	KSD1	03/11/1012:15
	TPU:	+/-0.217		+/-0.192						
QC1202054979 LCS										
Radium-226	12.1			11.5	pCi/L		94.8	(80%-120%)		03/11/1012:45
	TPU:			+/-1.89						
QC1202054976 MB										
Radium-226			U	0.156	pCi/L					03/11/1012:15
	TPU:			+/-0.0736						
QC1202054978 248020001 MS										
Radium-226	121 U	0.508		127	pCi/L		105	(75%-125%)		03/11/1012:45
	TPU:	+/-0.217		+/-14.5						

QC Summary

Workorder: 248023

Parmname	NOM	Sample	Qual	QC	Units	RER	REC%	Range	Anlst	Date Time

Notes:
The Qualifiers in this report are defined as follows:

**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
A	The TIC is a suspected aldol-condensation product
B	For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
E	General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
E	Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
E	Organics--Concentration of the target analyte exceeds the instrument calibration range
F	Estimated Value
H	Analytical holding time was exceeded
J	Value is estimated
M	M if above MDC and less than LLD
M	Matrix Related Failure
N	Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	RPD or %Recovery limits do not apply.
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Gamma Spectroscopy--Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
** Indicates analyte is a surrogate compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

RAW DATA

Radiochemistry Batch Checklist, Rev10

Batch# 962412 Product: Am Date: 3/23/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature] 3/23/10

Secondary Review Performed By: [signature] 3/24/10

3/25

Am/Cm Que Sheet

12-MAR-10

Batch #: 962412 | Analyst: KXM4 | First Client Due Date: 25-MAR-10 | Internal Due Date14-MAR-10 | Comments:

Tracer(s): Am243/Cm244 | Tracer Code: 445-96-2-55 | Expiration Date: 5-11-10 | Vol: 0.1ml

LCS Isotope(s): Am241/Cm244 | LCS Code(s): 0533-0 / NA | Expiration Date: 9-10-10 / NA | Vol(s): 0.1ml / NA

Spike Isotope(s): Am241/Cm244 | Spike Code(s): NA / NA | Expiration Date: NA / NA | Vol(s): NA / NA

Prep Date: 3-15-10 | Initials: KM | Pipet ID: 2971058 | Balance ID: 51204863 | Witness: [illegible] 03/15/10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l)	Am/Cm Det #
248020001-1	CAPA-10-12771	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	22-FEB-10	1	1	0.800	25
248020003-1	CAPA-10-13085	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	23-FEB-10	2	2	0.800	26
248023002-1	CAPA-10-12917	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	23-FEB-10	3	3	0.800	27
248024001-1	CAPA-10-12871	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	23-FEB-10	4	4	0.800	28
248024003-1	CAPA-10-12873	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	23-FEB-10	5	5	0.800	29
248382002-1	CAPA-10-12913	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	26-FEB-10	6	6	0.800	30
248382003-1	CAPA-10-12919	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	26-FEB-10	7	7	0.800	101
248401002-1	CAPA-10-12794	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	25-FEB-10	8	8	0.800	102
248548001-1	CAPA-10-12788	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	01-MAR-10	9	9	0.800	209
248555002-1	CAPA-10-12892	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	01-MAR-10	10	10	0.800	210
248670001-1	CAPA-10-12855	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	02-MAR-10	11	11	0.800	211
248670002-1	CAPA-10-12876	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	02-MAR-10	12	12	0.800	217
248670003-1	CAPA-10-12880	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	02-MAR-10	13	13	0.800	218 ~~218~~ ~~256~~
248806001-1	CAPA-10-12903	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	03-MAR-10	14	14	0.800	256 ~~219~~
248806002-1	CAPA-10-13073	SAMPLE		.05 pCi/L	GROUND WATER	LANL010	03-MAR-10	15	15	0.800	220
1202064543-1	MB for batch 962412	MB		.05 pCi/L	GROUND WATER	QC ACCOUNT		16	16	* ~~0.800~~ 1.0	221
1202064544-1	CAPA-10-12903(248806001DUP)	DUP		.05 pCi/L	GROUND WATER	QC ACCOUNT	03-MAR-10	17	17	0.800	222
1202064545-1	LCS for batch 962412	LCS		.05 pCi/L	GROUND WATER	QC ACCOUNT		18	18	* ~~0.800~~ 1.0	105

3/22/10

3/24/10

3/22/10

Choose SOP Used: GL-RAD-A-011 / GL-RAD-A-036

Solid Sample Dissolution by: ~~LEACH or DIGESTION~~ NA 3-15-10 (Circle One)

Data Reviewed By: [illegible] 3/23/10

GEL Laboratories LLC, Radiochemistry Division

Blank Correction Report

Batch ID 962412

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202064544	DUP	Americium-241	0.800 L	0.00472	0.00424	0.0459	.002975	pCi/L	YES
1202064545	LCS	Americium-241	1.00 L	2.69	0.201	0.032	.00238	pCi/L	NO
1202064543	MB	Americium-241	1.00 L	0.00238	0.00374	0.0284	.00238	pCi/L	YES
248020001	CAPA-10-12771	Americium-241	0.800 L	-0.00863	0.00913	0.0451	.002975	pCi/L	YES
248020003	CAPA-10-13085	Americium-241	0.800 L	0.00449	0.00407	0.0445	.002975	pCi/L	YES
248023002	CAPA-10-12917	Americium-241	0.800 L	-0.000952	0.00431	0.0466	.002975	pCi/L	YES
248024001	CAPA-10-12871	Americium-241	0.800 L	0.0122	0.00681	0.0455	.002975	pCi/L	YES
248024003	CAPA-10-12873	Americium-241	0.800 L	0.0106	0.012	0.0471	.002975	pCi/L	YES
248382002	CAPA-10-12913	Americium-241	0.800 L	0.016	0.00985	0.0383	.002975	pCi/L	NO
248382003	CAPA-10-12919	Americium-241	0.800 L	-0.00111	0.00396	0.0428	.002975	pCi/L	YES
248401002	CAPA-10-12794	Americium-241	0.800 L	0.00236	0.00418	0.0423	.002975	pCi/L	YES
248548001	CAPA-10-12788	Americium-241	0.800 L	0.000218	0.00308	0.0372	.002975	pCi/L	YES
248555002	CAPA-10-12892	Americium-241	0.800 L	-0.00285	0.00296	0.0358	.002975	pCi/L	YES
248670001	CAPA-10-12855	Americium-241	0.800 L	-0.00477	0.00427	0.0461	.002975	pCi/L	YES
248670002	CAPA-10-12876	Americium-241	0.800 L	0.0024	0.00423	0.0426	.002975	pCi/L	YES
248670003	CAPA-10-12880	Americium-241	0.800 L	0.00258	0.00632	0.0444	.002975	pCi/L	YES
248806001	CAPA-10-12903	Americium-241	0.800 L	0.0101	0.00732	0.0352	.002975	pCi/L	YES
248806002	CAPA-10-13073	Americium-241	0.800 L	0.00807	0.00545	0.0442	.002975	pCi/L	YES

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962412
SAMPLE ID : S0248023002_AM
SAMPLE QTY : 0.800 L
SAMPLE DATE : 23-FEB-2010 00:00:00
ANALYST : KXM4
% YIELD : 84.910

CHAMBER : 027
DETECTOR S/N : 42484
AVERAGE %EFFICIENCY : 34.2191
COUNT DATE : 20-MAR-2010 11:35:05
ELAPSED LIVE TIME(SEC) : 30300.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B027.CNF;1128
BKG DATE : 14-MAR-2010
BKG LIVE TIME(SEC) : 59999.99
EFF FILE : W027.CNF;331
CAL DATE : 4-MAR-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9165E+00 dpm
RESULTS : 2.4764E+00 dpm

MS/MSD
ID : 0533-O
NUCLIDE : AM-241
NOMINAL : 3.5516E+00 pCi/L

LCS/LCSD
ID : 0533-O
NUCLIDE : AM-241
NOMINAL : 3.5516E+00 pCi/L

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
AM-241	5479.150	5452.860	4.967	1.000	-0.248	0.505	2.3343	99.94000	-9.52E-04	4.31E-03	1.81E-02	4.66E-02	4.30E-03
AM243	5270.000	5280.434	25.180	427.000	427.000	0.000	0.0000	99.78000	1.64E+00	1.40E-01	0.00E+00	1.04E-02	7.95E-02
CM-242	6102.000	6085.462	0.000	0.000	-1.010	1.010	3.1757	100.0000	-4.32E-03	5.27E-03	2.46E-02	5.96E-02	5.26E-03
CM-3/4	5795.020	5773.003	49.671	3.000	2.495	0.505	3.3743	100.0000	9.60E-03	6.97E-03	2.61E-02	6.27E-02	6.94E-03
CM-5/6	5386.000	5386.076	0.000	1.000	1.000	0.000	6.9212	86.09000	4.46E-03	4.47E-03	6.23E-02	1.37E-01	4.46E-03
CM-247	4946.000	4894.957	124.178	5.000	3.990	1.010	5.6900	79.30000	1.93E-02	1.14E-02	5.56E-02	1.24E-01	1.14E-02
CM-248	5078.600	5053.645	4.967	1.000	1.000	0.000	7.8985	91.00000	4.22E-03	4.23E-03	6.72E-02	1.46E-01	4.22E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

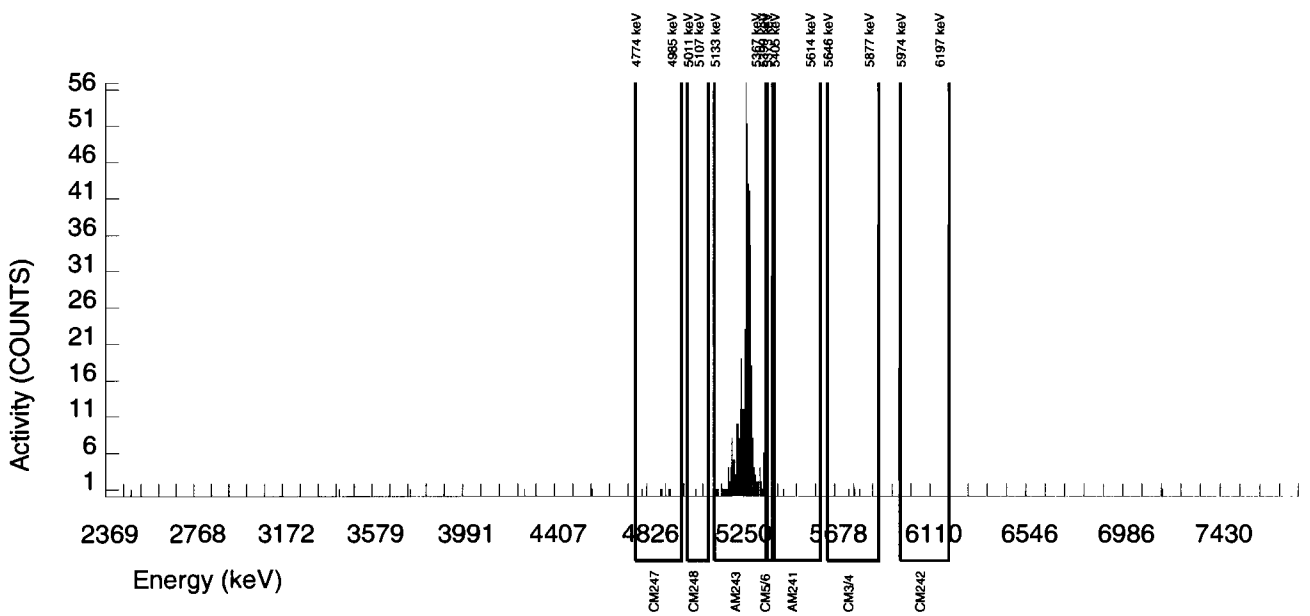

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962412
SAMPLE ID : S0248806001_AM
SAMPLE QTY : 0.800 L
SAMPLE DATE : 3-MAR-2010 00:00:00.
ANALYST : KXM4
% YIELD : 53.813

CHAMBER : 256
DETECTOR S/N : 79449
AVERAGE %EFFICIENCY : 40.3572
COUNT DATE : 22-MAR-2010 16:25:59
ELAPSED LIVE TIME(SEC) : 60000.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B256.CNF;93
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W256.CNF;30
CAL DATE : 28-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9165E+00 dpm
RESULTS : 1.5695E+00 dpm

MS/MSD
ID : 0533-O
NUCLIDE : AM-241
NOMINAL : 3.5514E+00 pCi/L

LCS/LCSD
ID : 0533-O
NUCLIDE : AM-241
NOMINAL : 3.5514E+00 pCi/L

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
AM-241	5479.150	5452.355	7.227	7.000	3.900	2.000	2.3343	99.94000	1.01E-02	7.32E-03	1.41E-02	3.52E-02	7.29E-03
AM243	5270.000	5268.540	38.679	635.000	632.000	3.000	1.7321	99.78000	1.64E+00	1.25E-01	1.05E-02	2.80E-02	6.56E-02
CM-242	6102.000	6087.865	0.000	0.000	0.000	0.000	3.1757	100.0000	0.00E+00	2.83E-03	1.92E-02	4.53E-02	2.82E-03
CM-3/4	5795.020	5744.438	7.227	7.000	5.000	2.000	3.3743	100.0000	1.30E-02	7.84E-03	2.04E-02	4.77E-02	7.79E-03
CM-5/6	5386.000	5379.855	0.000	5.000	5.000	0.000	6.9212	86.09000	1.51E-02	6.80E-03	4.85E-02	1.05E-01	6.73E-03
CM-247	4946.000	4867.875	7.227	11.000	10.000	1.000	5.6900	79.30000	3.27E-02	1.15E-02	4.33E-02	9.54E-02	1.13E-02
CM-248	5078.600	5069.014	72.576	15.000	15.000	0.000	7.8985	91.00000	4.27E-02	1.14E-02	5.24E-02	1.12E-01	1.10E-02

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

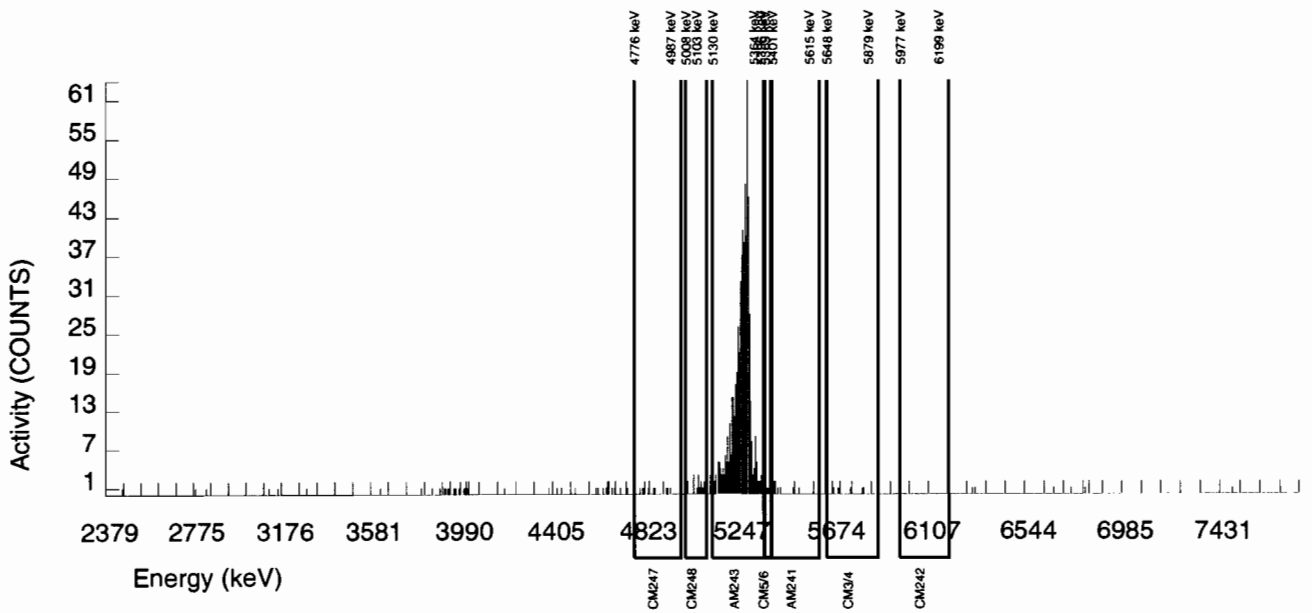

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962412
SAMPLE ID : S1202064543_AM
SAMPLE QTY : 1.000 L
SAMPLE DATE : 15-MAR-2010 00:00:00
ANALYST : KXM4
% YIELD : 95.825

CHAMBER : 221
DETECTOR S/N : 79414
AVERAGE %EFFICIENCY : 39.7297
COUNT DATE : 20-MAR-2010 11:11:00
ELAPSED LIVE TIME(SEC) : 30300.00

LIB FILE : ENV_ALPHA_AM
BKG FILE : B221.CNF;89
BKG DATE : 14-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W221.CNF;30
CAL DATE : 28-FEB-2010

TRACER
ID : 445-96-2-SS
NUCLIDE : AM243
NOMINAL : 2.9165E+00 dpm
RESULTS : 2.7948E+00 dpm

MS/MSD
ID : 0533-O
NUCLIDE : AM-241
NOMINAL : 2.8410E+00 pCi/L

LCS/LCSD
ID : 0533-O
NUCLIDE : AM-241
NOMINAL : 2.8410E+00 pCi/L

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
AM-241	5479.150	5498.669	49.652	3.000	1.017	1.010	2.3343	99.94000	2.38E-03	3.74E-03	1.10E-02	2.84E-02	3.73E-03
AM243	5270.000	5279.786	30.017	560.000	559.495	0.505	0.7106	99.78000	1.31E+00	1.03E-01	3.37E-03	1.31E-02	5.56E-02
CM-242	6102.000	6087.438	0.000	0.000	0.000	0.000	3.1757	100.0000	0.00E+00	2.41E-03	1.50E-02	3.64E-02	2.40E-03
CM-3/4	5795.020	5762.230	0.000	0.000	0.000	0.000	3.3743	100.0000	0.00E+00	2.35E-03	1.60E-02	3.83E-02	2.34E-03
CM-5/6	5386.000	5380.718	0.000	4.000	4.000	0.000	6.9212	86.09000	1.09E-02	5.49E-03	3.80E-02	8.34E-02	5.44E-03
CM-247	4946.000	4908.526	4.965	5.000	5.000	0.000	5.6900	79.30000	1.48E-02	6.68E-03	3.39E-02	7.59E-02	6.61E-03
CM-248	5078.600	5068.585	4.965	7.000	7.000	0.000	7.8985	91.00000	1.80E-02	6.92E-03	4.10E-02	8.91E-02	6.81E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

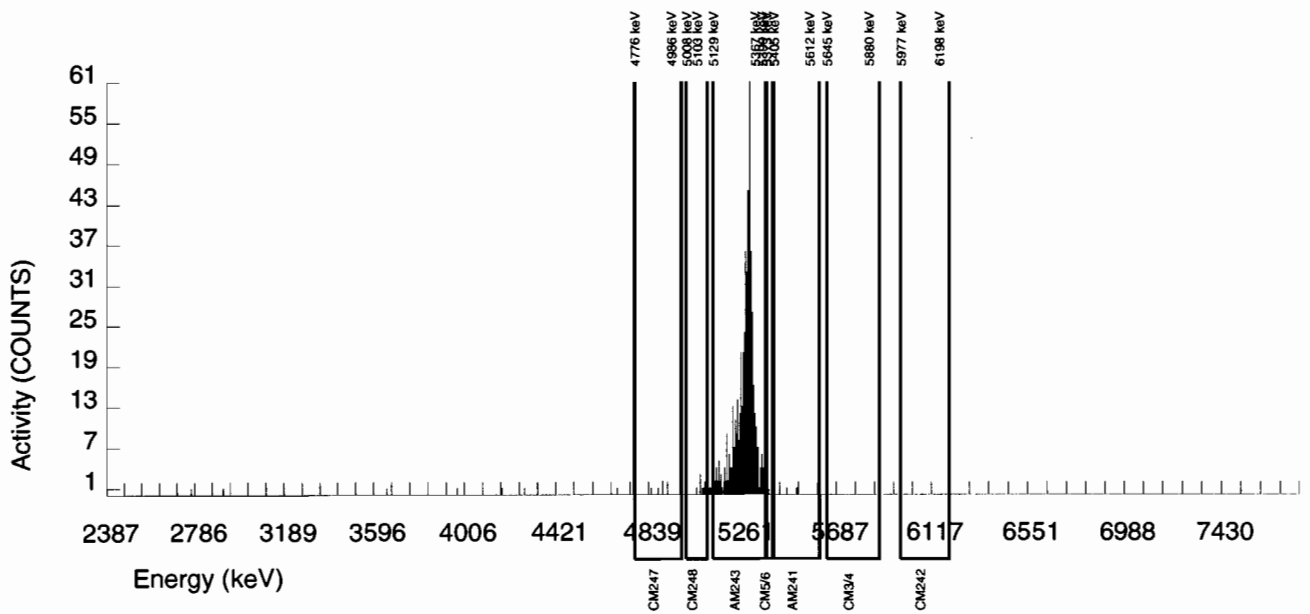

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962412	CHAMBER : 222	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202064544_AM	DETECTOR S/N : 79415	BKG FILE : B222.CNF;89
SAMPLE QTY : 0.800 L	AVERAGE %EFFICIENCY : 38.9602	BKG DATE : 14-MAR-2010
SAMPLE DATE : 3-MAR-2010 00:00:00.	COUNT DATE : 20-MAR-2010 11:11:02	BKG LIVE TIME(SEC) : 60000.00
ANALYST : KXM4	ELAPSED LIVE TIME(SEC) : 30300.00	EFF FILE : W222.CNF;30
% YIELD : 75.625		CAL DATE : 28-FEB-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0533-O	ID : 0533-O
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9165E+00 dpm	NOMINAL : 3.5514E+00 pCi/L	NOMINAL : 3.5514E+00 pCi/L
RESULTS : 2.2056E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
AM-241	5479.150	5462.002	0.000	2.000	1.247	0.000	2.3343	99.94000	4.72E-03	4.24E-03	1.78E-02	4.59E-02	4.23E-03
AM243	5270.000	5289.634	42.007	433.000	433.000	0.000	0.0000	99.78000	1.64E+00	1.40E-01	0.00E+00	1.03E-02	7.89E-02
CM-242	6102.000	6085.910	0.000	0.000	-0.505	0.505	3.1757	100.0000	-2.06E-03	4.58E-03	2.43E-02	5.88E-02	4.57E-03
CM-3/4	5795.020	5809.602	0.000	3.000	2.495	0.505	3.3743	100.0000	9.46E-03	6.87E-03	2.58E-02	6.18E-02	6.84E-03
CM-5/6	5386.000	5385.370	0.000	11.000	11.000	0.000	6.9212	86.09000	4.84E-02	1.50E-02	6.14E-02	1.35E-01	1.46E-02
CM-247	4946.000	4841.024	135.668	3.000	2.495	0.505	5.6900	79.30000	1.19E-02	8.65E-03	5.48E-02	1.23E-01	8.61E-03
CM-248	5078.600	5060.833	5.025	8.000	8.000	0.000	7.8985	91.00000	3.33E-02	1.20E-02	6.63E-02	1.44E-01	1.18E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

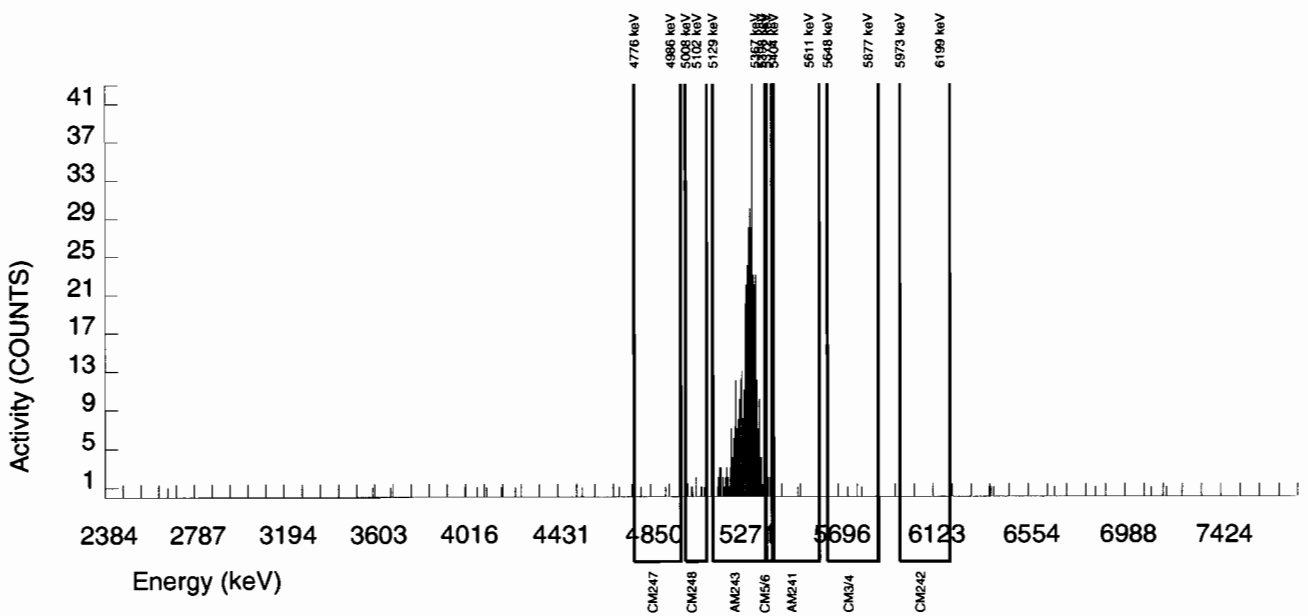

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 962412	CHAMBER : 105	LIB FILE : ENV_ALPHA_AM
SAMPLE ID : S1202064545_AM	DETECTOR S/N : 78777	BKG FILE : B105.CNF;692
SAMPLE QTY : 1.000 L	AVERAGE %EFFICIENCY : 33.3263	BKG DATE : 14-MAR-2010
SAMPLE DATE : 15-MAR-2010 00:00:00	COUNT DATE : 20-MAR-2010 11:35:12	BKG LIVE TIME(SEC) : 59999.99
ANALYST : KXM4	ELAPSED LIVE TIME(SEC) : 30299.99	EFF FILE : W105.CNF;177
% YIELD : 101.475		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 445-96-2-SS	ID : 0533-O	ID : 0533-O
NUCLIDE : AM243	NUCLIDE : AM-241	NUCLIDE : AM-241
NOMINAL : 2.9165E+00 dpm	NOMINAL : 2.8410E+00 pCi/L	NOMINAL : 2.8410E+00 pCi/L
RESULTS : 2.9596E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
AM-241	5479.150	5498.656	27.896	1019.000	1017.630	0.505	2.3343	99.94000	2.69E+00	2.01E-01	1.24E-02	3.20E-02	8.42E-02
AM243	5270.000	5282.238	37.524	498.000	496.990	1.010	1.0050	99.78000	1.31E+00	1.07E-01	5.36E-03	1.79E-02	5.90E-02
CM-242	6102.000	6086.824	0.000	0.000	0.000	0.000	3.1757	100.0000	0.00E+00	2.71E-03	1.69E-02	4.10E-02	2.70E-03
CM-3/4	5795.020	5762.430	0.000	0.000	-0.505	0.505	3.3743	100.0000	-1.33E-03	2.96E-03	1.80E-02	4.31E-02	2.96E-03
CM-5/6	5386.000	5384.561	0.000	21.000	21.000	0.000	6.9212	86.09000	6.43E-02	1.47E-02	4.28E-02	9.39E-02	1.40E-02
CM-247	4946.000	4946.459	7.176	5.000	5.000	0.000	5.6900	79.30000	1.66E-02	7.52E-03	3.82E-02	8.54E-02	7.44E-03
CM-248	5078.600	5052.877	58.633	2.000	2.000	0.000	7.8985	91.00000	5.80E-03	4.12E-03	4.62E-02	1.00E-01	4.10E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of AM243 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
AM-241

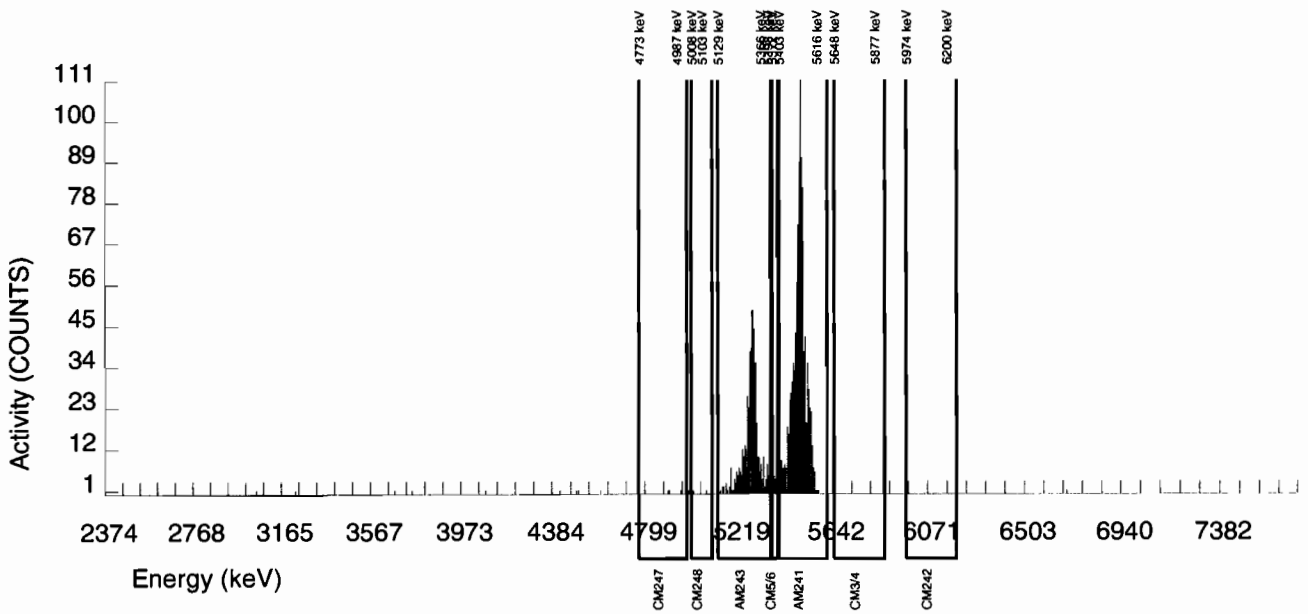

Radiochemistry Batch Checklist, Rev10

Batch# 967762 Product: U Date: 3/24/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		Case narrative
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Denise Green 3/24/10

Secondary Review Performed By: [illegible] 3/24/10

3/25

LANL

Uranium Que Sheet

22-MAR-10

Batch #: 967762 **Analyst:** KXM4 **First Client Due Date:** 25-MAR-10 **Internal Due Date:** 19-MAR-10

Tracer Isotope: U-232/U-236 **Tracer Code:** 1283-H **Expiration Date:** 12-9-10 **Vol:** 0.1ml **Analyzed Sequentially with Pu**

LCS Isotope: U-238 **LCS Code:** 1163-H **Expiration Date:** 10-21-10 **Vol:** 0.1ml **Pu-236 ID:** 1430-C

Spike Isotope: U-238 **Spike Code:** ~~1163-H~~ **~~Expiration Date:~~** **~~Vol:~~** ~~0.1ml~~ NA KM 3-22-10 **Vol.:** 0.1ml

Prep Date: 3-22-10 **Initials:** KM **Pipet ID:** 4497063 **Balance ID:** 1675020T **Witness:** JEH 3-22-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l)	U Det #
248020001-2	CAPA-10-12771	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	22-FEB-10	1	1	0.800	119
248020003-2	CAPA-10-13085	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	23-FEB-10	2	2	0.800	120
248023002-2	CAPA-10-12917	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	23-FEB-10	3	3	0.800	121
248024001-2	CAPA-10-12871	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	23-FEB-10	4	4	0.800	122
248024003-2	CAPA-10-12873	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	23-FEB-10	5	5	0.800	123
248382002-2	CAPA-10-12913	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	26-FEB-10	6	6	0.800	124
248382003-2	CAPA-10-12919	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	26-FEB-10	7	7	0.800	125
248401002-2	CAPA-10-12794	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	25-FEB-10	8	8	0.800	126
248548001-2	CAPA-10-12788	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	01-MAR-10	9	9	0.800	127
248555002-2	CAPA-10-12892	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	01-MAR-10	10	10	0.800	128
248670001-2	CAPA-10-12855	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	02-MAR-10	11	11	0.800	129
248670002-2	CAPA-10-12876	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	02-MAR-10	12	12	0.800	130
248670003-2	CAPA-10-12880	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	02-MAR-10	13	13	0.800	131
248806001-2	CAPA-10-12903	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	03-MAR-10	14	14	0.800	132
248806002-2	CAPA-10-13073	SAMPLE		.5 pCi/L	GROUND WATER	LANL010	03-MAR-10	15	15	0.800	133
1202077305-1	MB for batch 967762	MB		UCF pCi/L to pCi	GROUND WATER	QC ACCOUNT	23-FEB-10	16 DG 3/24/10	16	~~0.800~~ 1.0	134
1202077306-2	~~CAPA-10-12903(248806001DUP)~~ CAPA-10-12917(248023002)	DUP		.5 pCi/L	GROUND WATER	QC ACCOUNT	~~03-MAR-10~~ 03/24/10	17	17	0.800	135
1202077307-1	LCS for batch 967762	LCS		UCF pCi/L to pCi	GROUND WATER	QC ACCOUNT		18 DG 3/24/10	18	~~0.800~~ 1.0	136

Choose SOP used: GL-RAD-A-011

Solid Sample Dissolution by: ~~LEACH or DIGESTION~~ NA KM 3-22-10
Circle One

Data Reviewed By: 3/24/10

Blank Correction Report

Batch ID 967762

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202077306	DUP	Uranium-233/234	0.800 L	0.218	0.0302	0.0529	.0063	pCi/L	NO
		Uranium-235/236	0.800 L	0.00396	0.00633	0.0416	.007025	pCi/L	YES
		Uranium-238	0.800 L	0.103	0.0196	0.0375	.011375	pCi/L	NO
1202077307	LCS	Uranium-233/234	1.00 L	2.47	0.196	0.0403	.00504	pCi/L	NO
		Uranium-235/236	1.00 L	0.139	0.0226	0.0316	.00562	pCi/L	NO
		Uranium-238	1.00 L	2.54	0.201	0.0285	.0091	pCi/L	NO
1202077305	MB	Uranium-233/234	1.00 L	0.00504	0.00551	0.0399	.00504	pCi/L	YES
		Uranium-235/236	1.00 L	0.00562	0.004	0.0314	.00562	pCi/L	YES
		Uranium-238	1.00 L	0.0091	0.0046	0.0283	.0091	pCi/L	YES
248020001	CAPA-10-12771	Uranium-233/234	0.800 L	0.130	0.0223	0.0552	.0063	pCi/L	NO
		Uranium-235/236	0.800 L	0.00778	0.00553	0.0434	.007025	pCi/L	YES
		Uranium-238	0.800 L	0.138	0.0232	0.0391	.011375	pCi/L	NO
248020003	CAPA-10-13085	Uranium-233/234	0.800 L	0.00853	0.0061	0.048	.0063	pCi/L	YES
		Uranium-235/236	0.800 L	0.00	0.00339	0.0377	.007025	pCi/L	YES
		Uranium-238	0.800 L	0.014	0.00815	0.034	.011375	pCi/L	YES
248023002	CAPA-10-12917	Uranium-233/234	0.800 L	0.312	0.0386	0.0531	.0063	pCi/L	NO
		Uranium-235/236	0.800 L	0.000241	0.00513	0.0417	.007025	pCi/L	YES
		Uranium-238	0.800 L	0.103	0.0201	0.0376	.011375	pCi/L	NO
248024001	CAPA-10-12871	Uranium-233/234	0.800 L	0.0277	0.0102	0.0528	.0063	pCi/L	YES
		Uranium-235/236	0.800 L	0.00396	0.00631	0.0415	.007025	pCi/L	YES
		Uranium-238	0.800 L	0.0451	0.0121	0.0373	.011375	pCi/L	YES
248024003	CAPA-10-12873	Uranium-233/234	0.800 L	0.0667	0.0189	0.0868	.0063	pCi/L	NO
		Uranium-235/236	0.800 L	0.00651	0.0104	0.0682	.007025	pCi/L	YES
		Uranium-238	0.800 L	0.0399	0.0159	0.0614	.011375	pCi/L	YES
248382002	CAPA-10-12913	Uranium-233/234	0.800 L	0.456	0.0508	0.055	.0063	pCi/L	NO
		Uranium-235/236	0.800 L	0.00413	0.00658	0.0433	.007025	pCi/L	YES
		Uranium-238	0.800 L	0.261	0.0353	0.039	.011375	pCi/L	NO
248382003	CAPA-10-12919	Uranium-233/234	0.800 L	0.436	0.0486	0.0524	.0063	pCi/L	NO
		Uranium-235/236	0.800 L	0.0148	0.00745	0.0411	.007025	pCi/L	YES
		Uranium-238	0.800 L	0.179	0.0272	0.037	.011375	pCi/L	NO
248401002	CAPA-10-12794	Uranium-233/234	0.800 L	0.245	0.0321	0.0488	.0063	pCi/L	NO
		Uranium-235/236	0.800 L	0.0138	0.00695	0.0384	.007025	pCi/L	YES
		Uranium-238	0.800 L	0.081	0.017	0.0346	.011375	pCi/L	NO
248548001	CAPA-10-12788	Uranium-233/234	0.800 L	0.0396	0.0113	0.0528	.0063	pCi/L	NO
		Uranium-235/236	0.800 L	0.00	0.00373	0.0415	.007025	pCi/L	YES
		Uranium-238	0.800 L	0.0361	0.0108	0.0374	.011375	pCi/L	YES
248555002	CAPA-10-12892	Uranium-233/234	0.800 L	0.210	0.0306	0.0549	.0063	pCi/L	NO
		Uranium-235/236	0.800 L	0.00773	0.00549	0.0431	.007025	pCi/L	YES
		Uranium-238	0.800 L	0.110	0.0211	0.0388	.011375	pCi/L	NO
248670001	CAPA-10-12855	Uranium-233/234	0.800 L	0.987	0.0904	0.0518	.0063	pCi/L	NO
		Uranium-235/236	0.800 L	0.0219	0.00908	0.0407	.007025	pCi/L	YES

Blank Correction Report

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
248670001	CAPA-10-12855	Uranium-238	0.800 L	0.420	0.0471	0.0367	.011375	pCi/L	NO
248670002	CAPA-10-12876	Uranium-233/234	0.800 L	0.0344	0.0113	0.0538	.0063	pCi/L	NO
		Uranium-235/236	0.800 L	0.00	0.0038	0.0422	.007025	pCi/L	YES
		Uranium-238	0.800 L	0.00938	0.0068	0.038	.011375	pCi/L	YES
248670003	CAPA-10-12880	Uranium-233/234	0.800 L	0.0402	0.0134	0.0572	.0063	pCi/L	NO
		Uranium-235/236	0.800 L	0.00	0.00404	0.045	.007025	pCi/L	YES
		Uranium-238	0.800 L	0.0261	0.00943	0.0405	.011375	pCi/L	YES
248806001	CAPA-10-12903	Uranium-233/234	0.800 L	1.78	0.160	0.0706	.0063	pCi/L	NO
		Uranium-235/236	0.800 L	0.0547	0.017	0.0555	.007025	pCi/L	NO
		Uranium-238	0.800 L	1.02	0.101	0.050	.011375	pCi/L	NO
248806002	CAPA-10-13073	Uranium-233/234	0.800 L	0.473	0.0506	0.0506	.0063	pCi/L	NO
		Uranium-235/236	0.800 L	0.0214	0.00887	0.0398	.007025	pCi/L	YES
		Uranium-238	0.800 L	0.210	0.029	0.0358	.011375	pCi/L	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 967762	CHAMBER : 121	LIB FILE : ENV_ALPHA_UU
SAMPLE ID : S0248023002_UU	DETECTOR S/N : 75545	BKG FILE : B121.CNF;457
SAMPLE QTY : 0.800 L	AVERAGE %EFFICIENCY : 25.7929	BKG DATE : 21-MAR-2010
SAMPLE DATE : 23-FEB-2010 00:00:00	COUNT DATE : 23-MAR-2010 21:41:57	BKG LIVE TIME(SEC) : 60000.00
ANALYST : KXM4	ELAPSED LIVE TIME(SEC) : 56135.74	EFF FILE : W121.CNF;121
% YIELD : 77.123		CAL DATE : 19-MAR-2010
Pu-236 SEP. : 22-MAR-2010 00:00:00		

TRACER	MS/MSD	LCS/LCSD
ID : 1283-H	ID : 1163-H	ID : 1163-H
NUCLIDE : U232	NUCLIDE : U-238	NUCLIDE : U-238
NOMINAL : 4.5030E+00 dpm +3.7383E-02 dpm	NOMINAL : 3.2427E+00 pCi/L	NOMINAL : 3.2427E+00 pCi/L
RESULTS : 3.5016E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U232	5302.100	5311.040	31.843	849.000	844.322	4.678	2.1629	100.0000	2.56E+00	2.08E-01	1.50E-02	3.82E-02	8.85E-02
U-3/4	4763.020	4769.551	39.193	105.000	103.209	0.936	3.2416	100.0000	3.12E-01	3.86E-02	2.24E-02	5.31E-02	3.10E-02
U-235	4391.000	4437.703	4.951	1.000	0.064	0.936	1.8455	80.90000	2.41E-04	5.13E-03	1.58E-02	4.17E-02	5.12E-03
U-238	4184.730	4193.316	21.023	36.000	34.129	1.871	2.1208	100.0000	1.03E-01	2.01E-02	1.47E-02	3.76E-02	1.86E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
  U-3/4

* Tracer nominal has been corrected for contribution from Pu-236 tracer used in sequential analysis.

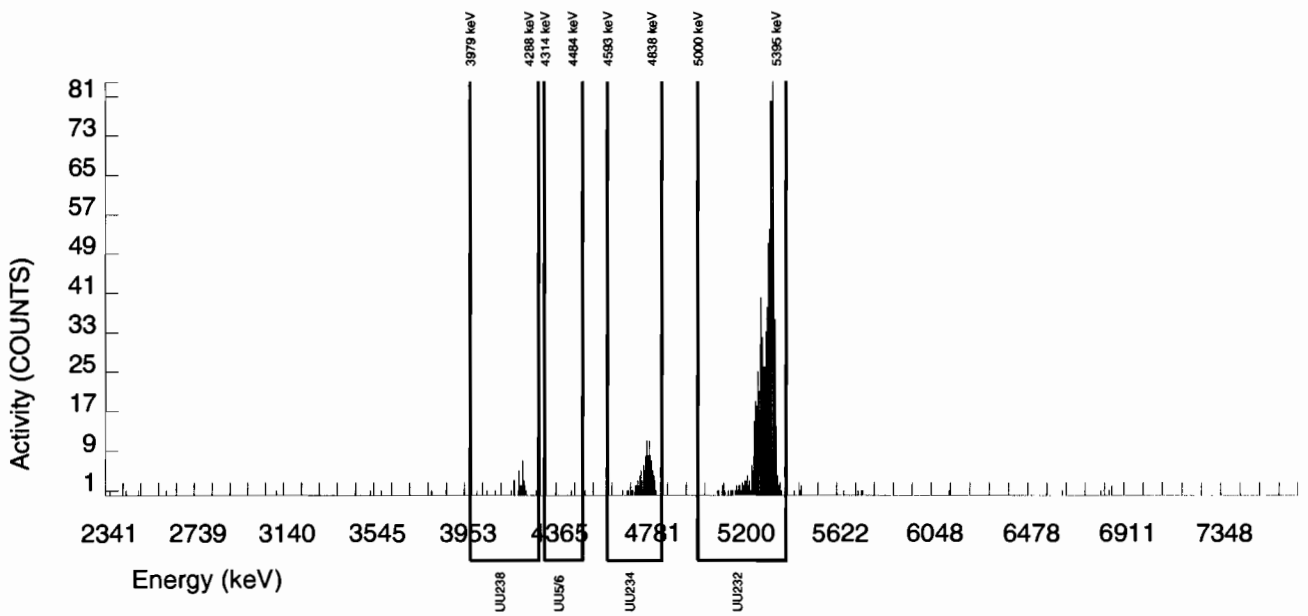

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 967762
SAMPLE ID : S1202077305_UU
SAMPLE QTY : 1.000 L
SAMPLE DATE : 22-MAR-2010 00:00:00
ANALYST : KXM4
% YIELD : 85.116
Pu-236 SEP. : 22-MAR-2010 00:00:00

CHAMBER : 134
DETECTOR S/N : 76230
AVERAGE %EFFICIENCY : 24.8472
COUNT DATE : 23-MAR-2010 21:42:28
ELAPSED LIVE TIME(SEC) : 56180.04

LIB FILE : ENV_ALPHA_UU
BKG FILE : B134.CNF;444
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W134.CNF;131
CAL DATE : 18-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.4996E+00 dpm +3.7383E-02 dpm
RESULTS : 3.8617E+00 dpm

MS/MSD
ID : 1163-H
NUCLIDE : U-238
NOMINAL : 2.5941E+00 pCi/L

LCS/LCSD
ID : 1163-H
NUCLIDE : U-238
NOMINAL : 2.5941E+00 pCi/L

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U232	5302.100	5312.242	38.737	904.000	898.382	5.618	2.3702	100.0000	2.04E+00	1.64E-01	1.23E-02	3.08E-02	6.86E-02
U-3/4	4763.020	4731.943	4.947	5.000	2.217	1.873	3.2416	100.0000	5.04E-03	5.51E-03	1.69E-02	3.99E-02	5.50E-03
U-235	4391.000	4409.903	19.789	2.000	2.000	0.000	1.8455	80.90000	5.62E-03	4.00E-03	1.19E-02	3.14E-02	3.98E-03
U-238	4184.730	4178.503	138.526	4.000	4.000	0.000	2.1208	100.0000	9.10E-03	4.60E-03	1.10E-02	2.83E-02	4.55E-03

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

* Tracer nominal has been corrected for contribution from Pu-236 tracer used in sequential analysis.

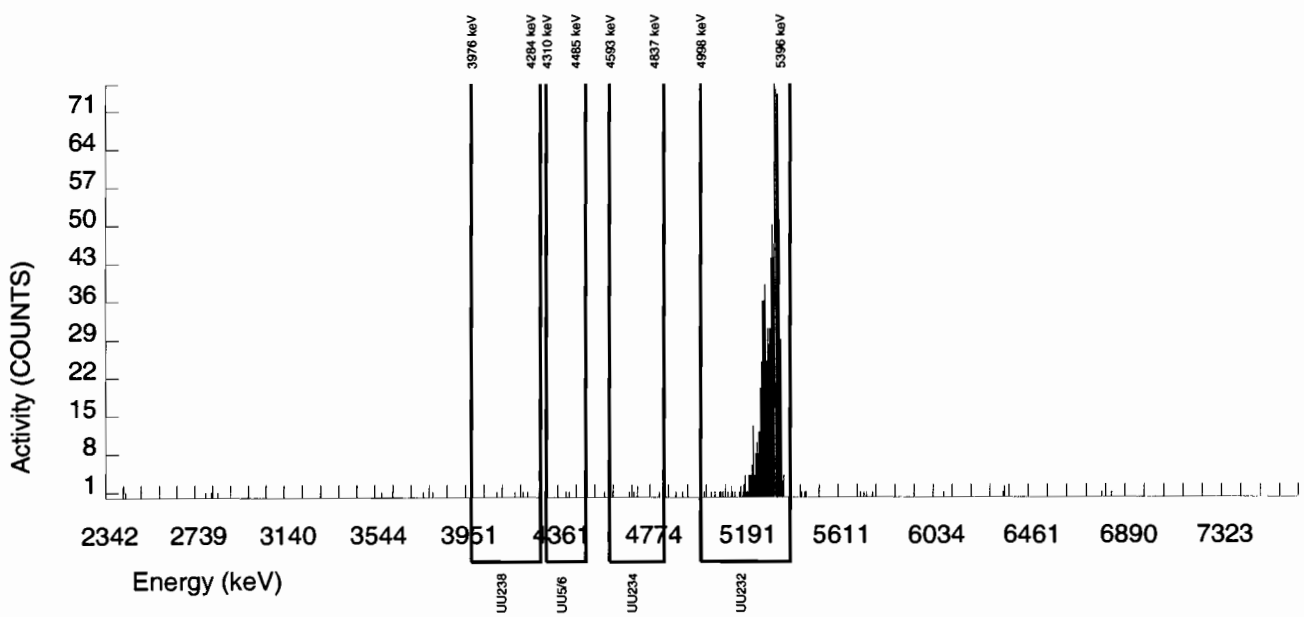

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 967762
SAMPLE ID : S1202077306_UU
SAMPLE QTY : 0.800 L
SAMPLE DATE : 23-FEB-2010 00:00:00
ANALYST : KXM4
% YIELD : 75.371
Pu-236 SEP. : 22-MAR-2010 00:00:00

CHAMBER : 135
DETECTOR S/N : 80005
AVERAGE %EFFICIENCY : 26.4506
COUNT DATE : 23-MAR-2010 21:42:31
ELAPSED LIVE TIME(SEC) : 56189.90

LIB FILE : ENV_ALPHA_UU
BKG FILE : B135.CNF;458
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W135.CNF;144
CAL DATE : 18-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.5029E+00 dpm +3.7383E-02 dpm
RESULTS : 3.4221E+00 dpm

MS/MSD
ID : 1163-H
NUCLIDE : U-238
NOMINAL : 3.2427E+00 pCi/L

LCS/LCSD
ID : 1163-H
NUCLIDE : U-238
NOMINAL : 3.2427E+00 pCi/L

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U232	5302.100	5307.896	35.703	847.000	847.000	0.000	0.0000	100.0000	2.56E+00	2.07E-01	0.00E+00	8.17E-03	8.78E-02
U-3/4	4763.020	4757.853	21.280	73.000	72.142	0.000	3.2416	100.0000	2.18E-01	3.02E-02	2.24E-02	5.29E-02	2.56E-02
U-235	4391.000	4361.580	0.000	2.000	1.064	0.936	1.8455	80.90000	3.96E-03	6.33E-03	1.57E-02	4.16E-02	6.32E-03
U-238	4184.730	4186.958	53.818	35.000	34.064	0.936	2.1208	100.0000	1.03E-01	1.96E-02	1.46E-02	3.75E-02	1.81E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

* Tracer nominal has been corrected for contribution from Pu-236 tracer used in sequential analysis.

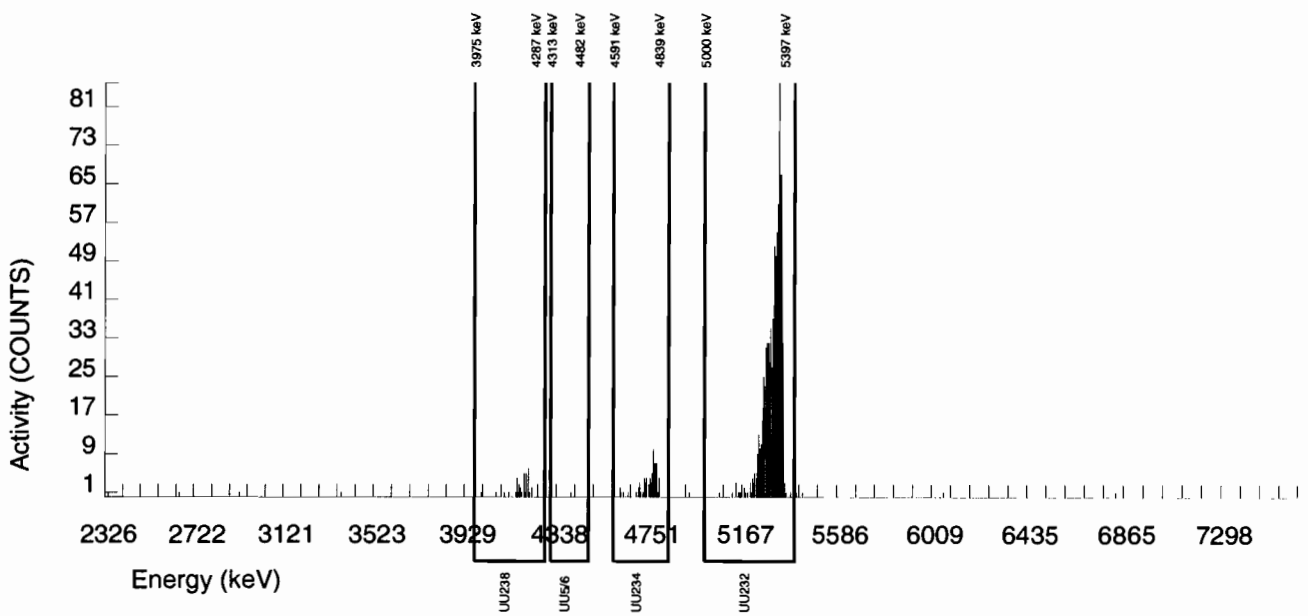

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 967762
SAMPLE ID : S1202077307_UU
SAMPLE QTY : 1.000 L
SAMPLE DATE : 22-MAR-2010 00:00:00
ANALYST : KXM4
% YIELD : 78.150
Pu-236 SEP. : 22-MAR-2010 00:00:00

CHAMBER : 136
DETECTOR S/N : 80006
AVERAGE %EFFICIENCY : 26.8353
COUNT DATE : 23-MAR-2010 21:42:33
ELAPSED LIVE TIME(SEC) : 56193.19

LIB FILE : ENV_ALPHA_UU
BKG FILE : B136.CNF;455
BKG DATE : 21-MAR-2010
BKG LIVE TIME(SEC) : 60000.00
EFF FILE : W136.CNF;143
CAL DATE : 18-MAR-2010

TRACER
ID : 1283-H
NUCLIDE : U232
NOMINAL : 4.4996E+00 dpm +3.7383E-02 dpm
RESULTS : 3.5457E+00 dpm

MS/MSD
ID : 1163-H
NUCLIDE : U-238
NOMINAL : 2.5941E+00 pCi/L

LCS/LCSD
ID : 1163-H
NUCLIDE : U-238
NOMINAL : 2.5941E+00 pCi/L

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
U232	5302.100	5308.398	70.916	892.000	891.063	0.937	0.9678	100.0000	2.04E+00	1.64E-01	5.08E-03	1.64E-02	6.85E-02
U-3/4	4763.020	4765.700	56.128	1078.000	1077.097	0.000	3.2416	100.0000	2.47E+00	1.96E-01	1.70E-02	4.03E-02	7.53E-02
U-235	4391.000	4399.335	53.168	50.000	49.063	0.937	1.8455	80.90000	1.39E-01	2.26E-02	1.20E-02	3.16E-02	2.02E-02
U-238	4184.730	4194.641	42.602	1108.000	1107.063	0.937	2.1208	100.0000	2.54E+00	2.01E-01	1.11E-02	2.85E-02	7.64E-02

NOTES:

* BKG Sg calculated via blank population. (Sg updated 8-MAR-2010)

* BKG Sg of U232 calculated as sqrt(BKG AREA).

* Corrections made to the following net area due to tracer impurity:
U-3/4

* Tracer nominal has been corrected for contribution from Pu-236 tracer used in sequential analysis.

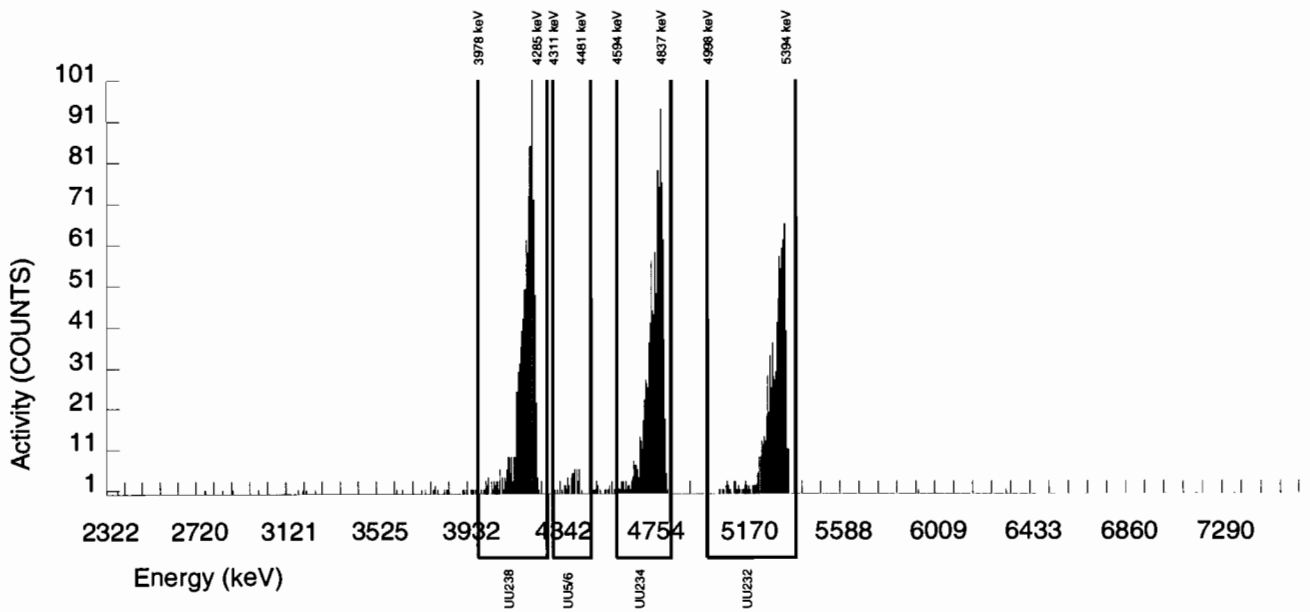

Radiochemistry Batch Checklist, Rev10

Batch# 968210 Product: Pu Date: 3/24/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: JoeLMi 3/24/10

Secondary Review Performed By: [signature] 3/24/10

3/25

LANL

Plutonium Que Sheet

23-MAR-10

Batch #: 968210 Pu-236 KM 3-23-10 **Analyst:** KXM4 **First Client Due Date:** 25-MAR-10 **Internal Due Date:** 19-MAR-10

Tracer Isotope(s): ~~Pu-242/Pu-238~~ **Tracer Code:** 1430-C **Expiration Date:** 3-4-11 **Vol:** 0.1ml

LCS Isotope(s): Pu-239/Pu-238 **LCS Code:** 0338-BB **Expiration Date:** 6-23-10 **Vol:** 0.1ml

Spike Isotope(s): Pu-239/Pu-238 **Spike Code:** NA **Expiration Date:** NA **Vol:** NA

Prep Date: 3-22-10 **Initials:** KM **Pipet ID:** 4497063 **Balance ID:** 16750207 **Witness:** JEH 3-22-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collection Date	Pos.	Label #	Wet/Dry Aliquot (g/l/ml)	Pu Det #
248020001-2	CAPA-10-12771	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	22-FEB-10	1	1	0.800	13
248020003-2	CAPA-10-13085	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	23-FEB-10	2	2	0.800	14
248023002-2	CAPA-10-12917	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	23-FEB-10	3	3	0.800	16
248024001-2	CAPA-10-12871	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	23-FEB-10	4	4	0.800	17
248024003-2	CAPA-10-12873	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	23-FEB-10	5	5	0.800	18
248382002-2	CAPA-10-12913	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	26-FEB-10	6	6	0.800	19
248382003-2	CAPA-10-12919	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	26-FEB-10	7	7	0.800	20
248401002-2	CAPA-10-12794	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	25-FEB-10	8	8	0.800	22
248548001-2	CAPA-10-12788	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	01-MAR-10	9	9	0.800	23
248555002-2	CAPA-10-12892	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	01-MAR-10	10	10	0.800	24
248670001-2	CAPA-10-12855	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	02-MAR-10	11	11	0.800	25
248670002-2	CAPA-10-12876	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	02-MAR-10	12	12	0.800	26
248670003-2	CAPA-10-12880	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	02-MAR-10	13	13	0.800	27
248806001-2	CAPA-10-12903	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	03-MAR-10	14	14	0.800	28
248806002-2	CAPA-10-13073	SAMPLE		.05 pCi/L	GROUND WATE	LANL010	03-MAR-10	15	15	0.800	29
1202078499-1	MB for batch 968210	MB		UCF pCi/L to pCi/L	GROUND WATE	QC ACCOUNT		16 3/24/10	16	~~0.800~~ 1.0	30
1202078500-2	CAPA-10-12917 (248023002) ~~CAPA-10-12903(248806001DUP)~~	DUP		.05 pCi/L	GROUND WATE	QC ACCOUNT	23-FEB-10 ~~02-MAR-10~~	17	17	0.800	95
1202078501-1	LCS for batch 968210	LCS		UCF pCi/L to pCi/L	GROUND WATE	QC ACCOUNT	03/24/10	18	18	~~0.800~~ 1.0	96

3/24/10

Choose SOP Used: GL-RAD-A-011, GL-RAD-A-036, GL-RAD-A-045, GL-RAD-A-043

Solid Sample Dissolution by: ~~LEACH or DIGESTION~~ NA KM 3-23-10
Circle One

Data Reviewed By: JoeLMc 3/24/10

GEL Laboratories LLC, , Radiochemistry Division

Blank Correction Report

Batch ID 968210

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202078500	DUP	Plutonium-238	0.800 L	0.0248	0.0119	0.0425	.0060375	pCi/L	YES
		Plutonium-239/240	0.800 L	0.00218	0.00555	0.0297	-.00040875	pCi/L	NO
1202078501	LCS	Plutonium-238	1.00 L	0.00813	0.00563	0.0373	.00483	pCi/L	YES
		Plutonium-239/240	1.00 L	2.20	0.147	0.0261	-.000327	pCi/L	NO
1202078499	MB	Plutonium-238	1.00 L	0.00483	0.00849	0.0334	.00483	pCi/L	YES
		Plutonium-239/240	1.00 L	-0.000327	0.00386	0.0233	-.000327	pCi/L	NO
248020001	CAPA-10-12771	Plutonium-238	0.800 L	0.00776	0.00895	0.0428	.0060375	pCi/L	YES
		Plutonium-239/240	0.800 L	0.000314	0.0059	0.0299	-.00040875	pCi/L	NO
248020003	CAPA-10-13085	Plutonium-238	0.800 L	0.016	0.0171	0.0479	.0060375	pCi/L	YES
		Plutonium-239/240	0.800 L	-0.000939	0.00783	0.0335	-.00040875	pCi/L	NO
248023002	CAPA-10-12917	Plutonium-238	0.800 L	0.0301	0.0099	0.0425	.0060375	pCi/L	YES
		Plutonium-239/240	0.800 L	0.00333	0.00413	0.0297	-.00040875	pCi/L	NO
248024001	CAPA-10-12871	Plutonium-238	0.800 L	0.0159	0.0119	0.0524	.0060375	pCi/L	YES
		Plutonium-239/240	0.800 L	0.00411	0.0051	0.0367	-.00040875	pCi/L	NO
248024003	CAPA-10-12873	Plutonium-238	0.800 L	-0.00778	0.0103	0.0481	.0060375	pCi/L	YES
		Plutonium-239/240	0.800 L	0.000825	0.00363	0.0336	-.00040875	pCi/L	NO
248382002	CAPA-10-12913	Plutonium-238	0.800 L	-0.00525	0.0116	0.0523	.0060375	pCi/L	YES
		Plutonium-239/240	0.800 L	0.0064	0.00454	0.0365	-.00040875	pCi/L	NO
248382003	CAPA-10-12919	Plutonium-238	0.800 L	0.0475	0.0152	0.0477	.0060375	pCi/L	NO
		Plutonium-239/240	0.800 L	0.00374	0.00464	0.0334	-.00040875	pCi/L	NO
248401002	CAPA-10-12794	Plutonium-238	0.800 L	-0.00104	0.0128	0.0424	.0060375	pCi/L	YES
		Plutonium-239/240	0.800 L	0.00218	0.00554	0.0296	-.00040875	pCi/L	NO
248548001	CAPA-10-12788	Plutonium-238	0.800 L	0.0248	0.0105	0.043	.0060375	pCi/L	YES
		Plutonium-239/240	0.800 L	0.00411	0.00529	0.0301	-.00040875	pCi/L	NO
248555002	CAPA-10-12892	Plutonium-238	0.800 L	0.00907	0.00988	0.042	.0060375	pCi/L	YES
		Plutonium-239/240	0.800 L	-0.00113	0.00368	0.0294	-.00040875	pCi/L	NO
248670001	CAPA-10-12855	Plutonium-238	0.800 L	0.0175	0.0113	0.042	.0060375	pCi/L	YES
		Plutonium-239/240	0.800 L	0.0143	0.00734	0.0294	-.00040875	pCi/L	NO
248670002	CAPA-10-12876	Plutonium-238	0.800 L	0.00879	0.00803	0.046	.0060375	pCi/L	YES
		Plutonium-239/240	0.800 L	0.0157	0.00804	0.0322	-.00040875	pCi/L	NO
248670003	CAPA-10-12880	Plutonium-238	0.800 L	0.00709	0.00623	0.0452	.0060375	pCi/L	YES
		Plutonium-239/240	0.800 L	0.00908	0.00591	0.0316	-.00040875	pCi/L	NO

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 968210	CHAMBER : 016	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S0248023002_PU	DETECTOR S/N : 78774	BKG FILE : B016.CNF;1101
SAMPLE QTY : 0.800 L	AVERAGE %EFFICIENCY : 33.4863	BKG DATE : 21-MAR-2010
SAMPLE DATE : 23-FEB-2010 00:00:00	COUNT DATE : 23-MAR-2010 21:43:50	BKG LIVE TIME(SEC) : 60000.00
ANALYST : KXM4	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W016.CNF;313
% YIELD : 89.940		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0338-BB	ID : 0338-BB
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0200E+00 dpm	NOMINAL : 2.8357E+00 pCi/L	NOMINAL : 2.8357E+00 pCi/L
RESULTS : 2.7162E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-236	5749.000	5763.909	44.606	656.000	642.320	13.680	3.6986	100.0000	1.70E+00	1.20E-01	2.07E-02	4.85E-02	6.83E-02
PU-238	5499.000	5449.217	9.574	13.000	11.560	1.440	3.1571	99.90000	3.01E-02	9.90E-03	1.77E-02	4.25E-02	9.74E-03
PU-9/0	5155.000	5137.229	0.000	2.000	1.280	0.720	2.0178	99.90000	3.33E-03	4.13E-03	1.13E-02	2.97E-02	4.12E-03
PU242	4890.000	4824.256	0.000	0.000	-4.320	4.320	*******	100.0000	-1.12E-02	5.27E-03	7.37E-01	1.48E+00	5.26E-03
PU-244	4589.000	4526.445	0.000	0.000	-0.720	0.720	4.0676	99.90000	-1.87E-03	3.21E-03	2.28E-02	5.27E-02	3.20E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

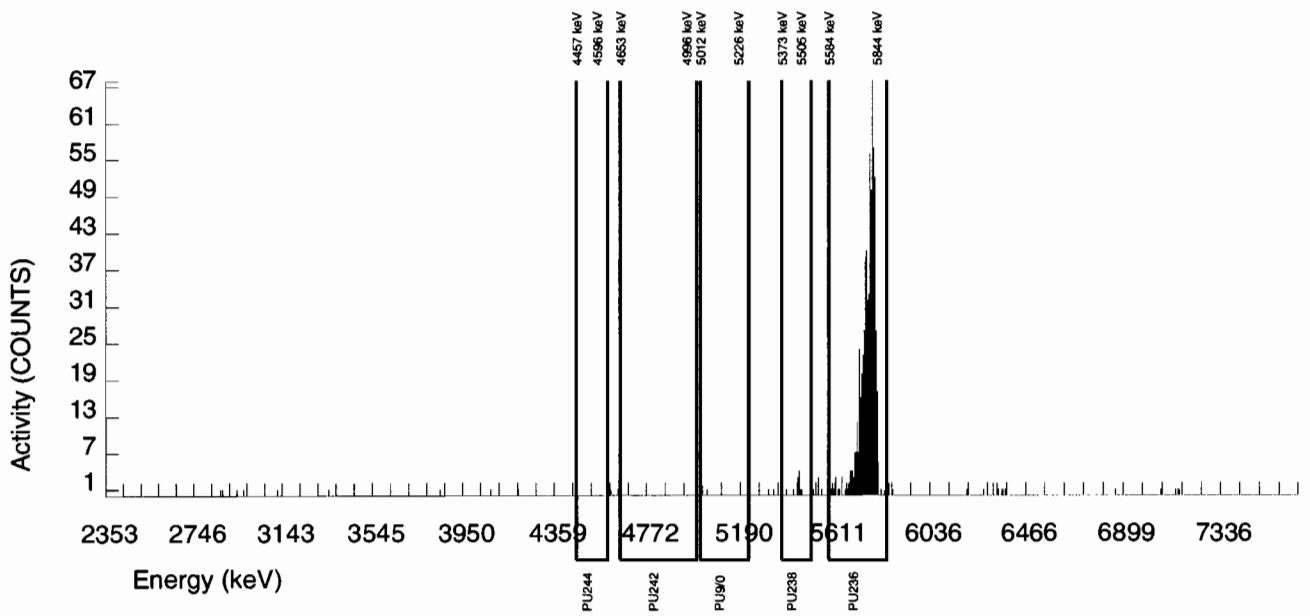

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 968210	CHAMBER : 030	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202078499_PU	DETECTOR S/N : 33447	BKG FILE : B030.CNF;1122
SAMPLE QTY : 1.000 L	AVERAGE %EFFICIENCY : 35.2784	BKG DATE : 21-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 23-MAR-2010 21:43:52	BKG LIVE TIME(SEC) : 60000.00
ANALYST : KXM4	ELAPSED LIVE TIME(SEC) : 43200.00	EFF FILE : W030.CNF;307
% YIELD : 86.796		CAL DATE : 4-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0338-BB	ID : 0338-BB
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9663E+00 dpm	NOMINAL : 2.2685E+00 pCi/L	NOMINAL : 2.2685E+00 pCi/L
RESULTS : 2.5747E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-236	5749.000	5785.613	52.617	666.000	653.040	12.960	3.6000	100.0000	1.34E+00	9.36E-02	1.59E-02	3.73E-02	5.32E-02
PU-238	5499.000	5461.198	97.146	11.000	2.360	8.640	3.1571	99.90000	4.83E-03	8.49E-03	1.39E-02	3.34E-02	8.49E-03
PU-9/0	5155.000	5174.925	49.188	2.000	-0.160	2.160	2.0178	99.90000	-3.27E-04	3.86E-03	8.90E-03	2.33E-02	3.86E-03
PU242	4890.000	4798.748	216.426	4.000	3.280	0.720	*******	100.0000	6.70E-03	4.36E-03	5.80E-01	1.16E+00	4.34E-03
PU-244	4589.000	4527.768	0.000	0.000	-0.720	0.720	4.0676	99.90000	-1.47E-03	2.52E-03	1.79E-02	4.14E-02	2.52E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

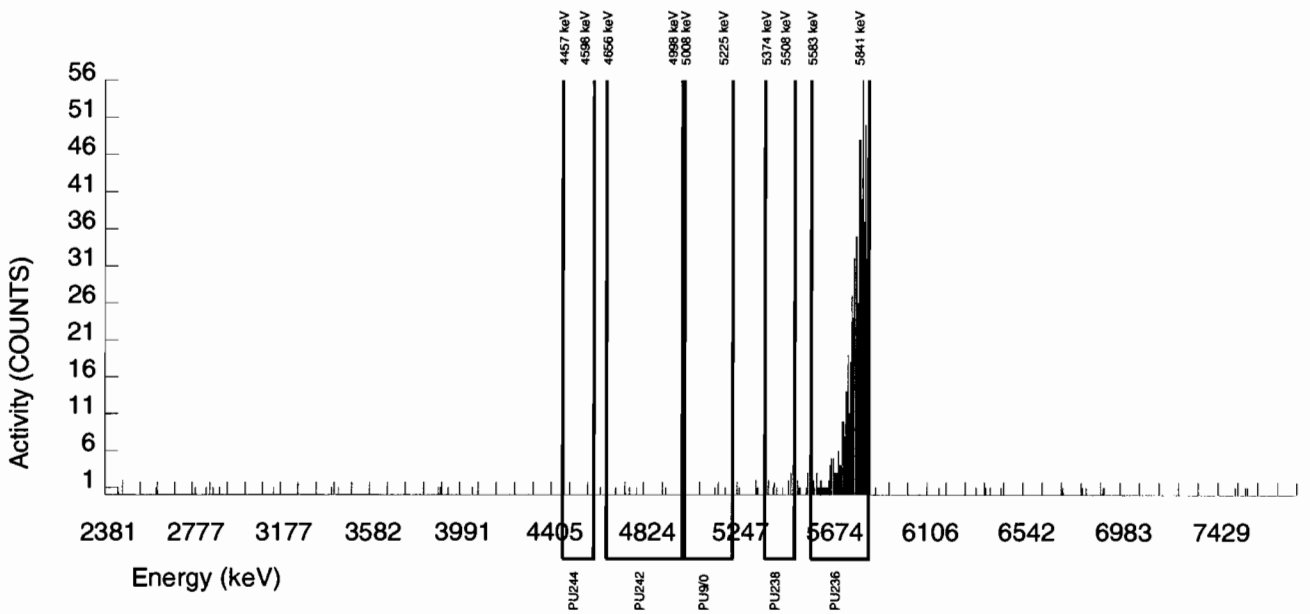

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 968210	CHAMBER : 095	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202078500_PU	DETECTOR S/N : 64279	BKG FILE : B095.CNF;692
SAMPLE QTY : 0.800 L	AVERAGE %EFFICIENCY : 31.3449	BKG DATE : 21-MAR-2010
SAMPLE DATE : 23-FEB-2010 00:00:00	COUNT DATE : 23-MAR-2010 21:43:53	BKG LIVE TIME(SEC) : 60000.00
ANALYST : KXM4	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W095.CNF;211
% YIELD : 96.049		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0338-BB	ID : 0338-BB
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 3.0200E+00 dpm	NOMINAL : 2.8357E+00 pCi/L	NOMINAL : 2.8357E+00 pCi/L
RESULTS : 2.9007E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-236	5749.000	5766.543	36.887	650.000	642.080	7.920	2.8142	100.0000	1.70E+00	1.19E-01	1.58E-02	3.86E-02	6.78E-02
PU-238	5499.000	5448.506	76.633	16.000	9.520	6.480	3.1571	99.90000	2.48E-02	1.19E-02	1.77E-02	4.25E-02	1.18E-02
PU-9/0	5155.000	5100.351	123.601	3.000	0.840	2.160	2.0178	99.90000	2.18E-03	5.55E-03	1.13E-02	2.97E-02	5.55E-03
PU242	4890.000	4796.217	4.944	7.000	4.840	2.160	*******	100.0000	1.26E-02	7.63E-03	7.37E-01	1.48E+00	7.60E-03
PU-244	4589.000	4527.824	0.000	0.000	0.000	0.000	4.0676	99.90000	0.00E+00	2.60E-03	2.28E-02	5.27E-02	2.60E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

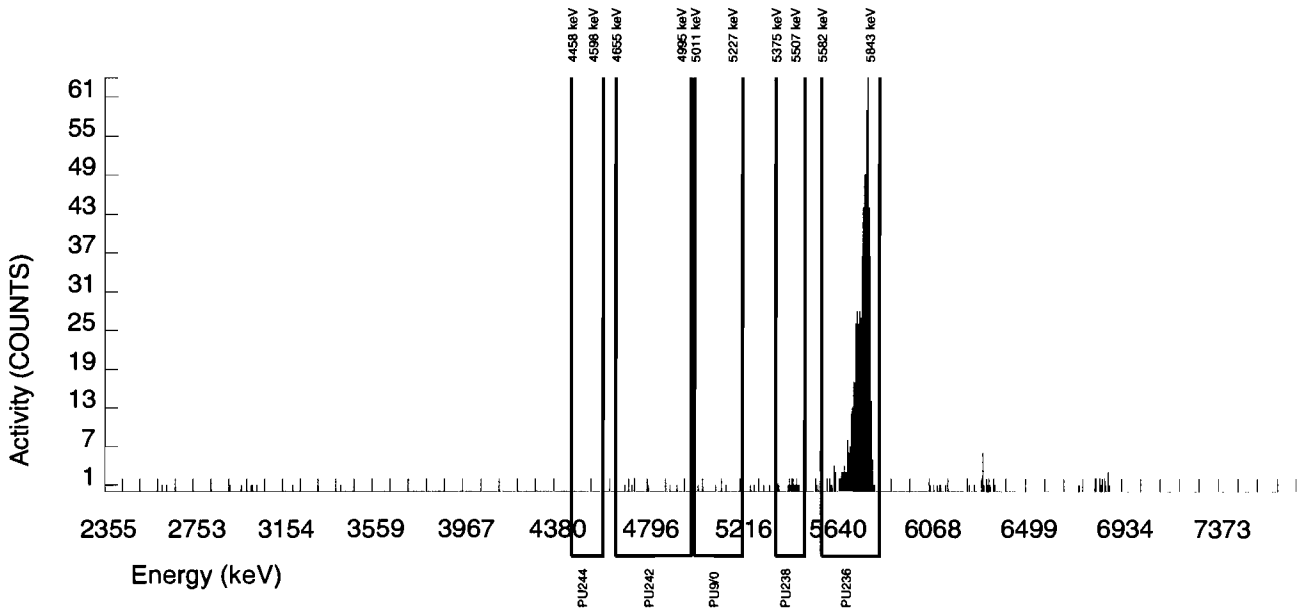

Alpha Spectroscopy Software Version 2.1
effective date: 01-Feb-2010

GEL Laboratories LLC
ALPHA SPECTROSCOPY REPORT

BATCH NUMBER : 968210	CHAMBER : 096	LIB FILE : ENV_ALPHA_PU
SAMPLE ID : S1202078501_PU	DETECTOR S/N : 80016	BKG FILE : B096.CNF;689
SAMPLE QTY : 1.000 L	AVERAGE %EFFICIENCY : 32.7970	BKG DATE : 21-MAR-2010
SAMPLE DATE : 22-MAR-2010 00:00:00	COUNT DATE : 23-MAR-2010 21:43:53	BKG LIVE TIME(SEC) : 60000.00
ANALYST : KXM4	ELAPSED LIVE TIME(SEC) : 43199.99	EFF FILE : W096.CNF;181
% YIELD : 83.636		CAL DATE : 12-MAR-2010

TRACER	MS/MSD	LCS/LCSD
ID : 1430-C	ID : 0338-BB	ID : 0338-BB
NUCLIDE : PU-236	NUCLIDE : PU-9/0	NUCLIDE : PU-9/0
NOMINAL : 2.9663E+00 dpm	NOMINAL : 2.2685E+00 pCi/L	NOMINAL : 2.2685E+00 pCi/L
RESULTS : 2.4809E+00 dpm		

NUCLIDE ACTIVITY SUMMARY

NUCLIDE	LIBRARY ENERGY	PEAK ENERGY	PEAK FWHM	GROSS AREA	NET AREA	BKG AREA	BKG Sg	%ABUN	ACTIVITY pCi/L	TPU 1-SIGMA	DLC pCi/L	MDC pCi/L	UNC pCi/L
PU-236	5749.000	5765.577	51.091	585.000	585.000	0.000	0.0000	100.0000	1.34E+00	9.60E-02	0.00E+00	6.18E-03	5.52E-02
PU-238	5499.000	5448.637	0.000	5.000	3.560	1.440	3.1571	99.90000	8.13E-03	5.63E-03	1.56E-02	3.73E-02	5.61E-03
PU-9/0	5155.000	5148.549	34.357	964.000	961.840	2.160	2.0178	99.90000	2.20E+00	1.47E-01	9.94E-03	2.61E-02	7.09E-02
PU242	4890.000	4877.458	4.925	12.000	9.120	2.880	*******	100.0000	2.08E-02	8.64E-03	6.47E-01	1.30E+00	8.56E-03
PU-244	4589.000	4586.857	4.925	1.000	0.280	0.720	4.0676	99.90000	6.39E-04	2.82E-03	2.00E-02	4.63E-02	2.81E-03

NOTES:

* BKG Sg calculated via blank population.
(Sg updated 8-MAR-2010)

* BKG Sg of PU-236 calculated as sqrt(BKG AREA).

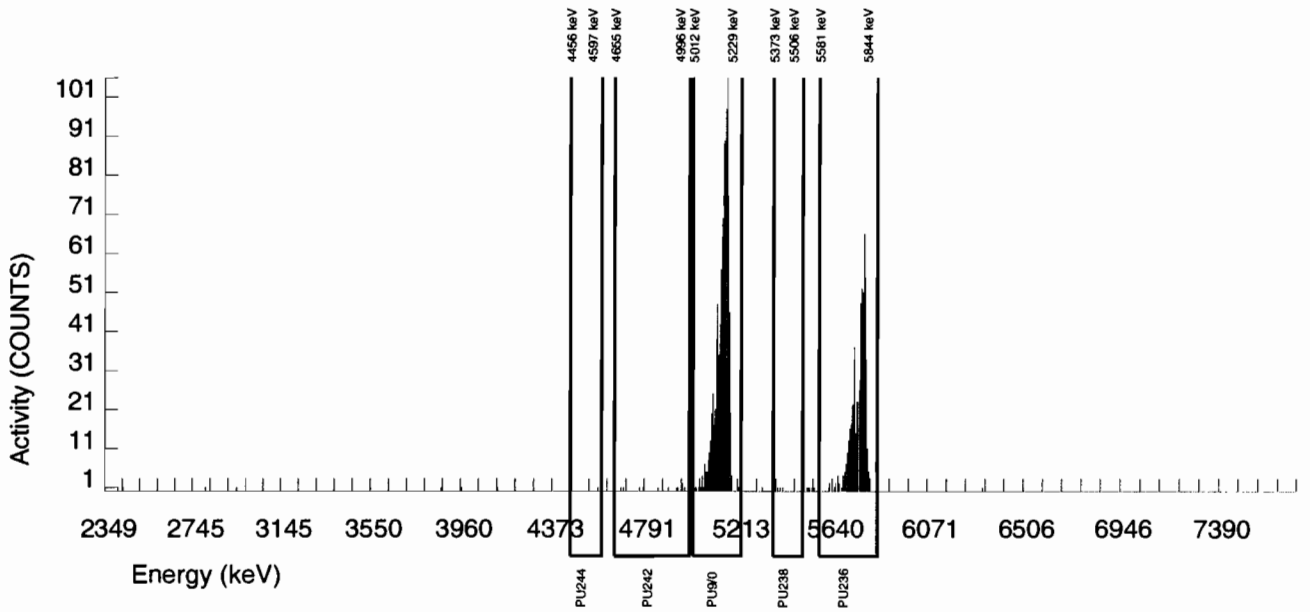

Radiochemistry Batch Checklist, Rev10

Batch# 958213 Product: γL/LANL Date: 3/4/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/a
Samples have been blank corrected (if required)			N/a
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/a
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/a
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/a
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/a
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/a
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/a
Aliquot Correction completed if required.			N/a
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: M. Bamper 3/4/10

Secondary Review Performed By: [illegible] 3/5/10

3/10/10

Gamma Spec Que Sheet

03/01/2010

Batch #:958213 Analyst: KXG3 First Client DueDate03/10/2010 Internal Due Date: 02/28/2010

Gamma Spike Isotope: Mixed Gamma Spike Code: Na Expiration Date: Na Vol: Na Nominal Concentration: Na

Gamma LCS Isotope: Mixed Gamma LCS Code: 1032-A Expiration Date: 12/2/10 Vol: 1.0 ml Nominal Concentration: Cs137-431.5 Co60-493.4 Am241-1236 Gross α-2177

Initials: KXG Prep Date: 3/1/10 Library: Liquid Witness: Na

Sample ID	Client Description / Container ID	Type	Hazard Code	Client	Matrix	Collect Date		Geometry	Wet/Dry Aliquot (1L)	Detector	Sealing Date/Time (if Applicable)	
247922004-1	WST29-10-13281	SAMPLE		LANL010	WATER	23-FEB-10 12:00:00	1	2LMB	2000	20		K
248019002-1	WST05-10-12493	SAMPLE		LANL010	WATER	23-FEB-10 12:00:00	2		2000	4		K
248020001-1	CAPA-10-12771	SAMPLE		LANL010	GROUND WATER	22-FEB-10 12:00:00	3		2000	6		K
248020003-1	CAPA-10-13085	SAMPLE		LANL010	GROUND WATER	23-FEB-10 12:00:00	4		2000	1		K
248023002-1	CAPA-10-12917	SAMPLE		LANL010	GROUND WATER	23-FEB-10 12:00:00	5		2000	7		K
248024001-1	CAPA-10-12871	SAMPLE		LANL010	GROUND WATER	23-FEB-10 12:00:00	6		2000	11		K
248024003-1	CAPA-10-12873	SAMPLE		LANL010	GROUND WATER	23-FEB-10 12:00:00	7		2000	19		K
248026001-1	CAPU-10-12553	SAMPLE		LANL010	WATER	23-FEB-10 12:00:00	8		1600	20		K
1202054942-1	MB	MB		QC ACCOUNT	WATER	3/1/10	9		2000	7		K
1202054943-1	DUP WST29-10-13281(247922004)	DUP		QC ACCOUNT	WATER	23-FEB-10 12:00:00			2000	25		K
1202054944-1	DUP CAPA-10-12917(248023002)	DUP		QC ACCOUNT	GROUND WATER	23-FEB-10 12:00:00			2000	2		K
1202054946-1	LCS	LCS		QC ACCOUNT	WATER	3/1/10			2000	17		K

MC 3/4/10

GEL Laboratories LLC, Radiochemistry Division

Data Reviewed By: M Stamps 3/4/10

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
958213	247922004	SAMPLE	03-MAR-10		Neptunium-237	-10.27	27.32	10.0
					Potassium-40	13.78	52.96	10.0
958213	248019002	SAMPLE	03-MAR-10		Neptunium-237	8.757	33.54	10.0
					Potassium-40	-7.42	43.49	10.0
958213	248020001	SAMPLE	03-MAR-10		Neptunium-237	-6.075	35.39	10.0
					Potassium-40	-7.141	55.97	10.0
958213	248020003	SAMPLE	03-MAR-10		Neptunium-237	6.006	38.05	10.0
					Potassium-40	-16.95	55.99	10.0
958213	248023002	SAMPLE	03-MAR-10		Neptunium-237	11.47	36.07	10.0
					Potassium-40	15.29	72.9	10.0
958213	248024001	SAMPLE	03-MAR-10		Neptunium-237	2.538	30.77	10.0
					Potassium-40	-4.779	59.31	10.0
958213	248024003	SAMPLE	03-MAR-10		Neptunium-237	25.09	41.09	10.0
					Potassium-40	-0.3775	66.53	10.0
958213	248026001	SAMPLE	03-MAR-10		Bismuth-211	-1.127	32.33	25.0
					Bismuth-214	1.066	11.62	10.0
					Cadmium-109	46.62	117.1	100
					Cesium-134	0.7397	5.327	5.00
					Cobalt-60	2.276	5.32	5.00
					Lead-214	-0.4995	11.6	10.0
					Mercury-203	2.233	5.848	5.00
					Radium-226	-44.67	134.1	0.500
					Radium-228	2.158	22.18	0.500
					Sodium-22	1.393	5.807	5.00
					Thorium-231	-23.68	63.31	25.0
958213	1202054942	MB	03-MAR-10		Bismuth-214	5.586	13.91	10.0
					Cesium-134	1.516	5.88	5.00
					Lead-214	12.72	13.46	10.0
					Neptunium-237	-4.96	28.68	10.0
					Potassium-40	-12.47	65.61	10.0
					Radium-226	-41.94	98.43	0.500
					Radium-228	-3.397	22.48	0.500
					Thorium-231	17.92	57.66	25.0
958213	1202054943	DUP	03-MAR-10		Neptunium-237	-20.62	16.22	10.0
					Potassium-40	-2.837	59.09	10.0
958213	1202054944	DUP	03-MAR-10		Neptunium-237	-2.548	35.35	10.0
					Potassium-40	5.62	66.24	10.0
958213	1202054946	LCS	03-MAR-10		Bismuth-211	26.17	84.08	25.0
					Bismuth-214	1.555	28.68	10.0
					Cerium-139	5.725	11.23	5.00
					Cesium-134	-4.752	20.22	5.00
					Europium-152	12.04	42.52	20.0
					Lead-212	-7.755	25.25	15.0
					Lead-214	27.47	33.94	10.0
					Mercury-203	1.078	12.2	5.00

Failed RDL Report

Batch Id	Samp Id	Sample Type	Run Date	YIELD	Parmname	Result	MDA	RDL
958213	1202054946	LCS	03-MAR-10		Potassium-40	-3.743	85.09	10.0
					Radium-223	-20.06	258.1	100
					Radium-224	10.34	256.1	100
					Radium-226	31.6	265	0.500
					Radium-228	-6.957	77.43	0.500
					Ruthenium-106	-42.61	134.8	50.0
					Sodium-22	-0.6393	11.92	10.0
					Strontium-85	-11.68	15.39	10.0
					Thallium-208	5.822	17.54	10.0
					Thorium-227	-46.8	91.44	50.0
					Thorium-231	14.19	130.3	25.0
					Thorium-234	-179.9	265.1	250
					Tin-113	-1.842	18.98	10.0
					Uranium-235	-14.83	68.7	50.0

GEL QUALS

Batch ID: 958213

Report run on: March 4, 2010 10:46 AM

Samp Id	Parmname	Cofa	Edd	Qual	Comments	Auto	Result	MDA	Uncert	SQL
1202054942-1 MB 03-MAR-2010 19:13	Bismuth-211	UI	UI	UI	Data rejected due to no valid peak.		35.07		25	25
1202054944-1 DUP 03-MAR-2010 19:16	Bismuth-211	UI	UI	UI	Data rejected due to interference.		145.9		25	25
	Lead-214	UI	UI	UI	Data rejected due to low abundance.		52.9		10	10

Gamma Review Report based on Result > MDA for Batch:958213

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
247922004	23-FEB-10 12:00	03-MAR-10 16:41	8.2	SAMPLE	LOAD	1	LANL	LANL01006 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Iodine-135	HE	4.37E+09	5.04E+09	pCi/L	0	N	0	2	0	SHORT_HLIF	0	☐	
Technetium-99m		2.45E+10	9.38E+09	pCi/L	0	N	0	2	0	SHORT_HLIF	0	☐	
Thallium-208 ↑FWHM		10.05	3.081	pCi/L	3.421	N	582.9	1	5.853	IDENTIFIED	30.3	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248019002	23-FEB-10 12:00	03-MAR-10 16:56	8.21	SAMPLE	LOAD	1	LANL	LANL01006 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Bismuth-211	HE	26.76	443.2	pCi/L	24.08	N	352.1	1	1.167	IDENTIFIED	40.42	☐	
Gross Gamma		24.76	7.766	pCi/L	21.22	120		0				☐	
Iodine-135	HE	3.51E+09	4.58E+09	pCi/L	0	N	0	3	0	SHORT_HLIF	0	☐	
Sodium-24	HE	5908	11590	pCi/L	0	N	0	3	0	SHORT_HLIF	0	☐	
Technetium-99m		5.21E+10	1.32E+10	pCi/L	0	N	0	3	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248020001	22-FEB-10 12:00	03-MAR-10 16:57	9.21	SAMPLE	LOAD	1	LANL	ESHL01000 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Bismuth-211	HE	115	2134	pCi/L	28.08	N	351.9	2	1.232	IDENTIFIED	14.63	☐	
Bismuth-214		23.96	7.459	pCi/L	8.413	N	609.9	1	1.647	IDENTIFIED	30.71	☐	
Gross Gamma		52.91	17.45	pCi/L	48.91	120		0				☐	
Iodine-133	HE	3109	2106	pCi/L	0	N	0	4	0	SHORT_HLIF	0	☐	
Iodine-135		1.51E+11	7.49E+10	pCi/L	0	N	0	4	0	SHORT_HLIF	0	☐	
Lead-214		41.7	6.55	pCi/L	9.774	N	351.9	2	1.232	IDENTIFIED	14.63	☐	
Sodium-24	HE	74580	43920	pCi/L	0	N	0	4	0	SHORT_HLIF	0	☐	
Technetium-99m	HE	5.03E+11	2.72E+11	pCi/L	0	N	0	4	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248020003	23-FEB-10 12:00	03-MAR-10 18:23	8.27	SAMPLE	LOAD	1	LANL	ESHL01000 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Gross Gamma		20.25	7.259	pCi/L	15.13	120		0				☐	
Radium-226	HE	92.13	58.95	pCi/L	91.49	N	185.8	1	1.182	IDENTIFIED	54.39	☐	
Sodium-24	HE	7924	13010	pCi/L	0	N	0	2	0	SHORT_HLIF	0	☐	
Technetium-99m	HE	9.64E+09	1.32E+10	pCi/L	0	N	0	2	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248023002	23-FEB-10 12:00	03-MAR-10 16:49	8.2	SAMPLE	LOAD	1	LANL	ESHL01000 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Bismuth-211	HE	130.7	2156	pCi/L	30.27	N	352.2	2	1.287	IDENTIFIED	14.11	☐	

VS
3/4/10

Gamma Review Report based on Result > MDA for Batch:958213

MS 3/4/10

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
247922004	23-FEB-10 12:00	03-MAR-10 16:41	8.2	SAMPLE	LOAD	1	LANL	LANL01006 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Iodine-135	HE	4.37E+09	5.04E+09	pCi/L	0	N	0	2	0	SHORT_HLIF	0	☐	
Technetium-99m		2.45E+10	9.38E+09	pCi/L	0	N	0	2	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248019002	23-FEB-10 12:00	03-MAR-10 16:56	8.21	SAMPLE	LOAD	1	LANL	LANL01006 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Bismuth-211	HE	26.76	443.2	pCi/L	24.08	N	352.1	1	1.167	IDENTIFIED	40.42	☐	
Gross Gamma	✓	24.76	7.766	pCi/L	21.22	120		0				☐	
Iodine-135	HE	3.51E+09	4.58E+09	pCi/L	0	N	0	3	0	SHORT_HLIF	0	☐	
Sodium-24	HE	5908	11590	pCi/L	0	N	0	3	0	SHORT_HLIF	0	☐	
Technetium-99m		5.21E+10	1.32E+10	pCi/L	0	N	0	3	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248020001	22-FEB-10 12:00	03-MAR-10 16:57	9.21	SAMPLE	LOAD	1	LANL	ESHL01000 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Bismuth-211	HE	115	2134	pCi/L	28.08	N	351.9	2	1.232	IDENTIFIED	14.63	☐	
Bismuth-214	✓	23.96	7.459	pCi/L	8.413	N	609.9	1	1.647	IDENTIFIED	30.71	☐	
Gross Gamma		52.91	17.45	pCi/L	48.91	120		0				☐	
Iodine-133	HE	3109	2106	pCi/L	0	N	0	4	0	SHORT_HLIF	0	☐	
Iodine-135		1.51E+11	7.49E+10	pCi/L	0	N	0	4	0	SHORT_HLIF	0	☐	
Lead-214	✓	41.7	6.55	pCi/L	9.774	N	351.9	2	1.232	IDENTIFIED	14.63	☐	
Sodium-24	HE	74580	43920	pCi/L	0	N	0	4	0	SHORT_HLIF	0	☐	
Technetium-99m	HE	5.03E+11	2.72E+11	pCi/L	0	N	0	4	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248020003	23-FEB-10 12:00	03-MAR-10 18:23	8.27	SAMPLE	LOAD	1	LANL	ESHL01000 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Gross Gamma		20.25	7.259	pCi/L	15.13	120		0				☐	
Radium-226	HE	92.13	58.95	pCi/L	91.49	N	185.8	1	1.182	IDENTIFIED	54.39	☐	
Sodium-24	HE	7924	13010	pCi/L	0	N	0	2	0	SHORT_HLIF	0	☐	
Technetium-99m	HE	9.64E+09	1.32E+10	pCi/L	0	N	0	2	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248023002	23-FEB-10 12:00	03-MAR-10 16:49	8.2	SAMPLE	LOAD	1	LANL	ESHL01000 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Bismuth-211	HE	130.7	2156	pCi/L	30.27	N	352.2	2	1.287	IDENTIFIED	14.11	☐	
Bismuth-214	✓	50.46	8.163	pCi/L	10.05	N	609.8	1	1.541	IDENTIFIED	15.41	☐	
Gross Gamma		75.28	20.01	pCi/L	63.09	120		0				☐	

Iodine-135	HE	3.44E+09	6.35E+09	pCi/L	0	N	0	3	0	SHORT_HLIF	0	☐
Lead-214	✓	47.38	7.11	pCi/L	12.48	N	352.2	2	1.287	IDENTIFIED	14.11	☐
Radium-226	HE	135.4	76.89	pCi/L	103.1	N	186.1	1	1.166	IDENTIFIED	45.71	☐
Sodium-24	HE	17490	13210	pCi/L	0	N	0	3	0	SHORT_HLIF	0	☐
Technetium-99m		2.79E+10	1.14E+10	pCi/L	0	N	0	3	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248024001	23-FEB-10 12:00	03-MAR-10 18:41	8.28	SAMPLE	LOAD	1	LANL	ESHL01000 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Bismuth-211	HE	119.9	1997	pCi/L	26.82	N	352	2	1.212	IDENTIFIED	14.56	☐	
Bismuth-214	✓	35.42	5.313	pCi/L	9.581	N	609.4	1	1.719	IDENTIFIED	14.09	☐	
Gross Gamma		51.13	14.05	pCi/L	36.05	120		0				☐	
Iodine-133	HE	1427	897	pCi/L	0	N	0	2	0	SHORT_HLIF	0	☐	
Lead-214	✓	43.47	6.799	pCi/L	9.747	N	352	2	1.212	IDENTIFIED	14.56	☐	
Technetium-99m	HE	2.83E+10	1.48E+10	pCi/L	0	N	0	2	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248024003	23-FEB-10 12:00	03-MAR-10 18:42	8.28	SAMPLE	LOAD	1	LANL	ESHL01000 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Bismuth-211	HE	69.03	1150	pCi/L	30.31	N	351.8	2	1.136	IDENTIFIED	28	☐	
Bismuth-214	✓	34.62	6.858	pCi/L	8.494	N	609.4	1	1.444	IDENTIFIED	19.46	☐	
Cerium-143	HE	1059	248.5	pCi/L	793.8	N	0	3	0	NOT_IDENTI	0	☐	
Lead-214	HE	25.04	7.092	pCi/L	11.01	N	351.8	2	1.136	IDENTIFIED	28	☐	
Sodium-24	HE	12190	16740	pCi/L	0	N	0	3	0	SHORT_HLIF	0	☐	
Technetium-99m	HE	6.77E+09	1.35E+10	pCi/L	0	N	0	3	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
248026001	23-FEB-10 12:00	03-MAR-10 18:44	8.28	SAMPLE	LOAD	1	LANL	LANL01004 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Iodine-133	HE	585	1201	pCi/L	0	N	0	3	0	SHORT_HLIF	0	☐	
Sodium-24	HE	7479	15190	pCi/L	0	N	0	3	0	SHORT_HLIF	0	☐	
Technetium-99m	HE	1.89E+10	1.43E+10	pCi/L	0	N	0	3	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202054942		03-MAR-10 19:13	0	MB	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Bismuth-211	nvp	35.07	199.9	pCi/L	26.58	25.0	351.6	1	0.8036	IDENTIFIED	34.16	☑ u1	
Iodine-135	HE	1015	6111	pCi/L	0	N	0	2	0	SHORT_HLIF	0	☐	
Technetium-99m	HE	4152	2605	pCi/L	0	N	0	2	0	SHORT_HLIF	0	☐	

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202054943	23-FEB-10 12:00	03-MAR-10 19:13	8.3	DUP	LOAD	1		LANL01006 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act Rpt	Err(%)	Qual	Qual Comment
Gross Gamma		11.63	4.191	pCi/L	8.529	120		0				☐	

Iodine-135	HE	1.09E+10	6.96E+09	pCi/L	0	N	0	2	0	SHORT_HLIF	0	☐
Technetium-99m	HE	1.69E+10	9.81E+09	pCi/L	0	N	0	2	0	SHORT_HLIF	0	☐

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202054944	23-FEB-10 12:00	03-MAR-10 19:16	8.3	DUP	LOAD	1		ESHL01000 GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Bismuth-211	int	145.9	2443	pCi/L	26.04	Y	351.6	1	1.188	IDENTIFIED	11.75	☑	U1	
Bismuth-214	✓	38.59	6.774	pCi/L	9.196	Y	608.9	1	1.397	IDENTIFIED	17.15	☐		
Cerium-143	HE	720.1	232.8	pCi/L	710.6	N	0	4	0	NOT_IDENTI	0	☐		
Iodine-133	HE	1177	1009	pCi/L	0	N	0	4	0	SHORT_HLIF	0	☐		
Lead-214	LA	52.9	6.619	pCi/L	18.77	Y	0	4	0	FAIL_ABUND	0	☑	UI	Data rejected due to low abundance.
Sodium-24	HE	4151	15770	pCi/L	0	N	0	4	0	SHORT_HLIF	0	☐		

*** = Number of isotopes identified with a keyline at this energy.

Sample ID	Collect Date	Run Date	Days Past	Sample Type	Status	Instance	Client	Project Quals	Zero?	queue
1202054946		03-MAR-10 19:39	0	LCS	LOAD	1		GEL	N	RGSP

Name		Result	Uncert.	Units	MDA	RDL	Energy	***	FWHM	Comb Act	Rpt Err(%)	Qual		Qual Comment
Americium-241	✓	1266	72.3	pCi/L	38.5	25.0	59.54	1	0.8717	IDENTIFIED	2.07	☐	102.4 d	
Barium-137m		443.4	25.46	pCi/L	17.34	N	661.1	2	1.343	IDENTIFIED	4.059	☐		
Cadmium-109		2760	203.4	pCi/L	219.5	100	88.01	2	0.9788	IDENTIFIED	5.65	☐		
Cesium-137	✓	468.4	26.93	pCi/L	18.32	8.00	661.1	2	1.343	IDENTIFIED	4.059	☐	108.5 d	
Cobalt-57		18.15	4.298	pCi/L	9.46	N	122	1	0.8436	IDENTIFIED	23.2	☐		
Cobalt-60	✓	526.2	31.43	pCi/L	12.63	8.00	1331	1	1.656	IDENTIFIED	4.248	☐	106.6 d	
Gross Gamma		2088	175	pCi/L	224.6	120		0				☐	95.9 d	
Neptunium-237		286.8	44.12	pCi/L	109.1	10.0	0	2	0	NOT_IDENTI	0	☐		
Technetium-99m	HE	7412	6971	pCi/L	0	N	0	2	0	SHORT_HLIF	0	☐		
Tin-126		274.9	20.25	pCi/L	21.85	N	88.01	2	0.9788	IDENTIFIED	5.65	☐		

*** = Number of isotopes identified with a keyline at this energy.

Result Greater Than DL

Batch Id	Sample Id	Sample Type	Run Date	Parmname	Result	Uncertainty	Units	DL	RDL
958213	248024001	SAMPLE	03-MAR-10	Bismuth-211	119.9	1997	pCi/L	13.42	N
				Bismuth-214	35.42	5.313	pCi/L	4.794	N
				Cerium-143	320	162.8	pCi/L	260.3	N
				Gross Gamma	51.13	14.05	pCi/L	17	120
				Iodine-133	1427	897	pCi/L	0	N
				Lead-214	43.47	6.799	pCi/L	4.877	N
				Promethium-149	966.9	428.6	pCi/L	756.8	N
				Radium-224	94.24	40.06	pCi/L	52	N
				Radon-219	32.56	542.6	pCi/L	28.65	N
				Technetium-99m	2.83E+10	1.48E+10	pCi/L	0	N
958213	248024003	SAMPLE	03-MAR-10	Bismuth-211	69.03	1150	pCi/L	15.16	N
				Bismuth-214	34.62	6.858	pCi/L	4.249	N
				Californium-251	14.07	6.833	pCi/L	11.73	N
				Cerium-143	1059	248.5	pCi/L	397.2	N
				Gross Gamma	51.78	18.4	pCi/L	30.71	120
				Lead-214	25.04	7.092	pCi/L	5.508	N
				Neptunium-237	25.09	12.18	pCi/L	20.56	10.0
				Praseodymium-144	220.5	109.3	pCi/L	198.9	N
				Protactinium-234	21.12	11.33	pCi/L	20.73	N
				Radium-224	63.62	33.47	pCi/L	49.15	N
				Sodium-24	12190	16740	pCi/L	0	N
				Technetium-99m	6.77E+09	1.35E+10	pCi/L	0	N
958213	248026001	SAMPLE	03-MAR-10	Cerium-144	17.31	9.812	pCi/L	16.71	N
				Iodine-133	585	1201	pCi/L	0	N
				Sodium-24	7479	15190	pCi/L	0	N
				Technetium-99m	1.89E+10	1.43E+10	pCi/L	0	N
958213	1202054942	MB	03-MAR-10	Bismuth-211	35.07	199.9	pCi/L	13.3	~~25.0~~
				Gross Gamma	11.52	4.402	pCi/L	6.107	120
				Iodine-135	1015	6111	pCi/L	0	N
				Lead-214	12.72	4.395	pCi/L	6.734	10.0
				Technetium-99m	4152	2605	pCi/L	0	N
958213	1202054943	DUP	03-MAR-10	Gross Gamma	11.63	4.191	pCi/L	4.038	120
				Iodine-135	1.09E+10	8.96E+09	pCi/L	0	N
				Technetium-99m	1.69E+10	9.81E+09	pCi/L	0	N
				Tellurium-125m	557	265	pCi/L	473.3	N
958213	1202054944	DUP	03-MAR-10	Bismuth-211	145.9	2443	pCi/L	13.03	Y
				Bismuth-214	38.59	6.774	pCi/L	4.601	Y

VAX/VMS Nuclide Identification Report Generated 3-MAR-2010 18:49:54.34

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248023002.CNF;1
Sample date       : 23-FEB-2010 12:00:00 Acquisition date : 3-MAR-2010 16:49:27.
Sample ID         : G248023002           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM07                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.75  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 958213               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	186.10*	63	161	1.17	371.82	366	13	8.79E-03	45.7	
2	0	242.62	60	117	1.32	484.84	481	10	8.28E-03	36.6	
3	0	295.73*	84	118	1.28	591.04	585	13	1.16E-02	29.4	
4	0	352.23*	149	73	1.29	704.02	699	10	2.07E-02	14.1	
5	0	609.80*	136	54	1.54	1219.08	1212	15	1.89E-02	15.4	
6	0	1121.46	33	15	1.93	2242.28	2233	16	4.61E-03	31.9	
7	0	1238.70	27	0	2.01	2476.74	2470	13	3.75E-03	19.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 3-MAR-2010 18:49:57

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248023002.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 23-FEB-2010 12:00:00 Acquisition date : 3-MAR-2010 16:49:27
Sample ID : G248023002 Sample quantity : 2.0000 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA7 Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.75 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BI-211		72.87		9.445E+01	3.129E+03	4.561E+02	1.505E+04	0.207
	+	351.06	*	1.307E+02	4.313E+03	3.027E+01	9.991E+02	4.316
BI-214	+	609.32	*	5.046E+01	1.633E+01	1.005E+01	9.885E-01	5.023
	+	1120.29		6.035E+01	3.905E+01	2.719E+01	2.917E+00	2.220
		1764.49		5.436E+01	3.566E+01	7.225E+01	5.953E+00	0.752
PB-214		74.82		-3.657E+01	6.192E+01	9.826E+01	1.130E+01	-0.372
		77.11		-1.410E+01	3.686E+01	5.861E+01	6.938E+00	-0.241
	+	242.00		7.283E+01	5.385E+01	7.349E+01	7.362E+00	0.991
	+	295.22		4.558E+01	2.719E+01	2.213E+01	2.317E+00	2.060
	+	351.93	*	4.738E+01	1.422E+01	1.248E+01	1.275E+00	3.797
RA-226	+	186.21	*	1.354E+02	1.538E+02	1.031E+02	6.941E+01	1.314

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.60	*	-1.508E+00	2.526E+01	4.017E+01	3.607E+00	-0.038
NA-22		1274.54	*	-9.191E-01	3.508E+00	5.533E+00	4.615E-01	-0.166
NA-24		1368.63	*	1.749E-02	3.508E+00	Half-Life too short		
K-40		1460.82	*	1.529E+01	3.957E+01	7.290E+01	6.336E+00	0.210
SC-46		889.28	*	-7.576E-01	2.895E+00	4.477E+00	3.853E-01	-0.169
	+	1120.55		9.640E+00	6.205E+00	8.918E+00	7.470E-01	1.081
V-48		944.13		-1.142E+01	4.768E+01	7.337E+01	6.322E+00	-0.156
		983.53	*	1.244E-01	3.671E+00	5.954E+00	5.121E-01	0.021
		1312.11		1.355E+00	4.432E+00	7.737E+00	6.462E-01	0.175
CR-51		320.08	*	8.899E+00	2.883E+01	4.871E+01	4.227E+00	0.183
MN-54		834.85	*	1.501E+00	2.717E+00	4.817E+00	4.127E-01	0.311
CO-56		846.77	*	2.091E+00	2.993E+00	5.394E+00	4.627E-01	0.388
		1037.84		9.422E+00	1.769E+01	3.270E+01	2.941E+00	0.288
	+	1238.28		1.274E+01	5.024E+00	1.140E+01	9.758E-01	1.118
		1771.35		-4.729E+01	3.273E+01	4.060E+01	3.341E+00	-1.165
CO-57		122.06	*	-1.423E+00	2.680E+00	4.148E+00	3.483E-01	-0.343
		136.47		-1.983E+01	2.228E+01	3.335E+01	2.943E+00	-0.595
CO-58		810.76	*	-3.543E+00	3.271E+00	4.733E+00	4.049E-01	-0.749

Sample ID : G248023002 Acquisition date : 3-MAR-2010 16:49:27

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
FE-59		1099.25	*	-3.008E+00	6.296E+00	9.677E+00	8.846E-01	-0.311
		1291.59		-5.382E+00	7.577E+00	1.048E+01	9.996E-01	-0.514
CO-60		1173.23		-8.624E-01	3.306E+00	5.258E+00	4.323E-01	-0.164
		1332.49	*	7.010E-01	3.405E+00	5.812E+00	4.859E-01	0.121
ZN-65		1115.54	*	-3.928E+00	7.200E+00	8.860E+00	7.441E-01	-0.443
SE-75		121.12		-1.263E+00	1.345E+01	2.149E+01	2.345E+00	-0.059
		136.00		-2.998E+00	4.047E+00	6.124E+00	5.038E-01	-0.490
		264.66	*	-1.603E+00	3.885E+00	6.233E+00	5.128E-01	-0.257
		279.54		-6.334E+00	9.511E+00	1.485E+01	1.264E+00	-0.427
		400.66		-1.545E+01	2.053E+01	3.013E+01	3.198E+00	-0.513
SR-85		514.00	*	-5.246E+00	4.479E+00	6.888E+00	5.754E-01	-0.762
Y-88		898.04		2.581E+00	2.800E+00	5.277E+00	4.565E-01	0.489
		1836.06	*	-2.731E+00	3.934E+00	5.570E+00	4.525E-01	-0.490
Y-91		1204.77	*	-6.405E+02	1.428E+03	2.187E+03	1.808E+02	-0.293
NB-94		702.65	*	2.220E+00	2.586E+00	4.757E+00	3.943E-01	0.467
		871.09		-1.580E-01	3.032E+00	4.890E+00	4.204E-01	-0.032
NB-95		765.80	*	2.034E+00	3.232E+00	5.739E+00	4.851E-01	0.354
NB-95M		235.69	*	-2.550E+01	1.102E+01	1.488E+01	1.412E+00	-1.713
ZR-95		724.19		-1.413E+00	7.495E+00	1.206E+01	1.097E+00	-0.117
		756.73	*	1.995E+00	5.388E+00	9.324E+00	8.721E-01	0.214
MO-99		140.51		5.658E+02	4.693E+02	7.724E+02	1.820E+02	0.732
		181.07		5.838E+01	3.188E+02	4.850E+02	8.979E+01	0.120
		366.42		5.593E+02	1.638E+03	2.759E+03	2.232E+02	0.203
		739.50	*	-1.263E+01	1.803E+02	2.937E+02	4.591E+01	-0.043
		777.92		-5.103E+02	5.067E+02	6.878E+02	5.831E+01	-0.742
TC-99M		140.51	*	2.794E+04	5.067E+02	Half-Life too short		
RU-103		497.08	*	-2.823E+00	3.437E+00	4.887E+00	6.739E-01	-0.578
	+	610.33		4.610E+02	1.605E+02	2.163E+02	3.500E+01	2.131
RH-106		621.93	*	-1.108E+01	2.594E+01	4.071E+01	5.307E+00	-0.272
		1050.41		5.693E+01	2.140E+02	3.723E+02	3.173E+01	0.153
RU-106		621.93	*	-1.108E+01	2.592E+01	4.071E+01	3.369E+00	-0.272
		1050.41		5.693E+01	2.140E+02	3.723E+02	3.173E+01	0.153
AG-108M		433.94	*	-4.001E-01	2.479E+00	3.918E+00	3.309E-01	-0.102
		614.28		1.727E-01	3.507E+00	5.124E+00	4.401E-01	0.034
		722.91		-1.617E+00	3.424E+00	5.303E+00	4.578E-01	-0.305
CD-109		88.03	*	-1.122E+01	7.319E+01	1.159E+02	1.096E+01	-0.097
AG-110M		657.76	*	-2.243E+00	2.774E+00	4.058E+00	3.423E-01	-0.553
		677.62		1.787E+00	2.527E+01	4.225E+01	3.577E+00	0.042
		706.68		-1.779E+00	1.661E+01	2.701E+01	2.311E+00	-0.066
		763.94		-1.574E+01	1.429E+01	1.975E+01	1.717E+00	-0.797
		884.68		8.490E-01	3.863E+00	6.506E+00	5.778E-01	0.130
		937.49		1.127E+00	8.317E+00	1.377E+01	1.230E+00	0.082
		1384.29		-7.875E+00	1.237E+01	1.731E+01	1.496E+00	-0.455
SN-113		391.70	*	1.850E+00	3.718E+00	6.360E+00	5.241E-01	0.291
CD-115		260.90		-5.166E+01	1.452E+03	2.408E+03	1.971E+02	-0.021
		492.35		-6.509E+01	3.961E+02	6.199E+02	5.158E+01	-0.105
		527.90	*	9.778E-01	1.115E+02	1.879E+02	1.572E+01	0.005
SN-117M		156.02		6.525E+00	1.706E+02	2.659E+02	2.129E+01	0.025
		158.56	*	-5.577E-01	3.947E+00	6.201E+00	4.958E-01	-0.090

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---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TE-123M		159.00	*	1.788E-01	2.810E+00	4.482E+00	3.608E-01	0.040
SB-124		602.73		-2.596E+00	3.745E+00	4.796E+00	3.990E-01	-0.541
		645.85		4.479E+00	3.574E+01	6.041E+01	5.271E+00	0.074
		722.78		-1.858E+01	3.133E+01	4.763E+01	4.073E+00	-0.390
		1690.97	*	1.353E-01	8.797E+00	1.424E+01	1.241E+00	0.010
SB-125		427.87	*	-1.910E+00	8.055E+00	1.264E+01	1.049E+00	-0.151
		463.37		2.616E+01	2.349E+01	4.238E+01	3.784E+00	0.617
		600.60		-7.994E+00	1.600E+01	2.517E+01	2.260E+00	-0.318
		635.95		4.046E+00	2.413E+01	4.096E+01	3.673E+00	0.099
TE-125M		109.28	*	-5.025E+02	9.013E+02	1.398E+03	1.451E+02	-0.360
I-126		388.63		-9.929E+00	1.101E+01	1.614E+01	1.287E+00	-0.615
		666.33	*	-5.101E-01	1.326E+01	2.188E+01	1.787E+00	-0.023
		753.82		-2.991E+01	9.435E+01	1.470E+02	1.239E+01	-0.203
SB-126		414.70		3.055E+00	4.961E+00	8.516E+00	6.872E-01	0.359
		666.50		1.062E-01	4.437E+00	7.379E+00	6.027E-01	0.014
		695.00		-3.238E-01	4.522E+00	7.270E+00	6.008E-01	-0.045
		697.00		-2.092E+00	1.480E+01	2.399E+01	1.984E+00	-0.087
		720.70	*	-3.969E-01	8.502E+00	1.393E+01	1.162E+00	-0.028
		856.80		-1.593E+01	2.663E+01	3.907E+01	3.355E+00	-0.408
SN-126		64.28		4.968E+00	4.694E+01	7.907E+01	1.161E+01	0.063
		86.94		9.838E+00	3.034E+01	4.906E+01	2.037E+01	0.201
		87.57	*	-2.697E-01	7.251E+00	1.157E+01	1.090E+00	-0.023
SB-127		252.40		8.983E+01	1.209E+02	2.032E+02	8.335E+01	0.442
		473.00		2.180E+01	4.358E+01	7.391E+01	8.158E+00	0.295
		685.70	*	-2.691E+01	3.240E+01	4.714E+01	4.406E+00	-0.571
		783.70		1.395E+01	8.042E+01	1.352E+02	1.449E+01	0.103
I-131		80.19		-1.161E+02	2.368E+02	3.763E+02	3.295E+01	-0.308
		284.31		1.145E+00	7.603E+01	1.261E+02	1.084E+01	0.009
		364.49	*	3.330E+00	5.776E+00	9.958E+00	8.516E-01	0.334
		636.99		-1.499E+01	7.599E+01	1.232E+02	1.073E+01	-0.122
TE-132		49.72		-4.149E+02	2.673E+02	3.934E+02	3.584E+01	-1.055
		111.76		7.287E+02	7.837E+02	1.336E+03	1.236E+02	0.545
		116.30		4.313E+02	6.716E+02	1.127E+03	1.037E+02	0.383
		228.16	*	-3.041E+00	1.506E+01	2.487E+01	3.598E+00	-0.122
BA-133		81.00		2.584E+00	8.090E+00	1.348E+01	2.106E+00	0.192
		276.40		1.353E+00	3.130E+01	5.209E+01	7.211E+00	0.026
		302.85		-5.089E+00	1.421E+01	2.098E+01	2.685E+00	-0.243
		356.01	*	-2.822E+00	4.708E+00	6.425E+00	8.116E-01	-0.439
		383.85		1.640E+00	2.955E+01	4.831E+01	5.799E+00	0.034
I-133		529.87	*	-9.083E-04	2.955E+01	Half-Life too short		
		875.33		4.506E-02	2.955E+01	Half-Life too short		
		1298.22		-7.133E-02	2.955E+01	Half-Life too short		
CS-134		563.25		6.596E+00	3.067E+01	5.268E+01	4.453E+00	0.125
		569.33		-7.261E+00	1.615E+01	2.553E+01	2.166E+00	-0.284
		604.72		-1.439E+00	3.446E+00	4.558E+00	3.800E-01	-0.316
		795.86	*	-7.825E-01	3.617E+00	5.722E+00	4.906E-01	-0.137
		801.95		-4.107E+01	3.199E+01	4.115E+01	3.527E+00	-0.998
		1365.19		-1.170E+01	1.097E+02	1.780E+02	1.566E+01	-0.066
CS-135		268.22	*	-4.640E-02	1.397E+01	2.321E+01	2.225E+00	-0.002

Sample ID : G248023002 Acquisition date : 3-MAR-2010 16:49:27

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
I-135		546.56		3.309E+04	1.397E+01	Half-Life too short		
		836.80		2.331E+02	1.397E+01	Half-Life too short		
		1038.76		2.450E+04	1.397E+01	Half-Life too short		
		1131.51		4.406E+02	1.397E+01	Half-Life too short		
		1260.41	*	3.437E+03	1.397E+01	Half-Life too short		
		1457.56		-3.723E+04	1.397E+01	Half-Life too short		
		1678.03		2.962E+04	1.397E+01	Half-Life too short		
		1791.20		-4.889E+03	1.397E+01	Half-Life too short		
CS-136		153.25		5.690E+00	6.304E+01	1.009E+02	9.850E+00	0.056
		176.60		6.886E+00	3.198E+01	5.500E+01	4.917E+00	0.125
		273.65		-2.659E+01	3.219E+01	4.964E+01	4.437E+00	-0.536
		340.55		-3.626E+00	8.533E+00	1.339E+01	1.140E+00	-0.271
		818.51		-9.878E-01	4.393E+00	6.923E+00	5.918E-01	-0.143
		1048.07	*	4.125E+00	5.876E+00	1.086E+01	9.656E-01	0.380
		1235.36		-1.302E+01	2.806E+01	3.460E+01	3.989E+00	-0.376
BA-137M		661.66	*	1.909E-01	3.234E+00	5.402E+00	4.403E-01	0.035
CS-137		661.66	*	2.017E-01	3.416E+00	5.707E+00	4.661E-01	0.035
CE-139		165.86	*	4.594E-01	3.158E+00	5.052E+00	4.026E-01	0.091
BA-140		162.66		-8.808E+00	5.820E+01	9.124E+01	7.848E+00	-0.097
		304.85		1.300E+01	8.035E+01	1.343E+02	3.916E+01	0.097
		423.72		-5.396E+01	1.279E+02	1.951E+02	6.392E+01	-0.277
		537.26	*	9.433E+00	1.664E+01	2.916E+01	9.870E+00	0.324
LA-140		328.76		-1.379E+01	1.873E+01	2.860E+01	2.491E+00	-0.482
		487.02		2.828E+00	7.870E+00	1.321E+01	1.170E+00	0.214
		815.77		1.308E+01	1.810E+01	3.277E+01	3.133E+00	0.399
		1596.21	*	4.190E+00	6.235E+00	1.135E+01	9.559E-01	0.369
CE-141		145.44	*	2.034E+00	5.645E+00	9.219E+00	7.598E-01	0.221
CE-143		57.36		7.657E+02	2.546E+03	4.295E+03	3.921E+02	0.178
		293.27	*	5.544E+02	4.485E+02	7.095E+02	1.491E+02	0.781
		664.57		3.988E+03	3.371E+03	5.992E+03	1.780E+03	0.666
		721.93		-1.938E+03	3.609E+03	5.469E+03	1.517E+03	-0.354
CE-144		80.12		-1.023E+02	2.291E+02	3.653E+02	3.190E+01	-0.280
		133.52	*	8.455E+00	1.983E+01	3.264E+01	4.912E+00	0.259
PM-144		476.78		-1.552E+00	5.520E+00	8.518E+00	7.715E-01	-0.182
		618.01		-1.209E+00	2.885E+00	4.420E+00	3.772E-01	-0.273
		696.49	*	-1.131E+00	2.759E+00	4.297E+00	3.553E-01	-0.263
PR-144		696.51	*	-8.319E+01	2.059E+02	3.209E+02	2.654E+01	-0.259
		1489.16		2.200E+02	1.113E+03	1.895E+03	1.601E+02	0.116
PM-146		453.88	*	3.291E+00	3.687E+00	6.529E+00	6.706E-01	0.504
		633.25		7.549E+01	1.302E+02	2.261E+02	8.616E+01	0.334
		735.93		-1.933E+00	1.093E+01	1.746E+01	4.882E+00	-0.111
		747.24		-3.823E+00	8.030E+00	1.223E+01	1.768E+00	-0.313
ND-147		91.11		4.251E+00	1.677E+01	2.769E+01	2.741E+00	0.154
		319.41		1.168E+01	1.989E+02	3.289E+02	2.699E+01	0.036
		531.02	*	1.748E+00	3.192E+01	5.405E+01	8.001E+00	0.032
PM-149		285.90	*	-2.976E+02	9.750E+02	1.570E+03	2.401E+02	-0.190
EU-152		121.78		-4.913E+00	7.767E+00	1.192E+01	1.157E+00	-0.412
		244.70		2.811E+01	3.448E+01	5.463E+01	4.467E+00	0.515
		344.28	*	3.644E-01	8.342E+00	1.372E+01	1.194E+00	0.027

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		778.90		-1.144E+01	2.032E+01	3.020E+01	2.561E+00	-0.379
		964.08		5.324E+00	2.117E+01	3.556E+01	3.062E+00	0.150
		1085.87		-1.590E+00	2.370E+01	3.911E+01	3.307E+00	-0.041
		1112.07		-5.179E+00	2.300E+01	3.386E+01	2.844E+00	-0.153
		1408.01		2.735E+01	1.806E+01	3.632E+01	3.058E+00	0.753
GD-153		69.67		-2.236E+02	1.544E+02	2.228E+02	1.780E+01	-1.004
		97.43	*	1.662E+00	8.114E+00	1.336E+01	1.185E+00	0.124
		103.18		1.077E+00	1.065E+01	1.737E+01	1.504E+00	0.062
EU-154		123.07		-1.195E+00	5.579E+00	8.837E+00	9.864E-01	-0.135
		723.31		-2.019E+00	1.496E+01	2.424E+01	2.242E+00	-0.083
		873.19		-1.324E+01	2.495E+01	3.703E+01	4.399E+00	-0.357
		996.26		-4.392E+00	2.942E+01	4.607E+01	8.042E+00	-0.095
		1004.73		-1.483E+01	1.709E+01	2.269E+01	2.633E+00	-0.654
		1274.44	*	7.607E-03	9.555E+00	1.579E+01	1.763E+00	0.000
EU-155		86.55		4.428E+00	8.843E+00	1.457E+01	1.369E+00	0.304
		105.31	*	-2.899E+00	1.023E+01	1.622E+01	1.411E+00	-0.179
TA-182		67.75		9.790E+00	9.388E+00	1.632E+01	1.286E+00	0.600
		100.11		5.316E-01	1.686E+01	2.741E+01	2.402E+00	0.019
		152.43		1.023E+01	3.501E+01	5.681E+01	4.560E+00	0.180
		222.11		-1.148E+01	3.269E+01	5.354E+01	4.356E+00	-0.214
	+	1121.30		2.712E+01	1.746E+01	2.504E+01	2.097E+00	1.083
		1189.05		5.100E+00	1.784E+01	3.127E+01	2.578E+00	0.163
		1221.41	*	2.149E+00	1.206E+01	2.063E+01	1.709E+00	0.104
		1231.02		1.668E+01	2.821E+01	4.819E+01	3.997E+00	0.346
IR-192	+	295.96		3.159E+01	1.873E+01	2.281E+01	1.885E+00	1.385
		308.46		-4.139E-01	7.855E+00	1.288E+01	1.063E+00	-0.032
		316.51	*	-3.816E-01	2.859E+00	4.645E+00	3.821E-01	-0.082
		468.07		-3.994E+00	6.054E+00	8.942E+00	7.974E-01	-0.447
HG-203		70.83		-1.476E+02	1.092E+02	1.552E+02	2.447E+01	-0.951
		72.87		2.120E+01	6.119E+01	1.024E+02	1.566E+01	0.207
		279.20	*	-1.776E+00	3.163E+00	4.990E+00	4.191E-01	-0.356
BI-207		72.81		4.523E+00	1.561E+01	2.607E+01	2.133E+00	0.174
		74.97		-2.757E+00	9.836E+00	1.590E+01	1.325E+00	-0.173
		569.70		-7.742E-01	2.568E+00	4.146E+00	3.467E-01	-0.187
		1063.66	*	-3.226E+00	5.534E+00	8.214E+00	6.982E-01	-0.393
		1770.23		-1.554E+02	7.568E+01	8.126E+01	6.688E+00	-1.913
TL-208		277.37		1.720E+01	3.377E+01	5.824E+01	7.119E+00	0.295
		583.19	*	-2.286E+00	3.607E+00	5.733E+00	5.145E-01	-0.399
		860.56		2.586E+01	2.203E+01	4.216E+01	3.889E+00	0.613
PB-210		46.54	*	5.682E+01	2.257E+02	3.873E+02	3.715E+01	0.147
PB-211		404.85	*	1.696E+01	5.632E+02	1.034E+02	3.412E+03	0.164
		427.09		4.817E+00	2.103E+02	2.233E+02	7.370E+03	0.022
		832.01		-3.011E+01	9.971E+02	1.195E+02	3.946E+03	-0.252
BI-212		727.33	*	3.366E+01	4.589E+01	8.109E+01	9.958E+00	0.415
		785.37		1.153E+02	2.579E+02	4.494E+02	3.816E+01	0.257
		1620.50		-1.080E+02	2.284E+02	3.275E+02	2.752E+01	-0.330
PB-212		74.82		-2.080E+01	3.524E+01	5.590E+01	7.156E+00	-0.372
		77.11		-8.064E+00	2.107E+01	3.352E+01	2.846E+00	-0.241
		238.63	*	4.352E+00	6.789E+00	1.102E+01	1.032E+00	0.395

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		300.09		-1.829E+01	8.505E+01	1.202E+02	1.225E+01	-0.152
RN-219		271.23		7.572E+00	2.509E+02	3.651E+01	1.205E+03	0.207
		401.81	*	8.744E+00	2.906E+02	5.640E+01	1.862E+03	0.155
RA-223		81.07		5.630E+00	1.867E+02	3.055E+01	1.009E+03	0.184
		83.79		-3.065E+00	1.017E+02	1.707E+01	5.633E+02	-0.180
		94.56		-9.780E+00	3.243E+02	5.019E+01	1.657E+03	-0.195
		144.24		-2.122E+01	7.046E+02	1.177E+02	3.886E+03	-0.180
		154.21		1.500E+01	4.967E+02	6.749E+01	2.227E+03	0.222
		269.46		1.364E+01	4.504E+02	2.872E+01	9.479E+02	0.475
		323.87	*	-6.466E+00	2.220E+02	9.929E+01	3.277E+03	-0.065
		338.28		-1.330E+01	4.490E+02	1.415E+02	4.670E+03	-0.094
RA-224		240.99	*	8.630E-01	8.310E+01	1.224E+02	1.000E+01	0.007
AC-227		79.69		-1.212E+02	1.215E+02	1.849E+02	3.194E+01	-0.655
		235.96		-3.295E+01	1.429E+01	1.923E+01	1.917E+00	-1.714
		256.23	*	-1.989E+01	2.220E+01	3.391E+01	3.982E+00	-0.587
		299.98		-8.344E+00	9.166E+01	1.314E+02	1.633E+01	-0.063
		304.50		-6.748E+00	1.571E+02	2.454E+02	4.004E+01	-0.027
		329.85		-6.475E+00	6.133E+01	9.973E+01	1.142E+01	-0.065
		334.37		-6.500E+01	1.585E+02	2.497E+02	3.833E+01	-0.260
TH-227		79.69		-1.212E+02	4.001E+03	1.849E+02	6.102E+03	-0.655
		235.96		-3.295E+01	1.088E+03	1.923E+01	6.348E+02	-1.714
		256.23	*	-1.989E+01	6.569E+02	3.391E+01	1.119E+03	-0.587
		299.98		-8.344E+00	2.903E+02	1.314E+02	4.338E+03	-0.063
		304.50		-6.748E+00	2.726E+02	2.454E+02	8.101E+03	-0.027
		329.85		-6.475E+00	2.223E+02	9.973E+01	3.292E+03	-0.065
		334.37		-6.500E+01	2.151E+03	2.497E+02	8.241E+03	-0.260
AC-228		338.32		-3.202E+00	2.391E+01	3.577E+01	1.489E+01	-0.090
		911.20	*	-4.879E+00	1.203E+01	1.918E+01	2.223E+00	-0.254
		968.97		1.509E+01	2.007E+01	3.567E+01	8.687E+00	0.423
RA-228		338.32		-3.202E+00	2.391E+01	3.577E+01	1.489E+01	-0.090
		911.20	*	-4.879E+00	1.203E+01	1.918E+01	2.223E+00	-0.254
		968.97		1.509E+01	2.007E+01	3.567E+01	8.687E+00	0.423
TH-228		74.82		-2.080E+01	3.518E+01	5.590E+01	4.697E+00	-0.372
		77.11		-8.064E+00	2.107E+01	3.352E+01	2.846E+00	-0.241
		238.63	*	4.352E+00	6.789E+00	1.102E+01	1.032E+00	0.395
		300.09		-1.829E+01	8.577E+01	1.202E+02	7.348E+01	-0.152
TH-229		85.43		5.604E+00	1.801E+01	2.935E+01	2.703E+00	0.191
		88.47		7.545E-01	1.088E+01	1.782E+01	1.679E+00	0.042
		193.51	*	6.945E+00	4.848E+01	8.267E+01	6.651E+00	0.084
		210.85		-1.574E+01	7.921E+01	1.315E+02	1.065E+01	-0.120
PA-231		283.69	*	3.791E+01	1.297E+02	2.199E+02	3.151E+01	0.172
		301.36		1.654E+01	4.853E+01	7.315E+01	8.119E+00	0.226
		330.06		5.569E+01	1.729E+02	2.906E+02	8.639E+01	0.192
TH-231		84.21	*	-1.876E+01	4.056E+01	6.412E+01	1.133E+01	-0.292
TH-232		63.81	*	5.558E+02	4.624E+03	2.999E+03	2.307E+04	0.185
		140.88		1.120E+04	1.281E+04	2.148E+04	1.742E+03	0.522
PA-233		94.65		-1.029E+01	2.566E+01	4.074E+01	3.723E+00	-0.253
		98.43		-3.390E+00	1.386E+01	2.213E+01	2.053E+00	-0.153
		300.13		-9.153E+00	4.200E+01	5.929E+01	8.650E+00	-0.154

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		311.90	*	-2.335E+00	5.870E+00	9.305E+00	7.878E-01	-0.251
		340.48		2.728E-01	5.065E+01	8.303E+01	1.985E+01	0.003
PA-234		94.67		-7.259E+00	1.725E+01	2.733E+01	3.465E+00	-0.266
		98.44		-2.261E+00	9.304E+00	1.472E+01	8.220E+00	-0.154
		111.00		1.718E+01	1.847E+01	3.151E+01	3.778E+00	0.545
		131.20		2.220E-02	1.116E+01	1.789E+01	1.472E+00	0.001
		569.50		-8.586E+00	2.259E+01	3.608E+01	3.017E+00	-0.238
		733.00		4.139E-01	2.788E+01	4.602E+01	1.017E+01	0.009
		880.51		-8.125E+00	2.340E+01	3.576E+01	3.076E+00	-0.227
		883.24		9.231E+00	2.304E+01	3.861E+01	2.596E+01	0.239
		926.36		-1.437E+01	1.473E+01	1.867E+01	4.720E+00	-0.769
		946.00	*	-2.822E+00	2.311E+01	3.648E+01	6.845E+00	-0.077
		949.00		9.154E+00	3.525E+01	5.948E+01	5.125E+00	0.154
PA-234M		766.42		8.432E+02	1.033E+03	1.719E+03	8.718E+02	0.490
		1001.03	*	2.263E+02	3.730E+02	6.720E+02	6.677E+01	0.337
TH-234		63.29	*	6.018E+01	1.226E+02	2.101E+02	3.768E+01	0.286
		92.59		8.179E+00	7.251E+01	1.214E+02	2.707E+01	0.067
U-235		89.96		-2.145E+02	9.890E+01	1.150E+02	2.859E+01	-1.865
		93.35		-8.371E-01	5.501E+01	9.153E+01	2.130E+01	-0.009
		143.76	*	-2.112E+01	2.347E+01	3.397E+01	5.669E+00	-0.622
		163.33		1.459E+01	4.614E+01	7.466E+01	1.318E+01	0.195
	+	185.72		8.501E+00	7.800E+00	8.219E+00	6.591E-01	1.034
		205.31		-1.742E+01	4.435E+01	7.258E+01	1.299E+01	-0.240
NP-237		86.48	*	1.147E+01	2.200E+01	3.607E+01	8.275E+00	0.318
		95.86		-2.164E+02	1.133E+02	1.419E+02	3.421E+01	-1.525
U-238		63.29	*	6.018E+01	1.226E+02	2.101E+02	3.768E+01	0.286
		92.59		8.179E+00	7.249E+01	1.214E+02	1.109E+01	0.067
NP-239		99.53		4.634E+00	1.617E+01	2.673E+01	2.348E+00	0.173
		103.37		1.408E+00	9.673E+00	1.583E+01	1.370E+00	0.089
		106.12		1.093E+00	8.157E+00	1.332E+01	1.143E+00	0.082
		116.74	*	8.763E+00	2.782E+01	4.575E+01	3.850E+00	0.192
		228.18		-4.244E+00	1.994E+01	3.290E+01	2.681E+00	-0.129
		277.60		4.413E+00	1.576E+01	2.672E+01	2.183E+00	0.165
AM-241		59.54	*	-1.248E+00	1.248E+01	2.054E+01	1.692E+00	-0.061
CM-247		278.00		2.409E+01	6.658E+01	1.136E+02	9.279E+00	0.212
		287.50		7.532E+01	1.120E+02	1.954E+02	1.599E+01	0.385
		402.40	*	3.482E+00	3.032E+00	5.535E+00	4.434E-01	0.629
CF-249		252.80		7.817E+01	8.655E+01	1.539E+02	1.259E+01	0.508
		333.37		1.087E+01	1.662E+01	2.880E+01	2.358E+00	0.377
		388.16	*	-2.606E+00	3.889E+00	5.878E+00	4.688E-01	-0.443
CF-251		177.52	*	-3.224E-01	1.201E+01	2.034E+01	1.626E+00	-0.016
		227.38		2.313E+01	3.322E+01	5.823E+01	4.745E+00	0.397
		285.41		-1.483E+02	2.058E+02	3.194E+02	2.613E+01	-0.464
ANH-511		511.00	*	-3.522E+00	5.011E+00	8.945E+00	7.469E-01	-0.394

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248023002      *
* Acquisition date :  3-MAR-2010 16:49:27 Detector SN#    :                 *
* Detector ID       : GAM07               Sensitivity     : 5.000           *
* Geometry          : 2LMB                Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:00.75     Half life ratio :  8.000          *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       : 23-FEB-2010 12:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G248023002           Analyst initials: KXG3           *
* Batch Number      : 958213               Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 17-JUL-2009 15:54:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
BI-211	1.307E+02	4.226E+03	3.027E+01	0.000E+00
BI-214	5.046E+01	1.600E+01	1.005E+01	0.000E+00
PB-214	4.738E+01	1.394E+01	1.248E+01	0.000E+00
RA-226	1.354E+02	1.507E+02	1.031E+02	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Act error Ided	MDA (pCi/LITER)		
BE-7	-1.508E+00	2.475E+01	4.017E+01	0.000E+00	NOT IDENT.
NA-22	-9.191E-01	3.437E+00	5.533E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00	2.589E+04	0.000E+00	0.000E+00	SHORT HLIF
K-40	1.529E+01	3.877E+01	7.290E+01	0.000E+00	NOT IDENT.
SC-46	-7.576E-01	2.837E+00	4.477E+00	0.000E+00	FAIL ABUN
V-48	1.244E-01	3.598E+00	5.954E+00	0.000E+00	NOT IDENT.
CR-51	8.899E+00	2.826E+01	4.871E+01	0.000E+00	NOT IDENT.
MN-54	1.501E+00	2.662E+00	4.817E+00	0.000E+00	NOT IDENT.
CO-56	2.091E+00	2.933E+00	5.394E+00	0.000E+00	FAIL ABUN
CO-57	-1.423E+00	2.626E+00	4.148E+00	0.000E+00	NOT IDENT.
CO-58	-3.543E+00	3.206E+00	4.733E+00	0.000E+00	NOT IDENT.
FE-59	-3.008E+00	6.170E+00	9.677E+00	0.000E+00	NOT IDENT.
CO-60	7.010E-01	3.337E+00	5.812E+00	0.000E+00	NOT IDENT.
ZN-65	-3.928E+00	7.056E+00	8.860E+00	0.000E+00	NOT IDENT.
SE-75	-1.603E+00	3.807E+00	6.233E+00	0.000E+00	NOT IDENT.
SR-85	-5.246E+00	4.389E+00	6.888E+00	0.000E+00	NOT IDENT.
Y-88	-2.731E+00	3.855E+00	5.570E+00	0.000E+00	NOT IDENT.
Y-91	-6.405E+02	1.400E+03	2.187E+03	0.000E+00	NOT IDENT.
NB-94	2.220E+00	2.534E+00	4.757E+00	0.000E+00	NOT IDENT.
NB-95	2.034E+00	3.168E+00	5.739E+00	0.000E+00	NOT IDENT.
NB-95M	-2.550E+01	1.080E+01	1.488E+01	0.000E+00	NOT IDENT.
ZR-95	1.995E+00	5.280E+00	9.324E+00	0.000E+00	NOT IDENT.
MO-99	-1.263E+01	1.767E+02	2.937E+02	0.000E+00	NOT IDENT.

TC-99M	0.000E+00	2.228E+10	0.000E+00	0.000E+00	SHORT HLIF
RU-103	-2.823E+00	3.369E+00	4.887E+00	0.000E+00	FAIL ABUN
RH-106	-1.108E+01	2.542E+01	4.071E+01	0.000E+00	NOT IDENT.
RU-106	-1.108E+01	2.540E+01	4.071E+01	0.000E+00	NOT IDENT.
AG-108M	-4.001E-01	2.430E+00	3.918E+00	0.000E+00	NOT IDENT.
CD-109	-1.122E+01	7.172E+01	1.159E+02	0.000E+00	NOT IDENT.
AG-110M	-2.243E+00	2.718E+00	4.058E+00	0.000E+00	NOT IDENT.
SN-113	1.850E+00	3.644E+00	6.360E+00	0.000E+00	NOT IDENT.
CD-115	9.778E-01	1.092E+02	1.879E+02	0.000E+00	NOT IDENT.
SN-117M	-5.577E-01	3.869E+00	6.201E+00	0.000E+00	NOT IDENT.
TE-123M	1.788E-01	2.754E+00	4.482E+00	0.000E+00	NOT IDENT.
SB-124	1.353E-01	8.621E+00	1.424E+01	0.000E+00	NOT IDENT.
SB-125	-1.910E+00	7.894E+00	1.264E+01	0.000E+00	NOT IDENT.
TE-125M	-5.025E+02	8.833E+02	1.398E+03	0.000E+00	NOT IDENT.
I-126	-5.101E-01	1.299E+01	2.188E+01	0.000E+00	NOT IDENT.
SB-126	-3.969E-01	8.332E+00	1.393E+01	0.000E+00	NOT IDENT.
SN-126	-2.697E-01	7.106E+00	1.157E+01	0.000E+00	NOT IDENT.
SB-127	-2.691E+01	3.176E+01	4.714E+01	0.000E+00	NOT IDENT.
I-131	3.330E+00	5.660E+00	9.958E+00	0.000E+00	NOT IDENT.
TE-132	-3.041E+00	1.476E+01	2.487E+01	0.000E+00	NOT IDENT.
BA-133	-2.822E+00	4.613E+00	6.425E+00	0.000E+00	NOT IDENT.
I-133	0.000E+00	2.101E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	-7.825E-01	3.545E+00	5.722E+00	0.000E+00	NOT IDENT.
CS-135	-4.640E-02	1.369E+01	2.321E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.245E+10	0.000E+00	0.000E+00	SHORT HLIF
CS-136	4.125E+00	5.759E+00	1.086E+01	0.000E+00	NOT IDENT.
BA-137M	1.909E-01	3.169E+00	5.402E+00	0.000E+00	NOT IDENT.
CS-137	2.017E-01	3.348E+00	5.707E+00	0.000E+00	NOT IDENT.
CE-139	4.594E-01	3.095E+00	5.052E+00	0.000E+00	NOT IDENT.
BA-140	9.433E+00	1.631E+01	2.916E+01	0.000E+00	NOT IDENT.
LA-140	4.190E+00	6.110E+00	1.135E+01	0.000E+00	NOT IDENT.
CE-141	2.034E+00	5.532E+00	9.219E+00	0.000E+00	NOT IDENT.
CE-143	5.544E+02	4.395E+02	7.095E+02	0.000E+00	NOT IDENT.
CE-144	8.455E+00	1.943E+01	3.264E+01	0.000E+00	NOT IDENT.
PM-144	-1.131E+00	2.704E+00	4.297E+00	0.000E+00	NOT IDENT.
PR-144	-8.319E+01	2.018E+02	3.209E+02	0.000E+00	NOT IDENT.
PM-146	3.291E+00	3.613E+00	6.529E+00	0.000E+00	NOT IDENT.
ND-147	1.748E+00	3.128E+01	5.405E+01	0.000E+00	NOT IDENT.
PM-149	-2.976E+02	9.555E+02	1.570E+03	0.000E+00	NOT IDENT.
EU-152	3.644E-01	8.175E+00	1.372E+01	0.000E+00	NOT IDENT.
GD-153	1.662E+00	7.951E+00	1.336E+01	0.000E+00	NOT IDENT.
EU-154	7.607E-03	9.364E+00	1.579E+01	0.000E+00	NOT IDENT.
EU-155	-2.899E+00	1.002E+01	1.622E+01	0.000E+00	NOT IDENT.
TA-182	2.149E+00	1.182E+01	2.063E+01	0.000E+00	FAIL ABUN
IR-192	-3.816E-01	2.802E+00	4.645E+00	0.000E+00	FAIL ABUN
HG-203	-1.776E+00	3.100E+00	4.990E+00	0.000E+00	NOT IDENT.
BI-207	-3.226E+00	5.424E+00	8.214E+00	0.000E+00	NOT IDENT.
TL-208	-2.286E+00	3.535E+00	5.733E+00	0.000E+00	NOT IDENT.
PB-210	5.682E+01	2.212E+02	3.873E+02	0.000E+00	NOT IDENT.
PB-211	1.696E+01	5.520E+02	1.034E+02	0.000E+00	NOT IDENT.
BI-212	3.366E+01	4.497E+01	8.109E+01	0.000E+00	NOT IDENT.
PB-212	4.352E+00	6.653E+00	1.102E+01	0.000E+00	NOT IDENT.
RN-219	8.744E+00	2.848E+02	5.640E+01	0.000E+00	NOT IDENT.
RA-223	-6.466E+00	2.175E+02	9.929E+01	0.000E+00	NOT IDENT.
RA-224	8.630E-01	8.144E+01	1.224E+02	0.000E+00	NOT IDENT.
AC-227	-1.989E+01	2.176E+01	3.391E+01	0.000E+00	NOT IDENT.
TH-227	-1.989E+01	6.438E+02	3.391E+01	0.000E+00	NOT IDENT.
AC-228	-4.879E+00	1.179E+01	1.918E+01	0.000E+00	NOT IDENT.
RA-228	-4.879E+00	1.179E+01	1.918E+01	0.000E+00	NOT IDENT.
TH-228	4.352E+00	6.653E+00	1.102E+01	0.000E+00	NOT IDENT.
TH-229	6.945E+00	4.751E+01	8.267E+01	0.000E+00	NOT IDENT.
PA-231	3.791E+01	1.271E+02	2.199E+02	0.000E+00	NOT IDENT.
TH-231	-1.876E+01	3.975E+01	6.412E+01	0.000E+00	NOT IDENT.
TH-232	5.558E+02	4.532E+03	2.999E+03	0.000E+00	NOT IDENT.
PA-233	-2.335E+00	5.753E+00	9.305E+00	0.000E+00	NOT IDENT.
PA-234	-2.822E+00	2.265E+01	3.648E+01	0.000E+00	NOT IDENT.
PA-234M	2.263E+02	3.656E+02	6.720E+02	0.000E+00	NOT IDENT.
TH-234	6.018E+01	1.202E+02	2.101E+02	0.000E+00	NOT IDENT.
U-235	-2.112E+01	2.300E+01	3.397E+01	0.000E+00	FAIL ABUN
NP-237	1.147E+01	2.156E+01	3.607E+01	0.000E+00	NOT IDENT.
U-238	6.018E+01	1.202E+02	2.101E+02	0.000E+00	NOT IDENT.
NP-239	8.763E+00	2.726E+01	4.575E+01	0.000E+00	NOT IDENT.
AM-241	-1.248E+00	1.223E+01	2.054E+01	0.000E+00	NOT IDENT.
CM-247	3.482E+00	2.972E+00	5.535E+00	0.000E+00	NOT IDENT.
CF-249	-2.606E+00	3.811E+00	5.878E+00	0.000E+00	NOT IDENT.
CF-251	-3.224E-01	1.177E+01	2.034E+01	0.000E+00	NOT IDENT.
ANH-511	-3.522E+00	4.910E+00	8.945E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 3-MAR-2010 18:49:52.34

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248023002.CNF;1
Sample date       : 23-FEB-2010 12:00:00 Acquisition date : 3-MAR-2010 16:49:27.
Sample ID         : G248023002           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM07                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.75  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 958213               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.43	74	123	1.59	92.52	89	9	1.03E-02	29.5	
2	0	63.65	65	181	1.14	126.96	123	8	9.01E-03	38.0	
3	0	77.09	51	211	0.72	153.83	149	8	7.09E-03	51.7	
4	0	92.76	97	178	1.47	185.16	181	9	1.35E-02	26.8	
5	0	186.10	109	161	1.17	371.82	366	13	1.51E-02	25.9	
6	0	238.75	46	95	1.02	477.10	474	8	6.41E-03	39.3	
7	0	242.62	60	117	1.32	484.84	481	10	8.28E-03	36.6	
8	0	295.73	90	118	1.28	591.04	585	13	1.25E-02	26.9	
9	0	352.23	164	73	1.29	704.02	699	10	2.28E-02	12.4	
10	0	510.94	154	51	2.10	1021.38	1013	17	2.14E-02	13.3	
11	0	609.80	153	54	1.54	1219.08	1212	15	2.12E-02	13.4	
12	0	1121.46	33	15	1.93	2242.28	2233	16	4.61E-03	31.9	
13	0	1238.70	27	0	2.01	2476.74	2470	13	3.75E-03	19.2	

VAX/VMS Nuclide Identification Report Generated 3-MAR-2010 18:49:55.18

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248023002.CNF;1
Sample date       : 23-FEB-2010 12:00:00 Acquisition date : 3-MAR-2010 16:49:27.
Sample ID         : G248023002           Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM07                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.75  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 958213                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
BI-211	72.87	------	1.23	1.972E+00	------ Line Not Found		------
	351.06	149	12.92*	1.661E+00	1.306E+02	1.307E+02	3300.78
BI-214	609.32	136	45.49*	1.112E+00	5.046E+01	5.046E+01	32.35
	1120.29	33	14.92	6.914E-01	6.035E+01	6.035E+01	64.71
	1764.49	------	15.30	4.981E-01	------ Line Not Found		------
PB-214	74.82	------	5.80	2.044E+00	------ Line Not Found		------
	77.11	------	9.70	2.122E+00	------ Line Not Found		------
	242.00	60	7.25	2.119E+00	7.283E+01	7.283E+01	73.94
	295.22	84	18.42	1.870E+00	4.558E+01	4.558E+01	59.64
	351.93	149	35.60*	1.661E+00	4.738E+01	4.738E+01	30.01
RA-226	186.21	63	3.59*	2.443E+00	1.354E+02	1.354E+02	113.53

Flag: "*" = Keyline

Sample ID : G248023002 Acquisition date : 3-MAR-2010 16:49:27

Total number of lines in spectrum	7	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	7	100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
BI-211	21.77Y	1.00	1.306E+02	1.307E+02	43.13E+02	3300.78	
BI-214	1600.00Y	1.00	5.046E+01	5.046E+01	1.633E+01	32.35	
PB-214	1600.00Y	1.00	4.738E+01	4.738E+01	1.422E+01	30.01	
RA-226	1600.00Y	1.00	1.354E+02	1.354E+02	1.538E+02	113.53	
	Total Activity :		3.638E+02	3.639E+02			

Grand Total Activity : 3.638E+02 3.639E+02

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G248023002 Acquisition date : 3-MAR-2010 16:49:27

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	1238.70	27	0	2.01	2476.74	2470	13	3.75E-03	38.5	6.40E-01	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 3-MAR-2010 18:49:58.88

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G248023002.CNF;1  *
* Acquisition date : 3-MAR-2010 16:49:27.  Detector SN#    :                *
* Detector ID      : GAM07                 Sensitivity     : 5.00000        *
* Geometry         : 2LMB                  Energy tolerance: 1.50000        *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 02:00:00.75         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 23-FEB-2010 12:00:00  Nuclide Library : LIQUID          *
* Sample ID        : G248023002            Analyst initials: KXG3           *
* Batch Number     : 958213                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 17-JUL-2009 15:54:54.7MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BI-211	1.307E+02	4.313E+03	3.027E+01	9.991E+02	4.316
BI-214	5.046E+01	1.633E+01	1.005E+01	9.885E-01	5.023
PB-214	4.738E+01	1.422E+01	1.248E+01	1.275E+00	3.797
RA-226	1.354E+02	1.538E+02	1.031E+02	6.941E+01	1.314

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	-1.508E+00		2.526E+01	4.017E+01	3.607E+00	-0.038
NA-22	-9.191E-01		3.508E+00	5.533E+00	4.615E-01	-0.166
NA-24	1.749E-02		1.321E-02	Half-Life too short		
K-40	1.529E+01		3.957E+01	7.290E+01	6.336E+00	0.210
SC-46	-7.576E-01		2.895E+00	4.477E+00	3.853E-01	-0.169
V-48	1.244E-01		3.671E+00	5.954E+00	5.121E-01	0.021
CR-51	8.899E+00		2.883E+01	4.871E+01	4.227E+00	0.183
MN-54	1.501E+00		2.717E+00	4.817E+00	4.127E-01	0.311

Sample ID : G248023002 Acquisition date : 3-MAR-2010 16:49:27

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-56	2.091E+00		2.993E+00	5.394E+00	4.627E-01	0.388
CO-57	-1.423E+00		2.680E+00	4.148E+00	3.483E-01	-0.343
CO-58	-3.543E+00		3.271E+00	4.733E+00	4.049E-01	-0.749
FE-59	-3.008E+00		6.296E+00	9.677E+00	8.846E-01	-0.311
CO-60	7.010E-01		3.405E+00	5.812E+00	4.859E-01	0.121
ZN-65	-3.928E+00		7.200E+00	8.860E+00	7.441E-01	-0.443
SE-75	-1.603E+00		3.885E+00	6.233E+00	5.128E-01	-0.257
SR-85	-5.246E+00		4.479E+00	6.888E+00	5.754E-01	-0.762
Y-88	-2.731E+00		3.934E+00	5.570E+00	4.525E-01	-0.490
Y-91	-6.405E+02		1.428E+03	2.187E+03	1.808E+02	-0.293
NB-94	2.220E+00		2.586E+00	4.757E+00	3.943E-01	0.467
NB-95	2.034E+00		3.232E+00	5.739E+00	4.851E-01	0.354
NB-95M	-2.550E+01		1.102E+01	1.488E+01	1.412E+00	-1.713
ZR-95	1.995E+00		5.388E+00	9.324E+00	8.721E-01	0.214
MO-99	-1.263E+01		1.803E+02	2.937E+02	4.591E+01	-0.043
TC-99M	2.794E+04		1.137E+04	Half-Life too short		
RU-103	-2.823E+00		3.437E+00	4.887E+00	6.739E-01	-0.578
RH-106	-1.108E+01		2.594E+01	4.071E+01	5.307E+00	-0.272
RU-106	-1.108E+01		2.592E+01	4.071E+01	3.369E+00	-0.272
AG-108M	-4.001E-01		2.479E+00	3.918E+00	3.309E-01	-0.102
CD-109	-1.122E+01		7.319E+01	1.159E+02	1.096E+01	-0.097
AG-110M	-2.243E+00		2.774E+00	4.058E+00	3.423E-01	-0.553
SN-113	1.850E+00		3.718E+00	6.360E+00	5.241E-01	0.291
CD-115	9.778E-01		1.115E+02	1.879E+02	1.572E+01	0.005
SN-117M	-5.577E-01		3.947E+00	6.201E+00	4.958E-01	-0.090
TE-123M	1.788E-01		2.810E+00	4.482E+00	3.608E-01	0.040
SB-124	1.353E-01		8.797E+00	1.424E+01	1.241E+00	0.010
SB-125	-1.910E+00		8.055E+00	1.264E+01	1.049E+00	-0.151
TE-125M	-5.025E+02		9.013E+02	1.398E+03	1.451E+02	-0.360
I-126	-5.101E-01		1.326E+01	2.188E+01	1.787E+00	-0.023
SB-126	-3.969E-01		8.502E+00	1.393E+01	1.162E+00	-0.028
SN-126	-2.697E-01		7.251E+00	1.157E+01	1.090E+00	-0.023
SB-127	-2.691E+01		3.240E+01	4.714E+01	4.406E+00	-0.571
I-131	3.330E+00		5.776E+00	9.958E+00	8.516E-01	0.334
TE-132	-3.041E+00		1.506E+01	2.487E+01	3.598E+00	-0.122
BA-133	-2.822E+00		4.708E+00	6.425E+00	8.116E-01	-0.439
I-133	-9.083E-04		1.072E-03	Half-Life too short		
CS-134	-7.825E-01		3.617E+00	5.722E+00	4.906E-01	-0.137
CS-135	-4.640E-02		1.397E+01	2.321E+01	2.225E+00	-0.002
I-135	3.437E+03		6.354E+03	Half-Life too short		
CS-136	4.125E+00		5.876E+00	1.086E+01	9.656E-01	0.380
BA-137M	1.909E-01		3.234E+00	5.402E+00	4.403E-01	0.035
CS-137	2.017E-01		3.416E+00	5.707E+00	4.661E-01	0.035
CE-139	4.594E-01		3.158E+00	5.052E+00	4.026E-01	0.091
BA-140	9.433E+00		1.664E+01	2.916E+01	9.870E+00	0.324
LA-140	4.190E+00		6.235E+00	1.135E+01	9.559E-01	0.369
CE-141	2.034E+00		5.645E+00	9.219E+00	7.598E-01	0.221
CE-143	5.544E+02		4.485E+02	7.095E+02	1.491E+02	0.781

Sample ID : G248023002 Acquisition date : 3-MAR-2010 16:49:27

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CE-144	8.455E+00		1.983E+01	3.264E+01	4.912E+00	0.259
PM-144	-1.131E+00		2.759E+00	4.297E+00	3.553E-01	-0.263
PR-144	-8.319E+01		2.059E+02	3.209E+02	2.654E+01	-0.259
PM-146	3.291E+00		3.687E+00	6.529E+00	6.706E-01	0.504
ND-147	1.748E+00		3.192E+01	5.405E+01	8.001E+00	0.032
PM-149	-2.976E+02		9.750E+02	1.570E+03	2.401E+02	-0.190
EU-152	3.644E-01		8.342E+00	1.372E+01	1.194E+00	0.027
GD-153	1.662E+00		8.114E+00	1.336E+01	1.185E+00	0.124
EU-154	7.607E-03		9.555E+00	1.579E+01	1.763E+00	0.000
EU-155	-2.899E+00		1.023E+01	1.622E+01	1.411E+00	-0.179
TA-182	2.149E+00		1.206E+01	2.063E+01	1.709E+00	0.104
IR-192	-3.816E-01		2.859E+00	4.645E+00	3.821E-01	-0.082
HG-203	-1.776E+00		3.163E+00	4.990E+00	4.191E-01	-0.356
BI-207	-3.226E+00		5.534E+00	8.214E+00	6.982E-01	-0.393
TL-208	-2.286E+00		3.607E+00	5.733E+00	5.145E-01	-0.399
PB-210	5.682E+01		2.257E+02	3.873E+02	3.715E+01	0.147
PB-211	1.696E+01		5.632E+02	1.034E+02	3.412E+03	0.164
BI-212	3.366E+01		4.589E+01	8.109E+01	9.958E+00	0.415
PB-212	4.352E+00		6.789E+00	1.102E+01	1.032E+00	0.395
RN-219	8.744E+00		2.906E+02	5.640E+01	1.862E+03	0.155
RA-223	-6.466E+00		2.220E+02	9.929E+01	3.277E+03	-0.065
RA-224	8.630E-01		8.310E+01	1.224E+02	1.000E+01	0.007
AC-227	-1.989E+01		2.220E+01	3.391E+01	3.982E+00	-0.587
TH-227	-1.989E+01		6.569E+02	3.391E+01	1.119E+03	-0.587
AC-228	-4.879E+00		1.203E+01	1.918E+01	2.223E+00	-0.254
RA-228	-4.879E+00		1.203E+01	1.918E+01	2.223E+00	-0.254
TH-228	4.352E+00		6.789E+00	1.102E+01	1.032E+00	0.395
TH-229	6.945E+00		4.848E+01	8.267E+01	6.651E+00	0.084
PA-231	3.791E+01		1.297E+02	2.199E+02	3.151E+01	0.172
TH-231	-1.876E+01		4.056E+01	6.412E+01	1.133E+01	-0.292
TH-232	5.558E+02		4.624E+03	2.999E+03	2.307E+04	0.185
PA-233	-2.335E+00		5.870E+00	9.305E+00	7.878E-01	-0.251
PA-234	-2.822E+00		2.311E+01	3.648E+01	6.845E+00	-0.077
PA-234M	2.263E+02		3.730E+02	6.720E+02	6.677E+01	0.337
TH-234	6.018E+01		1.226E+02	2.101E+02	3.768E+01	0.286
U-235	-2.112E+01		2.347E+01	3.397E+01	5.669E+00	-0.622
NP-237	1.147E+01		2.200E+01	3.607E+01	8.275E+00	0.318
U-238	6.018E+01		1.226E+02	2.101E+02	3.768E+01	0.286
NP-239	8.763E+00		2.782E+01	4.575E+01	3.850E+00	0.192
AM-241	-1.248E+00		1.248E+01	2.054E+01	1.692E+00	-0.061
CM-247	3.482E+00		3.032E+00	5.535E+00	4.434E-01	0.629
CF-249	-2.606E+00		3.889E+00	5.878E+00	4.688E-01	-0.443
CF-251	-3.224E-01		1.201E+01	2.034E+01	1.626E+00	-0.016
ANH-511	-3.522E+00		5.011E+00	8.945E+00	7.469E-01	-0.394

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G248023002            *
* Acquisition date :  3-MAR-2010 16:49:27 Detector SN#    :                 *
* Detector ID      : GAM07                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:00.75     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date      : 23-FEB-2010 12:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G248023002           Analyst initials: KXG3            *
* Batch Number     : 958213               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
*                                                                           *
* CALIB. DATE/TIME : 17-JUL-2009 15:54:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
BI-211	1.307E+02	4.226E+03	1.514E+01	2.156E+03
BI-214	5.046E+01	1.600E+01	5.026E+00	8.163E+00
PB-214	4.738E+01	1.394E+01	6.242E+00	7.110E+00
RA-226	1.354E+02	1.507E+02	5.157E+01	7.689E+01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU	
BE-7	-1.508E+00	2.475E+01	2.010E+01	1.263E+01	NOT IDENT.
NA-22	-9.191E-01	3.437E+00	2.768E+00	1.754E+00	NOT IDENT.
NA-24	1.749E+04	2.589E+04	0.000E+00	1.321E+04	SHORT HLIF
K-40	1.529E+01	3.877E+01	3.647E+01	1.978E+01	NOT IDENT.
SC-46	-7.576E-01	2.837E+00	2.240E+00	1.447E+00	FAIL ABUN
V-48	1.244E-01	3.598E+00	2.979E+00	1.836E+00	NOT IDENT.
CR-51	8.899E+00	2.826E+01	2.437E+01	1.442E+01	NOT IDENT.
MN-54	1.501E+00	2.662E+00	2.410E+00	1.358E+00	NOT IDENT.
CO-56	2.091E+00	2.933E+00	2.698E+00	1.496E+00	FAIL ABUN
CO-57	-1.423E+00	2.626E+00	2.075E+00	1.340E+00	NOT IDENT.
CO-58	-3.543E+00	3.206E+00	2.368E+00	1.636E+00	NOT IDENT.
FE-59	-3.008E+00	6.170E+00	4.841E+00	3.148E+00	NOT IDENT.
CO-60	7.010E-01	3.337E+00	2.908E+00	1.703E+00	NOT IDENT.
ZN-65	-3.928E+00	7.056E+00	4.433E+00	3.600E+00	NOT IDENT.
SE-75	-1.603E+00	3.807E+00	3.118E+00	1.942E+00	NOT IDENT.
SR-85	-5.246E+00	4.389E+00	3.446E+00	2.239E+00	NOT IDENT.
Y-88	-2.731E+00	3.855E+00	2.787E+00	1.967E+00	NOT IDENT.
Y-91	-6.405E+02	1.400E+03	1.094E+03	7.141E+02	NOT IDENT.
NB-94	2.220E+00	2.534E+00	2.380E+00	1.293E+00	NOT IDENT.
NB-95	2.034E+00	3.168E+00	2.871E+00	1.616E+00	NOT IDENT.
NB-95M	-2.550E+01	1.080E+01	7.446E+00	5.511E+00	NOT IDENT.
ZR-95	1.995E+00	5.280E+00	4.665E+00	2.694E+00	NOT IDENT.
MO-99	-1.263E+01	1.767E+02	1.469E+02	9.013E+01	NOT IDENT.

TC-99M	2.794E+10	2.228E+10	0.000E+00	1.137E+10	SHORT HLIF
RU-103	-2.823E+00	3.369E+00	2.445E+00	1.719E+00	FAIL ABUN
RH-106	-1.108E+01	2.542E+01	2.037E+01	1.297E+01	NOT IDENT.
RU-106	-1.108E+01	2.540E+01	2.037E+01	1.296E+01	NOT IDENT.
AG-108M	-4.001E-01	2.430E+00	1.960E+00	1.240E+00	NOT IDENT.
CD-109	-1.122E+01	7.172E+01	5.797E+01	3.659E+01	NOT IDENT.
AG-110M	-2.243E+00	2.718E+00	2.030E+00	1.387E+00	NOT IDENT.
SN-113	1.850E+00	3.644E+00	3.182E+00	1.859E+00	NOT IDENT.
CD-115	9.778E-01	1.092E+02	9.400E+01	5.573E+01	NOT IDENT.
SN-117M	-5.577E-01	3.869E+00	3.102E+00	1.974E+00	NOT IDENT.
TE-123M	1.788E-01	2.754E+00	2.242E+00	1.405E+00	NOT IDENT.
SB-124	1.353E-01	8.621E+00	7.126E+00	4.399E+00	NOT IDENT.
SB-125	-1.910E+00	7.894E+00	6.325E+00	4.028E+00	NOT IDENT.
TE-125M	-5.025E+02	8.833E+02	6.993E+02	4.507E+02	NOT IDENT.
I-126	-5.101E-01	1.299E+01	1.094E+01	6.629E+00	NOT IDENT.
SB-126	-3.969E-01	8.332E+00	6.970E+00	4.251E+00	NOT IDENT.
SN-126	-2.697E-01	7.106E+00	5.787E+00	3.625E+00	NOT IDENT.
SB-127	-2.691E+01	3.176E+01	2.358E+01	1.620E+01	NOT IDENT.
I-131	3.330E+00	5.660E+00	4.982E+00	2.888E+00	NOT IDENT.
TE-132	-3.041E+00	1.476E+01	1.244E+01	7.532E+00	NOT IDENT.
BA-133	-2.822E+00	4.613E+00	3.214E+00	2.354E+00	NOT IDENT.
I-133	-9.083E+02	2.101E+03	0.000E+00	1.072E+03	SHORT HLIF
CS-134	-7.825E-01	3.545E+00	2.863E+00	1.809E+00	NOT IDENT.
CS-135	-4.640E-02	1.369E+01	1.161E+01	6.986E+00	NOT IDENT.
I-135	3.437E+09	1.245E+10	0.000E+00	6.354E+09	SHORT HLIF
CS-136	4.125E+00	5.759E+00	5.435E+00	2.938E+00	NOT IDENT.
BA-137M	1.909E-01	3.169E+00	2.703E+00	1.617E+00	NOT IDENT.
CS-137	2.017E-01	3.348E+00	2.855E+00	1.708E+00	NOT IDENT.
CE-139	4.594E-01	3.095E+00	2.527E+00	1.579E+00	NOT IDENT.
BA-140	9.433E+00	1.631E+01	1.459E+01	8.319E+00	NOT IDENT.
LA-140	4.190E+00	6.110E+00	5.680E+00	3.117E+00	NOT IDENT.
CE-141	2.034E+00	5.532E+00	4.612E+00	2.822E+00	NOT IDENT.
CE-143	5.544E+02	4.395E+02	3.550E+02	2.242E+02	NOT IDENT.
CE-144	8.455E+00	1.943E+01	1.633E+01	9.915E+00	NOT IDENT.
PM-144	-1.131E+00	2.704E+00	2.150E+00	1.379E+00	NOT IDENT.
PR-144	-8.319E+01	2.018E+02	1.606E+02	1.029E+02	NOT IDENT.
PM-146	3.291E+00	3.613E+00	3.267E+00	1.843E+00	NOT IDENT.
ND-147	1.748E+00	3.128E+01	2.704E+01	1.596E+01	NOT IDENT.
PM-149	-2.976E+02	9.555E+02	7.857E+02	4.875E+02	NOT IDENT.
EU-152	3.644E-01	8.175E+00	6.864E+00	4.171E+00	NOT IDENT.
GD-153	1.662E+00	7.951E+00	6.682E+00	4.057E+00	NOT IDENT.
EU-154	7.607E-03	9.364E+00	7.900E+00	4.777E+00	NOT IDENT.
EU-155	-2.899E+00	1.002E+01	8.114E+00	5.114E+00	NOT IDENT.
TA-182	2.149E+00	1.182E+01	1.032E+01	6.029E+00	FAIL ABUN
IR-192	-3.816E-01	2.802E+00	2.324E+00	1.430E+00	FAIL ABUN
HG-203	-1.776E+00	3.100E+00	2.496E+00	1.582E+00	NOT IDENT.
BI-207	-3.226E+00	5.424E+00	4.109E+00	2.767E+00	NOT IDENT.
TL-208	-2.286E+00	3.535E+00	2.868E+00	1.803E+00	NOT IDENT.
PB-210	5.682E+01	2.212E+02	1.938E+02	1.128E+02	NOT IDENT.
PB-211	1.696E+01	5.520E+02	5.171E+01	2.816E+02	NOT IDENT.
BI-212	3.366E+01	4.497E+01	4.057E+01	2.295E+01	NOT IDENT.
PB-212	4.352E+00	6.653E+00	5.511E+00	3.395E+00	NOT IDENT.
RN-219	8.744E+00	2.848E+02	2.822E+01	1.453E+02	NOT IDENT.
RA-223	-6.466E+00	2.175E+02	4.967E+01	1.110E+02	NOT IDENT.
RA-224	8.630E-01	8.144E+01	6.121E+01	4.155E+01	NOT IDENT.
AC-227	-1.989E+01	2.176E+01	1.697E+01	1.110E+01	NOT IDENT.
TH-227	-1.989E+01	6.438E+02	1.697E+01	3.285E+02	NOT IDENT.
AC-228	-4.879E+00	1.179E+01	9.597E+00	6.014E+00	NOT IDENT.
RA-228	-4.879E+00	1.179E+01	9.597E+00	6.014E+00	NOT IDENT.
TH-228	4.352E+00	6.653E+00	5.511E+00	3.395E+00	NOT IDENT.
TH-229	6.945E+00	4.751E+01	4.136E+01	2.424E+01	NOT IDENT.
PA-231	3.791E+01	1.271E+02	1.100E+02	6.485E+01	NOT IDENT.
TH-231	-1.876E+01	3.975E+01	3.208E+01	2.028E+01	NOT IDENT.
TH-232	5.558E+02	4.532E+03	1.501E+03	2.312E+03	NOT IDENT.
PA-233	-2.335E+00	5.753E+00	4.655E+00	2.935E+00	NOT IDENT.
PA-234	-2.822E+00	2.265E+01	1.825E+01	1.156E+01	NOT IDENT.
PA-234M	2.263E+02	3.656E+02	3.362E+02	1.865E+02	NOT IDENT.
TH-234	6.018E+01	1.202E+02	1.051E+02	6.131E+01	NOT IDENT.
U-235	-2.112E+01	2.300E+01	1.700E+01	1.174E+01	FAIL ABUN
NP-237	1.147E+01	2.156E+01	1.804E+01	1.100E+01	NOT IDENT.
U-238	6.018E+01	1.202E+02	1.051E+02	6.131E+01	NOT IDENT.
NP-239	8.763E+00	2.726E+01	2.289E+01	1.391E+01	NOT IDENT.
AM-241	-1.248E+00	1.223E+01	1.028E+01	6.242E+00	NOT IDENT.
CM-247	3.482E+00	2.972E+00	2.769E+00	1.516E+00	NOT IDENT.
CF-249	-2.606E+00	3.811E+00	2.941E+00	1.945E+00	NOT IDENT.
CF-251	-3.224E-01	1.177E+01	1.017E+01	6.003E+00	NOT IDENT.
ANH-511	-3.522E+00	4.910E+00	4.475E+00	2.505E+00	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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```

ENERGY	MDA COUNTS
46.54	93.2158
49.72	133.9005
57.36	119.0709
59.54	136.2310
63.29	136.4299
63.29	136.4299
63.81	150.3467
64.28	153.4562
67.75	130.8405
69.67	166.2160
70.83	159.6378
72.81	148.2740
72.87	148.2928
72.87	148.2928
74.82	201.1953
74.82	201.1953
74.82	201.1953
74.97	188.1746
77.11	189.9937
77.11	189.9937
77.11	189.9937
79.69	188.9271
79.69	188.9271
80.12	168.7533
80.19	168.7761
81.00	128.3071
81.07	128.3244
83.79	134.1083
84.21	142.4105
85.43	119.1164
86.48	124.4926
86.55	124.5086
86.94	125.6276
87.57	134.0195
88.03	136.1955
88.47	138.3702
89.96	222.6089
91.11	159.7783
92.59	124.8285
92.59	124.8285
93.35	131.2449
94.56	170.1440
94.65	170.1705
94.67	170.1763
95.86	201.9114
97.43	117.4864
98.43	130.2950
98.44	130.2975
99.53	114.7458
100.11	119.0722
103.18	113.3240
103.37	108.0622
105.31	115.8430
106.12	109.6093
109.28	127.2740
111.00	101.8797
111.76	113.8106
116.30	111.3612
116.74	116.8445
121.12	123.0535
121.78	132.9833
122.06	134.1284
123.07	131.0498
131.20	128.1553
133.52	107.5087
136.00	134.5642
136.47	145.7785

140.51	134.2627
140.51	0.0000
140.88	142.1644
143.76	148.3228
144.24	133.8000
145.44	118.2425
152.43	118.1659
153.25	125.1118
154.21	116.1518
156.02	115.2720
158.56	114.4877
159.00	112.2578
162.66	119.6597
163.33	115.1499
165.86	124.7366
176.60	98.2324
177.52	101.8469
181.07	100.1376
185.72	107.2090
186.21	107.2671
193.51	96.4981
205.31	104.9268
210.85	99.1488
222.11	104.8493
227.38	81.3452
228.16	90.6555
228.18	90.6578
235.69	136.0128
235.96	135.1144
235.96	135.1144
238.63	71.7398
238.63	71.7398
240.99	146.7847
242.00	167.9084
244.70	76.6444
252.40	67.1464
252.80	61.4939
256.23	77.8097
256.23	77.8097
260.90	70.5030
264.66	74.5520
268.22	71.9009
269.46	62.3796
271.23	71.1218
273.65	84.7478
276.40	68.5321
277.37	60.8582
277.60	67.6331
278.00	65.7225
279.20	77.3962
279.54	77.4182
283.69	61.1726
284.31	68.9752
285.41	79.7315
285.90	71.9811
287.50	57.4641
293.27	68.8821
295.22	76.4361
295.96	76.4801
299.98	72.3927
299.98	72.3927
300.09	75.5461
300.09	75.5461
300.13	75.5484
301.36	59.8658
302.85	65.3430
304.50	56.2607
304.50	56.2607
304.85	56.2755
308.46	55.4412
311.90	63.5264
316.51	55.7778
319.41	58.8929
320.08	56.9243
323.87	66.0967
328.76	71.3575
329.85	65.3789
329.85	65.3789

330.06	58.3469
333.37	54.4532
334.37	66.6012
334.37	66.6012
338.28	50.5966
338.32	50.5981
338.32	50.5981
340.48	51.6887
340.55	59.8003
344.28	48.7786
351.06	55.5438
351.93	71.5146
356.01	55.7331
364.49	43.2773
366.42	50.5552
383.85	58.4430
388.16	61.7449
388.63	61.7638
391.70	38.8095
400.66	46.4130
401.81	36.9461
402.40	27.4560
404.85	40.1889
414.70	44.6897
423.72	51.3530
427.09	41.8088
427.87	42.9004
433.94	36.5966
453.88	29.3998
463.37	28.4633
468.07	50.4901
473.00	35.2197
476.78	36.3959
477.60	34.2057
487.02	27.7267
492.35	35.5923
497.08	47.9479
511.00	38.1909
514.00	108.0007
527.90	31.7256
529.87	0.0000
531.02	34.4997
537.26	30.9652
546.56	0.0000
563.25	31.3628
569.33	34.2304
569.50	34.2331
569.70	34.2367
583.19	30.7312
600.60	41.3080
602.73	43.8537
604.72	32.9202
609.32	33.9319
610.33	33.9478
614.28	33.0637
618.01	35.7478
621.93	31.2815
621.93	31.2815
633.25	26.6759
635.95	29.5688
636.99	31.4910
645.85	22.9916
657.76	31.7762
661.66	32.7931
661.66	32.7931
664.57	21.2454
666.33	30.9258
666.50	29.9616
677.62	25.2465
685.70	33.1259
695.00	20.5391
696.49	29.3591
696.51	29.3591
697.00	27.4073
702.65	17.6599
706.68	25.5506
720.70	28.6594
721.93	35.5948

722.78	36.5953
722.91	36.5971
723.31	31.6570
724.19	32.6576
727.33	18.8260
733.00	19.8613
735.93	20.8785
739.50	24.8901
747.24	26.9624
753.82	22.0252
756.73	20.0454
763.94	39.1961
765.80	22.1262
766.42	21.1256
777.92	28.2898
778.90	24.2572
783.70	21.2635
785.37	20.2632
795.86	23.3936
801.95	23.4458
810.76	26.5891
815.77	15.3680
818.51	23.5874
832.01	22.6714
834.85	15.4731
836.80	0.0000
846.77	15.5383
856.80	25.9882
860.56	11.4496
871.09	22.9824
873.19	26.1353
875.33	0.0000
880.51	22.0085
883.24	14.6860
884.68	16.7922
889.28	18.9207
898.04	9.4882
911.20	12.7063
911.20	12.7063
926.36	24.4757
937.49	16.0203
944.13	16.0543
946.00	17.1352
949.00	16.0796
964.08	18.3111
968.97	15.1030
968.97	15.1030
983.53	13.0046
996.26	19.5838
1001.03	9.8062
1004.73	22.9072
1037.84	8.2632
1038.76	0.0000
1048.07	13.8141
1050.41	19.3525
1050.41	19.3525
1063.66	29.6055
1085.87	11.1733
1099.25	20.5632
1112.07	16.2599
1115.54	19.3167
1120.29	10.3429
1120.55	10.3434
1121.30	10.3456
1131.51	0.0000
1173.23	19.0804
1189.05	10.5390
1204.77	20.2036
1221.41	13.5283
1231.02	8.7184
1235.36	16.6253
1238.28	11.6465
1260.41	0.0000
1274.44	15.6725
1274.54	18.6111
1291.59	14.7559
1298.22	0.0000
1312.11	10.8760

1332.49	13.9117
1365.19	12.0181
1368.63	0.0000
1384.29	14.0849
1408.01	8.0931
1457.56	0.0000
1460.82	8.1914
1489.16	9.2739
1596.21	10.5444
1620.50	12.7173
1678.03	0.0000
1690.97	12.9004
1764.49	9.3481
1770.23	38.3689
1771.35	29.0171
1791.20	0.0000
1836.06	15.1607

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G248023002

Total Uranium Activity	1.6926E+02	ug/g
Total Uranium Counting Unc.	3.5764E+02	ug/g
Total Uranium Tpu	1.8247E-04	ug/g
Total Uranium Mda	3.1273E+02	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 958213                    SAMPLE ID  : G248023002       *
*   ANALYST       : KXG3                      DETECTOR   : GAM07            *
*   SAMPLE DATE   : 23-FEB-2010 12:00:00.00   COUNT TIME :    0 02:00:00.00 *
*   ANALYSIS DATE:  3-MAR-2010 16:49:27.72    SAMPLE ALQT:    2.000 LITER   *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/LITER ) : 7.528E+01
GROSS GAMMA ERROR   (pCi/LITER )  : 2.001E+01
GROSS GAMMA MDA     (pCi/LITER )  : 6.309E+01
GROSS GAMMA DLC     (pCi/LITER )  : 3.005E+01
```

VAX/VMS Nuclide Identification Report Generated 3-MAR-2010 21:13:49.98

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202054942.CNF;1
Sample date       : 1-MAR-2010 00:00:00. Acquisition date : 3-MAR-2010 19:13:15.
Sample ID         : G1202054942          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM07                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.63  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 958213               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	351.64*	40	39	0.80	702.83	697	10	5.57E-03	34.2	
2	0	611.22	41	49	1.68	1221.92	1213	16	5.74E-03	41.8	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 3-MAR-2010 21:13:52

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202054942.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 1-MAR-2010 00:00:00 Acquisition date : 3-MAR-2010 19:13:15
Sample ID : G1202054942 Sample quantity : 2.0000 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA7 Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00 Elapsed real time: 0 02:00:00.63 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BI-211		72.87		-2.093E+02	2.392E+03	3.360E+02	3.825E+03	-0.623
	+	351.06	*	3.507E+01	3.999E+02	2.658E+01	3.026E+02	1.319

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.60	*	-4.385E+00	2.157E+01	3.355E+01	3.012E+00	-0.131
NA-22		1274.54	*	-4.499E-01	2.400E+00	3.779E+00	3.152E-01	-0.119
NA-24		1368.63	*	-7.806E+00	7.096E+01	1.139E+02	9.748E+00	-0.069
K-40		1460.82	*	-1.247E+01	3.925E+01	6.561E+01	5.702E+00	-0.190
SC-46		889.28	*	1.265E+00	2.505E+00	4.445E+00	3.825E-01	0.285
		1120.55		1.343E+00	3.064E+00	5.480E+00	4.590E-01	0.245
V-48		944.13		-5.836E+00	3.549E+01	5.538E+01	4.771E+00	-0.105
		983.53	*	2.264E+00	2.846E+00	5.288E+00	4.547E-01	0.428
		1312.11		2.101E+00	3.291E+00	6.110E+00	5.103E-01	0.344
CR-51		320.08	*	-8.517E+00	2.410E+01	3.826E+01	3.320E+00	-0.223
MN-54		834.85	*	5.462E-01	2.750E+00	4.627E+00	3.964E-01	0.118
CO-56		846.77	*	3.673E-01	2.959E+00	4.914E+00	4.215E-01	0.075
		1037.84		1.345E+01	2.260E+01	4.114E+01	3.701E+00	0.327
		1238.28		4.683E+00	4.404E+00	8.671E+00	7.423E-01	0.540
		1771.35		-4.184E+01	2.241E+01	1.653E+01	1.360E+00	-2.531
CO-57		122.06	*	-1.619E-01	2.144E+00	3.426E+00	2.877E-01	-0.047
		136.47		-3.019E-01	1.695E+01	2.706E+01	2.389E+00	-0.011
CO-58		810.76	*	-3.094E+00	2.354E+00	3.146E+00	2.691E-01	-0.984
FE-59		1099.25	*	4.480E+00	5.813E+00	1.082E+01	9.891E-01	0.414
		1291.59		-6.506E+00	5.979E+00	6.729E+00	6.420E-01	-0.967
CO-60		1173.23		1.968E+00	2.960E+00	5.479E+00	4.505E-01	0.359
		1332.49	*	9.464E-01	2.699E+00	4.785E+00	4.000E-01	0.198
ZN-65		1115.54	*	-2.969E+00	5.994E+00	9.123E+00	7.662E-01	-0.325
SE-75		121.12		-2.675E+00	1.055E+01	1.660E+01	1.811E+00	-0.161
		136.00		9.340E-01	3.097E+00	5.082E+00	4.181E-01	0.184
		264.66	*	2.004E+00	3.438E+00	6.000E+00	4.937E-01	0.334
		279.54		-5.350E+00	7.760E+00	1.194E+01	1.016E+00	-0.448

Sample ID : G1202054942 Acquisition date : 3-MAR-2010 19:13:15

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		400.66		-1.506E+00	2.127E+01	3.424E+01	3.634E+00	-0.044
SR-85		514.00	*	-6.466E+00	4.230E+00	6.287E+00	5.251E-01	-1.028
Y-88		898.04		9.829E-01	3.082E+00	5.261E+00	4.551E-01	0.187
		1836.06	*	-2.717E-01	2.555E+00	4.122E+00	3.349E-01	-0.066
Y-91		1204.77	*	-3.595E+02	1.009E+03	1.538E+03	1.271E+02	-0.234
NB-94		702.65	*	-3.193E+00	2.953E+00	4.142E+00	3.433E-01	-0.771
		871.09		-2.833E+00	2.365E+00	2.768E+00	2.380E-01	-1.023
NB-95		765.80	*	4.010E-03	2.506E+00	4.116E+00	3.479E-01	0.001
NB-95M		235.69	*	-1.336E+01	9.671E+00	1.438E+01	1.365E+00	-0.929
ZR-95		724.19		-1.085E+00	5.159E+00	8.189E+00	7.451E-01	-0.133
		756.73	*	5.231E-01	4.873E+00	8.138E+00	7.612E-01	0.064
MO-99		140.51		6.513E+01	8.293E+01	1.389E+02	3.274E+01	0.469
		181.07		-1.532E+01	6.039E+01	1.003E+02	1.856E+01	-0.153
		366.42		-4.132E+00	3.966E+02	6.463E+02	5.227E+01	-0.006
		739.50	*	-7.719E-01	4.361E+01	7.159E+01	1.119E+01	-0.011
		777.92		-1.376E+01	1.128E+02	1.809E+02	1.534E+01	-0.076
TC-99M		140.51	*	4.152E-03	1.128E+02	Half-Life too short		
RU-103		497.08	*	4.781E-02	2.471E+00	3.962E+00	5.463E-01	0.012
	+	610.33		1.275E+02	1.086E+02	1.213E+02	1.964E+01	1.051
RH-106		621.93	*	1.961E-01	2.585E+01	4.311E+01	5.619E+00	0.005
		1050.41		7.797E+00	1.417E+02	2.405E+02	2.050E+01	0.032
RU-106		621.93	*	1.961E-01	2.585E+01	4.311E+01	3.568E+00	0.005
		1050.41		7.797E+00	1.417E+02	2.405E+02	2.050E+01	0.032
AG-108M		433.94	*	-2.492E+00	2.354E+00	3.204E+00	2.706E-01	-0.778
		614.28		1.177E-02	3.319E+00	4.813E+00	4.133E-01	0.002
		722.91		-3.029E-01	2.541E+00	4.106E+00	3.545E-01	-0.074
CD-109		88.03	*	-1.273E+01	5.656E+01	8.754E+01	8.281E+00	-0.145
AG-110M		657.76	*	-7.153E-01	2.733E+00	4.372E+00	3.688E-01	-0.164
		677.62		8.228E+00	2.342E+01	4.070E+01	3.446E+00	0.202
		706.68		1.159E+01	1.602E+01	2.902E+01	2.483E+00	0.399
		763.94		-1.519E+00	1.112E+01	1.785E+01	1.551E+00	-0.085
		884.68		-1.547E-02	3.036E+00	4.925E+00	4.374E-01	-0.003
		937.49		-3.906E+00	7.587E+00	1.095E+01	9.773E-01	-0.357
		1384.29		-5.240E+00	1.037E+01	1.470E+01	1.270E+00	-0.357
SN-113		391.70	*	1.606E+00	3.211E+00	5.526E+00	4.554E-01	0.291
CD-115		260.90		6.145E+01	2.420E+02	4.117E+02	3.370E+01	0.149
		492.35		-2.460E+01	7.111E+01	1.082E+02	9.005E+00	-0.227
		527.90	*	1.671E+01	1.996E+01	3.679E+01	3.077E+00	0.454
SN-117M		156.02		2.333E+01	1.085E+02	1.703E+02	1.363E+01	0.137
		158.56	*	1.364E-01	2.486E+00	3.966E+00	3.171E-01	0.034
TE-123M		159.00	*	7.755E-01	2.152E+00	3.526E+00	2.839E-01	0.220
SB-124		602.73		1.104E+00	3.602E+00	5.687E+00	4.731E-01	0.194
		645.85		9.851E+00	3.238E+01	5.611E+01	4.895E+00	0.176
		722.78		-1.680E+00	2.231E+01	3.633E+01	3.107E+00	-0.046
		1690.97	*	3.990E+00	4.915E+00	9.911E+00	8.633E-01	0.403
SB-125		427.87	*	5.420E+00	7.440E+00	1.305E+01	1.083E+00	0.415
		463.37		1.266E+01	2.027E+01	3.527E+01	3.149E+00	0.359
		600.60		1.915E+01	1.696E+01	3.135E+01	2.815E+00	0.611
		635.95		-8.630E+00	2.071E+01	3.231E+01	2.897E+00	-0.267

Sample ID : G1202054942 Acquisition date : 3-MAR-2010 19:13:15

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
TE-125M		109.28	*	1.499E+02	6.671E+02	1.099E+03	1.139E+02	0.136
I-126		388.63		-1.682E+00	6.866E+00	1.082E+01	8.626E-01	-0.155
		666.33	*	3.318E+00	8.948E+00	1.557E+01	1.272E+00	0.213
		753.82		-7.575E+01	7.798E+01	1.084E+02	9.131E+00	-0.699
SB-126		414.70		5.551E-01	3.015E+00	4.991E+00	4.027E-01	0.111
		666.50		-1.426E-02	3.103E+00	5.141E+00	4.199E-01	-0.003
		695.00		-1.674E+00	3.486E+00	5.305E+00	4.384E-01	-0.316
		697.00		5.663E+00	1.132E+01	1.989E+01	1.645E+00	0.285
		720.70	*	3.094E+00	5.352E+00	9.572E+00	7.984E-01	0.323
		856.80		6.946E-01	1.820E+01	2.983E+01	2.561E+00	0.023
SN-126		64.28		-1.003E+00	3.626E+01	6.128E+01	9.001E+00	-0.016
		86.94		-1.795E+01	2.668E+01	3.843E+01	1.596E+01	-0.467
		87.57	*	-5.734E+00	5.931E+00	8.606E+00	8.106E-01	-0.666
SB-127		252.40		-5.067E+00	3.667E+01	6.024E+01	2.461E+01	-0.084
		473.00		-1.565E+00	1.510E+01	2.389E+01	2.491E+00	-0.066
		685.70	*	-1.722E-01	1.087E+01	1.794E+01	1.546E+00	-0.010
		783.70		-7.996E-01	2.651E+01	4.322E+01	4.363E+00	-0.018
I-131		80.19		-9.471E+01	1.149E+02	1.758E+02	1.537E+01	-0.539
		284.31		-1.142E+00	3.738E+01	6.169E+01	5.299E+00	-0.019
		364.49	*	-8.195E-01	3.517E+00	5.594E+00	4.775E-01	-0.147
		636.99		-1.025E+01	4.190E+01	6.721E+01	5.845E+00	-0.152
TE-132		49.72		-1.264E+02	7.133E+01	1.003E+02	8.442E+00	-1.260
		111.76		5.026E+01	1.894E+02	3.125E+02	2.677E+01	0.161
		116.30		-2.652E+01	1.647E+02	2.618E+02	2.229E+01	-0.101
		228.16	*	2.630E+00	4.284E+00	7.487E+00	1.051E+00	0.351
BA-133		81.00		-2.234E+00	6.644E+00	1.058E+01	1.653E+00	-0.211
		276.40		2.531E+01	2.931E+01	5.186E+01	7.179E+00	0.488
		302.85		-1.235E+01	1.189E+01	1.605E+01	2.054E+00	-0.770
		356.01	*	2.362E+00	4.139E+00	6.622E+00	8.365E-01	0.357
		383.85		6.308E+00	2.520E+01	4.210E+01	5.053E+00	0.150
I-133		529.87	*	-5.242E+00	2.721E+01	4.479E+01	3.895E+00	-0.117
		875.33		1.786E+02	4.616E+02	8.106E+02	7.886E+01	0.220
		1298.22		3.730E+02	1.193E+03	2.091E+03	2.011E+02	0.178
CS-134		563.25		1.560E+01	2.773E+01	4.966E+01	4.197E+00	0.314
		569.33		1.240E+01	1.497E+01	2.759E+01	2.341E+00	0.449
		604.72		-5.489E+00	4.271E+00	4.957E+00	4.133E-01	-1.107
		795.86	*	1.516E+00	3.354E+00	5.880E+00	5.042E-01	0.258
		801.95		-9.729E+00	3.473E+01	5.516E+01	4.727E+00	-0.176
		1365.19		9.513E+01	9.711E+01	1.911E+02	1.682E+01	0.498
CS-135		268.22	*	-8.011E+00	1.239E+01	1.930E+01	1.850E+00	-0.415
I-135		546.56		-1.752E-02	1.239E+01	Half-Life too short		
		836.80		-2.046E-02	1.239E+01	Half-Life too short		
		1038.76		2.291E-02	1.239E+01	Half-Life too short		
		1131.51		-1.258E-03	1.239E+01	Half-Life too short		
		1260.41	*	1.015E-03	1.239E+01	Half-Life too short		
		1457.56		1.422E-02	1.239E+01	Half-Life too short		
		1678.03		-1.661E-02	1.239E+01	Half-Life too short		
		1791.20		3.105E-02	1.239E+01	Half-Life too short		
CS-136		153.25		2.554E+01	3.910E+01	6.538E+01	6.384E+00	0.391

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		176.60		1.523E+01	1.951E+01	3.499E+01	3.127E+00	0.435
		273.65		3.818E+00	2.265E+01	3.812E+01	3.406E+00	0.100
		340.55		6.950E-01	6.209E+00	1.028E+01	8.753E-01	0.068
		818.51		4.481E+00	3.022E+00	6.008E+00	5.135E-01	0.746
		1048.07	*	7.745E-01	2.843E+00	5.073E+00	4.508E-01	0.153
		1235.36		-1.891E+01	1.782E+01	2.272E+01	2.619E+00	-0.832
BA-137M		661.66	*	4.870E-01	2.927E+00	4.961E+00	4.043E-01	0.098
CS-137		661.66	*	5.144E-01	3.093E+00	5.241E+00	4.280E-01	0.098
CE-139		165.86	*	1.396E+00	2.274E+00	3.800E+00	3.028E-01	0.367
BA-140		162.66		-2.328E+01	3.336E+01	4.918E+01	4.231E+00	-0.473
		304.85		-3.712E+01	5.302E+01	7.884E+01	2.298E+01	-0.471
		423.72		-7.303E+00	7.429E+01	1.184E+02	3.878E+01	-0.062
		537.26	*	-5.463E+00	1.055E+01	1.624E+01	5.496E+00	-0.337
LA-140		328.76		9.746E+00	1.305E+01	2.286E+01	1.992E+00	0.426
		487.02		-8.409E-01	6.810E+00	1.074E+01	9.517E-01	-0.078
		815.77		-9.757E-01	1.242E+01	2.002E+01	1.914E+00	-0.049
		1596.21	*	-3.926E-01	3.499E+00	5.507E+00	4.637E-01	-0.071
CE-141		145.44	*	-1.394E+00	4.163E+00	6.446E+00	5.312E-01	-0.216
CE-143		57.36		-2.163E+01	1.158E+02	1.886E+02	1.474E+01	-0.115
		293.27	*	1.760E+00	2.102E+01	3.501E+01	7.170E+00	0.050
		664.57		1.514E+02	1.950E+02	3.471E+02	1.018E+02	0.436
		721.93		7.936E+01	1.822E+02	3.189E+02	8.719E+01	0.249
CE-144		80.12		-1.430E+02	1.746E+02	2.673E+02	2.335E+01	-0.535
		133.52	*	7.897E+00	1.655E+01	2.748E+01	4.136E+00	0.287
PM-144		476.78		2.872E+00	4.801E+00	8.341E+00	7.554E-01	0.344
		618.01		2.653E+00	2.664E+00	4.944E+00	4.219E-01	0.537
		696.49	*	1.849E-01	2.856E+00	4.760E+00	3.936E-01	0.039
PR-144		696.51	*	1.375E+01	2.124E+02	3.539E+02	2.927E+01	0.039
		1489.16		6.277E+00	9.907E+02	1.619E+03	1.368E+02	0.004
PM-146		453.88	*	-3.038E+00	3.494E+00	4.919E+00	5.052E-01	-0.618
		633.25		-1.722E+00	1.056E+02	1.752E+02	6.678E+01	-0.010
		735.93		-6.431E-01	1.110E+01	1.811E+01	5.063E+00	-0.036
		747.24		-1.364E+00	8.508E+00	1.368E+01	1.978E+00	-0.100
ND-147		91.11		1.230E+01	9.775E+00	1.714E+01	1.697E+00	0.718
		319.41		1.349E+02	1.279E+02	2.311E+02	1.896E+01	0.584
		531.02	*	-1.175E+01	2.264E+01	3.572E+01	5.289E+00	-0.329
PM-149		285.90	*	4.664E+01	1.423E+02	2.432E+02	3.716E+01	0.192
EU-152		121.78		2.239E+00	6.231E+00	1.032E+01	1.001E+00	0.217
		244.70		2.232E+00	2.605E+01	4.381E+01	3.583E+00	0.051
		344.28	*	1.714E+00	7.856E+00	1.316E+01	1.145E+00	0.130
		778.90		-1.315E+01	1.954E+01	2.824E+01	2.395E+00	-0.466
		964.08		8.000E+00	1.920E+01	3.325E+01	2.863E+00	0.241
		1085.87		1.072E+01	3.049E+01	5.375E+01	4.545E+00	0.199
		1112.07		-2.732E+00	2.075E+01	3.383E+01	2.840E+00	-0.081
		1408.01		-4.758E+00	1.196E+01	1.746E+01	1.470E+00	-0.273
GD-153		69.67		-3.002E+01	1.186E+02	1.819E+02	1.453E+01	-0.165
		97.43	*	-2.740E+00	6.539E+00	1.024E+01	9.092E-01	-0.267
		103.18		2.004E+00	8.404E+00	1.389E+01	1.203E+00	0.144
EU-154		123.07		-7.627E-02	4.366E+00	7.007E+00	7.821E-01	-0.011

Sample ID : G1202054942 Acquisition date : 3-MAR-2010 19:13:15

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		723.31		-1.184E+00	1.120E+01	1.813E+01	1.677E+00	-0.065
		873.19		-1.804E+00	1.737E+01	2.758E+01	3.276E+00	-0.065
		996.26		-8.163E+00	2.507E+01	3.749E+01	6.544E+00	-0.218
		1004.73		5.148E+00	1.494E+01	2.564E+01	2.976E+00	0.201
		1274.44	*	-1.773E+00	6.721E+00	1.034E+01	1.155E+00	-0.171
EU-155		86.55		-2.258E+00	7.442E+00	1.153E+01	1.084E+00	-0.196
		105.31	*	-1.709E-01	8.431E+00	1.363E+01	1.186E+00	-0.013
TA-182		67.75		3.943E-01	6.556E+00	1.085E+01	8.553E-01	0.036
		100.11		-3.211E+00	1.274E+01	2.021E+01	1.771E+00	-0.159
		152.43		-4.318E+00	2.904E+01	4.563E+01	3.662E+00	-0.095
		222.11		-3.248E-01	2.426E+01	4.066E+01	3.308E+00	-0.008
		1121.30		6.283E+00	8.393E+00	1.573E+01	1.318E+00	0.399
		1189.05		4.240E-02	1.383E+01	2.300E+01	1.897E+00	0.002
		1221.41	*	-1.105E+01	8.399E+00	7.957E+00	6.591E-01	-1.389
		1231.02		1.111E+01	2.405E+01	4.350E+01	3.608E+00	0.255
IR-192		295.96		2.626E-01	8.577E+00	1.378E+01	1.139E+00	0.019
		308.46		1.092E+00	6.307E+00	1.059E+01	8.743E-01	0.103
		316.51	*	1.201E+00	2.619E+00	4.499E+00	3.701E-01	0.267
		468.07		1.907E-01	5.131E+00	8.276E+00	7.379E-01	0.023
HG-203		70.83		6.303E+00	7.639E+01	1.200E+02	1.892E+01	0.053
		72.87		-4.337E+01	4.603E+01	6.963E+01	1.065E+01	-0.623
		279.20	*	-9.240E-01	2.463E+00	3.929E+00	3.300E-01	-0.235
BI-207		72.81		-1.252E+01	1.265E+01	1.921E+01	1.572E+00	-0.652
		74.97		5.316E+00	7.636E+00	1.309E+01	1.091E+00	0.406
		569.70		1.702E+00	2.314E+00	4.229E+00	3.536E-01	0.403
		1063.66	*	-3.959E+00	4.381E+00	5.711E+00	4.854E-01	-0.693
		1770.23		-8.604E+01	5.250E+01	5.112E+01	4.207E+00	-1.683
TL-208		277.37		9.806E+00	3.060E+01	5.218E+01	6.378E+00	0.188
		583.19	*	-2.596E-01	3.612E+00	6.097E+00	5.472E-01	-0.043
		860.56		1.063E+01	2.118E+01	3.732E+01	3.442E+00	0.285
PB-210		46.54	*	-8.349E+01	1.910E+02	3.159E+02	3.030E+01	-0.264
PB-211		404.85	*	-2.333E+01	2.726E+02	9.378E+01	1.068E+03	-0.249
		427.09		5.146E+01	6.001E+02	2.172E+02	2.474E+03	0.237
		832.01		-2.344E+01	2.769E+02	1.126E+02	1.282E+03	-0.208
BI-212		727.33	*	-1.520E+01	3.422E+01	5.040E+01	6.190E+00	-0.302
		785.37		-1.339E+02	2.301E+02	3.384E+02	2.874E+01	-0.396
		1620.50		1.521E+01	2.190E+02	3.605E+02	3.030E+01	0.042
PB-212		74.82		4.030E+00	2.733E+01	4.529E+01	5.798E+00	0.089
		77.11		-5.216E+00	1.649E+01	2.604E+01	2.212E+00	-0.200
		238.63	*	5.361E-01	6.208E+00	1.054E+01	9.874E-01	0.051
		300.09		4.391E+01	6.298E+01	1.105E+02	1.127E+01	0.397
BI-214		609.32	*	5.586E+00	8.049E+00	1.391E+01	1.368E+00	0.402
		1120.29		7.463E+00	2.041E+01	3.607E+01	3.870E+00	0.207
		1764.49		2.433E+01	2.639E+01	5.371E+01	4.426E+00	0.453
PB-214		74.82		7.123E+00	4.830E+01	8.004E+01	9.202E+00	0.089
		77.11		-9.169E+00	2.899E+01	4.578E+01	5.420E+00	-0.200
		242.00		-4.491E+01	3.279E+01	4.870E+01	4.879E+00	-0.922
		295.22		-7.653E+00	1.314E+01	1.995E+01	2.088E+00	-0.384
	+	351.93	*	1.272E+01	8.790E+00	1.346E+01	1.376E+00	0.945

Sample ID : G1202054942 Acquisition date : 3-MAR-2010 19:13:15

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RN-219		271.23		4.469E+00	5.423E+01	3.187E+01	3.628E+02	0.140
		401.81	*	-1.126E+01	1.328E+02	5.413E+01	6.161E+02	-0.208
RA-223		81.07		-4.919E+00	5.799E+01	2.406E+01	2.739E+02	-0.204
		83.79		2.881E+00	3.404E+01	1.526E+01	1.737E+02	0.189
		94.56		-4.441E+01	5.063E+02	4.034E+01	4.592E+02	-1.101
		144.24		-7.018E+01	8.011E+02	8.407E+01	9.569E+02	-0.835
		154.21		-1.205E+01	1.420E+02	5.479E+01	6.236E+02	-0.220
		269.46		-1.109E+01	1.271E+02	2.234E+01	2.543E+02	-0.497
		323.87	*	-4.900E+00	7.809E+01	8.902E+01	1.013E+03	-0.055
		338.28		-1.177E+01	1.621E+02	1.360E+02	1.548E+03	-0.087
RA-224		240.99	*	-3.991E+01	5.869E+01	9.321E+01	7.618E+00	-0.428
RA-226		186.21	*	-4.194E+01	6.684E+01	9.843E+01	6.627E+01	-0.426
AC-227		79.69		-9.097E+01	9.294E+01	1.389E+02	2.400E+01	-0.655
		235.96		-1.589E+01	1.340E+01	2.033E+01	2.026E+00	-0.782
		256.23	*	5.498E+00	1.947E+01	3.326E+01	3.905E+00	0.165
		299.98		5.472E+01	6.988E+01	1.231E+02	1.530E+01	0.444
		304.50		-1.583E+02	1.390E+02	1.821E+02	2.971E+01	-0.869
		329.85		6.876E+01	5.516E+01	1.002E+02	1.148E+01	0.686
		334.37		-1.698E+02	1.365E+02	1.878E+02	2.883E+01	-0.904
TH-227		79.69		-9.097E+01	1.040E+03	1.389E+02	1.582E+03	-0.655
		235.96		-1.589E+01	1.814E+02	2.033E+01	2.314E+02	-0.782
		256.23	*	5.498E+00	6.554E+01	3.326E+01	3.786E+02	0.165
		299.98		5.472E+01	6.268E+02	1.231E+02	1.402E+03	0.444
		304.50		-1.583E+02	1.807E+03	1.821E+02	2.073E+03	-0.869
		329.85		6.876E+01	7.846E+02	1.002E+02	1.141E+03	0.686
		334.37		-1.698E+02	1.938E+03	1.878E+02	2.138E+03	-0.904
AC-228		338.32		-2.889E+00	2.306E+01	3.431E+01	1.428E+01	-0.084
		911.20	*	-3.397E+00	1.383E+01	2.248E+01	2.605E+00	-0.151
		968.97		1.083E+01	1.748E+01	3.102E+01	7.556E+00	0.349
RA-228		338.32		-2.889E+00	2.306E+01	3.431E+01	1.428E+01	-0.084
		911.20	*	-3.397E+00	1.383E+01	2.248E+01	2.605E+00	-0.151
		968.97		1.083E+01	1.748E+01	3.102E+01	7.556E+00	0.349
TH-228		74.82		4.030E+00	2.733E+01	4.529E+01	3.806E+00	0.089
		77.11		-5.216E+00	1.649E+01	2.604E+01	2.212E+00	-0.200
		238.63	*	5.361E-01	6.208E+00	1.054E+01	9.874E-01	0.051
		300.09		4.391E+01	6.832E+01	1.105E+02	6.756E+01	0.397
TH-229		85.43		1.277E+01	1.536E+01	2.578E+01	2.375E+00	0.495
		88.47		4.099E-02	8.163E+00	1.332E+01	1.255E+00	0.003
		193.51	*	-1.318E+00	4.117E+01	6.939E+01	5.583E+00	-0.019
		210.85		-1.323E+01	6.771E+01	1.122E+02	9.087E+00	-0.118
PA-231		283.69	*	-5.250E+01	1.072E+02	1.677E+02	2.403E+01	-0.313
		301.36		-3.401E+00	3.796E+01	6.209E+01	6.892E+00	-0.055
		330.06		1.535E+02	1.658E+02	2.852E+02	8.478E+01	0.538
TH-231		84.21	*	1.792E+01	3.414E+01	5.766E+01	1.019E+01	0.311
TH-232		63.81	*	6.919E+02	5.491E+03	2.363E+03	1.818E+04	0.293
		140.88		1.152E+04	8.931E+03	1.573E+04	1.276E+03	0.733
PA-233		94.65		-3.795E+01	2.300E+01	3.275E+01	2.993E+00	-1.159
		98.43		-4.170E+00	1.061E+01	1.663E+01	1.543E+00	-0.251
		300.13		2.069E+01	3.122E+01	5.451E+01	7.952E+00	0.380

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		311.90	*	9.623E-01	4.854E+00	8.167E+00	6.914E-01	0.118
		340.48		1.531E+01	4.976E+01	8.382E+01	2.004E+01	0.183
PA-234		94.67		-2.575E+01	1.562E+01	2.197E+01	2.785E+00	-1.172
		98.44		-2.769E+00	7.224E+00	1.107E+01	6.178E+00	-0.250
		111.00		1.649E+00	1.522E+01	2.480E+01	2.973E+00	0.067
		131.20		5.531E+00	9.045E+00	1.520E+01	1.250E+00	0.364
		569.50		1.629E+01	2.073E+01	3.805E+01	3.182E+00	0.428
		733.00		1.758E+01	2.877E+01	5.122E+01	1.132E+01	0.343
		880.51		-9.133E+00	1.758E+01	2.508E+01	2.157E+00	-0.364
		883.24		-5.113E+00	1.834E+01	2.738E+01	1.841E+01	-0.187
		926.36		-1.298E+01	1.274E+01	1.515E+01	3.829E+00	-0.857
		946.00	*	7.772E-01	2.057E+01	3.350E+01	6.285E+00	0.023
		949.00		1.004E+01	2.957E+01	5.106E+01	4.399E+00	0.197
PA-234M		766.42		4.774E+02	7.709E+02	1.330E+03	6.745E+02	0.359
		1001.03	*	-1.505E+02	3.552E+02	5.414E+02	5.379E+01	-0.278
TH-234		63.29	*	7.563E+01	9.668E+01	1.702E+02	3.053E+01	0.444
		92.59		-4.042E-01	6.462E+01	1.083E+02	2.413E+01	-0.004
U-235		89.96		-2.451E+02	9.435E+01	8.848E+01	2.200E+01	-2.770
		93.35		8.163E+00	4.863E+01	8.216E+01	1.912E+01	0.099
		143.76	*	-1.663E+01	1.828E+01	2.544E+01	4.245E+00	-0.654
		163.33		-9.170E+00	3.484E+01	5.377E+01	9.491E+00	-0.171
		185.72		-2.648E+00	3.801E+00	6.164E+00	4.943E-01	-0.430
		205.31		1.068E+01	3.732E+01	6.417E+01	1.149E+01	0.166
NP-237		86.48	*	-4.960E+00	1.849E+01	2.868E+01	6.580E+00	-0.173
		95.86		-1.666E+02	9.298E+01	1.162E+02	2.803E+01	-1.434
U-238		63.29	*	7.563E+01	9.668E+01	1.702E+02	3.053E+01	0.444
		92.59		-4.042E-01	6.462E+01	1.083E+02	9.887E+00	-0.004
NP-239		99.53		9.068E-02	1.254E+01	2.035E+01	1.788E+00	0.004
		103.37		-2.877E-01	8.080E+00	1.305E+01	1.130E+00	-0.022
		106.12		-2.049E+00	6.692E+00	1.054E+01	9.041E-01	-0.194
		116.74	*	-1.962E+00	2.162E+01	3.456E+01	2.908E+00	-0.057
		228.18		1.126E+01	1.824E+01	3.196E+01	2.605E+00	0.352
		277.60		-1.321E+00	1.400E+01	2.301E+01	1.880E+00	-0.057
AM-241		59.54	*	-2.361E+00	8.677E+00	1.402E+01	1.155E+00	-0.168
CM-247		278.00		-2.517E+01	5.871E+01	9.330E+01	7.622E+00	-0.270
		287.50		1.484E+01	9.323E+01	1.568E+02	1.283E+01	0.095
		402.40	*	-1.639E+00	3.120E+00	4.734E+00	3.792E-01	-0.346
CF-249		252.80		-2.252E+01	7.484E+01	1.212E+02	9.919E+00	-0.186
		333.37		-1.263E+01	1.437E+01	2.122E+01	1.738E+00	-0.595
		388.16	*	-1.125E+00	3.137E+00	4.867E+00	3.882E-01	-0.231
CF-251		177.52	*	4.399E+00	9.752E+00	1.711E+01	1.368E+00	0.257
		227.38		1.093E+01	3.009E+01	5.180E+01	4.221E+00	0.211
		285.41		6.563E+01	1.594E+02	2.750E+02	2.250E+01	0.239
ANH-511		511.00	*	-2.652E+00	5.078E+00	9.129E+00	7.622E-01	-0.290

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202054942    *
* Acquisition date :  3-MAR-2010 19:13:15 Detector SN#    :                *
* Detector ID       : GAM07               Sensitivity     : 5.000         *
* Geometry          : 2LMB                Energy tolerance: 1.500         *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000        *
* Elapsed real time:    0 02:00:00.63     Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date       :  1-MAR-2010 00:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G1202054942         Analyst initials: KXG3            *
* Batch Number      : 958213              Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000          Carrier Weight :    0.00000      *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 17-JUL-2009 15:54:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
BI-211	3.507E+01	3.919E+02	2.658E+01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)		
BE-7	-4.385E+00		2.114E+01	3.355E+01	0.000E+00	NOT IDENT.
NA-22	-4.499E-01		2.352E+00	3.779E+00	0.000E+00	NOT IDENT.
NA-24	-7.806E+00		6.954E+01	1.139E+02	0.000E+00	NOT IDENT.
K-40	-1.247E+01		3.846E+01	6.561E+01	0.000E+00	NOT IDENT.
SC-46	1.265E+00		2.455E+00	4.445E+00	0.000E+00	NOT IDENT.
V-48	2.264E+00		2.789E+00	5.288E+00	0.000E+00	NOT IDENT.
CR-51	-8.517E+00		2.362E+01	3.826E+01	0.000E+00	NOT IDENT.
MN-54	5.462E-01		2.695E+00	4.627E+00	0.000E+00	NOT IDENT.
CO-56	3.673E-01		2.900E+00	4.914E+00	0.000E+00	NOT IDENT.
CO-57	-1.619E-01		2.101E+00	3.426E+00	0.000E+00	NOT IDENT.
CO-58	-3.094E+00		2.307E+00	3.146E+00	0.000E+00	NOT IDENT.
FE-59	4.480E+00		5.696E+00	1.082E+01	0.000E+00	NOT IDENT.
CO-60	9.464E-01		2.645E+00	4.785E+00	0.000E+00	NOT IDENT.
ZN-65	-2.969E+00		5.874E+00	9.123E+00	0.000E+00	NOT IDENT.
SE-75	2.004E+00		3.369E+00	6.000E+00	0.000E+00	NOT IDENT.
SR-85	-6.466E+00		4.146E+00	6.287E+00	0.000E+00	NOT IDENT.
Y-88	-2.717E-01		2.504E+00	4.122E+00	0.000E+00	NOT IDENT.
Y-91	-3.595E+02		9.886E+02	1.538E+03	0.000E+00	NOT IDENT.
NB-94	-3.193E+00		2.894E+00	4.142E+00	0.000E+00	NOT IDENT.
NB-95	4.010E-03		2.456E+00	4.116E+00	0.000E+00	NOT IDENT.
NB-95M	-1.336E+01		9.478E+00	1.438E+01	0.000E+00	NOT IDENT.
ZR-95	5.231E-01		4.775E+00	8.138E+00	0.000E+00	NOT IDENT.
MO-99	-7.719E-01		4.274E+01	7.159E+01	0.000E+00	NOT IDENT.
TC-99M	0.000E+00		5.106E+03	0.000E+00	0.000E+00	SHORT HLIF
RU-103	4.781E-02		2.422E+00	3.962E+00	0.000E+00	FAIL ABUN
RH-106	1.961E-01		2.534E+01	4.311E+01	0.000E+00	NOT IDENT.

RU-106	1.961E-01	2.534E+01	4.311E+01	0.000E+00	NOT IDENT.
AG-108M	-2.492E+00	2.307E+00	3.204E+00	0.000E+00	NOT IDENT.
CD-109	-1.273E+01	5.543E+01	8.754E+01	0.000E+00	NOT IDENT.
AG-110M	-7.153E-01	2.679E+00	4.372E+00	0.000E+00	NOT IDENT.
SN-113	1.606E+00	3.147E+00	5.526E+00	0.000E+00	NOT IDENT.
CD-115	1.671E+01	1.956E+01	3.679E+01	0.000E+00	NOT IDENT.
SN-117M	1.364E-01	2.437E+00	3.966E+00	0.000E+00	NOT IDENT.
TE-123M	7.755E-01	2.108E+00	3.526E+00	0.000E+00	NOT IDENT.
SB-124	3.990E+00	4.817E+00	9.911E+00	0.000E+00	NOT IDENT.
SB-125	5.420E+00	7.292E+00	1.305E+01	0.000E+00	NOT IDENT.
TE-125M	1.499E+02	6.537E+02	1.099E+03	0.000E+00	NOT IDENT.
I-126	3.318E+00	8.769E+00	1.557E+01	0.000E+00	NOT IDENT.
SB-126	3.094E+00	5.245E+00	9.572E+00	0.000E+00	NOT IDENT.
SN-126	-5.734E+00	5.812E+00	8.606E+00	0.000E+00	NOT IDENT.
SB-127	-1.722E-01	1.065E+01	1.794E+01	0.000E+00	NOT IDENT.
I-131	-8.195E-01	3.447E+00	5.594E+00	0.000E+00	NOT IDENT.
TE-132	2.630E+00	4.198E+00	7.487E+00	0.000E+00	NOT IDENT.
BA-133	2.362E+00	4.057E+00	6.622E+00	0.000E+00	NOT IDENT.
I-133	-5.242E+00	2.666E+01	4.479E+01	0.000E+00	NOT IDENT.
CS-134	1.516E+00	3.287E+00	5.880E+00	0.000E+00	NOT IDENT.
CS-135	-8.011E+00	1.215E+01	1.930E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.198E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-136	7.745E-01	2.787E+00	5.073E+00	0.000E+00	NOT IDENT.
BA-137M	4.870E-01	2.869E+00	4.961E+00	0.000E+00	NOT IDENT.
CS-137	5.144E-01	3.031E+00	5.241E+00	0.000E+00	NOT IDENT.
CE-139	1.396E+00	2.228E+00	3.800E+00	0.000E+00	NOT IDENT.
BA-140	-5.463E+00	1.033E+01	1.624E+01	0.000E+00	NOT IDENT.
LA-140	-3.926E-01	3.429E+00	5.507E+00	0.000E+00	NOT IDENT.
CE-141	-1.394E+00	4.079E+00	6.446E+00	0.000E+00	NOT IDENT.
CE-143	1.760E+00	2.060E+01	3.501E+01	0.000E+00	NOT IDENT.
CE-144	7.897E+00	1.622E+01	2.748E+01	0.000E+00	NOT IDENT.
PM-144	1.849E-01	2.799E+00	4.760E+00	0.000E+00	NOT IDENT.
PR-144	1.375E+01	2.081E+02	3.539E+02	0.000E+00	NOT IDENT.
PM-146	-3.038E+00	3.424E+00	4.919E+00	0.000E+00	NOT IDENT.
ND-147	-1.175E+01	2.219E+01	3.572E+01	0.000E+00	NOT IDENT.
PM-149	4.664E+01	1.394E+02	2.432E+02	0.000E+00	NOT IDENT.
EU-152	1.714E+00	7.699E+00	1.316E+01	0.000E+00	NOT IDENT.
GD-153	-2.740E+00	6.408E+00	1.024E+01	0.000E+00	NOT IDENT.
EU-154	-1.773E+00	6.587E+00	1.034E+01	0.000E+00	NOT IDENT.
EU-155	-1.709E-01	8.263E+00	1.363E+01	0.000E+00	NOT IDENT.
TA-182	-1.105E+01	8.231E+00	7.957E+00	0.000E+00	NOT IDENT.
IR-192	1.201E+00	2.567E+00	4.499E+00	0.000E+00	NOT IDENT.
HG-203	-9.240E-01	2.414E+00	3.929E+00	0.000E+00	NOT IDENT.
BI-207	-3.959E+00	4.294E+00	5.711E+00	0.000E+00	NOT IDENT.
TL-208	-2.596E-01	3.540E+00	6.097E+00	0.000E+00	NOT IDENT.
PB-210	-8.349E+01	1.872E+02	3.159E+02	0.000E+00	NOT IDENT.
PB-211	-2.333E+01	2.672E+02	9.378E+01	0.000E+00	NOT IDENT.
BI-212	-1.520E+01	3.353E+01	5.040E+01	0.000E+00	NOT IDENT.
PB-212	5.361E-01	6.084E+00	1.054E+01	0.000E+00	NOT IDENT.
BI-214	5.586E+00	7.888E+00	1.391E+01	0.000E+00	NOT IDENT.
PB-214	1.272E+01	8.614E+00	1.346E+01	0.000E+00	FAIL ABUN
RN-219	-1.126E+01	1.301E+02	5.413E+01	0.000E+00	NOT IDENT.
RA-223	-4.900E+00	7.653E+01	8.902E+01	0.000E+00	NOT IDENT.
RA-224	-3.991E+01	5.752E+01	9.321E+01	0.000E+00	NOT IDENT.
RA-226	-4.194E+01	6.550E+01	9.843E+01	0.000E+00	NOT IDENT.
AC-227	5.498E+00	1.908E+01	3.326E+01	0.000E+00	NOT IDENT.
TH-227	5.498E+00	6.423E+01	3.326E+01	0.000E+00	NOT IDENT.
AC-228	-3.397E+00	1.355E+01	2.248E+01	0.000E+00	NOT IDENT.
RA-228	-3.397E+00	1.355E+01	2.248E+01	0.000E+00	NOT IDENT.
TH-228	5.361E-01	6.084E+00	1.054E+01	0.000E+00	NOT IDENT.
TH-229	-1.318E+00	4.035E+01	6.939E+01	0.000E+00	NOT IDENT.
PA-231	-5.250E+01	1.050E+02	1.677E+02	0.000E+00	NOT IDENT.
TH-231	1.792E+01	3.346E+01	5.766E+01	0.000E+00	NOT IDENT.
TH-232	6.919E+02	5.382E+03	2.363E+03	0.000E+00	NOT IDENT.
PA-233	9.623E-01	4.757E+00	8.167E+00	0.000E+00	NOT IDENT.
PA-234	7.772E-01	2.016E+01	3.350E+01	0.000E+00	NOT IDENT.
PA-234M	-1.505E+02	3.481E+02	5.414E+02	0.000E+00	NOT IDENT.
TH-234	7.563E+01	9.474E+01	1.702E+02	0.000E+00	NOT IDENT.
U-235	-1.663E+01	1.791E+01	2.544E+01	0.000E+00	NOT IDENT.
NP-237	-4.960E+00	1.812E+01	2.868E+01	0.000E+00	NOT IDENT.
U-238	7.563E+01	9.474E+01	1.702E+02	0.000E+00	NOT IDENT.
NP-239	-1.962E+00	2.119E+01	3.456E+01	0.000E+00	NOT IDENT.
AM-241	-2.361E+00	8.503E+00	1.402E+01	0.000E+00	NOT IDENT.
CM-247	-1.639E+00	3.058E+00	4.734E+00	0.000E+00	NOT IDENT.
CF-249	-1.125E+00	3.074E+00	4.867E+00	0.000E+00	NOT IDENT.
CF-251	4.399E+00	9.557E+00	1.711E+01	0.000E+00	NOT IDENT.
ANH-511	-2.652E+00	4.977E+00	9.129E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 3-MAR-2010 21:13:47.54

```
*************************************************************************
*                          GEL Laboratories LLC                         *
*                            2040 Savage Road                           *
*                          Charleston, SC 29414                         *
*************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202054942.CNF;1
Sample date       : 1-MAR-2010 00:00:00. Acquisition date : 3-MAR-2010 19:13:15.
Sample ID         : G1202054942          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM07                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.63  0.0%
Energy tolerance  : 1.50000 keV          Analyst Initials : KXG3
Abundance limit   : 75.00000             Sensitivity      : 5.00000
Batch ID          : 958213               Detector SN#     :
Matrix Spike ID   :                      LCS ID           : 1032-A
*************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	46.48	46	78	0.63	92.63	89	8	6.36E-03	36.5	
2	0	63.38	74	107	1.27	126.41	120	11	1.02E-02	29.6	
3	0	92.71	88	117	0.89	185.06	181	9	1.22E-02	24.7	
4	0	186.65	31	81	1.26	372.91	367	8	4.30E-03	54.4	
5	0	238.92	64	81	1.32	477.43	472	10	8.89E-03	29.3	
6	0	351.64	55	39	0.80	702.83	697	10	7.68E-03	23.1	
7	0	511.34	174	46	2.12	1022.18	1013	19	2.42E-02	12.1	
8	0	611.22	41	49	1.68	1221.92	1213	16	5.74E-03	41.8	

VAX/VMS Nuclide Identification Report Generated 3-MAR-2010 21:13:50.78

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202054942.CNF;1
Sample date       : 1-MAR-2010 00:00:00. Acquisition date : 3-MAR-2010 19:13:15.
Sample ID         : G1202054942          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM07                Detector geometry: 2LMB
Elapsed live time: 0 02:00:00.00         Elapsed real time: 0 02:00:00.63  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 958213                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
BI-211	72.87	------	1.23	1.972E+00	------	Line Not Found	------
	351.06	40	12.92*	1.663E+00	3.506E+01	3.507E+01	1140.33

Flag: "*" = Keyline

Sample ID : G1202054942 Acquisition date : 3-MAR-2010 19:13:15

Total number of lines in spectrum	2	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	2	100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
BI-211	21.77Y	1.00	3.506E+01	3.507E+01	39.99E+01	1140.33	
	Total Activity :		3.506E+01	3.507E+01			
	Grand Total Activity :		3.506E+01	3.507E+01			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202054942 Acquisition date : 3-MAR-2010 19:13:15

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	611.22	41	49	1.68	1221.92	1213	16	5.74E-03	83.6	1.11E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 3-MAR-2010 21:13:54.01

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                            2040 Savage Road                               *
*                          Charleston, SC 29414                             *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202054942.CNF;1 *
* Acquisition date : 3-MAR-2010 19:13:15.  Detector SN#    :               *
* Detector ID      : GAM07                 Sensitivity     : 5.00000       *
* Geometry         : 2LMB                  Energy tolerance: 1.50000       *
* Elapsed live time: 0 02:00:00.00         Abundance limit : 75.00000      *
* Elapsed real time: 0 02:00:00.63         Half life ratio : 8.00000       *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 1-MAR-2010 00:00:00.  Nuclide Library : LIQUID         *
* Sample ID        : G1202054942           Analyst initials: KXG3           *
* Batch Number     : 958213                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 17-JUL-2009 15:54:54.7MS Isotope      :               *
* MSD ID           :                       MSD Isotope     :               *
* LCS ID           : 1032-A                LCS Isotope     :               *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BI-211	3.507E+01	3.999E+02	2.658E+01	3.026E+02	1.319

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	-4.385E+00		2.157E+01	3.355E+01	3.012E+00	-0.131
NA-22	-4.499E-01		2.400E+00	3.779E+00	3.152E-01	-0.119
NA-24	-7.806E+00		7.096E+01	1.139E+02	9.748E+00	-0.069
K-40	-1.247E+01		3.925E+01	6.561E+01	5.702E+00	-0.190
SC-46	1.265E+00		2.505E+00	4.445E+00	3.825E-01	0.285
V-48	2.264E+00		2.846E+00	5.288E+00	4.547E-01	0.428
CR-51	-8.517E+00		2.410E+01	3.826E+01	3.320E+00	-0.223
MN-54	5.462E-01		2.750E+00	4.627E+00	3.964E-01	0.118
CO-56	3.673E-01		2.959E+00	4.914E+00	4.215E-01	0.075
CO-57	-1.619E-01		2.144E+00	3.426E+00	2.877E-01	-0.047
CO-58	-3.094E+00		2.354E+00	3.146E+00	2.691E-01	-0.984

Sample ID : G1202054942 Acquisition date : 3-MAR-2010 19:13:15

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
FE-59	4.480E+00		5.813E+00	1.082E+01	9.891E-01	0.414
CO-60	9.464E-01		2.699E+00	4.785E+00	4.000E-01	0.198
ZN-65	-2.969E+00		5.994E+00	9.123E+00	7.662E-01	-0.325
SE-75	2.004E+00		3.438E+00	6.000E+00	4.937E-01	0.334
SR-85	-6.466E+00		4.230E+00	6.287E+00	5.251E-01	-1.028
Y-88	-2.717E-01		2.555E+00	4.122E+00	3.349E-01	-0.066
Y-91	-3.595E+02		1.009E+03	1.538E+03	1.271E+02	-0.234
NB-94	-3.193E+00		2.953E+00	4.142E+00	3.433E-01	-0.771
NB-95	4.010E-03		2.506E+00	4.116E+00	3.479E-01	0.001
NB-95M	-1.336E+01		9.671E+00	1.438E+01	1.365E+00	-0.929
ZR-95	5.231E-01		4.873E+00	8.138E+00	7.612E-01	0.064
MO-99	-7.719E-01		4.361E+01	7.159E+01	1.119E+01	-0.011
TC-99M	4.152E-03		2.605E-03	Half-Life too short		
RU-103	4.781E-02		2.471E+00	3.962E+00	5.463E-01	0.012
RH-106	1.961E-01		2.585E+01	4.311E+01	5.619E+00	0.005
RU-106	1.961E-01		2.585E+01	4.311E+01	3.568E+00	0.005
AG-108M	-2.492E+00		2.354E+00	3.204E+00	2.706E-01	-0.778
CD-109	-1.273E+01		5.656E+01	8.754E+01	8.281E+00	-0.145
AG-110M	-7.153E-01		2.733E+00	4.372E+00	3.688E-01	-0.164
SN-113	1.606E+00		3.211E+00	5.526E+00	4.554E-01	0.291
CD-115	1.671E+01		1.996E+01	3.679E+01	3.077E+00	0.454
SN-117M	1.364E-01		2.486E+00	3.966E+00	3.171E-01	0.034
TE-123M	7.755E-01		2.152E+00	3.526E+00	2.839E-01	0.220
SB-124	3.990E+00		4.915E+00	9.911E+00	8.633E-01	0.403
SB-125	5.420E+00		7.440E+00	1.305E+01	1.083E+00	0.415
TE-125M	1.499E+02		6.671E+02	1.099E+03	1.139E+02	0.136
I-126	3.318E+00		8.948E+00	1.557E+01	1.272E+00	0.213
SB-126	3.094E+00		5.352E+00	9.572E+00	7.984E-01	0.323
SN-126	-5.734E+00		5.931E+00	8.606E+00	8.106E-01	-0.666
SB-127	-1.722E-01		1.087E+01	1.794E+01	1.546E+00	-0.010
I-131	-8.195E-01		3.517E+00	5.594E+00	4.775E-01	-0.147
TE-132	2.630E+00		4.284E+00	7.487E+00	1.051E+00	0.351
BA-133	2.362E+00		4.139E+00	6.622E+00	8.365E-01	0.357
I-133	-5.242E+00		2.721E+01	4.479E+01	3.895E+00	-0.117
CS-134	1.516E+00		3.354E+00	5.880E+00	5.042E-01	0.258
CS-135	-8.011E+00		1.239E+01	1.930E+01	1.850E+00	-0.415
I-135	1.015E-03		6.111E-03	Half-Life too short		
CS-136	7.745E-01		2.843E+00	5.073E+00	4.508E-01	0.153
BA-137M	4.870E-01		2.927E+00	4.961E+00	4.043E-01	0.098
CS-137	5.144E-01		3.093E+00	5.241E+00	4.280E-01	0.098
CE-139	1.396E+00		2.274E+00	3.800E+00	3.028E-01	0.367
BA-140	-5.463E+00		1.055E+01	1.624E+01	5.496E+00	-0.337
LA-140	-3.926E-01		3.499E+00	5.507E+00	4.637E-01	-0.071
CE-141	-1.394E+00		4.163E+00	6.446E+00	5.312E-01	-0.216
CE-143	1.760E+00		2.102E+01	3.501E+01	7.170E+00	0.050
CE-144	7.897E+00		1.655E+01	2.748E+01	4.136E+00	0.287
PM-144	1.849E-01		2.856E+00	4.760E+00	3.936E-01	0.039
PR-144	1.375E+01		2.124E+02	3.539E+02	2.927E+01	0.039

Sample ID : G1202054942 Acquisition date : 3-MAR-2010 19:13:15

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PM-146	-3.038E+00		3.494E+00	4.919E+00	5.052E-01	-0.618
ND-147	-1.175E+01		2.264E+01	3.572E+01	5.289E+00	-0.329
PM-149	4.664E+01		1.423E+02	2.432E+02	3.716E+01	0.192
EU-152	1.714E+00		7.856E+00	1.316E+01	1.145E+00	0.130
GD-153	-2.740E+00		6.539E+00	1.024E+01	9.092E-01	-0.267
EU-154	-1.773E+00		6.721E+00	1.034E+01	1.155E+00	-0.171
EU-155	-1.709E-01		8.431E+00	1.363E+01	1.186E+00	-0.013
TA-182	-1.105E+01		8.399E+00	7.957E+00	6.591E-01	-1.389
IR-192	1.201E+00		2.619E+00	4.499E+00	3.701E-01	0.267
HG-203	-9.240E-01		2.463E+00	3.929E+00	3.300E-01	-0.235
BI-207	-3.959E+00		4.381E+00	5.711E+00	4.854E-01	-0.693
TL-208	-2.596E-01		3.612E+00	6.097E+00	5.472E-01	-0.043
PB-210	-8.349E+01		1.910E+02	3.159E+02	3.030E+01	-0.264
PB-211	-2.333E+01		2.726E+02	9.378E+01	1.068E+03	-0.249
BI-212	-1.520E+01		3.422E+01	5.040E+01	6.190E+00	-0.302
PB-212	5.361E-01		6.208E+00	1.054E+01	9.874E-01	0.051
BI-214	5.586E+00		8.049E+00	1.391E+01	1.368E+00	0.402
PB-214	1.272E+01	+	8.790E+00	1.346E+01	1.376E+00	0.945
RN-219	-1.126E+01		1.328E+02	5.413E+01	6.161E+02	-0.208
RA-223	-4.900E+00		7.809E+01	8.902E+01	1.013E+03	-0.055
RA-224	-3.991E+01		5.869E+01	9.321E+01	7.618E+00	-0.428
RA-226	-4.194E+01		6.684E+01	9.843E+01	6.627E+01	-0.426
AC-227	5.498E+00		1.947E+01	3.326E+01	3.905E+00	0.165
TH-227	5.498E+00		6.554E+01	3.326E+01	3.786E+02	0.165
AC-228	-3.397E+00		1.383E+01	2.248E+01	2.605E+00	-0.151
RA-228	-3.397E+00		1.383E+01	2.248E+01	2.605E+00	-0.151
TH-228	5.361E-01		6.208E+00	1.054E+01	9.874E-01	0.051
TH-229	-1.318E+00		4.117E+01	6.939E+01	5.583E+00	-0.019
PA-231	-5.250E+01		1.072E+02	1.677E+02	2.403E+01	-0.313
TH-231	1.792E+01		3.414E+01	5.766E+01	1.019E+01	0.311
TH-232	6.919E+02		5.491E+03	2.363E+03	1.818E+04	0.293
PA-233	9.623E-01		4.854E+00	8.167E+00	6.914E-01	0.118
PA-234	7.772E-01		2.057E+01	3.350E+01	6.285E+00	0.023
PA-234M	-1.505E+02		3.552E+02	5.414E+02	5.379E+01	-0.278
TH-234	7.563E+01		9.668E+01	1.702E+02	3.053E+01	0.444
U-235	-1.663E+01		1.828E+01	2.544E+01	4.245E+00	-0.654
NP-237	-4.960E+00		1.849E+01	2.868E+01	6.580E+00	-0.173
U-238	7.563E+01		9.668E+01	1.702E+02	3.053E+01	0.444
NP-239	-1.962E+00		2.162E+01	3.456E+01	2.908E+00	-0.057
AM-241	-2.361E+00		8.677E+00	1.402E+01	1.155E+00	-0.168
CM-247	-1.639E+00		3.120E+00	4.734E+00	3.792E-01	-0.346
CF-249	-1.125E+00		3.137E+00	4.867E+00	3.882E-01	-0.231
CF-251	4.399E+00		9.752E+00	1.711E+01	1.368E+00	0.257
ANH-511	-2.652E+00		5.078E+00	9.129E+00	7.622E-01	-0.290

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202054942           *
* Acquisition date :  3-MAR-2010 19:13:15 Detector SN#    :                 *
* Detector ID      : GAM07                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 02:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 02:00:00.63     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  1-MAR-2010 00:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G1202054942          Analyst initials: KXG3            *
* Batch Number     : 958213               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 17-JUL-2009 15:54:54 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
BI-211	3.507E+01	3.919E+02	1.330E+01	1.999E+02

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU	
BE-7	-4.385E+00	2.114E+01	1.679E+01	1.078E+01	NOT IDENT.
NA-22	-4.499E-01	2.352E+00	1.891E+00	1.200E+00	NOT IDENT.
NA-24	-7.806E+00	6.954E+01	5.697E+01	3.548E+01	NOT IDENT.
K-40	-1.247E+01	3.846E+01	3.282E+01	1.962E+01	NOT IDENT.
SC-46	1.265E+00	2.455E+00	2.224E+00	1.253E+00	NOT IDENT.
V-48	2.264E+00	2.789E+00	2.646E+00	1.423E+00	NOT IDENT.
CR-51	-8.517E+00	2.362E+01	1.914E+01	1.205E+01	NOT IDENT.
MN-54	5.462E-01	2.695E+00	2.315E+00	1.375E+00	NOT IDENT.
CO-56	3.673E-01	2.900E+00	2.458E+00	1.479E+00	NOT IDENT.
CO-57	-1.619E-01	2.101E+00	1.714E+00	1.072E+00	NOT IDENT.
CO-58	-3.094E+00	2.307E+00	1.574E+00	1.177E+00	NOT IDENT.
FE-59	4.480E+00	5.696E+00	5.413E+00	2.906E+00	NOT IDENT.
CO-60	9.464E-01	2.645E+00	2.394E+00	1.349E+00	NOT IDENT.
ZN-65	-2.969E+00	5.874E+00	4.564E+00	2.997E+00	NOT IDENT.
SE-75	2.004E+00	3.369E+00	3.002E+00	1.719E+00	NOT IDENT.
SR-85	-6.466E+00	4.146E+00	3.145E+00	2.115E+00	NOT IDENT.
Y-88	-2.717E-01	2.504E+00	2.062E+00	1.278E+00	NOT IDENT.
Y-91	-3.595E+02	9.886E+02	7.695E+02	5.044E+02	NOT IDENT.
NB-94	-3.193E+00	2.894E+00	2.072E+00	1.477E+00	NOT IDENT.
NB-95	4.010E-03	2.456E+00	2.059E+00	1.253E+00	NOT IDENT.
NB-95M	-1.336E+01	9.478E+00	7.195E+00	4.836E+00	NOT IDENT.
ZR-95	5.231E-01	4.775E+00	4.072E+00	2.436E+00	NOT IDENT.
MO-99	-7.719E-01	4.274E+01	3.581E+01	2.181E+01	NOT IDENT.
TC-99M	4.152E+03	5.106E+03	0.000E+00	2.605E+03	SHORT HLIF
RU-103	4.781E-02	2.422E+00	1.982E+00	1.236E+00	FAIL ABUN
RH-106	1.961E-01	2.534E+01	2.157E+01	1.293E+01	NOT IDENT.

RU-106	1.961E-01	2.534E+01	2.157E+01	1.293E+01	NOT IDENT.
AG-108M	-2.492E+00	2.307E+00	1.603E+00	1.177E+00	NOT IDENT.
CD-109	-1.273E+01	5.543E+01	4.380E+01	2.828E+01	NOT IDENT.
AG-110M	-7.153E-01	2.679E+00	2.187E+00	1.367E+00	NOT IDENT.
SN-113	1.606E+00	3.147E+00	2.765E+00	1.605E+00	NOT IDENT.
CD-115	1.671E+01	1.956E+01	1.840E+01	9.981E+00	NOT IDENT.
SN-117M	1.364E-01	2.437E+00	1.984E+00	1.243E+00	NOT IDENT.
TE-123M	7.755E-01	2.108E+00	1.764E+00	1.076E+00	NOT IDENT.
SB-124	3.990E+00	4.817E+00	4.958E+00	2.457E+00	NOT IDENT.
SB-125	5.420E+00	7.292E+00	6.529E+00	3.720E+00	NOT IDENT.
TE-125M	1.499E+02	6.537E+02	5.496E+02	3.335E+02	NOT IDENT.
I-126	3.318E+00	8.769E+00	7.790E+00	4.474E+00	NOT IDENT.
SB-126	3.094E+00	5.245E+00	4.789E+00	2.676E+00	NOT IDENT.
SN-126	-5.734E+00	5.812E+00	4.305E+00	2.965E+00	NOT IDENT.
SB-127	-1.722E-01	1.065E+01	8.975E+00	5.433E+00	NOT IDENT.
I-131	-8.195E-01	3.447E+00	2.799E+00	1.759E+00	NOT IDENT.
TE-132	2.630E+00	4.198E+00	3.746E+00	2.142E+00	NOT IDENT.
BA-133	2.362E+00	4.057E+00	3.313E+00	2.070E+00	NOT IDENT.
I-133	-5.242E+00	2.666E+01	2.241E+01	1.360E+01	NOT IDENT.
CS-134	1.516E+00	3.287E+00	2.942E+00	1.677E+00	NOT IDENT.
CS-135	-8.011E+00	1.215E+01	9.654E+00	6.197E+00	NOT IDENT.
I-135	1.015E+03	1.198E+04	0.000E+00	6.111E+03	SHORT HLIF
CS-136	7.745E-01	2.787E+00	2.538E+00	1.422E+00	NOT IDENT.
BA-137M	4.870E-01	2.869E+00	2.482E+00	1.464E+00	NOT IDENT.
CS-137	5.144E-01	3.031E+00	2.622E+00	1.546E+00	NOT IDENT.
CE-139	1.396E+00	2.228E+00	1.901E+00	1.137E+00	NOT IDENT.
BA-140	-5.463E+00	1.033E+01	8.122E+00	5.273E+00	NOT IDENT.
LA-140	-3.926E-01	3.429E+00	2.755E+00	1.749E+00	NOT IDENT.
CE-141	-1.394E+00	4.079E+00	3.225E+00	2.081E+00	NOT IDENT.
CE-143	1.760E+00	2.060E+01	1.751E+01	1.051E+01	NOT IDENT.
CE-144	7.897E+00	1.622E+01	1.375E+01	8.276E+00	NOT IDENT.
PM-144	1.849E-01	2.799E+00	2.381E+00	1.428E+00	NOT IDENT.
PR-144	1.375E+01	2.081E+02	1.771E+02	1.062E+02	NOT IDENT.
PM-146	-3.038E+00	3.424E+00	2.461E+00	1.747E+00	NOT IDENT.
ND-147	-1.175E+01	2.219E+01	1.787E+01	1.132E+01	NOT IDENT.
PM-149	4.664E+01	1.394E+02	1.217E+02	7.113E+01	NOT IDENT.
EU-152	1.714E+00	7.699E+00	6.585E+00	3.928E+00	NOT IDENT.
GD-153	-2.740E+00	6.408E+00	5.125E+00	3.270E+00	NOT IDENT.
EU-154	-1.773E+00	6.587E+00	5.175E+00	3.361E+00	NOT IDENT.
EU-155	-1.709E-01	8.263E+00	6.817E+00	4.216E+00	NOT IDENT.
TA-182	-1.105E+01	8.231E+00	3.981E+00	4.199E+00	NOT IDENT.
IR-192	1.201E+00	2.567E+00	2.251E+00	1.309E+00	NOT IDENT.
HG-203	-9.240E-01	2.414E+00	1.966E+00	1.232E+00	NOT IDENT.
BI-207	-3.959E+00	4.294E+00	2.857E+00	2.191E+00	NOT IDENT.
TL-208	-2.596E-01	3.540E+00	3.050E+00	1.806E+00	NOT IDENT.
PB-210	-8.349E+01	1.872E+02	1.581E+02	9.551E+01	NOT IDENT.
PB-211	-2.333E+01	2.672E+02	4.692E+01	1.363E+02	NOT IDENT.
BI-212	-1.520E+01	3.353E+01	2.522E+01	1.711E+01	NOT IDENT.
PB-212	5.361E-01	6.084E+00	5.272E+00	3.104E+00	NOT IDENT.
BI-214	5.586E+00	7.888E+00	6.958E+00	4.025E+00	NOT IDENT.
PB-214	1.272E+01	8.614E+00	6.734E+00	4.395E+00	FAIL ABUN
RN-219	-1.126E+01	1.301E+02	2.708E+01	6.640E+01	NOT IDENT.
RA-223	-4.900E+00	7.653E+01	4.454E+01	3.905E+01	NOT IDENT.
RA-224	-3.991E+01	5.752E+01	4.663E+01	2.935E+01	NOT IDENT.
RA-226	-4.194E+01	6.550E+01	4.924E+01	3.342E+01	NOT IDENT.
AC-227	5.498E+00	1.908E+01	1.664E+01	9.734E+00	NOT IDENT.
TH-227	5.498E+00	6.423E+01	1.664E+01	3.277E+01	NOT IDENT.
AC-228	-3.397E+00	1.355E+01	1.124E+01	6.913E+00	NOT IDENT.
RA-228	-3.397E+00	1.355E+01	1.124E+01	6.913E+00	NOT IDENT.
TH-228	5.361E-01	6.084E+00	5.272E+00	3.104E+00	NOT IDENT.
TH-229	-1.318E+00	4.035E+01	3.472E+01	2.059E+01	NOT IDENT.
PA-231	-5.250E+01	1.050E+02	8.391E+01	5.358E+01	NOT IDENT.
TH-231	1.792E+01	3.346E+01	2.885E+01	1.707E+01	NOT IDENT.
TH-232	6.919E+02	5.382E+03	1.182E+03	2.746E+03	NOT IDENT.
PA-233	9.623E-01	4.757E+00	4.086E+00	2.427E+00	NOT IDENT.
PA-234	7.772E-01	2.016E+01	1.676E+01	1.029E+01	NOT IDENT.
PA-234M	-1.505E+02	3.481E+02	2.709E+02	1.776E+02	NOT IDENT.
TH-234	7.563E+01	9.474E+01	8.514E+01	4.834E+01	NOT IDENT.
U-235	-1.663E+01	1.791E+01	1.273E+01	9.139E+00	NOT IDENT.
NP-237	-4.960E+00	1.812E+01	1.435E+01	9.243E+00	NOT IDENT.
U-238	7.563E+01	9.474E+01	8.514E+01	4.834E+01	NOT IDENT.
NP-239	-1.962E+00	2.119E+01	1.729E+01	1.081E+01	NOT IDENT.
AM-241	-2.361E+00	8.503E+00	7.014E+00	4.339E+00	NOT IDENT.
CM-247	-1.639E+00	3.058E+00	2.368E+00	1.560E+00	NOT IDENT.
CF-249	-1.125E+00	3.074E+00	2.435E+00	1.568E+00	NOT IDENT.
CF-251	4.399E+00	9.557E+00	8.560E+00	4.876E+00	NOT IDENT.
ANH-511	-2.652E+00	4.977E+00	4.567E+00	2.539E+00	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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ENERGY	MDA COUNTS
46.54	63.0855
49.72	104.4613
57.36	60.9875
59.54	68.1155
63.29	65.7612
63.29	65.7612
63.81	71.7341
64.28	80.6629
67.75	77.3148
69.67	82.6103
70.83	72.8348
72.81	114.2111
72.87	114.2256
72.87	114.2256
74.82	113.6753
74.82	113.6753
74.82	113.6753
74.97	99.6219
77.11	110.1559
77.11	110.1559
77.11	110.1559
79.69	113.7625
79.69	113.7625
80.12	106.7416
80.19	106.7560
81.00	94.7029
81.07	94.7157
83.79	91.1117
84.21	88.1101
85.43	74.9612
86.48	95.6844
86.55	95.6967
86.94	101.9437
87.57	97.9373
88.03	79.4474
88.47	78.4786
89.96	185.3349
91.11	90.2644
92.59	85.2995
92.59	85.2995
93.35	82.2885
94.56	154.4866
94.65	154.5107
94.67	154.5159
95.86	143.3257
97.43	86.0168
98.43	78.8074
98.44	78.8090
99.53	71.5845
100.11	75.8690
103.18	70.9599
103.37	77.3386
105.31	76.5201
106.12	78.7485
109.28	71.6585
111.00	78.2865
111.76	75.1579
116.30	77.8447
116.74	74.6507
121.12	82.7616
121.78	75.2119
122.06	83.9665
123.07	78.6299
131.20	76.2303
133.52	75.3669
136.00	73.3987
136.47	79.0097

140.51	68.2502
140.51	0.0000
140.88	60.4479
143.76	84.2743
144.24	88.8252
145.44	88.9634
152.43	92.0330
153.25	77.3418
154.21	92.2382
156.02	75.3262
158.56	76.7068
159.00	66.4383
162.66	77.0884
163.33	71.3930
165.86	62.3683
176.60	57.0099
177.52	61.4594
181.07	74.9269
185.72	71.7680
186.21	71.8069
193.51	71.4801
205.31	66.9360
210.85	72.7698
222.11	58.8628
227.38	70.2527
228.16	65.6790
228.18	65.6806
235.69	109.9282
235.96	109.0234
235.96	109.0234
238.63	80.3337
238.63	80.3337
240.99	104.8462
242.00	110.5647
244.70	62.9311
252.40	55.7977
252.80	57.7097
256.23	49.3427
256.23	49.3427
260.90	53.3536
264.66	51.6129
268.22	63.2728
269.46	66.2184
271.23	55.7441
273.65	63.5609
276.40	50.1925
277.37	52.1642
277.60	57.0050
278.00	58.9569
279.20	54.1774
279.54	56.1282
283.69	48.5497
284.31	42.7452
285.41	38.8934
285.90	39.8814
287.50	43.8286
293.27	57.7279
295.22	69.5764
295.96	60.7919
299.98	45.2455
299.98	45.2455
300.09	45.2490
300.09	45.2490
300.13	45.2504
301.36	51.2010
302.85	51.2605
304.50	50.3385
304.50	50.3385
304.85	50.3518
308.46	37.6208
311.90	38.7114
316.51	45.8175
319.41	37.9310
320.08	58.9217
323.87	53.0776
328.76	47.2367
329.85	38.2215
329.85	38.2215

330.06	43.2572
333.37	54.4532
334.37	56.5101
334.37	56.5101
338.28	45.5370
338.32	45.5383
338.32	45.5383
340.48	46.6212
340.55	50.6783
344.28	41.6650
351.06	42.8831
351.93	62.1155
356.01	31.1450
364.49	48.4293
366.42	48.4917
383.85	40.7014
388.16	38.7214
388.63	38.7332
391.70	30.4182
400.66	46.4130
401.81	44.3353
402.40	44.3520
404.85	44.4193
414.70	32.9853
423.72	29.9559
427.09	33.2327
427.87	28.9578
433.94	39.8257
453.88	40.2887
463.37	24.0843
468.07	35.1235
473.00	34.1191
476.78	22.0581
477.60	29.7920
487.02	42.1447
492.35	34.4800
497.08	25.6465
511.00	39.3141
514.00	112.5008
527.90	22.6611
529.87	35.3866
531.02	39.0391
537.26	30.0545
546.56	0.0000
563.25	23.0609
569.33	20.3532
569.50	20.3548
569.70	20.3570
583.19	26.0750
600.60	30.9810
602.73	41.6162
604.72	62.7051
609.32	32.9894
610.33	33.0048
614.28	29.9148
618.01	21.7641
621.93	28.4377
621.93	28.4377
633.25	21.9123
635.95	25.7535
636.99	24.8111
645.85	20.1177
657.76	27.9245
661.66	26.0416
661.66	26.0416
664.57	20.2797
666.33	22.2279
666.50	27.0621
677.62	20.3914
685.70	21.4344
695.00	26.4074
696.49	28.3805
696.51	28.3805
697.00	24.4708
702.65	39.2441
706.68	18.6716
720.70	16.8004
721.93	15.8199

722.78	18.7922
722.91	18.7931
723.31	17.8071
724.19	17.8132
727.33	13.8718
733.00	16.8821
735.93	20.8785
739.50	21.9033
747.24	27.9610
753.82	31.0356
756.73	20.0454
763.94	20.1006
765.80	18.1033
766.42	13.0778
777.92	17.1760
778.90	23.2465
783.70	17.2133
785.37	22.2895
795.86	16.2738
801.95	21.4071
810.76	15.3398
815.77	17.4171
818.51	9.2298
832.01	19.5798
834.85	18.5678
836.80	0.0000
846.77	20.7178
856.80	18.7115
860.56	14.5722
871.09	19.8484
873.19	11.4995
875.33	9.4155
880.51	13.6243
883.24	12.5880
884.68	11.5446
889.28	11.5626
898.04	16.8680
911.20	19.0595
911.20	19.0595
926.36	19.1549
937.49	17.0883
944.13	13.9137
946.00	12.8514
949.00	10.7197
964.08	14.0026
968.97	11.8666
968.97	11.8666
983.53	8.6697
996.26	15.2318
1001.03	14.1645
1004.73	11.9990
1037.84	15.6082
1038.76	0.0000
1048.07	6.4466
1050.41	9.2155
1050.41	9.2155
1063.66	18.5034
1085.87	15.8289
1099.25	13.0857
1112.07	15.0091
1115.54	18.7801
1120.29	14.1040
1120.55	13.1643
1121.30	10.3456
1131.51	0.0000
1173.23	10.4942
1189.05	7.6647
1204.77	11.5449
1221.41	12.5620
1231.02	8.7184
1235.36	19.3962
1238.28	6.7938
1260.41	0.0000
1274.44	8.8158
1274.54	8.8158
1291.59	12.7884
1298.22	9.8535
1312.11	7.9098

1332.49	7.9495
1365.19	4.0060
1368.63	12.0278
1384.29	10.0606
1408.01	9.1047
1457.56	0.0000
1460.82	12.2871
1489.16	8.2435
1596.21	8.4355
1620.50	9.5380
1678.03	0.0000
1690.97	2.1501
1764.49	3.7393
1770.23	19.6523
1771.35	18.7207
1791.20	0.0000
1836.06	5.6853

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202054942

Total Uranium Activity	2.1732E+02	ug/g
Total Uranium Counting Unc.	2.8198E+02	ug/g
Total Uranium Tpu	1.4387E-04	ug/g
Total Uranium Mda	2.5335E+02	ug/g

```
*******************************************************************************
*                                                                             *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                              *
*                             CHARLESTON ,SC 29417                            *
*                              GROSS GAMMA REPORT                             *
*                                                                             *
*                                                                             *
*******************************************************************************
*                                                                             *
*   BATCH ID      : 958213                    SAMPLE ID  : G1202054942        *
*   ANALYST       : KXG3                      DETECTOR   : GAM07              *
*   SAMPLE DATE   :  1-MAR-2010 00:00:00.00   COUNT TIME :    0 02:00:00.00   *
*   ANALYSIS DATE:  3-MAR-2010 19:13:15.61    SAMPLE ALQT:    2.000 LITER     *
*                                                                             *
*******************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 1.152E+01
        GROSS GAMMA ERROR  (pCi/LITER )   : 4.402E+00
        GROSS GAMMA MDA    (pCi/LITER )   : 1.297E+01
        GROSS GAMMA DLC    (pCi/LITER )   : 6.107E+00
```

VAX/VMS Nuclide Identification Report Generated 3-MAR-2010 22:16:55.19

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202054944.CNF;1
Sample date       : 23-FEB-2010 12:00:00 Acquisition date : 3-MAR-2010 19:16:21.
Sample ID         : G1202054944          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM02                Detector geometry: 2LMB
Elapsed live time: 0 03:00:00.00         Elapsed real time: 0 03:00:04.26  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 958213                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	295.16*	102	169	0.86	589.75	585	10	9.45E-03	26.9	
2	0	351.60*	248	115	1.19	702.70	697	12	2.30E-02	11.8	
3	0	596.84	42	85	3.38	1193.47	1182	18	3.85E-03	54.4	
4	0	608.94*	156	101	1.40	1217.67	1211	15	1.45E-02	17.2	
5	0	1119.84*	35	32	1.44	2240.17	2234	14	3.24E-03	40.8	
6	0	1299.39	27	6	3.20	2599.53	2593	13	2.51E-03	27.1	
7	0	1763.52*	30	11	1.14	3528.56	3521	15	2.76E-03	36.0	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 3-MAR-2010 22:16:57

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202054944.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 23-FEB-2010 12:00:00 Acquisition date : 3-MAR-2010 19:16:21
Sample ID : G1202054944 Sample quantity : 2.0000 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA2 Detector geometry: 2LMB
Elapsed live time: 0 03:00:00.00 Elapsed real time: 0 03:00:04.26 0.0%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BI-211		72.87		-1.097E+02	3.687E+03	4.968E+02	1.664E+04	-0.221
	+	351.06	*	1.459E+02	4.886E+03	2.604E+01	8.723E+02	5.601
BI-214	+	609.32	*	3.859E+01	1.355E+01	9.196E+00	6.878E-01	4.196
	+	1120.29		4.274E+01	3.511E+01	2.658E+01	2.437E+00	1.608
	+	1764.49		5.013E+01	3.623E+01	3.047E+01	1.836E+00	1.645

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.60	*	1.696E+01	2.279E+01	3.924E+01	2.688E+00	0.432
NA-22		1274.54	*	2.651E-01	2.799E+00	4.667E+00	3.014E-01	0.057
NA-24		1368.63	*	4.151E-03	2.799E+00	Half-Life too short		
K-40		1460.82	*	5.620E+00	3.781E+01	6.624E+01	4.717E+00	0.085
SC-46		889.28	*	-9.227E-01	3.131E+00	4.286E+00	3.467E-01	-0.215
	+	1120.55		6.835E+00	5.595E+00	7.669E+00	4.793E-01	0.891
V-48		944.13		-6.372E+00	4.660E+01	7.380E+01	5.844E+00	-0.086
		983.53	*	-1.242E+00	3.239E+00	4.877E+00	3.713E-01	-0.255
		1312.11		4.181E-01	4.021E+00	6.699E+00	4.536E-01	0.062
CR-51		320.08	*	-1.528E+00	2.558E+01	4.238E+01	2.762E+00	-0.036
MN-54		834.85	*	1.727E+00	2.599E+00	4.549E+00	3.299E-01	0.380
CO-56		846.77	*	-2.597E-03	2.490E+00	4.055E+00	3.014E-01	-0.001
		1037.84		-1.028E+00	1.760E+01	2.923E+01	2.241E+00	-0.035
		1238.28		3.571E+00	5.112E+00	9.140E+00	5.928E-01	0.391
		1771.35		-3.548E+01	2.466E+01	3.133E+01	1.881E+00	-1.132
CO-57		122.06	*	-6.002E-01	2.440E+00	3.970E+00	2.420E-01	-0.151
		136.47		-6.926E+00	1.979E+01	3.182E+01	2.092E+00	-0.218
CO-58		810.76	*	1.353E+00	2.648E+00	4.581E+00	3.172E-01	0.295
FE-59		1099.25	*	-4.682E-01	5.035E+00	8.284E+00	6.126E-01	-0.057
		1291.59		-2.440E+00	9.321E+00	1.305E+01	1.051E+00	-0.187
CO-60		1173.23		-7.603E-01	2.457E+00	3.878E+00	2.173E-01	-0.196
		1332.49	*	-1.521E+00	2.656E+00	3.926E+00	2.728E-01	-0.387
ZN-65		1115.54	*	1.239E+00	5.444E+00	8.184E+00	5.173E-01	0.151
SE-75		121.12		5.337E+00	1.253E+01	2.104E+01	1.950E+00	0.254

Sample ID : G1202054944 Acquisition date : 3-MAR-2010 19:16:21

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		136.00		-1.345E-01	3.591E+00	5.865E+00	3.371E-01	-0.023
		264.66	*	3.250E+00	3.391E+00	6.023E+00	3.435E-01	0.540
		279.54		1.359E+00	8.263E+00	1.401E+01	8.681E-01	0.097
		400.66		-2.573E+00	1.828E+01	2.955E+01	2.717E+00	-0.087
SR-85		514.00	*	-1.110E+01	3.837E+00	4.758E+00	2.764E-01	-2.332
Y-88		898.04		9.433E-02	3.303E+00	4.900E+00	4.053E-01	0.019
		1836.06	*	-2.915E-01	2.644E+00	4.268E+00	2.460E-01	-0.068
Y-91		1204.77	*	8.350E+02	1.079E+03	1.977E+03	1.158E+02	0.422
NB-94		702.65	*	-8.268E-01	2.216E+00	3.512E+00	1.899E-01	-0.235
		871.09		-1.620E+00	2.421E+00	3.574E+00	2.789E-01	-0.453
NB-95		765.80	*	1.658E+00	3.720E+00	5.638E+00	3.527E-01	0.294
NB-95M		235.69	*	-1.388E+01	8.856E+00	1.366E+01	9.983E-01	-1.016
ZR-95		724.19		-1.290E-01	6.433E+00	1.060E+01	7.145E-01	-0.012
		756.73	*	-4.786E+00	4.602E+00	6.570E+00	4.825E-01	-0.728
MO-99		140.51		-3.702E+02	4.101E+02	5.943E+02	1.356E+02	-0.623
		181.07		-5.278E+00	2.841E+02	4.562E+02	7.970E+01	-0.012
		366.42		-2.405E+02	1.433E+03	2.331E+03	1.392E+02	-0.103
		739.50	*	4.605E+01	1.645E+02	2.789E+02	4.030E+01	0.165
		777.92		-2.457E+02	4.806E+02	7.426E+02	4.772E+01	-0.331
TC-99M		140.51	*	-2.482E+04	4.806E+02	Half-Life too short		
RU-103		497.08	*	2.041E-01	3.036E+00	4.913E+00	6.120E-01	0.042
	+	610.33		3.532E+02	1.321E+02	1.612E+02	2.395E+01	2.192
RH-106		621.93	*	2.881E-01	2.201E+01	3.684E+01	4.177E+00	0.008
		1050.41		-6.666E+00	1.901E+02	3.168E+02	2.219E+01	-0.021
RU-106		621.93	*	2.881E-01	2.201E+01	3.684E+01	1.920E+00	0.008
		1050.41		-6.666E+00	1.901E+02	3.168E+02	2.219E+01	-0.021
AG-108M		433.94	*	5.351E-01	2.225E+00	3.696E+00	2.358E-01	0.145
		614.28		1.100E+00	3.017E+00	4.592E+00	2.625E-01	0.240
		722.91		-1.313E+00	2.926E+00	4.619E+00	2.811E-01	-0.284
CD-109		88.03	*	-6.015E+00	6.945E+01	1.159E+02	9.402E+00	-0.052
AG-110M		657.76	*	-1.823E+00	2.479E+00	3.808E+00	2.042E-01	-0.479
		677.62		4.060E+00	2.171E+01	3.674E+01	2.020E+00	0.111
		706.68		-8.049E+00	1.464E+01	2.276E+01	1.330E+00	-0.354
		763.94		-7.052E+00	1.284E+01	1.996E+01	1.308E+00	-0.353
		884.68		-1.725E+00	3.364E+00	5.070E+00	4.215E-01	-0.340
		937.49		-2.444E+00	8.519E+00	1.327E+01	1.102E+00	-0.184
		1384.29		-8.090E+00	1.110E+01	1.576E+01	1.134E+00	-0.513
SN-113		391.70	*	6.604E-01	3.235E+00	5.391E+00	3.429E-01	0.123
CD-115		260.90		-8.280E+02	1.268E+03	2.049E+03	1.151E+02	-0.404
		492.35		8.322E-01	3.736E+02	6.016E+02	3.537E+01	0.001
		527.90	*	-3.752E+00	1.133E+02	1.808E+02	1.040E+01	-0.021
SN-117M		156.02		-7.497E+01	1.450E+02	2.288E+02	1.201E+01	-0.328
		158.56	*	1.020E+00	3.518E+00	5.788E+00	3.015E-01	0.176
TE-123M		159.00	*	2.937E-02	2.514E+00	4.077E+00	2.157E-01	0.007
SB-124		602.73		2.139E+00	3.982E+00	4.471E+00	2.391E-01	0.478
		645.85		1.881E+01	3.275E+01	5.761E+01	3.361E+00	0.327
		722.78		-4.702E+00	2.641E+01	4.284E+01	2.557E+00	-0.110
		1690.97	*	-5.719E+00	6.049E+00	8.132E+00	5.500E-01	-0.703
SB-125		427.87	*	4.154E+00	6.981E+00	1.193E+01	7.425E-01	0.348

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		463.37		4.778E+00	2.071E+01	3.419E+01	2.344E+00	0.140
		600.60		-2.636E+00	1.639E+01	2.206E+01	1.397E+00	-0.120
		635.95		7.885E+00	1.962E+01	3.400E+01	2.112E+00	0.232
TE-125M		109.28	*	-3.981E+00	9.111E+02	1.509E+03	1.321E+02	-0.003
I-126		388.63		6.041E-01	8.809E+00	1.453E+01	8.694E-01	0.042
		666.33	*	5.582E+00	1.121E+01	1.951E+01	9.653E-01	0.286
		753.82		-1.727E+01	8.823E+01	1.419E+02	8.643E+00	-0.122
SB-126		414.70		1.439E+00	4.149E+00	6.957E+00	4.170E-01	0.207
		666.50		2.677E+00	3.753E+00	6.658E+00	3.296E-01	0.402
		695.00		3.424E+00	4.165E+00	7.401E+00	3.930E-01	0.463
		697.00		-2.993E+00	1.405E+01	2.278E+01	1.216E+00	-0.131
		720.70	*	4.368E+00	7.258E+00	1.270E+01	7.168E-01	0.344
		856.80		9.204E+00	2.169E+01	3.715E+01	2.818E+00	0.248
SN-126		64.28		-1.574E+02	7.359E+01	1.018E+02	1.489E+01	-1.546
		86.94		-8.434E+00	2.981E+01	4.897E+01	2.020E+01	-0.172
		87.57	*	-2.023E+00	6.898E+00	1.139E+01	9.226E-01	-0.177
SB-127		252.40		4.872E+01	1.065E+02	1.814E+02	7.359E+01	0.269
		473.00		-5.427E+01	4.538E+01	5.255E+01	4.956E+00	-1.033
		685.70	*	1.003E+01	2.609E+01	4.506E+01	3.089E+00	0.223
		783.70		6.768E+00	8.023E+01	1.327E+02	1.229E+01	0.051
I-131		80.19		-1.145E+02	2.251E+02	3.691E+02	2.877E+01	-0.310
		284.31		-5.267E+01	6.533E+01	1.037E+02	6.562E+00	-0.508
		364.49	*	9.818E-01	5.071E+00	8.478E+00	5.573E-01	0.116
		636.99		1.600E+01	6.433E+01	1.099E+02	6.413E+00	0.146
TE-132		49.72		-1.174E+02	6.550E+02	1.003E+03	8.688E+01	-0.117
		111.76		5.811E+01	8.551E+02	1.328E+03	9.806E+01	0.044
		116.30		-8.480E+02	6.358E+02	9.745E+02	7.080E+01	-0.870
		228.16	*	-1.029E+01	1.429E+01	2.142E+01	2.816E+00	-0.481
BA-133		81.00		-9.242E+00	8.405E+00	1.318E+01	1.988E+00	-0.701
		276.40		1.264E+01	2.721E+01	4.690E+01	5.883E+00	0.269
		302.85		8.558E+00	1.096E+01	1.912E+01	2.182E+00	0.448
		356.01	*	-2.363E-01	3.670E+00	5.281E+00	5.998E-01	-0.045
		383.85		2.645E-01	2.281E+01	3.748E+01	4.035E+00	0.007
I-133		529.87	*	1.177E-03	2.281E+01	Half-Life too short		
		875.33		-2.269E-02	2.281E+01	Half-Life too short		
	+	1298.22		1.909E-01	2.281E+01	Half-Life too short		
CS-134		563.25		2.802E+00	2.214E+01	3.777E+01	2.158E+00	0.074
		569.33		5.410E+00	1.285E+01	2.250E+01	1.290E+00	0.240
		604.72		-2.823E-01	2.870E+00	4.131E+00	2.218E-01	-0.068
		795.86	*	5.258E-01	3.104E+00	4.935E+00	3.337E-01	0.107
		801.95		-6.582E+00	3.411E+01	4.960E+01	3.388E+00	-0.133
		1365.19		5.700E+01	9.825E+01	1.737E+02	1.289E+01	0.328
CS-135		268.22	*	-2.421E+00	1.213E+01	2.017E+01	1.523E+00	-0.120
I-135		546.56		-2.542E+04	1.213E+01	Half-Life too short		
		836.80		-7.959E+02	1.213E+01	Half-Life too short		
		1038.76		-7.965E+02	1.213E+01	Half-Life too short		
		1131.51		2.040E+02	1.213E+01	Half-Life too short		
		1260.41	*	-1.209E+03	1.213E+01	Half-Life too short		
		1457.56		-1.761E+04	1.213E+01	Half-Life too short		

Sample ID : G1202054944 Acquisition date : 3-MAR-2010 19:16:21

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		1678.03		-6.697E+03	1.213E+01	Half-Life too short		
		1791.20		-2.111E+04	1.213E+01	Half-Life too short		
CS-136		153.25		5.603E+01	5.505E+01	9.362E+01	7.197E+00	0.598
		176.60		7.664E+00	3.164E+01	5.159E+01	3.359E+00	0.149
		273.65		-7.681E+00	2.739E+01	4.524E+01	3.047E+00	-0.170
		340.55		-4.276E+00	7.595E+00	1.206E+01	7.705E-01	-0.355
		818.51		-2.879E-01	3.661E+00	5.923E+00	4.154E-01	-0.049
		1048.07	*	4.962E+00	5.493E+00	1.007E+01	7.516E-01	0.493
		1235.36		1.302E+01	2.289E+01	4.044E+01	4.073E+00	0.322
BA-137M		661.66	*	-1.252E+00	2.652E+00	4.096E+00	2.004E-01	-0.306
CS-137		661.66	*	-1.323E+00	2.801E+00	4.327E+00	2.129E-01	-0.306
CE-139		165.86	*	-1.644E+00	2.705E+00	4.232E+00	2.158E-01	-0.389
BA-140		162.66		-1.772E+01	5.692E+01	8.657E+01	5.252E+00	-0.205
		304.85		-6.275E+01	7.434E+01	1.133E+02	3.237E+01	-0.554
		423.72		3.179E+00	1.067E+02	1.743E+02	5.632E+01	0.018
		537.26	*	4.856E+00	1.329E+01	2.193E+01	7.302E+00	0.221
LA-140		328.76		-3.361E+00	1.558E+01	2.548E+01	1.681E+00	-0.132
		487.02		2.269E+00	7.551E+00	1.251E+01	8.316E-01	0.181
		815.77		-1.281E+00	1.654E+01	2.678E+01	2.193E+00	-0.048
		1596.21	*	2.872E+00	4.997E+00	9.040E+00	5.918E-01	0.318
CE-141		145.44	*	-1.294E+00	5.088E+00	8.188E+00	4.659E-01	-0.158
CE-143		57.36		-1.222E+03	4.214E+03	7.093E+03	6.580E+02	-0.172
		293.27	*	7.201E+02	4.655E+02	7.106E+02	1.437E+02	1.013
		664.57		-4.401E+02	2.736E+03	4.471E+03	1.296E+03	-0.098
		721.93		1.565E+03	3.220E+03	5.519E+03	1.494E+03	0.284
CE-144		80.12		-1.032E+02	2.156E+02	3.542E+02	2.753E+01	-0.291
		133.52	*	-8.551E+00	1.806E+01	2.880E+01	3.992E+00	-0.297
PM-144		476.78		1.777E+00	4.940E+00	8.239E+00	5.733E-01	0.216
		618.01		-5.773E-01	2.415E+00	3.949E+00	2.221E-01	-0.146
		696.49	*	2.063E+00	2.572E+00	4.572E+00	2.437E-01	0.451
PR-144		696.51	*	1.504E+02	1.915E+02	3.399E+02	1.812E+01	0.443
		1489.16		3.117E+02	9.102E+02	1.570E+03	1.063E+02	0.199
PM-146		453.88	*	-2.238E+00	3.744E+00	5.410E+00	4.636E-01	-0.414
		633.25		-1.616E+01	1.087E+02	1.785E+02	6.705E+01	-0.091
		735.93		5.135E+00	1.079E+01	1.853E+01	5.058E+00	0.277
		747.24		-1.572E+00	7.316E+00	1.177E+01	1.554E+00	-0.134
ND-147		91.11		-5.409E+01	2.264E+01	3.655E+01	3.112E+00	-1.480
		319.41		6.386E+00	1.789E+02	2.982E+02	1.751E+01	0.021
		531.02	*	1.164E+01	2.844E+01	4.732E+01	6.386E+00	0.246
PM-149		285.90	*	-1.018E+02	8.525E+02	1.418E+03	2.004E+02	-0.072
EU-152		121.78		-1.277E+00	7.166E+00	1.170E+01	9.127E-01	-0.109
		244.70		-4.581E+01	2.689E+01	4.108E+01	2.271E+00	-1.115
		344.28	*	9.694E-01	8.026E+00	1.339E+01	8.910E-01	0.072
		778.90		-1.127E+01	1.927E+01	2.949E+01	1.899E+00	-0.382
		964.08		-6.906E+00	1.630E+01	2.455E+01	1.907E+00	-0.281
		1085.87		-1.463E+01	2.549E+01	3.924E+01	2.605E+00	-0.373
		1112.07		-3.370E+00	1.802E+01	2.684E+01	1.704E+00	-0.126
		1408.01		-2.211E+00	1.548E+01	2.313E+01	1.592E+00	-0.096
GD-153		69.67		-5.337E+01	1.778E+02	2.737E+02	2.076E+01	-0.195

Sample ID : G1202054944 Acquisition date : 3-MAR-2010 19:16:21

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		97.43	*	-4.473E+00	8.314E+00	1.274E+01	9.066E-01	-0.351
		103.18		-2.718E+00	1.002E+01	1.643E+01	1.105E+00	-0.165
EU-154		123.07		-4.200E+00	5.030E+00	7.913E+00	7.554E-01	-0.531
		723.31		-4.968E+00	1.310E+01	2.081E+01	1.443E+00	-0.239
		873.19		-4.086E+00	1.804E+01	2.835E+01	3.215E+00	-0.144
		996.26		-8.737E+00	2.931E+01	4.532E+01	7.681E+00	-0.193
		1004.73		-7.540E+00	1.533E+01	2.426E+01	2.617E+00	-0.311
		1274.44	*	6.379E-01	7.941E+00	1.321E+01	1.299E+00	0.048
EU-155		86.55		1.151E+00	8.504E+00	1.434E+01	1.167E+00	0.080
		105.31	*	2.362E-01	9.819E+00	1.632E+01	1.101E+00	0.014
TA-182		67.75		-4.910E+00	1.100E+01	1.825E+01	1.384E+00	-0.269
		100.11		9.800E-01	1.576E+01	2.631E+01	1.821E+00	0.037
		152.43		3.139E+01	3.112E+01	5.297E+01	2.815E+00	0.592
		222.11		-2.400E+01	2.860E+01	4.280E+01	2.307E+00	-0.561
	+	1121.30		1.922E+01	1.574E+01	2.143E+01	1.337E+00	0.897
		1189.05		-7.546E+00	1.534E+01	2.333E+01	1.337E+00	-0.323
		1221.41	*	-6.510E-02	9.262E+00	1.527E+01	9.162E-01	-0.004
		1231.02		-7.035E+00	2.482E+01	3.923E+01	2.385E+00	-0.179
IR-192	+	295.96		2.589E+01	1.401E+01	1.832E+01	1.078E+00	1.413
		308.46		-2.028E+00	6.772E+00	1.105E+01	6.519E-01	-0.184
		316.51	*	7.037E-01	2.734E+00	4.625E+00	2.724E-01	0.152
		468.07		2.385E+00	4.956E+00	8.348E+00	5.691E-01	0.286
HG-203		70.83		-1.715E+02	1.288E+02	1.839E+02	2.856E+01	-0.932
		72.87		-2.467E+01	6.732E+01	1.117E+02	1.676E+01	-0.221
		279.20	*	3.150E-01	2.751E+00	4.650E+00	2.809E-01	0.068
BI-207		72.81		-6.782E+00	1.719E+01	2.853E+01	2.170E+00	-0.238
		74.97		2.727E+00	1.089E+01	1.754E+01	1.340E+00	0.155
		569.70		1.750E+00	1.983E+00	3.616E+00	2.007E-01	0.484
		1063.66	*	-1.488E+00	2.712E+00	4.107E+00	2.822E-01	-0.362
		1770.23		-3.434E+00	5.012E+01	6.978E+01	4.191E+00	-0.049
TL-208		277.37		3.542E+00	2.977E+01	5.035E+01	5.403E+00	0.070
		583.19	*	-1.279E-01	3.376E+00	5.165E+00	3.298E-01	-0.025
		860.56		6.707E+00	1.916E+01	3.253E+01	2.716E+00	0.206
PB-210		46.54	*	3.117E+01	6.165E+02	8.925E+02	6.780E+01	0.035
PB-211		404.85	*	1.255E+01	4.241E+02	9.282E+01	3.109E+03	0.135
		427.09		5.774E+01	1.938E+03	1.961E+02	6.570E+03	0.294
		832.01		4.575E+01	1.534E+03	1.286E+02	4.309E+03	0.356
BI-212		727.33	*	2.095E+00	3.749E+01	6.222E+01	6.637E+00	0.034
		785.37		-3.539E+01	2.463E+02	3.978E+02	2.598E+01	-0.089
		1620.50		1.846E+02	1.748E+02	3.422E+02	2.218E+01	0.540
PB-212		74.82		4.465E+00	3.806E+01	6.089E+01	7.531E+00	0.073
		77.11		1.739E+01	2.040E+01	3.554E+01	2.731E+00	0.489
		238.63	*	-3.933E+00	5.535E+00	8.451E+00	6.047E-01	-0.465
		300.09		-1.771E+01	7.286E+01	1.049E+02	8.801E+00	-0.169
PB-214		74.82		7.848E+00	6.690E+01	1.070E+02	1.178E+01	0.073
		77.11		3.040E+01	3.576E+01	6.214E+01	7.005E+00	0.489
		242.00		8.447E+00	2.962E+01	5.086E+01	4.067E+00	0.166
	+	295.22		3.732E+01	2.033E+01	2.658E+01	2.315E+00	1.404
	+	351.93	*	5.290E+01	1.324E+01	1.877E+01	1.610E+00	2.818

Sample ID : G1202054944 Acquisition date : 3-MAR-2010 19:16:21

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
RN-219		271.23		1.452E+01	4.868E+02	3.180E+01	1.065E+03	0.457
		401.81	*	1.448E+01	4.861E+02	5.172E+01	1.732E+03	0.280
RA-223		81.07		-2.774E+01	9.295E+02	2.980E+01	9.984E+02	-0.931
		83.79		-5.273E+00	1.771E+02	1.849E+01	6.193E+02	-0.285
		94.56		-2.127E+02	7.125E+03	4.414E+01	1.479E+03	-4.818
		144.24		-2.477E+01	8.327E+02	1.050E+02	3.519E+03	-0.236
		154.21		-7.494E+00	2.536E+02	5.787E+01	1.939E+03	-0.129
		269.46		2.828E+00	9.578E+01	2.414E+01	8.087E+02	0.117
		323.87	*	-1.525E+00	7.088E+01	8.145E+01	2.728E+03	-0.019
		338.28		-5.075E+01	1.701E+03	1.091E+02	3.655E+03	-0.465
RA-224		240.99	*	2.430E+01	5.288E+01	9.157E+01	5.042E+00	0.265
RA-226		186.21	*	6.857E+00	7.799E+01	1.318E+02	8.836E+01	0.052
AC-227		79.69		-3.865E+01	1.121E+02	1.853E+02	3.117E+01	-0.209
		235.96		-1.290E+01	1.130E+01	1.792E+01	1.418E+00	-0.720
		256.23	*	-1.381E+01	1.980E+01	3.194E+01	3.229E+00	-0.432
		299.98		-2.133E+01	7.942E+01	1.140E+02	1.253E+01	-0.187
		304.50		-9.168E+01	1.273E+02	2.009E+02	3.065E+01	-0.456
		329.85		1.938E+01	5.110E+01	8.692E+01	8.641E+00	0.223
		334.37		-1.162E+02	1.430E+02	2.128E+02	3.037E+01	-0.546
TH-227		79.69		-3.865E+01	1.300E+03	1.853E+02	6.207E+03	-0.209
		235.96		-1.290E+01	4.322E+02	1.792E+01	6.001E+02	-0.720
		256.23	*	-1.381E+01	4.630E+02	3.194E+01	1.070E+03	-0.432
		299.98		-2.133E+01	7.188E+02	1.140E+02	3.820E+03	-0.187
		304.50		-9.168E+01	3.074E+03	2.009E+02	6.730E+03	-0.456
		329.85		1.938E+01	6.510E+02	8.692E+01	2.912E+03	0.223
		334.37		-1.162E+02	3.897E+03	2.128E+02	7.129E+03	-0.546
AC-228		338.32		-1.250E+01	1.835E+01	2.763E+01	1.140E+01	-0.452
		911.20	*	-1.323E+01	1.188E+01	1.633E+01	1.836E+00	-0.810
		968.97		-3.081E+00	1.657E+01	2.597E+01	6.247E+00	-0.119
RA-228		338.32		-1.250E+01	1.835E+01	2.763E+01	1.140E+01	-0.452
		911.20	*	-1.323E+01	1.188E+01	1.633E+01	1.836E+00	-0.810
		968.97		-3.081E+00	1.657E+01	2.597E+01	6.247E+00	-0.119
TH-228		74.82		4.465E+00	3.806E+01	6.089E+01	4.704E+00	0.073
		77.11		1.739E+01	2.040E+01	3.554E+01	2.731E+00	0.489
		238.63	*	-3.933E+00	5.535E+00	8.451E+00	6.047E-01	-0.465
		300.09		-1.771E+01	7.364E+01	1.049E+02	6.385E+01	-0.169
TH-229		85.43		-7.839E+00	1.944E+01	2.941E+01	2.349E+00	-0.267
		88.47		4.833E-01	1.060E+01	1.778E+01	1.432E+00	0.027
		193.51	*	-2.879E+01	4.738E+01	7.316E+01	3.818E+00	-0.393
		210.85		-1.597E+01	7.198E+01	1.129E+02	6.009E+00	-0.141
PA-231		283.69	*	-3.865E+01	1.139E+02	1.867E+02	2.443E+01	-0.207
		301.36		6.650E+01	3.866E+01	6.889E+01	6.522E+00	0.965
		330.06		9.429E+01	1.470E+02	2.503E+02	7.303E+01	0.377
TH-231		84.21	*	-1.158E+01	4.483E+01	6.849E+01	1.171E+01	-0.169
TH-232		63.81	*	-2.434E+03	1.892E+04	4.165E+03	3.204E+04	-0.584
		140.88		-1.440E+04	1.108E+04	1.604E+04	8.884E+02	-0.898
PA-233		94.65		-1.751E+02	3.166E+01	3.605E+01	2.707E+00	-4.858
		98.43		-6.835E+00	1.383E+01	2.125E+01	1.613E+00	-0.322
		300.13		-8.415E+00	3.600E+01	5.185E+01	6.942E+00	-0.162

Sample ID : G1202054944 Acquisition date : 3-MAR-2010 19:16:21

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		311.90	*	1.189E+00	5.209E+00	8.807E+00	5.465E-01	0.135
		340.48		-2.633E+01	4.670E+01	7.355E+01	1.709E+01	-0.358
PA-234		94.67		-1.179E+02	2.368E+01	2.422E+01	2.800E+00	-4.867
		98.44		-4.560E+00	9.538E+00	1.413E+01	7.853E+00	-0.323
		111.00		8.559E+00	1.906E+01	3.213E+01	3.407E+00	0.266
		131.20		-4.861E+00	9.572E+00	1.528E+01	8.836E-01	-0.318
		569.50		8.495E+00	1.793E+01	3.154E+01	1.750E+00	0.269
		733.00		8.303E-01	2.742E+01	4.536E+01	9.644E+00	0.018
		880.51		-3.002E-01	1.896E+01	3.071E+01	2.442E+00	-0.010
		883.24		-5.032E+00	2.077E+01	3.220E+01	2.162E+01	-0.156
		926.36		3.011E+00	1.168E+01	1.952E+01	4.896E+00	0.154
		946.00	*	-1.713E+01	2.124E+01	2.990E+01	5.515E+00	-0.573
		949.00		-6.241E+00	2.951E+01	4.613E+01	3.637E+00	-0.135
PA-234M		766.42		2.738E+02	1.086E+03	1.611E+03	8.116E+02	0.170
		1001.03	*	-3.362E+02	3.993E+02	5.740E+02	5.157E+01	-0.586
TH-234		63.29	*	-5.639E+01	1.951E+02	3.100E+02	5.552E+01	-0.182
		92.59		5.008E+01	8.681E+01	1.548E+02	3.357E+01	0.324
U-235		89.96		-5.359E+02	1.611E+02	1.226E+02	2.986E+01	-4.371
		93.35		-6.409E+01	6.281E+01	1.054E+02	2.392E+01	-0.608
		143.76	*	-4.980E+00	2.067E+01	3.159E+01	4.926E+00	-0.158
		163.33		-1.981E+01	4.406E+01	6.626E+01	1.098E+01	-0.299
		185.72		2.254E+00	4.902E+00	8.404E+00	4.350E-01	0.268
		205.31		3.952E+00	4.659E+01	6.695E+01	1.126E+01	0.059
NP-237		86.48	*	-2.548E+00	2.121E+01	3.535E+01	7.939E+00	-0.072
		95.86		-1.536E+02	9.582E+01	1.359E+02	3.197E+01	-1.130
U-238		63.29	*	-5.639E+01	1.951E+02	3.100E+02	5.552E+01	-0.182
		92.59		5.008E+01	8.621E+01	1.548E+02	1.170E+01	0.324
NP-239		99.53		-3.296E+00	1.517E+01	2.497E+01	1.738E+00	-0.132
		103.37		-2.819E+00	9.321E+00	1.525E+01	1.024E+00	-0.185
		106.12		-3.595E-01	7.981E+00	1.321E+01	8.687E-01	-0.027
		116.74	*	-2.071E+01	2.510E+01	3.965E+01	2.457E+00	-0.522
		228.18		-1.334E+01	1.836E+01	2.762E+01	1.499E+00	-0.483
		277.60		3.232E+00	1.351E+01	2.301E+01	1.312E+00	0.140
AM-241		59.54	*	-8.654E+00	1.818E+01	3.028E+01	2.513E+00	-0.286
CM-247		278.00		1.095E+01	5.813E+01	9.870E+01	5.633E+00	0.111
		287.50		1.410E+01	9.662E+01	1.634E+02	9.395E+00	0.086
		402.40	*	9.546E-01	2.857E+00	4.800E+00	2.876E-01	0.199
CF-249		252.80		4.611E+01	7.863E+01	1.370E+02	7.639E+00	0.337
		333.37		-8.088E+00	1.470E+01	2.244E+01	1.326E+00	-0.360
		388.16	*	8.849E-02	3.062E+00	5.034E+00	3.012E-01	0.018
CF-251		177.52	*	6.111E+00	1.170E+01	1.936E+01	9.946E-01	0.316
		227.38		-1.643E+01	2.970E+01	4.524E+01	2.454E+00	-0.363
		285.41		-5.783E+01	1.686E+02	2.762E+02	1.586E+01	-0.209
ANH-511		511.00	*	-7.613E+00	4.274E+00	6.905E+00	4.018E-01	-1.103

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202054944    *
* Acquisition date :  3-MAR-2010 19:16:21 Detector SN#    :                *
* Detector ID       : GAM02                Sensitivity     : 5.000         *
* Geometry          : 2LMB                 Energy tolerance: 1.500         *
* Elapsed live time:    0 03:00:00.00      Abundance limit : 75.000        *
* Elapsed real time:    0 03:00:04.26      Half life ratio :  8.000        *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       : 23-FEB-2010 12:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G1202054944          Analyst initials: KXG3           *
* Batch Number      : 958213               Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000           Carrier Weight :    0.00000     *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 17-JUN-2009 08:42:38 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
BI-211	1.459E+02	4.789E+03	2.604E+01	0.000E+00
BI-214	3.859E+01	1.328E+01	9.196E+00	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER	K.L. Act error) Ided	MDA (pCi/LITER	)	
BE-7	1.696E+01	2.233E+01	3.924E+01	0.000E+00	NOT IDENT.
NA-22	2.651E-01	2.743E+00	4.667E+00	0.000E+00	NOT IDENT.
NA-24	0.000E+00	3.091E+04	0.000E+00	0.000E+00	SHORT HLIF
K-40	5.620E+00	3.706E+01	6.624E+01	0.000E+00	NOT IDENT.
SC-46	-9.227E-01	3.068E+00	4.286E+00	0.000E+00	FAIL ABUN
V-48	-1.242E+00	3.174E+00	4.877E+00	0.000E+00	NOT IDENT.
CR-51	-1.528E+00	2.507E+01	4.238E+01	0.000E+00	NOT IDENT.
MN-54	1.727E+00	2.547E+00	4.549E+00	0.000E+00	NOT IDENT.
CO-56	-2.597E-03	2.440E+00	4.055E+00	0.000E+00	NOT IDENT.
CO-57	-6.002E-01	2.392E+00	3.970E+00	0.000E+00	NOT IDENT.
CO-58	1.353E+00	2.595E+00	4.581E+00	0.000E+00	NOT IDENT.
FE-59	-4.682E-01	4.934E+00	8.284E+00	0.000E+00	NOT IDENT.
CO-60	-1.521E+00	2.603E+00	3.926E+00	0.000E+00	NOT IDENT.
ZN-65	1.239E+00	5.335E+00	8.184E+00	0.000E+00	NOT IDENT.
SE-75	3.250E+00	3.324E+00	6.023E+00	0.000E+00	NOT IDENT.
SR-85	-1.110E+01	3.760E+00	4.758E+00	0.000E+00	NOT IDENT.
Y-88	-2.915E-01	2.591E+00	4.268E+00	0.000E+00	NOT IDENT.
Y-91	8.350E+02	1.057E+03	1.977E+03	0.000E+00	NOT IDENT.
NB-94	-8.268E-01	2.171E+00	3.512E+00	0.000E+00	NOT IDENT.
NB-95	1.658E+00	3.645E+00	5.638E+00	0.000E+00	NOT IDENT.
NB-95M	-1.388E+01	8.679E+00	1.366E+01	0.000E+00	NOT IDENT.
ZR-95	-4.786E+00	4.510E+00	6.570E+00	0.000E+00	NOT IDENT.
MO-99	4.605E+01	1.612E+02	2.789E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	2.667E+10	0.000E+00	0.000E+00	SHORT HLIF
RU-103	2.041E-01	2.975E+00	4.913E+00	0.000E+00	FAIL ABUN

RH-106	2.881E-01	2.157E+01	3.684E+01	0.000E+00	NOT IDENT.
RU-106	2.881E-01	2.157E+01	3.684E+01	0.000E+00	NOT IDENT.
AG-108M	5.351E-01	2.180E+00	3.696E+00	0.000E+00	NOT IDENT.
CD-109	-6.015E+00	6.806E+01	1.159E+02	0.000E+00	NOT IDENT.
AG-110M	-1.823E+00	2.430E+00	3.808E+00	0.000E+00	NOT IDENT.
SN-113	6.604E-01	3.171E+00	5.391E+00	0.000E+00	NOT IDENT.
CD-115	-3.752E+00	1.110E+02	1.808E+02	0.000E+00	NOT IDENT.
SN-117M	1.020E+00	3.447E+00	5.788E+00	0.000E+00	NOT IDENT.
TE-123M	2.937E-02	2.464E+00	4.077E+00	0.000E+00	NOT IDENT.
SB-124	-5.719E+00	5.928E+00	8.132E+00	0.000E+00	NOT IDENT.
SB-125	4.154E+00	6.841E+00	1.193E+01	0.000E+00	NOT IDENT.
TE-125M	-3.981E+00	8.929E+02	1.509E+03	0.000E+00	NOT IDENT.
I-126	5.582E+00	1.098E+01	1.951E+01	0.000E+00	NOT IDENT.
SB-126	4.368E+00	7.113E+00	1.270E+01	0.000E+00	NOT IDENT.
SN-126	-2.023E+00	6.760E+00	1.139E+01	0.000E+00	NOT IDENT.
SB-127	1.003E+01	2.557E+01	4.506E+01	0.000E+00	NOT IDENT.
I-131	9.818E-01	4.970E+00	8.478E+00	0.000E+00	NOT IDENT.
TE-132	-1.029E+01	1.400E+01	2.142E+01	0.000E+00	NOT IDENT.
BA-133	-2.363E-01	3.597E+00	5.281E+00	0.000E+00	NOT IDENT.
I-133	0.000E+00	1.978E+03	0.000E+00	0.000E+00	SHORT HLIF
CS-134	5.258E-01	3.042E+00	4.935E+00	0.000E+00	NOT IDENT.
CS-135	-2.421E+00	1.189E+01	2.017E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	1.330E+10	0.000E+00	0.000E+00	SHORT HLIF
CS-136	4.962E+00	5.383E+00	1.007E+01	0.000E+00	NOT IDENT.
BA-137M	-1.252E+00	2.599E+00	4.096E+00	0.000E+00	NOT IDENT.
CS-137	-1.323E+00	2.745E+00	4.327E+00	0.000E+00	NOT IDENT.
CE-139	-1.644E+00	2.651E+00	4.232E+00	0.000E+00	NOT IDENT.
BA-140	4.856E+00	1.302E+01	2.193E+01	0.000E+00	NOT IDENT.
LA-140	2.872E+00	4.897E+00	9.040E+00	0.000E+00	NOT IDENT.
CE-141	-1.294E+00	4.986E+00	8.188E+00	0.000E+00	NOT IDENT.
CE-143	0.000E+00	4.562E+02	7.106E+02	0.000E+00	NOT IDENT.
CE-144	-8.551E+00	1.770E+01	2.880E+01	0.000E+00	NOT IDENT.
PM-144	2.063E+00	2.521E+00	4.572E+00	0.000E+00	NOT IDENT.
PR-144	1.504E+02	1.876E+02	3.399E+02	0.000E+00	NOT IDENT.
PM-146	-2.238E+00	3.669E+00	5.410E+00	0.000E+00	NOT IDENT.
ND-147	1.164E+01	2.787E+01	4.732E+01	0.000E+00	NOT IDENT.
PM-149	-1.018E+02	8.354E+02	1.418E+03	0.000E+00	NOT IDENT.
EU-152	9.694E-01	7.866E+00	1.339E+01	0.000E+00	NOT IDENT.
GD-153	-4.473E+00	8.148E+00	1.274E+01	0.000E+00	NOT IDENT.
EU-154	6.379E-01	7.782E+00	1.321E+01	0.000E+00	NOT IDENT.
EU-155	2.362E-01	9.623E+00	1.632E+01	0.000E+00	NOT IDENT.
TA-182	-6.510E-02	9.077E+00	1.527E+01	0.000E+00	FAIL ABUN
IR-192	7.037E-01	2.679E+00	4.625E+00	0.000E+00	FAIL ABUN
HG-203	3.150E-01	2.696E+00	4.650E+00	0.000E+00	NOT IDENT.
BI-207	-1.488E+00	2.657E+00	4.107E+00	0.000E+00	NOT IDENT.
TL-208	-1.279E-01	3.309E+00	5.165E+00	0.000E+00	NOT IDENT.
PB-210	3.117E+01	6.042E+02	8.925E+02	0.000E+00	NOT IDENT.
PB-211	1.255E+01	4.157E+02	9.282E+01	0.000E+00	NOT IDENT.
BI-212	2.095E+00	3.674E+01	6.222E+01	0.000E+00	NOT IDENT.
PB-212	-3.933E+00	5.424E+00	8.451E+00	0.000E+00	NOT IDENT.
PB-214	0.000E+00	1.297E+01	1.877E+01	0.000E+00	FAIL ABUN
RN-219	1.448E+01	4.764E+02	5.172E+01	0.000E+00	NOT IDENT.
RA-223	-1.525E+00	6.946E+01	8.145E+01	0.000E+00	NOT IDENT.
RA-224	2.430E+01	5.182E+01	9.157E+01	0.000E+00	NOT IDENT.
RA-226	6.857E+00	7.643E+01	1.318E+02	0.000E+00	NOT IDENT.
AC-227	-1.381E+01	1.941E+01	3.194E+01	0.000E+00	NOT IDENT.
TH-227	-1.381E+01	4.537E+02	3.194E+01	0.000E+00	NOT IDENT.
AC-228	-1.323E+01	1.164E+01	1.633E+01	0.000E+00	NOT IDENT.
RA-228	-1.323E+01	1.164E+01	1.633E+01	0.000E+00	NOT IDENT.
TH-228	-3.933E+00	5.424E+00	8.451E+00	0.000E+00	NOT IDENT.
TH-229	-2.879E+01	4.643E+01	7.316E+01	0.000E+00	NOT IDENT.
PA-231	-3.865E+01	1.116E+02	1.867E+02	0.000E+00	NOT IDENT.
TH-231	-1.158E+01	4.394E+01	6.849E+01	0.000E+00	NOT IDENT.
TH-232	-2.434E+03	1.854E+04	4.165E+03	0.000E+00	NOT IDENT.
PA-233	1.189E+00	5.105E+00	8.807E+00	0.000E+00	NOT IDENT.
PA-234	-1.713E+01	2.081E+01	2.990E+01	0.000E+00	NOT IDENT.
PA-234M	-3.362E+02	3.913E+02	5.740E+02	0.000E+00	NOT IDENT.
TH-234	-5.639E+01	1.912E+02	3.100E+02	0.000E+00	NOT IDENT.
U-235	-4.980E+00	2.025E+01	3.159E+01	0.000E+00	NOT IDENT.
NP-237	-2.548E+00	2.079E+01	3.535E+01	0.000E+00	NOT IDENT.
U-238	-5.639E+01	1.912E+02	3.100E+02	0.000E+00	NOT IDENT.
NP-239	-2.071E+01	2.460E+01	3.965E+01	0.000E+00	NOT IDENT.
AM-241	-8.654E+00	1.782E+01	3.028E+01	0.000E+00	NOT IDENT.
CM-247	9.546E-01	2.800E+00	4.800E+00	0.000E+00	NOT IDENT.
CF-249	8.849E-02	3.001E+00	5.034E+00	0.000E+00	NOT IDENT.
CF-251	6.111E+00	1.147E+01	1.936E+01	0.000E+00	NOT IDENT.
ANH-511	-7.613E+00	4.188E+00	6.905E+00	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 3-MAR-2010 22:16:53.11

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202054944.CNF;1
Sample date       : 23-FEB-2010 12:00:00 Acquisition date : 3-MAR-2010 19:16:21.
Sample ID         : G1202054944          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM02                Detector geometry: 2LMB
Elapsed live time: 0 03:00:00.00         Elapsed real time: 0 03:00:04.26  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID          : 958213               Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	62.89	140	269	1.08	124.98	121	8	1.30E-02	22.0	
2	0	92.27	372	291	1.23	183.76	181	9	3.45E-02	9.7	
3	0	185.29	243	233	1.15	369.90	366	10	2.25E-02	13.4	
4	0	238.36	64	112	0.78	476.09	473	7	5.94E-03	29.9	
5	0	295.16	118	169	0.86	589.75	585	10	1.09E-02	22.7	
6	0	351.60	289	115	1.19	702.70	697	12	2.67E-02	9.5	
7	0	510.85	158	113	1.99	1021.37	1015	14	1.47E-02	16.4	
8	0	582.92	41	38	1.17	1165.60	1160	10	3.78E-03	32.8	
9	0	596.84	42	85	3.38	1193.47	1182	18	3.85E-03	54.4	
10	0	608.94	190	101	1.40	1217.67	1211	15	1.76E-02	13.6	
11	0	1119.84	44	32	1.44	2240.17	2234	14	4.08E-03	31.0	
12	0	1299.39	27	6	3.20	2599.53	2593	13	2.51E-03	27.1	
13	0	1763.52	53	11	1.14	3528.56	3521	15	4.88E-03	19.5	

VAX/VMS Nuclide Identification Report Generated 3-MAR-2010 22:16:56.00

```
*****************************************************************************
*                            GEL Laboratories LLC                           *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202054944.CNF;1
Sample date       : 23-FEB-2010 12:00:00 Acquisition date : 3-MAR-2010 19:16:21.
Sample ID         : G1202054944          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM02                Detector geometry: 2LMB
Elapsed live time: 0 03:00:00.00         Elapsed real time: 0 03:00:04.26  0.0%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 958213                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
BI-211	72.87	------	1.23	1.352E+00	------	Line Not Found	------
	351.06	248	12.92*	1.650E+00	1.458E+02	1.459E+02	3349.94
BI-214	609.32	156	45.49*	1.114E+00	3.859E+01	3.859E+01	35.11
	1120.29	35	14.92	6.870E-01	4.274E+01	4.274E+01	82.13
	1764.49	30	15.30	4.869E-01	5.013E+01	5.013E+01	72.28

Flag: "*" = Keyline

Sample ID : G1202054944 Acquisition date : 3-MAR-2010 19:16:21

Total number of lines in spectrum	7	
Number of unidentified lines	1	
Number of lines tentatively identified by NID	6	85.71%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
BI-211	21.77Y	1.00	1.458E+02	1.459E+02	48.86E+02	3349.94	
BI-214	1600.00Y	1.00	3.859E+01	3.859E+01	1.355E+01	35.11	
	Total Activity :		1.843E+02	1.845E+02			
	Grand Total Activity :		1.843E+02	1.845E+02			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202054944 Acquisition date : 3-MAR-2010 19:16:21

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	295.16	102	169	0.86	589.75	585	10	9.45E-03	53.8	1.86E+00	T
0	596.84	42	85	3.38	1193.47	1182	18	3.85E-03	****	1.13E+00	
0	1299.39	27	6	3.20	2599.53	2593	13	2.51E-03	54.3	6.09E-01	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 3-MAR-2010 22:16:59.28

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
*                                                                           *
*                               DETECTOR DATA                               *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202054944.CNF;1 *
* Acquisition date : 3-MAR-2010 19:16:21.  Detector SN#    :                *
* Detector ID      : GAM02                 Sensitivity     : 5.00000        *
* Geometry         : 2LMB                  Energy tolerance: 1.50000        *
* Elapsed live time: 0 03:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 03:00:04.26         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 23-FEB-2010 12:00:00  Nuclide Library : LIQUID          *
* Sample ID        : G1202054944           Analyst initials: KXG3            *
* Batch Number     : 958213                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 17-JUN-2009 08:42:38.1MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BI-211	1.459E+02	4.886E+03	2.604E+01	8.723E+02	5.601
BI-214	3.859E+01	1.355E+01	9.196E+00	6.878E-01	4.196

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	1.696E+01		2.279E+01	3.924E+01	2.688E+00	0.432
NA-22	2.651E-01		2.799E+00	4.667E+00	3.014E-01	0.057
NA-24	4.151E-03		1.577E-02	Half-Life too short		
K-40	5.620E+00		3.781E+01	6.624E+01	4.717E+00	0.085
SC-46	-9.227E-01		3.131E+00	4.286E+00	3.467E-01	-0.215
V-48	-1.242E+00		3.239E+00	4.877E+00	3.713E-01	-0.255
CR-51	-1.528E+00		2.558E+01	4.238E+01	2.762E+00	-0.036
MN-54	1.727E+00		2.599E+00	4.549E+00	3.299E-01	0.380
CO-56	-2.597E-03		2.490E+00	4.055E+00	3.014E-01	-0.001
CO-57	-6.002E-01		2.440E+00	3.970E+00	2.420E-01	-0.151

Sample ID : G1202054944 Acquisition date : 3-MAR-2010 19:16:21

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-58	1.353E+00		2.648E+00	4.581E+00	3.172E-01	0.295
FE-59	-4.682E-01		5.035E+00	8.284E+00	6.126E-01	-0.057
CO-60	-1.521E+00		2.656E+00	3.926E+00	2.728E-01	-0.387
ZN-65	1.239E+00		5.444E+00	8.184E+00	5.173E-01	0.151
SE-75	3.250E+00		3.391E+00	6.023E+00	3.435E-01	0.540
SR-85	-1.110E+01		3.837E+00	4.758E+00	2.764E-01	-2.332
Y-88	-2.915E-01		2.644E+00	4.268E+00	2.460E-01	-0.068
Y-91	8.350E+02		1.079E+03	1.977E+03	1.158E+02	0.422
NB-94	-8.268E-01		2.216E+00	3.512E+00	1.899E-01	-0.235
NB-95	1.658E+00		3.720E+00	5.638E+00	3.527E-01	0.294
NB-95M	-1.388E+01		8.856E+00	1.366E+01	9.983E-01	-1.016
ZR-95	-4.786E+00		4.602E+00	6.570E+00	4.825E-01	-0.728
MO-99	4.605E+01		1.645E+02	2.789E+02	4.030E+01	0.165
TC-99M	-2.482E+04		1.361E+04	Half-Life too short		
RU-103	2.041E-01		3.036E+00	4.913E+00	6.120E-01	0.042
RH-106	2.881E-01		2.201E+01	3.684E+01	4.177E+00	0.008
RU-106	2.881E-01		2.201E+01	3.684E+01	1.920E+00	0.008
AG-108M	5.351E-01		2.225E+00	3.696E+00	2.358E-01	0.145
CD-109	-6.015E+00		6.945E+01	1.159E+02	9.402E+00	-0.052
AG-110M	-1.823E+00		2.479E+00	3.808E+00	2.042E-01	-0.479
SN-113	6.604E-01		3.235E+00	5.391E+00	3.429E-01	0.123
CD-115	-3.752E+00		1.133E+02	1.808E+02	1.040E+01	-0.021
SN-117M	1.020E+00		3.518E+00	5.788E+00	3.015E-01	0.176
TE-123M	2.937E-02		2.514E+00	4.077E+00	2.157E-01	0.007
SB-124	-5.719E+00		6.049E+00	8.132E+00	5.500E-01	-0.703
SB-125	4.154E+00		6.981E+00	1.193E+01	7.425E-01	0.348
TE-125M	-3.981E+00		9.111E+02	1.509E+03	1.321E+02	-0.003
I-126	5.582E+00		1.121E+01	1.951E+01	9.653E-01	0.286
SB-126	4.368E+00		7.258E+00	1.270E+01	7.168E-01	0.344
SN-126	-2.023E+00		6.898E+00	1.139E+01	9.226E-01	-0.177
SB-127	1.003E+01		2.609E+01	4.506E+01	3.089E+00	0.223
I-131	9.818E-01		5.071E+00	8.478E+00	5.573E-01	0.116
TE-132	-1.029E+01		1.429E+01	2.142E+01	2.816E+00	-0.481
BA-133	-2.363E-01		3.670E+00	5.281E+00	5.998E-01	-0.045
I-133	1.177E-03		1.009E-03	Half-Life too short		
CS-134	5.258E-01		3.104E+00	4.935E+00	3.337E-01	0.107
CS-135	-2.421E+00		1.213E+01	2.017E+01	1.523E+00	-0.120
I-135	-1.209E+03		6.785E+03	Half-Life too short		
CS-136	4.962E+00		5.493E+00	1.007E+01	7.516E-01	0.493
BA-137M	-1.252E+00		2.652E+00	4.096E+00	2.004E-01	-0.306
CS-137	-1.323E+00		2.801E+00	4.327E+00	2.129E-01	-0.306
CE-139	-1.644E+00		2.705E+00	4.232E+00	2.158E-01	-0.389
BA-140	4.856E+00		1.329E+01	2.193E+01	7.302E+00	0.221
LA-140	2.872E+00		4.997E+00	9.040E+00	5.918E-01	0.318
CE-141	-1.294E+00		5.088E+00	8.188E+00	4.659E-01	-0.158
CE-143	7.201E+02		4.655E+02	7.106E+02	1.437E+02	1.013
CE-144	-8.551E+00		1.806E+01	2.880E+01	3.992E+00	-0.297
PM-144	2.063E+00		2.572E+00	4.572E+00	2.437E-01	0.451

Sample ID : G1202054944 Acquisition date : 3-MAR-2010 19:16:21

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PR-144	1.504E+02		1.915E+02	3.399E+02	1.812E+01	0.443
PM-146	-2.238E+00		3.744E+00	5.410E+00	4.636E-01	-0.414
ND-147	1.164E+01		2.844E+01	4.732E+01	6.386E+00	0.246
PM-149	-1.018E+02		8.525E+02	1.418E+03	2.004E+02	-0.072
EU-152	9.694E-01		8.026E+00	1.339E+01	8.910E-01	0.072
GD-153	-4.473E+00		8.314E+00	1.274E+01	9.066E-01	-0.351
EU-154	6.379E-01		7.941E+00	1.321E+01	1.299E+00	0.048
EU-155	2.362E-01		9.819E+00	1.632E+01	1.101E+00	0.014
TA-182	-6.510E-02		9.262E+00	1.527E+01	9.162E-01	-0.004
IR-192	7.037E-01		2.734E+00	4.625E+00	2.724E-01	0.152
HG-203	3.150E-01		2.751E+00	4.650E+00	2.809E-01	0.068
BI-207	-1.488E+00		2.712E+00	4.107E+00	2.822E-01	-0.362
TL-208	-1.279E-01		3.376E+00	5.165E+00	3.298E-01	-0.025
PB-210	3.117E+01		6.165E+02	8.925E+02	6.780E+01	0.035
PB-211	1.255E+01		4.241E+02	9.282E+01	3.109E+03	0.135
BI-212	2.095E+00		3.749E+01	6.222E+01	6.637E+00	0.034
PB-212	-3.933E+00		5.535E+00	8.451E+00	6.047E-01	-0.465
PB-214	5.290E+01	+	1.324E+01	1.877E+01	1.610E+00	2.818
RN-219	1.448E+01		4.861E+02	5.172E+01	1.732E+03	0.280
RA-223	-1.525E+00		7.088E+01	8.145E+01	2.728E+03	-0.019
RA-224	2.430E+01		5.288E+01	9.157E+01	5.042E+00	0.265
RA-226	6.857E+00		7.799E+01	1.318E+02	8.836E+01	0.052
AC-227	-1.381E+01		1.980E+01	3.194E+01	3.229E+00	-0.432
TH-227	-1.381E+01		4.630E+02	3.194E+01	1.070E+03	-0.432
AC-228	-1.323E+01		1.188E+01	1.633E+01	1.836E+00	-0.810
RA-228	-1.323E+01		1.188E+01	1.633E+01	1.836E+00	-0.810
TH-228	-3.933E+00		5.535E+00	8.451E+00	6.047E-01	-0.465
TH-229	-2.879E+01		4.738E+01	7.316E+01	3.818E+00	-0.393
PA-231	-3.865E+01		1.139E+02	1.867E+02	2.443E+01	-0.207
TH-231	-1.158E+01		4.483E+01	6.849E+01	1.171E+01	-0.169
TH-232	-2.434E+03		1.892E+04	4.165E+03	3.204E+04	-0.584
PA-233	1.189E+00		5.209E+00	8.807E+00	5.465E-01	0.135
PA-234	-1.713E+01		2.124E+01	2.990E+01	5.515E+00	-0.573
PA-234M	-3.362E+02		3.993E+02	5.740E+02	5.157E+01	-0.586
TH-234	-5.639E+01		1.951E+02	3.100E+02	5.552E+01	-0.182
U-235	-4.980E+00		2.067E+01	3.159E+01	4.926E+00	-0.158
NP-237	-2.548E+00		2.121E+01	3.535E+01	7.939E+00	-0.072
U-238	-5.639E+01		1.951E+02	3.100E+02	5.552E+01	-0.182
NP-239	-2.071E+01		2.510E+01	3.965E+01	2.457E+00	-0.522
AM-241	-8.654E+00		1.818E+01	3.028E+01	2.513E+00	-0.286
CM-247	9.546E-01		2.857E+00	4.800E+00	2.876E-01	0.199
CF-249	8.849E-02		3.062E+00	5.034E+00	3.012E-01	0.018
CF-251	6.111E+00		1.170E+01	1.936E+01	9.946E-01	0.316
ANH-511	-7.613E+00		4.274E+00	6.905E+00	4.018E-01	-1.103

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202054944           *
* Acquisition date :  3-MAR-2010 19:16:21 Detector SN#    :                 *
* Detector ID      : GAM02                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 03:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 03:00:04.26     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      : 23-FEB-2010 12:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G1202054944          Analyst initials: KXG3            *
* Batch Number     : 958213               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 17-JUN-2009 08:42:38 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
BI-211	1.459E+02	4.789E+03	1.303E+01	2.443E+03
BI-214	3.859E+01	1.328E+01	4.601E+00	6.774E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU	
BE-7	1.696E+01	2.233E+01	1.963E+01	1.139E+01	NOT IDENT.
NA-22	2.651E-01	2.743E+00	2.335E+00	1.400E+00	NOT IDENT.
NA-24	4.151E+03	3.091E+04	0.000E+00	1.577E+04	SHORT HLIF
K-40	5.620E+00	3.706E+01	3.314E+01	1.891E+01	NOT IDENT.
SC-46	-9.227E-01	3.068E+00	2.144E+00	1.565E+00	FAIL ABUN
V-48	-1.242E+00	3.174E+00	2.440E+00	1.619E+00	NOT IDENT.
CR-51	-1.528E+00	2.507E+01	2.120E+01	1.279E+01	NOT IDENT.
MN-54	1.727E+00	2.547E+00	2.276E+00	1.299E+00	NOT IDENT.
CO-56	-2.597E-03	2.440E+00	2.029E+00	1.245E+00	NOT IDENT.
CO-57	-6.002E-01	2.392E+00	1.986E+00	1.220E+00	NOT IDENT.
CO-58	1.353E+00	2.595E+00	2.292E+00	1.324E+00	NOT IDENT.
FE-59	-4.682E-01	4.934E+00	4.144E+00	2.518E+00	NOT IDENT.
CO-60	-1.521E+00	2.603E+00	1.964E+00	1.328E+00	NOT IDENT.
ZN-65	1.239E+00	5.335E+00	4.095E+00	2.722E+00	NOT IDENT.
SE-75	3.250E+00	3.324E+00	3.013E+00	1.696E+00	NOT IDENT.
SR-85	-1.110E+01	3.760E+00	2.380E+00	1.919E+00	NOT IDENT.
Y-88	-2.915E-01	2.591E+00	2.135E+00	1.322E+00	NOT IDENT.
Y-91	8.350E+02	1.057E+03	9.889E+02	5.394E+02	NOT IDENT.
NB-94	-8.268E-01	2.171E+00	1.757E+00	1.108E+00	NOT IDENT.
NB-95	1.658E+00	3.645E+00	2.821E+00	1.860E+00	NOT IDENT.
NB-95M	-1.388E+01	8.679E+00	6.836E+00	4.428E+00	NOT IDENT.
ZR-95	-4.786E+00	4.510E+00	3.287E+00	2.301E+00	NOT IDENT.
MO-99	4.605E+01	1.612E+02	1.395E+02	8.227E+01	NOT IDENT.
TC-99M	-2.482E+10	2.667E+10	0.000E+00	1.361E+10	SHORT HLIF
RU-103	2.041E-01	2.975E+00	2.458E+00	1.518E+00	FAIL ABUN

RH-106	2.881E-01	2.157E+01	1.843E+01	1.101E+01	NOT IDENT.
RU-106	2.881E-01	2.157E+01	1.843E+01	1.101E+01	NOT IDENT.
AG-108M	5.351E-01	2.180E+00	1.849E+00	1.112E+00	NOT IDENT.
CD-109	-6.015E+00	6.806E+01	5.796E+01	3.472E+01	NOT IDENT.
AG-110M	-1.823E+00	2.430E+00	1.905E+00	1.240E+00	NOT IDENT.
SN-113	6.604E-01	3.171E+00	2.697E+00	1.618E+00	NOT IDENT.
CD-115	-3.752E+00	1.110E+02	9.045E+01	5.665E+01	NOT IDENT.
SN-117M	1.020E+00	3.447E+00	2.895E+00	1.759E+00	NOT IDENT.
TE-123M	2.937E-02	2.464E+00	2.040E+00	1.257E+00	NOT IDENT.
SB-124	-5.719E+00	5.928E+00	4.068E+00	3.024E+00	NOT IDENT.
SB-125	4.154E+00	6.841E+00	5.971E+00	3.491E+00	NOT IDENT.
TE-125M	-3.981E+00	8.929E+02	7.549E+02	4.555E+02	NOT IDENT.
I-126	5.582E+00	1.098E+01	9.760E+00	5.604E+00	NOT IDENT.
SB-126	4.368E+00	7.113E+00	6.353E+00	3.629E+00	NOT IDENT.
SN-126	-2.023E+00	6.760E+00	5.701E+00	3.449E+00	NOT IDENT.
SB-127	1.003E+01	2.557E+01	2.255E+01	1.304E+01	NOT IDENT.
I-131	9.818E-01	4.970E+00	4.242E+00	2.535E+00	NOT IDENT.
TE-132	-1.029E+01	1.400E+01	1.072E+01	7.144E+00	NOT IDENT.
BA-133	-2.363E-01	3.597E+00	2.642E+00	1.835E+00	NOT IDENT.
I-133	1.177E+03	1.978E+03	0.000E+00	1.009E+03	SHORT HLIF
CS-134	5.258E-01	3.042E+00	2.469E+00	1.552E+00	NOT IDENT.
CS-135	-2.421E+00	1.189E+01	1.009E+01	6.065E+00	NOT IDENT.
I-135	-1.209E+09	1.330E+10	0.000E+00	6.785E+09	SHORT HLIF
CS-136	4.962E+00	5.383E+00	5.039E+00	2.747E+00	NOT IDENT.
BA-137M	-1.252E+00	2.599E+00	2.049E+00	1.326E+00	NOT IDENT.
CS-137	-1.323E+00	2.745E+00	2.165E+00	1.401E+00	NOT IDENT.
CE-139	-1.644E+00	2.651E+00	2.117E+00	1.352E+00	NOT IDENT.
BA-140	4.856E+00	1.302E+01	1.097E+01	6.643E+00	NOT IDENT.
LA-140	2.872E+00	4.897E+00	4.523E+00	2.498E+00	NOT IDENT.
CE-141	-1.294E+00	4.986E+00	4.096E+00	2.544E+00	NOT IDENT.
CE-143	7.201E+02	4.562E+02	3.555E+02	2.328E+02	NOT IDENT.
CE-144	-8.551E+00	1.770E+01	1.441E+01	9.029E+00	NOT IDENT.
PM-144	2.063E+00	2.521E+00	2.287E+00	1.286E+00	NOT IDENT.
PR-144	1.504E+02	1.876E+02	1.701E+02	9.574E+01	NOT IDENT.
PM-146	-2.238E+00	3.669E+00	2.706E+00	1.872E+00	NOT IDENT.
ND-147	1.164E+01	2.787E+01	2.367E+01	1.422E+01	NOT IDENT.
PM-149	-1.018E+02	8.354E+02	7.093E+02	4.262E+02	NOT IDENT.
EU-152	9.694E-01	7.866E+00	6.698E+00	4.013E+00	NOT IDENT.
GD-153	-4.473E+00	8.148E+00	6.374E+00	4.157E+00	NOT IDENT.
EU-154	6.379E-01	7.782E+00	6.610E+00	3.970E+00	NOT IDENT.
EU-155	2.362E-01	9.623E+00	8.163E+00	4.910E+00	NOT IDENT.
TA-182	-6.510E-02	9.077E+00	7.642E+00	4.631E+00	FAIL ABUN
IR-192	7.037E-01	2.679E+00	2.314E+00	1.367E+00	FAIL ABUN
HG-203	3.150E-01	2.696E+00	2.327E+00	1.376E+00	NOT IDENT.
BI-207	-1.488E+00	2.657E+00	2.055E+00	1.356E+00	NOT IDENT.
TL-208	-1.279E-01	3.309E+00	2.584E+00	1.688E+00	NOT IDENT.
PB-210	3.117E+01	6.042E+02	4.465E+02	3.083E+02	NOT IDENT.
PB-211	1.255E+01	4.157E+02	4.644E+01	2.121E+02	NOT IDENT.
BI-212	2.095E+00	3.674E+01	3.113E+01	1.875E+01	NOT IDENT.
PB-212	-3.933E+00	5.424E+00	4.228E+00	2.767E+00	NOT IDENT.
PB-214	5.290E+01	1.297E+01	9.391E+00	6.619E+00	FAIL ABUN
RN-219	1.448E+01	4.764E+02	2.587E+01	2.431E+02	NOT IDENT.
RA-223	-1.525E+00	6.946E+01	4.075E+01	3.544E+01	NOT IDENT.
RA-224	2.430E+01	5.182E+01	4.581E+01	2.644E+01	NOT IDENT.
RA-226	6.857E+00	7.643E+01	6.593E+01	3.900E+01	NOT IDENT.
AC-227	-1.381E+01	1.941E+01	1.598E+01	9.901E+00	NOT IDENT.
TH-227	-1.381E+01	4.537E+02	1.598E+01	2.315E+02	NOT IDENT.
AC-228	-1.323E+01	1.164E+01	8.168E+00	5.938E+00	NOT IDENT.
RA-228	-1.323E+01	1.164E+01	8.168E+00	5.938E+00	NOT IDENT.
TH-228	-3.933E+00	5.424E+00	4.228E+00	2.767E+00	NOT IDENT.
TH-229	-2.879E+01	4.643E+01	3.660E+01	2.369E+01	NOT IDENT.
PA-231	-3.865E+01	1.116E+02	9.339E+01	5.694E+01	NOT IDENT.
TH-231	-1.158E+01	4.394E+01	3.427E+01	2.242E+01	NOT IDENT.
TH-232	-2.434E+03	1.854E+04	2.084E+03	9.459E+03	NOT IDENT.
PA-233	1.189E+00	5.105E+00	4.406E+00	2.604E+00	NOT IDENT.
PA-234	-1.713E+01	2.081E+01	1.496E+01	1.062E+01	NOT IDENT.
PA-234M	-3.362E+02	3.913E+02	2.872E+02	1.997E+02	NOT IDENT.
TH-234	-5.639E+01	1.912E+02	1.551E+02	9.756E+01	NOT IDENT.
U-235	-4.980E+00	2.025E+01	1.581E+01	1.033E+01	NOT IDENT.
NP-237	-2.548E+00	2.079E+01	1.769E+01	1.061E+01	NOT IDENT.
U-238	-5.639E+01	1.912E+02	1.551E+02	9.756E+01	NOT IDENT.
NP-239	-2.071E+01	2.460E+01	1.984E+01	1.255E+01	NOT IDENT.
AM-241	-8.654E+00	1.782E+01	1.515E+01	9.090E+00	NOT IDENT.
CM-247	9.546E-01	2.800E+00	2.401E+00	1.429E+00	NOT IDENT.
CF-249	8.849E-02	3.001E+00	2.518E+00	1.531E+00	NOT IDENT.
CF-251	6.111E+00	1.147E+01	9.686E+00	5.852E+00	NOT IDENT.
ANH-511	-7.613E+00	4.188E+00	3.454E+00	2.137E+00	NOT IDENT.

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                            CHARLESTON ,SC 29417                           *
*                     GAMMA SPECTROSCOPY BACKGROUND REPORT                  *
*****************************************************************************
```

ENERGY	MDA COUNTS
46.54	138.1953
49.72	158.4782
57.36	171.4810
59.54	189.8246
63.29	203.2661
63.29	203.2661
63.81	217.4966
64.28	243.0589
67.75	201.4874
69.67	170.7225
70.83	204.0974
72.81	215.8943
72.87	215.9288
72.87	215.9288
74.82	217.9421
74.82	217.9421
74.82	217.9421
74.97	218.0274
77.11	219.2399
77.11	219.2399
77.11	219.2399
79.69	206.1483
79.69	206.1483
80.12	201.8243
80.19	201.8605
81.00	215.9337
81.07	228.7288
83.79	201.8188
84.21	193.7590
85.43	191.5649
86.48	211.4320
86.55	202.2326
86.94	219.0558
87.57	210.1246
88.03	206.6443
88.47	207.7840
89.96	518.4635
91.11	273.4476
92.59	197.5818
92.59	197.5818
93.35	198.8578
94.56	516.3601
94.65	516.4634
94.67	516.4858
95.86	258.4512
97.43	191.1930
98.43	191.6076
98.44	191.6117
99.53	193.9633
100.11	188.4922
103.18	195.4658
103.37	197.4607
105.31	195.3687
106.12	205.3340
109.28	237.6989
111.00	236.5668
111.76	222.2979
116.30	236.0718
116.74	218.5504
121.12	210.4365
121.78	223.6141
122.06	223.7297
123.07	234.1095
131.20	213.2924
133.52	214.1574
136.00	213.0352
136.47	235.6480

140.51	241.3684
140.51	0.0000
140.88	252.8217
143.76	200.3329
144.24	201.5222
145.44	227.8060
152.43	195.8113
153.25	191.8704
154.21	220.5081
156.02	213.7588
158.56	193.4509
159.00	204.1594
162.66	207.4176
163.33	206.5611
165.86	223.3700
176.60	188.8664
177.52	180.4159
181.07	194.4177
185.72	160.4850
186.21	167.1917
193.51	197.7059
205.31	162.3882
210.85	161.2407
222.11	164.6004
227.38	152.8815
228.16	158.8160
228.18	158.8202
235.69	183.2864
235.96	171.0609
235.96	171.0609
238.63	177.7363
238.63	177.7363
240.99	165.8540
242.00	167.8069
244.70	184.2534
252.40	130.4178
252.80	126.8999
256.23	133.6432
256.23	133.6432
260.90	122.5859
264.66	104.9675
268.22	126.2424
269.46	122.7660
271.23	109.3213
273.65	126.0290
276.40	110.8083
277.37	116.4173
277.60	114.6088
278.00	118.3235
279.20	119.3835
279.54	116.6692
283.69	118.0703
284.31	125.5244
285.41	113.6478
285.90	111.8534
287.50	108.3253
293.27	125.1284
295.22	108.1995
295.96	103.0485
299.98	125.9262
299.98	125.9262
300.09	125.9405
300.09	125.9405
300.13	125.9446
301.36	82.5591
302.85	97.7047
304.50	116.6738
304.50	116.6738
304.85	117.6529
308.46	96.3254
311.90	102.3129
316.51	108.4492
319.41	106.8235
320.08	107.8411
323.87	95.7581
328.76	100.9785
329.85	95.2990
329.85	95.2990

330.06	89.5403
333.37	99.4528
334.37	107.2704
334.37	107.2704
338.28	100.8436
338.32	100.8468
338.32	100.8468
340.48	105.8898
340.55	105.8965
344.28	101.3578
351.06	91.1524
351.93	91.2191
356.01	86.6049
364.49	81.2593
366.42	90.3168
383.85	79.4906
388.16	76.7271
388.63	74.7345
391.70	71.8732
400.66	73.3788
401.81	66.3023
402.40	71.4334
404.85	75.6531
414.70	75.1721
423.72	74.6257
427.09	61.2984
427.87	62.3721
433.94	61.5955
453.88	76.2056
463.37	64.9754
468.07	61.9719
473.00	68.6050
476.78	58.0284
477.60	53.7582
487.02	59.4941
492.35	64.0370
497.08	71.8491
511.00	73.5706
514.00	180.4148
527.90	62.1250
529.87	0.0000
531.02	51.1267
537.26	43.5060
546.56	0.0000
563.25	38.0502
569.33	39.9985
569.50	40.0028
569.70	34.5516
583.19	52.2185
600.60	61.0387
602.73	41.6656
604.72	61.7920
609.32	64.1114
610.33	64.1468
614.28	52.7902
618.01	56.9395
621.93	45.8322
621.93	45.8322
633.25	53.6295
635.95	42.3973
636.99	45.2484
645.85	39.7718
657.76	54.3003
661.66	44.8600
661.66	44.8600
664.57	48.7488
666.33	44.0077
666.50	41.1408
677.62	41.3665
685.70	34.7678
695.00	46.5645
696.49	43.6849
696.51	43.6849
697.00	55.3482
702.65	42.8388
706.68	48.7732
720.70	40.2563
721.93	45.1914

722.78	53.0719
722.91	58.9717
723.31	57.0173
724.19	52.1227
727.33	46.2886
733.00	43.4468
735.93	38.5611
739.50	40.6046
747.24	46.7097
753.82	40.8669
756.73	45.9090
763.94	62.0757
765.80	37.0759
766.42	42.0974
777.92	46.3392
778.90	47.3660
783.70	47.4647
785.37	49.5204
795.86	28.4245
801.95	35.6229
810.76	32.6898
815.77	37.8771
818.51	34.8459
832.01	35.0409
834.85	33.0180
836.80	0.0000
846.77	31.1045
856.80	29.1484
860.56	29.1922
871.09	37.6901
873.19	28.2907
875.33	0.0000
880.51	29.4232
883.24	34.7145
884.68	34.7338
889.28	31.6326
898.04	30.6815
911.20	35.0899
911.20	35.0899
926.36	25.6664
937.49	41.8812
944.13	32.2954
946.00	36.6264
949.00	29.1179
964.08	29.2781
968.97	32.5891
968.97	32.5891
983.53	25.1158
996.26	43.8770
1001.03	35.1602
1004.73	39.4228
1037.84	24.1105
1038.76	0.0000
1048.07	26.9869
1050.41	37.2526
1050.41	37.2526
1063.66	20.5793
1085.87	32.0396
1099.25	25.5542
1112.07	21.5414
1115.54	19.5720
1120.29	21.9153
1120.55	21.9172
1121.30	21.2420
1131.51	0.0000
1173.23	23.2500
1189.05	22.3889
1204.77	16.6265
1221.41	18.6753
1231.02	25.6276
1235.36	23.6865
1238.28	14.8169
1260.41	0.0000
1274.44	22.9569
1274.54	22.9579
1291.59	31.5948
1298.22	0.0000
1312.11	21.1846

1332.49	23.3332
1365.19	19.4469
1368.63	0.0000
1384.29	23.6617
1408.01	21.7391
1457.56	0.0000
1460.82	16.7904
1489.16	12.6826
1596.21	16.7337
1620.50	8.4143
1678.03	0.0000
1690.97	18.9997
1764.49	15.2051
1770.23	16.9153
1771.35	33.8391
1791.20	0.0000
1836.06	11.7610

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202054944

Total Uranium Activity	-1.7008E+02	ug/g
Total Uranium Counting Unc.	5.6895E+02	ug/g
Total Uranium Tpu	2.9028E-04	ug/g
Total Uranium Mda	4.6142E+02	ug/g

```
*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                          *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 958213                    SAMPLE ID  : G1202054944      *
*   ANALYST       : KXG3                      DETECTOR   : GAM02            *
*   SAMPLE DATE   : 23-FEB-2010 12:00:00.00   COUNT TIME :    0 03:00:00.00 *
*   ANALYSIS DATE:  3-MAR-2010 19:16:21.99    SAMPLE ALQT:    2.000 LITER   *
*                                                                           *
*****************************************************************************
```

```
GROSS GAMMA ACTIVITY (pCi/LITER ) : 6.748E+01
GROSS GAMMA ERROR  (pCi/LITER )   : 1.674E+01
GROSS GAMMA MDA    (pCi/LITER )   : 6.812E+01
GROSS GAMMA DLC    (pCi/LITER )   : 3.271E+01
```

VAX/VMS Nuclide Identification Report Generated 3-MAR-2010 20:39:42.52

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202054946.CNF;1
Sample date       : 1-MAR-2010 00:00:00. Acquisition date : 3-MAR-2010 19:39:04.
Sample ID         : G1202054946          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM17                Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:05.27  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 958213                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	50.53*	185	1243	2.89	100.69	94	12	5.13E-02	38.9	
2	3	57.77	119	193	0.94	115.17	114	15	3.30E-02	14.8	3.05E+00
3	3	59.54*	2947	329	0.87	118.72	114	15	8.19E-01	2.1	
4	0	88.01*	723	264	0.98	175.68	171	10	2.01E-01	5.7	
5	0	121.97	105	162	0.84	243.63	240	8	2.91E-02	23.2	
6	0	661.11*	832	63	1.34	1322.40	1315	15	2.31E-01	4.1	
7	0	1172.06	686	37	1.70	2345.01	2336	19	1.91E-01	4.4	
8	0	1331.16	598	11	1.66	2663.45	2657	14	1.66E-01	4.2	

Flag: "*" = Peak area was modified by background subtraction

VMS Nuclide Identification Report V3.1 Generated 3-MAR-2010 20:39:45

Configuration : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202054946.CNF;1
Analyses by : PEAK V16.9,PEAKEFF V2.2,ENBACK V1.6,NID V3.4,MINACT V2.8
Sample title : KXG3
Sample date : 1-MAR-2010 00:00:00 Acquisition date : 3-MAR-2010 19:39:04
Sample ID : G1202054946 Sample quantity : 2.0000 LITER
Sample type : LIQUID Sample geometry :
Detector name : GAMMA17 Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00 Elapsed real time: 0 01:00:05.27 0.1%
Peak Width (FWHM): 3.00 Confidence level : 5.00 %
Energy tolerance : 1.50 keV Half life ratio : 8.00
Errors propagated: Yes Systematic Error : 0.00 %
Efficiency type : Empirical Efficiencies at : Peak Energy
Abundance limit : 75.00 WTM error limit : 3.00

Full Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-57	+	122.06	*	1.815E+01	8.596E+00	9.460E+00	8.930E-01	1.919
		136.47		1.615E+01	4.779E+01	8.013E+01	7.878E+00	0.202
CO-60	+	1173.23		5.434E+02	6.801E+01	1.701E+01	1.520E+00	31.956
	+	1332.49	*	5.262E+02	6.287E+01	1.263E+01	1.060E+00	41.658
CD-109	+	88.03	*	2.760E+03	4.067E+02	2.195E+02	2.076E+01	12.575
SN-126		64.28		-8.171E+01	7.109E+01	1.033E+02	1.642E+01	-0.791
	+	86.94		1.143E+03	4.919E+02	9.079E+01	3.771E+01	12.585
	+	87.57	*	2.749E+02	4.050E+01	2.185E+01	2.066E+00	12.580
BA-137M	+	661.66	*	4.434E+02	5.092E+01	1.734E+01	1.407E+00	25.570
CS-137	+	661.66	*	4.684E+02	5.385E+01	1.832E+01	1.490E+00	25.570
AM-241	+	59.54	*	1.266E+03	1.446E+02	3.850E+01	4.097E+00	32.895

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7		477.60	*	-5.625E+01	8.446E+01	1.300E+02	1.328E+01	-0.433
NA-22		1274.54	*	-6.393E-01	7.577E+00	1.192E+01	1.030E+00	-0.054
NA-24		1368.63	*	-7.984E-01	1.378E+02	2.300E+02	1.981E+01	-0.003
K-40		1460.82	*	-3.743E+00	4.584E+01	8.509E+01	7.488E+00	-0.044
SC-46		889.28	*	3.647E+00	1.185E+01	2.024E+01	1.732E+00	0.180
		1120.55		-1.015E+00	1.414E+01	2.278E+01	2.035E+00	-0.045
V-48		944.13		-4.638E+01	2.011E+02	3.240E+02	2.813E+01	-0.143
		983.53	*	-3.804E+00	1.458E+01	2.325E+01	2.040E+00	-0.164
		1312.11		-2.957E+00	1.042E+01	1.657E+01	1.406E+00	-0.178
CR-51		320.08	*	-9.772E+00	6.533E+01	1.086E+02	1.113E+01	-0.090
MN-54		834.85	*	4.026E-01	1.194E+01	1.992E+01	1.702E+00	0.020
CO-56		846.77	*	8.341E+00	1.093E+01	1.955E+01	1.672E+00	0.427
		1037.84		-9.825E+00	8.906E+01	1.437E+02	1.336E+01	-0.068
		1238.28		-3.494E+00	1.064E+01	1.561E+01	1.405E+00	-0.224
		1771.35		-9.493E-01	5.128E+01	8.340E+01	7.152E+00	-0.011
CO-58		810.76	*	-1.580E+00	1.050E+01	1.722E+01	1.471E+00	-0.092
FE-59		1099.25	*	-1.591E+01	2.639E+01	3.993E+01	3.833E+00	-0.398
		1291.59		4.256E+00	1.770E+01	3.010E+01	2.931E+00	0.141

Sample ID : G1202054946 Acquisition date : 3-MAR-2010 19:39:04

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
ZN-65		1115.54	*	1.345E+01	2.696E+01	4.626E+01	4.136E+00	0.291
SE-75	+	121.12		9.118E+01	4.364E+01	5.966E+01	6.994E+00	1.528
		136.00		5.300E+00	8.582E+00	1.462E+01	1.360E+00	0.362
		264.66	*	-2.863E+00	1.016E+01	1.568E+01	1.530E+00	-0.183
		279.54		3.432E+00	2.265E+01	3.884E+01	3.912E+00	0.088
		400.66		2.350E+01	6.433E+01	1.098E+02	1.298E+01	0.214
SR-85		514.00	*	-1.168E+01	1.049E+01	1.539E+01	1.463E+00	-0.759
Y-88		898.04		-1.620E+00	1.365E+01	2.230E+01	1.918E+00	-0.073
		1836.06	*	-1.214E-01	5.811E+00	9.388E+00	8.005E-01	-0.013
Y-91		1204.77	*	1.373E+03	3.452E+03	5.997E+03	5.312E+02	0.229
NB-94		702.65	*	2.982E-01	7.797E+00	1.319E+01	1.091E+00	0.023
		871.09		-2.828E+00	1.115E+01	1.797E+01	1.538E+00	-0.157
NB-95		765.80	*	7.612E+00	8.635E+00	1.589E+01	1.342E+00	0.479
NB-95M		235.69	*	-2.604E+01	2.785E+01	4.121E+01	4.403E+00	-0.632
ZR-95		724.19		-8.636E+00	1.971E+01	3.144E+01	2.857E+00	-0.275
		756.73	*	4.477E+00	1.674E+01	2.888E+01	2.698E+00	0.155
MO-99		140.51		1.169E+02	2.214E+02	3.727E+02	8.927E+01	0.314
		181.07		-5.491E+00	1.799E+02	2.908E+02	5.517E+01	-0.019
		366.42		-5.034E+01	1.064E+03	1.768E+03	1.715E+02	-0.028
		739.50	*	-3.849E+00	1.438E+02	2.406E+02	3.760E+01	-0.016
		777.92		-2.199E+02	4.872E+02	7.756E+02	6.567E+01	-0.283
TC-99M		140.51	*	7.412E-03	4.872E+02	Half-Life too short		
RU-103		497.08	*	5.013E+00	1.013E+01	1.722E+01	2.509E+00	0.291
		610.33		7.414E+01	1.352E+02	2.350E+02	3.861E+01	0.316
RH-106		621.93	*	-4.261E+01	8.896E+01	1.348E+02	1.789E+01	-0.316
		1050.41		2.853E+02	7.325E+02	1.255E+03	1.114E+02	0.227
RU-106		621.93	*	-4.261E+01	8.885E+01	1.348E+02	1.165E+01	-0.316
		1050.41		2.853E+02	7.325E+02	1.255E+03	1.114E+02	0.227
AG-108M		433.94	*	-6.220E+00	8.960E+00	1.390E+01	1.373E+00	-0.448
		614.28		-1.715E+00	9.095E+00	1.430E+01	1.289E+00	-0.120
		722.91		-4.565E+00	9.242E+00	1.463E+01	1.261E+00	-0.312
AG-110M		657.76	*	1.754E+01	1.327E+01	2.151E+01	1.816E+00	0.816
		677.62		7.460E+01	8.259E+01	1.459E+02	1.231E+01	0.511
		706.68		-4.731E+01	5.250E+01	7.901E+01	6.748E+00	-0.599
		763.94		1.625E+01	3.718E+01	6.543E+01	5.680E+00	0.248
		884.68		-1.852E+01	1.652E+01	2.390E+01	2.112E+00	-0.775
		937.49		1.346E+01	3.985E+01	6.774E+01	6.080E+00	0.199
		1384.29		-1.417E+01	2.685E+01	3.794E+01	3.303E+00	-0.373
SN-113		391.70	*	-1.842E+00	1.157E+01	1.898E+01	1.851E+00	-0.097
CD-115		260.90		5.679E+02	7.285E+02	1.227E+03	1.190E+02	0.463
		492.35		-6.563E+01	2.479E+02	3.954E+02	3.790E+01	-0.166
		527.90	*	2.576E+01	7.087E+01	1.195E+02	1.128E+01	0.216
SN-117M		156.02		1.050E+02	2.711E+02	4.539E+02	4.077E+01	0.231
		158.56	*	1.551E+00	6.435E+00	1.067E+01	9.550E-01	0.145
TE-123M		159.00	*	-1.024E+00	5.973E+00	9.629E+00	8.659E-01	-0.106
SB-124		602.73		4.186E+00	8.162E+00	1.395E+01	1.236E+00	0.300
		645.85		-1.618E+01	1.193E+02	1.881E+02	1.665E+01	-0.086
		722.78		2.099E+00	7.699E+01	1.299E+02	1.109E+01	0.016
		1690.97	*	-5.788E+00	1.274E+01	1.709E+01	1.534E+00	-0.339

Sample ID : G1202054946 Acquisition date : 3-MAR-2010 19:39:04

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
SB-125		427.87	*	-1.279E+01	2.458E+01	3.864E+01	3.772E+00	-0.331
		463.37		-4.487E+00	8.233E+01	1.347E+02	1.376E+01	-0.033
		600.60		-1.440E+01	4.670E+01	7.254E+01	6.891E+00	-0.199
		635.95		-2.918E+01	8.077E+01	1.242E+02	1.141E+01	-0.235
TE-125M		109.28	*	-4.168E+02	1.683E+03	2.752E+03	3.049E+02	-0.151
I-126		388.63		-3.961E-01	2.138E+01	3.549E+01	3.384E+00	-0.011
		666.33	*	3.578E+00	3.599E+01	5.101E+01	4.149E+00	0.070
		753.82		3.431E+01	2.650E+02	4.502E+02	3.789E+01	0.076
SB-126		414.70		5.978E+00	1.070E+01	1.848E+01	1.772E+00	0.323
		666.50		3.046E+00	1.162E+01	1.692E+01	1.376E+00	0.180
		695.00		6.872E-01	9.853E+00	1.673E+01	1.379E+00	0.041
		697.00		2.219E+01	3.510E+01	6.286E+01	5.186E+00	0.353
		720.70	*	1.026E+01	1.818E+01	3.244E+01	2.701E+00	0.316
		856.80		1.053E+01	6.564E+01	1.110E+02	9.495E+00	0.095
SB-127		252.40		7.065E+01	1.252E+02	2.021E+02	8.319E+01	0.350
		473.00		-4.781E+00	5.411E+01	8.808E+01	1.015E+01	-0.054
		685.70	*	-1.076E+01	3.598E+01	5.494E+01	4.722E+00	-0.196
		783.70		-5.977E+01	9.761E+01	1.506E+02	1.518E+01	-0.397
I-131		80.19		3.572E+01	2.441E+02	4.141E+02	3.913E+01	0.086
		284.31		1.108E+02	1.280E+02	2.284E+02	2.316E+01	0.485
		364.49	*	-2.238E+00	9.482E+00	1.549E+01	1.561E+00	-0.145
		636.99		-2.163E+01	1.546E+02	2.440E+02	2.173E+01	-0.089
TE-132	+	49.72		3.868E+02	3.035E+02	2.573E+02	2.658E+01	1.503
		111.76		8.221E+01	4.623E+02	7.722E+02	7.299E+01	0.106
		116.30		1.632E+02	4.193E+02	7.113E+02	6.740E+01	0.229
		228.16	*	-7.799E+00	1.310E+01	1.994E+01	2.960E+00	-0.391
BA-133		81.00		-1.103E+01	1.478E+01	2.373E+01	3.794E+00	-0.465
		276.40		-3.934E+01	7.559E+01	1.228E+02	1.823E+01	-0.320
		302.85		-6.876E+00	3.331E+01	5.536E+01	7.697E+00	-0.124
		356.01	*	-1.205E+01	1.068E+01	1.594E+01	2.190E+00	-0.756
		383.85		-6.588E+00	7.347E+01	1.213E+02	1.589E+01	-0.054
I-133		529.87	*	6.793E+01	9.096E+01	1.584E+02	1.541E+01	0.429
		875.33		-1.090E+03	2.437E+03	3.840E+03	3.722E+02	-0.284
		1298.22		-1.156E+03	2.519E+03	3.689E+03	3.611E+02	-0.313
CS-134		563.25		1.578E+01	8.541E+01	1.415E+02	1.315E+01	0.112
		569.33		-3.665E+01	5.132E+01	7.585E+01	7.039E+00	-0.483
		604.72		-8.450E-01	7.977E+00	1.268E+01	1.124E+00	-0.067
		795.86	*	-4.752E+00	1.265E+01	2.022E+01	1.732E+00	-0.235
		801.95		1.498E+01	1.196E+02	2.011E+02	1.721E+01	0.074
		1365.19		-5.984E+01	1.942E+02	2.946E+02	2.607E+01	-0.203
CS-135		268.22	*	8.350E+00	3.840E+01	6.184E+01	6.767E+00	0.135
I-135		546.56		3.055E-02	3.840E+01	Half-Life too short		
		836.80		-9.216E-02	3.840E+01	Half-Life too short		
		1038.76		2.041E-02	3.840E+01	Half-Life too short		
		1131.51		4.662E-02	3.840E+01	Half-Life too short		
		1260.41	*	-1.186E-02	3.840E+01	Half-Life too short		
		1457.56		-1.167E-02	3.840E+01	Half-Life too short		
		1678.03		-2.012E-04	3.840E+01	Half-Life too short		
		1791.20		-1.089E-03	3.840E+01	Half-Life too short		

Sample ID : G1202054946 Acquisition date : 3-MAR-2010 19:39:04

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CS-136		153.25		2.765E+01	1.012E+02	1.683E+02	1.784E+01	0.164
		176.60		-2.966E+01	6.143E+01	9.618E+01	9.437E+00	-0.308
		273.65		3.461E+01	6.212E+01	1.028E+02	1.069E+01	0.337
		340.55		-3.447E+00	1.780E+01	2.939E+01	2.967E+00	-0.117
		818.51		2.014E-01	1.190E+01	1.986E+01	1.694E+00	0.010
		1048.07	*	1.311E+01	1.568E+01	2.831E+01	2.611E+00	0.463
		1235.36		1.699E+01	3.968E+01	7.065E+01	8.385E+00	0.241
CE-139		165.86	*	5.725E+00	6.546E+00	1.123E+01	9.937E-01	0.510
BA-140		162.66		-1.707E+01	9.346E+01	1.504E+02	1.422E+01	-0.114
		304.85		-9.453E+01	1.664E+02	2.647E+02	7.848E+01	-0.357
		423.72		3.371E+00	2.616E+02	4.329E+02	1.436E+02	0.008
		537.26	*	-7.642E+00	3.789E+01	6.039E+01	2.060E+01	-0.127
LA-140		328.76		1.938E+01	3.638E+01	6.346E+01	6.519E+00	0.305
		487.02		-4.932E+00	2.055E+01	3.288E+01	3.314E+00	-0.150
		815.77		-1.916E+01	5.356E+01	8.586E+01	8.197E+00	-0.223
		1596.21	*	3.567E+00	7.364E+00	1.397E+01	1.205E+00	0.255
CE-141		145.44	*	1.170E+00	1.020E+01	1.685E+01	1.562E+00	0.069
CE-143	+	57.36		6.642E+02	2.082E+02	6.669E+02	6.829E+01	0.996
		293.27	*	-1.168E+01	6.001E+01	1.000E+02	2.119E+01	-0.117
		664.57		7.603E+02	8.518E+02	1.299E+03	3.808E+02	0.586
		721.93		1.281E+02	6.446E+02	1.106E+03	3.024E+02	0.116
CE-144		80.12		6.154E+01	3.709E+02	6.300E+02	5.952E+01	0.098
		133.52	*	-2.498E+01	4.297E+01	6.776E+01	1.061E+01	-0.369
PM-144		476.78		5.234E+00	1.983E+01	3.322E+01	3.419E+00	0.158
		618.01		9.713E+00	8.215E+00	1.495E+01	1.334E+00	0.650
		696.49	*	4.998E+00	8.698E+00	1.551E+01	1.279E+00	0.322
PR-144		696.51	*	3.731E+02	6.469E+02	1.154E+03	9.515E+01	0.323
		1489.16		-1.332E+03	1.337E+03	MDA could not be calculated		
PM-146		453.88	*	3.518E+00	1.255E+01	2.112E+01	2.416E+00	0.167
		633.25		4.780E+01	4.171E+02	6.777E+02	2.587E+02	0.071
		735.93		3.189E+00	3.721E+01	6.307E+01	1.763E+01	0.051
		747.24		-1.758E+01	2.649E+01	4.086E+01	5.906E+00	-0.430
ND-147		91.11		1.674E+01	2.315E+01	3.652E+01	3.679E+00	0.458
		319.41		4.012E+01	3.633E+02	6.166E+02	6.073E+01	0.065
		531.02	*	2.851E+01	7.276E+01	1.229E+02	1.896E+01	0.232
PM-149		285.90	*	1.681E+02	4.848E+02	8.390E+02	1.360E+02	0.200
EU-152	+	121.78		5.383E+01	2.563E+01	3.603E+01	3.826E+00	1.494
		244.70		-5.651E+01	7.899E+01	1.180E+02	1.132E+01	-0.479
		344.28	*	1.204E+01	2.450E+01	4.252E+01	4.359E+00	0.283
		778.90		1.142E+01	7.666E+01	1.301E+02	1.102E+01	0.088
		964.08		1.860E+01	9.821E+01	1.643E+02	1.434E+01	0.113
		1085.87		3.515E+01	1.158E+02	1.958E+02	1.746E+01	0.179
		1112.07		2.115E+00	9.303E+01	1.516E+02	1.354E+01	0.014
		1408.01		6.103E+00	3.296E+01	5.745E+01	4.883E+00	0.106
GD-153		69.67		3.514E+01	2.314E+02	3.946E+02	3.795E+01	0.089
		97.43	*	-1.744E+01	1.600E+01	2.466E+01	2.309E+00	-0.707
		103.18		1.398E+00	2.128E+01	3.559E+01	3.328E+00	0.039
EU-154	+	123.07		3.802E+01	1.822E+01	2.462E+01	2.947E+00	1.545
		723.31		-2.477E+01	4.129E+01	6.437E+01	5.945E+00	-0.385

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		873.19		-5.717E+01	9.122E+01	1.403E+02	1.663E+01	-0.408
		996.26		4.708E+01	1.285E+02	2.182E+02	3.831E+01	0.216
		1004.73		-1.298E+01	7.270E+01	1.168E+02	1.376E+01	-0.111
		1274.44	*	-7.610E+00	2.278E+01	3.360E+01	3.827E+00	-0.226
EU-155	+	86.55		3.316E+02	4.904E+01	4.598E+01	4.381E+00	7.213
		105.31	*	2.796E-01	2.044E+01	3.406E+01	3.217E+00	0.008
TA-182		67.75		-2.990E+00	1.401E+01	2.348E+01	2.272E+00	-0.127
		100.11		1.196E+01	3.379E+01	5.747E+01	5.376E+00	0.208
		152.43		-1.174E+01	7.314E+01	1.183E+02	1.068E+01	-0.099
		222.11		-6.907E+01	8.384E+01	1.257E+02	1.183E+01	-0.550
		1121.30		-2.974E+00	3.921E+01	6.312E+01	5.639E+00	-0.047
		1189.05		1.074E+01	6.506E+01	1.080E+02	9.609E+00	0.099
		1221.41	*	-1.324E+01	2.784E+01	3.943E+01	3.474E+00	-0.336
		1231.02		3.742E+01	7.383E+01	1.312E+02	1.152E+01	0.285
IR-192		295.96		-5.485E+00	2.283E+01	3.776E+01	3.733E+00	-0.145
		308.46		3.969E+00	2.060E+01	3.523E+01	3.483E+00	0.113
		316.51	*	-2.970E+00	7.392E+00	1.204E+01	1.188E+00	-0.247
		468.07		-3.437E+00	1.776E+01	2.866E+01	2.922E+00	-0.120
HG-203		70.83		5.658E+01	1.514E+02	2.602E+02	4.319E+01	0.217
		72.87		-1.851E+01	8.898E+01	1.489E+02	2.392E+01	-0.124
		279.20	*	1.078E+00	7.114E+00	1.220E+01	1.217E+00	0.088
BI-207		72.81		-4.809E+00	2.469E+01	4.136E+01	3.945E+00	-0.116
		74.97		-1.640E+01	1.486E+01	2.371E+01	2.253E+00	-0.692
		569.70		-1.039E+00	8.038E+00	1.282E+01	1.175E+00	-0.081
		1063.66	*	-3.825E+00	1.497E+01	2.356E+01	2.095E+00	-0.162
		1770.23		1.195E+02	8.825E+01	2.038E+02	1.748E+01	0.587
TL-208		277.37		2.710E+00	8.167E+01	1.389E+02	1.854E+01	0.020
		583.19	*	5.822E+00	1.003E+01	1.754E+01	1.689E+00	0.332
		860.56		2.115E+01	8.370E+01	1.427E+02	1.312E+01	0.148
PB-210		46.54	*	-6.073E+01	2.924E+02	4.231E+02	4.698E+01	-0.144
BI-211		72.87		-8.934E+01	1.103E+03	7.186E+02	8.172E+03	-0.124
		351.06	*	2.617E+01	3.015E+02	8.408E+01	9.562E+02	0.311
PB-211		404.85	*	-1.612E+02	1.843E+03	2.692E+02	3.064E+03	-0.599
		427.09		4.177E+01	6.264E+02	6.802E+02	7.741E+03	0.061
		832.01		1.599E+02	1.851E+03	5.772E+02	6.570E+03	0.277
BI-212		727.33	*	7.661E+01	1.224E+02	2.196E+02	2.695E+01	0.349
		785.37		-4.507E+02	8.355E+02	1.306E+03	1.107E+02	-0.345
		1620.50		3.527E+02	4.218E+02	8.645E+02	7.459E+01	0.408
PB-212		74.82		-5.168E+01	5.223E+01	8.358E+01	1.137E+01	-0.618
		77.11		-1.022E+01	3.076E+01	5.145E+01	4.873E+00	-0.199
		238.63	*	-7.755E+00	1.569E+01	2.525E+01	2.675E+00	-0.307
		300.09		6.804E+01	1.923E+02	3.324E+02	3.841E+01	0.205
BI-214		609.32	*	1.555E+00	1.740E+01	2.868E+01	2.939E+00	0.054
		1120.29		3.605E+01	8.881E+01	1.510E+02	1.686E+01	0.239
		1764.49		-5.257E+01	4.622E+01	4.732E+01	4.060E+00	-1.111
PB-214		74.82		-9.134E+01	9.216E+01	1.477E+02	1.828E+01	-0.618
		77.11		-1.796E+01	5.409E+01	9.044E+01	1.136E+01	-0.199
		242.00		-3.689E+01	9.117E+01	1.399E+02	1.565E+01	-0.264
		295.22		-3.419E+00	3.393E+01	5.667E+01	6.682E+00	-0.060

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		351.93	*	2.747E+01	1.842E+01	3.394E+01	3.925E+00	0.809
RN-219		271.23		5.889E+00	9.043E+01	9.679E+01	1.101E+03	0.061
		401.81	*	6.502E+01	7.470E+02	1.851E+02	2.105E+03	0.351
RA-223		81.07		-3.665E+01	4.181E+02	5.351E+01	6.085E+02	-0.685
		83.79		-4.932E+00	6.055E+01	3.411E+01	3.879E+02	-0.145
		94.56		-5.853E+01	6.680E+02	9.038E+01	1.028E+03	-0.648
		144.24		3.348E+01	4.064E+02	2.353E+02	2.675E+03	0.142
		154.21		2.846E+01	3.353E+02	1.464E+02	1.665E+03	0.194
		269.46		-2.269E+01	2.626E+02	7.369E+01	8.380E+02	-0.308
		323.87	*	-2.006E+01	2.758E+02	2.581E+02	2.936E+03	-0.078
		338.28		-1.056E+01	2.511E+02	3.684E+02	4.190E+03	-0.029
RA-224		240.99	*	1.034E+01	1.610E+02	2.561E+02	2.450E+01	0.040
RA-226		186.21	*	3.160E+01	1.573E+02	2.650E+02	1.788E+02	0.119
AC-227		79.69		3.084E+01	1.914E+02	3.249E+02	5.740E+01	0.095
		235.96		-3.266E+01	3.849E+01	5.740E+01	6.377E+00	-0.569
		256.23	*	-4.680E+01	6.205E+01	9.144E+01	1.172E+01	-0.512
		299.98		4.684E+01	2.108E+02	3.614E+02	4.901E+01	0.130
		304.50		-9.324E+01	3.837E+02	6.352E+02	1.092E+02	-0.147
		329.85		5.769E+01	1.613E+02	2.777E+02	3.522E+01	0.208
		334.37		-2.738E+01	4.169E+02	6.960E+02	1.134E+02	-0.039
TH-227		79.69		3.084E+01	3.995E+02	3.249E+02	3.695E+03	0.095
		235.96		-3.266E+01	3.734E+02	5.740E+01	6.528E+02	-0.569
		256.23	*	-4.680E+01	5.358E+02	9.144E+01	1.040E+03	-0.512
		299.98		4.684E+01	5.728E+02	3.614E+02	4.110E+03	0.130
		304.50		-9.324E+01	1.127E+03	6.352E+02	7.223E+03	-0.147
		329.85		5.769E+01	6.755E+02	2.777E+02	3.158E+03	0.208
		334.37		-2.738E+01	5.203E+02	6.960E+02	7.915E+03	-0.039
AC-228		338.32		-1.323E+00	5.574E+01	9.329E+01	3.916E+01	-0.014
		911.20	*	-6.957E+00	4.724E+01	7.743E+01	8.961E+00	-0.090
		968.97		-2.535E+01	8.785E+01	1.413E+02	3.447E+01	-0.179
RA-228		338.32		-1.323E+00	5.574E+01	9.329E+01	3.916E+01	-0.014
		911.20	*	-6.957E+00	4.724E+01	7.743E+01	8.961E+00	-0.090
		968.97		-2.535E+01	8.785E+01	1.413E+02	3.447E+01	-0.179
TH-228		74.82		-5.168E+01	5.199E+01	8.358E+01	8.002E+00	-0.618
		77.11		-1.022E+01	3.076E+01	5.145E+01	4.873E+00	-0.199
		238.63	*	-7.755E+00	1.569E+01	2.525E+01	2.675E+00	-0.307
		300.09		6.804E+01	1.966E+02	3.324E+02	2.041E+02	0.205
TH-229		85.43		-1.627E+01	3.895E+01	5.732E+01	5.413E+00	-0.284
	+	88.47		4.237E+02	6.244E+01	7.958E+01	7.520E+00	5.325
		193.51	*	-1.181E+02	1.274E+02	1.911E+02	1.746E+01	-0.618
		210.85		1.808E+02	2.168E+02	3.666E+02	3.413E+01	0.493
PA-231		283.69	*	3.518E+02	3.620E+02	6.459E+02	9.888E+01	0.545
		301.36		7.921E+01	1.121E+02	1.982E+02	2.449E+01	0.400
		330.06		1.209E+02	4.610E+02	7.869E+02	2.378E+02	0.154
TH-231		84.21	*	1.419E+01	8.498E+01	1.303E+02	2.327E+01	0.109
TH-232		63.81	*	-2.021E+03	1.575E+04	3.788E+03	2.914E+04	-0.534
		140.88		3.778E+03	2.369E+04	3.930E+04	3.607E+03	0.096
PA-233		94.65		-5.118E+01	4.705E+01	7.359E+01	6.994E+00	-0.695
		98.43		7.803E+00	2.703E+01	4.558E+01	4.459E+00	0.171

Sample ID : G1202054946 Acquisition date : 3-MAR-2010 19:39:04

---- Non-Identified Nuclides ----

Nuclide	Line Ided	Energy (keV)	Key	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
		300.13		5.764E+01	9.425E+01	1.652E+02	2.572E+01	0.349
		311.90	*	5.567E-01	1.522E+01	2.573E+01	2.590E+00	0.022
		340.48		-2.558E+01	1.457E+02	2.406E+02	5.900E+01	-0.106
PA-234		94.67		-3.489E+01	3.177E+01	4.940E+01	6.395E+00	-0.706
		98.44		5.248E+00	1.822E+01	3.034E+01	1.696E+01	0.173
		111.00		1.429E+01	3.673E+01	6.241E+01	7.882E+00	0.229
		131.20		-8.366E+00	2.258E+01	3.627E+01	3.375E+00	-0.231
		569.50		-4.610E+01	7.293E+01	1.092E+02	1.001E+01	-0.422
		733.00		4.773E+01	9.356E+01	1.653E+02	3.653E+01	0.289
		880.51		8.437E+01	9.861E+01	1.763E+02	1.509E+01	0.479
		883.24		-5.315E+01	1.048E+02	1.539E+02	1.034E+02	-0.345
		926.36		1.571E+01	6.428E+01	1.084E+02	2.740E+01	0.145
		946.00	*	-4.638E+00	1.199E+02	1.967E+02	3.698E+01	-0.024
		949.00		1.778E+02	1.812E+02	3.223E+02	2.802E+01	0.552
PA-234M		766.42		1.815E+03	2.854E+03	4.865E+03	2.467E+03	0.373
		1001.03	*	8.683E+02	1.629E+03	2.808E+03	2.843E+02	0.309
TH-234		63.29	*	-1.799E+02	1.808E+02	2.651E+02	5.033E+01	-0.679
		92.59		2.471E+01	1.351E+02	2.192E+02	4.910E+01	0.113
U-235		89.96		-9.906E+01	1.802E+02	2.592E+02	6.456E+01	-0.382
		93.35		4.186E+01	9.280E+01	1.655E+02	3.872E+01	0.253
		143.76	*	-1.483E+01	4.322E+01	6.870E+01	1.183E+01	-0.216
		163.33		-7.901E+01	1.003E+02	1.527E+02	2.761E+01	-0.517
		185.72		3.871E+00	9.586E+00	1.652E+01	1.496E+00	0.234
		205.31		-5.527E+01	1.149E+02	1.775E+02	3.277E+01	-0.311
NP-237		86.48	*	2.868E+02	8.824E+01	1.091E+02	2.509E+01	2.629
		95.86		-5.035E+01	1.677E+02	2.746E+02	6.664E+01	-0.183
U-238		63.29	*	-1.799E+02	1.808E+02	2.651E+02	5.033E+01	-0.679
		92.59		2.471E+01	1.350E+02	2.192E+02	2.061E+01	0.113
NP-239		99.53		2.204E+01	3.252E+01	5.593E+01	5.234E+00	0.394
		103.37		5.847E+00	1.991E+01	3.375E+01	3.155E+00	0.173
		106.12		-1.014E+01	1.636E+01	2.610E+01	2.440E+00	-0.389
		116.74	*	1.513E+01	5.557E+01	9.363E+01	8.793E+00	0.162
		228.18		-3.259E+01	5.587E+01	8.531E+01	8.074E+00	-0.382
		277.60		9.748E+00	3.777E+01	6.528E+01	6.381E+00	0.149
CM-247		278.00		4.739E+01	1.602E+02	2.776E+02	2.714E+01	0.171
		287.50		-1.225E+02	3.013E+02	4.952E+02	4.857E+01	-0.247
		402.40	*	1.332E+00	9.771E+00	1.639E+01	1.565E+00	0.081
CF-249		252.80		1.740E+02	2.424E+02	4.059E+02	3.916E+01	0.429
		333.37		-2.294E+01	4.382E+01	7.045E+01	6.926E+00	-0.326
		388.16	*	-2.565E+00	9.912E+00	1.609E+01	1.535E+00	-0.159
CF-251		177.52	*	-2.883E-02	3.021E+01	4.898E+01	4.394E+00	-0.001
		227.38		-7.130E+01	9.155E+01	1.375E+02	1.300E+01	-0.519
		285.41		4.898E+02	5.431E+02	9.712E+02	9.521E+01	0.504
ANH-511		511.00	*	-5.180E+00	9.911E+00	1.792E+01	1.707E+00	-0.289

VAX/VMS Nuclide Identification Report Generated

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration      : DKA300:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202054946    *
* Acquisition date :  3-MAR-2010 19:39:04 Detector SN#     :               *
* Detector ID       : GAM17               Sensitivity      : 5.000         *
* Geometry          : 2LMB                Energy tolerance: 1.500          *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000         *
* Elapsed real time:    0 01:00:05.27     Half life ratio :  8.000         *
*****************************************************************************
*                                                                           *
*                               SAMPLE DATA                                 *
*                                                                           *
* Sample date       :  1-MAR-2010 00:00:00 Nuclide Library : LIQUI          *
* Sample ID         : G1202054946         Analyst initials: KXG3            *
* Batch Number      : 958213              Sample Quantity : 2.0000E+00 LITER *
* Recovery          :    1.00000          Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                 QC DATA                                   *
* Standard Weight  :   0.00000                                              *
* CALIB. DATE/TIME : 11-JAN-2010 14:46:18 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
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Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	
CO-57	1.815E+01	8.425E+00	9.460E+00	0.000E+00
CO-60	5.262E+02	6.161E+01	1.263E+01	0.000E+00
CD-109	2.760E+03	3.986E+02	2.195E+02	0.000E+00
SN-126	2.749E+02	3.969E+01	2.185E+01	0.000E+00
BA-137M	4.434E+02	4.990E+01	1.734E+01	0.000E+00
CS-137	4.684E+02	5.278E+01	1.832E+01	0.000E+00
AM-241	1.266E+03	1.417E+02	3.850E+01	0.000E+00

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)		
BE-7	-5.625E+01		8.277E+01	1.300E+02	0.000E+00	NOT IDENT.
NA-22	-6.393E-01		7.425E+00	1.192E+01	0.000E+00	NOT IDENT.
NA-24	-7.984E-01		1.350E+02	2.300E+02	0.000E+00	NOT IDENT.
K-40	-3.743E+00		4.492E+01	8.509E+01	0.000E+00	NOT IDENT.
SC-46	3.647E+00		1.162E+01	2.024E+01	0.000E+00	NOT IDENT.
V-48	-3.804E+00		1.428E+01	2.325E+01	0.000E+00	NOT IDENT.
CR-51	-9.772E+00		6.402E+01	1.086E+02	0.000E+00	NOT IDENT.
MN-54	4.026E-01		1.170E+01	1.992E+01	0.000E+00	NOT IDENT.
CO-56	8.341E+00		1.071E+01	1.955E+01	0.000E+00	NOT IDENT.
CO-58	-1.580E+00		1.029E+01	1.722E+01	0.000E+00	NOT IDENT.
FE-59	-1.591E+01		2.586E+01	3.993E+01	0.000E+00	NOT IDENT.
ZN-65	1.345E+01		2.642E+01	4.626E+01	0.000E+00	NOT IDENT.
SE-75	-2.863E+00		9.961E+00	1.568E+01	0.000E+00	FAIL ABUN
SR-85	-1.168E+01		1.028E+01	1.539E+01	0.000E+00	NOT IDENT.
Y-88	-1.214E-01		5.694E+00	9.388E+00	0.000E+00	NOT IDENT.
Y-91	1.373E+03		3.383E+03	5.997E+03	0.000E+00	NOT IDENT.
NB-94	2.982E-01		7.641E+00	1.319E+01	0.000E+00	NOT IDENT.
NB-95	7.612E+00		8.462E+00	1.589E+01	0.000E+00	NOT IDENT.
NB-95M	-2.604E+01		2.729E+01	4.121E+01	0.000E+00	NOT IDENT.
ZR-95	4.477E+00		1.640E+01	2.888E+01	0.000E+00	NOT IDENT.

MO-99	-3.849E+00	1.409E+02	2.406E+02	0.000E+00	NOT IDENT.
TC-99M	0.000E+00	1.366E+04	0.000E+00	0.000E+00	SHORT HLIF
RU-103	5.013E+00	9.928E+00	1.722E+01	0.000E+00	NOT IDENT.
RH-106	-4.261E+01	8.718E+01	1.348E+02	0.000E+00	NOT IDENT.
RU-106	-4.261E+01	8.708E+01	1.348E+02	0.000E+00	NOT IDENT.
AG-108M	-6.220E+00	8.781E+00	1.390E+01	0.000E+00	NOT IDENT.
AG-110M	1.754E+01	1.301E+01	2.151E+01	0.000E+00	NOT IDENT.
SN-113	-1.842E+00	1.134E+01	1.898E+01	0.000E+00	NOT IDENT.
CD-115	2.576E+01	6.945E+01	1.195E+02	0.000E+00	NOT IDENT.
SN-117M	1.551E+00	6.307E+00	1.067E+01	0.000E+00	NOT IDENT.
TE-123M	-1.024E+00	5.854E+00	9.629E+00	0.000E+00	NOT IDENT.
SB-124	-5.788E+00	1.249E+01	1.709E+01	0.000E+00	NOT IDENT.
SB-125	-1.279E+01	2.409E+01	3.864E+01	0.000E+00	NOT IDENT.
TE-125M	-4.168E+02	1.649E+03	2.752E+03	0.000E+00	NOT IDENT.
I-126	3.578E+00	3.527E+01	5.101E+01	0.000E+00	NOT IDENT.
SB-126	1.026E+01	1.782E+01	3.244E+01	0.000E+00	NOT IDENT.
SB-127	-1.076E+01	3.526E+01	5.494E+01	0.000E+00	NOT IDENT.
I-131	-2.238E+00	9.292E+00	1.549E+01	0.000E+00	NOT IDENT.
TE-132	-7.799E+00	1.284E+01	1.994E+01	0.000E+00	FAIL ABUN
BA-133	-1.205E+01	1.047E+01	1.594E+01	0.000E+00	NOT IDENT.
I-133	6.793E+01	8.914E+01	1.584E+02	0.000E+00	NOT IDENT.
CS-134	-4.752E+00	1.240E+01	2.022E+01	0.000E+00	NOT IDENT.
CS-135	8.350E+00	3.763E+01	6.184E+01	0.000E+00	NOT IDENT.
I-135	0.000E+00	3.527E+04	0.000E+00	0.000E+00	SHORT HLIF
CS-136	1.311E+01	1.536E+01	2.831E+01	0.000E+00	NOT IDENT.
CE-139	5.725E+00	6.415E+00	1.123E+01	0.000E+00	NOT IDENT.
BA-140	-7.642E+00	3.713E+01	6.039E+01	0.000E+00	NOT IDENT.
LA-140	3.567E+00	7.216E+00	1.397E+01	0.000E+00	NOT IDENT.
CE-141	1.170E+00	1.000E+01	1.685E+01	0.000E+00	NOT IDENT.
CE-143	-1.168E+01	5.881E+01	1.000E+02	0.000E+00	FAIL ABUN
CE-144	-2.498E+01	4.211E+01	6.776E+01	0.000E+00	NOT IDENT.
PM-144	4.998E+00	8.524E+00	1.551E+01	0.000E+00	NOT IDENT.
PR-144	3.731E+02	6.340E+02	1.154E+03	0.000E+00	NOT IDENT.
PM-146	3.518E+00	1.230E+01	2.112E+01	0.000E+00	NOT IDENT.
ND-147	2.851E+01	7.131E+01	1.229E+02	0.000E+00	NOT IDENT.
PM-149	1.681E+02	4.751E+02	8.390E+02	0.000E+00	NOT IDENT.
EU-152	1.204E+01	2.401E+01	4.252E+01	0.000E+00	FAIL ABUN
GD-153	-1.744E+01	1.568E+01	2.466E+01	0.000E+00	NOT IDENT.
EU-154	-7.610E+00	2.232E+01	3.360E+01	0.000E+00	FAIL ABUN
EU-155	2.796E-01	2.004E+01	3.406E+01	0.000E+00	FAIL ABUN
TA-182	-1.324E+01	2.729E+01	3.943E+01	0.000E+00	NOT IDENT.
IR-192	-2.970E+00	7.244E+00	1.204E+01	0.000E+00	NOT IDENT.
HG-203	1.078E+00	6.971E+00	1.220E+01	0.000E+00	NOT IDENT.
BI-207	-3.825E+00	1.467E+01	2.356E+01	0.000E+00	NOT IDENT.
TL-208	5.822E+00	9.834E+00	1.754E+01	0.000E+00	NOT IDENT.
PB-210	-6.073E+01	2.865E+02	4.231E+02	0.000E+00	NOT IDENT.
BI-211	2.617E+01	2.954E+02	8.408E+01	0.000E+00	NOT IDENT.
PB-211	-1.612E+02	1.806E+03	2.692E+02	0.000E+00	NOT IDENT.
BI-212	7.661E+01	1.199E+02	2.196E+02	0.000E+00	NOT IDENT.
PB-212	-7.755E+00	1.538E+01	2.525E+01	0.000E+00	NOT IDENT.
BI-214	1.555E+00	1.705E+01	2.868E+01	0.000E+00	NOT IDENT.
PB-214	2.747E+01	1.805E+01	3.394E+01	0.000E+00	NOT IDENT.
RN-219	6.502E+01	7.320E+02	1.851E+02	0.000E+00	NOT IDENT.
RA-223	-2.006E+01	2.703E+02	2.581E+02	0.000E+00	NOT IDENT.
RA-224	1.034E+01	1.578E+02	2.561E+02	0.000E+00	NOT IDENT.
RA-226	3.160E+01	1.542E+02	2.650E+02	0.000E+00	NOT IDENT.
AC-227	-4.680E+01	6.081E+01	9.144E+01	0.000E+00	NOT IDENT.
TH-227	-4.680E+01	5.250E+02	9.144E+01	0.000E+00	NOT IDENT.
AC-228	-6.957E+00	4.629E+01	7.743E+01	0.000E+00	NOT IDENT.
RA-228	-6.957E+00	4.629E+01	7.743E+01	0.000E+00	NOT IDENT.
TH-228	-7.755E+00	1.538E+01	2.525E+01	0.000E+00	NOT IDENT.
TH-229	-1.181E+02	1.248E+02	1.911E+02	0.000E+00	FAIL ABUN
PA-231	3.518E+02	3.547E+02	6.459E+02	0.000E+00	NOT IDENT.
TH-231	1.419E+01	8.328E+01	1.303E+02	0.000E+00	NOT IDENT.
TH-232	-2.021E+03	1.544E+04	3.788E+03	0.000E+00	NOT IDENT.
PA-233	5.567E-01	1.492E+01	2.573E+01	0.000E+00	NOT IDENT.
PA-234	-4.638E+00	1.175E+02	1.967E+02	0.000E+00	NOT IDENT.
PA-234M	8.683E+02	1.596E+03	2.808E+03	0.000E+00	NOT IDENT.
TH-234	-1.799E+02	1.771E+02	2.651E+02	0.000E+00	NOT IDENT.
U-235	-1.483E+01	4.235E+01	6.870E+01	0.000E+00	NOT IDENT.
NP-237	0.000E+00	8.648E+01	1.091E+02	0.000E+00	NOT IDENT.
U-238	-1.799E+02	1.771E+02	2.651E+02	0.000E+00	NOT IDENT.
NP-239	1.513E+01	5.446E+01	9.363E+01	0.000E+00	NOT IDENT.
CM-247	1.332E+00	9.576E+00	1.639E+01	0.000E+00	NOT IDENT.
CF-249	-2.565E+00	9.714E+00	1.609E+01	0.000E+00	NOT IDENT.
CF-251	-2.883E-02	2.960E+01	4.898E+01	0.000E+00	NOT IDENT.
ANH-511	-5.180E+00	9.713E+00	1.792E+01	0.000E+00	NOT IDENT.

VAX/VMS Nuclide Identification Report Generated 3-MAR-2010 20:39:40.56

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202054946.CNF;1
Sample date       : 1-MAR-2010 00:00:00. Acquisition date : 3-MAR-2010 19:39:04.
Sample ID         : G1202054946          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM17                Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:05.27  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 958213                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Pk	It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	Fit
1	0	50.53	188	1243	2.89	100.69	94	12	5.23E-02	38.1	
2	3	57.77	119	193	0.94	115.17	114	15	3.30E-02	14.8	3.05E+00
3	3	59.54	2951	329	0.87	118.72	114	15	8.20E-01	2.1	
4	0	88.01	728	264	0.98	175.68	171	10	2.02E-01	5.6	
5	0	92.19	53	206	1.01	184.05	181	8	1.46E-02	49.1	
6	0	121.97	105	162	0.84	243.63	240	8	2.91E-02	23.2	
7	0	661.11	836	63	1.34	1322.40	1315	15	2.32E-01	4.0	
8	0	1172.06	686	37	1.70	2345.01	2336	19	1.91E-01	4.4	
9	0	1331.16	598	11	1.66	2663.45	2657	14	1.66E-01	4.2	

VAX/VMS Nuclide Identification Report Generated 3-MAR-2010 20:39:43.48

```
*****************************************************************************
*                            GEL Laboratories LLC                            *
*                              2040 Savage Road                              *
*                            Charleston, SC 29414                            *
*****************************************************************************
Configuration     : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202054946.CNF;1
Sample date       : 1-MAR-2010 00:00:00. Acquisition date : 3-MAR-2010 19:39:04.
Sample ID         : G1202054946          Sample quantity  : 2.00000E+00 LITER
Detector name     : GAM17                Detector geometry: 2LMB
Elapsed live time: 0 01:00:00.00         Elapsed real time: 0 01:00:05.27  0.1%
Energy tolerance : 1.50000 keV           Analyst Initials : KXG3
Abundance limit  : 75.00000              Sensitivity      : 5.00000
Batch ID         : 958213                Detector SN#     :
Matrix Spike ID  :                       LCS ID           : 1032-A
*****************************************************************************
```

Nuclide Line Activity Report

Nuclide Type:

Nuclide	Energy	Area	%Abn	%Eff	Uncorrected pCi/LITER	Decay Corr pCi/LITER	2-Sigma %Error
CO-57	122.06	105	85.60*	2.549E+00	1.802E+01	1.815E+01	47.35
	136.47	------	10.68	2.458E+00	------	Line Not Found	------
CO-60	1173.23	686	99.85	4.752E-01	5.429E+02	5.434E+02	12.52
	1332.49	598	99.98*	4.273E-01	5.257E+02	5.262E+02	11.95
CD-109	88.03	723	3.70*	2.668E+00	2.749E+03	2.760E+03	14.74
SN-126	64.28	------	9.60	2.513E+00	------	Line Not Found	------
	86.94	723	8.90	2.668E+00	1.143E+03	1.143E+03	43.05
	87.57	723	37.00*	2.668E+00	2.749E+02	2.749E+02	14.74
BA-137M	661.66	832	89.90*	7.836E-01	4.433E+02	4.434E+02	11.48
CS-137	661.66	832	85.10*	7.836E-01	4.683E+02	4.684E+02	11.50
AM-241	59.54	2947	35.90*	2.433E+00	1.266E+03	1.266E+03	11.42

Flag: "*" = Keyline

Sample ID : G1202054946 Acquisition date : 3-MAR-2010 19:39:04

Total number of lines in spectrum	8	
Number of unidentified lines	0	
Number of lines tentatively identified by NID	8	100.00%

Nuclide Type :

Nuclide	Hlife	Decay	Uncorrected pCi/LITER	Decay Corr pCi/LITER	Decay Corr 2-Sigma Error	2-Sigma %Error	Flags
CO-57	271.74D	1.01	1.802E+01	1.815E+01	0.860E+01	47.35	
CO-60	1925.28D	1.00	5.257E+02	5.262E+02	0.629E+02	11.95	
CD-109	461.40D	1.00	2.749E+03	2.760E+03	0.407E+03	14.74	
SN-126	2.30E+05Y	1.00	2.749E+02	2.749E+02	0.405E+02	14.74	
BA-137M	30.08Y	1.00	4.433E+02	4.434E+02	0.509E+02	11.48	
CS-137	30.08Y	1.00	4.683E+02	4.684E+02	0.539E+02	11.50	
AM-241	432.60Y	1.00	1.266E+03	1.266E+03	0.145E+03	11.42	
			---	---			
	Total Activity :		5.745E+03	5.758E+03			
	Grand Total Activity :		5.745E+03	5.758E+03			

Flags: "K" = Keyline not found "M" = Manually accepted
"E" = Manually edited "A" = Nuclide specific abn. limit

Sample ID : G1202054946 Acquisition date : 3-MAR-2010 19:39:04

It	Energy	Area	Bkgnd	FWHM	Channel	Left	Pw	Cts/Sec	%Err	%Eff	Flags
0	50.53	185	1243	2.89	100.69	94	12	5.13E-02	77.8	2.21E+00	T
3	57.77	119	193	0.94	115.17	114	15	3.30E-02	29.6	2.40E+00	T

Flags: "T" = Tentatively associated

VAX/VMS Nuclide Identification Report Generated 3-MAR-2010 20:39:47.54

```
*****************************************************************************
*                              GEL Laboratories LLC                          *
*                                2040 Savage Road                            *
*                              Charleston, SC 29414                          *
*****************************************************************************
*                                                                           *
*                                DETECTOR DATA                              *
*                                                                           *
* Configuration    : DKA100:[CANBERRA.GAMMA.ARCHIVE.GAMMA]G1202054946.CNF;1  *
* Acquisition date : 3-MAR-2010 19:39:04.  Detector SN#    :                *
* Detector ID      : GAM17                 Sensitivity     : 5.00000        *
* Geometry         : 2LMB                  Energy tolerance: 1.50000        *
* Elapsed live time: 0 01:00:00.00         Abundance limit : 75.00000       *
* Elapsed real time: 0 01:00:05.27         Half life ratio : 8.00000        *
*****************************************************************************
*                                                                           *
*                                SAMPLE DATA                                *
*                                                                           *
* Sample date      : 1-MAR-2010 00:00:00.  Nuclide Library : LIQUID          *
* Sample ID        : G1202054946           Analyst initials: KXG3           *
* Batch Number     : 958213                Sample Quantity : 2.00000E+00 LITER *
*****************************************************************************
*                                                                           *
*                                  QC DATA                                  *
*                                                                           *
* CALIB. DATE/TIME : 11-JAN-2010 14:46:18.7MS Isotope      :                *
* MSD ID           :                       MSD Isotope     :                *
* LCS ID           : 1032-A                LCS Isotope     :                *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
CO-57	1.815E+01	8.596E+00	9.460E+00	8.930E-01	1.919
CO-60	5.262E+02	6.287E+01	1.263E+01	1.060E+00	41.658
CD-109	2.760E+03	4.067E+02	2.195E+02	2.076E+01	12.575
SN-126	2.749E+02	4.050E+01	2.185E+01	2.066E+00	12.580
BA-137M	4.434E+02	5.092E+01	1.734E+01	1.407E+00	25.570
CS-137	4.684E+02	5.385E+01	1.832E+01	1.490E+00	25.570
AM-241	1.266E+03	1.446E+02	3.850E+01	4.097E+00	32.895

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
BE-7	-5.625E+01		8.446E+01	1.300E+02	1.328E+01	-0.433
NA-22	-6.393E-01		7.577E+00	1.192E+01	1.030E+00	-0.054
NA-24	-7.984E-01		1.378E+02	2.300E+02	1.981E+01	-0.003
K-40	-3.743E+00		4.584E+01	8.509E+01	7.488E+00	-0.044
SC-46	3.647E+00		1.185E+01	2.024E+01	1.732E+00	0.180

Sample ID : G1202054946 Acquisition date : 3-MAR-2010 19:39:04

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
V-48	-3.804E+00		1.458E+01	2.325E+01	2.040E+00	-0.164
CR-51	-9.772E+00		6.533E+01	1.086E+02	1.113E+01	-0.090
MN-54	4.026E-01		1.194E+01	1.992E+01	1.702E+00	0.020
CO-56	8.341E+00		1.093E+01	1.955E+01	1.672E+00	0.427
CO-58	-1.580E+00		1.050E+01	1.722E+01	1.471E+00	-0.092
FE-59	-1.591E+01		2.639E+01	3.993E+01	3.833E+00	-0.398
ZN-65	1.345E+01		2.696E+01	4.626E+01	4.136E+00	0.291
SE-75	-2.863E+00		1.016E+01	1.568E+01	1.530E+00	-0.183
SR-85	-1.168E+01		1.049E+01	1.539E+01	1.463E+00	-0.759
Y-88	-1.214E-01		5.811E+00	9.388E+00	8.005E-01	-0.013
Y-91	1.373E+03		3.452E+03	5.997E+03	5.312E+02	0.229
NB-94	2.982E-01		7.797E+00	1.319E+01	1.091E+00	0.023
NB-95	7.612E+00		8.635E+00	1.589E+01	1.342E+00	0.479
NB-95M	-2.604E+01		2.785E+01	4.121E+01	4.403E+00	-0.632
ZR-95	4.477E+00		1.674E+01	2.888E+01	2.698E+00	0.155
MO-99	-3.849E+00		1.438E+02	2.406E+02	3.760E+01	-0.016
TC-99M	7.412E-03		6.971E-03	Half-Life too short		
RU-103	5.013E+00		1.013E+01	1.722E+01	2.509E+00	0.291
RH-106	-4.261E+01		8.896E+01	1.348E+02	1.789E+01	-0.316
RU-106	-4.261E+01		8.885E+01	1.348E+02	1.165E+01	-0.316
AG-108M	-6.220E+00		8.960E+00	1.390E+01	1.373E+00	-0.448
AG-110M	1.754E+01		1.327E+01	2.151E+01	1.816E+00	0.816
SN-113	-1.842E+00		1.157E+01	1.898E+01	1.851E+00	-0.097
CD-115	2.576E+01		7.087E+01	1.195E+02	1.128E+01	0.216
SN-117M	1.551E+00		6.435E+00	1.067E+01	9.550E-01	0.145
TE-123M	-1.024E+00		5.973E+00	9.629E+00	8.659E-01	-0.106
SB-124	-5.788E+00		1.274E+01	1.709E+01	1.534E+00	-0.339
SB-125	-1.279E+01		2.458E+01	3.864E+01	3.772E+00	-0.331
TE-125M	-4.168E+02		1.683E+03	2.752E+03	3.049E+02	-0.151
I-126	3.578E+00		3.599E+01	5.101E+01	4.149E+00	0.070
SB-126	1.026E+01		1.818E+01	3.244E+01	2.701E+00	0.316
SB-127	-1.076E+01		3.598E+01	5.494E+01	4.722E+00	-0.196
I-131	-2.238E+00		9.482E+00	1.549E+01	1.561E+00	-0.145
TE-132	-7.799E+00		1.310E+01	1.994E+01	2.960E+00	-0.391
BA-133	-1.205E+01		1.068E+01	1.594E+01	2.190E+00	-0.756
I-133	6.793E+01		9.096E+01	1.584E+02	1.541E+01	0.429
CS-134	-4.752E+00		1.265E+01	2.022E+01	1.732E+00	-0.235
CS-135	8.350E+00		3.840E+01	6.184E+01	6.767E+00	0.135
I-135	-1.186E-02		1.799E-02	Half-Life too short		
CS-136	1.311E+01		1.568E+01	2.831E+01	2.611E+00	0.463
CE-139	5.725E+00		6.546E+00	1.123E+01	9.937E-01	0.510
BA-140	-7.642E+00		3.789E+01	6.039E+01	2.060E+01	-0.127
LA-140	3.567E+00		7.364E+00	1.397E+01	1.205E+00	0.255
CE-141	1.170E+00		1.020E+01	1.685E+01	1.562E+00	0.069
CE-143	-1.168E+01		6.001E+01	1.000E+02	2.119E+01	-0.117
CE-144	-2.498E+01		4.297E+01	6.776E+01	1.061E+01	-0.369
PM-144	4.998E+00		8.698E+00	1.551E+01	1.279E+00	0.322
PR-144	3.731E+02		6.469E+02	1.154E+03	9.515E+01	0.323

Sample ID : G1202054946 Acquisition date : 3-MAR-2010 19:39:04

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L. Ided	Act error	MDA (pCi/LITER)	MDA error	Act/MDA
PM-146	3.518E+00		1.255E+01	2.112E+01	2.416E+00	0.167
ND-147	2.851E+01		7.276E+01	1.229E+02	1.896E+01	0.232
PM-149	1.681E+02		4.848E+02	8.390E+02	1.360E+02	0.200
EU-152	1.204E+01		2.450E+01	4.252E+01	4.359E+00	0.283
GD-153	-1.744E+01		1.600E+01	2.466E+01	2.309E+00	-0.707
EU-154	-7.610E+00		2.278E+01	3.360E+01	3.827E+00	-0.226
EU-155	2.796E-01		2.044E+01	3.406E+01	3.217E+00	0.008
TA-182	-1.324E+01		2.784E+01	3.943E+01	3.474E+00	-0.336
IR-192	-2.970E+00		7.392E+00	1.204E+01	1.188E+00	-0.247
HG-203	1.078E+00		7.114E+00	1.220E+01	1.217E+00	0.088
BI-207	-3.825E+00		1.497E+01	2.356E+01	2.095E+00	-0.162
TL-208	5.822E+00		1.003E+01	1.754E+01	1.689E+00	0.332
PB-210	-6.073E+01		2.924E+02	4.231E+02	4.698E+01	-0.144
BI-211	2.617E+01		3.015E+02	8.408E+01	9.562E+02	0.311
PB-211	-1.612E+02		1.843E+03	2.692E+02	3.064E+03	-0.599
BI-212	7.661E+01		1.224E+02	2.196E+02	2.695E+01	0.349
PB-212	-7.755E+00		1.569E+01	2.525E+01	2.675E+00	-0.307
BI-214	1.555E+00		1.740E+01	2.868E+01	2.939E+00	0.054
PB-214	2.747E+01		1.842E+01	3.394E+01	3.925E+00	0.809
RN-219	6.502E+01		7.470E+02	1.851E+02	2.105E+03	0.351
RA-223	-2.006E+01		2.758E+02	2.581E+02	2.936E+03	-0.078
RA-224	1.034E+01		1.610E+02	2.561E+02	2.450E+01	0.040
RA-226	3.160E+01		1.573E+02	2.650E+02	1.788E+02	0.119
AC-227	-4.680E+01		6.205E+01	9.144E+01	1.172E+01	-0.512
TH-227	-4.680E+01		5.358E+02	9.144E+01	1.040E+03	-0.512
AC-228	-6.957E+00		4.724E+01	7.743E+01	8.961E+00	-0.090
RA-228	-6.957E+00		4.724E+01	7.743E+01	8.961E+00	-0.090
TH-228	-7.755E+00		1.569E+01	2.525E+01	2.675E+00	-0.307
TH-229	-1.181E+02		1.274E+02	1.911E+02	1.746E+01	-0.618
PA-231	3.518E+02		3.620E+02	6.459E+02	9.888E+01	0.545
TH-231	1.419E+01		8.498E+01	1.303E+02	2.327E+01	0.109
TH-232	-2.021E+03		1.575E+04	3.788E+03	2.914E+04	-0.534
PA-233	5.567E-01		1.522E+01	2.573E+01	2.590E+00	0.022
PA-234	-4.638E+00		1.199E+02	1.967E+02	3.698E+01	-0.024
PA-234M	8.683E+02		1.629E+03	2.808E+03	2.843E+02	0.309
TH-234	-1.799E+02		1.808E+02	2.651E+02	5.033E+01	-0.679
U-235	-1.483E+01		4.322E+01	6.870E+01	1.183E+01	-0.216
NP-237	2.868E+02		8.824E+01	1.091E+02	2.509E+01	2.629
U-238	-1.799E+02		1.808E+02	2.651E+02	5.033E+01	-0.679
NP-239	1.513E+01		5.557E+01	9.363E+01	8.793E+00	0.162
CM-247	1.332E+00		9.771E+00	1.639E+01	1.565E+00	0.081
CF-249	-2.565E+00		9.912E+00	1.609E+01	1.535E+00	-0.159
CF-251	-2.883E-02		3.021E+01	4.898E+01	4.394E+00	-0.001
ANH-511	-5.180E+00		9.911E+00	1.792E+01	1.707E+00	-0.289

VAX/VMS Nuclide Identification Report Generated

```
*****************************************************************************
*                          GEL Laboratories LLC                             *
*                              2040 Savage Road                             *
*                            Charleston, SC 29414                           *
*****************************************************************************
*                                                                           *
*                              DETECTOR DATA                                *
*                                                                           *
* Configuration    : SYS$SYSROOT:[ALPHA.ARCHIVE.GAMMA]G1202054946           *
* Acquisition date :  3-MAR-2010 19:39:04 Detector SN#    :                 *
* Detector ID      : GAM17                Sensitivity     : 5.000           *
* Geometry         : 2LMB                 Energy tolerance: 1.500           *
* Elapsed live time:    0 01:00:00.00     Abundance limit : 75.000          *
* Elapsed real time:    0 01:00:05.27     Half life ratio : 8.000           *
*****************************************************************************
*                                                                           *
*                              SAMPLE DATA                                  *
*                                                                           *
* Sample date      :  1-MAR-2010 00:00:00 Nuclide Library : LIQUI           *
* Sample ID        : G1202054946          Analyst initials: KXG3            *
* Batch Number     : 958213               Sample Quantity : 2.0000E+00 LITER *
* Recovery         :    1.00000           Carrier Weight :    0.00000       *
*****************************************************************************
*                                                                           *
*                                QC DATA                                    *
*                                                                           *
* CALIB. DATE/TIME : 11-JAN-2010 14:46:18 MS Isotope      :                 *
* MSD DPM          :    0.000             MSD Isotope     :                 *
* LCS DPM          :    0.000             LCS Isotope     :                 *
* LCSD DPM         :    0.000             LCSD Isotope    :                 *
*****************************************************************************
```

Combined Activity-MDA Report

---- Identified Nuclides ----

Nuclide	Activity (pCi/LITER)	Act Error	DLC (pCi/LITER)	TPU
CO-57	1.815E+01	8.425E+00	4.733E+00	4.298E+00
CO-60	5.262E+02	6.161E+01	6.320E+00	3.143E+01
CD-109	2.760E+03	3.986E+02	1.098E+02	2.034E+02
SN-126	2.749E+02	3.969E+01	1.093E+01	2.025E+01
BA-137M	4.434E+02	4.990E+01	8.676E+00	2.546E+01
CS-137	4.684E+02	5.278E+01	9.165E+00	2.693E+01
AM-241	1.266E+03	1.417E+02	1.926E+01	7.230E+01

---- Non-Identified Nuclides ----

Nuclide	Key-Line Activity (pCi/LITER)	K.L Act error	DLC (pCi/LITER)	TPU
BE-7	-5.625E+01	8.277E+01	6.503E+01	4.223E+01 NOT IDENT.
NA-22	-6.393E-01	7.425E+00	5.962E+00	3.788E+00 NOT IDENT.
NA-24	-7.984E-01	1.350E+02	1.151E+02	6.890E+01 NOT IDENT.
K-40	-3.743E+00	4.492E+01	4.257E+01	2.292E+01 NOT IDENT.
SC-46	3.647E+00	1.162E+01	1.012E+01	5.927E+00 NOT IDENT.
V-48	-3.804E+00	1.428E+01	1.163E+01	7.288E+00 NOT IDENT.
CR-51	-9.772E+00	6.402E+01	5.435E+01	3.267E+01 NOT IDENT.
MN-54	4.026E-01	1.170E+01	9.965E+00	5.969E+00 NOT IDENT.
CO-56	8.341E+00	1.071E+01	9.781E+00	5.463E+00 NOT IDENT.
CO-58	-1.580E+00	1.029E+01	8.615E+00	5.251E+00 NOT IDENT.
FE-59	-1.591E+01	2.586E+01	1.998E+01	1.320E+01 NOT IDENT.
ZN-65	1.345E+01	2.642E+01	2.314E+01	1.348E+01 NOT IDENT.
SE-75	-2.863E+00	9.961E+00	7.847E+00	5.082E+00 FAIL ABUN
SR-85	-1.168E+01	1.028E+01	7.698E+00	5.247E+00 NOT IDENT.
Y-88	-1.214E-01	5.694E+00	4.697E+00	2.905E+00 NOT IDENT.
Y-91	1.373E+03	3.383E+03	3.000E+03	1.726E+03 NOT IDENT.
NB-94	2.982E-01	7.641E+00	6.600E+00	3.898E+00 NOT IDENT.
NB-95	7.612E+00	8.462E+00	7.949E+00	4.317E+00 NOT IDENT.
NB-95M	-2.604E+01	2.729E+01	2.062E+01	1.392E+01 NOT IDENT.
ZR-95	4.477E+00	1.640E+01	1.445E+01	8.370E+00 NOT IDENT.

MO-99	-3.849E+00	1.409E+02	1.204E+02	7.190E+01	NOT IDENT.
TC-99M	7.412E+03	1.366E+04	0.000E+00	6.971E+03	SHORT HLIF
RU-103	5.013E+00	9.928E+00	8.614E+00	5.065E+00	NOT IDENT.
RH-106	-4.261E+01	8.718E+01	6.744E+01	4.448E+01	NOT IDENT.
RU-106	-4.261E+01	8.708E+01	6.744E+01	4.443E+01	NOT IDENT.
AG-108M	-6.220E+00	8.781E+00	6.954E+00	4.480E+00	NOT IDENT.
AG-110M	1.754E+01	1.301E+01	1.076E+01	6.635E+00	NOT IDENT.
SN-113	-1.842E+00	1.134E+01	9.496E+00	5.786E+00	NOT IDENT.
CD-115	2.576E+01	6.945E+01	5.977E+01	3.543E+01	NOT IDENT.
SN-117M	1.551E+00	6.307E+00	5.339E+00	3.218E+00	NOT IDENT.
TE-123M	-1.024E+00	5.854E+00	4.817E+00	2.987E+00	NOT IDENT.
SB-124	-5.788E+00	1.249E+01	8.550E+00	6.372E+00	NOT IDENT.
SB-125	-1.279E+01	2.409E+01	1.933E+01	1.229E+01	NOT IDENT.
TE-125M	-4.168E+02	1.649E+03	1.377E+03	8.415E+02	NOT IDENT.
I-126	3.578E+00	3.527E+01	2.552E+01	1.800E+01	NOT IDENT.
SB-126	1.026E+01	1.782E+01	1.623E+01	9.092E+00	NOT IDENT.
SB-127	-1.076E+01	3.526E+01	2.749E+01	1.799E+01	NOT IDENT.
I-131	-2.238E+00	9.292E+00	7.748E+00	4.741E+00	NOT IDENT.
TE-132	-7.799E+00	1.284E+01	9.974E+00	6.551E+00	FAIL ABUN
BA-133	-1.205E+01	1.047E+01	7.976E+00	5.340E+00	NOT IDENT.
I-133	6.793E+01	8.914E+01	7.923E+01	4.548E+01	NOT IDENT.
CS-134	-4.752E+00	1.240E+01	1.012E+01	6.327E+00	NOT IDENT.
CS-135	8.350E+00	3.763E+01	3.094E+01	1.920E+01	NOT IDENT.
I-135	-1.186E+04	3.527E+04	0.000E+00	1.799E+04	SHORT HLIF
CS-136	1.311E+01	1.536E+01	1.416E+01	7.839E+00	NOT IDENT.
CE-139	5.725E+00	6.415E+00	5.619E+00	3.273E+00	NOT IDENT.
BA-140	-7.642E+00	3.713E+01	3.021E+01	1.894E+01	NOT IDENT.
LA-140	3.567E+00	7.216E+00	6.987E+00	3.682E+00	NOT IDENT.
CE-141	1.170E+00	1.000E+01	8.432E+00	5.102E+00	NOT IDENT.
CE-143	-1.168E+01	5.881E+01	5.005E+01	3.001E+01	FAIL ABUN
CE-144	-2.498E+01	4.211E+01	3.390E+01	2.149E+01	NOT IDENT.
PM-144	4.998E+00	8.524E+00	7.758E+00	4.349E+00	NOT IDENT.
PR-144	3.731E+02	6.340E+02	5.771E+02	3.235E+02	NOT IDENT.
PM-146	3.518E+00	1.230E+01	1.057E+01	6.276E+00	NOT IDENT.
ND-147	2.851E+01	7.131E+01	6.147E+01	3.638E+01	NOT IDENT.
PM-149	1.681E+02	4.751E+02	4.197E+02	2.424E+02	NOT IDENT.
EU-152	1.204E+01	2.401E+01	2.127E+01	1.225E+01	FAIL ABUN
GD-153	-1.744E+01	1.568E+01	1.234E+01	7.998E+00	NOT IDENT.
EU-154	-7.610E+00	2.232E+01	1.681E+01	1.139E+01	FAIL ABUN
EU-155	2.796E-01	2.004E+01	1.704E+01	1.022E+01	FAIL ABUN
TA-182	-1.324E+01	2.729E+01	1.973E+01	1.392E+01	NOT IDENT.
IR-192	-2.970E+00	7.244E+00	6.024E+00	3.696E+00	NOT IDENT.
HG-203	1.078E+00	6.971E+00	6.102E+00	3.557E+00	NOT IDENT.
BI-207	-3.825E+00	1.467E+01	1.179E+01	7.483E+00	NOT IDENT.
TL-208	5.822E+00	9.834E+00	8.777E+00	5.017E+00	NOT IDENT.
PB-210	-6.073E+01	2.865E+02	2.117E+02	1.462E+02	NOT IDENT.
BI-211	2.617E+01	2.954E+02	4.207E+01	1.507E+02	NOT IDENT.
PB-211	-1.612E+02	1.806E+03	1.347E+02	9.215E+02	NOT IDENT.
BI-212	7.661E+01	1.199E+02	1.099E+02	6.118E+01	NOT IDENT.
PB-212	-7.755E+00	1.538E+01	1.263E+01	7.847E+00	NOT IDENT.
BI-214	1.555E+00	1.705E+01	1.435E+01	8.700E+00	NOT IDENT.
PB-214	2.747E+01	1.805E+01	1.698E+01	9.208E+00	NOT IDENT.
RN-219	6.502E+01	7.320E+02	9.261E+01	3.735E+02	NOT IDENT.
RA-223	-2.006E+01	2.703E+02	1.292E+02	1.379E+02	NOT IDENT.
RA-224	1.034E+01	1.578E+02	1.281E+02	8.052E+01	NOT IDENT.
RA-226	3.160E+01	1.542E+02	1.326E+02	7.865E+01	NOT IDENT.
AC-227	-4.680E+01	6.081E+01	4.575E+01	3.103E+01	NOT IDENT.
TH-227	-4.680E+01	5.250E+02	4.575E+01	2.679E+02	NOT IDENT.
AC-228	-6.957E+00	4.629E+01	3.874E+01	2.362E+01	NOT IDENT.
RA-228	-6.957E+00	4.629E+01	3.874E+01	2.362E+01	NOT IDENT.
TH-228	-7.755E+00	1.538E+01	1.263E+01	7.847E+00	NOT IDENT.
TH-229	-1.181E+02	1.248E+02	9.559E+01	6.368E+01	FAIL ABUN
PA-231	3.518E+02	3.547E+02	3.231E+02	1.810E+02	NOT IDENT.
TH-231	1.419E+01	8.328E+01	6.521E+01	4.249E+01	NOT IDENT.
TH-232	-2.021E+03	1.544E+04	1.895E+03	7.876E+03	NOT IDENT.
PA-233	5.567E-01	1.492E+01	1.287E+01	7.612E+00	NOT IDENT.
PA-234	-4.638E+00	1.175E+02	9.843E+01	5.994E+01	NOT IDENT.
PA-234M	8.683E+02	1.596E+03	1.405E+03	8.144E+02	NOT IDENT.
TH-234	-1.799E+02	1.771E+02	1.326E+02	9.038E+01	NOT IDENT.
U-235	-1.483E+01	4.235E+01	3.437E+01	2.161E+01	NOT IDENT.
NP-237	2.868E+02	8.648E+01	5.458E+01	4.412E+01	NOT IDENT.
U-238	-1.799E+02	1.771E+02	1.326E+02	9.038E+01	NOT IDENT.
NP-239	1.513E+01	5.446E+01	4.684E+01	2.778E+01	NOT IDENT.
CM-247	1.332E+00	9.576E+00	8.201E+00	4.886E+00	NOT IDENT.
CF-249	-2.565E+00	9.714E+00	8.051E+00	4.956E+00	NOT IDENT.
CF-251	-2.883E-02	2.960E+01	2.451E+01	1.510E+01	NOT IDENT.
ANH-511	-5.180E+00	9.713E+00	8.966E+00	4.955E+00	NOT IDENT.

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*****************************************************************************
*                          GEL Laboratories LLC                             *
*                             2040 SAVAGE ROAD                              *
*                           CHARLESTON ,SC 29417                            *
*                   GAMMA SPECTROSCOPY BACKGROUND REPORT                    *
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ENERGY	MDA COUNTS
46.54	427.8275
49.72	506.6527
57.36	548.3638
59.54	371.1136
63.29	206.4911
63.29	206.4911
63.81	200.2137
64.28	221.4064
67.75	197.2829
69.67	190.2137
70.83	172.9816
72.81	179.1097
72.87	179.1342
72.87	179.1342
74.82	191.5538
74.82	191.5538
74.82	191.5538
74.97	191.6180
77.11	174.5268
77.11	174.5268
77.11	174.5268
79.69	163.7376
79.69	163.7376
80.12	161.1703
80.19	161.1939
81.00	177.7985
81.07	187.8043
83.79	165.6028
84.21	157.5266
85.43	174.3973
86.48	169.2639
86.55	169.2874
86.94	152.4318
87.57	152.6243
88.03	152.7644
88.47	152.8978
89.96	213.3925
91.11	141.6554
92.59	140.6689
92.59	140.6689
93.35	131.1103
94.56	178.9443
94.65	178.9746
94.67	178.9814
95.86	135.4721
97.43	148.0511
98.43	123.9172
98.44	123.9192
99.53	115.7016
100.11	134.6575
103.18	124.9894
103.37	119.3484
105.31	116.9078
106.12	125.6406
109.28	123.4597
111.00	109.4245
111.76	109.5654
116.30	112.3343
116.74	112.4157
121.12	125.9037
121.78	137.7606
122.06	137.8215
123.07	139.5110
131.20	122.9341
133.52	130.3284
136.00	119.8242
136.47	131.8979

140.51	114.5833
140.51	0.0000
140.88	114.6448
143.76	114.1081
144.24	101.0488
145.44	107.2929
152.43	122.6440
153.25	116.6417
154.21	114.7446
156.02	109.8888
158.56	104.0782
159.00	115.4806
162.66	114.9995
163.33	126.5050
165.86	104.0314
176.60	122.3119
177.52	111.8928
181.07	111.3158
185.72	94.8776
186.21	102.3994
193.51	129.0906
205.31	118.8212
210.85	107.4766
222.11	127.6308
227.38	124.9780
228.16	121.7269
228.18	121.7291
235.69	138.4050
235.96	138.4426
235.96	138.4426
238.63	120.7527
238.63	120.7527
240.99	111.9833
242.00	118.8876
244.70	104.4415
252.40	89.2020
252.80	82.3711
256.23	94.1147
256.23	94.1147
260.90	71.4693
264.66	84.4389
268.22	83.5532
269.46	109.2039
271.23	95.4148
273.65	71.1332
276.40	79.7819
277.37	71.9527
277.60	71.0901
278.00	70.2368
279.20	74.7057
279.54	74.7278
283.69	75.8799
284.31	77.6868
285.41	76.8770
285.90	85.7497
287.50	91.1796
293.27	88.9587
295.22	83.7589
295.96	89.1617
299.98	84.9877
299.98	84.9877
300.09	83.2070
300.09	83.2070
300.13	76.9467
301.36	68.9635
302.85	83.3972
304.50	79.9188
304.50	79.9188
304.85	85.3313
308.46	72.0691
311.90	70.4637
316.51	76.1660
319.41	68.1622
320.08	73.6534
323.87	75.6987
328.76	68.6634
329.85	73.3032
329.85	73.3032

330.06	74.2319
333.37	81.7712
334.37	76.3168
334.37	76.3168
338.28	71.0114
338.32	71.0137
338.32	71.0137
340.48	76.6727
340.55	76.6765
344.28	67.6277
351.06	53.0722
351.93	46.5843
356.01	84.1031
364.49	60.1748
366.42	60.2588
383.85	62.9063
388.16	63.0926
388.63	60.2439
391.70	77.6184
400.66	65.5554
401.81	57.8879
402.40	63.7018
404.85	68.6382
414.70	65.1915
423.72	59.6997
427.09	59.8281
427.87	68.6894
433.94	83.7276
453.88	66.8139
463.37	77.2256
468.07	70.4016
473.00	69.5980
476.78	68.7408
477.60	76.8651
487.02	62.0313
492.35	64.2603
497.08	62.3869
511.00	53.5976
514.00	92.9189
527.90	47.8530
529.87	44.7794
531.02	45.8490
537.26	48.0931
546.56	0.0000
563.25	33.9121
569.33	48.9003
569.50	49.9676
569.70	43.5938
583.19	36.3969
600.60	45.3479
602.73	32.4243
604.72	37.8647
609.32	32.5278
610.33	23.8651
614.28	41.3004
618.01	27.2194
621.93	49.0869
621.93	49.0869
633.25	43.8647
635.95	49.4110
636.99	42.8431
645.85	40.8131
657.76	47.9105
661.66	48.8837
661.66	48.8837
664.57	40.9384
666.33	39.1896
666.50	35.6299
677.62	29.0929
685.70	32.5648
695.00	36.0801
696.49	33.3948
696.51	33.3958
697.00	33.4030
702.65	30.7693
706.68	44.4206
720.70	29.1820
721.93	31.9341

722.78	31.0333
722.91	38.3373
723.31	38.3435
724.19	38.3578
727.33	26.5198
733.00	27.4995
735.93	32.1212
739.50	34.0073
747.24	42.4141
753.82	38.8295
756.73	32.3964
763.94	26.9206
765.80	23.2245
766.42	26.9475
777.92	47.6071
778.90	40.1550
783.70	37.4248
785.37	39.3217
795.86	41.3628
801.95	40.5183
810.76	41.6013
815.77	47.3645
818.51	39.8282
832.01	45.7500
834.85	51.5228
836.80	0.0000
846.77	33.5431
856.80	32.7051
860.56	35.6396
871.09	44.4783
873.19	47.4149
875.33	47.4508
880.51	39.7778
883.24	51.4706
884.68	57.3262
889.28	40.8762
898.04	51.7410
911.20	45.1150
911.20	45.1150
926.36	48.3097
937.49	50.4733
944.13	59.5137
946.00	60.5443
949.00	51.6636
964.08	55.9193
968.97	54.0092
968.97	54.0092
983.53	47.2341
996.26	44.4018
1001.03	43.4598
1004.73	45.5350
1037.84	37.8347
1038.76	0.0000
1048.07	21.5424
1050.41	27.7172
1050.41	27.7172
1063.66	30.9229
1085.87	29.0568
1099.25	50.0133
1112.07	34.5146
1115.54	34.5501
1120.29	33.5500
1120.55	40.8910
1121.30	38.8030
1131.51	0.0000
1173.23	21.2910
1189.05	19.2472
1204.77	11.8137
1221.41	11.8674
1231.02	9.7352
1235.36	6.4978
1238.28	9.7545
1260.41	0.0000
1274.44	12.0377
1274.54	9.8495
1291.59	7.6949
1298.22	8.2588
1312.11	15.6560

1332.49	9.5219
1365.19	6.5337
1368.63	5.6052
1384.29	8.4404
1408.01	6.6029
1457.56	0.0000
1460.82	1.9105
1489.16	3.8464
1596.21	2.9550
1620.50	1.9803
1678.03	0.0000
1690.97	5.0252
1764.49	7.1416
1770.23	0.0000
1771.35	6.1296
1791.20	0.0000
1836.06	3.1041

TOTAL URANIUM BY GAMMA SPEC REPORT
Sample:G1202054946

Total Uranium Activity	-5.4203E+02	ug/g
Total Uranium Counting Unc.	5.2738E+02	ug/g
Total Uranium Tpu	2.6907E-04	ug/g
Total Uranium Mda	3.9485E+02	ug/g

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*****************************************************************************
*                                                                           *
*                          GEL Laboratories LLC                           *
*                               2040 SAVAGE ROAD                            *
*                             CHARLESTON ,SC 29417                          *
*                              GROSS GAMMA REPORT                           *
*                                                                           *
*                                                                           *
*****************************************************************************
*                                                                           *
*   BATCH ID      : 958213                    SAMPLE ID  : G1202054946      *
*   ANALYST       : KXG3                      DETECTOR   : GAM17            *
*   SAMPLE DATE   :  1-MAR-2010 00:00:00.00   COUNT TIME :    0 01:00:00.00 *
*   ANALYSIS DATE:  3-MAR-2010 19:39:04.40    SAMPLE ALQT:    2.000 LITER   *
*                                                                           *
*****************************************************************************


        GROSS GAMMA ACTIVITY (pCi/LITER ) : 2.088E+03
        GROSS GAMMA ERROR   (pCi/LITER )  : 1.750E+02
        GROSS GAMMA MDA     (pCi/LITER )  : 2.246E+02
        GROSS GAMMA DLC     (pCi/LITER )  : 1.084E+02
```

Radiochemistry Batch Checklist, Rev10

Batch# 959731 Product: Ra-228 Date: 3/8/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)	✓		
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature]

Secondary Review Performed By: [signature]

3/21
LAM

Radium-228 Que Sheet

03/02/2010

Batch #: 959731 Analyst: JXC5 First Client Due Date: 03/21/2010 Internal Due Date: 03/10/2010

Spike Isotope: Radium-228 Spike Code: — Expiration Date: — Vol: — Ac-228 Ingrow: 3-3-10 / 1140

LCS Isotope: Radium-228 LCS Code: 0503-B Expiration Date: 9-1-10 Vol: 0.1mL

Tracer Isotope: Barium-133 Tracer Code: 0112-T Expiration Date: 2-12-11 Vol: 0.1mL Ac-228 Separation Date/Time: 3-8-10 / 11:05

Prep Date: 3-2-10 Initials: JC Pipet ID: 1795419 Balance ID: 17955160 Witness: MS 3-2-10

Sample ID	Client Description	Type	Hazard Code	Min CRDL	Matrix	Client	Collect Date & Time	Pos. #	Vol (mL)	Det #	Ba Yield (%)	Gamma Det. #
247431001-1	CAWA-10-13090	SAMPLE		1 pCi/L	GROUND WATI	LANL010	17-FEB-10 12:00 PM	1	700	10C	61.86	
248020001-1	CAPA-10-12771	SAMPLE		1 pCi/L	GROUND WATI	LANL010	22-FEB-10 12:00 PM	2	700	6A	76.19	
* 248020002-1	CAPA-10-13083	SAMPLE		1 pCi/L	GROUND WATI	LANL010	23-FEB-10 12:00 PM	3	700	3A	65.03	
248023002-1	CAPA-10-12917	SAMPLE		1 pCi/L	GROUND WATI	LANL010	23-FEB-10 12:00 PM	4	700	10D	66.97	
248024001-1	CAPA-10-12871	SAMPLE		1 pCi/L	GROUND WATI	LANL010	23-FEB-10 12:00 PM	5	700	7A	77.08	
1202058357-1	MB for batch 959731	MB		1 pCi/L	GROUND WATI	QC ACCOUNT		6	1000	8A	76.54	
1202058358-1	CAPA-10-13083(248020002DUP	DUP		1 pCi/L	GROUND WATI	QC ACCOUNT	23-FEB-10 12:00 PM	7	700	6B	62.08	
1202058359-1	LCS for batch 959731	LCS		1 pCi/L	GROUND WATI	QC ACCOUNT		8	1000	8D	74.54	

3/8/10

Data Reviewed By: [signature]

Blank Correction Report

Batch ID 959731

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202058358	DUP	Radium-228	0.700 L	0.778	0.278	0.742	.362857143	pCi/L	YES
1202058359	LCS	Radium-228	1.00 L	9.08	1.28	0.588	.254	pCi/L	NO
1202058357	MB	Radium-228	1.00 L	0.254	0.154	0.496	.254	pCi/L	YES
247431001	CAWA-10-13090	Radium-228	0.700 L	0.953	0.298	0.740	.362857143	pCi/L	YES
248020001	CAPA-10-12771	Radium-228	0.700 L	0.511	0.231	0.692	.362857143	pCi/L	YES
248020002	CAPA-10-13083	Radium-228	0.700 L	-0.0107	0.185	0.734	.362857143	pCi/L	YES
248023002	CAPA-10-12917	Radium-228	0.700 L	0.238	0.210	0.720	.362857143	pCi/L	YES
248024001	CAPA-10-12871	Radium-228	0.700 L	0.648	0.245	0.685	.362857143	pCi/L	YES

Radium-228 Liquid

Filename : RA228.XLS
File type : Excel
Version # : 1.3

Batch : 959731
Analyst : JXC5
Prep Date : 3/2/2010

Ra-228 Abundance : 1
Ra-228 Method Uncertainty : 0.1268

Geometry: CeF on 25mm Filter

Spike S/N : N/A
Spike Exp Date : N/A
Spike Activity (dpm/ml): N/A
Spike Volume Added: N/A

LCS S/N : 0503-B
LCS Exp Date : 9/11/2010
LCS Activity (dpm/ml): 168.30
LCS Volume Added: 0.10

Tracer S/N : 0112-J
Tracer Exp Date : 2/12/2011
Tracer Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Procedure Code : GFC28RAL
Parmname : Radium-228
Required MDC : 1 pCi/L
Halflife of Ra-228 : 5.75 years
Halflife of Ac-228 : 6.15 hours

Sample Characteristics					Tracer Calculations					
Pos.	Sample ID	Sample Aliquot L	Sample Aliquot StDev. L	Sample Date/Time	Tracer Concentration (cpm) (Ba-133 Ref.)	Tracer Ref. Count Uncertainty (cpm)	Tracer Concentration (cpm) (Ba-133 Samp.)	Tracer Samp. Count Uncertainty (cpm)	Tracer Aliquot (mL)	Tracer Aliquot StDev. (mL)
1	247431001.1	0.7000	2.0772E-05	2/17/2010 12:00	314.6	3.45%	194.6	4.54%	0.1	0.000701
2	248020001.1	0.7000	2.0772E-05	2/22/2010 12:00	314.6	3.45%	239.7	4.03%	0.1	0.000701
3	248020002.1	0.7000	2.0772E-05	2/23/2010 12:00	314.6	3.45%	204.6	4.41%	0.1	0.000701
4	248023002.1	0.7000	2.0772E-05	2/23/2010 12:00	314.6	3.45%	210.7	4.34%	0.1	0.000701
5	248024001.1	0.7000	2.0772E-05	2/23/2010 12:00	314.6	3.45%	242.5	4.00%	0.1	0.000701
6	1202058357.1	1.0000	2.0399E-05	3/2/2010 0:00	314.6	3.45%	240.8	4.01%	0.1	0.000701
7	1202058358.1	0.7000	2.0772E-05	2/23/2010 12:00	314.6	3.45%	195.3	4.53%	0.1	0.000701
8	1202058359.1	1.0000	2.0399E-05	3/2/2010 0:00	314.6	3.45%	234.5	4.08%	0.1	0.000701

Count raw Data													Calibration Data						
		Counting	Gross Counts			Count				Ac-228	Calculated Sample	Sample					Detector	Weekly Bkg	Count
Pos.	Detector ID	Time (min.)	Alpha	Beta	Beta cpm	Start Date/Time	Separation Date/Time	Ra-228 Decay	Ac-228 Decay	Count Correction	Recovery %	Recovery Error %	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm)	Efficiency Error (cpm/dpm)	cpm	Time (min.)
1	10C	60	9	46	0.767	3/8/2010 13:37	3/8/2010 11:05	0.994	0.750	1.057	61.86%	3.02%	PIC	7/2/2009	7/31/2010	0.6250	0.00816	0.363	1000
2	6A	60	8	46	0.767	3/8/2010 13:38	3/8/2010 11:05	0.995	0.750	1.057	76.19%	2.83%	PIC	7/2/2009	7/31/2010	0.6221	0.00816	0.501	1000
3	3A	60	6	19	0.317	3/8/2010 13:38	3/8/2010 11:05	0.996	0.750	1.057	65.03%	2.97%	PIC	7/2/2009	7/31/2010	0.5682	0.00943	0.321	1000
4	10D	60	4	32	0.533	3/8/2010 13:38	3/8/2010 11:05	0.996	0.750	1.057	66.97%	2.94%	PIC	7/2/2009	7/31/2010	0.6320	0.00816	0.423	1000
5	7A	60	6	50	0.833	3/8/2010 13:38	3/8/2010 11:05	0.996	0.749	1.057	77.08%	2.82%	PIC	7/2/2009	7/31/2010	0.6180	0.00816	0.495	1000
6	8A	60	3	44	0.733	3/8/2010 13:38	3/8/2010 11:05	0.996	0.749	1.057	76.54%	2.82%	PIC	7/2/2009	7/31/2010	0.6247	0.00816	0.543	1000
7	6B	60	7	41	0.683	3/8/2010 13:38	3/8/2010 11:05	0.996	0.749	1.057	62.08%	3.01%	PIC	7/2/2009	7/31/2010	0.6163	0.00816	0.357	1000
8	6D	60	19	446	7.433	3/8/2010 13:38	3/8/2010 11:05	0.998	0.749	1.057	74.54%	2.85%	PIC	7/2/2009	7/31/2010	0.6281	0.00816	0.763	1000

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

Results Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	0.4404	0.3110	1	0.7399	**0.9528**	0.2857	0.4037	0.1146	0.2706	0.2978		SAMPLE				
2	0.4216	0.2977	1	0.6915	**0.5110**	0.4348	0.2657	0.1152	0.2216	0.2314		SAMPLE				
3	0.4328	0.3055	1	0.7344	**-0.0107**	17.2673	-0.0043	0.0748	0.1846	0.1846		SAMPLE				
4	0.4339	0.3063	1	0.7203	**0.2377**	0.8751	0.1103	0.0965	0.2079	0.2102		SAMPLE				
5	0.4172	0.2945	1	0.6848	**0.6478**	0.3557	0.3383	0.1199	0.2296	0.2446		SAMPLE				
6	0.3041	0.2147	1	0.4960	**0.2536**	0.5943	0.1903	0.1130	0.1505	0.1541		MB				
7	0.4413	0.3115	1	0.7423	**0.7782**	0.3336	0.3263	0.1084	0.2585	0.2777	248020002.1	DUP	205.6%	0.8532		
8	0.3683	0.2600	1	0.5881	**9.0809**	0.0607	6.6703	0.3531	0.4807	1.2765		LCS			7.5813	119.8%

959731

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
247431001	10C	60	9	46	3/8/2010 13:37	3/8/2010 14:37	PIC
248020001	6A	60	8	46	3/8/2010 13:38	3/8/2010 14:38	PIC
248020002	3A	60	6	19	3/8/2010 13:38	3/8/2010 14:38	PIC
248023002	10D	60	4	32	3/8/2010 13:38	3/8/2010 14:38	PIC
248024001	7A	60	6	50	3/8/2010 13:38	3/8/2010 14:38	PIC
1202058357	8A	60	3	44	3/8/2010 13:38	3/8/2010 14:38	PIC
1202058358	6B	60	7	41	3/8/2010 13:38	3/8/2010 14:38	PIC
1202058359	8D	60	19	446	3/8/2010 13:38	3/8/2010 14:38	PIC

ASSAY 3-Mar-10 13:54:52

Protocol	id	9	228_REC2
Time	limit	180	
Count	limit	50000	
Isotope	Ba-133		
Protocol	date	9-Apr-07	10:02:22
Run	id.	89	

POS	RACK	BATCH	TIME	COUNTS	CPM	ERROR	% RECOVERY	COUNT TIME
1	90	1	180	1035	314.6	3.45		13:54:59
2	90	2	180	675	194.6	4.54	61.86	13:58:10
3	90	3	180	810	239.7	4.03	76.19	14:01:22
4	90	4	180	705	204.6	4.41	65.03	14:04:33
5	90	5	180	723	210.7	4.34	66.97	14:07:44
6	73	6	180	819	242.5	4	77.08	14:11:09
7	73	7	180	814	240.8	4.01	76.54	14:14:21
8	73	8	180	677	195.3	4.53	62.08	14:17:32
9	73	9	180	795	234.5	4.08	74.54	14:20:43

END OF ASSAY

Radiochemistry Batch Checklist, Rev10

Batch# 959738 Product: SR-90 Date: 03/10/10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			N/A
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.			N/A
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.	✓		
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			N/A
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: V. Culpepper

Secondary Review Performed By: [illegible]

LANL
03/25

Strontium 90 Que Sheet

03/02/10

Batch #: 959738 Analyst: JXR1 First Client Due Date: 03/25/2010 Internal Due Date 03/14/2010 Comments

Sr-90 Spike Code: 1243-B Expiration Date: 1-21-11 Vol: 0.1 Sr Sep. Date/time: 3-4-10 / 0952

Sr-90 LCS Code: 1243-B Expiration Date: 1-21-11 Vol: 0.1

Sr Carrier Code: 1194590 Exp Date: 3-19-10 Vol: 0.5 Sdt Wt: 8.93

Prep Date: 3-3-10 Initials: JLR Pipet ID: 1795419 Balance #: 51204863 Analytical Scale #: 38110047 Witness: HS 3-3-10

Sample ID	Client Description	Type	RDL	Collection Date	Matrix	Client	Rad	Pos. #	Wet/Dry Aliquot (mL) or (g)	Det # 1 & 2	Initial Sr wt (g)	Final Sr wt (g)	Net Sr wt (mg)
247817002-1	CAPA-10-13095	SAMPLE	.5 pCi/L	FEB-21-10 12:00 PM	GROUND WATE	LANL010		1	500	13C	0.0258	0.0325	6.7
247829002-1	CAPA-10-13498	SAMPLE	.5 pCi/L	FEB-22-10 12:00 PM	GROUND WATE	LANL010		2	500	13B	0.0250	0.0311	6.1
248020001-1	CAPA-10-12771	SAMPLE	.5 pCi/L	FEB-22-10 12:00 PM	GROUND WATE	LANL010		3	500	14B	0.0252	0.0320	6.8
248020003-1	CAPA-10-13085	SAMPLE	.5 pCi/L	FEB-23-10 12:00 PM	GROUND WATE	LANL010		4	500 * ~~14A~~	1C	0.0259	0.0332	7.3
248023002-1	CAPA-10-12917	SAMPLE	.5 pCi/L	FEB-23-10 12:00 PM	GROUND WATE	LANL010		5	500	14C	0.0261	0.0335	7.4
248024001-1	CAPA-10-12871	SAMPLE	.5 pCi/L	FEB-23-10 12:00 PM	GROUND WATE	LANL010		6	500 * ~~14A~~	2A	0.0255	0.0326	7.1
248024003-1	CAPA-10-12873	SAMPLE	.5 pCi/L	FEB-23-10 12:00 PM	GROUND WATE	LANL010		7	400	13C	0.0250	0.0320	7.0
1202058386-1	MB for batch 959738	MB	.5 pCi/L		GROUND WATE	QC ACCOUNT		8	1000 ~~500~~ *	14B	0.0250	0.0320	7.0
1202058387-1	CAPA-10-12873(248024003DUP)	DUP	.5 pCi/L	FEB-23-10 12:00 PM	GROUND WATE	QC ACCOUNT		9	400	14D	0.0258	0.0335	7.7
1202058388-1	CAPA-10-12873(248024003MS)	MS	.5 pCi/L	FEB-23-10 12:00 PM	GROUND WATE	QC ACCOUNT		10	100	13A	0.0253	0.0327	7.4
1202058389-1	LCS for batch 959738	LCS	.5 pCi/L		GROUND WATE	QC ACCOUNT		11	1000 ~~500~~ *	13A	0.0250	0.0326	7.6

* VC 03/05/10 Daily ✓ wtv

Solid Sample Dissolution by: LEACH or DIGESTION (Circle One) Data Reviewed By: V. Culpepper 03/10/10

Blank Correction Report

Batch ID 959738

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202058387	DUP	Strontium-90	0.400 L	0.329	0.151	0.480	.24975	pCi/L	YES
1202058389	LCS	Strontium-90	1.00 L	19.3	1.66	0.505	.0999	pCi/L	NO
1202058386	MB	Strontium-90	1.00 L	0.0999	0.0688	0.229	.0999	pCi/L	YES
1202058388	MS	Strontium-90	0.100 L	234	19.9	5.10	.999	pCi/L	NO
247817002	CAPA-10-13095	Strontium-90	0.500 L	0.105	0.135	0.469	.1998	pCi/L	YES
247829002	CAPA-10-13498	Strontium-90	0.500 L	0.0618	0.132	0.472	.1998	pCi/L	YES
248020001	CAPA-10-12771	Strontium-90	0.500 L	0.165	0.135	0.456	.1998	pCi/L	YES
248020003	CAPA-10-13085	Strontium-90	0.500 L	-0.255	0.0944	0.471	.1998	pCi/L	YES
248023002	CAPA-10-12917	Strontium-90	0.500 L	-0.111	0.127	0.475	.1998	pCi/L	YES
248024001	CAPA-10-12871	Strontium-90	0.500 L	0.0283	0.128	0.474	.1998	pCi/L	YES
248024003	CAPA-10-12873	Strontium-90	0.400 L	0.0327	0.134	0.474	.24975	pCi/L	YES

Strontium-90 Liquid

Filename : SR90.XLS
File type : Excel
Version # : 1.3.1

Spike S/N : 1243-B
Spike Exp Date : 1/21/2011
Spike Activity (dpm/ml): 493.26
Spike Volume Added: 0.10

Batch : 959738
Analyst : JXR1
Prep Date : 3/3/2010

LCS S/N : 1243-B
LCS Exp Date : 1/21/2011
LCS Activity (dpm/ml): 493.26
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Sr-90 Abundance : 1
Method Uncertainty : 0.0784

Carrier S/N : 1194590
Carrier Exp Date : 3/19/2010
Carrier Volume Added: 0.50
Carrier Weight (mg/ml): 17.85
Carrier Weight StDev.: 0.06

Procedure Code : GFC90SRL
Parmname : Strontium-90
Required MDC : 0.5 pCi/L
Halflife of Sr-90 : 28.90 years
Halflife of Y-90 : 64.053 hours

Geometry: Tuffryn Filter

Sample Characteristics					Carrier Calculations				
Pos.	Sample ID	Sample Aliquot L	Sample Aliquot StDev. L	Sample Date/Time	Carrier Weight (mg) (Standard)	Net Weight (mg) (Sample)	Net Weight StDev. (mg)	Carrier Aliquot (mL)	Carrier Aliquot StDev. (mL)
1	247817002.1	0.5000	2.0256E-05	2/21/2010 12:00	17.85	6.70	0.036127	0.5	0.002564
2	247829002.1	0.5000	2.0256E-05	2/22/2010 12:00	17.85	6.10	0.033548	0.5	0.002564
3	248020001.1	0.5000	2.0256E-05	2/22/2010 12:00	17.85	6.80	0.036556	0.5	0.002564
4	248020003.1	0.5000	2.0256E-05	2/23/2010 12:00	17.85	7.30	0.038705	0.5	0.002564
5	248023002.1	0.5000	2.0256E-05	2/23/2010 12:00	17.85	7.40	0.039135	0.5	0.002564
6	248024001.1	0.5000	2.0256E-05	2/23/2010 12:00	17.85	7.10	0.037846	0.5	0.002564
7	248024003.1	0.4000	1.9669E-05	2/23/2010 12:00	17.85	7.00	0.037416	0.5	0.002564
8	1202058386.1	1.0000	2.0399E-05	3/3/2010 0:00	17.85	7.00	0.037416	0.5	0.002564
9	1202058387.1	0.4000	1.9669E-05	2/23/2010 12:00	17.85	7.70	0.040425	0.5	0.002564
10	1202058388.1	0.1000	1.1370E-05	2/23/2010 12:00	17.85	7.40	0.039135	0.5	0.002564
11	1202058389.1	1.0000	2.0399E-05	3/3/2010 0:00	17.85	7.60	0.039995	0.5	0.002564

Count Raw Data

Pos.	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Gross Beta CPM	Count Start Date/Time	Strontium Separation Date/Time	Yttrium Ingrowth	Sr-90 Decay	Calculated Sample Recovery %	Sample Recovery Error %
1	13C	160	10	56	0.345	3/4/2010 15:15	3/4/2010 9:52	0.070	0.999	75.07%	0.98%
2	13B	170	5	50	0.292	3/4/2010 15:15	3/4/2010 9:52	0.071	0.999	68.35%	0.99%
3	14B	160	5	56	0.346	3/4/2010 15:15	3/4/2010 9:52	0.070	0.999	76.19%	0.98%
4	1C	60	2	15	0.248	3/9/2010 17:52	3/4/2010 9:52	0.751	0.999	81.79%	0.97%
5	14C	180	5	67	0.367	3/4/2010 15:16	3/4/2010 9:52	0.072	0.999	82.91%	0.97%
6	8A	70	6	35	0.496	3/9/2010 9:21	3/4/2010 9:52	0.727	0.999	79.55%	0.97%
7	13C	220	9	70	0.315	3/4/2010 18:05	3/4/2010 9:52	0.103	0.999	78.43%	0.97%
8	14B	140	0	51	0.364	3/4/2010 18:04	3/4/2010 9:52	0.096	1.000	78.43%	0.97%
9	14D	280	6	152	0.536	3/4/2010 15:15	3/4/2010 9:52	0.080	0.999	86.27%	0.96%
10	13A	60	4	1238	20.629	3/4/2010 16:38	3/4/2010 9:52	0.076	0.999	82.91%	0.97%
11	13A	60	3	1038	17.297	3/4/2010 15:15	3/4/2010 9:52	0.062	1.000	85.15%	0.96%

Calibration Data

Pos.	Counted on	Calibration Date	Calibration Due Date	Detector Efficiency (cpm/dpm) Sr-90	Detector Efficiency (cpm/dpm) Y-90	Detector Efficiency Error (cpm/dpm)	Alpha X-Talk	Weekly Bkg CPM	Weekly Bkg Count Time (min.)
1	PIC	2/1/2010	2/28/2011	0.4333	0.5190	0.00816	0.07662	0.304	500
2	PIC	2/1/2010	2/28/2011	0.4369	0.5200	0.00816	0.06516	0.270	500
3	PIC	2/1/2010	2/28/2011	0.4246	0.5092	0.00816	0.12148	0.282	500
4	PIC	2/1/2010	2/28/2011	0.4142	0.4984	0.00344	0.07334	0.430	1000
5	PIC	2/1/2010	2/28/2011	0.4223	0.5095	0.00816	0.18229	0.414	500
6	PIC	2/1/2010	2/28/2011	0.4211	0.5137	0.00816	0.04870	0.476	500
7	PIC	2/1/2010	2/28/2011	0.4324	0.5190	0.00816	0.07669	0.304	500
8	PIC	2/1/2010	2/28/2011	0.4241	0.5092	0.00816	0.12147	0.282	500
9	PIC	2/1/2010	2/28/2011	0.4213	0.5096	0.00816	0.30648	0.420	500
10	PIC	2/1/2010	2/28/2011	0.4231	0.5109	0.00816	0.06800	0.726	500
11	PIC	2/1/2010	2/28/2011	0.4225	0.5109	0.00816	0.06802	0.726	500

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

* - RPD changed to 0% due to activity below MDC for 1202058387.1

Results Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	0.2983	0.2106	0.5	0.4692	**0.1054**	1.2761	0.0412	0.0526	0.1345	0.1347		SAMPLE				
2	0.2992	0.2113	0.5	0.4716	**0.0618**	2.1408	0.0222	0.0475	0.1323	0.1324		SAMPLE				
3	0.2888	0.2039	0.5	0.4560	**0.1650**	0.8136	0.0642	0.0522	0.1342	0.1349		SAMPLE				
4	0.2839	0.2005	0.5	0.4708	**-0.2551**	0.3701	-0.1824	0.0675	0.0944	0.0944		SAMPLE				
5	0.3087	0.2179	0.5	0.4753	**-0.1110**	1.1433	-0.0468	0.0536	0.1268	0.1269		SAMPLE				
6	0.2926	0.2066	0.5	0.4743	**0.0283**	4.5215	0.0198	0.0896	0.1279	0.1279		SAMPLE				
7	0.3073	0.2170	0.5	0.4743	**0.0327**	4.0895	0.0110	0.0452	0.1335	0.1336		SAMPLE				
8	0.1436	0.1014	0.5	0.2288	**0.0999**	0.6839	0.0823	0.0563	0.0683	0.0688		MB				
9	0.3185	0.2249	0.5	0.4801	**0.3287**	0.4516	0.1163	0.0525	0.1484	0.1507	248024003.1	DUP	0.0%	0.5207		
10	3.1932	2.2544	0.5	5.0975	**234.3058**	0.0321	19.9028	0.5876	6.9174	19.9433	248024003.1	MS			222.2998	105.4%
11	0.3161	0.2231	0.5	0.5045	**19.3086**	0.0349	16.5706	0.5383	0.6272	1.6641		LCS			22.2190	86.9%

959738r2

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
247817002	13C	160	10	56	3/4/2010 15:15	3/4/2010 17:55	PIC
247829002	13B	170	5	50	3/4/2010 15:15	3/4/2010 18:05	PIC
248020001	14B	160	5	56	3/4/2010 15:15	3/4/2010 17:55	PIC
248020003	1C	60	2	15	3/9/2010 17:52	3/9/2010 18:52	PIC
248023002	14C	180	5	67	3/4/2010 15:16	3/4/2010 18:16	PIC
248024001	8A	70	6	35	3/9/2010 9:21	3/9/2010 10:31	PIC
248024003	13C	220	9	70	3/4/2010 18:05	3/4/2010 21:45	PIC
1202058386	14B	140	0	51	3/4/2010 18:04	3/4/2010 20:24	PIC
1202058387	14D	280	6	152	3/4/2010 15:15	3/4/2010 19:55	PIC
1202058388	13A	60	4	1238	3/4/2010 16:38	3/4/2010 17:38	PIC
1202058389	13A	60	3	1038	3/4/2010 15:15	3/4/2010 16:15	PIC

Radiochemistry Batch Checklist, Rev10

Batch# 959739 Product: GAB Date: 3.6.10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.	✓		
Samples have been blank corrected (if required)			N/A
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			N/A
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.	✓		
Smears Taken for Radioactive batches.			N/A
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.	✓		
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			N/A
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			N/A
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			N/A
Aliquot Correction completed if required.			N/A
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: Rhyan Brantley LANL

Secondary Review Performed By: [illegible] 3.25

Blank Correction Report

Batch ID 959739

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202058391	DUP	ALPHA	0.150 L	-0.387	0.476	2.49	.449333333	pCi/L	YES
		BETA	0.150 L	-0.705	0.832	2.98	-1.6133333	pCi/L	NO
1202058394	LCS	ALPHA	1.00 L	12.2	1.45	0.385	.0674	pCi/L	NO
		BETA	1.00 L	42.5	3.72	0.592	-.242	pCi/L	NO
1202058390	MB	ALPHA	1.00 L	0.0674	0.0742	0.284	.0674	pCi/L	YES
		BETA	1.00 L	-0.242	0.117	0.446	-.242	pCi/L	NO
1202058392	MS	ALPHA	0.050 L	304	30.0	9.03	1.348	pCi/L	NO
		BETA	0.050 L	791	68.5	10.2	-4.84	pCi/L	NO
1202058393	MSD	ALPHA	0.050 L	310	35.7	6.75	1.348	pCi/L	NO
		BETA	0.050 L	824	71.6	10.1	-4.84	pCi/L	NO
247817002	CAPA-10-13095	ALPHA	0.150 L	0.0727	0.364	1.84	.449333333	pCi/L	YES
		BETA	0.150 L	1.78	0.762	2.39	-1.6133333	pCi/L	NO
247829002	CAPA-10-13498	ALPHA	0.150 L	1.43	0.719	1.93	.449333333	pCi/L	YES
		BETA	0.150 L	3.47	0.879	2.44	-1.6133333	pCi/L	NO
248020001	CAPA-10-12771	ALPHA	0.150 L	1.79	0.818	2.13	.449333333	pCi/L	YES
		BETA	0.150 L	4.55	0.984	2.60	-1.6133333	pCi/L	NO
248020002	CAPA-10-13083	ALPHA	0.150 L	1.33	0.754	2.23	.449333333	pCi/L	YES
		BETA	0.150 L	2.15	0.859	2.66	-1.6133333	pCi/L	NO
248020003	CAPA-10-13085	ALPHA	0.150 L	0.261	0.393	1.68	.449333333	pCi/L	YES
		BETA	0.150 L	-0.762	0.739	2.70	-1.6133333	pCi/L	NO
248023002	CAPA-10-12917	ALPHA	0.150 L	0.350	0.524	2.12	.449333333	pCi/L	YES
		BETA	0.150 L	-0.00872	0.789	2.78	-1.6133333	pCi/L	NO
248024001	CAPA-10-12871	ALPHA	0.150 L	1.59	0.839	2.35	.449333333	pCi/L	YES
		BETA	0.150 L	6.13	1.13	2.81	-1.6133333	pCi/L	NO
248024003	CAPA-10-12873	ALPHA	0.150 L	2.46	0.994	2.21	.449333333	pCi/L	NO
		BETA	0.150 L	4.24	1.04	2.94	-1.6133333	pCi/L	NO

Gross Alpha Beta Que Sheet

03/02/2010 08:37:48

Batch #:959739 Analyst:DXF3 First Client DueDate 03/25/2010 Internal Due Date 03/14/2010

Alpha Spike Isotope: Th-230 Spike Code: 1242-B Vol: 0.1 Balance #: 167 SD207
Beta Spike Isotope: Sr-90 Spike Code: 1067-C Vol: 0.1 Pipette #: 4497063 Analytical Scale # C3154
Alpha LCS Isotope: Th-230 LCS Code: 1242-B Vol: 0.1 Prep Date: 3/4/10 Witness: SEH 3-4-10
Beta LCS Isotope: Sr-90 LCS Code: 1067-C Vol: 0.1 Initials: DHF Reopy

10% HNO3: 1269401
Conc HNO3: 1274802.8
Conc HCl: —
Conc HF: —
Conc Boric: —

Sample ID	Client Description	Type	Hazard Code	RDL Alpha/Beta	Client	Matrix	Bkr#	Wet/Dry Aliquot (mL or g)	Carrier or Det#	Initial Wt (g)	Final Wt (g)	Net Wt (mg)
247817002-1	CAPA-10-13095	SAMPLE		3 pCi/L	LANL010	GROUND WATER	1	1SD	8B	7.5896	7.6049	15.3
247829002-1	CAPA-10-13498	SAMPLE		3 pCi/L	LANL010	GROUND WATER	2	1SD	11C	7.5648	7.5842	19.4
248020001-1	CAPA-10-12771	SAMPLE		3 pCi/L	LANL010	GROUND WATER	3	1SD	1A	7.5499	7.5676	17.7
248020002-1	CAPA-10-13083	SAMPLE		3 pCi/L	LANL010	GROUND WATER	4	1SD	12B	7.5866	7.6060	19.4
• 248020003-1	CAPA-10-13085	SAMPLE		3 pCi/L	LANL010	GROUND WATER	5	1SD	9C	7.5681	7.5688	0.7 *
248023002-1	CAPA-10-12917	SAMPLE		3 pCi/L	LANL010	GROUND WATER	6	1SD	4C	7.6149	7.6306	15.7
248024001-1	CAPA-10-12871	SAMPLE		3 pCi/L	LANL010	GROUND WATER	7	1SD	10A	7.5615	7.6033	41.8
248024003-1	CAPA-10-12873	SAMPLE		3 pCi/L	LANL010	GROUND WATER	8	1SD	5B	7.5829	7.6262	43.3
1202058390-1	MB	MB		3 pCi/L	QC ACCOUNT	GROUND WATER	9	* ~~1SD~~ 10SD	10B	7.5777	7.5779	0.2
1202058391-1	DUP CAPA-10-13085(248020003)	DUP		3 pCi/L	QC ACCOUNT	GROUND WATER	10	1SD	* ~~11A~~ F1	7.5920	7.5925	0.5
1202058392-1	MS CAPA-10-13085(248020003)	MS		3 pCi/L	QC ACCOUNT	GROUND WATER	11	5D	4B	7.5588	7.5596	0.8
1202058393-1	MSD CAPA-10-13085(248020003)	MSD		3 pCi/L	QC ACCOUNT	GROUND WATER	12	5D	8C	7.5346	7.5357	1.1
1202058394-1	LCS	LCS		3 pCi/L	QC ACCOUNT	GROUND WATER	13	* ~~10SD~~ 1SD	8D	7.5808	7.5822	1.4

a → 10 3.6.10

Have the planchets been flamed? Yes / No

Data Reviewed By: Ryan Brantley

Gross Alpha Liquid

Filename : ALPHA.XLS
File type : Excel
Version # : 1.3

Batch : 959739
Analyst : DXF3
Prep Date : 3/4/2010

Method Uncertainty : 0.0829
Geometry: 2 inch Planchett

Spike S/N : 1242-B
Spike Exp Date : 12/2/2010
Spike Activity (dpm/ml): 279.79
Spike Volume Added: 0.10

LCS S/N : 1242-B
LCS Exp Date : 12/2/2010
LCS Activity (dpm/ml): 279.79
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Procedure Code : GFCGANBL
Parmname : Alpha
Required MDC : 3 pCi/L

Sample Characteristics						Count Raw Data				
Pos.	Sample ID	Sample Aliquot L	Sample Residue Wt. (mg)	Sample Aliquot StDev. L	Sample Date/Time	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Count Start Date/Time
1	247817002.2	0.1500	15.3	1.4035E-05	2/21/2010 12:00	8B	60	2	29	3/6/2010 4:00
2	247829002.2	0.1500	19.4	1.4035E-05	2/22/2010 12:00	11C	60	7	40	3/6/2010 3:55
3	248020001.2	0.1500	17.7	1.4035E-05	2/22/2010 12:00	1A	60	9	40	3/6/2010 4:22
4	248020002.2	0.1500	19.4	1.4035E-05	2/23/2010 12:00	12B	60	7	40	3/6/2010 3:55
5	248020003.2	0.1500	0.7	1.4035E-05	2/23/2010 12:00	9C	60	3	41	3/6/2010 4:23
6	248023002.2	0.1500	15.7	1.4035E-05	2/23/2010 12:00	4C	60	4	34	3/6/2010 4:23
7	248024001.2	0.1500	41.8	1.4035E-05	2/23/2010 12:00	10A	60	7	41	3/6/2010 4:23
8	248024003.2	0.1500	43.3	1.4035E-05	2/23/2010 12:00	5B	60	10	61	3/6/2010 4:23
9	1202058390.2	1.0000	0.2	2.0399E-05	3/4/2010 0:00	10B	60	5	21	3/6/2010 4:00
10	1202058391.2	0.1500	0.5	1.4035E-05	2/23/2010 12:00	F1	60	4	92	3/6/2010 15:27
11	1202058392.2	0.0500	0.8	7.8337E-06	2/23/2010 12:00	4B	60	417	2648	3/6/2010 4:00
12	1202058393.2	0.0500	1.1	7.8337E-06	2/23/2010 12:00	8C	60	502	2752	3/6/2010 4:00
13	1202058394.2	1.0000	1.4	2.0399E-05	3/4/2010 0:00	8D	60	406	2728	3/6/2010 4:00

Calibration Data

Pos.	Counted on	Calibration Date	Calibration Due Date	Calibration Source Used	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Beta X-Talk	Weekly Bkg CPM	Weekly Bkg Count Time (min.)
1	PIC	7/31/2009	7/31/2010	Th230	0.2043	0.06392	0.00081	0.028	500
2	PIC	7/31/2009	7/31/2010	Th230	0.1908	0.06392	0.00011	0.026	500
3	PIC	7/31/2009	7/31/2010	Th230	0.1906	0.04886	0.00080	0.036	500
4	PIC	7/31/2009	7/31/2010	Th230	0.1819	0.06392	0.00006	0.036	500
5	PIC	7/31/2009	7/31/2010	Th230	0.2287	0.06392	0.00012	0.030	500
6	PIC	7/31/2009	7/31/2010	Th230	0.1984	0.04190	0.00623	0.040	500
7	PIC	7/31/2009	7/31/2010	Th230	0.1634	0.06392	0.00038	0.030	500
8	PIC	7/31/2009	7/31/2010	Th230	0.1668	0.06392	0.00406	0.026	500
9	PIC	7/31/2009	7/31/2010	Th230	0.2351	0.06392	0.00042	0.048	500
10	LB4100	7/31/2009	7/31/2010	Th230	0.2279	0.03764	0.00004	0.096	500
11	PIC	7/31/2009	7/31/2010	Th230	0.2026	0.01889	0.00007	0.116	500
12	PIC	7/31/2009	7/31/2010	Th230	0.2385	0.06392	0.00187	0.082	500
13	PIC	7/31/2009	7/31/2010	Th230	0.2406	0.06392	0.00264	0.120	500

Notes:
* - Reference date for Spike Activity (dpm/ml) is the batch Prep Date

* - RPD changed to 0% due to activity below MDC for 1202058391.2

Alpha Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	0.7830	0.5528	3	1.8407	**0.0727**	4.6372	0.0053	0.0247	0.3635	0.3644		SAMPLE				
2	0.8081	0.5705	3	1.9281	**1.4261**	0.4969	0.0907	0.0447	0.7034	0.7191		SAMPLE				
3	0.9517	0.6719	3	2.1317	**1.7878**	0.4475	0.1140	0.0507	0.7991	0.8176		SAMPLE				
4	0.9970	0.7039	3	2.2331	**1.3309**	0.5603	0.0807	0.0449	0.7412	0.7542		SAMPLE				
5	0.7239	0.5111	3	1.6785	**0.2615**	1.4958	0.0200	0.0299	0.3924	0.3934		SAMPLE				
6	0.9635	0.6803	3	2.1172	**0.3502**	1.2949	0.0267	0.0345	0.5223	0.5236		SAMPLE				
7	1.0131	0.7152	3	2.3491	**1.5876**	0.5205	0.0867	0.0448	0.8226	0.8393		SAMPLE				
8	0.9241	0.6525	3	2.2051	**2.4582**	0.3835	0.1407	0.0532	0.9577	0.9937		SAMPLE				
9	0.1336	0.0943	3	0.2844	**0.0674**	1.0925	0.0353	0.0385	0.0738	0.0742		MB				
10	1.2999	0.9177	3	2.4944	**-0.3874**	1.2312	-0.0293	0.0361	0.4757	0.4762	248020003.2	DUP	0.0%	0.3731		
11	4.8220	3.4044	3	9.0326	**303.8051**	0.0533	6.8340	0.3407	15.1518	29.9572	248020003.2	MS			252.0645	120.5%
12	3.4435	2.4311	3	6.7509	**309.7145**	0.0782	8.2847	0.3736	14.1141	35.6718	248020003.2	MSD	1.9%	0.0450	252.0645	122.9%
13	0.2065	0.1458	3	0.3852	**12.2202**	0.0815	6.6467	0.3362	0.6295	1.4469		LCS			12.6032	97.0%

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
247817002	8B	60	2	29	3/6/2010 4:00	3/6/2010 5:00	PIC
247829002	11C	60	7	40	3/6/2010 3:55	3/6/2010 4:55	PIC
248020001	1A	60	9	40	3/6/2010 4:22	3/6/2010 5:22	PIC
248020002	12B	60	7	40	3/6/2010 3:55	3/6/2010 4:55	PIC
248020003	9C	60	3	41	3/6/2010 4:23	3/6/2010 5:23	PIC
248023002	4C	60	4	34	3/6/2010 4:23	3/6/2010 5:23	PIC
248024001	10A	60	7	41	3/6/2010 4:23	3/6/2010 5:23	PIC
248024003	5B	60	10	61	3/6/2010 4:23	3/6/2010 5:23	PIC
1202058390	10B	60	5	21	3/6/2010 4:00	3/6/2010 5:00	PIC
1202058391	F1	60	4	92	3/6/2010 15:27	3/6/2010 16:27	LB4100
1202058392	4B	60	417	2648	3/6/2010 4:00	3/6/2010 5:00	PIC
1202058393	8C	60	502	2752	3/6/2010 4:00	3/6/2010 5:00	PIC
1202058394	8D	60	406	2728	3/6/2010 4:00	3/6/2010 5:00	PIC

Gross Alpha Beta Que Sheet

03/02/2010 08:37:48

Batch #:959739 Analyst:DXF3 First Client DueDate 03/25/2010 Internal Due Date 03/14/2010

Alpha Spike Isotope: Th-230 Spike Code: 1242-B Vol: 0.1 Balance #: 16750207
Beta Spike Isotope: Sr-90 Spike Code: 1067-C Vol: 0.1 Pipette #: 44970063
Alpha LCS Isotope: Th-230 LCS Code: 1242-B Vol: 0.1 Prep Date: 3/4/10
Beta LCS Isotope: Sr-90 LCS Code: 1067-C Vol: 0.1 Initials: DHF

Analytical Scale # C31574
Witness: JEH 3-4-10

10% HNO3: 12694 01
Conc HNO3: 12748027.8
Conc HCl: —
Conc HF: —
Conc Boric: —

Sample ID	Client Description	Type	Hazard Code	RDL Alpha/Beta	Client	Matrix	Bkr#	Wet/Dry Aliquot (mL or g)	Carrier or Det#	Initial Wt (g)	Final Wt (g)	Net Wt (mg)
247817002-1	CAPA-10-13095	SAMPLE		3 pCi/L	LANL010	GROUND WATER	1	150	F2	7.5896	7.6172	27.6
247829002-1	CAPA-10-13498	SAMPLE		3 pCi/L	LANL010	GROUND WATER	2	150	F3	7.5648	7.5975	32.7
248020001-1	CAPA-10-12771	SAMPLE		3 pCi/L	LANL010	GROUND WATER	3	150	G2	7.5499	7.5811	31.2
248020002-1	CAPA-10-13083	SAMPLE		3 pCi/L	LANL010	GROUND WATER	4	150	H1	7.5866	7.6231	36.5
• 248020003-1	CAPA-10-13085	SAMPLE		3 pCi/L	LANL010	GROUND WATER	5	150	H4	7.5681	7.5681	0
248023002-1	CAPA-10-12917	SAMPLE		3 pCi/L	LANL010	GROUND WATER	6	150	H2	7.6149	7.6412	26.3
248024001-1	CAPA-10-12871	SAMPLE		3 pCi/L	LANL010	GROUND WATER	7	150	H3	7.5615	7.6431	81.6
248024003-1	CAPA-10-12873	SAMPLE		3 pCi/L	LANL010	GROUND WATER	8	150	F4	7.5829	7.6639	81.0
1202058390-1	MB	MB		3 pCi/L	QC ACCOUNT	GROUND WATER	9	1000 ~~150~~ *	G1	7.5777	7.5774	0
1202058391-1	DUP CAPA-10-13085(248020003)	DUP		3 pCi/L	QC ACCOUNT	GROUND WATER	10	150	F1	7.5920	7.5920	0
1202058392-1	MS CAPA-10-13085(248020003)	MS		3 pCi/L	QC ACCOUNT	GROUND WATER	11	50	B1	7.5588	7.5587	0
1202058393-1	MSD CAPA-10-13085(248020003)	MSD		3 pCi/L	QC ACCOUNT	GROUND WATER	12	50	B2	7.5346	7.5345	0
1202058394-1	LCS	LCS		3 pCi/L	QC ACCOUNT	GROUND WATER	13	1000 ~~150~~ *	B4	7.5808	7.5807	0

* vc 03/05/10

weighs

Have the planchets been flamed? Yes / No

Data Reviewed By: Ryan Brantley

Gross Beta Liquid

Filename : BETA.XLS
File type : Excel
Version # : 1.3

Batch : 959739
Analyst : DXF3
Prep Date : 3/4/2010

Method Uncertainty : 0.0821
Geometry: 2 inch Planchett

Spike S/N : 1067-C
Spike Exp Date : 6/17/2010
Spike Activity (dpm/ml): 426.80
Spike Volume Added: 0.10

LCS S/N : 1067-C
LCS Exp Date : 6/17/2010
LCS Activity (dpm/ml): 426.80
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Procedure Code : GFCGANBL
Parmname : Beta
Required MDC : 3 pCi/L

Sample Characteristics						Count Raw Data				
Pos.	Sample ID	Sample Aliquot L	Sample Residue Wt. (mg)	Sample Aliquot StDev. L	Sample Date/Time	Detector ID	Counting Time (min.)	Gross Counts Alpha	Gross Counts Beta	Count Start Date/Time
1	247817002.1	0.1500	27.6	1.4035E-05	2/21/2010 12:00	F2	110	3	133	3/5/2010 9:17
2	247829002.1	0.1500	32.7	1.4035E-05	2/22/2010 12:00	F3	110	16	165	3/5/2010 9:17
3	248020001.1	0.1500	31.2	1.4035E-05	2/22/2010 12:00	G2	110	14	181	3/5/2010 9:44
4	248020002.1	0.1500	36.5	1.4035E-05	2/23/2010 12:00	H1	110	8	150	3/5/2010 9:20
5	248020003.1	0.1500	0	1.4035E-05	2/23/2010 12:00	H4	110	7	129	3/5/2010 9:20
6	248023002.1	0.1500	26.3	1.4035E-05	2/23/2010 12:00	H2	110	7	136	3/5/2010 9:20
7	248024001.1	0.1500	81.6	1.4035E-05	2/23/2010 12:00	H3	110	15	245	3/5/2010 9:20
8	248024003.1	0.1500	81	1.4035E-05	2/23/2010 12:00	F4	110	10	242	3/5/2010 9:17
9	1202058390.1	1.0000	0	2.0399E-05	3/4/2010 0:00	G1	110	2	111	3/5/2010 9:44
10	1202058391.1	0.1500	0	1.4035E-05	2/23/2010 12:00	F1	110	5	181	3/5/2010 9:17
11	1202058392.1	0.0500	0	7.8337E-06	2/23/2010 12:00	B1	60	428	2611	3/5/2010 9:22
12	1202058393.1	0.0500	0	7.8337E-06	2/23/2010 12:00	B2	60	474	2721	3/5/2010 9:22
13	1202058394.1	1.0000	0	2.0399E-05	3/4/2010 0:00	B4	60	340	2427	3/5/2010 9:22

Calibration Data								Weekly Bkg	
Pos.	Counted on	Calibration Date	Calibration Due Date	Calibration Source Used	Detector Efficiency (cpm/dpm)	Detector Efficiency Error (cpm/dpm)	Alpha X-Talk	CPM	Count Time (min.)
1	LB4100	7/31/2009	7/31/2010	Sr90	0.4557	0.01570	0.02983	0.938	500
2	LB4100	7/31/2009	7/31/2010	Sr90	0.4531	0.02185	0.03031	0.972	500
3	LB4100	7/31/2009	7/31/2010	Sr90	0.4303	0.01093	0.03146	0.990	500
4	LB4100	7/31/2009	7/31/2010	Sr90	0.4312	0.02167	0.03067	1.052	500
5	LB4100	7/31/2009	7/31/2010	Sr90	0.4674	0.01752	0.02043	1.290	500
6	LB4100	7/31/2009	7/31/2010	Sr90	0.4459	0.01656	0.02606	1.236	500
7	LB4100	7/31/2009	7/31/2010	Sr90	0.4509	0.01564	0.03419	1.302	500
8	LB4100	7/31/2009	7/31/2010	Sr90	0.4669	0.02017	0.03562	1.538	500
9	LB4100	7/31/2009	7/31/2010	Sr90	0.4164	0.01162	0.02106	1.232	500
10	LB4100	7/31/2009	7/31/2010	Sr90	0.4904	0.01646	0.01479	1.760	500
11	LB4100	7/31/2009	7/31/2010	Sr90	0.4810	0.01808	0.01330	1.202	500
12	LB4100	7/31/2009	7/31/2010	Sr90	0.4811	0.01942	0.01722	1.194	500
13	LB4100	7/31/2009	7/31/2010	Sr90	0.4145	0.02075	0.02403	1.210	500

Notes:
* - Reference date for Spike Activity (dpm/ml) is the batch Prep Date

* - RPD changed to 0% due to activity below MDC for 1202058391.1

Beta Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	1.5662	1.1057	3	2.3912	**1.7812**	0.4187	0.2711	0.1134	0.7476	0.7623		SAMPLE				
2	1.6033	1.1319	3	2.4446	**3.4700**	0.2374	0.5280	0.1248	0.8272	0.8790		SAMPLE				
3	1.7038	1.2029	3	2.5960	**4.5460**	0.1989	0.6555	0.1301	0.9082	0.9841		SAMPLE				
4	1.7526	1.2373	3	2.6646	**2.1546**	0.3870	0.3116	0.1204	0.8386	0.8586		SAMPLE				
5	1.7906	1.2641	3	2.7035	**-0.7618**	0.9814	-0.1173	0.1151	0.7393	0.7393		SAMPLE				
6	1.8373	1.2972	3	2.7781	**-8.719E-03**	322.0163	0.0004	0.1171	0.7887	0.7887		SAMPLE				
7	1.8648	1.3165	3	2.8147	**6.1314**	0.1641	0.9253	0.1512	1.0068	1.1309		SAMPLE				
8	1.9573	1.3819	3	2.9392	**4.2371**	0.2304	0.6620	0.1519	0.9771	1.0413		SAMPLE				
9	0.2947	0.2080	3	0.4456	**-0.2416**	0.4841	-0.2229	0.1079	0.1167	0.1167		MB				
10	1.9933	1.4073	3	2.9815	**-0.7055**	1.1869	-0.1145	0.1359	0.8324	0.8324	248020003.1	DUP	0.0%	0.0179		
11	6.5376	4.6156	3	10.1677	**790.8443**	0.0271	42.3147	0.8530	15.9788	68.5224	248020003.1	MS			769.0016	102.8%
12	6.5138	4.5988	3	10.1339	**824.3145**	0.0277	44.1560	0.8708	16.3058	71.6395	248020003.1	MSD	4.1%	0.1194	769.0016	107.2%
13	0.3806	0.2687	3	0.5917	**42.4972**	0.0295	39.2400	0.8225	0.8939	3.7202		LCS			38.4501	110.5%

959739

SampleID	Instr	Time (min.)	Alpha Counts	Beta Counts	Count Start Time	Count End Time	Machine
247817002	F2	110	3	133	3/5/2010 9:17	3/5/2010 11:07	LB4100
247829002	F3	110	16	165	3/5/2010 9:17	3/5/2010 11:07	LB4100
248020001	G2	110	14	181	3/5/2010 9:44	3/5/2010 11:34	LB4100
248020002	H1	110	8	150	3/5/2010 9:20	3/5/2010 11:10	LB4100
248020003	H4	110	7	129	3/5/2010 9:20	3/5/2010 11:10	LB4100
248023002	H2	110	7	136	3/5/2010 9:20	3/5/2010 11:10	LB4100
248024001	H3	110	15	245	3/5/2010 9:20	3/5/2010 11:10	LB4100
248024003	F4	110	10	242	3/5/2010 9:17	3/5/2010 11:07	LB4100
1202058390	G1	110	2	111	3/5/2010 9:44	3/5/2010 11:34	LB4100
1202058391	F1	110	5	181	3/5/2010 9:17	3/5/2010 11:07	LB4100
1202058392	B1	60	428	2611	3/5/2010 9:22	3/5/2010 10:22	LB4100
1202058393	B2	60	474	2721	3/5/2010 9:22	3/5/2010 10:22	LB4100
1202058394	B4	60	340	2427	3/5/2010 9:22	3/5/2010 10:22	LB4100

Radiochemistry Batch Checklist, Rev10

Batch# 958234 Product: Radium 226 Date: 3-11-10

Criteria:	Yes	No	Comments
Sample Solids are less than or equal to100 mg for GAB.			NA
Samples have been blank corrected (if required)			NA
If activity less 10* MDA/ MDC, error is 150% or less of sample activity. If greater 10* MDA/ MDC, error is 40% or less. If below the MDA/ MDC, error is okay.	✓		
Instrument source check is within limits. Instrument bkg check is within limits.	✓		
Method RDL/ LLD has been met.	✓		
If duplicate activities are less 5* MDA/ MDC, then RPD is 100% or less. If greater 5* MDA/ MDC, then RPD 20% or less. If below the MDA/ MDC, the RPD is 0%. Or meets the client's required RER acceptance criteria.	✓		
Tracer yield is 15-125% . Carrier yield 25-125%. Or meets the client's contract acceptance criteria.			NA
Method blank is less than the RDL/ LLD. (If rad samples, < 5% of lowest activity)	✓		
Sample was run within hold time.	✓		
Sample was correctly preserved if required.			NA
Smears Taken for Radioactive batches.			NA
Method Spike and LCS are within 75-125% or meets the client's contract acceptance criteria.	✓		
No blank spaces on data forms. All line outs initialed and dated. No transcription errors are apparent.	✓		
Aux data is correct.			NA
Client Special requirements page has been checked.	✓		
Raw Data and/ or spectrum are included and properly statused.	✓		
QC data entered into QC database and batch is in REVW	✓		
Hit notification complete (if necessary)			NA
Batch entered into Case Narrative.	✓		
Batch Data Exception Reports (DER) completed, if applicable.			NA
Batch Data Exception Reports (DER) second reviewed and disposition verified to be completed.			NA
Aliquot Correction completed if required.			NA
Review sample historical results if available (If REMP, results above MDC have been verified by historical results, recount or re-analysis.)	✓		

GEL Laboratories, LLC

RADchecklistrev10, revised 1/13/2010

Primary Review Performed By: [signature]

Secondary Review Performed By: [signature] 3/12/10

LANL 3-25-10

Radium-226 Que Sheet

26-FEB-10

GEL Laboratories, Radiochemistry Division

Batch #: 958234 **Analyst:** KSD1 **First Client Due Date:** 03/25/2010 **Internal Due Date:** 03/14/2010

Spike Isotope: Radium-226 **Spike Code:** 0638-I **Expiration Date:** 9/28/10 **Vol:** 0.1 **End Initial/Degas Date/Time:** 3/8/10 1425

LCS Isotope: Radium-226 **LCS Code:** 0638-I **Expiration Date:** 9/28/10 **Vol:** 0.1 **End LN De-em Date:** ~~14:25 3-8-10~~ 3/11/10 KSD 3/8/10

Bkg Count Time: 30 (Min) **Sample Count Time:** 30 (Min) **Start Count Date:** 3/11/10

Prep Date: 3/8/10 **Pipet ID:** 1429303 **Balance ID:** J93763 **Initials:** KSD **Witness:** DL 3-8-10

Sample I	Client Description	Type	Hazard Code	Matrix	Min CRDL	Client	Position (Label)	Aliquot (mL or g)	End LN De-em Time	Start Count Time	Cell #	Det #	Bkg counts	Total Counts
248020001-1	CAPA-10-12771	SAMPLE		GROUND WA	1 pCi/L	LANL010	1	500	0910	1215	107	1	8	21
248020002-1	CAPA-10-13083	SAMPLE		GROUND WA	1 pCi/L	LANL010	2	500	0910	1215	211	2	2	10
248023002-1	CAPA-10-12917	SAMPLE		GROUND WA	1 pCi/L	LANL010	3	500	0910	1215	412	4	8	13
248024001-1	CAPA-10-12871	SAMPLE		GROUND WA	1 pCi/L	LANL010	4	500	0910	1215	601	6	8	28
1202054976-1	MB for batch 958234	MB		GROUND WA	1 pCi/L	QC ACCOUNT	5	* ~~500~~ 1000	0910	1215	704	7	4	13
1202054977-1	CAPA-10-12771(248020001DUP)	DUP		GROUND WA	1 pCi/L	QC ACCOUNT	6	500	0910	1215	801	8	8	10
1202054978-1	CAPA-10-12771(248020001MS)	MS		GROUND WA	1 pCi/L	QC ACCOUNT	7	100	0930	1245	106	1	8	613
1202054979-1	LCS for batch 958234	LCS		GROUND WA	1 pCi/L	QC ACCOUNT	8	* ~~500~~ 1000	0930	1245	201	2	8	613

* @ 3-1-10

dailies ✓

Comments:

Data Reviewed By: 3-11-10

Blank Correction Report

Batch ID 958234

GEL Sample ID	Client sample ID	Parameter	Aliquot	Result	TPU	MDA	Aliquot Corrected Blank Result	Units	Activity <5X Corrected Blank
1202054977	DUP	Radium-226	5.00E-01 L	9.05E-02	1.92E-01	7.31E-01	.312	pCi/L	YES
1202054979	LCS	Radium-226	1.00E+00 L	1.15E+01	1.89E+00	3.06E-01	.156	pCi/L	NO
1202054976	MB	Radium-226	1.00E+00 L	1.56E-01	7.36E-02	2.13E-01	.156	pCi/L	YES
1202054978	MS	Radium-226	1.00E-01 L	1.27E+02	1.45E+01	3.40E+00	1.56	pCi/L	NO
248020001	CAPA-10-12771	Radium-226	5.00E-01 L	5.08E-01	2.17E-01	6.32E-01	.312	pCi/L	YES
248020002	CAPA-10-13083	Radium-226	5.00E-01 L	3.97E-01	1.83E-01	4.75E-01	.312	pCi/L	YES
248023002	CAPA-10-12917	Radium-226	5.00E-01 L	1.84E-01	1.71E-01	5.95E-01	.312	pCi/L	YES
248024001	CAPA-10-12871	Radium-226	5.00E-01 L	7.67E-01	2.49E-01	6.20E-01	.312	pCi/L	YES

Radium-226 Liquid

Filename : RA226.XLS
File type : Excel
Version # : 1.2.5

Batch : 958234
Analyst : KSD1
Prep Date : 3/8/2010
Ra-226 Abundance : 1
Ra-226 Method Uncertainty : 0.0918

Spike S/N : 0638-I
Spike Exp Date : 9/28/2010
Spike Activity (dpm/ml): 268.40
Spike Volume Added: 0.10

LCS S/N : 0638-I
LCS Exp Date : 9/28/2010
LCS Activity (dpm/ml): 268.40
LCS Volume Added: 0.10

Pipet, 0.1 ml Stdev : +/- 0.000701 ml
Pipet, 0.5 ml Stdev : +/- 0.002564 ml
Pipet, 1 ml Stdev : +/- 0.005480 ml

Procedure Code : LUC26RAL
Parmname : Radium-226
Required MDC : 1 pCi/L
Halflife of Ra-226 : 1600 years
Halflife of Rn-222: 3.8235 days
Batch counted on : LUCAS CELL DETECTOR
BKG Count time : 30 min

Sample Characteristics					Count Raw Data				Weekly Background			
Pos.	Sample ID	Sample Aliquot L	Sample Aliquot StDev. L	Sample Date/Time	Cell Number	Counting Time (min.)	Gross Counts	Gross CPM	Counts	CPM	Count Time (min.)	Detector Efficiency (cpm/dpm)
1	248020001.1	0.5000	2.0256E-05	2/22/2010 12:00	107	30	21	0.700	8	0.267	30	1.9810
2	248020002.1	0.5000	2.0256E-05	2/23/2010 12:00	211	30	10	0.333	2	0.067	30	1.5610
3	248023002.1	0.5000	2.0256E-05	2/23/2010 12:00	412	30	13	0.433	8	0.267	30	2.1040
4	248024001.1	0.5000	2.0256E-05	2/23/2010 12:00	601	30	28	0.933	8	0.267	30	2.0200
5	1202054976.1	1.0000	2.0399E-05	3/8/2010 0:00	704	30	13	0.433	4	0.133	30	2.2350
6	1202054977.1	0.5000	2.0256E-05	2/22/2010 12:00	801	30	10	0.333	8	0.267	30	1.7130
7	1202054978.1	0.1000	1.1370E-05	2/22/2010 12:00	106	30	613	20.433	8	0.267	30	1.8360
8	1202054979.1	1.0000	2.0399E-05	3/8/2010 0:00	201	30	613	20.433	8	0.267	30	2.0400

Detector Efficiency Error (cpm/dpm)	Cell Calibration Date	Cell Calibration Due Date	De-Gas Date/Time	Rn-222 Ingrow End Date/Time	Count Start Date/Time	Rn-222 Corrections De-Gas to Ingrowth	Ingrowth to Count	During Count	Ra-226 Decay
0.05303	8/31/2009	8/31/2010	3/8/2010 14:25	3/11/2010 9:10	3/11/2010 12:15	0.396	0.977	1.002	1.000
0.13069	12/21/2009	12/21/2010	3/8/2010 14:25	3/11/2010 9:10	3/11/2010 12:15	0.396	0.977	1.002	1.000
0.10392	12/10/2009	12/10/2010	3/8/2010 14:25	3/11/2010 9:10	3/11/2010 12:15	0.396	0.977	1.002	1.000
0.08202	2/16/2010	2/16/2011	3/8/2010 14:25	3/11/2010 9:10	3/11/2010 12:15	0.396	0.977	1.002	1.000
0.06519	9/30/2009	9/30/2010	3/8/2010 14:25	3/11/2010 9:10	3/11/2010 12:15	0.396	0.977	1.002	1.000
0.09431	2/9/2010	2/9/2011	3/8/2010 14:25	3/11/2010 9:10	3/11/2010 12:15	0.396	0.977	1.002	1.000
0.05303	8/31/2009	8/31/2010	3/8/2010 14:25	3/11/2010 9:30	3/11/2010 12:45	0.398	0.976	1.002	1.000
0.13069	12/21/2009	12/21/2010	3/8/2010 14:25	3/11/2010 9:30	3/11/2010 12:45	0.398	0.976	1.002	1.000

Notes:
1 - Results are decay corrected to Sample Date/Time
2 - Reference date for Spike Activity (dpm/ml) is the batch Prep Date
3 - Spike Nominals are decay corrected to Sample Date/Time

* - RPD changed to 0% due to activity below MDC for 1202054977.1

Results

Pos.	Decision Level pCi/L	Critical Level pCi/L	Required MDC pCi/L	MDC pCi/L	Sample Act. Conc. pCi/L	Sample Act. Error pCi/L	Net Count Rate CPM	Net Count Rate Error CPM	1 SIGMA Counting Uncertainty pCi/L	1 SIGMA Total Prop. Uncertainty pCi/L	Sample QC	Sample Type	RPD	RER	Nominal pCi/L	Recovery
1	0.3645	0.2573	1	0.6320	**0.5084**	0.4176	0.4333	0.1795	0.2106	0.2174		SAMPLE				
2	0.2313	0.1633	1	0.4755	**0.3970**	0.4523	0.2667	0.1155	0.1719	0.1832		SAMPLE				
3	0.3432	0.2423	1	0.5950	**0.1841**	0.9224	0.1667	0.1528	0.1687	0.1707		SAMPLE				
4	0.3574	0.2524	1	0.6198	**0.7671**	0.3110	0.6667	0.2000	0.2301	0.2487		SAMPLE				
5	0.1142	0.0806	1	0.2133	**0.1560**	0.4627	0.3000	0.1374	0.0715	0.0736		MB				
6	0.4215	0.2976	1	0.7309	**0.0905**	2.1234	0.0667	0.1414	0.1919	0.1922	248020001.1	DUP	0.0%	0.5101		
7	1.9613	1.3847	1	3.4007	**127.3169**	0.0671	20.1667	0.8307	5.2442	14.4805	248020001.1	MS			120.9029	105.3%
8	0.1765	0.1246	1	0.3061	**11.4583**	0.1370	20.1667	0.8307	0.4720	1.8899		LCS			12.0901	94.8%

BACKGROUND AND EFFICIENCY DATA

QA filename : DKA100:[ENV_ALPHA.QA.W]W016.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 4-SEP-2009 07:36:41 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.326058 through 0.346058

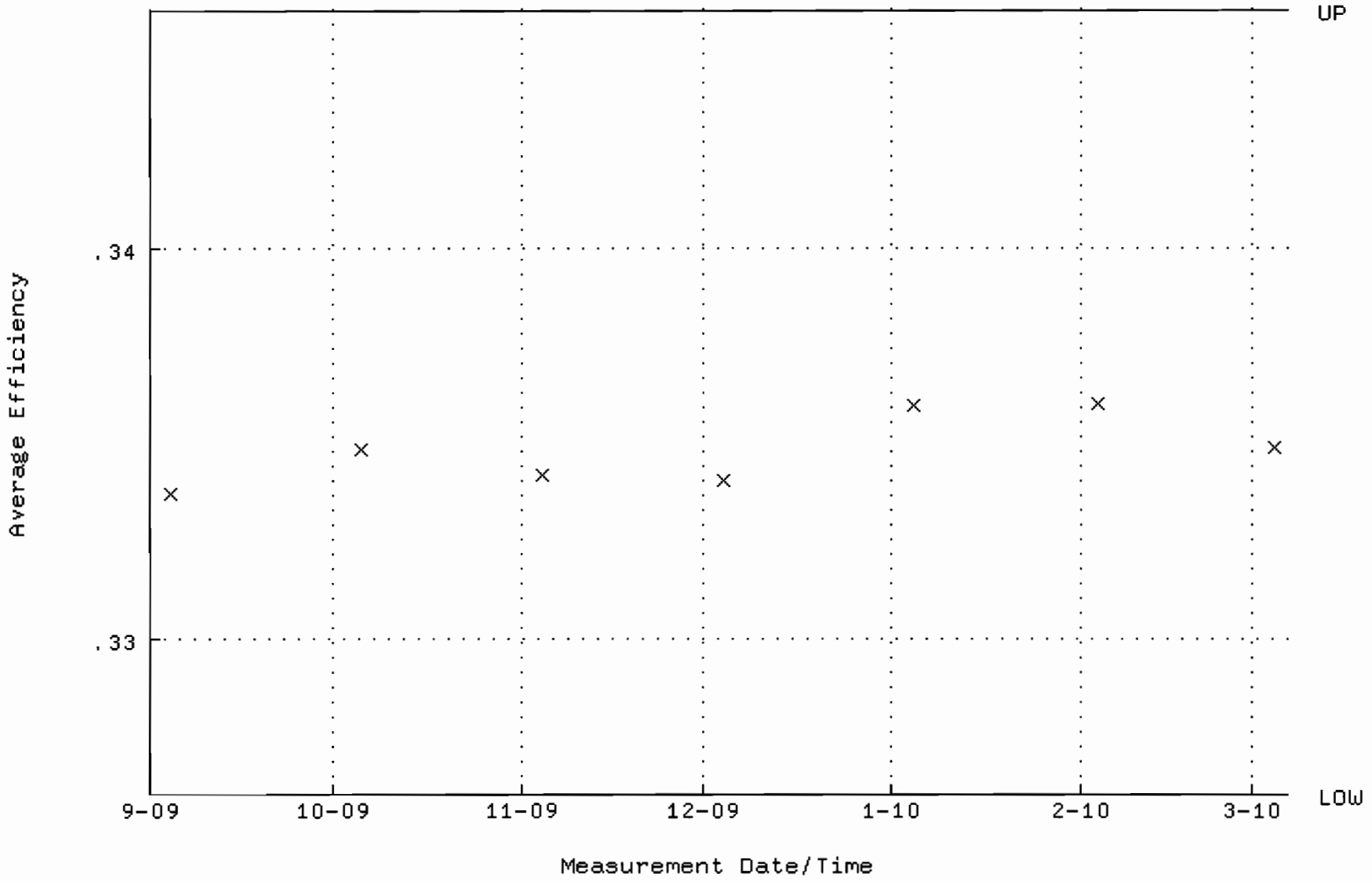

QA filename : DKA100:[ENV_ALPHA.QA.W]W016.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 4-SEP-2009 07:36:41 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 85.9280 through 94.9730

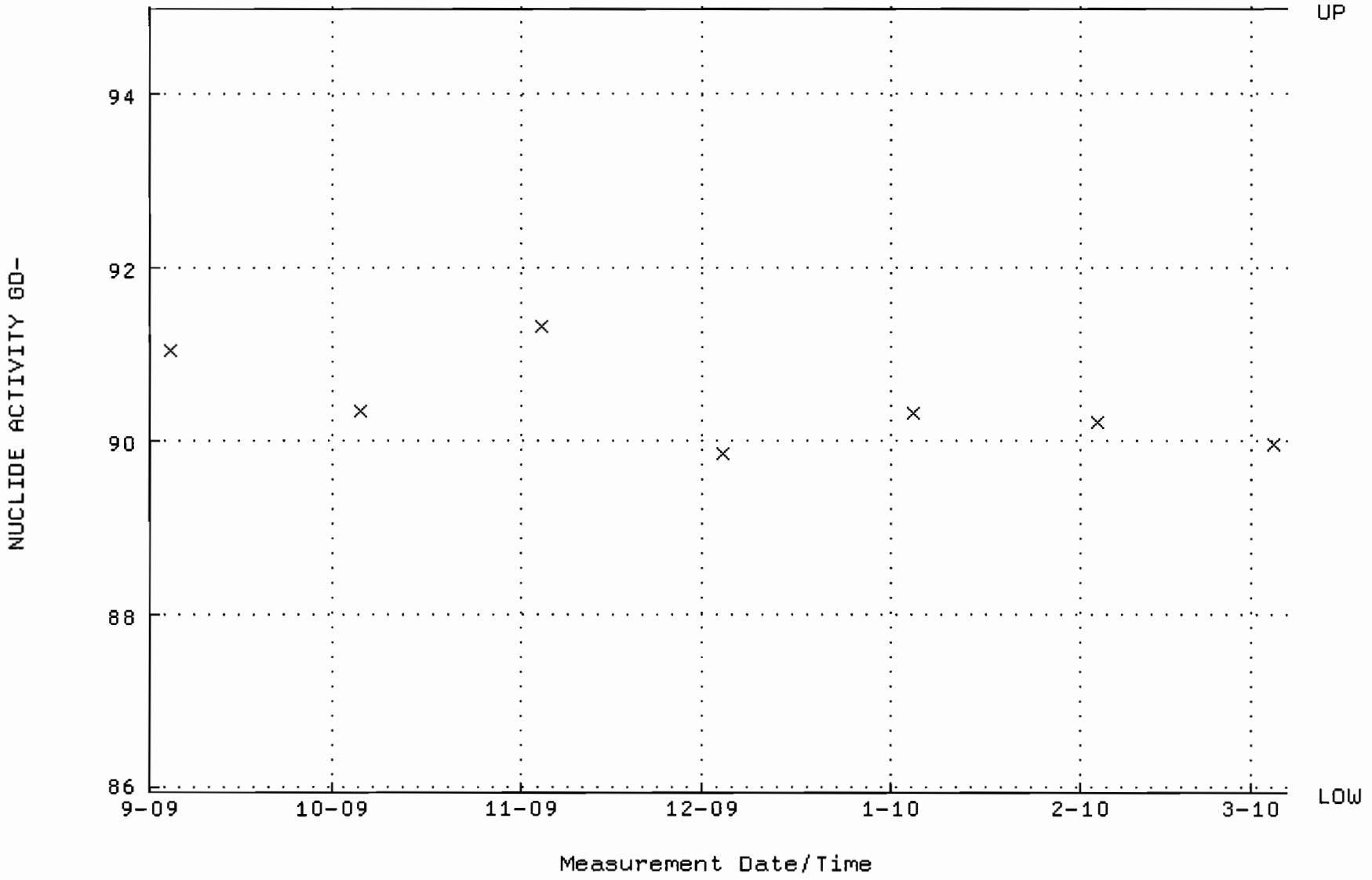

QA filename : DKA100:[ENV_ALPHA.QA.B]B016.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:02 through 6-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

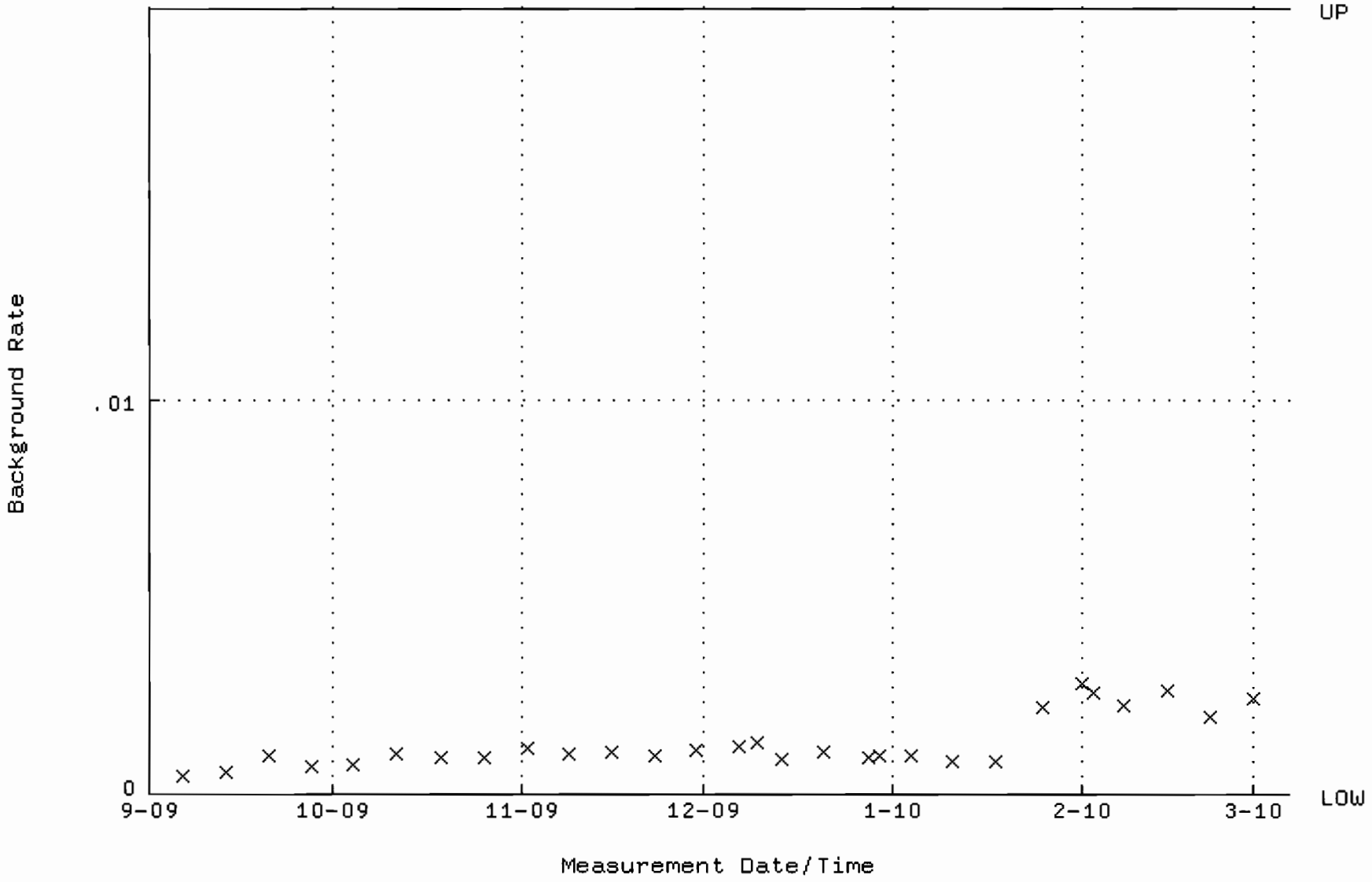

QA filename : DKA100:[ENV_ALPHA.QA.W]W027.QAF;4
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.324980 through 0.344980

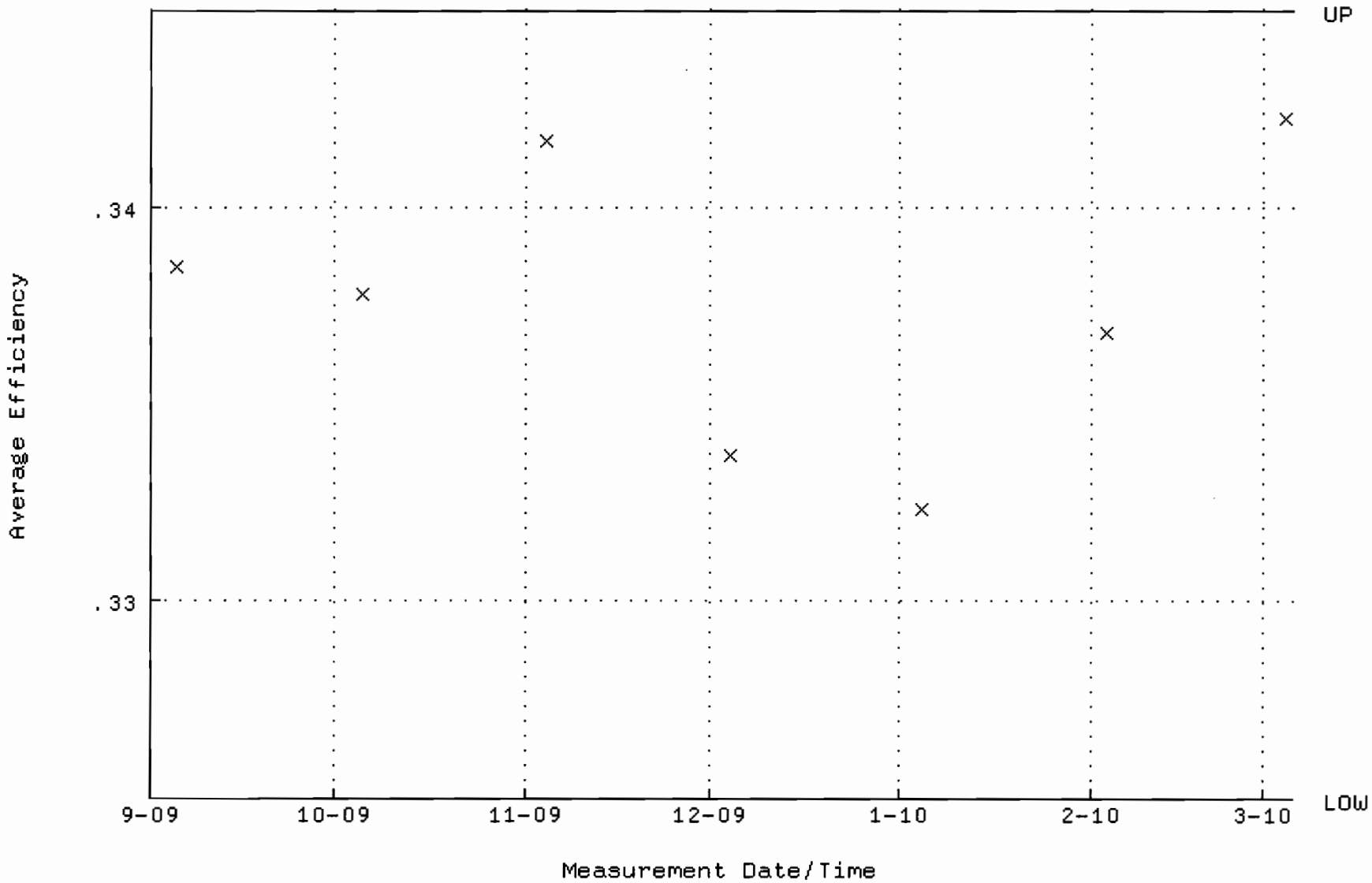

QA filename : DKA100:[ENV_ALPHA.QA.W]W027.QAF;4
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 81.2030 through 89.7506

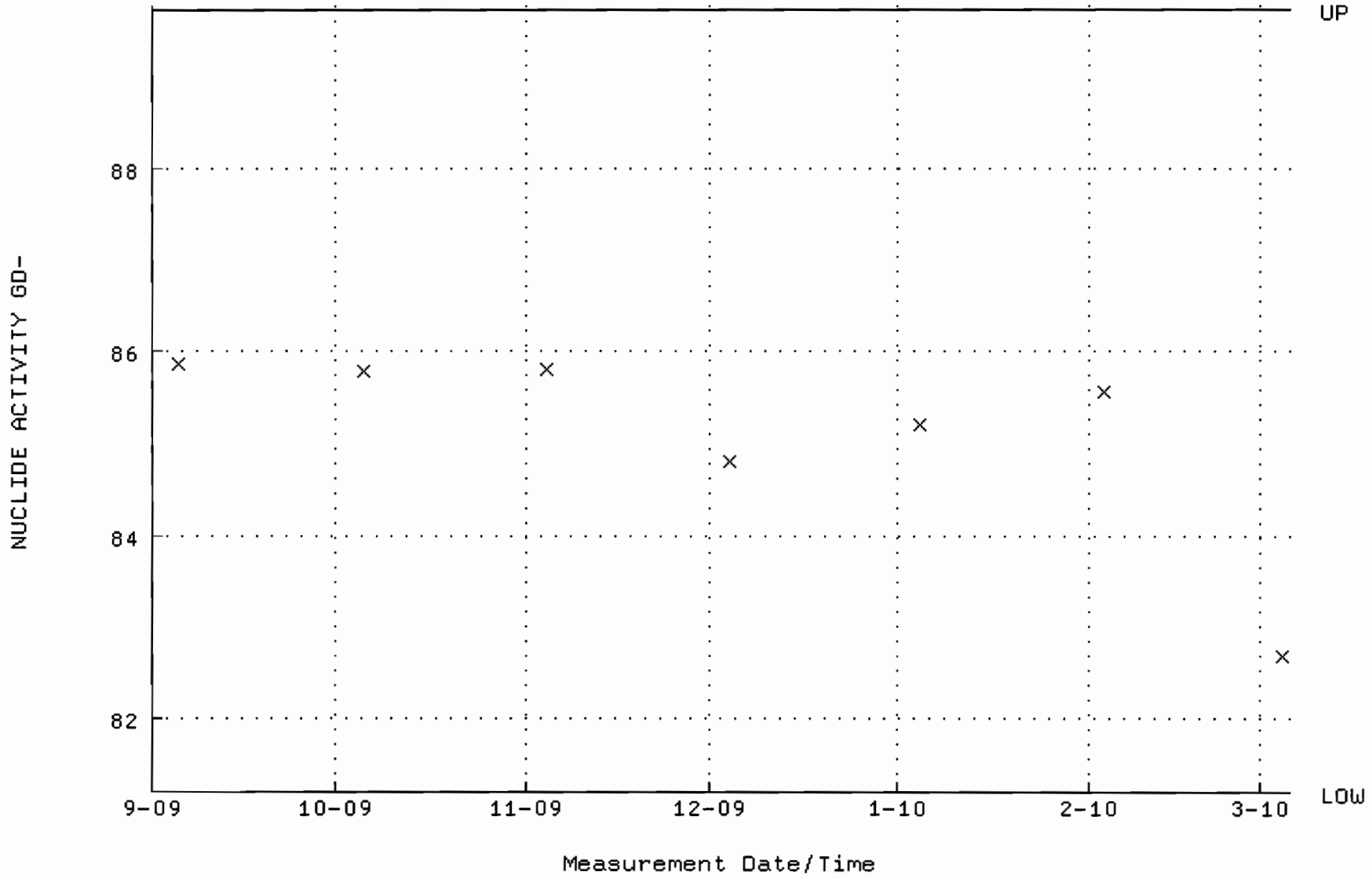

QA filename : DKA100:[ENV_ALPHA.QA.B]B027.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

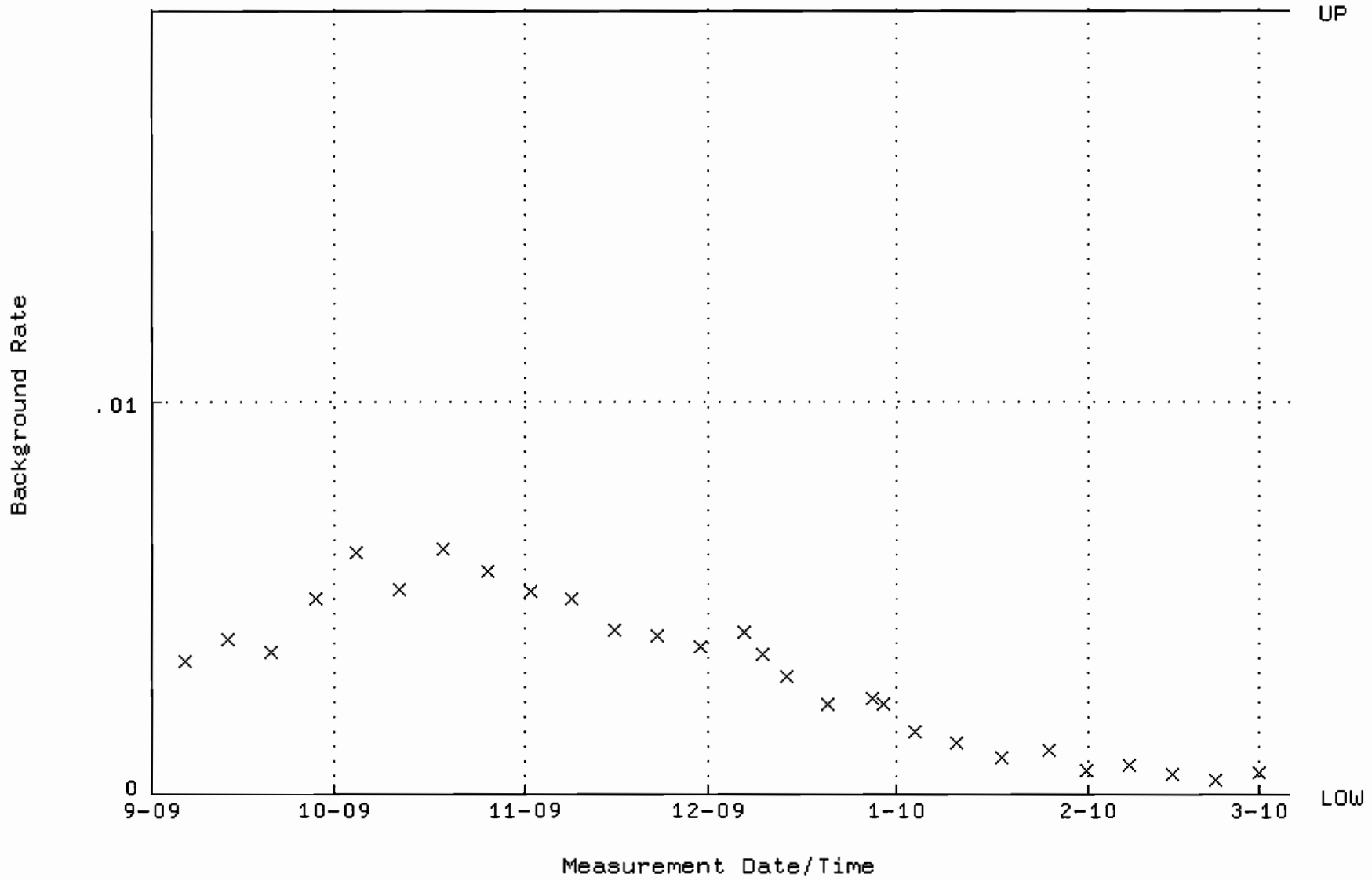

QA filename : DKA100:[ENV_ALPHA.QA.W]W030.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.250000 through 0.450000

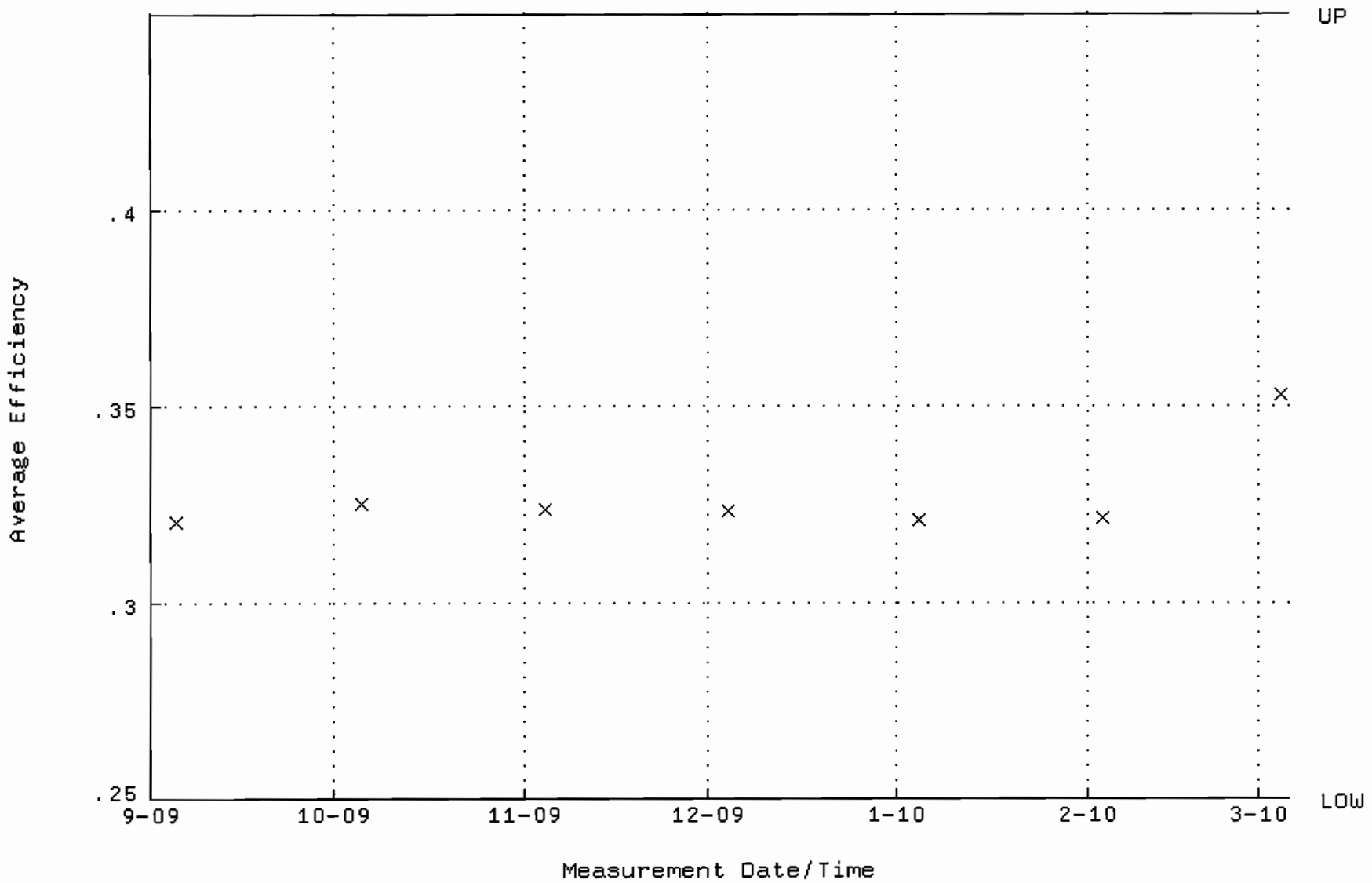

QA filename : DKA100:[ENV_ALPHA.QA.W]W030.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 5-SEP-2009 09:03:08 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 60.0000 through 105.000

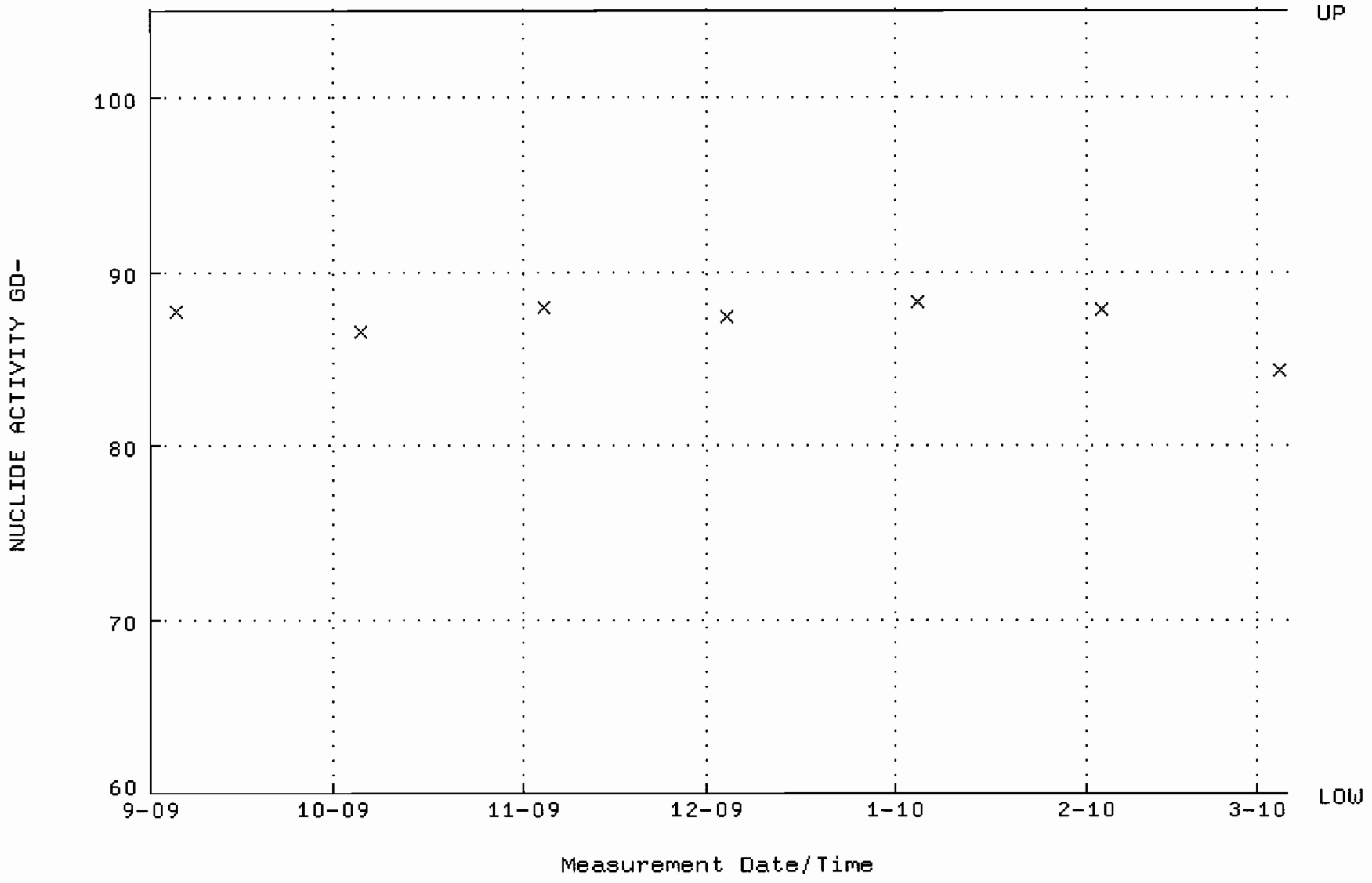

QA filename : DKA100:[ENV_ALPHA.QA.B]B030.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:03 through 5-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 2.000000E-02

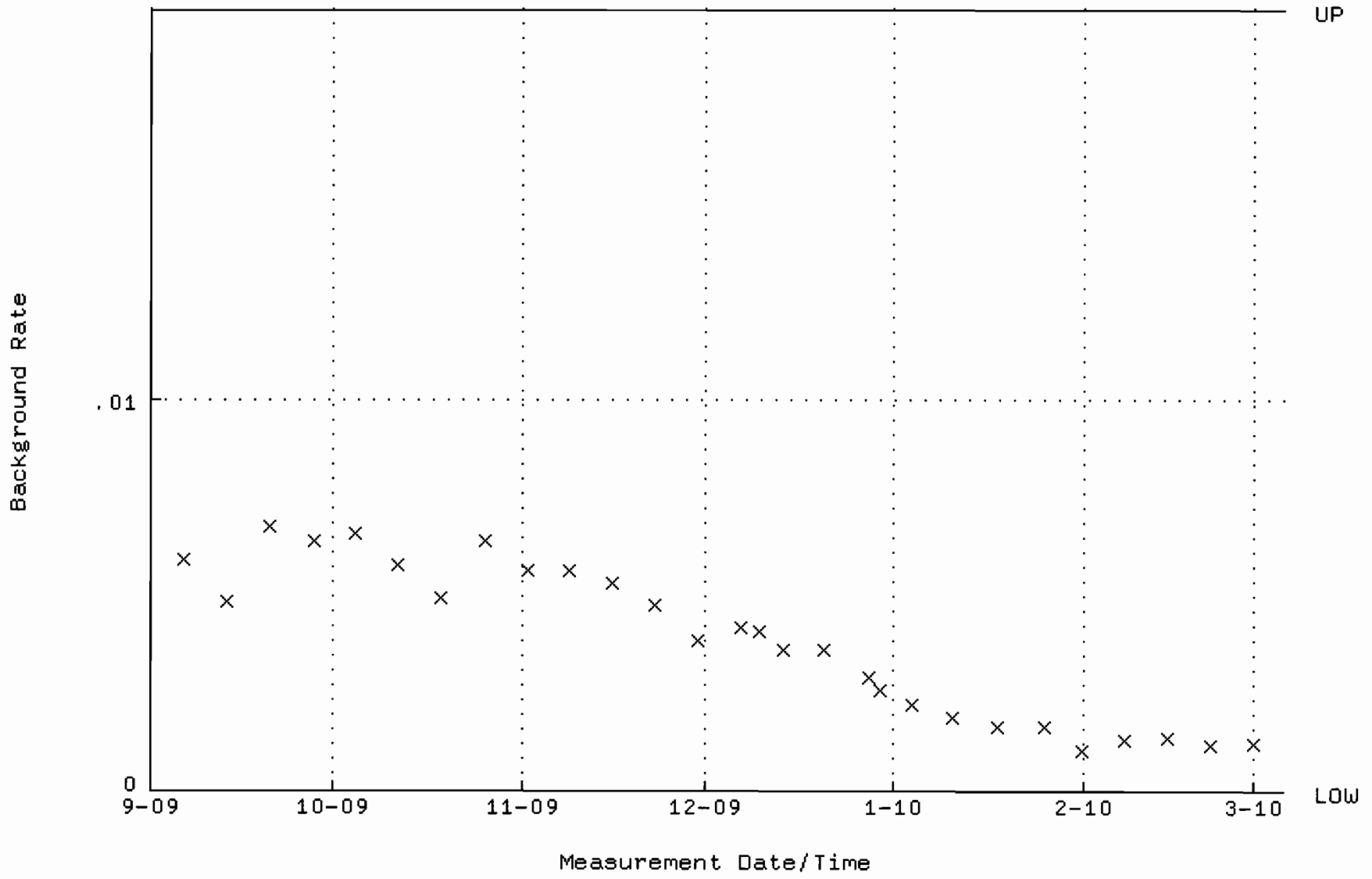

QA filename : DKA100:[ENV_ALPHA.QA.W]W095.QAF;3
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.298900 through 0.317790

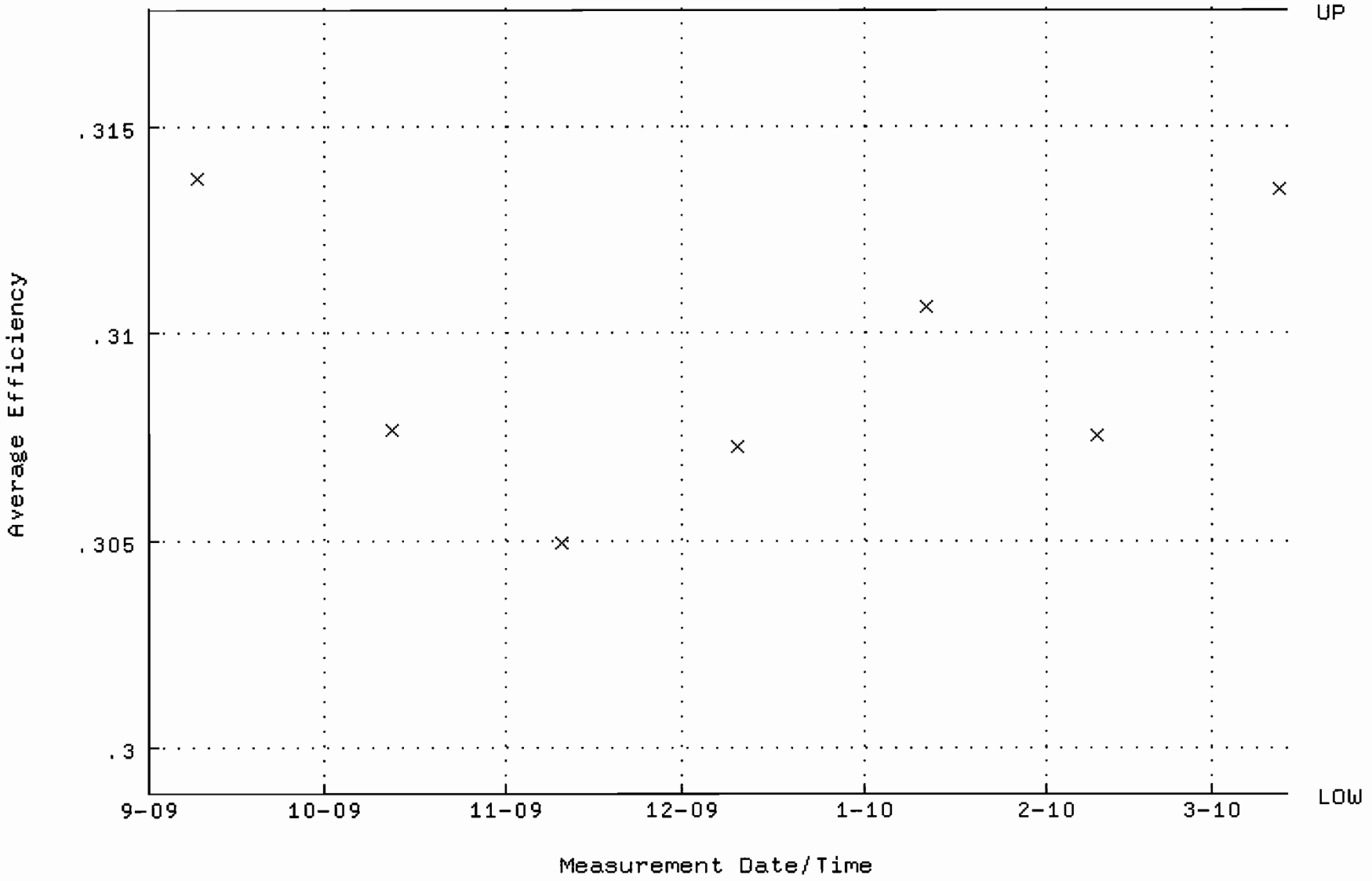

QA filename : DKA100:[ENV_ALPHA.QA.W]W095.QAF;3
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 65.6370 through 71.6700

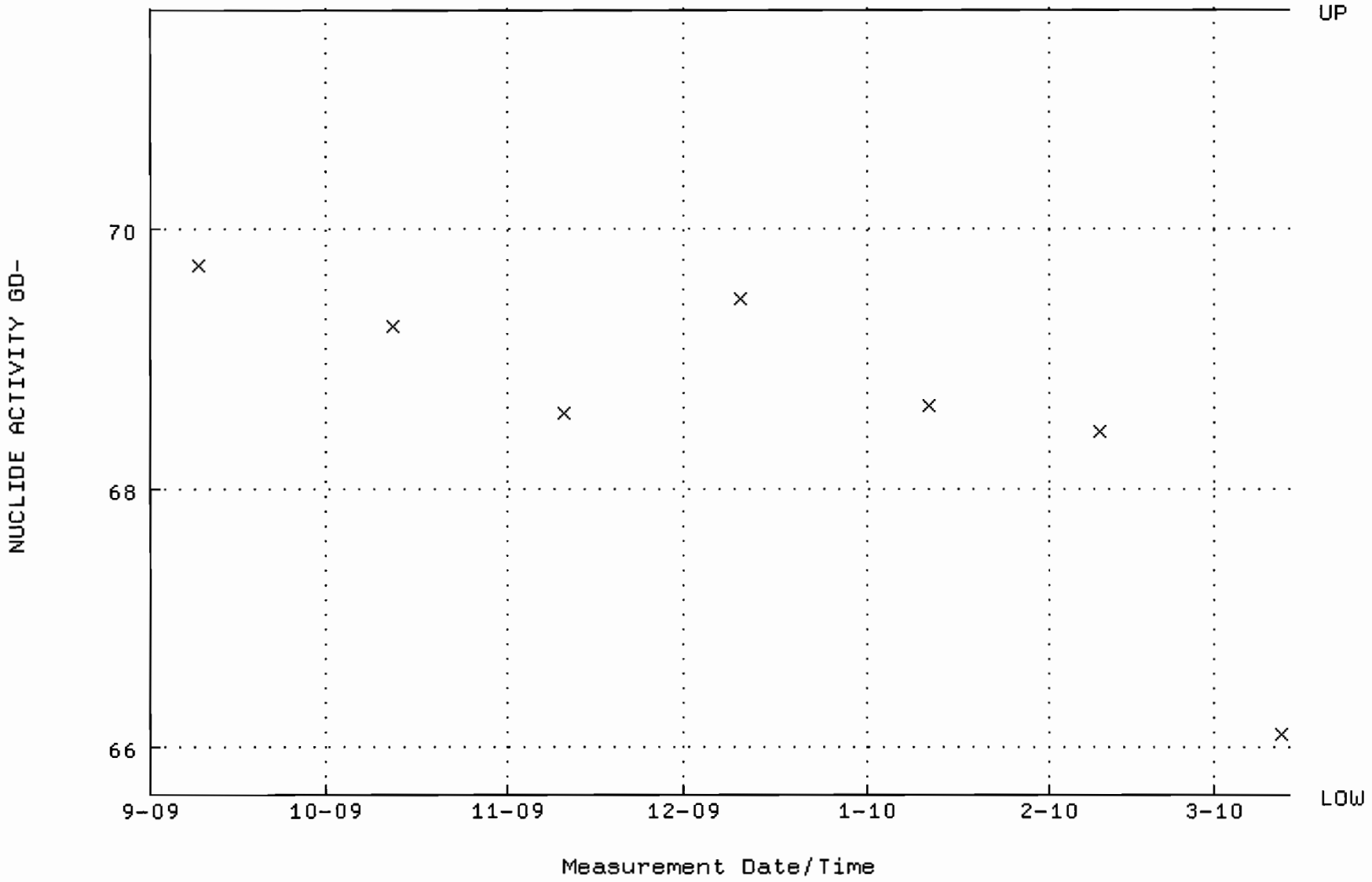

QA filename : DKA100:[ENV_ALPHA.QA.B]B095.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

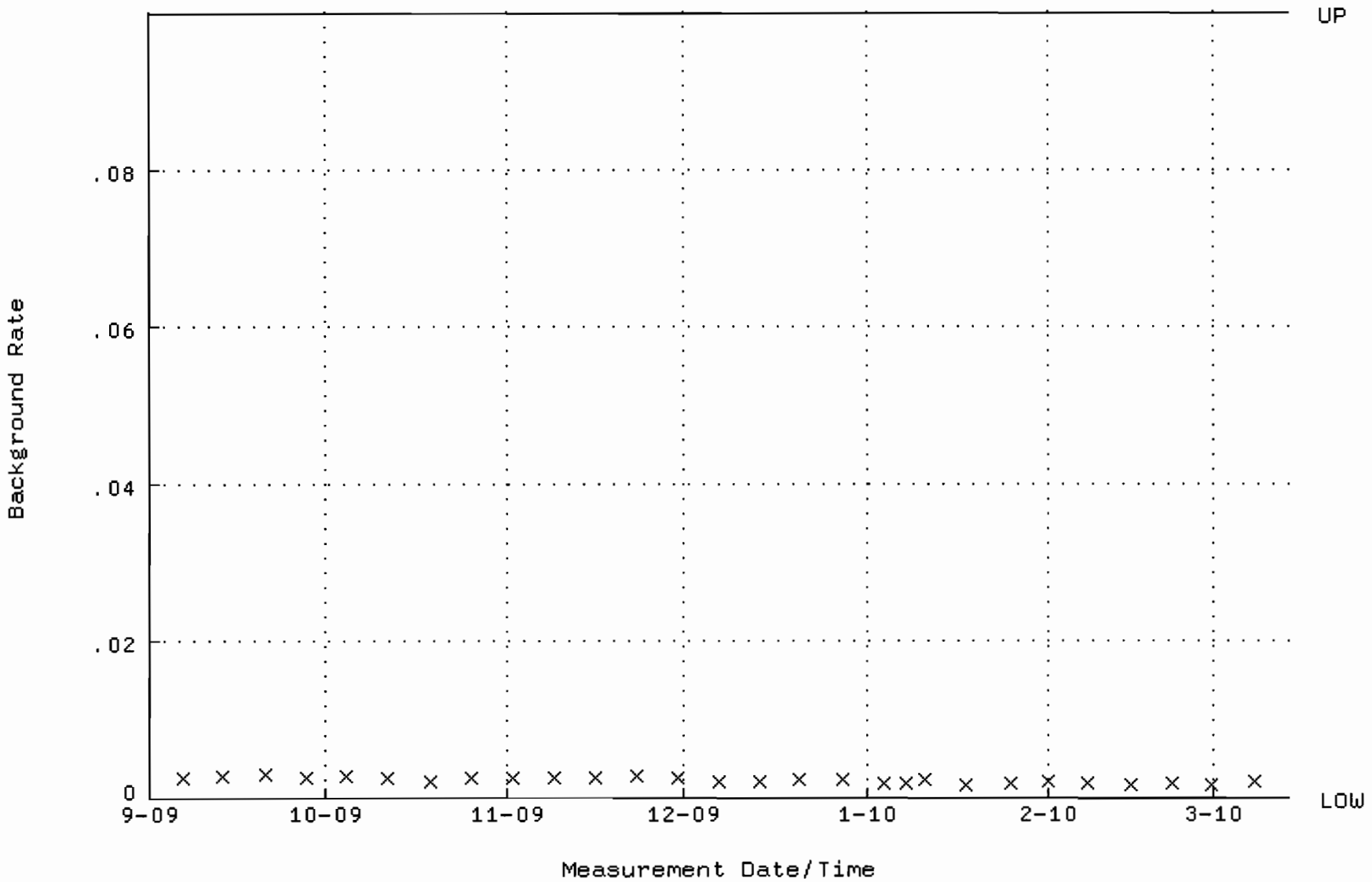

QA filename : DKA100:[ENV_ALPHA.QA.W]W096.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.317970 through 0.337970

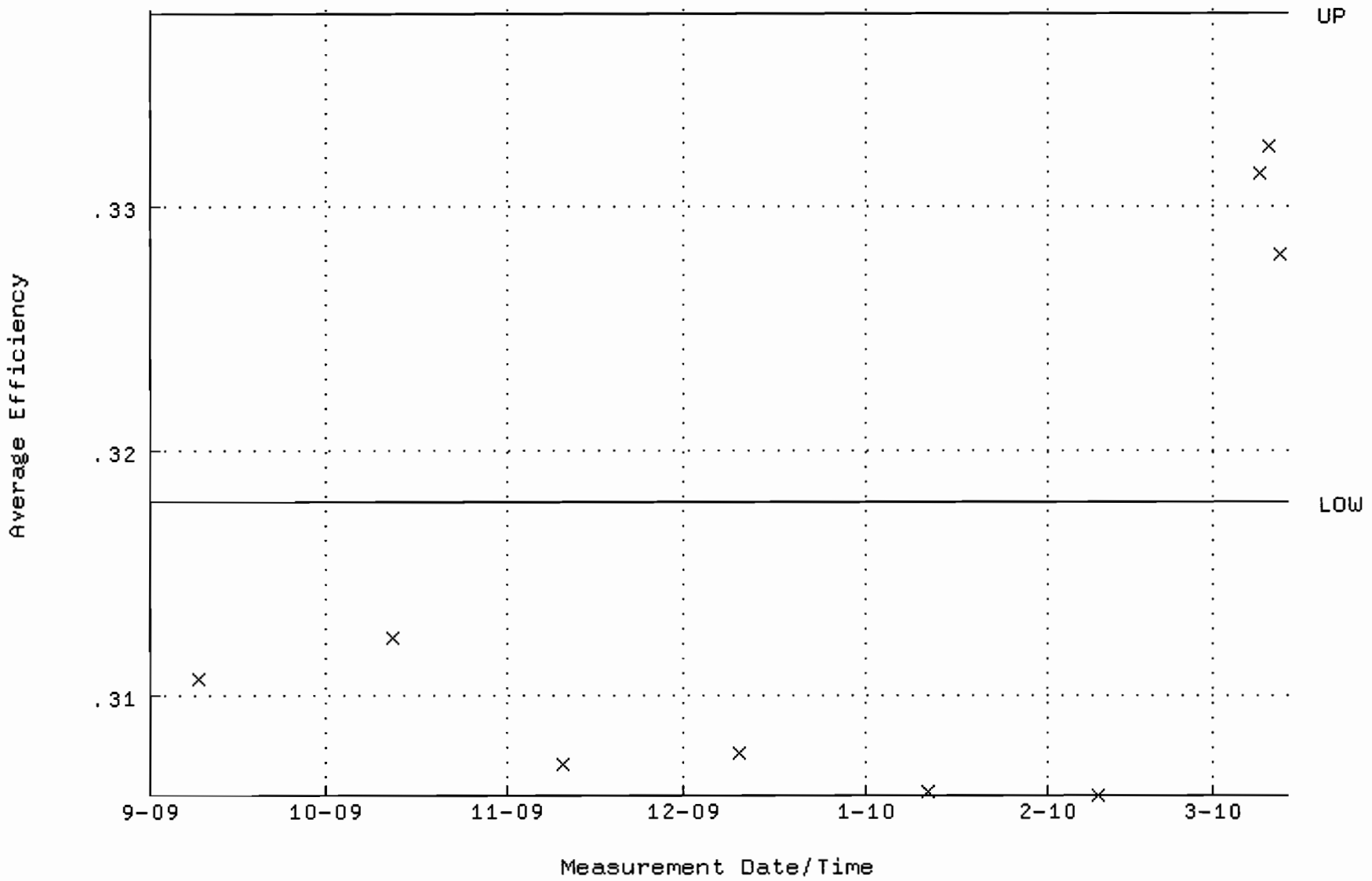

QA filename : DKA100:[ENV_ALPHA.QA.W]W096.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 9-SEP-2009 09:27:50 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 62.4466 through 69.0200

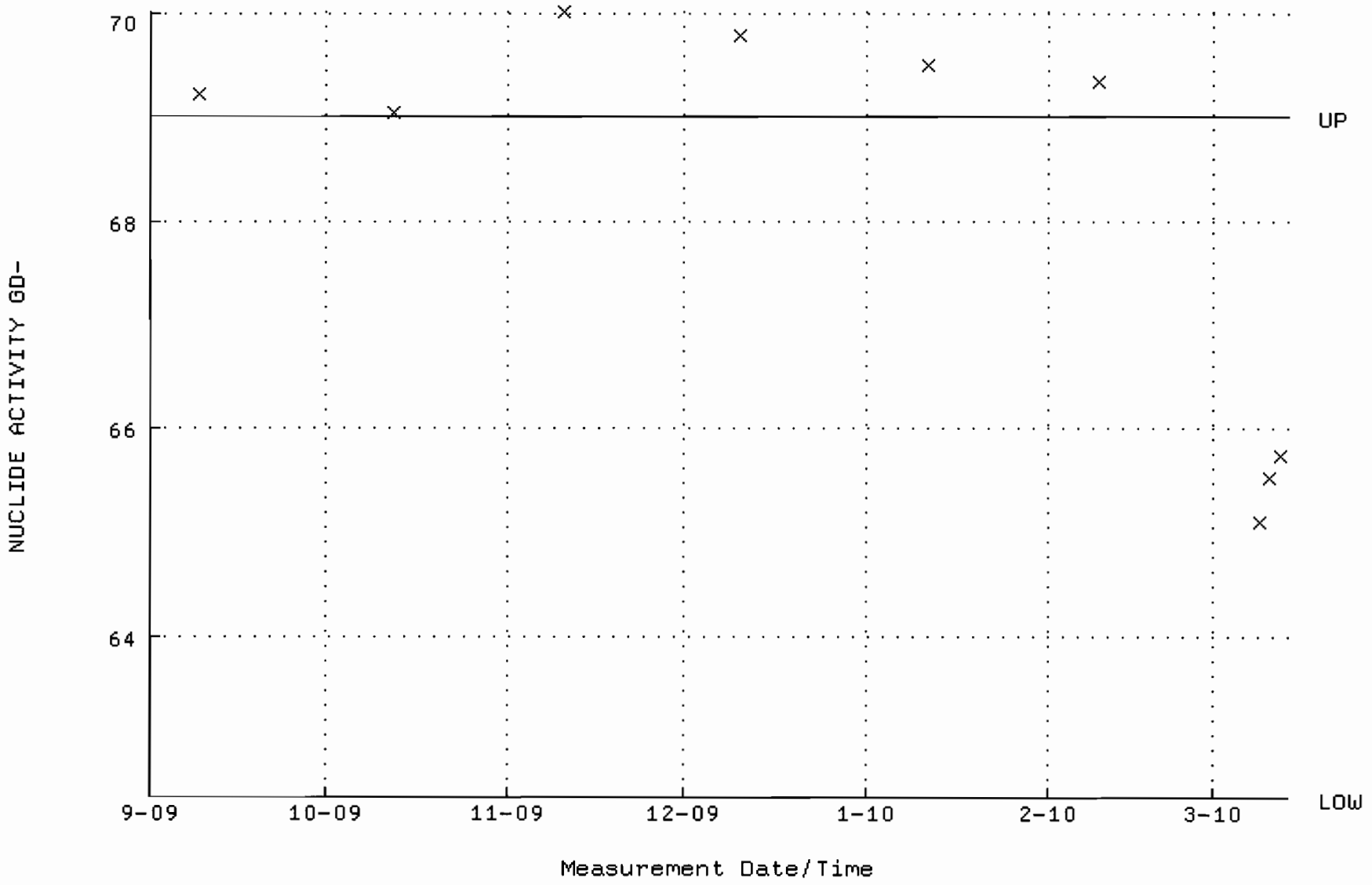

QA filename : DKA100:[ENV_ALPHA.QA.B]B096.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

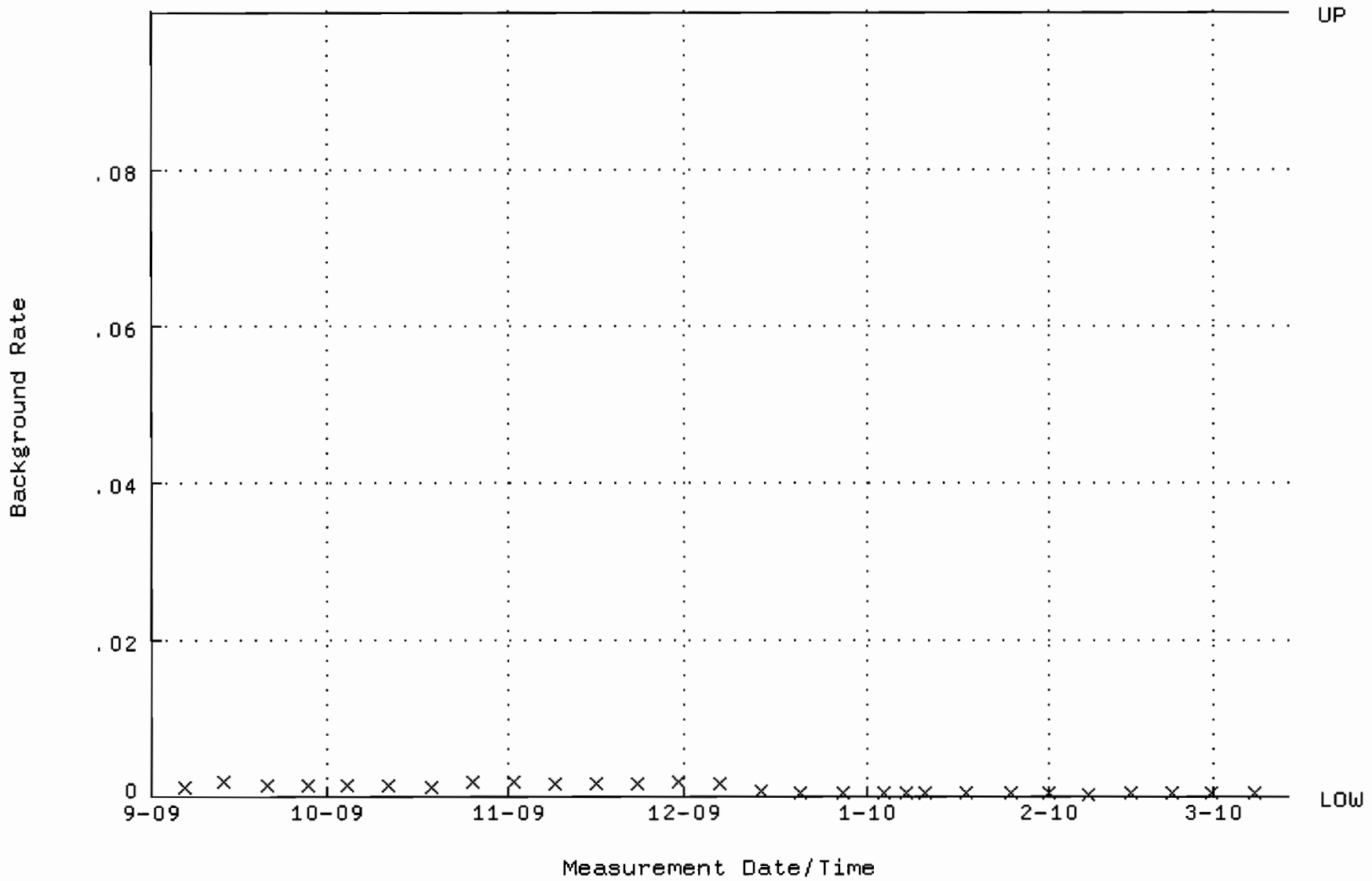

QA filename : DKA100:[ENV_ALPHA.QA.W]W105.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 10-SEP-2009 08:05:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.309544 through 0.338666

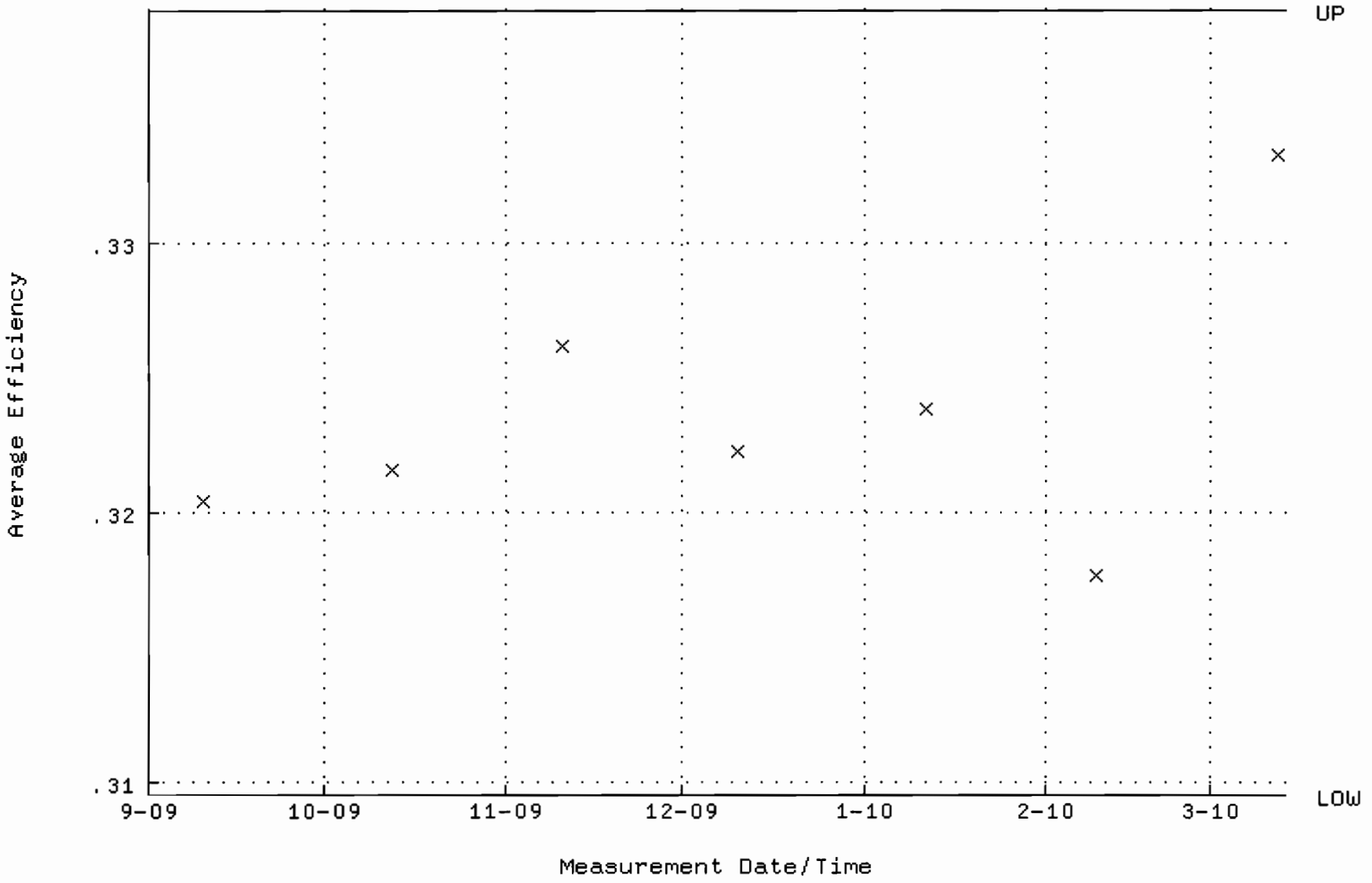

QA filename : DKA100:[ENV_ALPHA.QA.W]W105.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 10-SEP-2009 08:05:49 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 67.6585 through 76.2091

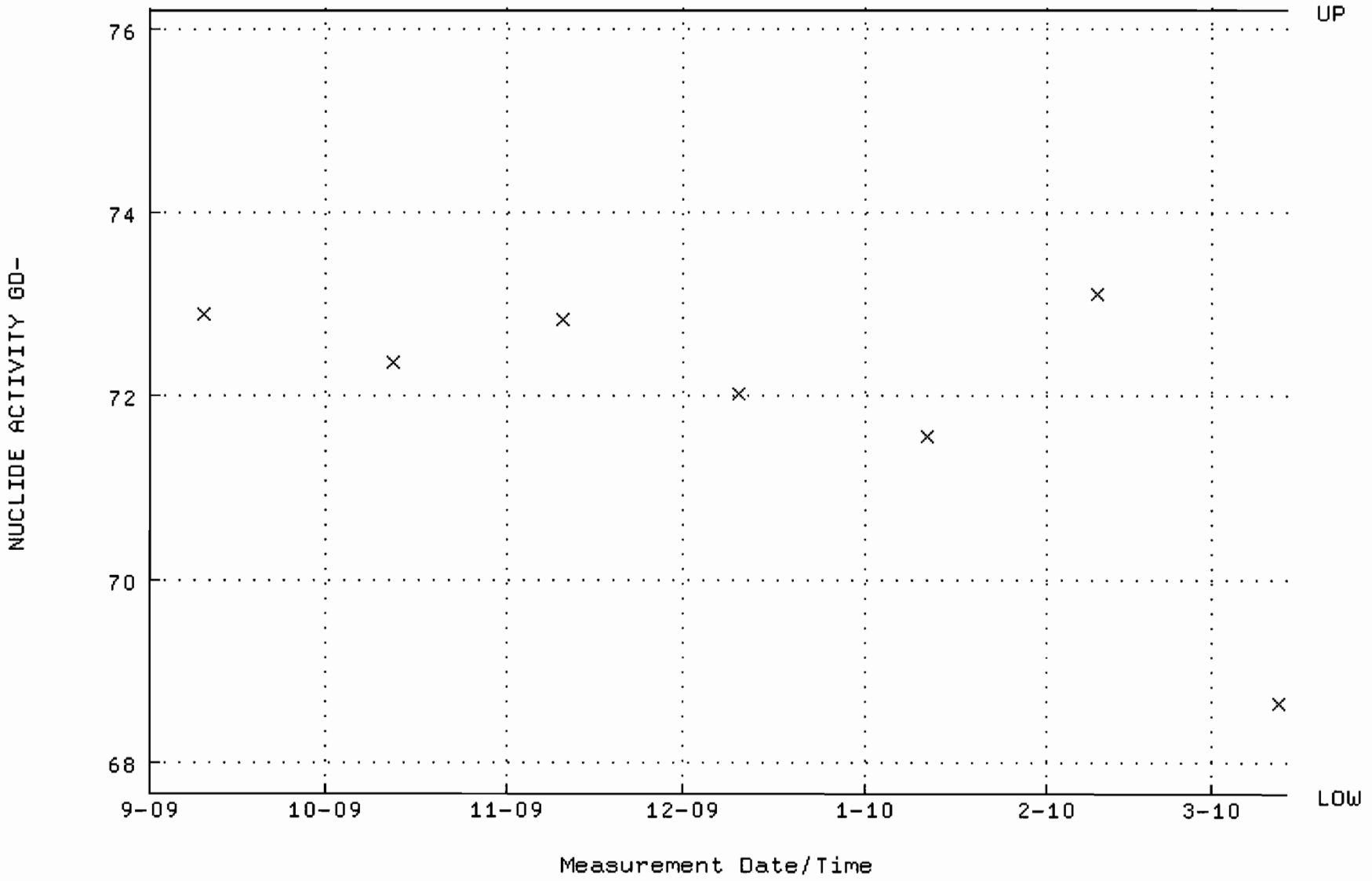

QA filename : DKA100:[ENV_ALPHA.QA.B]B105.QAF;2
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 14:27:11 through 13-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

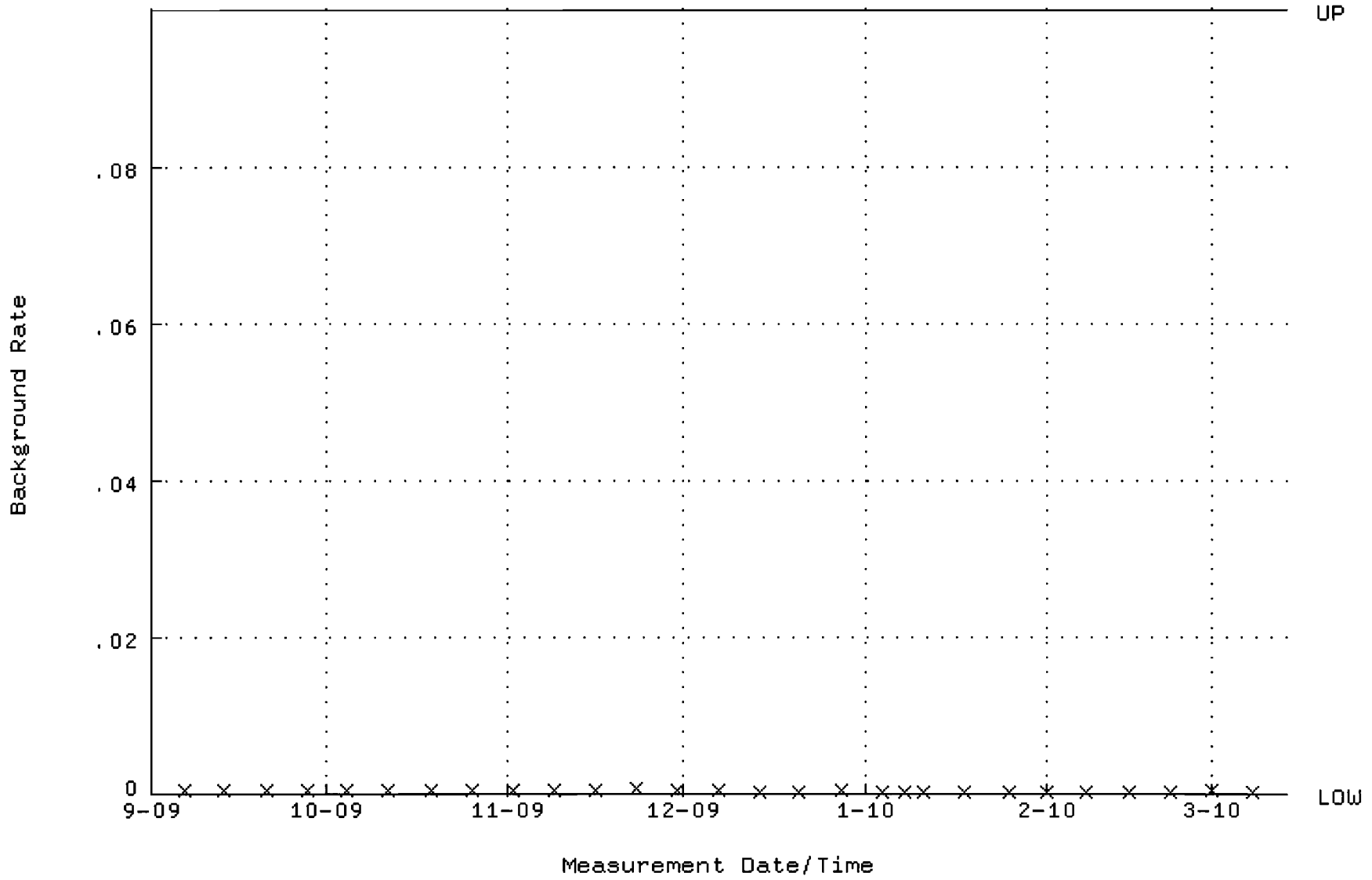

QA filename : DKA100:[ENV_ALPHA.QA.W]W121.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:23:26 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.235679 through 0.260639

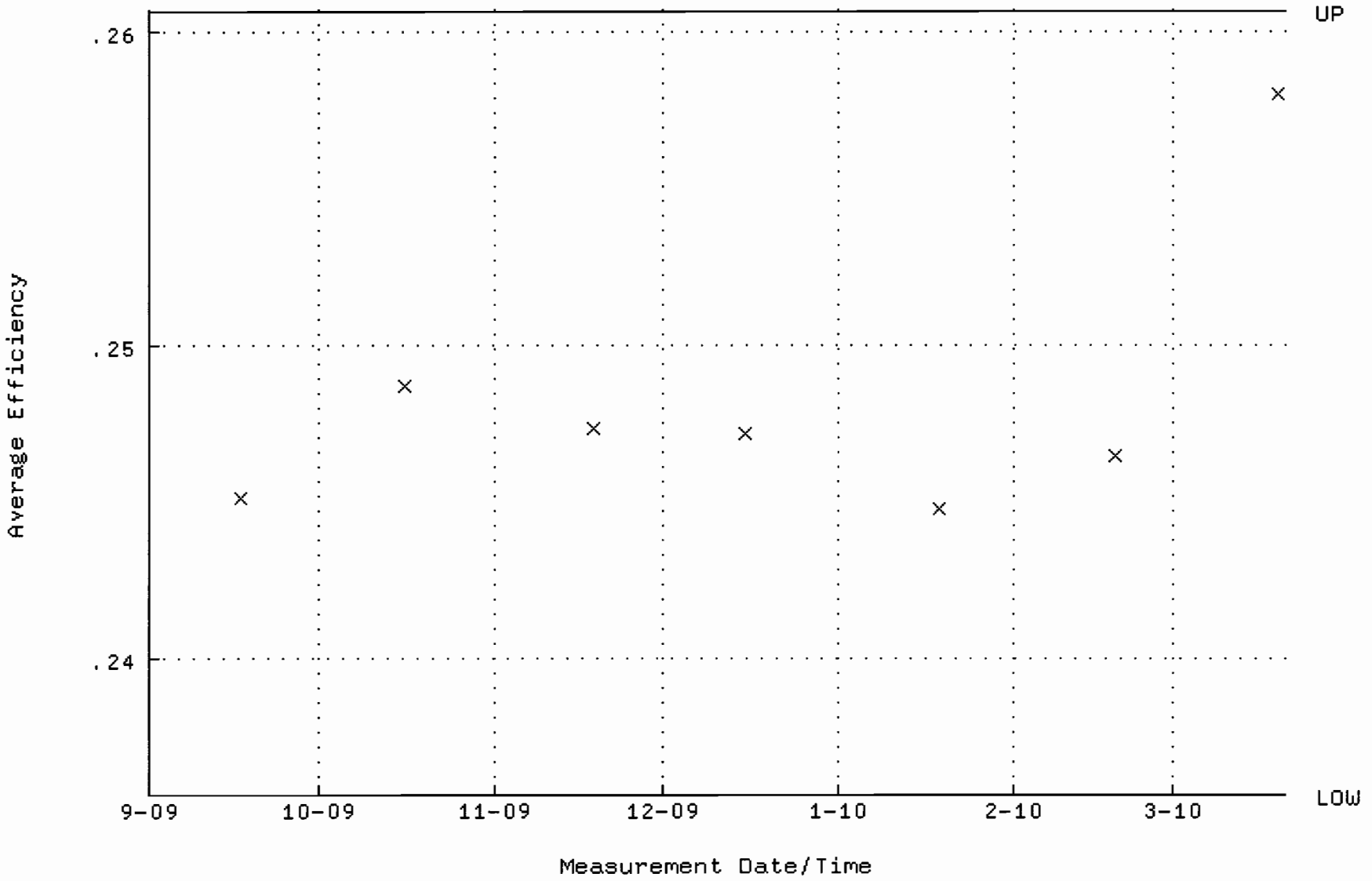

QA filename : DKA100:[ENV_ALPHA.QA.W]W121.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:23:26 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 88.9962 through 98.1012

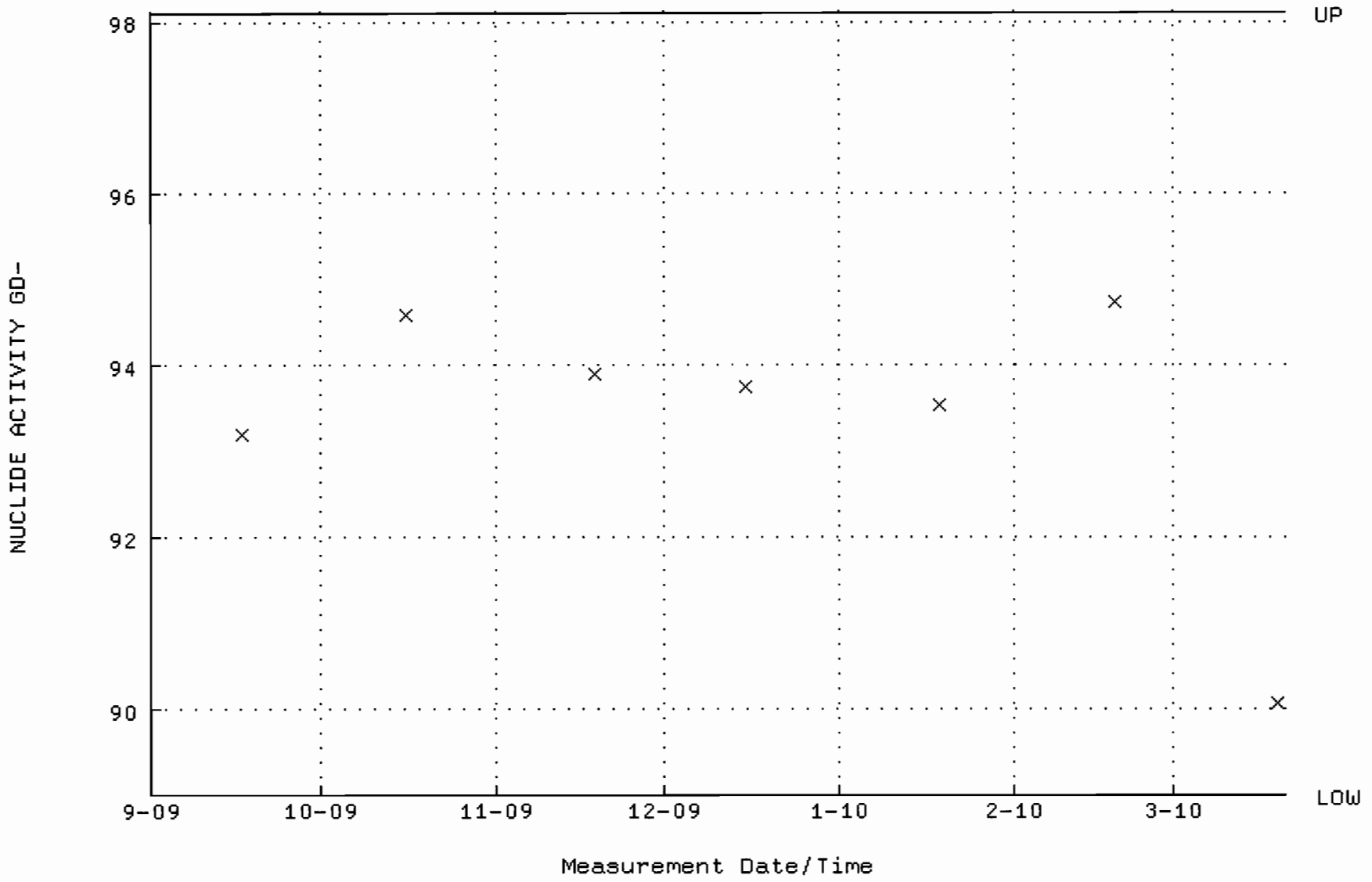

QA filename : DKA100:[ENV_ALPHA.QA.B]B121.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:40:43 through 20-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

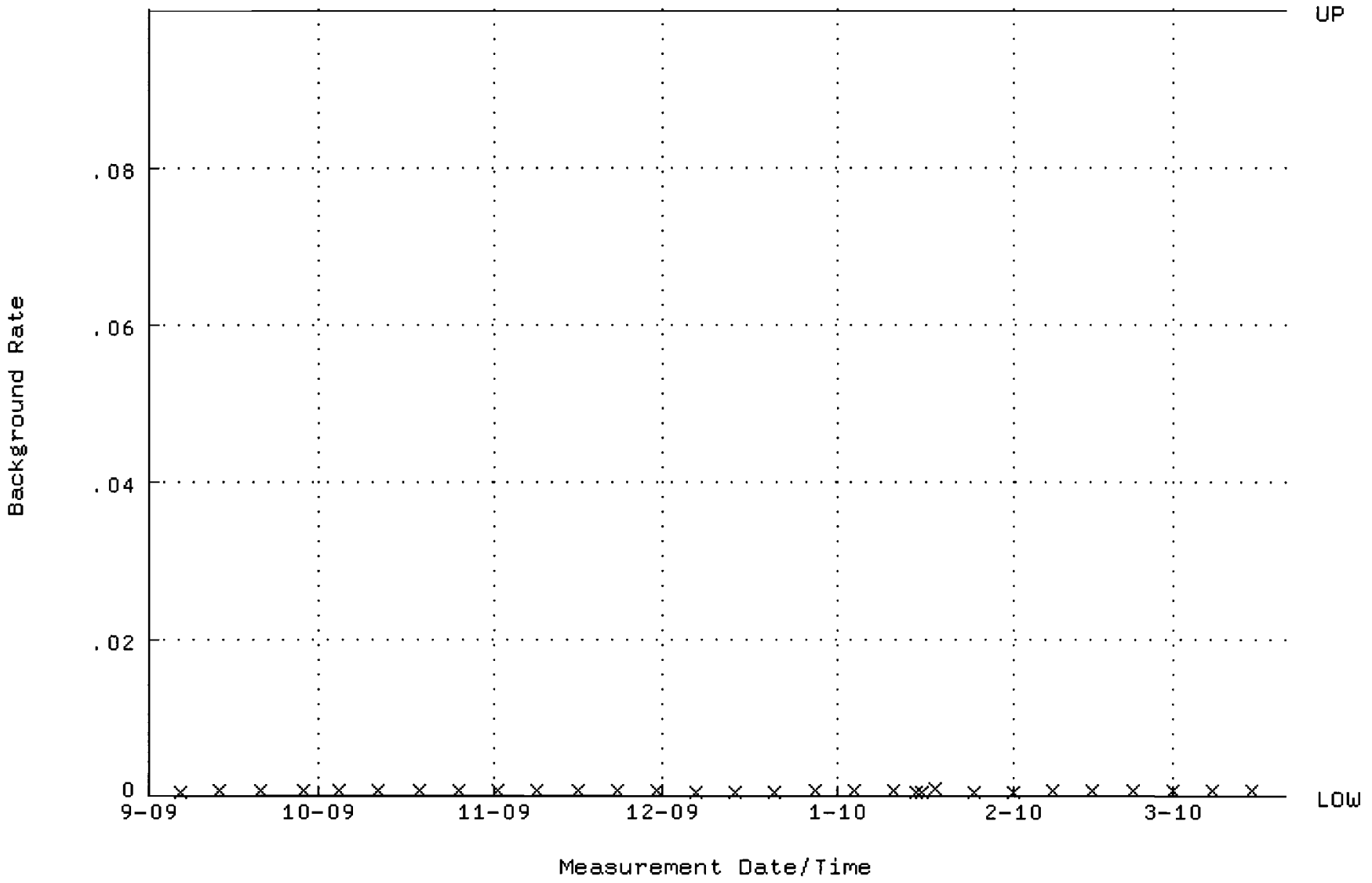

QA filename : DKA100:[ENV_ALPHA.QA.W]W134.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:46 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.240916 through 0.249606

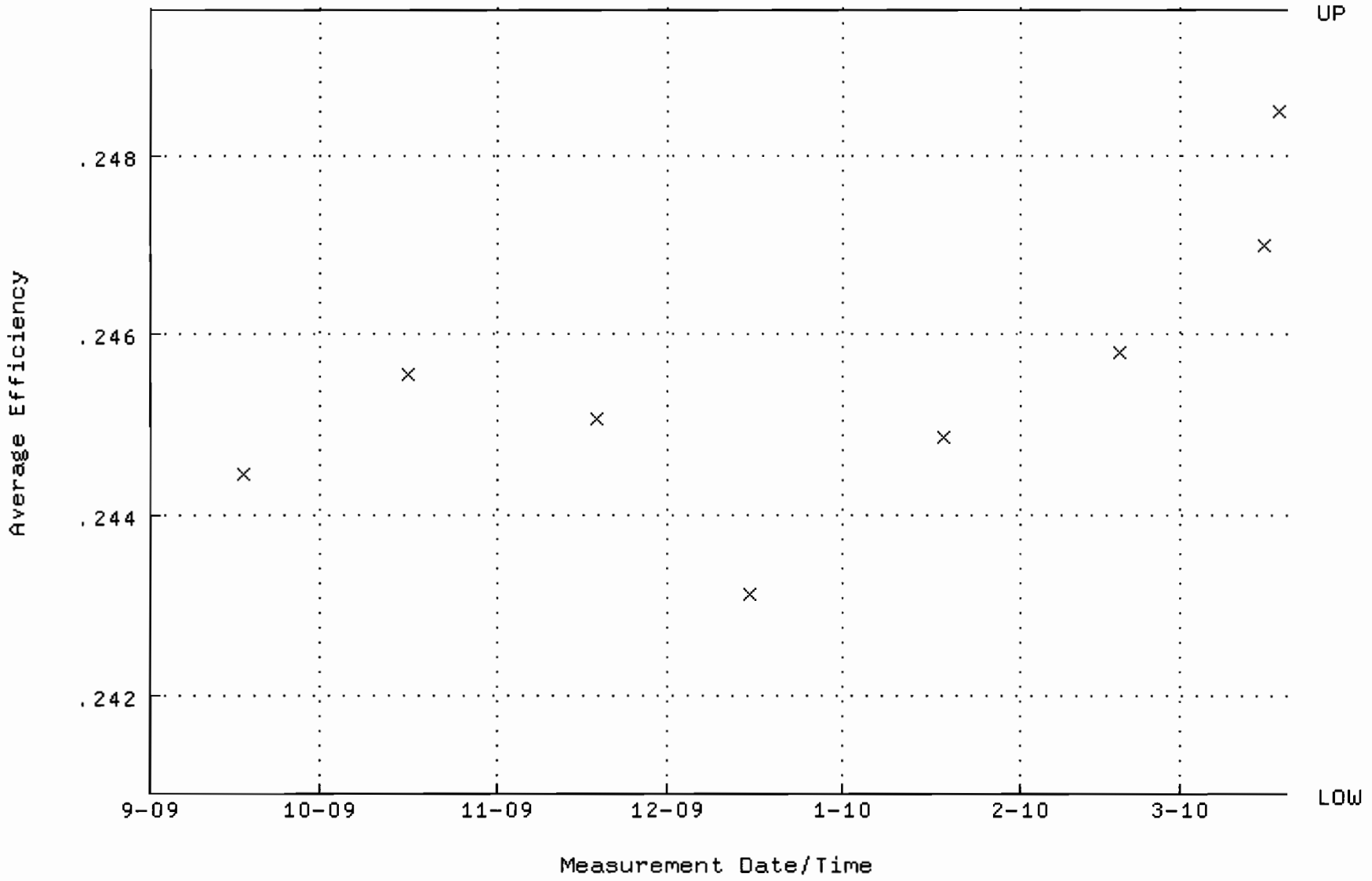

QA filename : DKA100:[ENV_ALPHA.QA.W]W134.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:46 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 89.4572 through 94.2254

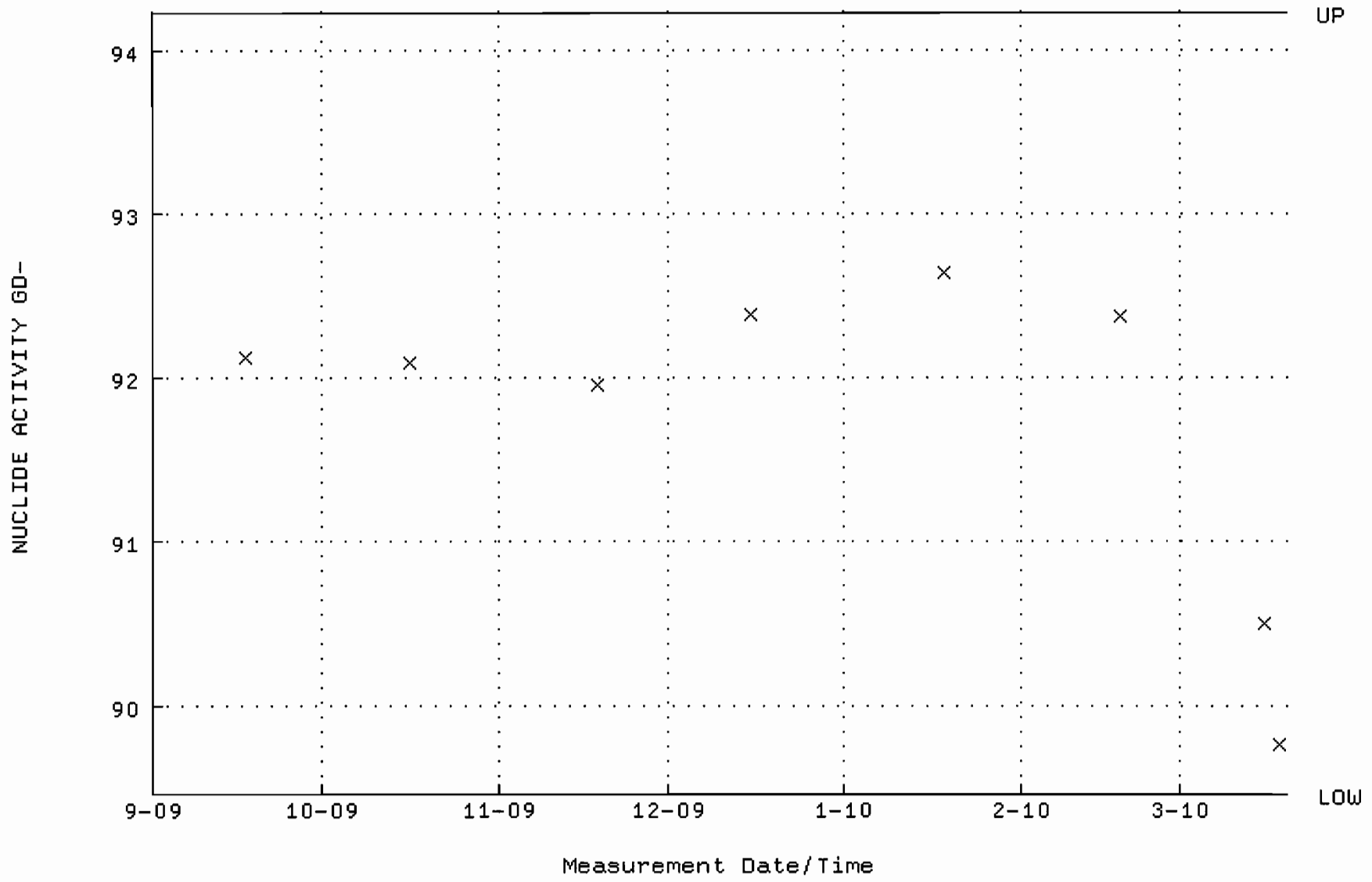

QA filename : DKA100:[ENV_ALPHA.QA.B]B134.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:41 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

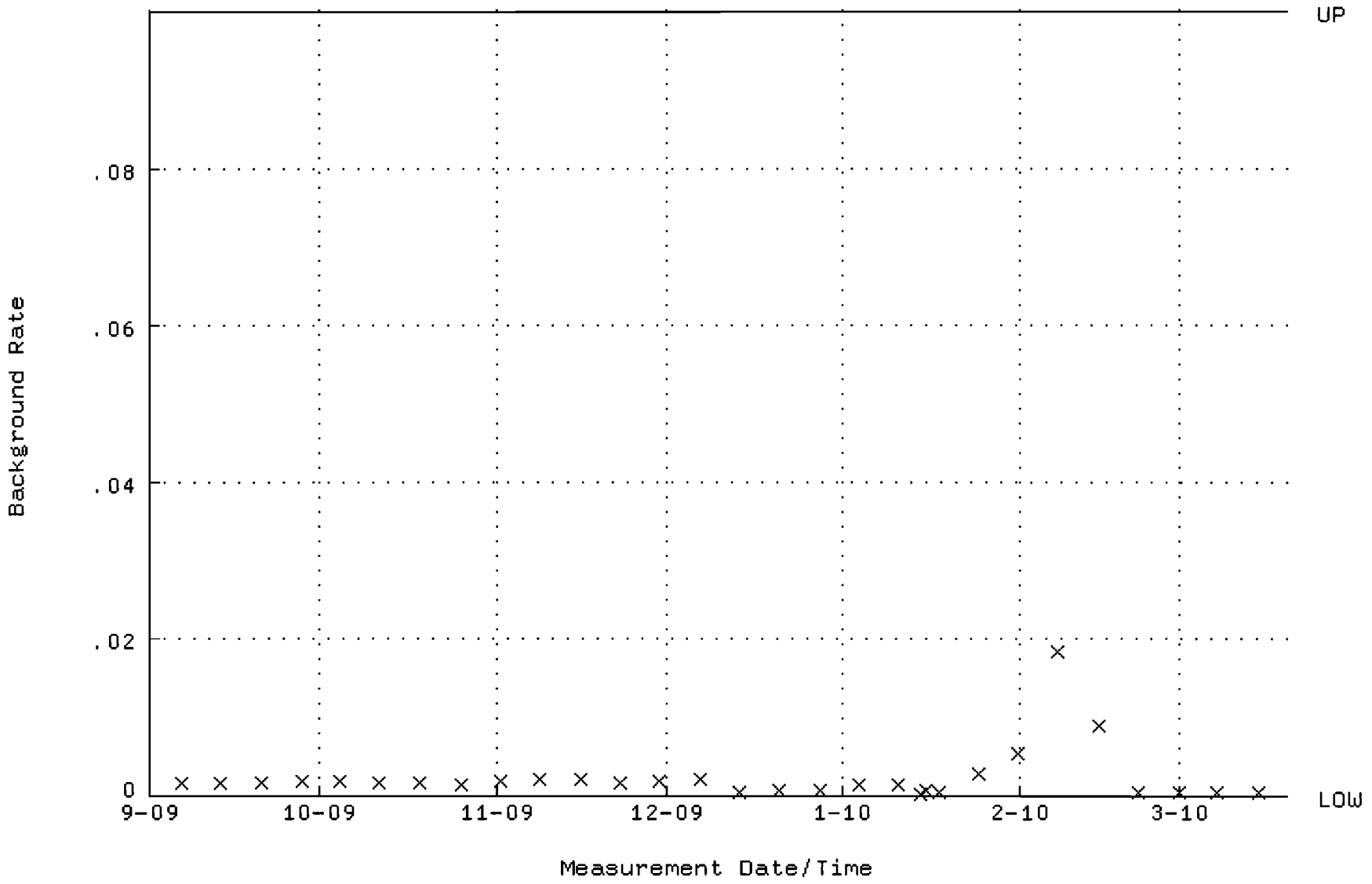

QA filename : DKA100:[ENV_ALPHA.QA.W]W135.QAF;2
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:53 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.194457 through 0.303279

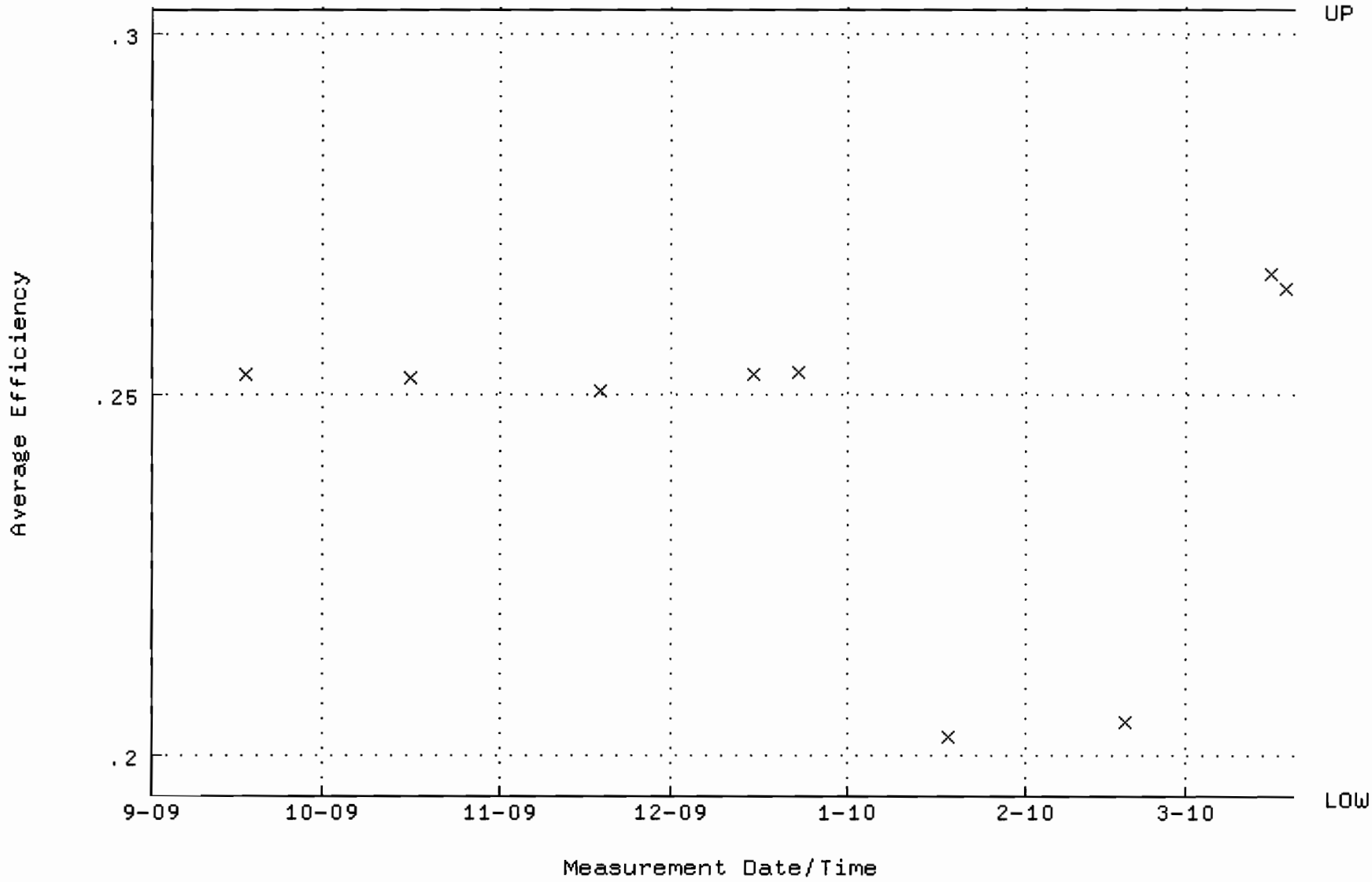

QA filename : DKA100:[ENV_ALPHA.QA.W]W135.QAF;2
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:53 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 77.0697 through 108.428

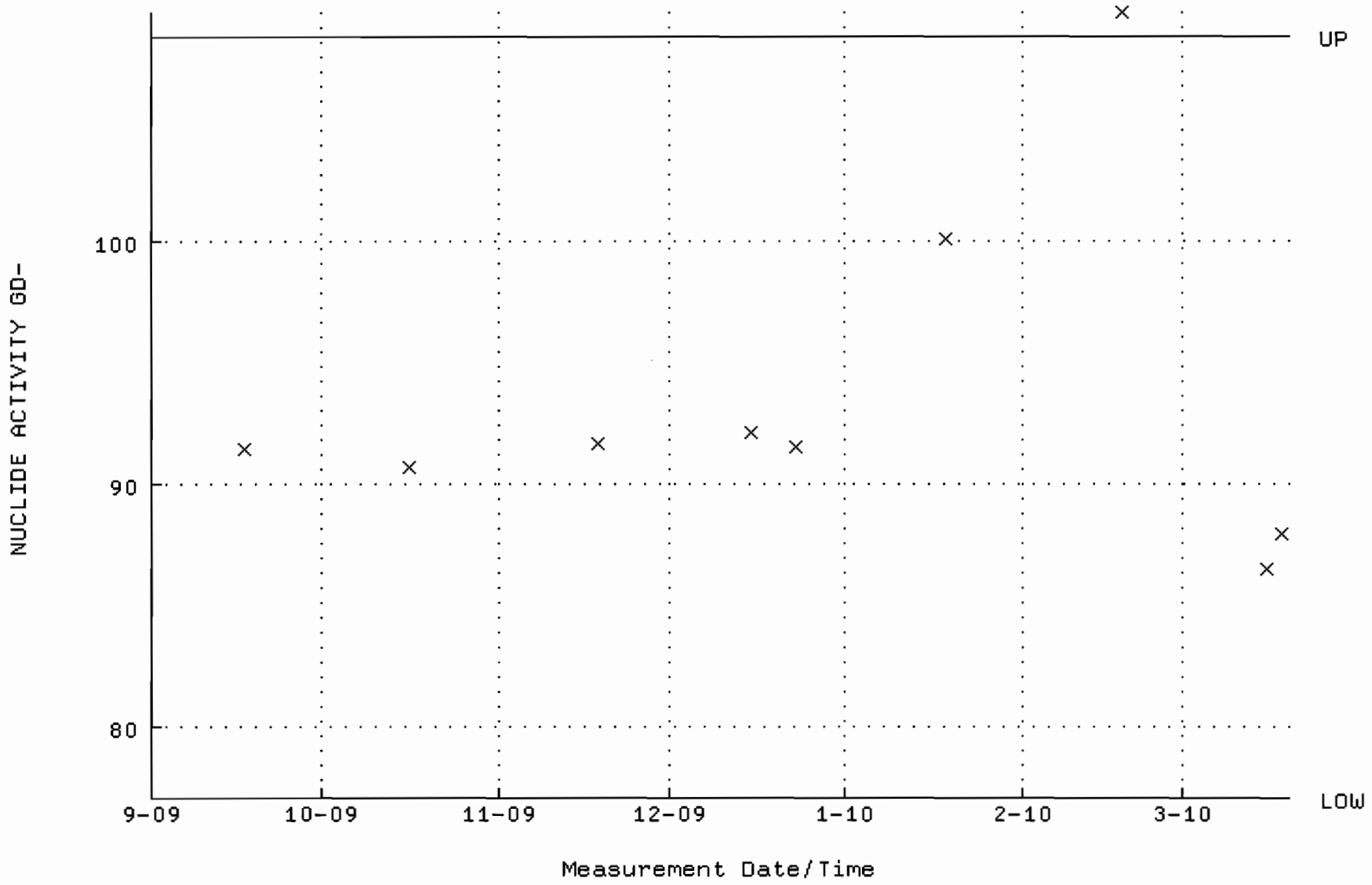

QA filename : DKA100:[ENV_ALPHA.QA.B]B135.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:45 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

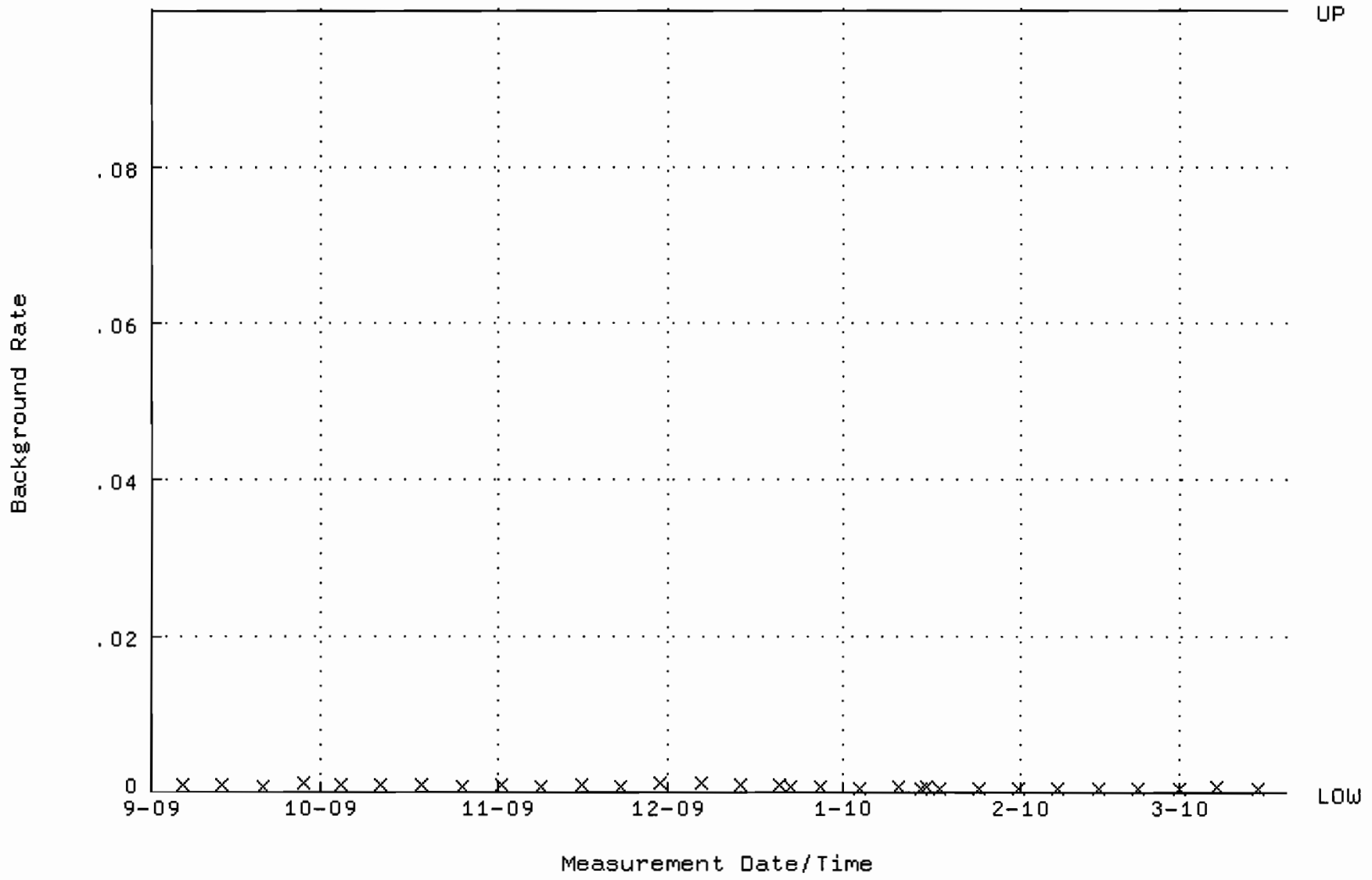

QA filename : DKA100:[ENV_ALPHA.QA.W]W136.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 17-SEP-2009 07:24:58 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.220355 through 0.278559

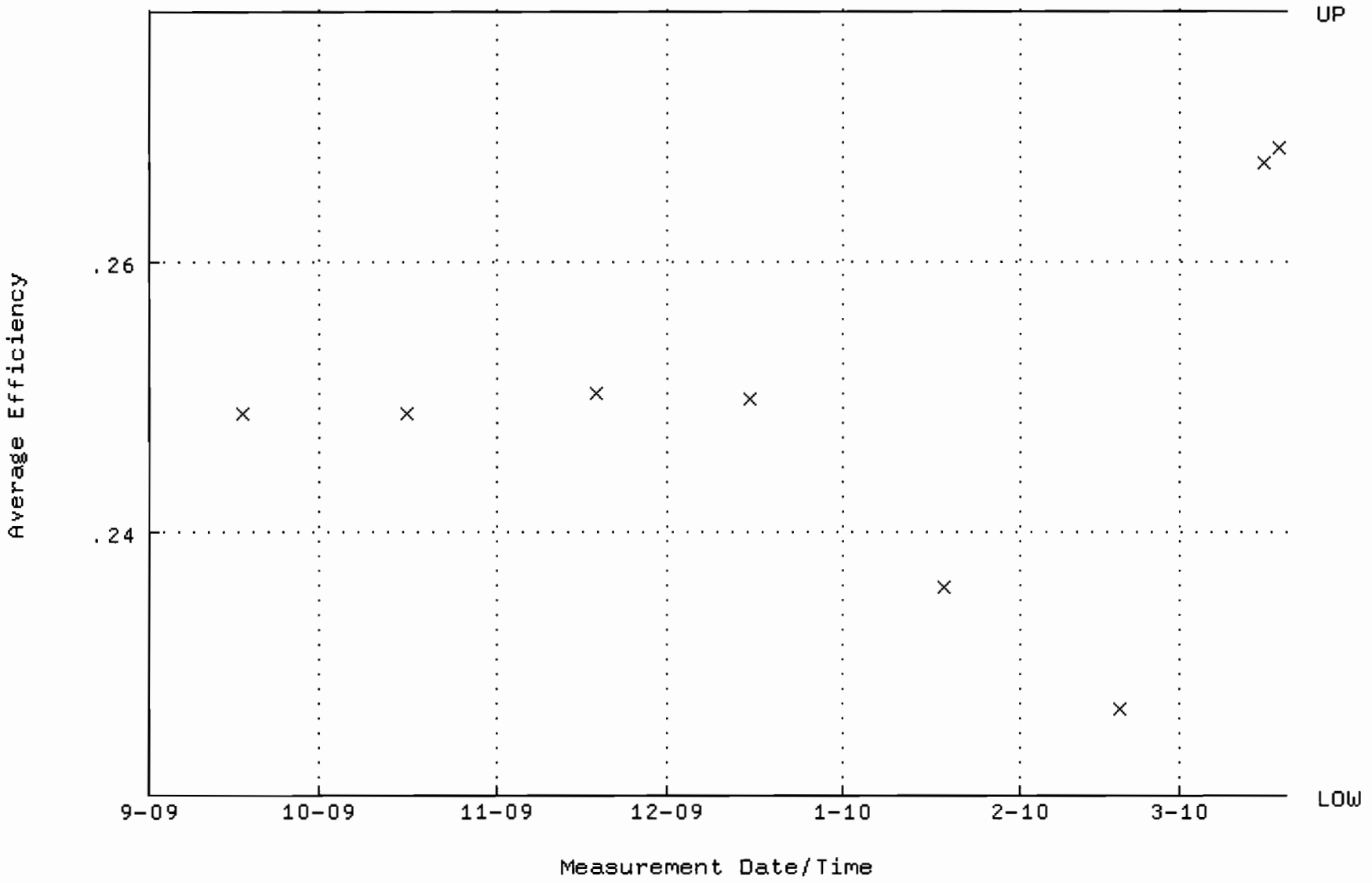

QA filename : DKA100:[ENV_ALPHA.QA.W]W136.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 17-SEP-2009 07:24:58 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 81.0690 through 100.381

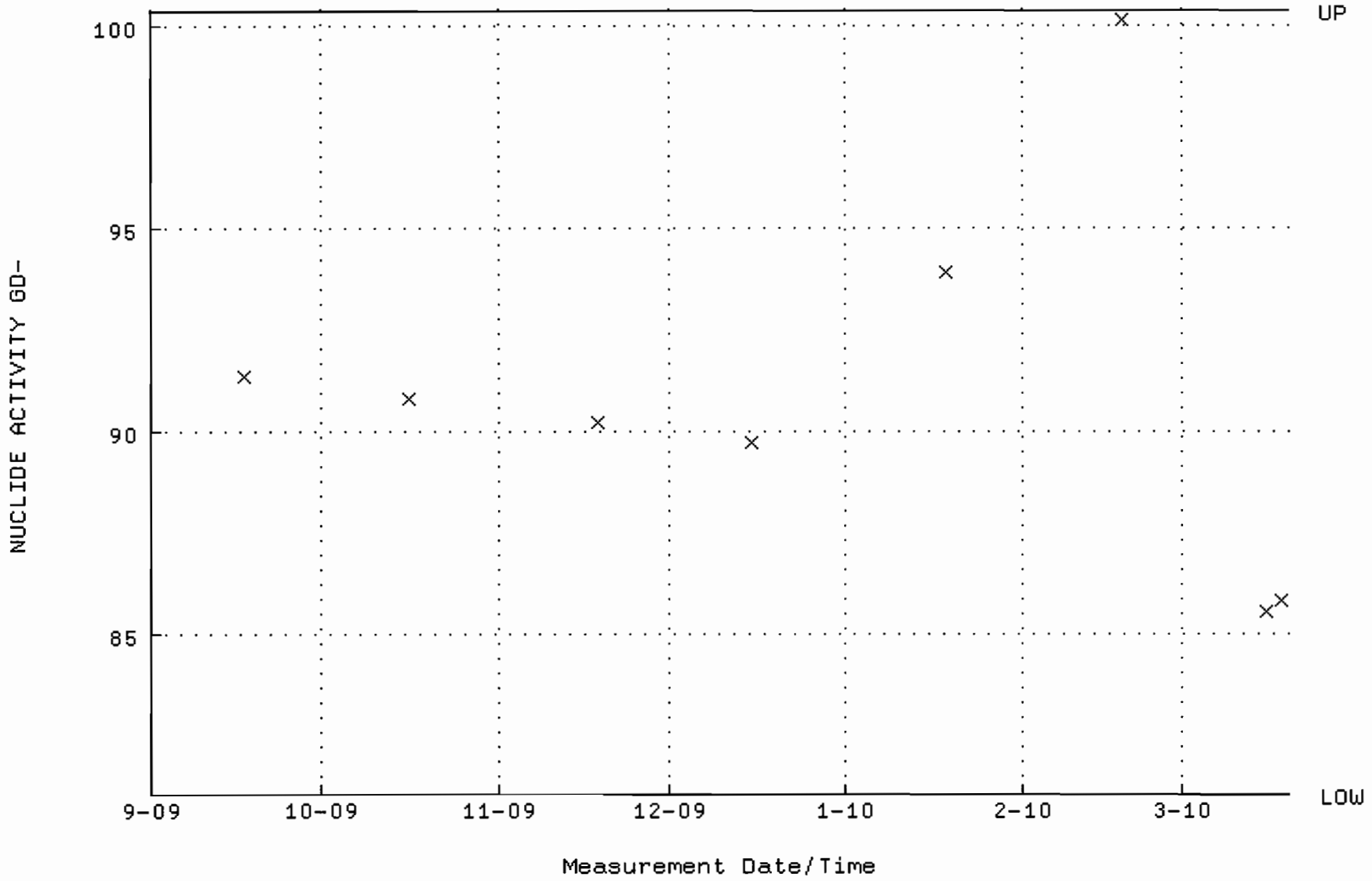

QA filename : DKA100:[ENV_ALPHA.QA.B]B136.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 6-SEP-2009 15:41:49 through 19-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

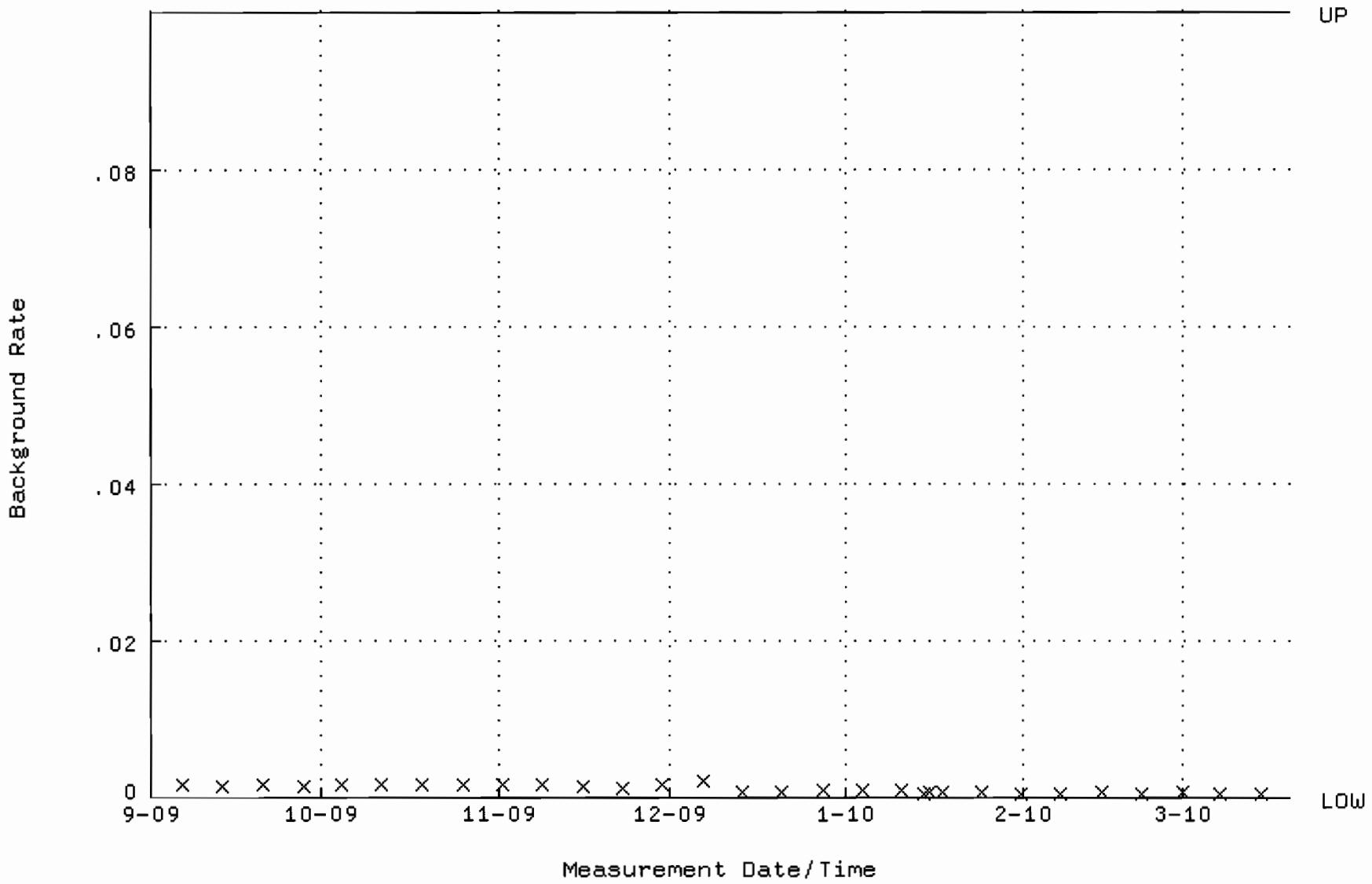

QA filename : DKA100:[ENV_ALPHA.QA.W]W221.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:07:27 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.354487 through 0.403989

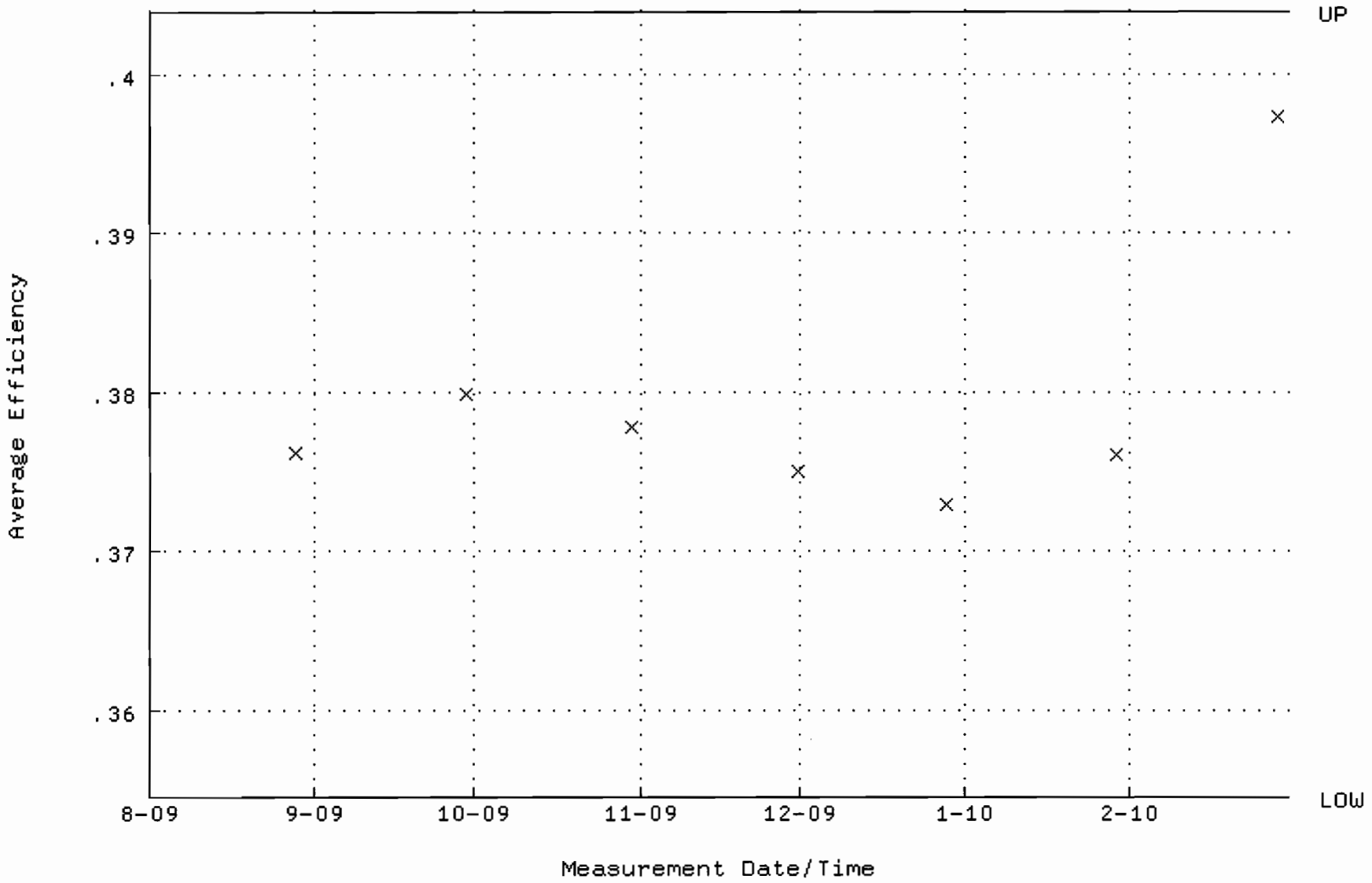

QA filename : DKA100:[ENV_ALPHA.QA.W]W221.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:07:27 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 85.0275 through 96.2669

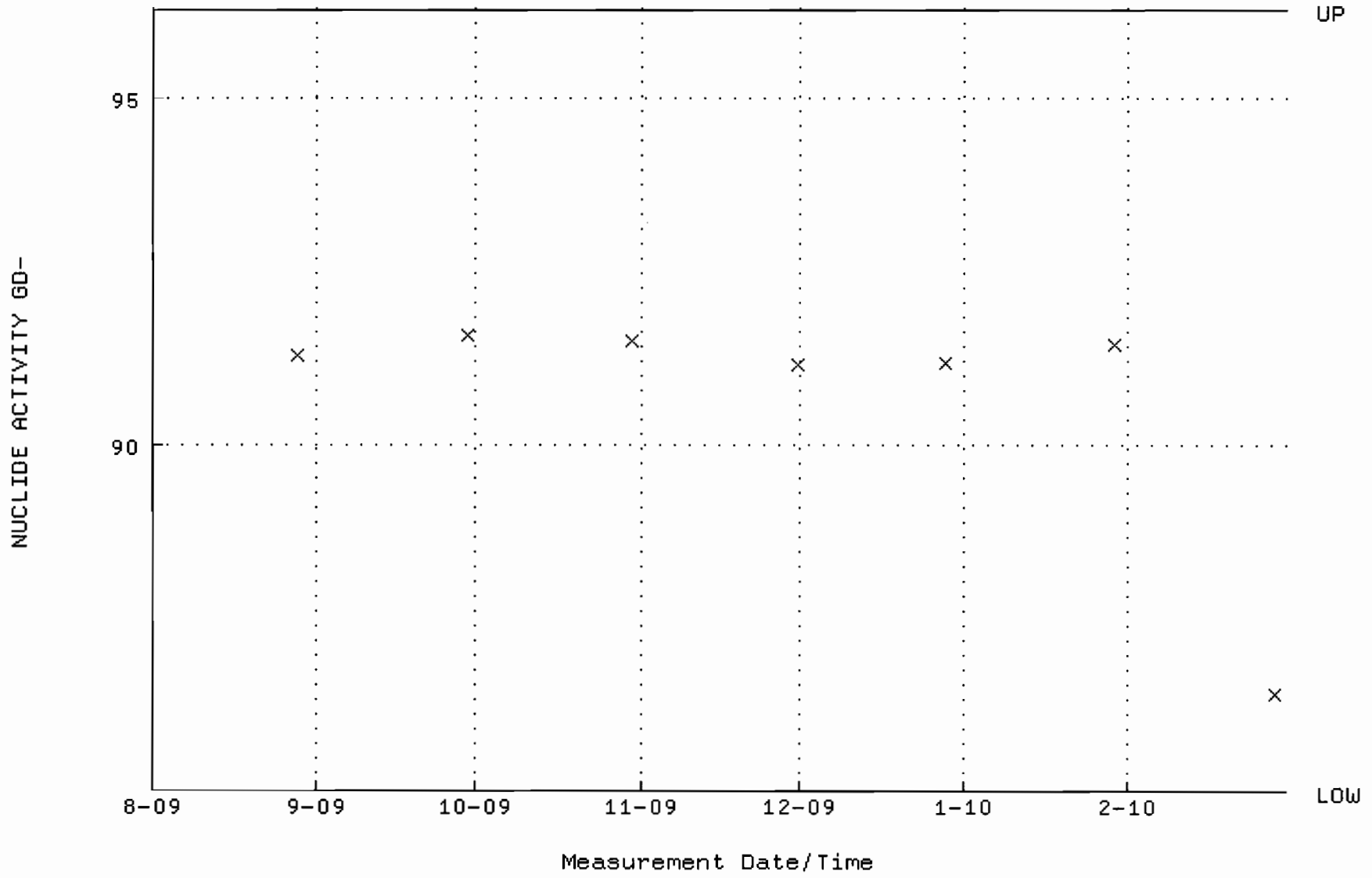

QA filename : DKA100:[ENV_ALPHA.QA.B]B221.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:26:01 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

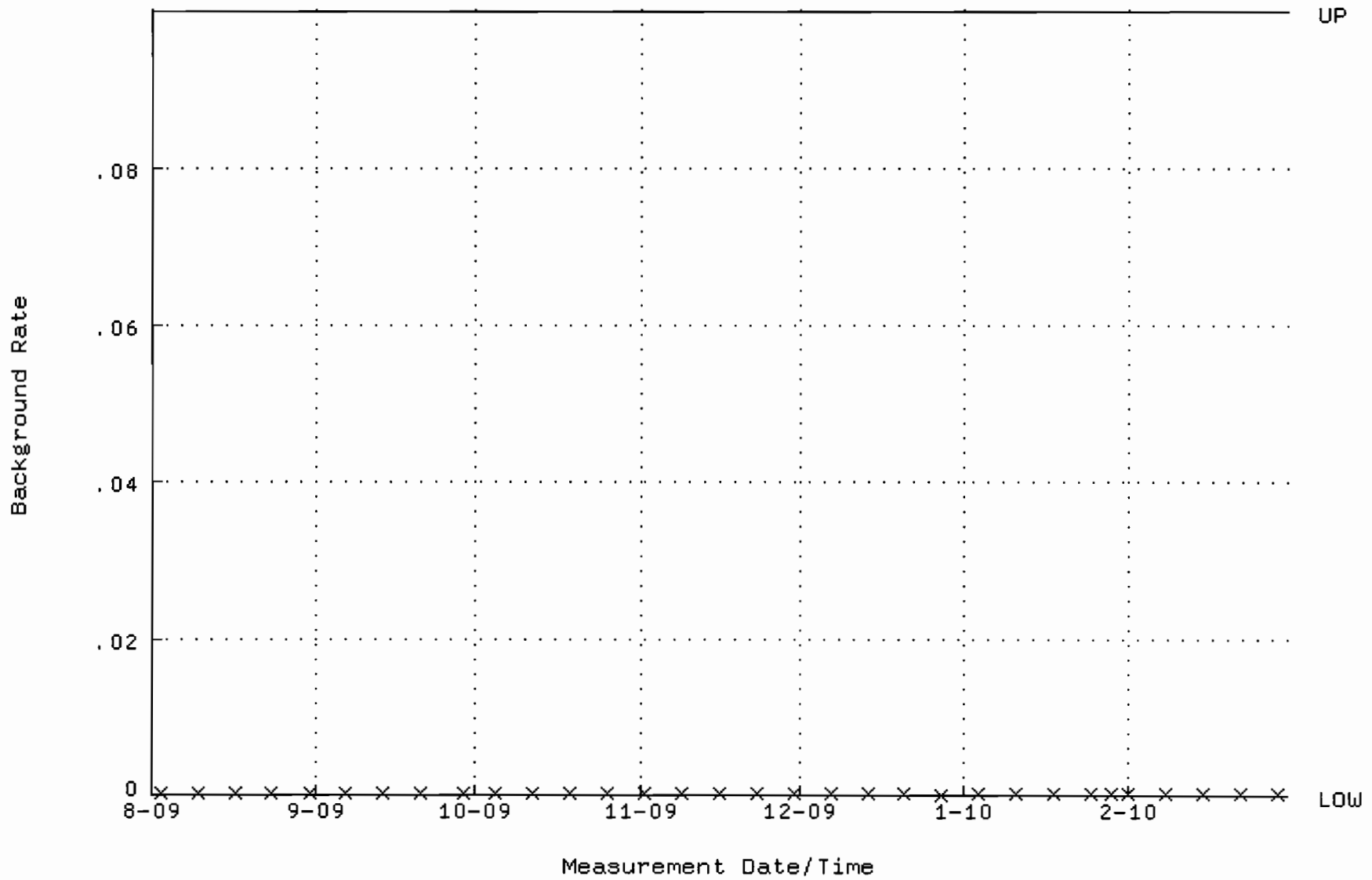

QA filename : DKA100:[ENV_ALPHA.QA.W]W222.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:07:32 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.325585 through 0.400497

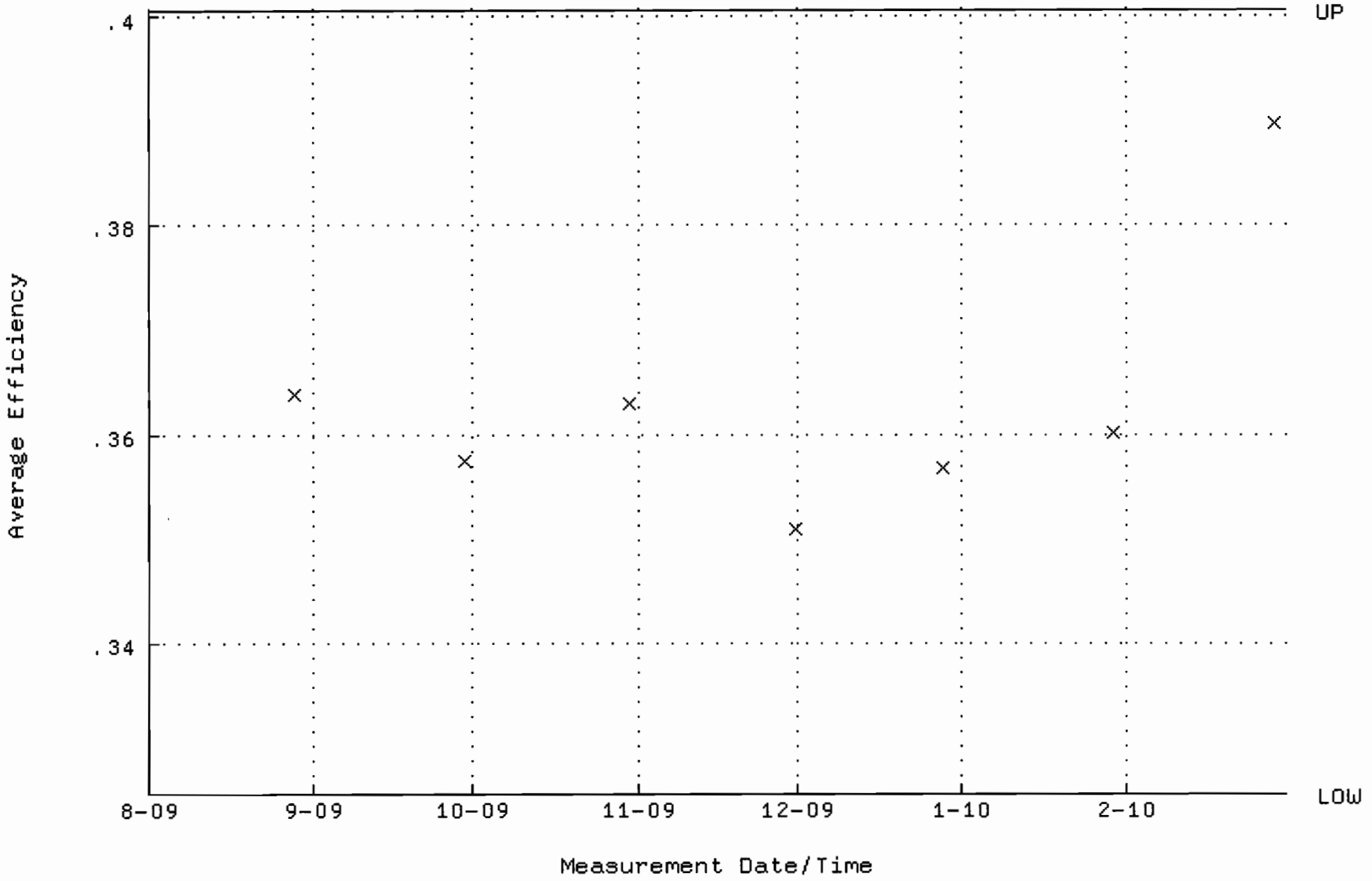

QA filename : DKA100:[ENV_ALPHA.QA.W]W222.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:07:32 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 81.6821 through 94.0551

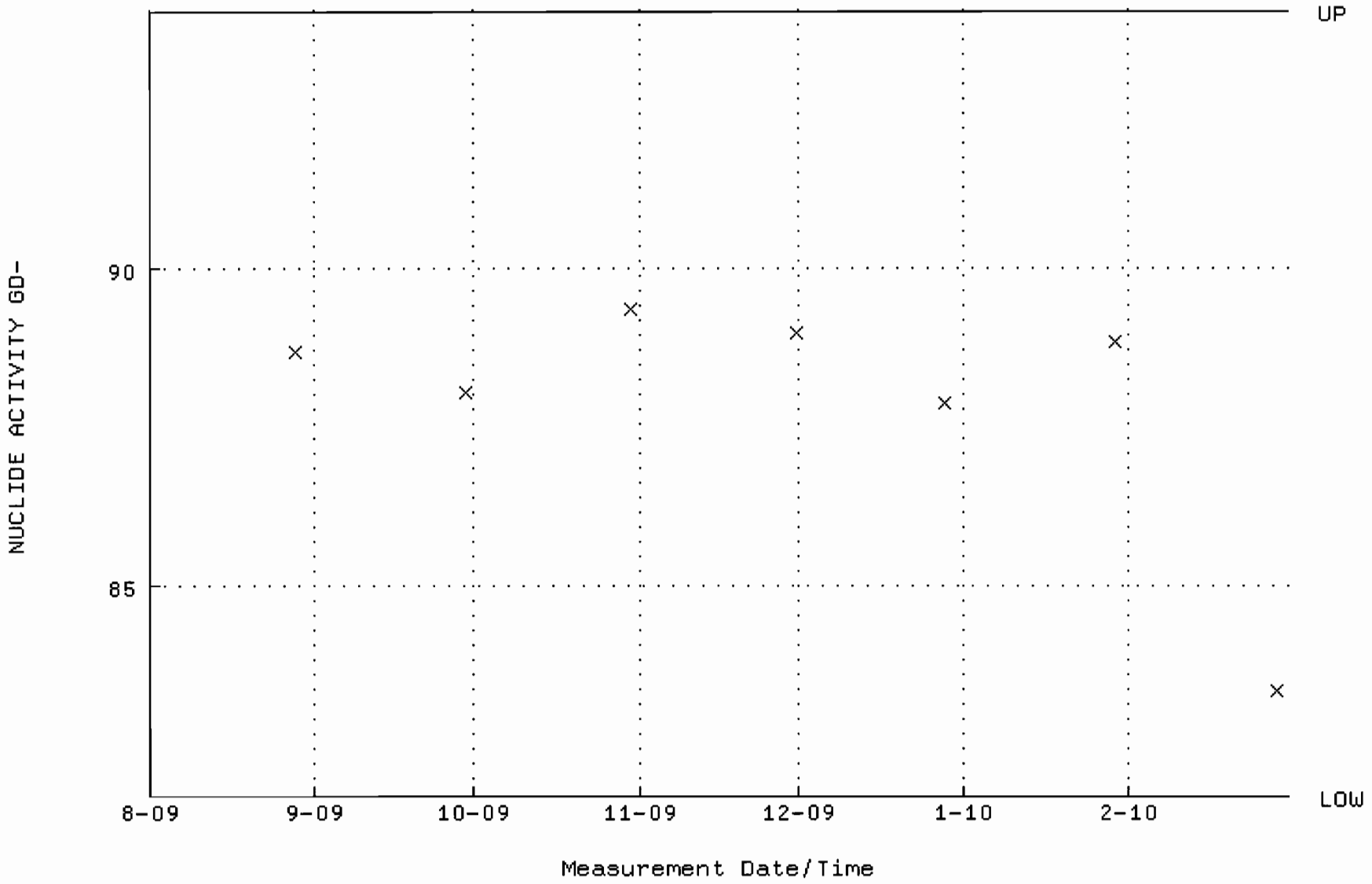

QA filename : DKA100:[ENV_ALPHA.QA.B]B222.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:26:05 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

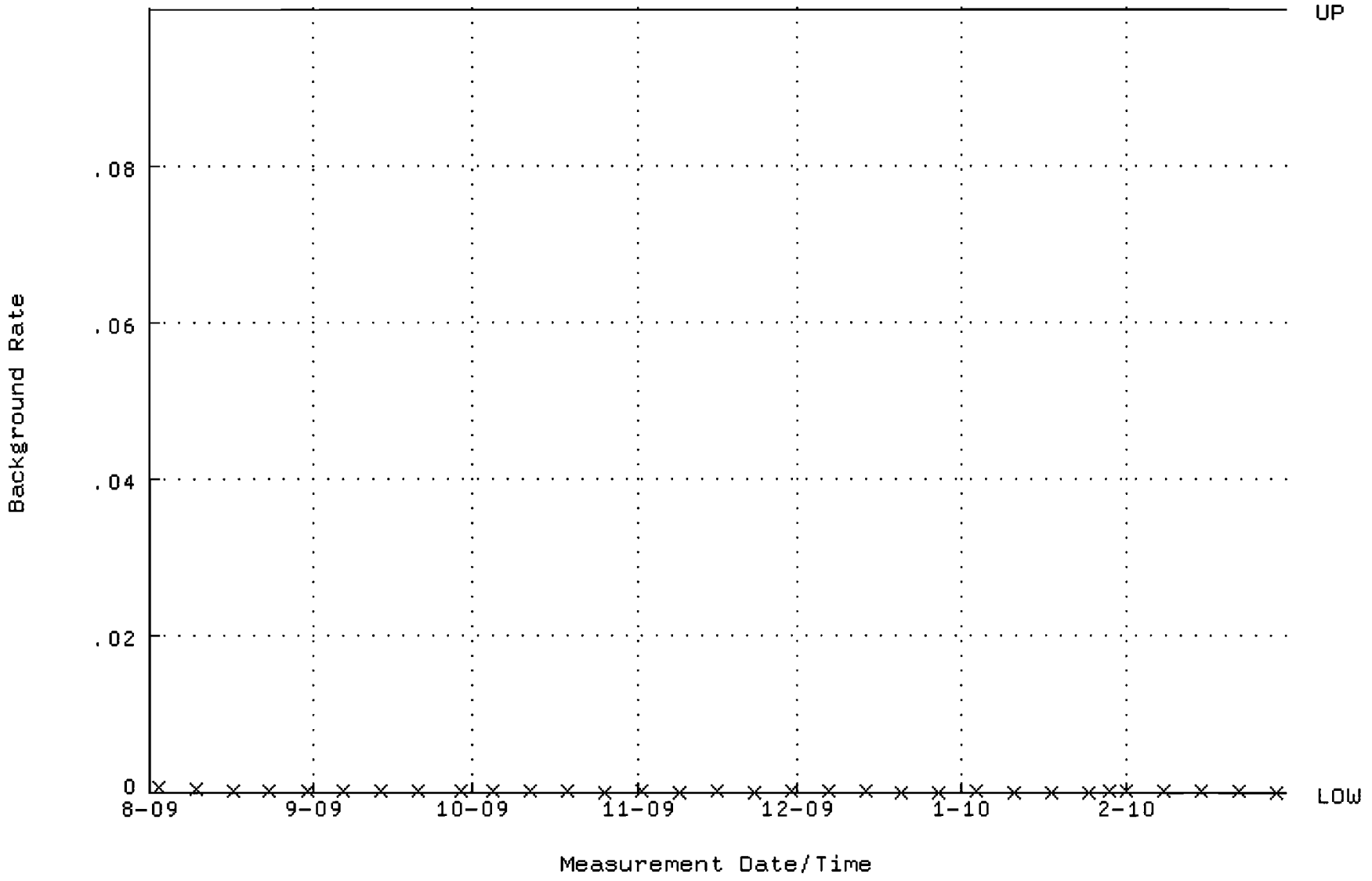

QA filename : DKA100:[ENV_ALPHA.QA.W]W256.QAF;1
Parameter Name : AVRGEFF (Average Efficiency)
Start/End Dates : 28-AUG-2009 07:10:37 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.355610 through 0.410626

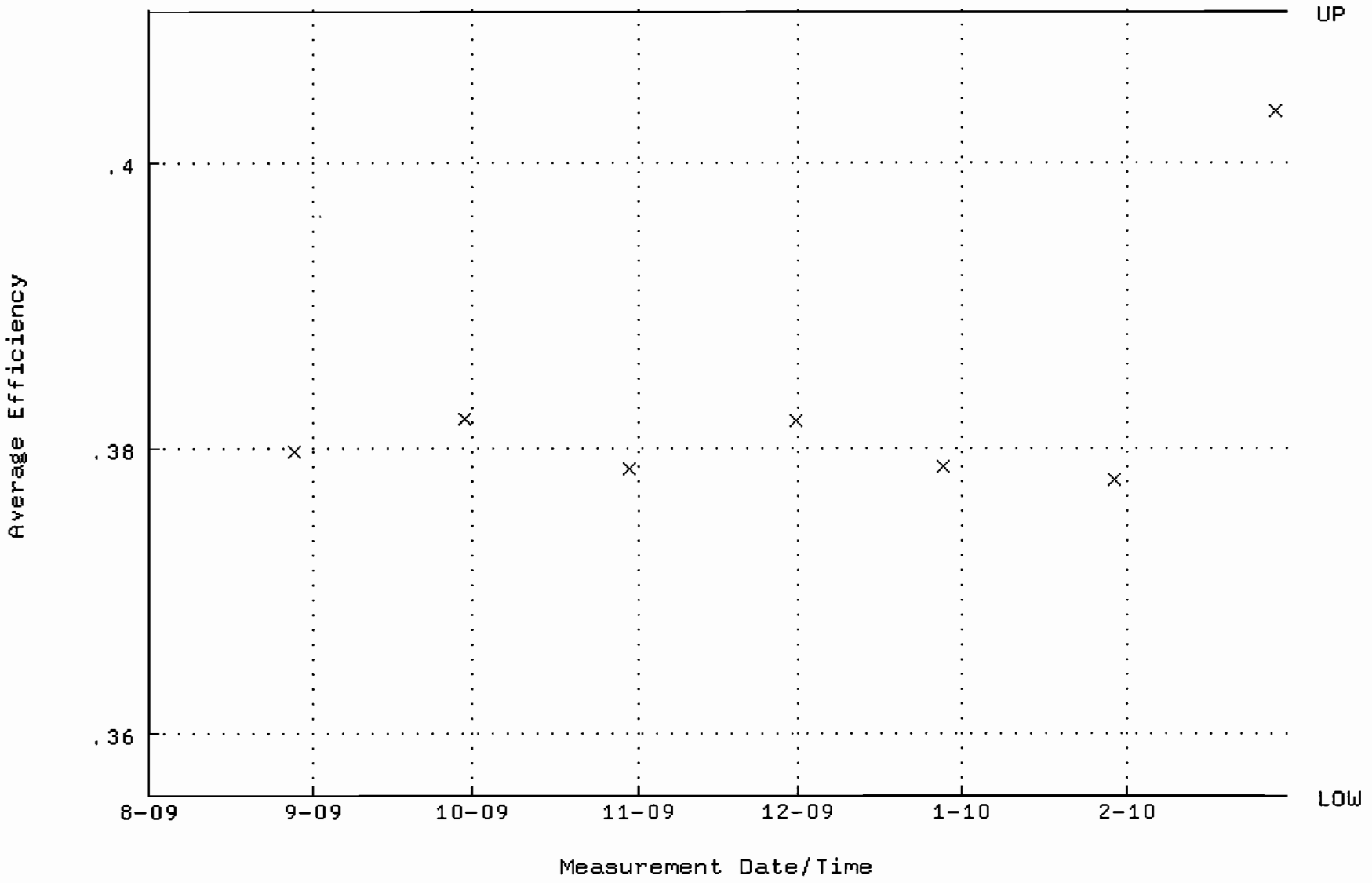

QA filename : DKA100:[ENV_ALPHA.QA.W]W256.QAF;1
Parameter Name : NLACTVTY-GD148 (NUCLIDE ACTIVITY GD-148)
Start/End Dates : 28-AUG-2009 07:10:37 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 78.3575 through 89.6335

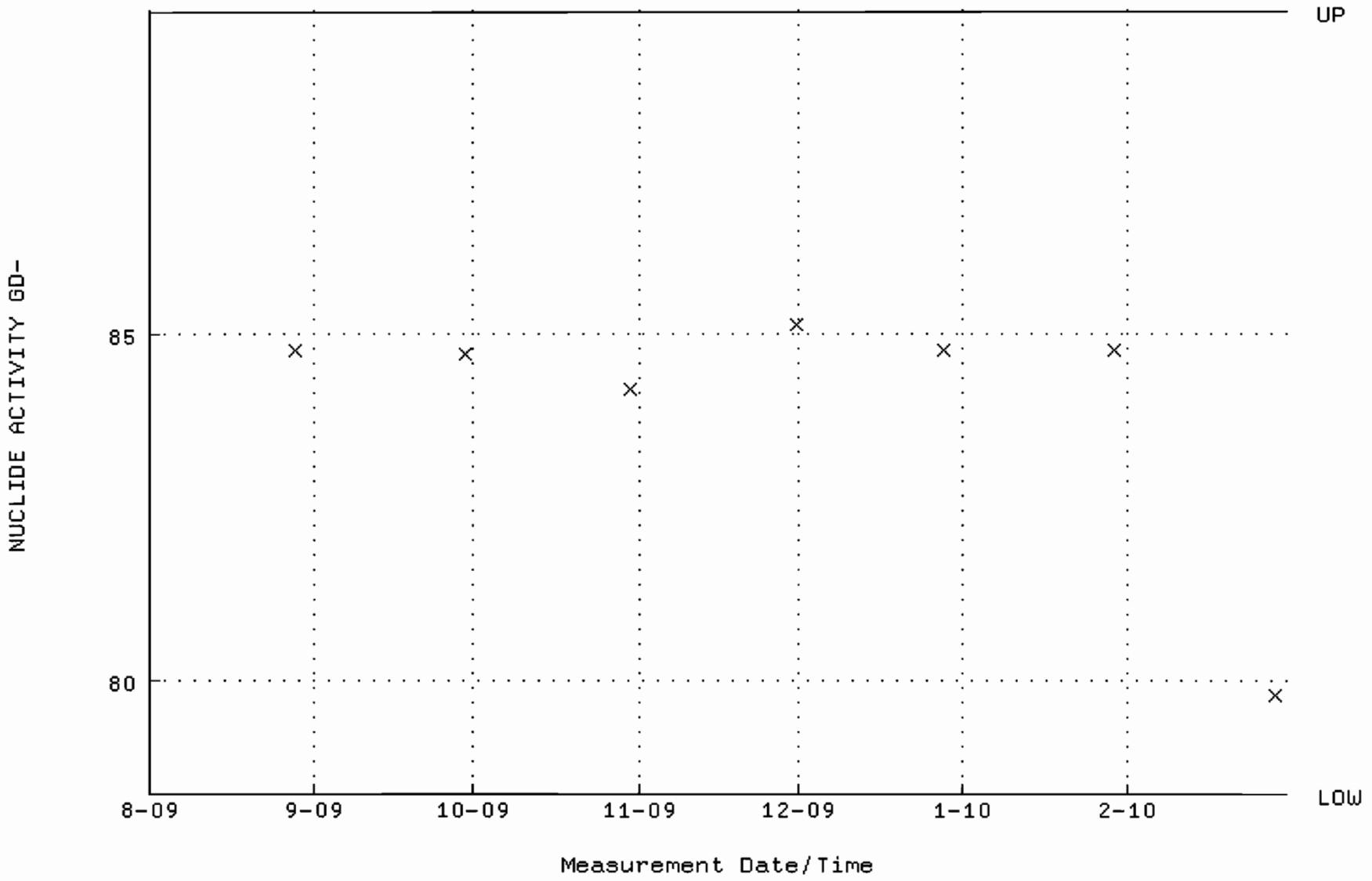

QA filename : DKA100:[ENV_ALPHA.QA.B]B256.QAF;1
Parameter Name : BACKRATE (Background Rate)
Start/End Dates : 2-AUG-2009 17:28:37 through 2-MAR-2010 12:00:00
Lower/Upper Lmts: 0.000000E+00 through 0.100000

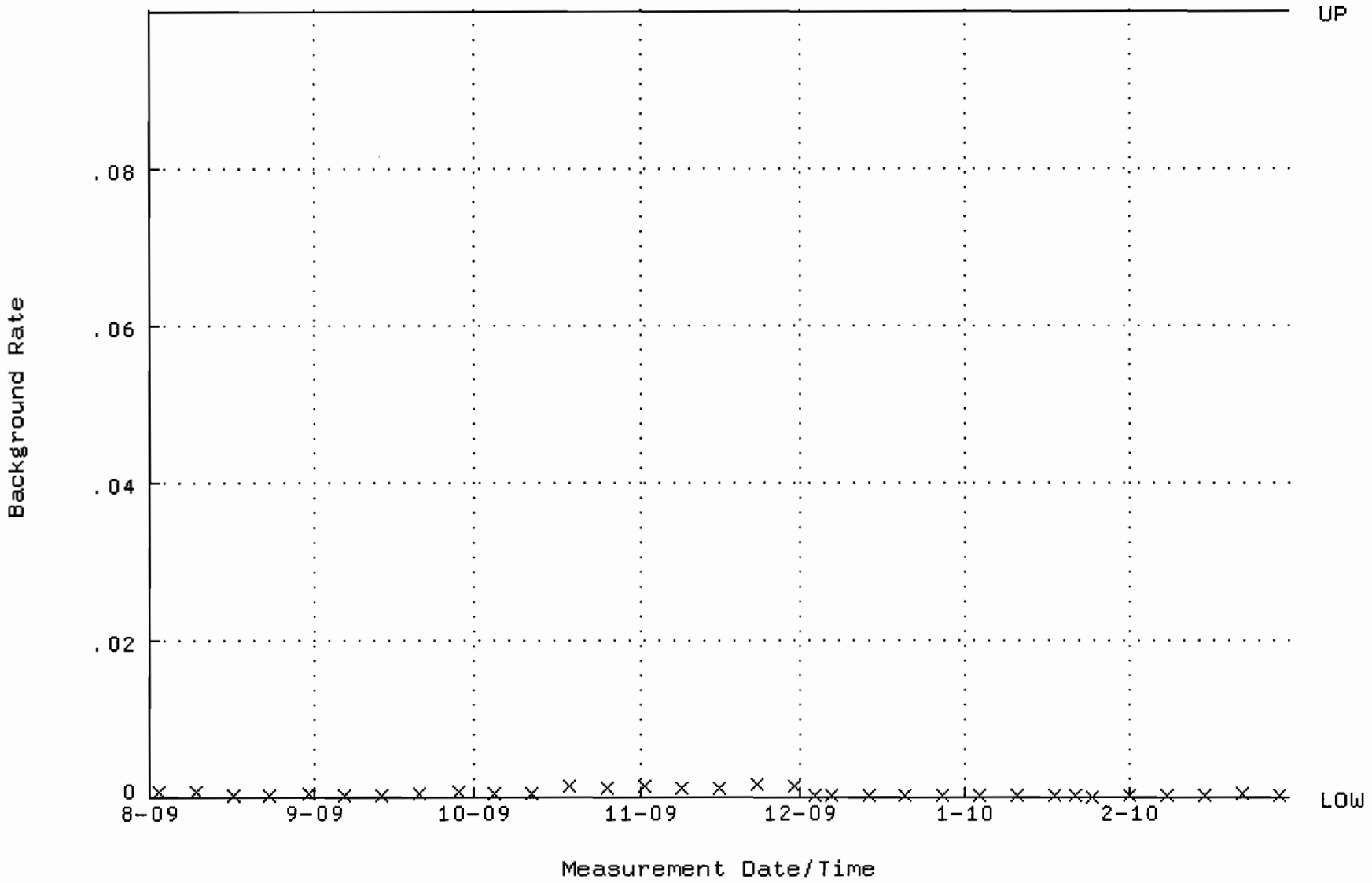

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM02_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 04:40:02 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

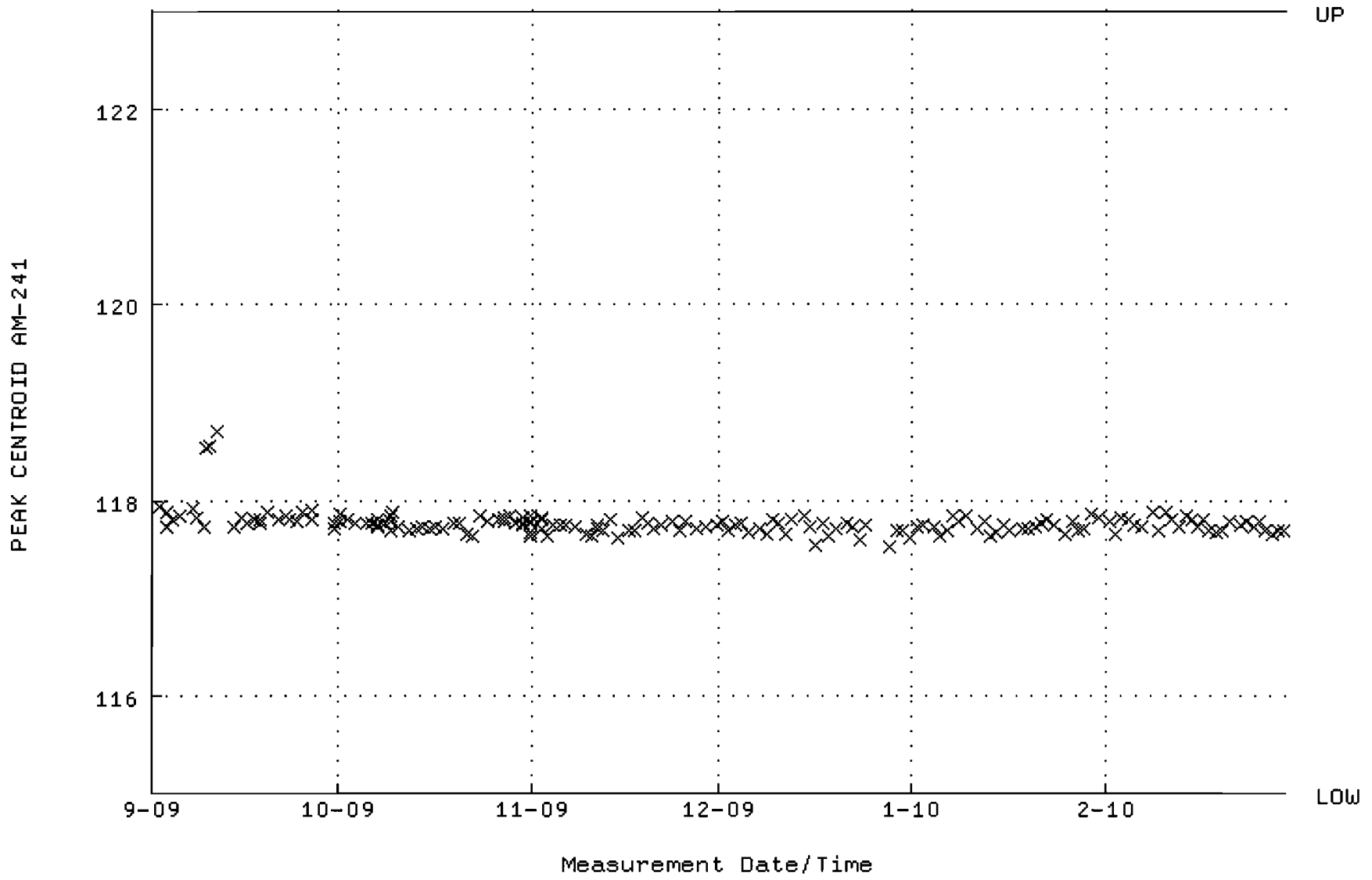

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM02.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:37:17 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 2.00226 +- 2.139827E-02 (1.07 %)

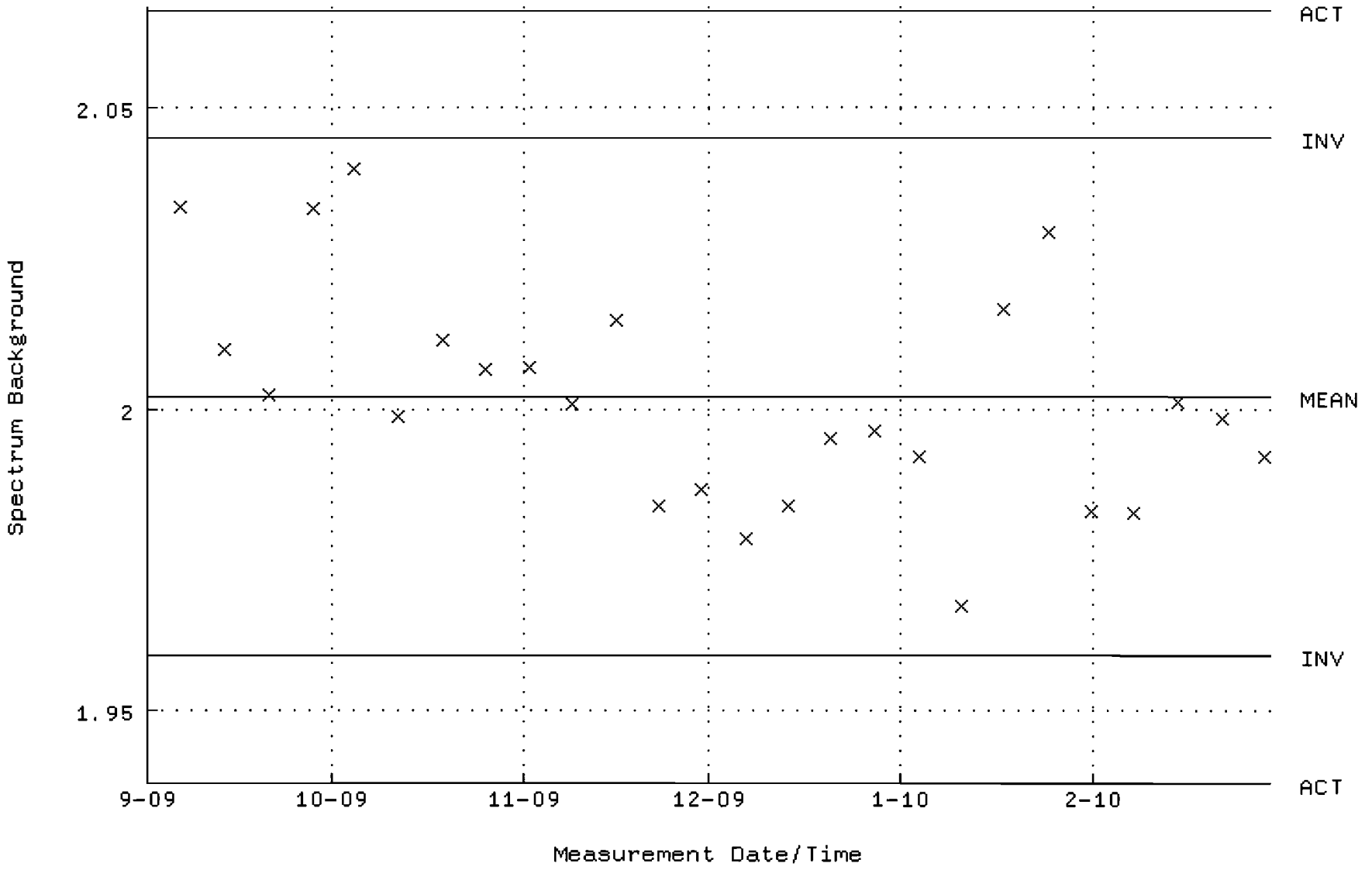

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM07_JAR.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 06:09:02 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

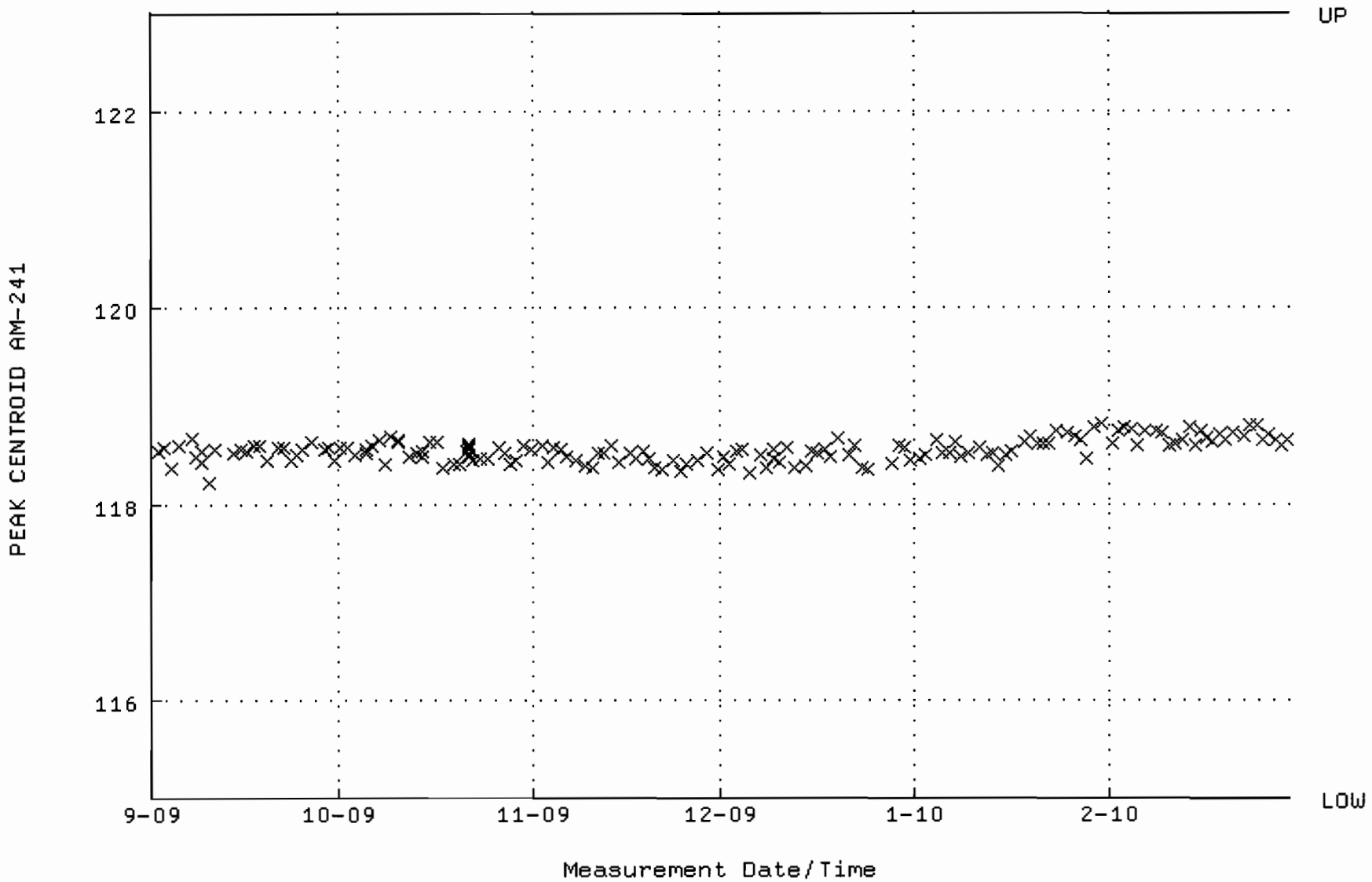

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM07.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:39:54 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.51715 +- 2.726376E-02 (1.80 %)

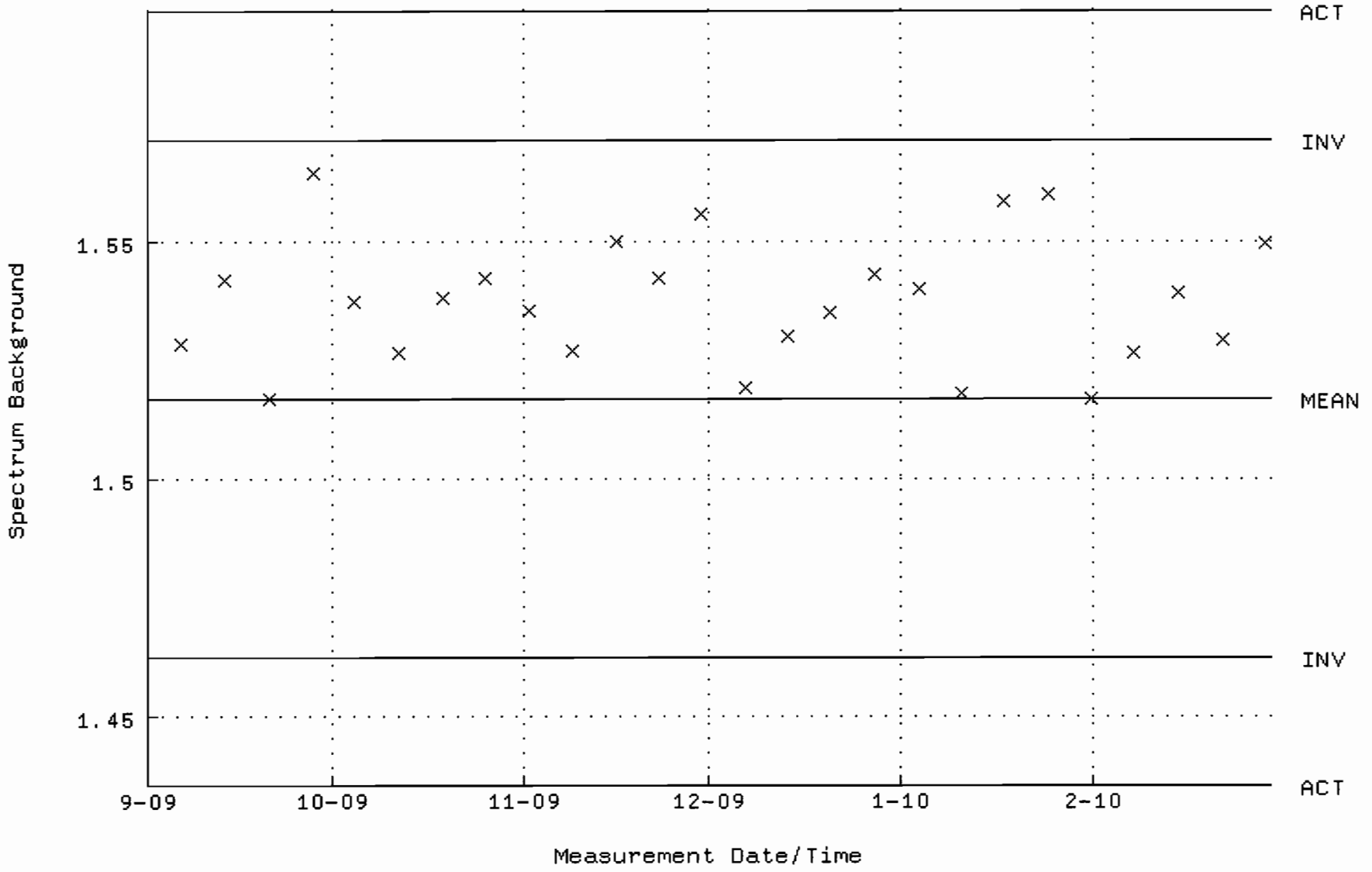

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]QCC_GAM17_CAN.QAF;1
Parameter Name : PSCENTRD-241 (PEAK CENTROID AM-241)
Start/End Dates : 2-SEP-2009 05:06:49 through 1-MAR-2010 12:00:00
Lower/Upper Lmts: 115.000 through 123.000

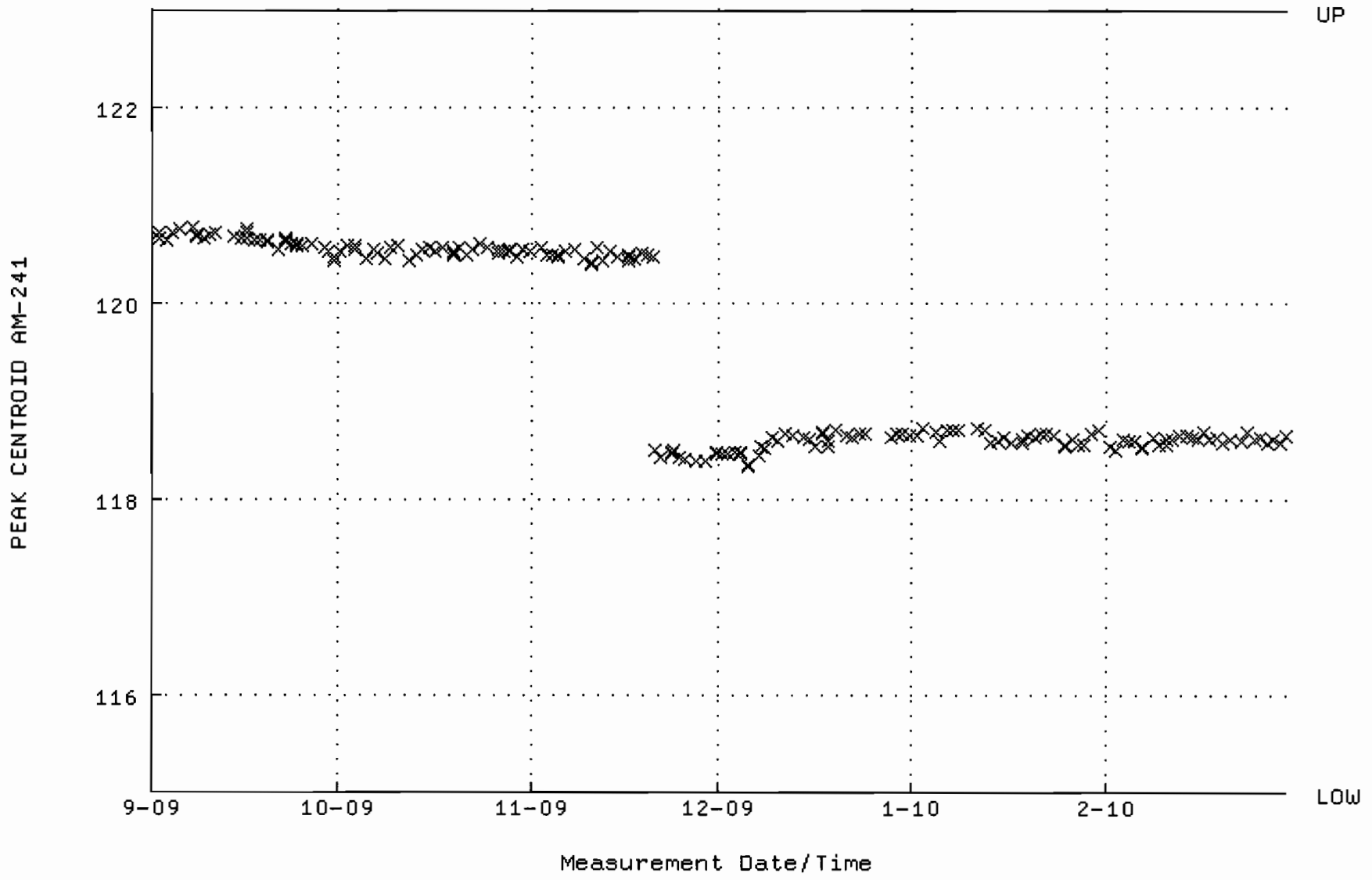

QA filename : DKA100:[CANBERRA.GAMMA.SCUSR.QA]LBC_GAM17.QAF;1
Parameter Name : BACKRATE (Spectrum Background Rate)
Start/End Dates : 6-SEP-2009 11:44:33 through 1-MAR-2010 12:00:00
Mean +- Std Dev : 1.42766 +- 1.396974E-02 (0.98 %)

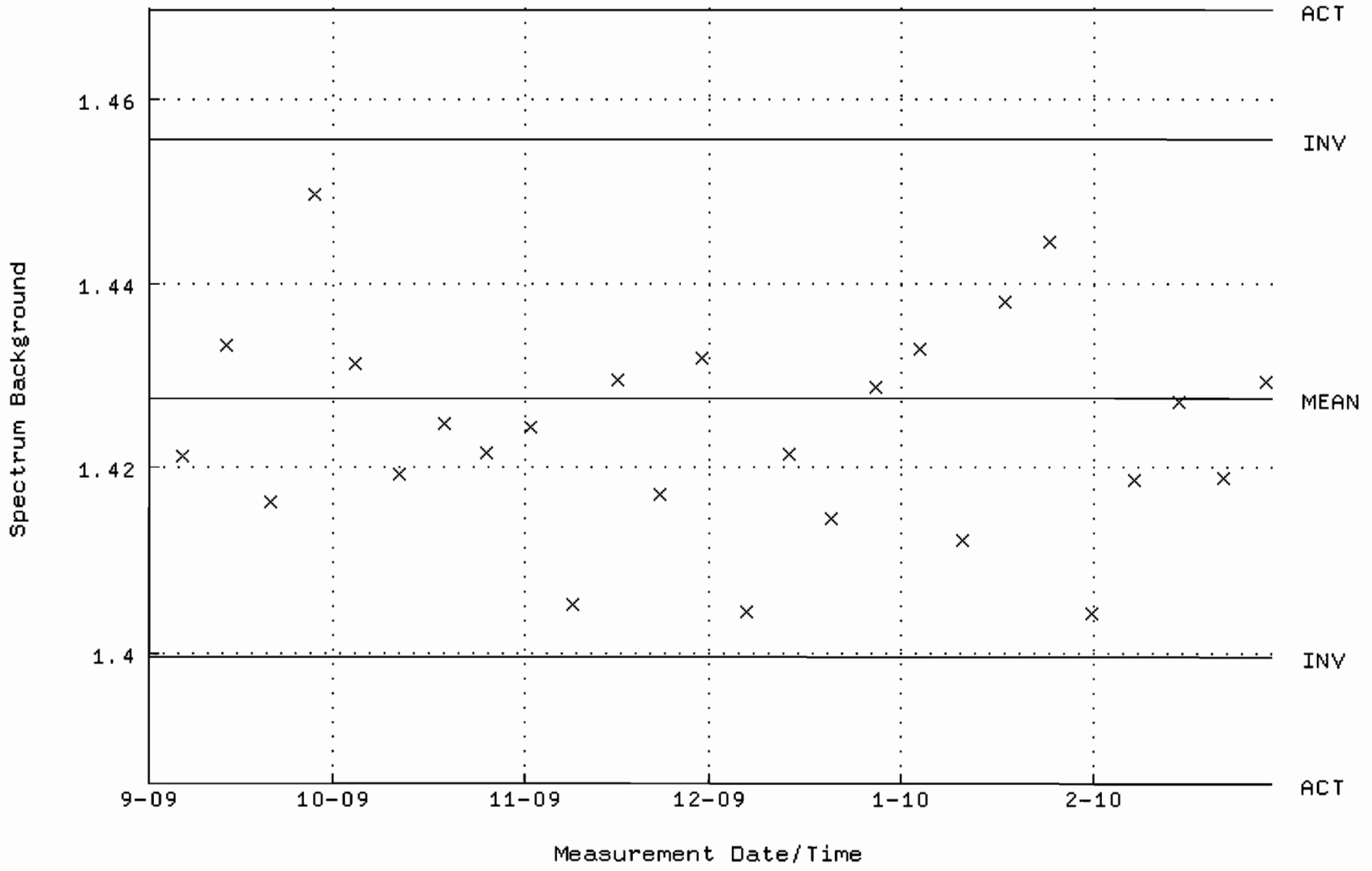

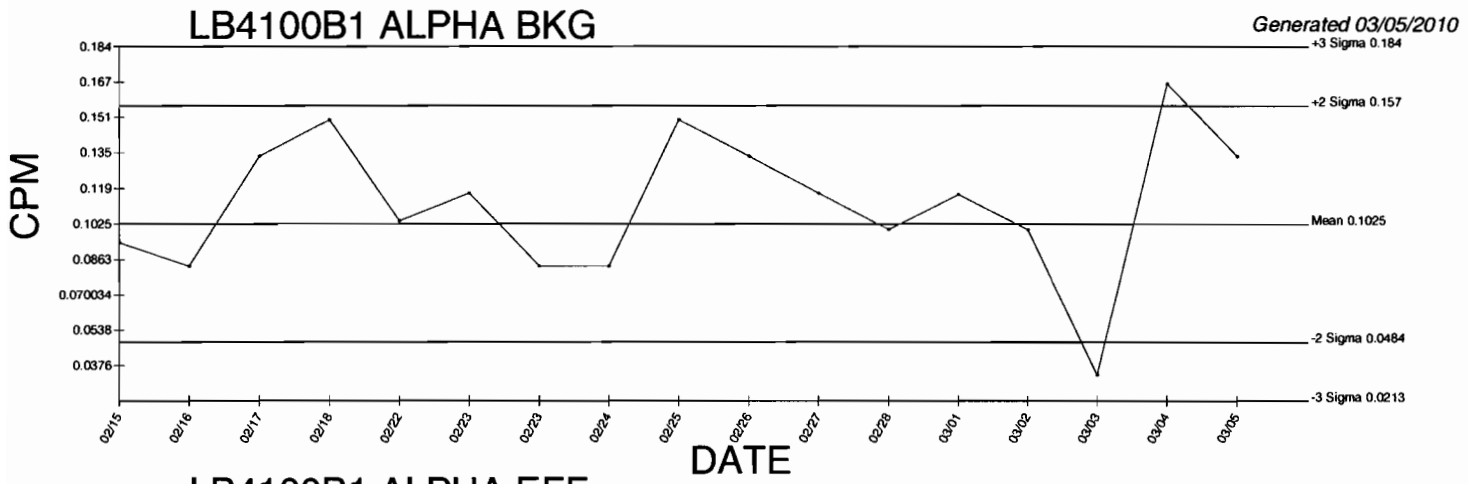
LB4100B1 ALPHA BKG
Generated 03/05/2010
CPM
0.184
0.167
0.151
0.135
0.119
0.1025
0.0863
0.070034
0.0538
0.0376
+3 Sigma 0.184
+2 Sigma 0.157
Mean 0.1025
-2 Sigma 0.0484
-3 Sigma 0.0213
02/15
02/16
02/17
02/18
02/22
02/23
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
DATE

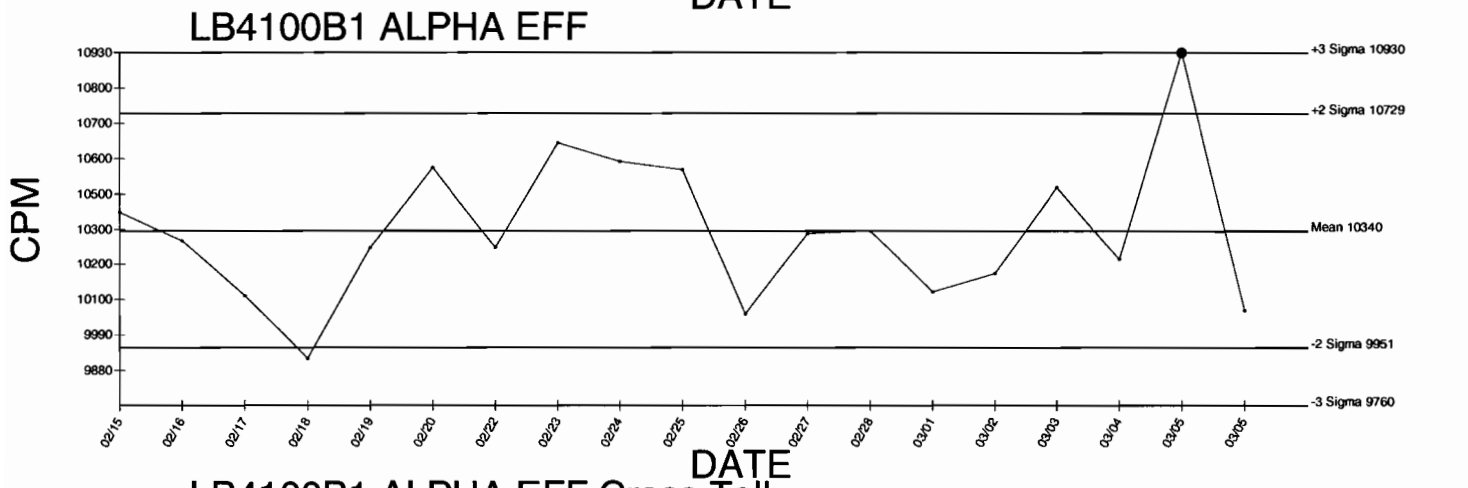
LB4100B1 ALPHA EFF
CPM
10930
10800
10700
10600
10500
10300
10200
10100
9990
9880
+3 Sigma 10930
+2 Sigma 10729
Mean 10340
-2 Sigma 9951
-3 Sigma 9760
02/15
02/16
02/17
02/18
02/19
02/20
02/22
02/23
02/24
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02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
03/05
DATE

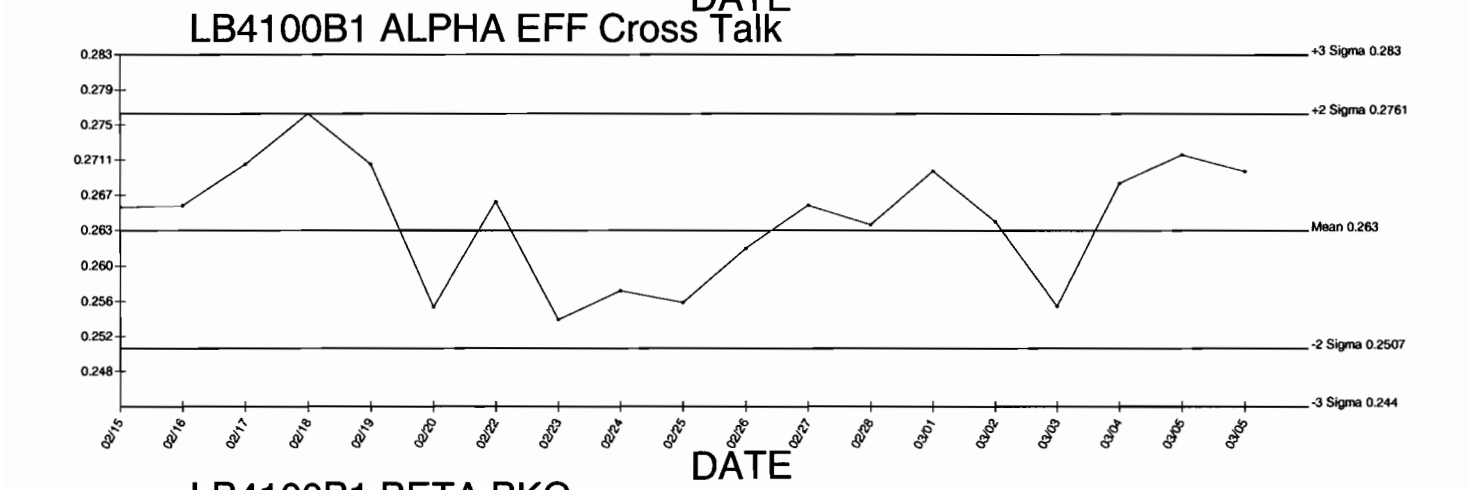
LB4100B1 ALPHA EFF Cross Talk
0.283
0.279
0.275
0.2711
0.267
0.263
0.260
0.256
0.252
0.248
+3 Sigma 0.283
+2 Sigma 0.2761
Mean 0.263
-2 Sigma 0.2507
-3 Sigma 0.244
02/15
02/16
02/17
02/18
02/19
02/20
02/22
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
03/05
DATE

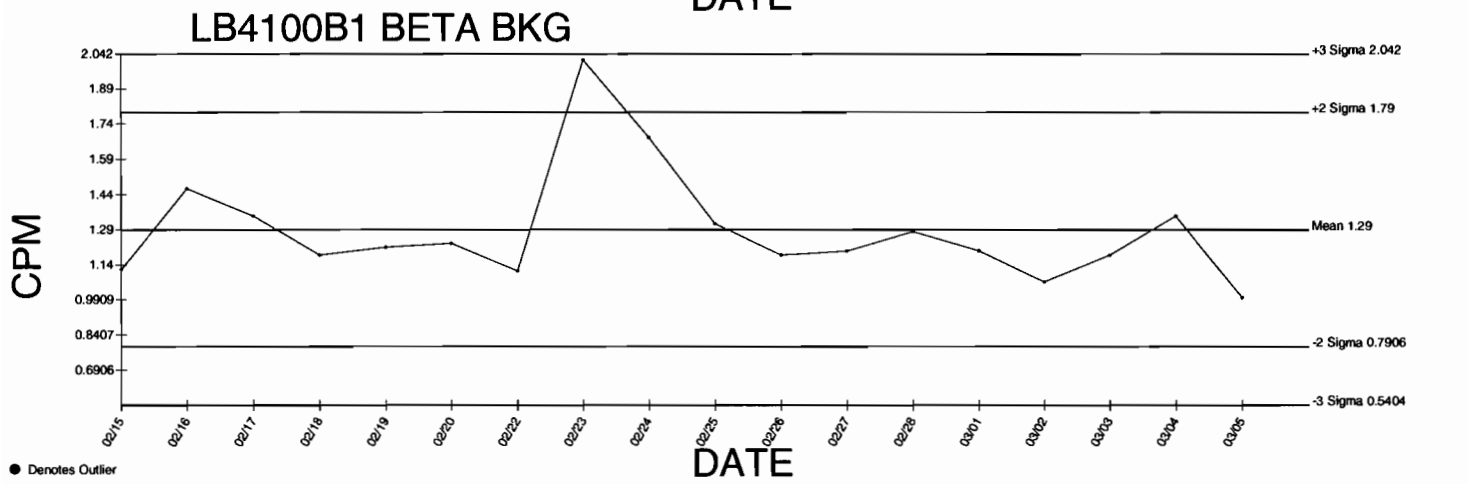
LB4100B1 BETA BKG
CPM
2.042
1.89
1.74
1.59
1.44
1.29
1.14
0.9909
0.8407
0.6906
+3 Sigma 2.042
+2 Sigma 1.79
Mean 1.29
-2 Sigma 0.7906
-3 Sigma 0.5404
02/15
02/16
02/17
02/18
02/19
02/20
02/22
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
DATE
● Denotes Outlier

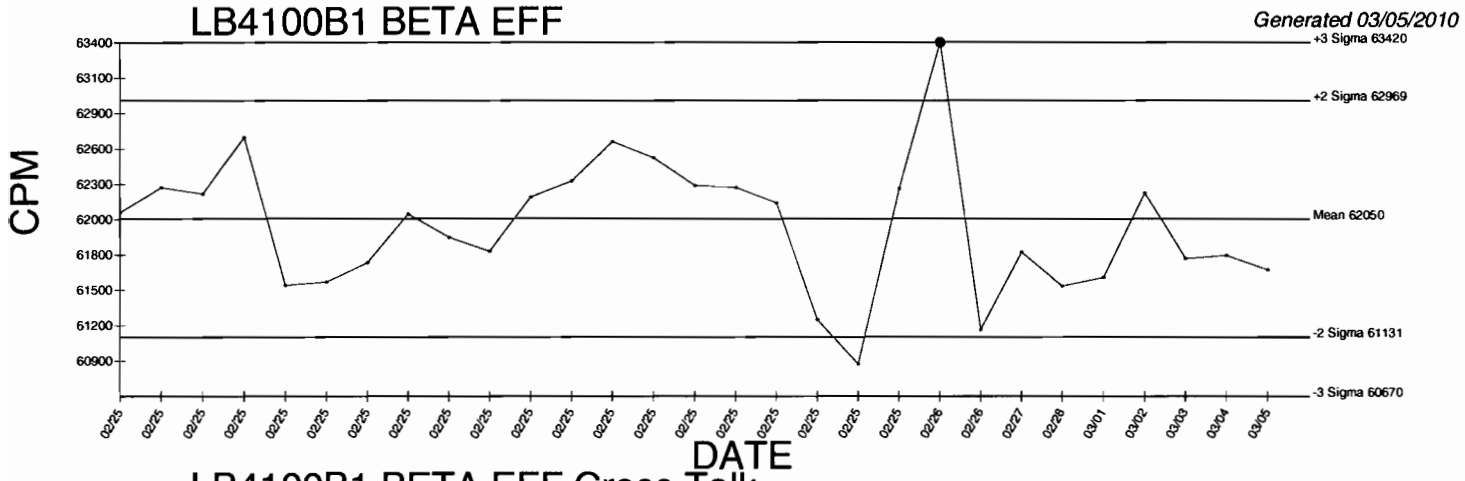

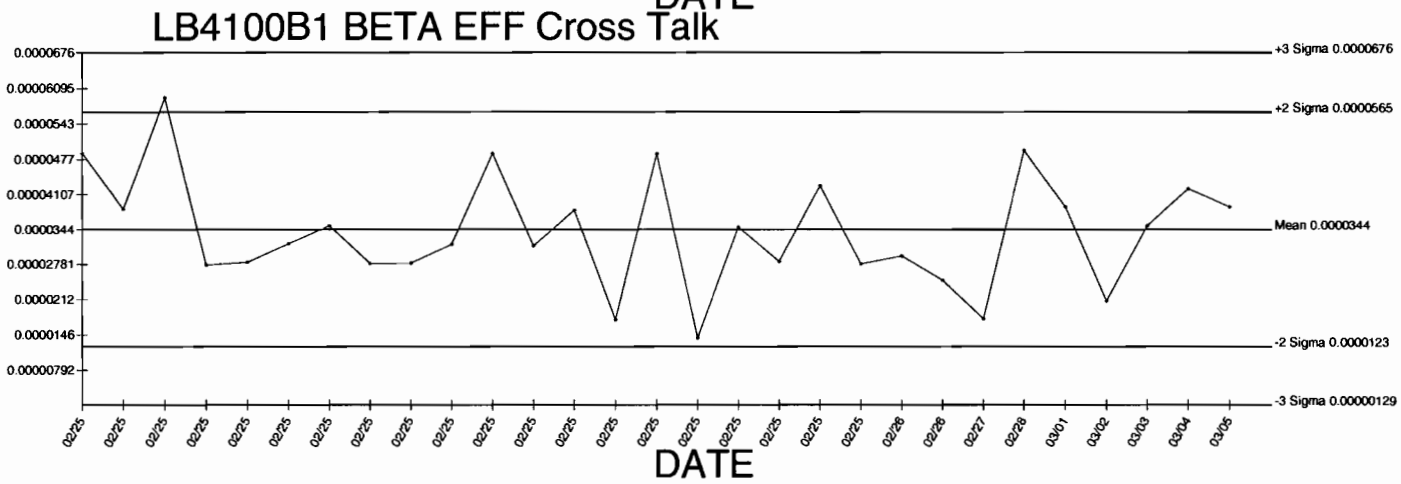

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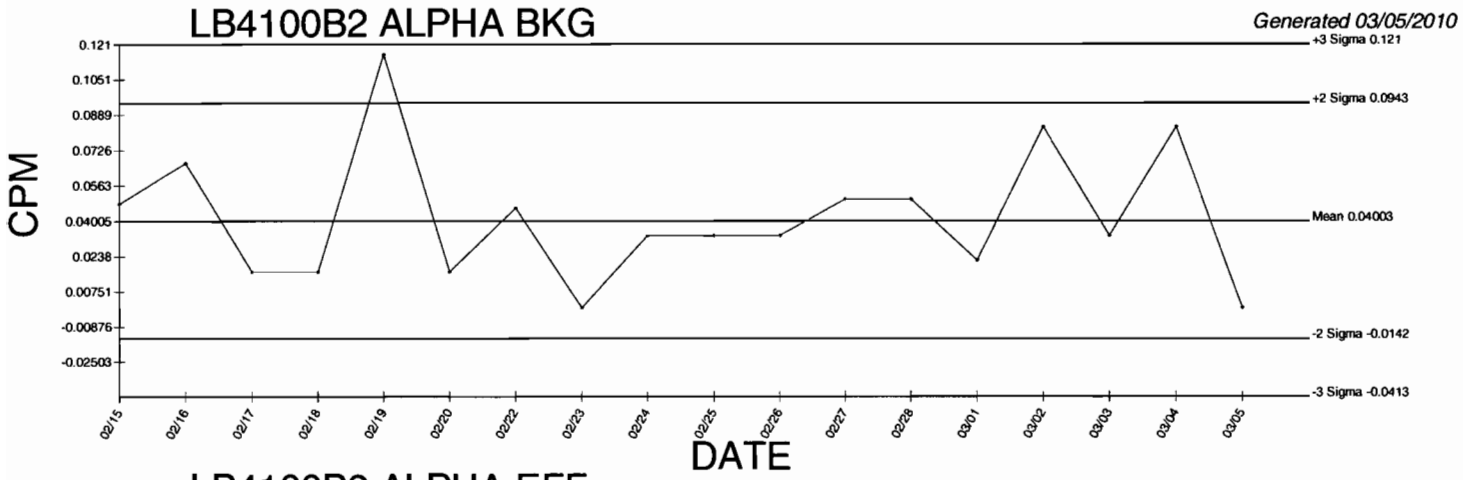

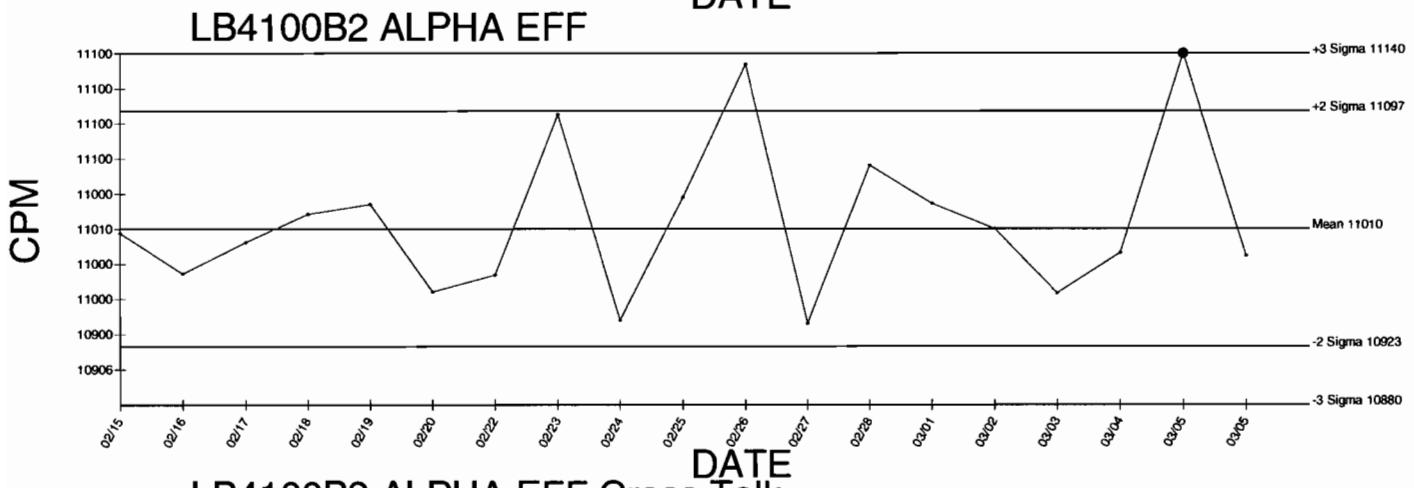

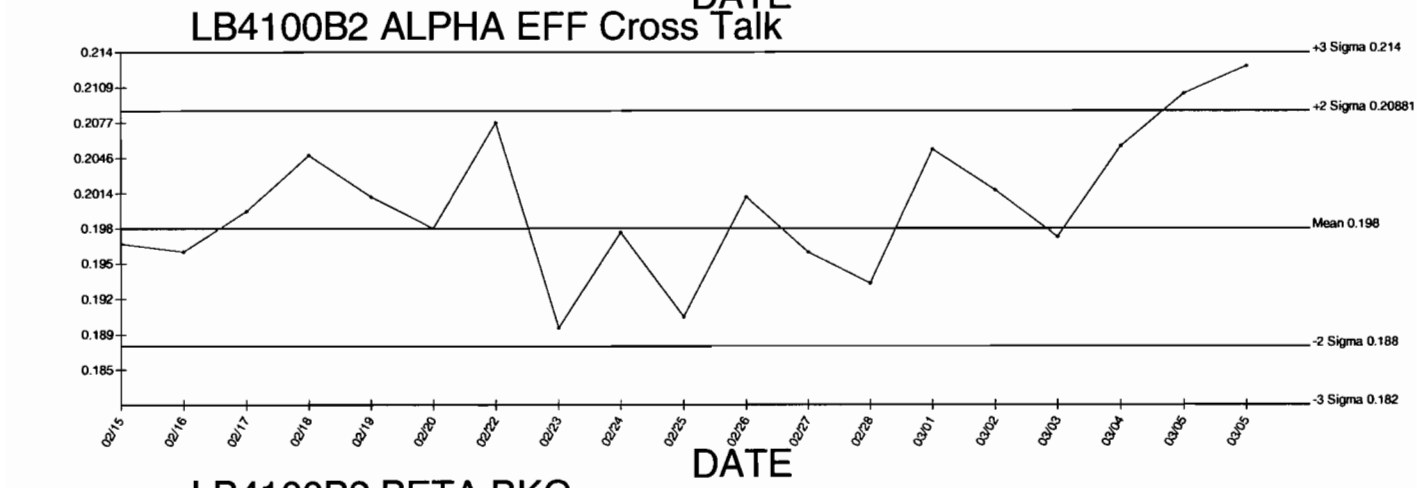

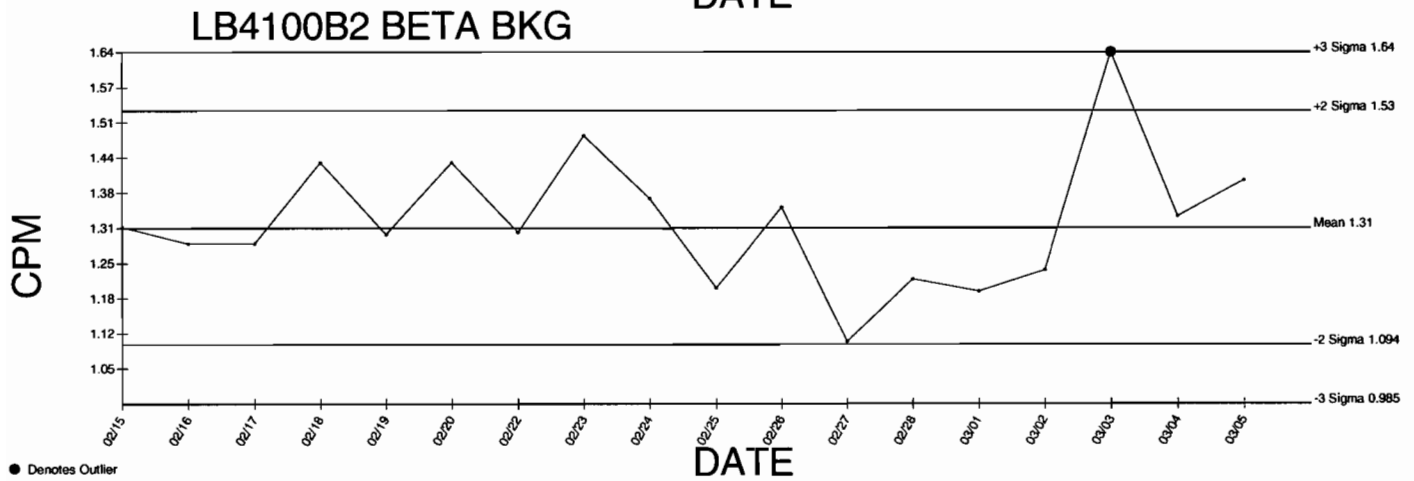

● Denotes Outlier

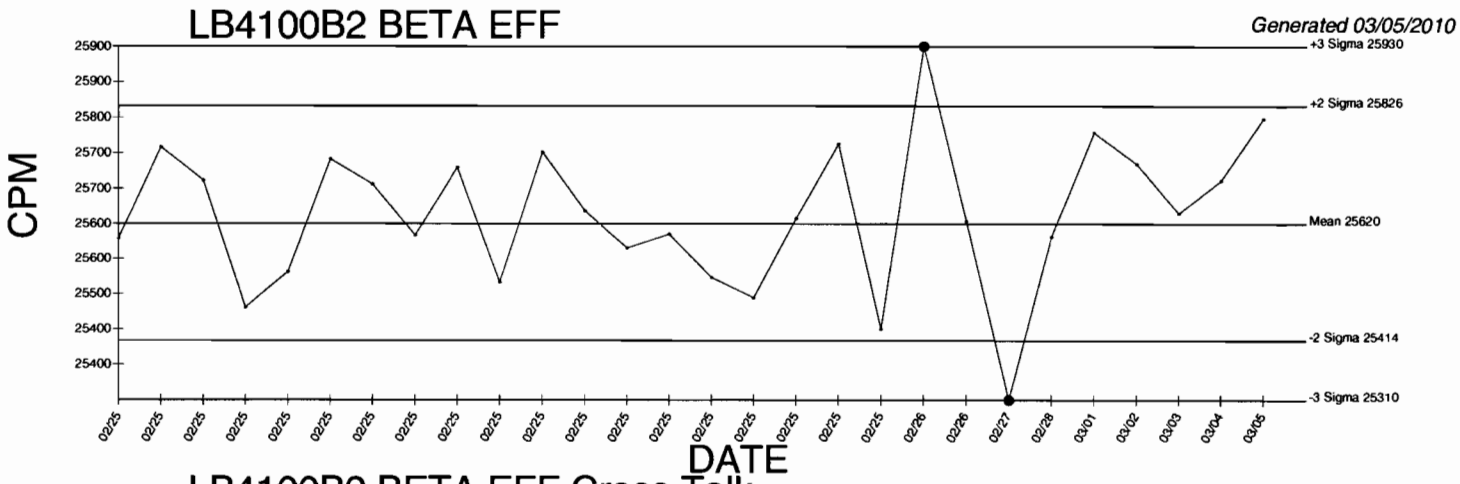

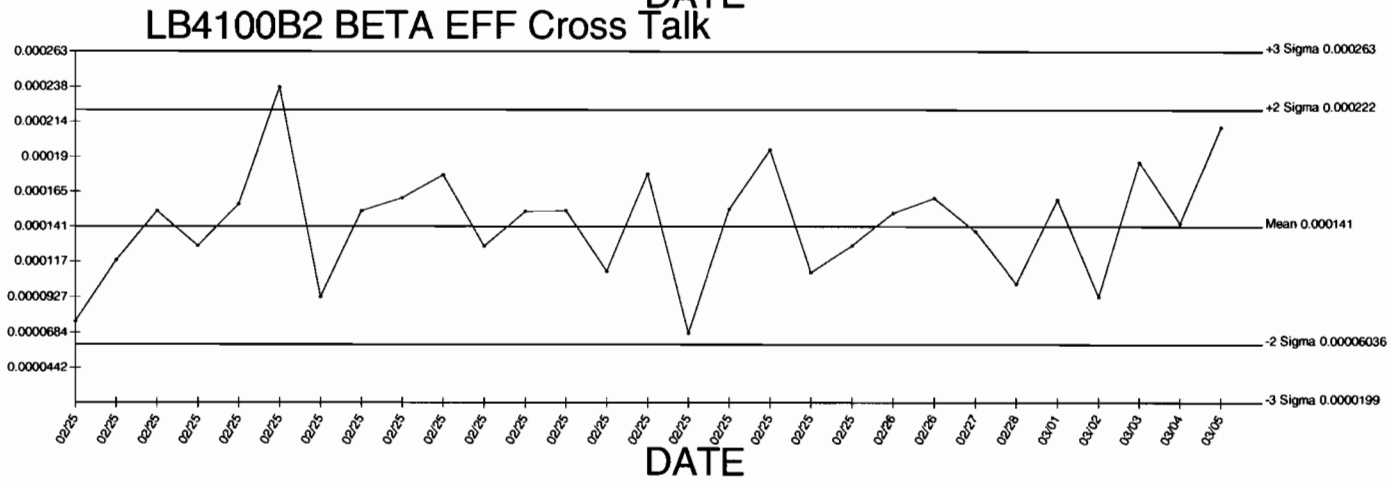

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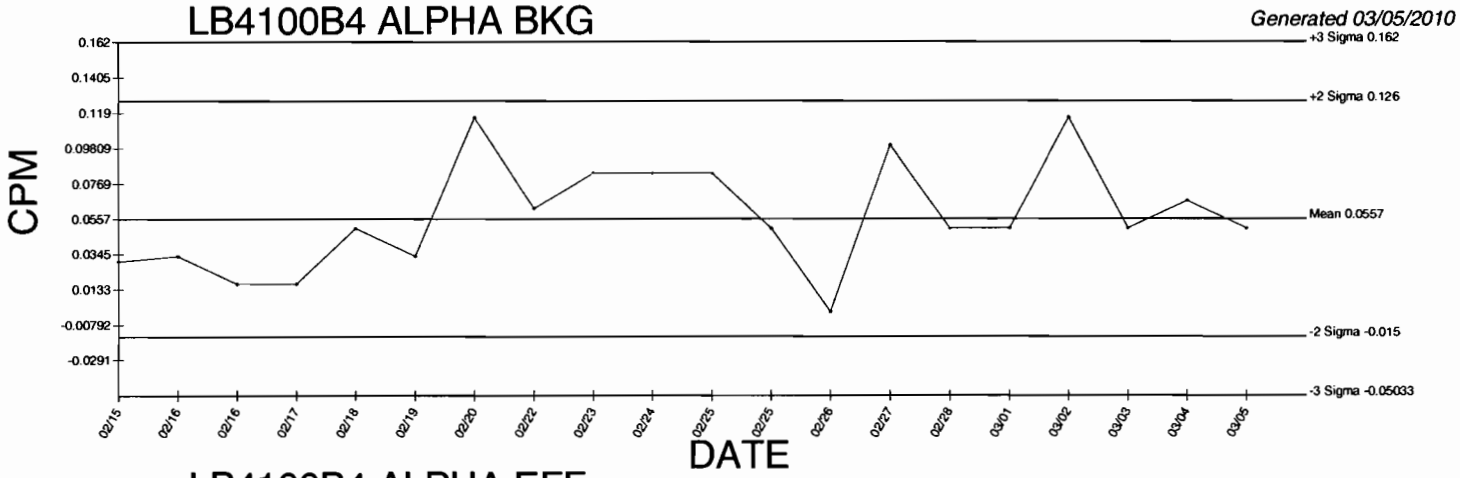

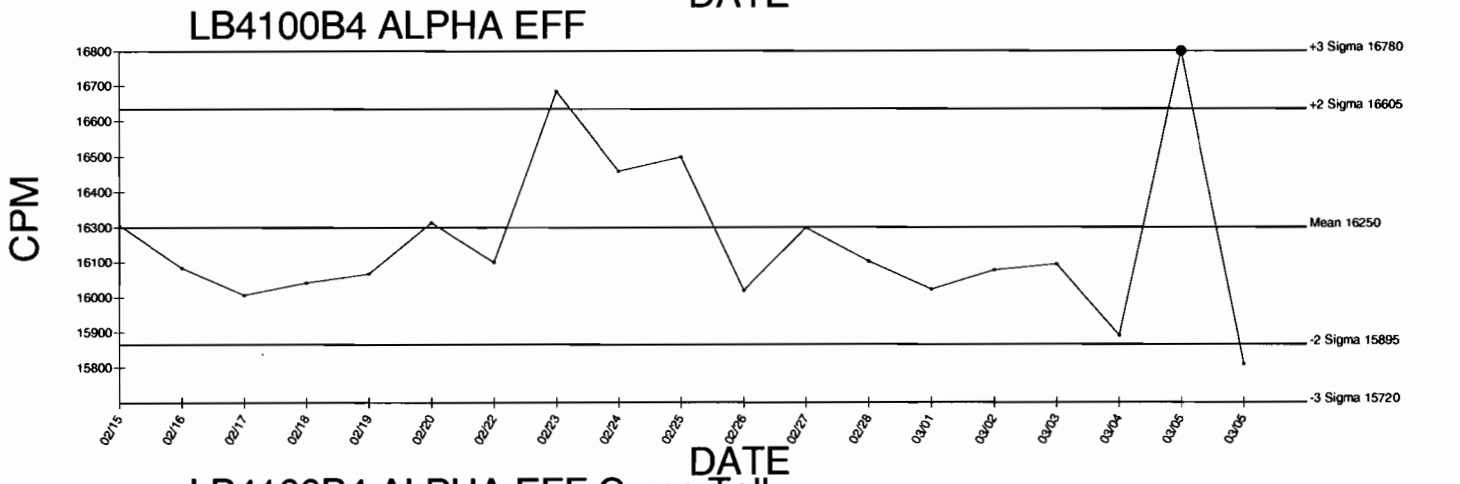

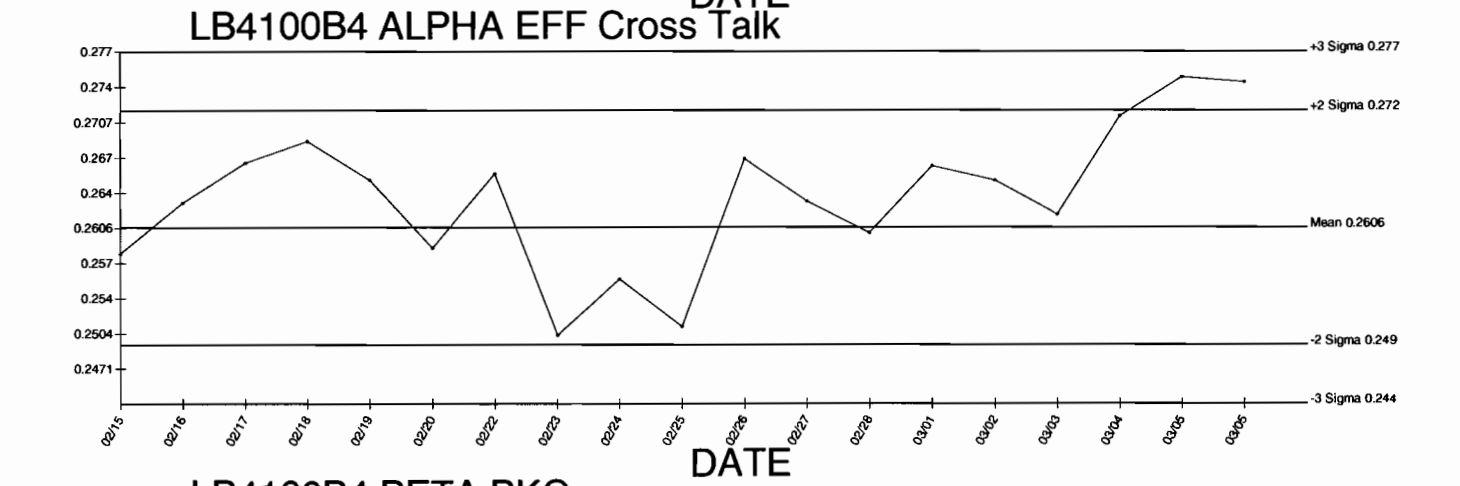

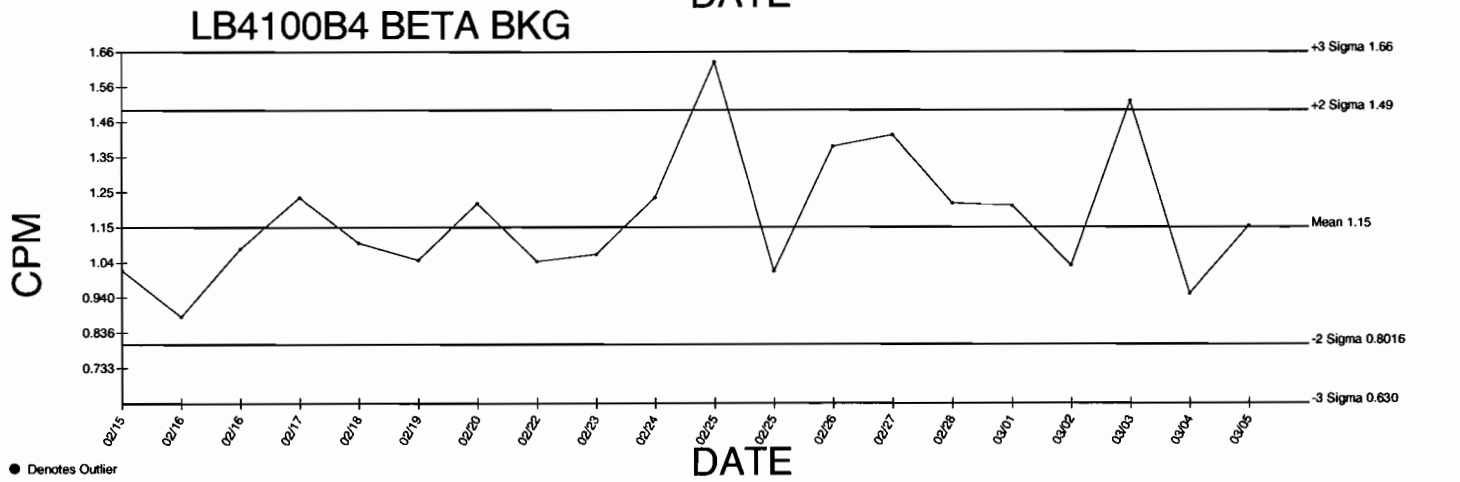

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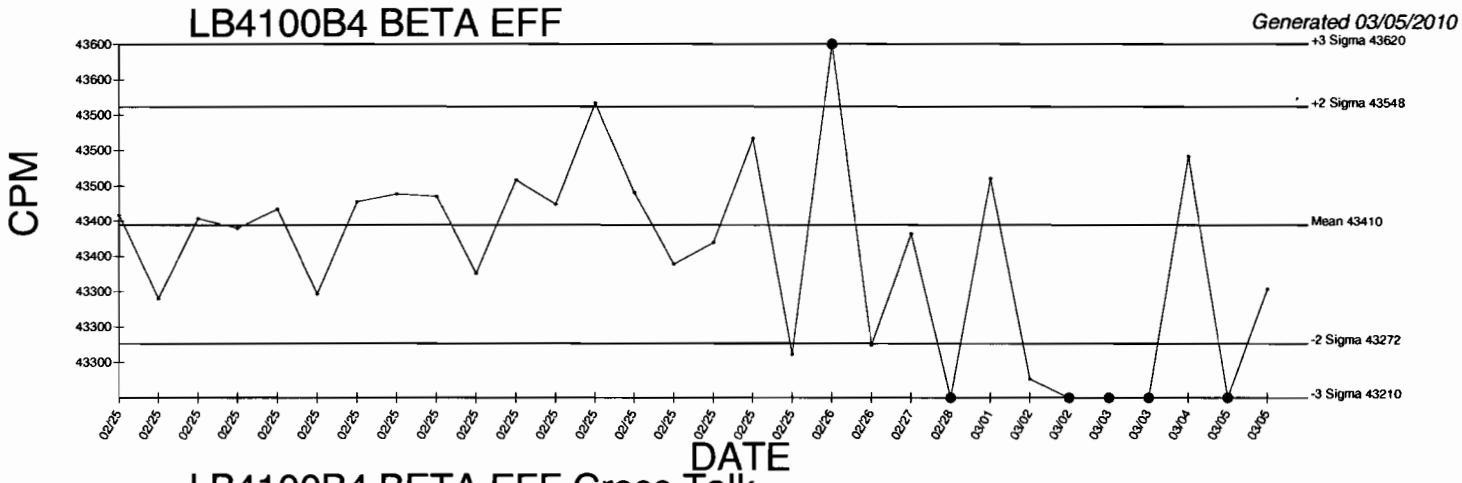

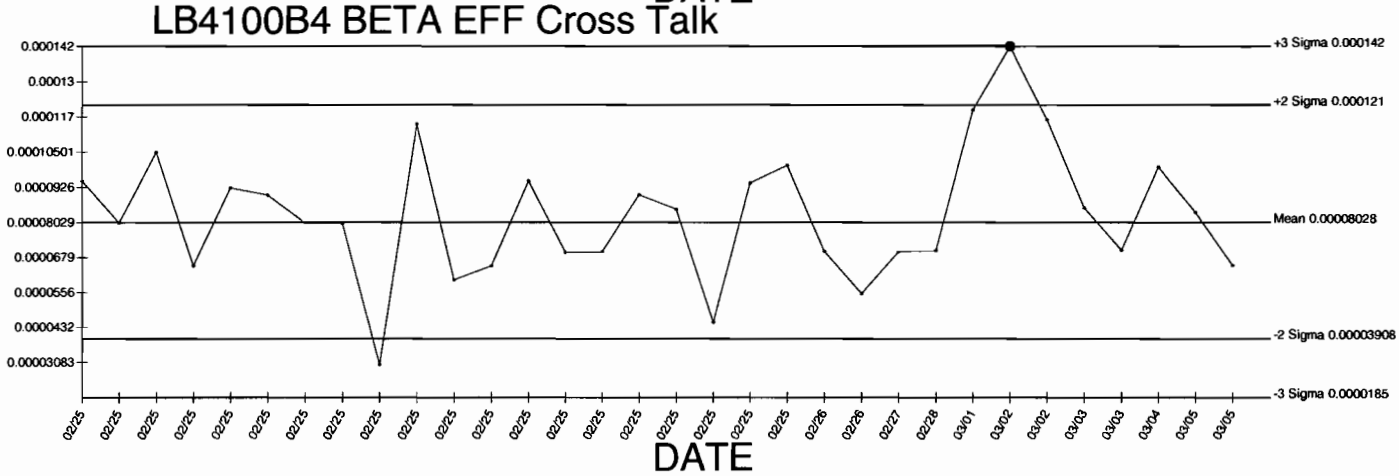

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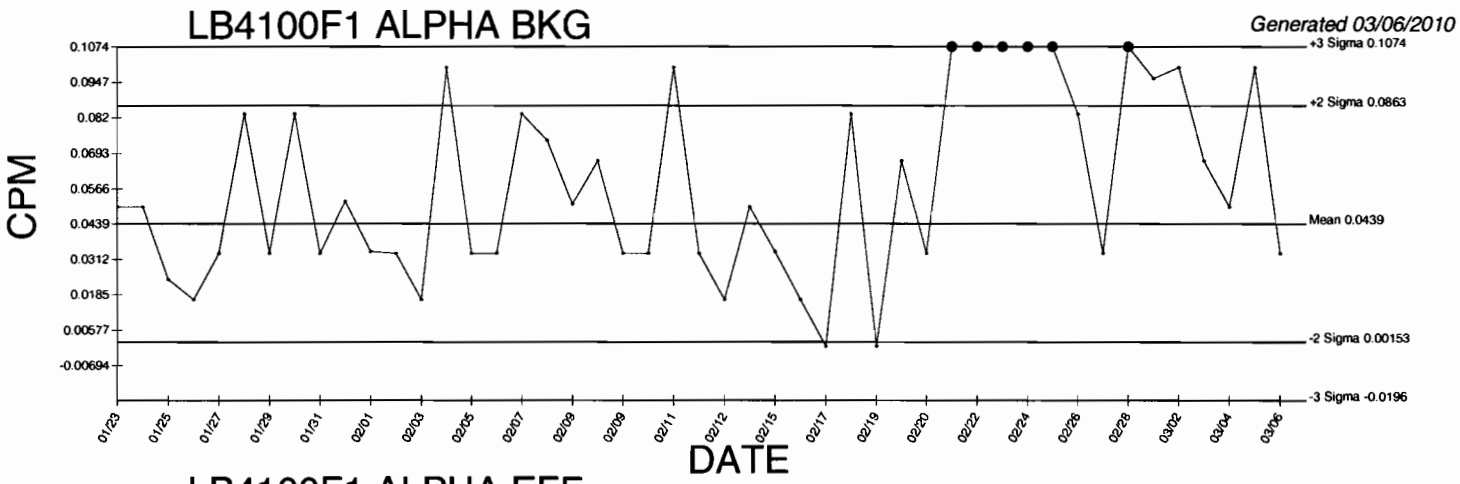

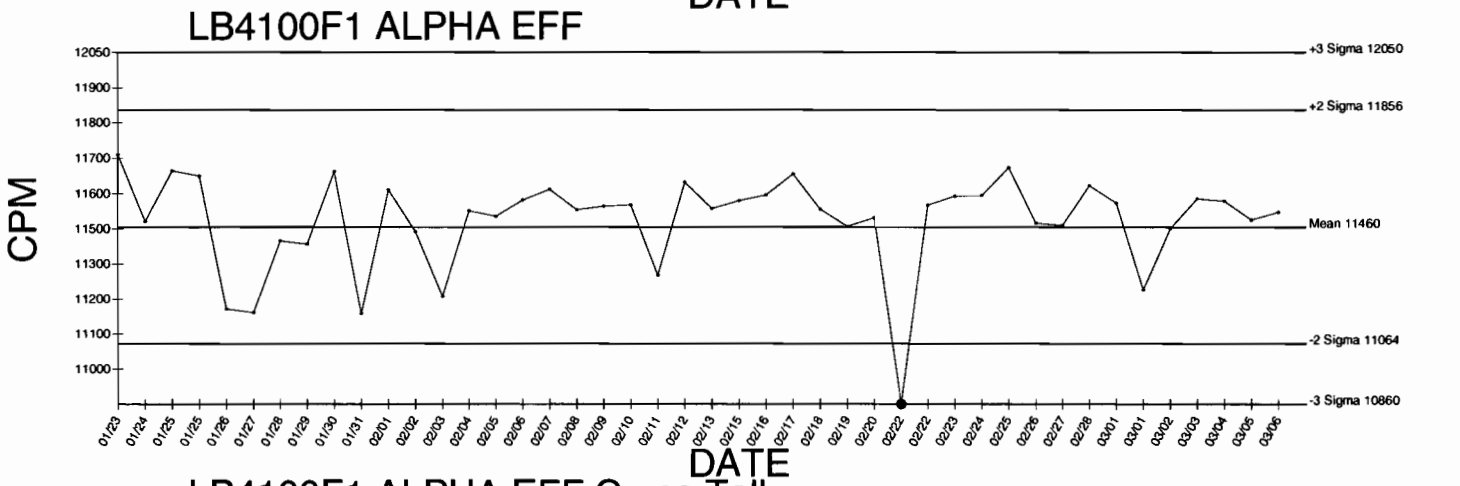

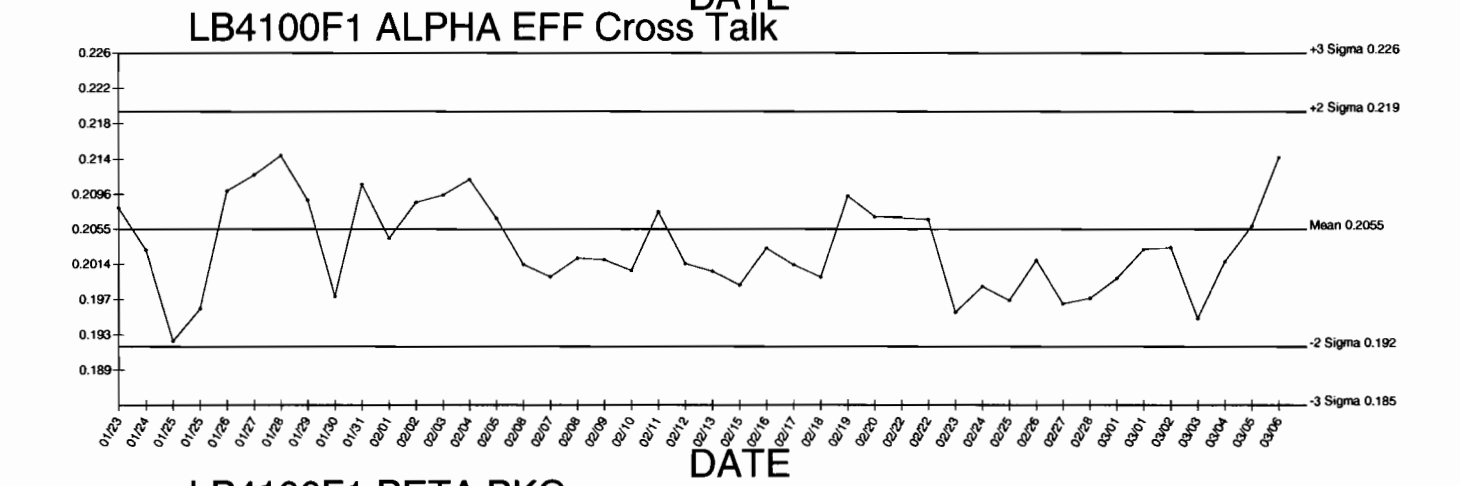

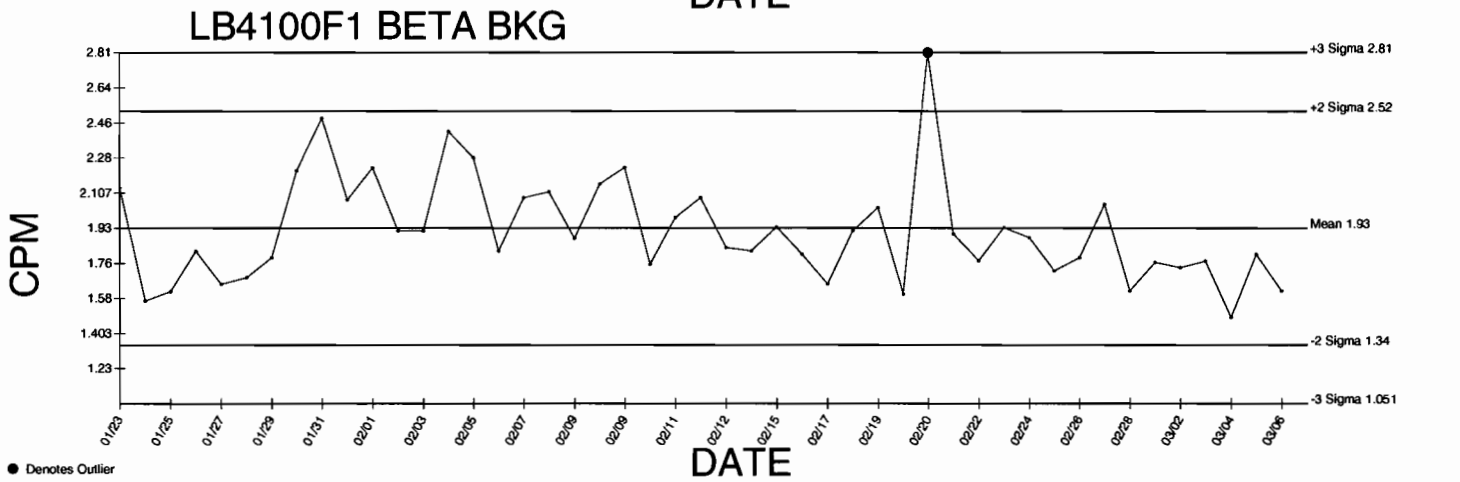

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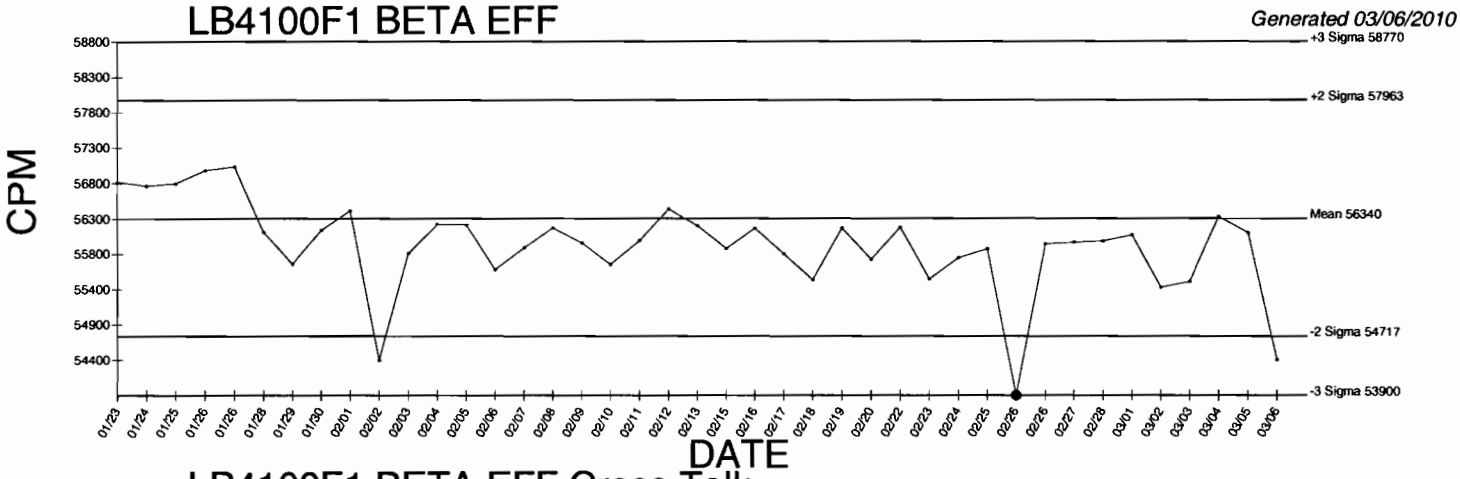

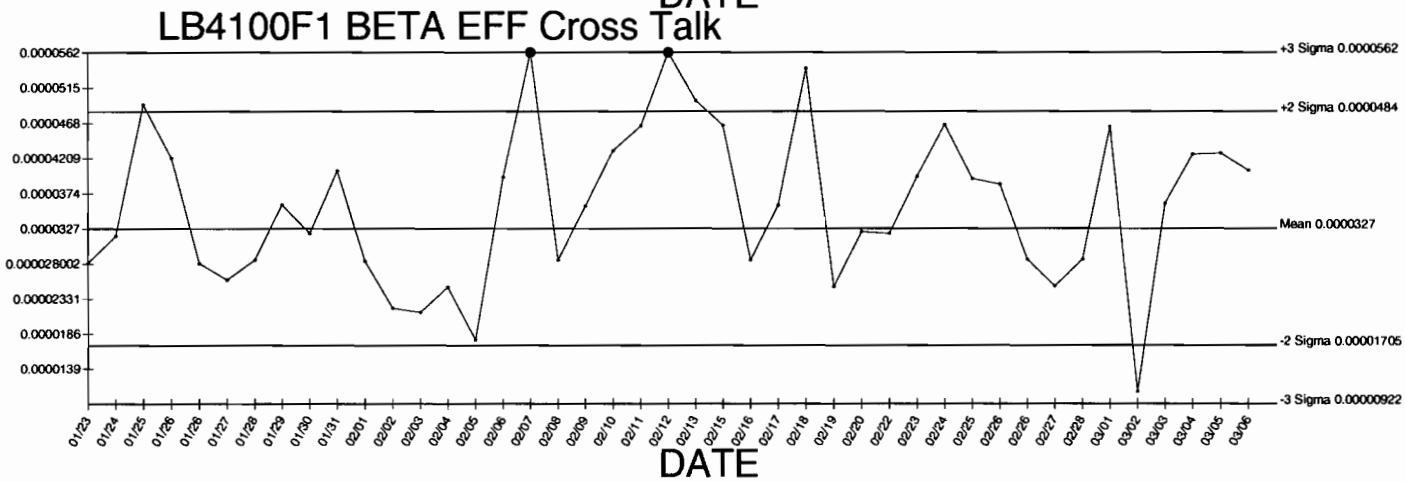

● Denotes Outlier

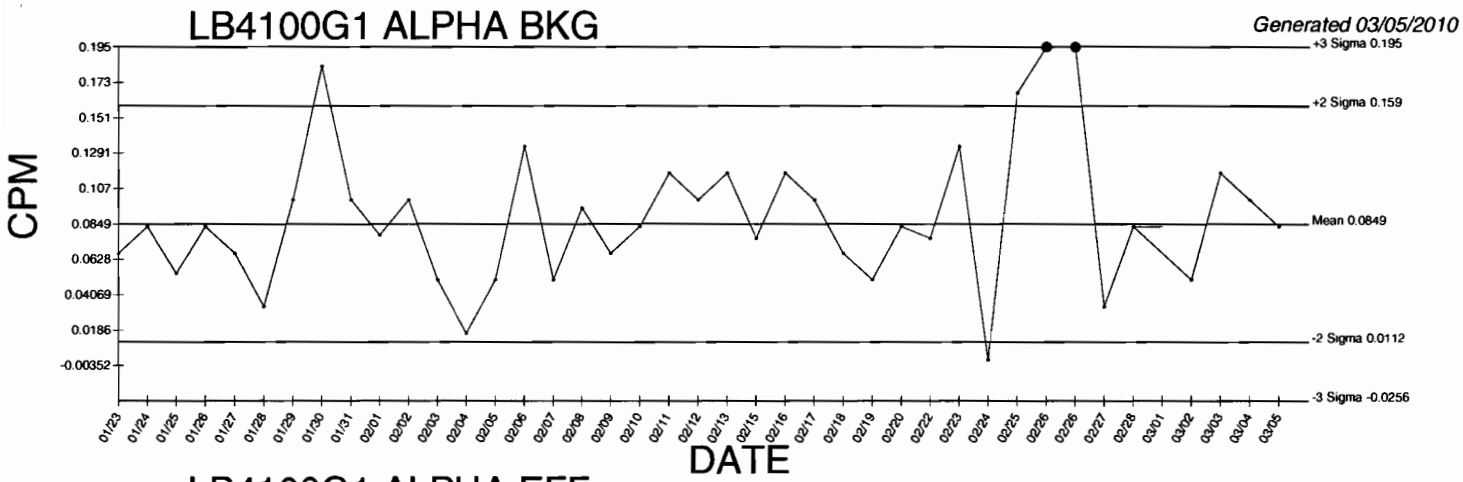

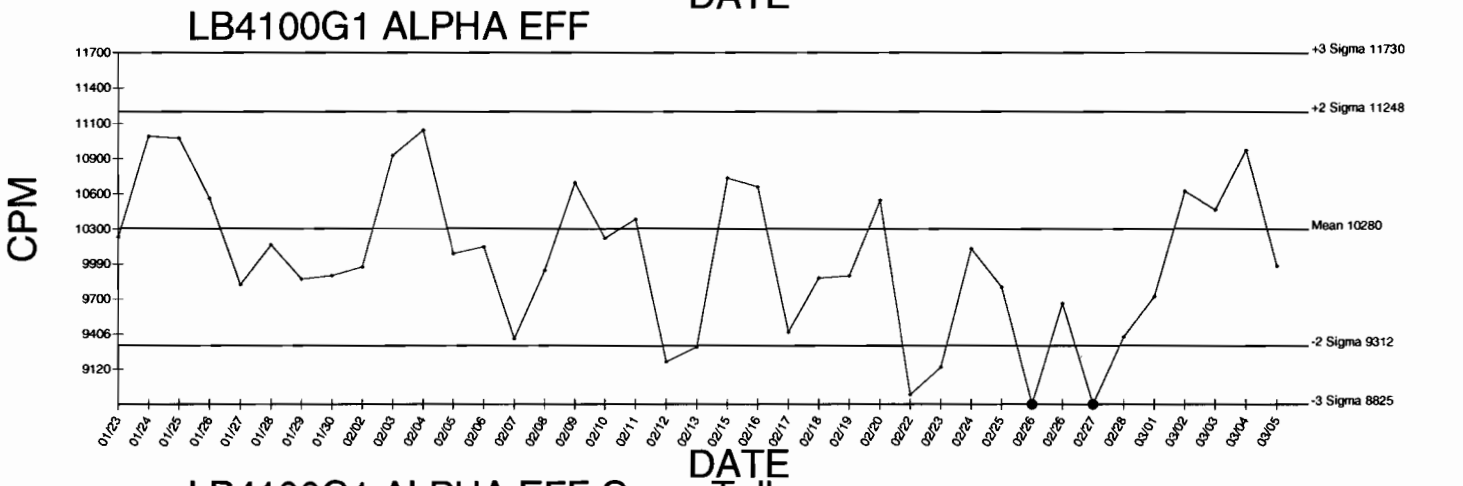

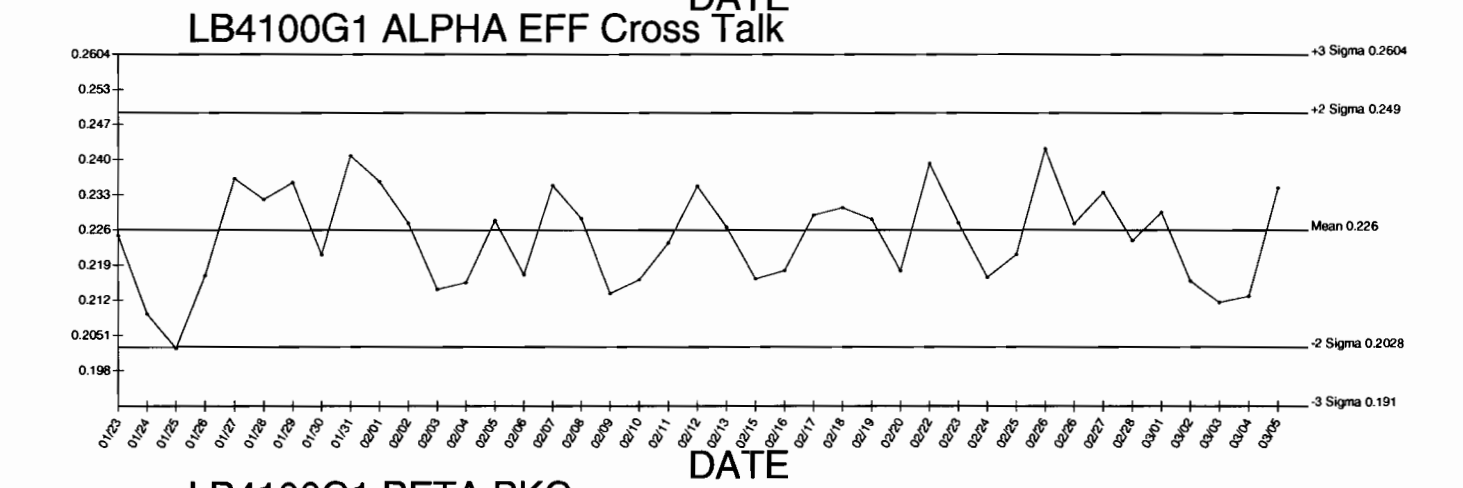

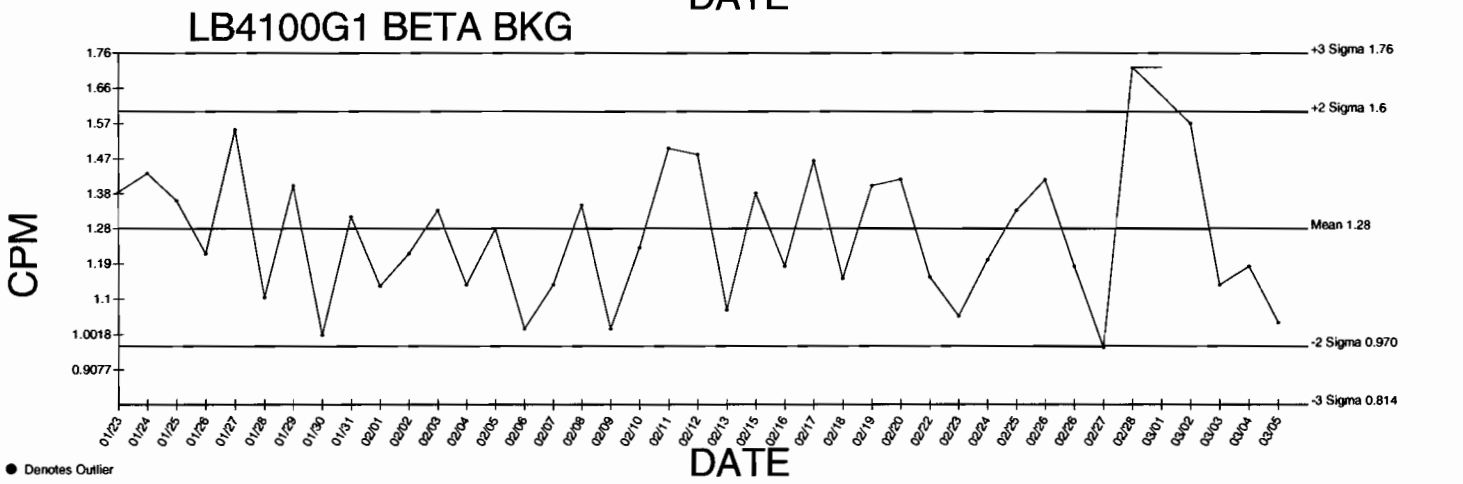

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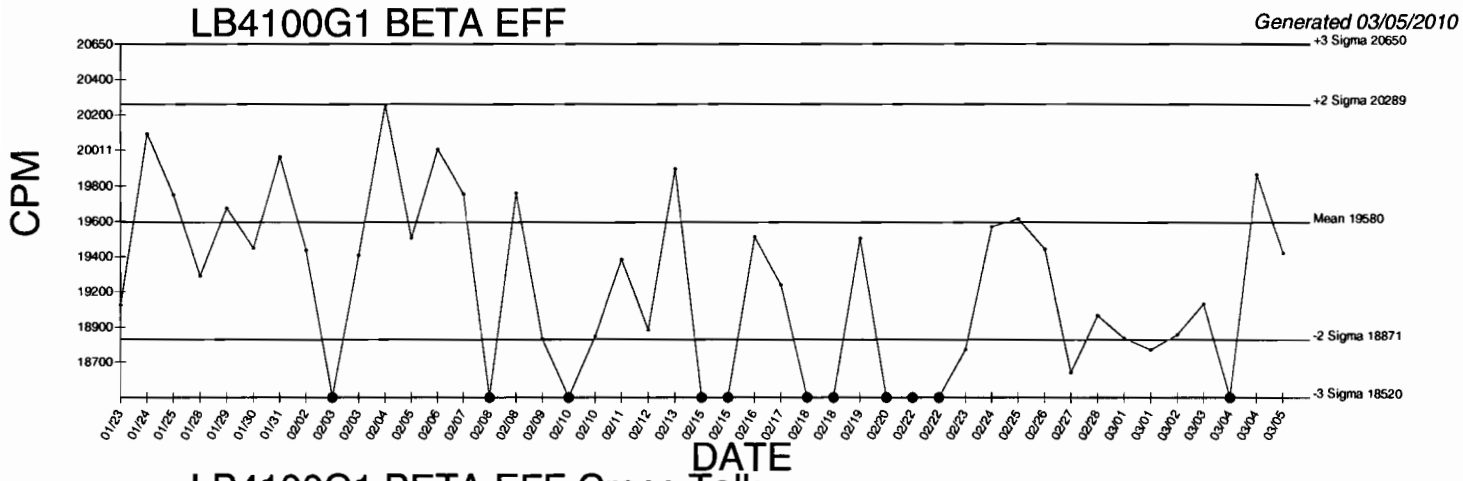

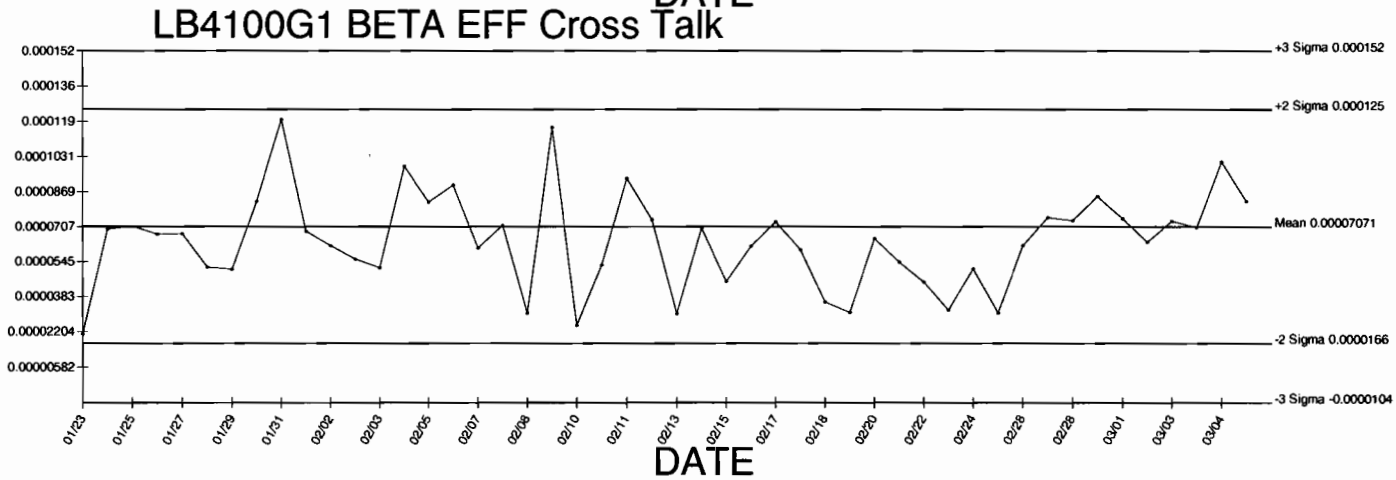

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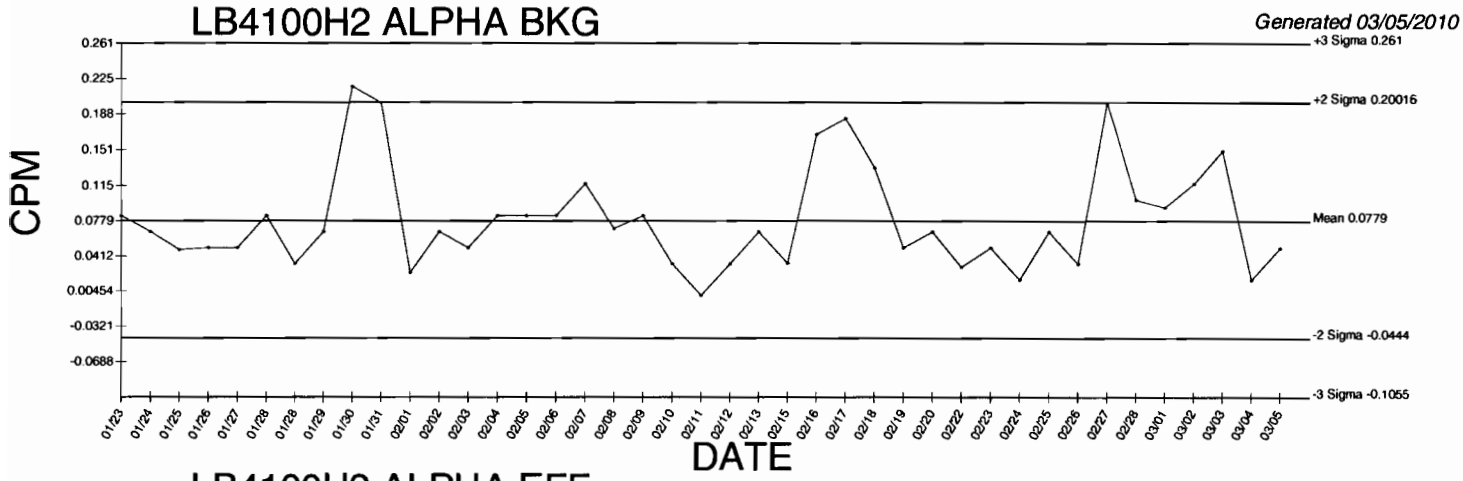

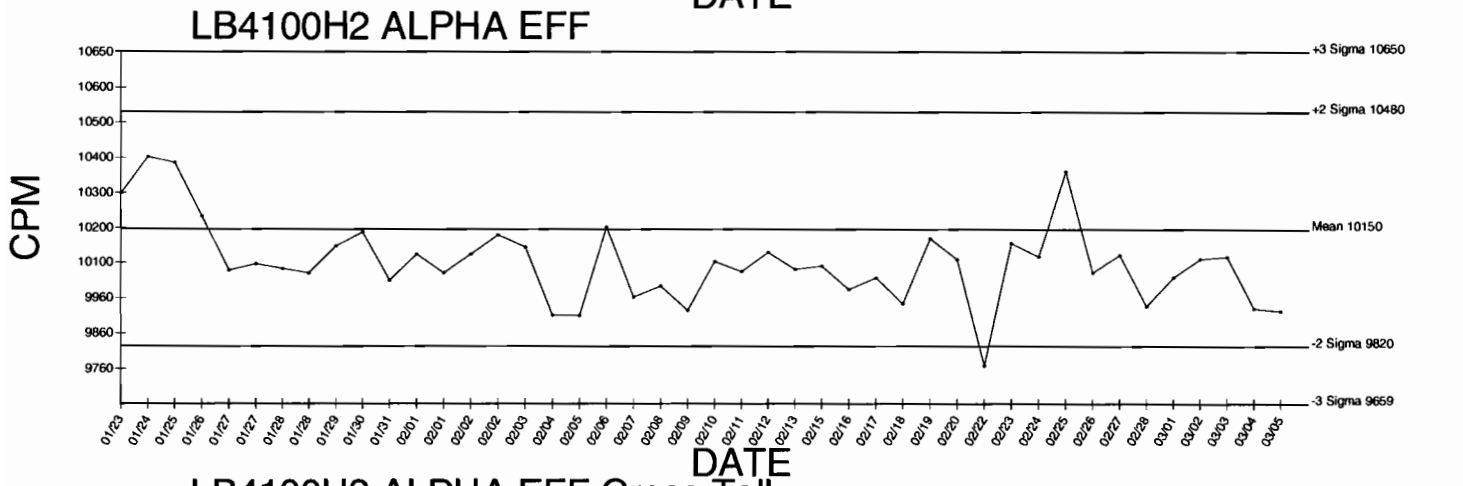

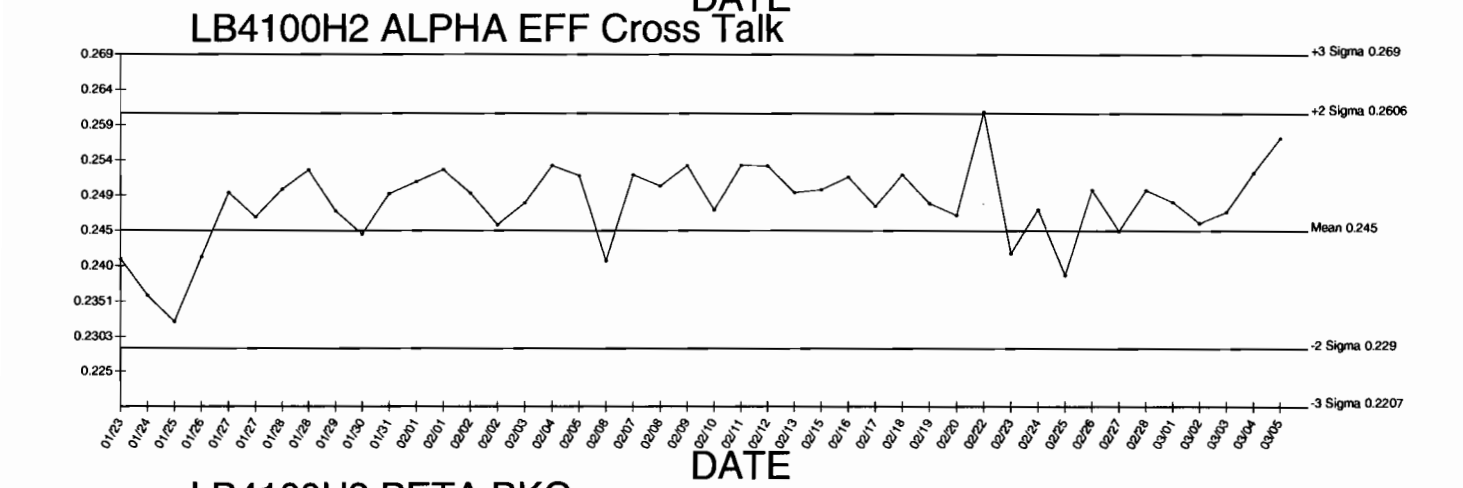

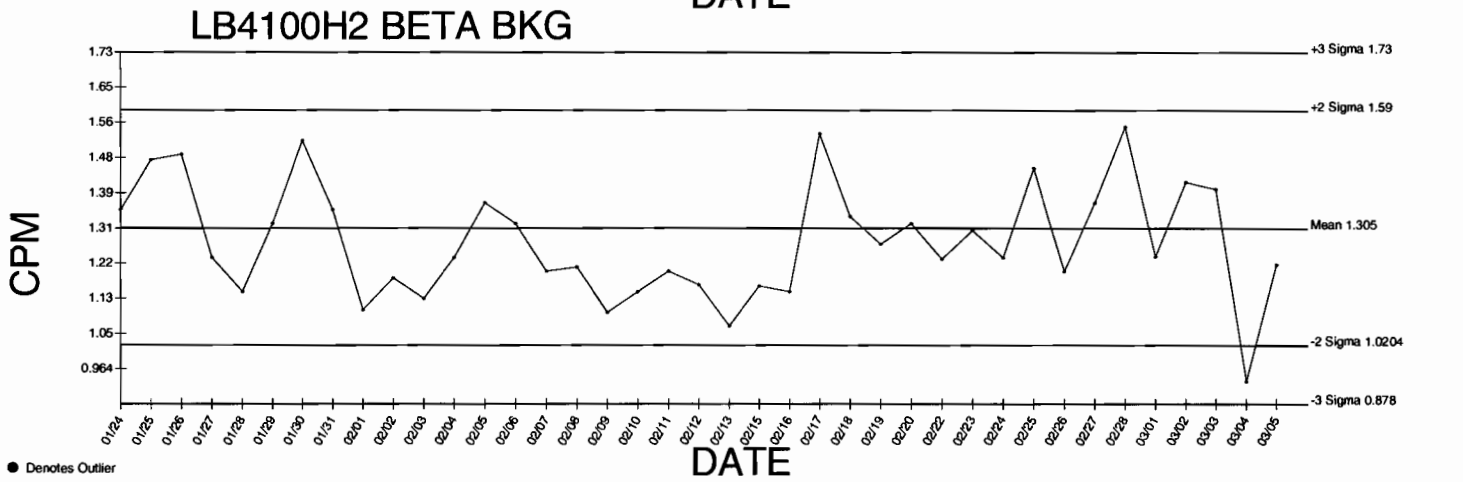

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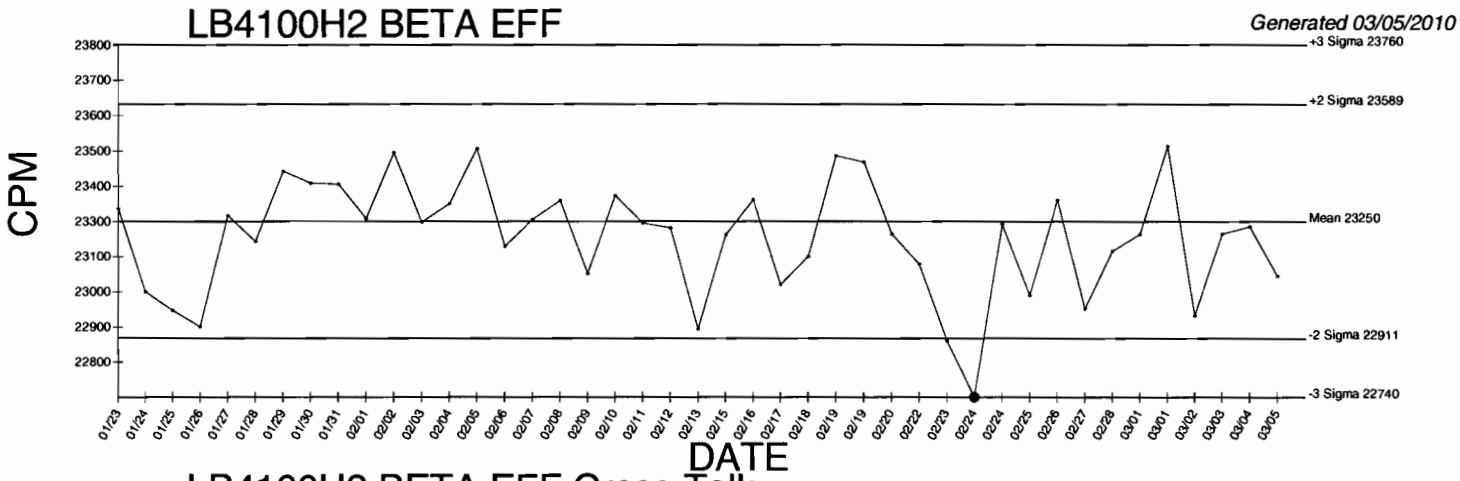

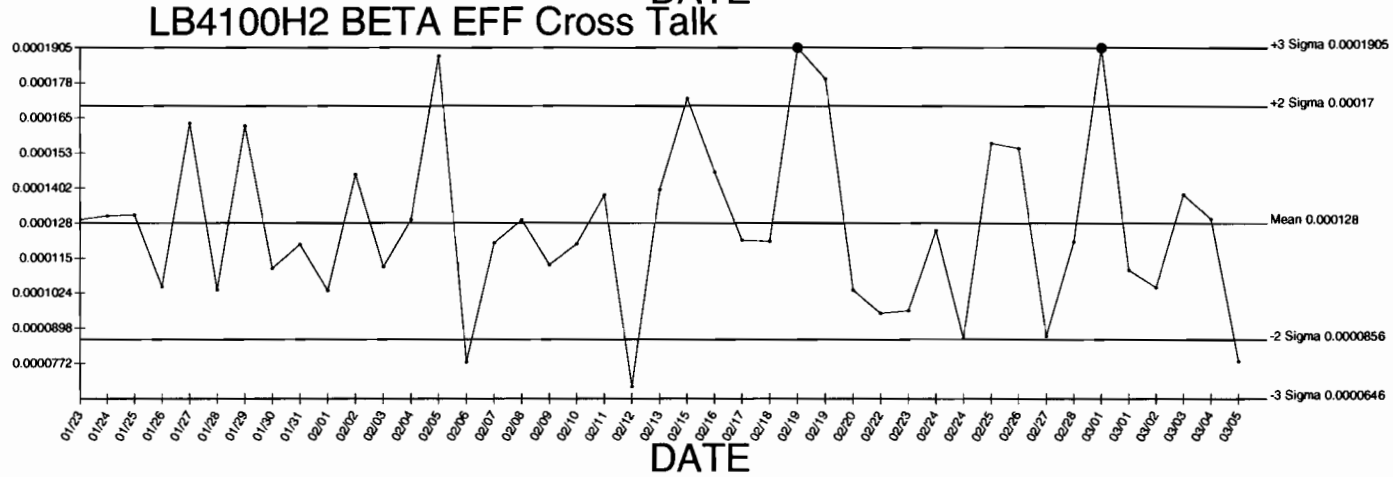

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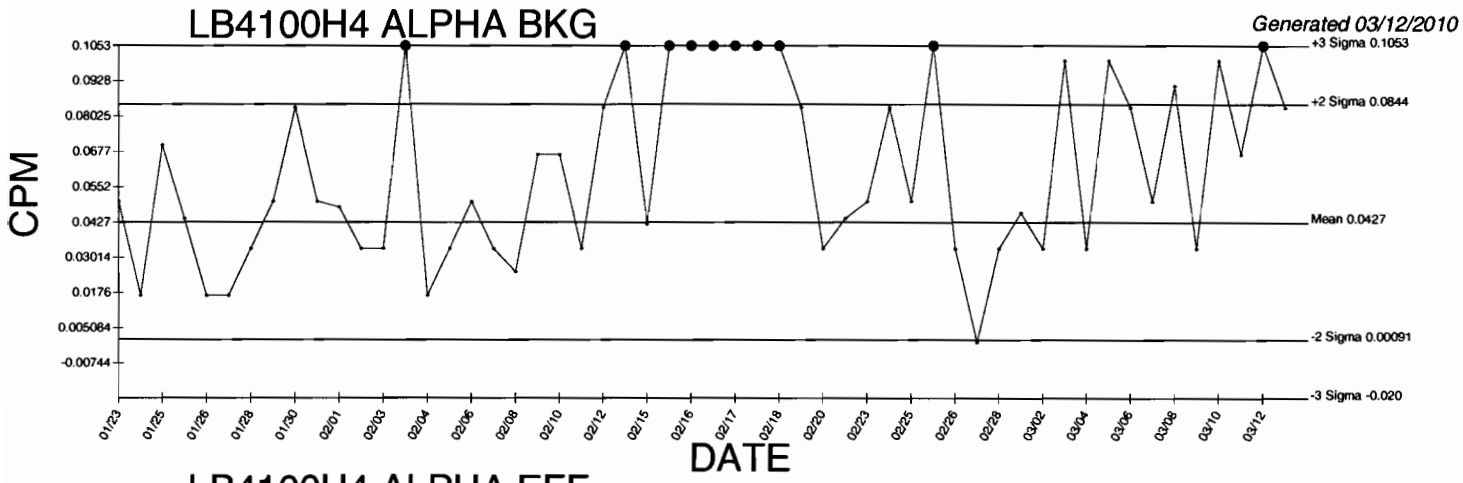

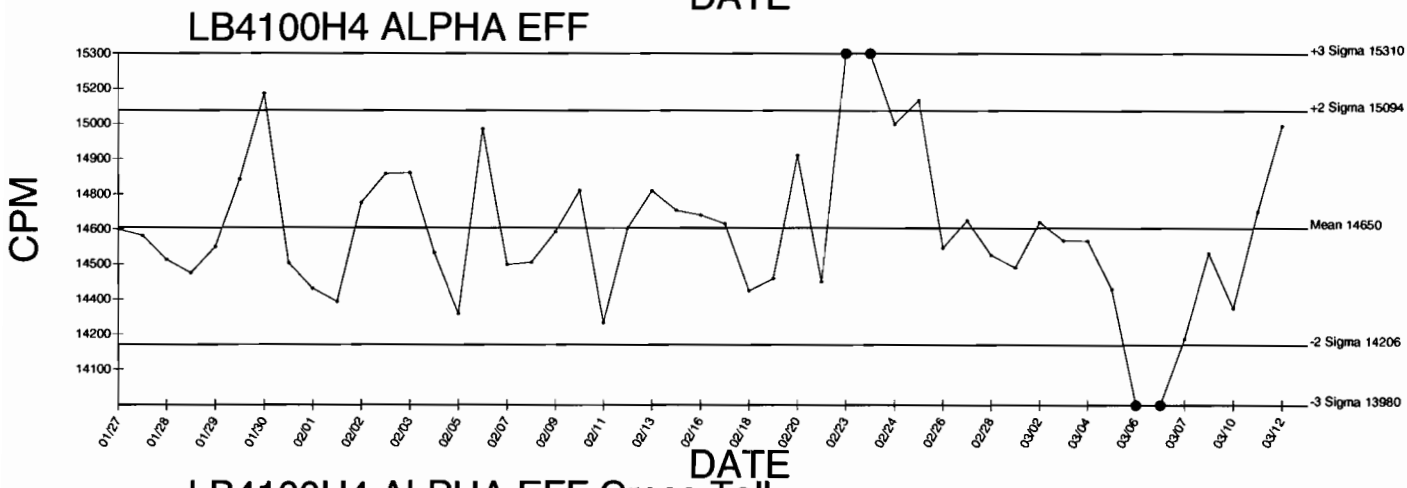

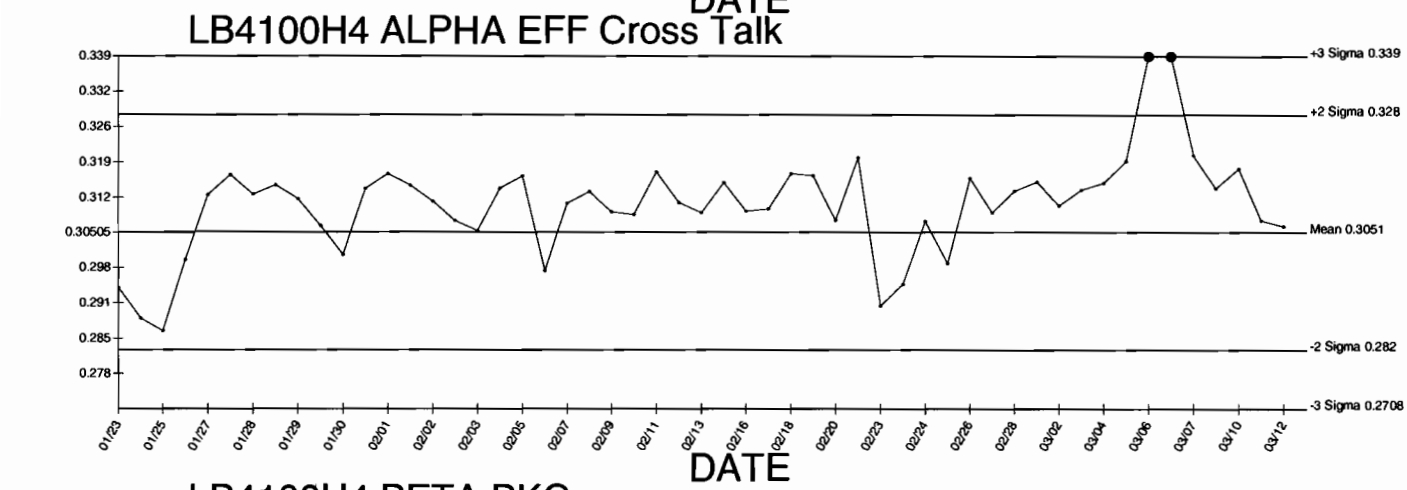

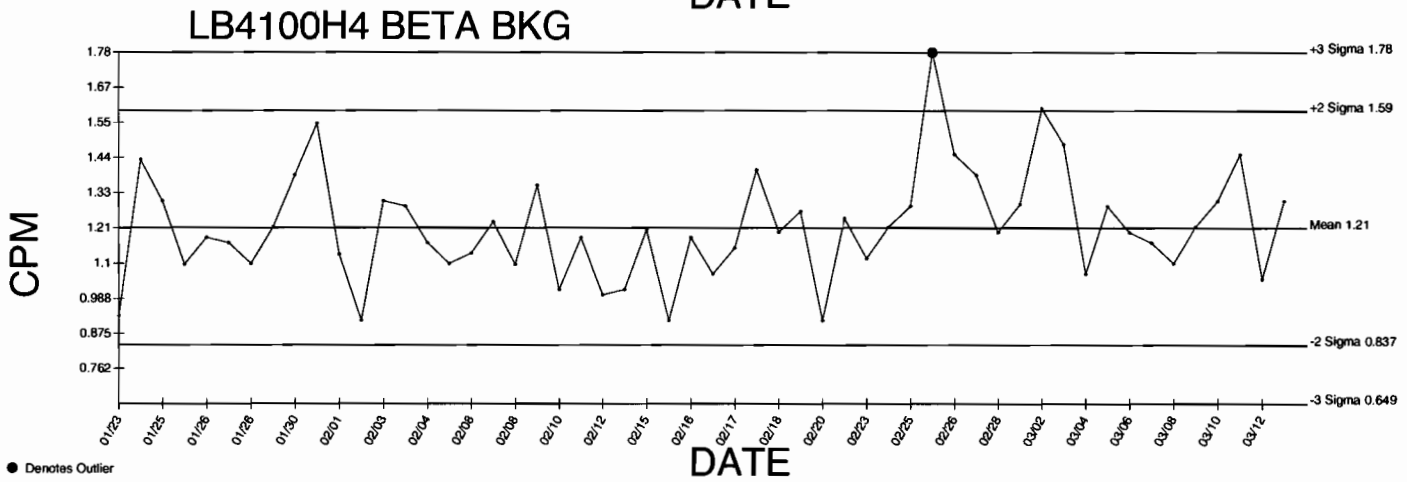

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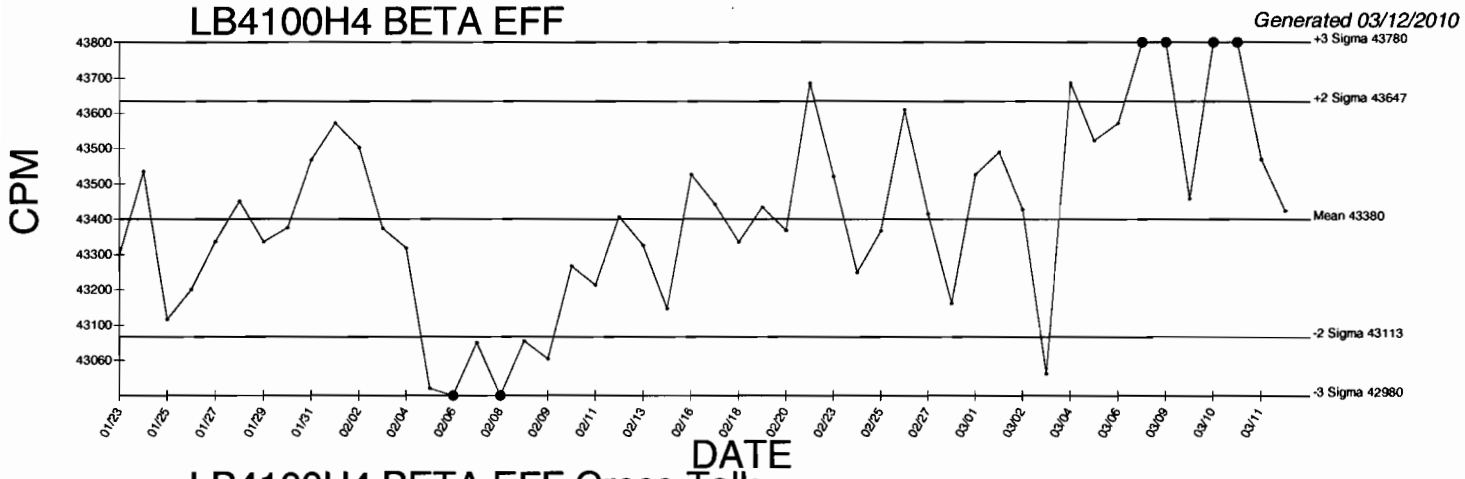

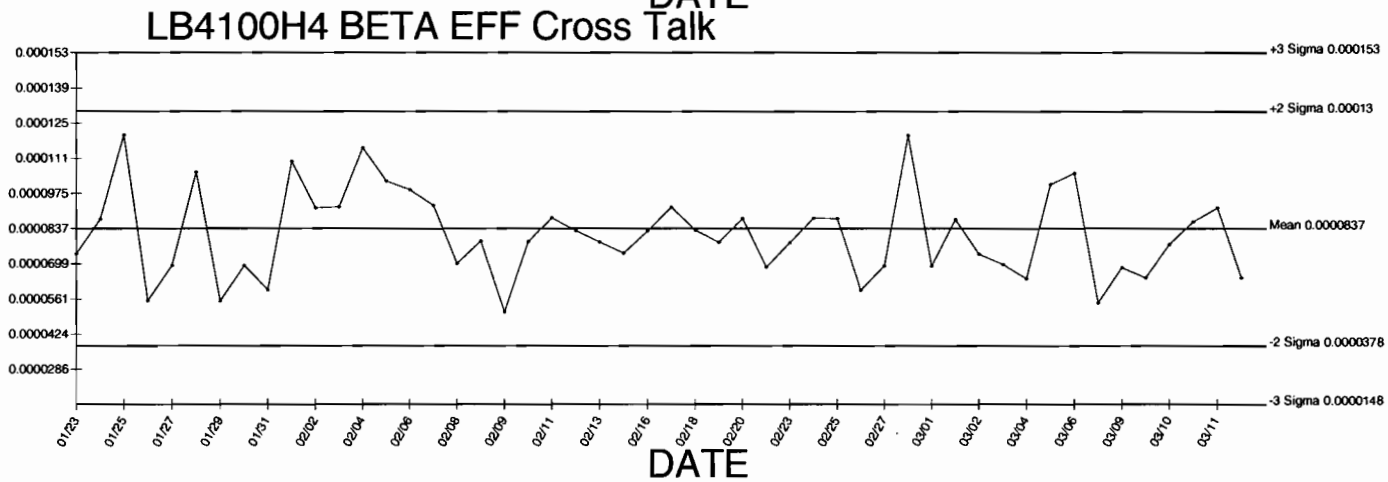

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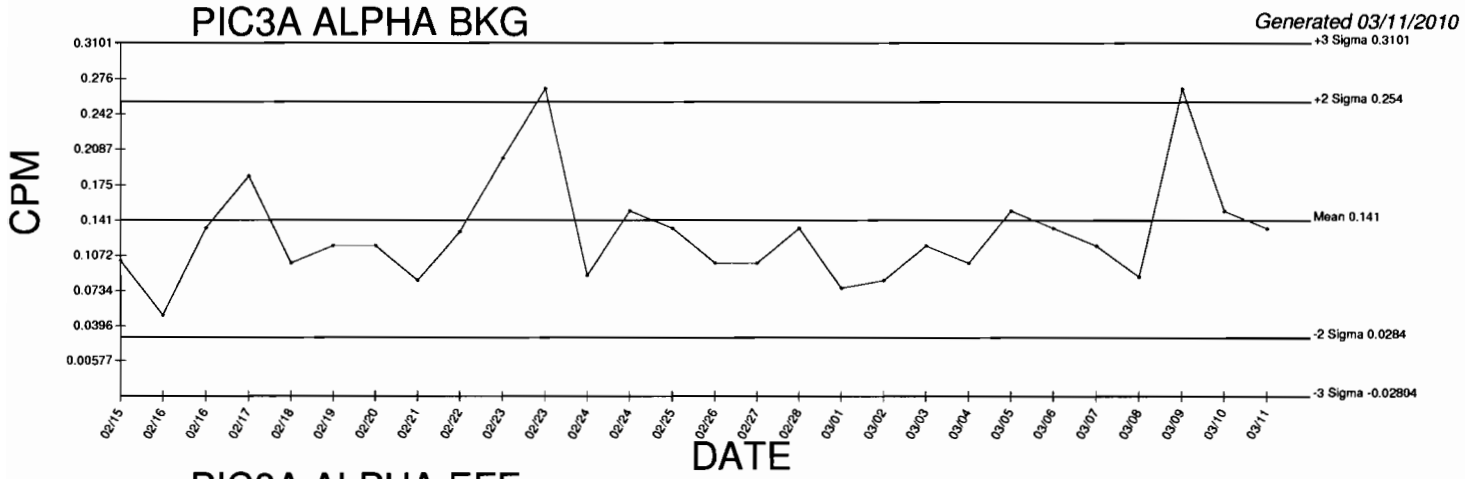

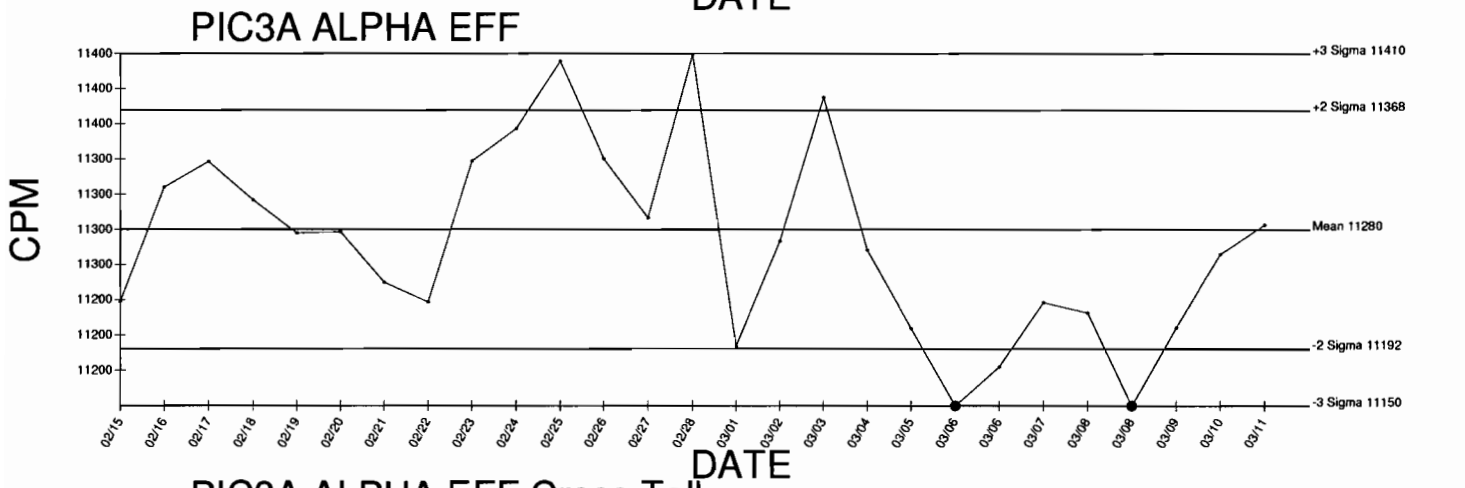

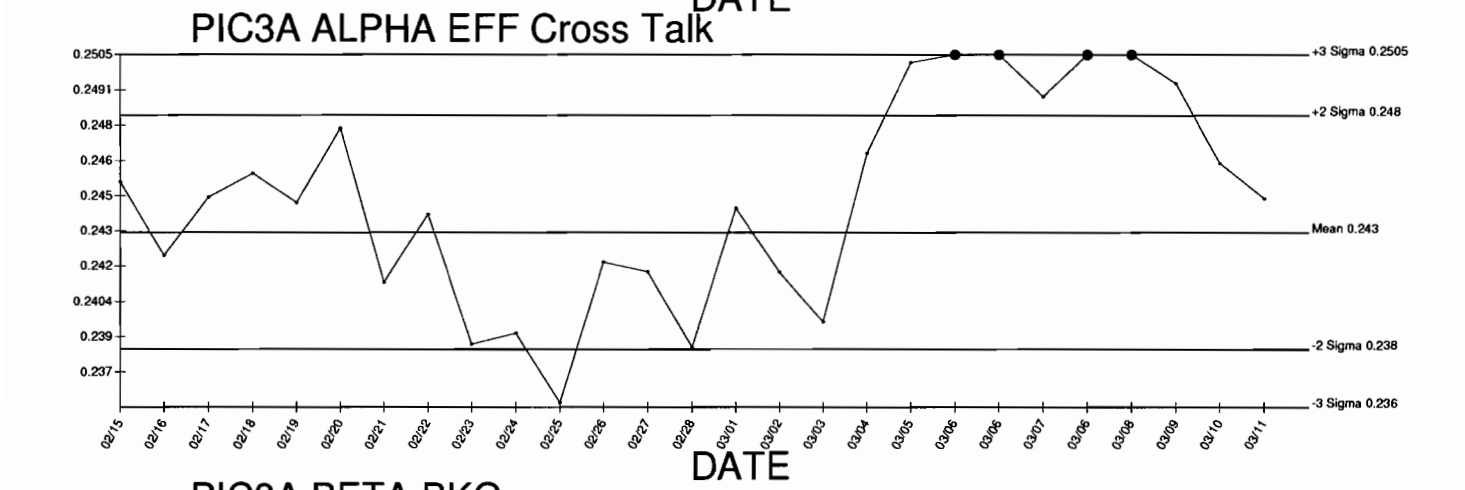

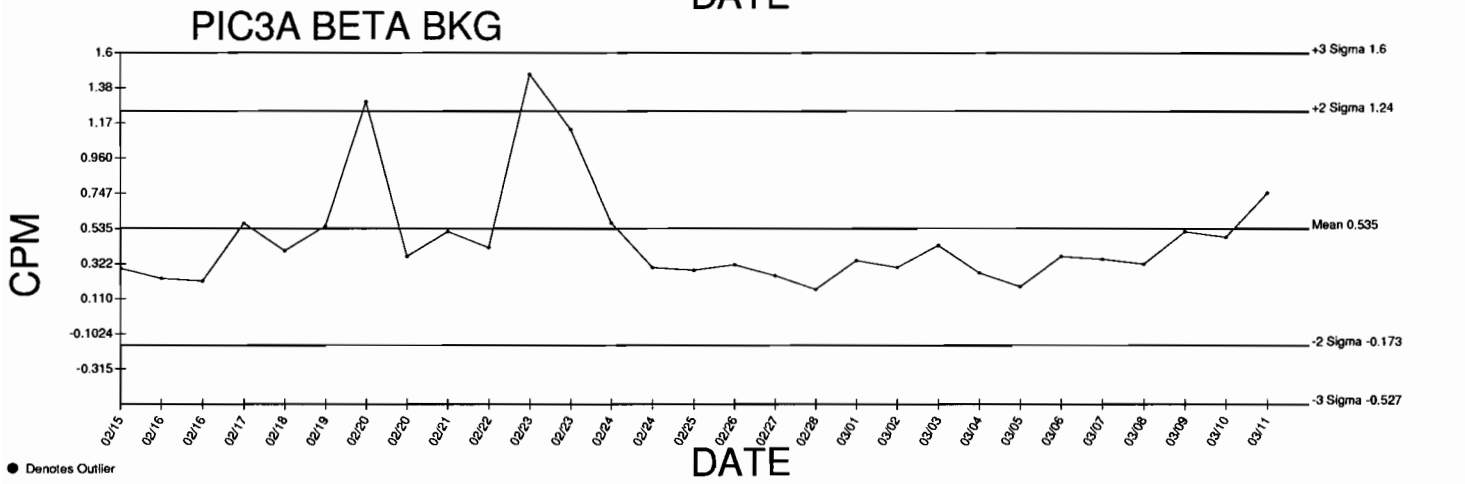

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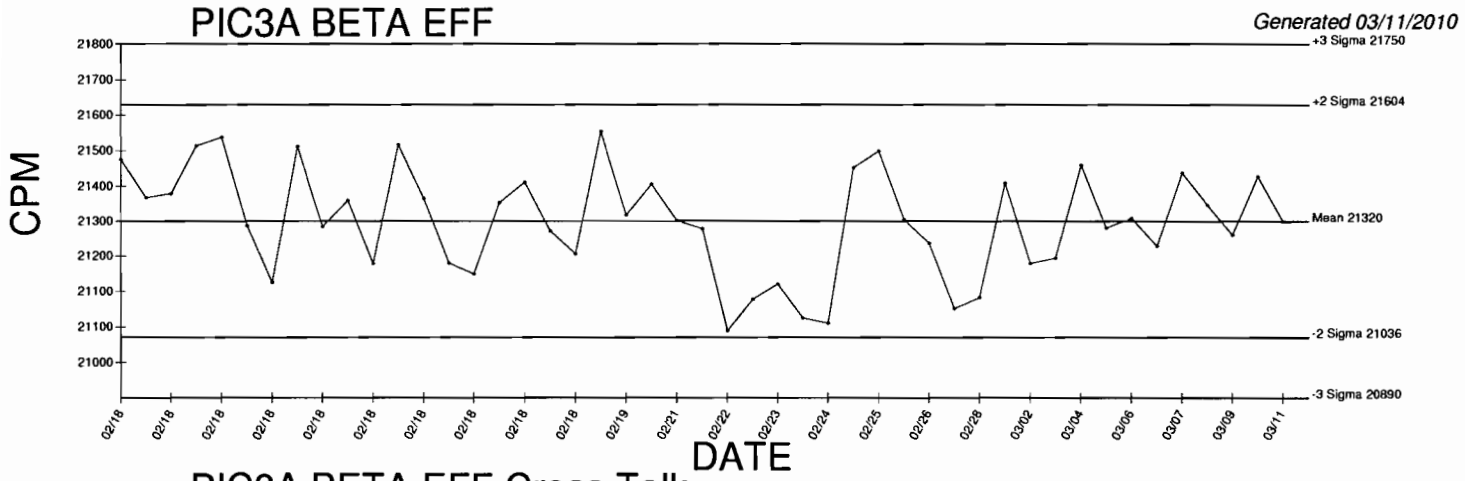

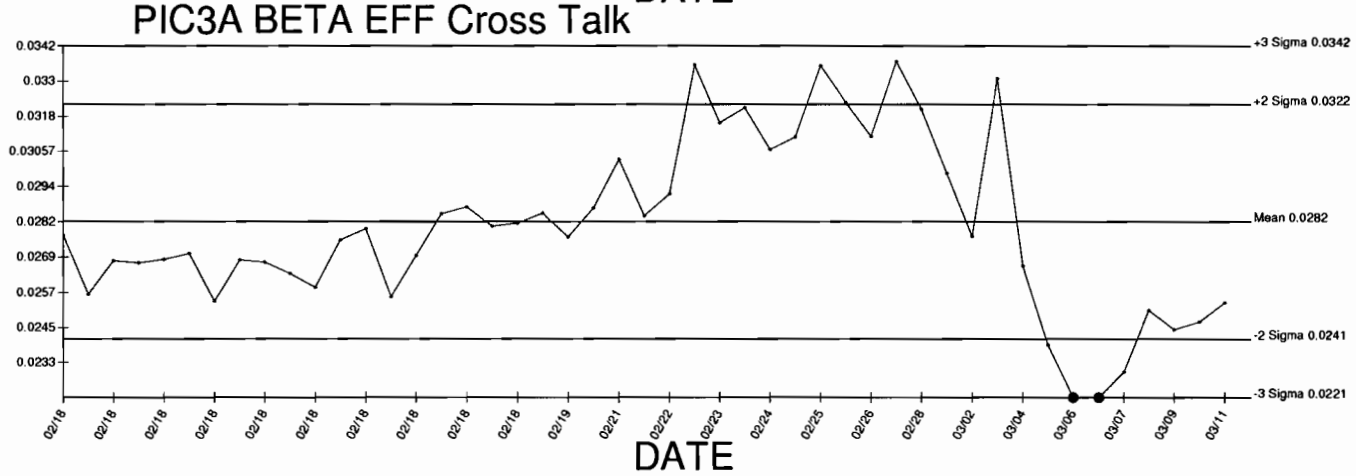

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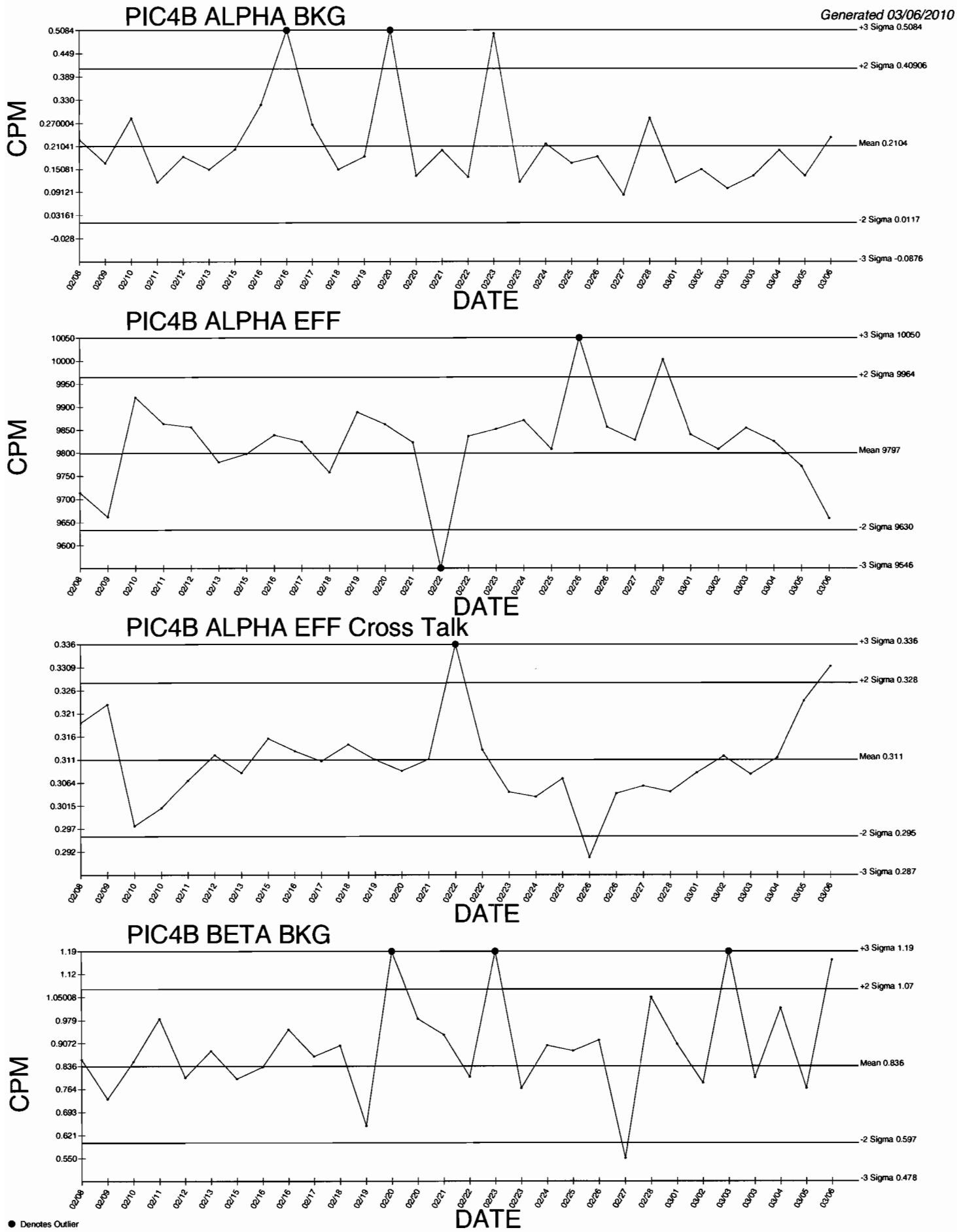
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Generated 03/06/2010
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PIC4B ALPHA EFF Cross Talk
+3 Sigma 0.336
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Mean 0.311
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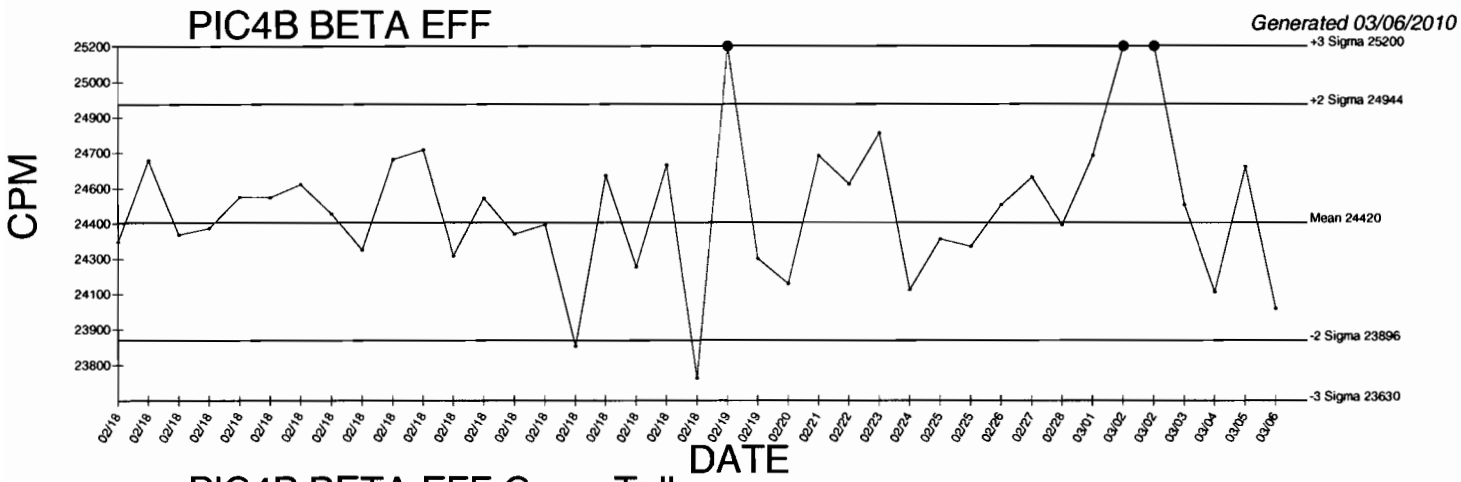

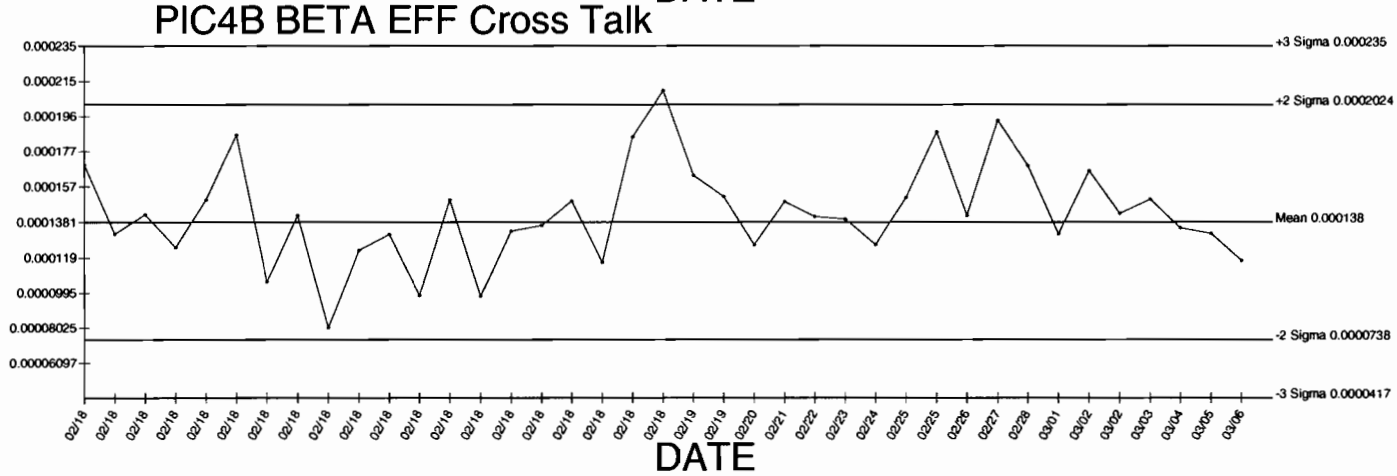

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PIC4C ALPHA BKG

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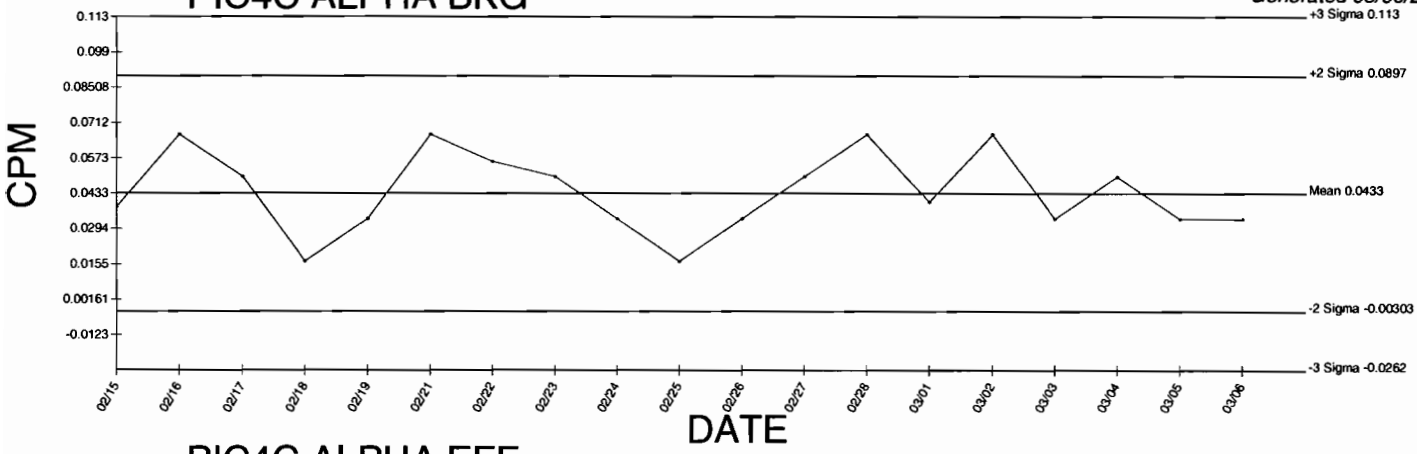

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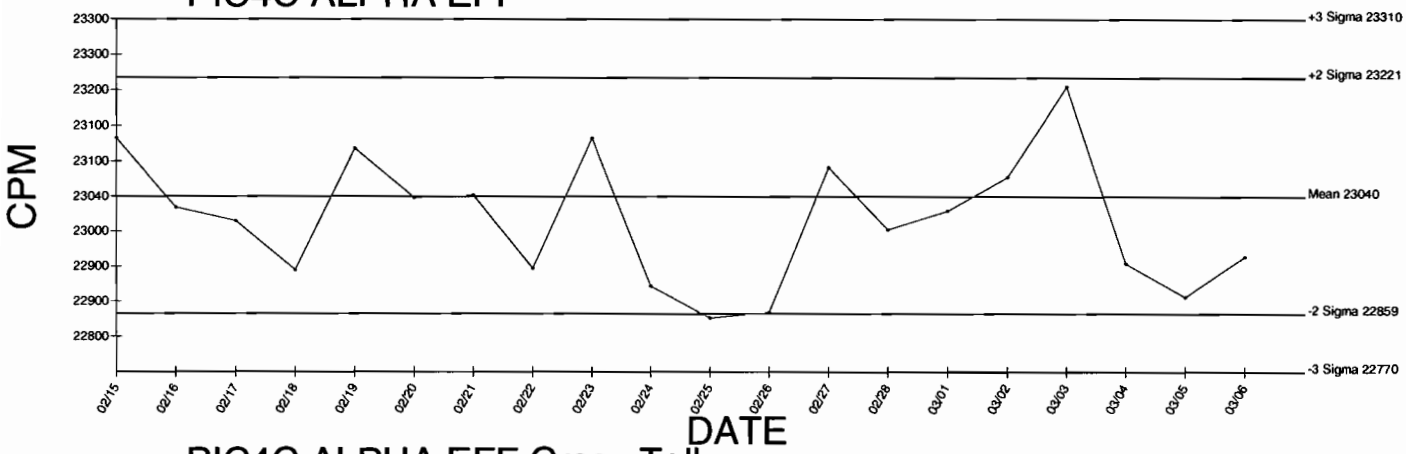

PIC4C ALPHA EFF Cross Talk

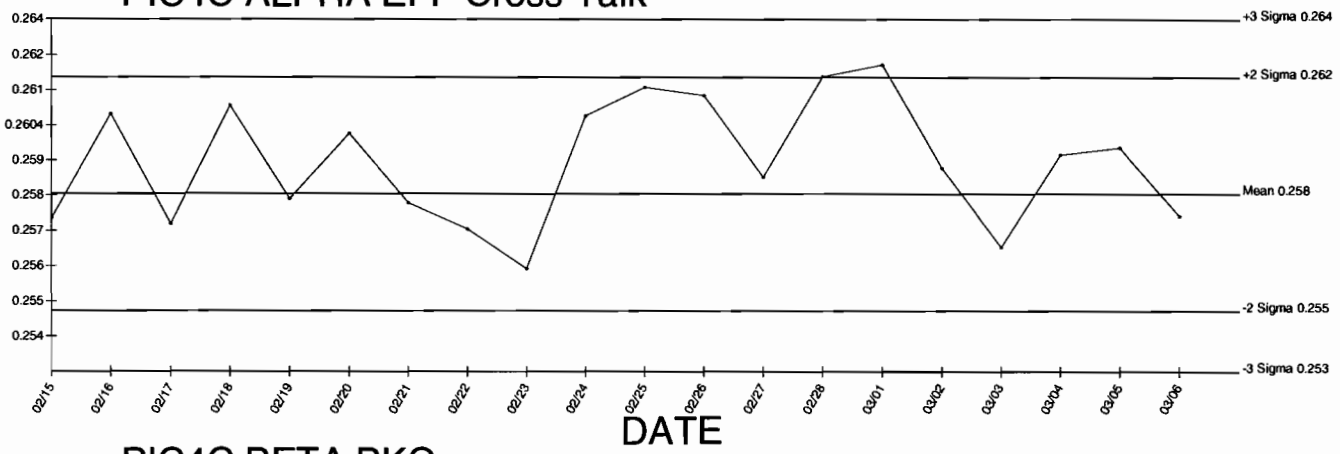

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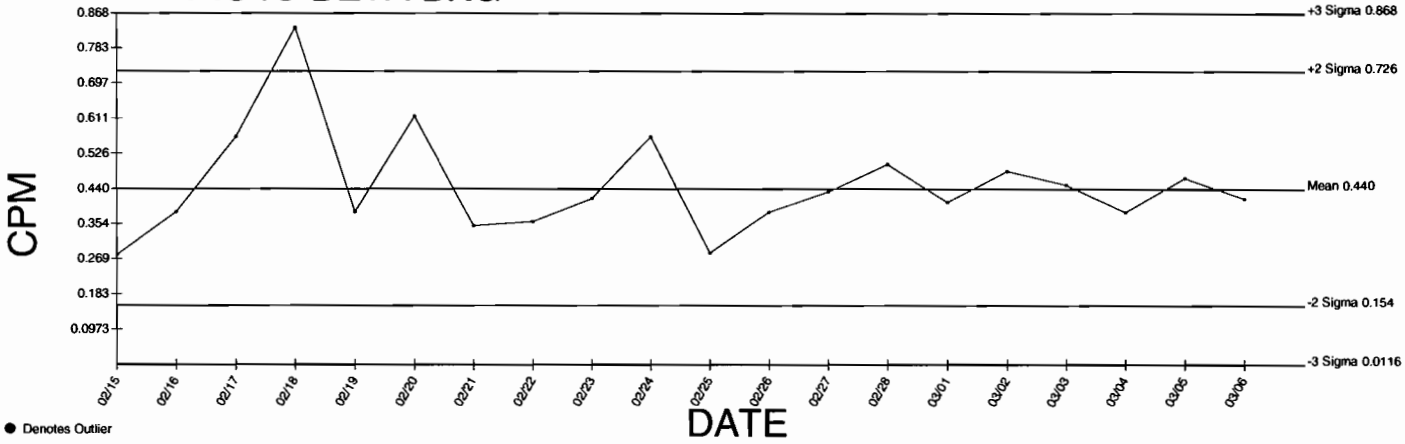

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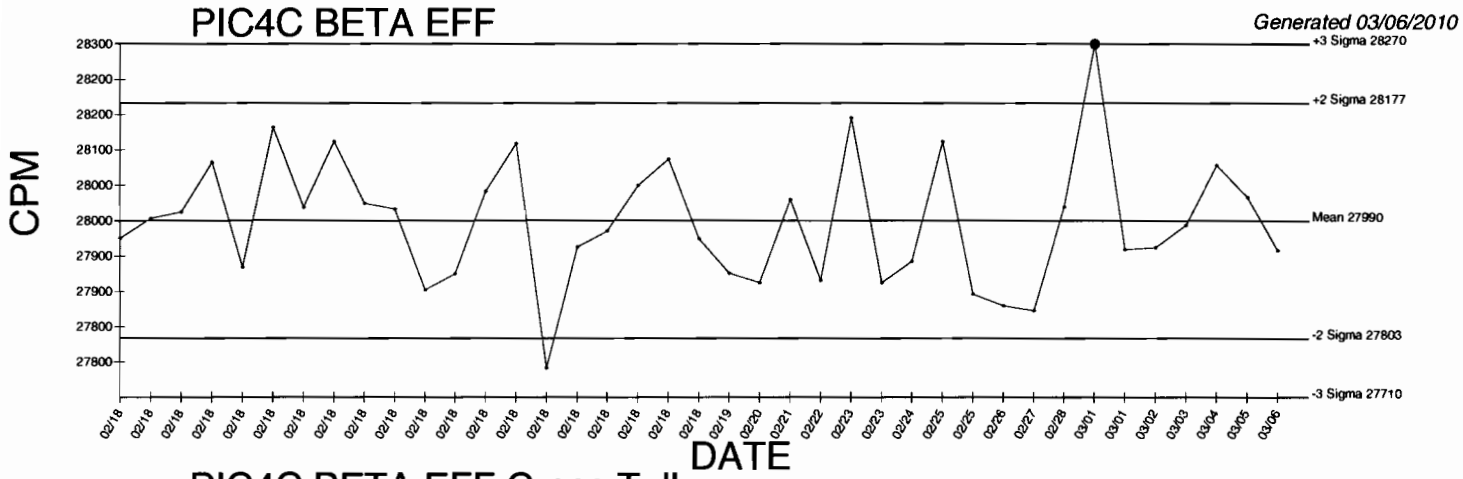

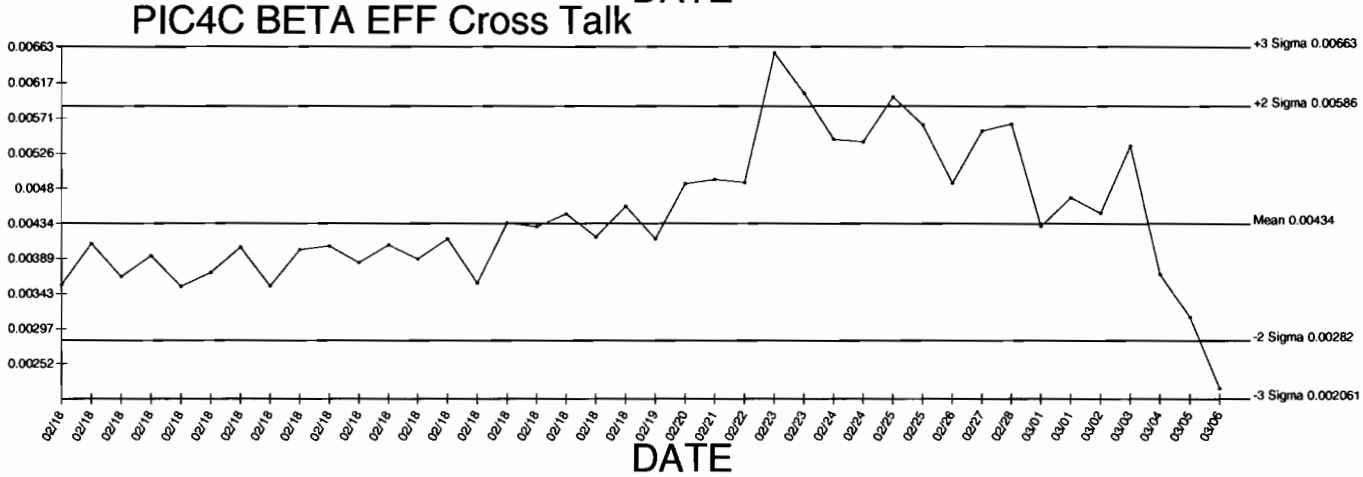

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PIC6B ALPHA BKG

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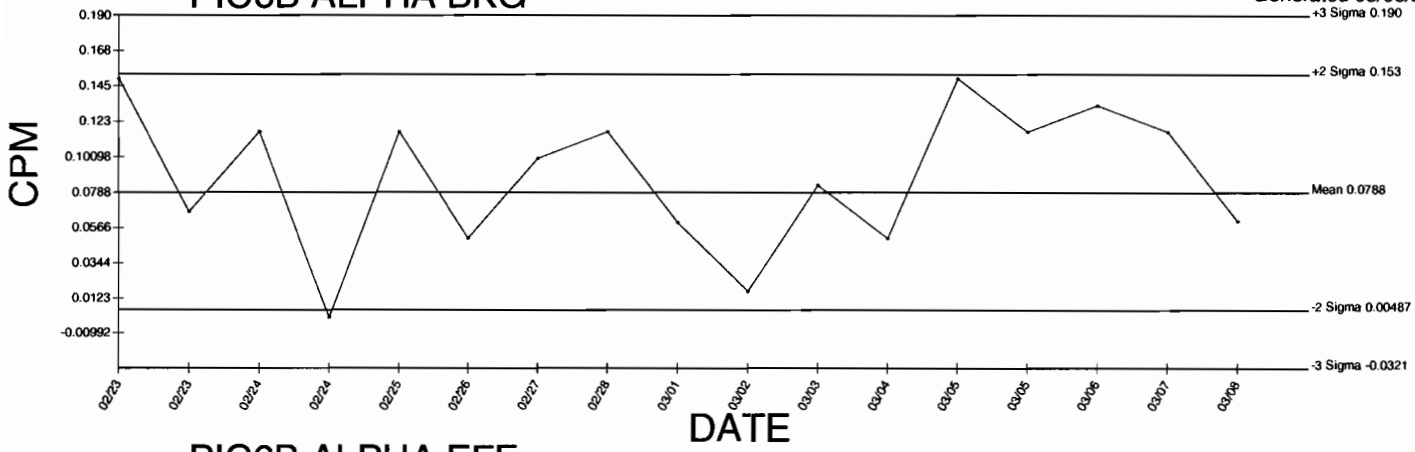

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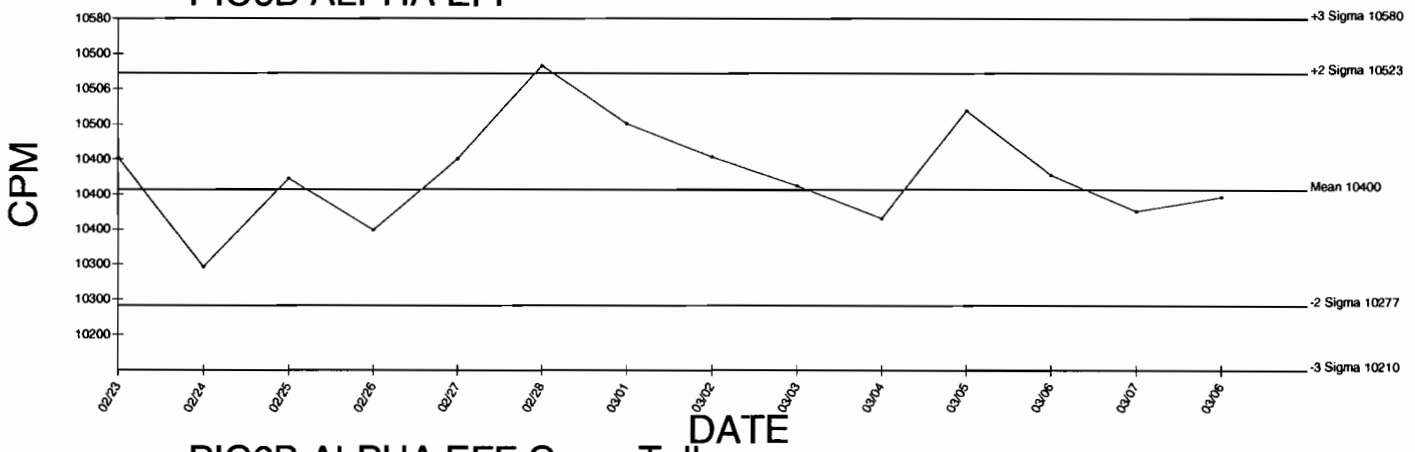

PIC6B ALPHA EFF Cross Talk

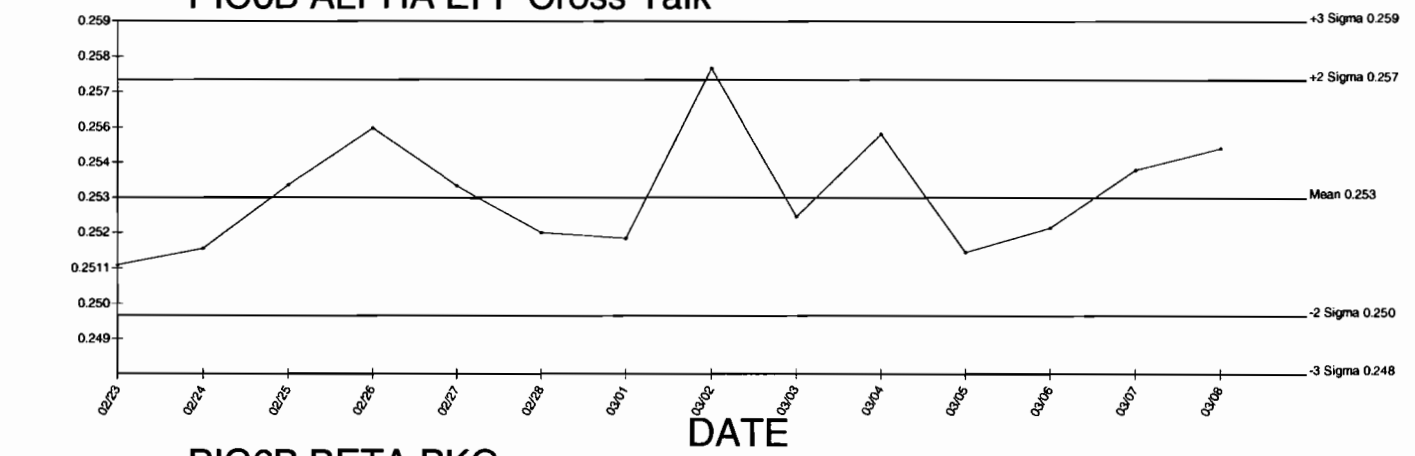

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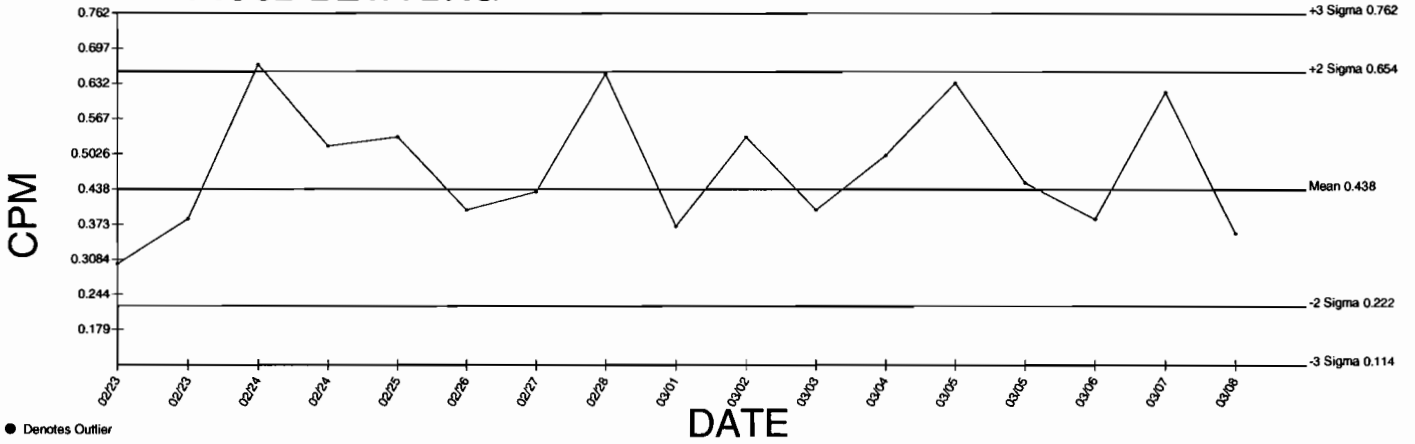

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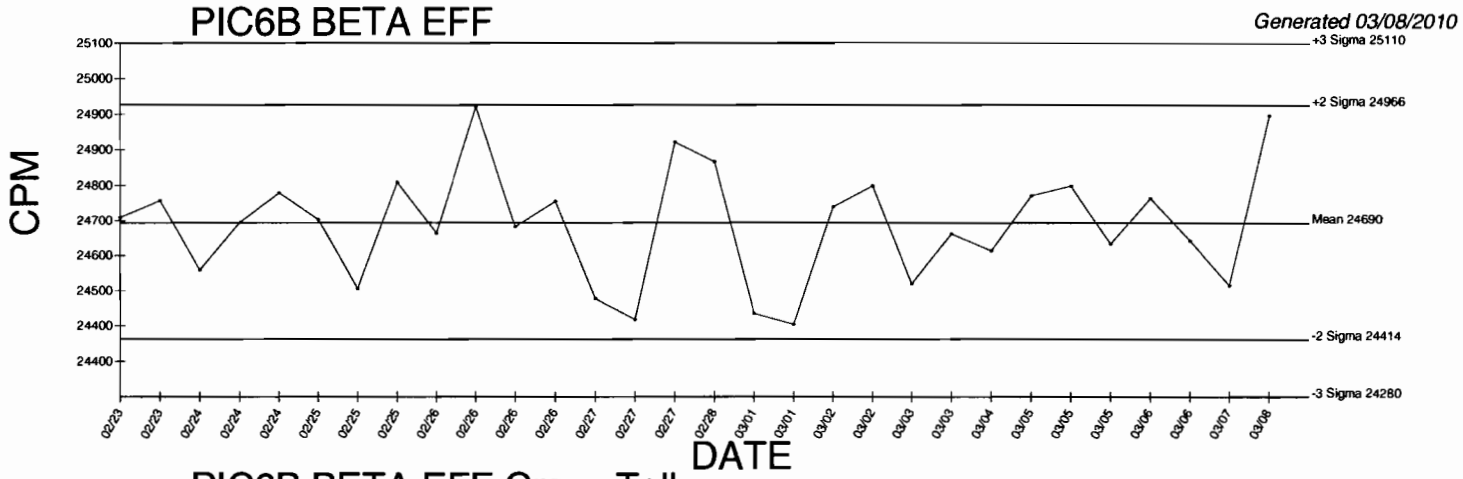

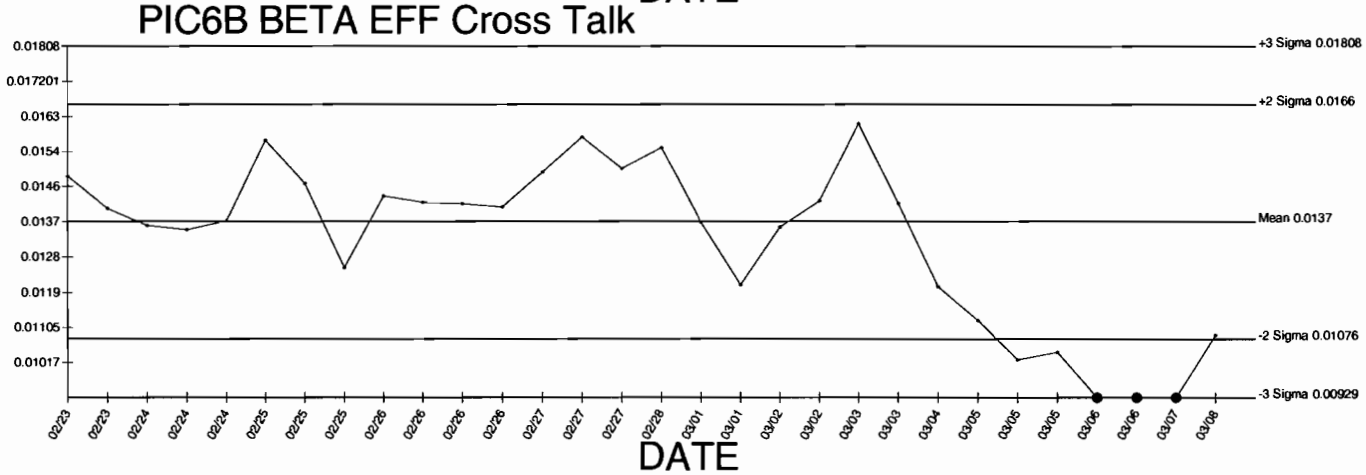

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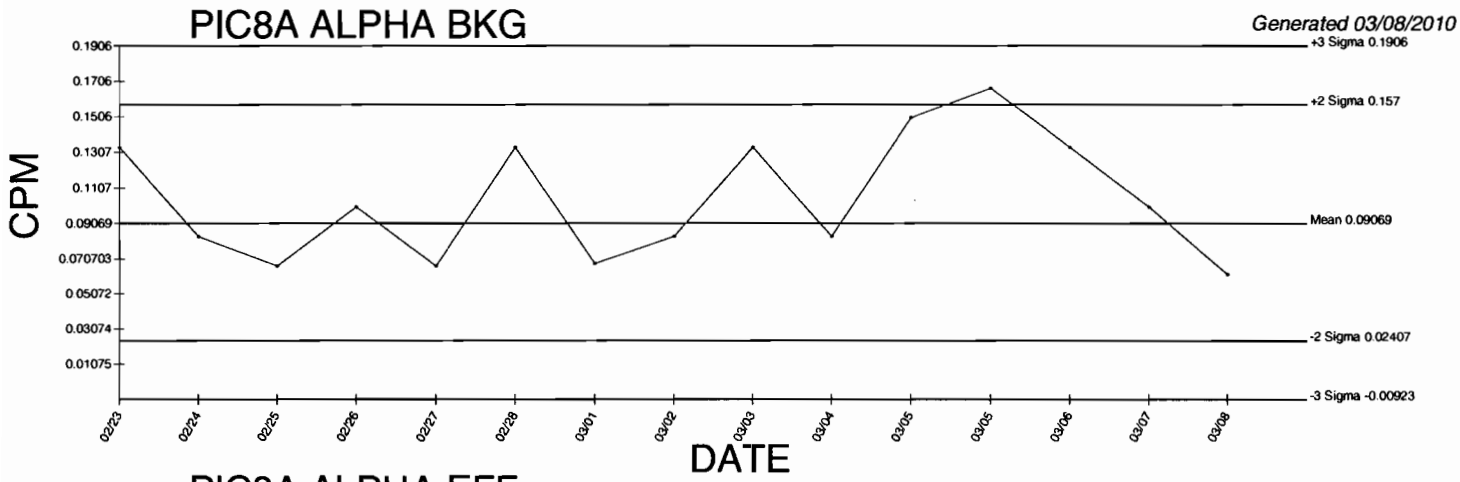

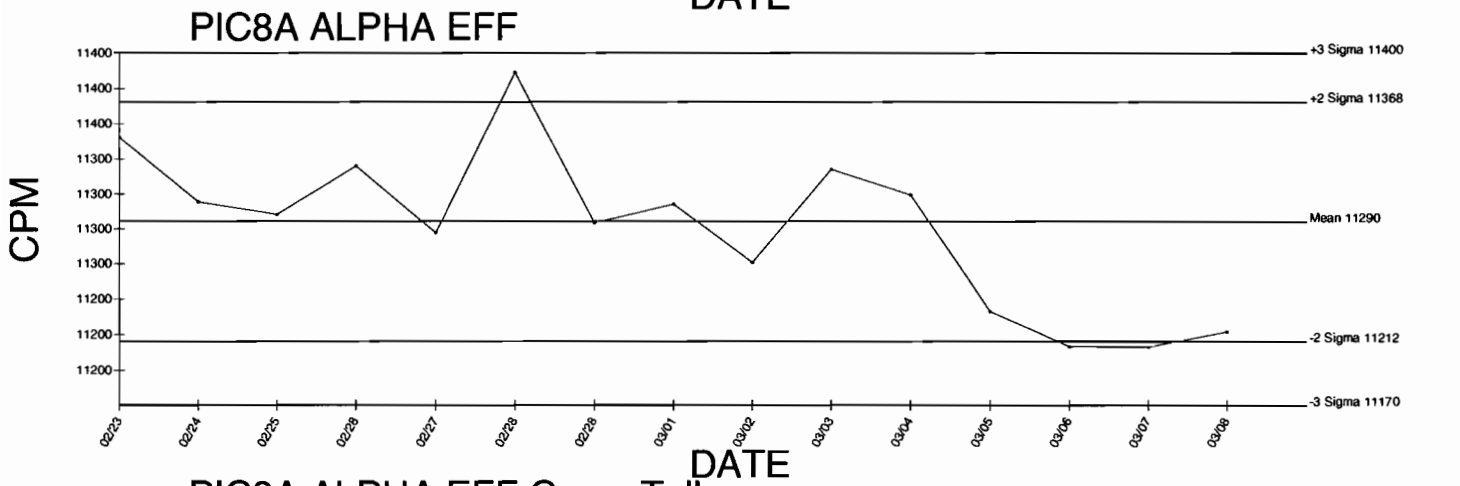

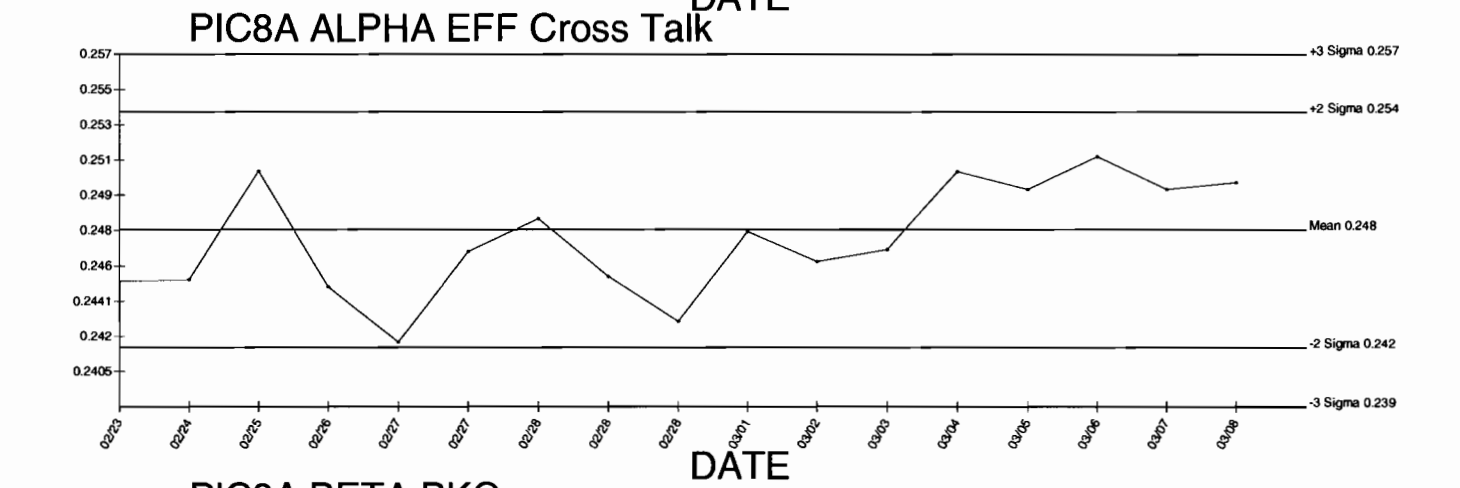

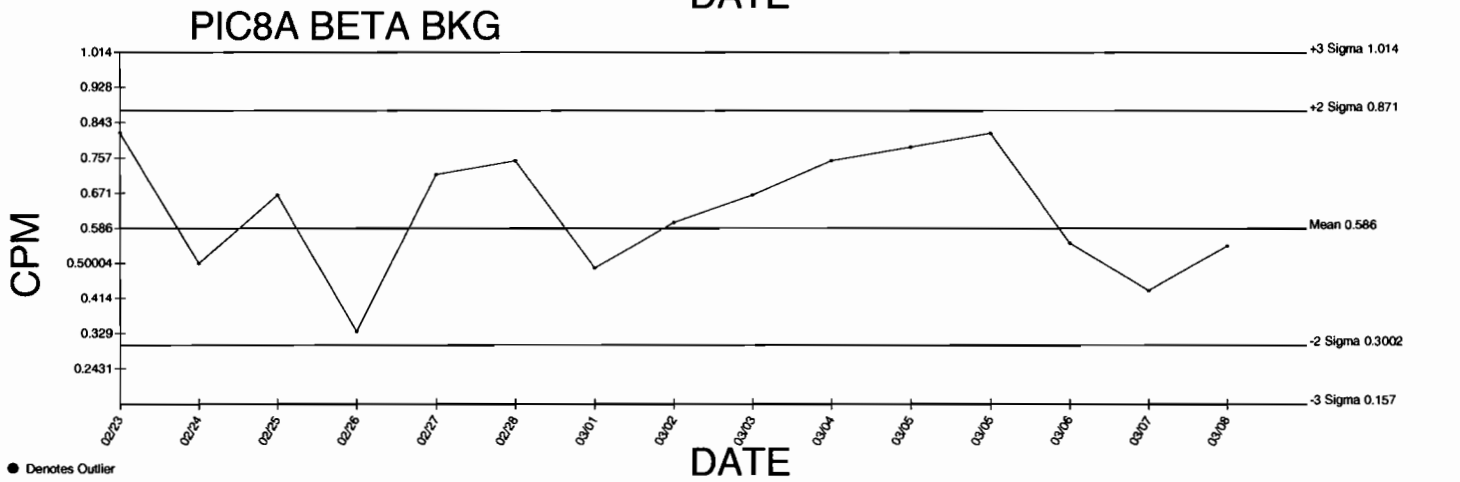

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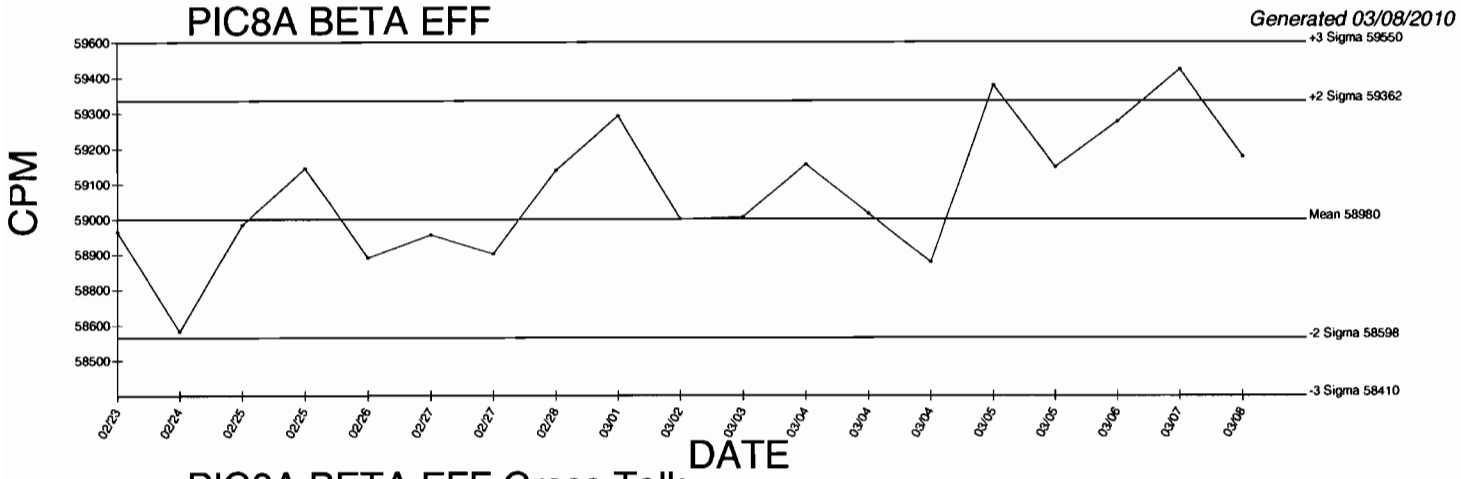

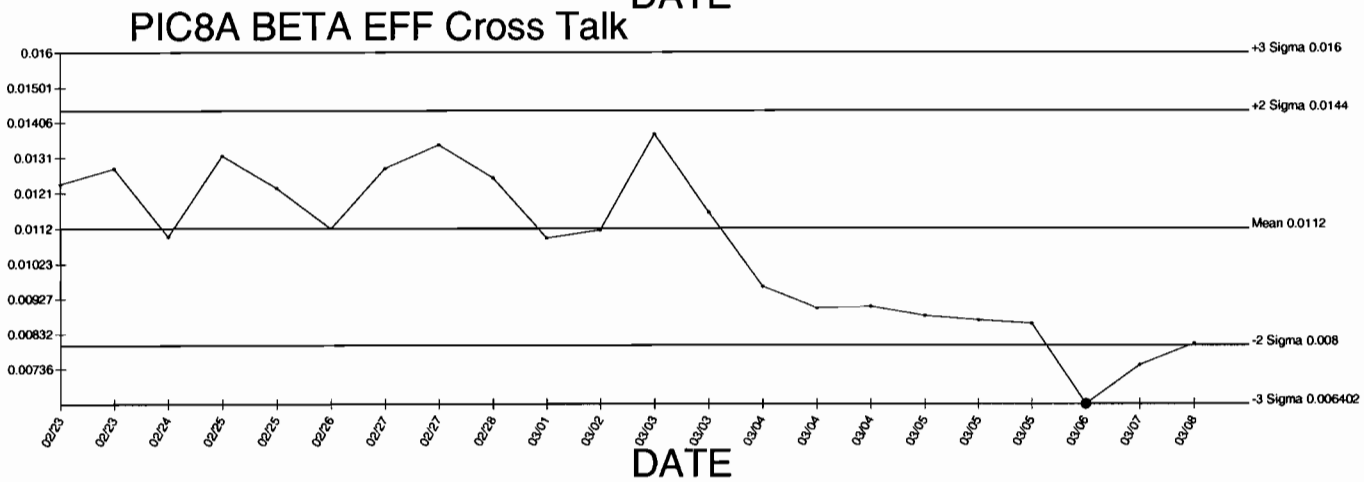

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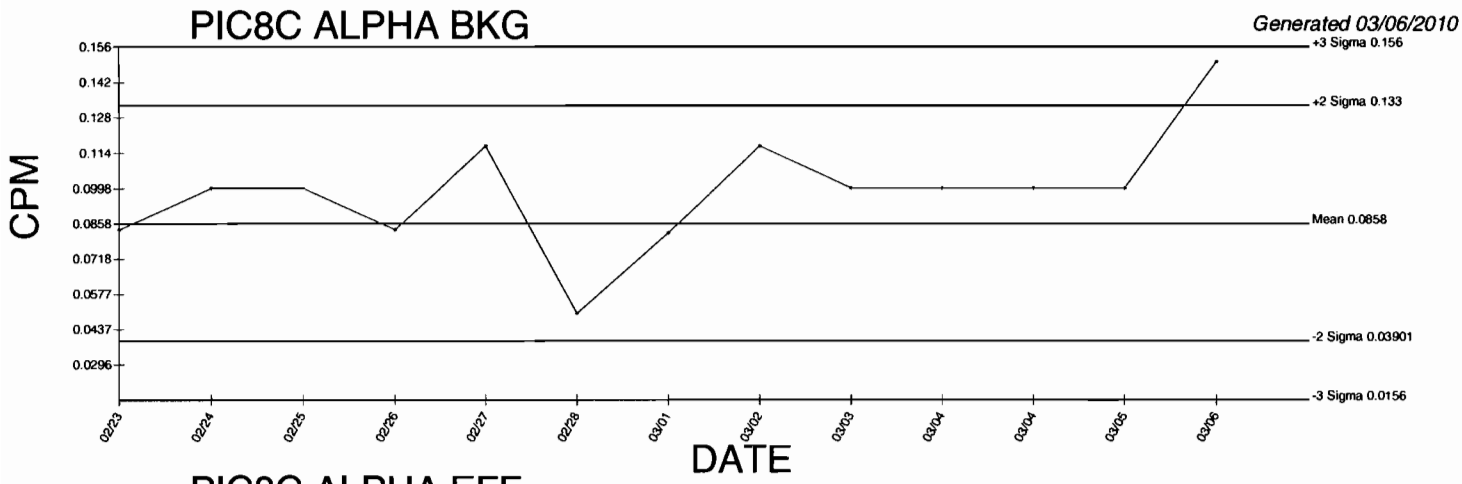

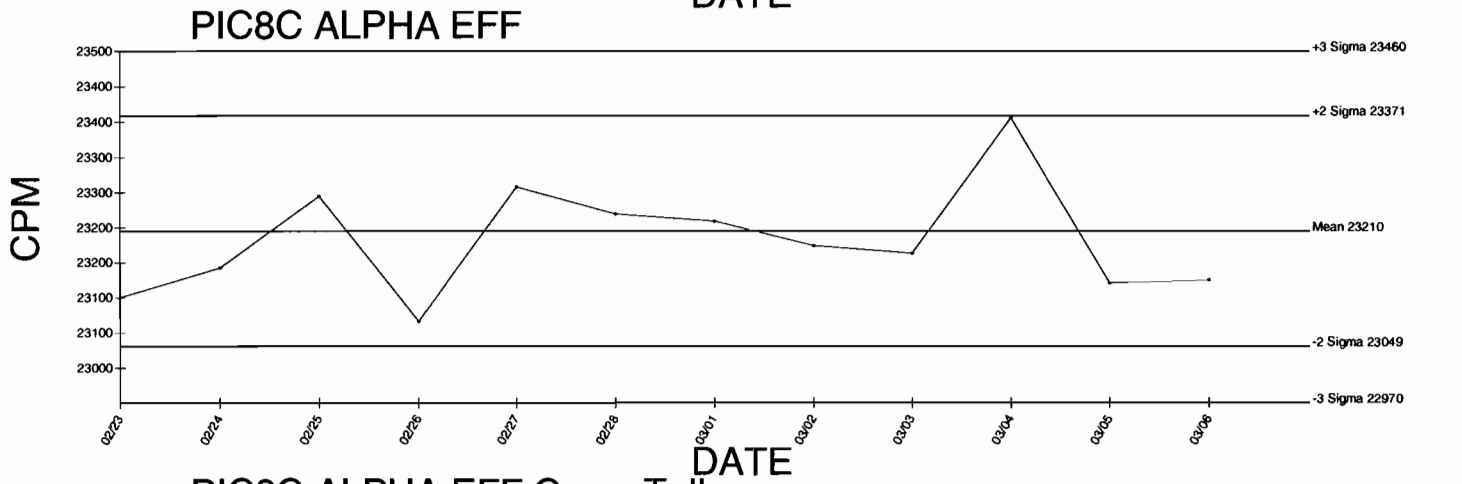

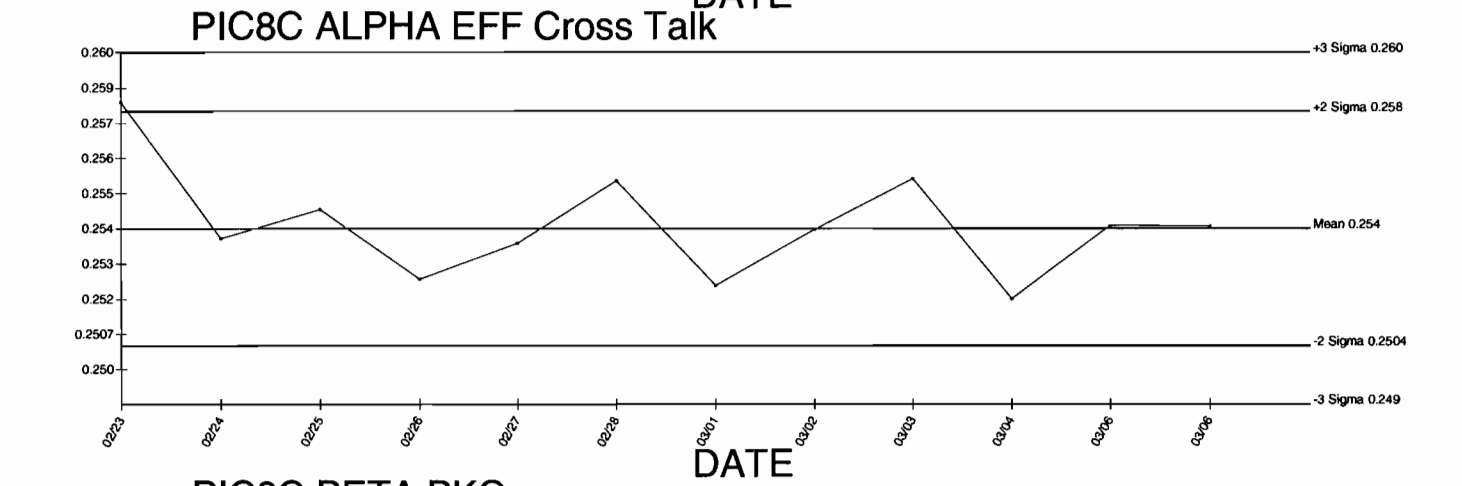

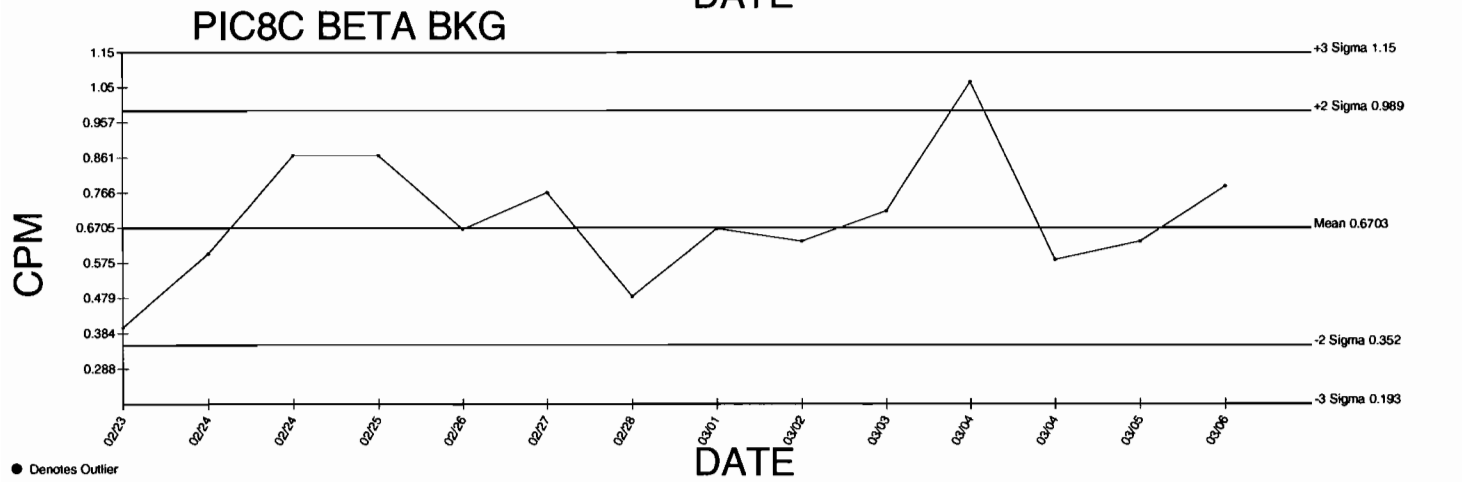

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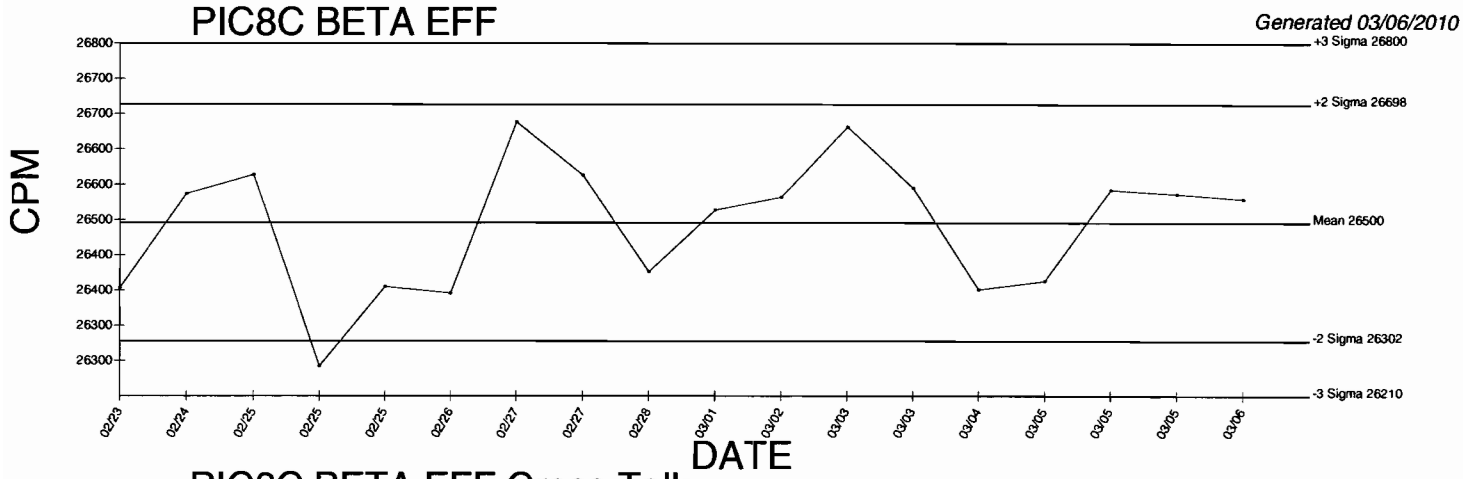

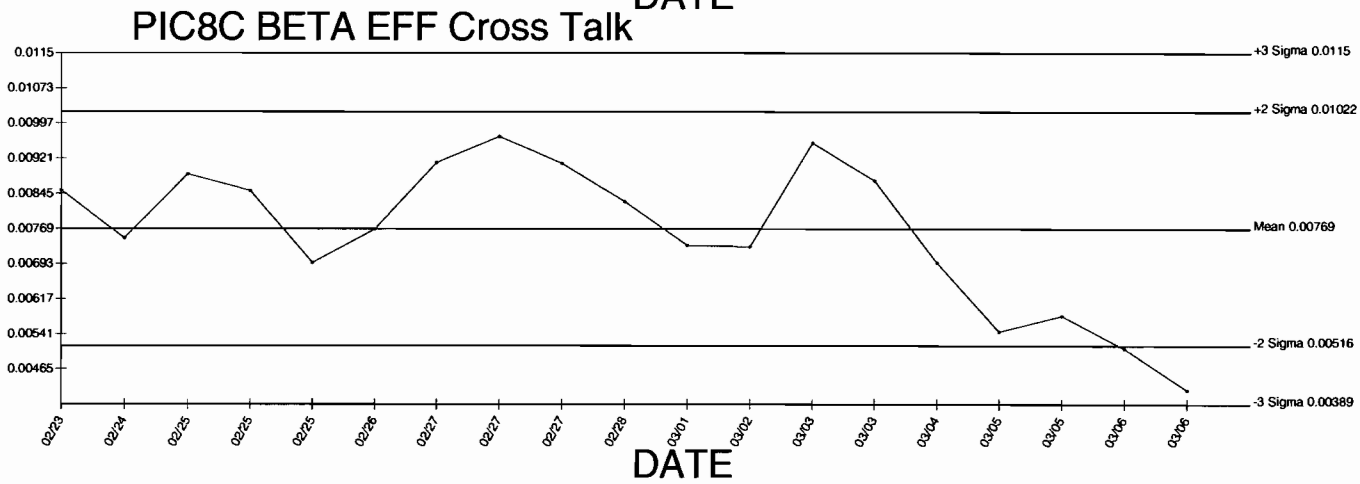

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PIC8D ALPHA BKG

Generated 03/08/2010

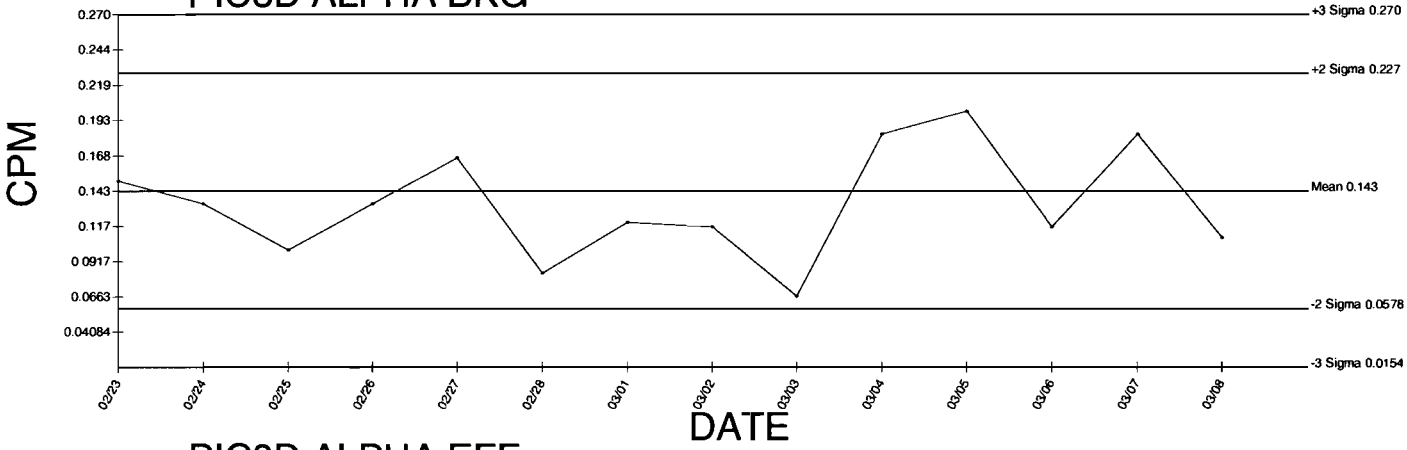

PIC8D ALPHA EFF

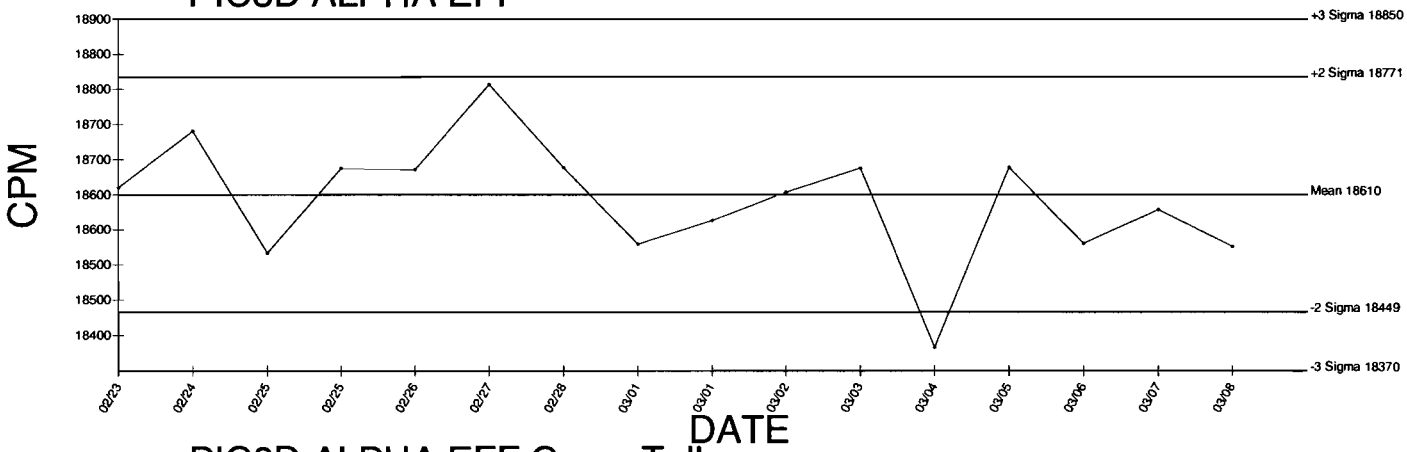

PIC8D ALPHA EFF Cross Talk

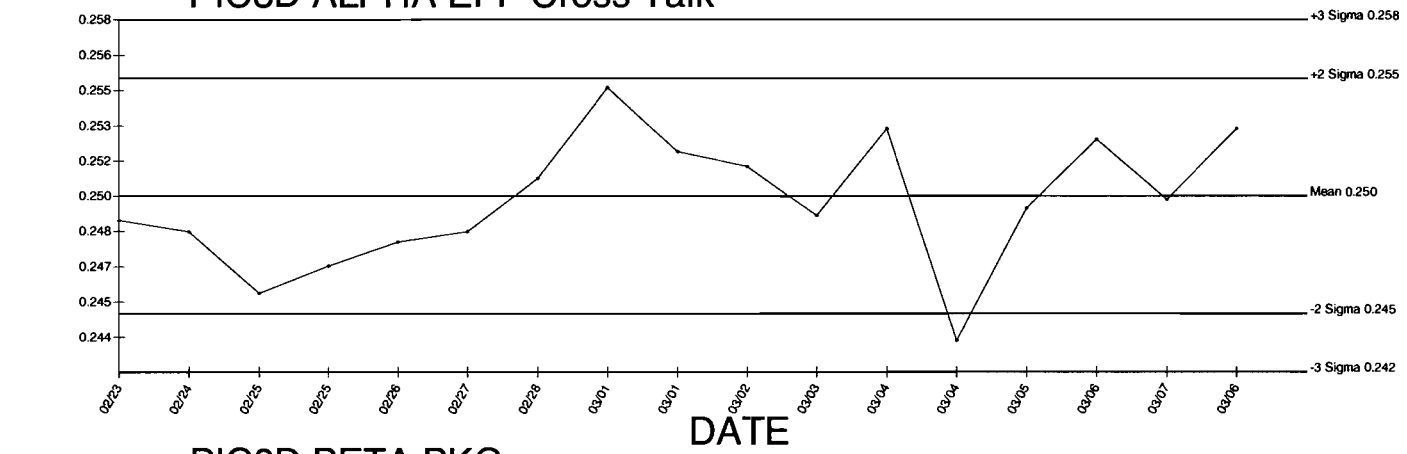

PIC8D BETA BKG

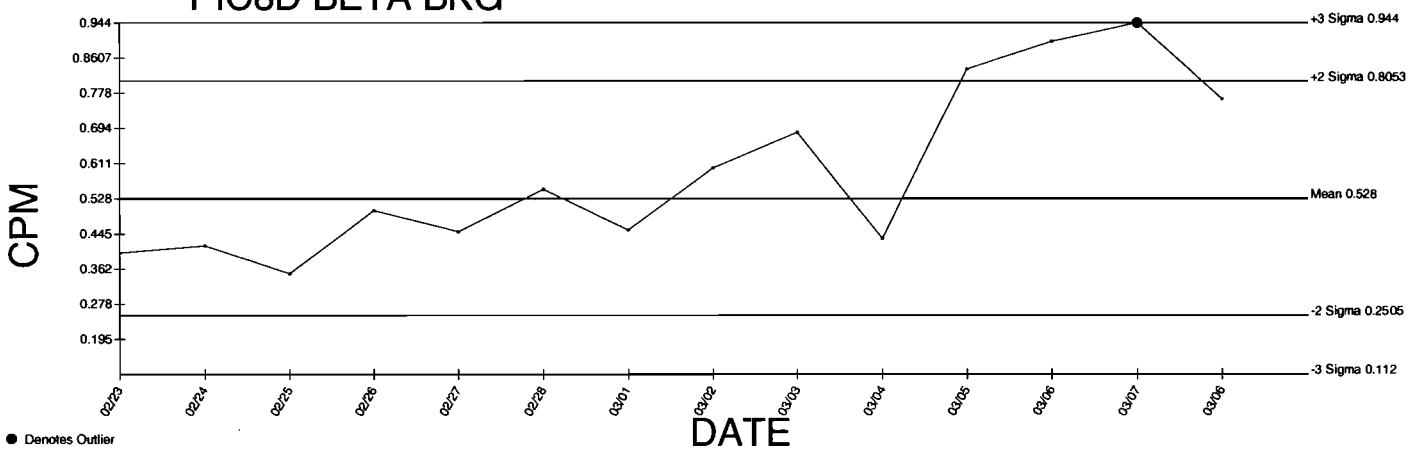

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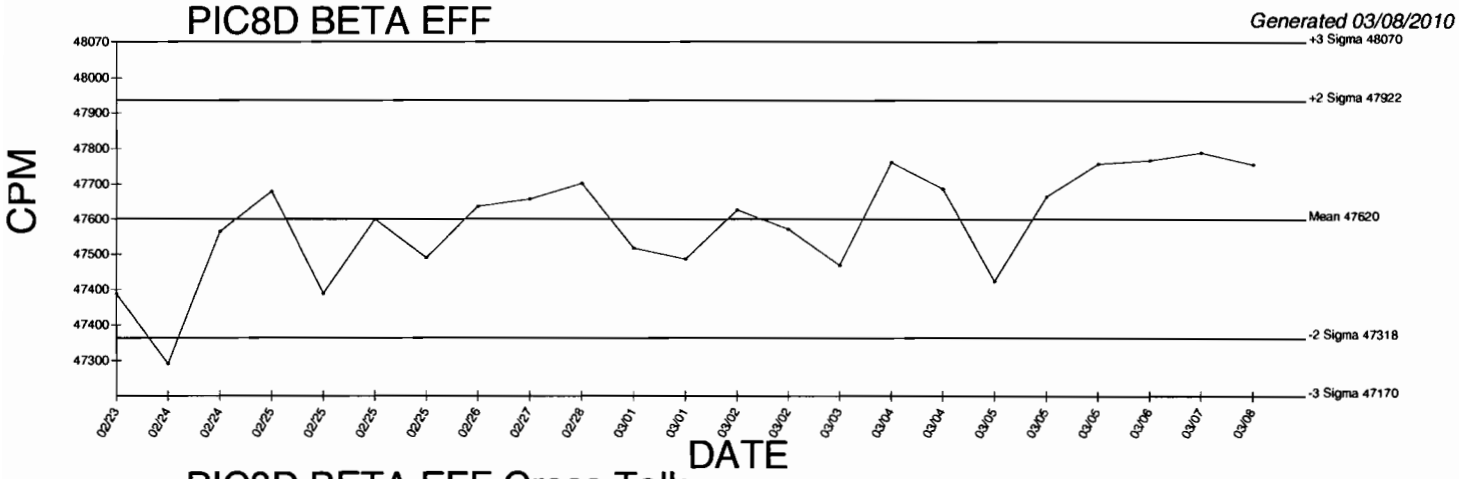

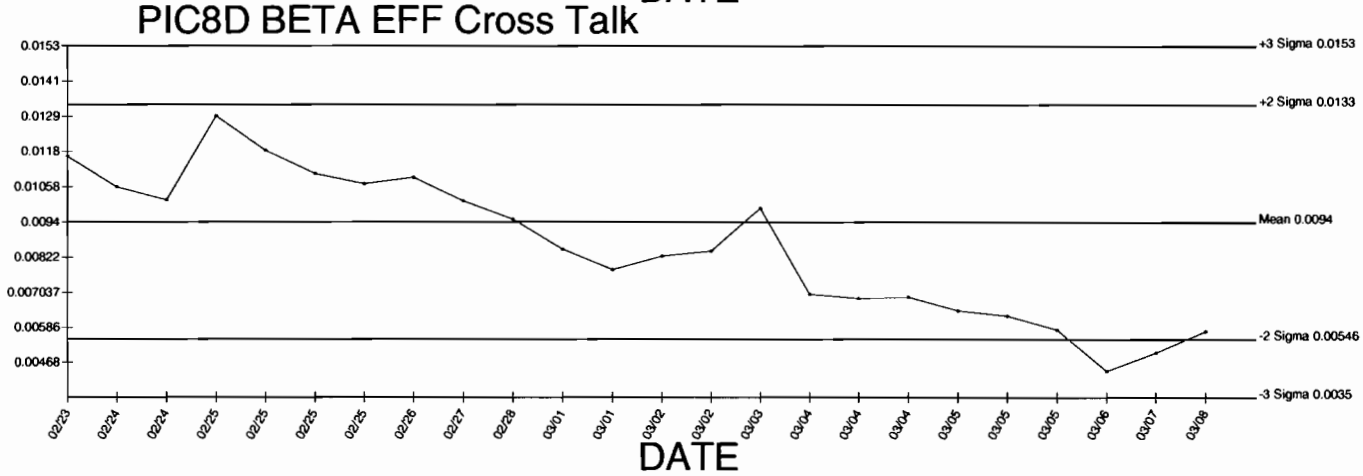

● Denotes Outlier

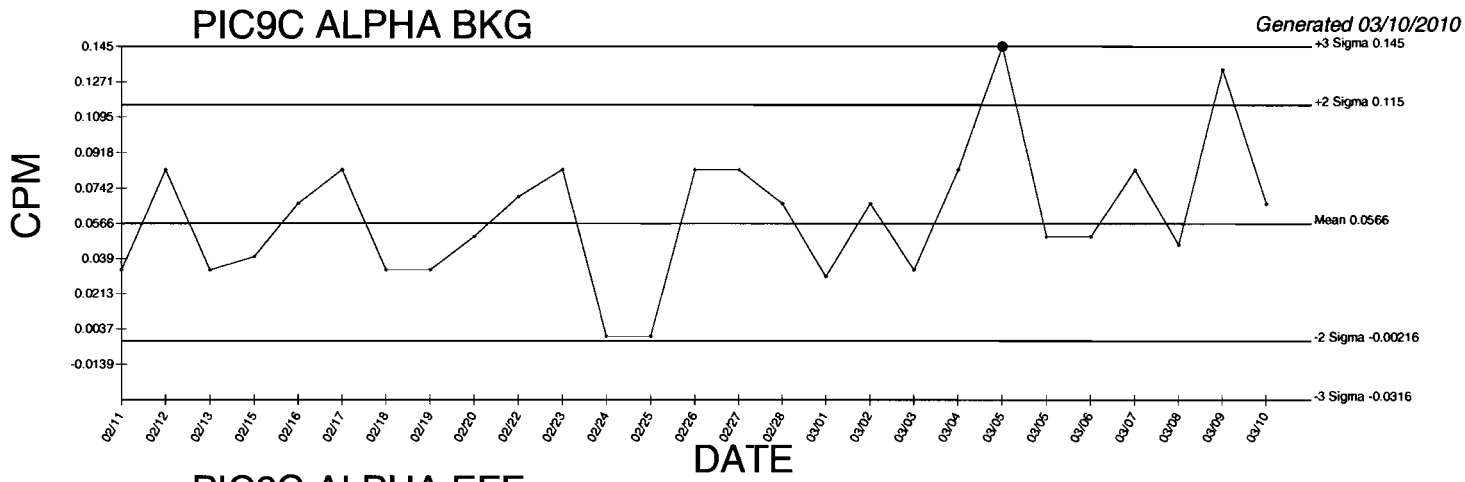

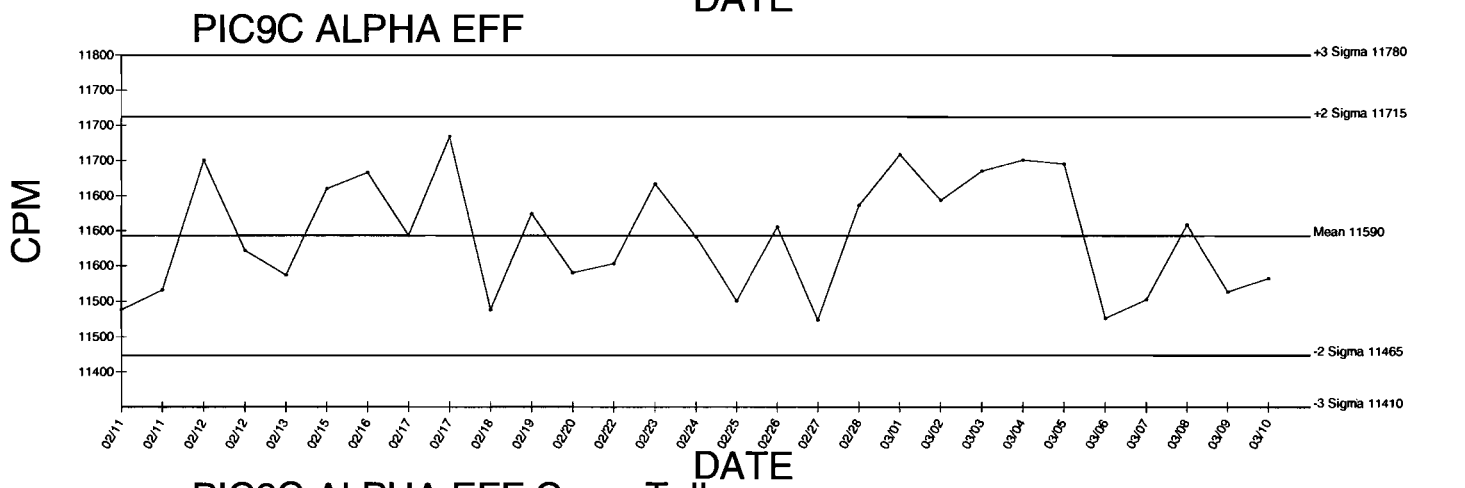

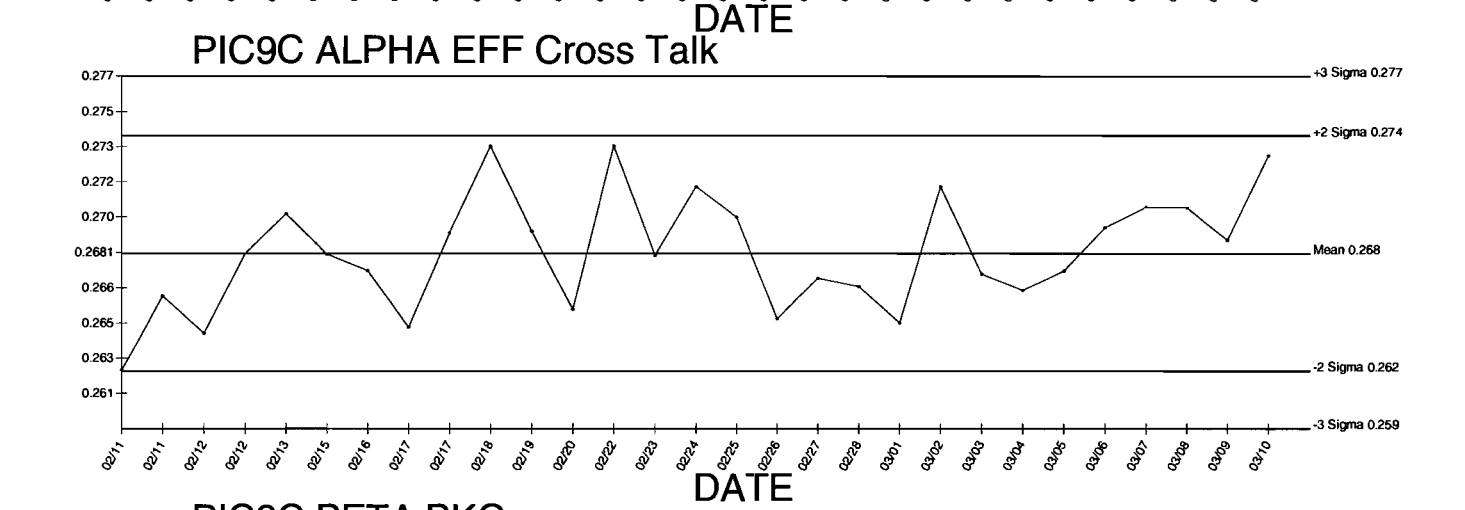

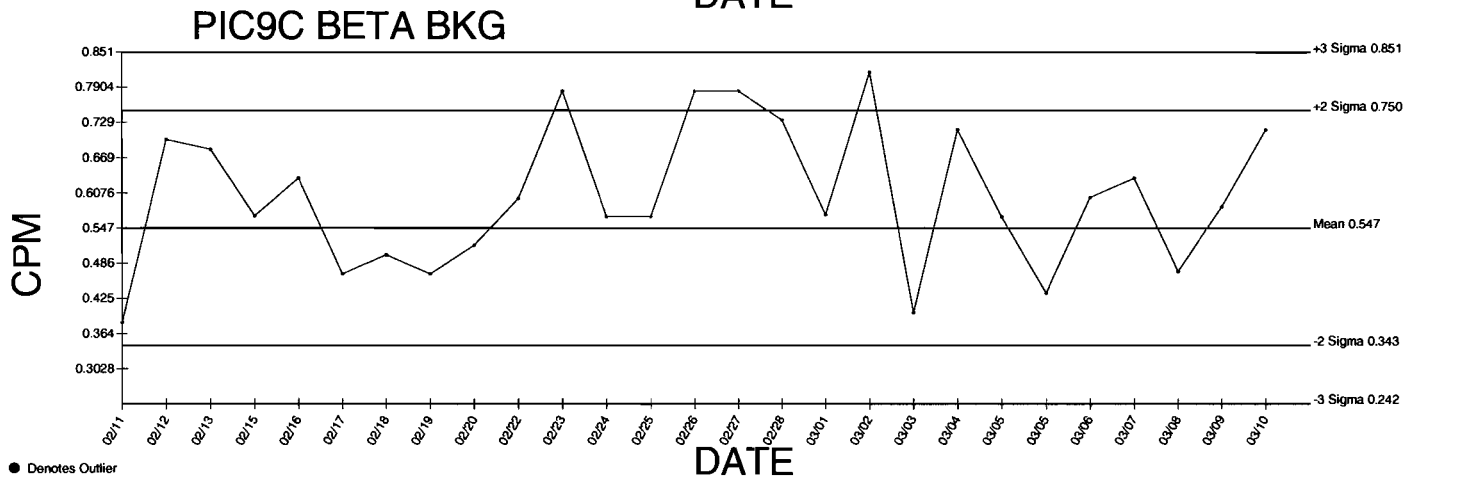

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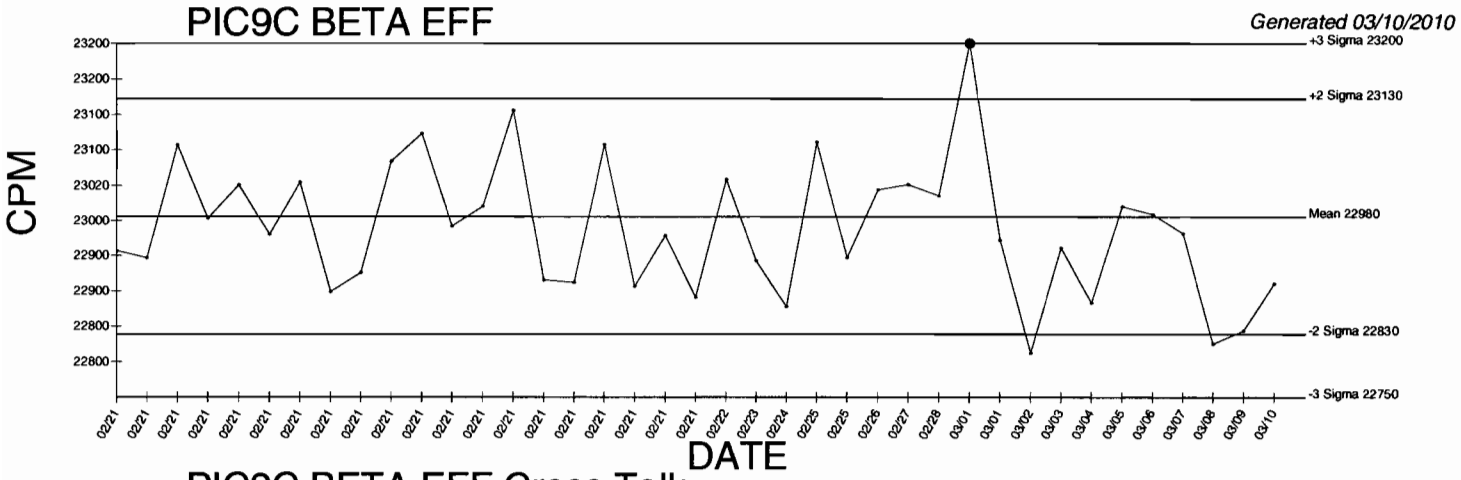

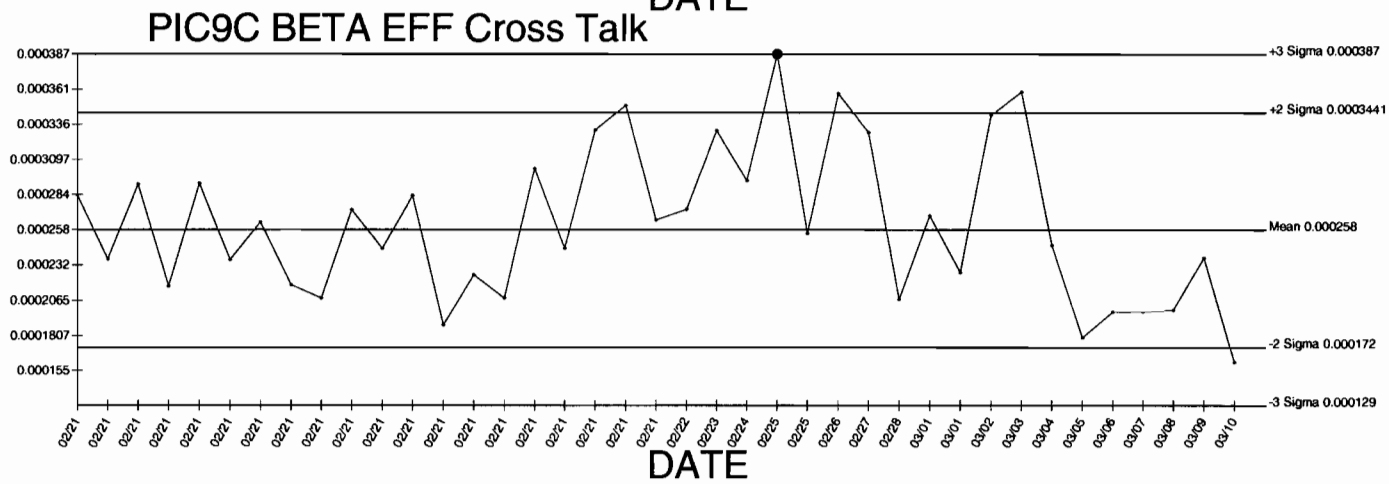

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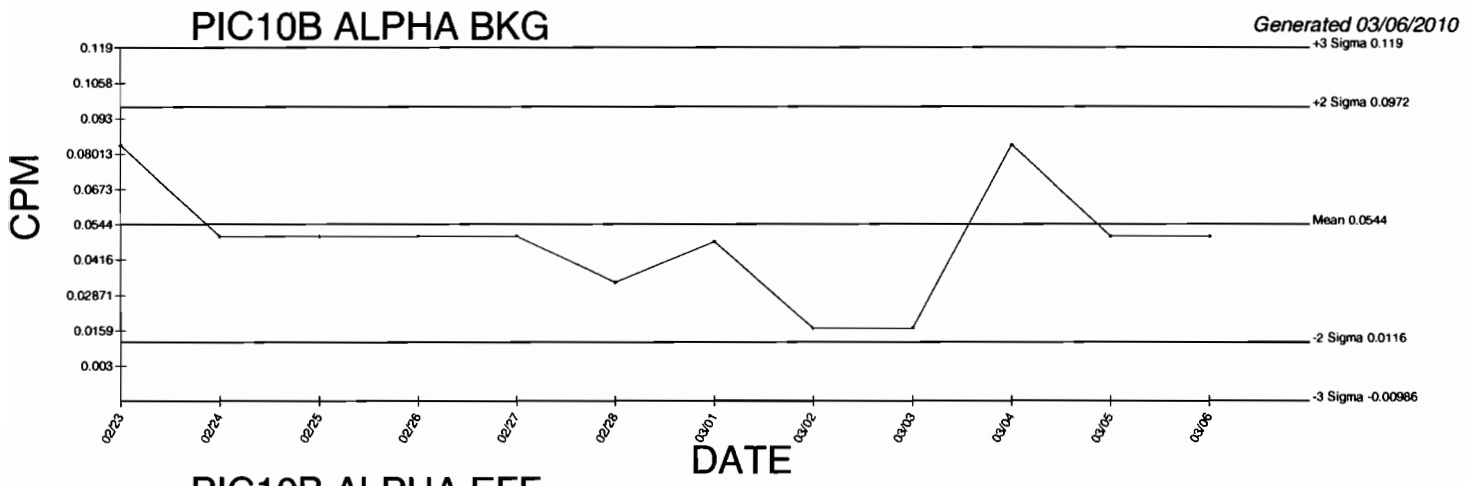
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Generated 03/06/2010
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0.093
0.08013
0.0673
0.0544
0.0416
0.02871
0.0159
0.003
+3 Sigma 0.119
+2 Sigma 0.0972
Mean 0.0544
-2 Sigma 0.0116
-3 Sigma -0.00986
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
03/06
DATE

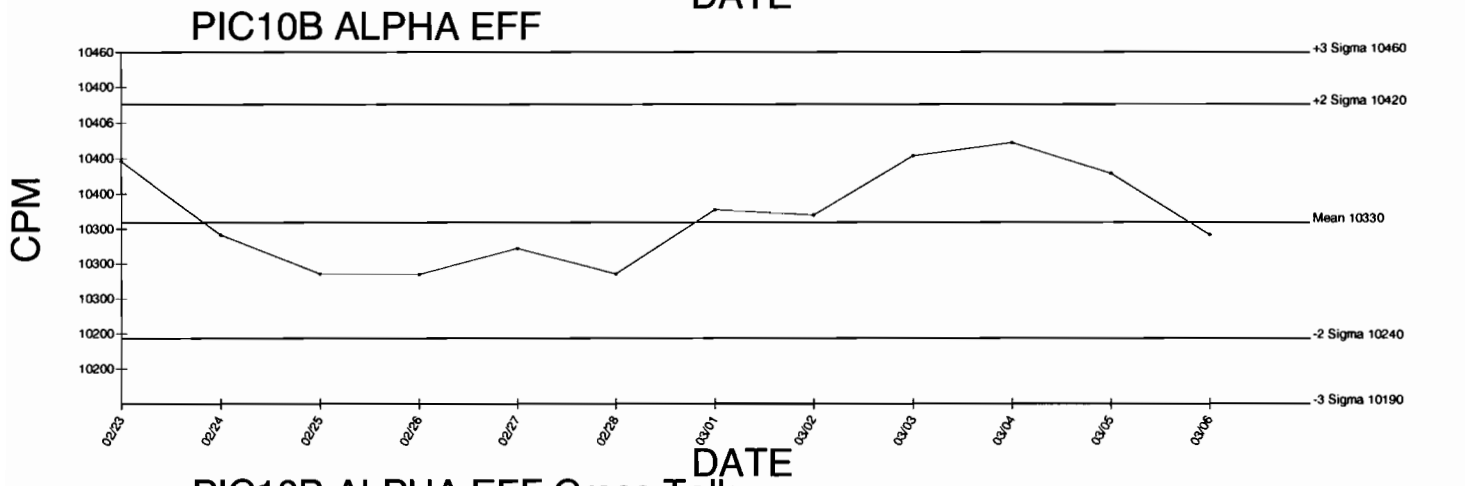
PIC10B ALPHA EFF
CPM
10460
10400
10406
10400
10400
10300
10300
10300
10200
10200
+3 Sigma 10460
+2 Sigma 10420
Mean 10330
-2 Sigma 10240
-3 Sigma 10190
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
03/06
DATE

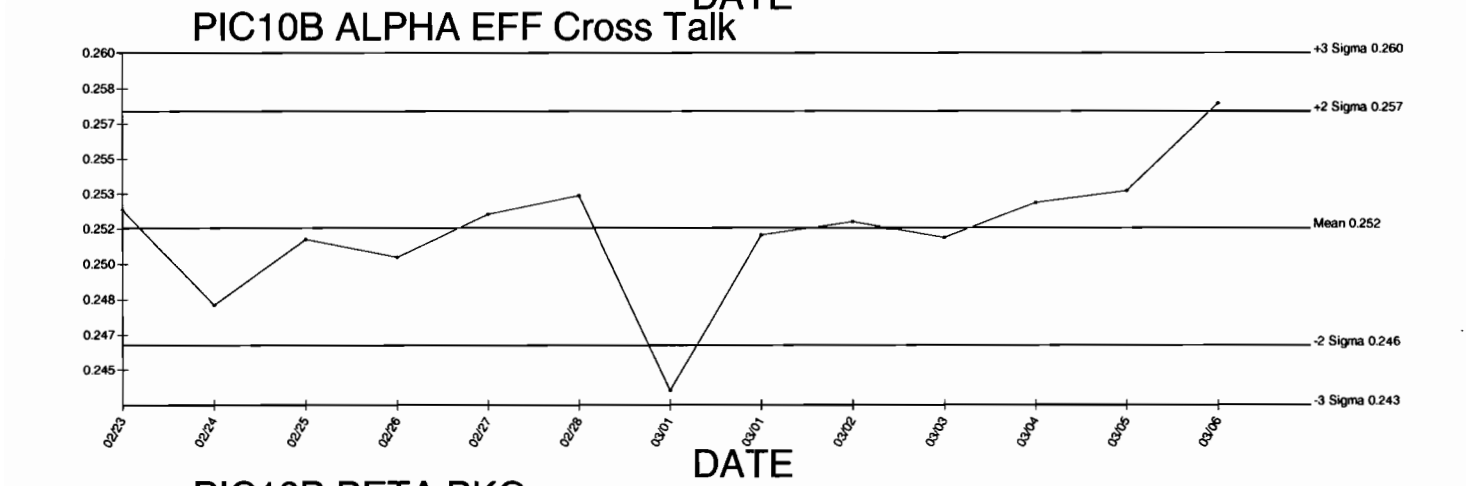
PIC10B ALPHA EFF Cross Talk
0.260
0.258
0.257
0.255
0.253
0.252
0.250
0.248
0.247
0.245
+3 Sigma 0.260
+2 Sigma 0.257
Mean 0.252
-2 Sigma 0.246
-3 Sigma 0.243
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/01
03/02
03/03
03/04
03/05
03/06
DATE

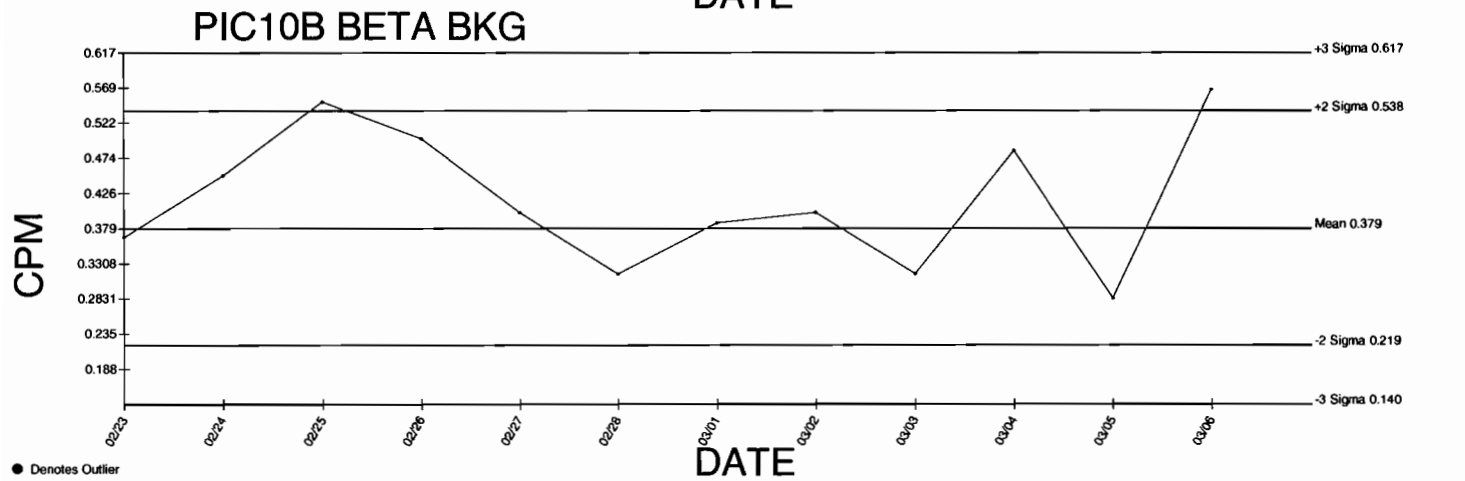
PIC10B BETA BKG
CPM
0.617
0.569
0.522
0.474
0.426
0.379
0.3308
0.2831
0.235
0.188
+3 Sigma 0.617
+2 Sigma 0.538
Mean 0.379
-2 Sigma 0.219
-3 Sigma 0.140
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
03/05
03/06
DATE
● Denotes Outlier

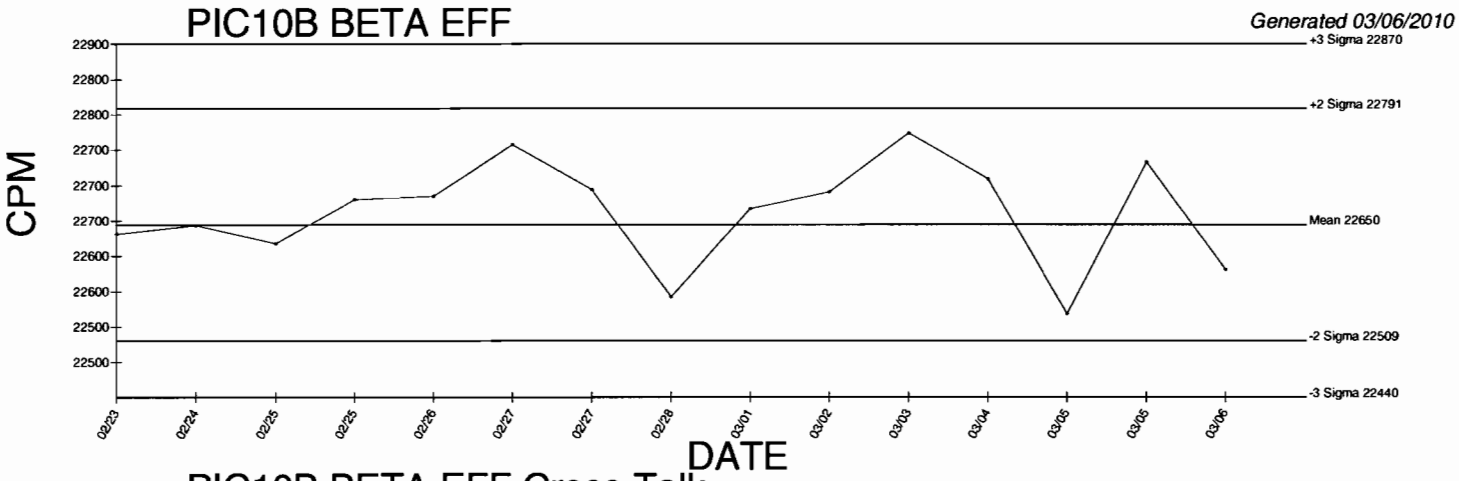

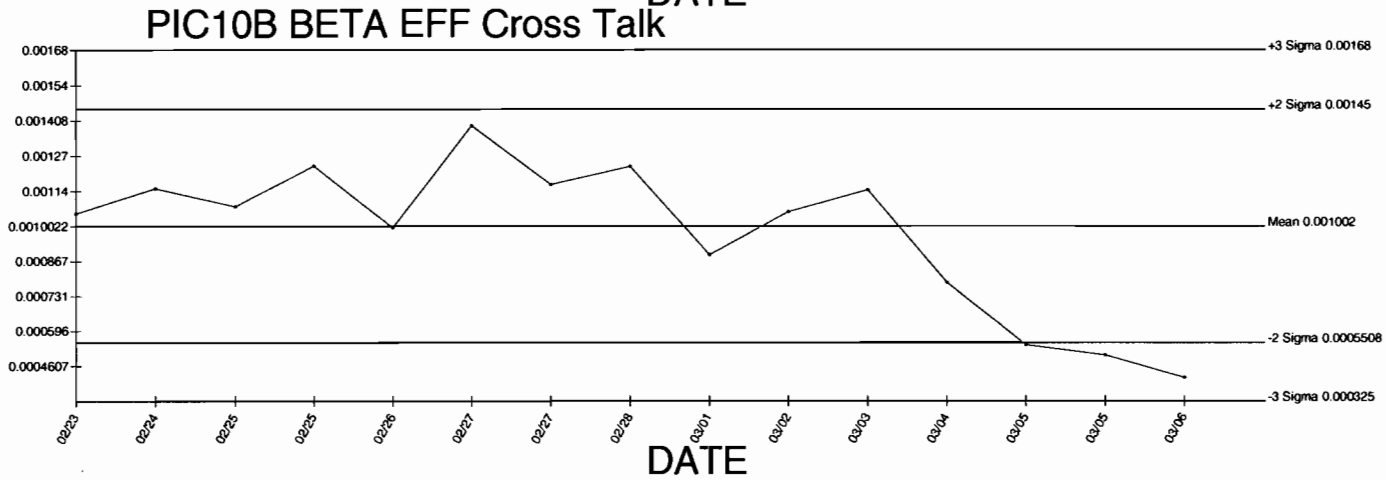

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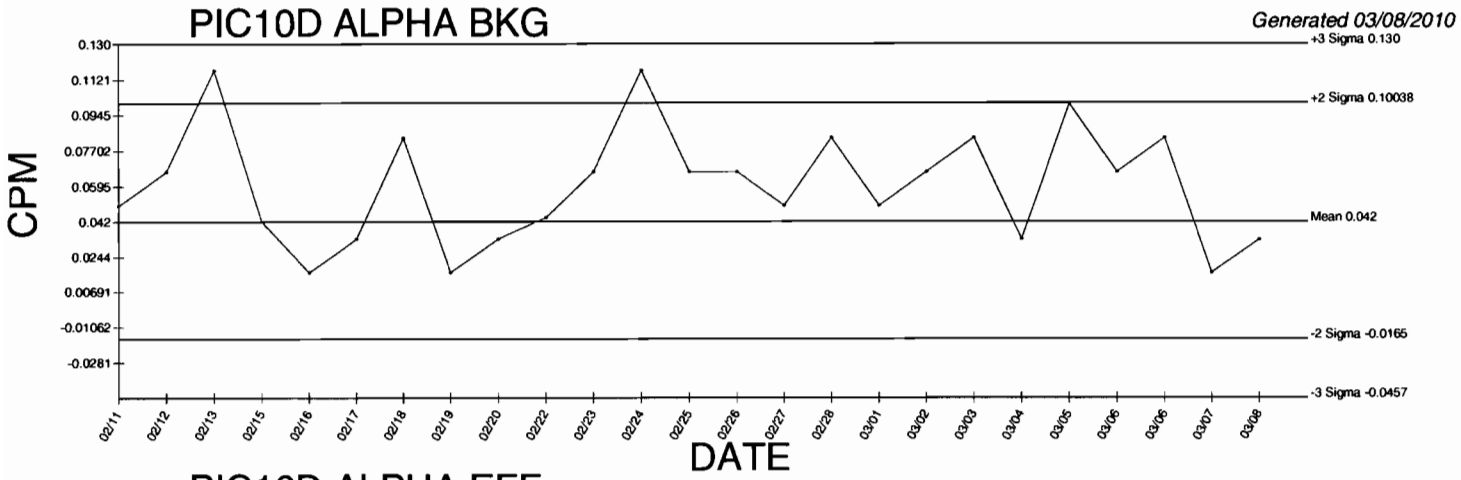

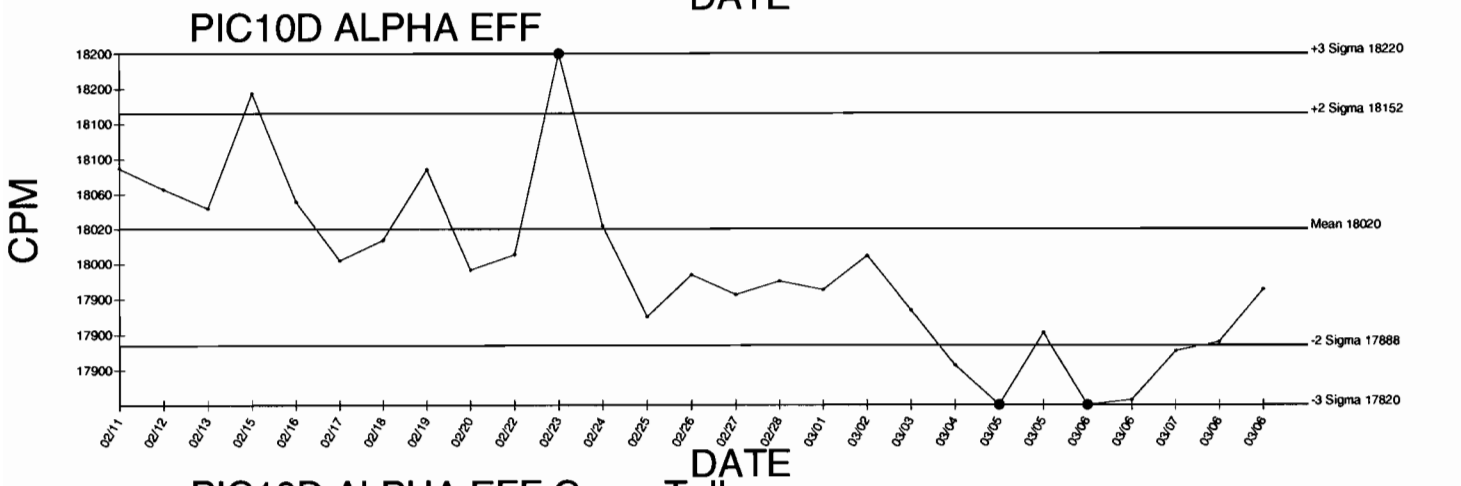

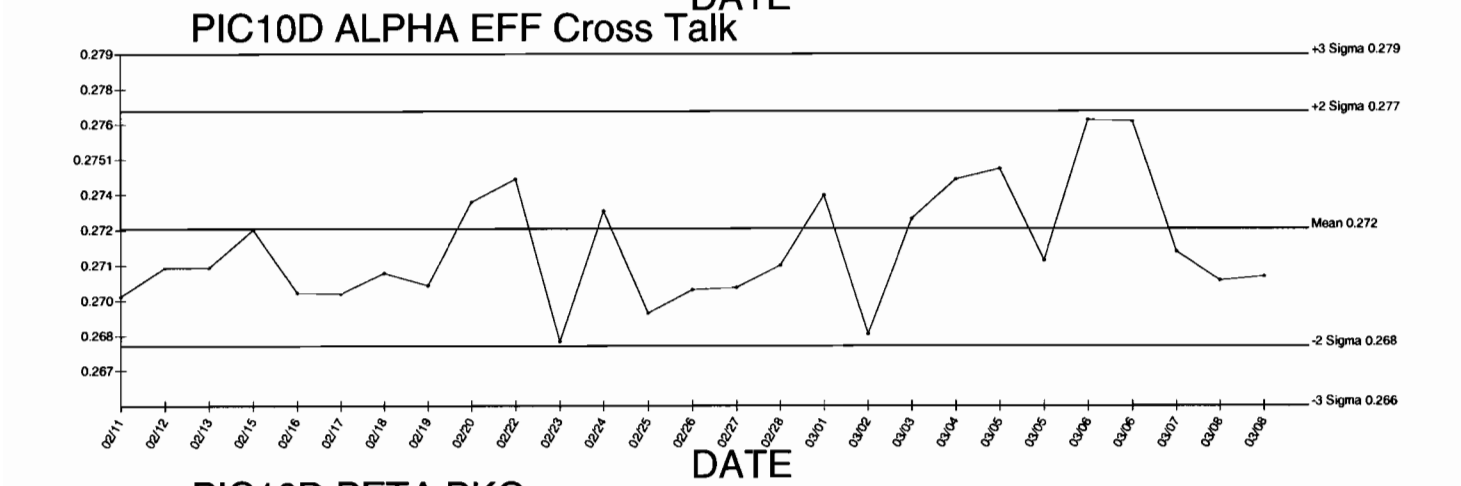

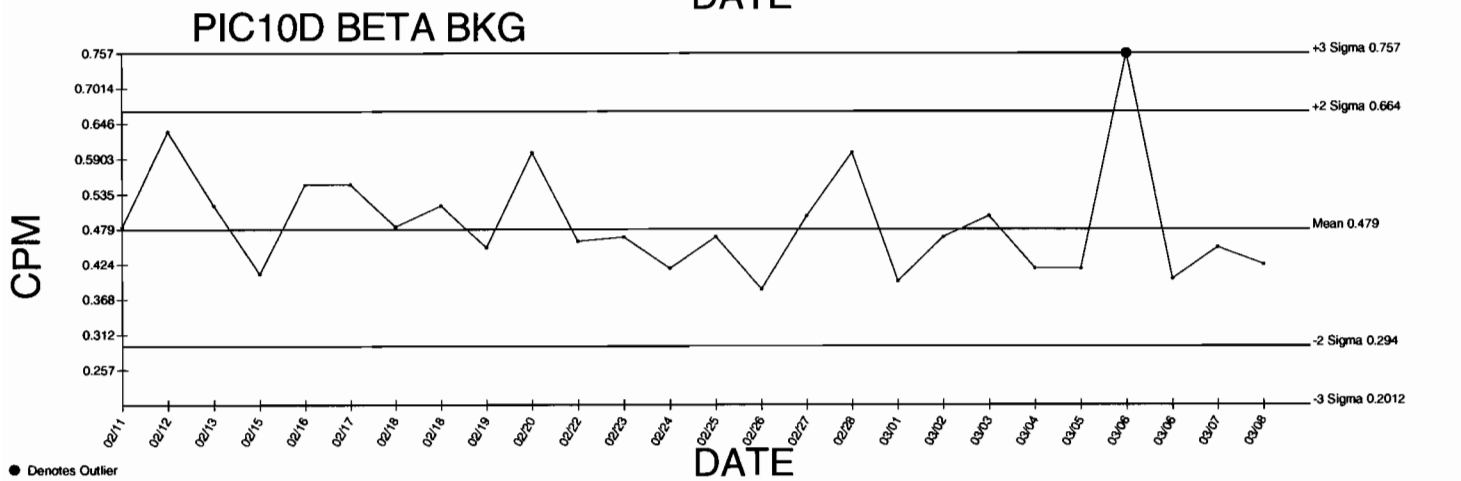

● Denotes Outlier

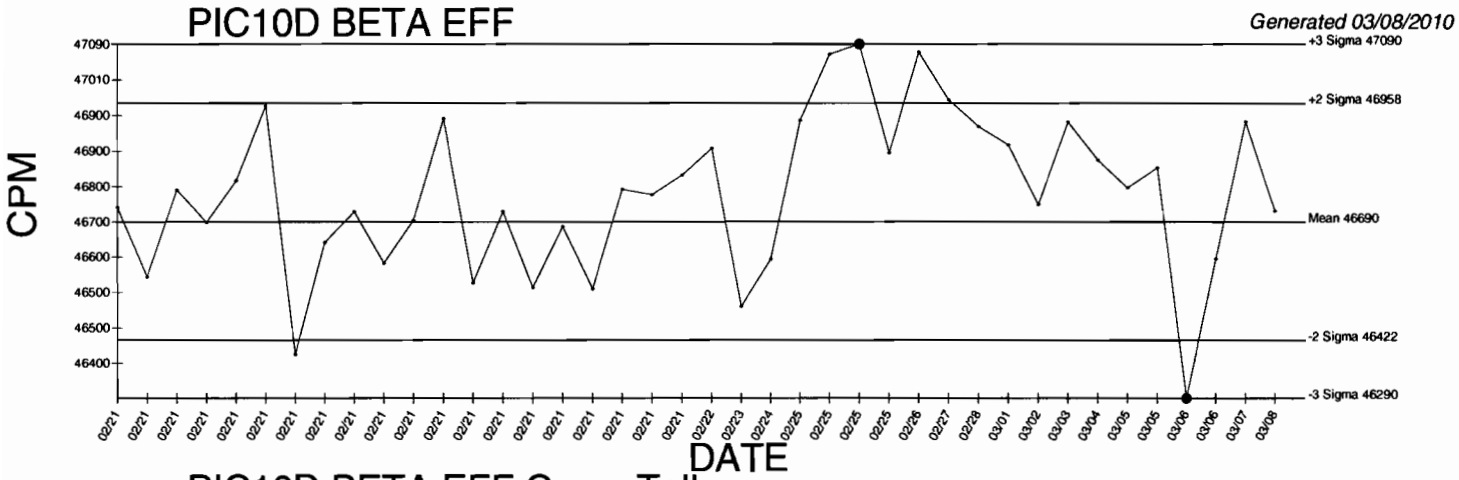

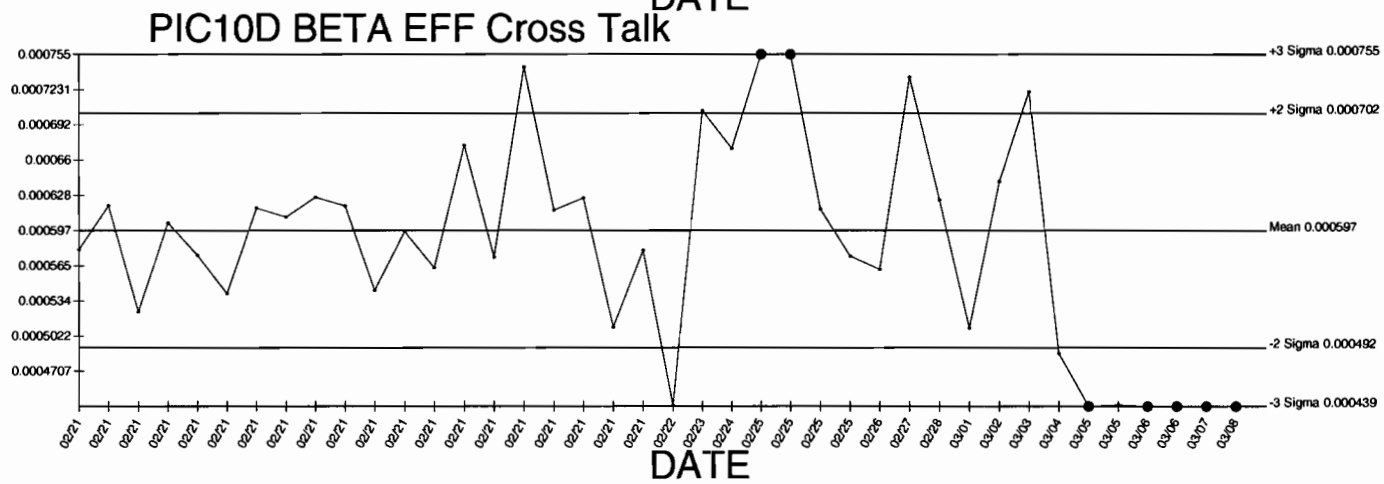

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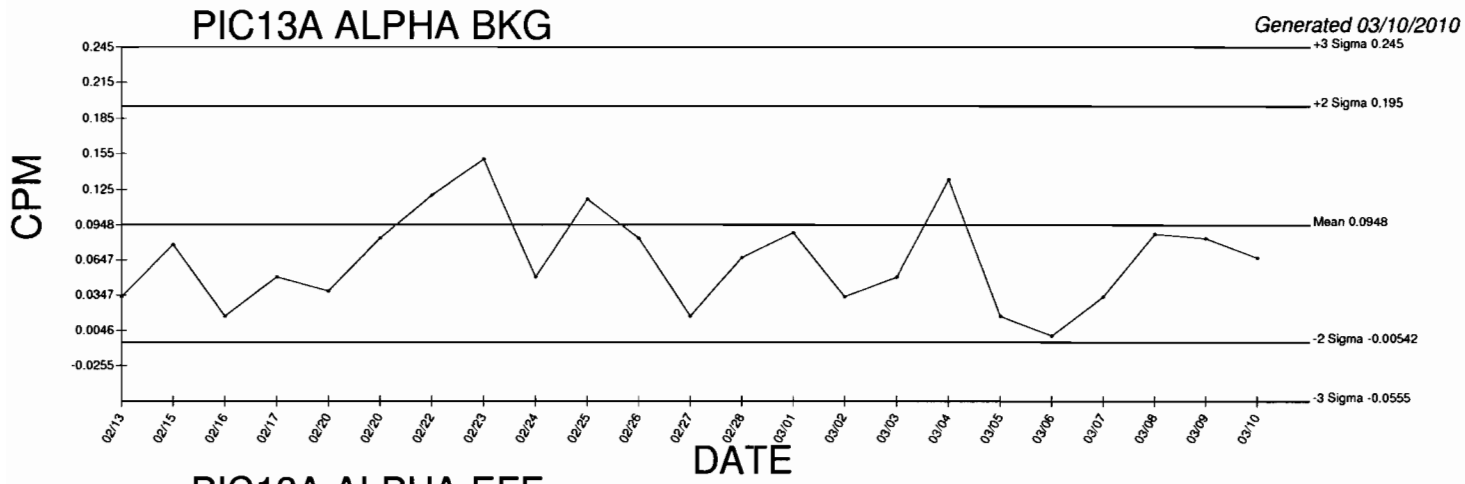
PIC13A ALPHA BKG
Generated 03/10/2010
CPM
0.245
0.215
0.185
0.155
0.125
0.0948
0.0647
0.0347
0.0046
-0.0255
+3 Sigma 0.245
+2 Sigma 0.195
Mean 0.0948
-2 Sigma -0.00542
-3 Sigma -0.0555
02/13 02/15 02/16 02/17 02/20 02/20 02/22 02/23 02/24 02/25 02/26 02/27 02/28 03/01 03/02 03/03 03/04 03/05 03/06 03/07 03/08 03/09 03/10
DATE

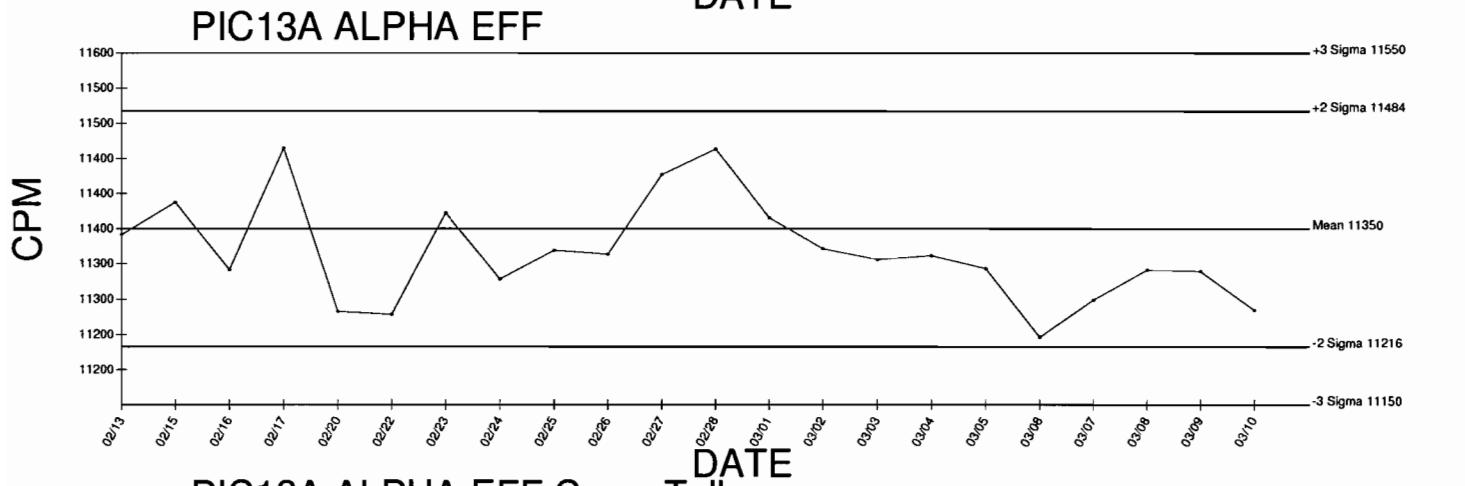
PIC13A ALPHA EFF
CPM
11600
11500
11500
11400
11400
11400
11300
11300
11200
11200
+3 Sigma 11550
+2 Sigma 11484
Mean 11350
-2 Sigma 11216
-3 Sigma 11150
02/13 02/15 02/16 02/17 02/20 02/22 02/23 02/24 02/25 02/26 02/27 02/28 03/01 03/02 03/03 03/04 03/05 03/06 03/07 03/08 03/09 03/10
DATE

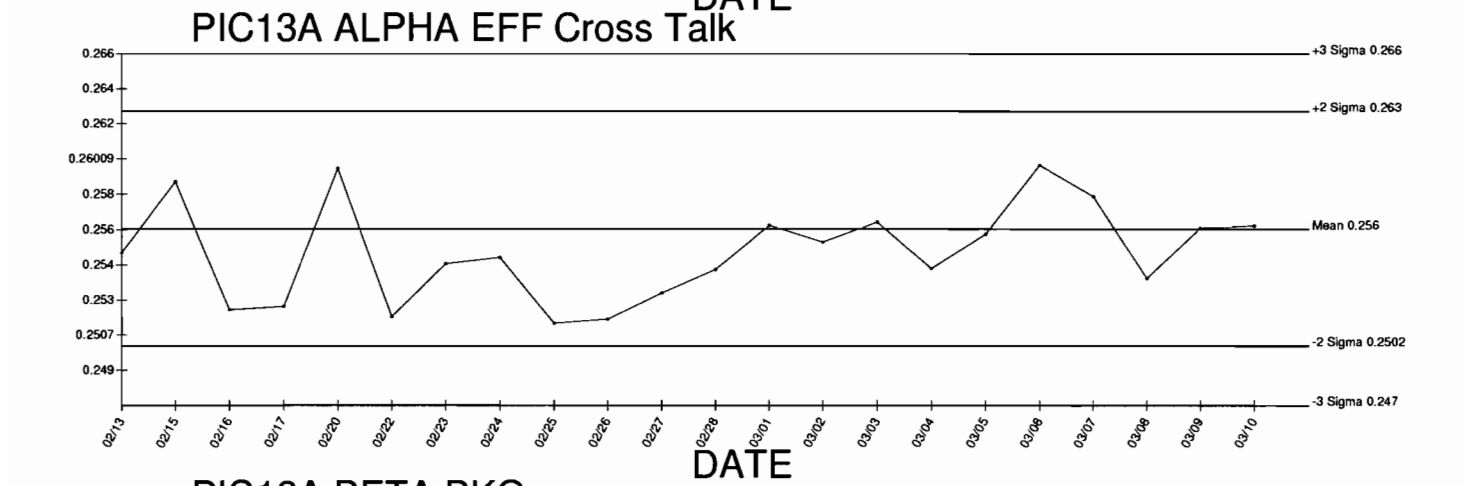
PIC13A ALPHA EFF Cross Talk
0.266
0.264
0.262
0.26009
0.258
0.256
0.254
0.253
0.2507
0.249
+3 Sigma 0.266
+2 Sigma 0.263
Mean 0.256
-2 Sigma 0.2502
-3 Sigma 0.247
02/13 02/15 02/16 02/17 02/20 02/22 02/23 02/24 02/25 02/26 02/27 02/28 03/01 03/02 03/03 03/04 03/05 03/06 03/07 03/08 03/09 03/10
DATE

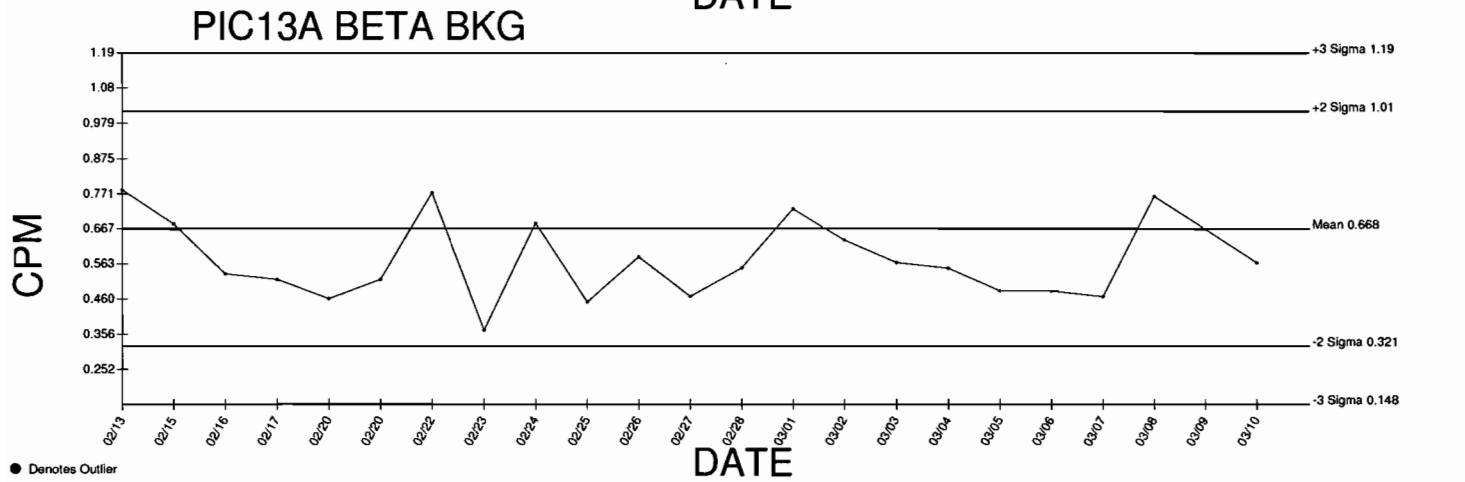
PIC13A BETA BKG
CPM
1.19
1.08
0.979
0.875
0.771
0.667
0.563
0.460
0.356
0.252
+3 Sigma 1.19
+2 Sigma 1.01
Mean 0.668
-2 Sigma 0.321
-3 Sigma 0.148
02/13 02/15 02/16 02/17 02/20 02/20 02/22 02/23 02/24 02/25 02/26 02/27 02/28 03/01 03/02 03/03 03/04 03/05 03/06 03/07 03/08 03/09 03/10
DATE
● Denotes Outlier

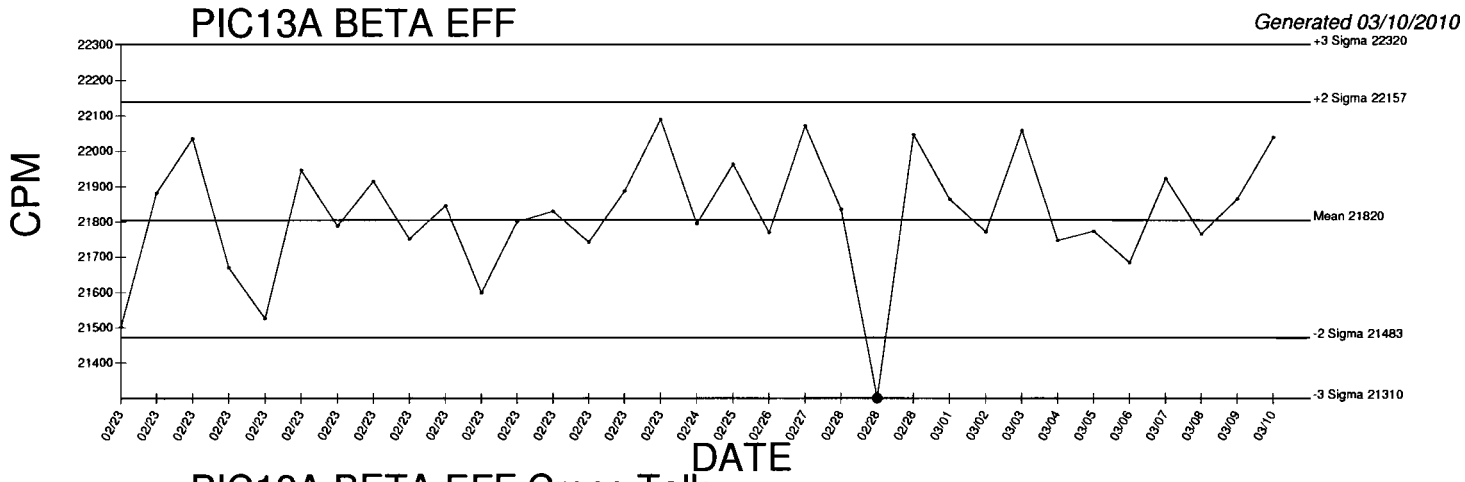

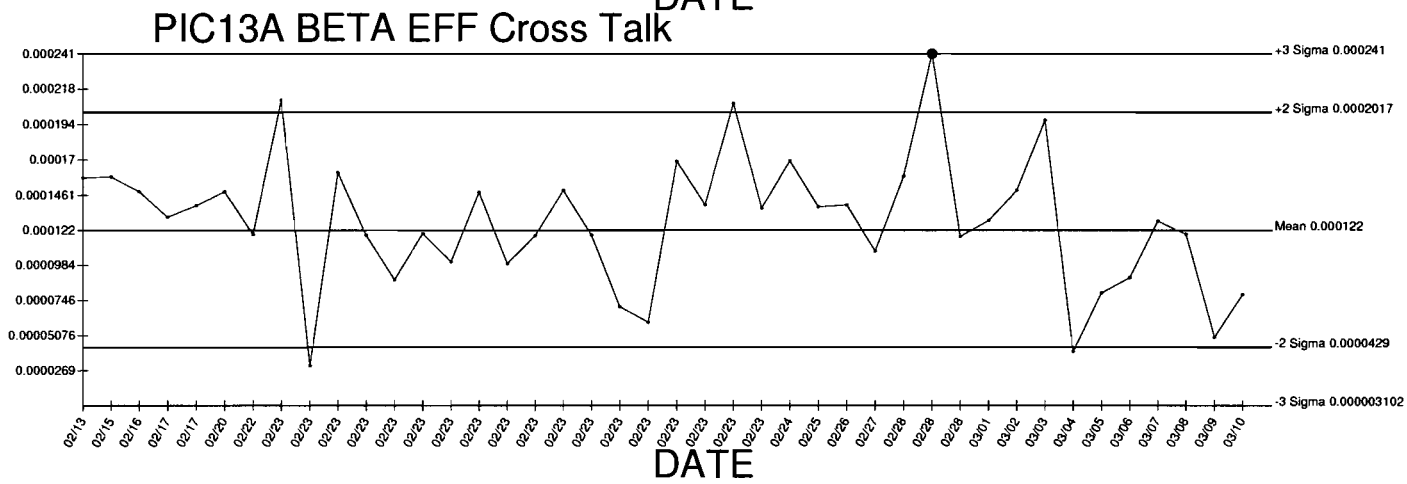

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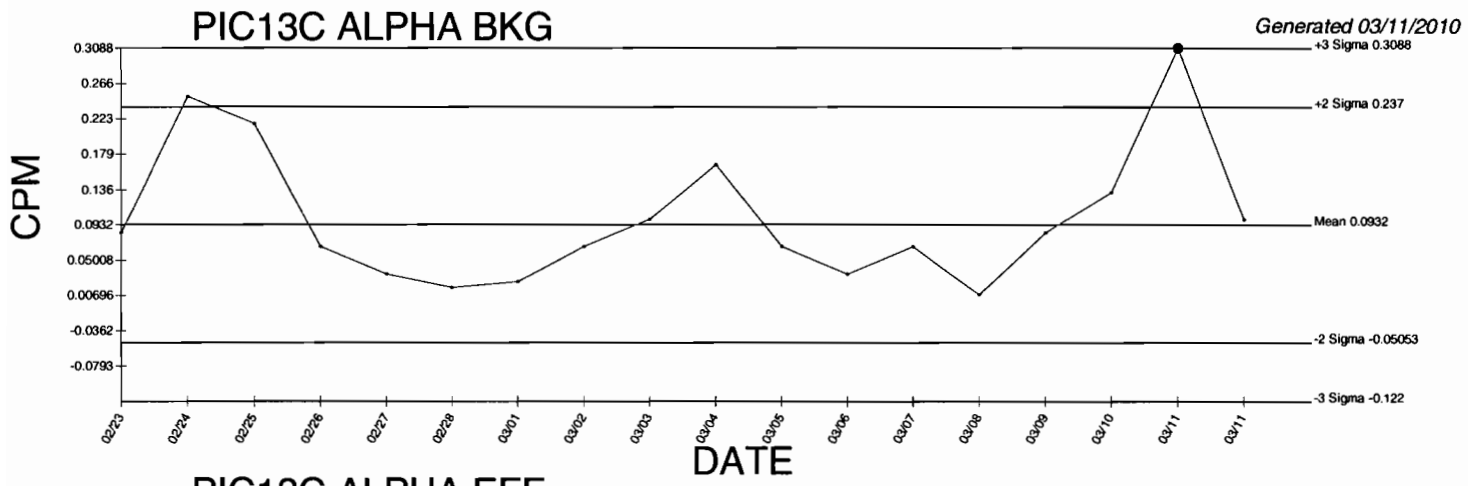
PIC13C ALPHA BKG
Generated 03/11/2010
CPM
0.3088
0.266
0.223
0.179
0.136
0.0932
0.05008
0.00696
-0.0362
-0.0793
+3 Sigma 0.3088
+2 Sigma 0.237
Mean 0.0932
-2 Sigma -0.05053
-3 Sigma -0.122
02/23
02/24
02/25
02/26
02/27
02/28
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03/04
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03/10
03/11
03/11
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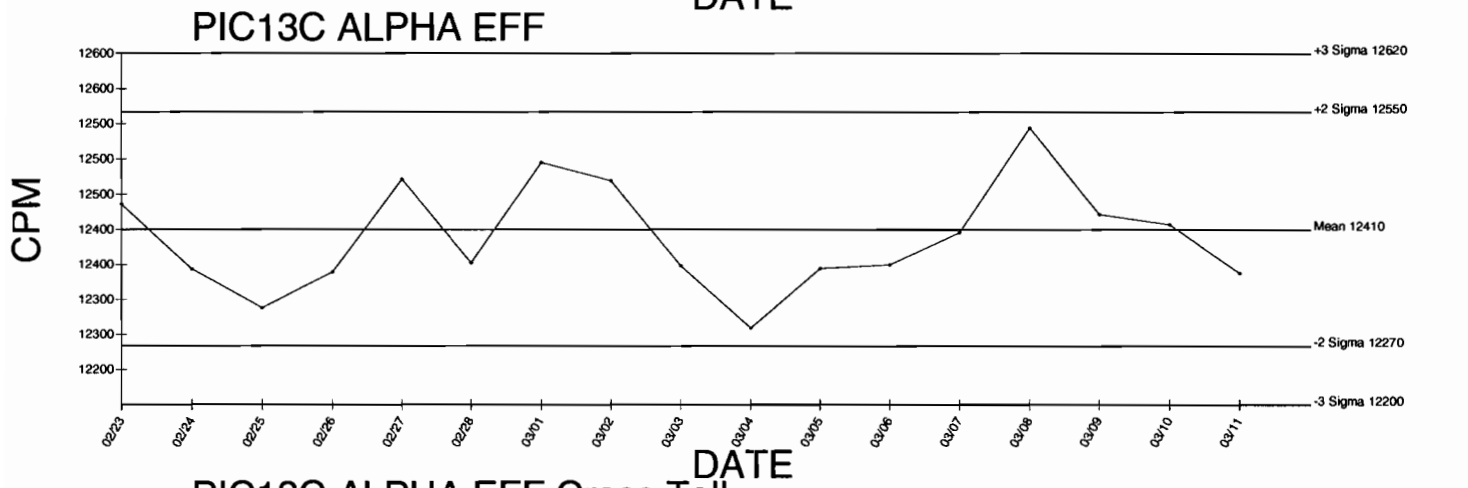
PIC13C ALPHA EFF
CPM
12600
12600
12500
12500
12500
12400
12400
12300
12300
12200
+3 Sigma 12620
+2 Sigma 12550
Mean 12410
-2 Sigma 12270
-3 Sigma 12200
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
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03/06
03/07
03/08
03/09
03/10
03/11
DATE

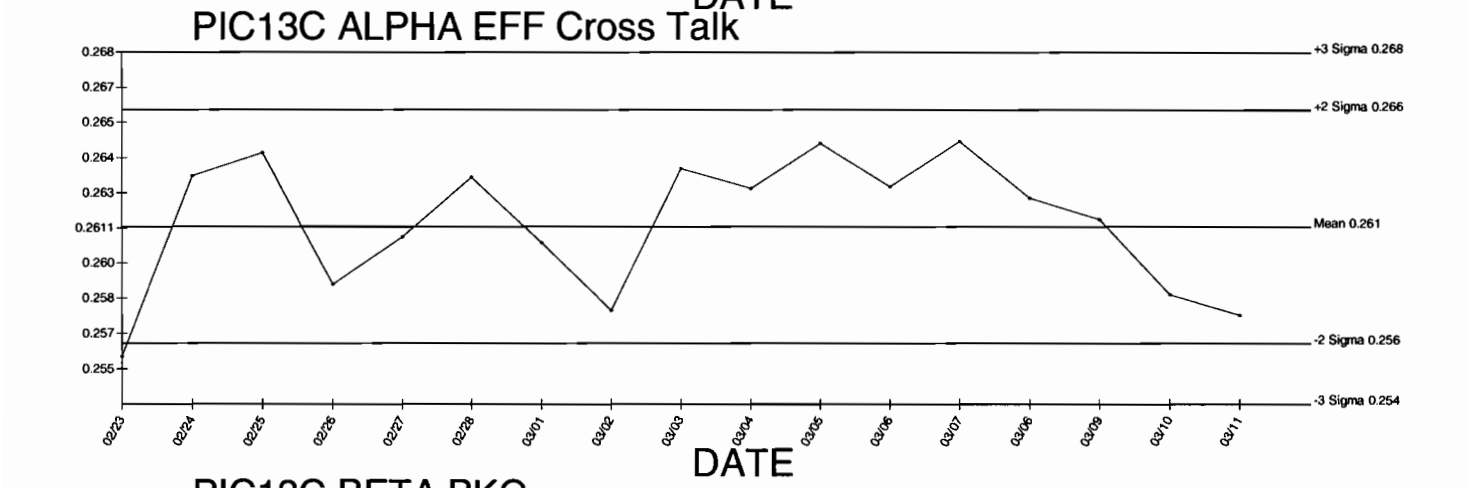
PIC13C ALPHA EFF Cross Talk
0.268
0.267
0.265
0.264
0.263
0.2611
0.260
0.258
0.257
0.255
+3 Sigma 0.268
+2 Sigma 0.266
Mean 0.261
-2 Sigma 0.256
-3 Sigma 0.254
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
03/03
03/04
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03/07
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03/09
03/10
03/11
DATE

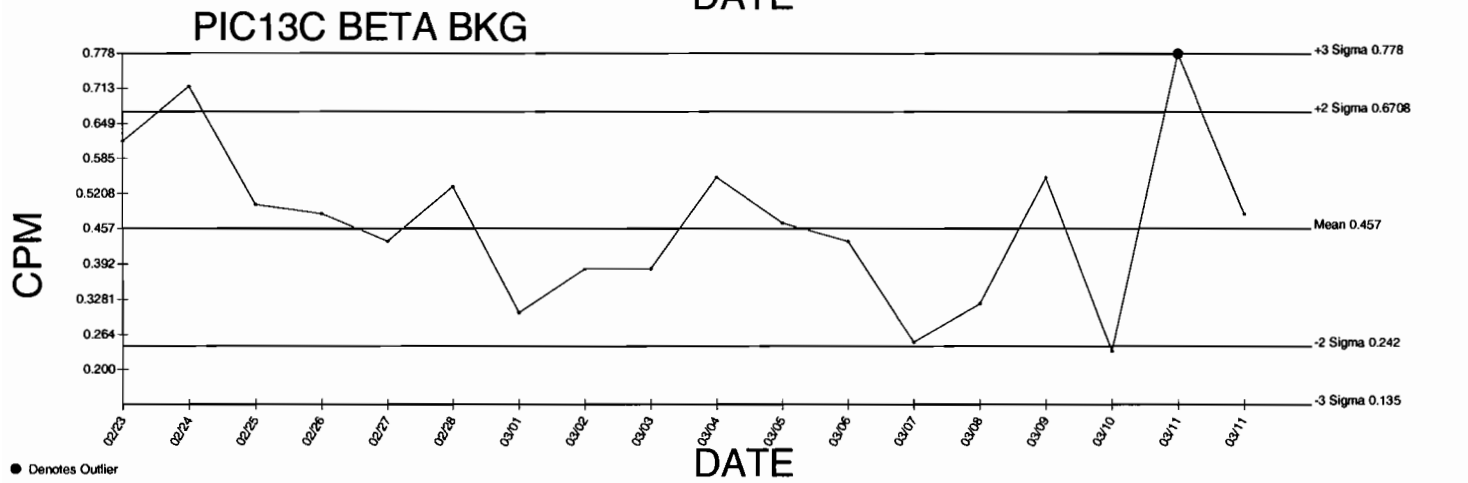
PIC13C BETA BKG
CPM
0.778
0.713
0.649
0.585
0.5208
0.457
0.392
0.3281
0.264
0.200
+3 Sigma 0.778
+2 Sigma 0.6708
Mean 0.457
-2 Sigma 0.242
-3 Sigma 0.135
02/23
02/24
02/25
02/26
02/27
02/28
03/01
03/02
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03/11
03/11
DATE
● Denotes Outlier

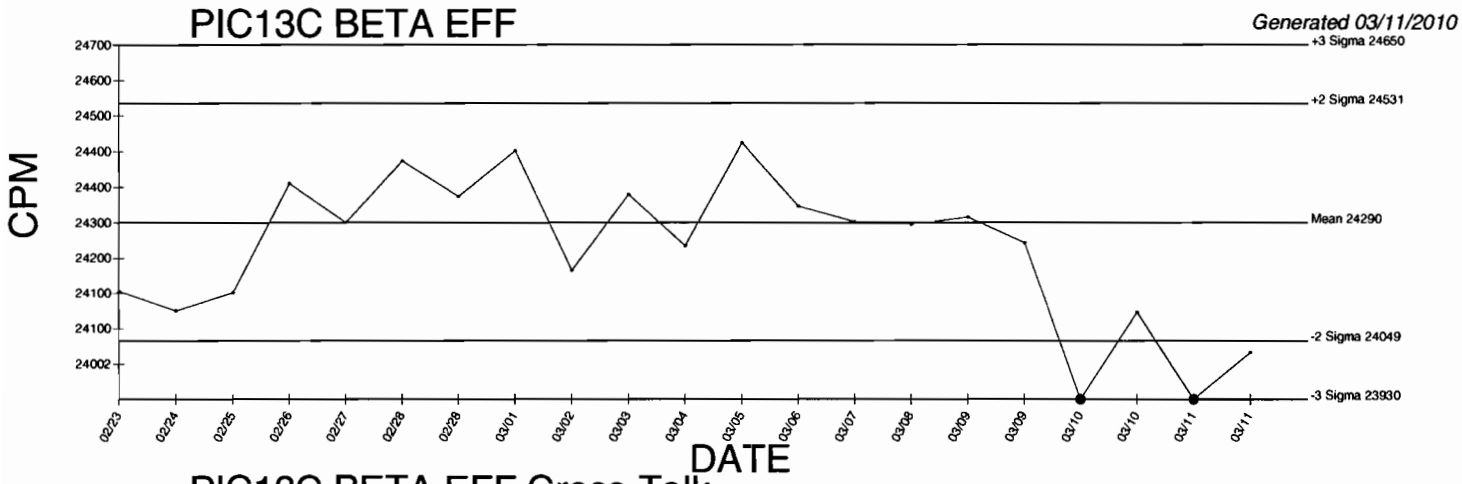

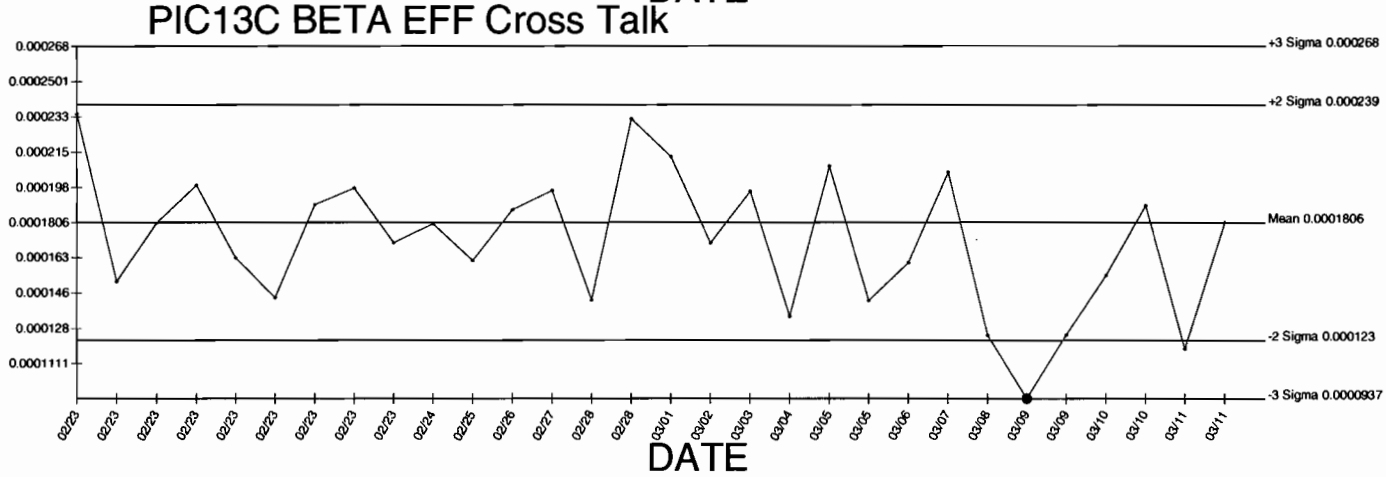

● Denotes Outlier

PIC14B ALPHA BKG

Generated 03/12/2010

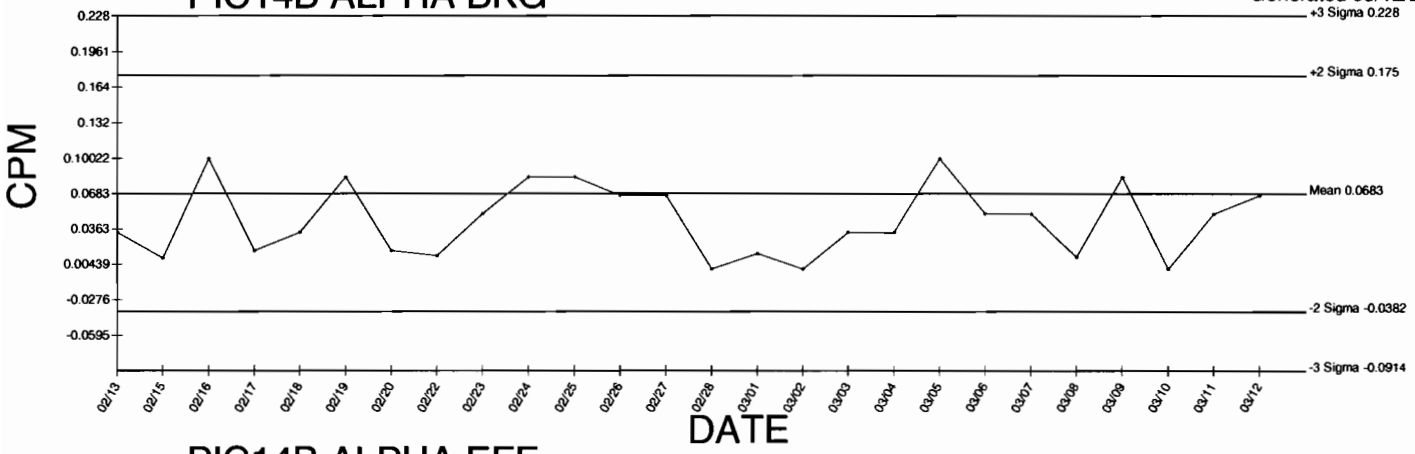

PIC14B ALPHA EFF

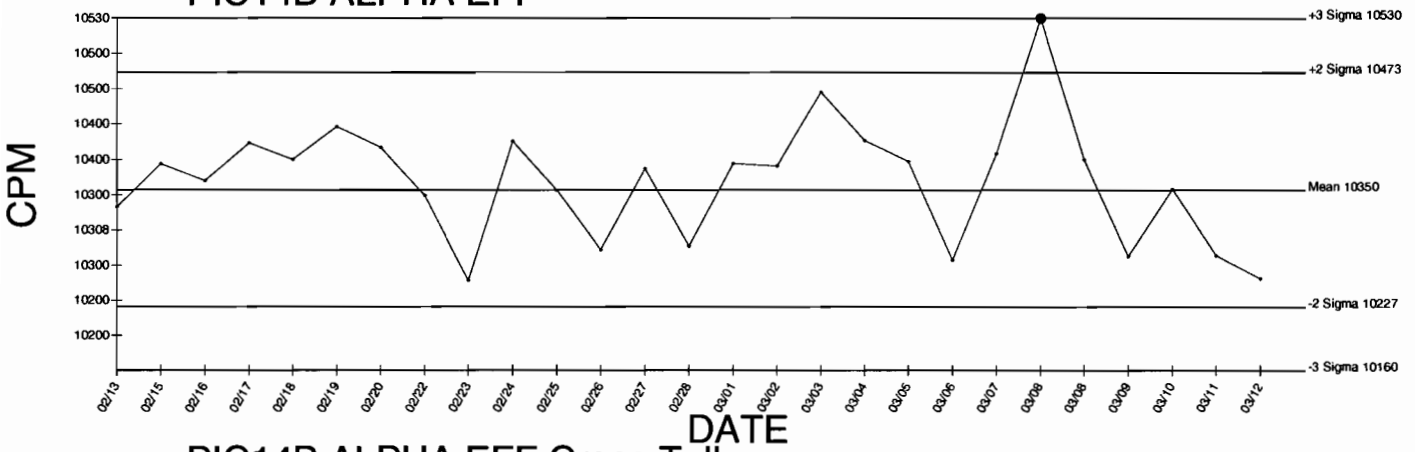

PIC14B ALPHA EFF Cross Talk

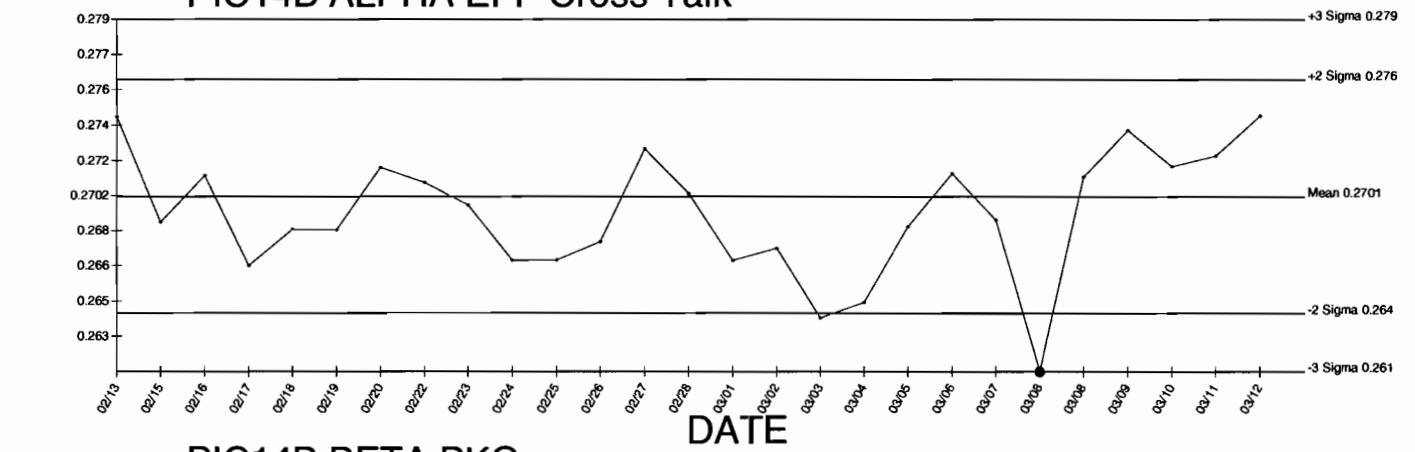

PIC14B BETA BKG

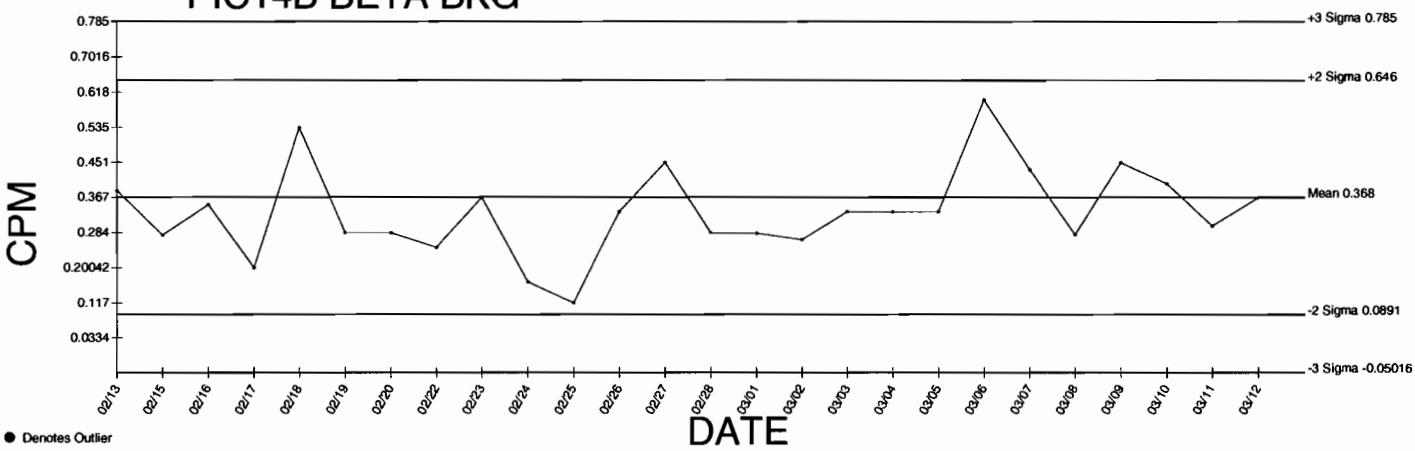

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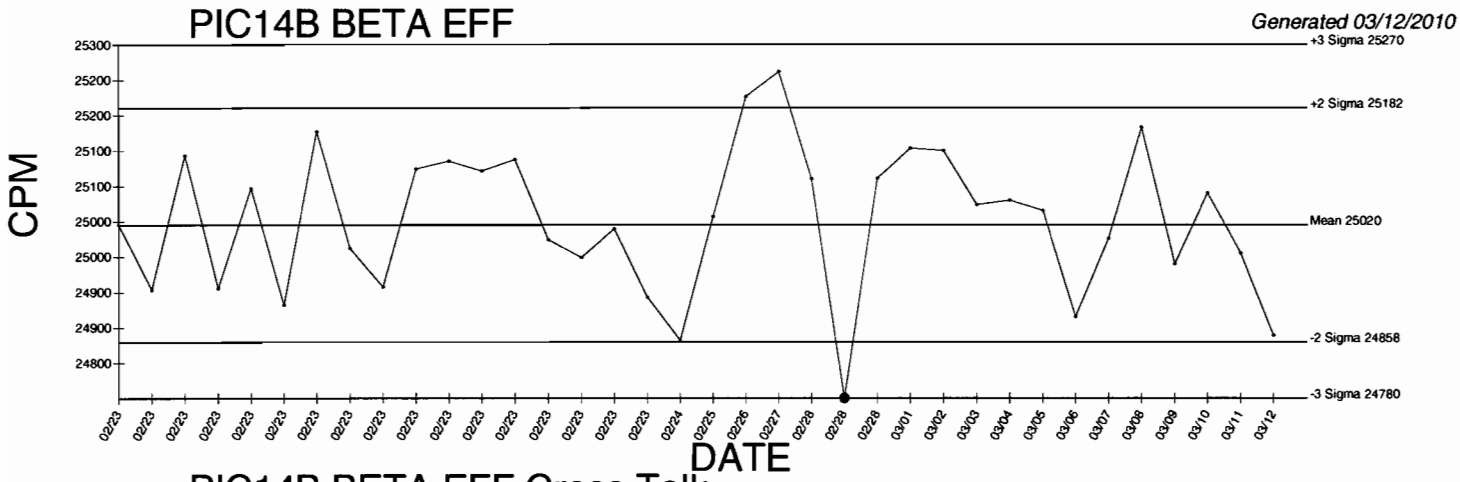

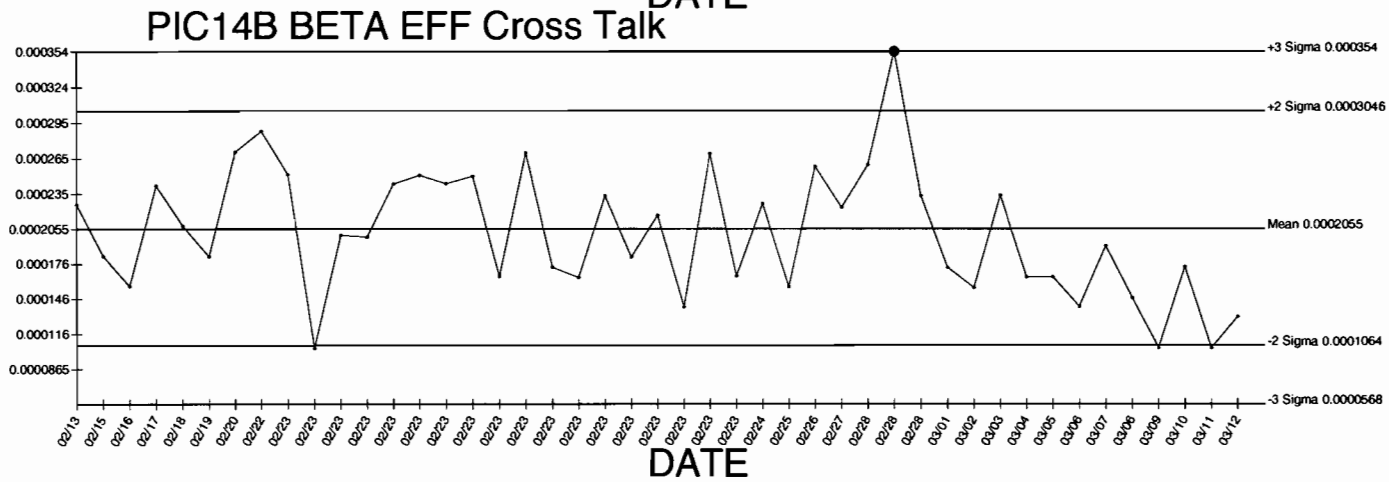

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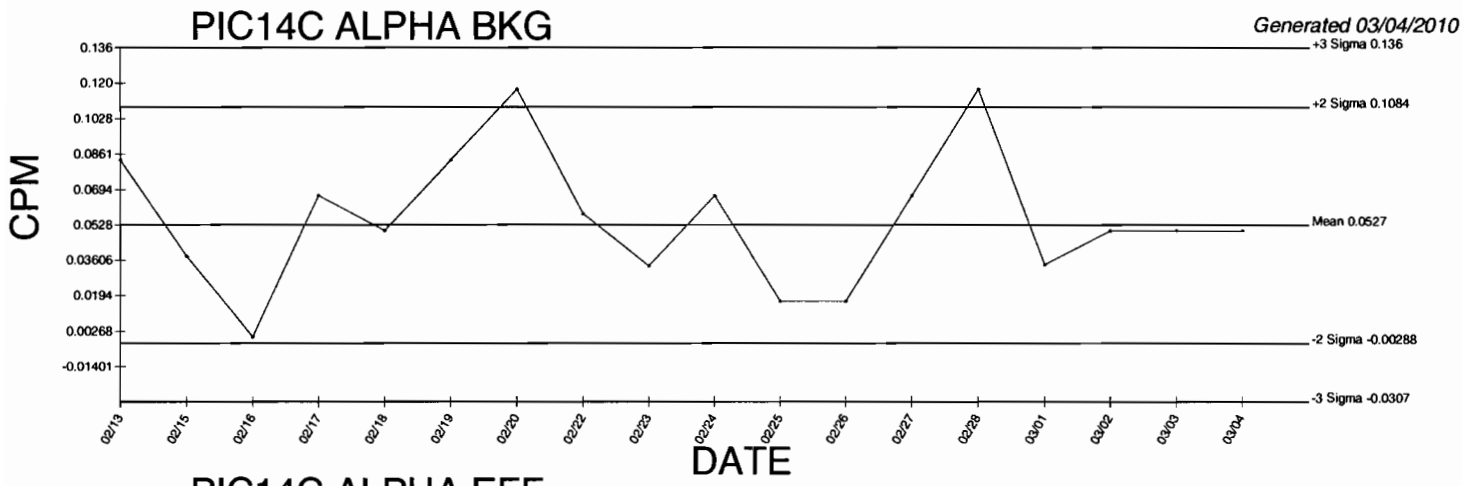

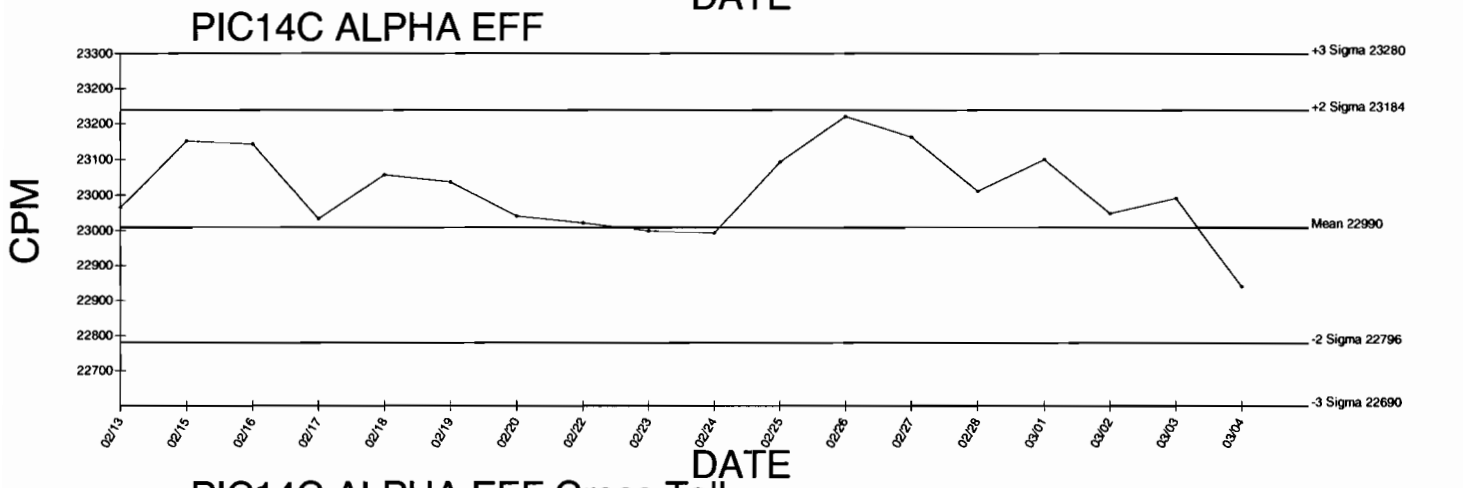

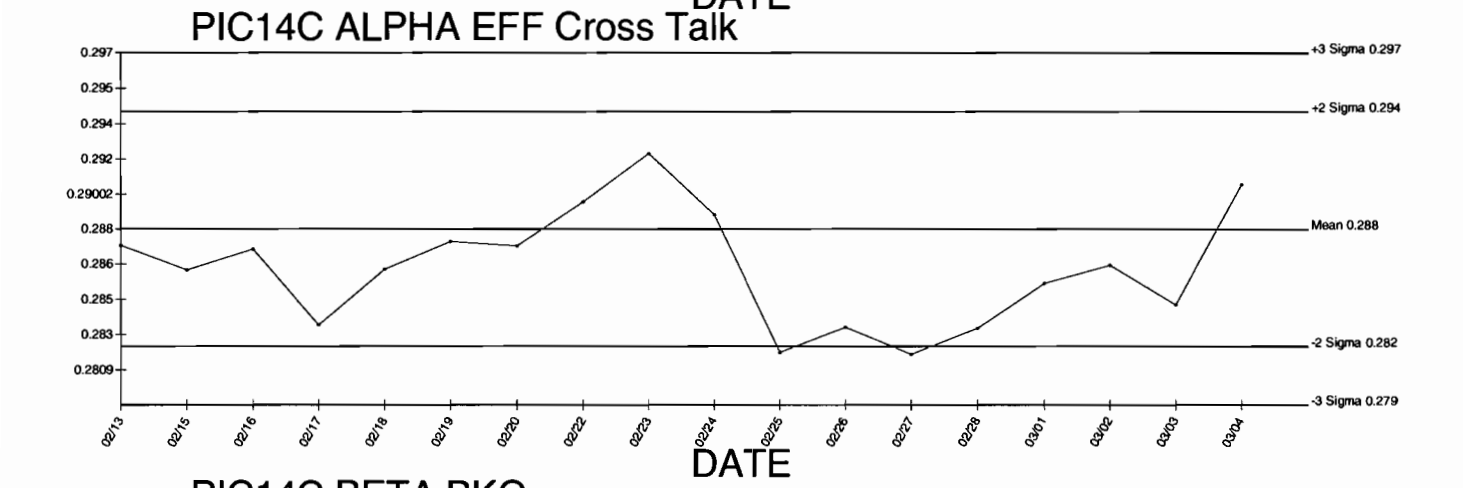

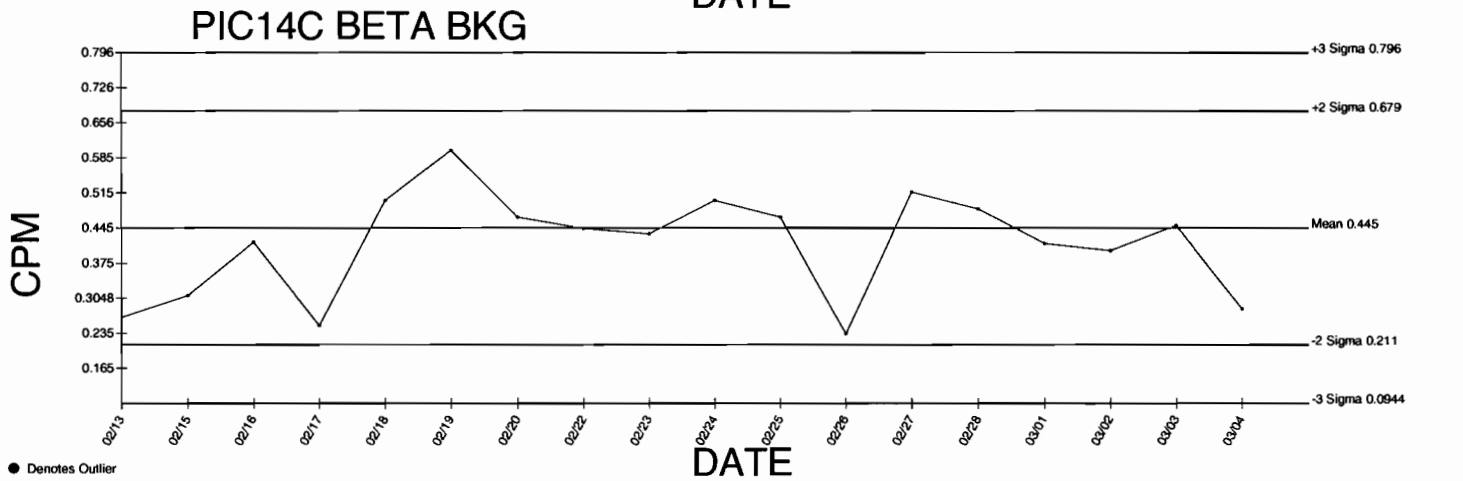

● Denotes Outlier

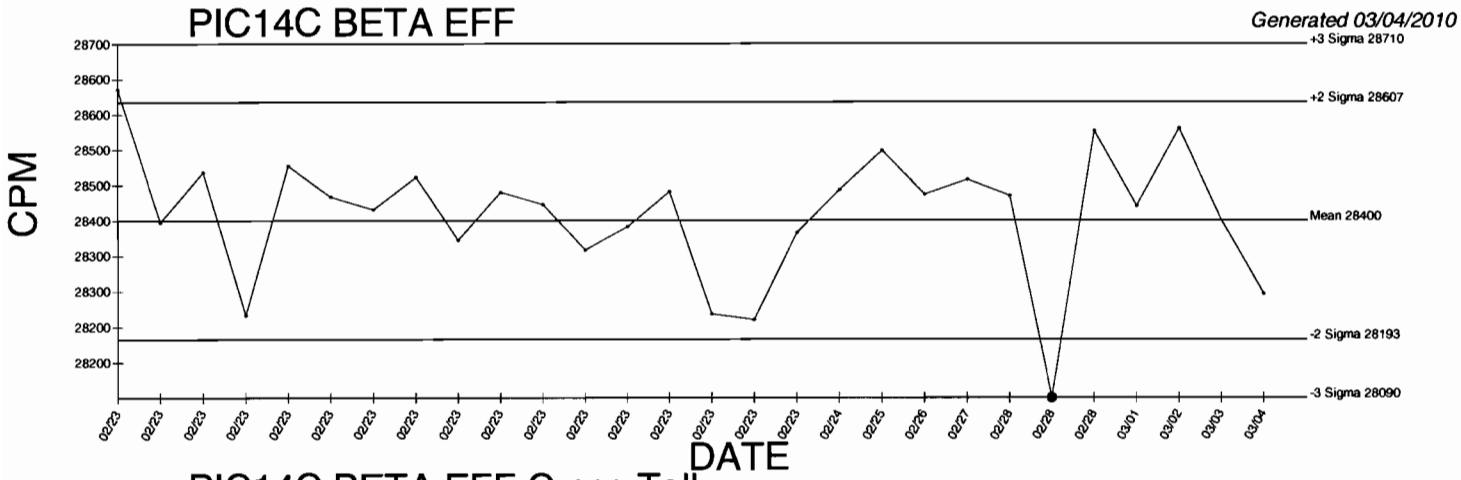

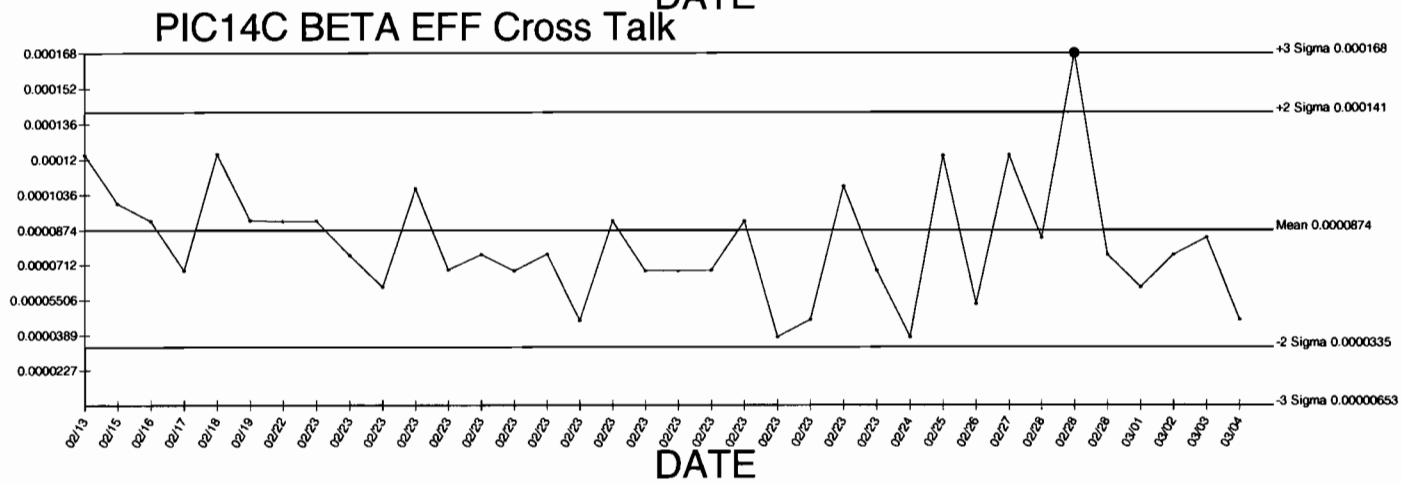

● Denotes Outlier

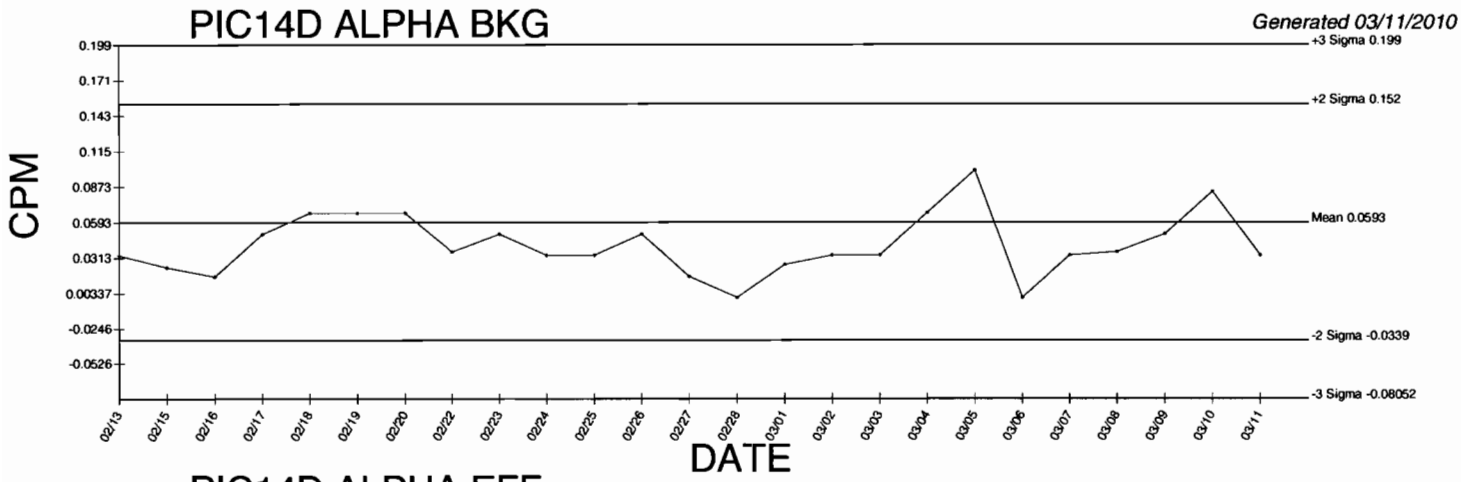

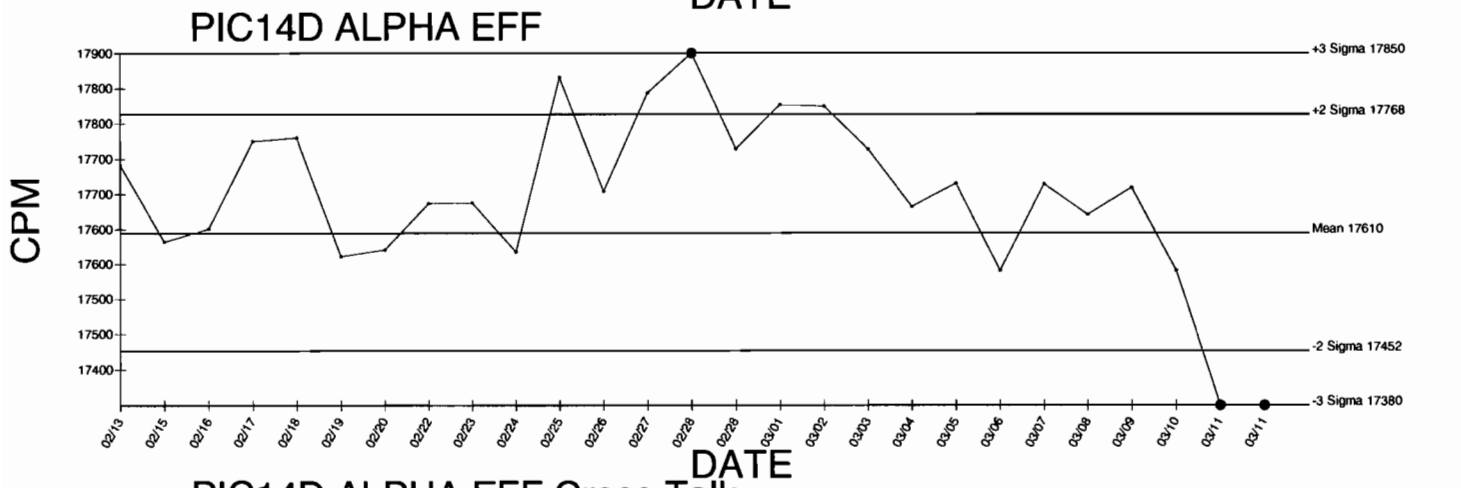

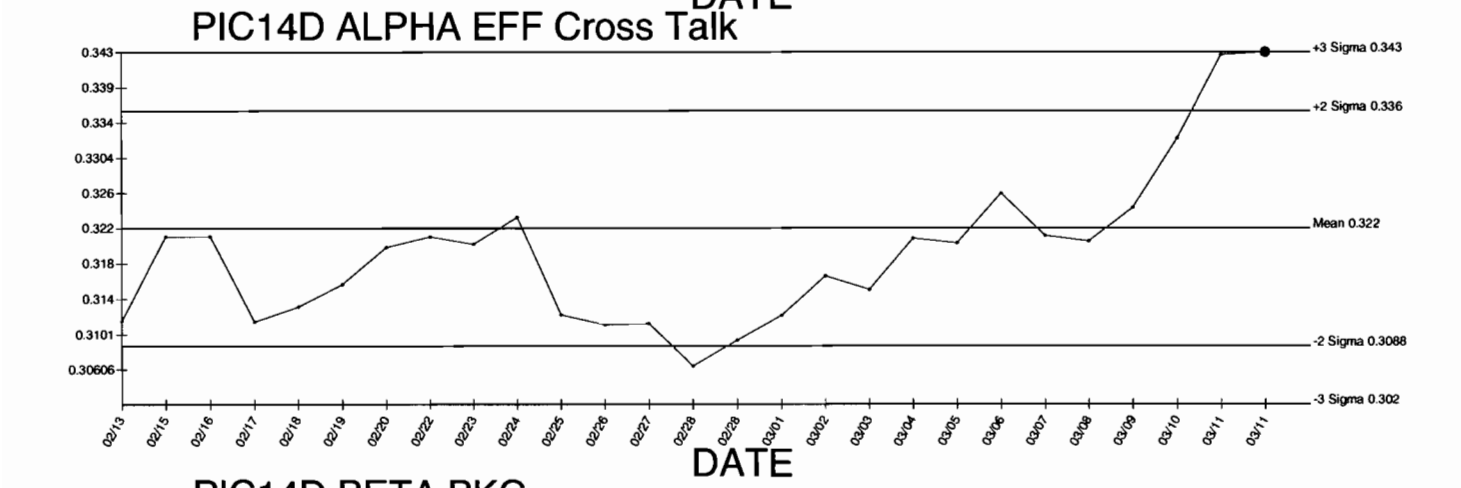

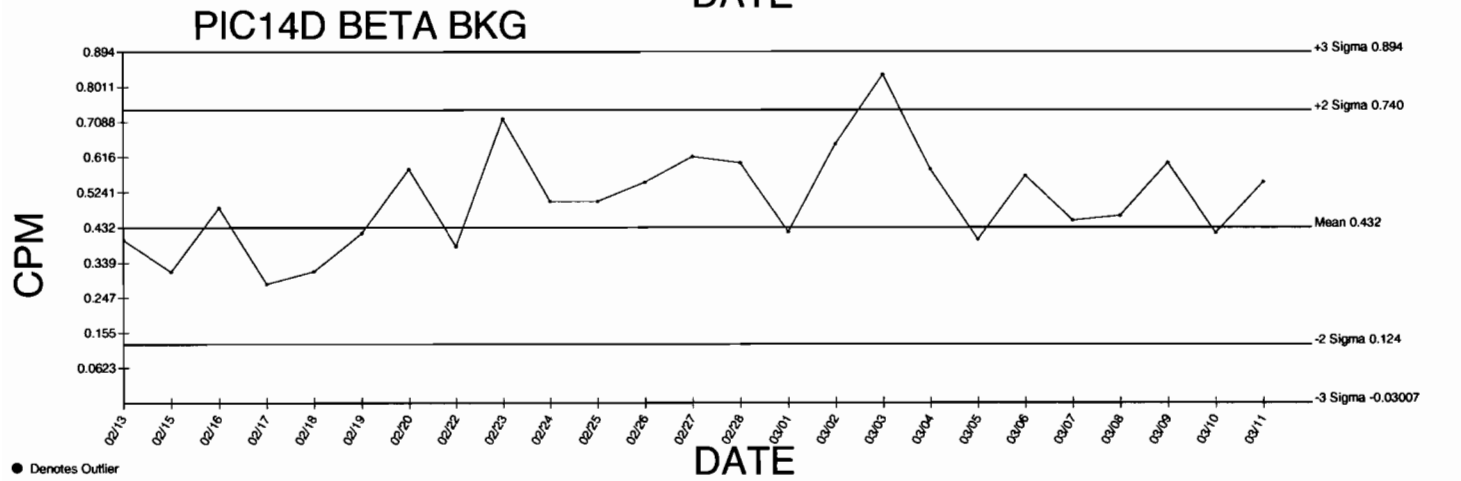

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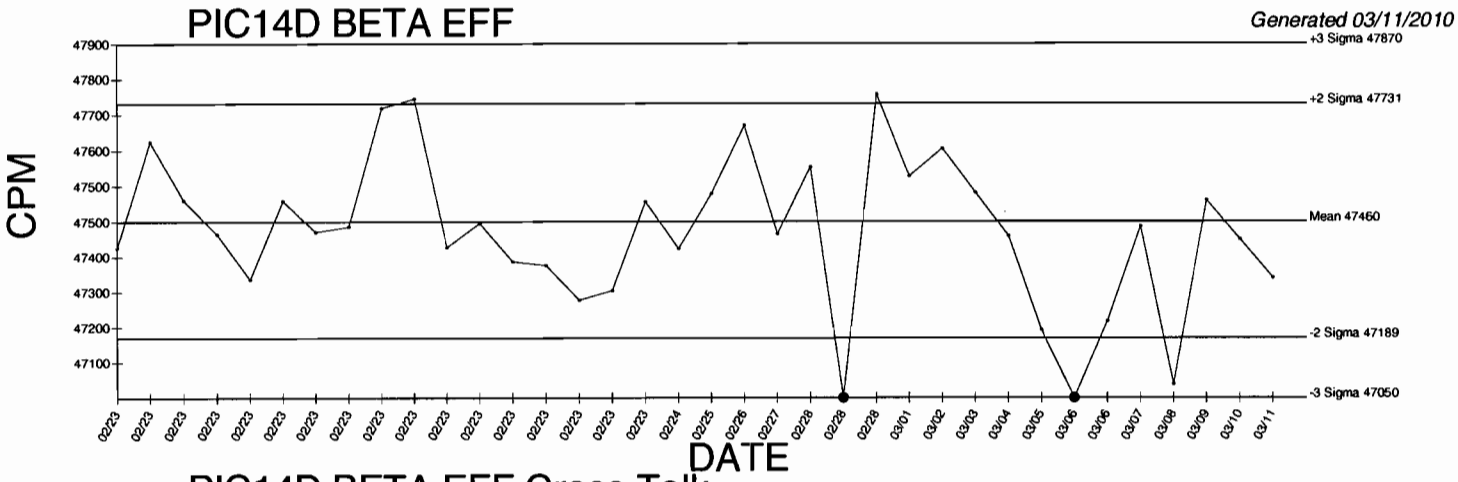

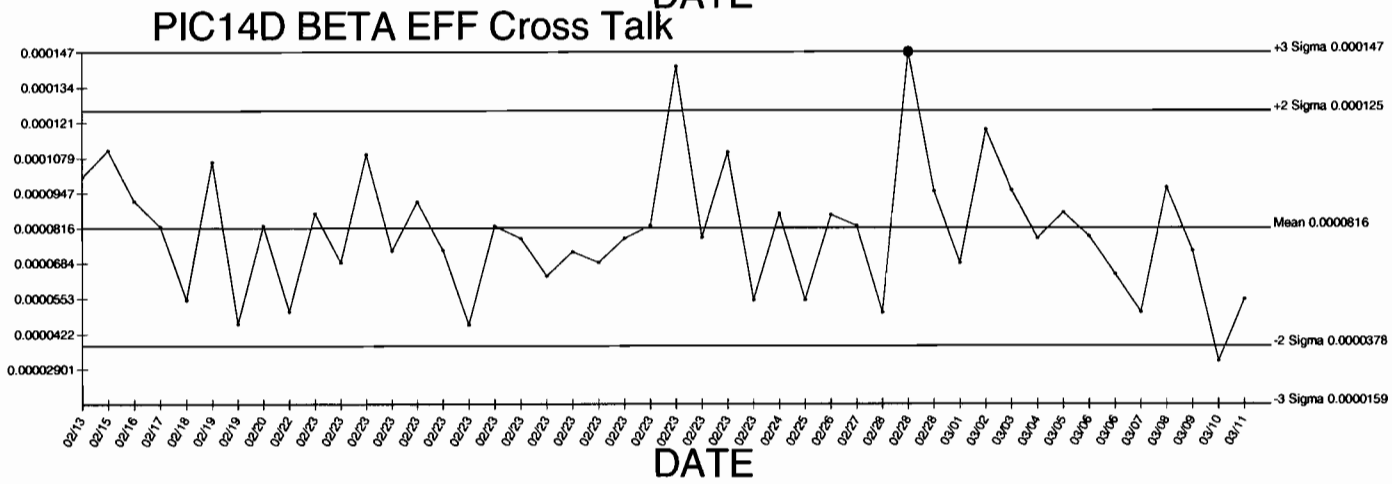

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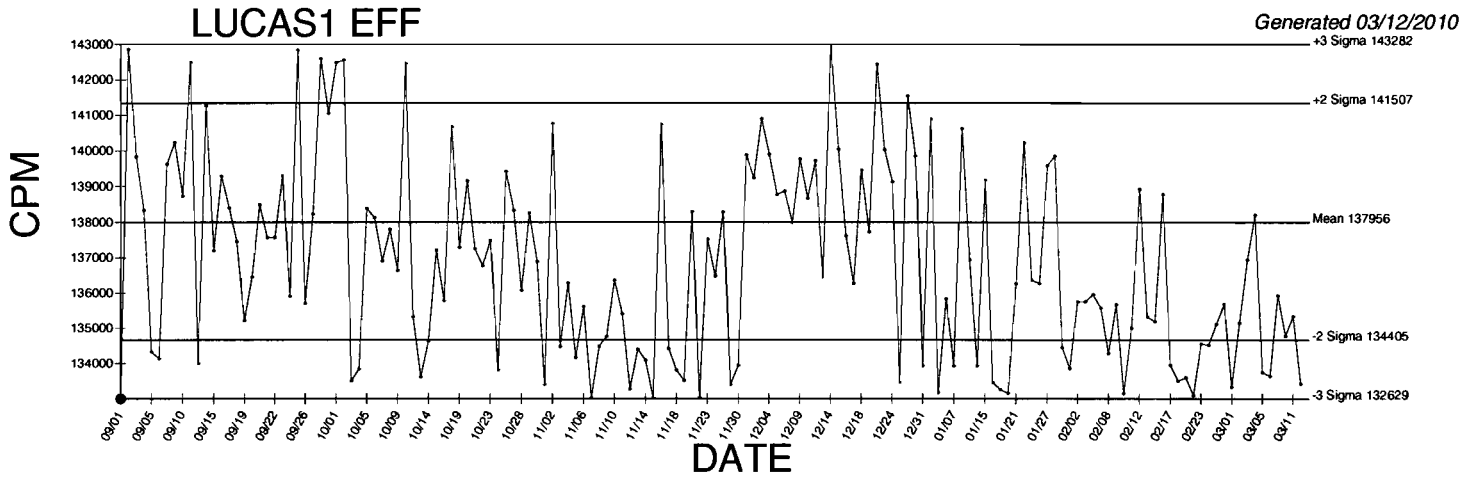

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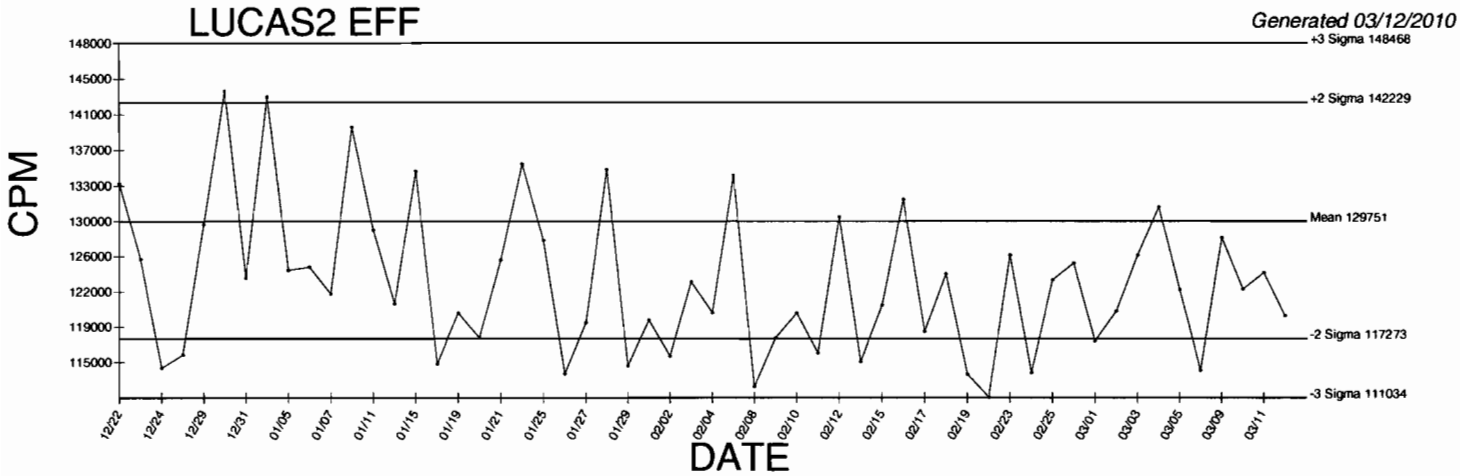

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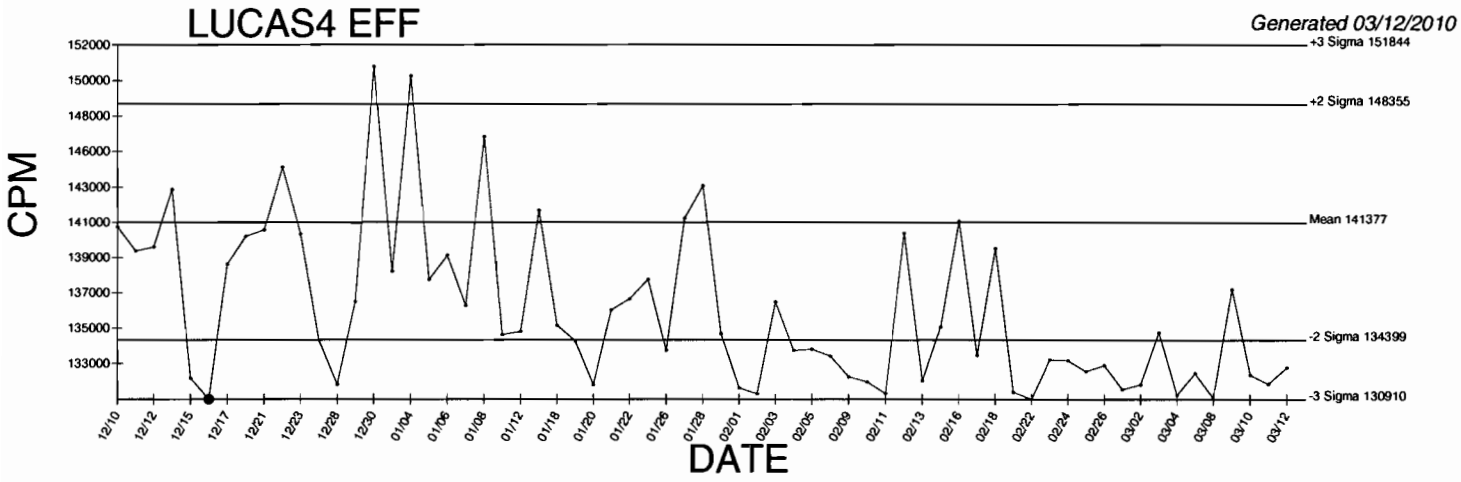

● Denotes Outlier

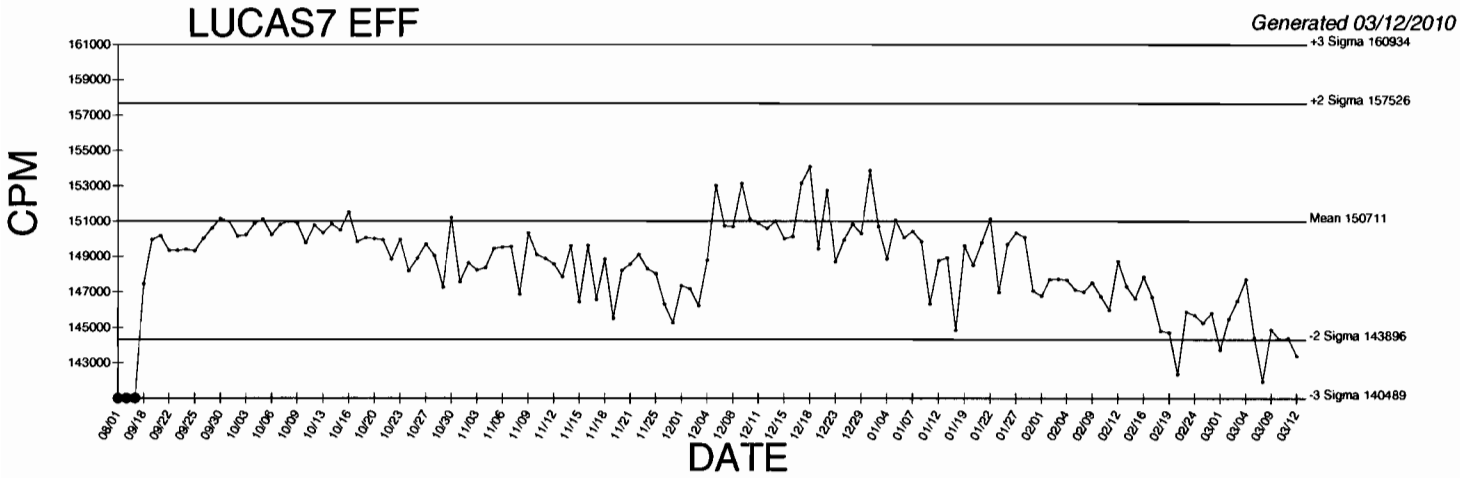

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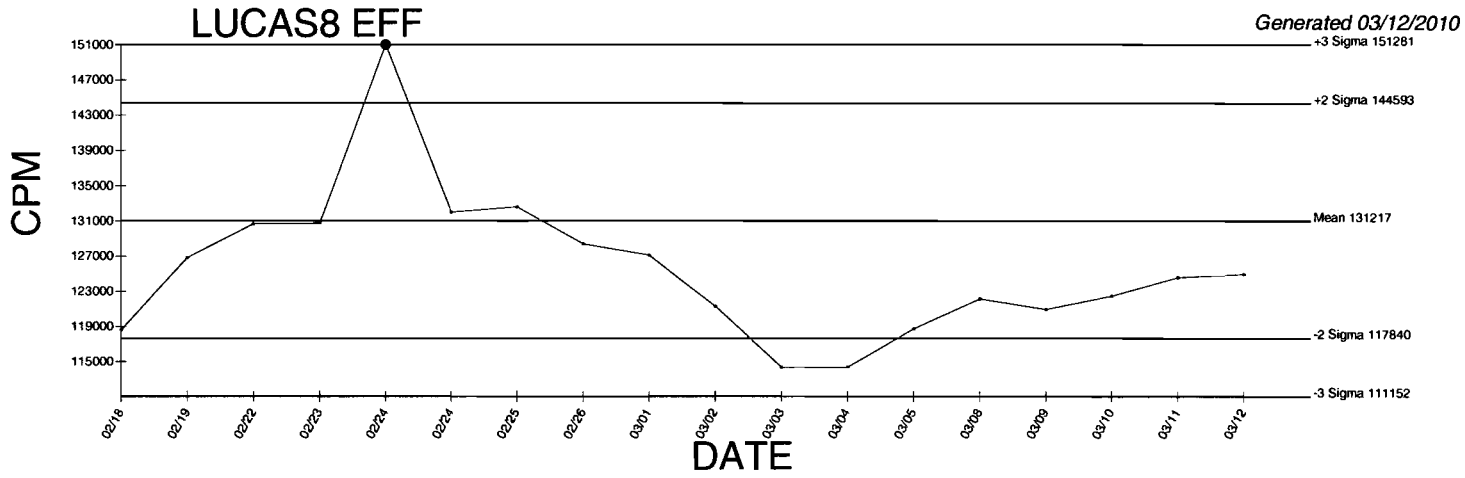

● Denotes Outlier

STANDARDS DATA

ANALYTICS
An Isotope Products Laboratories Company

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404•352•8677
Fax 404•352•2837
www.analyticsinc.com

1032

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

74047-278

5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using aliquots measured gravimetrically from master radionuclide solution sources. The Am-241 was calibrated by 4 pi alpha liquid scintillation counting. All other radionuclides were calibrated using a germanium gamma spectrometer system. Calibration and purity were checked using a germanium gamma spectrometer system. At the time of calibration no interfering gamma-ray emitting impurities were detected. The gamma-ray emission rates for the most intense gamma-ray lines are given. Analytics maintains traceability to the National Institute of Standards and Technology through a Measurements Assurance Program as described in USNRC Regulatory Guide 4.15, Rev. 1, February, 1979.

Calibration date: October 1, 2006 12:00 EST

ISOTOPE	GAMMA-RAY ENERGY	HALF-LIFE		GAMMA-RAYS PER SECOND	TOTAL UNCERTAINTY %
Am-241	59.5	432	y	3339	3.0
Cd-109	88	462.6	d	4815	3.3
Co-57	122	271.79	d	2409	3.0
Ce-139	166	137.6	d	3408	2.8
Hg-203	279	46.61	d	7522	2.7
Sn-113	392	115.1	d	4728	2.6
Cs-137	662	30.07	y	2973	3.0
Y-88	898	106.6	d	11600	2.6
Co-60	1173	5.2714	y	5780	2.7
Co-60	1332	5.2714	y	5783	2.6
Y-88	1836	106.6	d	12260	2.6

5.31725 grams 4M HCl solution.
P O NUMBER 2734RD, Item 1

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 11-28-06

This standard will expire one year after the calibration date.

rec'd 11/30/06
RC-S-045-073-0

Corporate Office
24937 Avenue Tibbitts, Valencia, California 91355

Laboratory
1380 Seaboard Industrial Blvd., Atlanta, Georgia 30318

ANALYTICS
An Isotope Products Laboratories Company

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Atlanta, Georgia 30318

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ANALYSIS OF UNCERTAINTY FOR MIXED GAMMA STANDARDS
BATCH 127
CALIBRATION DATE: October 1, 2006 12:00 EST

Isotope	Energy (keV)	Calibration Method[1]	Statistics[2]	Calibration[2]	Peak Fitting[2]	Geometry[2]	Impurities[2]	Weighing	Combined Standard Uncertainty	Relative Expanded Uncertinty (k=2)
Cd-109	88	HPGe	0.16	1.1	0.88	0.8	0	0.2	1.64	3.3
Co-57	122	HPGe	0.23	1.1	0.71	0.7	0	0.2	1.52	3.0
Ce-139	166	HPGe	0.17	1.0	0.58	0.7	0	0.2	1.38	2.8
Hg-203	279	HPGe	0.11	1.1	0.34	0.7	0	0.2	1.37	2.7
Sn-113	392	HPGe	0.21	1.0	0.35	0.7	0	0.2	1.30	2.6
Cs-137	662	HPGe	0.36	1.1	0.60	0.7	0	0.2	1.49	3.0
Y-88	898	HPGe	0.19	1.0	0.33	0.7	0	0.2	1.29	2.6
Co-60	1173	HPGe	0.31	.97	0.45	0.7	0	0.2	1.33	2.7
Co-60	1332	HPGe	0.33	.93	0.48	0.7	0	0.2	1.32	2.6
Y-88	1836	HPGe	0.24	1.0	0.35	0.7	0	0.2	1.31	2.6

Optional Additional Isotopes

Pb-210	46.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Am-241	59.5	4π LS	0.33	1.1	0	0.9	0.30	0.2	1.50	3.0
Sr-85	514	IC	0.30	1.1	0	0.7	0.17	0.2	1.36	2.7
Cs-134	605	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Cs-134	796	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Mn-54	835	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7
Zn-65	1116	IC	0.30	1.0	0	0.8	0.17	0.2	1.34	2.7

[1]Calibration Methods:

4π LS (4 pi Liquid Scintillation Counting)
HPGe (High Purity Germanium Gamma Ray Spectrometer)
IC (Gamma Ray Ionization Chamber)

[2]As Percent (%)from counting data

No interfering gamma emitting impurities were detected during calibration. Depending on the resolution and energy dispersion (keV/channel) of the measuring system, the following spectral conflicts may occur: (1) between the 88 keV gamma-ray and the X-rays emitted in the decay of Hg-203, (2) between the 1333 keV gamma-ray and the 1325 keV single escape peak from the 1836 keV gamma-ray.

Operations Manual Forms, ANA-QA-06 Form 1, Rev. 2, 6/7/2005

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1032
Prepared By:	Daniel Roy
Carrier Conc:	4 M HCL
Reference Date:	10/01/2006
Ampoule Mass (g):	5.31725 g
Uncertainty:	+/- 2.81 %
LogBook No:	RC-S-045-073

A Solution Material Info	
Isotope:	Mixed Gamma
Prepared By:	Daniel Roy
Prep Date:	11/30/2006
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1032-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.2579 g
Density(g/mL):	1.0611
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dpm)) * (conversion dpm to dpm) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (5.31725 g * 100 mL) = 2163.7461 dpm/mL
(5.2579 g) * (218817 dpm) * (1 dpm/dpm) / (1.0611 g/mL)/ (5.31725 g * 100 mL) = 2039.2400 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Am-241	Isotope	Result		
	Mixed Gamma N1	2534	pCi/L	- VER. JAR-1
	Mixed Gamma N2	2510	pCi/L	- VER. JAR-3
	Mixed Gamma N3	2413	pCi/L	- VER. JAR. 5
Mean Value (Counting) =	2485.67	**100.00**	**Pass**	
Stdev =	64.065		**Rule 3 (Pass/Fail)**	
Certificate Value =	2485.68018	pCi/L		
Lower Limit =	2357.536524	pCi/L		
Upper Limit =	2613.796809	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	128.1301422			
10 % of Mean =	248.56666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 verification 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Cs-137	Isotope	Result		
	Mixed Gamma N1	854.2	pCi/L	- VER-JAR-1
	Mixed Gamma N2	907.6	pCi/L	- VER-JAR-3
	Mixed Gamma N3	898.9	pCi/L	- VER-JAR-2

Mean Value (Counting) =	886.90	**95.01**	**Pass**
Stdev =	28.651	**Rule 3 (Pass/Fail)**	

Certificate Value =	933.44144	pCi/L
Lower Limit =	829.597644	pCi/L
Upper Limit =	944.202356	pCi/L
Rule 1 (Pass/Fail)	**Pass**	
Two sigma =	57.30235597	
10 % of Mean =	88.69000000	
Rule 2 (Pass/Fail)	**Pass**	

M. Stamps 12/2/09

12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

Verification for Mixed Gamma Standard 1032-A

M. Stamps
12/2/2009

Co-60 (1332.5)	Isotope	Result		
	Mixed Gamma N1	1572	pCi/L	- VER-JAR-5
	Mixed Gamma N2	1495	pCi/L	- VER-JAR-2
	Mixed Gamma N3	1501	pCi/L	- VER-JAR-3
Mean Value (Counting) =	1522.67	**98.50**	**Pass**	
Stdev =	42.829	**Rule 3 (Pass/Fail)**		
Certificate Value =	1545.8378	pCi/L		
Lower Limit =	1437.008431	pCi/L		
Upper Limit =	1608.324902	pCi/L		
Rule 1 (Pass/Fail)	**Pass**			
Two sigma =	85.65823564			
10 % of Mean =	152.26666667			
Rule 2 (Pass/Fail)	**Pass**			

M. Stamps 12/2/09 [illegible] 12/4/09

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

0533

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 · U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

65338-278

Am-241 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Am-241
ACTIVITY (dps):	3.920 E4
HALF-LIFE:	4.322 E2 years
CALIBRATION DATE:	January 15, 2003 12:00 EST
TOTAL UNCERTAINTY*:	3.2%
SYSTEMATIC:	2.2%
RANDOM:	1.0%

*99% confidence level.

5.10649 grams 1M HCl solution.

Impurities: γ-impurities <0.1%
α-impurities <0.1%

P O NUMBER 3213 RD, Item 1

SOURCE PREPARED BY: M Taskaeva
M. Taskaeva, Radiochemist

Q A APPROVED: UM Mt 1-16-03

RC-S-035-048a

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0533
Prepared By:	Angela Johnson
Carrier Conc:	1 M HCL
Reference Date:	01/15/2003
Ampoule Mass (g):	5.10649 g
Uncertainty:	+/- 3.2 %
LogBook No:	RC S 035 048

A Solution Material Info	
Isotope:	Americium-241
Prepared By:	Angela Johnson
Prep Date:	02/05/2003
Verification Date:	09/29/2008
Expiration Date:	09/29/2009
Primary Code:	0533-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8225 g
Density(g/mL):	1.0139
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8225 g) * (39200 dps) * (60 dpm/dps) / (5.10649 g * 100 mL) = 22211.9695 dpm/mL
(4.8225 g) * (39200 dps) * (60 dpm/dps) / (1.0139 g/mL)/ (5.10649 g * 100 mL) = 21907.2185 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
02/20/2003	Angela Johnson	1.0151	100	0533-B	222.38 dpm/mL	03/01/2006	03/01/2007
02/20/2003	Angela Johnson	.6819	250	0533-C	59.754 dpm/mL	02/20/2004	02/20/2005
05/07/2003	Tim Chandler	.1245	100	0533-D	27.2745 dpm/mL	05/03/2004	05/03/2005
09/10/2004	Amanda Fehr	.6933	250	0533-E	60.753 dpm/mL	09/10/2005	09/10/2006
12/17/2004	Brenda Burke	.0093	100	0533-F	2.0374 dpm/mL	12/20/2004	12/20/2005
12/21/2004	Brenda Burke	.009273	100	0533-G	2.0315 dpm/mL	12/07/2005	12/07/2006
04/28/2005	Brenda Burke	.1347	100	0533-H	29.4598 dpm/mL	04/27/2006	04/27/2007
10/19/2005	Mary Aders	.6948	250	0533-I	60.7831 dpm/mL	10/18/2006	10/18/2007

05/08/2006	Julie Strock	.0711	100	0533-J	15.576 dpm/mL	05/10/2008	05/10/2009
05/11/2006	Brenda Burke	.00092601	100	0533-K	.20286 dpm/mL	08/02/2007	07/28/2007
11/15/2006	Tara Sides	.132	1000	0533-L	2.88586 dpm/mL	10/06/2009	10/06/2010
06/12/2007	Julie Strock	.000979	100	0533-M	.21448 dpm/mL	05/20/2009	05/20/2010
08/03/2007	Daniel Roy	.7042	250	0533-N	61.7083 dpm/ml	08/02/2008	08/02/2009
09/25/2008	Daniel Roy	1.4561	500	0533-O	63.7982 dpm/ml	09/10/2009	09/10/2010
09/29/2008	Tara Sides	.1004	100	0533-P	21.9948 dpm/mL	09/09/2009	09/09/2010
06/03/2009	Julie Strock	.0009751	100	0533-Q	.2136 dpm/mL	06/05/2009	06/03/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-241 Standard *0533-O*

M. Aders			
9/10/2009	**Isotope**	**Value**	**Uncertainty**
	0533-O #1	2.880	0.3960
	0533-O #2	2.820	0.3910
	0533-O #3	2.790	0.3840
Mean Value (Counting) =	2.830	0.9953264	
Stdev =	0.045825757		
Target =	2.84		
Lower Limit =	2.738348486		
Upper Limit =	2.921651514		
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**
Two sigma =	0.091651514		
10 % of Mean =	0.283		
Rule 2 (Pass/Fail)	**Pass**		

Rule 1 = The target value must lie within the average counting value concentration plus or minus two times the standard deviation of the three counting sources.
Rule 2 =The calculated value of two times the standard deviation of the concentration of the three counted sources must be less than 10% of the average concentration value.
Rule 3 = The determined mean value must be +/- 5% of the of the certificate value or within the uncertainty of the standards being verified.

The analyst prepared three standard verification sources for standard ***0533-O*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Am_243*** standard ***445-96-2-SS*** in a disposable centrifuge tube. 4 mL of 2M HCL was added and was diluted with 6 mL of DI water. 25 micrograms of neodymium carrier and two mL of 49% HF was added to precipitate neodymium (and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-241 were calculated by comparison to Am-243 certified values.

9/22/09

9/25/09

CERTIFICATE OF CALIBRATION
ALPHA STANDARD SOLUTION

Radionuclide	Am-243	Customer:	GENERAL ENGINEERING LABS
Half Life:	7380 ± 40 years	P.O.No.:	9290-RAD
Catalog No.:	7243	Reference Date:	January 1 1994 12:00 PST.
Source No.:	445-96-2	Contained Radioactivity:	(Am-243) 101.2 μCi
		Contained Radioactivity:	(Am-243) 3750 kBq

Description of Solution

a. Mass of solution: 5.3739 g (in a 5 ml Flame Sealed Ampoule)

b. Chemical form: Am(NO3)3 in 2N HNO3

c. Carrier content: None added

d. Density: 1.0651 g/ml @ 20°C.

Radioimpurities None detected

Radioactive Daughters

Np-239 (beta active) in equilibrium

Radionuclide Concentration

(Am-243) 18.84 μCi/g

Method of Calibration

Weighed aliquots of the solution were assayed using gamma spectrometry for Np-239:

Energy peak(s) intergrated under: 228, 278 keV.

Branching ratio(s) used: 0.108, 0.1420 gamma rays per decay.

Uncertainty of Measurement

a. Systematic uncertainty in instrument calibration: ±3.0%

b. Random uncertainty in assay: ±0.4%

c. Random uncertainty in weighing(s): ±0.0%

d. Total uncertainty at the 99% confidence level: ±3.0%

NIST Traceability

This calibration is implicitly traceable to the National Institute of Standards and Technology.

Leak Test(s)

See reverse side for Leak Test(s) applied to this source.

Notes

1. Nuclear data were taken from "Table of Radioactive Isotopes", edited by Virginia S. Shirley, 1986.
2. IPL participates in an NIST measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NIST certification) of Standard Reference Materials (As in NRC Regulatory Guide 4.15).

Anna U. Khan
QUALITY CONTROL

Jan 3, 1994
Date Signed

ISOTOPE PRODUCTS LABORATORIES
1800 North Keystone Street
Burbank, California 91504
(818) 843 - 7000

RC-S-005-32

THE LEAK TEST(S) INDICATED BY THE CHECKED BOX(ES) WAS(WERE) APPLIED TO DETERMINE THE INTEGRITY OF THE SOURCE DESCRIBED ON THE FRONT SIDE

☑ **1. STANDARD WIPE TEST**

The source is wiped over its entire surface with a moistened filter paper disk. After drying, the disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **2. SOAK TEST**

The source is immersed in distilled water and maintained at 50 ± 10° C for a minimum of four hours. After removal of the source, the liquid is a) checked for activity using a liquid scintillation counter, or b) evaporated in a planchet and the residue is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **3. SOAK TEST -- BERYLLIUM WINDOW**

The source is immersed in distilled water and maintained at 50 ± 10° C for 20 minutes. The entire surface of the source is then wiped with a moistened cotton swab or filter paper disk. After drying, the swab or disk is checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **4. GAS SOURCE TEST (Radioactive Gas)**

The source is placed in a vacuum desiccator and maintained at a pressure of less than 1 mm Hg for not less than 12 hours. The activity is checked by introducing air into the desiccator and monitoring the air with an end-window G.M. tube. Activity levels exceeding 1000 cpm are cause for rejection of the source.

☑ **5. OTHER LEAK TEST**

The ampoule is kept in an inverted position on a filter paper disk for a minimum of 16 hours. The filter paper disk is then checked for activity using a windowless proportional counter or end-window G.M. tube. Activity levels exceeding 0.001 μCi beta-gamma or 0.0001 μCi alpha are cause for rejection of the source.

☐ **6. LEAK TEST NOT APPLICABLE**

The active area of this source is uncovered or is protected by a very thin coating. Although the deposit is adherent, it is not designed or certified to pass a standard leak test. The inactive portions of the source have been checked using the standard wipe test. Levels of removable activity did not exceed 0.001 μCi beta-gamma or 0.0001 μCi alpha at the time of shipment.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	445-96-2
Prepared By:	Genie Bost
Carrier Conc:	2M HNO3
Reference Date:	01/01/1994
Ampoule Mass (g):	5.3739 g
Uncertainty:	+/- 3 %
LogBook No:	RC S 005 032

A Solution Material Info	
Isotope:	Americium-243
Prepared By:	Angela Johnson
Prep Date:	01/05/1994
Verification Date:	03/09/2010
Expiration Date:	03/09/2011
Primary Code:	445-96-2-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.3419 g
Density(g/mL):	1.0785
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (uCi/g)) * (conversion dpm to uCi) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (100 mL) = 2234238.9912 dpm/mL
(5.3419 g) * (18.84 uCi/g) * (2220000 dpm/uCi) / (1.0785 g/mL) / (100 mL) = 2071617.0528 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/05/1994	Genie Bost	.0058	100	445-96-2-B	120.1 dpm/ml	01/05/1995	01/05/1996
09/10/2004	Amanda Fehr	.0325	1000	445-96-2-BB	67.328 dpm/mL	09/10/2005	09/10/2006
01/05/1994	Genie Bost	.0025	100	445-96-2-C	51.77 dpm/ml	01/05/1995	01/05/1996
05/27/2005	Brenda Burke	.000246	100	445-96-2-CC	5.10613 dpm/mL	05/31/2005	05/31/2006
03/25/1994	Genie Bost	.0064	100	445-96-2-D	132.53 dpm/ml	01/05/1995	01/05/1996
08/16/2005	Brenda Burke	.001224	500	445-96-2-DD	5.07144 dpm/mL	08/18/2007	08/18/2008
08/04/1994	Genie Bost	.0094	100	445-96-2-E	194.65 dpm/ml	01/05/1995	01/05/1996
10/13/2005	Brenda Burke	.0017	500	445-96-2-EE	7.0435 dpm/mL	11/15/2005	11/15/2006
08/04/1994	Genie Bost	.0046	100	445-96-2-F	95.25 dpm/ml	01/05/1995	01/05/1996
10/14/2005	Mary Aders	.0141	500	445-96-2-FF	58.4196 dpm/mL	10/14/2005	10/14/2006
09/01/1994	Genie Bost	.0031	100	445-96-2-G	64.19 dpm/ml	01/05/1995	01/05/1996
05/10/2006	Mary Aders	2.0753	1000	445-96-2-GG	4299.227 dpm/mL	09/30/2008	09/30/2009
10/17/1994	Genie Bost	.0969	100	445-96-2-H	2006.52 dpm/ml	01/05/1995	01/05/1996
06/07/2006	Mary Aders	.0365	1000	445-96-2-HH	75.614 dpm/mL	06/19/2006	06/19/2007
02/06/1995	Genie Bost	.0043	100	445-96-2-I	89.04 dpm/ml	01/05/1995	01/05/1996
05/11/2006	Brenda Burke	.000009739	100	445-96-2-II	.201761 dpm/mL	07/26/2006	07/26/2007
07/20/1995	Theresa Austin	.0041	100	445-96-2-J	84.9 dpm/ml	01/05/1995	01/05/1996
05/01/2007	Daniel Roy	.0352	1000	445-96-2-JJ	72.9209 dpm/ml	04/30/2008	04/30/2009
08/10/1995	Garret Ray	.0952	100	445-96-2-K	1971.32 dpm/ml	01/05/1995	01/05/1996
06/12/2007	Julie Strock	.01038	250	445-96-2-KK	22.1496 dpm/mL	05/28/2008	05/28/2009

09/11/1995	Theresa Austin	1.0525	100	445-96-2-L	21794.23 dpm/ml	01/05/1995	01/05/1996
09/11/1995	Theresa Austin	.5107	100	445-96-2-L-1	111.3 dpm/ml	01/05/1995	01/05/1996
04/28/1998	Richard Kinney	.1264	100	445-96-2-M	2617.4 dpm/ml	04/28/1998	04/28/1999
11/01/2007	Eric Williamson	.001274	500	445-96-2-MM	5.27945 dpm/mL	04/06/2008	04/06/2010
10/12/1998	Gregory Smith	.1348	100	445-96-2-N	2791.32 dpm/mL	01/05/1995	01/05/1996
01/25/1999	Gregory Smith	1.9382	100	445-96-2-N-1	50.16 dpm/ml	01/05/1995	01/05/1996
04/19/2008	Daniel Roy	.0424	1000	445-96-2-NN	87.8366 dpm/ml	04/16/2009	04/16/2010
04/21/1999	Greg Smith	.1645	100	445-96-2-O	3406.32 dpm/mL	04/21/1999	04/21/2000
07/27/1999	Gregory Smith	1.567	100	445-96-2-O-2	50.56 dpm/ml	05/13/1999	05/13/2000
10/12/1999	Richard Kinney	1.5589	100	445-96-2-O-3	50.31 dpm/mL	05/13/1999	05/13/2000
04/21/1999	Greg Smith	1.5309	100	445-96-2-O-1	49.4 dpm/mL	04/21/1999	04/21/2000
11/10/1999	Joe Davis	.1809	100	445-96-2-P	3745.92 dpm/mL	05/13/1999	05/13/2000
01/04/2008	Julie Strock	.00001005	100	445-96-2-PP	.20819 dpm/mL	12/29/2008	12/29/2009
01/28/2000	Angela Johnson	.0354	1000	445-96-2-Q	73.3 dpm/mL	02/08/2001	02/08/2002
09/29/2008	Tara Sides	.0025219	250	445-96-2-QQ	20.8977 dpm/mL	09/14/2009	09/14/2010
04/18/2000	Robert Timm	.429	250	445-96-2-R	3553.34 dpm/mL	04/18/2000	04/18/2001
04/23/2009	Tina Schoneman	.001251	500	445-96-2-RR	4.8075 dpm/mL	04/23/2009	04/23/2010
04/13/2001	Angela Johnson	.1869	100	445-96-2-S	3870.16 dpm/mL	04/13/2001	04/13/2002
05/08/2009	Mary Aders	.0141	1000	445-96-2-SS	29.2098 dpm/ml	05/11/2009	05/11/2010
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-103	4153.225 dpm/mL	07/03/2002	07/03/2003
07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-203	4153.225 dpm/mL	07/03/2002	07/03/2003

07/03/2001	Lonnie Morris	2.0057	1000	445-96-2-T-303	4153.225 dpm/mL	07/03/2002	07/03/2003
06/03/2009	Julie Strock	.00000927	100	445-96-2-TT	.1923 dpm/mL	06/05/2009	06/03/2010
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-103	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-203	80.34 dpm/mL	08/23/2001	08/23/2002
08/23/2001	Angela Johnson	.0194	500	445-96-2-U-303	80.34 dpm/ml	08/23/2001	08/23/2002
06/02/2009	Mary Aders	2.1177	1000	445-96-2-UU	4385.1449 dpm/ml	06/04/2009	06/04/2010
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-103	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-203	81.586 dpm/mL	08/27/2002	08/27/2003
08/27/2001	Angela Johnson	.0394	1000	445-96-2-V-303	81.586 dpm/mL	08/27/2002	08/27/2003
03/09/2010	Ashley Drochter	.011	1000	445-96-2-VV	22.7878 dpm/mL	03/09/2010	03/09/2011
03/17/2003	Angela Johnson	2.1108	1000	445-96-2-W	4370.857 dpm/mL	03/14/2006	03/14/2007
03/23/2010	Ashley Drochter	.0163	1000	445-96-2-WW	33.7674 dpm/mL	03/23/2010	03/23/2011
04/14/2003	Lonnie Morris	.0315	1000	445-96-2-X	65.2559 dpm/mL	04/14/2004	04/14/2005
05/03/2003	Tim Chandler	.0103	1000	445-96-2-Y	21.3376 dpm/mL	05/05/2003	05/05/2004
05/05/2003	Eric Williamson	.011	1000	445-96-2-Z	22.7877 dpm/mL	04/03/2007	04/03/2008

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Am-243 Standard *445-96-2-SS*

M. Aders	Isotope	Value	Uncertainty
5/15/2009	445-96-2-SS #1	1.360	0.1690
	445-96-2-SS #2	1.370	0.1690
	445-96-2-SS #3	1.290	0.1590

Mean Value (Counting) =	1.340	101.99	**Pass**
Stdev =	0.043588989		**Rule 3 (Pass/Fail)**

Target =	1.314
Lower Limit =	1.252822021
Upper Limit =	1.427177979
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.087177979
10 % of Mean =	0.134
Rule 2 (Pass/Fail)	**Pass**

The analyst prepared three standard verification sources for standard ***445-96-2-SS*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Cm-244*** standard ***0533-O*** and 50 micrograms of neodymium carrier in a disposable centrifuge tube. Each standard was diluted with 4 mL of 2 M HCl and 6 mL of DI Water. Two mL of 48% HF was added to precipitate Nd(and Americium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Am-243 were calculated by comparison to Am-241certified values.

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

5/15/09

007509

0112

[redacted]

UKAS ACCREDITED CALIBRATION LABORATORY No. 0146

Methods of measurement

The measurement techniques listed below are currently in use at Nycomed Amersham for the absolute standardisation of radioactive solutions. The methods used for this standardisation are indicated on page 2 of the certificate.

Using a gas flow proportional counter

A	4 pi beta counting
B	4 pi alpha counting
C	4 pi internal conversion electron counting
D	4 pi coincidence counting
E	4 pi anticoincidence counting
F	4 pi coincidence and anticoincidence counting

Using a liquid scintillation counter

G	4 pi coincidence counting
H	4 pi anticoincidence counting
J	4 pi coincidence and anticoincidence counting
K	4 pi efficiency tracing

SI unit of radioactivity

The S.I. unit of radioactivity is the becquerel

1 becquerel (Bq) = 1 nuclear transformation per second, therefore
1 curie (Ci) = 3.7×10^{10} becquerels exactly

Useful conversion factors are:

1 microcurie (μCi)	=	3.7×10^{4}	Bq	=	37 kilobecquerels (kBq)
1 millicurie (mCi)	=	3.7×10^{7}	Bq	=	37 megabecquerels (MBq)
1 kilobecquerel (kBq)	=	27.027 nanocuries (nCi)			
1 megabecquerel (MBq)	=	27.027 microcuries (μCi)			

RC-5-024-038B

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0112
Prepared By:	Richard Kinney
Carrier Conc:	0.1M HCL
Reference Date:	06/20/1997
Ampoule Mass (g):	5.129 g
Uncertainty:	+/- 1.8 %
LogBook No:	RC S 023 038A

A Solution Material Info	
Isotope:	Barium-133
Prepared By:	Angela Johnson
Prep Date:	04/09/1999
Verification Date:	02/12/2010
Expiration Date:	02/12/2011
Primary Code:	0112-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0881 g
Density(g/mL):	0.9935
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (kBq/g)) * (conversion dpm to kBq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.0881 g) * (474 kBq/g) * (60000 dpm/kBq) / (100 mL) = 1447055.6400 dpm/mL
(5.0881 g) * (474 kBq/g) * (60000 dpm/kBq) / (0.9935 g/mL) / (100 mL) = 1456575.8226 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
10/31/2002	Angela Johnson	10.11	1000	0112-G	14725.049 dpm/mL	10/31/2003	10/31/2004
01/19/2005	Amanda Fehr	10.431	1000	0112-H	15193.542 dpm/mL	01/18/2006	01/18/2007
11/30/2006	Daniel Roy	10.0567	1000	0112-I	14648.35 dpm/mL	11/20/2008	11/20/2009
02/17/2009	Mary Aders	10.1141	1000	0112-J	14731.9535 dpm/ml	02/12/2010	02/12/2011
02/12/2010	Bethany Fiem	10.2041	1000	0112-K	14859.1126 dpm/ml	02/12/2010	02/12/2011

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Ba-133 Standard 0112-J

B. Flem 2/12/2010	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (mL)	Source DPM/mL
	0112-J N1	1097.0000	45.6000	1051.4000	0.7760	0.2000	6774.834433
	0112-J N2	1073.8000	45.6000	1028.2000	0.7760	0.2000	6625.342176
	0112-J N3	1068.6000	45.6000	1023.0000	0.7760	0.2000	6591.835291
						Average =	6664.003967

Mean Value (Counting) =	6664.003967	**104.255218**	**Pass**
Stdev =	97.43316699	0.01462081	**Rule 3 (Pass/Fail)**
Certificate Value =	6392.01		
Lower Limit =	6469.137633		
Upper Limit =	6858.870301		
Rule 1 Pass/Fail	**Fail***		
Two sigma =	194.866334		
10 % of Mean =	666.4003967		
Rule 2 (Pass/Fail)	**Pass**		

*Exception taken due to full recovery of standard

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for Ba-133 source 0112-J by transferring 0.2 mL portions of the standard into glass liquid scintillation vials. Ten mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using DI water and 10 mL of Ecoscint Ultra cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on LSC GOLD. The Ba-133 efficiency calibration which was used for verification calculations was performed on 2/18/10 using source 0487-A (Ba-133). Calibration data is recorded in this logbook under Ba-133 0487-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.
RAD SOP M-001

2-22-10
Amanda L. Fehr
2/22/10

0503

ANALYTICS

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318 · U.S.A.

Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

64673-278

Ra-228 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Ra-228
ACTIVITY (dps):	1.939 E4
HALF-LIFE:	5.75 years
CALIBRATION DATE:	October 1, 2002 12:00 EST
TOTAL UNCERTAINTY*:	3.6%
SYSTEMATIC:	3.4%
RANDOM:	1.1%

*99% Confidence Level

Impurities: γ-impurities <0.1%

5.02617 grams 0.1M HCl solution with 110 μg/g Ba carrier.

P O NUMBER 3208RD, Item 2

SOURCE PREPARED BY: M Taskaeva
M. Taskaeva, Radiochemist

Q A APPROVED: M. Mt 10-2-02

RC-S-035-018a

Standard Traceability Log Rad

Source Material Info

Parent Code:	0503
Prepared By:	Angela Johnson
Carrier Conc:	0.1 M HCL
Reference Date:	10/01/2002
Ampoule Mass (g):	5.02617 g
Uncertainty:	+/- 3.6 %
LogBook No:	RC S 035 018

A Solution Material Info

Isotope:	Radium-228
Prepared By:	Angela Johnson
Prep Date:	02/20/2003
Verification Date:	04/09/2004
Expiration Date:	04/09/2005
Primary Code:	0503-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.4737 g
Density(g/mL):	0.9992
Balance ID:	

Calculations Converting parent activity to dpm/mL | dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)

(4.4737 g) * (19390 dps) * (60 dpm/dps) / (5.02617 g * 100 mL) = 10355.2060 dpm/mL

(4.4737 g) * (19390 dps) * (60 dpm/dps) / (0.9992 g/mL)/ (5.02617 g * 100 mL) = 10363.0820 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
04/02/2003	Lonnie Morris	39.71	1000	0503-B	411.518 dpm/mL	09/11/2009	09/11/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Ra-228 Standard 0503-B

M. Aders	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Mass. Used (mL)	Source DPM/mL
9/11/2009	0503-B	1797.3200	43.2000	1754.1200	9.263763	1.0000	189.352858
	0503-B	1773.9800	43.2000	1730.7800	9.263763	1.0000	186.8333635
	0503-B	1779.6500	43.2000	1736.4500	9.263763	1.0000	187.4454258
							187.8772158

Mean Value (Counting) =	187.8772158	dpm/mL	**105.60536**	**Pass**
Stdev =	1.314075752	dpm/mL	0.00699433	**Rule 3 (Pass/Fail)**

Certificate Value =	177.905	dpm/mL
Lower Limit =	185.2490643	dpm/mL
Upper Limit =	190.5053673	dpm/mL
Rule 1 Pass/Fail	**Fail**	***exception taken due to full recovery of standard**
Two sigma =	2.628151503	
10 % of Mean =	18.78772158	
Rule 2 (Pass/Fail)	**Pass**	

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for Ra-228 source Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Blank vial was prepared in a similar fashion using 1 mL of DI water and 13 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for two hours and counted on LSC Gold for Ra-228 source standard verification. The Ra-228 efficiency calibration which was used for verification calculations was performed on 9/13/08 using source 0683-A (Ra-228). Calibration data is recorded in this logbook under Ra-228 0683-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference RAD SOP M-001

9/15/09

9-15-09

Eckert & Ziegler
Analytics

1380 Seaboard Industrial Blvd.
Atlanta, Georgia 30318
Tel 404·352·8677
Fax 404·352·2837
www.analyticsinc.com

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1283

78747-278

U-232 5 mL Liquid in Flame Sealed Vial

Customer: GEL Laboratories, LLC
P.O. No.: 7319 RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	U-232
Activity (Bq):	3.754 E3
Half-Life:	68.9 years
Calibration Date:	December 9, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	5.0%

Comments:
Impurities: U-233 <0.3%, Am-241 <0.15%
5.20453 grams 1M HNO_3 solution.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 12-11-08
D. M. Montgomery, QA Manager

End of Certificate

RECEIVED 12/15/08
RC-S-05

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1283
Prepared By:	Daniel Roy
Carrier Conc:	1M HNO3
Reference Date:	12/09/2008
Ampoule Mass (g):	5.20453 g
Uncertainty:	+/- 5 %
LogBook No:	RC-S-051-002

A Solution Material Info	
Isotope:	Uranium-232
Prepared By:	Daniel Roy
Prep Date:	12/16/2008
Verification Date:	12/30/2008
Expiration Date:	12/30/2009
Primary Code:	1283-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.0245 g
Density(g/mL):	1.0285
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (5.20453 g * 100 mL) = 2174.4872 dpm/mL
(5.0245 g) * (3754 Bq) * (60 dpm/Bq) / (1.0285 g/mL)/ (5.20453 g * 100 mL) = 2114.1700 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/16/2008	Daniel Roy	25.1813	1000	1283-B	53.2375 dpm/ml	12/16/2008	12/16/2009
12/30/2008	Tina Schoneman	2.05	250	1283-C	17.336 dpm/mL	12/02/2009	12/02/2010
12/30/2008	Tina Schoneman	.49	250	1283-D	4.1438 dpm/mL	01/09/2009	01/09/2010
01/14/2009	Mary Aders	25.0528	1000	1283-E	52.9659 dpm/ml	01/15/2009	01/15/2010
12/02/2009	Julie Strock	2.076	250	1283-F	17.5561 dpm/mL	01/09/2009	12/30/2009
12/02/2009	Julie Strock	.517	250	1283-G	4.3721 dpm/mL	01/08/2010	12/02/2010
12/09/2009	Ashley Drochter	21.56	1000	1283-H	45.58 dpm/mL	12/09/2009	12/09/2010

Verification for Uranium-232 Standard *1283-H*

Analyst: A. Drochter	Serial #	Value		Uncertainty	
Date: 12/10/09	1283-H N1	2.020	pCi/L	0.238	pCi/L
	1283-H N2	2.000	pCi/L	0.234	pCi/L
	1283-H N3	2.060	pCi/L	0.242	pCi/L

Mean Value (Counting) =	2.027	pCi/L	**99.66904**	**Pass**
Stdev =	0.030550505	pCi/L		**Rule 3 (Pass/Fail)**

Target =	2.033	pCi/L
Lower Limit =	1.965565657	pCi/L
Upper Limit =	2.087767676	pCi/L
Rule 1 Pass/Fail	**Pass**	
Two sigma =	0.061101009	
10 % of Mean =	0.202666667	
Rule 2 (Pass/Fail)	**Pass**	

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1283-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-238** standard **1163-G** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

A Drochter AD 12/14/09

0338

ANALYTICS

1380 Seaboard Industrial Blvd.
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Phone (404) 352-8677
Fax (404) 352-2837

CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

60513-278

Pu-239 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared using an aliquot measured gravimetrically from a master radionuclide solution standard. The master radionuclide solution standard was calibrated by the Department Des Applications Et De La Metrologie Des Rayonnements Ionisants (DAMRI), Paris, France, as Number 24148.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Pu-239
ACTIVITY (dps):	3.674 E4
HALF-LIFE:	24131 years
CALIBRATION DATE:	October 30, 2000 12:00 EST
TOTAL UNCERTAINTY*:	5.0%

*99% confidence level.

5.45541 grams 3M HNO_3 solution.

Impurities detected (activity in dps/vial on Oct. 30, 2000):

Am-241 297.28
Pu-240 1208.8
Pu-241 2010.7
Pu-242 0.17

See reverse side for additional information.

P O NUMBER 2528RD, Item 1

PREPARED BY: M. Taskaeva
M. Taskaeva, Radiochemist

Q A APPROVED: RCWW 11/13/00

RC-S-028-167

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0338
Prepared By:	Penet Melton
Carrier Conc:	3 M HNO3
Reference Date:	10/30/2000
Ampoule Mass (g):	5.45541 g
Uncertainty:	+/- 5 %
LogBook No:	RC S 027 167

A Solution Material Info	
Isotope:	Plutonium-239
Prepared By:	Penet Melton
Prep Date:	12/01/2000
Verification Date:	03/09/2010
Expiration Date:	03/09/2011
Primary Code:	0338-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.1674 g
Density(g/mL):	1.0121
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(5.1674 g) * (36740 dps) * (60 dpm/dps) / (5.45541 g * 100 mL) = 20880.2208 dpm/mL
(5.1674 g) * (36740 dps) * (60 dpm/dps) / (1.0121 g/mL)/ (5.45541 g * 100 mL) = 20630.6111 dpm/g
(5.1674 g) * (37948.8 dps) * (60 dpm/dps) / (5.45541 g * 100 mL) = 21567.2108 dpm/mL
(5.1674 g) * (37948.8 dps) * (60 dpm/dps) / (1.0121 g/mL)/ (5.45541 g * 100 mL) = 21309.3885 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
06/23/2009	Mary Aders	.591	250	0338-BB	50.3753 dpm/mL	06/23/2009	06/23/2010
03/09/2010	Ashley Drochter	.5127	250	0338-CC	43.7013 dpm/mL	03/09/2010	03/09/2011
10/29/2001	Tim Chandler	.3032	250	0338-E		10/16/2003	10/16/2004
12/30/2002	Tim Chandler	10.0252	100	0338-I		10/24/2003	10/24/2004
08/12/2003	Amanda Fehr	.2282	100	0338-K		08/12/2003	08/12/2004
12/09/2003	Amanda Fehr	.2409	100	0338-L		12/09/2003	12/09/2004
03/18/2004	Tim Chandler	10.0192	500	0338-M		03/18/2004	03/18/2005
04/26/2004	Amanda Fehr	.643	250	0338-N		04/26/2005	04/26/2006
05/26/2004	Eric Williamson	.355	250	0338-O	30.2619 dpm/mL	05/17/2007	05/17/2008
12/20/2004	Brenda Burke	.01957	100	0338-P	4.16992 dpm/mL	12/19/2006	12/19/2007
03/16/2005	Julie Strock	10.0395	100	0338-Q	2139.558 dpm/mL	06/12/2008	06/12/2009
07/19/2005	Amanda Fehr	.677	250	0338-R		07/10/2006	07/10/2007
05/11/2006	Brenda Burke	.0009935	100	0338-S	.21172 dpm/mL	07/30/2007	07/28/2007
01/04/2007	Julie Strock	.050286	250	0338-T	4.2887 dpm/mL	12/31/2007	12/31/2008
01/05/2007	Daniel Roy	.7285	250	0338-U		01/05/2008	01/05/2009
03/16/2005	Julie Strock	.010175	1000	0338-V	.216847 dpm/mL	04/23/2009	04/23/2010
05/15/2007	Eric Williamson	.253	250	0338-W	21.567 dpm/mL	05/21/2009	05/21/2010
07/31/2007	Julie Strock	.0010045	100	0338-X	.21379 dpm/mL	12/31/2007	12/31/2008
12/10/2008	Daniel Roy	.7715	250	0338-Y		12/10/2008	12/10/2009
09/29/2008	Tara Sides	.0504	250	0338-Z	4.29599 dpm/mL	09/09/2009	09/09/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Plutonium-239 Standard *0338-BB*

Analyst: M. Aders	**Serial #**	**Value**	**Uncertainty**
Date: 6/25/09	0338-BB #1	2.350	0.2960
	0338-BB #2	2.190	0.2210
	0338-BB #3	2.300	0.2920
Mean Value (Counting) =	2.280	103.80917	**Pass**
Stdev =	0.081853528		
Target =	2.196		
Lower Limit =	2.116292945		
Upper Limit =	2.443707055		
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**
Two sigma =	0.163707055		
10 % of Mean =	0.228		
Rule 2 (Pass/Fail)	**Pass**		

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements.
Rule 2 = The two sigma value used for the 95% cinfidence interval shall not exceed 10% of the mean value of the three measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three Pu-239 standard verification sources for standard ***0338-BB*** using 0.1 mL for each source. Each standard was combined with 0.1 mL of ***Pu-242*** standard ***1262-A*** and was diluted in a disposable centrifuge tube with 4 mL of 2 M HCl, and 6 mL of DI water, 50 micrograms of Nd carrier and 5 drops of hydrazine dihydrochloride were added to the centrifuge tube and swirled. After waiting ten minutes, two mL of 49% HF was added to precipitate Nd(and ***plutonium***) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for ***Pu-239*** were calculated by comparison to ***Pu-242*** certified values.

Mary L. Aders 6/26/09

Robert R 06/26/09

1430

NATIONAL PHYSICAL LABORATORY

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Certificate of Calibration

UKAS CALIBRATION 0478

PLUTONIUM-236 SOLUTION
R37-02

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to recognised national standards, and to units of measurement realised at the National Physical Laboratory or other recognised national standards laboratories. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

FOR:	GEL Laboratories LLC 2040 Savage Road Charleston, SC 29407 USA
FOR THE ATTENTION OF:	Mr Tim Winters
NPL PRODUCT CODE:	R37-02
IDENTIFICATION:	A09881
DESCRIPTION:	An aqueous solution of ^{236}Pu also containing 2 mol dm^{-3} of nitric acid. The solution is contained in a flame sealed ampoule of type Q and nominal volume 5 ml (squat) as defined in BS 795:1983.
DATE(S) OF CALIBRATION:	26 June 2009 to 1 July 2009
INTENDED USE:	Calibration of instruments for response to ^{236}Pu
STORAGE:	The material may be stored at room temperature in a suitably sealed container. Flame-sealed glass ampoules are recommended for long-term storage. Regulatory conditions may apply to the manner in which this material is stored.

RECEIVED 11 NOV 2009

MEASUREMENTS

The samples were prepared by gravimetric dilution of a ^{236}Pu solution, which had been previously standardised using liquid scintillation counting. The accuracy of the dilution factor was checked using liquid scintillation counting.

RESULTS

Principal radionuclide:	^{236}Pu
Reference time:	2009-07-01 12:00 UTC
Activity concentration of principal radionuclide:	170.8 Bq g^{-1}
Expanded uncertainty:	±0.6 Bq g^{-1} (±0.36 %)
Contaminants present:	^{226}Ra, ^{232}U, ^{228}Th, ^{237}Np
Activity concentration of ^{226}Ra:	11.0 mBq g^{-1}
Expanded uncertainty:	±4.0 mBq g^{-1} (±36 %)
Activity concentration of ^{232}U:	0.67 Bq g^{-1}
Expanded uncertainty:	±0.12 Bq g^{-1} (±18 %)
Activity concentration of ^{228}Th:	11.38 mBq g^{-1}
Expanded uncertainty:	±0.46 mBq g^{-1} (±4 %)
Activity concentration of ^{237}Np:	5.00 mBq g^{-1}
Expanded uncertainty:	±0.34 mBq g^{-1} (±8 %)
Sample Mass:	4.97 g ± 0.02 g

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

NOTES

[1]. The reported reference time is stated consistent with the format given in ISO 8601:2004. UTC is the abbreviation for Universal Time, Coordinated. The date is stated in the format YYYY-MM-DD such that 2008-09-01 represents 1 September 2008.

[2]. The recommended half life of ^{236}Pu is 1044 (6) days and is taken from the evaluations published in *Nuclear Data Sheets*.

[3]. The recommended half life of ^{226}Ra is 5.844 (50) × 10^5 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[4]. The recommended half life of ^{232}U is 25800 (800) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[5]. The recommended half life of ^{237}Np is 7.83 (6) × 10^8 days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm.

[6]. The recommended half life of ^{228}Th is 698.60 (46) days and is taken from the evaluations of the *Decay Data Evaluation Project*, see for example www.nucleide.org/DDEP.htm

UNCERTAINTIES

The reported uncertainties are based on standard uncertainties multiplied by a coverage factor k=2, providing a level of confidence of approximately 95 %. The uncertainty evaluations have been carried out in accordance with UKAS requirements.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1430
Prepared By:	Ashley Drochter
Carrier Conc:	2 M HNO3
Reference Date:	07/01/2009
Ampoule Mass (g):	4.97 g
Uncertainty:	+/- .36 %
LogBook No:	RC-S-051-149

A Solution Material Info	
Isotope:	Plutonium-236
Prepared By:	Ashley Drochter
Prep Date:	01/27/2010
Verification Date:	01/27/2010
Expiration Date:	01/27/2011
Primary Code:	1430-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8051 g
Density(g/mL):	1.0610
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (100 mL) = 492.4266 dpm/mL
(4.8051 g) * (170.8 Bq/g) * (60 dpm/Bq) / (1.0610 g/mL) / (100 mL) = 464.1156 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/27/2010	Bethany Fiem	33.0429	200	1430-B	76.6786262 dpm/mL	01/27/2010	01/27/2011
03/01/2010	Ashley Drochter	15.2331	200	1430-C	35.3496 dpm/mL	03/01/2010	03/01/2011

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Plutonium-236 Standard 1430-C

	Isotope	Value	Uncertainty
A. Drochter	1430-C	2.760	0.4480
3/4/2010	1430-C	2.770	0.4520
	1430-C	2.950	0.4850
Mean Value (Counting) =	2.827	104.54659	% of Known Value
Stdev =	0.106926766		
Target =	2.70		
Lower Limit =	2.612813134		
Upper Limit =	3.040520199		
Rule 1 Pass/Fail	Pass	Pass	Pass
Two sigma =	0.213853532		
10 % of Mean =	0.282666667		
Rule 2 (Pass/Fail)	Pass		

The analyst prepared three standard verification sources for standard 1430-B using 0.1 mL for each source. Each standard was combined with 0.1 mL of Pu 239 standard 0338-BB and 50 micrograms of neodymium carrier in a disposable centrifuge tube containing 4 mL of 2 M HCl and 6 mL of DI water. Four drops of 25% Hydrazine dihydrochloride were added to each centrifuge tube and swirled. After approximately ten minutes, two mL of 49% HF was added to precipitate neodymium(and plutonium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for Pu-236 were calculated by comparison to Pu-239 certified values.

3/5/10

3/5/10

ANALYTICS

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0638

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

67519-278

Ra-226 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated using a germanium gamma spectrometer system.

Radionuclide purity and calibration were checked using a germanium gamma spectrometer system. The nuclear decay rate and assay date for this source are given below.

Analytics maintains traceability to the National Institute of Standards and Technology through participation in a Measurements Assurance Program as described in USNRC Reg. Guide 4.15, Revision 1, February 1979.

ISOTOPE:	Ra-226
ACTIVITY (dps):	2.353 E4
HALF-LIFE:	1.600 E3 years
CALIBRATION DATE:	January 23, 2004 12:00 EST
RELATIVE EXPANDED UNCERTAINTY (k=2):	3.3%

Impurities: γ-impurities (other than decay products) <0.1%

5.01065 grams 0.1M HCl solution with 50 μg/g Ba carrier.

P O NUMBER 3231RD, Item 5

SOURCE PREPARED BY: M. D. Currie
M. D. Currie, Radiochemist

Q A APPROVED: 1/26/04

RC-S-037-037a

Standard Traceability Log Rad

Source Material Info	
Parent Code:	0638
Prepared By:	Amanda Fehr
Carrier Conc:	0.1M HCl
Reference Date:	01/23/2004
Ampoule Mass (g):	5.01065 g
Uncertainty:	+/- 3.3 %
LogBook No:	RC-S-037-037

A Solution Material Info	
Isotope:	Radium-226
Prepared By:	Amanda Fehr
Prep Date:	01/16/2006
Verification Date:	04/09/2009
Expiration Date:	04/09/2010
Primary Code:	0638-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8398 g
Density(g/mL):	1.0266
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (dps)) * (conversion dpm to dps) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8398 g) * (23530 dps) * (60 dpm/dps) / (5.01065 g * 100 mL) = 13636.6133 dpm/mL
(4.8398 g) * (23530 dps) * (60 dpm/dps) / (1.0266 g/mL)/ (5.01065 g * 100 mL) = 13282.9676 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/17/2006	Amanda Fehr	2.1041	100	0638-B	279.0211 dpm/mL	01/17/2007	01/17/2008
07/17/2006	Mary Aders	2.1313	100	0638-C	282.6281 dpm/mL	07/26/2006	07/26/2007
03/28/2007	Daniel Roy	2.1025	100	0638-D	279.2744 dpm/ml	04/08/2007	04/08/2008
03/28/2007	Daniel Roy	45.468	250	0638-E	2415.7999 dpm/ml	04/09/2009	04/09/2010
12/18/2007	Daniel Roy	2.014	100	0638-F	267.519 dpm/ml	02/02/2009	02/02/2010
02/12/2008	Daniel Roy	.5004	100	0638-G	66.468 dpm/ml	03/02/2009	03/02/2010
07/23/2008	Daniel Roy	5.0607	250	0638-H	268.8845 dpm/ml	07/17/2009	07/17/2010
09/28/2009	Angela Johnson	4.052	200	0638-I	269.113 dpm/mL	09/28/2009	09/28/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Ra-226 Standard 0638-I

DA 10/20/09

10/19/2009	Isotope	Value	Uncertainty
9/28/2009	0638-I #1	1131.408	246.9667
	0638-I #2	1348.961	287.9444
	0638-I #3	1314.198	281.2564
Mean Value (Counting) =	1264.855	1.0434201	
Stdev =	116.868701		
Target =	1212.22		
Lower Limit =	1031.118065		
Upper Limit =	1498.592869		
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**
Two sigma =	233.7374019		
10 % of Mean =	126.4855467		
Rule 2 (Pass/Fail)	**Fail**	*Exception taken to Rule 2 due to full recovery of standard	

The analyst prepared three standard verification sources for standard Ra-226 0638-I using 0.1 mL for each source which was degassed of Rn-222. Each standard was placed in a glass LSC vial with 10 mL of mineral oil scintillator and 10 mL of DI water. The standards were counted on LSC RED using the protocol for Rn-222 determination. The values were compared to NIST traceable standard Ra-226 0299-A via the Rn-222 calibration.

Angela Q 10/23/09

Amanda L. Fehn 10/23/09

Eckert & Ziegler
Analytics

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CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1067

74463-278

Sr-90 5 mL Liquid in Flame Sealed Vial

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

ISOTOPE:	Sr-90
ACTIVITY (Bq):	3.835 E4
HALF-LIFE:	28.79 years
CALIBRATION DATE:	February 7, 2007 12:00 EST
RELATIVE EXPANDED UNCERTAINTY (k=2):	1.7%

Impurities: γ-impurities <0.1%

5.01066 grams 0.1M HCl solution with 30 μg/g Sr carrier.

NOTE: This source also contains Y-90 in secular equilibrium with Sr-90. The Y-90 activity is equal to the Sr-90 activity. Since Sr-90 and Y-90 both decay 100% by beta emission, the total beta emission rate for the source is twice the certified Sr-90 activity. The half-life for Y-90 is 64.08 hours.

P O NUMBER 2739 RD, Item 1

RECEIVED 2/8/07

SOURCE PREPARED BY: M. Dimitrova
M. Dimitrova, Radiochemist

Q A APPROVED: 2-7-07

RC-S-045-108-A

Standard Traceability Log Rad

Source Material Info

Parent Code:	1067
Prepared By:	Daniel Roy
Carrier Conc:	0.1M HCl
Reference Date:	02/07/2007
Ampoule Mass (g):	5.01066 g
Uncertainty:	+/- 1.7 %
LogBook No:	RC-S-045-108

A Solution Material Info

Isotope:	Strontium-90
Prepared By:	Julie Strock
Prep Date:	10/12/2007
Verification Date:	06/17/2009
Expiration Date:	06/23/2010
Primary Code:	1067-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.9657 g
Density(g/mL):	0.9962
Balance ID:	

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (bq)) * (conversion dpm to bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)

(Mass of parent(g)) * (Parm Activity (bq)) * (conversion dpm to bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)

(4.9657 g) * (38350 bq) * (60 dpm/bq) / (5.01066 g * 100 mL) = 22803.5343 dpm/mL

(4.9657 g) * (38350 bq) * (60 dpm/bq) / (0.9962 g/mL)/ (5.01066 g * 100 mL) = 22889.8293 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/23/2008	Daniel Roy	20.0611	1000	1067-B	459.1952 dpm/ml	07/23/2008	07/23/2009
06/16/2009	Mary Aders	20.0693	1000	1067-C	459.3829 dpm/mL	06/17/2009	06/17/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Sr-90 Standard 1067-C

6/18/2009	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (mL)	Source DPM/mL
M. Aders	1067-C N1	922.6000	45.1300	877.4700	2.030242	1.0000	432.1997082
	1067-C N2	905.2700	45.1300	860.1400	2.030242	1.0000	423.66378
	1067-C N3	918.2700	45.1300	873.1400	2.030242	1.0000	430.0669575
						Average =	428.6434819
Mean Value (Counting) =	428.6434819		**98.7965109**	**% of known**	**Pass**		
Stdev =	4.442435123		0.01036394				
Certificate Value =	433.865	dpm/mL					
Lower Limit =	419.7586117	dpm/mL					
Upper Limit =	437.5283522	dpm/mL					
Rule 1 Pass/Fail	**Pass**	**Pass**	**Pass**				
Two sigma =	8.884870247						
10 % of Mean =	42.86434819						
Rule 2 (Pass/Fail)	**Pass**						

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for Sr-90 source 1067-C by transferring 1 mL portions of the standard into glass liquid scintillation vials. Thirteen mL of Ecoscint Ultra liqiuid scintillation coctail was prepared in a similar fashion using 1 mL of DI water and 13 mL of Ecoscint Ultra liqiuid scintillation coctail. The standard verification vials and Background source were dark adapted for two hours and counted on LSC Green for Sr-90 source standard verification. The Sr-90 efficiency calibration which was used for verification calculations was performed on 6/17/09 using source 0133-A (Sr-90). Calibration data is recorded in this logbook under Sr-90 0133-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.
RAD SOP M-001

6/18/09
6/27/09

STANDARDIZATION OF STRONTIUM CARRIER

DATE: [redacted] EXP. DATE: [redacted]

LOT NUMBER [redacted]

STRONTIUM PRECIPITATES

	1	2	3	4
Weight of carrier added	[redacted]	[redacted]	[redacted]	[redacted]
Aliquot (5.00 mL)				
Crucible + ppt.	[redacted]	[redacted]	[redacted]	[redacted]
Crucible	[redacted]	[redacted]	[redacted]	[redacted]
Wt. of ppt., g	0.0178	0.0179	0.0179	0.0178
mg Sr/mL	17.80	17.90	17.90	17.80
mg Sr/g	17.28	17.72	17.55	17.28

Must weigh carrier added

Jennifer L. Robb
9-24-09

Average	**Std. Dev.**	
17.85	± 0.06	0.00323446
17.46	± 0.22	0.0124023
mg Sr/ 0.5 mL		**8.93**
mg Sr/g		17.46

0.5% of Mean Value = 0.08925 Pass

A satisfactory standardization is obtained when results give a standard deviation of less than 0.5% of the mean value.

Eckert & Ziegler
Analytics

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www.analyticsinc.com

CERTIFICATE OF CALIBRATION
Standard Radionuclide Source

1243

78352-278

Sr-90 10 mL Liquid in Flame Sealed Vial

Customer: General Engineering Labs/Charleston, SC
P.O. No.: 7312 RD, Item 3

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	Sr-90
Activity (Bq):	3.856 E5
Half-Life:	28.79 years
Calibration Date:	October 1, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	1.7%

Comments:
Impurities: γ-impurities <0.1%
10.41484 grams 0.1M HCl solution with 30 μg/g Sr carrier.

NOTE: This source also contains Y-90 in secular equilibrium with Sr-90. The Y-90 activity is equal to the Sr-90 activity. Since Sr-90 and Y-90 both decay 100% by beta emission, the total beta emission rate for the source is twice the certified Sr-90 activity. The half-life for Y-90 is 64.08 hours.

Source Prepared By: _____
W. Mao, Radiochemist

QA Approved: _____ Date: 10/3/08
D. M. Montgomery, QA Manager

RECEIVED

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1243
Prepared By:	Daniel Roy
Carrier Conc:	0.1M HCL
Reference Date:	10/01/2008
Ampoule Mass (g):	10.41484 g
Uncertainty:	+/- 1.7 %
LogBook No:	RC-S-048-124

A Solution Material Info	
Isotope:	Strontium-90
Prepared By:	Daniel Roy
Prep Date:	12/19/2008
Verification Date:	01/21/2010
Expiration Date:	01/21/2011
Primary Code:	1243-A
Dilution(mL):	100 mL
Mass of Parent(g):	10.2164 g
Density(g/mL):	0.9991
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(10.2164 g) * (385600 Bq) * (60 dpm/Bq) / (10.41484 g * 100 mL) = 226951.7634 dpm/mL
(10.2164 g) * (385600 Bq) * (60 dpm/Bq) / (0.9991 g/mL)/ (10.41484 g * 100 mL) = 227146.2010 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
01/21/2010	Bethany Fiem	2.2467	1000	1243-B	510.329369 dpm/mL	01/21/2010	01/21/2011

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Sr-90 Standard 1243-B

1/21/2010	Isotope	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (mL)	Source DPM/mL
B. Fiem	1243-B N1	1043.4000	43.6000	999.8000	2.030242	1.0000	492.453609
	1243-B N2	1035.2000	43.6000	991.6000	2.030242	1.0000	488.4146816
	1243-B N3	1020.0000	43.6000	976.4000	2.030242	1.0000	480.9278894
						Average =	487.2653933
Mean Value (Counting) =	487.2653933		**98.5553214**	**Pass**			
Stdev =	5.848179264		0.01200204	**Rule 3 (Pass/Fail)**			
Certificate Value =	494.408	dpm/mL					
Lower Limit =	475.5690348	dpm/mL					
Upper Limit =	498.9617518	dpm/mL					
Rule 1 Pass/Fail	**Pass**						
Two sigma =	11.69635853						
10 % of Mean =	48.72653933						
Rule 2 (Pass/Fail)	**Pass**						

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 5% of the certificate value.

The analyst prepared three standard verification sources for Sr-90 source 1243-B by transferring 1 mL portions of the standard into glass liquid scintillation vials with 10 mL of Ecoscint Ultra liqiuid scintillation coctai. A Background was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liqiuid scintillation coctail. The standard verification vials and Background source were dark adapted for two hours and counted on LSC Green for Sr-90 source standard verification. The Sr-90 efficiency calibration which was used for verification calculations was performed on 6/17/09 using source 0133-A (Sr-90). Calibration data is recorded in this logbook under Sr-90 0133-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.
RAD SOP M-001

1/25/10

01-25-10

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CERTIFICATE OF CALIBRATION

Standard Radionuclide Source

1242

78148-278

Th-230 5 mL Liquid in Flame Sealed Vial

Customer: General Engineerings Labs
P.O. No.: 7311RD, Item 1

This standard radionuclide source was prepared gravimetrically from a calibrated master solution. The master solution was calibrated by liquid scintillation counting.

Radionuclide purity and calibration were checked by germanium gamma-ray spectrometry and liquid scintillation counting. The nuclear decay rate and assay date for this source are given below.

ANALYTICS maintains traceability to the National Institute of Standards and Technology through Measurements Assurance Programs as described in USNRC Reg. Guide 4.15, Revision 1.

Isotope:	Th-230
Activity (Bq):	4.021 E4
Half-Life:	7.538 E4 years
Calibration Date:	August 25, 2008 12:00 EST
Relative Expanded Uncertainty (k=2):	2.0%

Comments:
Impurities: γ-impurities <0.1%, α-impurities <0.04%
5.07467 grams 0.5M HNO3 solution.

Source Prepared By: MITaskaeva
M. I. Taskaeva, Radiochemist

QA Approved: DM Mg
D. M. Montgomery, QA Manager

Date: 9-4-08

RECEIVED 9/17/08
RC-S-048-123

End of Certificate

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1242
Prepared By:	Daniel Roy
Carrier Conc:	0.5M HNO3
Reference Date:	08/25/2008
Ampoule Mass (g):	5.07467 g
Uncertainty:	+/- 2 %
LogBook No:	RC-S-048-123

A Solution Material Info	
Isotope:	Thorium-230
Prepared By:	Ashley Drochter
Prep Date:	11/10/2009
Verification Date:	12/02/2009
Expiration Date:	12/02/2010
Primary Code:	1242-A
Dilution(mL):	100 mL
Mass of Parent(g):	4.8836 g
Density(g/mL):	1.0597
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / (Ampoule Mass(g) *(Dilution Vol)) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq)) * (conversion dpm to Bq) / Density / (Ampoule Mass (g) * (Dilution Vol)) = Parent Activity (dpm/g)
(4.8836 g) * (40210 Bq) * (60 dpm/Bq) / (5.07467 g * 100 mL) = 23217.6149 dpm/mL
(4.8836 g) * (40210 Bq) * (60 dpm/Bq) / (1.0597 g/mL)/ (5.07467 g * 100 mL) = 21908.6601 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
12/01/2009	Bethany Fiem	6.3855	500	1242-B	279.79548 dpm/mL	12/02/2009	12/02/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Th-230 Standard 1242-B

Analyst: B. Flem	Source ID	Detector CPM	BKG CPM	NET CPM	Detector Eff	Standard Vol. Used (ml)	Source DPM/ml
Date: 12/1/09	1242-B #1	321.8000	39.8000	282.0000	1.069320	1.0000	263.719
	1242-B #2	325.2000	39.8000	285.4000	1.069320	1.0000	266.899
	1242-B #3	339.2000	39.8000	299.4000	1.069320	1.0000	279.991

Mean Value (Counting) =	270.2028704	96.5727649	**Pass**
Stdev =	8.62458049		**Rule 3 (Pass/Fail)**

Certificate Value =	279.792
Lower Limit =	252.9537094
Upper Limit =	287.4520313
Rule 1 Pass/Fail	**Pass**
Two sigma =	17.24916098
10 % of Mean =	27.02028704
Rule 2 (Pass/Fail)	**Pass**

Verification Rules

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for **Th-230** source **1242-B** by transferring 1.0 mL portions of the standard to glass liquid scintillation vials. 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail was added to each vial and the vials were shaken to mix. A Background vial was prepared in a similar fashion using 1 mL of DI water and 10 mL of Ecoscint Ultra liquid scintillation cocktail. The standard verification vials and Background source were dark adapted for one hour and counted on LSC Green for standard verification. The alpha efficiency calibration which was used for verification calculations was performed on 11/16/09 using NIST source 0905-A. Each verification source calculation was performed as follows:

Source dpm/g = (A - B)/(C)(D)
where:
A = Ver. source cpm,
B = BKG cpm,
C = System efficiency, (cpm/dpm), and
D = mass used for standard verification.

Reference: RAD SOP M - 001

12-10-09

12/2/09

National Institute of Standards & Technology

Certificate 1163

Standard Reference Material 4321C
Natural Uranium Radioactivity Standard

This Standard Reference Material (SRM) consists of a solution of a standardized and certified quantity of radioactive uranium-238, uranium-235, and uranium-234 in a suitably stable and homogeneous matrix. It is intended primarily for the calibration of instruments that are used to measure radioactivity and for the monitoring of radiochemical procedures. The solution, whose composition is specified in Table 1, is contained in a flame-sealed, 5 mL, NIST, borosilicate-glass ampoule (see Note 1)*.

The certified massic activities for the uranium isotopes at a **Reference Time of 1200 EST, 1 August 1997**, are:

Uranium-238: (242.0 ± 1.5) $Bq \cdot g^{-1}$

Uranium-235: (11.14 ± 0.07) $Bq \cdot g^{-1}$

Uranium-234: (233.1 ± 2.2) $Bq \cdot g^{-1}$

Additional physical, chemical, and radiological properties for the SRM, as well as details on the standardization method, are given in Table 1. Uncertainty intervals for certified quantities are expanded ($k = 2$) uncertainties calculated according to the ISO and NIST Guidelines (see Note 2). Table 2 contains a specification of the components that comprise the uncertainty analyses.

The certification of this SRM, within the measurement uncertainties specified, is valid for at least five (5) years after receipt. The solution matrix, in an unopened ampoule, is believed to be indefinitely homogeneous and stable, within its half-life-dependent, useful lifetime. NIST will monitor this material and will report any substantive changes in certification to the purchaser. Should any of the certified values change, purchasers of this SRM will be notified of the change by NIST.

This SRM may represent a radiological hazard and a chemical hazard. Consult the Material Safety Data Sheet (MSDS), enclosed with the SRM shipment, for details (see Note 1).

This Standard Reference Material was prepared in the Physics Laboratory, Ionizing Radiation Division, Radioactivity Group, Dr. M.P. Unterweger, Acting Group Leader. The overall technical direction and physical measurements leading to certification were provided by Dr. L.L. Lucas of the Radioactivity Group. The support aspects involved in the preparation, certification, and issuance of this SRM were coordinated through the Standard Reference Materials Program.

Lisa R. Karam, Deputy Chief
Ionizing Radiation Division

Gaithersburg, Maryland 20899
November 1997
Text revised and expiration date extended February 2007

Robert L. Watters, Jr., Chief
Measurement Services Division

RECEIVED 11/5/08

*Notes and references are on page 4

RC-S-048-044

Table 1. Properties of SRM 4321C

Certified values

Radionuclides	**Natural Uranium (Mixture of ^{238}U, ^{235}U, and ^{234}U)**
Reference time	**1200 EST, 1 August 1997**
Massic activities of the solution	**^{238}U : 242.0 Bq•g^{-1}** **^{235}U : 11.14 Bq•g^{-1}** **^{234}U : 233.1 Bq•g^{-1}**
Relative expanded uncertainties ($k = 2$)	**^{238}U : 0.60%** (see Note 2)* **^{235}U : 0.60%** (see Note 2) **^{234}U : 0.96%** (see Note 2)

Uncertified information

Source description	Liquid in flame-sealed, 5 mL NIST borosilicate ampoule (see Note 1)
Solution composition	1.0 mol•L^{-1} HCl with 30 mg $UO_2(NO_3)_2$ per gram of solution
Solution density	(1.053 ± 0.001) g•mL^{-1} at 21.4 °C (see Note 3)
Solution mass	(5.258 ± 0.002) g (see Note 3)
Mass fraction of uranium	(0.01960 ± 0.00010) g•g^{-1} (see Note 3)
Photon-emitting impurities	None detected (see Note 4)
Half-lifes used [1]	^{238}U : (4.468 ± 0.003) x 10^9 a ‡ ^{235}U : (7.038 ± 0.005) x 10^8 a ‡ ^{234}U : (2.455 ± 0.006) x 10^5 a ‡
Calibration method (and instruments)	The certified massic activity for natural uranium was obtained by mass spectrometer, silicon surface-barrier detector, and $4\pi\alpha\beta$ liquid scintillation (LS) counting systems.

‡ See Note 5

*Notes and references are on page 4

Table 2. Uncertainty evaluation for the massic activity for SRM 4321C

	Uncertainty component	Assessment Type †	Relative standard uncertainty contribution on massic activity of Natural Uranium (%)
1	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{238}U	A	0.001
2	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{235}U	A	0.07
3	Isotopic uranium atom fraction in SRM 960; standard deviation of the mean for replicate mass-spectrometric measurements for ^{234}U	A	0.3
4	Half life of ^{238}U; standard uncertainty of the half-life	A	0.07
5	Half life of ^{235}U; standard uncertainty of the half-life	A	0.07
6	Half life of ^{234}U; standard uncertainty of the half-life	A	0.24
7	Uranium mass fraction in SRM 960; from SRM960 certificate	B	0.003
8	Quantitative dissolution	B	0.25
9	Gravimetric (mass) measurements	B	0.10
10	Limit for photon-emitting impurities	B	0.10
Relative combined standard uncertainty		^{238}U	**0.30**
		^{235}U	**0.30**
		^{234}U	**0.48**
Relative expanded uncertainty ($k = 2$)		^{238}U	**0.60**
		^{235}U	**0.60**
		^{234}U	**0.96**

† = (A) denotes evaluation by statistical methods; (B) denotes evaluation by other methods.

NOTES

Note 1. Refer to http://physics.nist.gov/Divisions/Div846/srm.html for the standardized ampoule dimensions and for assistance and instructions on how to properly open an ampoule. Information on additional storage and handling requirements is also included in the website.

Note 2. The uncertainties on certified values are expanded uncertainties, $U = ku_c$. The quantity u_c is the combined standard uncertainty calculated according to the ISO and NIST Guides (see references [2] and [3]). The combined standard uncertainty is multiplied by a coverage factor of $k = 2$ and was chosen to obtain an approximate 95 % level of confidence.

Note 3. The stated uncertainty is two times the standard uncertainty. See reference [3]

Note 4. The estimated lower limits of detection for photon-emitting impurities, expressed as massic photon emission rates are;

$1.4\ s^{-1} \cdot g^{-1}$ for 8 keV < E < 59 keV
$1.1\ s^{-1} \cdot g^{-1}$ for 67 keV < E < 88 keV
$0.5\ s^{-1} \cdot g^{-1}$ for 102 keV < E < 197 keV
$0.3\ s^{-1} \cdot g^{-1}$ for 205 keV < E < 762 keV
$0.2\ s^{-1} \cdot g^{-1}$ for 770 keV < E < 996 keV, and
$0.1\ s^{-1} \cdot g^{-1}$ for 1006 keV < E < 1900 keV

provided that the photons are separated in energy by 4 keV or more from photons emitted in the decay of ^{238}U, ^{235}U, ^{234}U, or their progeny

Note 5. The stated uncertainty is the standard uncertainty. See reference [3].

REFERENCES

[1] Evaluated Nuclear Structure Data File (ENSDF), online database, National Nuclear Data Center, Brookhaven Laboratory (Upton, NY), August 2007. Refer to http://www.nndc.bnl.gov/ensdf/

[2] International Organization for Standardization (ISO), *Guide to the Expression of Uncertainty in Measurement*, 1993 (corrected and reprinted, 1995). Available from Global Engineering Documents, 12 Inverness Way East, Englewood, CO 80112, U.S.A. Telephone 1-800-854-7179.

[3] B. N. Taylor and C. E. Kuyatt, *Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results*, NIST Technical Note 1297, 1994. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20407, U.S.A.

Standard Traceability Log Rad

Source Material Info	
Parent Code:	1163
Prepared By:	Daniel Roy
Carrier Conc:	1M HCL
Reference Date:	08/01/1997
Ampoule Mass (g):	5.258 g
Uncertainty:	+/- .6 %
LogBook No:	RC-S-048-044

A Solution Material Info	
Isotope:	Uranium-238
Prepared By:	Daniel Roy
Prep Date:	02/23/2008
Verification Date:	10/21/2009
Expiration Date:	10/21/2010
Primary Code:	1163-A
Dilution(mL):	100 mL
Mass of Parent(g):	5.118 g
Density(g/mL):	1.0327
Balance ID:	38080204

Calculations Converting parent activity to dpm/mL|dpm/g

(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / (Dilution Vol) = Parent Activity (dpm/mL)
(Mass of parent(g)) * (Parm Activity (Bq/g)) * (conversion dpm to Bq) / Density (g/mL)/ (Dilution Vol) = Parent Activity (dpm/g)
(5.118 g) * (242 Bq/g) * (60 dpm/Bq) / (100 mL) = 743.1336 dpm/mL
(5.118 g) * (242 Bq/g) * (60 dpm/Bq) / (1.0327 g/mL) / (100 mL) = 719.5817 dpm/g

Secondary Standards

Prep Date	Preparer	Mass Primary	Dilution (mL)	Code	Conc dpm/mL	Verification Date	Expiration Date
07/23/2009	Julie Strock	.1	100	1163-090723-1		07/30/2008	07/30/2009
07/23/2009	Julie Strock	1	100	1163-090723-2		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.25	50	1163-090723-3		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.02	20	1163-090723-4		07/30/2008	07/30/2009
07/23/2009	Julie Strock	.2	20	1163-090723-5		07/30/2008	07/30/2009
07/23/2009	Julie Strock	2	20	1163-090723-6		07/30/2008	07/30/2009
07/31/2009	James Schoneman	.1	100	1163-090731-1		08/07/2008	08/07/2009
07/31/2009	James Schoneman	1	100	1163-090731-2		08/07/2008	08/07/2009
07/31/2009	James Schoneman	.02	20	1163-090731-3		08/07/2008	08/07/2009
07/31/2009	James Schoneman	.2	20	1163-090731-4		08/07/2008	08/07/2009
07/31/2009	James Schoneman	2	20	1163-090731-5		08/07/2008	08/07/2009

08/05/2009	James Schoneman	.1	20	1163-090805-1	08/07/2008	08/07/2009
08/06/2009	James Schoneman	.02	20	1163-090806-1	08/07/2008	08/07/2009
08/06/2009	James Schoneman	.2	20	1163-090806-2	08/07/2008	08/07/2009
08/06/2009	James Schoneman	2	20	1163-090806-3	08/07/2008	08/07/2009
08/14/2009	James Schoneman	.1	100	1163-090814-1	08/21/2008	08/21/2009
08/14/2009	James Schoneman	1	100	1163-090814-2	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.02	20	1163-090814-3	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.2	20	1163-090814-4	08/21/2008	08/21/2009
08/14/2009	James Schoneman	2	20	1163-090814-5	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.01	20	1163-090814-6	08/21/2008	08/21/2009
08/14/2009	James Schoneman	.05	25	13451163-090814-1	08/21/2008	08/21/2009
08/18/2009	James Schoneman	.1	20	1163-090818-1	08/21/2008	08/21/2009
08/18/2009	James Schoneman	2.5	25	1163-090818-2	08/21/2008	08/21/2009
08/21/2009	James Schoneman	.1	100	1163-090821-1	08/28/2008	08/28/2009
08/21/2009	James Schoneman	1	100	1163-090821-2	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.02	20	1163-090821-3	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.2	20	1163-090821-4	08/28/2008	08/28/2009
08/21/2009	James Schoneman	2	20	1163-090821-5	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.01	20	1163-090821-6	08/28/2008	08/28/2009
08/21/2009	James Schoneman	.05	25	13451163-090821-1	08/28/2008	08/28/2009
08/28/2009	James Schoneman	.1	100	1163-090828-1	09/04/2008	09/04/2009

08/28/2009	James Schoneman	1	100	1163-090828-2		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.02	20	1163-090828-3		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.2	20	1163-090828-4		09/04/2008	09/04/2009
08/28/2009	James Schoneman	2	20	1163-090828-5		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.01	20	1163-090828-6		09/04/2008	09/04/2009
09/01/2009	James Schoneman	.01	20	1163-090901-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.01	20	1163-090902-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.01	20	1163-090902-2		09/04/2008	09/04/2009
08/28/2009	James Schoneman	.05	25	11631345-090828-1		09/04/2008	09/04/2009
09/01/2009	James Schoneman	.05	25	11631345-090901-1		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.05	25	11631345-090902		09/04/2008	09/04/2009
09/02/2009	James Schoneman	.05	25	11631345-090902-1		09/04/2008	09/04/2009
09/11/2009	James Schoneman	.1	100	1163-090911-1	999645.956 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	1	100	1163-090911-2	999.646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.02	20	1163-090911-3	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.2	20	1163-090911-4	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	2	20	1163-090911-5	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.01	20	1163-090911-6	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.02	20	1163-090916-1	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.2	20	1163-090916-2	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	2	20	1163-090916-3	9.99646 ug/L	09/18/2008	09/18/2009

09/16/2009	James Schoneman	.01	20	1163-090916-4	9.99646 ug/L	09/18/2008	09/18/2009
09/16/2009	James Schoneman	.05	25	11631332-090916-1	9.99646 ug/L	09/18/2008	09/18/2009
09/11/2009	James Schoneman	.05	25	11631345-090911-1	9.99646 ug/L	09/18/2008	09/18/2009
09/18/2009	James Schoneman	.1	20	1163-090918-1	999.646 ug/L	09/18/2008	09/18/2009
09/19/2009	James Schoneman	.1	100	1163-090919-1		09/26/2008	09/26/2009
09/19/2009	James Schoneman	1	100	1163-090919-2		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.02	20	1163-090919-3		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.2	20	1163-090919-4		09/26/2008	09/26/2009
09/19/2009	James Schoneman	2	20	1163-090919-5		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.01	20	1163-090919-6		09/26/2008	09/26/2009
09/19/2009	James Schoneman	.05	25	11631332-090919-1		09/26/2008	09/26/2009
09/28/2009	James Schoneman	.1	100	1163-090928-1		10/05/2008	10/05/2009
09/28/2009	James Schoneman	1	100	1163-090928-2		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.02	20	1163-090928-3		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.2	20	1163-090928-4		10/05/2008	10/05/2009
09/28/2009	James Schoneman	2	20	1163-090928-5		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.01	20	1163-090928-6		10/05/2008	10/05/2009
09/28/2009	James Schoneman	.05	25	11631332-090928-1		10/05/2008	10/05/2009
10/05/2009	James Schoneman	.1	100	1163-091005-1		10/12/2008	10/12/2009
10/05/2009	James Schoneman	1	100	1163-091005-2		10/12/2008	10/12/2009
10/05/2009	James Schoneman	.02	20	1163-091005-3		10/12/2008	10/12/2009

10/05/2009	James Schoneman	.2	20	1163-091005-4	10/12/2008	10/12/2009
10/05/2009	James Schoneman	2	20	1163-091005-5	10/12/2008	10/12/2009
10/05/2009	James Schoneman	.01	20	1163-091005-6	10/12/2008	10/12/2009
10/05/2009	James Schoneman	.05	25	11631332-091005	10/12/2008	10/12/2009
10/08/2009	James Schoneman	.1	20	1163-091008-1	10/12/2008	10/12/2009
10/09/2009	James Schoneman	.1	100	1163-091009-1	10/16/2008	10/16/2009
10/09/2009	James Schoneman	1	100	1163-091009-2	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.02	20	1163-091009-3	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.2	20	1163-091009-4	10/16/2008	10/16/2009
10/09/2009	James Schoneman	2	20	1163-091009-5	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.01	20	1163-091009-6	10/16/2008	10/16/2009
10/12/2009	James Schoneman	.01	20	1163-091012-1	10/16/2008	10/16/2009
10/09/2009	James Schoneman	.05	25	11631332-091009-1	10/16/2008	10/16/2009
10/15/2009	James Schoneman	.1	100	1163-091015-1	10/22/2008	10/22/2009
10/15/2009	James Schoneman	1	100	1163-091015-2	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.02	20	1163-091015-3	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.2	20	1163-091015-4	10/22/2008	10/22/2009
10/15/2009	James Schoneman	2	20	1163-091015-5	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.01	20	1163-091015-6	10/22/2008	10/22/2009
10/15/2009	James Schoneman	.05	25	11631332-091015	10/22/2008	10/22/2009
10/22/2009	James Schoneman	.1	100	1163-091022-1	10/29/2008	10/29/2009

10/22/2009	James Schoneman	1	100	1163-091022-2	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.2	20	1163-091022-4	10/29/2008	10/29/2009
10/22/2009	James Schoneman	2	20	1163-091022-5	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.01	20	1163-091022-6	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.05	25	11631332-091022-1	10/29/2008	10/29/2009
10/22/2009	James Schoneman	.02	20	1163-091022-3	10/29/2008	10/29/2009
10/29/2009	James Schoneman	.1	100	1163-091029-1	11/05/2008	11/05/2009
10/29/2009	James Schoneman	1	100	1163-091029-2	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.02	20	1163-091029-3	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.2	20	1163-091029-4	11/05/2008	11/05/2009
10/29/2009	James Schoneman	2	20	1163-091029-5	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.01	20	1163-091029-6	11/05/2008	11/05/2009
10/29/2009	James Schoneman	.05	25	11631332-091029	11/05/2008	11/05/2009
11/05/2009	James Schoneman	.1	100	1163-091105-1	11/12/2008	11/12/2009
11/05/2009	James Schoneman	1	100	1163-091105-2	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.02	20	1163-091105-3	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.2	20	1163-091105-4	11/12/2008	11/12/2009
11/05/2009	James Schoneman	2	20	1163-091105-5	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.01	20	1163-091105-6	11/12/2008	11/12/2009
11/05/2009	James Schoneman	.05	25	11631332-091105-1	11/12/2008	11/12/2009
11/10/2009	James Schoneman	.1	20	1163-091110-1	11/12/2008	11/12/2009

11/12/2009	James Schoneman	.1	100	1163-091112-1	11/19/2008	11/19/2009
11/12/2009	James Schoneman	1	100	1163-091112-2	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.02	20	1163-091112-3	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.2	20	1163-091112-4	11/19/2008	11/19/2009
11/12/2009	James Schoneman	2	20	1163-091112-5	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.01	20	1163-091112-6	11/19/2008	11/19/2009
11/12/2009	James Schoneman	.05	25	11631332-091112-1	11/19/2008	11/19/2009
11/18/2009	James Schoneman	.1	100	1163-091118-1	11/25/2008	11/25/2009
11/18/2009	James Schoneman	1	100	1163-091118-2	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.02	20	1163-091118-3	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.2	20	1163-091118-4	11/25/2008	11/25/2009
11/18/2009	James Schoneman	2	20	1163-091118-5	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.01	20	1163-091118-6	11/25/2008	11/25/2009
11/18/2009	James Schoneman	.05	25	11631332-091118-1	11/25/2008	11/25/2009
11/30/2009	James Schoneman	.1	100	1163-091130-1	12/06/2008	12/06/2009
11/30/2009	James Schoneman	1	100	1163-091130-2	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.02	20	1163-091130-3	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.2	20	1163-091130-4	12/06/2008	12/06/2009
11/30/2009	James Schoneman	2	20	1163-091130-5	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.01	20	1163-091130-6	12/06/2008	12/06/2009
11/30/2009	James Schoneman	.05	25	11631332-091130-1	12/06/2008	12/06/2009

12/07/2009	James Schoneman	.1	100	1163-091207-1		12/14/2008	12/14/2009
12/07/2009	James Schoneman	1	100	1163-091207-2		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.02	20	1163-091207-3		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.2	20	1163-091207-4		12/14/2008	12/14/2009
12/07/2009	James Schoneman	2	20	1163-091207-5		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.01	20	1163-091207-6		12/14/2008	12/14/2009
12/09/2009	James Schoneman	.01	20	1163-091209-1		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.02	20	1163-091210-2		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.2	20	1163-091210-3		12/14/2008	12/14/2009
12/10/2009	James Schoneman	2	20	1163-091210-4		12/14/2008	12/14/2009
12/07/2009	James Schoneman	.05	25	11631332-091207-1		12/14/2008	12/14/2009
12/10/2009	James Schoneman	.1	20	1163-091210-1		12/14/2008	12/14/2009
12/11/2009	James Schoneman	.1	100	1163-091211-1		12/18/2008	12/18/2009
12/11/2009	James Schoneman	1	100	1163-091211-2		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.02	20	1163-091211-3		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.2	20	1163-091211-4		12/18/2008	12/18/2009
12/11/2009	James Schoneman	2	20	1163-091211-5		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.01	20	1163-091211-6		12/18/2008	12/18/2009
12/11/2009	James Schoneman	.05	25	11631333-091211-1		12/18/2008	12/18/2009
02/27/2008	Daniel Roy	8.0851	100	1163-B	58.1789 dpm/ml	03/01/2008	03/01/2009
02/27/2008	Daniel Roy	8.1015	100	1163-C	58.2969 dpm/ml	03/01/2008	03/01/2009

04/16/2008	Julie Strock	.5619	100	1163-D	4.0433 dpm/mL	04/16/2008	04/16/2009
07/10/2008	Daniel Roy	20.0175	250	1163-E	57.6169 dpm/ml	07/13/2008	07/13/2009
01/05/2009	Tina Schoneman	.519	100	1163-F	3.7346 dpm/mL	01/05/2009	01/05/2010
04/16/2009	Mary Aders	19.4278	250	1163-G	55.9196 dpm/ml	04/16/2009	04/16/2010
10/21/2009	Mary Aders	20.008	250	1163-H	57.5896 dpm/mL	10/21/2009	10/21/2010
08/01/1997	Julie Strock	7.379	250	1163-I	21.2392 dpm/mL	12/07/2009	12/02/2010
08/01/1997	Julie Strock	.106	375	1163-J	.2034 dpm/mL	12/07/2009	12/02/2010

GEL Laboratories LLC
Version 1.0 9/18/2000

Verification for Uranium-238 Standard *1163-H*

Analyst: M. Aders	Serial #	Value	Uncertainty
Date: 10/21/2009	1163-H N1	2.660	0.510
	1163-H N2	2.460	0.469
	1163-H N3	2.530	0.409

Mean Value (Counting) =	2.550	**98.298998**	**Pass**
Stdev =	0.101488916		**Rule 3 (Pass/Fail)**

Target =	2.594
Lower Limit =	2.347022169
Upper Limit =	2.752977831
Rule 1 Pass/Fail	**Pass**
Two sigma =	0.202977831
10 % of Mean =	0.255
Rule 2 (Pass/Fail)	**Pass**

Rule 1 = The certificate value (NOT including any uncertainty) shall lie within the 95% confidence interval determined from the mean and two sigma standard deviation of the three measurements
Rule 2 = The two sigma value used for the 95% confidence interval shall not exceed 10% of the mean value of the three verification measurements.
Rule 3 = The determined mean value shall be within 10% of the certificate value.

The analyst prepared three standard verification sources for standard **1163-H** using 0.1 mL for each source. Each standard was combined with 0.1 mL of **U-232** standard **1283-E** and was diluted to 10 mL with DI water. 50 micrograms of neodymium carrier and 1ml of Titanium Chloride were added. The solution was allowed to sit for 30 seconds. One mL of 49% HF was then added to precipitate neodymium (and uranium) fluoride. After 30 minutes, each sample was filtered following routine procedures for alpha spectroscopy source preparation. Each source was counted using routine alpha spec procedures. DPM values for U-238 were calculated by comparison to U-232 certified values.

10/20/09
11/2/09

RUNLOGS

Instrument Run Log

Instrument Type: GAMMA SPECTROMETER **Batch ID: 958213**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
247922004	SAMPLE	KXG3	GAM20	03-MAR-10 16:41	DONE	2LMB	06-JUL-09 00:00
248023002	SAMPLE	KXG3	GAM07	03-MAR-10 16:49	DONE	2LMB	20-JUL-09 00:00
248019002	SAMPLE	KXG3	GAM04	03-MAR-10 16:56	DONE	2LMB	26-MAY-09 00:00
248020001	SAMPLE	KXG3	GAM06	03-MAR-10 16:57	DONE	2LMB	19-FEB-10 00:00
248020003	SAMPLE	KXG3	GAM01	03-MAR-10 18:23	DONE	2LMB	13-JAN-10 00:00
248024001	SAMPLE	KXG3	GAM11	03-MAR-10 18:41	DONE	2LMB	18-NOV-09 00:00
248024003	SAMPLE	KXG3	GAM19	03-MAR-10 18:42	DONE	2LMB	11-MAR-09 00:00
248026001	SAMPLE	KXG3	GAM20	03-MAR-10 18:44	DONE	2LMB	06-JUL-09 00:00
1202054942	MB	KXG3	GAM07	03-MAR-10 19:13	DONE	2LMB	20-JUL-09 00:00
1202054943	DUP	KXG3	GAM25	03-MAR-10 19:13	DONE	2LMB	28-JUL-09 00:00
1202054944	DUP	KXG3	GAM02	03-MAR-10 19:16	DONE	2LMB	17-JUN-09 00:00
1202054946	LCS	KXG3	GAM17	03-MAR-10 19:39	DONE	2LMB	11-JAN-10 00:00

Instrument Run Log

Instrument Type: LUCAS CELL DETECTOR **Batch ID: 958234**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248020001	SAMPLE	KSD1	LUCAS1	11-MAR-10 12:15	DONE	Lucas Cell	31-AUG-09 00:00
248020002	SAMPLE	KSD1	LUCAS2	11-MAR-10 12:15	DONE	Lucas Cell	22-DEC-09 00:00
248023002	SAMPLE	KSD1	LUCAS4	11-MAR-10 12:15	DONE	Lucas Cell	10-DEC-09 00:00
248024001	SAMPLE	KSD1	LUCAS6	11-MAR-10 12:15	DONE	Lucas Cell	16-FEB-10 00:00
1202054976	MB	KSD1	LUCAS7	11-MAR-10 12:15	DONE	Lucas Cell	30-SEP-09 00:00
1202054977	DUP	KSD1	LUCAS8	11-MAR-10 12:15	DONE	Lucas Cell	09-FEB-10 00:00
1202054978	MS	KSD1	LUCAS1	11-MAR-10 12:45	DONE	Lucas Cell	31-AUG-09 00:00
1202054979	LCS	KSD1	LUCAS2	11-MAR-10 12:45	DONE	Lucas Cell	22-DEC-09 00:00

Instrument Run Log

Instrument Type: GFPC **Batch ID: 959731**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
247431001	SAMPLE	JXC5	PIC10C	08-MAR-10 13:37	DONE	CeF on 25mm Filter	02-JUL-09 00:00
248020001	SAMPLE	JXC5	PIC6A	08-MAR-10 13:38	DONE	CeF on 25mm Filter	02-JUL-09 00:00
248020002	SAMPLE	JXC5	PIC3A	08-MAR-10 13:38	DONE	CeF on 25mm Filter	02-JUL-09 00:00
248023002	SAMPLE	JXC5	PIC10D	08-MAR-10 13:38	DONE	CeF on 25mm Filter	02-JUL-09 00:00
248024001	SAMPLE	JXC5	PIC7A	08-MAR-10 13:38	DONE	CeF on 25mm Filter	02-JUL-09 00:00
1202058357	MB	JXC5	PIC8A	08-MAR-10 13:38	DONE	CeF on 25mm Filter	02-JUL-09 00:00
1202058358	DUP	JXC5	PIC6B	08-MAR-10 13:38	DONE	CeF on 25mm Filter	02-JUL-09 00:00
1202058359	LCS	JXC5	PIC8D	08-MAR-10 13:38	DONE	CeF on 25mm Filter	02-JUL-09 00:00

Instrument Run Log

Instrument Type: GFPC **Batch ID: 959738**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202058389	LCS	JXR1	PIC13A	04-MAR-10 15:15	DONE	Tuffryn Filter	01-FEB-10 00:00
1202058387	DUP	JXR1	PIC14D	04-MAR-10 15:15	DONE	Tuffryn Filter	01-FEB-10 00:00
247817002	SAMPLE	JXR1	PIC13C	04-MAR-10 15:15	DONE	Tuffryn Filter	01-FEB-10 00:00
247829002	SAMPLE	JXR1	PIC13B	04-MAR-10 15:15	DONE	Tuffryn Filter	01-FEB-10 00:00
248020001	SAMPLE	JXR1	PIC14B	04-MAR-10 15:15	DONE	Tuffryn Filter	01-FEB-10 00:00
248023002	SAMPLE	JXR1	PIC14C	04-MAR-10 15:16	DONE	Tuffryn Filter	01-FEB-10 00:00
1202058388	MS	JXR1	PIC13A	04-MAR-10 16:38	DONE	Tuffryn Filter	01-FEB-10 00:00
1202058386	MB	JXR1	PIC14B	04-MAR-10 18:04	DONE	Tuffryn Filter	01-FEB-10 00:00
248024003	SAMPLE	JXR1	PIC13C	04-MAR-10 18:05	DONE	Tuffryn Filter	01-FEB-10 00:00
248024001	SAMPLE	JXR1	PIC8A	09-MAR-10 09:21	DONE	Tuffryn Filter	01-FEB-10 00:00
248020003	SAMPLE	JXR1	PIC1C	09-MAR-10 17:52	DONE	Tuffryn Filter	01-FEB-10 00:00

Instrument Run Log

Instrument Type: GFPC **Batch ID: 959739**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
1202058391	DUP	DXF3	LB4100F1	05-MAR-10 09:17	DONE	2 inch Planchett	31-JUL-09 00:00
247817002	SAMPLE	DXF3	LB4100F2	05-MAR-10 09:17	DONE	2 inch Planchett	31-JUL-09 00:00
247829002	SAMPLE	DXF3	LB4100F3	05-MAR-10 09:17	DONE	2 inch Planchett	31-JUL-09 00:00
248024003	SAMPLE	DXF3	LB4100F4	05-MAR-10 09:17	DONE	2 inch Planchett	31-JUL-09 00:00
248020002	SAMPLE	DXF3	LB4100H1	05-MAR-10 09:20	DONE	2 inch Planchett	31-JUL-09 00:00
248023002	SAMPLE	DXF3	LB4100H2	05-MAR-10 09:20	DONE	2 inch Planchett	31-JUL-09 00:00
248024001	SAMPLE	DXF3	LB4100H3	05-MAR-10 09:20	DONE	2 inch Planchett	31-JUL-09 00:00
248020003	SAMPLE	DXF3	LB4100H4	05-MAR-10 09:20	DONE	2 inch Planchett	31-JUL-09 00:00
1202058392	MS	DXF3	LB4100B1	05-MAR-10 09:22	DONE	2 inch Planchett	31-JUL-09 00:00
1202058393	MSD	DXF3	LB4100B2	05-MAR-10 09:22	DONE	2 inch Planchett	31-JUL-09 00:00
1202058394	LCS	DXF3	LB4100B4	05-MAR-10 09:22	DONE	2 inch Planchett	31-JUL-09 00:00
1202058390	MB	DXF3	LB4100G1	05-MAR-10 09:44	DONE	2 inch Planchett	31-JUL-09 00:00
248020001	SAMPLE	DXF3	LB4100G2	05-MAR-10 09:44	DONE	2 inch Planchett	31-JUL-09 00:00
247829002	SAMPLE	DXF3	PIC11C	06-MAR-10 03:55	DONE	2 inch Planchett	31-JUL-09 00:00
248020002	SAMPLE	DXF3	PIC12B	06-MAR-10 03:55	DONE	2 inch Planchett	31-JUL-09 00:00
1202058390	MB	DXF3	PIC10B	06-MAR-10 04:00	DONE	2 inch Planchett	31-JUL-09 00:00
1202058392	MS	DXF3	PIC4B	06-MAR-10 04:00	DONE	2 inch Planchett	31-JUL-09 00:00
1202058393	MSD	DXF3	PIC8C	06-MAR-10 04:00	DONE	2 inch Planchett	31-JUL-09 00:00
1202058394	LCS	DXF3	PIC8D	06-MAR-10 04:00	DONE	2 inch Planchett	31-JUL-09 00:00
247817002	SAMPLE	DXF3	PIC8B	06-MAR-10 04:00	DONE	2 inch Planchett	31-JUL-09 00:00
248020001	SAMPLE	DXF3	PIC1A	06-MAR-10 04:22	DONE	2 inch Planchett	31-JUL-09 00:00
248020003	SAMPLE	DXF3	PIC9C	06-MAR-10 04:23	DONE	2 inch Planchett	31-JUL-09 00:00
248023002	SAMPLE	DXF3	PIC4C	06-MAR-10 04:23	DONE	2 inch Planchett	31-JUL-09 00:00
248024001	SAMPLE	DXF3	PIC10A	06-MAR-10 04:23	DONE	2 inch Planchett	31-JUL-09 00:00
248024003	SAMPLE	DXF3	PIC5B	06-MAR-10 04:23	DONE	2 inch Planchett	31-JUL-09 00:00
1202058391	DUP	DXF3	LB4100F1	06-MAR-10 15:27	DONE	2 inch Planchett	31-JUL-09 00:00

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 962412**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248548001	SAMPLE	KXM4	1209	20-MAR-10 11:10	DONE		
248555002	SAMPLE	KXM4	1210	20-MAR-10 11:10	DONE		
248670001	SAMPLE	KXM4	1211	20-MAR-10 11:10	DONE		
248670002	SAMPLE	KXM4	1217	20-MAR-10 11:10	DONE		
248670003	SAMPLE	KXM4	1218	20-MAR-10 11:10	DONE		
248806001	SAMPLE	KXM4	1219	20-MAR-10 11:10	DUSE		
248806002	SAMPLE	KXM4	1220	20-MAR-10 11:10	DONE		
1202064543	MB	KXM4	1221	20-MAR-10 11:11	DONE		
1202064544	DUP	KXM4	1222	20-MAR-10 11:11	DONE		
248020001	SAMPLE	KXM4	1025	20-MAR-10 11:35	DONE		
248020003	SAMPLE	KXM4	1026	20-MAR-10 11:35	DONE		
248023002	SAMPLE	KXM4	1027	20-MAR-10 11:35	DONE		
248024001	SAMPLE	KXM4	1028	20-MAR-10 11:35	DONE		
248024003	SAMPLE	KXM4	1029	20-MAR-10 11:35	DONE		
248382002	SAMPLE	KXM4	1030	20-MAR-10 11:35	DONE		
248382003	SAMPLE	KXM4	1101	20-MAR-10 11:35	DONE		
248401002	SAMPLE	KXM4	1102	20-MAR-10 11:35	DONE		
1202064545	LCS	KXM4	1105	20-MAR-10 11:35	DONE		
248806001	SAMPLE	KXM4	1256	22-MAR-10 16:25	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 967762**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248020001	SAMPLE	KXM4	1119	23-MAR-10 21:41	DONE		
248020003	SAMPLE	KXM4	1120	23-MAR-10 21:41	DONE		
248023002	SAMPLE	KXM4	1121	23-MAR-10 21:41	DONE		
248024001	SAMPLE	KXM4	1122	23-MAR-10 21:42	DONE		
248024003	SAMPLE	KXM4	1123	23-MAR-10 21:42	DONE		
248382002	SAMPLE	KXM4	1124	23-MAR-10 21:42	DONE		
248382003	SAMPLE	KXM4	1125	23-MAR-10 21:42	DONE		
248401002	SAMPLE	KXM4	1126	23-MAR-10 21:42	DONE		
248548001	SAMPLE	KXM4	1127	23-MAR-10 21:42	DONE		
248555002	SAMPLE	KXM4	1128	23-MAR-10 21:42	DONE		
248670001	SAMPLE	KXM4	1129	23-MAR-10 21:42	DONE		
248670002	SAMPLE	KXM4	1130	23-MAR-10 21:42	DONE		
248670003	SAMPLE	KXM4	1131	23-MAR-10 21:42	DONE		
248806001	SAMPLE	KXM4	1132	23-MAR-10 21:42	DONE		
248806002	SAMPLE	KXM4	1133	23-MAR-10 21:42	DONE		
1202077305	MB	KXM4	1134	23-MAR-10 21:42	DONE		
1202077306	DUP	KXM4	1135	23-MAR-10 21:42	DONE		
1202077307	LCS	KXM4	1136	23-MAR-10 21:42	DONE		

Instrument Run Log

Instrument Type: ALPHA SPECTROMETER **Batch ID: 968210**

Sample ID	Sample Type	Analyst	Instrument	Run Date	Status	Geometry	Calibration Date
248020001	SAMPLE	KXM4	1013	23-MAR-10 21:43	DONE		
248020003	SAMPLE	KXM4	1014	23-MAR-10 21:43	DONE		
248023002	SAMPLE	KXM4	1016	23-MAR-10 21:43	DONE		
248024001	SAMPLE	KXM4	1017	23-MAR-10 21:43	DONE		
248024003	SAMPLE	KXM4	1018	23-MAR-10 21:43	DONE		
248382002	SAMPLE	KXM4	1019	23-MAR-10 21:43	DONE		
248382003	SAMPLE	KXM4	1020	23-MAR-10 21:43	DONE		
248401002	SAMPLE	KXM4	1022	23-MAR-10 21:43	DONE		
248548001	SAMPLE	KXM4	1023	23-MAR-10 21:43	DONE		
248555002	SAMPLE	KXM4	1024	23-MAR-10 21:43	DONE		
248670001	SAMPLE	KXM4	1025	23-MAR-10 21:43	DONE		
248670002	SAMPLE	KXM4	1026	23-MAR-10 21:43	DONE		
248670003	SAMPLE	KXM4	1027	23-MAR-10 21:43	DONE		
248806001	SAMPLE	KXM4	1028	23-MAR-10 21:43	DUSE		
248806002	SAMPLE	KXM4	1029	23-MAR-10 21:43	DUSE		
1202078499	MB	KXM4	1030	23-MAR-10 21:43	DONE		
1202078500	DUP	KXM4	1095	23-MAR-10 21:43	DONE		
1202078501	LCS	KXM4	1096	23-MAR-10 21:43	DONE		

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2058

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.
2040 Savage Rd
Charleston, SC 29407

These Samples are on:
LANL Request Number:10-2058
Per Agreement Number:126310011
Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/24/2010
TURNAROUND/REPORT DUE: 3/26/2010
TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required
LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:
Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:150.1	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:160.1	1	CAPA-10-12770	WG	2/22/2010	

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2058

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:160.1	1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:160.2	1	CAPA-10-13085	WG	2/23/2010	
	EPA:245.2	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13083	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:300.0	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:310.1	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:335.3	1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13083	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:350.1	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:353.2	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2058

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:353.2	1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:365.4	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	SM:A2340B	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13083	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	SW-846:6010B	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13083	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	SW-846:6020	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13083	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	SW-846:6850	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	

Final Page of REQUEST NUMBER 10-2058

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2058

REQUEST NUMBER: 10-2058

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS:

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12770	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-12770	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-12770	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-12771	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-12771	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13082	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-13082	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13082	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-13083	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-13083	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13085	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-13085	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13085	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-13085	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-13085	1	POLY	WSP-SSC	Ice	WG
CAPA-10-13320	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-13320	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13320	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-13320	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	2/24/10	1400				
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By:		Date	Time	Remarks:
Printed Name	Signature			

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-12770 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/22/10	MEDIA:	WGA	OK
TIME COLLECTED (HH:MM)		1242	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	BP	
LOCATION ID:	18-BG-1		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO (NA)

BOREHOLE: YES / NO (NA) **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH < 2
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH < 2

SAMPLE DESC:

SAMPLE COMMENTS:

LOCATION DESC: See CAPA-10-12771

FIELD SCREENING/MEASUREMENT RESULTS:

COLLECTED BY (PRINT) H. Werchan

REVIEWED BY (PRINT) K. Crawford

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Kelon Crawford	2/23/10	(Printed Name)	2/23/10
(Signature) Kelon Crawford	1400	(Signature)	2:00
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-12771 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/22/10	MEDIA:	WGA	OK
TIME COLLECTED (HH:MM)		1242	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	BP	
LOCATION ID:	18-BG-1		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO (NA)

BOREHOLE: YES / NO (NA) **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
1 ~~3~~		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	
1 ~~3~~		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	pH >12
1		WSP-GrossA/B	1 LITER POLY	None	Y	
1 ~~2~~		WSP-HEXMOD	1 LITER AMBER GLASS	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	pH<2
1		WSP-RAD	1 GAL POLY	Nitric Acid	Y	pH<2
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	pH<2
1		WSP-LL-H-3	1 LITER POLY	None	Y	
1		Ra226+228	1 GAL POLY	Nitric Acid	Y	pH<2
1 ~~3~~		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice	Y	
1 ~~3~~		WSP-8082-PCB	1 LITER AMBER GLASS	Ice	Y	

SAMPLE DESC:

SAMPLE COMMENTS: Sampling occurred during a snow storm, possible snow melt contamination

LOCATION DESC:

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

FIELD SCREENING/MEASUREMENT RESULTS:

pH	Temp °C	SC µS/cm	DO mg/L	Turb (NTU)	ORP mV	~~Ft~~ V stoc	Q gpm
5.28	10.32	197	5.56	46.8	506.4	28.46	0.08

COLLECTED BY (PRINT) H. Wershaw

REVIEWED BY (PRINT) K. Crawford

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Kelon Crawford	2/23/10	(Printed Name)	2/23/10
(Signature) Kelon Crawford	1400	(Signature)	2:00
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-12772 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/22/10	MEDIA:	WGA	OK
TIME COLLECTED (HH:MM)		1242	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	BP	
LOCATION ID:	18-BG-1		FIELD QC TYPE:	FTB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO (NA)		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO (NA)

BOREHOLE: YES / NO (NA) **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	

SAMPLE DESC: QC Sample of CAPA-10-12771

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

see CAPA-10-12771

COLLECTED BY (PRINT) H. Weahow

REVIEWED BY (PRINT) K. Crawford

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Kelon Crawford	2/23/10	(Printed Name)	2/23/10
(Signature) Kelon Crawford	1400	(Signature)	2:00
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-12773 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/22/10	MEDIA:	WGA	OK
TIME COLLECTED (HH:MM)		1242	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:		
LOCATION ID:	18-BG-1		FIELD QC TYPE:	FD	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	SINGLE COMPLETION		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA **COMPOSITE TIME INTERVAL:** NA **WATER FLOWING:** YES / NO / NA

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** NA **BOREHOLE DIRECTION:** NA

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	pH<2
1		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	Y	

SAMPLE DESC: QC Sample of CAPA-10-12771

SAMPLE COMMENTS:

LOCATION DESC:

FIELD SCREENING/MEASUREMENT RESULTS:

See CAPA-10-12771

COLLECTED BY (PRINT) H. Wershow **REVIEWED BY (PRINT)** K. Crawford

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) Kelon Crawford	2/23/10	(Printed Name)	2/23/10
(Signature) Kelon Crawford	1400	(Signature)	2:00
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-13080 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		2/23/10	MEDIA:	WGR	aqc
TIME COLLECTED (HH:MM)		1200	SUB-MEDIA:	UA	
PRS ID:	C-00-011		SAMPLE TECH CODE:	~~RSP~~ NA	
LOCATION ID:	R-40		FIELD QC TYPE:	FTB prefilled	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P1A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

~~COMPOSITE TYPE:~~ NA ~~COMPOSITE TIME INTERVAL:~~ 2/23/10 WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: BOREHOLE DIRECTION:

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	

SAMPLE DESC: QC Sample of CAPA-10-13083

SAMPLE COMMENTS: 4th full suite sample.

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: refer to CAPA-10-13683

COLLECTED BY (PRINT) Lansay **REVIEWED BY (PRINT)** D Woody

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) S. Schmeer	2/23/10 1400	(Printed Name)	2/23/10 2:00
(Signature) Sandy Schmeer		(Signature)	
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-13082 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		2/23/10	MEDIA:	WGR	OK
TIME COLLECTED (HH:MM)		1200	SUB-MEDIA:	UA	
PRS ID:	C-00-011	OK	SAMPLE TECH CODE:	RSP	
LOCATION ID:	R-40		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	F	
PORT:	P1A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: _____ **COMPOSITE TIME INTERVAL:** NA 2/23/10 **WATER FLOWING: YES / NO / NA**

BOREHOLE: YES / NO / NA **BOREHOLE DECLINATION:** _____ **BOREHOLE DIRECTION:** _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1		WSP-GENINORG	1 LITER POLY	Ice	Y	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)	Y	
2		WSP-N14N15	40 ML SEPTUM AMBER GLASS	Ice	Y	

SAMPLE DESC:

NA

SAMPLE COMMENTS: 4th full suite sample.

2/23/10

LOCATION DESC:

NA

FIELD SCREENING/MEASUREMENT RESULTS: refer to CAPA-10-13083

COLLECTED BY (PRINT) MOREN **REVIEWED BY (PRINT)** LANSGY

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) S. Schmeer	2/23/10	(Printed Name)	2/23/10
(Signature)	1400	(Signature)	2:00
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-13083 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		2/23/2010	MEDIA:	WGR	GW
TIME COLLECTED (HH:MM)		1200	SUB-MEDIA:	UA	
PRS ID:	C-00-011	GW	SAMPLE TECH CODE:	RSP	
LOCATION ID:	R-40		FIELD QC TYPE:	NA	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P1A		SAMPLE USAGE:	INV	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: NA ~~COMPOSITE TIME~~ INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: ~~YES / NO / NA~~ BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	N	
2		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice	N	
2		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice	Y	
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide	Y	
1		WSP-GrossA/B	1 LITER POLY	None	Y	
2		~~WSP-HEXMOD~~	~~1 LITER AMBER GLASS~~	~~Ice~~	N	
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid	Y	
1		~~WSP-RAD~~	~~1 GAL POLY~~	~~Nitric Acid~~	N	
1		WSP-TKN+TOC	~~500 ML AMBER GLASS~~	~~Sulfuric Acid~~ (Hydrogen Sulfate)	N	
1		WSP-LL-H-3	1 LITER POLY	None	Y	
2		~~WSP-8081A-Pest~~	~~1 LITER AMBER GLASS~~	~~Ice~~	N	
2		~~WSP-8082-PCB~~	~~1 LITER AMBER GLASS~~	~~Ice~~	N	
2		~~WSP-8290-D/F~~	~~1 LITER AMBER GLASS~~	Ice	N	
2		~~WSP-D2H+O18O16~~	~~40 ML SEPTUM AMBER GLASS~~	Ice	N	
1		Ra226+228	1 GAL POLY	Nitric Acid	Y	
2		~~WSP-8151A-Herb~~	~~1 LITER AMBER GLASS~~	~~Ice~~	N	

SAMPLE DESC: NA

SAMPLE COMMENTS: 4th full suite sample.

limited suite

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS:

pH	T (°C)	DO (mg/L)	SP Cond (µS/cm)	ORP (mV)	Turb (NTU)	Q gpm
6.91	11.76	3.97	185	341.3	1.61	.33

COLLECTED BY (PRINT) D Woody **REVIEWED BY (PRINT)** L Ansay

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) S. Schmeer	2/23/10	(Printed Name)	2/23/10
(Signature) Sandy Schmeer	1400	(Signature)	2:00
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

CAPA-10-13083

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-13085 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY):		02/23/2010	MEDIA:	WGR	ok
TIME COLLECTED (HH:MM)		0937	SUB-MEDIA:	UA	
PRS ID:	C-00-011	ok	SAMPLE TECH CODE:	DC	
LOCATION ID:	R-40		FIELD QC TYPE:	PEB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P1A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		~~EXCAVATED: YES / NO / NA~~		

COMPOSITE TYPE: NA ~~COMPOSITE TIME INTERVAL: _____~~ ~~WATER FLOWING: YES / NO / NA~~

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
1 2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	
1 2		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice		
1 2		WSP-8321A-NMED HEXP	1 LITER AMBER GLASS	Ice		
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide		
1		WSP-GrossA/B	1 LITER POLY	None		
1 2		WSP-HEXMOD	1 LITER AMBER GLASS	Ice		
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid		
1		WSP-RAD	1 GAL POLY	Nitric Acid		
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		
1		WSP-LL-H-3	1 LITER POLY	None		
1 2		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice		
1 2		WSP-8082-PCB	1 LITER AMBER GLASS	Ice		
1 2		WSP-8290-D/F	1 LITER AMBER GLASS	Ice		
1		WSP-GENINORG	1 LITER POLY	Ice		
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		
1		WSP-H-3	250 ML AMBER GLASS	Ice		
1		WSP-SSC	500 ML POLY	Ice		
1 2		WSP-PCB-CNGR	1 LITER AMBER GLASS	Ice		

SAMPLE DESC: QC Sample of CAPA-10-13083

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE COMMENTS: PEB belongs to entire watershed.

18.2 MR-cm

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS:

NA

COLLECTED BY (PRINT) D. Woody

REVIEWED BY (PRINT) M. Green

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) S. Schmeer	2/23/10	(Printed Name)	2/23/10
(Signature)	1400	(Signature)	2:00
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name)		(Printed Name)	
(Signature)		(Signature)	

CAPA-10-13085

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

SAMPLE ID: CAPA-10-13320 **WORK ORDER:**

	AS PLANNED	AS COLLECTED		AS PLANNED	AS COLLECTED
DATE COLLECTED(MM/DD/YYYY)		02/23/2010	MEDIA:	WGR	QC
TIME COLLECTED (HH:MM)		0937	SUB-MEDIA:	UA	
PRS ID:	C-00-011	QC	SAMPLE TECH CODE:	DC	
LOCATION ID:	R-40		FIELD QC TYPE:	PEB	
LOCATION TYPE:	MON		FIELD PREP:	UF	
PORT:	P1A		SAMPLE USAGE:	QC	
			SCREEN/PORT DESC:		
FIELD MATRIX:	WG		EXCAVATED: YES / NO / NA		

COMPOSITE TYPE: N/A 02/23/2010 QC COMPOSITE TIME INTERVAL: _____ WATER FLOWING: YES / NO / NA

BOREHOLE: YES / NO / NA BOREHOLE DECLINATION: _____ BOREHOLE DIRECTION: _____

#	PRIORITY	ORDER	CNTNR	PRESERVATIVE	COLLECTED Y/N	SPECIAL INSTRUCTIONS
2		WSP-8260B-VOA	40 ML SEPTUM AMBER GLASS	Hydrochloric Acid (Hydrogen Chloride)	Y	
1 ~~3~~		WSP-8270C-SVOA	1 LITER AMBER GLASS	Ice		
1		WSP-CN(T)	250 ML POLY	Sodium Hydroxide		
1		WSP-Met+B+SN+SR+U	1 LITER POLY	Nitric Acid		
1		WSP-TKN+TOC	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		
1 ~~2~~		WSP-8081A-Pest	1 LITER AMBER GLASS	Ice		
1		WSP-GENINORG	1 LITER POLY	Ice		
1		WSP-NH3+NO3/NO2+PO4	500 ML AMBER GLASS	Sulfuric Acid (Hydrogen Sulfate)		
1 ~~2~~		WSP-PCB-CNGR	1 LITER AMBER GLASS	Ice		

SAMPLE DESC: QC Sample of CAPA-10-13083

SAMPLE COMMENTS: Comparison PEB. Use bottled, reagant-grade deionized water.

LOCATION DESC: NA

FIELD SCREENING/MEASUREMENT RESULTS: NA

COLLECTED BY (PRINT) Lansay **REVIEWED BY (PRINT)** D. Woody

SAMPLE COLLECTION LOG/FIELD CHAIN OF CUSTODY

EVENT ID: 2636 **EVENT NAME:** Pajarito Watershed Sampling Q3, Feb-March 2010, IFWGMP 2009

RELINQUISHED BY	Date/Time	RECEIVED BY	Date/Time
(Printed Name) S. Schmeer (Signature)	2/23/10 1400	(Printed Name) (Signature)	2/23/10 2:00
RELINQUISHED BY	**Date/Time**	**RECEIVED BY**	**Date/Time**
(Printed Name) (Signature)		(Printed Name) (Signature)	

CAPA-10-13320

DATA VALIDATION COVER SHEET

5116-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2058 VALIDATION DATE: 05/20/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☒ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☒	☐	☐	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

None

Reviewed by: Allison Felix Level: 1 Date: 5/20/10

VALIDATOR'S SIGNATURE: Ellen McEntee DATE: 05/20/10

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST

5121-2

LC/MS/MS Perchlorate Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The Internal Standard (IS) relativer retention time has shifted by more than 0.98 to 1.02 seconds.	R, PERC0	J, PERC0
☐	☒	☐	2. Required IS retention time documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC0b	R, PERC0b
☐	☐	☒	3. The IS are count is <25% of the expected value.	UJ, PERC1a	J, PERC1a
☐	☐	☒	4. The IS area count is <70% but >25% of the average of that obtained from the calibration standards.	UJ, PERC1b	J, PERC1b
☐	☐	☒	5. The IS area count is >130% of the average of that obtained from the calibration standards.	UJ, PERC1c	J, PERC1c
☐	☐	☒	6. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PREC1d	R, PERC1d
☐	☒	☐	7. The sample result is ≤ 5X the concentration of the related analyte in the method blank.	U, PERC4	N/A
☐	☒	☐	8. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J+, PERC4a
☐	☒	☐	9. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, and/or equipment blank.	U, PERC4d	N/A
☐	☒	☐	10. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC4e	R, PERC4e
☐	☒	☐	11. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, PERC7	J, PERC7
☐	☒	☐	12. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.99.	UJ, R, PERC7a	J, PERC7a

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. The ICV and/or CCV were recovered outside the method limits.	UJ, R, PERC7c	J, PERC7c
☐	☒	☐	14. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, R, PERC7d	J, PERC7d
☐	☒	☐	15. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, PERC7f	R. PERC7f
☐	☒	☐	16. The affected analyte is considered not detected because ion abundance ratios did not meet specifications.	N/A	R, PERC8
☐	☒	☐	17. The ion ratio documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	N/A	R, PERC8a
☐	☒	☐	18. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ PERC9	J-, PERC9
☐	☒	☐	19. The holding time was > 2 times the applicable holding time requirement.	R, PERC9a	J-, PERC9a
☐	☒	☐	20. The LCS percent recovery was <10%. Follow the external laboratory limits.	R, PERC12	J-, PERC12
☐	☒	☐	21. The LCS percent recovery was < the Lower Acceptance Limit but >10%. Follow the external laboratory limits.	UJ, PERC12a	J-, PERC12a
☐	☒	☐	22. The LCS percent recovery was > the Upper Acceptance Limit. Follow the external laboratory limits.	N/A	J+, PERC12b
☐	☒	☐	23. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, PERC12c	R, PERC12c
☐	☒	☐	24. The MS/MSD percent recovery was <10%	R, PERC12d	R, PERC12d
☐	☒	☐	25. The MS/MSD percent recovery was >10% but <75%	UJ, PERC12e	J, PERC12e
☐	☒	☐	26. The MS/MSD percent recovery was >125%.	N/A	J+, PERC12f

LC/MS/MS PERCHLORATE ANALYTICAL DATA VALIDATION CHECKLIST	
5121-2 **LC/MS/MS Perchlorate Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	27. The MS/MSD relative percent difference was >20%.	UJ, PERC12g	J, PERC12g
☐	☐	☒	28. The affected analytes are considered suspect because the sample was diluted without any target analytes identified due to matrix interference. Qualify as Reject if the analytical laboratory cannot provide proof for matrix interference.	UJ, R, PERC15	N/A
☐	☐	☒	29. The sample was diluted because target analytes were > the initial verification calibration.	UJ, PERC15a	J, PERC15a
☐	☐	☒	30. The Contract Required Detection Limit check standard (CRI) sample did not pass method-acceptance limits.	UJ, R, PERC16	J, PERC16
☐	☐	☒	31. The Interference Check Sample was not within ±20% of the known value.	UJ, PERC16a	J, PERC16a
☐	☐	☒	32. The required CRI sample information is missing. Contact the SMO or external laboratory for information.	R, PERC16c	R, PERC16c
☐	☒	☐	33. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, PERC19	J, R, PERC19
☐	☒	☐	34. Duplicate, dilution, or reanalysis.	UJ, PERC88	J, PERC88

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-12770

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2058

GEL Sample ID: 248044001

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.302	ug/L		1	14-MAR-10 22:50	per0314054a
	Perchlorate Isotope Ratio			3.01			1	14-MAR-10 22:50	per0314054a
14797-73-0	Perchlorate-101	.05	.2	0.310	ug/L		1	14-MAR-10 22:50	per0314054a
	Perchlorate-O(18)			0.505	ug/L		1	14-MAR-10 22:50	per0314054a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

EJM
05/20/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-13082

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2058

GEL Sample ID: 248044003

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.054	ug/L	J	1	14-MAR-10 23:14	per0314057a
	Perchlorate Isotope Ratio			3.32			1	14-MAR-10 23:14	per0314057a
14797-73-0	Perchlorate-101	.05	.2	0.0502	ug/L	J	1	14-MAR-10 23:14	per0314057a
	Perchlorate-O(18)			0.451	ug/L		1	14-MAR-10 23:14	per0314057a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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05/20/10

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Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-13085

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2058

GEL Sample ID: 248044005

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	14-MAR-10 23:22	per0314058a
	Perchlorate Isotope Ratio						1	14-MAR-10 23:22	per0314058a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	14-MAR-10 23:22	per0314058a
	Perchlorate-O(18)			0.449	ug/L		1	14-MAR-10 23:22	per0314058a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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PROPRIETARY INFORMATION - No unauthorized reproduction without written permission from GEL.

Form 1

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-13320

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2058

GEL Sample ID: 248044006

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	14-MAR-10 23:30	per0314059a
	Perchlorate Isotope Ratio						1	14-MAR-10 23:30	per0314059a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	14-MAR-10 23:30	per0314059a
	Perchlorate-O(18)			0.458	ug/L		1	14-MAR-10 23:30	per0314059a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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05/20/10

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DATA VALIDATION COVER SHEET

5118-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2058 VALIDATION DATE: 05/20/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☐ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☒ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☐	☐	☒	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the PEBs, samples CAPA-10-13085 and -13320, associated with samples -13082 and -13083, Cr, Si, Ca, and Na were detected. The associated results for Cr in samples -13082 and -13083 were detects ≤5X the MB concentration and, thus, were qualified U,I4d. All other associated results were >5X the PEB concentrations and, thus, were not qualified based on professional judgment.
2. It should be noted that the matrix QC for ICP-MS was performed on a LANL sample from another RN. No sample data were qualified as a result.

Reviewed by: Allison Felix Level: 1 Date: 5/20/10

VALIDATOR'S SIGNATURE: Ellen McEntee DATE: 05/20/10

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☐	☒	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The instrument performance sample did not pass method acceptance criteria.	R, I16	R, I16
☐	☐	☒	4. The mass calibration is not within 0.1 amu or %RSD is >5% for any isotope (Be, Mg, Co, In, Pb).	UJ, I16a	J, I16a
☐	☐	☒	5. Samples were analyzed outside specific method tune time criteria.	N/A	J, I16b
☐	☐	☒	6. The required instrument performance sample information is missing. Contact the SMO or external laboratory for information.	R, I16c	R, I16c
☐	☒	☐	7. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	8. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	9. The initial Calibration Verification (ICV) and/or Continuing Calibration Verification (CCV) were recovered outside the method-specific limits.	UJ, I7c	J, I7c
☐	☒	☐	10. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	11. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☒	☐	12. Metals interference check sample percent recover value is <50%.	R, I2	J-, I2

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	13. Metals interference check sample percent recovery value is ≥50% and <80%	UJ, I2a	J-, I2a
☐	☒	☐	14. Metals interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☒	☐	15. Metals interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☐	☒	☐	16. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A
☐	☒	☐	17. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☐	☒	☐	18. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	19. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☒	☐	☐	20. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	21. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	22. The associated matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☐	☒	☐	23. The associated matrix spike recovery was <the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J+, I6a
☐	☒	☐	24. The associated matrix spike recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b

METALS ANALYTICAL DATA VALIDATION CHECKLIST

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Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	25. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If the LCS information is present, do not Reject. Qualify data based on the LCS information.	R, I6c	R, I6c
☐	☒	☐	26. The sample and the duplicate sample results were ≥5X the RL and the duplicate RPD was >20% for water samples and >35% for soil samples.	UJ, I10a	J, I10a
☐	☒	☐	27. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	28. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	29. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	30. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	31. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☐	☒	32. The quantitating IS area count is <10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	R, I1a	J, I1a

METALS ANALYTICAL DATA VALIDATION CHECKLIST

5118-2

Metals Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☐	☒	33. The IS area count for the quantitating IS is <60% but >10% for metals window in relation to the initial calibration blank. Follow the method-specific windows.	UJ, I1b	J, I1b
☐	☐	☒	34. The IS area count for the quantitating IS is >125% in relation to the metals initial calibration blank. Follow method-specific windows.	UJ, I1c	J, I1c
☐	☐	☒	35. Required IS information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I1d	R, I1d
☐	☐	☒	36. Serial dilution sample RPD was >10% and the sample result was >50X the MDL (>100X the MDL for ICPMS). Qualify ONLY the sample used for the serial dilution.	UJ, I18	J, I18
☐	☐	☒	37. Serial dilution sample was not analyzed with the samples.	UJ, I18a	J, I18
☐	☐	☒	38. The sample result was reported as detected between the IDL and the EDL.	N/A	J, I1
☐	☒	☐	39. Duplicate, dilution, or reanalysis.	UJ, I88	J, I88
☒	☐	☐	40. Qualification of data via data validation did not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB, NQ, NQ
☐	☒	☐	41. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2058 **METHOD TYPE:** EPA

SAMPLE ID: 248044001 **CLIENT ID:** CAPA-10-12770

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	030210W3-8
7631-86-9	Silica	33.3	mg/L			P	0.053	1	OPTIMA4	032910C-1
7429-90-5	Aluminum	890	ug/L			P	68	1	OPTIMA4	032910C-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS6	100506-2
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS6	100506-2
7440-39-3	Barium	82.1	ug/L			P	1	1	OPTIMA4	032910C-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA4	032910C-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS6	100506-2
7440-70-2	Calcium	13800	ug/L			P	50	1	OPTIMA4	032910C-1
7440-47-3	Chromium	4.49	ug/L	J		MS	2.5	1	ICPMS6	100506-2
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA4	032910C-1
7439-89-6	Iron	404	ug/L			P	30	1	OPTIMA4	032910C-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS6	100506-2
7439-95-4	Magnesium	4700	ug/L			P	85	1	OPTIMA4	032910C-1
7439-96-5	Manganese	4.02	ug/L	J		P	2	1	OPTIMA4	032910C-1
7439-98-7	Molybdenum	0.528	ug/L			MS	0.1	1	ICPMS6	100506-2
7440-02-0	Nickel	0.677	ug/L	J		MS	0.5	1	ICPMS6	100507-7
7440-09-7	Potassium	3360	ug/L			P	50	1	OPTIMA4	032910C-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS6	100506-2
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS6	100506-2
7440-23-5	Sodium	16000	ug/L			P	100	1	OPTIMA4	032910C-1
7440-24-6	Strontium	107	ug/L			P	1	1	OPTIMA4	032910C-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS6	100506-2
7440-31-5	Tin	2.5	ug/L	U		P	2.5	1	OPTIMA4	032910C-1

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METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2058 **METHOD TYPE:** EPA

SAMPLE ID: 248044001 **CLIENT ID:** CAPA-10-12770

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	0.05	ug/L	U		MS	0.05	1	ICPMS6	100507-3
7440-62-2	Vanadium	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-66-6	Zinc	3.3	ug/L	U		P	3.3	1	OPTIMA4	032910C-1
	Hardness as CaCO3	53.8	mg/L				0.35	1	CALC001	

EJM
05/20/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2058 **METHOD TYPE:** EPA

SAMPLE ID: 248044002 **CLIENT ID:** CAPA-10-12771

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	030210W3-8
7429-90-5	Aluminum	6190	ug/L			P	68	1	OPTIMA4	032910C-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS6	100506-2
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS6	100506-2
7440-39-3	Barium	110	ug/L			P	1	1	OPTIMA4	032910C-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA4	032910C-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS6	100506-2
7440-70-2	Calcium	14300	ug/L			P	50	1	OPTIMA4	032910C-1
7440-47-3	Chromium	6.72	ug/L	J		MS	2.5	1	ICPMS6	100506-2
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA4	032910C-1
7439-89-6	Iron	3020	ug/L			P	30	1	OPTIMA4	032910C-1
7439-92-1	Lead	2.69	ug/L			MS	0.5	1	ICPMS6	100506-2
7439-95-4	Magnesium	5280	ug/L			P	85	1	OPTIMA4	032910C-1
7439-96-5	Manganese	47	ug/L			P	2	1	OPTIMA4	032910C-1
7439-98-7	Molybdenum	0.716	ug/L			MS	0.1	1	ICPMS6	100506-2
7440-02-0	Nickel	25	ug/L			MS	0.5	1	ICPMS6	100507-7
7440-09-7	Potassium	4330	ug/L			P	50	1	OPTIMA4	032910C-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS6	100506-2
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS6	100506-2
7440-23-5	Sodium	16700	ug/L			P	100	1	OPTIMA4	032910C-1
7440-24-6	Strontium	112	ug/L			P	1	1	OPTIMA4	032910C-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS6	100506-2
7440-31-5	Tin	2.5	ug/L	U		P	2.5	1	OPTIMA4	032910C-1
7440-61-1	Uranium	0.193	ug/L	J		MS	0.05	1	ICPMS6	100507-3

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05/20/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2058 **METHOD TYPE:** EPA

SAMPLE ID: 248044002 **CLIENT ID:** CAPA-10-12771

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	4.44	ug/L	J		P	1	1	OPTIMA4	032910C-1
7440-66-6	Zinc	9.54	ug/L	J		P	3.3	1	OPTIMA4	032910C-1
	Hardness as CaCO3	57.4	mg/L				0.35	1	CALC001	

EJM
05/20/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2058 **METHOD TYPE:** EPA

SAMPLE ID: 248044003 **CLIENT ID:** CAPA-10-13082

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte		Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury		0.066	ug/L	U		AV	0.066	1	HG3	030210W3-8
7631-86-9	Silica		55.6	mg/L			P	0.053	1	OPTIMA4	032910C-1
7429-90-5	Aluminum		68	ug/L	U		P	68	1	OPTIMA4	032910C-1
7440-36-0	Antimony		0.802	ug/L	J		MS	0.5	1	ICPMS6	100506-2
7440-38-2	Arsenic		1.5	ug/L	U		MS	1.5	1	ICPMS6	100506-2
7440-39-3	Barium		34.2	ug/L			P	1	1	OPTIMA4	032910C-1
7440-41-7	Beryllium		1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-42-8	Boron		15.2	ug/L	J		P	15	1	OPTIMA4	032910C-1
7440-43-9	Cadmium		0.11	ug/L	U		MS	0.11	1	ICPMS6	100506-2
7440-70-2	Calcium		21600	ug/L			P	50	1	OPTIMA4	032910C-1
7440-47-3	Chromium	U,I4d	4.16	ug/L	J		MS	2.5	1	ICPMS6	100506-2
7440-48-4	Cobalt		1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-50-8	Copper		3.31	ug/L	J		P	3	1	OPTIMA4	032910C-1
7439-89-6	Iron		35.2	ug/L	J		P	30	1	OPTIMA4	032910C-1
7439-92-1	Lead		0.5	ug/L	U		MS	0.5	1	ICPMS6	100506-2
7439-95-4	Magnesium		6440	ug/L			P	85	1	OPTIMA4	032910C-1
7439-96-5	Manganese		124	ug/L			P	2	1	OPTIMA4	032910C-1
7439-98-7	Molybdenum		11.2	ug/L			MS	0.1	1	ICPMS6	100506-2
7440-02-0	Nickel		14.4	ug/L			MS	0.5	1	ICPMS6	100507-7
7440-09-7	Potassium		1690	ug/L			P	50	1	OPTIMA4	032910C-1
7782-49-2	Selenium		1	ug/L	U		MS	1	1	ICPMS6	100506-2
7440-22-4	Silver		0.2	ug/L	U		MS	0.2	1	ICPMS6	100506-2
7440-23-5	Sodium		13800	ug/L			P	100	1	OPTIMA4	032910C-1
7440-24-6	Strontium		104	ug/L			P	1	1	OPTIMA4	032910C-1
7440-28-0	Thallium		0.3	ug/L	U		MS	0.3	1	ICPMS6	100506-2
7440-31-5	Tin		2.5	ug/L	U		P	2.5	1	OPTIMA4	032910C-1

EJM
05/20/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2058 **METHOD TYPE:** EPA

SAMPLE ID: 248044003 **CLIENT ID:** CAPA-10-13082

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	0.883	ug/L			MS	0.05	1	ICPMS6	100507-3
7440-62-2	Vanadium	2.4	ug/L	J		P	1	1	OPTIMA4	032910C-1
7440-66-6	Zinc	22.7	ug/L			P	3.3	1	OPTIMA4	032910C-1
	Hardness as CaCO3	80.4	mg/L				0.35	1	CALC001	

EJM
05/20/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2058 **METHOD TYPE:** EPA

SAMPLE ID: 248044004 **CLIENT ID:** CAPA-10-13083

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte		Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury		0.066	ug/L	U		AV	0.066	1	HG3	030210W3-8
7429-90-5	Aluminum		68	ug/L	U		P	68	1	OPTIMA4	032910C-1
7440-36-0	Antimony		0.672	ug/L	J		MS	0.5	1	ICPMS6	100506-2
7440-38-2	Arsenic		1.5	ug/L	U		MS	1.5	1	ICPMS6	100506-2
7440-39-3	Barium		34.7	ug/L			P	1	1	OPTIMA4	032910C-1
7440-41-7	Beryllium		1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-42-8	Boron		16.2	ug/L	J		P	15	1	OPTIMA4	032910C-1
7440-43-9	Cadmium		0.11	ug/L	U		MS	0.11	1	ICPMS6	100506-2
7440-70-2	Calcium		22000	ug/L			P	50	1	OPTIMA4	032910C-1
7440-47-3	Chromium	U,I4d	4.98	ug/L	J		MS	2.5	1	ICPMS6	100506-2
7440-48-4	Cobalt		1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-50-8	Copper		5.79	ug/L	J		P	3	1	OPTIMA4	032910C-1
7439-89-6	Iron		144	ug/L			P	30	1	OPTIMA4	032910C-1
7439-92-1	Lead		0.5	ug/L	U		MS	0.5	1	ICPMS6	100506-2
7439-95-4	Magnesium		6700	ug/L			P	85	1	OPTIMA4	032910C-1
7439-96-5	Manganese		120	ug/L			P	2	1	OPTIMA4	032910C-1
7439-98-7	Molybdenum		12.1	ug/L			MS	0.1	1	ICPMS6	100506-2
7440-02-0	Nickel		12.7	ug/L			MS	0.5	1	ICPMS6	100507-7
7440-09-7	Potassium		1730	ug/L			P	50	1	OPTIMA4	032910C-1
7782-49-2	Selenium		1	ug/L	U		MS	1	1	ICPMS6	100506-2
7440-22-4	Silver		0.2	ug/L	U		MS	0.2	1	ICPMS6	100506-2
7440-23-5	Sodium		13900	ug/L			P	100	1	OPTIMA4	032910C-1
7440-24-6	Strontium		106	ug/L			P	1	1	OPTIMA4	032910C-1
7440-28-0	Thallium		0.3	ug/L	U		MS	0.3	1	ICPMS6	100506-2
7440-31-5	Tin		2.5	ug/L	U		P	2.5	1	OPTIMA4	032910C-1
7440-61-1	Uranium		0.936	ug/L			MS	0.05	1	ICPMS6	100507-3

EJM
05/20/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2058 **METHOD TYPE:** EPA

SAMPLE ID: 248044004 **CLIENT ID:** CAPA-10-13083

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	2.68	ug/L	J		P	1	1	OPTIMA4	032910C-1
7440-66-6	Zinc	25.1	ug/L			P	3.3	1	OPTIMA4	032910C-1
	Hardness as CaCO3	82.6	mg/L				0.35	1	CALC001	

EJM
05/20/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2058 **METHOD TYPE:** EPA

SAMPLE ID: 248044005 **CLIENT ID:** CAPA-10-13085

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	030210W3-8
7631-86-9	Silica	0.053	mg/L	U		P	0.053	1	OPTIMA4	032910C-1
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA4	032910C-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS6	100506-2
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS6	100506-2
7440-39-3	Barium	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA4	032910C-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS6	100506-2
7440-70-2	Calcium	50	ug/L	U		P	50	1	OPTIMA4	032910C-1
7440-47-3	Chromium	3.83	ug/L	J		MS	2.5	1	ICPMS6	100506-2
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA4	032910C-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA4	032910C-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS6	100506-2
7439-95-4	Magnesium	85	ug/L	U		P	85	1	OPTIMA4	032910C-1
7439-96-5	Manganese	2	ug/L	U		P	2	1	OPTIMA4	032910C-1
7439-98-7	Molybdenum	0.1	ug/L	U		MS	0.1	1	ICPMS6	100506-2
7440-02-0	Nickel	0.5	ug/L	U		MS	0.5	1	ICPMS6	100507-7
7440-09-7	Potassium	50	ug/L	U		P	50	1	OPTIMA4	032910C-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS6	100506-2
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS6	100506-2
7440-23-5	Sodium	100	ug/L	U		P	100	1	OPTIMA4	032910C-1
7440-24-6	Strontium	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS6	100506-2
7440-31-5	Tin	2.5	ug/L	U		P	2.5	1	OPTIMA4	032910C-1

EJM
05/20/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2058 **METHOD TYPE:** EPA

SAMPLE ID: 248044005 **CLIENT ID:** CAPA-10-13085

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	0.05	ug/L	U		MS	0.05	1	ICPMS6	100507-3
7440-62-2	Vanadium	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-66-6	Zinc	3.3	ug/L	U		P	3.3	1	OPTIMA4	032910C-1
	Hardness as CaCO3	0.35	mg/L	U			0.35	1	CALC001	

EJM
05/20/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2058 **METHOD TYPE:** EPA

SAMPLE ID: 248044006 **CLIENT ID:** CAPA-10-13320

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	030210W3-8
7631-86-9	Silica	0.0543	mg/L	J		P	0.053	1	OPTIMA4	032910C-1
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA4	032910C-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS6	100506-2
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS6	100506-2
7440-39-3	Barium	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA4	032910C-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS6	100506-2
7440-70-2	Calcium	57.9	ug/L	J		P	50	1	OPTIMA4	032910C-1
7440-47-3	Chromium	3.49	ug/L	J		MS	2.5	1	ICPMS6	100506-2
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA4	032910C-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA4	032910C-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS6	100506-2
7439-95-4	Magnesium	85	ug/L	U		P	85	1	OPTIMA4	032910C-1
7439-96-5	Manganese	2	ug/L	U		P	2	1	OPTIMA4	032910C-1
7439-98-7	Molybdenum	0.1	ug/L	U		MS	0.1	1	ICPMS6	100506-2
7440-02-0	Nickel	0.5	ug/L	U		MS	0.5	1	ICPMS6	100507-7
7440-09-7	Potassium	50	ug/L	U		P	50	1	OPTIMA4	032910C-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS6	100506-2
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS6	100506-2
7440-23-5	Sodium	176	ug/L	J		P	100	1	OPTIMA4	032910C-1
7440-24-6	Strontium	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS6	100506-2
7440-31-5	Tin	2.5	ug/L	U		P	2.5	1	OPTIMA4	032910C-1

EJM
05/20/10

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2058 **METHOD TYPE:** EPA

SAMPLE ID: 248044006 **CLIENT ID:** CAPA-10-13320

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	0.05	ug/L	U		MS	0.05	1	ICPMS6	100507-3
7440-62-2	Vanadium	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-66-6	Zinc	3.3	ug/L	U		P	3.3	1	OPTIMA4	032910C-1
	Hardness as CaCO3	0.35	mg/L	U			0.35	1	CALC001	

EJM
05/20/10

DATA VALIDATION COVER SHEET

5120-1

Data Validation Cover Sheet

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Section I.

REQUEST NUMBER: 10-2058 VALIDATION DATE: 05/20/10 LAB CODE: GEL

CONTRACT LABORATORY NAME: GEL Laboratories LLC

VALIDATOR: Ellen McEntee ORGANIZATION: Analytical Quality Associates, Inc.

ANALYTICAL SUITE (CHECK ALL THAT APPLY):

- ☐ TPH-GRO
- ☐ TPH-DRO
- ☒ GENERAL CHEMISTRY
- ☐ HIGH EXPLOSIVES
- ☐ METALS
- ☐ RADIOCHEMISTRY
- ☐ DIOXIN FURANS
- ☐ PCB CONGENERS
- ☐ LCMSMS HIGH EXPLOSIVES
- ☐ LCMSMS PERCHLORATES
- ☐ ORGANOCHLORINE PESTICIDES/POLYCHLORINATED BIPHENYLS
- ☐ OTHER (DESCRIBE):

Section II. Completeness Check

YES	NO	N/A	(CHECK ONE)	YES	NO	N/A	(CHECK ONE)
☒	☐	☐	1. CHAIN-OF-CUSTODY FORM(S)	☒	☐	☐	6. RAW/BSS DATA
☒	☐	☐	2. CASE NARRATIVE	☒	☐	☐	7. QUALITY CONTROL FORMS
☒	☐	☐	3. SAMPLE RESULT FORMS	☐	☐	☒	8. QUANTITATION REPORTS
☒	☐	☐	4. SAMPLE CHROMATOGRAMS	☐	☐	☒	9. TICS FORMS
☐	☐	☒	5. STANDARD CHROMATOGRAMS	☐	☐	☒	10. TICS MASS SPECTRA

Comments/problems noted (include information about requests for further information submitted to the contract laboratory and agreed-upon date of resolution and contract laboratory point of contact):

1. In the MB, total phosphorus, ammonia as nitrogen, and nitrate/nitrite were detected. The associated results for total phosphorus in samples CAPA-10-12770, -13082, and -13085 and ammonia as nitrogen in sample -13085 were detects ≤5X the MB concentrations and, thus, were qualified U,I4. The results for nitrate/nitrite in samples -12770 and -13082 were detects >5X but ≤50X the MB concentration and were qualified J,I4a, based on professional judgment. All other associated sample results were NDs and, thus, were not qualified.
2. In the ICB/CCB, total phosphorus was detected. The associated results for samples -12770, -13082, and -13085 were detects ≤5X the blank concentration and, thus, were qualified U,I4b. The total phosphorus result for sample -13320 was an ND and, thus, was not qualified.
3. In the PEB, sample -13320, associated with samples -13082 and -13083, fluoride was detected. The associated result was a detect ≤5X the PEB concentration and, thus was qualified U,I4d.
4. The MS %Rs were < the laboratory LALs but ≥10% for fluoride and ammonia as nitrogen. The associated detected results were qualified J-,I6a and NDs or qualified NDs were qualified UJ,I6a.
5. The hold time for pH in samples -12770, -13082, -13085, and -13320 was >2X the recommended holding time. The associated sample results were qualified J-,I9a.
6. The hold time for chloride in sample -12770 was >1X but ≤2X the recommended holding time. The associated sample result was a detect and, thus, was qualified J-,I9.
7. It should be noted that the matrix QC for conductivity, pH, ion chromatography, ammonia as nitrogen, total phosphorus, TDS, TSS, and alkalinity were performed on LANL samples from other RNs. No sample data were

qualified as a result.

8. It should also be noted that sample -13083 for total cyanide analysis was received at a pH of 2. An aliquot was taken from another sample container and preserved appropriately for total cyanide analysis. No sample data were qualified as a result.

Reviewed by: Allison Felix Level: 1 Date: 5/20/10

VALIDATOR'S SIGNATURE: Ellen McKatee DATE: 05/20/10

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☒	☐	☐	1. The holding time was >1 and ≤2 times the applicable holding time requirement.	UJ, I9	J-, I9
☒	☐	☐	2. The holding time was >2 times the applicable holding time requirement.	R, I9a	J-, I9a
☐	☐	☒	3. The affected analytes are regarded as rejected because the analytical holding time was exceeded.	R, I9b	R, I9b
☐	☒	☐	4. The affected results were not analyzed with a valid 5-point calibration curve and/or a standard at the reporting limit.	UJ, R, I7	J, I7
☐	☒	☐	5. The affected analytes were analyzed with an initial calibration curve that exceeded the %RSD criteria and/or the associated multipoint calibration correlation coefficient is <0.995.	UJ, I7a	J, I7a
☐	☒	☐	6. The ICV and/or CCV were recovered outside the method specific limits.	UJ, I7c	J, I7c
☐	☒	☐	7. The ICV and/or CCV were not analyzed at the appropriate method frequency.	UJ, I7d	J, I7d
☐	☒	☐	8. Required calibration information is missing or samples were analyzed on an expired calibration. Contact the SMO or external laboratory for information.	R, I7f	R, I7f
☐	☐	☒	9. The interference check sample percent recovery value is <50%.	R, I2	J-, I2
☐	☐	☒	10. The interference check sample percent recovery value is ≥50% and <80%.	UJ, I2a	J-, I2a
☐	☐	☒	11. The interference check sample percent recovery value is >120%.	N/A	J+, I2b
☐	☐	☒	12. The interference check sample was not analyzed with the samples.	R, I2c	R, I2c
☒	☐	☐	13. The sample result is ≤5X the concentration of the related analyte in the method blank.	U, I4	N/A

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST	
5120-2 **General Chemistry Analytical Data Validation Checklist**	Records Use only Los Alamos NATIONAL LABORATORY

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☒	☐	☐	14. The affected analytes are considered estimated and biased high because this analyte was identified in the method blank but was >5X.	N/A	J, I4a
☒	☐	☐	15. The sample result is ≤5X the concentration of the related analyte in the instrument blank and continuing calibration blank.	U, I4b	N/A
☐	☒	☐	16. Continuing calibration blanks were not analyzed at the appropriate method frequency.	UJ, I4c	J, I4c
☒	☐	☐	17. The sample result is ≤5X the concentration of the related analyte in the trip blank, rinsate blank, or equipment blank.	U, I4d	N/A
☐	☒	☐	18. Required method blank information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	R, I4e	R, I4e
☐	☒	☐	19. The associate matrix spike recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I6	R, I6
☒	☐	☐	20. The associated matrix spike recovery was below the Lower Acceptance Limit (LAL) but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I6a	J-, I6a
☐	☒	☐	21. The associated matrix spike recovery was above the Upper Acceptance Limit (UAL). Follow the external laboratory limits located within the associated data package.	UJ, I6b	J+, I6b
☐	☒	☐	22. Required matrix spike information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. If LCS information is present, do not reject. Qualify data based on LCS information.	R, I6c	R, I6c
☐	☒	☐	23. The sample and/or the duplicate sample results RPD is not within the acceptance limits. Follow the external laboratory limits located within the associated data package.	UJ, I10b	J, I10b

GENERAL CHEMISTRY ANALYTICAL DATA VALIDATION CHECKLIST

5120-2

General Chemistry Analytical Data Validation Checklist

Records Use only

Los Alamos NATIONAL LABORATORY EST. 1943

Yes	No	N/A		Assign Qualifier Listed Below If Criterion = Yes	
(Check One)				Non-detected Analyte	Detected Analyte
☐	☒	☐	24. The duplicate sample was not prepared and/or analyzed with the samples for unspecified reasons. The duplicate information is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information.	UJ, I10d	J, I10d
☐	☒	☐	25. The LCS percent recovery was <10%. Follow the external laboratory limits located within the associated data package.	R, I12	R, I12
☐	☒	☐	26. The LCS percent recover was < the LAL but >10%. Follow the external laboratory limits located within the associated data package.	UJ, I12a	J-, I12a
☐	☒	☐	27. The LCS percent recovery was > the UAL. Follow the external laboratory limits located within the associated data package.	N/A	J+, I12b
☐	☒	☐	28. The LCS documentation is missing. Data may not be acceptable for use. Contact the SMO or external laboratory for information. Do not Reject if MS/MSD information is present. Qualify according to MS/MSD criteria.	R, I12c	R, I12c
☐	☒	☐	29. Duplicate, dilution, or reanalysis	UJ, I88	J, I88
☐	☒	☐	30. The LANL project chemist identified quality deficiencies in the reported data that require further qualification. This code can ONLY be used and/or under advisement by the LANL project chemist.	UJ, R, I19	J, R, I19
☒	☐	☐	31. Qualification of data via data validation does not occur based on Quality Control requirements in this procedure. Adhere to the external laboratory qualifiers found within the Form I analytical data summary sheets generated by the external laboratory.	U, U_LAB	J, J_LAB NQ, NQ (no qualification)

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2058

Client Sample ID: CAPA-10-12770
Sample ID: 248044001
Matrix: Ground Water
Collect Date: 22-FEB-10 12:00
Receive Date: 25-FEB-10
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Conductivity Analysis												
EPA120.1 Specific Conductivity "As Received"												
Conductivity		203		1.00	1.00	umhos/cm	1	TXT1	03/03/10	1630	960274	1
Electrode Analysis												
EPA 150.1 pH "As Received"												
pH at Temp 15.8C	H	6.78	J-,I9a	0.010	0.100	SU	1	LXA1	03/01/10	1849	959606	2
Ion Chromatography												
EPA 300.0 Anions Liquid 28 day "As Received"												
Bromide	U	ND		0.066	0.200	mg/L	1	VH1	03/21/10	0317	966823	3
Fluoride		0.138	J-,I6a	0.033	0.100	mg/L	1					
Sulfate		9.82		0.100	0.400	mg/L	1					
Chloride	H	19.4	J-,I9	0.330	1.00	mg/L	5	VH1	03/22/10	1944	966823	4
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia L "As Received"												
Nitrogen, Ammonia	U	ND	UJ,I6a	0.016	0.050	mg/L	1	AXH3	03/01/10	1407	958142	5
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite		0.446	J,I4a	0.050	0.250	mg/L	5	AXH3	03/03/10	1122	958150	6
EPA 365.4 Phosphorus, Total in "As Received"												
Phosphorus, Total as P		0.061	U,I4	0.015	0.050	mg/L	1	AXH3	03/05/10	0948	958139	7
Solids Analysis												
EPA 160.1 Solids, Dissolved-F "As Received"												
Total Dissolved Solids		146		2.38	10.0	mg/L		SDS	03/01/10	1356	959189	8
Titration Analysis												
EPA 310.1 Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		45.7		0.725	1.00	mg/L		LXA1	03/02/10	1647	959999	9
Carbonate alkalinity (CaCO3)	U	ND		0.725	1.00	mg/L						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	SXJ1	03/01/10	0930	958141
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	SXJ1	03/02/10	1030	958136

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 120.1	

EJM
05/20/10

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2058

Client Sample ID:	CAPA-10-12771	Project:	ESHL01000
Sample ID:	248044002	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	22-FEB-10 12:00		
Receive Date:	25-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
EPA 335.4 Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/08/10	1052	958168	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	03/05/10	1535	958167

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

EJM
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GEL LABORATORIES LLC

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Certificate of Analysis

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Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2058

Client Sample ID:	CAPA-10-13082	Project:	ESHL01000
Sample ID:	248044003	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	23-FEB-10 12:00		
Receive Date:	25-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Conductivity Analysis												
EPA120.1 Specific Conductivity "As Received"												
Conductivity		211		1.00	1.00	umhos/cm	1	TXT1	03/03/10	1630	960274	1
Electrode Analysis												
EPA 150.1 pH "As Received"												
pH at Temp 16.3C	H	7.84	J-,I9a	0.010	0.100	SU	1	LXA1	03/01/10	1851	959606	2
Ion Chromatography												
EPA 300.0 Anions Liquid 28 day "As Received"												
Bromide	U	ND		0.066	0.200	mg/L	1	VH1	03/21/10	0343	966823	3
Chloride		2.05		0.066	0.200	mg/L	1					
Fluoride		0.315	U,I4d	0.033	0.100	mg/L	1					
Sulfate		5.69		0.100	0.400	mg/L	1					
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia L "As Received"												
Nitrogen, Ammonia	U	ND	UJ,I6a	0.016	0.050	mg/L	1	AXH3	03/01/10	1408	958142	4
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	J	0.183	J,I4a	0.050	0.250	mg/L	5	AXH3	03/03/10	1113	958150	5
EPA 365.4 Phosphorus, Total in "As Received"												
Phosphorus, Total as P		0.062	U,I4	0.015	0.050	mg/L	1	AXH3	03/05/10	1003	958139	6
Solids Analysis												
EPA 160.1 Solids, Dissolved-F "As Received"												
Total Dissolved Solids		167		2.38	10.0	mg/L		SDS	03/01/10	1356	959189	7
Titration Analysis												
EPA 310.1 Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		93.8		0.725	1.00	mg/L		LXA1	03/02/10	1651	959999	8
Carbonate alkalinity (CaCO3)	U	ND		0.725	1.00	mg/L						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	SXJ1	03/01/10	0930	958141
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	SXJ1	03/02/10	1030	958136

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 120.1	

EJM
05/20/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2058

Client Sample ID:	CAPA-10-13083	Project:	ESHL01000
Sample ID:	248044004	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	23-FEB-10 12:00		
Receive Date:	25-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
EPA 335.4 Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/09/10	1518	963030	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	03/09/10	1137	963029

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2058

Client Sample ID: CAPA-10-13085
Sample ID: 248044005
Matrix: Ground Water
Collect Date: 23-FEB-10 12:00
Receive Date: 25-FEB-10
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result		DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Conductivity Analysis												
EPA120.1 Specific Conductivity "As Received"												
Conductivity		1.18		1.00	1.00	umhos/cm	1	TXT1	03/03/10	1630	960274	1
Electrode Analysis												
EPA 150.1 pH "As Received"												
pH at Temp 16.3C	H	5.96	J-,I9a	0.010	0.100	SU	1	LXA1	03/01/10	1853	959606	2
Flow Injection Analysis												
EPA 335.4 Cyanide, Total "As Received"												
Cyanide, Total	U	ND		1.66	5.00	ug/L	1	AXC2	03/08/10	1506	959217	3
Ion Chromatography												
EPA 300.0 Anions Liquid 28 day "As Received"												
Bromide	U	ND		0.066	0.200	mg/L	1	VH1	03/21/10	0410	966823	4
Chloride	U	ND		0.066	0.200	mg/L	1					
Fluoride	U	ND	UJ,I6a	0.033	0.100	mg/L	1					
Sulfate	U	ND		0.100	0.400	mg/L	1					
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia L "As Received"												
Nitrogen, Ammonia	J	0.016	U,I4	0.016	0.050	mg/L	1	AXH3	03/01/10	1412	958142	5
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"												
Nitrogen, Nitrate/Nitrite	U	ND		0.050	0.250	mg/L	5	AXH3	03/03/10	1205	959199	6
EPA 365.4 Phosphorus, Total in "As Received"												
Phosphorus, Total as P	J	0.028	U,I4	0.015	0.050	mg/L	1	AXH3	03/05/10	0950	958139	7
Solids Analysis												
EPA 160.1 Solids, Dissolved-F "As Received"												
Total Dissolved Solids	U	ND		2.38	10.0	mg/L		SDS	03/01/10	1356	959189	8
EPA 160.2 SSC "As Received"												
Total Suspended Solids	U	ND		1.14	5.00	mg/L		SDS	03/01/10	1021	959191	9
Titration Analysis												
EPA 310.1 Total Alkalinity "As Received"												
Alkalinity, Total as CaCO3		1.43		0.725	1.00	mg/L		LXA1	03/02/10	1703	959999	10
Carbonate alkalinity (CaCO3)	U	ND		0.725	1.00	mg/L						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	03/08/10	1241	959216
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	SXJ1	03/01/10	0930	958141

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05/20/10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2058

Client Sample ID: CAPA-10-13320
Sample ID: 248044006
Matrix: Ground Water
Collect Date: 23-FEB-10 12:00
Receive Date: 25-FEB-10
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result		DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Conductivity Analysis											
EPA120.1 Specific Conductivity "As Received"											
Conductivity		1.39		1.00	1.00	umhos/cm	1	TXT1 03/03/10	1631	960274	1
Electrode Analysis											
EPA 150.1 pH "As Received"											
pH at Temp 15.6C	H	6.31	J-,I9a	0.010	0.100	SU	1	LXA1 03/01/10	1856	959606	2
Flow Injection Analysis											
EPA 335.4 Cyanide, Total "As Received"											
Cyanide, Total	U	ND		1.66	5.00	ug/L	1	AXC2 03/08/10	1510	959217	3
Ion Chromatography											
EPA 300.0 Anions Liquid 28 day "As Received"											
Bromide	U	ND		0.066	0.200	mg/L	1	VH1 03/21/10	0436	966823	4
Chloride	U	ND		0.066	0.200	mg/L	1				
Fluoride	J	0.0982	J-,I6a	0.033	0.100	mg/L	1				
Sulfate	U	ND		0.100	0.400	mg/L	1				
Nutrient Analysis											
EPA 350.1 Nitrogen, Ammonia L "As Received"											
Nitrogen, Ammonia	U	ND	UJ,I6a	0.016	0.050	mg/L	1	AXH3 03/01/10	1413	958142	5
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"											
Nitrogen, Nitrate/Nitrite	U	ND		0.050	0.250	mg/L	5	AXH3 03/03/10	1250	959715	6
EPA 365.4 Phosphorus, Total in "As Received"											
Phosphorus, Total as P	U	ND		0.015	0.050	mg/L	1	AXH3 03/05/10	0951	958139	7
Solids Analysis											
EPA 160.1 Solids, Dissolved-F "As Received"											
Total Dissolved Solids	U	ND		2.38	10.0	mg/L		SDS 03/01/10	1356	959189	8
Titration Analysis											
EPA 310.1 Total Alkalinity "As Received"											
Alkalinity, Total as CaCO3		1.91		0.725	1.00	mg/L		LXA1 03/02/10	1703	959999	9
Carbonate alkalinity (CaCO3)	U	ND		0.725	1.00	mg/L					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	03/08/10	1241	959216
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	SXJ1	03/01/10	0930	958141
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	SXJ1	03/02/10	1030	958136

EJM
05/20/10

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2058

REQUEST NUMBER: 10-2058

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 248044

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12770	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-12770	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-12770	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-12771	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-12771	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13082	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-13082	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13082	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-13083	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-13083	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13085	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-13085	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13085	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-13085	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-13085	1	POLY	WSP-SSC	Ice	WG
CAPA-10-13320	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-13320	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13320	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-13320	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	2/24/10	1800	Dianne Tenorio	[illegible]	2/25/10	0845
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2058

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2058

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/24/2010

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:150.1	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:160.1	1	CAPA-10-12770	WG	2/22/2010	

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2058

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:160.1	1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:160.2	1	CAPA-10-13085	WG	2/23/2010	
	EPA:245.2	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13083	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:300.0	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:310.1	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:335.3	1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13083	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:350.1	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:353.2	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2058

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:353.2	1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:365.4	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	SM:A2340B	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13083	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	SW-846:6010B	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13083	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	SW-846:6020	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13083	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	SW-846:6850	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	

Final Page of REQUEST NUMBER 10-2058

GEL Laboratories LLC

a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407

P 843.556.8171 F 843.766.1178

www.gel.com

March 05, 2010

Ms. Joylene Valdez
Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545

Re: LANL-WQH Water Samples
Work Order: 248044
SDG: 10-2058

Dear Ms. Valdez:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 25, 2010, and analyzed for General Chemistry, Metals and Perchlorates by LCMSMS. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4485.

Sincerely,

for

Valerie Davis
Project Manager

Purchase Order: 72733-001-09
Chain of Custody: 10-2058
Enclosures

problem solved

Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 248044
SDG # : 10-2058

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- Ammonia Nitrogen..... 575
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Nitrate Nitrite by Cadmium Reduction.....694
Solids, Total Dissolved.....705
Solids, Total Suspended.....707
Specific Conductivity.....709
Total Phosphorus.....712
pH.....724
Miscellaneous.....727

Case Narrative

Case Narrative for
Los Alamos National Laboratory (72733-001-09)
LANL-WQH Water Samples
Workorder #: 248044
SDG # : 10-2058

March 05, 2010

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary

Sample receipt The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on February 25, 2010 for analysis. The samples were prepared/analyzed within the required holding time. Shipping container temperatures were checked, documented, and within specifications. The samples were screened according to GEL Standard Operating Procedure. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. The CN container for sample CAPA-10-13083 was received at a pH of 2. There are no additional comments concerning sample receipt. Shipping container temperature was within specification (0 - 6C).

Sample Identification The laboratory received the following samples:

Laboratory ID	Client ID
248044001	CAPA-10-12770
248044002	CAPA-10-12771
248044003	CAPA-10-13082
248044004	CAPA-10-13083
248044005	CAPA-10-13085
248044006	CAPA-10-13320

Case Narrative

Sample analyses were conducted using methodology as outlined in GEL Laboratories, LLC (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

Data Package

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: General Chemistry, Metals and Perchlorates by LCMSMS.

I certify that this data report is in compliance with the terms and conditions of the subcontract and task order, both technically and for completeness, for other than the conditions detailed in the attached case narrative.

for

Valerie Davis
Project Manager

List of current GEL Certifications as of 05 March 2010

State	Certification
Arizona	AZ0668
Arkansas	88-0651
CLIA	42D0904046
California - NELAP	01151CA
Colorado	GEL
Connecticut	PH-0169
Dept. of Navy	NFESC 413
EPA Region 5	WG-15J
Florida - NELAP	E87156
Georgia	E87156 (FL/NELAP)
Georgia DW	967
Hawaii	N/A
ISO 17025	2567.01
Idaho	SC00012
Illinois - NELAP	200029
Indiana	C-SC-01
Kansas - NELAP	E-10332
Kentucky	90129
Louisiana - NELAP	03046
Maryland	270
Massachusetts	M-SC012
Nevada	SC00012
New Jersey - NELAP	SC002
New Mexico	FL NELAP E87156
New York - NELAP	11501
North Carolina	233
North Carolina DW	45709
Oklahoma	9904
Pennsylvania - NELAP	68-00485
South Carolina	10120001/10120002
Tennessee	TN 02934
Texas - NELAP	T104704235-07B-TX
U.S. Dept. of Agriculture	S-52597
Utah - NELAP	GEL
Vermont	VT87156
Virginia	00151
Washington	C1641

Chain of Custody and Supporting Documentation

Wednesday, February 24, 2010

LAB CHAIN OF CUSTODY DOCUMENT NUMBER: 10-2058

REQUEST NUMBER: 10-2058

LOS ALAMOS

NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30

LAB REQUEST COMMENTS: 248044

SAMPLE ID	CTNR	CTNR DESC	ORDER	PRESERV	MATRIX
CAPA-10-12770	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-12770	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-12770	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-12771	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-12771	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13082	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-13082	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13082	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-13083	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-13083	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13085	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-13085	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13085	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-13085	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG
CAPA-10-13085	1	POLY	WSP-SSC	Ice	WG
CAPA-10-13320	1	POLY	WSP-CN(T)	Sodium Hydroxide	WG
CAPA-10-13320	1	POLY	WSP-Met+B+SN+SR+U	Nitric Acid	WG
CAPA-10-13320	1	POLY	WSP-GENINORG	Ice	WG
CAPA-10-13320	1	AMBER GLASS	WSP-NH3+NO3/NO2+PO4	Sulfuric Acid (Hydrogen Sulfate)	WG

Relinquished By:		Date	Time	Received By:		Date	Time
[illegible]	[illegible]	2/24/10	1400	Dionne Ferrero	[illegible]	2/25/10	0845
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		
Printed Name	Signature			Printed Name	Signature		

Received for DISPOSAL By: **Date** **Time** **Remarks:**

Printed Name Signature

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2058

LOS ALAMOS
NATIONAL LABORATORY

ATTN: Valerie Davis

General Engineering Laboratories, Inc., Charleston, SC.

2040 Savage Rd

Charleston, SC 29407

These Samples are on:

LANL Request Number:10-2058

Per Agreement Number:126310011

Project Cost Code: MR1A015AGWM0

Please analyse the enclosed samples according to the schedule indicated:

SHIP DATE: 2/24/2010

TURNAROUND/REPORT DUE: 3/26/2010

TURNAROUND REQ'D: 30 Days

RAD SCREENING: Not Required

LAB REQUEST COMMENTS:

LANL ER SMO CONTACT:

Signature:

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:120.1	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:150.1	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:160.1	1	CAPA-10-12770	WG	2/22/2010	

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2058

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:160.1	1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:160.2	1	CAPA-10-13085	WG	2/23/2010	
	EPA:245.2	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13083	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:300.0	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:310.1	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:335.3	1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13083	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:350.1	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:353.2	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	

Wednesday, February 24, 2010

REQUEST NUMBER: 10-2058

PRIORITY	METHOD CODE	CNTNR	SAMPLE ID	SAMPLE MATRIX	DATE SAMPLED	SPECIAL INSTRUCTIONS
	EPA:353.2	1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	EPA:365.4	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	SM:A2340B	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13083	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	SW-846:6010B	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13083	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	SW-846:6020	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-12771	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13083	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	
	SW-846:6850	1	CAPA-10-12770	WG	2/22/2010	
		1	CAPA-10-13082	WG	2/23/2010	
		1	CAPA-10-13085	WG	2/23/2010	
		1	CAPA-10-13320	WG	2/23/2010	

Final Page of REQUEST NUMBER 10-2058

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: LANL	**SDG/ARCOC/Work Order: 10-2058**
Received By: Dionne Francis	**Date Received: 2/25/10**

Suspected Hazard Information	**Yes**	**No**	*If Counts > x2 area background on samples not marked "radioactive", contact the Radiation Safety Group of further investigation.
COC/Samples marked as radioactive?		X	Maximum Counts Observed*: **80CPM**
Classified Radioactive II by RSO?		X	
COC/Samples marked containing PCBs?		X	
Shipped as a DOT Hazardous?		X	Hazard Class Shipped: UN#:
Samples identified as Foreign Soil?		X	

	Sample Receipt Criteria	**Yes**	**NA**	**No**	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within 0 ≤ 6 deg. C?	X			Preservation Method: ice bags **blue ice** dry ice **none** other (describe) **0-6C** **12-14C**
3	Chain of custody documents included with shipment?	X			
4	Sample containers intact and sealed?	X			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	~~X~~		X	Sample ID's, containers affected and observed pH: CAPA-10-13083 CN rec'd at a pH of 2 If Preservation added, Lot#:
6	VOA vials free of headspace (defined as < 6mm bubble)?		X		Sample ID's and containers affected:
7	Are Encore containers present?			X	(If yes, immediately deliver to Volatiles laboratory)
8	Samples received within holding time?	X			Id's and tests affected:
9	Sample ID's on COC match ID's on bottles?	X			Sample ID's and containers affected:
10	Date & time on COC match date & time on bottles?		X		Sample ID's affected: **time not listed on COC**
11	Number of containers received match number indicated on COC?	X			Sample ID's affected:
12	COC form is properly signed in relinquished/received sections?	X			

Comments: FEDEX#s

7209 7850 1919 0C	**7209 7850 2076 2C**	**7209 7850 2238 3C**	**7209 7850 1893 12C**
7209 7850 2146 1C	**7209 7850 2065 2C**	**7209 7850 2124 3C**	**7209 7850 1849 12C**
7209 7850 1952 1C	**7209 7850 1996 3C**	**7209 7850 1974 4C**	**7209 7850 1838 13C**
7209 7850 2054 1C	**7209 7850 2135 3C**	**7209 7850 1985 4C**	**7209 7850 1860 13C**
7209 7850 1963 1C	**7209 7850 2032 3C**	**7209 7850 2000 4C**	**7209 7850 1850 13C**
7209 7850 2021 2C	**7209 7850 2249 3C**	**7209 7850 2087 4C**	**7209 7850 2098 13C**
7209 7850 2113 2C	**7209 7850 2168 3C**	**7209 7850 2010 5C**	**7209 7850 1908 14C**
7209 7850 2102 2C	**7209 7850 1941 3C**	**7209 7850 2157 6C**	
7209 7850 1882 2C	**7209 7850 2043 3C**	**7209 7850 1871 12C**	

PM (or PMA) review: Initials P.D.D. Date 2/26/10

Subject: Sample Receipt for 2/25/10
From: Dionne Francis <Dionne.Francis@gel.com>
Date: Fri, 05 Mar 2010 09:44:19 -0500
To: "Keith R. Greene" <kgreene@lanl.gov>, Joylene Valdez <joylenev@lanl.gov>, Valerie Davis <vsd@gel.com>

Keith,

RN 10-2058: the CN container for sample CAPA-10-13083 was rec'd at a pH of 2. An aliquot will be taken from one of the HEXP containers and preserved appropriately.

Thanks,
Dionne

--
Dionne Francis
Project Manager Assistant
GEL Laboratories, LLC
2040 Savage Road
Charleston, SC (USA) 29407
Direct: 843.769.7376 Ext. 4432
Main: 843.556.8171
Fax: 843.766.1178
E-mail: daf@gel.com
Web: www.gel.com

Let the Bible fill the memory, rule the heart, and guide the feet.

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB1
ACTWGT: 49.0 LB M
CAD: 0014176/CAFE

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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2 of 2
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MtrW 7209 7850 1908 0201

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LOS ALAMOS, NM 87545
UNITED STATES US

ALERIE DAVIS
ENERAL ENGINEERING LAB
040 SAVAGE RD

HARLESTON SC 29407
(843) 556-8171
EF: 6B010AMR3A05529E00

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2 of 3
7209 7850 1952
MtrW 7209 7850 1941 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

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SC-US
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 63.0 LB MAN
CAD: 0014176/CAFE2460

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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MPS# 0263 7209 7850 2146
MstrW 7209 7850 2135 0201

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UNITED STATES US

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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GIN ID: SAFA (505) 665-9968
LENE VALDEZ
ALAMOS NATL LAB
3 BLDG 1237 DPU 03

ALAMOS, NM 87545
TED STATES US

SHIP DATE: 24FEB10
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2450

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LERIE DAVIS
NERAL ENGINEERING LAB
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NERAL ENGINEERING LAB
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PRIORITY OVERNIGHT

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CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
IA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

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TRK# 0201 7209 7850 2021

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PRIORITY OVERNIGHT

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TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

2C

FedEx Express

2 of 2
MPS# 0263 7209 7850 2102
Mstr# 7209 7850 2098 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

2C

FedEx Express

2 of 3
MPS# 0263 7209 7850 1882
Mstr# 7209 7850 1871 0201

THU - 25FEB
PRIORITY OVERNI

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XX CHSA

Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

2C

FedEx Express

1 of 2
TRK# 0201 7209 7850 2076
MASTER

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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2 of 2
MPS# 0263 7209 7850 2065
Mstr# 7209 7850 2054 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 49.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

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7209 7850 1985 0201

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PRIORITY OVERNIGHT

K CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 151.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWMO

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FedEx Express

1 of 2
TRK# 0201 7209 7850 2135
MASTER

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PRIORITY OVERN

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XX CHSA

Part # 156148-434 NRIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0223KY10

3c

FedEx Express

1 of 2
TRK# 0201 7209 7850 2032
MASTER

THU - 25FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

Part # 156148-434 NRIT V3 04-09

JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 50.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWMO

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2 of 2
MPS# 0263 7209 7850 2249
Mstr# 7209 7850 2238 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

29407
SC-US
CHS

XX CHSA

IT V3-04-06

JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

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CHARLESTON SC 29407
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THU - 25FEB A1
PRIORITY OVERNIGHT

TRK# 0201 7209 7850 2168

29407
SC-US
CHS

XX CHSA

V3-04-06

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 52.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

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1 of 3
TRK# 0201 7209 7850 1941
MASTER

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

Part # 156148-434 NAIT V3 04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0223KY10

3c

FedEx Express

2 of 2
MPS# 0263 7209 7850 2043
Matr# 7209 7850 2032 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 40.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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FedEx Express

1 of 2
TRK# 0201 7209 7850 2238
MASTER

THU - 25FEB A
PRIORITY OVERNIGH

XX CHSA

2940
SC-
CH

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 67.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

3c

FedEx Express

2 of 2
MPS# 0263 7209 7850 2124
Matr# 7209 7850 2113 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP D RTE: 24FEB10
ACTWGT: 48.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A05529E00

4c

FedEx Express

TRK# 0201 7209 7850 1974

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

NRIT V3.04-09

JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

ACTWGT: 51.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

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FedEx Express

1 of 2
TRK# 0201 7209 7850 1985
MASTER

THU - 25FEB A
PRIORITY OVERNIGH

XX CHSA

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NRIT V3.04-09

LOS ALAMOS, NM 87545
UNITED STATES US

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

4c

FedEx Express

1 of 2
TRK# 0201 7209 7850 2000
MASTER

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR1A015AGWM0

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FedEx Express

2 of 2
MPS# 0263 7209 7850 2087
Mstr# 7209 7850 2076 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

XX CHSA

29407
SC-US
CHS

NRIT V3.04-09

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE24

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR2A0515BYD0

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FedEx Express

2 of 2
MPS# 0263 7209 7850 2010
Mstr# 7209 7850 2000 0201

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PRIORITY OVERNIG

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JOY
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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1 of 3
TRK# 0201 7209 7850 1871
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THU - 25FEB
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XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB.
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 46.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AWEBL11570000

6C

FedEx Express

TRK# 0201 7209 7850 2157

THU - 25FEB A1
PRIORITY OVERNIGHT

29407
SC-US
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JOYLENE
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

CAD: 0014176/CAFE2450

BILL SENDER

TO VALERIE DAVIS
GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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FedEx Express

3 of 3
MPS# 0263 7209 7850 1893
Mstr# 7209 7850 1871 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

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2040 SAVAGE RD

CHARLESTON SC 29407
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REF: 6B010AMR3A0532VA00

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3 of 3
MPS# 0263 7209 7850 1819
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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2450

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REF: 6B010AMR3A0532VA00

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2 of 3
MPS# 0263 7209 7850 1838
Matr# 7209 7850 1827 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

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ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 54.0 LB MAN
CAD: 0014176/CAFE2450

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2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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2 of 2
MPS# 0263 7209 7850 1860
Matr# 7209 7850 1850 0201

THU - 25FEB A1
PRIORITY OVERNIGHT

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CHS

XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 56.0 LB MAN
CAD: 0014176/CAFE2450

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(843) 556-8171
REF: 6B010AMR3A0532VA00

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1 of 2
TRK# 0201 7209 7850 1850
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PRIORITY OVERNIGHT

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XX CHSA

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 55.0 LB MAN
CAD: 0014176/CAFE2450

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2040 SAVAGE RD

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REF: 6B010AMR1A015AGWMO

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1 of 2

TRK# 0201 7209 7850 2098

MASTER

THU - 25FEB - A1
PRIORITY OVERNIGHT

XX CHSA

29407
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CHS

ORIGIN ID: SAFA (505) 665-9968
JOYLENE VALDEZ
LOS ALAMOS NATL LAB
TA00 BLDG 1237 DPU 03

LOS ALAMOS, NM 87545
UNITED STATES US

SHIP DATE: 24FEB10
ACTWGT: 62.0 LB MAN
CAD: 0014176/CAFE2450

BILL SENDER

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GENERAL ENGINEERING LAB
2040 SAVAGE RD

CHARLESTON SC 29407
(843) 556-8171
REF: 6B010AMR3A0532VA00

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1 of 2

TRK# 0201 7209 7850 1908

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THU - 25FEB - A1
PRIORITY OVERNIGHT

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DATA REVIEW QUALIFIER FLAG DEFINITION SHEET

Data Review Qualifier Definitions

Qualifier	Explanation
*	A quality control analyte recovery is outside of specified acceptance criteria
**	Analyte is a surrogate compound
<	Result is less than value reported
>	Result is greater than value reported
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL
A	The TIC is a suspected aldol-condensation product
B	Target analyte was detected in the associated blank
B	Metals-Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
BD	Results are either below the MDC or tracer recovery is low
C	Analyte has been confirmed by GC/MS analysis
D	Results are reported from a diluted aliquot of the sample
d	5-day BOD-The 2:1 depletion requirement was not met for this sample
E	Organics-Concentration of the target analyte exceeds the instrument calibration range
E	Metals-%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
H	Analytical holding time was exceeded
h	Preparation or preservation holding time was exceeded
J	Value is estimated
N	Metals-The Matrix spike sample recovery is not within specified control limits
N	Organics-Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
N/A	Spike recovery limits do not apply. Sample concentration exceeds spike concentration by 4X or more
ND	Analyte concentration is not detected above the reporting limit
UI	Gamma Spectroscopy-Uncertain identification
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test-Particulates passed through the filter, however no free liquids were observed.

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LC/MS/MS PERCHLORATE ANALYSIS

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Perchlorate by LC/MSMS
Los Alamos National Laboratory (LANL)
SDG 10-2058

Method/Analysis Information

Procedure:	**Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)**
Analytical Method:	SW846 6850 Modified
Prep Method:	SW846 6850 Modified
Analytical Batch Number:	959038
Prep Batch Number:	959037

Sample Analysis

Sample ID	Client ID
248044001	CAPA-10-12770
248044003	CAPA-10-13082
248044005	CAPA-10-13085
248044006	CAPA-10-13320
1202056709	Interference Check Sample (ICS)
1202056703	Method Blank (MB)
1202056704	Laboratory Control Sample (LCS)
1202056707	248044001(CAPA-10-12770) Matrix Spike (MS)
1202056708	248044001(CAPA-10-12770) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Preparation/Analytical Method Verification

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-OA-E-067 REV# 6.

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Calibration Information

Initial Calibration
All initial calibration requirements have been met for this SDG. Due to software constraints, all Initial Calibration Blanks must be designated as IPB001.

CCV Requirements
All associated calibration verification standard(s) (ICV or CCV) met the acceptance criteria.

CCB Requirements
All continuing calibration blanks (CCB) bracketing the analyses associated with this batch were within acceptance criteria.

CCV Requirements
All continuing calibration checks (CCV) requirements were met by all bracketing CCV standards.

Low Level Standard (CRI) Requirements
All low level calibration verification (CRI) requirements were met by all bracketing CRI standards.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB(s) analyzed with this SDG met the acceptance criteria.

Interference Check Sample (ICS)
The interference check sample (ICS) met all recovery acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

QC Sample Designation
Sample 248044001 (CAPA-10-12770) was chosen for matrix spike and matrix spike duplicate analysis.

Matrix Spike (MS) Recovery Statement
The MS recoveries were within the established acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries were within the established acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD(s) between the MS and MSD met the acceptance limits.

Retention Time Standard Area Acceptance
The retention time standard areas were within the required acceptance criteria for all samples and QC.

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Retention Time
During the analysis of Perchlorate by LC/MS/MS, retention time shifts are commonly observed. These retention time shifts, which are caused by fouling of the column by the sample matrices, are problematic when the retention time is used as one of the criterion for confirmation. To overcome this problem, a known amount of O(18) labeled Perchlorate was added to each sample as a retention time standard. The presence of Perchlorate was confirmed by the relative retention time (RRT) of the Perchlorate peak and the O(18) standard. A RRT window of 0.98 to 1.02, as required by Method 332.0, has been used. In addition to the isotopic ratio, the presence of Perchlorate in the samples associated with this data package have been confirmed using the relative retention criteria stated above, not the absolute retention time.

Technical Information

Holding Time Specifications
All samples in this SDG in this analytical batch met the specified holding time. GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-extraction/Re-analysis
Re-extractions or re-analyses were not required in this SDG except for dilutions.

Miscellaneous Information

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Manual Integrations
Some initial calibration standards, continuing calibration standards, and/or samples may require manual integrations due to software limitations.

Method Comments
The samples in this SDG were not originally analyzed using EPA Method 314.0.

Additional Comments
The Perchlorate Isotope Ratio on the Form I may differ slightly from the ratio on the corresponding raw data due to rounding rules and/or significant figures or due to software limitations when there are manual integrations, dilutions or other factors. The ratio value of the Form I is the correct value.

The retention time marker, Perchlorate-O (18), is added to all samples, instrument blanks, and standards prior to injection. It is used to verify the retention time of Perchlorate and Perchlorate-101 and to insure an accurate injection occurred. Due to various anions affecting the recovery of Perchlorate-O (18) and not Perchlorate and Perchlorate-101, the calibration curves of Perchlorate and Perchlorate-101 are not internally corrected for using Perchlorate-O (18). They are external calibrations.

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Perchlorate Isotope Ratio
The Perchlorate isotope ratio met acceptance criteria for all samples and QC samples. Please see the isotope ratio criteria in the Miscellaneous Section.

System Configuration

The laboratory utilizes a Waters LC 2795 liquid chromatography instrument for perchlorate analysis. It is coupled with either a Micromass Quattro Micro Mass Spectrometer/ Mass Spectrometer, or a Micromass Quattro Ultima Mass Spectrometer/ Mass Spectrometer. Each being designated as LCMSMS #1, and LCMSMS #2, respectively. It is fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis. The laboratory may also utilize an Agilent 1100 liquid chromatography instrument for perchlorate analysis. It is coupled with an Applied Biosystems 4000 Mass Spectrometer/ Mass Spectrometer, designated as LCMSMS #3 or LCMSMS #4. It is also fitted with an electrospray probe that is operated in the negative electrospray ionization mode for perchlorate analysis.

Chromatographic Columns

Chromatographic separation of perchlorate is accomplished through analysis on the following anion column:

Dionex: IonPac AG-16 2 x 50 mm.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Heather M Maier **Date:** 03/17/10

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SAMPLE DATA SUMMARY

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-12770

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2058

GEL Sample ID: 248044001

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.302	ug/L		1	14-MAR-10 22:50	per0314054a
	Perchlorate Isotope Ratio			3.01			1	14-MAR-10 22:50	per0314054a
14797-73-0	Perchlorate-101	.05	.2	0.310	ug/L		1	14-MAR-10 22:50	per0314054a
	Perchlorate-O(18)			0.505	ug/L		1	14-MAR-10 22:50	per0314054a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-13082

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2058

GEL Sample ID: 248044003

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.054	ug/L	J	1	14-MAR-10 23:14	per0314057a
	Perchlorate Isotope Ratio			3.32			1	14-MAR-10 23:14	per0314057a
14797-73-0	Perchlorate-101	.05	.2	0.0502	ug/L	J	1	14-MAR-10 23:14	per0314057a
	Perchlorate-O(18)			0.451	ug/L		1	14-MAR-10 23:14	per0314057a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-13085

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2058

GEL Sample ID: 248044005

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	14-MAR-10 23:22	per0314058a
	Perchlorate Isotope Ratio						1	14-MAR-10 23:22	per0314058a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	14-MAR-10 23:22	per0314058a
	Perchlorate-O(18)			0.449	ug/L		1	14-MAR-10 23:22	per0314058a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-13320

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2058

GEL Sample ID: 248044006

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	14-MAR-10 23:30	per0314059a
	Perchlorate Isotope Ratio						1	14-MAR-10 23:30	per0314059a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	14-MAR-10 23:30	per0314059a
	Perchlorate-O(18)			0.458	ug/L		1	14-MAR-10 23:30	per0314059a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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QUALITY CONTROL SUMMARY

Perchlorate Laboratory Control Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2058

Extract Batch Code: 959037

Date Filtered: 06–MAR–10

Matrix: GROUND WATER

Sample ID: 1202056704

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.2	ug/L	99.9		85 – 115
Perchlorate Isotope Ratio		3.13				–
Perchlorate–101	0.200	.197	ug/L	98.5		85 – 115
Perchlorate–O(18)		.464	ug/L			–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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Perchlorate Interference Check Sample

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No. (SDG): 10–2058

Extract Batch Code: 959037

Date Filtered: 06–MAR–10

Matrix: GROUND WATER

Sample ID: 1202056709

Analyte^	True	Found	Units	%Rec	Q	Control Limits
Perchlorate	0.200	.205	ug/L	102		70 – 130
Perchlorate Isotope Ratio		2.88				
Perchlorate–101	0.200	.22	ug/L	110		70 – 130
Perchlorate–O(18)		.488	ug/L			

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

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antify Sample Report MassLynx 4.0 SP4
) GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

t Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ated: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ne: per0314044a
e: 14-Mar-2010
ne: 21:28:45
1202056709
l: 2:1,C

LANL | 959038 | LZQ | IC5 | 1 | 03-15-14

chlorate

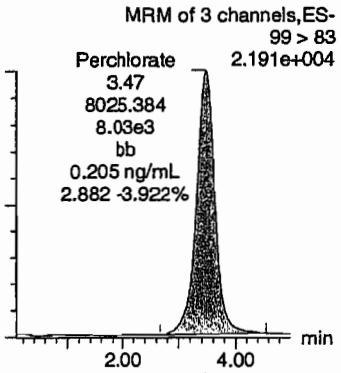

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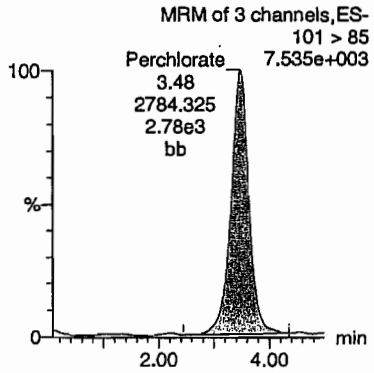

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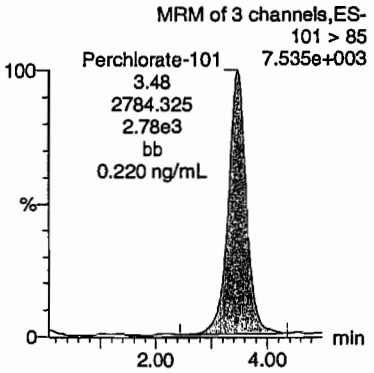

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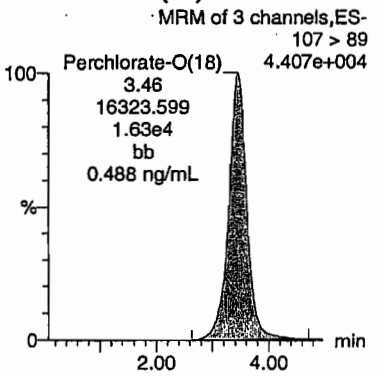

	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
2056709	Perchlorate	99 > 83	3.47	8025.384	8025.384	bb			0.2050	102.48	2.48	895.049	2.88
2056709	Perchlorate-101	101 > 85	3.48	2784.325	2784.325	bb			0.2196	109.80	9.80	474.575	
2056709	Perchlorate-O(18)	107 > 89	3.46	16323.599	16323.599	bb			0.4878	97.56	-2.44	3776.4...	

MAT 3/16/10

$$\frac{8025.384}{2784.325} = 2.8823$$

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Perchlorate Spike/Spike Duplicate Summary

Lab Name: General Engineering Laboratories

Lab Code: GEL

GEL Job No (SDG): 10–2058

Extract Batch Code: 959037

Date Extracted: 06–MAR–10

GEL MS/PS ID: 1202056707

Client ID: CAPA–10–12770

GEL MSD/PSD ID: 1202056708

QC Type: MS

Compound^	Spike Added	Sample Conc	Units	MS Conc	MS Rec #	MSD Conc	MSD Rec #	RPD #	RPD Limit	Recovery Limit
Perchlorate	0.200	0.302	ug/L	0.484	90.9	.496	97.2	2.58	30	75 – 125
Perchlorate Isotope Ratio	0	0.00		2.88		3.04		0		–
Perchlorate–101	0.200	0.310	ug/L	0.519	105	.504	97	2.99	30	75 – 125
Perchlorate–O(18)	0	0.505	ug/L	0.471		.476		1.08		–

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

Comments:

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Perchlorate Initial Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2058

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	14–MAR–10	per0314001a	IPB001
Perchlorate–101	0.00	0	NA	14–MAR–10	per0314001a	IPB001
Perchlorate	0.00	0	NA	14–MAR–10	per0314002a	IPB001
Perchlorate–101	0.00	0	NA	14–MAR–10	per0314002a	IPB001

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ify Sample Report MassLynx 4.0 SP4
EL Group, LLC Analyst: Charlers W. Wilson

t: C:\MassLynx\Perchlorate.PRO\per031410a.qld

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: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

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ation: C:\MassLynx\Perchlorate.PRO\CurveDB\per031410a.cdb 15 Mar 2010 08:56:54

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4-Mar-2010
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03-15-10

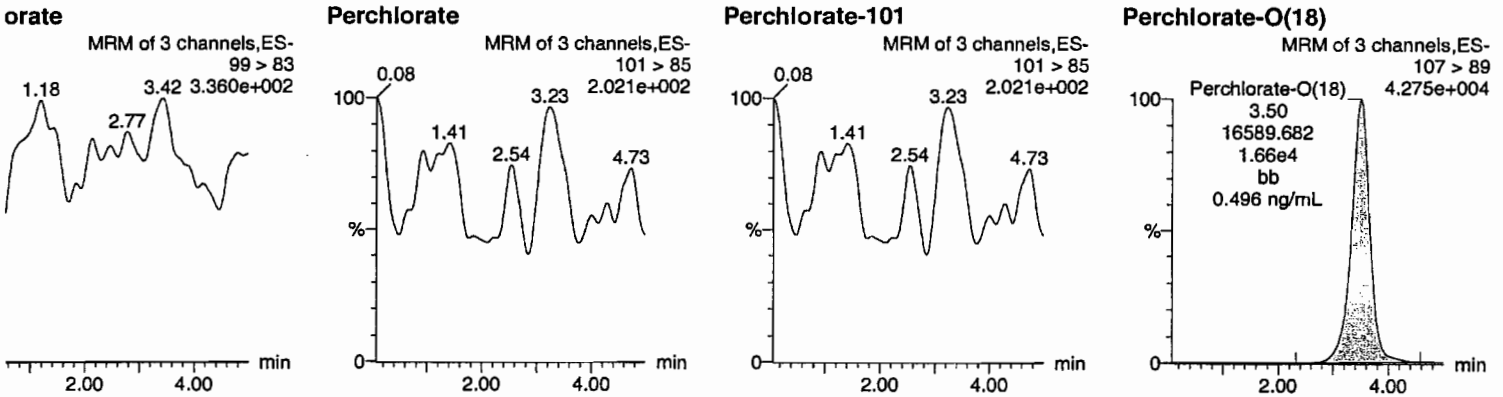

Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
Perchlorate	99 > 83											0.00
Perchlorate-101	101 > 85											
Perchlorate-O(18)	107 > 89	3.50	16589.682	16589.682	bb			0.4958	99.15	-0.85	1780.0...	

MMT 3/16/10

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:L Group, LLC Analyst: Charlers W. Wilson

t: C:\MassLynx\Perchlorate.PRO\per031410a.qld

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3/16-15-10

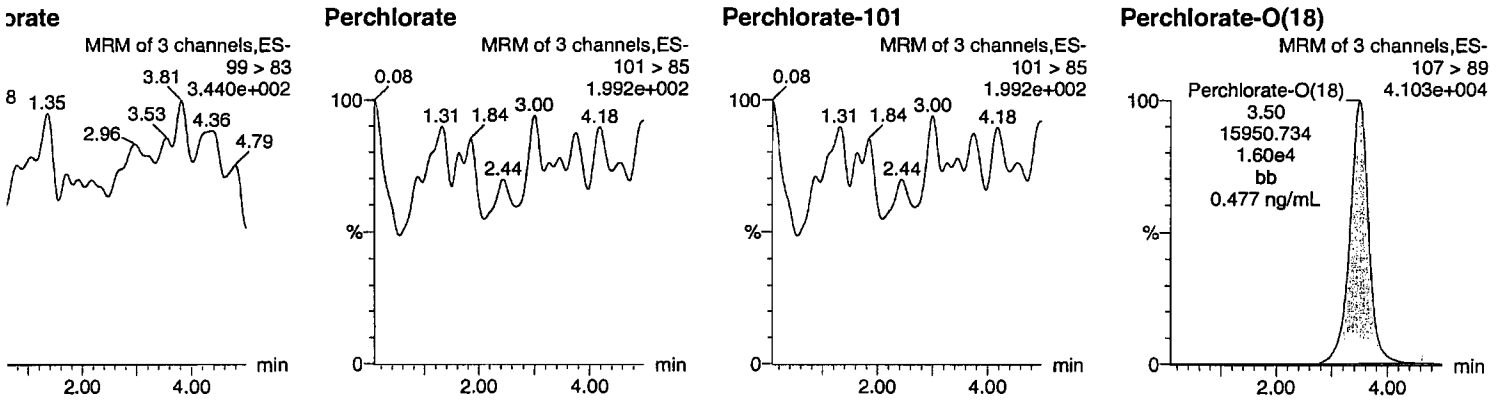

Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
Perchlorate	99 > 83											0.00
Perchlorate-101	101 > 85											
Perchlorate-O(18)	107 > 89	3.50	15950.734	15950.734	bb			0.4767	95.34	-4.66	1555.8...	

MAT 3/16/10

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2058

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate	0.00	0	NA	14–MAR–10	per0314008a	IPB002
Perchlorate–101	0.00	0	NA	14–MAR–10	per0314008a	IPB002
Perchlorate	0.00	0	NA	14–MAR–10	per0314010a	IPB003
Perchlorate–101	0.00	0	NA	14–MAR–10	per0314010a	IPB003
Perchlorate	0.00	0	NA	14–MAR–10	per0314023a	IPB004
Perchlorate–101	0.00	0	NA	14–MAR–10	per0314023a	IPB004
Perchlorate	0.00	0	NA	14–MAR–10	per0314036a	IPB005
Perchlorate–101	0.00	0	NA	14–MAR–10	per0314036a	IPB005
Perchlorate	0.00	0	NA	14–MAR–10	per0314041a	IPB006
Perchlorate–101	0.00	0	NA	14–MAR–10	per0314041a	IPB006
Perchlorate	0.00	0	NA	14–MAR–10	per0314049a	IPB007
Perchlorate–101	0.00	0	NA	14–MAR–10	per0314049a	IPB007
Perchlorate	0.00	0	NA	14–MAR–10	per0314062a	IPB008

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Perchlorate Continuing Calibration Blank

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2058

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id	GEL Sample ID
Perchlorate-101	0.00	0	NA	14-MAR-10	per0314062a	IPB008

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fy Sample Report MassLynx 4.0 SP4
EL Group, LLC Analyst: Charlers W. Wilson

t: C:\MassLynx\Perchlorate.PRO\per031410a.qld

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: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

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03-15-10

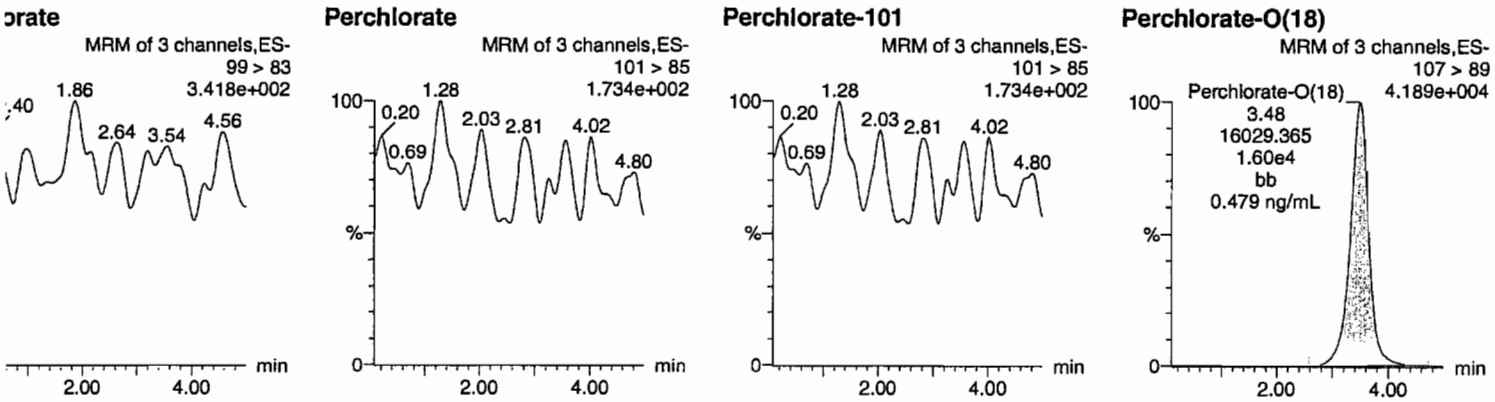

Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
Perchlorate	99 > 83											0.00
Perchlorate-101	101 > 85											
Perchlorate-O(18)	107 > 89	3.48	16029.365	16029.365	bb			0.4790	95.81	-4.19	1104.5...	

MM 3/16/10

)P GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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ıset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

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03-15-10

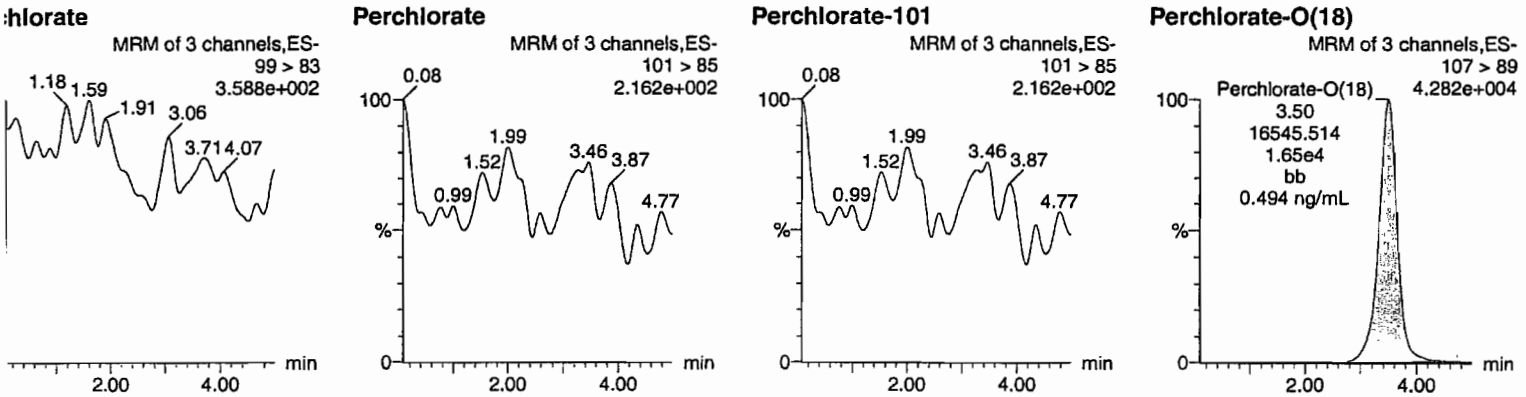

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)3	Perchlorate-101	101 > 85											
)3	Perchlorate-O(18)	107 > 89	3.50	16545.514	16545.514	bb			0.4945	98.89	-1.11	1258.9...	

MAJ 3/16/10

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:ify Sample Report **MassLynx 4.0 SP4**
EL Group, LLC Analyst: Charlers W. Wilson

:t: C:\MassLynx\Perchlorate.PRO\per031410a.qld

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14-Mar-2010
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03-1570

lorate

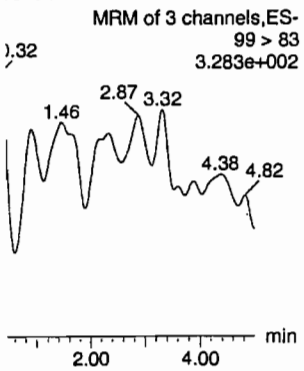

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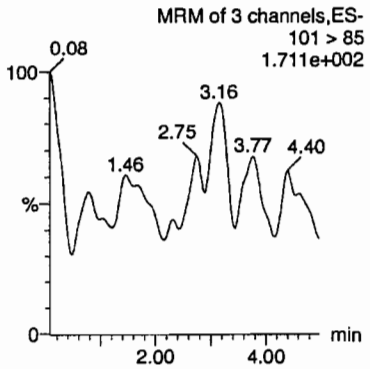

Perchlorate-101

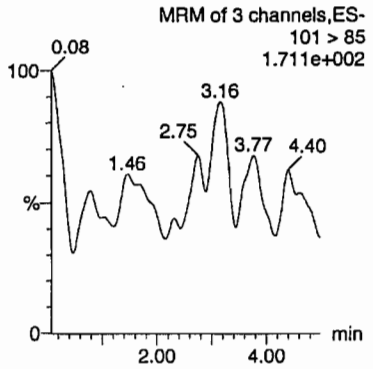

Perchlorate-O(18)

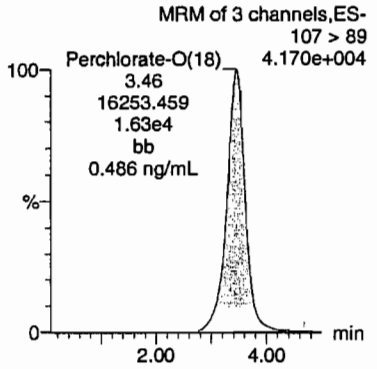

Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
Perchlorate	99 > 83											0.00
Perchlorate-101	101 > 85											
Perchlorate-O(18)	107 > 89	3.46	16253.459	16253.459	bb			0.4857	97.14	-2.86	1623.8...	

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ɜt: C:\MassLynx\Perchlorate.PRO\per031410a.qld

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03-15-10

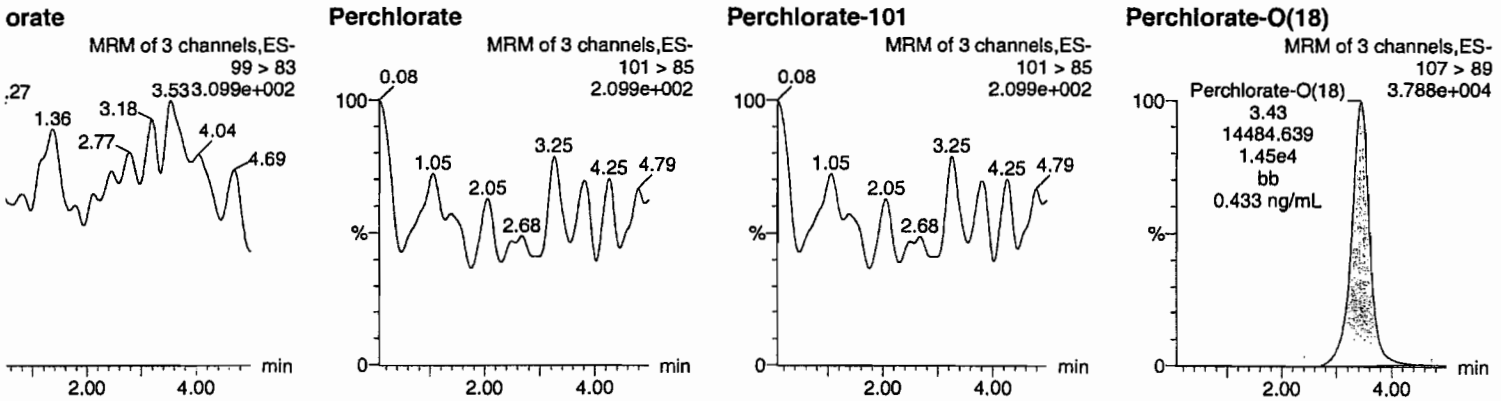

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Perchlorate	99 > 83											0.00
Perchlorate-101	101 > 85											
Perchlorate-O(18)	107 > 89	3.43	14484.639	14484.639	bb			0.4329	86.57	-13.43	330.725	

MAP
3/16/10

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ify Sample Report MassLynx 4.0 SP4
EL Group, LLC Analyst: Charlers W. Wilson

t: C:\MassLynx\Perchlorate.PRO\per031410a.qld

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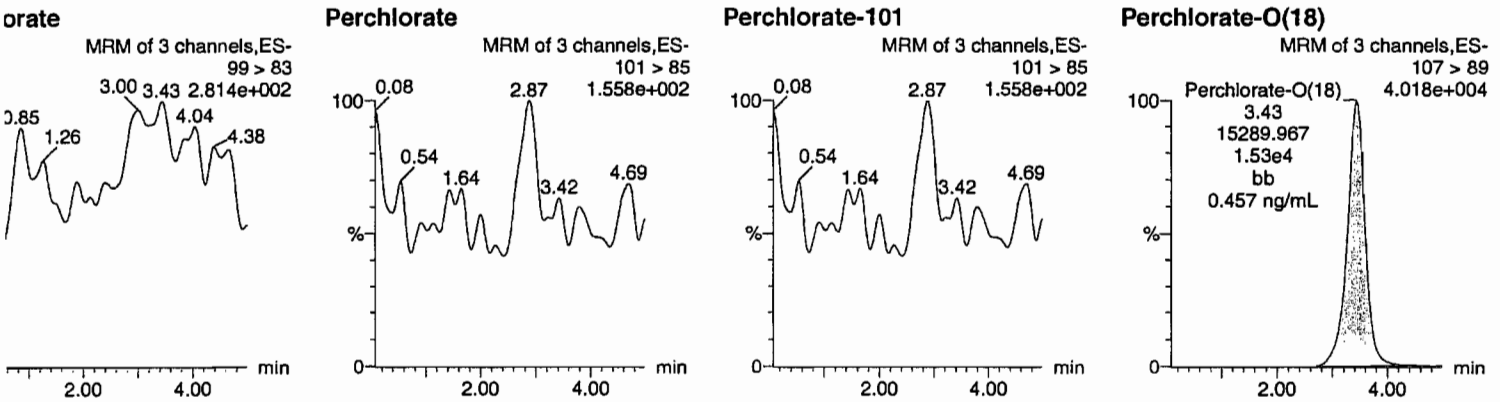

Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
Perchlorate	99 > 83											0.00
Perchlorate-101	101 > 85											
Perchlorate-O(18)	107 > 89	3.43	15289.967	15289.967	bb			0.4569	91.39	-8.61	4719.0...	

MMP
3/16/10

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03-15-10

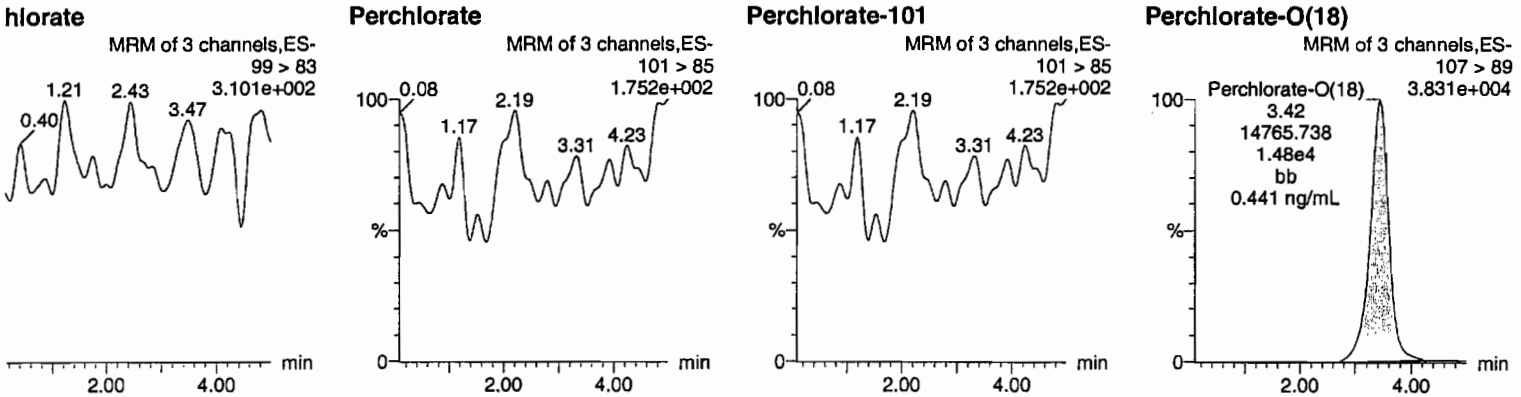

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7	Perchlorate	99 > 83											0.00
7	Perchlorate-101	101 > 85											
7	Perchlorate-O(18)	107 > 89	3.42	14765.738	14765.738	bb			0.4413	88.25	-11.75	2275.0...	

MAT 3/16/10

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ed: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

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CWD 03-15-10

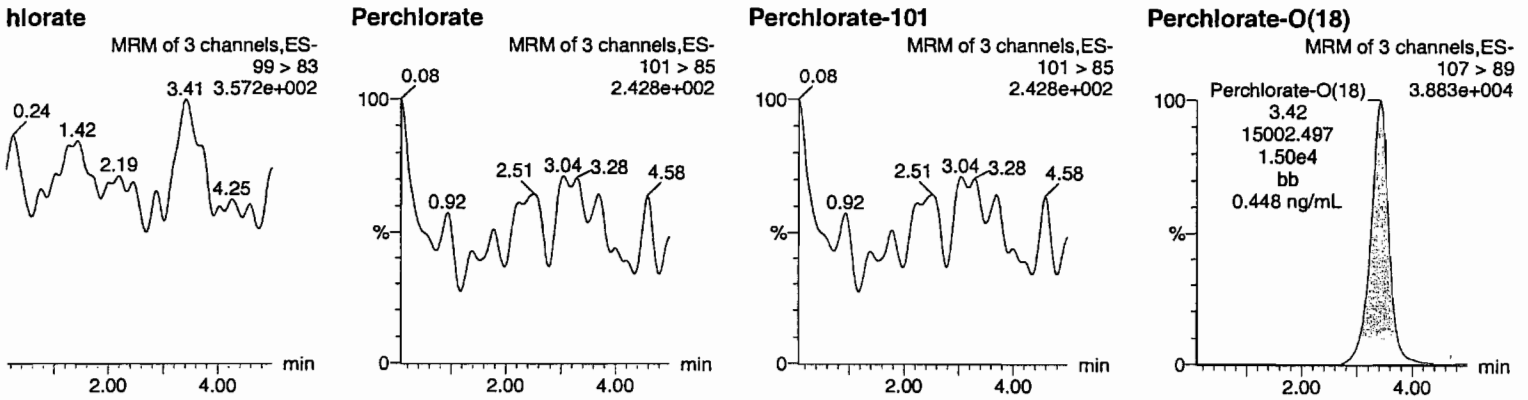

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8	Perchlorate	99 > 83											0.00
8	Perchlorate-101	101 > 85											
8	Perchlorate-O(18)	107 > 89	3.42	15002.497	15002.497	bb			0.4483	89.67	-10.33	1644.4...	

MMD 3/16/10

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Nairb.ref

;Positive ion monoisotopic and average masses from solution
;of NaI/RbI (2.0/0.05ug/ul) in 50/20 2-propanol/H2O.
;Most useful general purpose calibrant for all low
;MW applications, including MS/MS work.
;At high resolution, readily covers from m/z 50-2000.
;At reduced resolution, can be used to over m/z 3000.
;NOT RECOMMENDED FOR PROTEIN WORK. USE MYO, MYOTRP or TRP.
Updated 20 April '95

22.9898	100
84.9118	100
172.8840	100
322.7782	100
472.6725	100
622.5667	100
772.4610	100
922.3552	100
1072.2494	100
; 1222.1437	100
; 1372.0379	100
; 1521.9321	100
; 1671.8264	100
; 1821.7206	100
; 1971.6149	100
; 2121.5091	100
; 2271.4033	100
; 2421.2976	100
; 2571.1918	100
; 2721.0861	100
; 2870.9803	100
; 3020.8745	100
; 3170.7688	100
; 3320.6630	100
; 3470.5572	100
; 3620.4515	100
; 3770.3457	100
; 3920.2400	100

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QUATRO ULTIMA: nairb_01_08_08.cal

Calibration Report - MS1 Static

Printed: **Tue Jan 08 12:19:12 2008**

PARTS HIGHLIGHTED BY [illegible] 01-09-08

Data file: STATMS1 - Uncalibrated

7 matches of 7 tested references

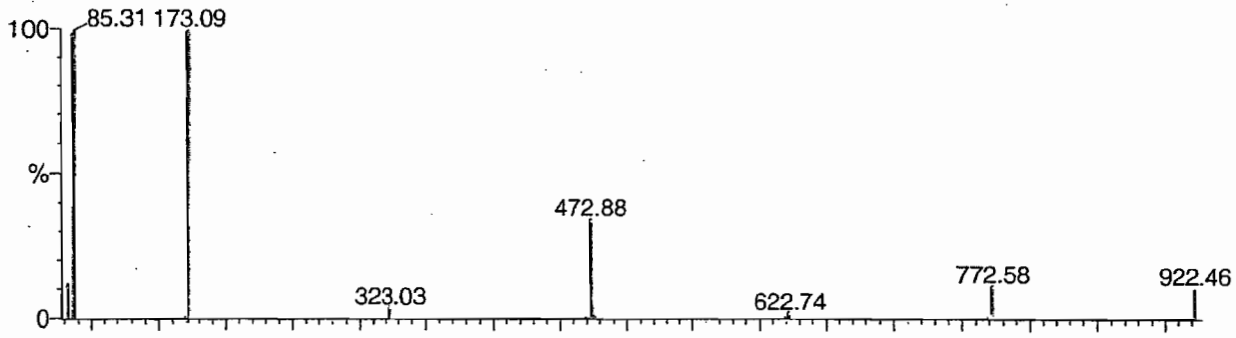

Reference file: Nairb

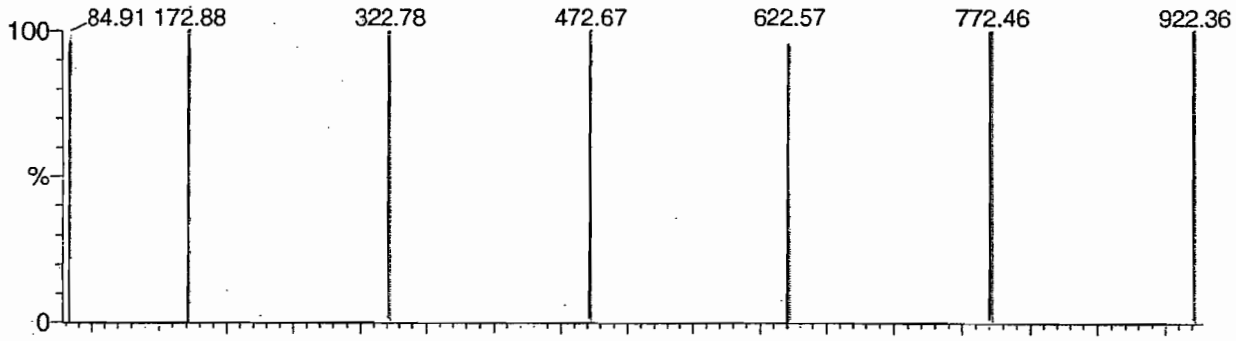

Mass difference (Raw - Ref mass)

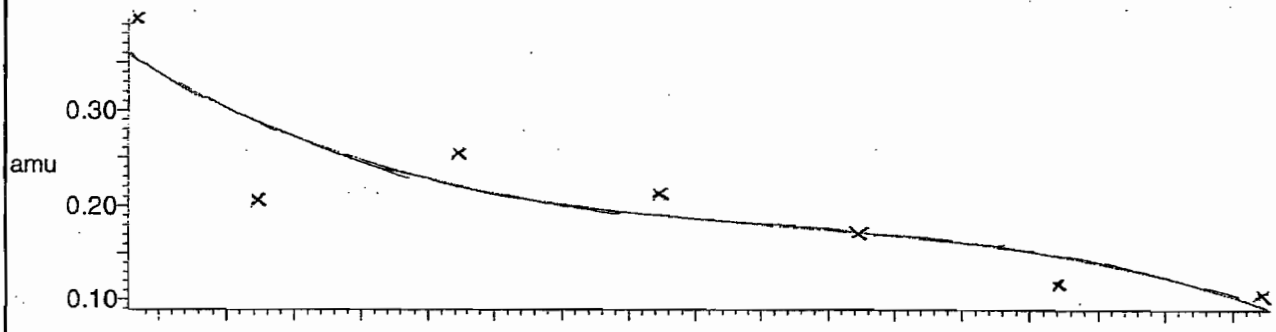

Residuals

Mean residual = 3.212012e-2 ± 0.024108

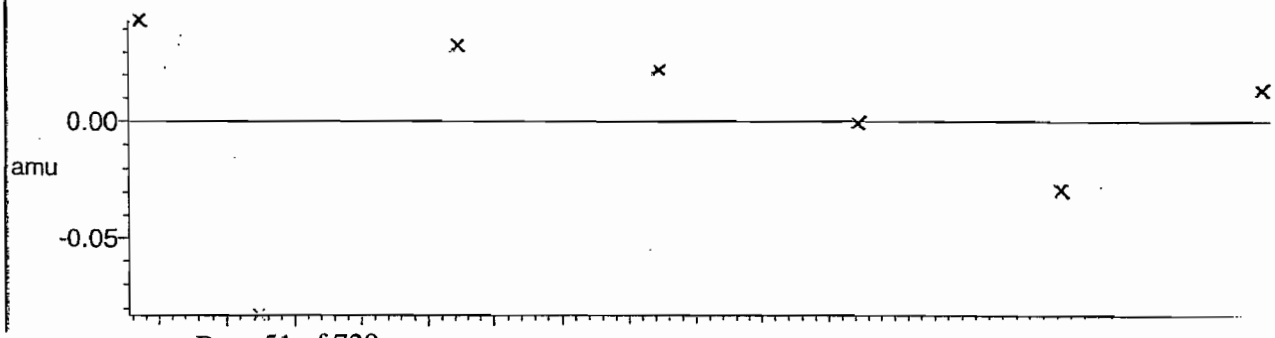

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Calibration Report - MS1 Scanning

Printed: **Tue Jan 08 12:20:09 2008**

Data file: SCNMS1 - Uncalibrated

7 matches of 7 tested references

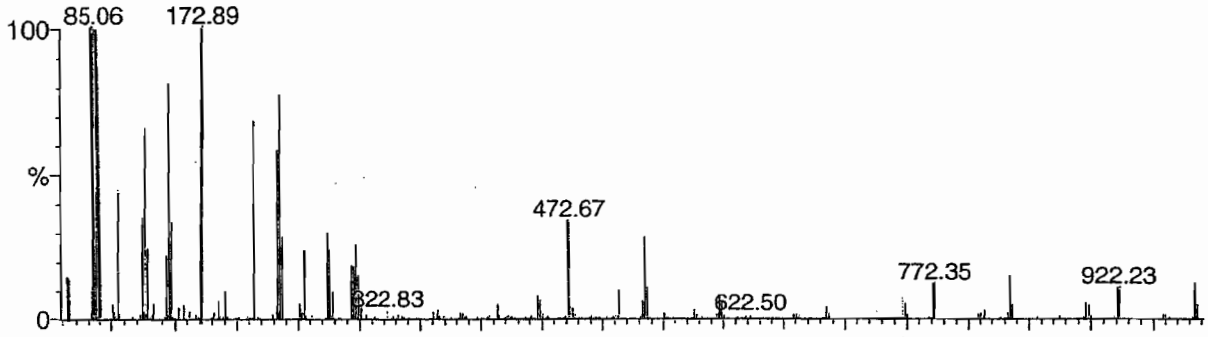

Reference file: Nairb

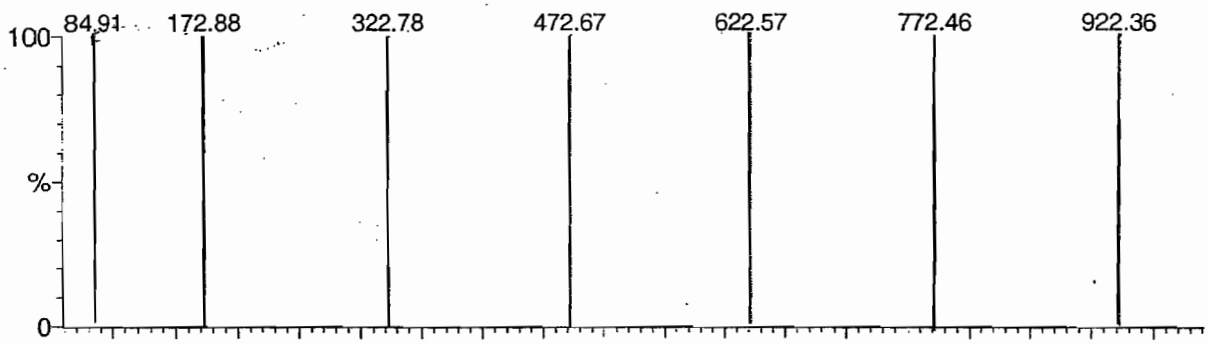

Mass difference (Raw - Ref mass)

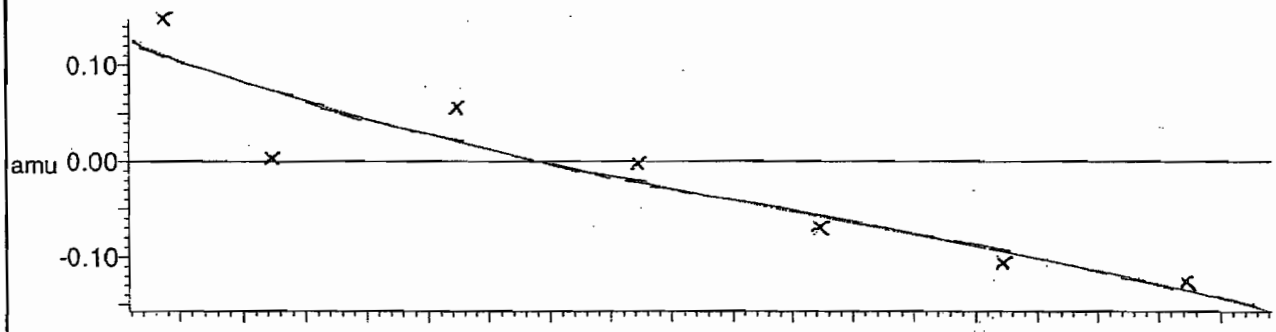

Residuals

Mean residual = 2.732691e-2 ± 0.020653

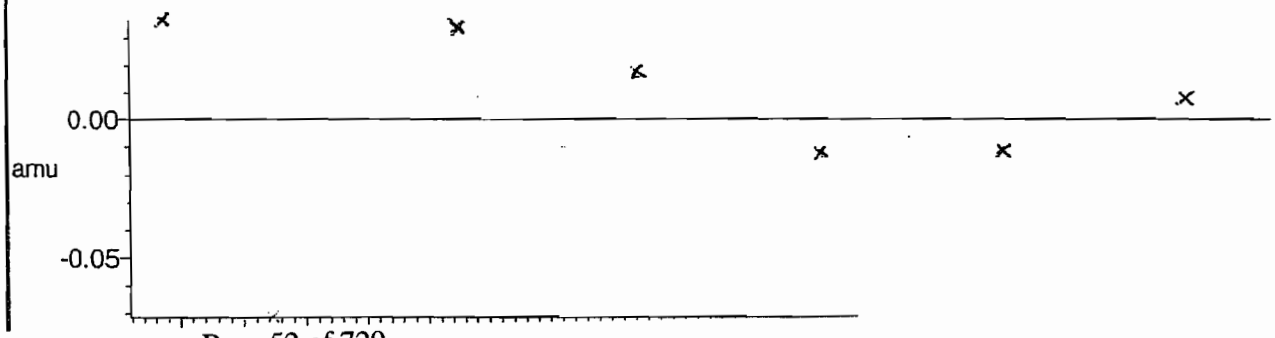

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Calibration Report - MS1 Scan Speed Compensation

Printed: **Tue Jan 08 12:21:04 2008**

Data file: FASTMS1 - Uncalibrated

7 matches of 7 tested references

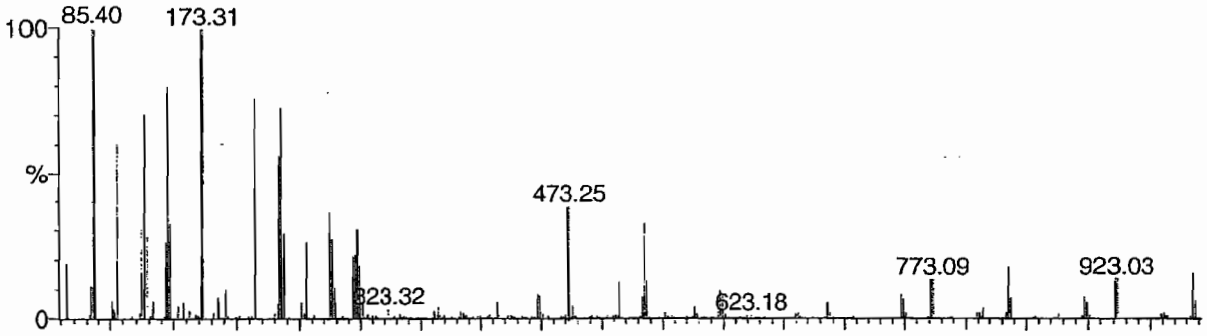

Reference file: Nairb

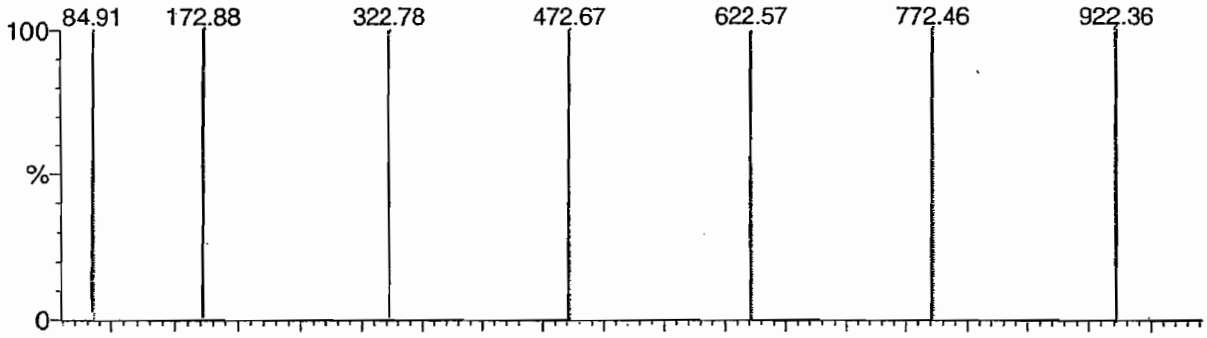

Mass difference (Raw - Ref mass)

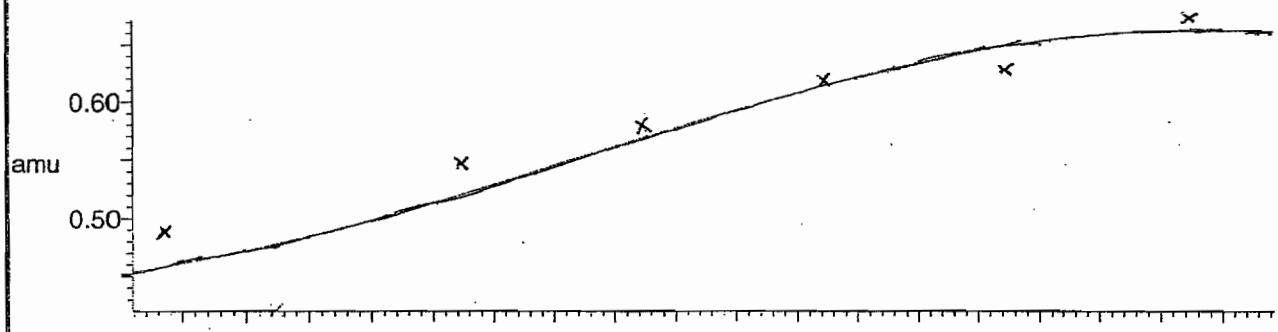

Residuals

Mean residual = 2.224580e-2 ± 0.016544

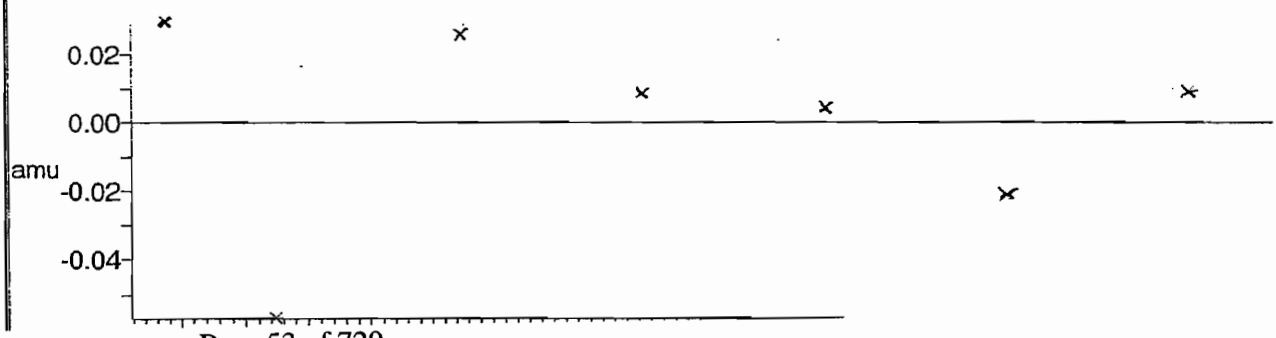

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Calibration Report - MS2 Scan Speed Compensation

Printed: **Tue Jan 08 12:23:51 2008**

Data file: FASTMS2 - Uncalibrated

7 matches of 7 tested references

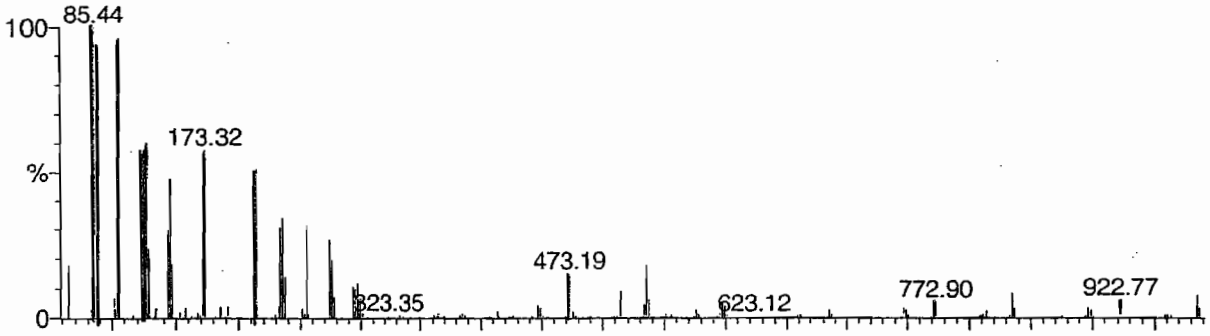

Reference file: Nairb

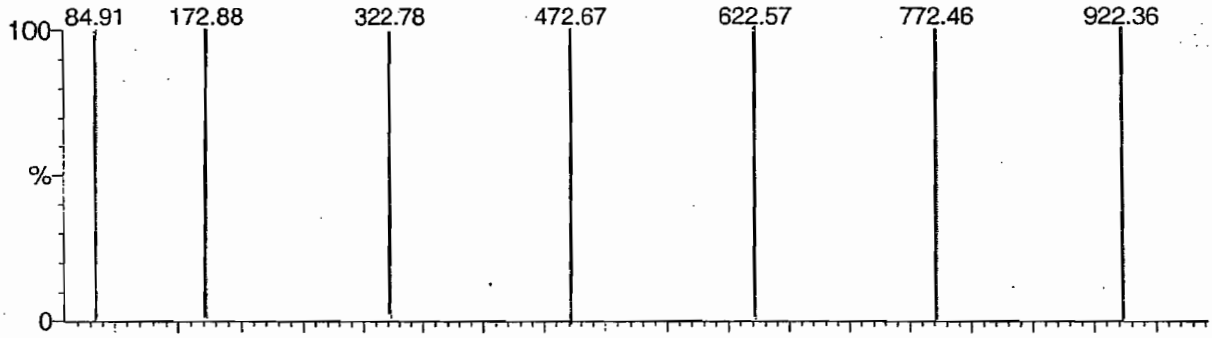

Mass difference (Raw - Ref mass)

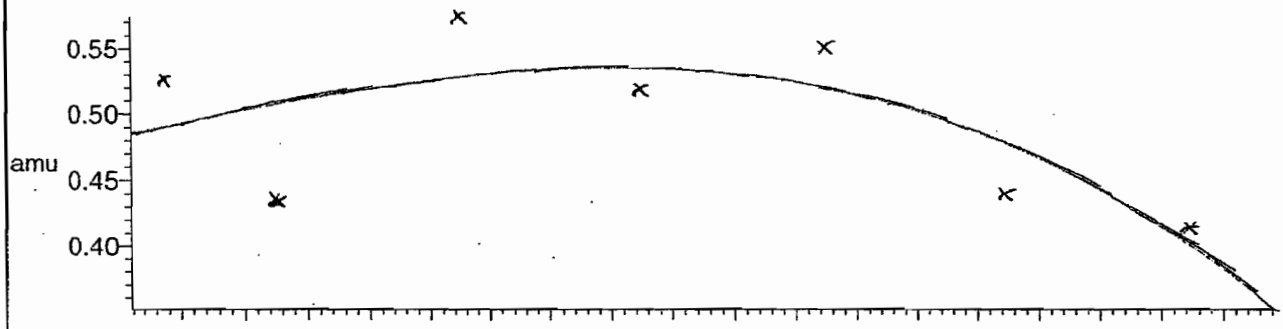

Residuals

Mean residual = 3.598289e-2 ± 0.017899

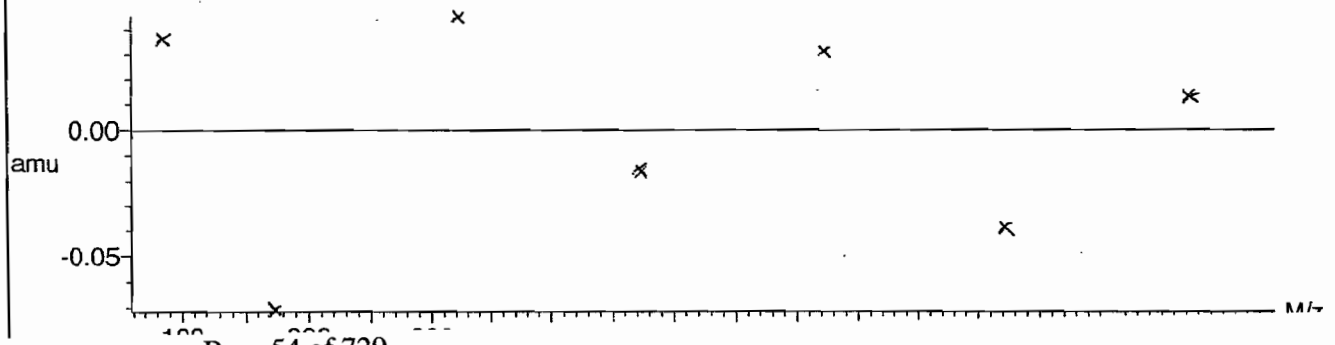

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Calibration Report - MS2 Scanning

Printed: **Tue Jan 08 12:22:56 2008**

Data file: SCNMS2 - Uncalibrated

7 matches of 7 tested references

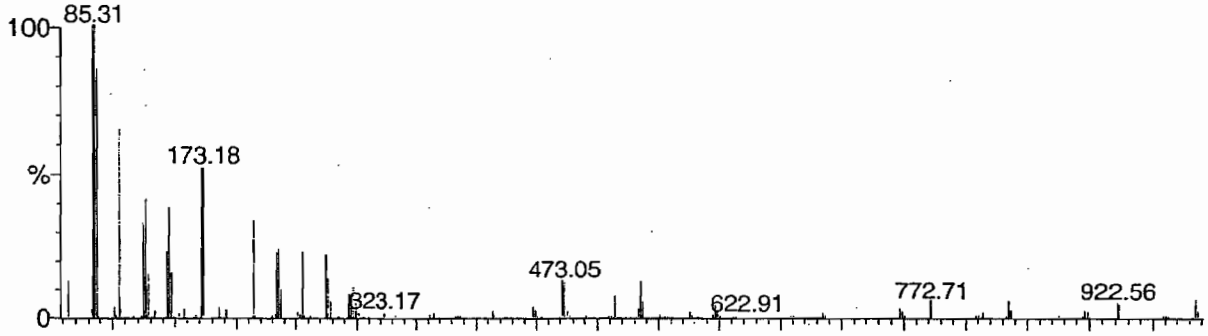

Reference file: Nairb

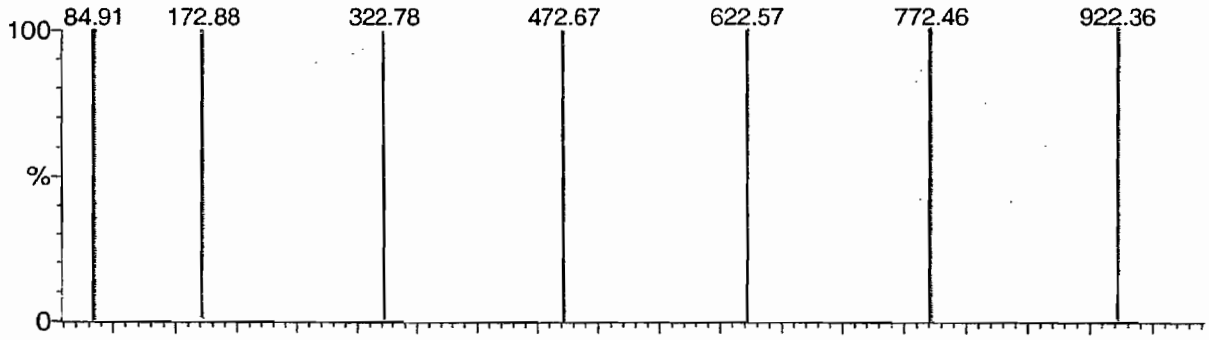

Mass difference (Raw - Ref mass)

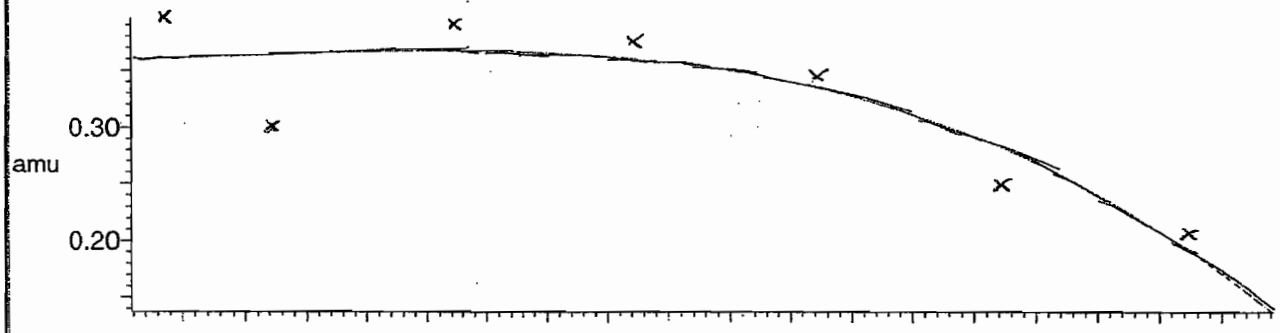

Residuals

Mean residual = 2.782494e-2 ± 0.017442

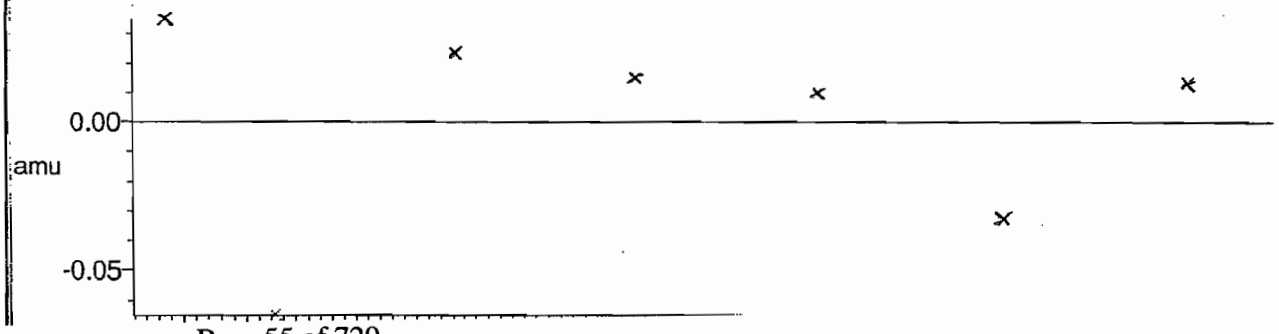

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Calibration Report - MS2 Static

Printed: **Tue Jan 08 12:21:59 2008**

Data file: STATMS2 - Uncalibrated

7 matches of 7 tested references

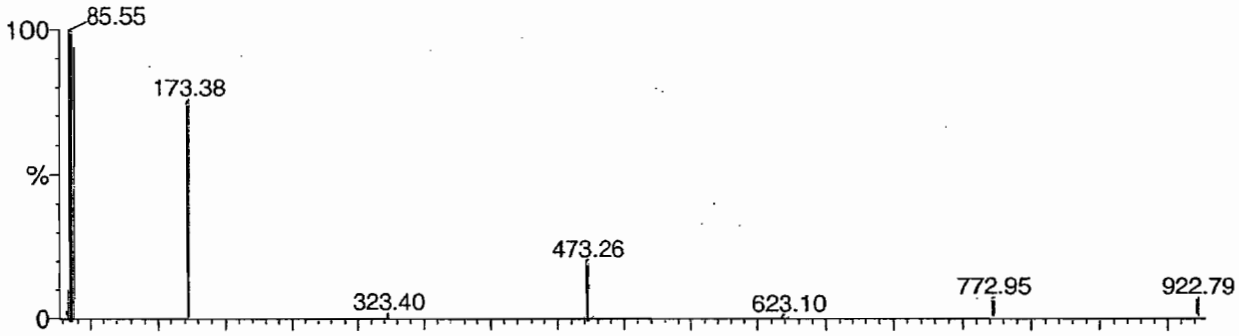

Reference file: Nairb

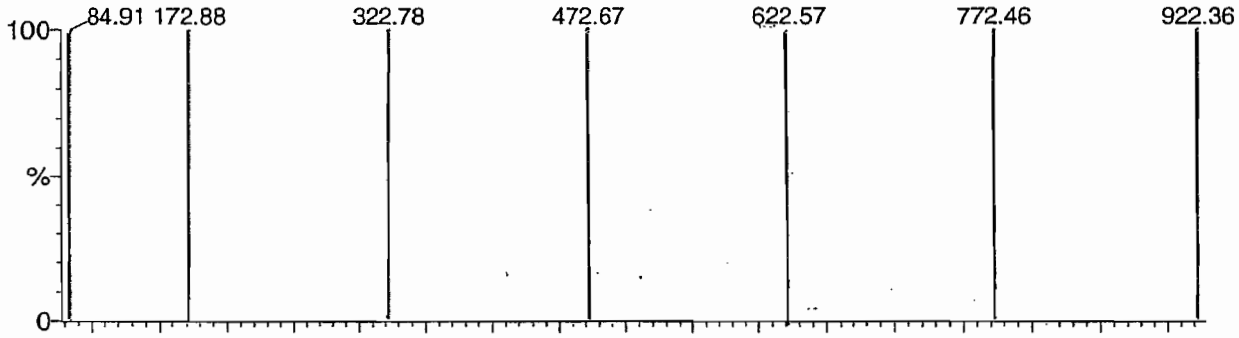

Mass difference (Raw - Ref mass)

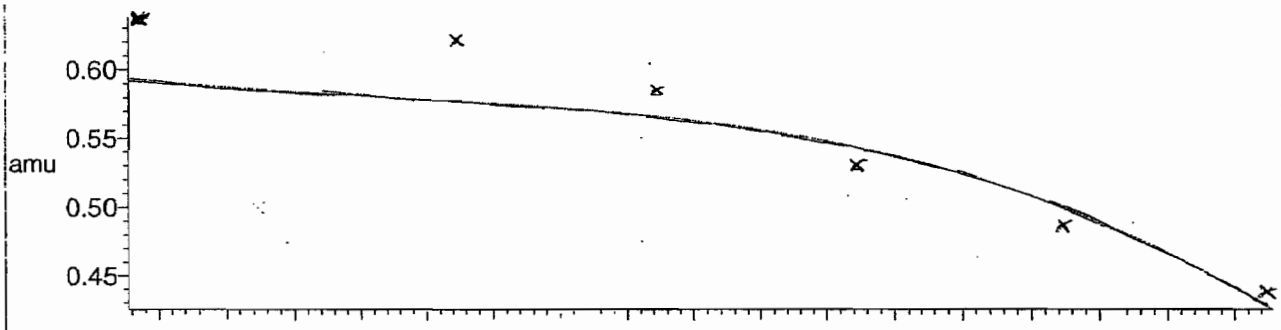

Residuals

Mean residual = 3.295980e-2 ± 0.025603

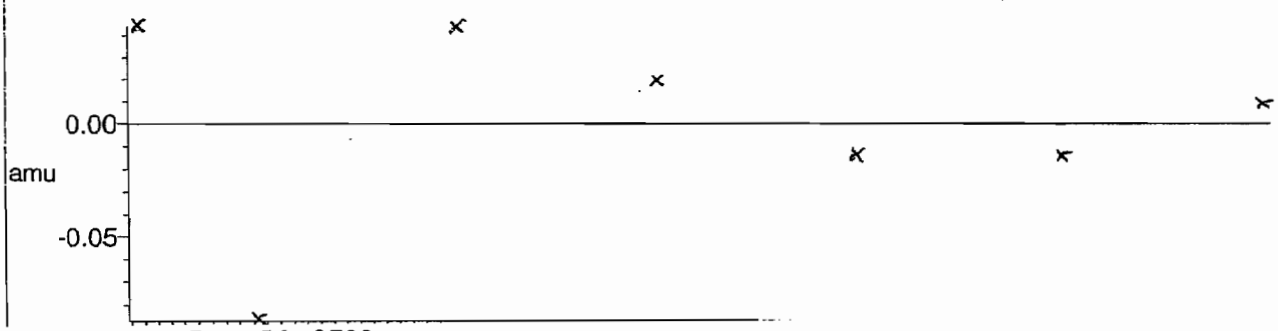

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File: C:\MassLynx\Perchlorate.PRO\ACQUDB\Perchlorate.IPR

Printed: Sunday, March 14, 2010 11:36:48 Eastern Standard Time

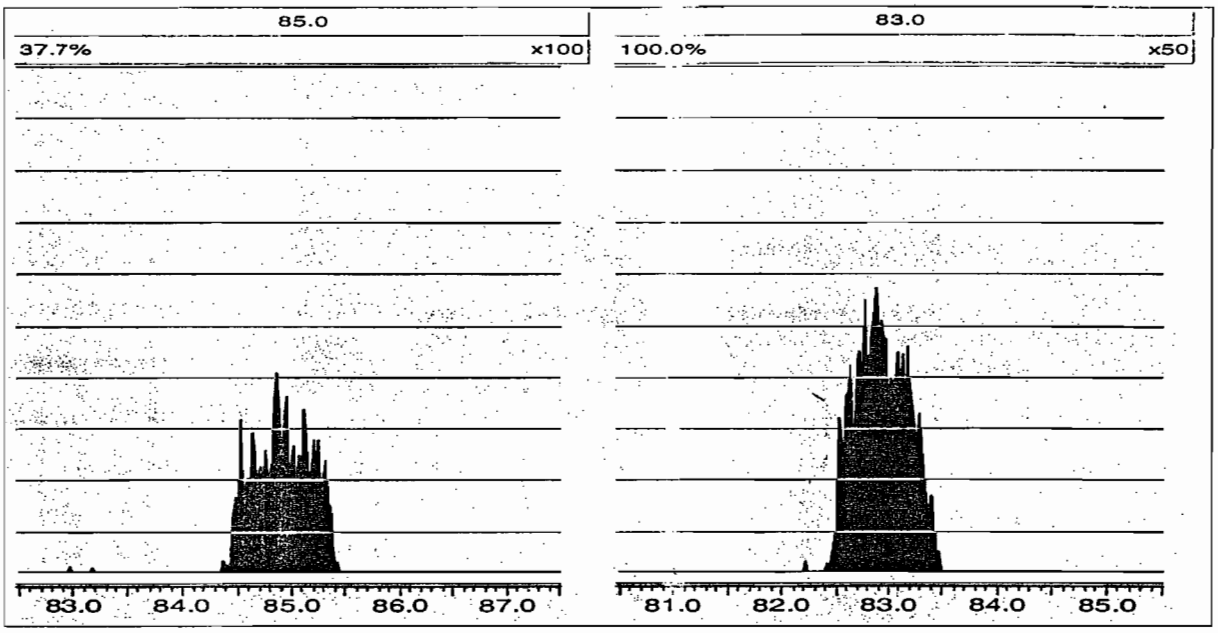

Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-2058

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG-16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98-1.02
MidLevel Standard Area	**per0314006a**	**14-MAR-10**	**17326**				
Lower Area Limit			**8663**				
Upper Area Limit			**34652**				
1202056703	per0314042a	14-MAR-10 21:12	14003.5	3.43			
1202056704	per0314043a	14-MAR-10 21:20	15542.5	3.42	3.44547	1.007	
1202056709	per0314044a	14-MAR-10 21:28	16323.6	3.46	3.47045	1.003	
248044001	per0314054a	14-MAR-10 22:50	16889.4	3.4	3.43315	1.01	
1202056707	per0314055a	14-MAR-10 22:58	15745.3	3.4	3.42068	1.006	
1202056708	per0314056a	14-MAR-10 23:06	15916.8	3.41	3.42067	1.003	
248044003	per0314057a	14-MAR-10 23:14	15094.9	3.42	3.43315	1.004	
248044005	per0314058a	14-MAR-10 23:22	15020	3.41			

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Perchlorate RT And Area Summary

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2058

Lab Code: GEL

Instrument ID: LCMSMS

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Sample ID	Datafile	Run Date	Area	RT	RT CLO4	RRT	Q 0.98–1.02
MidLevel Standard Area	**per0314006a**	**14–MAR–10**	**17326**				
Lower Area Limit			**8663**				
Upper Area Limit			**34652**				
248044006	per0314059a	14–MAR–10 23:30	15339	3.41	3.40832	1	

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SAMPLE DATA

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-12770

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2058

GEL Sample ID: 248044001

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.302	ug/L		1	14-MAR-10 22:50	per0314054a
	Perchlorate Isotope Ratio			3.01			1	14-MAR-10 22:50	per0314054a
14797-73-0	Perchlorate-101	.05	.2	0.310	ug/L		1	14-MAR-10 22:50	per0314054a
	Perchlorate-O(18)			0.505	ug/L		1	14-MAR-10 22:50	per0314054a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
:ed: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ıe: per0314054a
ı: 14-Mar-2010
e: 22:50:04
:48044001
: 2:2,D

|LANL|959038|L2Q|1|

WJ 03-15-10

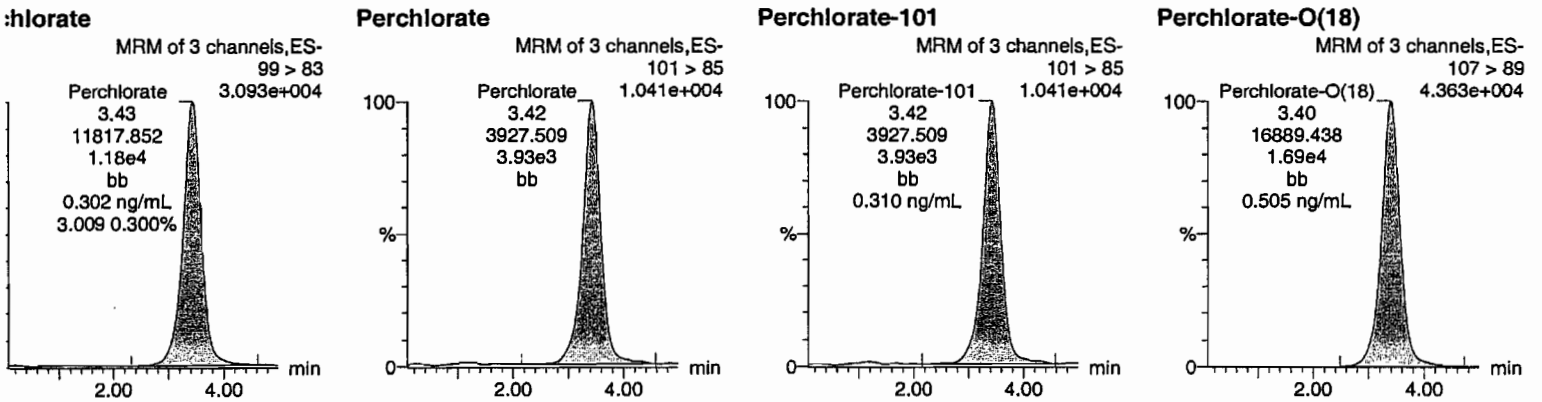

	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
44001	Perchlorate	99 > 83	3.43	11817.852	11817.852	bb			0.3018			625.198	3.01
44001	Perchlorate-101	101 > 85	3.42	3927.509	3927.509	bb			0.3098			214.195	
44001	Perchlorate-O(18)	107 > 89	3.40	16889.438	16889.438	bb			0.5047	100.95	0.95	2932.2...	

MATT 3/16/10

MATT 3/16/10 ~~11877~~

$$\frac{11817.852}{39154.1} = 0.3018$$

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-13082

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2058

GEL Sample ID: 248044003

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.054	ug/L	J	1	14-MAR-10 23:14	per0314057a
	Perchlorate Isotope Ratio			3.32			1	14-MAR-10 23:14	per0314057a
14797-73-0	Perchlorate-101	.05	.2	0.0502	ug/L	J	1	14-MAR-10 23:14	per0314057a
	Perchlorate-O(18)			0.451	ug/L		1	14-MAR-10 23:14	per0314057a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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EL Group, LLC Analyst: Charlers W. Wilson

:t: C:\MassLynx\Perchlorate.PRO\per031410a.qld

ltered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
:: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

: per0314057a
14-Mar-2010
23:14:07
8044003
:3,A

|LANL|959038|LIQ ~~50ml~~|1|

WW 03-15-10

WW 03-15-10

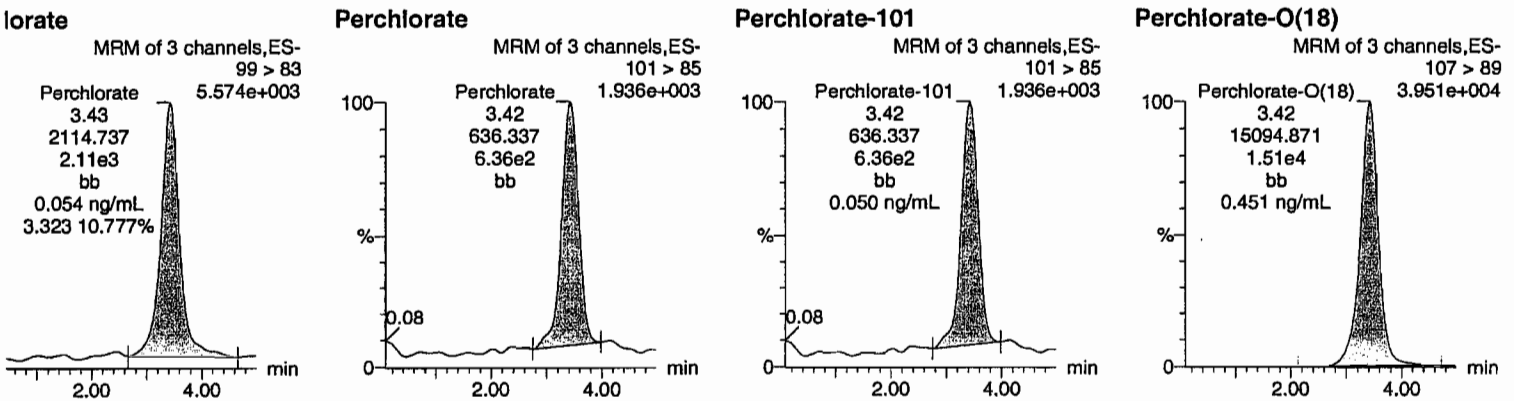

	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
003	Perchlorate	99 > 83	3.43	2114.737	2114.737	bb			0.0540			92.882	3.32
003	Perchlorate-101	101 > 85	3.42	636.337	636.337	bb			0.0502			105.539	
003	Perchlorate-O(18)	107 > 89	3.42	15094.871	15094.871	bb			0.4511	90.22	-9.78	2264.8...	

MAT 3/16/10

$$\frac{2114.737}{39154.1} = 0.0540$$

OP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-13085

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2058

GEL Sample ID: 248044005

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	14-MAR-10 23:22	per0314058a
	Perchlorate Isotope Ratio						1	14-MAR-10 23:22	per0314058a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	14-MAR-10 23:22	per0314058a
	Perchlorate-O(18)			0.449	ug/L		1	14-MAR-10 23:22	per0314058a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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antify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

aset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

t Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ne: per0314058a
e: 14-Mar-2010
e: 23:22:10
248044005
l: 2:3,B

|LANL|959038|L2Q|1|

Cwo
03-15-10

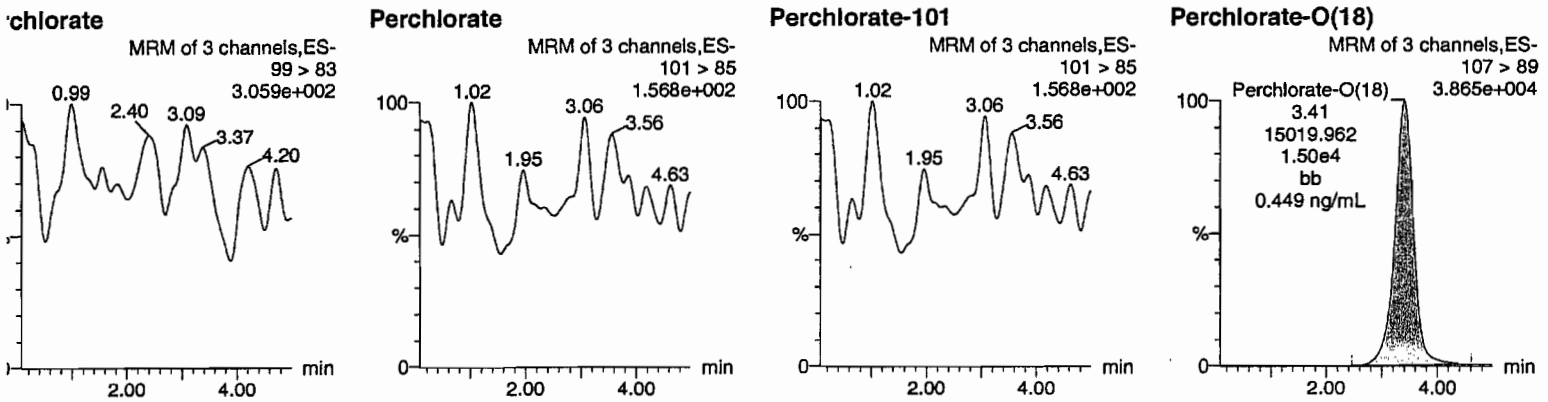

	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
044005	Perchlorate	99 > 83											0.00
044005	Perchlorate-101	101 > 85											
044005	Perchlorate-O(18)	107 > 89	3.41	15019.962	15019.962	bb			0.4489	89.77	-10.23	211.444	

3/16/10

L SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-13320

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2058

GEL Sample ID: 248044006

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.050	ug/L	U	1	14-MAR-10 23:30	per0314059a
	Perchlorate Isotope Ratio						1	14-MAR-10 23:30	per0314059a
14797-73-0	Perchlorate-101	.05	.2	0.050	ug/L	U	1	14-MAR-10 23:30	per0314059a
	Perchlorate-O(18)			0.458	ug/L		1	14-MAR-10 23:30	per0314059a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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ıntify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

: Altered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
ted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

ıe: per0314059a
e: 14-Mar-2010
e: 23:30:13
248044006
: 2:3,C

|LANL|959038|LZW|1|

CWW 03-15-10

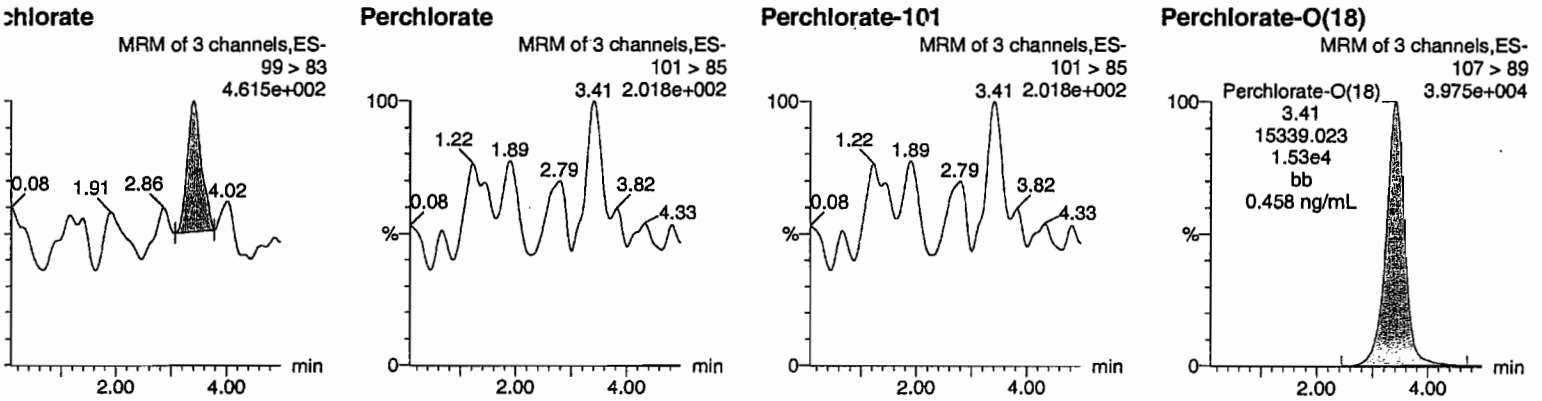

	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
)44006	Perchlorate	99 > 83	3.41	67.667	67.667	bb			0.0017			10.504	0.00
)44006	Perchlorate-101	101 > 85											
)44006	Perchlorate-O(18)	107 > 89	3.41	15339.023	15339.023	bb			0.4584	91.68	-8.32	3455.0...	

MMT 3/16/10

. SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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STANDARDS DATA

Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2058

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 14–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate

Coefficient of Determination:

Calibration Curve: 39154.12

Response Type: External Standard

Curve Type: RF

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Perchlorate Initial Calibration

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2058

Lab Code: GEL

Instrument ID: LCMSMS **Date Analyzed:** 14–MAR–10

HPLC Column: Phenomenex Ion Pac AG–16 2 X 50 mm

Calibration Level	1	2	3	4	5
Cal Concentration (ug/L)	0.05	0.1	0.25	0.50	1.0

Parmname Perchlorate–101

Coefficient of Determination:

Calibration Curve: 12679.04

Response Type: External Standard

Curve Type: RF

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ify Calibration Report MassLynx 4.0 SP4
EL Group, LLC Analyst: Charlers W. Wilson

t: C:\MassLynx\Perchlorate.PRO\per031410a.qld

tered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
l: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

d: C:\MassLynx\Perchlorate.PRO\MethDB\per031410a.mdb 15 Mar 2010 08:54:46
ation: C:\MassLynx\Perchlorate.PRO\CurveDB\per031410a.cdb 15 Mar 2010 08:56:54

ound name: Perchlorate
nse Factor: 39154.1
D: 1960.58, % Relative SD: 5.00734
nse type: External Std, Area
type: RF

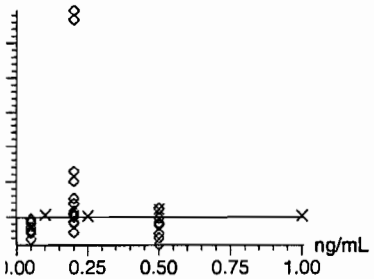

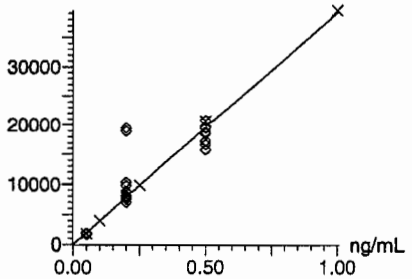

03-15-10

ound name: Perchlorate-101
nse Factor: 12679
D: 1159.92, % Relative SD: 9.14836
nse type: External Std, Area
type: RF

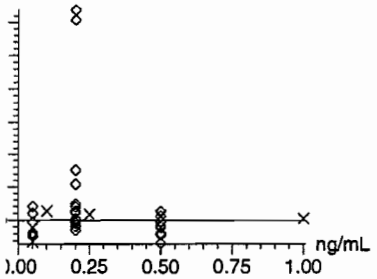

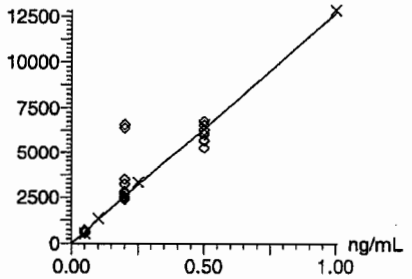

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fy Calibration Report MassLynx 4.0 SP4
:L Group, LLC Analyst: Charlers W. Wilson

t: C:\MassLynx\Perchlorate.PRO\per031410a.qld

:ered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

und name: Perchlorate-O(18)
ıse Factor: 33462.4
ɔ: 678.465, % Relative SD: 2.02755
ıse type: External Std, Area
ype: RF

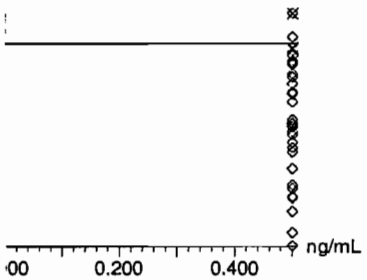

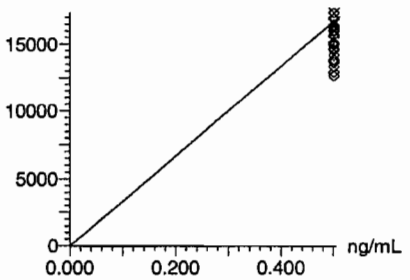

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Perchlorate Initial Calibration Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10-2058

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.53	105.94	14-MAR-10 16:45	per0314009a
Perchlorate Isotope Ratio		3.07		14-MAR-10 16:45	per0314009a
Perchlorate-101	.5	.53	106.4	14-MAR-10 16:45	per0314009a

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EL Group, LLC Analyst: Charlers W. Wilson

t: C:\MassLynx\Perchlorate.PRO\per031410a.qld

tered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

per0314009a
4-Mar-2010
16:45:39
L100309-06ICV
2,A

Pwo
03-15-10

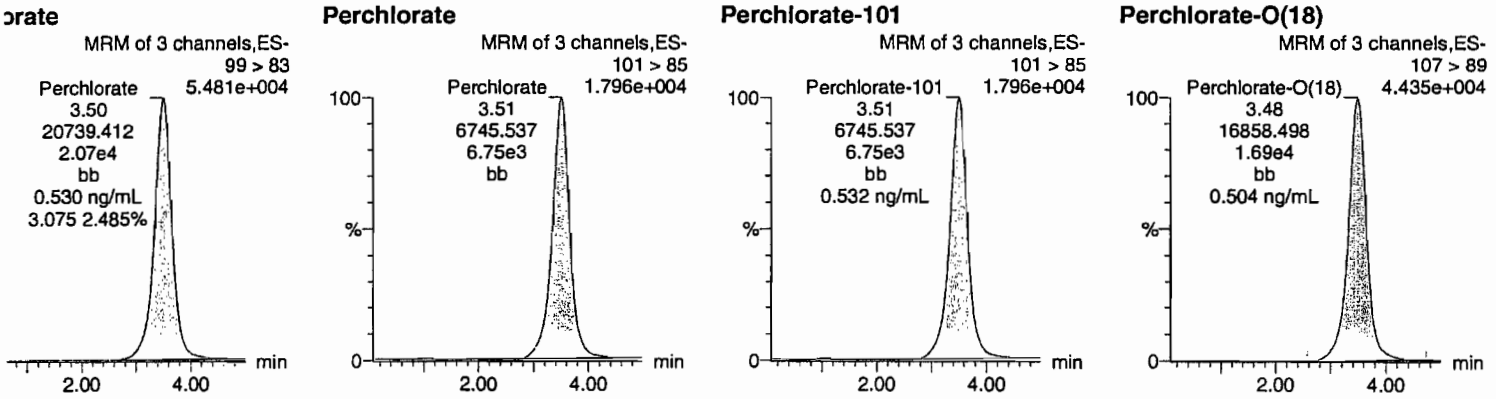

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
309-06ICV	Perchlorate	99 > 83	3.50	20739.412	20739.412	bb			0.5297	105.94	5.94	4083.9...	3.07
309-06ICV	Perchlorate-101	101 > 85	3.51	6745.537	6745.537	bb			0.5320	106.40	6.40	253.341	
309-06ICV	Perchlorate-O(18)	107 > 89	3.48	16858.498	16858.498	bb			0.5038	100.76	0.76	7322.5...	

MM 3/16/10

$\frac{20739.412}{39154.1} = 0.5297$

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Perchlorate Continuing Calibration Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10-2058

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.5	.5	99.52	14-MAR-10 18:30	per0314022a
Perchlorate Isotope Ratio		3.12		14-MAR-10 18:30	per0314022a
Perchlorate-101	.5	.49	98.56	14-MAR-10 18:30	per0314022a
Perchlorate	.5	.5	99.03	14-MAR-10 20:15	per0314035a
Perchlorate Isotope Ratio		2.97		14-MAR-10 20:15	per0314035a
Perchlorate-101	.5	.52	103.01	14-MAR-10 20:15	per0314035a
Perchlorate	.5	.5	99.09	14-MAR-10 22:01	per0314048a
Perchlorate Isotope Ratio		3.18		14-MAR-10 22:01	per0314048a
Perchlorate-101	.5	.48	96.26	14-MAR-10 22:01	per0314048a
Perchlorate	.5	.48	95.03	14-MAR-10 23:46	per0314061a
Perchlorate Isotope Ratio		3.05		14-MAR-10 23:46	per0314061a
Perchlorate-101	.5	.48	96.29	14-MAR-10 23:46	per0314061a

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ify **Sample Report** **MassLynx 4.0 SP4**
EL Group, LLC Analyst: Charlers W. Wilson

t: C:\MassLynx\Perchlorate.PRO\per031410a.qld

tered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

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14-Mar-2010
18:30:11
:L100309-06CCV
:2,A

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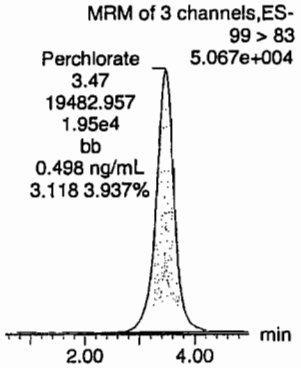

Perchlorate

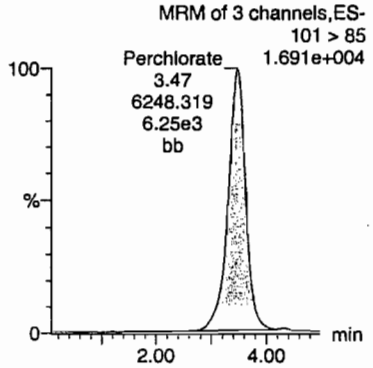

Perchlorate-101

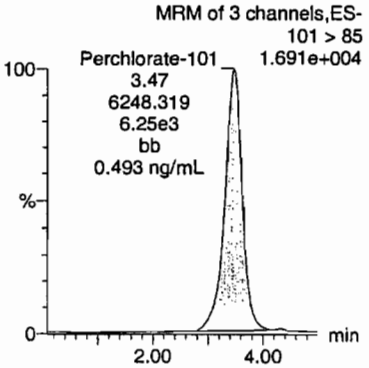

Perchlorate-O(18)

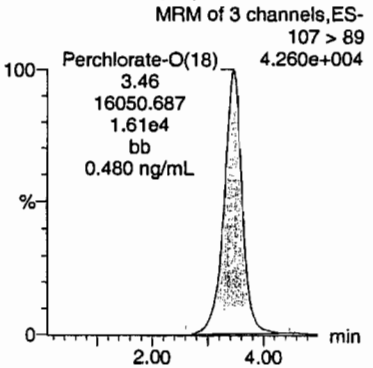

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
)309-06CCV	Perchlorate	99 > 83	3.47	19482.957	19482.957	bb			0.4976	99.52	-0.48	1472.0...	3.12
)309-06CCV	Perchlorate-101	101 > 85	3.47	6248.319	6248.319	bb			0.4928	98.56	-1.44	709.723	
)309-06CCV	Perchlorate-O(18)	107 > 89	3.46	16050.687	16050.687	bb			0.4797	95.93	-4.07	2122.7...	

MOT
3/16/10

)P GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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:L Group, LLC Analyst: Charlers W. Wilson

t: C:\MassLynx\Perchlorate.PRO\per031410a.qld

tered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

per0314035a
4-Mar-2010
20:15:24
L100309-06CCV
2,A

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03-15-10

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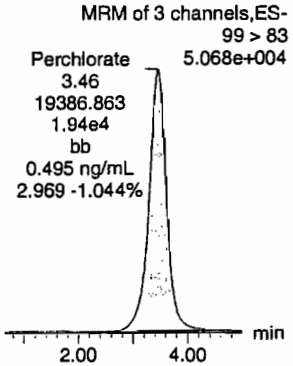

Perchlorate

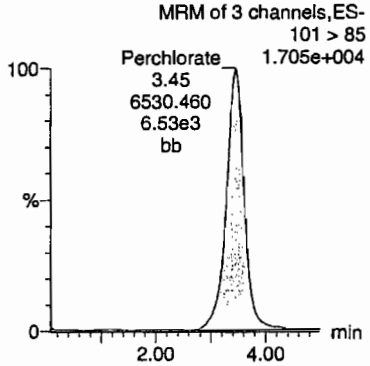

Perchlorate-101

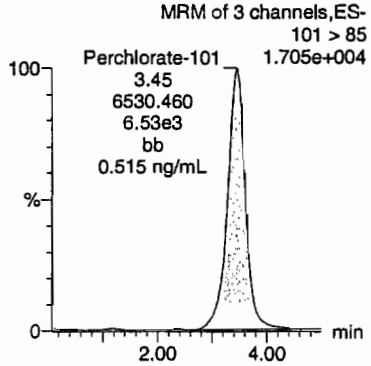

Perchlorate-O(18)

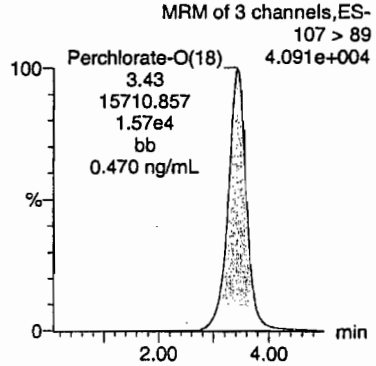

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
309-06CCV	Perchlorate	99 > 83	3.46	19386.863	19386.863	bb			0.4951	99.03	-0.97	5888.7...	2.97
309-06CCV	Perchlorate-101	101 > 85	3.45	6530.460	6530.460	bb			0.5151	103.01	3.01	2522.5...	
309-06CCV	Perchlorate-O(18)	107 > 89	3.43	15710.857	15710.857	bb			0.4695	93.90	-6.10	4011.6...	

MATT 3/16/10

IP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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iEL Group, LLC Analyst: Charlers W. Wilson

et: C:\MassLynx\Perchlorate.PRO\per031410a.qld

ltered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
d: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

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14-Mar-2010
22:01:03
CL100309-06CCV
l:2,A

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aw
03-15-10

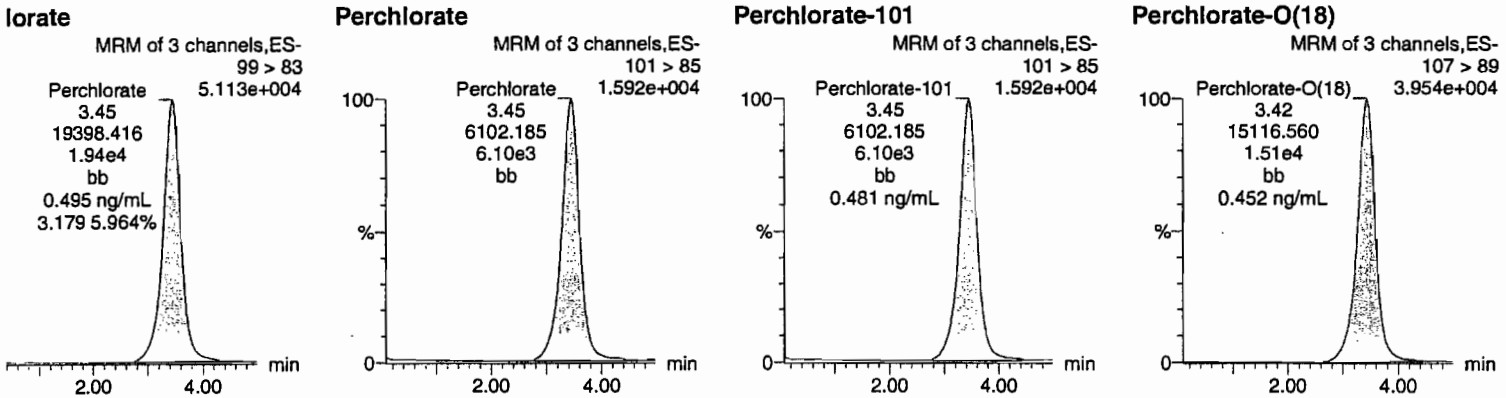

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
0309-06CCV	Perchlorate	99 > 83	3.45	19398.416	19398.416	bb			0.4954	99.09	-0.91	1156.9...	3.18
0309-06CCV	Perchlorate-101	101 > 85	3.45	6102.185	6102.185	bb			0.4813	96.26	-3.74	549.321	
0309-06CCV	Perchlorate-O(18)	107 > 89	3.42	15116.560	15116.560	bb			0.4517	90.35	-9.65	2164.6...	

MM
3/16/10

OP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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tify Sample Report MassLynx 4.0 SP4
iEL Group, LLC Analyst: Charlers W. Wilson

et: C:\MassLynx\Perchlorate.PRO\per031410a.qld

ıltered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
d: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

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14-Mar-2010
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03-15-10

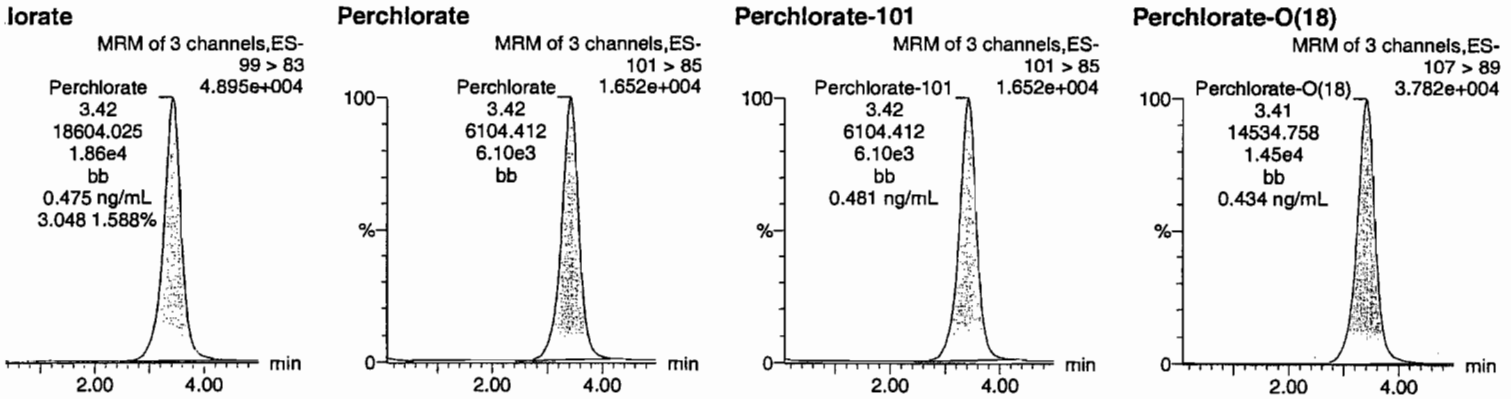

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)0309-06CCV	Perchlorate	99 > 83	3.42	18604.025	18604.025	bb			0.4751	95.03	-4.97	1515.8...	3.05
)0309-06CCV	Perchlorate-101	101 > 85	3.42	6104.412	6104.412	bb			0.4815	96.29	-3.71	357.264	
)0309-06CCV	Perchlorate-O(18)	107 > 89	3.41	14534.758	14534.758	bb			0.4344	86.87	-13.13	1454.4...	

MMT 3/16/10

ıOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories **GEL Job No.(SDG):** 10–2058

Lab Code: GEL

Reporting Units: ug/L

Analyte	True	Found	%Rec	Date Analyzed	GEL File Id
Perchlorate	.05	.05	97.03	14–MAR–10 17:01	per0314011a
Perchlorate Isotope Ratio		2.72		14–MAR–10 17:01	per0314011a
Perchlorate–101	.05	.06	110.09	14–MAR–10 17:01	per0314011a
Perchlorate	.05	.05	98.74	14–MAR–10 18:46	per0314024a
Perchlorate Isotope Ratio		2.77		14–MAR–10 18:46	per0314024a
Perchlorate–101	.05	.06	110.06	14–MAR–10 18:46	per0314024a
Perchlorate	.05	.05	93.02	14–MAR–10 20:32	per0314037a
Perchlorate Isotope Ratio		2.73		14–MAR–10 20:32	per0314037a
Perchlorate–101	.05	.05	105.06	14–MAR–10 20:32	per0314037a
Perchlorate	.05	.05	98.54	14–MAR–10 22:17	per0314050a
Perchlorate Isotope Ratio		3.35		14–MAR–10 22:17	per0314050a

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Perchlorate MDL Verification

Lab Name: General Engineering Laboratories

GEL Job No.(SDG): 10–2058

Lab Code: GEL

Reporting Units: ug/L

Perchlorate–101	.05	.05	90.8	14–MAR–10 22:17	per0314050a
Perchlorate	.05	.05	92.88	15–MAR–10 00:02	per0314063a
Perchlorate Isotope Ratio		3.19		15–MAR–10 00:02	per0314063a
Perchlorate–101	.05	.04	89.83	15–MAR–10 00:02	per0314063a

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EL Group, LLC Analyst: Charlers W. Wilson

et: C:\MassLynx\Perchlorate.PRO\per031410a.qld

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d: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

: per0314011a
14-Mar-2010
17:01:44
CL100309-07CRI
:2,B

Pwo
03-15-10

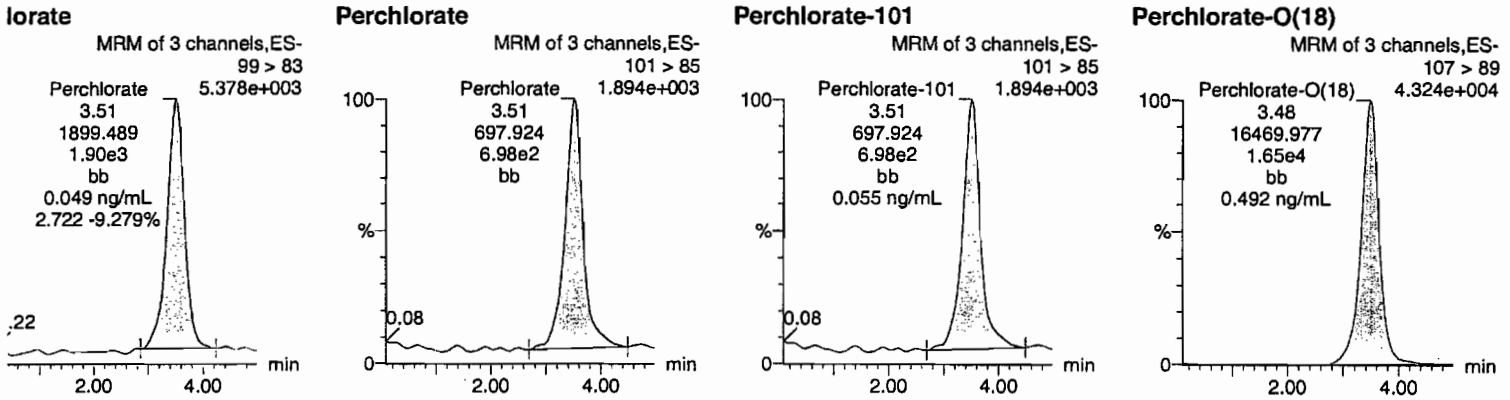

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0309-07CRI	Perchlorate	99 > 83	3.51	1899.489	1899.489	bb			0.0485	97.03	-2.97	100.911	2.72
0309-07CRI	Perchlorate-101	101 > 85	3.51	697.924	697.924	bb			0.0550	110.09	10.09	108.979	
0309-07CRI	Perchlorate-O(18)	107 > 89	3.48	16469.977	16469.977	bb			0.4922	98.44	-1.56	5729.9...	

MAH
3/16/10

$\frac{1899.489}{39154.1} = 0.0485$

OP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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:L Group, LLC Analyst: Charlers W. Wilson

t: C:\MassLynx\Perchlorate.PRO\per031410a.qld

lered: Monday, March 15, 2010 8:56:56 AM Eastern Standard Time
: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

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18:46:16
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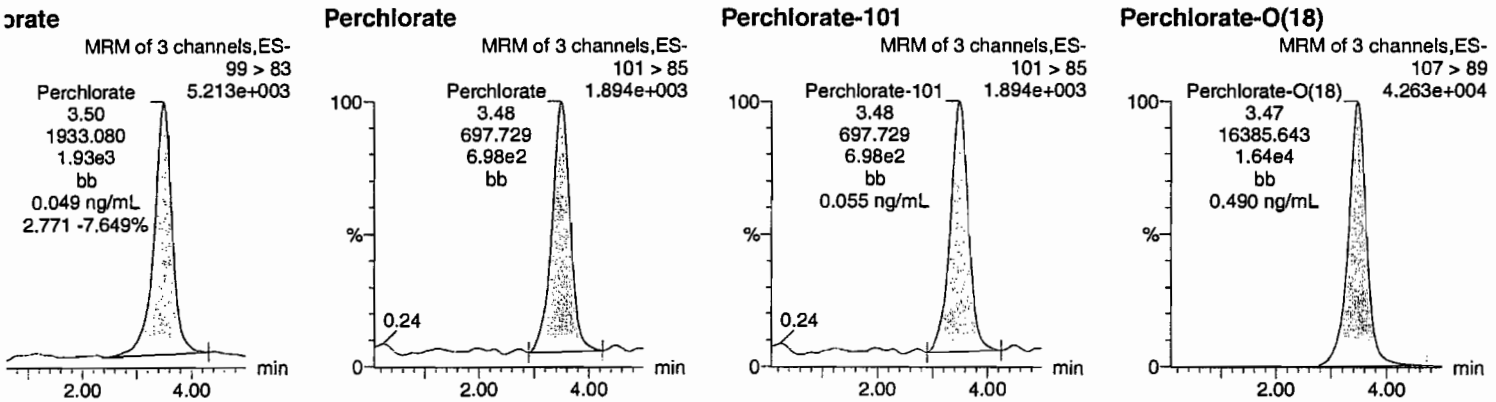

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309-07CRI	Perchlorate	99 > 83	3.50	1933.080	1933.080	bb			0.0494	98.74	-1.26	118.141	2.77
309-07CRI	Perchlorate-101	101 > 85	3.48	697.729	697.729	bb			0.0550	110.06	10.06	138.112	
309-07CRI	Perchlorate-O(18)	107 > 89	3.47	16385.643	16385.643	bb			0.4897	97.93	-2.07	1621.0...	

MM
3/16/10

)P GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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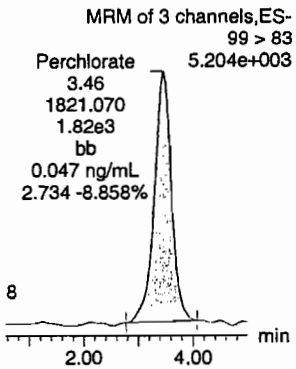

Perchlorate

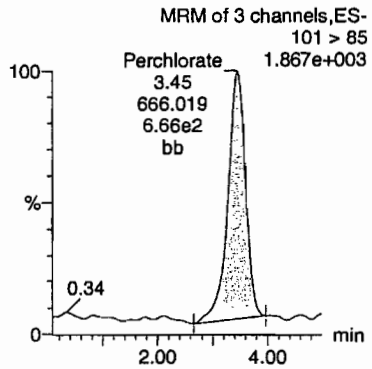

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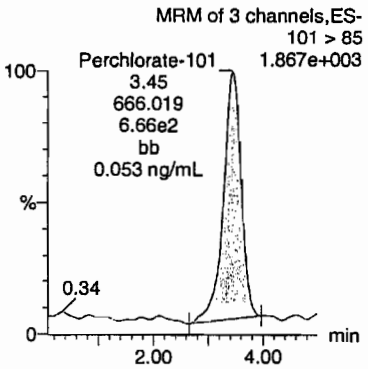

Perchlorate-O(18)

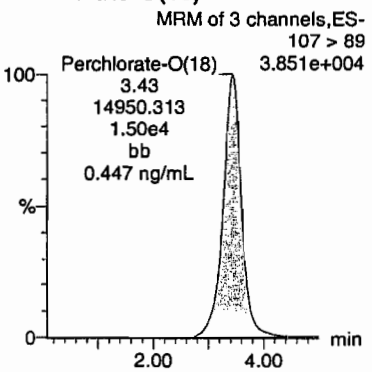

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
)309-07CRI	Perchlorate	99 > 83	3.46	1821.070	1821.070	bb			0.0465	93.02	-6.98	81.504	2.73
)309-07CRI	Perchlorate-101	101 > 85	3.45	666.019	666.019	bb			0.0525	105.06	5.06	97.852	
)309-07CRI	Perchlorate-O(18)	107 > 89	3.43	14950.313	14950.313	bb			0.4468	89.36	-10.64	701.016	

MAT 3/16/10

)P GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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EL Group, LLC Analyst: Charlers W. Wilson

:t: C:\MassLynx\Perchlorate.PRO\per031410a.qld

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l: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

per0314050a
14-Mar-2010
22:17:38
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Page 3/17 03-15-10

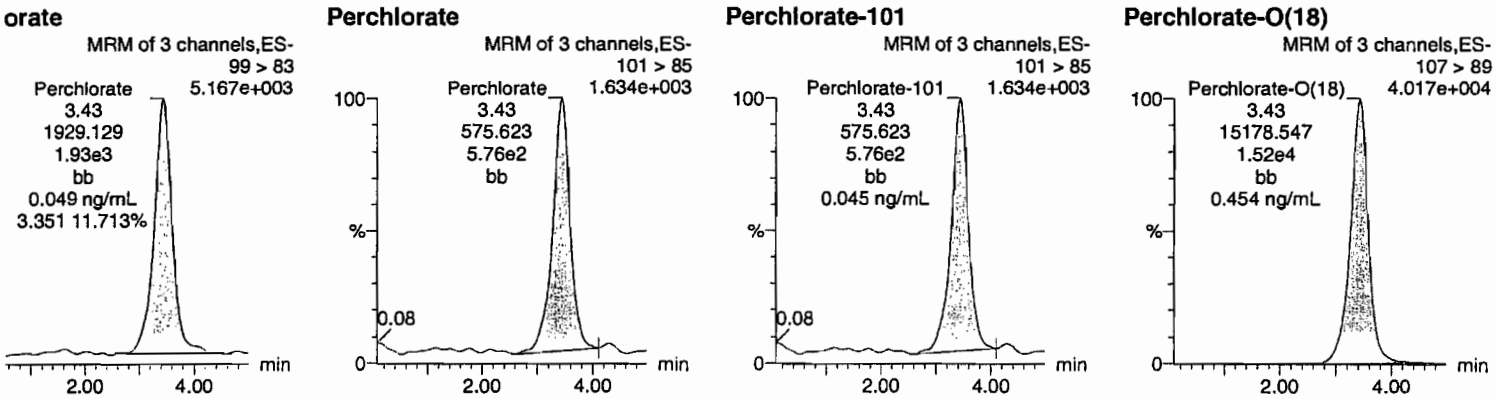

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
)309-07CRI	Perchlorate	99 > 83	3.43	1929.129	1929.129	bb			0.0493	98.54	-1.46	139.995	3.35
)309-07CRI	Perchlorate-101	101 > 85	3.43	575.623	575.623	bb			0.0454	90.80	-9.20	79.878	
)309-07CRI	Perchlorate-O(18)	107 > 89	3.43	15178.547	15178.547	bb			0.4536	90.72	-9.28	3402.8...	

MOTT 3/16/10

)P GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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ify Sample Report MassLynx 4.0 SP4
EL Group, LLC Analyst: Charlers W. Wilson

:t: C:\MassLynx\Perchlorate.PRO\per031410a.qld

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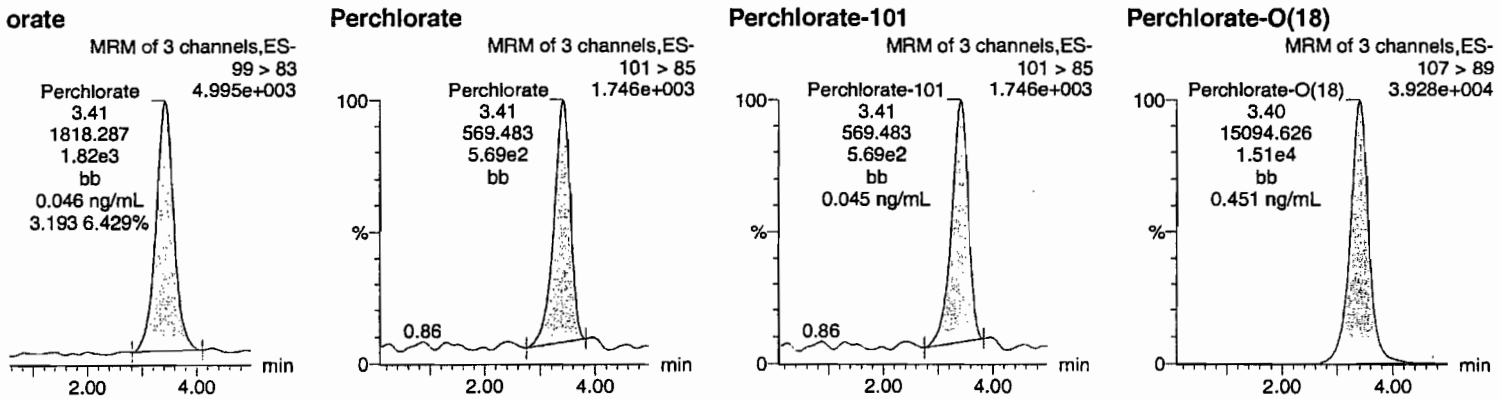

	Name	Trace	RT	Area	Response	Flags	Mod.Date	Mod.Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
)309-07CRI	Perchlorate	99 > 83	3.41	1818.287	1818.287	bb			0.0464	92.88	-7.12	192.354	3.19
)309-07CRI	Perchlorate-101	101 > 85	3.41	569.483	569.483	bb			0.0449	89.83	-10.17	82.964	
)309-07CRI	Perchlorate-O(18)	107 > 89	3.40	15094.626	15094.626	bb			0.4511	90.22	-9.78	3053.1...	

MAT
3/16/10

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QUALITY CONTROL

Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.

MB

Date Received: 06–MAR–10

GEL Job No (SDG): 10–2058

GEL Sample ID: 1202056703

Date Filtered: 06–MAR–10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797–73–0	Perchlorate	.05	.2	0.050	ug/L	U	1	14–MAR–10 21:12	per0314042a
	Perchlorate Isotope Ratio						1	14–MAR–10 21:12	per0314042a
14797–73–0	Perchlorate–101	.05	.2	0.050	ug/L	U	1	14–MAR–10 21:12	per0314042a
	Perchlorate–O(18)			0.418	ug/L		1	14–MAR–10 21:12	per0314042a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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set: C:\MassLynx\Perchlorate.PRO\per031410a.qld

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: 21:12:22
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CWJ 03-15-10

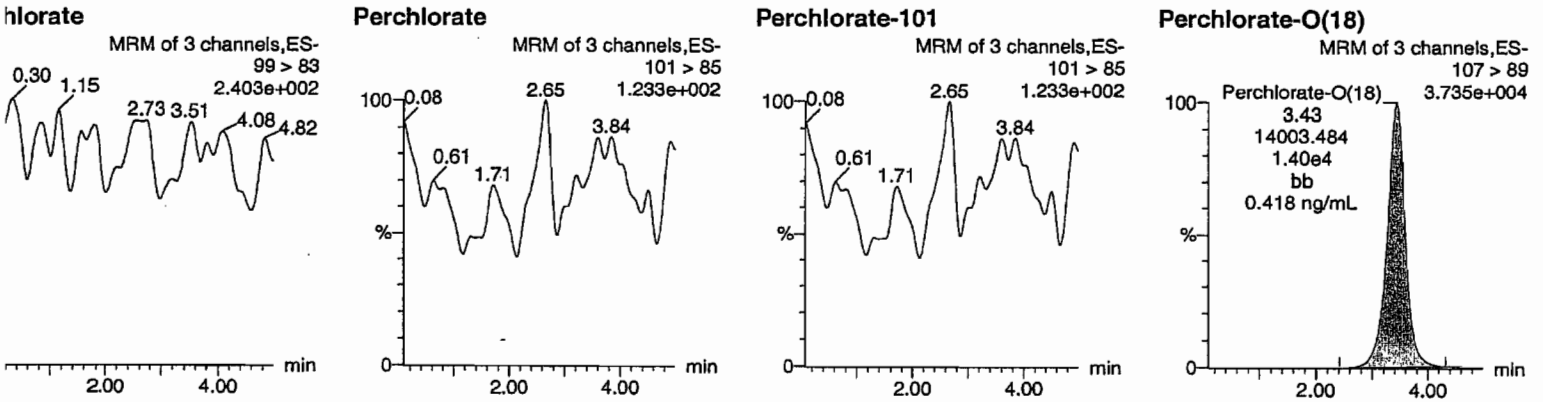

	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
56703	Perchlorate	99 > 83											0.00
56703	Perchlorate-101	101 > 85											
56703	Perchlorate-O(18)	107 > 89	3.43	14003.484	14003.484	bb			0.4185	83.70	-16.30	1297.1...	

MATT 3/16/10

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: EPA 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
LCS

Date Received: 06–MAR–10

GEL Job No (SDG): 10–2058

GEL Sample ID: 1202056704

Date Filtered: 06–MAR–10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797–73–0	Perchlorate	.05	.2	0.200	ug/L	J	1	14–MAR–10 21:20	per0314043a
	Perchlorate Isotope Ratio			3.13			1	14–MAR–10 21:20	per0314043a
14797–73–0	Perchlorate–101	.05	.2	0.197	ug/L	J	1	14–MAR–10 21:20	per0314043a
	Perchlorate–O(18)			0.464	ug/L		1	14–MAR–10 21:20	per0314043a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate–101 peak area. The Perchlorate–101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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GEL Group, LLC Analyst: Charlers W. Wilson

set: C:\MassLynx\Perchlorate.PRO\per031410a.qld

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ed: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

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: 21:20:36
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CWW 03-15-10

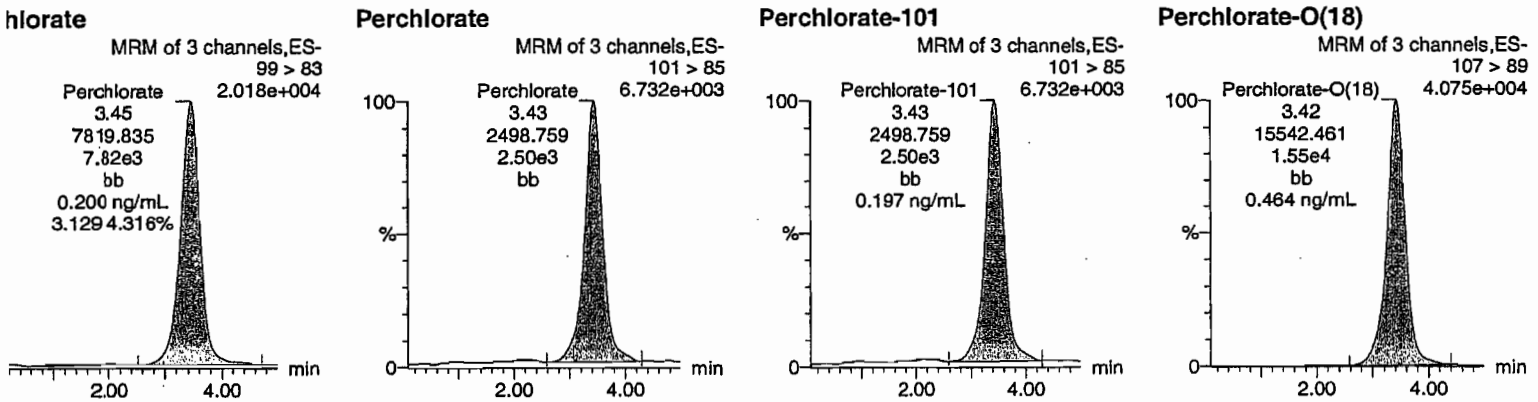

	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Qn Ratio
56704	Perchlorate	99 > 83	3.45	7819.835	7819.835	bb			0.1997	99.86	-0.14	519.894	3.13
56704	Perchlorate-101	101 > 85	3.43	2498.759	2498.759	bb			0.1971	98.54	-1.46	412.227	
56704	Perchlorate-O(18)	107 > 89	3.42	15542.461	15542.461	bb			0.4645	92.90	-7.10	1036.5...	

MMT 3/16/10

$\frac{7819.835}{39154.1} = 0.1997$

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-12770MS

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2058

GEL Sample ID: 1202056707

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.484	ug/L		1	14-MAR-10 22:58	per0314055a
	Perchlorate Isotope Ratio			2.88			1	14-MAR-10 22:58	per0314055a
14797-73-0	Perchlorate-101	.05	.2	0.519	ug/L		1	14-MAR-10 22:58	per0314055a
	Perchlorate-O(18)			0.471	ug/L		1	14-MAR-10 22:58	per0314055a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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ıantify Sample Report MassLynx 4.0 SP4
e GEL Group, LLC Analyst: Charlers W. Wilson

.taset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

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nted: Monday, March 15, 2010 9:13:21 AM Eastern Standard Time

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CWW 03-15-10

rchlorate

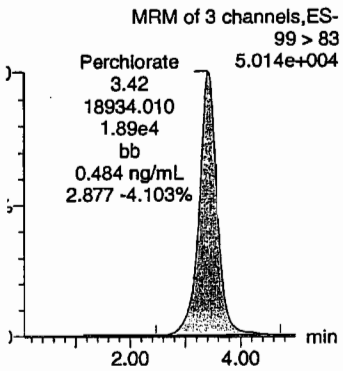

Perchlorate

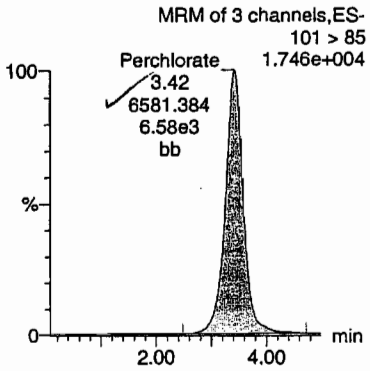

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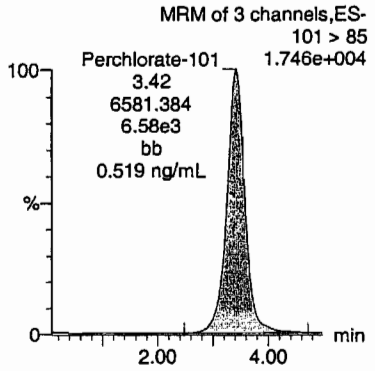

Perchlorate-O(18)

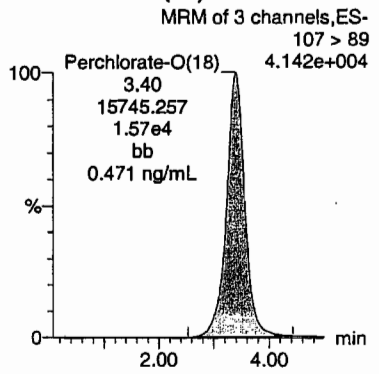

	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
2056707	Perchlorate	99 > 83	3.42	18934.010	18934.010	bb			0.4836	241.79	141.79	2481.1...	2.88
2056707	Perchlorate-101	101 > 85	3.42	6581.384	6581.384	bb			0.5191	259.54	159.54	2177.8...	
2056707	Perchlorate-O(18)	107 > 89	3.40	15745.257	15745.257	bb			0.4705	94.11	-5.89	2191.4...	

MM 3/16/10

$$\frac{18934.010}{6581.384} = 2.9769$$

_ SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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Perchlorate Analysis Data Sheet

Lab Name: GEL Laboratories LLC

Lab Code: GEL

Instrument: LCMSMS

Method: SW846 6850 Modified

Matrix: GROUND WATER

Extraction Batch ID: 959037

Extraction Type: Filter/DAI

Sample Volume/Weight: 10.0 mL

Concentrated Extract Volume: 10.0

Client Sample No.
CAPA-10-12770MSD

Date Received: 25-FEB-10

GEL Job No (SDG): 10-2058

GEL Sample ID: 1202056708

Date Filtered: 06-MAR-10

Injection Volume (uL): 20

%Solids:

CAS No.	Analyte^	MDL	RL	Conc*	Units	Q	Dilution Factor	Date Analyzed	GEL File ID
14797-73-0	Perchlorate	.05	.2	0.496	ug/L		1	14-MAR-10 23:06	per0314056a
	Perchlorate Isotope Ratio			3.04			1	14-MAR-10 23:06	per0314056a
14797-73-0	Perchlorate-101	.05	.2	0.504	ug/L		1	14-MAR-10 23:06	per0314056a
	Perchlorate-O(18)			0.476	ug/L		1	14-MAR-10 23:06	per0314056a

^ When the analyte name is Perchlorate Isotope Ratio the concentration is a unitless value calculated from the ratio of Perchlorate peak area to Perchlorate-101 peak area. The Perchlorate-101 and isotopic ratio results are provided for qualitative purposes only. The results are used to verify the presence and quantitation of Perchlorate.

*Concentration =

$$\text{Instrument Value} \times \frac{\text{Concentrated Extract Volume}}{\text{Aliquot}} \times \frac{1}{\%\text{Solids}}$$

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ıntify Sample Report MassLynx 4.0 SP4
GEL Group, LLC Analyst: Charlers W. Wilson

ıset: C:\MassLynx\Perchlorate.PRO\per031410a.qld

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CW 03-15-10

chlorate

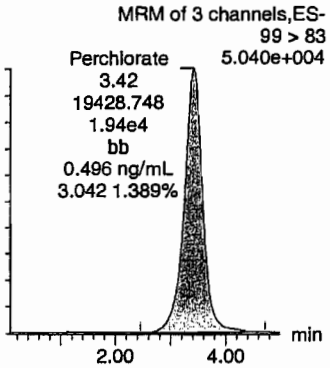

Perchlorate

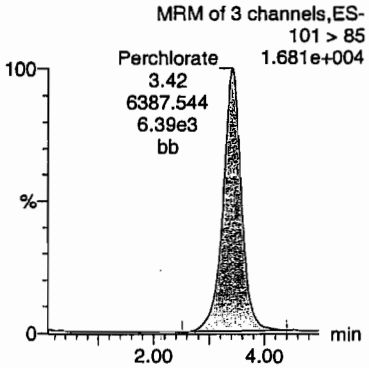

Perchlorate-101

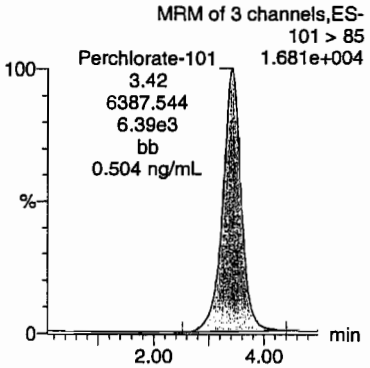

Perchlorate-O(18)

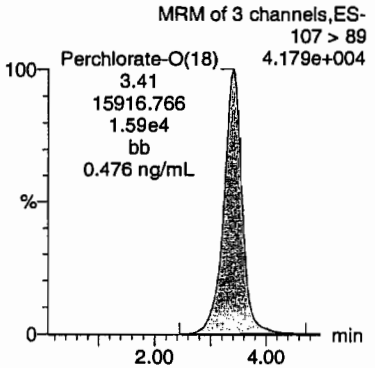

	Name	Trace	RT	Area	Response	Flags	Mod Date	Mod Time	ng/mL	%Rec	%Dev	S/N	Ion Ratio
056708	Perchlorate	99 > 83	3.42	19428.748	19428.748	bb			0.4962	248.11	148.11	2325.4...	3.04
056708	Perchlorate-101	101 > 85	3.42	6387.544	6387.544	bb			0.5038	251.89	151.89	1673.1...	
056708	Perchlorate-O(18)	107 > 89	3.41	15916.766	15916.766	bb			0.4757	95.13	-4.87	3074.5...	

MAD 3/16/10

SOP GL-OA-E-067, Method 6850-Modified / MM = Manual Modification

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MISCELLANEOUS DATA

Prep Logbook

Definitive Low Level Perchlorate Analysis Utilizing Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS) by EPA Method 6850 Modified (6850M)

Batch ID: 959037 Verified by: _____

Analyst: Jareth Shirley

Method: SW846 6850 Modified

Lab SOP: GL-OA-E-067 REV# 6

Instrument: MicroMass Quatro Ultima

Sample ID	Run Date	Initial Volume (mL)	Final Volume (mL)	Prepped Factor (mL/mL)
1202056703 MB	06-MAR-2010 16:48:00	10	10	1
1202056704 LCS	06-MAR-2010 16:48:00	10	10	1
247431002	06-MAR-2010 16:48:00	10	10	1
247817001	06-MAR-2010 16:48:00	10	10	1
247829001	06-MAR-2010 16:48:00	10	10	1
248023001	06-MAR-2010 16:48:00	10	10	1
248024002	06-MAR-2010 16:48:00	10	10	1
248024004	06-MAR-2010 16:48:00	10	10	1
248044001	06-MAR-2010 16:48:00	10	10	1
1202056707 MS (248044001)	06-MAR-2010 16:48:00	10	10	1
1202056708 MSD (248044001)	06-MAR-2010 16:48:00	10	10	1
248044003	06-MAR-2010 16:48:00	10	10	1
248044005	06-MAR-2010 16:48:00	10	10	1
248044006	06-MAR-2010 16:48:00	10	10	1
248164001	06-MAR-2010 16:48:00	10	10	1
248164003	06-MAR-2010 16:48:00	10	10	1
1202056709 ICS	06-MAR-2010 16:48:00	10	10	1

Type	Sample Id	Description	Serial Number	Spike Amt	Units
ICS	1202056709	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
LCS	1202056704	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
MS	1202056707	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
MSD	1202056708	10 ug/L ICV/CCV Second Source	UCL100226-01.1	.2	mL
RGNT	All	500 ppm Carbonate, Bicarbonate, Chloride, Sulfate	1262643	10	mL
RGNT	All	O2SI HPLC Grade Water	1271949	10	mL

Comments:

Desalting cartridges used: 100217-1-H & 100204-1-Ba

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GEL ORGANIC RUN LOG INSTRUMENT ID: LCMSMS#2

Date: 03/14/10
Extr. Injection Volume: 20uL
Sequence Number: per031410a
Initial Calibration Date: 03/14/10

Method: EPA 6850-Modified
Int. Std.: UCL100210-01
Mobile Phase Lot#: 1278668, 1271949
Standard-Samp Reagent Lot#:: 1271949

Reviewed BY: MAT
Date: 3/16/10
SOP: GL-OA-E-067 Rev.6
Alt Check Std. ID: WCL100309-06

DataFile	Sample	Analyst	Injection Date	Batch	SDG	Dilution	Client	Comments	QC_Flag
per0314001a	IPB001	CWW	3/14/2010 15:41			1		USE	B
per0314002a	IPB001	CWW	3/14/2010 15:49			1		USE	B
per0314003a	WCLICAL-01	CWW	3/14/2010 15:57			1		USE	I
per0314004a	WCLICAL-02	CWW	3/14/2010 16:05			1		USE	I
per0314005a	WCLICAL-03	CWW	3/14/2010 16:13			1		USE	I
per0314006a	WCLICAL-04	CWW	3/14/2010 16:21			1		USE	I
per0314007a	WCLICAL-05	CWW	3/14/2010 16:29			1		USE	I
per0314008a	IPB002	CWW	3/14/2010 16:37			1		USE	B
per0314009a	WCLICV	CWW	3/14/2010 16:45			1		USE	C
per0314010a	IPB003	CWW	3/14/2010 16:53			1		USE	B
per0314011a	WCLCRI	CWW	3/14/2010 17:01			1		USE	C
per0314012a	1202054222	CWW	3/14/2010 17:09	957943	VARIOUS	1	LANL	USE	S
per0314013a	1202054223	CWW	3/14/2010 17:17	957943	VARIOUS	1	LANL	USE	S
per0314014a	1202054226	CWW	3/14/2010 17:25	957943	VARIOUS	1	LANL	USE	S
per0314015a	247539001	CWW	3/14/2010 17:33	957943	10-1960	1	LANL	USE	S
per0314016a	247539002	CWW	3/14/2010 17:41	957943	10-1960	1	LANL	USE	S
per0314017a	1202054224	CWW	3/14/2010 17:49	957943	10-1960	1	LANL	USE	S
per0314018a	1202054225	CWW	3/14/2010 17:58	957943	10-1960	1	LANL	USE	S
per0314019a	247539003	CWW	3/14/2010 18:06	957943	10-1960	1	LANL	USE	S
per0314020a	247539004	CWW	3/14/2010 18:14	957943	10-1960	1	LANL	USE	S
per0314021a	247539005	CWW	3/14/2010 18:22	957943	10-1960	1	LANL	USE	S
per0314022a	WCLCCV	CWW	3/14/2010 18:30			1		USE	C
per0314023a	IPB004	CWW	3/14/2010 18:38			1		USE	B
per0314024a	WCLCRI	CWW	3/14/2010 18:46			1		USE	C
per0314025a	247539006	CWW	3/14/2010 18:54	957943	10-1960	1	LANL	USE	S
per0314026a	247539007	CWW	3/14/2010 19:02	957943	10-1960	1	LANL	USE	S
per0314027a	247539008	CWW	3/14/2010 19:10	957943	10-1960	1	LANL	USE	S
per0314028a	247539009	CWW	3/14/2010 19:18	957943	10-1960	1	LANL	USE	S
per0314029a	247539010	CWW	3/14/2010 19:26	957943	10-1960	1	LANL	USE	S

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per0314030a	247539011	CWW	3/14/2010 19:34	957943	10-1960	1	LANL	USE	S
per0314031a	247790002	CWW	3/14/2010 19:42	957943	10-1981	1	LANL	USE	S
per0314032a	247790003	CWW	3/14/2010 19:51	957943	10-1981	1	LANL	USE	S
per0314033a	247794001	CWW	3/14/2010 19:59	957943	10-1983-1	1	LANL	USE	S
per0314034a	247794002	CWW	3/14/2010 20:07	957943	10-1983-1	1	LANL	USE	S
per0314035a	WCLCCV	CWW	3/14/2010 20:15			1		USE	C
per0314036a	IPB005	CWW	3/14/2010 20:23			1		USE	B
per0314037a	WCLCRI	CWW	3/14/2010 20:32			1		USE	C
per0314038a	247794003	CWW	3/14/2010 20:40	957943	10-1983-1	1	LANL	USE	S
per0314039a	247794004	CWW	3/14/2010 20:48	957943	10-1983-1	1	LANL	USE	S
per0314040a	247794005	CWW	3/14/2010 20:56	957943	10-1983-1	1	LANL	USE	S
per0314041a	IPB006	CWW	3/14/2010 21:04			1		USE	B
per0314042a	1202056703	CWW	3/14/2010 21:12	959038	VARIOUS	1	LANL	USE	S
per0314043a	1202056704	CWW	3/14/2010 21:20	959038	VARIOUS	1	LANL	USE	S
per0314044a	1202056709	CWW	3/14/2010 21:28	959038	VARIOUS	1	LANL	USE	S
per0314045a	247431002	CWW	3/14/2010 21:36	959038	10-1927	1	LANL	USE	S
per0314046a	247817001	CWW	3/14/2010 21:44	959038	10-2001	1	LANL	USE	S
per0314047a	247829001	CWW	3/14/2010 21:53	959038	10-2006	1	LANL	USE	S
per0314048a	WCLCCV	CWW	3/14/2010 22:01			1		USE	C
per0314049a	IPB007	CWW	3/14/2010 22:09			1		USE	B
per0314050a	WCLCRI	CWW	3/14/2010 22:17			1		USE	C
per0314051a	248023001	CWW	3/14/2010 22:25	959038	10-2040	1	LANL	USE	S
per0314052a	248024002	CWW	3/14/2010 22:34	959038	10-2046	1	LANL	USE	S
per0314053a	248024004	CWW	3/14/2010 22:42	959038	10-2046	1	LANL	USE	S
per0314054a	248044001	CWW	3/14/2010 22:50	959038	10-2058	1	LANL	USE	S
per0314055a	1202056707	CWW	3/14/2010 22:58	959038	10-2058	1	LANL	USE	S
per0314056a	1202056708	CWW	3/14/2010 23:06	959038	10-2058	1	LANL	USE	S
per0314057a	248044003	CWW	3/14/2010 23:14	959038	10-2058	1	LANL	USE	S
per0314058a	248044005	CWW	3/14/2010 23:22	959038	10-2058	1	LANL	USE	S
per0314059a	248044006	CWW	3/14/2010 23:30	959038	10-2058	1	LANL	USE	S
per0314060a	248164001	CWW	3/14/2010 23:38	959038	10-2111	1	LANL	USE	S
per0314061a	WCLCCV	CWW	3/14/2010 23:46			1		USE	C
per0314062a	IPB008	CWW	3/14/2010 23:54			1		USE	B
per0314063a	WCLCRI	CWW	3/15/2010 0:02			1		USE	C
per0314064a	248164003	CWW	3/15/2010 0:10	959038	10-2111	1	LANL	USE	S
per0314065a	IPB009	CWW	3/15/2010 0:19			1		USE	B
per0314066a	1202056594	CWW	3/15/2010 0:27	958963	VARIOUS	1	LANL	USE	S

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per0314067a	1202056595	CWW	3/15/2010 0:35	958963	VARIOUS	1	LANL	USE	S
per0314068a	1202056598	CWW	3/15/2010 0:43	958963	VARIOUS	1	LANL	USE	S
per0314069a	248041001	CWW	3/15/2010 0:51	958963	10-2069-1	1	LANL	USE	S
per0314070a	248041002	CWW	3/15/2010 0:59	958963	10-2069-1	1	LANL	USE	S
per0314071a	248041003	CWW	3/15/2010 1:07	958963	10-2069-1	1	LANL	USE	S
per0314072a	248041004	CWW	3/15/2010 1:15	958963	10-2069-1	1	LANL	USE	S
per0314073a	248041005	CWW	3/15/2010 1:24	958963	10-2069-1	1	LANL	USE	S
per0314074a	WCLCCV	CWW	3/15/2010 1:32			1		USE	C
per0314075a	IPB010	CWW	3/15/2010 1:40			1		USE	B
per0314076a	WCLCRI	CWW	3/15/2010 1:48			1		USE	C
per0314077a	248054001	CWW	3/15/2010 1:56	958963	10-2081-1	1	LANL	USE	S
per0314078a	248054002	CWW	3/15/2010 2:04	958963	10-2081-1	1	LANL	USE	S
per0314079a	248054003	CWW	3/15/2010 2:12	958963	10-2081-1	1	LANL	USE	S
per0314080a	248054004	CWW	3/15/2010 2:21	958963	10-2081-1	1	LANL	USE	S
per0314081a	248068001	CWW	3/15/2010 2:29	958963	10-2088	1	LANL	USE	S
per0314082a	248068002	CWW	3/15/2010 2:37	958963	10-2088	1	LANL	USE	S
per0314083a	248110001	CWW	3/15/2010 2:45	958963	10-2090-1	1	LANL	USE	S
per0314084a	1202056596	CWW	3/15/2010 2:53	958963	10-2090-1	1	LANL	USE	S
per0314085a	1202056597	CWW	3/15/2010 3:01	958963	10-2090-1	1	LANL	USE	S
per0314086a	248110002	CWW	3/15/2010 3:09	958963	10-2090-1	1	LANL	USE	S
per0314087a	WCLCCV	CWW	3/15/2010 3:17			1		USE	C
per0314088a	IPB011	CWW	3/15/2010 3:25			1		USE	B
per0314089a	WCLCRI	CWW	3/15/2010 3:34			1		USE	C
per0314090a	248110003	CWW	3/15/2010 3:42	958963	10-2090-1	1	LANL	USE	S
per0314091a	248110004	CWW	3/15/2010 3:50	958963	10-2090-1	1	LANL	USE	S
per0314092a	248110005	CWW	3/15/2010 3:58	958963	10-2090-1	1	LANL	USE	S
per0314093a	248110006	CWW	3/15/2010 4:06	958963	10-2090-1	1	LANL	USE	S
per0314094a	248110007	CWW	3/15/2010 4:14	958963	10-2090-1	1	LANL	USE	S
per0314095a	248110008	CWW	3/15/2010 4:22	958963	10-2090-1	1	LANL	USE	S
per0314096a	WCLCCV	CWW	3/15/2010 4:30			1		USE	C
per0314097a	IPB012	CWW	3/15/2010 4:39			1		USE	B
per0314098a	WCLCRI	CWW	3/15/2010 4:47			1		USE	C
per0314099a	1202056604	CWW	3/15/2010 4:55	958968	VARIOUS	1	LANL	DUSE_RA	S
per0314100a	1202056605	CWW	3/15/2010 5:03	958968	VARIOUS	1	LANL	DUSE_RA	S
per0314101a	1202056613	CWW	3/15/2010 5:11	958968	VARIOUS	1	LANL	DUSE_RA	S
per0314102a	248058001	CWW	3/15/2010 5:19	958968	10-2083	1	LANL	DUSE_RA	S
per0314103a	248058002	CWW	3/15/2010 5:27	958968	10-2083	1	LANL	DUSE_RA	S

per0314104a	248058003	CWW	3/15/2010 5:35	958968	10-2083	1	LANL	DUSE_RA	S
per0314105a	248058004	CWW	3/15/2010 5:43	958968	10-2083	1	LANL	DUSE_RA	S
per0314106a	WCLCCV	CWW	3/15/2010 5:52			1		DUSE	C
per0314107a	IPB013	CWW	3/15/2010 6:00			1		DUSE	B
per0314108a	WCLCRI	CWW	3/15/2010 6:08			1		DUSE	C
per0314109a	248058005	CWW	3/15/2010 6:16	958968	10-2093	1	LANL	DUSE-RA	S
per0314110a	248058006	CWW	3/15/2010 6:24	958968	10-2093	1	LANL	DUSE-RA	S
per0314111a	248058007	CWW	3/15/2010 6:32	958968	10-2093	1	LANL	DUSE-RA	S
per0314112a	248058008	CWW	3/15/2010 6:40	958968	10-2093	1	LANL	DUSE-RA	S
per0314113a	248065001	CWW	3/15/2010 6:49	958968	10-2086	1	LANL	DUSE-RA	S
per0314114a	1202056606	CWW	3/15/2010 6:57	958968	10-2086	1	LANL	DUSE-RA	S
per0314115a	1202056607	CWW	3/15/2010 7:05	958968	10-2086	1	LANL	DUSE-RA	S
per0314116a	WCLCCV	CWW	3/15/2010 7:13			1		DUSE	C
per0314117a	IPB014	CWW	3/15/2010 7:21			1		DUSE	B
per0314118a	WCLCRI	CWW	3/15/2010 7:29			1		DUSE	C

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Isotope Ratio Criteria

Isotope Ratio $_{35}Cl/_{37}CL$

2.31-3.85

Tune Criteria

The tuning solution is introduced directly into the mass spectrometer using the ESI interface in the positive ion mode. The mass range scanned is 20 to 1100 amu using at least six scans. The observed mass for the target compound in the daily calibration standards must be within 0.2 amu of the expected value. If it is greater than 0.2 amu, then a mass calibration is performed and the instrument is re-calibrated.

Metals Analysis

Case Narrative

Metals Fractional Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2058

Sample Analysis

Sample ID	Client ID
248044001	CAPA-10-12770
248044002	CAPA-10-12771
248044003	CAPA-10-13082
248044004	CAPA-10-13083
248044005	CAPA-10-13085
248044006	CAPA-10-13320
1202056945	Method Blank (MB) **ICP**
1202056946	Laboratory Control Sample (LCS)
1202056949	248044001(CAPA-10-12770L) Serial Dilution (SD)
1202056947	248044001(CAPA-10-12770D) Sample Duplicate (DUP)
1202056948	248044001(CAPA-10-12770S) Matrix Spike (MS)
1202056952	Method Blank (MB) **ICP-MS**
1202056953	Laboratory Control Sample (LCS)
1202056956	248023001(CAPA-10-12916L) Serial Dilution (SD)
1202056954	248023001(CAPA-10-12916D) Sample Duplicate (DUP)
1202056955	248023001(CAPA-10-12916S) Matrix Spike (MS)
1202055843	Method Blank (MB) **CVAA**
1202055844	Laboratory Control Sample (LCS)
1202055847	248044001(CAPA-10-12770L) Serial Dilution (SD)
1202055845	248044001(CAPA-10-12770D) Sample Duplicate (DUP)
1202055846	248044001(CAPA-10-12770S) Matrix Spike (MS)

Method/Analysis Information

Analytical Batch:	959137, 959139, 958587 and 970515
Prep Batch :	959136, 959138 and 958586
Standard Operating Procedures:	GL-MA-E-013 REV# 20, GL-MA-E-006 REV# 9, GL-MA-E-014 REV# 21, GL-MA-E-010 REV# 23 and GL-GC-E-107 REV# 5
Analytical Method:	SW846 3005/6010B, SW846 3005/6020 DOE-AL, EPA 245.1/245.2 and SM 2340 B
Prep Method :	SW846 3005A and EPA 245.1/245.2 Prep

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The Hardness as CaCO3 is calculated from Calcium and Magnesium results.

The Metals analysis-ICP was performed on a P E 7300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The Metals analysis - ICPMS was performed on a Perkin Elmer ELAN 9000 inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, tantalum, and/or lutetium were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

The Metals analysis-Mercury was performed on a Perkin-Elmer Flow Injection Mercury System (FIMS-100) automated mercury analyzer. The instrument consists of a cold vapor atomic absorption spectrometer set to detect mercury at a wavelength of 253.7 nm. Sample introduction through the flow injection system is performed via a peristaltic pump at 9 mL/min and nitrogen carrier gas rate of 80 mL/min.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB Statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following samples were selected as the quality control (QC) samples for this SDG: 248044001 (CAPA-10-12770) and 248023001 (CAPA-10-12916).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is 5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of +/-RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL/MDL for CVAA, 50X the IDL/MDL for ICP, and 100X the IDL/MDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in solid samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:

Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Data Exception (DER) Documentation
Data exception reports (DERs) are generated to document procedural anomalies that may deviate from referenced SOP or contractual documents. A data exception report (DER) was not generated for this SDG.

Additional Comments
Total Hardness by Calculation is determined using the results of Total Calcium (Ca) and Total Magnesium (Mg) determined by ICP or ICP-MS.

Hardness = 2.497 (Ca) + 4.118 (Mg)

Please refer to the Total Ca and Total Mg data to validate results appearing on the Hardness Summary sheet. Both results are in the Inorganic/metals section of the package. There is no Batch QC for calculated results, and thus no QC Summary for the Hardness by Calculation Batch. The MDLs and PQLs are calculated using the higher of the two calculated values of Ca or Mg.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Kristen Parson **Date:** 5/11/10

Sample Data Summary

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2058 **METHOD TYPE:** EPA

SAMPLE ID: 248044001 **CLIENT ID:** CAPA-10-12770

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	030210W3-8
7631-86-9	Silica	33.3	mg/L			P	0.053	1	OPTIMA4	032910C-1
7429-90-5	Aluminum	890	ug/L			P	68	1	OPTIMA4	032910C-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS6	100506-2
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS6	100506-2
7440-39-3	Barium	82.1	ug/L			P	1	1	OPTIMA4	032910C-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA4	032910C-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS6	100506-2
7440-70-2	Calcium	13800	ug/L			P	50	1	OPTIMA4	032910C-1
7440-47-3	Chromium	4.49	ug/L	J		MS	2.5	1	ICPMS6	100506-2
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA4	032910C-1
7439-89-6	Iron	404	ug/L			P	30	1	OPTIMA4	032910C-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS6	100506-2
7439-95-4	Magnesium	4700	ug/L			P	85	1	OPTIMA4	032910C-1
7439-96-5	Manganese	4.02	ug/L	J		P	2	1	OPTIMA4	032910C-1
7439-98-7	Molybdenum	0.528	ug/L			MS	0.1	1	ICPMS6	100506-2
7440-02-0	Nickel	0.677	ug/L	J		MS	0.5	1	ICPMS6	100507-7
7440-09-7	Potassium	3360	ug/L			P	50	1	OPTIMA4	032910C-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS6	100506-2
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS6	100506-2
7440-23-5	Sodium	16000	ug/L			P	100	1	OPTIMA4	032910C-1
7440-24-6	Strontium	107	ug/L			P	1	1	OPTIMA4	032910C-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS6	100506-2
7440-31-5	Tin	2.5	ug/L	U		P	2.5	1	OPTIMA4	032910C-1

METALS
–1–
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10–2058 **METHOD TYPE:** EPA

SAMPLE ID: 248044001 **CLIENT ID:** CAPA–10–12770

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25–FEB–10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440–61–1	Uranium	0.05	ug/L	U		MS	0.05	1	ICPMS6	100507–3
7440–62–2	Vanadium	1	ug/L	U		P	1	1	OPTIMA4	032910C–1
7440–66–6	Zinc	3.3	ug/L	U		P	3.3	1	OPTIMA4	032910C–1
	Hardness as CaCO3	53.8	mg/L				0.35	1	CALC001	

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2058 **METHOD TYPE:** EPA

SAMPLE ID: 248044002 **CLIENT ID:** CAPA-10-12771

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	030210W3-8
7429-90-5	Aluminum	6190	ug/L			P	68	1	OPTIMA4	032910C-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS6	100506-2
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS6	100506-2
7440-39-3	Barium	110	ug/L			P	1	1	OPTIMA4	032910C-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA4	032910C-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS6	100506-2
7440-70-2	Calcium	14300	ug/L			P	50	1	OPTIMA4	032910C-1
7440-47-3	Chromium	6.72	ug/L	J		MS	2.5	1	ICPMS6	100506-2
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA4	032910C-1
7439-89-6	Iron	3020	ug/L			P	30	1	OPTIMA4	032910C-1
7439-92-1	Lead	2.69	ug/L			MS	0.5	1	ICPMS6	100506-2
7439-95-4	Magnesium	5280	ug/L			P	85	1	OPTIMA4	032910C-1
7439-96-5	Manganese	47	ug/L			P	2	1	OPTIMA4	032910C-1
7439-98-7	Molybdenum	0.716	ug/L			MS	0.1	1	ICPMS6	100506-2
7440-02-0	Nickel	25	ug/L			MS	0.5	1	ICPMS6	100507-7
7440-09-7	Potassium	4330	ug/L			P	50	1	OPTIMA4	032910C-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS6	100506-2
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS6	100506-2
7440-23-5	Sodium	16700	ug/L			P	100	1	OPTIMA4	032910C-1
7440-24-6	Strontium	112	ug/L			P	1	1	OPTIMA4	032910C-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS6	100506-2
7440-31-5	Tin	2.5	ug/L	U		P	2.5	1	OPTIMA4	032910C-1
7440-61-1	Uranium	0.193	ug/L	J		MS	0.05	1	ICPMS6	100507-3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2058 **METHOD TYPE:** EPA

SAMPLE ID: 248044002 **CLIENT ID:** CAPA-10-12771

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	4.44	ug/L	J		P	1	1	OPTIMA4	032910C-1
7440-66-6	Zinc	9.54	ug/L	J		P	3.3	1	OPTIMA4	032910C-1
	Hardness as CaCO3	57.4	mg/L				0.35	1	CALC001	

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2058 **METHOD TYPE:** EPA

SAMPLE ID: 248044003 **CLIENT ID:** CAPA-10-13082

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	030210W3-8
7631-86-9	Silica	55.6	mg/L			P	0.053	1	OPTIMA4	032910C-1
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA4	032910C-1
7440-36-0	Antimony	0.802	ug/L	J		MS	0.5	1	ICPMS6	100506-2
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS6	100506-2
7440-39-3	Barium	34.2	ug/L			P	1	1	OPTIMA4	032910C-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-42-8	Boron	15.2	ug/L	J		P	15	1	OPTIMA4	032910C-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS6	100506-2
7440-70-2	Calcium	21600	ug/L			P	50	1	OPTIMA4	032910C-1
7440-47-3	Chromium	4.16	ug/L	J		MS	2.5	1	ICPMS6	100506-2
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-50-8	Copper	3.31	ug/L	J		P	3	1	OPTIMA4	032910C-1
7439-89-6	Iron	35.2	ug/L	J		P	30	1	OPTIMA4	032910C-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS6	100506-2
7439-95-4	Magnesium	6440	ug/L			P	85	1	OPTIMA4	032910C-1
7439-96-5	Manganese	124	ug/L			P	2	1	OPTIMA4	032910C-1
7439-98-7	Molybdenum	11.2	ug/L			MS	0.1	1	ICPMS6	100506-2
7440-02-0	Nickel	14.4	ug/L			MS	0.5	1	ICPMS6	100507-7
7440-09-7	Potassium	1690	ug/L			P	50	1	OPTIMA4	032910C-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS6	100506-2
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS6	100506-2
7440-23-5	Sodium	13800	ug/L			P	100	1	OPTIMA4	032910C-1
7440-24-6	Strontium	104	ug/L			P	1	1	OPTIMA4	032910C-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS6	100506-2
7440-31-5	Tin	2.5	ug/L	U		P	2.5	1	OPTIMA4	032910C-1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2058 **METHOD TYPE:** EPA

SAMPLE ID: 248044003 **CLIENT ID:** CAPA-10-13082

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	0.883	ug/L			MS	0.05	1	ICPMS6	100507-3
7440-62-2	Vanadium	2.4	ug/L	J		P	1	1	OPTIMA4	032910C-1
7440-66-6	Zinc	22.7	ug/L			P	3.3	1	OPTIMA4	032910C-1
	Hardness as CaCO3	80.4	mg/L				0.35	1	CALC001	

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2058 **METHOD TYPE:** EPA

SAMPLE ID: 248044004 **CLIENT ID:** CAPA-10-13083

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	030210W3-8
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA4	032910C-1
7440-36-0	Antimony	0.672	ug/L	J		MS	0.5	1	ICPMS6	100506-2
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS6	100506-2
7440-39-3	Barium	34.7	ug/L			P	1	1	OPTIMA4	032910C-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-42-8	Boron	16.2	ug/L	J		P	15	1	OPTIMA4	032910C-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS6	100506-2
7440-70-2	Calcium	22000	ug/L			P	50	1	OPTIMA4	032910C-1
7440-47-3	Chromium	4.98	ug/L	J		MS	2.5	1	ICPMS6	100506-2
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-50-8	Copper	5.79	ug/L	J		P	3	1	OPTIMA4	032910C-1
7439-89-6	Iron	144	ug/L			P	30	1	OPTIMA4	032910C-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS6	100506-2
7439-95-4	Magnesium	6700	ug/L			P	85	1	OPTIMA4	032910C-1
7439-96-5	Manganese	120	ug/L			P	2	1	OPTIMA4	032910C-1
7439-98-7	Molybdenum	12.1	ug/L			MS	0.1	1	ICPMS6	100506-2
7440-02-0	Nickel	12.7	ug/L			MS	0.5	1	ICPMS6	100507-7
7440-09-7	Potassium	1730	ug/L			P	50	1	OPTIMA4	032910C-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS6	100506-2
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS6	100506-2
7440-23-5	Sodium	13900	ug/L			P	100	1	OPTIMA4	032910C-1
7440-24-6	Strontium	106	ug/L			P	1	1	OPTIMA4	032910C-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS6	100506-2
7440-31-5	Tin	2.5	ug/L	U		P	2.5	1	OPTIMA4	032910C-1
7440-61-1	Uranium	0.936	ug/L			MS	0.05	1	ICPMS6	100507-3

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2058 **METHOD TYPE:** EPA

SAMPLE ID: 248044004 **CLIENT ID:** CAPA-10-13083

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-62-2	Vanadium	2.68	ug/L	J		P	1	1	OPTIMA4	032910C-1
7440-66-6	Zinc	25.1	ug/L			P	3.3	1	OPTIMA4	032910C-1
	Hardness as CaCO3	82.6	mg/L				0.35	1	CALC001	

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2058 **METHOD TYPE:** EPA

SAMPLE ID: 248044005 **CLIENT ID:** CAPA-10-13085

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439-97-6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	030210W3-8
7631-86-9	Silica	0.053	mg/L	U		P	0.053	1	OPTIMA4	032910C-1
7429-90-5	Aluminum	68	ug/L	U		P	68	1	OPTIMA4	032910C-1
7440-36-0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS6	100506-2
7440-38-2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS6	100506-2
7440-39-3	Barium	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-41-7	Beryllium	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-42-8	Boron	15	ug/L	U		P	15	1	OPTIMA4	032910C-1
7440-43-9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS6	100506-2
7440-70-2	Calcium	50	ug/L	U		P	50	1	OPTIMA4	032910C-1
7440-47-3	Chromium	3.83	ug/L	J		MS	2.5	1	ICPMS6	100506-2
7440-48-4	Cobalt	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-50-8	Copper	3	ug/L	U		P	3	1	OPTIMA4	032910C-1
7439-89-6	Iron	30	ug/L	U		P	30	1	OPTIMA4	032910C-1
7439-92-1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS6	100506-2
7439-95-4	Magnesium	85	ug/L	U		P	85	1	OPTIMA4	032910C-1
7439-96-5	Manganese	2	ug/L	U		P	2	1	OPTIMA4	032910C-1
7439-98-7	Molybdenum	0.1	ug/L	U		MS	0.1	1	ICPMS6	100506-2
7440-02-0	Nickel	0.5	ug/L	U		MS	0.5	1	ICPMS6	100507-7
7440-09-7	Potassium	50	ug/L	U		P	50	1	OPTIMA4	032910C-1
7782-49-2	Selenium	1	ug/L	U		MS	1	1	ICPMS6	100506-2
7440-22-4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS6	100506-2
7440-23-5	Sodium	100	ug/L	U		P	100	1	OPTIMA4	032910C-1
7440-24-6	Strontium	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-28-0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS6	100506-2
7440-31-5	Tin	2.5	ug/L	U		P	2.5	1	OPTIMA4	032910C-1

METALS
–1–
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10–2058 **METHOD TYPE:** EPA

SAMPLE ID: 248044005 **CLIENT ID:** CAPA–10–13085

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25–FEB–10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440–61–1	Uranium	0.05	ug/L	U		MS	0.05	1	ICPMS6	100507–3
7440–62–2	Vanadium	1	ug/L	U		P	1	1	OPTIMA4	032910C–1
7440–66–6	Zinc	3.3	ug/L	U		P	3.3	1	OPTIMA4	032910C–1
	Hardness as CaCO3	0.35	mg/L	U			0.35	1	CALC001	

METALS
–1–
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10–2058 **METHOD TYPE:** EPA

SAMPLE ID: 248044006 **CLIENT ID:** CAPA–10–13320

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25–FEB–10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7439–97–6	Mercury	0.066	ug/L	U		AV	0.066	1	HG3	030210W3–8
7631–86–9	Silica	0.0543	mg/L	J		P	0.053	1	OPTIMA4	032910C–1
7429–90–5	Aluminum	68	ug/L	U		P	68	1	OPTIMA4	032910C–1
7440–36–0	Antimony	0.5	ug/L	U		MS	0.5	1	ICPMS6	100506–2
7440–38–2	Arsenic	1.5	ug/L	U		MS	1.5	1	ICPMS6	100506–2
7440–39–3	Barium	1	ug/L	U		P	1	1	OPTIMA4	032910C–1
7440–41–7	Beryllium	1	ug/L	U		P	1	1	OPTIMA4	032910C–1
7440–42–8	Boron	15	ug/L	U		P	15	1	OPTIMA4	032910C–1
7440–43–9	Cadmium	0.11	ug/L	U		MS	0.11	1	ICPMS6	100506–2
7440–70–2	Calcium	57.9	ug/L	J		P	50	1	OPTIMA4	032910C–1
7440–47–3	Chromium	3.49	ug/L	J		MS	2.5	1	ICPMS6	100506–2
7440–48–4	Cobalt	1	ug/L	U		P	1	1	OPTIMA4	032910C–1
7440–50–8	Copper	3	ug/L	U		P	3	1	OPTIMA4	032910C–1
7439–89–6	Iron	30	ug/L	U		P	30	1	OPTIMA4	032910C–1
7439–92–1	Lead	0.5	ug/L	U		MS	0.5	1	ICPMS6	100506–2
7439–95–4	Magnesium	85	ug/L	U		P	85	1	OPTIMA4	032910C–1
7439–96–5	Manganese	2	ug/L	U		P	2	1	OPTIMA4	032910C–1
7439–98–7	Molybdenum	0.1	ug/L	U		MS	0.1	1	ICPMS6	100506–2
7440–02–0	Nickel	0.5	ug/L	U		MS	0.5	1	ICPMS6	100507–7
7440–09–7	Potassium	50	ug/L	U		P	50	1	OPTIMA4	032910C–1
7782–49–2	Selenium	1	ug/L	U		MS	1	1	ICPMS6	100506–2
7440–22–4	Silver	0.2	ug/L	U		MS	0.2	1	ICPMS6	100506–2
7440–23–5	Sodium	176	ug/L	J		P	100	1	OPTIMA4	032910C–1
7440–24–6	Strontium	1	ug/L	U		P	1	1	OPTIMA4	032910C–1
7440–28–0	Thallium	0.3	ug/L	U		MS	0.3	1	ICPMS6	100506–2
7440–31–5	Tin	2.5	ug/L	U		P	2.5	1	OPTIMA4	032910C–1

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 10-2058 **METHOD TYPE:** EPA

SAMPLE ID: 248044006 **CLIENT ID:** CAPA-10-13320

CONTRACT: ESHL01000

MATRIX:G **DATE RECEIVED** 25-FEB-10 **LEVEL:** Low **%SOLIDS:**

CAS No	Analyte	Result	Units	C	Qual	M	MDL	DF	Instrument ID	Analytical Run
7440-61-1	Uranium	0.05	ug/L	U		MS	0.05	1	ICPMS6	100507-3
7440-62-2	Vanadium	1	ug/L	U		P	1	1	OPTIMA4	032910C-1
7440-66-6	Zinc	3.3	ug/L	U		P	3.3	1	OPTIMA4	032910C-1
	Hardness as CaCO3	0.35	mg/L	U			0.35	1	CALC001	

Quality Control Summary

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2058

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
ICV01										
	Mercury	5.2	ug/L	5	ug/L	104	90.0 – 110.0	AV	02–MAR–10 08:39	030210W3–8
	Aluminum	5140	ug/L	5000	ug/L	102.7	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Barium	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Beryllium	257	ug/L	250	ug/L	102.6	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Boron	508	ug/L	500	ug/L	101.6	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Calcium	5000	ug/L	5000	ug/L	100	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Cobalt	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Copper	510	ug/L	500	ug/L	102	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Iron	5010	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Magnesium	5200	ug/L	5000	ug/L	103.9	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Manganese	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Potassium	2470	ug/L	2500	ug/L	98.7	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Silica	10500	ug/L	10700	ug/L	98.5	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Sodium	2460	ug/L	2500	ug/L	98.5	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Strontium	531	ug/L	500	ug/L	106.1	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Tin	521	ug/L	500	ug/L	104.2	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Vanadium	505	ug/L	500	ug/L	100.9	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Zinc	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	29–MAR–10 18:35	032910C–1
	Antimony	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	07–MAY–10 13:36	100506–2
	Arsenic	54.1	ug/L	50	ug/L	108.3	90.0 – 110.0	MS	07–MAY–10 13:36	100506–2
	Cadmium	52.4	ug/L	50	ug/L	104.9	90.0 – 110.0	MS	07–MAY–10 13:36	100506–2
	Chromium	52.7	ug/L	50	ug/L	105.5	90.0 – 110.0	MS	07–MAY–10 13:36	100506–2
	Lead	53	ug/L	50	ug/L	106	90.0 – 110.0	MS	07–MAY–10 13:36	100506–2
	Molybdenum	52.3	ug/L	50	ug/L	104.5	90.0 – 110.0	MS	07–MAY–10 13:36	100506–2
	Selenium	53.7	ug/L	50	ug/L	107.4	90.0 – 110.0	MS	07–MAY–10 13:36	100506–2
	Silver	52.8	ug/L	50	ug/L	105.5	90.0 – 110.0	MS	07–MAY–10 13:36	100506–2
	Thallium	52.9	ug/L	50	ug/L	105.8	90.0 – 110.0	MS	07–MAY–10 13:36	100506–2
	Uranium	54.6	ug/L	50	ug/L	109.1	90.0 – 110.0	MS	08–MAY–10 05:01	100507–3
	Nickel	52.4	ug/L	50	ug/L	104.8	90.0 – 110.0	MS	08–MAY–10 13:13	100507–7

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2058

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV01										
	Mercury	5.16	ug/L	5	ug/L	103.1	80.0 – 120.0	AV	02–MAR–10 08:45	030210W3–8
	Aluminum	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Barium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Beryllium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Boron	489	ug/L	500	ug/L	97.7	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Calcium	4990	ug/L	5000	ug/L	99.8	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Cobalt	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Copper	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Iron	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Magnesium	5080	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Manganese	494	ug/L	500	ug/L	98.7	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Potassium	5440	ug/L	5000	ug/L	108.7	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Silica	5280	ug/L	5350	ug/L	98.7	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Sodium	10000	ug/L	10000	ug/L	100	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Strontium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Tin	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Vanadium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Zinc	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	29–MAR–10 18:49	032910C–1
	Antimony	52	ug/L	50	ug/L	103.9	90.0 – 110.0	MS	07–MAY–10 14:08	100506–2
	Arsenic	53	ug/L	50	ug/L	106	90.0 – 110.0	MS	07–MAY–10 14:08	100506–2
	Cadmium	51.8	ug/L	50	ug/L	103.7	90.0 – 110.0	MS	07–MAY–10 14:08	100506–2
	Chromium	52.3	ug/L	50	ug/L	104.6	90.0 – 110.0	MS	07–MAY–10 14:08	100506–2
	Lead	53.6	ug/L	50	ug/L	107.2	90.0 – 110.0	MS	07–MAY–10 14:08	100506–2
	Molybdenum	52.3	ug/L	50	ug/L	104.6	90.0 – 110.0	MS	07–MAY–10 14:08	100506–2
	Selenium	52.8	ug/L	50	ug/L	105.7	90.0 – 110.0	MS	07–MAY–10 14:08	100506–2
	Silver	53	ug/L	50	ug/L	106	90.0 – 110.0	MS	07–MAY–10 14:08	100506–2
	Thallium	52.9	ug/L	50	ug/L	105.7	90.0 – 110.0	MS	07–MAY–10 14:08	100506–2
	Uranium	49.2	ug/L	50	ug/L	98.5	90.0 – 110.0	MS	08–MAY–10 05:20	100507–3
	Nickel	53.3	ug/L	50	ug/L	106.5	90.0 – 110.0	MS	08–MAY–10 13:30	100507–7

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2058

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV02										
	Mercury	5.13	ug/L	5	ug/L	102.6	80.0 – 120.0	AV	02–MAR–10 09:08	030210W3–8
	Aluminum	5100	ug/L	5000	ug/L	102	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Barium	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Beryllium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Boron	483	ug/L	500	ug/L	96.7	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Calcium	4970	ug/L	5000	ug/L	99.4	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Cobalt	490	ug/L	500	ug/L	98	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Copper	495	ug/L	500	ug/L	99	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Iron	4920	ug/L	5000	ug/L	98.4	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Magnesium	5070	ug/L	5000	ug/L	101.5	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Manganese	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Potassium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Silica	5260	ug/L	5350	ug/L	98.3	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Sodium	9880	ug/L	10000	ug/L	98.8	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Strontium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Tin	488	ug/L	500	ug/L	97.6	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Vanadium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Zinc	484	ug/L	500	ug/L	96.8	90.0 – 110.0	P	29–MAR–10 18:57	032910C–1
	Antimony	52.6	ug/L	50	ug/L	105.2	90.0 – 110.0	MS	07–MAY–10 14:28	100506–2
	Arsenic	53.3	ug/L	50	ug/L	106.6	90.0 – 110.0	MS	07–MAY–10 14:28	100506–2
	Cadmium	52.2	ug/L	50	ug/L	104.4	90.0 – 110.0	MS	07–MAY–10 14:28	100506–2
	Chromium	51.8	ug/L	50	ug/L	103.5	90.0 – 110.0	MS	07–MAY–10 14:28	100506–2
	Lead	54.3	ug/L	50	ug/L	108.7	90.0 – 110.0	MS	07–MAY–10 14:28	100506–2
	Molybdenum	52	ug/L	50	ug/L	104.1	90.0 – 110.0	MS	07–MAY–10 14:28	100506–2
	Selenium	51.8	ug/L	50	ug/L	103.7	90.0 – 110.0	MS	07–MAY–10 14:28	100506–2
	Silver	53.2	ug/L	50	ug/L	106.3	90.0 – 110.0	MS	07–MAY–10 14:28	100506–2
	Thallium	53.8	ug/L	50	ug/L	107.6	90.0 – 110.0	MS	07–MAY–10 14:28	100506–2
	Uranium	49.5	ug/L	50	ug/L	99	90.0 – 110.0	MS	08–MAY–10 06:01	100507–3
	Nickel	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	08–MAY–10 14:08	100507–7

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2058

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV03										
	Mercury	5.06	ug/L	5	ug/L	101.1	80.0 – 120.0	AV	02–MAR–10 09:31	030210W3–8
	Aluminum	5160	ug/L	5000	ug/L	103.3	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Barium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Beryllium	504	ug/L	500	ug/L	100.8	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Boron	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Calcium	4960	ug/L	5000	ug/L	99.2	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Cobalt	487	ug/L	500	ug/L	97.5	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Iron	4930	ug/L	5000	ug/L	98.5	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Magnesium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Manganese	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Potassium	4830	ug/L	5000	ug/L	96.6	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Silica	5220	ug/L	5350	ug/L	97.7	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Sodium	9860	ug/L	10000	ug/L	98.6	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Strontium	506	ug/L	500	ug/L	101.2	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Tin	484	ug/L	500	ug/L	96.7	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Vanadium	498	ug/L	500	ug/L	99.6	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Zinc	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	29–MAR–10 19:31	032910C–1
	Antimony	53.6	ug/L	50	ug/L	107.2	90.0 – 110.0	MS	07–MAY–10 15:33	100506–2
	Arsenic	54.1	ug/L	50	ug/L	108.2	90.0 – 110.0	MS	07–MAY–10 15:33	100506–2
	Cadmium	53.3	ug/L	50	ug/L	106.6	90.0 – 110.0	MS	07–MAY–10 15:33	100506–2
	Chromium	52.4	ug/L	50	ug/L	104.7	90.0 – 110.0	MS	07–MAY–10 15:33	100506–2
	Lead	54.1	ug/L	50	ug/L	108.1	90.0 – 110.0	MS	07–MAY–10 15:33	100506–2
	Molybdenum	52.1	ug/L	50	ug/L	104.2	90.0 – 110.0	MS	07–MAY–10 15:33	100506–2
	Selenium	54.4	ug/L	50	ug/L	108.7	90.0 – 110.0	MS	07–MAY–10 15:33	100506–2
	Silver	53.3	ug/L	50	ug/L	106.5	90.0 – 110.0	MS	07–MAY–10 15:33	100506–2
	Thallium	52.9	ug/L	50	ug/L	105.8	90.0 – 110.0	MS	07–MAY–10 15:33	100506–2
	Uranium	48.5	ug/L	50	ug/L	96.9	90.0 – 110.0	MS	08–MAY–10 06:28	100507–3
	Nickel	50.8	ug/L	50	ug/L	101.6	90.0 – 110.0	MS	08–MAY–10 14:35	100507–7

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2058

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV04										
	Mercury	5.02	ug/L	5	ug/L	100.3	80.0 – 120.0	AV	02–MAR–10 09:54	030210W3–8
	Aluminum	5160	ug/L	5000	ug/L	103.1	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Barium	498	ug/L	500	ug/L	99.5	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Beryllium	504	ug/L	500	ug/L	100.9	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Boron	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Calcium	4950	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Cobalt	486	ug/L	500	ug/L	97.1	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Copper	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Iron	4910	ug/L	5000	ug/L	98.3	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Magnesium	5060	ug/L	5000	ug/L	101.2	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Manganese	490	ug/L	500	ug/L	98	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Potassium	4830	ug/L	5000	ug/L	96.7	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Silica	5220	ug/L	5350	ug/L	97.6	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Sodium	9860	ug/L	10000	ug/L	98.6	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Strontium	506	ug/L	500	ug/L	101.3	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Tin	487	ug/L	500	ug/L	97.4	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Vanadium	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Zinc	479	ug/L	500	ug/L	95.8	90.0 – 110.0	P	29–MAR–10 19:52	032910C–1
	Antimony	53.3	ug/L	50	ug/L	106.6	90.0 – 110.0	MS	07–MAY–10 16:19	100506–2
	Arsenic	53.3	ug/L	50	ug/L	106.6	90.0 – 110.0	MS	07–MAY–10 16:19	100506–2
	Cadmium	53.1	ug/L	50	ug/L	106.3	90.0 – 110.0	MS	07–MAY–10 16:19	100506–2
	Chromium	51.1	ug/L	50	ug/L	102.2	90.0 – 110.0	MS	07–MAY–10 16:19	100506–2
	Lead	54.7	ug/L	50	ug/L	109.4	90.0 – 110.0	MS	07–MAY–10 16:19	100506–2
	Molybdenum	52.2	ug/L	50	ug/L	104.3	90.0 – 110.0	MS	07–MAY–10 16:19	100506–2
	Selenium	53.8	ug/L	50	ug/L	107.6	90.0 – 110.0	MS	07–MAY–10 16:19	100506–2
	Silver	54.3	ug/L	50	ug/L	108.7	90.0 – 110.0	MS	07–MAY–10 16:19	100506–2
	Thallium	53.9	ug/L	50	ug/L	107.7	90.0 – 110.0	MS	07–MAY–10 16:19	100506–2
CCV05										
	Mercury	5	ug/L	5	ug/L	99.9	80.0 – 120.0	AV	02–MAR–10 10:17	030210W3–8
	Aluminum	5180	ug/L	5000	ug/L	103.6	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1

METALS
–2a–
Initial and Continuing Calibration Verification

SDG No: 10–2058

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Barium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Beryllium	510	ug/L	500	ug/L	101.9	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Boron	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Calcium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Cobalt	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Copper	495	ug/L	500	ug/L	99	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Iron	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Magnesium	5040	ug/L	5000	ug/L	100.7	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Manganese	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Potassium	4780	ug/L	5000	ug/L	95.7	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Silica	5250	ug/L	5350	ug/L	98.2	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Sodium	9800	ug/L	10000	ug/L	98	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Strontium	506	ug/L	500	ug/L	101.1	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Tin	491	ug/L	500	ug/L	98.2	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Vanadium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
	Zinc	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	29–MAR–10 20:14	032910C–1
CCV06										
	Mercury	5.06	ug/L	5	ug/L	101.2	80.0 – 120.0	AV	02–MAR–10 10:41	030210W3–8
	Aluminum	5180	ug/L	5000	ug/L	103.7	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Barium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Beryllium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Boron	477	ug/L	500	ug/L	95.4	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Calcium	4890	ug/L	5000	ug/L	97.8	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Cobalt	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Copper	493	ug/L	500	ug/L	98.7	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Iron	4870	ug/L	5000	ug/L	97.5	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Magnesium	5020	ug/L	5000	ug/L	100.3	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Manganese	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Potassium	4730	ug/L	5000	ug/L	94.6	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Silica	5210	ug/L	5350	ug/L	97.4	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–2058

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	9760	ug/L	10000	ug/L	97.6	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Strontium	500	ug/L	500	ug/L	100	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Tin	485	ug/L	500	ug/L	97.1	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Vanadium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
	Zinc	478	ug/L	500	ug/L	95.7	90.0 – 110.0	P	29–MAR–10 20:39	032910C–1
CCV07										
	Mercury	5.01	ug/L	5	ug/L	100.3	80.0 – 120.0	AV	02–MAR–10 11:04	030210W3–8
	Aluminum	5210	ug/L	5000	ug/L	104.3	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Barium	500	ug/L	500	ug/L	100.1	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Beryllium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Boron	477	ug/L	500	ug/L	95.5	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Calcium	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Copper	494	ug/L	500	ug/L	98.8	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Iron	4910	ug/L	5000	ug/L	98.2	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Magnesium	5070	ug/L	5000	ug/L	101.4	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Manganese	491	ug/L	500	ug/L	98.1	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Potassium	4790	ug/L	5000	ug/L	95.9	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Silica	5210	ug/L	5350	ug/L	97.4	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Sodium	9820	ug/L	10000	ug/L	98.3	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Strontium	509	ug/L	500	ug/L	101.7	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Tin	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Vanadium	499	ug/L	500	ug/L	99.8	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
	Zinc	478	ug/L	500	ug/L	95.6	90.0 – 110.0	P	29–MAR–10 21:03	032910C–1
CCV08										
	Aluminum	5260	ug/L	5000	ug/L	105.2	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Barium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Beryllium	512	ug/L	500	ug/L	102.4	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Boron	479	ug/L	500	ug/L	95.9	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Calcium	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–2058

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Cobalt	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Copper	494	ug/L	500	ug/L	98.9	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Iron	4930	ug/L	5000	ug/L	98.6	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Magnesium	5090	ug/L	5000	ug/L	101.7	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Manganese	492	ug/L	500	ug/L	98.4	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Potassium	4820	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Silica	5230	ug/L	5350	ug/L	97.8	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Sodium	9850	ug/L	10000	ug/L	98.5	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Strontium	507	ug/L	500	ug/L	101.4	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Tin	489	ug/L	500	ug/L	97.9	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Vanadium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
	Zinc	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	29–MAR–10 21:21	032910C–1
CCV09										
	Aluminum	5260	ug/L	5000	ug/L	105.1	90.0 – 110.0	P	29–MAR–10 21:41	032910C–1
	Barium	501	ug/L	500	ug/L	100.2	90.0 – 110.0	P	29–MAR–10 21:41	032910C–1
	Beryllium	510	ug/L	500	ug/L	102.1	90.0 – 110.0	P	29–MAR–10 21:41	032910C–1
	Boron	478	ug/L	500	ug/L	95.5	90.0 – 110.0	P	29–MAR–10 21:41	032910C–1
	Calcium	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	29–MAR–10 21:41	032910C–1
	Cobalt	486	ug/L	500	ug/L	97.2	90.0 – 110.0	P	29–MAR–10 21:41	032910C–1
	Copper	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	29–MAR–10 21:41	032910C–1
	Iron	4940	ug/L	5000	ug/L	98.7	90.0 – 110.0	P	29–MAR–10 21:41	032910C–1
	Magnesium	5080	ug/L	5000	ug/L	101.6	90.0 – 110.0	P	29–MAR–10 21:41	032910C–1
	Manganese	490	ug/L	500	ug/L	98	90.0 – 110.0	P	29–MAR–10 21:41	032910C–1
	Potassium	4830	ug/L	5000	ug/L	96.5	90.0 – 110.0	P	29–MAR–10 21:41	032910C–1
	Silica	5220	ug/L	5350	ug/L	97.6	90.0 – 110.0	P	29–MAR–10 21:41	032910C–1
	Sodium	9870	ug/L	10000	ug/L	98.7	90.0 – 110.0	P	29–MAR–10 21:41	032910C–1
	Strontium	511	ug/L	500	ug/L	102.2	90.0 – 110.0	P	29–MAR–10 21:41	032910C–1
	Tin	490	ug/L	500	ug/L	97.9	90.0 – 110.0	P	29–MAR–10 21:41	032910C–1
	Vanadium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	29–MAR–10 21:41	032910C–1
	Zinc	479	ug/L	500	ug/L	95.7	90.0 – 110.0	P	29–MAR–10 21:41	032910C–1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–2058

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
CCV10										
	Aluminum	5280	ug/L	5000	ug/L	105.6	90.0 – 110.0	P	29–MAR–10 22:01	032910C–1
	Barium	503	ug/L	500	ug/L	100.6	90.0 – 110.0	P	29–MAR–10 22:01	032910C–1
	Beryllium	513	ug/L	500	ug/L	102.7	90.0 – 110.0	P	29–MAR–10 22:01	032910C–1
	Boron	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	29–MAR–10 22:01	032910C–1
	Calcium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	29–MAR–10 22:01	032910C–1
	Cobalt	488	ug/L	500	ug/L	97.7	90.0 – 110.0	P	29–MAR–10 22:01	032910C–1
	Copper	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	29–MAR–10 22:01	032910C–1
	Iron	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	29–MAR–10 22:01	032910C–1
	Magnesium	5110	ug/L	5000	ug/L	102.2	90.0 – 110.0	P	29–MAR–10 22:01	032910C–1
	Manganese	492	ug/L	500	ug/L	98.3	90.0 – 110.0	P	29–MAR–10 22:01	032910C–1
	Potassium	4900	ug/L	5000	ug/L	98	90.0 – 110.0	P	29–MAR–10 22:01	032910C–1
	Silica	5230	ug/L	5350	ug/L	97.8	90.0 – 110.0	P	29–MAR–10 22:01	032910C–1
	Sodium	9910	ug/L	10000	ug/L	99.1	90.0 – 110.0	P	29–MAR–10 22:01	032910C–1
	Strontium	511	ug/L	500	ug/L	102.3	90.0 – 110.0	P	29–MAR–10 22:01	032910C–1
	Tin	491	ug/L	500	ug/L	98.3	90.0 – 110.0	P	29–MAR–10 22:01	032910C–1
	Vanadium	500	ug/L	500	ug/L	99.9	90.0 – 110.0	P	29–MAR–10 22:01	032910C–1
	Zinc	482	ug/L	500	ug/L	96.5	90.0 – 110.0	P	29–MAR–10 22:01	032910C–1
CCV11										
	Aluminum	5250	ug/L	5000	ug/L	104.9	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Barium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Beryllium	515	ug/L	500	ug/L	103	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Boron	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Calcium	4950	ug/L	5000	ug/L	99	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Cobalt	489	ug/L	500	ug/L	97.8	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Copper	496	ug/L	500	ug/L	99.3	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Iron	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Magnesium	5120	ug/L	5000	ug/L	102.3	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Manganese	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Potassium	4850	ug/L	5000	ug/L	96.9	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Silica	5250	ug/L	5350	ug/L	98.1	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1

METALS
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Initial and Continuing Calibration Verification

SDG No: 10–2058

Contract: ESHL01000 **Lab Code:** GEL

Initial Calibration Source: Solutions Plus

Continuing Calibration Source: O2Si

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	M	Analysis Date/Time	Run Number
	Sodium	9930	ug/L	10000	ug/L	99.3	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Strontium	508	ug/L	500	ug/L	101.5	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Tin	498	ug/L	500	ug/L	99.7	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Vanadium	502	ug/L	500	ug/L	100.4	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
	Zinc	481	ug/L	500	ug/L	96.3	90.0 – 110.0	P	29–MAR–10 22:19	032910C–1
CCV12										
	Aluminum	5270	ug/L	5000	ug/L	105.5	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Barium	505	ug/L	500	ug/L	101	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Beryllium	515	ug/L	500	ug/L	103	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Boron	480	ug/L	500	ug/L	96.1	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Calcium	4940	ug/L	5000	ug/L	98.8	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Cobalt	488	ug/L	500	ug/L	97.5	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Copper	497	ug/L	500	ug/L	99.4	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Iron	4940	ug/L	5000	ug/L	98.9	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Magnesium	5120	ug/L	5000	ug/L	102.4	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Manganese	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Potassium	4860	ug/L	5000	ug/L	97.2	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Silica	5250	ug/L	5350	ug/L	98.1	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Sodium	9910	ug/L	10000	ug/L	99.1	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Strontium	508	ug/L	500	ug/L	101.7	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Tin	493	ug/L	500	ug/L	98.6	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Vanadium	502	ug/L	500	ug/L	100.5	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1
	Zinc	481	ug/L	500	ug/L	96.2	90.0 – 110.0	P	29–MAR–10 22:42	032910C–1

METALS
–2b–
CRDL Standard for AA & ICP

SDG No: 10–2058

Contract: ESHL01000 **Lab Code:** GEL

AA CRDL Standard Source: SPEX

ICP CRDL Standard Source Solutions Plus

Instrument ID: HG3,ICPMS6,OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Advisory Limits (%R)	M	Analysis Date/Time	Run Number
CRDL01										
	Mercury	.24	ug/L	.2	ug/L	120	70.0 – 130.0	AV	02–MAR–10 08:43	030210W3–8
	Lead	2.32	ug/L	2	ug/L	115.8	70.0 – 130.0	MS	07–MAY–10 13:49	100506–2
	Silver	1	ug/L	1	ug/L	100.3	70.0 – 130.0	MS	07–MAY–10 13:49	100506–2
	Thallium	1.12	ug/L	1	ug/L	112.1	70.0 – 130.0	MS	07–MAY–10 13:49	100506–2
	Cadmium	1.15	ug/L	1	ug/L	114.6	70.0 – 130.0	MS	07–MAY–10 13:49	100506–2
	Arsenic	5.73	ug/L	5	ug/L	114.6	70.0 – 130.0	MS	07–MAY–10 13:49	100506–2
	Antimony	3.15	ug/L	3	ug/L	105.1	70.0 – 130.0	MS	07–MAY–10 13:49	100506–2
	Chromium	11.6	ug/L	10	ug/L	116.3	70.0 – 130.0	MS	07–MAY–10 13:49	100506–2
	Molybdenum	.551	ug/L	.5	ug/L	110.2	70.0 – 130.0	MS	07–MAY–10 13:49	100506–2
	Selenium	6.48	ug/L	5	ug/L	129.6	70.0 – 130.0	MS	07–MAY–10 13:49	100506–2
	Uranium	.259	ug/L	.2	ug/L	129.5	70.0 – 130.0	MS	08–MAY–10 05:09	100507–3
	Nickel	2.22	ug/L	2	ug/L	110.9	70.0 – 130.0	MS	08–MAY–10 13:20	100507–7
PQL01										
	Manganese	10.3	ug/L	10	ug/L	103.4	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Potassium	170	ug/L	150	ug/L	113.4	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Sodium	260	ug/L	300	ug/L	86.8	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Barium	5.16	ug/L	5	ug/L	103.1	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Beryllium	5.02	ug/L	5	ug/L	100.4	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Cobalt	5.14	ug/L	5	ug/L	102.7	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Iron	103	ug/L	100	ug/L	103.4	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Aluminum	201	ug/L	200	ug/L	100.4	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Silica	213	ug/L	213	ug/L	99.9	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Magnesium	303	ug/L	300	ug/L	101.1	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Copper	10.1	ug/L	10	ug/L	101.4	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Vanadium	4.53	ug/L	5	ug/L	90.6	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Zinc	9.92	ug/L	10	ug/L	99.2	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Calcium	204	ug/L	200	ug/L	101.8	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Boron	46.1	ug/L	50	ug/L	92.3	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Tin	9.94	ug/L	10	ug/L	99.4	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1
	Strontium	5.84	ug/L	5	ug/L	116.9	70.0 – 130.0	P	29–MAR–10 18:40	032910C–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2058

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
ICB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 08:41	030210W3–8
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 18:37	032910C–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:37	032910C–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:37	032910C–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 18:37	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 18:37	032910C–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:37	032910C–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 18:37	032910C–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 18:37	032910C–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 18:37	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 18:37	032910C–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	29–MAR–10 18:37	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 18:37	032910C–1
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 18:37	032910C–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:37	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 18:37	032910C–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:37	032910C–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 18:37	032910C–1
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	07–MAY–10 13:42	100506–2
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	07–MAY–10 13:42	100506–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	07–MAY–10 13:42	100506–2
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	07–MAY–10 13:42	100506–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	07–MAY–10 13:42	100506–2
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	07–MAY–10 13:42	100506–2
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	07–MAY–10 13:42	100506–2
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	07–MAY–10 13:42	100506–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	07–MAY–10 13:42	100506–2
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	08–MAY–10 05:05	100507–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	08–MAY–10 13:17	100507–7
CCB01										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 08:47	030210W3–8

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2058

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 18:51	032910C–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:51	032910C–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:51	032910C–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 18:51	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 18:51	032910C–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:51	032910C–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 18:51	032910C–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 18:51	032910C–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 18:51	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 18:51	032910C–1
	Potassium	152.39	+/–150		50.0	150	LIQ	P	29–MAR–10 18:51	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 18:51	032910C–1
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 18:51	032910C–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:51	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 18:51	032910C–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:51	032910C–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 18:51	032910C–1
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	07–MAY–10 14:15	100506–2
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	07–MAY–10 14:15	100506–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	07–MAY–10 14:15	100506–2
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	07–MAY–10 14:15	100506–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	07–MAY–10 14:15	100506–2
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	07–MAY–10 14:15	100506–2
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	07–MAY–10 14:15	100506–2
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	07–MAY–10 14:15	100506–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	07–MAY–10 14:15	100506–2
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	08–MAY–10 05:24	100507–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	08–MAY–10 13:34	100507–7
CCB02										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 09:10	030210W3–8
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 18:59	032910C–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2058

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:59	032910C–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:59	032910C–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 18:59	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 18:59	032910C–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:59	032910C–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 18:59	032910C–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 18:59	032910C–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 18:59	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 18:59	032910C–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	29–MAR–10 18:59	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 18:59	032910C–1
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 18:59	032910C–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:59	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 18:59	032910C–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 18:59	032910C–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 18:59	032910C–1
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	07–MAY–10 14:35	100506–2
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	07–MAY–10 14:35	100506–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	07–MAY–10 14:35	100506–2
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	07–MAY–10 14:35	100506–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	07–MAY–10 14:35	100506–2
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	07–MAY–10 14:35	100506–2
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	07–MAY–10 14:35	100506–2
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	07–MAY–10 14:35	100506–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	07–MAY–10 14:35	100506–2
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	08–MAY–10 06:05	100507–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	08–MAY–10 14:12	100507–7
CCB03										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 09:33	030210W3–8
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 19:33	032910C–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 19:33	032910C–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2058

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 19:33	032910C–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 19:33	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 19:33	032910C–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 19:33	032910C–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 19:33	032910C–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 19:33	032910C–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 19:33	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 19:33	032910C–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	29–MAR–10 19:33	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 19:33	032910C–1
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 19:33	032910C–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 19:33	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 19:33	032910C–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 19:33	032910C–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 19:33	032910C–1
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	07–MAY–10 15:40	100506–2
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	07–MAY–10 15:40	100506–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	07–MAY–10 15:40	100506–2
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	07–MAY–10 15:40	100506–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	07–MAY–10 15:40	100506–2
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	07–MAY–10 15:40	100506–2
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	07–MAY–10 15:40	100506–2
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	07–MAY–10 15:40	100506–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	07–MAY–10 15:40	100506–2
	Uranium	0.05	+/–.2	U	0.05	0.2	LIQ	MS	08–MAY–10 06:32	100507–3
	Nickel	0.5	+/–2	U	0.5	2.0	LIQ	MS	08–MAY–10 14:38	100507–7
CCB04										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 09:56	030210W3–8
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 19:54	032910C–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 19:54	032910C–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 19:54	032910C–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2058

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 19:54	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 19:54	032910C–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 19:54	032910C–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 19:54	032910C–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 19:54	032910C–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 19:54	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 19:54	032910C–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	29–MAR–10 19:54	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 19:54	032910C–1
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 19:54	032910C–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 19:54	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 19:54	032910C–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 19:54	032910C–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 19:54	032910C–1
	Antimony	0.5	+/–3	U	0.5	3.0	LIQ	MS	07–MAY–10 16:25	100506–2
	Arsenic	1.5	+/–5	U	1.5	5.0	LIQ	MS	07–MAY–10 16:25	100506–2
	Cadmium	0.11	+/–1	U	0.11	1.0	LIQ	MS	07–MAY–10 16:25	100506–2
	Chromium	2.5	+/–10	U	2.5	10.0	LIQ	MS	07–MAY–10 16:25	100506–2
	Lead	0.5	+/–2	U	0.5	2.0	LIQ	MS	07–MAY–10 16:25	100506–2
	Molybdenum	0.1	+/–.5	U	0.1	0.5	LIQ	MS	07–MAY–10 16:25	100506–2
	Selenium	1.0	+/–5	U	1.0	5.0	LIQ	MS	07–MAY–10 16:25	100506–2
	Silver	0.2	+/–1	U	0.2	1.0	LIQ	MS	07–MAY–10 16:25	100506–2
	Thallium	0.3	+/–1	U	0.3	1.0	LIQ	MS	07–MAY–10 16:25	100506–2
CCB05										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 10:19	030210W3–8
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 20:16	032910C–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 20:16	032910C–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 20:16	032910C–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 20:16	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 20:16	032910C–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 20:16	032910C–1

Metals
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Initial and Continuing Calibration Blank Summary

SDG No.: 10–2058

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 20:16	032910C–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 20:16	032910C–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 20:16	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 20:16	032910C–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	29–MAR–10 20:16	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 20:16	032910C–1
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 20:16	032910C–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 20:16	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 20:16	032910C–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 20:16	032910C–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 20:16	032910C–1
CCB06										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 10:42	030210W3–8
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 20:41	032910C–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 20:41	032910C–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 20:41	032910C–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 20:41	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 20:41	032910C–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 20:41	032910C–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 20:41	032910C–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 20:41	032910C–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 20:41	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 20:41	032910C–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	29–MAR–10 20:41	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 20:41	032910C–1
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 20:41	032910C–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 20:41	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 20:41	032910C–1
	Vanadium	–1.05	+/–5	J	1.0	5.0	LIQ	P	29–MAR–10 20:41	032910C–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 20:41	032910C–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2058

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
CCB07										
	Mercury	0.066	+/–.2	U	0.066	0.2	LIQ	AV	02–MAR–10 11:06	030210W3–8
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 21:05	032910C–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:05	032910C–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:05	032910C–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 21:05	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 21:05	032910C–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:05	032910C–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 21:05	032910C–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 21:05	032910C–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 21:05	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 21:05	032910C–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	29–MAR–10 21:05	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 21:05	032910C–1
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 21:05	032910C–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:05	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 21:05	032910C–1
	Vanadium	–1.02	+/–5	J	1.0	5.0	LIQ	P	29–MAR–10 21:05	032910C–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 21:05	032910C–1
CCB08										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 21:23	032910C–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:23	032910C–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:23	032910C–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 21:23	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 21:23	032910C–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:23	032910C–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 21:23	032910C–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 21:23	032910C–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 21:23	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 21:23	032910C–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	29–MAR–10 21:23	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 21:23	032910C–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2058

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 21:23	032910C–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:23	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 21:23	032910C–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:23	032910C–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 21:23	032910C–1
CCB09										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 21:43	032910C–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:43	032910C–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:43	032910C–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 21:43	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 21:43	032910C–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:43	032910C–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 21:43	032910C–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 21:43	032910C–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 21:43	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 21:43	032910C–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	29–MAR–10 21:43	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 21:43	032910C–1
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 21:43	032910C–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:43	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 21:43	032910C–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 21:43	032910C–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 21:43	032910C–1
CCB10										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 22:03	032910C–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:03	032910C–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:03	032910C–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 22:03	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 22:03	032910C–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:03	032910C–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 22:03	032910C–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2058

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 22:03	032910C–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 22:03	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 22:03	032910C–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	29–MAR–10 22:03	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 22:03	032910C–1
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 22:03	032910C–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:03	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 22:03	032910C–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:03	032910C–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 22:03	032910C–1
CCB11										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 22:21	032910C–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:21	032910C–1
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:21	032910C–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 22:21	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 22:21	032910C–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:21	032910C–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 22:21	032910C–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 22:21	032910C–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 22:21	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 22:21	032910C–1
	Potassium	50.0	+/–150	U	50.0	150	LIQ	P	29–MAR–10 22:21	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 22:21	032910C–1
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 22:21	032910C–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:21	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 22:21	032910C–1
	Vanadium	–1.16	+/–5	J	1.0	5.0	LIQ	P	29–MAR–10 22:21	032910C–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 22:21	032910C–1
CCB12										
	Aluminum	68.0	+/–200	U	68.0	200	LIQ	P	29–MAR–10 22:44	032910C–1
	Barium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:44	032910C–1

Metals
–3a–
Initial and Continuing Calibration Blank Summary

SDG No.: 10–2058

Contract: ESHL01000

Lab Code: GEL

Sample ID	Analyte	Result ug/L	Acceptance	Conc Qual	MDL	RDL	Matrix	M	Analysis Date/Time	Run
	Beryllium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:44	032910C–1
	Boron	15.0	+/–50	U	15.0	50.0	LIQ	P	29–MAR–10 22:44	032910C–1
	Calcium	50.0	+/–200	U	50.0	200	LIQ	P	29–MAR–10 22:44	032910C–1
	Cobalt	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:44	032910C–1
	Copper	3.0	+/–10	U	3.0	10.0	LIQ	P	29–MAR–10 22:44	032910C–1
	Iron	30.0	+/–100	U	30.0	100	LIQ	P	29–MAR–10 22:44	032910C–1
	Magnesium	85.0	+/–300	U	85.0	300	LIQ	P	29–MAR–10 22:44	032910C–1
	Manganese	2.0	+/–10	U	2.0	10.0	LIQ	P	29–MAR–10 22:44	032910C–1
	Potassium	–50.36	+/–150	J	50.0	150	LIQ	P	29–MAR–10 22:44	032910C–1
	Silica	53.0	+/–213	U	53.0	213	LIQ	P	29–MAR–10 22:44	032910C–1
	Sodium	100	+/–300	U	100	300	LIQ	P	29–MAR–10 22:44	032910C–1
	Strontium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:44	032910C–1
	Tin	2.5	+/–10	U	2.5	10.0	LIQ	P	29–MAR–10 22:44	032910C–1
	Vanadium	1.0	+/–5	U	1.0	5.0	LIQ	P	29–MAR–10 22:44	032910C–1
	Zinc	3.3	+/–10	U	3.3	10.0	LIQ	P	29–MAR–10 22:44	032910C–1

METALS
–3b–
PREPARATION BLANK SUMMARY

SDG NO. 10–2058
Contract: ESHL01000
Matrix: GROUND WATER

Sample ID	Analyte	Result	Units	Acceptance Window	Conc Qual	M	MDL	RDL
1202055843								
	Mercury	0.066	ug/L	+/–0.2	U	AV	0.066	0.2
1202056945								
	Aluminum	68	ug/L	+/–200	U	P	68	200
	Barium	1	ug/L	+/–5	U	P	1	5
	Beryllium	1	ug/L	+/–5	U	P	1	5
	Boron	15	ug/L	+/–50	U	P	15	50
	Calcium	50	ug/L	+/–200	U	P	50	200
	Cobalt	1	ug/L	+/–5	U	P	1	5
	Copper	3	ug/L	+/–10	U	P	3	10
	Iron	30	ug/L	+/–100	U	P	30	100
	Magnesium	85	ug/L	+/–300	U	P	85	300
	Manganese	2	ug/L	+/–10	U	P	2	10
	Potassium	50	ug/L	+/–150	U	P	50	150
	Silica	0.053	mg/L	+/–0.213	U	P	0.053	0.213
	Sodium	100	ug/L	+/–300	U	P	100	300
	Strontium	1	ug/L	+/–5	U	P	1	5
	Tin	2.5	ug/L	+/–10	U	P	2.5	10
	Vanadium	1	ug/L	+/–5	U	P	1	5
	Zinc	3.3	ug/L	+/–10	U	P	3.3	10
1202056952								
	Antimony	0.5	ug/L	+/–3	U	MS	0.5	3
	Arsenic	1.5	ug/L	+/–5	U	MS	1.5	5
	Cadmium	0.11	ug/L	+/–1	U	MS	0.11	1
	Chromium	2.5	ug/L	+/–10	U	MS	2.5	10
	Lead	0.5	ug/L	+/–2	U	MS	0.5	2
	Molybdenum	0.1	ug/L	+/–0.5	U	MS	0.1	0.5
	Nickel	0.5	ug/L	+/–2	U	MS	0.5	2
	Selenium	1	ug/L	+/–5	U	MS	1	5
	Silver	0.2	ug/L	+/–1	U	MS	0.2	1
	Thallium	0.3	ug/L	+/–1	U	MS	0.3	1
	Uranium	0.05	ug/L	+/–0.2	U	MS	0.05	0.2

METALS
–4–
Interference Check Sample

SDG No: 10–2058

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: OPTIMA4

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Aluminum	511000	ug/L	500000	ug/L	102	80.0 – 120.0	29–MAR–10 18:43	032910C–1
	Barium	0.49	ug/L					29–MAR–10 18:43	032910C–1
	Beryllium	–0.031	ug/L					29–MAR–10 18:43	032910C–1
	Boron	1.67	ug/L					29–MAR–10 18:43	032910C–1
	Calcium	479000	ug/L	500000	ug/L	95.7	80.0 – 120.0	29–MAR–10 18:43	032910C–1
	Cobalt	–6.27	ug/L					29–MAR–10 18:43	032910C–1
	Copper	–2.45	ug/L					29–MAR–10 18:43	032910C–1
	Iron	189000	ug/L	200000	ug/L	94.6	80.0 – 120.0	29–MAR–10 18:43	032910C–1
	Magnesium	481000	ug/L	500000	ug/L	96.2	80.0 – 120.0	29–MAR–10 18:43	032910C–1
	Manganese	2.08	ug/L					29–MAR–10 18:43	032910C–1
	Potassium	–157.0	ug/L					29–MAR–10 18:43	032910C–1
	Silica	6.55	ug/L					29–MAR–10 18:43	032910C–1
	Sodium	12.5	ug/L					29–MAR–10 18:43	032910C–1
	Strontium	0.29	ug/L					29–MAR–10 18:43	032910C–1
	Tin	0.508	ug/L					29–MAR–10 18:43	032910C–1
	Vanadium	1.57	ug/L					29–MAR–10 18:43	032910C–1
	Zinc	7.6	ug/L					29–MAR–10 18:43	032910C–1
ICSAB01									
	Aluminum	520000	ug/L	500000	ug/L	104	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Barium	500	ug/L	500	ug/L	100	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Beryllium	246	ug/L	250	ug/L	98.4	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Boron	514	ug/L	500	ug/L	103	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Calcium	487000	ug/L	500000	ug/L	97.4	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Cobalt	437	ug/L	500	ug/L	87.5	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Copper	537	ug/L	500	ug/L	107	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Iron	191000	ug/L	200000	ug/L	95.3	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Magnesium	483000	ug/L	500000	ug/L	96.6	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Manganese	478	ug/L	500	ug/L	95.7	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Potassium	5450	ug/L	5000	ug/L	109	80.0 – 120.0	29–MAR–10 18:45	032910C–1

METALS
–4–
Interference Check Sample

SDG No: 10–2058

Contract: ESHL01000 **Lab Code:** GEL

ICS:

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
	Silica	11000	ug/L	10700	ug/L	103	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Sodium	5320	ug/L	5000	ug/L	106	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Strontium	518	ug/L	500	ug/L	104	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Tin	476	ug/L	500	ug/L	95.2	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Vanadium	517	ug/L	500	ug/L	103	80.0 – 120.0	29–MAR–10 18:45	032910C–1
	Zinc	484	ug/L	500	ug/L	96.8	80.0 – 120.0	29–MAR–10 18:45	032910C–1

METALS
–4–
Interference Check Sample

SDG No: 10–2058

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Antimony	0.051	ug/L					07–MAY–10 13:55	100506–2
	Arsenic	0.564	ug/L					07–MAY–10 13:55	100506–2
	Cadmium	0.429	ug/L					07–MAY–10 13:55	100506–2
	Chromium	2.76	ug/L					07–MAY–10 13:55	100506–2
	Lead	0.248	ug/L					07–MAY–10 13:55	100506–2
	Molybdenum	2310	ug/L	2000	ug/L	116	80.0 – 120.0	07–MAY–10 13:55	100506–2
	Selenium	–0.79	ug/L					07–MAY–10 13:55	100506–2
	Silver	0.102	ug/L					07–MAY–10 13:55	100506–2
	Thallium	0.004	ug/L					07–MAY–10 13:55	100506–2
ICSAB01									
	Antimony	21.8	ug/L	20	ug/L	109	80.0 – 120.0	07–MAY–10 14:02	100506–2
	Arsenic	21.7	ug/L	20	ug/L	109	80.0 – 120.0	07–MAY–10 14:02	100506–2
	Cadmium	22.1	ug/L	20.44	ug/L	108	80.0 – 120.0	07–MAY–10 14:02	100506–2
	Chromium	24.4	ug/L	23.3	ug/L	105	80.0 – 120.0	07–MAY–10 14:02	100506–2
	Lead	21.5	ug/L	20.19	ug/L	107	80.0 – 120.0	07–MAY–10 14:02	100506–2
	Molybdenum	2280	ug/L	2000	ug/L	114	80.0 – 120.0	07–MAY–10 14:02	100506–2
	Selenium	22.2	ug/L	20	ug/L	111	80.0 – 120.0	07–MAY–10 14:02	100506–2
	Silver	21.2	ug/L	20	ug/L	106	80.0 – 120.0	07–MAY–10 14:02	100506–2
	Thallium	20.6	ug/L	20	ug/L	103	80.0 – 120.0	07–MAY–10 14:02	100506–2

METALS
–4–
Interference Check Sample

SDG No: 10–2058

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Uranium	0.001	ug/L					08–MAY–10 05:13	100507–3
ICSAB01									
	Uranium	20.6	ug/L	20	ug/L	103	80.0 – 120.0	08–MAY–10 05:16	100507–3

METALS
–4–
Interference Check Sample

SDG No: 10–2058

Contract: ESHL01000 **Lab Code:** GEL

ICS: O2Si

Instrument: ICPMS6

Sample ID	Analyte	Result	Units	True Value	Units	% Recovery	Acceptance Window (%R)	Analysis Date/Time	Run Number
ICSA01									
	Nickel	2.36	ug/L					08–MAY–10 13:24	100507–7
ICSAB01									
	Nickel	21.1	ug/L	23.31	ug/L	90.5	80.0 – 120.0	08–MAY–10 13:27	100507–7

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2058 **Client ID** CAPA–10–12770S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 248044001 **Spike ID:** 1202055846

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	ug/L	75–125	2.15		0.066	U	2	106		AV

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2058 **Client ID** CAPA–10–12770S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 248044001 **Spike ID:** 1202056948

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75–125	6270		890		5000	108		P
Barium	ug/L	75–125	593		82.1		500	102		P
Beryllium	ug/L	75–125	520		1	U	500	104		P
Boron	ug/L	75–125	506		15	U	500	98.5		P
Calcium	ug/L	75–125	18700		13800		5000	98.1		P
Cobalt	ug/L	75–125	477		1	U	500	95.3		P
Copper	ug/L	75–125	510		3	U	500	102		P
Iron	ug/L	75–125	5360		404		5000	99.2		P
Magnesium	ug/L	75–125	9850		4700		5000	103		P
Manganese	ug/L	75–125	491		4.02	J	500	97.3		P
Potassium	ug/L	75–125	8290		3360		5000	98.5		P
Silica	mg/L	75–125	45		33.3		10.7	109		P
Sodium	ug/L	75–125	21000		16000		5000	99.2		P
Strontium	ug/L	75–125	613		107		500	101		P
Tin	ug/L	75–125	499		2.5	U	500	99.8		P
Vanadium	ug/L	75–125	511		1	U	500	102		P
Zinc	ug/L	75–125	476		3.3	U	500	94.6		P

METALS
–5a–

Matrix Spike Summary

SDG NO. 10–2058 **Client ID** CAPA–10–12916S

Contract: ESHL01000 **Level:** Low

Matrix: GROUND WATER **% Solids:**

Sample ID: 248023001 **Spike ID:** 1202056955

Analyte	Units	Acceptance Limit	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Selenium	ug/L	75–125	20.1		1	U	20	101		MS
Silver	ug/L	75–125	57.3		0.2	U	50	115		MS
Thallium	ug/L	75–125	104		0.3	U	100	103		MS
Uranium	ug/L	75–125	48		0.29		50	95.5		MS
Antimony	ug/L	75–125	220		0.5	U	200	110		MS
Arsenic	ug/L	75–125	86.4		1.5	U	80	108		MS
Cadmium	ug/L	75–125	11.8		0.11	U	10	118		MS
Chromium	ug/L	75–125	55.7		5	J	50	101		MS
Lead	ug/L	75–125	43.8		0.5	U	40	109		MS
Molybdenum	ug/L	75–125	57.3		2.33		50	110		MS
Nickel	ug/L	75–125	46.2		0.987	J	50	90.5		MS

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2058

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAPA–10–12770D

Sample ID: 248044001 **Duplicate ID:** 1202055845 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	ug/L		0.066	U	0.066	U			AV

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2058

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAPA–10–12770D

Sample ID: 248044001 **Duplicate ID:** 1202056947 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	+/–200	890		888		.274		P
Barium	ug/L	+/–20%	82.1		83.2		1.37		P
Beryllium	ug/L		1	U	1	U			P
Boron	ug/L		15	U	15	U			P
Calcium	ug/L	+/–20%	13800		13900		.759		P
Cobalt	ug/L		1	U	1	U			P
Copper	ug/L		3	U	3	U			P
Iron	ug/L	+/–100	404		414		2.31		P
Magnesium	ug/L	+/–20%	4700		4820		2.55		P
Manganese	ug/L	+/–10	4.02	J	4.04	J	.573		P
Potassium	ug/L	+/–20%	3360		3460		2.88		P
Silica	mg/L	+/–20%	33.3		33.8		1.28		P
Sodium	ug/L	+/–20%	16000		16200		1.14		P
Strontium	ug/L	+/–20%	107		108		.904		P
Tin	ug/L		2.5	U	2.5	U			P
Vanadium	ug/L		1	U	1	U			P
Zinc	ug/L		3.3	U	3.3	U			P

Metals
–6–
Duplicate Sample Summary

SDG No.: 10–2058

Contract: ESHL01000 **Lab Code:** GEL

Matrix: LIQUID **Level:** Low **Client ID:** CAPA–10–12916D

Sample ID: 248023001 **Duplicate ID:** 1202056954 **Percent Solids for Dup:** N/A

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Antimony	ug/L		0.5	U	0.5	U			MS
Arsenic	ug/L		1.5	U	1.5	U			MS
Cadmium	ug/L		0.11	U	0.11	U			MS
Chromium	ug/L	+/–10	5	J	5.17	J	3.32		MS
Lead	ug/L		0.5	U	0.5	U			MS
Molybdenum	ug/L	+/–.5	2.33		2.3		1.08		MS
Nickel	ug/L	+/–2	0.987	J	1.05	J	5.71		MS
Selenium	ug/L		1	U	1	U			MS
Silver	ug/L		0.2	U	0.2	U			MS
Thallium	ug/L		0.3	U	0.3	U			MS
Uranium	ug/L	+/–.2	0.29		0.295		1.71		MS

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2058

Contract: ESHL01000

Aqueous LCS Source:GEL **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202055844								
	Mercury	ug/L	2	2.17		109	85–115	AV

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2058

Contract: ESHL01000

Aqueous LCS Source: OS2I **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202056946								
	Barium	ug/L	500	522		104	80–120	P
	Beryllium	ug/L	500	524		105	80–120	P
	Boron	ug/L	500	487		97.3	80–120	P
	Calcium	ug/L	5000	5030		101	80–120	P
	Cobalt	ug/L	500	489		97.9	80–120	P
	Copper	ug/L	500	509		102	80–120	P
	Iron	ug/L	5000	5000		100	80–120	P
	Magnesium	ug/L	5000	5220		104	80–120	P
	Manganese	ug/L	500	499		99.8	80–120	P
	Potassium	ug/L	5000	4920		98.3	80–120	P
	Silica	mg/L	10.7	10.4		97.5	80–120	P
	Sodium	ug/L	5000	5020		100	80–120	P
	Strontium	ug/L	500	513		103	80–120	P
	Tin	ug/L	500	497		99.4	80–120	P
	Vanadium	ug/L	500	511		102	80–120	P
	Zinc	ug/L	500	480		96	80–120	P
	Aluminum	ug/L	5000	5370		107	80–120	P

METALS
–7–
Laboratory Control Sample Summary

SDG NO. 10–2058

Contract: ESHL01000

Aqueous LCS Source: O2si **Solid LCS Source:**

Sample ID	Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limit	M
1202056953								
	Antimony	ug/L	50	58		116	80–120	MS
	Arsenic	ug/L	50	57		114	80–120	MS
	Cadmium	ug/L	50	58		116	80–120	MS
	Chromium	ug/L	50	58.6		117	80–120	MS
	Lead	ug/L	50	58.4		117	80–120	MS
	Molybdenum	ug/L	50	58.1		116	80–120	MS
	Nickel	ug/L	50	48.6		97.1	80–120	MS
	Selenium	ug/L	50	58.8		118	80–120	MS
	Silver	ug/L	50	59.9		120	80–120	MS
	Thallium	ug/L	50	55.3		111	80–120	MS
	Uranium	ug/L	50	48.7		97.3	80–120	MS

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2058 **Client ID** CAPA–10–12770L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 248044001 **Serial Dilution ID:** 1202055847

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Mercury	.066	U	.33	U				AV

METALS
-9-
Serial Dilution Sample Summary

SDG NO. 10-2058 **Client ID** CAPA-10-12770L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 248044001 **Serial Dilution ID:** 1202056949

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Aluminum	890		930	J	4.49			P
Barium	82.1		83.5		1.71		10	P
Beryllium	1	U	5	U				P
Boron	15	U	75	U				P
Calcium	13800		13900		.725		10	P
Cobalt	1	U	5	U				P
Copper	3	U	15	U				P
Iron	404		435	J	7.55			P
Magnesium	4700		4840		2.87		10	P
Manganese	4.02	J	10	U	100			P
Potassium	3360		3530		5.06		10	P
Silica	33300		33000		.901		10	P
Sodium	16000		16600		3.44		10	P
Strontium	107		109		1.4		10	P
Tin	2.5	U	12.5	U				P
Vanadium	1	U	5	U				P
Zinc	3.3	U	16.5	U				P

METALS
–9–
Serial Dilution Sample Summary

SDG NO. 10–2058 **Client ID** CAPA–10–12916L

Contract: ESHL01000

Matrix: LIQUID **Level:** Low

Sample ID: 248023001 **Serial Dilution ID:** 1202056956

Analyte	Initial Value ug/L	C	Serial Value ug/L	C	% Difference	Qual	Acceptance Limit	M
Antimony	.5	U	2.5	U				MS
Arsenic	1.5	U	7.5	U				MS
Cadmium	.11	U	.55	U				MS
Chromium	5	J	12.5	U	100			MS
Lead	.5	U	2.5	U				MS
Molybdenum	2.33		2.12	J	9.01			MS
Nickel	.987	J	2.5	U	100			MS
Selenium	1	U	5	U				MS
Silver	.2	U	1	U				MS
Thallium	.3	U	1.5	U				MS
Uranium	.29		.3	J	3.45			MS

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2058 **Method Type:** P

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number 959136							
1202056945	MB for batch 959136	MB	G	06–MAR–10	50mL	50mL	
1202056946	LCS for batch 959136	LCS	G	06–MAR–10	50mL	50mL	
1202056948	CAPA–10–12770S	MS	G	06–MAR–10	50mL	50mL	
1202056947	CAPA–10–12770D	DUP	G	06–MAR–10	50mL	50mL	
248044001	CAPA–10–12770	SAMPLE	G	06–MAR–10	50mL	50mL	
248044002	CAPA–10–12771	SAMPLE	G	06–MAR–10	50mL	50mL	
248044003	CAPA–10–13082	SAMPLE	G	06–MAR–10	50mL	50mL	
248044004	CAPA–10–13083	SAMPLE	G	06–MAR–10	50mL	50mL	
248044005	CAPA–10–13085	SAMPLE	G	06–MAR–10	50mL	50mL	
248044006	CAPA–10–13320	SAMPLE	G	06–MAR–10	50mL	50mL	

METALS
–13–
SAMPLE PREPARATION SUMMARY

SDG No: 10–2058 **Method Type:** MS

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	959138						
1202056952	MB for batch 959138	MB	G	06–MAR–10	50mL	50mL	
1202056953	LCS for batch 959138	LCS	G	06–MAR–10	50mL	50mL	
1202056955	CAPA–10–12916S	MS	G	06–MAR–10	50mL	50mL	
1202056954	CAPA–10–12916D	DUP	G	06–MAR–10	50mL	50mL	
248044001	CAPA–10–12770	SAMPLE	G	06–MAR–10	50mL	50mL	
248044002	CAPA–10–12771	SAMPLE	G	06–MAR–10	50mL	50mL	
248044003	CAPA–10–13082	SAMPLE	G	06–MAR–10	50mL	50mL	
248044004	CAPA–10–13083	SAMPLE	G	06–MAR–10	50mL	50mL	
248044005	CAPA–10–13085	SAMPLE	G	06–MAR–10	50mL	50mL	
248044006	CAPA–10–13320	SAMPLE	G	06–MAR–10	50mL	50mL	

METALS
-13-
SAMPLE PREPARATION SUMMARY

SDG No: 10-2058 **Method Type:** AV

Contract: ESHL01000 **Lab Code:** GEL

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size	Final Sample Volume	Percent Solids
Batch Number	958586						
1202055843	MB for batch 958586	MB	G	01-MAR-10	20mL	20mL	
1202055844	LCS for batch 958586	LCS	G	01-MAR-10	20mL	20mL	
1202055846	CAPA-10-12770S	MS	G	01-MAR-10	20mL	20mL	
1202055845	CAPA-10-12770D	DUP	G	01-MAR-10	20mL	20mL	
248044001	CAPA-10-12770	SAMPLE	G	01-MAR-10	20mL	20mL	
248044002	CAPA-10-12771	SAMPLE	G	01-MAR-10	20mL	20mL	
248044003	CAPA-10-13082	SAMPLE	G	01-MAR-10	20mL	20mL	
248044004	CAPA-10-13083	SAMPLE	G	01-MAR-10	20mL	20mL	
248044005	CAPA-10-13085	SAMPLE	G	01-MAR-10	20mL	20mL	
248044006	CAPA-10-13320	SAMPLE	G	01-MAR-10	20mL	20mL	

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 07–MAY–10
End Date: 07–MAY–10
Client Sdg: 10–2058
Method MS
Data File: 100506–2

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	13:16:00		X	X				X		X					X				X			X		X			X				
S10	1	13:23:00		X	X				X		X					X				X			X		X			X				
S100	1	13:29:00		X	X				X		X					X				X			X		X			X				
ICV01	1	13:36:00		X	X				X		X					X				X			X		X			X				
ICB01	1	13:42:00		X	X				X		X					X				X			X		X			X				
CRDL01	1	13:49:00		X	X				X		X					X				X			X		X			X				
ICSA01	1	13:55:00		X	X				X		X					X				X			X		X			X				
ICSAB01	1	14:02:00		X	X				X		X					X				X			X		X			X				
CCV01	1	14:08:00		X	X				X		X					X				X			X		X			X				
CCB01	1	14:15:00		X	X				X		X					X				X			X		X			X				
LR01	1	14:21:00		X	X				X		X					X				X			X		X			X				
CCV02	1	14:28:00		X	X				X		X					X				X			X		X			X				
CCB02	1	14:35:00		X	X				X		X					X				X			X		X			X				
1202056952	1	14:41:00		X	X				X		X					X				X			X		X			X				
1202056953	1	14:48:00		X	X				X		X					X				X			X		X			X				
ZZZZZZ	1	14:54:00																														
1202056954	1	15:01:00		X	X				X		X					X				X			X		X			X				
1202056955	1	15:07:00		X	X				X		X					X				X			X		X			X				
1202056956	5	15:14:00		X	X				X		X					X				X			X		X			X				
ZZZZZZ	1	15:20:00																														
248044001	1	15:27:00		X	X				X		X					X				X			X		X			X				
CCV03	1	15:33:00		X	X				X		X					X				X			X		X			X				
CCB03	1	15:40:00		X	X				X		X					X				X			X		X			X				
248044002	1	15:46:00		X	X				X		X					X				X			X		X			X				
248044003	1	15:53:00		X	X				X		X					X				X			X		X			X				
248044004	1	15:59:00		X	X				X		X					X				X			X		X			X				
248044005	1	16:06:00		X	X				X		X					X				X			X		X			X				
248044006	1	16:12:00		X	X				X		X					X				X			X		X			X				
CCV04	1	16:19:00		X	X				X		X					X				X			X		X			X				
CCB04	1	16:25:00		X	X				X		X					X				X			X		X			X				

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 08–MAY–10 **End Date:** 08–MAY–10

Client Sdg: 10–2058
Method MS
Data File: 100507–3

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	04:49:00																												X		
S10	1	04:53:00																												X		
S100	1	04:57:00																												X		
ICV01	1	05:01:00																												X		
ICB01	1	05:05:00																												X		
CRDL01	1	05:09:00																												X		
ICSA01	1	05:13:00																												X		
ICSAB01	1	05:16:00																												X		
CCV01	1	05:20:00																												X		
CCB01	1	05:24:00																												X		
1202056952	1	05:28:00																												X		
1202056953	1	05:34:00																												X		
ZZZZZZ	1	05:37:00																														
1202056954	1	05:41:00																												X		
1202056955	1	05:45:00																												X		
1202056956	5	05:49:00																												X		
ZZZZZZ	1	05:53:00																														
248044001	1	05:57:00																												X		
CCV02	1	06:01:00																												X		
CCB02	1	06:05:00																												X		
248044002	1	06:09:00																												X		
248044003	1	06:13:00																												X		
248044004	1	06:16:00																												X		
248044005	1	06:20:00																												X		
248044006	1	06:24:00																												X		
CCV03	1	06:28:00																												X		
CCB03	1	06:32:00																												X		

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: ICPMS6
Start Date: 08–MAY–10 **End Date:** 08–MAY–10

Client Sdg: 10–2058
Method MS
Data File: 100507–7

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	13:03:00																			X											
S10	1	13:07:00																			X											
S100	1	13:10:00																			X											
ICV01	1	13:13:00																			X											
ICB01	1	13:17:00																			X											
CRDL01	1	13:20:00																			X											
ICSA01	1	13:24:00																			X											
ICSAB01	1	13:27:00																			X											
CCV01	1	13:30:00																			X											
CCB01	1	13:34:00																			X											
1202056952	1	13:37:00																			X											
1202056953	1	13:41:00																			X											
ZZZZZZ	1	13:45:00																														
1202056954	1	13:49:00																			X											
1202056955	1	13:53:00																			X											
1202056956	5	13:57:00																			X											
ZZZZZZ	1	14:01:00																														
248044001	1	14:04:00																			X											
CCV02	1	14:08:00																			X											
CCB02	1	14:12:00																			X											
248044002	1	14:15:00																			X											
248044003	1	14:19:00																			X											
248044004	1	14:23:00																			X											
248044005	1	14:27:00																			X											
248044006	1	14:31:00																			X											
CCV03	1	14:35:00																			X											
CCB03	1	14:38:00																			X											

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: HG3
Start Date: 02–MAR–10 **End Date:** 02–MAR–10

Client Sdg: 10–2058
Method AV
Data File: 030210W3–8

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	08:28:00																	X													
S0.2	1	08:30:00																	X													
S0.5	1	08:31:00																	X													
S2.0	1	08:33:00																	X													
S5.0	1	08:35:00																	X													
S10.0	1	08:37:00																	X													
ICV01	1	08:39:00																	X													
ICB01	1	08:41:00																	X													
CRDL01	1	08:43:00																	X													
CCV01	1	08:45:00																	X													
CCB01	1	08:47:00																	X													
ZZZZZZ	1	08:49:00																														
ZZZZZZ	1	08:51:00																														
ZZZZZZ	1	08:53:00																														
ZZZZZZ	1	08:55:00																														
ZZZZZZ	1	08:57:00																														
ZZZZZZ	5	08:58:00																														
ZZZZZZ	1	09:00:00																														
ZZZZZZ	1	09:02:00																														
ZZZZZZ	1	09:04:00																														
ZZZZZZ	1	09:06:00																														
CCV02	1	09:08:00																	X													
CCB02	1	09:10:00																	X													
ZZZZZZ	1	09:12:00																														
ZZZZZZ	1	09:14:00																														
ZZZZZZ	1	09:16:00																														
ZZZZZZ	1	09:18:00																														
ZZZZZZ	1	09:20:00																														
ZZZZZZ	1	09:21:00																														
ZZZZZZ	1	09:23:00																														
ZZZZZZ	1	09:25:00																														
ZZZZZZ	5	09:27:00																														
ZZZZZZ	1	09:29:00																														
CCV03	1	09:31:00																	X													
CCB03	1	09:33:00																	X													
ZZZZZZ	1	09:35:00																														
ZZZZZZ	1	09:37:00																														
ZZZZZZ	1	09:39:00																														
ZZZZZZ	1	09:41:00																														
ZZZZZZ	1	09:43:00																														

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																														
ZZZZZZ	1	09:45:00																														
ZZZZZZ	1	09:47:00																														
ZZZZZZ	1	09:48:00																														
ZZZZZZ	1	09:50:00																														
ZZZZZZ	1	09:52:00																														
CCV04	1	09:54:00															X															
CCB04	1	09:56:00															X															
ZZZZZZ	1	09:58:00																														
ZZZZZZ	1	10:00:00																														
ZZZZZZ	1	10:02:00																														
ZZZZZZ	5	10:04:00																														
ZZZZZZ	1	10:06:00																														
ZZZZZZ	1	10:08:00																														
ZZZZZZ	1	10:10:00																														
ZZZZZZ	1	10:12:00																														
ZZZZZZ	1	10:13:00																														
ZZZZZZ	1	10:15:00																														
CCV05	1	10:17:00															X															
CCB05	1	10:19:00															X															
1202055843	1	10:21:00															X															
1202055844	1	10:23:00															X															
248044001	1	10:25:00															X															
1202055845	1	10:27:00															X															
1202055846	1	10:29:00															X															
1202055847	5	10:31:00															X															
248044002	1	10:33:00															X															
248044003	1	10:35:00															X															
248044004	1	10:37:00															X															
248044005	1	10:39:00															X															
CCV06	1	10:41:00															X															
CCB06	1	10:42:00															X															
248044006	1	10:44:00															X															
ZZZZZZ	1	10:46:00																														
ZZZZZZ	1	10:48:00																														
ZZZZZZ	1	10:50:00																														
ZZZZZZ	1	10:52:00																														
ZZZZZZ	1	10:54:00																														
ZZZZZZ	1	10:56:00																														
ZZZZZZ	1	10:58:00																														
ZZZZZZ	1	11:00:00																														

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
ZZZZZZ	5	11:02:00																														
CCV07	1	11:04:00																	X													
CCB07	1	11:06:00																	X													

Metals
–14–
Analysis Run Log

Contract: ESHL01000
Lab Code: GEL
Inst Name: OPTIMA4
Start Date: 29–MAR–10 **End Date:** 29–MAR–10

Client Sdg: 10–2058
Method P
Data File: 032910C–1

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
S0.0	1	18:25:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
S0.1	1	18:28:00				X	X	X				X	X					X				X		X			X		X		X	X
S0.5	1	18:30:00	X			X	X	X		X		X	X				X	X				X		X			X		X		X	X
SCAL	1	18:32:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
S10	1	18:34:00	X							X					X		X									X						
ICV01	1	18:35:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ICB01	1	18:37:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
PQL01	1	18:40:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ICSA01	1	18:43:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ICSAB01	1	18:45:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
LR01	1	18:46:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
LR02	1	18:48:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCV01	1	18:49:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB01	1	18:51:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCV02	1	18:57:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB02	1	18:59:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	19:17:00																														
ZZZZZZ	1	19:20:00																														
ZZZZZZ	1	19:21:00																														
ZZZZZZ	1	19:23:00																														
ZZZZZZ	1	19:25:00																														
ZZZZZZ	1	19:26:00																														
ZZZZZZ	5	19:29:00																														
CCV03	1	19:31:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB03	1	19:33:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	19:36:00																														
ZZZZZZ	1	19:38:00																														
ZZZZZZ	1	19:40:00																														
ZZZZZZ	1	19:42:00																														
ZZZZZZ	1	19:44:00																														
ZZZZZZ	1	19:46:00																														
ZZZZZZ	1	19:48:00																														
ZZZZZZ	1	19:50:00																														
CCV04	1	19:52:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB04	1	19:54:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	19:57:00																														
ZZZZZZ	1	19:59:00																														
ZZZZZZ	1	20:02:00																														
ZZZZZZ	1	20:04:00																														
ZZZZZZ	1	20:06:00																														

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time																														
ZZZZZZ	1	20:08:00																														
ZZZZZZ	1	20:10:00																														
ZZZZZZ	1	20:12:00																														
CCV05	1	20:14:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB05	1	20:16:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	20:20:00																														
ZZZZZZ	1	20:23:00																														
ZZZZZZ	1	20:25:00																														
ZZZZZZ	1	20:28:00																														
ZZZZZZ	1	20:31:00																														
ZZZZZZ	5	20:33:00																														
ZZZZZZ	1	20:36:00																														
CCV06	1	20:39:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB06	1	20:41:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	20:44:00																														
ZZZZZZ	1	20:47:00																														
ZZZZZZ	1	20:50:00																														
ZZZZZZ	1	20:52:00																														
ZZZZZZ	1	20:55:00																														
ZZZZZZ	1	20:57:00																														
ZZZZZZ	1	21:00:00																														
CCV07	1	21:03:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB07	1	21:05:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	21:08:00																														
ZZZZZZ	1	21:11:00																														
ZZZZZZ	1	21:12:00																														
ZZZZZZ	1	21:14:00																														
ZZZZZZ	1	21:16:00																														
ZZZZZZ	1	21:18:00																														
ZZZZZZ	5	21:19:00																														
CCV08	1	21:21:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB08	1	21:23:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	21:26:00																														
ZZZZZZ	1	21:28:00																														
ZZZZZZ	1	21:30:00																														
ZZZZZZ	1	21:32:00																														
ZZZZZZ	1	21:34:00																														
ZZZZZZ	1	21:37:00																														
ZZZZZZ	1	21:39:00																														
CCV09	1	21:41:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X

Metals
–14–
Analysis Run Log

Samp No.	D/F	Run Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu		Fe	Pb	Mg	Mn	Hg	Mo	Ni	K	Se	SiO2	Ag	Na	Sr	Tl	Sn	U	V	Zn
CCB09	1	21:43:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	21:46:00																														
ZZZZZZ	1	21:48:00																														
ZZZZZZ	1	21:50:00																														
ZZZZZZ	1	21:52:00																														
ZZZZZZ	1	21:54:00																														
ZZZZZZ	1	21:56:00																														
ZZZZZZ	1	21:58:00																														
CCV10	1	22:01:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB10	1	22:03:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
1202056945	1	22:06:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
1202056946	1	22:08:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
248044001	1	22:10:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
1202056947	1	22:13:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
1202056948	1	22:15:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
1202056949	5	22:17:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCV11	1	22:19:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB11	1	22:21:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
ZZZZZZ	1	22:24:00																														
ZZZZZZ	1	22:27:00																														
248044002	1	22:29:00	X			X	X	X		X		X	X		X		X	X				X				X	X		X		X	X
248044003	1	22:31:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
248044004	1	22:34:00	X			X	X	X		X		X	X		X		X	X				X				X	X		X		X	X
248044005	1	22:36:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
248044006	1	22:39:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCV12	1	22:42:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X
CCB12	1	22:44:00	X			X	X	X		X		X	X		X		X	X				X		X		X	X		X		X	X

Standards

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2058

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01–FEB–09
Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01–MAR–10

ICP/MS	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum		10.0	30
	Antimony		0.5	3
	Arsenic		1.5	5
	Barium		0.5	2
	Beryllium		0.1	.5
	Boron		4.0	15
	Cadmium		0.11	1
	Calcium		20.0	200
	Chromium		2.5	10
	Cobalt		0.1	1
	Iron		10.0	100
	Lead		0.5	2
	Magnesium		5.0	15
	Manganese		1.0	5
	Molybdenum		0.1	.5
	Nickel		0.5	2
	Potassium		80.0	300
	Selenium		1.0	5
	Silver		0.2	1
	Sodium		80.0	250
	Strontium		2.0	10
	Thallium		0.3	1
	Tin		1.0	5
	Uranium		0.05	.2
	Vanadium		3.0	10
LIQUID	Copper		0.14	1
	Zinc		2.0	10

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2058

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
MERCURY				
LIQUID	Mercury		0.066	.2

METALS
–10–
Instrument Detection Limits

SDG NO. 10–2058

Contract: ESHL01000 **Lab Code: GEL** **MDL Effective Date:** 01–JUL–09

ICP	Analyte	Wavelength (nm)	MDL ug/L	RDL ug/L
LIQUID	Aluminum	396.153	68.0	200
	Antimony	206.836	3.0	10
	Arsenic	188.979	5.0	30
	Barium	233.527	1.0	5
	Beryllium	313.107	1.0	5
	Boron	249.677	15.0	50
	Cadmium	226.502	1.0	5
	Calcium	317.933	50.0	200
	Chromium	267.716	1.0	5
	Cobalt	228.616	1.0	5
	Copper	324.752	3.0	10
	Iron	238.204	30.0	100
	Lead	220.353	3.3	10
	Magnesium	279.077	85.0	300
	Manganese	257.61	2.0	10
	Molybdenum	202.031	2.0	10
	Nickel	231.604	1.5	5
	Potassium	766.49	50.0	150
	Selenium	196.026	5.0	30
	Silica		53.0	213
	Silver	328.068	1.0	5
	Sodium	589.592	100	300
	Strontium	421.552	1.0	5
	Thallium	190.801	5.0	20
	Tin	189.927	2.5	10
	Uranium	409.014	10.0	50
	Vanadium	292.402	1.0	5
	Zinc	213.857	3.3	10

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2058
Effective Dates: 22-MAR-10

Parmname	Wavelength	Aluminum	Antimony	Arsenic	Barium	Beryllium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00676	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	-0.98369	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	-0.06206	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	-0.22134	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.22220	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	-0.01674	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2058
Effective Dates: 22-MAR-10

Parmname	Wavelength	Boron	Cadmium	Chromium	Cobalt	Copper
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	14.9992	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	-9.49960	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	3.47778	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	-0.18390	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	-0.60088	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.04741	0.32747
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	10.9289
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	-0.07359	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	5.02864	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.33675	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	1.18768	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	-4.30004	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.03286	0.12442	0.79397

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2058
Effective Dates: 22-MAR-10

Parmname	Wavelength	Lead	Magnesium	Manganese	Molybdenum	Phosphorous
Aluminum	396.153	0.00000	0.00000	0.00000	46.4438	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-14.0269	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	-2.84596	0.00000
Barium	233.527	0.00000	0.00000	0.00000	-0.32136	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.01216	0.24903	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	-0.02702	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	-2.77286	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	-24.4630	0.00000
Manganese	257.61	0.00000	0.03966	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.01826	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	10.3832	0.00000
Potassium	766.49	0.00000	0.07568	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	13.3443	0.00000
Silver	328.068	0.00000	0.00000	0.28019	-0.03095	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	-8.43314	0.00000
Thallium	190.801	0.00000	0.00000	-2.58065	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.08144	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	-6.48399	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	-10.3466	0.00000
Zinc	213.857	0.00000	0.00000	0.06887	-0.04597	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2058
Effective Dates: 22-MAR-10

Parmname	Wavelength	Potassium	Selenium	Silicon	Silver	Sodium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	0.00000	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.16274
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	0.00000	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.88937	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	0.00000
Tin	189.927	0.00000	0.00000	0.00000	0.00000	0.00000
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	0.00000

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2058
Effective Dates: 22-MAR-10

Parmname	Wavelength	Strontium	Sulfur	Thallium	Tin	Titanium
Aluminum	396.153	0.00000	0.00000	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	0.00000	0.00000	-1.82716	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000	0.00000	0.00000
Barium	233.527	0.00000	0.00000	0.00000	0.00000	0.00000
Beryllium	313.107	0.00000	0.00000	0.00000	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000	0.00000	0.00000
Chromium	267.716	0.00000	0.00000	0.00000	0.00000	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000	0.00000	0.00000
Copper	324.752	0.00000	0.00000	0.00000	0.00000	0.00000
Lead	220.353	0.00000	0.00000	0.00000	0.00000	-1.32991
Magnesium	279.077	0.00000	0.00000	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	0.00000	0.00000	0.00000	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000	-8.61809	0.00000
Potassium	766.49	0.00000	0.00000	0.00000	0.00000	0.00000
Selenium	196.026	0.00000	0.00000	0.00000	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000	6.59640	0.00000
Silver	328.068	0.00000	0.00000	0.00000	0.00000	0.00000
Sodium	589.592	0.00000	0.00000	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	0.00000	0.00000	0.00000	-10.0432
Tin	189.927	0.00000	0.00000	0.00000	0.00000	-3.37234
Titanium	334.94	0.00000	0.00000	0.00000	0.00000	0.00000
Uranium	409.014	0.00000	0.00000	0.00000	0.00000	0.00000
Vanadium	292.402	0.00000	0.00000	0.00000	0.00000	0.92753
Zinc	213.857	0.00000	0.00000	0.00000	0.00000	-0.56798

METALS
-11-
Interelement Correction Factors

Lab Code: GEL
Contract: ESHL01000
Instrument: OPTIMA4
Interelement Correction Factors (apparent ppb analyte/ppm interferent)

GEL Job No: 10-2058
Effective Dates: 22-MAR-10

Parmname	Wavelength	Uranium	Vanadium	Zinc
Aluminum	396.153	0.00000	0.00000	0.00000
Antimony	206.836	0.00000	-1.62578	0.00000
Arsenic	188.979	0.00000	0.00000	0.00000
Barium	233.527	0.00000	-0.63442	0.00000
Beryllium	313.107	-0.30229	0.00000	0.00000
Boron	249.677	0.00000	0.00000	0.00000
Cadmium	226.502	0.00000	0.00000	0.00000
Chromium	267.716	0.78601	-0.47146	0.00000
Cobalt	228.616	0.00000	0.00000	0.00000
Copper	324.752	-0.82619	0.00000	0.00000
Lead	220.353	0.74521	0.00000	0.00000
Magnesium	279.077	0.00000	0.00000	0.00000
Manganese	257.61	0.00000	0.00000	0.00000
Molybdenum	202.031	0.00000	-0.33953	0.00000
Phosphorous	214.914	0.00000	0.00000	0.00000
Potassium	766.49	0.00000	0.00000	0.00000
Selenium	196.026	-0.96499	0.00000	0.00000
Silicon	251.611	0.00000	0.00000	0.00000
Silver	328.068	-1.22996	-11.9401	0.00000
Sodium	589.592	0.00000	0.00000	0.00000
Strontium	421.552	0.00000	0.00000	0.00000
Sulfur	181.975	0.00000	0.00000	0.00000
Thallium	190.801	0.00000	-7.37871	0.00000
Tin	189.927	0.00000	0.00000	0.00000
Titanium	334.94	0.40930	0.00000	0.00000
Uranium	409.014	0.00000	-57.5852	0.00000
Vanadium	292.402	-0.67226	0.00000	0.00000
Zinc	213.857	0.00000	0.00000	0.00000

METALS
–12–
Linear Ranges

SDG NO. 10–2058

Contract: ESHL01000 **Lab Code: GEL**

Instrument ID ICPMS6

Analyte	Integration Time (msec)	LDR	Units	Effective Date
Aluminum	1	50000	ug/L	01–FEB–10
Antimony	1000	250	ug/L	01–FEB–10
Arsenic	1000	1000	ug/L	01–FEB–10
Barium	1000	1000	ug/L	01–FEB–10
Beryllium	1000	1000	ug/L	01–FEB–10
Boron	1000	200	ug/L	01–FEB–10
Cadmium	1000	1000	ug/L	01–FEB–10
Calcium	500	50000	ug/L	01–FEB–10
Chromium	1000	1000	ug/L	01–FEB–10
Cobalt	1000	1000	ug/L	01–FEB–10
Copper	1000	1000	ug/L	01–FEB–10
Iron	500	50000	ug/L	01–FEB–10
Lead	1000	5000	ug/L	01–FEB–10
Magnesium	1	50000	ug/L	01–FEB–10
Manganese	1000	1000	ug/L	01–FEB–10
Molybdenum	1000	1000	ug/L	01–FEB–10
Nickel	1000	1000	ug/L	01–FEB–10
Potassium	1	50000	ug/L	01–FEB–10
Selenium	1000	500	ug/L	01–FEB–10
Silver	1000	250	ug/L	01–FEB–10
Sodium	1	50000	ug/L	01–FEB–10
Strontium	1000	1000	ug/L	01–FEB–10
Thallium	1000	500	ug/L	01–FEB–10
Tin	1000	1000	ug/L	01–FEB–10
Uranium	1000	5000	ug/L	01–FEB–10
Vanadium	1000	100	ug/L	01–FEB–10
Zinc	1000	2500	ug/L	01–FEB–10

METALS
–12–
Linear Ranges

SDG NO. 10–2058

Contract: ESHL01000 **Lab Code: GEL**

Instrument ID OPTIMA4

Analyte	Integration Time (sec)	LDR	Units	Effective Date
Aluminum	20	500000	ug/L	01–FEB–10
Antimony	20	10000	ug/L	01–FEB–10
Arsenic	20	10000	ug/L	01–FEB–10
Barium	20	15000	ug/L	01–FEB–10
Beryllium	20	3000	ug/L	01–FEB–10
Boron	20	5000	ug/L	01–FEB–10
Cadmium	20	10000	ug/L	01–FEB–10
Calcium	20	500000	ug/L	01–FEB–10
Chromium	20	25000	ug/L	01–FEB–10
Cobalt	20	10000	ug/L	01–FEB–10
Copper	20	20000	ug/L	01–FEB–10
Iron	20	500000	ug/L	01–FEB–10
Lead	20	25000	ug/L	01–FEB–10
Magnesium	20	500000	ug/L	01–FEB–10
Manganese	20	10000	ug/L	01–FEB–10
Molybdenum	20	10000	ug/L	01–FEB–10
Nickel	20	10000	ug/L	01–FEB–10
Potassium	20	300000	ug/L	01–FEB–10
Selenium	20	10000	ug/L	01–FEB–10
Silica	20	107000	ug/L	01–FEB–10
Silver	20	1000	ug/L	01–FEB–10
Sodium	20	500000	ug/L	01–FEB–10
Strontium	20	10000	ug/L	01–FEB–10
Thallium	20	10000	ug/L	01–FEB–10
Tin	20	10000	ug/L	01–FEB–10
Uranium	20	15000	ug/L	01–FEB–10
Vanadium	20	10000	ug/L	01–FEB–10
Zinc	20	15000	ug/L	01–FEB–10

Raw Data

Calculation Data Logbook

Report run on: May 11, 2010 2:31 PM

Batch Id: 970515 **Sop:** GL-GC-E-107
Employee: Octavia Doster
Instrument: No instrument-calculation method

Samp Id	Sample Type	Parmname	Run Date	Calcium mg/L	Magnesium mg/L	Result	Units
248023001	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	10.9	2.91	39.1	mg/L
248023002	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	11.0	2.94	39.5	mg/L
248044001	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	13.8	4.70	53.8	mg/L
248044002	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	14.3	5.28	57.4	mg/L
248044003	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	21.6	6.44	80.4	mg/L
248044004	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	22.0	6.70	82.6	mg/L
248044005	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	0.00	0.00	0.00	mg/L
248044006	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	0.0579	0.00	0.145	mg/L
248164001	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	14.0	2.70	46.2	mg/L
248164002	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	14.4	2.75	47.2	mg/L
248164003	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	14.3	2.73	46.9	mg/L
248164004	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	14.3	2.81	47.4	mg/L
248261001	SAMPLE	Hardness as CaCO3	30-MAR-2010 11:38	41.8	1.57	111	mg/L

Calculation: **(2.497 * Calcium) + (4.118 * Magnesium)**

Method: Hg_ReAlign
Result: 051010

Sample ID: Hg_ReAlign

Hg 253.652 **Rep: 1**

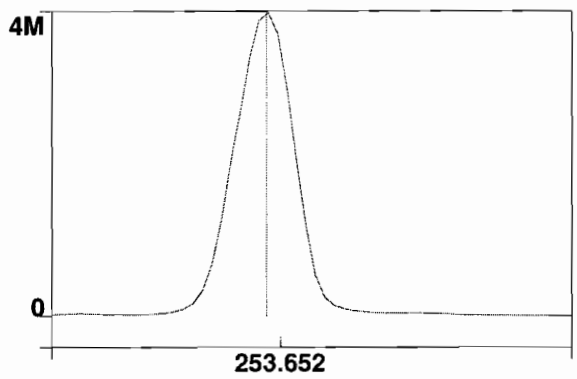

Intensity: 4389355.7 cps
Conc:

1

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Reprocessing Begun
Logged In Analyst: optima4 **Technique: ICP Continuous**

Results Data Set (original): 032910B
Results Library (original): C:\pe\optima4\Results\Results.mdb
Results Data Set (reprocessed): 032910C
Results Library (reprocessed): C:\pe\optima4\Results\Results.mdb

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Method Loaded
Method Name: Gen Eng fast_new Si **Method Last Saved: 3/29/2010 19:12:39**
IEC File: 031810.iec **MSF File:**
Method Description:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Al 396.153Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
B 249.677	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Be 313.107	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Ca 317.933Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
Cd 226.502	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cr 267.716	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Fe 238.204 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	No
K 766.490 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mg 279.077 IEC	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Mn 257.610	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Na 589.592 Radial	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ni 231.604	Lin Thru 0	Peak Area	Axial	Sc 361.383	No
P 214.914	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
S 181.975 Axial	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sc 361.383	Lin Thru 0	Peak Area	Axial	n/a	n/a
Sc RADIAL	Lin, Calc Int	Peak Area	Radial	n/a	n/a
Se 196.026	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
SiO2	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Si 251.611	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	Sc RADIAL	Yes
Ti 334.940	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
U 409.014	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes
Y 371.029	Lin, Calc Int	Peak Area	Axial	n/a	n/a
Zn 213.857	Lin Thru 0	Peak Area	Axial	Sc 361.383	Yes

==========

Sequence No.: 1 **Autosampler Location: 8**
Sample ID: S0 **Date Collected: 3/29/2010 18:25:17**
Analyst: **Data Type: Reprocessed on 3/29/2010 19:14:31**
Logged In Analyst (Original) : optima4
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: S0

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	1675486.4	1675486.4	100.16	%	18:27:09
1	Sc RADIAL	146509.4	146509.4	101	%	18:25:47
1	Y 371.029	1022720.1	1022720.1	100.01	%	18:27:09
1	Ag 328.068†	2983.2	2978.4	[0.00]	µg/L	18:27:11
1	Al 396.153Radial†	-35.1	-35.0	[0.00]	µg/L	18:26:07
1	As 188.979†	-19.2	-19.2	[0.00]	µg/L	18:27:31

1	B 249.677†	3447.9	3442.3	[0.00]	µg/L	18:27:11
1	Ba 233.527†	-170.9	-170.6	[0.00]	µg/L	18:27:31
1	Be 313.107†	-760.2	-759.0	[0.00]	µg/L	18:27:11
1	Ca 317.933Radial†	609.6	606.5	[0.00]	µg/L	18:26:07
1	Cd 226.502†	-94.3	-94.2	[0.00]	µg/L	18:27:31
1	Co 228.616†	-177.2	-176.9	[0.00]	µg/L	18:27:31
1	Cr 267.716†	191.1	190.8	[0.00]	µg/L	18:27:31
1	Cu 324.752†	2447.0	2443.1	[0.00]	µg/L	18:27:11
1	Fe 238.204 Radial†	120.7	120.1	[0.00]	µg/L	18:26:07
1	K 766.490 Radial†	1409.9	1402.7	[0.00]	µg/L	18:25:47
1	Mg 279.077 IEC†	182.4	181.4	[0.00]	µg/L	18:26:07
1	Mn 257.610†	83.5	83.4	[0.00]	µg/L	18:27:31
1	Mo 202.031†	-61.5	-61.4	[0.00]	µg/L	18:27:31
1	Na 589.592 Radial†	1727.7	1718.8	[0.00]	µg/L	18:25:47
1	Ni 231.604†	-12.7	-12.7	[0.00]	µg/L	18:27:31
1	P 214.914†	74.6	74.5	[0.00]	µg/L	18:27:31
1	Pb 220.353†	124.0	123.8	[0.00]	µg/L	18:27:31
1	S 181.975 Axial†	92.2	92.1	[0.00]	µg/L	18:27:31
1	Sb 206.836†	94.8	94.7	[0.00]	µg/L	18:27:31
1	Se 196.026†	10.9	10.9	[0.00]	µg/L	18:27:31
1	SiO2†	1567.1	1564.5	[0.00]	µg/L	18:27:31
1	Si 251.611†	683.3	682.2	[0.00]	µg/L	18:27:11
1	Sn 189.927†	-0.3	-0.3	[0.00]	µg/L	18:27:31
1	Sr 421.552†	-242.7	-241.5	[0.00]	µg/L	18:25:47
1	Ti 334.940†	661.0	659.9	[0.00]	µg/L	18:27:11
1	Tl 190.801†	-125.7	-125.5	[0.00]	µg/L	18:27:31
1	U 409.014†	-452.8	-452.0	[0.00]	µg/L	18:27:11
1	V 292.402†	515.3	514.5	[0.00]	µg/L	18:27:11
1	Zn 213.857†	458.0	457.2	[0.00]	µg/L	18:27:31
2	Sc 361.383	1673882.1	1673882.1	100.07	%	18:27:33
2	Sc RADIAL	143614.2	143614.2	98.5	%	18:26:09
2	Y 371.029	1022767.5	1022767.5	100.02	%	18:27:33
2	Ag 328.068†	3053.8	3051.7	[0.00]	µg/L	18:27:35
2	Al 396.153Radial†	-38.9	-39.5	[0.00]	µg/L	18:26:29
2	As 188.979†	-15.1	-15.1	[0.00]	µg/L	18:27:55
2	B 249.677†	3293.2	3291.1	[0.00]	µg/L	18:27:35
2	Ba 233.527†	-175.9	-175.8	[0.00]	µg/L	18:27:55
2	Be 313.107†	-530.4	-530.1	[0.00]	µg/L	18:27:35
2	Ca 317.933Radial†	602.3	611.3	[0.00]	µg/L	18:26:29
2	Cd 226.502†	-94.9	-94.9	[0.00]	µg/L	18:27:55
2	Co 228.616†	-169.1	-169.0	[0.00]	µg/L	18:27:55
2	Cr 267.716†	157.6	157.5	[0.00]	µg/L	18:27:55
2	Cu 324.752†	2326.2	2324.7	[0.00]	µg/L	18:27:35
2	Fe 238.204 Radial†	112.7	114.4	[0.00]	µg/L	18:26:29
2	K 766.490 Radial†	1475.1	1497.1	[0.00]	µg/L	18:26:09
2	Mg 279.077 IEC†	191.8	194.7	[0.00]	µg/L	18:26:29
2	Mn 257.610†	69.4	69.3	[0.00]	µg/L	18:27:55
2	Mo 202.031†	-55.1	-55.0	[0.00]	µg/L	18:27:55
2	Na 589.592 Radial†	1691.1	1716.3	[0.00]	µg/L	18:26:09
2	Ni 231.604†	-51.5	-51.5	[0.00]	µg/L	18:27:55
2	P 214.914†	99.0	98.9	[0.00]	µg/L	18:27:55
2	Pb 220.353†	108.5	108.4	[0.00]	µg/L	18:27:55
2	S 181.975 Axial†	90.3	90.2	[0.00]	µg/L	18:27:55
2	Sb 206.836†	81.0	81.0	[0.00]	µg/L	18:27:55
2	Se 196.026†	15.5	15.5	[0.00]	µg/L	18:27:55
2	SiO2†	1541.6	1540.6	[0.00]	µg/L	18:27:55
2	Si 251.611†	721.8	721.4	[0.00]	µg/L	18:27:35
2	Sn 189.927†	7.0	7.0	[0.00]	µg/L	18:27:55
2	Sr 421.552†	-264.2	-268.1	[0.00]	µg/L	18:26:09
2	Ti 334.940†	533.5	533.1	[0.00]	µg/L	18:27:35
2	Tl 190.801†	-121.5	-121.4	[0.00]	µg/L	18:27:55
2	U 409.014†	-565.6	-565.2	[0.00]	µg/L	18:27:35
2	V 292.402†	425.8	425.5	[0.00]	µg/L	18:27:35
2	Zn 213.857†	466.7	466.4	[0.00]	µg/L	18:27:55
3	Sc 361.383	1668955.0	1668955.0	99.772	%	18:27:57
3	Sc RADIAL	147139.1	147139.1	101	%	18:26:31
3	Y 371.029	1022257.2	1022257.2	99.968	%	18:27:57
3	Ag 328.068†	2864.4	2871.0	[0.00]	µg/L	18:27:59
3	Al 396.153Radial†	-21.4	-21.2	[0.00]	µg/L	18:26:51
3	As 188.979†	-8.4	-8.4	[0.00]	µg/L	18:28:20
3	B 249.677†	3326.1	3333.7	[0.00]	µg/L	18:27:59

3	Ba 233.527†	-178.4	-178.8	[0.00] µg/L	18:28:20
3	Be 313.107†	-689.7	-691.3	[0.00] µg/L	18:27:59
3	Ca 317.933Radial†	636.8	630.8	[0.00] µg/L	18:26:51
3	Cd 226.502†	-94.0	-94.2	[0.00] µg/L	18:28:20
3	Co 228.616†	-183.5	-183.9	[0.00] µg/L	18:28:20
3	Cr 267.716†	132.1	132.4	[0.00] µg/L	18:28:20
3	Cu 324.752†	2501.2	2506.9	[0.00] µg/L	18:27:59
3	Fe 238.204 Radial†	106.3	105.3	[0.00] µg/L	18:26:51
3	K 766.490 Radial†	1479.1	1465.2	[0.00] µg/L	18:26:31
3	Mg 279.077 IEC†	185.6	183.9	[0.00] µg/L	18:26:51
3	Mn 257.610†	87.1	87.3	[0.00] µg/L	18:28:20
3	Mo 202.031†	-49.1	-49.2	[0.00] µg/L	18:28:20
3	Na 589.592 Radial†	1664.8	1649.1	[0.00] µg/L	18:26:31
3	Ni 231.604†	-58.4	-58.5	[0.00] µg/L	18:28:20
3	P 214.914†	65.2	65.3	[0.00] µg/L	18:28:20
3	Pb 220.353†	104.9	105.1	[0.00] µg/L	18:28:20
3	S 181.975 Axial†	101.9	102.2	[0.00] µg/L	18:28:20
3	Sb 206.836†	84.1	84.3	[0.00] µg/L	18:28:20
3	Se 196.026†	6.3	6.3	[0.00] µg/L	18:28:20
3	SiO2†	1609.7	1613.4	[0.00] µg/L	18:28:20
3	Si 251.611†	624.2	625.6	[0.00] µg/L	18:27:59
3	Sn 189.927†	-0.6	-0.6	[0.00] µg/L	18:28:20
3	Sr 421.552†	-327.4	-324.4	[0.00] µg/L	18:26:31
3	Ti 334.940†	714.3	716.0	[0.00] µg/L	18:27:59
3	Tl 190.801†	-113.7	-113.9	[0.00] µg/L	18:28:20
3	U 409.014†	-419.1	-420.1	[0.00] µg/L	18:27:59
3	V 292.402†	354.6	355.5	[0.00] µg/L	18:27:59
3	Zn 213.857†	468.5	469.6	[0.00] µg/L	18:28:20

Mean Data: S0

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1672774.5	3403.67	0.20%	100.00	%
Sc RADIAL	145754.2	1879.88	1.29%	100	%
Y 371.029	1022581.6	281.95	0.03%	100.00	%
Ag 328.068†	2967.0	90.92	3.06%	[0.00]	µg/L
Al 396.153Radial†	-31.9	9.54	29.92%	[0.00]	µg/L
As 188.979†	-14.2	5.41	37.98%	[0.00]	µg/L
B 249.677†	3355.7	78.00	2.32%	[0.00]	µg/L
Ba 233.527†	-175.1	4.13	2.36%	[0.00]	µg/L
Be 313.107†	-660.1	117.60	17.82%	[0.00]	µg/L
Ca 317.933Radial†	616.2	12.87	2.09%	[0.00]	µg/L
Cd 226.502†	-94.4	0.38	0.41%	[0.00]	µg/L
Co 228.616†	-176.6	7.48	4.23%	[0.00]	µg/L
Cr 267.716†	160.2	29.32	18.30%	[0.00]	µg/L
Cu 324.752†	2424.9	92.45	3.81%	[0.00]	µg/L
Fe 238.204 Radial†	113.3	7.45	6.58%	[0.00]	µg/L
K 766.490 Radial†	1455.0	48.06	3.30%	[0.00]	µg/L
Mg 279.077 IEC†	186.7	7.04	3.77%	[0.00]	µg/L
Mn 257.610†	80.0	9.46	11.83%	[0.00]	µg/L
Mo 202.031†	-55.2	6.06	10.98%	[0.00]	µg/L
Na 589.592 Radial†	1694.7	39.52	2.33%	[0.00]	µg/L
Ni 231.604†	-40.9	24.66	60.28%	[0.00]	µg/L
P 214.914†	79.6	17.37	21.83%	[0.00]	µg/L
Pb 220.353†	112.4	9.96	8.86%	[0.00]	µg/L
S 181.975 Axial†	94.8	6.43	6.78%	[0.00]	µg/L
Sb 206.836†	86.6	7.13	8.23%	[0.00]	µg/L
Se 196.026†	10.9	4.59	42.08%	[0.00]	µg/L
SiO2†	1572.9	37.13	2.36%	[0.00]	µg/L
Si 251.611†	676.4	48.15	7.12%	[0.00]	µg/L
Sn 189.927†	2.0	4.32	214.20%	[0.00]	µg/L
Sr 421.552†	-278.0	42.30	15.22%	[0.00]	µg/L
Ti 334.940†	636.3	93.67	14.72%	[0.00]	µg/L
Tl 190.801†	-120.3	5.87	4.88%	[0.00]	µg/L
U 409.014†	-479.1	76.26	15.92%	[0.00]	µg/L
V 292.402†	431.8	79.70	18.46%	[0.00]	µg/L
Zn 213.857†	464.4	6.40	1.38%	[0.00]	µg/L

Sequence No.: 2
Sample ID: S0.1
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 3/29/2010 18:28:28
Data Type: Reprocessed on 3/29/2010 19:14:33

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	1661946.1	1661946.1	99.353	%	18:29:20
1	Sc RADIAL	142262.8	142262.8	97.6	%	18:28:58
1	Y 371.029	1013636.7	1013636.7	99.125	%	18:29:20
1	Ag 328.068†	28004.5	25219.9	[100]	µg/L	18:29:22
1	As 188.979†	214.7	230.4	[100]	µg/L	18:29:42
1	B 249.677†	9080.8	5784.2	[100]	µg/L	18:29:22
1	Ba 233.527†	21988.9	22307.2	[100]	µg/L	18:29:22
1	Be 313.107†	303759.0	306398.2	[100]	µg/L	18:29:20
1	Cd 226.502†	14418.1	14606.5	[100]	µg/L	18:29:22
1	Co 228.616†	7233.5	7457.2	[100]	µg/L	18:29:42
1	Cr 267.716†	11824.2	11741.0	[100]	µg/L	18:29:22
1	Cu 324.752†	25515.5	23256.9	[100]	µg/L	18:29:22
1	K 766.490 Radial†	3700.4	2336.2	[1000]	µg/L	18:28:58
1	Mn 257.610†	75396.6	75807.8	[100]	µg/L	18:29:22
1	Mo 202.031†	3080.8	3156.1	[100]	µg/L	18:29:42
1	Ni 231.604†	8001.7	8094.7	[100]	µg/L	18:29:22
1	P 214.914†	2111.9	2046.0	[500]	µg/L	18:29:42
1	Pb 220.353†	1769.2	1668.3	[100]	µg/L	18:29:42
1	S 181.975 Axial†	329.8	237.2	[200]	µg/L	18:29:42
1	Sb 206.836†	823.1	741.9	[100]	µg/L	18:29:42
1	Se 196.026†	270.2	261.0	[100]	µg/L	18:29:42
1	SiO2†	11219.8	9720.0	[1069.5]	µg/L	18:29:22
1	Si 251.611†	30808.9	30333.3	[500]	µg/L	18:29:22
1	Sn 189.927†	1389.8	1396.8	[100]	µg/L	18:29:42
1	Sr 421.552†	43261.6	44601.3	[100]	µg/L	18:28:58
1	Ti 334.940†	97625.2	97625.0	[100]	µg/L	18:29:22
1	Tl 190.801†	629.9	754.3	[100]	µg/L	18:29:42
1	U 409.014†	1288.2	1775.7	[100]	µg/L	18:29:22
1	V 292.402†	18219.3	17906.2	[100]	µg/L	18:29:22
1	Zn 213.857†	16338.0	15980.0	[100]	µg/L	18:29:22
2	Sc 361.383	1666549.8	1666549.8	99.628	%	18:29:44
2	Sc RADIAL	146980.5	146980.5	101	%	18:29:00
2	Y 371.029	1017353.0	1017353.0	99.489	%	18:29:44
2	Ag 328.068†	28245.8	25384.2	[100]	µg/L	18:29:47
2	As 188.979†	216.8	231.9	[100]	µg/L	18:30:07
2	B 249.677†	9095.6	5773.9	[100]	µg/L	18:29:47
2	Ba 233.527†	22220.1	22478.2	[100]	µg/L	18:29:47
2	Be 313.107†	301592.1	303378.7	[100]	µg/L	18:29:44
2	Cd 226.502†	14444.4	14592.7	[100]	µg/L	18:29:47
2	Co 228.616†	7194.5	7397.9	[100]	µg/L	18:30:07
2	Cr 267.716†	11989.4	11874.0	[100]	µg/L	18:29:47
2	Cu 324.752†	25454.5	23124.7	[100]	µg/L	18:29:47
2	K 766.490 Radial†	3828.6	2341.7	[1000]	µg/L	18:29:00
2	Mn 257.610†	75955.3	76159.0	[100]	µg/L	18:29:47
2	Mo 202.031†	3072.9	3139.6	[100]	µg/L	18:30:07
2	Ni 231.604†	7945.1	8015.7	[100]	µg/L	18:29:47
2	P 214.914†	2095.0	2023.3	[500]	µg/L	18:30:07
2	Pb 220.353†	1806.4	1700.7	[100]	µg/L	18:30:07
2	S 181.975 Axial†	328.8	235.2	[200]	µg/L	18:30:07
2	Sb 206.836†	831.1	747.6	[100]	µg/L	18:30:07
2	Se 196.026†	268.7	258.8	[100]	µg/L	18:30:07
2	SiO2†	11380.9	9850.6	[1069.5]	µg/L	18:29:47
2	Si 251.611†	30908.3	30347.4	[500]	µg/L	18:29:47
2	Sn 189.927†	1386.9	1390.0	[100]	µg/L	18:30:07
2	Sr 421.552†	43897.3	43809.0	[100]	µg/L	18:29:00
2	Ti 334.940†	97949.2	97678.7	[100]	µg/L	18:29:47
2	Tl 190.801†	629.9	752.6	[100]	µg/L	18:30:07
2	U 409.014†	1127.3	1610.7	[100]	µg/L	18:29:47

2	V 292.402†	18287.8	17924.3	[100]	µg/L	18:29:47
2	Zn 213.857†	16478.9	16076.1	[100]	µg/L	18:29:47
3	Sc 361.383	1678711.7	1678711.7	100.35	%	18:30:09
3	Sc RADIAL	143945.0	143945.0	98.8	%	18:29:02
3	Y 371.029	1024374.9	1024374.9	100.18	%	18:30:09
3	Ag 328.068†	27960.9	24894.9	[100]	µg/L	18:30:11
3	As 188.979†	221.3	234.7	[100]	µg/L	18:30:31
3	B 249.677†	9088.4	5700.5	[100]	µg/L	18:30:11
3	Ba 233.527†	21982.2	22079.5	[100]	µg/L	18:30:11
3	Be 313.107†	305374.6	304954.6	[100]	µg/L	18:30:09
3	Cd 226.502†	14449.3	14492.6	[100]	µg/L	18:30:11
3	Co 228.616†	7225.7	7376.7	[100]	µg/L	18:30:31
3	Cr 267.716†	11783.4	11581.4	[100]	µg/L	18:30:11
3	Cu 324.752†	25635.6	23120.1	[100]	µg/L	18:30:11
3	K 766.490 Radial†	3785.9	2378.5	[1000]	µg/L	18:29:02
3	Mn 257.610†	75567.2	75219.9	[100]	µg/L	18:30:11
3	Mo 202.031†	3088.5	3132.8	[100]	µg/L	18:30:31
3	Ni 231.604†	7999.7	8012.3	[100]	µg/L	18:30:11
3	P 214.914†	2091.9	2004.9	[500]	µg/L	18:30:31
3	Pb 220.353†	1784.3	1665.6	[100]	µg/L	18:30:31
3	S 181.975 Axial†	327.0	231.0	[200]	µg/L	18:30:31
3	Sb 206.836†	817.3	727.8	[100]	µg/L	18:30:31
3	Se 196.026†	251.7	239.9	[100]	µg/L	18:30:31
3	SiO2†	11327.9	9715.0	[1069.5]	µg/L	18:30:11
3	Si 251.611†	30819.3	30033.9	[500]	µg/L	18:30:11
3	Sn 189.927†	1401.4	1394.4	[100]	µg/L	18:30:31
3	Sr 421.552†	43851.5	44680.7	[100]	µg/L	18:29:02
3	Ti 334.940†	97740.3	96758.3	[100]	µg/L	18:30:11
3	Tl 190.801†	620.5	738.6	[100]	µg/L	18:30:31
3	U 409.014†	1269.9	1744.5	[100]	µg/L	18:30:11
3	V 292.402†	18059.5	17563.8	[100]	µg/L	18:30:11
3	Zn 213.857†	16510.7	15987.9	[100]	µg/L	18:30:11

Mean Data: S0.1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1669069.2	8662.09	0.52%	99.778	%
Sc RADIAL	144396.1	2390.99	1.66%	99.1	%
Y 371.029	1018454.9	5453.26	0.54%	99.596	%
Ag 328.068†	25166.4	249.02	0.99%	[100]	µg/L
As 188.979†	232.3	2.20	0.95%	[100]	µg/L
B 249.677†	5752.9	45.63	0.79%	[100]	µg/L
Ba 233.527†	22288.3	200.02	0.90%	[100]	µg/L
Be 313.107†	304910.5	1510.27	0.50%	[100]	µg/L
Cd 226.502†	14563.9	62.13	0.43%	[100]	µg/L
Co 228.616†	7410.6	41.70	0.56%	[100]	µg/L
Cr 267.716†	11732.1	146.47	1.25%	[100]	µg/L
Cu 324.752†	23167.2	77.70	0.34%	[100]	µg/L
K 766.490 Radial†	2352.1	22.98	0.98%	[1000]	µg/L
Mn 257.610†	75728.9	474.50	0.63%	[100]	µg/L
Mo 202.031†	3142.8	11.99	0.38%	[100]	µg/L
Ni 231.604†	8040.9	46.63	0.58%	[100]	µg/L
P 214.914†	2024.7	20.61	1.02%	[500]	µg/L
Pb 220.353†	1678.2	19.56	1.17%	[100]	µg/L
S 181.975 Axial†	234.4	3.15	1.34%	[200]	µg/L
Sb 206.836†	739.1	10.21	1.38%	[100]	µg/L
Se 196.026†	253.2	11.62	4.59%	[100]	µg/L
SiO2†	9761.9	76.87	0.79%	[1069.5]	µg/L
Si 251.611†	30238.2	177.02	0.59%	[500]	µg/L
Sn 189.927†	1393.8	3.45	0.25%	[100]	µg/L
Sr 421.552†	44363.6	481.98	1.09%	[100]	µg/L
Ti 334.940†	97354.0	516.57	0.53%	[100]	µg/L
Tl 190.801†	748.5	8.62	1.15%	[100]	µg/L
U 409.014†	1710.3	87.69	5.13%	[100]	µg/L
V 292.402†	17798.1	203.14	1.14%	[100]	µg/L
Zn 213.857†	16014.7	53.32	0.33%	[100]	µg/L

Sequence No.: 3
Sample ID: S0.5
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 3/29/2010 18:30:39
Data Type: Reprocessed on 3/29/2010 19:14:34

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S0.5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	1666330.4	1666330.4	99.615	%	18:31:37
1	Sc RADIAL	146255.9	146255.9	100	%	18:31:10
1	Y 371.029	1010770.4	1010770.4	98.845	%	18:31:37
1	Ag 328.068†	124810.0	122325.6	[500]	µg/L	18:31:37
1	Al 396.153Radial†	22730.9	22684.8	[5000]	µg/L	18:31:10
1	As 188.979†	1130.3	1148.9	[500]	µg/L	18:31:57
1	B 249.677†	32443.2	29213.0	[500]	µg/L	18:31:37
1	Ba 233.527†	108021.9	108614.7	[500]	µg/L	18:31:37
1	Be 313.107†	1516563.3	1523088.3	[500]	µg/L	18:31:37
1	Ca 317.933Radial†	86179.3	85267.4	[5000]	µg/L	18:31:10
1	Cd 226.502†	71219.1	71589.0	[500]	µg/L	18:31:37
1	Co 228.616†	35394.0	35707.4	[500]	µg/L	18:31:57
1	Cr 267.716†	57615.1	57677.6	[500]	µg/L	18:31:37
1	Cu 324.752†	116290.7	114315.5	[500]	µg/L	18:31:37
1	K 766.490 Radial†	13629.8	12128.1	[5000]	µg/L	18:31:10
1	Mg 279.077 IEC†	12468.2	12238.8	[5000]	µg/L	18:31:10
1	Mn 257.610†	362696.8	364019.5	[500]	µg/L	18:31:37
1	Mo 202.031†	15371.1	15485.8	[500]	µg/L	18:31:57
1	Ni 231.604†	38767.1	38957.9	[500]	µg/L	18:31:37
1	P 214.914†	10122.4	10082.0	[2500]	µg/L	18:31:57
1	Pb 220.353†	8161.6	8080.8	[500]	µg/L	18:31:57
1	S 181.975 Axial†	1278.6	1188.7	[1000]	µg/L	18:31:57
1	Sb 206.836†	3687.2	3614.8	[500]	µg/L	18:31:57
1	Se 196.026†	1225.0	1218.8	[500]	µg/L	18:31:57
1	SiO2†	49926.4	48546.6	[5347.5]	µg/L	18:31:37
1	Si 251.611†	150511.0	150416.7	[2500]	µg/L	18:31:37
1	Sn 189.927†	6828.0	6852.4	[500]	µg/L	18:31:57
1	Sr 421.552†	212817.9	212365.9	[500]	µg/L	18:31:08
1	Ti 334.940†	484276.9	485513.3	[500]	µg/L	18:31:37
1	Tl 190.801†	3503.2	3637.1	[500]	µg/L	18:31:57
1	U 409.014†	6910.1	7415.9	[500]	µg/L	18:31:37
1	V 292.402†	89155.4	89068.4	[500]	µg/L	18:31:37
1	Zn 213.857†	79249.5	79091.5	[500]	µg/L	18:31:37
2	Sc 361.383	1656377.5	1656377.5	99.020	%	18:32:00
2	Sc RADIAL	143364.9	143364.9	98.4	%	18:31:14
2	Y 371.029	1005040.5	1005040.5	98.285	%	18:32:00
2	Ag 328.068†	123893.4	122152.8	[500]	µg/L	18:32:00
2	Al 396.153Radial†	22411.8	22817.2	[5000]	µg/L	18:31:14
2	As 188.979†	1160.9	1186.7	[500]	µg/L	18:32:21
2	B 249.677†	32166.0	29128.7	[500]	µg/L	18:32:00
2	Ba 233.527†	106821.0	108053.5	[500]	µg/L	18:32:00
2	Be 313.107†	1497872.7	1513360.7	[500]	µg/L	18:32:00
2	Ca 317.933Radial†	83955.9	84739.0	[5000]	µg/L	18:31:14
2	Cd 226.502†	70376.7	71167.8	[500]	µg/L	18:32:00
2	Co 228.616†	35865.0	36396.7	[500]	µg/L	18:32:21
2	Cr 267.716†	57094.1	57499.1	[500]	µg/L	18:32:00
2	Cu 324.752†	115218.7	113934.4	[500]	µg/L	18:32:00
2	K 766.490 Radial†	13146.4	11910.5	[5000]	µg/L	18:31:14
2	Mg 279.077 IEC†	12081.5	12096.2	[5000]	µg/L	18:31:14
2	Mn 257.610†	359096.8	362571.6	[500]	µg/L	18:32:00
2	Mo 202.031†	15556.5	15765.7	[500]	µg/L	18:32:21
2	Ni 231.604†	38151.2	38569.7	[500]	µg/L	18:32:00
2	P 214.914†	10250.6	10272.5	[2500]	µg/L	18:32:21
2	Pb 220.353†	8247.6	8216.9	[500]	µg/L	18:32:21
2	S 181.975 Axial†	1295.5	1213.5	[1000]	µg/L	18:32:21
2	Sb 206.836†	3729.7	3679.9	[500]	µg/L	18:32:21
2	Se 196.026†	1259.6	1261.2	[500]	µg/L	18:32:21
2	SiO2†	49488.1	48405.1	[5347.5]	µg/L	18:32:00

2	Si 251.611†	149066.4	149865.6	[2500]	µg/L	18:32:00
2	Sn 189.927†	6928.0	6994.5	[500]	µg/L	18:32:21
2	Sr 421.552†	210571.1	214358.5	[500]	µg/L	18:31:12
2	Ti 334.940†	480119.5	484236.0	[500]	µg/L	18:32:00
2	Tl 190.801†	3520.8	3676.0	[500]	µg/L	18:32:21
2	U 409.014†	6871.4	7418.6	[500]	µg/L	18:32:00
2	V 292.402†	88228.0	88669.5	[500]	µg/L	18:32:00
2	Zn 213.857†	78116.6	78425.5	[500]	µg/L	18:32:00
3	Sc 361.383	1678591.9	1678591.9	100.35	%	18:32:24
3	Sc RADIAL	148088.8	148088.8	102	%	18:31:18
3	Y 371.029	1018746.9	1018746.9	99.625	%	18:32:24
3	Ag 328.068†	125886.3	122483.0	[500]	µg/L	18:32:24
3	Al 396.153Radial†	22914.6	22585.2	[5000]	µg/L	18:31:18
3	As 188.979†	1161.2	1171.4	[500]	µg/L	18:32:44
3	B 249.677†	32821.8	29352.3	[500]	µg/L	18:32:24
3	Ba 233.527†	108685.7	108484.1	[500]	µg/L	18:32:24
3	Be 313.107†	1528160.6	1523524.6	[500]	µg/L	18:32:24
3	Ca 317.933Radial†	86630.7	84648.8	[5000]	µg/L	18:31:18
3	Cd 226.502†	72351.9	72195.6	[500]	µg/L	18:32:24
3	Co 228.616†	36165.4	36216.7	[500]	µg/L	18:32:44
3	Cr 267.716†	58224.7	57862.7	[500]	µg/L	18:32:24
3	Cu 324.752†	117068.1	114237.5	[500]	µg/L	18:32:24
3	K 766.490 Radial†	13544.3	11875.7	[5000]	µg/L	18:31:18
3	Mg 279.077 IEC†	12711.0	12323.9	[5000]	µg/L	18:31:18
3	Mn 257.610†	365977.4	364629.0	[500]	µg/L	18:32:24
3	Mo 202.031†	15658.0	15658.9	[500]	µg/L	18:32:44
3	Ni 231.604†	38949.9	38855.9	[500]	µg/L	18:32:24
3	P 214.914†	10378.5	10262.9	[2500]	µg/L	18:32:44
3	Pb 220.353†	8301.3	8160.1	[500]	µg/L	18:32:44
3	S 181.975 Axial†	1298.3	1199.0	[1000]	µg/L	18:32:44
3	Sb 206.836†	3757.3	3657.7	[500]	µg/L	18:32:44
3	Se 196.026†	1268.4	1253.0	[500]	µg/L	18:32:44
3	SiO2†	50453.3	48705.6	[5347.5]	µg/L	18:32:24
3	Si 251.611†	151847.8	150645.2	[2500]	µg/L	18:32:24
3	Sn 189.927†	6976.6	6950.4	[500]	µg/L	18:32:44
3	Sr 421.552†	212729.2	209653.5	[500]	µg/L	18:31:16
3	Ti 334.940†	487904.2	485577.0	[500]	µg/L	18:32:24
3	Tl 190.801†	3573.5	3681.5	[500]	µg/L	18:32:44
3	U 409.014†	7083.7	7538.2	[500]	µg/L	18:32:24
3	V 292.402†	89928.1	89184.6	[500]	µg/L	18:32:24
3	Zn 213.857†	79862.3	79121.1	[500]	µg/L	18:32:24

Mean Data: S0.5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1667099.9	11127.18	0.67%	99.661	%
Sc RADIAL	145903.2	2381.65	1.63%	100	%
Y 371.029	1011519.3	6883.81	0.68%	98.918	%
Ag 328.068†	122320.5	165.15	0.14%	[500]	µg/L
Al 396.153Radial†	22695.7	116.36	0.51%	[5000]	µg/L
As 188.979†	1169.0	19.01	1.63%	[500]	µg/L
B 249.677†	29231.4	112.94	0.39%	[500]	µg/L
Ba 233.527†	108384.1	293.66	0.27%	[500]	µg/L
Be 313.107†	1519991.2	5746.30	0.38%	[500]	µg/L
Ca 317.933Radial†	84885.1	334.21	0.39%	[5000]	µg/L
Cd 226.502†	71650.8	516.66	0.72%	[500]	µg/L
Co 228.616†	36106.9	357.49	0.99%	[500]	µg/L
Cr 267.716†	57679.8	181.81	0.32%	[500]	µg/L
Cu 324.752†	114162.5	201.35	0.18%	[500]	µg/L
K 766.490 Radial†	11971.4	136.75	1.14%	[5000]	µg/L
Mg 279.077 IEC†	12219.6	115.04	0.94%	[5000]	µg/L
Mn 257.610†	363740.0	1056.77	0.29%	[500]	µg/L
Mo 202.031†	15636.8	141.25	0.90%	[500]	µg/L
Ni 231.604†	38794.5	201.22	0.52%	[500]	µg/L
P 214.914†	10205.8	107.31	1.05%	[2500]	µg/L
Pb 220.353†	8152.6	68.35	0.84%	[500]	µg/L
S 181.975 Axial†	1200.4	12.45	1.04%	[1000]	µg/L
Sb 206.836†	3650.8	33.08	0.91%	[500]	µg/L
Se 196.026†	1244.3	22.47	1.81%	[500]	µg/L
SiO2†	48552.4	150.29	0.31%	[5347.5]	µg/L

Si 251.611†	150309.2	400.75	0.27%	[2500] µg/L
Sn 189.927†	6932.4	72.76	1.05%	[500] µg/L
Sr 421.552†	212126.0	2361.66	1.11%	[500] µg/L
Ti 334.940†	485108.8	756.53	0.16%	[500] µg/L
Tl 190.801†	3664.9	24.20	0.66%	[500] µg/L
U 409.014†	7457.6	69.86	0.94%	[500] µg/L
V 292.402†	88974.2	270.15	0.30%	[500] µg/L
Zn 213.857†	78879.4	393.36	0.50%	[500] µg/L

Sequence No.: 4
Sample ID: SCAL
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 3/29/2010 18:32:52
Data Type: Reprocessed on 3/29/2010 19:14:34

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: SCAL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	1695274.3	1695274.3	101.35	%	18:33:51
1	Sc RADIAL	148093.8	148093.8	102	%	18:33:23
1	Y 371.029	1024428.2	1024428.2	100.18	%	18:33:51
1	Ag 328.068†	253437.3	247106.6	[1000]	µg/L	18:33:51
1	Al 396.153Radial†	47074.8	46363.0	[10000]	µg/L	18:33:23
1	As 188.979†	2423.7	2405.8	[1000]	µg/L	18:33:53
1	B 249.677†	64171.5	59964.1	[1000]	µg/L	18:33:51
1	Ba 233.527†	222696.0	219915.4	[1000]	µg/L	18:33:51
1	Be 313.107†	3125497.2	3084675.4	[1000]	µg/L	18:33:51
1	Ca 317.933Radial†	175989.6	172593.1	[10000]	µg/L	18:33:23
1	Cd 226.502†	147319.9	145459.1	[1000]	µg/L	18:33:51
1	Co 228.616†	73285.4	72489.3	[1000]	µg/L	18:33:53
1	Cr 267.716†	118453.3	116720.9	[1000]	µg/L	18:33:51
1	Cu 324.752†	236158.0	230598.8	[1000]	µg/L	18:33:51
1	Fe 238.204 Radial†	153305.8	150770.6	[10000]	µg/L	18:33:23
1	K 766.490 Radial†	26333.7	24462.7	[10000]	µg/L	18:33:23
1	Mg 279.077 IEC†	25539.7	24949.5	[10000]	µg/L	18:33:23
1	Mn 257.610†	742700.4	732763.2	[1000]	µg/L	18:33:51
1	Mo 202.031†	31916.7	31548.3	[1000]	µg/L	18:33:53
1	Na 589.592 Radial†	67840.0	65073.6	[10000]	µg/L	18:33:23
1	Ni 231.604†	79543.1	78528.3	[1000]	µg/L	18:33:51
1	P 214.914†	21051.1	20692.1	[5000]	µg/L	18:33:53
1	Pb 220.353†	16751.4	16416.6	[1000]	µg/L	18:33:53
1	S 181.975 Axial†	2600.1	2470.7	[2000]	µg/L	18:33:53
1	Sb 206.836†	7615.0	7427.3	[1000]	µg/L	18:33:53
1	Se 196.026†	2517.5	2473.2	[1000]	µg/L	18:33:53
1	SiO2†	101024.7	98111.1	[10695]	µg/L	18:33:51
1	Si 251.611†	307939.1	303175.7	[5000]	µg/L	18:33:51
1	Sn 189.927†	14211.0	14020.4	[1000]	µg/L	18:33:53
1	Sr 421.552†	434456.1	427870.5	[1000]	µg/L	18:33:21
1	Ti 334.940†	997481.3	983606.3	[1000]	µg/L	18:33:51
1	Tl 190.801†	7335.9	7358.9	[1000]	µg/L	18:33:53
1	U 409.014†	16212.4	16476.3	[1000]	µg/L	18:33:51
1	V 292.402†	183867.8	180995.7	[1000]	µg/L	18:33:51
1	Zn 213.857†	161925.8	159312.2	[1000]	µg/L	18:33:51
2	Sc 361.383	1690996.4	1690996.4	101.09	%	18:33:57
2	Sc RADIAL	145999.7	145999.7	100	%	18:33:27
2	Y 371.029	1021922.1	1021922.1	99.936	%	18:33:57
2	Ag 328.068†	252044.6	246361.5	[1000]	µg/L	18:33:57
2	Al 396.153Radial†	46624.8	46578.3	[10000]	µg/L	18:33:27
2	As 188.979†	2403.1	2391.4	[1000]	µg/L	18:33:59
2	B 249.677†	63843.6	59800.0	[1000]	µg/L	18:33:57
2	Ba 233.527†	221227.7	219018.9	[1000]	µg/L	18:33:57
2	Be 313.107†	3107291.9	3074468.3	[1000]	µg/L	18:33:57
2	Ca 317.933Radial†	173656.9	172748.8	[10000]	µg/L	18:33:27
2	Cd 226.502†	146575.4	145090.3	[1000]	µg/L	18:33:57
2	Co 228.616†	74805.8	74176.3	[1000]	µg/L	18:33:59
2	Cr 267.716†	118015.5	116583.5	[1000]	µg/L	18:33:57
2	Cu 324.752†	235118.6	230160.1	[1000]	µg/L	18:33:57
2	Fe 238.204 Radial†	151211.1	150843.6	[10000]	µg/L	18:33:27
2	K 766.490 Radial†	25931.4	24432.8	[10000]	µg/L	18:33:27
2	Mg 279.077 IEC†	24969.0	24740.4	[10000]	µg/L	18:33:27
2	Mn 257.610†	740445.3	732386.4	[1000]	µg/L	18:33:57
2	Mo 202.031†	32495.1	32200.2	[1000]	µg/L	18:33:59
2	Na 589.592 Radial†	67249.4	65441.6	[10000]	µg/L	18:33:27
2	Ni 231.604†	79100.3	78288.9	[1000]	µg/L	18:33:57
2	P 214.914†	21690.5	21377.2	[5000]	µg/L	18:33:59
2	Pb 220.353†	17172.9	16875.4	[1000]	µg/L	18:33:59

2	S 181.975 Axial†	2679.6	2555.9	[2000]	µg/L	18:33:59
2	Sb 206.836†	7635.7	7466.8	[1000]	µg/L	18:33:59
2	Se 196.026†	2666.5	2626.9	[1000]	µg/L	18:33:59
2	SiO2†	100664.8	98007.2	[10695]	µg/L	18:33:57
2	Si 251.611†	306502.8	302523.6	[5000]	µg/L	18:33:57
2	Sn 189.927†	14443.7	14286.0	[1000]	µg/L	18:33:59
2	Sr 421.552†	430963.7	430517.1	[1000]	µg/L	18:33:25
2	Ti 334.940†	993955.9	982608.8	[1000]	µg/L	18:33:57
2	Tl 190.801†	7531.3	7570.4	[1000]	µg/L	18:33:59
2	U 409.014†	16040.6	16346.9	[1000]	µg/L	18:33:57
2	V 292.402†	183235.5	180829.1	[1000]	µg/L	18:33:57
2	Zn 213.857†	161264.5	159062.3	[1000]	µg/L	18:33:57
3	Sc 361.383	1679595.4	1679595.4	100.41	%	18:34:04
3	Sc RADIAL	149693.3	149693.3	103	%	18:33:31
3	Y 371.029	1015550.9	1015550.9	99.312	%	18:34:04
3	Ag 328.068†	251016.5	247030.1	[1000]	µg/L	18:34:04
3	Al 396.153Radial†	47551.4	46332.0	[10000]	µg/L	18:33:31
3	As 188.979†	2421.2	2425.6	[1000]	µg/L	18:34:06
3	B 249.677†	63426.3	59813.0	[1000]	µg/L	18:34:04
3	Ba 233.527†	219963.3	219245.0	[1000]	µg/L	18:34:04
3	Be 313.107†	3093622.9	3081719.7	[1000]	µg/L	18:34:04
3	Ca 317.933Radial†	178184.0	172879.1	[10000]	µg/L	18:33:31
3	Cd 226.502†	145509.3	145012.8	[1000]	µg/L	18:34:04
3	Co 228.616†	73160.7	73040.2	[1000]	µg/L	18:34:06
3	Cr 267.716†	117369.2	116732.4	[1000]	µg/L	18:34:04
3	Cu 324.752†	233979.9	230604.8	[1000]	µg/L	18:34:04
3	Fe 238.204 Radial†	154947.1	150756.5	[10000]	µg/L	18:33:31
3	K 766.490 Radial†	26410.5	24260.6	[10000]	µg/L	18:33:31
3	Mg 279.077 IEC†	25740.2	24876.2	[10000]	µg/L	18:33:31
3	Mn 257.610†	735902.7	732834.1	[1000]	µg/L	18:34:04
3	Mo 202.031†	31675.9	31602.5	[1000]	µg/L	18:34:06
3	Na 589.592 Radial†	68591.3	65091.7	[10000]	µg/L	18:33:31
3	Ni 231.604†	78372.8	78095.4	[1000]	µg/L	18:34:04
3	P 214.914†	21100.1	20934.8	[5000]	µg/L	18:34:06
3	Pb 220.353†	16565.8	16386.1	[1000]	µg/L	18:34:06
3	S 181.975 Axial†	2538.8	2433.7	[2000]	µg/L	18:34:06
3	Sb 206.836†	7547.1	7429.8	[1000]	µg/L	18:34:06
3	Se 196.026†	2534.8	2513.6	[1000]	µg/L	18:34:06
3	SiO2†	99973.5	97994.7	[10695]	µg/L	18:34:04
3	Si 251.611†	304718.9	302805.0	[5000]	µg/L	18:34:04
3	Sn 189.927†	14107.2	14047.9	[1000]	µg/L	18:34:06
3	Sr 421.552†	434068.2	422924.1	[1000]	µg/L	18:33:29
3	Ti 334.940†	988596.9	983945.8	[1000]	µg/L	18:34:04
3	Tl 190.801†	7419.8	7510.0	[1000]	µg/L	18:34:06
3	U 409.014†	16237.0	16650.2	[1000]	µg/L	18:34:04
3	V 292.402†	181988.8	180817.9	[1000]	µg/L	18:34:04
3	Zn 213.857†	160057.9	158943.5	[1000]	µg/L	18:34:04

Mean Data: SCAL

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1688622.0	8104.65	0.48%	100.95	%
Sc RADIAL	147928.9	1852.30	1.25%	101	%
Y 371.029	1020633.7	4576.76	0.45%	99.810	%
Ag 328.068†	246832.7	409.85	0.17%	[1000]	µg/L
Al 396.153Radial†	46424.4	134.12	0.29%	[10000]	µg/L
As 188.979†	2407.6	17.16	0.71%	[1000]	µg/L
B 249.677†	59859.0	91.23	0.15%	[1000]	µg/L
Ba 233.527†	219393.1	466.22	0.21%	[1000]	µg/L
Be 313.107†	3080287.8	5252.04	0.17%	[1000]	µg/L
Ca 317.933Radial†	172740.3	143.17	0.08%	[10000]	µg/L
Cd 226.502†	145187.4	238.43	0.16%	[1000]	µg/L
Co 228.616†	73235.3	860.22	1.17%	[1000]	µg/L
Cr 267.716†	116678.9	82.81	0.07%	[1000]	µg/L
Cu 324.752†	230454.6	255.03	0.11%	[1000]	µg/L
Fe 238.204 Radial†	150790.2	46.73	0.03%	[10000]	µg/L
K 766.490 Radial†	24385.4	109.10	0.45%	[10000]	µg/L
Mg 279.077 IEC†	24855.4	106.12	0.43%	[10000]	µg/L
Mn 257.610†	732661.3	240.63	0.03%	[1000]	µg/L
Mo 202.031†	31783.7	361.73	1.14%	[1000]	µg/L

Na 589.592 Radial†	65202.3	207.44	0.32%	[10000]	µg/L
Ni 231.604†	78304.2	216.83	0.28%	[1000]	µg/L
P 214.914†	21001.4	347.34	1.65%	[5000]	µg/L
Pb 220.353†	16559.4	274.11	1.66%	[1000]	µg/L
S 181.975 Axial†	2486.8	62.65	2.52%	[2000]	µg/L
Sb 206.836†	7441.3	22.10	0.30%	[1000]	µg/L
Se 196.026†	2537.9	79.67	3.14%	[1000]	µg/L
SiO2†	98037.6	63.89	0.07%	[10695]	µg/L
Si 251.611†	302834.8	327.07	0.11%	[5000]	µg/L
Sn 189.927†	14118.1	146.08	1.03%	[1000]	µg/L
Sr 421.552†	427103.9	3854.12	0.90%	[1000]	µg/L
Ti 334.940†	983387.0	694.94	0.07%	[1000]	µg/L
Tl 190.801†	7479.8	108.97	1.46%	[1000]	µg/L
U 409.014†	16491.1	152.21	0.92%	[1000]	µg/L
V 292.402†	180880.9	99.54	0.06%	[1000]	µg/L
Zn 213.857†	159106.0	188.24	0.12%	[1000]	µg/L

Sequence No.: 5
Sample ID: S10
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 3/29/2010 18:34:14
Data Type: Reprocessed on 3/29/2010 19:14:35

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: S10

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Analysis Time
1	Sc 361.383	1647889.5	1647889.5	98.512	%	18:35:05
1	Sc RADIAL	147922.0	147922.0	101	%	18:34:43
1	Y 371.029	997984.1	997984.1	97.595	%	18:35:05
1	Al 396.153Radial†	231630.6	228268.0	[50000]	µg/L	18:34:43
1	Ca 317.933Radial†	864405.0	851121.2	[50000]	µg/L	18:34:43
1	Fe 238.204 Radial†	304562.8	299986.3	[20000]	µg/L	18:34:43
1	Mg 279.077 IEC†	122786.4	120800.3	[50000]	µg/L	18:34:43
1	Na 589.592 Radial†	134121.8	130461.6	[20000]	µg/L	18:34:43
2	Sc 361.383	1646965.2	1646965.2	98.457	%	18:35:08
2	Sc RADIAL	147135.1	147135.1	101	%	18:34:45
2	Y 371.029	998151.2	998151.2	97.611	%	18:35:08
2	Al 396.153Radial†	231070.3	228933.5	[50000]	µg/L	18:34:45
2	Ca 317.933Radial†	860622.6	851929.2	[50000]	µg/L	18:34:45
2	Fe 238.204 Radial†	303079.0	300121.2	[20000]	µg/L	18:34:45
2	Mg 279.077 IEC†	122393.7	121058.3	[50000]	µg/L	18:34:45
2	Na 589.592 Radial†	133483.0	130535.5	[20000]	µg/L	18:34:45
3	Sc 361.383	1642134.3	1642134.3	98.168	%	18:35:10
3	Sc RADIAL	146873.2	146873.2	101	%	18:34:47
3	Y 371.029	994617.7	994617.7	97.265	%	18:35:10
3	Al 396.153Radial†	231391.3	229660.2	[50000]	µg/L	18:34:47
3	Ca 317.933Radial†	862939.8	855749.1	[50000]	µg/L	18:34:47
3	Fe 238.204 Radial†	304238.1	301806.9	[20000]	µg/L	18:34:47
3	Mg 279.077 IEC†	122676.5	121555.2	[50000]	µg/L	18:34:47
3	Na 589.592 Radial†	134070.7	131354.5	[20000]	µg/L	18:34:47

Mean Data: S10

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc 361.383	1645663.0	3090.68	0.19%	98.379	%
Sc RADIAL	147310.1	545.84	0.37%	101	%
Y 371.029	996917.7	1993.60	0.20%	97.490	%
Al 396.153Radial†	228953.9	696.32	0.30%	[50000]	µg/L
Ca 317.933Radial†	852933.2	2471.89	0.29%	[50000]	µg/L
Fe 238.204 Radial†	300638.1	1014.46	0.34%	[20000]	µg/L
Mg 279.077 IEC†	121137.9	383.71	0.32%	[50000]	µg/L
Na 589.592 Radial†	130783.9	495.57	0.38%	[20000]	µg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	3	Lin Thru 0	0.0	246.4	0.00000	0.999992	
Al 396.153Radial	3	Lin Thru 0	0.0	4.581	0.00000	0.999996	
As 188.979	3	Lin Thru 0	0.0	2.393	0.00000	0.999929	
B 249.677	3	Lin Thru 0	0.0	59.56	0.00000	0.999952	
Ba 233.527	3	Lin Thru 0	0.0	218.9	0.00000	0.999987	
Be 313.107	3	Lin Thru 0	0.0	3072	0.00000	0.999986	
Ca 317.933Radial	3	Lin Thru 0	0.0	17.07	0.00000	0.999997	
Cd 226.502	3	Lin Thru 0	0.0	144.8	0.00000	0.999986	
Co 228.616	3	Lin Thru 0	0.0	73.04	0.00000	0.999984	
Cr 267.716	3	Lin Thru 0	0.0	116.4	0.00000	0.999990	
Cu 324.752	3	Lin Thru 0	0.0	230.0	0.00000	0.999993	
Fe 238.204 Radia	2	Lin Thru 0	0.0	15.04	0.00000	0.999999	
K 766.490 Radial	3	Lin Thru 0	0.0	2.429	0.00000	0.999970	
Mg 279.077 IEC	3	Lin Thru 0	0.0	2.425	0.00000	0.999987	
Mn 257.610	3	Lin Thru 0	0.0	731.8	0.00000	0.999991	
Mo 202.031	3	Lin Thru 0	0.0	31.68	0.00000	0.999979	

Na 589.592 Radia	2	Lin Thru 0	0.0	6.535	0.00000	0.999999
Ni 231.604	3	Lin Thru 0	0.0	78.18	0.00000	0.999990
P 214.914	3	Lin Thru 0	0.0	4.176	0.00000	0.999933
Pb 220.353	3	Lin Thru 0	0.0	16.51	0.00000	0.999980
S 181.975 Axial	3	Lin Thru 0	0.0	1.234	0.00000	0.999894
Sb 206.836	3	Lin Thru 0	0.0	7.413	0.00000	0.999972
Se 196.026	3	Lin Thru 0	0.0	2.528	0.00000	0.999970
SiO2	3	Lin Thru 0	0.0	9.149	0.00000	0.999993
Si 251.611	3	Lin Thru 0	0.0	60.48	0.00000	0.999996
Sn 189.927	3	Lin Thru 0	0.0	14.07	0.00000	0.999974
Sr 421.552	3	Lin Thru 0	0.0	426.7	0.00000	0.999990
Ti 334.940	3	Lin Thru 0	0.0	980.7	0.00000	0.999985
Tl 190.801	3	Lin Thru 0	0.0	7.450	0.00000	0.999968
U 409.014	3	Lin Thru 0	0.0	16.18	0.00000	0.999235
V 292.402	3	Lin Thru 0	0.0	180.3	0.00000	0.999978
Zn 213.857	3	Lin Thru 0	0.0	158.8	0.00000	0.999994

Sequence No.: 6
Sample ID: ICV
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 3/29/2010 18:35:18
Data Type: Reprocessed on 3/29/2010 19:14:36

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	1701844.8	1701844.8	101.74	%			18:36:17
1	Sc RADIAL	151216.0	151216.0	104	%			18:35:50
1	Y 371.029	1036585.9	1036585.9	101.37	%			18:36:17
1	Ag 328.068†	65858.6	61766.5	256.87	µg/L	256.87	ppb	18:36:17
1	Al 396.153Radial†	24486.5	23634.0	5134.9	µg/L	5134.9	ppb	18:35:50
1	As 188.979†	1140.6	1135.4	481.67	µg/L	481.67	ppb	18:36:37
1	B 249.677†	34168.2	30228.9	505.75	µg/L	505.75	ppb	18:36:17
1	Ba 233.527†	112714.3	110964.0	507.33	µg/L	507.33	ppb	18:36:17
1	Be 313.107†	798269.6	785294.0	255.76	µg/L	255.76	ppb	18:36:17
1	Ca 317.933Radial†	89164.4	85327.7	4999.8	µg/L	4999.8	ppb	18:35:50
1	Cd 226.502†	72993.3	71840.9	495.79	µg/L	495.79	ppb	18:36:17
1	Co 228.616†	37444.2	36981.2	506.64	µg/L	506.64	ppb	18:36:17
1	Cr 267.716†	57873.1	56724.3	487.10	µg/L	487.10	ppb	18:36:17
1	Cu 324.752†	121386.5	116888.2	509.66	µg/L	509.66	ppb	18:36:17
1	Fe 238.204 Radial†	78431.6	75485.5	5018.5	µg/L	5018.5	ppb	18:35:50
1	K 766.490 Radial†	7725.2	5991.2	2463.6	µg/L	2463.6	ppb	18:35:50
1	Mg 279.077 IEC†	13310.9	12643.4	5221.4	µg/L	5221.4	ppb	18:35:50
1	Mn 257.610†	376288.9	369781.3	505.06	µg/L	505.06	ppb	18:36:17
1	Mo 202.031†	16673.6	16444.0	519.54	µg/L	519.54	ppb	18:36:37
1	Na 589.592 Radial†	18471.5	16109.6	2462.8	µg/L	2462.8	ppb	18:35:50
1	Ni 231.604†	39283.0	38652.9	494.42	µg/L	494.42	ppb	18:36:17
1	P 214.914†	10554.2	10294.3	2456.6	µg/L	2456.6	ppb	18:36:37
1	Pb 220.353†	8472.5	8215.3	499.30	µg/L	499.30	ppb	18:36:37
1	S 181.975 Axial†	3123.6	2975.4	2415.0	µg/L	2415.0	ppb	18:36:37
1	Sb 206.836†	3775.1	3624.0	490.49	µg/L	490.49	ppb	18:36:37
1	Se 196.026†	6364.3	6244.7	2470	µg/L	2470	ppb	18:36:37
1	SiO2†	99568.8	96295.2	10503	µg/L	10503	ppb	18:36:17
1	Si 251.611†	303093.3	297239.6	4904.5	µg/L	4904.5	ppb	18:36:17
1	Sn 189.927†	7432.7	7303.7	520.86	µg/L	520.86	ppb	18:36:37
1	Sr 421.552†	233447.1	225293.2	527.99	µg/L	527.99	ppb	18:35:48
1	Ti 334.940†	482527.6	473648.9	482.33	µg/L	482.33	ppb	18:36:17
1	Tl 190.801†	3799.6	3855.0	524.73	µg/L	524.73	ppb	18:36:37
1	U 409.014†	6773.0	7136.4	471.37	µg/L	471.37	ppb	18:36:17
1	V 292.402†	91625.4	89628.5	503.69	µg/L	503.69	ppb	18:36:17
1	Zn 213.857†	81346.1	79492.2	496.47	µg/L	496.47	ppb	18:36:17
2	Sc 361.383	1701980.9	1701980.9	101.75	%			18:36:40
2	Sc RADIAL	148848.9	148848.9	102	%			18:35:54
2	Y 371.029	1036246.9	1036246.9	101.34	%			18:36:40
2	Ag 328.068†	66063.0	61962.3	257.67	µg/L	257.67	ppb	18:36:40
2	Al 396.153Radial†	24189.6	23718.6	5153.2	µg/L	5153.2	ppb	18:35:54
2	As 188.979†	1141.1	1135.8	481.85	µg/L	481.85	ppb	18:37:00
2	B 249.677†	34342.1	30397.1	508.57	µg/L	508.57	ppb	18:36:40
2	Ba 233.527†	113003.6	111239.5	508.60	µg/L	508.60	ppb	18:36:40
2	Be 313.107†	803326.2	790201.1	257.35	µg/L	257.35	ppb	18:36:40
2	Ca 317.933Radial†	87776.3	85335.2	5000.3	µg/L	5000.3	ppb	18:35:54
2	Cd 226.502†	73305.6	72142.1	497.87	µg/L	497.87	ppb	18:36:40
2	Co 228.616†	37456.8	36990.6	506.77	µg/L	506.77	ppb	18:36:40
2	Cr 267.716†	58033.0	56876.9	488.42	µg/L	488.42	ppb	18:36:40
2	Cu 324.752†	121826.1	117310.6	511.48	µg/L	511.48	ppb	18:36:40
2	Fe 238.204 Radial†	77113.3	75396.8	5012.6	µg/L	5012.6	ppb	18:35:54
2	K 766.490 Radial†	7618.8	6005.4	2469.4	µg/L	2469.4	ppb	18:35:54
2	Mg 279.077 IEC†	12970.7	12514.3	5168.3	µg/L	5168.3	ppb	18:35:54
2	Mn 257.610†	377832.0	371268.3	507.10	µg/L	507.10	ppb	18:36:40
2	Mo 202.031†	16755.0	16522.7	522.02	µg/L	522.02	ppb	18:37:00
2	Na 589.592 Radial†	18069.9	15999.5	2445.9	µg/L	2445.9	ppb	18:35:54
2	Ni 231.604†	39447.3	38811.3	496.44	µg/L	496.44	ppb	18:36:40
2	P 214.914†	10626.3	10364.3	2473.3	µg/L	2473.3	ppb	18:37:00
2	Pb 220.353†	8494.9	8236.7	500.61	µg/L	500.61	ppb	18:37:00

2	S 181.975 Axial†	3125.4	2976.9	2416.3 µg/L	2416.3 ppb	18:37:00
2	Sb 206.836†	3806.5	3654.5	494.63 µg/L	494.63 ppb	18:37:00
2	Se 196.026†	6410.3	6289.4	2490 µg/L	2490 ppb	18:37:00
2	SiO2†	100159.6	96868.0	10565 µg/L	10565 ppb	18:36:40
2	Si 251.611†	304136.0	298240.5	4921.0 µg/L	4921.0 ppb	18:36:40
2	Sn 189.927†	7468.1	7337.9	523.29 µg/L	523.29 ppb	18:37:00
2	Sr 421.552†	233080.0	228512.0	535.53 µg/L	535.53 ppb	18:35:52
2	Ti 334.940†	484116.4	475172.5	483.90 µg/L	483.90 ppb	18:36:40
2	Tl 190.801†	3811.9	3866.8	526.34 µg/L	526.34 ppb	18:37:00
2	U 409.014†	6593.5	6959.4	460.57 µg/L	460.57 ppb	18:36:40
2	V 292.402†	92020.5	90009.6	505.83 µg/L	505.83 ppb	18:36:40
2	Zn 213.857†	81495.2	79632.3	497.34 µg/L	497.34 ppb	18:36:40
3	Sc 361.383	1720635.0	1720635.0	102.86 %		18:37:03
3	Sc RADIAL	149044.6	149044.6	102 %		18:35:58
3	Y 371.029	1046771.8	1046771.8	102.37 %		18:37:03
3	Ag 328.068†	66524.8	61707.3	256.63 µg/L	256.63 ppb	18:37:03
3	Al 396.153Radial†	24064.3	23565.0	5120.0 µg/L	5120.0 ppb	18:35:58
3	As 188.979†	1131.9	1114.6	473.00 µg/L	473.00 ppb	18:37:23
3	B 249.677†	34751.0	30428.7	509.10 µg/L	509.10 ppb	18:37:03
3	Ba 233.527†	114119.3	111120.0	508.05 µg/L	508.05 ppb	18:37:03
3	Be 313.107†	809136.9	787290.3	256.41 µg/L	256.41 ppb	18:37:03
3	Ca 317.933Radial†	87762.2	85208.6	4992.9 µg/L	4992.9 ppb	18:35:58
3	Cd 226.502†	74233.6	72263.2	498.71 µg/L	498.71 ppb	18:37:03
3	Co 228.616†	37810.4	36935.2	506.02 µg/L	506.02 ppb	18:37:03
3	Cr 267.716†	58579.7	56790.0	487.67 µg/L	487.67 ppb	18:37:03
3	Cu 324.752†	122627.9	116792.1	509.24 µg/L	509.24 ppb	18:37:03
3	Fe 238.204 Radial†	77211.6	75393.8	5012.4 µg/L	5012.4 ppb	18:35:58
3	K 766.490 Radial†	7631.8	6008.3	2470.6 µg/L	2470.6 ppb	18:35:58
3	Mg 279.077 IEC†	13062.0	12587.0	5198.1 µg/L	5198.1 ppb	18:35:58
3	Mn 257.610†	380724.0	370053.9	505.44 µg/L	505.44 ppb	18:37:03
3	Mo 202.031†	16767.7	16356.5	516.77 µg/L	516.77 ppb	18:37:23
3	Na 589.592 Radial†	18288.4	16189.9	2475.1 µg/L	2475.1 ppb	18:35:58
3	Ni 231.604†	39680.9	38618.1	493.97 µg/L	493.97 ppb	18:37:03
3	P 214.914†	10598.2	10223.8	2439.7 µg/L	2439.7 ppb	18:37:23
3	Pb 220.353†	8535.0	8185.1	497.46 µg/L	497.46 ppb	18:37:23
3	S 181.975 Axial†	3153.8	2971.2	2411.6 µg/L	2411.6 ppb	18:37:23
3	Sb 206.836†	3795.0	3602.8	487.58 µg/L	487.58 ppb	18:37:23
3	Se 196.026†	6408.5	6219.4	2460 µg/L	2460 ppb	18:37:23
3	SiO2†	100969.8	96588.4	10535 µg/L	10535 ppb	18:37:03
3	Si 251.611†	306927.5	297713.8	4912.4 µg/L	4912.4 ppb	18:37:03
3	Sn 189.927†	7476.5	7266.5	518.21 µg/L	518.21 ppb	18:37:23
3	Sr 421.552†	230245.5	225440.5	528.33 µg/L	528.33 ppb	18:35:56
3	Ti 334.940†	487355.2	473162.7	481.84 µg/L	481.84 ppb	18:37:03
3	Tl 190.801†	3807.3	3821.7	520.26 µg/L	520.26 ppb	18:37:23
3	U 409.014†	6788.8	7079.0	467.87 µg/L	467.87 ppb	18:37:03
3	V 292.402†	92755.7	89743.8	504.30 µg/L	504.30 ppb	18:37:03
3	Zn 213.857†	82290.5	79537.1	496.75 µg/L	496.75 ppb	18:37:03

Mean Data: ICV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1708153.5	102.11	%	0.646				0.63%
Sc RADIAL	149703.2	103	%	0.9				0.88%
Y 371.029	1039868.2	101.69	%	0.585				0.58%
Ag 328.068†	61812.1	257.06	µg/L	0.547	257.06	ppb	0.547	0.21%
QC value within limits for Ag 328.068 Recovery = 102.82%								
Al 396.153Radial†	23639.2	5136.0	µg/L	16.67	5136.0	ppb	16.67	0.32%
QC value within limits for Al 396.153Radial Recovery = 102.72%								
As 188.979†	1128.6	478.84	µg/L	5.057	478.84	ppb	5.057	1.06%
QC value within limits for As 188.979 Recovery = 95.77%								
B 249.677†	30351.6	507.81	µg/L	1.804	507.81	ppb	1.804	0.36%
QC value within limits for B 249.677 Recovery = 101.56%								
Ba 233.527†	111107.9	507.99	µg/L	0.632	507.99	ppb	0.632	0.12%
QC value within limits for Ba 233.527 Recovery = 101.60%								
Be 313.107†	787595.1	256.51	µg/L	0.802	256.51	ppb	0.802	0.31%
QC value within limits for Be 313.107 Recovery = 102.60%								
Ca 317.933Radial†	85290.5	4997.7	µg/L	4.16	4997.7	ppb	4.16	0.08%
QC value within limits for Ca 317.933Radial Recovery = 99.95%								
Cd 226.502†	72082.0	497.46	µg/L	1.502	497.46	ppb	1.502	0.30%
QC value within limits for Cd 226.502 Recovery = 99.49%								

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Co 228.616†            36969.0      506.48 µg/L         0.406      506.48 ppb          0.406   0.08%
   QC value within limits for Co 228.616  Recovery = 101.30%
Cr 267.716†            56797.1      487.73 µg/L         0.662      487.73 ppb          0.662   0.14%
   QC value within limits for Cr 267.716  Recovery = 97.55%
Cu 324.752†           116997.0      510.13 µg/L         1.195      510.13 ppb          1.195   0.23%
   QC value within limits for Cu 324.752  Recovery = 102.03%
Fe 238.204 Radial†     75425.3      5014.5 µg/L          3.46      5014.5 ppb           3.46   0.07%
   QC value within limits for Fe 238.204 Radial  Recovery = 100.29%
K 766.490 Radial†       6001.6      2467.9 µg/L          3.77      2467.9 ppb           3.77   0.15%
   QC value within limits for K 766.490 Radial  Recovery = 98.71%
Mg 279.077 IEC†        12581.6      5195.9 µg/L         26.65      5195.9 ppb          26.65   0.51%
   QC value within limits for Mg 279.077 IEC  Recovery = 103.92%
Mn 257.610†           370367.8      505.87 µg/L         1.083      505.87 ppb          1.083   0.21%
   QC value within limits for Mn 257.610  Recovery = 101.17%
Mo 202.031†            16441.1      519.44 µg/L         2.624      519.44 ppb          2.624   0.51%
   QC value within limits for Mo 202.031  Recovery = 103.89%
Na 589.592 Radial†     16099.7      2461.3 µg/L         14.63      2461.3 ppb          14.63   0.59%
   QC value within limits for Na 589.592 Radial  Recovery = 98.45%
Ni 231.604†            38694.1      494.94 µg/L         1.317      494.94 ppb          1.317   0.27%
   QC value within limits for Ni 231.604  Recovery = 98.99%
P 214.914†             10294.2      2456.5 µg/L         16.81      2456.5 ppb          16.81   0.68%
   QC value within limits for P 214.914  Recovery = 98.26%
Pb 220.353†             8212.4      499.12 µg/L         1.581      499.12 ppb          1.581   0.32%
   QC value within limits for Pb 220.353  Recovery = 99.82%
S 181.975 Axial†        2974.5      2414.3 µg/L          2.40      2414.3 ppb           2.40   0.10%
   QC value within limits for S 181.975 Axial  Recovery = 96.57%
Sb 206.836†             3627.1      490.90 µg/L         3.546      490.90 ppb          3.546   0.72%
   QC value within limits for Sb 206.836  Recovery = 98.18%
Se 196.026†             6251.2        2470 µg/L          14.0        2470 ppb           14.0   0.57%
   QC value within limits for Se 196.026  Recovery = 98.99%
SiO2†                  96583.8       10534 µg/L          31.3       10534 ppb           31.3   0.30%
   QC value within limits for SiO2  Recovery = 98.50%
Si 251.611†           297731.3      4912.6 µg/L          8.25      4912.6 ppb           8.25   0.17%
   QC value within limits for Si 251.611  Recovery = 98.25%
Sn 189.927†             7302.7      520.79 µg/L         2.541      520.79 ppb          2.541   0.49%
   QC value within limits for Sn 189.927  Recovery = 104.16%
Sr 421.552†           226415.3      530.62 µg/L         4.259      530.62 ppb          4.259   0.80%
   QC value within limits for Sr 421.552  Recovery = 106.12%
Ti 334.940†           473994.7      482.69 µg/L         1.073      482.69 ppb          1.073   0.22%
   QC value within limits for Ti 334.940  Recovery = 96.54%
Tl 190.801†             3847.8      523.78 µg/L         3.151      523.78 ppb          3.151   0.60%
   QC value within limits for Tl 190.801  Recovery = 104.76%
U 409.014†              7058.3      466.61 µg/L         5.511      466.61 ppb          5.511   1.18%
   QC value within limits for U 409.014  Recovery = 93.32%
V 292.402†             89793.9      504.61 µg/L         1.101      504.61 ppb          1.101   0.22%
   QC value within limits for V 292.402  Recovery = 100.92%
Zn 213.857†            79553.9      496.85 µg/L         0.443      496.85 ppb          0.443   0.09%
   QC value within limits for Zn 213.857  Recovery = 99.37%
All analyte(s) passed QC.
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Sequence No.: 7
Sample ID: ICB
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 3/29/2010 18:37:32
Data Type: Reprocessed on 3/29/2010 19:14:36

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	1718110.5	1718110.5	102.71	%			18:39:24
1	Sc RADIAL	149870.1	149870.1	103	%			18:38:01
1	Y 371.029	1056124.6	1056124.6	103.28	%			18:39:24
1	Ag 328.068†	2764.1	-275.9	-1.1170	µg/L	-1.1170	ppb	18:39:26
1	Al 396.153Radial†	-34.1	-1.3	-0.3025	µg/L	-0.3025	ppb	18:38:21
1	As 188.979†	-13.9	0.8	0.3158	µg/L	0.3158	ppb	18:39:46
1	B 249.677†	3290.8	-151.7	-2.5477	µg/L	-2.5477	ppb	18:39:46
1	Ba 233.527†	-149.3	29.7	0.1352	µg/L	0.1352	ppb	18:39:46
1	Be 313.107†	-642.8	34.2	0.0134	µg/L	0.0134	ppb	18:39:26
1	Ca 317.933Radial†	601.2	-31.5	-1.8457	µg/L	-1.8457	ppb	18:38:21
1	Cd 226.502†	-82.2	14.4	0.0988	µg/L	0.0988	ppb	18:39:46
1	Co 228.616†	-179.0	2.3	0.0321	µg/L	0.0321	ppb	18:39:46
1	Cr 267.716†	164.4	-0.2	-0.0075	µg/L	-0.0075	ppb	18:39:46
1	Cu 324.752†	2372.4	-115.1	-0.4939	µg/L	-0.4939	ppb	18:39:26
1	Fe 238.204 Radial†	141.5	24.3	1.6170	µg/L	1.6170	ppb	18:38:21
1	K 766.490 Radial†	1569.1	71.0	29.223	µg/L	29.223	ppb	18:38:01
1	Mg 279.077 IEC†	162.3	-28.9	-11.902	µg/L	-11.902	ppb	18:38:21
1	Mn 257.610†	162.2	77.9	0.1069	µg/L	0.1069	ppb	18:39:46
1	Mo 202.031†	-48.8	7.7	0.2416	µg/L	0.2416	ppb	18:39:46
1	Na 589.592 Radial†	1595.3	-143.3	-21.948	µg/L	-21.948	ppb	18:38:01
1	Ni 231.604†	-74.2	-31.3	-0.4003	µg/L	-0.4003	ppb	18:39:46
1	P 214.914†	77.1	-4.5	-1.0788	µg/L	-1.0788	ppb	18:39:46
1	Pb 220.353†	105.8	-9.5	-0.5776	µg/L	-0.5776	ppb	18:39:46
1	S 181.975 Axial†	96.4	-1.0	-0.8082	µg/L	-0.8082	ppb	18:39:46
1	Sb 206.836†	76.9	-11.8	-1.5863	µg/L	-1.5863	ppb	18:39:46
1	Se 196.026†	30.3	18.6	7.35	µg/L	7.35	ppb	18:39:46
1	SiO2†	1615.4	-0.1	-0.0156	µg/L	-0.0156	ppb	18:39:46
1	Si 251.611†	756.3	60.0	0.9881	µg/L	0.9881	ppb	18:39:26
1	Sn 189.927†	2.2	0.2	0.0117	µg/L	0.0117	ppb	18:39:46
1	Sr 421.552†	-232.4	51.9	0.1217	µg/L	0.1217	ppb	18:38:01
1	Ti 334.940†	823.7	165.6	0.1667	µg/L	0.1667	ppb	18:39:26
1	Tl 190.801†	-129.5	-5.8	-0.7821	µg/L	-0.7821	ppb	18:39:46
1	U 409.014†	-365.4	123.4	7.5895	µg/L	7.5895	ppb	18:39:26
1	V 292.402†	336.7	-104.0	-0.5695	µg/L	-0.5695	ppb	18:39:26
1	Zn 213.857†	481.8	4.7	0.0326	µg/L	0.0326	ppb	18:39:46
2	Sc 361.383	1718304.1	1718304.1	102.72	%			18:39:48
2	Sc RADIAL	149819.8	149819.8	103	%			18:38:23
2	Y 371.029	1056622.1	1056622.1	103.33	%			18:39:48
2	Ag 328.068†	3062.4	14.3	0.0846	µg/L	0.0846	ppb	18:39:50
2	Al 396.153Radial†	-45.4	-12.3	-2.7171	µg/L	-2.7171	ppb	18:38:44
2	As 188.979†	-10.9	3.6	1.5162	µg/L	1.5162	ppb	18:40:10
2	B 249.677†	3277.0	-165.5	-2.7792	µg/L	-2.7792	ppb	18:40:10
2	Ba 233.527†	-168.1	11.4	0.0526	µg/L	0.0526	ppb	18:40:10
2	Be 313.107†	-415.9	255.2	0.0882	µg/L	0.0882	ppb	18:39:50
2	Ca 317.933Radial†	633.4	0.0	0.0016	µg/L	0.0016	ppb	18:38:44
2	Cd 226.502†	-115.3	-17.9	-0.1235	µg/L	-0.1235	ppb	18:40:10
2	Co 228.616†	-162.9	18.1	0.2472	µg/L	0.2472	ppb	18:40:10
2	Cr 267.716†	189.3	24.1	0.1939	µg/L	0.1939	ppb	18:40:10
2	Cu 324.752†	2490.6	-0.2	0.0132	µg/L	0.0132	ppb	18:39:50
2	Fe 238.204 Radial†	132.2	15.4	1.0215	µg/L	1.0215	ppb	18:38:44
2	K 766.490 Radial†	1519.5	23.3	9.5884	µg/L	9.5884	ppb	18:38:23
2	Mg 279.077 IEC†	195.8	3.8	1.5733	µg/L	1.5733	ppb	18:38:44
2	Mn 257.610†	168.0	83.5	0.1141	µg/L	0.1141	ppb	18:40:10
2	Mo 202.031†	-35.6	20.5	0.6489	µg/L	0.6489	ppb	18:40:10
2	Na 589.592 Radial†	1651.7	-87.8	-13.450	µg/L	-13.450	ppb	18:38:23
2	Ni 231.604†	-55.2	-12.8	-0.1641	µg/L	-0.1641	ppb	18:40:10
2	P 214.914†	83.6	1.8	0.4344	µg/L	0.4344	ppb	18:40:10
2	Pb 220.353†	94.6	-20.3	-1.2399	µg/L	-1.2399	ppb	18:40:10

2	S 181.975 Axial†	84.2	-12.9	-10.416 µg/L	-10.416 ppb	18:40:10
2	Sb 206.836†	72.7	-15.8	-2.1296 µg/L	-2.1296 ppb	18:40:10
2	Se 196.026†	25.1	13.5	5.37 µg/L	5.37 ppb	18:40:10
2	SiO2†	1629.2	13.2	1.4227 µg/L	1.4227 ppb	18:40:10
2	Si 251.611†	776.2	79.3	1.3023 µg/L	1.3023 ppb	18:39:50
2	Sn 189.927†	1.7	-0.4	-0.0258 µg/L	-0.0258 ppb	18:40:10
2	Sr 421.552†	-119.9	161.3	0.3781 µg/L	0.3781 ppb	18:38:23
2	Ti 334.940†	906.1	245.8	0.2435 µg/L	0.2435 ppb	18:39:50
2	Tl 190.801†	-120.0	3.5	0.4698 µg/L	0.4698 ppb	18:40:10
2	U 409.014†	-211.2	273.5	16.929 µg/L	16.929 ppb	18:39:50
2	V 292.402†	536.3	90.3	0.5193 µg/L	0.5193 ppb	18:39:50
2	Zn 213.857†	461.1	-15.5	-0.0967 µg/L	-0.0967 ppb	18:40:10
3	Sc 361.383	1698930.8	1698930.8	101.56 %		18:40:12
3	Sc RADIAL	152143.2	152143.2	104 %		18:38:46
3	Y 371.029	1045315.3	1045315.3	102.22 %		18:40:12
3	Ag 328.068†	3085.7	71.1	0.2837 µg/L	0.2837 ppb	18:40:14
3	Al 396.153Radial†	-62.8	-28.3	-6.2230 µg/L	-6.2230 ppb	18:39:06
3	As 188.979†	-25.2	-10.6	-4.4173 µg/L	-4.4173 ppb	18:40:34
3	B 249.677†	3266.7	-139.3	-2.3411 µg/L	-2.3411 ppb	18:40:34
3	Ba 233.527†	-163.9	13.7	0.0623 µg/L	0.0623 ppb	18:40:34
3	Be 313.107†	-627.7	42.1	0.0141 µg/L	0.0141 ppb	18:40:14
3	Ca 317.933Radial†	630.0	-12.6	-0.7399 µg/L	-0.7399 ppb	18:39:06
3	Cd 226.502†	-76.1	19.4	0.1339 µg/L	0.1339 ppb	18:40:34
3	Co 228.616†	-133.4	45.2	0.6195 µg/L	0.6195 ppb	18:40:34
3	Cr 267.716†	156.7	-5.9	-0.0523 µg/L	-0.0523 ppb	18:40:34
3	Cu 324.752†	2540.5	76.5	0.3341 µg/L	0.3341 ppb	18:40:14
3	Fe 238.204 Radial†	134.4	15.5	1.0313 µg/L	1.0313 ppb	18:39:06
3	K 766.490 Radial†	1520.9	2.1	0.8535 µg/L	0.8535 ppb	18:38:46
3	Mg 279.077 IEC†	186.1	-8.4	-3.4269 µg/L	-3.4269 ppb	18:39:06
3	Mn 257.610†	142.8	60.6	0.0829 µg/L	0.0829 ppb	18:40:34
3	Mo 202.031†	-28.7	26.9	0.8495 µg/L	0.8495 ppb	18:40:34
3	Na 589.592 Radial†	1594.0	-167.7	-25.662 µg/L	-25.662 ppb	18:38:46
3	Ni 231.604†	-74.3	-32.3	-0.4127 µg/L	-0.4127 ppb	18:40:34
3	P 214.914†	71.0	-9.6	-2.3151 µg/L	-2.3151 ppb	18:40:34
3	Pb 220.353†	138.9	24.3	1.4738 µg/L	1.4738 ppb	18:40:34
3	S 181.975 Axial†	87.7	-8.5	-6.8917 µg/L	-6.8917 ppb	18:40:34
3	Sb 206.836†	71.9	-15.8	-2.1234 µg/L	-2.1234 ppb	18:40:34
3	Se 196.026†	21.3	10.1	3.99 µg/L	3.99 ppb	18:40:34
3	SiO2†	1618.8	21.0	2.2686 µg/L	2.2686 ppb	18:40:34
3	Si 251.611†	788.9	100.3	1.6458 µg/L	1.6458 ppb	18:40:14
3	Sn 189.927†	6.3	4.2	0.2956 µg/L	0.2956 ppb	18:40:34
3	Sr 421.552†	-237.8	50.2	0.1176 µg/L	0.1176 ppb	18:38:46
3	Ti 334.940†	556.8	-88.1	-0.0902 µg/L	-0.0902 ppb	18:40:14
3	Tl 190.801†	-119.8	2.3	0.3073 µg/L	0.3073 ppb	18:40:34
3	U 409.014†	-464.1	22.2	1.3392 µg/L	1.3392 ppb	18:40:14
3	V 292.402†	338.6	-98.5	-0.5367 µg/L	-0.5367 ppb	18:40:14
3	Zn 213.857†	460.6	-10.9	-0.0662 µg/L	-0.0662 ppb	18:40:34

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1711781.8	102.33	%	0.665				0.65%
Sc RADIAL	150611.1	103	%	0.9				0.88%
Y 371.029	1052687.3	102.94	%	0.625				0.61%
Ag 328.068†	-63.5	-0.2496	µg/L	0.75780	-0.2496	ppb	0.75780	303.64%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-14.0	-3.0809	µg/L	2.97697	-3.0809	ppb	2.97697	96.63%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.1	-0.8618	µg/L	3.13716	-0.8618	ppb	3.13716	364.04%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-152.2	-2.5560	µg/L	0.21918	-2.5560	ppb	0.21918	8.58%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	18.2	0.0834	µg/L	0.04516	0.0834	ppb	0.04516	54.17%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	110.5	0.0386	µg/L	0.04296	0.0386	ppb	0.04296	111.35%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-14.7	-0.8613	µg/L	0.92961	-0.8613	ppb	0.92961	107.93%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.3	0.0364	µg/L	0.13959	0.0364	ppb	0.13959	383.42%
QC value within limits for Cd 226.502 Recovery = Not calculated								

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Co 228.616†                 21.9      0.2996 µg/L       0.29720      0.2996 ppb        0.29720  99.21%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                  6.0      0.0447 µg/L       0.13112      0.0447 ppb        0.13112 293.47%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                -12.9     -0.0489 µg/L       0.41746     -0.0489 ppb        0.41746 854.27%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†          18.4      1.2233 µg/L       0.34099      1.2233 ppb        0.34099  27.88%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†           32.1      13.222 µg/L       14.5294      13.222 ppb        14.5294 109.89%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†            -11.2     -4.5853 µg/L       6.81203     -4.5853 ppb        6.81203 148.56%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                 74.0      0.1013 µg/L       0.01630      0.1013 ppb        0.01630  16.09%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                 18.4      0.5800 µg/L       0.30975      0.5800 ppb        0.30975  53.40%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -132.9     -20.353 µg/L        6.2604     -20.353 ppb         6.2604  30.76%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                -25.5     -0.3257 µg/L       0.14010     -0.3257 ppb        0.14010  43.01%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                  -4.1     -0.9865 µg/L       1.37705     -0.9865 ppb        1.37705 139.59%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 -1.8     -0.1146 µg/L       1.41489     -0.1146 ppb        1.41489 >999.9%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            -7.5     -6.0387 µg/L       4.86046     -6.0387 ppb        4.86046  80.49%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -14.5     -1.9465 µg/L       0.31193     -1.9465 ppb        0.31193  16.03%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 14.1        5.57 µg/L         1.688        5.57 ppb          1.688  30.30%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                       11.4      1.2252 µg/L       1.15483      1.2252 ppb        1.15483  94.25%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                 79.9      1.3121 µg/L       0.32896      1.3121 ppb        0.32896  25.07%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                  1.3      0.0938 µg/L       0.17571      0.0938 ppb        0.17571 187.29%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†                 87.8      0.2058 µg/L       0.14923      0.2058 ppb        0.14923  72.50%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                107.7      0.1067 µg/L       0.17474      0.1067 ppb        0.17474 163.81%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                  0.0     -0.0017 µg/L       0.68072     -0.0017 ppb        0.68072 >999.9%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 139.7      8.6193 µg/L       7.84577      8.6193 ppb        7.84577  91.03%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                 -37.4     -0.1957 µg/L       0.61936     -0.1957 ppb        0.61936 316.55%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                 -7.2     -0.0435 µg/L       0.06758     -0.0435 ppb        0.06758 155.53%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: PQL
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 101
Date Collected: 3/29/2010 18:40:43
Data Type: Reprocessed on 3/29/2010 19:14:37

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: PQL

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	1721442.6	1721442.6	102.91	%			18:41:40
1	Sc RADIAL	147903.8	147903.8	101	%			18:41:13
1	Y 371.029	1058404.9	1058404.9	103.50	%			18:41:40
1	Ag 328.068†	4025.6	944.7	3.9659	µg/L	3.9659	ppb	18:41:43
1	Al 396.153Radial†	922.6	941.1	204.98	µg/L	204.98	ppb	18:41:15
1	As 188.979†	70.2	82.5	34.551	µg/L	34.551	ppb	18:42:03
1	B 249.677†	6252.3	2719.8	45.645	µg/L	45.645	ppb	18:41:43
1	Ba 233.527†	968.6	1116.3	5.1042	µg/L	5.1042	ppb	18:42:03
1	Be 313.107†	14893.3	15132.4	4.9477	µg/L	4.9477	ppb	18:41:43
1	Ca 317.933Radial†	4243.5	3565.6	208.93	µg/L	208.93	ppb	18:41:15
1	Cd 226.502†	637.3	713.7	4.9197	µg/L	4.9197	ppb	18:42:03
1	Co 228.616†	202.6	373.5	5.1141	µg/L	5.1141	ppb	18:42:03
1	Cr 267.716†	729.0	548.1	4.6505	µg/L	4.6505	ppb	18:42:03
1	Cu 324.752†	4895.4	2332.1	10.224	µg/L	10.224	ppb	18:41:43
1	Fe 238.204 Radial†	1705.5	1567.4	104.21	µg/L	104.21	ppb	18:41:15
1	K 766.490 Radial†	1904.1	421.4	173.34	µg/L	173.34	ppb	18:41:13
1	Mg 279.077 IEC†	935.0	734.7	303.09	µg/L	303.09	ppb	18:41:15
1	Mn 257.610†	7824.8	7523.6	10.268	µg/L	10.268	ppb	18:41:43
1	Mo 202.031†	258.6	306.5	9.6870	µg/L	9.6870	ppb	18:42:03
1	Na 589.592 Radial†	3412.3	1667.9	255.06	µg/L	255.06	ppb	18:41:15
1	Ni 231.604†	353.8	384.7	4.9210	µg/L	4.9210	ppb	18:42:03
1	P 214.914†	701.3	601.9	143.99	µg/L	143.99	ppb	18:42:03
1	Pb 220.353†	285.3	164.8	9.9640	µg/L	9.9640	ppb	18:42:03
1	S 181.975 Axial†	217.5	116.6	94.518	µg/L	94.518	ppb	18:42:03
1	Sb 206.836†	151.7	60.8	8.2873	µg/L	8.2873	ppb	18:42:03
1	Se 196.026†	93.5	79.9	31.7	µg/L	31.7	ppb	18:42:03
1	SiO2†	3528.6	1856.0	202.45	µg/L	202.45	ppb	18:41:43
1	Si 251.611†	7008.2	6133.7	101.23	µg/L	101.23	ppb	18:41:43
1	Sn 189.927†	141.3	135.3	9.6379	µg/L	9.6379	ppb	18:42:03
1	Sr 421.552†	2328.3	2572.4	6.0274	µg/L	6.0274	ppb	18:41:15
1	Ti 334.940†	5694.2	4896.9	4.9428	µg/L	4.9428	ppb	18:41:43
1	Tl 190.801†	28.4	147.9	19.934	µg/L	19.934	ppb	18:42:03
1	U 409.014†	713.0	1172.0	72.715	µg/L	72.715	ppb	18:41:43
1	V 292.402†	1246.9	779.8	4.4736	µg/L	4.4736	ppb	18:41:43
1	Zn 213.857†	2077.4	1554.3	9.7365	µg/L	9.7365	ppb	18:42:03
2	Sc 361.383	1724623.2	1724623.2	103.10	%			18:42:05
2	Sc RADIAL	148676.2	148676.2	102	%			18:41:17
2	Y 371.029	1060877.7	1060877.7	103.75	%			18:42:05
2	Ag 328.068†	4441.5	1340.9	5.5444	µg/L	5.5444	ppb	18:42:07
2	Al 396.153Radial†	882.0	896.6	195.25	µg/L	195.25	ppb	18:41:19
2	As 188.979†	60.0	72.5	30.385	µg/L	30.385	ppb	18:42:27
2	B 249.677†	6195.0	2653.1	44.524	µg/L	44.524	ppb	18:42:07
2	Ba 233.527†	972.4	1118.3	5.1130	µg/L	5.1130	ppb	18:42:27
2	Be 313.107†	15035.6	15243.7	4.9775	µg/L	4.9775	ppb	18:42:07
2	Ca 317.933Radial†	4053.9	3358.0	196.76	µg/L	196.76	ppb	18:41:19
2	Cd 226.502†	642.0	717.1	4.9432	µg/L	4.9432	ppb	18:42:27
2	Co 228.616†	195.2	365.9	5.0104	µg/L	5.0104	ppb	18:42:27
2	Cr 267.716†	741.9	559.4	4.7640	µg/L	4.7640	ppb	18:42:27
2	Cu 324.752†	4804.6	2235.3	9.7851	µg/L	9.7851	ppb	18:42:07
2	Fe 238.204 Radial†	1689.7	1543.2	102.60	µg/L	102.60	ppb	18:41:19
2	K 766.490 Radial†	1941.0	447.8	184.20	µg/L	184.20	ppb	18:41:17
2	Mg 279.077 IEC†	934.9	729.8	301.08	µg/L	301.08	ppb	18:41:19
2	Mn 257.610†	7840.1	7524.4	10.269	µg/L	10.269	ppb	18:42:07
2	Mo 202.031†	268.7	315.9	9.9813	µg/L	9.9813	ppb	18:42:27
2	Na 589.592 Radial†	3585.8	1820.6	278.41	µg/L	278.41	ppb	18:41:19
2	Ni 231.604†	360.6	390.7	4.9969	µg/L	4.9969	ppb	18:42:27
2	P 214.914†	704.9	604.1	144.53	µg/L	144.53	ppb	18:42:27
2	Pb 220.353†	256.9	136.7	8.2831	µg/L	8.2831	ppb	18:42:27

2	S 181.975 Axial†	211.0	109.8	89.075 µg/L	89.075 ppb	18:42:27
2	Sb 206.836†	139.1	48.3	6.6025 µg/L	6.6025 ppb	18:42:27
2	Se 196.026†	85.2	71.7	28.4 µg/L	28.4 ppb	18:42:27
2	SiO2†	3666.3	1983.3	216.34 µg/L	216.34 ppb	18:42:07
2	Si 251.611†	6987.0	6100.5	100.67 µg/L	100.67 ppb	18:42:07
2	Sn 189.927†	148.9	142.4	10.142 µg/L	10.142 ppb	18:42:27
2	Sr 421.552†	2257.8	2491.4	5.8378 µg/L	5.8378 ppb	18:41:19
2	Ti 334.940†	5599.5	4794.8	4.8474 µg/L	4.8474 ppb	18:42:07
2	Tl 190.801†	28.5	147.9	19.938 µg/L	19.938 ppb	18:42:27
2	U 409.014†	356.1	824.5	51.229 µg/L	51.229 ppb	18:42:07
2	V 292.402†	1199.8	731.9	4.1969 µg/L	4.1969 ppb	18:42:07
2	Zn 213.857†	2110.9	1583.0	9.9172 µg/L	9.9172 ppb	18:42:27
3	Sc 361.383	1709181.0	1709181.0	102.18 %		18:42:29
3	Sc RADIAL	148765.1	148765.1	102 %		18:41:21
3	Y 371.029	1051117.1	1051117.1	102.79 %		18:42:29
3	Ag 328.068†	4096.5	1042.2	4.3518 µg/L	4.3518 ppb	18:42:31
3	Al 396.153Radial†	913.9	927.3	201.93 µg/L	201.93 ppb	18:41:23
3	As 188.979†	45.1	58.4	24.503 µg/L	24.503 ppb	18:42:51
3	B 249.677†	6365.0	2873.8	48.229 µg/L	48.229 ppb	18:42:31
3	Ba 233.527†	993.8	1147.7	5.2479 µg/L	5.2479 ppb	18:42:51
3	Be 313.107†	15404.4	15736.4	5.1406 µg/L	5.1406 ppb	18:42:31
3	Ca 317.933Radial†	4204.3	3503.0	205.26 µg/L	205.26 ppb	18:41:23
3	Cd 226.502†	656.9	737.3	5.0831 µg/L	5.0831 ppb	18:42:51
3	Co 228.616†	214.1	386.1	5.2868 µg/L	5.2868 ppb	18:42:51
3	Cr 267.716†	776.9	600.1	5.1070 µg/L	5.1070 ppb	18:42:51
3	Cu 324.752†	4905.4	2376.0	10.405 µg/L	10.405 ppb	18:42:31
3	Fe 238.204 Radial†	1701.7	1554.0	103.31 µg/L	103.31 ppb	18:41:23
3	K 766.490 Radial†	1863.7	371.0	152.58 µg/L	152.58 ppb	18:41:21
3	Mg 279.077 IEC†	946.2	740.4	305.43 µg/L	305.43 ppb	18:41:23
3	Mn 257.610†	7932.9	7683.9	10.487 µg/L	10.487 ppb	18:42:31
3	Mo 202.031†	276.9	326.2	10.308 µg/L	10.308 ppb	18:42:51
3	Na 589.592 Radial†	3380.4	1617.2	247.32 µg/L	247.32 ppb	18:41:23
3	Ni 231.604†	372.2	405.1	5.1823 µg/L	5.1823 ppb	18:42:51
3	P 214.914†	693.9	599.5	143.42 µg/L	143.42 ppb	18:42:51
3	Pb 220.353†	299.1	180.3	10.914 µg/L	10.914 ppb	18:42:51
3	S 181.975 Axial†	216.9	117.4	95.241 µg/L	95.241 ppb	18:42:51
3	Sb 206.836†	178.2	87.8	11.935 µg/L	11.935 ppb	18:42:51
3	Se 196.026†	84.3	71.6	28.4 µg/L	28.4 ppb	18:42:51
3	SiO2†	3665.9	2015.0	219.80 µg/L	219.80 ppb	18:42:31
3	Si 251.611†	7292.1	6460.4	106.62 µg/L	106.62 ppb	18:42:31
3	Sn 189.927†	146.0	140.9	10.035 µg/L	10.035 ppb	18:42:51
3	Sr 421.552†	2185.8	2419.5	5.6692 µg/L	5.6692 ppb	18:41:23
3	Ti 334.940†	5763.7	5004.6	5.0573 µg/L	5.0573 ppb	18:42:31
3	Tl 190.801†	37.2	156.7	21.117 µg/L	21.117 ppb	18:42:51
3	U 409.014†	504.2	972.6	60.421 µg/L	60.421 ppb	18:42:31
3	V 292.402†	1321.2	861.3	4.9254 µg/L	4.9254 ppb	18:42:31
3	Zn 213.857†	2122.4	1612.8	10.103 µg/L	10.103 ppb	18:42:51

Mean Data: PQL

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1718415.6	102.73	%	0.487				0.47%
Sc RADIAL	148448.4	102	%	0.3				0.32%
Y 371.029	1056799.9	103.35	%	0.496				0.48%
Ag 328.068†	1109.3	4.6207	µg/L	0.82285	4.6207	ppb	0.82285	17.81%
QC value within limits for Ag 328.068 Recovery = 92.41%								
Al 396.153Radial†	921.7	200.72	µg/L	4.978	200.72	ppb	4.978	2.48%
QC value within limits for Al 396.153Radial Recovery = 100.36%								
As 188.979†	71.1	29.813	µg/L	5.0483	29.813	ppb	5.0483	16.93%
QC value within limits for As 188.979 Recovery = 99.38%								
B 249.677†	2748.9	46.133	µg/L	1.8998	46.133	ppb	1.8998	4.12%
QC value within limits for B 249.677 Recovery = 92.27%								
Ba 233.527†	1127.4	5.1550	µg/L	0.08056	5.1550	ppb	0.08056	1.56%
QC value within limits for Ba 233.527 Recovery = 103.10%								
Be 313.107†	15370.8	5.0219	µg/L	0.10386	5.0219	ppb	0.10386	2.07%
QC value within limits for Be 313.107 Recovery = 100.44%								
Ca 317.933Radial†	3475.5	203.65	µg/L	6.241	203.65	ppb	6.241	3.06%
QC value within limits for Ca 317.933Radial Recovery = 101.83%								
Cd 226.502†	722.7	4.9820	µg/L	0.08834	4.9820	ppb	0.08834	1.77%
QC value within limits for Cd 226.502 Recovery = 99.64%								

Co 228.616†	375.2	5.1371 µg/L	0.13962	5.1371 ppb	0.13962	2.72%
QC value within limits for Co 228.616 Recovery = 102.74%						
Cr 267.716†	569.2	4.8405 µg/L	0.23770	4.8405 ppb	0.23770	4.91%
QC value within limits for Cr 267.716 Recovery = 96.81%						
Cu 324.752†	2314.5	10.138 µg/L	0.3187	10.138 ppb	0.3187	3.14%
QC value within limits for Cu 324.752 Recovery = 101.38%						
Fe 238.204 Radial†	1554.9	103.37 µg/L	0.806	103.37 ppb	0.806	0.78%
QC value within limits for Fe 238.204 Radial Recovery = 103.37%						
K 766.490 Radial†	413.4	170.04 µg/L	16.070	170.04 ppb	16.070	9.45%
QC value within limits for K 766.490 Radial Recovery = 113.36%						
Mg 279.077 IEC†	735.0	303.20 µg/L	2.180	303.20 ppb	2.180	0.72%
QC value within limits for Mg 279.077 IEC Recovery = 101.07%						
Mn 257.610†	7577.3	10.342 µg/L	0.1261	10.342 ppb	0.1261	1.22%
QC value within limits for Mn 257.610 Recovery = 103.42%						
Mo 202.031†	316.2	9.9921 µg/L	0.31074	9.9921 ppb	0.31074	3.11%
QC value within limits for Mo 202.031 Recovery = 99.92%						
Na 589.592 Radial†	1701.9	260.27 µg/L	16.186	260.27 ppb	16.186	6.22%
QC value within limits for Na 589.592 Radial Recovery = 86.76%						
Ni 231.604†	393.5	5.0334 µg/L	0.13439	5.0334 ppb	0.13439	2.67%
QC value within limits for Ni 231.604 Recovery = 100.67%						
P 214.914†	601.9	143.98 µg/L	0.554	143.98 ppb	0.554	0.38%
QC value within limits for P 214.914 Recovery = 95.99%						
Pb 220.353†	160.6	9.7204 µg/L	1.33235	9.7204 ppb	1.33235	13.71%
QC value within limits for Pb 220.353 Recovery = 97.20%						
S 181.975 Axial†	114.6	92.945 µg/L	3.3708	92.945 ppb	3.3708	3.63%
QC value within limits for S 181.975 Axial Recovery = 92.94%						
Sb 206.836†	65.6	8.9415 µg/L	2.72562	8.9415 ppb	2.72562	30.48%
QC value within limits for Sb 206.836 Recovery = 89.41%						
Se 196.026†	74.4	29.5 µg/L	1.90	29.5 ppb	1.90	6.42%
QC value within limits for Se 196.026 Recovery = 98.43%						
SiO2†	1951.4	212.86 µg/L	9.186	212.86 ppb	9.186	4.32%
QC value within limits for SiO2 Recovery = 99.94%						
Si 251.611†	6231.5	102.84 µg/L	3.285	102.84 ppb	3.285	3.19%
QC value within limits for Si 251.611 Recovery = 102.84%						
Sn 189.927†	139.6	9.9381 µg/L	0.26552	9.9381 ppb	0.26552	2.67%
QC value within limits for Sn 189.927 Recovery = 99.38%						
Sr 421.552†	2494.5	5.8448 µg/L	0.17922	5.8448 ppb	0.17922	3.07%
QC value within limits for Sr 421.552 Recovery = 116.90%						
Ti 334.940†	4898.8	4.9492 µg/L	0.10510	4.9492 ppb	0.10510	2.12%
QC value within limits for Ti 334.940 Recovery = 98.98%						
Tl 190.801†	150.8	20.330 µg/L	0.6817	20.330 ppb	0.6817	3.35%
QC value within limits for Tl 190.801 Recovery = 101.65%						
U 409.014†	989.7	61.455 µg/L	10.7804	61.455 ppb	10.7804	17.54%
QC value within limits for U 409.014 Recovery = 122.91%						
V 292.402†	791.0	4.5320 µg/L	0.36774	4.5320 ppb	0.36774	8.11%
QC value within limits for V 292.402 Recovery = 90.64%						
Zn 213.857†	1583.4	9.9190 µg/L	0.18336	9.9190 ppb	0.18336	1.85%
QC value within limits for Zn 213.857 Recovery = 99.19%						

All analyte(s) passed QC.

Sequence No.: 9
Sample ID: ICSA
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 3/29/2010 18:43:01
Data Type: Reprocessed on 3/29/2010 19:14:38

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSA

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	1519975.5	1519975.5	90.866	%			18:44:01
1	Sc RADIAL	137750.3	137750.3	94.5	%			18:43:34
1	Y 371.029	919968.6	919968.6	89.965	%			18:44:01
1	Ag 328.068†	5916.7	3544.4	1.2267	µg/L	1.2267	ppb	18:44:01
1	Al 396.153Radial†	2228558.9	2358079.9	514740	µg/L	514740	ppb	18:43:31
1	As 188.979†	-88.3	-82.9	8.1301	µg/L	8.1301	ppb	18:44:21
1	B 249.677†	3032.6	-18.3	-0.3191	µg/L	-0.3191	ppb	18:44:01
1	Ba 233.527†	439.8	659.1	0.5804	µg/L	0.5804	ppb	18:44:21
1	Be 313.107†	-620.0	-22.3	0.0066	µg/L	0.0066	ppb	18:44:01
1	Ca 317.933Radial†	7783821.6	8235480.1	482560	µg/L	482560	ppb	18:43:31
1	Cd 226.502†	2257.8	2579.2	-2.2506	µg/L	-2.2506	ppb	18:44:21
1	Co 228.616†	76.3	260.5	-6.3814	µg/L	-6.3814	ppb	18:44:21
1	Cr 267.716†	306.4	176.9	2.2002	µg/L	2.2002	ppb	18:44:21
1	Cu 324.752†	-6875.9	-9992.0	-2.5122	µg/L	-2.5122	ppb	18:44:01
1	Fe 238.204 Radial†	2712004.8	2869471.1	190770	µg/L	190770	ppb	18:43:31
1	K 766.490 Radial†	1538.5	172.9	-171.54	µg/L	-171.54	ppb	18:43:34
1	Mg 279.077 IEC†	1111575.2	1175976.0	484700	µg/L	484700	ppb	18:43:31
1	Mn 257.610†	14620.3	16010.1	2.1476	µg/L	2.1476	ppb	18:44:01
1	Mo 202.031†	-501.7	-496.9	0.7251	µg/L	0.7251	ppb	18:44:01
1	Na 589.592 Radial†	1635.3	35.6	5.3873	µg/L	5.3873	ppb	18:43:34
1	Ni 231.604†	146.0	201.6	2.5791	µg/L	2.5791	ppb	18:44:21
1	P 214.914†	148.1	83.5	4.8563	µg/L	4.8563	ppb	18:44:21
1	Pb 220.353†	-247.5	-384.9	2.4276	µg/L	2.4276	ppb	18:44:21
1	S 181.975 Axial†	166.5	88.4	71.471	µg/L	71.471	ppb	18:44:21
1	Sb 206.836†	109.8	34.2	-1.4541	µg/L	-1.4541	ppb	18:44:21
1	Se 196.026†	-143.9	-169.3	-0.728	µg/L	-0.728	ppb	18:44:21
1	SiO2†	1500.4	78.4	8.9950	µg/L	8.9950	ppb	18:44:21
1	Si 251.611†	379.6	-258.7	-4.0756	µg/L	-4.0756	ppb	18:44:21
1	Sn 189.927†	17.0	16.7	1.2650	µg/L	1.2650	ppb	18:44:21
1	Sr 421.552†	1360.0	1717.1	0.2472	µg/L	0.2472	ppb	18:43:34
1	Ti 334.940†	20973.2	22445.2	-4.0421	µg/L	-4.0421	ppb	18:44:01
1	Tl 190.801†	-165.7	-62.0	-7.8287	µg/L	-7.8287	ppb	18:44:21
1	U 409.014†	239.9	743.1	25.180	µg/L	25.180	ppb	18:44:01
1	V 292.402†	5463.3	5580.7	0.4848	µg/L	0.4848	ppb	18:44:01
1	Zn 213.857†	3868.4	3792.8	7.6857	µg/L	7.6857	ppb	18:44:21
2	Sc 361.383	1532514.6	1532514.6	91.615	%			18:44:24
2	Sc RADIAL	139244.5	139244.5	95.5	%			18:43:38
2	Y 371.029	927898.5	927898.5	90.741	%			18:44:24
2	Ag 328.068†	5725.2	3282.1	0.2956	µg/L	0.2956	ppb	18:44:24
2	Al 396.153Radial†	2228857.8	2333088.7	509290	µg/L	509290	ppb	18:43:36
2	As 188.979†	-96.0	-90.5	4.5139	µg/L	4.5139	ppb	18:44:44
2	B 249.677†	3203.6	141.1	2.3574	µg/L	2.3574	ppb	18:44:24
2	Ba 233.527†	417.7	631.0	0.4768	µg/L	0.4768	ppb	18:44:44
2	Be 313.107†	-855.2	-273.4	-0.0781	µg/L	-0.0781	ppb	18:44:24
2	Ca 317.933Radial†	7791433.2	8155066.3	477850	µg/L	477850	ppb	18:43:36
2	Cd 226.502†	2233.3	2532.1	-2.3767	µg/L	-2.3767	ppb	18:44:44
2	Co 228.616†	66.6	249.3	-6.4368	µg/L	-6.4368	ppb	18:44:44
2	Cr 267.716†	246.3	108.6	1.6057	µg/L	1.6057	ppb	18:44:44
2	Cu 324.752†	-6872.9	-9926.8	-2.6212	µg/L	-2.6212	ppb	18:44:24
2	Fe 238.204 Radial†	2714288.8	2841068.4	188880	µg/L	188880	ppb	18:43:36
2	K 766.490 Radial†	1618.0	238.7	-142.04	µg/L	-142.04	ppb	18:43:38
2	Mg 279.077 IEC†	1114260.0	1166165.0	480660	µg/L	480660	ppb	18:43:36
2	Mn 257.610†	14586.8	15841.8	2.0830	µg/L	2.0830	ppb	18:44:24
2	Mo 202.031†	-508.1	-499.4	0.4957	µg/L	0.4957	ppb	18:44:24
2	Na 589.592 Radial†	1714.1	99.5	15.141	µg/L	15.141	ppb	18:43:38
2	Ni 231.604†	152.3	207.2	2.6500	µg/L	2.6500	ppb	18:44:44
2	P 214.914†	105.5	35.5	-6.5606	µg/L	-6.5606	ppb	18:44:44
2	Pb 220.353†	-290.5	-429.6	-0.5500	µg/L	-0.5500	ppb	18:44:44

2	S 181.975 Axial†	171.6	92.5	74.799 µg/L	74.799 ppb	18:44:44
2	Sb 206.836†	130.7	56.0	1.5606 µg/L	1.5606 ppb	18:44:44
2	Se 196.026†	-155.0	-180.1	-5.67 µg/L	-5.67 ppb	18:44:44
2	SiO2†	1504.6	69.4	8.0425 µg/L	8.0425 ppb	18:44:44
2	Si 251.611†	375.1	-267.0	-4.2014 µg/L	-4.2014 ppb	18:44:44
2	Sn 189.927†	-4.2	-6.6	-0.3924 µg/L	-0.3924 ppb	18:44:44
2	Sr 421.552†	1366.5	1708.4	0.2637 µg/L	0.2637 ppb	18:43:38
2	Ti 334.940†	21214.1	22519.4	-3.7556 µg/L	-3.7556 ppb	18:44:24
2	Tl 190.801†	-155.0	-48.9	-6.0537 µg/L	-6.0537 ppb	18:44:44
2	U 409.014†	96.2	584.1	15.646 µg/L	15.646 ppb	18:44:24
2	V 292.402†	5684.6	5773.1	1.8417 µg/L	1.8417 ppb	18:44:24
2	Zn 213.857†	3858.3	3747.0	7.5506 µg/L	7.5506 ppb	18:44:44
3	Sc 361.383	1531662.1	1531662.1	91.564 %		18:44:46
3	Sc RADIAL	139848.7	139848.7	95.9 %		18:43:42
3	Y 371.029	927170.5	927170.5	90.670 %		18:44:46
3	Ag 328.068†	5762.9	3326.8	0.5251 µg/L	0.5251 ppb	18:44:46
3	Al 396.153Radial†	2231390.2	2325648.7	507660 µg/L	507660 ppb	18:43:40
3	As 188.979†	-103.4	-98.7	0.8735 µg/L	0.8735 ppb	18:45:06
3	B 249.677†	3235.4	177.8	2.9710 µg/L	2.9710 ppb	18:44:46
3	Ba 233.527†	402.4	614.5	0.4137 µg/L	0.4137 ppb	18:45:06
3	Be 313.107†	-678.3	-80.7	-0.0209 µg/L	-0.0209 ppb	18:44:46
3	Ca 317.933Radial†	7787439.6	8115669.6	475540 µg/L	475540 ppb	18:43:40
3	Cd 226.502†	2245.5	2546.8	-2.1709 µg/L	-2.1709 ppb	18:45:06
3	Co 228.616†	93.2	278.4	-5.9871 µg/L	-5.9871 ppb	18:45:06
3	Cr 267.716†	275.9	141.1	1.8999 µg/L	1.8999 ppb	18:45:06
3	Cu 324.752†	-6732.3	-9777.4	-2.2074 µg/L	-2.2074 ppb	18:44:46
3	Fe 238.204 Radial†	2711795.4	2826195.2	187900 µg/L	187900 ppb	18:43:40
3	K 766.490 Radial†	1584.0	195.9	-158.63 µg/L	-158.63 ppb	18:43:42
3	Mg 279.077 IEC†	1112495.6	1159287.1	477830 µg/L	477830 ppb	18:43:40
3	Mn 257.610†	14462.2	15714.6	2.0242 µg/L	2.0242 ppb	18:44:46
3	Mo 202.031†	-593.4	-592.8	-2.5422 µg/L	-2.5422 ppb	18:44:46
3	Na 589.592 Radial†	1732.7	111.2	16.939 µg/L	16.939 ppb	18:43:42
3	Ni 231.604†	209.1	269.3	3.4450 µg/L	3.4450 ppb	18:45:06
3	P 214.914†	118.4	49.8	-2.8056 µg/L	-2.8056 ppb	18:45:06
3	Pb 220.353†	-264.9	-401.8	1.0704 µg/L	1.0704 ppb	18:45:06
3	S 181.975 Axial†	171.3	92.2	74.546 µg/L	74.546 ppb	18:45:06
3	Sb 206.836†	101.8	24.6	-2.6986 µg/L	-2.6986 ppb	18:45:06
3	Se 196.026†	-151.8	-176.7	-4.70 µg/L	-4.70 ppb	18:45:06
3	SiO2†	1457.7	19.2	2.6178 µg/L	2.6178 ppb	18:45:06
3	Si 251.611†	375.6	-266.2	-4.1555 µg/L	-4.1555 ppb	18:45:06
3	Sn 189.927†	9.2	8.1	0.6527 µg/L	0.6527 ppb	18:45:06
3	Sr 421.552†	1404.5	1741.8	0.3601 µg/L	0.3601 ppb	18:43:42
3	Ti 334.940†	21500.8	22845.3	-3.2450 µg/L	-3.2450 ppb	18:44:46
3	Tl 190.801†	-148.3	-41.6	-5.0807 µg/L	-5.0807 ppb	18:45:06
3	U 409.014†	-176.5	286.3	-2.6068 µg/L	-2.6068 ppb	18:44:46
3	V 292.402†	5753.1	5851.3	2.3911 µg/L	2.3911 ppb	18:44:46
3	Zn 213.857†	3845.3	3735.2	7.5699 µg/L	7.5699 ppb	18:45:06

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1528050.7	91.348	%	0.4188				0.46%
Sc RADIAL	138947.9	95.3	%	0.74				0.78%
Y 371.029	925012.6	90.459	%	0.4287				0.47%
Ag 328.068†	3384.5	0.6825	µg/L	0.48505	0.6825	ppb	0.48505	71.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	2338939.1	510560	µg/L	3708.4	510560	ppb	3708.4	0.73%
QC value within limits for Al 396.153Radial Recovery = 102.11%								
As 188.979†	-90.7	4.5059	µg/L	3.62830	4.5059	ppb	3.62830	80.52%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	100.2	1.6697	µg/L	1.74948	1.6697	ppb	1.74948	104.78%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	634.8	0.4903	µg/L	0.08415	0.4903	ppb	0.08415	17.16%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-125.5	-0.0308	µg/L	0.04321	-0.0308	ppb	0.04321	140.33%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	8168738.7	478650	µg/L	3578.1	478650	ppb	3578.1	0.75%
QC value within limits for Ca 317.933Radial Recovery = 95.73%								
Cd 226.502†	2552.7	-2.2661	µg/L	0.10379	-2.2661	ppb	0.10379	4.58%
QC value within limits for Cd 226.502 Recovery = Not calculated								

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Co 228.616†              262.7     -6.2685 µg/L       0.24520     -6.2685 ppb        0.24520   3.91%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              142.2      1.9019 µg/L       0.29723      1.9019 ppb        0.29723  15.63%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†            -9898.7     -2.4469 µg/L       0.21446     -2.4469 ppb        0.21446   8.76%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†   2845578.2      189180 µg/L        1461.8      189180 ppb         1461.8   0.77%
   QC value within limits for Fe 238.204 Radial  Recovery = 94.59%
K 766.490 Radial†        202.5     -157.40 µg/L        14.790     -157.40 ppb         14.790   9.40%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†      1167142.7      481060 µg/L        3456.9      481060 ppb         3456.9   0.72%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.21%
Mn 257.610†            15855.5      2.0849 µg/L       0.06170      2.0849 ppb        0.06170   2.96%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†             -529.7     -0.4405 µg/L       1.82378     -0.4405 ppb        1.82378 414.05%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        82.1      12.489 µg/L        6.2157      12.489 ppb         6.2157  49.77%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              226.0      2.8914 µg/L       0.48079      2.8914 ppb        0.48079  16.63%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                56.3     -1.5033 µg/L       5.81883     -1.5033 ppb        5.81883 387.07%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -405.4      0.9827 µg/L       1.49074      0.9827 ppb        1.49074 151.70%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          91.0      73.605 µg/L        1.8528      73.605 ppb         1.8528   2.52%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               38.3     -0.8640 µg/L       2.19006     -0.8640 ppb        2.19006 253.47%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†             -175.4       -3.70 µg/L         2.618       -3.70 ppb          2.618  70.77%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     55.7      6.5518 µg/L       3.44005      6.5518 ppb        3.44005  52.51%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             -264.0     -4.1441 µg/L       0.06368     -4.1441 ppb        0.06368   1.54%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                6.1      0.5084 µg/L       0.83805      0.5084 ppb        0.83805 164.84%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             1722.4      0.2904 µg/L       0.06098      0.2904 ppb        0.06098  21.00%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†            22603.3     -3.6809 µg/L       0.40375     -3.6809 ppb        0.40375  10.97%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              -50.8     -6.3210 µg/L       1.39339     -6.3210 ppb        1.39339  22.04%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               537.8      12.740 µg/L       14.1197      12.740 ppb        14.1197 110.83%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              5735.0      1.5725 µg/L       0.98127      1.5725 ppb        0.98127  62.40%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†             3758.3      7.6020 µg/L       0.07306      7.6020 ppb        0.07306   0.96%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 10
Sample ID: ICSAB
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 3/29/2010 18:45:15
Data Type: Reprocessed on 3/29/2010 19:14:39

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: ICSAB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	1510684.4	1510684.4	90.310	%			18:46:21
1	Sc RADIAL	137128.2	137128.2	94.1	%			18:45:49
1	Y 371.029	915417.0	915417.0	89.520	%			18:46:21
1	Ag 328.068†	64579.9	68542.0	271.32	µg/L	271.32	ppb	18:46:21
1	Al 396.153Radial†	2257035.7	2399046.7	523660	µg/L	523660	ppb	18:45:45
1	As 188.979†	1040.4	1166.3	536.34	µg/L	536.34	ppb	18:46:23
1	B 249.677†	30637.0	30568.6	511.66	µg/L	511.66	ppb	18:46:21
1	Ba 233.527†	99072.5	109877.7	499.99	µg/L	499.99	ppb	18:46:21
1	Be 313.107†	681148.0	754892.4	245.89	µg/L	245.89	ppb	18:46:21
1	Ca 317.933Radial†	7888724.1	8384349.0	491290	µg/L	491290	ppb	18:45:45
1	Cd 226.502†	63574.5	70490.2	466.80	µg/L	466.80	ppb	18:46:21
1	Co 228.616†	29268.7	32585.7	436.71	µg/L	436.71	ppb	18:46:23
1	Cr 267.716†	51261.8	56601.7	486.64	µg/L	486.64	ppb	18:46:23
1	Cu 324.752†	105042.3	113888.0	536.82	µg/L	536.82	ppb	18:46:21
1	Fe 238.204 Radial†	2714615.2	2885265.2	191820	µg/L	191820	ppb	18:45:47
1	K 766.490 Radial†	14492.6	13949.3	5495.4	µg/L	5495.4	ppb	18:45:49
1	Mg 279.077 IEC†	1107607.9	1177095.4	485180	µg/L	485180	ppb	18:45:49
1	Mn 257.610†	329092.8	364323.1	478.08	µg/L	478.08	ppb	18:46:21
1	Mo 202.031†	13229.8	14704.5	480.80	µg/L	480.80	ppb	18:46:23
1	Na 589.592 Radial†	34394.1	34862.9	5329.4	µg/L	5329.4	ppb	18:45:49
1	Ni 231.604†	31853.0	35311.6	451.68	µg/L	451.68	ppb	18:46:23
1	P 214.914†	9576.1	10524.0	2499.6	µg/L	2499.6	ppb	18:46:23
1	Pb 220.353†	6597.4	7192.9	463.36	µg/L	463.36	ppb	18:46:23
1	S 181.975 Axial†	3009.0	3237.0	2626.5	µg/L	2626.5	ppb	18:46:23
1	Sb 206.836†	3499.0	3787.8	505.98	µg/L	505.98	ppb	18:46:23
1	Se 196.026†	5309.9	5868.7	2390	µg/L	2390	ppb	18:46:23
1	SiO2†	92256.7	100582.6	10974	µg/L	10974	ppb	18:46:21
1	Si 251.611†	281270.8	310773.6	5129.3	µg/L	5129.3	ppb	18:46:21
1	Sn 189.927†	6022.0	6666.1	475.68	µg/L	475.68	ppb	18:46:23
1	Sr 421.552†	210049.1	223540.3	520.07	µg/L	520.07	ppb	18:45:49
1	Ti 334.940†	468269.2	517876.1	500.97	µg/L	500.97	ppb	18:46:21
1	Tl 190.801†	2818.9	3241.7	443.45	µg/L	443.45	ppb	18:46:23
1	U 409.014†	7133.6	8378.1	528.93	µg/L	528.93	ppb	18:46:21
1	V 292.402†	88326.4	97371.6	516.38	µg/L	516.38	ppb	18:46:21
1	Zn 213.857†	72620.0	79947.4	483.88	µg/L	483.88	ppb	18:46:21
2	Sc 361.383	1518034.6	1518034.6	90.750	%			18:46:26
2	Sc RADIAL	136837.3	136837.3	93.9	%			18:45:56
2	Y 371.029	919619.6	919619.6	89.931	%			18:46:26
2	Ag 328.068†	64494.6	68101.8	269.69	µg/L	269.69	ppb	18:46:26
2	Al 396.153Radial†	2229777.5	2375110.8	518440	µg/L	518440	ppb	18:45:52
2	As 188.979†	1016.8	1134.7	522.67	µg/L	522.67	ppb	18:46:28
2	B 249.677†	30917.4	30713.3	514.09	µg/L	514.09	ppb	18:46:26
2	Ba 233.527†	99392.7	109699.3	499.19	µg/L	499.19	ppb	18:46:26
2	Be 313.107†	684598.1	755042.2	245.93	µg/L	245.93	ppb	18:46:26
2	Ca 317.933Radial†	7784991.4	8291677.2	485860	µg/L	485860	ppb	18:45:52
2	Cd 226.502†	63805.9	70404.3	466.38	µg/L	466.38	ppb	18:46:26
2	Co 228.616†	29275.9	32436.7	434.76	µg/L	434.76	ppb	18:46:28
2	Cr 267.716†	50741.5	55753.6	479.35	µg/L	479.35	ppb	18:46:28
2	Cu 324.752†	105439.6	113762.6	535.91	µg/L	535.91	ppb	18:46:26
2	Fe 238.204 Radial†	2684811.7	2859651.8	190120	µg/L	190120	ppb	18:45:54
2	K 766.490 Radial†	14227.4	13699.5	5395.1	µg/L	5395.1	ppb	18:45:56
2	Mg 279.077 IEC†	1095117.9	1166293.6	480720	µg/L	480720	ppb	18:45:56
2	Mn 257.610†	330574.5	364191.4	478.08	µg/L	478.08	ppb	18:46:26
2	Mo 202.031†	13322.6	14735.9	481.64	µg/L	481.64	ppb	18:46:28
2	Na 589.592 Radial†	34233.3	34769.4	5315.2	µg/L	5315.2	ppb	18:45:56
2	Ni 231.604†	31592.4	34853.7	445.82	µg/L	445.82	ppb	18:46:28
2	P 214.914†	9407.5	10286.9	2442.8	µg/L	2442.8	ppb	18:46:28
2	Pb 220.353†	6453.4	6998.8	451.34	µg/L	451.34	ppb	18:46:28

2	S 181.975 Axial†	2940.7	3145.6	2552.4 µg/L	2552.4 ppb	18:46:28
2	Sb 206.836†	3475.9	3743.6	500.18 µg/L	500.18 ppb	18:46:28
2	Se 196.026†	5145.8	5659.4	2310 µg/L	2310 ppb	18:46:28
2	SiO2†	92799.3	100685.9	10985 µg/L	10985 ppb	18:46:26
2	Si 251.611†	282521.5	310643.8	5127.1 µg/L	5127.1 ppb	18:46:26
2	Sn 189.927†	5996.0	6605.2	471.35 µg/L	471.35 ppb	18:46:28
2	Sr 421.552†	208807.5	222692.2	518.13 µg/L	518.13 ppb	18:45:56
2	Ti 334.940†	470515.6	517840.9	501.16 µg/L	501.16 ppb	18:46:26
2	Tl 190.801†	2878.3	3292.0	450.21 µg/L	450.21 ppb	18:46:28
2	U 409.014†	7163.0	8372.3	528.73 µg/L	528.73 ppb	18:46:26
2	V 292.402†	88754.8	97370.2	516.63 µg/L	516.63 ppb	18:46:26
2	Zn 213.857†	72903.7	79870.6	483.58 µg/L	483.58 ppb	18:46:26
3	Sc 361.383	1509678.5	1509678.5	90.250 %		18:46:31
3	Sc RADIAL	138373.5	138373.5	94.9 %		18:46:03
3	Y 371.029	914674.1	914674.1	89.448 %		18:46:31
3	Ag 328.068†	64587.4	68598.0	271.77 µg/L	271.77 ppb	18:46:31
3	Al 396.153Radial†	2250390.9	2370456.7	517420 µg/L	517420 ppb	18:45:58
3	As 188.979†	1006.1	1129.0	520.40 µg/L	520.40 ppb	18:46:33
3	B 249.677†	30857.6	30835.5	516.13 µg/L	516.13 ppb	18:46:31
3	Ba 233.527†	99227.6	110122.6	501.13 µg/L	501.13 ppb	18:46:31
3	Be 313.107†	682431.3	756816.9	246.51 µg/L	246.51 ppb	18:46:31
3	Ca 317.933Radial†	7834035.4	8251280.0	483490 µg/L	483490 ppb	18:45:58
3	Cd 226.502†	63517.1	70473.5	466.87 µg/L	466.87 ppb	18:46:31
3	Co 228.616†	29487.3	32849.5	440.42 µg/L	440.42 ppb	18:46:33
3	Cr 267.716†	51368.6	56757.9	487.95 µg/L	487.95 ppb	18:46:33
3	Cu 324.752†	105432.6	114397.9	538.71 µg/L	538.71 ppb	18:46:31
3	Fe 238.204 Radial†	2714742.3	2859431.1	190100 µg/L	190100 ppb	18:46:01
3	K 766.490 Radial†	14507.9	13826.8	5448.0 µg/L	5448.0 ppb	18:46:03
3	Mg 279.077 IEC†	1111196.5	1170280.1	482370 µg/L	482370 ppb	18:46:03
3	Mn 257.610†	329292.9	364787.6	478.83 µg/L	478.83 ppb	18:46:31
3	Mo 202.031†	13311.3	14804.5	483.83 µg/L	483.83 ppb	18:46:33
3	Na 589.592 Radial†	34668.7	34823.2	5323.3 µg/L	5323.3 ppb	18:46:03
3	Ni 231.604†	31996.5	35494.2	454.01 µg/L	454.01 ppb	18:46:33
3	P 214.914†	9605.6	10563.7	2508.9 µg/L	2508.9 ppb	18:46:33
3	Pb 220.353†	6567.4	7164.5	461.32 µg/L	461.32 ppb	18:46:33
3	S 181.975 Axial†	2974.8	3201.4	2597.7 µg/L	2597.7 ppb	18:46:33
3	Sb 206.836†	3463.3	3750.8	501.08 µg/L	501.08 ppb	18:46:33
3	Se 196.026†	5291.7	5852.5	2380 µg/L	2380 ppb	18:46:33
3	SiO2†	92489.2	100908.3	11009 µg/L	11009 ppb	18:46:31
3	Si 251.611†	281639.3	311389.5	5139.4 µg/L	5139.4 ppb	18:46:31
3	Sn 189.927†	6087.5	6743.1	481.17 µg/L	481.17 ppb	18:46:33
3	Sr 421.552†	210738.5	222257.1	517.13 µg/L	517.13 ppb	18:46:03
3	Ti 334.940†	470683.6	520896.9	504.08 µg/L	504.08 ppb	18:46:31
3	Tl 190.801†	2864.6	3294.4	450.54 µg/L	450.54 ppb	18:46:33
3	U 409.014†	7145.1	8396.1	530.14 µg/L	530.14 ppb	18:46:31
3	V 292.402†	88390.3	97507.5	517.45 µg/L	517.45 ppb	18:46:31
3	Zn 213.857†	72542.0	79914.6	483.81 µg/L	483.81 ppb	18:46:31

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1512799.2	90.437	%	0.2727				0.30%
Sc RADIAL	137446.3	94.3	%	0.56				0.59%
Y 371.029	916570.2	89.633	%	0.2608				0.29%
Ag 328.068†	68413.9	270.93	µg/L	1.098	270.93	ppb	1.098	0.41%
QC value within limits for Ag 328.068 Recovery = 108.37%								
Al 396.153Radial†	2381538.1	519840	µg/L	3348.7	519840	ppb	3348.7	0.64%
QC value within limits for Al 396.153Radial Recovery = 103.97%								
As 188.979†	1143.3	526.47	µg/L	8.621	526.47	ppb	8.621	1.64%
QC value within limits for As 188.979 Recovery = 105.29%								
B 249.677†	30705.8	513.96	µg/L	2.238	513.96	ppb	2.238	0.44%
QC value within limits for B 249.677 Recovery = 102.79%								
Ba 233.527†	109899.8	500.10	µg/L	0.973	500.10	ppb	0.973	0.19%
QC value within limits for Ba 233.527 Recovery = 100.02%								
Be 313.107†	755583.8	246.11	µg/L	0.349	246.11	ppb	0.349	0.14%
QC value within limits for Be 313.107 Recovery = 98.44%								
Ca 317.933Radial†	8309102.1	486880	µg/L	3997.7	486880	ppb	3997.7	0.82%
QC value within limits for Ca 317.933Radial Recovery = 97.38%								
Cd 226.502†	70456.0	466.68	µg/L	0.262	466.68	ppb	0.262	0.06%
QC value within limits for Cd 226.502 Recovery = 93.34%								

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Co 228.616†            32623.9      437.30 µg/L         2.873      437.30 ppb          2.873   0.66%
   QC value within limits for Co 228.616  Recovery = 87.46%
Cr 267.716†            56371.1      484.65 µg/L         4.635      484.65 ppb          4.635   0.96%
   QC value within limits for Cr 267.716  Recovery = 96.93%
Cu 324.752†           114016.2      537.15 µg/L         1.432      537.15 ppb          1.432   0.27%
   QC value within limits for Cu 324.752  Recovery = 107.43%
Fe 238.204 Radial†   2868116.0      190680 µg/L         987.4      190680 ppb          987.4   0.52%
   QC value within limits for Fe 238.204 Radial  Recovery = 95.34%
K 766.490 Radial†      13825.2      5446.2 µg/L         50.18      5446.2 ppb          50.18   0.92%
   QC value within limits for K 766.490 Radial  Recovery = 108.92%
Mg 279.077 IEC†      1171223.1      482760 µg/L        2251.4      482760 ppb         2251.4   0.47%
   QC value within limits for Mg 279.077 IEC  Recovery = 96.55%
Mn 257.610†           364434.0      478.33 µg/L         0.433      478.33 ppb          0.433   0.09%
   QC value within limits for Mn 257.610  Recovery = 95.67%
Mo 202.031†            14748.3      482.09 µg/L         1.569      482.09 ppb          1.569   0.33%
   QC value within limits for Mo 202.031  Recovery = 96.42%
Na 589.592 Radial†     34818.5      5322.6 µg/L          7.14      5322.6 ppb           7.14   0.13%
   QC value within limits for Na 589.592 Radial  Recovery = 106.45%
Ni 231.604†            35219.8      450.50 µg/L         4.221      450.50 ppb          4.221   0.94%
   QC value within limits for Ni 231.604  Recovery = 90.10%
P 214.914†             10458.2      2483.8 µg/L         35.79      2483.8 ppb          35.79   1.44%
   QC value within limits for P 214.914  Recovery = 99.35%
Pb 220.353†             7118.7      458.68 µg/L         6.431      458.68 ppb          6.431   1.40%
   QC value within limits for Pb 220.353  Recovery = 91.74%
S 181.975 Axial†        3194.7      2592.2 µg/L         37.32      2592.2 ppb          37.32   1.44%
   QC value within limits for S 181.975 Axial  Recovery = 103.69%
Sb 206.836†             3760.7      502.41 µg/L         3.120      502.41 ppb          3.120   0.62%
   QC value within limits for Sb 206.836  Recovery = 100.48%
Se 196.026†             5793.5        2360 µg/L          46.2        2360 ppb           46.2   1.96%
   QC value within limits for Se 196.026  Recovery = 94.33%
SiO2†                 100725.6       10989 µg/L          18.1       10989 ppb           18.1   0.16%
   QC value within limits for SiO2  Recovery = 102.75%
Si 251.611†           310935.6      5131.9 µg/L         6.54      5131.9 ppb           6.54   0.13%
   QC value within limits for Si 251.611  Recovery = 102.64%
Sn 189.927†             6671.5      476.07 µg/L         4.919      476.07 ppb          4.919   1.03%
   QC value within limits for Sn 189.927  Recovery = 95.21%
Sr 421.552†           222829.9      518.44 µg/L         1.498      518.44 ppb          1.498   0.29%
   QC value within limits for Sr 421.552  Recovery = 103.69%
Ti 334.940†           518871.3      502.07 µg/L         1.741      502.07 ppb          1.741   0.35%
   QC value within limits for Ti 334.940  Recovery = 100.41%
Tl 190.801†             3276.0      448.07 µg/L         4.004      448.07 ppb          4.004   0.89%
   QC value within limits for Tl 190.801  Recovery = 89.61%
U 409.014†              8382.2      529.27 µg/L         0.763      529.27 ppb          0.763   0.14%
   QC value within limits for U 409.014  Recovery = 105.85%
V 292.402†             97416.4      516.82 µg/L         0.558      516.82 ppb          0.558   0.11%
   QC value within limits for V 292.402  Recovery = 103.36%
Zn 213.857†            79910.9      483.76 µg/L         0.156      483.76 ppb          0.156   0.03%
   QC value within limits for Zn 213.857  Recovery = 96.75%
All analyte(s) passed QC.
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Sequence No.: 11
Sample ID: LR1
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 105
Date Collected: 3/29/2010 18:46:42
Data Type: Reprocessed on 3/29/2010 19:14:40

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	1475217.1	1475217.1	88.190	%			18:47:41
1	Sc RADIAL	134988.0	134988.0	92.6	%			18:47:14
1	Y 371.029	890652.0	890652.0	87.098	%			18:47:41
1	Ag 328.068†	2600.2	-18.7	4.2300	µg/L	4.2300	ppb	18:47:41
1	Al 396.153Radial†	2173247.9	2346612.0	512240	µg/L	512240	ppb	18:47:12
1	As 188.979†	-221.7	-237.2	2.3463	µg/L	2.3463	ppb	18:47:43
1	B 249.677†	3640.1	771.9	12.918	µg/L	12.918	ppb	18:47:41
1	Ba 233.527†	451.6	687.2	-2.6252	µg/L	-2.6252	ppb	18:47:43
1	Be 313.107†	-13095.3	-14188.9	-0.0322	µg/L	-0.0322	ppb	18:47:41
1	Ca 317.933Radial†	7559025.2	8161296.1	478220	µg/L	478220	ppb	18:47:12
1	Cd 226.502†	5610.9	6456.7	-2.9745	µg/L	-2.9745	ppb	18:47:43
1	Co 228.616†	613.3	872.0	-11.650	µg/L	-11.650	ppb	18:47:43
1	Cr 267.716†	908.0	869.3	5.4318	µg/L	5.4318	ppb	18:47:43
1	Cu 324.752†	-17506.0	-22275.2	-5.5587	µg/L	-5.5587	ppb	18:47:43
1	Fe 238.204 Radial†	6300456.2	6802850.0	452280	µg/L	452280	ppb	18:47:12
1	K 766.490 Radial†	1898.7	595.1	-78.007	µg/L	-78.007	ppb	18:47:14
1	Mg 279.077 IEC†	1069506.5	1154620.7	475670	µg/L	475670	ppb	18:47:12
1	Mn 257.610†	14951.4	16873.6	2.9939	µg/L	2.9939	ppb	18:47:41
1	Mo 202.031†	-853.5	-912.6	-2.2055	µg/L	-2.2055	ppb	18:47:41
1	Na 589.592 Radial†	3064907.6	3307661.5	506110	µg/L	506110	ppb	18:47:12
1	Ni 231.604†	241.8	315.0	4.0298	µg/L	4.0298	ppb	18:47:43
1	P 214.914†	851.2	885.7	19.361	µg/L	19.361	ppb	18:47:43
1	Pb 220.353†	111.2	13.7	6.6643	µg/L	6.6643	ppb	18:47:43
1	S 181.975 Axial†	199.5	131.4	106.18	µg/L	106.18	ppb	18:47:43
1	Sb 206.836†	173.5	110.1	5.3162	µg/L	5.3162	ppb	18:47:43
1	Se 196.026†	-269.6	-316.6	46.3	µg/L	46.3	ppb	18:47:43
1	SiO2†	1875.2	553.5	61.247	µg/L	61.247	ppb	18:47:43
1	Si 251.611†	-2234.1	-3209.7	-52.717	µg/L	-52.717	ppb	18:47:43
1	Sn 189.927†	58.5	64.3	4.6670	µg/L	4.6670	ppb	18:47:43
1	Sr 421.552†	4787.3	5447.1	9.0235	µg/L	9.0235	ppb	18:47:14
1	Ti 334.940†	25472.1	28246.9	-3.7159	µg/L	-3.7159	ppb	18:47:41
1	Tl 190.801†	-294.1	-213.1	-27.836	µg/L	-27.836	ppb	18:47:43
1	U 409.014†	216123.9	245545.7	15094	µg/L	15094	ppb	18:47:41
1	V 292.402†	10776.3	11787.7	3.3989	µg/L	3.3989	ppb	18:47:43
1	Zn 213.857†	7832.8	8417.4	9.2023	µg/L	9.2023	ppb	18:47:43
2	Sc 361.383	1474797.5	1474797.5	88.165	%			18:47:46
2	Sc RADIAL	136487.8	136487.8	93.6	%			18:47:19
2	Y 371.029	890090.9	890090.9	87.044	%			18:47:46
2	Ag 328.068†	2591.0	-28.2	4.2336	µg/L	4.2336	ppb	18:47:46
2	Al 396.153Radial†	2181204.6	2329323.3	508460	µg/L	508460	ppb	18:47:17
2	As 188.979†	-251.7	-271.3	-12.460	µg/L	-12.460	ppb	18:47:48
2	B 249.677†	3729.3	874.2	14.628	µg/L	14.628	ppb	18:47:46
2	Ba 233.527†	527.6	773.5	-2.2009	µg/L	-2.2009	ppb	18:47:48
2	Be 313.107†	-13474.2	-14622.9	-0.1807	µg/L	-0.1807	ppb	18:47:46
2	Ca 317.933Radial†	7600178.4	8115555.5	475540	µg/L	475540	ppb	18:47:17
2	Cd 226.502†	5683.2	6540.6	-2.1393	µg/L	-2.1393	ppb	18:47:48
2	Co 228.616†	752.5	1030.1	-9.3590	µg/L	-9.3590	ppb	18:47:48
2	Cr 267.716†	724.6	661.7	3.6080	µg/L	3.6080	ppb	18:47:48
2	Cu 324.752†	-17459.2	-22227.9	-5.7811	µg/L	-5.7811	ppb	18:47:48
2	Fe 238.204 Radial†	6336284.1	6766355.5	449850	µg/L	449850	ppb	18:47:17
2	K 766.490 Radial†	1981.3	660.8	-49.077	µg/L	-49.077	ppb	18:47:19
2	Mg 279.077 IEC†	1076643.1	1149552.1	473590	µg/L	473590	ppb	18:47:17
2	Mn 257.610†	15045.5	16985.2	3.2356	µg/L	3.2356	ppb	18:47:46
2	Mo 202.031†	-881.3	-944.4	-3.3453	µg/L	-3.3453	ppb	18:47:46
2	Na 589.592 Radial†	3084400.4	3292112.6	503740	µg/L	503740	ppb	18:47:17
2	Ni 231.604†	341.9	428.7	5.4833	µg/L	5.4833	ppb	18:47:48
2	P 214.914†	888.6	928.3	30.390	µg/L	30.390	ppb	18:47:48
2	Pb 220.353†	63.3	-40.6	3.2317	µg/L	3.2317	ppb	18:47:48

2	S 181.975 Axial†	169.7	97.6	78.843 µg/L	78.843 ppb	18:47:48
2	Sb 206.836†	95.2	21.4	-6.5888 µg/L	-6.5888 ppb	18:47:48
2	Se 196.026†	-403.3	-468.4	-14.6 µg/L	-14.6 ppb	18:47:48
2	SiO2†	1816.0	486.9	54.020 µg/L	54.020 ppb	18:47:48
2	Si 251.611†	-2084.7	-3041.0	-49.906 µg/L	-49.906 ppb	18:47:48
2	Sn 189.927†	43.9	47.8	3.4920 µg/L	3.4920 ppb	18:47:48
2	Sr 421.552†	4824.6	5430.1	9.0047 µg/L	9.0047 ppb	18:47:19
2	Ti 334.940†	25083.7	27814.6	-4.0459 µg/L	-4.0459 ppb	18:47:46
2	Tl 190.801†	-241.3	-153.4	-19.840 µg/L	-19.840 ppb	18:47:48
2	U 409.014†	215721.0	245158.5	15071 µg/L	15071 ppb	18:47:46
2	V 292.402†	10612.7	11605.5	2.7405 µg/L	2.7405 ppb	18:47:48
2	Zn 213.857†	7898.7	8494.6	9.8973 µg/L	9.8973 ppb	18:47:48
3	Sc 361.383	1482973.9	1482973.9	88.654 %		18:47:51
3	Sc RADIAL	135581.7	135581.7	93.0 %		18:47:23
3	Y 371.029	894893.3	894893.3	87.513 %		18:47:51
3	Ag 328.068†	2907.1	312.1	5.3159 µg/L	5.3159 ppb	18:47:51
3	Al 396.153Radial†	2198157.6	2363115.2	515840 µg/L	515840 ppb	18:47:21
3	As 188.979†	-166.7	-173.8	30.035 µg/L	30.035 ppb	18:47:53
3	B 249.677†	3819.0	952.0	15.940 µg/L	15.940 ppb	18:47:51
3	Ba 233.527†	467.2	702.0	-2.6283 µg/L	-2.6283 ppb	18:47:53
3	Be 313.107†	-13583.2	-14661.6	-0.1997 µg/L	-0.1997 ppb	18:47:51
3	Ca 317.933Radial†	7679845.3	8255440.6	483730 µg/L	483730 ppb	18:47:21
3	Cd 226.502†	5523.3	6324.6	-4.4547 µg/L	-4.4547 ppb	18:47:53
3	Co 228.616†	665.1	926.8	-11.181 µg/L	-11.181 ppb	18:47:53
3	Cr 267.716†	895.3	849.6	5.3942 µg/L	5.3942 ppb	18:47:53
3	Cu 324.752†	-17409.5	-22062.6	-3.6839 µg/L	-3.6839 ppb	18:47:53
3	Fe 238.204 Radial†	6403813.8	6884172.5	457680 µg/L	457680 ppb	18:47:21
3	K 766.490 Radial†	2077.2	778.0	-6.1386 µg/L	-6.1386 ppb	18:47:23
3	Mg 279.077 IEC†	1090892.1	1172554.0	483060 µg/L	483060 ppb	18:47:21
3	Mn 257.610†	15096.7	16948.9	2.7894 µg/L	2.7894 ppb	18:47:51
3	Mo 202.031†	-879.5	-936.8	-2.6225 µg/L	-2.6225 ppb	18:47:51
3	Na 589.592 Radial†	3116499.7	3348632.9	512380 µg/L	512380 ppb	18:47:21
3	Ni 231.604†	249.4	322.2	4.1219 µg/L	4.1219 ppb	18:47:53
3	P 214.914†	734.4	748.9	-16.245 µg/L	-16.245 ppb	18:47:53
3	Pb 220.353†	-96.4	-221.1	-7.4793 µg/L	-7.4793 ppb	18:47:53
3	S 181.975 Axial†	169.9	96.8	78.205 µg/L	78.205 ppb	18:47:53
3	Sb 206.836†	73.9	-3.3	-10.074 µg/L	-10.074 ppb	18:47:53
3	Se 196.026†	-324.5	-376.9	24.3 µg/L	24.3 ppb	18:47:53
3	SiO2†	1980.5	661.1	72.973 µg/L	72.973 ppb	18:47:53
3	Si 251.611†	-1826.1	-2736.2	-44.905 µg/L	-44.905 ppb	18:47:53
3	Sn 189.927†	110.7	122.9	8.8298 µg/L	8.8298 ppb	18:47:53
3	Sr 421.552†	4811.0	5449.9	8.9869 µg/L	8.9869 ppb	18:47:23
3	Ti 334.940†	25226.4	27818.7	-4.5924 µg/L	-4.5924 ppb	18:47:51
3	Tl 190.801†	-184.7	-88.0	-11.070 µg/L	-11.070 ppb	18:47:53
3	U 409.014†	216613.9	244816.6	15048 µg/L	15048 ppb	18:47:51
3	V 292.402†	10498.6	11410.5	0.4086 µg/L	0.4086 ppb	18:47:53
3	Zn 213.857†	7725.4	8249.7	7.5805 µg/L	7.5805 ppb	18:47:53

Mean Data: LR1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1477662.9	88.336	%	0.2752				0.31%
Sc RADIAL	135685.8	93.1	%	0.52				0.56%
Y 371.029	891878.7	87.218	%	0.2568				0.29%
Ag 328.068†	88.4	4.5932	µg/L	0.62588	4.5932	ppb	0.62588	13.63%
Al 396.153Radial†	2346350.2	512180	µg/L	3688.5	512180	ppb	3688.5	0.72%
QC value within limits for Al 396.153Radial Recovery = 102.44%								
As 188.979†	-227.4	6.6405	µg/L	21.57070	6.6405	ppb	21.57070	324.83%
B 249.677†	866.1	14.495	µg/L	1.5153	14.495	ppb	1.5153	10.45%
Ba 233.527†	720.9	-2.4848	µg/L	0.24586	-2.4848	ppb	0.24586	9.89%
Be 313.107†	-14491.1	-0.1375	µg/L	0.09171	-0.1375	ppb	0.09171	66.68%
Ca 317.933Radial†	8177430.7	479160	µg/L	4179.3	479160	ppb	4179.3	0.87%
QC value within limits for Ca 317.933Radial Recovery = 95.83%								
Cd 226.502†	6440.6	-3.1895	µg/L	1.17255	-3.1895	ppb	1.17255	36.76%
Co 228.616†	943.0	-10.730	µg/L	1.2103	-10.730	ppb	1.2103	11.28%
Cr 267.716†	793.5	4.8113	µg/L	1.04230	4.8113	ppb	1.04230	21.66%
Cu 324.752†	-22188.5	-5.0079	µg/L	1.15199	-5.0079	ppb	1.15199	23.00%
Fe 238.204 Radial†	6817792.7	453270	µg/L	4009.8	453270	ppb	4009.8	0.88%
QC value within limits for Fe 238.204 Radial Recovery = 90.65%								
K 766.490 Radial†	678.0	-44.408	µg/L	36.1609	-44.408	ppb	36.1609	81.43%

Mg 279.077 IEC†	1158908.9	477440	µg/L	4979.6	477440	ppb	4979.6	1.04%
QC value within limits for Mg 279.077 IEC Recovery = 95.49%								
Mn 257.610†	16935.9	3.0063	µg/L	0.22334	3.0063	ppb	0.22334	7.43%
Mo 202.031†	-931.3	-2.7244	µg/L	0.57668	-2.7244	ppb	0.57668	21.17%
Na 589.592 Radial†	3316135.7	507410	µg/L	4467.6	507410	ppb	4467.6	0.88%
QC value within limits for Na 589.592 Radial Recovery = 101.48%								
Ni 231.604†	355.3	4.5450	µg/L	0.81388	4.5450	ppb	0.81388	17.91%
P 214.914†	854.3	11.169	µg/L	24.3729	11.169	ppb	24.3729	218.22%
Pb 220.353†	-82.7	0.8056	µg/L	7.37729	0.8056	ppb	7.37729	915.80%
S 181.975 Axial†	108.6	87.742	µg/L	15.9697	87.742	ppb	15.9697	18.20%
Sb 206.836†	42.7	-3.7822	µg/L	8.06989	-3.7822	ppb	8.06989	213.36%
Se 196.026†	-387.3	18.7	µg/L	30.84	18.7	ppb	30.84	165.04%
SiO2†	567.2	62.747	µg/L	9.5648	62.747	ppb	9.5648	15.24%
Si 251.611†	-2995.6	-49.176	µg/L	3.9567	-49.176	ppb	3.9567	8.05%
Sn 189.927†	78.3	5.6629	µg/L	2.80476	5.6629	ppb	2.80476	49.53%
Sr 421.552†	5442.4	9.0050	µg/L	0.01831	9.0050	ppb	0.01831	0.20%
Ti 334.940†	27960.1	-4.1181	µg/L	0.44268	-4.1181	ppb	0.44268	10.75%
Tl 190.801†	-151.5	-19.582	µg/L	8.3859	-19.582	ppb	8.3859	42.82%
U 409.014†	245173.6	15071	µg/L	23.1	15071	ppb	23.1	0.15%
QC value within limits for U 409.014 Recovery = 100.47%								
V 292.402†	11601.2	2.1827	µg/L	1.57124	2.1827	ppb	1.57124	71.99%
Zn 213.857†	8387.2	8.8934	µg/L	1.18890	8.8934	ppb	1.18890	13.37%

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: LR2
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 108
Date Collected: 3/29/2010 18:48:01
Data Type: Reprocessed on 3/29/2010 19:14:40

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: LR2

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	1698380.4	1698380.4	101.53	%			18:49:13
1	Sc RADIAL	151205.1	151205.1	104	%			18:48:34
1	Y 371.029	1017103.0	1017103.0	99.464	%			18:49:13
1	Ag 328.068†	-18686.1	-21371.4	31.131	µg/L	31.131	ppb	18:49:15
1	Al 396.153Radial†	2338.4	2286.0	66.356	µg/L	66.356	ppb	18:48:36
1	As 188.979†	24060.3	23711.8	10160	µg/L	10160	ppb	18:49:15
1	B 249.677†	302290.6	294377.4	4910.3	µg/L	4910.3	ppb	18:49:13
1	Ba 233.527†	3091920.0	3045479.3	13922	µg/L	13922	ppb	18:49:13
1	Be 313.107†	8967503.4	8832963.6	2875.2	µg/L	2875.2	ppb	18:49:09
1	Ca 317.933Radial†	1386.8	720.6	42.226	µg/L	42.226	ppb	18:48:36
1	Cd 226.502†	1391850.4	1370960.3	9471.5	µg/L	9471.5	ppb	18:49:13
1	Co 228.616†	680530.5	670447.0	9197.3	µg/L	9197.3	ppb	18:49:13
1	Cr 267.716†	2796482.2	2754160.4	23659	µg/L	23659	ppb	18:49:13
1	Cu 324.752†	4652514.4	4579945.2	19914	µg/L	19914	ppb	18:49:13
1	Fe 238.204 Radial†	-1093.2	-1167.1	-77.594	µg/L	-77.594	ppb	18:48:36
1	K 766.490 Radial†	735082.9	707128.4	291110	µg/L	291110	ppb	18:48:34
1	Mg 279.077 IEC†	-573.2	-739.2	-76.817	µg/L	-76.817	ppb	18:48:36
1	Mn 257.610†	6850554.7	6747191.3	9219.6	µg/L	9219.6	ppb	18:49:13
1	Mo 202.031†	299568.0	295106.7	9318.7	µg/L	9318.7	ppb	18:49:15
1	Na 589.592 Radial†	4106.1	2263.3	87.417	µg/L	87.417	ppb	18:48:36
1	Ni 231.604†	759020.4	747617.8	9562.9	µg/L	9562.9	ppb	18:49:13
1	P 214.914†	61793.1	60781.8	14324	µg/L	14324	ppb	18:49:15
1	Pb 220.353†	385088.4	379170.1	22997	µg/L	22997	ppb	18:49:13
1	S 181.975 Axial†	62300.3	61266.2	49715	µg/L	49715	ppb	18:49:15
1	Sb 206.836†	72365.8	71188.1	9412.3	µg/L	9412.3	ppb	18:49:15
1	Se 196.026†	23983.3	23610.8	9340	µg/L	9340	ppb	18:49:15
1	SiO2†	927224.5	911672.2	99243	µg/L	99243	ppb	18:49:13
1	Si 251.611†	2845330.8	2801756.4	46140	µg/L	46140	ppb	18:49:13
1	Sn 189.927†	135952.5	133900.7	9552.3	µg/L	9552.3	ppb	18:49:15
1	Sr 421.552†	4291141.6	4136725.5	9695.4	µg/L	9695.4	ppb	18:48:32
1	Ti 334.940†	9795412.6	9647094.3	9829.2	µg/L	9829.2	ppb	18:49:09
1	Tl 190.801†	68839.1	67921.6	9266.8	µg/L	9266.8	ppb	18:49:15
1	U 409.014†	-6352.9	-5778.0	247.84	µg/L	247.84	ppb	18:49:15
1	V 292.402†	1822287.8	1794382.0	10142	µg/L	10142	ppb	18:49:13
1	Zn 213.857†	2271454.5	2236744.1	14006	µg/L	14006	ppb	18:49:13
2	Sc 361.383	1692355.1	1692355.1	101.17	%			18:49:22
2	Sc RADIAL	148148.5	148148.5	102	%			18:48:40
2	Y 371.029	1013670.4	1013670.4	99.129	%			18:49:22
2	Ag 328.068†	-18902.0	-21650.3	30.241	µg/L	30.241	ppb	18:49:25
2	Al 396.153Radial†	2166.1	2162.9	32.480	µg/L	32.480	ppb	18:48:43
2	As 188.979†	24382.8	24114.9	10329	µg/L	10329	ppb	18:49:25
2	B 249.677†	301947.2	295098.0	4922.4	µg/L	4922.4	ppb	18:49:22
2	Ba 233.527†	3087006.8	3051465.1	13949	µg/L	13949	ppb	18:49:22
2	Be 313.107†	8888938.4	8786753.2	2860.1	µg/L	2860.1	ppb	18:49:19
2	Ca 317.933Radial†	1193.0	557.5	32.668	µg/L	32.668	ppb	18:48:43
2	Cd 226.502†	1387271.1	1371314.7	9474.0	µg/L	9474.0	ppb	18:49:22
2	Co 228.616†	679503.2	671817.9	9216.1	µg/L	9216.1	ppb	18:49:22
2	Cr 267.716†	2791317.7	2758861.8	23700	µg/L	23700	ppb	18:49:22
2	Cu 324.752†	4645173.2	4589003.5	19954	µg/L	19954	ppb	18:49:22
2	Fe 238.204 Radial†	-1141.0	-1235.9	-82.165	µg/L	-82.165	ppb	18:48:43
2	K 766.490 Radial†	723724.6	710573.4	292530	µg/L	292530	ppb	18:48:40
2	Mg 279.077 IEC†	-594.9	-771.9	-86.616	µg/L	-86.616	ppb	18:48:43
2	Mn 257.610†	6838819.1	6759613.7	9236.6	µg/L	9236.6	ppb	18:49:22
2	Mo 202.031†	303352.5	299897.9	9470.0	µg/L	9470.0	ppb	18:49:25
2	Na 589.592 Radial†	3886.9	2129.3	65.648	µg/L	65.648	ppb	18:48:43
2	Ni 231.604†	757365.3	748643.5	9576.0	µg/L	9576.0	ppb	18:49:22
2	P 214.914†	62941.1	62133.3	14647	µg/L	14647	ppb	18:49:25
2	Pb 220.353†	383628.9	379077.8	22992	µg/L	22992	ppb	18:49:22

2	S 181.975 Axial†	63093.2	62268.3	50529	µg/L	50529 ppb	18:49:25
2	Sb 206.836†	73391.6	72455.9	9585.2	µg/L	9585.2 ppb	18:49:25
2	Se 196.026†	24264.9	23973.2	9480	µg/L	9480 ppb	18:49:25
2	SiO2†	925612.2	913330.0	99418	µg/L	99418 ppb	18:49:22
2	Si 251.611†	2841383.2	2807831.9	46237	µg/L	46237 ppb	18:49:22
2	Sn 189.927†	137626.2	136031.8	9703.7	µg/L	9703.7 ppb	18:49:25
2	Sr 421.552†	4251704.3	4183270.4	9804.5	µg/L	9804.5 ppb	18:48:38
2	Ti 334.940†	9732958.3	9619711.2	9801.3	µg/L	9801.3 ppb	18:49:19
2	Tl 190.801†	69796.1	69108.9	9426.0	µg/L	9426.0 ppb	18:49:25
2	U 409.014†	-6518.6	-5964.1	237.63	µg/L	237.63 ppb	18:49:25
2	V 292.402†	1819682.2	1798196.6	10165	µg/L	10165 ppb	18:49:22
2	Zn 213.857†	2265596.7	2238919.2	14019	µg/L	14019 ppb	18:49:22
3	Sc 361.383	1700875.8	1700875.8	101.68	%		18:49:32
3	Sc RADIAL	149241.8	149241.8	102	%		18:48:47
3	Y 371.029	1018743.4	1018743.4	99.625	%		18:49:32
3	Ag 328.068†	-19043.0	-21695.4	29.614	µg/L	29.614 ppb	18:49:34
3	Al 396.153Radial†	2183.6	2164.5	34.118	µg/L	34.118 ppb	18:48:49
3	As 188.979†	24384.9	23996.2	10278	µg/L	10278 ppb	18:49:34
3	B 249.677†	302272.0	293922.3	4902.7	µg/L	4902.7 ppb	18:49:32
3	Ba 233.527†	3092416.4	3041499.6	13904	µg/L	13904 ppb	18:49:32
3	Be 313.107†	8907241.5	8760739.0	2851.7	µg/L	2851.7 ppb	18:49:28
3	Ca 317.933Radial†	1218.9	574.2	33.647	µg/L	33.647 ppb	18:48:49
3	Cd 226.502†	1391102.2	1368213.3	9452.5	µg/L	9452.5 ppb	18:49:32
3	Co 228.616†	681435.9	670354.0	9196.0	µg/L	9196.0 ppb	18:49:32
3	Cr 267.716†	2794875.2	2748538.9	23611	µg/L	23611 ppb	18:49:32
3	Cu 324.752†	4650199.8	4570945.8	19875	µg/L	19875 ppb	18:49:32
3	Fe 238.204 Radial†	-1251.6	-1335.7	-88.800	µg/L	-88.800 ppb	18:48:49
3	K 766.490 Radial†	729684.2	711177.7	292780	µg/L	292780 ppb	18:48:47
3	Mg 279.077 IEC†	-664.5	-835.6	-113.55	µg/L	-113.55 ppb	18:48:49
3	Mn 257.610†	6850008.1	6736754.4	9205.4	µg/L	9205.4 ppb	18:49:32
3	Mo 202.031†	303976.8	299009.8	9441.9	µg/L	9441.9 ppb	18:49:34
3	Na 589.592 Radial†	3504.7	1728.1	4.0327	µg/L	4.0327 ppb	18:48:49
3	Ni 231.604†	758972.5	746473.9	9548.3	µg/L	9548.3 ppb	18:49:32
3	P 214.914†	62994.4	61874.1	14586	µg/L	14586 ppb	18:49:34
3	Pb 220.353†	384992.3	378519.2	22958	µg/L	22958 ppb	18:49:32
3	S 181.975 Axial†	63225.2	62085.8	50381	µg/L	50381 ppb	18:49:34
3	Sb 206.836†	73461.5	72161.1	9546.2	µg/L	9546.2 ppb	18:49:34
3	Se 196.026†	24345.1	23931.9	9470	µg/L	9470 ppb	18:49:34
3	SiO2†	927967.0	911062.6	99172	µg/L	99172 ppb	18:49:32
3	Si 251.611†	2848954.5	2801208.6	46128	µg/L	46128 ppb	18:49:32
3	Sn 189.927†	137708.4	135431.2	9660.9	µg/L	9660.9 ppb	18:49:34
3	Sr 421.552†	4283363.5	4183546.2	9805.1	µg/L	9805.1 ppb	18:48:45
3	Ti 334.940†	9739101.8	9577559.1	9758.3	µg/L	9758.3 ppb	18:49:28
3	Tl 190.801†	69743.1	68711.1	9371.9	µg/L	9371.9 ppb	18:49:34
3	U 409.014†	-6372.0	-5787.7	246.22	µg/L	246.22 ppb	18:49:34
3	V 292.402†	1821804.8	1791273.7	10126	µg/L	10126 ppb	18:49:32
3	Zn 213.857†	2271404.4	2233412.6	13985	µg/L	13985 ppb	18:49:32

Mean Data: LR2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1697203.7	101.46	%	0.262				0.26%
Sc RADIAL	149531.8	103	%	1.1				1.04%
Y 371.029	1016505.6	99.406	%	0.2532				0.25%
Ag 328.068†	-21572.4	30.328	µg/L	0.7622	30.328	ppb	0.7622	2.51%
Al 396.153Radial†	2204.5	44.318	µg/L	19.1029	44.318	ppb	19.1029	43.10%
As 188.979†	23941.0	10256	µg/L	86.9	10256	ppb	86.9	0.85%
QC value within limits for As 188.979 Recovery = 102.56%								
B 249.677†	294465.9	4911.8	µg/L	9.92	4911.8	ppb	9.92	0.20%
QC value within limits for B 249.677 Recovery = 98.24%								
Ba 233.527†	3046148.0	13925	µg/L	22.9	13925	ppb	22.9	0.16%
QC value within limits for Ba 233.527 Recovery = 92.83%								
Be 313.107†	8793485.2	2862.3	µg/L	11.91	2862.3	ppb	11.91	0.42%
QC value within limits for Be 313.107 Recovery = 95.41%								
Ca 317.933Radial†	617.5	36.181	µg/L	5.2587	36.181	ppb	5.2587	14.53%
Cd 226.502†	1370162.8	9466.0	µg/L	11.73	9466.0	ppb	11.73	0.12%
QC value within limits for Cd 226.502 Recovery = 94.66%								
Co 228.616†	670873.0	9203.1	µg/L	11.25	9203.1	ppb	11.25	0.12%
QC value within limits for Co 228.616 Recovery = 92.03%								
Cr 267.716†	2753853.7	23657	µg/L	44.4	23657	ppb	44.4	0.19%

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   QC value within limits for Cr 267.716  Recovery = 94.63%
Cu 324.752†          4579964.8       19914 µg/L          39.3       19914 ppb          39.3   0.20%
   QC value within limits for Cu 324.752  Recovery = 99.57%
Fe 238.204 Radial†     -1246.2     -82.853 µg/L        5.6347     -82.853 ppb        5.6347   6.80%
K 766.490 Radial†     709626.5      292140 µg/L         899.3      292140 ppb         899.3   0.31%
   QC value within limits for K 766.490 Radial  Recovery = 97.38%
Mg 279.077 IEC†        -782.2     -92.329 µg/L       19.0229     -92.329 ppb       19.0229  20.60%
Mn 257.610†          6747853.1      9220.5 µg/L         15.64      9220.5 ppb         15.64   0.17%
   QC value within limits for Mn 257.610  Recovery = 92.21%
Mo 202.031†           298004.8      9410.2 µg/L         80.46      9410.2 ppb         80.46   0.86%
   QC value within limits for Mo 202.031  Recovery = 94.10%
Na 589.592 Radial†      2040.3      52.366 µg/L       43.2497      52.366 ppb       43.2497  82.59%
Ni 231.604†           747578.4      9562.4 µg/L         13.88      9562.4 ppb         13.88   0.15%
   QC value within limits for Ni 231.604  Recovery = 95.62%
P 214.914†             61596.4       14519 µg/L         171.5       14519 ppb         171.5   1.18%
   QC value within limits for P 214.914  Recovery = 96.79%
Pb 220.353†           378922.4       22983 µg/L          21.3       22983 ppb          21.3   0.09%
   QC value within limits for Pb 220.353  Recovery = 91.93%
S 181.975 Axial†       61873.4       50208 µg/L         433.1       50208 ppb         433.1   0.86%
   QC value within limits for S 181.975 Axial  Recovery = 100.42%
Sb 206.836†            71935.0      9514.6 µg/L         90.66      9514.6 ppb         90.66   0.95%
   QC value within limits for Sb 206.836  Recovery = 95.15%
Se 196.026†            23838.7        9430 µg/L          78.5        9430 ppb          78.5   0.83%
   QC value within limits for Se 196.026  Recovery = 94.29%
SiO2†                 912021.6       99278 µg/L         126.7       99278 ppb         126.7   0.13%
   QC value within limits for SiO2  Recovery = 92.78%
Si 251.611†          2803599.0       46168 µg/L          59.8       46168 ppb          59.8   0.13%
   QC value within limits for Si 251.611  Recovery = 92.34%
Sn 189.927†           135121.2      9639.0 µg/L         78.05      9639.0 ppb         78.05   0.81%
   QC value within limits for Sn 189.927  Recovery = 96.39%
Sr 421.552†          4167847.3      9768.3 µg/L         63.17      9768.3 ppb         63.17   0.65%
   QC value within limits for Sr 421.552  Recovery = 97.68%
Ti 334.940†          9614788.2      9796.3 µg/L         35.71      9796.3 ppb         35.71   0.36%
   QC value within limits for Ti 334.940  Recovery = 97.96%
Tl 190.801†            68580.5      9354.9 µg/L         80.95      9354.9 ppb         80.95   0.87%
   QC value within limits for Tl 190.801  Recovery = 93.55%
U 409.014†             -5843.2      243.90 µg/L         5.490      243.90 ppb         5.490   2.25%
V 292.402†           1794617.4       10145 µg/L          19.6       10145 ppb          19.6   0.19%
   QC value within limits for V 292.402  Recovery = 101.45%
Zn 213.857†          2236358.7       14003 µg/L          17.3       14003 ppb          17.3   0.12%
   QC value within limits for Zn 213.857  Recovery = 93.36%
All analyte(s) passed QC.
```

Sequence No.: 13
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/29/2010 18:49:43
Data Type: Reprocessed on 3/29/2010 19:14:41
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	1716469.7	1716469.7	102.61	%			18:50:43
1	Sc RADIAL	154139.7	154139.7	106	%			18:50:16
1	Y 371.029	1044074.8	1044074.8	102.10	%			18:50:43
1	Ag 328.068†	127602.5	121387.1	498.79	µg/L	498.79	ppb	18:50:43
1	Al 396.153Radial†	24715.7	23403.0	5085.7	µg/L	5085.7	ppb	18:50:16
1	As 188.979†	1226.4	1209.4	512.57	µg/L	512.57	ppb	18:51:03
1	B 249.677†	33333.5	29129.3	487.34	µg/L	487.34	ppb	18:50:43
1	Ba 233.527†	111436.2	108774.4	497.32	µg/L	497.32	ppb	18:50:43
1	Be 313.107†	1573483.9	1534088.7	499.51	µg/L	499.51	ppb	18:50:43
1	Ca 317.933Radial†	90206.4	84682.8	4962.0	µg/L	4962.0	ppb	18:50:16
1	Cd 226.502†	72401.2	70652.6	487.60	µg/L	487.60	ppb	18:50:43
1	Co 228.616†	36477.3	35725.3	489.45	µg/L	489.45	ppb	18:50:43
1	Cr 267.716†	59006.8	57344.5	492.41	µg/L	492.41	ppb	18:50:43
1	Cu 324.752†	119200.3	113741.0	495.97	µg/L	495.97	ppb	18:50:43
1	Fe 238.204 Radial†	78399.3	74021.0	4921.2	µg/L	4921.2	ppb	18:50:16
1	K 766.490 Radial†	15543.8	13243.2	5447.9	µg/L	5447.9	ppb	18:50:16
1	Mg 279.077 IEC†	13152.3	12250.1	5058.7	µg/L	5058.7	ppb	18:50:16
1	Mn 257.610†	370669.7	361153.8	493.28	µg/L	493.28	ppb	18:50:43
1	Mo 202.031†	15969.2	15617.9	493.45	µg/L	493.45	ppb	18:51:03
1	Na 589.592 Radial†	70596.7	65061.3	9950.4	µg/L	9950.4	ppb	18:50:16
1	Ni 231.604†	39349.5	38388.8	491.04	µg/L	491.04	ppb	18:50:43
1	P 214.914†	10515.6	10168.3	2426.7	µg/L	2426.7	ppb	18:51:03
1	Pb 220.353†	8561.1	8230.7	500.15	µg/L	500.15	ppb	18:51:03
1	S 181.975 Axial†	1372.2	1242.5	1010.8	µg/L	1010.8	ppb	18:51:03
1	Sb 206.836†	3825.6	3641.6	492.37	µg/L	492.37	ppb	18:51:03
1	Se 196.026†	1275.8	1232.4	490	µg/L	490	ppb	18:51:03
1	SiO2†	51362.9	48482.5	5278.0	µg/L	5278.0	ppb	18:50:43
1	Si 251.611†	154098.4	149499.2	2462.1	µg/L	2462.1	ppb	18:50:43
1	Sn 189.927†	7147.3	6963.3	496.69	µg/L	496.69	ppb	18:51:03
1	Sr 421.552†	225096.8	213129.1	499.48	µg/L	499.48	ppb	18:50:14
1	Ti 334.940†	496998.7	483710.6	492.59	µg/L	492.59	ppb	18:50:43
1	Tl 190.801†	3658.8	3685.9	502.16	µg/L	502.16	ppb	18:51:03
1	U 409.014†	7304.5	7597.6	499.58	µg/L	499.58	ppb	18:50:43
1	V 292.402†	91666.3	88901.0	499.43	µg/L	499.43	ppb	18:50:43
1	Zn 213.857†	80718.2	78199.0	488.38	µg/L	488.38	ppb	18:50:43
2	Sc 361.383	1735506.8	1735506.8	103.75	%			18:51:06
2	Sc RADIAL	152000.4	152000.4	104	%			18:50:20
2	Y 371.029	1054226.6	1054226.6	103.09	%			18:51:06
2	Ag 328.068†	129107.7	121473.9	499.12	µg/L	499.12	ppb	18:51:06
2	Al 396.153Radial†	24426.5	23454.6	5097.3	µg/L	5097.3	ppb	18:50:20
2	As 188.979†	1211.7	1182.2	501.18	µg/L	501.18	ppb	18:51:26
2	B 249.677†	33876.9	29296.7	490.15	µg/L	490.15	ppb	18:51:06
2	Ba 233.527†	112976.1	109067.5	498.66	µg/L	498.66	ppb	18:51:06
2	Be 313.107†	1597015.9	1539949.6	501.42	µg/L	501.42	ppb	18:51:06
2	Ca 317.933Radial†	89516.0	85221.3	4993.6	µg/L	4993.6	ppb	18:50:20
2	Cd 226.502†	73594.6	71028.9	490.19	µg/L	490.19	ppb	18:51:06
2	Co 228.616†	37103.5	35939.0	492.37	µg/L	492.37	ppb	18:51:06
2	Cr 267.716†	59788.6	57467.2	493.47	µg/L	493.47	ppb	18:51:06
2	Cu 324.752†	121059.6	114258.9	498.22	µg/L	498.22	ppb	18:51:06
2	Fe 238.204 Radial†	77655.1	74350.7	4943.1	µg/L	4943.1	ppb	18:50:20
2	K 766.490 Radial†	15260.2	13178.1	5421.1	µg/L	5421.1	ppb	18:50:20
2	Mg 279.077 IEC†	13002.7	12281.7	5071.5	µg/L	5071.5	ppb	18:50:20
2	Mn 257.610†	375944.4	362275.4	494.81	µg/L	494.81	ppb	18:51:06
2	Mo 202.031†	15890.3	15371.2	485.66	µg/L	485.66	ppb	18:51:26
2	Na 589.592 Radial†	70215.3	65635.2	10038	µg/L	10038	ppb	18:50:20
2	Ni 231.604†	40047.6	38641.0	494.26	µg/L	494.26	ppb	18:51:06
2	P 214.914†	10471.7	10013.6	2389.6	µg/L	2389.6	ppb	18:51:26
2	Pb 220.353†	8484.3	8065.2	490.12	µg/L	490.12	ppb	18:51:26

2	S 181.975 Axial†	1365.8	1221.6	993.82 µg/L	993.82 ppb	18:51:26
2	Sb 206.836†	3834.3	3609.1	487.85 µg/L	487.85 ppb	18:51:26
2	Se 196.026†	1280.6	1223.4	486 µg/L	486 ppb	18:51:26
2	SiO2†	52085.9	48630.3	5294.5 µg/L	5294.5 ppb	18:51:06
2	Si 251.611†	156279.7	149954.3	2469.8 µg/L	2469.8 ppb	18:51:06
2	Sn 189.927†	7113.5	6854.4	488.96 µg/L	488.96 ppb	18:51:26
2	Sr 421.552†	226242.9	217223.8	509.08 µg/L	509.08 ppb	18:50:18
2	Ti 334.940†	504866.7	485981.2	494.91 µg/L	494.91 ppb	18:51:06
2	Tl 190.801†	3631.8	3620.9	493.44 µg/L	493.44 ppb	18:51:26
2	U 409.014†	7123.0	7344.6	483.95 µg/L	483.95 ppb	18:51:06
2	V 292.402†	92685.9	88903.8	499.36 µg/L	499.36 ppb	18:51:06
2	Zn 213.857†	81781.8	78361.2	489.37 µg/L	489.37 ppb	18:51:06
3	Sc 361.383	1735485.3	1735485.3	103.75 %		18:51:29
3	Sc RADIAL	153403.0	153403.0	105 %		18:50:24
3	Y 371.029	1055021.0	1055021.0	103.17 %		18:51:29
3	Ag 328.068†	128496.4	120886.2	496.73 µg/L	496.73 ppb	18:51:29
3	Al 396.153Radial†	24553.1	23360.7	5076.8 µg/L	5076.8 ppb	18:50:24
3	As 188.979†	1228.3	1198.2	507.85 µg/L	507.85 ppb	18:51:49
3	B 249.677†	33764.7	29188.9	488.34 µg/L	488.34 ppb	18:51:29
3	Ba 233.527†	112730.4	108832.0	497.58 µg/L	497.58 ppb	18:51:29
3	Be 313.107†	1593609.1	1536684.9	500.35 µg/L	500.35 ppb	18:51:29
3	Ca 317.933Radial†	90597.1	85463.7	5007.8 µg/L	5007.8 ppb	18:50:24
3	Cd 226.502†	73406.3	70848.2	488.94 µg/L	488.94 ppb	18:51:29
3	Co 228.616†	37011.7	35850.9	491.16 µg/L	491.16 ppb	18:51:29
3	Cr 267.716†	59666.8	57350.6	492.47 µg/L	492.47 ppb	18:51:29
3	Cu 324.752†	120307.7	113535.5	495.08 µg/L	495.08 ppb	18:51:29
3	Fe 238.204 Radial†	78518.4	74490.1	4952.4 µg/L	4952.4 ppb	18:50:24
3	K 766.490 Radial†	15451.9	13226.5	5441.0 µg/L	5441.0 ppb	18:50:24
3	Mg 279.077 IEC†	13189.3	12345.0	5097.6 µg/L	5097.6 ppb	18:50:24
3	Mn 257.610†	374488.1	360876.2	492.90 µg/L	492.90 ppb	18:51:29
3	Mo 202.031†	15929.3	15408.9	486.85 µg/L	486.85 ppb	18:51:49
3	Na 589.592 Radial†	70596.2	65381.5	9999.4 µg/L	9999.4 ppb	18:50:24
3	Ni 231.604†	39740.3	38345.2	490.48 µg/L	490.48 ppb	18:51:29
3	P 214.914†	10488.7	10030.1	2393.6 µg/L	2393.6 ppb	18:51:49
3	Pb 220.353†	8512.5	8092.5	491.77 µg/L	491.77 ppb	18:51:49
3	S 181.975 Axial†	1342.5	1199.2	975.68 µg/L	975.68 ppb	18:51:49
3	Sb 206.836†	3856.9	3630.9	490.82 µg/L	490.82 ppb	18:51:49
3	Se 196.026†	1283.1	1225.8	487 µg/L	487 ppb	18:51:49
3	SiO2†	51906.7	48458.3	5275.6 µg/L	5275.6 ppb	18:51:29
3	Si 251.611†	155757.0	149452.4	2461.5 µg/L	2461.5 ppb	18:51:29
3	Sn 189.927†	7131.5	6871.8	490.19 µg/L	490.19 ppb	18:51:49
3	Sr 421.552†	223596.8	212726.1	498.53 µg/L	498.53 ppb	18:50:22
3	Ti 334.940†	502794.3	483989.7	492.88 µg/L	492.88 ppb	18:51:29
3	Tl 190.801†	3635.4	3624.3	493.87 µg/L	493.87 ppb	18:51:49
3	U 409.014†	7197.3	7416.4	488.32 µg/L	488.32 ppb	18:51:29
3	V 292.402†	92498.4	88724.2	498.37 µg/L	498.37 ppb	18:51:29
3	Zn 213.857†	81445.8	78038.4	487.36 µg/L	487.36 ppb	18:51:29

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1729154.0	103.37	%	0.657				0.64%
Sc RADIAL	153181.0	105	%	0.7				0.71%
Y 371.029	1051107.5	102.79	%	0.597				0.58%
Ag 328.068†	121249.1	498.21	µg/L	1.295	498.21	ppb	1.295	0.26%
QC value within limits for Ag 328.068 Recovery = 99.64%								
Al 396.153Radial†	23406.1	5086.6	µg/L	10.30	5086.6	ppb	10.30	0.20%
QC value within limits for Al 396.153Radial Recovery = 101.73%								
As 188.979†	1196.6	507.20	µg/L	5.724	507.20	ppb	5.724	1.13%
QC value within limits for As 188.979 Recovery = 101.44%								
B 249.677†	29205.0	488.61	µg/L	1.419	488.61	ppb	1.419	0.29%
QC value within limits for B 249.677 Recovery = 97.72%								
Ba 233.527†	108891.3	497.85	µg/L	0.708	497.85	ppb	0.708	0.14%
QC value within limits for Ba 233.527 Recovery = 99.57%								
Be 313.107†	1536907.7	500.43	µg/L	0.954	500.43	ppb	0.954	0.19%
QC value within limits for Be 313.107 Recovery = 100.09%								
Ca 317.933Radial†	85122.6	4987.8	µg/L	23.42	4987.8	ppb	23.42	0.47%
QC value within limits for Ca 317.933Radial Recovery = 99.76%								
Cd 226.502†	70843.2	488.91	µg/L	1.299	488.91	ppb	1.299	0.27%
QC value within limits for Cd 226.502 Recovery = 97.78%								

Co 228.616†	35838.4	490.99 µg/L	1.470	490.99 ppb	1.470	0.30%
QC value within limits for Co 228.616 Recovery = 98.20%						
Cr 267.716†	57387.4	492.78 µg/L	0.599	492.78 ppb	0.599	0.12%
QC value within limits for Cr 267.716 Recovery = 98.56%						
Cu 324.752†	113845.1	496.42 µg/L	1.617	496.42 ppb	1.617	0.33%
QC value within limits for Cu 324.752 Recovery = 99.28%						
Fe 238.204 Radial†	74287.3	4938.9 µg/L	16.02	4938.9 ppb	16.02	0.32%
QC value within limits for Fe 238.204 Radial Recovery = 98.78%						
K 766.490 Radial†	13215.9	5436.6 µg/L	13.92	5436.6 ppb	13.92	0.26%
QC value within limits for K 766.490 Radial Recovery = 108.73%						
Mg 279.077 IEC†	12292.3	5076.0 µg/L	19.85	5076.0 ppb	19.85	0.39%
QC value within limits for Mg 279.077 IEC Recovery = 101.52%						
Mn 257.610†	361435.1	493.67 µg/L	1.013	493.67 ppb	1.013	0.21%
QC value within limits for Mn 257.610 Recovery = 98.73%						
Mo 202.031†	15466.0	488.65 µg/L	4.194	488.65 ppb	4.194	0.86%
QC value within limits for Mo 202.031 Recovery = 97.73%						
Na 589.592 Radial†	65359.4	9996.0 µg/L	44.02	9996.0 ppb	44.02	0.44%
QC value within limits for Na 589.592 Radial Recovery = 99.96%						
Ni 231.604†	38458.3	491.93 µg/L	2.043	491.93 ppb	2.043	0.42%
QC value within limits for Ni 231.604 Recovery = 98.39%						
P 214.914†	10070.7	2403.3 µg/L	20.35	2403.3 ppb	20.35	0.85%
QC value within limits for P 214.914 Recovery = 96.13%						
Pb 220.353†	8129.5	494.02 µg/L	5.379	494.02 ppb	5.379	1.09%
QC value within limits for Pb 220.353 Recovery = 98.80%						
S 181.975 Axial†	1221.1	993.43 µg/L	17.559	993.43 ppb	17.559	1.77%
QC value within limits for S 181.975 Axial Recovery = 99.34%						
Sb 206.836†	3627.2	490.35 µg/L	2.300	490.35 ppb	2.300	0.47%
QC value within limits for Sb 206.836 Recovery = 98.07%						
Se 196.026†	1227.2	488 µg/L	1.8	488 ppb	1.8	0.38%
QC value within limits for Se 196.026 Recovery = 97.52%						
SiO2†	48523.7	5282.7 µg/L	10.27	5282.7 ppb	10.27	0.19%
QC value within limits for SiO2 Recovery = 98.79%						
Si 251.611†	149635.3	2464.5 µg/L	4.63	2464.5 ppb	4.63	0.19%
QC value within limits for Si 251.611 Recovery = 98.58%						
Sn 189.927†	6896.5	491.95 µg/L	4.158	491.95 ppb	4.158	0.85%
QC value within limits for Sn 189.927 Recovery = 98.39%						
Sr 421.552†	214359.7	502.36 µg/L	5.833	502.36 ppb	5.833	1.16%
QC value within limits for Sr 421.552 Recovery = 100.47%						
Ti 334.940†	484560.5	493.46 µg/L	1.265	493.46 ppb	1.265	0.26%
QC value within limits for Ti 334.940 Recovery = 98.69%						
Tl 190.801†	3643.7	496.49 µg/L	4.915	496.49 ppb	4.915	0.99%
QC value within limits for Tl 190.801 Recovery = 99.30%						
U 409.014†	7452.9	490.62 µg/L	8.063	490.62 ppb	8.063	1.64%
QC value within limits for U 409.014 Recovery = 98.12%						
V 292.402†	88843.0	499.05 µg/L	0.592	499.05 ppb	0.592	0.12%
QC value within limits for V 292.402 Recovery = 99.81%						
Zn 213.857†	78199.5	488.37 µg/L	1.004	488.37 ppb	1.004	0.21%
QC value within limits for Zn 213.857 Recovery = 97.67%						

All analyte(s) passed QC.

Sequence No.: 14
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/29/2010 18:51:58
Data Type: Reprocessed on 3/29/2010 19:14:42
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc 361.383	1728897.1	1728897.1	103.36	%			18:53:35
1	Sc RADIAL	154974.9	154974.9	106	%			18:52:27
1	Y 371.029	1063835.8	1063835.8	104.03	%			18:53:35
1	Ag 328.068†	3134.9	66.1	0.2939	µg/L	0.2939	ppb	18:53:37
1	Al 396.153Radial†	-26.1	7.3	1.5617	µg/L	1.5617	ppb	18:52:47
1	As 188.979†	-6.1	8.3	3.4794	µg/L	3.4794	ppb	18:53:57
1	B 249.677†	3279.3	-182.9	-3.0715	µg/L	-3.0715	ppb	18:53:57
1	Ba 233.527†	-172.5	8.1	0.0372	µg/L	0.0372	ppb	18:53:57
1	Be 313.107†	-265.8	402.9	0.1379	µg/L	0.1379	ppb	18:53:37
1	Ca 317.933Radial†	701.7	43.7	2.5615	µg/L	2.5615	ppb	18:52:47
1	Cd 226.502†	-78.0	18.9	0.1302	µg/L	0.1302	ppb	18:53:57
1	Co 228.616†	-150.4	31.1	0.4253	µg/L	0.4253	ppb	18:53:57
1	Cr 267.716†	165.7	0.1	-0.0163	µg/L	-0.0163	ppb	18:53:57
1	Cu 324.752†	2708.5	195.7	0.8692	µg/L	0.8692	ppb	18:53:37
1	Fe 238.204 Radial†	162.5	39.6	2.6306	µg/L	2.6306	ppb	18:52:47
1	K 766.490 Radial†	1937.4	367.1	151.11	µg/L	151.11	ppb	18:52:27
1	Mg 279.077 IEC†	162.4	-33.9	-13.972	µg/L	-13.972	ppb	18:52:47
1	Mn 257.610†	174.4	88.7	0.1218	µg/L	0.1218	ppb	18:53:57
1	Mo 202.031†	-30.8	25.4	0.8010	µg/L	0.8010	ppb	18:53:57
1	Na 589.592 Radial†	2342.1	508.0	77.603	µg/L	77.603	ppb	18:52:27
1	Ni 231.604†	-58.4	-15.6	-0.1996	µg/L	-0.1996	ppb	18:53:57
1	P 214.914†	71.2	-10.7	-2.5700	µg/L	-2.5700	ppb	18:53:57
1	Pb 220.353†	154.2	36.7	2.2095	µg/L	2.2095	ppb	18:53:57
1	S 181.975 Axial†	101.6	3.4	2.7893	µg/L	2.7893	ppb	18:53:57
1	Sb 206.836†	90.3	0.8	0.1164	µg/L	0.1164	ppb	18:53:57
1	Se 196.026†	18.0	6.5	2.59	µg/L	2.59	ppb	18:53:57
1	SiO2†	1694.9	67.0	7.2702	µg/L	7.2702	ppb	18:53:57
1	Si 251.611†	856.4	152.3	2.4932	µg/L	2.4932	ppb	18:53:57
1	Sn 189.927†	32.2	29.2	2.0730	µg/L	2.0730	ppb	18:53:57
1	Sr 421.552†	-130.0	155.7	0.3650	µg/L	0.3650	ppb	18:52:27
1	Ti 334.940†	561.4	-93.1	-0.1029	µg/L	-0.1029	ppb	18:53:37
1	Tl 190.801†	-112.5	11.5	1.5393	µg/L	1.5393	ppb	18:53:57
1	U 409.014†	-122.5	360.6	22.274	µg/L	22.274	ppb	18:53:37
1	V 292.402†	422.0	-23.5	-0.1074	µg/L	-0.1074	ppb	18:53:37
1	Zn 213.857†	665.5	179.5	1.1304	µg/L	1.1304	ppb	18:53:57
2	Sc 361.383	1739415.6	1739415.6	103.98	%			18:53:59
2	Sc RADIAL	153949.0	153949.0	106	%			18:52:49
2	Y 371.029	1070599.7	1070599.7	104.70	%			18:53:59
2	Ag 328.068†	3011.7	-70.7	-0.2648	µg/L	-0.2648	ppb	18:54:01
2	Al 396.153Radial†	-22.1	11.0	2.3766	µg/L	2.3766	ppb	18:53:09
2	As 188.979†	-13.6	1.2	0.4948	µg/L	0.4948	ppb	18:54:21
2	B 249.677†	3226.1	-253.2	-4.2510	µg/L	-4.2510	ppb	18:54:21
2	Ba 233.527†	-183.8	-1.7	-0.0082	µg/L	-0.0082	ppb	18:54:21
2	Be 313.107†	-497.9	181.3	0.0661	µg/L	0.0661	ppb	18:54:01
2	Ca 317.933Radial†	683.5	30.9	1.8113	µg/L	1.8113	ppb	18:53:09
2	Cd 226.502†	-81.2	16.3	0.1120	µg/L	0.1120	ppb	18:54:21
2	Co 228.616†	-169.3	13.8	0.1886	µg/L	0.1886	ppb	18:54:21
2	Cr 267.716†	203.3	35.3	0.2845	µg/L	0.2845	ppb	18:54:21
2	Cu 324.752†	2932.9	395.7	1.7397	µg/L	1.7397	ppb	18:54:01
2	Fe 238.204 Radial†	156.9	35.2	2.3419	µg/L	2.3419	ppb	18:53:09
2	K 766.490 Radial†	1851.5	297.9	122.64	µg/L	122.64	ppb	18:52:49
2	Mg 279.077 IEC†	181.3	-15.0	-6.1810	µg/L	-6.1810	ppb	18:53:09
2	Mn 257.610†	185.1	98.0	0.1342	µg/L	0.1342	ppb	18:54:21
2	Mo 202.031†	-40.6	16.1	0.5093	µg/L	0.5093	ppb	18:54:21
2	Na 589.592 Radial†	2203.5	391.5	59.792	µg/L	59.792	ppb	18:52:49
2	Ni 231.604†	-87.1	-42.9	-0.5483	µg/L	-0.5483	ppb	18:54:21
2	P 214.914†	70.7	-11.6	-2.7920	µg/L	-2.7920	ppb	18:54:21
2	Pb 220.353†	120.5	3.4	0.1904	µg/L	0.1904	ppb	18:54:21

2	S 181.975 Axial†	93.2	-5.2	-4.2193 µg/L	-4.2193 ppb	18:54:21
2	Sb 206.836†	93.2	3.0	0.4017 µg/L	0.4017 ppb	18:54:21
2	Se 196.026†	16.5	5.0	1.99 µg/L	1.99 ppb	18:54:21
2	SiO2†	1661.9	25.3	2.7424 µg/L	2.7424 ppb	18:54:21
2	Si 251.611†	798.6	91.6	1.5029 µg/L	1.5029 ppb	18:54:21
2	Sn 189.927†	13.9	11.4	0.8082 µg/L	0.8082 ppb	18:54:21
2	Sr 421.552†	-162.3	124.3	0.2914 µg/L	0.2914 ppb	18:52:49
2	Ti 334.940†	589.0	-69.9	-0.0804 µg/L	-0.0804 ppb	18:54:01
2	Tl 190.801†	-123.3	1.7	0.2267 µg/L	0.2267 ppb	18:54:21
2	U 409.014†	-105.6	377.6	23.300 µg/L	23.300 ppb	18:54:01
2	V 292.402†	344.7	-100.3	-0.5347 µg/L	-0.5347 ppb	18:54:01
2	Zn 213.857†	642.6	153.6	0.9689 µg/L	0.9689 ppb	18:54:21
3	Sc 361.383	1736015.7	1736015.7	103.78 %		18:54:23
3	Sc RADIAL	153754.9	153754.9	105 %		18:53:11
3	Y 371.029	1068282.8	1068282.8	104.47 %		18:54:23
3	Ag 328.068†	2964.9	-110.2	-0.4509 µg/L	-0.4509 ppb	18:54:26
3	Al 396.153Radial†	-16.1	16.6	3.5986 µg/L	3.5986 ppb	18:53:31
3	As 188.979†	-20.3	-5.3	-2.2272 µg/L	-2.2272 ppb	18:54:46
3	B 249.677†	3208.4	-264.2	-4.4364 µg/L	-4.4364 ppb	18:54:46
3	Ba 233.527†	-175.6	5.8	0.0262 µg/L	0.0262 ppb	18:54:46
3	Be 313.107†	-146.9	518.6	0.1704 µg/L	0.1704 ppb	18:54:26
3	Ca 317.933Radial†	709.7	56.6	3.3147 µg/L	3.3147 ppb	18:53:31
3	Cd 226.502†	-66.7	30.1	0.2078 µg/L	0.2078 ppb	18:54:46
3	Co 228.616†	-149.7	32.3	0.4424 µg/L	0.4424 ppb	18:54:46
3	Cr 267.716†	183.5	16.6	0.1380 µg/L	0.1380 ppb	18:54:46
3	Cu 324.752†	2785.8	259.4	1.1323 µg/L	1.1323 ppb	18:54:26
3	Fe 238.204 Radial†	167.4	45.4	3.0195 µg/L	3.0195 ppb	18:53:31
3	K 766.490 Radial†	2004.9	445.6	183.43 µg/L	183.43 ppb	18:53:11
3	Mg 279.077 IEC†	164.0	-31.2	-12.871 µg/L	-12.871 ppb	18:53:31
3	Mn 257.610†	141.8	56.6	0.0779 µg/L	0.0779 ppb	18:54:46
3	Mo 202.031†	-43.5	13.3	0.4189 µg/L	0.4189 ppb	18:54:46
3	Na 589.592 Radial†	2025.0	224.9	34.251 µg/L	34.251 ppb	18:53:11
3	Ni 231.604†	-54.8	-11.9	-0.1527 µg/L	-0.1527 ppb	18:54:46
3	P 214.914†	63.8	-18.1	-4.3341 µg/L	-4.3341 ppb	18:54:46
3	Pb 220.353†	149.8	31.9	1.9285 µg/L	1.9285 ppb	18:54:46
3	S 181.975 Axial†	104.0	5.4	4.3655 µg/L	4.3655 ppb	18:54:46
3	Sb 206.836†	91.0	1.1	0.1457 µg/L	0.1457 ppb	18:54:46
3	Se 196.026†	19.4	7.7	3.06 µg/L	3.06 ppb	18:54:46
3	SiO2†	1644.1	11.4	1.2195 µg/L	1.2195 ppb	18:54:46
3	Si 251.611†	797.5	92.1	1.5112 µg/L	1.5112 ppb	18:54:46
3	Sn 189.927†	13.8	11.3	0.8038 µg/L	0.8038 ppb	18:54:46
3	Sr 421.552†	-194.0	94.1	0.2206 µg/L	0.2206 ppb	18:53:11
3	Ti 334.940†	849.4	182.1	0.1846 µg/L	0.1846 ppb	18:54:26
3	Tl 190.801†	-118.6	6.0	0.7978 µg/L	0.7978 ppb	18:54:46
3	U 409.014†	-409.0	85.0	5.2024 µg/L	5.2024 ppb	18:54:26
3	V 292.402†	290.0	-152.4	-0.8373 µg/L	-0.8373 ppb	18:54:26
3	Zn 213.857†	615.7	128.9	0.8114 µg/L	0.8114 ppb	18:54:46

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1734776.2	103.71	%	0.321				0.31%
Sc RADIAL	154226.3	106	%	0.4				0.43%
Y 371.029	1067572.8	104.40	%	0.336				0.32%
Ag 328.068†	-38.3	-0.1406	µg/L	0.38763	-0.1406	ppb	0.38763	275.71%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	11.6	2.5123	µg/L	1.02521	2.5123	ppb	1.02521	40.81%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.4	0.5823	µg/L	2.85430	0.5823	ppb	2.85430	490.14%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-233.4	-3.9196	µg/L	0.74029	-3.9196	ppb	0.74029	18.89%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.1	0.0184	µg/L	0.02367	0.0184	ppb	0.02367	128.49%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	367.6	0.1248	µg/L	0.05339	0.1248	ppb	0.05339	42.78%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	43.7	2.5625	µg/L	0.75170	2.5625	ppb	0.75170	29.33%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	21.8	0.1500	µg/L	0.05085	0.1500	ppb	0.05085	33.90%
QC value within limits for Cd 226.502 Recovery = Not calculated								

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Co 228.616†                25.7      0.3521 µg/L       0.14188      0.3521 ppb        0.14188  40.30%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                17.3      0.1354 µg/L       0.15041      0.1354 ppb        0.15041 111.10%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               283.6      1.2471 µg/L       0.44643      1.2471 ppb        0.44643  35.80%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         40.1      2.6640 µg/L       0.34002      2.6640 ppb        0.34002  12.76%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         370.2      152.39 µg/L        30.414      152.39 ppb         30.414  19.96%
   QC value greater than the upper limit for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -26.7     -11.008 µg/L        4.2166     -11.008 ppb         4.2166  38.30%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                81.1      0.1113 µg/L       0.02959      0.1113 ppb        0.02959  26.59%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                18.3      0.5764 µg/L       0.19971      0.5764 ppb        0.19971  34.65%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        374.8      57.216 µg/L       21.7906      57.216 ppb        21.7906  38.09%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -23.5     -0.3002 µg/L       0.21614     -0.3002 ppb        0.21614  72.00%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -13.5     -3.2320 µg/L       0.96088     -3.2320 ppb        0.96088  29.73%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                24.0      1.4428 µg/L       1.09369      1.4428 ppb        1.09369  75.80%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†            1.2      0.9785 µg/L       4.56987      0.9785 ppb        4.56987 467.04%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                 1.6      0.2213 µg/L       0.15695      0.2213 ppb        0.15695  70.93%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 6.4        2.55 µg/L         0.537        2.55 ppb          0.537  21.07%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      34.6      3.7440 µg/L       3.14725      3.7440 ppb        3.14725  84.06%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               112.0      1.8358 µg/L       0.56935      1.8358 ppb        0.56935  31.01%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                17.3      1.2284 µg/L       0.73152      1.2284 ppb        0.73152  59.55%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               124.7      0.2923 µg/L       0.07221      0.2923 ppb        0.07221  24.70%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                 6.3      0.0004 µg/L       0.15987      0.0004 ppb        0.15987 >999.9%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                 6.4      0.8546 µg/L       0.65815      0.8546 ppb        0.65815  77.01%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                274.4      16.925 µg/L       10.1653      16.925 ppb        10.1653  60.06%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -92.1     -0.4931 µg/L       0.36672     -0.4931 ppb        0.36672  74.37%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               154.0      0.9702 µg/L       0.15951      0.9702 ppb        0.15951  16.44%
   QC value within limits for Zn 213.857  Recovery = Not calculated
QC Failed.  Continue with analysis.
```

Sequence No.: 15
Sample ID: CCV
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/29/2010 18:57:39
Data Type: Reprocessed on 3/29/2010 19:14:43

Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	1742170.7	1742170.7	104.15	%			18:58:39
1	Sc RADIAL	154515.3	154515.3	106	%			18:58:11
1	Y 371.029	1059060.1	1059060.1	103.57	%			18:58:39
1	Ag 328.068†	129322.6	121204.2	498.05	µg/L	498.05	ppb	18:58:39
1	Al 396.153Radial†	24823.0	23447.4	5095.8	µg/L	5095.8	ppb	18:58:11
1	As 188.979†	1217.4	1183.1	501.56	µg/L	501.56	ppb	18:58:59
1	B 249.677†	33548.3	28856.2	482.76	µg/L	482.76	ppb	18:58:39
1	Ba 233.527†	113126.0	108794.9	497.41	µg/L	497.41	ppb	18:58:39
1	Be 313.107†	1604803.7	1541539.3	501.94	µg/L	501.94	ppb	18:58:39
1	Ca 317.933Radial†	90245.5	84512.4	4952.1	µg/L	4952.1	ppb	18:58:11
1	Cd 226.502†	73575.0	70738.7	488.19	µg/L	488.19	ppb	18:58:39
1	Co 228.616†	37114.9	35813.1	490.65	µg/L	490.65	ppb	18:58:39
1	Cr 267.716†	59986.2	57436.6	493.20	µg/L	493.20	ppb	18:58:39
1	Cu 324.752†	120959.5	113716.5	495.86	µg/L	495.86	ppb	18:58:39
1	Fe 238.204 Radial†	78194.0	73647.1	4896.3	µg/L	4896.3	ppb	18:58:11
1	K 766.490 Radial†	14176.6	11917.8	4902.2	µg/L	4902.2	ppb	18:58:11
1	Mg 279.077 IEC†	13187.4	12253.0	5059.7	µg/L	5059.7	ppb	18:58:11
1	Mn 257.610†	376145.4	361082.3	493.18	µg/L	493.18	ppb	18:58:39
1	Mo 202.031†	15919.4	15340.5	484.69	µg/L	484.69	ppb	18:58:59
1	Na 589.592 Radial†	70146.9	64474.8	9861.1	µg/L	9861.1	ppb	18:58:11
1	Ni 231.604†	39988.6	38436.6	491.65	µg/L	491.65	ppb	18:58:39
1	P 214.914†	10512.2	10013.9	2389.7	µg/L	2389.7	ppb	18:58:59
1	Pb 220.353†	8436.4	7988.0	485.43	µg/L	485.43	ppb	18:58:59
1	S 181.975 Axial†	1318.2	1170.9	952.74	µg/L	952.74	ppb	18:58:59
1	Sb 206.836†	3856.6	3616.3	488.81	µg/L	488.81	ppb	18:58:59
1	Se 196.026†	1269.9	1208.4	480	µg/L	480	ppb	18:58:59
1	SiO2†	51891.1	48251.3	5253.1	µg/L	5253.1	ppb	18:58:39
1	Si 251.611†	155814.4	148931.5	2452.9	µg/L	2452.9	ppb	18:58:39
1	Sn 189.927†	7088.8	6804.4	485.40	µg/L	485.40	ppb	18:58:59
1	Sr 421.552†	226055.0	213515.6	500.39	µg/L	500.39	ppb	18:58:09
1	Ti 334.940†	505203.6	484443.4	493.34	µg/L	493.34	ppb	18:58:39
1	Tl 190.801†	3627.2	3603.0	491.03	µg/L	491.03	ppb	18:58:59
1	U 409.014†	7391.3	7576.0	498.27	µg/L	498.27	ppb	18:58:39
1	V 292.402†	93133.5	88991.9	499.85	µg/L	499.85	ppb	18:58:39
1	Zn 213.857†	81243.9	77543.3	484.25	µg/L	484.25	ppb	18:58:39
2	Sc 361.383	1731918.8	1731918.8	103.54	%			18:59:02
2	Sc RADIAL	153334.6	153334.6	105	%			18:58:15
2	Y 371.029	1053099.9	1053099.9	102.98	%			18:59:02
2	Ag 328.068†	128679.2	121317.8	498.52	µg/L	498.52	ppb	18:59:02
2	Al 396.153Radial†	24533.3	23352.3	5074.9	µg/L	5074.9	ppb	18:58:15
2	As 188.979†	1225.6	1198.0	507.75	µg/L	507.75	ppb	18:59:22
2	B 249.677†	33340.5	28846.3	482.59	µg/L	482.59	ppb	18:59:02
2	Ba 233.527†	112441.8	108777.0	497.33	µg/L	497.33	ppb	18:59:02
2	Be 313.107†	1592364.8	1538646.2	501.00	µg/L	501.00	ppb	18:59:02
2	Ca 317.933Radial†	89792.3	84737.0	4965.2	µg/L	4965.2	ppb	18:58:15
2	Cd 226.502†	73051.4	70651.1	487.59	µg/L	487.59	ppb	18:59:02
2	Co 228.616†	36781.7	35702.2	489.13	µg/L	489.13	ppb	18:59:02
2	Cr 267.716†	59502.2	57310.0	492.11	µg/L	492.11	ppb	18:59:02
2	Cu 324.752†	119947.4	113426.4	494.60	µg/L	494.60	ppb	18:59:02
2	Fe 238.204 Radial†	77968.6	74000.8	4919.8	µg/L	4919.8	ppb	18:58:15
2	K 766.490 Radial†	14058.0	11908.0	4898.2	µg/L	4898.2	ppb	18:58:15
2	Mg 279.077 IEC†	13036.1	12205.0	5039.9	µg/L	5039.9	ppb	18:58:15
2	Mn 257.610†	373427.3	360594.9	492.52	µg/L	492.52	ppb	18:59:02
2	Mo 202.031†	15910.1	15421.9	487.26	µg/L	487.26	ppb	18:59:22
2	Na 589.592 Radial†	69792.3	64647.2	9887.5	µg/L	9887.5	ppb	18:58:15
2	Ni 231.604†	39642.4	38329.5	490.28	µg/L	490.28	ppb	18:59:02
2	P 214.914†	10490.2	10052.4	2398.9	µg/L	2398.9	ppb	18:59:22
2	Pb 220.353†	8461.2	8059.8	489.79	µg/L	489.79	ppb	18:59:22

2	S 181.975 Axial†	1332.4	1192.1	969.89 µg/L	969.89 ppb	18:59:22
2	Sb 206.836†	3845.4	3627.4	490.36 µg/L	490.36 ppb	18:59:22
2	Se 196.026†	1281.0	1226.3	487 µg/L	487 ppb	18:59:22
2	SiO2†	51762.5	48422.0	5271.6 µg/L	5271.6 ppb	18:59:02
2	Si 251.611†	154651.7	148694.0	2448.9 µg/L	2448.9 ppb	18:59:02
2	Sn 189.927†	7107.0	6862.3	489.51 µg/L	489.51 ppb	18:59:22
2	Sr 421.552†	226773.0	215840.0	505.83 µg/L	505.83 ppb	18:58:13
2	Ti 334.940†	500715.6	482980.0	491.85 µg/L	491.85 ppb	18:59:02
2	Tl 190.801†	3643.2	3639.1	495.88 µg/L	495.88 ppb	18:59:22
2	U 409.014†	7329.7	7558.5	497.20 µg/L	497.20 ppb	18:59:02
2	V 292.402†	92631.5	89036.3	500.12 µg/L	500.12 ppb	18:59:02
2	Zn 213.857†	80666.5	77447.4	483.65 µg/L	483.65 ppb	18:59:02
3	Sc 361.383	1731636.7	1731636.7	103.52 %		18:59:25
3	Sc RADIAL	154205.4	154205.4	106 %		18:58:20
3	Y 371.029	1052626.8	1052626.8	102.94 %		18:59:25
3	Ag 328.068†	128532.9	121196.7	498.02 µg/L	498.02 ppb	18:59:25
3	Al 396.153Radial†	24950.8	23615.3	5132.4 µg/L	5132.4 ppb	18:58:20
3	As 188.979†	1233.7	1206.0	511.11 µg/L	511.11 ppb	18:59:45
3	B 249.677†	33475.9	28982.3	484.88 µg/L	484.88 ppb	18:59:25
3	Ba 233.527†	112293.7	108651.6	496.76 µg/L	496.76 ppb	18:59:25
3	Be 313.107†	1590952.1	1537532.1	500.63 µg/L	500.63 ppb	18:59:25
3	Ca 317.933Radial†	90838.5	85244.0	4994.9 µg/L	4994.9 ppb	18:58:20
3	Cd 226.502†	73036.3	70648.1	487.56 µg/L	487.56 ppb	18:59:25
3	Co 228.616†	36829.8	35754.4	489.84 µg/L	489.84 ppb	18:59:25
3	Cr 267.716†	59440.0	57259.2	491.68 µg/L	491.68 ppb	18:59:25
3	Cu 324.752†	119916.0	113414.9	494.56 µg/L	494.56 ppb	18:59:25
3	Fe 238.204 Radial†	78885.0	74448.4	4949.6 µg/L	4949.6 ppb	18:58:20
3	K 766.490 Radial†	14076.3	11849.9	4874.3 µg/L	4874.3 ppb	18:58:20
3	Mg 279.077 IEC†	13322.3	12405.5	5122.6 µg/L	5122.6 ppb	18:58:20
3	Mn 257.610†	373424.5	360651.0	492.59 µg/L	492.59 ppb	18:59:25
3	Mo 202.031†	15880.4	15395.8	486.44 µg/L	486.44 ppb	18:59:45
3	Na 589.592 Radial†	70305.8	64758.0	9904.5 µg/L	9904.5 ppb	18:58:20
3	Ni 231.604†	39803.4	38491.3	492.35 µg/L	492.35 ppb	18:59:25
3	P 214.914†	10482.3	10046.4	2397.5 µg/L	2397.5 ppb	18:59:45
3	Pb 220.353†	8408.9	8010.6	486.81 µg/L	486.81 ppb	18:59:45
3	S 181.975 Axial†	1326.3	1186.4	965.31 µg/L	965.31 ppb	18:59:45
3	Sb 206.836†	3839.9	3622.7	489.73 µg/L	489.73 ppb	18:59:45
3	Se 196.026†	1268.7	1214.6	483 µg/L	483 ppb	18:59:45
3	SiO2†	51614.7	48287.3	5257.0 µg/L	5257.0 ppb	18:59:25
3	Si 251.611†	154566.1	148635.7	2448.0 µg/L	2448.0 ppb	18:59:25
3	Sn 189.927†	7092.3	6849.2	488.58 µg/L	488.58 ppb	18:59:45
3	Sr 421.552†	224060.1	212058.6	496.97 µg/L	496.97 ppb	18:58:17
3	Ti 334.940†	500694.3	483038.2	491.90 µg/L	491.90 ppb	18:59:25
3	Tl 190.801†	3646.3	3642.7	496.35 µg/L	496.35 ppb	18:59:45
3	U 409.014†	7327.6	7557.6	497.15 µg/L	497.15 ppb	18:59:25
3	V 292.402†	92621.5	89041.2	500.13 µg/L	500.13 ppb	18:59:25
3	Zn 213.857†	80736.0	77527.2	484.14 µg/L	484.14 ppb	18:59:25

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1735242.1	103.73	%	0.359				0.35%
Sc RADIAL	154018.4	106	%	0.4				0.40%
Y 371.029	1054928.9	103.16	%	0.351				0.34%
Ag 328.068†	121239.6	498.20	µg/L	0.276	498.20	ppb	0.276	0.06%
QC value within limits for Ag 328.068 Recovery = 99.64%								
Al 396.153Radial†	23471.7	5101.0	µg/L	29.08	5101.0	ppb	29.08	0.57%
QC value within limits for Al 396.153Radial Recovery = 102.02%								
As 188.979†	1195.7	506.81	µg/L	4.846	506.81	ppb	4.846	0.96%
QC value within limits for As 188.979 Recovery = 101.36%								
B 249.677†	28895.0	483.41	µg/L	1.273	483.41	ppb	1.273	0.26%
QC value within limits for B 249.677 Recovery = 96.68%								
Ba 233.527†	108741.2	497.17	µg/L	0.357	497.17	ppb	0.357	0.07%
QC value within limits for Ba 233.527 Recovery = 99.43%								
Be 313.107†	1539239.2	501.19	µg/L	0.673	501.19	ppb	0.673	0.13%
QC value within limits for Be 313.107 Recovery = 100.24%								
Ca 317.933Radial†	84831.1	4970.7	µg/L	21.96	4970.7	ppb	21.96	0.44%
QC value within limits for Ca 317.933Radial Recovery = 99.41%								
Cd 226.502†	70679.3	487.78	µg/L	0.358	487.78	ppb	0.358	0.07%
QC value within limits for Cd 226.502 Recovery = 97.56%								

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Co 228.616†            35756.6      489.87 µg/L        0.760      489.87 ppb          0.760   0.16%
   QC value within limits for Co 228.616  Recovery = 97.97%
Cr 267.716†            57335.3      492.33 µg/L        0.783      492.33 ppb          0.783   0.16%
   QC value within limits for Cr 267.716  Recovery = 98.47%
Cu 324.752†           113519.3      495.01 µg/L        0.740      495.01 ppb          0.740   0.15%
   QC value within limits for Cu 324.752  Recovery = 99.00%
Fe 238.204 Radial†     74032.1      4921.9 µg/L       26.70      4921.9 ppb         26.70   0.54%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.44%
K 766.490 Radial†      11891.9      4891.6 µg/L       15.12      4891.6 ppb         15.12   0.31%
   QC value within limits for K 766.490 Radial  Recovery = 97.83%
Mg 279.077 IEC†        12287.8      5074.1 µg/L       43.14      5074.1 ppb         43.14   0.85%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.48%
Mn 257.610†           360776.1      492.77 µg/L        0.365      492.77 ppb          0.365   0.07%
   QC value within limits for Mn 257.610  Recovery = 98.55%
Mo 202.031†            15386.1      486.13 µg/L        1.313      486.13 ppb          1.313   0.27%
   QC value within limits for Mo 202.031  Recovery = 97.23%
Na 589.592 Radial†     64626.7      9884.4 µg/L       21.84      9884.4 ppb         21.84   0.22%
   QC value within limits for Na 589.592 Radial  Recovery = 98.84%
Ni 231.604†            38419.1      491.43 µg/L        1.053      491.43 ppb          1.053   0.21%
   QC value within limits for Ni 231.604  Recovery = 98.29%
P 214.914†             10037.5      2395.4 µg/L        4.95      2395.4 ppb          4.95   0.21%
   QC value within limits for P 214.914  Recovery = 95.81%
Pb 220.353†             8019.5      487.34 µg/L        2.227      487.34 ppb          2.227   0.46%
   QC value within limits for Pb 220.353  Recovery = 97.47%
S 181.975 Axial†        1183.1      962.65 µg/L        8.881      962.65 ppb          8.881   0.92%
   QC value within limits for S 181.975 Axial  Recovery = 96.26%
Sb 206.836†             3622.2      489.63 µg/L        0.781      489.63 ppb          0.781   0.16%
   QC value within limits for Sb 206.836  Recovery = 97.93%
Se 196.026†             1216.4         483 µg/L          3.6         483 ppb            3.6   0.75%
   QC value within limits for Se 196.026  Recovery = 96.66%
SiO2†                  48320.2      5260.6 µg/L        9.78      5260.6 ppb          9.78   0.19%
   QC value within limits for SiO2  Recovery = 98.37%
Si 251.611†           148753.7      2449.9 µg/L        2.62      2449.9 ppb          2.62   0.11%
   QC value within limits for Si 251.611  Recovery = 98.00%
Sn 189.927†             6838.6      487.83 µg/L        2.157      487.83 ppb          2.157   0.44%
   QC value within limits for Sn 189.927  Recovery = 97.57%
Sr 421.552†           213804.8      501.06 µg/L        4.470      501.06 ppb          4.470   0.89%
   QC value within limits for Sr 421.552  Recovery = 100.21%
Ti 334.940†           483487.2      492.36 µg/L        0.845      492.36 ppb          0.845   0.17%
   QC value within limits for Ti 334.940  Recovery = 98.47%
Tl 190.801†             3628.3      494.42 µg/L        2.943      494.42 ppb          2.943   0.60%
   QC value within limits for Tl 190.801  Recovery = 98.88%
U 409.014†              7564.0      497.54 µg/L        0.636      497.54 ppb          0.636   0.13%
   QC value within limits for U 409.014  Recovery = 99.51%
V 292.402†             89023.2      500.03 µg/L        0.157      500.03 ppb          0.157   0.03%
   QC value within limits for V 292.402  Recovery = 100.01%
Zn 213.857†            77506.0      484.01 µg/L        0.318      484.01 ppb          0.318   0.07%
   QC value within limits for Zn 213.857  Recovery = 96.80%
All analyte(s) passed QC.
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Sequence No.: 16
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : optima4
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/29/2010 18:59:54
Data Type: Reprocessed on 3/29/2010 19:14:44
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc 361.383	1743930.9	1743930.9	104.25	%			19:01:45
1	Sc RADIAL	157207.9	157207.9	108	%			19:00:23
1	Y 371.029	1072817.8	1072817.8	104.91	%			19:01:45
1	Ag 328.068†	2785.5	-295.2	-1.1824	µg/L	-1.1824	ppb	19:01:47
1	Al 396.153Radial†	-35.9	-1.4	-0.3269	µg/L	-0.3269	ppb	19:00:43
1	As 188.979†	-9.7	4.9	2.0592	µg/L	2.0592	ppb	19:02:07
1	B 249.677†	3169.2	-315.8	-5.3028	µg/L	-5.3028	ppb	19:02:07
1	Ba 233.527†	-172.8	9.3	0.0423	µg/L	0.0423	ppb	19:02:07
1	Be 313.107†	-580.2	103.6	0.0392	µg/L	0.0392	ppb	19:01:47
1	Ca 317.933Radial†	703.1	35.6	2.0888	µg/L	2.0888	ppb	19:00:43
1	Cd 226.502†	-117.2	-18.0	-0.1248	µg/L	-0.1248	ppb	19:02:07
1	Co 228.616†	-175.0	8.7	0.1195	µg/L	0.1195	ppb	19:02:07
1	Cr 267.716†	174.7	7.4	0.0489	µg/L	0.0489	ppb	19:02:07
1	Cu 324.752†	2833.3	292.9	1.2883	µg/L	1.2883	ppb	19:01:47
1	Fe 238.204 Radial†	147.5	23.5	1.5605	µg/L	1.5605	ppb	19:00:43
1	K 766.490 Radial†	1652.9	77.5	31.907	µg/L	31.907	ppb	19:00:23
1	Mg 279.077 IEC†	179.9	-19.9	-8.1726	µg/L	-8.1726	ppb	19:00:43
1	Mn 257.610†	174.5	87.4	0.1197	µg/L	0.1197	ppb	19:02:07
1	Mo 202.031†	-38.4	18.4	0.5797	µg/L	0.5797	ppb	19:02:07
1	Na 589.592 Radial†	1931.7	96.3	14.699	µg/L	14.699	ppb	19:00:23
1	Ni 231.604†	-49.3	-6.4	-0.0822	µg/L	-0.0822	ppb	19:02:07
1	P 214.914†	78.3	-4.5	-1.0824	µg/L	-1.0824	ppb	19:02:07
1	Pb 220.353†	116.5	-0.7	-0.0551	µg/L	-0.0551	ppb	19:02:07
1	S 181.975 Axial†	92.5	-6.1	-4.9234	µg/L	-4.9234	ppb	19:02:07
1	Sb 206.836†	87.4	-2.8	-0.3729	µg/L	-0.3729	ppb	19:02:07
1	Se 196.026†	21.5	9.7	3.85	µg/L	3.85	ppb	19:02:07
1	SiO2†	1662.9	22.2	2.3983	µg/L	2.3983	ppb	19:02:07
1	Si 251.611†	781.9	73.6	1.2037	µg/L	1.2037	ppb	19:02:07
1	Sn 189.927†	15.0	12.4	0.8828	µg/L	0.8828	ppb	19:02:07
1	Sr 421.552†	-145.8	142.8	0.3347	µg/L	0.3347	ppb	19:00:23
1	Ti 334.940†	822.4	152.5	0.1487	µg/L	0.1487	ppb	19:01:47
1	Tl 190.801†	-112.5	12.4	1.6651	µg/L	1.6651	ppb	19:02:07
1	U 409.014†	-191.3	295.6	18.231	µg/L	18.231	ppb	19:01:47
1	V 292.402†	340.4	-105.3	-0.5658	µg/L	-0.5658	ppb	19:01:47
1	Zn 213.857†	528.4	42.4	0.2666	µg/L	0.2666	ppb	19:02:07
2	Sc 361.383	1749880.6	1749880.6	104.61	%			19:02:09
2	Sc RADIAL	154607.9	154607.9	106	%			19:00:45
2	Y 371.029	1075429.4	1075429.4	105.17	%			19:02:09
2	Ag 328.068†	2854.9	-238.0	-0.9266	µg/L	-0.9266	ppb	19:02:11
2	Al 396.153Radial†	-53.8	-18.9	-4.1894	µg/L	-4.1894	ppb	19:01:05
2	As 188.979†	-8.5	6.1	2.5641	µg/L	2.5641	ppb	19:02:31
2	B 249.677†	3184.7	-311.3	-5.2277	µg/L	-5.2277	ppb	19:02:31
2	Ba 233.527†	-166.1	16.2	0.0743	µg/L	0.0743	ppb	19:02:31
2	Be 313.107†	-429.5	249.5	0.0921	µg/L	0.0921	ppb	19:02:11
2	Ca 317.933Radial†	674.2	19.4	1.1395	µg/L	1.1395	ppb	19:01:05
2	Cd 226.502†	-92.3	6.1	0.0422	µg/L	0.0422	ppb	19:02:31
2	Co 228.616†	-147.4	35.7	0.4889	µg/L	0.4889	ppb	19:02:31
2	Cr 267.716†	146.6	-20.1	-0.2010	µg/L	-0.2010	ppb	19:02:31
2	Cu 324.752†	2740.1	194.5	0.8753	µg/L	0.8753	ppb	19:02:11
2	Fe 238.204 Radial†	152.9	30.9	2.0532	µg/L	2.0532	ppb	19:01:05
2	K 766.490 Radial†	1696.1	144.0	59.261	µg/L	59.261	ppb	19:00:45
2	Mg 279.077 IEC†	164.9	-31.2	-12.828	µg/L	-12.828	ppb	19:01:05
2	Mn 257.610†	159.3	72.2	0.0992	µg/L	0.0992	ppb	19:02:31
2	Mo 202.031†	-10.4	45.2	1.4272	µg/L	1.4272	ppb	19:02:31
2	Na 589.592 Radial†	1913.7	109.4	16.687	µg/L	16.687	ppb	19:00:45
2	Ni 231.604†	-34.9	7.5	0.0960	µg/L	0.0960	ppb	19:02:31
2	P 214.914†	88.9	5.5	1.2769	µg/L	1.2769	ppb	19:02:31
2	Pb 220.353†	116.9	-0.7	-0.0641	µg/L	-0.0641	ppb	19:02:31

2	S 181.975 Axial†	98.1	-1.0	-0.8273 µg/L	-0.8273 ppb	19:02:31
2	Sb 206.836†	79.8	-10.4	-1.3806 µg/L	-1.3806 ppb	19:02:31
2	Se 196.026†	23.1	11.2	4.46 µg/L	4.46 ppb	19:02:31
2	SiO2†	1662.3	16.2	1.7388 µg/L	1.7388 ppb	19:02:31
2	Si 251.611†	771.7	61.4	0.9975 µg/L	0.9975 ppb	19:02:31
2	Sn 189.927†	-2.4	-4.3	-0.3060 µg/L	-0.3060 ppb	19:02:31
2	Sr 421.552†	-168.4	119.2	0.2795 µg/L	0.2795 ppb	19:00:45
2	Ti 334.940†	843.2	169.7	0.1595 µg/L	0.1595 ppb	19:02:11
2	Tl 190.801†	-115.5	9.9	1.3206 µg/L	1.3206 ppb	19:02:31
2	U 409.014†	109.4	583.7	36.043 µg/L	36.043 ppb	19:02:11
2	V 292.402†	368.0	-80.0	-0.4063 µg/L	-0.4063 ppb	19:02:11
2	Zn 213.857†	532.3	44.4	0.2783 µg/L	0.2783 ppb	19:02:31
3	Sc 361.383	1734424.8	1734424.8	103.69 %		19:02:33
3	Sc RADIAL	152171.1	152171.1	104 %		19:01:07
3	Y 371.029	1067156.7	1067156.7	104.36 %		19:02:33
3	Ag 328.068†	2902.9	-167.4	-0.6806 µg/L	-0.6806 ppb	19:02:36
3	Al 396.153Radial†	-58.9	-24.5	-5.3555 µg/L	-5.3555 ppb	19:01:27
3	As 188.979†	-18.7	-3.8	-1.5762 µg/L	-1.5762 ppb	19:02:56
3	B 249.677†	3166.5	-301.7	-5.0666 µg/L	-5.0666 ppb	19:02:56
3	Ba 233.527†	-187.7	-6.0	-0.0277 µg/L	-0.0277 ppb	19:02:56
3	Be 313.107†	-333.0	339.0	0.1115 µg/L	0.1115 ppb	19:02:36
3	Ca 317.933Radial†	709.2	63.1	3.6954 µg/L	3.6954 ppb	19:01:27
3	Cd 226.502†	-99.5	-1.5	-0.0105 µg/L	-0.0105 ppb	19:02:56
3	Co 228.616†	-170.8	11.9	0.1624 µg/L	0.1624 ppb	19:02:56
3	Cr 267.716†	184.7	17.9	0.1506 µg/L	0.1506 ppb	19:02:56
3	Cu 324.752†	2715.6	194.2	0.8472 µg/L	0.8472 ppb	19:02:36
3	Fe 238.204 Radial†	137.1	18.1	1.2007 µg/L	1.2007 ppb	19:01:27
3	K 766.490 Radial†	1528.8	9.4	3.8507 µg/L	3.8507 ppb	19:01:07
3	Mg 279.077 IEC†	173.3	-20.7	-8.5238 µg/L	-8.5238 ppb	19:01:27
3	Mn 257.610†	141.1	56.1	0.0769 µg/L	0.0769 ppb	19:02:56
3	Mo 202.031†	-52.8	4.2	0.1336 µg/L	0.1336 ppb	19:02:56
3	Na 589.592 Radial†	1839.9	67.6	10.341 µg/L	10.341 ppb	19:01:07
3	Ni 231.604†	-39.3	3.0	0.0386 µg/L	0.0386 ppb	19:02:56
3	P 214.914†	57.3	-24.3	-5.8246 µg/L	-5.8246 ppb	19:02:56
3	Pb 220.353†	120.4	3.6	0.2179 µg/L	0.2179 ppb	19:02:56
3	S 181.975 Axial†	88.1	-9.8	-7.9574 µg/L	-7.9574 ppb	19:02:56
3	Sb 206.836†	87.1	-2.6	-0.3549 µg/L	-0.3549 ppb	19:02:56
3	Se 196.026†	3.8	-7.2	-2.85 µg/L	-2.85 ppb	19:02:56
3	SiO2†	1649.9	18.4	1.9980 µg/L	1.9980 ppb	19:02:56
3	Si 251.611†	767.7	64.1	1.0530 µg/L	1.0530 ppb	19:02:56
3	Sn 189.927†	11.8	9.4	0.6667 µg/L	0.6667 ppb	19:02:56
3	Sr 421.552†	-198.5	87.9	0.2060 µg/L	0.2060 ppb	19:01:07
3	Ti 334.940†	650.8	-8.7	-0.0097 µg/L	-0.0097 ppb	19:02:36
3	Tl 190.801†	-110.3	13.9	1.8642 µg/L	1.8642 ppb	19:02:56
3	U 409.014†	-434.4	60.1	3.6852 µg/L	3.6852 ppb	19:02:36
3	V 292.402†	355.5	-88.9	-0.4890 µg/L	-0.4890 ppb	19:02:36
3	Zn 213.857†	538.0	54.5	0.3420 µg/L	0.3420 ppb	19:02:56

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1742745.4	104.18	%	0.466				0.45%
Sc RADIAL	154662.3	106	%	1.7				1.63%
Y 371.029	1071801.3	104.81	%	0.414				0.39%
Ag 328.068†	-233.5	-0.9298	µg/L	0.25091	-0.9298	ppb	0.25091	26.98%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-14.9	-3.2906	µg/L	2.63203	-3.2906	ppb	2.63203	79.99%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.4	1.0157	µg/L	2.25883	1.0157	ppb	2.25883	222.39%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-309.6	-5.1990	µg/L	0.12069	-5.1990	ppb	0.12069	2.32%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	6.5	0.0297	µg/L	0.05216	0.0297	ppb	0.05216	175.89%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	230.7	0.0809	µg/L	0.03739	0.0809	ppb	0.03739	46.19%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	39.4	2.3079	µg/L	1.29199	2.3079	ppb	1.29199	55.98%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-4.5	-0.0310	µg/L	0.08537	-0.0310	ppb	0.08537	275.14%
QC value within limits for Cd 226.502 Recovery = Not calculated								

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Co 228.616†                18.8      0.2569 µg/L       0.20203      0.2569 ppb        0.20203  78.63%
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 1.7     -0.0005 µg/L       0.18092     -0.0005 ppb        0.18092 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†               227.2      1.0036 µg/L       0.24693      1.0036 ppb        0.24693  24.60%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         24.1      1.6048 µg/L       0.42799      1.6048 ppb        0.42799  26.67%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†          76.9      31.673 µg/L       27.7059      31.673 ppb        27.7059  87.48%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -23.9     -9.8414 µg/L       2.59218     -9.8414 ppb        2.59218  26.34%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†                71.9      0.0986 µg/L       0.02141      0.0986 ppb        0.02141  21.70%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                22.6      0.7135 µg/L       0.65711      0.7135 ppb        0.65711  92.10%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†         91.1      13.909 µg/L        3.2461      13.909 ppb         3.2461  23.34%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†                 1.4      0.0175 µg/L       0.09096      0.0175 ppb        0.09096 520.03%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                 -7.8     -1.8767 µg/L       3.61681     -1.8767 ppb        3.61681 192.72%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                 0.8      0.0329 µg/L       0.16029      0.0329 ppb        0.16029 486.83%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†           -5.6     -4.5694 µg/L       3.57820     -4.5694 ppb        3.57820  78.31%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†                -5.3     -0.7028 µg/L       0.58704     -0.7028 ppb        0.58704  83.53%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 4.6        1.82 µg/L         4.054        1.82 ppb          4.054 222.54%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      19.0      2.0451 µg/L       0.33227      2.0451 ppb        0.33227  16.25%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                66.3      1.0847 µg/L       0.10673      1.0847 ppb        0.10673   9.84%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.8      0.4145 µg/L       0.63329      0.4145 ppb        0.63329 152.78%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               116.6      0.2734 µg/L       0.06458      0.2734 ppb        0.06458  23.62%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†               104.5      0.0995 µg/L       0.09469      0.0995 ppb        0.09469  95.16%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                12.1      1.6167 µg/L       0.27502      1.6167 ppb        0.27502  17.01%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                313.1      19.320 µg/L       16.2065      19.320 ppb        16.2065  83.89%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†                -91.4     -0.4870 µg/L       0.07980     -0.4870 ppb        0.07980  16.39%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                47.1      0.2956 µg/L       0.04054      0.2956 ppb        0.04054  13.71%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 8
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/29/2010 19:31:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	154889.6	154889.6	106	%			19:31:56
1	Al 396.153Radial†	25248.9	23791.6	5171.1	µg/L	5171.1	ppb	19:31:56
1	Ca 317.933Radial†	90787.7	84816.9	4969.9	µg/L	4969.9	ppb	19:31:56
1	Fe 238.204 Radial†	79020.5	74246.6	4936.2	µg/L	4936.2	ppb	19:31:56
1	K 766.490 Radial†	14072.9	11787.9	4848.7	µg/L	4848.7	ppb	19:31:56
1	Mg 279.077 IEC†	13305.1	12333.7	5092.8	µg/L	5092.8	ppb	19:31:56
1	Na 589.592 Radial†	70517.8	64663.9	9890.1	µg/L	9890.1	ppb	19:31:56
1	Sr 421.552†	229051.2	215819.7	505.79	µg/L	505.79	ppb	19:31:54
1	Sc 361.383	1743822.4	1743822.4	104.25	%			19:32:23
1	Y 371.029	1059163.2	1059163.2	103.58	%			19:32:23
1	Ag 328.068†	128580.1	120374.3	494.64	µg/L	494.64	ppb	19:32:23
1	As 188.979†	1249.3	1212.6	513.82	µg/L	513.82	ppb	19:32:43
1	B 249.677†	33313.2	28600.3	478.47	µg/L	478.47	ppb	19:32:23
1	Ba 233.527†	113123.6	108689.7	496.93	µg/L	496.93	ppb	19:32:23
1	Be 313.107†	1610699.9	1545735.8	503.30	µg/L	503.30	ppb	19:32:23
1	Cd 226.502†	72730.5	69861.7	482.13	µg/L	482.13	ppb	19:32:23
1	Co 228.616†	36860.0	35534.8	486.84	µg/L	486.84	ppb	19:32:23
1	Cr 267.716†	59413.7	56832.8	488.02	µg/L	488.02	ppb	19:32:23
1	Cu 324.752†	120074.9	112757.8	491.69	µg/L	491.69	ppb	19:32:23
1	Mn 257.610†	374470.1	359133.2	490.52	µg/L	490.52	ppb	19:32:23
1	Mo 202.031†	15834.2	15244.3	481.66	µg/L	481.66	ppb	19:32:43
1	Ni 231.604†	39808.6	38227.6	488.98	µg/L	488.98	ppb	19:32:23
1	P 214.914†	10378.9	9876.5	2356.8	µg/L	2356.8	ppb	19:32:43
1	Pb 220.353†	8316.1	7864.8	477.97	µg/L	477.97	ppb	19:32:43
1	S 181.975 Axial†	1303.7	1155.8	940.47	µg/L	940.47	ppb	19:32:43
1	Sb 206.836†	3839.6	3596.5	486.17	µg/L	486.17	ppb	19:32:43
1	Se 196.026†	1266.7	1204.2	478	µg/L	478	ppb	19:32:43
1	SiO2†	51618.1	47942.2	5219.4	µg/L	5219.4	ppb	19:32:23
1	Si 251.611†	154593.2	147618.3	2431.2	µg/L	2431.2	ppb	19:32:23
1	Sn 189.927†	7080.7	6790.2	484.38	µg/L	484.38	ppb	19:32:43
1	Ti 334.940†	502894.8	481769.2	490.61	µg/L	490.61	ppb	19:32:23
1	Tl 190.801†	3593.0	3566.9	486.15	µg/L	486.15	ppb	19:32:43
1	U 409.014†	7303.3	7484.9	492.46	µg/L	492.46	ppb	19:32:23
1	V 292.402†	92682.1	88474.1	496.92	µg/L	496.92	ppb	19:32:23
1	Zn 213.857†	80453.5	76711.2	479.02	µg/L	479.02	ppb	19:32:23
2	Sc RADIAL	155203.4	155203.4	106	%			19:32:01
2	Al 396.153Radial†	25234.3	23729.9	5157.5	µg/L	5157.5	ppb	19:32:01
2	Ca 317.933Radial†	90949.0	84795.6	4968.7	µg/L	4968.7	ppb	19:32:01
2	Fe 238.204 Radial†	79090.7	74162.2	4930.6	µg/L	4930.6	ppb	19:32:01
2	K 766.490 Radial†	13942.4	11638.6	4787.3	µg/L	4787.3	ppb	19:32:01
2	Mg 279.077 IEC†	13250.9	12257.5	5061.5	µg/L	5061.5	ppb	19:32:01
2	Na 589.592 Radial†	70292.0	64317.7	9837.2	µg/L	9837.2	ppb	19:32:01
2	Sr 421.552†	228066.3	214459.1	502.60	µg/L	502.60	ppb	19:31:59
2	Sc 361.383	1737215.7	1737215.7	103.85	%			19:32:47
2	Y 371.029	1054931.1	1054931.1	103.16	%			19:32:47
2	Ag 328.068†	128483.5	120750.5	496.17	µg/L	496.17	ppb	19:32:47
2	As 188.979†	1256.3	1223.9	518.55	µg/L	518.55	ppb	19:33:07
2	B 249.677†	33149.8	28564.4	477.87	µg/L	477.87	ppb	19:32:47
2	Ba 233.527†	112832.9	108822.5	497.54	µg/L	497.54	ppb	19:32:47
2	Be 313.107†	1606762.7	1547820.7	503.98	µg/L	503.98	ppb	19:32:47
2	Cd 226.502†	72368.9	69778.8	481.56	µg/L	481.56	ppb	19:32:47
2	Co 228.616†	36711.4	35526.2	486.72	µg/L	486.72	ppb	19:32:47
2	Cr 267.716†	59192.4	56836.4	488.05	µg/L	488.05	ppb	19:32:47
2	Cu 324.752†	119958.6	113083.9	493.10	µg/L	493.10	ppb	19:32:47
2	Mn 257.610†	372915.3	359002.2	490.34	µg/L	490.34	ppb	19:32:47
2	Mo 202.031†	15840.2	15307.8	483.66	µg/L	483.66	ppb	19:33:07
2	Ni 231.604†	39651.1	38221.1	488.89	µg/L	488.89	ppb	19:32:47
2	P 214.914†	10418.1	9952.1	2374.9	µg/L	2374.9	ppb	19:33:07
2	Pb 220.353†	8335.8	7914.1	480.97	µg/L	480.97	ppb	19:33:07

2	S 181.975 Axial†	1310.0	1166.6	949.21 µg/L	949.21 ppb	19:33:07
2	Sb 206.836†	3818.2	3589.9	485.30 µg/L	485.30 ppb	19:33:07
2	Se 196.026†	1256.0	1198.5	476 µg/L	476 ppb	19:33:07
2	SiO2†	51436.2	47955.4	5220.8 µg/L	5220.8 ppb	19:32:47
2	Si 251.611†	154237.0	147839.3	2434.9 µg/L	2434.9 ppb	19:32:47
2	Sn 189.927†	7075.7	6811.2	485.88 µg/L	485.88 ppb	19:33:07
2	Ti 334.940†	501670.2	482424.6	491.29 µg/L	491.29 ppb	19:32:47
2	Tl 190.801†	3598.0	3584.8	488.57 µg/L	488.57 ppb	19:33:07
2	U 409.014†	7114.9	7330.1	482.93 µg/L	482.93 ppb	19:32:47
2	V 292.402†	92447.3	88586.2	497.56 µg/L	497.56 ppb	19:32:47
2	Zn 213.857†	80237.4	76796.6	479.56 µg/L	479.56 ppb	19:32:47
3	Sc RADIAL	152343.2	152343.2	105 %		19:32:05
3	Al 396.153Radial†	24790.2	23749.9	5162.0 µg/L	5162.0 ppb	19:32:05
3	Ca 317.933Radial†	88711.7	84258.7	4937.2 µg/L	4937.2 ppb	19:32:05
3	Fe 238.204 Radial†	77301.6	73844.9	4909.5 µg/L	4909.5 ppb	19:32:05
3	K 766.490 Radial†	13851.3	11797.3	4852.6 µg/L	4852.6 ppb	19:32:05
3	Mg 279.077 IEC†	12897.2	12152.7	5018.2 µg/L	5018.2 ppb	19:32:05
3	Na 589.592 Radial†	69172.5	64486.0	9862.9 µg/L	9862.9 ppb	19:32:05
3	Sr 421.552†	226674.9	217149.0	508.90 µg/L	508.90 ppb	19:32:03
3	Sc 361.383	1739184.0	1739184.0	103.97 %		19:33:10
3	Y 371.029	1056341.4	1056341.4	103.30 %		19:33:10
3	Ag 328.068†	128938.9	121048.4	497.41 µg/L	497.41 ppb	19:33:10
3	As 188.979†	1242.3	1209.1	512.38 µg/L	512.38 ppb	19:33:30
3	B 249.677†	33322.5	28694.4	480.05 µg/L	480.05 ppb	19:33:10
3	Ba 233.527†	113432.0	109275.8	499.61 µg/L	499.61 ppb	19:33:10
3	Be 313.107†	1612377.9	1551470.5	505.17 µg/L	505.17 ppb	19:33:10
3	Cd 226.502†	72852.6	70165.2	484.23 µg/L	484.23 ppb	19:33:10
3	Co 228.616†	36901.2	35668.8	488.67 µg/L	488.67 ppb	19:33:10
3	Cr 267.716†	59397.9	56969.5	489.19 µg/L	489.19 ppb	19:33:10
3	Cu 324.752†	120225.9	113210.3	493.66 µg/L	493.66 ppb	19:33:10
3	Mn 257.610†	374839.5	360446.6	492.32 µg/L	492.32 ppb	19:33:10
3	Mo 202.031†	15729.4	15184.0	479.75 µg/L	479.75 ppb	19:33:30
3	Ni 231.604†	40031.5	38543.8	493.02 µg/L	493.02 ppb	19:33:10
3	P 214.914†	10307.1	9834.0	2346.7 µg/L	2346.7 ppb	19:33:30
3	Pb 220.353†	8288.5	7859.6	477.65 µg/L	477.65 ppb	19:33:30
3	S 181.975 Axial†	1283.8	1140.0	927.63 µg/L	927.63 ppb	19:33:30
3	Sb 206.836†	3807.3	3575.3	483.25 µg/L	483.25 ppb	19:33:30
3	Se 196.026†	1249.7	1191.1	473 µg/L	473 ppb	19:33:30
3	SiO2†	51607.6	48064.2	5232.9 µg/L	5232.9 ppb	19:33:10
3	Si 251.611†	155270.1	148664.8	2448.6 µg/L	2448.6 ppb	19:33:10
3	Sn 189.927†	7010.2	6740.5	480.86 µg/L	480.86 ppb	19:33:30
3	Ti 334.940†	504064.8	484181.1	493.08 µg/L	493.08 ppb	19:33:10
3	Tl 190.801†	3573.6	3557.4	484.91 µg/L	484.91 ppb	19:33:30
3	U 409.014†	7322.0	7521.5	494.86 µg/L	494.86 ppb	19:33:10
3	V 292.402†	92839.2	88862.3	499.06 µg/L	499.06 ppb	19:33:10
3	Zn 213.857†	80753.8	77205.9	482.11 µg/L	482.11 ppb	19:33:10

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1740074.0	104.02	%	0.203				0.19%
Sc RADIAL	154145.4	106	%	1.1				1.02%
Y 371.029	1056811.9	103.35	%	0.211				0.20%
Ag 328.068†	120724.4	496.07	µg/L	1.385	496.07	ppb	1.385	0.28%
QC value within limits for Ag 328.068 Recovery = 99.21%								
Al 396.153Radial†	23757.1	5163.5	µg/L	6.91	5163.5	ppb	6.91	0.13%
QC value within limits for Al 396.153Radial Recovery = 103.27%								
As 188.979†	1215.2	514.92	µg/L	3.230	514.92	ppb	3.230	0.63%
QC value within limits for As 188.979 Recovery = 102.98%								
B 249.677†	28619.7	478.80	µg/L	1.123	478.80	ppb	1.123	0.23%
QC value within limits for B 249.677 Recovery = 95.76%								
Ba 233.527†	108929.3	498.02	µg/L	1.404	498.02	ppb	1.404	0.28%
QC value within limits for Ba 233.527 Recovery = 99.60%								
Be 313.107†	1548342.3	504.15	µg/L	0.946	504.15	ppb	0.946	0.19%
QC value within limits for Be 313.107 Recovery = 100.83%								
Ca 317.933Radial†	84623.7	4958.6	µg/L	18.54	4958.6	ppb	18.54	0.37%
QC value within limits for Ca 317.933Radial Recovery = 99.17%								
Cd 226.502†	69935.2	482.64	µg/L	1.407	482.64	ppb	1.407	0.29%
QC value within limits for Cd 226.502 Recovery = 96.53%								
Co 228.616†	35576.6	487.41	µg/L	1.097	487.41	ppb	1.097	0.23%

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   QC value within limits for Co 228.616  Recovery = 97.48%
Cr 267.716†            56879.6      488.42 µg/L         0.666      488.42 ppb          0.666   0.14%
   QC value within limits for Cr 267.716  Recovery = 97.68%
Cu 324.752†           113017.4      492.82 µg/L         1.012      492.82 ppb          1.012   0.21%
   QC value within limits for Cu 324.752  Recovery = 98.56%
Fe 238.204 Radial†     74084.6      4925.4 µg/L         14.08      4925.4 ppb          14.08   0.29%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.51%
K 766.490 Radial†      11741.2      4829.6 µg/L         36.64      4829.6 ppb          36.64   0.76%
   QC value within limits for K 766.490 Radial  Recovery = 96.59%
Mg 279.077 IEC†        12248.0      5057.5 µg/L         37.48      5057.5 ppb          37.48   0.74%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.15%
Mn 257.610†           359527.3      491.06 µg/L         1.093      491.06 ppb          1.093   0.22%
   QC value within limits for Mn 257.610  Recovery = 98.21%
Mo 202.031†            15245.4      481.69 µg/L         1.954      481.69 ppb          1.954   0.41%
   QC value within limits for Mo 202.031  Recovery = 96.34%
Na 589.592 Radial†     64489.2      9863.4 µg/L         26.47      9863.4 ppb          26.47   0.27%
   QC value within limits for Na 589.592 Radial  Recovery = 98.63%
Ni 231.604†            38330.9      490.30 µg/L         2.360      490.30 ppb          2.360   0.48%
   QC value within limits for Ni 231.604  Recovery = 98.06%
P 214.914†              9887.5      2359.5 µg/L         14.32      2359.5 ppb          14.32   0.61%
   QC value within limits for P 214.914  Recovery = 94.38%
Pb 220.353†             7879.5      478.86 µg/L         1.831      478.86 ppb          1.831   0.38%
   QC value within limits for Pb 220.353  Recovery = 95.77%
S 181.975 Axial†        1154.1      939.11 µg/L        10.857      939.11 ppb         10.857   1.16%
   QC value within limits for S 181.975 Axial  Recovery = 93.91%
Sb 206.836†             3587.2      484.91 µg/L         1.496      484.91 ppb          1.496   0.31%
   QC value within limits for Sb 206.836  Recovery = 96.98%
Se 196.026†             1197.9         476 µg/L           2.6         476 ppb            2.6   0.55%
   QC value within limits for Se 196.026  Recovery = 95.20%
SiO2†                  47987.3      5224.4 µg/L          7.40      5224.4 ppb           7.40   0.14%
   QC value within limits for SiO2  Recovery = 97.70%
Si 251.611†           148040.8      2438.2 µg/L          9.16      2438.2 ppb           9.16   0.38%
   QC value within limits for Si 251.611  Recovery = 97.53%
Sn 189.927†             6780.7      483.70 µg/L         2.578      483.70 ppb          2.578   0.53%
   QC value within limits for Sn 189.927  Recovery = 96.74%
Sr 421.552†           215809.3      505.76 µg/L         3.152      505.76 ppb          3.152   0.62%
   QC value within limits for Sr 421.552  Recovery = 101.15%
Ti 334.940†           482791.6      491.66 µg/L         1.273      491.66 ppb          1.273   0.26%
   QC value within limits for Ti 334.940  Recovery = 98.33%
Tl 190.801†             3569.7      486.55 µg/L         1.860      486.55 ppb          1.860   0.38%
   QC value within limits for Tl 190.801  Recovery = 97.31%
U 409.014†              7445.5      490.08 µg/L         6.310      490.08 ppb          6.310   1.29%
   QC value within limits for U 409.014  Recovery = 98.02%
V 292.402†             88640.9      497.85 µg/L         1.100      497.85 ppb          1.100   0.22%
   QC value within limits for V 292.402  Recovery = 99.57%
Zn 213.857†            76904.5      480.23 µg/L         1.651      480.23 ppb          1.651   0.34%
   QC value within limits for Zn 213.857  Recovery = 96.05%
All analyte(s) passed QC.
```

Sequence No.: 9
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/29/2010 19:33:37
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	154440.8	154440.8	106	%			19:34:06
1	Al 396.153Radial†	-43.3	-9.0	-2.0043	µg/L	-2.0043	ppb	19:34:26
1	Ca 317.933Radial†	696.6	41.2	2.4138	µg/L	2.4138	ppb	19:34:26
1	Fe 238.204 Radial†	166.8	44.1	2.9352	µg/L	2.9352	ppb	19:34:26
1	K 766.490 Radial†	1613.3	67.6	27.814	µg/L	27.814	ppb	19:34:06
1	Mg 279.077 IEC†	157.8	-37.7	-15.541	µg/L	-15.541	ppb	19:34:26
1	Na 589.592 Radial†	1722.8	-68.9	-10.561	µg/L	-10.561	ppb	19:34:06
1	Sr 421.552†	-120.8	163.9	0.3842	µg/L	0.3842	ppb	19:34:06
1	Sc 361.383	1731581.1	1731581.1	103.52	%			19:35:14
1	Y 371.029	1065562.9	1065562.9	104.20	%			19:35:14
1	Ag 328.068†	3216.9	140.6	0.5847	µg/L	0.5847	ppb	19:35:16
1	As 188.979†	-11.7	2.9	1.2300	µg/L	1.2300	ppb	19:35:36
1	B 249.677†	3120.0	-341.7	-5.7362	µg/L	-5.7362	ppb	19:35:36
1	Ba 233.527†	-175.6	5.4	0.0247	µg/L	0.0247	ppb	19:35:36
1	Be 313.107†	-246.2	422.2	0.1424	µg/L	0.1424	ppb	19:35:16
1	Cd 226.502†	-69.1	27.7	0.1908	µg/L	0.1908	ppb	19:35:36
1	Co 228.616†	-181.3	1.5	0.0198	µg/L	0.0198	ppb	19:35:36
1	Cr 267.716†	175.8	9.6	0.0693	µg/L	0.0693	ppb	19:35:36
1	Cu 324.752†	2669.4	153.9	0.6825	µg/L	0.6825	ppb	19:35:16
1	Mn 257.610†	196.9	110.2	0.1512	µg/L	0.1512	ppb	19:35:36
1	Mo 202.031†	-29.9	26.3	0.8305	µg/L	0.8305	ppb	19:35:36
1	Ni 231.604†	-61.5	-18.5	-0.2372	µg/L	-0.2372	ppb	19:35:36
1	P 214.914†	55.3	-26.1	-6.2662	µg/L	-6.2662	ppb	19:35:36
1	Pb 220.353†	115.1	-1.2	-0.0837	µg/L	-0.0837	ppb	19:35:36
1	S 181.975 Axial†	87.6	-10.2	-8.2246	µg/L	-8.2246	ppb	19:35:36
1	Sb 206.836†	73.1	-16.1	-2.1571	µg/L	-2.1571	ppb	19:35:36
1	Se 196.026†	13.4	2.0	0.826	µg/L	0.826	ppb	19:35:36
1	SiO2†	1671.5	41.8	4.5433	µg/L	4.5433	ppb	19:35:36
1	Si 251.611†	796.8	93.3	1.5290	µg/L	1.5290	ppb	19:35:36
1	Sn 189.927†	8.8	6.4	0.4582	µg/L	0.4582	ppb	19:35:36
1	Ti 334.940†	627.3	-30.4	-0.0364	µg/L	-0.0364	ppb	19:35:16
1	Tl 190.801†	-118.4	5.9	0.7913	µg/L	0.7913	ppb	19:35:36
1	U 409.014†	-222.3	264.4	16.308	µg/L	16.308	ppb	19:35:16
1	V 292.402†	354.1	-89.7	-0.4781	µg/L	-0.4781	ppb	19:35:16
1	Zn 213.857†	527.0	44.7	0.2818	µg/L	0.2818	ppb	19:35:36
2	Sc RADIAL	154279.9	154279.9	106	%			19:34:28
2	Al 396.153Radial†	-70.9	-35.1	-7.7094	µg/L	-7.7094	ppb	19:34:48
2	Ca 317.933Radial†	709.7	54.3	3.1826	µg/L	3.1826	ppb	19:34:48
2	Fe 238.204 Radial†	178.3	55.2	3.6708	µg/L	3.6708	ppb	19:34:48
2	K 766.490 Radial†	1463.8	-72.1	-29.690	µg/L	-29.690	ppb	19:34:28
2	Mg 279.077 IEC†	161.8	-33.8	-13.912	µg/L	-13.912	ppb	19:34:48
2	Na 589.592 Radial†	1747.5	-43.7	-6.6675	µg/L	-6.6675	ppb	19:34:28
2	Sr 421.552†	-216.0	73.9	0.1732	µg/L	0.1732	ppb	19:34:28
2	Sc 361.383	1751103.4	1751103.4	104.68	%			19:35:38
2	Y 371.029	1076583.0	1076583.0	105.28	%			19:35:38
2	Ag 328.068†	2689.9	-397.5	-1.6314	µg/L	-1.6314	ppb	19:35:40
2	As 188.979†	-19.4	-4.3	-1.7955	µg/L	-1.7955	ppb	19:36:00
2	B 249.677†	3164.1	-333.1	-5.5927	µg/L	-5.5927	ppb	19:36:00
2	Ba 233.527†	-177.8	5.3	0.0236	µg/L	0.0236	ppb	19:36:00
2	Be 313.107†	-520.5	162.9	0.0516	µg/L	0.0516	ppb	19:35:40
2	Cd 226.502†	-104.5	-5.4	-0.0378	µg/L	-0.0378	ppb	19:36:00
2	Co 228.616†	-170.5	13.7	0.1872	µg/L	0.1872	ppb	19:36:00
2	Cr 267.716†	176.6	8.5	0.0762	µg/L	0.0762	ppb	19:36:00
2	Cu 324.752†	2448.1	-86.2	-0.3785	µg/L	-0.3785	ppb	19:35:40
2	Mn 257.610†	240.0	149.3	0.2045	µg/L	0.2045	ppb	19:36:00
2	Mo 202.031†	-29.0	27.5	0.8664	µg/L	0.8664	ppb	19:36:00
2	Ni 231.604†	-48.2	-5.1	-0.0655	µg/L	-0.0655	ppb	19:36:00
2	P 214.914†	58.0	-24.2	-5.7906	µg/L	-5.7906	ppb	19:36:00
2	Pb 220.353†	124.4	6.4	0.3918	µg/L	0.3918	ppb	19:36:00

2	S 181.975 Axial†	90.4	-8.5	-6.8756 µg/L	-6.8756 ppb	19:36:00
2	Sb 206.836†	78.1	-12.0	-1.6140 µg/L	-1.6140 ppb	19:36:00
2	Se 196.026†	15.0	3.5	1.36 µg/L	1.36 ppb	19:36:00
2	SiO2†	1656.1	9.2	0.9709 µg/L	0.9709 ppb	19:36:00
2	Si 251.611†	759.0	48.7	0.7903 µg/L	0.7903 ppb	19:36:00
2	Sn 189.927†	8.2	5.8	0.4148 µg/L	0.4148 ppb	19:36:00
2	Ti 334.940†	745.1	75.4	0.0800 µg/L	0.0800 ppb	19:35:40
2	Tl 190.801†	-111.6	13.7	1.8304 µg/L	1.8304 ppb	19:36:00
2	U 409.014†	-582.4	-77.2	-4.8304 µg/L	-4.8304 ppb	19:35:40
2	V 292.402†	254.3	-188.9	-1.0423 µg/L	-1.0423 ppb	19:35:40
2	Zn 213.857†	524.9	37.0	0.2333 µg/L	0.2333 ppb	19:36:00
3	Sc RADIAL	154300.7	154300.7	106 %		19:34:50
3	Al 396.153Radial†	-22.9	10.3	2.2225 µg/L	2.2225 ppb	19:35:10
3	Ca 317.933Radial†	702.8	47.7	2.7963 µg/L	2.7963 ppb	19:35:10
3	Fe 238.204 Radial†	157.6	35.6	2.3638 µg/L	2.3638 ppb	19:35:10
3	K 766.490 Radial†	1363.4	-167.1	-68.805 µg/L	-68.805 ppb	19:34:50
3	Mg 279.077 IEC†	165.1	-30.7	-12.669 µg/L	-12.669 ppb	19:35:10
3	Na 589.592 Radial†	1617.5	-166.8	-25.467 µg/L	-25.467 ppb	19:34:50
3	Sr 421.552†	-166.5	120.7	0.2829 µg/L	0.2829 ppb	19:34:50
3	Sc 361.383	1756722.7	1756722.7	105.02 %		19:36:02
3	Y 371.029	1079825.4	1079825.4	105.60 %		19:36:02
3	Ag 328.068†	3226.0	104.8	0.4137 µg/L	0.4137 ppb	19:36:04
3	As 188.979†	-24.9	-9.5	-3.9669 µg/L	-3.9669 ppb	19:36:25
3	B 249.677†	3162.1	-344.7	-5.7874 µg/L	-5.7874 ppb	19:36:25
3	Ba 233.527†	-158.1	24.5	0.1116 µg/L	0.1116 ppb	19:36:25
3	Be 313.107†	-509.5	174.9	0.0572 µg/L	0.0572 ppb	19:36:04
3	Cd 226.502†	-104.2	-4.8	-0.0337 µg/L	-0.0337 ppb	19:36:25
3	Co 228.616†	-161.9	22.4	0.3068 µg/L	0.3068 ppb	19:36:25
3	Cr 267.716†	163.5	-4.5	-0.0399 µg/L	-0.0399 ppb	19:36:25
3	Cu 324.752†	2579.5	31.3	0.1372 µg/L	0.1372 ppb	19:36:04
3	Mn 257.610†	210.9	120.8	0.1656 µg/L	0.1656 ppb	19:36:25
3	Mo 202.031†	-42.5	14.8	0.4652 µg/L	0.4652 ppb	19:36:25
3	Ni 231.604†	-54.2	-10.7	-0.1372 µg/L	-0.1372 ppb	19:36:25
3	P 214.914†	63.9	-18.7	-4.4865 µg/L	-4.4865 ppb	19:36:25
3	Pb 220.353†	88.7	-28.0	-1.6935 µg/L	-1.6935 ppb	19:36:25
3	S 181.975 Axial†	84.6	-14.3	-11.562 µg/L	-11.562 ppb	19:36:25
3	Sb 206.836†	89.1	-1.8	-0.2346 µg/L	-0.2346 ppb	19:36:25
3	Se 196.026†	11.7	0.2	0.100 µg/L	0.100 ppb	19:36:25
3	SiO2†	1684.0	30.6	3.3325 µg/L	3.3325 ppb	19:36:25
3	Si 251.611†	773.1	59.7	0.9802 µg/L	0.9802 ppb	19:36:25
3	Sn 189.927†	5.3	3.0	0.2161 µg/L	0.2161 ppb	19:36:25
3	Ti 334.940†	867.2	189.4	0.1939 µg/L	0.1939 ppb	19:36:04
3	Tl 190.801†	-113.0	12.7	1.7012 µg/L	1.7012 ppb	19:36:25
3	U 409.014†	-487.5	14.9	0.8641 µg/L	0.8641 ppb	19:36:04
3	V 292.402†	257.1	-187.1	-1.0329 µg/L	-1.0329 ppb	19:36:04
3	Zn 213.857†	501.2	12.8	0.0813 µg/L	0.0813 ppb	19:36:25

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1746469.1	104.41	%	0.789				0.76%
Sc RADIAL	154340.5	106	%	0.1				0.06%
Y 371.029	1073990.4	105.03	%	0.731				0.70%
Ag 328.068†	-50.7	-0.2110	µg/L	1.23303	-0.2110	ppb	1.23303	584.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-11.3	-2.4971	µg/L	4.98426	-2.4971	ppb	4.98426	199.60%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.6	-1.5108	µg/L	2.61013	-1.5108	ppb	2.61013	172.77%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-339.8	-5.7054	µg/L	0.10093	-5.7054	ppb	0.10093	1.77%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.7	0.0533	µg/L	0.05049	0.0533	ppb	0.05049	94.76%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	253.3	0.0837	µg/L	0.05087	0.0837	ppb	0.05087	60.76%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	47.7	2.7975	µg/L	0.38440	2.7975	ppb	0.38440	13.74%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.8	0.0397	µg/L	0.13082	0.0397	ppb	0.13082	329.26%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	12.5	0.1713	µg/L	0.14419	0.1713	ppb	0.14419	84.18%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†                 4.5      0.0352 µg/L       0.06512      0.0352 ppb        0.06512 185.02%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†                33.0      0.1470 µg/L       0.53058      0.1470 ppb        0.53058 360.82%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†         45.0      2.9899 µg/L       0.65521      2.9899 ppb        0.65521  21.91%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         -57.2     -23.560 µg/L       48.6004     -23.560 ppb        48.6004 206.28%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†           -34.1     -14.041 µg/L        1.4406     -14.041 ppb         1.4406  10.26%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               126.8      0.1738 µg/L       0.02760      0.1738 ppb        0.02760  15.88%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†                22.8      0.7207 µg/L       0.22201      0.7207 ppb        0.22201  30.81%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†        -93.1     -14.232 µg/L        9.9226     -14.232 ppb         9.9226  69.72%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -11.5      -0.1466 µg/L       0.08623      -0.1466 ppb        0.08623  58.80%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†                -23.0      -5.5144 µg/L       0.92145      -5.5144 ppb        0.92145  16.71%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†                -7.6      -0.4618 µg/L       1.09284      -0.4618 ppb        1.09284 236.66%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†          -11.0      -8.8875 µg/L       2.41268      -8.8875 ppb        2.41268  27.15%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -10.0      -1.3353 µg/L       0.99108      -1.3353 ppb        0.99108  74.22%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                 1.9       0.763 µg/L        0.6334       0.763 ppb         0.6334  83.06%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                      27.2      2.9489 µg/L       1.81680      2.9489 ppb        1.81680  61.61%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†                67.2      1.0998 µg/L       0.38363      1.0998 ppb        0.38363  34.88%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                 5.1      0.3630 µg/L       0.12911      0.3630 ppb        0.12911  35.56%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               119.5      0.2801 µg/L       0.10556      0.2801 ppb        0.10556  37.69%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†                78.1      0.0792 µg/L       0.11512      0.0792 ppb        0.11512 145.40%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                10.8      1.4410 µg/L       0.56631      1.4410 ppb        0.56631  39.30%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                 67.4      4.1140 µg/L      10.93772      4.1140 ppb       10.93772 265.87%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†               -155.2      -0.8511 µg/L       0.32304      -0.8511 ppb        0.32304  37.96%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†                31.5      0.1988 µg/L       0.10458      0.1988 ppb        0.10458  52.60%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 18
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/29/2010 19:52:48
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	155882.7	155882.7	107	%			19:53:21
1	Al 396.153Radial†	25404.5	23785.7	5169.7	µg/L	5169.7	ppb	19:53:21
1	Ca 317.933Radial†	90923.1	84399.2	4945.4	µg/L	4945.4	ppb	19:53:21
1	Fe 238.204 Radial†	79031.3	73782.9	4905.3	µg/L	4905.3	ppb	19:53:21
1	K 766.490 Radial†	14120.7	11748.2	4832.4	µg/L	4832.4	ppb	19:53:21
1	Mg 279.077 IEC†	13276.7	12227.4	5049.1	µg/L	5049.1	ppb	19:53:21
1	Na 589.592 Radial†	70685.1	64397.5	9849.3	µg/L	9849.3	ppb	19:53:21
1	Sr 421.552†	229627.1	214985.0	503.83	µg/L	503.83	ppb	19:53:19
1	Sc 361.383	1753609.4	1753609.4	104.83	%			19:53:33
1	Y 371.029	1065335.0	1065335.0	104.18	%			19:53:33
1	Ag 328.068†	129859.6	120906.6	496.82	µg/L	496.82	ppb	19:53:33
1	As 188.979†	1259.2	1215.4	515.01	µg/L	515.01	ppb	19:53:54
1	B 249.677†	33439.0	28541.9	477.50	µg/L	477.50	ppb	19:53:33
1	Ba 233.527†	114213.7	109124.0	498.92	µg/L	498.92	ppb	19:53:33
1	Be 313.107†	1623855.4	1549661.7	504.58	µg/L	504.58	ppb	19:53:33
1	Cd 226.502†	73102.1	69826.8	481.89	µg/L	481.89	ppb	19:53:33
1	Co 228.616†	36982.2	35454.0	485.73	µg/L	485.73	ppb	19:53:33
1	Cr 267.716†	59867.3	56947.4	489.01	µg/L	489.01	ppb	19:53:33
1	Cu 324.752†	121039.4	113035.1	492.88	µg/L	492.88	ppb	19:53:33
1	Mn 257.610†	376767.1	359319.5	490.78	µg/L	490.78	ppb	19:53:33
1	Mo 202.031†	15963.8	15283.1	482.88	µg/L	482.88	ppb	19:53:54
1	Ni 231.604†	39977.6	38175.7	488.31	µg/L	488.31	ppb	19:53:33
1	P 214.914†	10457.3	9895.7	2361.5	µg/L	2361.5	ppb	19:53:54
1	Pb 220.353†	8391.8	7892.5	479.66	µg/L	479.66	ppb	19:53:54
1	S 181.975 Axial†	1293.9	1139.4	927.23	µg/L	927.23	ppb	19:53:54
1	Sb 206.836†	3874.2	3609.0	487.86	µg/L	487.86	ppb	19:53:54
1	Se 196.026†	1272.9	1203.3	478	µg/L	478	ppb	19:53:54
1	SiO2†	51967.3	47999.0	5225.6	µg/L	5225.6	ppb	19:53:33
1	Si 251.611†	156115.9	148243.1	2441.5	µg/L	2441.5	ppb	19:53:33
1	Sn 189.927†	7141.4	6810.1	485.80	µg/L	485.80	ppb	19:53:54
1	Ti 334.940†	507174.4	483159.2	492.04	µg/L	492.04	ppb	19:53:33
1	Tl 190.801†	3640.2	3592.7	489.65	µg/L	489.65	ppb	19:53:54
1	U 409.014†	7175.3	7323.6	482.62	µg/L	482.62	ppb	19:53:33
1	V 292.402†	93601.0	88854.5	499.04	µg/L	499.04	ppb	19:53:33
1	Zn 213.857†	81005.3	76806.8	479.63	µg/L	479.63	ppb	19:53:33
2	Sc RADIAL	156189.6	156189.6	107	%			19:53:25
2	Al 396.153Radial†	25453.6	23784.9	5169.5	µg/L	5169.5	ppb	19:53:25
2	Ca 317.933Radial†	91189.7	84480.9	4950.2	µg/L	4950.2	ppb	19:53:25
2	Fe 238.204 Radial†	79453.6	74031.8	4921.9	µg/L	4921.9	ppb	19:53:25
2	K 766.490 Radial†	14048.5	11654.9	4794.0	µg/L	4794.0	ppb	19:53:25
2	Mg 279.077 IEC†	13352.4	12273.6	5068.1	µg/L	5068.1	ppb	19:53:25
2	Na 589.592 Radial†	70950.0	64514.9	9867.3	µg/L	9867.3	ppb	19:53:25
2	Sr 421.552†	232352.0	217106.1	508.80	µg/L	508.80	ppb	19:53:23
2	Sc 361.383	1749571.1	1749571.1	104.59	%			19:53:57
2	Y 371.029	1062777.0	1062777.0	103.93	%			19:53:57
2	Ag 328.068†	129030.1	120399.3	494.76	µg/L	494.76	ppb	19:53:57
2	As 188.979†	1277.4	1235.6	523.42	µg/L	523.42	ppb	19:54:17
2	B 249.677†	33289.1	28472.2	476.33	µg/L	476.33	ppb	19:53:57
2	Ba 233.527†	113708.3	108892.2	497.86	µg/L	497.86	ppb	19:53:57
2	Be 313.107†	1621134.0	1550635.2	504.90	µg/L	504.90	ppb	19:53:57
2	Cd 226.502†	72772.0	69672.1	480.82	µg/L	480.82	ppb	19:53:57
2	Co 228.616†	36900.7	35457.5	485.78	µg/L	485.78	ppb	19:53:57
2	Cr 267.716†	59600.3	56824.0	487.94	µg/L	487.94	ppb	19:53:57
2	Cu 324.752†	120397.9	112688.2	491.39	µg/L	491.39	ppb	19:53:57
2	Mn 257.610†	375323.1	358768.5	490.02	µg/L	490.02	ppb	19:53:57
2	Mo 202.031†	15936.5	15292.2	483.17	µg/L	483.17	ppb	19:54:17
2	Ni 231.604†	39772.4	38067.5	486.93	µg/L	486.93	ppb	19:53:57
2	P 214.914†	10473.9	9934.6	2370.8	µg/L	2370.8	ppb	19:54:17
2	Pb 220.353†	8398.2	7917.1	481.14	µg/L	481.14	ppb	19:54:17

2	S 181.975 Axial†	1310.8	1158.5	942.63 µg/L	942.63 ppb	19:54:17
2	Sb 206.836†	3846.2	3590.8	485.41 µg/L	485.41 ppb	19:54:17
2	Se 196.026†	1265.1	1198.6	476 µg/L	476 ppb	19:54:17
2	SiO2†	51895.6	48044.8	5230.6 µg/L	5230.6 ppb	19:53:57
2	Si 251.611†	155321.7	147827.6	2434.7 µg/L	2434.7 ppb	19:53:57
2	Sn 189.927†	7131.0	6815.9	486.21 µg/L	486.21 ppb	19:54:17
2	Ti 334.940†	504709.9	481919.6	490.77 µg/L	490.77 ppb	19:53:57
2	Tl 190.801†	3621.3	3582.7	488.28 µg/L	488.28 ppb	19:54:17
2	U 409.014†	7284.6	7443.9	490.00 µg/L	490.00 ppb	19:53:57
2	V 292.402†	93209.2	88686.0	498.11 µg/L	498.11 ppb	19:53:57
2	Zn 213.857†	80533.7	76534.3	477.93 µg/L	477.93 ppb	19:53:57
3	Sc RADIAL	155078.4	155078.4	106 %		19:53:29
3	Al 396.153Radial†	25069.2	23593.8	5127.8 µg/L	5127.8 ppb	19:53:29
3	Ca 317.933Radial†	90380.5	84330.2	4941.4 µg/L	4941.4 ppb	19:53:29
3	Fe 238.204 Radial†	78812.3	73960.4	4917.1 µg/L	4917.1 ppb	19:53:29
3	K 766.490 Radial†	14162.7	11856.1	4876.9 µg/L	4876.9 ppb	19:53:29
3	Mg 279.077 IEC†	13255.0	12271.4	5067.2 µg/L	5067.2 ppb	19:53:29
3	Na 589.592 Radial†	70378.5	64452.3	9857.7 µg/L	9857.7 ppb	19:53:29
3	Sr 421.552†	229789.0	216250.9	506.80 µg/L	506.80 ppb	19:53:27
3	Sc 361.383	1754221.5	1754221.5	104.87 %		19:54:20
3	Y 371.029	1065517.6	1065517.6	104.20 %		19:54:20
3	Ag 328.068†	129249.8	120281.8	494.30 µg/L	494.30 ppb	19:54:20
3	As 188.979†	1278.2	1233.1	522.37 µg/L	522.37 ppb	19:54:40
3	B 249.677†	33485.8	28575.4	478.06 µg/L	478.06 ppb	19:54:20
3	Ba 233.527†	113649.5	108547.9	496.28 µg/L	496.28 ppb	19:54:20
3	Be 313.107†	1620552.1	1545971.4	503.38 µg/L	503.38 ppb	19:54:20
3	Cd 226.502†	72839.4	69552.0	479.99 µg/L	479.99 ppb	19:54:20
3	Co 228.616†	36967.6	35427.9	485.37 µg/L	485.37 ppb	19:54:20
3	Cr 267.716†	59675.2	56744.3	487.25 µg/L	487.25 ppb	19:54:20
3	Cu 324.752†	120775.4	112743.0	491.64 µg/L	491.64 ppb	19:54:20
3	Mn 257.610†	375706.0	358182.3	489.22 µg/L	489.22 ppb	19:54:20
3	Mo 202.031†	15964.1	15278.1	482.72 µg/L	482.72 ppb	19:54:40
3	Ni 231.604†	39857.9	38048.2	486.68 µg/L	486.68 ppb	19:54:20
3	P 214.914†	10507.5	9940.1	2372.1 µg/L	2372.1 ppb	19:54:40
3	Pb 220.353†	8449.2	7944.5	482.78 µg/L	482.78 ppb	19:54:40
3	S 181.975 Axial†	1329.7	1173.2	954.54 µg/L	954.54 ppb	19:54:40
3	Sb 206.836†	3845.9	3580.7	484.06 µg/L	484.06 ppb	19:54:40
3	Se 196.026†	1261.3	1191.8	474 µg/L	474 ppb	19:54:40
3	SiO2†	51759.5	47783.5	5202.0 µg/L	5202.0 ppb	19:54:20
3	Si 251.611†	155480.2	147585.0	2430.6 µg/L	2430.6 ppb	19:54:20
3	Sn 189.927†	7188.1	6852.4	488.80 µg/L	488.80 ppb	19:54:40
3	Ti 334.940†	505136.1	481046.7	489.87 µg/L	489.87 ppb	19:54:20
3	Tl 190.801†	3646.0	3597.0	490.19 µg/L	490.19 ppb	19:54:40
3	U 409.014†	7585.0	7711.9	506.54 µg/L	506.54 ppb	19:54:20
3	V 292.402†	93415.0	88646.0	497.89 µg/L	497.89 ppb	19:54:20
3	Zn 213.857†	80914.4	76693.2	478.93 µg/L	478.93 ppb	19:54:20

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1752467.3	104.76	%	0.151				0.14%
Sc RADIAL	155716.9	107	%	0.4				0.37%
Y 371.029	1064543.2	104.10	%	0.150				0.14%
Ag 328.068†	120529.2	495.29	µg/L	1.342	495.29	ppb	1.342	0.27%
QC value within limits for Ag 328.068 Recovery = 99.06%								
Al 396.153Radial†	23721.5	5155.7	µg/L	24.12	5155.7	ppb	24.12	0.47%
QC value within limits for Al 396.153Radial Recovery = 103.11%								
As 188.979†	1228.0	520.27	µg/L	4.583	520.27	ppb	4.583	0.88%
QC value within limits for As 188.979 Recovery = 104.05%								
B 249.677†	28529.8	477.29	µg/L	0.884	477.29	ppb	0.884	0.19%
QC value within limits for B 249.677 Recovery = 95.46%								
Ba 233.527†	108854.7	497.68	µg/L	1.325	497.68	ppb	1.325	0.27%
QC value within limits for Ba 233.527 Recovery = 99.54%								
Be 313.107†	1548756.1	504.29	µg/L	0.798	504.29	ppb	0.798	0.16%
QC value within limits for Be 313.107 Recovery = 100.86%								
Ca 317.933Radial†	84403.4	4945.7	µg/L	4.42	4945.7	ppb	4.42	0.09%
QC value within limits for Ca 317.933Radial Recovery = 98.91%								
Cd 226.502†	69683.6	480.90	µg/L	0.952	480.90	ppb	0.952	0.20%
QC value within limits for Cd 226.502 Recovery = 96.18%								
Co 228.616†	35446.5	485.63	µg/L	0.223	485.63	ppb	0.223	0.05%

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   QC value within limits for Co 228.616  Recovery = 97.13%
Cr 267.716†            56838.6      488.07 µg/L         0.888      488.07 ppb          0.888   0.18%
   QC value within limits for Cr 267.716  Recovery = 97.61%
Cu 324.752†           112822.1      491.97 µg/L         0.803      491.97 ppb          0.803   0.16%
   QC value within limits for Cu 324.752  Recovery = 98.39%
Fe 238.204 Radial†     73925.1      4914.8 µg/L          8.52      4914.8 ppb           8.52   0.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.30%
K 766.490 Radial†      11753.1      4834.4 µg/L         41.46      4834.4 ppb          41.46   0.86%
   QC value within limits for K 766.490 Radial  Recovery = 96.69%
Mg 279.077 IEC†        12257.5      5061.5 µg/L         10.75      5061.5 ppb          10.75   0.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.23%
Mn 257.610†           358756.8      490.01 µg/L         0.777      490.01 ppb          0.777   0.16%
   QC value within limits for Mn 257.610  Recovery = 98.00%
Mo 202.031†            15284.5      482.92 µg/L         0.226      482.92 ppb          0.226   0.05%
   QC value within limits for Mo 202.031  Recovery = 96.58%
Na 589.592 Radial†     64454.9      9858.1 µg/L          9.01      9858.1 ppb           9.01   0.09%
   QC value within limits for Na 589.592 Radial  Recovery = 98.58%
Ni 231.604†            38097.1      487.31 µg/L         0.879      487.31 ppb          0.879   0.18%
   QC value within limits for Ni 231.604  Recovery = 97.46%
P 214.914†              9923.5      2368.1 µg/L          5.81      2368.1 ppb           5.81   0.25%
   QC value within limits for P 214.914  Recovery = 94.72%
Pb 220.353†             7918.0      481.20 µg/L         1.563      481.20 ppb          1.563   0.32%
   QC value within limits for Pb 220.353  Recovery = 96.24%
S 181.975 Axial†        1157.0      941.47 µg/L        13.693      941.47 ppb         13.693   1.45%
   QC value within limits for S 181.975 Axial  Recovery = 94.15%
Sb 206.836†             3593.5      485.78 µg/L         1.923      485.78 ppb          1.923   0.40%
   QC value within limits for Sb 206.836  Recovery = 97.16%
Se 196.026†             1197.9         476 µg/L           2.3         476 ppb            2.3   0.48%
   QC value within limits for Se 196.026  Recovery = 95.20%
SiO2†                  47942.4      5219.4 µg/L         15.27      5219.4 ppb          15.27   0.29%
   QC value within limits for SiO2  Recovery = 97.60%
Si 251.611†           147885.2      2435.6 µg/L          5.51      2435.6 ppb           5.51   0.23%
   QC value within limits for Si 251.611  Recovery = 97.42%
Sn 189.927†             6826.1      486.94 µg/L         1.623      486.94 ppb          1.623   0.33%
   QC value within limits for Sn 189.927  Recovery = 97.39%
Sr 421.552†           216114.0      506.48 µg/L         2.501      506.48 ppb          2.501   0.49%
   QC value within limits for Sr 421.552  Recovery = 101.30%
Ti 334.940†           482041.8      490.89 µg/L         1.088      490.89 ppb          1.088   0.22%
   QC value within limits for Ti 334.940  Recovery = 98.18%
Tl 190.801†             3590.8      489.38 µg/L         0.983      489.38 ppb          0.983   0.20%
   QC value within limits for Tl 190.801  Recovery = 97.88%
U 409.014†              7493.2      493.05 µg/L        12.247      493.05 ppb         12.247   2.48%
   QC value within limits for U 409.014  Recovery = 98.61%
V 292.402†             88728.8      498.35 µg/L         0.611      498.35 ppb          0.611   0.12%
   QC value within limits for V 292.402  Recovery = 99.67%
Zn 213.857†            76678.1      478.83 µg/L         0.858      478.83 ppb          0.858   0.18%
   QC value within limits for Zn 213.857  Recovery = 95.77%
All analyte(s) passed QC.
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Sequence No.: 19
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/29/2010 19:54:47
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	157224.0	157224.0	108	%			19:55:16
1	Al 396.153Radial†	-32.4	1.9	0.3819	µg/L	0.3819	ppb	19:55:36
1	Ca 317.933Radial†	709.9	41.9	2.4560	µg/L	2.4560	ppb	19:55:36
1	Fe 238.204 Radial†	168.7	43.1	2.8662	µg/L	2.8662	ppb	19:55:36
1	K 766.490 Radial†	1483.0	-80.2	-33.015	µg/L	-33.015	ppb	19:55:16
1	Mg 279.077 IEC†	179.6	-20.2	-8.3135	µg/L	-8.3135	ppb	19:55:36
1	Na 589.592 Radial†	1705.0	-114.1	-17.428	µg/L	-17.428	ppb	19:55:16
1	Sr 421.552†	-122.3	164.6	0.3859	µg/L	0.3859	ppb	19:55:16
1	Sc 361.383	1744373.3	1744373.3	104.28	%			19:56:24
1	Y 371.029	1071958.2	1071958.2	104.83	%			19:56:24
1	Ag 328.068†	3041.9	-50.0	-0.2039	µg/L	-0.2039	ppb	19:56:26
1	As 188.979†	-16.7	-1.8	-0.7391	µg/L	-0.7391	ppb	19:56:46
1	B 249.677†	3115.7	-367.9	-6.1751	µg/L	-6.1751	ppb	19:56:46
1	Ba 233.527†	-172.9	9.3	0.0420	µg/L	0.0420	ppb	19:56:46
1	Be 313.107†	-510.3	170.7	0.0584	µg/L	0.0584	ppb	19:56:26
1	Cd 226.502†	-91.2	6.9	0.0476	µg/L	0.0476	ppb	19:56:46
1	Co 228.616†	-200.7	-15.9	-0.2172	µg/L	-0.2172	ppb	19:56:46
1	Cr 267.716†	193.2	25.0	0.2074	µg/L	0.2074	ppb	19:56:46
1	Cu 324.752†	2573.6	43.1	0.1952	µg/L	0.1952	ppb	19:56:26
1	Mn 257.610†	146.1	60.1	0.0824	µg/L	0.0824	ppb	19:56:46
1	Mo 202.031†	-38.9	17.9	0.5656	µg/L	0.5656	ppb	19:56:46
1	Ni 231.604†	-15.8	25.7	0.3290	µg/L	0.3290	ppb	19:56:46
1	P 214.914†	40.8	-40.5	-9.7010	µg/L	-9.7010	ppb	19:56:46
1	Pb 220.353†	105.0	-11.7	-0.7153	µg/L	-0.7153	ppb	19:56:46
1	S 181.975 Axial†	80.4	-17.8	-14.383	µg/L	-14.383	ppb	19:56:46
1	Sb 206.836†	78.7	-11.2	-1.5082	µg/L	-1.5082	ppb	19:56:46
1	Se 196.026†	26.3	14.3	5.65	µg/L	5.65	ppb	19:56:46
1	SiO2†	1648.2	7.7	0.8224	µg/L	0.8224	ppb	19:56:46
1	Si 251.611†	791.8	83.0	1.3617	µg/L	1.3617	ppb	19:56:46
1	Sn 189.927†	7.8	5.5	0.3882	µg/L	0.3882	ppb	19:56:46
1	Ti 334.940†	798.2	129.1	0.1285	µg/L	0.1285	ppb	19:56:26
1	Tl 190.801†	-105.6	19.0	2.5510	µg/L	2.5510	ppb	19:56:46
1	U 409.014†	-340.6	152.4	9.3589	µg/L	9.3589	ppb	19:56:26
1	V 292.402†	251.4	-190.7	-1.0454	µg/L	-1.0454	ppb	19:56:26
1	Zn 213.857†	524.6	38.6	0.2408	µg/L	0.2408	ppb	19:56:46
2	Sc RADIAL	153604.9	153604.9	105	%			19:55:38
2	Al 396.153Radial†	-40.7	-6.7	-1.5003	µg/L	-1.5003	ppb	19:55:58
2	Ca 317.933Radial†	698.2	46.3	2.7145	µg/L	2.7145	ppb	19:55:58
2	Fe 238.204 Radial†	160.1	38.6	2.5686	µg/L	2.5686	ppb	19:55:58
2	K 766.490 Radial†	1640.2	101.4	41.741	µg/L	41.741	ppb	19:55:38
2	Mg 279.077 IEC†	170.0	-25.4	-10.448	µg/L	-10.448	ppb	19:55:58
2	Na 589.592 Radial†	1652.3	-126.9	-19.447	µg/L	-19.447	ppb	19:55:38
2	Sr 421.552†	-170.5	116.2	0.2723	µg/L	0.2723	ppb	19:55:38
2	Sc 361.383	1769862.2	1769862.2	105.80	%			19:56:48
2	Y 371.029	1086957.3	1086957.3	106.30	%			19:56:48
2	Ag 328.068†	3055.4	-79.2	-0.3279	µg/L	-0.3279	ppb	19:56:50
2	As 188.979†	-3.9	10.5	4.3943	µg/L	4.3943	ppb	19:57:10
2	B 249.677†	3116.6	-410.1	-6.8860	µg/L	-6.8860	ppb	19:57:10
2	Ba 233.527†	-159.5	24.3	0.1105	µg/L	0.1105	ppb	19:57:10
2	Be 313.107†	-578.9	112.9	0.0378	µg/L	0.0378	ppb	19:56:50
2	Cd 226.502†	-100.7	-0.8	-0.0060	µg/L	-0.0060	ppb	19:57:10
2	Co 228.616†	-154.1	30.9	0.4233	µg/L	0.4233	ppb	19:57:10
2	Cr 267.716†	158.7	-10.2	-0.0909	µg/L	-0.0909	ppb	19:57:10
2	Cu 324.752†	2676.8	105.1	0.4602	µg/L	0.4602	ppb	19:56:50
2	Mn 257.610†	145.1	57.2	0.0785	µg/L	0.0785	ppb	19:57:10
2	Mo 202.031†	-36.1	21.0	0.6639	µg/L	0.6639	ppb	19:57:10
2	Ni 231.604†	-68.7	-24.1	-0.3078	µg/L	-0.3078	ppb	19:57:10
2	P 214.914†	59.6	-23.2	-5.5807	µg/L	-5.5807	ppb	19:57:10
2	Pb 220.353†	97.2	-20.5	-1.2440	µg/L	-1.2440	ppb	19:57:10

2	S 181.975 Axial†	84.9	-14.6	-11.787 µg/L	-11.787 ppb	19:57:10
2	Sb 206.836†	96.3	4.4	0.6052 µg/L	0.6052 ppb	19:57:10
2	Se 196.026†	0.8	-10.2	-4.02 µg/L	-4.02 ppb	19:57:10
2	SiO2†	1672.2	7.6	0.8120 µg/L	0.8120 ppb	19:57:10
2	Si 251.611†	794.7	74.7	1.2254 µg/L	1.2254 ppb	19:57:10
2	Sn 189.927†	4.2	1.9	0.1385 µg/L	0.1385 ppb	19:57:10
2	Ti 334.940†	903.8	217.9	0.2217 µg/L	0.2217 ppb	19:56:50
2	Tl 190.801†	-111.2	15.2	2.0307 µg/L	2.0307 ppb	19:57:10
2	U 409.014†	-447.5	56.1	3.4153 µg/L	3.4153 ppb	19:56:50
2	V 292.402†	287.1	-160.5	-0.8820 µg/L	-0.8820 ppb	19:56:50
2	Zn 213.857†	515.3	22.6	0.1440 µg/L	0.1440 ppb	19:57:10
3	Sc RADIAL	153703.8	153703.8	105 %		19:56:00
3	Al 396.153Radial†	-49.3	-14.8	-3.2844 µg/L	-3.2844 ppb	19:56:20
3	Ca 317.933Radial†	710.1	57.2	3.3512 µg/L	3.3512 ppb	19:56:20
3	Fe 238.204 Radial†	142.7	22.1	1.4665 µg/L	1.4665 ppb	19:56:20
3	K 766.490 Radial†	1683.5	141.5	58.243 µg/L	58.243 ppb	19:56:00
3	Mg 279.077 IEC†	155.1	-39.6	-16.319 µg/L	-16.319 ppb	19:56:20
3	Na 589.592 Radial†	1574.2	-202.0	-30.955 µg/L	-30.955 ppb	19:56:00
3	Sr 421.552†	-284.4	8.3	0.0193 µg/L	0.0193 ppb	19:56:00
3	Sc 361.383	1752547.4	1752547.4	104.77 %		19:57:12
3	Y 371.029	1077428.7	1077428.7	105.36 %		19:57:12
3	Ag 328.068†	3055.4	-50.7	-0.2129 µg/L	-0.2129 ppb	19:57:14
3	As 188.979†	-12.7	2.2	0.9041 µg/L	0.9041 ppb	19:57:35
3	B 249.677†	3085.6	-410.5	-6.8921 µg/L	-6.8921 ppb	19:57:35
3	Ba 233.527†	-169.6	13.1	0.0597 µg/L	0.0597 ppb	19:57:35
3	Be 313.107†	-482.0	200.1	0.0664 µg/L	0.0664 ppb	19:57:14
3	Cd 226.502†	-116.9	-17.2	-0.1188 µg/L	-0.1188 ppb	19:57:35
3	Co 228.616†	-195.4	-9.9	-0.1357 µg/L	-0.1357 ppb	19:57:35
3	Cr 267.716†	143.5	-23.2	-0.2031 µg/L	-0.2031 ppb	19:57:35
3	Cu 324.752†	2562.2	20.7	0.0929 µg/L	0.0929 ppb	19:57:14
3	Mn 257.610†	158.6	71.4	0.0982 µg/L	0.0982 ppb	19:57:35
3	Mo 202.031†	-25.3	31.1	0.9808 µg/L	0.9808 ppb	19:57:35
3	Ni 231.604†	-42.1	0.8	0.0099 µg/L	0.0099 ppb	19:57:35
3	P 214.914†	71.3	-11.5	-2.7700 µg/L	-2.7700 ppb	19:57:35
3	Pb 220.353†	104.0	-13.2	-0.8002 µg/L	-0.8002 ppb	19:57:35
3	S 181.975 Axial†	83.8	-14.8	-11.977 µg/L	-11.977 ppb	19:57:35
3	Sb 206.836†	75.3	-14.7	-1.9710 µg/L	-1.9710 ppb	19:57:35
3	Se 196.026†	23.6	11.6	4.60 µg/L	4.60 ppb	19:57:35
3	SiO2†	1653.5	5.4	0.5590 µg/L	0.5590 ppb	19:57:35
3	Si 251.611†	763.9	52.8	0.8589 µg/L	0.8589 ppb	19:57:35
3	Sn 189.927†	2.7	0.5	0.0386 µg/L	0.0386 ppb	19:57:35
3	Ti 334.940†	894.4	217.4	0.2215 µg/L	0.2215 ppb	19:57:14
3	Tl 190.801†	-118.7	7.0	0.9364 µg/L	0.9364 ppb	19:57:35
3	U 409.014†	-431.7	67.1	4.0863 µg/L	4.0863 ppb	19:57:14
3	V 292.402†	259.2	-184.4	-1.0115 µg/L	-1.0115 ppb	19:57:14
3	Zn 213.857†	491.0	4.2	0.0263 µg/L	0.0263 ppb	19:57:35

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1755594.3	104.95	%	0.778				0.74%
Sc RADIAL	154844.2	106	%	1.4				1.33%
Y 371.029	1078781.4	105.50	%	0.742				0.70%
Ag 328.068†	-60.0	-0.2482	µg/L	0.06913	-0.2482	ppb	0.06913	27.85%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-6.6	-1.4676	µg/L	1.83335	-1.4676	ppb	1.83335	124.92%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	3.6	1.5198	µg/L	2.62149	1.5198	ppb	2.62149	172.49%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-396.2	-6.6511	µg/L	0.41221	-6.6511	ppb	0.41221	6.20%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	15.6	0.0707	µg/L	0.03556	0.0707	ppb	0.03556	50.28%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	161.2	0.0542	µg/L	0.01474	0.0542	ppb	0.01474	27.20%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	48.5	2.8406	µg/L	0.46071	2.8406	ppb	0.46071	16.22%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	-3.7	-0.0257	µg/L	0.08491	-0.0257	ppb	0.08491	330.30%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	1.7	0.0235	µg/L	0.34867	0.0235	ppb	0.34867	>999.9%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -2.8     -0.0289 µg/L       0.21215     -0.0289 ppb        0.21215 734.89%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              56.3      0.2495 µg/L       0.18957      0.2495 ppb        0.18957  75.99%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       34.6      2.3004 µg/L       0.73735      2.3004 ppb        0.73735  32.05%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        54.2      22.323 µg/L       48.6295      22.323 ppb        48.6295 217.84%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         -28.4     -11.693 µg/L        4.1454     -11.693 ppb         4.1454  35.45%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              62.9      0.0864 µg/L       0.01044      0.0864 ppb        0.01044  12.09%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              23.4      0.7368 µg/L       0.21697      0.7368 ppb        0.21697  29.45%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†     -147.6     -22.610 µg/L        7.2970     -22.610 ppb         7.2970  32.27%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               0.8      0.0104 µg/L       0.31844      0.0104 ppb        0.31844 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -25.1     -6.0172 µg/L       3.48607     -6.0172 ppb        3.48607  57.93%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -15.2     -0.9198 µg/L       0.28391     -0.9198 ppb        0.28391  30.87%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -15.7     -12.716 µg/L        1.4469     -12.716 ppb         1.4469  11.38%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -7.2     -0.9580 µg/L       1.37341     -0.9580 ppb        1.37341 143.36%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               5.2        2.08 µg/L         5.305        2.08 ppb          5.305 255.01%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     6.9      0.7311 µg/L       0.14916      0.7311 ppb        0.14916  20.40%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              70.1      1.1487 µg/L       0.26000      1.1487 ppb        0.26000  22.64%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               2.6      0.1884 µg/L       0.18007      0.1884 ppb        0.18007  95.55%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              96.4      0.2258 µg/L       0.18764      0.2258 ppb        0.18764  83.09%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             188.1      0.1905 µg/L       0.05374      0.1905 ppb        0.05374  28.21%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              13.7      1.8394 µg/L       0.82412      1.8394 ppb        0.82412  44.80%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               91.9      5.6202 µg/L       3.25513      5.6202 ppb        3.25513  57.92%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -178.5     -0.9796 µg/L       0.08622     -0.9796 ppb        0.08622   8.80%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              21.8      0.1370 µg/L       0.10743      0.1370 ppb        0.10743  78.42%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 28
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/29/2010 20:14:40
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	158830.4	158830.4	109	%			20:15:13
1	Al 396.153Radial†	25834.9	23739.9	5159.6	µg/L	5159.6	ppb	20:15:13
1	Ca 317.933Radial†	92141.6	83939.6	4918.5	µg/L	4918.5	ppb	20:15:13
1	Fe 238.204 Radial†	80227.4	73509.2	4887.1	µg/L	4887.1	ppb	20:15:13
1	K 766.490 Radial†	14250.9	11622.7	4780.8	µg/L	4780.8	ppb	20:15:13
1	Mg 279.077 IEC†	13509.5	12210.6	5042.2	µg/L	5042.2	ppb	20:15:13
1	Na 589.592 Radial†	71473.6	63894.6	9772.4	µg/L	9772.4	ppb	20:15:13
1	Sr 421.552†	233067.3	214157.3	501.89	µg/L	501.89	ppb	20:15:11
1	Sc 361.383	1758890.2	1758890.2	105.15	%			20:15:40
1	Y 371.029	1068006.2	1068006.2	104.44	%			20:15:40
1	Ag 328.068†	130795.7	121424.9	498.97	µg/L	498.97	ppb	20:15:40
1	As 188.979†	1305.1	1255.5	531.78	µg/L	531.78	ppb	20:16:00
1	B 249.677†	33757.2	28748.7	480.95	µg/L	480.95	ppb	20:15:40
1	Ba 233.527†	115387.0	109912.7	502.52	µg/L	502.52	ppb	20:15:40
1	Be 313.107†	1647211.3	1567223.6	510.30	µg/L	510.30	ppb	20:15:40
1	Cd 226.502†	73776.2	70258.5	484.88	µg/L	484.88	ppb	20:15:40
1	Co 228.616†	37405.4	35750.6	489.80	µg/L	489.80	ppb	20:15:40
1	Cr 267.716†	60425.3	57306.6	492.09	µg/L	492.09	ppb	20:15:40
1	Cu 324.752†	122063.0	113661.9	495.62	µg/L	495.62	ppb	20:15:40
1	Mn 257.610†	380412.8	361707.7	494.04	µg/L	494.04	ppb	20:15:40
1	Mo 202.031†	16080.3	15348.2	484.94	µg/L	484.94	ppb	20:16:00
1	Ni 231.604†	40320.7	38387.5	491.02	µg/L	491.02	ppb	20:15:40
1	P 214.914†	10614.3	10015.1	2390.0	µg/L	2390.0	ppb	20:16:00
1	Pb 220.353†	8478.6	7951.1	483.21	µg/L	483.21	ppb	20:16:00
1	S 181.975 Axial†	1339.7	1179.2	959.49	µg/L	959.49	ppb	20:16:00
1	Sb 206.836†	3893.5	3616.2	488.83	µg/L	488.83	ppb	20:16:00
1	Se 196.026†	1283.0	1209.3	480	µg/L	480	ppb	20:16:00
1	SiO2†	52444.4	48303.9	5258.8	µg/L	5258.8	ppb	20:15:40
1	Si 251.611†	157396.1	149013.5	2454.2	µg/L	2454.2	ppb	20:15:40
1	Sn 189.927†	7240.5	6884.0	491.06	µg/L	491.06	ppb	20:16:00
1	Ti 334.940†	511382.1	485708.4	494.63	µg/L	494.63	ppb	20:15:40
1	Tl 190.801†	3660.5	3601.6	490.88	µg/L	490.88	ppb	20:16:00
1	U 409.014†	7375.4	7493.4	493.30	µg/L	493.30	ppb	20:15:40
1	V 292.402†	94413.5	89359.2	501.88	µg/L	501.88	ppb	20:15:40
1	Zn 213.857†	81706.6	77241.8	482.36	µg/L	482.36	ppb	20:15:40
2	Sc RADIAL	157495.3	157495.3	108	%			20:15:18
2	Al 396.153Radial†	25706.5	23822.0	5177.5	µg/L	5177.5	ppb	20:15:18
2	Ca 317.933Radial†	91510.6	84072.4	4926.3	µg/L	4926.3	ppb	20:15:18
2	Fe 238.204 Radial†	79745.5	73687.3	4899.0	µg/L	4899.0	ppb	20:15:18
2	K 766.490 Radial†	14109.0	11602.1	4772.3	µg/L	4772.3	ppb	20:15:18
2	Mg 279.077 IEC†	13430.6	12242.7	5055.5	µg/L	5055.5	ppb	20:15:18
2	Na 589.592 Radial†	70962.0	63977.1	9785.1	µg/L	9785.1	ppb	20:15:18
2	Sr 421.552†	232192.9	215161.2	504.24	µg/L	504.24	ppb	20:15:16
2	Sc 361.383	1762035.0	1762035.0	105.34	%			20:16:04
2	Y 371.029	1068713.1	1068713.1	104.51	%			20:16:04
2	Ag 328.068†	130782.3	121190.1	498.00	µg/L	498.00	ppb	20:16:04
2	As 188.979†	1306.9	1255.0	531.56	µg/L	531.56	ppb	20:16:24
2	B 249.677†	33992.4	28914.7	483.74	µg/L	483.74	ppb	20:16:04
2	Ba 233.527†	115511.3	109834.8	502.16	µg/L	502.16	ppb	20:16:04
2	Be 313.107†	1645684.7	1562978.3	508.91	µg/L	508.91	ppb	20:16:04
2	Cd 226.502†	74022.3	70366.9	485.63	µg/L	485.63	ppb	20:16:04
2	Co 228.616†	37443.2	35723.0	489.42	µg/L	489.42	ppb	20:16:04
2	Cr 267.716†	60364.6	57146.4	490.71	µg/L	490.71	ppb	20:16:04
2	Cu 324.752†	122082.7	113473.4	494.80	µg/L	494.80	ppb	20:16:04
2	Mn 257.610†	380150.5	360813.0	492.82	µg/L	492.82	ppb	20:16:04
2	Mo 202.031†	16156.3	15393.1	486.35	µg/L	486.35	ppb	20:16:24
2	Ni 231.604†	40290.4	38290.3	489.78	µg/L	489.78	ppb	20:16:04
2	P 214.914†	10621.1	10003.5	2387.2	µg/L	2387.2	ppb	20:16:24
2	Pb 220.353†	8535.7	7990.8	485.62	µg/L	485.62	ppb	20:16:24

2	S 181.975 Axial†	1326.2	1164.2	947.33 µg/L	947.33 ppb	20:16:24
2	Sb 206.836†	3900.6	3616.4	488.88 µg/L	488.88 ppb	20:16:24
2	Se 196.026†	1284.8	1208.8	480 µg/L	480 ppb	20:16:24
2	SiO2†	52491.8	48259.9	5253.9 µg/L	5253.9 ppb	20:16:04
2	Si 251.611†	157382.7	148733.6	2449.6 µg/L	2449.6 ppb	20:16:04
2	Sn 189.927†	7227.9	6859.8	489.33 µg/L	489.33 ppb	20:16:24
2	Ti 334.940†	511020.6	484497.1	493.40 µg/L	493.40 ppb	20:16:04
2	Tl 190.801†	3689.6	3623.0	493.72 µg/L	493.72 ppb	20:16:24
2	U 409.014†	7356.3	7462.8	491.32 µg/L	491.32 ppb	20:16:04
2	V 292.402†	94327.3	89117.0	500.55 µg/L	500.55 ppb	20:16:04
2	Zn 213.857†	81870.2	77258.4	482.47 µg/L	482.47 ppb	20:16:04
3	Sc RADIAL	156537.6	156537.6	107 %		20:15:22
3	Al 396.153Radial†	25645.9	23911.1	5196.9 µg/L	5196.9 ppb	20:15:22
3	Ca 317.933Radial†	91188.8	84290.9	4939.1 µg/L	4939.1 ppb	20:15:22
3	Fe 238.204 Radial†	79529.7	73937.9	4915.6 µg/L	4915.6 ppb	20:15:22
3	K 766.490 Radial†	14092.0	11666.3	4798.7 µg/L	4798.7 ppb	20:15:22
3	Mg 279.077 IEC†	13237.8	12139.2	5012.8 µg/L	5012.8 ppb	20:15:22
3	Na 589.592 Radial†	70964.3	64381.0	9846.9 µg/L	9846.9 ppb	20:15:22
3	Sr 421.552†	233615.3	217800.3	510.43 µg/L	510.43 ppb	20:15:20
3	Sc 361.383	1760601.0	1760601.0	105.25 %		20:16:27
3	Y 371.029	1068160.3	1068160.3	104.46 %		20:16:27
3	Ag 328.068†	130523.2	121045.1	497.39 µg/L	497.39 ppb	20:16:27
3	As 188.979†	1312.2	1261.0	534.08 µg/L	534.08 ppb	20:16:47
3	B 249.677†	33684.6	28648.5	479.28 µg/L	479.28 ppb	20:16:27
3	Ba 233.527†	115155.8	109586.4	501.03 µg/L	501.03 ppb	20:16:27
3	Be 313.107†	1645527.7	1564101.6	509.28 µg/L	509.28 ppb	20:16:27
3	Cd 226.502†	73929.1	70335.6	485.41 µg/L	485.41 ppb	20:16:27
3	Co 228.616†	37338.0	35652.0	488.45 µg/L	488.45 ppb	20:16:27
3	Cr 267.716†	60447.8	57272.2	491.80 µg/L	491.80 ppb	20:16:27
3	Cu 324.752†	121740.8	113243.0	493.79 µg/L	493.79 ppb	20:16:27
3	Mn 257.610†	379672.2	360652.5	492.60 µg/L	492.60 ppb	20:16:27
3	Mo 202.031†	16168.3	15416.9	487.10 µg/L	487.10 ppb	20:16:47
3	Ni 231.604†	40268.9	38301.0	489.91 µg/L	489.91 ppb	20:16:27
3	P 214.914†	10675.3	10063.2	2401.6 µg/L	2401.6 ppb	20:16:47
3	Pb 220.353†	8520.4	7982.9	485.15 µg/L	485.15 ppb	20:16:47
3	S 181.975 Axial†	1321.3	1160.6	944.41 µg/L	944.41 ppb	20:16:47
3	Sb 206.836†	3929.7	3647.1	493.02 µg/L	493.02 ppb	20:16:47
3	Se 196.026†	1275.2	1200.7	477 µg/L	477 ppb	20:16:47
3	SiO2†	52357.5	48172.8	5244.4 µg/L	5244.4 ppb	20:16:27
3	Si 251.611†	157210.8	148692.0	2448.9 µg/L	2448.9 ppb	20:16:27
3	Sn 189.927†	7259.6	6895.4	491.87 µg/L	491.87 ppb	20:16:47
3	Ti 334.940†	509954.6	483879.4	492.77 µg/L	492.77 ppb	20:16:27
3	Tl 190.801†	3695.1	3631.0	494.80 µg/L	494.80 ppb	20:16:47
3	U 409.014†	7240.3	7358.2	484.82 µg/L	484.82 ppb	20:16:27
3	V 292.402†	94156.3	89027.6	500.06 µg/L	500.06 ppb	20:16:27
3	Zn 213.857†	81777.8	77234.0	482.31 µg/L	482.31 ppb	20:16:27

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1760508.7	105.24	%	0.094				0.09%
Sc RADIAL	157621.1	108	%	0.8				0.73%
Y 371.029	1068293.2	104.47	%	0.036				0.03%
Ag 328.068†	121220.0	498.12	µg/L	0.794	498.12	ppb	0.794	0.16%
QC value within limits for Ag 328.068 Recovery = 99.62%								
Al 396.153Radial†	23824.3	5178.0	µg/L	18.65	5178.0	ppb	18.65	0.36%
QC value within limits for Al 396.153Radial Recovery = 103.56%								
As 188.979†	1257.1	532.47	µg/L	1.398	532.47	ppb	1.398	0.26%
QC value within limits for As 188.979 Recovery = 106.49%								
B 249.677†	28770.7	481.32	µg/L	2.255	481.32	ppb	2.255	0.47%
QC value within limits for B 249.677 Recovery = 96.26%								
Ba 233.527†	109778.0	501.91	µg/L	0.779	501.91	ppb	0.779	0.16%
QC value within limits for Ba 233.527 Recovery = 100.38%								
Be 313.107†	1564767.8	509.50	µg/L	0.717	509.50	ppb	0.717	0.14%
QC value within limits for Be 313.107 Recovery = 101.90%								
Ca 317.933Radial†	84101.0	4928.0	µg/L	10.39	4928.0	ppb	10.39	0.21%
QC value within limits for Ca 317.933Radial Recovery = 98.56%								
Cd 226.502†	70320.3	485.30	µg/L	0.384	485.30	ppb	0.384	0.08%
QC value within limits for Cd 226.502 Recovery = 97.06%								
Co 228.616†	35708.6	489.22	µg/L	0.698	489.22	ppb	0.698	0.14%

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   QC value within limits for Co 228.616  Recovery = 97.84%
Cr 267.716†            57241.7      491.53 µg/L         0.725      491.53 ppb          0.725   0.15%
   QC value within limits for Cr 267.716  Recovery = 98.31%
Cu 324.752†           113459.4      494.74 µg/L         0.914      494.74 ppb          0.914   0.18%
   QC value within limits for Cu 324.752  Recovery = 98.95%
Fe 238.204 Radial†     73711.5      4900.6 µg/L         14.32      4900.6 ppb          14.32   0.29%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.01%
K 766.490 Radial†      11630.4      4783.9 µg/L         13.48      4783.9 ppb          13.48   0.28%
   QC value within limits for K 766.490 Radial  Recovery = 95.68%
Mg 279.077 IEC†        12197.5      5036.8 µg/L         21.85      5036.8 ppb          21.85   0.43%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.74%
Mn 257.610†           361057.7      493.15 µg/L         0.777      493.15 ppb          0.777   0.16%
   QC value within limits for Mn 257.610  Recovery = 98.63%
Mo 202.031†            15386.1      486.13 µg/L         1.101      486.13 ppb          1.101   0.23%
   QC value within limits for Mo 202.031  Recovery = 97.23%
Na 589.592 Radial†     64084.3      9801.5 µg/L         39.82      9801.5 ppb          39.82   0.41%
   QC value within limits for Na 589.592 Radial  Recovery = 98.01%
Ni 231.604†            38326.3      490.24 µg/L         0.682      490.24 ppb          0.682   0.14%
   QC value within limits for Ni 231.604  Recovery = 98.05%
P 214.914†             10027.2      2392.9 µg/L          7.59      2392.9 ppb           7.59   0.32%
   QC value within limits for P 214.914  Recovery = 95.72%
Pb 220.353†             7974.9      484.66 µg/L         1.279      484.66 ppb          1.279   0.26%
   QC value within limits for Pb 220.353  Recovery = 96.93%
S 181.975 Axial†        1168.0      950.41 µg/L         8.003      950.41 ppb          8.003   0.84%
   QC value within limits for S 181.975 Axial  Recovery = 95.04%
Sb 206.836†             3626.6      490.24 µg/L         2.403      490.24 ppb          2.403   0.49%
   QC value within limits for Sb 206.836  Recovery = 98.05%
Se 196.026†             1206.3         479 µg/L           1.9         479 ppb            1.9   0.40%
   QC value within limits for Se 196.026  Recovery = 95.86%
SiO2†                  48245.5      5252.4 µg/L          7.33      5252.4 ppb           7.33   0.14%
   QC value within limits for SiO2  Recovery = 98.22%
Si 251.611†           148813.1      2450.9 µg/L          2.90      2450.9 ppb           2.90   0.12%
   QC value within limits for Si 251.611  Recovery = 98.04%
Sn 189.927†             6879.7      490.75 µg/L         1.293      490.75 ppb          1.293   0.26%
   QC value within limits for Sn 189.927  Recovery = 98.15%
Sr 421.552†           215706.3      505.52 µg/L         4.410      505.52 ppb          4.410   0.87%
   QC value within limits for Sr 421.552  Recovery = 101.10%
Ti 334.940†           484695.0      493.60 µg/L         0.946      493.60 ppb          0.946   0.19%
   QC value within limits for Ti 334.940  Recovery = 98.72%
Tl 190.801†             3618.5      493.13 µg/L         2.027      493.13 ppb          2.027   0.41%
   QC value within limits for Tl 190.801  Recovery = 98.63%
U 409.014†              7438.1      489.81 µg/L         4.433      489.81 ppb          4.433   0.91%
   QC value within limits for U 409.014  Recovery = 97.96%
V 292.402†             89167.9      500.83 µg/L         0.945      500.83 ppb          0.945   0.19%
   QC value within limits for V 292.402  Recovery = 100.17%
Zn 213.857†            77244.7      482.38 µg/L         0.080      482.38 ppb          0.080   0.02%
   QC value within limits for Zn 213.857  Recovery = 96.48%
All analyte(s) passed QC.
```

Sequence No.: 29
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/29/2010 20:16:54
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	158157.7	158157.7	109	%			20:17:23
1	Al 396.153Radial†	-63.6	-26.8	-5.8638	µg/L	-5.8638	ppb	20:17:43
1	Ca 317.933Radial†	734.1	60.4	3.5365	µg/L	3.5365	ppb	20:17:43
1	Fe 238.204 Radial†	186.1	58.3	3.8728	µg/L	3.8728	ppb	20:17:43
1	K 766.490 Radial†	1649.8	65.4	26.926	µg/L	26.926	ppb	20:17:23
1	Mg 279.077 IEC†	176.6	-23.9	-9.8603	µg/L	-9.8603	ppb	20:17:43
1	Na 589.592 Radial†	1600.7	-219.6	-33.624	µg/L	-33.624	ppb	20:17:23
1	Sr 421.552†	-113.7	173.2	0.4058	µg/L	0.4058	ppb	20:17:23
1	Sc 361.383	1797162.4	1797162.4	107.44	%			20:18:45
1	Y 371.029	1101535.0	1101535.0	107.72	%			20:18:45
1	Ag 328.068†	3189.5	1.7	0.0181	µg/L	0.0181	ppb	20:18:47
1	As 188.979†	-18.7	-3.2	-1.3282	µg/L	-1.3282	ppb	20:19:07
1	B 249.677†	3164.5	-410.2	-6.8868	µg/L	-6.8868	ppb	20:19:07
1	Ba 233.527†	-166.3	20.3	0.0925	µg/L	0.0925	ppb	20:19:07
1	Be 313.107†	-796.9	-81.6	-0.0232	µg/L	-0.0232	ppb	20:18:47
1	Cd 226.502†	-88.5	12.1	0.0830	µg/L	0.0830	ppb	20:19:07
1	Co 228.616†	-182.6	6.7	0.0913	µg/L	0.0913	ppb	20:19:07
1	Cr 267.716†	146.8	-23.6	-0.2111	µg/L	-0.2111	ppb	20:19:07
1	Cu 324.752†	2533.1	-67.1	-0.2822	µg/L	-0.2822	ppb	20:18:47
1	Mn 257.610†	189.2	96.1	0.1316	µg/L	0.1316	ppb	20:19:07
1	Mo 202.031†	-43.6	14.6	0.4617	µg/L	0.4617	ppb	20:19:07
1	Ni 231.604†	-36.3	7.1	0.0912	µg/L	0.0912	ppb	20:19:07
1	P 214.914†	33.9	-48.0	-11.496	µg/L	-11.496	ppb	20:19:07
1	Pb 220.353†	106.6	-13.2	-0.8080	µg/L	-0.8080	ppb	20:19:07
1	S 181.975 Axial†	94.0	-7.3	-5.9118	µg/L	-5.9118	ppb	20:19:07
1	Sb 206.836†	77.5	-14.5	-1.9423	µg/L	-1.9423	ppb	20:19:07
1	Se 196.026†	26.1	13.3	5.29	µg/L	5.29	ppb	20:19:07
1	SiO2†	1703.2	12.4	1.3407	µg/L	1.3407	ppb	20:19:07
1	Si 251.611†	757.0	28.3	0.4592	µg/L	0.4592	ppb	20:19:07
1	Sn 189.927†	6.4	3.9	0.2796	µg/L	0.2796	ppb	20:19:07
1	Ti 334.940†	1092.2	380.2	0.3841	µg/L	0.3841	ppb	20:18:47
1	Tl 190.801†	-110.1	17.8	2.3981	µg/L	2.3981	ppb	20:19:07
1	U 409.014†	-322.2	179.2	11.064	µg/L	11.064	ppb	20:18:47
1	V 292.402†	429.3	-32.2	-0.1685	µg/L	-0.1685	ppb	20:18:47
1	Zn 213.857†	497.4	-1.5	-0.0099	µg/L	-0.0099	ppb	20:19:07
2	Sc RADIAL	155691.2	155691.2	107	%			20:17:45
2	Al 396.153Radial†	-30.3	3.5	0.7196	µg/L	0.7196	ppb	20:18:05
2	Ca 317.933Radial†	713.2	51.5	3.0148	µg/L	3.0148	ppb	20:18:05
2	Fe 238.204 Radial†	162.5	38.8	2.5826	µg/L	2.5826	ppb	20:18:05
2	K 766.490 Radial†	1523.5	-28.7	-11.809	µg/L	-11.809	ppb	20:17:45
2	Mg 279.077 IEC†	195.4	-3.7	-1.5189	µg/L	-1.5189	ppb	20:18:05
2	Na 589.592 Radial†	1538.6	-254.3	-38.906	µg/L	-38.906	ppb	20:17:45
2	Sr 421.552†	-172.2	116.8	0.2737	µg/L	0.2737	ppb	20:17:45
2	Sc 361.383	1776190.8	1776190.8	106.18	%			20:19:09
2	Y 371.029	1089581.5	1089581.5	106.55	%			20:19:09
2	Ag 328.068†	3209.2	55.3	0.2233	µg/L	0.2233	ppb	20:19:11
2	As 188.979†	-18.8	-3.4	-1.4319	µg/L	-1.4319	ppb	20:19:31
2	B 249.677†	3163.9	-376.0	-6.3128	µg/L	-6.3128	ppb	20:19:31
2	Ba 233.527†	-158.5	25.8	0.1177	µg/L	0.1177	ppb	20:19:31
2	Be 313.107†	-622.2	74.1	0.0253	µg/L	0.0253	ppb	20:19:11
2	Cd 226.502†	-71.9	26.7	0.1839	µg/L	0.1839	ppb	20:19:31
2	Co 228.616†	-183.6	3.7	0.0500	µg/L	0.0500	ppb	20:19:31
2	Cr 267.716†	166.1	-3.8	-0.0355	µg/L	-0.0355	ppb	20:19:31
2	Cu 324.752†	2626.6	48.8	0.2155	µg/L	0.2155	ppb	20:19:11
2	Mn 257.610†	203.0	111.2	0.1519	µg/L	0.1519	ppb	20:19:31
2	Mo 202.031†	-29.4	27.5	0.8686	µg/L	0.8686	ppb	20:19:31
2	Ni 231.604†	-58.1	-13.8	-0.1766	µg/L	-0.1766	ppb	20:19:31
2	P 214.914†	38.3	-43.5	-10.438	µg/L	-10.438	ppb	20:19:31
2	Pb 220.353†	142.1	21.4	1.2928	µg/L	1.2928	ppb	20:19:31

2	S 181.975 Axial†	84.7	-15.1	-12.191 µg/L	-12.191 ppb	20:19:31
2	Sb 206.836†	90.2	-1.7	-0.2231 µg/L	-0.2231 ppb	20:19:31
2	Se 196.026†	16.7	4.8	1.90 µg/L	1.90 ppb	20:19:31
2	SiO2†	1687.5	16.4	1.7745 µg/L	1.7745 ppb	20:19:31
2	Si 251.611†	744.1	24.4	0.3950 µg/L	0.3950 ppb	20:19:31
2	Sn 189.927†	-5.5	-7.2	-0.5152 µg/L	-0.5152 ppb	20:19:31
2	Ti 334.940†	590.2	-80.5	-0.0834 µg/L	-0.0834 ppb	20:19:11
2	Tl 190.801†	-116.1	11.0	1.4736 µg/L	1.4736 ppb	20:19:31
2	U 409.014†	-444.6	60.4	3.7028 µg/L	3.7028 ppb	20:19:11
2	V 292.402†	365.2	-87.9	-0.4766 µg/L	-0.4766 ppb	20:19:11
2	Zn 213.857†	508.8	14.8	0.0938 µg/L	0.0938 ppb	20:19:31
3	Sc RADIAL	155889.7	155889.7	107 %		20:18:07
3	Al 396.153Radial†	-21.6	11.7	2.4989 µg/L	2.4989 ppb	20:18:27
3	Ca 317.933Radial†	710.6	48.2	2.8268 µg/L	2.8268 ppb	20:18:27
3	Fe 238.204 Radial†	176.6	51.8	3.4464 µg/L	3.4464 ppb	20:18:27
3	K 766.490 Radial†	1522.8	-31.2	-12.835 µg/L	-12.835 ppb	20:18:07
3	Mg 279.077 IEC†	169.6	-28.1	-11.582 µg/L	-11.582 ppb	20:18:27
3	Na 589.592 Radial†	1514.3	-278.9	-42.658 µg/L	-42.658 ppb	20:18:07
3	Sr 421.552†	-115.2	170.3	0.3991 µg/L	0.3991 ppb	20:18:07
3	Sc 361.383	1775735.1	1775735.1	106.16 %		20:19:33
3	Y 371.029	1090212.1	1090212.1	106.61 %		20:19:33
3	Ag 328.068†	3310.5	151.5	0.6044 µg/L	0.6044 ppb	20:19:35
3	As 188.979†	-18.3	-3.0	-1.2478 µg/L	-1.2478 ppb	20:19:55
3	B 249.677†	3162.1	-376.9	-6.3290 µg/L	-6.3290 ppb	20:19:55
3	Ba 233.527†	-165.4	19.2	0.0872 µg/L	0.0872 ppb	20:19:55
3	Be 313.107†	-659.6	38.8	0.0140 µg/L	0.0140 ppb	20:19:35
3	Cd 226.502†	-97.0	3.1	0.0206 µg/L	0.0206 ppb	20:19:55
3	Co 228.616†	-161.6	24.4	0.3340 µg/L	0.3340 ppb	20:19:55
3	Cr 267.716†	177.4	6.9	0.0553 µg/L	0.0553 ppb	20:19:55
3	Cu 324.752†	2774.4	188.7	0.8244 µg/L	0.8244 ppb	20:19:35
3	Mn 257.610†	182.4	91.8	0.1259 µg/L	0.1259 ppb	20:19:55
3	Mo 202.031†	-25.4	31.3	0.9879 µg/L	0.9879 ppb	20:19:55
3	Ni 231.604†	-68.5	-23.6	-0.3019 µg/L	-0.3019 ppb	20:19:55
3	P 214.914†	51.6	-31.0	-7.4391 µg/L	-7.4391 ppb	20:19:55
3	Pb 220.353†	84.6	-32.7	-1.9844 µg/L	-1.9844 ppb	20:19:55
3	S 181.975 Axial†	85.3	-14.4	-11.697 µg/L	-11.697 ppb	20:19:55
3	Sb 206.836†	54.5	-35.3	-4.7507 µg/L	-4.7507 ppb	20:19:55
3	Se 196.026†	0.8	-10.1	-4.01 µg/L	-4.01 ppb	20:19:55
3	SiO2†	1675.1	5.1	0.5352 µg/L	0.5352 ppb	20:19:55
3	Si 251.611†	757.0	36.7	0.5978 µg/L	0.5978 ppb	20:19:55
3	Sn 189.927†	-6.1	-7.8	-0.5522 µg/L	-0.5522 ppb	20:19:55
3	Ti 334.940†	761.4	80.9	0.0816 µg/L	0.0816 ppb	20:19:35
3	Tl 190.801†	-108.3	18.3	2.4419 µg/L	2.4419 ppb	20:19:55
3	U 409.014†	-429.2	74.8	4.5456 µg/L	4.5456 ppb	20:19:35
3	V 292.402†	201.6	-241.9	-1.3288 µg/L	-1.3288 ppb	20:19:35
3	Zn 213.857†	514.6	20.3	0.1291 µg/L	0.1291 ppb	20:19:55

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1783029.4	106.59	%	0.732				0.69%
Sc RADIAL	156579.5	107	%	0.9				0.88%
Y 371.029	1093776.2	106.96	%	0.658				0.61%
Ag 328.068†	69.5	0.2819	µg/L	0.29754	0.2819	ppb	0.29754	105.55%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.9	-0.8818	µg/L	4.40531	-0.8818	ppb	4.40531	499.59%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.2	-1.3360	µg/L	0.09228	-1.3360	ppb	0.09228	6.91%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-387.7	-6.5095	µg/L	0.32684	-6.5095	ppb	0.32684	5.02%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	21.7	0.0991	µg/L	0.01628	0.0991	ppb	0.01628	16.43%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	10.4	0.0053	µg/L	0.02537	0.0053	ppb	0.02537	474.55%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	53.3	3.1261	µg/L	0.36770	3.1261	ppb	0.36770	11.76%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	13.9	0.0958	µg/L	0.08241	0.0958	ppb	0.08241	85.99%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.6	0.1584	µg/L	0.15343	0.1584	ppb	0.15343	96.85%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -6.8     -0.0638 µg/L       0.13543     -0.0638 ppb        0.13543 212.32%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              56.8      0.2526 µg/L       0.55423      0.2526 ppb        0.55423 219.45%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       49.6      3.3006 µg/L       0.65736      3.3006 ppb        0.65736  19.92%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         1.8      0.7609 µg/L      22.66551      0.7609 ppb       22.66551 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         -18.6     -7.6537 µg/L       5.38218     -7.6537 ppb        5.38218  70.32%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              99.7      0.1365 µg/L       0.01367      0.1365 ppb        0.01367  10.02%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              24.5      0.7728 µg/L       0.27588      0.7728 ppb        0.27588  35.70%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†     -250.9     -38.396 µg/L        4.5384     -38.396 ppb         4.5384  11.82%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -10.1     -0.1291 µg/L       0.20080     -0.1291 ppb        0.20080 155.54%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -40.8     -9.7910 µg/L       2.10426     -9.7910 ppb        2.10426  21.49%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -8.2     -0.4998 µg/L       1.66019     -0.4998 ppb        1.66019 332.15%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -12.3     -9.9332 µg/L       3.49134     -9.9332 ppb        3.49134  35.15%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -17.2     -2.3053 µg/L       2.28550     -2.3053 ppb        2.28550  99.14%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               2.7        1.06 µg/L         4.705        1.06 ppb          4.705 444.44%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    11.3      1.2168 µg/L       0.62889      1.2168 ppb        0.62889  51.68%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†              29.8      0.4840 µg/L       0.10365      0.4840 ppb        0.10365  21.42%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -3.7     -0.2626 µg/L       0.46990     -0.2626 ppb        0.46990 178.94%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             153.4      0.3595 µg/L       0.07442      0.3595 ppb        0.07442  20.70%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             126.9      0.1275 µg/L       0.23711      0.1275 ppb        0.23711 186.03%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              15.7      2.1045 µg/L       0.54683      2.1045 ppb        0.54683  25.98%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              104.8      6.4375 µg/L       4.02889      6.4375 ppb        4.02889  62.58%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -120.7     -0.6580 µg/L       0.60105     -0.6580 ppb        0.60105  91.35%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              11.2      0.0710 µg/L       0.07224      0.0710 ppb        0.07224 101.73%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 37
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/29/2010 20:39:13
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	158480.3	158480.3	109	%			20:39:46
1	Al 396.153Radial†	25899.3	23851.4	5184.2	µg/L	5184.2	ppb	20:39:46
1	Ca 317.933Radial†	91372.8	83419.3	4888.0	µg/L	4888.0	ppb	20:39:46
1	Fe 238.204 Radial†	79864.5	73338.0	4875.8	µg/L	4875.8	ppb	20:39:46
1	K 766.490 Radial†	13976.2	11398.9	4688.7	µg/L	4688.7	ppb	20:39:46
1	Mg 279.077 IEC†	13513.6	12241.7	5054.9	µg/L	5054.9	ppb	20:39:46
1	Na 589.592 Radial†	70984.5	63589.7	9725.9	µg/L	9725.9	ppb	20:39:46
1	Sr 421.552†	231158.4	212874.2	498.88	µg/L	498.88	ppb	20:39:44
1	Sc 361.383	1746203.9	1746203.9	104.39	%			20:40:13
1	Y 371.029	1060403.2	1060403.2	103.70	%			20:40:13
1	Ag 328.068†	129222.9	120821.9	496.49	µg/L	496.49	ppb	20:40:13
1	As 188.979†	1283.9	1244.1	526.99	µg/L	526.99	ppb	20:40:33
1	B 249.677†	33276.5	28521.6	477.15	µg/L	477.15	ppb	20:40:13
1	Ba 233.527†	114363.4	109729.4	501.68	µg/L	501.68	ppb	20:40:13
1	Be 313.107†	1632572.9	1564581.9	509.43	µg/L	509.43	ppb	20:40:13
1	Cd 226.502†	72628.8	69669.1	480.81	µg/L	480.81	ppb	20:40:13
1	Co 228.616†	36875.4	35501.3	486.39	µg/L	486.39	ppb	20:40:13
1	Cr 267.716†	59790.0	57115.6	490.45	µg/L	490.45	ppb	20:40:13
1	Cu 324.752†	120808.8	113303.8	494.05	µg/L	494.05	ppb	20:40:13
1	Mn 257.610†	375213.3	359355.3	490.82	µg/L	490.82	ppb	20:40:13
1	Mo 202.031†	15789.8	15181.1	479.66	µg/L	479.66	ppb	20:40:33
1	Ni 231.604†	39738.4	38108.3	487.45	µg/L	487.45	ppb	20:40:13
1	P 214.914†	10363.4	9848.0	2350.1	µg/L	2350.1	ppb	20:40:33
1	Pb 220.353†	8305.0	7843.4	476.67	µg/L	476.67	ppb	20:40:33
1	S 181.975 Axial†	1299.5	1150.0	935.75	µg/L	935.75	ppb	20:40:33
1	Sb 206.836†	3827.9	3580.3	483.91	µg/L	483.91	ppb	20:40:33
1	Se 196.026†	1246.7	1183.4	470	µg/L	470	ppb	20:40:33
1	SiO2†	51835.7	48083.1	5234.9	µg/L	5234.9	ppb	20:40:13
1	Si 251.611†	155248.2	148043.5	2438.3	µg/L	2438.3	ppb	20:40:13
1	Sn 189.927†	7083.7	6783.8	483.93	µg/L	483.93	ppb	20:40:33
1	Ti 334.940†	505298.5	483413.9	492.29	µg/L	492.29	ppb	20:40:13
1	Tl 190.801†	3587.5	3556.9	484.85	µg/L	484.85	ppb	20:40:33
1	U 409.014†	7184.1	7361.1	484.98	µg/L	484.98	ppb	20:40:13
1	V 292.402†	93312.1	88956.4	499.59	µg/L	499.59	ppb	20:40:13
1	Zn 213.857†	80758.5	76898.2	480.22	µg/L	480.22	ppb	20:40:13
2	Sc RADIAL	157839.6	157839.6	108	%			20:39:50
2	Al 396.153Radial†	25654.3	23721.9	5156.0	µg/L	5156.0	ppb	20:39:50
2	Ca 317.933Radial†	90857.8	83284.8	4880.1	µg/L	4880.1	ppb	20:39:50
2	Fe 238.204 Radial†	79351.6	73162.6	4864.1	µg/L	4864.1	ppb	20:39:50
2	K 766.490 Radial†	14108.1	11572.9	4760.3	µg/L	4760.3	ppb	20:39:50
2	Mg 279.077 IEC†	13317.1	12110.8	5000.9	µg/L	5000.9	ppb	20:39:50
2	Na 589.592 Radial†	70889.1	63766.6	9752.9	µg/L	9752.9	ppb	20:39:50
2	Sr 421.552†	232019.8	214532.6	502.77	µg/L	502.77	ppb	20:39:48
2	Sc 361.383	1748401.5	1748401.5	104.52	%			20:40:36
2	Y 371.029	1060574.0	1060574.0	103.72	%			20:40:36
2	Ag 328.068†	128320.4	119802.8	492.33	µg/L	492.33	ppb	20:40:36
2	As 188.979†	1300.9	1258.8	533.09	µg/L	533.09	ppb	20:40:56
2	B 249.677†	33199.5	28407.7	475.25	µg/L	475.25	ppb	20:40:36
2	Ba 233.527†	113312.8	108586.5	496.46	µg/L	496.46	ppb	20:40:36
2	Be 313.107†	1626044.8	1556370.4	506.76	µg/L	506.76	ppb	20:40:36
2	Cd 226.502†	71814.6	68802.6	474.82	µg/L	474.82	ppb	20:40:36
2	Co 228.616†	36702.1	35291.2	483.50	µg/L	483.50	ppb	20:40:36
2	Cr 267.716†	59191.4	56470.8	484.90	µg/L	484.90	ppb	20:40:36
2	Cu 324.752†	120253.9	112627.4	491.11	µg/L	491.11	ppb	20:40:36
2	Mn 257.610†	372516.4	356323.3	486.68	µg/L	486.68	ppb	20:40:36
2	Mo 202.031†	15750.8	15124.7	477.88	µg/L	477.88	ppb	20:40:56
2	Ni 231.604†	39612.3	37939.8	485.29	µg/L	485.29	ppb	20:40:36
2	P 214.914†	10343.5	9816.5	2342.6	µg/L	2342.6	ppb	20:40:56
2	Pb 220.353†	8312.4	7840.4	476.48	µg/L	476.48	ppb	20:40:56

2	S 181.975 Axial†	1287.8	1137.3	925.44 µg/L	925.44 ppb	20:40:56
2	Sb 206.836†	3843.7	3590.8	485.39 µg/L	485.39 ppb	20:40:56
2	Se 196.026†	1243.8	1179.1	469 µg/L	469 ppb	20:40:56
2	SiO2†	51279.8	47488.8	5170.0 µg/L	5170.0 ppb	20:40:36
2	Si 251.611†	154265.1	146916.0	2419.7 µg/L	2419.7 ppb	20:40:36
2	Sn 189.927†	7111.0	6801.4	485.17 µg/L	485.17 ppb	20:40:56
2	Ti 334.940†	501677.3	479340.9	488.14 µg/L	488.14 ppb	20:40:36
2	Tl 190.801†	3591.8	3556.8	484.78 µg/L	484.78 ppb	20:40:56
2	U 409.014†	7373.9	7534.0	495.49 µg/L	495.49 ppb	20:40:36
2	V 292.402†	92934.7	88483.0	496.93 µg/L	496.93 ppb	20:40:36
2	Zn 213.857†	80169.9	76237.8	476.08 µg/L	476.08 ppb	20:40:36
3	Sc RADIAL	156089.6	156089.6	107 %		20:39:54
3	Al 396.153Radial†	25631.8	23966.5	5209.3 µg/L	5209.3 ppb	20:39:54
3	Ca 317.933Radial†	90218.0	83628.1	4900.2 µg/L	4900.2 ppb	20:39:54
3	Fe 238.204 Radial†	78756.2	73428.1	4881.8 µg/L	4881.8 ppb	20:39:54
3	K 766.490 Radial†	13885.5	11511.0	4734.8 µg/L	4734.8 ppb	20:39:54
3	Mg 279.077 IEC†	13155.9	12098.2	4995.8 µg/L	4995.8 ppb	20:39:54
3	Na 589.592 Radial†	70406.1	64049.4	9796.2 µg/L	9796.2 ppb	20:39:54
3	Sr 421.552†	227678.4	212880.7	498.90 µg/L	498.90 ppb	20:39:52
3	Sc 361.383	1750051.7	1750051.7	104.62 %		20:40:59
3	Y 371.029	1061656.2	1061656.2	103.82 %		20:40:59
3	Ag 328.068†	129101.5	120433.7	494.92 µg/L	494.92 ppb	20:40:59
3	As 188.979†	1318.4	1274.5	539.66 µg/L	539.66 ppb	20:41:19
3	B 249.677†	33442.7	28610.3	478.64 µg/L	478.64 ppb	20:40:59
3	Ba 233.527†	114533.5	109651.1	501.32 µg/L	501.32 ppb	20:40:59
3	Be 313.107†	1637681.6	1566026.4	509.91 µg/L	509.91 ppb	20:40:59
3	Cd 226.502†	72370.3	69269.0	478.04 µg/L	478.04 ppb	20:40:59
3	Co 228.616†	36966.6	35510.9	486.52 µg/L	486.52 ppb	20:40:59
3	Cr 267.716†	59644.0	56850.1	488.16 µg/L	488.16 ppb	20:40:59
3	Cu 324.752†	121321.2	113539.1	495.08 µg/L	495.08 ppb	20:40:59
3	Mn 257.610†	375810.6	359135.9	490.53 µg/L	490.53 ppb	20:40:59
3	Mo 202.031†	15874.8	15229.0	481.17 µg/L	481.17 ppb	20:41:19
3	Ni 231.604†	39836.0	38117.9	487.57 µg/L	487.57 ppb	20:40:59
3	P 214.914†	10423.7	9883.8	2358.6 µg/L	2358.6 ppb	20:41:19
3	Pb 220.353†	8358.7	7877.1	478.72 µg/L	478.72 ppb	20:41:19
3	S 181.975 Axial†	1303.9	1151.5	936.96 µg/L	936.96 ppb	20:41:19
3	Sb 206.836†	3860.5	3603.4	487.09 µg/L	487.09 ppb	20:41:19
3	Se 196.026†	1260.6	1194.1	474 µg/L	474 ppb	20:41:19
3	SiO2†	51807.0	47946.5	5219.9 µg/L	5219.9 ppb	20:40:59
3	Si 251.611†	155533.5	147989.2	2437.4 µg/L	2437.4 ppb	20:40:59
3	Sn 189.927†	7141.0	6823.7	486.76 µg/L	486.76 ppb	20:41:19
3	Ti 334.940†	505758.7	482789.5	491.66 µg/L	491.66 ppb	20:40:59
3	Tl 190.801†	3621.3	3581.7	488.18 µg/L	488.18 ppb	20:41:19
3	U 409.014†	7328.7	7484.2	492.60 µg/L	492.60 ppb	20:40:59
3	V 292.402†	93571.4	89007.7	499.88 µg/L	499.88 ppb	20:40:59
3	Zn 213.857†	80716.3	76687.7	478.89 µg/L	478.89 ppb	20:40:59

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1748219.0	104.51	%	0.115				0.11%
Sc RADIAL	157469.8	108	%	0.8				0.79%
Y 371.029	1060877.8	103.75	%	0.066				0.06%
Ag 328.068†	120352.8	494.58	µg/L	2.097	494.58	ppb	2.097	0.42%
QC value within limits for Ag 328.068 Recovery = 98.92%								
Al 396.153Radial†	23846.6	5183.2	µg/L	26.63	5183.2	ppb	26.63	0.51%
QC value within limits for Al 396.153Radial Recovery = 103.66%								
As 188.979†	1259.1	533.25	µg/L	6.336	533.25	ppb	6.336	1.19%
QC value within limits for As 188.979 Recovery = 106.65%								
B 249.677†	28513.2	477.02	µg/L	1.699	477.02	ppb	1.699	0.36%
QC value within limits for B 249.677 Recovery = 95.40%								
Ba 233.527†	109322.4	499.82	µg/L	2.918	499.82	ppb	2.918	0.58%
QC value within limits for Ba 233.527 Recovery = 99.96%								
Be 313.107†	1562326.2	508.70	µg/L	1.694	508.70	ppb	1.694	0.33%
QC value within limits for Be 313.107 Recovery = 101.74%								
Ca 317.933Radial†	83444.1	4889.5	µg/L	10.13	4889.5	ppb	10.13	0.21%
QC value within limits for Ca 317.933Radial Recovery = 97.79%								
Cd 226.502†	69246.9	477.89	µg/L	2.994	477.89	ppb	2.994	0.63%
QC value within limits for Cd 226.502 Recovery = 95.58%								
Co 228.616†	35434.5	485.47	µg/L	1.703	485.47	ppb	1.703	0.35%

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   QC value within limits for Co 228.616  Recovery = 97.09%
Cr 267.716†            56812.2      487.84 µg/L         2.787      487.84 ppb          2.787   0.57%
   QC value within limits for Cr 267.716  Recovery = 97.57%
Cu 324.752†           113156.8      493.41 µg/L         2.057      493.41 ppb          2.057   0.42%
   QC value within limits for Cu 324.752  Recovery = 98.68%
Fe 238.204 Radial†     73309.6      4873.9 µg/L          8.98      4873.9 ppb           8.98   0.18%
   QC value within limits for Fe 238.204 Radial  Recovery = 97.48%
K 766.490 Radial†      11494.3      4727.9 µg/L         36.31      4727.9 ppb          36.31   0.77%
   QC value within limits for K 766.490 Radial  Recovery = 94.56%
Mg 279.077 IEC†        12150.2      5017.2 µg/L         32.78      5017.2 ppb          32.78   0.65%
   QC value within limits for Mg 279.077 IEC  Recovery = 100.34%
Mn 257.610†           358271.5      489.35 µg/L         2.310      489.35 ppb          2.310   0.47%
   QC value within limits for Mn 257.610  Recovery = 97.87%
Mo 202.031†            15178.3      479.57 µg/L         1.650      479.57 ppb          1.650   0.34%
   QC value within limits for Mo 202.031  Recovery = 95.91%
Na 589.592 Radial†     63801.9      9758.3 µg/L         35.47      9758.3 ppb          35.47   0.36%
   QC value within limits for Na 589.592 Radial  Recovery = 97.58%
Ni 231.604†            38055.3      486.77 µg/L         1.281      486.77 ppb          1.281   0.26%
   QC value within limits for Ni 231.604  Recovery = 97.35%
P 214.914†              9849.4      2350.4 µg/L          8.04      2350.4 ppb           8.04   0.34%
   QC value within limits for P 214.914  Recovery = 94.02%
Pb 220.353†             7853.6      477.29 µg/L         1.242      477.29 ppb          1.242   0.26%
   QC value within limits for Pb 220.353  Recovery = 95.46%
S 181.975 Axial†        1146.3      932.72 µg/L         6.328      932.72 ppb          6.328   0.68%
   QC value within limits for S 181.975 Axial  Recovery = 93.27%
Sb 206.836†             3591.5      485.47 µg/L         1.590      485.47 ppb          1.590   0.33%
   QC value within limits for Sb 206.836  Recovery = 97.09%
Se 196.026†             1185.5         471 µg/L           3.0         471 ppb            3.0   0.65%
   QC value within limits for Se 196.026  Recovery = 94.21%
SiO2†                  47839.5      5208.2 µg/L         33.99      5208.2 ppb          33.99   0.65%
   QC value within limits for SiO2  Recovery = 97.40%
Si 251.611†           147649.6      2431.8 µg/L         10.49      2431.8 ppb          10.49   0.43%
   QC value within limits for Si 251.611  Recovery = 97.27%
Sn 189.927†             6803.0      485.29 µg/L         1.421      485.29 ppb          1.421   0.29%
   QC value within limits for Sn 189.927  Recovery = 97.06%
Sr 421.552†           213429.2      500.18 µg/L         2.240      500.18 ppb          2.240   0.45%
   QC value within limits for Sr 421.552  Recovery = 100.04%
Ti 334.940†           481848.1      490.70 µg/L         2.236      490.70 ppb          2.236   0.46%
   QC value within limits for Ti 334.940  Recovery = 98.14%
Tl 190.801†             3565.2      485.94 µg/L         1.942      485.94 ppb          1.942   0.40%
   QC value within limits for Tl 190.801  Recovery = 97.19%
U 409.014†              7459.8      491.02 µg/L         5.432      491.02 ppb          5.432   1.11%
   QC value within limits for U 409.014  Recovery = 98.20%
V 292.402†             88815.7      498.80 µg/L         1.625      498.80 ppb          1.625   0.33%
   QC value within limits for V 292.402  Recovery = 99.76%
Zn 213.857†            76607.9      478.40 µg/L         2.115      478.40 ppb          2.115   0.44%
   QC value within limits for Zn 213.857  Recovery = 95.68%
All analyte(s) passed QC.
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Sequence No.: 38
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/29/2010 20:41:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	159642.2	159642.2	110	%			20:41:56
1	Al 396.153Radial†	-31.9	2.8	0.5753	µg/L	0.5753	ppb	20:42:16
1	Ca 317.933Radial†	722.9	43.8	2.5682	µg/L	2.5682	ppb	20:42:16
1	Fe 238.204 Radial†	156.5	29.6	1.9698	µg/L	1.9698	ppb	20:42:16
1	K 766.490 Radial†	1376.5	-198.2	-81.588	µg/L	-81.588	ppb	20:41:56
1	Mg 279.077 IEC†	160.5	-40.1	-16.536	µg/L	-16.536	ppb	20:42:16
1	Na 589.592 Radial†	1426.6	-392.2	-59.938	µg/L	-59.938	ppb	20:41:56
1	Sr 421.552†	-236.3	62.2	0.1458	µg/L	0.1458	ppb	20:41:56
1	Sc 361.383	1761363.3	1761363.3	105.30	%			20:43:04
1	Y 371.029	1082249.7	1082249.7	105.84	%			20:43:04
1	Ag 328.068†	2961.0	-154.9	-0.6438	µg/L	-0.6438	ppb	20:43:06
1	As 188.979†	-17.6	-2.5	-1.0426	µg/L	-1.0426	ppb	20:43:26
1	B 249.677†	3116.7	-395.7	-6.6440	µg/L	-6.6440	ppb	20:43:26
1	Ba 233.527†	-177.6	6.4	0.0281	µg/L	0.0281	ppb	20:43:26
1	Be 313.107†	-787.6	-87.9	-0.0270	µg/L	-0.0270	ppb	20:43:06
1	Cd 226.502†	-97.6	1.7	0.0116	µg/L	0.0116	ppb	20:43:26
1	Co 228.616†	-177.8	7.8	0.1062	µg/L	0.1062	ppb	20:43:26
1	Cr 267.716†	140.3	-27.0	-0.2369	µg/L	-0.2369	ppb	20:43:26
1	Cu 324.752†	2779.8	215.1	0.9395	µg/L	0.9395	ppb	20:43:06
1	Mn 257.610†	177.4	88.5	0.1216	µg/L	0.1216	ppb	20:43:26
1	Mo 202.031†	-33.7	23.2	0.7311	µg/L	0.7311	ppb	20:43:26
1	Ni 231.604†	-52.7	-9.1	-0.1163	µg/L	-0.1163	ppb	20:43:26
1	P 214.914†	64.5	-18.3	-4.4052	µg/L	-4.4052	ppb	20:43:26
1	Pb 220.353†	118.6	0.2	0.0090	µg/L	0.0090	ppb	20:43:26
1	S 181.975 Axial†	91.5	-7.9	-6.4221	µg/L	-6.4221	ppb	20:43:26
1	Sb 206.836†	85.6	-5.4	-0.7134	µg/L	-0.7134	ppb	20:43:26
1	Se 196.026†	17.8	6.0	2.38	µg/L	2.38	ppb	20:43:26
1	SiO2†	1758.9	97.6	10.643	µg/L	10.643	ppb	20:43:26
1	Si 251.611†	831.5	113.3	1.8631	µg/L	1.8631	ppb	20:43:26
1	Sn 189.927†	4.0	1.8	0.1284	µg/L	0.1284	ppb	20:43:26
1	Ti 334.940†	1053.8	364.4	0.3709	µg/L	0.3709	ppb	20:43:06
1	Tl 190.801†	-105.5	20.1	2.6847	µg/L	2.6847	ppb	20:43:26
1	U 409.014†	-413.2	86.7	5.2550	µg/L	5.2550	ppb	20:43:06
1	V 292.402†	111.6	-325.8	-1.7979	µg/L	-1.7979	ppb	20:43:06
1	Zn 213.857†	508.2	18.2	0.1146	µg/L	0.1146	ppb	20:43:26
2	Sc RADIAL	156186.9	156186.9	107	%			20:42:18
2	Al 396.153Radial†	-15.2	17.7	3.8291	µg/L	3.8291	ppb	20:42:38
2	Ca 317.933Radial†	693.6	31.0	1.8191	µg/L	1.8191	ppb	20:42:38
2	Fe 238.204 Radial†	162.9	38.7	2.5747	µg/L	2.5747	ppb	20:42:38
2	K 766.490 Radial†	1472.5	-80.8	-33.270	µg/L	-33.270	ppb	20:42:18
2	Mg 279.077 IEC†	190.1	-9.2	-3.7954	µg/L	-3.7954	ppb	20:42:38
2	Na 589.592 Radial†	1486.0	-308.0	-47.099	µg/L	-47.099	ppb	20:42:18
2	Sr 421.552†	-366.4	-64.0	-0.1499	µg/L	-0.1499	ppb	20:42:18
2	Sc 361.383	1768341.2	1768341.2	105.71	%			20:43:28
2	Y 371.029	1086167.8	1086167.8	106.22	%			20:43:28
2	Ag 328.068†	2860.7	-260.9	-1.0681	µg/L	-1.0681	ppb	20:43:30
2	As 188.979†	-12.8	2.1	0.8941	µg/L	0.8941	ppb	20:43:50
2	B 249.677†	3095.0	-428.0	-7.1869	µg/L	-7.1869	ppb	20:43:50
2	Ba 233.527†	-192.4	-6.9	-0.0315	µg/L	-0.0315	ppb	20:43:50
2	Be 313.107†	-460.5	224.5	0.0719	µg/L	0.0719	ppb	20:43:30
2	Cd 226.502†	-94.7	4.9	0.0334	µg/L	0.0334	ppb	20:43:50
2	Co 228.616†	-140.7	43.5	0.5958	µg/L	0.5958	ppb	20:43:50
2	Cr 267.716†	149.4	-18.9	-0.1596	µg/L	-0.1596	ppb	20:43:50
2	Cu 324.752†	2666.0	97.1	0.4194	µg/L	0.4194	ppb	20:43:30
2	Mn 257.610†	165.4	76.4	0.1046	µg/L	0.1046	ppb	20:43:50
2	Mo 202.031†	-30.4	26.4	0.8348	µg/L	0.8348	ppb	20:43:50
2	Ni 231.604†	-24.5	17.7	0.2263	µg/L	0.2263	ppb	20:43:50
2	P 214.914†	45.9	-36.2	-8.6751	µg/L	-8.6751	ppb	20:43:50
2	Pb 220.353†	89.4	-27.9	-1.6824	µg/L	-1.6824	ppb	20:43:50

2	S 181.975 Axial†	94.2	-5.7	-4.6425 µg/L	-4.6425 ppb	20:43:50
2	Sb 206.836†	72.8	-17.8	-2.3809 µg/L	-2.3809 ppb	20:43:50
2	Se 196.026†	8.4	-3.0	-1.17 µg/L	-1.17 ppb	20:43:50
2	SiO2†	1693.5	29.1	3.1523 µg/L	3.1523 ppb	20:43:50
2	Si 251.611†	804.4	84.5	1.3841 µg/L	1.3841 ppb	20:43:50
2	Sn 189.927†	8.2	5.7	0.4069 µg/L	0.4069 ppb	20:43:50
2	Ti 334.940†	839.4	157.7	0.1627 µg/L	0.1627 ppb	20:43:30
2	Tl 190.801†	-101.0	24.8	3.3258 µg/L	3.3258 ppb	20:43:50
2	U 409.014†	-571.5	-61.5	-3.8245 µg/L	-3.8245 ppb	20:43:30
2	V 292.402†	384.6	-68.0	-0.3725 µg/L	-0.3725 ppb	20:43:30
2	Zn 213.857†	520.5	28.0	0.1740 µg/L	0.1740 ppb	20:43:50
3	Sc RADIAL	157025.4	157025.4	108 %		20:42:40
3	Al 396.153Radial†	-41.8	-6.9	-1.5626 µg/L	-1.5626 ppb	20:43:00
3	Ca 317.933Radial†	735.1	66.2	3.8771 µg/L	3.8771 ppb	20:43:00
3	Fe 238.204 Radial†	156.0	31.5	2.0942 µg/L	2.0942 ppb	20:43:00
3	K 766.490 Radial†	1504.7	-58.3	-23.989 µg/L	-23.989 ppb	20:42:40
3	Mg 279.077 IEC†	175.7	-23.6	-9.6897 µg/L	-9.6897 ppb	20:43:00
3	Na 589.592 Radial†	1490.0	-311.7	-47.668 µg/L	-47.668 ppb	20:42:40
3	Sr 421.552†	-200.3	92.1	0.2158 µg/L	0.2158 ppb	20:42:40
3	Sc 361.383	1802169.8	1802169.8	107.74 %		20:43:52
3	Y 371.029	1105477.1	1105477.1	108.11 %		20:43:52
3	Ag 328.068†	2995.0	-187.1	-0.7466 µg/L	-0.7466 ppb	20:43:54
3	As 188.979†	-15.0	0.3	0.1424 µg/L	0.1424 ppb	20:44:15
3	B 249.677†	3108.4	-470.5	-7.8995 µg/L	-7.8995 ppb	20:44:15
3	Ba 233.527†	-173.6	13.9	0.0633 µg/L	0.0633 ppb	20:44:15
3	Be 313.107†	-686.3	23.1	0.0136 µg/L	0.0136 ppb	20:43:54
3	Cd 226.502†	-87.9	12.8	0.0881 µg/L	0.0881 ppb	20:44:15
3	Co 228.616†	-169.8	19.0	0.2599 µg/L	0.2599 ppb	20:44:15
3	Cr 267.716†	170.2	-2.2	-0.0351 µg/L	-0.0351 ppb	20:44:15
3	Cu 324.752†	2724.0	103.6	0.4670 µg/L	0.4670 ppb	20:43:54
3	Mn 257.610†	180.6	87.6	0.1201 µg/L	0.1201 ppb	20:44:15
3	Mo 202.031†	-18.7	37.8	1.1943 µg/L	1.1943 ppb	20:44:15
3	Ni 231.604†	-67.6	-21.8	-0.2790 µg/L	-0.2790 ppb	20:44:15
3	P 214.914†	48.5	-34.6	-8.3057 µg/L	-8.3057 ppb	20:44:15
3	Pb 220.353†	111.7	-8.7	-0.5419 µg/L	-0.5419 ppb	20:44:15
3	S 181.975 Axial†	82.0	-18.7	-15.128 µg/L	-15.128 ppb	20:44:15
3	Sb 206.836†	86.7	-6.1	-0.8115 µg/L	-0.8115 ppb	20:44:15
3	Se 196.026†	20.9	8.5	3.37 µg/L	3.37 ppb	20:44:15
3	SiO2†	1699.8	4.9	0.5106 µg/L	0.5106 ppb	20:44:15
3	Si 251.611†	817.9	82.8	1.3569 µg/L	1.3569 ppb	20:44:15
3	Sn 189.927†	-7.0	-8.5	-0.6027 µg/L	-0.6027 ppb	20:44:15
3	Ti 334.940†	578.4	-99.5	-0.1088 µg/L	-0.1088 ppb	20:43:54
3	Tl 190.801†	-115.5	13.1	1.7476 µg/L	1.7476 ppb	20:44:15
3	U 409.014†	-166.7	324.4	19.989 µg/L	19.989 ppb	20:43:54
3	V 292.402†	270.2	-181.0	-0.9785 µg/L	-0.9785 ppb	20:43:54
3	Zn 213.857†	519.3	17.6	0.1119 µg/L	0.1119 ppb	20:44:15

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1777291.5	106.25	%	1.305				1.23%
Sc RADIAL	157618.2	108	%	1.2				1.14%
Y 371.029	1091298.2	106.72	%	1.216				1.14%
Ag 328.068†	-201.0	-0.8195	µg/L	0.22133	-0.8195	ppb	0.22133	27.01%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	4.5	0.9472	µg/L	2.71501	0.9472	ppb	2.71501	286.62%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-0.0	-0.0020	µg/L	0.97639	-0.0020	ppb	0.97639	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-431.4	-7.2435	µg/L	0.62967	-7.2435	ppb	0.62967	8.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	4.5	0.0200	µg/L	0.04797	0.0200	ppb	0.04797	240.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	53.2	0.0195	µg/L	0.04972	0.0195	ppb	0.04972	254.94%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	47.0	2.7548	µg/L	1.04159	2.7548	ppb	1.04159	37.81%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	6.5	0.0444	µg/L	0.03942	0.0444	ppb	0.03942	88.81%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	23.4	0.3206	µg/L	0.25038	0.3206	ppb	0.25038	78.09%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -16.1     -0.1439 µg/L       0.10181     -0.1439 ppb        0.10181  70.75%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              138.6      0.6086 µg/L       0.28751      0.6086 ppb        0.28751  47.24%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        33.3      2.2129 µg/L       0.31946      2.2129 ppb        0.31946  14.44%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -112.4     -46.282 µg/L       30.9255     -46.282 ppb        30.9255  66.82%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -24.3     -10.007 µg/L        6.3764     -10.007 ppb         6.3764  63.72%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               84.2      0.1154 µg/L       0.00942      0.1154 ppb        0.00942   8.16%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               29.2      0.9200 µg/L       0.24309      0.9200 ppb        0.24309  26.42%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -337.3     -51.568 µg/L        7.2542     -51.568 ppb         7.2542  14.07%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -4.4     -0.0563 µg/L       0.25791     -0.0563 ppb        0.25791 457.85%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -29.7     -7.1287 µg/L       2.36584     -7.1287 ppb        2.36584  33.19%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -12.1     -0.7384 µg/L       0.86263     -0.7384 ppb        0.86263 116.82%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -10.8     -8.7308 µg/L       5.61093     -8.7308 ppb        5.61093  64.27%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†               -9.7     -1.3019 µg/L       0.93572     -1.3019 ppb        0.93572  71.87%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                3.8        1.53 µg/L         2.391        1.53 ppb          2.391 156.61%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     43.9      4.7687 µg/L       5.25620      4.7687 ppb        5.25620 110.22%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               93.5      1.5347 µg/L       0.28470      1.5347 ppb        0.28470  18.55%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               -0.3     -0.0225 µg/L       0.52147     -0.0225 ppb        0.52147 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               30.1      0.0706 µg/L       0.19411      0.0706 ppb        0.19411 275.10%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              140.8      0.1416 µg/L       0.24052      0.1416 ppb        0.24052 169.85%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               19.3      2.5860 µg/L       0.79369      2.5860 ppb        0.79369  30.69%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†               116.5      7.1397 µg/L      12.01791      7.1397 ppb       12.01791 168.33%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -191.6     -1.0496 µg/L       0.71539     -1.0496 ppb        0.71539  68.16%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               21.3      0.1335 µg/L       0.03514      0.1335 ppb        0.03514  26.32%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 46
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/29/2010 21:03:21
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	154851.7	154851.7	106	%			21:03:53
1	Al 396.153Radial†	25485.8	24020.4	5220.8	µg/L	5220.8	ppb	21:03:53
1	Ca 317.933Radial†	90010.8	84106.5	4928.3	µg/L	4928.3	ppb	21:03:53
1	Fe 238.204 Radial†	78533.5	73806.4	4906.9	µg/L	4906.9	ppb	21:03:53
1	K 766.490 Radial†	13939.7	11665.7	4798.5	µg/L	4798.5	ppb	21:03:53
1	Mg 279.077 IEC†	13229.3	12265.4	5064.8	µg/L	5064.8	ppb	21:03:53
1	Na 589.592 Radial†	69846.3	64048.1	9795.9	µg/L	9795.9	ppb	21:03:53
1	Sr 421.552†	228674.2	215517.6	505.08	µg/L	505.08	ppb	21:03:51
1	Sc 361.383	1713248.9	1713248.9	102.42	%			21:04:06
1	Y 371.029	1039105.6	1039105.6	101.62	%			21:04:06
1	Ag 328.068†	126578.4	120621.1	495.66	µg/L	495.66	ppb	21:04:06
1	As 188.979†	1286.8	1270.6	538.07	µg/L	538.07	ppb	21:04:26
1	B 249.677†	32552.7	28428.0	475.59	µg/L	475.59	ppb	21:04:06
1	Ba 233.527†	111768.2	109302.8	499.73	µg/L	499.73	ppb	21:04:06
1	Be 313.107†	1595894.5	1558852.6	507.57	µg/L	507.57	ppb	21:04:06
1	Cd 226.502†	71067.7	69483.2	479.52	µg/L	479.52	ppb	21:04:06
1	Co 228.616†	36010.7	35336.6	484.13	µg/L	484.13	ppb	21:04:06
1	Cr 267.716†	58430.3	56889.7	488.51	µg/L	488.51	ppb	21:04:06
1	Cu 324.752†	118439.2	113216.3	493.68	µg/L	493.68	ppb	21:04:06
1	Mn 257.610†	368025.4	359251.0	490.68	µg/L	490.68	ppb	21:04:06
1	Mo 202.031†	15706.6	15390.8	486.28	µg/L	486.28	ppb	21:04:26
1	Ni 231.604†	38854.0	37977.0	485.77	µg/L	485.77	ppb	21:04:06
1	P 214.914†	10314.2	9990.9	2384.3	µg/L	2384.3	ppb	21:04:26
1	Pb 220.353†	8262.0	7954.4	483.41	µg/L	483.41	ppb	21:04:26
1	S 181.975 Axial†	1274.3	1149.4	935.31	µg/L	935.31	ppb	21:04:26
1	Sb 206.836†	3786.5	3610.4	488.11	µg/L	488.11	ppb	21:04:26
1	Se 196.026†	1247.6	1207.2	480	µg/L	480	ppb	21:04:26
1	SiO2†	50572.1	47804.5	5204.1	µg/L	5204.1	ppb	21:04:06
1	Si 251.611†	152175.1	147903.7	2435.8	µg/L	2435.8	ppb	21:04:06
1	Sn 189.927†	7069.4	6900.4	492.22	µg/L	492.22	ppb	21:04:26
1	Ti 334.940†	495105.0	482772.1	491.64	µg/L	491.64	ppb	21:04:06
1	Tl 190.801†	3560.4	3596.6	490.17	µg/L	490.17	ppb	21:04:26
1	U 409.014†	7150.7	7460.8	491.07	µg/L	491.07	ppb	21:04:06
1	V 292.402†	91336.8	88747.2	498.49	µg/L	498.49	ppb	21:04:06
1	Zn 213.857†	78849.4	76522.2	477.86	µg/L	477.86	ppb	21:04:06
2	Sc RADIAL	153431.3	153431.3	105	%			21:03:57
2	Al 396.153Radial†	25174.7	23947.0	5204.9	µg/L	5204.9	ppb	21:03:57
2	Ca 317.933Radial†	89019.4	83949.0	4919.1	µg/L	4919.1	ppb	21:03:57
2	Fe 238.204 Radial†	77673.0	73673.3	4898.1	µg/L	4898.1	ppb	21:03:57
2	K 766.490 Radial†	13736.1	11593.9	4768.9	µg/L	4768.9	ppb	21:03:57
2	Mg 279.077 IEC†	13051.1	12211.4	5042.5	µg/L	5042.5	ppb	21:03:57
2	Na 589.592 Radial†	69569.0	64393.3	9848.8	µg/L	9848.8	ppb	21:03:57
2	Sr 421.552†	230380.7	219131.5	513.55	µg/L	513.55	ppb	21:03:55
2	Sc 361.383	1723240.0	1723240.0	103.02	%			21:04:29
2	Y 371.029	1044358.9	1044358.9	102.13	%			21:04:29
2	Ag 328.068†	127680.9	120974.7	497.13	µg/L	497.13	ppb	21:04:29
2	As 188.979†	1279.6	1256.3	532.10	µg/L	532.10	ppb	21:04:49
2	B 249.677†	32914.0	28594.4	478.37	µg/L	478.37	ppb	21:04:29
2	Ba 233.527†	112872.1	109741.6	501.74	µg/L	501.74	ppb	21:04:29
2	Be 313.107†	1612082.1	1565532.0	509.75	µg/L	509.75	ppb	21:04:29
2	Cd 226.502†	71525.6	69525.3	479.81	µg/L	479.81	ppb	21:04:29
2	Co 228.616†	36504.1	35611.7	487.90	µg/L	487.90	ppb	21:04:29
2	Cr 267.716†	58865.9	56981.8	489.29	µg/L	489.29	ppb	21:04:29
2	Cu 324.752†	119296.1	113377.7	494.39	µg/L	494.39	ppb	21:04:29
2	Mn 257.610†	370507.0	359576.6	491.13	µg/L	491.13	ppb	21:04:29
2	Mo 202.031†	15700.9	15296.3	483.30	µg/L	483.30	ppb	21:04:49
2	Ni 231.604†	39299.1	38189.1	488.48	µg/L	488.48	ppb	21:04:29
2	P 214.914†	10271.7	9891.3	2360.4	µg/L	2360.4	ppb	21:04:49
2	Pb 220.353†	8221.9	7868.7	478.21	µg/L	478.21	ppb	21:04:49

2	S 181.975 Axial†	1283.0	1150.6	936.30 µg/L	936.30 ppb	21:04:49
2	Sb 206.836†	3813.2	3614.9	488.65 µg/L	488.65 ppb	21:04:49
2	Se 196.026†	1244.9	1197.5	476 µg/L	476 ppb	21:04:49
2	SiO2†	51026.3	47959.1	5221.2 µg/L	5221.2 ppb	21:04:29
2	Si 251.611†	153367.0	148199.2	2440.8 µg/L	2440.8 ppb	21:04:29
2	Sn 189.927†	7028.6	6820.7	486.55 µg/L	486.55 ppb	21:04:49
2	Ti 334.940†	498901.8	483655.0	492.54 µg/L	492.54 ppb	21:04:29
2	Tl 190.801†	3590.9	3606.0	491.45 µg/L	491.45 ppb	21:04:49
2	U 409.014†	7310.8	7575.8	498.29 µg/L	498.29 ppb	21:04:29
2	V 292.402†	92221.6	89089.0	500.36 µg/L	500.36 ppb	21:04:29
2	Zn 213.857†	79595.3	76799.9	479.59 µg/L	479.59 ppb	21:04:29
3	Sc RADIAL	153860.9	153860.9	106 %		21:04:01
3	Al 396.153Radial†	25294.4	23993.6	5215.1 µg/L	5215.1 ppb	21:04:01
3	Ca 317.933Radial†	89754.2	84409.0	4946.0 µg/L	4946.0 ppb	21:04:01
3	Fe 238.204 Radial†	78247.7	74011.6	4920.6 µg/L	4920.6 ppb	21:04:01
3	K 766.490 Radial†	13894.4	11707.3	4815.6 µg/L	4815.6 ppb	21:04:01
3	Mg 279.077 IEC†	13234.5	12350.5	5099.8 µg/L	5099.8 ppb	21:04:01
3	Na 589.592 Radial†	69626.7	64263.4	9828.8 µg/L	9828.8 ppb	21:04:01
3	Sr 421.552†	228028.2	216291.8	506.89 µg/L	506.89 ppb	21:03:59
3	Sc 361.383	1732745.4	1732745.4	103.59 %		21:04:52
3	Y 371.029	1050125.7	1050125.7	102.69 %		21:04:52
3	Ag 328.068†	127692.6	120306.0	494.38 µg/L	494.38 ppb	21:04:52
3	As 188.979†	1285.3	1255.0	531.54 µg/L	531.54 ppb	21:05:12
3	B 249.677†	33066.4	28566.3	477.91 µg/L	477.91 ppb	21:04:52
3	Ba 233.527†	113084.6	109345.8	499.93 µg/L	499.93 ppb	21:04:52
3	Be 313.107†	1614930.2	1559697.0	507.85 µg/L	507.85 ppb	21:04:52
3	Cd 226.502†	71595.2	69211.7	477.64 µg/L	477.64 ppb	21:04:52
3	Co 228.616†	36541.6	35453.5	485.73 µg/L	485.73 ppb	21:04:52
3	Cr 267.716†	58957.8	56757.0	487.36 µg/L	487.36 ppb	21:04:52
3	Cu 324.752†	119675.9	113109.0	493.23 µg/L	493.23 ppb	21:04:52
3	Mn 257.610†	371477.0	358540.1	489.71 µg/L	489.71 ppb	21:04:52
3	Mo 202.031†	15758.3	15268.1	482.41 µg/L	482.41 ppb	21:05:12
3	Ni 231.604†	39365.4	38043.9	486.63 µg/L	486.63 ppb	21:04:52
3	P 214.914†	10350.1	9912.3	2365.5 µg/L	2365.5 ppb	21:05:12
3	Pb 220.353†	8278.4	7879.4	478.85 µg/L	478.85 ppb	21:05:12
3	S 181.975 Axial†	1296.2	1156.5	941.02 µg/L	941.02 ppb	21:05:12
3	Sb 206.836†	3820.2	3601.3	486.84 µg/L	486.84 ppb	21:05:12
3	Se 196.026†	1245.9	1191.9	474 µg/L	474 ppb	21:05:12
3	SiO2†	51139.5	47796.6	5203.5 µg/L	5203.5 ppb	21:04:52
3	Si 251.611†	153580.9	147589.1	2430.7 µg/L	2430.7 ppb	21:04:52
3	Sn 189.927†	7084.4	6837.2	487.72 µg/L	487.72 ppb	21:05:12
3	Ti 334.940†	499459.5	481536.7	490.37 µg/L	490.37 ppb	21:04:52
3	Tl 190.801†	3572.9	3569.5	486.51 µg/L	486.51 ppb	21:05:12
3	U 409.014†	7416.3	7638.8	501.99 µg/L	501.99 ppb	21:04:52
3	V 292.402†	92167.5	88545.7	497.33 µg/L	497.33 ppb	21:04:52
3	Zn 213.857†	79634.5	76413.9	477.17 µg/L	477.17 ppb	21:04:52

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1723078.1	103.01	%	0.583				0.57%
Sc RADIAL	154048.0	106	%	0.5				0.47%
Y 371.029	1044530.0	102.15	%	0.539				0.53%
Ag 328.068†	120633.9	495.73	µg/L	1.374	495.73	ppb	1.374	0.28%
QC value within limits for Ag 328.068 Recovery = 99.15%								
Al 396.153Radial†	23987.0	5213.6	µg/L	8.05	5213.6	ppb	8.05	0.15%
QC value within limits for Al 396.153Radial Recovery = 104.27%								
As 188.979†	1260.7	533.90	µg/L	3.620	533.90	ppb	3.620	0.68%
QC value within limits for As 188.979 Recovery = 106.78%								
B 249.677†	28529.6	477.29	µg/L	1.490	477.29	ppb	1.490	0.31%
QC value within limits for B 249.677 Recovery = 95.46%								
Ba 233.527†	109463.4	500.47	µg/L	1.106	500.47	ppb	1.106	0.22%
QC value within limits for Ba 233.527 Recovery = 100.09%								
Be 313.107†	1561360.5	508.39	µg/L	1.184	508.39	ppb	1.184	0.23%
QC value within limits for Be 313.107 Recovery = 101.68%								
Ca 317.933Radial†	84154.8	4931.1	µg/L	13.70	4931.1	ppb	13.70	0.28%
QC value within limits for Ca 317.933Radial Recovery = 98.62%								
Cd 226.502†	69406.7	478.99	µg/L	1.177	478.99	ppb	1.177	0.25%
QC value within limits for Cd 226.502 Recovery = 95.80%								
Co 228.616†	35467.2	485.92	µg/L	1.892	485.92	ppb	1.892	0.39%

```
   QC value within limits for Co 228.616  Recovery = 97.18%
Cr 267.716†            56876.2      488.38 µg/L         0.973      488.38 ppb          0.973   0.20%
   QC value within limits for Cr 267.716  Recovery = 97.68%
Cu 324.752†           113234.3      493.76 µg/L         0.585      493.76 ppb          0.585   0.12%
   QC value within limits for Cu 324.752  Recovery = 98.75%
Fe 238.204 Radial†     73830.5      4908.5 µg/L         11.33      4908.5 ppb          11.33   0.23%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.17%
K 766.490 Radial†      11655.6      4794.3 µg/L         23.63      4794.3 ppb          23.63   0.49%
   QC value within limits for K 766.490 Radial  Recovery = 95.89%
Mg 279.077 IEC†        12275.8      5069.1 µg/L         28.89      5069.1 ppb          28.89   0.57%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.38%
Mn 257.610†           359122.6      490.51 µg/L         0.726      490.51 ppb          0.726   0.15%
   QC value within limits for Mn 257.610  Recovery = 98.10%
Mo 202.031†            15318.4      483.99 µg/L         2.029      483.99 ppb          2.029   0.42%
   QC value within limits for Mo 202.031  Recovery = 96.80%
Na 589.592 Radial†     64235.0      9824.5 µg/L         26.69      9824.5 ppb          26.69   0.27%
   QC value within limits for Na 589.592 Radial  Recovery = 98.25%
Ni 231.604†            38070.0      486.96 µg/L         1.387      486.96 ppb          1.387   0.28%
   QC value within limits for Ni 231.604  Recovery = 97.39%
P 214.914†              9931.5      2370.0 µg/L         12.59      2370.0 ppb          12.59   0.53%
   QC value within limits for P 214.914  Recovery = 94.80%
Pb 220.353†             7900.8      480.16 µg/L         2.839      480.16 ppb          2.839   0.59%
   QC value within limits for Pb 220.353  Recovery = 96.03%
S 181.975 Axial†        1152.2      937.54 µg/L         3.050      937.54 ppb          3.050   0.33%
   QC value within limits for S 181.975 Axial  Recovery = 93.75%
Sb 206.836†             3608.9      487.87 µg/L         0.930      487.87 ppb          0.930   0.19%
   QC value within limits for Sb 206.836  Recovery = 97.57%
Se 196.026†             1198.9         476 µg/L           3.1         476 ppb            3.1   0.64%
   QC value within limits for Se 196.026  Recovery = 95.27%
SiO2†                  47853.4      5209.6 µg/L         10.06      5209.6 ppb          10.06   0.19%
   QC value within limits for SiO2  Recovery = 97.42%
Si 251.611†           147897.3      2435.8 µg/L          5.04      2435.8 ppb           5.04   0.21%
   QC value within limits for Si 251.611  Recovery = 97.43%
Sn 189.927†             6852.8      488.83 µg/L         2.990      488.83 ppb          2.990   0.61%
   QC value within limits for Sn 189.927  Recovery = 97.77%
Sr 421.552†           216980.3      508.51 µg/L         4.460      508.51 ppb          4.460   0.88%
   QC value within limits for Sr 421.552  Recovery = 101.70%
Ti 334.940†           482654.6      491.52 µg/L         1.088      491.52 ppb          1.088   0.22%
   QC value within limits for Ti 334.940  Recovery = 98.30%
Tl 190.801†             3590.7      489.37 µg/L         2.564      489.37 ppb          2.564   0.52%
   QC value within limits for Tl 190.801  Recovery = 97.87%
U 409.014†              7558.5      497.12 µg/L         5.554      497.12 ppb          5.554   1.12%
   QC value within limits for U 409.014  Recovery = 99.42%
V 292.402†             88794.0      498.73 µg/L         1.529      498.73 ppb          1.529   0.31%
   QC value within limits for V 292.402  Recovery = 99.75%
Zn 213.857†            76578.7      478.21 µg/L         1.247      478.21 ppb          1.247   0.26%
   QC value within limits for Zn 213.857  Recovery = 95.64%
All analyte(s) passed QC.
```

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/29/2010 21:05:20**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	154996.4	154996.4	106	%			21:05:49
1	Al 396.153Radial†	-63.3	-27.7	-6.1097	µg/L	-6.1097	ppb	21:06:09
1	Ca 317.933Radial†	693.4	35.9	2.1034	µg/L	2.1034	ppb	21:06:09
1	Fe 238.204 Radial†	151.1	28.8	1.9138	µg/L	1.9138	ppb	21:06:09
1	K 766.490 Radial†	1597.5	47.3	19.463	µg/L	19.463	ppb	21:05:49
1	Mg 279.077 IEC†	208.9	9.8	4.0702	µg/L	4.0702	ppb	21:06:09
1	Na 589.592 Radial†	1678.5	-116.3	-17.818	µg/L	-17.818	ppb	21:05:49
1	Sr 421.552†	-227.7	63.9	0.1497	µg/L	0.1497	ppb	21:05:49
1	Sc 361.383	1725992.9	1725992.9	103.18	%			21:06:57
1	Y 371.029	1059747.2	1059747.2	103.63	%			21:06:57
1	Ag 328.068†	3051.7	-9.4	-0.0382	µg/L	-0.0382	ppb	21:06:59
1	As 188.979†	-12.6	2.0	0.8526	µg/L	0.8526	ppb	21:07:19
1	B 249.677†	3056.4	-393.5	-6.6077	µg/L	-6.6077	ppb	21:07:19
1	Ba 233.527†	-168.8	11.5	0.0524	µg/L	0.0524	ppb	21:07:19
1	Be 313.107†	-508.1	167.7	0.0571	µg/L	0.0571	ppb	21:06:59
1	Cd 226.502†	-60.4	35.9	0.2479	µg/L	0.2479	ppb	21:07:19
1	Co 228.616†	-169.8	12.0	0.1644	µg/L	0.1644	ppb	21:07:19
1	Cr 267.716†	146.1	-18.7	-0.1673	µg/L	-0.1673	ppb	21:07:19
1	Cu 324.752†	2666.8	159.7	0.7014	µg/L	0.7014	ppb	21:06:59
1	Mn 257.610†	177.8	92.3	0.1259	µg/L	0.1259	ppb	21:07:19
1	Mo 202.031†	-5.1	50.3	1.5872	µg/L	1.5872	ppb	21:07:19
1	Ni 231.604†	-16.9	24.5	0.3133	µg/L	0.3133	ppb	21:07:19
1	P 214.914†	22.6	-57.6	-13.826	µg/L	-13.826	ppb	21:07:19
1	Pb 220.353†	90.0	-25.2	-1.5281	µg/L	-1.5281	ppb	21:07:19
1	S 181.975 Axial†	71.1	-25.9	-21.007	µg/L	-21.007	ppb	21:07:19
1	Sb 206.836†	85.9	-3.3	-0.4268	µg/L	-0.4268	ppb	21:07:19
1	Se 196.026†	19.1	7.6	3.00	µg/L	3.00	ppb	21:07:19
1	SiO2†	1671.8	47.4	5.1244	µg/L	5.1244	ppb	21:07:19
1	Si 251.611†	772.8	72.6	1.1761	µg/L	1.1761	ppb	21:07:19
1	Sn 189.927†	9.7	7.4	0.5233	µg/L	0.5233	ppb	21:07:19
1	Ti 334.940†	780.1	119.7	0.1184	µg/L	0.1184	ppb	21:06:59
1	Tl 190.801†	-117.8	6.2	0.8248	µg/L	0.8248	ppb	21:07:19
1	U 409.014†	-356.1	134.0	8.2316	µg/L	8.2316	ppb	21:06:59
1	V 292.402†	287.8	-152.9	-0.8274	µg/L	-0.8274	ppb	21:06:59
1	Zn 213.857†	507.5	27.4	0.1698	µg/L	0.1698	ppb	21:07:19
2	Sc RADIAL	152412.0	152412.0	105	%			21:06:11
2	Al 396.153Radial†	-24.5	8.4	1.8014	µg/L	1.8014	ppb	21:06:31
2	Ca 317.933Radial†	694.0	47.5	2.7825	µg/L	2.7825	ppb	21:06:31
2	Fe 238.204 Radial†	146.8	27.1	1.7992	µg/L	1.7992	ppb	21:06:31
2	K 766.490 Radial†	1385.9	-129.6	-53.361	µg/L	-53.361	ppb	21:06:11
2	Mg 279.077 IEC†	168.1	-25.9	-10.680	µg/L	-10.680	ppb	21:06:31
2	Na 589.592 Radial†	1601.9	-162.8	-24.860	µg/L	-24.860	ppb	21:06:11
2	Sr 421.552†	-193.2	93.2	0.2184	µg/L	0.2184	ppb	21:06:11
2	Sc 361.383	1730228.9	1730228.9	103.43	%			21:07:21
2	Y 371.029	1062056.7	1062056.7	103.86	%			21:07:21
2	Ag 328.068†	3294.6	218.2	0.8697	µg/L	0.8697	ppb	21:07:23
2	As 188.979†	-7.8	6.7	2.7923	µg/L	2.7923	ppb	21:07:43
2	B 249.677†	3121.5	-337.9	-5.6726	µg/L	-5.6726	ppb	21:07:43
2	Ba 233.527†	-196.4	-14.9	-0.0686	µg/L	-0.0686	ppb	21:07:43
2	Be 313.107†	-630.3	50.7	0.0170	µg/L	0.0170	ppb	21:07:23
2	Cd 226.502†	-85.2	12.1	0.0830	µg/L	0.0830	ppb	21:07:43
2	Co 228.616†	-178.5	4.0	0.0551	µg/L	0.0551	ppb	21:07:43
2	Cr 267.716†	146.8	-18.3	-0.1593	µg/L	-0.1593	ppb	21:07:43
2	Cu 324.752†	2640.7	128.1	0.5583	µg/L	0.5583	ppb	21:07:23
2	Mn 257.610†	136.5	52.0	0.0714	µg/L	0.0714	ppb	21:07:43
2	Mo 202.031†	-31.2	25.1	0.7914	µg/L	0.7914	ppb	21:07:43
2	Ni 231.604†	-64.5	-21.4	-0.2741	µg/L	-0.2741	ppb	21:07:43
2	P 214.914†	43.5	-37.5	-8.9955	µg/L	-8.9955	ppb	21:07:43
2	Pb 220.353†	100.4	-15.4	-0.9295	µg/L	-0.9295	ppb	21:07:43

2	S 181.975 Axial†	84.3	-13.3	-10.766 µg/L	-10.766 ppb	21:07:43
2	Sb 206.836†	56.9	-31.6	-4.2573 µg/L	-4.2573 ppb	21:07:43
2	Se 196.026†	21.3	9.7	3.82 µg/L	3.82 ppb	21:07:43
2	SiO2†	1625.1	-1.7	-0.2117 µg/L	-0.2117 ppb	21:07:43
2	Si 251.611†	795.8	92.9	1.5262 µg/L	1.5262 ppb	21:07:43
2	Sn 189.927†	2.5	0.4	0.0269 µg/L	0.0269 ppb	21:07:43
2	Ti 334.940†	1026.5	356.1	0.3635 µg/L	0.3635 ppb	21:07:23
2	Tl 190.801†	-125.8	-1.3	-0.1808 µg/L	-0.1808 ppb	21:07:43
2	U 409.014†	-469.0	25.7	1.5015 µg/L	1.5015 ppb	21:07:23
2	V 292.402†	173.5	-264.1	-1.4569 µg/L	-1.4569 ppb	21:07:23
2	Zn 213.857†	498.1	17.1	0.1092 µg/L	0.1092 ppb	21:07:43
3	Sc RADIAL	153579.1	153579.1	105 %		21:06:33
3	Al 396.153Radial†	-58.8	-23.9	-5.2607 µg/L	-5.2607 ppb	21:06:53
3	Ca 317.933Radial†	673.1	22.6	1.3237 µg/L	1.3237 ppb	21:06:53
3	Fe 238.204 Radial†	131.8	11.8	0.7823 µg/L	0.7823 ppb	21:06:53
3	K 766.490 Radial†	1453.7	-75.3	-31.005 µg/L	-31.005 ppb	21:06:33
3	Mg 279.077 IEC†	180.2	-15.7	-6.4370 µg/L	-6.4370 ppb	21:06:53
3	Na 589.592 Radial†	1585.7	-189.9	-29.024 µg/L	-29.024 ppb	21:06:33
3	Sr 421.552†	-259.8	31.4	0.0737 µg/L	0.0737 ppb	21:06:33
3	Sc 361.383	1727714.6	1727714.6	103.28 %		21:07:45
3	Y 371.029	1060914.8	1060914.8	103.75 %		21:07:45
3	Ag 328.068†	3064.7	0.2	-0.0004 µg/L	-0.0004 ppb	21:07:47
3	As 188.979†	-17.3	-2.5	-1.0488 µg/L	-1.0488 ppb	21:08:08
3	B 249.677†	3076.5	-377.0	-6.3309 µg/L	-6.3309 ppb	21:08:08
3	Ba 233.527†	-187.7	-6.7	-0.0307 µg/L	-0.0307 ppb	21:08:08
3	Be 313.107†	-530.7	146.3	0.0497 µg/L	0.0497 ppb	21:07:47
3	Cd 226.502†	-118.4	-20.2	-0.1396 µg/L	-0.1396 ppb	21:08:08
3	Co 228.616†	-159.8	21.9	0.3001 µg/L	0.3001 ppb	21:08:08
3	Cr 267.716†	166.1	0.6	-0.0009 µg/L	-0.0009 ppb	21:08:08
3	Cu 324.752†	2799.8	285.9	1.2487 µg/L	1.2487 ppb	21:07:47
3	Mn 257.610†	156.9	71.9	0.0985 µg/L	0.0985 ppb	21:08:08
3	Mo 202.031†	-29.4	26.7	0.8435 µg/L	0.8435 ppb	21:08:08
3	Ni 231.604†	-49.4	-6.9	-0.0885 µg/L	-0.0885 ppb	21:08:08
3	P 214.914†	34.7	-45.9	-11.027 µg/L	-11.027 ppb	21:08:08
3	Pb 220.353†	99.2	-16.4	-0.9975 µg/L	-0.9975 ppb	21:08:08
3	S 181.975 Axial†	91.1	-6.6	-5.3466 µg/L	-5.3466 ppb	21:08:08
3	Sb 206.836†	84.8	-4.6	-0.6054 µg/L	-0.6054 ppb	21:08:08
3	Se 196.026†	15.6	4.2	1.65 µg/L	1.65 ppb	21:08:08
3	SiO2†	1696.3	69.5	7.5803 µg/L	7.5803 ppb	21:08:08
3	Si 251.611†	783.8	82.5	1.3544 µg/L	1.3544 ppb	21:08:08
3	Sn 189.927†	-1.7	-3.7	-0.2629 µg/L	-0.2629 ppb	21:08:08
3	Ti 334.940†	938.9	272.7	0.2758 µg/L	0.2758 ppb	21:07:47
3	Tl 190.801†	-117.7	6.3	0.8448 µg/L	0.8448 ppb	21:08:08
3	U 409.014†	-379.0	112.2	6.8863 µg/L	6.8863 ppb	21:07:47
3	V 292.402†	296.9	-144.3	-0.7876 µg/L	-0.7876 ppb	21:07:47
3	Zn 213.857†	483.2	3.5	0.0213 µg/L	0.0213 ppb	21:08:08

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1727978.8	103.30	%	0.127				0.12%
Sc RADIAL	153662.5	105	%	0.9				0.84%
Y 371.029	1060906.2	103.75	%	0.113				0.11%
Ag 328.068†	69.6	0.2771	µg/L	0.51363	0.2771	ppb	0.51363	185.39%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-14.4	-3.1897	µg/L	4.34321	-3.1897	ppb	4.34321	136.17%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	2.1	0.8654	µg/L	1.92055	0.8654	ppb	1.92055	221.93%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-369.5	-6.2037	µg/L	0.48034	-6.2037	ppb	0.48034	7.74%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.3	-0.0156	µg/L	0.06185	-0.0156	ppb	0.06185	395.65%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	121.6	0.0413	µg/L	0.02134	0.0413	ppb	0.02134	51.70%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	35.3	2.0699	µg/L	0.72997	2.0699	ppb	0.72997	35.27%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	9.3	0.0638	µg/L	0.19446	0.0638	ppb	0.19446	304.95%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	12.7	0.1732	µg/L	0.12276	0.1732	ppb	0.12276	70.87%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -12.2     -0.1092 µg/L       0.09382     -0.1092 ppb        0.09382  85.93%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†              191.2      0.8362 µg/L       0.36438      0.8362 ppb        0.36438  43.58%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†        22.5      1.4984 µg/L       0.62279      1.4984 ppb        0.62279  41.56%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        -52.6     -21.634 µg/L       37.3056     -21.634 ppb        37.3056 172.44%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†          -10.6     -4.3490 µg/L       7.59366     -4.3490 ppb        7.59366 174.61%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†               72.1      0.0986 µg/L       0.02726      0.0986 ppb        0.02726  27.63%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†               34.0      1.0741 µg/L       0.44518      1.0741 ppb        0.44518  41.45%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -156.3     -23.901 µg/L        5.6641     -23.901 ppb         5.6641  23.70%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†               -1.3     -0.0164 µg/L       0.30026     -0.0164 ppb        0.30026 >999.9%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†               -47.0     -11.283 µg/L        2.4255     -11.283 ppb         2.4255  21.50%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†              -19.0     -1.1517 µg/L       0.32775     -1.1517 ppb        0.32775  28.46%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -15.3     -12.373 µg/L        7.9530     -12.373 ppb         7.9530  64.28%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -13.2     -1.7632 µg/L       2.16182     -1.7632 ppb        2.16182 122.61%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†                7.1        2.83 µg/L         1.094        2.83 ppb          1.094  38.72%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                     38.4      4.1643 µg/L       3.98373      4.1643 ppb        3.98373  95.66%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†               82.7      1.3522 µg/L       0.17505      1.3522 ppb        0.17505  12.95%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†                1.3      0.0958 µg/L       0.39756      0.0958 ppb        0.39756 415.11%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†               62.8      0.1473 µg/L       0.07240      0.1473 ppb        0.07240  49.16%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              249.5      0.2525 µg/L       0.12417      0.2525 ppb        0.12417  49.17%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†                3.7      0.4963 µg/L       0.58643      0.4963 ppb        0.58643 118.16%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†                90.6      5.5398 µg/L       3.56137      5.5398 ppb        3.56137  64.29%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -187.1     -1.0240 µg/L       0.37548     -1.0240 ppb        0.37548  36.67%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†               16.0      0.1001 µg/L       0.07465      0.1001 ppb        0.07465  74.57%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 55
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 3/29/2010 21:21:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	154714.0	154714.0	106	%			21:21:59
1	Al 396.153Radial†	25548.1	24100.5	5238.5	µg/L	5238.5	ppb	21:21:59
1	Ca 317.933Radial†	89497.2	83698.1	4904.3	µg/L	4904.3	ppb	21:21:59
1	Fe 238.204 Radial†	78346.3	73695.8	4899.6	µg/L	4899.6	ppb	21:21:59
1	K 766.490 Radial†	13948.1	11685.3	4806.5	µg/L	4806.5	ppb	21:21:59
1	Mg 279.077 IEC†	13187.8	12237.4	5053.2	µg/L	5053.2	ppb	21:21:59
1	Na 589.592 Radial†	69758.3	64023.7	9792.2	µg/L	9792.2	ppb	21:21:59
1	Sr 421.552†	228178.1	215241.9	504.43	µg/L	504.43	ppb	21:21:57
1	Sc 361.383	1735452.7	1735452.7	103.75	%			21:22:12
1	Y 371.029	1050791.1	1050791.1	102.76	%			21:22:12
1	Ag 328.068†	128429.5	120824.1	496.54	µg/L	496.54	ppb	21:22:12
1	As 188.979†	1304.3	1271.4	538.44	µg/L	538.44	ppb	21:22:32
1	B 249.677†	33357.7	28797.2	481.77	µg/L	481.77	ppb	21:22:12
1	Ba 233.527†	114396.7	110440.2	504.93	µg/L	504.93	ppb	21:22:12
1	Be 313.107†	1635862.4	1577441.1	513.62	µg/L	513.62	ppb	21:22:12
1	Cd 226.502†	72815.3	70279.9	485.02	µg/L	485.02	ppb	21:22:12
1	Co 228.616†	36981.4	35822.4	490.78	µg/L	490.78	ppb	21:22:12
1	Cr 267.716†	59642.9	57328.5	492.28	µg/L	492.28	ppb	21:22:12
1	Cu 324.752†	120492.9	113716.2	495.85	µg/L	495.85	ppb	21:22:12
1	Mn 257.610†	375406.7	361768.4	494.12	µg/L	494.12	ppb	21:22:12
1	Mo 202.031†	15724.6	15211.9	480.63	µg/L	480.63	ppb	21:22:32
1	Ni 231.604†	39726.7	38332.8	490.32	µg/L	490.32	ppb	21:22:12
1	P 214.914†	10354.3	9900.7	2362.7	µg/L	2362.7	ppb	21:22:32
1	Pb 220.353†	8256.8	7846.2	476.85	µg/L	476.85	ppb	21:22:32
1	S 181.975 Axial†	1288.8	1147.5	933.70	µg/L	933.70	ppb	21:22:32
1	Sb 206.836†	3841.8	3616.4	488.79	µg/L	488.79	ppb	21:22:32
1	Se 196.026†	1256.4	1200.2	477	µg/L	477	ppb	21:22:32
1	SiO2†	51655.1	48216.6	5249.4	µg/L	5249.4	ppb	21:22:12
1	Si 251.611†	155313.5	149027.7	2454.5	µg/L	2454.5	ppb	21:22:12
1	Sn 189.927†	7082.5	6824.6	486.84	µg/L	486.84	ppb	21:22:32
1	Ti 334.940†	504215.8	485369.0	494.29	µg/L	494.29	ppb	21:22:12
1	Tl 190.801†	3584.2	3575.1	487.32	µg/L	487.32	ppb	21:22:32
1	U 409.014†	7243.0	7460.5	491.31	µg/L	491.31	ppb	21:22:12
1	V 292.402†	93303.5	89501.9	502.63	µg/L	502.63	ppb	21:22:12
1	Zn 213.857†	80568.9	77194.6	482.06	µg/L	482.06	ppb	21:22:12
2	Sc RADIAL	155802.8	155802.8	107	%			21:22:03
2	Al 396.153Radial†	25671.7	24047.8	5226.9	µg/L	5226.9	ppb	21:22:03
2	Ca 317.933Radial†	90704.0	84237.8	4936.0	µg/L	4936.0	ppb	21:22:03
2	Fe 238.204 Radial†	79350.7	74119.7	4927.7	µg/L	4927.7	ppb	21:22:03
2	K 766.490 Radial†	14028.1	11668.4	4799.6	µg/L	4799.6	ppb	21:22:03
2	Mg 279.077 IEC†	13391.2	12340.9	5095.9	µg/L	5095.9	ppb	21:22:03
2	Na 589.592 Radial†	70468.8	64229.1	9823.6	µg/L	9823.6	ppb	21:22:03
2	Sr 421.552†	228226.2	213784.6	501.02	µg/L	501.02	ppb	21:22:01
2	Sc 361.383	1718458.2	1718458.2	102.73	%			21:22:35
2	Y 371.029	1040541.3	1040541.3	101.76	%			21:22:35
2	Ag 328.068†	127122.8	120776.3	496.30	µg/L	496.30	ppb	21:22:35
2	As 188.979†	1315.4	1294.6	548.12	µg/L	548.12	ppb	21:22:55
2	B 249.677†	32820.6	28592.4	478.34	µg/L	478.34	ppb	21:22:35
2	Ba 233.527†	112822.5	109998.3	502.91	µg/L	502.91	ppb	21:22:35
2	Be 313.107†	1612596.5	1570387.2	511.32	µg/L	511.32	ppb	21:22:35
2	Cd 226.502†	71251.1	69451.4	479.30	µg/L	479.30	ppb	21:22:35
2	Co 228.616†	36408.8	35617.5	487.97	µg/L	487.97	ppb	21:22:35
2	Cr 267.716†	58690.5	56970.0	489.20	µg/L	489.20	ppb	21:22:35
2	Cu 324.752†	118859.8	113275.1	493.93	µg/L	493.93	ppb	21:22:35
2	Mn 257.610†	369770.3	359860.3	491.51	µg/L	491.51	ppb	21:22:35
2	Mo 202.031†	15667.6	15306.3	483.62	µg/L	483.62	ppb	21:22:55
2	Ni 231.604†	39105.3	38106.6	487.43	µg/L	487.43	ppb	21:22:35
2	P 214.914†	10294.9	9941.7	2372.5	µg/L	2372.5	ppb	21:22:55
2	Pb 220.353†	8226.7	7895.5	479.85	µg/L	479.85	ppb	21:22:55

2	S 181.975 Axial†	1280.0	1151.2	936.74 µg/L	936.74 ppb	21:22:55
2	Sb 206.836†	3824.3	3636.0	491.52 µg/L	491.52 ppb	21:22:55
2	Se 196.026†	1243.4	1199.4	477 µg/L	477 ppb	21:22:55
2	SiO2†	50957.3	48029.8	5228.9 µg/L	5228.9 ppb	21:22:35
2	Si 251.611†	152847.9	148108.2	2439.3 µg/L	2439.3 ppb	21:22:35
2	Sn 189.927†	7068.4	6878.5	490.66 µg/L	490.66 ppb	21:22:55
2	Ti 334.940†	497011.6	483162.6	492.04 µg/L	492.04 ppb	21:22:35
2	Tl 190.801†	3575.6	3600.9	490.75 µg/L	490.75 ppb	21:22:55
2	U 409.014†	7042.3	7334.2	483.35 µg/L	483.35 ppb	21:22:35
2	V 292.402†	91957.7	89081.3	500.31 µg/L	500.31 ppb	21:22:35
2	Zn 213.857†	79391.5	76816.5	479.70 µg/L	479.70 ppb	21:22:35
3	Sc RADIAL	153629.1	153629.1	105 %		21:22:07
3	Al 396.153Radial†	25706.1	24420.3	5308.2 µg/L	5308.2 ppb	21:22:07
3	Ca 317.933Radial†	90217.9	84977.2	4979.3 µg/L	4979.3 ppb	21:22:07
3	Fe 238.204 Radial†	78896.4	74739.0	4968.9 µg/L	4968.9 ppb	21:22:07
3	K 766.490 Radial†	14006.0	11833.0	4867.3 µg/L	4867.3 ppb	21:22:07
3	Mg 279.077 IEC†	13233.2	12368.3	5107.1 µg/L	5107.1 ppb	21:22:07
3	Na 589.592 Radial†	70244.8	64949.4	9933.8 µg/L	9933.8 ppb	21:22:07
3	Sr 421.552†	231320.2	219741.0	514.98 µg/L	514.98 ppb	21:22:05
3	Sc 361.383	1729039.4	1729039.4	103.36 %		21:22:58
3	Y 371.029	1047411.6	1047411.6	102.43 %		21:22:58
3	Ag 328.068†	127427.9	120314.2	494.42 µg/L	494.42 ppb	21:22:58
3	As 188.979†	1312.7	1284.2	543.77 µg/L	543.77 ppb	21:23:18
3	B 249.677†	33004.1	28574.4	478.04 µg/L	478.04 ppb	21:22:58
3	Ba 233.527†	113024.4	109521.5	500.73 µg/L	500.73 ppb	21:22:58
3	Be 313.107†	1619574.1	1567531.4	510.39 µg/L	510.39 ppb	21:22:58
3	Cd 226.502†	71668.9	69431.2	479.16 µg/L	479.16 ppb	21:22:58
3	Co 228.616†	36487.7	35476.9	486.05 µg/L	486.05 ppb	21:22:58
3	Cr 267.716†	59071.0	56988.5	489.36 µg/L	489.36 ppb	21:22:58
3	Cu 324.752†	119482.8	113169.8	493.48 µg/L	493.48 ppb	21:22:58
3	Mn 257.610†	371130.6	358973.6	490.30 µg/L	490.30 ppb	21:22:58
3	Mo 202.031†	15756.3	15298.8	483.38 µg/L	483.38 ppb	21:23:18
3	Ni 231.604†	39442.5	38199.9	488.62 µg/L	488.62 ppb	21:22:58
3	P 214.914†	10384.3	9966.8	2378.5 µg/L	2378.5 ppb	21:23:18
3	Pb 220.353†	8281.8	7899.8	480.11 µg/L	480.11 ppb	21:23:18
3	S 181.975 Axial†	1288.9	1152.1	937.49 µg/L	937.49 ppb	21:23:18
3	Sb 206.836†	3835.5	3624.1	489.90 µg/L	489.90 ppb	21:23:18
3	Se 196.026†	1254.5	1202.8	478 µg/L	478 ppb	21:23:18
3	SiO2†	51174.5	47936.4	5218.7 µg/L	5218.7 ppb	21:22:58
3	Si 251.611†	153310.8	147645.6	2431.6 µg/L	2431.6 ppb	21:22:58
3	Sn 189.927†	7110.2	6876.8	490.54 µg/L	490.54 ppb	21:23:18
3	Ti 334.940†	498783.5	481916.1	490.77 µg/L	490.77 ppb	21:22:58
3	Tl 190.801†	3617.1	3619.7	493.26 µg/L	493.26 ppb	21:23:18
3	U 409.014†	7080.7	7329.4	482.98 µg/L	482.98 ppb	21:22:58
3	V 292.402†	92337.1	88900.5	499.30 µg/L	499.30 ppb	21:22:58
3	Zn 213.857†	79755.1	76695.4	478.93 µg/L	478.93 ppb	21:22:58

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Sc 361.383	1727650.1	103.28	%	0.513				0.50%
Sc RADIAL	154715.3	106	%	0.7				0.70%
Y 371.029	1046248.0	102.31	%	0.511				0.50%
Ag 328.068†	120638.2	495.75	µg/L	1.163	495.75	ppb	1.163	0.23%
QC value within limits for Ag 328.068 Recovery = 99.15%								
Al 396.153Radial†	24189.5	5257.9	µg/L	43.98	5257.9	ppb	43.98	0.84%
QC value within limits for Al 396.153Radial Recovery = 105.16%								
As 188.979†	1283.4	543.44	µg/L	4.846	543.44	ppb	4.846	0.89%
QC value within limits for As 188.979 Recovery = 108.69%								
B 249.677†	28654.7	479.38	µg/L	2.070	479.38	ppb	2.070	0.43%
QC value within limits for B 249.677 Recovery = 95.88%								
Ba 233.527†	109986.6	502.86	µg/L	2.100	502.86	ppb	2.100	0.42%
QC value within limits for Ba 233.527 Recovery = 100.57%								
Be 313.107†	1571786.6	511.78	µg/L	1.662	511.78	ppb	1.662	0.32%
QC value within limits for Be 313.107 Recovery = 102.36%								
Ca 317.933Radial†	84304.4	4939.9	µg/L	37.63	4939.9	ppb	37.63	0.76%
QC value within limits for Ca 317.933Radial Recovery = 98.80%								
Cd 226.502†	69720.8	481.16	µg/L	3.348	481.16	ppb	3.348	0.70%
QC value within limits for Cd 226.502 Recovery = 96.23%								
Co 228.616†	35638.9	488.27	µg/L	2.383	488.27	ppb	2.383	0.49%

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   QC value within limits for Co 228.616  Recovery = 97.65%
Cr 267.716†            57095.7      490.28 µg/L         1.730      490.28 ppb          1.730   0.35%
   QC value within limits for Cr 267.716  Recovery = 98.06%
Cu 324.752†           113387.0      494.42 µg/L         1.260      494.42 ppb          1.260   0.25%
   QC value within limits for Cu 324.752  Recovery = 98.88%
Fe 238.204 Radial†     74184.8      4932.1 µg/L         34.88      4932.1 ppb          34.88   0.71%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.64%
K 766.490 Radial†      11728.9      4824.5 µg/L         37.26      4824.5 ppb          37.26   0.77%
   QC value within limits for K 766.490 Radial  Recovery = 96.49%
Mg 279.077 IEC†        12315.5      5085.4 µg/L         28.47      5085.4 ppb          28.47   0.56%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.71%
Mn 257.610†           360200.8      491.98 µg/L         1.953      491.98 ppb          1.953   0.40%
   QC value within limits for Mn 257.610  Recovery = 98.40%
Mo 202.031†            15272.3      482.54 µg/L         1.658      482.54 ppb          1.658   0.34%
   QC value within limits for Mo 202.031  Recovery = 96.51%
Na 589.592 Radial†     64400.7      9849.8 µg/L         74.35      9849.8 ppb          74.35   0.75%
   QC value within limits for Na 589.592 Radial  Recovery = 98.50%
Ni 231.604†            38213.1      488.79 µg/L         1.454      488.79 ppb          1.454   0.30%
   QC value within limits for Ni 231.604  Recovery = 97.76%
P 214.914†              9936.4      2371.2 µg/L          7.98      2371.2 ppb           7.98   0.34%
   QC value within limits for P 214.914  Recovery = 94.85%
Pb 220.353†             7880.5      478.93 µg/L         1.813      478.93 ppb          1.813   0.38%
   QC value within limits for Pb 220.353  Recovery = 95.79%
S 181.975 Axial†        1150.2      935.98 µg/L         2.006      935.98 ppb          2.006   0.21%
   QC value within limits for S 181.975 Axial  Recovery = 93.60%
Sb 206.836†             3625.5      490.07 µg/L         1.373      490.07 ppb          1.373   0.28%
   QC value within limits for Sb 206.836  Recovery = 98.01%
Se 196.026†             1200.8         477 µg/L           0.7         477 ppb            0.7   0.15%
   QC value within limits for Se 196.026  Recovery = 95.42%
SiO2†                  48060.9      5232.3 µg/L         15.67      5232.3 ppb          15.67   0.30%
   QC value within limits for SiO2  Recovery = 97.85%
Si 251.611†           148260.5      2441.8 µg/L         11.67      2441.8 ppb          11.67   0.48%
   QC value within limits for Si 251.611  Recovery = 97.67%
Sn 189.927†             6860.0      489.35 µg/L         2.170      489.35 ppb          2.170   0.44%
   QC value within limits for Sn 189.927  Recovery = 97.87%
Sr 421.552†           216255.8      506.81 µg/L         7.277      506.81 ppb          7.277   1.44%
   QC value within limits for Sr 421.552  Recovery = 101.36%
Ti 334.940†           483482.6      492.36 µg/L         1.782      492.36 ppb          1.782   0.36%
   QC value within limits for Ti 334.940  Recovery = 98.47%
Tl 190.801†             3598.6      490.44 µg/L         2.982      490.44 ppb          2.982   0.61%
   QC value within limits for Tl 190.801  Recovery = 98.09%
U 409.014†              7374.7      485.88 µg/L         4.704      485.88 ppb          4.704   0.97%
   QC value within limits for U 409.014  Recovery = 97.18%
V 292.402†             89161.2      500.74 µg/L         1.709      500.74 ppb          1.709   0.34%
   QC value within limits for V 292.402  Recovery = 100.15%
Zn 213.857†            76902.2      480.23 µg/L         1.635      480.23 ppb          1.635   0.34%
   QC value within limits for Zn 213.857  Recovery = 96.05%
All analyte(s) passed QC.
```

Sequence No.: 56
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/29/2010 21:23:26
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	155306.1	155306.1	107	%			21:23:55
1	Al 396.153Radial†	-24.3	9.1	1.9543	µg/L	1.9543	ppb	21:24:15
1	Ca 317.933Radial†	683.7	25.5	1.4938	µg/L	1.4938	ppb	21:24:15
1	Fe 238.204 Radial†	158.4	35.3	2.3500	µg/L	2.3500	ppb	21:24:15
1	K 766.490 Radial†	1643.9	87.8	36.134	µg/L	36.134	ppb	21:23:55
1	Mg 279.077 IEC†	167.4	-29.6	-12.187	µg/L	-12.187	ppb	21:24:15
1	Na 589.592 Radial†	1516.3	-271.7	-41.602	µg/L	-41.602	ppb	21:23:55
1	Sr 421.552†	-242.4	50.5	0.1183	µg/L	0.1183	ppb	21:23:55
1	Sc 361.383	1748094.6	1748094.6	104.50	%			21:25:03
1	Y 371.029	1071566.5	1071566.5	104.79	%			21:25:03
1	Ag 328.068†	3427.1	312.3	1.2793	µg/L	1.2793	ppb	21:25:05
1	As 188.979†	-13.5	1.3	0.5449	µg/L	0.5449	ppb	21:25:25
1	B 249.677†	3112.2	-377.5	-6.3385	µg/L	-6.3385	ppb	21:25:25
1	Ba 233.527†	-154.2	27.5	0.1256	µg/L	0.1256	ppb	21:25:25
1	Be 313.107†	-701.4	-11.1	0.0002	µg/L	0.0002	ppb	21:25:05
1	Cd 226.502†	-80.7	17.1	0.1180	µg/L	0.1180	ppb	21:25:25
1	Co 228.616†	-180.0	4.3	0.0591	µg/L	0.0591	ppb	21:25:25
1	Cr 267.716†	154.7	-12.2	-0.1146	µg/L	-0.1146	ppb	21:25:25
1	Cu 324.752†	2711.0	169.4	0.7467	µg/L	0.7467	ppb	21:25:05
1	Mn 257.610†	174.7	87.2	0.1196	µg/L	0.1196	ppb	21:25:25
1	Mo 202.031†	-33.7	22.9	0.7232	µg/L	0.7232	ppb	21:25:25
1	Ni 231.604†	-63.8	-20.2	-0.2580	µg/L	-0.2580	ppb	21:25:25
1	P 214.914†	25.7	-55.0	-13.175	µg/L	-13.175	ppb	21:25:25
1	Pb 220.353†	88.4	-27.8	-1.6943	µg/L	-1.6943	ppb	21:25:25
1	S 181.975 Axial†	88.7	-10.0	-8.0713	µg/L	-8.0713	ppb	21:25:25
1	Sb 206.836†	103.6	12.5	1.6953	µg/L	1.6953	ppb	21:25:25
1	Se 196.026†	29.5	17.3	6.85	µg/L	6.85	ppb	21:25:25
1	SiO2†	1690.4	44.8	4.8636	µg/L	4.8636	ppb	21:25:25
1	Si 251.611†	812.1	100.8	1.6531	µg/L	1.6531	ppb	21:25:25
1	Sn 189.927†	9.4	7.0	0.4982	µg/L	0.4982	ppb	21:25:25
1	Ti 334.940†	734.9	66.9	0.0641	µg/L	0.0641	ppb	21:25:05
1	Tl 190.801†	-117.2	8.2	1.0976	µg/L	1.0976	ppb	21:25:25
1	U 409.014†	-286.2	205.2	12.661	µg/L	12.661	ppb	21:25:05
1	V 292.402†	393.2	-55.5	-0.2928	µg/L	-0.2928	ppb	21:25:05
1	Zn 213.857†	542.6	54.8	0.3462	µg/L	0.3462	ppb	21:25:25
2	Sc RADIAL	153477.3	153477.3	105	%			21:24:17
2	Al 396.153Radial†	-47.4	-13.1	-2.9442	µg/L	-2.9442	ppb	21:24:37
2	Ca 317.933Radial†	711.1	59.1	3.4638	µg/L	3.4638	ppb	21:24:37
2	Fe 238.204 Radial†	171.6	49.7	3.3060	µg/L	3.3060	ppb	21:24:37
2	K 766.490 Radial†	1553.5	20.3	8.3817	µg/L	8.3817	ppb	21:24:17
2	Mg 279.077 IEC†	185.8	-10.2	-4.1787	µg/L	-4.1787	ppb	21:24:37
2	Na 589.592 Radial†	1510.8	-259.9	-39.777	µg/L	-39.777	ppb	21:24:17
2	Sr 421.552†	-111.6	172.0	0.4031	µg/L	0.4031	ppb	21:24:17
2	Sc 361.383	1741520.5	1741520.5	104.11	%			21:25:27
2	Y 371.029	1067626.4	1067626.4	104.41	%			21:25:27
2	Ag 328.068†	3414.4	312.6	1.2772	µg/L	1.2772	ppb	21:25:29
2	As 188.979†	-19.8	-4.8	-1.9816	µg/L	-1.9816	ppb	21:25:49
2	B 249.677†	3071.8	-405.2	-6.8037	µg/L	-6.8037	ppb	21:25:49
2	Ba 233.527†	-157.9	23.4	0.1075	µg/L	0.1075	ppb	21:25:49
2	Be 313.107†	-655.5	30.5	0.0121	µg/L	0.0121	ppb	21:25:29
2	Cd 226.502†	-93.0	5.0	0.0343	µg/L	0.0343	ppb	21:25:49
2	Co 228.616†	-157.6	25.2	0.3454	µg/L	0.3454	ppb	21:25:49
2	Cr 267.716†	146.2	-19.8	-0.1753	µg/L	-0.1753	ppb	21:25:49
2	Cu 324.752†	2664.3	134.2	0.5901	µg/L	0.5901	ppb	21:25:29
2	Mn 257.610†	201.1	113.2	0.1548	µg/L	0.1548	ppb	21:25:49
2	Mo 202.031†	-3.9	51.4	1.6241	µg/L	1.6241	ppb	21:25:49
2	Ni 231.604†	-71.2	-27.4	-0.3510	µg/L	-0.3510	ppb	21:25:49
2	P 214.914†	49.3	-32.2	-7.7507	µg/L	-7.7507	ppb	21:25:49
2	Pb 220.353†	105.7	-10.9	-0.6592	µg/L	-0.6592	ppb	21:25:49

2	S 181.975 Axial†	91.8	-6.6	-5.3552 µg/L	-5.3552 ppb	21:25:49
2	Sb 206.836†	83.1	-6.8	-0.8931 µg/L	-0.8931 ppb	21:25:49
2	Se 196.026†	11.8	0.5	0.191 µg/L	0.191 ppb	21:25:49
2	SiO2†	1682.8	43.5	4.7163 µg/L	4.7163 ppb	21:25:49
2	Si 251.611†	832.1	122.9	2.0124 µg/L	2.0124 ppb	21:25:49
2	Sn 189.927†	-2.3	-4.2	-0.2990 µg/L	-0.2990 ppb	21:25:49
2	Ti 334.940†	806.8	138.6	0.1389 µg/L	0.1389 ppb	21:25:29
2	Tl 190.801†	-103.8	20.6	2.7680 µg/L	2.7680 ppb	21:25:49
2	U 409.014†	-377.6	116.4	7.1940 µg/L	7.1940 ppb	21:25:29
2	V 292.402†	451.2	1.6	0.0290 µg/L	0.0290 ppb	21:25:29
2	Zn 213.857†	515.7	30.9	0.1963 µg/L	0.1963 ppb	21:25:49
3	Sc RADIAL	150012.7	150012.7	103 %		21:24:39
3	Al 396.153Radial†	-29.8	2.9	0.5867 µg/L	0.5867 ppb	21:24:59
3	Ca 317.933Radial†	710.4	74.0	4.3369 µg/L	4.3369 ppb	21:24:59
3	Fe 238.204 Radial†	151.9	34.3	2.2797 µg/L	2.2797 ppb	21:24:59
3	K 766.490 Radial†	1399.3	-95.4	-39.262 µg/L	-39.262 ppb	21:24:39
3	Mg 279.077 IEC†	165.1	-26.3	-10.817 µg/L	-10.817 ppb	21:24:59
3	Na 589.592 Radial†	1639.2	-102.0	-15.574 µg/L	-15.574 ppb	21:24:39
3	Sr 421.552†	-287.8	-1.6	-0.0038 µg/L	-0.0038 ppb	21:24:39
3	Sc 361.383	1723128.2	1723128.2	103.01 %		21:25:51
3	Y 371.029	1057308.7	1057308.7	103.40 %		21:25:51
3	Ag 328.068†	3346.0	281.2	1.1646 µg/L	1.1646 ppb	21:25:53
3	As 188.979†	-18.6	-3.8	-1.5909 µg/L	-1.5909 ppb	21:26:14
3	B 249.677†	3052.0	-392.9	-6.5974 µg/L	-6.5974 ppb	21:26:14
3	Ba 233.527†	-170.9	9.2	0.0418 µg/L	0.0418 ppb	21:26:14
3	Be 313.107†	-474.6	199.4	0.0725 µg/L	0.0725 ppb	21:25:53
3	Cd 226.502†	-97.7	-0.4	-0.0033 µg/L	-0.0033 ppb	21:26:14
3	Co 228.616†	-155.6	25.6	0.3503 µg/L	0.3503 ppb	21:26:14
3	Cr 267.716†	182.3	16.7	0.1237 µg/L	0.1237 ppb	21:26:14
3	Cu 324.752†	2711.9	207.8	0.9243 µg/L	0.9243 ppb	21:25:53
3	Mn 257.610†	171.1	86.1	0.1180 µg/L	0.1180 ppb	21:26:14
3	Mo 202.031†	-16.8	38.9	1.2275 µg/L	1.2275 ppb	21:26:14
3	Ni 231.604†	-81.5	-38.2	-0.4887 µg/L	-0.4887 ppb	21:26:14
3	P 214.914†	37.1	-43.6	-10.455 µg/L	-10.455 ppb	21:26:14
3	Pb 220.353†	81.7	-33.1	-2.0187 µg/L	-2.0187 ppb	21:26:14
3	S 181.975 Axial†	91.8	-5.7	-4.6479 µg/L	-4.6479 ppb	21:26:14
3	Sb 206.836†	81.4	-7.6	-1.0134 µg/L	-1.0134 ppb	21:26:14
3	Se 196.026†	21.3	9.8	3.89 µg/L	3.89 ppb	21:26:14
3	SiO2†	1680.3	58.3	6.3388 µg/L	6.3388 ppb	21:26:14
3	Si 251.611†	807.9	107.9	1.7669 µg/L	1.7669 ppb	21:26:14
3	Sn 189.927†	3.7	1.6	0.1137 µg/L	0.1137 ppb	21:26:14
3	Ti 334.940†	1049.1	382.1	0.3802 µg/L	0.3802 ppb	21:25:53
3	Tl 190.801†	-103.5	19.8	2.6620 µg/L	2.6620 ppb	21:26:14
3	U 409.014†	-71.7	409.5	25.265 µg/L	25.265 ppb	21:25:53
3	V 292.402†	327.3	-114.1	-0.6031 µg/L	-0.6031 ppb	21:25:53
3	Zn 213.857†	513.6	34.2	0.2177 µg/L	0.2177 ppb	21:26:14

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1737581.1	103.87	%	0.774				0.74%
Sc RADIAL	152932.0	105	%	1.8				1.76%
Y 371.029	1065500.5	104.20	%	0.720				0.69%
Ag 328.068†	302.0	1.2404	µg/L	0.06566	1.2404	ppb	0.06566	5.29%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-0.4	-0.1344	µg/L	2.52760	-0.1344	ppb	2.52760	>999.9%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-2.4	-1.0092	µg/L	1.36000	-1.0092	ppb	1.36000	134.76%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-391.9	-6.5799	µg/L	0.23305	-6.5799	ppb	0.23305	3.54%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	20.0	0.0916	µg/L	0.04412	0.0916	ppb	0.04412	48.14%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	72.9	0.0283	µg/L	0.03879	0.0283	ppb	0.03879	137.14%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	52.9	3.0982	µg/L	1.45639	3.0982	ppb	1.45639	47.01%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	7.3	0.0497	µg/L	0.06207	0.0497	ppb	0.06207	124.90%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	18.4	0.2516	µg/L	0.16669	0.2516	ppb	0.16669	66.25%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -5.1     -0.0554 µg/L      0.15802     -0.0554 ppb       0.15802 285.26%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             170.5      0.7537 µg/L      0.16723      0.7537 ppb       0.16723  22.19%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       39.8      2.6452 µg/L      0.57333      2.6452 ppb       0.57333  21.67%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†         4.2      1.7511 µg/L     38.13273      1.7511 ppb      38.13273 >999.9%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         -22.0     -9.0611 µg/L      4.28341     -9.0611 ppb       4.28341  47.27%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              95.5      0.1308 µg/L      0.02079      0.1308 ppb       0.02079  15.90%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              37.8      1.1916 µg/L      0.45152      1.1916 ppb       0.45152  37.89%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -211.2    -32.318 µg/L      14.5288    -32.318 ppb       14.5288  44.96%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -28.6     -0.3659 µg/L      0.11605     -0.3659 ppb       0.11605  31.72%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -43.6    -10.460 µg/L       2.7120    -10.460 ppb        2.7120  25.93%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -23.9     -1.4574 µg/L      0.70999     -1.4574 ppb       0.70999  48.72%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -7.4     -6.0248 µg/L      1.80725     -6.0248 ppb       1.80725  30.00%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -0.6     -0.0704 µg/L      1.53036     -0.0704 ppb       1.53036 >999.9%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               9.2        3.64 µg/L        3.337        3.64 ppb         3.337  91.59%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    48.9      5.3062 µg/L      0.89725      5.3062 ppb       0.89725  16.91%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             110.5      1.8108 µg/L      0.18363      1.8108 ppb       0.18363  10.14%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               1.5      0.1043 µg/L      0.39868      0.1043 ppb       0.39868 382.19%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              73.6      0.1725 µg/L      0.20882      0.1725 ppb       0.20882 121.03%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             195.9      0.1944 µg/L      0.16524      0.1944 ppb       0.16524  85.00%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              16.2      2.1759 µg/L      0.93532      2.1759 ppb       0.93532  42.99%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              243.7     15.040 µg/L       9.2675     15.040 ppb        9.2675  61.62%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -56.0     -0.2890 µg/L      0.31607     -0.2890 ppb       0.31607 109.37%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              40.0      0.2534 µg/L      0.08112      0.2534 ppb       0.08112  32.01%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 64 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/29/2010 21:41:23**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	155141.6	155141.6	106	%			21:41:56
1	Al 396.153Radial†	25732.1	24207.0	5261.9	µg/L	5261.9	ppb	21:41:56
1	Ca 317.933Radial†	90696.3	84592.2	4956.7	µg/L	4956.7	ppb	21:41:56
1	Fe 238.204 Radial†	79315.9	74403.3	4946.6	µg/L	4946.6	ppb	21:41:56
1	K 766.490 Radial†	13939.8	11641.4	4788.4	µg/L	4788.4	ppb	21:41:56
1	Mg 279.077 IEC†	13393.7	12396.6	5118.7	µg/L	5118.7	ppb	21:41:56
1	Na 589.592 Radial†	70468.0	64509.4	9866.5	µg/L	9866.5	ppb	21:41:56
1	Sr 421.552†	232398.2	218614.1	512.33	µg/L	512.33	ppb	21:41:53
1	Sc 361.383	1769586.3	1769586.3	105.79	%			21:42:08
1	Y 371.029	1071797.7	1071797.7	104.81	%			21:42:08
1	Ag 328.068†	129603.3	119545.9	491.31	µg/L	491.31	ppb	21:42:08
1	As 188.979†	1329.3	1270.8	538.12	µg/L	538.12	ppb	21:42:28
1	B 249.677†	33677.3	28479.2	476.45	µg/L	476.45	ppb	21:42:08
1	Ba 233.527†	115439.2	109298.8	499.71	µg/L	499.71	ppb	21:42:08
1	Be 313.107†	1651472.1	1561782.3	508.53	µg/L	508.53	ppb	21:42:08
1	Cd 226.502†	73101.7	69196.8	477.54	µg/L	477.54	ppb	21:42:08
1	Co 228.616†	37176.9	35319.6	483.89	µg/L	483.89	ppb	21:42:08
1	Cr 267.716†	60164.7	56712.9	486.98	µg/L	486.98	ppb	21:42:08
1	Cu 324.752†	121865.1	112773.1	491.76	µg/L	491.76	ppb	21:42:08
1	Mn 257.610†	378134.2	357367.0	488.10	µg/L	488.10	ppb	21:42:08
1	Mo 202.031†	15933.4	15116.9	477.64	µg/L	477.64	ppb	21:42:28
1	Ni 231.604†	40031.5	37882.3	484.56	µg/L	484.56	ppb	21:42:08
1	P 214.914†	10529.6	9874.0	2356.3	µg/L	2356.3	ppb	21:42:28
1	Pb 220.353†	8381.8	7810.8	474.69	µg/L	474.69	ppb	21:42:28
1	S 181.975 Axial†	1319.0	1152.0	937.38	µg/L	937.38	ppb	21:42:28
1	Sb 206.836†	3878.6	3579.8	483.87	µg/L	483.87	ppb	21:42:28
1	Se 196.026†	1271.4	1191.0	473	µg/L	473	ppb	21:42:28
1	SiO2†	52156.9	47730.6	5196.4	µg/L	5196.4	ppb	21:42:08
1	Si 251.611†	156637.6	147391.8	2427.5	µg/L	2427.5	ppb	21:42:08
1	Sn 189.927†	7201.5	6805.5	485.46	µg/L	485.46	ppb	21:42:28
1	Ti 334.940†	508354.7	479906.9	488.71	µg/L	488.71	ppb	21:42:08
1	Tl 190.801†	3635.0	3556.4	484.75	µg/L	484.75	ppb	21:42:28
1	U 409.014†	7495.6	7564.6	497.45	µg/L	497.45	ppb	21:42:08
1	V 292.402†	94313.8	88722.2	498.25	µg/L	498.25	ppb	21:42:08
1	Zn 213.857†	81212.0	76304.6	476.49	µg/L	476.49	ppb	21:42:08
2	Sc RADIAL	152571.4	152571.4	105	%			21:42:00
2	Al 396.153Radial†	25314.1	24214.9	5263.2	µg/L	5263.2	ppb	21:42:00
2	Ca 317.933Radial†	88626.2	84050.0	4925.0	µg/L	4925.0	ppb	21:42:00
2	Fe 238.204 Radial†	77784.9	74196.0	4932.8	µg/L	4932.8	ppb	21:42:00
2	K 766.490 Radial†	13885.1	11809.7	4857.7	µg/L	4857.7	ppb	21:42:00
2	Mg 279.077 IEC†	13015.3	12247.1	5057.3	µg/L	5057.3	ppb	21:42:00
2	Na 589.592 Radial†	69451.8	64653.8	9888.5	µg/L	9888.5	ppb	21:42:00
2	Sr 421.552†	226457.0	216616.4	507.65	µg/L	507.65	ppb	21:41:58
2	Sc 361.383	1736903.3	1736903.3	103.83	%			21:42:32
2	Y 371.029	1053285.4	1053285.4	103.00	%			21:42:32
2	Ag 328.068†	128049.4	120354.6	494.59	µg/L	494.59	ppb	21:42:32
2	As 188.979†	1336.9	1301.8	551.11	µg/L	551.11	ppb	21:42:52
2	B 249.677†	32949.6	28377.4	474.74	µg/L	474.74	ppb	21:42:32
2	Ba 233.527†	113487.1	109472.1	500.51	µg/L	500.51	ppb	21:42:32
2	Be 313.107†	1622396.8	1563155.8	508.97	µg/L	508.97	ppb	21:42:32
2	Cd 226.502†	71970.0	69407.2	478.99	µg/L	478.99	ppb	21:42:32
2	Co 228.616†	36579.3	35405.4	485.07	µg/L	485.07	ppb	21:42:32
2	Cr 267.716†	59093.3	56751.3	487.32	µg/L	487.32	ppb	21:42:32
2	Cu 324.752†	119729.1	112883.6	492.24	µg/L	492.24	ppb	21:42:32
2	Mn 257.610†	371985.4	358171.2	489.21	µg/L	489.21	ppb	21:42:32
2	Mo 202.031†	15973.6	15439.0	487.80	µg/L	487.80	ppb	21:42:52
2	Ni 231.604†	39464.7	38048.6	486.69	µg/L	486.69	ppb	21:42:32
2	P 214.914†	10515.6	10047.8	2397.9	µg/L	2397.9	ppb	21:42:52
2	Pb 220.353†	8420.5	7997.2	486.01	µg/L	486.01	ppb	21:42:52

2	S 181.975 Axial†	1316.9	1173.4	954.81 µg/L	954.81 ppb	21:42:52
2	Sb 206.836†	3875.7	3646.0	492.95 µg/L	492.95 ppb	21:42:52
2	Se 196.026†	1265.9	1208.2	480 µg/L	480 ppb	21:42:52
2	SiO2†	51399.8	47929.2	5217.7 µg/L	5217.7 ppb	21:42:32
2	Si 251.611†	153711.9	147360.2	2426.8 µg/L	2426.8 ppb	21:42:32
2	Sn 189.927†	7192.7	6925.1	493.97 µg/L	493.97 ppb	21:42:52
2	Ti 334.940†	500404.8	481292.9	490.13 µg/L	490.13 ppb	21:42:32
2	Tl 190.801†	3631.2	3617.4	492.94 µg/L	492.94 ppb	21:42:52
2	U 409.014†	7251.0	7462.4	491.17 µg/L	491.17 ppb	21:42:32
2	V 292.402†	92671.4	88818.0	498.89 µg/L	498.89 ppb	21:42:32
2	Zn 213.857†	79943.3	76527.3	477.88 µg/L	477.88 ppb	21:42:32
3	Sc RADIAL	153899.6	153899.6	106 %		21:42:04
3	Al 396.153Radial†	25427.3	24113.4	5241.3 µg/L	5241.3 ppb	21:42:04
3	Ca 317.933Radial†	89584.3	84226.7	4935.3 µg/L	4935.3 ppb	21:42:04
3	Fe 238.204 Radial†	78451.3	74185.8	4932.1 µg/L	4932.1 ppb	21:42:04
3	K 766.490 Radial†	13947.9	11754.7	4835.1 µg/L	4835.1 ppb	21:42:04
3	Mg 279.077 IEC†	13129.1	12247.5	5057.3 µg/L	5057.3 ppb	21:42:04
3	Na 589.592 Radial†	69867.9	64475.3	9861.2 µg/L	9861.2 ppb	21:42:04
3	Sr 421.552†	230570.5	218645.2	512.41 µg/L	512.41 ppb	21:42:02
3	Sc 361.383	1756529.9	1756529.9	105.01 %		21:42:55
3	Y 371.029	1063628.8	1063628.8	104.01 %		21:42:55
3	Ag 328.068†	129932.1	120769.6	496.30 µg/L	496.30 ppb	21:42:55
3	As 188.979†	1327.9	1278.8	541.51 µg/L	541.51 ppb	21:43:15
3	B 249.677†	33771.3	28805.3	481.91 µg/L	481.91 ppb	21:42:55
3	Ba 233.527†	115375.4	110049.1	503.14 µg/L	503.14 ppb	21:42:55
3	Be 313.107†	1656355.2	1578036.4	513.82 µg/L	513.82 ppb	21:42:55
3	Cd 226.502†	73621.8	70205.8	484.51 µg/L	484.51 ppb	21:42:55
3	Co 228.616†	37314.4	35711.8	489.27 µg/L	489.27 ppb	21:42:55
3	Cr 267.716†	60209.2	57178.1	490.99 µg/L	490.99 ppb	21:42:55
3	Cu 324.752†	121793.5	113561.3	495.18 µg/L	495.18 ppb	21:42:55
3	Mn 257.610†	379257.5	361093.6	493.20 µg/L	493.20 ppb	21:42:55
3	Mo 202.031†	15953.4	15247.9	481.77 µg/L	481.77 ppb	21:43:15
3	Ni 231.604†	40238.5	38360.8	490.68 µg/L	490.68 ppb	21:42:55
3	P 214.914†	10528.4	9946.8	2373.7 µg/L	2373.7 ppb	21:43:15
3	Pb 220.353†	8392.4	7879.8	478.89 µg/L	478.89 ppb	21:43:15
3	S 181.975 Axial†	1322.2	1164.3	947.34 µg/L	947.34 ppb	21:43:15
3	Sb 206.836†	3881.7	3610.0	487.96 µg/L	487.96 ppb	21:43:15
3	Se 196.026†	1265.3	1194.1	474 µg/L	474 ppb	21:43:15
3	SiO2†	52227.4	48164.2	5243.6 µg/L	5243.6 ppb	21:42:55
3	Si 251.611†	156492.0	148353.7	2443.4 µg/L	2443.4 ppb	21:42:55
3	Sn 189.927†	7205.6	6860.0	489.35 µg/L	489.35 ppb	21:43:15
3	Ti 334.940†	508571.1	483684.9	492.57 µg/L	492.57 ppb	21:42:55
3	Tl 190.801†	3639.0	3585.7	488.73 µg/L	488.73 ppb	21:43:15
3	U 409.014†	7286.8	7418.4	488.63 µg/L	488.63 ppb	21:42:55
3	V 292.402†	94216.9	89292.6	501.47 µg/L	501.47 ppb	21:42:55
3	Zn 213.857†	81432.1	77084.8	481.37 µg/L	481.37 ppb	21:42:55

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1754339.8	104.88	%	0.983				0.94%
Sc RADIAL	153870.9	106	%	0.9				0.84%
Y 371.029	1062904.0	103.94	%	0.907				0.87%
Ag 328.068†	120223.3	494.06	µg/L	2.537	494.06	ppb	2.537	0.51%
QC value within limits for Ag 328.068 Recovery = 98.81%								
Al 396.153Radial†	24178.4	5255.5	µg/L	12.29	5255.5	ppb	12.29	0.23%
QC value within limits for Al 396.153Radial Recovery = 105.11%								
As 188.979†	1283.8	543.58	µg/L	6.739	543.58	ppb	6.739	1.24%
QC value within limits for As 188.979 Recovery = 108.72%								
B 249.677†	28554.0	477.70	µg/L	3.745	477.70	ppb	3.745	0.78%
QC value within limits for B 249.677 Recovery = 95.54%								
Ba 233.527†	109606.6	501.12	µg/L	1.796	501.12	ppb	1.796	0.36%
QC value within limits for Ba 233.527 Recovery = 100.22%								
Be 313.107†	1567658.2	510.44	µg/L	2.933	510.44	ppb	2.933	0.57%
QC value within limits for Be 313.107 Recovery = 102.09%								
Ca 317.933Radial†	84289.7	4939.0	µg/L	16.20	4939.0	ppb	16.20	0.33%
QC value within limits for Ca 317.933Radial Recovery = 98.78%								
Cd 226.502†	69603.2	480.35	µg/L	3.678	480.35	ppb	3.678	0.77%
QC value within limits for Cd 226.502 Recovery = 96.07%								
Co 228.616†	35478.9	486.07	µg/L	2.825	486.07	ppb	2.825	0.58%

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   QC value within limits for Co 228.616  Recovery = 97.21%
Cr 267.716†            56880.8      488.43 µg/L         2.221      488.43 ppb          2.221   0.45%
   QC value within limits for Cr 267.716  Recovery = 97.69%
Cu 324.752†           113072.7      493.06 µg/L         1.852      493.06 ppb          1.852   0.38%
   QC value within limits for Cu 324.752  Recovery = 98.61%
Fe 238.204 Radial†     74261.7      4937.2 µg/L          8.16      4937.2 ppb           8.16   0.17%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.74%
K 766.490 Radial†      11735.3      4827.1 µg/L         35.34      4827.1 ppb          35.34   0.73%
   QC value within limits for K 766.490 Radial  Recovery = 96.54%
Mg 279.077 IEC†        12297.1      5077.8 µg/L         35.42      5077.8 ppb          35.42   0.70%
   QC value within limits for Mg 279.077 IEC  Recovery = 101.56%
Mn 257.610†           358877.3      490.17 µg/L         2.681      490.17 ppb          2.681   0.55%
   QC value within limits for Mn 257.610  Recovery = 98.03%
Mo 202.031†            15267.9      482.40 µg/L         5.112      482.40 ppb          5.112   1.06%
   QC value within limits for Mo 202.031  Recovery = 96.48%
Na 589.592 Radial†     64546.2      9872.1 µg/L         14.48      9872.1 ppb          14.48   0.15%
   QC value within limits for Na 589.592 Radial  Recovery = 98.72%
Ni 231.604†            38097.2      487.31 µg/L         3.107      487.31 ppb          3.107   0.64%
   QC value within limits for Ni 231.604  Recovery = 97.46%
P 214.914†              9956.2      2376.0 µg/L         20.89      2376.0 ppb          20.89   0.88%
   QC value within limits for P 214.914  Recovery = 95.04%
Pb 220.353†             7895.9      479.86 µg/L         5.722      479.86 ppb          5.722   1.19%
   QC value within limits for Pb 220.353  Recovery = 95.97%
S 181.975 Axial†        1163.3      946.51 µg/L         8.747      946.51 ppb          8.747   0.92%
   QC value within limits for S 181.975 Axial  Recovery = 94.65%
Sb 206.836†             3611.9      488.26 µg/L         4.549      488.26 ppb          4.549   0.93%
   QC value within limits for Sb 206.836  Recovery = 97.65%
Se 196.026†             1197.8         476 µg/L           3.6         476 ppb            3.6   0.76%
   QC value within limits for Se 196.026  Recovery = 95.19%
SiO2†                  47941.4      5219.2 µg/L         23.65      5219.2 ppb          23.65   0.45%
   QC value within limits for SiO2  Recovery = 97.60%
Si 251.611†           147701.9      2432.6 µg/L          9.35      2432.6 ppb           9.35   0.38%
   QC value within limits for Si 251.611  Recovery = 97.30%
Sn 189.927†             6863.5      489.59 µg/L         4.258      489.59 ppb          4.258   0.87%
   QC value within limits for Sn 189.927  Recovery = 97.92%
Sr 421.552†           217958.6      510.80 µg/L         2.724      510.80 ppb          2.724   0.53%
   QC value within limits for Sr 421.552  Recovery = 102.16%
Ti 334.940†           481628.2      490.47 µg/L         1.952      490.47 ppb          1.952   0.40%
   QC value within limits for Ti 334.940  Recovery = 98.09%
Tl 190.801†             3586.5      488.81 µg/L         4.099      488.81 ppb          4.099   0.84%
   QC value within limits for Tl 190.801  Recovery = 97.76%
U 409.014†              7481.8      492.42 µg/L         4.540      492.42 ppb          4.540   0.92%
   QC value within limits for U 409.014  Recovery = 98.48%
V 292.402†             88944.2      499.54 µg/L         1.704      499.54 ppb          1.704   0.34%
   QC value within limits for V 292.402  Recovery = 99.91%
Zn 213.857†            76638.9      478.58 µg/L         2.509      478.58 ppb          2.509   0.52%
   QC value within limits for Zn 213.857  Recovery = 95.72%
All analyte(s) passed QC.
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Sequence No.: 65
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 3/29/2010 21:43:22
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	155956.8	155956.8	107	%			21:43:51
1	Al 396.153Radial†	-16.8	16.2	3.4619	µg/L	3.4619	ppb	21:44:11
1	Ca 317.933Radial†	700.6	38.5	2.2587	µg/L	2.2587	ppb	21:44:11
1	Fe 238.204 Radial†	158.1	34.5	2.2919	µg/L	2.2919	ppb	21:44:11
1	K 766.490 Radial†	1477.7	-74.0	-30.465	µg/L	-30.465	ppb	21:43:51
1	Mg 279.077 IEC†	161.1	-36.2	-14.868	µg/L	-14.868	ppb	21:44:11
1	Na 589.592 Radial†	1643.2	-159.1	-24.311	µg/L	-24.311	ppb	21:43:51
1	Sr 421.552†	-196.3	94.6	0.2216	µg/L	0.2216	ppb	21:43:51
1	Sc 361.383	1765629.9	1765629.9	105.55	%			21:45:13
1	Y 371.029	1081668.4	1081668.4	105.78	%			21:45:13
1	Ag 328.068†	3343.9	201.0	0.8287	µg/L	0.8287	ppb	21:45:15
1	As 188.979†	-0.7	13.6	5.6736	µg/L	5.6736	ppb	21:45:35
1	B 249.677†	3087.2	-430.8	-7.2342	µg/L	-7.2342	ppb	21:45:35
1	Ba 233.527†	-174.6	9.6	0.0437	µg/L	0.0437	ppb	21:45:35
1	Be 313.107†	-668.1	27.1	0.0159	µg/L	0.0159	ppb	21:45:15
1	Cd 226.502†	-91.4	7.8	0.0536	µg/L	0.0536	ppb	21:45:35
1	Co 228.616†	-169.6	15.9	0.2174	µg/L	0.2174	ppb	21:45:35
1	Cr 267.716†	125.9	-40.9	-0.3702	µg/L	-0.3702	ppb	21:45:35
1	Cu 324.752†	2790.6	219.0	0.9713	µg/L	0.9713	ppb	21:45:15
1	Mn 257.610†	190.9	100.8	0.1384	µg/L	0.1384	ppb	21:45:35
1	Mo 202.031†	-5.1	50.4	1.5908	µg/L	1.5908	ppb	21:45:35
1	Ni 231.604†	-58.3	-14.3	-0.1833	µg/L	-0.1833	ppb	21:45:35
1	P 214.914†	44.9	-37.1	-8.9068	µg/L	-8.9068	ppb	21:45:35
1	Pb 220.353†	100.6	-17.1	-1.0500	µg/L	-1.0500	ppb	21:45:35
1	S 181.975 Axial†	88.1	-11.4	-9.1903	µg/L	-9.1903	ppb	21:45:35
1	Sb 206.836†	84.0	-7.1	-0.9269	µg/L	-0.9269	ppb	21:45:35
1	Se 196.026†	15.6	3.8	1.54	µg/L	1.54	ppb	21:45:35
1	SiO2†	1680.5	19.3	2.0584	µg/L	2.0584	ppb	21:45:35
1	Si 251.611†	824.6	104.8	1.7121	µg/L	1.7121	ppb	21:45:35
1	Sn 189.927†	2.6	0.4	0.0311	µg/L	0.0311	ppb	21:45:35
1	Ti 334.940†	807.6	128.8	0.1231	µg/L	0.1231	ppb	21:45:15
1	Tl 190.801†	-115.4	11.0	1.4674	µg/L	1.4674	ppb	21:45:35
1	U 409.014†	-105.6	379.0	23.345	µg/L	23.345	ppb	21:45:15
1	V 292.402†	205.8	-236.8	-1.2834	µg/L	-1.2834	ppb	21:45:15
1	Zn 213.857†	546.7	53.5	0.3372	µg/L	0.3372	ppb	21:45:35
2	Sc RADIAL	155375.0	155375.0	107	%			21:44:13
2	Al 396.153Radial†	-68.3	-32.2	-7.0550	µg/L	-7.0550	ppb	21:44:33
2	Ca 317.933Radial†	709.4	49.3	2.8889	µg/L	2.8889	ppb	21:44:33
2	Fe 238.204 Radial†	170.5	46.7	3.1031	µg/L	3.1031	ppb	21:44:33
2	K 766.490 Radial†	1698.0	137.8	56.753	µg/L	56.753	ppb	21:44:13
2	Mg 279.077 IEC†	155.9	-40.4	-16.664	µg/L	-16.664	ppb	21:44:33
2	Na 589.592 Radial†	1687.7	-111.6	-17.120	µg/L	-17.120	ppb	21:44:13
2	Sr 421.552†	-289.5	6.4	0.0151	µg/L	0.0151	ppb	21:44:13
2	Sc 361.383	1758365.8	1758365.8	105.12	%			21:45:38
2	Y 371.029	1078074.0	1078074.0	105.43	%			21:45:38
2	Ag 328.068†	3122.4	3.3	0.0229	µg/L	0.0229	ppb	21:45:40
2	As 188.979†	-17.5	-2.4	-0.9870	µg/L	-0.9870	ppb	21:46:00
2	B 249.677†	3114.5	-392.8	-6.5943	µg/L	-6.5943	ppb	21:46:00
2	Ba 233.527†	-174.5	9.1	0.0411	µg/L	0.0411	ppb	21:46:00
2	Be 313.107†	-678.6	14.5	0.0087	µg/L	0.0087	ppb	21:45:40
2	Cd 226.502†	-106.7	-7.1	-0.0492	µg/L	-0.0492	ppb	21:46:00
2	Co 228.616†	-181.1	4.3	0.0589	µg/L	0.0589	ppb	21:46:00
2	Cr 267.716†	186.4	17.1	0.1365	µg/L	0.1365	ppb	21:46:00
2	Cu 324.752†	2877.2	312.3	1.3685	µg/L	1.3685	ppb	21:45:40
2	Mn 257.610†	194.2	104.8	0.1438	µg/L	0.1438	ppb	21:46:00
2	Mo 202.031†	-37.8	19.2	0.6071	µg/L	0.6071	ppb	21:46:00
2	Ni 231.604†	-60.1	-16.3	-0.2082	µg/L	-0.2082	ppb	21:46:00
2	P 214.914†	32.8	-48.4	-11.617	µg/L	-11.617	ppb	21:46:00
2	Pb 220.353†	87.7	-29.0	-1.7681	µg/L	-1.7681	ppb	21:46:00

2	S 181.975 Axial†	91.7	-7.6	-6.1290 µg/L	-6.1290 ppb	21:46:00
2	Sb 206.836†	84.8	-5.9	-0.7957 µg/L	-0.7957 ppb	21:46:00
2	Se 196.026†	18.7	6.9	2.73 µg/L	2.73 ppb	21:46:00
2	SiO2†	1682.8	28.0	3.0520 µg/L	3.0520 ppb	21:46:00
2	Si 251.611†	805.7	90.1	1.4833 µg/L	1.4833 ppb	21:46:00
2	Sn 189.927†	-1.8	-3.8	-0.2671 µg/L	-0.2671 ppb	21:46:00
2	Ti 334.940†	866.0	187.5	0.1872 µg/L	0.1872 ppb	21:45:40
2	Tl 190.801†	-106.3	19.2	2.5714 µg/L	2.5714 ppb	21:46:00
2	U 409.014†	-280.2	212.6	13.103 µg/L	13.103 ppb	21:45:40
2	V 292.402†	347.0	-101.7	-0.5490 µg/L	-0.5490 ppb	21:45:40
2	Zn 213.857†	514.2	24.8	0.1559 µg/L	0.1559 ppb	21:46:00
3	Sc RADIAL	154236.9	154236.9	106 %		21:44:35
3	Al 396.153Radial†	-27.1	6.3	1.3236 µg/L	1.3236 ppb	21:44:55
3	Ca 317.933Radial†	725.7	69.6	4.0774 µg/L	4.0774 ppb	21:44:55
3	Fe 238.204 Radial†	170.1	47.5	3.1556 µg/L	3.1556 ppb	21:44:55
3	K 766.490 Radial†	1418.1	-114.9	-47.294 µg/L	-47.294 ppb	21:44:35
3	Mg 279.077 IEC†	159.9	-35.5	-14.632 µg/L	-14.632 ppb	21:44:55
3	Na 589.592 Radial†	1547.3	-232.5	-35.541 µg/L	-35.541 ppb	21:44:35
3	Sr 421.552†	-316.6	-21.2	-0.0498 µg/L	-0.0498 ppb	21:44:35
3	Sc 361.383	1753936.7	1753936.7	104.85 %		21:46:02
3	Y 371.029	1074322.0	1074322.0	105.06 %		21:46:02
3	Ag 328.068†	3311.5	191.2	0.7816 µg/L	0.7816 ppb	21:46:04
3	As 188.979†	-21.8	-6.6	-2.7393 µg/L	-2.7393 ppb	21:46:24
3	B 249.677†	3129.0	-371.5	-6.2368 µg/L	-6.2368 ppb	21:46:24
3	Ba 233.527†	-162.2	20.3	0.0929 µg/L	0.0929 ppb	21:46:24
3	Be 313.107†	-901.0	-199.2	-0.0620 µg/L	-0.0620 ppb	21:46:04
3	Cd 226.502†	-95.1	3.7	0.0249 µg/L	0.0249 ppb	21:46:24
3	Co 228.616†	-174.5	10.2	0.1392 µg/L	0.1392 ppb	21:46:24
3	Cr 267.716†	174.7	6.4	0.0473 µg/L	0.0473 ppb	21:46:24
3	Cu 324.752†	2668.6	120.3	0.5307 µg/L	0.5307 ppb	21:46:04
3	Mn 257.610†	187.9	99.2	0.1361 µg/L	0.1361 ppb	21:46:24
3	Mo 202.031†	-24.5	31.8	1.0050 µg/L	1.0050 ppb	21:46:24
3	Ni 231.604†	-80.3	-35.6	-0.4559 µg/L	-0.4559 ppb	21:46:24
3	P 214.914†	36.8	-44.4	-10.662 µg/L	-10.662 ppb	21:46:24
3	Pb 220.353†	101.1	-16.0	-0.9738 µg/L	-0.9738 ppb	21:46:24
3	S 181.975 Axial†	84.3	-14.4	-11.695 µg/L	-11.695 ppb	21:46:24
3	Sb 206.836†	73.7	-16.4	-2.1934 µg/L	-2.1934 ppb	21:46:24
3	Se 196.026†	9.7	-1.7	-0.644 µg/L	-0.644 ppb	21:46:24
3	SiO2†	1725.4	72.7	7.9170 µg/L	7.9170 ppb	21:46:24
3	Si 251.611†	849.4	133.7	2.1983 µg/L	2.1983 ppb	21:46:24
3	Sn 189.927†	1.0	-1.1	-0.0738 µg/L	-0.0738 ppb	21:46:24
3	Ti 334.940†	975.6	294.1	0.2973 µg/L	0.2973 ppb	21:46:04
3	Tl 190.801†	-110.8	14.6	1.9610 µg/L	1.9610 ppb	21:46:24
3	U 409.014†	-341.5	153.4	9.4487 µg/L	9.4487 ppb	21:46:04
3	V 292.402†	361.9	-86.7	-0.4648 µg/L	-0.4648 ppb	21:46:04
3	Zn 213.857†	519.6	31.1	0.1983 µg/L	0.1983 ppb	21:46:24

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1759310.8	105.17	%	0.353				0.34%
Sc RADIAL	155189.5	106	%	0.6				0.56%
Y 371.029	1078021.5	105.42	%	0.359				0.34%
Ag 328.068†	131.9	0.5444	µg/L	0.45227	0.5444	ppb	0.45227	83.07%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.2	-0.7565	µg/L	5.55848	-0.7565	ppb	5.55848	734.76%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	1.5	0.6491	µg/L	4.43866	0.6491	ppb	4.43866	683.80%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-398.4	-6.6884	µg/L	0.50530	-6.6884	ppb	0.50530	7.55%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	13.0	0.0592	µg/L	0.02918	0.0592	ppb	0.02918	49.24%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-52.5	-0.0125	µg/L	0.04303	-0.0125	ppb	0.04303	345.39%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	52.5	3.0750	µg/L	0.92355	3.0750	ppb	0.92355	30.03%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	1.5	0.0098	µg/L	0.05303	0.0098	ppb	0.05303	543.11%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	10.1	0.1385	µg/L	0.07927	0.1385	ppb	0.07927	57.23%

```
   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -5.8     -0.0621 µg/L       0.27051     -0.0621 ppb        0.27051 435.31%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             217.2      0.9568 µg/L       0.41909      0.9568 ppb        0.41909  43.80%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       42.9      2.8502 µg/L       0.48420      2.8502 ppb        0.48420  16.99%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -17.0     -7.0019 µg/L      55.85109     -7.0019 ppb       55.85109 797.66%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         -37.4     -15.388 µg/L        1.1111     -15.388 ppb        1.1111   7.22%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             101.6      0.1394 µg/L       0.00394      0.1394 ppb        0.00394   2.82%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              33.8      1.0676 µg/L       0.49486      1.0676 ppb        0.49486  46.35%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -167.7     -25.657 µg/L        9.2837     -25.657 ppb        9.2837  36.18%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -22.1     -0.2825 µg/L       0.15069     -0.2825 ppb        0.15069  53.35%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -43.3     -10.395 µg/L        1.3745     -10.395 ppb        1.3745  13.22%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -20.7     -1.2640 µg/L       0.43823     -1.2640 ppb        0.43823  34.67%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†        -11.1     -9.0047 µg/L       2.78752     -9.0047 ppb        2.78752  30.96%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -9.8     -1.3053 µg/L       0.77187     -1.3053 ppb        0.77187  59.13%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               3.0        1.21 µg/L         1.710        1.21 ppb          1.710 141.69%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    40.0      4.3425 µg/L       3.13523      4.3425 ppb        3.13523  72.20%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             109.6      1.7979 µg/L       0.36513      1.7979 ppb        0.36513  20.31%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -1.5     -0.1033 µg/L       0.15126     -0.1033 ppb        0.15126 146.44%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              26.6      0.0623 µg/L       0.14172      0.0623 ppb        0.14172 227.53%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             203.5      0.2025 µg/L       0.08808      0.2025 ppb        0.08808  43.49%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†              14.9      1.9999 µg/L       0.55303      1.9999 ppb        0.55303  27.65%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              248.3      15.299 µg/L        7.2039      15.299 ppb         7.2039  47.09%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -141.7     -0.7657 µg/L       0.45029     -0.7657 ppb        0.45029  58.81%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              36.5      0.2305 µg/L       0.09482      0.2305 ppb        0.09482  41.14%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

Sequence No.: 73 **Autosampler Location: 1**
Sample ID: CCV **Date Collected: 3/29/2010 22:01:04**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	158049.5	158049.5	108	%			22:01:37
1	Al 396.153Radial†	26411.5	24388.7	5301.6	µg/L	5301.6	ppb	22:01:37
1	Ca 317.933Radial†	92553.1	84736.9	4965.2	µg/L	4965.2	ppb	22:01:37
1	Fe 238.204 Radial†	80932.2	74522.9	4954.5	µg/L	4954.5	ppb	22:01:37
1	K 766.490 Radial†	14535.0	11949.3	4915.2	µg/L	4915.2	ppb	22:01:37
1	Mg 279.077 IEC†	13642.6	12394.6	5117.9	µg/L	5117.9	ppb	22:01:37
1	Na 589.592 Radial†	72124.5	64818.9	9913.8	µg/L	9913.8	ppb	22:01:37
1	Sr 421.552†	236566.4	218441.0	511.93	µg/L	511.93	ppb	22:01:35
1	Sc 361.383	1796532.1	1796532.1	107.40	%			22:01:50
1	Y 371.029	1087433.5	1087433.5	106.34	%			22:01:50
1	Ag 328.068†	132761.6	120649.0	495.79	µg/L	495.79	ppb	22:01:50
1	As 188.979†	1379.4	1298.6	549.79	µg/L	549.79	ppb	22:02:10
1	B 249.677†	34327.9	28607.5	478.59	µg/L	478.59	ppb	22:01:50
1	Ba 233.527†	118329.1	110352.8	504.53	µg/L	504.53	ppb	22:01:50
1	Be 313.107†	1697099.0	1580851.1	514.73	µg/L	514.73	ppb	22:01:50
1	Cd 226.502†	75099.3	70020.3	483.23	µg/L	483.23	ppb	22:01:50
1	Co 228.616†	38144.6	35693.5	489.02	µg/L	489.02	ppb	22:01:50
1	Cr 267.716†	61551.1	57150.8	490.75	µg/L	490.75	ppb	22:01:50
1	Cu 324.752†	125230.0	114178.5	497.87	µg/L	497.87	ppb	22:01:50
1	Mn 257.610†	387183.9	360432.0	492.29	µg/L	492.29	ppb	22:01:50
1	Mo 202.031†	16175.9	15116.8	477.63	µg/L	477.63	ppb	22:02:10
1	Ni 231.604†	40995.7	38212.6	488.78	µg/L	488.78	ppb	22:01:50
1	P 214.914†	10701.6	9884.8	2358.9	µg/L	2358.9	ppb	22:02:10
1	Pb 220.353†	8517.0	7817.8	475.13	µg/L	475.13	ppb	22:02:10
1	S 181.975 Axial†	1332.8	1146.2	932.66	µg/L	932.66	ppb	22:02:10
1	Sb 206.836†	3939.5	3581.5	484.05	µg/L	484.05	ppb	22:02:10
1	Se 196.026†	1279.3	1180.3	469	µg/L	469	ppb	22:02:10
1	SiO2†	53216.1	47977.4	5223.3	µg/L	5223.3	ppb	22:01:50
1	Si 251.611†	160303.4	148584.2	2447.2	µg/L	2447.2	ppb	22:01:50
1	Sn 189.927†	7334.9	6827.6	487.05	µg/L	487.05	ppb	22:02:10
1	Ti 334.940†	519977.9	483521.9	492.40	µg/L	492.40	ppb	22:01:50
1	Tl 190.801†	3694.6	3560.4	485.32	µg/L	485.32	ppb	22:02:10
1	U 409.014†	7392.0	7361.9	485.07	µg/L	485.07	ppb	22:01:50
1	V 292.402†	96188.6	89130.7	500.52	µg/L	500.52	ppb	22:01:50
1	Zn 213.857†	83802.2	77564.9	484.40	µg/L	484.40	ppb	22:01:50
2	Sc RADIAL	156901.2	156901.2	108	%			22:01:41
2	Al 396.153Radial†	26045.7	24227.1	5266.1	µg/L	5266.1	ppb	22:01:41
2	Ca 317.933Radial†	91463.8	84349.6	4942.5	µg/L	4942.5	ppb	22:01:41
2	Fe 238.204 Radial†	80200.4	74389.3	4945.7	µg/L	4945.7	ppb	22:01:41
2	K 766.490 Radial†	14394.1	11916.4	4901.6	µg/L	4901.6	ppb	22:01:41
2	Mg 279.077 IEC†	13524.6	12377.1	5110.8	µg/L	5110.8	ppb	22:01:41
2	Na 589.592 Radial†	71678.0	64891.0	9924.8	µg/L	9924.8	ppb	22:01:41
2	Sr 421.552†	232732.3	216475.9	507.32	µg/L	507.32	ppb	22:01:39
2	Sc 361.383	1783616.2	1783616.2	106.63	%			22:02:13
2	Y 371.029	1079542.4	1079542.4	105.57	%			22:02:13
2	Ag 328.068†	131412.3	120278.7	494.27	µg/L	494.27	ppb	22:02:13
2	As 188.979†	1380.3	1308.7	554.01	µg/L	554.01	ppb	22:02:33
2	B 249.677†	34427.1	28932.0	484.03	µg/L	484.03	ppb	22:02:13
2	Ba 233.527†	116944.7	109852.3	502.24	µg/L	502.24	ppb	22:02:13
2	Be 313.107†	1678543.6	1574891.6	512.79	µg/L	512.79	ppb	22:02:13
2	Cd 226.502†	74410.0	69880.2	482.26	µg/L	482.26	ppb	22:02:13
2	Co 228.616†	37848.5	35673.1	488.73	µg/L	488.73	ppb	22:02:13
2	Cr 267.716†	60832.9	56892.2	488.54	µg/L	488.54	ppb	22:02:13
2	Cu 324.752†	123762.6	113646.6	495.55	µg/L	495.55	ppb	22:02:13
2	Mn 257.610†	383763.1	359834.4	491.48	µg/L	491.48	ppb	22:02:13
2	Mo 202.031†	16215.3	15262.8	482.24	µg/L	482.24	ppb	22:02:33
2	Ni 231.604†	40715.4	38226.1	488.96	µg/L	488.96	ppb	22:02:13
2	P 214.914†	10801.6	10050.8	2398.6	µg/L	2398.6	ppb	22:02:33
2	Pb 220.353†	8589.1	7942.9	482.72	µg/L	482.72	ppb	22:02:33

2	S 181.975 Axial†	1344.2	1165.8	948.58 µg/L	948.58 ppb	22:02:33
2	Sb 206.836†	3942.2	3610.6	488.08 µg/L	488.08 ppb	22:02:33
2	Se 196.026†	1283.6	1192.9	474 µg/L	474 ppb	22:02:33
2	SiO2†	52849.8	47992.6	5224.8 µg/L	5224.8 ppb	22:02:13
2	Si 251.611†	158621.6	148087.7	2438.9 µg/L	2438.9 ppb	22:02:13
2	Sn 189.927†	7373.6	6913.4	493.14 µg/L	493.14 ppb	22:02:33
2	Ti 334.940†	514397.9	481794.6	490.64 µg/L	490.64 ppb	22:02:13
2	Tl 190.801†	3715.3	3604.7	491.24 µg/L	491.24 ppb	22:02:33
2	U 409.014†	7243.6	7272.5	479.51 µg/L	479.51 ppb	22:02:13
2	V 292.402†	95349.6	88992.3	499.79 µg/L	499.79 ppb	22:02:13
2	Zn 213.857†	82609.2	77011.1	480.91 µg/L	480.91 ppb	22:02:13
3	Sc RADIAL	156463.7	156463.7	107 %		22:01:45
3	Al 396.153Radial†	25995.3	24247.8	5270.6 µg/L	5270.6 ppb	22:01:45
3	Ca 317.933Radial†	91157.7	84302.0	4939.7 µg/L	4939.7 ppb	22:01:45
3	Fe 238.204 Radial†	79790.6	74215.9	4934.1 µg/L	4934.1 ppb	22:01:45
3	K 766.490 Radial†	14295.4	11862.0	4879.2 µg/L	4879.2 ppb	22:01:45
3	Mg 279.077 IEC†	13441.9	12335.1	5093.5 µg/L	5093.5 ppb	22:01:45
3	Na 589.592 Radial†	71245.2	64673.9	9891.6 µg/L	9891.6 ppb	22:01:45
3	Sr 421.552†	235650.6	219799.0	515.11 µg/L	515.11 ppb	22:01:43
3	Sc 361.383	1779354.1	1779354.1	106.37 %		22:02:36
3	Y 371.029	1076400.2	1076400.2	105.26 %		22:02:36
3	Ag 328.068†	130833.4	120029.7	493.27 µg/L	493.27 ppb	22:02:36
3	As 188.979†	1382.7	1314.1	556.25 µg/L	556.25 ppb	22:02:57
3	B 249.677†	34071.7	28675.2	479.73 µg/L	479.73 ppb	22:02:36
3	Ba 233.527†	116809.2	109987.6	502.86 µg/L	502.86 ppb	22:02:36
3	Be 313.107†	1674596.4	1574951.7	512.81 µg/L	512.81 ppb	22:02:36
3	Cd 226.502†	73969.6	69633.4	480.55 µg/L	480.55 ppb	22:02:36
3	Co 228.616†	37628.2	35550.9	487.06 µg/L	487.06 ppb	22:02:36
3	Cr 267.716†	60619.6	56828.4	487.98 µg/L	487.98 ppb	22:02:36
3	Cu 324.752†	123542.2	113717.4	495.86 µg/L	495.86 ppb	22:02:36
3	Mn 257.610†	382395.5	359410.8	490.90 µg/L	490.90 ppb	22:02:36
3	Mo 202.031†	16173.8	15260.2	482.16 µg/L	482.16 ppb	22:02:57
3	Ni 231.604†	40421.3	38041.0	486.59 µg/L	486.59 ppb	22:02:36
3	P 214.914†	10736.5	10013.9	2389.8 µg/L	2389.8 ppb	22:02:57
3	Pb 220.353†	8554.5	7929.6	481.90 µg/L	481.90 ppb	22:02:57
3	S 181.975 Axial†	1335.2	1160.4	944.20 µg/L	944.20 ppb	22:02:57
3	Sb 206.836†	3941.0	3618.3	489.13 µg/L	489.13 ppb	22:02:57
3	Se 196.026†	1288.0	1199.9	477 µg/L	477 ppb	22:02:57
3	SiO2†	52993.8	48246.8	5252.6 µg/L	5252.6 ppb	22:02:36
3	Si 251.611†	158759.4	148573.6	2447.0 µg/L	2447.0 ppb	22:02:36
3	Sn 189.927†	7362.8	6919.8	493.59 µg/L	493.59 ppb	22:02:57
3	Ti 334.940†	513521.6	482126.3	490.98 µg/L	490.98 ppb	22:02:36
3	Tl 190.801†	3708.7	3606.8	491.53 µg/L	491.53 ppb	22:02:57
3	U 409.014†	7457.8	7490.2	492.90 µg/L	492.90 ppb	22:02:36
3	V 292.402†	94935.5	88817.2	498.83 µg/L	498.83 ppb	22:02:36
3	Zn 213.857†	82507.8	77101.4	481.50 µg/L	481.50 ppb	22:02:36

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1786500.8	106.80	%	0.535				0.50%
Sc RADIAL	157138.2	108	%	0.6				0.52%
Y 371.029	1081125.4	105.73	%	0.556				0.53%
Ag 328.068†	120319.2	494.45	µg/L	1.270	494.45	ppb	1.270	0.26%
QC value within limits for Ag 328.068 Recovery = 98.89%								
Al 396.153Radial†	24287.9	5279.4	µg/L	19.31	5279.4	ppb	19.31	0.37%
QC value within limits for Al 396.153Radial Recovery = 105.59%								
As 188.979†	1307.2	553.35	µg/L	3.278	553.35	ppb	3.278	0.59%
QC value greater than the upper limit for As 188.979 Recovery = 110.67%								
B 249.677†	28738.2	480.78	µg/L	2.873	480.78	ppb	2.873	0.60%
QC value within limits for B 249.677 Recovery = 96.16%								
Ba 233.527†	110064.3	503.21	µg/L	1.182	503.21	ppb	1.182	0.23%
QC value within limits for Ba 233.527 Recovery = 100.64%								
Be 313.107†	1576898.2	513.44	µg/L	1.114	513.44	ppb	1.114	0.22%
QC value within limits for Be 313.107 Recovery = 102.69%								
Ca 317.933Radial†	84462.8	4949.2	µg/L	13.98	4949.2	ppb	13.98	0.28%
QC value within limits for Ca 317.933Radial Recovery = 98.98%								
Cd 226.502†	69844.6	482.01	µg/L	1.352	482.01	ppb	1.352	0.28%
QC value within limits for Cd 226.502 Recovery = 96.40%								
Co 228.616†	35639.2	488.27	µg/L	1.056	488.27	ppb	1.056	0.22%

```
   QC value within limits for Co 228.616  Recovery = 97.65%
Cr 267.716†            56957.1      489.09 µg/L         1.468      489.09 ppb          1.468   0.30%
   QC value within limits for Cr 267.716  Recovery = 97.82%
Cu 324.752†           113847.5      496.43 µg/L         1.257      496.43 ppb          1.257   0.25%
   QC value within limits for Cu 324.752  Recovery = 99.29%
Fe 238.204 Radial†     74376.0      4944.8 µg/L         10.23      4944.8 ppb          10.23   0.21%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.90%
K 766.490 Radial†      11909.2      4898.7 µg/L         18.15      4898.7 ppb          18.15   0.37%
   QC value within limits for K 766.490 Radial  Recovery = 97.97%
Mg 279.077 IEC†        12368.9      5107.4 µg/L         12.54      5107.4 ppb          12.54   0.25%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.15%
Mn 257.610†           359892.4      491.56 µg/L         0.701      491.56 ppb          0.701   0.14%
   QC value within limits for Mn 257.610  Recovery = 98.31%
Mo 202.031†            15213.3      480.68 µg/L         2.637      480.68 ppb          2.637   0.55%
   QC value within limits for Mo 202.031  Recovery = 96.14%
Na 589.592 Radial†     64794.6      9910.0 µg/L         16.90      9910.0 ppb          16.90   0.17%
   QC value within limits for Na 589.592 Radial  Recovery = 99.10%
Ni 231.604†            38159.9      488.11 µg/L         1.320      488.11 ppb          1.320   0.27%
   QC value within limits for Ni 231.604  Recovery = 97.62%
P 214.914†              9983.2      2382.4 µg/L         20.89      2382.4 ppb          20.89   0.88%
   QC value within limits for P 214.914  Recovery = 95.30%
Pb 220.353†             7896.8      479.91 µg/L         4.167      479.91 ppb          4.167   0.87%
   QC value within limits for Pb 220.353  Recovery = 95.98%
S 181.975 Axial†        1157.5      941.82 µg/L         8.224      941.82 ppb          8.224   0.87%
   QC value within limits for S 181.975 Axial  Recovery = 94.18%
Sb 206.836†             3603.5      487.09 µg/L         2.680      487.09 ppb          2.680   0.55%
   QC value within limits for Sb 206.836  Recovery = 97.42%
Se 196.026†             1191.0         473 µg/L           3.9         473 ppb            3.9   0.83%
   QC value within limits for Se 196.026  Recovery = 94.65%
SiO2†                  48072.3      5233.6 µg/L         16.47      5233.6 ppb          16.47   0.31%
   QC value within limits for SiO2  Recovery = 97.87%
Si 251.611†           148415.2      2444.4 µg/L          4.72      2444.4 ppb           4.72   0.19%
   QC value within limits for Si 251.611  Recovery = 97.78%
Sn 189.927†             6886.9      491.26 µg/L         3.655      491.26 ppb          3.655   0.74%
   QC value within limits for Sn 189.927  Recovery = 98.25%
Sr 421.552†           218238.6      511.45 µg/L         3.916      511.45 ppb          3.916   0.77%
   QC value within limits for Sr 421.552  Recovery = 102.29%
Ti 334.940†           482481.0      491.34 µg/L         0.934      491.34 ppb          0.934   0.19%
   QC value within limits for Ti 334.940  Recovery = 98.27%
Tl 190.801†             3590.7      489.36 µg/L         3.506      489.36 ppb          3.506   0.72%
   QC value within limits for Tl 190.801  Recovery = 97.87%
U 409.014†              7374.9      485.83 µg/L         6.730      485.83 ppb          6.730   1.39%
   QC value within limits for U 409.014  Recovery = 97.17%
V 292.402†             88980.1      499.71 µg/L         0.850      499.71 ppb          0.850   0.17%
   QC value within limits for V 292.402  Recovery = 99.94%
Zn 213.857†            77225.8      482.27 µg/L         1.867      482.27 ppb          1.867   0.39%
   QC value within limits for Zn 213.857  Recovery = 96.45%
QC Failed.  Continue with analysis.
```

Sequence No.: 74
Sample ID: CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 3/29/2010 22:03:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	160449.4	160449.4	110	%			22:03:34
1	Al 396.153Radial†	-23.3	10.7	2.2857	µg/L	2.2857	ppb	22:03:54
1	Ca 317.933Radial†	663.3	-13.6	-0.7986	µg/L	-0.7986	ppb	22:03:54
1	Fe 238.204 Radial†	178.8	49.2	3.2692	µg/L	3.2692	ppb	22:03:54
1	K 766.490 Radial†	1550.2	-46.8	-19.248	µg/L	-19.248	ppb	22:03:34
1	Mg 279.077 IEC†	188.3	-15.6	-6.4221	µg/L	-6.4221	ppb	22:03:54
1	Na 589.592 Radial†	1720.0	-132.3	-20.226	µg/L	-20.226	ppb	22:03:34
1	Sr 421.552†	-107.7	180.2	0.4223	µg/L	0.4223	ppb	22:03:34
1	Sc 361.383	1782990.1	1782990.1	106.59	%			22:04:42
1	Y 371.029	1090676.4	1090676.4	106.66	%			22:04:42
1	Ag 328.068†	3540.4	354.5	1.4358	µg/L	1.4358	ppb	22:04:44
1	As 188.979†	-23.8	-8.1	-3.3731	µg/L	-3.3731	ppb	22:05:04
1	B 249.677†	3170.3	-381.3	-6.4031	µg/L	-6.4031	ppb	22:05:04
1	Ba 233.527†	-164.7	20.5	0.0937	µg/L	0.0937	ppb	22:05:04
1	Be 313.107†	-523.0	169.4	0.0564	µg/L	0.0564	ppb	22:04:44
1	Cd 226.502†	-92.5	7.6	0.0522	µg/L	0.0522	ppb	22:05:04
1	Co 228.616†	-166.7	20.2	0.2761	µg/L	0.2761	ppb	22:05:04
1	Cr 267.716†	144.9	-24.3	-0.2125	µg/L	-0.2125	ppb	22:05:04
1	Cu 324.752†	3308.1	678.7	2.9543	µg/L	2.9543	ppb	22:04:44
1	Mn 257.610†	226.5	132.5	0.1813	µg/L	0.1813	ppb	22:05:04
1	Mo 202.031†	-22.2	34.4	1.0857	µg/L	1.0857	ppb	22:05:04
1	Ni 231.604†	-71.5	-26.2	-0.3353	µg/L	-0.3353	ppb	22:05:04
1	P 214.914†	17.7	-63.0	-15.122	µg/L	-15.122	ppb	22:05:04
1	Pb 220.353†	110.9	-8.4	-0.5118	µg/L	-0.5118	ppb	22:05:04
1	S 181.975 Axial†	97.2	-3.6	-2.9298	µg/L	-2.9298	ppb	22:05:04
1	Sb 206.836†	92.1	-0.2	-0.0106	µg/L	-0.0106	ppb	22:05:04
1	Se 196.026†	10.0	-1.5	-0.603	µg/L	-0.603	ppb	22:05:04
1	SiO2†	1743.7	63.1	6.8545	µg/L	6.8545	ppb	22:05:04
1	Si 251.611†	838.2	110.0	1.8012	µg/L	1.8012	ppb	22:05:04
1	Sn 189.927†	10.0	7.4	0.5254	µg/L	0.5254	ppb	22:05:04
1	Ti 334.940†	839.9	151.6	0.1534	µg/L	0.1534	ppb	22:04:44
1	Tl 190.801†	-122.2	5.6	0.7511	µg/L	0.7511	ppb	22:05:04
1	U 409.014†	-437.1	69.0	4.2258	µg/L	4.2258	ppb	22:04:44
1	V 292.402†	331.6	-120.7	-0.6569	µg/L	-0.6569	ppb	22:04:44
1	Zn 213.857†	604.8	103.0	0.6478	µg/L	0.6478	ppb	22:05:04
2	Sc RADIAL	156747.2	156747.2	108	%			22:03:56
2	Al 396.153Radial†	-29.6	4.3	0.8879	µg/L	0.8879	ppb	22:04:16
2	Ca 317.933Radial†	666.7	3.7	0.2175	µg/L	0.2175	ppb	22:04:16
2	Fe 238.204 Radial†	175.2	49.7	3.3017	µg/L	3.3017	ppb	22:04:16
2	K 766.490 Radial†	1470.5	-87.7	-36.090	µg/L	-36.090	ppb	22:03:56
2	Mg 279.077 IEC†	169.6	-29.0	-11.920	µg/L	-11.920	ppb	22:04:16
2	Na 589.592 Radial†	1750.9	-66.6	-10.165	µg/L	-10.165	ppb	22:03:56
2	Sr 421.552†	-135.6	151.9	0.3559	µg/L	0.3559	ppb	22:03:56
2	Sc 361.383	1797191.3	1797191.3	107.44	%			22:05:06
2	Y 371.029	1098454.4	1098454.4	107.42	%			22:05:06
2	Ag 328.068†	3408.6	205.6	0.8469	µg/L	0.8469	ppb	22:05:08
2	As 188.979†	-12.7	2.4	1.0155	µg/L	1.0155	ppb	22:05:28
2	B 249.677†	3164.7	-410.0	-6.8848	µg/L	-6.8848	ppb	22:05:28
2	Ba 233.527†	-163.4	23.0	0.1052	µg/L	0.1052	ppb	22:05:28
2	Be 313.107†	-678.6	28.5	0.0135	µg/L	0.0135	ppb	22:05:08
2	Cd 226.502†	-87.1	13.3	0.0914	µg/L	0.0914	ppb	22:05:28
2	Co 228.616†	-175.3	13.5	0.1843	µg/L	0.1843	ppb	22:05:28
2	Cr 267.716†	187.5	14.3	0.1122	µg/L	0.1122	ppb	22:05:28
2	Cu 324.752†	3253.3	603.2	2.6341	µg/L	2.6341	ppb	22:05:08
2	Mn 257.610†	189.8	96.7	0.1326	µg/L	0.1326	ppb	22:05:28
2	Mo 202.031†	-18.9	37.7	1.1886	µg/L	1.1886	ppb	22:05:28
2	Ni 231.604†	-71.9	-26.0	-0.3327	µg/L	-0.3327	ppb	22:05:28
2	P 214.914†	32.5	-49.3	-11.863	µg/L	-11.863	ppb	22:05:28
2	Pb 220.353†	101.8	-17.6	-1.0762	µg/L	-1.0762	ppb	22:05:28

2	S 181.975 Axial†	94.3	-7.1	-5.7195 µg/L	-5.7195 ppb	22:05:28
2	Sb 206.836†	73.5	-18.2	-2.4456 µg/L	-2.4456 ppb	22:05:28
2	Se 196.026†	11.7	0.0	0.017 µg/L	0.017 ppb	22:05:28
2	SiO2†	1699.5	9.0	0.9499 µg/L	0.9499 ppb	22:05:28
2	Si 251.611†	884.5	146.9	2.4136 µg/L	2.4136 ppb	22:05:28
2	Sn 189.927†	-0.8	-2.7	-0.1939 µg/L	-0.1939 ppb	22:05:28
2	Ti 334.940†	738.9	51.4	0.0476 µg/L	0.0476 ppb	22:05:08
2	Tl 190.801†	-120.9	7.8	1.0385 µg/L	1.0385 ppb	22:05:28
2	U 409.014†	-272.9	225.1	13.889 µg/L	13.889 ppb	22:05:08
2	V 292.402†	392.8	-66.2	-0.3457 µg/L	-0.3457 ppb	22:05:08
2	Zn 213.857†	590.9	85.6	0.5385 µg/L	0.5385 ppb	22:05:28
3	Sc RADIAL	159177.1	159177.1	109 %		22:04:18
3	Al 396.153Radial†	-32.3	2.3	0.4484 µg/L	0.4484 ppb	22:04:38
3	Ca 317.933Radial†	661.7	-10.3	-0.6042 µg/L	-0.6042 ppb	22:04:38
3	Fe 238.204 Radial†	157.7	31.1	2.0666 µg/L	2.0666 ppb	22:04:38
3	K 766.490 Radial†	1654.5	60.0	24.710 µg/L	24.710 ppb	22:04:18
3	Mg 279.077 IEC†	173.1	-28.1	-11.572 µg/L	-11.572 ppb	22:04:38
3	Na 589.592 Radial†	1670.7	-164.9	-25.257 µg/L	-25.257 ppb	22:04:18
3	Sr 421.552†	-81.8	203.1	0.4761 µg/L	0.4761 ppb	22:04:18
3	Sc 361.383	1802721.6	1802721.6	107.77 %		22:05:30
3	Y 371.029	1101871.3	1101871.3	107.75 %		22:05:30
3	Ag 328.068†	3236.7	36.3	0.1614 µg/L	0.1614 ppb	22:05:33
3	As 188.979†	-14.2	1.1	0.4596 µg/L	0.4596 ppb	22:05:53
3	B 249.677†	3175.4	-409.2	-6.8698 µg/L	-6.8698 ppb	22:05:53
3	Ba 233.527†	-172.2	15.3	0.0698 µg/L	0.0698 ppb	22:05:53
3	Be 313.107†	-906.9	-181.5	-0.0538 µg/L	-0.0538 ppb	22:05:33
3	Cd 226.502†	-107.7	-5.6	-0.0386 µg/L	-0.0386 ppb	22:05:53
3	Co 228.616†	-189.6	0.7	0.0092 µg/L	0.0092 ppb	22:05:53
3	Cr 267.716†	175.9	3.0	0.0117 µg/L	0.0117 ppb	22:05:53
3	Cu 324.752†	3047.7	403.1	1.7668 µg/L	1.7668 ppb	22:05:33
3	Mn 257.610†	198.6	104.3	0.1430 µg/L	0.1430 ppb	22:05:53
3	Mo 202.031†	-19.7	36.9	1.1654 µg/L	1.1654 ppb	22:05:53
3	Ni 231.604†	-45.7	-1.5	-0.0189 µg/L	-0.0189 ppb	22:05:53
3	P 214.914†	24.9	-56.4	-13.551 µg/L	-13.551 ppb	22:05:53
3	Pb 220.353†	87.5	-31.3	-1.9030 µg/L	-1.9030 ppb	22:05:53
3	S 181.975 Axial†	90.3	-11.0	-8.9087 µg/L	-8.9087 ppb	22:05:53
3	Sb 206.836†	80.8	-11.6	-1.5550 µg/L	-1.5550 ppb	22:05:53
3	Se 196.026†	19.6	7.3	2.90 µg/L	2.90 ppb	22:05:53
3	SiO2†	1704.6	8.9	0.9407 µg/L	0.9407 ppb	22:05:53
3	Si 251.611†	850.1	112.5	1.8467 µg/L	1.8467 ppb	22:05:53
3	Sn 189.927†	-3.2	-5.0	-0.3566 µg/L	-0.3566 ppb	22:05:53
3	Ti 334.940†	849.3	151.7	0.1485 µg/L	0.1485 ppb	22:05:33
3	Tl 190.801†	-126.9	2.6	0.3427 µg/L	0.3427 ppb	22:05:53
3	U 409.014†	-211.7	282.7	17.431 µg/L	17.431 ppb	22:05:33
3	V 292.402†	343.3	-113.2	-0.6046 µg/L	-0.6046 ppb	22:05:33
3	Zn 213.857†	574.3	68.5	0.4296 µg/L	0.4296 ppb	22:05:53

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1794301.0	107.26	%	0.608				0.57%
Sc RADIAL	158791.2	109	%	1.3				1.18%
Y 371.029	1097000.7	107.28	%	0.561				0.52%
Ag 328.068†	198.8	0.8147	µg/L	0.63786	0.8147	ppb	0.63786	78.29%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	5.8	1.2073	µg/L	0.95936	1.2073	ppb	0.95936	79.46%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-1.5	-0.6327	µg/L	2.38947	-0.6327	ppb	2.38947	377.69%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-400.2	-6.7193	µg/L	0.27389	-6.7193	ppb	0.27389	4.08%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	19.6	0.0896	µg/L	0.01809	0.0896	ppb	0.01809	20.20%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	5.5	0.0054	µg/L	0.05556	0.0054	ppb	0.05556	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-6.7	-0.3951	µg/L	0.53934	-0.3951	ppb	0.53934	136.51%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	5.1	0.0350	µg/L	0.06666	0.0350	ppb	0.06666	190.46%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	11.4	0.1565	µg/L	0.13561	0.1565	ppb	0.13561	86.64%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -2.3     -0.0296 µg/L      0.16621     -0.0296 ppb       0.16621 562.40%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             561.7      2.4517 µg/L      0.61441      2.4517 ppb       0.61441  25.06%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       43.3      2.8792 µg/L      0.70386      2.8792 ppb       0.70386  24.45%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†       -24.8     -10.209 µg/L      31.3914     -10.209 ppb       31.3914 307.48%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         -24.2     -9.9713 µg/L      3.07868     -9.9713 ppb       3.07868  30.88%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             111.1      0.1523 µg/L      0.02563      0.1523 ppb       0.02563  16.83%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              36.3      1.1466 µg/L      0.05397      1.1466 ppb       0.05397   4.71%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -121.3     -18.549 µg/L       7.6848     -18.549 ppb        7.6848  41.43%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -17.9     -0.2290 µg/L      0.18194     -0.2290 ppb       0.18194  79.46%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -56.3     -13.512 µg/L       1.6296     -13.512 ppb        1.6296  12.06%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -19.1     -1.1637 µg/L      0.69972     -1.1637 ppb       0.69972  60.13%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -7.2     -5.8527 µg/L      2.99169     -5.8527 ppb       2.99169  51.12%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†             -10.0     -1.3371 µg/L      1.23203     -1.3371 ppb       1.23203  92.14%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               1.9       0.771 µg/L       1.8678       0.771 ppb        1.8678 242.41%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    27.0      2.9150 µg/L      3.41170      2.9150 ppb       3.41170 117.04%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             123.1      2.0205 µg/L      0.34120      2.0205 ppb       0.34120  16.89%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†              -0.1     -0.0084 µg/L      0.46934     -0.0084 ppb       0.46934 >999.9%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             178.4      0.4181 µg/L      0.06020      0.4181 ppb       0.06020  14.40%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             118.2      0.1165 µg/L      0.05971      0.1165 ppb       0.05971  51.25%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               5.3      0.7108 µg/L      0.34967      0.7108 ppb       0.34967  49.20%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              192.3      11.848 µg/L       6.8347      11.848 ppb        6.8347  57.68%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -100.0     -0.5357 µg/L      0.16666     -0.5357 ppb       0.16666  31.11%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              85.7      0.5387 µg/L      0.10910      0.5387 ppb       0.10910  20.25%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 75
Sample ID: 1202056945|959137|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 359
Date Collected: 3/29/2010 22:06:00
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202056945|959137|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	161779.6	161779.6	111	%			22:06:31
1	Al 396.153Radial†	-45.6	-9.2	-2.0422	µg/L	-2.0422	ppb	22:06:51
1	Ca 317.933Radial†	739.8	50.3	2.9497	µg/L	2.9497	ppb	22:06:51
1	Fe 238.204 Radial†	227.8	91.9	6.1124	µg/L	6.1124	ppb	22:06:51
1	K 766.490 Radial†	1499.3	-104.2	-42.885	µg/L	-42.885	ppb	22:06:31
1	Mg 279.077 IEC†	159.2	-43.2	-17.824	µg/L	-17.824	ppb	22:06:51
1	Na 589.592 Radial†	1668.4	-191.6	-29.277	µg/L	-29.277	ppb	22:06:31
1	Sr 421.552†	-247.5	55.0	0.1289	µg/L	0.1289	ppb	22:06:31
1	Sc 361.383	1768982.3	1768982.3	105.75	%			22:07:39
1	Y 371.029	1078641.4	1078641.4	105.48	%			22:07:39
1	Ag 328.068†	3003.5	-126.9	-0.5101	µg/L	-0.5101	ppb	22:07:41
1	As 188.979†	-28.0	-12.3	-5.1193	µg/L	-5.1193	ppb	22:08:01
1	B 249.677†	3163.0	-364.7	-6.1225	µg/L	-6.1225	ppb	22:08:01
1	Ba 233.527†	-180.1	4.7	0.0210	µg/L	0.0210	ppb	22:08:01
1	Be 313.107†	-830.5	-125.2	-0.0362	µg/L	-0.0362	ppb	22:07:41
1	Cd 226.502†	-108.2	-8.0	-0.0556	µg/L	-0.0556	ppb	22:08:01
1	Co 228.616†	-201.1	-13.6	-0.1865	µg/L	-0.1865	ppb	22:08:01
1	Cr 267.716†	148.2	-20.1	-0.1846	µg/L	-0.1846	ppb	22:08:01
1	Cu 324.752†	3150.2	554.0	2.4209	µg/L	2.4209	ppb	22:07:41
1	Mn 257.610†	350.2	251.2	0.3439	µg/L	0.3439	ppb	22:08:01
1	Mo 202.031†	-41.4	16.0	0.5057	µg/L	0.5057	ppb	22:08:01
1	Ni 231.604†	-48.0	-4.5	-0.0578	µg/L	-0.0578	ppb	22:08:01
1	P 214.914†	30.6	-50.6	-12.158	µg/L	-12.158	ppb	22:08:01
1	Pb 220.353†	113.7	-4.9	-0.3094	µg/L	-0.3094	ppb	22:08:01
1	S 181.975 Axial†	85.5	-14.0	-11.332	µg/L	-11.332	ppb	22:08:01
1	Sb 206.836†	81.3	-9.8	-1.3144	µg/L	-1.3144	ppb	22:08:01
1	Se 196.026†	20.6	8.6	3.41	µg/L	3.41	ppb	22:08:01
1	SiO2†	1966.3	286.5	31.290	µg/L	31.290	ppb	22:08:01
1	Si 251.611†	1459.7	703.9	11.629	µg/L	11.629	ppb	22:07:41
1	Sn 189.927†	10.6	8.0	0.5696	µg/L	0.5696	ppb	22:08:01
1	Ti 334.940†	955.3	267.0	0.2676	µg/L	0.2676	ppb	22:07:41
1	Tl 190.801†	-127.0	0.2	0.0214	µg/L	0.0214	ppb	22:08:01
1	U 409.014†	-247.0	245.6	15.110	µg/L	15.110	ppb	22:07:41
1	V 292.402†	241.3	-203.7	-1.1163	µg/L	-1.1163	ppb	22:07:41
1	Zn 213.857†	654.3	154.3	0.9692	µg/L	0.9692	ppb	22:08:01
2	Sc RADIAL	157981.0	157981.0	108	%			22:06:53
2	Al 396.153Radial†	-38.5	-3.7	-0.8374	µg/L	-0.8374	ppb	22:07:13
2	Ca 317.933Radial†	777.5	101.2	5.9281	µg/L	5.9281	ppb	22:07:13
2	Fe 238.204 Radial†	225.6	94.9	6.3061	µg/L	6.3061	ppb	22:07:13
2	K 766.490 Radial†	1416.3	-148.3	-61.037	µg/L	-61.037	ppb	22:06:53
2	Mg 279.077 IEC†	189.5	-11.8	-4.8700	µg/L	-4.8700	ppb	22:07:13
2	Na 589.592 Radial†	1646.8	-175.4	-26.780	µg/L	-26.780	ppb	22:06:53
2	Sr 421.552†	-166.3	124.6	0.2919	µg/L	0.2919	ppb	22:06:53
2	Sc 361.383	1769118.1	1769118.1	105.76	%			22:08:03
2	Y 371.029	1078935.3	1078935.3	105.51	%			22:08:03
2	Ag 328.068†	2898.7	-226.2	-0.9095	µg/L	-0.9095	ppb	22:08:05
2	As 188.979†	-13.6	1.3	0.5674	µg/L	0.5674	ppb	22:08:25
2	B 249.677†	3172.3	-356.2	-5.9797	µg/L	-5.9797	ppb	22:08:25
2	Ba 233.527†	-135.4	47.0	0.2143	µg/L	0.2143	ppb	22:08:25
2	Be 313.107†	-284.7	390.9	0.1320	µg/L	0.1320	ppb	22:08:05
2	Cd 226.502†	-109.8	-9.4	-0.0655	µg/L	-0.0655	ppb	22:08:25
2	Co 228.616†	-187.1	-0.3	-0.0042	µg/L	-0.0042	ppb	22:08:25
2	Cr 267.716†	181.6	11.5	0.0860	µg/L	0.0860	ppb	22:08:25
2	Cu 324.752†	3096.8	503.3	2.2014	µg/L	2.2014	ppb	22:08:05
2	Mn 257.610†	325.5	227.7	0.3114	µg/L	0.3114	ppb	22:08:25
2	Mo 202.031†	-33.5	23.5	0.7430	µg/L	0.7430	ppb	22:08:25
2	Ni 231.604†	-27.4	15.0	0.1916	µg/L	0.1916	ppb	22:08:25
2	P 214.914†	39.5	-42.2	-10.150	µg/L	-10.150	ppb	22:08:25
2	Pb 220.353†	95.7	-22.0	-1.3399	µg/L	-1.3399	ppb	22:08:25

2	S 181.975 Axial†	101.3	0.9	0.7574 µg/L	0.7574 ppb	22:08:25
2	Sb 206.836†	76.0	-14.8	-1.9914 µg/L	-1.9914 ppb	22:08:25
2	Se 196.026†	23.6	11.4	4.52 µg/L	4.52 ppb	22:08:25
2	SiO2†	1948.9	270.0	29.488 µg/L	29.488 ppb	22:08:25
2	Si 251.611†	1466.6	710.4	11.737 µg/L	11.737 ppb	22:08:05
2	Sn 189.927†	-0.4	-2.4	-0.1712 µg/L	-0.1712 ppb	22:08:25
2	Ti 334.940†	1010.8	319.4	0.3198 µg/L	0.3198 ppb	22:08:05
2	Tl 190.801†	-105.4	20.6	2.7658 µg/L	2.7658 ppb	22:08:25
2	U 409.014†	-239.4	252.7	15.564 µg/L	15.564 ppb	22:08:05
2	V 292.402†	287.2	-160.3	-0.8718 µg/L	-0.8718 ppb	22:08:05
2	Zn 213.857†	622.9	124.6	0.7807 µg/L	0.7807 ppb	22:08:25
3	Sc RADIAL	156699.0	156699.0	108 %		22:07:15
3	Al 396.153Radial†	-34.0	0.3	0.0076 µg/L	0.0076 ppb	22:07:35
3	Ca 317.933Radial†	743.1	75.0	4.3931 µg/L	4.3931 ppb	22:07:35
3	Fe 238.204 Radial†	211.3	83.3	5.5364 µg/L	5.5364 ppb	22:07:35
3	K 766.490 Radial†	1658.5	87.6	36.084 µg/L	36.084 ppb	22:07:15
3	Mg 279.077 IEC†	178.6	-20.5	-8.4353 µg/L	-8.4353 ppb	22:07:35
3	Na 589.592 Radial†	1516.0	-284.6	-43.586 µg/L	-43.586 ppb	22:07:15
3	Sr 421.552†	-196.0	95.7	0.2243 µg/L	0.2243 ppb	22:07:15
3	Sc 361.383	1756576.4	1756576.4	105.01 %		22:08:28
3	Y 371.029	1071740.3	1071740.3	104.81 %		22:08:28
3	Ag 328.068†	3135.6	19.0	0.0740 µg/L	0.0740 ppb	22:08:30
3	As 188.979†	-17.3	-2.3	-0.9435 µg/L	-0.9435 ppb	22:08:50
3	B 249.677†	3119.8	-384.7	-6.4592 µg/L	-6.4592 ppb	22:08:50
3	Ba 233.527†	-177.6	5.9	0.0270 µg/L	0.0270 ppb	22:08:50
3	Be 313.107†	-619.7	70.0	0.0233 µg/L	0.0233 ppb	22:08:30
3	Cd 226.502†	-92.7	6.1	0.0415 µg/L	0.0415 ppb	22:08:50
3	Co 228.616†	-171.9	12.9	0.1769 µg/L	0.1769 ppb	22:08:50
3	Cr 267.716†	195.3	25.7	0.2197 µg/L	0.2197 ppb	22:08:50
3	Cu 324.752†	3174.4	598.1	2.6020 µg/L	2.6020 ppb	22:08:30
3	Mn 257.610†	333.8	237.9	0.3254 µg/L	0.3254 ppb	22:08:50
3	Mo 202.031†	-19.3	36.8	1.1623 µg/L	1.1623 ppb	22:08:50
3	Ni 231.604†	-68.8	-24.6	-0.3152 µg/L	-0.3152 ppb	22:08:50
3	P 214.914†	38.2	-43.2	-10.381 µg/L	-10.381 ppb	22:08:50
3	Pb 220.353†	63.2	-52.2	-3.1611 µg/L	-3.1611 ppb	22:08:50
3	S 181.975 Axial†	99.6	0.0	0.0155 µg/L	0.0155 ppb	22:08:50
3	Sb 206.836†	95.9	4.7	0.6517 µg/L	0.6517 ppb	22:08:50
3	Se 196.026†	23.3	11.3	4.46 µg/L	4.46 ppb	22:08:50
3	SiO2†	1901.3	237.7	25.936 µg/L	25.936 ppb	22:08:50
3	Si 251.611†	1465.1	718.8	11.864 µg/L	11.864 ppb	22:08:30
3	Sn 189.927†	16.2	13.4	0.9546 µg/L	0.9546 ppb	22:08:50
3	Ti 334.940†	1023.0	337.8	0.3445 µg/L	0.3445 ppb	22:08:30
3	Tl 190.801†	-110.1	15.5	2.0817 µg/L	2.0817 ppb	22:08:50
3	U 409.014†	-473.0	28.7	1.7487 µg/L	1.7487 ppb	22:08:30
3	V 292.402†	372.5	-77.1	-0.4146 µg/L	-0.4146 ppb	22:08:30
3	Zn 213.857†	642.4	147.3	0.9270 µg/L	0.9270 ppb	22:08:50

Mean Data: 1202056945|959137|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1764892.3	105.51	%	0.431				0.41%
Sc RADIAL	158819.9	109	%	1.8				1.66%
Y 371.029	1076439.0	105.27	%	0.398				0.38%
Ag 328.068†	-111.4	-0.4485	µg/L	0.49462	-0.4485	ppb	0.49462	110.27%
Al 396.153Radial†	-4.2	-0.9573	µg/L	1.03017	-0.9573	ppb	1.03017	107.61%
As 188.979†	-4.4	-1.8318	µg/L	2.94560	-1.8318	ppb	2.94560	160.80%
B 249.677†	-368.5	-6.1871	µg/L	0.24618	-6.1871	ppb	0.24618	3.98%
Ba 233.527†	19.2	0.0875	µg/L	0.10993	0.0875	ppb	0.10993	125.70%
Be 313.107†	111.9	0.0397	µg/L	0.08526	0.0397	ppb	0.08526	214.75%
Ca 317.933Radial†	75.5	4.4236	µg/L	1.48943	4.4236	ppb	1.48943	33.67%
Cd 226.502†	-3.7	-0.0265	µg/L	0.05914	-0.0265	ppb	0.05914	222.97%
Co 228.616†	-0.3	-0.0046	µg/L	0.18169	-0.0046	ppb	0.18169	>999.9%
Cr 267.716†	5.7	0.0403	µg/L	0.20596	0.0403	ppb	0.20596	510.46%
Cu 324.752†	551.8	2.4081	µg/L	0.20064	2.4081	ppb	0.20064	8.33%
Fe 238.204 Radial†	90.0	5.9850	µg/L	0.40036	5.9850	ppb	0.40036	6.69%
K 766.490 Radial†	-54.9	-22.613	µg/L	51.6367	-22.613	ppb	51.6367	228.35%
Mg 279.077 IEC†	-25.2	-10.376	µg/L	6.6914	-10.376	ppb	6.6914	64.49%
Mn 257.610†	238.9	0.3269	µg/L	0.01633	0.3269	ppb	0.01633	4.99%
Mo 202.031†	25.5	0.8037	µg/L	0.33243	0.8037	ppb	0.33243	41.37%
Na 589.592 Radial†	-217.2	-33.214	µg/L	9.0684	-33.214	ppb	9.0684	27.30%

Ni 231.604†	-4.7	-0.0605	µg/L	0.25339	-0.0605	ppb	0.25339 419.00%
P 214.914†	-45.4	-10.896	µg/L	1.0985	-10.896	ppb	1.0985 10.08%
Pb 220.353†	-26.4	-1.6035	µg/L	1.44401	-1.6035	ppb	1.44401 90.06%
S 181.975 Axial†	-4.4	-3.5198	µg/L	6.77611	-3.5198	ppb	6.77611 192.51%
Sb 206.836†	-6.6	-0.8847	µg/L	1.37295	-0.8847	ppb	1.37295 155.18%
Se 196.026†	10.4	4.13	µg/L	0.623	4.13	ppb	0.623 15.08%
SiO2†	264.7	28.905	µg/L	2.7241	28.905	ppb	2.7241 9.42%
Si 251.611†	711.0	11.743	µg/L	0.1175	11.743	ppb	0.1175 1.00%
Sn 189.927†	6.3	0.4510	µg/L	0.57220	0.4510	ppb	0.57220 126.87%
Sr 421.552†	91.8	0.2150	µg/L	0.08188	0.2150	ppb	0.08188 38.08%
Ti 334.940†	308.1	0.3106	µg/L	0.03925	0.3106	ppb	0.03925 12.64%
Tl 190.801†	12.1	1.6230	µg/L	1.42859	1.6230	ppb	1.42859 88.02%
U 409.014†	175.6	10.808	µg/L	7.8486	10.808	ppb	7.8486 72.62%
V 292.402†	-147.0	-0.8009	µg/L	0.35618	-0.8009	ppb	0.35618 44.47%
Zn 213.857†	142.1	0.8923	µg/L	0.09888	0.8923	ppb	0.09888 11.08%

Sequence No.: 76
Sample ID: 1202056946|959137|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 360
Date Collected: 3/29/2010 22:08:57
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202056946|959137|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	154016.6	154016.6	106	%			22:09:29
1	Al 396.153Radial†	25931.4	24572.1	5341.4	µg/L	5341.4	ppb	22:09:29
1	Ca 317.933Radial†	91072.9	85571.0	5014.1	µg/L	5014.1	ppb	22:09:29
1	Fe 238.204 Radial†	79556.4	75175.2	4997.9	µg/L	4997.9	ppb	22:09:29
1	K 766.490 Radial†	14036.8	11828.8	4866.3	µg/L	4866.3	ppb	22:09:29
1	Mg 279.077 IEC†	13574.3	12659.4	5227.1	µg/L	5227.1	ppb	22:09:29
1	Na 589.592 Radial†	36522.1	32868.1	5024.9	µg/L	5024.9	ppb	22:09:29
1	Sr 421.552†	231778.1	219622.1	514.70	µg/L	514.70	ppb	22:09:27
1	Sc 361.383	1728513.0	1728513.0	103.33	%			22:09:42
1	Y 371.029	1045386.6	1045386.6	102.23	%			22:09:42
1	Ag 328.068†	125689.0	118668.9	487.93	µg/L	487.93	ppb	22:09:42
1	As 188.979†	1372.2	1342.2	568.09	µg/L	568.09	ppb	22:10:02
1	B 249.677†	33511.6	29075.3	486.44	µg/L	486.44	ppb	22:09:42
1	Ba 233.527†	118038.3	114407.1	523.06	µg/L	523.06	ppb	22:09:42
1	Be 313.107†	1665225.1	1612187.5	524.94	µg/L	524.94	ppb	22:09:42
1	Cd 226.502†	73237.8	70970.6	489.79	µg/L	489.79	ppb	22:09:42
1	Co 228.616†	36798.8	35788.8	490.34	µg/L	490.34	ppb	22:09:42
1	Cr 267.716†	60206.7	58105.0	498.93	µg/L	498.93	ppb	22:09:42
1	Cu 324.752†	123174.5	116777.7	509.20	µg/L	509.20	ppb	22:09:42
1	Mn 257.610†	378168.9	365894.3	499.75	µg/L	499.75	ppb	22:09:42
1	Mo 202.031†	15696.5	15245.6	481.71	µg/L	481.71	ppb	22:10:02
1	Ni 231.604†	40501.6	39236.5	501.88	µg/L	501.88	ppb	22:09:42
1	P 214.914†	2195.4	2045.1	481.27	µg/L	481.27	ppb	22:10:02
1	Pb 220.353†	8424.9	8040.8	488.62	µg/L	488.62	ppb	22:10:02
1	S 181.975 Axial†	6220.7	5925.2	4804.6	µg/L	4804.6	ppb	22:10:02
1	Sb 206.836†	3873.5	3662.0	494.88	µg/L	494.88	ppb	22:10:02
1	Se 196.026†	1231.6	1181.0	469	µg/L	469	ppb	22:10:02
1	SiO2†	100615.8	95798.5	10450	µg/L	10450	ppb	22:09:42
1	Si 251.611†	305339.6	294817.1	4865.1	µg/L	4865.1	ppb	22:09:42
1	Sn 189.927†	7198.8	6964.7	496.81	µg/L	496.81	ppb	22:10:02
1	Ti 334.940†	505040.5	488118.4	497.06	µg/L	497.06	ppb	22:09:42
1	Tl 190.801†	3655.0	3657.5	498.49	µg/L	498.49	ppb	22:10:02
1	U 409.014†	7671.6	7903.3	519.23	µg/L	519.23	ppb	22:09:42
1	V 292.402†	94714.1	91228.1	512.24	µg/L	512.24	ppb	22:09:42
1	Zn 213.857†	80255.6	77203.2	482.02	µg/L	482.02	ppb	22:09:42
2	Sc RADIAL	154133.6	154133.6	106	%			22:09:33
2	Al 396.153Radial†	26020.4	24637.6	5355.7	µg/L	5355.7	ppb	22:09:33
2	Ca 317.933Radial†	91229.6	85653.7	5018.9	µg/L	5018.9	ppb	22:09:33
2	Fe 238.204 Radial†	79495.3	75060.2	4990.3	µg/L	4990.3	ppb	22:09:33
2	K 766.490 Radial†	14172.4	11946.9	4914.9	µg/L	4914.9	ppb	22:09:33
2	Mg 279.077 IEC†	13528.0	12605.9	5205.1	µg/L	5205.1	ppb	22:09:33
2	Na 589.592 Radial†	36422.2	32747.4	5006.4	µg/L	5006.4	ppb	22:09:33
2	Sr 421.552†	230712.8	218448.2	511.95	µg/L	511.95	ppb	22:09:31
2	Sc 361.383	1723929.1	1723929.1	103.06	%			22:10:05
2	Y 371.029	1042465.9	1042465.9	101.94	%			22:10:05
2	Ag 328.068†	125241.8	118558.4	487.47	µg/L	487.47	ppb	22:10:05
2	As 188.979†	1361.0	1334.9	565.03	µg/L	565.03	ppb	22:10:25
2	B 249.677†	33491.7	29142.2	487.55	µg/L	487.55	ppb	22:10:05
2	Ba 233.527†	117615.3	114300.3	522.57	µg/L	522.57	ppb	22:10:05
2	Be 313.107†	1660790.7	1612169.7	524.93	µg/L	524.93	ppb	22:10:05
2	Cd 226.502†	72704.6	70641.7	487.52	µg/L	487.52	ppb	22:10:05
2	Co 228.616†	36779.0	35864.3	491.37	µg/L	491.37	ppb	22:10:05
2	Cr 267.716†	59868.6	57931.9	497.44	µg/L	497.44	ppb	22:10:05
2	Cu 324.752†	122938.6	116865.7	509.58	µg/L	509.58	ppb	22:10:05
2	Mn 257.610†	377237.4	365963.5	499.85	µg/L	499.85	ppb	22:10:05
2	Mo 202.031†	15719.1	15307.9	483.67	µg/L	483.67	ppb	22:10:25
2	Ni 231.604†	40387.0	39229.5	501.79	µg/L	501.79	ppb	22:10:05
2	P 214.914†	2195.1	2050.4	482.54	µg/L	482.54	ppb	22:10:25
2	Pb 220.353†	8431.5	8068.8	490.33	µg/L	490.33	ppb	22:10:25

2	S 181.975 Axial†	6265.9	5985.1	4853.1 µg/L	4853.1 ppb	22:10:25
2	Sb 206.836†	3863.2	3661.9	494.92 µg/L	494.92 ppb	22:10:25
2	Se 196.026†	1233.6	1186.1	471 µg/L	471 ppb	22:10:25
2	SiO2†	100425.3	95872.5	10458 µg/L	10458 ppb	22:10:05
2	Si 251.611†	304953.0	295227.6	4871.8 µg/L	4871.8 ppb	22:10:05
2	Sn 189.927†	7208.6	6992.7	498.80 µg/L	498.80 ppb	22:10:25
2	Ti 334.940†	503603.5	488023.6	496.97 µg/L	496.97 ppb	22:10:05
2	Tl 190.801†	3638.5	3650.9	497.59 µg/L	497.59 ppb	22:10:25
2	U 409.014†	7615.8	7868.9	517.05 µg/L	517.05 ppb	22:10:05
2	V 292.402†	94267.2	91038.2	511.20 µg/L	511.20 ppb	22:10:05
2	Zn 213.857†	79714.5	76884.7	480.02 µg/L	480.02 ppb	22:10:05
3	Sc RADIAL	153985.4	153985.4	106 %		22:09:37
3	Al 396.153Radial†	26231.1	24860.8	5404.5 µg/L	5404.5 ppb	22:09:37
3	Ca 317.933Radial†	91673.2	86156.7	5048.4 µg/L	5048.4 ppb	22:09:37
3	Fe 238.204 Radial†	79685.6	75312.8	5007.1 µg/L	5007.1 ppb	22:09:37
3	K 766.490 Radial†	14288.8	12070.0	4965.6 µg/L	4965.6 ppb	22:09:37
3	Mg 279.077 IEC†	13569.9	12657.9	5226.5 µg/L	5226.5 ppb	22:09:37
3	Na 589.592 Radial†	36578.0	32928.0	5034.0 µg/L	5034.0 ppb	22:09:37
3	Sr 421.552†	231125.1	219048.5	513.35 µg/L	513.35 ppb	22:09:35
3	Sc 361.383	1722027.0	1722027.0	102.94 %		22:10:28
3	Y 371.029	1041393.5	1041393.5	101.84 %		22:10:28
3	Ag 328.068†	124480.2	117952.8	484.98 µg/L	484.98 ppb	22:10:28
3	As 188.979†	1353.0	1328.5	562.34 µg/L	562.34 ppb	22:10:48
3	B 249.677†	33352.2	29042.6	485.90 µg/L	485.90 ppb	22:10:28
3	Ba 233.527†	117071.9	113898.6	520.73 µg/L	520.73 ppb	22:10:28
3	Be 313.107†	1650478.2	1603932.2	522.25 µg/L	522.25 ppb	22:10:28
3	Cd 226.502†	72224.5	70253.2	484.83 µg/L	484.83 ppb	22:10:28
3	Co 228.616†	36387.2	35523.1	486.70 µg/L	486.70 ppb	22:10:28
3	Cr 267.716†	59543.7	57680.4	495.29 µg/L	495.29 ppb	22:10:28
3	Cu 324.752†	122402.2	116476.4	507.88 µg/L	507.88 ppb	22:10:28
3	Mn 257.610†	375352.4	364536.8	497.90 µg/L	497.90 ppb	22:10:28
3	Mo 202.031†	15626.4	15234.7	481.36 µg/L	481.36 ppb	22:10:48
3	Ni 231.604†	40074.1	38968.8	498.46 µg/L	498.46 ppb	22:10:28
3	P 214.914†	2166.5	2024.9	476.46 µg/L	476.46 ppb	22:10:48
3	Pb 220.353†	8397.0	8044.4	488.85 µg/L	488.85 ppb	22:10:48
3	S 181.975 Axial†	6204.2	5931.9	4810.0 µg/L	4810.0 ppb	22:10:48
3	Sb 206.836†	3866.3	3669.1	495.88 µg/L	495.88 ppb	22:10:48
3	Se 196.026†	1223.2	1177.3	468 µg/L	468 ppb	22:10:48
3	SiO2†	99937.4	95506.1	10418 µg/L	10418 ppb	22:10:28
3	Si 251.611†	303080.5	293735.6	4847.2 µg/L	4847.2 ppb	22:10:28
3	Sn 189.927†	7157.1	6950.4	495.78 µg/L	495.78 ppb	22:10:48
3	Ti 334.940†	501887.0	486896.0	495.83 µg/L	495.83 ppb	22:10:28
3	Tl 190.801†	3618.1	3634.9	495.44 µg/L	495.44 ppb	22:10:48
3	U 409.014†	7421.9	7688.8	505.81 µg/L	505.81 ppb	22:10:28
3	V 292.402†	93848.3	90732.3	509.47 µg/L	509.47 ppb	22:10:28
3	Zn 213.857†	79231.1	76500.5	477.62 µg/L	477.62 ppb	22:10:28

Mean Data: 1202056946|959137|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1724823.0	103.11	%	0.199				0.19%
Sc RADIAL	154045.2	106	%	0.1				0.05%
Y 371.029	1043082.0	102.00	%	0.202				0.20%
Ag 328.068†	118393.4	486.79	µg/L	1.590	486.79	ppb	1.590	0.33%
Al 396.153Radial†	24690.2	5367.2	µg/L	33.06	5367.2	ppb	33.06	0.62%
As 188.979†	1335.2	565.15	µg/L	2.878	565.15	ppb	2.878	0.51%
B 249.677†	29086.7	486.63	µg/L	0.845	486.63	ppb	0.845	0.17%
Ba 233.527†	114202.0	522.12	µg/L	1.226	522.12	ppb	1.226	0.23%
Be 313.107†	1609429.8	524.04	µg/L	1.552	524.04	ppb	1.552	0.30%
Ca 317.933Radial†	85793.8	5027.1	µg/L	18.57	5027.1	ppb	18.57	0.37%
Cd 226.502†	70621.8	487.38	µg/L	2.481	487.38	ppb	2.481	0.51%
Co 228.616†	35725.4	489.47	µg/L	2.456	489.47	ppb	2.456	0.50%
Cr 267.716†	57905.8	497.22	µg/L	1.829	497.22	ppb	1.829	0.37%
Cu 324.752†	116706.6	508.89	µg/L	0.893	508.89	ppb	0.893	0.18%
Fe 238.204 Radial†	75182.7	4998.4	µg/L	8.41	4998.4	ppb	8.41	0.17%
K 766.490 Radial†	11948.6	4915.6	µg/L	49.64	4915.6	ppb	49.64	1.01%
Mg 279.077 IEC†	12641.1	5219.6	µg/L	12.54	5219.6	ppb	12.54	0.24%
Mn 257.610†	365464.8	499.17	µg/L	1.100	499.17	ppb	1.100	0.22%
Mo 202.031†	15262.7	482.25	µg/L	1.247	482.25	ppb	1.247	0.26%
Na 589.592 Radial†	32847.8	5021.8	µg/L	14.06	5021.8	ppb	14.06	0.28%

Ni 231.604†	39144.9	500.71	µg/L	1.951	500.71 ppb	1.951	0.39%
P 214.914†	2040.1	480.09	µg/L	3.204	480.09 ppb	3.204	0.67%
Pb 220.353†	8051.4	489.27	µg/L	0.926	489.27 ppb	0.926	0.19%
S 181.975 Axial†	5947.4	4822.6	µg/L	26.61	4822.6 ppb	26.61	0.55%
Sb 206.836†	3664.3	495.22	µg/L	0.565	495.22 ppb	0.565	0.11%
Se 196.026†	1181.5	470	µg/L	1.7	470 ppb	1.7	0.37%
SiO2†	95725.7	10442	µg/L	21.1	10442 ppb	21.1	0.20%
Si 251.611†	294593.4	4861.4	µg/L	12.72	4861.4 ppb	12.72	0.26%
Sn 189.927†	6969.2	497.13	µg/L	1.532	497.13 ppb	1.532	0.31%
Sr 421.552†	219039.6	513.33	µg/L	1.376	513.33 ppb	1.376	0.27%
Ti 334.940†	487679.3	496.62	µg/L	0.690	496.62 ppb	0.690	0.14%
Tl 190.801†	3647.7	497.18	µg/L	1.565	497.18 ppb	1.565	0.31%
U 409.014†	7820.3	514.03	µg/L	7.205	514.03 ppb	7.205	1.40%
V 292.402†	90999.5	510.97	µg/L	1.404	510.97 ppb	1.404	0.27%
Zn 213.857†	76862.8	479.89	µg/L	2.203	479.89 ppb	2.203	0.46%

Sequence No.: 77
Sample ID: 248044001|959137|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 401
Date Collected: 3/29/2010 22:10:56
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248044001|959137|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	153176.4	153176.4	105	%			22:11:25
1	Al 396.153Radial†	4343.4	4164.8	909.07	µg/L	909.07	ppb	22:11:27
1	Ca 317.933Radial†	247914.6	235285.7	13787	µg/L	13787	ppb	22:11:25
1	Fe 238.204 Radial†	6572.2	6140.4	408.24	µg/L	408.24	ppb	22:11:27
1	K 766.490 Radial†	10162.0	8214.6	3376.0	µg/L	3376.0	ppb	22:11:27
1	Mg 279.077 IEC†	12328.3	11544.2	4759.5	µg/L	4759.5	ppb	22:11:27
1	Na 589.592 Radial†	111867.1	104751.9	16025	µg/L	16025	ppb	22:11:25
1	Sr 421.552†	47505.9	45482.0	106.49	µg/L	106.49	ppb	22:11:25
1	Sc 361.383	1718847.5	1718847.5	102.75	%			22:11:54
1	Y 371.029	1039041.8	1039041.8	101.61	%			22:11:54
1	Ag 328.068†	3185.3	132.8	0.1634	µg/L	0.1634	ppb	22:11:54
1	As 188.979†	-18.3	-3.5	-1.3715	µg/L	-1.3715	ppb	22:12:14
1	B 249.677†	4233.3	764.1	12.826	µg/L	12.826	ppb	22:12:14
1	Ba 233.527†	18210.4	17897.3	81.756	µg/L	81.756	ppb	22:12:14
1	Be 313.107†	-462.8	209.8	0.0620	µg/L	0.0620	ppb	22:11:54
1	Cd 226.502†	-97.1	-0.1	-0.0433	µg/L	-0.0433	ppb	22:12:14
1	Co 228.616†	-122.5	57.3	0.8444	µg/L	0.8444	ppb	22:12:14
1	Cr 267.716†	248.7	81.8	0.6742	µg/L	0.6742	ppb	22:12:14
1	Cu 324.752†	2759.1	260.2	1.3026	µg/L	1.3026	ppb	22:12:14
1	Mn 257.610†	3240.0	3073.2	4.0095	µg/L	4.0095	ppb	22:12:14
1	Mo 202.031†	-15.8	39.9	1.3614	µg/L	1.3614	ppb	22:12:14
1	Ni 231.604†	12.6	53.1	0.6796	µg/L	0.6796	ppb	22:12:14
1	P 214.914†	186.9	102.3	24.404	µg/L	24.404	ppb	22:12:14
1	Pb 220.353†	115.5	0.0	0.0774	µg/L	0.0774	ppb	22:12:14
1	S 181.975 Axial†	4492.9	4277.7	3465.7	µg/L	3465.7	ppb	22:12:14
1	Sb 206.836†	66.8	-21.6	-2.9218	µg/L	-2.9218	ppb	22:12:14
1	Se 196.026†	20.3	8.9	3.63	µg/L	3.63	ppb	22:12:14
1	SiO2†	313129.8	303163.7	33136	µg/L	33136	ppb	22:11:54
1	Si 251.611†	959472.6	933078.0	15428	µg/L	15428	ppb	22:11:54
1	Sn 189.927†	3.0	0.9	0.1036	µg/L	0.1036	ppb	22:12:14
1	Ti 334.940†	11800.0	10847.4	11.041	µg/L	11.041	ppb	22:11:54
1	Tl 190.801†	-122.3	1.3	0.2979	µg/L	0.2979	ppb	22:12:14
1	U 409.014†	-839.0	-337.4	-20.289	µg/L	-20.289	ppb	22:11:54
1	V 292.402†	549.7	103.2	0.4992	µg/L	0.4992	ppb	22:12:14
1	Zn 213.857†	967.1	476.7	2.8401	µg/L	2.8401	ppb	22:12:14
2	Sc RADIAL	153221.7	153221.7	105	%			22:11:29
2	Al 396.153Radial†	4208.9	4035.6	880.89	µg/L	880.89	ppb	22:11:31
2	Ca 317.933Radial†	247885.2	235188.0	13781	µg/L	13781	ppb	22:11:29
2	Fe 238.204 Radial†	6434.5	6007.7	399.41	µg/L	399.41	ppb	22:11:31
2	K 766.490 Radial†	10048.3	8103.6	3330.3	µg/L	3330.3	ppb	22:11:31
2	Mg 279.077 IEC†	12097.1	11320.8	4667.4	µg/L	4667.4	ppb	22:11:31
2	Na 589.592 Radial†	111779.1	104636.7	16008	µg/L	16008	ppb	22:11:29
2	Sr 421.552†	47604.1	45562.0	106.68	µg/L	106.68	ppb	22:11:29
2	Sc 361.383	1719036.3	1719036.3	102.77	%			22:12:16
2	Y 371.029	1038701.5	1038701.5	101.58	%			22:12:16
2	Ag 328.068†	3148.5	96.7	0.0214	µg/L	0.0214	ppb	22:12:16
2	As 188.979†	-15.0	-0.4	-0.0631	µg/L	-0.0631	ppb	22:12:36
2	B 249.677†	4245.4	775.4	13.016	µg/L	13.016	ppb	22:12:36
2	Ba 233.527†	18237.7	17921.9	81.868	µg/L	81.868	ppb	22:12:36
2	Be 313.107†	-401.3	269.6	0.0820	µg/L	0.0820	ppb	22:12:16
2	Cd 226.502†	-85.8	11.0	0.0338	µg/L	0.0338	ppb	22:12:36
2	Co 228.616†	-117.4	62.3	0.9134	µg/L	0.9134	ppb	22:12:36
2	Cr 267.716†	270.1	102.6	0.8522	µg/L	0.8522	ppb	22:12:36
2	Cu 324.752†	2789.0	289.0	1.4256	µg/L	1.4256	ppb	22:12:36
2	Mn 257.610†	3238.0	3070.9	4.0100	µg/L	4.0100	ppb	22:12:36
2	Mo 202.031†	-26.8	29.1	1.0204	µg/L	1.0204	ppb	22:12:36
2	Ni 231.604†	-8.3	32.9	0.4206	µg/L	0.4206	ppb	22:12:36
2	P 214.914†	188.8	104.2	24.842	µg/L	24.842	ppb	22:12:36
2	Pb 220.353†	118.0	2.3	0.2143	µg/L	0.2143	ppb	22:12:36

2	S 181.975 Axial†	4469.7	4254.6	3447.0 µg/L	3447.0 ppb	22:12:36
2	Sb 206.836†	82.6	-6.3	-0.8604 µg/L	-0.8604 ppb	22:12:36
2	Se 196.026†	17.8	6.4	2.64 µg/L	2.64 ppb	22:12:36
2	SiO2†	316462.7	306373.4	33487 µg/L	33487 ppb	22:12:16
2	Si 251.611†	969448.1	942682.4	15587 µg/L	15587 ppb	22:12:16
2	Sn 189.927†	-13.5	-15.2	-1.0426 µg/L	-1.0426 ppb	22:12:36
2	Ti 334.940†	11685.0	10734.2	10.932 µg/L	10.932 ppb	22:12:16
2	Tl 190.801†	-123.2	0.4	0.1740 µg/L	0.1740 ppb	22:12:36
2	U 409.014†	-807.5	-306.6	-18.376 µg/L	-18.376 ppb	22:12:16
2	V 292.402†	583.8	136.3	0.6829 µg/L	0.6829 ppb	22:12:36
2	Zn 213.857†	985.3	494.3	2.9530 µg/L	2.9530 ppb	22:12:36
3	Sc RADIAL	151830.3	151830.3	104 %		22:11:33
3	Al 396.153Radial†	4168.9	4034.0	880.52 µg/L	880.52 ppb	22:11:35
3	Ca 317.933Radial†	246022.4	235560.7	13803 µg/L	13803 ppb	22:11:33
3	Fe 238.204 Radial†	6475.9	6103.4	405.78 µg/L	405.78 ppb	22:11:35
3	K 766.490 Radial†	10091.0	8232.2	3383.2 µg/L	3383.2 ppb	22:11:35
3	Mg 279.077 IEC†	12015.1	11347.6	4678.4 µg/L	4678.4 ppb	22:11:35
3	Na 589.592 Radial†	111387.5	105235.2	16099 µg/L	16099 ppb	22:11:33
3	Sr 421.552†	47420.7	45800.9	107.24 µg/L	107.24 ppb	22:11:33
3	Sc 361.383	1708650.9	1708650.9	102.14 %		22:12:39
3	Y 371.029	1032576.6	1032576.6	100.98 %		22:12:39
3	Ag 328.068†	3201.3	167.0	0.3033 µg/L	0.3033 ppb	22:12:39
3	As 188.979†	-30.2	-15.3	-6.2933 µg/L	-6.2933 ppb	22:12:59
3	B 249.677†	4258.8	813.7	13.657 µg/L	13.657 ppb	22:12:59
3	Ba 233.527†	18293.8	18084.7	82.612 µg/L	82.612 ppb	22:12:59
3	Be 313.107†	-555.3	116.5	0.0318 µg/L	0.0318 ppb	22:12:39
3	Cd 226.502†	-111.5	-14.7	-0.1445 µg/L	-0.1445 ppb	22:12:59
3	Co 228.616†	-104.2	74.6	1.0812 µg/L	1.0812 ppb	22:12:59
3	Cr 267.716†	239.5	74.2	0.6095 µg/L	0.6095 ppb	22:12:59
3	Cu 324.752†	2744.8	262.3	1.3096 µg/L	1.3096 ppb	22:12:59
3	Mn 257.610†	3245.6	3097.4	4.0458 µg/L	4.0458 ppb	22:12:59
3	Mo 202.031†	-25.2	30.5	1.0658 µg/L	1.0658 ppb	22:12:59
3	Ni 231.604†	-40.9	0.9	0.0116 µg/L	0.0116 ppb	22:12:59
3	P 214.914†	199.5	115.7	27.613 µg/L	27.613 ppb	22:12:59
3	Pb 220.353†	106.9	-7.8	-0.3994 µg/L	-0.3994 ppb	22:12:59
3	S 181.975 Axial†	4513.9	4324.2	3503.4 µg/L	3503.4 ppb	22:12:59
3	Sb 206.836†	62.1	-25.9	-3.4984 µg/L	-3.4984 ppb	22:12:59
3	Se 196.026†	20.0	8.7	3.55 µg/L	3.55 ppb	22:12:59
3	SiO2†	313454.2	305299.8	33369 µg/L	33369 ppb	22:12:39
3	Si 251.611†	959737.6	938909.7	15525 µg/L	15525 ppb	22:12:39
3	Sn 189.927†	2.2	0.1	0.0429 µg/L	0.0429 ppb	22:12:59
3	Ti 334.940†	11454.4	10577.6	10.773 µg/L	10.773 ppb	22:12:39
3	Tl 190.801†	-111.1	11.5	1.6668 µg/L	1.6668 ppb	22:12:59
3	U 409.014†	-823.2	-326.8	-19.630 µg/L	-19.630 ppb	22:12:39
3	V 292.402†	558.1	114.5	0.5600 µg/L	0.5600 ppb	22:12:59
3	Zn 213.857†	959.3	474.8	2.8317 µg/L	2.8317 ppb	22:12:59

Mean Data: 248044001|959137|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1715511.6	102.55	%	0.355				0.35%
Sc RADIAL	152742.8	105	%	0.5				0.52%
Y 371.029	1036773.3	101.39	%	0.356				0.35%
Ag 328.068†	132.2	0.1627	µg/L	0.14095	0.1627	ppb	0.14095	86.63%
Al 396.153Radial†	4078.1	890.16	µg/L	16.381	890.16	ppb	16.381	1.84%
As 188.979†	-6.4	-2.5760	µg/L	3.28506	-2.5760	ppb	3.28506	127.53%
B 249.677†	784.4	13.166	µg/L	0.4355	13.166	ppb	0.4355	3.31%
Ba 233.527†	17968.0	82.079	µg/L	0.4651	82.079	ppb	0.4651	0.57%
Be 313.107†	198.6	0.0586	µg/L	0.02528	0.0586	ppb	0.02528	43.13%
Ca 317.933Radial†	235344.8	13790	µg/L	11.3	13790	ppb	11.3	0.08%
Cd 226.502†	-1.3	-0.0513	µg/L	0.08943	-0.0513	ppb	0.08943	174.26%
Co 228.616†	64.8	0.9463	µg/L	0.12178	0.9463	ppb	0.12178	12.87%
Cr 267.716†	86.2	0.7119	µg/L	0.12566	0.7119	ppb	0.12566	17.65%
Cu 324.752†	270.5	1.3459	µg/L	0.06907	1.3459	ppb	0.06907	5.13%
Fe 238.204 Radial†	6083.9	404.48	µg/L	4.555	404.48	ppb	4.555	1.13%
K 766.490 Radial†	8183.5	3363.2	µg/L	28.70	3363.2	ppb	28.70	0.85%
Mg 279.077 IEC†	11404.2	4701.8	µg/L	50.30	4701.8	ppb	50.30	1.07%
Mn 257.610†	3080.5	4.0218	µg/L	0.02084	4.0218	ppb	0.02084	0.52%
Mo 202.031†	33.2	1.1492	µg/L	0.18517	1.1492	ppb	0.18517	16.11%
Na 589.592 Radial†	104874.6	16044	µg/L	48.6	16044	ppb	48.6	0.30%

Ni 231.604†	29.0	0.3706	µg/L	0.33679	0.3706	ppb	0.33679	90.87%
P 214.914†	107.4	25.620	µg/L	1.7402	25.620	ppb	1.7402	6.79%
Pb 220.353†	-1.8	-0.0359	µg/L	0.32216	-0.0359	ppb	0.32216	897.53%
S 181.975 Axial†	4285.5	3472.1	µg/L	28.73	3472.1	ppb	28.73	0.83%
Sb 206.836†	-17.9	-2.4269	µg/L	1.38688	-2.4269	ppb	1.38688	57.15%
Se 196.026†	8.0	3.27	µg/L	0.552	3.27	ppb	0.552	16.87%
SiO2†	304945.6	33331	µg/L	178.6	33331	ppb	178.6	0.54%
Si 251.611†	938223.4	15513	µg/L	80.0	15513	ppb	80.0	0.52%
Sn 189.927†	-4.7	-0.2987	µg/L	0.64495	-0.2987	ppb	0.64495	215.93%
Sr 421.552†	45615.0	106.80	µg/L	0.389	106.80	ppb	0.389	0.36%
Ti 334.940†	10719.7	10.915	µg/L	0.1350	10.915	ppb	0.1350	1.24%
Tl 190.801†	4.4	0.7129	µg/L	0.82842	0.7129	ppb	0.82842	116.21%
U 409.014†	-323.6	-19.432	µg/L	0.9717	-19.432	ppb	0.9717	5.00%
V 292.402†	118.0	0.5807	µg/L	0.09361	0.5807	ppb	0.09361	16.12%
Zn 213.857†	481.9	2.8749	µg/L	0.06774	2.8749	ppb	0.06774	2.36%

Sequence No.: 78
Sample ID: 1202056947|959137|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 402
Date Collected: 3/29/2010 22:13:07
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202056947|959137|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	149907.4	149907.4	103	%			22:13:36
1	Al 396.153Radial†	4243.8	4158.1	907.64	µg/L	907.64	ppb	22:13:38
1	Ca 317.933Radial†	243995.9	236619.8	13865	µg/L	13865	ppb	22:13:36
1	Fe 238.204 Radial†	6575.0	6279.6	417.49	µg/L	417.49	ppb	22:13:38
1	K 766.490 Radial†	10177.9	8440.9	3469.1	µg/L	3469.1	ppb	22:13:38
1	Mg 279.077 IEC†	12336.0	11807.6	4868.1	µg/L	4868.1	ppb	22:13:38
1	Na 589.592 Radial†	110810.7	106046.0	16223	µg/L	16223	ppb	22:13:36
1	Sr 421.552†	47117.7	46090.3	107.91	µg/L	107.91	ppb	22:13:36
1	Sc 361.383	1700046.3	1700046.3	101.63	%			22:13:50
1	Y 371.029	1028230.0	1028230.0	100.55	%			22:13:50
1	Ag 328.068†	3009.4	-5.9	-0.3874	µg/L	-0.3874	ppb	22:13:50
1	As 188.979†	-13.5	0.9	0.4990	µg/L	0.4990	ppb	22:14:11
1	B 249.677†	4244.0	820.2	13.767	µg/L	13.767	ppb	22:14:11
1	Ba 233.527†	18408.0	18287.8	83.539	µg/L	83.539	ppb	22:14:11
1	Be 313.107†	-382.1	284.1	0.0890	µg/L	0.0890	ppb	22:13:50
1	Cd 226.502†	-113.4	-17.2	-0.1623	µg/L	-0.1623	ppb	22:14:11
1	Co 228.616†	-109.4	68.9	1.0043	µg/L	1.0043	ppb	22:14:11
1	Cr 267.716†	263.7	99.2	0.8160	µg/L	0.8160	ppb	22:14:11
1	Cu 324.752†	2814.5	344.4	1.6807	µg/L	1.6807	ppb	22:14:11
1	Mn 257.610†	3233.1	3101.2	4.0435	µg/L	4.0435	ppb	22:14:11
1	Mo 202.031†	-39.5	16.4	0.6227	µg/L	0.6227	ppb	22:14:11
1	Ni 231.604†	-12.0	29.1	0.3723	µg/L	0.3723	ppb	22:14:11
1	P 214.914†	186.9	104.3	24.872	µg/L	24.872	ppb	22:14:11
1	Pb 220.353†	110.6	-3.6	-0.1539	µg/L	-0.1539	ppb	22:14:11
1	S 181.975 Axial†	4536.4	4368.8	3539.6	µg/L	3539.6	ppb	22:14:11
1	Sb 206.836†	86.5	-1.5	-0.2212	µg/L	-0.2212	ppb	22:14:11
1	Se 196.026†	17.0	5.8	2.44	µg/L	2.44	ppb	22:14:11
1	SiO2†	314735.3	308113.5	33677	µg/L	33677	ppb	22:13:50
1	Si 251.611†	963543.3	947409.9	15665	µg/L	15665	ppb	22:13:50
1	Sn 189.927†	-2.5	-4.4	-0.2793	µg/L	-0.2793	ppb	22:14:11
1	Ti 334.940†	11188.3	10372.5	10.546	µg/L	10.546	ppb	22:13:50
1	Tl 190.801†	-118.0	4.2	0.6808	µg/L	0.6808	ppb	22:14:11
1	U 409.014†	-676.8	-186.9	-10.973	µg/L	-10.973	ppb	22:13:50
1	V 292.402†	589.1	147.8	0.7449	µg/L	0.7449	ppb	22:14:11
1	Zn 213.857†	893.3	414.6	2.4486	µg/L	2.4486	ppb	22:14:11
2	Sc RADIAL	152971.2	152971.2	105	%			22:13:40
2	Al 396.153Radial†	4176.1	4010.9	875.51	µg/L	875.51	ppb	22:13:42
2	Ca 317.933Radial†	248790.6	236436.8	13854	µg/L	13854	ppb	22:13:40
2	Fe 238.204 Radial†	6586.8	6162.8	409.72	µg/L	409.72	ppb	22:13:42
2	K 766.490 Radial†	10242.8	8304.6	3413.0	µg/L	3413.0	ppb	22:13:42
2	Mg 279.077 IEC†	12414.6	11642.2	4799.9	µg/L	4799.9	ppb	22:13:42
2	Na 589.592 Radial†	112707.8	105695.7	16170	µg/L	16170	ppb	22:13:40
2	Sr 421.552†	47826.4	45848.0	107.35	µg/L	107.35	ppb	22:13:40
2	Sc 361.383	1709834.8	1709834.8	102.22	%			22:14:13
2	Y 371.029	1032316.1	1032316.1	100.95	%			22:14:13
2	Ag 328.068†	3414.5	373.5	1.1267	µg/L	1.1267	ppb	22:14:13
2	As 188.979†	-10.3	4.2	1.8377	µg/L	1.8377	ppb	22:14:33
2	B 249.677†	4247.0	799.3	13.416	µg/L	13.416	ppb	22:14:33
2	Ba 233.527†	18471.7	18246.4	83.350	µg/L	83.350	ppb	22:14:33
2	Be 313.107†	-424.3	245.0	0.0700	µg/L	0.0700	ppb	22:14:13
2	Cd 226.502†	-87.1	9.2	0.0209	µg/L	0.0209	ppb	22:14:33
2	Co 228.616†	-118.8	60.3	0.8869	µg/L	0.8869	ppb	22:14:33
2	Cr 267.716†	242.7	77.2	0.6434	µg/L	0.6434	ppb	22:14:33
2	Cu 324.752†	2859.6	372.8	1.7836	µg/L	1.7836	ppb	22:14:33
2	Mn 257.610†	3248.6	3098.2	4.0420	µg/L	4.0420	ppb	22:14:33
2	Mo 202.031†	-40.8	15.3	0.5882	µg/L	0.5882	ppb	22:14:33
2	Ni 231.604†	-3.0	38.0	0.4855	µg/L	0.4855	ppb	22:14:33
2	P 214.914†	198.2	114.3	27.269	µg/L	27.269	ppb	22:14:33
2	Pb 220.353†	100.3	-14.3	-0.7882	µg/L	-0.7882	ppb	22:14:33

2	S 181.975 Axial†	4535.2	4342.1	3517.9	µg/L	3517.9 ppb	22:14:33
2	Sb 206.836†	72.2	-16.0	-2.1745	µg/L	-2.1745 ppb	22:14:33
2	Se 196.026†	11.1	-0.0	0.094	µg/L	0.094 ppb	22:14:33
2	SiO2†	318593.5	310115.2	33896	µg/L	33896 ppb	22:14:13
2	Si 251.611†	975534.3	953713.4	15770	µg/L	15770 ppb	22:14:13
2	Sn 189.927†	4.9	2.8	0.2367	µg/L	0.2367 ppb	22:14:33
2	Ti 334.940†	11473.7	10588.6	10.780	µg/L	10.780 ppb	22:14:13
2	Tl 190.801†	-126.8	-3.7	-0.3769	µg/L	-0.3769 ppb	22:14:33
2	U 409.014†	-1021.9	-520.6	-31.596	µg/L	-31.596 ppb	22:14:13
2	V 292.402†	585.1	140.6	0.6909	µg/L	0.6909 ppb	22:14:33
2	Zn 213.857†	882.3	398.8	2.3488	µg/L	2.3488 ppb	22:14:33
3	Sc RADIAL	151408.5	151408.5	104	%		22:13:44
3	Al 396.153Radial†	4154.9	4031.6	880.02	µg/L	880.02 ppb	22:13:46
3	Ca 317.933Radial†	248246.7	238359.8	13967	µg/L	13967 ppb	22:13:44
3	Fe 238.204 Radial†	6595.7	6236.1	414.60	µg/L	414.60 ppb	22:13:46
3	K 766.490 Radial†	10363.8	8521.7	3502.4	µg/L	3502.4 ppb	22:13:46
3	Mg 279.077 IEC†	12294.0	11648.2	4802.3	µg/L	4802.3 ppb	22:13:46
3	Na 589.592 Radial†	112388.1	106496.3	16292	µg/L	16292 ppb	22:13:44
3	Sr 421.552†	47653.6	46152.0	108.06	µg/L	108.06 ppb	22:13:44
3	Sc 361.383	1719531.6	1719531.6	102.80	%		22:14:36
3	Y 371.029	1038892.9	1038892.9	101.60	%		22:14:36
3	Ag 328.068†	2910.0	-136.2	-0.9151	µg/L	-0.9151 ppb	22:14:36
3	As 188.979†	-16.2	-1.6	-0.5474	µg/L	-0.5474 ppb	22:14:56
3	B 249.677†	4250.0	778.7	13.071	µg/L	13.071 ppb	22:14:56
3	Ba 233.527†	18442.0	18115.6	82.753	µg/L	82.753 ppb	22:14:56
3	Be 313.107†	-369.4	300.7	0.0957	µg/L	0.0957 ppb	22:14:36
3	Cd 226.502†	-95.8	1.2	-0.0354	µg/L	-0.0354 ppb	22:14:56
3	Co 228.616†	-111.7	68.0	0.9903	µg/L	0.9903 ppb	22:14:56
3	Cr 267.716†	267.4	99.9	0.8187	µg/L	0.8187 ppb	22:14:56
3	Cu 324.752†	2821.1	319.5	1.5735	µg/L	1.5735 ppb	22:14:56
3	Mn 257.610†	3272.6	3103.6	4.0494	µg/L	4.0494 ppb	22:14:56
3	Mo 202.031†	-30.6	25.4	0.9060	µg/L	0.9060 ppb	22:14:56
3	Ni 231.604†	-15.5	25.9	0.3310	µg/L	0.3310 ppb	22:14:56
3	P 214.914†	194.5	109.7	26.159	µg/L	26.159 ppb	22:14:56
3	Pb 220.353†	129.8	13.9	0.9027	µg/L	0.9027 ppb	22:14:56
3	S 181.975 Axial†	4574.7	4355.5	3528.8	µg/L	3528.8 ppb	22:14:56
3	Sb 206.836†	92.1	2.9	0.3818	µg/L	0.3818 ppb	22:14:56
3	Se 196.026†	2.7	-8.3	-3.16	µg/L	-3.16 ppb	22:14:56
3	SiO2†	318641.9	308404.6	33709	µg/L	33709 ppb	22:14:36
3	Si 251.611†	975179.6	947986.3	15675	µg/L	15675 ppb	22:14:36
3	Sn 189.927†	10.6	8.3	0.6247	µg/L	0.6247 ppb	22:14:56
3	Ti 334.940†	11407.0	10460.4	10.642	µg/L	10.642 ppb	22:14:36
3	Tl 190.801†	-109.6	13.7	1.9587	µg/L	1.9587 ppb	22:14:56
3	U 409.014†	-614.1	-118.3	-6.7414	µg/L	-6.7414 ppb	22:14:36
3	V 292.402†	567.7	120.4	0.5992	µg/L	0.5992 ppb	22:14:56
3	Zn 213.857†	896.1	407.3	2.4023	µg/L	2.4023 ppb	22:14:56

Mean Data: 1202056947|959137|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1709804.2	102.21	%	0.582				0.57%
Sc RADIAL	151429.0	104	%	1.1				1.01%
Y 371.029	1033146.3	101.03	%	0.526				0.52%
Ag 328.068†	77.1	-0.0586	µg/L	1.05986	-0.0586	ppb	1.05986	>999.9%
Al 396.153Radial†	4066.9	887.72	µg/L	17.398	887.72	ppb	17.398	1.96%
As 188.979†	1.2	0.5964	µg/L	1.19551	0.5964	ppb	1.19551	200.44%
B 249.677†	799.4	13.418	µg/L	0.3481	13.418	ppb	0.3481	2.59%
Ba 233.527†	18216.6	83.214	µg/L	0.4105	83.214	ppb	0.4105	0.49%
Be 313.107†	276.6	0.0849	µg/L	0.01331	0.0849	ppb	0.01331	15.68%
Ca 317.933Radial†	237138.8	13895	µg/L	62.2	13895	ppb	62.2	0.45%
Cd 226.502†	-2.3	-0.0589	µg/L	0.09386	-0.0589	ppb	0.09386	159.27%
Co 228.616†	65.7	0.9605	µg/L	0.06409	0.9605	ppb	0.06409	6.67%
Cr 267.716†	92.1	0.7593	µg/L	0.10043	0.7593	ppb	0.10043	13.23%
Cu 324.752†	345.6	1.6793	µg/L	0.10506	1.6793	ppb	0.10506	6.26%
Fe 238.204 Radial†	6226.2	413.94	µg/L	3.923	413.94	ppb	3.923	0.95%
K 766.490 Radial†	8422.4	3461.5	µg/L	45.16	3461.5	ppb	45.16	1.30%
Mg 279.077 IEC†	11699.3	4823.4	µg/L	38.67	4823.4	ppb	38.67	0.80%
Mn 257.610†	3101.0	4.0449	µg/L	0.00390	4.0449	ppb	0.00390	0.10%
Mo 202.031†	19.0	0.7056	µg/L	0.17441	0.7056	ppb	0.17441	24.72%
Na 589.592 Radial†	106079.3	16228	µg/L	61.4	16228	ppb	61.4	0.38%

Ni 231.604†	31.0	0.3963	µg/L	0.08002	0.3963	ppb	0.08002	20.19%
P 214.914†	109.4	26.100	µg/L	1.1998	26.100	ppb	1.1998	4.60%
Pb 220.353†	-1.4	-0.0131	µg/L	0.85417	-0.0131	ppb	0.85417	>999.9%
S 181.975 Axial†	4355.5	3528.7	µg/L	10.84	3528.7	ppb	10.84	0.31%
Sb 206.836†	-4.9	-0.6713	µg/L	1.33624	-0.6713	ppb	1.33624	199.06%
Se 196.026†	-0.8	-0.209	µg/L	2.8081	-0.209	ppb	2.8081	>999.9%
SiO2†	308877.8	33761	µg/L	118.2	33761	ppb	118.2	0.35%
Si 251.611†	949703.2	15703	µg/L	57.6	15703	ppb	57.6	0.37%
Sn 189.927†	2.2	0.1940	µg/L	0.45353	0.1940	ppb	0.45353	233.74%
Sr 421.552†	46030.1	107.77	µg/L	0.376	107.77	ppb	0.376	0.35%
Ti 334.940†	10473.9	10.656	µg/L	0.1177	10.656	ppb	0.1177	1.10%
Tl 190.801†	4.7	0.7542	µg/L	1.16952	0.7542	ppb	1.16952	155.07%
U 409.014†	-275.3	-16.437	µg/L	13.2977	-16.437	ppb	13.2977	80.90%
V 292.402†	136.3	0.6783	µg/L	0.07364	0.6783	ppb	0.07364	10.86%
Zn 213.857†	406.9	2.3999	µg/L	0.04997	2.3999	ppb	0.04997	2.08%

Sequence No.: 79
Sample ID: 1202056948|959137|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 403
Date Collected: 3/29/2010 22:15:04
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202056948|959137|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	153672.8	153672.8	105	%			22:15:35
1	Al 396.153Radial†	30332.1	28801.0	6264.3	µg/L	6264.3	ppb	22:15:35
1	Ca 317.933Radial†	337286.1	319290.1	18709	µg/L	18709	ppb	22:15:35
1	Fe 238.204 Radial†	85114.2	80615.1	5359.6	µg/L	5359.6	ppb	22:15:35
1	K 766.490 Radial†	22746.3	20119.2	8273.6	µg/L	8273.6	ppb	22:15:35
1	Mg 279.077 IEC†	25366.4	23872.7	9850.3	µg/L	9850.3	ppb	22:15:35
1	Na 589.592 Radial†	146182.1	136954.9	20948	µg/L	20948	ppb	22:15:35
1	Sr 421.552†	276436.1	262469.7	615.01	µg/L	615.01	ppb	22:15:33
1	Sc 361.383	1695405.7	1695405.7	101.35	%			22:16:02
1	Y 371.029	1022849.6	1022849.6	100.03	%			22:16:02
1	Ag 328.068†	121421.8	116833.9	480.09	µg/L	480.09	ppb	22:16:02
1	As 188.979†	1351.1	1347.3	570.27	µg/L	570.27	ppb	22:16:22
1	B 249.677†	34032.9	30222.9	505.74	µg/L	505.74	ppb	22:16:02
1	Ba 233.527†	131260.2	129683.1	592.84	µg/L	592.84	ppb	22:16:02
1	Be 313.107†	1619728.8	1598767.9	520.57	µg/L	520.57	ppb	22:16:02
1	Cd 226.502†	70370.9	69525.9	479.77	µg/L	479.77	ppb	22:16:02
1	Co 228.616†	35236.2	34942.4	478.80	µg/L	478.80	ppb	22:16:02
1	Cr 267.716†	58175.0	57238.2	491.46	µg/L	491.46	ppb	22:16:02
1	Cu 324.752†	120972.9	116933.3	510.03	µg/L	510.03	ppb	22:16:02
1	Mn 257.610†	365134.4	360180.4	491.76	µg/L	491.76	ppb	22:16:02
1	Mo 202.031†	15553.9	15401.5	486.73	µg/L	486.73	ppb	22:16:22
1	Ni 231.604†	38596.4	38122.2	487.63	µg/L	487.63	ppb	22:16:02
1	P 214.914†	2295.4	2185.2	514.77	µg/L	514.77	ppb	22:16:22
1	Pb 220.353†	8129.6	7908.7	480.71	µg/L	480.71	ppb	22:16:22
1	S 181.975 Axial†	10642.2	10405.3	8434.3	µg/L	8434.3	ppb	22:16:22
1	Sb 206.836†	3816.0	3678.4	497.27	µg/L	497.27	ppb	22:16:22
1	Se 196.026†	1214.4	1187.3	472	µg/L	472	ppb	22:16:22
1	SiO2†	419893.2	412715.4	45089	µg/L	45089	ppb	22:16:02
1	Si 251.611†	1286377.6	1268529.9	20965	µg/L	20965	ppb	22:16:02
1	Sn 189.927†	7119.3	7022.2	500.93	µg/L	500.93	ppb	22:16:22
1	Ti 334.940†	504153.5	496787.5	505.90	µg/L	505.90	ppb	22:16:02
1	Tl 190.801†	3508.6	3582.1	488.49	µg/L	488.49	ppb	22:16:22
1	U 409.014†	7124.9	7508.9	495.25	µg/L	495.25	ppb	22:16:02
1	V 292.402†	92677.5	91008.6	510.96	µg/L	510.96	ppb	22:16:02
1	Zn 213.857†	77841.0	76337.5	476.52	µg/L	476.52	ppb	22:16:02
2	Sc RADIAL	152073.4	152073.4	104	%			22:15:39
2	Al 396.153Radial†	30172.7	28950.8	6297.2	µg/L	6297.2	ppb	22:15:39
2	Ca 317.933Radial†	333985.5	319491.0	18721	µg/L	18721	ppb	22:15:39
2	Fe 238.204 Radial†	84341.4	80723.5	5366.8	µg/L	5366.8	ppb	22:15:39
2	K 766.490 Radial†	22618.4	20223.5	8316.5	µg/L	8316.5	ppb	22:15:39
2	Mg 279.077 IEC†	25096.1	23866.6	9847.7	µg/L	9847.7	ppb	22:15:39
2	Na 589.592 Radial†	145426.5	137688.8	21061	µg/L	21061	ppb	22:15:39
2	Sr 421.552†	274975.1	263826.8	618.19	µg/L	618.19	ppb	22:15:37
2	Sc 361.383	1696304.5	1696304.5	101.41	%			22:16:25
2	Y 371.029	1023274.0	1023274.0	100.07	%			22:16:25
2	Ag 328.068†	121108.0	116461.0	478.59	µg/L	478.59	ppb	22:16:25
2	As 188.979†	1333.5	1329.3	562.69	µg/L	562.69	ppb	22:16:45
2	B 249.677†	33994.9	30167.7	504.82	µg/L	504.82	ppb	22:16:25
2	Ba 233.527†	131315.1	129668.7	592.77	µg/L	592.77	ppb	22:16:25
2	Be 313.107†	1617947.8	1596164.8	519.72	µg/L	519.72	ppb	22:16:25
2	Cd 226.502†	70128.9	69250.5	477.86	µg/L	477.86	ppb	22:16:25
2	Co 228.616†	35138.3	34827.5	477.22	µg/L	477.22	ppb	22:16:25
2	Cr 267.716†	57953.3	56989.2	489.31	µg/L	489.31	ppb	22:16:25
2	Cu 324.752†	121192.6	117086.6	510.71	µg/L	510.71	ppb	22:16:25
2	Mn 257.610†	363932.5	358804.3	489.88	µg/L	489.88	ppb	22:16:25
2	Mo 202.031†	15456.8	15297.6	483.45	µg/L	483.45	ppb	22:16:45
2	Ni 231.604†	38506.9	38013.7	486.24	µg/L	486.24	ppb	22:16:25
2	P 214.914†	2273.8	2162.7	509.39	µg/L	509.39	ppb	22:16:45
2	Pb 220.353†	8084.9	7860.3	477.76	µg/L	477.76	ppb	22:16:45

2	S 181.975 Axial†	10595.4	10353.6	8392.4	µg/L	8392.4	ppb	22:16:45
2	Sb 206.836†	3803.0	3663.7	495.26	µg/L	495.26	ppb	22:16:45
2	Se 196.026†	1194.9	1167.4	464	µg/L	464	ppb	22:16:45
2	SiO2†	419027.8	411642.4	44972	µg/L	44972	ppb	22:16:25
2	Si 251.611†	1283762.6	1265278.7	20911	µg/L	20911	ppb	22:16:25
2	Sn 189.927†	7095.0	6994.6	498.96	µg/L	498.96	ppb	22:16:45
2	Ti 334.940†	503499.8	495879.2	504.97	µg/L	504.97	ppb	22:16:25
2	Tl 190.801†	3486.3	3558.3	485.29	µg/L	485.29	ppb	22:16:45
2	U 409.014†	7326.0	7703.5	507.24	µg/L	507.24	ppb	22:16:25
2	V 292.402†	92657.3	90940.2	510.55	µg/L	510.55	ppb	22:16:25
2	Zn 213.857†	77810.6	76266.8	476.08	µg/L	476.08	ppb	22:16:25
3	Sc RADIAL	154544.1	154544.1	106	%			22:15:43
3	Al 396.153Radial†	30490.3	28788.1	6261.7	µg/L	6261.7	ppb	22:15:43
3	Ca 317.933Radial†	338268.3	318412.8	18658	µg/L	18658	ppb	22:15:43
3	Fe 238.204 Radial†	85599.2	80617.4	5359.7	µg/L	5359.7	ppb	22:15:43
3	K 766.490 Radial†	22871.8	20116.0	8272.2	µg/L	8272.2	ppb	22:15:43
3	Mg 279.077 IEC†	25545.2	23905.6	9863.7	µg/L	9863.7	ppb	22:15:43
3	Na 589.592 Radial†	147398.6	137320.4	21004	µg/L	21004	ppb	22:15:43
3	Sr 421.552†	273558.2	258277.3	605.19	µg/L	605.19	ppb	22:15:41
3	Sc 361.383	1707775.2	1707775.2	102.09	%			22:16:49
3	Y 371.029	1029988.8	1029988.8	100.72	%			22:16:49
3	Ag 328.068†	122065.8	116597.1	479.13	µg/L	479.13	ppb	22:16:49
3	As 188.979†	1328.8	1315.8	557.05	µg/L	557.05	ppb	22:17:09
3	B 249.677†	34335.0	30275.7	506.64	µg/L	506.64	ppb	22:16:49
3	Ba 233.527†	132247.6	129712.2	592.97	µg/L	592.97	ppb	22:16:49
3	Be 313.107†	1628486.8	1595771.2	519.59	µg/L	519.59	ppb	22:16:49
3	Cd 226.502†	70543.3	69191.9	477.46	µg/L	477.46	ppb	22:16:49
3	Co 228.616†	35312.5	34765.4	476.37	µg/L	476.37	ppb	22:16:49
3	Cr 267.716†	58229.6	56876.0	488.34	µg/L	488.34	ppb	22:16:49
3	Cu 324.752†	121860.6	116938.2	510.06	µg/L	510.06	ppb	22:16:49
3	Mn 257.610†	366549.6	358957.2	490.09	µg/L	490.09	ppb	22:16:49
3	Mo 202.031†	15511.5	15248.8	481.91	µg/L	481.91	ppb	22:17:09
3	Ni 231.604†	38910.4	38153.8	488.03	µg/L	488.03	ppb	22:16:49
3	P 214.914†	2282.1	2155.8	507.74	µg/L	507.74	ppb	22:17:09
3	Pb 220.353†	8137.8	7858.6	477.65	µg/L	477.65	ppb	22:17:09
3	S 181.975 Axial†	10618.4	10306.0	8353.8	µg/L	8353.8	ppb	22:17:09
3	Sb 206.836†	3823.8	3658.8	494.59	µg/L	494.59	ppb	22:17:09
3	Se 196.026†	1203.4	1167.9	464	µg/L	464	ppb	22:17:09
3	SiO2†	422077.3	411854.0	44995	µg/L	44995	ppb	22:16:49
3	Si 251.611†	1293666.0	1266476.0	20931	µg/L	20931	ppb	22:16:49
3	Sn 189.927†	7117.8	6969.9	497.20	µg/L	497.20	ppb	22:17:09
3	Ti 334.940†	506330.7	495317.1	504.39	µg/L	504.39	ppb	22:16:49
3	Tl 190.801†	3506.7	3555.1	484.86	µg/L	484.86	ppb	22:17:09
3	U 409.014†	7290.9	7620.6	502.09	µg/L	502.09	ppb	22:16:49
3	V 292.402†	93182.2	90840.6	509.97	µg/L	509.97	ppb	22:16:49
3	Zn 213.857†	78248.3	76180.1	475.52	µg/L	475.52	ppb	22:16:49

Mean Data: 1202056948|959137|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1699828.5	101.62	%	0.412				0.41%
Sc RADIAL	153430.1	105	%	0.9				0.82%
Y 371.029	1025370.8	100.27	%	0.392				0.39%
Ag 328.068†	116630.7	479.27	µg/L	0.761	479.27	ppb	0.761	0.16%
Al 396.153Radial†	28846.6	6274.4	µg/L	19.76	6274.4	ppb	19.76	0.31%
As 188.979†	1330.8	563.34	µg/L	6.631	563.34	ppb	6.631	1.18%
B 249.677†	30222.1	505.73	µg/L	0.908	505.73	ppb	0.908	0.18%
Ba 233.527†	129688.0	592.86	µg/L	0.101	592.86	ppb	0.101	0.02%
Be 313.107†	1596901.3	519.96	µg/L	0.529	519.96	ppb	0.529	0.10%
Ca 317.933Radial†	319064.6	18696	µg/L	33.6	18696	ppb	33.6	0.18%
Cd 226.502†	69322.8	478.37	µg/L	1.232	478.37	ppb	1.232	0.26%
Co 228.616†	34845.1	477.47	µg/L	1.230	477.47	ppb	1.230	0.26%
Cr 267.716†	57034.5	489.70	µg/L	1.595	489.70	ppb	1.595	0.33%
Cu 324.752†	116986.0	510.26	µg/L	0.383	510.26	ppb	0.383	0.08%
Fe 238.204 Radial†	80652.0	5362.0	µg/L	4.12	5362.0	ppb	4.12	0.08%
K 766.490 Radial†	20152.9	8287.4	µg/L	25.16	8287.4	ppb	25.16	0.30%
Mg 279.077 IEC†	23881.6	9853.9	µg/L	8.62	9853.9	ppb	8.62	0.09%
Mn 257.610†	359314.0	490.58	µg/L	1.031	490.58	ppb	1.031	0.21%
Mo 202.031†	15316.0	484.03	µg/L	2.461	484.03	ppb	2.461	0.51%
Na 589.592 Radial†	137321.3	21005	µg/L	56.1	21005	ppb	56.1	0.27%

Ni 231.604†	38096.5	487.30 µg/L	0.940	487.30 ppb	0.940	0.19%
P 214.914†	2167.9	510.63 µg/L	3.679	510.63 ppb	3.679	0.72%
Pb 220.353†	7875.9	478.71 µg/L	1.733	478.71 ppb	1.733	0.36%
S 181.975 Axial†	10355.0	8393.5 µg/L	40.26	8393.5 ppb	40.26	0.48%
Sb 206.836†	3666.9	495.70 µg/L	1.395	495.70 ppb	1.395	0.28%
Se 196.026†	1174.2	467 µg/L	4.5	467 ppb	4.5	0.96%
SiO2†	412070.6	45019 µg/L	62.0	45019 ppb	62.0	0.14%
Si 251.611†	1266761.5	20936 µg/L	27.2	20936 ppb	27.2	0.13%
Sn 189.927†	6995.6	499.03 µg/L	1.865	499.03 ppb	1.865	0.37%
Sr 421.552†	261524.6	612.80 µg/L	6.780	612.80 ppb	6.780	1.11%
Ti 334.940†	495994.6	505.09 µg/L	0.759	505.09 ppb	0.759	0.15%
Tl 190.801†	3565.2	486.21 µg/L	1.987	486.21 ppb	1.987	0.41%
U 409.014†	7611.0	501.53 µg/L	6.015	501.53 ppb	6.015	1.20%
V 292.402†	90929.8	510.50 µg/L	0.497	510.50 ppb	0.497	0.10%
Zn 213.857†	76261.5	476.04 µg/L	0.498	476.04 ppb	0.498	0.10%

Sequence No.: 80
Sample ID: 1202056949|959137|5
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 404
Date Collected: 3/29/2010 22:17:16
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 1202056949|959137|5

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	153986.4	153986.4	106	%			22:17:45
1	Al 396.153Radial†	903.9	887.4	193.67	µg/L	193.67	ppb	22:17:47
1	Ca 317.933Radial†	50315.5	47009.4	2754.6	µg/L	2754.6	ppb	22:17:47
1	Fe 238.204 Radial†	1468.3	1276.5	84.867	µg/L	84.867	ppb	22:17:47
1	K 766.490 Radial†	3282.3	1651.8	678.85	µg/L	678.85	ppb	22:17:45
1	Mg 279.077 IEC†	2695.1	2364.4	974.80	µg/L	974.80	ppb	22:17:47
1	Na 589.592 Radial†	24497.6	21493.2	3288.1	µg/L	3288.1	ppb	22:17:45
1	Sr 421.552†	9467.9	9239.8	21.634	µg/L	21.634	ppb	22:17:45
1	Sc 361.383	1752381.1	1752381.1	104.76	%			22:17:59
1	Y 371.029	1065447.3	1065447.3	104.19	%			22:17:59
1	Ag 328.068†	3048.4	-57.1	-0.3318	µg/L	-0.3318	ppb	22:17:59
1	As 188.979†	-17.1	-2.1	-0.8383	µg/L	-0.8383	ppb	22:18:20
1	B 249.677†	3424.7	-86.5	-1.4548	µg/L	-1.4548	ppb	22:18:20
1	Ba 233.527†	3621.5	3632.0	16.591	µg/L	16.591	ppb	22:18:20
1	Be 313.107†	-683.6	7.5	-0.0033	µg/L	-0.0033	ppb	22:17:59
1	Cd 226.502†	-94.0	4.7	0.0234	µg/L	0.0234	ppb	22:18:20
1	Co 228.616†	-136.4	46.4	0.6472	µg/L	0.6472	ppb	22:18:20
1	Cr 267.716†	226.3	55.7	0.4845	µg/L	0.4845	ppb	22:18:20
1	Cu 324.752†	2876.0	320.5	1.4163	µg/L	1.4163	ppb	22:18:20
1	Mn 257.610†	843.4	725.0	0.9518	µg/L	0.9518	ppb	22:18:20
1	Mo 202.031†	-26.0	30.4	0.9815	µg/L	0.9815	ppb	22:18:20
1	Ni 231.604†	-48.0	-4.9	-0.0623	µg/L	-0.0623	ppb	22:18:20
1	P 214.914†	72.6	-10.2	-2.4808	µg/L	-2.4808	ppb	22:18:20
1	Pb 220.353†	88.1	-28.3	-1.6847	µg/L	-1.6847	ppb	22:18:20
1	S 181.975 Axial†	974.9	835.8	677.16	µg/L	677.16	ppb	22:18:20
1	Sb 206.836†	65.2	-24.4	-3.2915	µg/L	-3.2915	ppb	22:18:20
1	Se 196.026†	10.3	-1.1	-0.434	µg/L	-0.434	ppb	22:18:20
1	SiO2†	64823.7	60306.1	6591.5	µg/L	6591.5	ppb	22:17:59
1	Si 251.611†	194264.4	184763.0	3055.0	µg/L	3055.0	ppb	22:17:59
1	Sn 189.927†	16.3	13.5	0.9702	µg/L	0.9702	ppb	22:18:20
1	Ti 334.940†	3216.1	2433.7	2.4817	µg/L	2.4817	ppb	22:17:59
1	Tl 190.801†	-120.0	5.8	0.7932	µg/L	0.7932	ppb	22:18:20
1	U 409.014†	-827.2	-310.5	-19.109	µg/L	-19.109	ppb	22:17:59
1	V 292.402†	370.6	-78.0	-0.4495	µg/L	-0.4495	ppb	22:18:20
1	Zn 213.857†	653.0	158.9	0.9684	µg/L	0.9684	ppb	22:18:20
2	Sc RADIAL	151618.7	151618.7	104	%			22:17:49
2	Al 396.153Radial†	891.4	888.8	193.97	µg/L	193.97	ppb	22:17:51
2	Ca 317.933Radial†	50994.3	48405.7	2836.4	µg/L	2836.4	ppb	22:17:51
2	Fe 238.204 Radial†	1516.1	1344.2	89.366	µg/L	89.366	ppb	22:17:51
2	K 766.490 Radial†	3297.8	1715.2	704.93	µg/L	704.93	ppb	22:17:49
2	Mg 279.077 IEC†	2645.1	2356.2	971.42	µg/L	971.42	ppb	22:17:51
2	Na 589.592 Radial†	24427.4	21787.8	3333.2	µg/L	3333.2	ppb	22:17:49
2	Sr 421.552†	9441.4	9354.2	21.902	µg/L	21.902	ppb	22:17:49
2	Sc 361.383	1742098.3	1742098.3	104.14	%			22:18:22
2	Y 371.029	1059067.2	1059067.2	103.57	%			22:18:22
2	Ag 328.068†	3215.8	120.7	0.3786	µg/L	0.3786	ppb	22:18:22
2	As 188.979†	-15.1	-0.2	-0.0750	µg/L	-0.0750	ppb	22:18:42
2	B 249.677†	3374.8	-115.2	-1.9334	µg/L	-1.9334	ppb	22:18:42
2	Ba 233.527†	3618.5	3649.6	16.671	µg/L	16.671	ppb	22:18:42
2	Be 313.107†	-591.1	92.5	0.0225	µg/L	0.0225	ppb	22:18:22
2	Cd 226.502†	-125.4	-26.0	-0.1890	µg/L	-0.1890	ppb	22:18:42
2	Co 228.616†	-187.4	-3.3	-0.0340	µg/L	-0.0340	ppb	22:18:42
2	Cr 267.716†	166.6	-0.3	0.0084	µg/L	0.0084	ppb	22:18:42
2	Cu 324.752†	2847.8	309.6	1.3643	µg/L	1.3643	ppb	22:18:42
2	Mn 257.610†	844.9	731.3	0.9605	µg/L	0.9605	ppb	22:18:42
2	Mo 202.031†	-24.3	31.9	1.0277	µg/L	1.0277	ppb	22:18:42
2	Ni 231.604†	-53.6	-10.5	-0.1344	µg/L	-0.1344	ppb	22:18:42
2	P 214.914†	71.0	-11.4	-2.7734	µg/L	-2.7734	ppb	22:18:42
2	Pb 220.353†	109.8	-7.0	-0.3889	µg/L	-0.3889	ppb	22:18:42

2	S 181.975 Axial†	976.4	842.7	682.77 µg/L	682.77 ppb	22:18:42
2	Sb 206.836†	72.5	-17.0	-2.2863 µg/L	-2.2863 ppb	22:18:42
2	Se 196.026†	12.7	1.3	0.524 µg/L	0.524 ppb	22:18:42
2	SiO2†	64454.0	60316.3	6592.6 µg/L	6592.6 ppb	22:18:22
2	Si 251.611†	193548.7	185170.4	3061.8 µg/L	3061.8 ppb	22:18:22
2	Sn 189.927†	2.8	0.7	0.0577 µg/L	0.0577 ppb	22:18:42
2	Ti 334.940†	2911.7	2159.5	2.2071 µg/L	2.2071 ppb	22:18:22
2	Tl 190.801†	-116.4	8.5	1.1664 µg/L	1.1664 ppb	22:18:42
2	U 409.014†	-925.2	-409.3	-25.215 µg/L	-25.215 ppb	22:18:22
2	V 292.402†	343.3	-102.1	-0.5894 µg/L	-0.5894 ppb	22:18:42
2	Zn 213.857†	623.1	133.9	0.8102 µg/L	0.8102 ppb	22:18:42
3	Sc RADIAL	154205.0	154205.0	106 %		22:17:53
3	Al 396.153Radial†	786.2	775.0	169.11 µg/L	169.11 ppb	22:17:55
3	Ca 317.933Radial†	50258.0	46887.6	2747.4 µg/L	2747.4 ppb	22:17:55
3	Fe 238.204 Radial†	1494.0	1298.8	86.350 µg/L	86.350 ppb	22:17:55
3	K 766.490 Radial†	3428.5	1785.6	733.91 µg/L	733.91 ppb	22:17:53
3	Mg 279.077 IEC†	2647.2	2315.4	954.64 µg/L	954.64 ppb	22:17:55
3	Na 589.592 Radial†	24573.6	21532.1	3294.0 µg/L	3294.0 ppb	22:17:53
3	Sr 421.552†	9428.4	9189.7	21.517 µg/L	21.517 ppb	22:17:53
3	Sc 361.383	1737032.4	1737032.4	103.84 %		22:18:45
3	Y 371.029	1055930.5	1055930.5	103.26 %		22:18:45
3	Ag 328.068†	3204.2	118.6	0.4065 µg/L	0.4065 ppb	22:18:45
3	As 188.979†	-3.9	10.5	4.3995 µg/L	4.3995 ppb	22:19:05
3	B 249.677†	3399.9	-81.6	-1.3701 µg/L	-1.3701 ppb	22:19:05
3	Ba 233.527†	3631.0	3671.8	16.773 µg/L	16.773 ppb	22:19:05
3	Be 313.107†	-407.5	267.7	0.0872 µg/L	0.0872 ppb	22:18:45
3	Cd 226.502†	-79.1	18.2	0.1170 µg/L	0.1170 ppb	22:19:05
3	Co 228.616†	-167.2	15.6	0.2260 µg/L	0.2260 ppb	22:19:05
3	Cr 267.716†	238.6	69.5	0.5878 µg/L	0.5878 ppb	22:19:05
3	Cu 324.752†	2752.7	226.0	1.0208 µg/L	1.0208 ppb	22:19:05
3	Mn 257.610†	869.9	757.7	0.9973 µg/L	0.9973 ppb	22:19:05
3	Mo 202.031†	-20.4	35.6	1.1432 µg/L	1.1432 ppb	22:19:05
3	Ni 231.604†	-22.0	19.7	0.2518 µg/L	0.2518 ppb	22:19:05
3	P 214.914†	74.4	-7.9	-1.9407 µg/L	-1.9407 ppb	22:19:05
3	Pb 220.353†	103.6	-12.7	-0.7538 µg/L	-0.7538 ppb	22:19:05
3	S 181.975 Axial†	979.6	848.5	687.47 µg/L	687.47 ppb	22:19:05
3	Sb 206.836†	75.0	-14.4	-1.9390 µg/L	-1.9390 ppb	22:19:05
3	Se 196.026†	5.5	-5.6	-2.19 µg/L	-2.19 ppb	22:19:05
3	SiO2†	64503.9	60544.9	6617.6 µg/L	6617.6 ppb	22:18:45
3	Si 251.611†	193655.0	185814.7	3072.4 µg/L	3072.4 ppb	22:18:45
3	Sn 189.927†	-10.2	-11.9	-0.8362 µg/L	-0.8362 ppb	22:19:05
3	Ti 334.940†	3205.2	2450.3	2.4921 µg/L	2.4921 ppb	22:18:45
3	Tl 190.801†	-114.5	10.0	1.3707 µg/L	1.3707 ppb	22:19:05
3	U 409.014†	-496.0	1.4	0.1739 µg/L	0.1739 ppb	22:18:45
3	V 292.402†	390.6	-55.7	-0.3106 µg/L	-0.3106 ppb	22:19:05
3	Zn 213.857†	634.2	146.4	0.8875 µg/L	0.8875 ppb	22:19:05

Mean Data: 1202056949|959137|5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1743837.2	104.25	%	0.468				0.45%
Sc RADIAL	153270.0	105	%	1.0				0.94%
Y 371.029	1060148.3	103.67	%	0.474				0.46%
Ag 328.068†	60.7	0.1511	µg/L	0.41846	0.1511	ppb	0.41846	276.96%
Al 396.153Radial†	850.4	185.58	µg/L	14.264	185.58	ppb	14.264	7.69%
As 188.979†	2.7	1.1621	µg/L	2.82953	1.1621	ppb	2.82953	243.49%
B 249.677†	-94.4	-1.5861	µg/L	0.30373	-1.5861	ppb	0.30373	19.15%
Ba 233.527†	3651.1	16.678	µg/L	0.0911	16.678	ppb	0.0911	0.55%
Be 313.107†	122.6	0.0354	µg/L	0.04663	0.0354	ppb	0.04663	131.63%
Ca 317.933Radial†	47434.2	2779.4	µg/L	49.43	2779.4	ppb	49.43	1.78%
Cd 226.502†	-1.0	-0.0162	µg/L	0.15681	-0.0162	ppb	0.15681	967.42%
Co 228.616†	19.6	0.2797	µg/L	0.34379	0.2797	ppb	0.34379	122.89%
Cr 267.716†	41.7	0.3602	µg/L	0.30903	0.3602	ppb	0.30903	85.79%
Cu 324.752†	285.3	1.2671	µg/L	0.21487	1.2671	ppb	0.21487	16.96%
Fe 238.204 Radial†	1306.5	86.861	µg/L	2.2924	86.861	ppb	2.2924	2.64%
K 766.490 Radial†	1717.5	705.90	µg/L	27.543	705.90	ppb	27.543	3.90%
Mg 279.077 IEC†	2345.3	966.95	µg/L	10.799	966.95	ppb	10.799	1.12%
Mn 257.610†	738.0	0.9699	µg/L	0.02414	0.9699	ppb	0.02414	2.49%
Mo 202.031†	32.6	1.0508	µg/L	0.08326	1.0508	ppb	0.08326	7.92%
Na 589.592 Radial†	21604.4	3305.1	µg/L	24.49	3305.1	ppb	24.49	0.74%

Ni 231.604†	1.4	0.0184	µg/L	0.20533	0.0184	ppb	0.20533	>999.9%
P 214.914†	-9.8	-2.3983	µg/L	0.42241	-2.3983	ppb	0.42241	17.61%
Pb 220.353†	-16.0	-0.9425	µg/L	0.66816	-0.9425	ppb	0.66816	70.89%
S 181.975 Axial†	842.3	682.46	µg/L	5.162	682.46	ppb	5.162	0.76%
Sb 206.836†	-18.6	-2.5056	µg/L	0.70239	-2.5056	ppb	0.70239	28.03%
Se 196.026†	-1.8	-0.701	µg/L	1.3772	-0.701	ppb	1.3772	196.55%
SiO2†	60389.1	6600.5	µg/L	14.76	6600.5	ppb	14.76	0.22%
Si 251.611†	185249.4	3063.1	µg/L	8.77	3063.1	ppb	8.77	0.29%
Sn 189.927†	0.8	0.0639	µg/L	0.90321	0.0639	ppb	0.90321	>999.9%
Sr 421.552†	9261.2	21.684	µg/L	0.1972	21.684	ppb	0.1972	0.91%
Ti 334.940†	2347.8	2.3936	µg/L	0.16160	2.3936	ppb	0.16160	6.75%
Tl 190.801†	8.1	1.1101	µg/L	0.29280	1.1101	ppb	0.29280	26.38%
U 409.014†	-239.5	-14.717	µg/L	13.2520	-14.717	ppb	13.2520	90.05%
V 292.402†	-78.6	-0.4498	µg/L	0.13944	-0.4498	ppb	0.13944	31.00%
Zn 213.857†	146.4	0.8887	µg/L	0.07909	0.8887	ppb	0.07909	8.90%

Sequence No.: 81
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/29/2010 22:19:12
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Rep1#	Analyte	Net Intensity	Corrected Intensity	Calib. Conc.	Calib. Units	Sample Conc.	Sample Units	Analysis Time
1	Sc RADIAL	152312.7	152312.7	104	%			22:19:45
1	Al 396.153Radial†	25257.2	24201.5	5260.5	µg/L	5260.5	ppb	22:19:45
1	Ca 317.933Radial†	88990.6	84542.6	4953.8	µg/L	4953.8	ppb	22:19:45
1	Fe 238.204 Radial†	77715.5	74255.9	4936.8	µg/L	4936.8	ppb	22:19:45
1	K 766.490 Radial†	13912.9	11858.9	4877.9	µg/L	4877.9	ppb	22:19:45
1	Mg 279.077 IEC†	13152.4	12399.4	5120.0	µg/L	5120.0	ppb	22:19:45
1	Na 589.592 Radial†	69880.5	65176.8	9968.5	µg/L	9968.5	ppb	22:19:45
1	Sr 421.552†	228320.8	218767.5	512.69	µg/L	512.69	ppb	22:19:43
1	Sc 361.383	1737411.7	1737411.7	103.86	%			22:19:58
1	Y 371.029	1050981.5	1050981.5	102.78	%			22:19:58
1	Ag 328.068†	128476.0	120729.2	496.13	µg/L	496.13	ppb	22:19:58
1	As 188.979†	1340.1	1304.5	552.24	µg/L	552.24	ppb	22:20:18
1	B 249.677†	33219.3	28627.8	478.94	µg/L	478.94	ppb	22:19:58
1	Ba 233.527†	114183.4	110110.5	503.42	µg/L	503.42	ppb	22:19:58
1	Be 313.107†	1633886.1	1573760.5	512.42	µg/L	512.42	ppb	22:19:58
1	Cd 226.502†	72231.0	69638.2	480.59	µg/L	480.59	ppb	22:19:58
1	Co 228.616†	36690.0	35501.6	486.39	µg/L	486.39	ppb	22:19:58
1	Cr 267.716†	59371.2	57002.2	489.48	µg/L	489.48	ppb	22:19:58
1	Cu 324.752†	120429.1	113523.9	495.02	µg/L	495.02	ppb	22:19:58
1	Mn 257.610†	373880.7	359891.1	491.55	µg/L	491.55	ppb	22:19:58
1	Mo 202.031†	15806.6	15273.7	482.59	µg/L	482.59	ppb	22:20:18
1	Ni 231.604†	39682.8	38247.4	489.23	µg/L	489.23	ppb	22:19:58
1	P 214.914†	10452.4	9984.0	2382.6	µg/L	2382.6	ppb	22:20:18
1	Pb 220.353†	8370.1	7946.2	482.91	µg/L	482.91	ppb	22:20:18
1	S 181.975 Axial†	1298.7	1155.6	940.31	µg/L	940.31	ppb	22:20:18
1	Sb 206.836†	3840.2	3610.7	488.09	µg/L	488.09	ppb	22:20:18
1	Se 196.026†	1269.8	1211.6	481	µg/L	481	ppb	22:20:18
1	SiO2†	51583.1	48091.2	5235.5	µg/L	5235.5	ppb	22:19:58
1	Si 251.611†	154617.6	148188.9	2440.6	µg/L	2440.6	ppb	22:19:58
1	Sn 189.927†	7196.6	6926.8	494.09	µg/L	494.09	ppb	22:20:18
1	Ti 334.940†	501274.3	481988.9	490.84	µg/L	490.84	ppb	22:19:58
1	Tl 190.801†	3622.3	3607.9	491.69	µg/L	491.69	ppb	22:20:18
1	U 409.014†	7175.0	7387.1	486.68	µg/L	486.68	ppb	22:19:58
1	V 292.402†	93168.0	89270.1	501.35	µg/L	501.35	ppb	22:19:58
1	Zn 213.857†	80276.7	76825.8	479.74	µg/L	479.74	ppb	22:19:58
2	Sc RADIAL	154831.9	154831.9	106	%			22:19:49
2	Al 396.153Radial†	25587.3	24119.0	5242.1	µg/L	5242.1	ppb	22:19:49
2	Ca 317.933Radial†	90429.6	84511.6	4952.0	µg/L	4952.0	ppb	22:19:49
2	Fe 238.204 Radial†	79228.1	74469.7	4951.0	µg/L	4951.0	ppb	22:19:49
2	K 766.490 Radial†	14006.7	11730.5	4825.1	µg/L	4825.1	ppb	22:19:49
2	Mg 279.077 IEC†	13348.5	12379.3	5111.8	µg/L	5111.8	ppb	22:19:49
2	Na 589.592 Radial†	70589.6	64756.3	9904.2	µg/L	9904.2	ppb	22:19:49
2	Sr 421.552†	229160.8	216003.2	506.22	µg/L	506.22	ppb	22:19:47
2	Sc 361.383	1714461.6	1714461.6	102.49	%			22:20:21
2	Y 371.029	1037130.3	1037130.3	101.42	%			22:20:21
2	Ag 328.068†	127395.8	121331.1	498.59	µg/L	498.59	ppb	22:20:21
2	As 188.979†	1344.4	1326.0	561.27	µg/L	561.27	ppb	22:20:41
2	B 249.677†	32990.6	28832.7	482.36	µg/L	482.36	ppb	22:20:21
2	Ba 233.527†	113263.4	110684.5	506.05	µg/L	506.05	ppb	22:20:21
2	Be 313.107†	1625203.6	1586346.8	516.52	µg/L	516.52	ppb	22:20:21
2	Cd 226.502†	71591.7	69945.4	482.71	µg/L	482.71	ppb	22:20:21
2	Co 228.616†	36606.2	35892.7	491.75	µg/L	491.75	ppb	22:20:21
2	Cr 267.716†	58947.1	57353.6	492.50	µg/L	492.50	ppb	22:20:21
2	Cu 324.752†	119611.8	114278.5	498.30	µg/L	498.30	ppb	22:20:21
2	Mn 257.610†	371366.8	362257.0	494.79	µg/L	494.79	ppb	22:20:21
2	Mo 202.031†	15850.0	15519.8	490.36	µg/L	490.36	ppb	22:20:41
2	Ni 231.604†	39310.2	38395.3	491.12	µg/L	491.12	ppb	22:20:21
2	P 214.914†	10467.4	10133.3	2418.3	µg/L	2418.3	ppb	22:20:41
2	Pb 220.353†	8392.4	8075.9	490.79	µg/L	490.79	ppb	22:20:41

2	S 181.975 Axial†	1313.6	1186.9	965.72 µg/L	965.72 ppb	22:20:41
2	Sb 206.836†	3868.7	3688.0	498.60 µg/L	498.60 ppb	22:20:41
2	Se 196.026†	1246.3	1205.1	479 µg/L	479 ppb	22:20:41
2	SiO2†	51189.2	48371.7	5265.9 µg/L	5265.9 ppb	22:20:21
2	Si 251.611†	153640.7	149228.5	2457.6 µg/L	2457.6 ppb	22:20:21
2	Sn 189.927†	7204.7	7027.5	501.26 µg/L	501.26 ppb	22:20:41
2	Ti 334.940†	498506.7	485749.2	494.67 µg/L	494.67 ppb	22:20:21
2	Tl 190.801†	3638.8	3670.6	500.15 µg/L	500.15 ppb	22:20:41
2	U 409.014†	7086.3	7393.1	487.16 µg/L	487.16 ppb	22:20:21
2	V 292.402†	92241.8	89567.1	503.08 µg/L	503.08 ppb	22:20:21
2	Zn 213.857†	79665.1	77263.6	482.48 µg/L	482.48 ppb	22:20:21
3	Sc RADIAL	154090.6	154090.6	106 %		22:19:53
3	Al 396.153Radial†	25424.6	24080.9	5233.9 µg/L	5233.9 ppb	22:19:53
3	Ca 317.933Radial†	89815.0	84339.8	4941.9 µg/L	4941.9 ppb	22:19:53
3	Fe 238.204 Radial†	78583.1	74218.4	4934.3 µg/L	4934.3 ppb	22:19:53
3	K 766.490 Radial†	13957.7	11747.6	4832.1 µg/L	4832.1 ppb	22:19:53
3	Mg 279.077 IEC†	13296.6	12390.6	5116.5 µg/L	5116.5 ppb	22:19:53
3	Na 589.592 Radial†	70420.8	64916.2	9928.7 µg/L	9928.7 ppb	22:19:53
3	Sr 421.552†	227165.2	215153.4	504.22 µg/L	504.22 ppb	22:19:51
3	Sc 361.383	1727606.5	1727606.5	103.28 %		22:20:44
3	Y 371.029	1045815.5	1045815.5	102.27 %		22:20:44
3	Ag 328.068†	127723.5	120702.7	496.03 µg/L	496.03 ppb	22:20:44
3	As 188.979†	1349.6	1321.0	559.18 µg/L	559.18 ppb	22:21:05
3	B 249.677†	33234.8	28824.3	482.23 µg/L	482.23 ppb	22:20:44
3	Ba 233.527†	114068.8	110623.4	505.77 µg/L	505.77 ppb	22:20:44
3	Be 313.107†	1634139.1	1582933.7	515.41 µg/L	515.41 ppb	22:20:44
3	Cd 226.502†	72201.5	70004.3	483.12 µg/L	483.12 ppb	22:20:44
3	Co 228.616†	36622.8	35637.0	488.24 µg/L	488.24 ppb	22:20:44
3	Cr 267.716†	59398.0	57352.5	492.49 µg/L	492.49 ppb	22:20:44
3	Cu 324.752†	119868.0	113638.7	495.52 µg/L	495.52 ppb	22:20:44
3	Mn 257.610†	373060.7	361140.2	493.26 µg/L	493.26 ppb	22:20:44
3	Mo 202.031†	15888.1	15439.1	487.81 µg/L	487.81 ppb	22:21:05
3	Ni 231.604†	39594.7	38378.9	490.91 µg/L	490.91 ppb	22:20:44
3	P 214.914†	10522.4	10108.9	2412.5 µg/L	2412.5 ppb	22:21:05
3	Pb 220.353†	8403.6	8024.5	487.67 µg/L	487.67 ppb	22:21:05
3	S 181.975 Axial†	1310.6	1174.2	955.43 µg/L	955.43 ppb	22:21:05
3	Sb 206.836†	3889.0	3678.9	497.34 µg/L	497.34 ppb	22:21:05
3	Se 196.026†	1271.0	1219.8	485 µg/L	485 ppb	22:21:05
3	SiO2†	51423.3	48218.3	5249.2 µg/L	5249.2 ppb	22:20:44
3	Si 251.611†	154582.4	148999.8	2453.9 µg/L	2453.9 ppb	22:20:44
3	Sn 189.927†	7242.6	7010.7	500.07 µg/L	500.07 ppb	22:21:05
3	Ti 334.940†	501288.0	484741.5	493.64 µg/L	493.64 ppb	22:20:44
3	Tl 190.801†	3618.0	3623.5	493.81 µg/L	493.81 ppb	22:21:05
3	U 409.014†	7090.5	7344.5	484.10 µg/L	484.10 ppb	22:20:44
3	V 292.402†	92797.7	89420.5	502.24 µg/L	502.24 ppb	22:20:44
3	Zn 213.857†	80147.9	77139.7	481.71 µg/L	481.71 ppb	22:20:44

Mean Data: CCV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1726493.3	103.21	%	0.688				0.67%
Sc RADIAL	153745.1	105	%	0.9				0.84%
Y 371.029	1044642.4	102.16	%	0.685				0.67%
Ag 328.068†	120921.0	496.92	µg/L	1.451	496.92	ppb	1.451	0.29%
QC value within limits for Ag 328.068 Recovery = 99.38%								
Al 396.153Radial†	24133.8	5245.5	µg/L	13.60	5245.5	ppb	13.60	0.26%
QC value within limits for Al 396.153Radial Recovery = 104.91%								
As 188.979†	1317.2	557.56	µg/L	4.727	557.56	ppb	4.727	0.85%
QC value greater than the upper limit for As 188.979 Recovery = 111.51%								
B 249.677†	28761.6	481.17	µg/L	1.939	481.17	ppb	1.939	0.40%
QC value within limits for B 249.677 Recovery = 96.23%								
Ba 233.527†	110472.8	505.08	µg/L	1.442	505.08	ppb	1.442	0.29%
QC value within limits for Ba 233.527 Recovery = 101.02%								
Be 313.107†	1581013.7	514.78	µg/L	2.119	514.78	ppb	2.119	0.41%
QC value within limits for Be 313.107 Recovery = 102.96%								
Ca 317.933Radial†	84464.7	4949.3	µg/L	6.40	4949.3	ppb	6.40	0.13%
QC value within limits for Ca 317.933Radial Recovery = 98.99%								
Cd 226.502†	69862.6	482.14	µg/L	1.358	482.14	ppb	1.358	0.28%
QC value within limits for Cd 226.502 Recovery = 96.43%								
Co 228.616†	35677.1	488.79	µg/L	2.721	488.79	ppb	2.721	0.56%

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   QC value within limits for Co 228.616  Recovery = 97.76%
Cr 267.716†            57236.1      491.49 µg/L         1.741      491.49 ppb          1.741   0.35%
   QC value within limits for Cr 267.716  Recovery = 98.30%
Cu 324.752†           113813.7      496.28 µg/L         1.771      496.28 ppb          1.771   0.36%
   QC value within limits for Cu 324.752  Recovery = 99.26%
Fe 238.204 Radial†     74314.7      4940.7 µg/L          9.01      4940.7 ppb           9.01   0.18%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.81%
K 766.490 Radial†      11779.0      4845.0 µg/L         28.69      4845.0 ppb          28.69   0.59%
   QC value within limits for K 766.490 Radial  Recovery = 96.90%
Mg 279.077 IEC†        12389.7      5116.1 µg/L          4.08      5116.1 ppb           4.08   0.08%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.32%
Mn 257.610†           361096.1      493.20 µg/L         1.617      493.20 ppb          1.617   0.33%
   QC value within limits for Mn 257.610  Recovery = 98.64%
Mo 202.031†            15410.9      486.92 µg/L         3.960      486.92 ppb          3.960   0.81%
   QC value within limits for Mo 202.031  Recovery = 97.38%
Na 589.592 Radial†     64949.8      9933.8 µg/L         32.45      9933.8 ppb          32.45   0.33%
   QC value within limits for Na 589.592 Radial  Recovery = 99.34%
Ni 231.604†            38340.5      490.42 µg/L         1.037      490.42 ppb          1.037   0.21%
   QC value within limits for Ni 231.604  Recovery = 98.08%
P 214.914†             10075.4      2404.5 µg/L         19.15      2404.5 ppb          19.15   0.80%
   QC value within limits for P 214.914  Recovery = 96.18%
Pb 220.353†             8015.5      487.12 µg/L         3.967      487.12 ppb          3.967   0.81%
   QC value within limits for Pb 220.353  Recovery = 97.42%
S 181.975 Axial†        1172.2      953.82 µg/L        12.785      953.82 ppb         12.785   1.34%
   QC value within limits for S 181.975 Axial  Recovery = 95.38%
Sb 206.836†             3659.2      494.68 µg/L         5.740      494.68 ppb          5.740   1.16%
   QC value within limits for Sb 206.836  Recovery = 98.94%
Se 196.026†             1212.2         482 µg/L           2.9         482 ppb            2.9   0.60%
   QC value within limits for Se 196.026  Recovery = 96.33%
SiO2†                  48227.1      5250.2 µg/L         15.19      5250.2 ppb          15.19   0.29%
   QC value within limits for SiO2  Recovery = 98.18%
Si 251.611†           148805.7      2450.7 µg/L          8.96      2450.7 ppb           8.96   0.37%
   QC value within limits for Si 251.611  Recovery = 98.03%
Sn 189.927†             6988.3      498.47 µg/L         3.841      498.47 ppb          3.841   0.77%
   QC value within limits for Sn 189.927  Recovery = 99.69%
Sr 421.552†           216641.4      507.71 µg/L         4.429      507.71 ppb          4.429   0.87%
   QC value within limits for Sr 421.552  Recovery = 101.54%
Ti 334.940†           484159.9      493.05 µg/L         1.985      493.05 ppb          1.985   0.40%
   QC value within limits for Ti 334.940  Recovery = 98.61%
Tl 190.801†             3634.0      495.22 µg/L         4.399      495.22 ppb          4.399   0.89%
   QC value within limits for Tl 190.801  Recovery = 99.04%
U 409.014†              7374.9      485.98 µg/L         1.643      485.98 ppb          1.643   0.34%
   QC value within limits for U 409.014  Recovery = 97.20%
V 292.402†             89419.2      502.22 µg/L         0.868      502.22 ppb          0.868   0.17%
   QC value within limits for V 292.402  Recovery = 100.44%
Zn 213.857†            77076.4      481.31 µg/L         1.413      481.31 ppb          1.413   0.29%
   QC value within limits for Zn 213.857  Recovery = 96.26%
QC Failed.  Continue with analysis.
```

Sequence No.: 82 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 3/29/2010 22:21:13**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	153048.9	153048.9	105	%			22:21:43
1	Al 396.153Radial†	-46.2	-12.1	-2.7027	µg/L	-2.7027	ppb	22:22:03
1	Ca 317.933Radial†	641.8	-5.0	-0.2911	µg/L	-0.2911	ppb	22:22:03
1	Fe 238.204 Radial†	160.0	39.1	2.6003	µg/L	2.6003	ppb	22:22:03
1	K 766.490 Radial†	1587.0	56.4	23.221	µg/L	23.221	ppb	22:21:43
1	Mg 279.077 IEC†	160.9	-33.5	-13.768	µg/L	-13.768	ppb	22:22:03
1	Na 589.592 Radial†	1749.0	-29.1	-4.4718	µg/L	-4.4718	ppb	22:21:43
1	Sr 421.552†	-135.3	149.1	0.3494	µg/L	0.3494	ppb	22:21:43
1	Sc 361.383	1742642.1	1742642.1	104.18	%			22:23:05
1	Y 371.029	1066501.3	1066501.3	104.29	%			22:23:05
1	Ag 328.068†	3331.6	231.0	0.9172	µg/L	0.9172	ppb	22:23:07
1	As 188.979†	-18.4	-3.4	-1.4062	µg/L	-1.4062	ppb	22:23:27
1	B 249.677†	3114.2	-366.4	-6.1519	µg/L	-6.1519	ppb	22:23:27
1	Ba 233.527†	-147.0	33.9	0.1544	µg/L	0.1544	ppb	22:23:27
1	Be 313.107†	-699.4	-11.3	-0.0042	µg/L	-0.0042	ppb	22:23:07
1	Cd 226.502†	-105.1	-6.5	-0.0448	µg/L	-0.0448	ppb	22:23:27
1	Co 228.616†	-157.7	25.3	0.3459	µg/L	0.3459	ppb	22:23:27
1	Cr 267.716†	174.6	7.4	0.0642	µg/L	0.0642	ppb	22:23:27
1	Cu 324.752†	2824.4	286.3	1.2434	µg/L	1.2434	ppb	22:23:07
1	Mn 257.610†	185.8	98.4	0.1350	µg/L	0.1350	ppb	22:23:27
1	Mo 202.031†	-12.5	43.2	1.3628	µg/L	1.3628	ppb	22:23:27
1	Ni 231.604†	-33.1	9.1	0.1168	µg/L	0.1168	ppb	22:23:27
1	P 214.914†	23.7	-56.8	-13.626	µg/L	-13.626	ppb	22:23:27
1	Pb 220.353†	94.6	-21.6	-1.3058	µg/L	-1.3058	ppb	22:23:27
1	S 181.975 Axial†	90.7	-7.8	-6.2749	µg/L	-6.2749	ppb	22:23:27
1	Sb 206.836†	85.8	-4.3	-0.5625	µg/L	-0.5625	ppb	22:23:27
1	Se 196.026†	15.2	3.7	1.47	µg/L	1.47	ppb	22:23:27
1	SiO2†	1707.1	65.8	7.1504	µg/L	7.1504	ppb	22:23:27
1	Si 251.611†	834.7	124.8	2.0451	µg/L	2.0451	ppb	22:23:27
1	Sn 189.927†	4.0	1.8	0.1301	µg/L	0.1301	ppb	22:23:27
1	Ti 334.940†	654.1	-8.5	-0.0069	µg/L	-0.0069	ppb	22:23:07
1	Tl 190.801†	-117.5	7.5	0.9902	µg/L	0.9902	ppb	22:23:27
1	U 409.014†	-528.2	-28.0	-1.8141	µg/L	-1.8141	ppb	22:23:07
1	V 292.402†	165.6	-272.9	-1.5009	µg/L	-1.5009	ppb	22:23:07
1	Zn 213.857†	513.9	28.9	0.1799	µg/L	0.1799	ppb	22:23:27
2	Sc RADIAL	151679.0	151679.0	104	%			22:22:05
2	Al 396.153Radial†	-28.1	4.8	0.9816	µg/L	0.9816	ppb	22:22:25
2	Ca 317.933Radial†	626.5	-14.1	-0.8283	µg/L	-0.8283	ppb	22:22:25
2	Fe 238.204 Radial†	161.3	41.8	2.7763	µg/L	2.7763	ppb	22:22:25
2	K 766.490 Radial†	1640.2	121.1	49.867	µg/L	49.867	ppb	22:22:05
2	Mg 279.077 IEC†	170.3	-23.0	-9.4578	µg/L	-9.4578	ppb	22:22:25
2	Na 589.592 Radial†	1597.3	-159.9	-24.506	µg/L	-24.506	ppb	22:22:05
2	Sr 421.552†	-216.8	69.7	0.1633	µg/L	0.1633	ppb	22:22:05
2	Sc 361.383	1717045.6	1717045.6	102.65	%			22:23:29
2	Y 371.029	1051770.0	1051770.0	102.85	%			22:23:29
2	Ag 328.068†	3191.7	142.4	0.5609	µg/L	0.5609	ppb	22:23:31
2	As 188.979†	-14.9	-0.3	-0.1085	µg/L	-0.1085	ppb	22:23:51
2	B 249.677†	3102.8	-332.9	-5.5892	µg/L	-5.5892	ppb	22:23:51
2	Ba 233.527†	-171.7	7.8	0.0352	µg/L	0.0352	ppb	22:23:51
2	Be 313.107†	-760.6	-80.9	-0.0263	µg/L	-0.0263	ppb	22:23:31
2	Cd 226.502†	-75.1	21.3	0.1466	µg/L	0.1466	ppb	22:23:51
2	Co 228.616†	-175.4	5.7	0.0784	µg/L	0.0784	ppb	22:23:51
2	Cr 267.716†	170.4	5.8	0.0490	µg/L	0.0490	ppb	22:23:51
2	Cu 324.752†	3002.5	500.2	2.1749	µg/L	2.1749	ppb	22:23:31
2	Mn 257.610†	187.0	102.2	0.1400	µg/L	0.1400	ppb	22:23:51
2	Mo 202.031†	-6.1	49.2	1.5540	µg/L	1.5540	ppb	22:23:51
2	Ni 231.604†	-67.8	-25.2	-0.3219	µg/L	-0.3219	ppb	22:23:51
2	P 214.914†	19.7	-60.4	-14.507	µg/L	-14.507	ppb	22:23:51
2	Pb 220.353†	107.1	-8.1	-0.4886	µg/L	-0.4886	ppb	22:23:51

2	S 181.975 Axial†	88.2	-8.9	-7.1659 µg/L	-7.1659 ppb	22:23:51
2	Sb 206.836†	81.5	-7.3	-0.9613 µg/L	-0.9613 ppb	22:23:51
2	Se 196.026†	13.5	2.2	0.889 µg/L	0.889 ppb	22:23:51
2	SiO2†	1716.0	98.9	10.765 µg/L	10.765 ppb	22:23:51
2	Si 251.611†	860.2	161.6	2.6514 µg/L	2.6514 ppb	22:23:51
2	Sn 189.927†	2.5	0.4	0.0292 µg/L	0.0292 ppb	22:23:51
2	Ti 334.940†	705.6	51.1	0.0527 µg/L	0.0527 ppb	22:23:31
2	Tl 190.801†	-114.7	8.6	1.1402 µg/L	1.1402 ppb	22:23:51
2	U 409.014†	-487.9	3.8	0.1533 µg/L	0.1533 ppb	22:23:31
2	V 292.402†	179.2	-257.2	-1.4109 µg/L	-1.4109 ppb	22:23:31
2	Zn 213.857†	508.9	31.4	0.1979 µg/L	0.1979 ppb	22:23:51
3	Sc RADIAL	151305.2	151305.2	104 %		22:22:27
3	Al 396.153Radial†	-37.6	-4.4	-1.0405 µg/L	-1.0405 ppb	22:22:47
3	Ca 317.933Radial†	634.0	-5.4	-0.3182 µg/L	-0.3182 ppb	22:22:47
3	Fe 238.204 Radial†	145.7	27.0	1.7971 µg/L	1.7971 ppb	22:22:47
3	K 766.490 Radial†	1457.1	-51.4	-21.154 µg/L	-21.154 ppb	22:22:27
3	Mg 279.077 IEC†	160.0	-32.5	-13.375 µg/L	-13.375 ppb	22:22:47
3	Na 589.592 Radial†	1632.9	-121.7	-18.602 µg/L	-18.602 ppb	22:22:27
3	Sr 421.552†	-158.8	125.0	0.2930 µg/L	0.2930 ppb	22:22:27
3	Sc 361.383	1696452.4	1696452.4	101.42 %		22:23:54
3	Y 371.029	1039324.0	1039324.0	101.64 %		22:23:54
3	Ag 328.068†	3361.8	347.9	1.3916 µg/L	1.3916 ppb	22:23:56
3	As 188.979†	-22.4	-7.8	-3.2622 µg/L	-3.2622 ppb	22:24:16
3	B 249.677†	3155.6	-244.2	-4.0995 µg/L	-4.0995 ppb	22:24:16
3	Ba 233.527†	-185.2	-7.6	-0.0344 µg/L	-0.0344 ppb	22:24:16
3	Be 313.107†	-556.9	110.9	0.0329 µg/L	0.0329 ppb	22:23:56
3	Cd 226.502†	-87.0	8.7	0.0596 µg/L	0.0596 ppb	22:24:16
3	Co 228.616†	-172.6	6.4	0.0881 µg/L	0.0881 ppb	22:24:16
3	Cr 267.716†	143.3	-18.9	-0.1543 µg/L	-0.1543 ppb	22:24:16
3	Cu 324.752†	2803.5	339.5	1.4669 µg/L	1.4669 ppb	22:23:56
3	Mn 257.610†	199.4	116.6	0.1599 µg/L	0.1599 ppb	22:24:16
3	Mo 202.031†	1.4	56.6	1.7870 µg/L	1.7870 ppb	22:24:16
3	Ni 231.604†	-50.6	-8.9	-0.1143 µg/L	-0.1143 ppb	22:24:16
3	P 214.914†	39.3	-40.8	-9.8087 µg/L	-9.8087 ppb	22:24:16
3	Pb 220.353†	108.5	-5.4	-0.3153 µg/L	-0.3153 ppb	22:24:16
3	S 181.975 Axial†	90.6	-5.5	-4.4474 µg/L	-4.4474 ppb	22:24:16
3	Sb 206.836†	74.1	-13.6	-1.8066 µg/L	-1.8066 ppb	22:24:16
3	Se 196.026†	28.5	17.2	6.79 µg/L	6.79 ppb	22:24:16
3	SiO2†	1717.2	120.3	13.094 µg/L	13.094 ppb	22:24:16
3	Si 251.611†	817.8	130.0	2.1214 µg/L	2.1214 ppb	22:24:16
3	Sn 189.927†	10.4	8.2	0.5861 µg/L	0.5861 ppb	22:24:16
3	Ti 334.940†	751.3	104.5	0.1120 µg/L	0.1120 ppb	22:23:56
3	Tl 190.801†	-109.7	12.1	1.6251 µg/L	1.6251 ppb	22:24:16
3	U 409.014†	-660.7	-172.4	-10.683 µg/L	-10.683 ppb	22:23:56
3	V 292.402†	331.5	-104.9	-0.5717 µg/L	-0.5717 ppb	22:23:56
3	Zn 213.857†	511.3	39.8	0.2498 µg/L	0.2498 ppb	22:24:16

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1718713.4	102.75	%	1.383				1.35%
Sc RADIAL	152011.1	104	%	0.6				0.60%
Y 371.029	1052531.7	102.93	%	1.330				1.29%
Ag 328.068†	240.4	0.9566	µg/L	0.41670	0.9566	ppb	0.41670	43.56%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	-3.9	-0.9205	µg/L	1.84510	-0.9205	ppb	1.84510	200.44%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	-3.8	-1.5923	µg/L	1.58505	-1.5923	ppb	1.58505	99.54%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-314.5	-5.2802	µg/L	1.06050	-5.2802	ppb	1.06050	20.08%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	11.4	0.0517	µg/L	0.09546	0.0517	ppb	0.09546	184.53%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	6.3	0.0008	µg/L	0.02989	0.0008	ppb	0.02989	>999.9%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-8.2	-0.4792	µg/L	0.30265	-0.4792	ppb	0.30265	63.16%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	7.8	0.0538	µg/L	0.09583	0.0538	ppb	0.09583	178.12%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	12.5	0.1708	µg/L	0.15171	0.1708	ppb	0.15171	88.81%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -1.9     -0.0137 µg/L      0.12202     -0.0137 ppb       0.12202 890.26%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             375.3      1.6284 µg/L      0.48629      1.6284 ppb       0.48629  29.86%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       36.0      2.3913 µg/L      0.52198      2.3913 ppb       0.52198  21.83%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†        42.0      17.311 µg/L      35.8774      17.311 ppb       35.8774 207.25%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         -29.7     -12.200 µg/L       2.3830     -12.200 ppb        2.3830  19.53%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†             105.7      0.1449 µg/L      0.01317      0.1449 ppb       0.01317   9.09%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              49.7      1.5679 µg/L      0.21243      1.5679 ppb       0.21243  13.55%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†      -103.5     -15.860 µg/L      10.2945     -15.860 ppb       10.2945  64.91%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†              -8.3     -0.1065 µg/L      0.21945     -0.1065 ppb       0.21945 206.12%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -52.7     -12.647 µg/L       2.4974     -12.647 ppb        2.4974  19.75%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -11.7     -0.7032 µg/L      0.52900     -0.7032 ppb       0.52900  75.22%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -7.4     -5.9627 µg/L      1.38586     -5.9627 ppb       1.38586  23.24%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -8.4     -1.1101 µg/L      0.63531     -1.1101 ppb       0.63531  57.23%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               7.7       3.05 µg/L        3.254       3.05 ppb         3.254 106.62%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    95.0      10.336 µg/L       2.9948      10.336 ppb        2.9948  28.97%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             138.8      2.2727 µg/L      0.33024      2.2727 ppb       0.33024  14.53%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               3.5      0.2485 µg/L      0.29673      0.2485 ppb       0.29673 119.41%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†             114.6      0.2685 µg/L      0.09545      0.2685 ppb       0.09545  35.54%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†              49.0      0.0526 µg/L      0.05945      0.0526 ppb       0.05945 112.94%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               9.4      1.2518 µg/L      0.33186      1.2518 ppb       0.33186  26.51%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              -65.5     -4.1145 µg/L      5.77269     -4.1145 ppb       5.77269 140.30%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†              -211.7     -1.1612 µg/L      0.51246     -1.1612 ppb       0.51246  44.13%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              33.4      0.2092 µg/L      0.03629      0.2092 ppb       0.03629  17.35%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
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Sequence No.: 85
Sample ID: 248044002|959137|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 407
Date Collected: 3/29/2010 22:29:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248044002|959137|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	151327.0	151327.0	104	%			22:29:56
1	Al 396.153Radial†	29442.1	28389.7	6197.1	µg/L	6197.1	ppb	22:29:56
1	Ca 317.933Radial†	254004.2	244034.0	14299	µg/L	14299	ppb	22:29:56
1	Fe 238.204 Radial†	47288.7	45433.9	3020.6	µg/L	3020.6	ppb	22:29:56
1	K 766.490 Radial†	12450.0	10536.5	4330.5	µg/L	4330.5	ppb	22:29:56
1	Mg 279.077 IEC†	13481.4	12798.2	5274.3	µg/L	5274.3	ppb	22:29:56
1	Na 589.592 Radial†	115167.4	109231.5	16710	µg/L	16710	ppb	22:29:56
1	Sr 421.552†	49323.3	47784.9	111.88	µg/L	111.88	ppb	22:29:56
1	Sc 361.383	1710129.5	1710129.5	102.23	%			22:30:04
1	Y 371.029	1035537.3	1035537.3	101.27	%			22:30:04
1	Ag 328.068†	3094.8	60.1	-0.1417	µg/L	-0.1417	ppb	22:30:04
1	As 188.979†	-14.5	0.1	0.7490	µg/L	0.7490	ppb	22:30:25
1	B 249.677†	4402.1	950.2	15.949	µg/L	15.949	ppb	22:30:25
1	Ba 233.527†	24731.2	24366.0	111.28	µg/L	111.28	ppb	22:30:25
1	Be 313.107†	759.7	1403.2	0.4451	µg/L	0.4451	ppb	22:30:04
1	Cd 226.502†	-45.6	49.8	0.0267	µg/L	0.0267	ppb	22:30:25
1	Co 228.616†	-98.4	80.3	1.0521	µg/L	1.0521	ppb	22:30:25
1	Cr 267.716†	520.0	348.4	3.0538	µg/L	3.0538	ppb	22:30:25
1	Cu 324.752†	2797.2	311.3	1.9043	µg/L	1.9043	ppb	22:30:04
1	Mn 257.610†	35350.4	34498.3	46.923	µg/L	46.923	ppb	22:30:04
1	Mo 202.031†	-45.4	10.8	0.5580	µg/L	0.5580	ppb	22:30:25
1	Ni 231.604†	70.8	110.2	1.4091	µg/L	1.4091	ppb	22:30:25
1	P 214.914†	316.5	230.1	54.383	µg/L	54.383	ppb	22:30:25
1	Pb 220.353†	139.1	23.6	1.8739	µg/L	1.8739	ppb	22:30:25
1	S 181.975 Axial†	4645.4	4449.1	3604.6	µg/L	3604.6	ppb	22:30:25
1	Sb 206.836†	90.7	2.1	0.1717	µg/L	0.1717	ppb	22:30:25
1	Se 196.026†	12.4	1.2	1.48	µg/L	1.48	ppb	22:30:25
1	SiO2†	508675.0	495990.9	54212	µg/L	54212	ppb	22:30:04
1	Si 251.611†	1556622.3	1521944.0	25165	µg/L	25165	ppb	22:30:04
1	Sn 189.927†	-15.8	-17.4	-0.9180	µg/L	-0.9180	ppb	22:30:25
1	Ti 334.940†	96206.3	93468.5	95.266	µg/L	95.266	ppb	22:30:04
1	Tl 190.801†	-117.8	5.1	1.7988	µg/L	1.7988	ppb	22:30:25
1	U 409.014†	-1129.2	-625.4	-38.127	µg/L	-38.127	ppb	22:30:04
1	V 292.402†	1371.8	910.0	4.4699	µg/L	4.4699	ppb	22:30:25
1	Zn 213.857†	2091.6	1581.5	9.6424	µg/L	9.6424	ppb	22:30:25
2	Sc RADIAL	154640.8	154640.8	106	%			22:29:58
2	Al 396.153Radial†	29967.3	28277.1	6172.5	µg/L	6172.5	ppb	22:29:58
2	Ca 317.933Radial†	258643.9	243164.4	14248	µg/L	14248	ppb	22:29:58
2	Fe 238.204 Radial†	48266.0	45379.1	3017.0	µg/L	3017.0	ppb	22:29:58
2	K 766.490 Radial†	12638.8	10457.5	4298.0	µg/L	4298.0	ppb	22:29:58
2	Mg 279.077 IEC†	13770.1	12792.1	5271.7	µg/L	5271.7	ppb	22:29:58
2	Na 589.592 Radial†	117018.2	108598.9	16613	µg/L	16613	ppb	22:29:58
2	Sr 421.552†	50248.2	47638.6	111.54	µg/L	111.54	ppb	22:29:58
2	Sc 361.383	1738500.7	1738500.7	103.93	%			22:30:27
2	Y 371.029	1050877.5	1050877.5	102.77	%			22:30:27
2	Ag 328.068†	3138.6	52.9	-0.1597	µg/L	-0.1597	ppb	22:30:27
2	As 188.979†	-15.8	-1.0	0.3009	µg/L	0.3009	ppb	22:30:47
2	B 249.677†	4362.6	842.0	14.133	µg/L	14.133	ppb	22:30:47
2	Ba 233.527†	24726.0	23966.2	109.45	µg/L	109.45	ppb	22:30:47
2	Be 313.107†	728.2	1360.7	0.4338	µg/L	0.4338	ppb	22:30:27
2	Cd 226.502†	-68.2	28.8	-0.1178	µg/L	-0.1178	ppb	22:30:47
2	Co 228.616†	-98.4	81.9	1.0718	µg/L	1.0718	ppb	22:30:47
2	Cr 267.716†	505.4	326.0	2.8553	µg/L	2.8553	ppb	22:30:47
2	Cu 324.752†	2833.6	301.6	1.8686	µg/L	1.8686	ppb	22:30:27
2	Mn 257.610†	35976.6	34536.4	46.975	µg/L	46.975	ppb	22:30:27
2	Mo 202.031†	-59.7	-2.2	0.1478	µg/L	0.1478	ppb	22:30:47
2	Ni 231.604†	116.2	152.8	1.9539	µg/L	1.9539	ppb	22:30:47
2	P 214.914†	321.1	229.4	54.247	µg/L	54.247	ppb	22:30:47
2	Pb 220.353†	146.9	28.9	2.1838	µg/L	2.1838	ppb	22:30:47

2	S 181.975 Axial†	4638.6	4368.4	3539.2 µg/L	3539.2 ppb	22:30:47
2	Sb 206.836†	88.3	-1.7	-0.3470 µg/L	-0.3470 ppb	22:30:47
2	Se 196.026†	15.9	4.4	2.77 µg/L	2.77 ppb	22:30:47
2	SiO2†	519648.5	498429.7	54479 µg/L	54479 ppb	22:30:27
2	Si 251.611†	1589724.1	1528946.2	25281 µg/L	25281 ppb	22:30:27
2	Sn 189.927†	4.9	2.7	0.5103 µg/L	0.5103 ppb	22:30:47
2	Ti 334.940†	97901.3	93563.7	95.359 µg/L	95.359 ppb	22:30:27
2	Tl 190.801†	-124.3	0.7	1.2112 µg/L	1.2112 ppb	22:30:47
2	U 409.014†	-1009.0	-491.7	-29.867 µg/L	-29.867 ppb	22:30:27
2	V 292.402†	1393.9	909.4	4.4672 µg/L	4.4672 ppb	22:30:47
2	Zn 213.857†	2099.7	1555.9	9.4781 µg/L	9.4781 ppb	22:30:47
3	Sc RADIAL	152213.2	152213.2	104 %		22:30:00
3	Al 396.153Radial†	29623.9	28398.7	6199.1 µg/L	6199.1 ppb	22:30:00
3	Ca 317.933Radial†	255941.9	244465.1	14325 µg/L	14325 ppb	22:30:00
3	Fe 238.204 Radial†	47510.2	45380.8	3017.1 µg/L	3017.1 ppb	22:30:00
3	K 766.490 Radial†	12571.5	10583.1	4349.6 µg/L	4349.6 ppb	22:30:00
3	Mg 279.077 IEC†	13596.8	12833.2	5288.7 µg/L	5288.7 ppb	22:30:00
3	Na 589.592 Radial†	115998.9	109381.9	16733 µg/L	16733 ppb	22:30:00
3	Sr 421.552†	49691.7	47861.0	112.06 µg/L	112.06 ppb	22:30:00
3	Sc 361.383	1724483.4	1724483.4	103.09 %		22:30:50
3	Y 371.029	1042518.1	1042518.1	101.95 %		22:30:50
3	Ag 328.068†	3526.6	453.8	1.4634 µg/L	1.4634 ppb	22:30:50
3	As 188.979†	-8.7	5.8	3.1195 µg/L	3.1195 ppb	22:31:10
3	B 249.677†	4342.2	856.3	14.374 µg/L	14.374 ppb	22:31:10
3	Ba 233.527†	24733.6	24167.0	110.37 µg/L	110.37 ppb	22:31:10
3	Be 313.107†	557.5	1200.9	0.3815 µg/L	0.3815 ppb	22:30:50
3	Cd 226.502†	-81.5	15.4	-0.2105 µg/L	-0.2105 ppb	22:31:10
3	Co 228.616†	-120.6	59.6	0.7682 µg/L	0.7682 ppb	22:31:10
3	Cr 267.716†	537.8	361.4	3.1594 µg/L	3.1594 ppb	22:31:10
3	Cu 324.752†	2793.7	285.0	1.7963 µg/L	1.7963 ppb	22:30:50
3	Mn 257.610†	35726.5	34575.2	47.027 µg/L	47.027 ppb	22:30:50
3	Mo 202.031†	-45.2	11.4	0.5769 µg/L	0.5769 ppb	22:31:10
3	Ni 231.604†	85.9	124.2	1.5888 µg/L	1.5888 ppb	22:31:10
3	P 214.914†	320.4	231.3	54.686 µg/L	54.686 ppb	22:31:10
3	Pb 220.353†	140.9	24.2	1.9049 µg/L	1.9049 ppb	22:31:10
3	S 181.975 Axial†	4608.7	4375.6	3545.1 µg/L	3545.1 ppb	22:31:10
3	Sb 206.836†	81.0	-8.1	-1.2046 µg/L	-1.2046 ppb	22:31:10
3	Se 196.026†	22.2	10.6	5.22 µg/L	5.22 ppb	22:31:10
3	SiO2†	516895.9	499823.8	54631 µg/L	54631 ppb	22:30:50
3	Si 251.611†	1582490.8	1534363.2	25370 µg/L	25370 ppb	22:30:50
3	Sn 189.927†	-1.1	-3.1	0.1011 µg/L	0.1011 ppb	22:31:10
3	Ti 334.940†	97482.5	93923.2	95.726 µg/L	95.726 ppb	22:30:50
3	Tl 190.801†	-116.1	7.7	2.1498 µg/L	2.1498 ppb	22:31:10
3	U 409.014†	-1011.1	-501.7	-30.483 µg/L	-30.483 ppb	22:30:50
3	V 292.402†	1366.7	893.9	4.3864 µg/L	4.3864 ppb	22:31:10
3	Zn 213.857†	2084.0	1557.1	9.4883 µg/L	9.4883 ppb	22:31:10

Mean Data: 248044002|959137|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1724371.2	103.08	%	0.848				0.82%
Sc RADIAL	152727.0	105	%	1.2				1.12%
Y 371.029	1042977.6	101.99	%	0.751				0.74%
Ag 328.068†	188.9	0.3873	µg/L	0.93194	0.3873	ppb	0.93194	240.62%
Al 396.153Radial†	28355.2	6189.6	µg/L	14.78	6189.6	ppb	14.78	0.24%
As 188.979†	1.6	1.3898	µg/L	1.51465	1.3898	ppb	1.51465	108.98%
B 249.677†	882.8	14.818	µg/L	0.9866	14.818	ppb	0.9866	6.66%
Ba 233.527†	24166.4	110.36	µg/L	0.913	110.36	ppb	0.913	0.83%
Be 313.107†	1321.6	0.4201	µg/L	0.03389	0.4201	ppb	0.03389	8.07%
Ca 317.933Radial†	243887.8	14291	µg/L	38.8	14291	ppb	38.8	0.27%
Cd 226.502†	31.3	-0.1005	µg/L	0.11953	-0.1005	ppb	0.11953	118.91%
Co 228.616†	73.9	0.9640	µg/L	0.16990	0.9640	ppb	0.16990	17.62%
Cr 267.716†	345.3	3.0228	µg/L	0.15441	3.0228	ppb	0.15441	5.11%
Cu 324.752†	299.3	1.8564	µg/L	0.05503	1.8564	ppb	0.05503	2.96%
Fe 238.204 Radial†	45397.9	3018.2	µg/L	2.07	3018.2	ppb	2.07	0.07%
K 766.490 Radial†	10525.7	4326.0	µg/L	26.11	4326.0	ppb	26.11	0.60%
Mg 279.077 IEC†	12807.8	5278.2	µg/L	9.14	5278.2	ppb	9.14	0.17%
Mn 257.610†	34536.6	46.975	µg/L	0.0523	46.975	ppb	0.0523	0.11%
Mo 202.031†	6.7	0.4276	µg/L	0.24251	0.4276	ppb	0.24251	56.72%
Na 589.592 Radial†	109070.8	16685	µg/L	63.6	16685	ppb	63.6	0.38%

Ni 231.604†	129.0	1.6506	µg/L	0.27761	1.6506	ppb	0.27761	16.82%
P 214.914†	230.3	54.439	µg/L	0.2245	54.439	ppb	0.2245	0.41%
Pb 220.353†	25.6	1.9876	µg/L	0.17068	1.9876	ppb	0.17068	8.59%
S 181.975 Axial†	4397.7	3563.0	µg/L	36.20	3563.0	ppb	36.20	1.02%
Sb 206.836†	-2.6	-0.4600	µg/L	0.69507	-0.4600	ppb	0.69507	151.12%
Se 196.026†	5.4	3.16	µg/L	1.897	3.16	ppb	1.897	60.08%
SiO2†	498081.5	54441	µg/L	212.0	54441	ppb	212.0	0.39%
Si 251.611†	1528417.8	25272	µg/L	102.9	25272	ppb	102.9	0.41%
Sn 189.927†	-6.0	-0.1022	µg/L	0.73553	-0.1022	ppb	0.73553	719.66%
Sr 421.552†	47761.5	111.83	µg/L	0.265	111.83	ppb	0.265	0.24%
Ti 334.940†	93651.8	95.450	µg/L	0.2432	95.450	ppb	0.2432	0.25%
Tl 190.801†	4.5	1.7199	µg/L	0.47424	1.7199	ppb	0.47424	27.57%
U 409.014†	-539.6	-32.826	µg/L	4.6015	-32.826	ppb	4.6015	14.02%
V 292.402†	904.4	4.4412	µg/L	0.04748	4.4412	ppb	0.04748	1.07%
Zn 213.857†	1564.8	9.5363	µg/L	0.09207	9.5363	ppb	0.09207	0.97%

Sequence No.: 86
Sample ID: 248044003|959137|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 408
Date Collected: 3/29/2010 22:31:18
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248044003|959137|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	154445.2	154445.2	106	%			22:31:47
1	Al 396.153Radial†	18.6	49.4	10.354	µg/L	10.354	ppb	22:32:07
1	Ca 317.933Radial†	392073.4	369394.3	21645	µg/L	21645	ppb	22:31:47
1	Fe 238.204 Radial†	667.1	516.3	34.325	µg/L	34.325	ppb	22:32:07
1	K 766.490 Radial†	5974.2	4183.0	1715.2	µg/L	1715.2	ppb	22:31:47
1	Mg 279.077 IEC†	16635.5	15512.7	6396.2	µg/L	6396.2	ppb	22:32:07
1	Na 589.592 Radial†	97508.7	90327.0	13820	µg/L	13820	ppb	22:31:47
1	Sr 421.552†	46931.9	44568.9	104.29	µg/L	104.29	ppb	22:31:47
1	Sc 361.383	1715972.4	1715972.4	102.58	%			22:33:10
1	Y 371.029	1036664.4	1036664.4	101.38	%			22:33:10
1	Ag 328.068†	2793.0	-244.3	-1.5930	µg/L	-1.5930	ppb	22:33:10
1	As 188.979†	-20.5	-5.8	-2.3718	µg/L	-2.3718	ppb	22:33:30
1	B 249.677†	4383.1	917.1	15.394	µg/L	15.394	ppb	22:33:30
1	Ba 233.527†	7457.4	7444.8	34.014	µg/L	34.014	ppb	22:33:30
1	Be 313.107†	-749.7	-70.7	-0.0331	µg/L	-0.0331	ppb	22:33:10
1	Cd 226.502†	-100.0	-3.1	-0.0172	µg/L	-0.0172	ppb	22:33:30
1	Co 228.616†	-131.1	48.8	0.7003	µg/L	0.7003	ppb	22:33:30
1	Cr 267.716†	246.7	80.3	0.6092	µg/L	0.6092	ppb	22:33:30
1	Cu 324.752†	3150.4	646.2	2.9596	µg/L	2.9596	ppb	22:33:10
1	Mn 257.610†	93829.1	91387.1	124.62	µg/L	124.62	ppb	22:33:10
1	Mo 202.031†	249.3	298.3	9.5343	µg/L	9.5343	ppb	22:33:30
1	Ni 231.604†	1221.5	1231.7	15.754	µg/L	15.754	ppb	22:33:30
1	P 214.914†	139.1	56.0	13.260	µg/L	13.260	ppb	22:33:30
1	Pb 220.353†	124.2	8.6	0.5710	µg/L	0.5710	ppb	22:33:30
1	S 181.975 Axial†	2789.6	2624.5	2126.4	µg/L	2126.4	ppb	22:33:30
1	Sb 206.836†	70.5	-18.0	-2.3007	µg/L	-2.3007	ppb	22:33:30
1	Se 196.026†	21.8	10.3	4.05	µg/L	4.05	ppb	22:33:30
1	SiO2†	524036.5	509271.6	55664	µg/L	55664	ppb	22:33:10
1	Si 251.611†	1602344.8	1561330.9	25816	µg/L	25816	ppb	22:33:10
1	Sn 189.927†	-20.7	-22.2	-1.5821	µg/L	-1.5821	ppb	22:33:30
1	Ti 334.940†	303.3	-340.7	-0.2907	µg/L	-0.2907	ppb	22:33:10
1	Tl 190.801†	-126.1	-2.6	-0.0161	µg/L	-0.0161	ppb	22:33:30
1	U 409.014†	-1045.9	-540.5	-31.529	µg/L	-31.529	ppb	22:33:10
1	V 292.402†	890.1	435.9	2.4906	µg/L	2.4906	ppb	22:33:30
1	Zn 213.857†	4222.8	3652.1	22.664	µg/L	22.664	ppb	22:33:30
2	Sc RADIAL	153256.3	153256.3	105	%			22:32:09
2	Al 396.153Radial†	-0.6	31.3	6.3985	µg/L	6.3985	ppb	22:32:29
2	Ca 317.933Radial†	385797.6	366296.2	21463	µg/L	21463	ppb	22:32:09
2	Fe 238.204 Radial†	676.5	530.1	35.240	µg/L	35.240	ppb	22:32:29
2	K 766.490 Radial†	5732.6	3996.9	1638.7	µg/L	1638.7	ppb	22:32:09
2	Mg 279.077 IEC†	16672.6	15669.8	6461.0	µg/L	6461.0	ppb	22:32:29
2	Na 589.592 Radial†	96475.7	90058.4	13779	µg/L	13779	ppb	22:32:09
2	Sr 421.552†	46353.0	44361.9	103.80	µg/L	103.80	ppb	22:32:09
2	Sc 361.383	1712498.8	1712498.8	102.37	%			22:33:32
2	Y 371.029	1034224.5	1034224.5	101.14	%			22:33:32
2	Ag 328.068†	3240.3	198.1	0.2058	µg/L	0.2058	ppb	22:33:32
2	As 188.979†	-21.9	-7.1	-2.9425	µg/L	-2.9425	ppb	22:33:53
2	B 249.677†	4366.4	909.4	15.267	µg/L	15.267	ppb	22:33:53
2	Ba 233.527†	7497.7	7498.9	34.261	µg/L	34.261	ppb	22:33:53
2	Be 313.107†	-525.8	146.5	0.0380	µg/L	0.0380	ppb	22:33:32
2	Cd 226.502†	-119.1	-21.9	-0.1474	µg/L	-0.1474	ppb	22:33:53
2	Co 228.616†	-162.1	18.2	0.2814	µg/L	0.2814	ppb	22:33:53
2	Cr 267.716†	247.8	81.8	0.6209	µg/L	0.6209	ppb	22:33:53
2	Cu 324.752†	3275.9	775.1	3.5224	µg/L	3.5224	ppb	22:33:32
2	Mn 257.610†	93562.8	91312.4	124.52	µg/L	124.52	ppb	22:33:32
2	Mo 202.031†	242.2	291.8	9.3316	µg/L	9.3316	ppb	22:33:53
2	Ni 231.604†	1248.8	1260.7	16.126	µg/L	16.126	ppb	22:33:53
2	P 214.914†	131.8	49.1	11.611	µg/L	11.611	ppb	22:33:53
2	Pb 220.353†	99.9	-14.8	-0.8503	µg/L	-0.8503	ppb	22:33:53

2	S 181.975 Axial†	2819.4	2659.2	2154.5 µg/L	2154.5 ppb	22:33:53
2	Sb 206.836†	99.2	10.2	1.5032 µg/L	1.5032 ppb	22:33:53
2	Se 196.026†	11.3	0.1	0.015 µg/L	0.015 ppb	22:33:53
2	SiO2†	522737.1	509038.5	55638 µg/L	55638 ppb	22:33:32
2	Si 251.611†	1598796.9	1561033.7	25811 µg/L	25811 ppb	22:33:32
2	Sn 189.927†	-3.5	-5.5	-0.3908 µg/L	-0.3908 ppb	22:33:53
2	Ti 334.940†	362.0	-282.7	-0.2421 µg/L	-0.2421 ppb	22:33:32
2	Tl 190.801†	-121.1	2.0	0.6081 µg/L	0.6081 ppb	22:33:53
2	U 409.014†	-1023.7	-520.8	-30.334 µg/L	-30.334 ppb	22:33:32
2	V 292.402†	849.3	397.8	2.2778 µg/L	2.2778 ppb	22:33:53
2	Zn 213.857†	4231.6	3669.0	22.769 µg/L	22.769 ppb	22:33:53
3	Sc RADIAL	152315.8	152315.8	105 %		22:32:31
3	Al 396.153Radial†	35.2	65.6	13.861 µg/L	13.861 ppb	22:32:51
3	Ca 317.933Radial†	387331.1	370029.2	21682 µg/L	21682 ppb	22:32:31
3	Fe 238.204 Radial†	684.4	541.6	36.010 µg/L	36.010 ppb	22:32:51
3	K 766.490 Radial†	5921.0	4211.0	1726.7 µg/L	1726.7 ppb	22:32:31
3	Mg 279.077 IEC†	16549.1	15649.5	6452.7 µg/L	6452.7 ppb	22:32:51
3	Na 589.592 Radial†	96467.1	90616.7	13864 µg/L	13864 ppb	22:32:31
3	Sr 421.552†	46285.6	44569.7	104.29 µg/L	104.29 ppb	22:32:31
3	Sc 361.383	1716522.4	1716522.4	102.62 %		22:33:55
3	Y 371.029	1037287.7	1037287.7	101.44 %		22:33:55
3	Ag 328.068†	3283.2	232.5	0.3567 µg/L	0.3567 ppb	22:33:55
3	As 188.979†	-19.8	-5.1	-2.0877 µg/L	-2.0877 ppb	22:34:15
3	B 249.677†	4365.5	898.6	15.084 µg/L	15.084 ppb	22:34:15
3	Ba 233.527†	7539.6	7522.5	34.369 µg/L	34.369 ppb	22:34:15
3	Be 313.107†	-529.2	144.3	0.0409 µg/L	0.0409 ppb	22:33:55
3	Cd 226.502†	-115.5	-18.1	-0.1215 µg/L	-0.1215 ppb	22:34:15
3	Co 228.616†	-141.7	38.5	0.5594 µg/L	0.5594 ppb	22:34:15
3	Cr 267.716†	246.3	79.8	0.5943 µg/L	0.5943 ppb	22:34:15
3	Cu 324.752†	3265.4	757.3	3.4555 µg/L	3.4555 ppb	22:33:55
3	Mn 257.610†	93338.6	90879.7	123.93 µg/L	123.93 ppb	22:33:55
3	Mo 202.031†	263.8	312.3	9.9775 µg/L	9.9775 ppb	22:34:15
3	Ni 231.604†	1196.6	1207.1	15.440 µg/L	15.440 ppb	22:34:15
3	P 214.914†	134.7	51.7	12.212 µg/L	12.212 ppb	22:34:15
3	Pb 220.353†	98.2	-16.8	-0.9755 µg/L	-0.9755 ppb	22:34:15
3	S 181.975 Axial†	2822.0	2655.2	2151.3 µg/L	2151.3 ppb	22:34:15
3	Sb 206.836†	87.1	-1.8	-0.1103 µg/L	-0.1103 ppb	22:34:15
3	Se 196.026†	12.9	1.7	0.650 µg/L	0.650 ppb	22:34:15
3	SiO2†	522390.0	507503.3	55470 µg/L	55470 ppb	22:33:55
3	Si 251.611†	1597448.6	1556059.0	25729 µg/L	25729 ppb	22:33:55
3	Sn 189.927†	-0.3	-2.3	-0.1657 µg/L	-0.1657 ppb	22:34:15
3	Ti 334.940†	309.1	-335.1	-0.2942 µg/L	-0.2942 ppb	22:33:55
3	Tl 190.801†	-108.1	15.0	2.3438 µg/L	2.3438 ppb	22:34:15
3	U 409.014†	-824.2	-324.1	-18.165 µg/L	-18.165 ppb	22:33:55
3	V 292.402†	878.7	424.5	2.4408 µg/L	2.4408 ppb	22:34:15
3	Zn 213.857†	4230.1	3657.9	22.701 µg/L	22.701 ppb	22:34:15

Mean Data: 248044003|959137|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1714997.9	102.52	%	0.130				0.13%
Sc RADIAL	153339.1	105	%	0.7				0.70%
Y 371.029	1036058.9	101.32	%	0.158				0.16%
Ag 328.068†	62.1	-0.3435	µg/L	1.08473	-0.3435	ppb	1.08473	315.82%
Al 396.153Radial†	48.8	10.205	µg/L	3.7337	10.205	ppb	3.7337	36.59%
As 188.979†	-6.0	-2.4673	µg/L	0.43536	-2.4673	ppb	0.43536	17.64%
B 249.677†	908.4	15.249	µg/L	0.1558	15.249	ppb	0.1558	1.02%
Ba 233.527†	7488.7	34.215	µg/L	0.1822	34.215	ppb	0.1822	0.53%
Be 313.107†	73.4	0.0153	µg/L	0.04192	0.0153	ppb	0.04192	274.73%
Ca 317.933Radial†	368573.2	21597	µg/L	117.0	21597	ppb	117.0	0.54%
Cd 226.502†	-14.4	-0.0954	µg/L	0.06895	-0.0954	ppb	0.06895	72.31%
Co 228.616†	35.2	0.5137	µg/L	0.21316	0.5137	ppb	0.21316	41.50%
Cr 267.716†	80.6	0.6081	µg/L	0.01335	0.6081	ppb	0.01335	2.20%
Cu 324.752†	726.2	3.3125	µg/L	0.30744	3.3125	ppb	0.30744	9.28%
Fe 238.204 Radial†	529.3	35.191	µg/L	0.8434	35.191	ppb	0.8434	2.40%
K 766.490 Radial†	4130.3	1693.5	µg/L	47.87	1693.5	ppb	47.87	2.83%
Mg 279.077 IEC†	15610.7	6436.6	µg/L	35.24	6436.6	ppb	35.24	0.55%
Mn 257.610†	91193.1	124.35	µg/L	0.375	124.35	ppb	0.375	0.30%
Mo 202.031†	300.8	9.6145	µg/L	0.33031	9.6145	ppb	0.33031	3.44%
Na 589.592 Radial†	90334.0	13821	µg/L	42.7	13821	ppb	42.7	0.31%

Ni 231.604†	1233.1	15.773	µg/L	0.3436	15.773	ppb	0.3436	2.18%
P 214.914†	52.3	12.361	µg/L	0.8345	12.361	ppb	0.8345	6.75%
Pb 220.353†	-7.7	-0.4183	µg/L	0.85902	-0.4183	ppb	0.85902	205.37%
S 181.975 Axial†	2646.3	2144.1	µg/L	15.37	2144.1	ppb	15.37	0.72%
Sb 206.836†	-3.2	-0.3026	µg/L	1.90924	-0.3026	ppb	1.90924	630.97%
Se 196.026†	4.0	1.57	µg/L	2.170	1.57	ppb	2.170	138.05%
SiO2†	508604.4	55591	µg/L	105.0	55591	ppb	105.0	0.19%
Si 251.611†	1559474.5	25786	µg/L	49.0	25786	ppb	49.0	0.19%
Sn 189.927†	-10.0	-0.7129	µg/L	0.76112	-0.7129	ppb	0.76112	106.77%
Sr 421.552†	44500.2	104.13	µg/L	0.280	104.13	ppb	0.280	0.27%
Ti 334.940†	-319.5	-0.2757	µg/L	0.02910	-0.2757	ppb	0.02910	10.56%
Tl 190.801†	4.8	0.9786	µg/L	1.22283	0.9786	ppb	1.22283	124.96%
U 409.014†	-461.8	-26.676	µg/L	7.3951	-26.676	ppb	7.3951	27.72%
V 292.402†	419.4	2.4030	µg/L	0.11134	2.4030	ppb	0.11134	4.63%
Zn 213.857†	3659.7	22.711	µg/L	0.0532	22.711	ppb	0.0532	0.23%

Sequence No.: 87
Sample ID: 248044004|959137|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 409
Date Collected: 3/29/2010 22:34:23
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248044004|959137|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	151697.0	151697.0	104	%			22:34:52
1	Al 396.153Radial†	195.4	219.6	47.449	µg/L	47.449	ppb	22:34:54
1	Ca 317.933Radial†	389488.2	373613.6	21892	µg/L	21892	ppb	22:34:52
1	Fe 238.204 Radial†	2292.6	2089.5	138.92	µg/L	138.92	ppb	22:34:54
1	K 766.490 Radial†	5838.3	4154.6	1703.4	µg/L	1703.4	ppb	22:34:52
1	Mg 279.077 IEC†	16756.7	15913.6	6561.5	µg/L	6561.5	ppb	22:34:54
1	Na 589.592 Radial†	95478.8	90043.6	13776	µg/L	13776	ppb	22:34:52
1	Sr 421.552†	46660.8	45110.8	105.56	µg/L	105.56	ppb	22:34:52
1	Sc 361.383	1713431.7	1713431.7	102.43	%			22:35:21
1	Y 371.029	1034784.0	1034784.0	101.19	%			22:35:21
1	Ag 328.068†	3245.2	201.1	0.2083	µg/L	0.2083	ppb	22:35:21
1	As 188.979†	-16.7	-2.0	-0.7737	µg/L	-0.7737	ppb	22:35:41
1	B 249.677†	4455.0	993.6	16.679	µg/L	16.679	ppb	22:35:41
1	Ba 233.527†	7587.7	7582.7	34.643	µg/L	34.643	ppb	22:35:41
1	Be 313.107†	-652.3	23.3	-0.0030	µg/L	-0.0030	ppb	22:35:21
1	Cd 226.502†	-127.1	-29.7	-0.2127	µg/L	-0.2127	ppb	22:35:41
1	Co 228.616†	-139.2	40.7	0.5839	µg/L	0.5839	ppb	22:35:41
1	Cr 267.716†	283.9	116.9	0.9282	µg/L	0.9282	ppb	22:35:41
1	Cu 324.752†	3746.6	1232.8	5.5280	µg/L	5.5280	ppb	22:35:21
1	Mn 257.610†	90290.9	88068.5	120.08	µg/L	120.08	ppb	22:35:21
1	Mo 202.031†	289.4	337.7	10.788	µg/L	10.788	ppb	22:35:41
1	Ni 231.604†	1105.1	1119.8	14.323	µg/L	14.323	ppb	22:35:41
1	P 214.914†	133.8	51.0	11.960	µg/L	11.960	ppb	22:35:41
1	Pb 220.353†	87.6	-26.9	-1.5773	µg/L	-1.5773	ppb	22:35:41
1	S 181.975 Axial†	2774.6	2613.9	2117.8	µg/L	2117.8	ppb	22:35:41
1	Sb 206.836†	96.9	7.9	1.2045	µg/L	1.2045	ppb	22:35:41
1	Se 196.026†	20.2	8.8	3.51	µg/L	3.51	ppb	22:35:41
1	SiO2†	534066.5	519821.1	56817	µg/L	56817	ppb	22:35:21
1	Si 251.611†	1633564.8	1594126.3	26359	µg/L	26359	ppb	22:35:21
1	Sn 189.927†	-10.1	-11.9	-0.8433	µg/L	-0.8433	ppb	22:35:41
1	Ti 334.940†	526.5	-122.3	-0.0745	µg/L	-0.0745	ppb	22:35:21
1	Tl 190.801†	-126.7	-3.4	-0.1276	µg/L	-0.1276	ppb	22:35:41
1	U 409.014†	-1072.7	-568.2	-33.275	µg/L	-33.275	ppb	22:35:21
1	V 292.402†	909.9	456.5	2.6013	µg/L	2.6013	ppb	22:35:41
1	Zn 213.857†	4594.8	4021.4	24.983	µg/L	24.983	ppb	22:35:41
2	Sc RADIAL	151940.5	151940.5	104	%			22:34:56
2	Al 396.153Radial†	90.0	118.3	25.306	µg/L	25.306	ppb	22:34:58
2	Ca 317.933Radial†	393943.9	377288.1	22107	µg/L	22107	ppb	22:34:56
2	Fe 238.204 Radial†	2401.0	2190.0	145.60	µg/L	145.60	ppb	22:34:58
2	K 766.490 Radial†	5872.6	4178.5	1713.2	µg/L	1713.2	ppb	22:34:56
2	Mg 279.077 IEC†	17079.2	16197.1	6678.4	µg/L	6678.4	ppb	22:34:58
2	Na 589.592 Radial†	96570.4	90943.7	13914	µg/L	13914	ppb	22:34:56
2	Sr 421.552†	47086.7	45447.6	106.34	µg/L	106.34	ppb	22:34:56
2	Sc 361.383	1711601.5	1711601.5	102.32	%			22:35:43
2	Y 371.029	1034173.3	1034173.3	101.13	%			22:35:43
2	Ag 328.068†	2905.4	-127.6	-1.1296	µg/L	-1.1296	ppb	22:35:43
2	As 188.979†	-21.8	-7.1	-2.8689	µg/L	-2.8689	ppb	22:36:03
2	B 249.677†	4443.1	986.7	16.563	µg/L	16.563	ppb	22:36:03
2	Ba 233.527†	7640.9	7642.6	34.917	µg/L	34.917	ppb	22:36:03
2	Be 313.107†	-641.3	33.4	0.0001	µg/L	0.0001	ppb	22:35:43
2	Cd 226.502†	-122.7	-25.5	-0.1843	µg/L	-0.1843	ppb	22:36:03
2	Co 228.616†	-138.1	41.7	0.5974	µg/L	0.5974	ppb	22:36:03
2	Cr 267.716†	344.4	176.4	1.4380	µg/L	1.4380	ppb	22:36:03
2	Cu 324.752†	3766.7	1256.4	5.6342	µg/L	5.6342	ppb	22:35:43
2	Mn 257.610†	90540.7	88406.8	120.54	µg/L	120.54	ppb	22:35:43
2	Mo 202.031†	298.2	346.6	11.070	µg/L	11.070	ppb	22:36:03
2	Ni 231.604†	1114.2	1129.8	14.452	µg/L	14.452	ppb	22:36:03
2	P 214.914†	164.1	80.8	19.087	µg/L	19.087	ppb	22:36:03
2	Pb 220.353†	119.5	4.4	0.3179	µg/L	0.3179	ppb	22:36:03

2	S 181.975 Axial†	2783.3	2625.4	2127.1	µg/L	2127.1 ppb	22:36:03
2	Sb 206.836†	83.3	-5.2	-0.5719	µg/L	-0.5719 ppb	22:36:03
2	Se 196.026†	16.8	5.5	2.18	µg/L	2.18 ppb	22:36:03
2	SiO2†	533970.7	520284.9	56867	µg/L	56867 ppb	22:35:43
2	Si 251.611†	1633798.7	1596060.2	26390	µg/L	26390 ppb	22:35:43
2	Sn 189.927†	3.0	0.9	0.0626	µg/L	0.0626 ppb	22:36:03
2	Ti 334.940†	555.6	-93.4	-0.0488	µg/L	-0.0488 ppb	22:35:43
2	Tl 190.801†	-127.6	-4.4	-0.2642	µg/L	-0.2642 ppb	22:36:03
2	U 409.014†	-1081.0	-577.4	-33.824	µg/L	-33.824 ppb	22:35:43
2	V 292.402†	944.1	490.9	2.7957	µg/L	2.7957 ppb	22:36:03
2	Zn 213.857†	4641.7	4072.0	25.298	µg/L	25.298 ppb	22:36:03
3	Sc RADIAL	151128.4	151128.4	104	%		22:35:00
3	Al 396.153Radial†	14.8	46.1	9.6069	µg/L	9.6069 ppb	22:35:02
3	Ca 317.933Radial†	391363.1	376830.0	22081	µg/L	22081 ppb	22:35:00
3	Fe 238.204 Radial†	2440.5	2240.5	148.95	µg/L	148.95 ppb	22:35:02
3	K 766.490 Radial†	6017.7	4348.7	1783.3	µg/L	1783.3 ppb	22:35:00
3	Mg 279.077 IEC†	17415.2	16609.3	6848.3	µg/L	6848.3 ppb	22:35:02
3	Na 589.592 Radial†	96154.0	91040.0	13929	µg/L	13929 ppb	22:35:00
3	Sr 421.552†	47035.4	45640.8	106.80	µg/L	106.80 ppb	22:35:00
3	Sc 361.383	1727875.2	1727875.2	103.29	%		22:36:06
3	Y 371.029	1042772.6	1042772.6	101.97	%		22:36:06
3	Ag 328.068†	3113.1	46.8	-0.4153	µg/L	-0.4153 ppb	22:36:06
3	As 188.979†	-5.4	9.0	3.8247	µg/L	3.8247 ppb	22:36:26
3	B 249.677†	4417.8	921.3	15.467	µg/L	15.467 ppb	22:36:26
3	Ba 233.527†	7637.2	7568.8	34.579	µg/L	34.579 ppb	22:36:26
3	Be 313.107†	-714.1	-31.3	-0.0191	µg/L	-0.0191 ppb	22:36:06
3	Cd 226.502†	-92.6	4.7	0.0237	µg/L	0.0237 ppb	22:36:26
3	Co 228.616†	-179.4	2.9	0.0661	µg/L	0.0661 ppb	22:36:26
3	Cr 267.716†	344.0	172.7	1.4003	µg/L	1.4003 ppb	22:36:26
3	Cu 324.752†	3939.4	1388.9	6.2200	µg/L	6.2200 ppb	22:36:06
3	Mn 257.610†	90378.8	87416.7	119.18	µg/L	119.18 ppb	22:36:06
3	Mo 202.031†	270.6	317.1	10.143	µg/L	10.143 ppb	22:36:26
3	Ni 231.604†	1091.0	1097.1	14.033	µg/L	14.033 ppb	22:36:26
3	P 214.914†	134.0	50.1	11.721	µg/L	11.721 ppb	22:36:26
3	Pb 220.353†	92.7	-22.6	-1.3280	µg/L	-1.3280 ppb	22:36:26
3	S 181.975 Axial†	2772.1	2588.9	2097.5	µg/L	2097.5 ppb	22:36:26
3	Sb 206.836†	80.8	-8.5	-1.0220	µg/L	-1.0220 ppb	22:36:26
3	Se 196.026†	15.7	4.3	1.72	µg/L	1.72 ppb	22:36:26
3	SiO2†	535511.0	516861.1	56493	µg/L	56493 ppb	22:36:06
3	Si 251.611†	1638235.1	1585316.6	26213	µg/L	26213 ppb	22:36:06
3	Sn 189.927†	-17.0	-18.4	-1.3108	µg/L	-1.3108 ppb	22:36:26
3	Ti 334.940†	705.2	46.3	0.0766	µg/L	0.0766 ppb	22:36:06
3	Tl 190.801†	-121.3	2.9	0.7165	µg/L	0.7165 ppb	22:36:26
3	U 409.014†	-987.1	-476.5	-27.610	µg/L	-27.610 ppb	22:36:06
3	V 292.402†	926.2	464.8	2.6450	µg/L	2.6450 ppb	22:36:26
3	Zn 213.857†	4637.3	4025.0	25.004	µg/L	25.004 ppb	22:36:26

Mean Data: 248044004|959137|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1717636.1	102.68	%	0.533				0.52%
Sc RADIAL	151588.6	104	%	0.3				0.27%
Y 371.029	1037243.3	101.43	%	0.469				0.46%
Ag 328.068†	40.1	-0.4455	µg/L	0.66949	-0.4455	ppb	0.66949	150.27%
Al 396.153Radial†	128.0	27.454	µg/L	19.0125	27.454	ppb	19.0125	69.25%
As 188.979†	-0.0	0.0607	µg/L	3.42392	0.0607	ppb	3.42392	>999.9%
B 249.677†	967.2	16.236	µg/L	0.6687	16.236	ppb	0.6687	4.12%
Ba 233.527†	7598.0	34.713	µg/L	0.1795	34.713	ppb	0.1795	0.52%
Be 313.107†	8.5	-0.0073	µg/L	0.01028	-0.0073	ppb	0.01028	139.95%
Ca 317.933Radial†	375910.6	22027	µg/L	117.3	22027	ppb	117.3	0.53%
Cd 226.502†	-16.8	-0.1244	µg/L	0.12905	-0.1244	ppb	0.12905	103.72%
Co 228.616†	28.4	0.4158	µg/L	0.30290	0.4158	ppb	0.30290	72.85%
Cr 267.716†	155.4	1.2555	µg/L	0.28406	1.2555	ppb	0.28406	22.63%
Cu 324.752†	1292.7	5.7941	µg/L	0.37267	5.7941	ppb	0.37267	6.43%
Fe 238.204 Radial†	2173.3	144.49	µg/L	5.107	144.49	ppb	5.107	3.53%
K 766.490 Radial†	4227.2	1733.3	µg/L	43.55	1733.3	ppb	43.55	2.51%
Mg 279.077 IEC†	16240.0	6696.1	µg/L	144.23	6696.1	ppb	144.23	2.15%
Mn 257.610†	87964.0	119.93	µg/L	0.692	119.93	ppb	0.692	0.58%
Mo 202.031†	333.8	10.667	µg/L	0.4754	10.667	ppb	0.4754	4.46%
Na 589.592 Radial†	90675.8	13873	µg/L	84.1	13873	ppb	84.1	0.61%

Ni 231.604†	1115.6	14.269	µg/L	0.2142	14.269	ppb	0.2142	1.50%
P 214.914†	60.7	14.256	µg/L	4.1857	14.256	ppb	4.1857	29.36%
Pb 220.353†	-15.1	-0.8625	µg/L	1.02982	-0.8625	ppb	1.02982	119.40%
S 181.975 Axial†	2609.4	2114.2	µg/L	15.13	2114.2	ppb	15.13	0.72%
Sb 206.836†	-1.9	-0.1298	µg/L	1.17723	-0.1298	ppb	1.17723	907.15%
Se 196.026†	6.2	2.47	µg/L	0.930	2.47	ppb	0.930	37.70%
SiO2†	518989.0	56726	µg/L	203.0	56726	ppb	203.0	0.36%
Si 251.611†	1591834.4	26321	µg/L	94.7	26321	ppb	94.7	0.36%
Sn 189.927†	-9.8	-0.6972	µg/L	0.69826	-0.6972	ppb	0.69826	100.16%
Sr 421.552†	45399.7	106.23	µg/L	0.628	106.23	ppb	0.628	0.59%
Ti 334.940†	-56.5	-0.0156	µg/L	0.08080	-0.0156	ppb	0.08080	518.95%
Tl 190.801†	-1.6	0.1083	µg/L	0.53120	0.1083	ppb	0.53120	490.68%
U 409.014†	-540.7	-31.570	µg/L	3.4403	-31.570	ppb	3.4403	10.90%
V 292.402†	470.8	2.6807	µg/L	0.10201	2.6807	ppb	0.10201	3.81%
Zn 213.857†	4039.4	25.095	µg/L	0.1758	25.095	ppb	0.1758	0.70%

Sequence No.: 88
Sample ID: 248044005|959137|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 410
Date Collected: 3/29/2010 22:36:34
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248044005|959137|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	150104.5	150104.5	103	%			22:37:03
1	Al 396.153Radial†	-24.2	8.4	1.7994	µg/L	1.7994	ppb	22:37:23
1	Ca 317.933Radial†	755.1	117.0	6.8569	µg/L	6.8569	ppb	22:37:23
1	Fe 238.204 Radial†	211.7	92.3	6.1359	µg/L	6.1359	ppb	22:37:23
1	K 766.490 Radial†	1621.8	119.8	49.297	µg/L	49.297	ppb	22:37:03
1	Mg 279.077 IEC†	162.1	-29.3	-12.048	µg/L	-12.048	ppb	22:37:23
1	Na 589.592 Radial†	1883.8	134.5	20.537	µg/L	20.537	ppb	22:37:03
1	Sr 421.552†	-200.5	83.3	0.1951	µg/L	0.1951	ppb	22:37:03
1	Sc 361.383	1745140.9	1745140.9	104.33	%			22:38:11
1	Y 371.029	1064683.5	1064683.5	104.12	%			22:38:11
1	Ag 328.068†	3095.0	-0.3	0.0155	µg/L	0.0155	ppb	22:38:13
1	As 188.979†	-26.0	-10.7	-4.4625	µg/L	-4.4625	ppb	22:38:33
1	B 249.677†	3090.3	-393.5	-6.6078	µg/L	-6.6078	ppb	22:38:33
1	Ba 233.527†	-157.9	23.7	0.1081	µg/L	0.1081	ppb	22:38:33
1	Be 313.107†	-761.2	-69.6	-0.0160	µg/L	-0.0160	ppb	22:38:13
1	Cd 226.502†	-106.4	-7.6	-0.0534	µg/L	-0.0534	ppb	22:38:33
1	Co 228.616†	-170.8	12.9	0.1764	µg/L	0.1764	ppb	22:38:33
1	Cr 267.716†	193.5	25.3	0.1996	µg/L	0.1996	ppb	22:38:33
1	Cu 324.752†	2730.3	192.3	0.8547	µg/L	0.8547	ppb	22:38:13
1	Mn 257.610†	274.2	182.8	0.2503	µg/L	0.2503	ppb	22:38:33
1	Mo 202.031†	-32.7	23.9	0.7540	µg/L	0.7540	ppb	22:38:33
1	Ni 231.604†	-106.4	-61.1	-0.7818	µg/L	-0.7818	ppb	22:38:33
1	P 214.914†	24.4	-56.2	-13.492	µg/L	-13.492	ppb	22:38:33
1	Pb 220.353†	77.0	-38.6	-2.3516	µg/L	-2.3516	ppb	22:38:33
1	S 181.975 Axial†	89.6	-9.0	-7.2617	µg/L	-7.2617	ppb	22:38:33
1	Sb 206.836†	85.6	-4.6	-0.6172	µg/L	-0.6172	ppb	22:38:33
1	Se 196.026†	22.3	10.4	4.14	µg/L	4.14	ppb	22:38:33
1	SiO2†	1866.1	215.9	23.592	µg/L	23.592	ppb	22:38:33
1	Si 251.611†	1377.6	644.1	10.647	µg/L	10.647	ppb	22:38:13
1	Sn 189.927†	-13.0	-14.4	-1.0258	µg/L	-1.0258	ppb	22:38:33
1	Ti 334.940†	853.9	182.1	0.1777	µg/L	0.1777	ppb	22:38:13
1	Tl 190.801†	-116.6	8.6	1.1452	µg/L	1.1452	ppb	22:38:33
1	U 409.014†	-126.6	357.7	22.057	µg/L	22.057	ppb	22:38:13
1	V 292.402†	292.9	-151.1	-0.8156	µg/L	-0.8156	ppb	22:38:13
1	Zn 213.857†	587.0	98.2	0.6222	µg/L	0.6222	ppb	22:38:33
2	Sc RADIAL	150700.2	150700.2	103	%			22:37:25
2	Al 396.153Radial†	-37.2	-4.1	-0.9152	µg/L	-0.9152	ppb	22:37:45
2	Ca 317.933Radial†	733.0	92.7	5.4337	µg/L	5.4337	ppb	22:37:45
2	Fe 238.204 Radial†	194.0	74.4	4.9449	µg/L	4.9449	ppb	22:37:45
2	K 766.490 Radial†	1511.9	7.2	2.9767	µg/L	2.9767	ppb	22:37:25
2	Mg 279.077 IEC†	162.2	-29.8	-12.274	µg/L	-12.274	ppb	22:37:45
2	Na 589.592 Radial†	1884.1	127.5	19.508	µg/L	19.508	ppb	22:37:25
2	Sr 421.552†	-289.6	-2.1	-0.0050	µg/L	-0.0050	ppb	22:37:25
2	Sc 361.383	1735283.9	1735283.9	103.74	%			22:38:35
2	Y 371.029	1057725.9	1057725.9	103.44	%			22:38:35
2	Ag 328.068†	3194.0	111.9	0.4449	µg/L	0.4449	ppb	22:38:37
2	As 188.979†	-12.1	2.6	1.0837	µg/L	1.0837	ppb	22:38:58
2	B 249.677†	3099.8	-367.5	-6.1713	µg/L	-6.1713	ppb	22:38:58
2	Ba 233.527†	-173.3	8.0	0.0362	µg/L	0.0362	ppb	22:38:58
2	Be 313.107†	-792.6	-103.9	-0.0329	µg/L	-0.0329	ppb	22:38:37
2	Cd 226.502†	-99.5	-1.5	-0.0110	µg/L	-0.0110	ppb	22:38:58
2	Co 228.616†	-163.4	19.0	0.2604	µg/L	0.2604	ppb	22:38:58
2	Cr 267.716†	160.3	-5.7	-0.0513	µg/L	-0.0513	ppb	22:38:58
2	Cu 324.752†	2690.1	168.3	0.7347	µg/L	0.7347	ppb	22:38:37
2	Mn 257.610†	254.6	165.5	0.2266	µg/L	0.2266	ppb	22:38:58
2	Mo 202.031†	-37.4	19.1	0.6033	µg/L	0.6033	ppb	22:38:58
2	Ni 231.604†	-83.0	-39.1	-0.5003	µg/L	-0.5003	ppb	22:38:58
2	P 214.914†	44.3	-36.8	-8.8361	µg/L	-8.8361	ppb	22:38:58
2	Pb 220.353†	112.9	-3.6	-0.2184	µg/L	-0.2184	ppb	22:38:58

2	S 181.975 Axial†	102.8	4.3	3.4781 µg/L	3.4781 ppb	22:38:58
2	Sb 206.836†	70.3	-18.9	-2.5382 µg/L	-2.5382 ppb	22:38:58
2	Se 196.026†	13.1	1.7	0.685 µg/L	0.685 ppb	22:38:58
2	SiO2†	1859.9	220.1	24.037 µg/L	24.037 ppb	22:38:58
2	Si 251.611†	1339.6	614.9	10.159 µg/L	10.159 ppb	22:38:37
2	Sn 189.927†	2.5	0.4	0.0285 µg/L	0.0285 ppb	22:38:58
2	Ti 334.940†	913.1	243.8	0.2486 µg/L	0.2486 ppb	22:38:37
2	Tl 190.801†	-116.4	8.1	1.0813 µg/L	1.0813 ppb	22:38:58
2	U 409.014†	-446.8	48.4	2.9315 µg/L	2.9315 ppb	22:38:37
2	V 292.402†	252.0	-188.9	-1.0410 µg/L	-1.0410 ppb	22:38:37
2	Zn 213.857†	577.9	92.7	0.5857 µg/L	0.5857 ppb	22:38:58
3	Sc RADIAL	152763.1	152763.1	105 %		22:37:47
3	Al 396.153Radial†	-45.9	-12.0	-2.6557 µg/L	-2.6557 ppb	22:38:07
3	Ca 317.933Radial†	737.0	87.0	5.0977 µg/L	5.0977 ppb	22:38:07
3	Fe 238.204 Radial†	191.4	69.4	4.6126 µg/L	4.6126 ppb	22:38:07
3	K 766.490 Radial†	1389.5	-129.2	-53.192 µg/L	-53.192 ppb	22:37:47
3	Mg 279.077 IEC†	141.7	-51.4	-21.186 µg/L	-21.186 ppb	22:38:07
3	Na 589.592 Radial†	1836.8	57.8	8.8942 µg/L	8.8942 ppb	22:37:47
3	Sr 421.552†	-265.6	24.5	0.0575 µg/L	0.0575 ppb	22:37:47
3	Sc 361.383	1750619.5	1750619.5	104.65 %		22:39:00
3	Y 371.029	1067166.2	1067166.2	104.36 %		22:39:00
3	Ag 328.068†	3057.4	-45.6	-0.1891 µg/L	-0.1891 ppb	22:39:02
3	As 188.979†	-24.8	-9.4	-3.9330 µg/L	-3.9330 ppb	22:39:22
3	B 249.677†	3123.5	-371.1	-6.2306 µg/L	-6.2306 ppb	22:39:22
3	Ba 233.527†	-179.0	4.0	0.0182 µg/L	0.0182 ppb	22:39:22
3	Be 313.107†	-671.3	18.6	0.0074 µg/L	0.0074 ppb	22:39:02
3	Cd 226.502†	-99.6	-0.8	-0.0058 µg/L	-0.0058 ppb	22:39:22
3	Co 228.616†	-171.9	12.4	0.1690 µg/L	0.1690 ppb	22:39:22
3	Cr 267.716†	160.3	-7.1	-0.0643 µg/L	-0.0643 ppb	22:39:22
3	Cu 324.752†	2689.8	145.3	0.6356 µg/L	0.6356 ppb	22:39:02
3	Mn 257.610†	219.4	129.7	0.1780 µg/L	0.1780 ppb	22:39:22
3	Mo 202.031†	-26.3	30.1	0.9490 µg/L	0.9490 ppb	22:39:22
3	Ni 231.604†	-70.6	-26.5	-0.3394 µg/L	-0.3394 ppb	22:39:22
3	P 214.914†	25.6	-55.1	-13.214 µg/L	-13.214 ppb	22:39:22
3	Pb 220.353†	94.1	-22.5	-1.3631 µg/L	-1.3631 ppb	22:39:22
3	S 181.975 Axial†	104.2	4.8	3.8579 µg/L	3.8579 ppb	22:39:22
3	Sb 206.836†	67.0	-22.6	-3.0327 µg/L	-3.0327 ppb	22:39:22
3	Se 196.026†	23.1	11.2	4.44 µg/L	4.44 ppb	22:39:22
3	SiO2†	1870.0	214.0	23.368 µg/L	23.368 ppb	22:39:22
3	Si 251.611†	1410.1	671.0	11.083 µg/L	11.083 ppb	22:39:02
3	Sn 189.927†	1.3	-0.8	-0.0551 µg/L	-0.0551 ppb	22:39:22
3	Ti 334.940†	953.6	274.9	0.2804 µg/L	0.2804 ppb	22:39:02
3	Tl 190.801†	-117.1	8.4	1.1266 µg/L	1.1266 ppb	22:39:22
3	U 409.014†	-427.6	70.5	4.3135 µg/L	4.3135 ppb	22:39:02
3	V 292.402†	308.4	-137.1	-0.7491 µg/L	-0.7491 ppb	22:39:02
3	Zn 213.857†	582.5	92.2	0.5818 µg/L	0.5818 ppb	22:39:22

Mean Data: 248044005|959137|1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1743681.4	104.24	%	0.465				0.45%
Sc RADIAL	151189.3	104	%	1.0				0.92%
Y 371.029	1063191.8	103.97	%	0.479				0.46%
Ag 328.068†	22.0	0.0904	µg/L	0.32355	0.0904	ppb	0.32355	357.73%
Al 396.153Radial†	-2.5	-0.5905	µg/L	2.24523	-0.5905	ppb	2.24523	380.24%
As 188.979†	-5.8	-2.4373	µg/L	3.06072	-2.4373	ppb	3.06072	125.58%
B 249.677†	-377.4	-6.3366	µg/L	0.23675	-6.3366	ppb	0.23675	3.74%
Ba 233.527†	11.9	0.0542	µg/L	0.04757	0.0542	ppb	0.04757	87.82%
Be 313.107†	-51.6	-0.0138	µg/L	0.02024	-0.0138	ppb	0.02024	146.27%
Ca 317.933Radial†	98.9	5.7961	µg/L	0.93389	5.7961	ppb	0.93389	16.11%
Cd 226.502†	-3.3	-0.0234	µg/L	0.02607	-0.0234	ppb	0.02607	111.35%
Co 228.616†	14.8	0.2019	µg/L	0.05078	0.2019	ppb	0.05078	25.15%
Cr 267.716†	4.2	0.0280	µg/L	0.14872	0.0280	ppb	0.14872	530.93%
Cu 324.752†	168.6	0.7417	µg/L	0.10968	0.7417	ppb	0.10968	14.79%
Fe 238.204 Radial†	78.7	5.2311	µg/L	0.80095	5.2311	ppb	0.80095	15.31%
K 766.490 Radial†	-0.7	-0.3061	µg/L	51.32343	-0.3061	ppb	51.32343	>999.9%
Mg 279.077 IEC†	-36.8	-15.169	µg/L	5.2119	-15.169	ppb	5.2119	34.36%
Mn 257.610†	159.3	0.2183	µg/L	0.03683	0.2183	ppb	0.03683	16.87%
Mo 202.031†	24.4	0.7688	µg/L	0.17332	0.7688	ppb	0.17332	22.54%
Na 589.592 Radial†	106.6	16.313	µg/L	6.4457	16.313	ppb	6.4457	39.51%

Ni 231.604†	-42.3	-0.5405	µg/L	0.22388	-0.5405	ppb	0.22388 41.42%
P 214.914†	-49.4	-11.847	µg/L	2.6114	-11.847	ppb	2.6114 22.04%
Pb 220.353†	-21.6	-1.3110	µg/L	1.06751	-1.3110	ppb	1.06751 81.43%
S 181.975 Axial†	0.0	0.0248	µg/L	6.31314	0.0248	ppb	6.31314 >999.9%
Sb 206.836†	-15.4	-2.0627	µg/L	1.27601	-2.0627	ppb	1.27601 61.86%
Se 196.026†	7.8	3.09	µg/L	2.087	3.09	ppb	2.087 67.57%
SiO2†	216.7	23.665	µg/L	0.3404	23.665	ppb	0.3404 1.44%
Si 251.611†	643.4	10.630	µg/L	0.4619	10.630	ppb	0.4619 4.35%
Sn 189.927†	-4.9	-0.3508	µg/L	0.58609	-0.3508	ppb	0.58609 167.08%
Sr 421.552†	35.2	0.0825	µg/L	0.10238	0.0825	ppb	0.10238 124.10%
Ti 334.940†	233.6	0.2356	µg/L	0.05255	0.2356	ppb	0.05255 22.31%
Tl 190.801†	8.4	1.1177	µg/L	0.03285	1.1177	ppb	0.03285 2.94%
U 409.014†	158.9	9.7674	µg/L	10.66569	9.7674	ppb	10.66569 109.20%
V 292.402†	-159.0	-0.8686	µg/L	0.15298	-0.8686	ppb	0.15298 17.61%
Zn 213.857†	94.4	0.5966	µg/L	0.02225	0.5966	ppb	0.02225 3.73%

Sequence No.: 89
Sample ID: 248044006|959137|1
Analyst: HSC
Initial Sample Wt:
Dilution:

Autosampler Location: 411
Date Collected: 3/29/2010 22:39:30
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: 248044006|959137|1

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	154061.6	154061.6	106	%			22:39:59
1	Al 396.153Radial†	-11.8	20.7	4.5245	µg/L	4.5245	ppb	22:40:19
1	Ca 317.933Radial†	1676.5	969.9	56.833	µg/L	56.833	ppb	22:40:19
1	Fe 238.204 Radial†	181.9	58.8	3.9088	µg/L	3.9088	ppb	22:40:19
1	K 766.490 Radial†	1354.1	-173.9	-71.632	µg/L	-71.632	ppb	22:39:59
1	Mg 279.077 IEC†	168.3	-27.5	-11.325	µg/L	-11.325	ppb	22:40:19
1	Na 589.592 Radial†	2887.8	1037.4	158.79	µg/L	158.79	ppb	22:39:59
1	Sr 421.552†	-97.2	186.0	0.4356	µg/L	0.4356	ppb	22:39:59
1	Sc 361.383	1778730.0	1778730.0	106.33	%			22:41:07
1	Y 371.029	1083568.5	1083568.5	105.96	%			22:41:07
1	Ag 328.068†	3032.4	-115.3	-0.4626	µg/L	-0.4626	ppb	22:41:09
1	As 188.979†	-14.8	0.3	0.1314	µg/L	0.1314	ppb	22:41:29
1	B 249.677†	3760.9	181.2	3.0412	µg/L	3.0412	ppb	22:41:09
1	Ba 233.527†	-116.6	65.4	0.2983	µg/L	0.2983	ppb	22:41:29
1	Be 313.107†	-653.6	45.5	0.0181	µg/L	0.0181	ppb	22:41:09
1	Cd 226.502†	-101.2	-0.8	-0.0058	µg/L	-0.0058	ppb	22:41:29
1	Co 228.616†	-170.3	16.4	0.2253	µg/L	0.2253	ppb	22:41:29
1	Cr 267.716†	161.3	-8.5	-0.0818	µg/L	-0.0818	ppb	22:41:29
1	Cu 324.752†	2671.6	87.6	0.3902	µg/L	0.3902	ppb	22:41:09
1	Mn 257.610†	291.9	194.5	0.2662	µg/L	0.2662	ppb	22:41:29
1	Mo 202.031†	-59.8	-1.1	-0.0337	µg/L	-0.0337	ppb	22:41:29
1	Ni 231.604†	-66.1	-21.2	-0.2716	µg/L	-0.2716	ppb	22:41:29
1	P 214.914†	41.7	-40.4	-9.6750	µg/L	-9.6750	ppb	22:41:29
1	Pb 220.353†	99.2	-19.1	-1.1665	µg/L	-1.1665	ppb	22:41:29
1	S 181.975 Axial†	93.8	-6.6	-5.3749	µg/L	-5.3749	ppb	22:41:29
1	Sb 206.836†	102.6	9.8	1.3214	µg/L	1.3214	ppb	22:41:29
1	Se 196.026†	13.2	1.5	0.596	µg/L	0.596	ppb	22:41:29
1	SiO2†	2185.7	482.6	52.759	µg/L	52.759	ppb	22:41:29
1	Si 251.611†	2244.9	1434.8	23.728	µg/L	23.728	ppb	22:41:09
1	Sn 189.927†	-4.1	-5.9	-0.4168	µg/L	-0.4168	ppb	22:41:29
1	Ti 334.940†	903.5	213.3	0.2154	µg/L	0.2154	ppb	22:41:09
1	Tl 190.801†	-119.0	8.4	1.1286	µg/L	1.1286	ppb	22:41:29
1	U 409.014†	-319.7	178.5	10.998	µg/L	10.998	ppb	22:41:09
1	V 292.402†	349.9	-102.8	-0.5643	µg/L	-0.5643	ppb	22:41:09
1	Zn 213.857†	591.4	91.7	0.5782	µg/L	0.5782	ppb	22:41:29
2	Sc RADIAL	151479.4	151479.4	104	%			22:40:21
2	Al 396.153Radial†	-2.5	29.5	6.4129	µg/L	6.4129	ppb	22:40:41
2	Ca 317.933Radial†	1662.6	983.5	57.632	µg/L	57.632	ppb	22:40:41
2	Fe 238.204 Radial†	183.9	63.6	4.2300	µg/L	4.2300	ppb	22:40:41
2	K 766.490 Radial†	1465.3	-45.1	-18.604	µg/L	-18.604	ppb	22:40:21
2	Mg 279.077 IEC†	169.3	-23.8	-9.8113	µg/L	-9.8113	ppb	22:40:41
2	Na 589.592 Radial†	3072.5	1261.6	193.06	µg/L	193.06	ppb	22:40:21
2	Sr 421.552†	-230.2	56.5	0.1319	µg/L	0.1319	ppb	22:40:21
2	Sc 361.383	1738321.6	1738321.6	103.92	%			22:41:31
2	Y 371.029	1059815.2	1059815.2	103.64	%			22:41:31
2	Ag 328.068†	3278.1	187.4	0.7591	µg/L	0.7591	ppb	22:41:34
2	As 188.979†	-14.8	-0.0	-0.0092	µg/L	-0.0092	ppb	22:41:54
2	B 249.677†	3821.0	321.2	5.3930	µg/L	5.3930	ppb	22:41:34
2	Ba 233.527†	-143.8	36.7	0.1676	µg/L	0.1676	ppb	22:41:54
2	Be 313.107†	-720.0	-32.7	-0.0110	µg/L	-0.0110	ppb	22:41:34
2	Cd 226.502†	-108.3	-9.8	-0.0679	µg/L	-0.0679	ppb	22:41:54
2	Co 228.616†	-187.2	-3.6	-0.0490	µg/L	-0.0490	ppb	22:41:54
2	Cr 267.716†	179.6	12.6	0.1095	µg/L	0.1095	ppb	22:41:54
2	Cu 324.752†	2817.5	286.4	1.2442	µg/L	1.2442	ppb	22:41:34
2	Mn 257.610†	284.3	193.6	0.2649	µg/L	0.2649	ppb	22:41:54
2	Mo 202.031†	-43.8	13.0	0.4117	µg/L	0.4117	ppb	22:41:54
2	Ni 231.604†	-49.3	-6.5	-0.0832	µg/L	-0.0832	ppb	22:41:54
2	P 214.914†	40.4	-40.7	-9.7707	µg/L	-9.7707	ppb	22:41:54
2	Pb 220.353†	88.3	-27.5	-1.6625	µg/L	-1.6625	ppb	22:41:54

2	S 181.975 Axial†	93.3	-5.1	-4.0952 µg/L	-4.0952 ppb	22:41:54
2	Sb 206.836†	90.0	-0.1	-0.0048 µg/L	-0.0048 ppb	22:41:54
2	Se 196.026†	10.5	-0.8	-0.313 µg/L	-0.313 ppb	22:41:54
2	SiO2†	2171.8	517.0	56.497 µg/L	56.497 ppb	22:41:54
2	Si 251.611†	2334.1	1569.7	25.947 µg/L	25.947 ppb	22:41:34
2	Sn 189.927†	5.9	3.6	0.2594 µg/L	0.2594 ppb	22:41:54
2	Ti 334.940†	745.5	81.0	0.0854 µg/L	0.0854 ppb	22:41:34
2	Tl 190.801†	-131.8	-6.5	-0.8732 µg/L	-0.8732 ppb	22:41:54
2	U 409.014†	-517.8	-19.2	-1.1731 µg/L	-1.1731 ppb	22:41:34
2	V 292.402†	475.2	25.4	0.1442 µg/L	0.1442 ppb	22:41:34
2	Zn 213.857†	607.8	120.5	0.7572 µg/L	0.7572 ppb	22:41:54
3	Sc RADIAL	153705.5	153705.5	105 %		22:40:43
3	Al 396.153Radial†	8.8	40.3	8.7449 µg/L	8.7449 ppb	22:41:03
3	Ca 317.933Radial†	1716.4	1011.4	59.266 µg/L	59.266 ppb	22:41:03
3	Fe 238.204 Radial†	177.2	54.8	3.6427 µg/L	3.6427 ppb	22:41:03
3	K 766.490 Radial†	1466.2	-64.6	-26.649 µg/L	-26.649 ppb	22:40:43
3	Mg 279.077 IEC†	175.2	-20.5	-8.4511 µg/L	-8.4511 ppb	22:41:03
3	Na 589.592 Radial†	2996.3	1146.6	175.47 µg/L	175.47 ppb	22:40:43
3	Sr 421.552†	-285.9	6.9	0.0157 µg/L	0.0157 ppb	22:40:43
3	Sc 361.383	1741912.5	1741912.5	104.13 %		22:41:56
3	Y 371.029	1062506.6	1062506.6	103.90 %		22:41:56
3	Ag 328.068†	3000.4	-85.8	-0.3547 µg/L	-0.3547 ppb	22:41:58
3	As 188.979†	-21.5	-6.4	-2.6575 µg/L	-2.6575 ppb	22:42:18
3	B 249.677†	3908.9	398.1	6.6819 µg/L	6.6819 ppb	22:41:58
3	Ba 233.527†	-175.3	6.7	0.0307 µg/L	0.0307 ppb	22:42:18
3	Be 313.107†	-609.4	74.9	0.0244 µg/L	0.0244 ppb	22:41:58
3	Cd 226.502†	-135.1	-35.3	-0.2444 µg/L	-0.2444 ppb	22:42:18
3	Co 228.616†	-157.1	25.7	0.3516 µg/L	0.3516 ppb	22:42:18
3	Cr 267.716†	175.9	8.7	0.0743 µg/L	0.0743 ppb	22:42:18
3	Cu 324.752†	2833.4	296.1	1.2878 µg/L	1.2878 ppb	22:41:58
3	Mn 257.610†	275.9	185.0	0.2531 µg/L	0.2531 ppb	22:42:18
3	Mo 202.031†	-28.2	28.1	0.8884 µg/L	0.8884 ppb	22:42:18
3	Ni 231.604†	-76.9	-33.0	-0.4218 µg/L	-0.4218 ppb	22:42:18
3	P 214.914†	37.2	-43.8	-10.524 µg/L	-10.524 ppb	22:42:18
3	Pb 220.353†	84.3	-31.4	-1.9022 µg/L	-1.9022 ppb	22:42:18
3	S 181.975 Axial†	94.6	-3.9	-3.1867 µg/L	-3.1867 ppb	22:42:18
3	Sb 206.836†	90.1	-0.1	-0.0099 µg/L	-0.0099 ppb	22:42:18
3	Se 196.026†	14.8	3.3	1.32 µg/L	1.32 ppb	22:42:18
3	SiO2†	2148.7	490.5	53.598 µg/L	53.598 ppb	22:42:18
3	Si 251.611†	2275.3	1508.6	24.936 µg/L	24.936 ppb	22:41:58
3	Sn 189.927†	-5.3	-7.1	-0.5037 µg/L	-0.5037 ppb	22:42:18
3	Ti 334.940†	887.4	215.8	0.2222 µg/L	0.2222 ppb	22:41:58
3	Tl 190.801†	-115.9	9.0	1.2005 µg/L	1.2005 ppb	22:42:18
3	U 409.014†	-496.6	2.2	0.1125 µg/L	0.1125 ppb	22:41:58
3	V 292.402†	367.7	-78.7	-0.4277 µg/L	-0.4277 ppb	22:41:58
3	Zn 213.857†	611.8	123.1	0.7761 µg/L	0.7761 ppb	22:42:18

Mean Data: 248044006|959137|1

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1752988.0	104.80	%	1.337				1.28%
Sc RADIAL	153082.2	105	%	1.0				0.91%
Y 371.029	1068630.1	104.50	%	1.272				1.22%
Ag 328.068†	-4.6	-0.0194	µg/L	0.67639	-0.0194	ppb	0.67639	>999.9%
Al 396.153Radial†	30.1	6.5608	µg/L	2.11412	6.5608	ppb	2.11412	32.22%
As 188.979†	-2.0	-0.8451	µg/L	1.57119	-0.8451	ppb	1.57119	185.92%
B 249.677†	300.2	5.0387	µg/L	1.84602	5.0387	ppb	1.84602	36.64%
Ba 233.527†	36.3	0.1655	µg/L	0.13380	0.1655	ppb	0.13380	80.82%
Be 313.107†	29.2	0.0105	µg/L	0.01891	0.0105	ppb	0.01891	179.85%
Ca 317.933Radial†	988.3	57.910	µg/L	1.2402	57.910	ppb	1.2402	2.14%
Cd 226.502†	-15.3	-0.1060	µg/L	0.12380	-0.1060	ppb	0.12380	116.78%
Co 228.616†	12.9	0.1760	µg/L	0.20477	0.1760	ppb	0.20477	116.37%
Cr 267.716†	4.3	0.0340	µg/L	0.10181	0.0340	ppb	0.10181	299.54%
Cu 324.752†	223.4	0.9741	µg/L	0.50613	0.9741	ppb	0.50613	51.96%
Fe 238.204 Radial†	59.1	3.9271	µg/L	0.29408	3.9271	ppb	0.29408	7.49%
K 766.490 Radial†	-94.5	-38.962	µg/L	28.5779	-38.962	ppb	28.5779	73.35%
Mg 279.077 IEC†	-23.9	-9.8624	µg/L	1.43760	-9.8624	ppb	1.43760	14.58%
Mn 257.610†	191.0	0.2614	µg/L	0.00722	0.2614	ppb	0.00722	2.76%
Mo 202.031†	13.4	0.4221	µg/L	0.46114	0.4221	ppb	0.46114	109.24%
Na 589.592 Radial†	1148.5	175.77	µg/L	17.135	175.77	ppb	17.135	9.75%

Ni 231.604†	-20.2	-0.2589 µg/L	0.16965	-0.2589 ppb	0.16965	65.53%
P 214.914†	-41.6	-9.9898 µg/L	0.46475	-9.9898 ppb	0.46475	4.65%
Pb 220.353†	-26.0	-1.5771 µg/L	0.37522	-1.5771 ppb	0.37522	23.79%
S 181.975 Axial†	-5.2	-4.2189 µg/L	1.09932	-4.2189 ppb	1.09932	26.06%
Sb 206.836†	3.2	0.4356 µg/L	0.76714	0.4356 ppb	0.76714	176.12%
Se 196.026†	1.3	0.534 µg/L	0.8178	0.534 ppb	0.8178	153.14%
SiO2†	496.7	54.285 µg/L	1.9612	54.285 ppb	1.9612	3.61%
Si 251.611†	1504.4	24.870 µg/L	1.1111	24.870 ppb	1.1111	4.47%
Sn 189.927†	-3.1	-0.2203 µg/L	0.41775	-0.2203 ppb	0.41775	189.59%
Sr 421.552†	83.1	0.1944 µg/L	0.21684	0.1944 ppb	0.21684	111.55%
Ti 334.940†	170.0	0.1743 µg/L	0.07711	0.1743 ppb	0.07711	44.23%
Tl 190.801†	3.6	0.4853 µg/L	1.17706	0.4853 ppb	1.17706	242.55%
U 409.014†	53.8	3.3124 µg/L	6.68668	3.3124 ppb	6.68668	201.87%
V 292.402†	-52.0	-0.2826 µg/L	0.37591	-0.2826 ppb	0.37591	133.02%
Zn 213.857†	111.8	0.7038 µg/L	0.10918	0.7038 ppb	0.10918	15.51%

Sequence No.: 90
Sample ID: CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 3/29/2010 22:42:27
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Replicate Data: CCV

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	153670.6	153670.6	105	%			22:43:01
1	Al 396.153Radial†	25532.3	24248.9	5270.5	µg/L	5270.5	ppb	22:43:01
1	Ca 317.933Radial†	89233.6	84020.5	4923.2	µg/L	4923.2	ppb	22:43:01
1	Fe 238.204 Radial†	78366.9	74216.5	4934.2	µg/L	4934.2	ppb	22:43:01
1	K 766.490 Radial†	13951.5	11777.8	4844.6	µg/L	4844.6	ppb	22:43:01
1	Mg 279.077 IEC†	13259.2	12389.5	5116.1	µg/L	5116.1	ppb	22:43:01
1	Na 589.592 Radial†	70022.2	64720.3	9898.7	µg/L	9898.7	ppb	22:43:01
1	Sr 421.552†	229045.7	217524.4	509.78	µg/L	509.78	ppb	22:42:59
1	Sc 361.383	1713229.0	1713229.0	102.42	%			22:43:14
1	Y 371.029	1036548.2	1036548.2	101.37	%			22:43:14
1	Ag 328.068†	127511.9	121534.0	499.48	µg/L	499.48	ppb	22:43:14
1	As 188.979†	1343.6	1326.1	561.34	µg/L	561.34	ppb	22:43:34
1	B 249.677†	32986.3	28851.7	482.68	µg/L	482.68	ppb	22:43:14
1	Ba 233.527†	113774.1	111262.6	508.69	µg/L	508.69	ppb	22:43:14
1	Be 313.107†	1631598.6	1593731.7	518.93	µg/L	518.93	ppb	22:43:14
1	Cd 226.502†	71789.2	70188.4	484.39	µg/L	484.39	ppb	22:43:14
1	Co 228.616†	36461.6	35777.2	490.17	µg/L	490.17	ppb	22:43:14
1	Cr 267.716†	59082.6	57527.2	493.98	µg/L	493.98	ppb	22:43:14
1	Cu 324.752†	120035.3	114776.0	500.47	µg/L	500.47	ppb	22:43:14
1	Mn 257.610†	372176.7	363308.5	496.22	µg/L	496.22	ppb	22:43:14
1	Mo 202.031†	15824.6	15506.1	489.92	µg/L	489.92	ppb	22:43:34
1	Ni 231.604†	39287.7	38400.9	491.19	µg/L	491.19	ppb	22:43:14
1	P 214.914†	10456.8	10130.3	2417.6	µg/L	2417.6	ppb	22:43:34
1	Pb 220.353†	8326.6	8017.5	487.25	µg/L	487.25	ppb	22:43:34
1	S 181.975 Axial†	1304.8	1179.1	959.43	µg/L	959.43	ppb	22:43:34
1	Sb 206.836†	3849.6	3672.0	496.42	µg/L	496.42	ppb	22:43:34
1	Se 196.026†	1254.9	1214.3	483	µg/L	483	ppb	22:43:34
1	SiO2†	51326.3	48541.5	5284.5	µg/L	5284.5	ppb	22:43:14
1	Si 251.611†	154043.3	149729.5	2465.9	µg/L	2465.9	ppb	22:43:14
1	Sn 189.927†	7190.3	7018.5	500.63	µg/L	500.63	ppb	22:43:34
1	Ti 334.940†	500662.7	488204.2	497.17	µg/L	497.17	ppb	22:43:14
1	Tl 190.801†	3597.1	3632.4	495.09	µg/L	495.09	ppb	22:43:34
1	U 409.014†	7277.7	7584.9	499.24	µg/L	499.24	ppb	22:43:14
1	V 292.402†	92881.7	90256.7	506.92	µg/L	506.92	ppb	22:43:14
1	Zn 213.857†	79753.5	77405.8	483.38	µg/L	483.38	ppb	22:43:14
2	Sc RADIAL	153338.2	153338.2	105	%			22:43:05
2	Al 396.153Radial†	25484.3	24255.7	5272.5	µg/L	5272.5	ppb	22:43:05
2	Ca 317.933Radial†	89276.4	84244.7	4936.4	µg/L	4936.4	ppb	22:43:05
2	Fe 238.204 Radial†	78452.2	74458.8	4950.3	µg/L	4950.3	ppb	22:43:05
2	K 766.490 Radial†	14131.6	11977.7	4926.8	µg/L	4926.8	ppb	22:43:05
2	Mg 279.077 IEC†	13272.8	12429.7	5132.4	µg/L	5132.4	ppb	22:43:05
2	Na 589.592 Radial†	70049.9	64890.6	9924.7	µg/L	9924.7	ppb	22:43:05
2	Sr 421.552†	227233.2	216272.5	506.85	µg/L	506.85	ppb	22:43:03
2	Sc 361.383	1742064.1	1742064.1	104.14	%			22:43:37
2	Y 371.029	1053661.3	1053661.3	103.04	%			22:43:37
2	Ag 328.068†	128515.8	120437.1	494.94	µg/L	494.94	ppb	22:43:37
2	As 188.979†	1335.3	1296.4	548.84	µg/L	548.84	ppb	22:43:57
2	B 249.677†	33342.8	28660.9	479.49	µg/L	479.49	ppb	22:43:37
2	Ba 233.527†	114630.7	110246.4	504.04	µg/L	504.04	ppb	22:43:37
2	Be 313.107†	1643078.7	1578386.3	513.93	µg/L	513.93	ppb	22:43:37
2	Cd 226.502†	72541.4	69750.5	481.36	µg/L	481.36	ppb	22:43:37
2	Co 228.616†	36852.9	35563.7	487.24	µg/L	487.24	ppb	22:43:37
2	Cr 267.716†	59491.9	56965.4	489.16	µg/L	489.16	ppb	22:43:37
2	Cu 324.752†	120802.1	113572.4	495.23	µg/L	495.23	ppb	22:43:37
2	Mn 257.610†	375411.3	360399.5	492.25	µg/L	492.25	ppb	22:43:37
2	Mo 202.031†	15759.6	15187.9	479.88	µg/L	479.88	ppb	22:43:57
2	Ni 231.604†	39775.9	38234.8	489.07	µg/L	489.07	ppb	22:43:37
2	P 214.914†	10394.9	9901.9	2362.9	µg/L	2362.9	ppb	22:43:57
2	Pb 220.353†	8272.7	7831.2	475.94	µg/L	475.94	ppb	22:43:57

2	S 181.975 Axial†	1293.3	1147.1	933.39 µg/L	933.39 ppb	22:43:57
2	Sb 206.836†	3828.2	3589.3	485.17 µg/L	485.17 ppb	22:43:57
2	Se 196.026†	1246.5	1186.1	471 µg/L	471 ppb	22:43:57
2	SiO2†	51780.7	48148.3	5241.9 µg/L	5241.9 ppb	22:43:37
2	Si 251.611†	155219.0	148368.9	2443.6 µg/L	2443.6 ppb	22:43:37
2	Sn 189.927†	7132.8	6847.1	488.43 µg/L	488.43 ppb	22:43:57
2	Ti 334.940†	503531.9	482867.8	491.73 µg/L	491.73 ppb	22:43:37
2	Tl 190.801†	3581.7	3559.5	485.21 µg/L	485.21 ppb	22:43:57
2	U 409.014†	7146.8	7341.7	483.86 µg/L	483.86 ppb	22:43:37
2	V 292.402†	93375.5	89229.7	501.09 µg/L	501.09 ppb	22:43:37
2	Zn 213.857†	80733.7	77058.2	481.21 µg/L	481.21 ppb	22:43:37
3	Sc RADIAL	153918.1	153918.1	106 %		22:43:09
3	Al 396.153Radial†	25598.5	24272.6	5276.1 µg/L	5276.1 ppb	22:43:09
3	Ca 317.933Radial†	89923.4	84537.6	4953.5 µg/L	4953.5 ppb	22:43:09
3	Fe 238.204 Radial†	78639.1	74354.7	4943.4 µg/L	4943.4 ppb	22:43:09
3	K 766.490 Radial†	13877.1	11686.1	4806.8 µg/L	4806.8 ppb	22:43:09
3	Mg 279.077 IEC†	13270.8	12380.3	5112.0 µg/L	5112.0 ppb	22:43:09
3	Na 589.592 Radial†	70254.6	64833.6	9916.1 µg/L	9916.1 ppb	22:43:09
3	Sr 421.552†	228786.4	216929.5	508.39 µg/L	508.39 ppb	22:43:07
3	Sc 361.383	1738165.6	1738165.6	103.91 %		22:44:00
3	Y 371.029	1052043.8	1052043.8	102.88 %		22:44:00
3	Ag 328.068†	128389.3	120592.1	495.57 µg/L	495.57 ppb	22:44:00
3	As 188.979†	1343.6	1307.3	553.39 µg/L	553.39 ppb	22:44:20
3	B 249.677†	33214.1	28608.9	478.62 µg/L	478.62 ppb	22:44:00
3	Ba 233.527†	113962.7	109850.4	502.23 µg/L	502.23 ppb	22:44:00
3	Be 313.107†	1635274.2	1574414.0	512.64 µg/L	512.64 ppb	22:44:00
3	Cd 226.502†	72141.5	69521.9	479.78 µg/L	479.78 ppb	22:44:00
3	Co 228.616†	36635.4	35433.7	485.46 µg/L	485.46 ppb	22:44:00
3	Cr 267.716†	59220.7	56832.5	488.01 µg/L	488.01 ppb	22:44:00
3	Cu 324.752†	120354.6	113401.9	494.50 µg/L	494.50 ppb	22:44:00
3	Mn 257.610†	373061.4	358946.6	490.26 µg/L	490.26 ppb	22:44:00
3	Mo 202.031†	15720.2	15184.0	479.76 µg/L	479.76 ppb	22:44:20
3	Ni 231.604†	39617.8	38168.2	488.22 µg/L	488.22 ppb	22:44:00
3	P 214.914†	10370.4	9900.6	2362.7 µg/L	2362.7 ppb	22:44:20
3	Pb 220.353†	8273.8	7850.1	477.07 µg/L	477.07 ppb	22:44:20
3	S 181.975 Axial†	1305.4	1161.5	945.06 µg/L	945.06 ppb	22:44:20
3	Sb 206.836†	3838.2	3607.2	487.59 µg/L	487.59 ppb	22:44:20
3	Se 196.026†	1253.8	1195.7	475 µg/L	475 ppb	22:44:20
3	SiO2†	51493.2	47983.1	5223.9 µg/L	5223.9 ppb	22:44:00
3	Si 251.611†	154605.0	148112.3	2439.4 µg/L	2439.4 ppb	22:44:00
3	Sn 189.927†	7146.9	6876.0	490.48 µg/L	490.48 ppb	22:44:20
3	Ti 334.940†	501550.0	482044.9	490.89 µg/L	490.89 ppb	22:44:00
3	Tl 190.801†	3584.4	3569.9	486.57 µg/L	486.57 ppb	22:44:20
3	U 409.014†	7451.7	7650.5	502.82 µg/L	502.82 ppb	22:44:00
3	V 292.402†	92793.5	88870.7	499.10 µg/L	499.10 ppb	22:44:00
3	Zn 213.857†	80130.4	76651.4	478.65 µg/L	478.65 ppb	22:44:00

Mean Data: CCV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1731152.9	103.49	%	0.935				0.90%
Sc RADIAL	153642.3	105	%	0.2				0.19%
Y 371.029	1047417.8	102.43	%	0.924				0.90%
Ag 328.068†	120854.4	496.66	µg/L	2.458	496.66	ppb	2.458	0.49%
QC value within limits for Ag 328.068 Recovery = 99.33%								
Al 396.153Radial†	24259.1	5273.0	µg/L	2.86	5273.0	ppb	2.86	0.05%
QC value within limits for Al 396.153Radial Recovery = 105.46%								
As 188.979†	1309.9	554.52	µg/L	6.329	554.52	ppb	6.329	1.14%
QC value greater than the upper limit for As 188.979 Recovery = 110.90%								
B 249.677†	28707.2	480.26	µg/L	2.138	480.26	ppb	2.138	0.45%
QC value within limits for B 249.677 Recovery = 96.05%								
Ba 233.527†	110453.1	504.99	µg/L	3.332	504.99	ppb	3.332	0.66%
QC value within limits for Ba 233.527 Recovery = 101.00%								
Be 313.107†	1582177.3	515.17	µg/L	3.321	515.17	ppb	3.321	0.64%
QC value within limits for Be 313.107 Recovery = 103.03%								
Ca 317.933Radial†	84267.6	4937.7	µg/L	15.19	4937.7	ppb	15.19	0.31%
QC value within limits for Ca 317.933Radial Recovery = 98.75%								
Cd 226.502†	69820.3	481.85	µg/L	2.340	481.85	ppb	2.340	0.49%
QC value within limits for Cd 226.502 Recovery = 96.37%								
Co 228.616†	35591.5	487.62	µg/L	2.378	487.62	ppb	2.378	0.49%

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   QC value within limits for Co 228.616  Recovery = 97.52%
Cr 267.716†            57108.4      490.38 µg/L         3.167      490.38 ppb          3.167   0.65%
   QC value within limits for Cr 267.716  Recovery = 98.08%
Cu 324.752†           113916.7      496.74 µg/L         3.258      496.74 ppb          3.258   0.66%
   QC value within limits for Cu 324.752  Recovery = 99.35%
Fe 238.204 Radial†     74343.3      4942.6 µg/L          8.08      4942.6 ppb           8.08   0.16%
   QC value within limits for Fe 238.204 Radial  Recovery = 98.85%
K 766.490 Radial†      11813.8      4859.4 µg/L         61.38      4859.4 ppb          61.38   1.26%
   QC value within limits for K 766.490 Radial  Recovery = 97.19%
Mg 279.077 IEC†        12399.8      5120.2 µg/L         10.79      5120.2 ppb          10.79   0.21%
   QC value within limits for Mg 279.077 IEC  Recovery = 102.40%
Mn 257.610†           360884.9      492.91 µg/L         3.035      492.91 ppb          3.035   0.62%
   QC value within limits for Mn 257.610  Recovery = 98.58%
Mo 202.031†            15292.7      483.19 µg/L         5.836      483.19 ppb          5.836   1.21%
   QC value within limits for Mo 202.031  Recovery = 96.64%
Na 589.592 Radial†     64814.8      9913.2 µg/L         13.23      9913.2 ppb          13.23   0.13%
   QC value within limits for Na 589.592 Radial  Recovery = 99.13%
Ni 231.604†            38268.0      489.49 µg/L         1.533      489.49 ppb          1.533   0.31%
   QC value within limits for Ni 231.604  Recovery = 97.90%
P 214.914†              9977.6      2381.1 µg/L         31.64      2381.1 ppb          31.64   1.33%
   QC value within limits for P 214.914  Recovery = 95.24%
Pb 220.353†             7899.6      480.09 µg/L         6.228      480.09 ppb          6.228   1.30%
   QC value within limits for Pb 220.353  Recovery = 96.02%
S 181.975 Axial†        1162.6      945.96 µg/L        13.047      945.96 ppb         13.047   1.38%
   QC value within limits for S 181.975 Axial  Recovery = 94.60%
Sb 206.836†             3622.8      489.72 µg/L         5.923      489.72 ppb          5.923   1.21%
   QC value within limits for Sb 206.836  Recovery = 97.94%
Se 196.026†             1198.7         476 µg/L           5.7         476 ppb            5.7   1.19%
   QC value within limits for Se 196.026  Recovery = 95.26%
SiO2†                  48224.3      5250.1 µg/L         31.11      5250.1 ppb          31.11   0.59%
   QC value within limits for SiO2  Recovery = 98.18%
Si 251.611†           148736.9      2449.7 µg/L         14.25      2449.7 ppb          14.25   0.58%
   QC value within limits for Si 251.611  Recovery = 97.99%
Sn 189.927†             6913.8      493.18 µg/L         6.535      493.18 ppb          6.535   1.33%
   QC value within limits for Sn 189.927  Recovery = 98.64%
Sr 421.552†           216908.8      508.34 µg/L         1.468      508.34 ppb          1.468   0.29%
   QC value within limits for Sr 421.552  Recovery = 101.67%
Ti 334.940†           484372.3      493.26 µg/L         3.408      493.26 ppb          3.408   0.69%
   QC value within limits for Ti 334.940  Recovery = 98.65%
Tl 190.801†             3587.3      488.96 µg/L         5.353      488.96 ppb          5.353   1.09%
   QC value within limits for Tl 190.801  Recovery = 97.79%
U 409.014†              7525.7      495.31 µg/L        10.074      495.31 ppb         10.074   2.03%
   QC value within limits for U 409.014  Recovery = 99.06%
V 292.402†             89452.4      502.37 µg/L         4.061      502.37 ppb          4.061   0.81%
   QC value within limits for V 292.402  Recovery = 100.47%
Zn 213.857†            77038.5      481.08 µg/L         2.367      481.08 ppb          2.367   0.49%
   QC value within limits for Zn 213.857  Recovery = 96.22%
QC Failed.  Continue with analysis.
```

Sequence No.: 91 **Autosampler Location: 6**
Sample ID: CCB **Date Collected: 3/29/2010 22:44:29**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Replicate Data: CCB

Repl#	Analyte	Net Intensity	Corrected Intensity	Conc.	Calib. Units	Conc.	Sample Units	Analysis Time
1	Sc RADIAL	154912.0	154912.0	106	%			22:44:59
1	Al 396.153Radial†	-35.0	-1.1	-0.2804	µg/L	-0.2804	ppb	22:45:19
1	Ca 317.933Radial†	642.9	-11.3	-0.6631	µg/L	-0.6631	ppb	22:45:19
1	Fe 238.204 Radial†	163.6	40.6	2.6994	µg/L	2.6994	ppb	22:45:19
1	K 766.490 Radial†	1426.7	-112.7	-46.378	µg/L	-46.378	ppb	22:44:59
1	Mg 279.077 IEC†	180.0	-17.3	-7.1267	µg/L	-7.1267	ppb	22:45:19
1	Na 589.592 Radial†	1706.5	-89.1	-13.586	µg/L	-13.586	ppb	22:44:59
1	Sr 421.552†	-175.2	113.1	0.2652	µg/L	0.2652	ppb	22:44:59
1	Sc 361.383	1763263.5	1763263.5	105.41	%			22:46:07
1	Y 371.029	1078054.6	1078054.6	105.42	%			22:46:07
1	Ag 328.068†	3459.8	315.2	1.2970	µg/L	1.2970	ppb	22:46:09
1	As 188.979†	-24.9	-9.4	-3.9329	µg/L	-3.9329	ppb	22:46:29
1	B 249.677†	3110.0	-405.3	-6.8044	µg/L	-6.8044	ppb	22:46:29
1	Ba 233.527†	-155.7	27.4	0.1251	µg/L	0.1251	ppb	22:46:29
1	Be 313.107†	-549.3	139.0	0.0510	µg/L	0.0510	ppb	22:46:09
1	Cd 226.502†	-95.9	3.4	0.0231	µg/L	0.0231	ppb	22:46:29
1	Co 228.616†	-186.7	-0.5	-0.0073	µg/L	-0.0073	ppb	22:46:29
1	Cr 267.716†	177.6	8.2	0.0553	µg/L	0.0553	ppb	22:46:29
1	Cu 324.752†	2872.9	300.6	1.3229	µg/L	1.3229	ppb	22:46:09
1	Mn 257.610†	184.1	94.6	0.1296	µg/L	0.1296	ppb	22:46:29
1	Mo 202.031†	-26.2	30.4	0.9589	µg/L	0.9589	ppb	22:46:29
1	Ni 231.604†	-47.7	-4.3	-0.0553	µg/L	-0.0553	ppb	22:46:29
1	P 214.914†	31.9	-49.3	-11.833	µg/L	-11.833	ppb	22:46:29
1	Pb 220.353†	75.9	-40.5	-2.4620	µg/L	-2.4620	ppb	22:46:29
1	S 181.975 Axial†	96.5	-3.3	-2.6691	µg/L	-2.6691	ppb	22:46:29
1	Sb 206.836†	94.3	2.8	0.3918	µg/L	0.3918	ppb	22:46:29
1	Se 196.026†	22.1	10.1	4.01	µg/L	4.01	ppb	22:46:29
1	SiO2†	1729.5	67.9	7.3789	µg/L	7.3789	ppb	22:46:29
1	Si 251.611†	852.7	132.5	2.1731	µg/L	2.1731	ppb	22:46:29
1	Sn 189.927†	14.1	11.4	0.8115	µg/L	0.8115	ppb	22:46:29
1	Ti 334.940†	920.6	237.0	0.2344	µg/L	0.2344	ppb	22:46:09
1	Tl 190.801†	-118.0	8.4	1.1222	µg/L	1.1222	ppb	22:46:29
1	U 409.014†	-177.4	310.8	19.177	µg/L	19.177	ppb	22:46:09
1	V 292.402†	364.3	-86.2	-0.4555	µg/L	-0.4555	ppb	22:46:09
1	Zn 213.857†	511.7	21.0	0.1315	µg/L	0.1315	ppb	22:46:29
2	Sc RADIAL	153548.1	153548.1	105	%			22:45:21
2	Al 396.153Radial†	-31.3	2.2	0.4081	µg/L	0.4081	ppb	22:45:41
2	Ca 317.933Radial†	642.0	-6.8	-0.3982	µg/L	-0.3982	ppb	22:45:41
2	Fe 238.204 Radial†	145.2	24.6	1.6337	µg/L	1.6337	ppb	22:45:41
2	K 766.490 Radial†	1418.9	-108.1	-44.492	µg/L	-44.492	ppb	22:45:21
2	Mg 279.077 IEC†	174.6	-20.9	-8.5921	µg/L	-8.5921	ppb	22:45:41
2	Na 589.592 Radial†	1677.9	-102.0	-15.567	µg/L	-15.567	ppb	22:45:21
2	Sr 421.552†	-164.6	121.7	0.2853	µg/L	0.2853	ppb	22:45:21
2	Sc 361.383	1742152.7	1742152.7	104.15	%			22:46:31
2	Y 371.029	1065618.3	1065618.3	104.21	%			22:46:31
2	Ag 328.068†	3303.4	204.8	0.8259	µg/L	0.8259	ppb	22:46:34
2	As 188.979†	-13.5	1.3	0.5289	µg/L	0.5289	ppb	22:46:54
2	B 249.677†	3107.7	-371.7	-6.2409	µg/L	-6.2409	ppb	22:46:54
2	Ba 233.527†	-159.2	22.2	0.1013	µg/L	0.1013	ppb	22:46:54
2	Be 313.107†	-751.4	-61.3	-0.0185	µg/L	-0.0185	ppb	22:46:34
2	Cd 226.502†	-95.8	2.4	0.0166	µg/L	0.0166	ppb	22:46:54
2	Co 228.616†	-177.5	6.1	0.0840	µg/L	0.0840	ppb	22:46:54
2	Cr 267.716†	192.1	24.2	0.2038	µg/L	0.2038	ppb	22:46:54
2	Cu 324.752†	2839.7	301.7	1.3157	µg/L	1.3157	ppb	22:46:34
2	Mn 257.610†	146.4	60.5	0.0831	µg/L	0.0831	ppb	22:46:54
2	Mo 202.031†	-13.5	42.2	1.3326	µg/L	1.3326	ppb	22:46:54
2	Ni 231.604†	-63.6	-20.2	-0.2583	µg/L	-0.2583	ppb	22:46:54
2	P 214.914†	31.2	-49.6	-11.901	µg/L	-11.901	ppb	22:46:54
2	Pb 220.353†	82.8	-32.9	-1.9932	µg/L	-1.9932	ppb	22:46:54

2	S 181.975 Axial†	81.5	-16.6	-13.406	µg/L	-13.406 ppb	22:46:54
2	Sb 206.836†	82.0	-7.9	-1.0565	µg/L	-1.0565 ppb	22:46:54
2	Se 196.026†	7.9	-3.3	-1.32	µg/L	-1.32 ppb	22:46:54
2	SiO2†	1731.4	89.6	9.7506	µg/L	9.7506 ppb	22:46:54
2	Si 251.611†	850.1	139.9	2.2935	µg/L	2.2935 ppb	22:46:54
2	Sn 189.927†	5.1	2.9	0.2036	µg/L	0.2036 ppb	22:46:54
2	Ti 334.940†	788.8	121.0	0.1220	µg/L	0.1220 ppb	22:46:34
2	Tl 190.801†	-114.7	10.2	1.3610	µg/L	1.3610 ppb	22:46:54
2	U 409.014†	-416.9	78.8	4.8158	µg/L	4.8158 ppb	22:46:34
2	V 292.402†	274.8	-168.0	-0.9142	µg/L	-0.9142 ppb	22:46:34
2	Zn 213.857†	471.1	-12.1	-0.0756	µg/L	-0.0756 ppb	22:46:54
3	Sc RADIAL	154388.4	154388.4	106	%		22:45:43
3	Al 396.153Radial†	-29.7	3.8	0.7678	µg/L	0.7678 ppb	22:46:03
3	Ca 317.933Radial†	650.1	-2.5	-0.1455	µg/L	-0.1455 ppb	22:46:03
3	Fe 238.204 Radial†	160.3	38.1	2.5315	µg/L	2.5315 ppb	22:46:03
3	K 766.490 Radial†	1386.3	-146.2	-60.200	µg/L	-60.200 ppb	22:45:43
3	Mg 279.077 IEC†	169.5	-26.7	-10.958	µg/L	-10.958 ppb	22:46:03
3	Na 589.592 Radial†	1530.6	-249.7	-38.157	µg/L	-38.157 ppb	22:45:43
3	Sr 421.552†	-237.9	53.4	0.1250	µg/L	0.1250 ppb	22:45:43
3	Sc 361.383	1750459.2	1750459.2	104.64	%		22:46:56
3	Y 371.029	1070679.8	1070679.8	104.70	%		22:46:56
3	Ag 328.068†	3084.2	-19.7	-0.0766	µg/L	-0.0766 ppb	22:46:58
3	As 188.979†	-5.5	9.0	3.7759	µg/L	3.7759 ppb	22:47:18
3	B 249.677†	3100.0	-393.3	-6.6028	µg/L	-6.6028 ppb	22:47:18
3	Ba 233.527†	-155.7	26.3	0.1198	µg/L	0.1198 ppb	22:47:18
3	Be 313.107†	-710.6	-18.9	-0.0028	µg/L	-0.0028 ppb	22:46:58
3	Cd 226.502†	-91.7	6.8	0.0466	µg/L	0.0466 ppb	22:47:18
3	Co 228.616†	-175.2	9.2	0.1261	µg/L	0.1261 ppb	22:47:18
3	Cr 267.716†	129.8	-36.2	-0.3199	µg/L	-0.3199 ppb	22:47:18
3	Cu 324.752†	2844.0	292.9	1.2827	µg/L	1.2827 ppb	22:46:58
3	Mn 257.610†	164.1	76.9	0.1055	µg/L	0.1055 ppb	22:47:18
3	Mo 202.031†	-10.2	45.5	1.4349	µg/L	1.4349 ppb	22:47:18
3	Ni 231.604†	-50.8	-7.6	-0.0975	µg/L	-0.0975 ppb	22:47:18
3	P 214.914†	34.6	-46.5	-11.157	µg/L	-11.157 ppb	22:47:18
3	Pb 220.353†	85.4	-30.8	-1.8707	µg/L	-1.8707 ppb	22:47:18
3	S 181.975 Axial†	93.1	-5.9	-4.7394	µg/L	-4.7394 ppb	22:47:18
3	Sb 206.836†	89.1	-1.5	-0.1726	µg/L	-0.1726 ppb	22:47:18
3	Se 196.026†	18.1	6.3	2.52	µg/L	2.52 ppb	22:47:18
3	SiO2†	1733.5	83.7	9.1075	µg/L	9.1075 ppb	22:47:18
3	Si 251.611†	819.6	106.9	1.7472	µg/L	1.7472 ppb	22:47:18
3	Sn 189.927†	3.7	1.6	0.1115	µg/L	0.1115 ppb	22:47:18
3	Ti 334.940†	816.3	143.8	0.1431	µg/L	0.1431 ppb	22:46:58
3	Tl 190.801†	-122.0	3.7	0.4965	µg/L	0.4965 ppb	22:47:18
3	U 409.014†	-315.7	177.4	10.912	µg/L	10.912 ppb	22:46:58
3	V 292.402†	292.4	-152.4	-0.8252	µg/L	-0.8252 ppb	22:46:58
3	Zn 213.857†	509.1	22.1	0.1383	µg/L	0.1383 ppb	22:47:18

Mean Data: CCB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Sc 361.383	1751958.5	104.73	%	0.636				0.61%
Sc RADIAL	154282.8	106	%	0.5				0.45%
Y 371.029	1071450.9	104.78	%	0.612				0.58%
Ag 328.068†	166.8	0.6821	µg/L	0.69799	0.6821	ppb	0.69799	102.33%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153Radial†	1.6	0.2985	µg/L	0.53261	0.2985	ppb	0.53261	178.41%
QC value within limits for Al 396.153Radial Recovery = Not calculated								
As 188.979†	0.3	0.1240	µg/L	3.87033	0.1240	ppb	3.87033	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-390.1	-6.5494	µg/L	0.28549	-6.5494	ppb	0.28549	4.36%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	25.3	0.1154	µg/L	0.01249	0.1154	ppb	0.01249	10.82%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	19.6	0.0099	µg/L	0.03648	0.0099	ppb	0.03648	368.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 317.933Radial†	-6.9	-0.4023	µg/L	0.25879	-0.4023	ppb	0.25879	64.33%
QC value within limits for Ca 317.933Radial Recovery = Not calculated								
Cd 226.502†	4.2	0.0288	µg/L	0.01577	0.0288	ppb	0.01577	54.78%
QC value within limits for Cd 226.502 Recovery = Not calculated								
Co 228.616†	4.9	0.0676	µg/L	0.06820	0.0676	ppb	0.06820	100.91%

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   QC value within limits for Co 228.616  Recovery = Not calculated
Cr 267.716†              -1.3     -0.0203 µg/L       0.26989     -0.0203 ppb        0.26989 >999.9%
   QC value within limits for Cr 267.716  Recovery = Not calculated
Cu 324.752†             298.4      1.3071 µg/L       0.02146      1.3071 ppb        0.02146   1.64%
   QC value within limits for Cu 324.752  Recovery = Not calculated
Fe 238.204 Radial†       34.4      2.2882 µg/L       0.57300      2.2882 ppb        0.57300  25.04%
   QC value within limits for Fe 238.204 Radial  Recovery = Not calculated
K 766.490 Radial†      -122.3     -50.357 µg/L        8.5766     -50.357 ppb         8.5766  17.03%
   QC value within limits for K 766.490 Radial  Recovery = Not calculated
Mg 279.077 IEC†         -21.6     -8.8922 µg/L       1.93304     -8.8922 ppb        1.93304  21.74%
   QC value within limits for Mg 279.077 IEC  Recovery = Not calculated
Mn 257.610†              77.3      0.1060 µg/L       0.02325      0.1060 ppb        0.02325  21.93%
   QC value within limits for Mn 257.610  Recovery = Not calculated
Mo 202.031†              39.4      1.2422 µg/L       0.25054      1.2422 ppb        0.25054  20.17%
   QC value within limits for Mo 202.031  Recovery = Not calculated
Na 589.592 Radial†     -146.9     -22.437 µg/L       13.6499     -22.437 ppb        13.6499  60.84%
   QC value within limits for Na 589.592 Radial  Recovery = Not calculated
Ni 231.604†             -10.7     -0.1370 µg/L       0.10709     -0.1370 ppb        0.10709  78.15%
   QC value within limits for Ni 231.604  Recovery = Not calculated
P 214.914†              -48.5     -11.630 µg/L        0.4111     -11.630 ppb         0.4111   3.54%
   QC value within limits for P 214.914  Recovery = Not calculated
Pb 220.353†             -34.7     -2.1086 µg/L       0.31210     -2.1086 ppb        0.31210  14.80%
   QC value within limits for Pb 220.353  Recovery = Not calculated
S 181.975 Axial†         -8.6     -6.9382 µg/L       5.69617     -6.9382 ppb        5.69617  82.10%
   QC value within limits for S 181.975 Axial  Recovery = Not calculated
Sb 206.836†              -2.2     -0.2791 µg/L       0.73004     -0.2791 ppb        0.73004 261.58%
   QC value within limits for Sb 206.836  Recovery = Not calculated
Se 196.026†               4.4        1.74 µg/L         2.749        1.74 ppb          2.749 158.29%
   QC value within limits for Se 196.026  Recovery = Not calculated
SiO2†                    80.4      8.7457 µg/L       1.22656      8.7457 ppb        1.22656  14.02%
   QC value within limits for SiO2  Recovery = Not calculated
Si 251.611†             126.4      2.0713 µg/L       0.28701      2.0713 ppb        0.28701  13.86%
   QC value within limits for Si 251.611  Recovery = Not calculated
Sn 189.927†               5.3      0.3755 µg/L       0.38038      0.3755 ppb        0.38038 101.29%
   QC value within limits for Sn 189.927  Recovery = Not calculated
Sr 421.552†              96.1      0.2252 µg/L       0.08730      0.2252 ppb        0.08730  38.77%
   QC value within limits for Sr 421.552  Recovery = Not calculated
Ti 334.940†             167.3      0.1665 µg/L       0.05972      0.1665 ppb        0.05972  35.87%
   QC value within limits for Ti 334.940  Recovery = Not calculated
Tl 190.801†               7.4      0.9932 µg/L       0.44647      0.9932 ppb        0.44647  44.95%
   QC value within limits for Tl 190.801  Recovery = Not calculated
U 409.014†              189.0      11.635 µg/L        7.2080      11.635 ppb         7.2080  61.95%
   QC value within limits for U 409.014  Recovery = Not calculated
V 292.402†             -135.5     -0.7316 µg/L       0.24321     -0.7316 ppb        0.24321  33.24%
   QC value within limits for V 292.402  Recovery = Not calculated
Zn 213.857†              10.3      0.0648 µg/L       0.12157      0.0648 ppb        0.12157 187.70%
   QC value within limits for Zn 213.857  Recovery = Not calculated
All analyte(s) passed QC.
```

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, May 07, 2010 04:35:33
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100422\Sample.275
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2953.9	2953.906	77.050	2.6
	Mg	24.0	389627.2	389627.207	2456.462	0.6
	Co	58.9	33755.8	33755.839	413.455	1.2
	Rh	102.9	72606.2	72606.246	422.264	0.6
	In	114.9	84922.1	84922.088	941.339	1.1
	Pb	208.0	59665.5	59665.546	482.527	0.8
⌈>	Ba	137.9	99744.3	99744.336	714.050	0.7
⌊	Ba++	69.0	1512.3	0.015	0.000	1.2
⌈>	Ce	139.9	99525.5	99525.488	418.442	0.4
⌊	CeO	155.9	1670.4	0.017	0.000	2.2
	Bkgd	220.0	26.7	26.700	2.080	7.8

Current Optimization File Data

Current Value	Description
0.72	Nebulizer Gas Flow
9.00	Lens Voltage
1450.00	ICP RF Power
-2300.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
60.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	7.8	3617.5
Co	59	17	8.5	30984.6
In	115	17	9.8	84760.7

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	582	2080	0.644
Be	9.0	8.9	2014	2080	0.677
Mg	24.0	24.0	5690	2120	0.679
Mg	25.0	25.0	5893	2080	0.665
Mg	26.0	26.0	6179	2120	0.672
Co	58.9	58.9	14168	2170	0.646
Rh	102.9	102.9	24855	2230	0.702
In	114.9	114.9	27768	2260	0.683
Ce	139.9	139.9	33856	2280	0.759
Pb	206.0	206.0	49948	2422	0.761
Pb	207.0	207.0	50125	2385	0.676
Pb	208.0	208.0	50463	2430	0.720
U	238.1	238.0	57727	2470	0.715

Report Date/Time: Friday, May 07, 2010 04:34:31

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, May 07, 2010 13:16:44
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\Blank.153

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		572107	
	Cr	52		ug/L		1187	
	Cr	53		ug/L		59418	
>	Ge	74		ug/L		196081	
	As	75		ug/L		419	
	Se	77		ug/L		4859	
	Se	82		ug/L		-46	
	Kr	83		ug/L		137	
	Mo	98		ug/L		73	
	Ag	107		ug/L		78	
	Cd	111		ug/L		24	
	Cd	114		ug/L		51	
>	In	115		ug/L		109110	
	Sb	121		ug/L		90	
	Sb	123		ug/L		102	
>	Lu	175		ug/L		162187	
	Tl	205		ug/L		204	
	Pb	208		ug/L		343	
	U	238		ug/L		221	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	0.9999
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	0.9999

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45					
	Cr	52					
	Cr	53					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, May 07, 2010 13:23:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\Standard 1.154

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		582229	582228.522
	Cr	52	10.000	ug/L	0.151	24276	0.040
	Cr	53		ug/L		61120	0.001
>	Ge	74		ug/L		199473	199472.862
	As	75	10.000	ug/L	3.399	5817	0.027
	Se	77		ug/L		5249	0.002
	Se	82	10.000	ug/L	4.312	357	0.002
	Kr	83		ug/L		123	-0.000
	Mo	98	10.000	ug/L	1.675	14572	0.131
	Ag	107	10.000	ug/L	1.491	22980	0.208
	Cd	111	10.000	ug/L	3.459	5589	0.050
	Cd	114		ug/L		12897	0.116
>	In	115		ug/L		110306	110305.594
	Sb	121	10.000	ug/L	1.873	24068	0.217
	Sb	123		ug/L		18908	0.171
>	Lu	175		ug/L		165565	165564.942
	Tl	205	10.000	ug/L	2.363	53579	0.322
	Pb	208	10.000	ug/L	2.126	83520	0.502
	U	238	10.000	ug/L	0.487	87730	0.528

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45					
	Cr	52					
	Cr	53					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, May 07, 2010 13:29:45
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\Standard 2.155

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		554419	554418.619
	Cr	52	100.027	ug/L	1.570	226894	0.407
	Cr	53		ug/L		84359	0.048
>	Ge	74		ug/L		192412	192411.883
	As	75	100.089	ug/L	0.739	57557	0.297
	Se	77		ug/L		7929	0.016
	Se	82	100.006	ug/L	2.819	3875	0.020
	Kr	83		ug/L		139	0.000
	Mo	98	100.034	ug/L	2.442	145149	1.362
	Ag	107	100.021	ug/L	2.510	226074	2.122
	Cd	111	100.022	ug/L	2.893	54965	0.516
	Cd	114		ug/L		127072	1.192
>	In	115		ug/L		106542	106541.614
	Sb	121	100.033	ug/L	3.576	239649	2.250
	Sb	123		ug/L		185973	1.745
>	Lu	175		ug/L		162271	162271.473
	Tl	205	99.998	ug/L	0.202	522634	3.220
	Pb	208	100.026	ug/L	2.511	837771	5.161
	U	238	100.010	ug/L	1.183	866622	5.340

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45					
	Cr	52					
	Cr	53					
>	Ge	74					
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Sb	123					
>	Lu	175					
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, May 07, 2010 13:36:15
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 1.156

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		557681	557680.800
	Cr	52	**52.729**	ug/L	2.371	120808	0.215
	Cr	53		ug/L		72404	0.026
>	Ge	74		ug/L		189983	189982.875
	As	75	**54.135**	ug/L	2.283	30921	0.161
	Se	77		ug/L		6560	0.010
	Se	82	**53.686**	ug/L	0.454	2033	0.011
	Kr	83		ug/L		136	0.000
	Mo	98	**52.248**	ug/L	2.083	75924	0.711
	Ag	107	**52.763**	ug/L	0.946	119429	1.119
	Cd	111	**52.423**	ug/L	1.946	28853	0.270
	Cd	114		ug/L		67506	0.633
>	In	115		ug/L		106645	106644.920
	Sb	121	**51.758**	ug/L	2.767	124196	1.164
	Sb	123		ug/L		98442	0.922
>	Lu	175		ug/L		163021	163020.886
	Tl	205	**52.882**	ug/L	2.640	277715	1.703
	Pb	208	**53.008**	ug/L	1.425	446217	2.735
	U	238	**55.457**	ug/L	0.104	482925	2.961

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		97.5			
	Cr	52	105.458				
	Cr	53					
>	Ge	74		96.9			
	As	75	108.270				
	Se	77					
	Se	82	107.372				
	Kr	83					
	Mo	98	104.496				
	Ag	107	105.525				
	Cd	111	104.847				
	Cd	114					
>	In	115		97.7			
	Sb	121	103.516				
	Sb	123					
>	Lu	175		100.5			
	Tl	205	105.765				
	Pb	208	106.016				
	U	238	110.914				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	U	238	ICV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, May 07, 2010 13:42:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 2.157

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		568344	568343.694
	Cr	52	0.082	ug/L	30.172	1368	0.000
	Cr	53		ug/L		57852	-0.002
>	Ge	74		ug/L		192624	192624.234
	As	75	-0.353	ug/L	78.995	209	-0.001
	Se	77		ug/L		5037	0.001
	Se	82	0.033	ug/L	1627.849	-44	0.000
	Kr	83		ug/L		133	-0.000
	Mo	98	0.010	ug/L	63.361	87	0.000
	Ag	107	0.002	ug/L	154.205	81	0.000
	Cd	111	0.005	ug/L	384.756	26	0.000
	Cd	114		ug/L		56	0.000
>	In	115		ug/L		107228	107228.011
	Sb	121	0.034	ug/L	13.490	170	0.001
	Sb	123		ug/L		170	0.001
>	Lu	175		ug/L		160465	160464.551
	Tl	205	0.027	ug/L	18.134	342	0.001
	Pb	208	0.002	ug/L	109.351	354	0.000
	U	238	0.004	ug/L	24.056	251	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		99.3			
	Cr	52					
	Cr	53					
>	Ge	74		98.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		98.3			
	Sb	121					
	Sb	123					
>	Lu	175		98.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, May 07, 2010 13:49:20
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 3.158

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		559055	559055.134
	Cr	52	**11.630**	**ug/L**	1.300	27623	0.047
	Cr	53		**ug/L**		60797	0.005
>	Ge	74		**ug/L**		189319	189319.327
	As	75	**5.728**	**ug/L**	2.589	3623	0.017
	Se	77		**ug/L**		5096	0.002
	Se	82	**6.478**	**ug/L**	11.760	206	0.001
	Kr	83		**ug/L**		130	-0.000
	Mo	98	**0.551**	**ug/L**	3.964	877	0.008
	Ag	107	**1.003**	**ug/L**	1.774	2359	0.021
	Cd	111	**1.146**	**ug/L**	4.357	658	0.006
	Cd	114		**ug/L**		1527	0.014
>	In	115		**ug/L**		107258	107257.572
	Sb	121	**3.154**	**ug/L**	3.007	7693	0.071
	Sb	123		**ug/L**		5880	0.054
>	Lu	175		**ug/L**		160090	160089.816
	Tl	205	**1.121**	**ug/L**	3.100	5979	0.036
	Pb	208	**2.315**	**ug/L**	1.062	19458	0.119
	U	238	**0.319**	**ug/L**	1.155	2950	0.017

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		97.7			
	Cr	52	116.299				
	Cr	53					
>	Ge	74		96.6			
	As	75	114.552				
	Se	77					
	Se	82	129.556				
	Kr	83					
	Mo	98	110.284				
	Ag	107	100.319				
	Cd	111	114.641				
	Cd	114					
>	In	115		98.3			
	Sb	121	157.693				
	Sb	123					
>	Lu	175		98.7			
	Tl	205	112.131				
	Pb	208	115.739				
	U	238	159.748				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Sb	121	CRDL is out of limits
QC Std 3	U	238	CRDL is out of limits

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, May 07, 2010 13:55:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 4.159

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		502435	502435.343
	Cr	52	**2.755**	ug/L	2.576	6676	0.011
	Cr	53		ug/L		56914	0.009
>	Ge	74		ug/L		169909	169908.584
	As	75	**0.564**	ug/L	112.080	650	0.002
	Se	77		ug/L		6568	0.014
	Se	82	**-0.790**	ug/L	40.241	-67	-0.000
	Kr	83		ug/L		159	0.000
	Mo	98	**2314.451**	ug/L	1.306	2932193	31.511
	Ag	107	**0.102**	ug/L	9.336	268	0.002
	Cd	111	**0.429**	ug/L	29.411	227	0.002
	Cd	114		ug/L		2500	0.026
>	In	115		ug/L		93052	93051.813
	Sb	121	**0.051**	ug/L	24.670	184	0.001
	Sb	123		ug/L		167	0.001
>	Lu	175		ug/L		147090	147089.772
	Tl	205	**0.004**	ug/L	79.229	203	0.000
	Pb	208	**0.248**	ug/L	5.775	2194	0.013
	U	238	**-0.018**	ug/L	5.876	62	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Di	Duplicate Rel. % Difference
>	Sc	45		87.8			
	Cr	52	74.446				
	Cr	53					
>	Ge	74		86.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98	115.723				
	Ag	107					
	Cd	111	107.333				
	Cd	114					
>	In	115		85.3			
	Sb	121	50.942				
	Sb	123					
>	Lu	175		90.7			
	Tl	205					
	Pb	208	124.151				
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, May 07, 2010 14:02:23
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 5.160

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		496221	496220.665
|	Cr	52	**24.433**	ug/L	1.511	50379	0.099
⌊	Cr	53		ug/L		59995	0.017
⌈>	Ge	74		ug/L		168814	168814.053
|	As	75	**21.733**	ug/L	3.572	11249	0.064
|	Se	77		ug/L		6823	0.016
|	Se	82	**22.217**	ug/L	3.022	724	0.005
⌊	Kr	83		ug/L		153	0.000
⌈	Mo	98	**2275.151**	ug/L	1.530	2890579	30.976
|	Ag	107	**21.173**	ug/L	1.640	41979	0.449
|	Cd	111	**22.048**	ug/L	1.645	10632	0.114
|	Cd	114		ug/L		26646	0.285
|>	In	115		ug/L		93324	93323.573
|	Sb	121	**21.769**	ug/L	2.181	45757	0.490
⌊	Sb	123		ug/L		35769	0.382
⌈>	Lu	175		ug/L		146568	146568.326
|	Tl	205	**20.549**	ug/L	1.422	97137	0.662
|	Pb	208	**21.510**	ug/L	1.262	162970	1.110
⌊	U	238	**23.313**	ug/L	0.786	182631	1.245

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		86.7			
	Cr	52	103.094				
	Cr	53					
>	Ge	74		86.1			
	As	75	108.663				
	Se	77					
	Se	82	111.086				
	Kr	83					
	Mo	98	113.758				
	Ag	107	105.867				
	Cd	111	108.079				
	Cd	114					
>	In	115		85.5			
	Sb	121	108.302				
	Sb	123					
>	Lu	175		90.4			
	Tl	205	102.743				
	Pb	208	106.486				
	U	238	116.565				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, May 07, 2010 14:08:54
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 6.161

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		553009	553008.867
	Cr	52	**52.284**	**ug/L**	1.670	118838	0.213
	Cr	53		**ug/L**		73140	0.028
>	Ge	74		**ug/L**		187750	187750.341
	As	75	**53.005**	**ug/L**	0.310	29929	0.157
	Se	77		**ug/L**		6867	0.012
	Se	82	**52.842**	**ug/L**	5.143	1977	0.011
	Kr	83		**ug/L**		121	-0.000
	Mo	98	**52.292**	**ug/L**	0.105	75529	0.712
	Ag	107	**52.998**	**ug/L**	2.386	119228	1.124
	Cd	111	**51.841**	**ug/L**	2.373	28358	0.267
	Cd	114		**ug/L**		66494	0.627
>	In	115		**ug/L**		105987	105987.140
	Sb	121	**51.945**	**ug/L**	1.586	123890	1.168
	Sb	123		**ug/L**		96338	0.908
>	Lu	175		**ug/L**		160862	160862.447
	Tl	205	**52.871**	**ug/L**	1.057	273990	1.702
	Pb	208	**53.585**	**ug/L**	1.642	445040	2.765
	U	238	**55.735**	**ug/L**	0.908	478974	2.976

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		96.7			
	Cr	52	104.569				
	Cr	53					
>	Ge	74		95.8			
	As	75	106.010				
	Se	77					
	Se	82	105.683				
	Kr	83					
	Mo	98	104.583				
	Ag	107	105.997				
	Cd	111	103.681				
	Cd	114					
>	In	115		97.1			
	Sb	121	103.889				
	Sb	123					
>	Lu	175		99.2			
	Tl	205	105.743				
	Pb	208	107.169				
	U	238	111.471				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, May 07, 2010 14:15:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 7.162

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		561026	561026.045
	Cr	52	-0.120	ug/L	22.510	889	-0.000
	Cr	53		ug/L		60339	0.004
>	Ge	74		ug/L		188927	188927.053
	As	75	-0.603	ug/L	38.395	66	-0.002
	Se	77		ug/L		5367	0.004
	Se	82	0.390	ug/L	142.020	-29	0.000
	Kr	83		ug/L		123	-0.000
	Mo	98	0.045	ug/L	17.585	135	0.001
	Ag	107	0.003	ug/L	203.825	82	0.000
	Cd	111	-0.015	ug/L	85.305	15	-0.000
	Cd	114		ug/L		56	0.000
>	In	115		ug/L		105173	105173.268
	Sb	121	0.031	ug/L	11.866	160	0.001
	Sb	123		ug/L		168	0.001
>	Lu	175		ug/L		159021	159020.773
	Tl	205	0.029	ug/L	10.716	346	0.001
	Pb	208	0.005	ug/L	78.222	374	0.000
	U	238	0.000	ug/L	7042.257	217	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		98.1			
	Cr	52					
	Cr	53					
>	Ge	74		96.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.4			
	Sb	121					
	Sb	123					
>	Lu	175		98.0			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 10
Sample Date/Time: Friday, May 07, 2010 14:21:58
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 10.163

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		532235	532235.287
	Cr	52	**1035.628**	**ug/L**	5.017	2240878	4.215
	Cr	53		**ug/L**		302160	0.465
>	Ge	74		**ug/L**		173890	173890.023
	As	75	**988.318**	**ug/L**	1.496	510266	2.933
	Se	77		**ug/L**		18834	0.084
	Se	82	**512.964**	**ug/L**	1.905	18129	0.105
	Kr	83		**ug/L**		232	0.001
	Mo	98	**1185.073**	**ug/L**	3.145	1482595	16.135
	Ag	107	**273.511**	**ug/L**	1.223	533385	5.802
	Cd	111	**1049.942**	**ug/L**	2.148	497640	5.415
	Cd	114		**ug/L**		1320840	14.372
>	In	115		**ug/L**		91918	91918.315
	Sb	121	**282.403**	**ug/L**	1.726	583741	6.351
	Sb	123		**ug/L**		455937	4.960
>	Lu	175		**ug/L**		156167	156166.586
	Tl	205	**554.199**	**ug/L**	1.348	2786563	17.843
	Pb	208	**5704.978**	**ug/L**	0.616	45975302	294.383
	U	238	**6182.206**	**ug/L**	1.122	51545034	330.081

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		93.0			
|	Cr	52	103.563				
⌊	Cr	53					
⌈>	Ge	74		88.7			
|	As	75	98.832				
|	Se	77					
|	Se	82	102.593				
⌊	Kr	83					
⌈	Mo	98	118.507				
|	Ag	107	109.405				
|	Cd	111	104.994				
|	Cd	114					
|>	In	115		84.2			
|	Sb	121	112.961				
⌊	Sb	123					
⌈>	Lu	175		96.3			
|	Tl	205	110.840				
|	Pb	208	114.100				
⌊	U	238	123.644				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 10	Mo	98	LRS is out of limits (+/- 10%)
QC Std 10	Sb	121	LRS is out of limits (+/- 10%)
QC Std 10	Tl	205	LRS is out of limits (+/- 10%)
QC Std 10	Pb	208	LRS is out of limits (+/- 10%)
QC Std 10	U	238	LRS is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 11
Sample Date/Time: Friday, May 07, 2010 14:28:28
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 11.164

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		543611	543611.281
	Cr	52	**51.762**	ug/L	0.312	115663	0.211
	Cr	53		ug/L		69413	0.024
>	Ge	74		ug/L		184489	184488.886
	As	75	**53.309**	ug/L	2.618	29575	0.158
	Se	77		ug/L		6392	0.010
	Se	82	**51.837**	ug/L	0.642	1905	0.011
	Kr	83		ug/L		155	0.000
	Mo	98	**52.039**	ug/L	2.667	73992	0.709
	Ag	107	**53.152**	ug/L	2.462	117724	1.127
	Cd	111	**52.177**	ug/L	1.984	28101	0.269
	Cd	114		ug/L		65601	0.628
>	In	115		ug/L		104359	104358.800
	Sb	121	**52.582**	ug/L	2.530	123463	1.183
	Sb	123		ug/L		95054	0.910
>	Lu	175		ug/L		159511	159511.189
	Tl	205	**53.801**	ug/L	1.518	276487	1.732
	Pb	208	**54.328**	ug/L	1.269	447501	2.803
	U	238	**56.547**	ug/L	2.264	481778	3.019

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		95.0			
	Cr	52	103.523				
	Cr	53					
>	Ge	74		94.1			
	As	75	106.617				
	Se	77					
	Se	82	103.673				
	Kr	83					
	Mo	98	104.078				
	Ag	107	106.304				
	Cd	111	104.354				
	Cd	114					
>	In	115		95.6			
	Sb	121	105.165				
	Sb	123					
>	Lu	175		98.3			
	Tl	205	107.602				
	Pb	208	108.657				
	U	238	113.093				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 11	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 12
Sample Date/Time: Friday, May 07, 2010 14:35:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 12.165

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		551887	551887.273
	Cr	52	-0.069	ug/L	57.667	990	-0.000
	Cr	53		ug/L		57344	0.000
>	Ge	74		ug/L		187699	187698.848
	As	75	-0.064	ug/L	1372.644	368	-0.000
	Se	77		ug/L		4955	0.002
	Se	82	-0.005	ug/L	4829.249	-44	-0.000
	Kr	83		ug/L		136	0.000
	Mo	98	0.075	ug/L	8.661	178	0.001
	Ag	107	0.016	ug/L	18.487	110	0.000
	Cd	111	0.014	ug/L	193.777	31	0.000
	Cd	114		ug/L		59	0.000
>	In	115		ug/L		104961	104961.137
	Sb	121	0.078	ug/L	11.533	272	0.002
	Sb	123		ug/L		239	0.001
>	Lu	175		ug/L		159726	159726.093
	Tl	205	0.069	ug/L	11.325	556	0.002
	Pb	208	0.019	ug/L	2.048	493	0.001
	U	238	0.027	ug/L	11.951	448	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		96.5			
	Cr	52					
	Cr	53					
>	Ge	74		95.7			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		96.2			
	Sb	121					
	Sb	123					
>	Lu	175		98.5			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056952
Sample Date/Time: Friday, May 07, 2010 14:41:33
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\1202056952.166

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		572245	572245.332
	Cr	52	**2.283**	ug/L	2.934	6507	0.009
	Cr	53		ug/L		170020	0.193
>	Ge	74		ug/L		185298	185298.434
	As	75	**0.608**	ug/L	222.858	730	0.002
	Se	77		ug/L		18925	0.077
	Se	82	**-0.347**	ug/L	167.432	-57	-0.000
	Kr	83		ug/L		141	0.000
	Mo	98	**0.049**	ug/L	36.614	134	0.001
	Ag	107	**0.029**	ug/L	31.271	135	0.001
	Cd	111	**0.090**	ug/L	67.652	69	0.000
	Cd	114		ug/L		9	-0.000
>	In	115		ug/L		100543	100542.952
	Sb	121	**0.127**	ug/L	6.950	371	0.003
	Sb	123		ug/L		365	0.003
>	Lu	175		ug/L		151632	151632.073
	Tl	205	**0.017**	ug/L	17.948	275	0.001
	Pb	208	**-0.008**	ug/L	15.287	256	-0.000
	U	238	**-0.007**	ug/L	19.963	147	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		100.0			
	Cr	52					
	Cr	53					
>	Ge	74		94.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		92.1			
	Sb	121					
	Sb	123					
>	Lu	175		93.5			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056953
Sample Date/Time: Friday, May 07, 2010 14:48:03
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\1202056953.167

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		559567	559566.779
	Cr	52	**58.611**	ug/L	2.170	134641	0.239
	Cr	53		ug/L		188671	0.233
>	Ge	74		ug/L		180686	180685.983
	As	75	**56.963**	ug/L	2.367	30923	0.169
	Se	77		ug/L		20614	0.089
	Se	82	**58.802**	ug/L	0.940	2122	0.012
	Kr	83		ug/L		162	0.000
	Mo	98	**58.130**	ug/L	3.460	76472	0.791
	Ag	107	**59.883**	ug/L	1.638	122721	1.270
	Cd	111	**57.983**	ug/L	1.923	28896	0.299
	Cd	114		ug/L		66607	0.689
>	In	115		ug/L		96563	96563.251
	Sb	121	**58.004**	ug/L	2.253	126021	1.304
	Sb	123		ug/L		97184	1.006
>	Lu	175		ug/L		146691	146690.910
	Tl	205	**55.291**	ug/L	0.812	261292	1.780
	Pb	208	**58.411**	ug/L	1.438	442370	3.014
	U	238	**61.559**	ug/L	2.374	482226	3.287

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		97.8			
	Cr	52					
	Cr	53					
>	Ge	74		92.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		88.5			
	Sb	121					
	Sb	123					
>	Lu	175		90.4			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056954
Sample Date/Time: Friday, May 07, 2010 15:01:05
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\1202056954.169

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		601162	601161.973
	Cr	52	**5.168**	**ug/L**	2.026	13892	0.021
	Cr	53		**ug/L**		174482	0.186
>	Ge	74		**ug/L**		185054	185054.097
	As	75	**-0.329**	**ug/L**	781.949	213	-0.001
	Se	77		**ug/L**		19612	0.081
	Se	82	**-0.622**	**ug/L**	39.112	-67	-0.000
	Kr	83		**ug/L**		166	0.000
	Mo	98	**2.301**	**ug/L**	3.338	3245	0.031
	Ag	107	**0.004**	**ug/L**	77.721	80	0.000
	Cd	111	**0.034**	**ug/L**	86.520	40	0.000
	Cd	114		**ug/L**		26	-0.000
>	In	115		**ug/L**		101451	101451.370
	Sb	121	**0.131**	**ug/L**	3.264	384	0.003
	Sb	123		**ug/L**		355	0.003
>	Lu	175		**ug/L**		151883	151882.761
	Tl	205	**0.038**	**ug/L**	9.747	379	0.001
	Pb	208	**0.011**	**ug/L**	29.547	409	0.001
	U	238	**0.334**	**ug/L**	1.082	2913	0.018

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		105.1			
	Cr	52					
	Cr	53					
>	Ge	74		94.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		93.0			
	Sb	121					
	Sb	123					
>	Lu	175		93.6			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056955
Sample Date/Time: Friday, May 07, 2010 15:07:36
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\1202056955.170

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		595641	595641.467
	Cr	52	55.748	ug/L	1.083	136384	0.227
	Cr	53		ug/L		187024	0.210
>	Ge	74		ug/L		182515	182514.613
	As	75	86.413	ug/L	2.482	47176	0.256
	Se	77		ug/L		19937	0.084
	Se	82	20.122	ug/L	1.418	705	0.004
	Kr	83		ug/L		195	0.000
	Mo	98	57.337	ug/L	1.021	75739	0.781
	Ag	107	57.322	ug/L	1.857	117937	1.216
	Cd	111	11.825	ug/L	4.338	5933	0.061
	Cd	114		ug/L		12827	0.132
>	In	115		ug/L		96937	96937.329
	Sb	121	219.616	ug/L	1.932	478818	4.939
	Sb	123		ug/L		373017	3.847
>	Lu	175		ug/L		150875	150874.698
	Tl	205	103.500	ug/L	2.975	502915	3.332
	Pb	208	43.783	ug/L	1.681	341185	2.259
	U	238	58.489	ug/L	0.372	471370	3.123

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		104.1			
	Cr	52					
	Cr	53					
>	Ge	74		93.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		88.8			
	Sb	121					
	Sb	123					
>	Lu	175		93.0			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056956
Sample Date/Time: Friday, May 07, 2010 15:14:07
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 959139|5|rmj
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\1202056956.171

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		553818	553817.773
	Cr	52	**1.215**	ug/L	8.028	3887	0.005
	Cr	53		ug/L		87378	0.054
>	Ge	74		ug/L		178605	178604.685
	As	75	**-0.668**	ug/L	72.400	28	-0.002
	Se	77		ug/L		8204	0.021
	Se	82	**-0.410**	ug/L	161.529	-57	-0.000
	Kr	83		ug/L		151	0.000
	Mo	98	**0.424**	ug/L	10.259	643	0.006
	Ag	107	**-0.008**	ug/L	75.511	55	-0.000
	Cd	111	**0.003**	ug/L	634.331	24	0.000
	Cd	114		ug/L		45	-0.000
>	In	115		ug/L		99822	99822.009
	Sb	121	**0.043**	ug/L	26.723	178	0.001
	Sb	123		ug/L		181	0.001
>	Lu	175		ug/L		147097	147097.082
	Tl	205	**0.197**	ug/L	12.682	1116	0.006
	Pb	208	**0.009**	ug/L	69.069	382	0.000
	U	238	**0.046**	ug/L	6.854	558	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		96.8			
	Cr	52					
	Cr	53					
>	Ge	74		91.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		91.5			
	Sb	121					
	Sb	123					
>	Lu	175		90.7			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248044001
Sample Date/Time: Friday, May 07, 2010 15:27:11
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\248044001.173

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		581126	581126.419
	Cr	52	4.486	ug/L	6.662	11812	0.018
	Cr	53		ug/L		181283	0.208
>	Ge	74		ug/L		178540	178540.305
	As	75	0.551	ug/L	482.961	682	0.002
	Se	77		ug/L		21448	0.095
	Se	82	-0.602	ug/L	61.551	-64	-0.000
	Kr	83		ug/L		162	0.000
	Mo	98	0.528	ug/L	5.101	764	0.007
	Ag	107	0.009	ug/L	21.415	89	0.000
	Cd	111	0.024	ug/L	78.644	34	0.000
	Cd	114		ug/L		30	-0.000
>	In	115		ug/L		97201	97200.690
	Sb	121	0.059	ug/L	4.154	210	0.001
	Sb	123		ug/L		259	0.002
>	Lu	175		ug/L		148012	148011.801
	Tl	205	0.038	ug/L	12.370	366	0.001
	Pb	208	0.256	ug/L	3.414	2269	0.013
	U	238	0.025	ug/L	15.291	399	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		101.6			
	Cr	52					
	Cr	53					
>	Ge	74		91.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		89.1			
	Sb	121					
	Sb	123					
>	Lu	175		91.3			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, May 07, 2010 15:33:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 8.174

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		555412	555412.146
	Cr	52	**52.353**	**ug/L**	2.604	119489	0.213
	Cr	53		**ug/L**		77411	0.036
>	Ge	74		**ug/L**		183513	183513.186
	As	75	**54.076**	**ug/L**	0.822	29837	0.160
	Se	77		**ug/L**		6916	0.013
	Se	82	**54.365**	**ug/L**	2.337	1990	0.011
	Kr	83		**ug/L**		150	0.000
	Mo	98	**52.101**	**ug/L**	1.292	72717	0.709
	Ag	107	**53.257**	**ug/L**	1.319	115771	1.130
	Cd	111	**53.291**	**ug/L**	1.213	28170	0.275
	Cd	114		**ug/L**		66178	0.646
>	In	115		**ug/L**		102415	102414.628
	Sb	121	**53.578**	**ug/L**	1.855	123482	1.205
	Sb	123		**ug/L**		95055	0.927
>	Lu	175		**ug/L**		156161	156160.767
	Tl	205	**52.911**	**ug/L**	1.011	266212	1.703
	Pb	208	**54.045**	**ug/L**	1.152	435830	2.789
	U	238	**57.230**	**ug/L**	0.542	477380	3.056

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		97.1			
	Cr	52	104.706				
	Cr	53					
>	Ge	74		93.6			
	As	75	108.151				
	Se	77					
	Se	82	108.731				
	Kr	83					
	Mo	98	104.201				
	Ag	107	106.515				
	Cd	111	106.583				
	Cd	114					
>	In	115		93.9			
	Sb	121	107.155				
	Sb	123					
>	Lu	175		96.3			
	Tl	205	105.822				
	Pb	208	108.090				
	U	238	114.460				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, May 07, 2010 15:40:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 9.175

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		569385	569385.177
	Cr	52	0.099	ug/L	45.092	1410	0.000
	Cr	53		ug/L		59944	0.001
>	Ge	74		ug/L		186994	186994.101
	As	75	0.157	ug/L	336.828	489	0.000
	Se	77		ug/L		5123	0.003
	Se	82	-0.459	ug/L	29.447	-61	-0.000
	Kr	83		ug/L		139	0.000
	Mo	98	0.022	ug/L	25.642	102	0.000
	Ag	107	0.002	ug/L	187.438	79	0.000
	Cd	111	0.015	ug/L	171.371	31	0.000
	Cd	114		ug/L		49	-0.000
>	In	115		ug/L		104425	104425.453
	Sb	121	0.032	ug/L	2.738	161	0.001
	Sb	123		ug/L		165	0.001
>	Lu	175		ug/L		155593	155593.165
	Tl	205	0.047	ug/L	11.485	429	0.001
	Pb	208	0.008	ug/L	45.382	395	0.000
	U	238	0.009	ug/L	4.486	288	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		99.5			
	Cr	52					
	Cr	53					
>	Ge	74		95.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		95.7			
	Sb	121					
	Sb	123					
>	Lu	175		95.9			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248044002
Sample Date/Time: Friday, May 07, 2010 15:46:49
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\248044002.176

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		598691	598691.183
	Cr	52	6.724	ug/L	3.866	17626	0.027
	Cr	53		ug/L		171399	0.182
>	Ge	74		ug/L		182625	182624.669
	As	75	-0.245	ug/L	298.895	261	-0.001
	Se	77		ug/L		20533	0.088
	Se	82	-0.571	ug/L	107.170	-64	-0.000
	Kr	83		ug/L		166	0.000
	Mo	98	0.716	ug/L	5.310	1010	0.010
	Ag	107	0.125	ug/L	1.532	326	0.003
	Cd	111	0.074	ug/L	34.097	58	0.000
	Cd	114		ug/L		44	-0.000
>	In	115		ug/L		96960	96959.747
	Sb	121	0.121	ug/L	3.572	344	0.003
	Sb	123		ug/L		366	0.003
>	Lu	175		ug/L		151148	151148.379
	Tl	205	0.067	ug/L	11.531	516	0.002
	Pb	208	2.692	ug/L	1.433	21316	0.139
	U	238	0.217	ug/L	4.343	1954	0.012

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		104.6			
	Cr	52					
	Cr	53					
>	Ge	74		93.1			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		88.9			
	Sb	121					
	Sb	123					
>	Lu	175		93.2			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248044003
Sample Date/Time: Friday, May 07, 2010 15:53:20
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\248044003.177

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		597616	597616.050
	Cr	52	**4.161**	ug/L	3.254	11362	0.017
	Cr	53		ug/L		176870	0.192
>	Ge	74		ug/L		180386	180386.244
	As	75	**0.149**	ug/L	280.933	465	0.000
	Se	77		ug/L		21711	0.096
	Se	82	**-0.716**	ug/L	12.896	-68	-0.000
	Kr	83		ug/L		171	0.000
	Mo	98	**11.241**	ug/L	1.409	15115	0.153
	Ag	107	**-0.005**	ug/L	35.830	59	-0.000
	Cd	111	**-0.014**	ug/L	303.506	15	-0.000
	Cd	114		ug/L		57	0.000
>	In	115		ug/L		98333	98332.618
	Sb	121	**0.802**	ug/L	1.412	1855	0.018
	Sb	123		ug/L		1524	0.015
>	Lu	175		ug/L		149524	149524.042
	Tl	205	**0.029**	ug/L	7.256	326	0.001
	Pb	208	**0.013**	ug/L	26.674	414	0.001
	U	238	**1.105**	ug/L	0.210	9023	0.059

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		104.5			
	Cr	52					
	Cr	53					
>	Ge	74		92.0			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.1			
	Sb	121					
	Sb	123					
>	Lu	175		92.2			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248044004
Sample Date/Time: Friday, May 07, 2010 15:59:51
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\248044004.178

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		581614	581613.779
	Cr	52	4.979	ug/L	3.288	12993	0.020
	Cr	53		ug/L		182723	0.210
>	Ge	74		ug/L		177463	177462.611
	As	75	1.191	ug/L	107.444	1005	0.004
	Se	77		ug/L		22176	0.100
	Se	82	-0.150	ug/L	308.415	-47	-0.000
	Kr	83		ug/L		152	0.000
	Mo	98	12.120	ug/L	4.772	15935	0.165
	Ag	107	-0.002	ug/L	352.985	64	-0.000
	Cd	111	0.022	ug/L	114.746	32	0.000
	Cd	114		ug/L		72	0.000
>	In	115		ug/L		96276	96276.324
	Sb	121	0.672	ug/L	3.911	1534	0.015
	Sb	123		ug/L		1284	0.012
>	Lu	175		ug/L		147551	147551.125
	Tl	205	0.022	ug/L	10.257	288	0.001
	Pb	208	0.174	ug/L	3.908	1639	0.009
	U	238	1.164	ug/L	2.315	9369	0.062

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		101.7			
	Cr	52					
	Cr	53					
>	Ge	74		90.5			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		88.2			
	Sb	121					
	Sb	123					
>	Lu	175		91.0			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248044005
Sample Date/Time: Friday, May 07, 2010 16:06:22
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\248044005.179

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		575037	575037.152
	Cr	52	3.827	ug/L	5.112	10149	0.016
	Cr	53		ug/L		183671	0.216
>	Ge	74		ug/L		179551	179550.829
	As	75	-1.542	ug/L	120.382	-432	-0.005
	Se	77		ug/L		21263	0.094
	Se	82	-0.154	ug/L	322.158	-48	-0.000
	Kr	83		ug/L		144	0.000
	Mo	98	0.001	ug/L	833.007	67	0.000
	Ag	107	-0.011	ug/L	56.561	47	-0.000
	Cd	111	-0.013	ug/L	120.071	16	-0.000
	Cd	114		ug/L		34	-0.000
>	In	115		ug/L		98232	98232.251
	Sb	121	0.006	ug/L	44.234	95	0.000
	Sb	123		ug/L		149	0.001
>	Lu	175		ug/L		147829	147829.232
	Tl	205	-0.009	ug/L	20.059	145	-0.000
	Pb	208	-0.014	ug/L	26.822	206	-0.001
	U	238	-0.022	ug/L	6.548	32	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		100.5			
	Cr	52					
	Cr	53					
>	Ge	74		91.6			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.0			
	Sb	121					
	Sb	123					
>	Lu	175		91.1			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248044006
Sample Date/Time: Friday, May 07, 2010 16:12:54
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\248044006.180

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		575163	575163.392
	Cr	52	3.492	ug/L	3.611	9370	0.014
	Cr	53		ug/L		179786	0.209
>	Ge	74		ug/L		181094	181094.151
	As	75	-1.235	ug/L	148.487	-276	-0.004
	Se	77		ug/L		20573	0.089
	Se	82	-0.460	ug/L	60.210	-59	-0.000
	Kr	83		ug/L		147	0.000
	Mo	98	-0.006	ug/L	36.708	58	-0.000
	Ag	107	-0.003	ug/L	94.963	64	-0.000
	Cd	111	-0.001	ug/L	818.266	21	-0.000
	Cd	114		ug/L		36	-0.000
>	In	115		ug/L		98215	98214.640
	Sb	121	0.008	ug/L	11.601	98	0.000
	Sb	123		ug/L		137	0.000
>	Lu	175		ug/L		149548	149547.566
	Tl	205	-0.011	ug/L	39.655	137	-0.000
	Pb	208	-0.018	ug/L	7.484	175	-0.001
	U	238	-0.023	ug/L	1.715	23	-0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		100.5			
	Cr	52					
	Cr	53					
>	Ge	74		92.4			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		90.0			
	Sb	121					
	Sb	123					
>	Lu	175		92.2			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, May 07, 2010 16:19:26
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 8.181

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		559201	559200.952
	Cr	52	**51.073**	ug/L	1.298	117410	0.208
	Cr	53		ug/L		77739	0.035
>	Ge	74		ug/L		181752	181751.990
	As	75	**53.276**	ug/L	2.419	29112	0.158
	Se	77		ug/L		6971	0.014
	Se	82	**53.774**	ug/L	1.050	1949	0.011
	Kr	83		ug/L		145	0.000
	Mo	98	**52.163**	ug/L	3.167	72106	0.710
	Ag	107	**54.342**	ug/L	3.067	116997	1.153
	Cd	111	**53.125**	ug/L	3.454	27811	0.274
	Cd	114		ug/L		64965	0.640
>	In	115		ug/L		101467	101467.094
	Sb	121	**53.321**	ug/L	2.010	121728	1.199
	Sb	123		ug/L		93981	0.925
>	Lu	175		ug/L		153581	153581.176
	Tl	205	**53.845**	ug/L	1.585	266423	1.734
	Pb	208	**54.721**	ug/L	2.245	433878	2.824
	U	238	**58.355**	ug/L	1.197	478701	3.116

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		97.7			
|	Cr	52	102.146				
⌊	Cr	53					
⌈>	Ge	74		92.7			
|	As	75	106.551				
|	Se	77					
|	Se	82	107.547				
⌊	Kr	83					
⌈	Mo	98	104.325				
|	Ag	107	108.684				
|	Cd	111	106.250				
|	Cd	114					
|>	In	115		93.0			
|	Sb	121	106.641				
⌊	Sb	123					
⌈>	Lu	175		94.7			
|	Tl	205	107.689				
|	Pb	208	109.441				
⌊	U	238	116.710				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	U	238	CCV is out of limits (+/- 10%)

QC Action

QC Action Line: Continue

ICPMS#6 - Summary Report

Sample ID: QC Std 9
Sample Date/Time: Friday, May 07, 2010 16:25:59
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\lanl mo.mth
Dataset File: c:\elandata\dataset\100506\QC Std 9.182

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		564667	564666.530
	Cr	52	**0.132**	**ug/L**	32.425	1476	0.001
	Cr	53		**ug/L**		60246	0.003
>	Ge	74		**ug/L**		184765	184764.901
	As	75	**-0.723**	**ug/L**	85.225	-5	-0.002
	Se	77		**ug/L**		5252	0.004
	Se	82	**0.027**	**ug/L**	1230.453	-42	0.000
	Kr	83		**ug/L**		120	-0.000
	Mo	98	**0.018**	**ug/L**	51.135	95	0.000
	Ag	107	**0.006**	**ug/L**	25.066	87	0.000
	Cd	111	**-0.004**	**ug/L**	432.749	21	-0.000
	Cd	114		**ug/L**		51	0.000
>	In	115		**ug/L**		103262	103261.745
	Sb	121	**0.037**	**ug/L**	12.554	171	0.001
	Sb	123		**ug/L**		154	0.001
>	Lu	175		**ug/L**		154075	154074.676
	Tl	205	**0.041**	**ug/L**	14.373	399	0.001
	Pb	208	**0.008**	**ug/L**	31.415	392	0.000
	U	238	**0.008**	**ug/L**	17.503	274	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Cr	52	Linear Thru Zero	1.0000
Cr	53	Linear Thru Zero	
Ge	74	Linear Thru Zero	
As	75	Linear Thru Zero	1.0000
Se	77	Linear Thru Zero	
Se	82	Linear Thru Zero	1.0000
Kr	83	Linear Thru Zero	
Mo	98	Linear Thru Zero	1.0000
Ag	107	Linear Thru Zero	1.0000
Cd	111	Linear Thru Zero	1.0000
Cd	114	Linear Thru Zero	
In	115	Linear Thru Zero	
Sb	121	Linear Thru Zero	1.0000
Sb	123	Linear Thru Zero	
Lu	175	Linear Thru Zero	
Tl	205	Linear Thru Zero	1.0000
Pb	208	Linear Thru Zero	1.0000
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		98.7			
	Cr	52					
	Cr	53					
>	Ge	74		94.2			
	As	75					
	Se	77					
	Se	82					
	Kr	83					
	Mo	98					
	Ag	107					
	Cd	111					
	Cd	114					
>	In	115		94.6			
	Sb	121					
	Sb	123					
>	Lu	175		95.0			
	Tl	205					
	Pb	208					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out-of-limits detected

ICPMS #6 Daily Performance Report

Sample ID: Sample
Sample Date/Time: Saturday, May 08, 2010 00:08:07
Sample Description:
Method File: C:\elandata\Method\Daily2.mth
Dataset File: c:\elandata\Dataset\100506\Sample.240
Tuning File: c:\elandata\Tuning\default2.tun
Optimization File: c:\elandata\Optimize\default.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35
Current Dead Time (ns): 35

Number of Replicates: 5

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Be	9.0	2284.6	2284.583	48.965	2.1
	Mg	24.0	317292.5	317292.525	6701.235	2.1
	Co	58.9	27600.6	27600.647	584.552	2.1
	Rh	102.9	55924.1	55924.051	301.450	0.5
	In	114.9	65837.0	65836.970	636.520	1.0
	Pb	208.0	45715.8	45715.836	429.021	0.9
⌈>	Ba	137.9	78143.4	78143.376	1381.108	1.8
⌊	Ba++	69.0	827.6	0.011	0.000	2.6
⌈>	Ce	139.9	78074.6	78074.579	685.417	0.9
⌊	CeO	155.9	1034.2	0.013	0.000	2.3
	Bkgd	220.0	22.8	22.800	0.908	4.0

Current Optimization File Data

Current Value	Description
0.74	Nebulizer Gas Flow
9.00	Lens Voltage
1450.00	ICP RF Power
-2300.00	Analog Stage Voltage
900.00	Pulse Stage Voltage
50.00	Discriminator Threshold
-6.00	AC Rod Offset

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	17	7.5	2694.3
Co	59	17	8.0	25560.5
In	115	17	9.5	60337.8

ICPMS #6 Instrument Tuning Report

File Name: default2.tun
File Path: c:\elandata\Tuning

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width
He	3.0	3.0	576	2080	0.650
Be	9.0	9.1	2045	2080	0.682
Mg	24.0	24.0	5684	2120	0.640
Mg	25.0	25.0	5911	2080	0.669
Mg	26.0	26.0	6174	2120	0.672
Co	58.9	58.9	14162	2170	0.634
Rh	102.9	102.9	24858	2230	0.690
In	114.9	115.0	27785	2260	0.675
Ce	139.9	139.9	33847	2280	0.746
Pb	206.0	206.0	49948	2424	0.758
Pb	207.0	207.0	50125	2385	0.678
Pb	208.0	208.0	50463	2430	0.704
U	238.1	238.1	57733	2470	0.700

Report Date/Time: Friday, May 07, 2010 23:53:54

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, May 08, 2010 04:49:38
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\Blank.068

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		157393	
	U	238		ug/L		57	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Simple Linear	
U	238	Simple Linear	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, May 08, 2010 04:53:33
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\Standard 1.069

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		157806	157805.814
	U	238	10.000	ug/L	0.391	98776	0.626

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, May 08, 2010 04:57:24
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\Standard 2.070

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		154438	154438.154
	U	238	99.989	ug/L	1.267	955296	6.186

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175					
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, May 08, 2010 05:01:17
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 1.071

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		153121	153121.433
⌊	U	238	54.557	ug/L	0.089	516915	3.375

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		97.3			
⌊	U	238	109.114				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, May 08, 2010 05:05:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 2.072

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		153313	153312.824
	U	238	0.006	ug/L	18.999	108	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		97.4			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, May 08, 2010 05:09:07
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 3.073

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		153344	153344.162
	U	238	0.259	ug/L	2.091	2516	0.016

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		97.4			
	U	238	129.635				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, May 08, 2010 05:13:00
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 4.074

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		154429	154429.098
	U	238	0.001	ug/L	52.850	62	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		98.1			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, May 08, 2010 05:16:55
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 5.075

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		155101	155101.381
	U	238	20.571	ug/L	1.174	197444	1.273

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		98.5			
	U	238	102.855				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 08, 2010 05:20:48
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 6.076

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		161542	161542.188
⌊	U	238	49.235	ug/L	0.407	492136	3.046

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		102.6			
⌊	U	238	98.469				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 08, 2010 05:24:43
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 7.077

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		158134	158134.027
	U	238	0.004	ug/L	28.355	92	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		100.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056952
Sample Date/Time: Saturday, May 08, 2010 05:28:38
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\1202056952.078

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		167499	167498.817
	U	238	0.002	ug/L	27.714	81	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		106.4			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056953
Sample Date/Time: Saturday, May 08, 2010 05:34:01
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\1202056953.079

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		169708	169707.893
⌊	U	238	48.651	ug/L	1.270	510856	3.010

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		107.8			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056954
Sample Date/Time: Saturday, May 08, 2010 05:41:48
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\1202056954.081

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		170575	170575.028
	U	238	**0.295**	**ug/L**	1.010	3171	0.018

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		108.4			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056955
Sample Date/Time: Saturday, May 08, 2010 05:45:41
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\1202056955.082

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		**ug/L**		170832	170832.393
	U	238	**48.025**	**ug/L**	0.306	507665	2.971

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		108.5			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056956
Sample Date/Time: Saturday, May 08, 2010 05:49:35
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 959139|5|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\1202056956.083

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		170435	170434.744
⌊	U	238	0.060	ug/L	3.208	692	0.004

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		108.3			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248044001
Sample Date/Time: Saturday, May 08, 2010 05:57:24
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\248044001.085

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		170511	170511.292
⌊	U	238	0.029	ug/L	7.906	371	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		108.3			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 08, 2010 06:01:18
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 6.086

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		163778	163778.259
	U	238	49.497	ug/L	0.592	501586	3.062

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		104.1			
	U	238	98.993				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 08, 2010 06:05:12
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 7.087

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		165072	165072.241
⌊	U	238	0.004	ug/L	6.678	99	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		104.9			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248044002
Sample Date/Time: Saturday, May 08, 2010 06:09:08
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\248044002.088

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		173107	173106.970
⌊	U	238	0.193	ug/L	1.701	2128	0.012

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		110.0			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248044003
Sample Date/Time: Saturday, May 08, 2010 06:13:01
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\248044003.089

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		**ug/L**		171157	171156.620
⌊	U	238	**0.883**	**ug/L**	0.405	9418	0.055

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Lu	175		108.7			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248044004
Sample Date/Time: Saturday, May 08, 2010 06:16:55
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\248044004.090

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		170373	170373.086
	U	238	0.936	ug/L	0.218	9925	0.058

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		108.2			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248044005
Sample Date/Time: Saturday, May 08, 2010 06:20:49
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\248044005.091

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		170571	170570.976
⌊	U	238	-0.003	ug/L	13.696	34	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		108.4			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248044006
Sample Date/Time: Saturday, May 08, 2010 06:24:43
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\248044006.092

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		170479	170479.257
	U	238	-0.004	ug/L	0.520	23	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Lu	175		108.3			
	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 08, 2010 06:28:36
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 6.093

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Lu	175		ug/L		164723	164723.464
	U	238	48.446	ug/L	1.105	493727	2.997

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Lu	175		104.7			
	U	238	96.892				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 08, 2010 06:32:31
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\u.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 7.094

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Lu	175		ug/L		166244	166243.739
⌊	U	238	0.003	ug/L	34.922	95	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Lu	175	Linear Thru Zero	
U	238	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Lu	175		105.6			
⌊	U	238					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Blank
Sample Date/Time: Saturday, May 08, 2010 13:03:40
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\Blank.189

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		555913	
⌊	Ni	60		ug/L		168	

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45					
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Saturday, May 08, 2010 13:07:05
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\Standard 1.190

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		522746	522745.783
	Ni	60	10.000	ug/L	1.510	5472	0.010

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45					
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Saturday, May 08, 2010 13:10:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\Standard 2.191

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		512836	512835.837
⌊	Ni	60	99.995	ug/L	1.821	52040	0.101

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45					
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Saturday, May 08, 2010 13:13:49
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 1.192

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		515781	515781.185
	Ni	60	52.422	ug/L	1.952	27512	0.053

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		92.8			
	Ni	60	104.844				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Saturday, May 08, 2010 13:17:14
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 2.193

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		574668	574667.797
⌊	Ni	60	**-0.005**	**ug/L**	800.107	170	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		103.4			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Saturday, May 08, 2010 13:20:39
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 3.194

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		517050	517049.582
	Ni	60	**2.217**	**ug/L**	1.604	1316	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		93.0			
	Ni	60	110.850				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Saturday, May 08, 2010 13:24:03
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 4.195

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		491976	491976.228
⌊	Ni	60	2.358	ug/L	4.592	1322	0.002

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		88.5			
⌊	Ni	60	71.231				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Saturday, May 08, 2010 13:27:27
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 5.196

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		488644	488643.668
	Ni	60	21.090	ug/L	1.026	10576	0.021

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		87.9			
	Ni	60	92.907				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 08, 2010 13:30:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 6.197

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		504200	504200.361
	Ni	60	53.246	ug/L	0.247	27317	0.054

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		90.7			
	Ni	60	106.491				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 08, 2010 13:34:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 7.198

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		541910	541909.763
	Ni	60	-0.030	ug/L	65.091	148	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		97.5			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056952
Sample Date/Time: Saturday, May 08, 2010 13:37:41
Sample Type:
Sample Description: LANL 6020 MB
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\1202056952.199

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		575327	575327.443
⌊	Ni	60	-0.029	ug/L	63.160	157	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45		103.5			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056953
Sample Date/Time: Saturday, May 08, 2010 13:41:34
Sample Type:
Sample Description: LANL 6020 LCS
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\1202056953.200

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		581647	581646.863
	Ni	60	**48.558**	**ug/L**	0.688	28755	0.049

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		104.6			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056954
Sample Date/Time: Saturday, May 08, 2010 13:49:21
Sample Type:
Sample Description: LANL 6020 DUP
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\1202056954.202

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		618421	618420.514
	Ni	60	1.045	ug/L	2.091	841	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		111.2			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056955
Sample Date/Time: Saturday, May 08, 2010 13:53:14
Sample Type:
Sample Description: LANL 6020 MS
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\1202056955.203

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		613833	613832.585
	Ni	60	46.217	ug/L	0.597	28893	0.047

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		110.4			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 1202056956
Sample Date/Time: Saturday, May 08, 2010 13:57:08
Sample Type:
Sample Description: LANL 6020 SDILT
Number of Replicates: 3
Batch ID: 959139|5|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\1202056956.204

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		579292	579292.386
	Ni	60	0.133	ug/L	12.417	253	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		104.2			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248044001
Sample Date/Time: Saturday, May 08, 2010 14:04:57
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\248044001.206

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		604477	604476.542
	Ni	60	**0.677**	**ug/L**	4.265	597	0.001

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		108.7			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 08, 2010 14:08:51
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 6.207

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		ug/L		537568	537567.552
⌊	Ni	60	50.821	ug/L	1.491	27809	0.051

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45		96.7			
⌊	Ni	60	101.642				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 08, 2010 14:12:16
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 7.208

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		587918	587917.530
	Ni	60	-0.057	ug/L	28.328	144	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		105.8			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248044002
Sample Date/Time: Saturday, May 08, 2010 14:15:41
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\248044002.209

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		621554	621554.297
	Ni	60	**25.032**	**ug/L**	0.226	15931	0.025

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		111.8			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248044003
Sample Date/Time: Saturday, May 08, 2010 14:19:35
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\248044003.210

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		624500	624499.686
	Ni	60	**14.443**	**ug/L**	1.136	9316	0.015

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		112.3			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248044004
Sample Date/Time: Saturday, May 08, 2010 14:23:28
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\248044004.211

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		612138	612137.891
⌊	Ni	60	**12.657**	**ug/L**	1.522	8026	0.013

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45		110.1			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248044005
Sample Date/Time: Saturday, May 08, 2010 14:27:22
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\248044005.212

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		594161	594160.671
⌊	Ni	60	**0.349**	**ug/L**	16.958	389	0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
⌈>	Sc	45		106.9			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: 248044006
Sample Date/Time: Saturday, May 08, 2010 14:31:16
Sample Type:
Sample Description: LANL 6020
Number of Replicates: 3
Batch ID: 959139|1|rmj
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\248044006.213

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		**ug/L**		592140	592140.007
	Ni	60	**-0.004**	**ug/L**	665.722	177	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dif	Duplicate Rel. % Difference
>	Sc	45		106.5			
	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Saturday, May 08, 2010 14:35:10
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 6.214

Concentration Results

	Analyte	Mass	Conc. Mean	Report Unit	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
>	Sc	45		ug/L		535530	535530.205
	Ni	60	50.794	ug/L	1.494	27682	0.051

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
>	Sc	45		96.3			
	Ni	60	101.587				

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

ICPMS#6 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Saturday, May 08, 2010 14:38:35
Sample Type:
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: c:\elandata\Method\ni.mth
Dataset File: C:\elandata\Dataset\100507\QC Std 7.215

Concentration Results

	Analyte	Mass	**Conc. Mean**	**Report Unit**	Conc. RSD	Meas. Intens. Mean	Net Intens. Mean
⌈>	Sc	45		**ug/L**		570867	570867.308
⌊	Ni	60	**-0.039**	**ug/L**	36.159	150	-0.000

Calibration

Analyte	Mass	Curve Type	Correlation Coefficient
Sc	45	Linear Thru Zero	
Ni	60	Linear Thru Zero	1.0000

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recov	Dilution % Dil	Duplicate Rel. % Difference
⌈>	Sc	45		102.7			
⌊	Ni	60					

QC Out Of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

QC Action

QC Action Line: No QC out of limits detected

==========

Analysis Begun

Logged In Analyst: Administrator **Technique: AA FIMS-MHS**
Spectrometer Model: FIMS-100, S/N B050-9550 **Autosampler Model: S10**

Sample Information File: C:\data-AA\Administrator\Sample Information\030210W1.SIF
Batch ID:
Results Data Set: 030210W3
Results Library: C:\data-AA\Administrator\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank **Date Collected: 3/2/2010 08:26:33**
Analyst: **Data Type: Original**

Replicate Data: Calib Blank

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.00]	0.0006	0.0027	0.0006	08:27:33	Yes
2		[0.00]	0.0006	0.0025	0.0006	08:28:08	Yes
Mean:		[0.00]	0.0006				
SD:		0.00	0.0000				
%RSD:		0.00	8.04				

Auto-zero performed.

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: S0.2 **Date Collected: 3/2/2010 08:28:26**
Analyst: **Data Type: Original**

Replicate Data: S0.2

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.2]	0.0021	0.0131	0.0027	08:29:27	Yes
2		[0.2]	0.0021	0.0122	0.0028	08:30:02	Yes
Mean:		[0.2]	0.0021				
SD:		0.0	0.0000				
%RSD:		0.0	0.35				

Standard number 1 applied. [0.2]
Correlation Coef.: 1.000000 Slope: 0.01068 Intercept: 0.00000

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: S0.5 **Date Collected: 3/2/2010 08:30:21**
Analyst: **Data Type: Original**

Replicate Data: S0.5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[0.5]	0.0054	0.0299	0.0060	08:31:22	Yes
2		[0.5]	0.0055	0.0282	0.0061	08:31:57	Yes
Mean:		[0.5]	0.0055				
SD:		0.0	0.0001				
%RSD:		0.0	1.42				

Standard number 2 applied. [0.5]
Correlation Coef.: 0.999936 Slope: 0.01097 Intercept: -0.00002

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: S2.0 **Date Collected: 3/2/2010 08:32:17**
Analyst: **Data Type: Original**

Replicate Data: S2.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored

1	[2.0]	0.0209	0.1041	0.0215	08:33:18	Yes
2	[2.0]	0.0206	0.1004	0.0212	08:33:53	Yes
Mean:	[2.0]	0.0207				
SD:	0.0	0.0002				
%RSD:	0.0	0.90				

Standard number 3 applied. [2.0]
Correlation Coef.: 0.999896 Slope: 0.01034 Intercept: 0.00011

==========

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: S5.0 **Date Collected: 3/2/2010 08:34:13**
Analyst: **Data Type: Original**

Replicate Data: S5.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[5.0]	0.0520	0.2558	0.0526	08:35:15	Yes
2		[5.0]	0.0500	0.2379	0.0506	08:35:49	Yes
Mean:		[5.0]	0.0510				
SD:		0.0	0.0014				
%RSD:		0.0	2.77				

Standard number 4 applied. [5.0]
Correlation Coef.: 0.999965 Slope: 0.01018 Intercept: 0.00020

==========

Sequence No.: 6 **Autosampler Location: 6**
Sample ID: S10.0 **Date Collected: 3/2/2010 08:36:10**
Analyst: **Data Type: Original**

Replicate Data: S10.0

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1		[10.0]	0.1058	0.5210	0.1064	08:37:10	Yes
2		[10.0]	0.1077	0.5459	0.1083	08:37:45	Yes
Mean:		[10.0]	0.1068				
SD:		0.0	0.0014				
%RSD:		0.0	1.27				

Standard number 5 applied. [10.0]
Correlation Coef.: 0.999746 Slope: 0.01062 Intercept: -0.00030

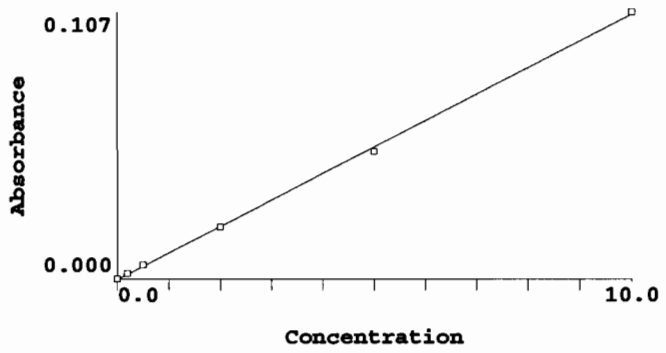

Calibration data for Hg 253.7 **Equation: Linear, Calculated Intercept**

ID	Mean Signal (Abs)	Entered Conc. ug/L	Calculated Conc. ug/L	Standard Deviation	%RSD
Calib Blank	0.0000	0	0.028	0.00	8.0
S0.2	0.0021	0.2	0.229	0.00	0.4
S0.5	0.0055	0.5	0.544	0.00	1.4
S2.0	0.0207	2.0	1.982	0.00	0.9
S5.0	0.0510	5.0	4.832	0.00	2.8
S10.0	0.1068	10.0	10.085	0.00	1.3

Correlation Coef.: 0.999746 Slope: 0.01062 Intercept: -0.00030

==========

Sequence No.: 7 **Autosampler Location: 9**
Sample ID: ICV **Date Collected: 3/2/2010 08:38:04**
Analyst: **Data Type: Original**

Replicate Data: ICV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.221	5.221	0.0551	0.2819	0.0557	08:39:05	Yes
2	5.176	5.176	0.0547	0.2755	0.0553	08:39:40	Yes
Mean:	5.199	5.199	0.0549				
SD:	0.032	0.032	0.0003				
%RSD:	0.612	0.612	0.61				

QC value within limits for Hg 253.7 Recovery = 103.98%
All analyte(s) passed QC.

Sequence No.: 8 **Autosampler Location: 10**
Sample ID: ICB **Date Collected: 3/2/2010 08:40:00**
Analyst: **Data Type: Original**

Replicate Data: ICB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.031	0.031	0.0000	0.0024	0.0006	08:41:01	Yes
2	0.039	0.039	0.0001	0.0036	0.0007	08:41:36	Yes
Mean:	0.035	0.035	0.0001				
SD:	0.006	0.006	0.0001				
%RSD:	15.89	15.89	82.13				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: CRDL **Date Collected: 3/2/2010 08:41:56**
Analyst: **Data Type: Original**

Replicate Data: CRDL

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.234	0.234	0.0022	0.0142	0.0028	08:42:57	Yes
2	0.245	0.245	0.0023	0.0156	0.0029	08:43:32	Yes
Mean:	0.240	0.240	0.0022				
SD:	0.008	0.008	0.0001				
%RSD:	3.187	3.187	3.61				

QC value within limits for Hg 253.7 Recovery = 119.76%
All analyte(s) passed QC.

Sequence No.: 10 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 08:43:52**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.182	5.182	0.0547	0.2774	0.0553	08:44:52	Yes
2	5.128	5.128	0.0542	0.2734	0.0548	08:45:27	Yes
Mean:	5.155	5.155	0.0544				
SD:	0.038	0.038	0.0004				
%RSD:	0.738	0.738	0.74				

QC value within limits for Hg 253.7 Recovery = 103.11%
All analyte(s) passed QC.

Sequence No.: 11 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 08:45:46**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	-0.0002	-0.0000	0.0004	08:46:47	Yes
2	0.012	0.012	-0.0002	-0.0001	0.0004	08:47:22	Yes
Mean:	0.012	0.012	-0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.848	0.848	0.63				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 12**
Sample ID: 1202055823|958575|1 **Date Collected: 3/2/2010 08:47:41**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055823|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.012	0.012	-0.0002	-0.0000	0.0004	08:48:43	Yes
2	0.016	0.016	-0.0001	0.0004	0.0005	08:49:17	Yes
Mean:	0.014	0.014	-0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	18.17	18.17	19.03				

Sequence No.: 13 **Autosampler Location: 13**
Sample ID: 1202055824|958575|1 **Date Collected: 3/2/2010 08:49:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055824|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.127	2.127	0.0223	0.1129	0.0229	08:50:40	Yes
2	2.104	2.104	0.0220	0.1110	0.0227	08:51:14	Yes
Mean:	2.116	2.116	0.0222				
SD:	0.016	0.016	0.0002				
%RSD:	0.778	0.778	0.79				

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: 247037001|958575|1 **Date Collected: 3/2/2010 08:51:35**
Analyst: JXL **Data Type: Original**

Replicate Data: 247037001|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.028	0.028	-0.0000	0.0025	0.0006	08:52:35	Yes
2	0.045	0.045	0.0002	0.0048	0.0008	08:53:11	Yes
Mean:	0.037	0.037	0.0001				
SD:	0.012	0.012	0.0001				
%RSD:	34.19	34.19	145.41				

Sequence No.: 15 **Autosampler Location: 15**
Sample ID: 1202055825|958575|1 **Date Collected: 3/2/2010 08:53:30**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055825|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.019	0.019	-0.0001	0.0021	0.0005	08:54:30	Yes
2	0.028	0.028	-0.0000	0.0030	0.0006	08:55:05	Yes
Mean:	0.024	0.024	-0.0000				
SD:	0.006	0.006	0.0001				

1	0.032	0.032	0.0000	0.0035	0.0007	09:04:04	Yes
2	0.032	0.032	0.0000	0.0030	0.0007	09:04:39	Yes
Mean:	0.032	0.032	0.0000				
SD:	0.000	0.000	0.0000				
%RSD:	0.786	0.786	6.22				

Sequence No.: 21 **Autosampler Location: 21**
Sample ID: 247042004|958575|1 **Date Collected: 3/2/2010 09:04:58**
Analyst: JXL **Data Type: Original**

Replicate Data: 247042004|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.028	0.028	0.0000	0.0031	0.0006	09:05:59	Yes
2	0.030	0.030	0.0000	0.0036	0.0006	09:06:34	Yes
Mean:	0.029	0.029	0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.826	4.826	93.90				

Sequence No.: 22 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 09:06:54**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.128	5.128	0.0541	0.2768	0.0548	09:07:54	Yes
2	5.127	5.127	0.0541	0.2755	0.0547	09:08:29	Yes
Mean:	5.128	5.128	0.0541				
SD:	0.001	0.001	0.0000				
%RSD:	0.015	0.015	0.02				

QC value within limits for Hg 253.7 Recovery = 102.55%
All analyte(s) passed QC.

Sequence No.: 23 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 09:08:48**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.032	0.032	0.0000	0.0035	0.0007	09:09:49	Yes
2	0.037	0.037	0.0001	0.0040	0.0007	09:10:24	Yes
Mean:	0.035	0.035	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	10.44	10.44	53.94				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 24 **Autosampler Location: 22**
Sample ID: 247042005|958575|1 **Date Collected: 3/2/2010 09:10:43**
Analyst: JXL **Data Type: Original**

Replicate Data: 247042005|958575|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.029	0.029	0.0000	0.0033	0.0006	09:11:44	Yes
2	0.033	0.033	0.0001	0.0036	0.0007	09:12:19	Yes
Mean:	0.031	0.031	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	8.235	8.235	83.29				

SD:	0.003	0.003	0.0000
%RSD:	9.252	9.252	154.88

==========

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: 1202055830|958578|1 **Date Collected: 3/2/2010 09:22:19**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055830|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.029	0.029	0.0000	0.0034	0.0006	09:23:19	Yes
2	0.026	0.026	-0.0000	0.0025	0.0006	09:23:54	Yes
Mean:	0.027	0.027	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	7.825	7.825	359.08				

==========

Sequence No.: 31 **Autosampler Location: 29**
Sample ID: 1202055831|958578|1 **Date Collected: 3/2/2010 09:24:13**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055831|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.105	2.105	0.0221	0.1147	0.0227	09:25:14	Yes
2	2.105	2.105	0.0221	0.1146	0.0227	09:25:49	Yes
Mean:	2.105	2.105	0.0221				
SD:	0.000	0.000	0.0000				
%RSD:	0.010	0.010	0.01				

==========

Sequence No.: 32 **Autosampler Location: 30**
Sample ID: 1202055832|958278|5 **Date Collected: 3/2/2010 09:26:08**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055832|958278|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.026	0.026	-0.0000	0.0028	0.0006	09:27:08	Yes
2	0.025	0.025	-0.0000	0.0026	0.0006	09:27:43	Yes
Mean:	0.025	0.025	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	3.125	3.125	27.93				

==========

Sequence No.: 33 **Autosampler Location: 31**
Sample ID: 247036002|958578|1 **Date Collected: 3/2/2010 09:28:02**
Analyst: JXL **Data Type: Original**

Replicate Data: 247036002|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.023	0.023	-0.0001	0.0026	0.0006	09:29:03	Yes
2	0.029	0.029	0.0000	0.0031	0.0006	09:29:38	Yes
Mean:	0.026	0.026	-0.0000				
SD:	0.004	0.004	0.0000				
%RSD:	16.58	16.58	246.20				

==========

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 09:29:57**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl	SampleConc	StndConc	BlnkCorr	Peak	Peak	Time	Peak

#	ug/L	ug/L	Signal	Area	Height		Stored
1	5.092	5.092	0.0538	0.2718	0.0544	09:30:58	Yes
2	5.019	5.019	0.0530	0.2655	0.0536	09:31:32	Yes
Mean:	5.056	5.056	0.0534				
SD:	0.051	0.051	0.0005				
%RSD:	1.013	1.013	1.02				

QC value within limits for Hg 253.7 Recovery = 101.11%
All analyte(s) passed QC.

Sequence No.: 35 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 09:31:51**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.048	0.048	0.0002	0.0039	0.0008	09:32:52	Yes
2	0.033	0.033	0.0001	0.0029	0.0007	09:33:27	Yes
Mean:	0.040	0.040	0.0001				
SD:	0.010	0.010	0.0001				
%RSD:	25.10	25.10	81.63				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 36 **Autosampler Location: 32**
Sample ID: 247036003|958578|1 **Date Collected: 3/2/2010 09:33:47**
Analyst: JXL **Data Type: Original**

Replicate Data: 247036003|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.026	0.026	-0.0000	0.0027	0.0006	09:34:48	Yes
2	0.029	0.029	0.0000	0.0030	0.0006	09:35:23	Yes
Mean:	0.028	0.028	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	8.511	8.511	602.34				

Sequence No.: 37 **Autosampler Location: 33**
Sample ID: 247036004|958578|1 **Date Collected: 3/2/2010 09:35:42**
Analyst: JXL **Data Type: Original**

Replicate Data: 247036004|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.023	0.023	-0.0000	0.0024	0.0006	09:36:43	Yes
2	0.037	0.037	0.0001	0.0036	0.0007	09:37:18	Yes
Mean:	0.030	0.030	0.0000				
SD:	0.009	0.009	0.0001				
%RSD:	31.23	31.23	437.06				

Sequence No.: 38 **Autosampler Location: 34**
Sample ID: 247036005|958578|1 **Date Collected: 3/2/2010 09:37:38**
Analyst: JXL **Data Type: Original**

Replicate Data: 247036005|958578|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.027	0.027	-0.0000	0.0029	0.0006	09:38:39	Yes
2	0.025	0.025	-0.0000	0.0028	0.0006	09:39:14	Yes
Mean:	0.026	0.026	-0.0000				
SD:	0.001	0.001	0.0000				
%RSD:	4.570	4.570	52.14				

Mean:	0.029	0.029	0.0000
SD:	0.004	0.004	0.0000
%RSD:	15.71	15.71	746.11

==========

Sequence No.: 44 **Autosampler Location: 40**
Sample ID: 1202055833|958581|1 **Date Collected: 3/2/2010 09:49:16**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055833|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.021	0.021	-0.0001	0.0024	0.0005	09:50:17	Yes
2	0.029	0.029	0.0000	0.0030	0.0006	09:50:51	Yes
Mean:	0.025	0.025	-0.0000				
SD:	0.005	0.005	0.0001				
%RSD:	21.51	21.51	171.71				

==========

Sequence No.: 45 **Autosampler Location: 41**
Sample ID: 1202055834|958581|1 **Date Collected: 3/2/2010 09:51:11**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055834|958581|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.186	2.186	0.0229	0.1196	0.0235	09:52:12	Yes
2	2.183	2.183	0.0229	0.1194	0.0235	09:52:47	Yes
Mean:	2.184	2.184	0.0229				
SD:	0.003	0.003	0.0000				
%RSD:	0.123	0.123	0.12				

==========

Sequence No.: 46 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 09:53:06**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.016	5.016	0.0530	0.2735	0.0536	09:54:06	Yes
2	5.018	5.018	0.0530	0.2717	0.0536	09:54:41	Yes
Mean:	5.017	5.017	0.0530				
SD:	0.001	0.001	0.0000				
%RSD:	0.023	0.023	0.02				

QC value within limits for Hg 253.7 Recovery = 100.34%
All analyte(s) passed QC.

==========

Sequence No.: 47 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 09:55:00**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.035	0.035	0.0001	0.0033	0.0007	09:56:01	Yes
2	0.032	0.032	0.0000	0.0031	0.0007	09:56:36	Yes
Mean:	0.034	0.034	0.0001				
SD:	0.002	0.002	0.0000				
%RSD:	5.467	5.467	32.35				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 48 **Autosampler Location: 42**
Sample ID: 247817001|958581|1 **Date Collected: 3/2/2010 09:56:55**

2	0.038	0.038	0.0001	0.0037	0.0007	10:15:55	Yes
Mean:	0.037	0.037	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	4.045	4.045	16.44				

==========

Sequence No.: 58 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 10:16:14**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.001	5.001	0.0528	0.2739	0.0534	10:17:15	Yes
2	4.992	4.992	0.0527	0.2715	0.0533	10:17:50	Yes
Mean:	4.997	4.997	0.0528				
SD:	0.006	0.006	0.0001				
%RSD:	0.126	0.126	0.13				

QC value within limits for Hg 253.7 Recovery = 99.93%
All analyte(s) passed QC.

==========

Sequence No.: 59 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 10:18:09**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.031	0.031	0.0000	0.0030	0.0006	10:19:09	Yes
2	0.033	0.033	0.0001	0.0032	0.0007	10:19:45	Yes
Mean:	0.032	0.032	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	5.084	5.084	37.73				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 60 **Autosampler Location: 52**
Sample ID: 1202055843|958587|1 **Date Collected: 3/2/2010 10:20:04**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055843|958587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.028	0.028	-0.0000	0.0029	0.0006	10:21:05	Yes
2	0.032	0.032	0.0000	0.0035	0.0007	10:21:41	Yes
Mean:	0.030	0.030	0.0000				
SD:	0.003	0.003	0.0000				
%RSD:	11.19	11.19	167.05				

==========

Sequence No.: 61 **Autosampler Location: 53**
Sample ID: 1202055844|958587|1 **Date Collected: 3/2/2010 10:22:00**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055844|958587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.176	2.176	0.0228	0.1196	0.0234	10:23:01	Yes
2	2.169	2.169	0.0227	0.1186	0.0233	10:23:36	Yes
Mean:	2.173	2.173	0.0228				
SD:	0.005	0.005	0.0001				
%RSD:	0.228	0.228	0.23				

==========

Sequence No.: 62 **Autosampler Location: 54**

Sample ID: 248044001|958587|1 Date Collected: 3/2/2010 10:23:56
Analyst: JXL Data Type: Original

Replicate Data: 248044001|958587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.035	0.035	0.0001	0.0034	0.0007	10:24:57	Yes
2	0.035	0.035	0.0001	0.0035	0.0007	10:25:32	Yes
Mean:	0.035	0.035	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.090	0.090	0.47				

Sequence No.: 63 Autosampler Location: 55
Sample ID: 1202055845|958587|1 Date Collected: 3/2/2010 10:25:52
Analyst: JXL Data Type: Original

Replicate Data: 1202055845|958587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.040	0.040	0.0001	0.0035	0.0007	10:26:53	Yes
2	0.041	0.041	0.0001	0.0040	0.0007	10:27:28	Yes
Mean:	0.041	0.041	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.621	0.621	1.99				

Sequence No.: 64 Autosampler Location: 56
Sample ID: 1202055846|958587|1 Date Collected: 3/2/2010 10:27:47
Analyst: JXL Data Type: Original

Replicate Data: 1202055846|958587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	2.146	2.146	0.0225	0.1181	0.0231	10:28:49	Yes
2	2.149	2.149	0.0225	0.1184	0.0231	10:29:23	Yes
Mean:	2.148	2.148	0.0225				
SD:	0.002	0.002	0.0000				
%RSD:	0.090	0.090	0.09				

Sequence No.: 65 Autosampler Location: 57
Sample ID: 1202055847|958587|5 Date Collected: 3/2/2010 10:29:43
Analyst: JXL Data Type: Original

Replicate Data: 1202055847|958587|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.033	0.033	0.0001	0.0035	0.0007	10:30:44	Yes
2	0.030	0.030	0.0000	0.0029	0.0006	10:31:19	Yes
Mean:	0.031	0.031	0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	7.384	7.384	69.46				

Sequence No.: 66 Autosampler Location: 58
Sample ID: 248044002|958587|1 Date Collected: 3/2/2010 10:31:38
Analyst: JXL Data Type: Original

Replicate Data: 248044002|958587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.040	0.040	0.0001	0.0038	0.0007	10:32:40	Yes
2	0.042	0.042	0.0002	0.0038	0.0008	10:33:14	Yes
Mean:	0.041	0.041	0.0001				
SD:	0.002	0.002	0.0000				

%RSD: 3.709 3.709 11.51

==========

Sequence No.: 67 **Autosampler Location: 59**
Sample ID: 248044003|958587|1 **Date Collected: 3/2/2010 10:33:34**
Analyst: JXL **Data Type: Original**

Replicate Data: 248044003|958587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.037	0.037	0.0001	0.0035	0.0007	10:34:36	Yes
2	0.042	0.042	0.0001	0.0036	0.0008	10:35:11	Yes
Mean:	0.039	0.039	0.0001				
SD:	0.003	0.003	0.0000				
%RSD:	8.563	8.563	29.80				

==========

Sequence No.: 68 **Autosampler Location: 60**
Sample ID: 248044004|958587|1 **Date Collected: 3/2/2010 10:35:31**
Analyst: JXL **Data Type: Original**

Replicate Data: 248044004|958587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.037	0.037	0.0001	0.0035	0.0007	10:36:32	Yes
2	0.037	0.037	0.0001	0.0031	0.0007	10:37:07	Yes
Mean:	0.037	0.037	0.0001				
SD:	0.000	0.000	0.0000				
%RSD:	0.860	0.860	3.53				

==========

Sequence No.: 69 **Autosampler Location: 61**
Sample ID: 248044005|958587|1 **Date Collected: 3/2/2010 10:37:27**
Analyst: JXL **Data Type: Original**

Replicate Data: 248044005|958587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.026	0.026	-0.0000	0.0028	0.0006	10:38:29	Yes
2	0.029	0.029	0.0000	0.0030	0.0006	10:39:04	Yes
Mean:	0.027	0.027	-0.0000				
SD:	0.002	0.002	0.0000				
%RSD:	7.669	7.669	260.52				

==========

Sequence No.: 70 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 10:39:24**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.079	5.079	0.0536	0.2761	0.0542	10:40:25	Yes
2	5.044	5.044	0.0533	0.2727	0.0539	10:41:00	Yes
Mean:	5.061	5.061	0.0534				
SD:	0.025	0.025	0.0003				
%RSD:	0.487	0.487	0.49				

QC value within limits for Hg 253.7 Recovery = 101.22%
All analyte(s) passed QC.

==========

Sequence No.: 71 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 10:41:19**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.032	0.032	0.0000	0.0028	0.0006	10:42:20	Yes
2	0.037	0.037	0.0001	0.0037	0.0007	10:42:55	Yes
Mean:	0.034	0.034	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	10.27	10.27	56.74				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 72 **Autosampler Location: 62**
Sample ID: 248044006|958587|1 **Date Collected: 3/2/2010 10:43:14**
Analyst: JXL **Data Type: Original**

Replicate Data: 248044006|958587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.035	0.035	0.0001	0.0032	0.0007	10:44:16	Yes
2	0.041	0.041	0.0001	0.0037	0.0007	10:44:51	Yes
Mean:	0.038	0.038	0.0001				
SD:	0.004	0.004	0.0000				
%RSD:	10.62	10.62	40.88				

==========

Sequence No.: 73 **Autosampler Location: 63**
Sample ID: 248127002|958587|1 **Date Collected: 3/2/2010 10:45:11**
Analyst: JXL **Data Type: Original**

Replicate Data: 248127002|958587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.049	0.049	0.0002	0.0042	0.0008	10:46:12	Yes
2	0.049	0.049	0.0002	0.0038	0.0008	10:46:47	Yes
Mean:	0.049	0.049	0.0002				
SD:	0.000	0.000	0.0000				
%RSD:	0.072	0.072	0.17				

==========

Sequence No.: 74 **Autosampler Location: 64**
Sample ID: 248168006|958587|1 **Date Collected: 3/2/2010 10:47:07**
Analyst: JXL **Data Type: Original**

Replicate Data: 248168006|958587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.032	0.032	0.0000	0.0032	0.0006	10:48:08	Yes
2	0.039	0.039	0.0001	0.0038	0.0007	10:48:43	Yes
Mean:	0.035	0.035	0.0001				
SD:	0.005	0.005	0.0001				
%RSD:	15.15	15.15	72.49				

==========

Sequence No.: 75 **Autosampler Location: 65**
Sample ID: 248169004|958587|1 **Date Collected: 3/2/2010 10:49:03**
Analyst: JXL **Data Type: Original**

Replicate Data: 248169004|958587|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.039	0.039	0.0001	0.0037	0.0007	10:50:04	Yes
2	0.041	0.041	0.0001	0.0036	0.0008	10:50:39	Yes
Mean:	0.040	0.040	0.0001				
SD:	0.001	0.001	0.0000				
%RSD:	3.561	3.561	11.62				

==========

Replicate Data: 1202055863|958593|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	26.95	26.95	0.2859	1.4918	0.2865	10:59:45	Yes
Sample concentration is greater than that of the highest standard.							
2	26.74	26.74	0.2836	1.4832	0.2842	11:00:20	Yes
Sample concentration is greater than that of the highest standard.							
Mean:	26.85	26.85	0.2847				
SD:	0.150	0.150	0.0016				
%RSD:	0.559	0.559	0.56				
Sample concentration is greater than that of the highest standard.							

Sequence No.: 81 **Autosampler Location: 71**
Sample ID: 1202055864|958593|5 **Date Collected: 3/2/2010 11:00:40**
Analyst: JXL **Data Type: Original**

Replicate Data: 1202055864|958593|5

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.495	5.495	0.0580	0.2982	0.0586	11:01:41	Yes
2	5.466	5.466	0.0577	0.2966	0.0583	11:02:16	Yes
Mean:	5.480	5.480	0.0579				
SD:	0.020	0.020	0.0002				
%RSD:	0.371	0.371	0.37				

Sequence No.: 82 **Autosampler Location: 7**
Sample ID: CCV **Date Collected: 3/2/2010 11:02:36**
Analyst: **Data Type: Original**

Replicate Data: CCV

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	5.006	5.006	0.0528	0.2714	0.0535	11:03:37	Yes
2	5.022	5.022	0.0530	0.2712	0.0536	11:04:12	Yes
Mean:	5.014	5.014	0.0529				
SD:	0.011	0.011	0.0001				
%RSD:	0.227	0.227	0.23				

QC value within limits for Hg 253.7 Recovery = 100.27%
All analyte(s) passed QC.

Sequence No.: 83 **Autosampler Location: 8**
Sample ID: CCB **Date Collected: 3/2/2010 11:04:31**
Analyst: **Data Type: Original**

Replicate Data: CCB

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.033	0.033	0.0001	0.0031	0.0007	11:05:31	Yes
2	0.048	0.048	0.0002	0.0040	0.0008	11:06:06	Yes
Mean:	0.040	0.040	0.0001				
SD:	0.010	0.010	0.0001				
%RSD:	26.02	26.02	85.60				

QC value within limits for Hg 253.7 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 84 **Autosampler Location: 72**
Sample ID: 247958002|958593|1 **Date Collected: 3/2/2010 11:06:25**
Analyst: JXL **Data Type: Original**

Replicate Data: 247958002|958593|1

Repl #	SampleConc ug/L	StndConc ug/L	BlnkCorr Signal	Peak Area	Peak Height	Time	Peak Stored
1	0.063	0.063	0.0004	0.0052	0.0010	11:07:27	Yes

Miscellaneous

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **959136.0** Verified by: _____

Analyst: Barry Audain

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202056946	Metals Spike Mix I	UI100205-01	.25	mL
LCS	1202056946	Metals Spike Mix II	UI100205-06	.25	mL
MS	1202056948	Metals Spike Mix I	UI100205-01	.25	mL
MS	1202056948	Metals Spike Mix II	UI100205-06	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202056945 MB	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2
1202056946 LCS	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2
248023001	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2
248023002	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2
248044001	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2
1202056947 DUP (248044001)	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2
1202056948 MS (248044001)	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2
1202056949 SDILT (248044001)	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2
248044002	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2
248044003	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2
248044004	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2
248044005	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2
248044006	06-MAR-2010 10:56:00	Ground Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1277916	HYDROCHLORIC ACID	2.5 mL
1277919	Nitric Acid CONC.	1 mL

Comments:

Prep Logbook

Acid Digestion of Total Recoverable or Dissolved Metals in Surface and Groundwater Samples for Analysis by ICP or ICP-MS

Batch ID: **959138.0** Verified by: _____

Analyst: Barry Audain

Method: SW846 3005A

Lab SOP: GL-MA-E-006 REV# 9

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202056953	ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).	UI100205-A	.5	mL
LCS	1202056953	MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).	UI100205-B	.5	mL
MS	1202056955	ICP-MS DOE liquid Spike Solution A	UI090930-A	.5	mL
MS	1202056955	ICP-MS DOE Liquid Spike Solution B	UI090930-B	.5	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202056952 MB	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2
1202056953 LCS	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2
248023001	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2
1202056954 DUP (248023001)	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2
1202056955 MS (248023001)	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2
1202056956 SDILT (248023001)	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2
248023002	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2
248044001	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2
248044002	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2
248044003	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2
248044004	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2
248044005	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2
248044006	06-MAR-2010 11:10:00	Ground Water	50	50	1	<2

Reagent/Solvent Lot ID	Description	Amount
1274969	Nitric Acid CONC.	1 mL
1277916	HYDROCHLORIC ACID	2.5 mL

Comments:

Prep Logbook

Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer

Batch ID: **958586.0** Verified by: _____

Analyst: Tara Griffin

Method: EPA 245.1/245.2 Prep

Lab SOP: GL-MA-E-010 REV# 23

Instrument: No analytical instrument

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202055844	Mercury working intermediate standard for LCS/MS	WHG100301-13	.2	mL
MS	1202055846	Mercury working intermediate standard for LCS/MS	WHG100301-13	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202055843 MB	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
1202055844 LCS	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
248044001	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
1202055845 DUP (248044001)	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
1202055846 MS (248044001)	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
1202055847 SDILT (248044001)	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
248044002	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
248044003	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
248044004	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
248044005	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
248044006	01-MAR-2010 12:20:00	Ground Water	20	20	1	<2
248127002	01-MAR-2010 12:20:00	Water	20	20	1	<2
248168006	01-MAR-2010 12:20:00	Water	20	20	1	<2
248169004	01-MAR-2010 12:20:00	Water	20	20	1	<2

Reagent/Solvent Lot ID	Description	Amount
1176183	Sulfuric Acid, Concentrated	1 mL
1255532-C	Hg reducing agent	1 mL
1274391-1	NITRIC ACID	.5 mL
1274397-C	5% KMnO4 solution	3 mL
1276435-C	5% Potassium Persulfate	1.5 mL
WHG100301-01a	Mercury Working 1st Source CAL 0.2/CRA	20 uL
WHG100301-02	Mercury Working 1st Source CAL 0.5	50 mL
WHG100301-03	Mercury Working 1st Source CAL 2.0	200 uL
WHG100301-04	Mercury Working 1st Source CAL 5.0/CCV	500 uL
WHG100301-05	Mercury Working 1st Source CAL 10.0	1 mL
WHG100301-06	Mercury Working 2nd Source 5.0/ICV	500 uL

Comments:

Digestion Start Date: 01-MAR-10 12:20

Digestion End Date: 01-MAR-10 14:20

Standard Logbook

Serial ID: UHG1167639-01 **Opened:** 13-AUG-09 **Amount :** 125 mL
Name: MHGSTOCK1 **Received:** 13-AUG-09 **Catalog Number :** PLHG4-2Y
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 15-37HG
Employee: Bryan Davis **Solvent :** 10% HNO3
Supplier: Spex
Description: Mercury Source Standard #1 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	1000 mg/L		

Serial ID: UHG1167641-02 **Opened:** 13-AUG-09 **Amount :** 100 mL
Name: MHGSTOCK2 **Received:** 13-AUG-09 **Catalog Number :** AHG1KN-100
Type: Source Material **Expires:** 13-AUG-10 **Lot Number :** 4905530
Employee: Bryan Davis **Solvent :** 3% HNO3
Supplier: Ricca Chemical Company
Description: Mercury Source Standard #2 1,000 mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Mercury	999.7 mg/L		

Serial ID: UI090421-40 **Opened:** 09-OCT-09 **Amount :** 250 mL
Name: TRACE ICP Na-1000SOUR **Received:** 21-APR-09 **Catalog Number :** HP100052-1
Type: Source Material **Expires:** 09-OCT-10 **Lot Number :** 0830227
Employee: Helen Camello **Solvent :** 1%HNO3
Supplier: ENVIRONMENTAL EXPRESS
Description: Sodium 1000 +/- 3 ug/mL in 1% HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Sodium	1000 ug/mL		

Serial ID: UI090422-40 **Opened:** 04-MAY-09 **Amount :** 500 mL
Name: TRACE ICP ICSA SOLN A **Received:** 22-APR-09 **Catalog Number :** 160005-01-03
Type: Source Material **Expires:** 22-APR-10 **Lot Number :** 1013357
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: o2si
Description: TRACE ICP ICSA SOLN A mg/L+/-0.5%IN5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	5000 mg/L	Calcium	5000 mg/L
Iron	2000 mg/L	Magnesium	5000 mg/L

Standard Logbook

Serial ID: UI090612-02 **Opened:** 12-JUN-09 **Catalog Number :** 060074-06-01
Name: ICPMS Tungsten - 10mg/L S **Received:** 12-JUN-09 **Lot Number :** 1016377
Type: Source Material **Expires:** 12-JUN-10 **Solvent :** 2% HNO3
Employee: Paul Boyd
Supplier: O2SI
Description: ICPMS Tungsten standard SPIKE - 10mg/L
Comments: None

Analyte	Concentration	Analyte	Concentration
Tungsten	10 mg/L		

Serial ID: UI090701-09 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #1 **Received:** 01-JUL-09 **Catalog Number :** 160044-09-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016477
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Master Soln #1
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	15 mg/L	Arsenic	5 mg/L
Barium	2 mg/L	Beryllium	.5 mg/L
Boron	15 mg/L	Cadmium	1 mg/L
Calcium	100 mg/L	Chromium	3 mg/L
Cobalt	1 mg/L	Copper	1 mg/L
Iron	25 mg/L	Lead	2 mg/L
Lithium	10 mg/L	Magnesium	15 mg/L
Manganese	5 mg/L	Nickel	2 mg/L
Phosphorous	50 mg/L	Potassium	300 mg/L
Selenium	5 mg/L	Sodium	250 mg/L
Strontium	10 mg/L	Thallium	1 mg/L
Thorium	1 mg/L	Uranium	.2 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UI090701-10 **Opened:** 01-JUL-09 **Amount :** 250 mL
Name: ICP-MS CRDL Master #2 **Received:** 01-JUL-09 **Catalog Number :** 160044-08-02
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016476
Employee: Paul Boyd **Solvent :** +/- 0.5% IN 2% HNO3
Supplier: 02SI
Description: ICPMS CRDL Soln #2
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Molybdenum	.5 mg/L
Silver	1 mg/L	Tin	2 mg/L
Titanium	10 mg/L	Tungsten	5 mg/L

Analyte	Concentration	Analyte	Concentration
Zirconium	2 mg/L		

Serial ID: UI090701-40 **Opened:** 01-JUL-09 **Amount :** 500 mL
Name: TRACE ICP Stock PQL Sta **Received:** 30-JUN-09 **Catalog Number :** 160543-01-03
Type: Source Material **Expires:** 01-JUL-10 **Lot Number :** 1016475
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3+TrHF
Supplier: 02si
Description: TRACE ICP Stock PQL Standard
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	100 mg/L	Antimony	5 mg/L
Arsenic	15 mg/L	Barium	2.5 mg/L
Beryllium	2.5 mg/L	Boron	25 mg/L
Cadmium	2.5 mg/L	Calcium	100 mg/L
Chromium	2.5 mg/L	Cobalt	2.5 mg/L
Copper	5 mg/L	Iron	50 mg/L
Lead	5 mg/L	Magnesium	150 mg/L
Manganese	5 mg/L	Molybdenum	5 mg/L
Nickel	2.5 mg/L	Phosphorous	75 mg/L
Potassium	75 mg/L	Selenium	15 mg/L
Silicon	50 mg/L	Silver	2.5 mg/L
Sodium	150 mg/L	Strontium	2.5 mg/L
Sulfur	50 mg/L	Thallium	10 mg/L
Tin	5 mg/L	Titanium	2.5 mg/L
Uranium	25 mg/L	Vanadium	2.5 mg/L
Zinc	5 mg/L		

Serial ID: UI090925-40 **Opened:** 23-OCT-09 **Amount :** 500 mL
Name: SECOND SOURCE STD -1 **Received:** 25-SEP-09 **Catalog Number :** SGELMX38-500N
Type: Source Material **Expires:** 30-SEP-10 **Lot Number :** 4909129
Employee: Helen Camello **Solvent :** 5%HNO3
Supplier: SPECTRO PURE
Description: SECOND SOURCE STD #1A 5%HNO3
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Arsenic	100 mg/L
Barium	100 mg/L	Boron	100 mg/L
Cadmium	100 mg/L	Calcium	1000 mg/L
Chromium	100 mg/L	Cobalt	100 mg/L
Copper	100 mg/L	Iron	1000 mg/L
Lead	100 mg/L	Phosphorous	500 mg/L
Potassium	500 mg/L	Selenium	500 mg/L
Sodium	500 mg/L	Strontium	100 mg/L

Standard Logbook

Serial ID:	UI090925-41	**Opened:**	23-OCT-09	**Amount :**	500 mL
Name:	SECOND SOURCE STD -1	**Received:**	25-SEP-09	**Catalog Number :**	SGELMX39-500B
Type:	Source Material	**Expires:**	30-SEP-10	**Lot Number :**	4909130
Employee:	Helen Camello			**Solvent :**	5%HNO3,TR.HF
Supplier:	SPECTRO PURE				
Description:	SECOND SOURCE STD #1B				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Antimony	100 mg/L	Beryllium	50 mg/L
Magnesium	1000 mg/L	Manganese	100 mg/L
Molybdenum	100 mg/L	Nickel	100 mg/L
Silver	50 mg/L	Sulfur	500 mg/L
Thallium	100 mg/L	Tin	100 mg/L
Titanium	100 mg/L	Uranium	100 mg/L
Vanadium	100 mg/L	Zinc	100 mg/L

Serial ID:	UI090930-A	**Opened:**	30-SEP-09	**Catalog Number :**	160067-02
Name:	ICP-MS DOE Liquid SPIKE	**Received:**	28-SEP-09	**Lot Number :**	1017141
Type:	Source Material	**Expires:**	30-SEP-10		
Employee:	Francena Armstrong	**Verified:**	21-NOV-08		
Supplier:	O2Si				
Description:	ICP-MS DOE liquid Spike Solution A				
Comments:	None				

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	8 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Boron	10 mg/L	Cadmium	1 mg/L
Calcium	200 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	4 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorus, Total as P	200 mg/L	Potassium	200 mg/L
Selenium	2 mg/L	Silicon	200 mg/L
Sodium	200 mg/L	Strontium	5 mg/L
Thallium	10 mg/L	Thorium	5 mg/L
Total Uranium	5 mg/L	Uranium	5 mg/L
Uranium-235	.0364 mg/L	Uranium-238	4.96 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI090930-B **Opened:** 30-SEP-09 **Catalog Number :** 160067-02
Name: ICP-MS DOE Liquid SPIKE **Received:** 28-SEP-09 **Lot Number :** 1017141
Type: Source Material **Expires:** 30-SEP-10
Employee: Francena Armstrong **Verified:** 21-NOV-08
Supplier: O2Si
Description: ICP-MS DOE Liquid Spike Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	20 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI091015-42 **Opened:** 28-OCT-09 **Amount :** 500 mL
Name: SI 1000mg/L **Received:** 15-OCT-09 **Catalog Number :** 060014-02-03
Type: Source Material **Expires:** 28-OCT-10 **Lot Number :** 1017581
Employee: Helen Camello **Solvent :** 0.3%H2O(NH4)2SiF6
Supplier: o2si
Description: Silicon 1000mg/L+/-0.3%in H2O(NH4)2SiF6
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI091102-40 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1A SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-1-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930215
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Std #1A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	2000 mg/L	Arsenic	200 mg/L
Barium	200 mg/L	Beryllium	200 mg/L
Boron	200 mg/L	Cadmium	200 mg/L
Calcium	2000 mg/L	Chromium	200 mg/L
Cobalt	200 mg/L	Copper	200 mg/L
Iron	2000 mg/L	Lead	200 mg/L
Magnesium	2000 mg/L	Manganese	200 mg/L
Nickel	200 mg/L	Phosphorous	1000 mg/L
Potassium	2000 mg/L	Selenium	200 mg/L
Sodium	2000 mg/L	Strontium	200 mg/L
Thallium	200 mg/L	Uranium	200 mg/L
Vanadium	200 mg/L	Zinc	200 mg/L

Standard Logbook

Serial ID: UI091102-41 **Opened:** 16-NOV-09 **Amount :** 500 mL
Name: TRACE CALSTD#1B SOUF **Received:** 02-NOV-09 **Catalog Number :** HP2270-2-500
Type: Source Material **Expires:** 31-OCT-10 **Lot Number :** 0930216
Employee: Helen Camello **Solvent :** HNO3
Supplier: Environmental Express
Description: Trace Calibration Standard #1B
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	200 mg/L	Molybdenum	200 mg/L
Silver	200 mg/L	Sulfur	400 mg/L
Tin	200 mg/L	Titanium	200 mg/L

Serial ID: UI091102-42 **Opened:** 17-NOV-09 **Amount :** 200 mL
Name: SILICON **Received:** 02-NOV-09 **Catalog Number :** HP100050-4F
Type: Source Material **Expires:** 17-NOV-10 **Lot Number :** 0921924
Employee: Helen Camello **Solvent :** H20/tr HF
Supplier: ENVIRNMENTAL EXPRESS
Description: SILICON 1000mg/L H20/tr HF
Comments: None

Analyte	Concentration	Analyte	Concentration
Silica	2139 mg/L	Silicon	1000 mg/L

Serial ID: UI100205-01 **Opened:** 05-FEB-10 **Lot Number :** 1018514
Name: METALSPIKE-1 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix I
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 ug/mL	Arsenic	100 ug/mL
Barium	100 ug/mL	Beryllium	100 ug/mL
Boron	100 ug/mL	Cadmium	100 ug/mL
Calcium	1000 ug/mL	Cobalt	100 ug/mL
Iron	1000 ug/mL	Lead	100 ug/mL
Magnesium	1000 ug/mL	Phosphorous	100 ug/mL
Potassium	1000 ug/mL	Silver	100 ug/mL
Sodium	1000 ug/mL	Strontium	100 ug/mL

Standard Logbook

Serial ID: UI100205-06 **Opened:** 05-FEB-10 **Lot Number :** 1018515
Name: METALSPIKE-2 **Received:** 05-FEB-10
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: OS2I
Description: Metals Spike Mix II
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	100 ug/mL	Chromium	100 ug/mL
Copper	100 ug/mL	Manganese	100 ug/mL
Molybdenum	100 ug/mL	Nickel	100 ug/mL
Selenium	100 ug/mL	Silica	2141 ug/mL
Silicon	1000 ug/mL	Sulfur	1000 ug/mL
Thallium	100 ug/mL	Tin	100 ug/mL
Titanium	100 ug/mL	Uranium	100 ug/mL
Uranium-235	.72 ug/mL	Uranium-238	99.28 ug/mL
Vanadium	100 ug/mL	Zinc	100 ug/mL

Serial ID: UI100205-A **Opened:** 05-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 05-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: O2si
Description: ICP-MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution A).
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	200 mg/L	Arsenic	5 mg/L
Barium	5 mg/L	Beryllium	5 mg/L
Bismuth	5 mg/L	Boron	10 mg/L
Cadmium	5 mg/L	Calcium	200 mg/L
Cesium	5 mg/L	Chromium	5 mg/L
Cobalt	5 mg/L	Copper	5 mg/L
Iron	200 mg/L	Lead	5 mg/L
Lithium	5 mg/L	Magnesium	200 mg/L
Manganese	5 mg/L	Nickel	5 mg/L
Phosphorous	200 mg/L	Potassium	200 mg/L
Selenium	5 mg/L	Sodium	200 mg/L
Strontium	5 mg/L	Thallium	5 mg/L
Thorium	5 mg/L	Uranium	5 mg/L
Uranium-235	.036 mg/L	Uranium-238	4.964 mg/L
Vanadium	5 mg/L	Zinc	5 mg/L

Standard Logbook

Serial ID: UI100205-B **Opened:** 05-FEB-10 **Catalog Number :** 160067-05
Name: ICP-MS ALL OTHER SPIKE **Received:** 05-FEB-10 **Lot Number :** 1018516
Type: Source Material **Expires:** 05-FEB-11
Employee: Francena Armstrong
Supplier: O2si
Description: MS SPIKE FOR ALL CLIENTS EXCEPT DOE CLIENTS (Solution B).
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	5 mg/L	Molybdenum	5 mg/L
Silver	5 mg/L	Tin	5 mg/L
Titanium	5 mg/L	Zirconium	5 mg/L

Serial ID: UI100310-48 **Opened:** 19-MAR-10 **Amount :** 1000 mL
Name: Trace ICP ICSA **Received:** 12-MAR-10 **Catalog Number :** 160005-02
Type: Source Material **Expires:** 19-MAR-11 **Lot Number :** 1019141
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Interferent Check Standard A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 UG/L	Calcium	500000 UG/L
Iron	200000 UG/L	Magnesium	500000 UG/L

Serial ID: UI100310-49.11 **Opened:** 29-MAR-10 **Amount :** 100 ml
Name: Trace ICP ICSAB **Received:** 12-MAR-10 **Catalog Number :** 160066-04
Type: Source Material **Expires:** 30-MAR-10 **Lot Number :** 1019142
Employee: Helen Camello **Solvent :** 3% HCl + 1% HNO3
Supplier: o2si
Description: Trace ICP Inteferent Check Standard AB
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Antimony	500 ug/L
Arsenic	500 ug/L	Barium	500 ug/L
Beryllium	250 ug/L	Boron	500 ug/L
Cadmium	500 ug/L	Calcium	500000 ug/L
Chromium	500 ug/L	Cobalt	500 ug/L
Copper	500 ug/L	Iron	200000 ug/L
Lead	500 ug/L	Magnesium	500000 ug/L
Manganese	500 ug/L	Molybdenum	500 ug/L
Nickel	500 ug/L	Phosphorous	2500 ug/L
Potassium	5000 ug/L	Selenium	2500 ug/L
Silica	10696.5 ug/L	Silicon	5000 ug/L
Silver	250 ug/L	Sodium	5000 ug/L

Standard Logbook

Analyte	Concentration	Analyte	Concentration
Strontium	500 ug/L	Sulfur	2500 ug/L
Thallium	500 ug/L	Tin	500 ug/L
Titanium	500 ug/L	Uranium	500 ug/L
Vanadium	500 ug/L	Zinc	500 ug/L

Serial ID: UI100325-40 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD-A **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION A
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10000 ug/L	Arsenic	10000 ug/L
Barium	15000 ug/L	Beryllium	3000 ug/L
Boron	5000 ug/L	Cadmium	10000 ug/L
Chromium	25000 ug/L	Cobalt	10000 ug/L
Copper	20000 ug/L	Lead	25000 ug/L
Manganese	10000 ug/L	Molybdenum	10000 ug/L
Nickel	10000 ug/L	Phosphorous	15000 ug/L
Potassium	300000 ug/L	Selenium	10000 ug/L
Silica	107000 ug/L	Silicon	50000 ug/L
Silver	1000 ug/L	Strontium	10000 ug/L
Sulfur	50000 ug/L	Thallium	10000 ug/L
Tin	10000 ug/L	Titanium	10000 ug/L
Vanadium	10000 ug/L	Zinc	15000 ug/L

Serial ID: UI100325-41 **Opened:** 25-MAR-10 **Amount :** 500 mL
Name: ICP HIGH RANGE STD B **Received:** 25-MAR-10 **Catalog Number :** 160211-05-03
Type: Source Material **Expires:** 25-MAR-11 **Lot Number :** 1019348
Employee: Helen Camello **Solvent :** +/-0.5%in2%HNO3
Supplier: 02SI
Description: ICP HIGH RANGE STD SOLUTION B
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	500000 ug/L	Calcium	500000 ug/L
Iron	500000 ug/L	Magnesium	500000 ug/L
Sodium	500000 ug/L	Uranium	15000 ug/L

Standard Logbook

Serial ID: UI100405-12 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master B **Received:** 05-APR-10 **Catalog Number :** 160033-02
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019466
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	2 mg/L	Barium	2 mg/L
Beryllium	2 mg/L	Boron	2 mg/L
Cadmium	2 mg/L	Chromium	2 mg/L
Cobalt	2 mg/L	Copper	2 mg/L
Lead	2 mg/L	Lithium	2 mg/L
Manganese	2 mg/L	Nickel	2 mg/L
Selenium	2 mg/L	Strontium	2 mg/L
Thallium	2 mg/L	Thorium	2 mg/L
Uranium	2 mg/L	Vanadium	2 mg/L
Zinc	2 mg/L		

Serial ID: UI100405-13 **Opened:** 05-APR-10 **Amount :** 250 mL
Name: ICP-MS ICSAB Master C **Received:** 05-APR-10 **Catalog Number :** 160033-03
Type: Source Material **Expires:** 05-APR-11 **Lot Number :** 1019467
Employee: Paul Boyd **Solvent :** +/- 0.5% in 2% HNO3
Supplier: 02SI
Description: ICPMS ICSAB Master C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	2 mg/L	Silver	2 mg/L
Tin	2 mg/L	Tungsten	2 mg/L
Zirconium	2 mg/L		

Serial ID: UI100415-11 **Opened:** 15-APR-10 **Amount :** 1000 mL
Name: ICP-MS ICSA Master A **Received:** 15-APR-10 **Catalog Number :** 160013-01-01L
Type: Source Material **Expires:** 15-APR-11 **Lot Number :** 1018321
Employee: Paul Boyd **Solvent :** 2% HNO3
Supplier: 02SI
Description: ICP-MS ICSA Master A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Carbon	2000 mg/L	Chloride	10000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Molybdenum	20 mg/L	Phosphorous	1000 mg/L

Analyte	Concentration	Analyte	Concentration
Potassium	1000 mg/L	Sodium	1000 mg/L
Sulfur	1000 mg/L	Titanium	20 mg/L

Serial ID: UMS100415-01 **Opened:** 15-APR-10 **Amount :** 250 mL
Name: ICPMSCalSPIKEB **Received:** 15-APR-10 **Catalog Number :** ZGEL-100-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-20JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution B
Comments: None

Analyte	Concentration	Analyte	Concentration
Arsenic	10 mg/L	Barium	10 mg/L
Beryllium	10 mg/L	Boron	20 mg/L
Cadmium	10 mg/L	Chromium	10 mg/L
Cobalt	10 mg/L	Copper	10 mg/L
Lead	10 mg/L	Lithium	10 mg/L
Manganese	10 mg/L	Nickel	10 mg/L
Selenium	10 mg/L	Silver	10 mg/L
Strontium	10 mg/L	Thallium	10 mg/L
Thorium	10 mg/L	Uranium	10 mg/L
Vanadium	10 mg/L	Zinc	10 mg/L

Serial ID: UMS100415-02 **Opened:** 15-APR-10 **Catalog Number :** ZGEL-102-250
Name: ICPMSCalSPIKEA **Received:** 15-APR-10 **Lot Number :** 22-21JB
Type: Source Material **Expires:** 28-FEB-11
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution A
Comments: None

Analyte	Concentration	Analyte	Concentration
Aluminum	1000 mg/L	Calcium	1000 mg/L
Iron	1000 mg/L	Magnesium	1000 mg/L
Phosphorous	1000 mg/L	Potassium	1000 mg/L
Sodium	1000 mg/L		

Serial ID: UMS100415-03 **Opened:** 15-APR-10 **Amount :** 250 ml
Name: ICPMSCalSPIKEC **Received:** 15-APR-10 **Catalog Number :** ZGEL-101-250
Type: Source Material **Expires:** 28-FEB-11 **Lot Number :** 22-22JB
Employee: Paul Boyd
Supplier: SPEX
Description: ICPMS Calibration Standard Solution C
Comments: None

Analyte	Concentration	Analyte	Concentration
Antimony	10 mg/L	Molybdenum	10 mg/L
Tin	10 mg/L	Titanium	10 mg/L
Zirconium	10 mg/L		

Serial ID: IHG100301-01 **Opened:** 01-MAR-10 **Instrument Id :** Mercury
Name: MHGINTER1 **Received:** 01-MAR-10 **Pipet Id :** Minou1
Type: Intermediate **Expires:** 02-MAR-10 **Solvent :** 1mL HNO3 + Typel H2O
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 1st Source 200 ug/L
Comments: Prepare fresh daily

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: IHG100301-02 **Opened:** 01-MAR-10 **Pipet Id :** Minou1
Name: MHGINTER2 **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Intermediate **Expires:** 02-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Intermediate 2nd Source 200 ug/L
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167641-02	Mercury	999.7 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WHG100301-01a **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.2CRA **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.2/CRA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	20 uL	20 mL	.2 ug/L

Serial ID: WHG100301-02 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL0.5 **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 1st Source CAL 0.5
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	50 uL	20 mL	.5 ug/L

Serial ID: WHG100301-03 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL2.0 **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 2.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	200 uL	20 mL	2 ug/L

Serial ID: WHG100301-04 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL5.0CCV **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 5.0/CCV
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100301-05 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORKCAL10.0 **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury Working 1st Source CAL 10.0
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-01	Mercury	200 ug/L	1 mL	20 mL	10 ug/L

Serial ID: WHG100301-06 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGWORK5.0ICV **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin
Supplier: GEL
Description: Mercury Working 2nd Source 5.0/ICV
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
IHG100301-02	Mercury	200 ug/L	500 uL	20 mL	5 ug/L

Serial ID: WHG100301-13 **Opened:** 01-MAR-10 **Pipet Id :** Hg1289245
Name: MHGLIQLCSMSSPIKE **Received:** 01-MAR-10 **Solvent :** 2% HNO3-1274391
Type: Working **Expires:** 08-MAR-10
Employee: Tara Griffin **Verified:** 20-JUL-07
Supplier: GEL
Description: Mercury working intermediate standard for LCS/MS
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UHG1167639-01	Mercury	1000 mg/L	.05 mL	250 mL	200 ug/L

Serial ID: WI100329-42 **Opened:** 29-MAR-10 **Balance Id :** 216
Name: TRACE ICP 0.1 PPM STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 30-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP 0.1 PPM CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100329-44	Aluminum	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100329-44	Antimony	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Arsenic	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Barium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Beryllium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Boron	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Cadmium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Calcium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100329-44	Chromium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Cobalt	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Copper	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Iron	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100329-44	Lead	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Magnesium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100329-44	Manganese	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Molybdenum	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Nickel	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Phosphorous	5000 ug/L	10 mL	100 mL	500 ug/L
WI100329-44	Potassium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100329-44	Selenium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Silica	10698 ug/L	10 mL	100 mL	1069 ug/L
WI100329-44	Silicon	5000 ug/L	10 mL	100 mL	500 ug/L
WI100329-44	Silver	1000 ug/L	10 mL	100 mL	100 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WI100329-44	Sodium	10000 ug/L	10 mL	100 mL	1000 ug/L
WI100329-44	Strontium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Sulfur	2000 ug/L	10 mL	100 mL	200 ug/L
WI100329-44	Thallium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Tin	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Titanium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Uranium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Vanadium	1000 ug/L	10 mL	100 mL	100 ug/L
WI100329-44	Zinc	1000 ug/L	10 mL	100 mL	100 ug/L

Serial ID: WI100329-43 **Opened:** 29-MAR-10 **Balance Id :** 216

Name: TRACE ICP 0.5/CCV STD. **Received:** 02-NOV-09 **Pipet Id :** 3581809

Type: Working **Expires:** 30-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083

Employee: Helen Camello

Supplier: GEL

Description: TRACE ICP O.5/CCV CALIBRATION STD.

Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	5 mL	1000 mL	5000 UG/L
UI091015-42	Silica	2139 mg/L	2.5 mL	1000 mL	5348.25 UG/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Barium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Boron	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Chromium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Copper	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Iron	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Lead	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Manganese	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Nickel	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	1000 mL	2500 UG/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Selenium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	1000 mL	5000 UG/L
UI091102-40	Strontium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Thallium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Uranium	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-40	Zinc	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Antimony	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Silver	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	1000 mL	1000 UG/L
UI091102-41	Tin	200 mg/L	2.5 mL	1000 mL	500 UG/L
UI091102-41	Titanium	200 mg/L	2.5 mL	1000 mL	500 UG/L

Serial ID: WI100329-44 **Opened:** 29-MAR-10 **Balance Id :** 216
Name: TRACE ICP SCAL 1.0 **Received:** 02-NOV-09 **Pipet Id :** 3581809
Type: Working **Expires:** 30-MAR-10 **Solvent :** 3%HCL and 1 %HNO3-1293083
Employee: Helen Camello
Supplier: o2si
Description: Trace ICP Calibration Standard 1.0ppm
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091015-42	Silica	2139 mg/L	2.5 mL	500 mL	10698 ug/L
UI091015-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Aluminum	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Arsenic	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Barium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Beryllium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Boron	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cadmium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Calcium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Chromium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Cobalt	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Copper	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Iron	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Lead	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Magnesium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Manganese	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Nickel	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Phosphorous	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI091102-40	Potassium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Selenium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Sodium	2000 mg/L	2.5 mL	500 mL	10000 ug/L
UI091102-40	Strontium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Thallium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Uranium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Vanadium	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-40	Zinc	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Antimony	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Molybdenum	200 mg/L	2.5 mL	500 mL	1000 ug/L

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI091102-41	Silver	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Sulfur	400 mg/L	2.5 mL	500 mL	2000 ug/L
UI091102-41	Tin	200 mg/L	2.5 mL	500 mL	1000 ug/L
UI091102-41	Titanium	200 mg/L	2.5 mL	500 mL	1000 ug/L

Serial ID: WI100329-45 **Opened:** 29-MAR-10 **Balance Id :** 216
Name: TRACE ICP S-10 STD **Received:** 22-APR-09 **Pipet Id :** 3581809
Type: Working **Expires:** 30-MAR-10 **Solvent :** 3%HCL and 1%HNO3 -1293083
Employee: Helen Camello
Supplier: GEL
Description: TRACE ICP S-10 CALIBRATION STD.
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090421-40	Sodium	1000 ug/mL	10 mL	500 mL	20000 UG/L
UI090422-40	Aluminum	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Calcium	5000 mg/L	5 mL	500 mL	50000 UG/L
UI090422-40	Iron	2000 mg/L	5 mL	500 mL	20000 UG/L
UI090422-40	Magnesium	5000 mg/L	5 mL	500 mL	50000 UG/L

Serial ID: WI100329-46 **Opened:** 29-MAR-10 **Balance Id :** 216
Name: ICP TRACE ICV **Received:** 25-SEP-09 **Pipet Id :** 3581809
Type: Working **Expires:** 30-MAR-10 **Solvent :** 3%HCL AND 1%HNO3-1293083
Employee: Helen Camello
Supplier: GEL
Description: Initial Calibration Verification ICP Trace Metals
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-40	Aluminum	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Arsenic	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Barium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Boron	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cadmium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Calcium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Chromium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Cobalt	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Copper	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Iron	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-40	Lead	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-40	Phosphorous	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Potassium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Selenium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Sodium	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-40	Strontium	100 mg/L	2.5 mL	500 mL	500 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090925-41	Antimony	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Beryllium	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Magnesium	1000 mg/L	2.5 mL	500 mL	5000 ug/L
UI090925-41	Manganese	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Molybdenum	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Nickel	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Silver	50 mg/L	2.5 mL	500 mL	250 ug/L
UI090925-41	Sulfur	500 mg/L	2.5 mL	500 mL	2500 ug/L
UI090925-41	Thallium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Tin	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Titanium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Uranium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Vanadium	100 mg/L	2.5 mL	500 mL	500 ug/L
UI090925-41	Zinc	100 mg/L	2.5 mL	500 mL	500 ug/L
UI091102-42	Silica	2139 mg/L	2.5 mL	500 mL	10695 ug/L
UI091102-42	Silicon	1000 mg/L	2.5 mL	500 mL	5000 ug/L

Serial ID: WI100329-47 **Opened:** 29-MAR-10 **Balance Id :** 216
Name: PQL Working Standard **Received:** 30-JUN-09 **Pipet Id :** 3581809
Type: Working **Expires:** 30-MAR-10 **Solvent :** 3%HCL &1%HNO3-1293083
Employee: Helen Camello
Supplier: 02si
Description: PQL Working Standard
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Aluminum	100 mg/L	2 mL	1000 mL	200 ug/L
UI090701-40	Antimony	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Arsenic	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Barium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Beryllium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Boron	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Cadmium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Calcium	100 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Chromium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Cobalt	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Copper	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Iron	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Lead	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Magnesium	150 mg/L	2 mL	1000 mL	300 ug/L
UI090701-40	Manganese	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Molybdenum	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Nickel	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Phosphorous	75 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Potassium	75 mg/L	2 mL	1000 mL	150 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-40	Selenium	15 mg/L	2 mL	1000 mL	15 ug/L
UI090701-40	Silicon	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Silver	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sodium	150 mg/L	2 mL	1000 mL	150 ug/L
UI090701-40	Strontium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Sulfur	50 mg/L	2 mL	1000 mL	100 ug/L
UI090701-40	Thallium	10 mg/L	2 mL	1000 mL	20 ug/L
UI090701-40	Tin	5 mg/L	2 mL	1000 mL	10 ug/L
UI090701-40	Titanium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Uranium	25 mg/L	2 mL	1000 mL	50 ug/L
UI090701-40	Vanadium	2.5 mg/L	2 mL	1000 mL	5 ug/L
UI090701-40	Zinc	5 mg/L	2 mL	1000 mL	10 ug/L

Serial ID: WMS100506-04AB **Opened:** 06-MAY-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 06-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 07-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100506-04B	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100506-04B	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100506-04B	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100506-04B	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100506-04B	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100506-04B	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100506-04B	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100506-04B	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100506-04B	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100506-04B	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100506-04B	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100506-04B **Opened:** 06-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 06-MAY-10 **Balance Id :** 40245216
Type: Working **Expires:** 07-MAY-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1333263
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100506-06B **Opened:** 06-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 06-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 07-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100506-07B **Opened:** 06-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 06-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 07-MAY-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1333263
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100506-08B **Opened:** 06-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 06-MAY-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 07-MAY-10 **Solvent :** 2%HNO3/1%HCl- 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Serial ID: WMS100507-04 **Opened:** 07-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 07-MAY-10 **Balance Id :** 4025216
Type: Working **Expires:** 08-MAY-10 **Pipet Id :** 3541598
Employee: Paul Boyd **Solvent :** 2%HNO3/1%HCl-1333263
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5 mL	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5 mL	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Copper	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Nickel	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5 mL	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5 mL	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5 mL	50 mL	100 ug/l

Serial ID: WMS100507-04AB **Opened:** 07-MAY-10 **Balance Id :** 40245216
Name: ICPMS Cal Standard 10 **Received:** 07-MAY-10 **Pipet Id :** 3541598
Type: Working **Expires:** 08-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS Calibration Standard (10 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100507-04	Aluminum	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100507-04	Antimony	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Arsenic	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Barium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Beryllium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Boron	200 ug/l	5 mL	50 mL	20 ug/l
WMS100507-04	Cadmium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Calcium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100507-04	Chromium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Cobalt	100 ug/l	5 mL	50 mL	10 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
WMS100507-04	Copper	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Iron	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100507-04	Lead	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Lithium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Magnesium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100507-04	Manganese	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Molybdenum	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Nickel	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Phosphorous	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100507-04	Potassium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100507-04	Selenium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Silver	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Sodium	10000 ug/l	5 mL	50 mL	1000 ug/l
WMS100507-04	Strontium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Thallium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Thorium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Tin	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Titanium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Tungsten	100 ug/L	5 mL	50 mL	10 ug/L
WMS100507-04	Uranium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Vanadium	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Zinc	100 ug/l	5 mL	50 mL	10 ug/l
WMS100507-04	Zirconium	100 ug/l	5 mL	50 mL	10 ug/l

Serial ID: WMS100507-04B **Opened:** 07-MAY-10 **Amount :** 50 mL
Name: ICPMS Cal Standard 100 **Received:** 07-MAY-10 **Balance Id :** 40245216
Type: Working **Expires:** 08-MAY-10 **Pipet Id :** 1758088
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl- 1333263
Supplier: GEL
Description: ICPMS Calibration Standard (100 ppb)
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090612-02	Tungsten	10 mg/L	.5 mL	50 mL	100 ug/L
UMS100415-01	Arsenic	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Barium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Beryllium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Boron	20 mg/L	.5	50 mL	200 ug/l
UMS100415-01	Cadmium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Chromium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Cobalt	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Copper	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lead	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Lithium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Manganese	10 mg/L	.5	50 mL	100 ug/l

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UMS100415-01	Nickel	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Selenium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Silver	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Strontium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thallium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Thorium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Uranium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Vanadium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-01	Zinc	10 mg/L	.5	50 mL	100 ug/l
UMS100415-02	Aluminum	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Calcium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Iron	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Magnesium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Phosphorous	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Potassium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-02	Sodium	1000 mg/L	.5	50 mL	10000 ug/l
UMS100415-03	Antimony	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Molybdenum	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Tin	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Titanium	10 mg/L	.5	50 mL	100 ug/l
UMS100415-03	Zirconium	10 mg/L	.5	50 mL	100 ug/l

Serial ID: WMS100507-06B **Opened:** 07-MAY-10 **Balance Id :** 40245216
Name: ICPMS CRDL **Received:** 07-MAY-10 **Pipet Id :** 3820544
Type: Working **Expires:** 08-MAY-10 **Solvent :** 2%HNO3/1%HCl - 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS CRDL
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Aluminum	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Arsenic	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Barium	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Beryllium	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-09	Boron	15 mg/L	.05 mL	50 mL	15 ug/L
UI090701-09	Cadmium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Calcium	100 mg/L	.05 mL	50 mL	100 ug/L
UI090701-09	Chromium	3 mg/L	.05 mL	50 mL	3 ug/L
UI090701-09	Cobalt	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Copper	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Iron	25 mg/L	.05 mL	50 mL	25 ug/L
UI090701-09	Lead	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Lithium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Magnesium	15 mg/L	.05 mL	50 mL	15 ug/L

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI090701-09	Manganese	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Nickel	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-09	Phosphorous	50 mg/L	.05 mL	50 mL	50 ug/L
UI090701-09	Potassium	300 mg/L	.05 mL	50 mL	300 ug/L
UI090701-09	Selenium	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-09	Sodium	250 mg/L	.05 mL	50 mL	250 ug/L
UI090701-09	Strontium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Thallium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Thorium	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-09	Uranium	.2 mg/L	.05 mL	50 mL	.2 ug/L
UI090701-09	Vanadium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-09	Zinc	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Antimony	2 mg/L	.05 mL	50 mL	2 ug/L
UI090701-10	Molybdenum	.5 mg/L	.05 mL	50 mL	.5 ug/L
UI090701-10	Silver	1 mg/L	.05 mL	50 mL	1 ug/L
UI090701-10	Tin	2 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Titanium	10 mg/L	.05 mL	50 mL	10 ug/L
UI090701-10	Tungsten	5 mg/L	.05 mL	50 mL	5 ug/L
UI090701-10	Zirconium	2 mg/L	.05 mL	50 mL	2 ug/L

Serial ID: WMS100507-07B **Opened:** 07-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSA **Received:** 07-MAY-10 **Lot Number :** 1010773
Type: Working **Expires:** 08-MAY-10 **Pipet Id :** 3541598
Employee: Rose Jenkins **Solvent :** 2%HNO3/1%HCl - 1333263
Supplier: GEL
Description: ICPMS ICSA
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: WMS100507-08B **Opened:** 07-MAY-10 **Balance Id :** 40245216
Name: ICPMS ICSAB **Received:** 07-MAY-10 **Pipet Id :** 3541598/1758088
Type: Working **Expires:** 08-MAY-10 **Solvent :** 2%HNO3/1%HCl- 1333263
Employee: Rose Jenkins
Supplier: GEL
Description: ICPMS ICSAB
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
UI100405-12	Arsenic	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Barium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Beryllium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Boron	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Cadmium	2 mg/L	.5 mL	50 mL	20.2 ug/L
UI100405-12	Chromium	2 mg/L	.5 mL	50 mL	22.2 ug/L
UI100405-12	Cobalt	2 mg/L	.5 mL	50 mL	20.4 ug/L
UI100405-12	Copper	2 mg/L	.5 mL	50 mL	23.4 ug/L
UI100405-12	Lead	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Lithium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Manganese	2 mg/L	.5 mL	50 mL	22.7 ug/L
UI100405-12	Nickel	2 mg/L	.5 mL	50 mL	22.4 ug/L
UI100405-12	Selenium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Strontium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thallium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Thorium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Uranium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Vanadium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-12	Zinc	2 mg/L	.5 mL	50 mL	27 ug/L
UI100405-13	Antimony	2 mg/L	.5 mL	50 mL	20.5 ug/L
UI100405-13	Silver	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tin	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Tungsten	2 mg/L	.5 mL	50 mL	20 ug/L
UI100405-13	Zirconium	2 mg/L	.5 mL	50 mL	20 ug/L
UI100415-11	Aluminum	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Calcium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Chloride	10000 mg/L	5 mL	50 mL	1000000 ug/L
UI100415-11	Iron	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Magnesium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Molybdenum	20 mg/L	5 mL	50 mL	2000 ug/L
UI100415-11	Phosphorous	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Potassium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sodium	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Sulfur	1000 mg/L	5 mL	50 mL	100000 ug/L
UI100415-11	Titanium	20 mg/L	5 mL	50 mL	2000 ug/L

Standard Logbook

Serial ID: 1156689-A **Opened:** 20-JUL-09 **Lot Number :** 41226920
Name: B-KMnO4(VWR)-MER **Received:** 20-JUL-09
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin **Verified:** 07-AUG-08
Supplier: VWR
Description: Potassium Permanganate
Comments: None

Serial ID: 1176183 **Opened:** 24-AUG-09 **Lot Number :** H20001
Name: B-H2SO4-MER **Received:** 24-AUG-09
Type: Reagent/Solvent **Expires:** 24-AUG-10
Employee: Tara Griffin
Supplier: Mallinckrodt
Description: Sulfuric Acid, Concentrated
Comments: None

Serial ID: 1215906 **Opened:** 06-NOV-09 **Lot Number :** H44465
Name: B-K2S2O8S-MER **Received:** 06-NOV-09
Type: Reagent/Solvent **Expires:** 06-NOV-10
Employee: Tara Griffin
Supplier: J.T BAKER
Description: Potassium Persulfate Concentrate.
Comments: None

Serial ID: 1228372-A **Opened:** 12-NOV-09 **Lot Number :** 49215936
Name: B-NH2OH.HCl-MER **Received:** 12-NOV-09
Type: Reagent/Solvent **Expires:** 12-NOV-10
Employee: Tara Griffin
Supplier: Fisher Scientific
Description: Hydroxlyamine Hydrochloride
Comments: None

Serial ID: 1255532-C **Opened:** 15-JAN-10 **Balance Id :** BAL-002
Name: B-NaCl.NH2OH.HCl-MER **Received:** 15-JAN-10
Type: Reagent/Solvent **Expires:** 15-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: Hg reducing agent
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1228372-A	B-NH2OH.HCl-MER	N/A	120 g	1000 mL	N/A

Standard Logbook

Serial ID: 1274391-1 **Opened:** 24-FEB-10 **Instrument Id :** MERCURY
Name: B-HNO3-MER **Received:** 24-FEB-10 **Lot Number :** H44025
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Tara Griffin
Supplier: Mallinckrodt Chemicals
Description: NITRIC ACID
Comments: None

Serial ID: 1274397-C **Opened:** 24-FEB-10 **Balance Id :** BAL-002
Name: B-KMnO4-MER **Received:** 24-FEB-10
Type: Reagent/Solvent **Expires:** 20-JUL-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% KMnO4 solution
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1156689-A	B-KMnO4(VWR)-MER	Crystals	50 g	1000 mL	3%

Serial ID: 1274969 **Opened:** 24-FEB-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 24-FEB-10
Type: Reagent/Solvent **Expires:** 24-FEB-11
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1276435-C **Opened:** 28-FEB-10 **Balance Id :** BAL-002
Name: B-K2S2O8-MER **Received:** 28-FEB-10
Type: Reagent/Solvent **Expires:** 28-AUG-10
Employee: Tara Griffin
Supplier: GEL
Description: 5% Potassium Persulfate
Comments: None

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1215906	B-K2S2O8S-MER	N/A	50 g	1000 mL	N/A

Serial ID: 1277916 **Opened:** 02-MAR-10 **Lot Number :** J02039
Name: I-HCL **Received:** 02-MAR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 02-MAR-11
Employee: Francena Armstrong
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID

Comments: None

Serial ID: 1277919 **Opened:** 02-MAR-10 **Lot Number :** J 04043 L
Name: I-HNO3 **Received:** 02-MAR-10
Type: Reagent/Solvent **Expires:** 02-MAR-11
Employee: Francena Armstrong
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1293083 **Opened:** 29-MAR-10 **Amount :** 20 L
Name: B-ICP-RINSE SOLN **Received:** 29-MAR-10 **Lot Number :** H04040+G34050
Type: Reagent/Solvent **Expires:** 04-APR-10 **Solvent :** 3%HCL+1%HNO3
Employee: Helen Camello
Supplier: GEL
Description: 3%HCL+1%HNO3 RINSE SOLN.
Comments: None

Serial ID: 1302252 **Opened:** 15-APR-10 **Lot Number :** J 10027 L
Name: I-HNO3 **Received:** 15-APR-10
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: BAKER
Description: Nitric Acid CONC.
Comments: None

Serial ID: 1302255 **Opened:** 15-APR-10 **Lot Number :** J07033
Name: I-HCL **Received:** 15-APR-10 **Preservative_Id :** 5 none
Type: Reagent/Solvent **Expires:** 15-APR-11
Employee: Louis Hall
Supplier: J.T. BAKER
Description: HYDROCHLORIC ACID
Comments: None

Serial ID: 1333263 **Opened:** 03-MAY-10 **Solvent :** Type I Water
Name: B-2%HNO3/1%HCl-ICPMS **Received:** 03-MAY-10
Type: Reagent/Solvent **Expires:** 10-MAY-10
Employee: Paul Boyd
Supplier: GEL
Description: 2%HNO3/1%HCl Solution (Type I Water)
Comments: None

Standard Logbook

Parent Material	Analyte	Parent Conc.	Aliquot	Final Vol.	Final Conc.
1302252	I-HNO3	69.0-70.0	160 mL	8 l	N/A
1302255	I-HCL	36.5-38.0	80 mL	8 l	N/A

General Chemistry Analysis

Case Narrative

General Chemistry Narrative
Los Alamos National Laboratory (LANL)
SDG 10-2058

Method/Analysis Information

Product: **Specific Conductivity**

Analytical Batch: 960274 **Method:** EPA120.1 Specific Conductivity

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 120.1:

Sample ID	Client ID
248044001	CAPA-10-12770
248044003	CAPA-10-13082
248044005	CAPA-10-13085
248044006	CAPA-10-13320
1202059732	247817001(CAPA-10-13094) Sample Duplicate (DUP)
1202059733	247922004(WST29-10-13281) Sample Duplicate (DUP)
1202059735	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-009 REV# 9.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Conductivity analysis was performed on a Orion 160 Conductivity Meter.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 247817001 (CAPA-10-13094) and 247922004 (WST29-10-13281).

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **pH**

Analytical Batch: 959606 **Method:** EPA 150.1 pH

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 150.1:

Sample ID	Client ID
248044001	CAPA-10-12770
248044003	CAPA-10-13082
248044005	CAPA-10-13085
248044006	CAPA-10-13320
1202058097	248019001(WST05-10-12492) Sample Duplicate (DUP)
1202058098	248024002(CAPA-10-12872) Sample Duplicate (DUP)
1202058099	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-008 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Electrode analysis was performed on a PerpHect pH Meter Orion 370.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 248019001 (WST05-10-12492) and 248024002 (CAPA-10-12872).

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
The following samples from this sample group were received by the lab outside of the method specified holding time: 248044001 (CAPA-10-12770), 248044003 (CAPA-10-13082), 248044005 (CAPA-10-13085) and 248044006 (CAPA-10-13320).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Cyanide, Total**		
Analytical Batch:	958168, 959217 and 963030	**Method:**	EPA 335.4 Cyanide and Total
Prep Batch :	958167, 959216 and 963029	**Method:**	EEPA 335.4

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 335.4:

Sample ID	Client ID
248044002	CAPA-10-12771
248044004	CAPA-10-13083
248044005	CAPA-10-13085
248044006	CAPA-10-13320
1202054789	Method Blank (MB)
1202054790	248010001(RE46-10-13185) Sample Duplicate (DUP)
1202054791	248044002(CAPA-10-12771) Sample Duplicate (DUP)
1202054792	248010001(RE46-10-13185) Matrix Spike (MS)
1202054793	248044002(CAPA-10-12771) Matrix Spike (MS)
1202054794	248010001(RE46-10-13185) Matrix Spike Duplicate (MSD)
1202054795	248044002(CAPA-10-12771) Matrix Spike Duplicate (MSD)
1202054796	Laboratory Control Sample (LCS)
1202057161	Method Blank (MB)
1202057162	248188001(RE11-10-1654) Sample Duplicate (DUP)
1202057163	248044005(CAPA-10-13085) Sample Duplicate (DUP)
1202057164	248188001(RE11-10-1654) Matrix Spike (MS)
1202057165	248044005(CAPA-10-13085) Matrix Spike (MS)
1202057166	248188001(RE11-10-1654) Matrix Spike Duplicate (MSD)
1202057167	248044005(CAPA-10-13085) Matrix Spike Duplicate (MSD)
1202057168	Laboratory Control Sample (LCS)
1202065974	Method Blank (MB)
1202065975	Laboratory Control Sample (LCS)
1202065976	248044004(CAPA-10-13083) Sample Duplicate (DUP)
1202065977	248044004(CAPA-10-13083) Matrix Spike (MS)
1202065978	248044004(CAPA-10-13083) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-095 REV# 12.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Flow Injection analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement

The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 248010001 (RE46-10-13185), 248044002 (CAPA-10-12771)- Batch 958168, 248044005 (CAPA-10-13085), 248188001 (RE11-10-1654)- Batch 959217 and 248044004 (CAPA-10-13083)- Batch 963030.

Matrix Spike (MS)/Post Spike (PS) Recovery Statement

The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement

The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement

The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement

The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202057163 (CAPA-10-13085), 248044005 (CAPA-10-13085)- Batch 959217, 1202065976 (CAPA-10-13083) and 248044004 (CAPA-10-13083)- Batch 963030.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following sample was re-analyzed due to instrument failure: 1202057164 (RE11-10-1654)- Batch 959217.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Ion Chromatography**

Analytical Batch: 966823 **Method:** EPA 300.0 Anions Liquid 28 day

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
248044001	CAPA-10-12770
248044003	CAPA-10-13082
248044005	CAPA-10-13085
248044006	CAPA-10-13320
1202074932	Method Blank (MB)
1202074933	248023001(CAPA-10-12916) Sample Duplicate (DUP)
1202074934	248023001(CAPA-10-12916) Post Spike (PS)
1202074935	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-086 REV# 17.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Ion Chromatography analysis was performed on a Dionex ICS-3000 Ion Chromatograph.

Initial Calibration

All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule

The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following sample was selected for QC analysis: 248023001 (CAPA-10-12916).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the GEL acceptance limits for Fluoride, but within the client specified limits of 75%-125% due to matrix interference. Of the remaining anions in the PS, all meet required acceptance limits. The deviation is noted in the Case Narrative and DER, and the data has been reported. 1202074934 (CAPA-10-12916).

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Dilutions
The following sample in this sample group was diluted due to high concentration: 248044001 (CAPA-10-12770).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 808270 1202074934 (CAPA-10-12916).

Manual Integrations
The following samples from this sample group had to be manually integrated due to errors in the instrument software peak integration: 1202074933 (CAPA-10-12916), 1202074934 (CAPA-10-12916), 248044001 (CAPA-10-12770) and 248044003 (CAPA-10-13082).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are

present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Ammonia Nitrogen**		
Analytical Batch:	958142	**Method:**	EPA 350.1 Nitrogen and Ammonia L
Prep Batch :	958141	**Method:**	EEPA 350.2 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 350.1:

Sample ID	Client ID
248044001	CAPA-10-12770
248044003	CAPA-10-13082
248044005	CAPA-10-13085
248044006	CAPA-10-13320
1202054694	Method Blank (MB)
1202054695	248074001(SWWS46-10-13636) Sample Duplicate (DUP)
1202054697	248074001(SWWS46-10-13636) Matrix Spike (MS)
1202054699	248074001(SWWS46-10-13636) Matrix Spike Duplicate (MSD)
1202054701	Laboratory Control Sample (LCS)
1202054719	248023001(CAPA-10-12916) Sample Duplicate (DUP)
1202054720	248019001(WST05-10-12492) Sample Duplicate (DUP)
1202054721	248023001(CAPA-10-12916) Matrix Spike (MS)
1202054722	248019001(WST05-10-12492) Matrix Spike (MS)
1202054723	248023001(CAPA-10-12916) Matrix Spike Duplicate (MSD)
1202054724	248019001(WST05-10-12492) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-106 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 248019001 (WST05-10-12492), 248023001 (CAPA-10-12916) and 248074001 (SWWS46-10-13636).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery falls outside of the established acceptance limits due to matrix interference: 1202054697 (SWWS46-10-13636). The spike recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202054721 (CAPA-10-12916) and 1202054722 (WST05-10-12492).

Matrix Spike Duplicate (MSD) Recovery Statement
The spike duplicate recovery falls outside of the established acceptance limits due to matrix interference: 1202054699 (SWWS46-10-13636). The spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits. 1202054723 (CAPA-10-12916) and 1202054724 (WST05-10-12492).

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
One or more of the values for the sample and/or duplicate are less than 5 times the Practical Quantitation Limit (PQL), and the difference is within one PQL value; therefore, the RPD is not applicable. 1202054695 (SWWS46-10-13636). The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202054719 (CAPA-10-12916) and 1202054720 (WST05-10-12492).

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following samples were re-analyzed due to instrument failure: 1202054699 (SWWS46-10-13636) and 1202054723 (CAPA-10-12916).

Miscellaneous Information

Data Exception (DER) Documentation
The following DER was generated for this SDG: 797320 1202054697 (SWWS46-10-13636), 1202054699 (SWWS46-10-13636), 1202054721 (CAPA-10-12916), 1202054722 (WST05-10-12492), 1202054723 (CAPA-10-12916) and 1202054724 (WST05-10-12492).

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Nitrate Nitrite by Cadmium Reduction**		
Analytical Batch:	958150, 959199 and 959715	**Method:**	EPA 353.2 Nitrogen and Nitrate/Nitrite

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 353.2:

Sample ID	Client ID
248044001	CAPA-10-12770
248044003	CAPA-10-13082
248044005	CAPA-10-13085
248044006	CAPA-10-13320
1202054725	Method Blank (MB)
1202054726	247793001(RE15-10-8330) Sample Duplicate (DUP)
1202054727	248044001(CAPA-10-12770) Sample Duplicate (DUP)
1202054728	248074001(SWWS46-10-13636) Sample Duplicate (DUP)
1202054729	247793001(RE15-10-8330) Post Spike (PS)
1202054730	248044001(CAPA-10-12770) Post Spike (PS)
1202054731	248074001(SWWS46-10-13636) Post Spike (PS)
1202054732	Laboratory Control Sample (LCS)
1202057088	Method Blank (MB)
1202057090	248108001(RE15-10-8407) Sample Duplicate (DUP)
1202057093	248108001(RE15-10-8407) Post Spike (PS)
1202057095	Laboratory Control Sample (LCS)
1202058290	Method Blank (MB)
1202058291	248044006(CAPA-10-13320) Sample Duplicate (DUP)
1202058292	248261001(WSTTH-10-13314) Sample Duplicate (DUP)
1202058294	248044006(CAPA-10-13320) Post Spike (PS)
1202058295	248261001(WSTTH-10-13314) Post Spike (PS)
1202058297	Laboratory Control Sample (LCS)
1202059915	248044005(CAPA-10-13085) Sample Duplicate (DUP)
1202059916	248044005(CAPA-10-13085) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-128 REV# 5.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information
The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8500 Series.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 247793001 (RE15-10-8330), 248044001 (CAPA-10-12770), 248074001 (SWWS46-10-13636)- Batch 958150, 248044005 (CAPA-10-13085), 248108001 (RE15-10-8407)- Batch 959199, 248044006 (CAPA-10-13320) and 248261001 (WSTTH-10-13314)- Batch 959715.

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The values for the sample and duplicate are less than the Practical Quantitation Limit (PQL); therefore, the RPD is not applicable. 1202054726 (RE15-10-8330)- Batch 958150 and 1202057090 (RE15-10-8407)- Batch 959199.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration: 1202054728 (SWWS46-10-13636) and 1202054731 (SWWS46-10-13636). The following samples in this sample group were diluted due to matrix interference: 1202054726 (RE15-10-8330), 1202054727 (CAPA-10-12770), 1202054729 (RE15-10-8330), 1202054730 (CAPA-10-12770), 248044001 (CAPA-10-12770), 248044003 (CAPA-10-13082)- Batch 958150, 1202057090 (RE15-10-8407), 1202057093 (RE15-10-8407), 1202059915 (CAPA-10-13085),

1202059916 (CAPA-10-13085), 248044005 (CAPA-10-13085)- Batch 959199, 1202058291 (CAPA-10-13320), 1202058292 (WSTTH-10-13314), 1202058294 (CAPA-10-13320), 1202058295 (WSTTH-10-13314) and 248044006 (CAPA-10-13320)- Batch 959715.

Sample Re-analysis
The following sample was re-analyzed due to instrument failure: 248044001 (CAPA-10-12770)- Batch 958150.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product:	**Total Phosphorus**		
Analytical Batch:	958139	**Method:**	EPA 365.4 Phosphorus and Total in
Prep Batch :	958136	**Method:**	EEPA 365.4 Prep

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 365.4:

Sample ID	Client ID
248044001	CAPA-10-12770
248044003	CAPA-10-13082
248044005	CAPA-10-13085
248044006	CAPA-10-13320
1202054686	Method Blank (MB)
1202054687	247817001(CAPA-10-13094) Sample Duplicate (DUP)
1202054689	247817001(CAPA-10-13094) Matrix Spike (MS)
1202054691	247817001(CAPA-10-13094) Matrix Spike Duplicate (MSD)
1202054693	Laboratory Control Sample (LCS)
1202054716	248019001(WST05-10-12492) Sample Duplicate (DUP)
1202054717	248019001(WST05-10-12492) Matrix Spike (MS)
1202054718	248019001(WST05-10-12492) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-103 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Nutrient analysis was performed on a Lachat QuickChem FIA+ 8000 Series.

Continuing Calibration Blanks

All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)

All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Y Intercept Rule
The absolute value of the intercept is less than 3 times the MDL.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
The following samples were selected for QC analysis: 247817001 (CAPA-10-13094) and 248019001 (WST05-10-12492).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPDs between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Preservation/Integrity
All the samples from this sample group met the preservation and integrity requirements of the method.

Sample Dilutions
The samples in this SDG did not require dilutions.

Sample Re-analysis
The following samples were re-analyzed due to CCB failure: 1202054717 (WST05-10-12492), 1202054718 (WST05-10-12492), 248044001 (CAPA-10-12770), 248044003 (CAPA-10-13082), 248044005 (CAPA-10-13085) and 248044006 (CAPA-10-13320).

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Solids, Total Dissolved**

Analytical Batch: 959189 **Method:** EPA 160.1 Solids and Dissolved-F

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 160.1:

Sample ID	Client ID
248044001	CAPA-10-12770
248044003	CAPA-10-13082
248044005	CAPA-10-13085
248044006	CAPA-10-13320
1202057049	Method Blank (MB)
1202057050	248023001(CAPA-10-12916) Sample Duplicate (DUP)
1202057051	248019001(WST05-10-12492) Sample Duplicate (DUP)
1202057052	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-001 REV# 10.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Solids analysis was performed on a Sartorius Balance BAL216. Solids lab

Initial Calibration

All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 248019001 (WST05-10-12492) and 248023001 (CAPA-10-12916).

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Sample Aliquot
A sufficient amount of sample was provided by the client for analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Solids, Total Suspended**

Analytical Batch: 959191 **Method:** EPA 160.2 SSC

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 160.2:

Sample ID	Client ID
248044005	CAPA-10-13085
1202057057	Method Blank (MB)
1202057058	248019002(WST05-10-12493) Sample Duplicate (DUP)
1202057060	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-012 REV# 10.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Solids analysis was performed on a Sartorius Balance BAL216. Solids lab

Initial Calibration

All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following sample was selected for QC analysis: 248019002 (WST05-10-12493).

Duplicate Relative Percent Difference (RPD) Statement

The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Sample Aliquot
Insufficient amount of 248044005 (CAPA-10-13085) was provided; therefore, reduced aliquot was used.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Less sample was analyzed due to the heterogeneous matrix of the sample. 1202057058 (WST05-10-12493).

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Method/Analysis Information

Product: **Alkalinity**

Analytical Batch: 959999 **Method:** EPA 310.1 Total Alkalinity

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 310.1:

Sample ID	Client ID
248044001	CAPA-10-12770
248044003	CAPA-10-13082
248044005	CAPA-10-13085
248044006	CAPA-10-13320
1202059079	Method Blank (MB)
1202059080	Laboratory Control Sample (LCS)
1202059082	248023001(CAPA-10-12916) Sample Duplicate (DUP)
1202059083	248127001(WSTPU-10-13394) Sample Duplicate (DUP)
1202059085	248023001(CAPA-10-12916) Matrix Spike (MS)
1202059086	248127001(WSTPU-10-13394) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

SOP Reference

Procedure for preparation, analysis and reporting of analytical data are controlled by GEL Laboratories LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-033 REV# 6.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by GEL Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Titration analysis was performed on a manually operated buret.

Initial Standardization

The titrant was properly standardized

Quality Control (QC) Information

Method Blank (MB) Statement

The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery

The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation

The following samples were selected for QC analysis: 248023001 (CAPA-10-12916) and 248127001 (WSTPU-10-13394).

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Matrix Spike Duplicate (MSD) Recovery Statement
The MSD recoveries for this sample set were within the required acceptance limits.

MS/MSD Relative Percent Difference (RPD) Statement
The RPD between the spike and spike duplicate met the acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Data Exception (DER) Documentation
A DER was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Electronic Packaging Comment
This data package was generated using an electronic data processing program referred to as virtual packaging. In an effort to increase quality and efficiency, the laboratory has developed systems to generate all data packages electronically. The following change from traditional packages should be noted:
Analyst/peer reviewer initials and dates are not present on the electronic data files. Presently, all initials and dates are present on the original raw data. These hard copies are temporarily stored in the laboratory. The data validator will always sign and date the case narrative. Data that are not generated electronically, such as hand written pages, will be scanned and inserted into the electronic package.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Review Validation:

GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

The following data validator verified the information presented in this case narrative:

Reviewer: Nik-Cole A. Elmore **Date:** 3.25.10

Sample Data Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

LANL010 Los Alamos National Laboratory (72733-001-09)

Client SDG: 10-2058 GEL Work Order: 248044

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** Indicates the analyte is a surrogate compound.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the detection limit.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Valerie Davis.

Reviewed by _____ 3-25-10

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Los Alamos National Laboratory
Address : PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2058

Client Sample ID: CAPA-10-12770
Sample ID: 248044001
Matrix: Ground Water
Collect Date: 22-FEB-10 12:00
Receive Date: 25-FEB-10
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Conductivity Analysis											
EPA120.1 Specific Conductivity "As Received"											
Conductivity		203	1.00	1.00	umhos/cm	1	TXT1	03/03/10	1630	960274	1
Electrode Analysis											
EPA 150.1 pH "As Received"											
pH at Temp 15.8C	H	6.78	0.010	0.100	SU	1	LXA1	03/01/10	1849	959606	2
Ion Chromatography											
EPA 300.0 Anions Liquid 28 day "As Received"											
Bromide	U	ND	0.066	0.200	mg/L	1	VH1	03/21/10	0317	966823	3
Fluoride		0.138	0.033	0.100	mg/L	1					
Sulfate		9.82	0.100	0.400	mg/L	1					
Chloride	H	19.4	0.330	1.00	mg/L	5	VH1	03/22/10	1944	966823	4
Nutrient Analysis											
EPA 350.1 Nitrogen, Ammonia L "As Received"											
Nitrogen, Ammonia	U	ND	0.016	0.050	mg/L	1	AXH3	03/01/10	1407	958142	5
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"											
Nitrogen, Nitrate/Nitrite		0.446	0.050	0.250	mg/L	5	AXH3	03/03/10	1122	958150	6
EPA 365.4 Phosphorus, Total in "As Received"											
Phosphorus, Total as P		0.061	0.015	0.050	mg/L	1	AXH3	03/05/10	0948	958139	7
Solids Analysis											
EPA 160.1 Solids, Dissolved-F "As Received"											
Total Dissolved Solids		146	2.38	10.0	mg/L		SDS	03/01/10	1356	959189	8
Titration Analysis											
EPA 310.1 Total Alkalinity "As Received"											
Alkalinity, Total as CaCO3		45.7	0.725	1.00	mg/L		LXA1	03/02/10	1647	959999	9
Carbonate alkalinity (CaCO3)	U	ND	0.725	1.00	mg/L						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	SXJ1	03/01/10	0930	958141
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	SXJ1	03/02/10	1030	958136

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 120.1	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2058

Client Sample ID: CAPA-10-12770
Sample ID: 248044001

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
2	EPA 150.1									
3	EPA 300.0									
4	EPA 300.0									
5	EPA 350.1									
6	EPA 353.2									
7	EPA 365.4									
8	EPA 160.1									
9	EPA 310.1									

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2058

Client Sample ID:	CAPA-10-12771	Project:	ESHL01000
Sample ID:	248044002	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	22-FEB-10 12:00		
Receive Date:	25-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
EPA 335.4 Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/08/10	1052	958168	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	03/05/10	1535	958167

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2058

Client Sample ID:	CAPA-10-13082	Project:	ESHL01000
Sample ID:	248044003	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	23-FEB-10 12:00		
Receive Date:	25-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Conductivity Analysis										
EPA120.1 Specific Conductivity "As Received"										
Conductivity		211	1.00	1.00	umhos/cm	1	TXT1 03/03/10	1630	960274	1
Electrode Analysis										
EPA 150.1 pH "As Received"										
pH at Temp 16.3C	H	7.84	0.010	0.100	SU	1	LXA1 03/01/10	1851	959606	2
Ion Chromatography										
EPA 300.0 Anions Liquid 28 day "As Received"										
Bromide	U	ND	0.066	0.200	mg/L	1	VH1 03/21/10	0343	966823	3
Chloride		2.05	0.066	0.200	mg/L	1				
Fluoride		0.315	0.033	0.100	mg/L	1				
Sulfate		5.69	0.100	0.400	mg/L	1				
Nutrient Analysis										
EPA 350.1 Nitrogen, Ammonia L "As Received"										
Nitrogen, Ammonia	U	ND	0.016	0.050	mg/L	1	AXH3 03/01/10	1408	958142	4
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"										
Nitrogen, Nitrate/Nitrite	J	0.183	0.050	0.250	mg/L	5	AXH3 03/03/10	1113	958150	5
EPA 365.4 Phosphorus, Total in "As Received"										
Phosphorus, Total as P		0.062	0.015	0.050	mg/L	1	AXH3 03/05/10	1003	958139	6
Solids Analysis										
EPA 160.1 Solids, Dissolved-F "As Received"										
Total Dissolved Solids		167	2.38	10.0	mg/L		SDS 03/01/10	1356	959189	7
Titration Analysis										
EPA 310.1 Total Alkalinity "As Received"										
Alkalinity, Total as CaCO3		93.8	0.725	1.00	mg/L		LXA1 03/02/10	1651	959999	8
Carbonate alkalinity (CaCO3)	U	ND	0.725	1.00	mg/L					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	SXJ1	03/01/10	0930	958141
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	SXJ1	03/02/10	1030	958136

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 120.1	

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Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2058

Client Sample ID: CAPA-10-13082
Sample ID: 248044003

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
2	EPA 150.1									
3	EPA 300.0									
4	EPA 350.1									
5	EPA 353.2									
6	EPA 365.4									
7	EPA 160.1									
8	EPA 310.1									

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Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2058

Client Sample ID:	CAPA-10-13083	Project:	ESHL01000
Sample ID:	248044004	Client ID:	LANL010
Matrix:	Ground Water		
Collect Date:	23-FEB-10 12:00		
Receive Date:	25-FEB-10		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Flow Injection Analysis										
EPA 335.4 Cyanide, Total "As Received"										
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2 03/09/10	1518	963030	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	03/09/10	1137	963029

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 335.4	

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Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2058

Client Sample ID: CAPA-10-13085
Sample ID: 248044005
Matrix: Ground Water
Collect Date: 23-FEB-10 12:00
Receive Date: 25-FEB-10
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Conductivity Analysis											
EPA120.1 Specific Conductivity "As Received"											
Conductivity		1.18	1.00	1.00	umhos/cm	1	TXT1	03/03/10	1630	960274	1
Electrode Analysis											
EPA 150.1 pH "As Received"											
pH at Temp 16.3C	H	5.96	0.010	0.100	SU	1	LXA1	03/01/10	1853	959606	2
Flow Injection Analysis											
EPA 335.4 Cyanide, Total "As Received"											
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2	03/08/10	1506	959217	3
Ion Chromatography											
EPA 300.0 Anions Liquid 28 day "As Received"											
Bromide	U	ND	0.066	0.200	mg/L	1	VH1	03/21/10	0410	966823	4
Chloride	U	ND	0.066	0.200	mg/L	1					
Fluoride	U	ND	0.033	0.100	mg/L	1					
Sulfate	U	ND	0.100	0.400	mg/L	1					
Nutrient Analysis											
EPA 350.1 Nitrogen, Ammonia L "As Received"											
Nitrogen, Ammonia	J	0.016	0.016	0.050	mg/L	1	AXH3	03/01/10	1412	958142	5
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"											
Nitrogen, Nitrate/Nitrite	U	ND	0.050	0.250	mg/L	5	AXH3	03/03/10	1205	959199	6
EPA 365.4 Phosphorus, Total in "As Received"											
Phosphorus, Total as P	J	0.028	0.015	0.050	mg/L	1	AXH3	03/05/10	0950	958139	7
Solids Analysis											
EPA 160.1 Solids, Dissolved-F "As Received"											
Total Dissolved Solids	U	ND	2.38	10.0	mg/L		SDS	03/01/10	1356	959189	8
EPA 160.2 SSC "As Received"											
Total Suspended Solids	U	ND	1.14	5.00	mg/L		SDS	03/01/10	1021	959191	9
Titration Analysis											
EPA 310.1 Total Alkalinity "As Received"											
Alkalinity, Total as CaCO3		1.43	0.725	1.00	mg/L		LXA1	03/02/10	1703	959999	10
Carbonate alkalinity (CaCO3)	U	ND	0.725	1.00	mg/L						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	03/08/10	1241	959216
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	SXJ1	03/01/10	0930	958141

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Certificate of Analysis

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2058

Client Sample ID: CAPA-10-13085
Sample ID: 248044005

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR			SXJ1	03/02/10	1030	958136			

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 120.1	
2	EPA 150.1	
3	EPA 335.4	
4	EPA 300.0	
5	EPA 350.1	
6	EPA 353.2	
7	EPA 365.4	
8	EPA 160.1	
9	EPA 160.2	
10	EPA 310.1	

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2058

Client Sample ID: CAPA-10-13320
Sample ID: 248044006
Matrix: Ground Water
Collect Date: 23-FEB-10 12:00
Receive Date: 25-FEB-10
Collector: Client

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Conductivity Analysis											
EPA120.1 Specific Conductivity "As Received"											
Conductivity		1.39	1.00	1.00	umhos/cm	1	TXT1	03/03/10	1631	960274	1
Electrode Analysis											
EPA 150.1 pH "As Received"											
pH at Temp 15.6C	H	6.31	0.010	0.100	SU	1	LXA1	03/01/10	1856	959606	2
Flow Injection Analysis											
EPA 335.4 Cyanide, Total "As Received"											
Cyanide, Total	U	ND	1.66	5.00	ug/L	1	AXC2	03/08/10	1510	959217	3
Ion Chromatography											
EPA 300.0 Anions Liquid 28 day "As Received"											
Bromide	U	ND	0.066	0.200	mg/L	1	VH1	03/21/10	0436	966823	4
Chloride	U	ND	0.066	0.200	mg/L	1					
Fluoride	J	0.0982	0.033	0.100	mg/L	1					
Sulfate	U	ND	0.100	0.400	mg/L	1					
Nutrient Analysis											
EPA 350.1 Nitrogen, Ammonia L "As Received"											
Nitrogen, Ammonia	U	ND	0.016	0.050	mg/L	1	AXH3	03/01/10	1413	958142	5
EPA 353.2 Nitrogen, Nitrate/Nitrite "As Received"											
Nitrogen, Nitrate/Nitrite	U	ND	0.050	0.250	mg/L	5	AXH3	03/03/10	1250	959715	6
EPA 365.4 Phosphorus, Total in "As Received"											
Phosphorus, Total as P	U	ND	0.015	0.050	mg/L	1	AXH3	03/05/10	0951	958139	7
Solids Analysis											
EPA 160.1 Solids, Dissolved-F "As Received"											
Total Dissolved Solids	U	ND	2.38	10.0	mg/L		SDS	03/01/10	1356	959189	8
Titration Analysis											
EPA 310.1 Total Alkalinity "As Received"											
Alkalinity, Total as CaCO3		1.91	0.725	1.00	mg/L		LXA1	03/02/10	1703	959999	9
Carbonate alkalinity (CaCO3)	U	ND	0.725	1.00	mg/L						

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
EPA 335.4	EPA 335.4 Total Cyanide	AXS5	03/08/10	1241	959216
EPA 350.2 Prep	EPA 350.1 Ammonia Nitrogen Prep	SXJ1	03/01/10	0930	958141
EPA 365.4 Prep	EPA 365.4 Phosphorus, Total in liquid PR	SXJ1	03/02/10	1030	958136

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Los Alamos, New Mexico 87545
Contact: Ms. Joylene Valdez
Project: **LANL-WQH Water Samples**

Report Date: March 24, 2010

Client SDG: 10-2058

Client Sample ID: CAPA-10-13320
Sample ID: 248044006

Project: ESHL01000
Client ID: LANL010

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 120.1	
2	EPA 150.1	
3	EPA 335.4	
4	EPA 300.0	
5	EPA 350.1	
6	EPA 353.2	
7	EPA 365.4	
8	EPA 160.1	
9	EPA 310.1	

Quality Control Summary

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: March 24, 2010

Los Alamos National Laboratory
PO Box 1663
TA-03, SM271, Drop Pt. 02U, Rm111
Los Alamos, New Mexico

Contact: Ms. Joylene Valdez

Workorder: 248044

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Conductivity Analysis											
Batch 960274											
QC1202059732 247817001 DUP											
Conductivity			122		122	umhos/cm	0.164		(0%-10%)	TXT1	03/03/10 16:25
QC1202059733 247922004 DUP											
Conductivity			281		282	umhos/cm	0.355		(0%-10%)		03/03/10 16:27
QC1202059735 LCS											
Conductivity	1410				1380	umhos/cm		97.4	(95%-105%)		03/03/10 16:24
Electrode Analysis											
Batch 959606											
QC1202058097 248019001 DUP											
pH		H	8.43	H	8.46	SU	0.355		(0%-10%)	LXA1	03/01/10 18:40
QC1202058098 248024002 DUP											
pH		H	7.07	H	7.10	SU	0.423		(0%-10%)		03/01/10 18:45
QC1202058099 LCS											
pH	7.00				6.99	SU		99.9	(95%-105%)		03/01/10 18:38
Flow Injection Analysis											
Batch 958168											
QC1202054790 248010001 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A			AXC2	03/08/10 10:41
QC1202054791 248044002 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A				03/08/10 10:53
QC1202054796 LCS											
Cyanide, Total	50.0				50.4	ug/L		101	(90%-110%)		03/08/10 10:39
QC1202054789 MB											
Cyanide, Total				U	ND	ug/L					03/08/10 10:38
QC1202054792 248010001 MS											
Cyanide, Total	100	U	ND		114	ug/L		114	(60%-144%)		03/08/10 10:41
QC1202054793 248044002 MS											
Cyanide, Total	100	U	ND		113	ug/L		113	(60%-144%)		03/08/10 10:54
QC1202054794 248010001 MSD											
Cyanide, Total	100	U	ND		111	ug/L	2.67	111	(0%-20%)		03/08/10 10:42
QC1202054795 248044002 MSD											
Cyanide, Total	100	U	ND		94.5	ug/L	17.8	94.5	(0%-20%)		03/08/10 10:55
Batch 959217											
QC1202057162 248188001 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A			AXC2	03/08/10 15:24
QC1202057163 248044005 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A				03/08/10 15:07
QC1202057168 LCS											
Cyanide, Total	50.0				49.3	ug/L		98.6	(90%-110%)		03/08/10 15:05
QC1202057161 MB											
Cyanide, Total				U	ND	ug/L					03/08/10 15:05
QC1202057164 248188001 MS											

QC Summary

Workorder: 248044

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Flow Injection Analysis											
Batch 959217											
Cyanide, Total	100	U	ND		106	ug/L		106	(60%-144%)		03/08/10 15:37
QC1202057165 248044005 MS											
Cyanide, Total	100	U	ND		101	ug/L		101	(60%-144%)	AXC2	03/08/10 15:08
QC1202057166 248188001 MSD											
Cyanide, Total	100	U	ND		110	ug/L	3.70	110	(0%-20%)		03/08/10 15:30
QC1202057167 248044005 MSD											
Cyanide, Total	100	U	ND		105	ug/L	3.88	105	(0%-20%)		03/08/10 15:09
Batch 963030											
QC1202065976 248044004 DUP											
Cyanide, Total		U	ND	U	ND	ug/L	N/A			AXC2	03/09/10 15:19
QC1202065975 LCS											
Cyanide, Total	50.0				51.8	ug/L		104	(90%-110%)		03/09/10 15:17
QC1202065974 MB											
Cyanide, Total				U	ND	ug/L					03/09/10 15:16
QC1202065977 248044004 MS											
Cyanide, Total	100	U	ND		106	ug/L		106	(60%-144%)		03/09/10 15:20
QC1202065978 248044004 MSD											
Cyanide, Total	100	U	ND		109	ug/L	2.79	109	(0%-20%)		03/09/10 15:21
Ion Chromatography											
Batch 966823											
QC1202074933 248023001 DUP											
Bromide		U	ND	U	ND	mg/L	N/A			VH1	03/21/10 02:25
Chloride			1.75		1.74	mg/L	0.441		(0%-20%)		
Fluoride			0.233		0.214	mg/L	8.59 ^		(+/-0.100)		
Sulfate			2.47		2.48	mg/L	0.529		(0%-20%)		
QC1202074935 LCS											
Bromide	2.50				2.53	mg/L		101	(90%-110%)		03/21/10 01:33
Chloride	10.0				9.08	mg/L		90.8	(90%-110%)		
Fluoride	5.00				4.68	mg/L		93.6	(90%-110%)		
Sulfate	20.0				18.8	mg/L		93.9	(90%-110%)		
QC1202074932 MB											
Bromide				U	ND	mg/L					03/21/10 01:07
Chloride				U	ND	mg/L					
Fluoride				U	ND	mg/L					
Sulfate				U	ND	mg/L					
QC1202074934 248023001 PS											
Bromide	2.50	U	ND		2.51	mg/L		100	(90%-110%)		03/21/10 02:51
Chloride	10.0		1.75		10.8	mg/L		90.5	(90%-110%)		
Fluoride	5.00		0.233		4.69	mg/L		89.2*	(90%-110%)		
Sulfate	20.0		2.47		20.8	mg/L		91.6	(90%-110%)		
Nutrient Analysis											
Batch 958139											
QC1202054687 247817001 DUP											
Phosphorus, Total as P			0.060		0.050	mg/L	18.2 ^		(+/-0.050)	AXH3	03/05/10 08:57
QC1202054716 248019001 DUP											

QC Summary

Workorder: 248044

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Nutrient Analysis											
Batch 958139											
Phosphorus, Total as P			0.102		0.096	mg/L	6.06 ^		(+/-0.050)		03/05/10 09:02
QC1202054693 LCS											
Phosphorus, Total as P	1.00				1.09	mg/L		109	(86%-120%)	AXH3	03/05/10 08:55
QC1202054686 MB											
Phosphorus, Total as P				J	0.027	mg/L					03/05/10 08:54
QC1202054689 247817001 MS											
Phosphorus, Total as P	1.00		0.060		1.07	mg/L		107	(42%-150%)		03/05/10 08:58
QC1202054717 248019001 MS											
Phosphorus, Total as P	1.00		0.102		1.14	mg/L		104	(42%-150%)		03/05/10 09:44
QC1202054691 247817001 MSD											
Phosphorus, Total as P	1.00		0.060		1.05	mg/L	1.88	105	(0%-26%)		03/05/10 08:58
QC1202054718 248019001 MSD											
Phosphorus, Total as P	1.00		0.102		1.15	mg/L	1.48	105	(0%-26%)		03/05/10 09:44
Batch 958142											
QC1202054695 248074001 DUP											
Nitrogen, Ammonia			0.077		0.055	mg/L	33.3 ^		(+/-0.050)	AXH3	03/01/10 13:53
QC1202054719 248023001 DUP											
Nitrogen, Ammonia		U	ND	U	ND	mg/L	N/A				03/01/10 13:50
QC1202054720 248019001 DUP											
Nitrogen, Ammonia		J	0.039	J	0.028	mg/L	32.8 ^		(+/-0.050)		03/01/10 13:43
QC1202054701 LCS											
Nitrogen, Ammonia	1.00				1.01	mg/L		101	(90%-110%)		03/01/10 13:41
QC1202054694 MB											
Nitrogen, Ammonia				J	0.017	mg/L					03/01/10 13:41
QC1202054697 248074001 MS											
Nitrogen, Ammonia	1.00		0.077		0.784	mg/L		70.7*	(90%-110%)		03/01/10 13:54
QC1202054721 248023001 MS											
Nitrogen, Ammonia	1.00	U	ND		0.798	mg/L		78.3*	(90%-110%)		03/01/10 13:51
QC1202054722 248019001 MS											
Nitrogen, Ammonia	1.00	J	0.039		0.820	mg/L		78.1*	(90%-110%)		03/01/10 13:44
QC1202054699 248074001 MSD											
Nitrogen, Ammonia	1.00		0.077		0.783	mg/L	0.128	70.6*	(0%-15%)		03/01/10 14:04
QC1202054723 248023001 MSD											
Nitrogen, Ammonia	1.00	U	ND		0.802	mg/L	0.500	78.7*	(0%-15%)		03/01/10 14:03
QC1202054724 248019001 MSD											
Nitrogen, Ammonia	1.00	J	0.039		0.828	mg/L	0.971	78.9*	(0%-15%)		03/01/10 13:48
Batch 958150											
QC1202054726 247793001 DUP											
Nitrogen, Nitrate/Nitrite		U	ND	J	0.111	mg/L	200		(+/-0.500)	AXH3	03/03/10 11:38
QC1202054727 248044001 DUP											
Nitrogen, Nitrate/Nitrite			0.446		0.428	mg/L	4.12 ^		(+/-0.250)		03/03/10 11:11
QC1202054728 248074001 DUP											
Nitrogen, Nitrate/Nitrite			1.97		1.94	mg/L	1.28		(0%-20%)		03/03/10 11:28
QC1202054732 LCS											
Nitrogen, Nitrate/Nitrite	1.00				0.986	mg/L		98.6	(90%-110%)		03/03/10 10:50
QC1202054725 MB											
Nitrogen, Nitrate/Nitrite				J	0.0124	mg/L					03/03/10 10:49
QC1202054729 247793001 PS											

QC Summary

Workorder: 248044

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Nutrient Analysis											
Batch 958150											
Nitrogen, Nitrate/Nitrite	1.00	U	ND		1.01	mg/L		100	(90%-110%)		03/03/10 11:40
QC1202054730 248044001 PS											
Nitrogen, Nitrate/Nitrite	1.00		0.0892		1.05	mg/L		96.1	(90%-110%)	AXH3	03/03/10 11:12
QC1202054731 248074001 PS											
Nitrogen, Nitrate/Nitrite	1.00		0.393		1.39	mg/L		99.7	(90%-110%)		03/03/10 11:29
Batch 959199											
QC1202057090 248108001 DUP											
Nitrogen, Nitrate/Nitrite		U	ND	J	0.123	mg/L	200		(+/-0.500)	AXH3	03/03/10 12:45
QC1202059915 248044005 DUP											
Nitrogen, Nitrate/Nitrite		U	ND	U	ND	mg/L	N/A				03/03/10 12:06
QC1202057095 LCS											
Nitrogen, Nitrate/Nitrite	1.00				1.00	mg/L		100	(90%-110%)		03/03/10 11:44
QC1202057088 MB											
Nitrogen, Nitrate/Nitrite				J	0.0116	mg/L					03/03/10 11:43
QC1202057093 248108001 PS											
Nitrogen, Nitrate/Nitrite	1.00	U	ND		1.10	mg/L		109	(90%-110%)		03/03/10 12:47
QC1202059916 248044005 PS											
Nitrogen, Nitrate/Nitrite	1.00	U	ND		1.04	mg/L		103	(90%-110%)		03/03/10 12:12
Batch 959715											
QC1202058291 248044006 DUP											
Nitrogen, Nitrate/Nitrite		U	ND	U	ND	mg/L	N/A			AXH3	03/03/10 12:51
QC1202058292 248261001 DUP											
Nitrogen, Nitrate/Nitrite		J	0.245	J	0.242	mg/L	1.23 ^		(+/-0.250)		03/03/10 13:02
QC1202058297 LCS											
Nitrogen, Nitrate/Nitrite	1.00				1.02	mg/L		102	(90%-110%)		03/03/10 12:49
QC1202058290 MB											
Nitrogen, Nitrate/Nitrite				J	0.0112	mg/L					03/03/10 12:48
QC1202058294 248044006 PS											
Nitrogen, Nitrate/Nitrite	1.00	U	ND		1.03	mg/L		102	(90%-110%)		03/03/10 12:53
QC1202058295 248261001 PS											
Nitrogen, Nitrate/Nitrite	1.00	J	0.049		1.11	mg/L		106	(90%-110%)		03/03/10 13:03
Solids Analysis											
Batch 959189											
QC1202057050 248023001 DUP											
Total Dissolved Solids			134		137	mg/L	1.45		(0%-10%)	SDS	03/01/10 13:56
QC1202057051 248019001 DUP											
Total Dissolved Solids			205		205	mg/L	1.93		(0%-10%)		03/01/10 13:56
QC1202057052 LCS											
Total Dissolved Solids	300				295	mg/L		98.3	(95%-105%)		03/01/10 13:56
QC1202057049 MB											
Total Dissolved Solids				U	ND	mg/L					03/01/10 13:56
Batch 959191											
QC1202057058 248019002 DUP											
Total Suspended Solids			78.8		80.0	mg/L	1.57		(0%-20%)	SDS	03/01/10 10:21
QC1202057060 LCS											
Total Suspended Solids	500				499	mg/L		99.8	(95%-105%)		03/01/10 10:21
QC1202057057 MB											

QC Summary

Workorder: 248044

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Solids Analysis										
Batch 959191										
Total Suspended Solids			U	ND	mg/L					03/01/10 10:21
Titration Analysis										
Batch 959999										
QC1202059082 248023001 DUP										
Alkalinity, Total as CaCO3		53.8		53.3	mg/L	0.889		(0%-20%)	LXA1	03/02/10 16:24
Carbonate alkalinity (CaCO3)	U	ND	U	ND	mg/L	N/A				
QC1202059083 248127001 DUP										
Alkalinity, Total as CaCO3		114		114	mg/L	0.418		(0%-20%)		03/02/10 17:18
Carbonate alkalinity (CaCO3)		33.3		32.4	mg/L	2.90		(0%-20%)		
QC1202059080 LCS										
Alkalinity, Total as CaCO3	50.0			49.5	mg/L		99.1	(90%-110%)		03/02/10 15:27
QC1202059079 MB										
Alkalinity, Total as CaCO3			J	0.953	mg/L					03/02/10 15:24
Carbonate alkalinity (CaCO3)			U	ND	mg/L					
QC1202059085 248023001 MS										
Alkalinity, Total as CaCO3	50.0	53.8		101	mg/L		95.3	(80%-120%)		03/02/10 16:27
QC1202059086 248127001 MS										
Alkalinity, Total as CaCO3	50.0	114		162	mg/L		96.2	(80%-120%)		03/02/10 17:25

Notes:
RER is calculated at the 95% confidence level (2-sigma).
The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- E Metals--%difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Organics--Concentration of the target analyte exceeds the instrument calibration range
- F Estimated Value
- H Analytical holding time was exceeded
- J Value is estimated
- M Matrix Related Failure
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

QC Summary

Workorder: **248044**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

P	Organics--The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, difference is also <70%
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, or LOD.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	QC Samples were not spiked with this compound
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
d	5-day BOD--The 2:1 depletion requirement was not met for this sample
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Instrument QC Data Summary

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 24-MAR-2010 12:21

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-2058

Flow Injection Analysis

Method: EPA 335.4 Concentration Units:ug/L

Instrument: Lachat QuickChem FIA+ 8000 Series

Parmname: Cyanide, Total

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**08-MAR-2010 10:32:54**	**OM_3-8-2010_10-24-48**	**147**	**150**	**98**	**(90%-110%)**	**Yes**
CCV	08-MAR-2010 10:47:11	OM_3-8-2010_10-24-48	105	100	105	(90%-110%)	Yes
CCV	08-MAR-2010 10:59:36	OM_3-8-2010_10-24-48	107	100	107	(90%-110%)	Yes
CCV	08-MAR-2010 15:01:26	OM_3-8-2010_14-58-05	103	100	103	(90%-110%)	Yes
CCV	08-MAR-2010 15:13:54	OM_3-8-2010_14-58-05	106	100	106	(90%-110%)	Yes
CCV	08-MAR-2010 15:26:19	OM_3-8-2010_14-58-05	109	100	109	(90%-110%)	Yes
CCV	08-MAR-2010 15:38:47	OM_3-8-2010_14-58-05	104	100	104	(90%-110%)	Yes
ICV	**09-MAR-2010 12:07:51**	**OM_3-9-2010_11-57-23**	**149**	**150**	**99.3**	**(90%-110%)**	**Yes**
CCV	09-MAR-2010 15:13:07	OM_3-9-2010_14-57-11	107	100	107	(90%-110%)	Yes
CCV	09-MAR-2010 15:25:45	OM_3-9-2010_14-57-11	109	100	109	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**08-MAR-2010 10:34:44**	**OM_3-8-2010_10-24-48**	**-1.65**	**10**	**Yes**
CCB	08-MAR-2010 10:49:01	OM_3-8-2010_10-24-48	-1.67	10	Yes
CCB	08-MAR-2010 11:01:27	OM_3-8-2010_10-24-48	-1.82	10	Yes
CCB	08-MAR-2010 15:03:15	OM_3-8-2010_14-58-05	-1.49	10	Yes
CCB	08-MAR-2010 15:15:44	OM_3-8-2010_14-58-05	-1.84	10	Yes
CCB	08-MAR-2010 15:28:11	OM_3-8-2010_14-58-05	-1.78	10	Yes
CCB	08-MAR-2010 15:40:39	OM_3-8-2010_14-58-05	-0.768	10	Yes
ICB	**09-MAR-2010 12:09:41**	**OM_3-9-2010_11-57-23**	**1.3**	**10**	**Yes**
CCB	09-MAR-2010 15:14:59	OM_3-9-2010_14-57-11	-3.21	10	Yes
CCB	09-MAR-2010 15:27:36	OM_3-9-2010_14-57-11	-2.34	10	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 24-MAR-2010 12:21

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-2058

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Bromide

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**20-MAR-2010 17:43:00**	**100320**	**2.5536**	**2.5**	**102**	**(90%-110%)**	**Yes**
CCV	21-MAR-2010 00:15:00	100320	3.7803	3.75	101	(90%-110%)	Yes
CCV	21-MAR-2010 05:28:00	100320	2.5444	2.5	102	(90%-110%)	Yes
ICV	**22-MAR-2010 14:31:00**	**100322**	**2.4053**	**2.5**	**96.2**	**(90%-110%)**	**Yes**
CCV	22-MAR-2010 18:52:00	100322	2.5312	2.5	101	(90%-110%)	Yes
CCV	22-MAR-2010 20:10:00	100322	3.7577	3.75	100	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**20-MAR-2010 18:09:00**	**100320**	**0**	**0.2**	**Yes**
CCB	21-MAR-2010 00:41:00	100320	0	0.2	Yes
CCB	21-MAR-2010 05:54:00	100320	0	0.2	Yes
ICB	**22-MAR-2010 14:57:00**	**100322**	**0**	**0.2**	**Yes**
CCB	22-MAR-2010 19:18:00	100322	0	0.2	Yes
CCB	22-MAR-2010 20:36:00	100322	0	0.2	Yes

Parmname: Chloride

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**20-MAR-2010 17:43:00**	**100320**	**9.063**	**10**	**90.6**	**(90%-110%)**	**Yes**
CCV	21-MAR-2010 00:15:00	100320	14.0241	15	93.5	(90%-110%)	Yes
CCV	21-MAR-2010 05:28:00	100320	9.099	10	91	(90%-110%)	Yes
ICV	**22-MAR-2010 14:31:00**	**100322**	**9.1357**	**10**	**91.4**	**(90%-110%)**	**Yes**
CCV	22-MAR-2010 18:52:00	100322	9.1506	10	91.5	(90%-110%)	Yes
CCV	22-MAR-2010 20:10:00	100322	14	15	93.3	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**20-MAR-2010 18:09:00**	**100320**	**0**	**0.2**	**Yes**
CCB	21-MAR-2010 00:41:00	100320	0	0.2	Yes
CCB	21-MAR-2010 05:54:00	100320	0	0.2	Yes
ICB	**22-MAR-2010 14:57:00**	**100322**	**0**	**0.2**	**Yes**
CCB	22-MAR-2010 19:18:00	100322	0	0.2	Yes
CCB	22-MAR-2010 20:36:00	100322	0	0.2	Yes

Parmname: Fluoride

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**20-MAR-2010 17:43:00**	**100320**	**4.6807**	**5**	**93.6**	**(90%-110%)**	**Yes**
CCV	21-MAR-2010 00:15:00	100320	7.1264	7.5	95	(90%-110%)	Yes
CCV	21-MAR-2010 05:28:00	100320	4.7025	5	94.1	(90%-110%)	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 24-MAR-2010 12:21

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-2058

Ion Chromatography

Method: EPA 300.0 Concentration Units:mg/L

Instrument: Dionex ICS-3000 Ion Chromatograph

Parmname: Fluoride

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**22-MAR-2010 14:31:00**	**100322**	**4.7008**	**5**	**94**	**(90%-110%)**	**Yes**
CCV	22-MAR-2010 18:52:00	100322	4.727	5	94.5	(90%-110%)	Yes
CCV	22-MAR-2010 20:10:00	100322	7.0751	7.5	94.3	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**20-MAR-2010 18:09:00**	**100320**	**0**	**0.1**	**Yes**
CCB	21-MAR-2010 00:41:00	100320	0	0.1	Yes
CCB	21-MAR-2010 05:54:00	100320	0	0.1	Yes
ICB	**22-MAR-2010 14:57:00**	**100322**	**0**	**0.1**	**Yes**
CCB	22-MAR-2010 19:18:00	100322	0	0.1	Yes
CCB	22-MAR-2010 20:36:00	100322	0	0.1	Yes

Parmname: Sulfate

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**20-MAR-2010 17:43:00**	**100320**	**18.705**	**20**	**93.5**	**(90%-110%)**	**Yes**
CCV	21-MAR-2010 00:15:00	100320	28.8793	30	96.3	(90%-110%)	Yes
CCV	21-MAR-2010 05:28:00	100320	18.8073	20	94	(90%-110%)	Yes
ICV	**22-MAR-2010 14:31:00**	**100322**	**19.063**	**20**	**95.3**	**(90%-110%)**	**Yes**
CCV	22-MAR-2010 18:52:00	100322	19.073	20	95.4	(90%-110%)	Yes
CCV	22-MAR-2010 20:10:00	100322	28.8842	30	96.3	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**20-MAR-2010 18:09:00**	**100320**	**0**	**0.4**	**Yes**
CCB	21-MAR-2010 00:41:00	100320	0	0.4	Yes
CCB	21-MAR-2010 05:54:00	100320	0	0.4	Yes
ICB	**22-MAR-2010 14:57:00**	**100322**	**0**	**0.4**	**Yes**
CCB	22-MAR-2010 19:18:00	100322	0	0.4	Yes
CCB	22-MAR-2010 20:36:00	100322	0	0.4	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 24-MAR-2010 12:21

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-2058

Nutrient Analysis

Method: EPA 350.1 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Nitrogen, Ammonia

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**01-MAR-2010 13:09:24**	**OM_3-1-2010_12-59-59**	**0.997**	**1**	**99.7**	**(90%-110%)**	**Yes**
CCV	01-MAR-2010 13:33:21	OM_3-1-2010_12-59-59	1.025	1	103	(90%-110%)	Yes
CCV	01-MAR-2010 13:45:05	OM_3-1-2010_12-59-59	1.027	1	103	(90%-110%)	Yes
CCV	01-MAR-2010 13:57:05	OM_3-1-2010_12-59-59	1.024	1	102	(90%-110%)	Yes
CCV	01-MAR-2010 14:09:05	OM_3-1-2010_12-59-59	1.021	1	102	(90%-110%)	Yes
CCV	01-MAR-2010 14:19:37	OM_3-1-2010_12-59-59	1.023	1	102	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**01-MAR-2010 13:11:14**	**OM_3-1-2010_12-59-59**	**-0.011**	**0.05**	**Yes**
CCB	01-MAR-2010 13:35:12	OM_3-1-2010_12-59-59	-0.01	0.05	Yes
CCB	01-MAR-2010 13:46:56	OM_3-1-2010_12-59-59	-0.009	0.05	Yes
CCB	01-MAR-2010 13:58:56	OM_3-1-2010_12-59-59	-0.009	0.05	Yes
CCB	01-MAR-2010 14:10:56	OM_3-1-2010_12-59-59	-0.009	0.05	Yes
CCB	01-MAR-2010 14:21:28	OM_3-1-2010_12-59-59	-0.008	0.05	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 24-MAR-2010 12:21

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-2058

Nutrient Analysis

Method: EPA 353.2 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8500 Series

Parmname: Nitrogen, Nitrate/Nitrite

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**03-MAR-2010 10:40:18**	**OM_3-3-2010_10-30-06**	**0.983**	**1**	**98.3**	**(90%-110%)**	**Yes**
CCV	03-MAR-2010 11:01:46	OM_3-3-2010_10-30-06	0.983	1	98.3	(90%-110%)	Yes
CCV	03-MAR-2010 11:17:24	OM_3-3-2010_10-30-06	1	1	100	(90%-110%)	Yes
CCV	03-MAR-2010 11:34:09	OM_3-3-2010_10-30-06	0.985	1	98.5	(90%-110%)	Yes
CCV	03-MAR-2010 11:50:55	OM_3-3-2010_10-30-06	0.968	1	96.8	(90%-110%)	Yes
CCV	03-MAR-2010 12:07:39	OM_3-3-2010_10-30-06	0.981	1	98.1	(90%-110%)	Yes
CCV	03-MAR-2010 12:24:25	OM_3-3-2010_10-30-06	1.01	1	101	(90%-110%)	Yes
CCV	03-MAR-2010 12:41:09	OM_3-3-2010_10-30-06	1.02	1	102	(90%-110%)	Yes
CCV	03-MAR-2010 12:57:55	OM_3-3-2010_10-30-06	1.01	1	101	(90%-110%)	Yes
CCV	03-MAR-2010 13:14:44	OM_3-3-2010_10-30-06	1.02	1	102	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**03-MAR-2010 10:42:40**	**OM_3-3-2010_10-30-06**	**0.00396**	**0.05**	**Yes**
CCB	03-MAR-2010 11:04:08	OM_3-3-2010_10-30-06	0.00204	0.05	Yes
CCB	03-MAR-2010 11:19:46	OM_3-3-2010_10-30-06	0.00357	0.05	Yes
CCB	03-MAR-2010 11:36:31	OM_3-3-2010_10-30-06	0.00385	0.05	Yes
CCB	03-MAR-2010 11:53:16	OM_3-3-2010_10-30-06	0.00438	0.05	Yes
CCB	03-MAR-2010 12:10:01	OM_3-3-2010_10-30-06	0.00404	0.05	Yes
CCB	03-MAR-2010 12:26:48	OM_3-3-2010_10-30-06	0.00458	0.05	Yes
CCB	03-MAR-2010 12:43:31	OM_3-3-2010_10-30-06	0.00556	0.05	Yes
CCB	03-MAR-2010 13:00:17	OM_3-3-2010_10-30-06	0.00422	0.05	Yes
CCB	03-MAR-2010 13:17:05	OM_3-3-2010_10-30-06	0.00434	0.05	Yes

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Report Run On: 24-MAR-2010 12:21

GEL Laboratories LLC

Contract: ESHL01000

SDG #: 10-2058

Nutrient Analysis

Method: EPA 365.4 Concentration Units:mg/L

Instrument: Lachat Quickchem FIA+ 8000 Series

Parmname: Phosphorus, Total as P

Sample Type	Run Date	Data File	Result	Nominal	Recovery	Limits	Within Limits
ICV	**05-MAR-2010 08:50:31**	**OM_3-5-2010_08-40-57**	**1.021**	**1**	**102**	**(90%-110%)**	**Yes**
CCV	05-MAR-2010 09:02:59	OM_3-5-2010_08-40-57	1.002	1	100	(90%-110%)	Yes
CCV	05-MAR-2010 09:40:00	OM_3-5-2010_09-38-31	0.987	1	98.7	(90%-110%)	Yes
CCV	05-MAR-2010 09:52:23	OM_3-5-2010_09-38-31	0.966	1	96.6	(90%-110%)	Yes
CCV	05-MAR-2010 10:04:47	OM_3-5-2010_09-38-31	0.961	1	96.1	(90%-110%)	Yes

Sample Type	Run Date	Data File	Result	Limits	Within Limits
ICB	**05-MAR-2010 08:52:36**	**OM_3-5-2010_08-40-57**	**0.024**	**0.05**	**Yes**
CCB	05-MAR-2010 09:05:03	OM_3-5-2010_08-40-57	0.016	0.05	Yes
CCB	05-MAR-2010 09:42:04	OM_3-5-2010_09-38-31	0.017	0.05	Yes
CCB	05-MAR-2010 09:54:27	OM_3-5-2010_09-38-31	0.017	0.05	Yes
CCB	05-MAR-2010 10:06:51	OM_3-5-2010_09-38-31	-0.008	0.05	Yes

Alkalinity

Alkalinity LogBook

Analyst: LXA1
Batch: 959999
Lab SOP: GL-GC-E-033 REV# 6
SOP Description: Alkalinity: Total, Bicarbonate, Carbonate, Hydroxide, and Phenolphthalein
Run Date: 02-MAR-2010

Type	Sample Id	Lot Id	Nc(mg/L)	Recovery(%)
LCS	1202059080	IMM100107-ALK	50	99.06
MS	1202059084	IMM100107-ALK	100	35.243
MS	1202059085	IMM100107-ALK	50	95.25
MS	1202059086	IMM100107-ALK	50	96.203
MSD	1202059113	IMM100107-ALK	100	35.243

Type	Sample Id	Rpd(%)	Parmname
DUP	1202059081	0	Alkalinity, Total as CaCO3
DUP	1202059081	0	Bicarbonate alkalinity (CaCO3)
DUP	1202059081	0	Carbonate alkalinity (CaCO3)
DUP	1202059082	.889	Alkalinity, Total as CaCO3
DUP	1202059082	0	Carbonate alkalinity (CaCO3)
DUP	1202059083	.418	Alkalinity, Total as CaCO3
DUP	1202059083	2.899	Carbonate alkalinity (CaCO3)

Type	Sample id	Parent Sample Id	Time	Ph	Aliquot	Units	Normality H2SO4	H2SO4 Ph 8.3 (mL)	H2SO4 Ph 4.5(mL)	Alkalinity	Bicarbonate	CO2 Dissolved	CO2 Free	CO2 Total	Carbonate	Hydroxide	Phenol phthalein	Units
MB	1202059079		15:24	6.2	100	mL	0.01905	0	0.1	0.95250	0.95250				0.0000			mg/L
LCS	1202059080		15:27	9.16	100	mL	0.01905	0	5.2	49.530								mg/L
SAMPLE	247966010		15:32	3.5	50	mL	0.01905	0	0	0.0000	0.0000				0.0000			mg/L
DUP	1202059081	247966010	15:35	3.51	50	mL	0.01905	0	0	0.0000	0.0000				0.0000			mg/L
MS	1202059084	247966010	15:38	6.19	50	mL	0.01905	0	1.85	35.243								mg/L
MSD	1202059113	247966010	15:49	6.16	50	mL	0.01905	0	1.85	35.243								mg/L
SAMPLE	248005001		15:55	6.98	100	mL	0.01905	0	6.45	61.436								mg/L
SAMPLE	248005002		16:08	6.09	100	mL	0.01905	0	3.1	29.528								mg/L
SAMPLE	248023001		16:15	7.82	100	mL	0.01905	0	5.65	53.816					0.0000			mg/L
DUP	1202059082	248023001	16:24	7.81	100	mL	0.01905	0	5.6	53.340	53.340				0.0000			mg/L
MS	1202059085	248023001	16:27	8.95	100	mL	0.01905	0	10.65	101.44								mg/L
SAMPLE	248024002		16:35	6.9	100	mL	0.01905	0	5.9	56.198					0.0000			mg/L
SAMPLE	248024004		16:42	6.93	100	mL	0.01905	0	5.95	56.674					0.0000			mg/L
SAMPLE	248044001		16:47	6.61	100	mL	0.01905	0	4.8	45.720					0.0000			mg/L
SAMPLE	248044003		16:51	7.71	100	mL	0.01905	0	9.85	93.821					0.0000			mg/L
SAMPLE	248044005		17:03	5.63	100	mL	0.01905	0	0.15	1.4288					0.0000			mg/L
SAMPLE	248044006		17:03	5.76	100	mL	0.01905	0	0.2	1.9050					0.0000			mg/L
SAMPLE	248127001		17:06	8.96	100	mL	0.01905	1.75	12	114.30					33.338			mg/L
DUP	1202059083	248127001	17:18	8.95	100	mL	0.01905	1.7	11.95	113.82	81.439				32.385			mg/L
MS	1202059086	248127001	17:25	9.1	100	mL	0.01905	0	17.05	162.40								mg/L
SAMPLE	248157002		17:52	6.47	100	mL	0.01905	0	13.65	130.02								mg/L
SAMPLE	248157003		18:05	8.21	100	mL	0.01905	0	10.6	100.97								mg/L

Alkalinity LogBook

Analyst: LXA1
Batch: 959999
Lab SOP: GL-GC-E-033 REV# 6
SOP Description: Alkalinity: Total, Bicarbonate, Carbonate, Hydroxide, and Phenolphthalein
Run Date: 02-MAR-2010

Type	Sample Id	Lot Id	Nc(mg/L)	Recovery(%)
LCS	1202059080	IMM100107-ALK	50	99.06
MS	1202059084	IMM100107-ALK	100	35.243
MS	1202059085	IMM100107-ALK	50	95.25
MS	1202059086	IMM100107-ALK	50	96.203
MSD	1202059113	IMM100107-ALK	100	35.243

Type	Sample Id	Rpd(%)	Parmname
DUP	1202059081	0	Alkalinity, Total as CaCO3
DUP	1202059081	0	Bicarbonate alkalinity (CaCO3)
DUP	1202059081	0	Carbonate alkalinity (CaCO3)
DUP	1202059082	.889	Alkalinity, Total as CaCO3
DUP	1202059082	0	Carbonate alkalinity (CaCO3)
DUP	1202059083	.418	Alkalinity, Total as CaCO3
DUP	1202059083	2.899	Carbonate alkalinity (CaCO3)

Type	Sample id	Parent Sample Id	Time	Ph	Aliquot	Units	Normality H2SO4	H2SO4 Ph 8.3 (mL)	H2SO4 Ph 4.5(mL)	Alkalinity	Bicarbonate	CO2 Dissolved	CO2 Free	CO2 Total	Carbonate	Hydroxide	Phenol phthalein	Units
SAMPLE	248157004		18:12	6.03	100	mL	0.01905	0	2.15	20.479								mg/L
SAMPLE	248157005		18:21	5.54	100	mL	0.01905	0	1.25	11.906								mg/L
SAMPLE	248157006		18:21	5.83	100	mL	0.01905	0	1.65	15.716								mg/L
SAMPLE	248157007		18:24	5.52	100	mL	0.01905	0	1.4	13.335								mg/L
SAMPLE	248164001		18:27	7.96	100	mL	0.01905	0	7.05	67.151					0.0000			mg/L
SAMPLE	248164003		18:29	8	100	mL	0.01905	0	6.95	66.199					0.0000			mg/L
SAMPLE	248169004		18:32	7.15	100	mL	0.01905	0	14.55	138.59					0.0000			mg/L

Run Date: 02-MAR-10 11:20
Instrument: PHX370
Analyst: LXA1

Standard	Observed	Theoretical		%Recovery
UPH100302-PH3	10.01	10	SU	100.1
UPH100302-PH5	12.01	12	SU	100.08
UPH100302-PH4	2.04	2	SU	102
IMM100302-PH1	4.01	4	SU	100.25
IMM100302-PH2	7.02	7	SU	100.29
IMM100302-PH6	7.02	7	SU	100.29

Comments:

Run Date: 11-FEB-2010 18:08
Instrument: TIT001
Analyst: LXA1

Na2CO3 Std. ID	Na2CO3, 0.05 N g Na2C03/L	H2SO4 N (approx.)	NA2CO3 titrated	H2SO4 to pH 3.7	Actual Normality	Normality Average
1071836	2.5214	.02	15	37.4	.01903	.01905
	2.5214	.02	15	37.45	.01905	
	2.5214	.02	15	37.5	.01908	

Alkalinity LogBook

Normality of H_2SO_4 solution
A x B / 53.00 x C
where:
A = grams of Na_2CO_3
B = volume (mL) of the Na_2CO_3 solution
C = Total volume of the 0.02 N H_2SO_4 acid titrant used to reach a pH of 3.7

Total Alkalinity (mg/L)
Vt x N x 50000 / Vs
Where:
Vt = volume (mL) of H_2SO_4 used to reach the pH 4.5 endpoint
N = normality of the H_2SO_4 titrant
Vs = volume (mL) of sample used

Phenolphthalein alkalinity (mg/L)
Vt x N x 50000 / Vs
Where:
Vt = volume (mL) of H_2SO_4 used to reach the pH 8.3 endpoint
N = normality of the H_2SO_4 titrant
Vs = volume (mL) of sample used

Bicarbonate Alkalinity
Relationship Table SM2320B

Carbonate Alkalinity
Relationship Table SM2320B

Hydroxide Alkalinity
Relationship Table SM2320B

Free Carbon Dioxide
mg CO_2/L = 2.0 x B x 10 (6-pH)
Where B = Bicarbonate Alkalinity

Total Carbon Dioxide
mg total CO_2/L = A + 0.44(2B + C)
Where:
A = mg Free CO_2/L
B = Bicarbonate Alkalinity
C = Carbonate Alkalinity

Relationship Table SM2320B

P = 0	then H = 0,	C = 0,	B = T
P < 1/2 T	then H = 0,	C = 2P,	B = T - 2P
P = 1/2 T	then H = 0,	C = 2P,	B = 0
P > 1/2 T	then H = 2P - T,	C = 2(T - P),	B = 0
P = T	then H = T,	C = 0,	B = 0

Ammonia Nitrogen

Prep Logbook

Ammonia-Nitrogen Sample Preparation

Batch ID: **958141.0** Verified by: _____

Analyst: Stephanie Jackson

Method: EPA 350.2 Prep

Lab SOP: GL-GC-E-072 REV# 11

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202054701	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202054697	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202054698	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202054721	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202054722	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202054699	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202054700	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202054723	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202054724	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202054694 MB	01-MAR-2010 09:30:00	Waste Water	25	25	1	9.5
1202054701 LCS	01-MAR-2010 09:30:00	Waste Water	25	25	1	9.5
247957001	01-MAR-2010 09:30:00	Surface Water	25	25	1	9.5
248019001	01-MAR-2010 09:30:00	Water	25	25	1	9.5
1202054720 DUP (248019001)	01-MAR-2010 09:30:00	Water	25	25	1	9.5
1202054722 MS (248019001)	01-MAR-2010 09:30:00	Water	25	25	1	9.5
1202054724 MSD (248019001)	01-MAR-2010 09:30:00	Water	25	25	1	9.5
248023001	01-MAR-2010 09:30:00	Ground Water	25	25	1	9.5
1202054719 DUP (248023001)	01-MAR-2010 09:30:00	Ground Water	25	25	1	9.5
1202054721 MS (248023001)	01-MAR-2010 09:30:00	Ground Water	25	25	1	9.5
1202054723 MSD (248023001)	01-MAR-2010 09:30:00	Ground Water	25	25	1	9.5
248024002	01-MAR-2010 09:30:00	Ground Water	25	25	1	9.5
248024004	01-MAR-2010 09:30:00	Ground Water	25	25	1	9.5
248044001	01-MAR-2010 09:30:00	Ground Water	25	25	1	9.5
248044003	01-MAR-2010 09:30:00	Ground Water	25	25	1	9.5
248044005	01-MAR-2010 09:30:00	Ground Water	25	25	1	9.5
248044006	01-MAR-2010 09:30:00	Ground Water	25	25	1	9.5

Prep Logbook

Batch ID: **958141.0** Verified by:
Analyst: Stephanie Jackson
Method: EPA 350.2 Prep
Lab SOP: GL-GC-E-072 REV# 11
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202054701	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202054697	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202054698	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202054721	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MS	1202054722	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202054699	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202054700	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202054723	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL
MSD	1202054724	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.25	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
248074001	01-MAR-2010 09:30:00	Waste Water	25	25	1	9.5
1202054695 DUP (248074001)	01-MAR-2010 09:30:00	Waste Water	25	25	1	9.5
1202054697 MS (248074001)	01-MAR-2010 09:30:00	Waste Water	25	25	1	9.5
1202054699 MSD (248074001)	01-MAR-2010 09:30:00	Waste Water	25	25	1	9.5
248074002	01-MAR-2010 09:30:00	Waste Water	25	25	1	9.5
248074003	01-MAR-2010 09:30:00	Waste Water	25	25	1	9.5
248078001	01-MAR-2010 09:30:00	Misc Liquid	25	25	1	9.5
1202054696 DUP (248078001)	01-MAR-2010 09:30:00	Misc Liquid	25	25	1	9.5
1202054698 MS (248078001)	01-MAR-2010 09:30:00	Misc Liquid	25	25	1	9.5
1202054700 MSD (248078001)	01-MAR-2010 09:30:00	Misc Liquid	25	25	1	9.5
248078002	01-MAR-2010 09:30:00	Misc Liquid	25	25	1	9.5
248078003	01-MAR-2010 09:30:00	Misc Liquid	25	25	1	9.5
248078004	01-MAR-2010 09:30:00	Misc Liquid	25	25	1	9.5

Reagent/Solvent Lot ID	Description	Amount
1271208-C	Borate Buffer	1.25 mL
1271210-C	50% NaOH Solution	1 mL

Comments:

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
2.0 ppm Std.		1	axh3	3/1/2010 13:03:18	OM_3-1-2010_12-59-59
1.0 ppm Std.		1	axh3	3/1/2010 13:04:07	OM_3-1-2010_12-59-59
0.5 ppm Std		1	axh3	3/1/2010 13:04:58	OM_3-1-2010_12-59-59
0.1 ppm Std		1	axh3	3/1/2010 13:05:49	OM_3-1-2010_12-59-59
0.05 ppm Std		1	axh3	3/1/2010 13:06:40	OM_3-1-2010_12-59-59
ICAL-00		1	axh3	3/1/2010 13:07:33	OM_3-1-2010_12-59-59
ICV		1	axh3	3/1/2010 13:09:24	OM_3-1-2010_12-59-59
ICB		1	axh3	3/1/2010 13:11:14	OM_3-1-2010_12-59-59
1202053234	957558	1	axh3	3/1/2010 13:13:03	OM_3-1-2010_12-59-59
1202053241	957558	1	axh3	3/1/2010 13:13:54	OM_3-1-2010_12-59-59
247865012	957558	1	axh3	3/1/2010 13:14:45	OM_3-1-2010_12-59-59
1202053235	957558	1	axh3	3/1/2010 13:15:35	OM_3-1-2010_12-59-59
1202053237	957558	1	axh3	3/1/2010 13:16:25	OM_3-1-2010_12-59-59
1202053239	957558	1	axh3	3/1/2010 13:17:15	OM_3-1-2010_12-59-59
247866001	957558	1	axh3	3/1/2010 13:18:05	OM_3-1-2010_12-59-59
1202053236	957558	1	axh3	3/1/2010 13:18:56	OM_3-1-2010_12-59-59
1202053238	957558	1	axh3	3/1/2010 13:19:48	OM_3-1-2010_12-59-59
1202053240	957558	1	axh3	3/1/2010 13:20:38	OM_3-1-2010_12-59-59
CCV		1	axh3	3/1/2010 13:21:29	OM_3-1-2010_12-59-59
CCB		1	axh3	3/1/2010 13:23:19	OM_3-1-2010_12-59-59
247913001*	957558	1	axh3	3/1/2010 13:25:07	OM_3-1-2010_12-59-59
1202053332	957558	1	axh3	3/1/2010 13:25:58	OM_3-1-2010_12-59-59
1202053333	957558	1	axh3	3/1/2010 13:26:48	OM_3-1-2010_12-59-59
1202053334	957558	1	axh3	3/1/2010 13:27:38	OM_3-1-2010_12-59-59
247865010	957558	1	axh3	3/1/2010 13:28:27	OM_3-1-2010_12-59-59
247865013	957558	1	axh3	3/1/2010 13:29:17	OM_3-1-2010_12-59-59
247865014	957558	1	axh3	3/1/2010 13:30:07	OM_3-1-2010_12-59-59
247865015	957558	1	axh3	3/1/2010 13:30:55	OM_3-1-2010_12-59-59
247865016	957558	1	axh3	3/1/2010 13:31:44	OM_3-1-2010_12-59-59
247865017	957558	1	axh3	3/1/2010 13:32:32	OM_3-1-2010_12-59-59
CCV		1	axh3	3/1/2010 13:33:21	OM_3-1-2010_12-59-59
CCB		1	axh3	3/1/2010 13:35:12	OM_3-1-2010_12-59-59
247865018	957558	1	axh3	3/1/2010 13:36:59	OM_3-1-2010_12-59-59
247865019	957558	1	axh3	3/1/2010 13:37:47	OM_3-1-2010_12-59-59
247865020	957558	1	axh3	3/1/2010 13:38:35	OM_3-1-2010_12-59-59
247913002	957558	1	axh3	3/1/2010 13:39:23	OM_3-1-2010_12-59-59
247913001	957558	1	axh3	3/1/2010 13:40:13	OM_3-1-2010_12-59-59
1202054694	958142	1	axh3	3/1/2010 13:41:03	OM_3-1-2010_12-59-59
1202054701	958142	1	axh3	3/1/2010 13:41:52	OM_3-1-2010_12-59-59
248019001	958142	1	axh3	3/1/2010 13:42:41	OM_3-1-2010_12-59-59
1202054720	958142	1	axh3	3/1/2010 13:43:29	OM_3-1-2010_12-59-59
1202054722	958142	1	axh3	3/1/2010 13:44:16	OM_3-1-2010_12-59-59
CCV		1	axh3	3/1/2010 13:45:05	OM_3-1-2010_12-59-59
CCB		1	axh3	3/1/2010 13:46:56	OM_3-1-2010_12-59-59
1202054724	958142	1	axh3	3/1/2010 13:48:46	OM_3-1-2010_12-59-59
248023001	958142	1	axh3	3/1/2010 13:49:37	OM_3-1-2010_12-59-59
1202054719	958142	1	axh3	3/1/2010 13:50:28	OM_3-1-2010_12-59-59
1202054721	958142	1	axh3	3/1/2010 13:51:19	OM_3-1-2010_12-59-59
1202054723*	958142	1	axh3	3/1/2010 13:52:10	OM_3-1-2010_12-59-59
248074001	958142	1	axh3	3/1/2010 13:53:00	OM_3-1-2010_12-59-59
1202054695	958142	1	axh3	3/1/2010 13:53:49	OM_3-1-2010_12-59-59
1202054697	958142	1	axh3	3/1/2010 13:54:37	OM_3-1-2010_12-59-59
1202054699*	958142	1	axh3	3/1/2010 13:55:25	OM_3-1-2010_12-59-59
248078001	958142	1	axh3	3/1/2010 13:56:15	OM_3-1-2010_12-59-59
CCV		1	axh3	3/1/2010 13:57:05	OM_3-1-2010_12-59-59
CCB		1	axh3	3/1/2010 13:58:56	OM_3-1-2010_12-59-59
1202054696	958142	1	axh3	3/1/2010 14:00:45	OM_3-1-2010_12-59-59
1202054698	958142	1	axh3	3/1/2010 14:01:36	OM_3-1-2010_12-59-59

1202054700	958142	1	axh3	3/1/2010 14:02:27	OM_3-1-2010_12-59-59
1202054723	958142	1	axh3	3/1/2010 14:03:18	OM_3-1-2010_12-59-59
1202054699	958142	1	axh3	3/1/2010 14:04:07	OM_3-1-2010_12-59-59
247957001	958142	1	axh3	3/1/2010 14:04:56	OM_3-1-2010_12-59-59
248024002	958142	1	axh3	3/1/2010 14:05:45	OM_3-1-2010_12-59-59
248024004	958142	1	axh3	3/1/2010 14:06:36	OM_3-1-2010_12-59-59
248044001	958142	1	axh3	3/1/2010 14:07:26	OM_3-1-2010_12-59-59
248044003	958142	1	axh3	3/1/2010 14:08:16	OM_3-1-2010_12-59-59
CCV		1	axh3	3/1/2010 14:09:05	OM_3-1-2010_12-59-59
CCB		1	axh3	3/1/2010 14:10:56	OM_3-1-2010_12-59-59
248044005	958142	1	axh3	3/1/2010 14:12:45	OM_3-1-2010_12-59-59
248044006	958142	1	axh3	3/1/2010 14:13:34	OM_3-1-2010_12-59-59
248074002	958142	1	axh3	3/1/2010 14:14:25	OM_3-1-2010_12-59-59
248074003	958142	1	axh3	3/1/2010 14:15:16	OM_3-1-2010_12-59-59
248078002	958142	1	axh3	3/1/2010 14:16:08	OM_3-1-2010_12-59-59
248078003	958142	1	axh3	3/1/2010 14:16:58	OM_3-1-2010_12-59-59
248078004	958142	1	axh3	3/1/2010 14:17:49	OM_3-1-2010_12-59-59
CCV		1	axh3	3/1/2010 14:19:37	OM_3-1-2010_12-59-59
CCB		1	axh3	3/1/2010 14:21:28	OM_3-1-2010_12-59-59

Author: axh3 Date : 3/1/2010

Original Run Filename: OM_3-1-2010_12-59-59.OMN created 3/1/2010 12:59:59
Original Run Author's Signature: [axh3]
Current Run Filename: OM_3-1-2010_12-59-59.OMN last modified 3/1/2010 14:22:32
Current Run Author's Signature: [axh3]
Description: Ammonia EPA Method 350.1 GEL SOP: GL-GC-E-106
Detection Wavelength: 630nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 NH3 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100301-03	1	S10	2.000	14.709	3/1/2010@13:03:18			2.0 ppm Std.
WTR100301-04	1	S11	1.000	7.601	3/1/2010@13:04:07			1.0 ppm Std.
WTR100301-05	1	S12	0.500	3.934	3/1/2010@13:04:58			0.5 ppm Std
WTR100301-06	1	S13	0.100	0.889	3/1/2010@13:05:49			0.1 ppm Std
WTR100301-07	1	S14	0.050	0.474	3/1/2010@13:06:40			0.05 ppm Std
WTR100301-10 0.0 ppm	1	S15	0.000	0.029	3/1/2010@13:07:33			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99983 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR100301-08 ICV	1	S16	0.997	7.455	3/1/2010@13:09:24			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	0.997 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.997 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR100301-10 ICB	1	S15	-0.011	0.065	3/1/2010@13:11:14			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.011 < 0.050					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.011 > -0.050					
		Message	ICB Passed					
		Action	Continue					
1202053234|957558|MB	1	1	0.028	0.352	3/1/2010@13:13:03			
1202053241||LCS	1	2	1.004	7.504	3/1/2010@13:13:54			
247865012	1	4	0.559	4.245	3/1/2010@13:14:45			
1202053235||DUP	1	5	0.470	3.592	3/1/2010@13:15:35			
1202053237||MS	1	6	1.331	9.901	3/1/2010@13:16:25			
1202053239||MSD	1	7	1.207	8.990	3/1/2010@13:17:15			
247866001	1	16	0.648	4.899	3/1/2010@13:18:05			
1202053236||DUP	1	17	0.543	4.124	3/1/2010@13:18:56			
1202053238||MS	1	18	1.451	10.779	3/1/2010@13:19:48			
1202053240||MSD	1	19	1.602	11.892	3/1/2010@13:20:38			
WTR100301-04 CCV	1	S11	1.041	7.774	3/1/2010@13:21:29			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.041 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.041 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-10 CCB	1	S15	-0.010	0.077	3/1/2010@13:23:19			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	-0.010 < 0.049					

		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.010 > -0.050					
		Message	CCB Passed					
		Action	Continue					
247913001	1	20	1.299	9.667	3/1/2010@13:25:07			
1202053332||DUP	1	21	0.981	7.340	3/1/2010@13:25:58			
1202053333||MS	1	22	1.786	13.239	3/1/2010@13:26:48			
1202053334||MSD	1	23	1.960	14.511	3/1/2010@13:27:38			
247865010	1	3	0.031	0.375	3/1/2010@13:28:27			
247865013	1	8	0.439	3.362	3/1/2010@13:29:17			
247865014	1	9	0.549	4.168	3/1/2010@13:30:07			
247865015	1	10	0.825	6.196	3/1/2010@13:30:55			
247865016	1	11	0.091	0.818	3/1/2010@13:31:44			
247865017	1	12	0.654	4.944	3/1/2010@13:32:32			
WTR100301-04 CCV	1	S11	1.025	7.657	3/1/2010@13:33:21			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.025 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.025 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-10 CCB	1	S15	-0.010	0.075	3/1/2010@13:35:12			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.010 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.010 > -0.050					
		Message	CCB Passed					
		Action	Continue					
247865018	1	13	0.486	3.707	3/1/2010@13:36:59			
247865019	1	14	0.204	1.643	3/1/2010@13:37:47			
247865020	1	15	-8.006e-4	0.142	3/1/2010@13:38:35			
247913002	1	24	1.004	7.509	3/1/2010@13:39:23			
247913001	1	20	0.973	7.278	3/1/2010@13:40:13			
1202054694|958142|MB	1	25	0.017	0.274	3/1/2010@13:41:03			
1202054701||LCS	1	26	1.011	7.554	3/1/2010@13:41:52			
248019001	1	28	0.039	0.437	3/1/2010@13:42:41			
1202054720||DUP	1	29	0.028	0.355	3/1/2010@13:43:29			
1202054722||MS	1	30	0.820	6.160	3/1/2010@13:44:16			
WTR100301-04 CCV	1	S11	1.027	7.676	3/1/2010@13:45:05			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.027 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.027 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-10 CCB	1	S15	-0.009	0.079	3/1/2010@13:46:56			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.009 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.009 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1202054724||MSD	1	31	0.828	6.214	3/1/2010@13:48:46			
248023001	1	32	0.015	0.258	3/1/2010@13:49:37			

1202054719||DUP	1	33	0.006	0.195	3/1/2010@13:50:28			
1202054721||MS	1	34	0.798	5.993	3/1/2010@13:51:19			
1202054723||MSD	1	35	0.648	4.896	3/1/2010@13:52:10			
248074001	1	42	0.077	0.712	3/1/2010@13:53:00			
1202054695||DUP	1	43	0.055	0.553	3/1/2010@13:53:49			
1202054697||MS	1	44	0.784	5.897	3/1/2010@13:54:37			
1202054699||MSD	1	45	0.526	4.000	3/1/2010@13:55:25			
248078001	1	48	0.301	2.353	3/1/2010@13:56:15			
WTR100301-04 CCV	1	S11	1.024	7.651	3/1/2010@13:57:05			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.024 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.024 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-10 CCB	1	S15	-0.009	0.085	3/1/2010@13:58:56			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.009 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.009 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1202054696||DUP	1	49	0.204	1.644	3/1/2010@14:00:45			
1202054698||MS	1	50	0.995	7.442	3/1/2010@14:01:36			
1202054700||MSD	1	51	1.114	8.309	3/1/2010@14:02:27			
1202054723||MSD	1	35	0.802	6.028	3/1/2010@14:03:18			
1202054699||MSD	1	45	0.783	5.885	3/1/2010@14:04:07			
247957001	1	27	0.088	0.795	3/1/2010@14:04:56			
248024002	1	36	0.009	0.216	3/1/2010@14:05:45			
248024004	1	37	0.006	0.191	3/1/2010@14:06:36			
248044001	1	38	-0.017	0.025	3/1/2010@14:07:26			
248044003	1	39	0.008	0.204	3/1/2010@14:08:16			
WTR100301-04 CCV	1	S11	1.021	7.630	3/1/2010@14:09:05			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	1.021 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.021 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-10 CCB	1	S15	-0.009	0.082	3/1/2010@14:10:56			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.009 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.009 > -0.050					
		Message	CCB Passed					
		Action	Continue					
248044005	1	40	0.016	0.267	3/1/2010@14:12:45			
248044006	1	41	-0.013	0.050	3/1/2010@14:13:34			
248074002	1	46	0.035	0.405	3/1/2010@14:14:25			
248074003	1	47	0.016	0.262	3/1/2010@14:15:16			
248078002	1	52	0.287	2.250	3/1/2010@14:16:08			
248078003	1	53	0.399	3.074	3/1/2010@14:16:58			
248078004	1	54	0.205	1.653	3/1/2010@14:17:49			
WTR100301-04 CCV	1	S11	1.023	7.647	3/1/2010@14:19:37			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					

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		Result:	1.023 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	1.023 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100301-10 CCB	1	S15	-0.008	0.091	3/1/2010@14:21:28			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.008 < 0.049					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.008 > -0.050					
		Message	CCB Passed					
		Action	Continue					

Channel 1 (NH3) : Current View

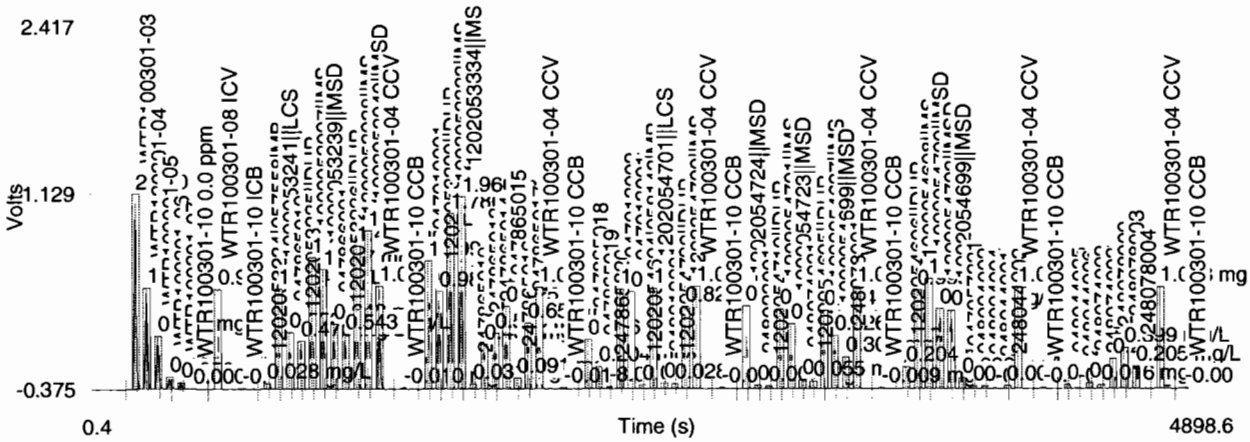

Table 1: NH3

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	2.000	1	14.709	1.494	0.6	3/1/2010	13:04:21
2	1.000	1	7.601	0.771	-1.7	3/1/2010	13:05:10
3	0.500	1	3.934	0.403	-3.2	3/1/2010	13:06:00
4	0.100	1	0.889	0.090	-0.8	3/1/2010	13:06:51
5	0.050	1	0.474	0.048	8.1	3/1/2010	13:07:43
6	0.000	1	0.029	0.003		3/1/2010	13:08:36

Author: axh3 Date : 3/1/2010

Figure 1: NH3

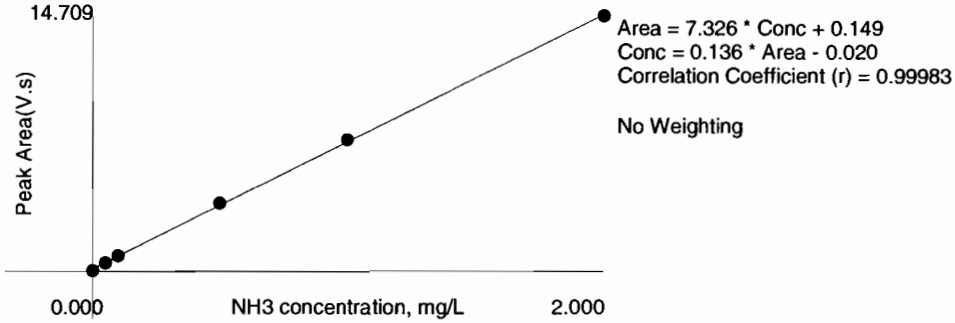

Cyanide, Total

Prep Logbook

Cyanide Sample Distillation

Batch ID: **959216.0** Verified by:
Analyst: Alan Stanley
Method: SW846 9010B Prep EPA 335.4
Lab SOP: GL-GC-E-067 REV# 13
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202057168	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202057164	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202057165	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202057166	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202057167	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202057161 MB	08-MAR-2010 12:41:00	Water	25	25	1	>12
1202057168 LCS	08-MAR-2010 12:41:00	Water	25	25	1	>12
248044005	08-MAR-2010 12:41:00	Ground Water	25	25	1	>12
1202057163 DUP (248044005)	08-MAR-2010 12:41:00	Ground Water	25	25	1	>12
1202057165 MS (248044005)	08-MAR-2010 12:41:00	Ground Water	25	25	1	>12
1202057167 MSD (248044005)	08-MAR-2010 12:41:00	Ground Water	25	25	1	>12
248044006	08-MAR-2010 12:41:00	Ground Water	25	25	1	>12
248108001	08-MAR-2010 12:41:00	Water	25	25	1	>12
248117001	08-MAR-2010 12:41:00	Water	25	25	1	>12
248127002	08-MAR-2010 12:41:00	Water	25	25	1	>12
248162001	08-MAR-2010 12:41:00	Water	25	25	1	>12
248162002	08-MAR-2010 12:41:00	Water	25	25	1	>12
248162003	08-MAR-2010 12:41:00	Water	25	25	1	>12
248162004	08-MAR-2010 12:41:00	Water	25	25	1	>12
248164002	08-MAR-2010 12:41:00	Ground Water	25	25	1	>12
248168006	08-MAR-2010 12:41:00	Water	25	25	1	>12
248169004	08-MAR-2010 12:41:00	Water	25	25	1	>12
248188001	08-MAR-2010 12:41:00	Water	25	25	1	>12
1202057162 DUP (248188001)	08-MAR-2010 12:41:00	Water	25	25	1	>12
1202057164 MS (248188001)	08-MAR-2010 12:41:00	Water	25	25	1	>12

Prep Logbook

Batch ID: **959216.0** Verified by:
Analyst: Alan Stanley
Method: SW846 9010B Prep EPA 335.4
Lab SOP: GL-GC-E-067 REV# 13
Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202057168	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202057164	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202057165	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202057166	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202057167	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202057166 MSD (248188001)	08-MAR-2010 12:41:00	Water	25	25	1	>12
248199001	08-MAR-2010 12:41:00	Water	25	25	1	>12
248238001	08-MAR-2010 12:41:00	Water	25	25	1	>12
248238002	08-MAR-2010 12:41:00	Water	25	25	1	>12
248242001	08-MAR-2010 12:41:00	Water	25	25	1	>12
248245001	08-MAR-2010 12:41:00	Water	25	25	1	>12
248257001	08-MAR-2010 12:41:00	Water	25	25	1	>12
248257002	08-MAR-2010 12:41:00	Water	25	25	1	>12

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL
WCN100308-07	150 ppb CN Distilled ICV Standard	.0375 mL

Comments:

Prep Logbook

Cyanide Sample Distillation

Batch ID: **963029.0** Verified by: _____

Analyst: Alan Stanley

Method: EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202065975	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202065977	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202065978	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202065974 MB	09-MAR-2010 11:37:00	Water	25	25	1	>12
1202065975 LCS	09-MAR-2010 11:37:00	Water	25	25	1	>12
248044004	09-MAR-2010 11:37:00	Ground Water	25	25	1	>12
1202065976 DUP (248044004)	09-MAR-2010 11:37:00	Ground Water	25	25	1	>12
1202065977 MS (248044004)	09-MAR-2010 11:37:00	Ground Water	25	25	1	>12
1202065978 MSD (248044004)	09-MAR-2010 11:37:00	Ground Water	25	25	1	>12

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL
WCN100309-07	150 ppb CN Distilled ICV Standard	.0375 mL

Comments:

Prep Logbook

Cyanide Sample Distillation

Batch ID: **958167.0** Verified by: ____

Analyst: Alan Stanley

Method: SW846 9010B Prep EPA 335.4

Lab SOP: GL-GC-E-067 REV# 13

Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202054796	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202054792	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202054793	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202054794	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202054795	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202054789 MB	05-MAR-2010 15:35:00	Water	25	25	1	>12
1202054796 LCS	05-MAR-2010 15:35:00	Water	25	25	1	>12
248010001	05-MAR-2010 15:35:00	Water	25	25	1	>12
1202054790 DUP (248010001)	05-MAR-2010 15:35:00	Water	25	25	1	>12
1202054792 MS (248010001)	05-MAR-2010 15:35:00	Water	25	25	1	>12
1202054794 MSD (248010001)	05-MAR-2010 15:35:00	Water	25	25	1	>12
248010002	05-MAR-2010 15:35:00	Water	25	25	1	>12
248019001	05-MAR-2010 15:35:00	Water	25	25	1	>12
248019002	05-MAR-2010 15:35:00	Water	25	25	1	>12
248023002	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
248024001	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
248024003	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
248044002	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
1202054791 DUP (248044002)	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
1202054793 MS (248044002)	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
1202054795 MSD (248044002)	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
248401005	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
248516001	05-MAR-2010 15:35:00	Water	25	25	1	>12
248516002	05-MAR-2010 15:35:00	Water	25	25	1	>12
248518001	05-MAR-2010 15:35:00	Water	25	25	1	>12

Prep Logbook

Batch ID: **958167.0** Verified by:
Analyst: Alan Stanley
Method: SW846 9010B Prep EPA 335.4
Lab SOP: GL-GC-E-067 REV# 13
Instrument: Sartorius Balance B-007

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202054796	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.0125	mL
MS	1202054792	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MS	1202054793	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202054794	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL
MSD	1202054795	Secondary source standard for CN and phenol. Used to spike LCS, MS, ICV	URF1269274-02	.025	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
248533001	05-MAR-2010 15:35:00	Water	25	25	1	>12
248548001	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
248548003	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12
248551001	05-MAR-2010 15:35:00	Water	25	25	1	>12
248551002	05-MAR-2010 15:35:00	Water	25	25	1	>12
248555002	05-MAR-2010 15:35:00	Ground Water	25	25	1	>12

Reagent/Solvent Lot ID	Description	Amount
1260189-C	50% H2SO4 CN Prep	2.5 mL
1270661-C	Bismuth Nitrate Solution	1.25 mL
1270663-C	0.8N H3NO3S	1.25 mL
1270669-C	51% MgCl2 Soln	1 mL
1273851-C	0.25N Sodium Hydroxide Solution	25 mL
WCN100305-07	150 ppb CN Distilled ICV Standard	.0375 mL

Comments:

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/8/2010 10:25:45	OM_3-8-2010_10-24-48
150 ppb		1	axc2	3/8/2010 10:26:37	OM_3-8-2010_10-24-48
100 ppb		1	axc2	3/8/2010 10:27:29	OM_3-8-2010_10-24-48
50 ppb		1	axc2	3/8/2010 10:28:22	OM_3-8-2010_10-24-48
10 ppb		1	axc2	3/8/2010 10:29:15	OM_3-8-2010_10-24-48
CRDL 5.0 ppb		1	axc2	3/8/2010 10:30:09	OM_3-8-2010_10-24-48
ICAL-00		1	axc2	3/8/2010 10:31:03	OM_3-8-2010_10-24-48
ICV		1	axc2	3/8/2010 10:32:54	OM_3-8-2010_10-24-48
ICB		1	axc2	3/8/2010 10:34:44	OM_3-8-2010_10-24-48
CRDL		1	axc2	3/8/2010 10:36:34	OM_3-8-2010_10-24-48
1202054789	958168	1	axc2	3/8/2010 10:38:23	OM_3-8-2010_10-24-48
1202054796	958168	1	axc2	3/8/2010 10:39:17	OM_3-8-2010_10-24-48
248010001	958168	1	axc2	3/8/2010 10:40:10	OM_3-8-2010_10-24-48
1202054790	958168	1	axc2	3/8/2010 10:41:03	OM_3-8-2010_10-24-48
1202054792	958168	1	axc2	3/8/2010 10:41:56	OM_3-8-2010_10-24-48
1202054794	958168	1	axc2	3/8/2010 10:42:48	OM_3-8-2010_10-24-48
248010002	958168	1	axc2	3/8/2010 10:43:42	OM_3-8-2010_10-24-48
248019001	958168	1	axc2	3/8/2010 10:44:34	OM_3-8-2010_10-24-48
248019002	958168	1	axc2	3/8/2010 10:45:26	OM_3-8-2010_10-24-48
248023002	958168	1	axc2	3/8/2010 10:46:19	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010 10:47:11	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010 10:49:01	OM_3-8-2010_10-24-48
248024001	958168	1	axc2	3/8/2010 10:50:50	OM_3-8-2010_10-24-48
248024003	958168	1	axc2	3/8/2010 10:51:41	OM_3-8-2010_10-24-48
248044002	958168	1	axc2	3/8/2010 10:52:34	OM_3-8-2010_10-24-48
1202054791	958168	1	axc2	3/8/2010 10:53:25	OM_3-8-2010_10-24-48
1202054793	958168	1	axc2	3/8/2010 10:54:17	OM_3-8-2010_10-24-48
1202054795	958168	1	axc2	3/8/2010 10:55:10	OM_3-8-2010_10-24-48
248401005	958168	1	axc2	3/8/2010 10:56:04	OM_3-8-2010_10-24-48
248516001	958168	1	axc2	3/8/2010 10:56:58	OM_3-8-2010_10-24-48
248516002	958168	1	axc2	3/8/2010 10:57:51	OM_3-8-2010_10-24-48
248518001	958168	1	axc2	3/8/2010 10:58:44	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010 10:59:36	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010 11:01:27	OM_3-8-2010_10-24-48
248533001	958168	1	axc2	3/8/2010 11:03:16	OM_3-8-2010_10-24-48
248548001	958168	1	axc2	3/8/2010 11:04:09	OM_3-8-2010_10-24-48
248548003	958168	1	axc2	3/8/2010 11:05:01	OM_3-8-2010_10-24-48
248551001	958168	1	axc2	3/8/2010 11:05:54	OM_3-8-2010_10-24-48
248551002	958168	1	axc2	3/8/2010 11:06:46	OM_3-8-2010_10-24-48
248555002	958168	1	axc2	3/8/2010 11:07:39	OM_3-8-2010_10-24-48
1202059721	960271	1	axc2	3/8/2010 11:08:31	OM_3-8-2010_10-24-48
1202059731	960271	1	axc2	3/8/2010 11:09:23	OM_3-8-2010_10-24-48
248072001	960271	1	axc2	3/8/2010 11:10:15	OM_3-8-2010_10-24-48
1202059722	960271	1	axc2	3/8/2010 11:11:06	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010 11:11:59	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010 11:13:49	OM_3-8-2010_10-24-48
1202059725	960271	1	axc2	3/8/2010 11:15:40	OM_3-8-2010_10-24-48
1202059728	960271	1	axc2	3/8/2010 11:16:33	OM_3-8-2010_10-24-48
248072002	960271	1	axc2	3/8/2010 11:17:27	OM_3-8-2010_10-24-48
248072003	960271	1	axc2	3/8/2010 11:18:21	OM_3-8-2010_10-24-48
248097001	960271	1	axc2	3/8/2010 11:19:14	OM_3-8-2010_10-24-48
1202059724	960271	1	axc2	3/8/2010 11:20:07	OM_3-8-2010_10-24-48
1202059727	960271	1	axc2	3/8/2010 11:21:00	OM_3-8-2010_10-24-48
1202059730	960271	1	axc2	3/8/2010 11:21:53	OM_3-8-2010_10-24-48
248097002	960271	1	axc2	3/8/2010 11:22:47	OM_3-8-2010_10-24-48
248097003	960271	1	axc2	3/8/2010 11:23:38	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010 11:24:31	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010 11:26:21	OM_3-8-2010_10-24-48

248097004	960271	1	axc2	3/8/2010 11:28:09	OM_3-8-2010_10-24-48
248298001	960271	1	axc2	3/8/2010 11:29:02	OM_3-8-2010_10-24-48
248298002	960271	1	axc2	3/8/2010 11:29:53	OM_3-8-2010_10-24-48
248298003	960271	1	axc2	3/8/2010 11:30:46	OM_3-8-2010_10-24-48
248303001	960271	1	axc2	3/8/2010 11:31:38	OM_3-8-2010_10-24-48
248337001	960271	1	axc2	3/8/2010 11:32:32	OM_3-8-2010_10-24-48
248375001	960271	1	axc2	3/8/2010 11:33:26	OM_3-8-2010_10-24-48
248375002	960271	1	axc2	3/8/2010 11:34:19	OM_3-8-2010_10-24-48
248397001	960271	1	axc2	3/8/2010 11:35:14	OM_3-8-2010_10-24-48
248397002	960271	1	axc2	3/8/2010 11:36:06	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010 11:37:00	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010 11:38:51	OM_3-8-2010_10-24-48
248407001	960271	1	axc2	3/8/2010 11:40:39	OM_3-8-2010_10-24-48
1202059723	960271	1	axc2	3/8/2010 11:41:33	OM_3-8-2010_10-24-48
1202059726	960271	1	axc2	3/8/2010 11:42:26	OM_3-8-2010_10-24-48
1202059729	960271	1	axc2	3/8/2010 11:43:19	OM_3-8-2010_10-24-48
248419001	960271	1	axc2	3/8/2010 11:44:11	OM_3-8-2010_10-24-48
248419002	960271	1	axc2	3/8/2010 11:45:04	OM_3-8-2010_10-24-48
1202053300	957584	1	axc2	3/8/2010 11:45:57	OM_3-8-2010_10-24-48
1202053310	957584	1	axc2	3/8/2010 11:46:49	OM_3-8-2010_10-24-48
247829002	957584	1	axc2	3/8/2010 11:47:41	OM_3-8-2010_10-24-48
1202053302	957584	1	axc2	3/8/2010 11:48:33	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010 11:49:26	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010 11:51:15	OM_3-8-2010_10-24-48
1202053305	957584	1	axc2	3/8/2010 11:53:05	OM_3-8-2010_10-24-48
1202053308	957584	1	axc2	3/8/2010 11:54:00	OM_3-8-2010_10-24-48
247865010	957584	1	axc2	3/8/2010 11:54:55	OM_3-8-2010_10-24-48
247865012	957584	1	axc2	3/8/2010 11:55:48	OM_3-8-2010_10-24-48
1202053303	957584	1	axc2	3/8/2010 11:56:41	OM_3-8-2010_10-24-48
1202053306	957584	1	axc2	3/8/2010 11:57:35	OM_3-8-2010_10-24-48
1202053309	957584	1	axc2	3/8/2010 11:58:28	OM_3-8-2010_10-24-48
247865013	957584	1	axc2	3/8/2010 11:59:21	OM_3-8-2010_10-24-48
247865014	957584	1	axc2	3/8/2010 12:00:15	OM_3-8-2010_10-24-48
247865015	957584	1	axc2	3/8/2010 12:01:07	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010 12:02:00	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010 12:03:51	OM_3-8-2010_10-24-48
247865016	957584	1	axc2	3/8/2010 12:05:41	OM_3-8-2010_10-24-48
247865017	957584	1	axc2	3/8/2010 12:06:33	OM_3-8-2010_10-24-48
247865018	957584	1	axc2	3/8/2010 12:07:25	OM_3-8-2010_10-24-48
247865019	957584	1	axc2	3/8/2010 12:08:18	OM_3-8-2010_10-24-48
247865020	957584	1	axc2	3/8/2010 12:09:10	OM_3-8-2010_10-24-48
247866001	957584	1	axc2	3/8/2010 12:10:05	OM_3-8-2010_10-24-48
247919001	957584	1	axc2	3/8/2010 12:10:59	OM_3-8-2010_10-24-48
247919002	957584	1	axc2	3/8/2010 12:11:53	OM_3-8-2010_10-24-48
247922004	957584	1	axc2	3/8/2010 12:12:48	OM_3-8-2010_10-24-48
1202053301	957584	1	axc2	3/8/2010 12:13:41	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010 12:14:34	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010 12:16:24	OM_3-8-2010_10-24-48
1202053304	957584	1	axc2	3/8/2010 12:18:14	OM_3-8-2010_10-24-48
1202053307	957584	1	axc2	3/8/2010 12:19:07	OM_3-8-2010_10-24-48
248164004	957584	1	axc2	3/8/2010 12:20:01	OM_3-8-2010_10-24-48
248382002	957584	1	axc2	3/8/2010 12:20:54	OM_3-8-2010_10-24-48
248382003	957584	1	axc2	3/8/2010 12:21:47	OM_3-8-2010_10-24-48
248401002	957584	1	axc2	3/8/2010 12:22:40	OM_3-8-2010_10-24-48
248401004	957584	1	axc2	3/8/2010 12:23:33	OM_3-8-2010_10-24-48
CCV		1	axc2	3/8/2010 12:24:25	OM_3-8-2010_10-24-48
CCB		1	axc2	3/8/2010 12:26:15	OM_3-8-2010_10-24-48

Author: axc2 Date : 3/8/2010

Original Run Filename: OM_3-8-2010_10-24-48.OMN created 3/8/2010 10:24:48
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-8-2010_10-24-48.OMN last modified 3/8/2010 12:27:20
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100308-01	1	S1	200	10.4	3/8/2010@10:25:45			200 ppb
WCN100308-02	1	S2	150	7.82	3/8/2010@10:26:37			150 ppb
WCN100308-03	1	S3	100	5.36	3/8/2010@10:27:29			100 ppb
WCN100308-04	1	S4	50.0	2.85	3/8/2010@10:28:22			50 ppb
WCN100308-05	1	S5	10.0	0.644	3/8/2010@10:29:15			10 ppb
WCN100308-06	1	S6	5.00	0.400	3/8/2010@10:30:09			CRDL 5.0 ppb
WCN100308-08	1	S7	0.00	-0.0189	3/8/2010@10:31:03			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99976 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100308-07	1	S8	147	7.72	3/8/2010@10:32:54			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-2.1 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-2.1 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100308-08	1	S7	-1.65	0.0363	3/8/2010@10:34:44			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.65 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.65 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100308-06	1	S6	5.25	0.393	3/8/2010@10:36:34			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	5.25 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	5.25 > 2.50					
		Message	Pass					
		Action	None					
1202054789|958168|MB	1	1	-1.83	0.0269	3/8/2010@10:38:23			
1202054796||LCS	1	2	50.4	2.73	3/8/2010@10:39:17			
248010001	1	3	-1.53	0.0427	3/8/2010@10:40:10			
1202054790||DUP	1	4	-1.69	0.0344	3/8/2010@10:41:03			
1202054792||MS	1	5	114	6.01	3/8/2010@10:41:56			
1202054794||MSD	1	6	111	5.86	3/8/2010@10:42:48			
248010002	1	7	-1.44	0.0471	3/8/2010@10:43:42			
248019001	1	8	-1.39	0.0498	3/8/2010@10:44:34			
248019002	1	9	-1.40	0.0491	3/8/2010@10:45:26			
248023002	1	10	-1.75	0.0312	3/8/2010@10:46:19			
WCN100308-03	1	S3	105	5.54	3/8/2010@10:47:11			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.8 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.67	0.0352	3/8/2010@10:49:01			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.67 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.67 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248024001	1	11	-2.29	0.00319	3/8/2010@10:50:50			
248024003	1	12	-0.940	0.0730	3/8/2010@10:51:41			
248044002	1	13	-1.78	0.0297	3/8/2010@10:52:34			
1202054791||DUP	1	14	-1.89	0.0237	3/8/2010@10:53:25			
1202054793||MS	1	15	113	5.97	3/8/2010@10:54:17			
1202054795||MSD	1	16	94.5	5.01	3/8/2010@10:55:10			
248401005	1	17	-2.36	-4.50e-4	3/8/2010@10:56:04			
248516001	1	18	-1.70	0.0336	3/8/2010@10:56:58			
248516002	1	19	-2.03	0.0168	3/8/2010@10:57:51			
248518001	1	20	-2.35	3.13e-4	3/8/2010@10:58:44			
WCN100308-03	1	S3	107	5.64	3/8/2010@10:59:36			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.82	0.0275	3/8/2010@11:01:27			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.82 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.82 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248533001	1	21	-1.85	0.0260	3/8/2010@11:03:16			
248548001	1	22	-2.24	0.00579	3/8/2010@11:04:09			
248548003	1	23	-1.45	0.0465	3/8/2010@11:05:01			
248551001	1	24	-0.552	0.0931	3/8/2010@11:05:54			
248551002	1	25	-1.81	0.0281	3/8/2010@11:06:46			
248555002	1	26	-1.99	0.0185	3/8/2010@11:07:39			
1202059721|960271|MB	1	27	-1.70	0.0339	3/8/2010@11:08:31			
1202059731||LCS	1	28	49.0	2.66	3/8/2010@11:09:23			
248072001	1	29	-2.36	-5.25e-4	3/8/2010@11:10:15			
1202059722||DUP	1	30	-1.95	0.0206	3/8/2010@11:11:06			
WCN100308-03	1	S3	105	5.54	3/8/2010@11:11:59			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.72	0.0325	3/8/2010@11:13:49			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-1.72 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.72 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202059725||MS	1	31	102	5.41	3/8/2010@11:15:40			
1202059728||MSD	1	32	101	5.33	3/8/2010@11:16:33			
248072002	1	33	-1.30	0.0543	3/8/2010@11:17:27			
248072003	1	34	-2.90	-0.0286	3/8/2010@11:18:21			
248097001	1	35	-1.88	0.0245	3/8/2010@11:19:14			
1202059724||DUP	1	36	-1.58	0.0398	3/8/2010@11:20:07			
1202059727||MS	1	37	100	5.32	3/8/2010@11:21:00			
1202059730||MSD	1	38	102	5.39	3/8/2010@11:21:53			
248097002	1	39	12.3	0.757	3/8/2010@11:22:47			
248097003	1	40	-1.04	0.0680	3/8/2010@11:23:38			
WCN100308-03	1	S3	106	5.63	3/8/2010@11:24:31			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.68	0.0346	3/8/2010@11:26:21			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.68 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.68 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248097004	1	41	-0.871	0.0766	3/8/2010@11:28:09			
248298001	1	42	-1.67	0.0350	3/8/2010@11:29:02			
248298002	1	43	-1.93	0.0216	3/8/2010@11:29:53			
248298003	1	44	-0.109	0.116	3/8/2010@11:30:46			
248303001	1	45	2.92	0.273	3/8/2010@11:31:38			
248337001	1	46	-2.49	-0.00692	3/8/2010@11:32:32			
248375001	1	47	-2.35	1.70e-4	3/8/2010@11:33:26			
248375002	1	48	-2.05	0.0157	3/8/2010@11:34:19			
248397001	1	49	-1.87	0.0247	3/8/2010@11:35:14			
248397002	1	50	-2.17	0.00925	3/8/2010@11:36:06			
WCN100308-03	1	S3	106	5.62	3/8/2010@11:37:00			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-2.34	8.36e-4	3/8/2010@11:38:51			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.34 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.34 > -5.00					
		Message	CCB Passed					
		Action	Continue					

248407001	1	51	-1.69	0.0345	3/8/2010@11:40:39			
1202059723||DUP	1	52	-2.37	-0.00102	3/8/2010@11:41:33			
1202059726||MS	1	53	104	5.51	3/8/2010@11:42:26			
1202059729||MSD	1	54	82.4	4.39	3/8/2010@11:43:19			
248419001	1	55	-1.45	0.0465	3/8/2010@11:44:11			
248419002	1	56	-1.82	0.0276	3/8/2010@11:45:04			
1202053300|957584|MB	1	57	-1.77	0.0301	3/8/2010@11:45:57			
1202053310||LCS	1	58	52.0	2.81	3/8/2010@11:46:49			
247829002	1	59	-1.36	0.0515	3/8/2010@11:47:41			
1202053302||DUP	1	60	-1.35	0.0518	3/8/2010@11:48:33			
WCN100308-03	1	S3	107	5.65	3/8/2010@11:49:26			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		6.9 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		6.9 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100308-08	1	S7	-1.71	0.0332	3/8/2010@11:51:15			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.71 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.71 > -5.00					
	Message		CCB Passed					
	Action		Continue					
1202053305||MS	1	61	108	5.71	3/8/2010@11:53:05			
1202053308||MSD	1	62	108	5.72	3/8/2010@11:54:00			
247865010	1	63	-1.12	0.0636	3/8/2010@11:54:55			
247865012	1	64	-1.20	0.0593	3/8/2010@11:55:48			
1202053303||DUP	1	65	-1.53	0.0427	3/8/2010@11:56:41			
1202053306||MS	1	66	86.3	4.59	3/8/2010@11:57:35			
1202053309||MSD	1	67	102	5.39	3/8/2010@11:58:28			
247865013	1	68	-1.42	0.0483	3/8/2010@11:59:21			
247865014	1	69	-1.44	0.0472	3/8/2010@12:00:15			
247865015	1	70	-1.50	0.0439	3/8/2010@12:01:07			
WCN100308-03	1	S3	106	5.63	3/8/2010@12:02:00			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
	Result:		6.4 < 10.0					
	Message		CCV Passed					
	Action		Continue					
DQM Test: < - Percent Relative Difference								
	Result:		6.4 < 10.0					
	Message		CCV Passed					
	Action		Continue					
WCN100308-08	1	S7	-1.63	0.0372	3/8/2010@12:03:51			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
	Result:		-1.63 < 5.00					
	Message		CCB Passed					
	Action		Continue					
DQM Test: < - Concentration Limit								
	Result:		-1.63 > -5.00					
	Message		CCB Passed					
	Action		Continue					
247865016	1	71	-1.63	0.0374	3/8/2010@12:05:41			
247865017	1	72	-1.38	0.0501	3/8/2010@12:06:33			
247865018	1	73	-2.31	0.00203	3/8/2010@12:07:25			
247865019	1	74	-1.70	0.0337	3/8/2010@12:08:18			
247865020	1	75	-1.21	0.0589	3/8/2010@12:09:10			
247866001	1	76	-1.82	0.0273	3/8/2010@12:10:05			
247919001	1	77	-1.59	0.0392	3/8/2010@12:10:59			
247919002	1	78	-1.41	0.0486	3/8/2010@12:11:53			

247922004	1	79	0.739	0.160	3/8/2010@12:12:48			
1202053301||DUP	1	80	0.641	0.155	3/8/2010@12:13:41			
WCN100308-03	1	S3	107	5.65	3/8/2010@12:14:34			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.86	0.0256	3/8/2010@12:16:24			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.86 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.86 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202053304||MS	1	81	98.2	5.21	3/8/2010@12:18:14			
1202053307||MSD	1	82	98.4	5.21	3/8/2010@12:19:07			
248164004	1	83	-1.49	0.0445	3/8/2010@12:20:01			
248382002	1	84	-1.58	0.0400	3/8/2010@12:20:54			
248382003	1	85	-1.82	0.0273	3/8/2010@12:21:47			
248401002	1	86	-1.52	0.0428	3/8/2010@12:22:40			
248401004	1	87	-1.38	0.0501	3/8/2010@12:23:33			
WCN100308-03	1	S3	106	5.59	3/8/2010@12:24:25			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.8 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.71	0.0334	3/8/2010@12:26:15			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.71 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.71 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_3-8-2010_10-24-48.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 3/8/2010

Channel 1: Current View

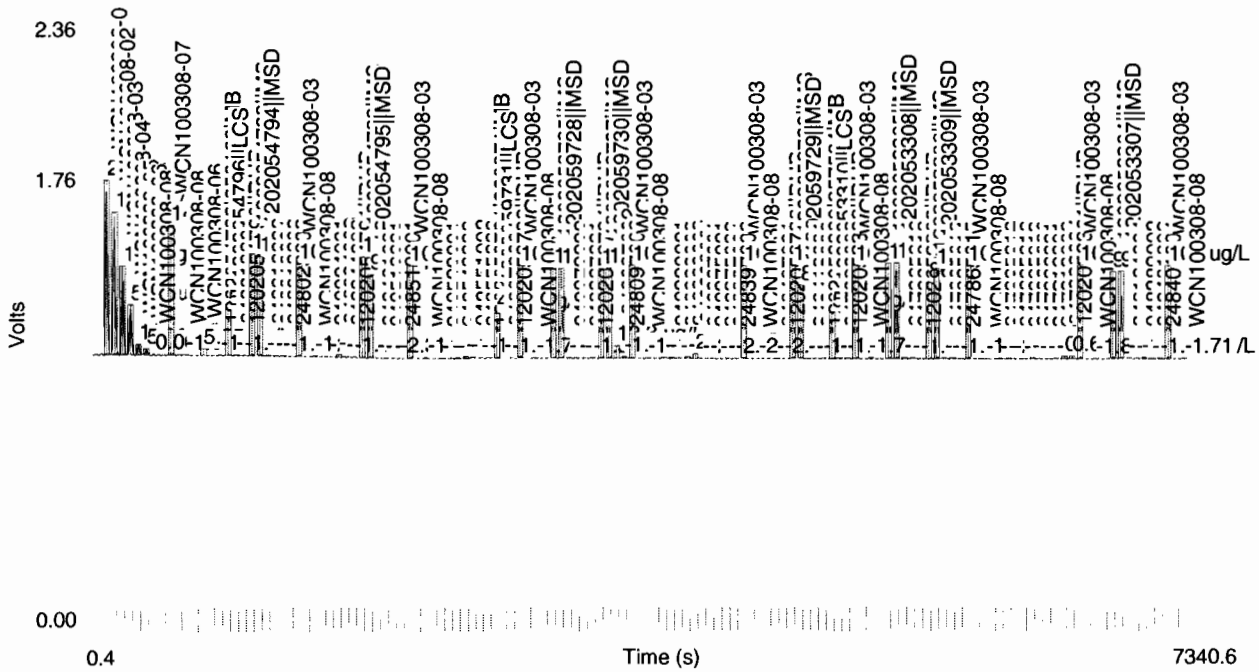

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.4	0.692	0.2	3/8/2010	10:26:48
2	150	1	7.82	0.567	0.7	3/8/2010	10:27:40
3	100	1	5.36	0.353	-1.3	3/8/2010	10:28:32
4	50.0	1	2.85	0.199	-5.1	3/8/2010	10:29:25
5	10.0	1	0.644	0.0420	-0.6	3/8/2010	10:30:18
6	5.00	1	0.400	0.0240	-4.6	3/8/2010	10:31:12
7	0.00	1	-0.0189	-0.00306		3/8/2010	10:32:06

Figure 1: TCYANIDE

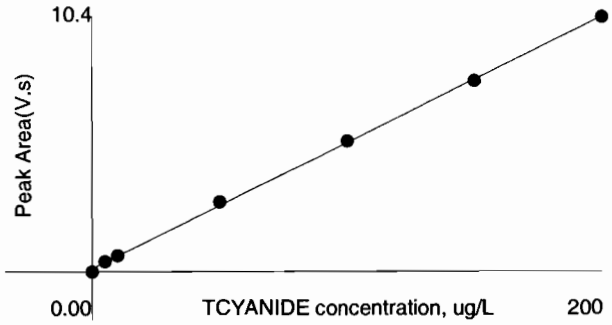

Area = 0.0517 * Conc + 0.124
Conc = 19.3 * Area - 2.35
Correlation Coefficient (r) = 0.99976

No Weighting

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	3/8/2010 15:01:26	OM_3-8-2010_14-58-05
CCB		1	axc2	3/8/2010 15:03:15	OM_3-8-2010_14-58-05
1202057161	959217	1	axc2	3/8/2010 15:05:05	OM_3-8-2010_14-58-05
1202057168	959217	1	axc2	3/8/2010 15:05:58	OM_3-8-2010_14-58-05
248044005	959217	1	axc2	3/8/2010 15:06:52	OM_3-8-2010_14-58-05
1202057163	959217	1	axc2	3/8/2010 15:07:45	OM_3-8-2010_14-58-05
1202057165	959217	1	axc2	3/8/2010 15:08:38	OM_3-8-2010_14-58-05
1202057167	959217	1	axc2	3/8/2010 15:09:31	OM_3-8-2010_14-58-05
248044006	959217	1	axc2	3/8/2010 15:10:24	OM_3-8-2010_14-58-05
248108001	959217	1	axc2	3/8/2010 15:11:16	OM_3-8-2010_14-58-05
248117001	959217	1	axc2	3/8/2010 15:12:08	OM_3-8-2010_14-58-05
248127002	959217	1	axc2	3/8/2010 15:13:02	OM_3-8-2010_14-58-05
CCV		1	axc2	3/8/2010 15:13:54	OM_3-8-2010_14-58-05
CCB		1	axc2	3/8/2010 15:15:44	OM_3-8-2010_14-58-05
248162001	959217	1	axc2	3/8/2010 15:17:33	OM_3-8-2010_14-58-05
248162002	959217	1	axc2	3/8/2010 15:18:25	OM_3-8-2010_14-58-05
248162003	959217	1	axc2	3/8/2010 15:19:17	OM_3-8-2010_14-58-05
248162004	959217	1	axc2	3/8/2010 15:20:09	OM_3-8-2010_14-58-05
248164002	959217	1	axc2	3/8/2010 15:21:00	OM_3-8-2010_14-58-05
248168006	959217	1	axc2	3/8/2010 15:21:55	OM_3-8-2010_14-58-05
248169004	959217	1	axc2	3/8/2010 15:22:48	OM_3-8-2010_14-58-05
248188001	959217	1	axc2	3/8/2010 15:23:41	OM_3-8-2010_14-58-05
1202057162	959217	1	axc2	3/8/2010 15:24:34	OM_3-8-2010_14-58-05
1202057164*	959217	1	axc2	3/8/2010 15:25:27	OM_3-8-2010_14-58-05
CCV		1	axc2	3/8/2010 15:26:19	OM_3-8-2010_14-58-05
CCB		1	axc2	3/8/2010 15:28:11	OM_3-8-2010_14-58-05
1202057166	959217	1	axc2	3/8/2010 15:30:01	OM_3-8-2010_14-58-05
248199001	959217	1	axc2	3/8/2010 15:30:54	OM_3-8-2010_14-58-05
248238001	959217	1	axc2	3/8/2010 15:31:46	OM_3-8-2010_14-58-05
248238002	959217	1	axc2	3/8/2010 15:32:39	OM_3-8-2010_14-58-05
1202057164*	959217	1	axc2	3/8/2010 15:33:32	OM_3-8-2010_14-58-05
248242001	959217	1	axc2	3/8/2010 15:34:25	OM_3-8-2010_14-58-05
248245001	959217	1	axc2	3/8/2010 15:35:17	OM_3-8-2010_14-58-05
248257001	959217	1	axc2	3/8/2010 15:36:09	OM_3-8-2010_14-58-05
248257002	959217	1	axc2	3/8/2010 15:37:01	OM_3-8-2010_14-58-05
1202057164	959217	1	axc2	3/8/2010 15:37:54	OM_3-8-2010_14-58-05
CCV		1	axc2	3/8/2010 15:38:47	OM_3-8-2010_14-58-05
CCB		1	axc2	3/8/2010 15:40:39	OM_3-8-2010_14-58-05
1202057112	959204	1	axc2	3/8/2010 15:42:28	OM_3-8-2010_14-58-05
1202057119	959204	25	axc2	3/8/2010 15:43:18	OM_3-8-2010_14-58-05
248110001	959204	1	axc2	3/8/2010 15:44:13	OM_3-8-2010_14-58-05
248110002	959204	1	axc2	3/8/2010 15:45:07	OM_3-8-2010_14-58-05
248110003	959204	1	axc2	3/8/2010 15:46:00	OM_3-8-2010_14-58-05
248110004	959204	1	axc2	3/8/2010 15:46:54	OM_3-8-2010_14-58-05
248110005	959204	1	axc2	3/8/2010 15:47:47	OM_3-8-2010_14-58-05
248110006	959204	1	axc2	3/8/2010 15:48:41	OM_3-8-2010_14-58-05
248110007	959204	1	axc2	3/8/2010 15:49:33	OM_3-8-2010_14-58-05
248110008	959204	1	axc2	3/8/2010 15:50:26	OM_3-8-2010_14-58-05
CCV		1	axc2	3/8/2010 15:51:19	OM_3-8-2010_14-58-05
CCB		1	axc2	3/8/2010 15:53:09	OM_3-8-2010_14-58-05
248118001	959204	1	axc2	3/8/2010 15:54:59	OM_3-8-2010_14-58-05
248118002	959204	1	axc2	3/8/2010 15:55:52	OM_3-8-2010_14-58-05
248118003	959204	1	axc2	3/8/2010 15:56:45	OM_3-8-2010_14-58-05
248118004	959204	1	axc2	3/8/2010 15:57:37	OM_3-8-2010_14-58-05
248118005	959204	1	axc2	3/8/2010 15:58:28	OM_3-8-2010_14-58-05
248118006	959204	1	axc2	3/8/2010 15:59:22	OM_3-8-2010_14-58-05
248118007	959204	1	axc2	3/8/2010 16:00:13	OM_3-8-2010_14-58-05
248189001	959204	1	axc2	3/8/2010 16:01:07	OM_3-8-2010_14-58-05

1202057113	959204	1	axc2	3/8/2010	16:02:01	OM_3-8-2010_14-58-05
1202057115	959204	1	axc2	3/8/2010	16:02:55	OM_3-8-2010_14-58-05
CCV		1	axc2	3/8/2010	16:03:48	OM_3-8-2010_14-58-05
CCB		1	axc2	3/8/2010	16:05:39	OM_3-8-2010_14-58-05
1202057117	959204	1	axc2	3/8/2010	16:07:29	OM_3-8-2010_14-58-05
248189002	959204	1	axc2	3/8/2010	16:08:23	OM_3-8-2010_14-58-05
1202057114	959204	1	axc2	3/8/2010	16:09:16	OM_3-8-2010_14-58-05
1202057116	959204	1	axc2	3/8/2010	16:10:09	OM_3-8-2010_14-58-05
1202057118	959204	1	axc2	3/8/2010	16:11:02	OM_3-8-2010_14-58-05
1202054781	958165	1	axc2	3/8/2010	16:11:55	OM_3-8-2010_14-58-05
1202054788	958165	25	axc2	3/8/2010	16:12:47	OM_3-8-2010_14-58-05
247918001	958165	1	axc2	3/8/2010	16:13:39	OM_3-8-2010_14-58-05
247918002	958165	1	axc2	3/8/2010	16:14:33	OM_3-8-2010_14-58-05
247918003	958165	1	axc2	3/8/2010	16:15:25	OM_3-8-2010_14-58-05
CCV		1	axc2	3/8/2010	16:16:17	OM_3-8-2010_14-58-05
CCB		1	axc2	3/8/2010	16:18:09	OM_3-8-2010_14-58-05
247918004	958165	1	axc2	3/8/2010	16:19:58	OM_3-8-2010_14-58-05
1202054782	958165	1	axc2	3/8/2010	16:20:49	OM_3-8-2010_14-58-05
1202054784	958165	1	axc2	3/8/2010	16:21:44	OM_3-8-2010_14-58-05
1202054786	958165	1	axc2	3/8/2010	16:22:39	OM_3-8-2010_14-58-05
247918005	958165	1	axc2	3/8/2010	16:23:32	OM_3-8-2010_14-58-05
1202054783	958165	1	axc2	3/8/2010	16:24:26	OM_3-8-2010_14-58-05
1202054785	958165	1	axc2	3/8/2010	16:25:20	OM_3-8-2010_14-58-05
1202054787	958165	1	axc2	3/8/2010	16:26:12	OM_3-8-2010_14-58-05
247918006	958165	1	axc2	3/8/2010	16:27:06	OM_3-8-2010_14-58-05
247918007	958165	1	axc2	3/8/2010	16:28:00	OM_3-8-2010_14-58-05
CCV		1	axc2	3/8/2010	16:28:51	OM_3-8-2010_14-58-05
CCB		1	axc2	3/8/2010	16:30:42	OM_3-8-2010_14-58-05
248009001	958165	1	axc2	3/8/2010	16:32:32	OM_3-8-2010_14-58-05
248009002	958165	1	axc2	3/8/2010	16:33:25	OM_3-8-2010_14-58-05
248009003	958165	1	axc2	3/8/2010	16:34:17	OM_3-8-2010_14-58-05
248009004	958165	1	axc2	3/8/2010	16:35:10	OM_3-8-2010_14-58-05
248009005	958165	1	axc2	3/8/2010	16:36:03	OM_3-8-2010_14-58-05
248025001	958165	1	axc2	3/8/2010	16:36:55	OM_3-8-2010_14-58-05
248025002	958165	1	axc2	3/8/2010	16:37:48	OM_3-8-2010_14-58-05
248025004	958165	1	axc2	3/8/2010	16:38:42	OM_3-8-2010_14-58-05
248025006	958165	1	axc2	3/8/2010	16:39:36	OM_3-8-2010_14-58-05
248422001	958165	1	axc2	3/8/2010	16:40:31	OM_3-8-2010_14-58-05
CCV		1	axc2	3/8/2010	16:41:23	OM_3-8-2010_14-58-05
CCB		1	axc2	3/8/2010	16:43:15	OM_3-8-2010_14-58-05
248422002	958165	1	axc2	3/8/2010	16:45:06	OM_3-8-2010_14-58-05
1202061930	961278	1	axc2	3/8/2010	16:46:01	OM_3-8-2010_14-58-05
1202061932	961278	1	axc2	3/8/2010	16:46:53	OM_3-8-2010_14-58-05
247819001	961278	1	axc2	3/8/2010	16:47:47	OM_3-8-2010_14-58-05
1202061931	961278	1	axc2	3/8/2010	16:48:41	OM_3-8-2010_14-58-05
CCV		1	axc2	3/8/2010	16:49:33	OM_3-8-2010_14-58-05
CCB		1	axc2	3/8/2010	16:51:24	OM_3-8-2010_14-58-05

Author: axc2 Date : 3/8/2010

Original Run Filename: OM_3-8-2010_14-58-05.OMN created 3/8/2010 14:58:05
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-8-2010_14-58-05.OMN last modified 3/8/2010 16:52:28
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100308-03	1	S3	103	5.47	3/8/2010@15:01:26			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	3.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	3.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100308-08	1	S7	-1.49	0.0446	3/8/2010@15:03:15			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.49 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.49 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202057161|959217|MB	1	1	-2.52	-0.00888	3/8/2010@15:05:05			
1202057168||LCS	1	2	49.3	2.67	3/8/2010@15:05:58			
248044005	1	3	-2.52	-0.00856	3/8/2010@15:06:52			
1202057163||DUP	1	4	-2.04	0.0161	3/8/2010@15:07:45			
1202057165||MS	1	5	101	5.35	3/8/2010@15:08:38			
1202057167||MSD	1	6	105	5.56	3/8/2010@15:09:31			
248044006	1	7	-1.95	0.0206	3/8/2010@15:10:24			
248108001	1	8	-2.52	-0.00848	3/8/2010@15:11:16			
248117001	1	9	-2.48	-0.00645	3/8/2010@15:12:08			
248127002	1	10	-0.731	0.0839	3/8/2010@15:13:02			
WCN100308-03	1	S3	106	5.63	3/8/2010@15:13:54			CCV
		Known Conc:	100					
			DQM Test: > + Percent Relative Difference					
		Result:	6.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Percent Relative Difference					
		Result:	6.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.84	0.0265	3/8/2010@15:15:44			CCB
		Known Conc:	0.00					
			DQM Test: > + Concentration Limit					
		Result:	-1.84 < 5.00					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-1.84 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248162001	1	11	-2.35	1.80e-4	3/8/2010@15:17:33			
248162002	1	12	-2.05	0.0154	3/8/2010@15:18:25			
248162003	1	13	-2.14	0.0108	3/8/2010@15:19:17			
248162004	1	14	-2.03	0.0167	3/8/2010@15:20:09			
248164002	1	15	-1.57	0.0404	3/8/2010@15:21:00			

248168006	1	16	-1.99	0.0187	3/8/2010@15:21:55			
248169004	1	17	-1.56	0.0412	3/8/2010@15:22:48			
248188001	1	18	-2.03	0.0168	3/8/2010@15:23:41			
1202057162||DUP	1	19	-2.31	0.00215	3/8/2010@15:24:34			
1202057164||MS	1	20	70.7	3.78	3/8/2010@15:25:27			
WCN100308-03	1	S3	109	5.76	3/8/2010@15:26:19			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	9.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	9.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.78	0.0295	3/8/2010@15:28:11			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.78 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.78 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202057166||MSD	1	21	110	5.81	3/8/2010@15:30:01			
248199001	1	22	-1.68	0.0348	3/8/2010@15:30:54			
248238001	1	23	-1.98	0.0191	3/8/2010@15:31:46			
248238002	1	24	-1.94	0.0214	3/8/2010@15:32:39			
1202057164||MS	1	20	71.8	3.84	3/8/2010@15:33:32			
248242001	1	25	-1.93	0.0217	3/8/2010@15:34:25			
248245001	1	26	-2.35	1.99e-4	3/8/2010@15:35:17			
248257001	1	27	-2.49	-0.00739	3/8/2010@15:36:09			
248257002	1	28	-1.86	0.0256	3/8/2010@15:37:01			
1202057164||MS	1	20	106	5.61	3/8/2010@15:37:54			
WCN100308-03	1	S3	104	5.52	3/8/2010@15:38:47			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								
		Result:	4.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-0.768	0.0819	3/8/2010@15:40:39			CCB
	Known Conc:		0.00					
DQM Test: > + Concentration Limit								
		Result:	-0.768 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-0.768 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202057112|959204|MB	1	29	-2.19	0.00819	3/8/2010@15:42:28			
1202057119||LCS	1	30	31.1	1.73	3/8/2010@15:43:18		25.00	
248110001	1	31	-0.304	0.106	3/8/2010@15:44:13			
248110002	1	32	-1.46	0.0463	3/8/2010@15:45:07			
248110003	1	33	-2.31	0.00237	3/8/2010@15:46:00			
248110004	1	34	-2.16	0.00990	3/8/2010@15:46:54			
248110005	1	35	-0.698	0.0856	3/8/2010@15:47:47			
248110006	1	36	-1.47	0.0458	3/8/2010@15:48:41			
248110007	1	37	-1.24	0.0576	3/8/2010@15:49:33			
248110008	1	38	-0.761	0.0823	3/8/2010@15:50:26			
WCN100308-03	1	S3	106	5.60	3/8/2010@15:51:19			CCV
	Known Conc:		100					
DQM Test: > + Percent Relative Difference								

		Result:	5.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.9 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-1.95	0.0205	3/8/2010@15:53:09			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-1.95 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-1.95 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248118001	1	39	0.0365	0.124	3/8/2010@15:54:59			
248118002	1	40	-2.19	0.00813	3/8/2010@15:55:52			
248118003	1	41	-0.754	0.0827	3/8/2010@15:56:45			
248118004	1	42	-1.55	0.0414	3/8/2010@15:57:37			
248118005	1	43	-1.86	0.0257	3/8/2010@15:58:28			
248118006	1	44	-0.195	0.112	3/8/2010@15:59:22			
248118007	1	45	-2.48	-0.00657	3/8/2010@16:00:13			
248189001	1	46	1.50	0.200	3/8/2010@16:01:07			
1202057113||DUP	1	47	1.10	0.179	3/8/2010@16:02:01			
1202057115||MS	1	48	98.4	5.21	3/8/2010@16:02:55			
WCN100308-03	1	S3	106	5.63	3/8/2010@16:03:48			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	6.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	6.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-2.33	0.00121	3/8/2010@16:05:39			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.33 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.33 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202057117||MSD	1	49	97.7	5.18	3/8/2010@16:07:29			
248189002	1	50	0.509	0.148	3/8/2010@16:08:23			
1202057114||DUP	1	51	0.322	0.138	3/8/2010@16:09:16			
1202057116||MS	1	52	93.9	4.98	3/8/2010@16:10:09			
1202057118||MSD	1	53	93.9	4.98	3/8/2010@16:11:02			
1202054781|958165|MB	1	54	-2.89	-0.0281	3/8/2010@16:11:55			
1202054788||LCS	1	55	20.3	1.17	3/8/2010@16:12:47		25.00	
247918001	1	56	-1.17	0.0613	3/8/2010@16:13:39			
247918002	1	57	-1.63	0.0371	3/8/2010@16:14:33			
247918003	1	58	-2.35	2.32e-4	3/8/2010@16:15:25			
WCN100308-03	1	S3	106	5.59	3/8/2010@16:16:17			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	5.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	5.7 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-2.61	-0.0134	3/8/2010@16:18:09			CCB

		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.61 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.61 > -5.00					
		Message	CCB Passed					
		Action	Continue					
247918004	1	59	-1.83	0.0268	3/8/2010@16:19:58			
1202054782||DUP	1	60	-1.86	0.0252	3/8/2010@16:20:49			
1202054784||MS	1	61	88.6	4.71	3/8/2010@16:21:44			
1202054786||MSD	1	62	102	5.39	3/8/2010@16:22:39			
247918005	1	63	-1.63	0.0372	3/8/2010@16:23:32			
1202054783||DUP	1	64	-2.35	2.22e-4	3/8/2010@16:24:26			
1202054785||MS	1	65	103	5.44	3/8/2010@16:25:20			
1202054787||MSD	1	66	99.0	5.24	3/8/2010@16:26:12			
247918006	1	67	-0.953	0.0724	3/8/2010@16:27:06			
247918007	1	68	0.145	0.129	3/8/2010@16:28:00			
WCN100308-03	1	S3	105	5.54	3/8/2010@16:28:51			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.6 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-2.34	4.90e-4	3/8/2010@16:30:42			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.34 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.34 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248009001	1	69	-2.44	-0.00446	3/8/2010@16:32:32			
248009002	1	70	-1.42	0.0484	3/8/2010@16:33:25			
248009003	1	71	2.15	0.233	3/8/2010@16:34:17			
248009004	1	72	-1.18	0.0606	3/8/2010@16:35:10			
248009005	1	73	-2.05	0.0157	3/8/2010@16:36:03			
248025001	1	74	-2.44	-0.00448	3/8/2010@16:36:55			
248025002	1	75	-1.60	0.0388	3/8/2010@16:37:48			
248025004	1	76	-0.787	0.0809	3/8/2010@16:38:42			
248025006	1	77	-0.371	0.102	3/8/2010@16:39:36			
248422001	1	78	-2.28	0.00369	3/8/2010@16:40:31			
WCN100308-03	1	S3	102	5.40	3/8/2010@16:41:23			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100308-08	1	S7	-2.30	0.00277	3/8/2010@16:43:15			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.30 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.30 > -5.00					
		Message	CCB Passed					

		Action	Continue				
248422002	1	79	-1.20	0.0595	3/8/2010@16:45:06		
1202061930|961278|MB	1	80	-1.83	0.0272	3/8/2010@16:46:01		
1202061932||LCS	1	81	-1.96	0.0203	3/8/2010@16:46:53		
247819001	1	82	110	5.83	3/8/2010@16:47:47		
1202061931||DUP	1	83	184	9.64	3/8/2010@16:48:41		
WCN100308-03	1	S3	106	5.59	3/8/2010@16:49:33		CCV
		Known Conc:	100				
DQM Test: > + Percent Relative Difference							
		Result:	5.7 < 10.0				
		Message	CCV Passed				
		Action	Continue				
DQM Test: < - Percent Relative Difference							
		Result:	5.7 < 10.0				
		Message	CCV Passed				
		Action	Continue				
WCN100308-08	1	S7	-2.34	3.67e-4	3/8/2010@16:51:24		CCB
		Known Conc:	0.00				
DQM Test: > + Concentration Limit							
		Result:	-2.34 < 5.00				
		Message	CCB Passed				
		Action	Continue				
DQM Test: < - Concentration Limit							
		Result:	-2.34 > -5.00				
		Message	CCB Passed				
		Action	Continue				

Analyte Properties Table for OM_3-8-2010_14-58-05.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 3/8/2010

Channel 1: Current View

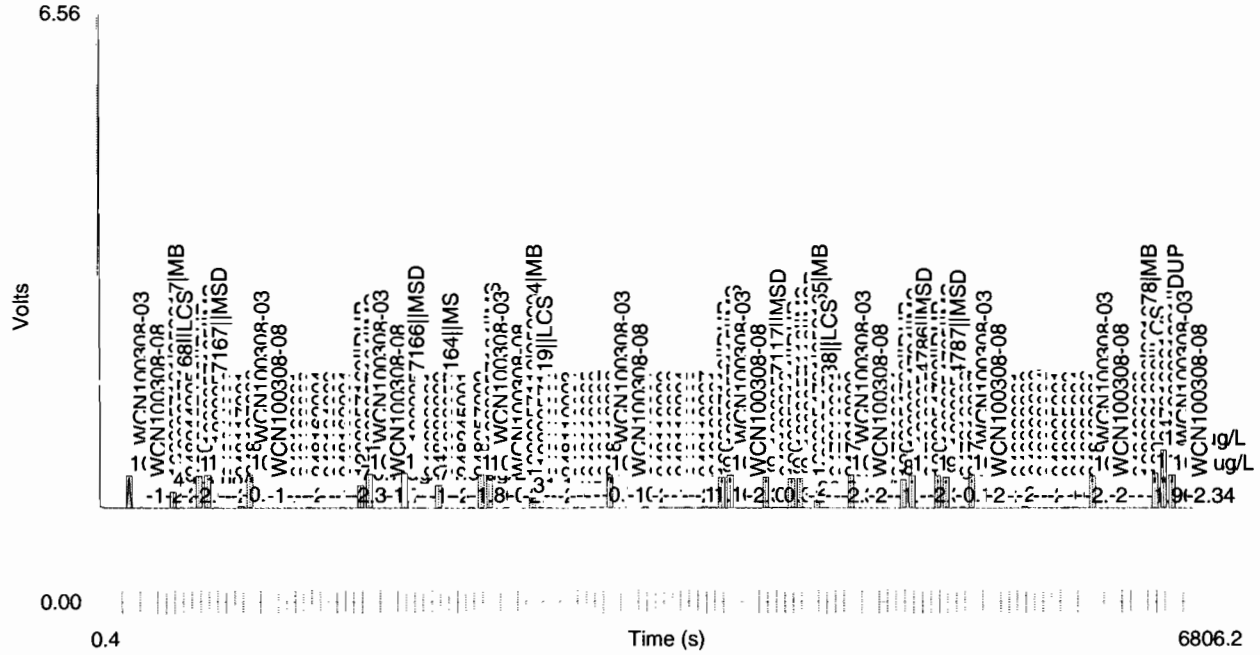

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.4	0.692	0.2	3/8/2010	10:26:48
2	150	1	7.82	0.567	0.7	3/8/2010	10:27:40
3	100	1	5.36	0.353	-1.3	3/8/2010	10:28:32
4	50.0	1	2.85	0.199	-5.1	3/8/2010	10:29:25
5	10.0	1	0.644	0.0420	-0.6	3/8/2010	10:30:18
6	5.00	1	0.400	0.0240	-4.6	3/8/2010	10:31:12
7	0.00	1	-0.0189	-0.00306		3/8/2010	10:32:06

Figure 1: TCYANIDE

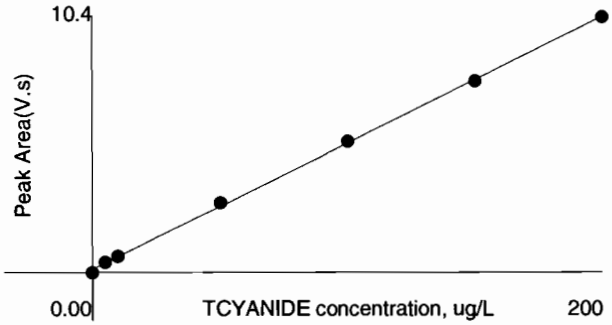

Area = 0.0517 * Conc + 0.124
Conc = 19.3 * Area - 2.35
Correlation Coefficient (r) = 0.99976

No Weighting

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
200 ppb		1	axc2	3/9/2010 12:00:41	OM_3-9-2010_11-57-23
150 ppb		1	axc2	3/9/2010 12:01:33	OM_3-9-2010_11-57-23
100 ppb		1	axc2	3/9/2010 12:02:26	OM_3-9-2010_11-57-23
50 ppb		1	axc2	3/9/2010 12:03:19	OM_3-9-2010_11-57-23
10 ppb		1	axc2	3/9/2010 12:04:12	OM_3-9-2010_11-57-23
CRDL 5.0 ppb		1	axc2	3/9/2010 12:05:06	OM_3-9-2010_11-57-23
ICAL-00		1	axc2	3/9/2010 12:06:00	OM_3-9-2010_11-57-23
ICV		1	axc2	3/9/2010 12:07:51	OM_3-9-2010_11-57-23
ICB		1	axc2	3/9/2010 12:09:41	OM_3-9-2010_11-57-23
CRDL		1	axc2	3/9/2010 12:11:31	OM_3-9-2010_11-57-23
1202064105	962251	1	axc2	3/9/2010 12:13:20	OM_3-9-2010_11-57-23
1202064112	962251	25	axc2	3/9/2010 12:14:14	OM_3-9-2010_11-57-23
248635001	962251	1	axc2	3/9/2010 12:15:07	OM_3-9-2010_11-57-23
1202064106	962251	1	axc2	3/9/2010 12:16:00	OM_3-9-2010_11-57-23
1202064108	962251	1	axc2	3/9/2010 12:16:53	OM_3-9-2010_11-57-23
1202064110*	962251	1	axc2	3/9/2010 12:17:46	OM_3-9-2010_11-57-23
248635002	962251	1	axc2	3/9/2010 12:18:38	OM_3-9-2010_11-57-23
1202064107	962251	1	axc2	3/9/2010 12:19:31	OM_3-9-2010_11-57-23
1202064109	962251	1	axc2	3/9/2010 12:20:24	OM_3-9-2010_11-57-23
1202064111	962251	1	axc2	3/9/2010 12:21:16	OM_3-9-2010_11-57-23
CCV		1	axc2	3/9/2010 12:22:08	OM_3-9-2010_11-57-23
CCB		1	axc2	3/9/2010 12:23:58	OM_3-9-2010_11-57-23
248635003	962251	1	axc2	3/9/2010 12:25:47	OM_3-9-2010_11-57-23
248635004	962251	1	axc2	3/9/2010 12:26:39	OM_3-9-2010_11-57-23
1202064110	962251	1	axc2	3/9/2010 12:27:31	OM_3-9-2010_11-57-23
248635005	962251	1	axc2	3/9/2010 12:28:23	OM_3-9-2010_11-57-23
248635006	962251	1	axc2	3/9/2010 12:29:15	OM_3-9-2010_11-57-23
248635007	962251	1	axc2	3/9/2010 12:30:07	OM_3-9-2010_11-57-23
248635008	962251	1	axc2	3/9/2010 12:31:00	OM_3-9-2010_11-57-23
248635009	962251	1	axc2	3/9/2010 12:31:54	OM_3-9-2010_11-57-23
248635010	962251	1	axc2	3/9/2010 12:32:48	OM_3-9-2010_11-57-23
248635011	962251	1	axc2	3/9/2010 12:33:41	OM_3-9-2010_11-57-23
CCV		1	axc2	3/9/2010 12:34:33	OM_3-9-2010_11-57-23
CCB		1	axc2	3/9/2010 12:36:23	OM_3-9-2010_11-57-23
248635012	962251	1	axc2	3/9/2010 12:38:13	OM_3-9-2010_11-57-23
248635013	962251	1	axc2	3/9/2010 12:39:06	OM_3-9-2010_11-57-23
248635014	962251	1	axc2	3/9/2010 12:39:59	OM_3-9-2010_11-57-23
248658001	962251	1	axc2	3/9/2010 12:40:52	OM_3-9-2010_11-57-23
248658002	962251	1	axc2	3/9/2010 12:41:45	OM_3-9-2010_11-57-23
248658003	962251	1	axc2	3/9/2010 12:42:37	OM_3-9-2010_11-57-23
248658004	962251	1	axc2	3/9/2010 12:43:29	OM_3-9-2010_11-57-23
248658005	962251	1	axc2	3/9/2010 12:44:21	OM_3-9-2010_11-57-23
248833001	962251	1	axc2	3/9/2010 12:45:13	OM_3-9-2010_11-57-23
1202057121	959206	1	axc2	3/9/2010 12:46:05	OM_3-9-2010_11-57-23
CCV		1	axc2	3/9/2010 12:46:58	OM_3-9-2010_11-57-23
CCB		1	axc2	3/9/2010 12:48:48	OM_3-9-2010_11-57-23
1202057128	959206	25	axc2	3/9/2010 12:50:36	OM_3-9-2010_11-57-23
248150001	959206	1	axc2	3/9/2010 12:51:30	OM_3-9-2010_11-57-23
1202057123	959206	1	axc2	3/9/2010 12:52:24	OM_3-9-2010_11-57-23
1202057125	959206	1	axc2	3/9/2010 12:53:18	OM_3-9-2010_11-57-23
1202057127	959206	1	axc2	3/9/2010 12:54:11	OM_3-9-2010_11-57-23
248150002	959206	1	axc2	3/9/2010 12:55:04	OM_3-9-2010_11-57-23
248150003	959206	1	axc2	3/9/2010 12:55:57	OM_3-9-2010_11-57-23
1202057122	959206	1	axc2	3/9/2010 12:56:50	OM_3-9-2010_11-57-23
1202057124	959206	1	axc2	3/9/2010 12:57:43	OM_3-9-2010_11-57-23
1202057126	959206	1	axc2	3/9/2010 12:58:36	OM_3-9-2010_11-57-23
CCV		1	axc2	3/9/2010 12:59:29	OM_3-9-2010_11-57-23
CCB		1	axc2	3/9/2010 13:01:19	OM_3-9-2010_11-57-23

248150004	959206	1	axc2	3/9/2010	13:03:08	OM_3-9-2010_11-57-23
248233001	959206	1	axc2	3/9/2010	13:04:00	OM_3-9-2010_11-57-23
248233002	959206	1	axc2	3/9/2010	13:04:53	OM_3-9-2010_11-57-23
248233003	959206	1	axc2	3/9/2010	13:05:45	OM_3-9-2010_11-57-23
248233004	959206	1	axc2	3/9/2010	13:06:37	OM_3-9-2010_11-57-23
248233005	959206	1	axc2	3/9/2010	13:07:29	OM_3-9-2010_11-57-23
248233006	959206	1	axc2	3/9/2010	13:08:24	OM_3-9-2010_11-57-23
248233007	959206	1	axc2	3/9/2010	13:09:17	OM_3-9-2010_11-57-23
248233008	959206	1	axc2	3/9/2010	13:10:11	OM_3-9-2010_11-57-23
248233009	959206	1	axc2	3/9/2010	13:11:05	OM_3-9-2010_11-57-23
CCV		1	axc2	3/9/2010	13:11:57	OM_3-9-2010_11-57-23
CCB		1	axc2	3/9/2010	13:13:47	OM_3-9-2010_11-57-23
248233010	959206	1	axc2	3/9/2010	13:15:37	OM_3-9-2010_11-57-23
248233011	959206	1	axc2	3/9/2010	13:16:30	OM_3-9-2010_11-57-23
248233012	959206	1	axc2	3/9/2010	13:17:23	OM_3-9-2010_11-57-23
248233013	959206	1	axc2	3/9/2010	13:18:16	OM_3-9-2010_11-57-23
1202057129	959208	1	axc2	3/9/2010	13:19:09	OM_3-9-2010_11-57-23
1202057136	959208	25	axc2	3/9/2010	13:20:02	OM_3-9-2010_11-57-23
248009006	959208	1	axc2	3/9/2010	13:20:54	OM_3-9-2010_11-57-23
248009007	959208	1	axc2	3/9/2010	13:21:47	OM_3-9-2010_11-57-23
248016001	959208	1	axc2	3/9/2010	13:22:39	OM_3-9-2010_11-57-23
248016002	959208	1	axc2	3/9/2010	13:23:31	OM_3-9-2010_11-57-23
CCV		1	axc2	3/9/2010	13:24:24	OM_3-9-2010_11-57-23
CCB		1	axc2	3/9/2010	13:26:14	OM_3-9-2010_11-57-23
248016003	959208	1	axc2	3/9/2010	13:28:02	OM_3-9-2010_11-57-23
248203002	959208	1	axc2	3/9/2010	13:28:57	OM_3-9-2010_11-57-23
248233014	959208	1	axc2	3/9/2010	13:29:50	OM_3-9-2010_11-57-23
1202057130	959208	1	axc2	3/9/2010	13:30:45	OM_3-9-2010_11-57-23
1202057132	959208	1	axc2	3/9/2010	13:31:38	OM_3-9-2010_11-57-23
1202057134	959208	1	axc2	3/9/2010	13:32:32	OM_3-9-2010_11-57-23
248233015	959208	1	axc2	3/9/2010	13:33:26	OM_3-9-2010_11-57-23
1202057131	959208	1	axc2	3/9/2010	13:34:19	OM_3-9-2010_11-57-23
1202057133	959208	1	axc2	3/9/2010	13:35:12	OM_3-9-2010_11-57-23
1202057135	959208	1	axc2	3/9/2010	13:36:06	OM_3-9-2010_11-57-23
CCV		1	axc2	3/9/2010	13:36:58	OM_3-9-2010_11-57-23
CCB		1	axc2	3/9/2010	13:38:49	OM_3-9-2010_11-57-23
248233016	959208	1	axc2	3/9/2010	13:40:37	OM_3-9-2010_11-57-23
248233017	959208	1	axc2	3/9/2010	13:41:30	OM_3-9-2010_11-57-23
248233018	959208	1	axc2	3/9/2010	13:42:23	OM_3-9-2010_11-57-23
248233019	959208	1	axc2	3/9/2010	13:43:15	OM_3-9-2010_11-57-23
248233020	959208	1	axc2	3/9/2010	13:44:07	OM_3-9-2010_11-57-23
248237001	959208	1	axc2	3/9/2010	13:45:00	OM_3-9-2010_11-57-23
248237002	959208	1	axc2	3/9/2010	13:45:54	OM_3-9-2010_11-57-23
248237003	959208	1	axc2	3/9/2010	13:46:48	OM_3-9-2010_11-57-23
248237004	959208	1	axc2	3/9/2010	13:47:42	OM_3-9-2010_11-57-23
248237005	959208	1	axc2	3/9/2010	13:48:37	OM_3-9-2010_11-57-23
CCV		1	axc2	3/9/2010	13:49:29	OM_3-9-2010_11-57-23
CCB		1	axc2	3/9/2010	13:51:19	OM_3-9-2010_11-57-23
248237006	959208	1	axc2	3/9/2010	13:53:09	OM_3-9-2010_11-57-23
248237007	959208	1	axc2	3/9/2010	13:54:02	OM_3-9-2010_11-57-23
1202057137	959210	1	axc2	3/9/2010	13:54:56	OM_3-9-2010_11-57-23
1202057144	959210	25	axc2	3/9/2010	13:55:49	OM_3-9-2010_11-57-23
248016004	959210	1	axc2	3/9/2010	13:56:43	OM_3-9-2010_11-57-23
1202057138	959210	1	axc2	3/9/2010	13:57:35	OM_3-9-2010_11-57-23
1202057140	959210	1	axc2	3/9/2010	13:58:29	OM_3-9-2010_11-57-23
1202057142	959210	1	axc2	3/9/2010	13:59:21	OM_3-9-2010_11-57-23
248025003	959210	1	axc2	3/9/2010	14:00:14	OM_3-9-2010_11-57-23
1202057139	959210	1	axc2	3/9/2010	14:01:06	OM_3-9-2010_11-57-23
CCV		1	axc2	3/9/2010	14:01:59	OM_3-9-2010_11-57-23
CCB		1	axc2	3/9/2010	14:03:49	OM_3-9-2010_11-57-23

1202057141	959210	1	axc2	3/9/2010	14:05:38	OM_3-9-2010_11-57-23
1202057143	959210	1	axc2	3/9/2010	14:06:32	OM_3-9-2010_11-57-23
248025005	959210	1	axc2	3/9/2010	14:07:27	OM_3-9-2010_11-57-23
248025007	959210	1	axc2	3/9/2010	14:08:21	OM_3-9-2010_11-57-23
248159001	959210	1	axc2	3/9/2010	14:09:15	OM_3-9-2010_11-57-23
248159002	959210	1	axc2	3/9/2010	14:10:09	OM_3-9-2010_11-57-23
248198001	959210	1	axc2	3/9/2010	14:11:04	OM_3-9-2010_11-57-23
248198002	959210	1	axc2	3/9/2010	14:11:58	OM_3-9-2010_11-57-23
248198003	959210	1	axc2	3/9/2010	14:12:51	OM_3-9-2010_11-57-23
248198004	959210	1	axc2	3/9/2010	14:13:45	OM_3-9-2010_11-57-23
CCV		1	axc2	3/9/2010	14:14:37	OM_3-9-2010_11-57-23
CCB		1	axc2	3/9/2010	14:16:28	OM_3-9-2010_11-57-23

Author: axc2 Date : 3/9/2010

Original Run Filename: OM_3-9-2010_11-57-23.OMN created 3/9/2010 11:57:23
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-9-2010_11-57-23.OMN last modified 3/9/2010 14:17:33
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100309-01	1	S1	200	10.4	3/9/2010@12:00:41			200 ppb
WCN100309-02	1	S2	150	7.71	3/9/2010@12:01:33			150 ppb
WCN100309-03	1	S3	100	5.04	3/9/2010@12:02:26			100 ppb
WCN100309-04	1	S4	50.0	2.89	3/9/2010@12:03:19			50 ppb
WCN100309-05	1	S5	10.0	0.718	3/9/2010@12:04:12			10 ppb
WCN100309-06	1	S6	5.00	0.434	3/9/2010@12:05:06			CRDL 5.0 ppb
WCN100309-08	1	S7	0.00	0.0640	3/9/2010@12:06:00			0.0 ppb
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99952 > 0.99500					
		Message	Pass					
		Action	Continue					
WCN100309-07	1	S8	149	7.73	3/9/2010@12:07:51			ICV
		Known Conc:	150					
DQM Test: > + Percent Relative Difference								
		Result:	-0.4 < 10.0					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	-0.4 < 10.0					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100309-08	1	S7	1.30	0.228	3/9/2010@12:09:41			ICB/CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	1.30 < 5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.30 > -5.01					
		Message	ICB/CCB Passed					
		Action	Continue					
WCN100309-06	1	S6	4.64	0.397	3/9/2010@12:11:31			CRDL
		Known Conc:	5.00					
DQM Test: > + Concentration Limit								
		Result:	4.64 < 7.50					
		Message	CRDL Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	4.64 > 2.50					
		Message	Pass					
		Action	None					
1202064105|962251|MB	1	1	-2.89	0.0155	3/9/2010@12:13:20			
1202064112||LCS	1	2	26.9	1.52	3/9/2010@12:14:14		25.00	
248635001	1	3	-2.70	0.0250	3/9/2010@12:15:07			
1202064106||DUP	1	4	2.49	0.288	3/9/2010@12:16:00			
1202064108||MS	1	5	101	5.28	3/9/2010@12:16:53			
1202064110||MSD	1	6	73.8	3.90	3/9/2010@12:17:46			
248635002	1	7	-0.895	0.116	3/9/2010@12:18:38			
1202064107||DUP	1	8	-1.34	0.0937	3/9/2010@12:19:31			
1202064109||MS	1	9	88.8	4.66	3/9/2010@12:20:24			
1202064111||MSD	1	10	97.3	5.09	3/9/2010@12:21:16			
WCN100309-03	1	S3	102	5.32	3/9/2010@12:22:08			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.0 < 10.0					

		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.0 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100309-08	1	S7	-2.29	0.0456	3/9/2010@12:23:58			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.29 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.29 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248635003	1	11	-1.23	0.0996	3/9/2010@12:25:47			
248635004	1	12	-1.74	0.0736	3/9/2010@12:26:39			
1202064110||MSD	1	6	91.2	4.78	3/9/2010@12:27:31			
248635005	1	13	18.8	1.11	3/9/2010@12:28:23			
248635006	1	14	-1.56	0.0824	3/9/2010@12:29:15			
248635007	1	15	-2.47	0.0367	3/9/2010@12:30:07			
248635008	1	16	-1.82	0.0693	3/9/2010@12:31:00			
248635009	1	17	-2.00	0.0603	3/9/2010@12:31:54			
248635010	1	18	-1.75	0.0732	3/9/2010@12:32:48			
248635011	1	19	-1.96	0.0623	3/9/2010@12:33:41			
WCN100309-03	1	S3	102	5.34	3/9/2010@12:34:33			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	2.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	2.3 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100309-08	1	S7	-2.61	0.0297	3/9/2010@12:36:23			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.61 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.61 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248635012	1	20	-1.70	0.0757	3/9/2010@12:38:13			
248635013	1	21	-1.92	0.0643	3/9/2010@12:39:06			
248635014	1	22	-2.19	0.0507	3/9/2010@12:39:59			
248658001	1	23	4.37	0.383	3/9/2010@12:40:52			
248658002	1	24	-2.35	0.0428	3/9/2010@12:41:45			
248658003	1	25	6.98	0.515	3/9/2010@12:42:37			
248658004	1	26	-2.38	0.0413	3/9/2010@12:43:29			
248658005	1	27	-3.20	-1.68e-4	3/9/2010@12:44:21			
248833001	1	28	0.788	0.201	3/9/2010@12:45:13			
1202057121|959206|MB	1	29	-2.21	0.0497	3/9/2010@12:46:05			
WCN100309-03	1	S3	103	5.38	3/9/2010@12:46:58			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100309-08	1	S7	-2.19	0.0507	3/9/2010@12:48:48			CCB
		Known Conc:	0.00					

DQM Test: > + Concentration Limit								
		Result:	-2.19 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.19 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202057128||LCS	1	30	16.0	0.971	3/9/2010@12:50:36		25.00	
248150001	1	31	-2.01	0.0601	3/9/2010@12:51:30			
1202057123||DUP	1	32	-2.21	0.0495	3/9/2010@12:52:24			
1202057125||MS	1	33	94.1	4.93	3/9/2010@12:53:18			
1202057127||MSD	1	34	102	5.35	3/9/2010@12:54:11			
248150002	1	35	-2.41	0.0396	3/9/2010@12:55:04			
248150003	1	36	-3.35	-0.00807	3/9/2010@12:55:57			
1202057122||DUP	1	37	-2.20	0.0500	3/9/2010@12:56:50			
1202057124||MS	1	38	93.1	4.88	3/9/2010@12:57:43			
1202057126||MSD	1	39	101	5.29	3/9/2010@12:58:36			
WCN100309-03	1	S3	103	5.39	3/9/2010@12:59:29			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100309-08	1	S7	-3.29	-0.00505	3/9/2010@13:01:19			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-3.29 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-3.29 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248150004	1	40	4.56	0.392	3/9/2010@13:03:08			
248233001	1	41	-0.178	0.153	3/9/2010@13:04:00			
248233002	1	42	-1.89	0.0661	3/9/2010@13:04:53			
248233003	1	43	-0.892	0.116	3/9/2010@13:05:45			
248233004	1	44	-1.37	0.0920	3/9/2010@13:06:37			
248233005	1	45	1.72	0.249	3/9/2010@13:07:29			
248233006	1	46	-0.449	0.139	3/9/2010@13:08:24			
248233007	1	47	-0.472	0.138	3/9/2010@13:09:17			
248233008	1	48	-2.47	0.0363	3/9/2010@13:10:11			
248233009	1	49	-1.83	0.0690	3/9/2010@13:11:05			
WCN100309-03	1	S3	103	5.38	3/9/2010@13:11:57			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100309-08	1	S7	-2.40	0.0399	3/9/2010@13:13:47			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.40 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.40 > -5.00					
		Message	CCB Passed					
		Action	Continue					

248233010	1	50	-1.31	0.0954	3/9/2010@13:15:37			
248233011	1	51	2.13	0.269	3/9/2010@13:16:30			
248233012	1	52	-2.29	0.0457	3/9/2010@13:17:23			
248233013	1	53	-3.19	-5.62e-5	3/9/2010@13:18:16			
1202057129|959208|MB	1	54	-2.50	0.0348	3/9/2010@13:19:09			
1202057136||LCS	1	55	21.3	1.24	3/9/2010@13:20:02		25.00	
248009006	1	56	0.355	0.180	3/9/2010@13:20:54			
248009007	1	57	-2.02	0.0593	3/9/2010@13:21:47			
248016001	1	58	-3.20	-3.29e-4	3/9/2010@13:22:39			
248016002	1	59	-1.81	0.0698	3/9/2010@13:23:31			
WCN100309-03	1	S3	103	5.40	3/9/2010@13:24:24			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100309-08	1	S7	-3.22	-0.00147	3/9/2010@13:26:14			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-3.22 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-3.22 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248016003	1	60	-2.36	0.0423	3/9/2010@13:28:02			
248203002	1	61	3.85	0.357	3/9/2010@13:28:57			
248233014	1	62	-0.288	0.147	3/9/2010@13:29:50			
1202057130||DUP	1	63	0.100	0.167	3/9/2010@13:30:45			
1202057132||MS	1	64	92.5	4.84	3/9/2010@13:31:38			
1202057134||MSD	1	65	79.9	4.20	3/9/2010@13:32:32			
248233015	1	66	-3.34	-0.00759	3/9/2010@13:33:26			
1202057131||DUP	1	67	-2.22	0.0494	3/9/2010@13:34:19			
1202057133||MS	1	68	101	5.29	3/9/2010@13:35:12			
1202057135||MSD	1	69	98.6	5.15	3/9/2010@13:36:06			
WCN100309-03	1	S3	103	5.39	3/9/2010@13:36:58			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100309-08	1	S7	-3.31	-0.00620	3/9/2010@13:38:49			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-3.31 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-3.31 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248233016	1	70	1.39	0.232	3/9/2010@13:40:37			
248233017	1	71	-2.62	0.0291	3/9/2010@13:41:30			
248233018	1	72	-2.05	0.0580	3/9/2010@13:42:23			
248233019	1	73	-1.46	0.0878	3/9/2010@13:43:15			
248233020	1	74	-0.206	0.151	3/9/2010@13:44:07			
248237001	1	75	86.4	4.53	3/9/2010@13:45:00			
248237002	1	76	-3.20	-1.38e-4	3/9/2010@13:45:54			
248237003	1	77	-1.59	0.0809	3/9/2010@13:46:48			

248237004	1	78	5.35	0.432	3/9/2010@13:47:42			
248237005	1	79	-2.60	0.0299	3/9/2010@13:48:37			
WCN100309-03	1	S3	104	5.40	3/9/2010@13:49:29			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.5 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100309-08	1	S7	-2.64	0.0281	3/9/2010@13:51:19			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.64 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.64 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248237006	1	80	-2.30	0.0454	3/9/2010@13:53:09			
248237007	1	81	0.226	0.173	3/9/2010@13:54:02			
1202057137|959210|MB	1	82	-3.13	0.00320	3/9/2010@13:54:56			
1202057144||LCS	1	83	24.0	1.37	3/9/2010@13:55:49		25.00	
248016004	1	84	-2.18	0.0513	3/9/2010@13:56:43			
1202057138||DUP	1	85	-1.72	0.0745	3/9/2010@13:57:35			
1202057140||MS	1	86	95.3	4.99	3/9/2010@13:58:29			
1202057142||MSD	1	87	84.3	4.43	3/9/2010@13:59:21			
248025003	1	88	-2.42	0.0393	3/9/2010@14:00:14			
1202057139||DUP	1	89	-2.70	0.0249	3/9/2010@14:01:06			
WCN100309-03	1	S3	104	5.43	3/9/2010@14:01:59			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	4.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	4.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100309-08	1	S7	-2.62	0.0292	3/9/2010@14:03:49			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.62 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.62 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202057141||MS	1	90	109	5.66	3/9/2010@14:05:38			
1202057143||MSD	1	91	111	5.79	3/9/2010@14:06:32			
248025005	1	92	-2.32	0.0440	3/9/2010@14:07:27			
248025007	1	93	-3.19	-1.36e-4	3/9/2010@14:08:21			
248159001	1	94	-2.56	0.0321	3/9/2010@14:09:15			
248159002	1	95	-3.27	-0.00381	3/9/2010@14:10:09			
248198001	1	96	16.5	0.996	3/9/2010@14:11:04			
248198002	1	97	1.42	0.233	3/9/2010@14:11:58			
248198003	1	98	3.53	0.340	3/9/2010@14:12:51			
248198004	1	99	0.666	0.195	3/9/2010@14:13:45			
WCN100309-03	1	S3	103	5.39	3/9/2010@14:14:37			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					

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DQM Test: < - Percent Relative Difference								
		Result:	3.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100309-08	1	S7	-2.62	0.0288	3/9/2010@14:16:28			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.62 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.62 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_3-9-2010_11-57-23.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Channel 1: Current View

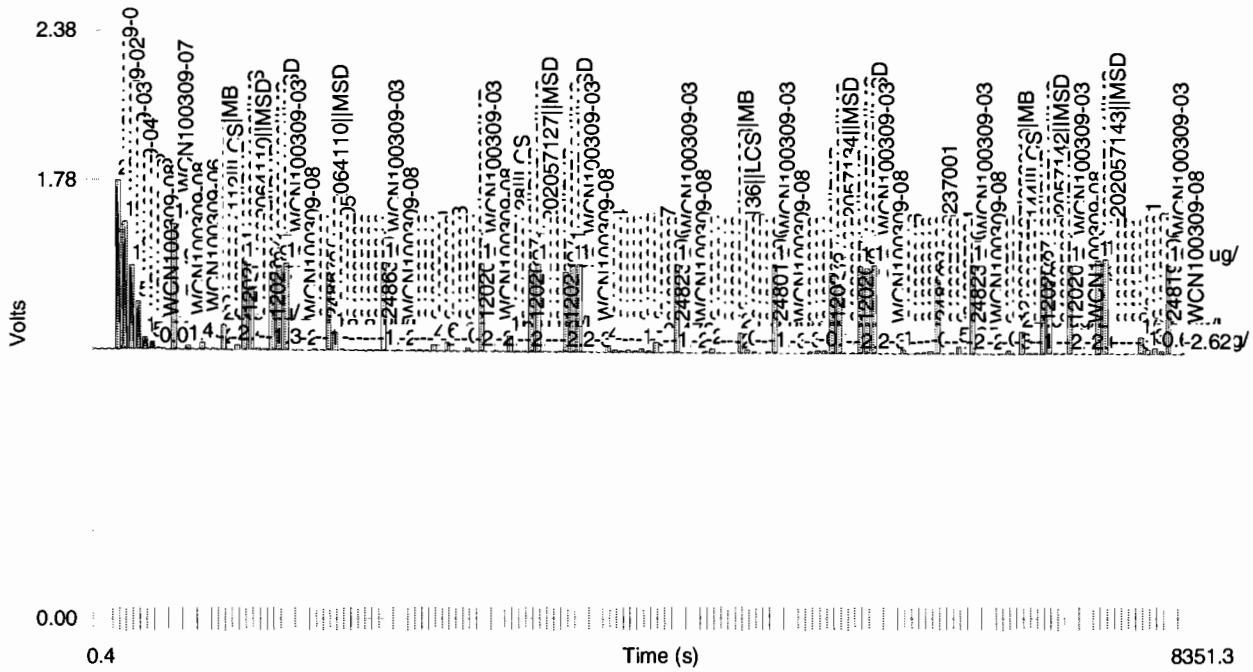

Author: axc2 Date : 3/9/2010

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.4	0.678	-0.7	3/9/2010	12:01:44
2	150	1	7.71	0.512	0.5	3/9/2010	12:02:36
3	100	1	5.04	0.334	3.6	3/9/2010	12:03:29
4	50.0	1	2.89	0.190	-7.2	3/9/2010	12:04:22
5	10.0	1	0.718	0.0464	-7.0	3/9/2010	12:05:15
6	5.00	1	0.434	0.0270	-3.8	3/9/2010	12:06:09
7	0.00	1	0.0640	0.00267		3/9/2010	12:07:03

Figure 1: TCYANIDE

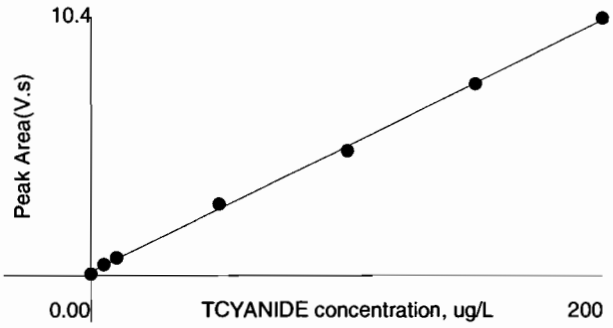

Area = 0.0506 * Conc + 0.165
Conc = 19.8 * Area - 3.19
Correlation Coefficient (r) = 0.99952

No Weighting

This is runlog Lachat1

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axc2	3/9/2010 15:00:31	OM_3-9-2010_14-57-11
CCB		1	axc2	3/9/2010 15:02:22	OM_3-9-2010_14-57-11
248198005	959210	1	axc2	3/9/2010 15:04:11	OM_3-9-2010_14-57-11
248198006	959210	1	axc2	3/9/2010 15:05:04	OM_3-9-2010_14-57-11
248198007	959210	1	axc2	3/9/2010 15:05:57	OM_3-9-2010_14-57-11
248198008	959210	1	axc2	3/9/2010 15:06:50	OM_3-9-2010_14-57-11
248198009	959210	1	axc2	3/9/2010 15:07:43	OM_3-9-2010_14-57-11
248198010	959210	1	axc2	3/9/2010 15:08:36	OM_3-9-2010_14-57-11
248198011	959210	1	axc2	3/9/2010 15:09:30	OM_3-9-2010_14-57-11
248198012	959210	1	axc2	3/9/2010 15:10:25	OM_3-9-2010_14-57-11
248202001	959210	1	axc2	3/9/2010 15:11:20	OM_3-9-2010_14-57-11
248202002	959210	1	axc2	3/9/2010 15:12:14	OM_3-9-2010_14-57-11
CCV		1	axc2	3/9/2010 15:13:07	OM_3-9-2010_14-57-11
CCB		1	axc2	3/9/2010 15:14:59	OM_3-9-2010_14-57-11
1202065974	963030	1	axc2	3/9/2010 15:16:51	OM_3-9-2010_14-57-11
1202065975	963030	1	axc2	3/9/2010 15:17:45	OM_3-9-2010_14-57-11
248044004	963030	1	axc2	3/9/2010 15:18:39	OM_3-9-2010_14-57-11
1202065976	963030	1	axc2	3/9/2010 15:19:33	OM_3-9-2010_14-57-11
1202065977	963030	1	axc2	3/9/2010 15:20:26	OM_3-9-2010_14-57-11
1202065978	963030	1	axc2	3/9/2010 15:21:20	OM_3-9-2010_14-57-11
1202064157	962265	1	axc2	3/9/2010 15:22:14	OM_3-9-2010_14-57-11
1202064159	962265	1	axc2	3/9/2010 15:23:07	OM_3-9-2010_14-57-11
248728001	962265	1	axc2	3/9/2010 15:23:59	OM_3-9-2010_14-57-11
1202064158	962265	1	axc2	3/9/2010 15:24:52	OM_3-9-2010_14-57-11
CCV		1	axc2	3/9/2010 15:25:45	OM_3-9-2010_14-57-11
CCB		1	axc2	3/9/2010 15:27:36	OM_3-9-2010_14-57-11
248833001	962265	1	axc2	3/9/2010 15:29:27	OM_3-9-2010_14-57-11
CCV		1	axc2	3/9/2010 15:30:20	OM_3-9-2010_14-57-11
CCB		1	axc2	3/9/2010 15:32:12	OM_3-9-2010_14-57-11

Author: axc2 Date : 3/9/2010

Original Run Filename: OM_3-9-2010_14-57-11.OMN created 3/9/2010 14:57:11
Original Run Author's Signature: [axc2]
Current Run Filename: OM_3-9-2010_14-57-11.OMN last modified 3/9/2010 15:33:16
Current Run Author's Signature: [axc2]
Description: GL-GC-E-095 EPA 335.1, 335.3, 335.4, 9012A, CLP335.2-M
Liquid LCS nominal 50 ug/L

Sample	Rep.	Cup No.	Channel 1 TCYANIDE Conc. (ug/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WCN100309-03	1	S3	103	5.39	3/9/2010@15:00:31			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	3.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	3.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WCN100309-08	1	S7	-3.20	-2.06e-4	3/9/2010@15:02:22			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-3.20 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-3.20 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248198005|959210|	1	100	16.9	1.02	3/9/2010@15:04:11			
248198006	1	101	8.24	0.579	3/9/2010@15:05:04			
248198007	1	102	0.0197	0.163	3/9/2010@15:05:57			
248198008	1	103	-0.546	0.134	3/9/2010@15:06:50			
248198009	1	104	8.24	0.579	3/9/2010@15:07:43			
248198010	1	105	6.72	0.502	3/9/2010@15:08:36			
248198011	1	106	5.06	0.418	3/9/2010@15:09:30			
248198012	1	107	8.73	0.603	3/9/2010@15:10:25			
248202001	1	108	3.51	0.339	3/9/2010@15:11:20			
248202002	1	109	27.5	1.55	3/9/2010@15:12:14			
WCN100309-03	1	S3	107	5.60	3/9/2010@15:13:07			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	7.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	7.4 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100309-08	1	S7	-3.21	-7.87e-4	3/9/2010@15:14:59			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-3.21 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-3.21 > -5.00					
		Message	CCB Passed					
		Action	Continue					
1202065974|963030|MB	1	110	-3.19	1.70e-4	3/9/2010@15:16:51			
1202065975||LCS	1	111	51.8	2.78	3/9/2010@15:17:45			
248044004	1	112	-1.83	0.0689	3/9/2010@15:18:39			
1202065976||DUP	1	113	-2.25	0.0477	3/9/2010@15:19:33			
1202065977||MS	1	114	106	5.55	3/9/2010@15:20:26			

1202065978||MSD	1	115	109	5.70	3/9/2010@15:21:20			
1202064157|962265|MB	1	116	-2.32	0.0441	3/9/2010@15:22:14			
1202064159||LCS	1	117	-1.36	0.0928	3/9/2010@15:23:07			
248728001	1	118	3.51	0.339	3/9/2010@15:23:59			
1202064158||DUP	1	119	4.25	0.377	3/9/2010@15:24:52			
WCN100309-03	1	S3	109	5.69	3/9/2010@15:25:45			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	9.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	9.2 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100309-08	1	S7	-2.34	0.0432	3/9/2010@15:27:36			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.34 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.34 > -5.00					
		Message	CCB Passed					
		Action	Continue					
248833001	1	120	0.457	0.185	3/9/2010@15:29:27			
WCN100309-03	1	S3	107	5.58	3/9/2010@15:30:20			CCV
		Known Conc:	100					
DQM Test: > + Percent Relative Difference								
		Result:	7.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Percent Relative Difference								
		Result:	7.1 < 10.0					
		Message	CCV Passed					
		Action	Continue					
WCN100309-08	1	S7	-2.49	0.0354	3/9/2010@15:32:12			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	-2.49 < 5.00					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	-2.49 > -5.00					
		Message	CCB Passed					
		Action	Continue					

Analyte Properties Table for OM_3-9-2010_14-57-11.OMN

Property	Channel 1
	TCYANIDE
Concentration Units	ug/L
Callibration Fit Type	First Order
Clear Calibration	True
Force Through Zero	False
Calibration Weighting	None
Auto Dilution Trigger	True
% of High Standard	100
Quik Chem Method	10-204-00-1-A
Chemistry	Direct/Bipolar
Calibration by Height	False
Inject to Peak Start	22
Peak Base Width	39

Author: axc2 Date : 3/9/2010

Channel 1: Current View

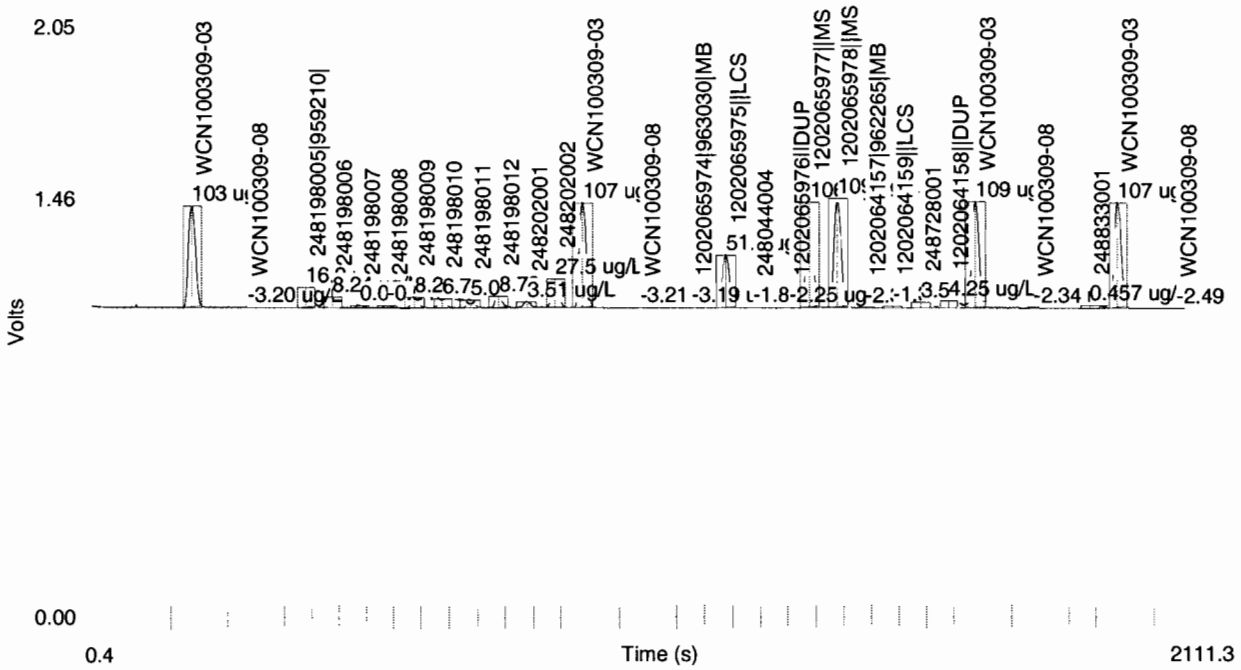

Table 1: TCYANIDE

	Conc. (ug/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	200	1	10.4	0.678	-0.7	3/9/2010	12:01:44
2	150	1	7.71	0.512	0.5	3/9/2010	12:02:36
3	100	1	5.04	0.334	3.6	3/9/2010	12:03:29
4	50.0	1	2.89	0.190	-7.2	3/9/2010	12:04:22
5	10.0	1	0.718	0.0464	-7.0	3/9/2010	12:05:15
6	5.00	1	0.434	0.0270	-3.8	3/9/2010	12:06:09
7	0.00	1	0.0640	0.00267		3/9/2010	12:07:03

Figure 1: TCYANIDE

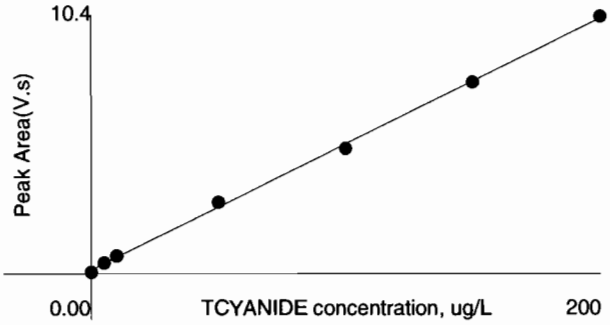

Area = 0.0506 * Conc + 0.165
Conc = 19.8 * Area - 3.19
Correlation Coefficient (r) = 0.99952

No Weighting

Ion Chromatography

This is runlog for Sequence 100323.seq for IC5

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
ICAL-07	03/04/10 14:23		1	100323	VH1
ICAL-06	03/04/10 14:50		1	100323	VH1
ICAL-05	03/04/10 15:16		1	100323	VH1
ICAL-04	03/04/10 15:42		1	100323	VH1
ICAL-03	03/04/10 16:08		1	100323	VH1
ICAL-02	03/04/10 16:34		1	100323	VH1
ICAL-01	03/04/10 17:00		1	100323	VH1
ICAL-07	03/04/10 14:23		1	100323	VH1
ICAL-06	03/04/10 14:50		1	100323	VH1
ICAL-05	03/04/10 15:16		1	100323	VH1
ICAL-04	03/04/10 15:42		1	100323	VH1
ICAL-03	03/04/10 16:08		1	100323	VH1
ICAL-02	03/04/10 16:34		1	100323	VH1
ICAL-01	03/04/10 17:00		1	100323	VH1

14 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	53	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410b	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 14:23	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

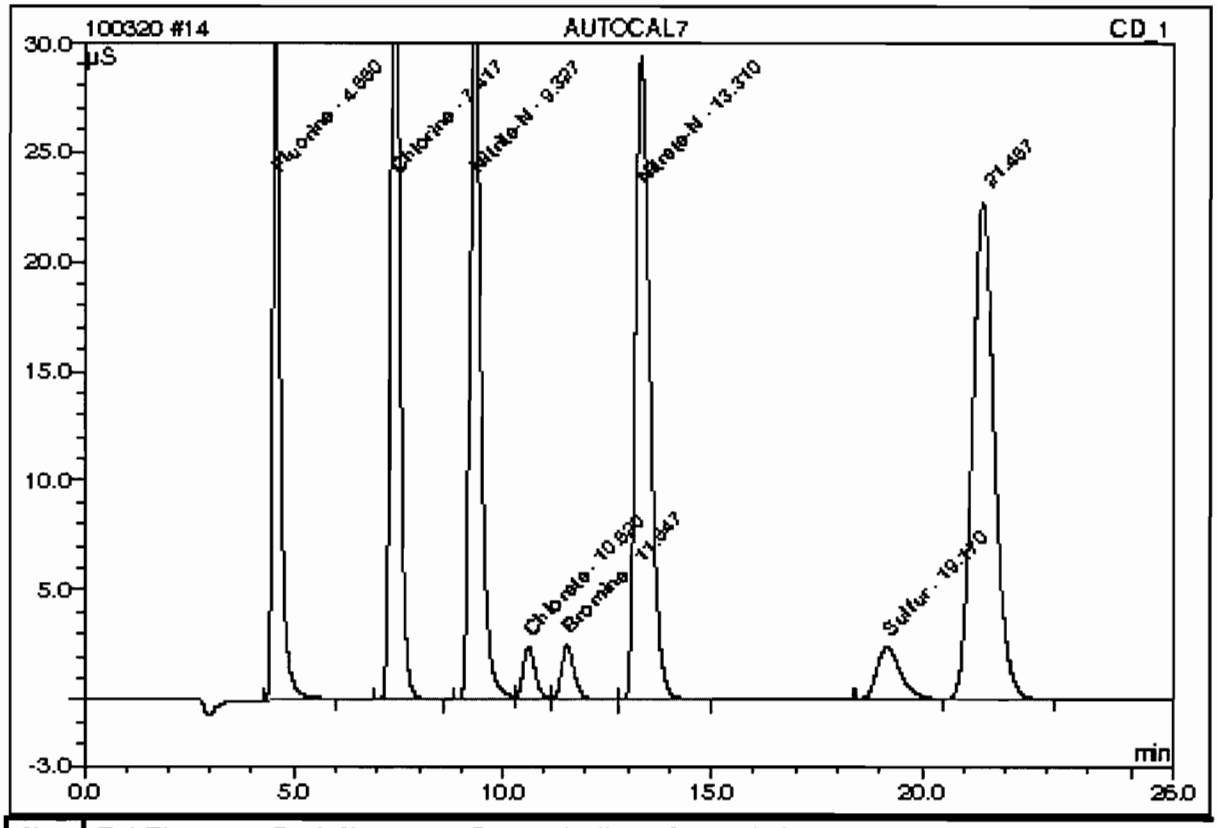

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.56	Fluorine	10.0000	10.1053		6.78975	12.13
2	7.42	Chlorine	20.0000	20.3932		10.40386	18.58
3	9.33	Nitrite-N	10.0000	10.0724		9.68714	17.30
4	10.62	Chlorate	5.0000	5.0959		0.84685	1.51
5	11.55	Bromine	5.0000	5.0748		0.89683	1.60
6	13.31	Nitrate-N	10.0000	10.1469		11.88216	21.22
n.a.	n.a.	O-Phosphate-P	5.0000	n.a.	n.a.	n.a.	n.a.
7	19.17	Sulfur	13.3320	12.8477		1.56584	2.80
Total:				73.7362	0.000	42.072	75.15

7 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	53	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 14:23	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

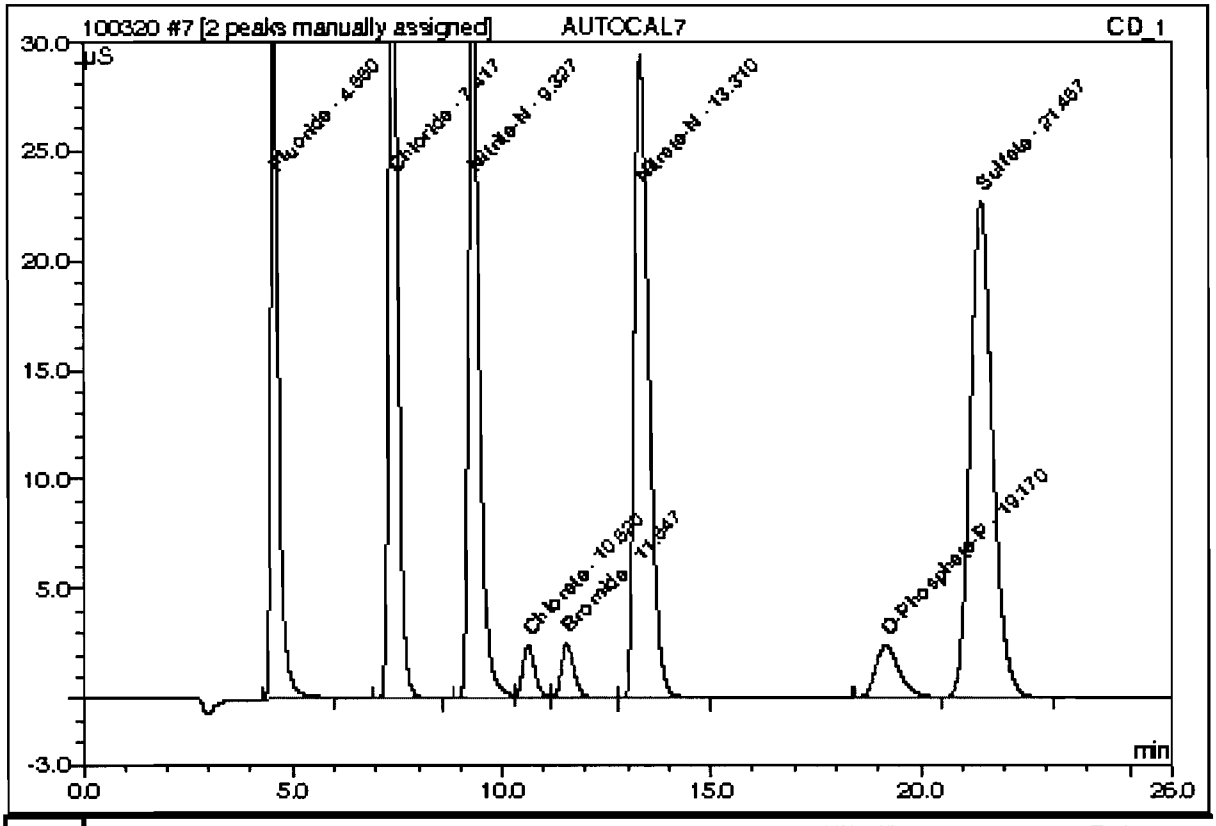

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.56	Fluoride	10.0000	10.1024		6.78975	12.13
2	7.42	Chloride	20.0000	20.3991		10.40386	18.58
3	9.33	Nitrite-N	10.0000	10.0712		9.68714	17.30
4	10.62	Chlorate	5.0000	5.0916		0.84685	1.51
5	11.55	Bromide	5.0000	5.0721		0.89683	1.60
6	13.31	Nitrate-N	10.0000	10.1458		11.88216	21.22
7	19.17	O-Phosphate-P	5.0000	5.0452		1.56584	2.80
8	21.46	Sulfate	40.0000	72.9932		13.91454	24.85
Total:				138.9206	0.000	55.987	100.00

7 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	53	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 14:23	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

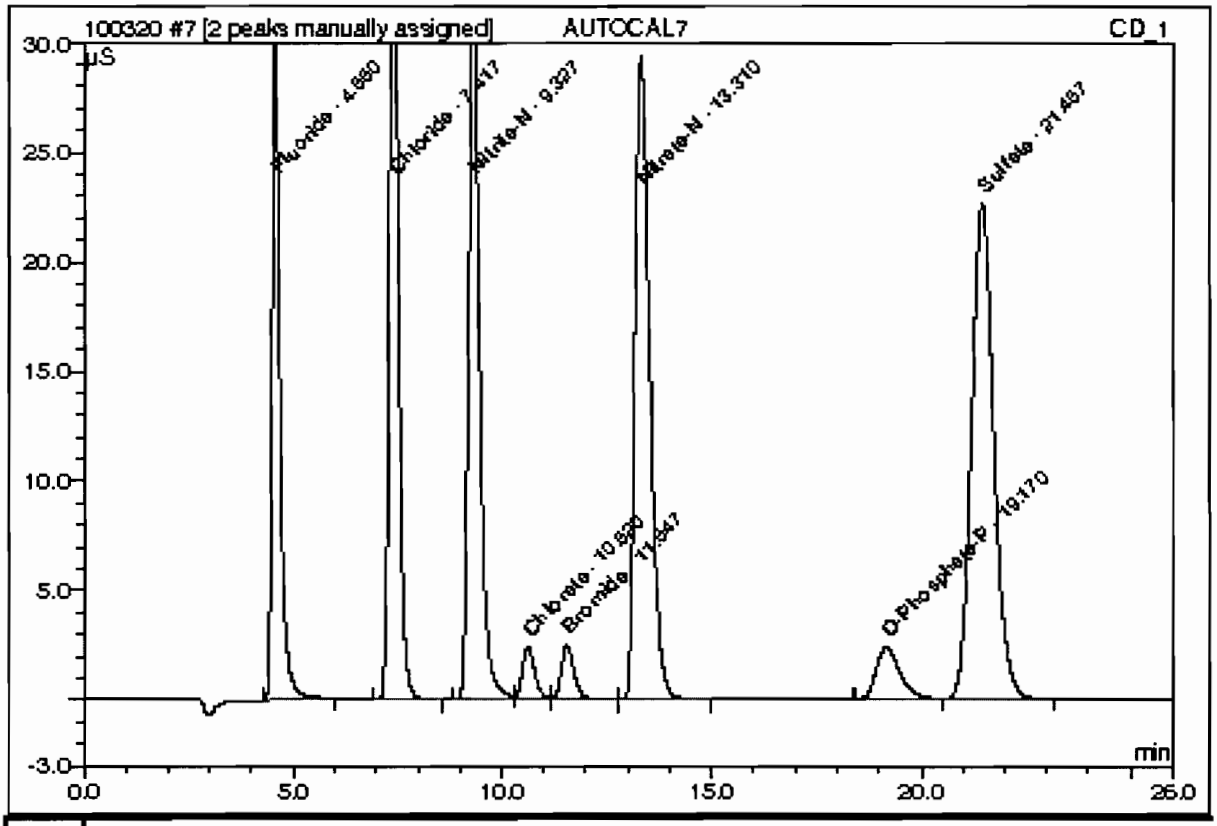

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.56	Fluoride	10.0000	10.1053		6.78975	12.13
2	7.42	Chloride	20.0000	20.4150		10.40386	18.58
3	9.33	Nitrite-N	10.0000	10.0766		9.68714	17.30
4	10.62	Chlorate	5.0000	5.1012		0.84685	1.51
5	11.55	Bromide	5.0000	5.0772		0.89683	1.60
6	13.31	Nitrate-N	10.0000	10.1540		11.88216	21.22
7	19.17	O-Phosphate-P	5.0000	5.0452		1.56584	2.80
8	21.46	Sulfate	40.0000	40.4800		13.91454	24.85
Total:				106.4544	0.000	55.987	100.00

7 AUTOCAL7

Sample Name:	AUTOCAL7	*Injection Volume:*	50.0
Vial Number:	53	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 14:23	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

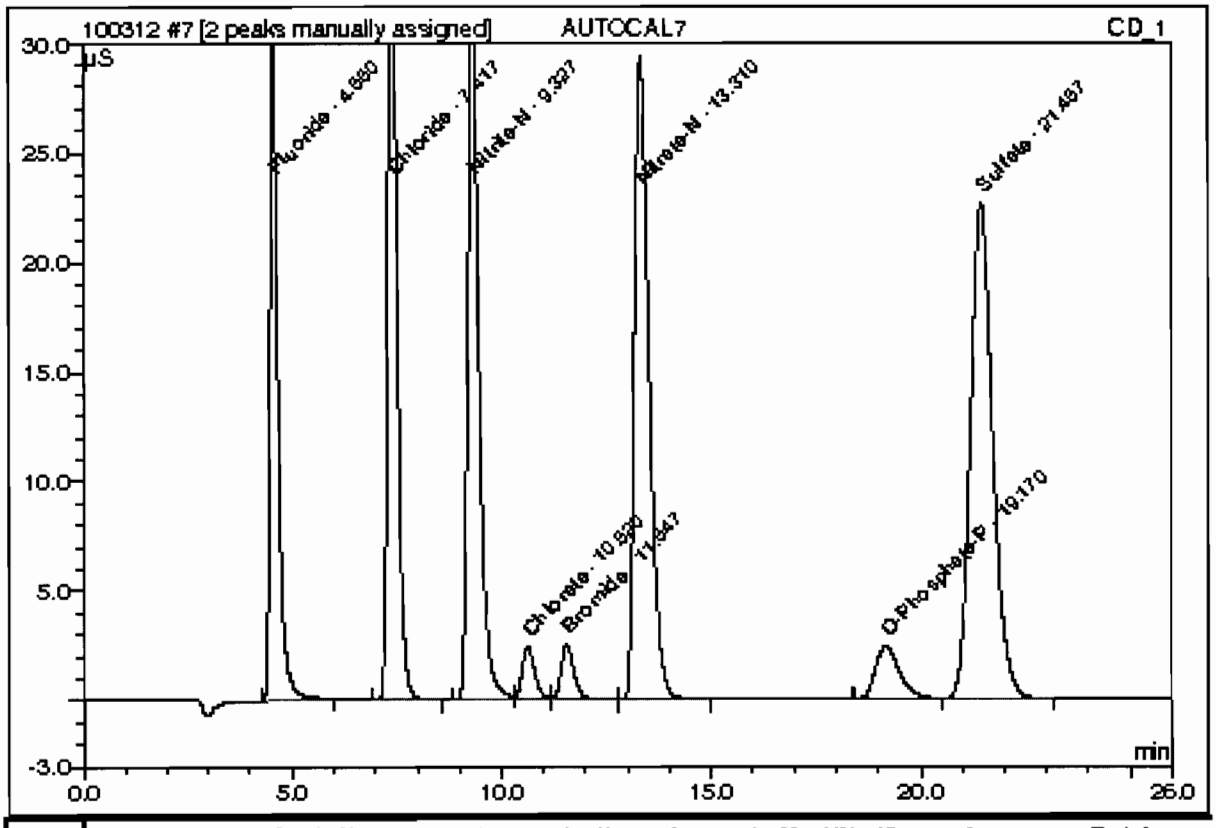

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.56	Fluoride	10.0000	10.1053		6.78975	12.13
2	7.42	Chloride	20.0000	20.4150		10.40386	18.58
3	9.33	Nitrite-N	10.0000	10.0766		9.68714	17.30
4	10.62	Chlorate	5.0000	5.1012		0.84685	1.51
5	11.55	Bromide	5.0000	5.0772		0.89683	1.60
6	13.31	Nitrate-N	10.0000	10.1540		11.88216	21.22
7	19.17	O-Phosphate-P	5.0000	5.0452		1.56584	2.80
8	21.46	Sulfate	40.0000	40.4800		13.91454	24.85
Total:				106.4544	0.000	55.987	100.00

15 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410b	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 14:50	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

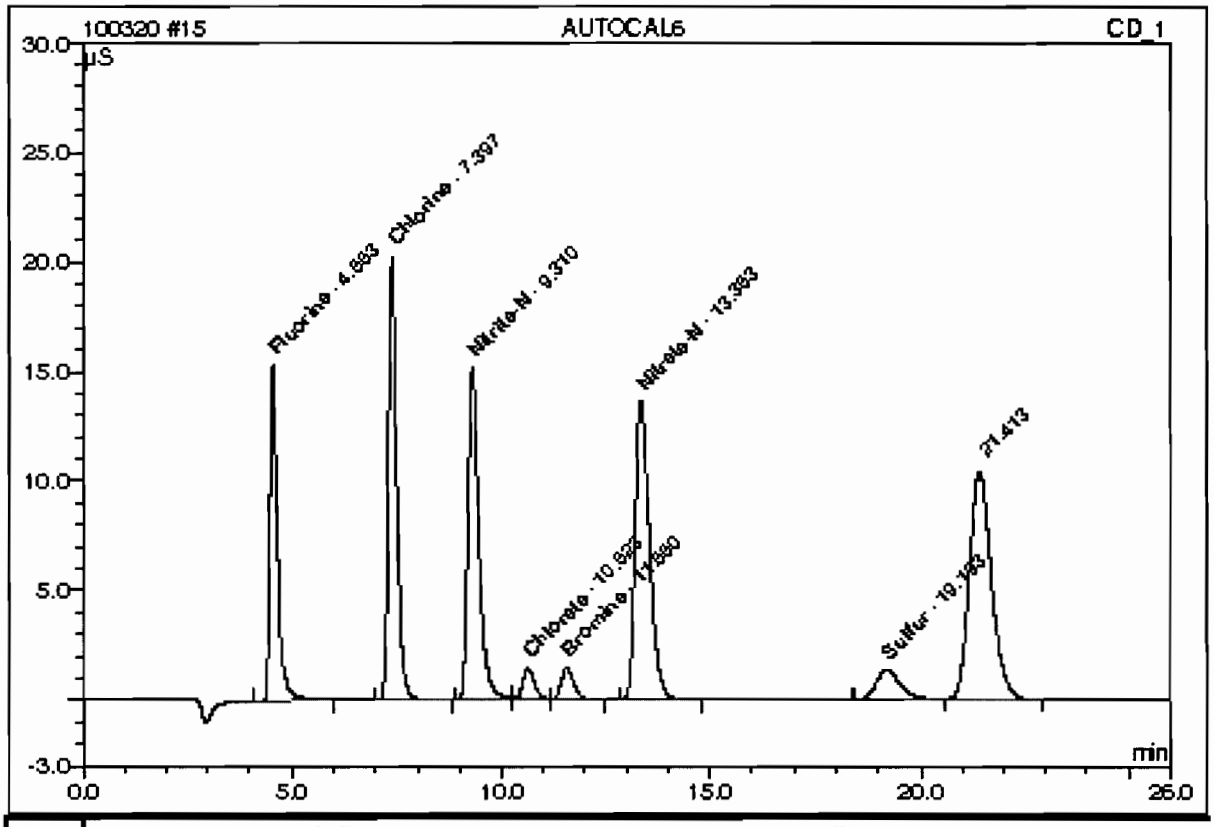

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.55	Fluorine	5.0000	4.8013		3.20119	12.15
2	7.40	Chlorine	10.0000	9.1981		4.64497	17.63
3	9.31	Nitrite-N	5.0000	4.8662		4.63736	17.60
4	10.62	Chlorate	3.0000	2.9882		0.49085	1.86
5	11.55	Bromine	3.0000	2.9849		0.52386	1.99
6	13.35	Nitrate-N	5.0000	4.7160		5.44514	20.66
n.a.	n.a.	O-Phosphate-P	3.0000	n.a.	n.a.	n.a.	n.a.
7	19.19	Sulfur	6.6666	6.0785		0.90545	3.44
Total:				35.6332	0.000	19.849	75.33

8 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 14:50	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

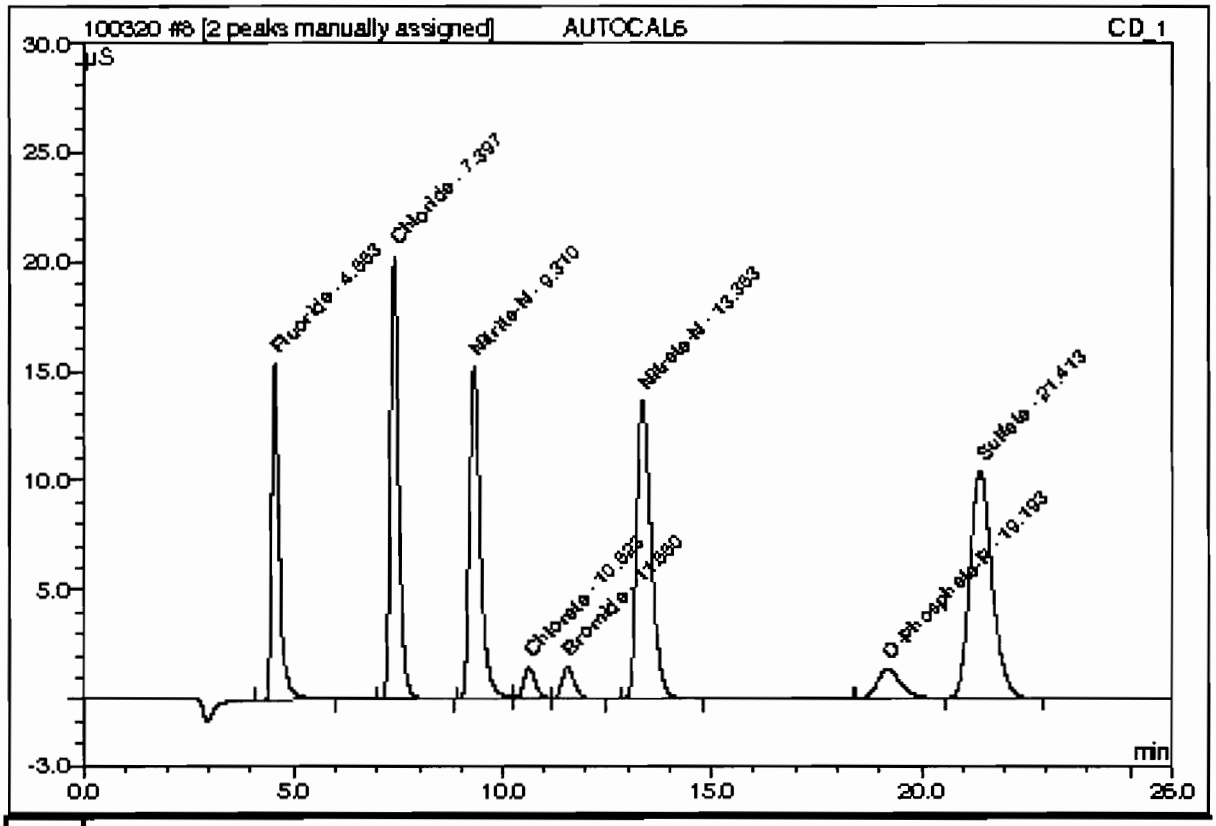

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.55	Fluoride	5.0000	4.8043		3.20119	12.15
2	7.40	Chloride	10.0000	9.1896		4.64497	17.63
3	9.31	Nitrite-N	5.0000	4.8670		4.63736	17.60
4	10.62	Chlorate	3.0000	2.9888		0.49085	1.86
5	11.55	Bromide	3.0000	2.9854		0.52386	1.99
6	13.35	Nitrate-N	5.0000	4.7165		5.44514	20.66
7	19.19	O-Phosphate-P	3.0000	2.9592		0.90545	3.44
8	21.41	Sulfate	20.0000	33.7849		6.50161	24.67
Total:				66.2957	0.000	26.350	100.00

8 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 14:50	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

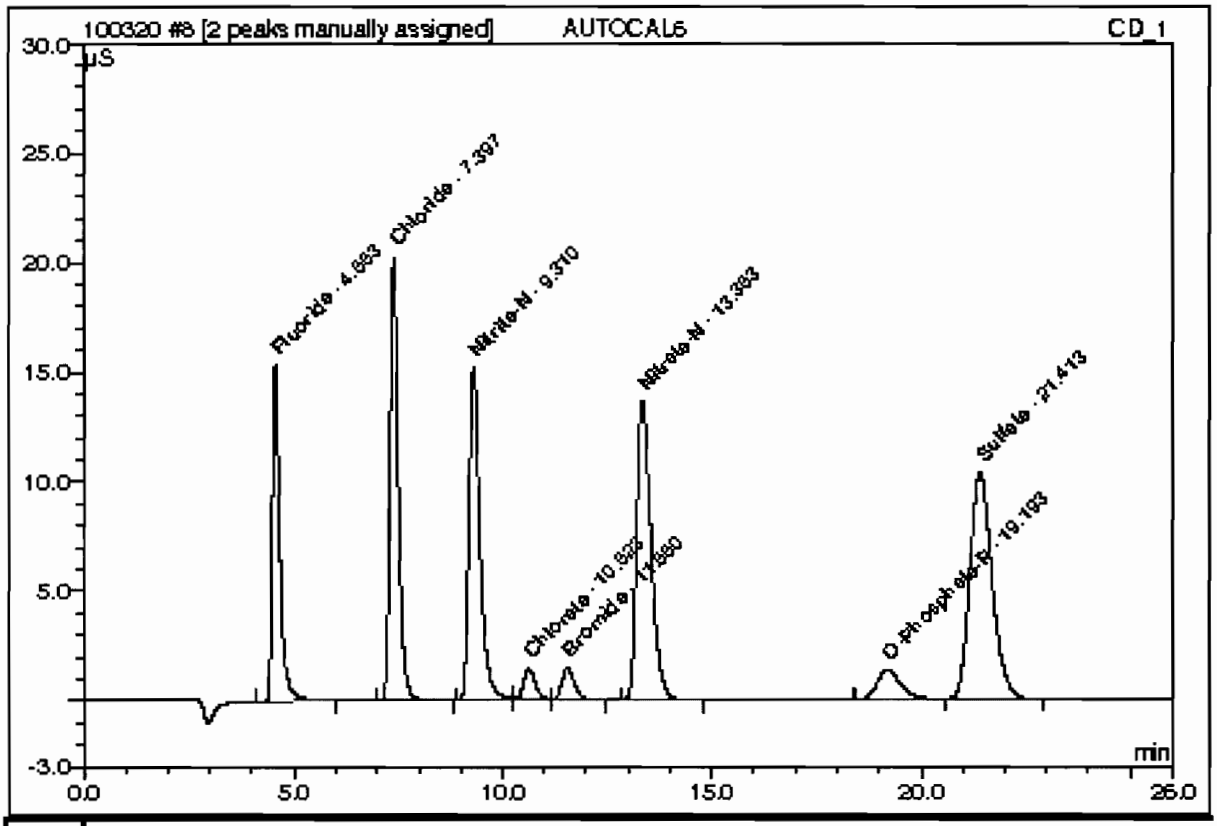

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.55	Fluoride	5.0000	4.8013		3.20119	12.15
2	7.40	Chloride	10.0000	9.1707		4.64497	17.63
3	9.31	Nitrite-N	5.0000	4.8611		4.63736	17.60
4	10.62	Chlorate	3.0000	2.9859		0.49085	1.86
5	11.55	Bromide	3.0000	2.9839		0.52386	1.99
6	13.35	Nitrate-N	5.0000	4.7072		5.44514	20.66
7	19.19	O-Phosphate-P	3.0000	2.9592		0.90545	3.44
8	21.41	Sulfate	20.0000	19.0809		6.50161	24.67
Total:				51.5503	0.000	26.350	100.00

8 AUTOCAL6

Sample Name:	AUTOCAL6	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 14:50	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

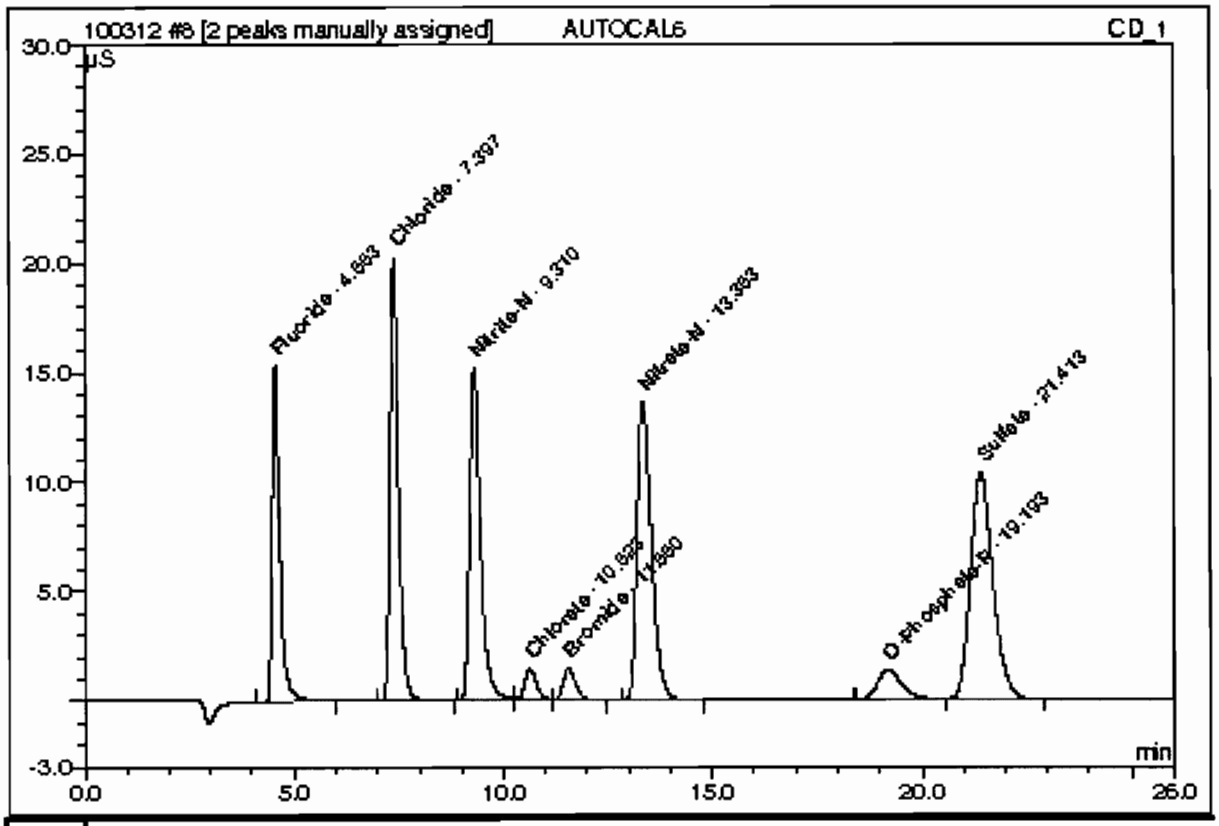

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.55	Fluoride	5.0000	4.8013		3.20119	12.15
2	7.40	Chloride	10.0000	9.1707		4.64497	17.63
3	9.31	Nitrite-N	5.0000	4.8611		4.63736	17.60
4	10.62	Chlorate	3.0000	2.9859		0.49085	1.86
5	11.55	Bromide	3.0000	2.9839		0.52386	1.99
6	13.35	Nitrate-N	5.0000	4.7072		5.44514	20.66
7	19.19	O-Phosphate-P	3.0000	2.9592		0.90545	3.44
8	21.41	Sulfate	20.0000	19.0809		6.50161	24.67
Total:				51.5503	0.000	26.350	100.00

16 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	55	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410b	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 15:16	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

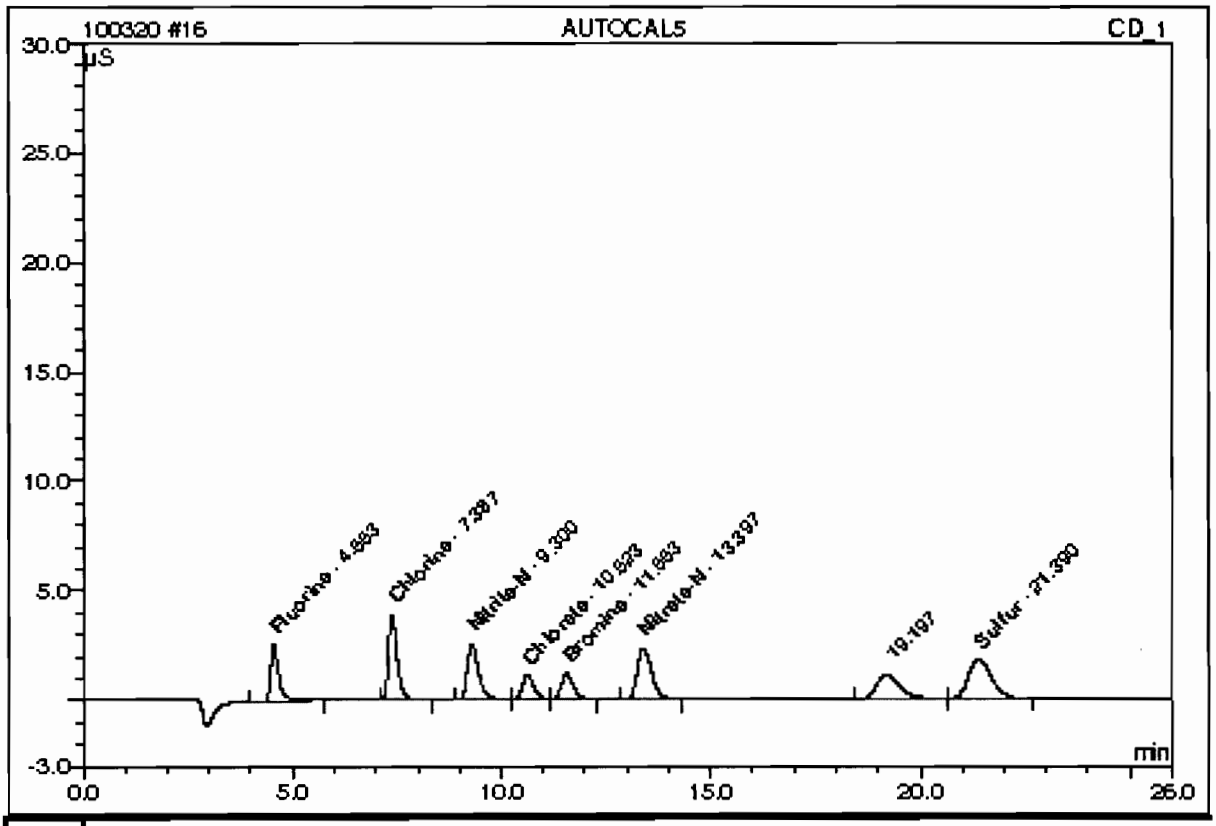

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.55	Fluorine	1.0000	0.9239		0.57776	9.61
2	7.39	Chlorine	2.0000	1.9883		0.93617	15.57
3	9.30	Nitrite-N	1.0000	0.9333		0.82271	13.68
4	10.62	Chlorate	2.5000	2.3242		0.37870	6.30
5	11.55	Bromine	2.5000	2.3659		0.41339	6.88
6	13.40	Nitrate-N	1.0000	0.9227		0.94898	15.78
n.a.	n.a.	O-Phosphate-P	2.5000	n.a.	n.a.	n.a.	n.a.
8	21.39	Sulfur	1.3332	8.9413		1.18473	19.71
Total:				18.3994	0.000	5.262	87.53

9 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	55	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 15:16	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

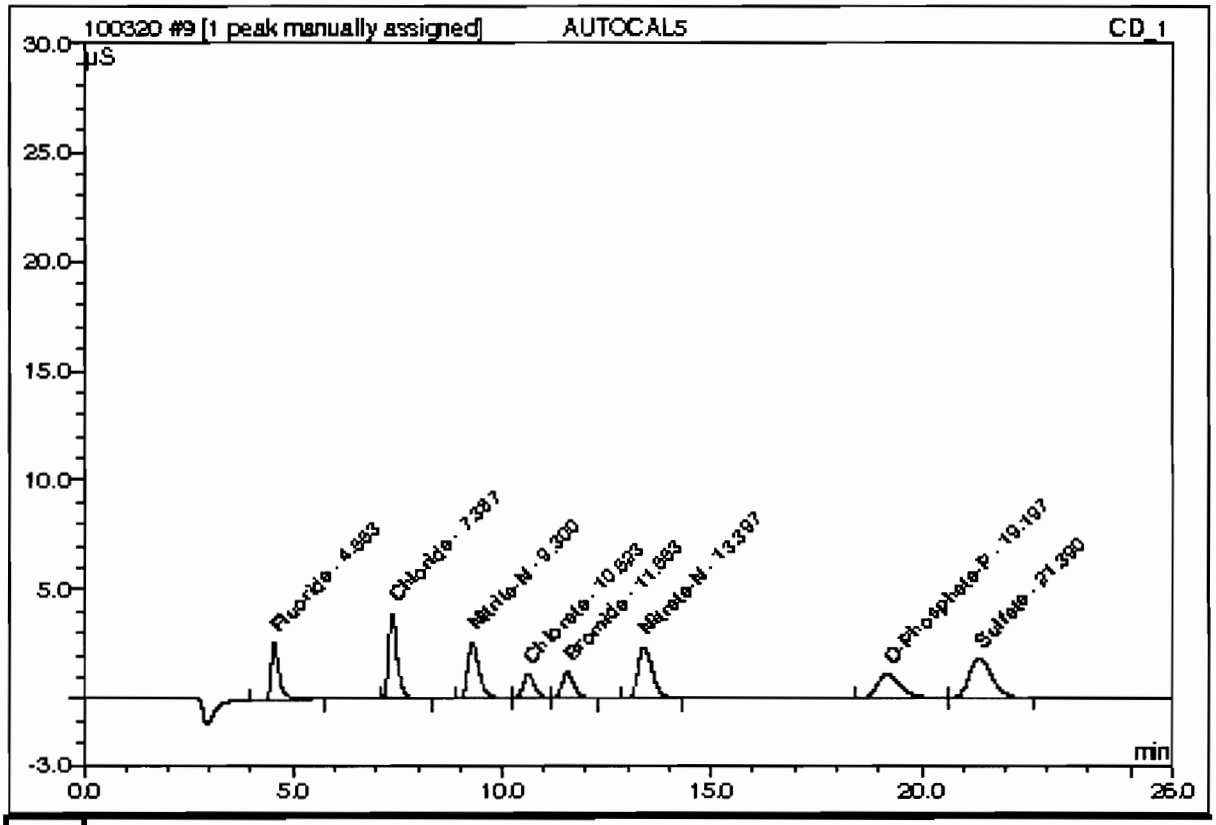

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.55	Fluoride	1.0000	0.9311		0.57776	9.61
2	7.39	Chloride	2.0000	1.9705		0.93617	15.57
3	9.30	Nitrite-N	1.0000	0.9357		0.82271	13.68
4	10.62	Chlorate	2.5000	2.3263		0.37870	6.30
5	11.55	Bromide	2.5000	2.3673		0.41339	6.88
6	13.40	Nitrate-N	1.0000	0.9243		0.94898	15.78
7	19.20	O-Phosphate-P	2.5000	2.4675		0.74977	12.47
8	21.39	Sulfate	4.0000	5.6629		1.18473	19.71
Total:				17.5856	0.000	6.012	100.00

9 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	55	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 15:16	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

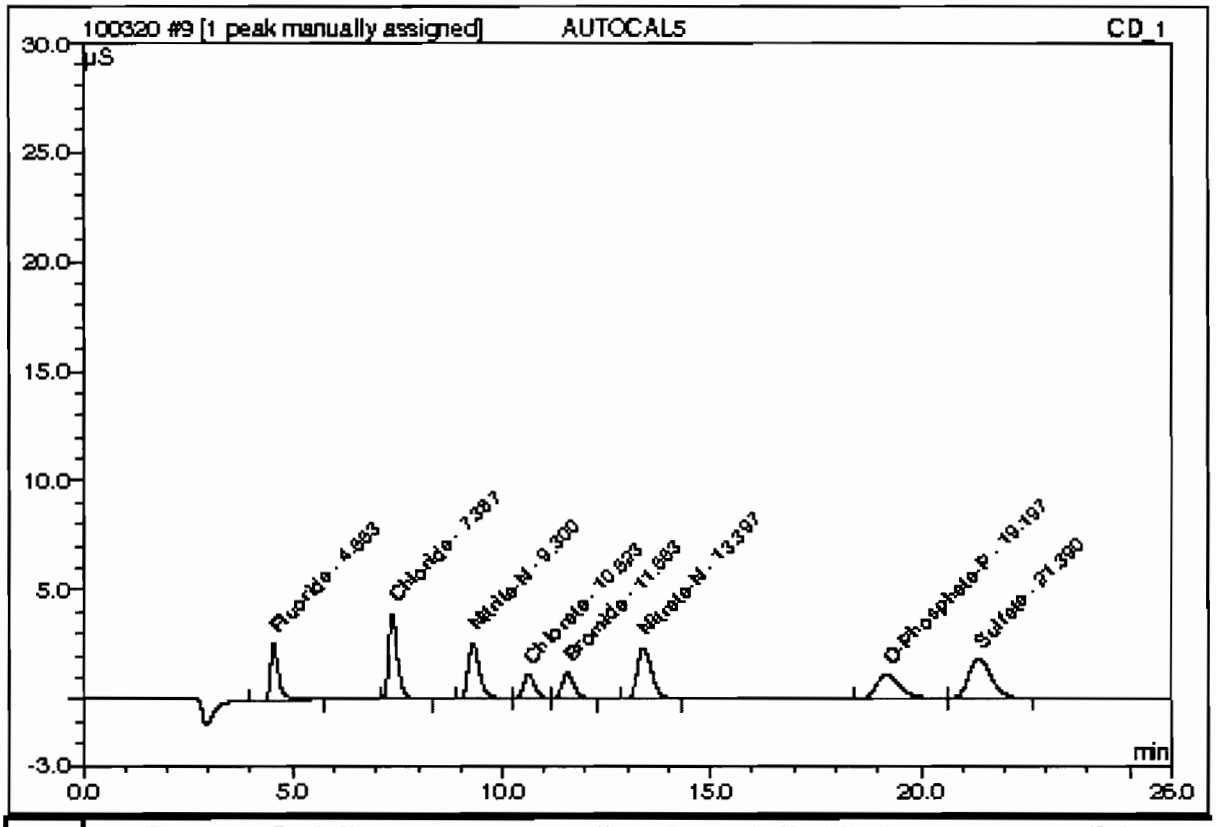

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.55	Fluoride	1.0000	0.9239		0.57776	9.61
2	7.39	Chloride	2.0000	1.9292		0.93617	15.57
3	9.30	Nitrite-N	1.0000	0.9213		0.82271	13.68
4	10.62	Chlorate	2.5000	2.3194		0.37870	6.30
5	11.55	Bromide	2.5000	2.3638		0.41339	6.88
6	13.40	Nitrate-N	1.0000	0.9027		0.94898	15.78
7	19.20	O-Phosphate-P	2.5000	2.4675		0.74977	12.47
8	21.39	Sulfate	4.0000	3.7326		1.18473	19.71
Total:				15.5605	0.000	6.012	100.00

9 AUTOCAL5

Sample Name:	AUTOCAL5	*Injection Volume:*	50.0
Vial Number:	55	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 15:16	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

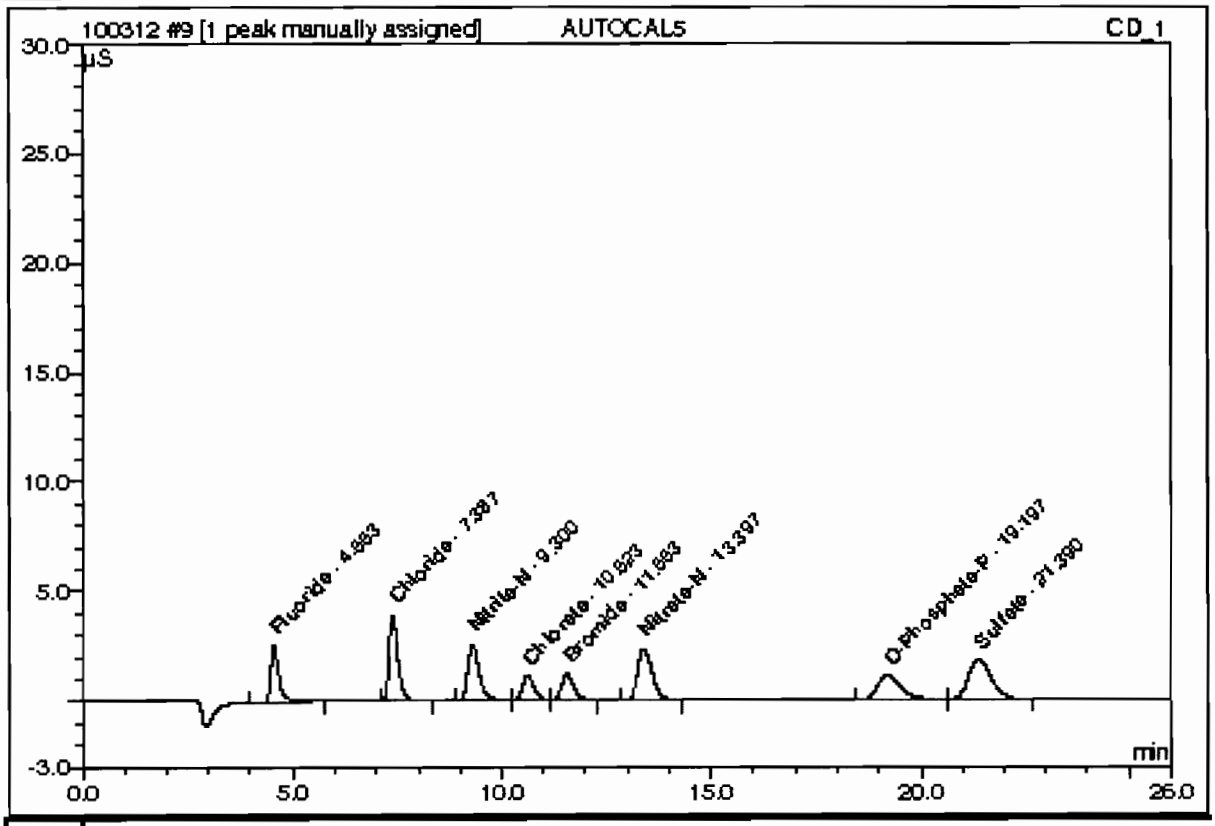

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.55	Fluoride	1.0000	0.9239		0.57776	9.61
2	7.39	Chloride	2.0000	1.9292		0.93617	15.57
3	9.30	Nitrite-N	1.0000	0.9213		0.82271	13.68
4	10.62	Chlorate	2.5000	2.3194		0.37870	6.30
5	11.55	Bromide	2.5000	2.3638		0.41339	6.88
6	13.40	Nitrate-N	1.0000	0.9027		0.94898	15.78
7	19.20	O-Phosphate-P	2.5000	2.4675		0.74977	12.47
8	21.39	Sulfate	4.0000	3.7326		1.18473	19.71
Total:				15.5605	0.000	6.012	100.00

17 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	55	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410b	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 15:42	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

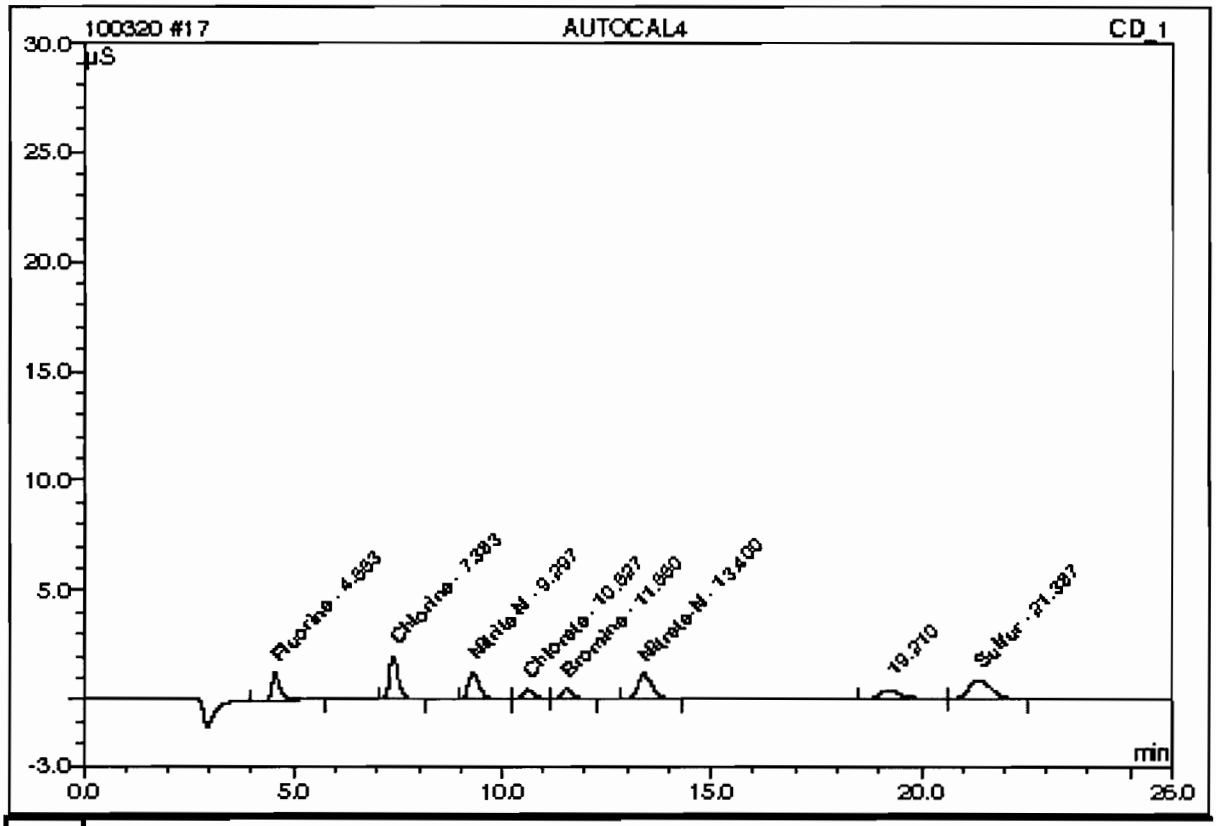

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.55	Fluorine	0.5000	0.5069		0.29564	10.35
2	7.38	Chlorine	1.0000	1.1063		0.48247	16.89
3	9.30	Nitrite-N	0.5000	0.5036		0.40590	14.21
4	10.63	Chlorate	1.0000	0.9818		0.15198	5.32
5	11.55	Bromine	1.0000	0.9917		0.16816	5.89
6	13.40	Nitrate-N	0.5000	0.5217		0.47368	16.58
n.a.	n.a.	O-Phosphate-P	1.0000	n.a.	n.a.	n.a.	n.a.
8	21.39	Sulfur	0.6666	2.8453		0.59002	20.65
Total:				7.4573	0.000	2.568	89.89

10 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	55	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 15:42	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

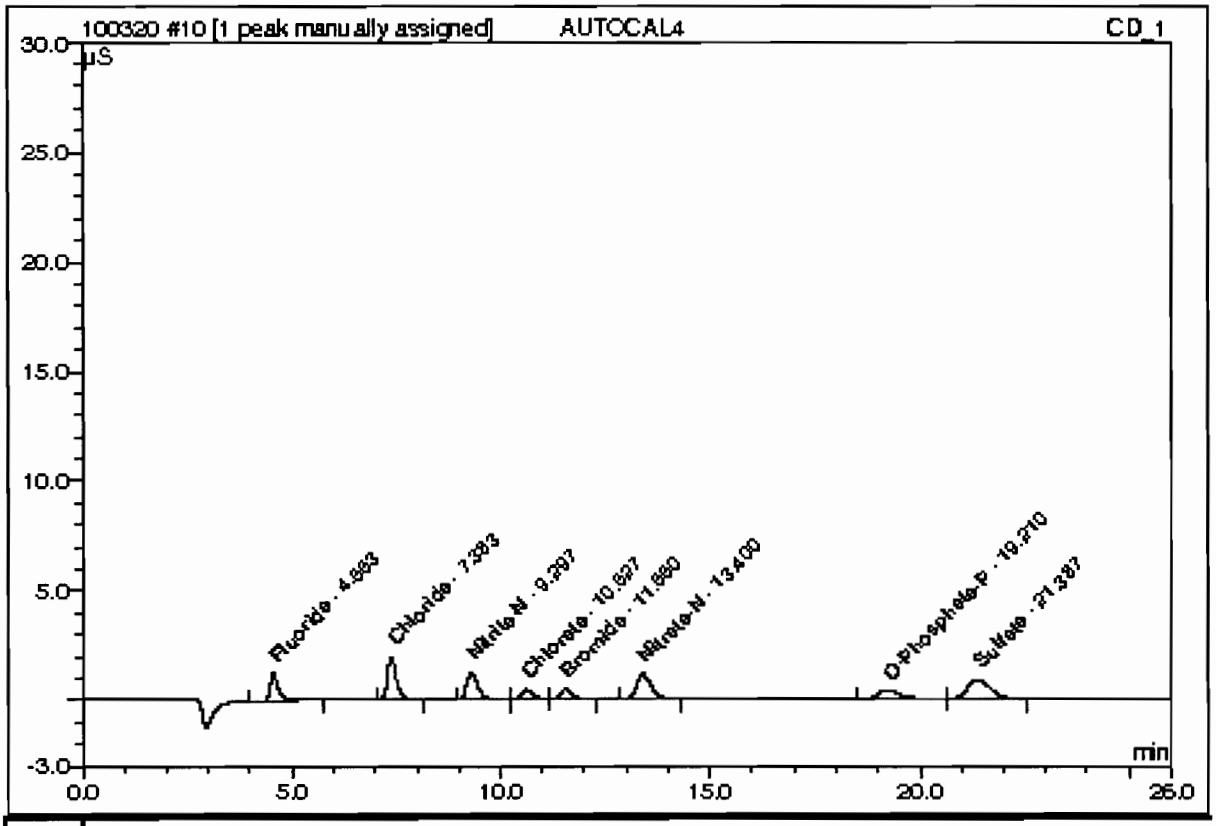

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.55	Fluoride	0.5000	0.5146		0.29564	10.35
2	7.38	Chloride	1.0000	1.0874		0.48247	16.89
3	9.30	Nitrite-N	0.5000	0.5061		0.40590	14.21
4	10.63	Chlorate	1.0000	0.9871		0.15198	5.32
5	11.55	Bromide	1.0000	0.9953		0.16816	5.89
6	13.40	Nitrate-N	0.5000	0.5235		0.47368	16.58
7	19.21	O-Phosphate-P	1.0000	1.0113		0.28875	10.11
8	21.39	Sulfate	2.0000	2.5173		0.59002	20.65
Total:				8.1425	0.000	2.857	100.00

10 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	55	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 15:42	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

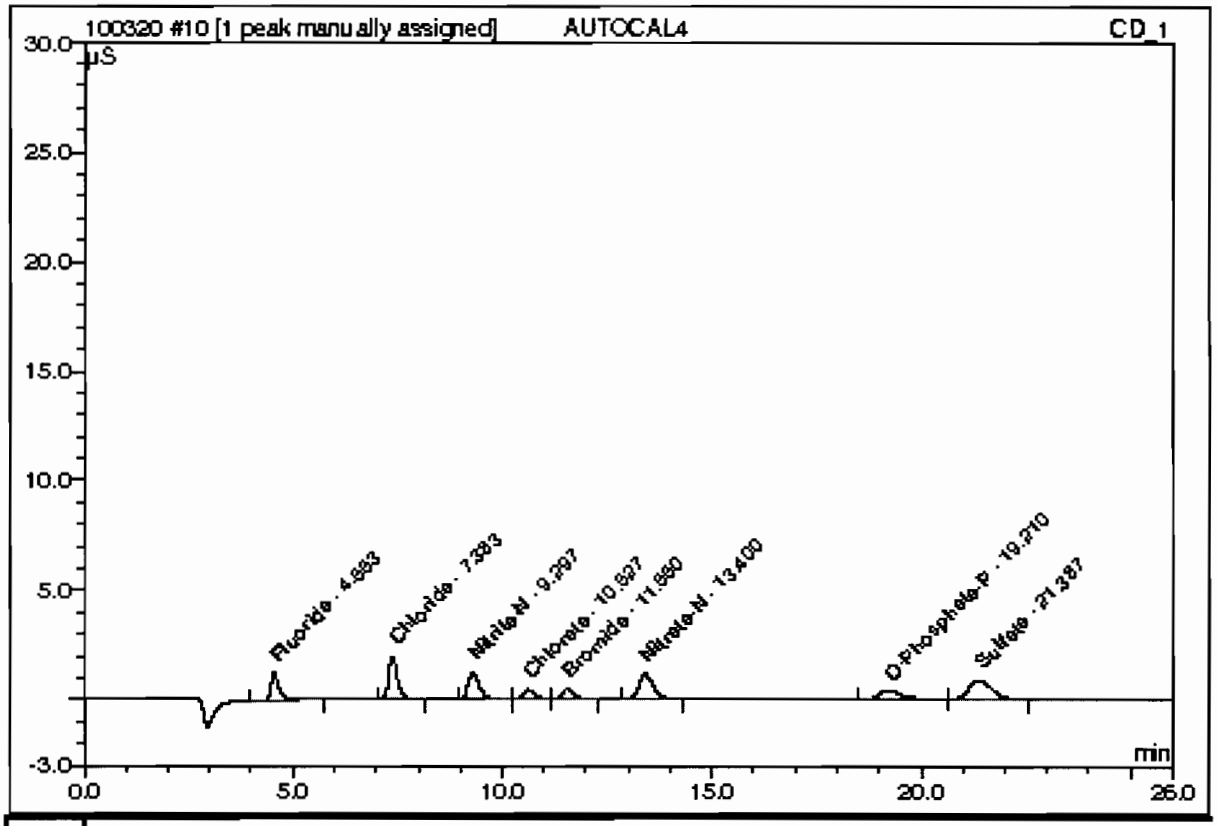

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.55	Fluoride	0.5000	0.5069		0.29564	10.35
2	7.38	Chloride	1.0000	1.0433		0.48247	16.89
3	9.30	Nitrite-N	0.5000	0.4909		0.40590	14.21
4	10.63	Chlorate	1.0000	0.9722		0.15198	5.32
5	11.55	Bromide	1.0000	0.9875		0.16816	5.89
6	13.40	Nitrate-N	0.5000	0.5005		0.47368	16.58
7	19.21	O-Phosphate-P	1.0000	1.0113		0.28875	10.11
8	21.39	Sulfate	2.0000	2.0158		0.59002	20.65
Total:				7.5285	0.000	2.857	100.00

10 AUTOCAL4

Sample Name:	AUTOCAL4	*Injection Volume:*	50.0
Vial Number:	55	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 15:42	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

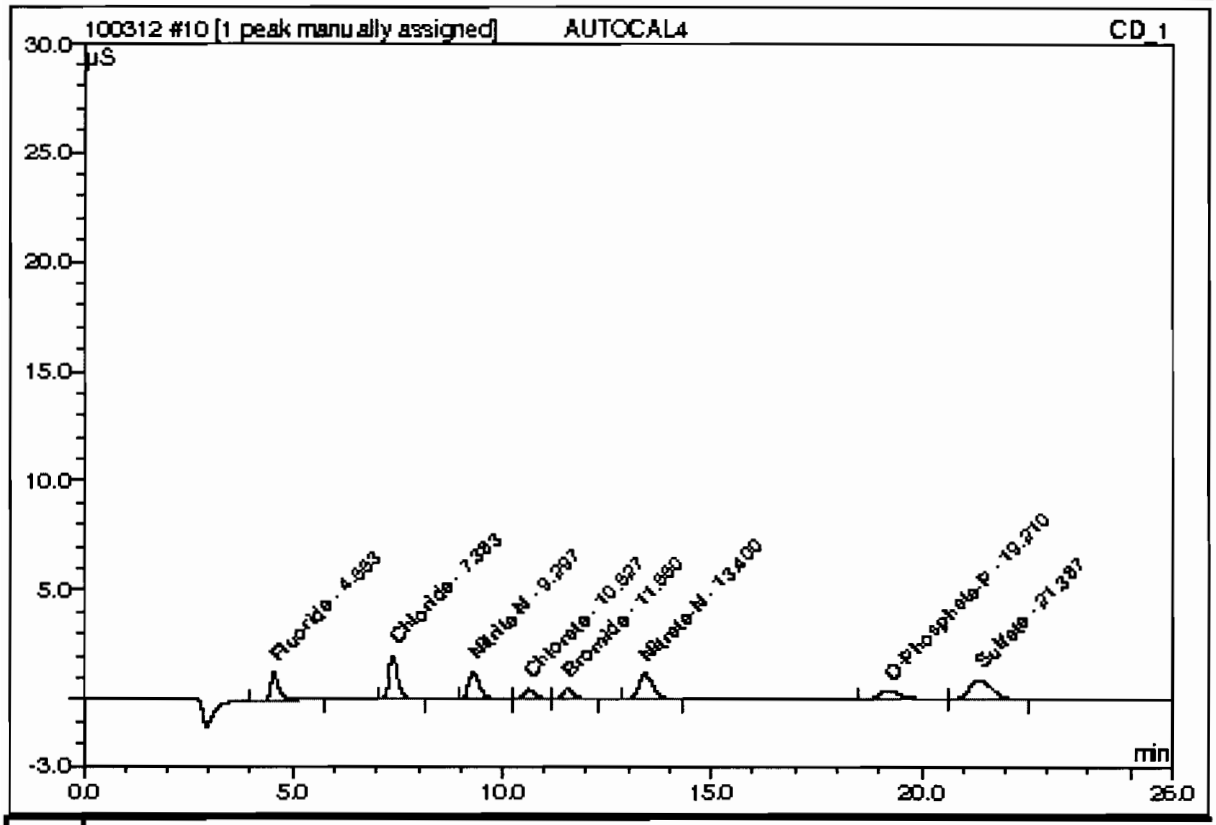

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.55	Fluoride	0.5000	0.5069		0.29564	10.35
2	7.38	Chloride	1.0000	1.0433		0.48247	16.89
3	9.30	Nitrite-N	0.5000	0.4909		0.40590	14.21
4	10.63	Chlorate	1.0000	0.9722		0.15198	5.32
5	11.55	Bromide	1.0000	0.9875		0.16816	5.89
6	13.40	Nitrate-N	0.5000	0.5005		0.47368	16.58
7	19.21	O-Phosphate-P	1.0000	1.0113		0.28875	10.11
8	21.39	Sulfate	2.0000	2.0158		0.59002	20.65
Total:				7.5285	0.000	2.857	100.00

18 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	55	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410b	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 16:08	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

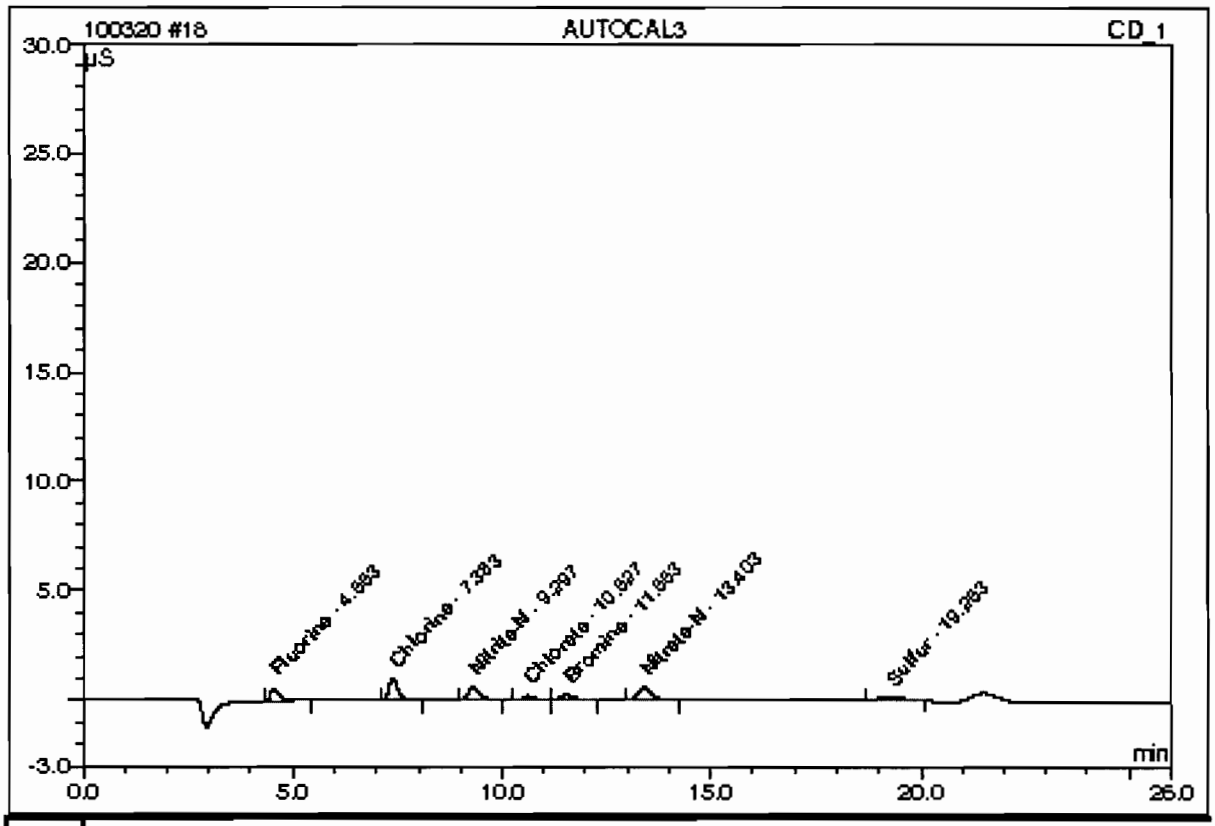

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.55	Fluorine	0.2500	0.2772		0.14021	12.88
2	7.38	Chlorine	0.5000	0.6458		0.24562	22.56
3	9.30	Nitrite-N	0.2500	0.2894		0.19817	18.20
4	10.63	Chlorate	0.5000	0.5279		0.07531	6.92
5	11.55	Bromine	0.5000	0.5268		0.08520	7.82
6	13.40	Nitrate-N	0.2500	0.3208		0.23559	21.64
n.a.	n.a.	O-Phosphate-P	0.5000	n.a.	n.a.	n.a.	n.a.
7	19.25	Sulfur	0.3333	-2.0877		0.10878	9.99
Total:				0.5003	0.000	1.089	100.00

11 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	55	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 16:08	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

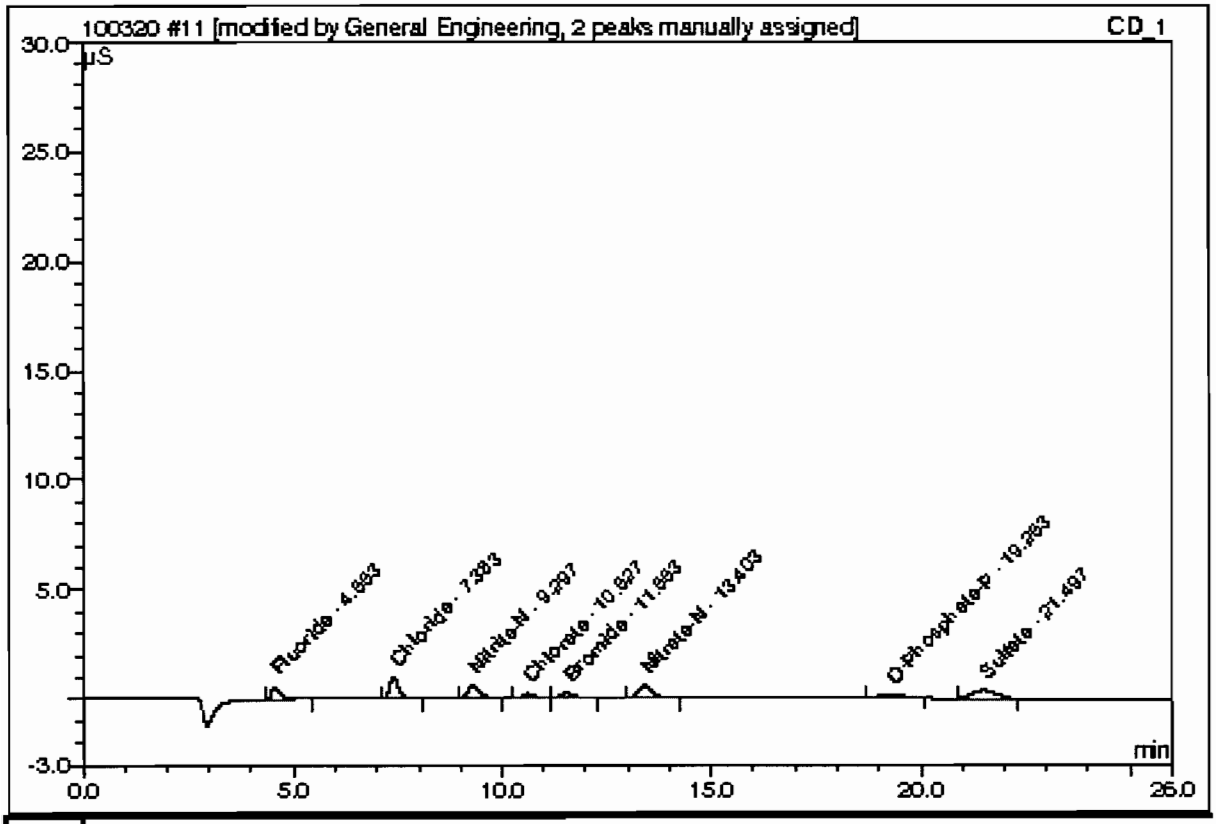

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.55	Fluoride	0.2500	0.2851		0.14021	10.26
2	7.38	Chloride	0.5000	0.6264		0.24562	17.97
3	9.30	Nitrite-N	0.2500	0.2920		0.19817	14.50
4	10.63	Chlorate	0.5000	0.5342		0.07531	5.51
5	11.55	Bromide	0.5000	0.5311		0.08520	6.23
6	13.40	Nitrate-N	0.2500	0.3226		0.23559	17.23
7	19.25	O-Phosphate-P	0.5000	0.4428		0.10878	7.96
8	21.50	Sulfate	1.0000	0.8683		0.27825	20.35
Total:				3.9026	0.000	1.367	100.00

11 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	55	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 16:08	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

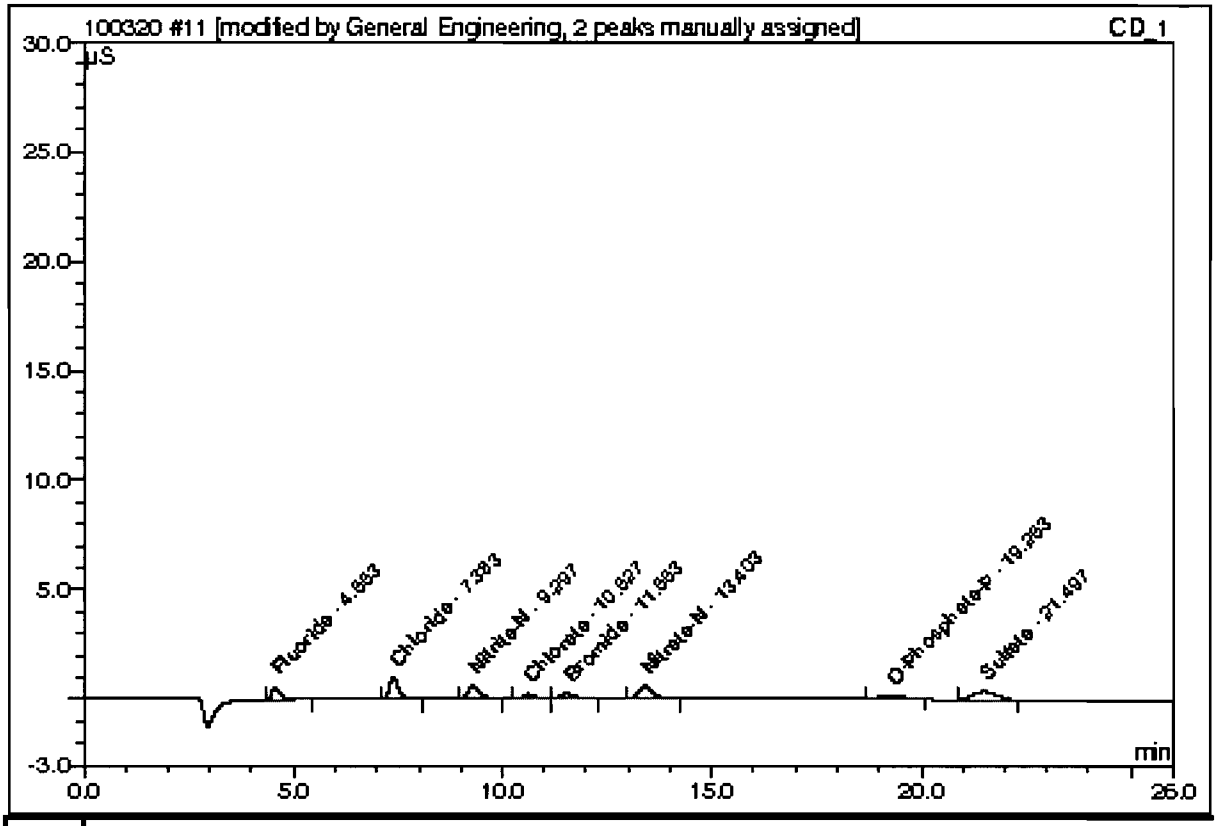

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.55	Fluoride	0.2500	0.2772		0.14021	10.26
2	7.38	Chloride	0.5000	0.5809		0.24562	17.97
3	9.30	Nitrite-N	0.2500	0.2763		0.19817	14.50
4	10.63	Chlorate	0.5000	0.5166		0.07531	5.51
5	11.55	Bromide	0.5000	0.5219		0.08520	6.23
6	13.40	Nitrate-N	0.2500	0.2991		0.23559	17.23
7	19.25	O-Phosphate-P	0.5000	0.4428		0.10878	7.96
8	21.50	Sulfate	1.0000	1.1158		0.27825	20.35
Total:				4.0306	0.000	1.367	100.00

14 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	55	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 16:08	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

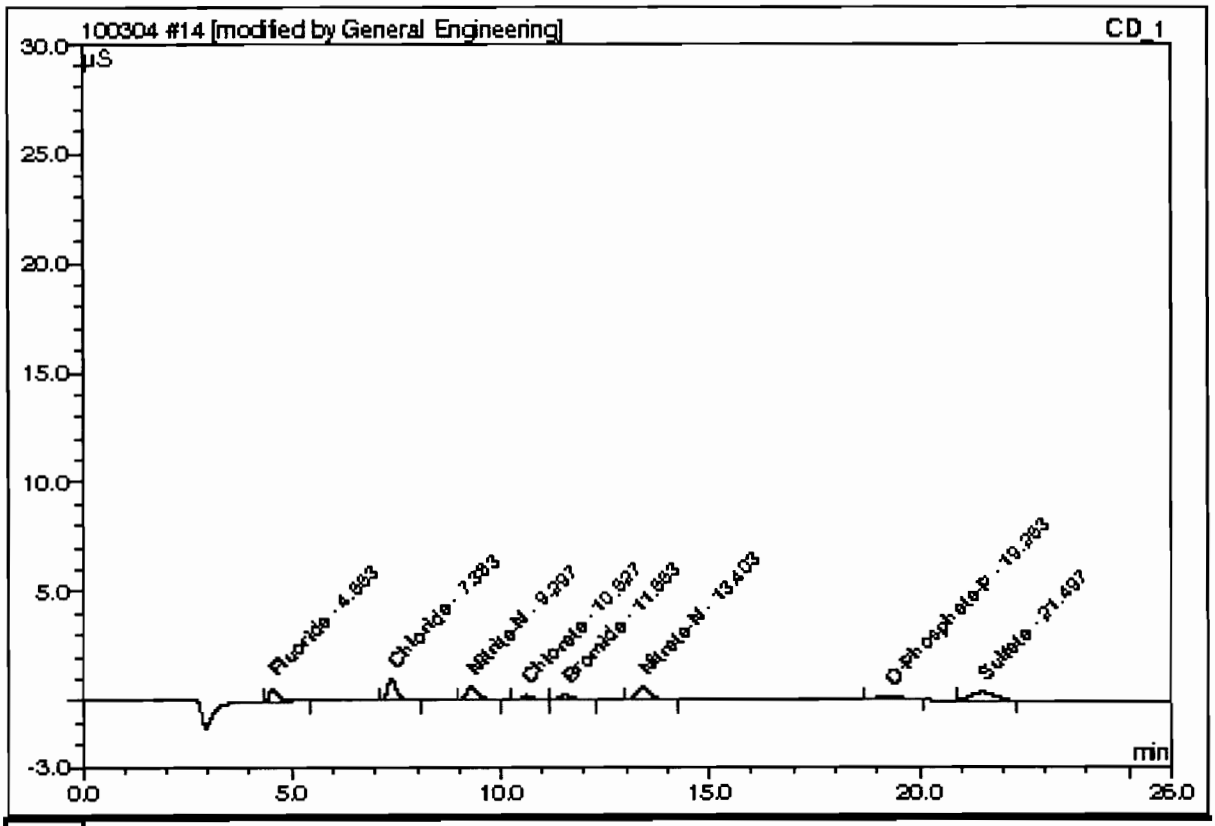

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.55	Fluoride	0.2500	0.2772		0.14021	10.26
2	7.38	Chloride	0.5000	0.5809		0.24562	17.97
3	9.30	Nitrite-N	0.2500	0.2763		0.19817	14.50
4	10.63	Chlorate	0.5000	0.5166		0.07531	5.51
5	11.55	Bromide	0.5000	0.5219		0.08520	6.23
6	13.40	Nitrate-N	0.2500	0.2991		0.23559	17.23
7	19.25	O-Phosphate-P	0.5000	0.4428		0.10878	7.96
8	21.50	Sulfate	1.0000	1.1158		0.27825	20.35
Total:				4.0306	0.000	1.367	100.00

11 AUTOCAL3

Sample Name:	AUTOCAL3	*Injection Volume:*	50.0
Vial Number:	55	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 16:08	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

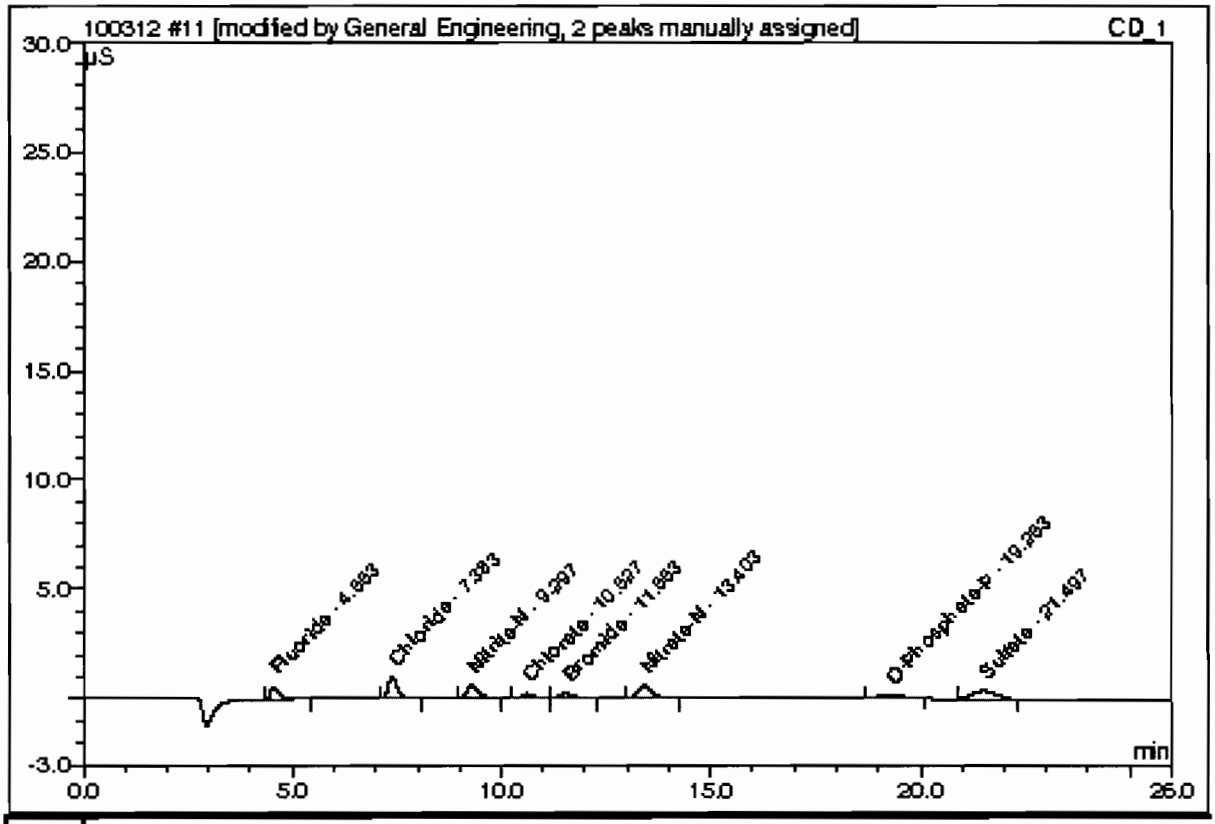

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.55	Fluoride	0.2500	0.2772		0.14021	10.26
2	7.38	Chloride	0.5000	0.5809		0.24562	17.97
3	9.30	Nitrite-N	0.2500	0.2763		0.19817	14.50
4	10.63	Chlorate	0.5000	0.5166		0.07531	5.51
5	11.55	Bromide	0.5000	0.5219		0.08520	6.23
6	13.40	Nitrate-N	0.2500	0.2991		0.23559	17.23
7	19.25	O-Phosphate-P	0.5000	0.4428		0.10878	7.96
8	21.50	Sulfate	1.0000	1.1158		0.27825	20.35
Total:				4.0306	0.000	1.367	100.00

19 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410b	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 16:34	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

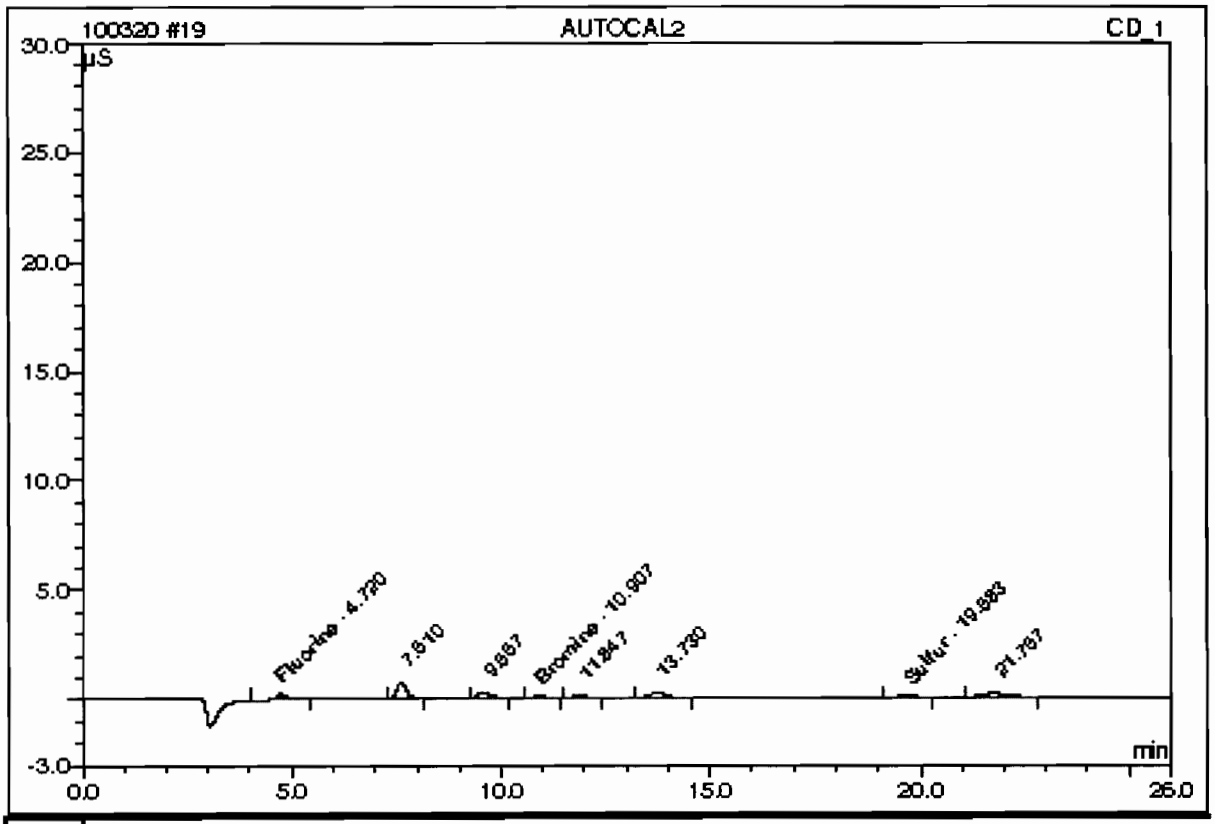

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.72	Fluorine	0.1000	0.1654		0.06456	10.19
n.a.	n.a.	Chlorine	0.2000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.1000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.2000	n.a.	n.a.	n.a.	n.a.
4	10.91	Bromine	0.2000	0.2063		0.02800	4.42
n.a.	n.a.	Nitrate-N	0.1000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.2000	n.a.	n.a.	n.a.	n.a.
7	19.68	Sulfur	0.1333	-2.9575		0.02392	3.78
Total:				-2.5857	0.000	0.116	18.38

12 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 16:34	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

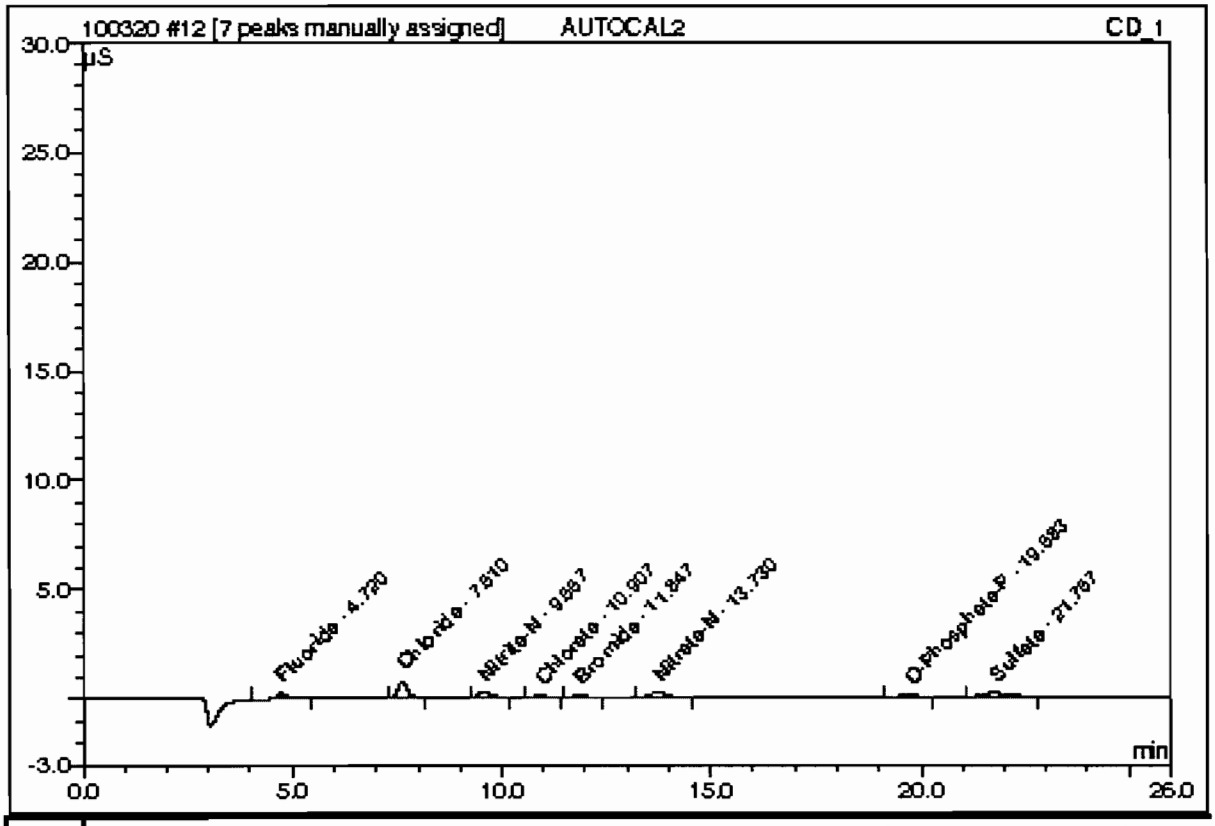

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.72	Fluoride	0.1000	0.1734		0.06456	10.19
2	7.61	Chloride	0.2000	0.5056		0.18356	28.97
3	9.57	Nitrite-N	0.1000	0.1681		0.07789	12.29
4	10.91	Chlorate	0.2000	0.2547		0.02800	4.42
5	11.85	Bromide	0.2000	0.2322		0.03177	5.01
6	13.73	Nitrate-N	0.1000	0.2106		0.10276	16.22
7	19.68	O-Phosphate-P	0.2000	0.1748		0.02392	3.78
8	21.77	Sulfate	0.4000	0.0374		0.12115	19.12
Total:				1.7568	0.000	0.634	100.00

12 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 16:34	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

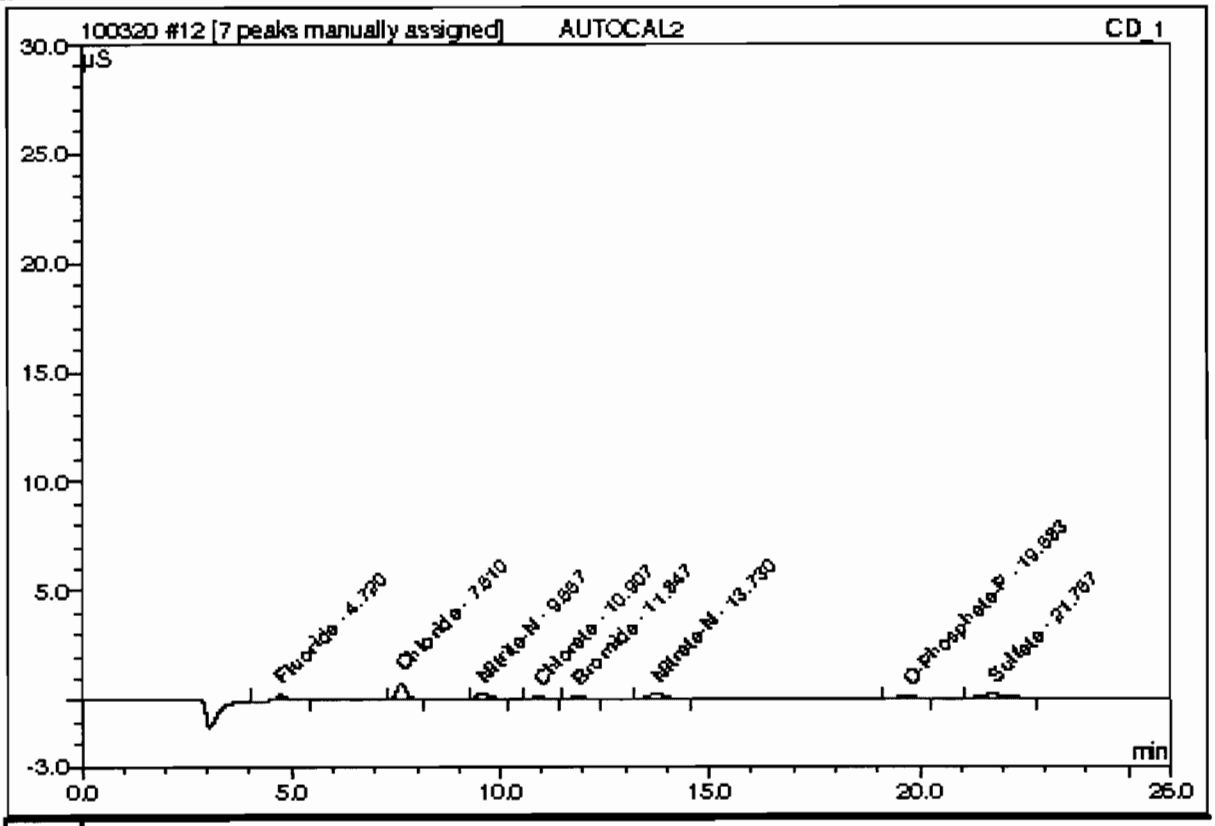

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.72	Fluoride	0.1000	0.1654		0.06456	10.19
2	7.61	Chloride	0.2000	0.4597		0.18356	28.97
3	9.57	Nitrite-N	0.1000	0.1521		0.07789	12.29
4	10.91	Chlorate	0.2000	0.2355		0.02800	4.42
5	11.85	Bromide	0.2000	0.2220		0.03177	5.01
6	13.73	Nitrate-N	0.1000	0.1867		0.10276	16.22
7	19.68	O-Phosphate-P	0.2000	0.1748		0.02392	3.78
8	21.77	Sulfate	0.4000	0.6623		0.12115	19.12
Total:				2.2585	0.000	0.634	100.00

15 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 16:34	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

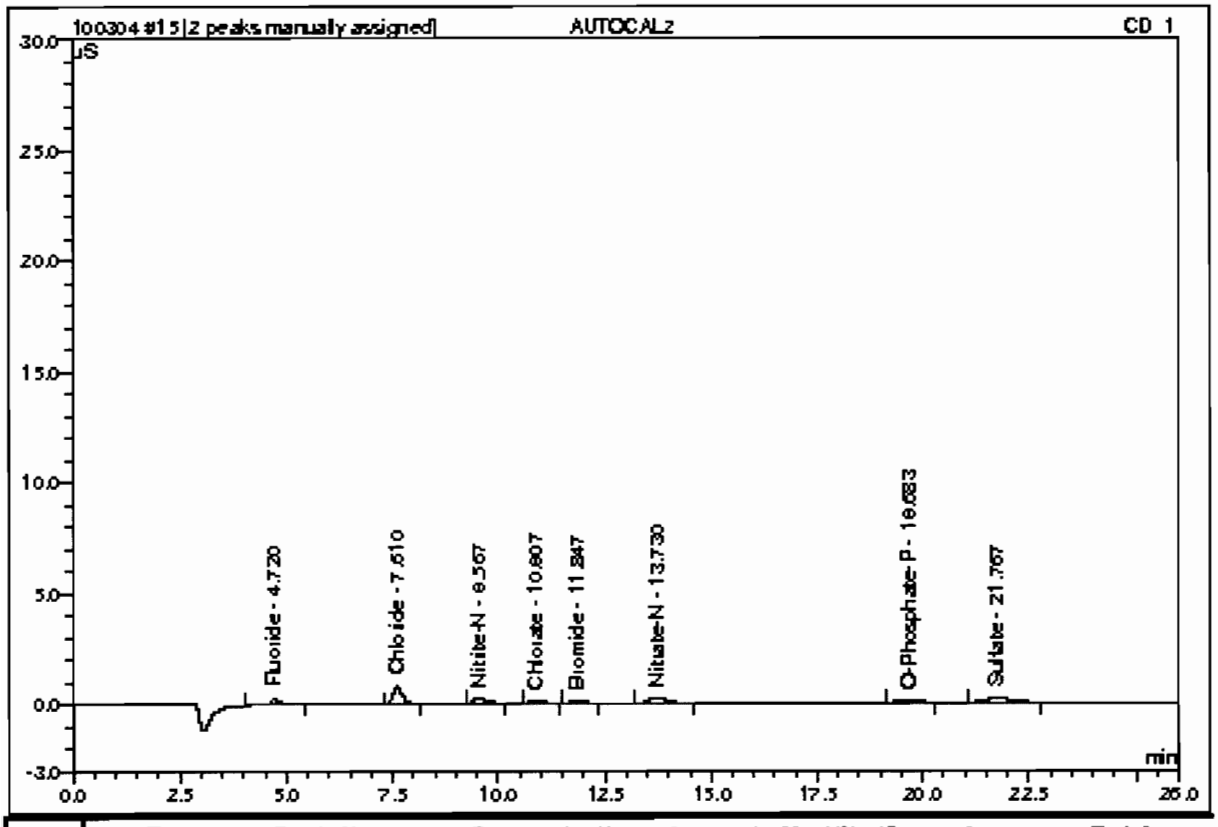

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.72	Fluoride	0.1000	0.1654		0.06456	10.19
2	7.61	Chloride	0.2000	0.4597		0.18356	28.97
3	9.57	Nitrite-N	0.1000	0.1521		0.07789	12.29
4	10.91	Chlorate	0.2000	0.2355		0.02800	4.42
5	11.85	Bromide	0.2000	0.2220		0.03177	5.01
6	13.73	Nitrate-N	0.1000	0.1867		0.10276	16.22
7	19.68	O-Phosphate-P	0.2000	0.1748		0.02392	3.78
8	21.77	Sulfate	0.4000	0.6623		0.12115	19.12
Total:				2.2585	0.000	0.634	100.00

15 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 16:34	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

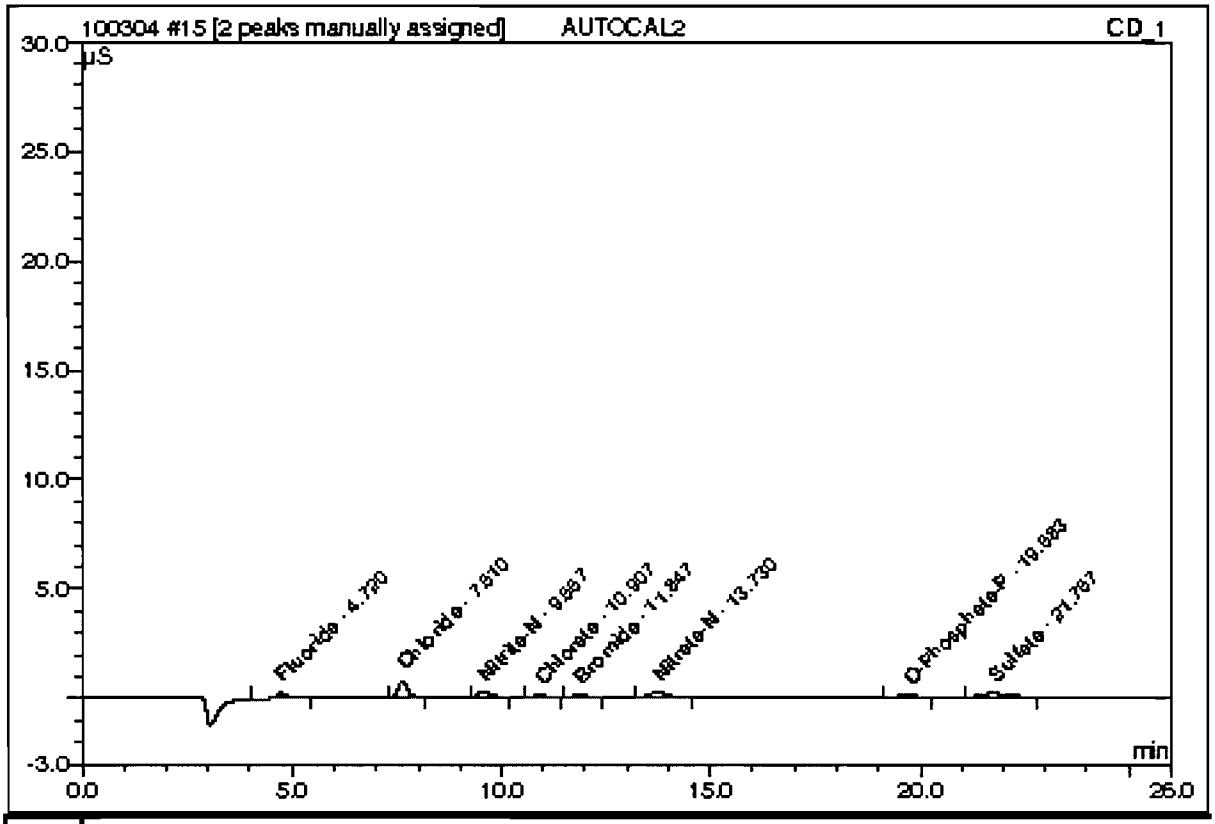

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.72	Fluoride	0.1000	0.1654		0.06456	10.19
2	7.61	Chloride	0.2000	0.4597		0.18356	28.97
3	9.57	Nitrite-N	0.1000	0.1521		0.07789	12.29
4	10.91	Chlorate	0.2000	0.2355		0.02800	4.42
5	11.85	Bromide	0.2000	0.2220		0.03177	5.01
6	13.73	Nitrate-N	0.1000	0.1867		0.10276	16.22
7	19.68	O-Phosphate-P	0.2000	0.1748		0.02392	3.78
8	21.77	Sulfate	0.4000	0.6623		0.12115	19.12
Total:				2.2585	0.000	0.634	100.00

12 AUTOCAL2

Sample Name:	AUTOCAL2	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 16:34	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

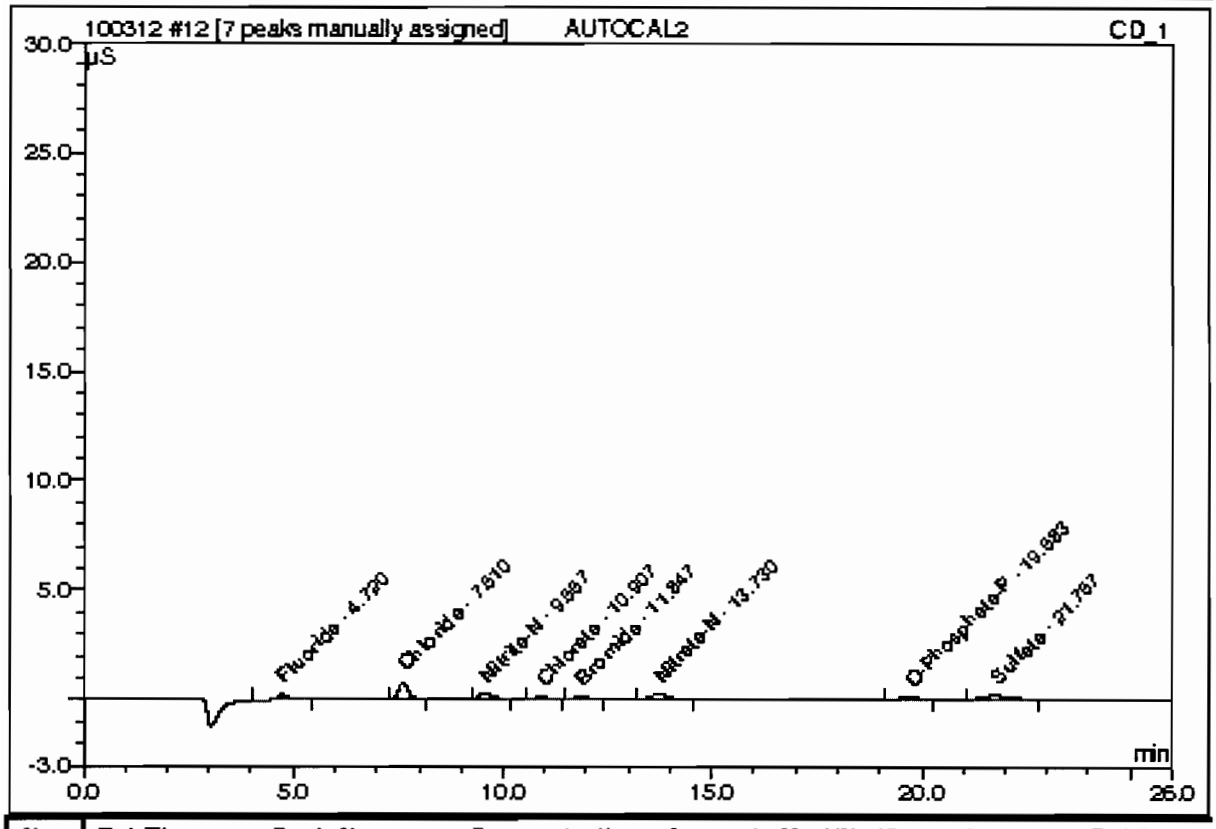

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.72	Fluoride	0.1000	0.1654		0.06456	10.19
2	7.61	Chloride	0.2000	0.4597		0.18356	28.97
3	9.57	Nitrite-N	0.1000	0.1521		0.07789	12.29
4	10.91	Chlorate	0.2000	0.2355		0.02800	4.42
5	11.85	Bromide	0.2000	0.2220		0.03177	5.01
6	13.73	Nitrate-N	0.1000	0.1867		0.10276	16.22
7	19.68	O-Phosphate-P	0.2000	0.1748		0.02392	3.78
8	21.77	Sulfate	0.4000	0.6623		0.12115	19.12
Total:				2.2585	0.000	0.634	100.00

13 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 17:00	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

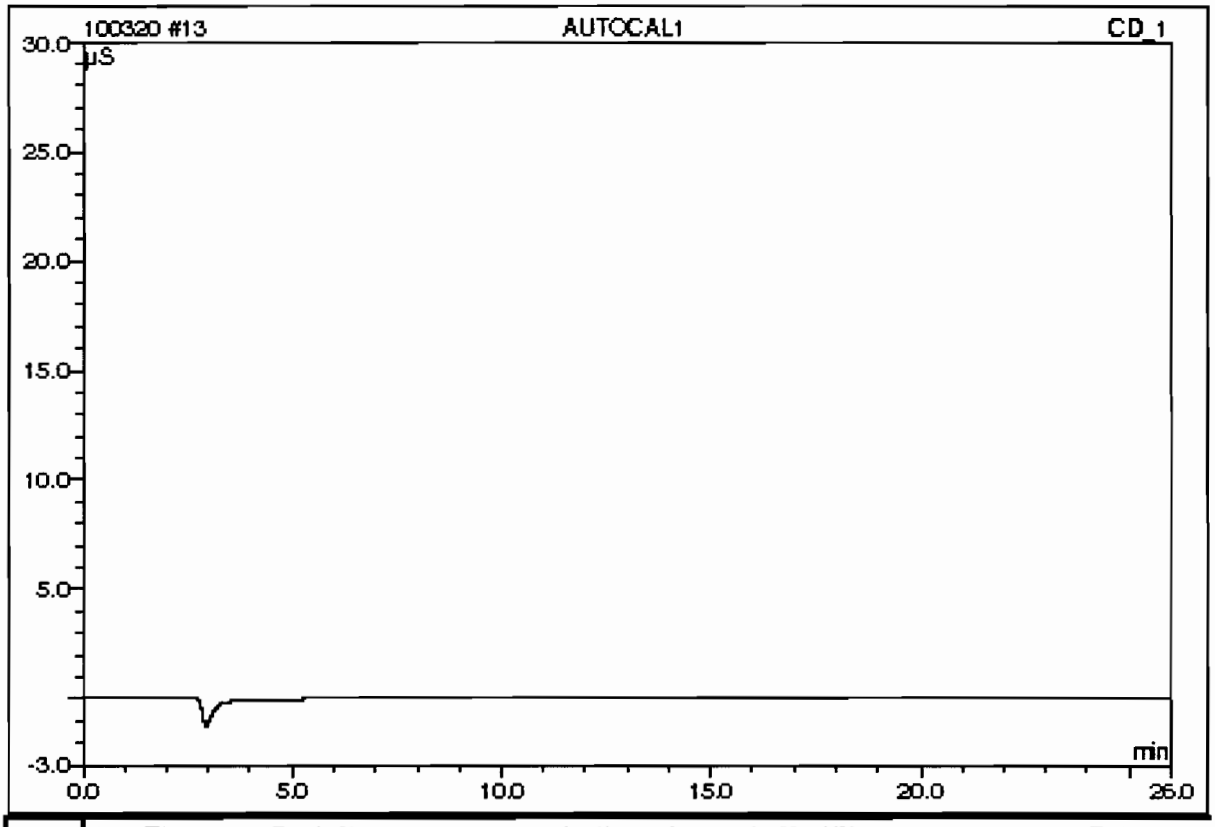

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	0.0000	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	0.0000	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

13 AUTOCAL1

Sample Name:	AUTOCAL1	*Injection Volume:*	50.0
Vial Number:	54	*Channel:*	CD_1
Sample Type:	standard	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 17:00	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588; GL GC B086;300;9056

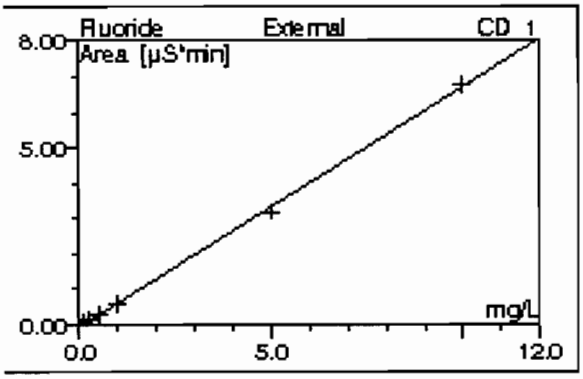

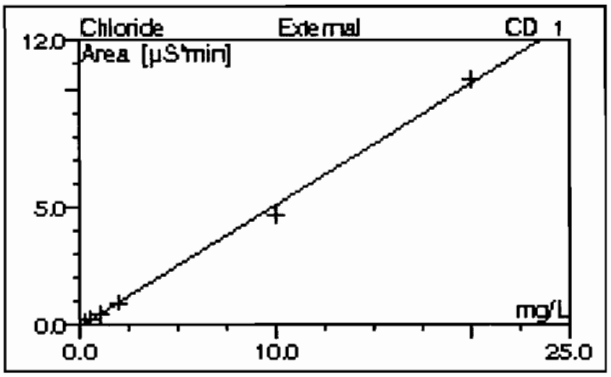

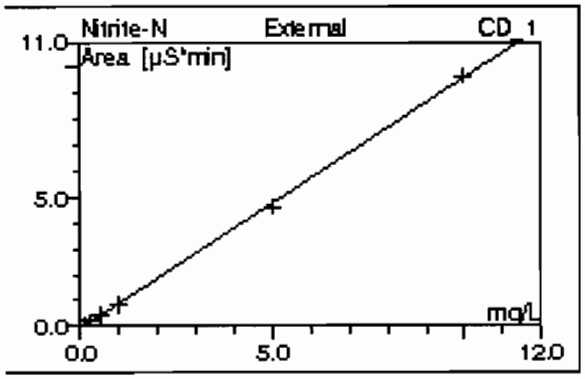

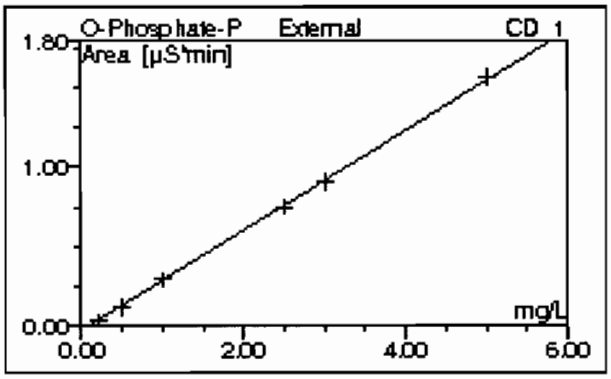

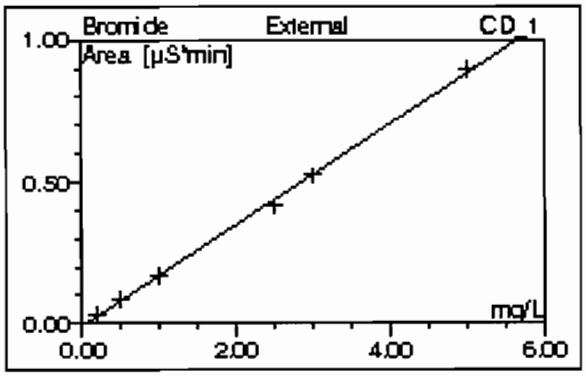

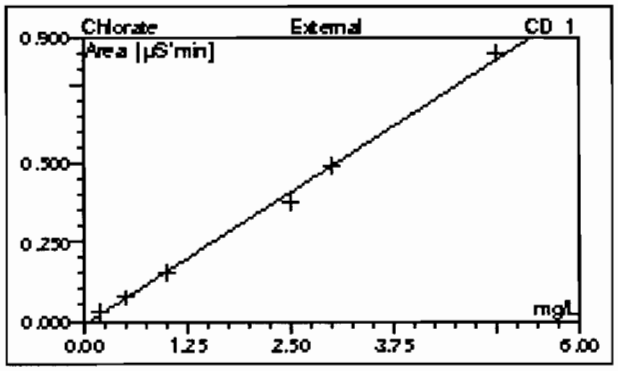

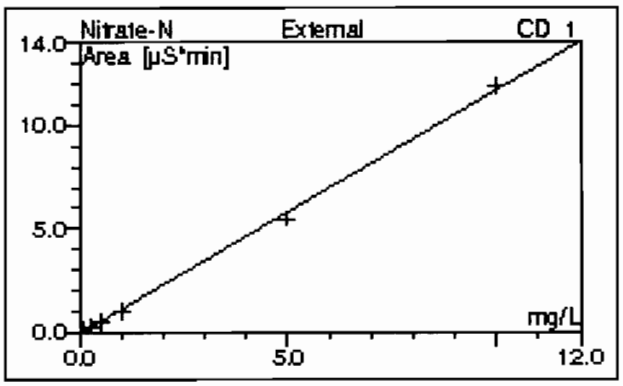

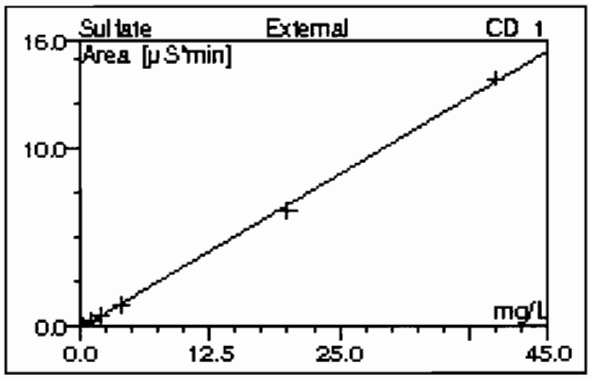

No. CD_1	Ret.Time CD_1 min	Peak Name CD_1	Cal.Type CD_1	Coeff.Det. CD_1 %	Offset CD_1	Slope CD_1	Curve CD_1
n.a.	n.a.	Fluoride	OLOff	99.9227	-0.0473	0.6766	0.0000
n.a.	n.a.	Chloride	OLOff	99.7042	-0.0519	0.5122	0.0000
n.a.	n.a.	Nitrite-N	OLOff	99.9562	-0.0694	0.9682	0.0000
n.a.	n.a.	Chlorate	OLOff	99.7341	-0.0116	0.1683	0.0000
n.a.	n.a.	Bromide	OLOff	99.8472	-0.0078	0.1782	0.0000
n.a.	n.a.	Nitrate-N	OLOff	99.8383	-0.1179	1.1818	0.0000
n.a.	n.a.	O-Phosphate-P	OLOff	99.9487	-0.0314	0.3166	0.0000
n.a.	n.a.	Sulfate	OLOff	99.9034	-0.1083	0.3464	0.0000
Average:				99.8569	-0.0557	0.5435	0.0000

This is runlog for Sequence 100304.seq for IC5

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/04/10 13:05		1	100304	VH1
BLK	03/04/10 13:31		1	100304	VH1
BLK	03/04/10 13:57		1	100304	VH1
ICAL-07	03/04/10 14:23		1	100304	VH1
ICAL-06	03/04/10 14:50		1	100304	VH1
ICAL-05	03/04/10 15:16		1	100304	VH1
ICAL-04	03/04/10 15:42		1	100304	VH1
ICAL-03	03/04/10 16:08		1	100304	VH1
ICAL-02	03/04/10 16:34		1	100304	VH1
ICAL-01	03/04/10 17:00		1	100304	VH1
ICV	03/04/10 17:26		1	100304	VH1
ICB	03/04/10 17:52		1	100304	VH1
1202059074	03/04/10 18:18	960003	1	100304	VH1
1202059078	03/04/10 18:44	960003	1	100304	VH1
248337001	03/04/10 19:10	960003	1	100304	VH1
1202059075	03/04/10 19:37	960003	1	100304	VH1
1202059076	03/04/10 20:03	960003	1	100304	VH1
1202059077	03/04/10 20:29	960003	1	100304	VH1
CVH	03/04/10 20:55		1	100304	VH1
CCB	03/04/10 21:21		1	100304	VH1
248478006	03/04/10 21:47	960447	1	100304	VH1
248478007	03/04/10 22:13	960447	1	100304	VH1
248478008	03/04/10 22:39	960447	1	100304	VH1
248478009	03/04/10 23:05	960447	1	100304	VH1
248478010	03/04/10 23:31	960447	1	100304	VH1
248478011	03/04/10 23:57	960447	1	100304	VH1

17 WIC100304-02ICV

Sample Name:	WIC100304-02ICV	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 17:26	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

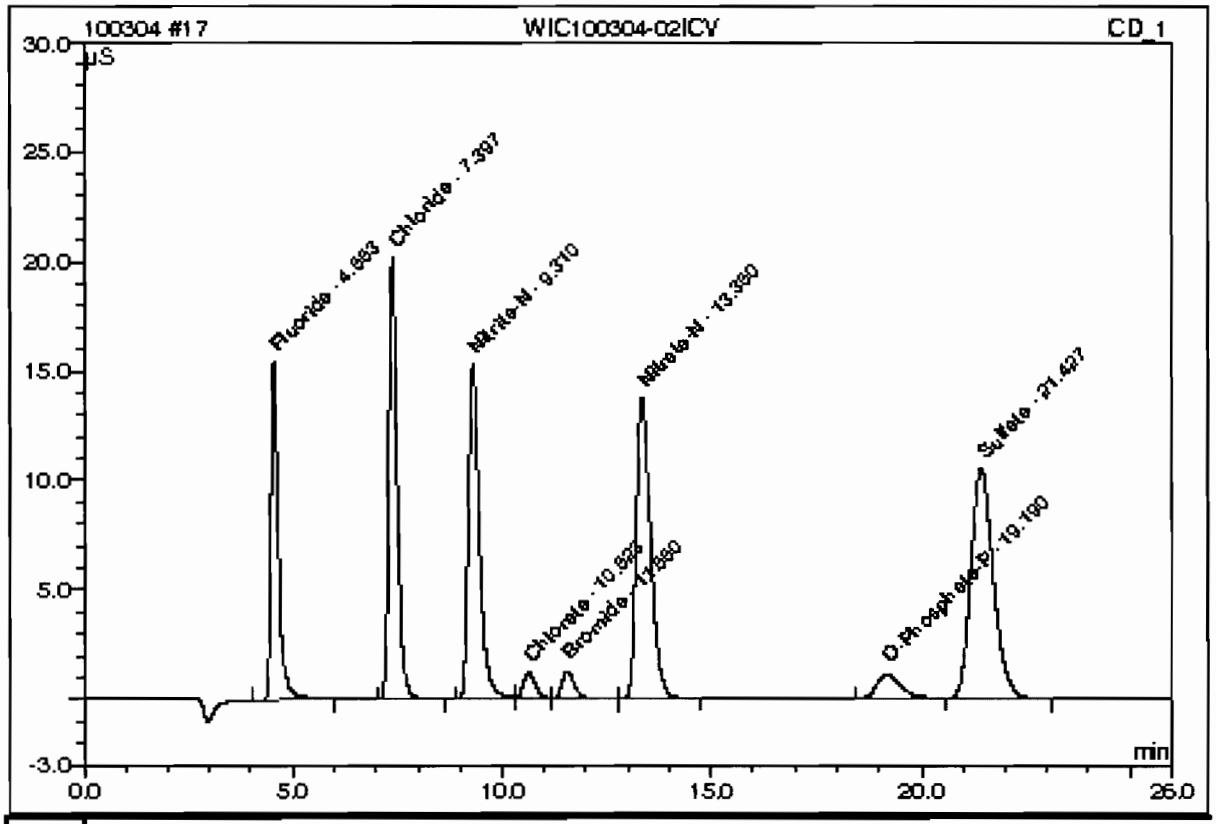

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.55	Fluoride	n.a.	4.8322		3.22206	12.29
2	7.40	Chloride	n.a.	9.1730		4.64616	17.72
3	9.31	Nitrite-N	n.a.	4.9007		4.67562	17.83
4	10.62	Chlorate	n.a.	2.5303		0.41419	1.58
5	11.55	Bromide	n.a.	2.5575		0.44789	1.71
6	13.35	Nitrate-N	n.a.	4.7464		5.49149	20.94
7	19.19	O-Phosphate-P	n.a.	2.5093		0.76301	2.91
8	21.43	Sulfate	n.a.	19.2478		6.55943	25.02
Total:				50.4972	0.000	26.220	100.00

18 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	90	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/4/2010 17:52	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

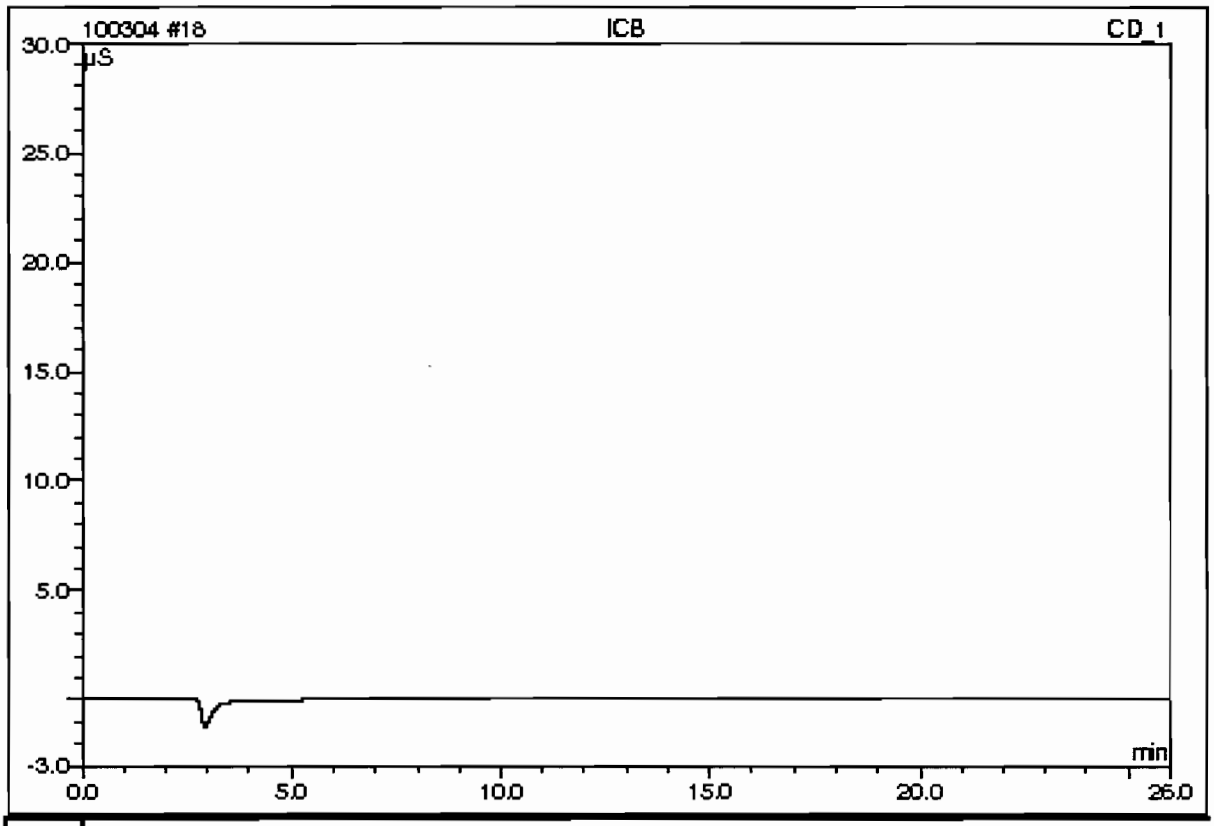

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100320.seq for IC5

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/20/10 16:51		1	100320	VH1
BLK	03/20/10 17:17		1	100320	VH1
ICV	03/20/10 17:43		1	100320	VH1
ICB	03/20/10 18:09		1	100320	VH1
1202070174	03/20/10 18:35	964916	1	100320	VH1
1202070177	03/20/10 19:02	964916	1	100320	VH1
249318001	03/20/10 19:28	964916	50	100320	VH1
1202070175	03/20/10 19:54	964916	50	100320	VH1
1202070176	03/20/10 20:20	964916	50	100320	VH1
249318002	03/20/10 20:46	964916	50	100320	VH1
249318003	03/20/10 21:12	964916	50	100320	VH1
249318004	03/20/10 21:38	964916	50	100320	VH1
249318005	03/20/10 22:04	964916	50	100320	VH1
249318006	03/20/10 22:30	964916	50	100320	VH1
CCV	03/20/10 22:56		1	100320	VH1
CCB	03/20/10 23:22		1	100320	VH1
249318007	03/20/10 23:49	964916	50	100320	VH1

23 WIC100320-02ICV

Sample Name:	WIC100320-02ICV	*Injection Volume:*	50.0
Vial Number:	93	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/20/2010 17:43	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

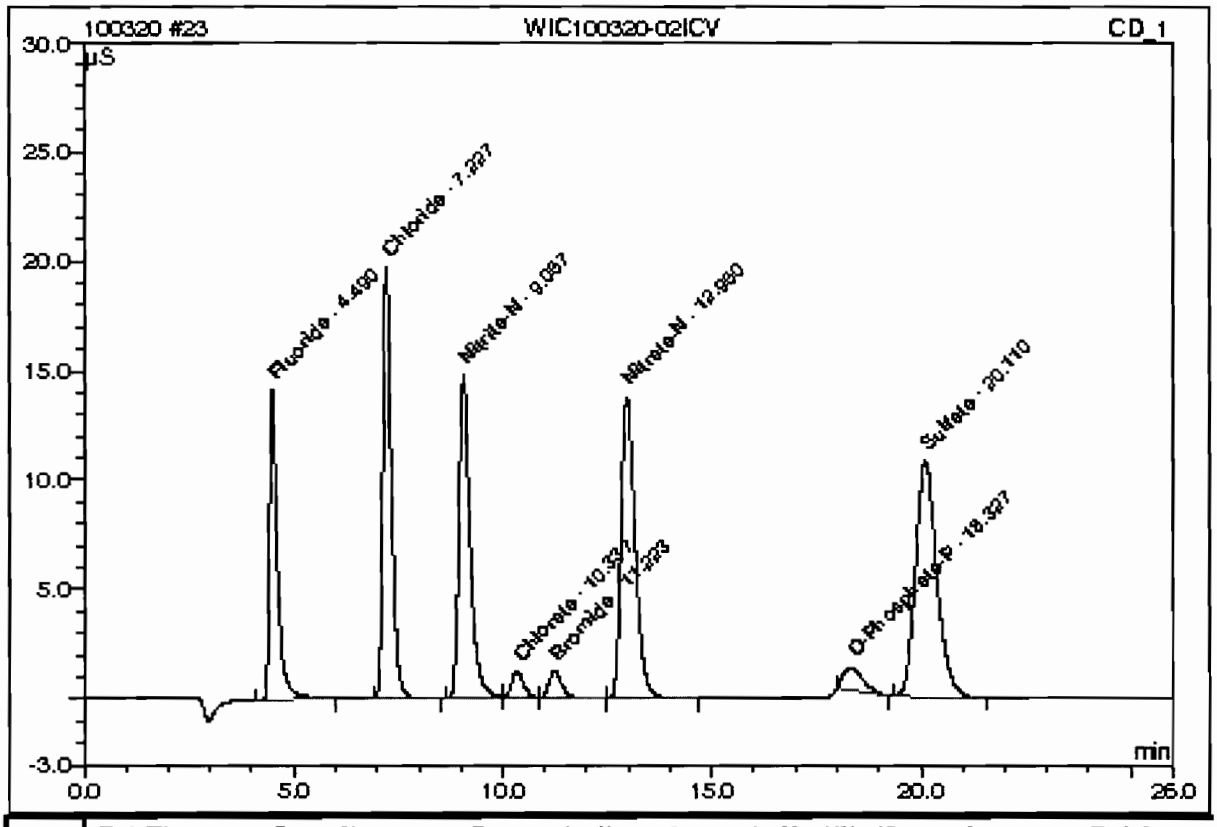

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.49	Fluoride	n.a.	4.6807		3.11959	12.24
2	7.23	Chloride	n.a.	9.0630		4.58983	18.01
3	9.07	Nitrite-N	n.a.	4.7940		4.57231	17.94
4	10.34	Chlorate	n.a.	2.5620		0.41952	1.65
5	11.22	Bromide	n.a.	2.5536		0.44720	1.75
6	12.96	Nitrate-N	n.a.	4.6858		5.41987	21.27
7	18.33	O-Phosphate-P	n.a.	1.8137		0.54278	2.13
8	20.11	Sulfate	n.a.	18.7050		6.37140	25.00
Total:				48.8579	0.000	25.483	100.00

24 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	90	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/20/2010 18:09	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

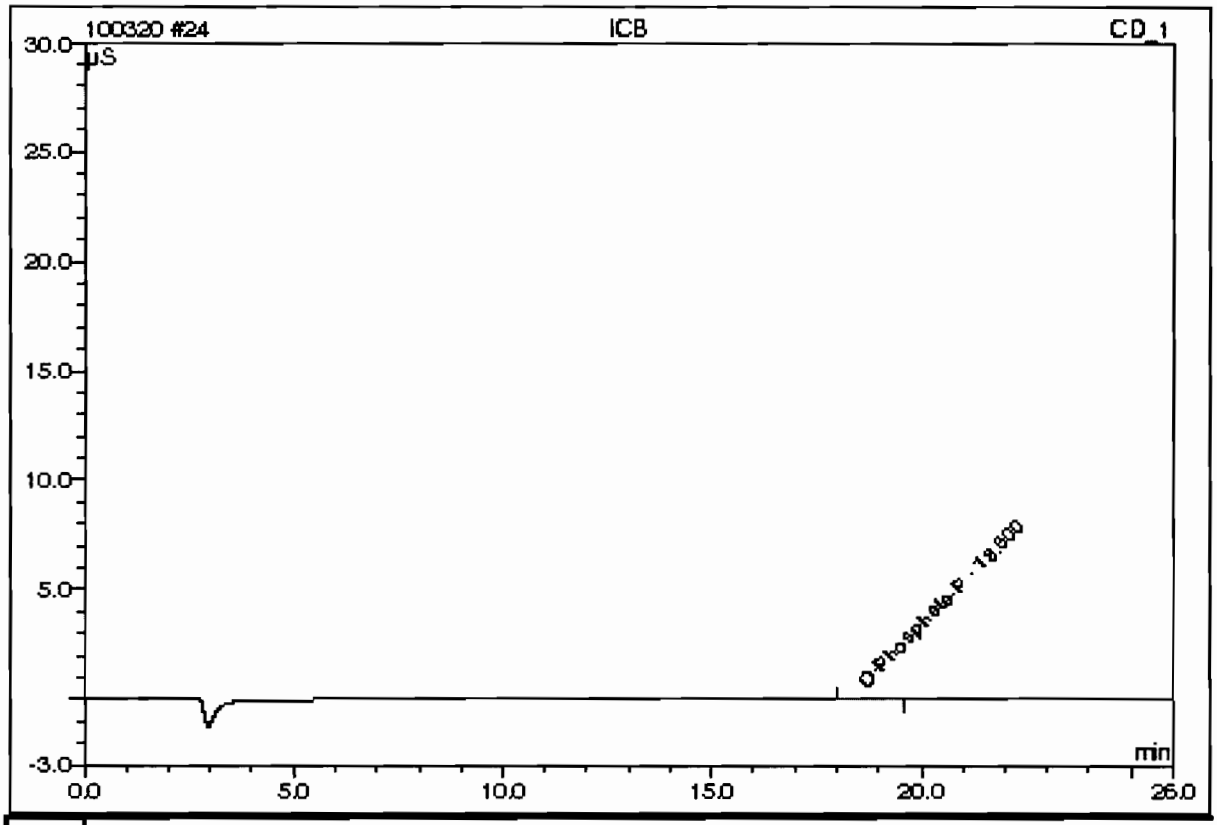

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
1	18.60	O-Phosphate-P	n.a.	0.2159		0.03694	100.00
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.2159	0.000	0.037	100.00

This is runlog for Sequence 100320.seq for IC5

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
CVH	03/21/10 00:15		1	100320	VH1
CCB	03/21/10 00:41		1	100320	VH1
1202074932	03/21/10 01:07	966823	1	100320	VH1
1202074935	03/21/10 01:33	966823	1	100320	VH1
248023001	03/21/10 01:59	966823	1	100320	VH1
1202074933	03/21/10 02:25	966823	1	100320	VH1
1202074934	03/21/10 02:51	966823	1	100320	VH1
248044001	03/21/10 03:17	966823	1	100320	VH1
248044003	03/21/10 03:43	966823	1	100320	VH1
248044005	03/21/10 04:10	966823	1	100320	VH1
248044006	03/21/10 04:36	966823	1	100320	VH1
248164001	03/21/10 05:02	966823	1	100320	VH1
CCV	03/21/10 05:28		1	100320	VH1
CCB	03/21/10 05:54		1	100320	VH1
248164003	03/21/10 06:20	966823	1	100320	VH1
CVH	03/21/10 06:46		1	100320	VH1
CCB	03/21/10 07:12		1	100320	VH1
1202069031	03/21/10 07:38	964420	1	100320	VH1
1202069034	03/21/10 08:04	964420	10	100320	VH1
248999001	03/21/10 08:30	964420	1	100320	VH1
1202069032	03/21/10 08:57	964420	1	100320	VH1
1202069033	03/21/10 09:23	964420	1	100320	VH1
CVH	03/21/10 09:49		1	100320	VH1
CCB	03/21/10 10:15		1	100320	VH1
BLK	03/21/10 10:41		1	100320	VH1
BLK	03/21/10 11:16		1	100320	VH1
BLK	03/21/10 11:51		1	100320	VH1
ICV	03/21/10 12:26		1	100320	VH1

ICB	03/21/10 13:01		1	100320	VH1
1202070164	03/21/10 13:36	964914	1	100320	VH1
1202070169	03/21/10 14:11	964914	1	100320	VH1
248778001	03/21/10 14:47	964914	1	100320	VH1
1202070165	03/21/10 15:22	964914	1	100320	VH1
1202070167	03/21/10 15:57	964914	1	100320	VH1
248783001	03/21/10 16:32	964914	1	100320	VH1
248792001	03/21/10 17:07	964914	1	100320	VH1
248799001	03/21/10 17:42	964914	1	100320	VH1
249057004	03/21/10 18:17	964914	1	100320	VH1
249064001	03/21/10 18:52	964914	1	100320	VH1
CCV	03/21/10 19:27		1	100320	VH1
CCB	03/21/10 20:02		1	100320	VH1
249072001	03/21/10 20:37	964914	1	100320	VH1
249076001	03/21/10 21:13	964914	1	100320	VH1
249076002	03/21/10 21:48	964914	1	100320	VH1
249097001	03/21/10 22:23	964914	1	100320	VH1
249102001	03/21/10 22:58	964914	1	100320	VH1
249248005	03/21/10 23:33	964914	1	100320	VH1

38 WIC100320-02CVH

Sample Name:	WIC100320-02CVH	*Injection Volume:*	50.0
Vial Number:	93	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 0:15	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

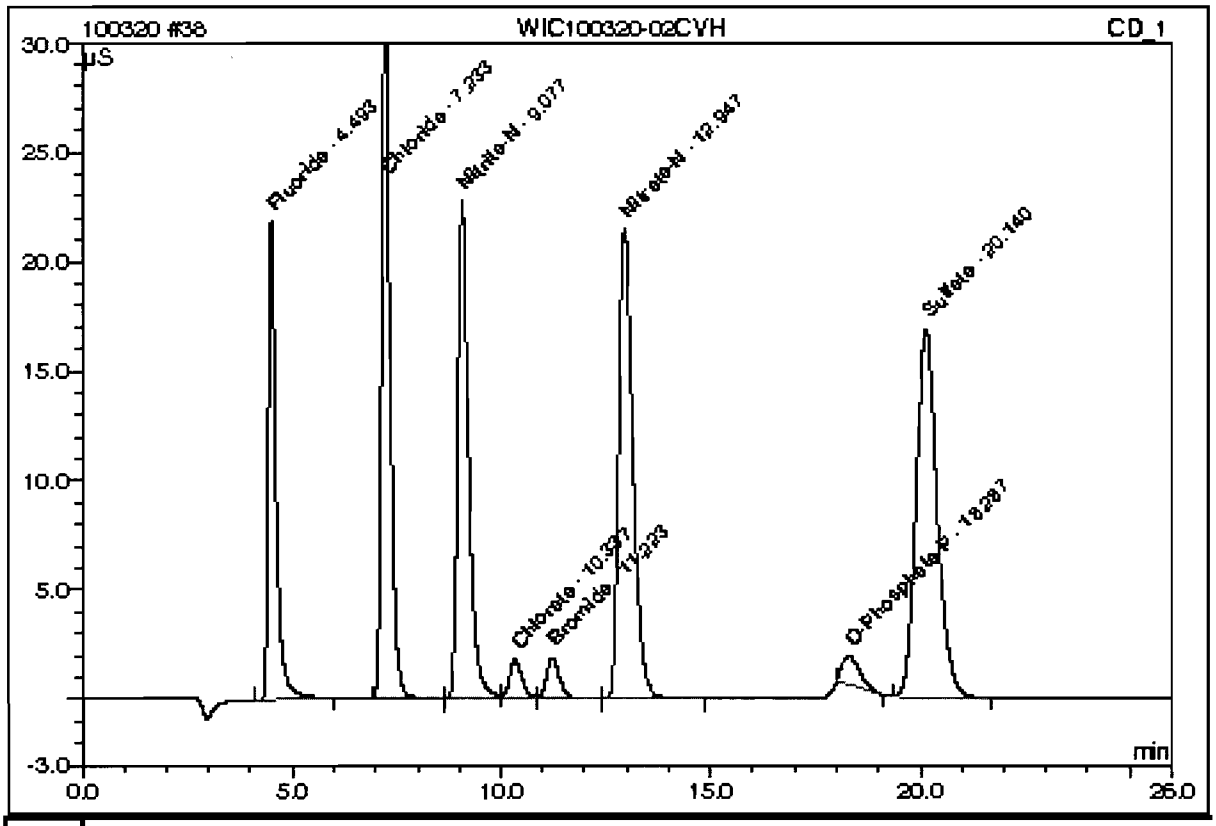

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.49	Fluoride	n.a.	7.1264		4.77431	12.17
2	7.23	Chloride	n.a.	14.0241		7.13072	18.18
3	9.08	Nitrite-N	n.a.	7.3120		7.01040	17.88
4	10.34	Chlorate	n.a.	3.8002		0.62789	1.60
5	11.22	Bromide	n.a.	3.7803		0.66576	1.70
6	12.95	Nitrate-N	n.a.	7.2743		8.47896	21.62
7	18.29	O-Phosphate-P	n.a.	2.0917		0.63081	1.61
8	20.14	Sulfate	n.a.	28.8793		9.89591	25.24
Total:				74.2884	0.000	39.215	100.00

39 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	90	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 0:41	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

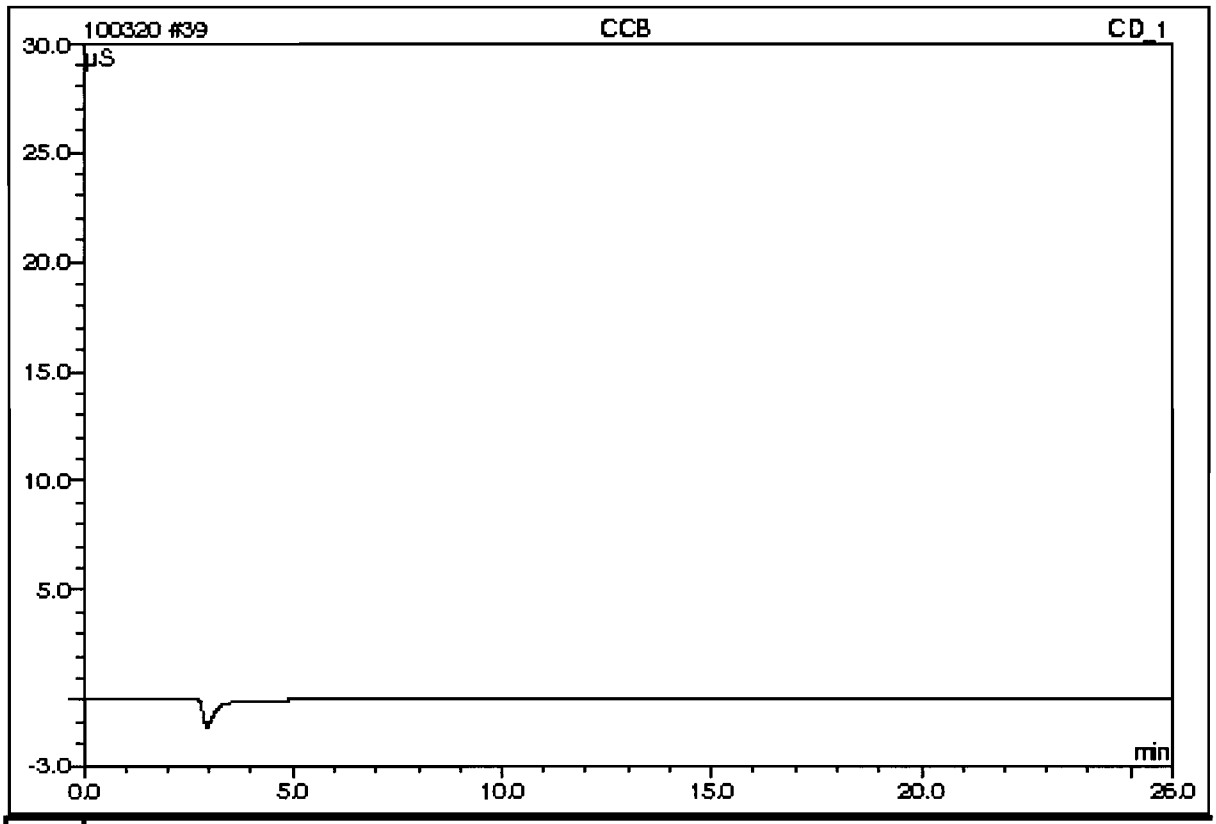

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

40 1202074932/966823/1/1/MB

Sample Name:	1202074932/966823/1/1/MB	*Injection Volume:*	50.0
Vial Number:	91	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 1:07	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

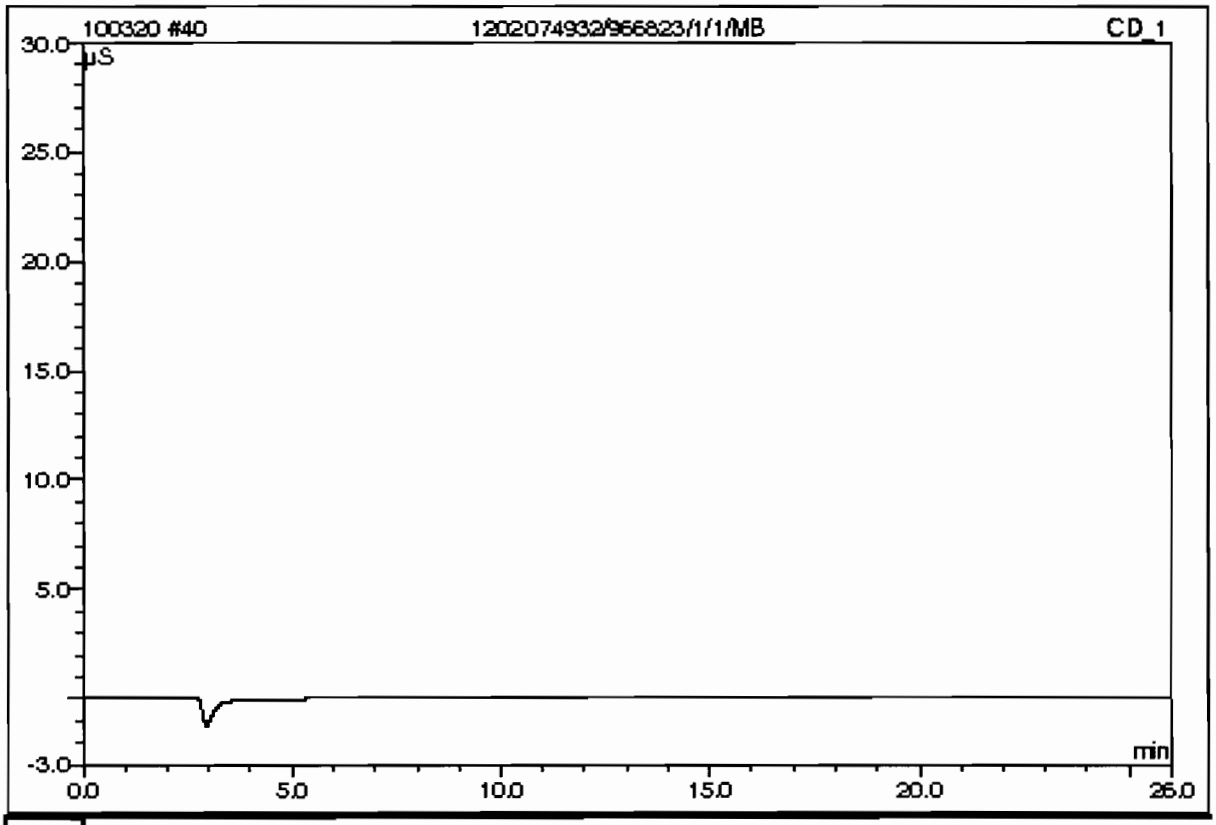

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

41 1202074935/966823/1/1/LCS

Sample Name:	1202074935/966823/1/1/LCS	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 1:33	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

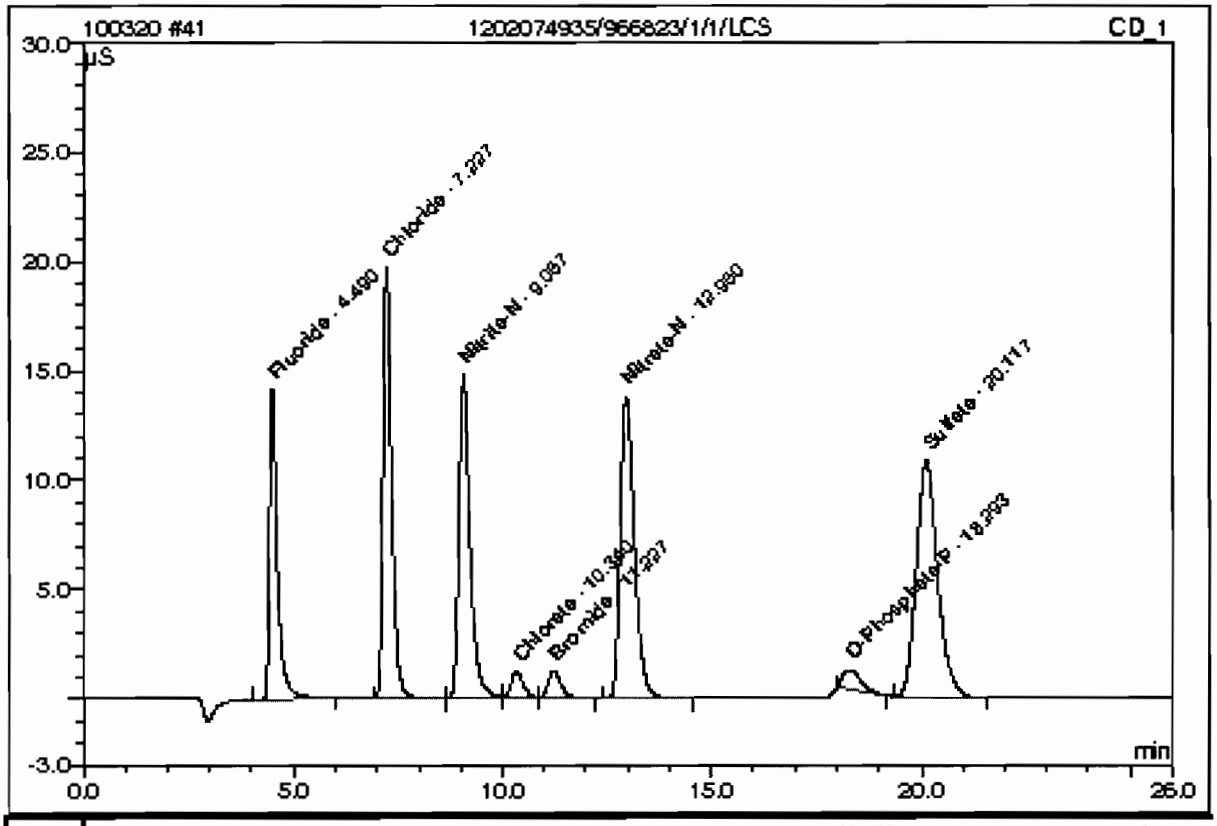

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.49	Fluoride	n.a.	4.6807		3.11957	12.27
2	7.23	Chloride	n.a.	9.0781		4.59758	18.09
3	9.07	Nitrite-N	n.a.	4.7993		4.57750	18.01
4	10.34	Chlorate	n.a.	2.5528		0.41797	1.64
5	11.23	Bromide	n.a.	2.5273		0.44250	1.74
6	12.96	Nitrate-N	n.a.	4.6932		5.42860	21.36
7	18.29	O-Phosphate-P	n.a.	1.4831		0.43814	1.72
8	20.12	Sulfate	n.a.	18.7774		6.39647	25.16
Total:				48.5920	0.000	25.418	100.00

42 248023001/966823/1/1/

Sample Name:	248023001/966823/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 1:59	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

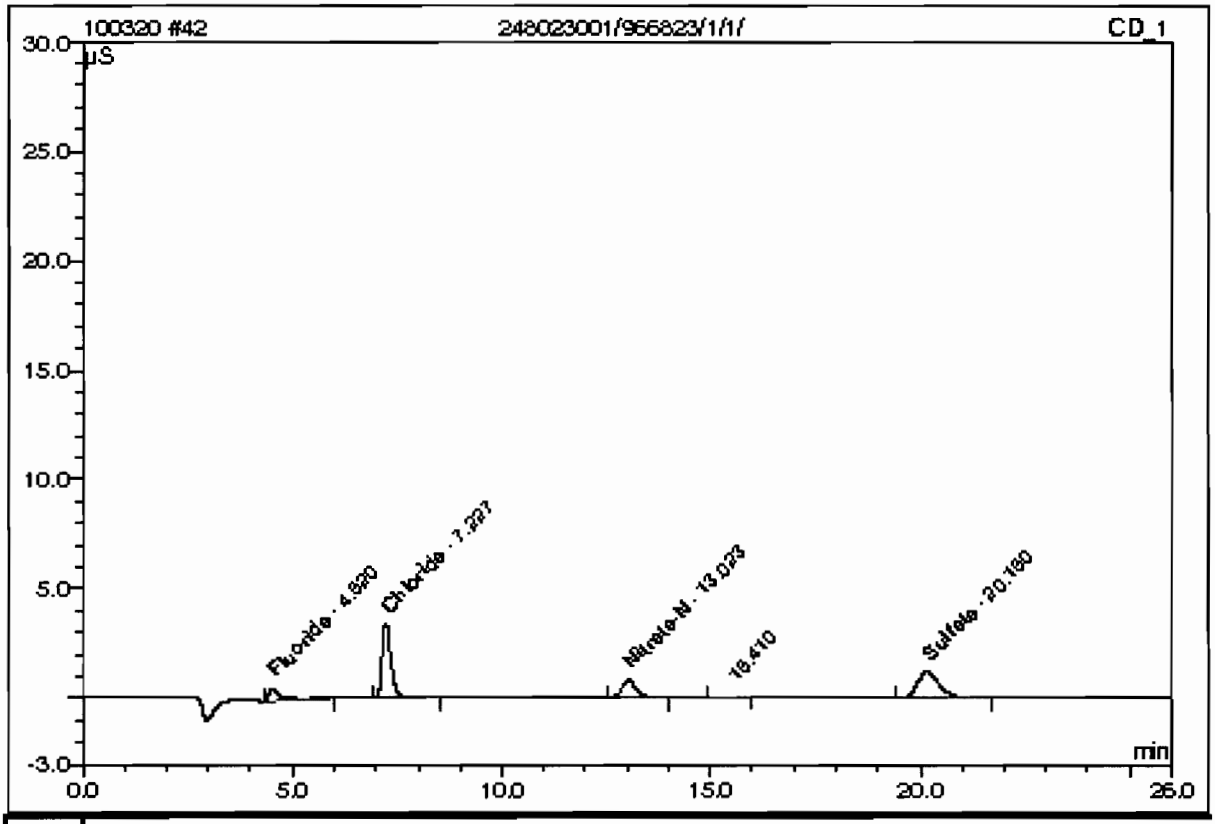

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.52	Fluoride	n.a.	0.3749		0.20634	9.46
2	7.23	Chloride	n.a.	1.7509		0.84486	38.75
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.02	Nitrate-N	n.a.	0.3883		0.34104	15.64
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	20.16	Sulfate	n.a.	2.4711		0.74774	34.29
Total:				4.9853	0.000	2.140	98.14

42 248023001/966823/1/1/

Sample Name:	248023001/966823/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 1:59	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

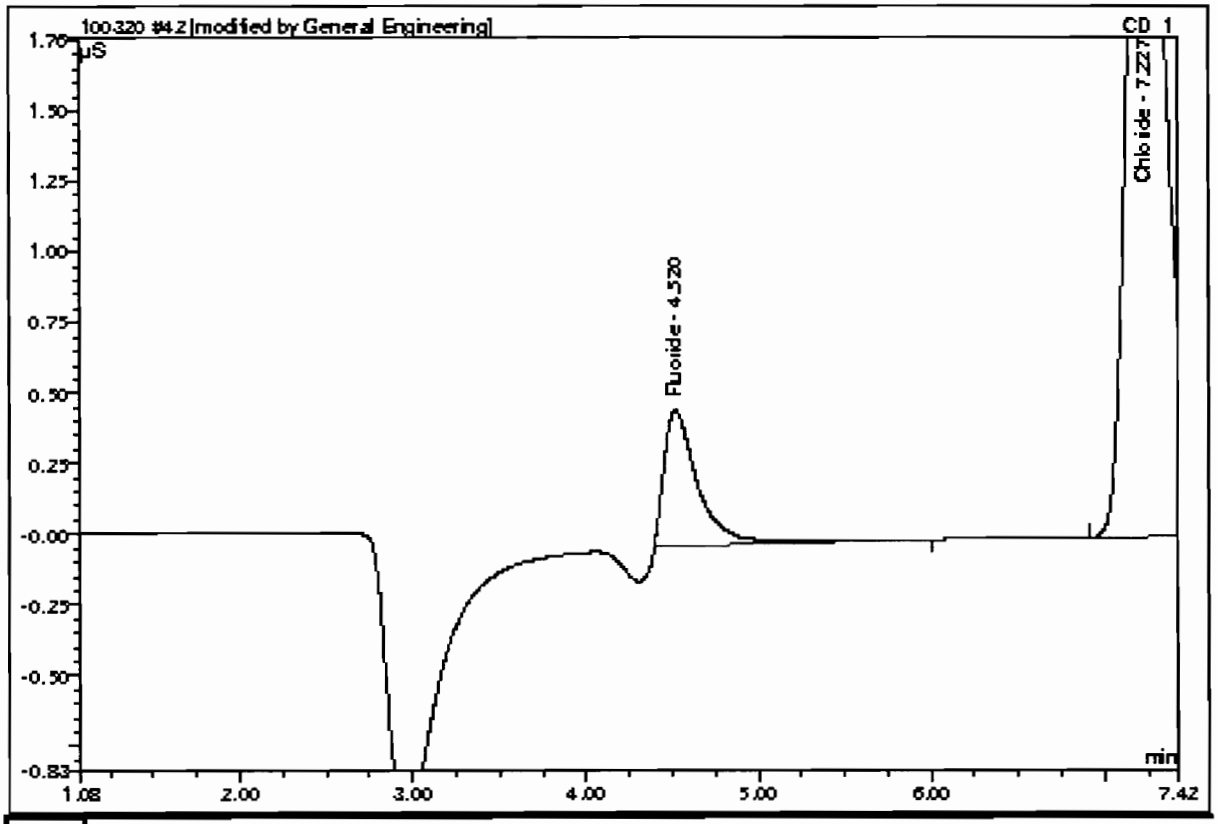

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.52	Fluoride	n.a.	0.2330		0.11029	5.29
2	7.23	Chloride	n.a.	1.7509		0.84486	40.53
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.02	Nitrate-N	n.a.	0.3883		0.34104	16.36
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	20.16	Sulfate	n.a.	2.4711		0.74774	35.87
Total:				4.8433	0.000	2.044	98.05

42 248023001/966823/1/1/

Sample Name:	248023001/966823/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 1:59	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

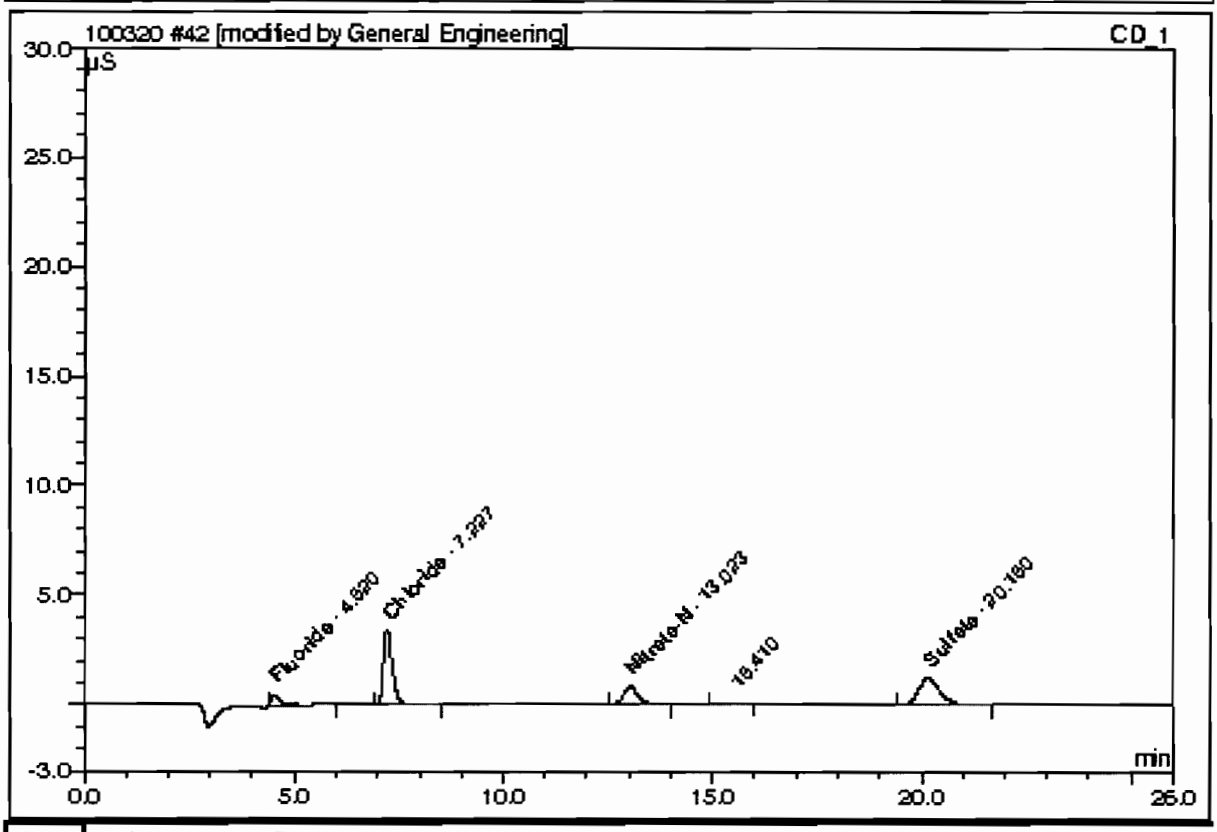

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.52	Fluoride	n.a.	0.2330		0.11029	5.29
2	7.23	Chloride	n.a.	1.7509		0.84486	40.53
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.02	Nitrate-N	n.a.	0.3883		0.34104	16.36
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	20.16	Sulfate	n.a.	2.4711		0.74774	35.87
Total:				4.8433	0.000	2.044	98.05

43 1202074933/966823/1/1/DUP

Sample Name:	1202074933/966823/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 2:25	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

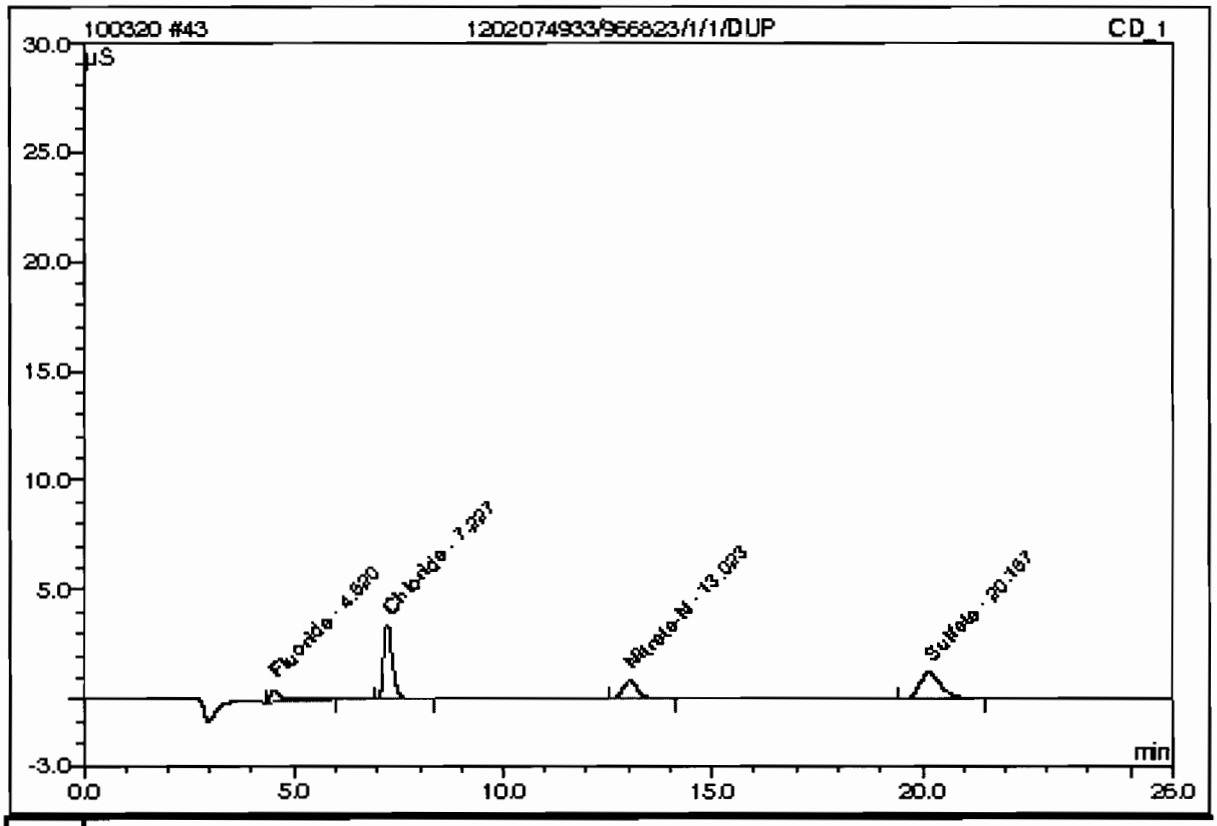

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.52	Fluoride	n.a.	0.3736		0.20546	9.59
2	7.23	Chloride	n.a.	1.7432		0.84094	39.24
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.02	Nitrate-N	n.a.	0.3910		0.34420	16.06
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	20.17	Sulfate	n.a.	2.4842		0.75226	35.11
Total:				4.9920	0.000	2.143	100.00

43 1202074933/966823/1/1/DUP

Sample Name:	1202074933/966823/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 2:25	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

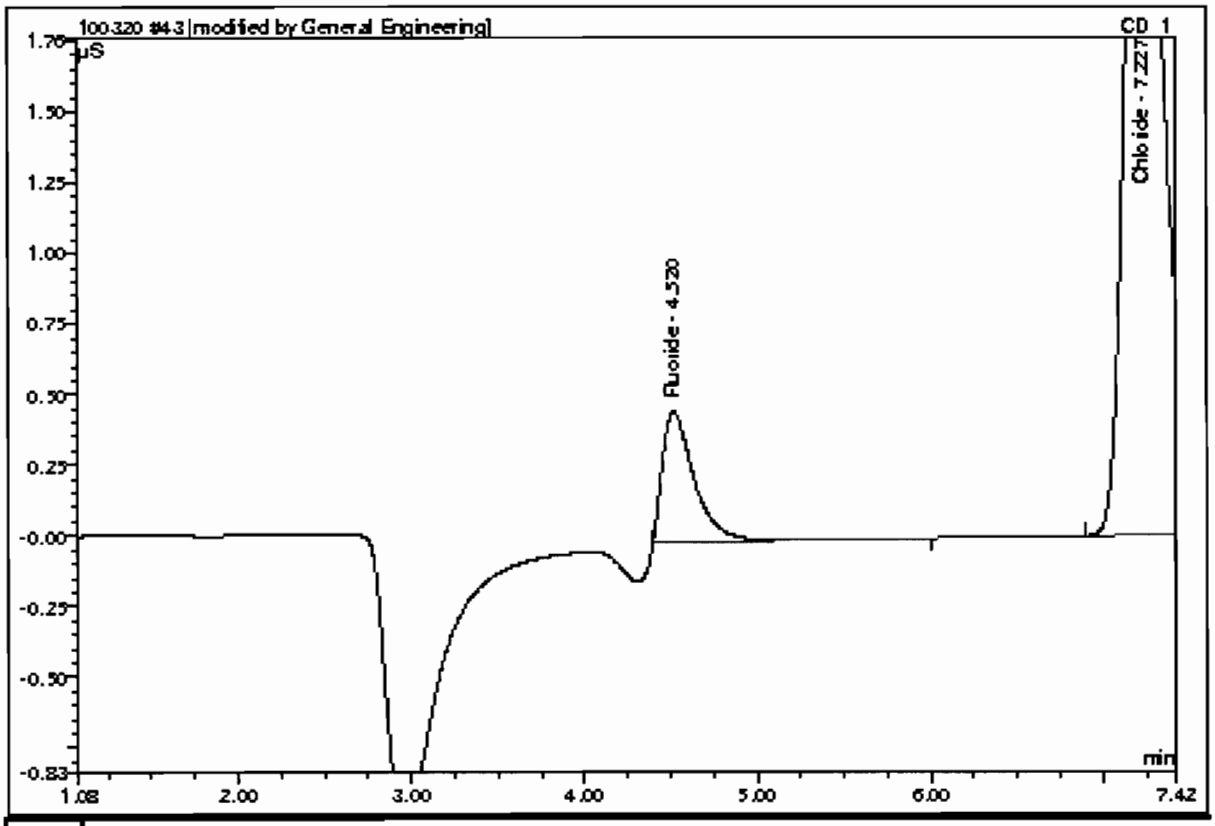

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.52	Fluoride	n.a.	0.2138		0.09729	4.78
2	7.23	Chloride	n.a.	1.7432		0.84094	41.33
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.02	Nitrate-N	n.a.	0.3910		0.34420	16.92
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	20.17	Sulfate	n.a.	2.4842		0.75226	36.97
Total:				4.8321	0.000	2.035	100.00

43 1202074933/966823/1/1/DUP

Sample Name:	1202074933/966823/1/1/DUP	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 2:25	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

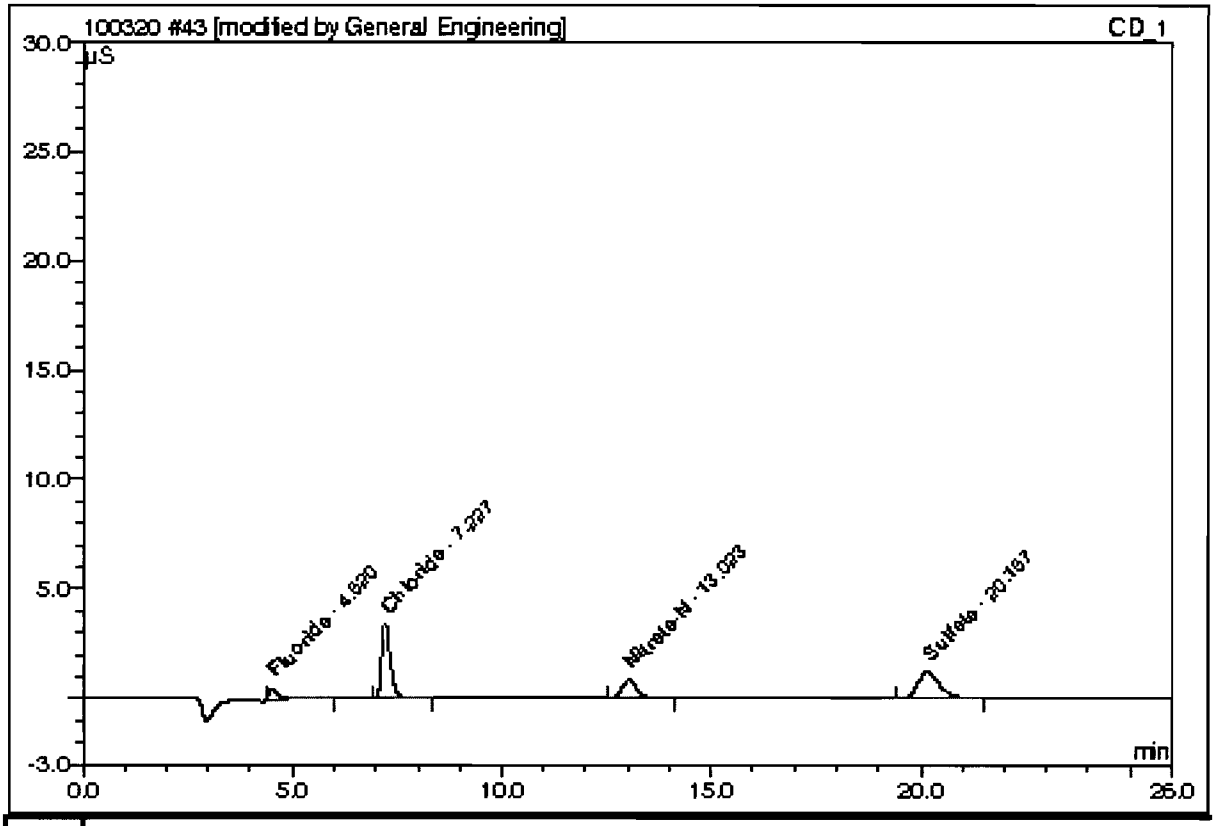

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.52	Fluoride	n.a.	0.2138		0.09729	4.78
2	7.23	Chloride	n.a.	1.7432		0.84094	41.33
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.02	Nitrate-N	n.a.	0.3910		0.34420	16.92
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
4	20.17	Sulfate	n.a.	2.4842		0.75226	36.97
Total:				4.8321	0.000	2.035	100.00

44 1202074934/966823/1/1/PS

Sample Name:	1202074934/966823/1/1/PS	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 2:51	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

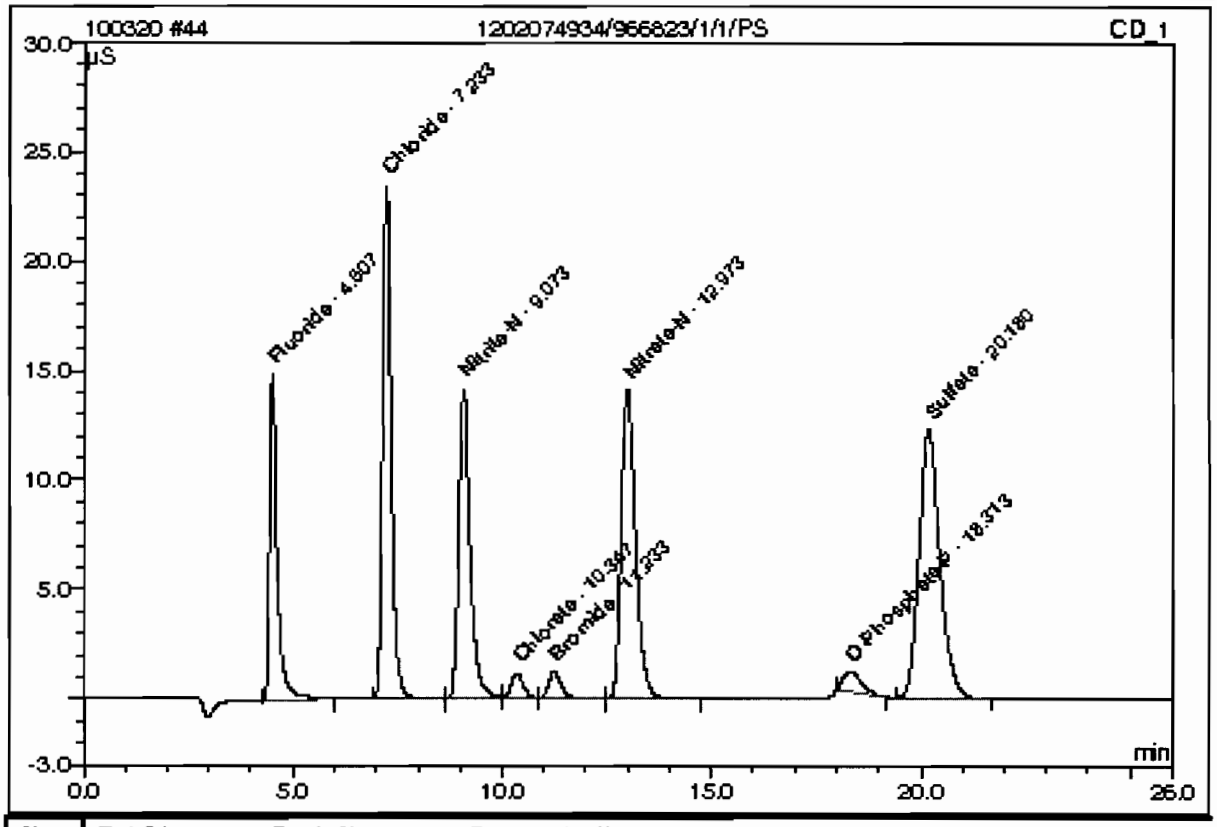

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.51	Fluoride	n.a.	4.8605		3.24122	11.90
2	7.23	Chloride	n.a.	10.8058		5.48243	20.12
3	9.07	Nitrite-N	n.a.	4.6446		4.42772	16.25
4	10.35	Chlorate	n.a.	2.4947		0.40819	1.50
5	11.23	Bromide	n.a.	2.5107		0.43955	1.61
6	12.97	Nitrate-N	n.a.	4.9142		5.68972	20.88
7	18.31	O-Phosphate-P	n.a.	1.5545		0.46073	1.69
8	20.18	Sulfate	n.a.	20.7998		7.09706	26.05
Total:				52.5848	0.000	27.247	100.00

44 1202074934/966823/1/1/PS

Sample Name:	1202074934/966823/1/1/PS	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 2:51	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

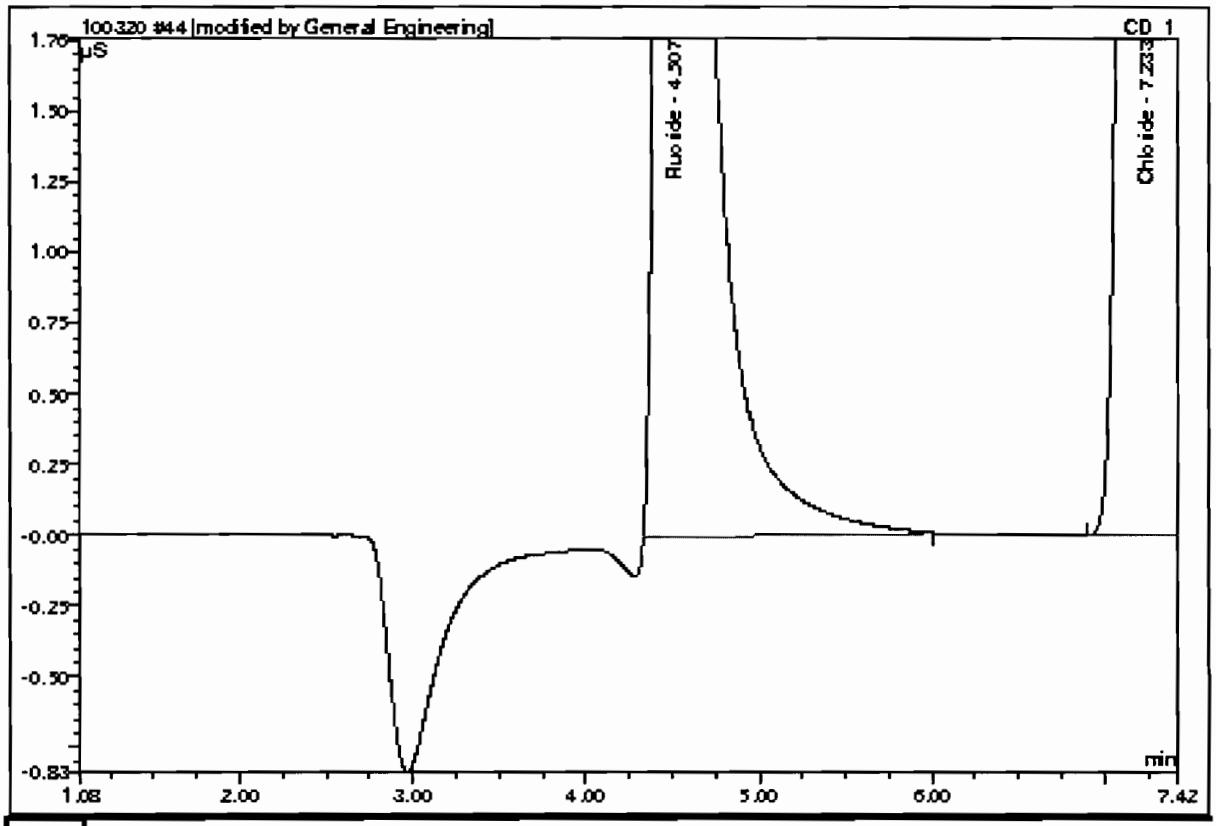

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.51	Fluoride	n.a.	4.6939		3.12847	11.53
2	7.23	Chloride	n.a.	10.8058		5.48243	20.21
3	9.07	Nitrite-N	n.a.	4.6446		4.42772	16.32
4	10.35	Chlorate	n.a.	2.4947		0.40819	1.50
5	11.23	Bromide	n.a.	2.5107		0.43955	1.62
6	12.97	Nitrate-N	n.a.	4.9142		5.68972	20.97
7	18.31	O-Phosphate-P	n.a.	1.5545		0.46073	1.70
8	20.18	Sulfate	n.a.	20.7998		7.09706	26.16
Total:				52.4182	0.000	27.134	100.00

44 1202074934/966823/1/1/PS

Sample Name:	1202074934/966823/1/1/PS	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 2:51	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

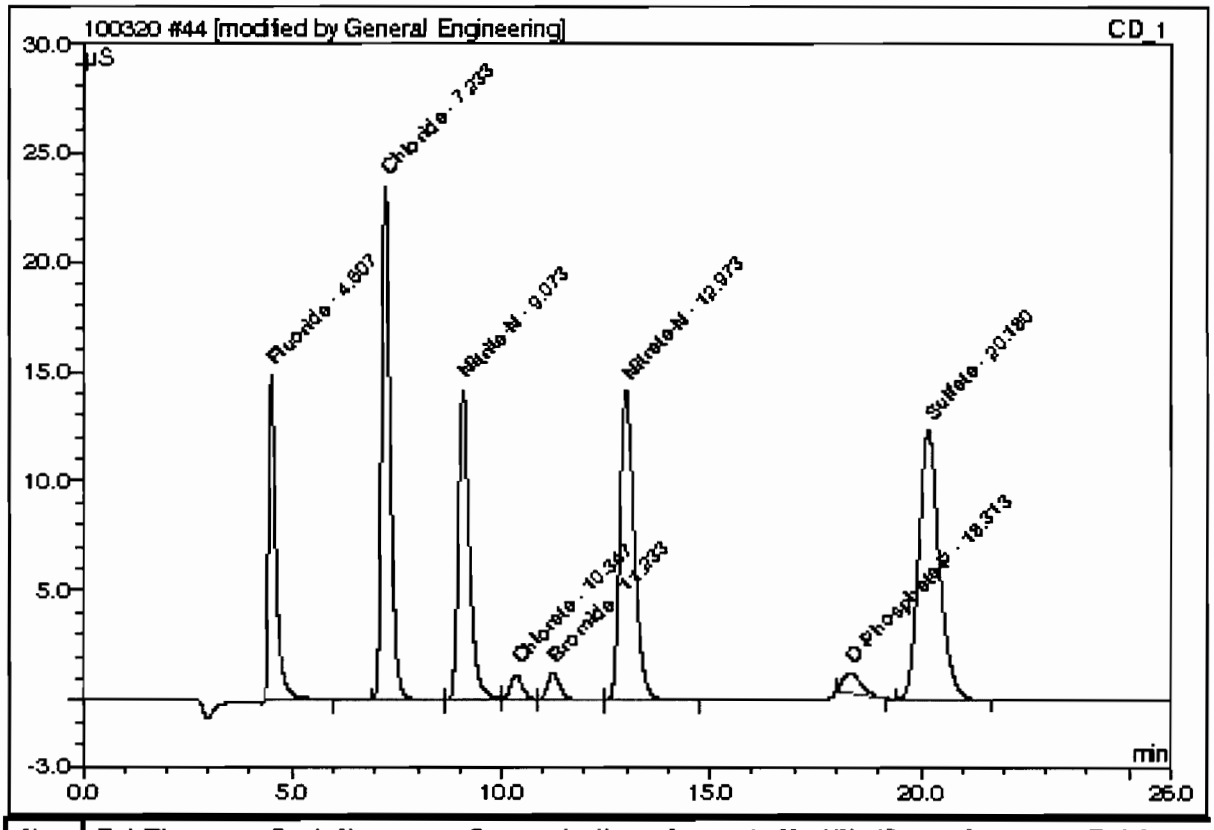

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.51	Fluoride	n.a.	4.6939		3.12847	11.53
2	7.23	Chloride	n.a.	10.8058		5.48243	20.21
3	9.07	Nitrite-N	n.a.	4.6446		4.42772	16.32
4	10.35	Chlorate	n.a.	2.4947		0.40819	1.50
5	11.23	Bromide	n.a.	2.5107		0.43955	1.62
6	12.97	Nitrate-N	n.a.	4.9142		5.68972	20.97
7	18.31	O-Phosphate-P	n.a.	1.5545		0.46073	1.70
8	20.18	Sulfate	n.a.	20.7998		7.09706	26.16
Total:				52.4182	0.000	27.134	100.00

45 248044001/966823/1/1/

Sample Name:	248044001/966823/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 3:17	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

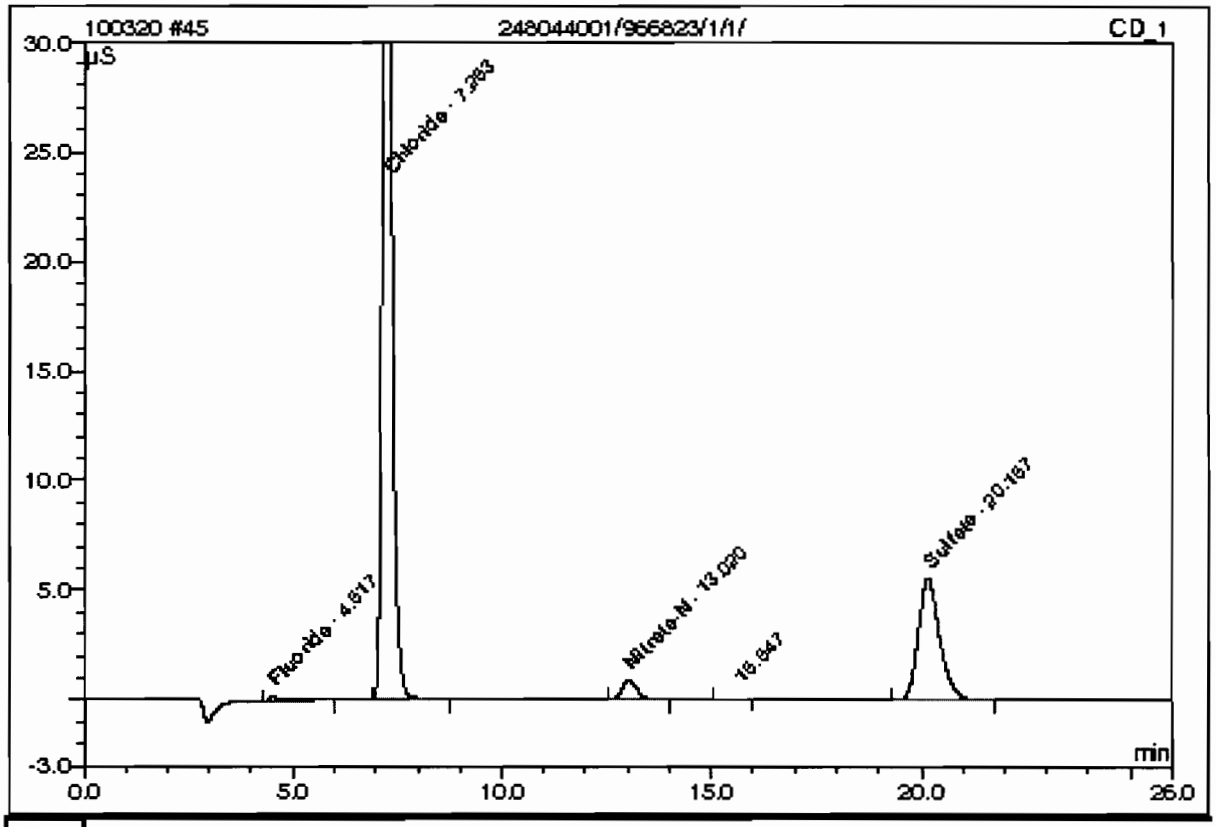

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.52	Fluoride	n.a.	0.1986		0.08704	0.56
2	7.25	Chloride	n.a.	23.2794		11.87091	75.90
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.02	Nitrate-N	n.a.	0.4109		0.36773	2.35
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	20.16	Sulfate	n.a.	9.8182		3.29287	21.06
Total:				33.7071	0.000	15.619	99.87

45 248044001/966823/1/1/

Sample Name:	248044001/966823/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 3:17	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

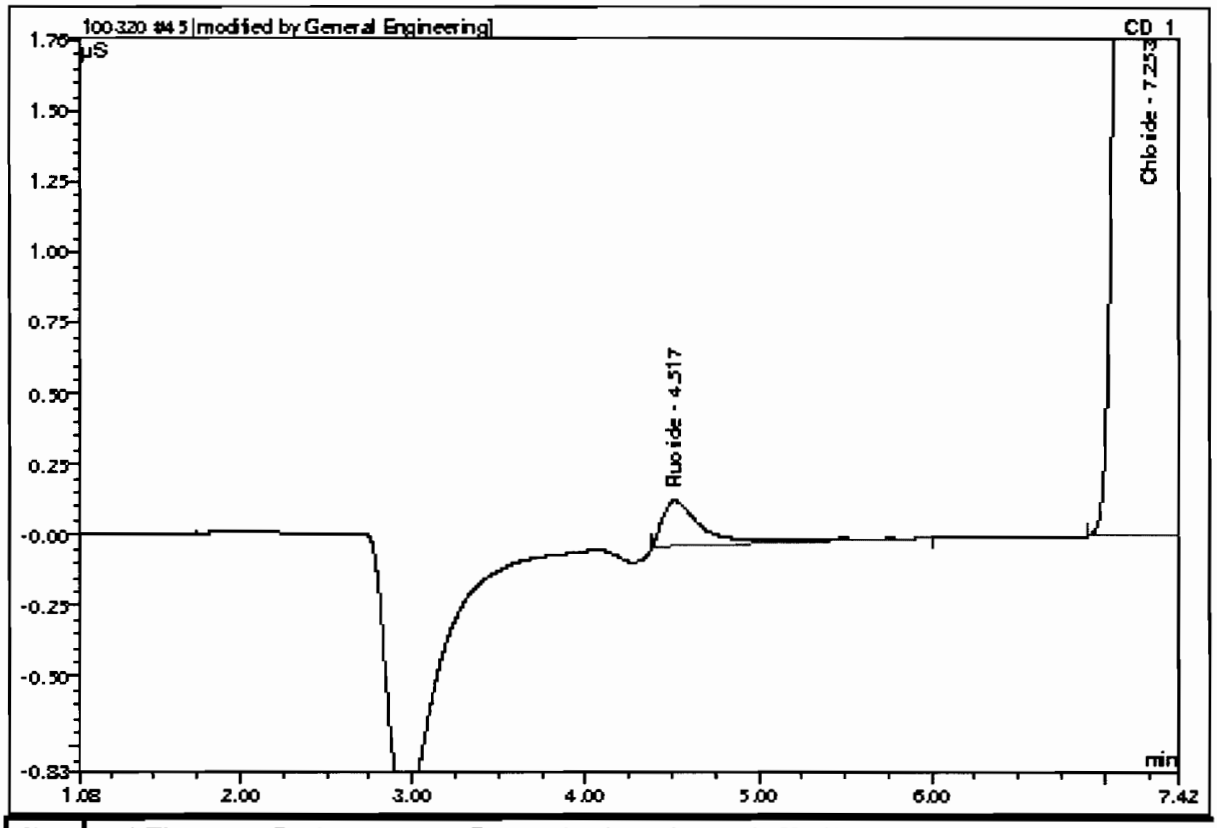

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.52	Fluoride	n.a.	0.1381		0.04611	0.30
2	7.25	Chloride	n.a.	23.2794		11.87091	76.10
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.02	Nitrate-N	n.a.	0.4109		0.36773	2.36
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	20.16	Sulfate	n.a.	9.8182		3.29287	21.11
Total:				33.6466	0.000	15.578	99.87

45 248044001/966823/1/1/

Sample Name:	248044001/966823/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 3:17	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

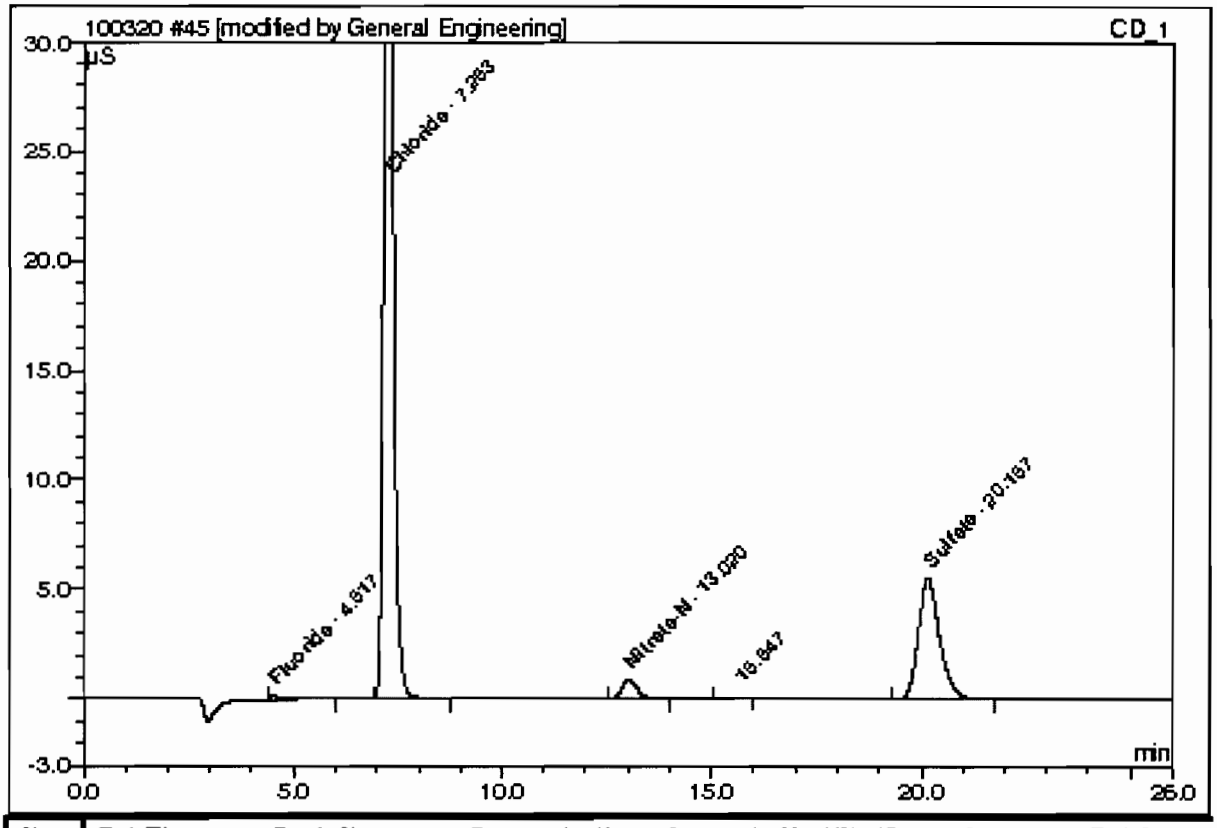

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.52	Fluoride	n.a.	0.1381		0.04611	0.30
2	7.25	Chloride	n.a.	23.2794		11.87091	76.10
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.02	Nitrate-N	n.a.	0.4109		0.36773	2.36
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	20.16	Sulfate	n.a.	9.8182		3.29287	21.11
Total:				33.6466	0.000	15.578	99.87

46 248044003/966823/1/1/

Sample Name:	248044003/966823/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 3:43	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

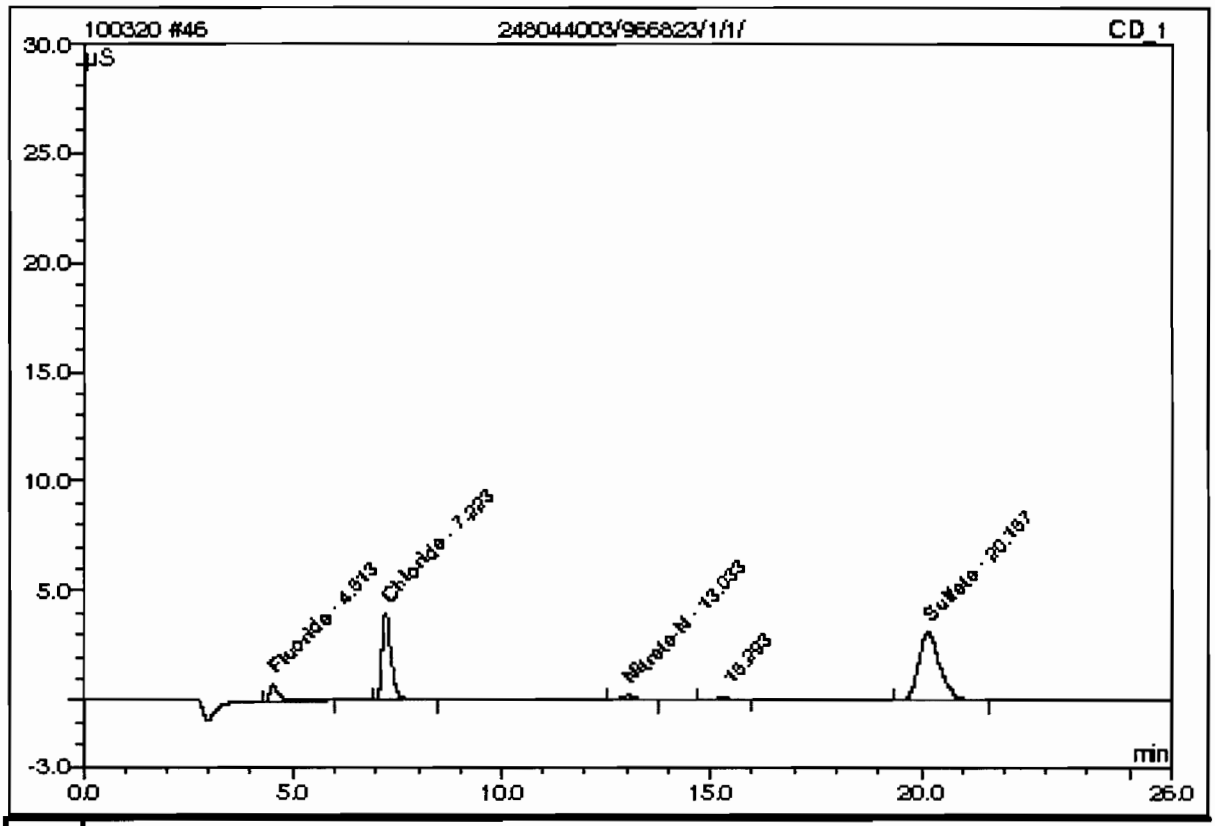

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.51	Fluoride	n.a.	0.4428		0.25228	7.72
2	7.22	Chloride	n.a.	2.0524		0.99928	30.58
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.03	Nitrate-N	n.a.	0.1802		0.09511	2.91
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	20.17	Sulfate	n.a.	5.6870		1.86178	56.98
Total:				8.3625	0.000	3.208	98.19

46 248044003/966823/1/1/

Sample Name:	248044003/966823/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 3:43	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

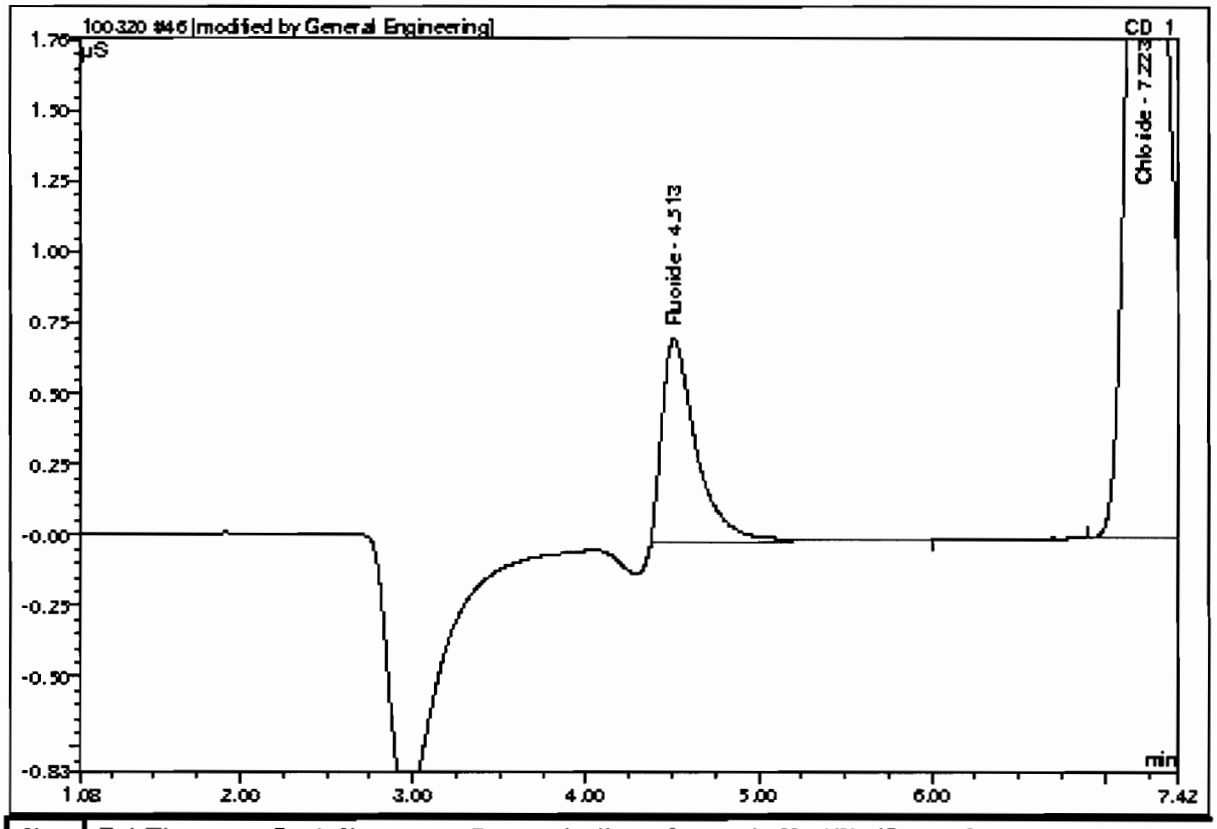

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.51	Fluoride	n.a.	0.3145		0.16547	5.20
2	7.22	Chloride	n.a.	2.0524		0.99928	31.42
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.03	Nitrate-N	n.a.	0.1802		0.09511	2.99
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	20.17	Sulfate	n.a.	5.6870		1.86178	58.53
Total:				8.2342	0.000	3.122	98.14

46 248044003/966823/1/1/

Sample Name:	248044003/966823/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 3:43	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

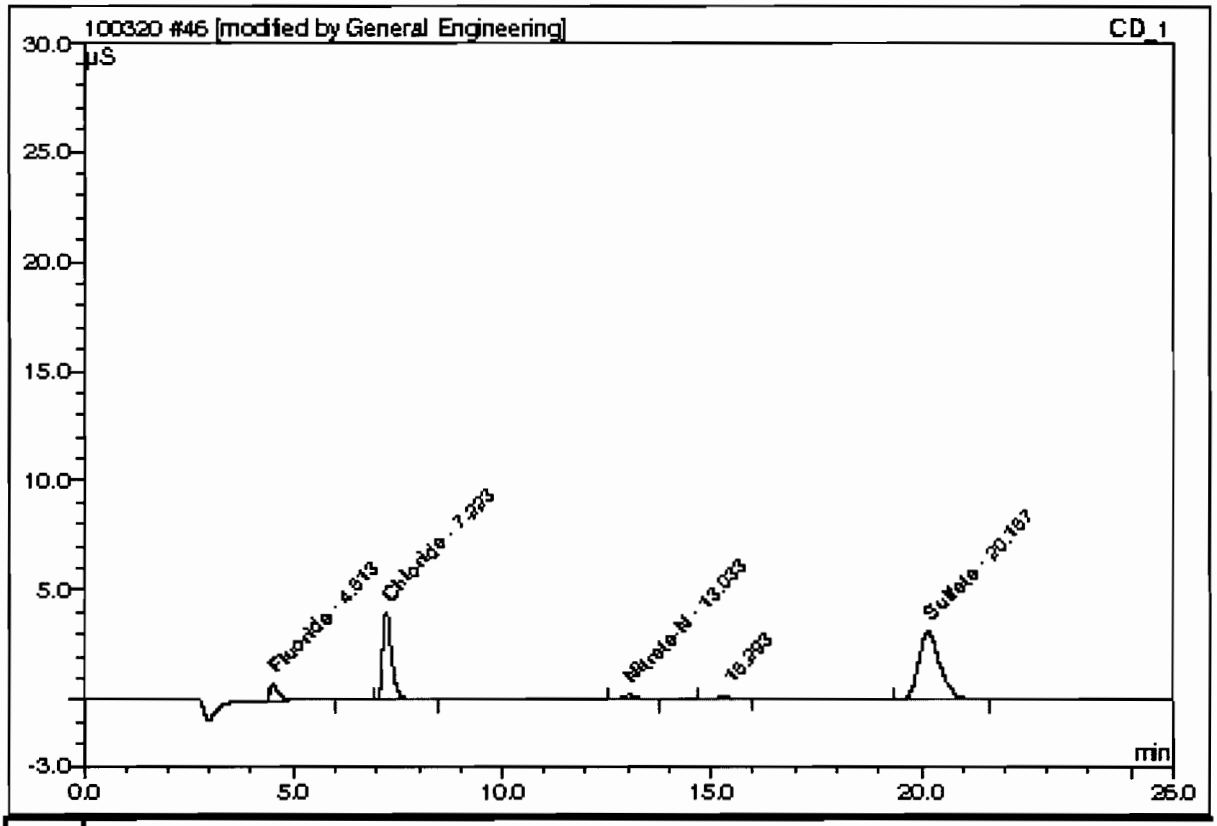

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.51	Fluoride	n.a.	0.3145		0.16547	5.20
2	7.22	Chloride	n.a.	2.0524		0.99928	31.42
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
3	13.03	Nitrate-N	n.a.	0.1802		0.09511	2.99
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
5	20.17	Sulfate	n.a.	5.6870		1.86178	58.53
Total:				8.2342	0.000	3.122	98.14

47 248044005/966823/1/1/

Sample Name:	248044005/966823/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 4:10	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

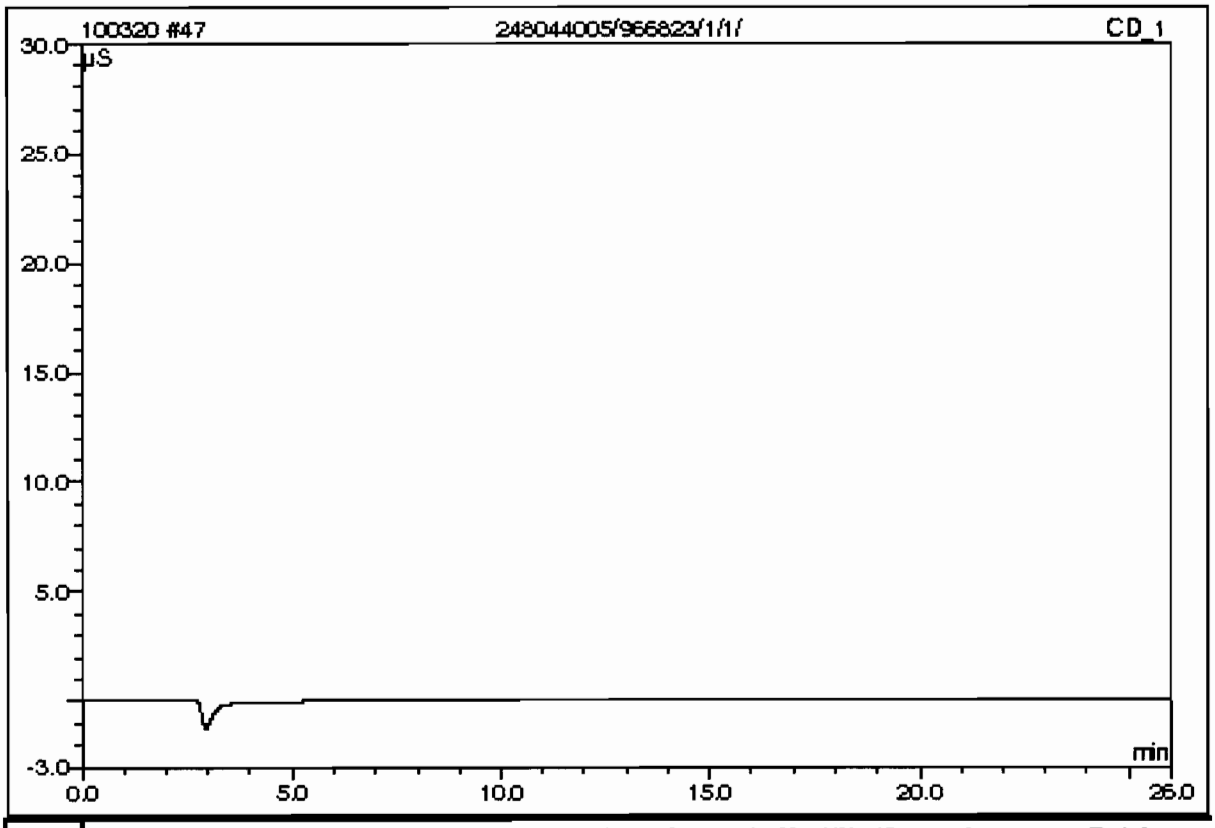

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

47 248044005/966823/1/1/

Sample Name:	248044005/966823/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 4:10	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

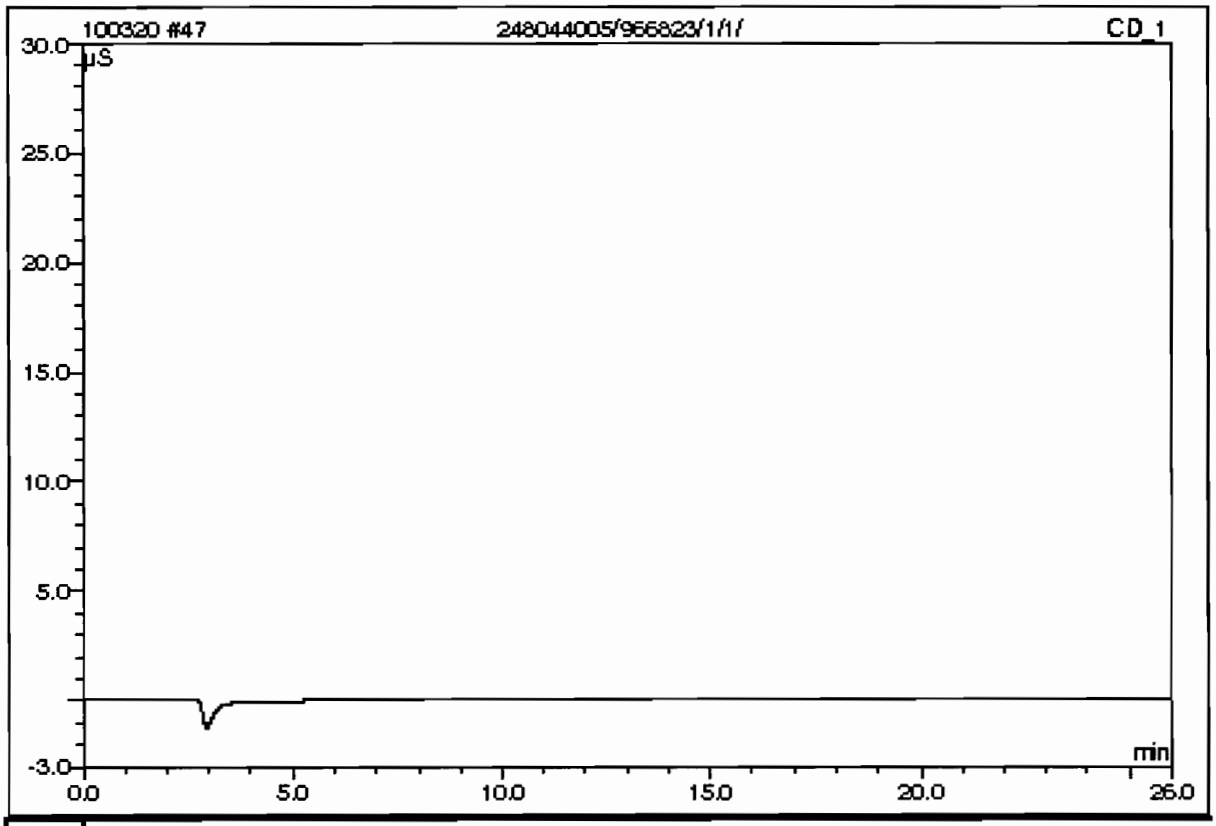

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

48 248044006/966823/1/1/

Sample Name:	248044006/966823/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 4:36	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

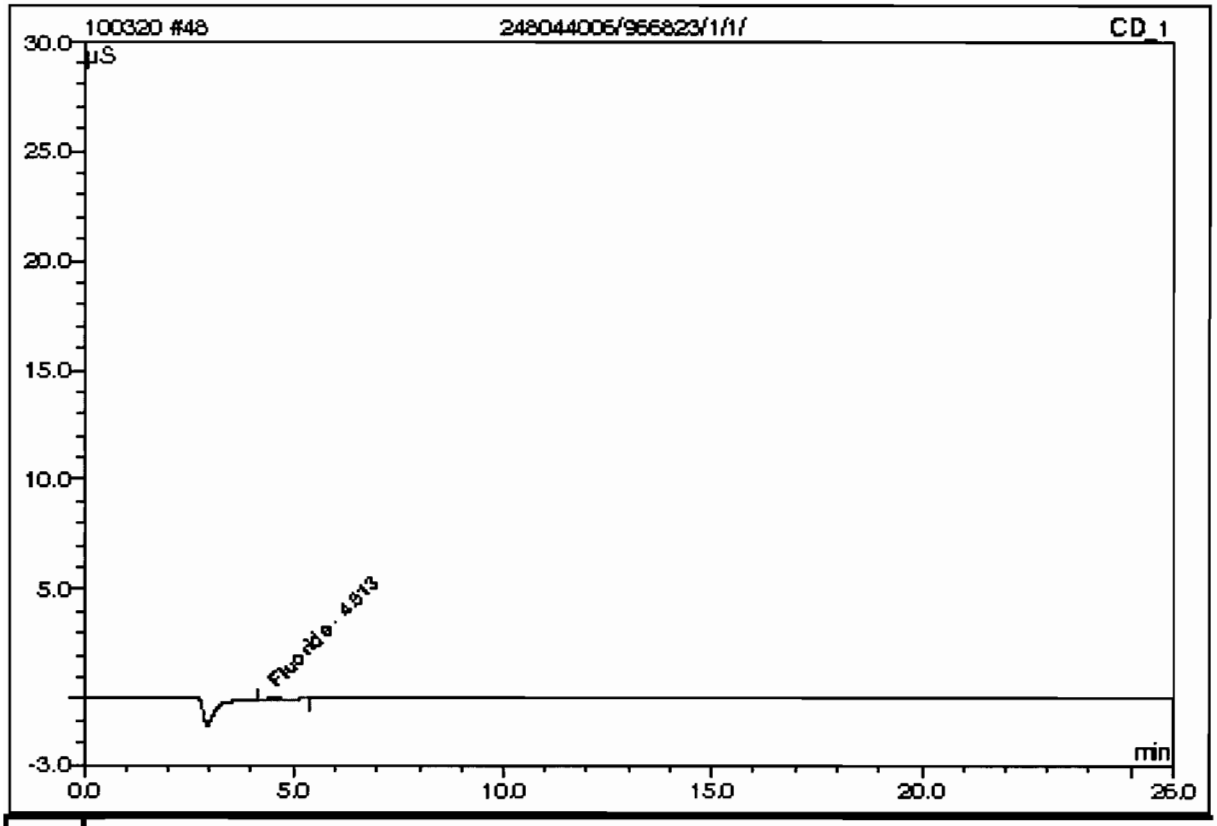

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.51	Fluoride	n.a.	0.0982		0.01913	100.00
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0982	0.000	0.019	100.00

48 248044006/966823/1/1/

Sample Name:	248044006/966823/1/1/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 4:36	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

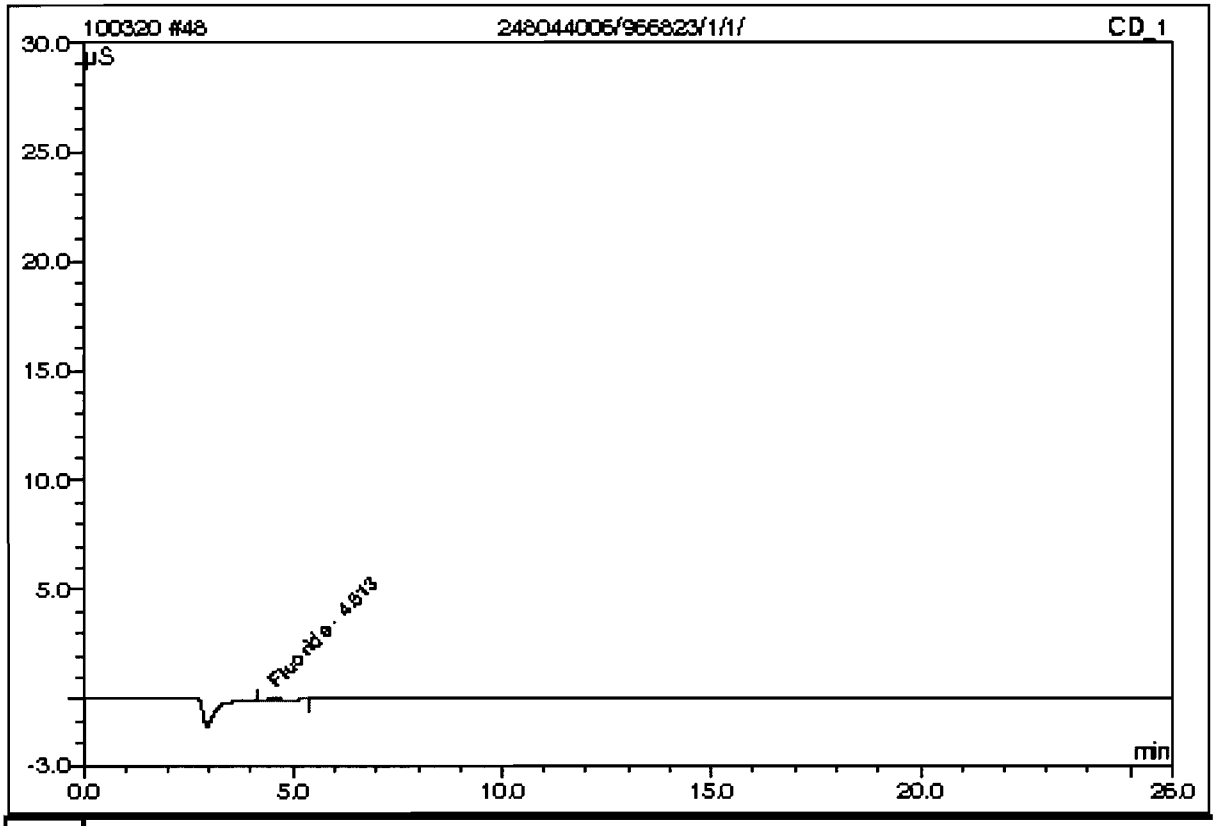

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.51	Fluoride	n.a.	0.0982		0.01913	100.00
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0982	0.000	0.019	100.00

50 WIC100320-02CCV

Sample Name:	WIC100320-02CCV	*Injection Volume:*	50.0
Vial Number:	93	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 5:28	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

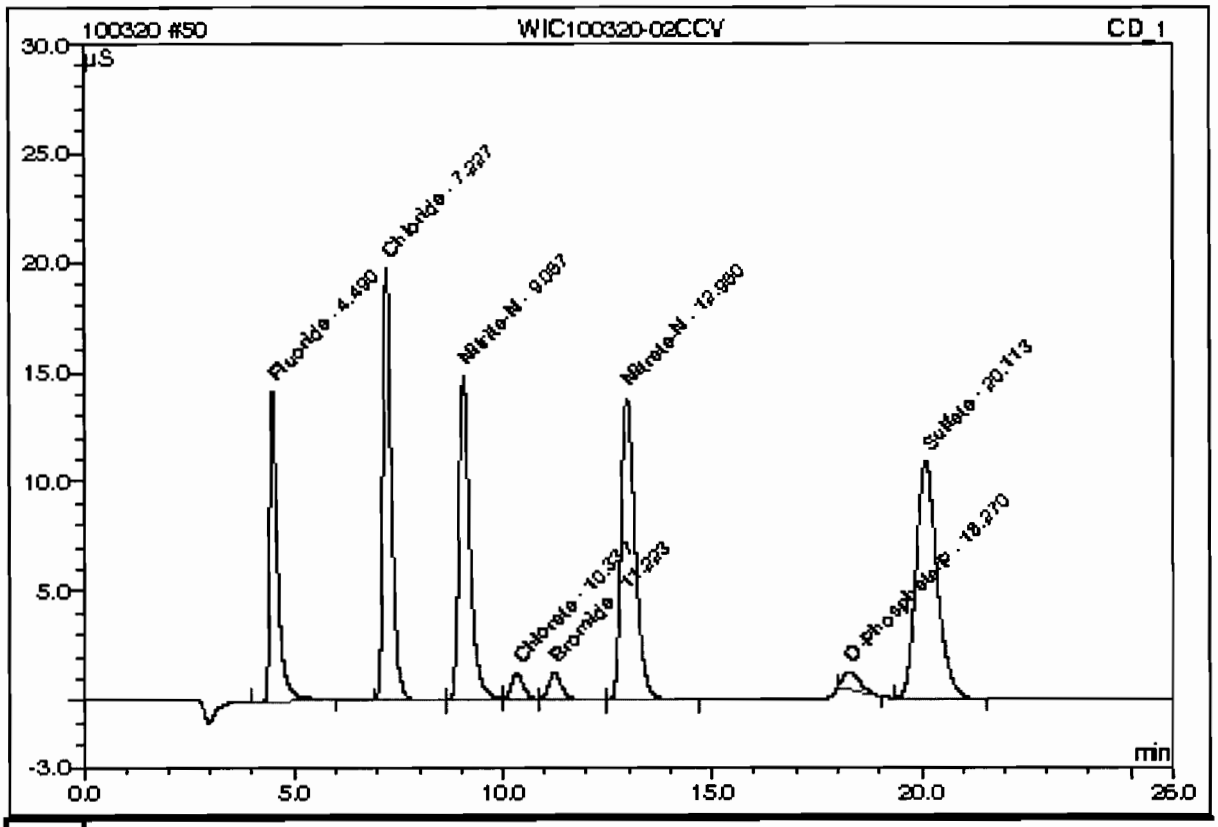

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.49	Fluoride	n.a.	4.7025		3.13432	12.34
2	7.23	Chloride	n.a.	9.0990		4.60826	18.14
3	9.07	Nitrite-N	n.a.	4.8075		4.58545	18.05
4	10.34	Chlorate	n.a.	2.5828		0.42302	1.67
5	11.22	Bromide	n.a.	2.5444		0.44556	1.75
6	12.96	Nitrate-N	n.a.	4.7001		5.43670	21.40
7	18.27	O-Phosphate-P	n.a.	1.2488		0.36393	1.43
8	20.11	Sulfate	n.a.	18.8073		6.40681	25.22
Total:				48.4923	0.000	25.404	100.00

51 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	90	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/21/2010 5:54	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

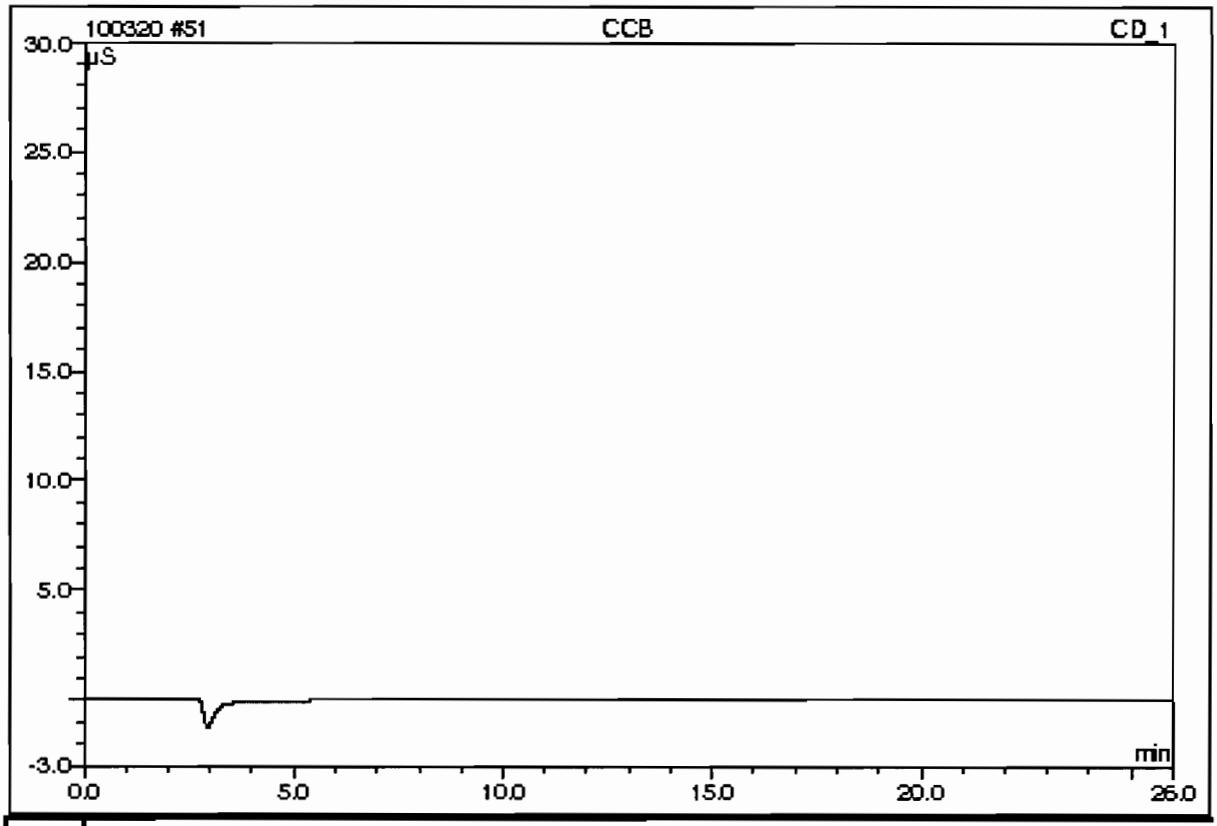

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

This is runlog for Sequence 100322.seq for IC5

Sample ID	Run Time	Batch	Dilution	Dataset	Analyst
BLK	03/22/10 13:39		1	100322	VH1
BLK	03/22/10 14:05		1	100322	VH1
ICV	03/22/10 14:31		1	100322	VH1
ICB	03/22/10 14:57		1	100322	VH1
247862001	03/22/10 15:23	964437	2000000	100322	VH1
1202069067	03/22/10 15:49	964437	2000000	100322	VH1
1202069068	03/22/10 16:15	964437	2000000	100322	VH1
CVH	03/22/10 16:41		1	100322	VH1
CCB	03/22/10 17:07		1	100322	VH1
248097006	03/22/10 17:34	964919	1	100322	VH1
1202077366	03/22/10 18:00	964919	1	100322	VH1
1202077367	03/22/10 18:26	964919	1	100322	VH1
CCV	03/22/10 18:52		1	100322	VH1
CCB	03/22/10 19:18		1	100322	VH1
248044001	03/22/10 19:44	966823	5	100322	VH1
CVH	03/22/10 20:10		1	100322	VH1
CCB	03/22/10 20:36		1	100322	VH1
1202075482	03/22/10 21:02	967051	1	100322	VH1
1202075489	03/22/10 21:28	967051	1	100322	VH1
248250001	03/22/10 21:54	967051	1	100322	VH1
1202075483	03/22/10 22:21	967051	1	100322	VH1
1202075485	03/22/10 22:47	967051	1	100322	VH1
1202075487	03/22/10 23:13	967051	1	100322	VH1
248250002	03/22/10 23:39	967051	1	100322	VH1

23 WIC100322-02ICV

Sample Name:	WIC100322-02ICV	*Injection Volume:*	50.0
Vial Number:	93	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/22/2010 14:31	Analyst:	VH1
Run Time (min):	22.92	Column:	AS23-002588;GLGCE086;300;9056

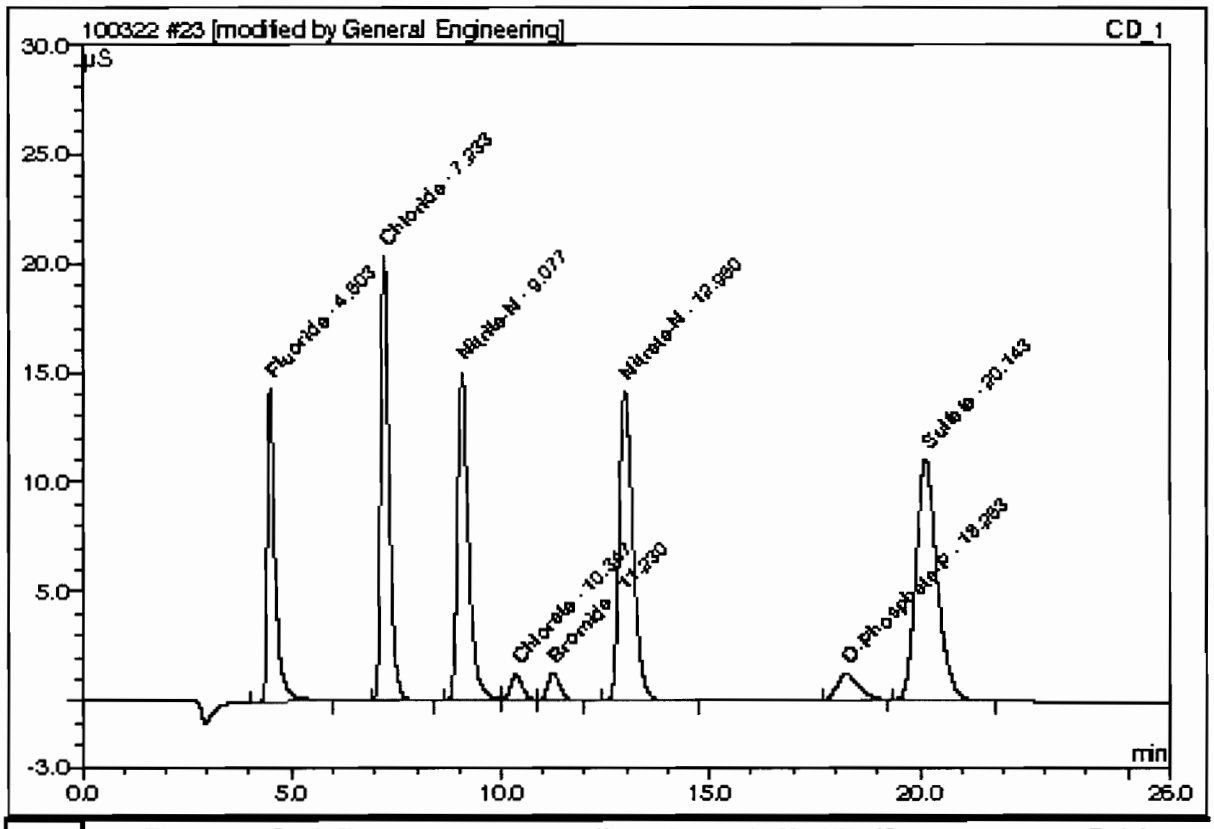

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.50	Fluoride	n.a.	4.7008		3.13314	12.09
2	7.23	Chloride	n.a.	9.1357		4.62706	17.86
3	9.08	Nitrite-N	n.a.	4.8029		4.58094	17.68
4	10.35	Chlorate	n.a.	2.4369		0.39847	1.54
5	11.23	Bromide	n.a.	2.4053		0.42078	1.62
6	12.98	Nitrate-N	n.a.	4.7703		5.51966	21.31
7	18.28	O-Phosphate-P	n.a.	2.4055		0.73014	2.82
8	20.14	Sulfate	n.a.	19.0630		6.49540	25.07
Total:				49.7203	0.000	25.906	100.00

24 ICB

Sample Name:	ICB	*Injection Volume:*	50.0
Vial Number:	90	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/22/2010 14:57	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

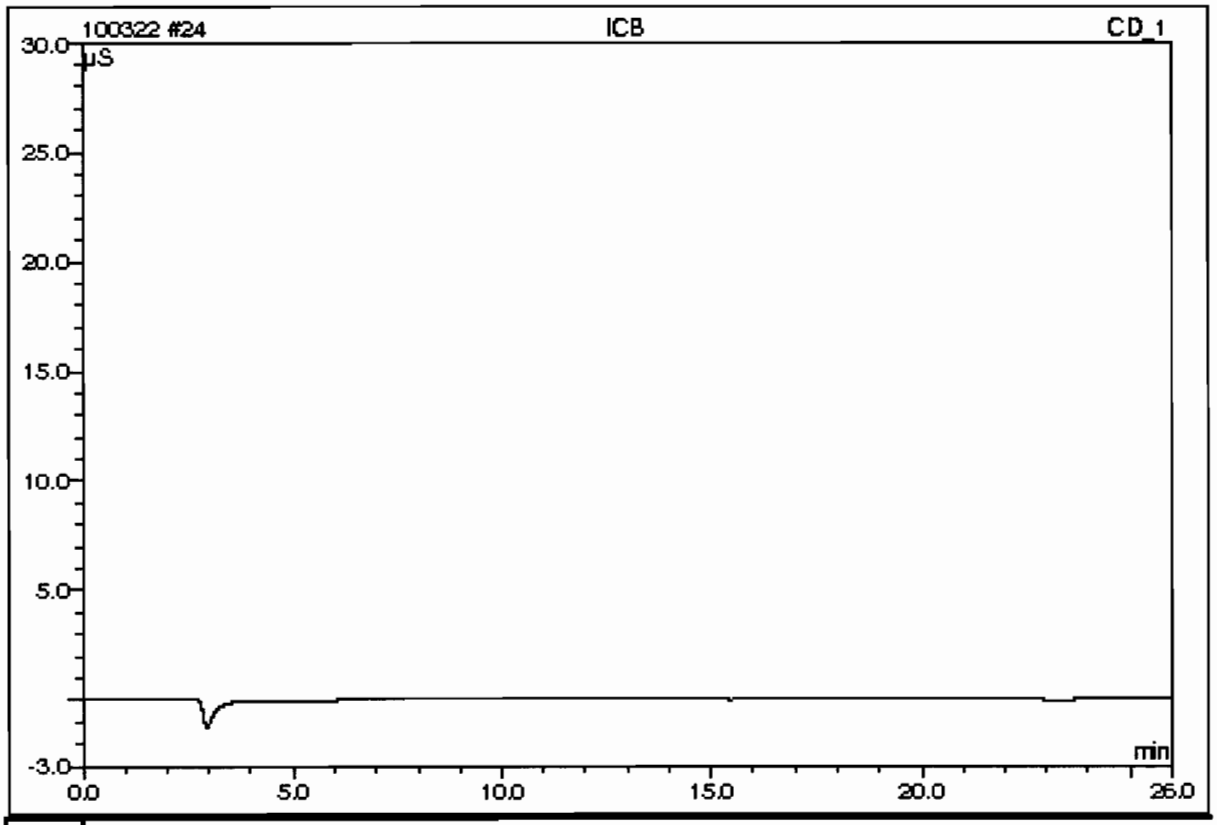

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

33 WIC100322-02CCV

Sample Name:	WIC100322-02CCV	*Injection Volume:*	50.0
Vial Number:	93	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/22/2010 18:52	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

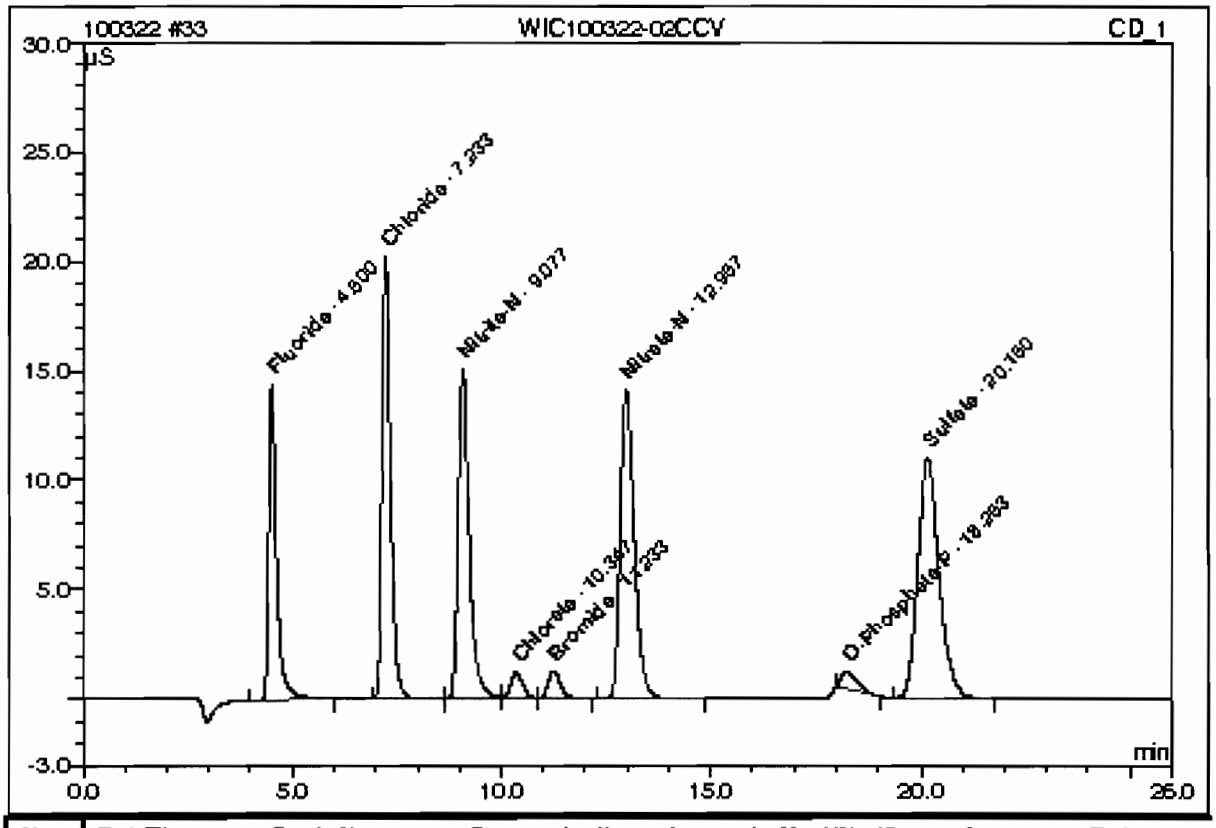

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.50	Fluoride	n.a.	4.7270		3.15087	12.29
2	7.23	Chloride	n.a.	9.1506		4.63470	18.08
3	9.08	Nitrite-N	n.a.	4.8445		4.62128	18.03
4	10.35	Chlorate	n.a.	2.5805		0.42263	1.65
5	11.23	Bromide	n.a.	2.5312		0.44321	1.73
6	12.97	Nitrate-N	n.a.	4.7640		5.51222	21.51
7	18.26	O-Phosphate-P	n.a.	1.1850		0.34374	1.34
8	20.16	Sulfate	n.a.	19.0730		6.49888	25.36
Total:				48.8558	0.000	25.628	100.00

34 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	90	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/22/2010 19:18	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

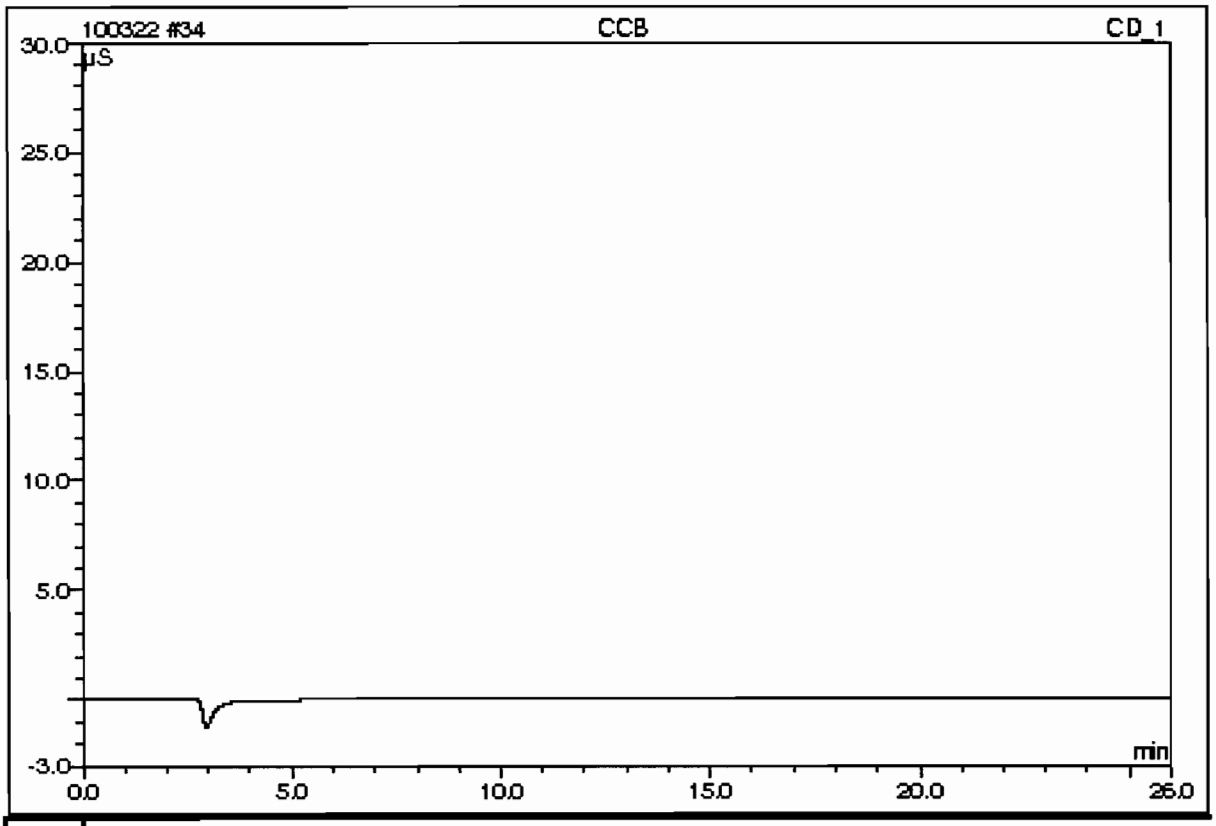

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

35 248044001/966823/5/2/

Sample Name:	248044001/966823/5/2/	*Injection Volume:*	50.0
Vial Number:	92	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/22/2010 19:44	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

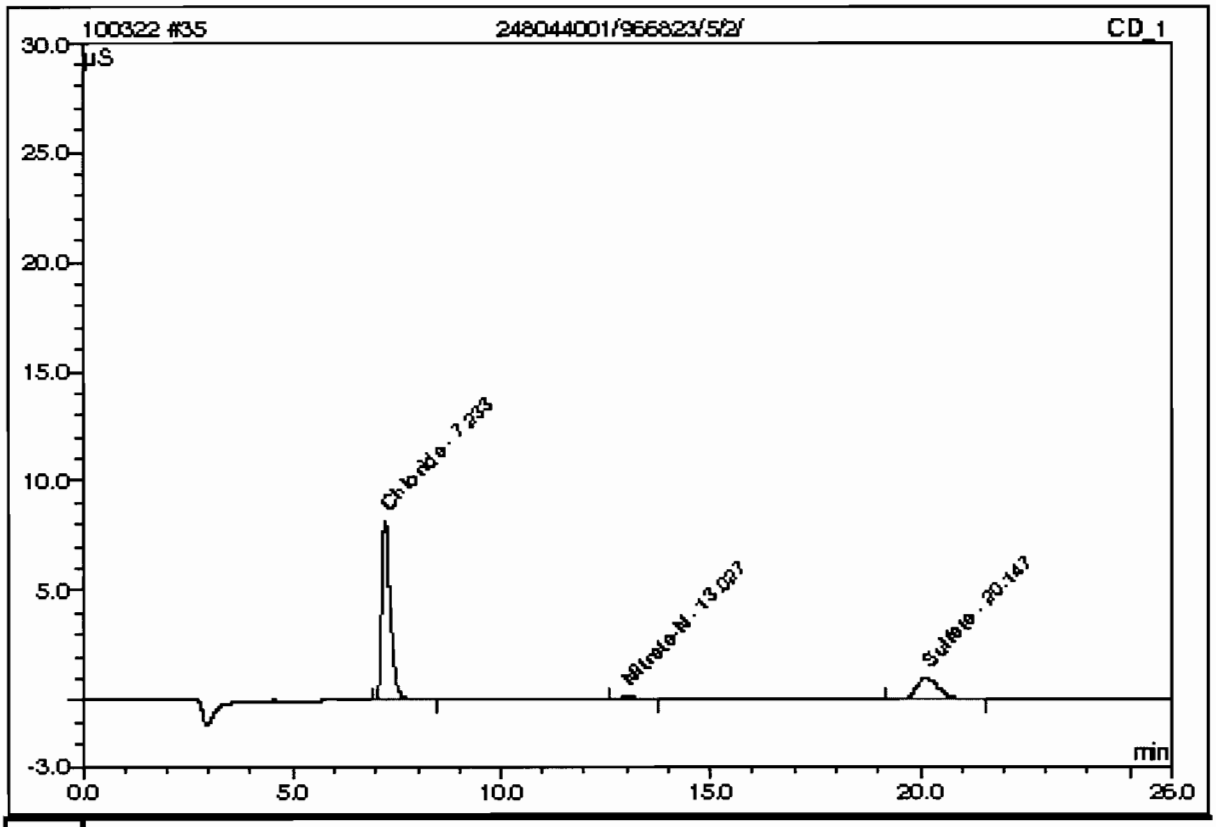

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
1	7.23	Chloride	n.a.	3.8808		1.93569	73.13
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
2	13.03	Nitrate-N	n.a.	0.1615		0.07296	2.76
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
3	20.15	Sulfate	n.a.	2.1547		0.63815	24.11
Total:				6.1970	0.000	2.647	100.00

36 WIC100322-02CVH

Sample Name:	WIC100322-02CVH	*Injection Volume:*	50.0
Vial Number:	93	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/22/2010 20:10	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

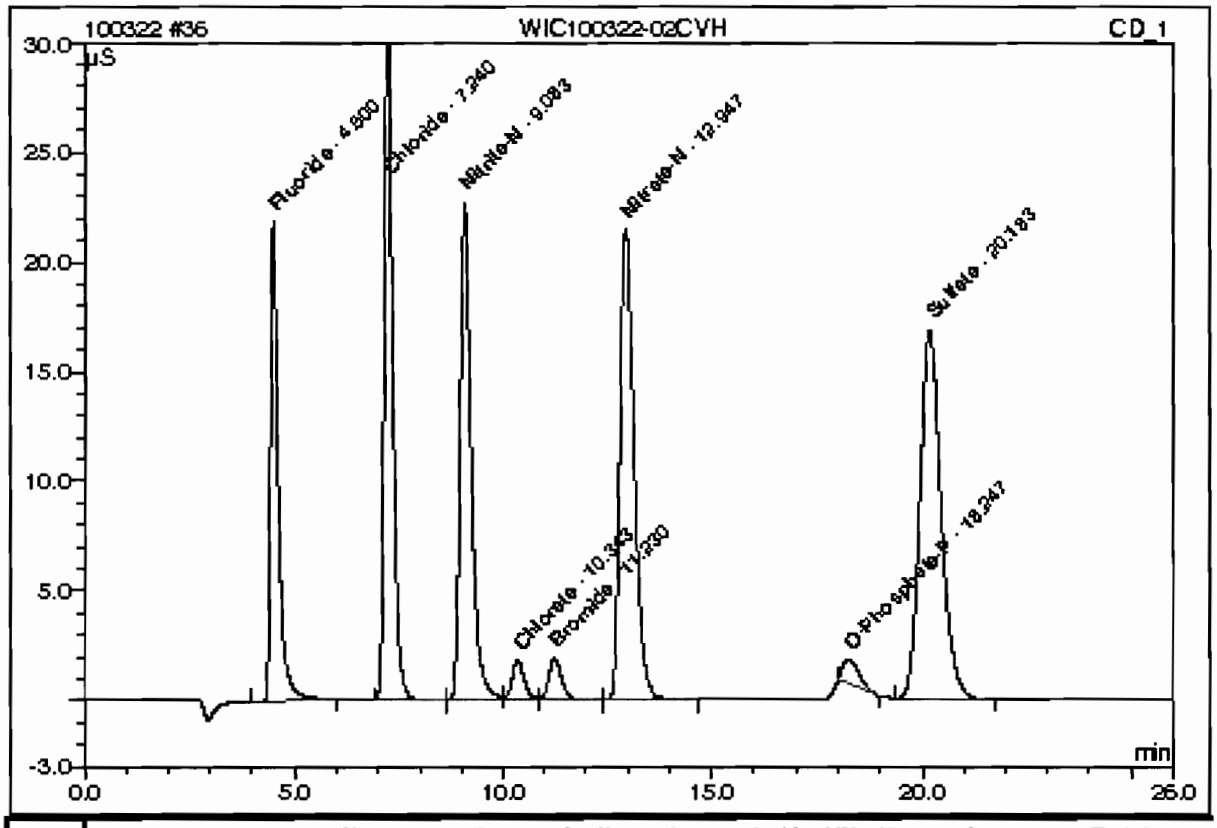

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
1	4.50	Fluoride	n.a.	7.0751		4.73961	12.18
2	7.24	Chloride	n.a.	14.0000		7.11835	18.29
3	9.08	Nitrite-N	n.a.	7.2575		6.95765	17.87
4	10.34	Chlorate	n.a.	3.7633		0.62169	1.60
5	11.23	Bromide	n.a.	3.7577		0.66173	1.70
6	12.95	Nitrate-N	n.a.	7.2466		8.44615	21.70
7	18.25	O-Phosphate-P	n.a.	1.6351		0.48623	1.25
8	20.18	Sulfate	n.a.	28.8842		9.89761	25.42
Total:				73.6195	0.000	38.929	100.00

37 CCB

Sample Name:	CCB	*Injection Volume:*	50.0
Vial Number:	94	*Channel:*	CD_1
Sample Type:	unknown	*Dilution Factor:*	1.0000
Control Program:	AS23	*Sample Weight:*	1.0000
Quantif. Method:	030410an	*Sample Amount:*	1.0000
Recording Time:	3/22/2010 20:36	Analyst:	VH1
Run Time (min):	26.00	Column:	AS23-002588;GLGCE086;300;9056

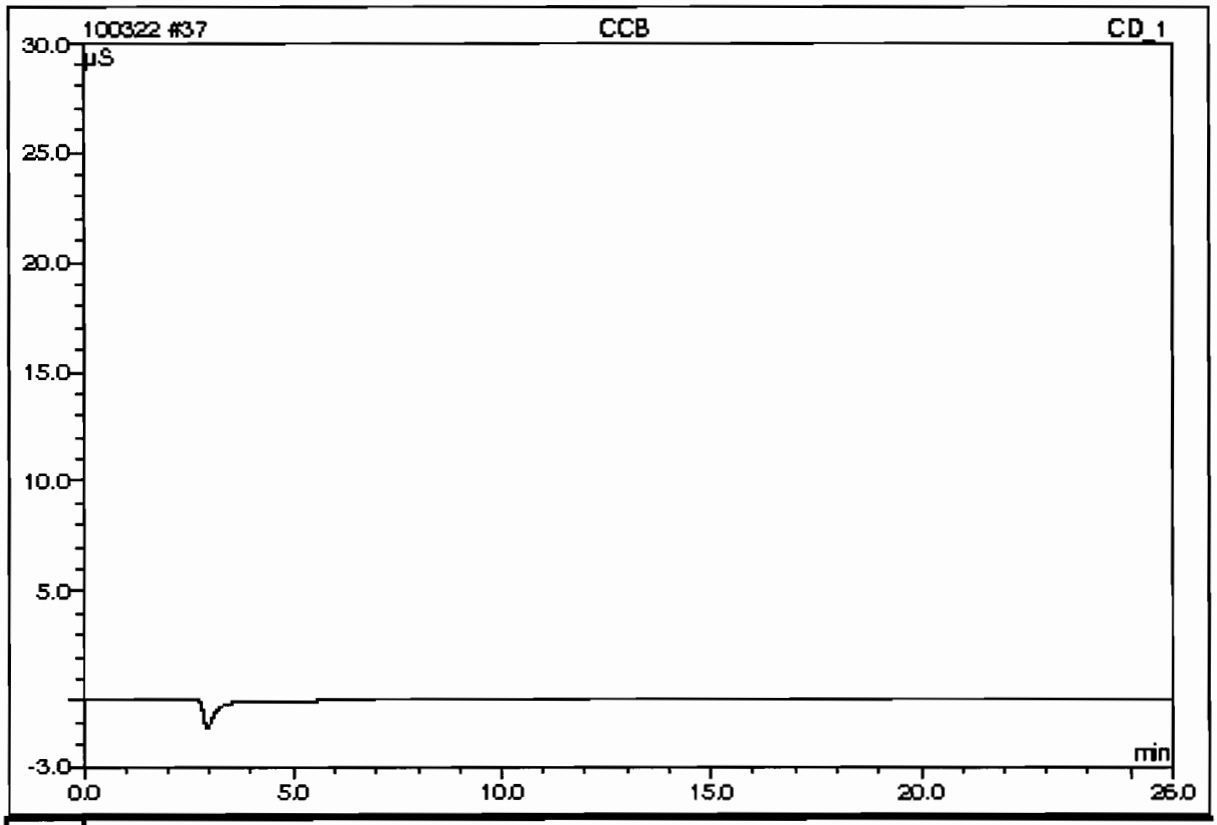

No.	Ret.Time min	Peak Name	Concentration mg/L	Amount mg/L	Modified?	Area µS*min	Rel.Area %
n.a.	n.a.	Fluoride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chloride	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrite-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Chlorate	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Bromide	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Nitrate-N	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	O-Phosphate-P	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	Sulfate	n.a.	n.a.	n.a.	n.a.	n.a.
Total:				0.0000	0.000	0.000	0.00

Nitrate Nitrite by Cadmium Reduction

This is runlog lachat3

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
1.5 PPM		1	axh3	3/3/2010 10:31:50	OM_3-3-2010_10-30-06
1.0 PPM		1	axh3	3/3/2010 10:33:02	OM_3-3-2010_10-30-06
0.5 ppm		1	axh3	3/3/2010 10:34:15	OM_3-3-2010_10-30-06
0.1 ppm		1	axh3	3/3/2010 10:35:29	OM_3-3-2010_10-30-06
0.05 ppm		1	axh3	3/3/2010 10:36:42	OM_3-3-2010_10-30-06
ICAL-00		1	axh3	3/3/2010 10:37:56	OM_3-3-2010_10-30-06
1.0 ppm ICV		1	axh3	3/3/2010 10:40:18	OM_3-3-2010_10-30-06
ICB		1	axh3	3/3/2010 10:42:40	OM_3-3-2010_10-30-06
Nitrate 1.0 ppm		1	axh3	3/3/2010 10:44:59	OM_3-3-2010_10-30-06
Nitrite 1.0 ppm		1	axh3	3/3/2010 10:47:19	OM_3-3-2010_10-30-06
1202054725	958150	1	axh3	3/3/2010 10:49:40	OM_3-3-2010_10-30-06
1202054732	958150	1	axh3	3/3/2010 10:50:53	OM_3-3-2010_10-30-06
247793001	958150	5	axh3	3/3/2010 10:52:06	OM_3-3-2010_10-30-06
1202054726	958150	5	axh3	3/3/2010 10:53:20	OM_3-3-2010_10-30-06
1202054729	958150	5	axh3	3/3/2010 10:54:32	OM_3-3-2010_10-30-06
247997001	958150	5	axh3	3/3/2010 10:55:44	OM_3-3-2010_10-30-06
248001001	958150	5	axh3	3/3/2010 10:56:57	OM_3-3-2010_10-30-06
248019001	958150	5	axh3	3/3/2010 10:58:10	OM_3-3-2010_10-30-06
248023001	958150	5	axh3	3/3/2010 10:59:22	OM_3-3-2010_10-30-06
248024002	958150	10	axh3	3/3/2010 11:00:34	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010 11:01:46	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010 11:04:08	OM_3-3-2010_10-30-06
248024004	958150	10	axh3	3/3/2010 11:05:20	OM_3-3-2010_10-30-06
248038001	958150	5	axh3	3/3/2010 11:06:32	OM_3-3-2010_10-30-06
248038002	958150	5	axh3	3/3/2010 11:07:44	OM_3-3-2010_10-30-06
248039001	958150	5	axh3	3/3/2010 11:08:55	OM_3-3-2010_10-30-06
248044001*	958150	5	axh3	3/3/2010 11:10:07	OM_3-3-2010_10-30-06
1202054727	958150	5	axh3	3/3/2010 11:11:20	OM_3-3-2010_10-30-06
1202054730	958150	5	axh3	3/3/2010 11:12:34	OM_3-3-2010_10-30-06
248044003	958150	5	axh3	3/3/2010 11:13:47	OM_3-3-2010_10-30-06
248046001	958150	5	axh3	3/3/2010 11:14:59	OM_3-3-2010_10-30-06
248046002	958150	5	axh3	3/3/2010 11:16:12	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010 11:17:24	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010 11:19:46	OM_3-3-2010_10-30-06
248044001	958150	5	axh3	3/3/2010 11:22:05	OM_3-3-2010_10-30-06
248053001	958150	5	axh3	3/3/2010 11:23:18	OM_3-3-2010_10-30-06
248053002	958150	5	axh3	3/3/2010 11:24:30	OM_3-3-2010_10-30-06
248053003	958150	5	axh3	3/3/2010 11:25:43	OM_3-3-2010_10-30-06
248074001	958150	5	axh3	3/3/2010 11:26:55	OM_3-3-2010_10-30-06
1202054728	958150	5	axh3	3/3/2010 11:28:07	OM_3-3-2010_10-30-06
1202054731	958150	5	axh3	3/3/2010 11:29:19	OM_3-3-2010_10-30-06
248074002	958150	5	axh3	3/3/2010 11:30:31	OM_3-3-2010_10-30-06
248074003	958150	5	axh3	3/3/2010 11:31:43	OM_3-3-2010_10-30-06
247793001	958150	10	axh3	3/3/2010 11:32:57	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010 11:34:09	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010 11:36:31	OM_3-3-2010_10-30-06
1202054726	958150	10	axh3	3/3/2010 11:38:51	OM_3-3-2010_10-30-06
1202054729	958150	10	axh3	3/3/2010 11:40:03	OM_3-3-2010_10-30-06
248039001	958150	10	axh3	3/3/2010 11:41:15	OM_3-3-2010_10-30-06
248046001	958150	10	axh3	3/3/2010 11:42:28	OM_3-3-2010_10-30-06
1202057088	959199	1	axh3	3/3/2010 11:43:39	OM_3-3-2010_10-30-06
1202057095	959199	1	axh3	3/3/2010 11:44:50	OM_3-3-2010_10-30-06
247853003	959199	5	axh3	3/3/2010 11:46:04	OM_3-3-2010_10-30-06
1202057089	959199	5	axh3	3/3/2010 11:47:17	OM_3-3-2010_10-30-06
1202057092	959199	5	axh3	3/3/2010 11:48:30	OM_3-3-2010_10-30-06
247853006	959199	25	axh3	3/3/2010 11:49:43	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010 11:50:55	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010 11:53:16	OM_3-3-2010_10-30-06

247853009	959199	5	axh3	3/3/2010	11:55:37	OM_3-3-2010_10-30-06
247853012	959199	10	axh3	3/3/2010	11:56:49	OM_3-3-2010_10-30-06
247853015	959199	10	axh3	3/3/2010	11:58:02	OM_3-3-2010_10-30-06
247853018	959199	50	axh3	3/3/2010	11:59:14	OM_3-3-2010_10-30-06
247966003	959199	5	axh3	3/3/2010	12:00:27	OM_3-3-2010_10-30-06
1202057096	959199	5	axh3	3/3/2010	12:01:39	OM_3-3-2010_10-30-06
1202057097	959199	5	axh3	3/3/2010	12:02:51	OM_3-3-2010_10-30-06
247966011	959199	5	axh3	3/3/2010	12:04:03	OM_3-3-2010_10-30-06
248044005	959199	5	axh3	3/3/2010	12:05:15	OM_3-3-2010_10-30-06
1202059915	959199	5	axh3	3/3/2010	12:06:27	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010	12:07:39	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010	12:10:01	OM_3-3-2010_10-30-06
1202059916	959199	5	axh3	3/3/2010	12:12:21	OM_3-3-2010_10-30-06
248072001	959199	5	axh3	3/3/2010	12:13:31	OM_3-3-2010_10-30-06
1202057091	959199	5	axh3	3/3/2010	12:14:43	OM_3-3-2010_10-30-06
1202057094	959199	5	axh3	3/3/2010	12:15:56	OM_3-3-2010_10-30-06
248072002	959199	5	axh3	3/3/2010	12:17:09	OM_3-3-2010_10-30-06
248072003	959199	5	axh3	3/3/2010	12:18:23	OM_3-3-2010_10-30-06
248103003	959199	5	axh3	3/3/2010	12:19:36	OM_3-3-2010_10-30-06
248108001	959199	5	axh3	3/3/2010	12:20:48	OM_3-3-2010_10-30-06
1202057090	959199	5	axh3	3/3/2010	12:22:01	OM_3-3-2010_10-30-06
1202057093	959199	5	axh3	3/3/2010	12:23:13	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010	12:24:25	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010	12:26:48	OM_3-3-2010_10-30-06
248117001	959199	5	axh3	3/3/2010	12:29:08	OM_3-3-2010_10-30-06
248126003	959199	5	axh3	3/3/2010	12:30:20	OM_3-3-2010_10-30-06
248127001	959199	5	axh3	3/3/2010	12:31:32	OM_3-3-2010_10-30-06
248199001	959199	5	axh3	3/3/2010	12:32:44	OM_3-3-2010_10-30-06
248238001	959199	5	axh3	3/3/2010	12:33:56	OM_3-3-2010_10-30-06
248238002	959199	5	axh3	3/3/2010	12:35:08	OM_3-3-2010_10-30-06
247966003	959199	5	axh3	3/3/2010	12:36:20	OM_3-3-2010_10-30-06
1202057096	959199	5	axh3	3/3/2010	12:37:32	OM_3-3-2010_10-30-06
1202057097	959199	5	axh3	3/3/2010	12:38:45	OM_3-3-2010_10-30-06
248108001	959199	10	axh3	3/3/2010	12:39:57	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010	12:41:09	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010	12:43:31	OM_3-3-2010_10-30-06
1202057090	959199	10	axh3	3/3/2010	12:45:52	OM_3-3-2010_10-30-06
1202057093	959199	10	axh3	3/3/2010	12:47:05	OM_3-3-2010_10-30-06
1202058290	959715	1	axh3	3/3/2010	12:48:17	OM_3-3-2010_10-30-06
1202058297	959715	1	axh3	3/3/2010	12:49:29	OM_3-3-2010_10-30-06
248044006	959715	5	axh3	3/3/2010	12:50:42	OM_3-3-2010_10-30-06
1202058291	959715	5	axh3	3/3/2010	12:51:54	OM_3-3-2010_10-30-06
1202058294	959715	5	axh3	3/3/2010	12:53:07	OM_3-3-2010_10-30-06
248164001	959715	5	axh3	3/3/2010	12:54:19	OM_3-3-2010_10-30-06
248164003	959715	5	axh3	3/3/2010	12:55:31	OM_3-3-2010_10-30-06
248261001	959715	5	axh3	3/3/2010	12:56:43	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010	12:57:55	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010	13:00:17	OM_3-3-2010_10-30-06
1202058292	959715	5	axh3	3/3/2010	13:02:37	OM_3-3-2010_10-30-06
1202058295	959715	5	axh3	3/3/2010	13:03:49	OM_3-3-2010_10-30-06
248298001	959715	5	axh3	3/3/2010	13:05:01	OM_3-3-2010_10-30-06
1202058293	959715	5	axh3	3/3/2010	13:06:15	OM_3-3-2010_10-30-06
1202058296	959715	5	axh3	3/3/2010	13:07:28	OM_3-3-2010_10-30-06
248298002	959715	5	axh3	3/3/2010	13:08:41	OM_3-3-2010_10-30-06
248298003	959715	5	axh3	3/3/2010	13:09:53	OM_3-3-2010_10-30-06
248382001	959715	5	axh3	3/3/2010	13:11:06	OM_3-3-2010_10-30-06
248382004	959715	5	axh3	3/3/2010	13:12:19	OM_3-3-2010_10-30-06
248401001	959715	5	axh3	3/3/2010	13:13:31	OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010	13:14:44	OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010	13:17:05	OM_3-3-2010_10-30-06

248401003	959715	5	axh3	3/3/2010	13:19:26 OM_3-3-2010_10-30-06
248401006	959715	5	axh3	3/3/2010	13:20:37 OM_3-3-2010_10-30-06
248407001	959715	5	axh3	3/3/2010	13:21:49 OM_3-3-2010_10-30-06
248419001	959715	5	axh3	3/3/2010	13:23:01 OM_3-3-2010_10-30-06
248419002	959715	5	axh3	3/3/2010	13:24:13 OM_3-3-2010_10-30-06
1.0 ppm CCV		1	axh3	3/3/2010	13:26:33 OM_3-3-2010_10-30-06
CCB		1	axh3	3/3/2010	13:28:56 OM_3-3-2010_10-30-06

Author: lachat

Date : 3/3/2010

Original Run Filename: OM_3-3-2010_10-30-06.OMN created 3/3/2010 10:30:06
Original Run Author's Signature: [lachat]
Current Run Filename: OM_3-3-2010_10-30-06.OMN last modified 3/3/2010 13:30:17
Current Run Author's Signature: [lachat]
Description: EPA 353.2
Cadmium Colum 9056CAJ
LCS nominal 1.0 mg/L

Sample	Rep.	Cup No.	Channel 1 NO3 + NO2 Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100303-26	1	S9	1.50	14.8	3/3/2010@10:31:50			1.5 PPM
WTR100303-25	1	S10	1.00	9.68	3/3/2010@10:33:02			1.0 PPM
WTR100303-24	1	S11	0.500	4.89	3/3/2010@10:34:15			0.5 ppm
WTR100303-23	1	S12	0.100	1.02	3/3/2010@10:35:29			0.1 ppm
WTR100303-21	1	S13	0.0500	0.312	3/3/2010@10:36:42			0.05 ppm
0.0ppm	1	S15	0.00	-0.0280	3/3/2010@10:37:56			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99989 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR100303-27 ICV	1	S16	0.983	9.62	3/3/2010@10:40:18			1.0 ppm ICV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.983 < 1.10					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.983 > 0.894					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
ICB	1	S15	0.00396	-0.0247	3/3/2010@10:42:40			ICB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.00396 < 0.0500					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.00396 > -0.0500					
		Message	ICB Passed					
		Action	Continue					
WTR100303-22	1	S1	0.943	9.22	3/3/2010@10:44:59			Nitrate 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.943 < 1.10					
		Message	Nitrate Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.943 > 0.894					
		Message	Nitrate Standard Passed					
		Action	Continue					
WTR100303-28	1	S2	0.937	9.17	3/3/2010@10:47:19			Nitrite 1.0 ppm
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.937 < 1.10					
		Message	Nitrite Standard Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.937 > 0.894					
		Message	Nitrite Standard Passed					
		Action	Continue					
1202054725|958150|MB	1	1	0.0124	0.0582	3/3/2010@10:49:40			
1202054732||LCS	1	2	0.986	9.65	3/3/2010@10:50:53			
247793001	1	3	-0.0329	-0.388	3/3/2010@10:52:06		5.00	
1202054726||DUP	1	4	-0.0360	-0.419	3/3/2010@10:53:20		5.00	
1202054729||PS	1	5	0.348	3.36	3/3/2010@10:54:32		5.00	

247997001	1	6	0.0124	0.0585	3/3/2010@10:55:44		5.00	
248001001	1	7	0.0131	0.0653	3/3/2010@10:56:57		5.00	
248019001	1	8	0.196	1.87	3/3/2010@10:58:10		5.00	
248023001	1	9	0.0844	0.767	3/3/2010@10:59:22		5.00	
248024002	1	10	0.425	4.12	3/3/2010@11:00:34		10.00	
WTR100303-25 CCV	1	S10	0.983	9.62	3/3/2010@11:01:46			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.983 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.983 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	0.00204	-0.0437	3/3/2010@11:04:08			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.00204 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.00204 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
248024004	1	11	0.430	4.17	3/3/2010@11:05:20		10.00	
248038001	1	12	0.0214	0.147	3/3/2010@11:06:32		5.00	
248038002	1	13	0.0741	0.666	3/3/2010@11:07:44		5.00	
248039001	1	14	-0.0529	-0.584	3/3/2010@11:08:55		5.00	
248044001	1	15	2.97	29.2	3/3/2010@11:10:07		5.00	
1202054727||DUP	1	16	0.0856	0.779	3/3/2010@11:11:20		5.00	
1202054730||PS	1	17	1.05	10.3	3/3/2010@11:12:34		5.00	
248044003	1	18	0.0366	0.297	3/3/2010@11:13:47		5.00	
248046001	1	19	-0.0557	-0.613	3/3/2010@11:14:59		5.00	
248046002	1	20	-0.0479	-0.535	3/3/2010@11:16:12		5.00	
WTR100303-25 CCV	1	S10	1.00	9.80	3/3/2010@11:17:24			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.00 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.00 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	0.00357	-0.0286	3/3/2010@11:19:46			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.00357 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.00357 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
248044001	1	15	0.0892	0.815	3/3/2010@11:22:05		5.00	
248053001	1	21	0.0149	0.0826	3/3/2010@11:23:18		5.00	
248053002	1	22	0.0149	0.0834	3/3/2010@11:24:30		5.00	
248053003	1	23	0.0120	0.0547	3/3/2010@11:25:43		5.00	
248074001	1	24	0.393	3.81	3/3/2010@11:26:55		5.00	
1202054728||DUP	1	25	0.388	3.76	3/3/2010@11:28:07		5.00	
1202054731||PS	1	26	1.39	13.6	3/3/2010@11:29:19		5.00	
248074002	1	27	0.131	1.23	3/3/2010@11:30:31		5.00	
248074003	1	28	0.276	2.66	3/3/2010@11:31:43		5.00	
247793001	1	3	0.00533	-0.0112	3/3/2010@11:32:57		10.00	
WTR100303-25 CCV	1	S10	0.985	9.64	3/3/2010@11:34:09			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								

		Result:	0.985 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.985 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	0.00385	-0.0258	3/3/2010@11:36:31			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.00385 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.00385 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202054726||DUP	1	4	0.0111	0.0460	3/3/2010@11:38:51		10.00	
1202054729||PS	1	5	1.01	9.86	3/3/2010@11:40:03		10.00	
248039001	1	14	-0.0350	-0.408	3/3/2010@11:41:15		10.00	
248046001	1	19	-0.0330	-0.389	3/3/2010@11:42:28		10.00	
1202057088|959199|MB	1	29	0.0116	0.0509	3/3/2010@11:43:39			
1202057095||LCS	1	30	1.00	9.79	3/3/2010@11:44:50			
247853003	1	31	0.0341	0.272	3/3/2010@11:46:04		5.00	
1202057089||DUP	1	32	0.0331	0.263	3/3/2010@11:47:17		5.00	
1202057092||PS	1	33	1.02	10.0	3/3/2010@11:48:30		5.00	
247853006	1	34	0.196	1.87	3/3/2010@11:49:43		25.00	
WTR100303-25 CCV	1	S10	0.968	9.47	3/3/2010@11:50:55			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.968 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.968 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	0.00438	-0.0206	3/3/2010@11:53:16			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.00438 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.00438 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
247853009	1	35	0.0177	0.110	3/3/2010@11:55:37		5.00	
247853012	1	36	0.204	1.94	3/3/2010@11:56:49		10.00	
247853015	1	37	0.219	2.09	3/3/2010@11:58:02		10.00	
247853018	1	38	0.268	2.58	3/3/2010@11:59:14		50.00	
247966003	1	39	-0.0241	-0.301	3/3/2010@12:00:27		5.00	
1202057096||DUP	1	40	-0.0245	-0.305	3/3/2010@12:01:39		5.00	
1202057097||PS	1	41	0.767	7.49	3/3/2010@12:02:51		5.00	
247966011	1	42	-0.0241	-0.301	3/3/2010@12:04:03		5.00	
248044005	1	43	0.00946	0.0294	3/3/2010@12:05:15		5.00	
1202059915||DUP	1	89	0.00965	0.0313	3/3/2010@12:06:27		5.00	
WTR100303-25 CCV	1	S10	0.981	9.60	3/3/2010@12:07:39			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	0.981 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.981 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	0.00404	-0.0239	3/3/2010@12:10:01			CCB

		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.00404 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.00404 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202059916||PS	1	90	1.04	10.2	3/3/2010@12:12:21		5.00	
248072001	1	44	0.170	1.61	3/3/2010@12:13:31		5.00	
1202057091||DUP	1	45	0.165	1.56	3/3/2010@12:14:43		5.00	
1202057094||PS	1	46	1.18	11.6	3/3/2010@12:15:56		5.00	
248072002	1	47	0.165	1.56	3/3/2010@12:17:09		5.00	
248072003	1	48	0.184	1.75	3/3/2010@12:18:23		5.00	
248103003	1	49	0.00535	-0.0110	3/3/2010@12:19:36		5.00	
248108001	1	50	-0.0372	-0.430	3/3/2010@12:20:48		5.00	
1202057090||DUP	1	51	-0.0370	-0.429	3/3/2010@12:22:01		5.00	
1202057093||PS	1	52	0.357	3.45	3/3/2010@12:23:13		5.00	
WTR100303-25 CCV	1	S10	1.01	9.89	3/3/2010@12:24:25			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.01 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.01 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	0.00458	-0.0186	3/3/2010@12:26:48			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.00458 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.00458 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
248117001	1	53	-0.0357	-0.415	3/3/2010@12:29:08		5.00	
248126003	1	54	0.138	1.29	3/3/2010@12:30:20		5.00	
248127001	1	55	0.126	1.17	3/3/2010@12:31:32		5.00	
248199001	1	56	-0.0330	-0.389	3/3/2010@12:32:44		5.00	
248238001	1	57	0.0119	0.0531	3/3/2010@12:33:56		5.00	
248238002	1	58	0.0133	0.0676	3/3/2010@12:35:08		5.00	
247966003	1	39	-0.0228	-0.288	3/3/2010@12:36:20		5.00	
1202057096||DUP	1	40	-0.0241	-0.301	3/3/2010@12:37:32		5.00	
1202057097||PS	1	41	0.737	7.19	3/3/2010@12:38:45		5.00	
248108001	1	50	0.00805	0.0156	3/3/2010@12:39:57		10.00	
WTR100303-25 CCV	1	S10	1.02	10.0	3/3/2010@12:41:09			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.02 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.02 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	0.00556	-0.00893	3/3/2010@12:43:31			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.00556 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.00556 > -0.0500					
		Message	CCB Passed					

		Action	Continue					
1202057090||DUP	1	51	0.0123	0.0576	3/3/2010@12:45:52		10.00	
1202057093||PS	1	52	1.10	10.8	3/3/2010@12:47:05		10.00	
1202058290|959715|MB	1	66	0.0112	0.0462	3/3/2010@12:48:17			
1202058297||LCS	1	67	1.02	10.0	3/3/2010@12:49:29			
248044006	1	68	0.00987	0.0335	3/3/2010@12:50:42		5.00	
1202058291||DUP	1	69	0.00950	0.0299	3/3/2010@12:51:54		5.00	
1202058294||PS	1	70	1.03	10.1	3/3/2010@12:53:07		5.00	
248164001	1	71	0.0321	0.253	3/3/2010@12:54:19		5.00	
248164003	1	72	0.0323	0.254	3/3/2010@12:55:31		5.00	
248261001	1	73	0.0490	0.418	3/3/2010@12:56:43		5.00	
WTR100303-25 CCV	1	S10	1.01	9.92	3/3/2010@12:57:55			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.01 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.01 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	0.00422	-0.0221	3/3/2010@13:00:17			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.00422 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.00422 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
1202058292||DUP	1	74	0.0484	0.413	3/3/2010@13:02:37		5.00	
1202058295||PS	1	75	1.11	10.8	3/3/2010@13:03:49		5.00	
248298001	1	76	0.132	1.24	3/3/2010@13:05:01		5.00	
1202058293||DUP	1	77	0.126	1.18	3/3/2010@13:06:15		5.00	
1202058296||PS	1	78	1.18	11.6	3/3/2010@13:07:28		5.00	
248298002	1	79	0.127	1.19	3/3/2010@13:08:41		5.00	
248298003	1	80	0.152	1.44	3/3/2010@13:09:53		5.00	
248382001	1	81	0.146	1.37	3/3/2010@13:11:06		5.00	
248382004	1	82	0.151	1.42	3/3/2010@13:12:19		5.00	
248401001	1	83	0.0983	0.904	3/3/2010@13:13:31		5.00	
WTR100303-25 CCV	1	S10	1.02	9.94	3/3/2010@13:14:44			1.0 ppm CCV
		Known Conc:	1.00					
DQM Test: > + Concentration Limit								
		Result:	1.02 < 1.10					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.02 > 0.894					
		Message	CCV Passed					
		Action	Continue					
CCB	1	S15	0.00434	-0.0210	3/3/2010@13:17:05			CCB
		Known Conc:	0.00					
DQM Test: > + Concentration Limit								
		Result:	0.00434 < 0.0500					
		Message	CCB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.00434 > -0.0500					
		Message	CCB Passed					
		Action	Continue					
248401003	1	84	0.0611	0.538	3/3/2010@13:19:26		5.00	
248401006	1	85	0.0756	0.681	3/3/2010@13:20:37		5.00	
248407001	1	86	0.0122	0.0564	3/3/2010@13:21:49		5.00	
248419001	1	87	0.0150	0.0844	3/3/2010@13:23:01		5.00	
248419002	1	88	0.0129	0.0637	3/3/2010@13:24:13		5.00	
WTR100303-25 CCV	1	S10	0.994	9.72	3/3/2010@13:26:33			1.0 ppm CCV
		Known Conc:	1.00					

Author: lachat Date : 3/3/2010

DQM Test: > + Concentration Limit								
Result:			0.994 < 1.10					
Message			CCV Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.994 > 0.894					
Message			CCV Passed					
Action			Continue					
CCB	1	S15	0.00455	-0.0189	3/3/2010@13:28:56			CCB
Known Conc:			0.00					
DQM Test: > + Concentration Limit								
Result:			0.00455 < 0.0500					
Message			CCB Passed					
Action			Continue					
DQM Test: < - Concentration Limit								
Result:			0.00455 > -0.0500					
Message			CCB Passed					
Action			Continue					

Channel 1 (NO3 + NO2) : Current View

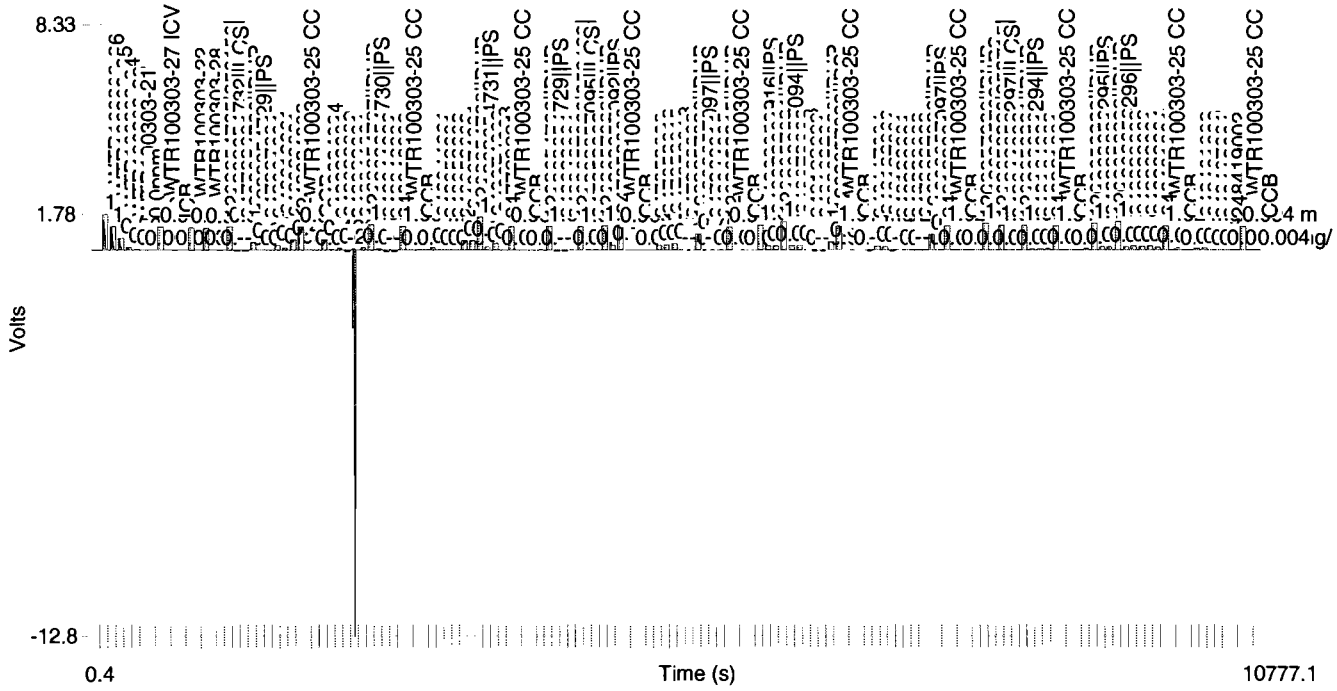

Table 1: NO3 + NO2

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	1.50	1	14.8	1.22	-0.4	3/3/2010	10:33:10
2	1.00	1	9.68	0.804	1.1	3/3/2010	10:34:23
3	0.500	1	4.89	0.403	-0.6	3/3/2010	10:35:35
4	0.100	1	1.02	0.0833	-10.8	3/3/2010	10:36:48
5	0.0500	1	0.312	0.0247	27.4	3/3/2010	10:38:02
6	0.00	1	-0.0280	-0.00133		3/3/2010	10:39:16

Author: lachat

Date : 3/3/2010

Figure 1: NO3 + NO2

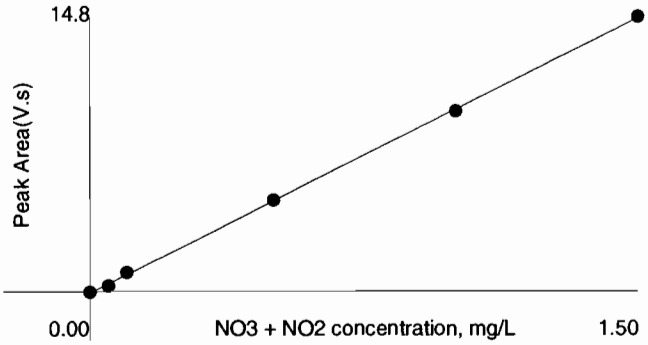

Area = 9.85 * Conc - 0.0626
Conc = 0.102 * Area + 0.00647
Correlation Coefficient (r) = 0.99989

No Weighting

Solids, Total Dissolved

Batch: 959189.0
Analyst:SDS

TDS/TS/VS LogBook

Procedure Code BALDSEP_L
Procedure Description EPA 160.1 Solids, Dissolved
Lab Sop GL-GC-E-001

Sample Type	Sample Id	Lot Id	Nc(mg/L)	Recovery(%)
LCS	1202057052	WTD1254191-01	300	98.333

Sample Type	Sample Id	Rpd(%)
DUP	1202057050	1.4492753623188
DUP	1202057051	1.9323671497585

Sample Id	Sample Type	Original Hsn	Instrument	Run Date	Crucible ID	Aliquot (L)	Crucible Wt(g)	Final Wt Event 1	Final Wt Event 2	Final Wt Event 3	Final Wt Event 4	Result	Units
1202057049	MB		BAL216	01-MAR-2010 13:56	S3	0.1	52.3415	52.3417	52.3417			2	mg/L
1202057052	LCS		BAL216	01-MAR-2010 13:56	SOS	0.1	49.6795	49.7091	49.709			295	mg/L
248019001	SAMPLE		BAL216	01-MAR-2010 13:56	ILL	0.1	50.9313	50.9522	50.9518			205	mg/L
1202057051	DUP	248019001	BAL216	01-MAR-2010 13:56	NUT	0.1	55.6526	55.6735	55.6731			205	mg/L
248023001	SAMPLE		BAL216	01-MAR-2010 13:56	EYE	0.1	54.8608	54.8747	54.8742			134	mg/L
1202057050	DUP	248023001	BAL216	01-MAR-2010 13:56	ORB	0.1	49.8064	49.8205	49.8201			137	mg/L
248024002	SAMPLE		BAL216	01-MAR-2010 13:56	KGB	0.1	51.9272	51.9734	51.9736			464	mg/L
248024004	SAMPLE		BAL216	01-MAR-2010 13:56	RUG	0.1	48.7819	48.8274	48.8271			452	mg/L
248044001	SAMPLE		BAL216	01-MAR-2010 13:56	13	0.1	53.0301	53.0447	53.0447			146	mg/L
248044003	SAMPLE		BAL216	01-MAR-2010 13:56	GO	0.1	54.9148	54.9318	54.9315			167	mg/L
248044005	SAMPLE		BAL216	01-MAR-2010 13:56	ANT	0.1	48.8342	48.8343	48.8341			-1	mg/L
248044006	SAMPLE		BAL216	01-MAR-2010 13:56	LOG	0.1	47.7247	47.7249	47.7244			-3	mg/L
248127001	SAMPLE		BAL216	01-MAR-2010 13:56	10	0.1	53.6995	53.7265	53.726			265	mg/L
248164001	SAMPLE		BAL216	01-MAR-2010 13:56	ALF	0.1	48.1084	48.1242	48.124			156	mg/L
248164003	SAMPLE		BAL216	01-MAR-2010 13:56	RA M	0.1	51.2724	51.2882	51.2881			157	mg/L
248168006	SAMPLE		BAL216	01-MAR-2010 13:56	ABC	0.1	52.0037	52.0204	52.0201			164	mg/L
248169004	SAMPLE		BAL216	01-MAR-2010 13:56	WE	0.1	49.5179	49.5468	49.5463			284	mg/L
248261001	SAMPLE		BAL216	01-MAR-2010 13:56	BAD	0.1	48.7132	48.7295	48.729			158	mg/L

Comments: **All Weights are in Grams**
A) Result = (Final - Crucible)/Aliquot * 1000
B) Prep Factor = 0.5 / Aliquot

Date: 01-MAR-10 14:30:12
Date: 02-MAR-10 07:30:12
Temperature: 104 C
Temperature: 180 C

Note: Aliquot is used for the determination of the effective MDL and PQL in LIMS

Solids, Total Suspended

TSS/VSS LogBook

Batch: 959191.0
Analyst: SDS
Procedure Code TSS160.2L
Procedure Description EPA 160.2 Total Suspended Solids
Lab Sop GL-GC-E-012

Sample Type	Sample Id	Lot Id	Nc(mg/L)	Recovery(%)
LCS	1202057060	WTS1277766	500	99.8

Sample Type	Sample Id	Rpd(%)
DUP	1202057058	1.5748031496063
DUP	1202057059	0

Sample Id	Run Date	Instrument	Filter ID	Aliquot (L)	Initial Filter Wt Event 1	Initial Filter Wt Event 2	Final Filter Wt Event 1	Final Filter Wt Event 2	Final Filter Wt Event 3	Final Filter Wt Event 4	Result (mg/L)
1202057057-MB	01-MAR-2010 10:21	BAL216	1	0.5	0.1156	0.1155	0.1156	0.1155			0
1202057060-LCS	01-MAR-2010 10:21	BAL216	2	0.1	0.1165	0.1162	0.1664	0.1661			499
248019002	01-MAR-2010 10:21	BAL216	3	0.16	0.1156	0.1157	0.1282	0.1283			78.75
1202057058-DUP (248019002)	01-MAR-2010 10:21	BAL216	4	0.16	0.1145	0.1148	0.1276	0.1276			80
248044005	01-MAR-2010 10:21	BAL216	5	0.5	0.1155	0.1157	0.1154	0.1155			-0.4
248103002	01-MAR-2010 10:21	BAL216	6	0.5	0.114	0.1142	0.1143	0.1145			0.6
1202057059-DUP (248103002)	01-MAR-2010 10:21	BAL216	7	0.5	0.116	0.1163	0.1165	0.1166			0.6
248109001	01-MAR-2010 10:21	BAL216	8	0.2	0.116	0.1161	0.1672	0.167			254.5
248127002	01-MAR-2010 10:21	BAL216	9	0.25	0.1156	0.1156	0.1277	0.1278			48.8
248261001	01-MAR-2010 10:21	BAL216	10	0.35	0.1161	0.1164	0.1233	0.1231			19.14286

Comments: A) TSS Result = (Final Filter Wt - Initial Filter Wt) * 1000 / Aliquot

In Oven Date/Time: 01-MAR-10 14:30:12
Out Oven Date/Time: 02-MAR-10 07:30:12
In Oven Temperature: 104 C
Out Oven Temperature: 104 C

Note: Aliquot is used for the determination of the effective MDL and PQL in LIMS
All Weights are in Grams

Specific Conductivity

Analytical Logbook

Conductivity and Salinity

Batch ID: 960274.0
Analyst: Travis Tola
Method: EPA 120.1 (gk) SW846 9050A (jj)
Lab SOP: GL-GC-E-009 REV# 9
Instrument: Orion 160 Conductivity Meter

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
CCV	240	Conductivity LCS	WCO091117-06	25	mL
LCS	1202059735	Conductivity LCS	WCO091117-06	25	mL

Sample ID	Run Date	Dilution	Temperature (C)	Conductivity Result (umhos/cm)
1202059735 LCS	03-MAR-2010 16:24:37	1	25.1	1376
247817001 (gk)	03-MAR-2010 16:25:06	1	25.3	121.6
1202059732 DUP (247817001)	03-MAR-2010 16:25:27	1	25.8	121.8
247829001 (gk)	03-MAR-2010 16:25:59	1	25.3	141.9
247922004 (gk)	03-MAR-2010 16:26:42	1	24.8	281
CCV	03-MAR-2010 16:26:56	1	25.2	1381
1202059733 DUP (247922004)	03-MAR-2010 16:27:09	1	24.9	282
248019001 (gk)	03-MAR-2010 16:27:26	1	24.7	239
248023001 (gk)	03-MAR-2010 16:27:45	1	24.4	122.5
248024002 (gk)	03-MAR-2010 16:28:02	1	24.5	658
248024004 (gk)	03-MAR-2010 16:28:24	1	25.7	677
CCV	03-MAR-2010 16:29:37	1	25.4	1386
248044001 (gk)	03-MAR-2010 16:30:17	1	25.8	203
248044003 (gk)	03-MAR-2010 16:30:34	1	25.4	211
248044005 (gk)	03-MAR-2010 16:30:54	1	25	1.18
248044006 (gk)	03-MAR-2010 16:31:13	1	24.6	1.39
248127001 (gk)	03-MAR-2010 16:31:33	1	24.1	283
CCV	03-MAR-2010 16:31:58	1	25.6	1384
248164001 (gk)	03-MAR-2010 16:32:14	1	24.3	143.1
248164003 (gk)	03-MAR-2010 16:32:31	1	24.3	142.1
248168006 (gk)	03-MAR-2010 16:32:51	1	24.5	157.5
248169004 (gk)	03-MAR-2010 16:33:15	1	24.5	400
248362006 (jj)	03-MAR-2010 16:33:35	1	26.1	2.17
CCV	03-MAR-2010 16:33:55	1	25.4	1378
1202059734 DUP (248362006)	03-MAR-2010 16:34:19	1	26	2.18
248362007 (jj)	03-MAR-2010 16:34:33	1	24.3	1.38
248382001 (gk)	03-MAR-2010 16:34:47	1	24.2	135.4
248382004 (gk)	03-MAR-2010 16:35:35	1	24.2	163
CCV	03-MAR-2010 16:35:50	1	25	1372

Comments:

Analytical Logbook

Batch ID: 960274.0
Analyst: Travis Tola
Method: EPA 120.1 (gk) SW846 9050A (jj)
Lab SOP: GL-GC-E-009 REV# 9
Instrument: Orion 160 Conductivity Meter

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
CCV	240	Conductivity LCS	WCO091117-06	25	mL
LCS	1202059735	Conductivity LCS	WCO091117-06	25	mL

Sample ID	Run Date	Dilution	Temperature (C)	Conductivity Result (umhos/cm)

Calibration Information:

Run Date: 03-MAR-10 16:0
Instrument: CON160
Analyst: TXT1

Standard	Observed	Theoretical		%Recovery
WCO100303-07	15.58	14.5	umhos/cm	107.45
WD100303-03	1394	1413	umhos/cm	98.655
WCO100303-04	1785	1900	umhos/cm	93.947
WCO100303-08	23300	24800	umhos/cm	93.952
WCO100303-01	250	250	umhos/cm	100
WCO100303-02	731	750	umhos/cm	97.467

Total Phosphorus

Prep Logbook

Total Phosphorous and Total Kjeldahl Nitrogen Sample Preparation

Batch ID: **958136.0** Verified by: ____

Analyst: Stephanie Jackson

Method: EPA 365.4 Prep

Lab SOP: GL-GC-E-071 REV# 10

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202054693	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054689	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054690	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054717	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054691	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054692	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054718	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202054686 MB	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
1202054693 LCS	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
247817001	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
1202054687 DUP (247817001)	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
1202054689 MS (247817001)	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
1202054691 MSD (247817001)	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
247829001	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
247957001	02-MAR-2010 10:30:00	Surface Water	20	20	1	< 2
248019001	02-MAR-2010 10:30:00	Water	20	20	1	< 2
1202054716 DUP (248019001)	02-MAR-2010 10:30:00	Water	20	20	1	< 2
1202054717 MS (248019001)	02-MAR-2010 10:30:00	Water	20	20	1	< 2
1202054718 MSD (248019001)	02-MAR-2010 10:30:00	Water	20	20	1	< 2
248023001	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248024002	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248024004	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248044001	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248044003	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248044005	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248044006	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248072001	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2

Prep Logbook

Batch ID: **958136.0** Verified by: _____

Analyst: Stephanie Jackson

Method: EPA 365.4 Prep

Lab SOP: GL-GC-E-071 REV# 10

Instrument: Sartorius Balance B-001

Type	Sample Id	Description	Serial Number	Spike Amount	Spike Units
LCS	1202054693	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054689	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054690	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MS	1202054717	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054691	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054692	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL
MSD	1202054718	NH3,TKN,TP,NO2/3 Working Standard and LCS/SPIKE	UTR1262216-01	.2	mL

Sample ID	Run Date	Matrix	Initial Volume (mL)	Final Volume (mL)	Prep Factor (mL/mL)	pH Check
1202054688 DUP (248072001)	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
1202054690 MS (248072001)	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
1202054692 MSD (248072001)	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248072002	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248072003	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248298001	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248298002	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2
248298003	02-MAR-2010 10:30:00	Ground Water	20	20	1	< 2

Reagent/Solvent Lot ID	Description	Amount
1269276-C	TKN/PO4 Digestion Solution	4 mL

Comments:

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
3.0 ppm Std.		1	axh3	3/5/2010 8:44:15	OM_3-5-2010_08-40-57
1.0 ppm Std.		1	axh3	3/5/2010 8:45:03	OM_3-5-2010_08-40-57
0.5 ppm Std		1	axh3	3/5/2010 8:45:53	OM_3-5-2010_08-40-57
0.1 ppm Std		1	axh3	3/5/2010 8:46:43	OM_3-5-2010_08-40-57
0.05 ppm Std		1	axh3	3/5/2010 8:47:34	OM_3-5-2010_08-40-57
ICAL-00		1	axh3	3/5/2010 8:48:26	OM_3-5-2010_08-40-57
ICV		1	axh3	3/5/2010 8:50:31	OM_3-5-2010_08-40-57
ICB		1	axh3	3/5/2010 8:52:36	OM_3-5-2010_08-40-57
1202054686	958139	1	axh3	3/5/2010 8:54:40	OM_3-5-2010_08-40-57
1202054693	958139	1	axh3	3/5/2010 8:55:31	OM_3-5-2010_08-40-57
247817001*	958139	1	axh3	3/5/2010 8:56:22	OM_3-5-2010_08-40-57
1202054687	958139	1	axh3	3/5/2010 8:57:12	OM_3-5-2010_08-40-57
1202054689	958139	1	axh3	3/5/2010 8:58:03	OM_3-5-2010_08-40-57
1202054691	958139	1	axh3	3/5/2010 8:58:53	OM_3-5-2010_08-40-57
247829001	958139	1	axh3	3/5/2010 8:59:43	OM_3-5-2010_08-40-57
247957001	958139	1	axh3	3/5/2010 9:00:32	OM_3-5-2010_08-40-57
248019001	958139	1	axh3	3/5/2010 9:01:21	OM_3-5-2010_08-40-57
1202054716	958139	1	axh3	3/5/2010 9:02:09	OM_3-5-2010_08-40-57
CCV		1	axh3	3/5/2010 9:02:59	OM_3-5-2010_08-40-57
CCB		1	axh3	3/5/2010 9:05:03	OM_3-5-2010_08-40-57
1202054717*	958139	1	axh3	3/5/2010 9:07:05	OM_3-5-2010_08-40-57
1202054718*	958139	1	axh3	3/5/2010 9:07:54	OM_3-5-2010_08-40-57
247817001*	958139	1	axh3	3/5/2010 9:08:43	OM_3-5-2010_08-40-57
248023001*	958139	1	axh3	3/5/2010 9:09:33	OM_3-5-2010_08-40-57
248024002*	958139	1	axh3	3/5/2010 9:10:21	OM_3-5-2010_08-40-57
248024004*	958139	1	axh3	3/5/2010 9:11:08	OM_3-5-2010_08-40-57
248044001*	958139	1	axh3	3/5/2010 9:11:58	OM_3-5-2010_08-40-57
248044003*	958139	1	axh3	3/5/2010 9:12:49	OM_3-5-2010_08-40-57
248044005*	958139	1	axh3	3/5/2010 9:13:41	OM_3-5-2010_08-40-57
248044006*	958139	1	axh3	3/5/2010 9:14:32	OM_3-5-2010_08-40-57
CCV		1	axh3	3/5/2010 9:15:22	OM_3-5-2010_08-40-57
CCB		1	axh3	3/5/2010 9:17:26	OM_3-5-2010_08-40-57

Author: axh3 Date : 3/5/2010

Original Run Filename: OM_3-5-2010_08-40-57.OMN created 3/5/2010 8:40:57
Original Run Author's Signature: [axh3]
Current Run Filename: OM_3-5-2010_08-40-57.OMN last modified 3/5/2010 9:18:48
Current Run Author's Signature: [axh3]
Description: Total Phosphorous EPA Method 365.4 GEL SOP: GL-GC-E-103
Detection Wavelength: 880nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TLPOS Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100305-13	1	S2	3.000	14.147	3/5/2010@8:44:15			3.0 ppm Std.
WTR100305-14	1	S3	1.000	4.748	3/5/2010@8:45:03			1.0 ppm Std.
WTR100305-15	1	S4	0.500	2.331	3/5/2010@8:45:53			0.5 ppm Std
WTR100305-16	1	S5	0.100	0.389	3/5/2010@8:46:43			0.1 ppm Std
WTR100305-17	1	S6	0.050	0.183	3/5/2010@8:47:34			0.05 ppm Std
WTR100305-19 0.0	1	S7	0.000	0.034	3/5/2010@8:48:26			0.0 ppm
DQM Test: Minimum Correlation Coefficient								
		Result:	0.99997 > 0.99500					
		Message	Calibration Passed					
		Action	Continue					
WTR100305-18 ICV	1	S8	1.021	4.800	3/5/2010@8:50:31			ICV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.021 < 1.104					
		Message	ICV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.021 > 0.895					
		Message	ICV Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
WTR100305-19 ICB	1	S7	0.024	0.089	3/5/2010@8:52:36			ICB/CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								
		Result:	0.024 < 0.050					
		Message	ICB Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	0.024 > -0.050					
		Message	ICB Passed					
		Action	Continue					
1202054686|958139|MB	1	1	0.027	0.102	3/5/2010@8:54:40			
1202054693||LCS	1	2	1.093	5.145	3/5/2010@8:55:31			
247817001	1	3	0.336	1.563	3/5/2010@8:56:22			
1202054687||DUP	1	4	0.050	0.211	3/5/2010@8:57:12			
1202054689||MS	1	5	1.072	5.045	3/5/2010@8:58:03			
1202054691||MSD	1	6	1.052	4.949	3/5/2010@8:58:53			
247829001	1	7	0.064	0.275	3/5/2010@8:59:43			
247957001	1	8	0.067	0.292	3/5/2010@9:00:32			
248019001	1	9	0.102	0.455	3/5/2010@9:01:21			
1202054716||DUP	1	10	0.096	0.429	3/5/2010@9:02:09			
WTR100305-14 CCV	1	S3	1.002	4.711	3/5/2010@9:02:59			CCV
		Known Conc:	1.000					
DQM Test: > + Concentration Limit								
		Result:	1.002 < 1.104					
		Message	CCV Passed					
		Action	Continue					
DQM Test: < - Concentration Limit								
		Result:	1.002 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100305-19 CCB	1	S7	0.016	0.049	3/5/2010@9:05:03			CCB
		Known Conc:	0.000					
DQM Test: > + Concentration Limit								

		Result:	0.016 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.016 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1202054717||MS	1	11	1.148	5.403	3/5/2010@9:07:05			
1202054718||MSD	1	12	1.158	5.451	3/5/2010@9:07:54			
247817001	1	3	0.061	0.263	3/5/2010@9:08:43			
248023001	1	13	0.066	0.284	3/5/2010@9:09:33			
248024002	1	14	0.057	0.244	3/5/2010@9:10:21			
248024004	1	15	0.060	0.256	3/5/2010@9:11:08			
248044001	1	16	0.067	0.292	3/5/2010@9:11:58			
248044003	1	17	0.046	0.194	3/5/2010@9:12:49			
248044005	1	18	0.029	0.113	3/5/2010@9:13:41			
248044006	1	19	0.022	0.078	3/5/2010@9:14:32			
WTR100305-14 CCV	1	S3	0.971	4.565	3/5/2010@9:15:22			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.971 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.971 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100305-19 CCB	1	S7	0.100	0.447	3/5/2010@9:17:26			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.100 > 0.050					
		Message	CCB Failed					
		Action	Stop Run					
			DQM Test: < - Concentration Limit					
		Result:	0.100 > -0.050					
		Message	CCB Passed					
		Action	Continue					

Channel 1 (TLPOS) : Current View

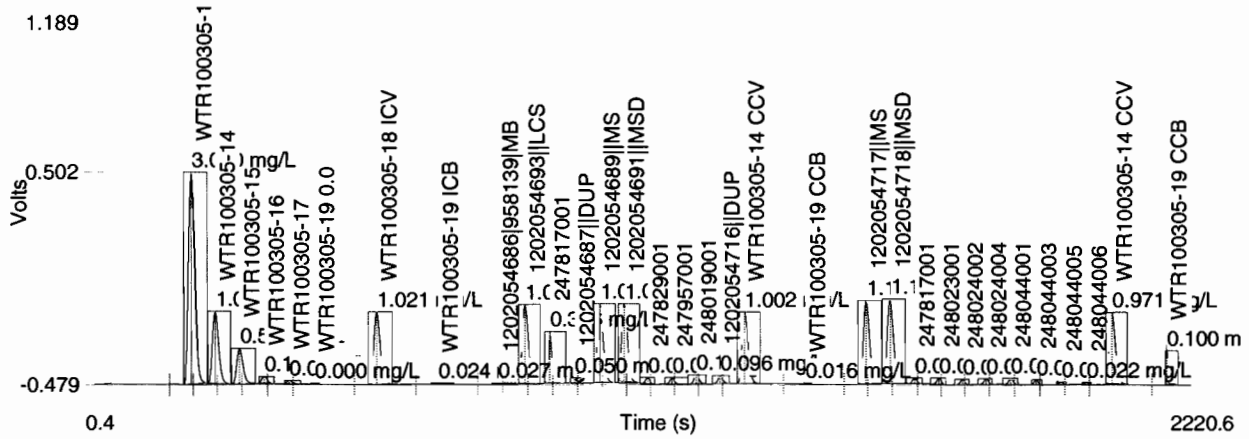

Author: axh3

Date : 3/5/2010

Table 1: TLPOS

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	3.000	1	14.147	0.976	0.1	3/5/2010	8:45:35
2	1.000	1	4.748	0.331	-1.0	3/5/2010	8:46:23
3	0.500	1	2.331	0.164	0.3	3/5/2010	8:47:13
4	0.100	1	0.389	0.032	13.0	3/5/2010	8:48:03
5	0.050	1	0.183	0.015	13.3	3/5/2010	8:48:55
6	0.000	1	0.034	0.004		3/5/2010	8:49:47

Figure 1: TLPOS

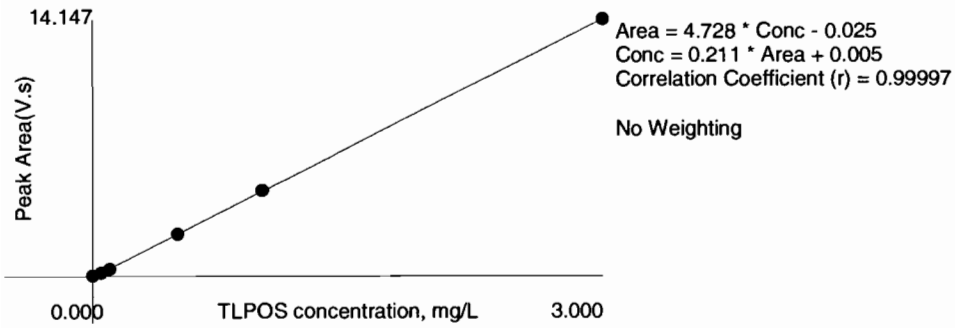

This is runlog lachat2

Sample ID	Batch	Dilution	Analyst	Runtime	Dataset
CCV		1	axh3	3/5/2010 9:40:00	OM_3-5-2010_09-38-31
CCB		1	axh3	3/5/2010 9:42:04	OM_3-5-2010_09-38-31
1202054717	958139	1	axh3	3/5/2010 9:44:07	OM_3-5-2010_09-38-31
1202054718	958139	1	axh3	3/5/2010 9:44:55	OM_3-5-2010_09-38-31
247817001	958139	1	axh3	3/5/2010 9:45:45	OM_3-5-2010_09-38-31
248023001	958139	1	axh3	3/5/2010 9:46:34	OM_3-5-2010_09-38-31
248024002	958139	1	axh3	3/5/2010 9:47:22	OM_3-5-2010_09-38-31
248024004	958139	1	axh3	3/5/2010 9:48:09	OM_3-5-2010_09-38-31
248044001	958139	1	axh3	3/5/2010 9:48:59	OM_3-5-2010_09-38-31
248044003*	958139	1	axh3	3/5/2010 9:49:50	OM_3-5-2010_09-38-31
248044005	958139	1	axh3	3/5/2010 9:50:41	OM_3-5-2010_09-38-31
248044006	958139	1	axh3	3/5/2010 9:51:32	OM_3-5-2010_09-38-31
CCV		1	axh3	3/5/2010 9:52:23	OM_3-5-2010_09-38-31
CCB		1	axh3	3/5/2010 9:54:27	OM_3-5-2010_09-38-31
248072001	958139	1	axh3	3/5/2010 9:56:31	OM_3-5-2010_09-38-31
1202054688	958139	1	axh3	3/5/2010 9:57:22	OM_3-5-2010_09-38-31
1202054690	958139	1	axh3	3/5/2010 9:58:12	OM_3-5-2010_09-38-31
1202054692	958139	1	axh3	3/5/2010 9:59:01	OM_3-5-2010_09-38-31
248072002	958139	1	axh3	3/5/2010 9:59:51	OM_3-5-2010_09-38-31
248072003	958139	1	axh3	3/5/2010 10:00:40	OM_3-5-2010_09-38-31
248298001	958139	1	axh3	3/5/2010 10:01:29	OM_3-5-2010_09-38-31
248298002	958139	1	axh3	3/5/2010 10:02:18	OM_3-5-2010_09-38-31
248298003	958139	1	axh3	3/5/2010 10:03:07	OM_3-5-2010_09-38-31
248044003	958139	1	axh3	3/5/2010 10:03:56	OM_3-5-2010_09-38-31
CCV		1	axh3	3/5/2010 10:04:47	OM_3-5-2010_09-38-31
CCB		1	axh3	3/5/2010 10:06:51	OM_3-5-2010_09-38-31
1202057080*	959198	1	axh3	3/5/2010 10:08:53	OM_3-5-2010_09-38-31
1202057087*	959198	1	axh3	3/5/2010 10:09:41	OM_3-5-2010_09-38-31
248005001*	959198	1	axh3	3/5/2010 10:10:31	OM_3-5-2010_09-38-31
248005002*	959198	1	axh3	3/5/2010 10:11:23	OM_3-5-2010_09-38-31
248127001*	959198	1	axh3	3/5/2010 10:12:14	OM_3-5-2010_09-38-31
248164001*	959198	1	axh3	3/5/2010 10:13:03	OM_3-5-2010_09-38-31
1202057080	959198	1	axh3	3/5/2010 10:13:53	OM_3-5-2010_09-38-31
1202057087	959198	1	axh3	3/5/2010 10:14:40	OM_3-5-2010_09-38-31
248005001	959198	1	axh3	3/5/2010 10:15:30	OM_3-5-2010_09-38-31
248005002	959198	1	axh3	3/5/2010 10:16:22	OM_3-5-2010_09-38-31
CCV		1	axh3	3/5/2010 10:17:12	OM_3-5-2010_09-38-31
CCB		1	axh3	3/5/2010 10:19:17	OM_3-5-2010_09-38-31
248127001*	959198	1	axh3	3/5/2010 10:21:20	OM_3-5-2010_09-38-31
248164001*	959198	1	axh3	3/5/2010 10:22:11	OM_3-5-2010_09-38-31
1202057082*	959198	1	axh3	3/5/2010 10:23:00	OM_3-5-2010_09-38-31
1202057084*	959198	1	axh3	3/5/2010 10:23:50	OM_3-5-2010_09-38-31
1202057086*	959198	1	axh3	3/5/2010 10:24:39	OM_3-5-2010_09-38-31
248321001*	959198	1	axh3	3/5/2010 10:25:27	OM_3-5-2010_09-38-31
1202059637*	959198	1	axh3	3/5/2010 10:26:16	OM_3-5-2010_09-38-31
1202059638*	959198	1	axh3	3/5/2010 10:27:04	OM_3-5-2010_09-38-31
1202059639*	959198	1	axh3	3/5/2010 10:27:54	OM_3-5-2010_09-38-31
248547001*	959198	1	axh3	3/5/2010 10:28:45	OM_3-5-2010_09-38-31
CCV		1	axh3	3/5/2010 10:29:35	OM_3-5-2010_09-38-31
CCB		1	axh3	3/5/2010 10:31:39	OM_3-5-2010_09-38-31

Author: axh3 Date : 3/5/2010

Original Run Filename: OM_3-5-2010_09-38-31.OMN created 3/5/2010 9:38:31
Original Run Author's Signature: [axh3]
Current Run Filename: OM_3-5-2010_09-38-31.OMN last modified 3/5/2010 10:33:03
Current Run Author's Signature: [axh3]
Description: Total Phosphorous EPA Method 365.4 GEL SOP: GL-GC-E-103
Detection Wavelength: 880nm
Sample spiked with 100ppm stock standard LCS/ICV/CCV/Spike nominal 1.0 ppm

Sample	Rep.	Cup No.	Channel 1 TLPOS Conc. (mg/L)	Area (Vs)	Detection Time	ADF	MDF	Description
WTR100305-14 CCV	1	S3	0.987	4.641	3/5/2010@9:40:00			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.987 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.987 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100305-19 CCB	1	S7	0.017	0.056	3/5/2010@9:42:04			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.017 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.017 > -0.050					
		Message	CCB Passed					
		Action	Continue					
		Calibration:	Table/Fig. 1					
1202054717|958139|MS	1	11	1.137	5.350	3/5/2010@9:44:07			
1202054718||MSD	1	12	1.154	5.429	3/5/2010@9:44:55			
247817001	1	3	0.060	0.260	3/5/2010@9:45:45			
248023001	1	13	0.067	0.291	3/5/2010@9:46:34			
248024002	1	14	0.058	0.248	3/5/2010@9:47:22			
248024004	1	15	0.062	0.268	3/5/2010@9:48:09			
248044001	1	16	0.061	0.261	3/5/2010@9:48:59			
248044003	1	17	0.281	1.304	3/5/2010@9:49:50			
248044005	1	18	0.028	0.107	3/5/2010@9:50:41			
248044006	1	19	0.005	-6.549e-5	3/5/2010@9:51:32			
WTR100305-14 CCV	1	S3	0.966	4.542	3/5/2010@9:52:23			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.966 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.966 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100305-19 CCB	1	S7	0.017	0.057	3/5/2010@9:54:27			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.017 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.017 > -0.050					
		Message	CCB Passed					
		Action	Continue					
248072001	1	20	0.199	0.918	3/5/2010@9:56:31			
1202054688||DUP	1	21	0.162	0.741	3/5/2010@9:57:22			
1202054690||MS	1	22	1.201	5.654	3/5/2010@9:58:12			
1202054692||MSD	1	23	1.136	5.344	3/5/2010@9:59:01			

248072002	1	24	0.050	0.212	3/5/2010@9:59:51			
248072003	1	25	0.038	0.156	3/5/2010@10:00:40			
248298001	1	26	0.042	0.174	3/5/2010@10:01:29			
248298002	1	27	0.035	0.140	3/5/2010@10:02:18			
248298003	1	28	0.037	0.150	3/5/2010@10:03:07			
248044003	1	17	0.062	0.267	3/5/2010@10:03:56			
WTR100305-14 CCV	1	S3	0.961	4.519	3/5/2010@10:04:47			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.961 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.961 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100305-19 CCB	1	S7	-0.008	-0.064	3/5/2010@10:06:51			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	-0.008 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	-0.008 > -0.050					
		Message	CCB Passed					
		Action	Continue					
1202057080|959198|MB	1	29	0.018	0.058	3/5/2010@10:08:53			
1202057087||LCS	1	30	0.215	0.991	3/5/2010@10:09:41			
248005001	1	31	0.042	0.172	3/5/2010@10:10:31			
248005002	1	32	0.025	0.094	3/5/2010@10:11:23			
248127001	1	37	0.399	1.861	3/5/2010@10:12:14			
248164001	1	38	0.080	0.352	3/5/2010@10:13:03			
1202057080|959198|MB	1	29	0.018	0.058	3/5/2010@10:13:53			
1202057087||LCS	1	30	1.089	5.126	3/5/2010@10:14:40			
248005001	1	31	0.044	0.183	3/5/2010@10:15:30			
248005002	1	32	0.026	0.096	3/5/2010@10:16:22			
WTR100305-14 CCV	1	S3	0.980	4.607	3/5/2010@10:17:12			CCV
		Known Conc:	1.000					
			DQM Test: > + Concentration Limit					
		Result:	0.980 < 1.104					
		Message	CCV Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.980 > 0.895					
		Message	CCV Passed					
		Action	Continue					
WTR100305-19 CCB	1	S7	0.023	0.083	3/5/2010@10:19:17			CCB
		Known Conc:	0.000					
			DQM Test: > + Concentration Limit					
		Result:	0.023 < 0.050					
		Message	CCB Passed					
		Action	Continue					
			DQM Test: < - Concentration Limit					
		Result:	0.023 > -0.050					
		Message	CCB Passed					
		Action	Continue					
248127001	1	37	0.411	1.920	3/5/2010@10:21:20			
248164001	1	38	0.077	0.338	3/5/2010@10:22:11			
1202057082||DUP	1	39	0.152	0.696	3/5/2010@10:23:00			
1202057084||MS	1	40	0.681	3.194	3/5/2010@10:23:50			
1202057086||MSD	1	41	0.926	4.355	3/5/2010@10:24:39			
248321001	1	43	0.898	4.220	3/5/2010@10:25:27			
1202059637||DUP	1	44	0.433	2.023	3/5/2010@10:26:16			
1202059638||MS	1	45	1.013	4.765	3/5/2010@10:27:04			
1202059639||MSD	1	46	1.129	5.312	3/5/2010@10:27:54			
248547001	1	54	0.070	0.305	3/5/2010@10:28:45			
WTR100305-14 CCV	1	S3	1.042	4.901	3/5/2010@10:29:35			CCV
		Known Conc:	1.000					

Author: axh3 Date : 3/5/2010

DQM Test: > + Concentration Limit							
		Result:	1.042 < 1.104				
		Message	CCV Passed				
		Action	Continue				
DQM Test: < - Concentration Limit							
		Result:	1.042 > 0.895				
		Message	CCV Passed				
		Action	Continue				
WTR100305-19 CCB	1	S7	-0.412	-1.975	3/5/2010@10:31:39		CCB
		Known Conc:	0.000				
DQM Test: > + Concentration Limit							
		Result:	-0.412 < 0.050				
		Message	CCB Passed				
		Action	Continue				
DQM Test: < - Concentration Limit							
		Result:	-0.412 < -0.050				
		Message	CCB Failed				
		Action	Stop Run				

Channel 1 (TLPOS) : Current View

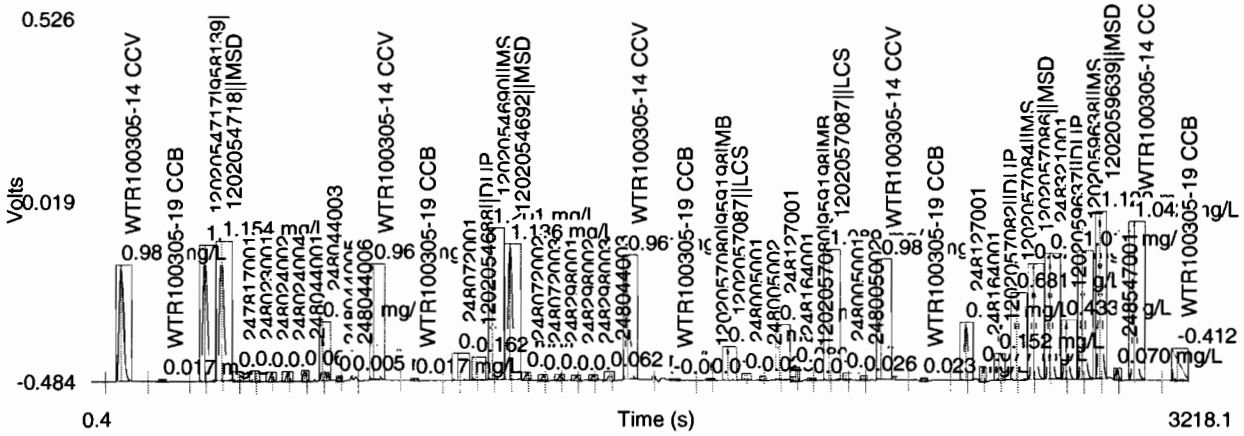

Table 1: TLPOS

	Conc. (mg/L)	Rep	Peak Area (Volt-s)	Peak Height (Volts)	% Residual	Detection Date	Detection Time
1	3.000	1	14.147	0.976	0.1	3/5/2010	8:45:35
2	1.000	1	4.748	0.331	-1.0	3/5/2010	8:46:23
3	0.500	1	2.331	0.164	0.3	3/5/2010	8:47:13
4	0.100	1	0.389	0.032	13.0	3/5/2010	8:48:03
5	0.050	1	0.183	0.015	13.3	3/5/2010	8:48:55
6	0.000	1	0.034	0.004		3/5/2010	8:49:47

Author: axh3 Date : 3/5/2010

Figure 1: TLPOS

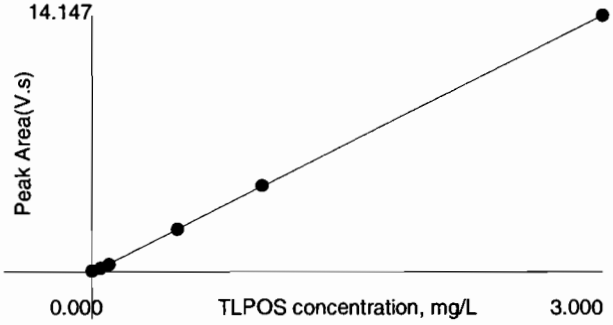

Area = 4.728 * Conc - 0.025
Conc = 0.211 * Area + 0.005
Correlation Coefficient (r) = 0.99997

No Weighting

pH

pH / Corrosivity LogBook

Analyst: LXA1
Batch: 959606
Lab SOP: GL-GC-E-008 REV# 17
Description: pH
Method: EPA 150.1

Type	Sample Id	Serial Number	Description
CCV	240	IMM091029-PH	PH 7 BUFFER FOR PH
LCS	1202058099	IMM100209-01	LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parmname	Initial Wt()	Final Vol()	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
1202058099 LCS		Water			01-MAR-10 18:38	pH			6.99	19.3'C	7	99.857	
1202058099 LCS		Water			01-MAR-10 18:38	pH 2			6.99	19.3'C	7	99.857	
248019001		Water			01-MAR-10 18:39	pH			8.43	15.8'C			
248019001		Water			01-MAR-10 18:39	pH 2			8.44	15.8'C			
1202058097 DUP	248019001	Water			01-MAR-10 18:40	pH			8.46	14.9'C			.355
1202058097 DUP	248019001	Water			01-MAR-10 18:40	pH 2			8.46	14.9'C			.237
248023001		Ground Water			01-MAR-10 18:41	pH			7.91	15.3'C			
248023001		Ground Water			01-MAR-10 18:41	pH 2			7.9	15.4'C			
248024002		Ground Water			01-MAR-10 18:42	pH			7.07	15.9'C			
248024002		Ground Water			01-MAR-10 18:42	pH 2			7.08	15.9'C			
CCV					01-MAR-10 18:44	pH			7.02	18.6'C	7	100.286	
CCV					01-MAR-10 18:44	pH 2			7.02	18.6'C	7	100.286	
1202058098 DUP	248024002	Ground Water			01-MAR-10 18:45	pH			7.1	15.8'C			.423
1202058098 DUP	248024002	Ground Water			01-MAR-10 18:45	pH 2			7.1	15.9'C			.282
248024004		Ground Water			01-MAR-10 18:47	pH			7.13	16.4'C			
248024004		Ground Water			01-MAR-10 18:47	pH 2			7.13	16.4'C			
248044001		Ground Water			01-MAR-10 18:49	pH			6.78	15.8'C			
248044001		Ground Water			01-MAR-10 18:49	pH 2			6.79	15.8'C			
248044003		Ground Water			01-MAR-10 18:51	pH			7.84	16.3'C			
248044003		Ground Water			01-MAR-10 18:51	pH 2			7.84	16.3'C			
248044005		Ground Water			01-MAR-10 18:53	pH			5.96	16.3'C			
248044005		Ground Water			01-MAR-10 18:53	pH 2			5.98	16.3'C			
CCV					01-MAR-10 18:54	pH			7.02	18.9'C	7	100.286	
CCV					01-MAR-10 18:54	pH 2			7.02	18.9'C	7	100.286	

pH / Corrosivity LogBook

Analyst: LXA1
Batch: 959606
Lab SOP: GL-GC-E-008 REV# 17
Description: pH
Method: EPA 150.1

Type	Sample Id	Serial Number	Description
CCV	240	IMM091029-PH	PH 7 BUFFER FOR PH
LCS	1202058099	IMM100209-01	LCS BUFFER SOLUTION

Sample id	Parent Sample Id	Matrix	Start Time	Stop Time	Run Date	Parmname	Initial Wt()	Final Vol()	Ph	Temp	Nc(mg/L)	Recovery(%)	Rpd(%)
248044006		Ground Water			01-MAR-10 18:56	pH			6.31	15.6'C			
248044006		Ground Water			01-MAR-10 18:56	pH 2			6.3	15.6'C			
248127001		Water			01-MAR-10 18:57	pH			9.01	15.4'C			
248127001		Water			01-MAR-10 18:57	pH 2			9.01	15.5'C			
248164001		Ground Water			01-MAR-10 18:59	pH			8.09	15.3'C			
248164001		Ground Water			01-MAR-10 18:59	pH 2			8.09	15.2'C			
248164003		Ground Water			01-MAR-10 18:59	pH			8.08	15.2'C			
248164003		Ground Water			01-MAR-10 18:59	pH 2			8.08	15.3'C			
248168006		Water			01-MAR-10 19:00	pH			7.24	15.4'C			
248168006		Water			01-MAR-10 19:00	pH 2			7.26	15.4'C			
CCV					01-MAR-10 19:01	pH			7.03	19.9'C	7	100.429	
CCV					01-MAR-10 19:01	pH 2			7.03	19.9'C	7	100.429	
248169004		Water			01-MAR-10 19:02	pH			8.02	15.7'C			
248169004		Water			01-MAR-10 19:02	pH 2			8.02	15.7'C			
CCV					01-MAR-10 19:03	pH			7.03	20.0'C	7	100.429	
CCV					01-MAR-10 19:03	pH 2			7.03	20.0'C	7	100.429	

Calibration Information:
Run Date: 01-MAR-10 11:24
Instrument: PHX370
Analyst: LXA1

	Standard	Observed	Theoretical		C	%Recovery
11:24	IMM100301-PH1	4.01	4	SU	20.5	100.25
11:24	IMM100301-PH2	7.04	7	SU	20.5	100.57
11:24	UPH100301-PH3	10.05	10	SU	20.5	100.5
11:24	UPH100301-PH4	2.04	2	SU	20.5	102
11:24	UPH100301-PH5	12.08	12	SU	20.5	100.67
11:24	IMM100301-PH6	7.02	7	SU	20.5	100.29

Comments:

Miscellaneous

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
01-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LACHAT Flow Injection Analyzer	EPA 350.1	Liquid	ESHL, LANL, UDSL, WSRB
Batch ID:	**Sample Numbers:**		
958142	See Below		

Potentially affected work order(s)(SDG): 247957,248019(10-2052),248023(10-2040),248024(10-2046),248044(10-2058),248074(10-2050),248078

Application Issues:

Failed Recovery for MS/PS

Failed RPD for DUP

Failed Recovery for MSD/PSD

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for MS/MSD: QC 1202054697MS,1202054699MSD, 1202054698MS,1202054700MSD	1. The matrix spike was outside of the required acceptance limits due to matrix interference. The matrix spike duplicate verified the result with a passing RPD.
2. Failed RPD for DUP: QC 1202054696DUP	2. The Relative Percent Difference (RPD) between the sample and its duplicate were outside of the normal acceptance limits because of the heterogeneous matrix of the sample(misc.liquid).
3. Failed Recovery for MSD/MSD: QC 1202054721MS,1202054722MS, 1202054723MSD,1202054724MSD	3. The spike and spike duplicate recovery falls outside of the GEL acceptance limits but within the client specified limits.

Originator's Name:

Aubrey Kingsbury 01-MAR-10

Data Validator/Group Leader:

Elzbieta Szulc 02-MAR-10

DATA EXCEPTION REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
23-MAR-10	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
IC	EPA 300.0	Liquid	ESHL
Batch ID:	**Sample Numbers:**		
966823	See Below		

Potentially affected work order(s)(SDG): 248023(10-2040),248044(10-2058),248164(10-2111)

Application Issues:

Failed Recovery for MS/PS

Specification and Requirements Exception Description:	DER Disposition:
1. Failed Recovery for PS: QC 1202074934PS	1. The spike recovery falls outside of the GEL acceptance limits for Fluoride, but within the client specified limits of 75%-125% due to matrix interference. Of the remaining anions in the PS, all meet required acceptance limits. The deviation is noted in the Case Narrative and DER, and the data has been reported.

Originator's Name:

Virginia Wininger 23-MAR-10

Data Validator/Group Leader:

Elzbieta Szulc 23-MAR-10